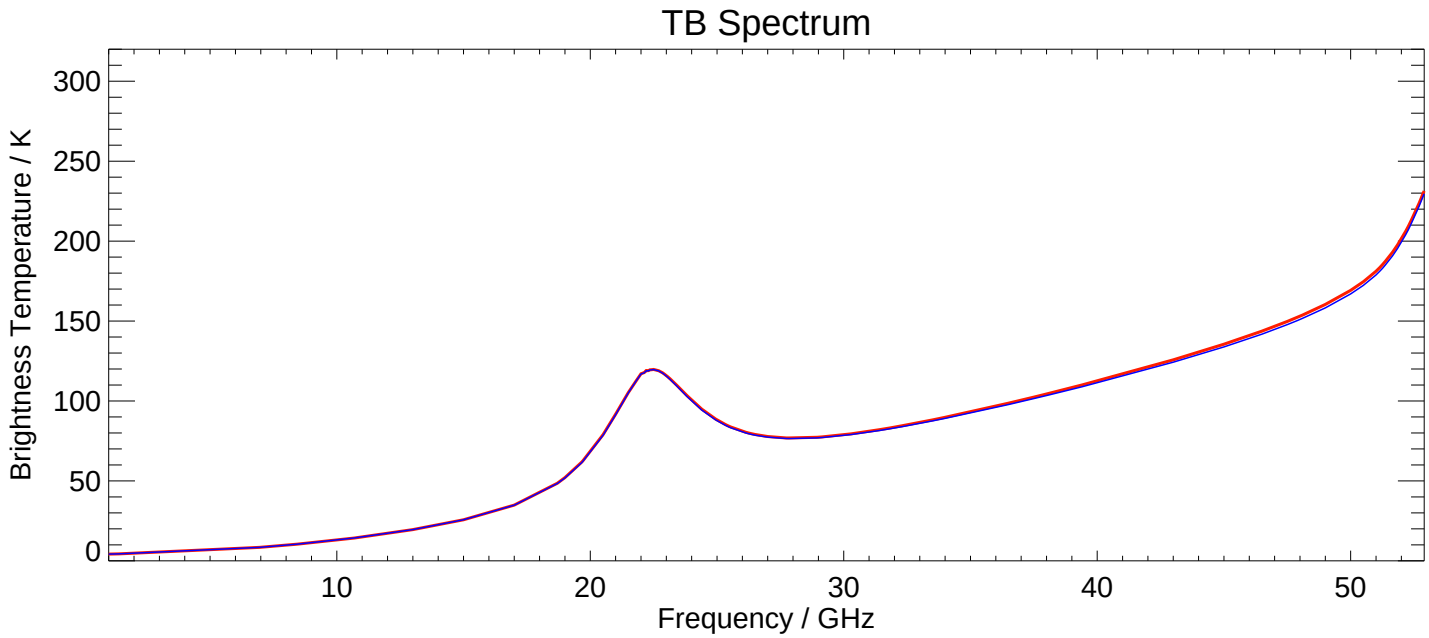
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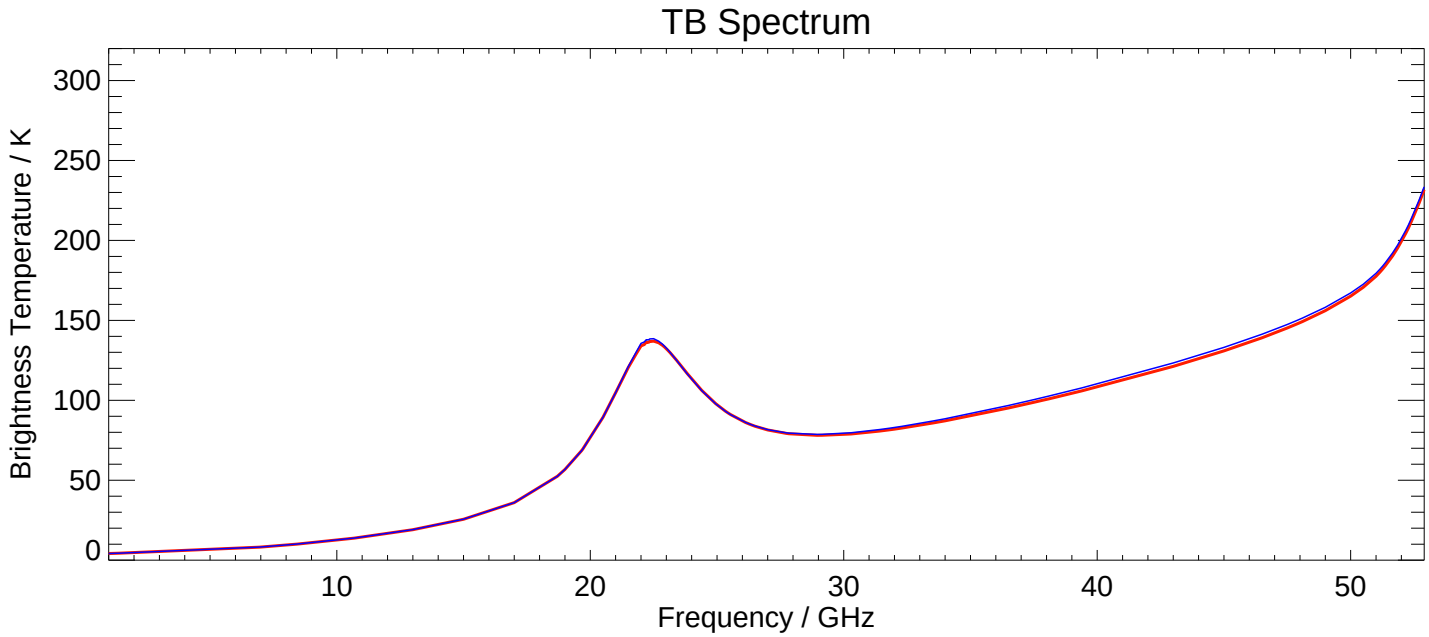
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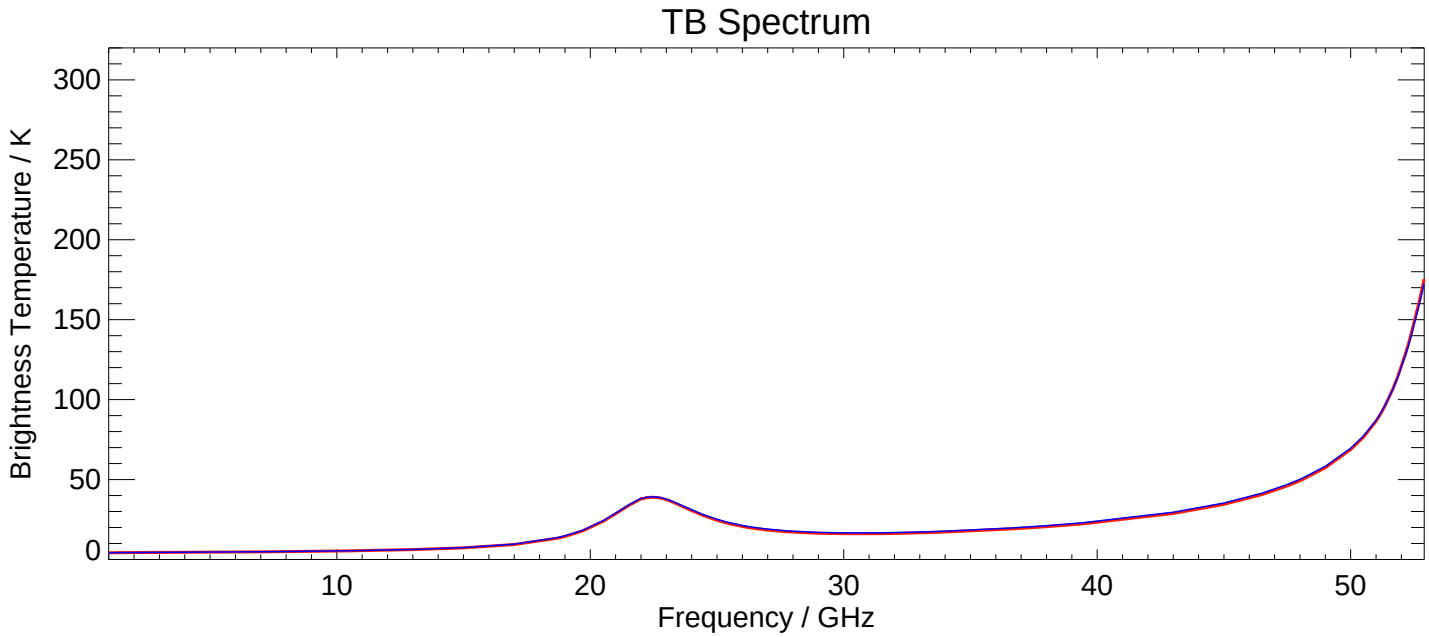
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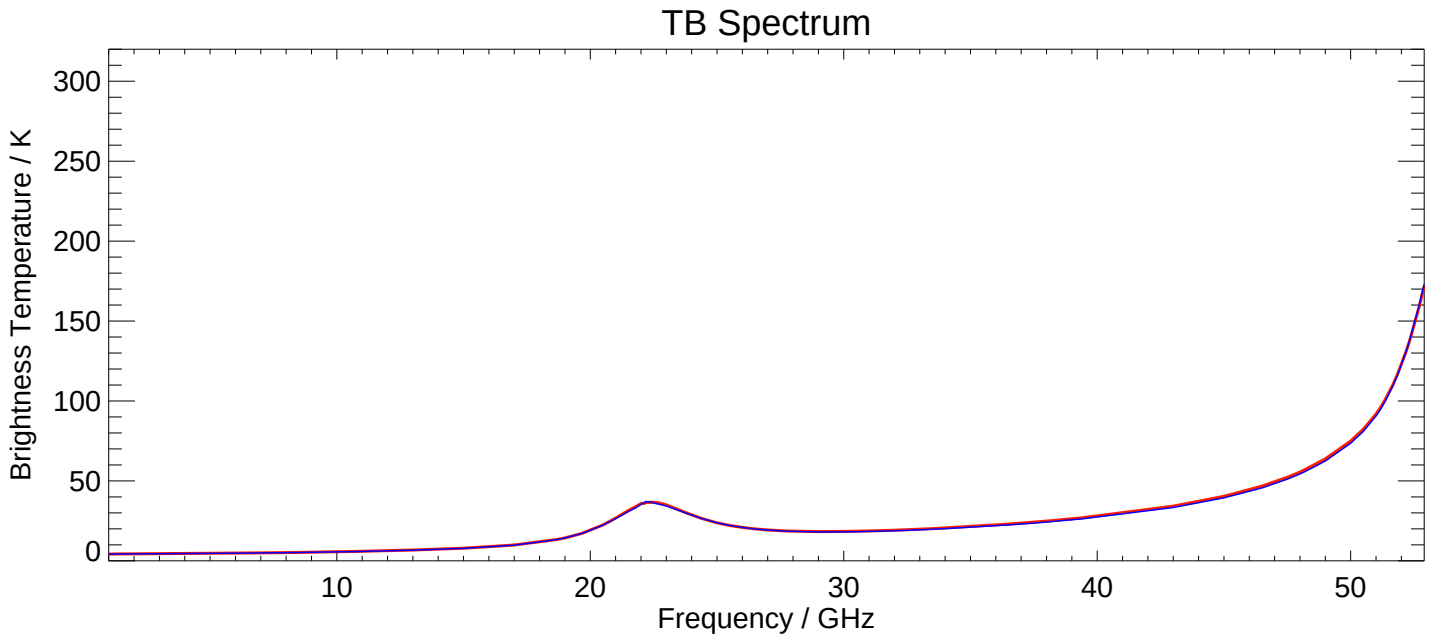
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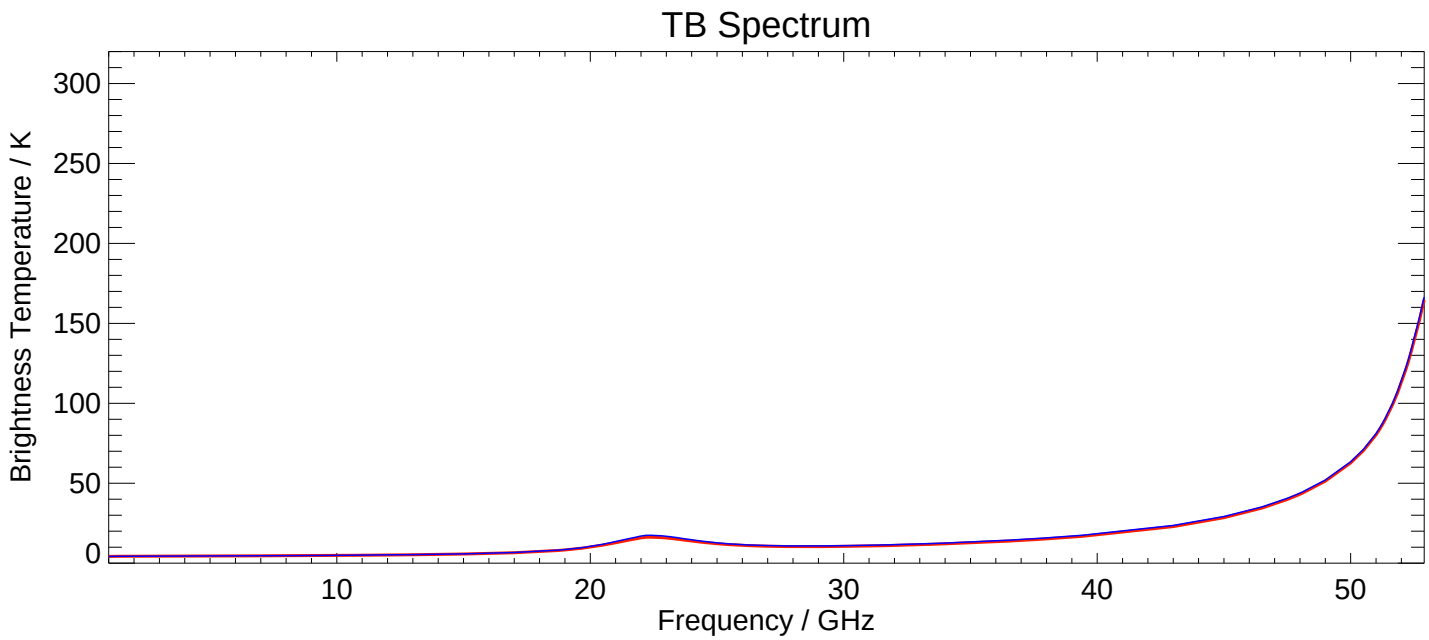
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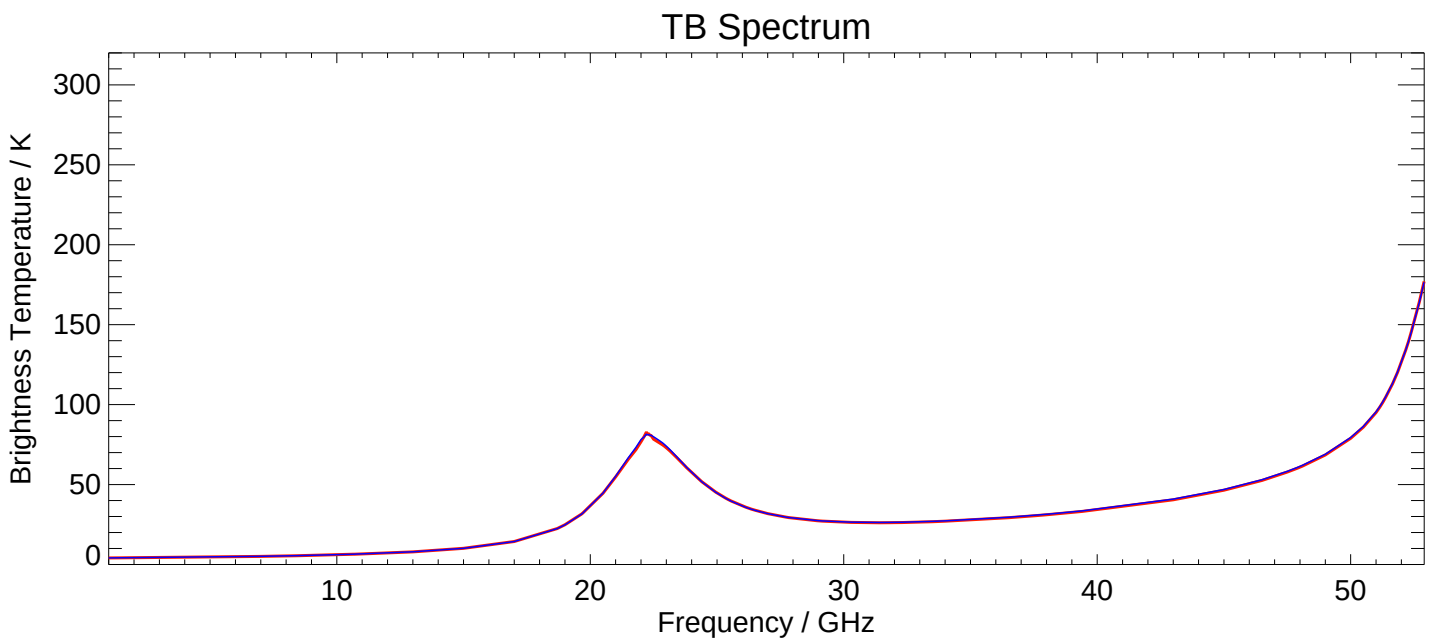
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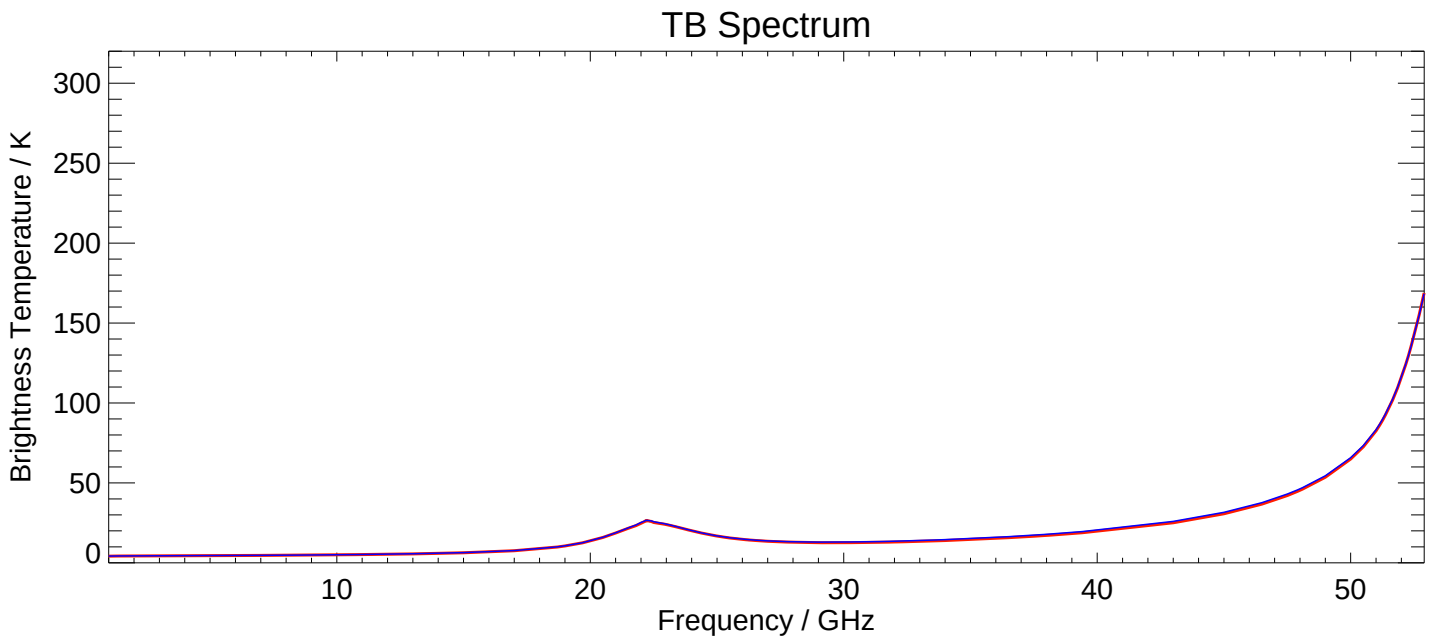
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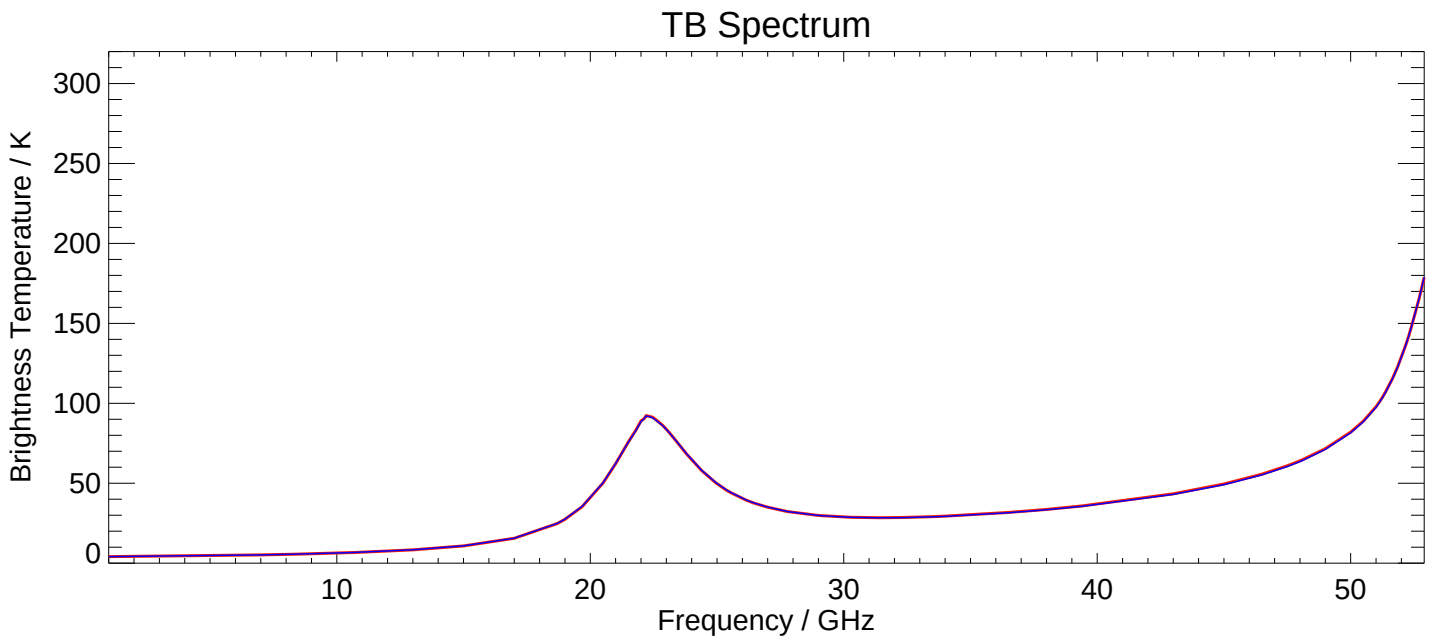
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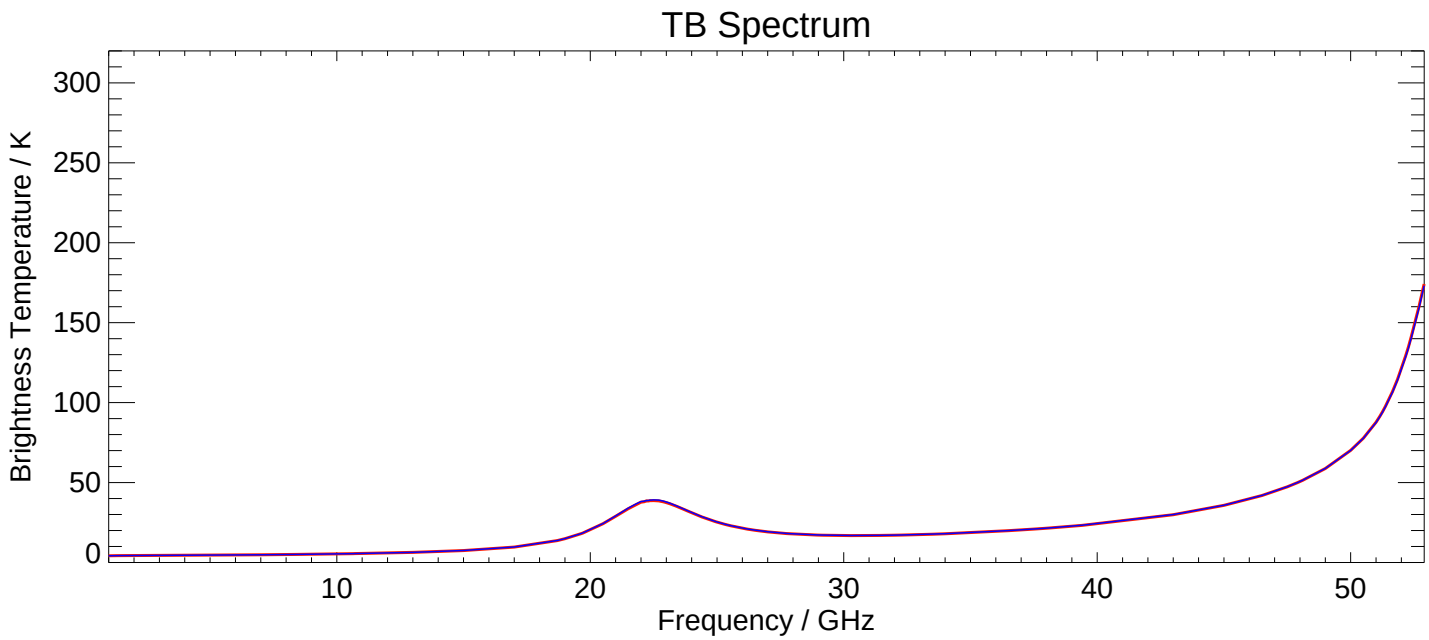
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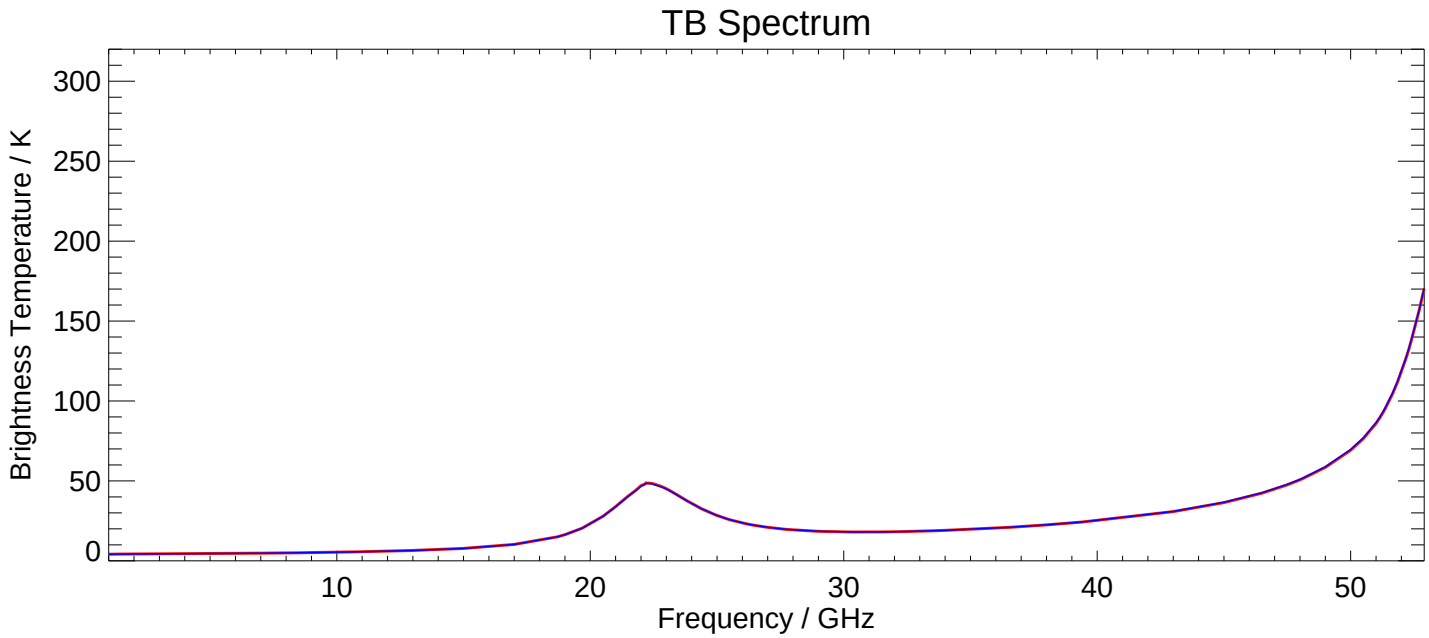
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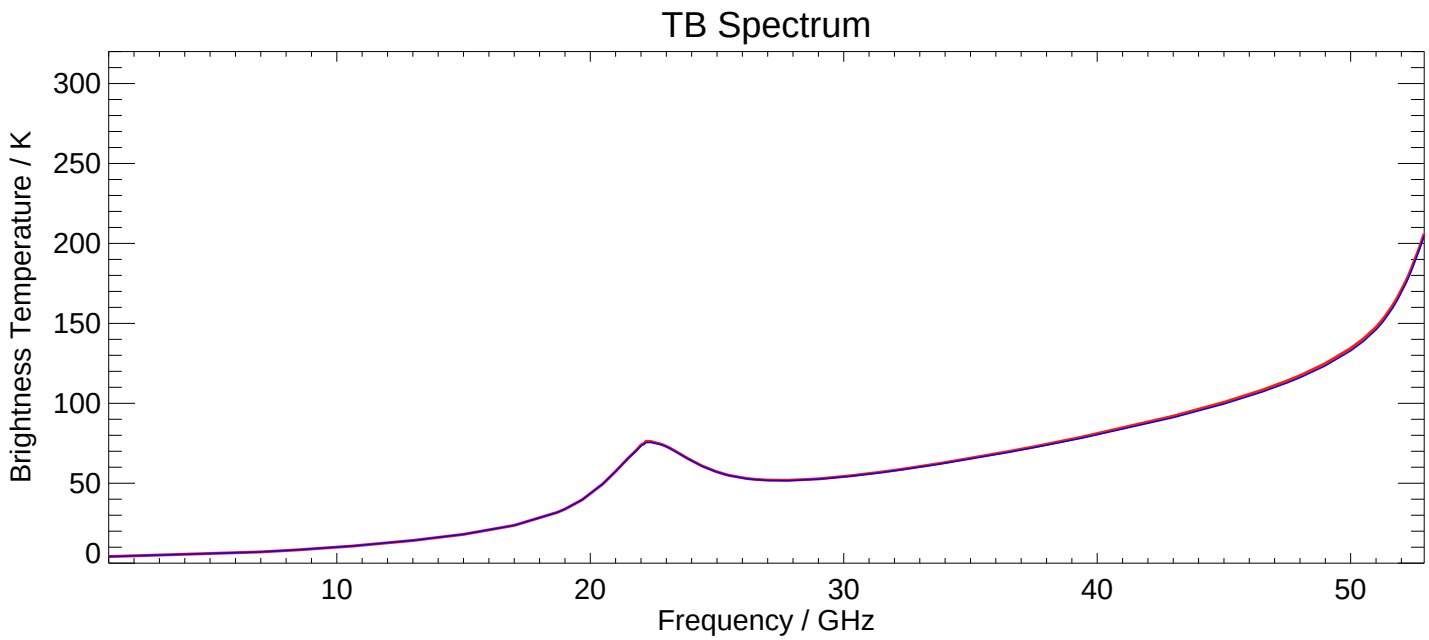
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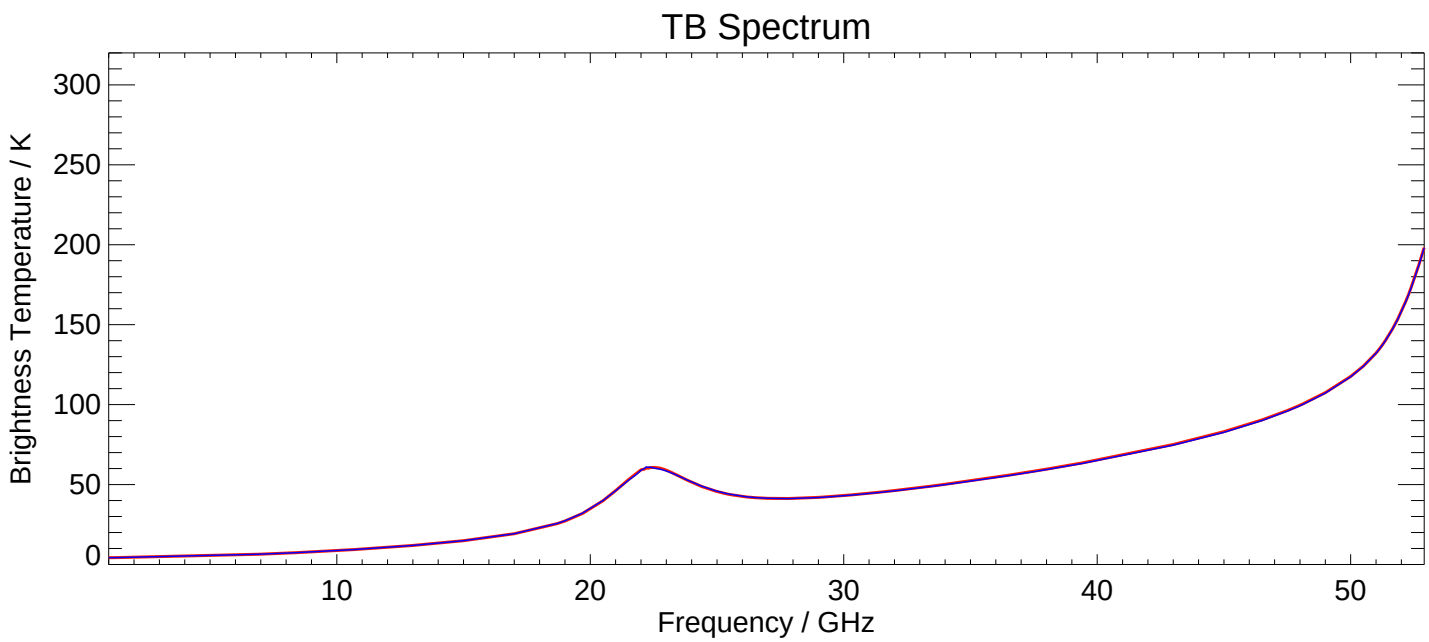
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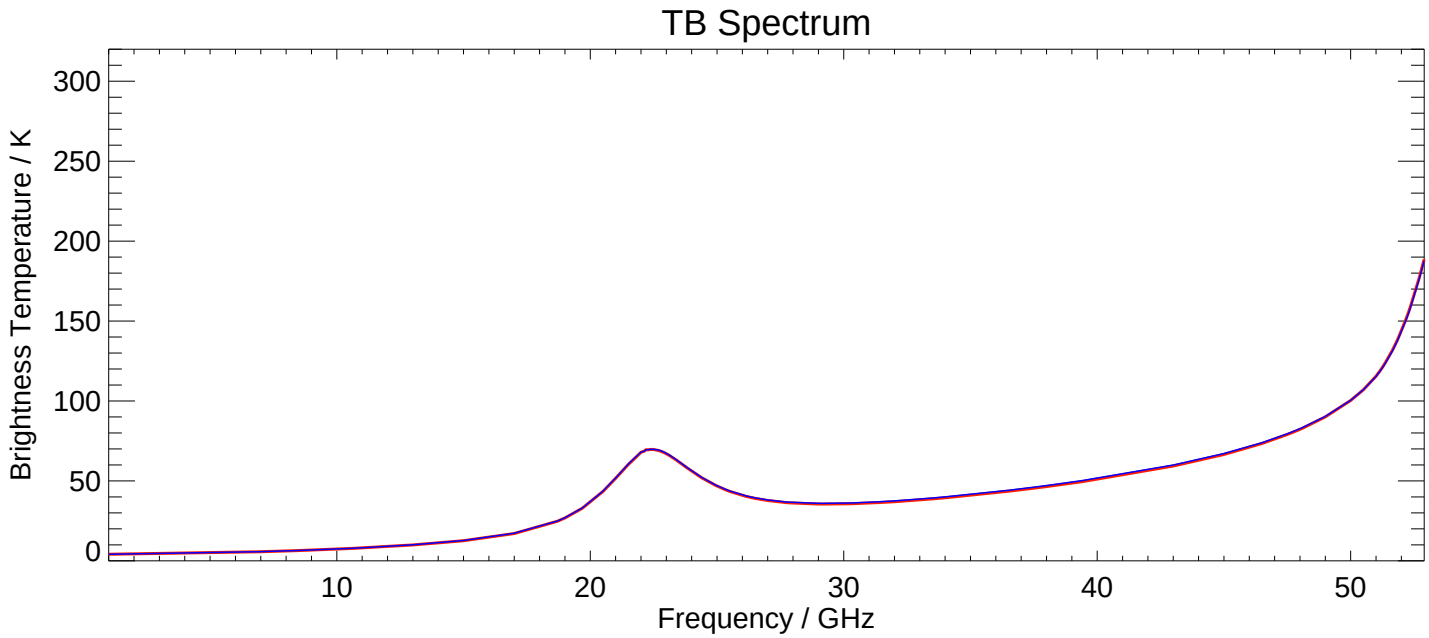
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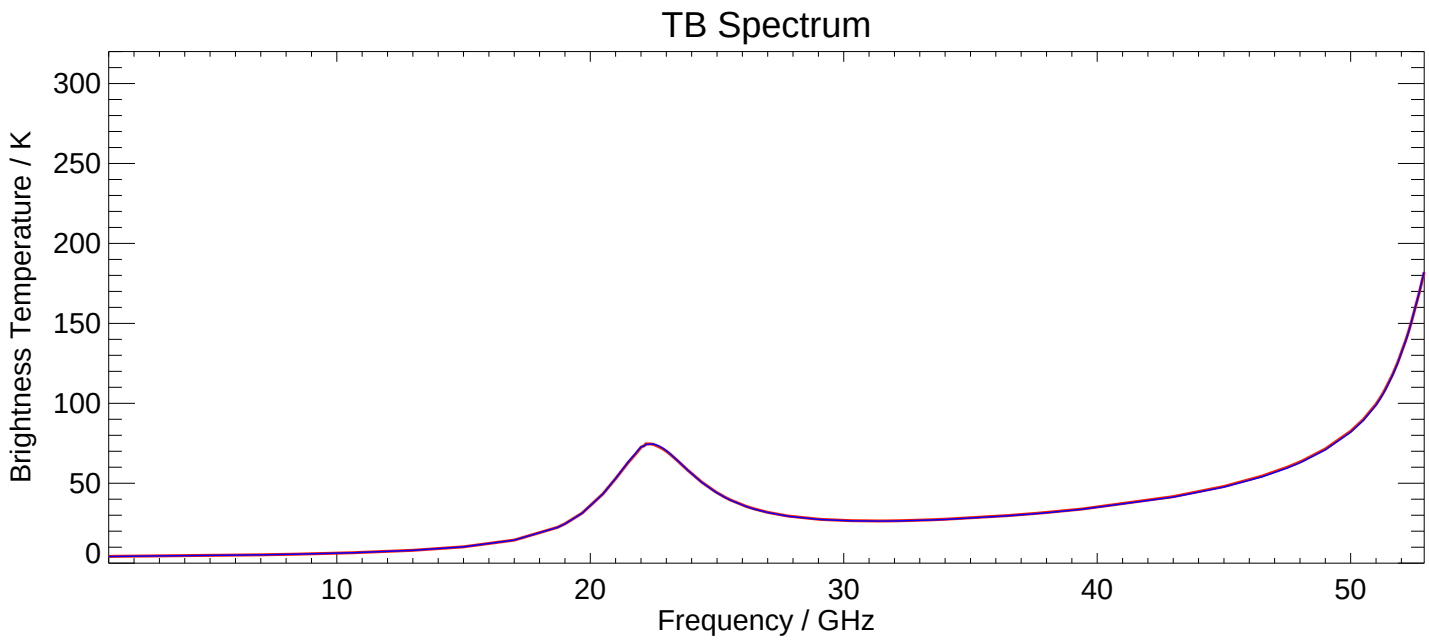
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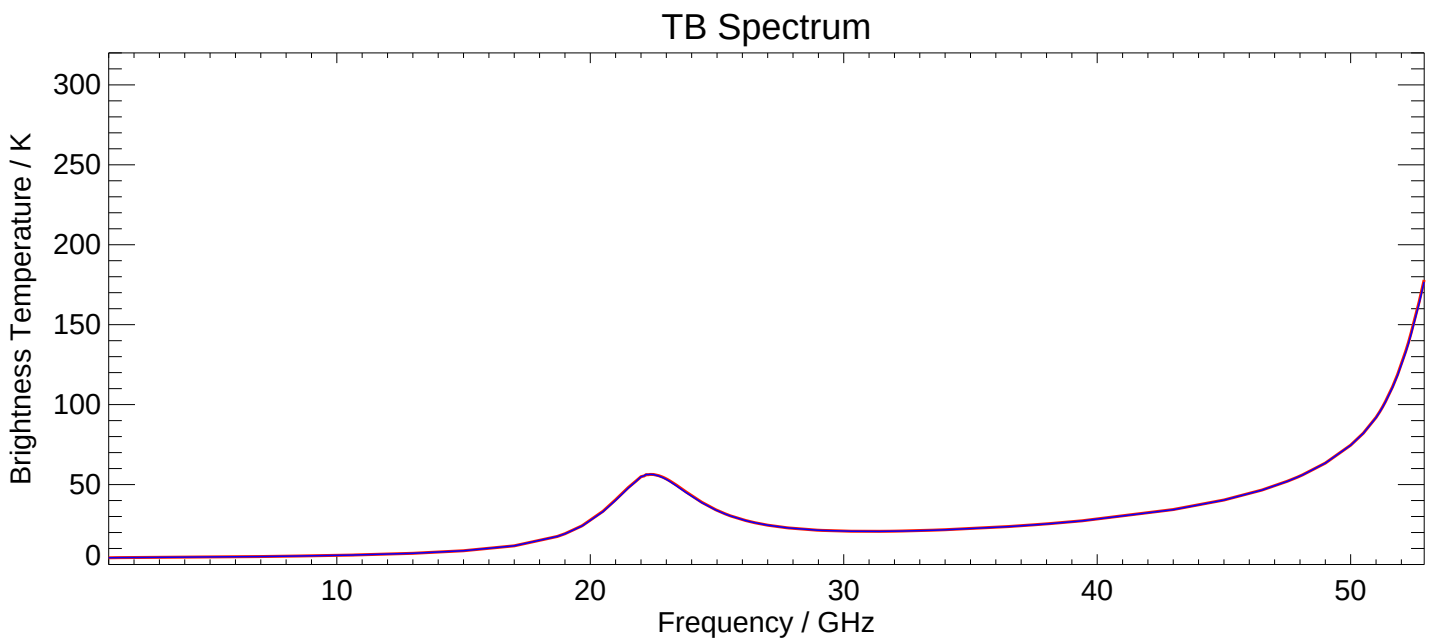
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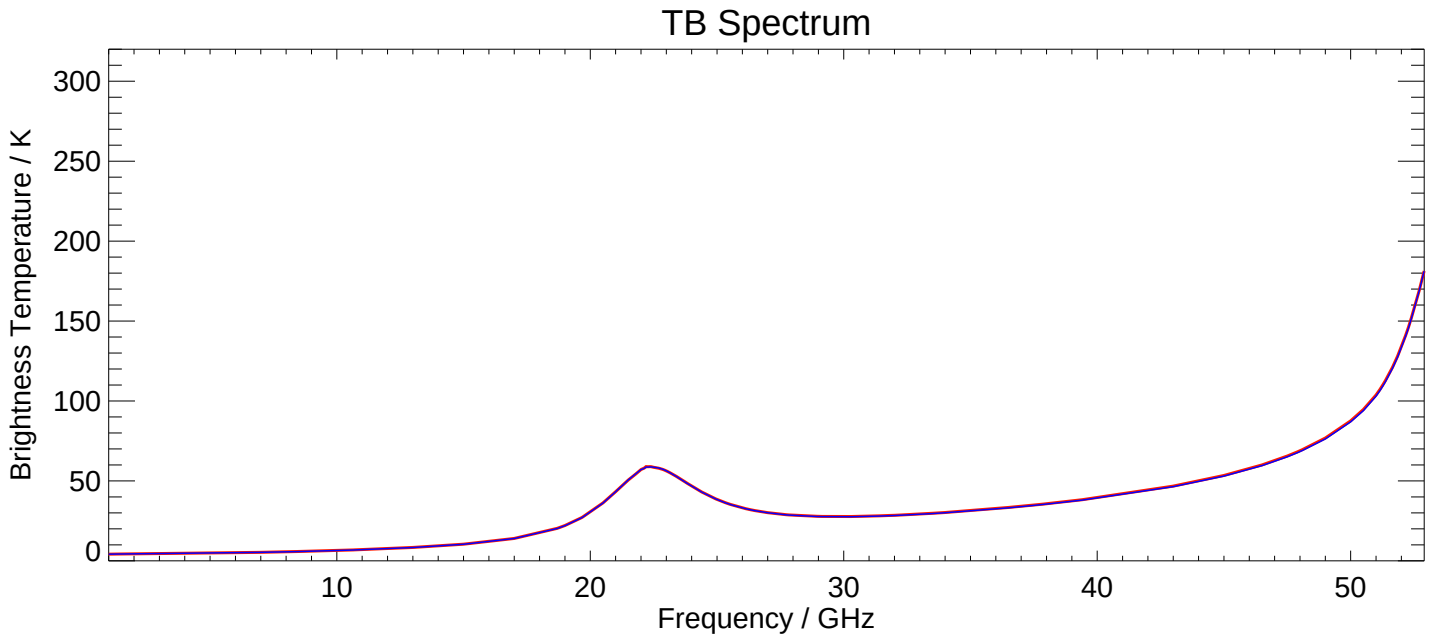
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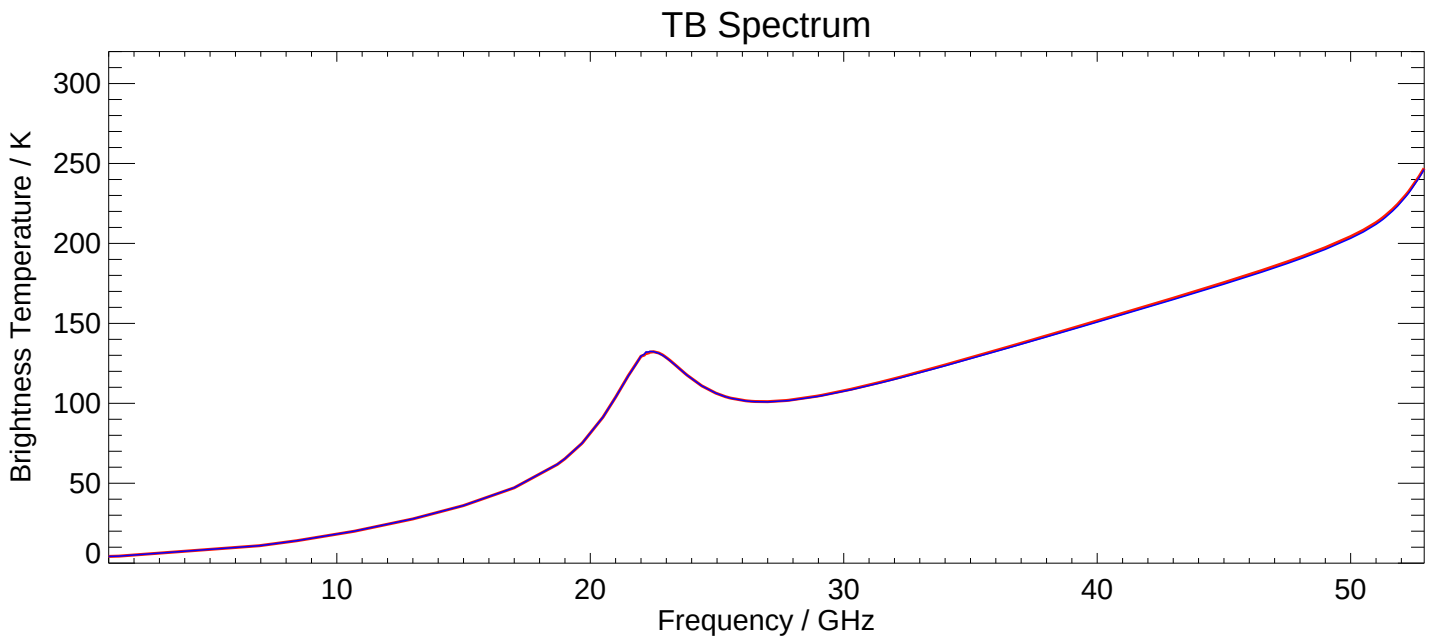
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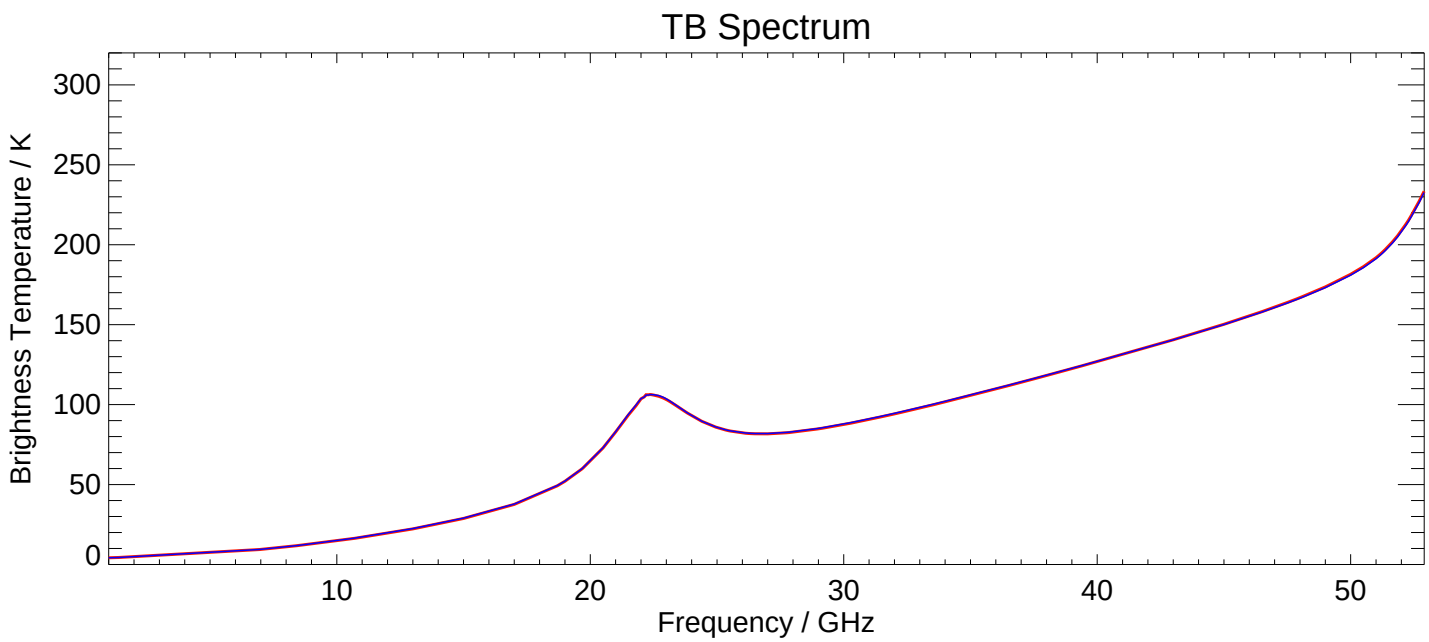
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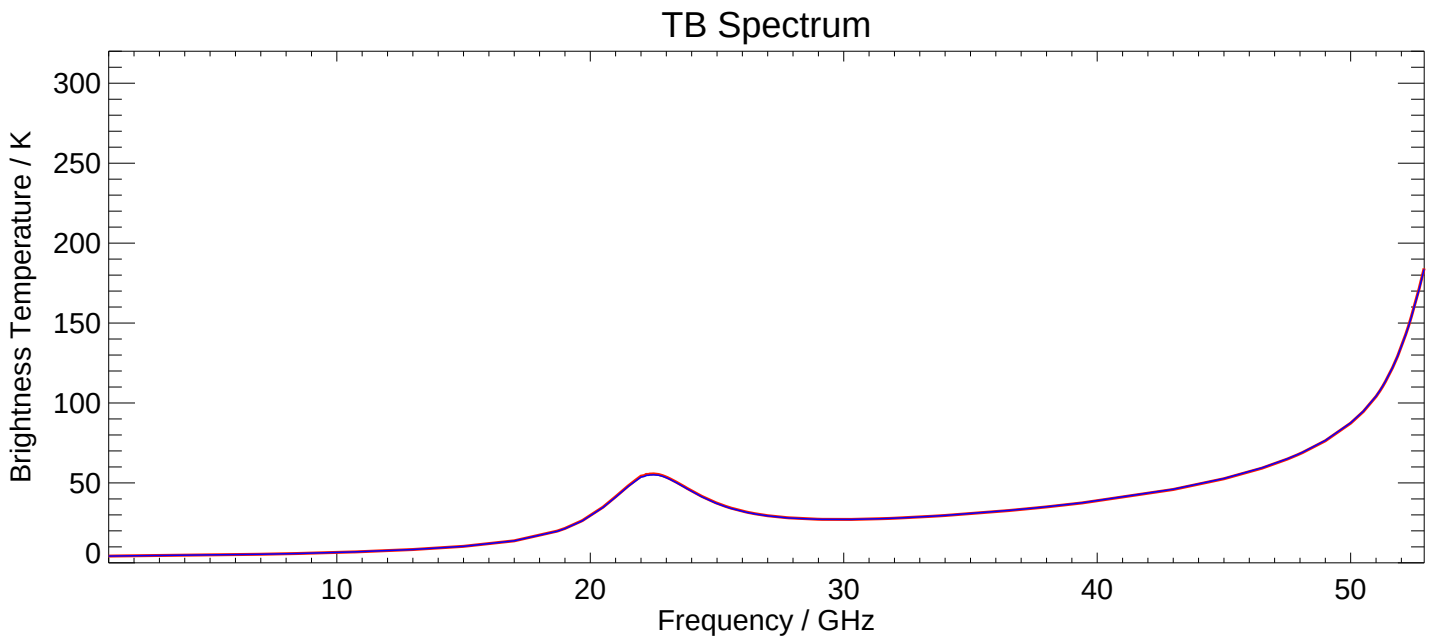
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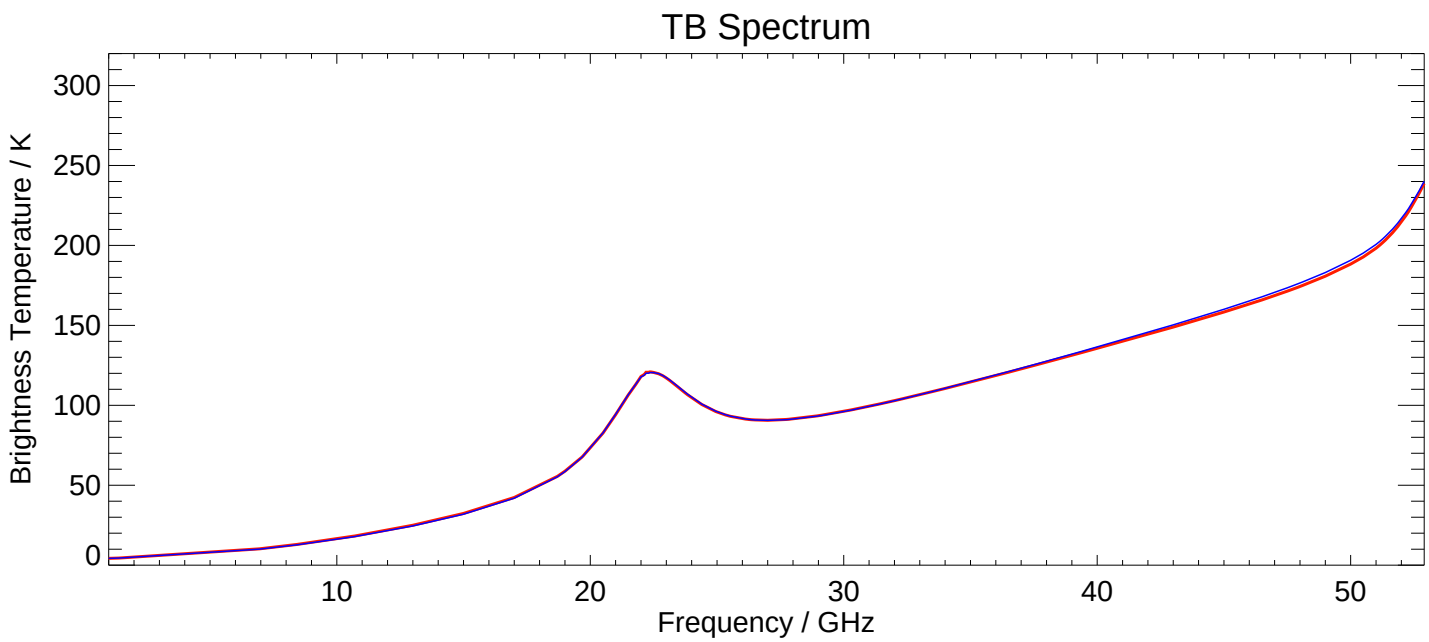
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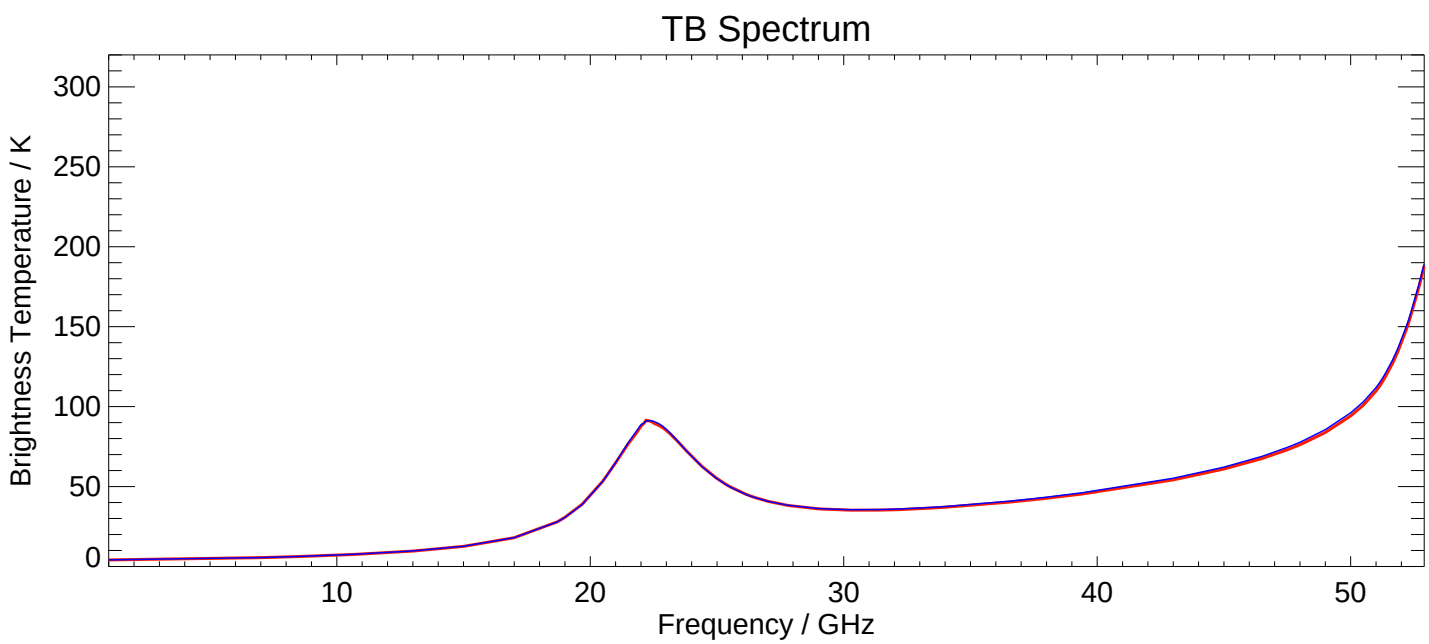
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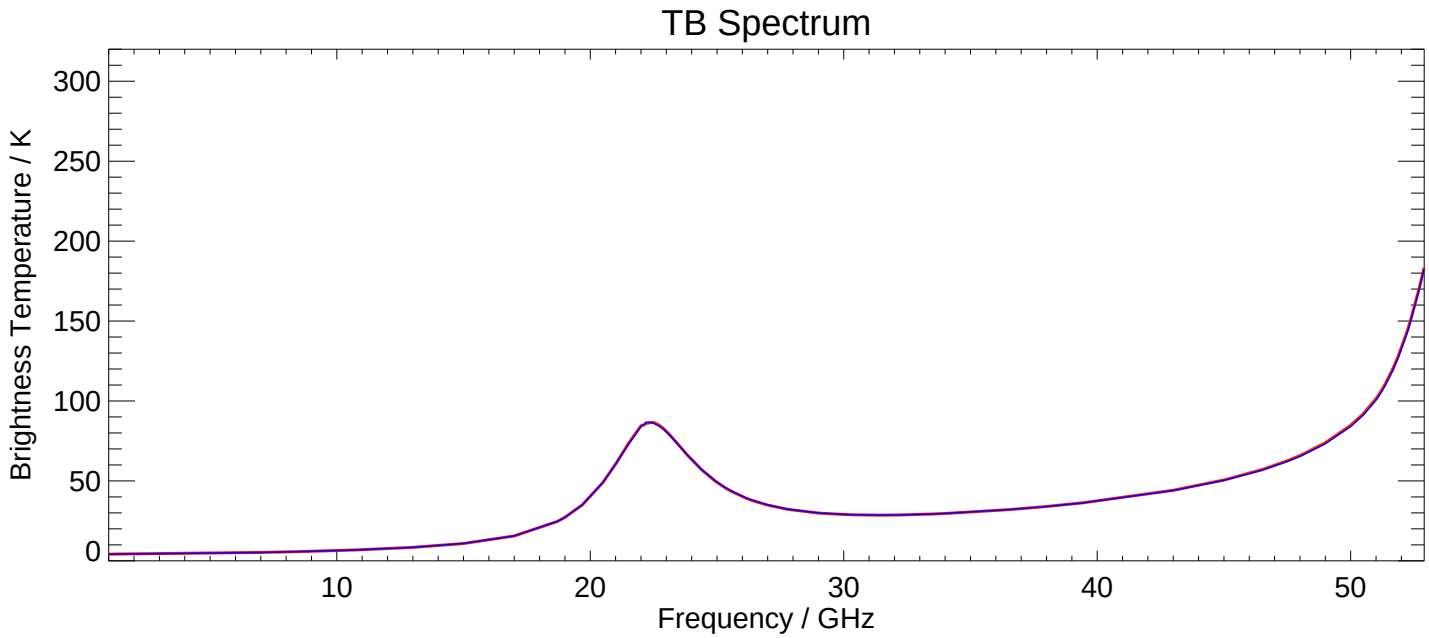
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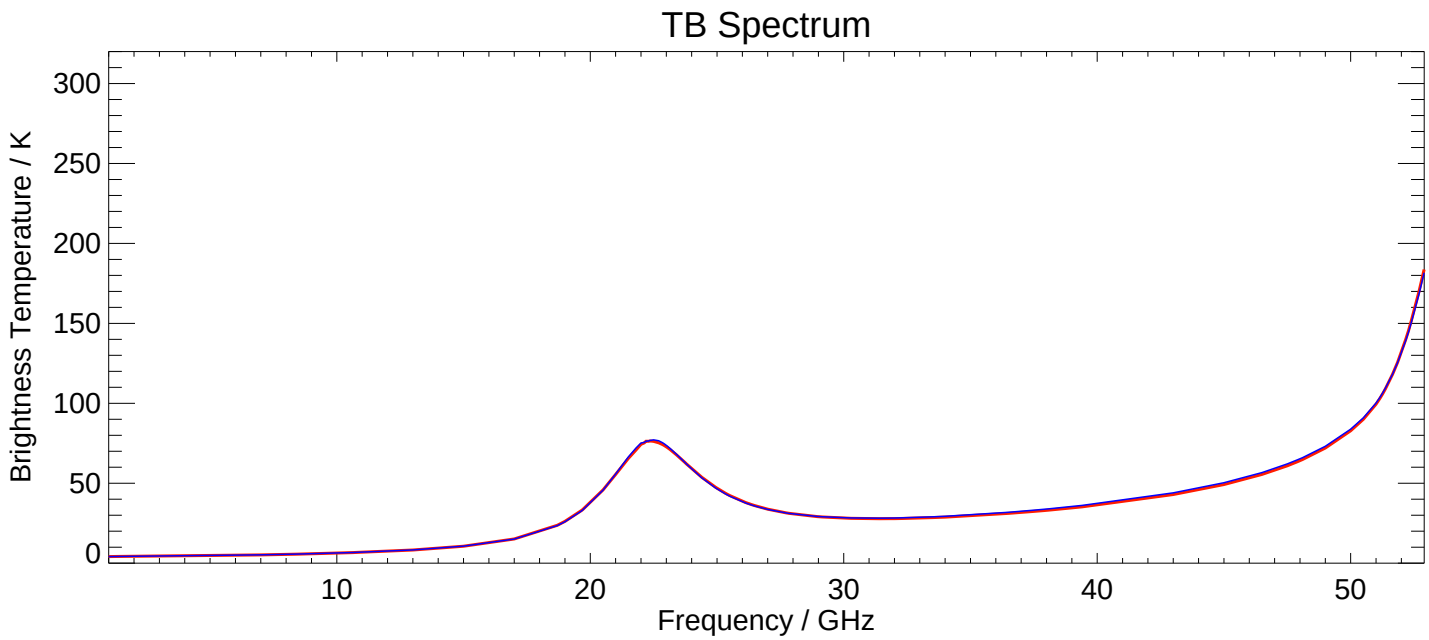
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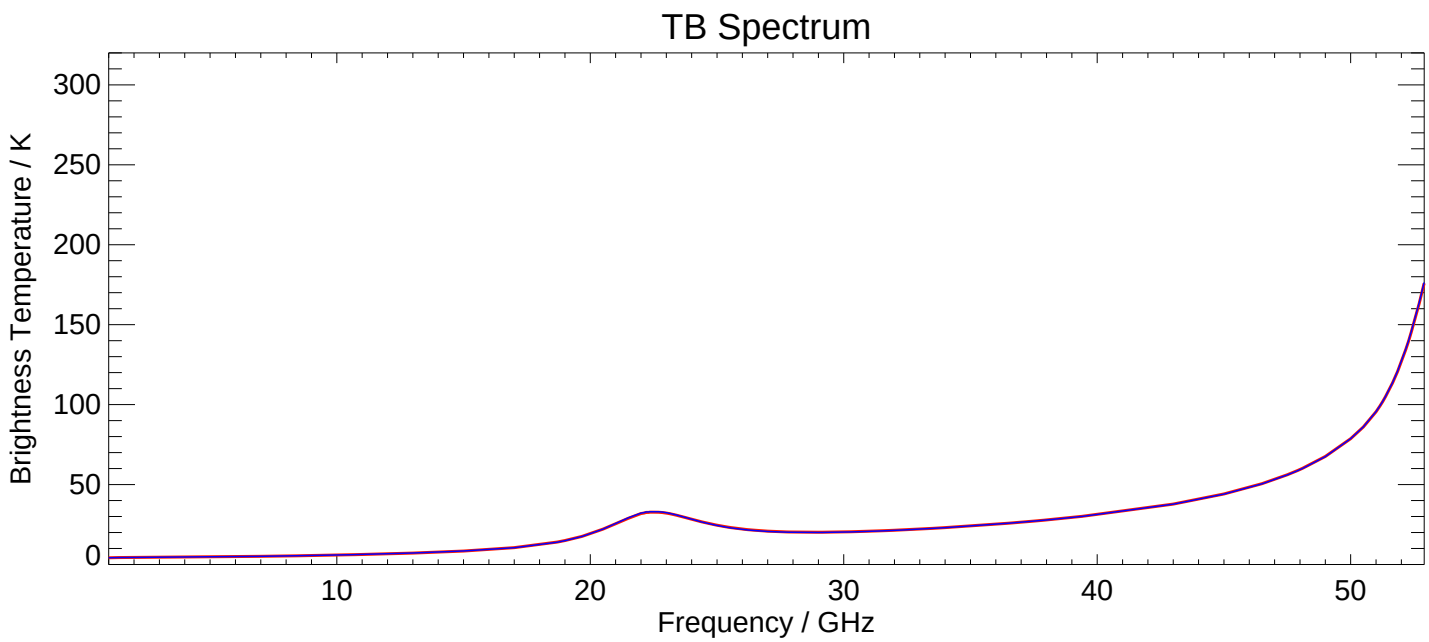
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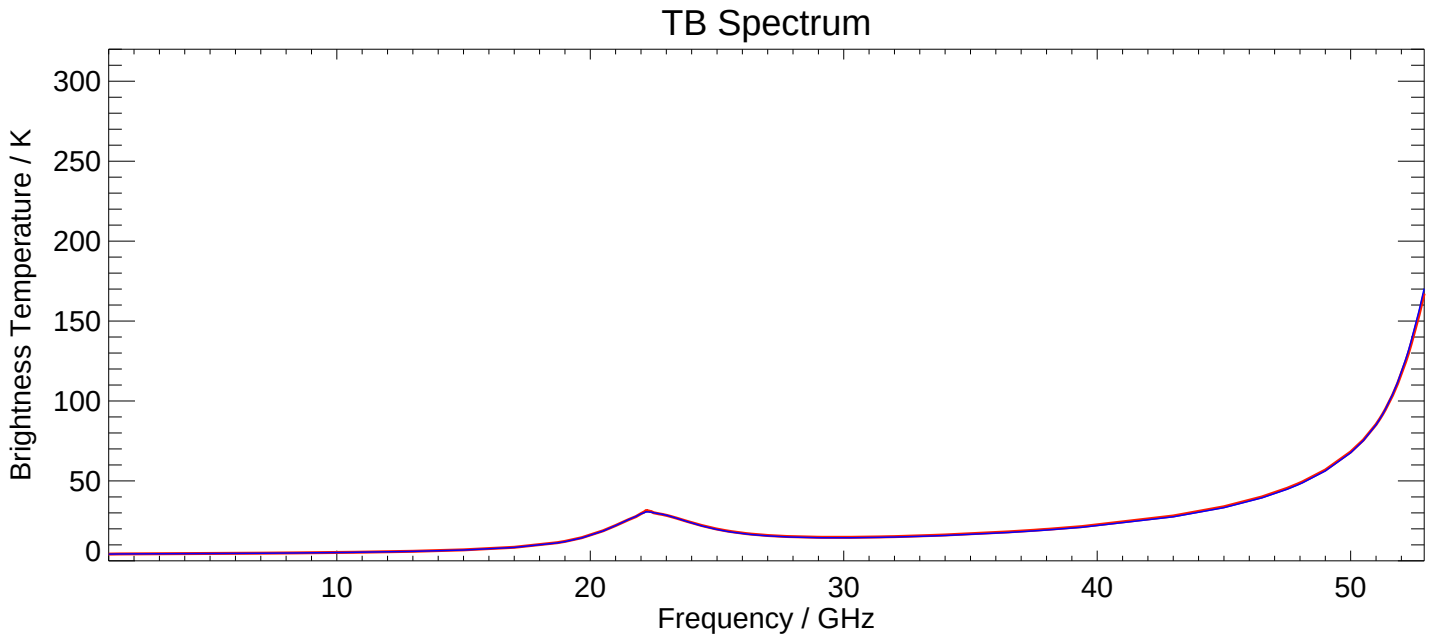
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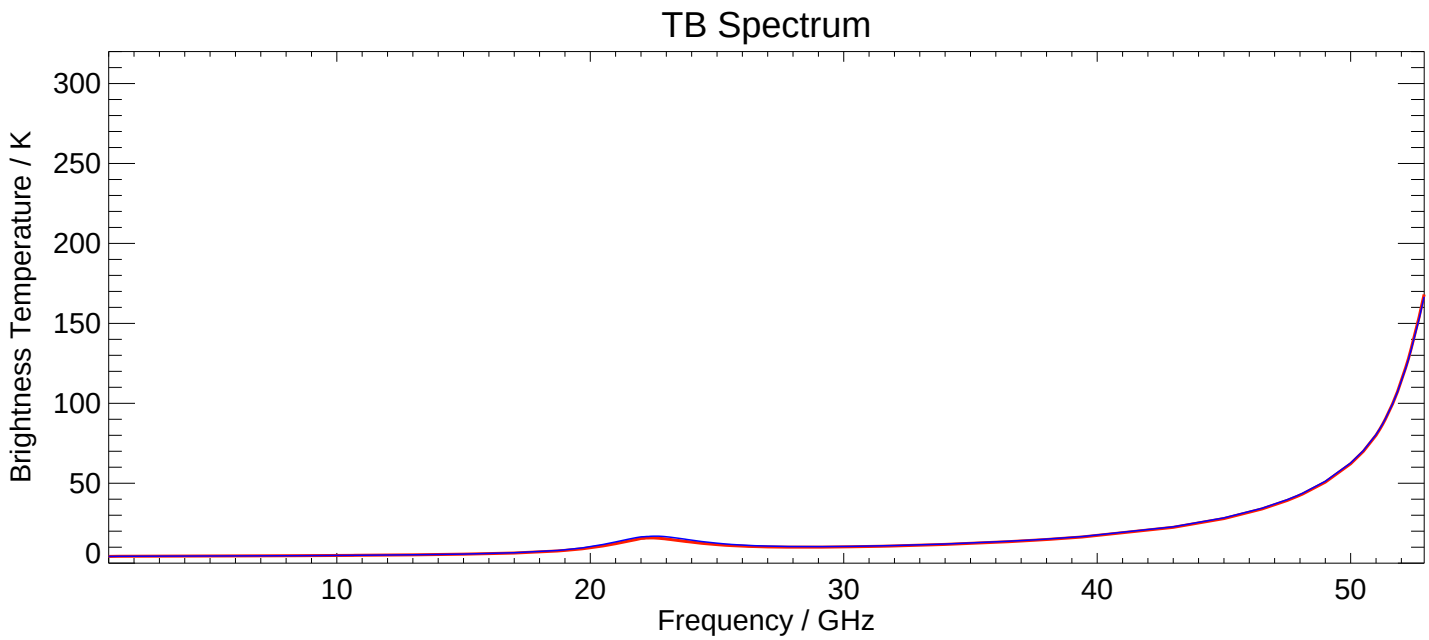
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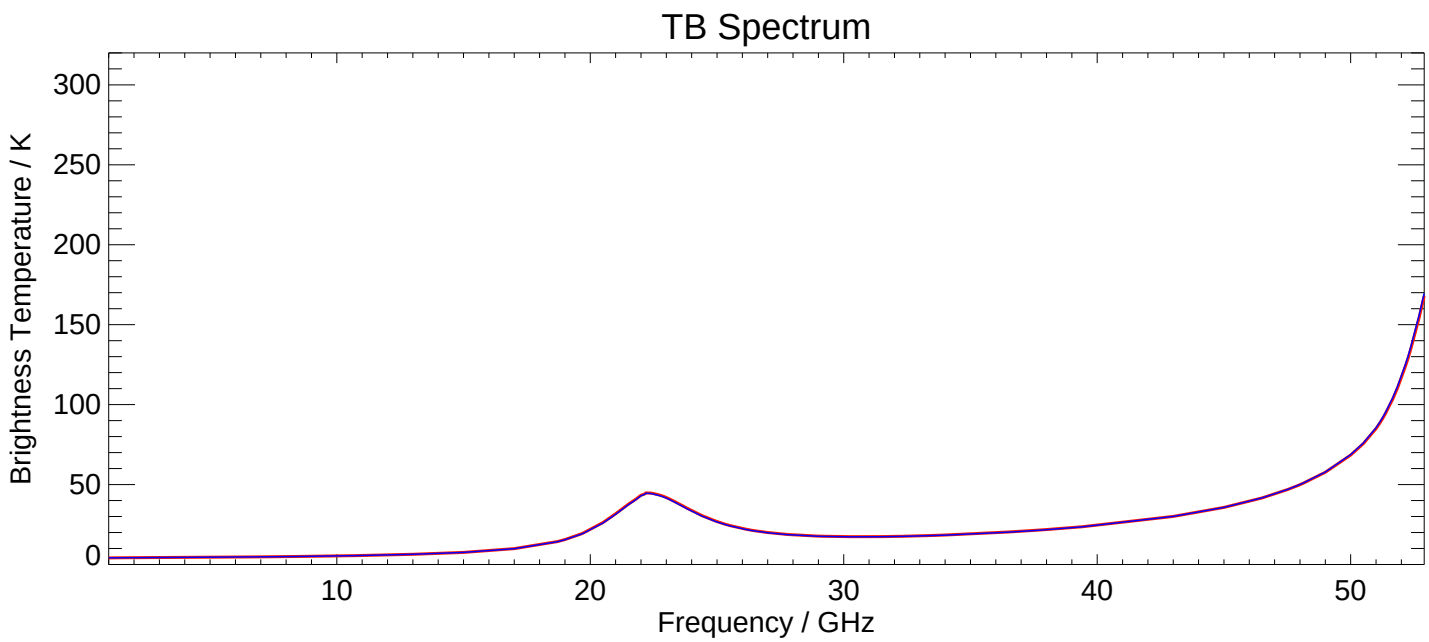
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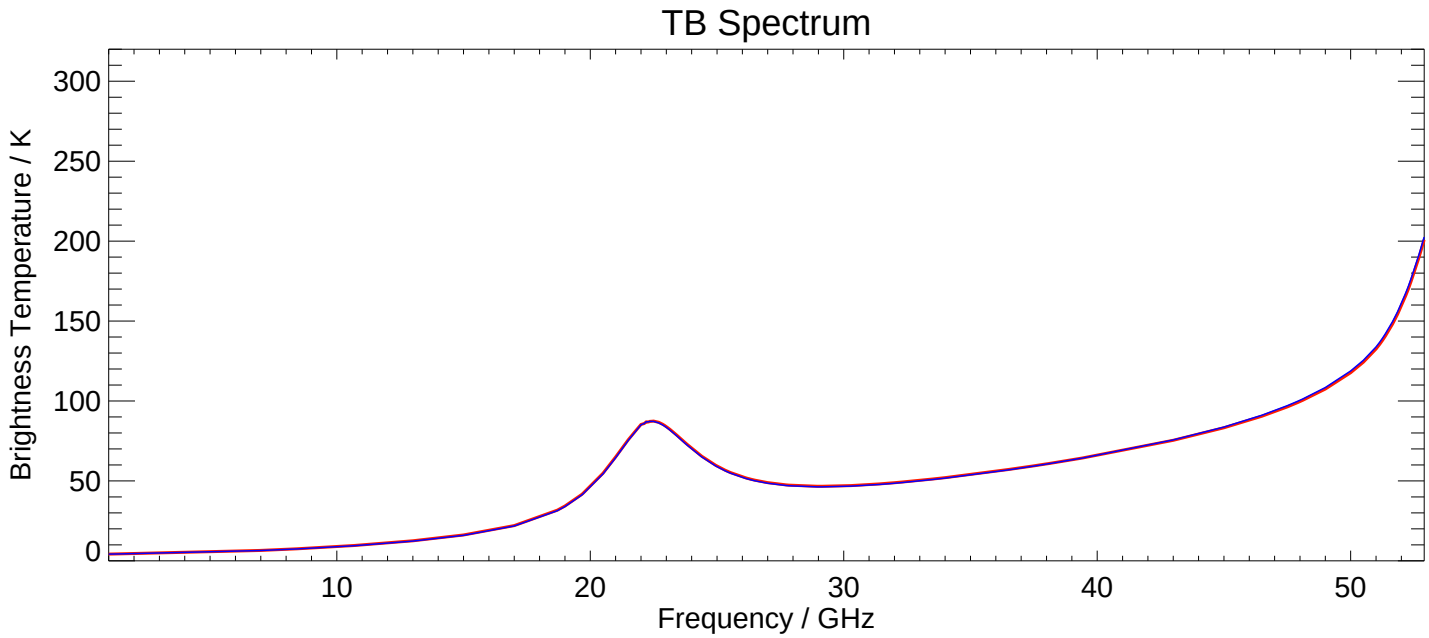
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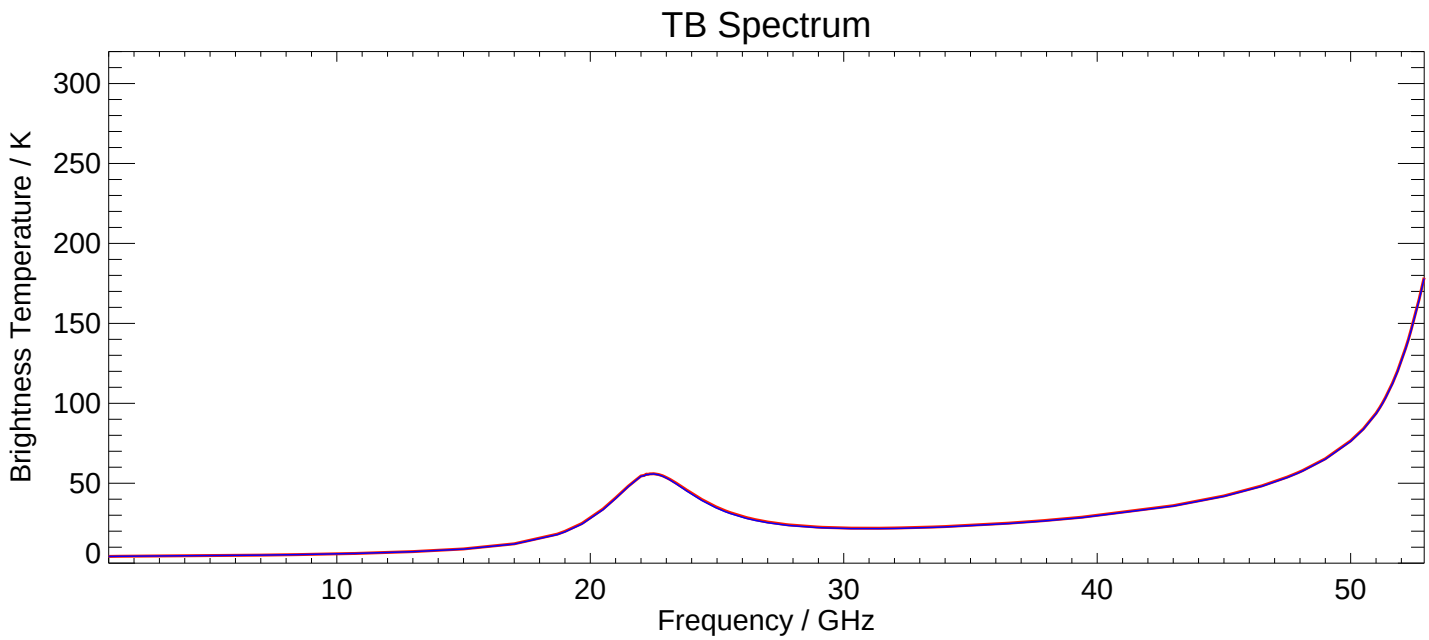
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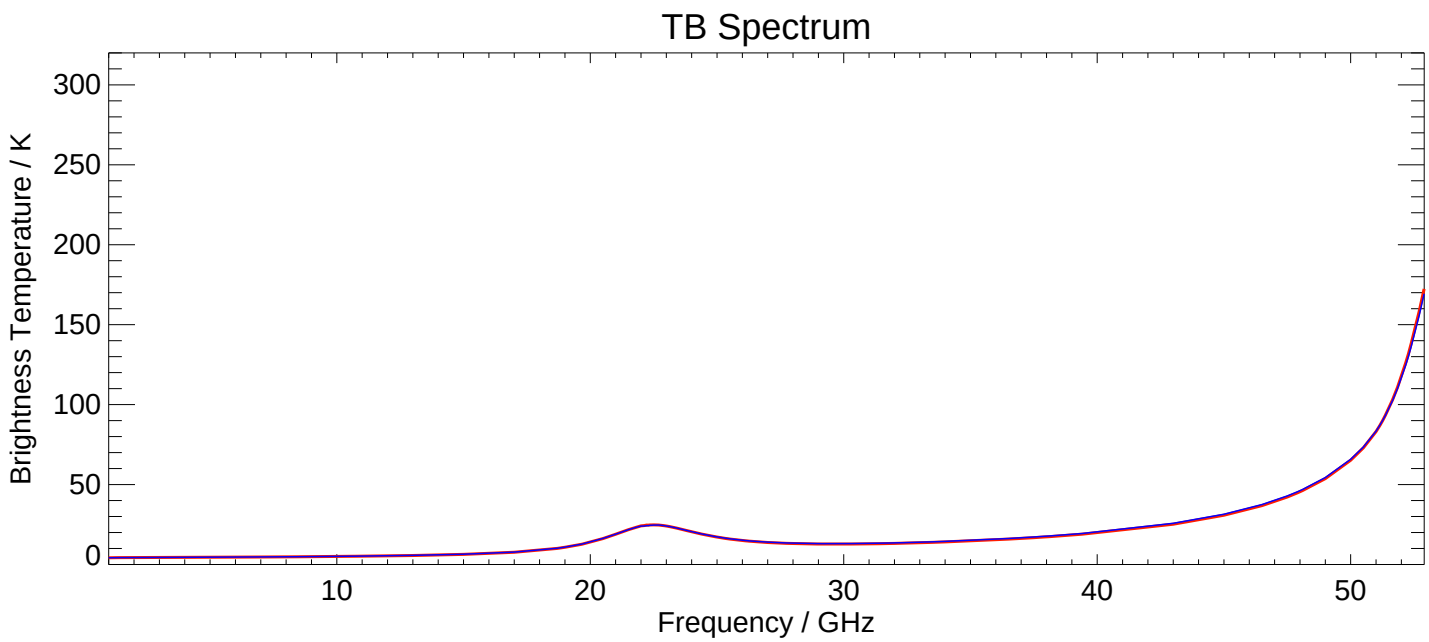
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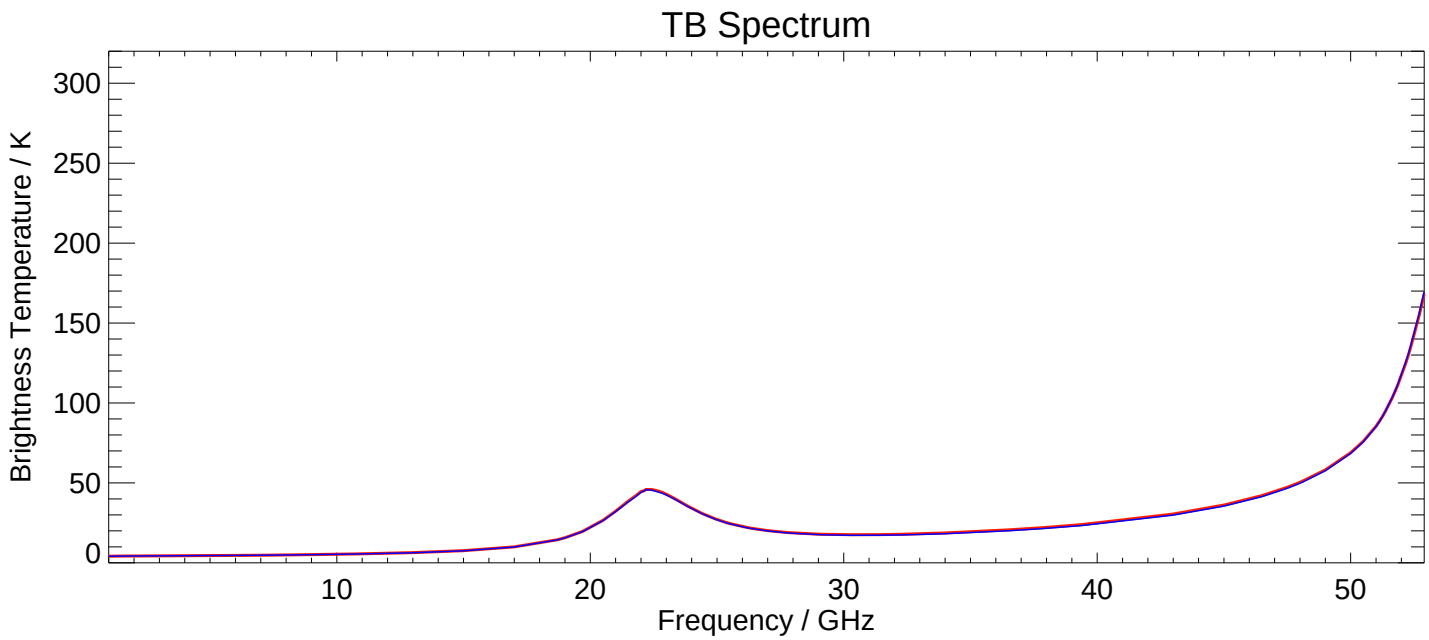
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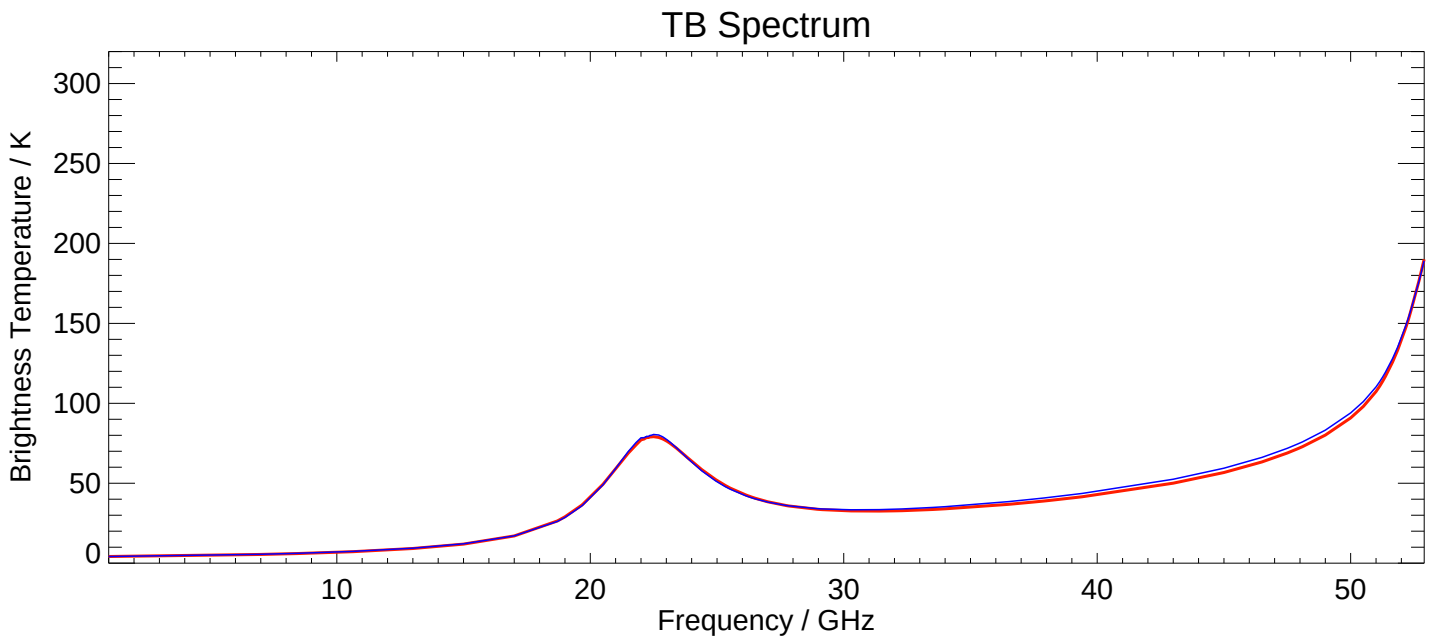
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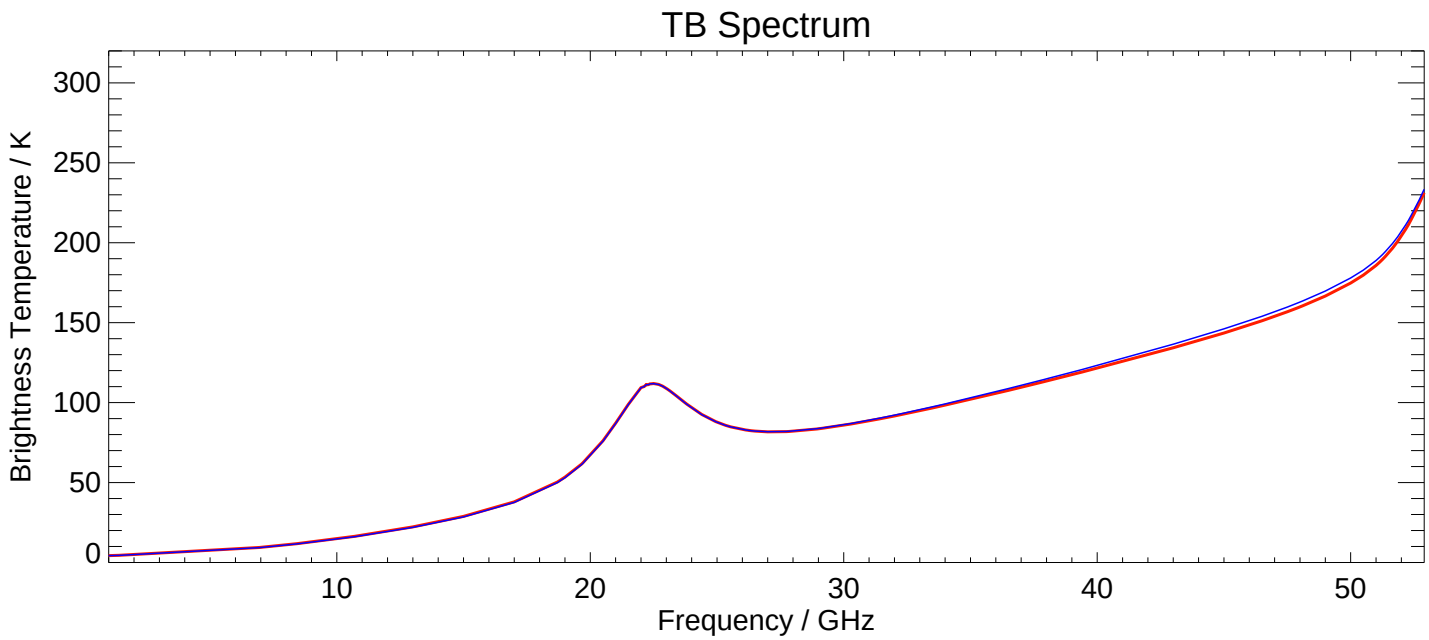
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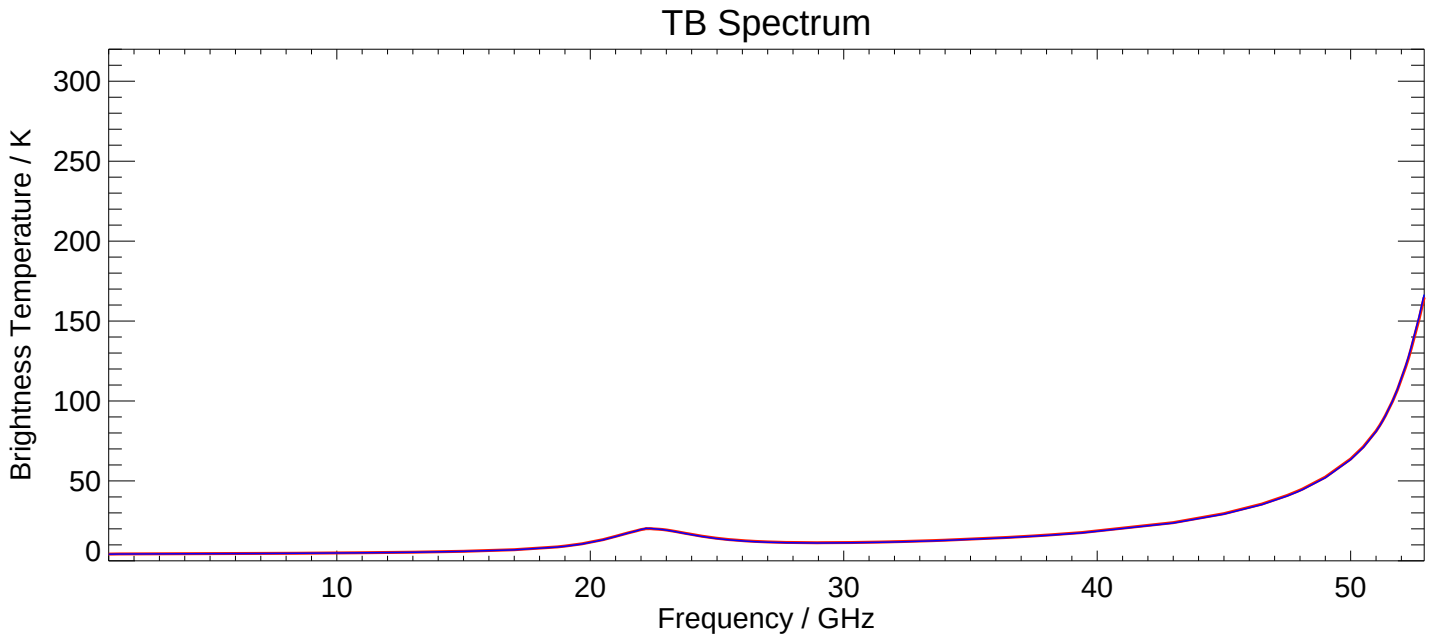
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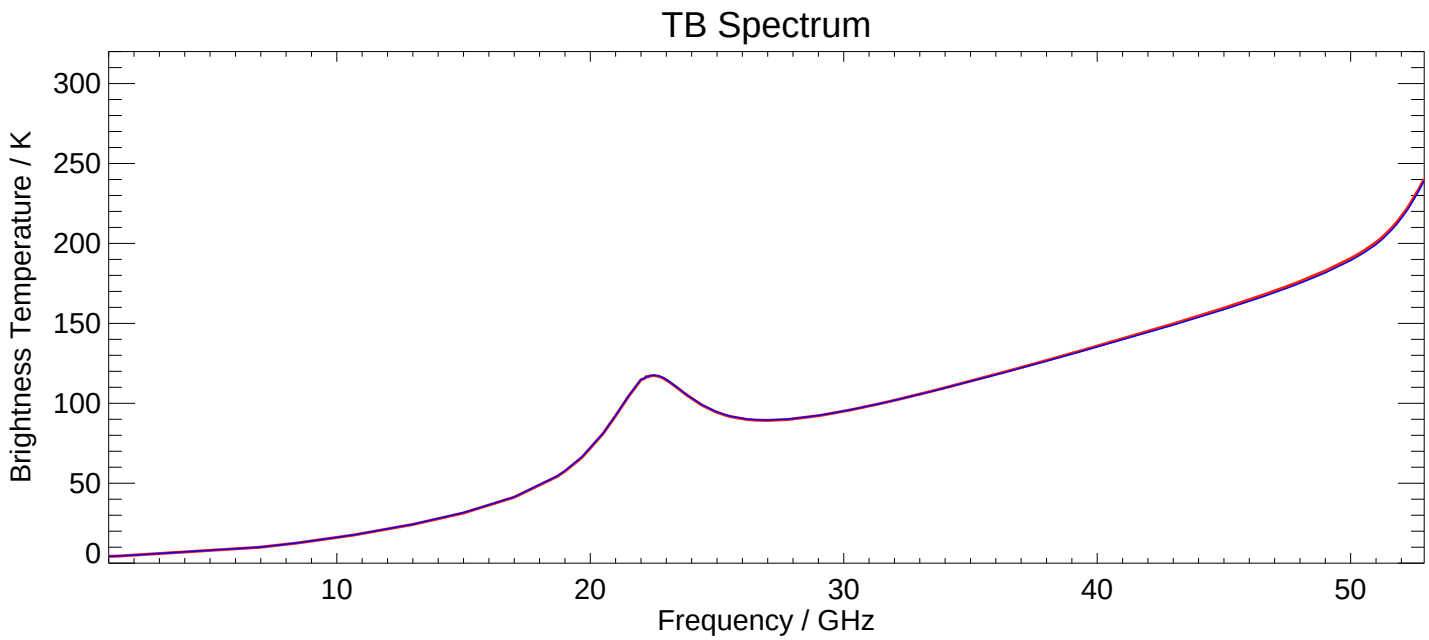
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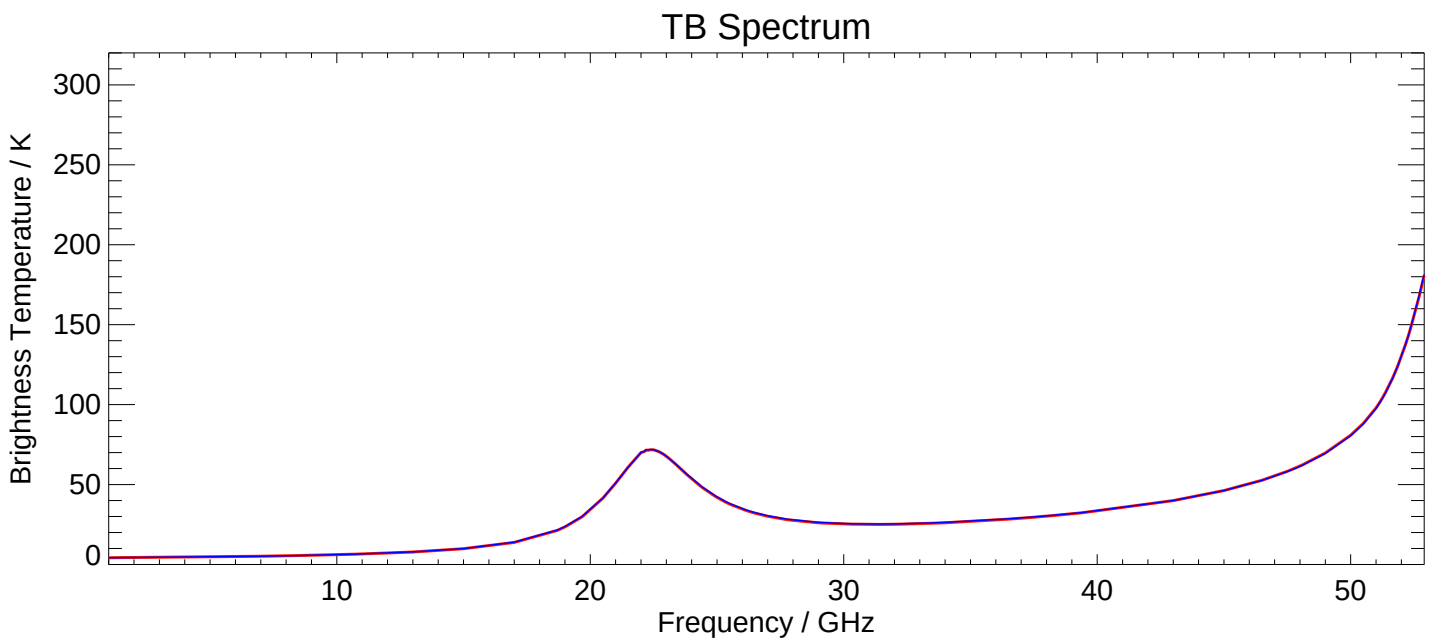
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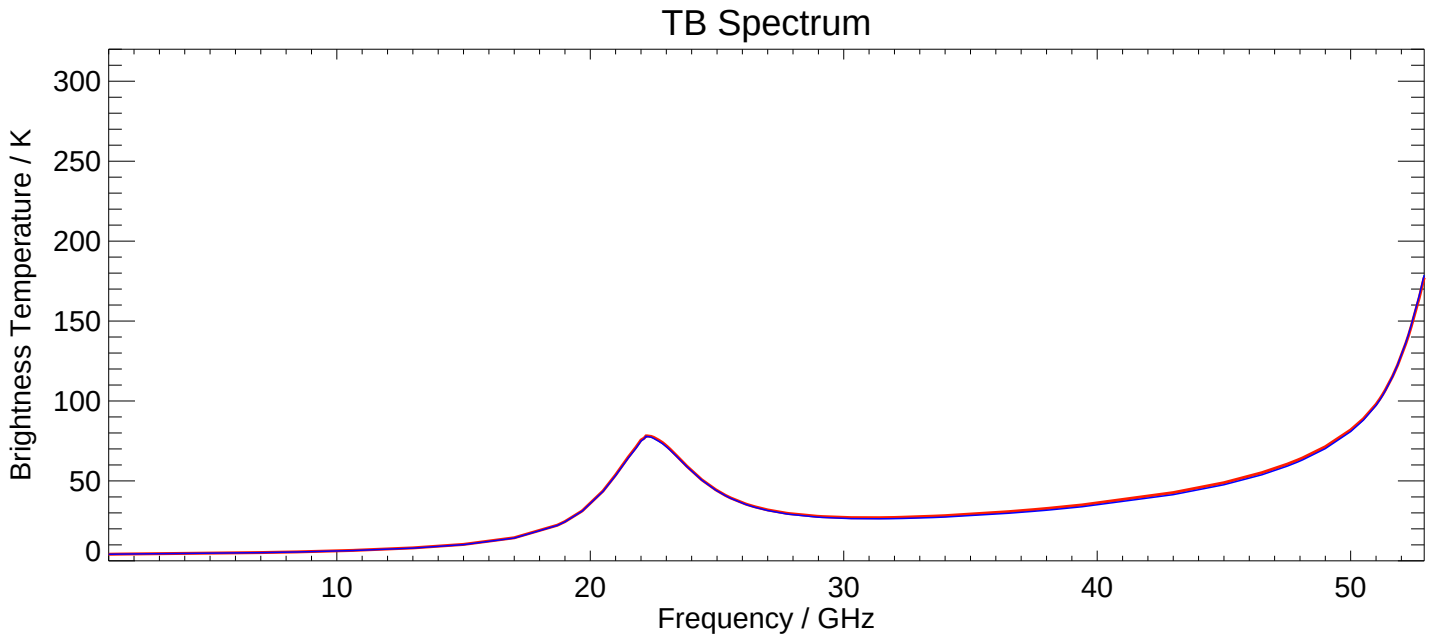
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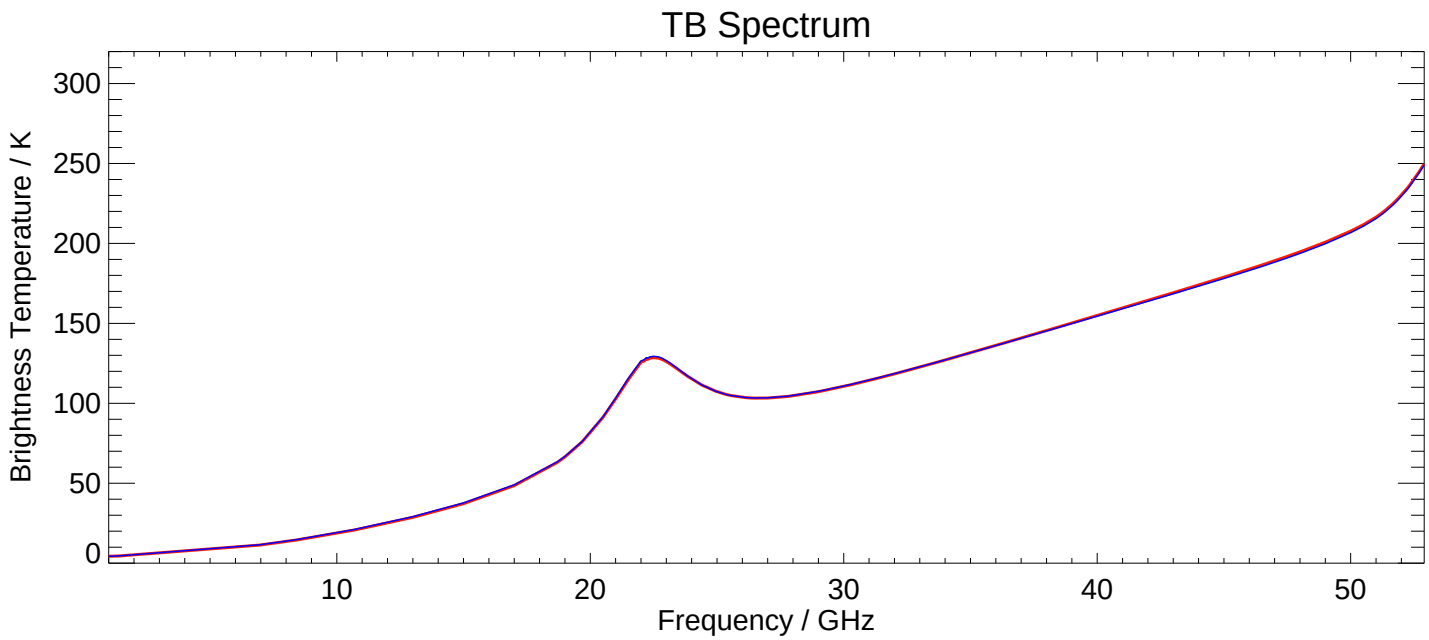
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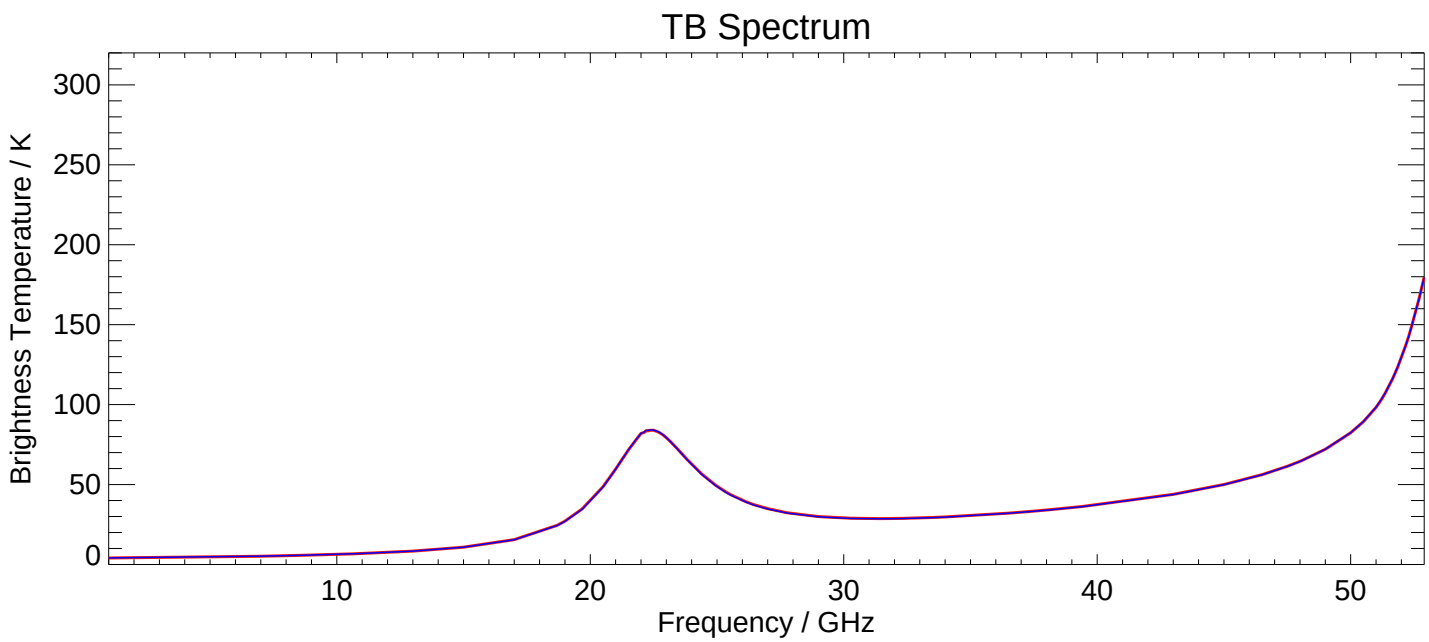
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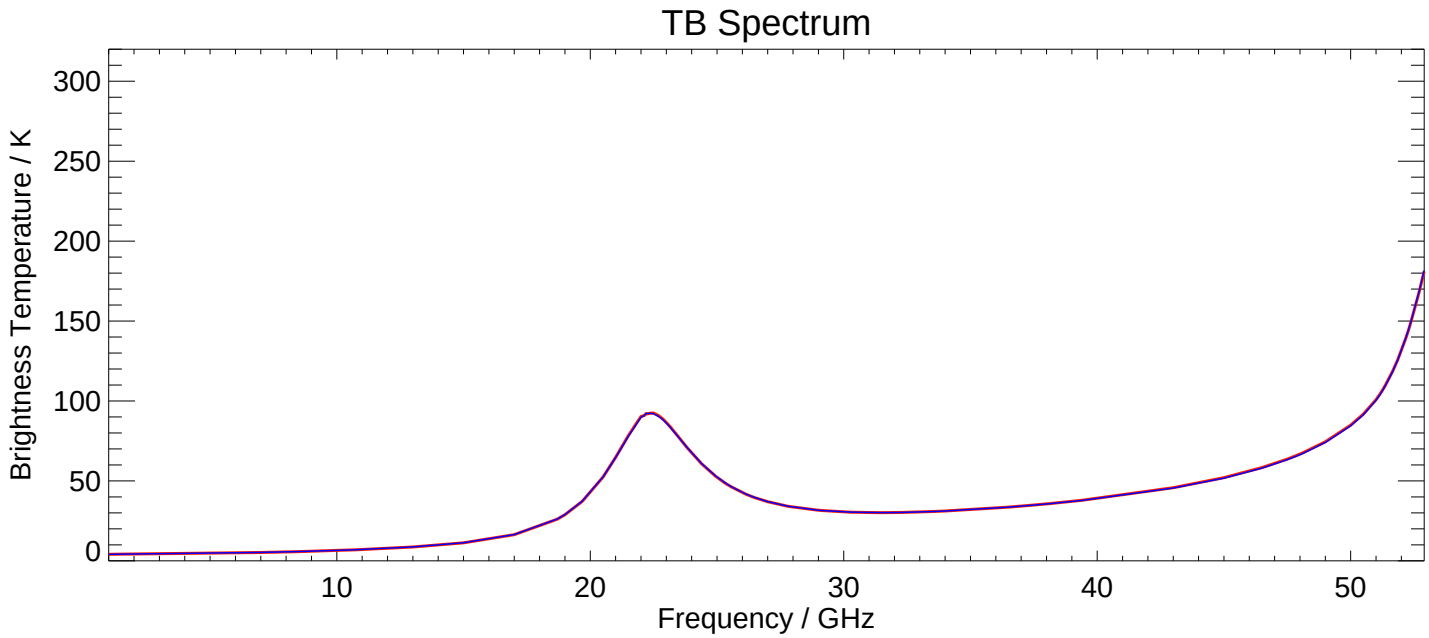
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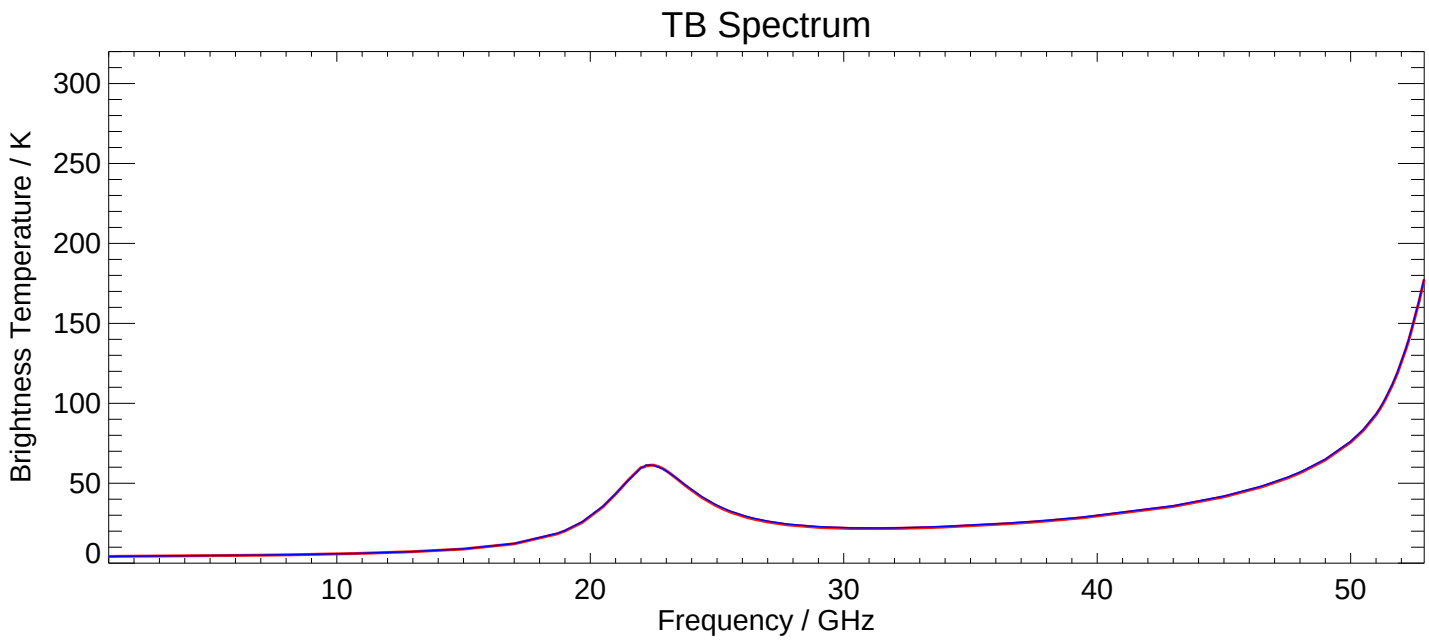
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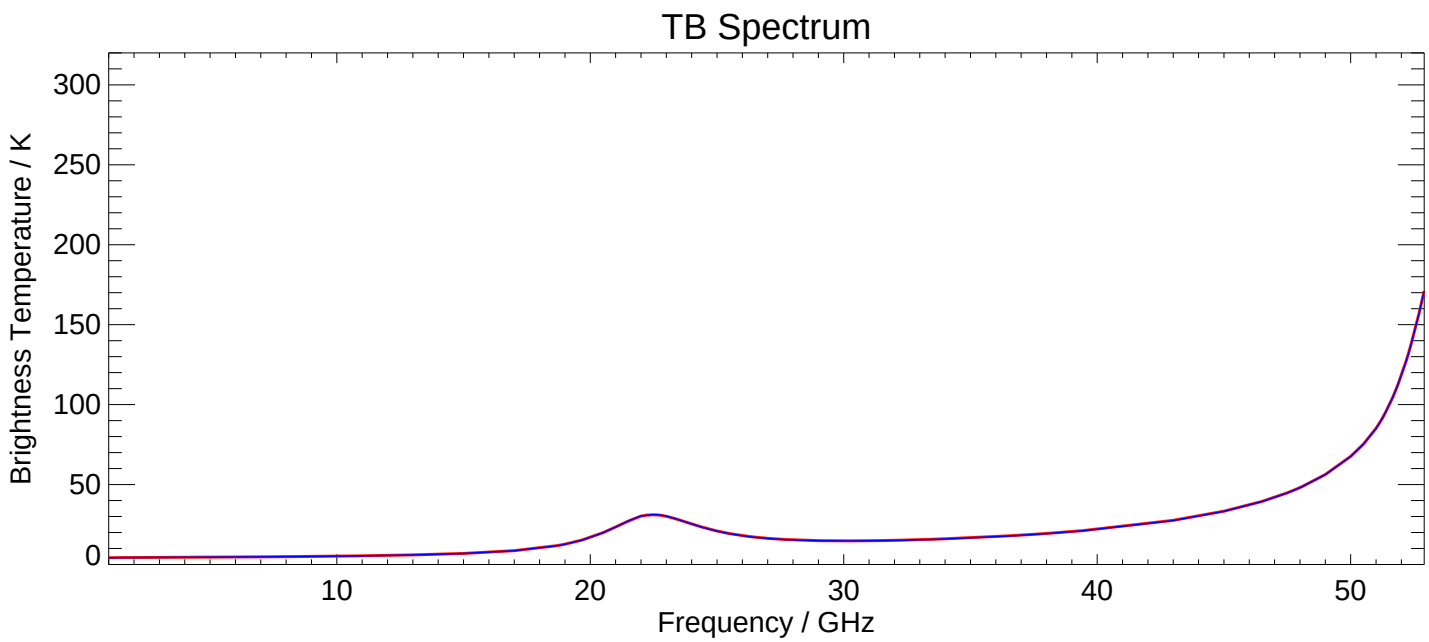
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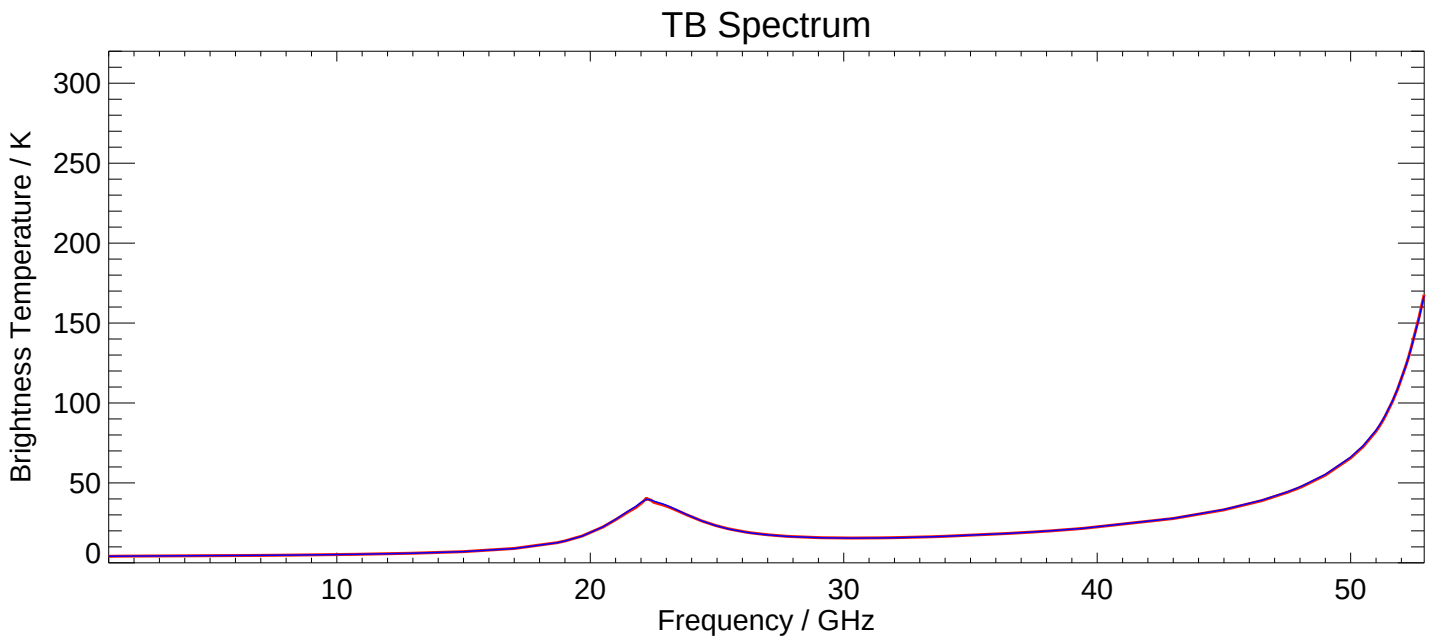
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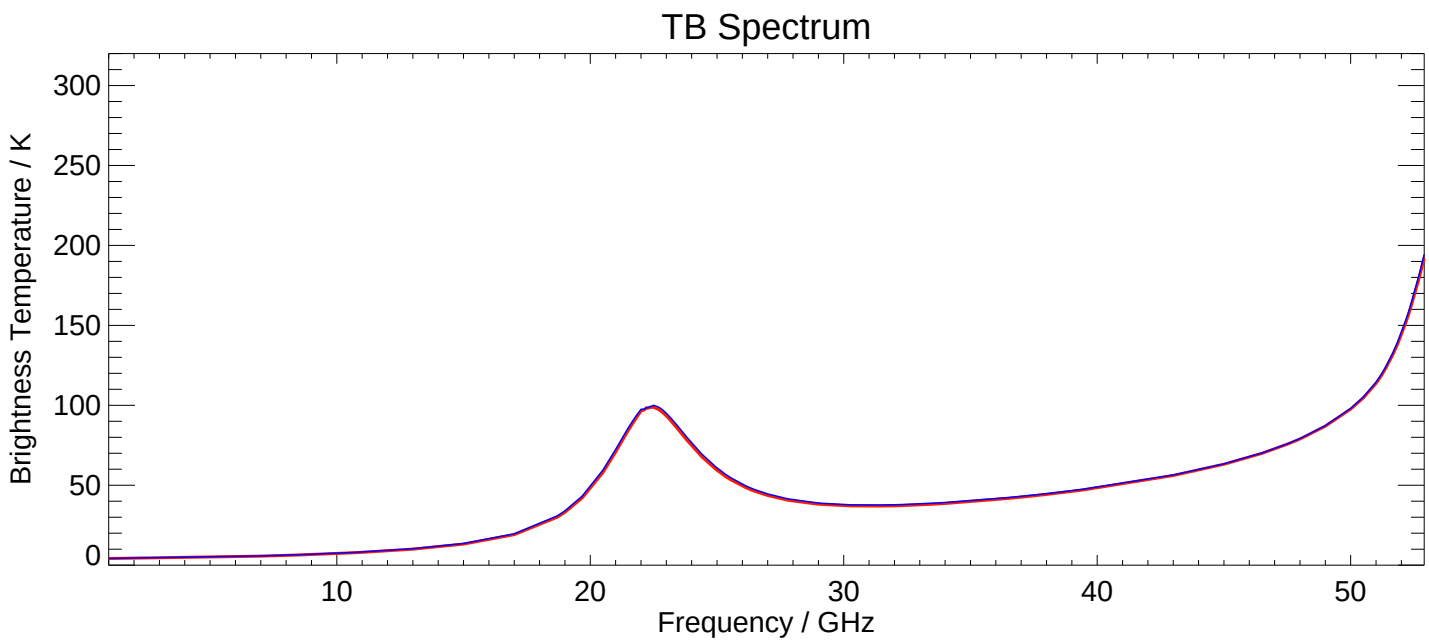
Frequency / GHz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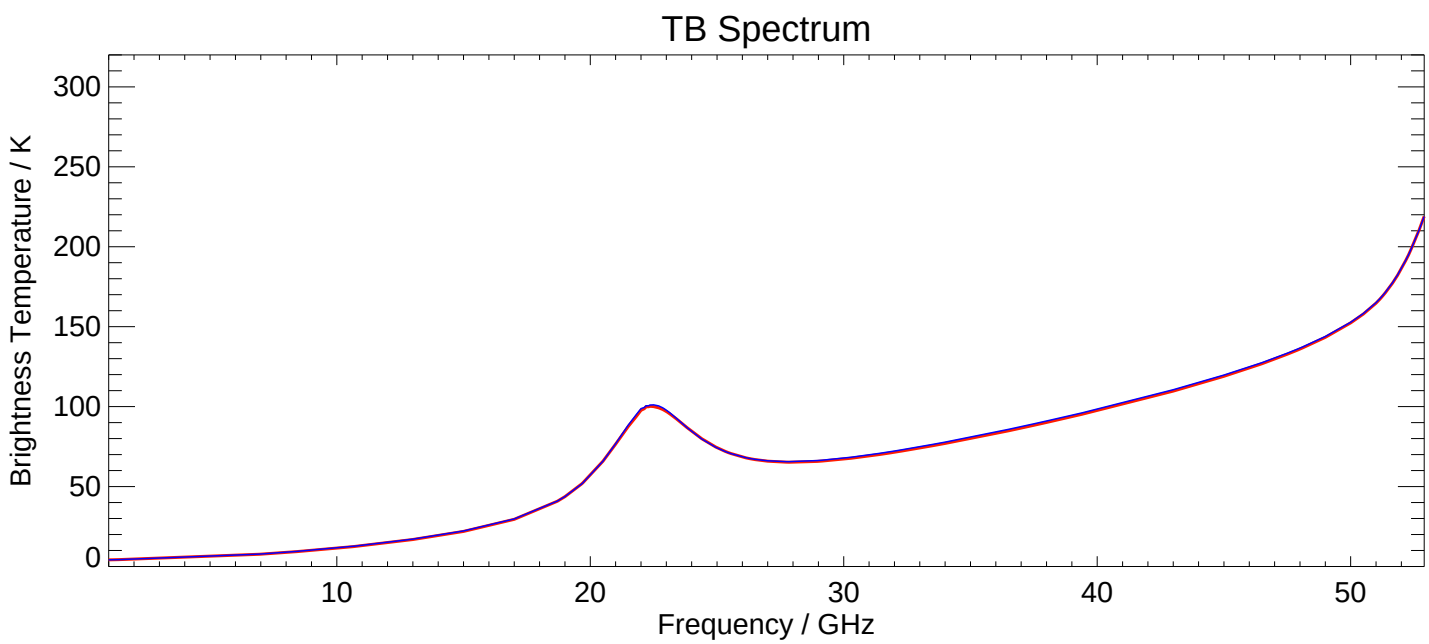
Frequency / GHz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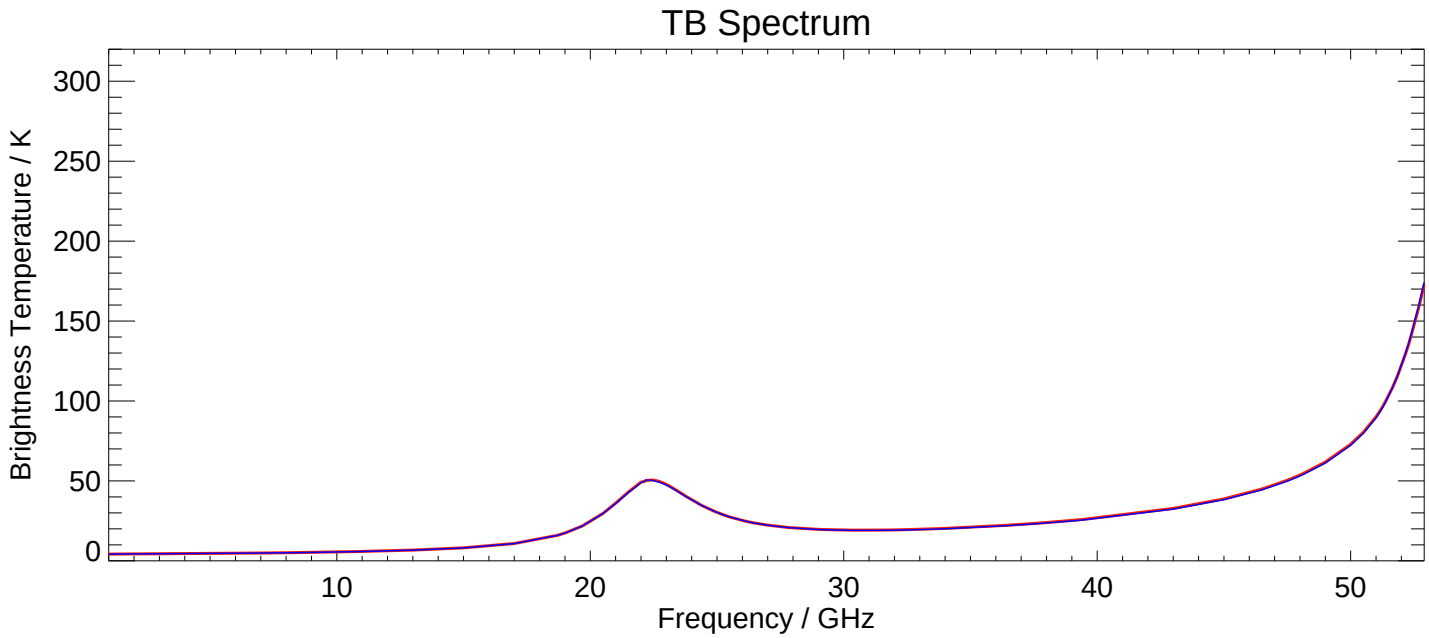
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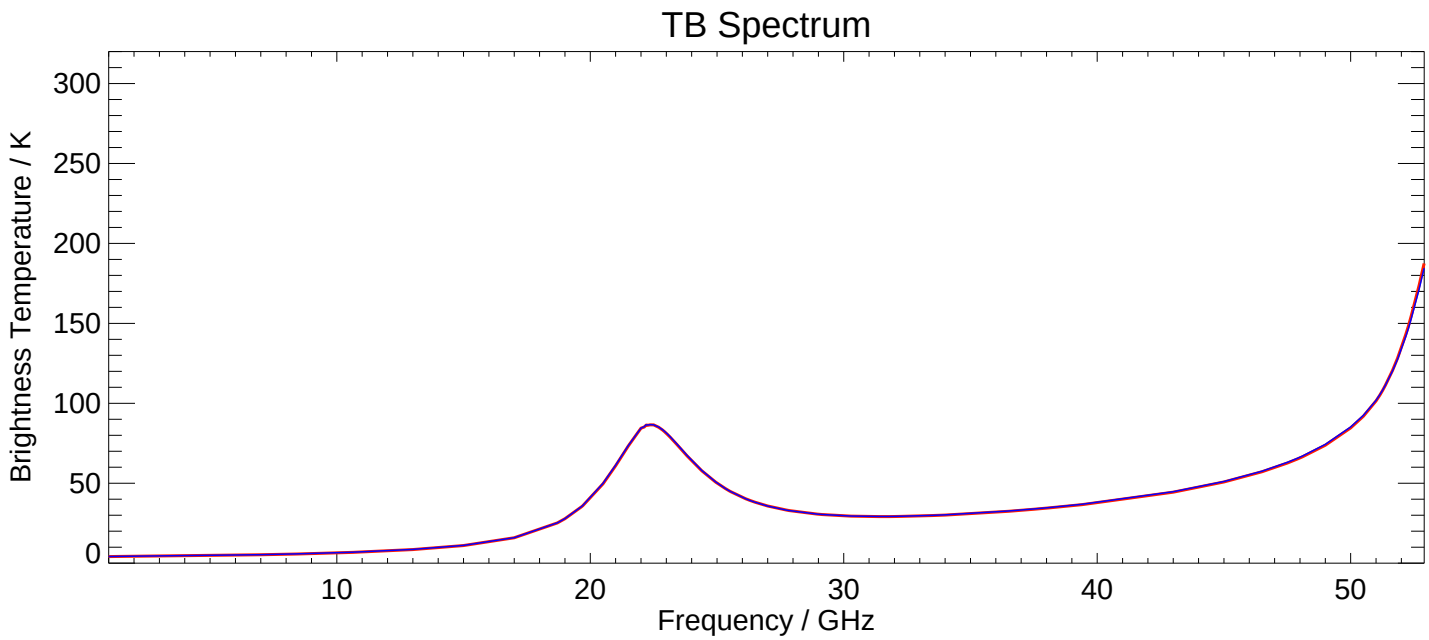
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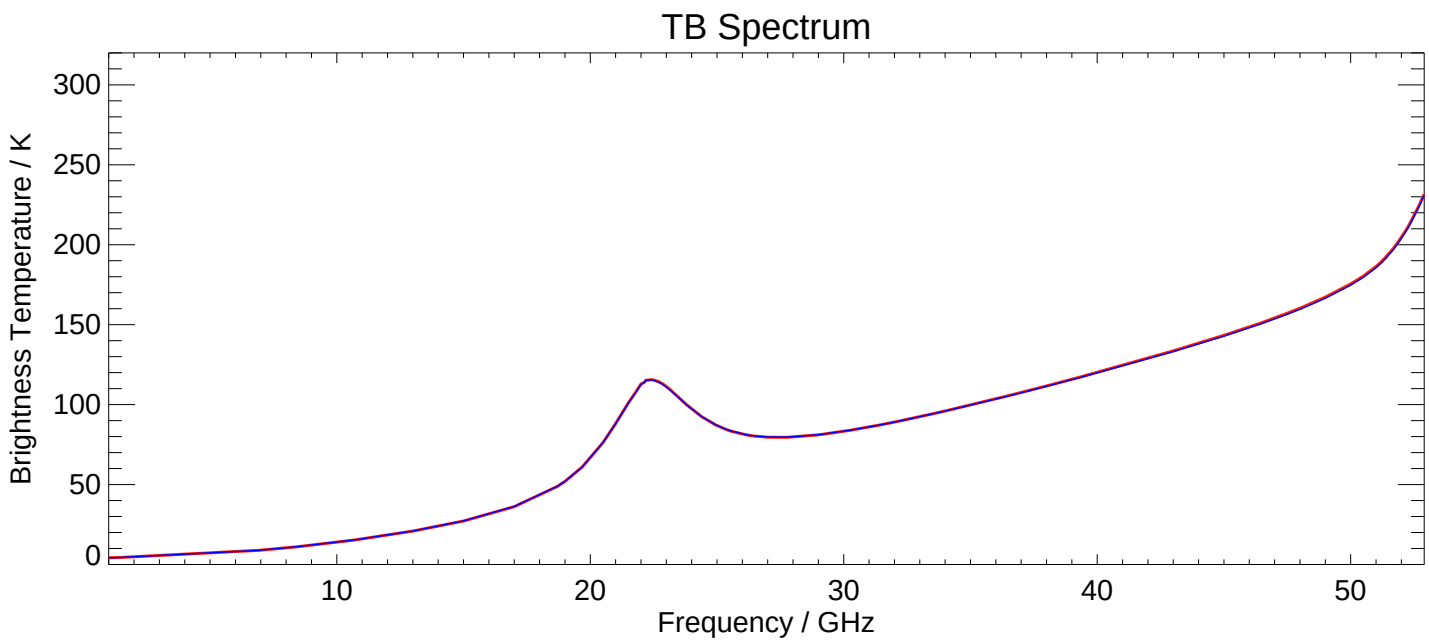
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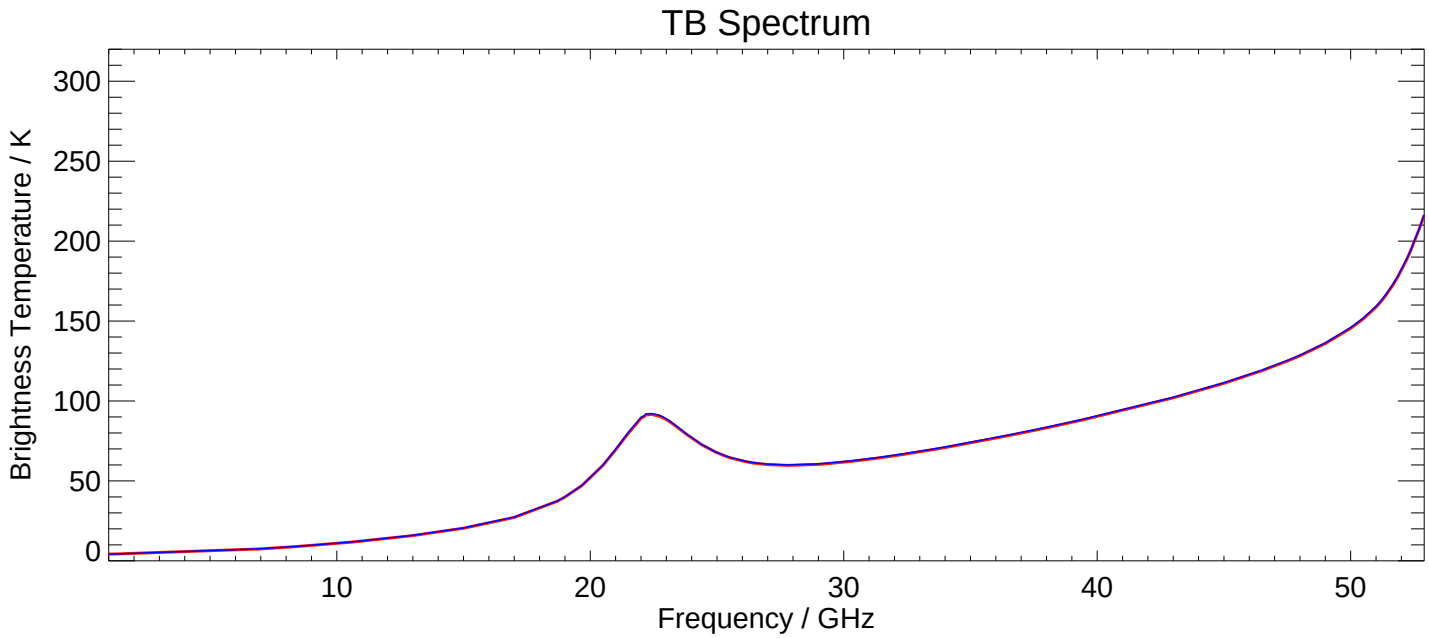
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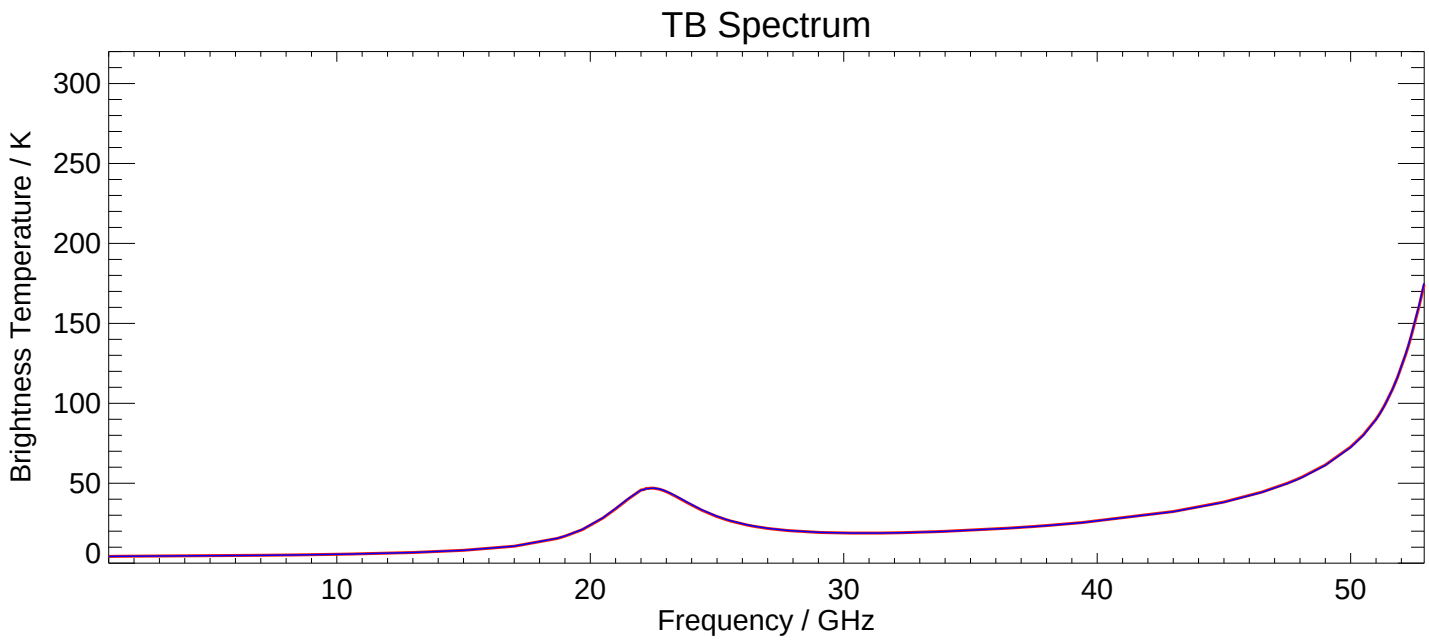
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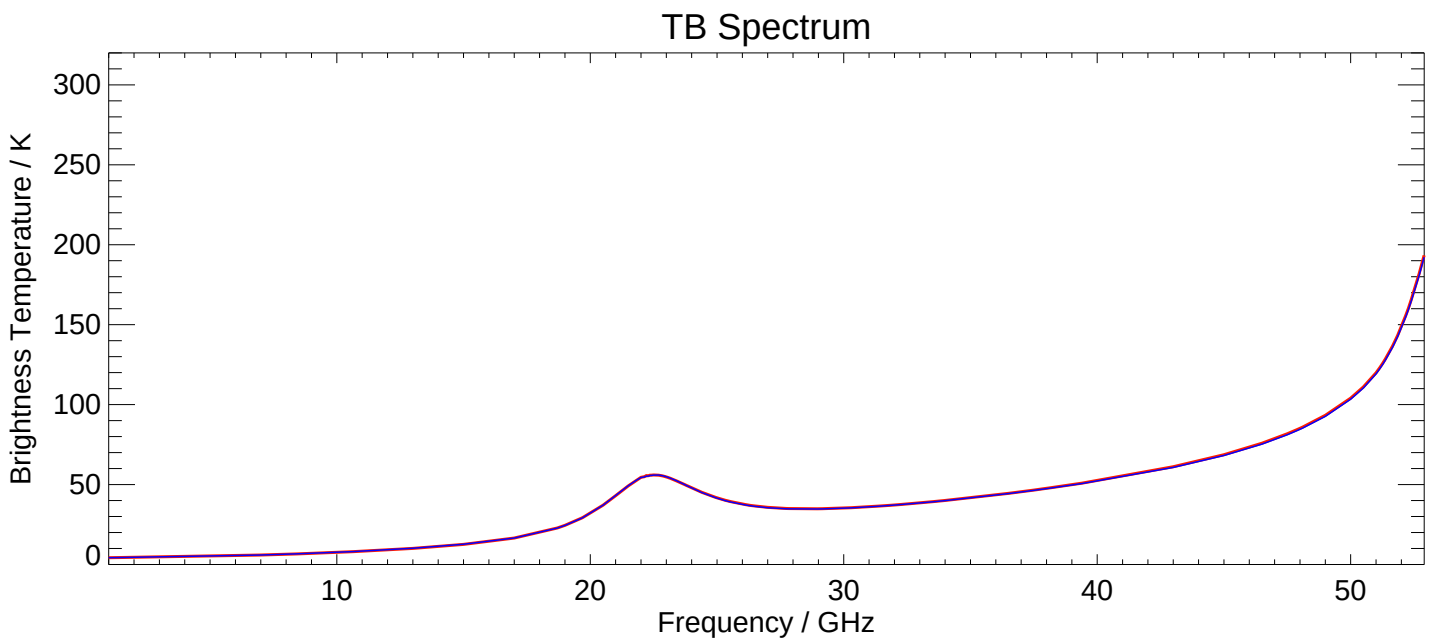
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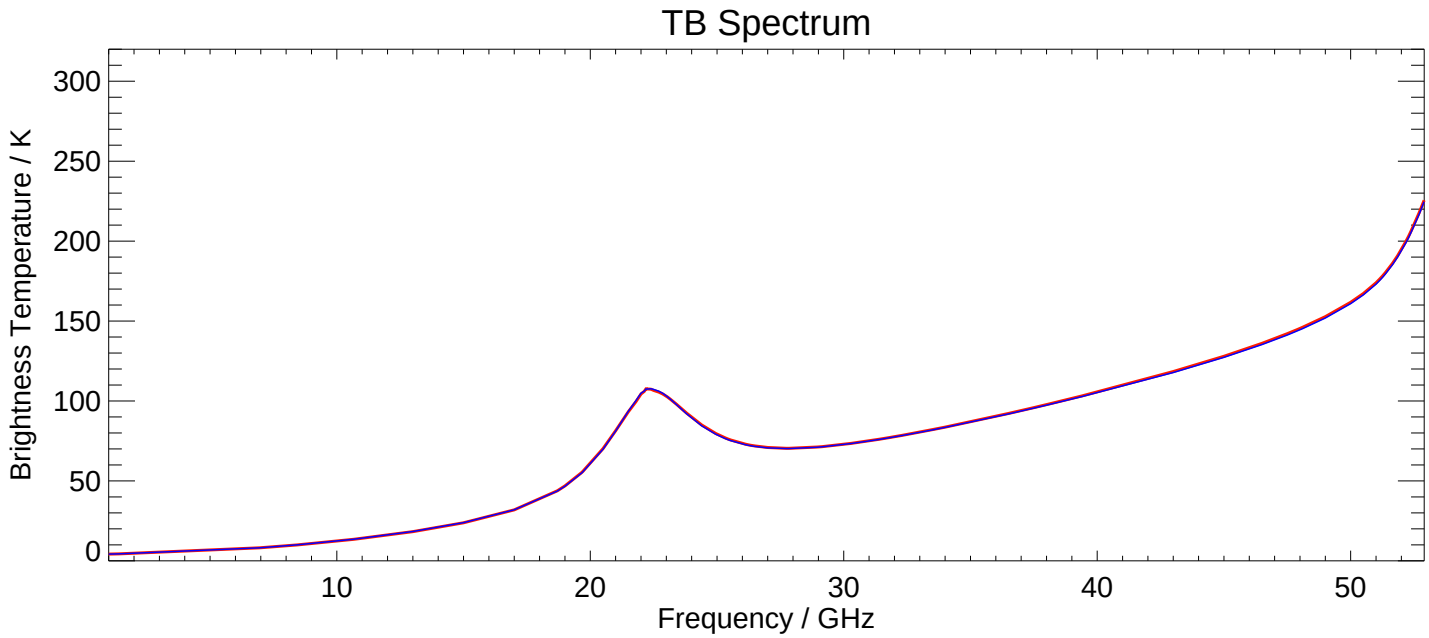
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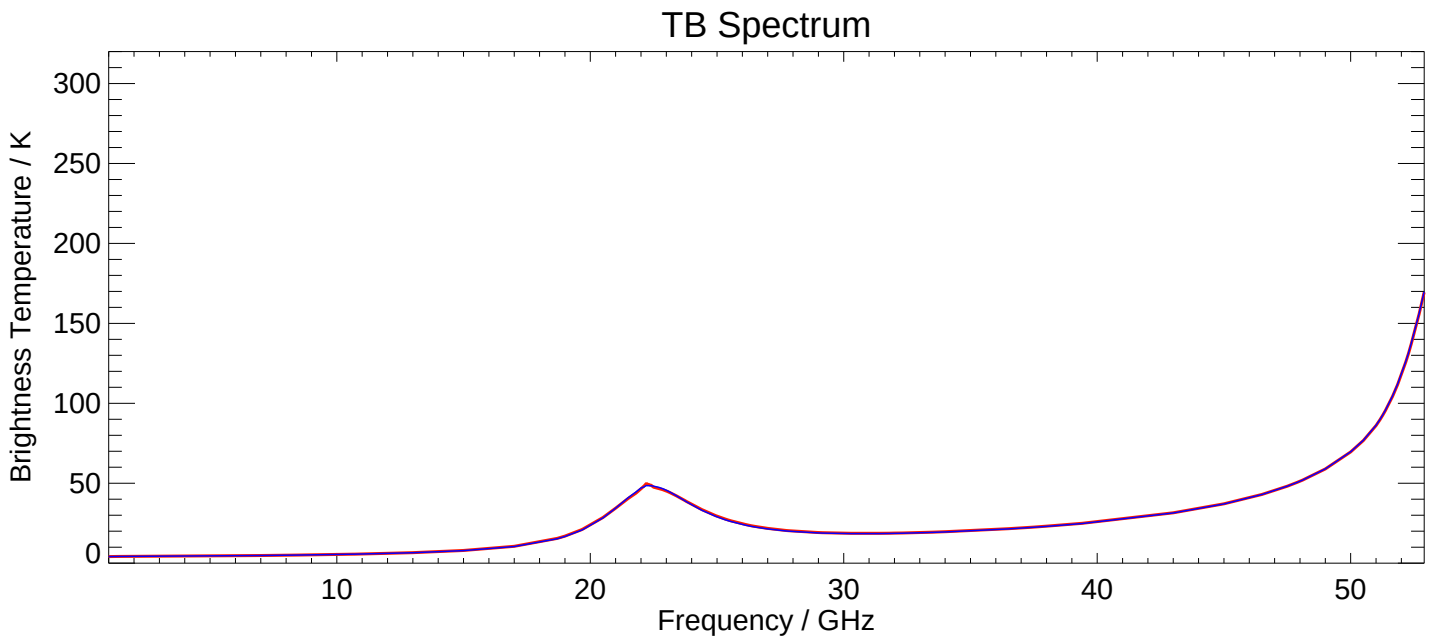
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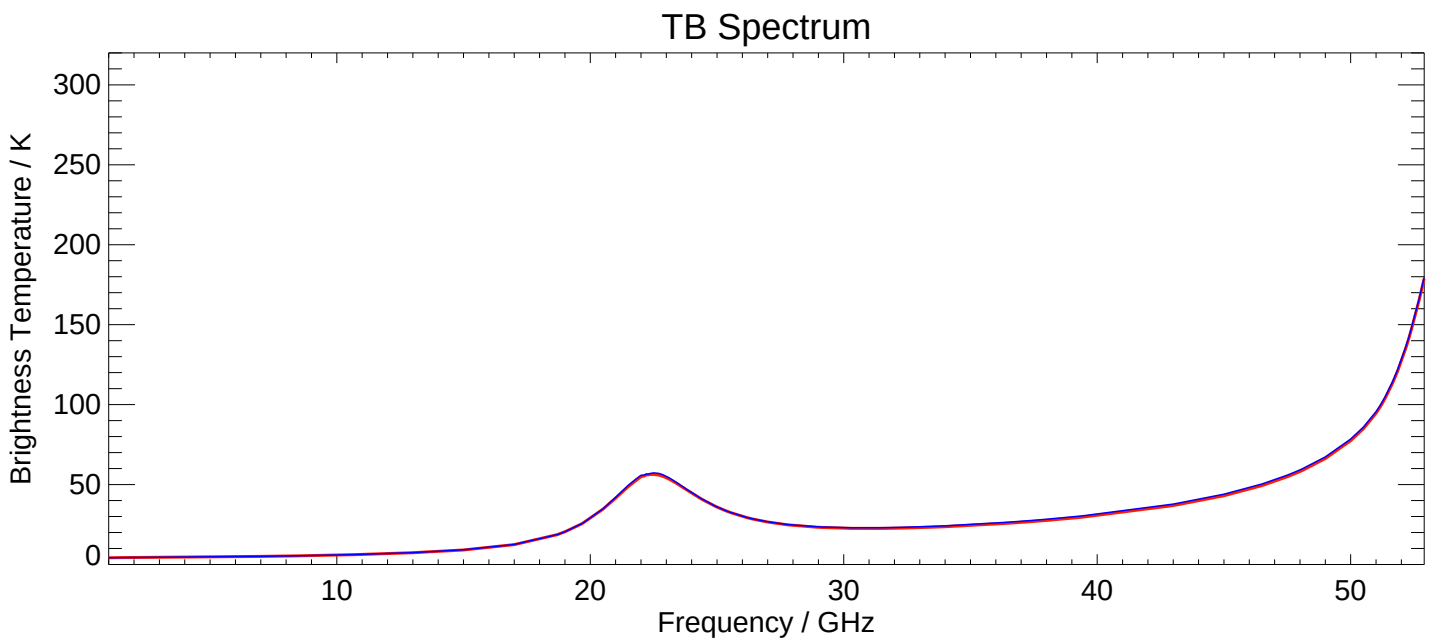
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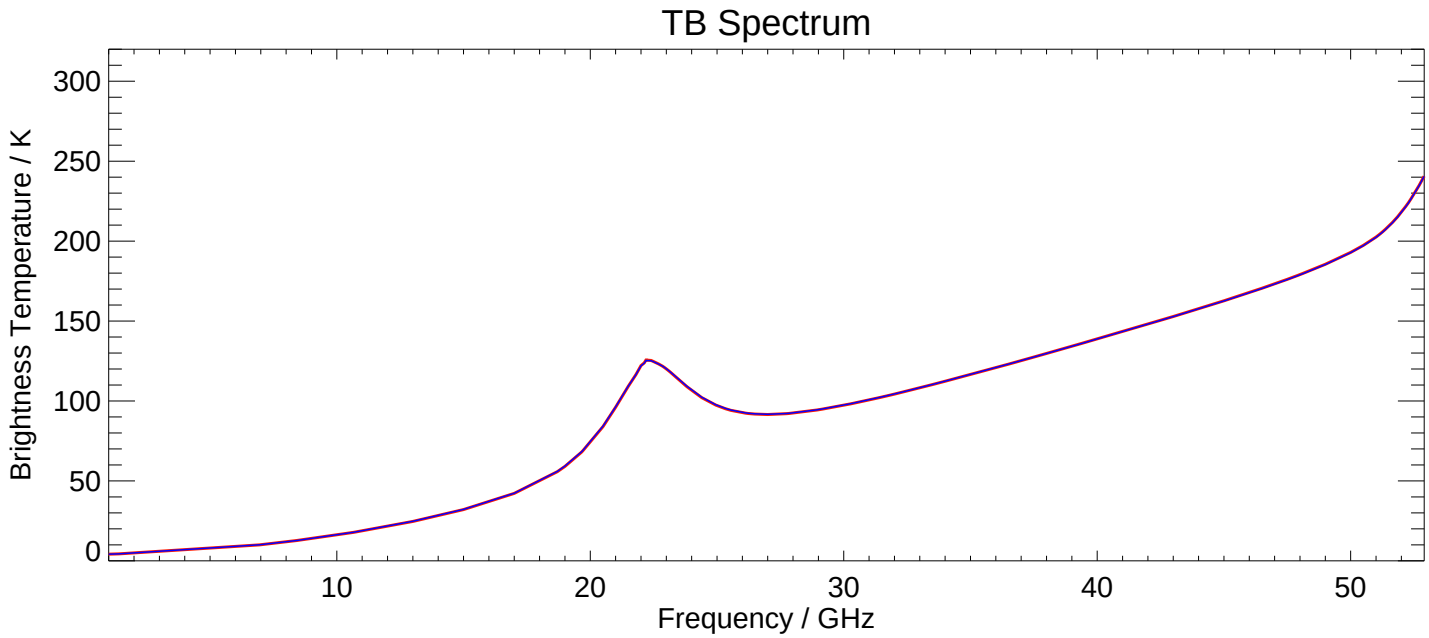
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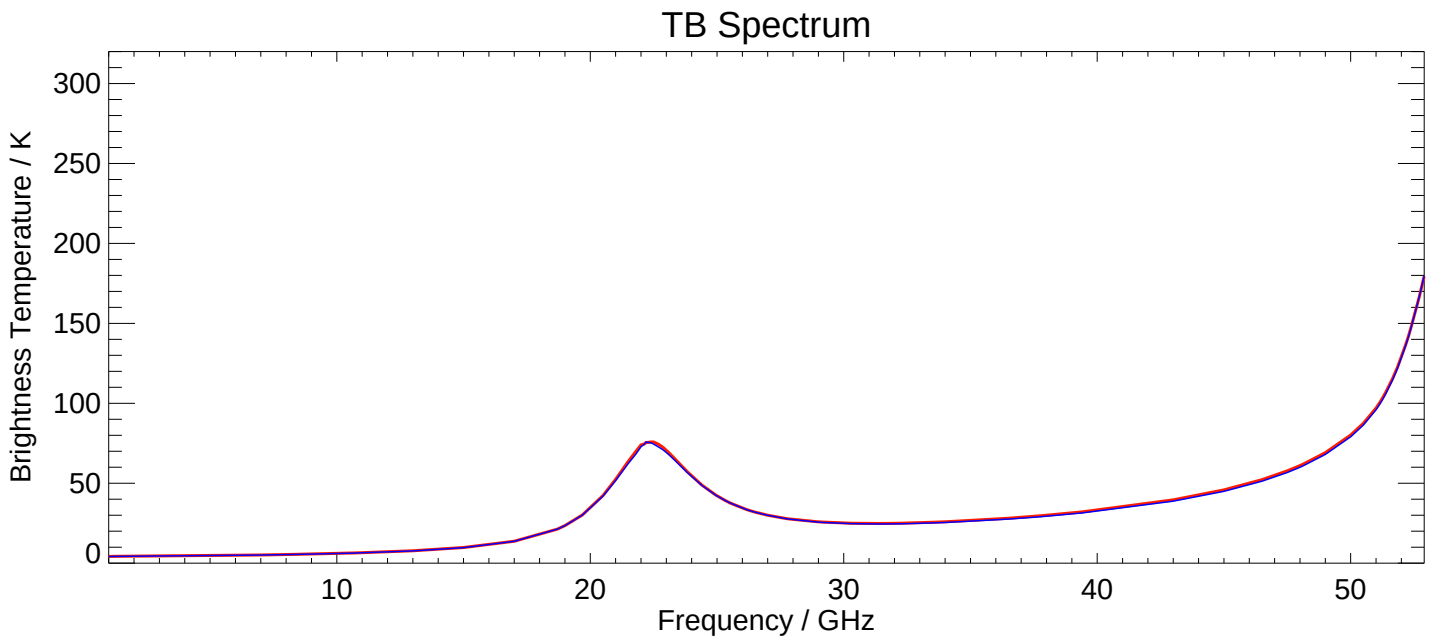
Frequency / GHz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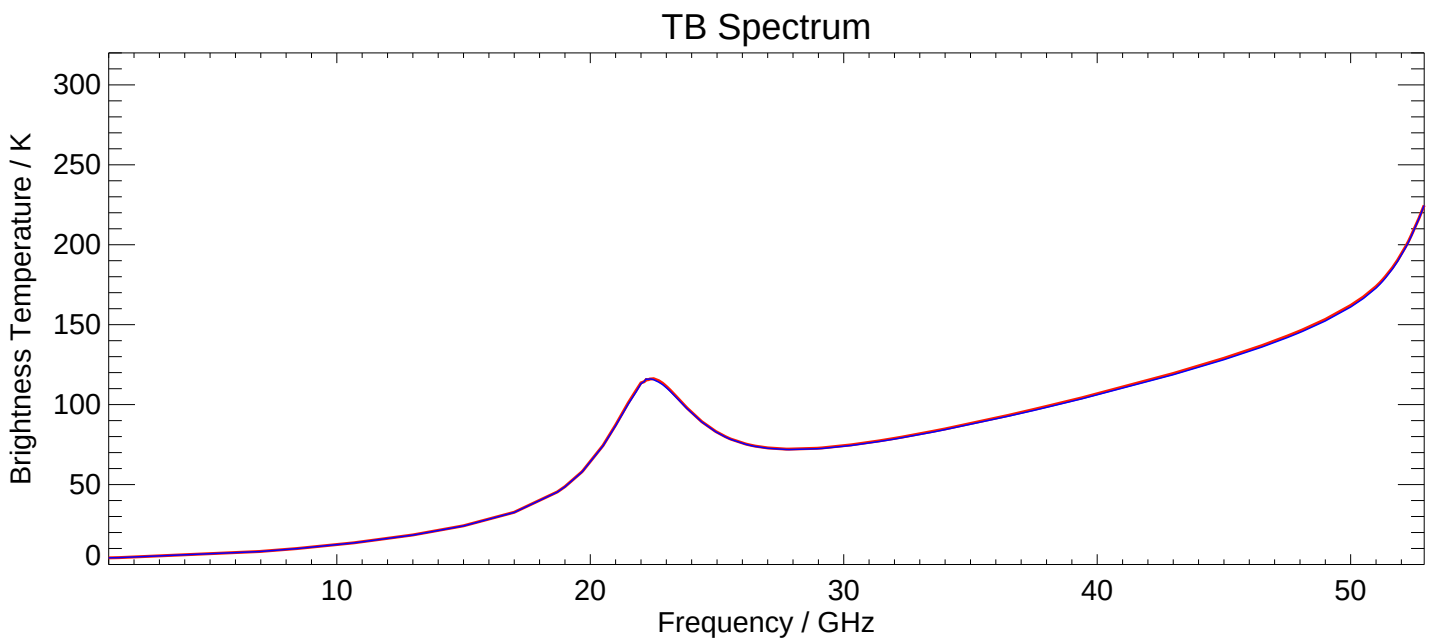
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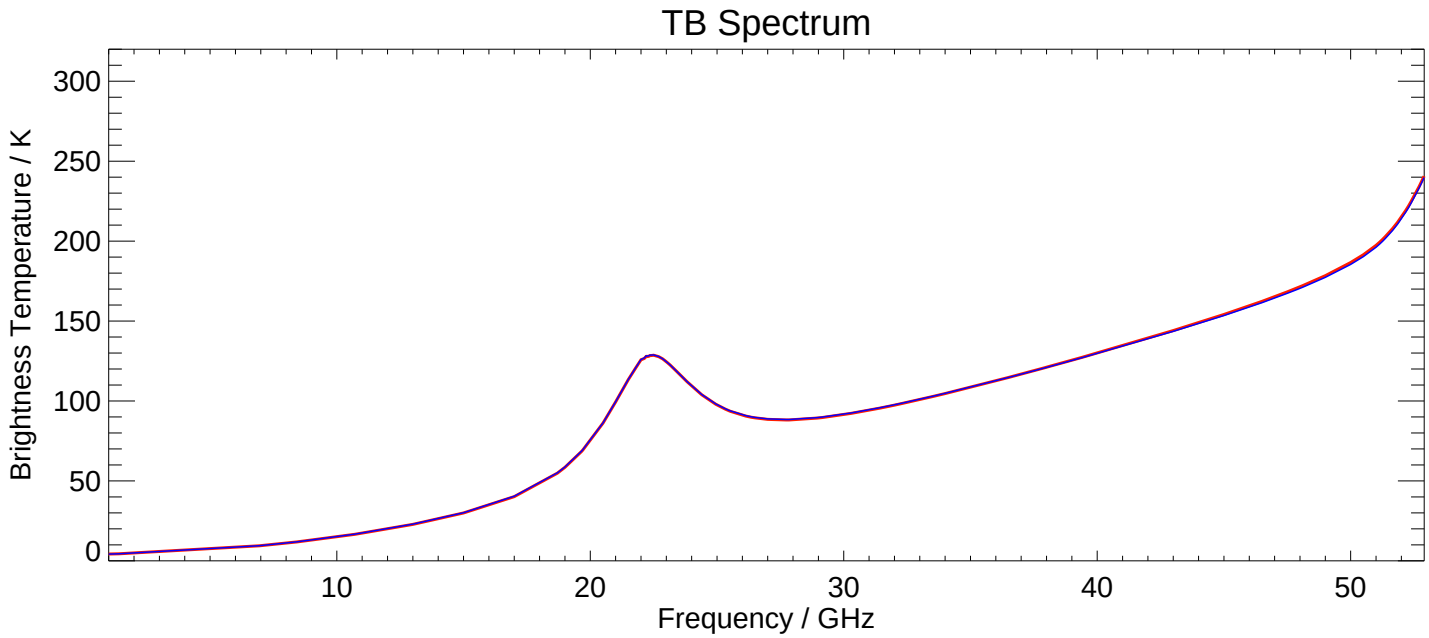
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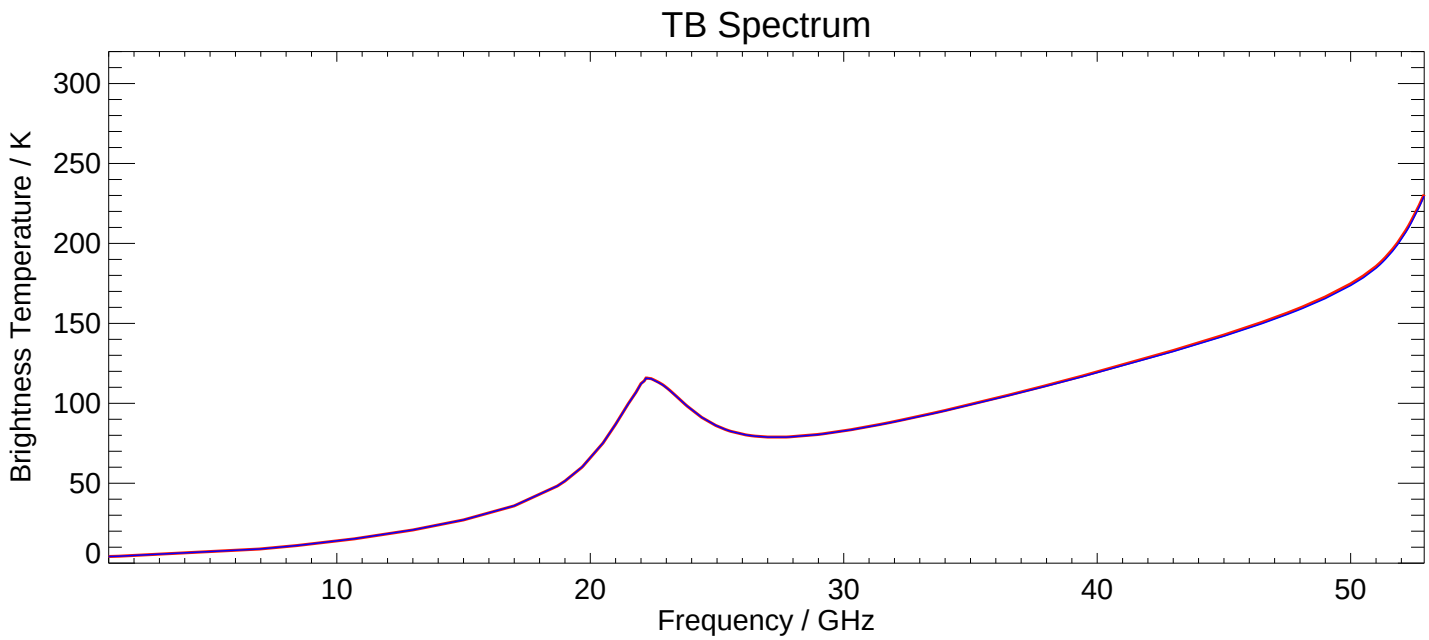
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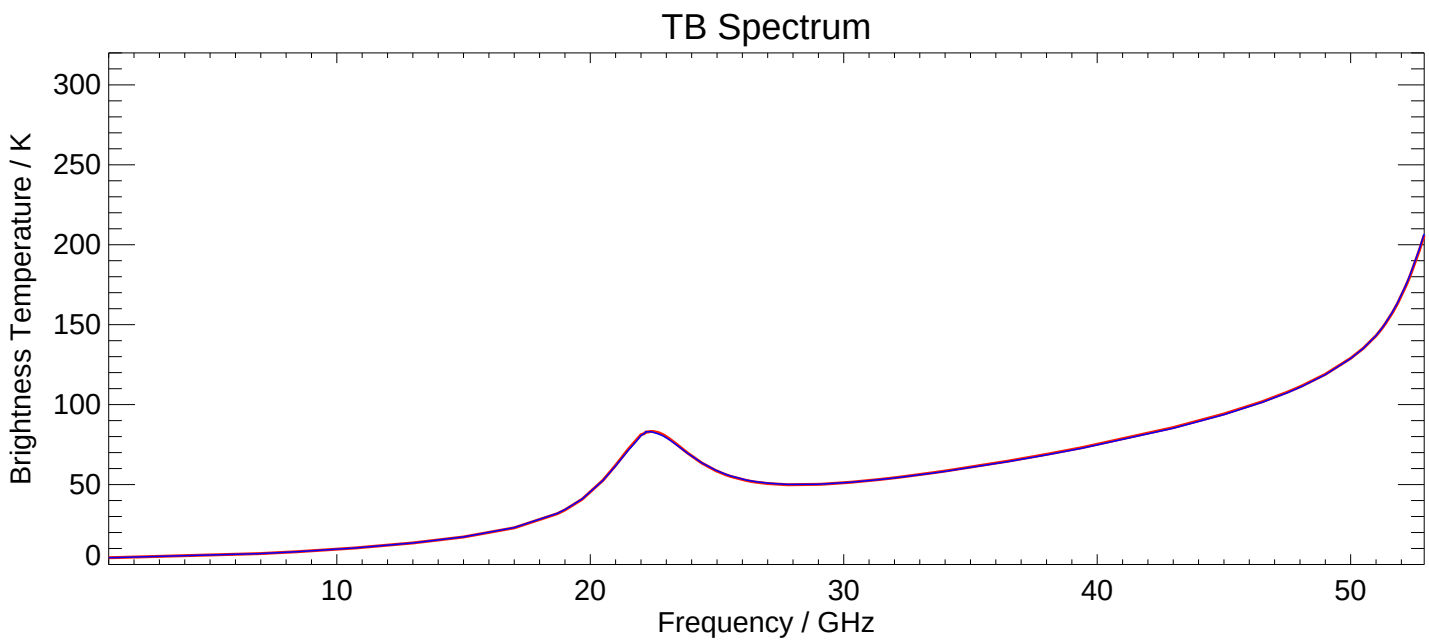
Frequency / GHz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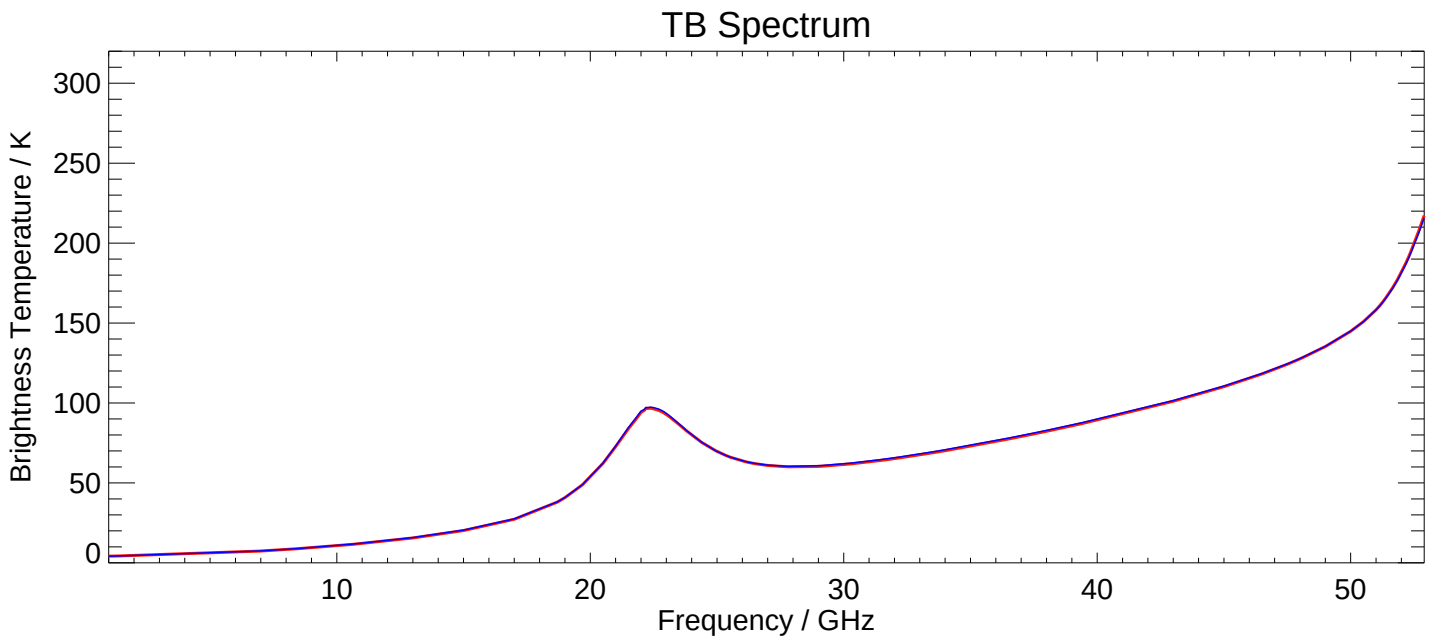
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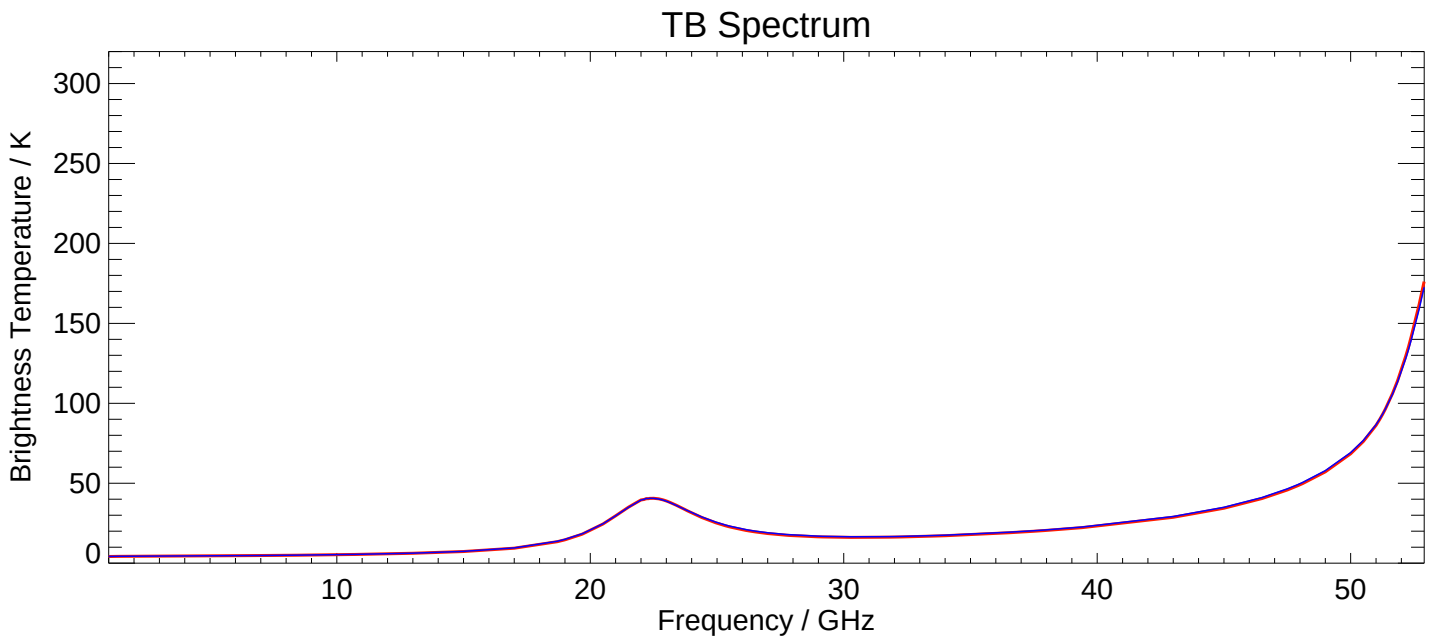
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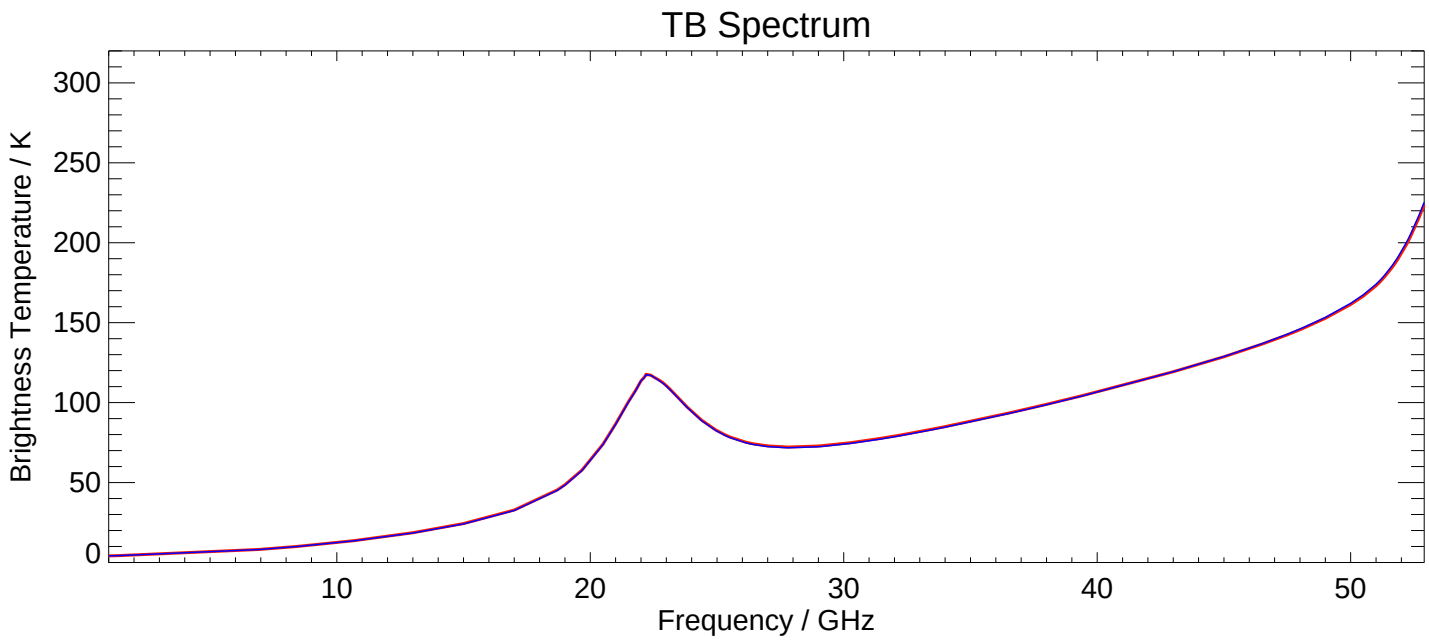
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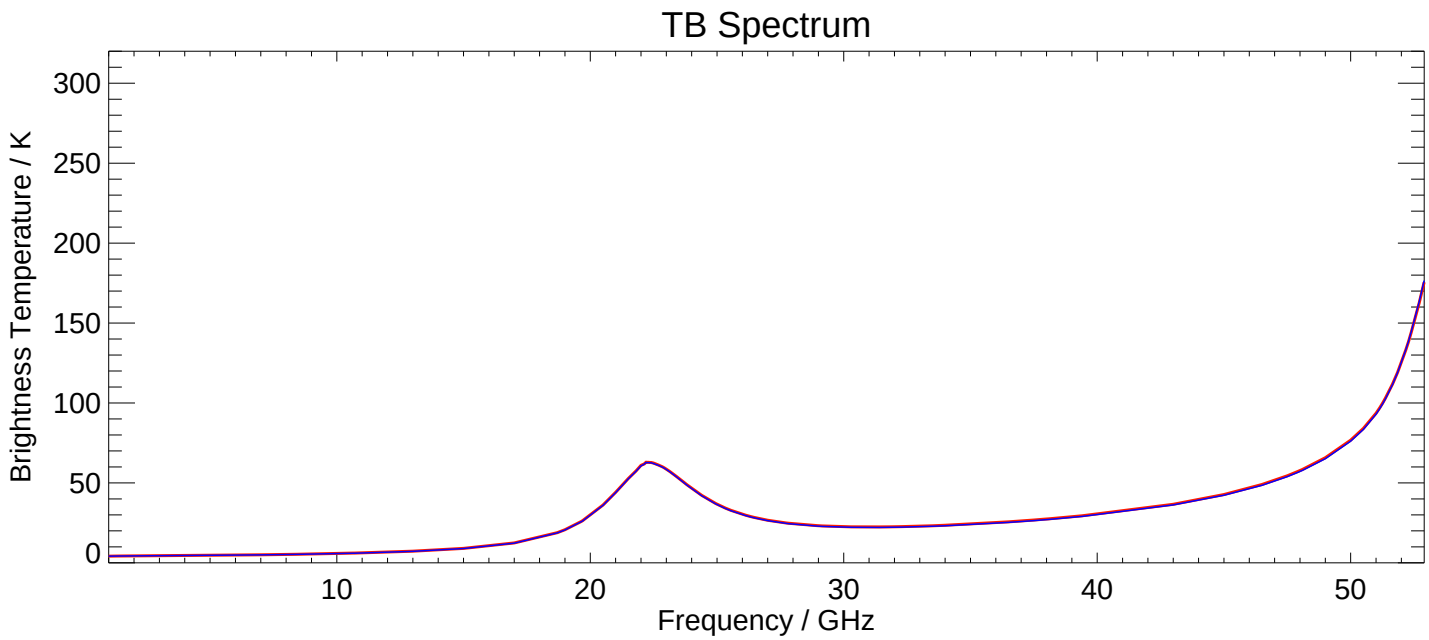
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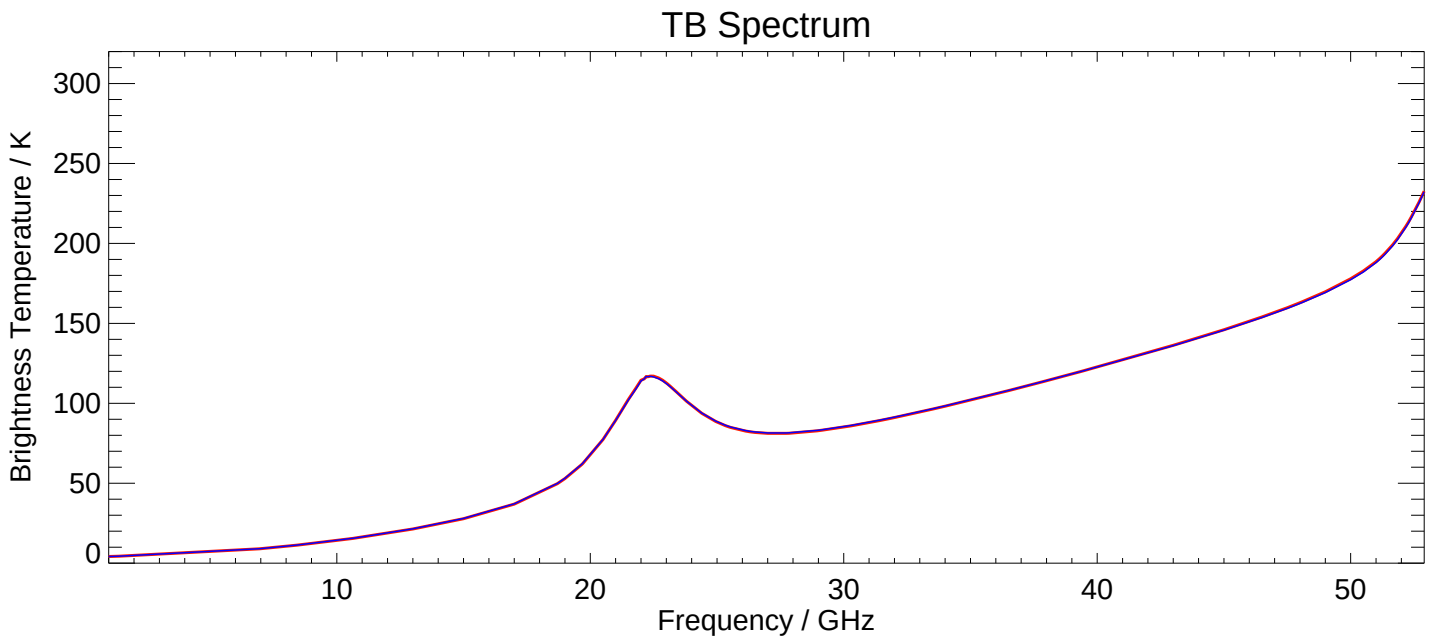
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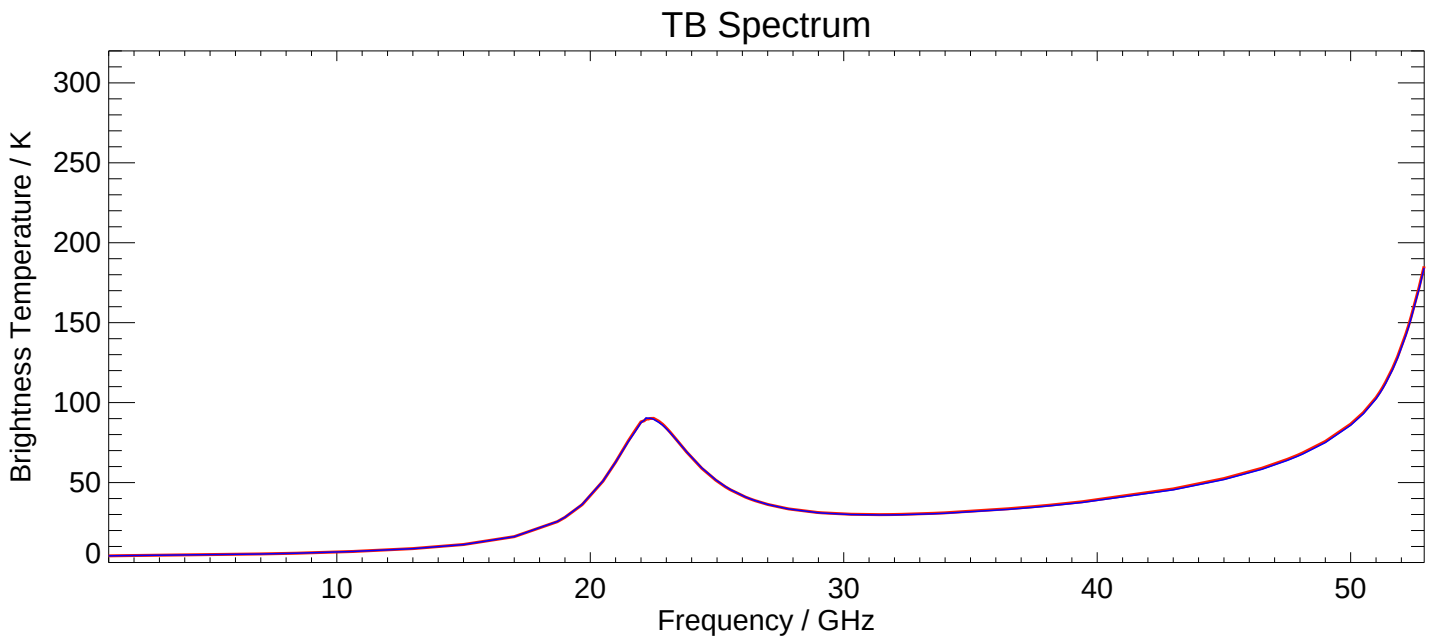
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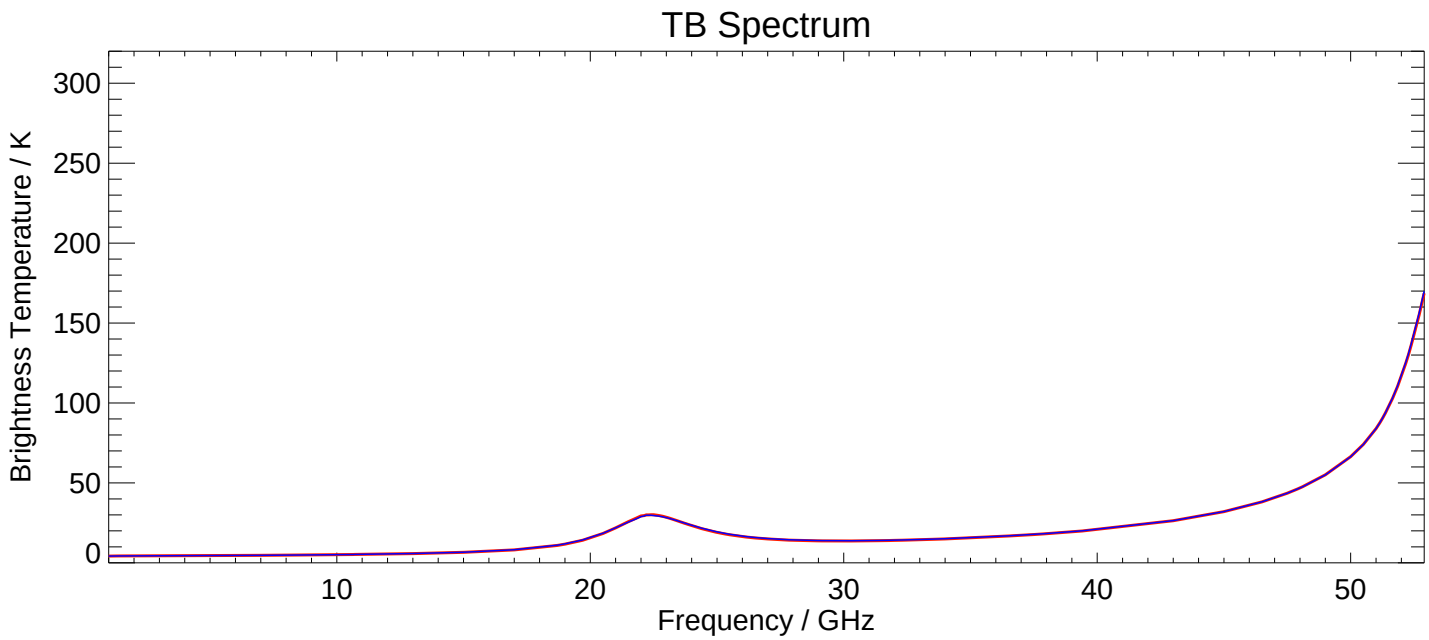
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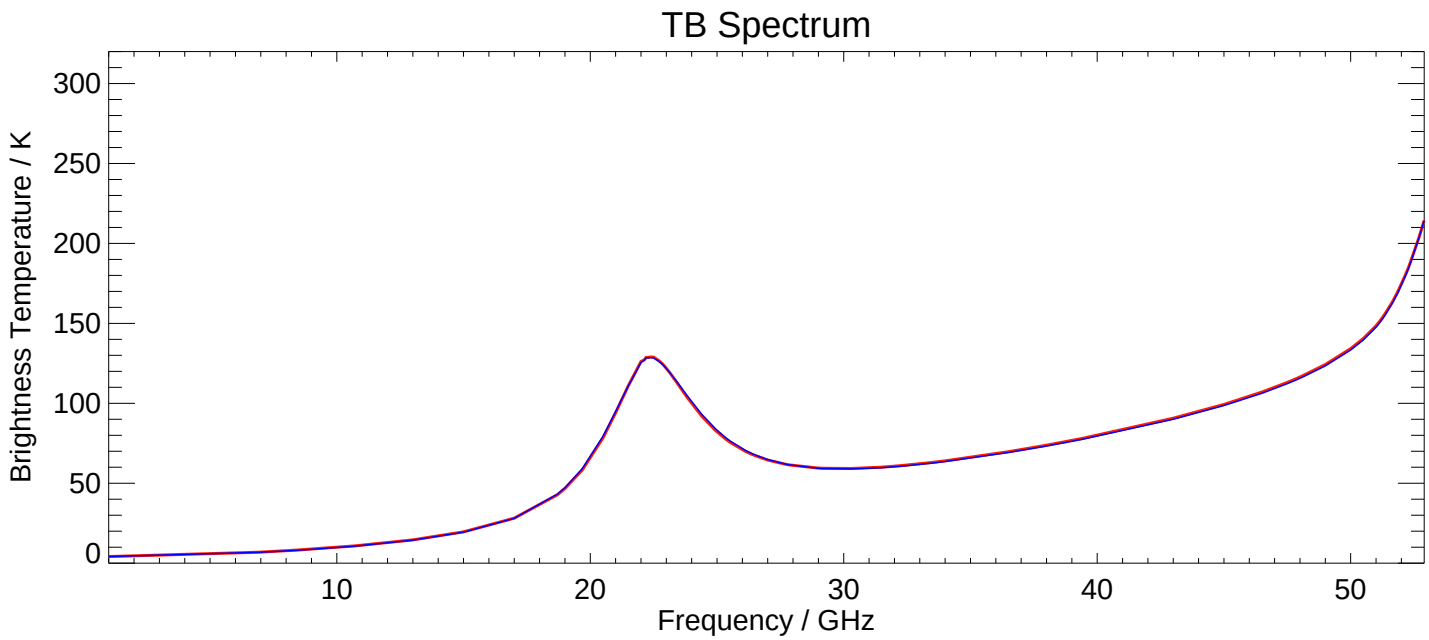
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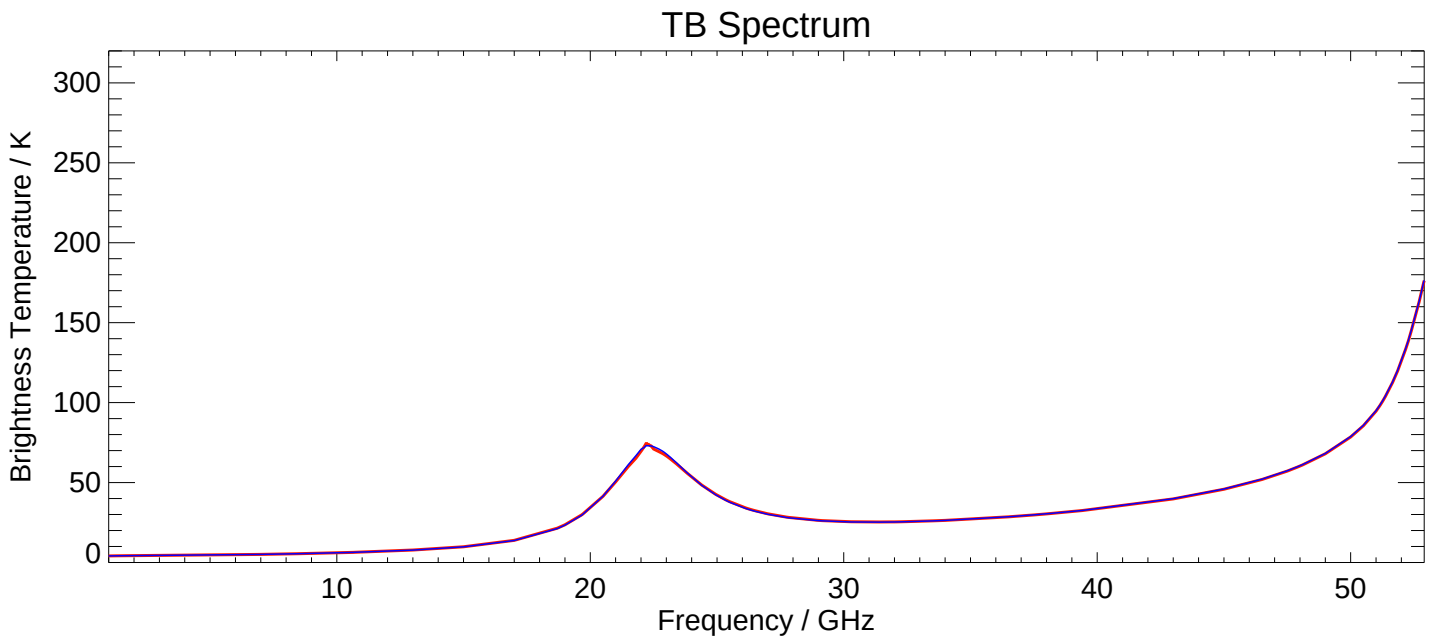
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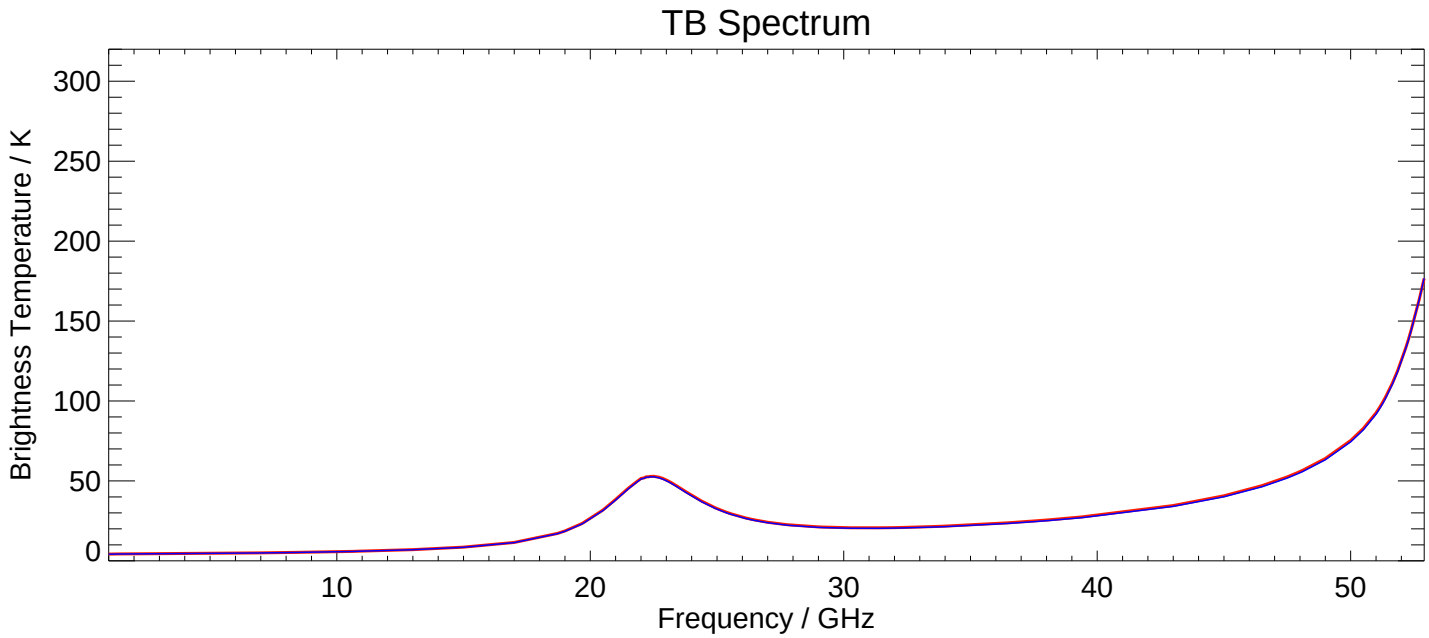
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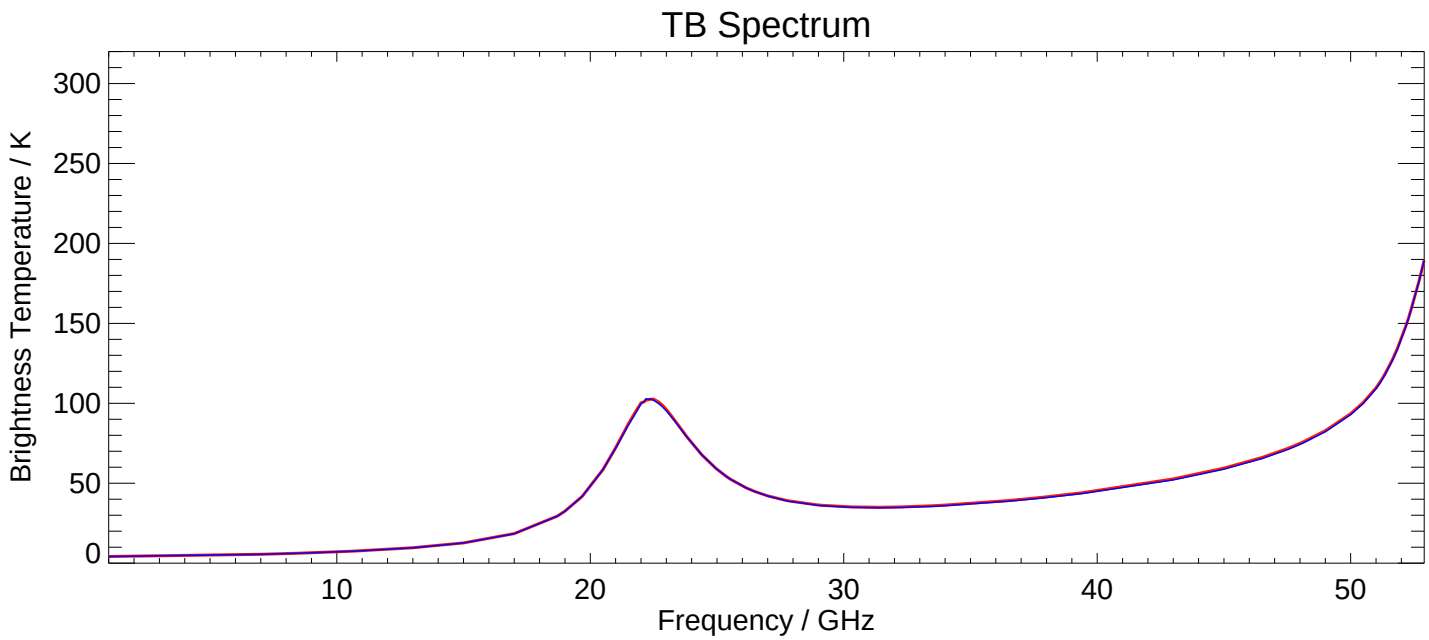
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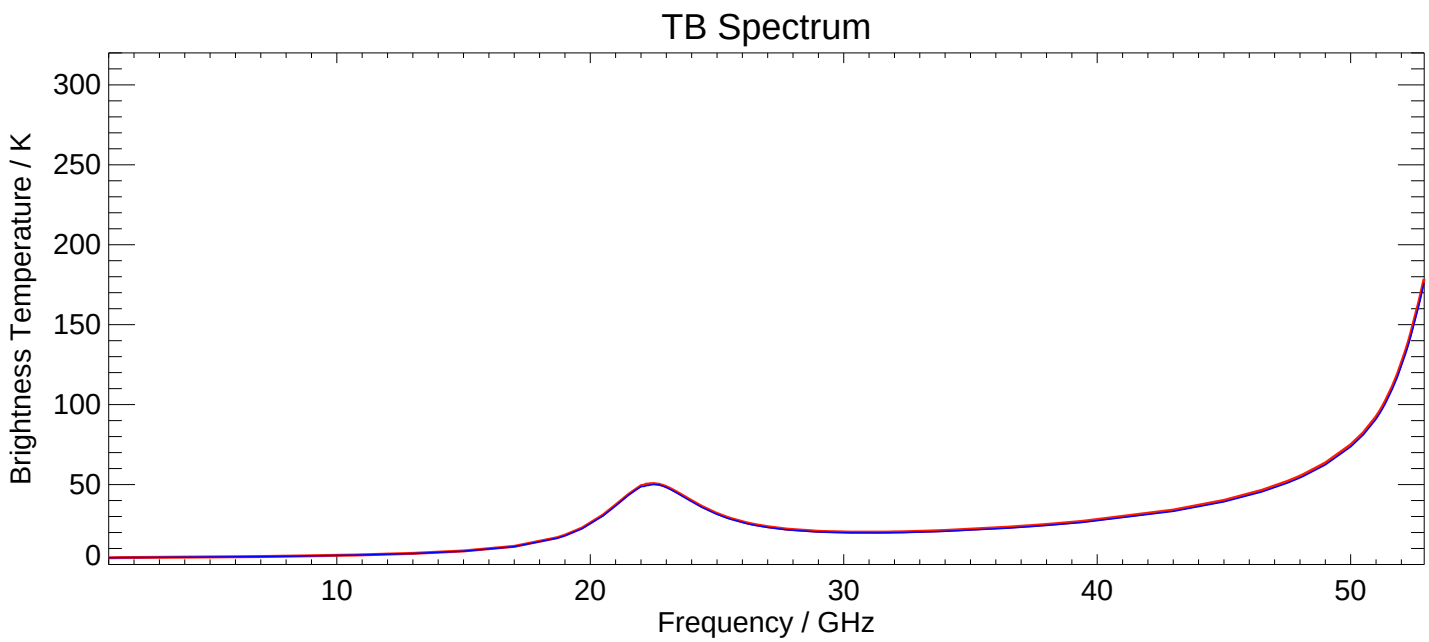
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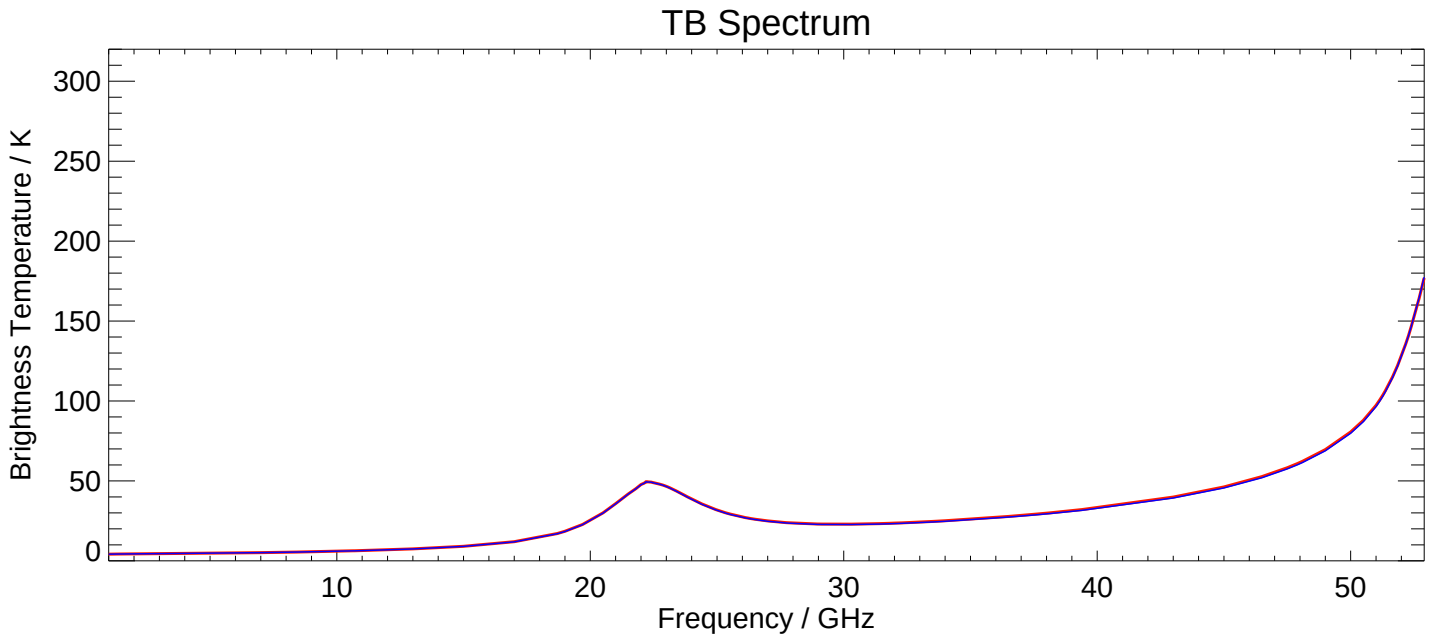
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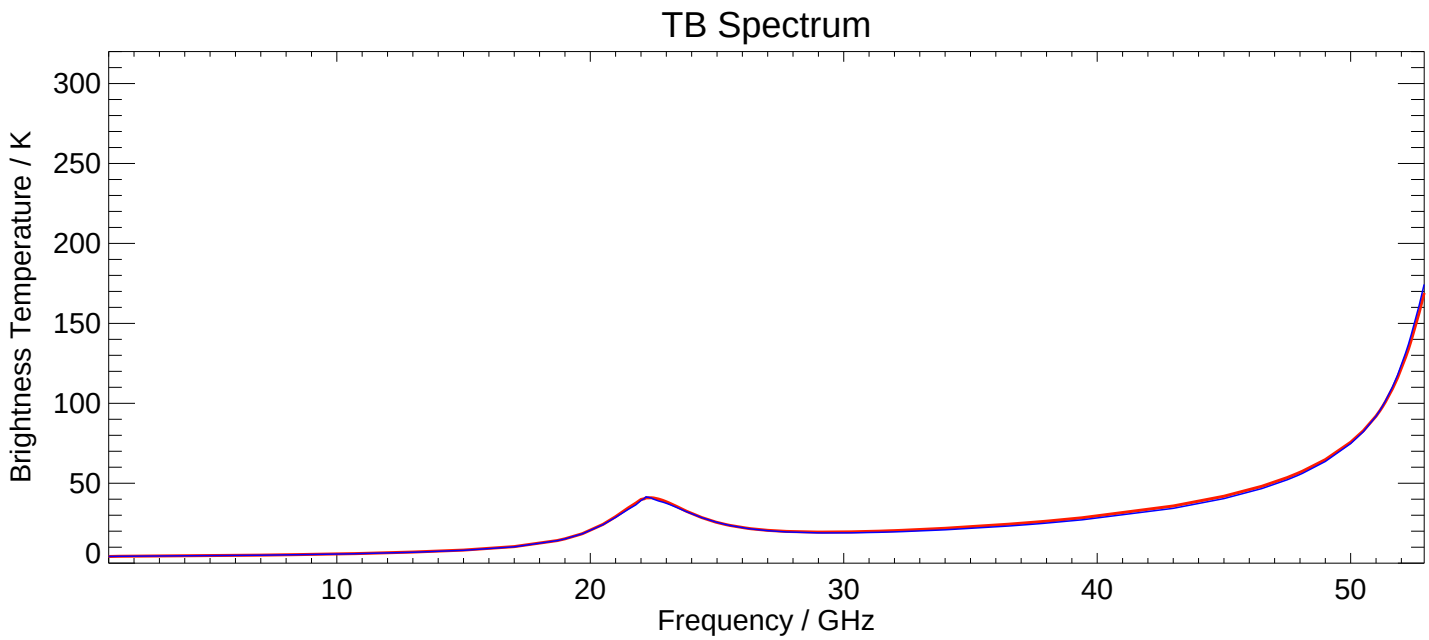
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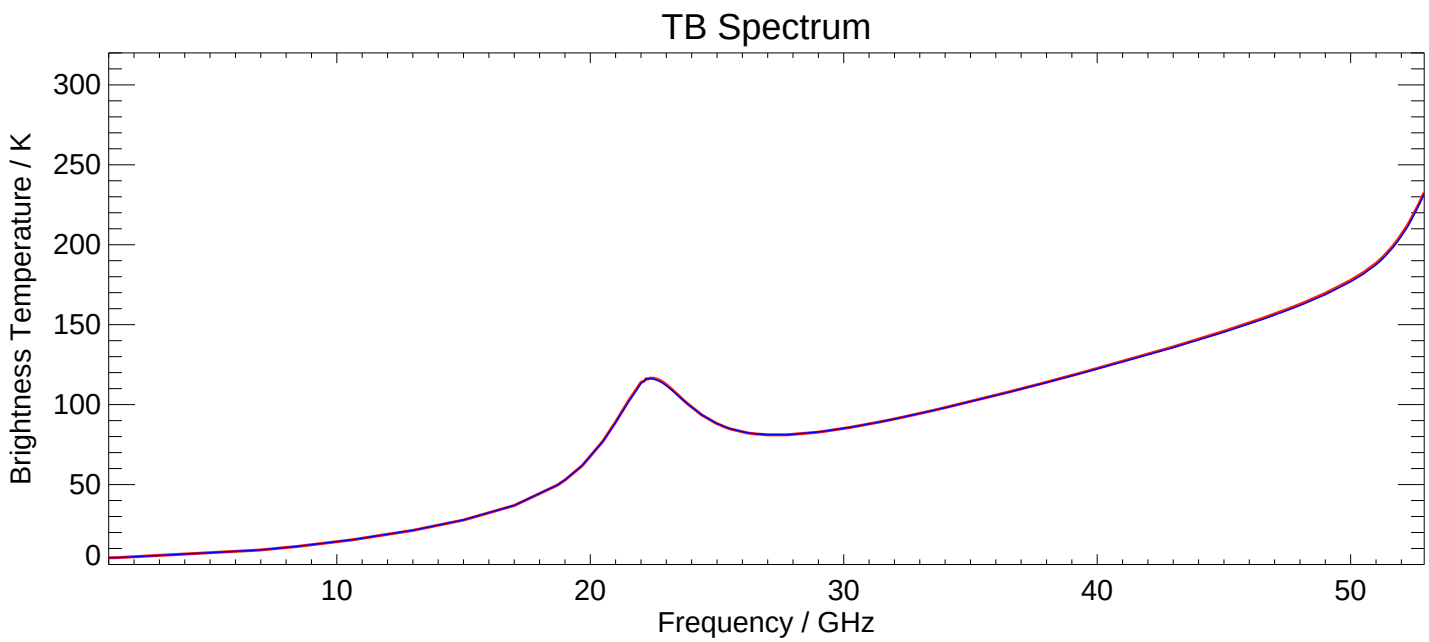
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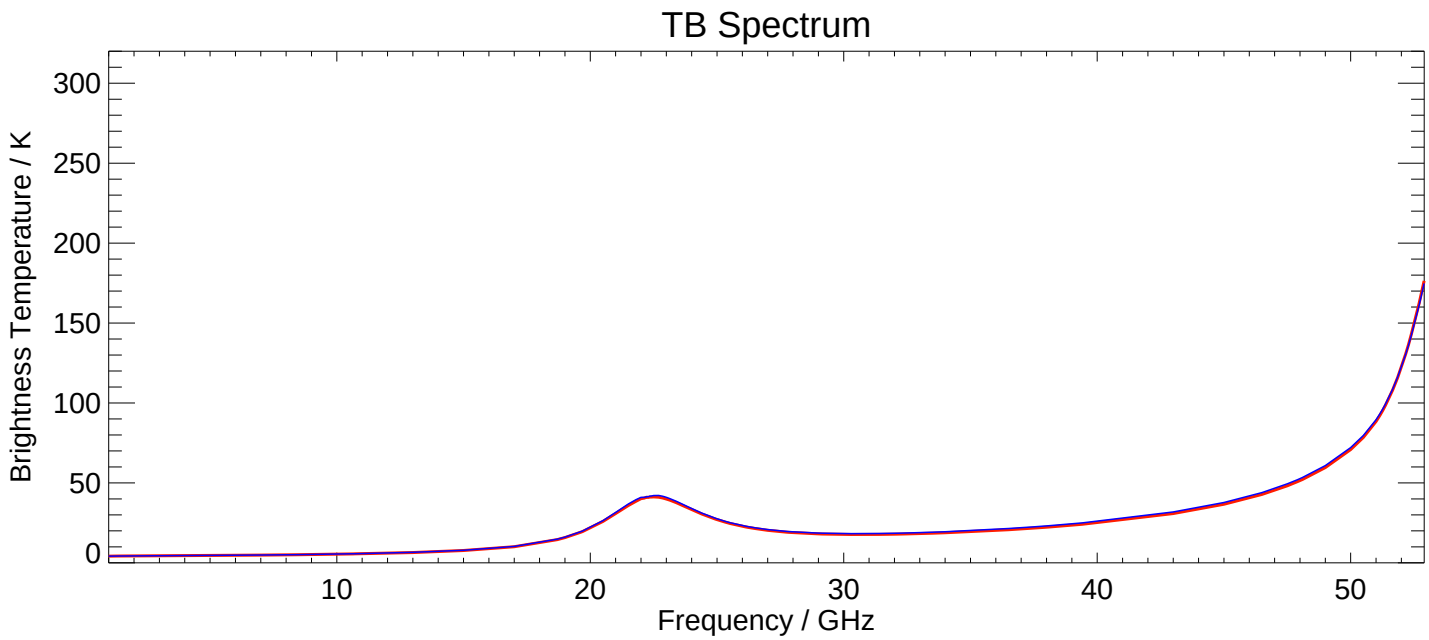
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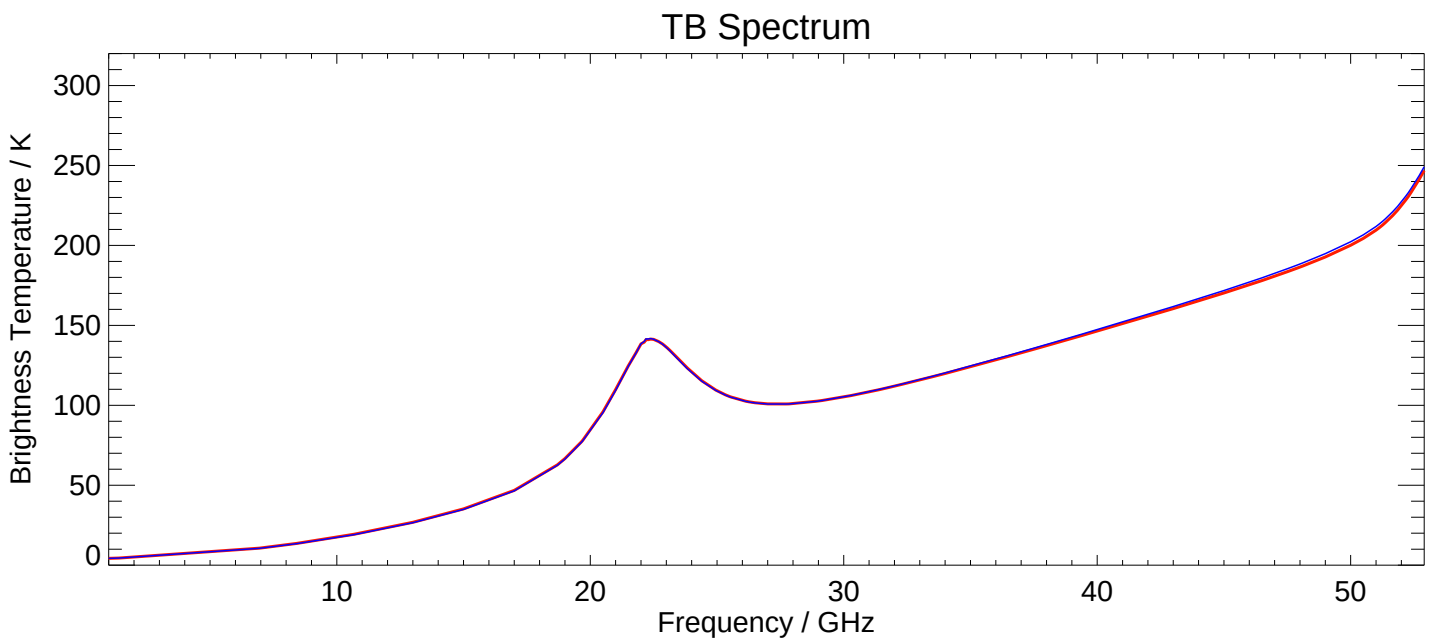
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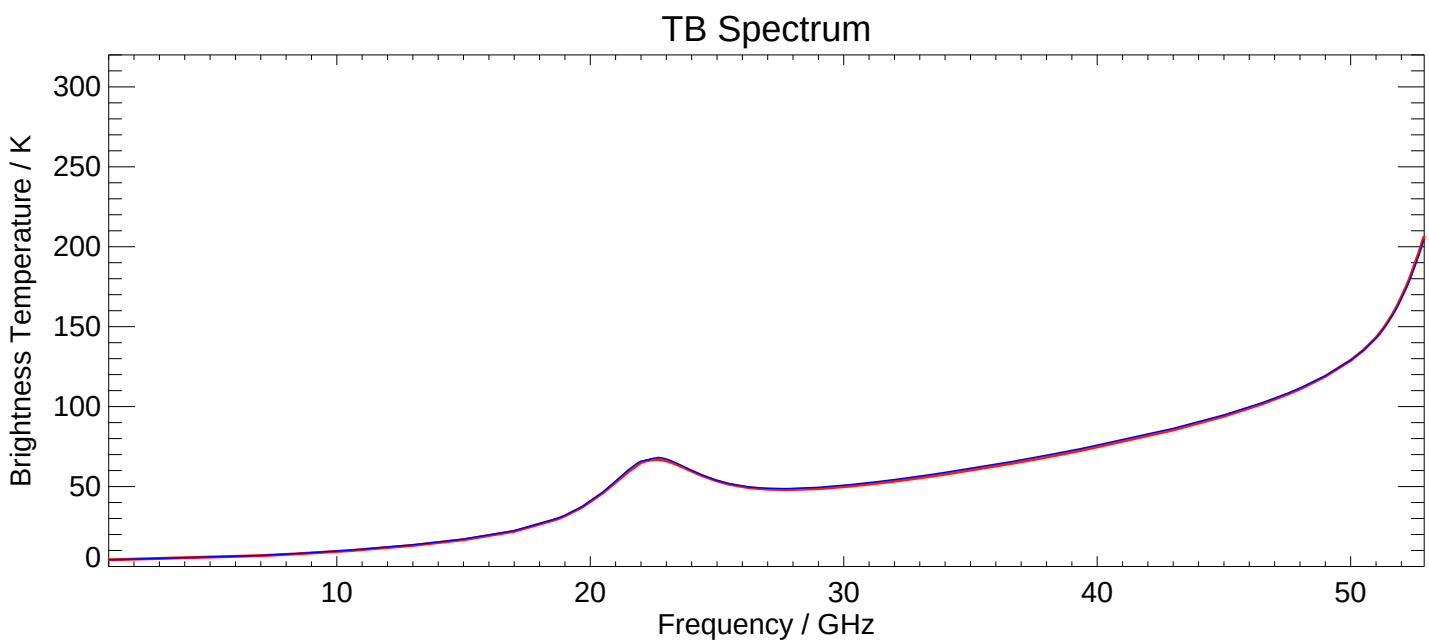
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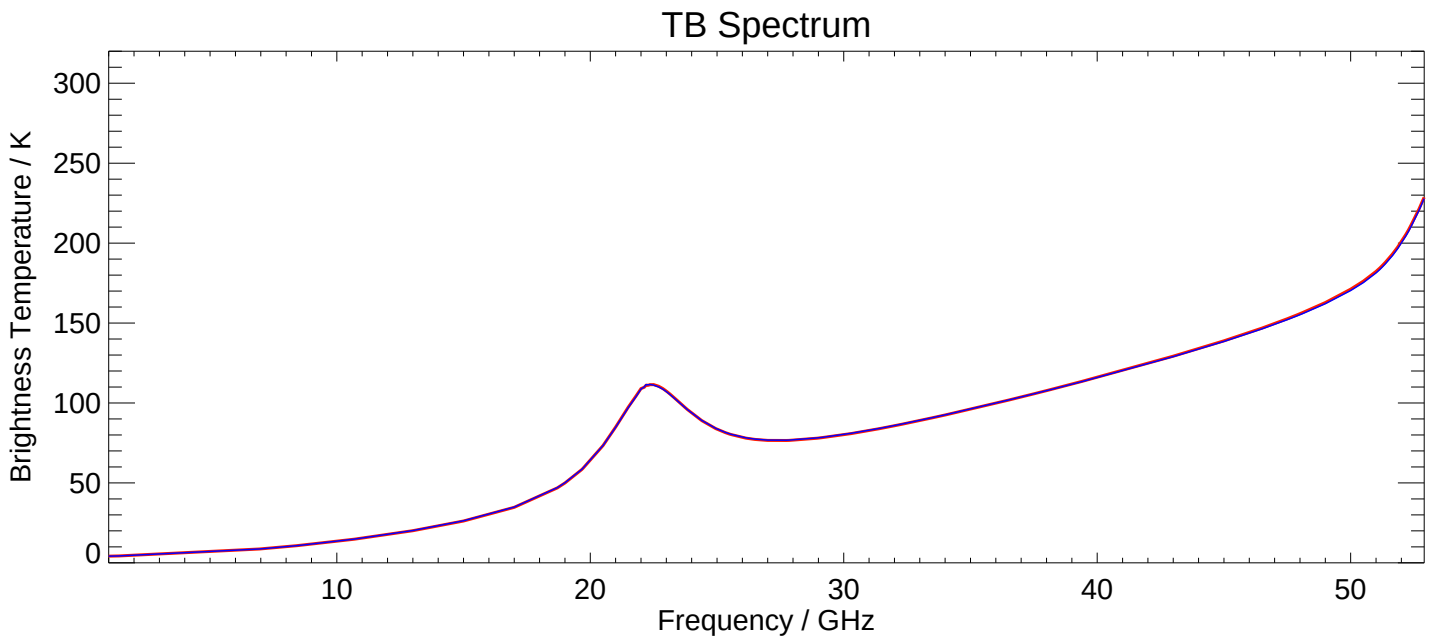
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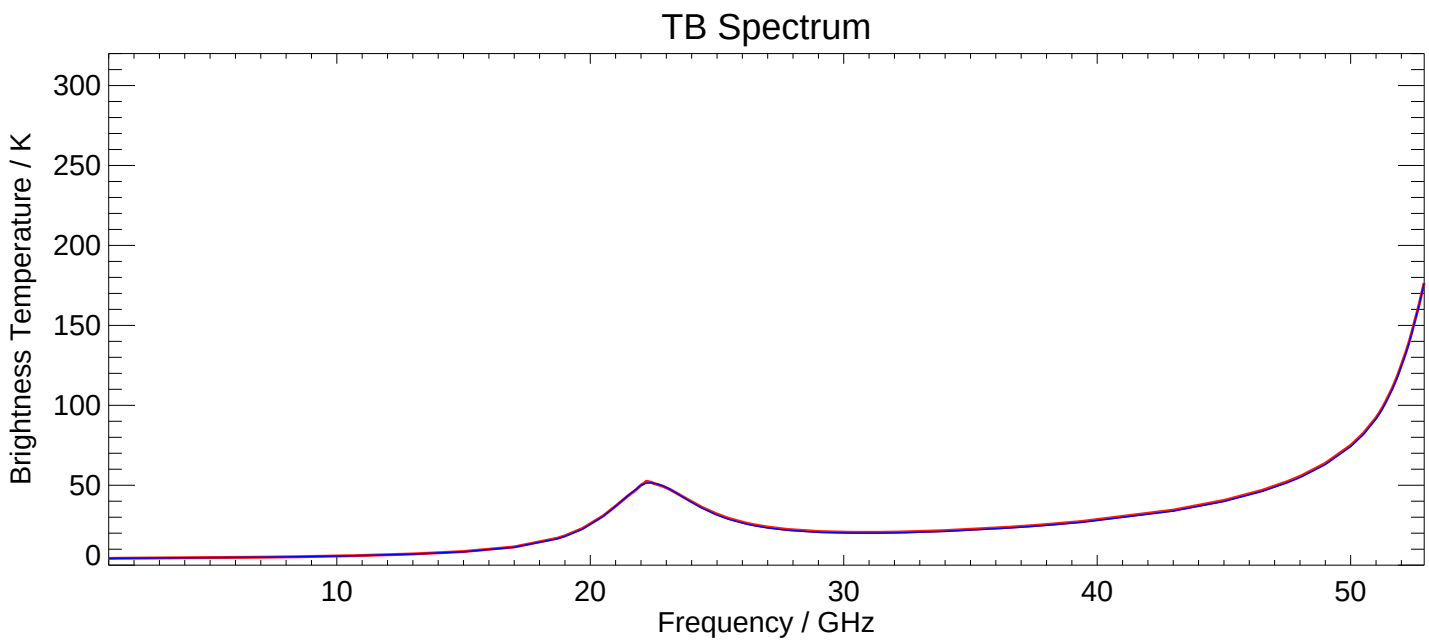
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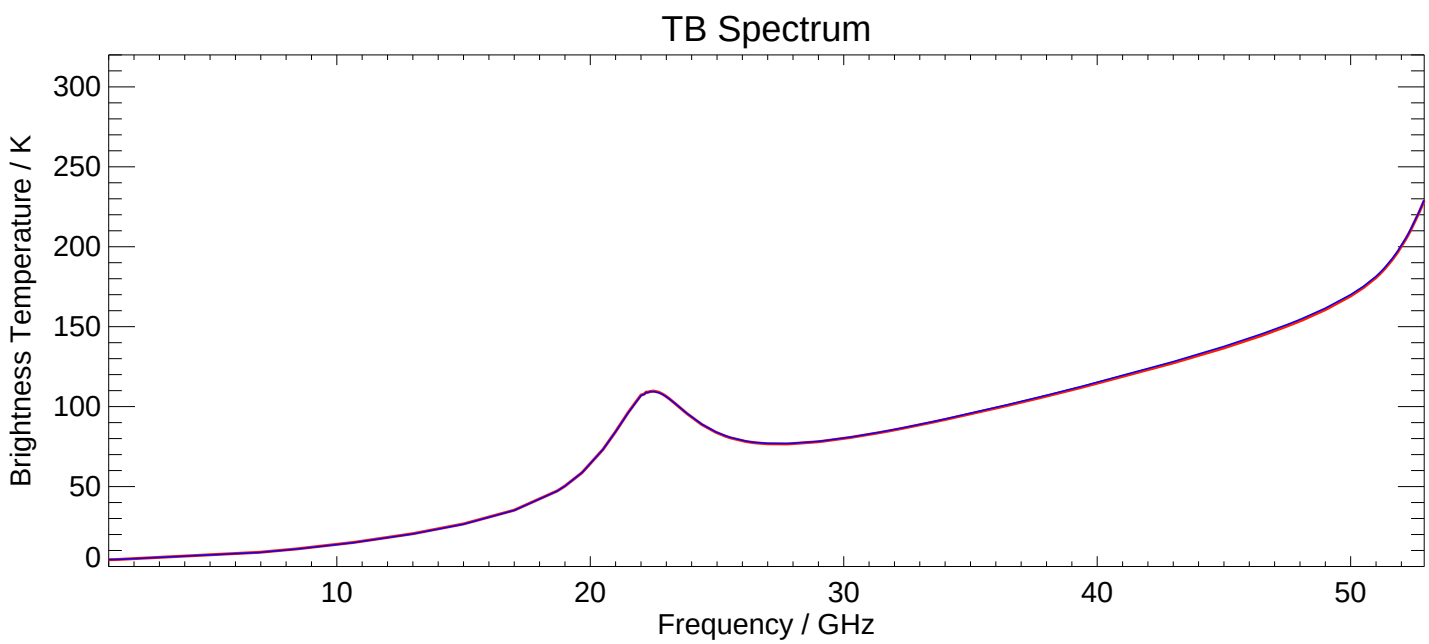
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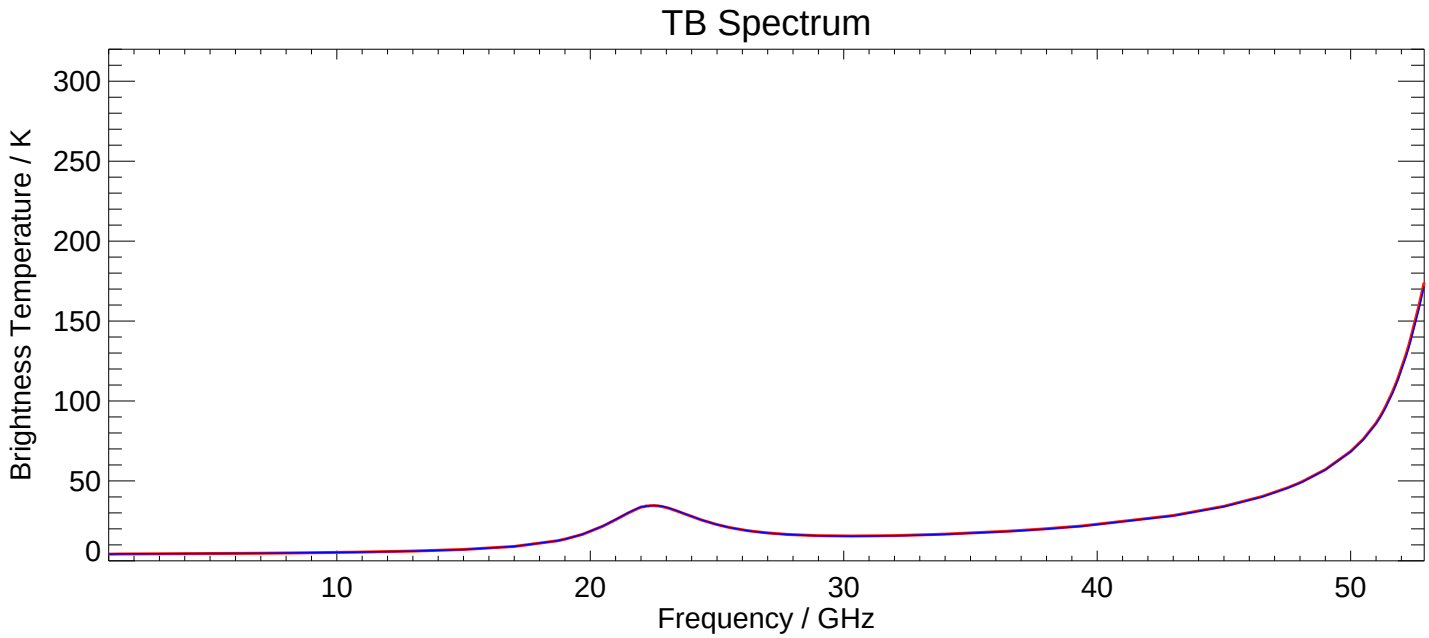
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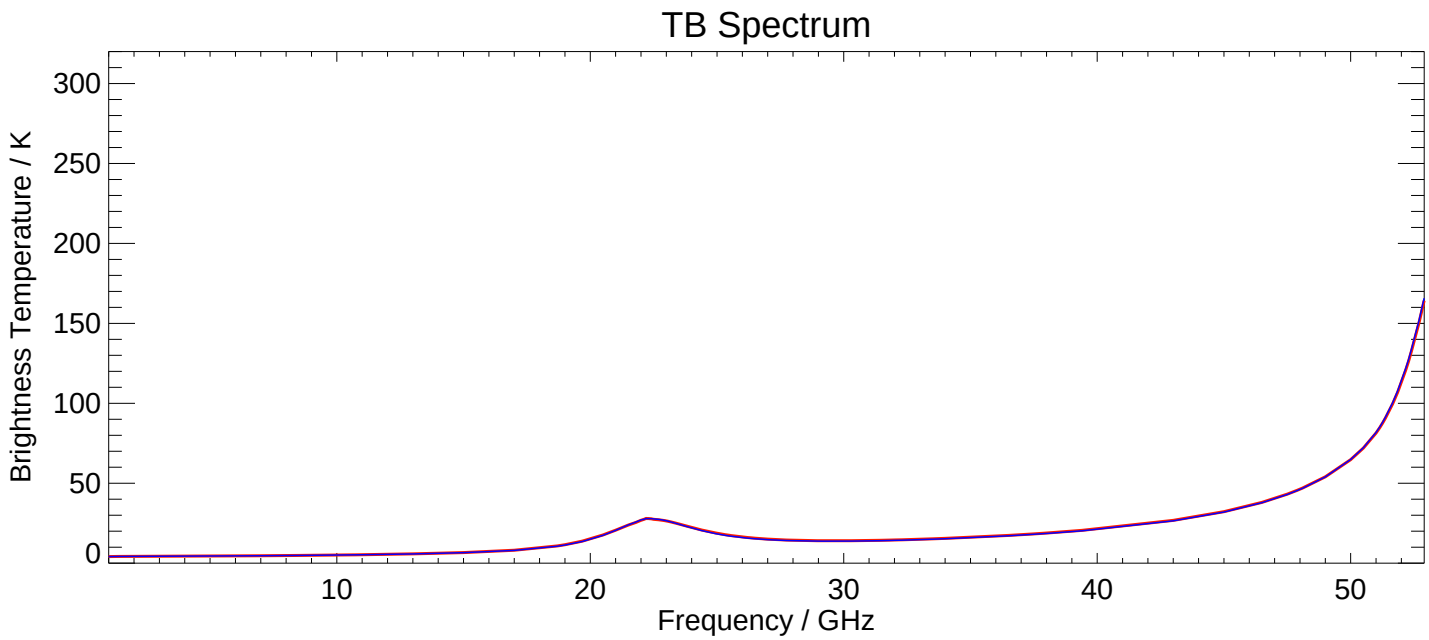
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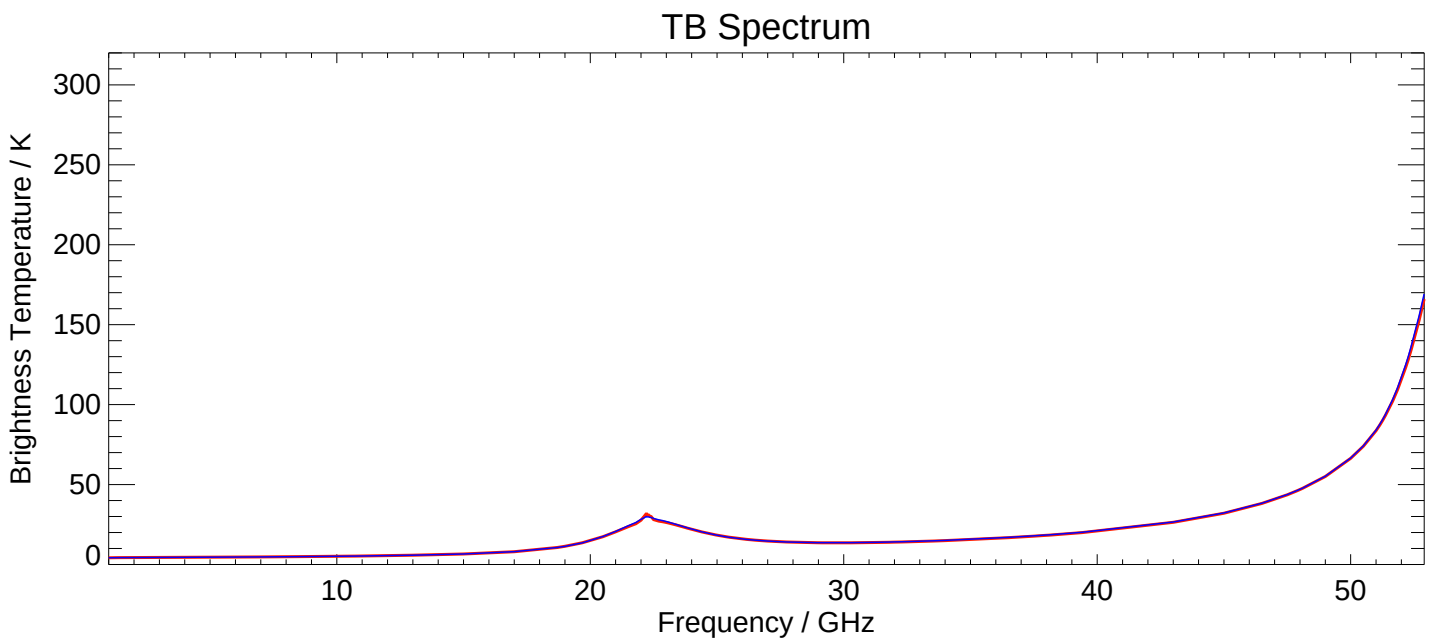
Frequency / GHz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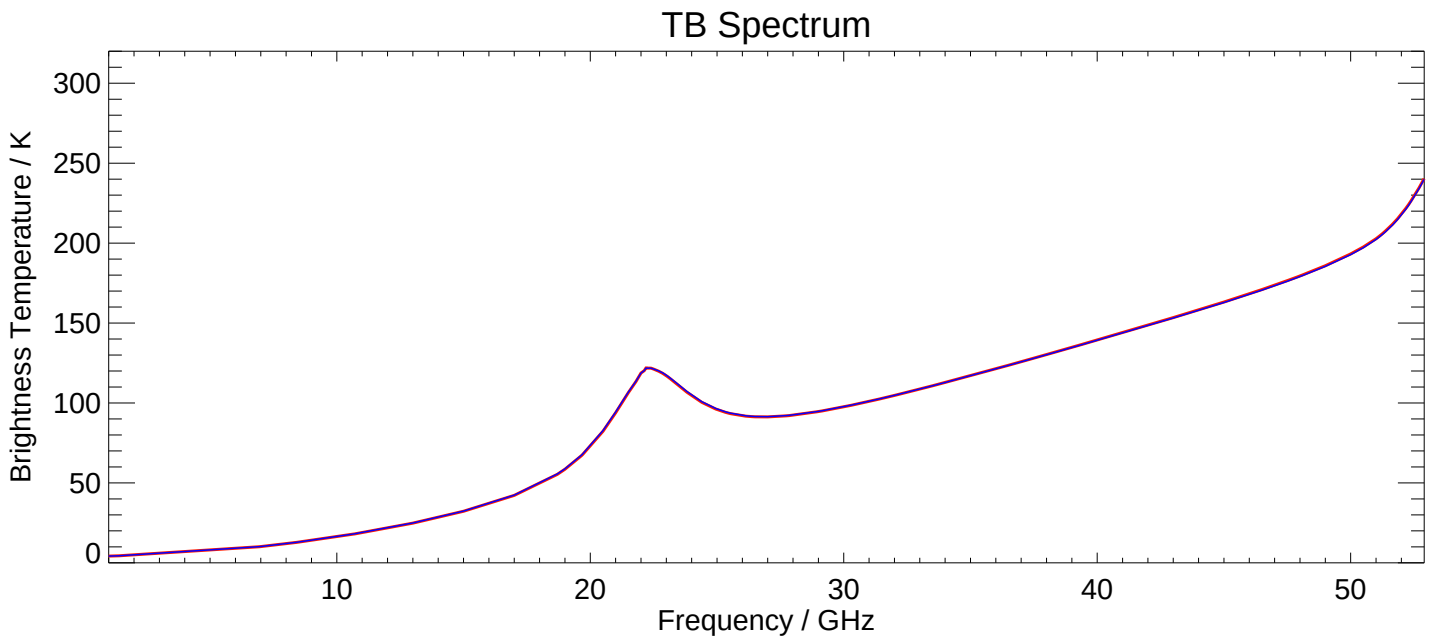
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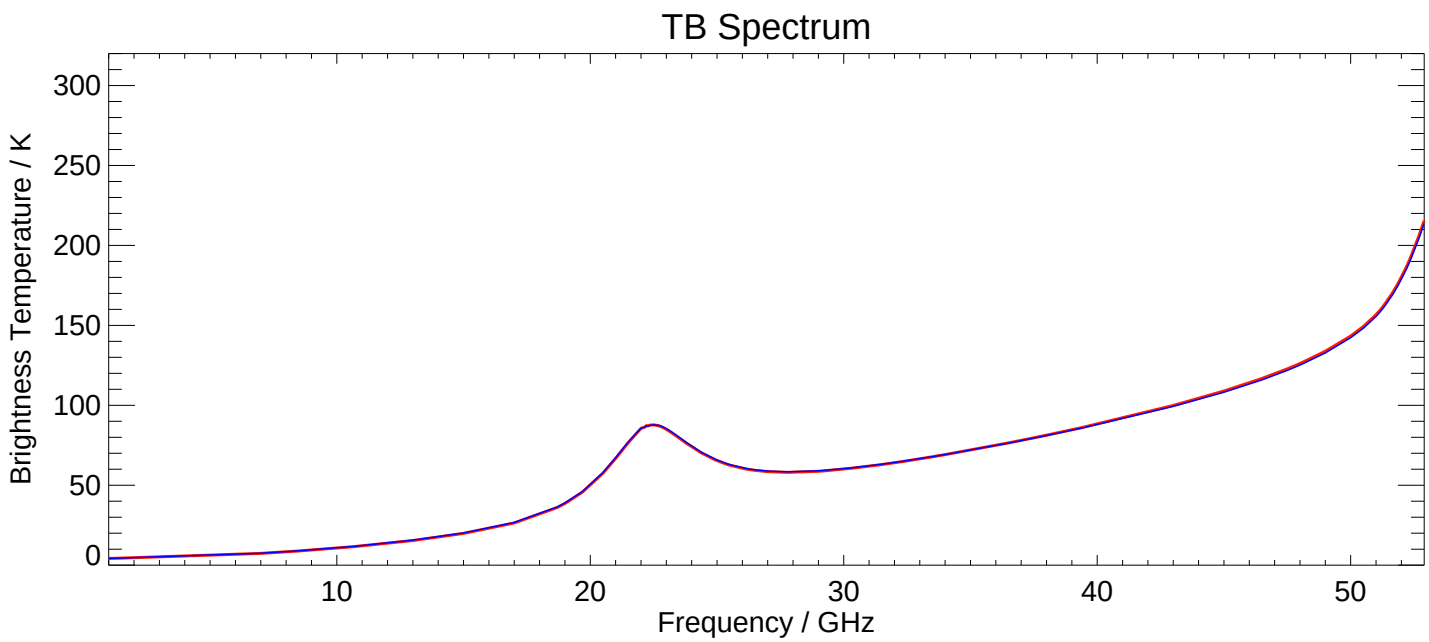
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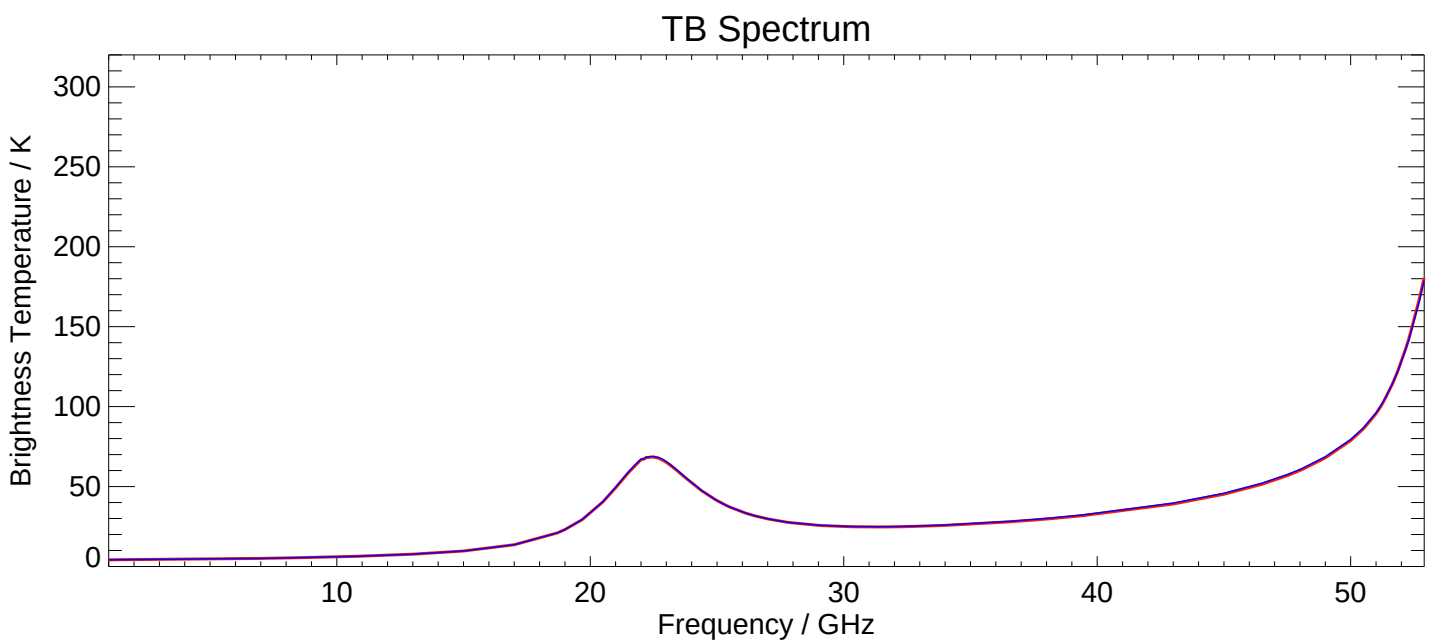
Frequency / GHz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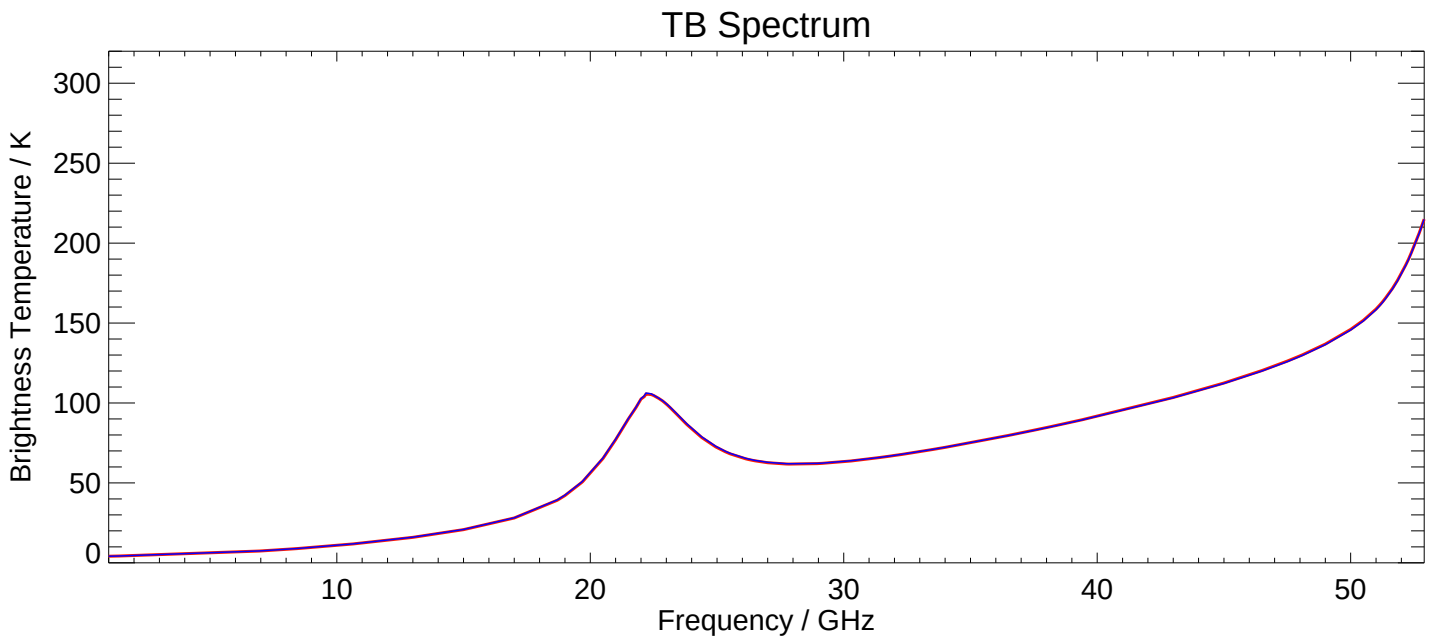
Frequency / GHz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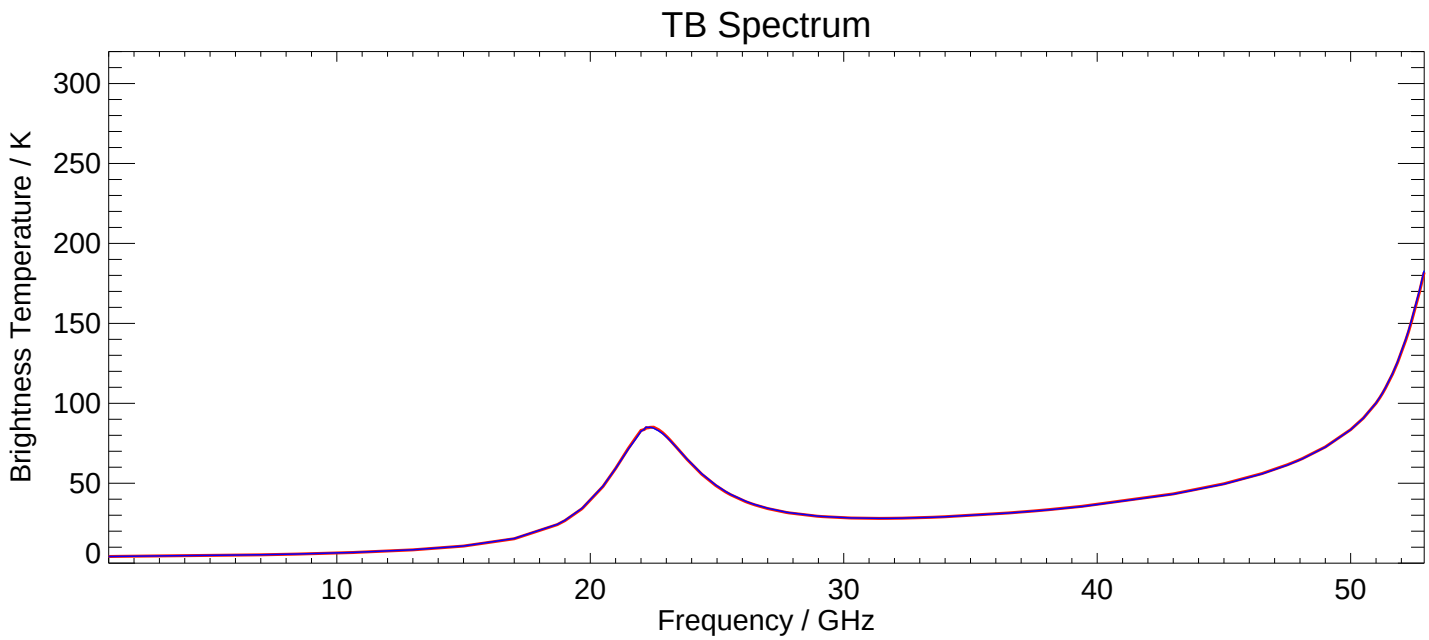
Frequency / GHz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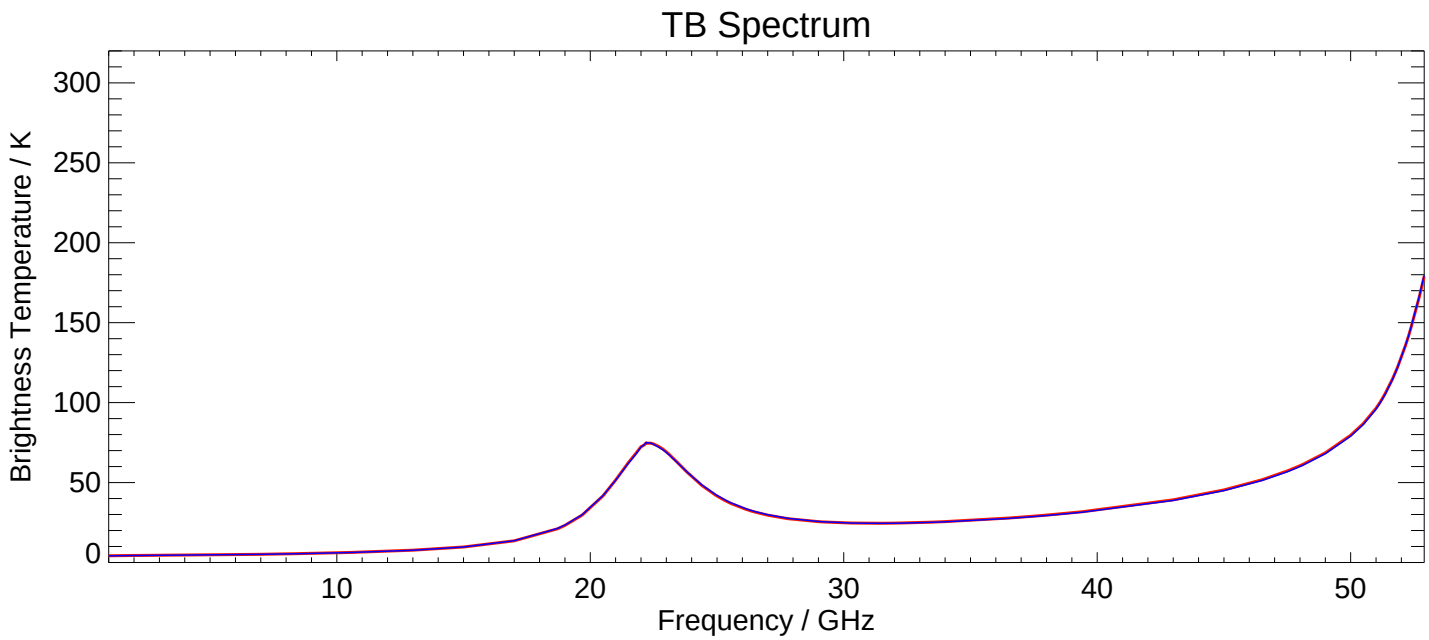
Frequency / GHz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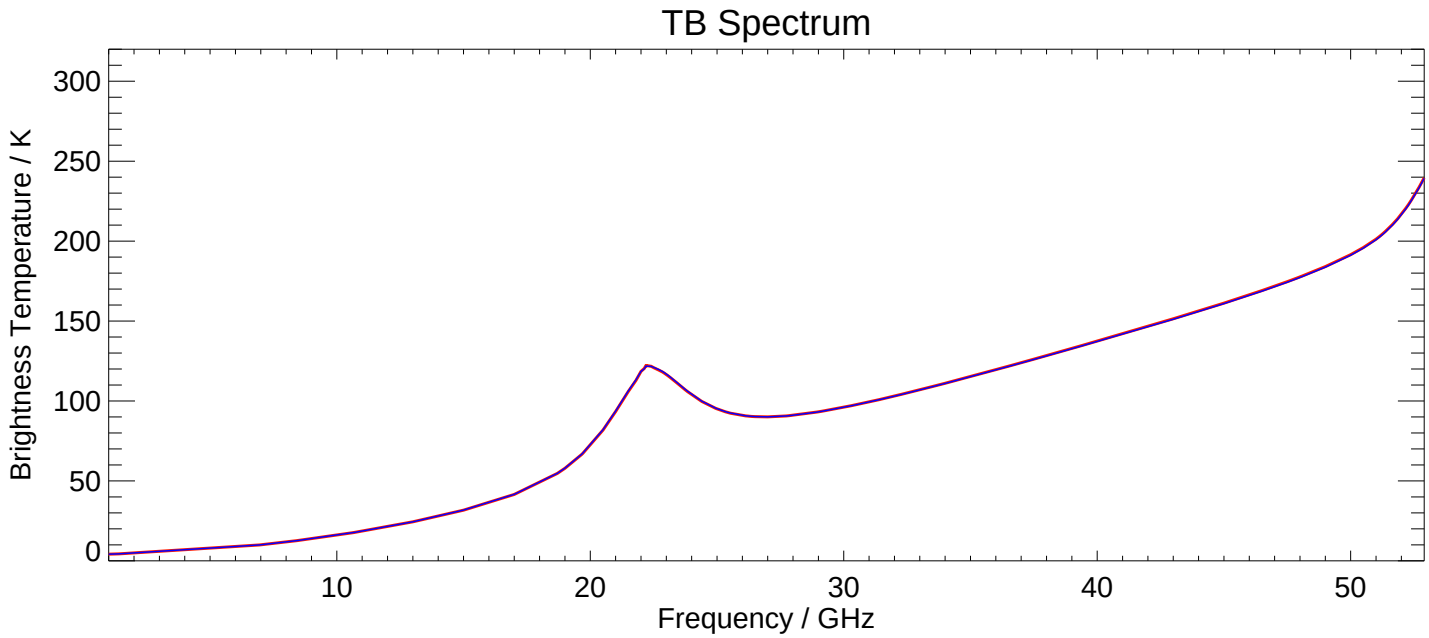
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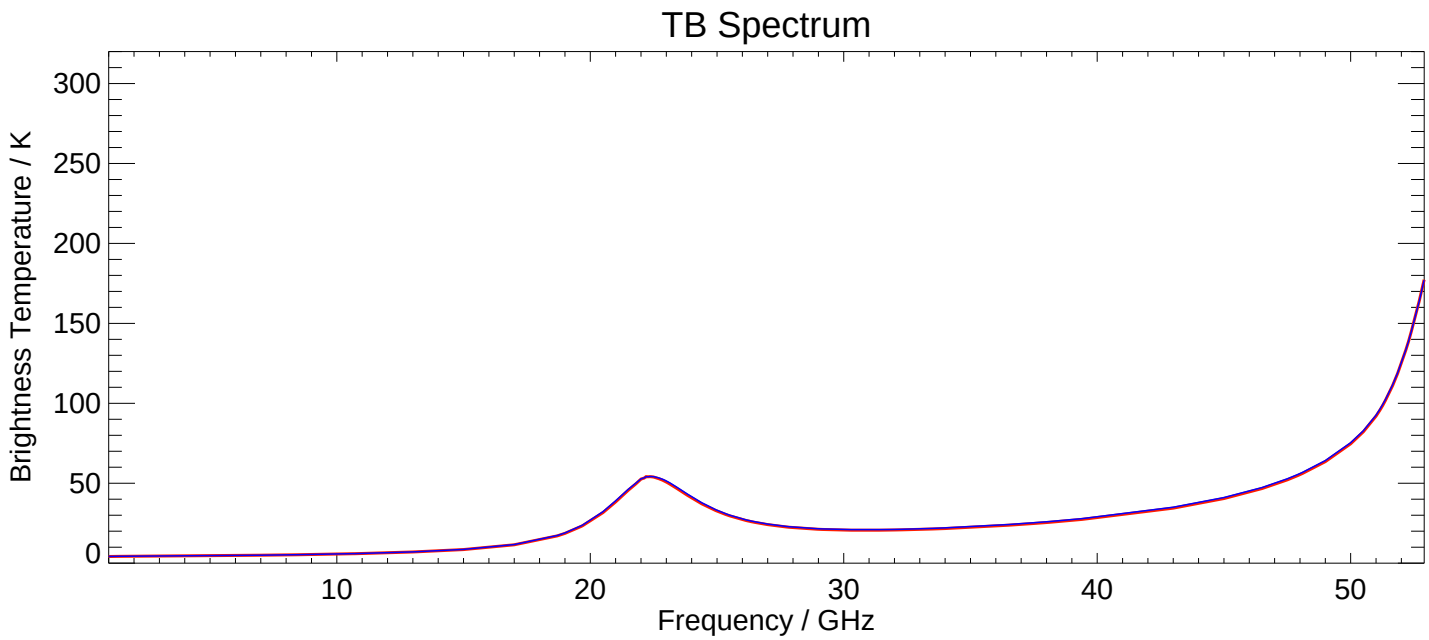
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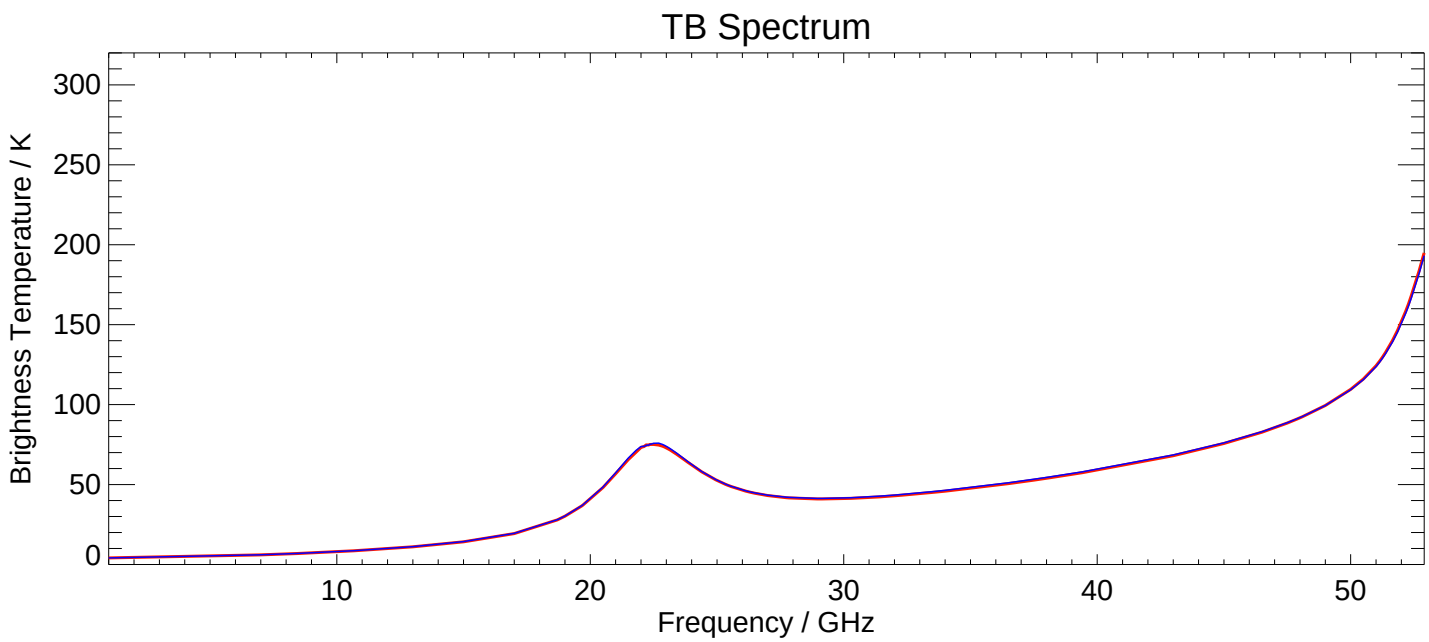
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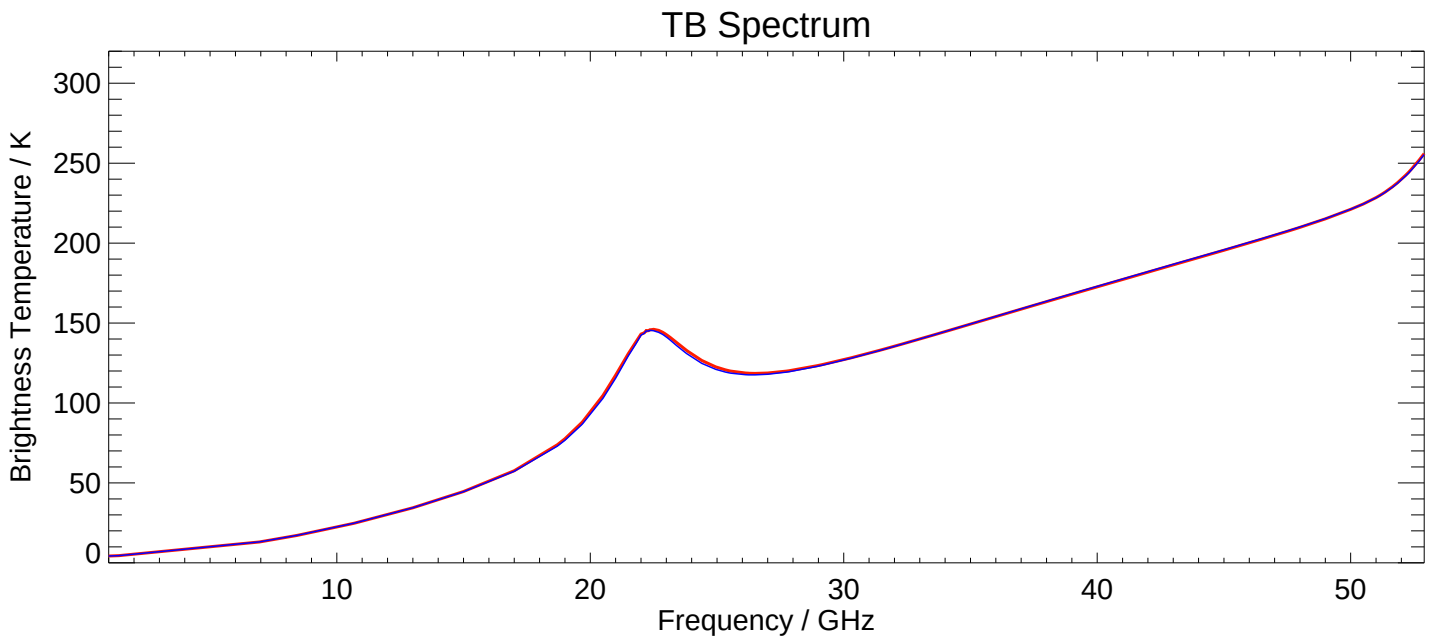
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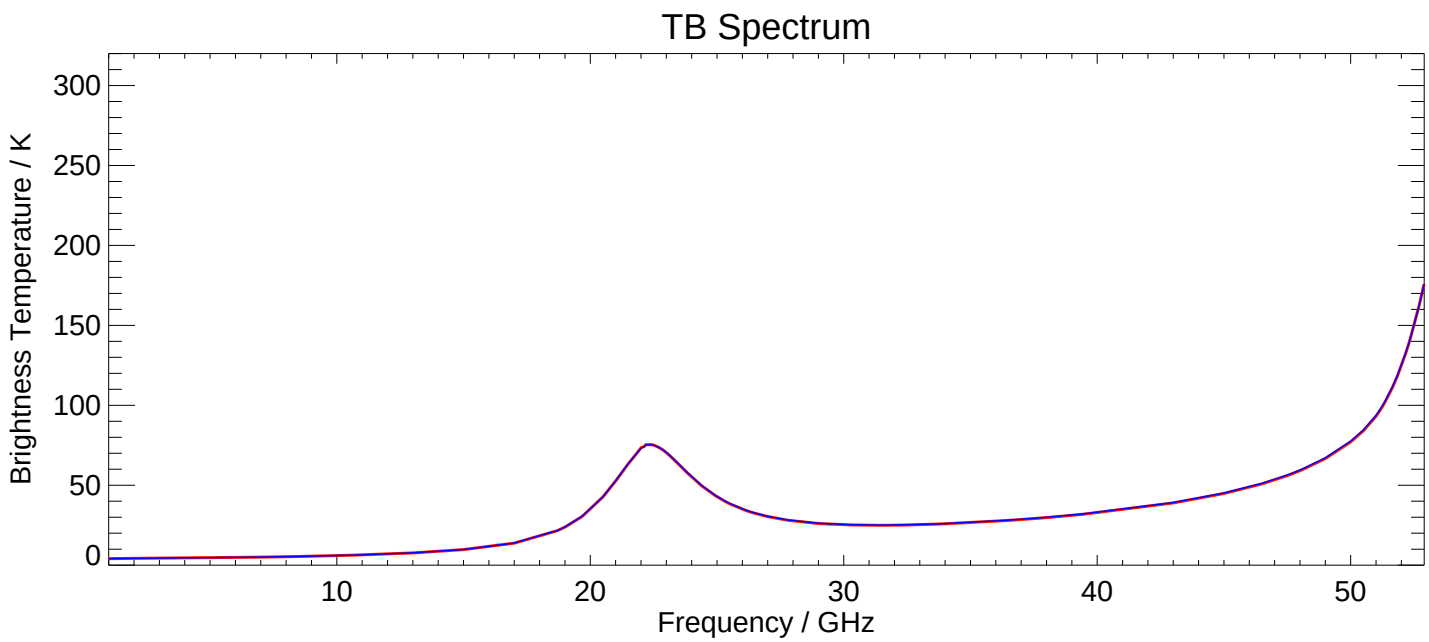
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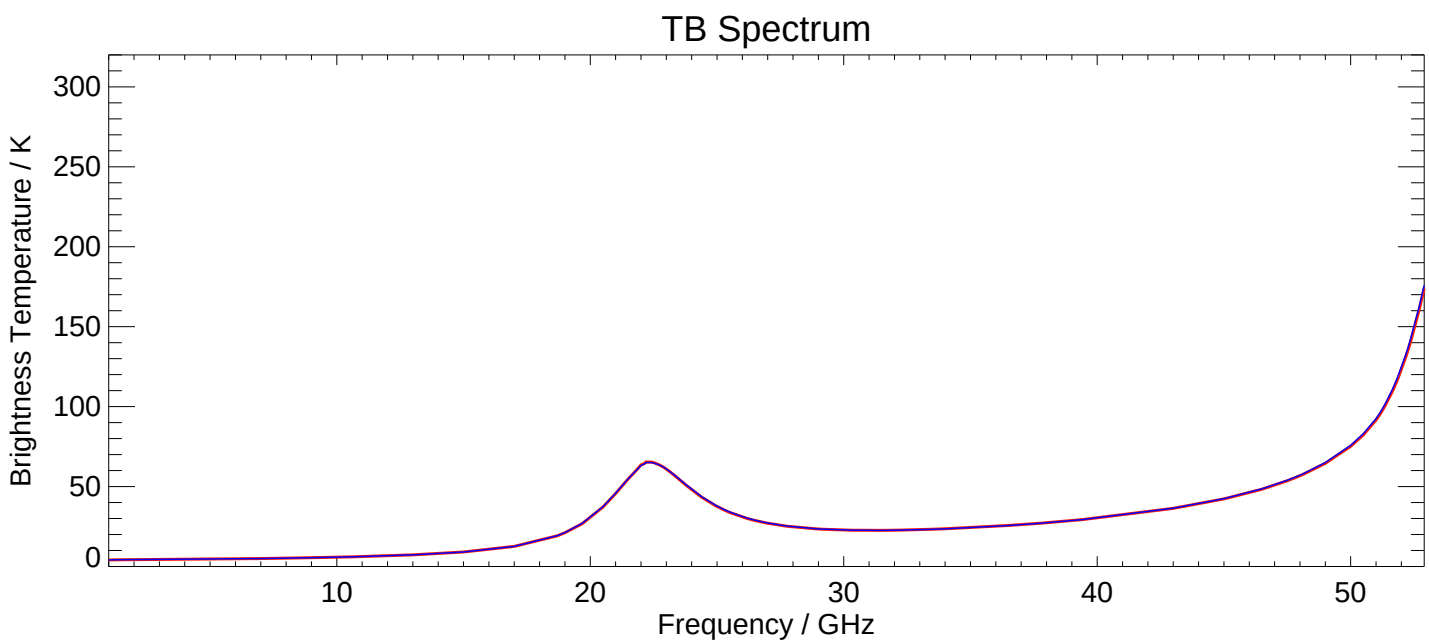
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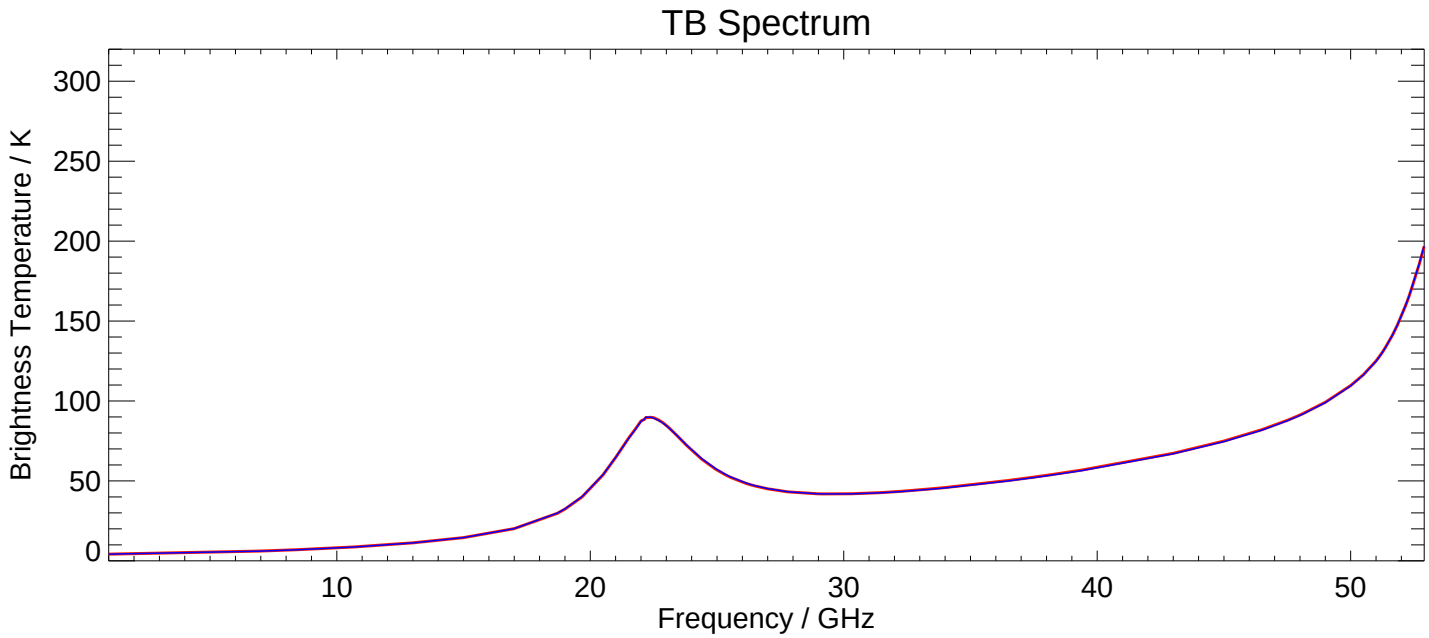
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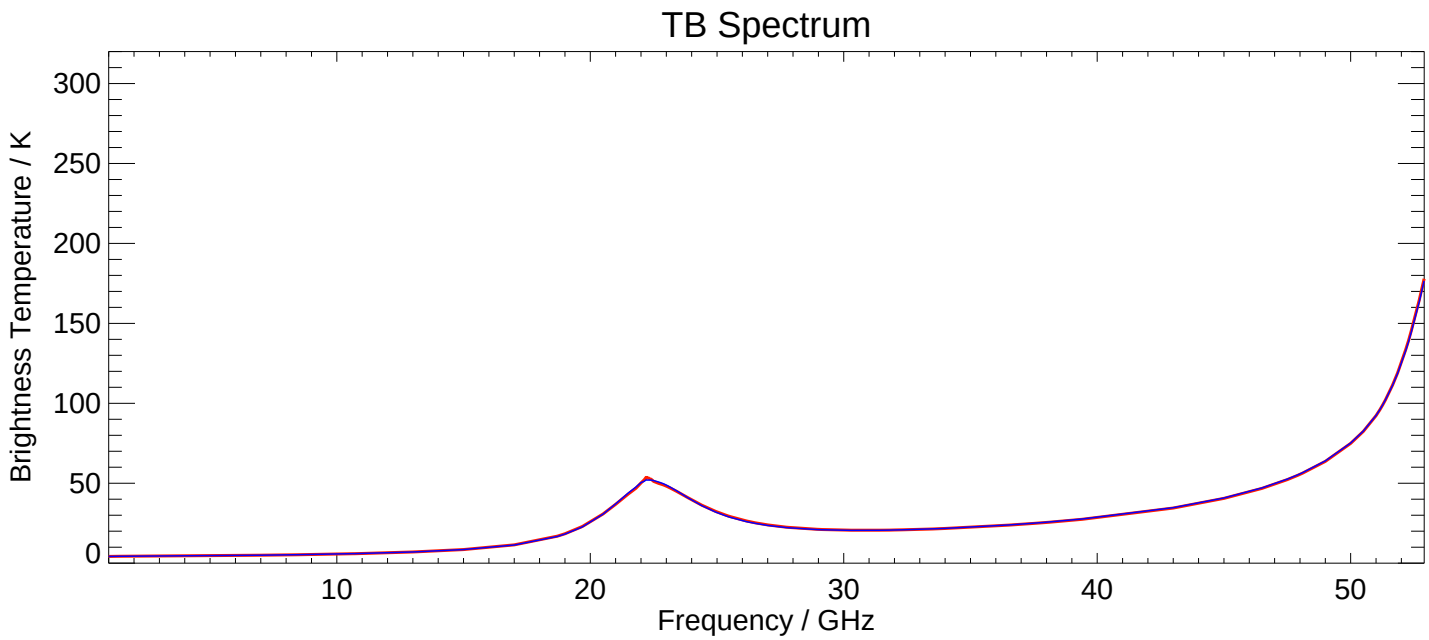
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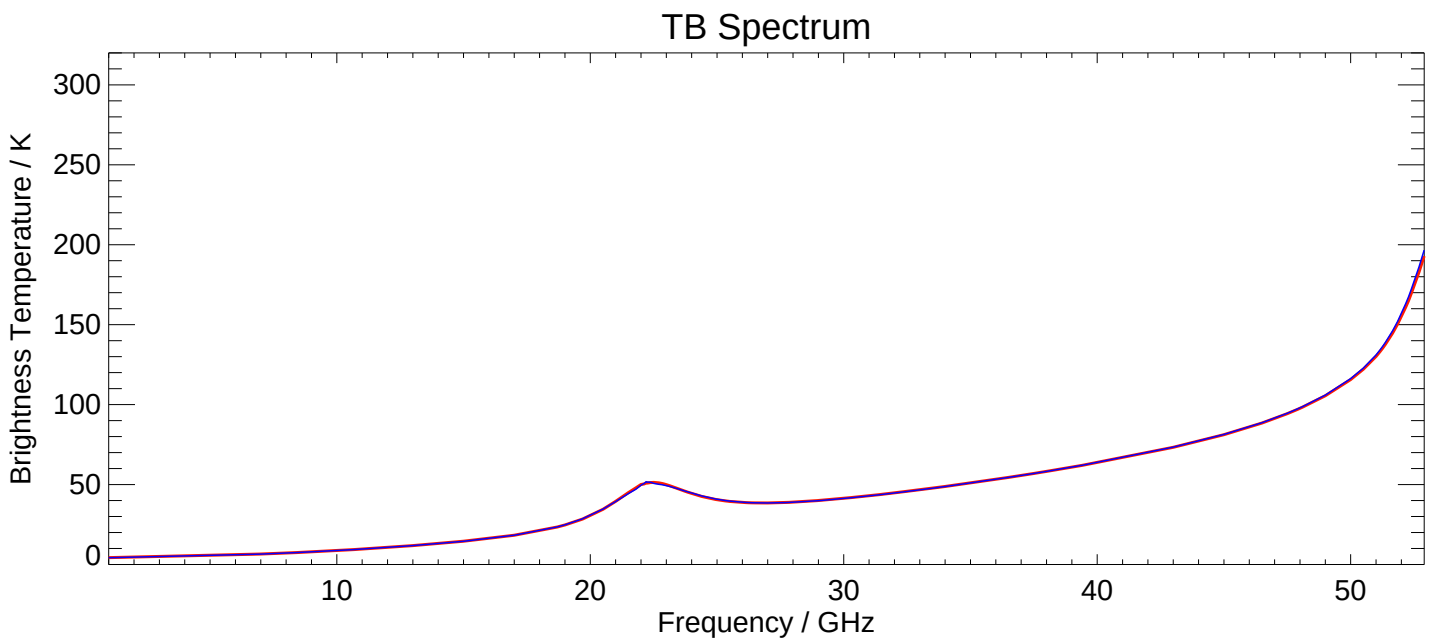
Frequency / GHz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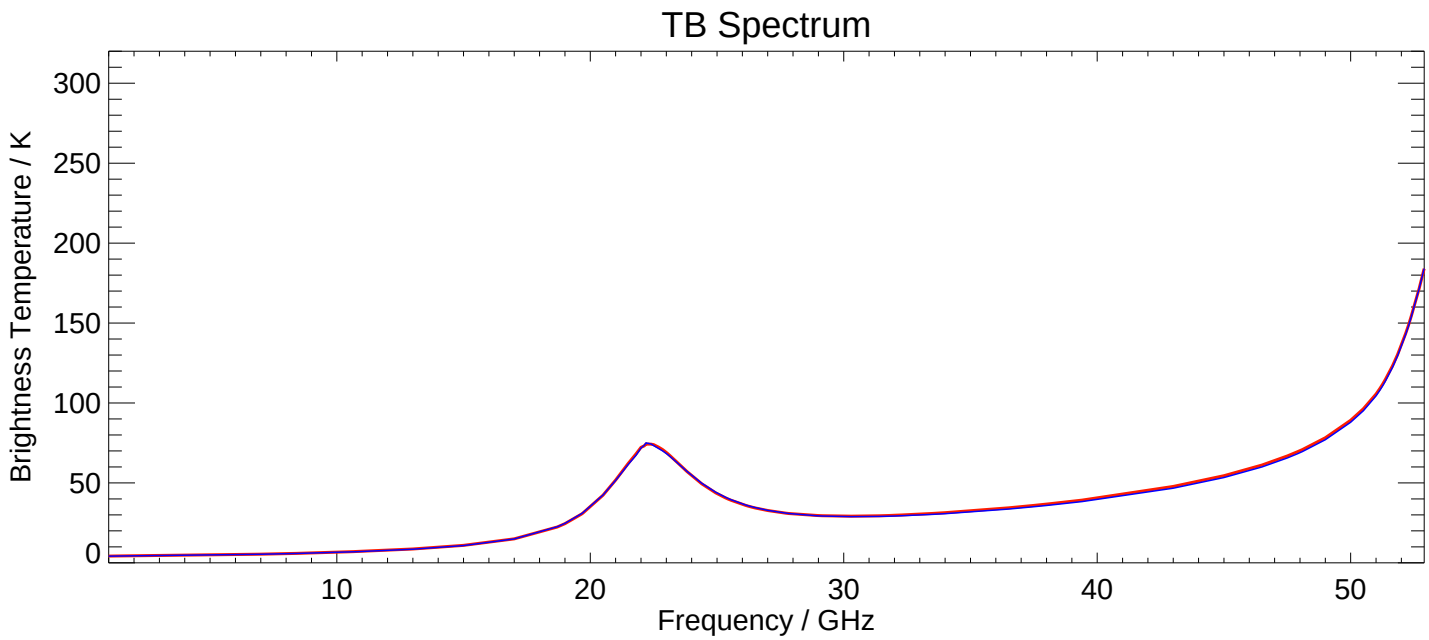
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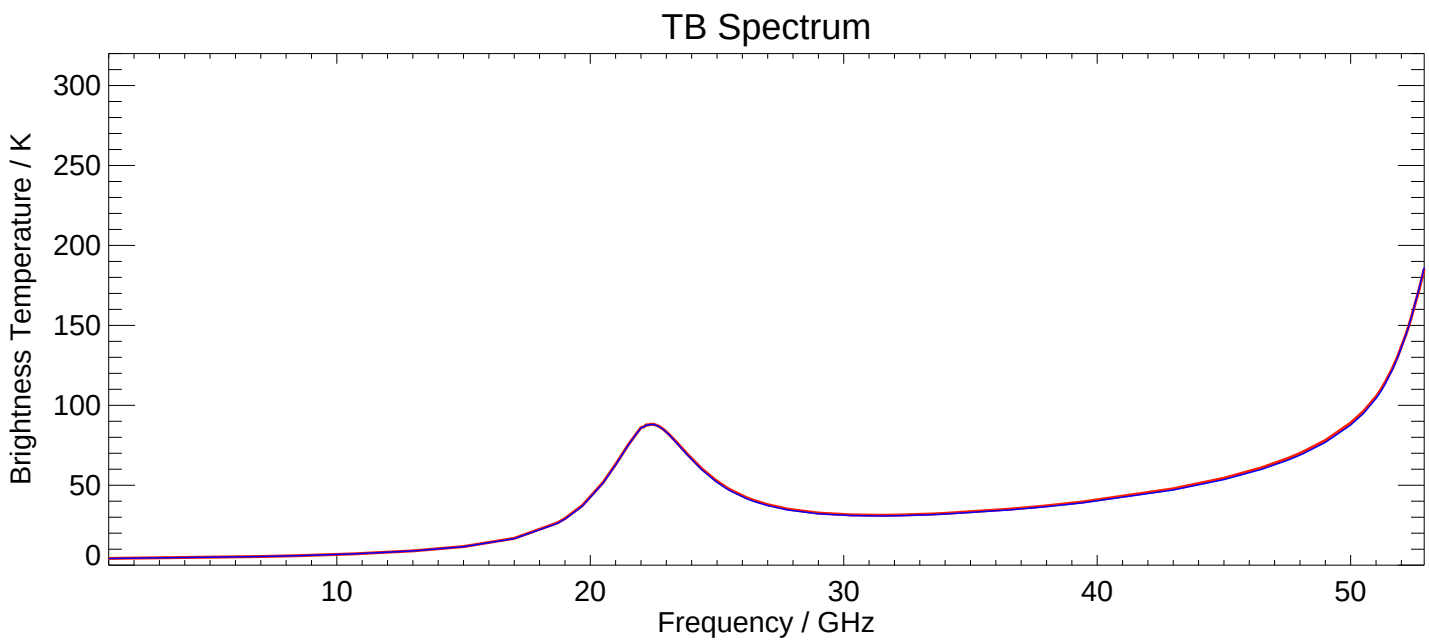
Frequency / GHz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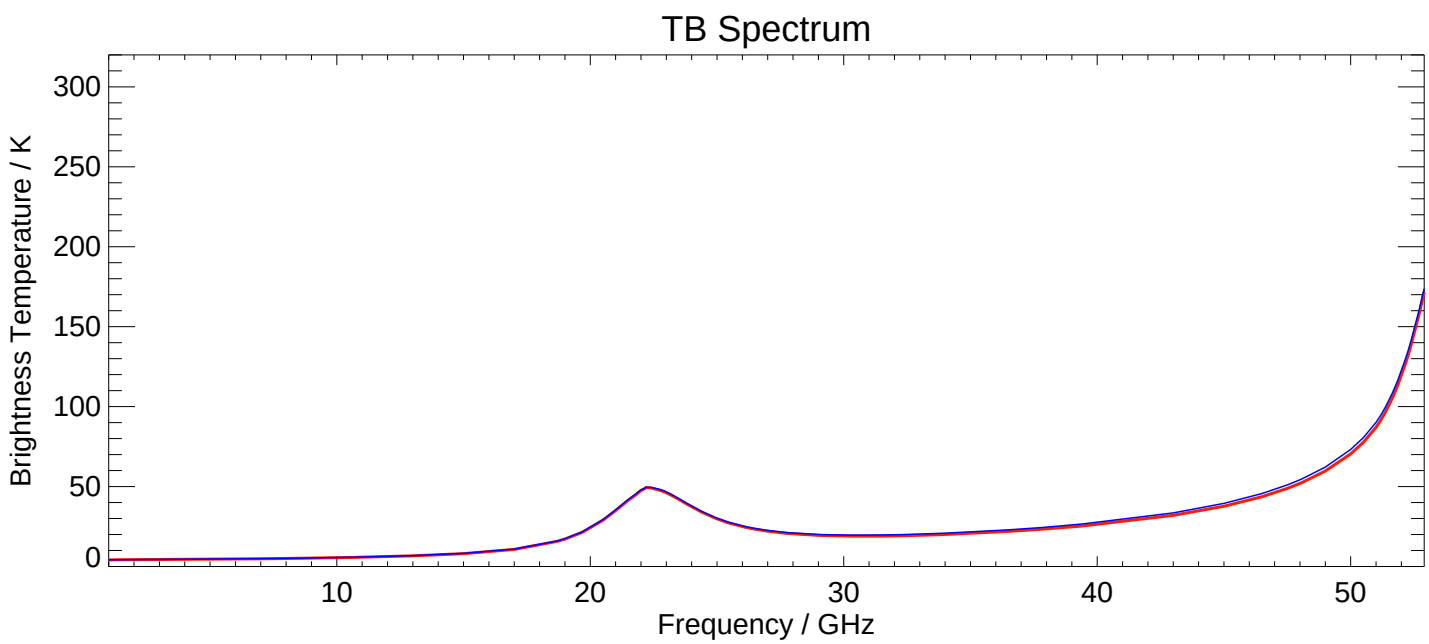
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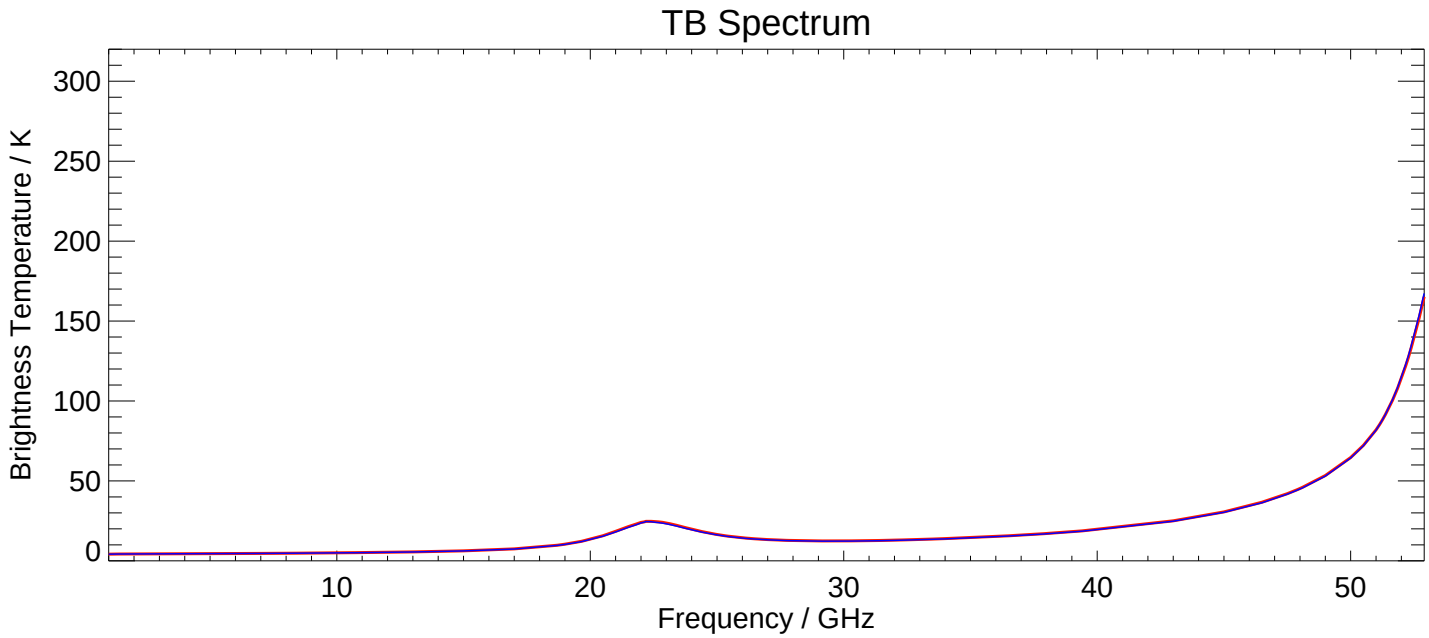
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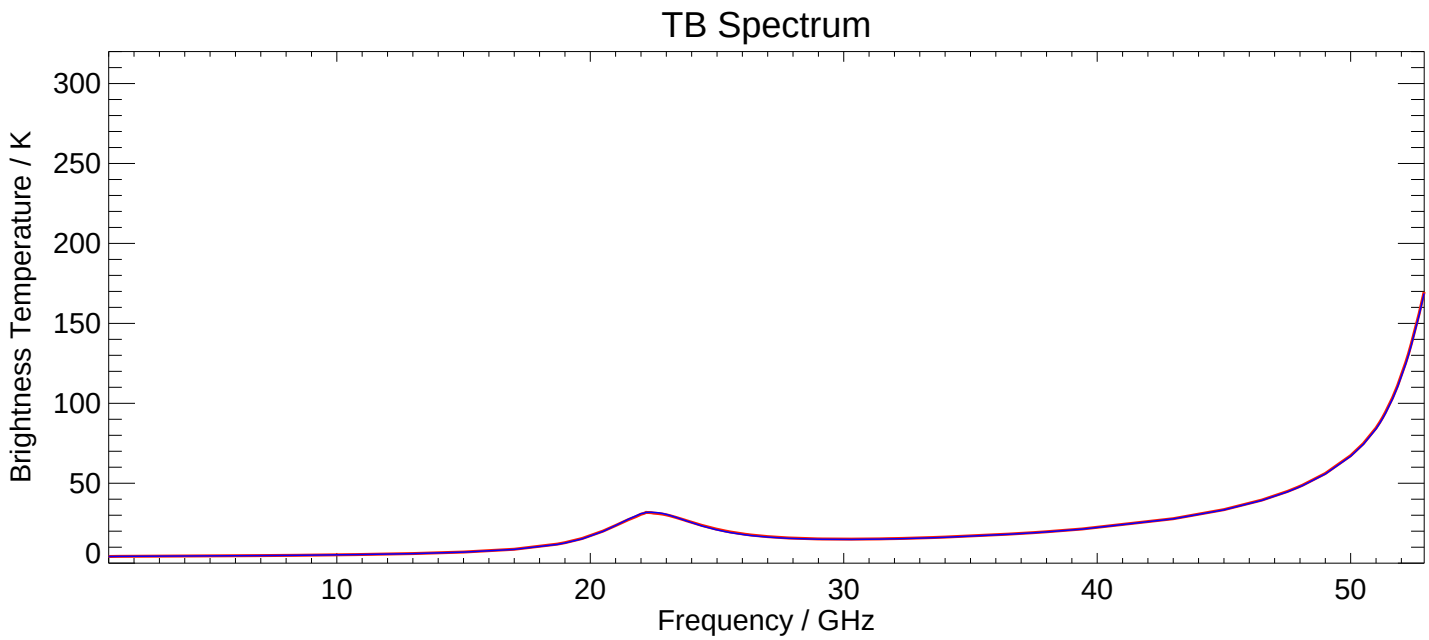
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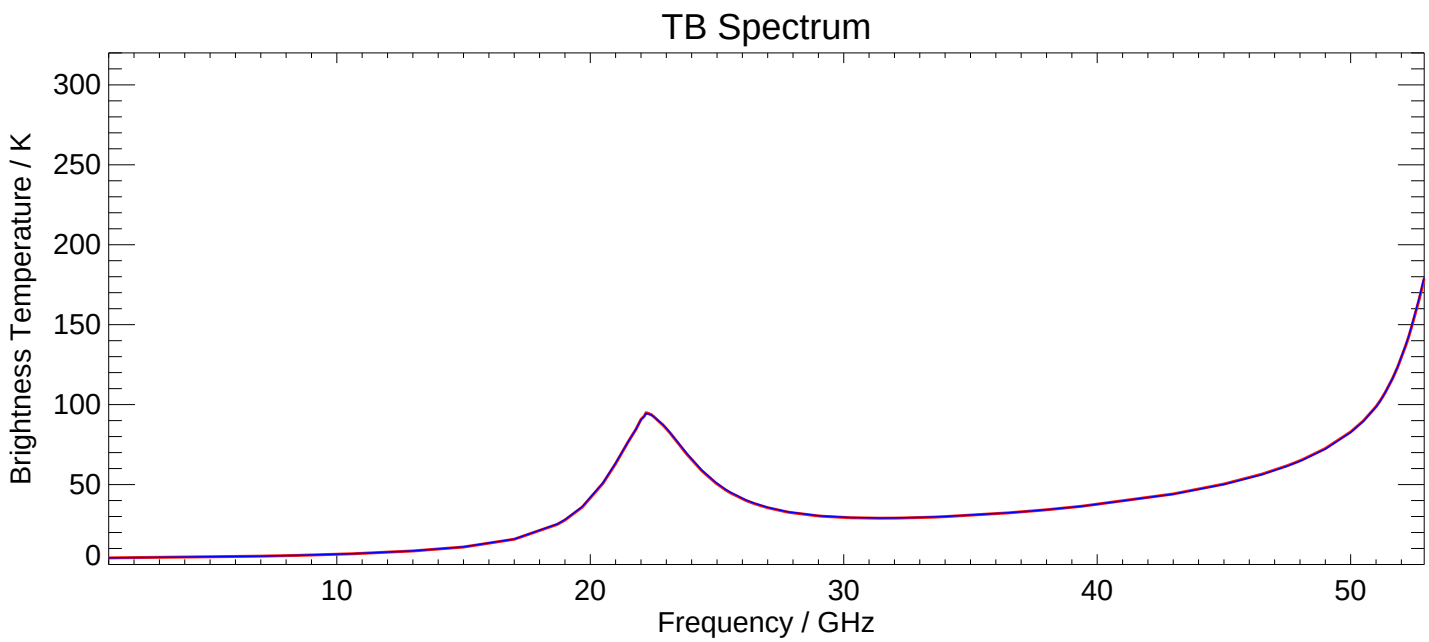
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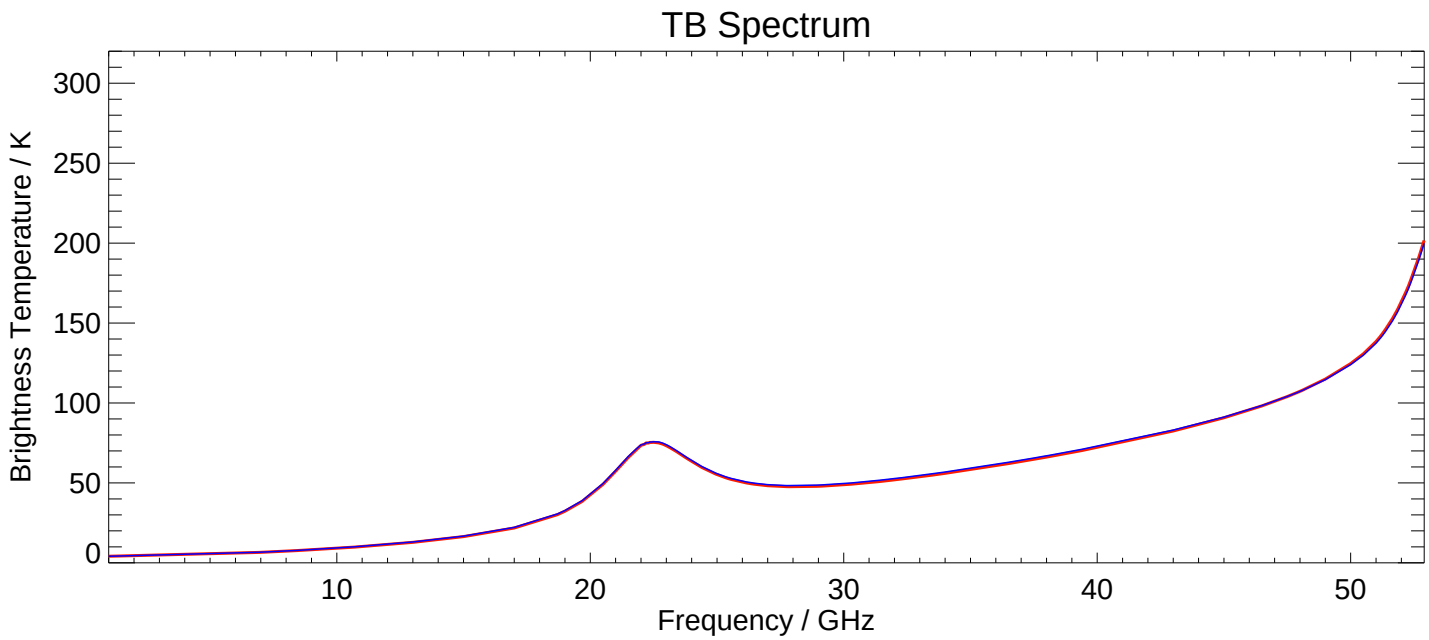
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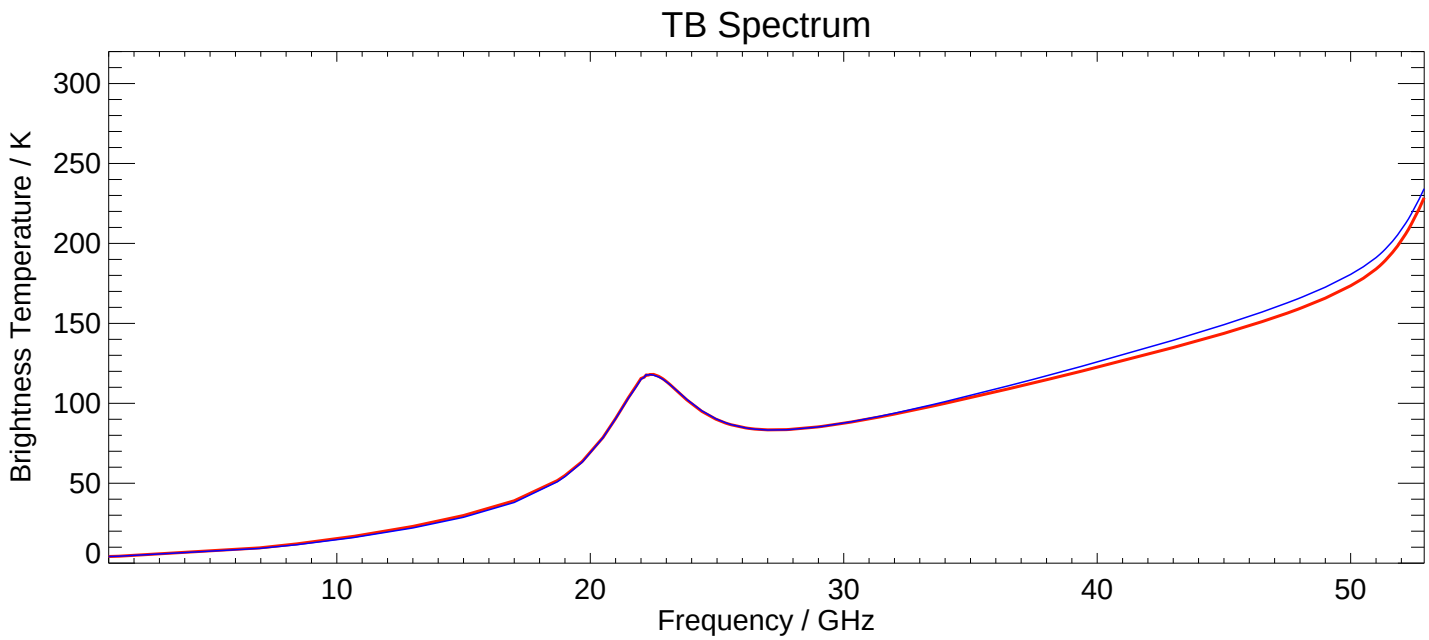
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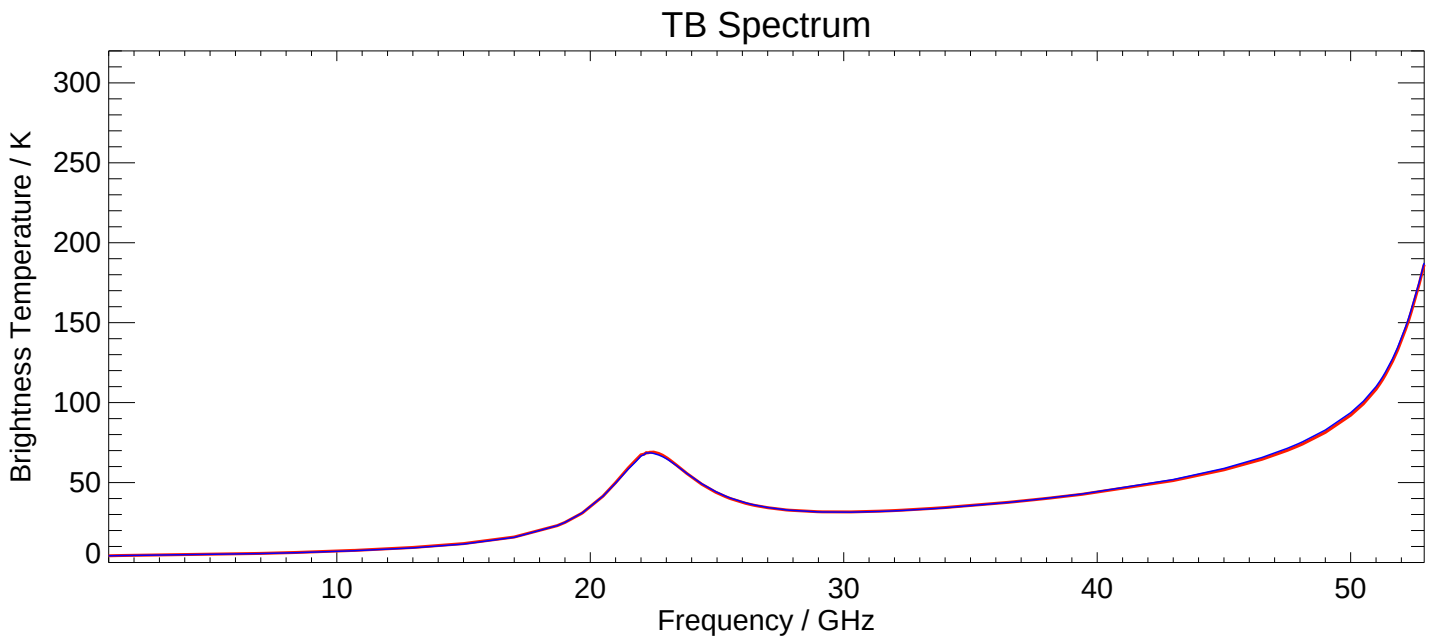
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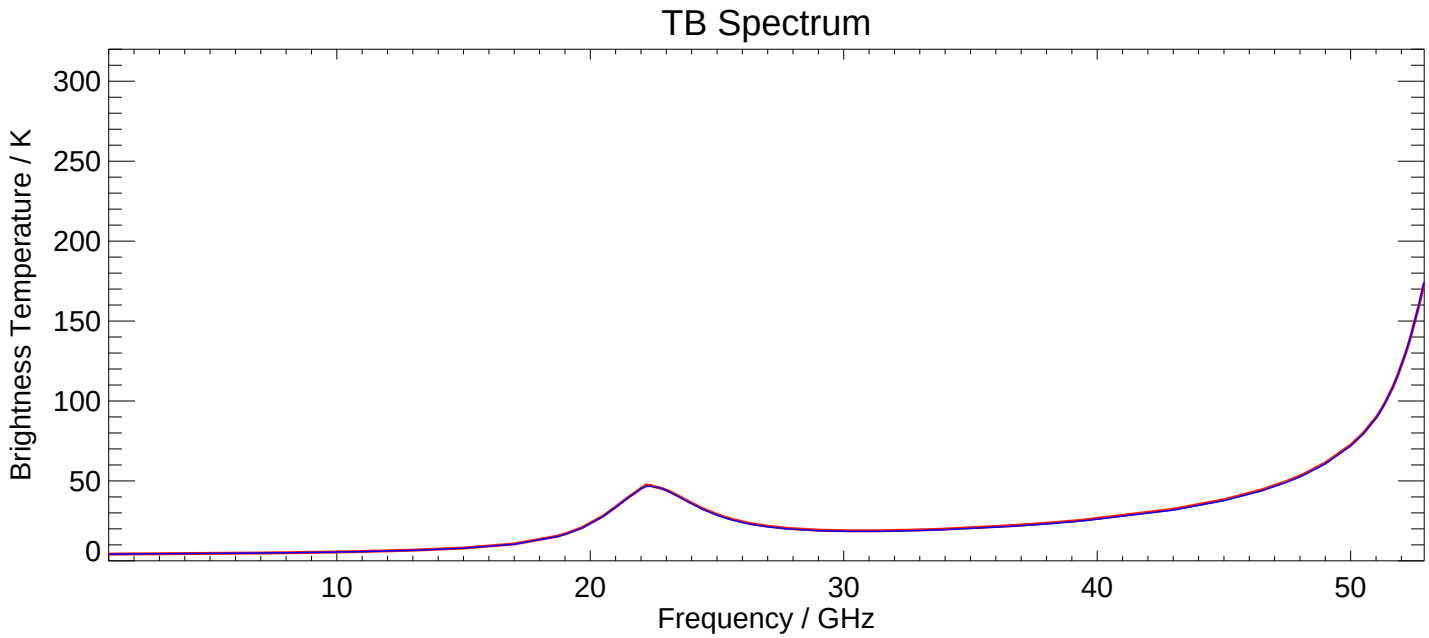
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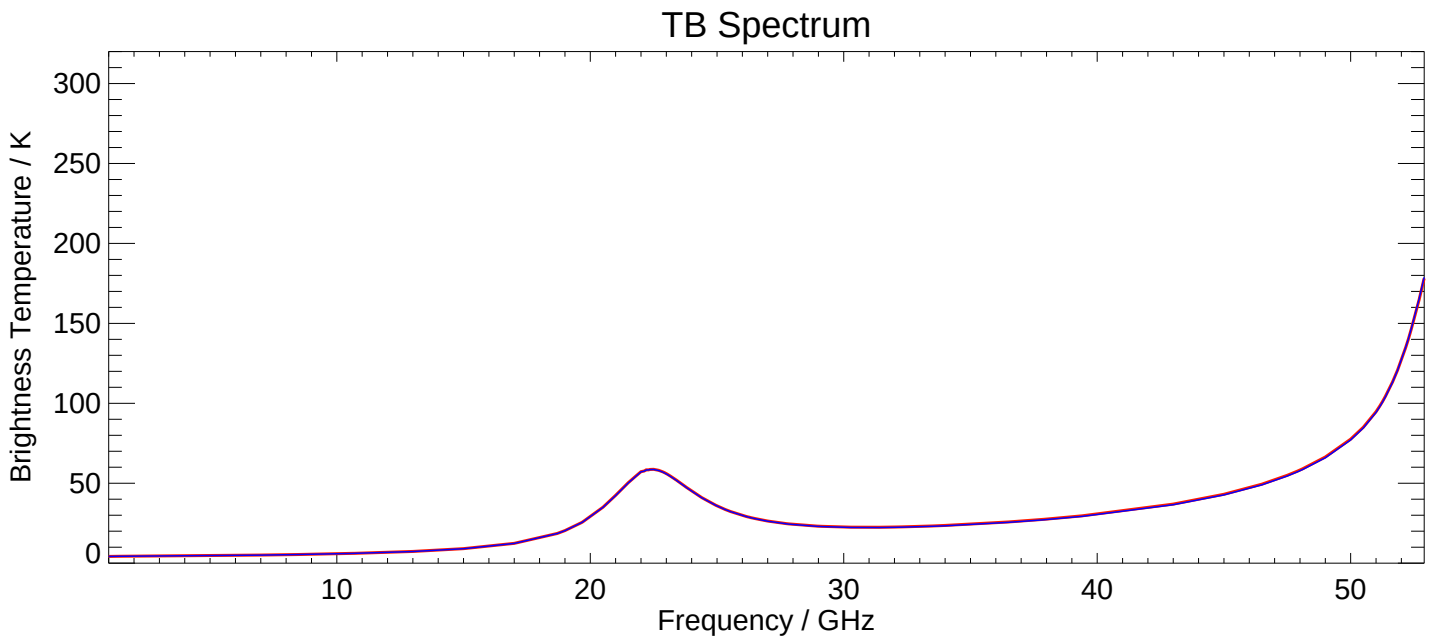
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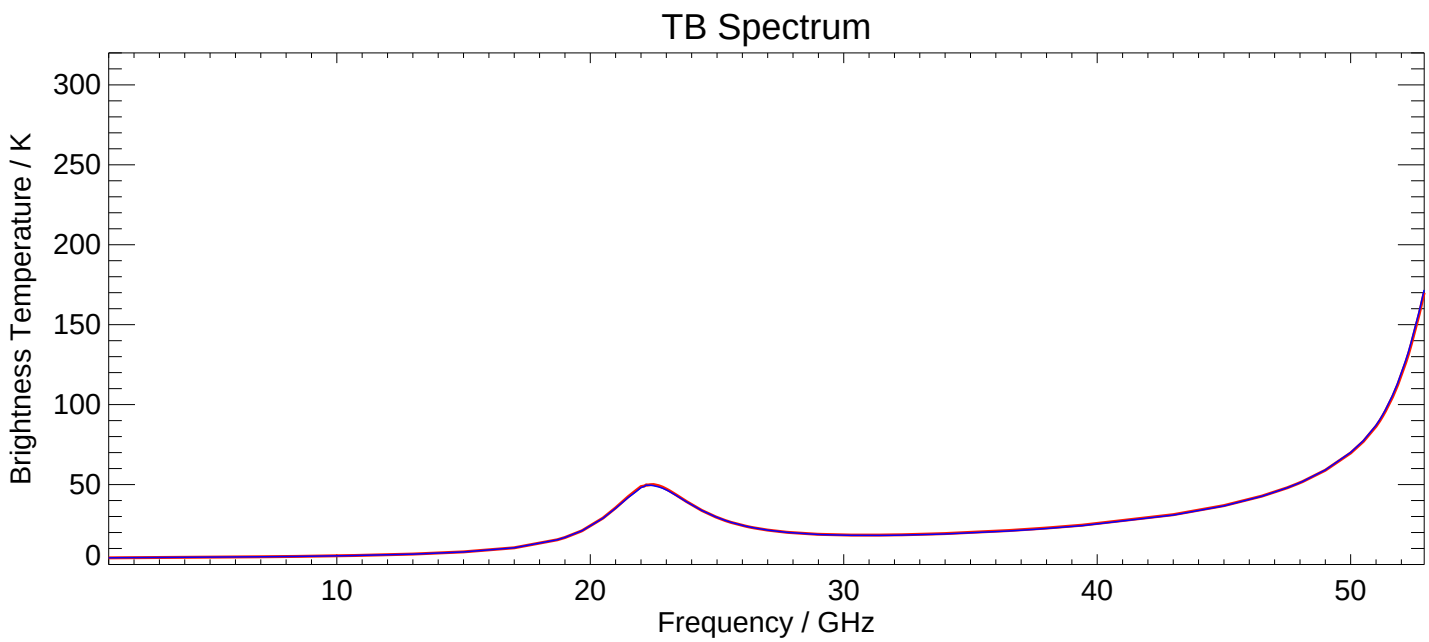
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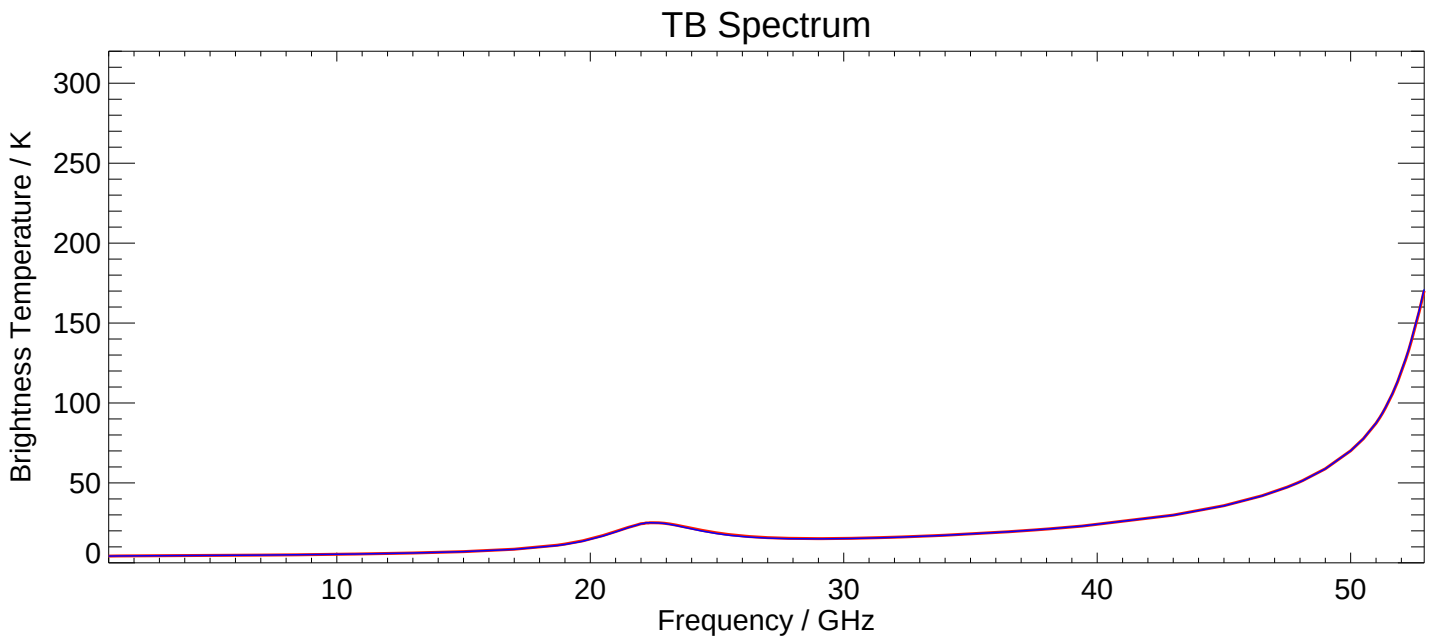
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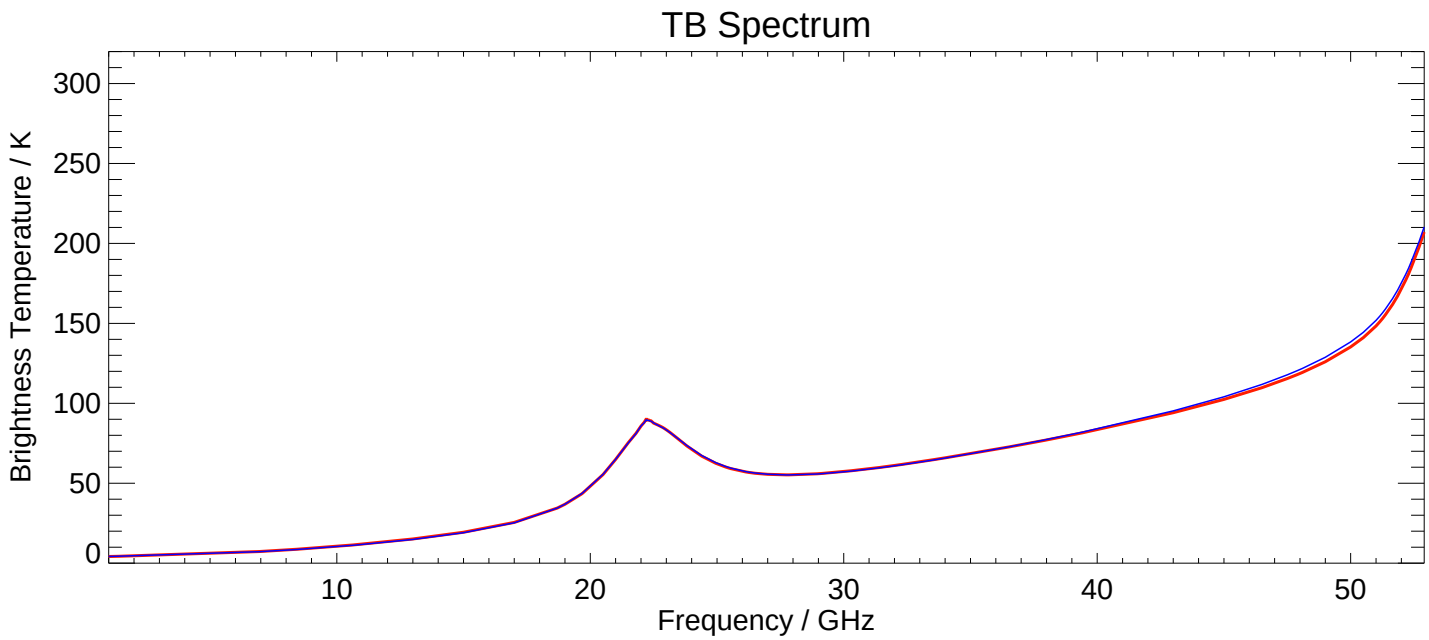
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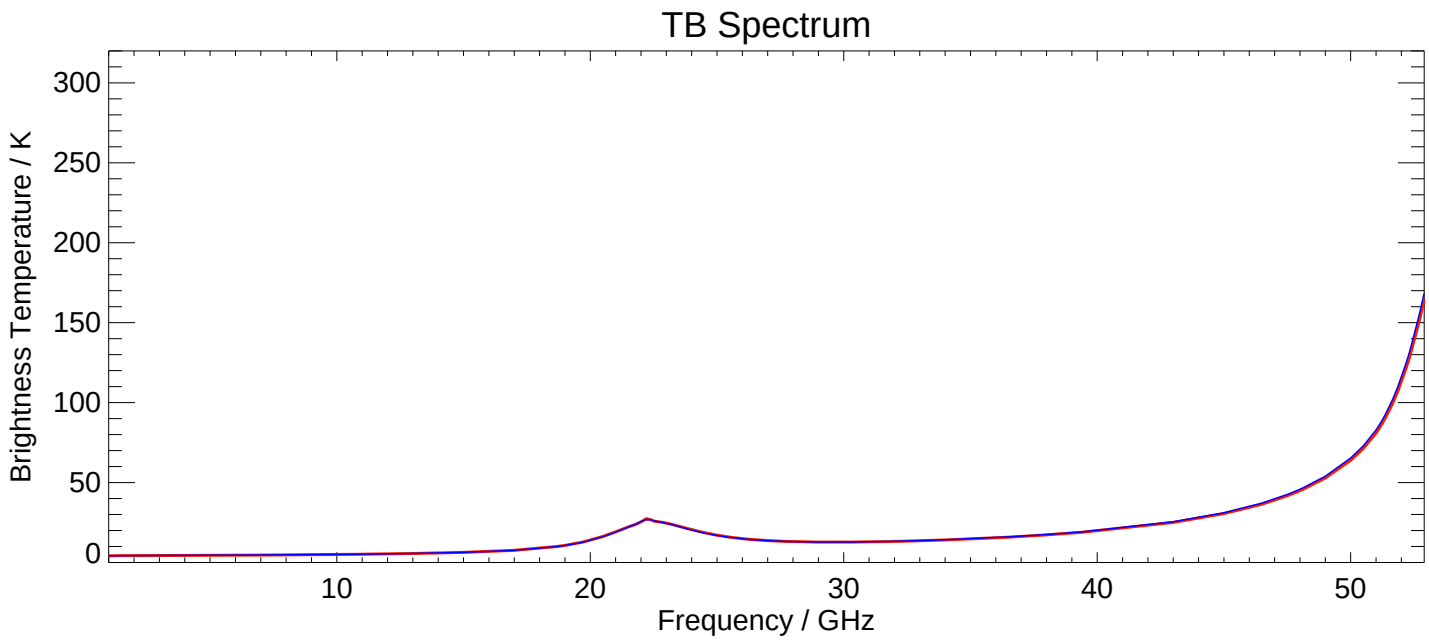
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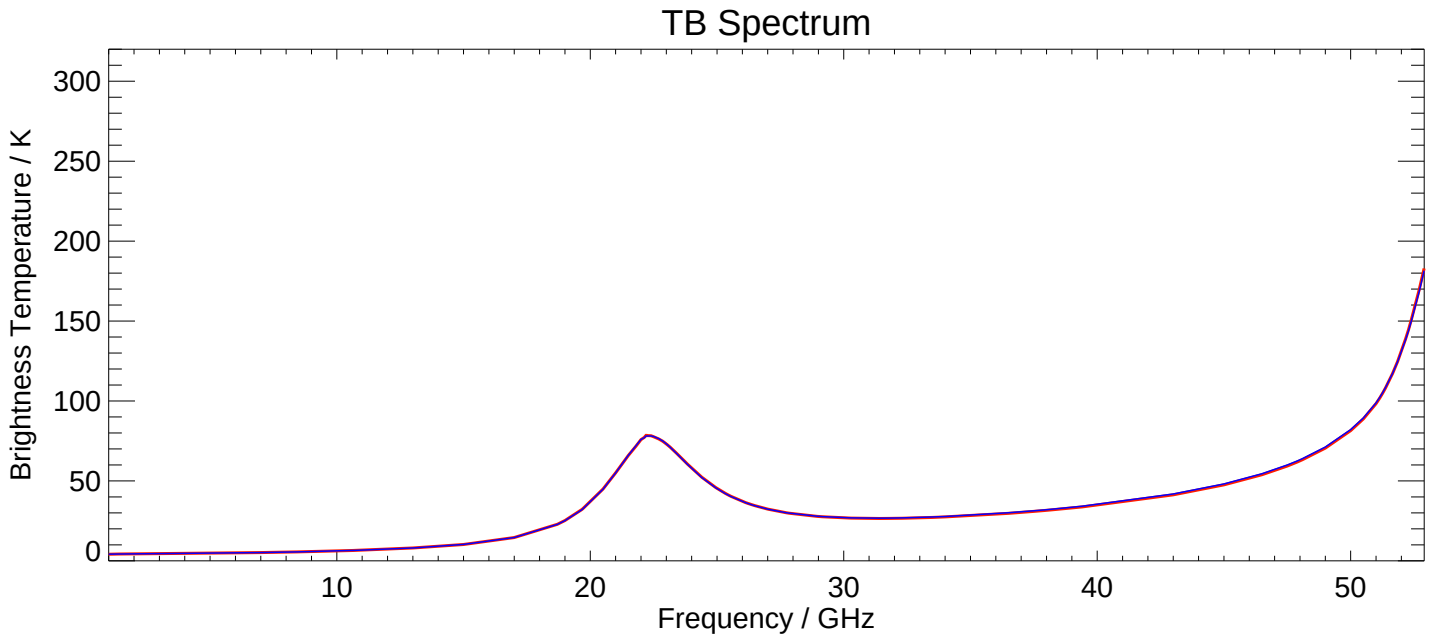
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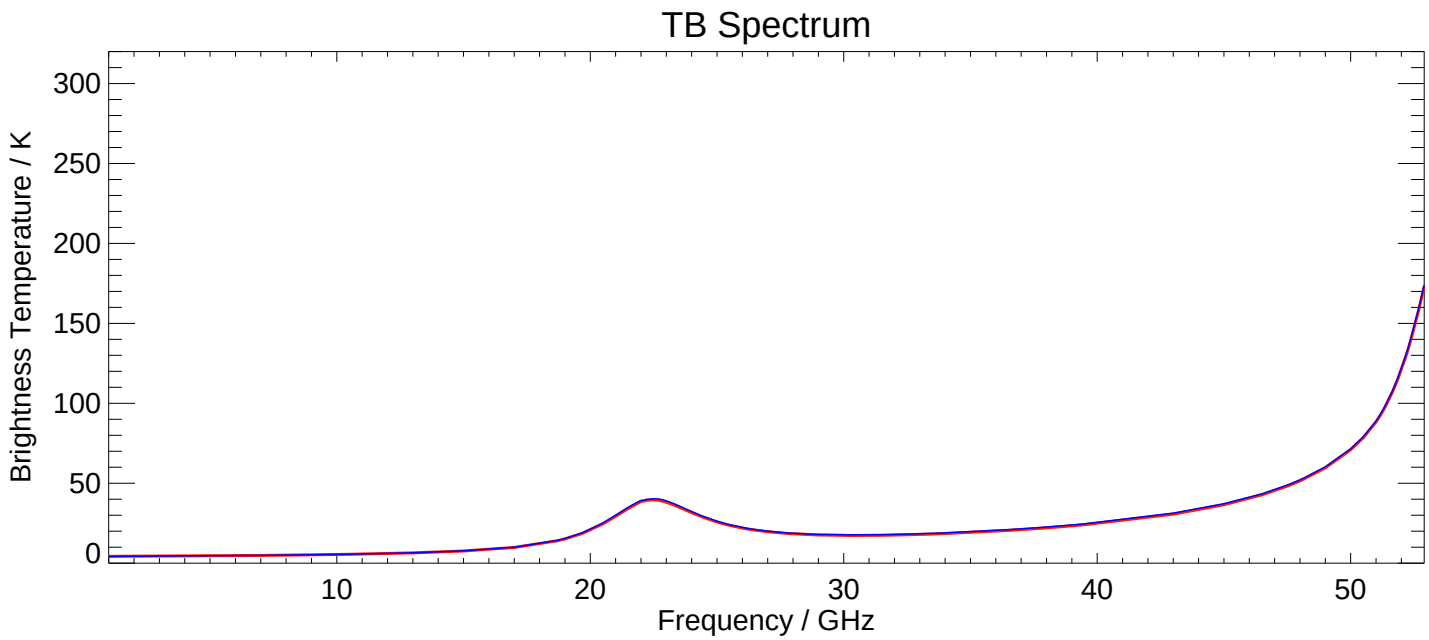
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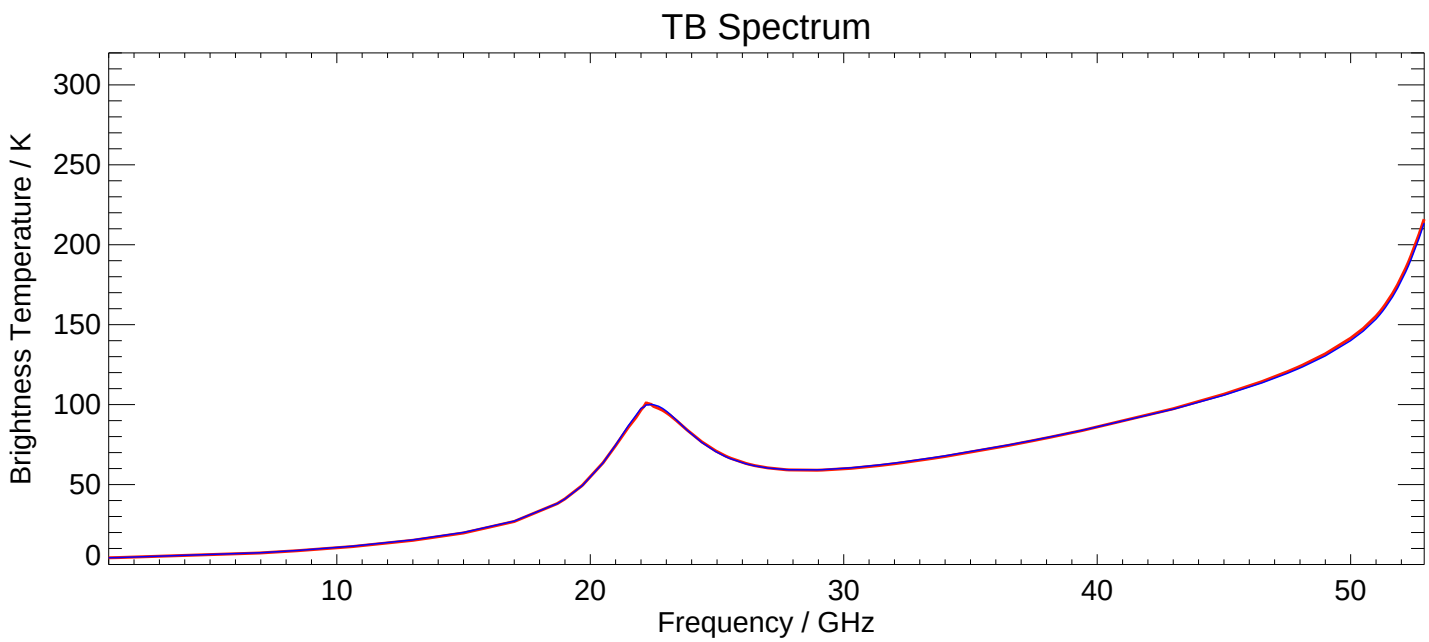
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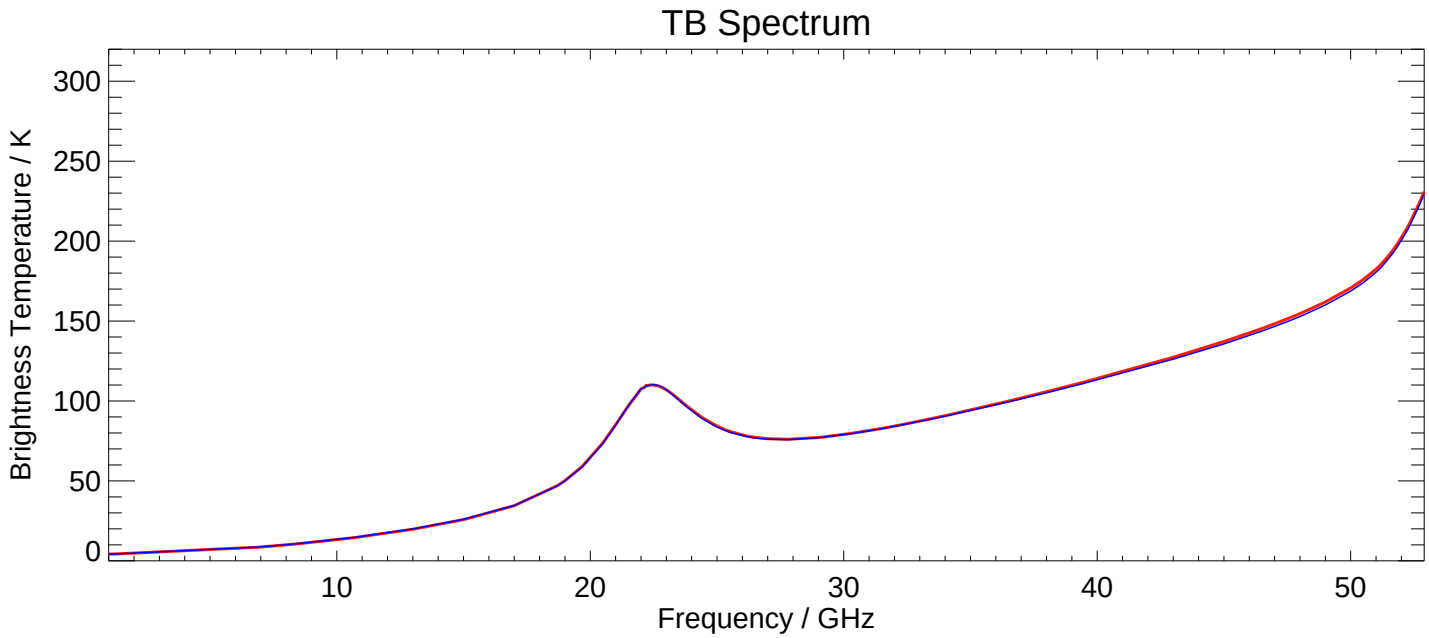
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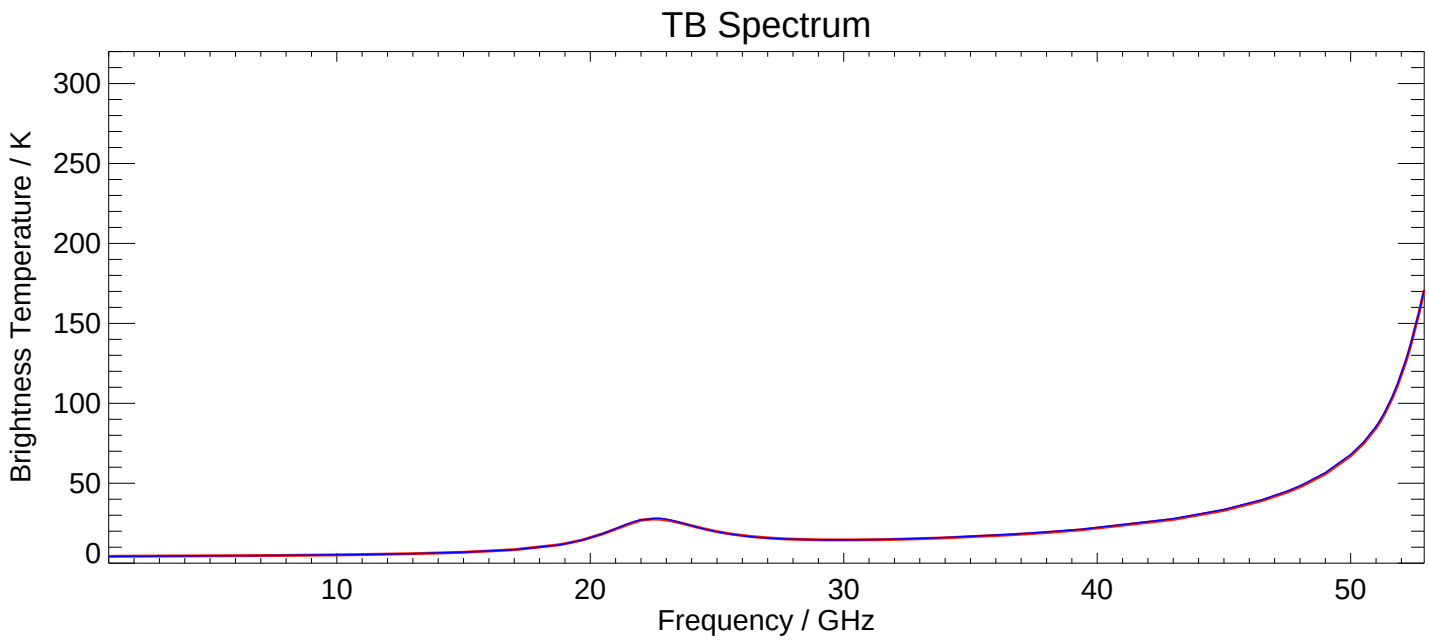
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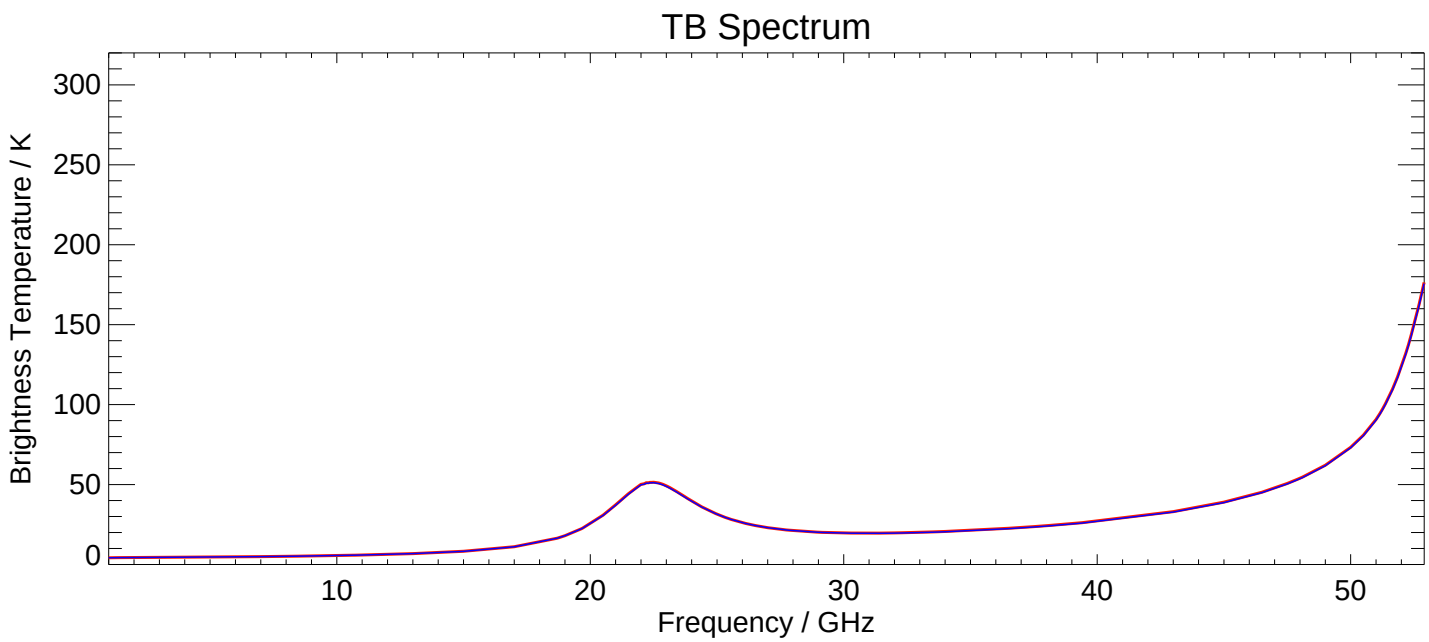
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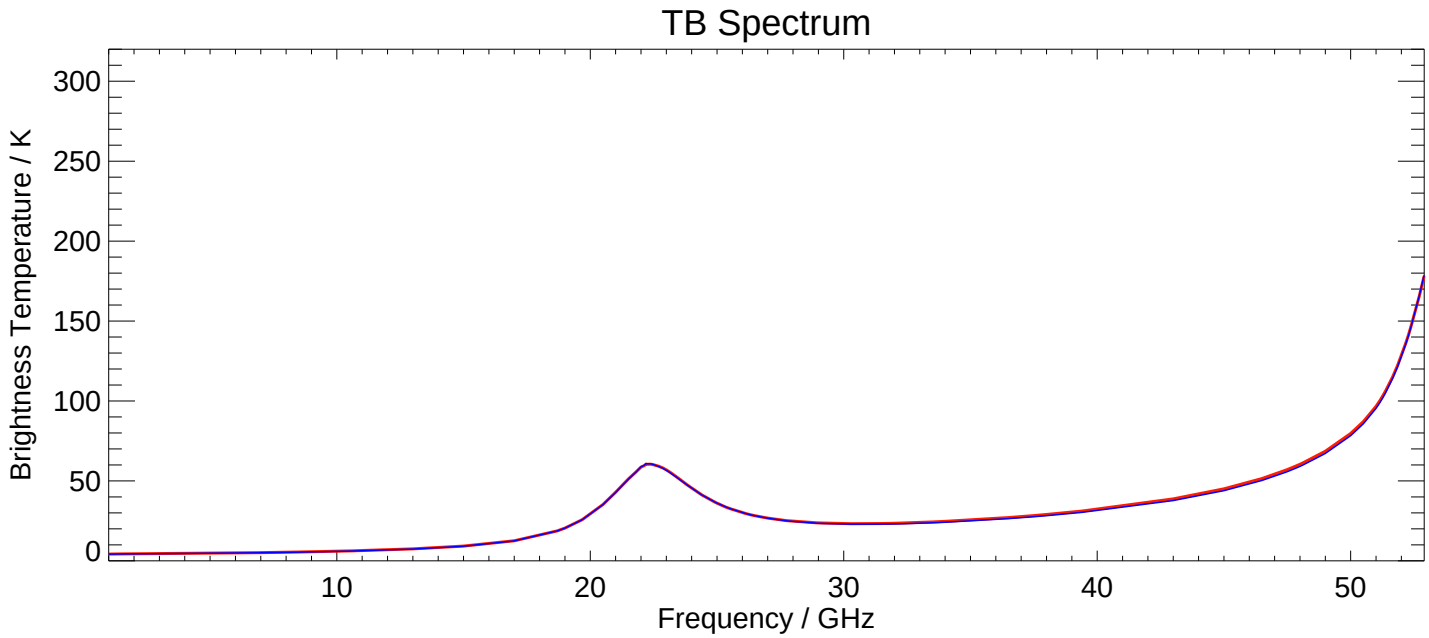
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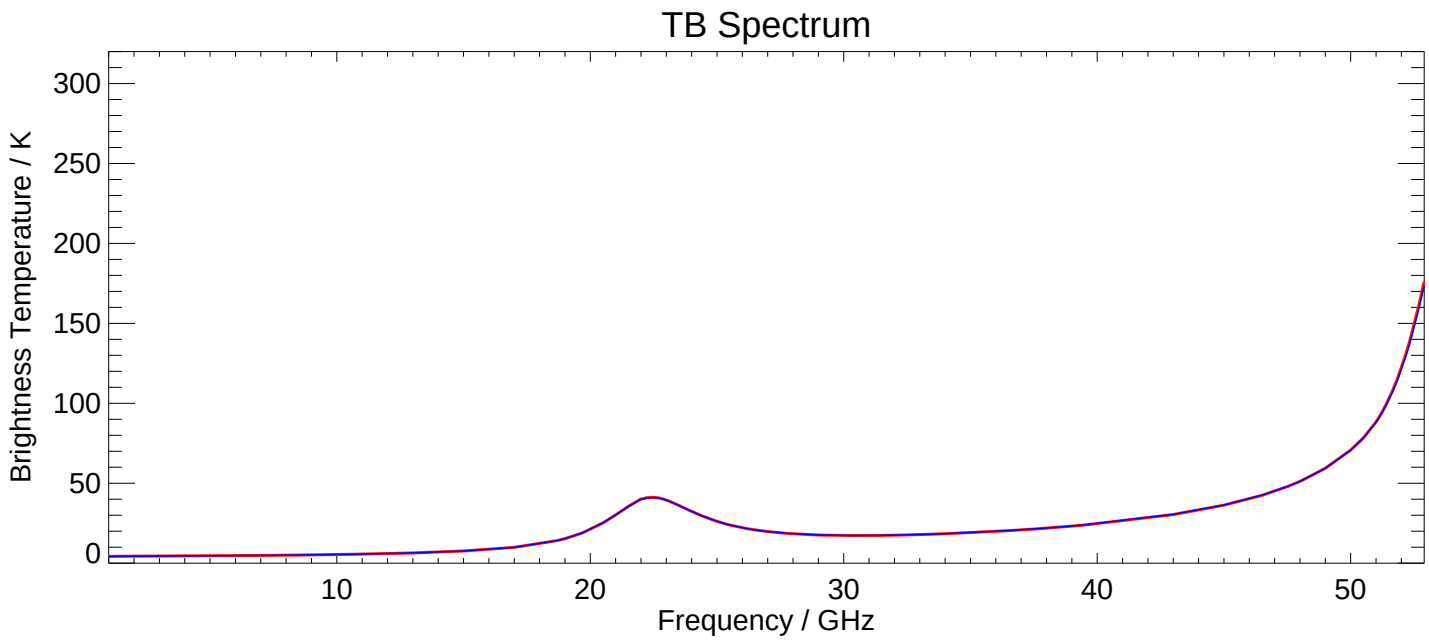
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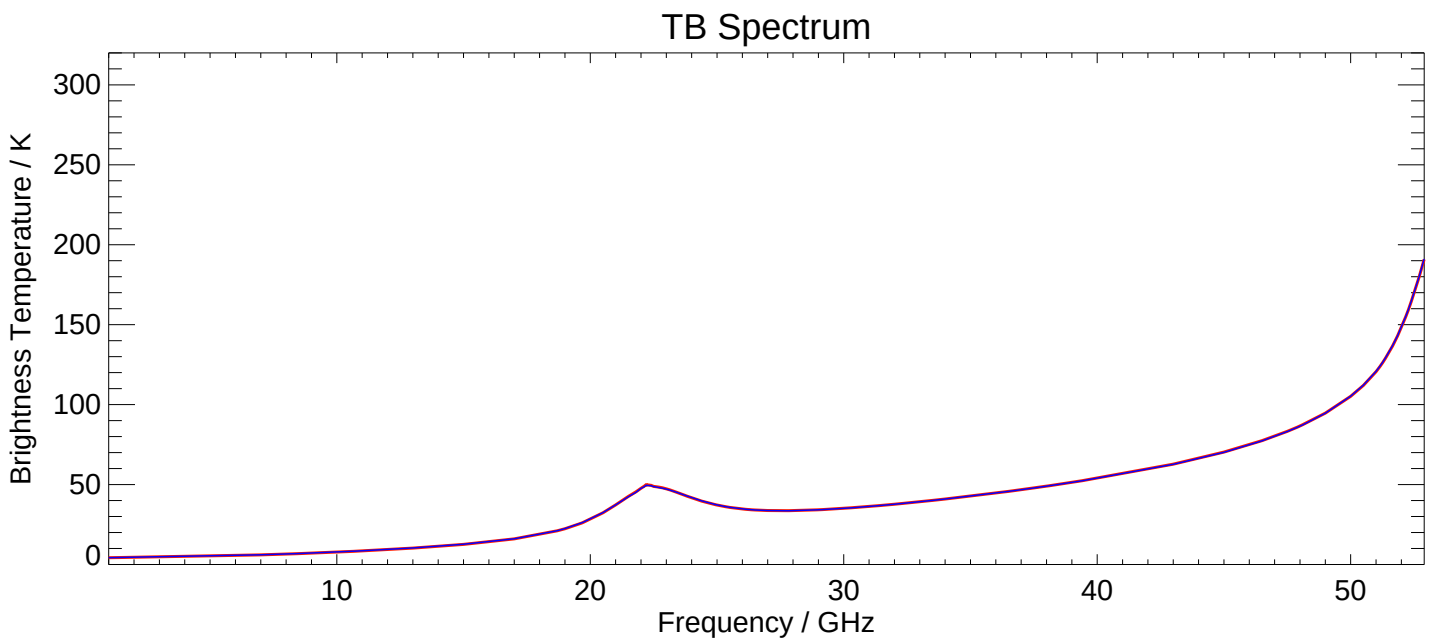
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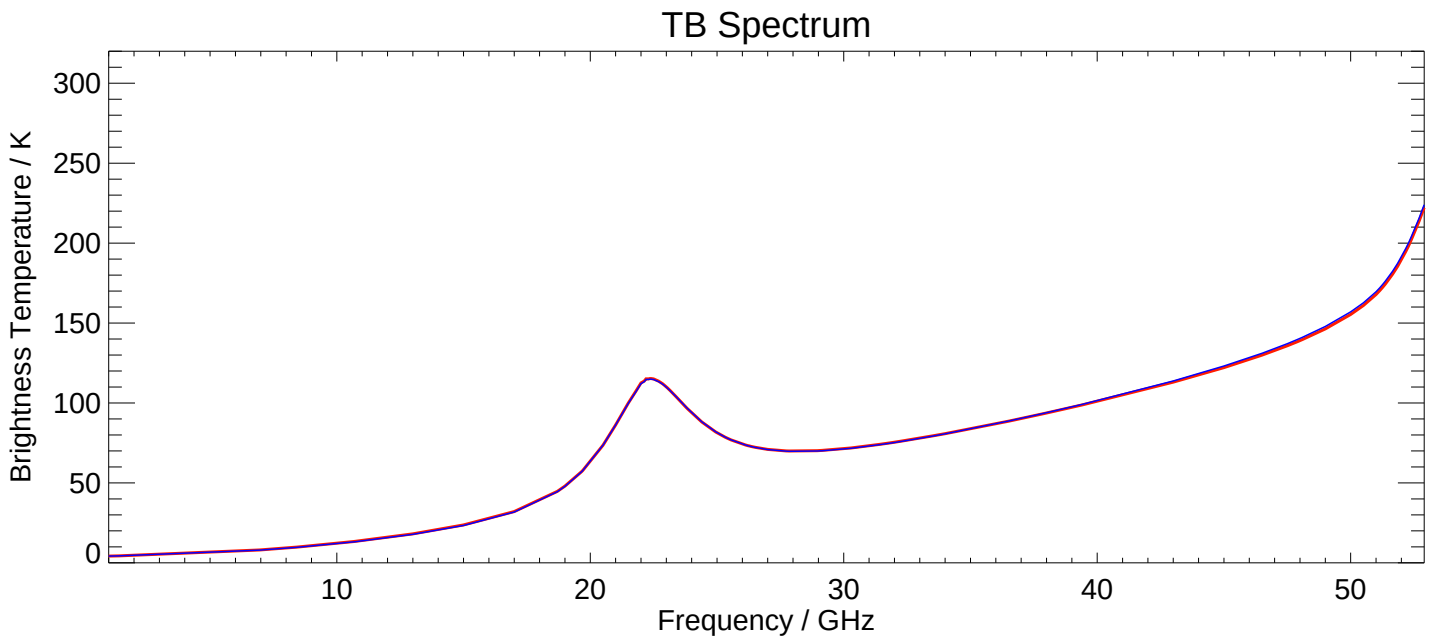
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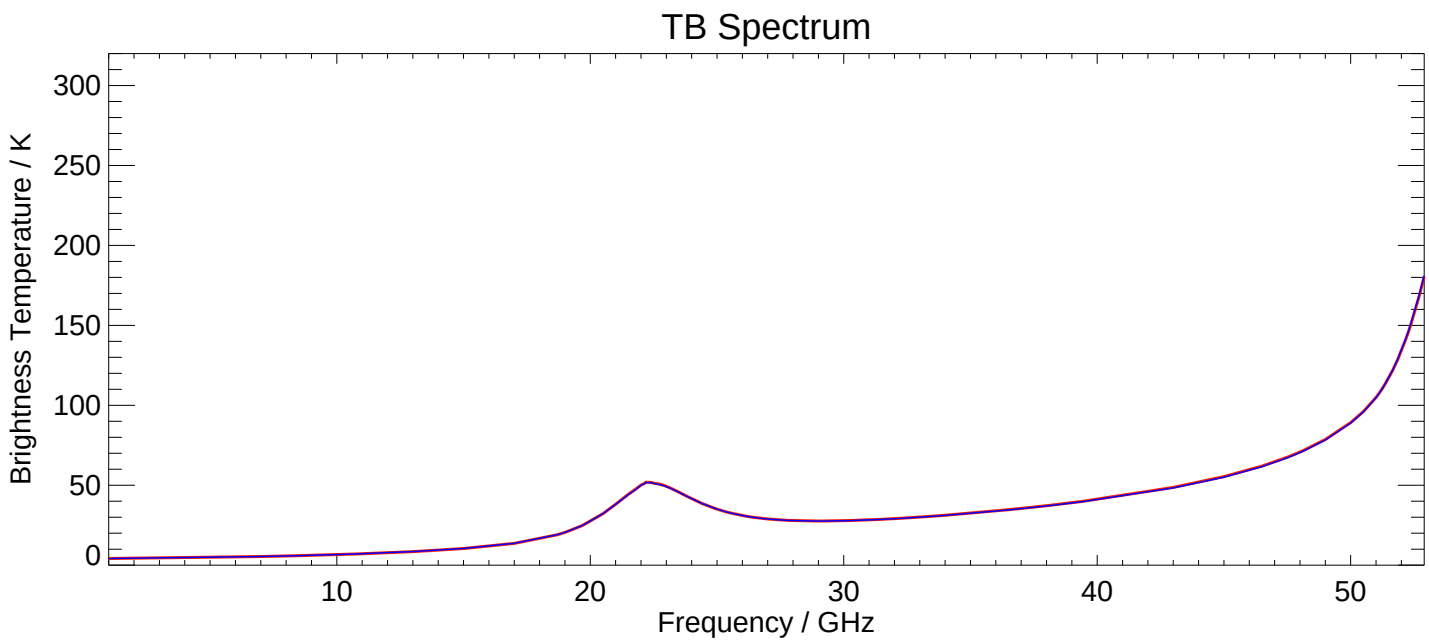
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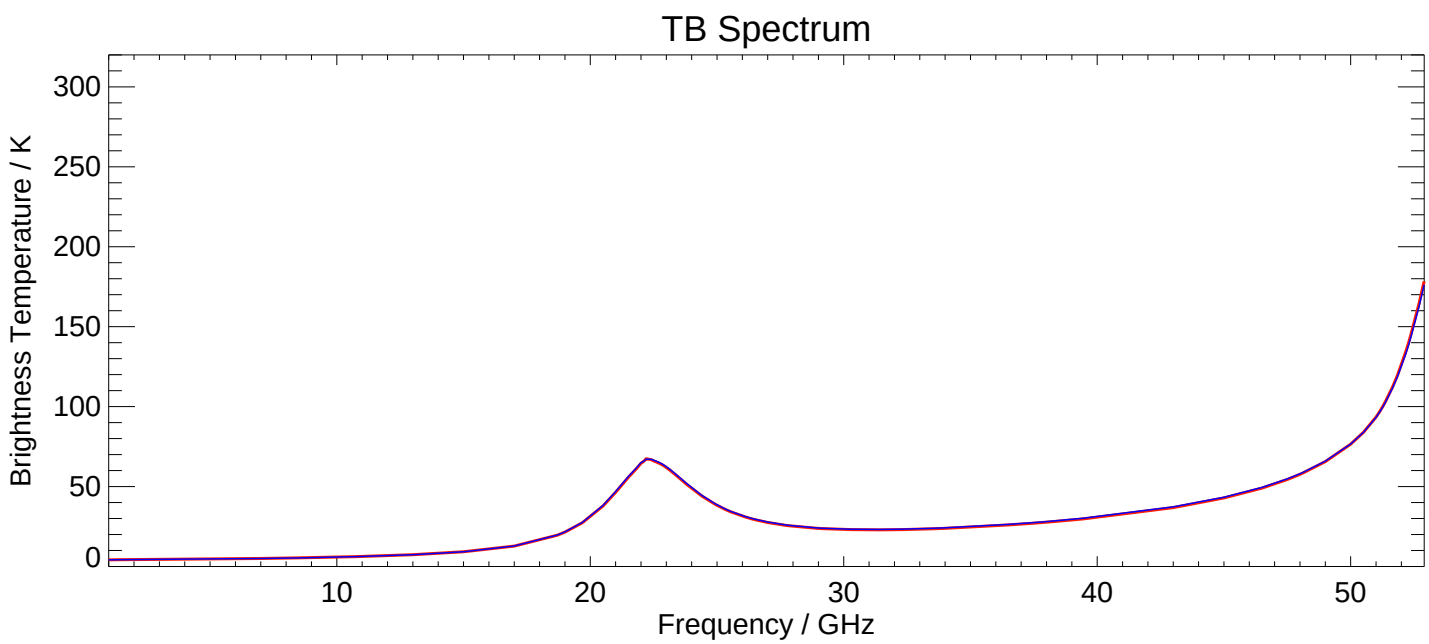
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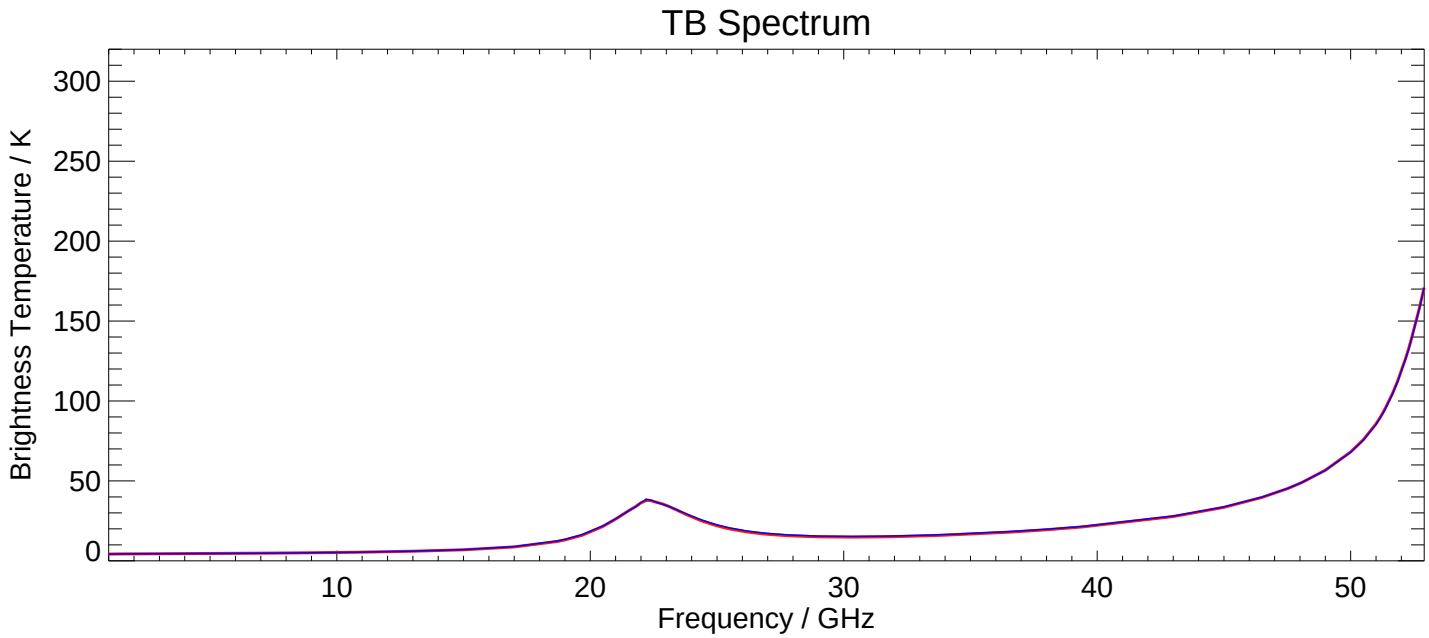
Frequency / GHz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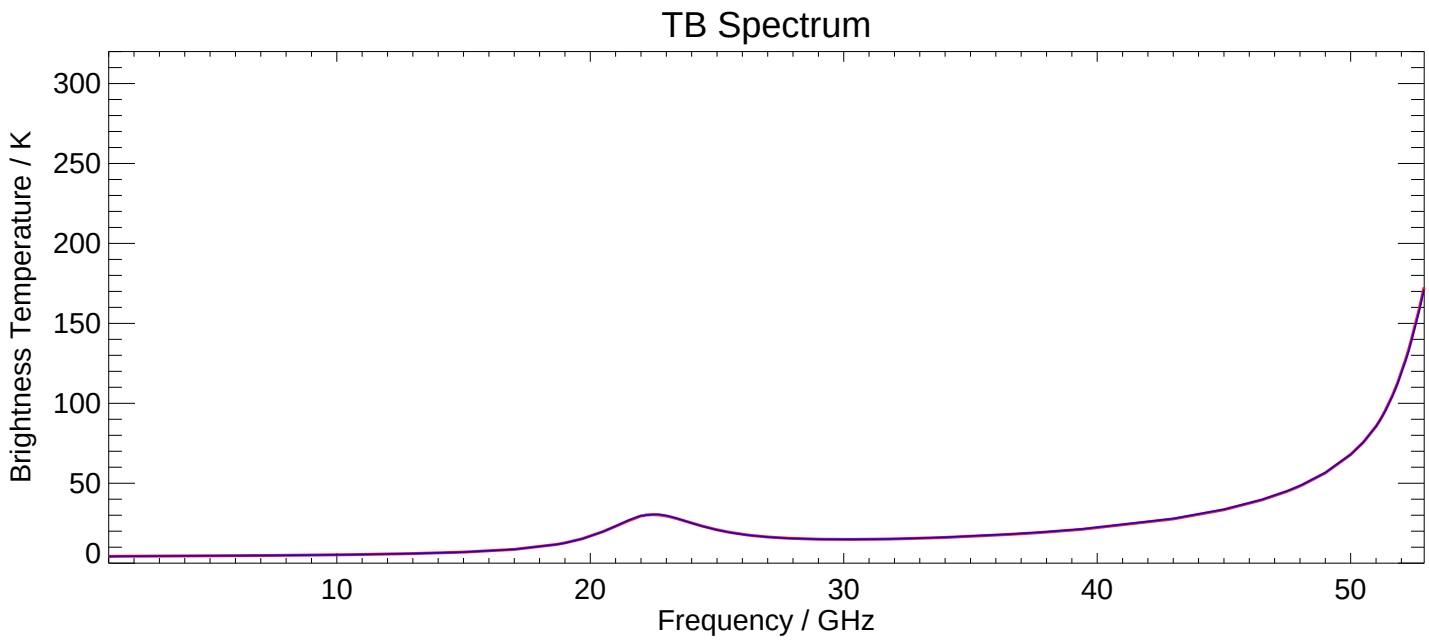
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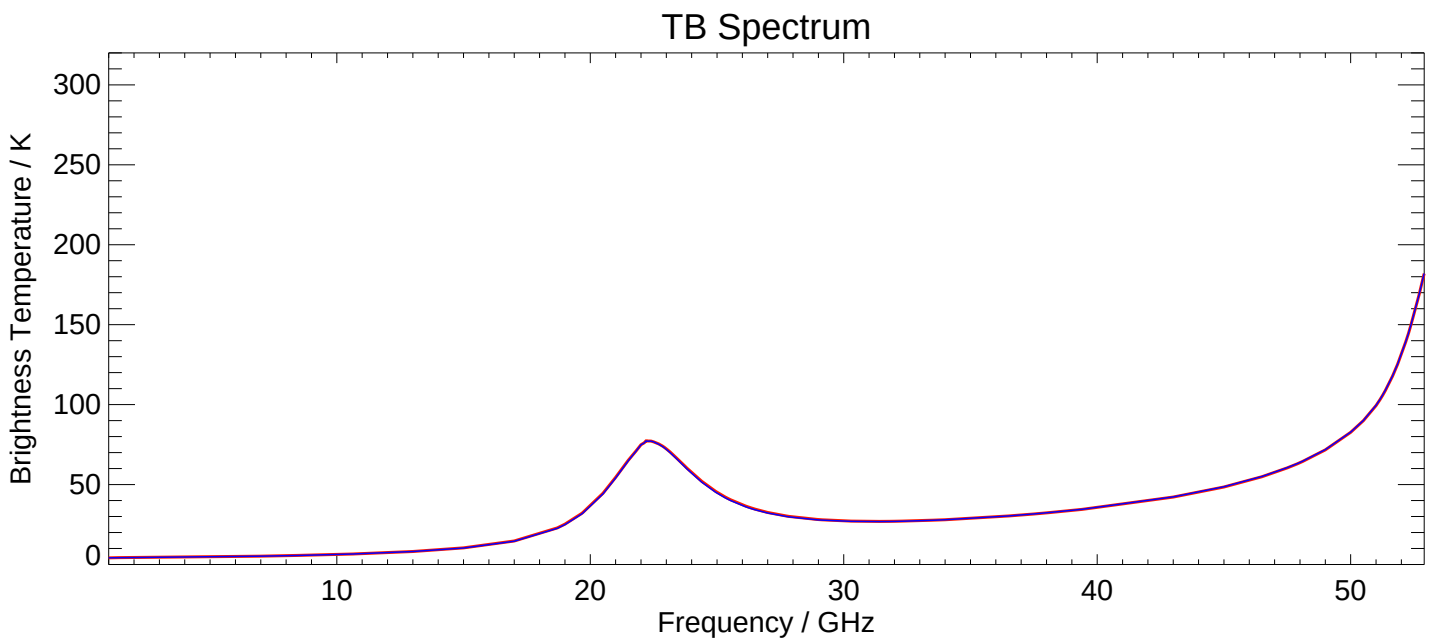
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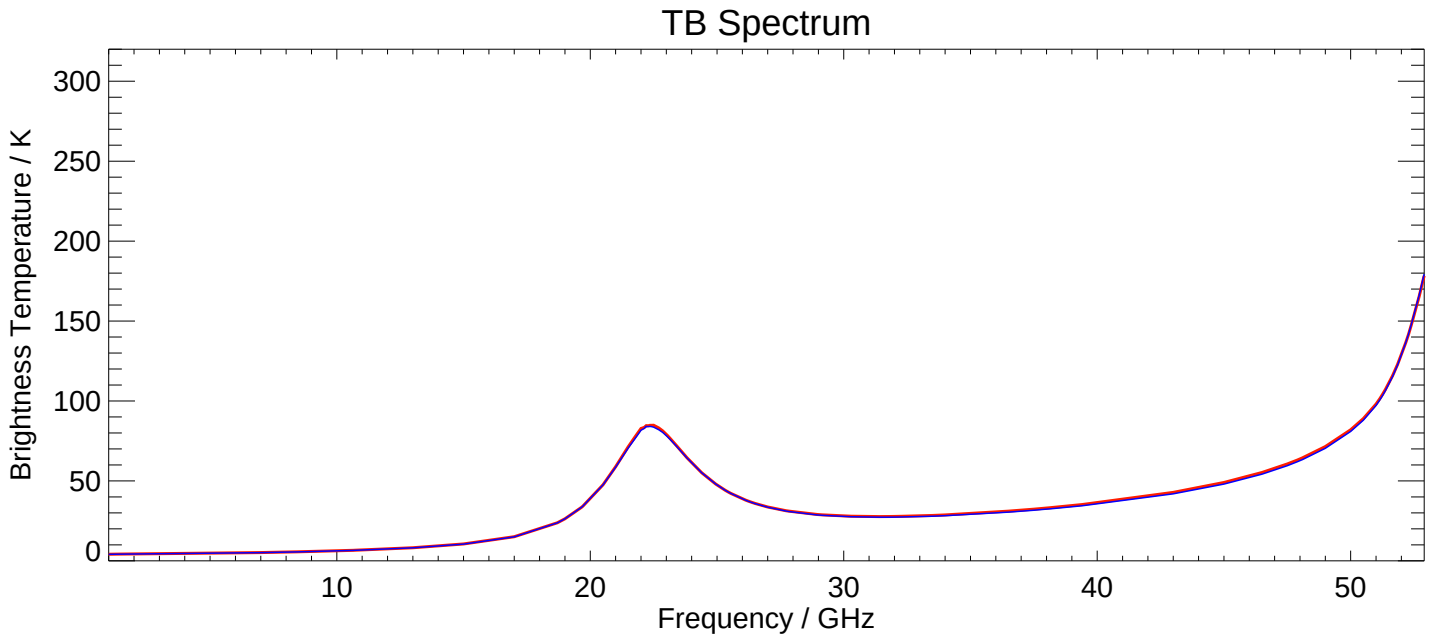
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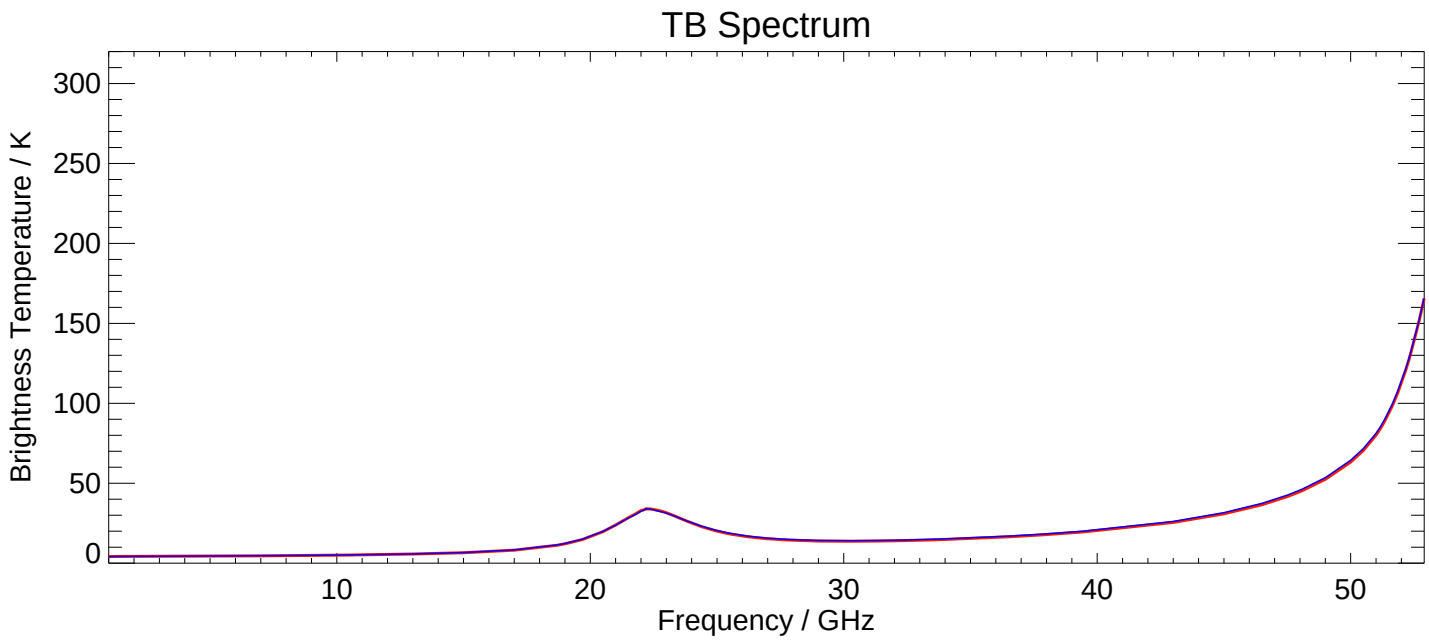
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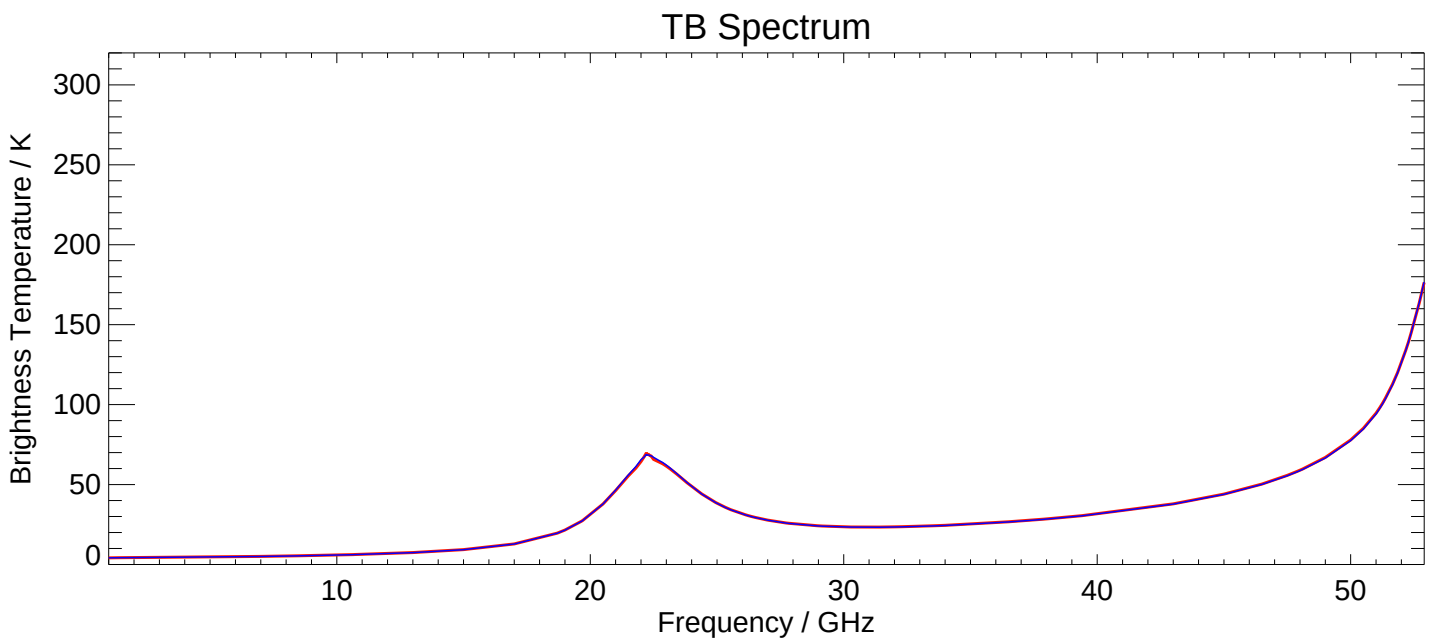
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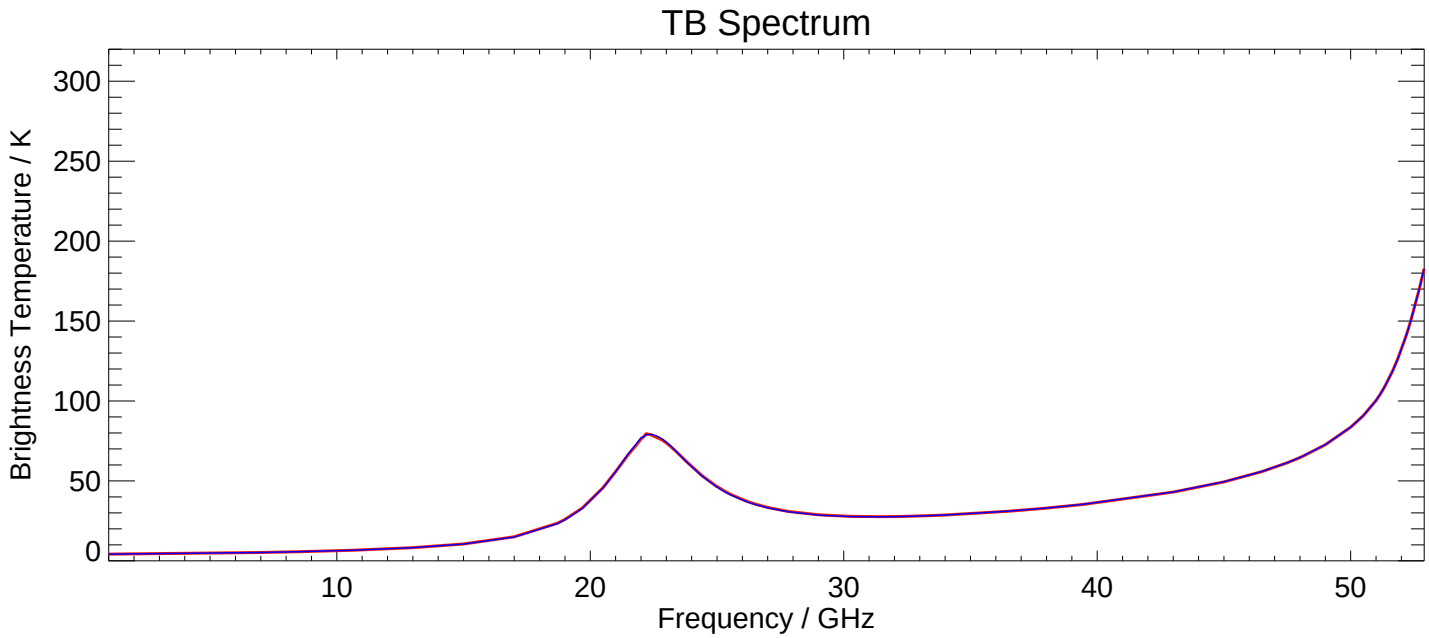
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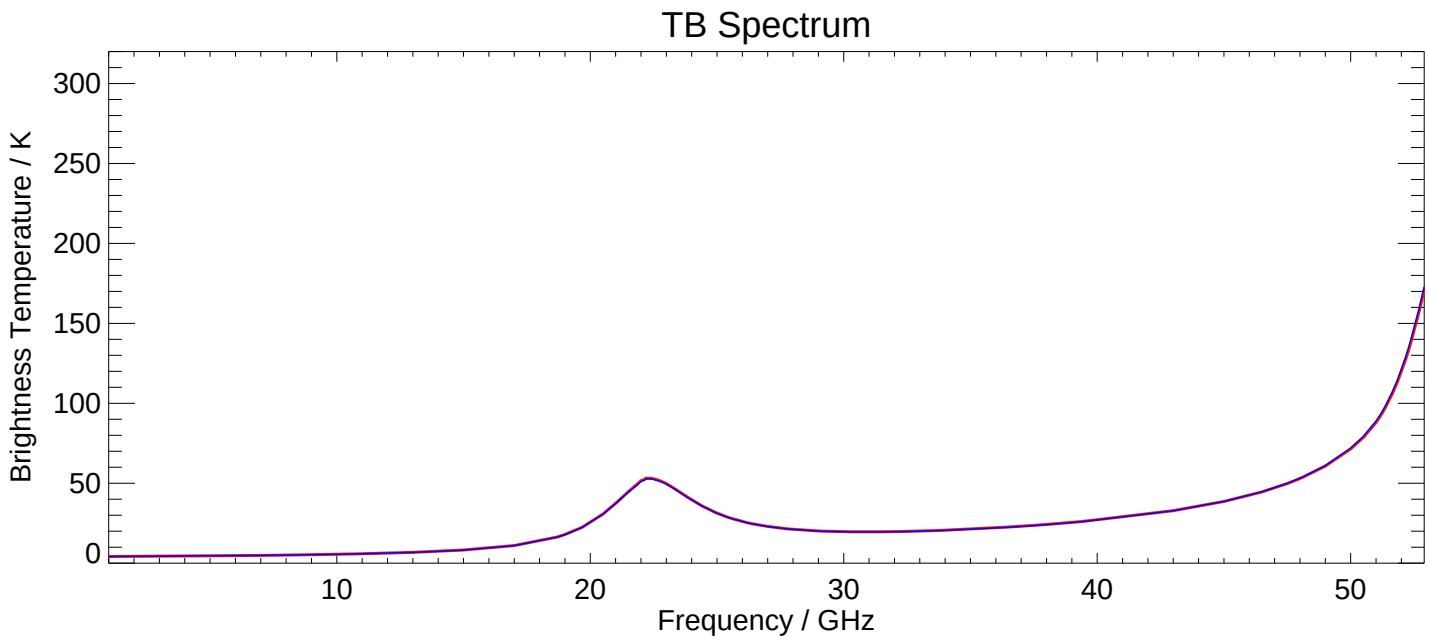
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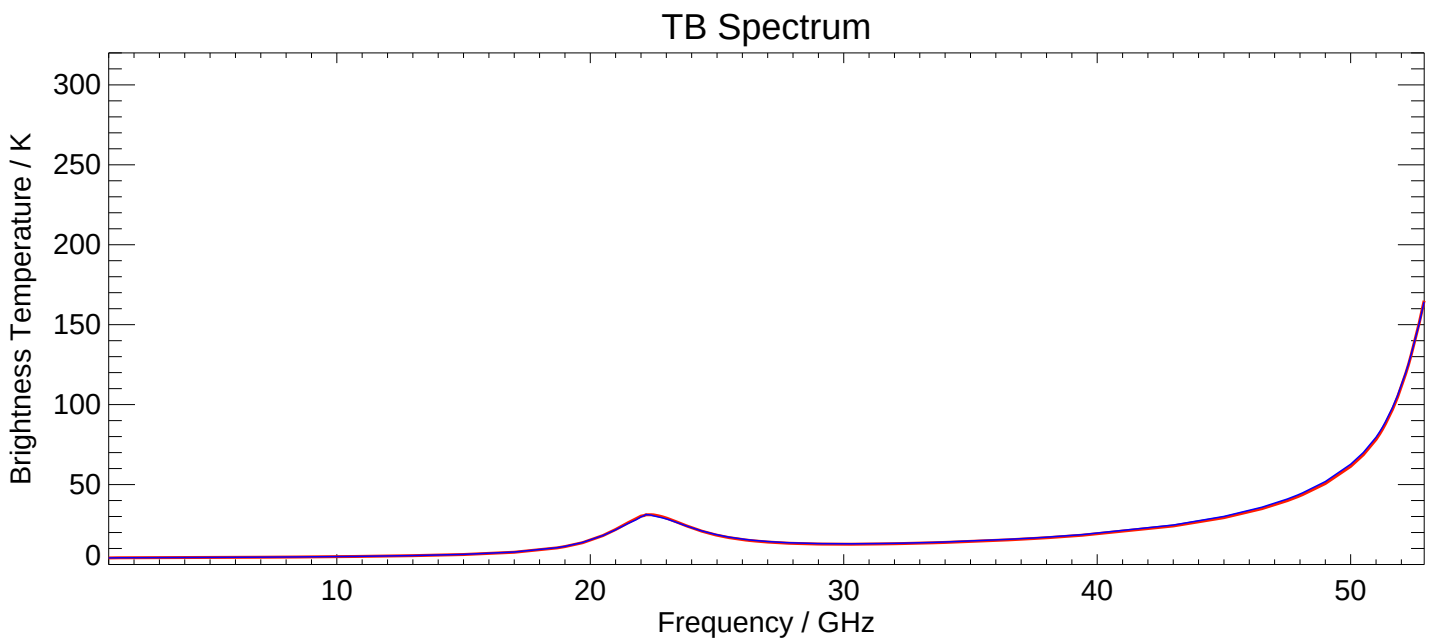
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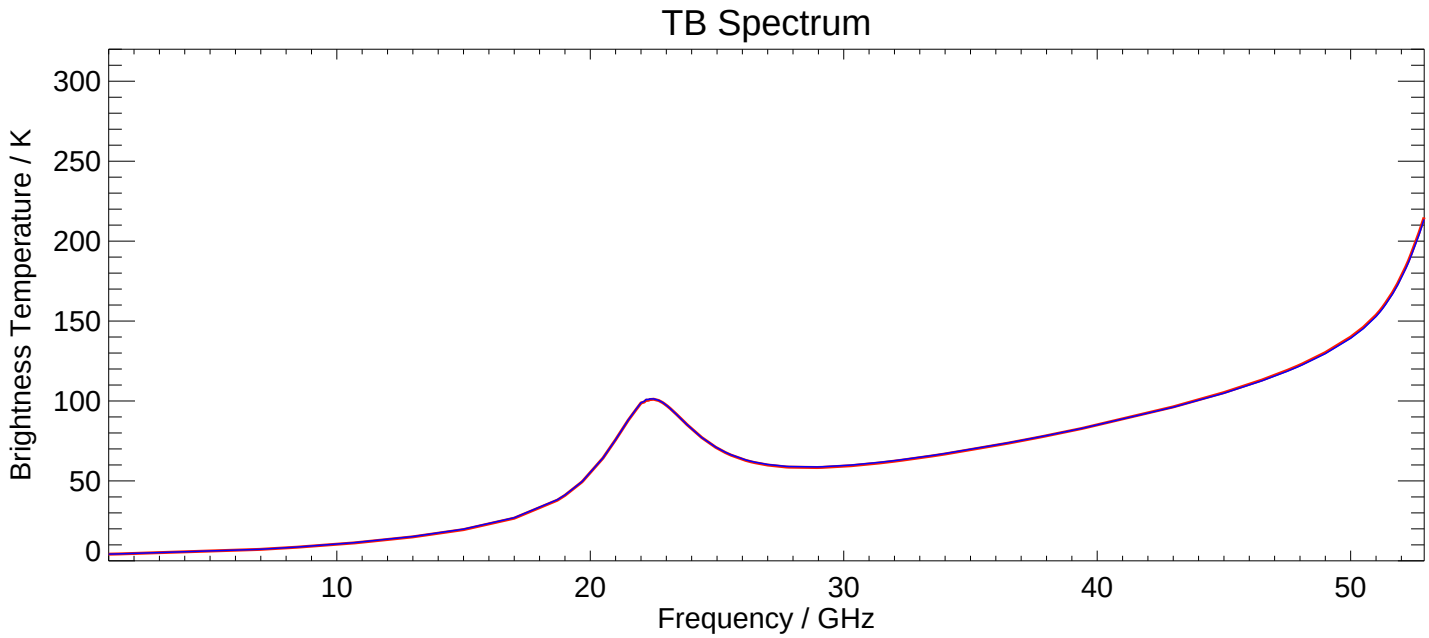
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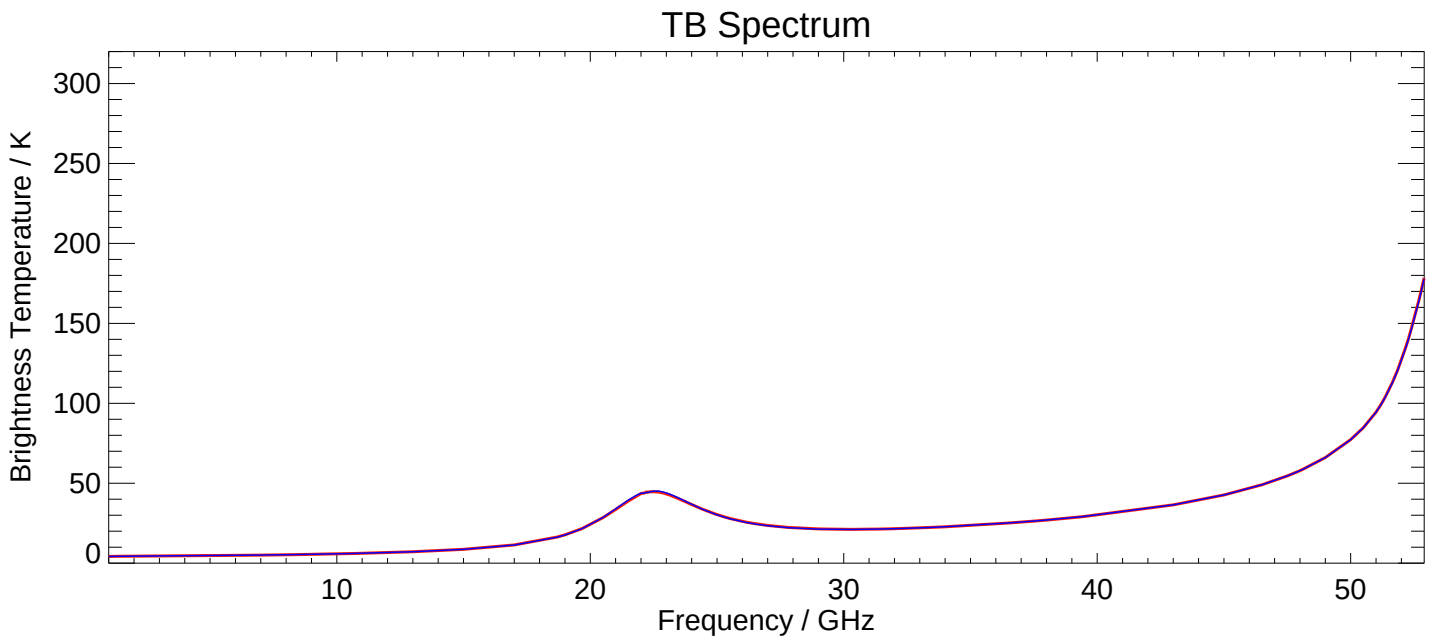
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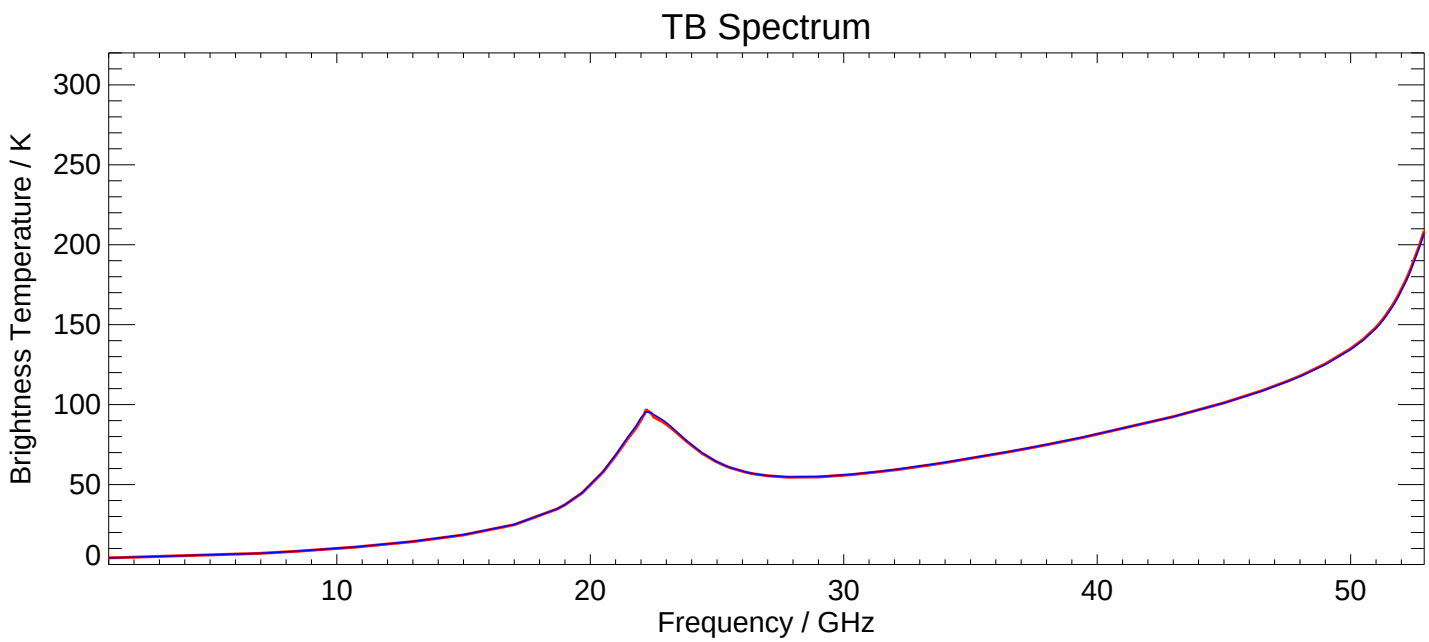
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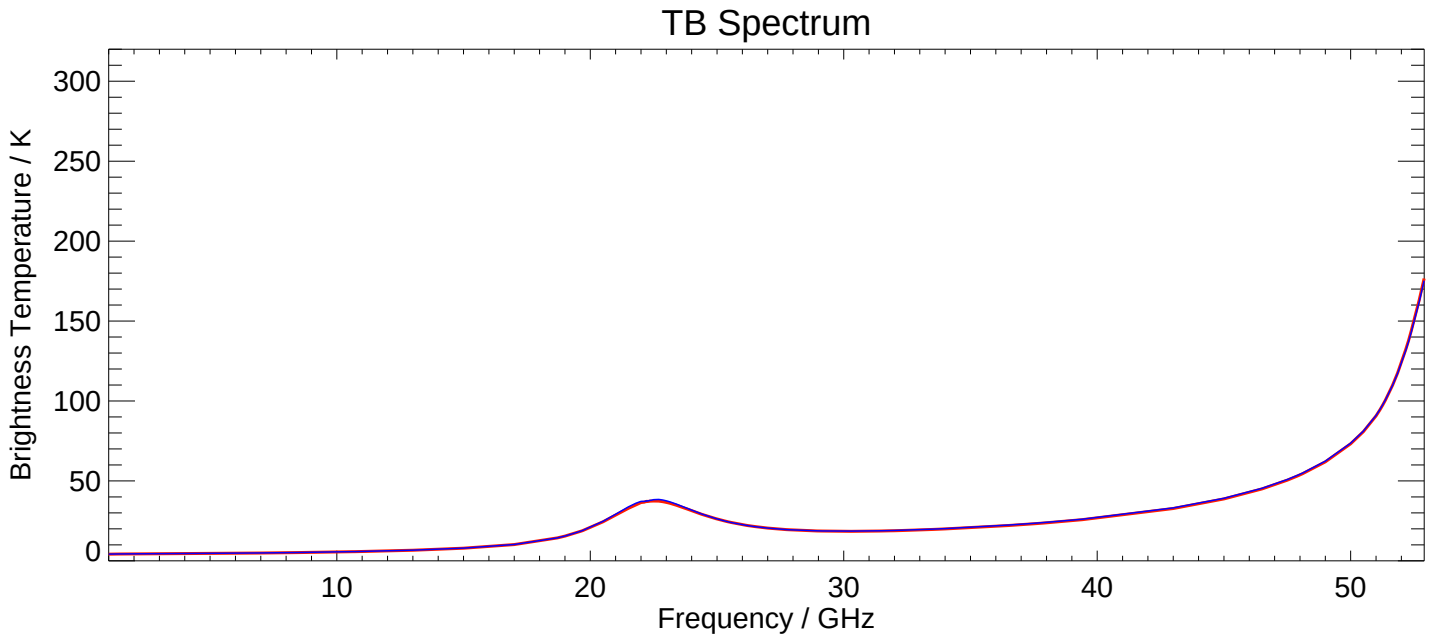
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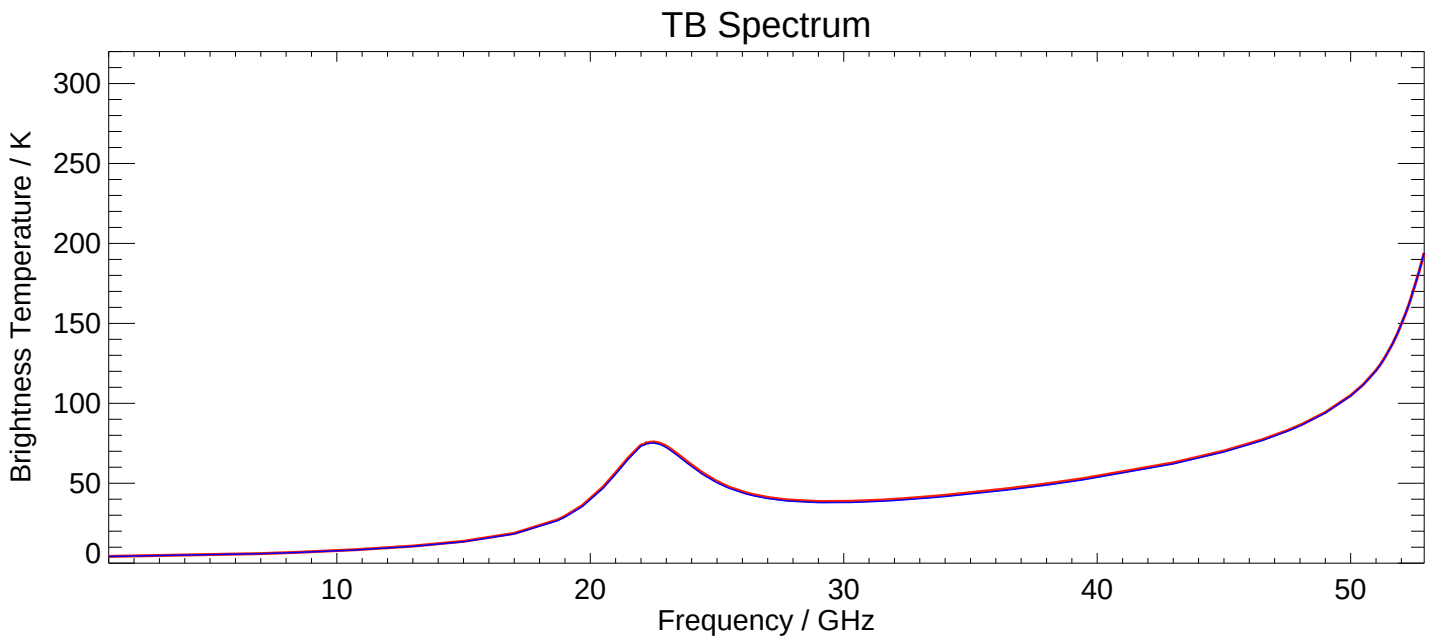
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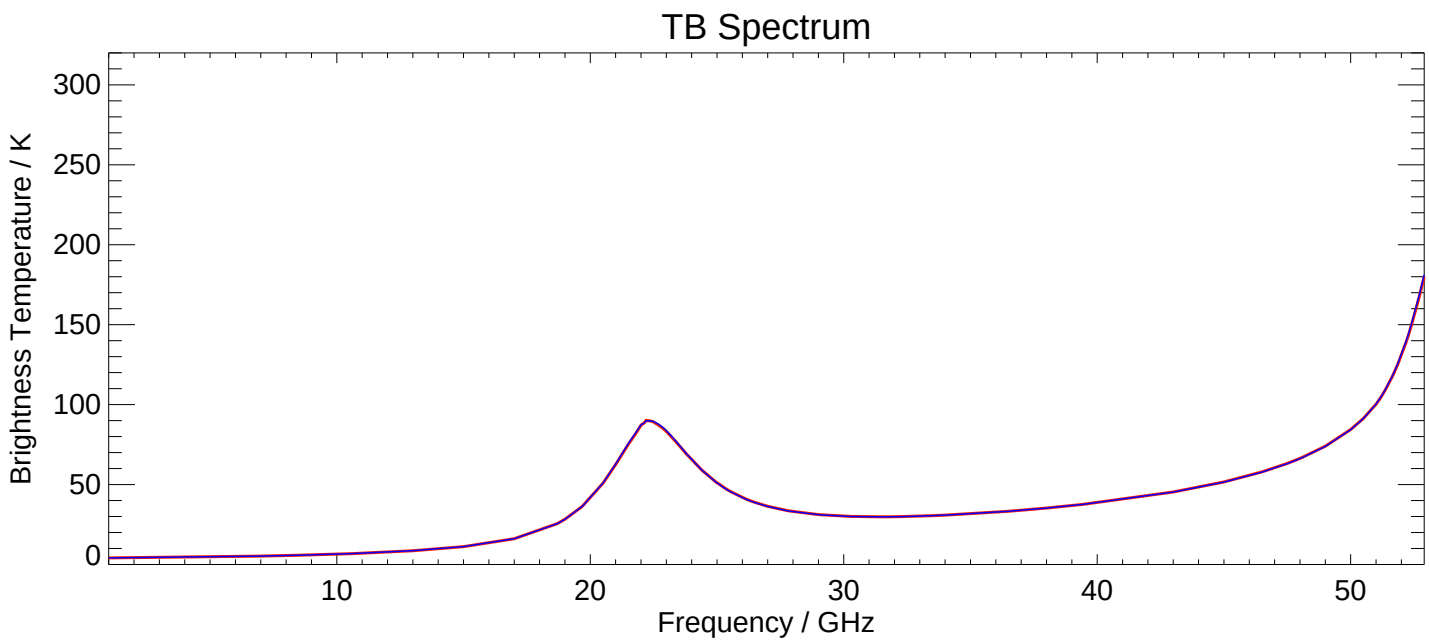
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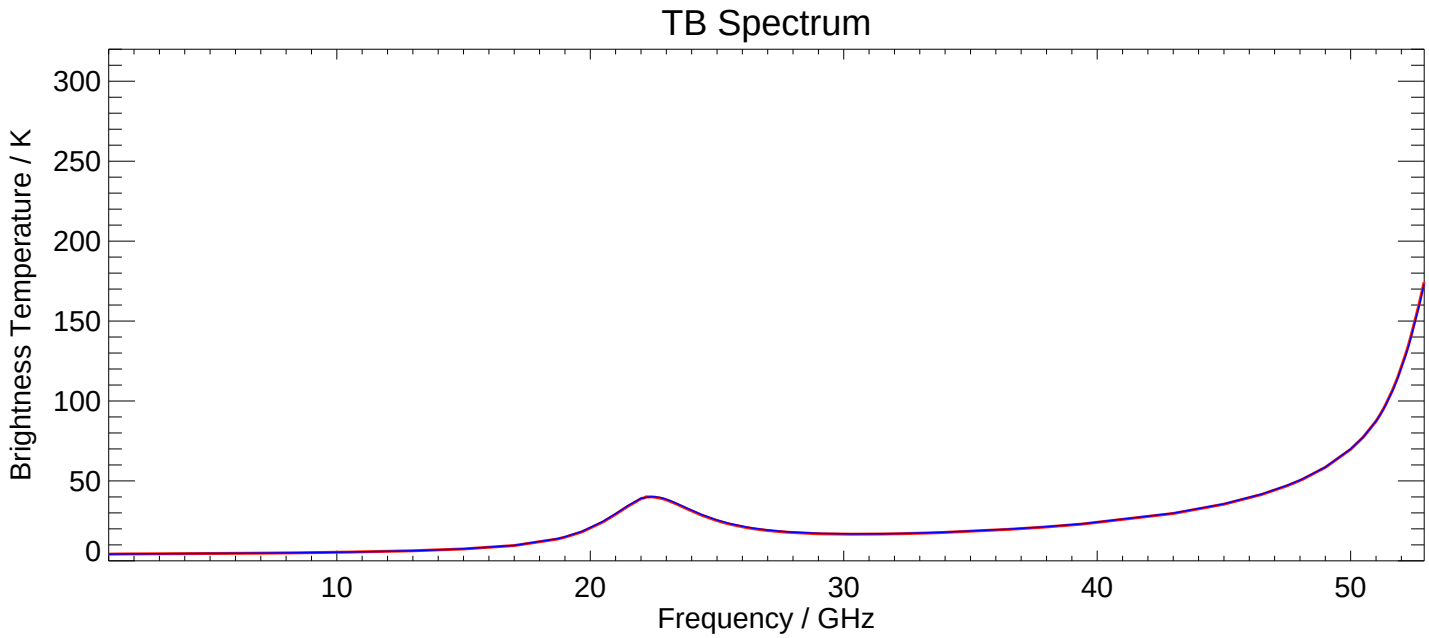
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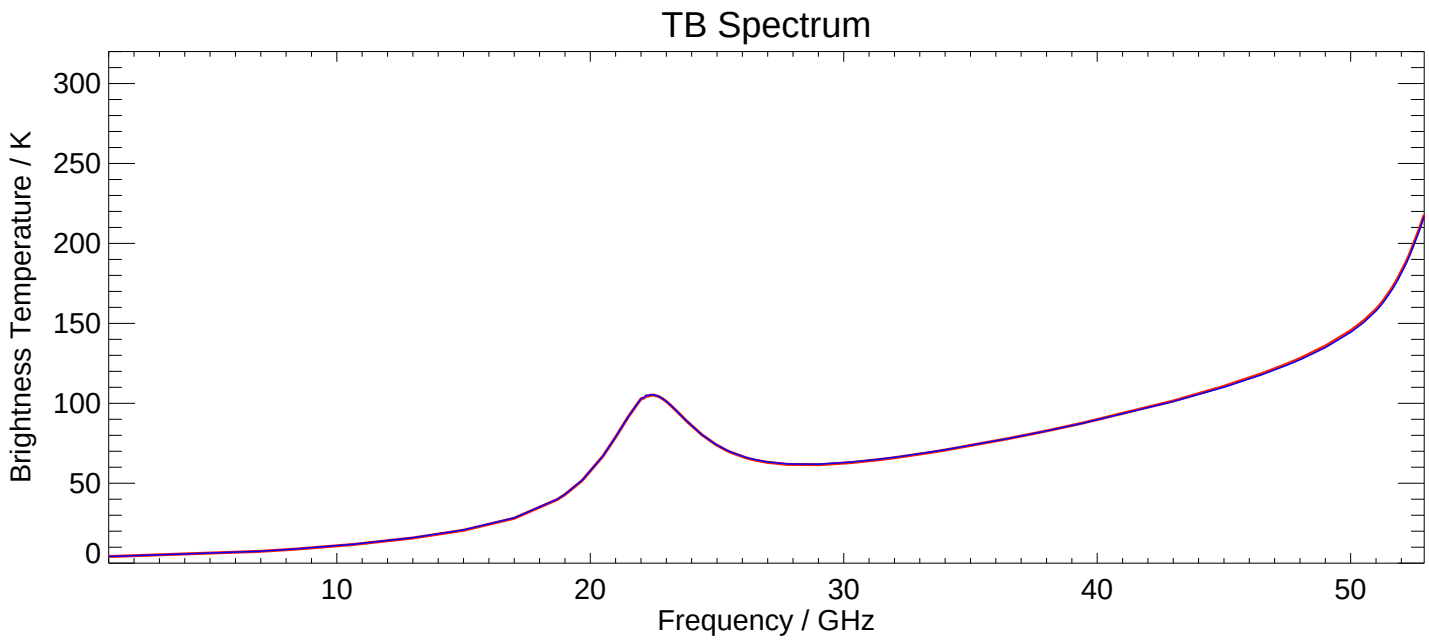
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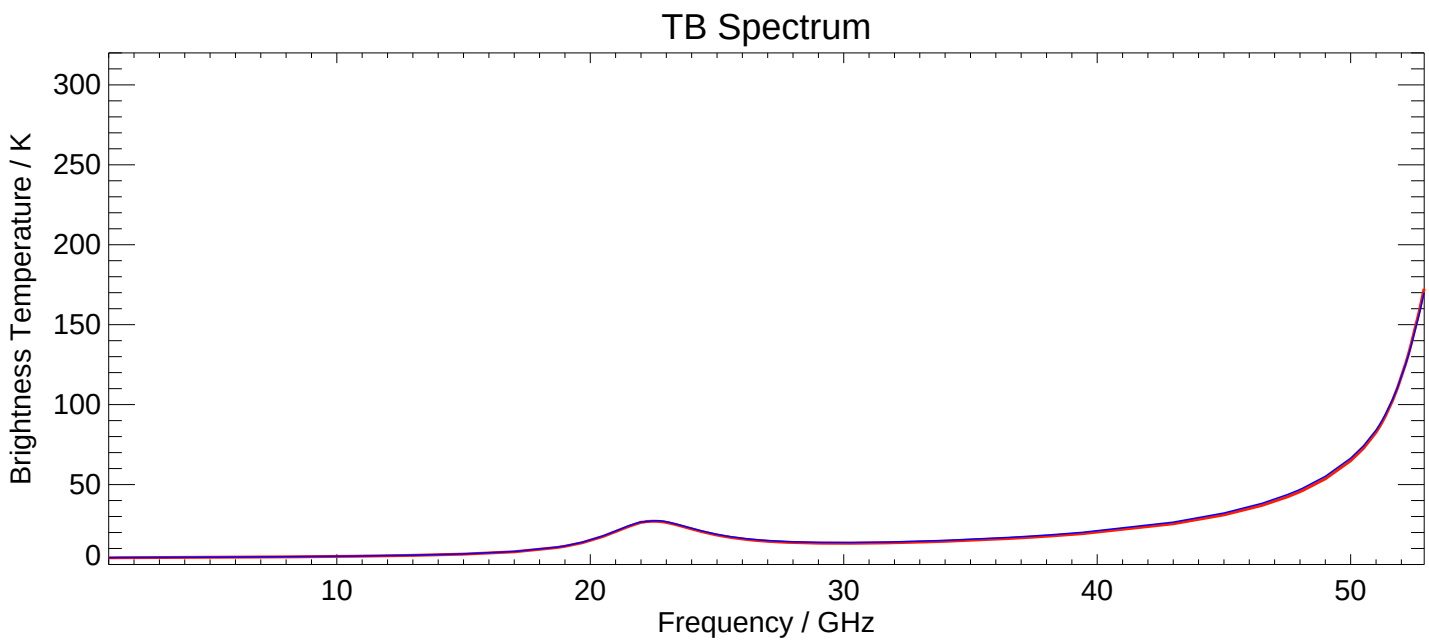
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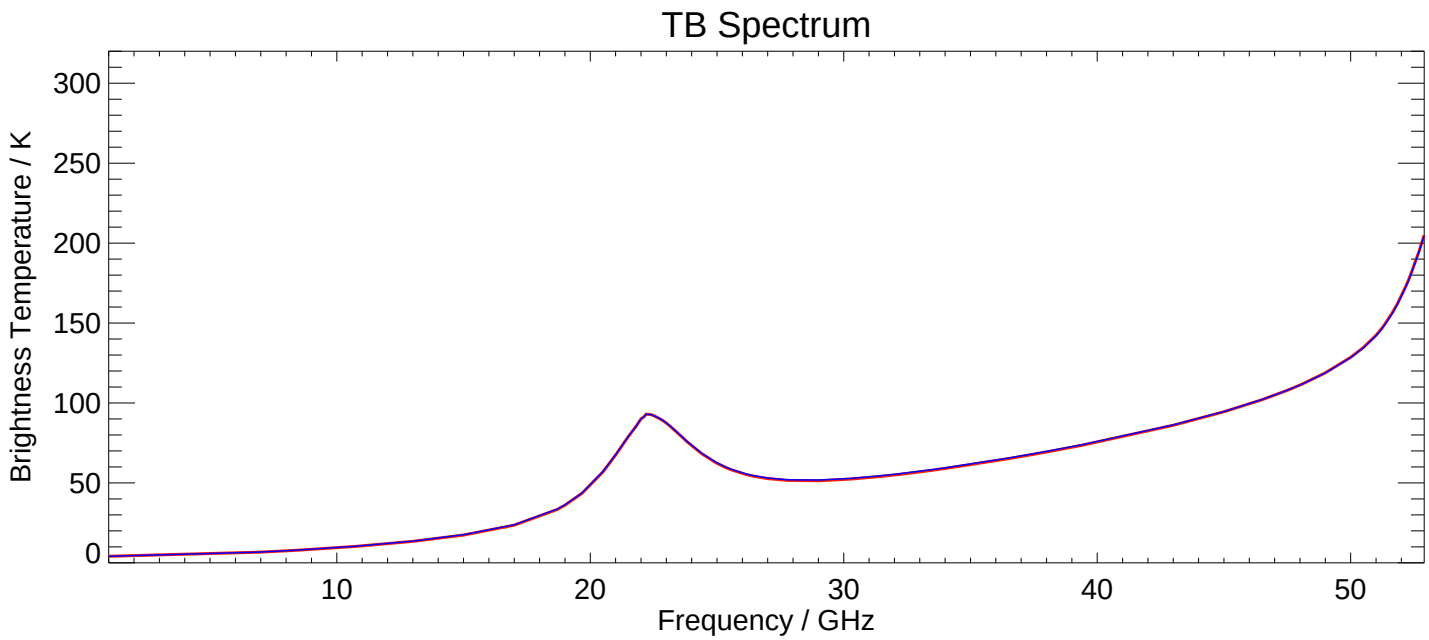
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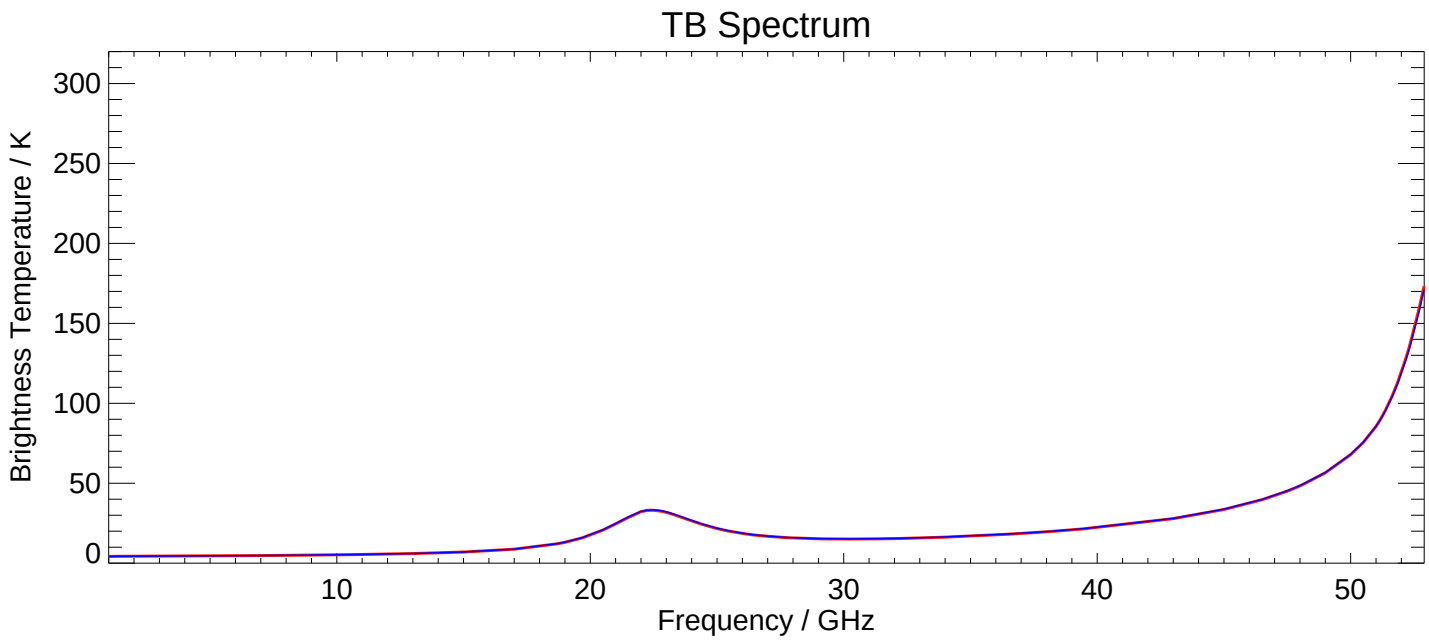
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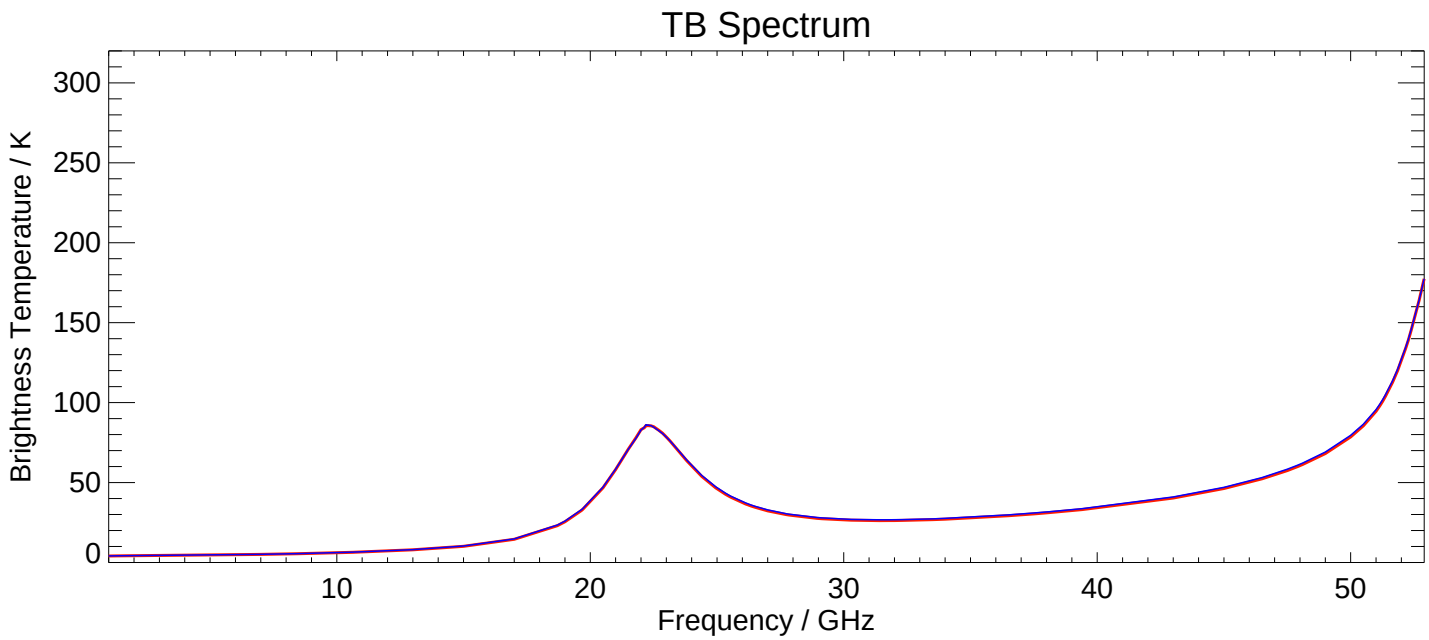
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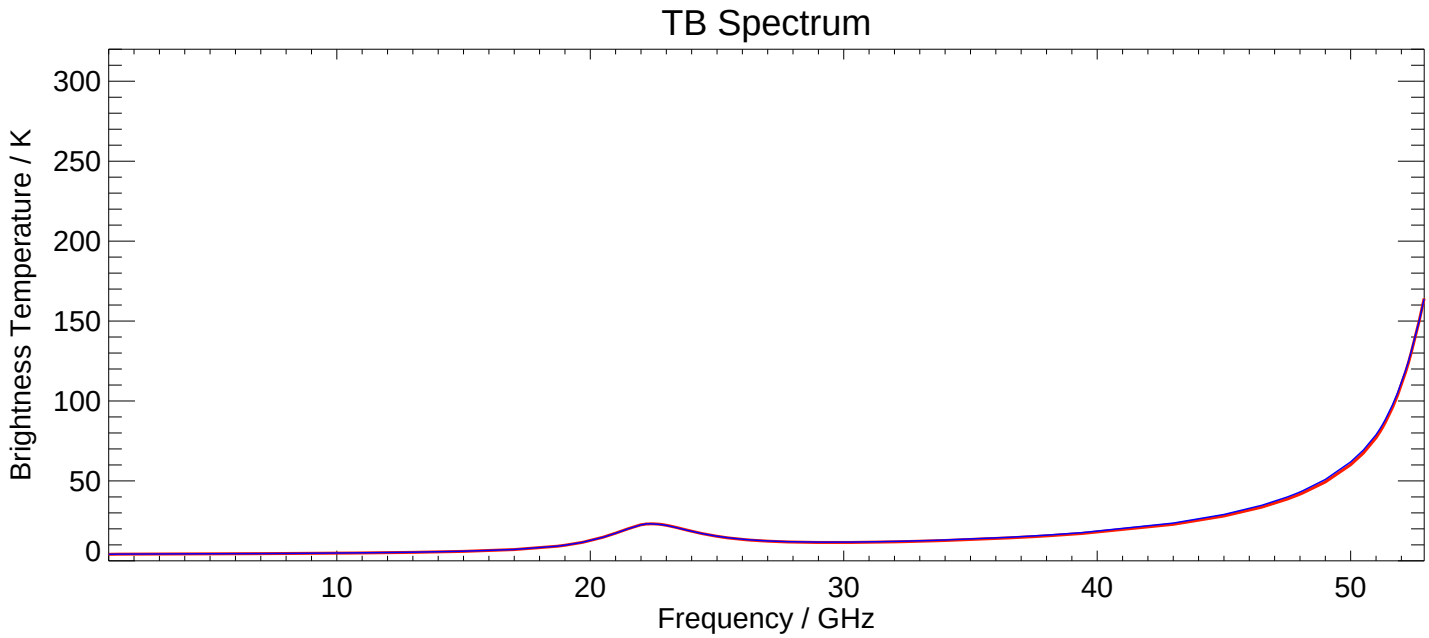
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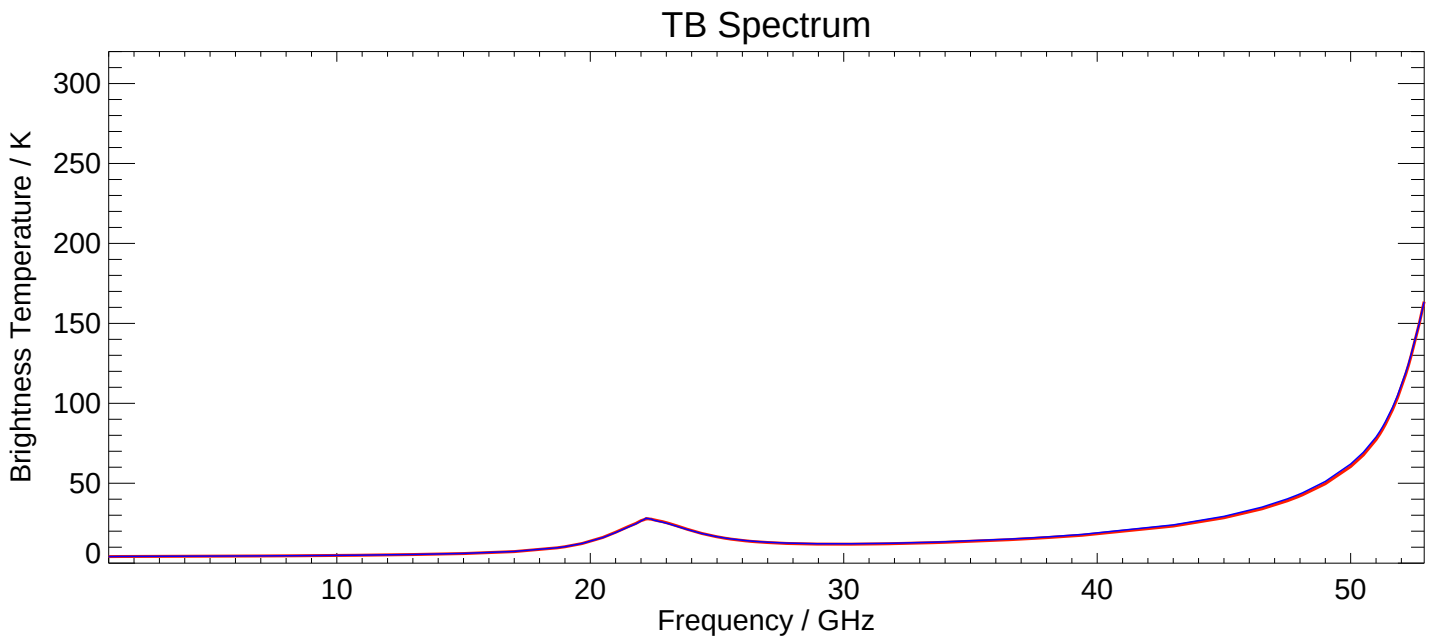
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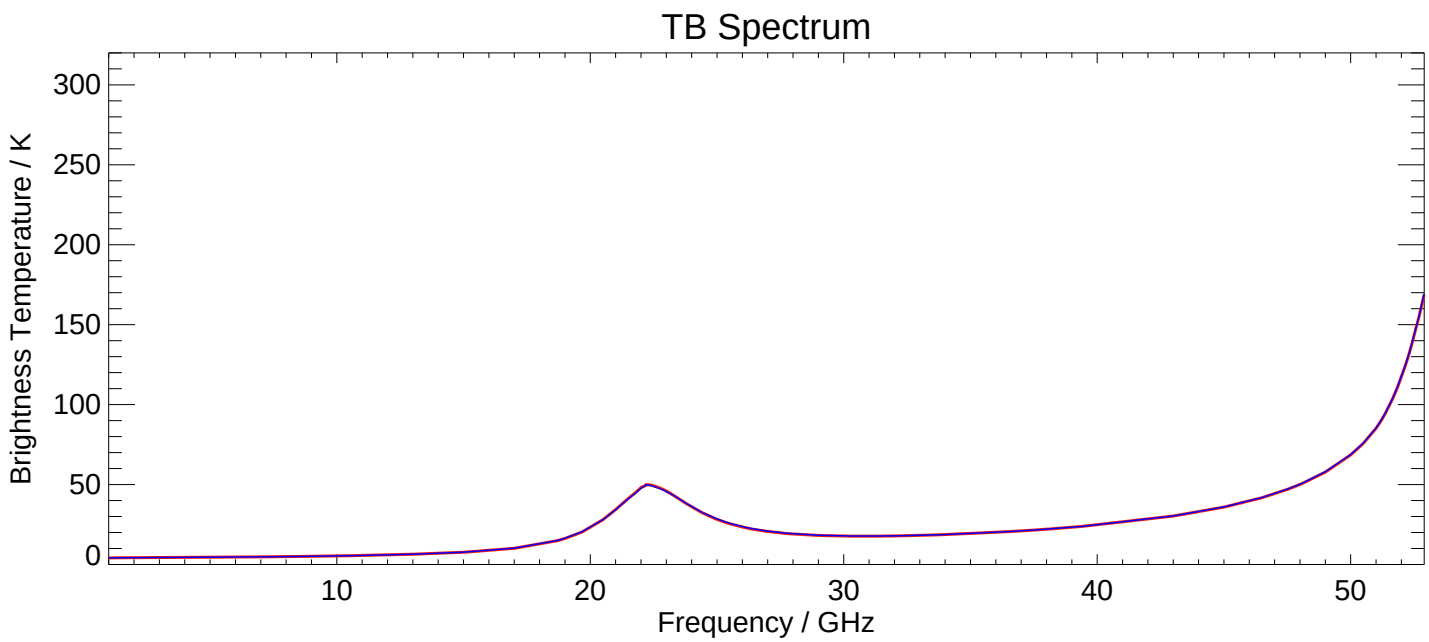
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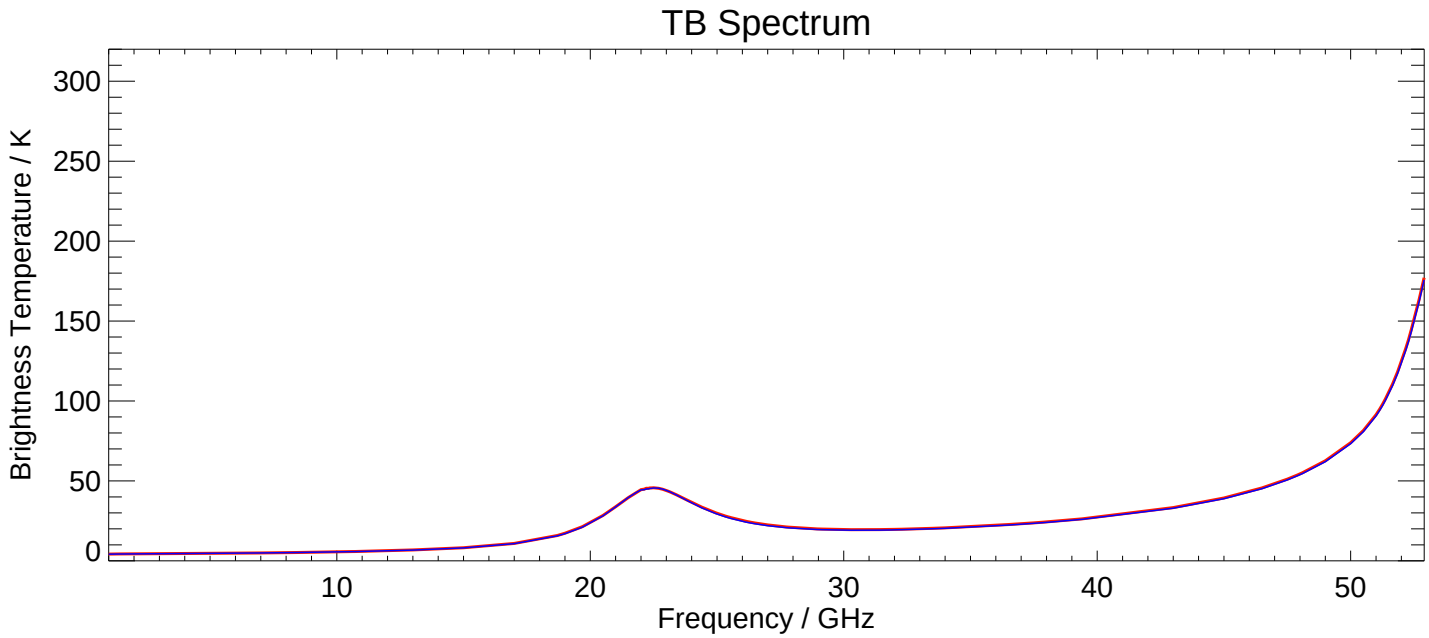
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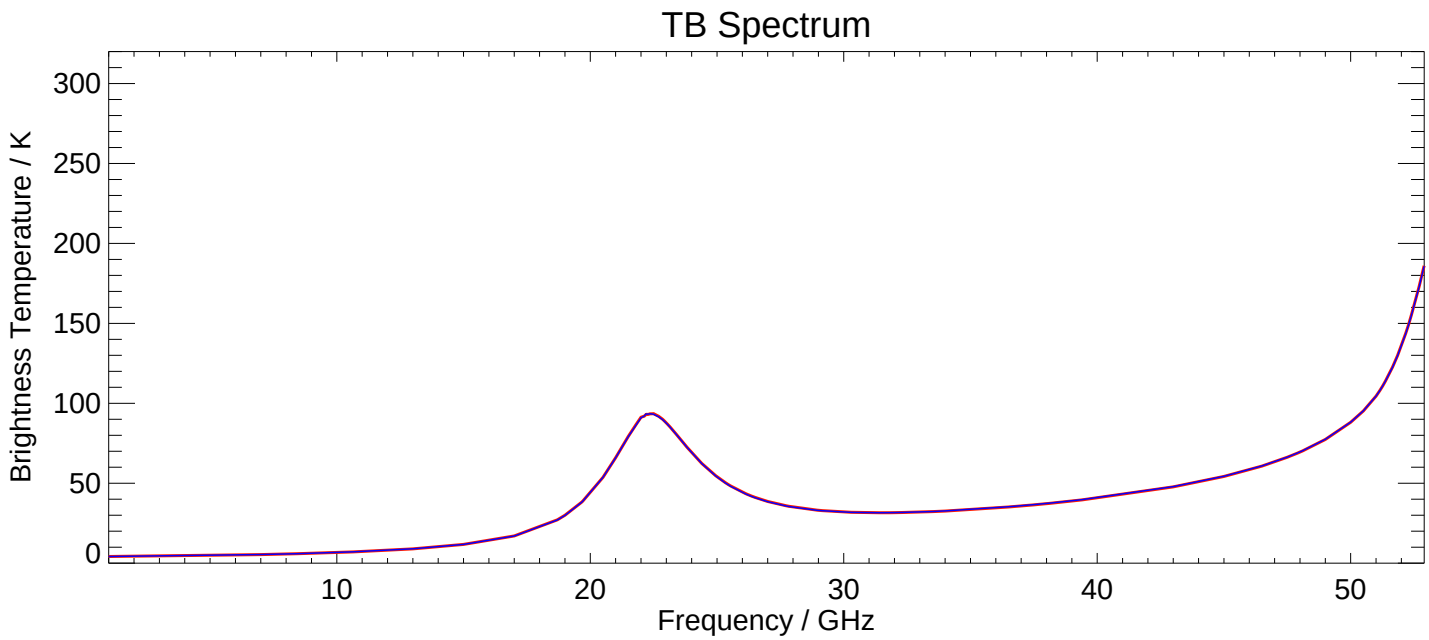
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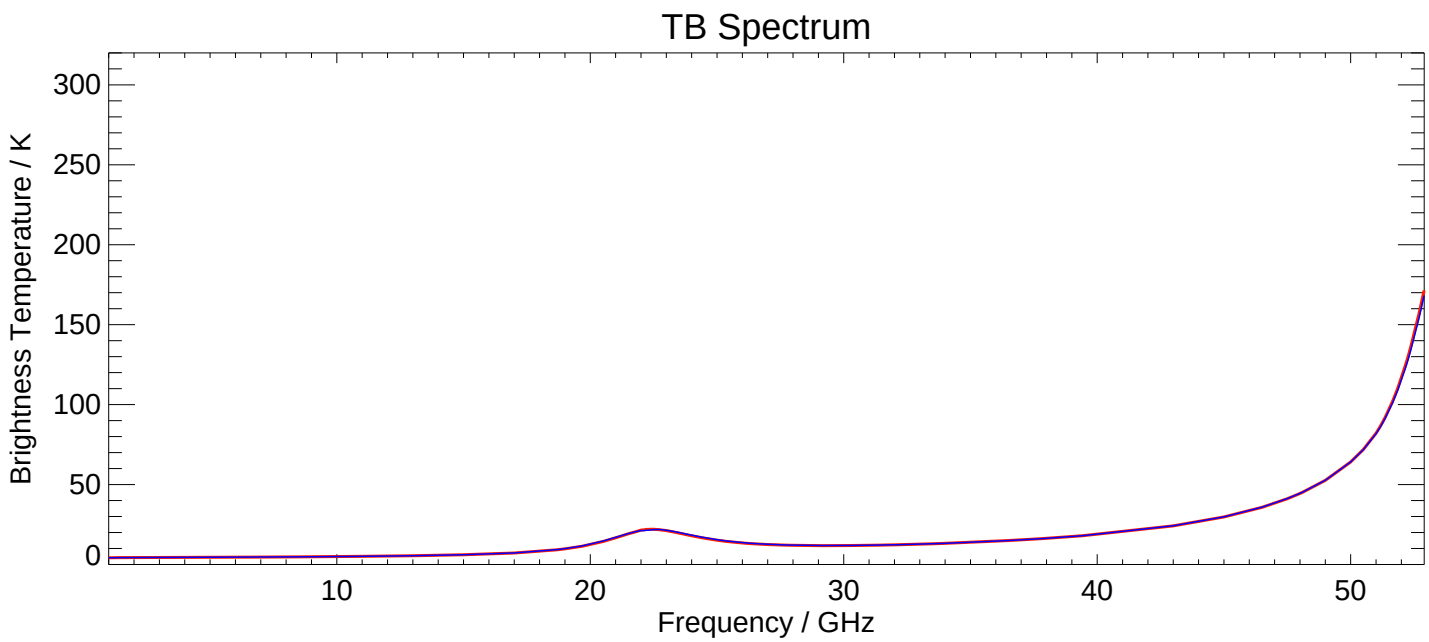
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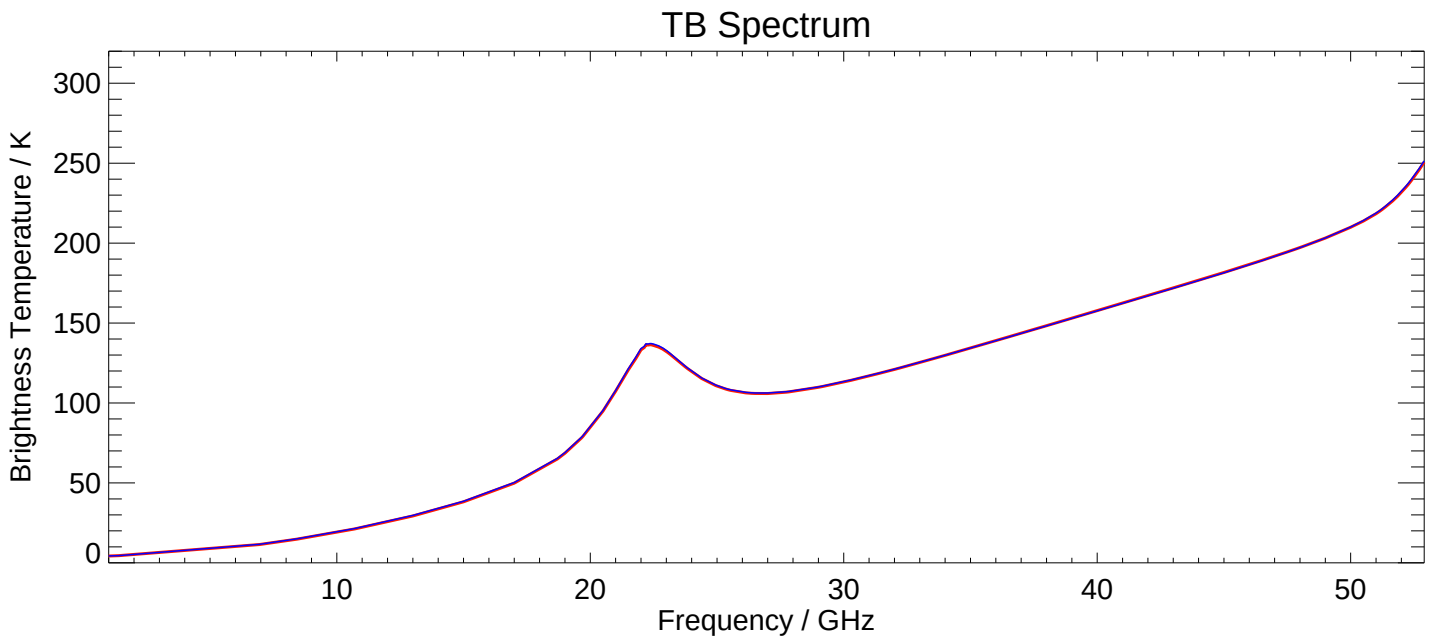
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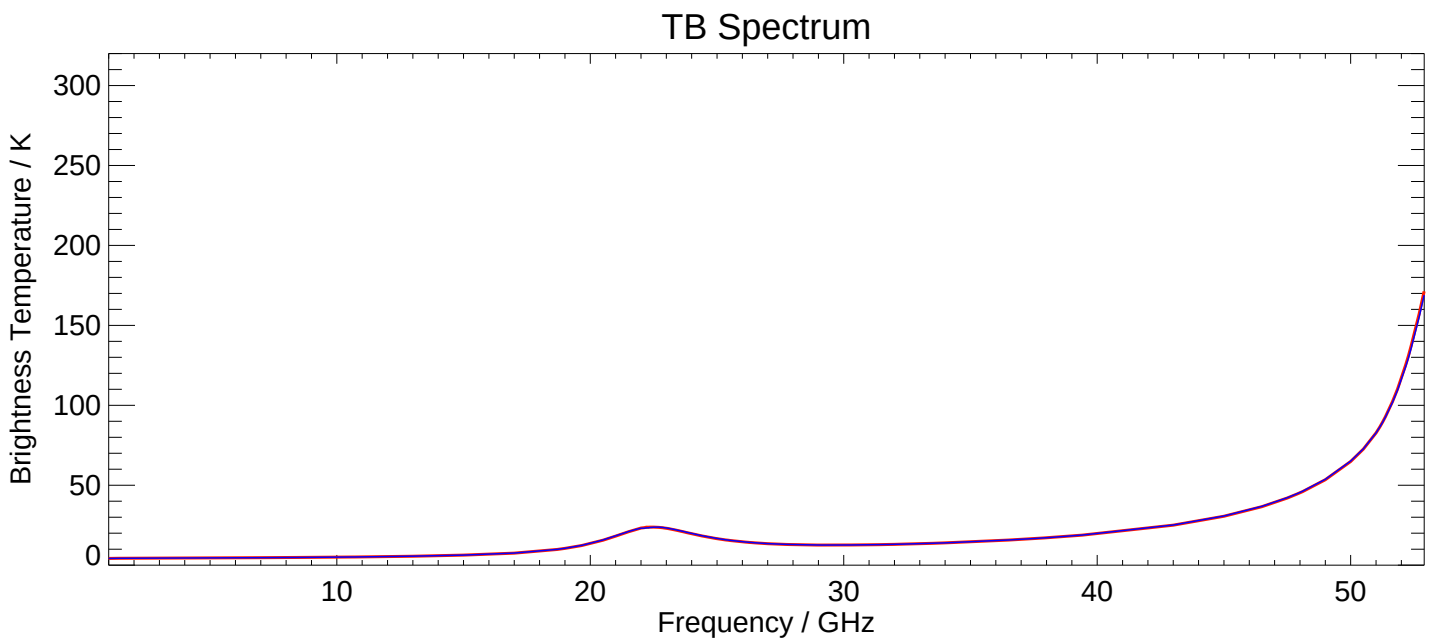
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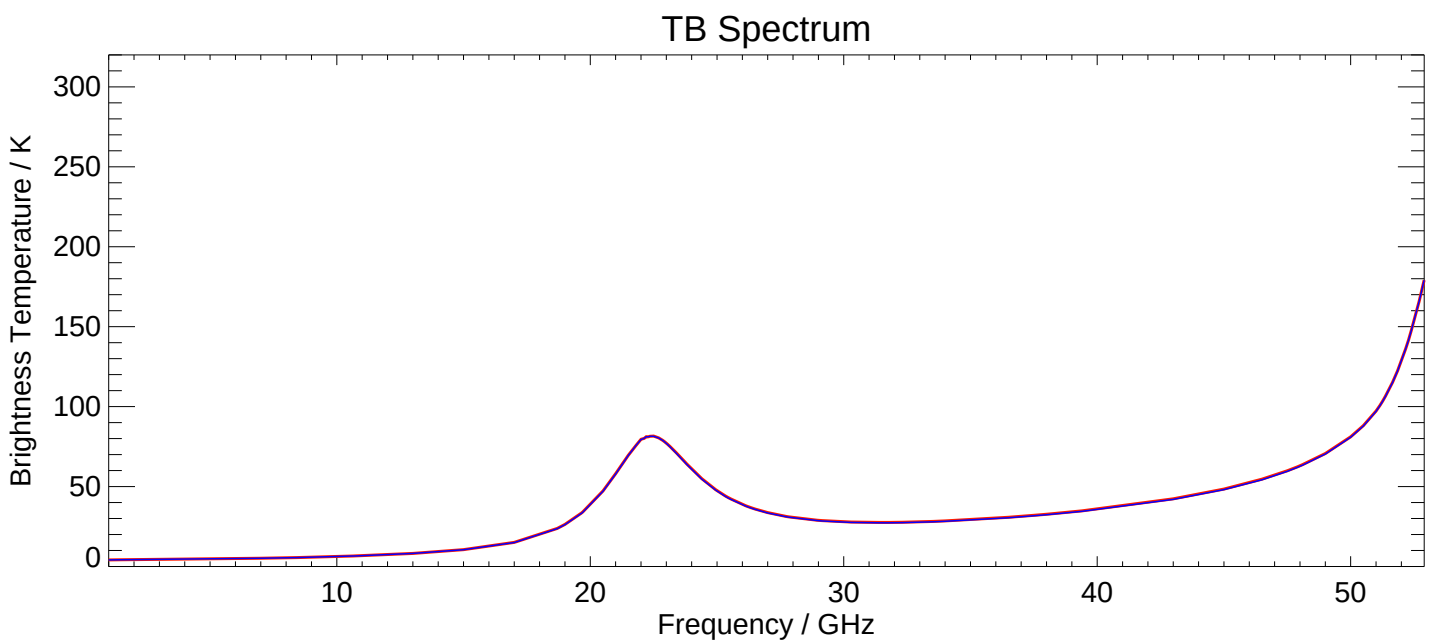
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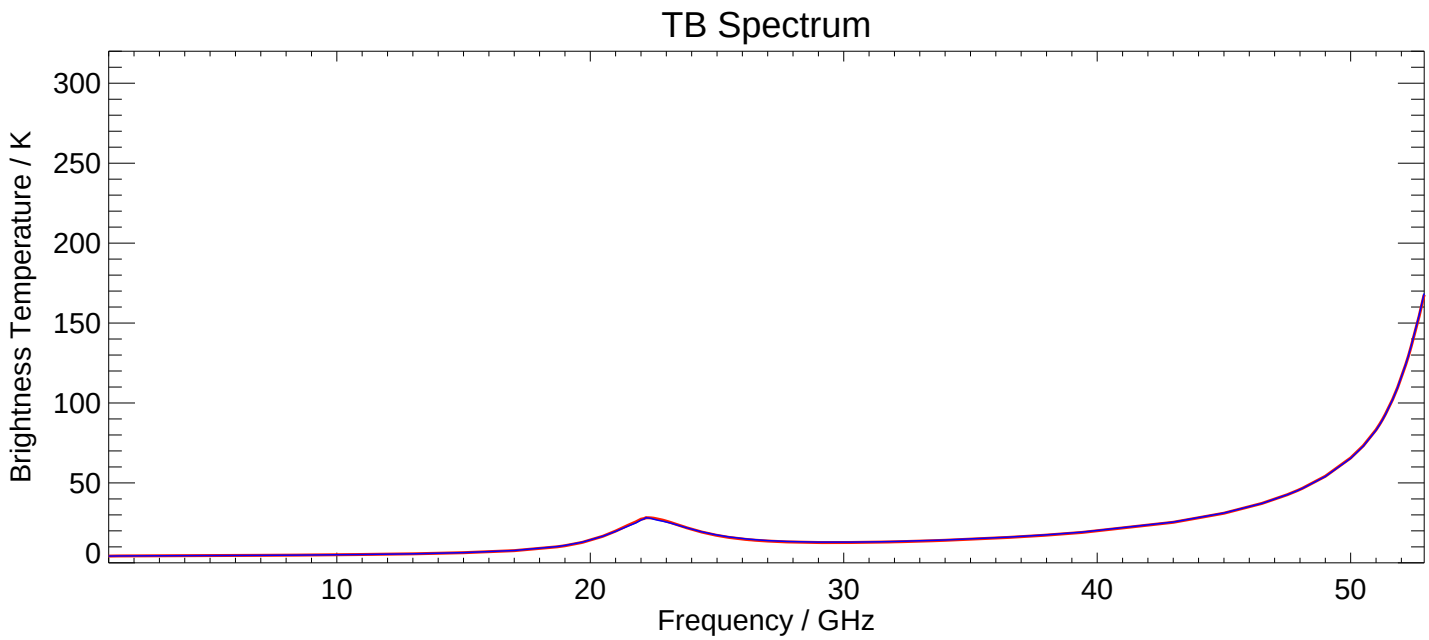
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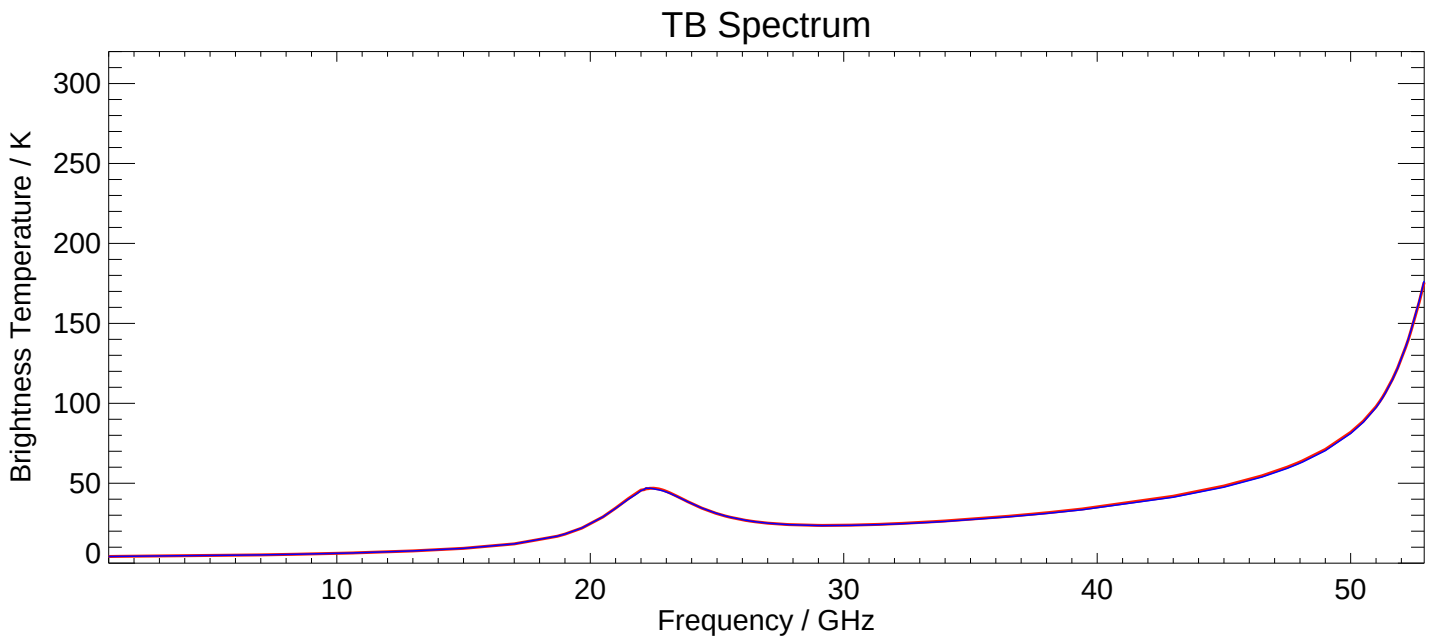
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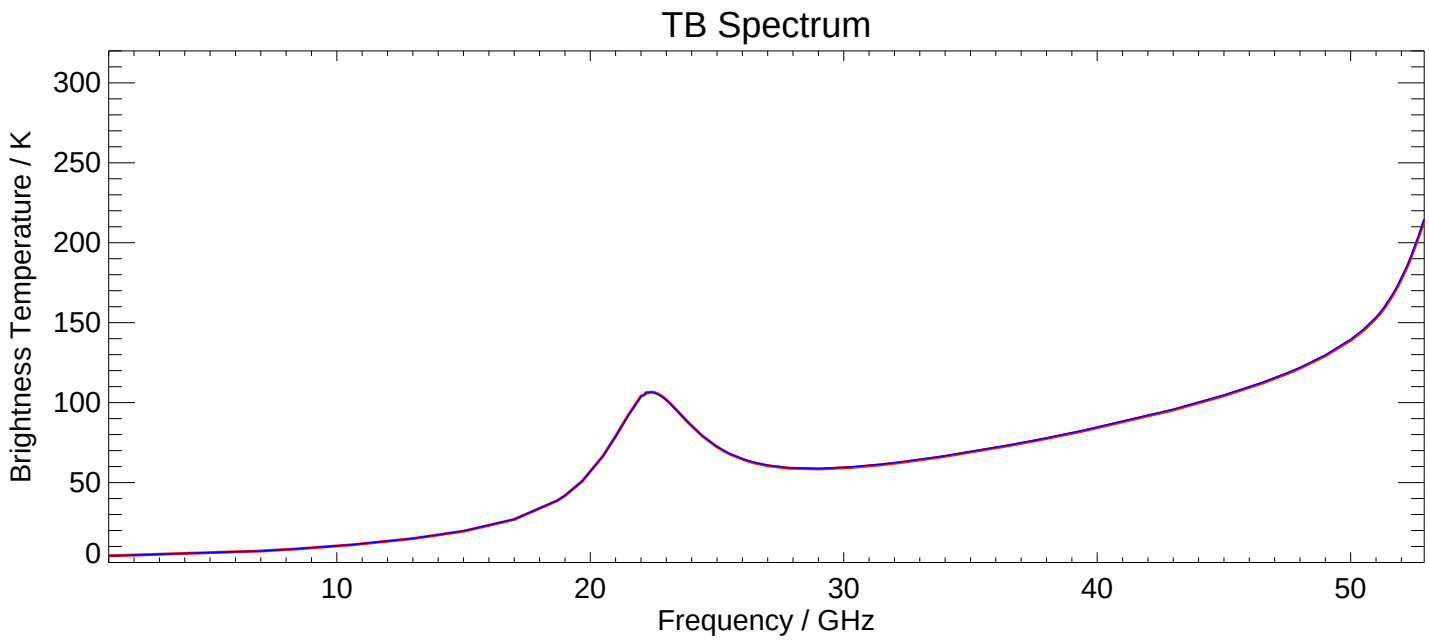
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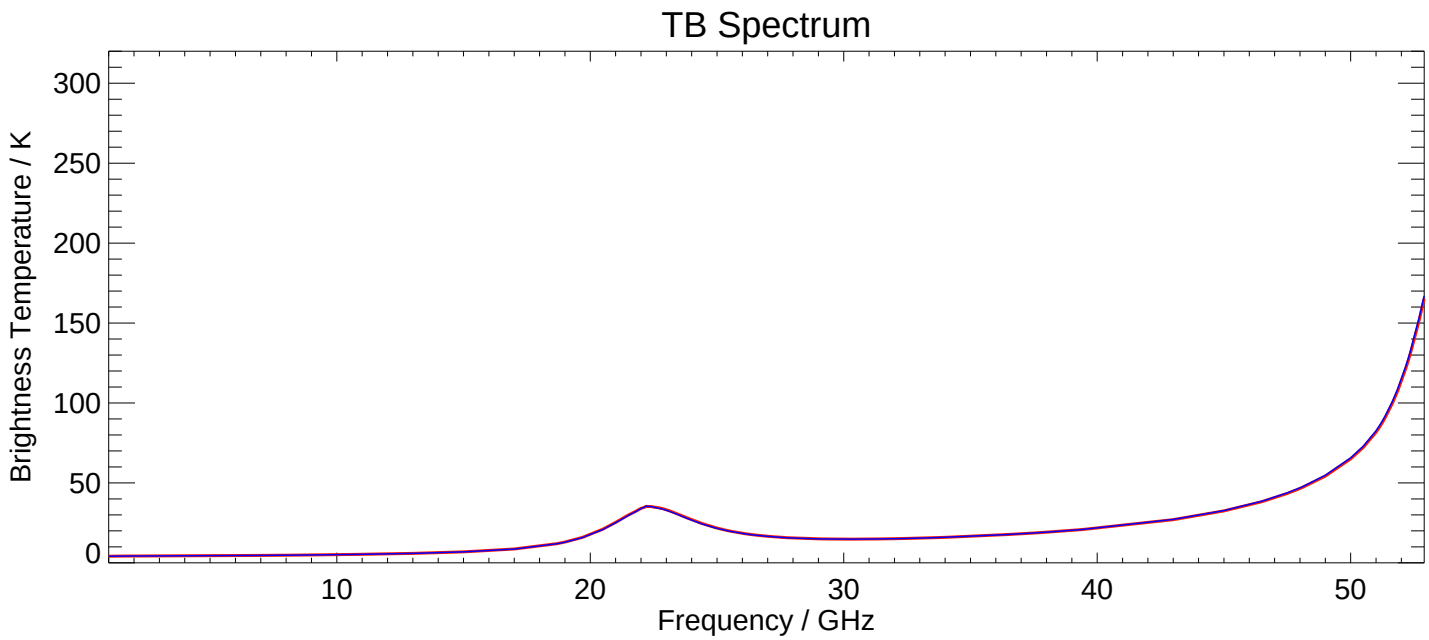
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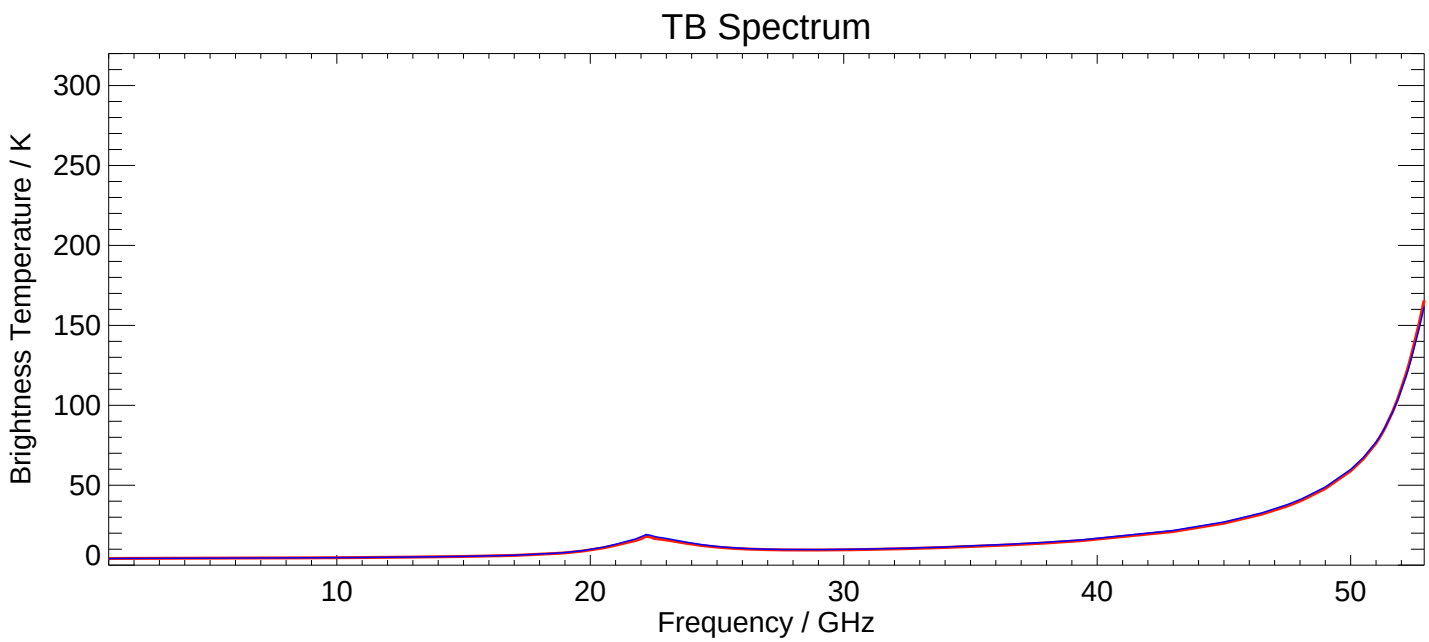
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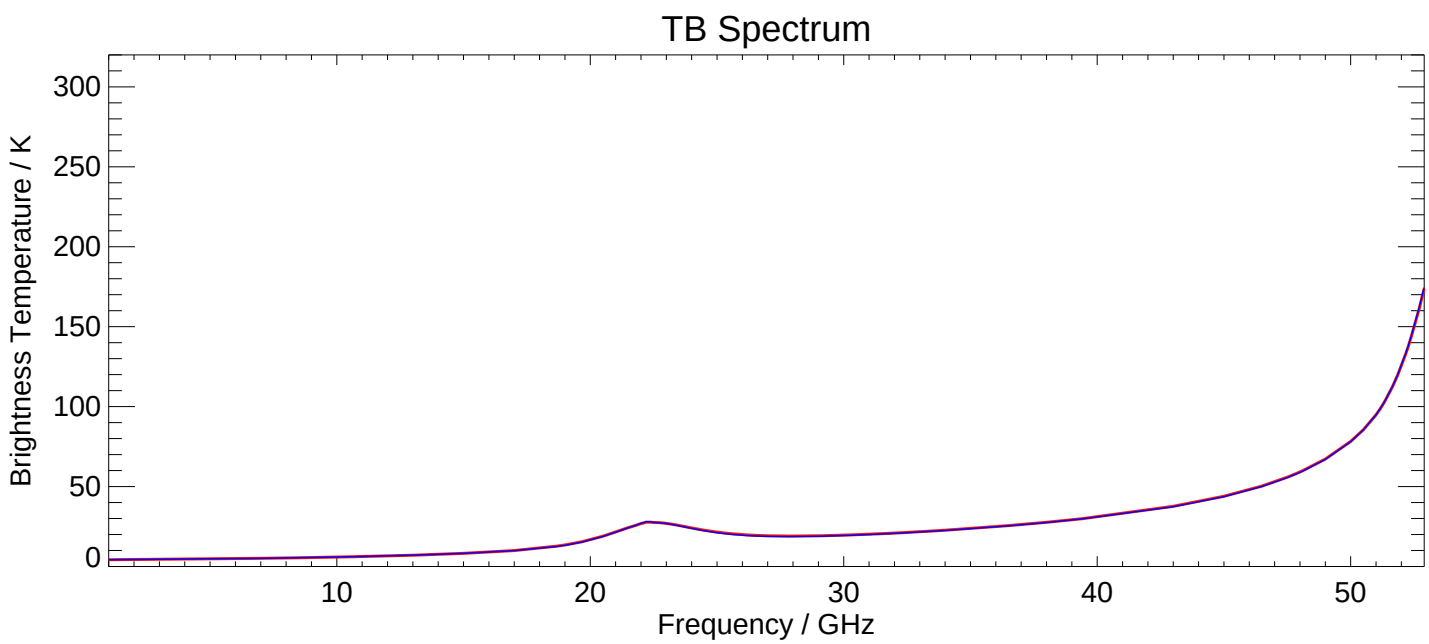
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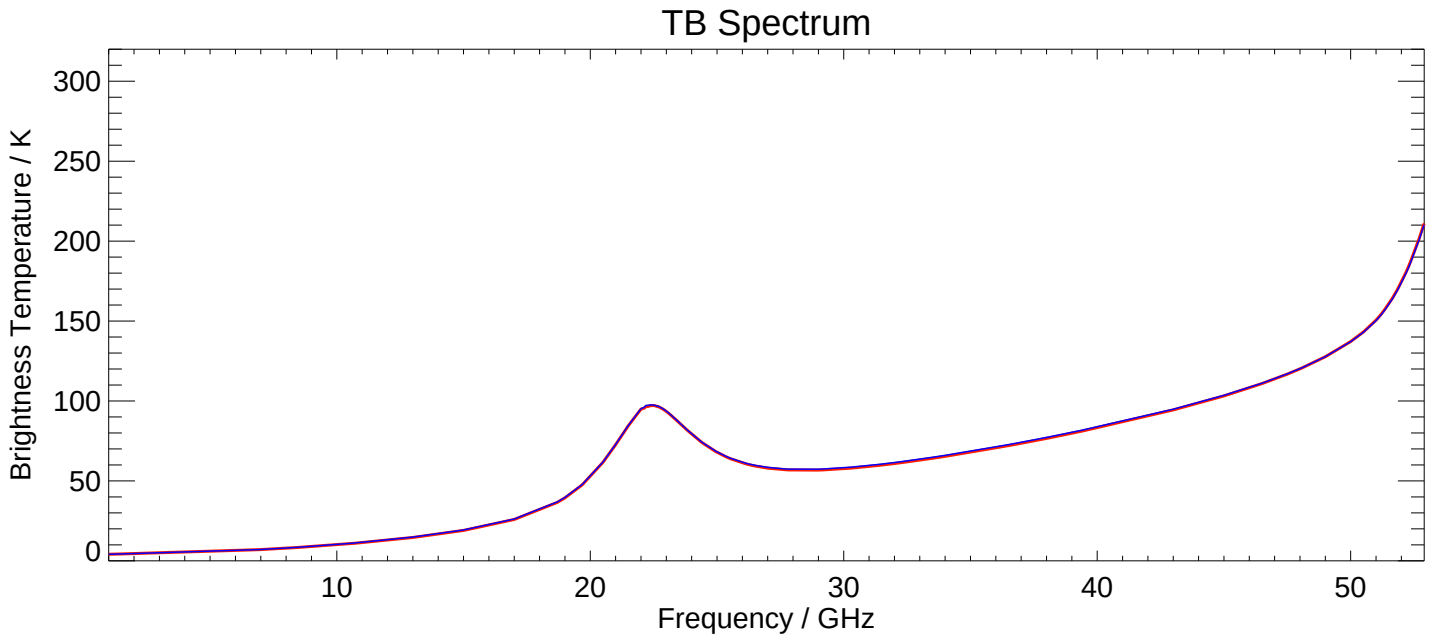
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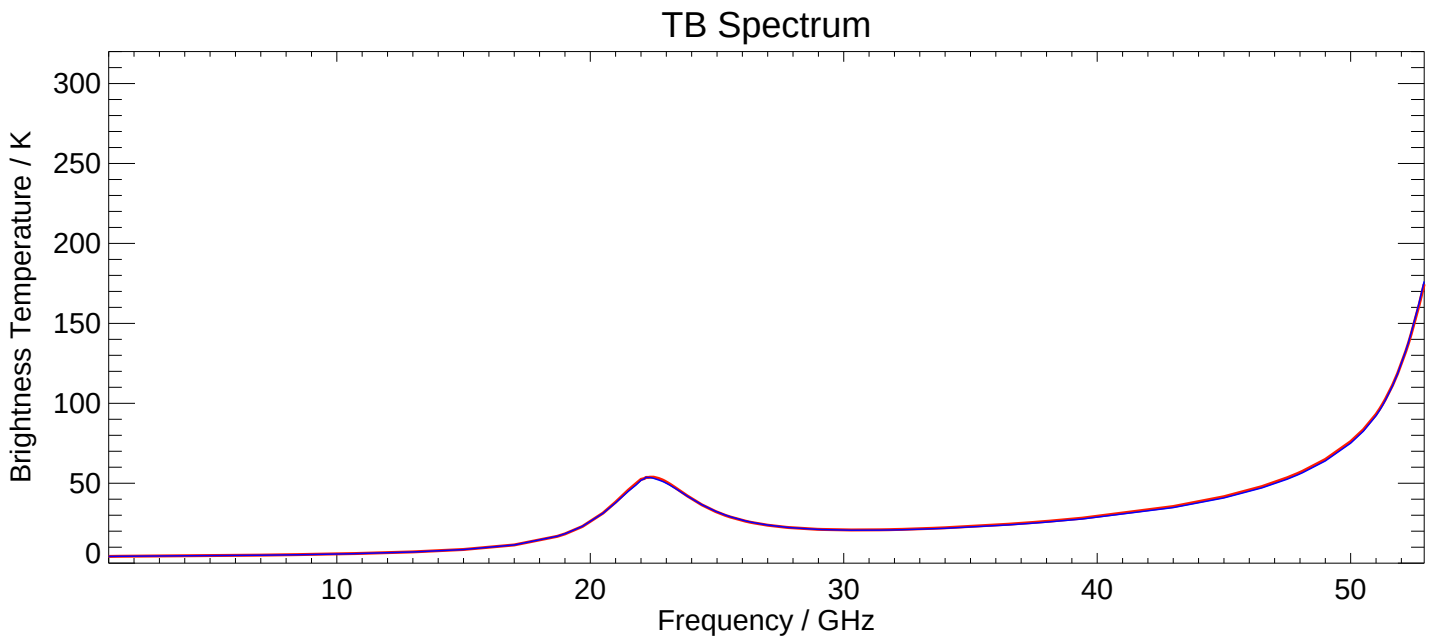
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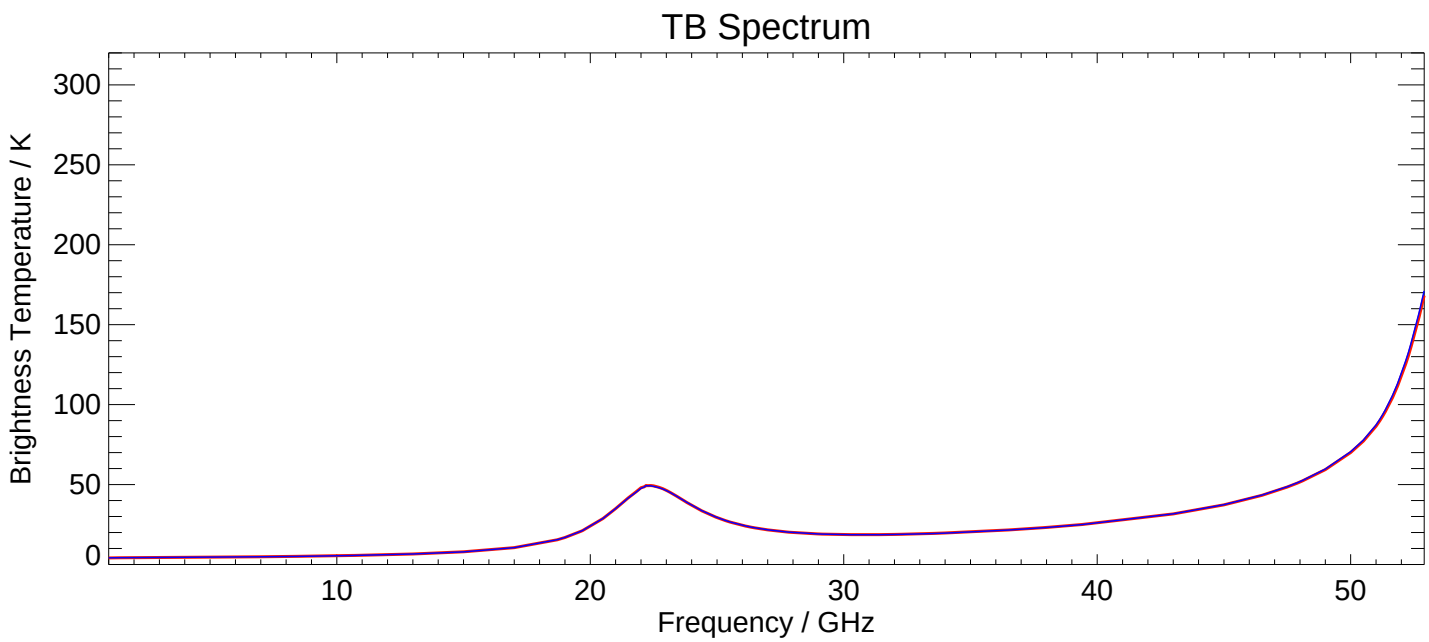
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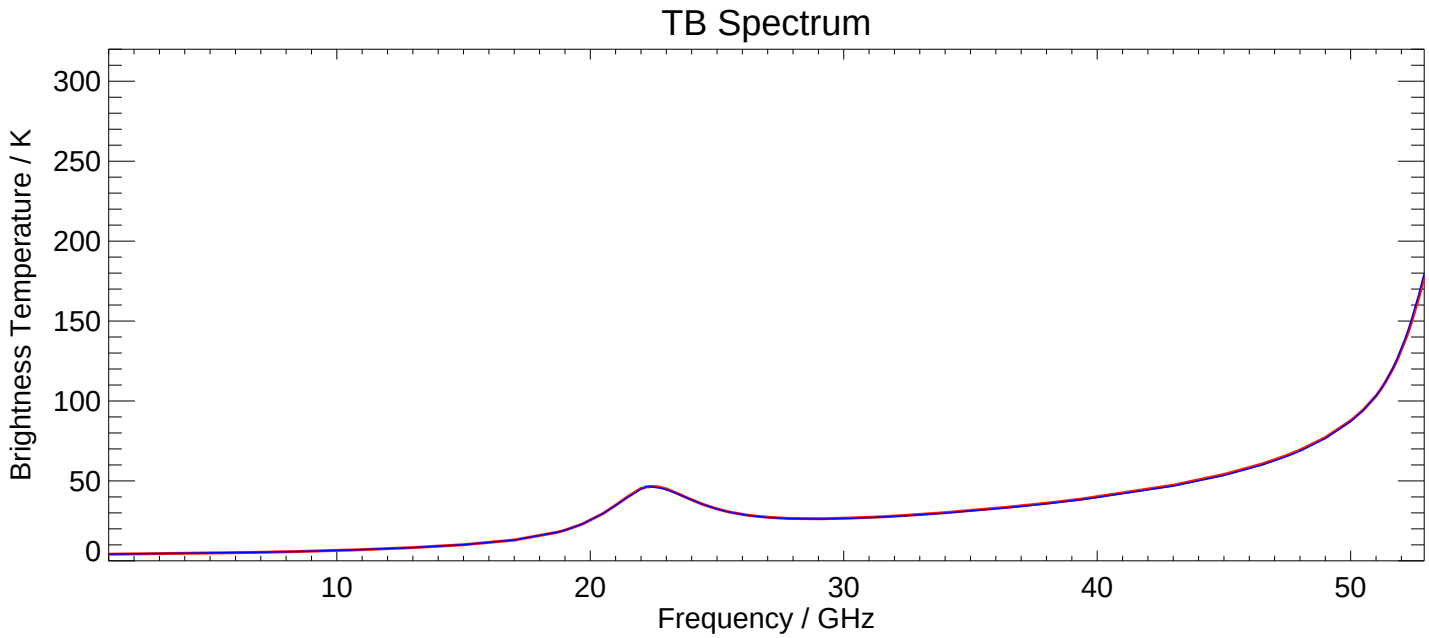
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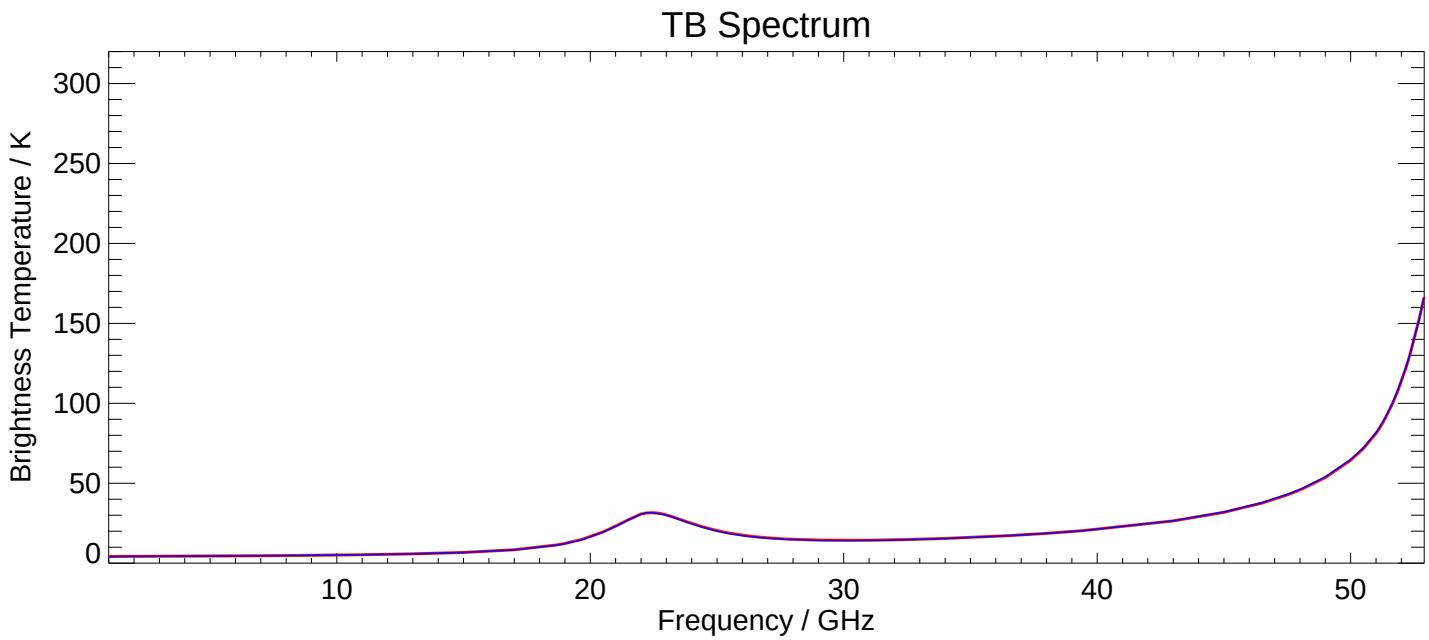
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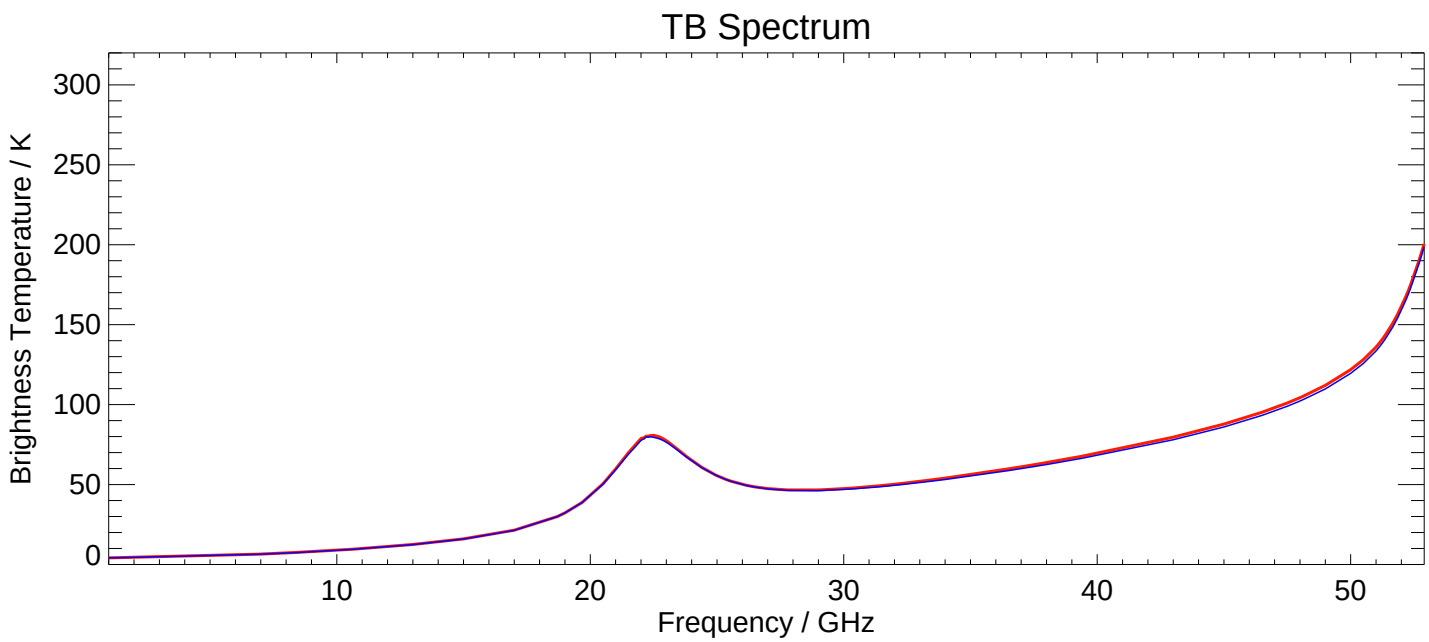
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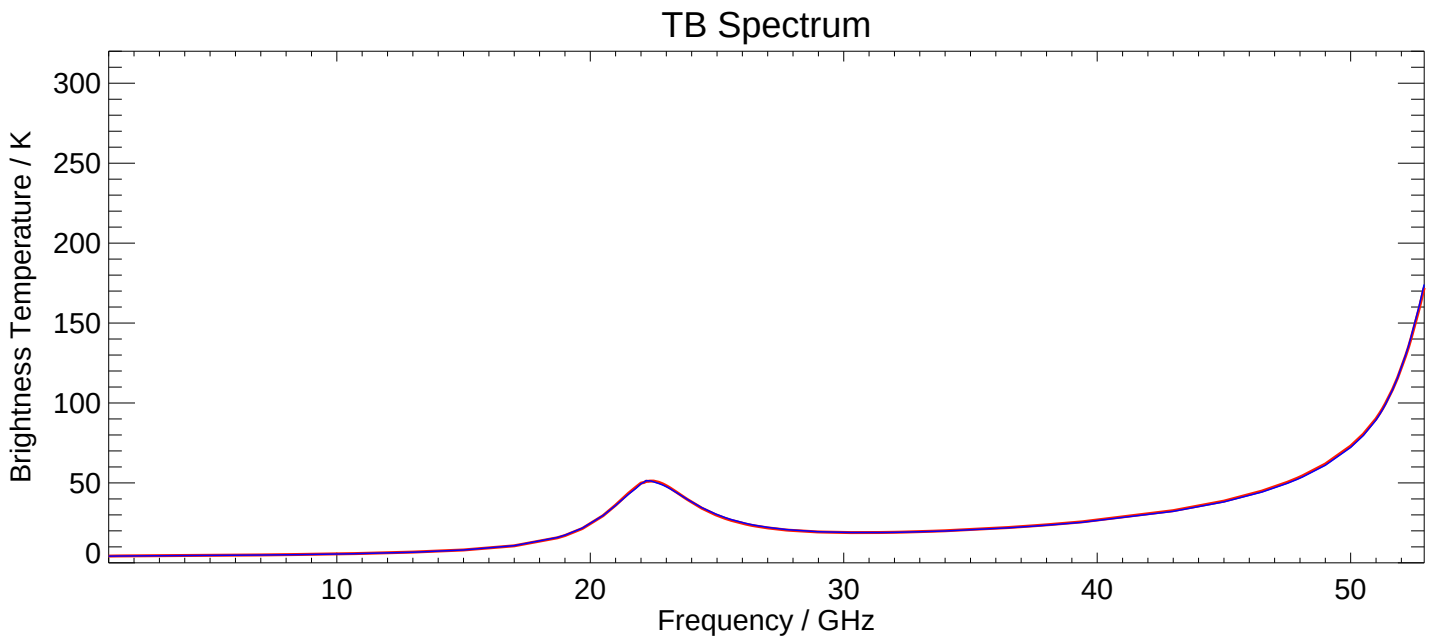
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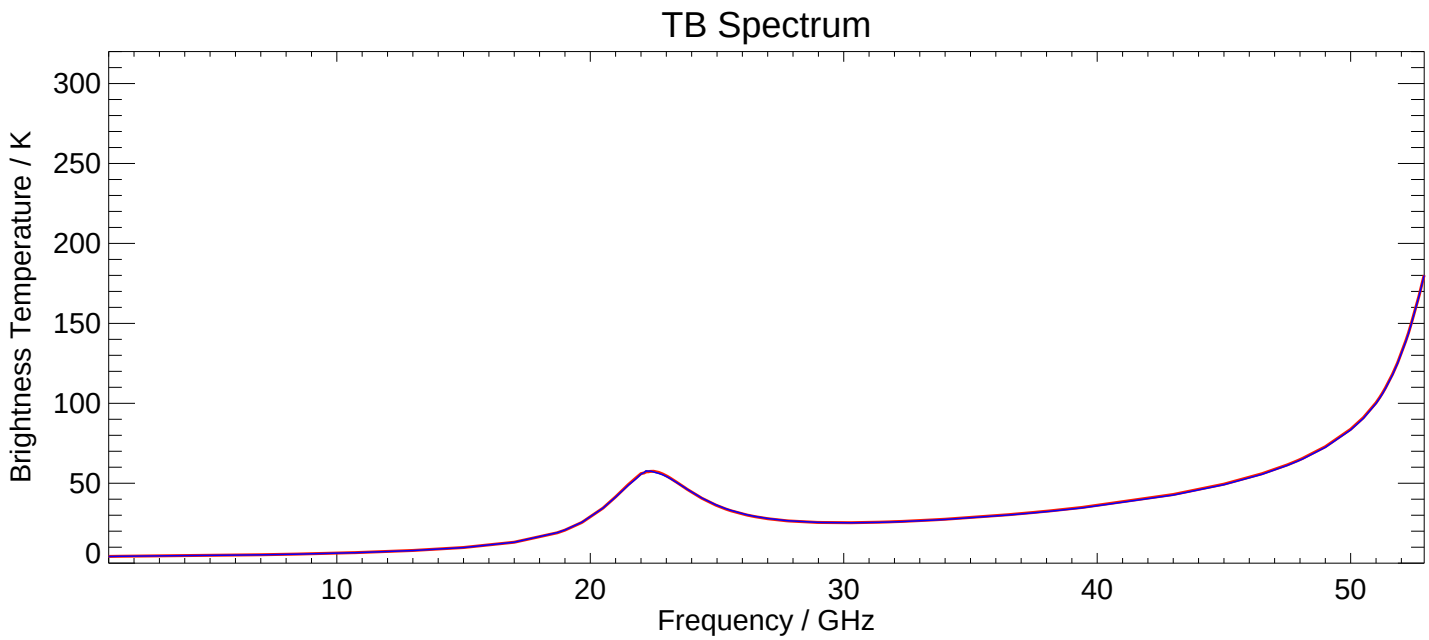
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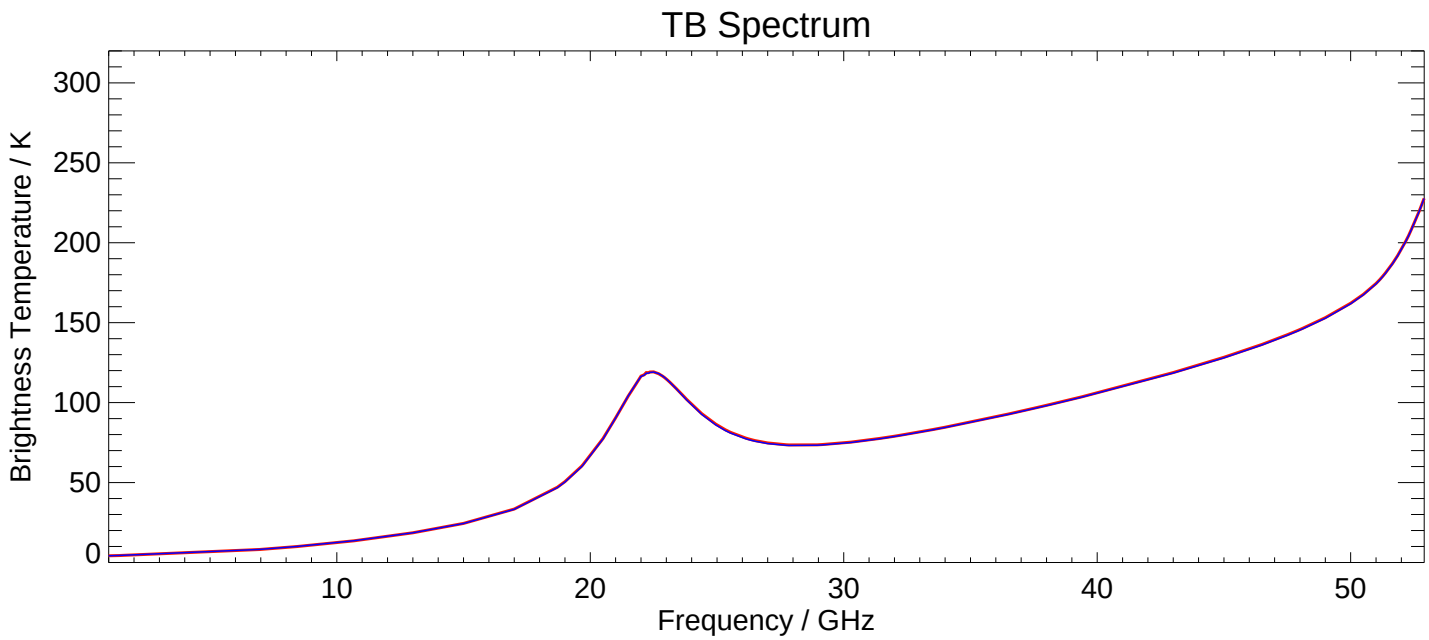
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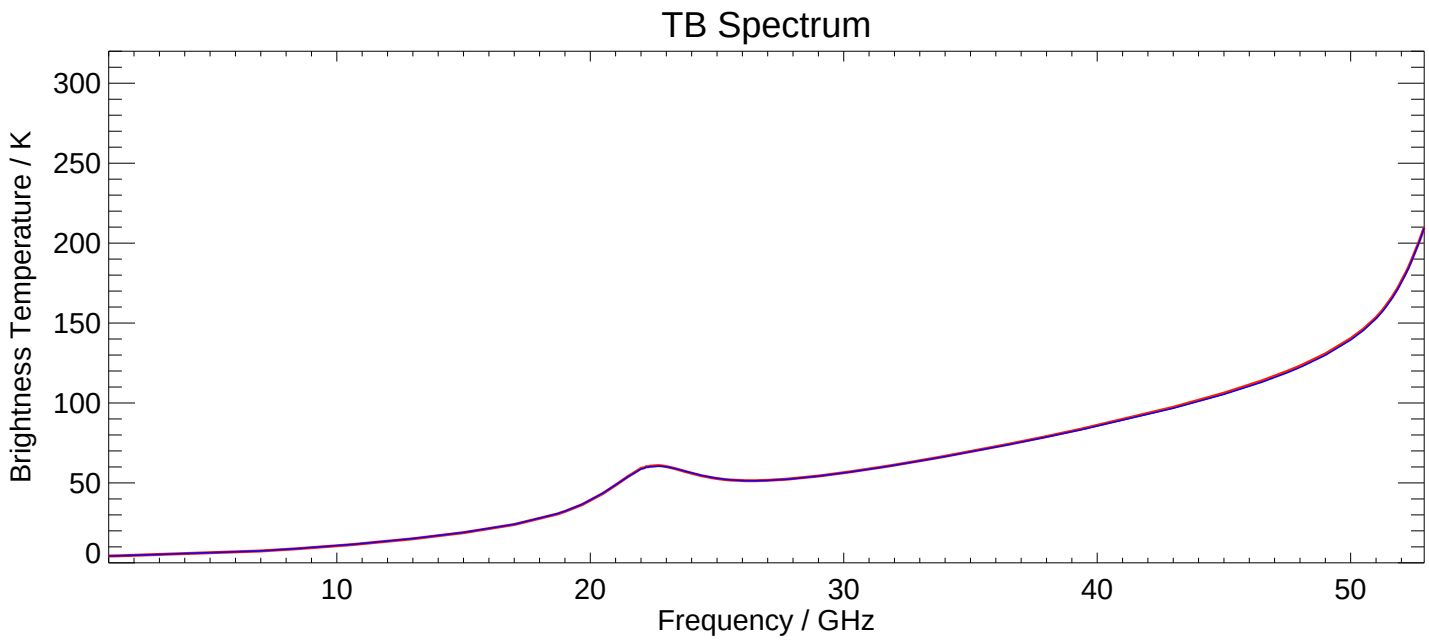
Frequency / GHz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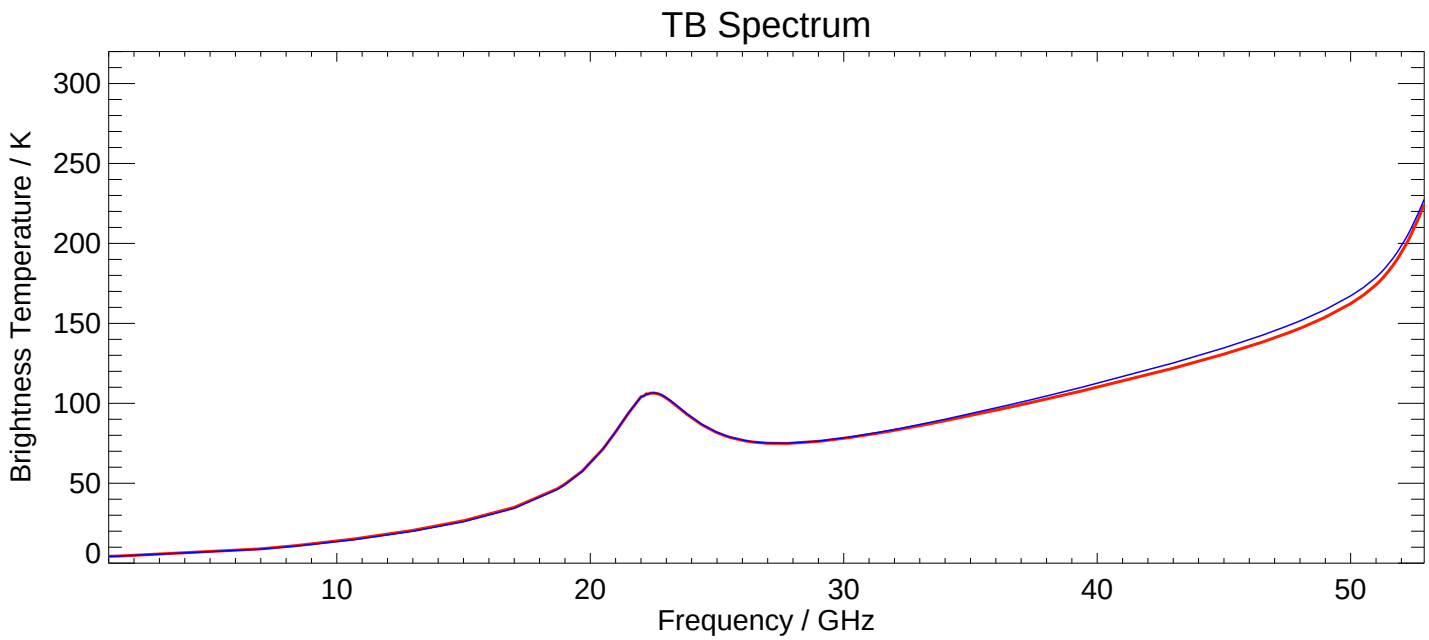
Frequency / GHz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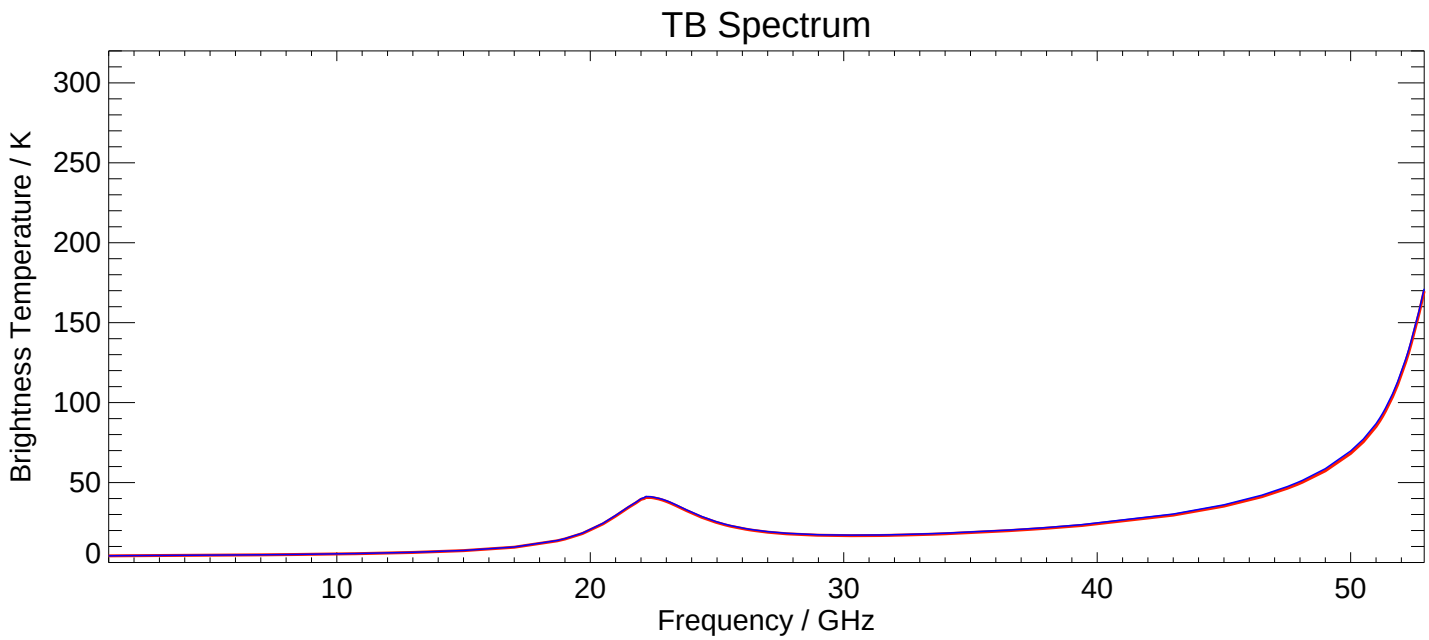
Frequency / GHz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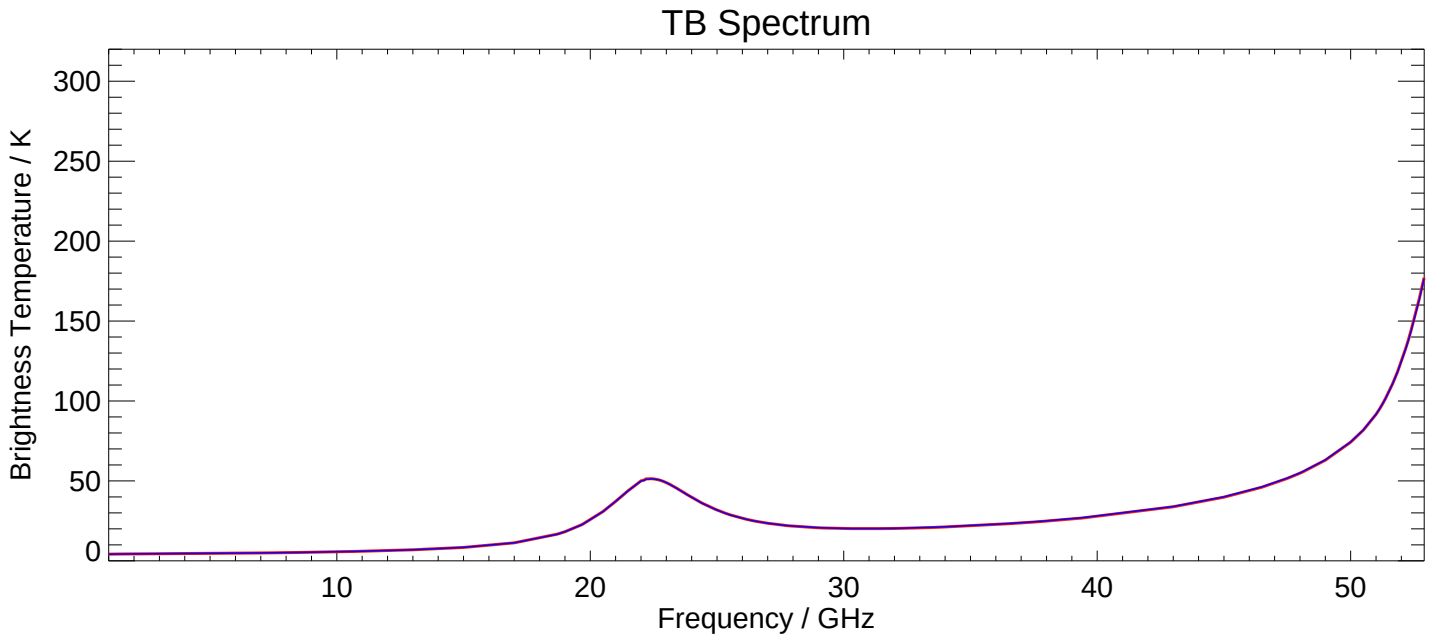
Frequency / GHz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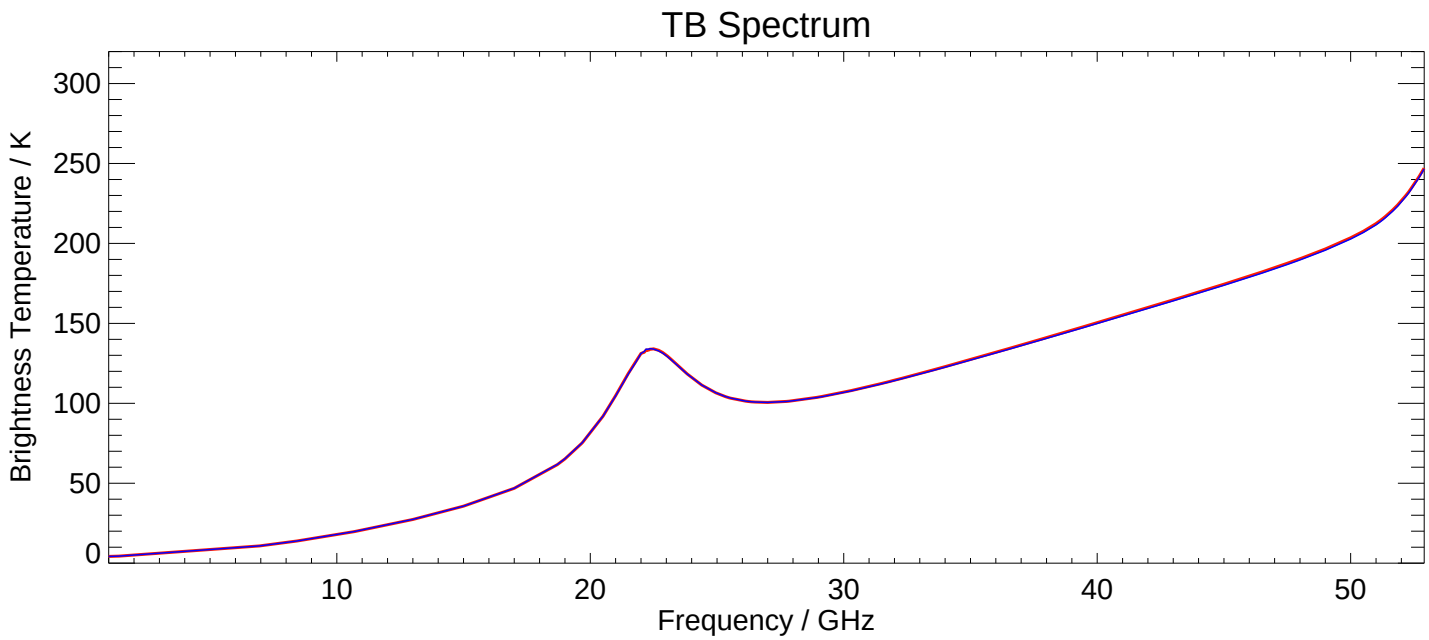
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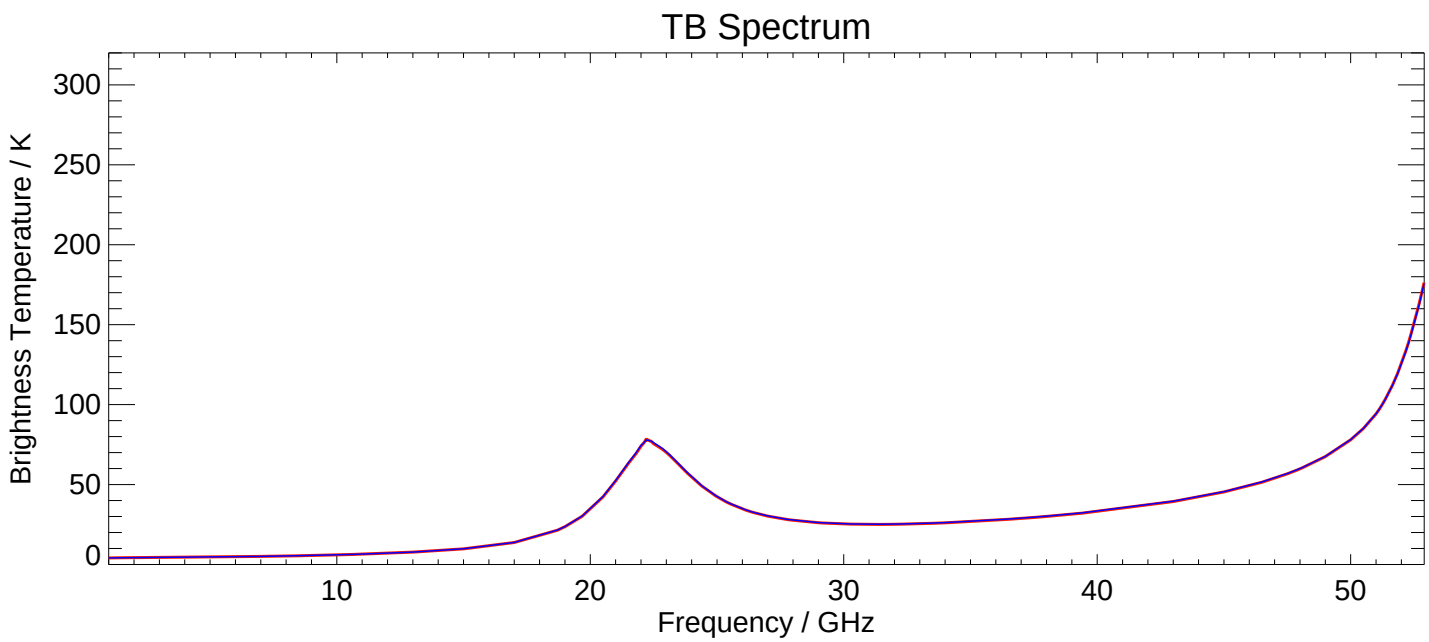
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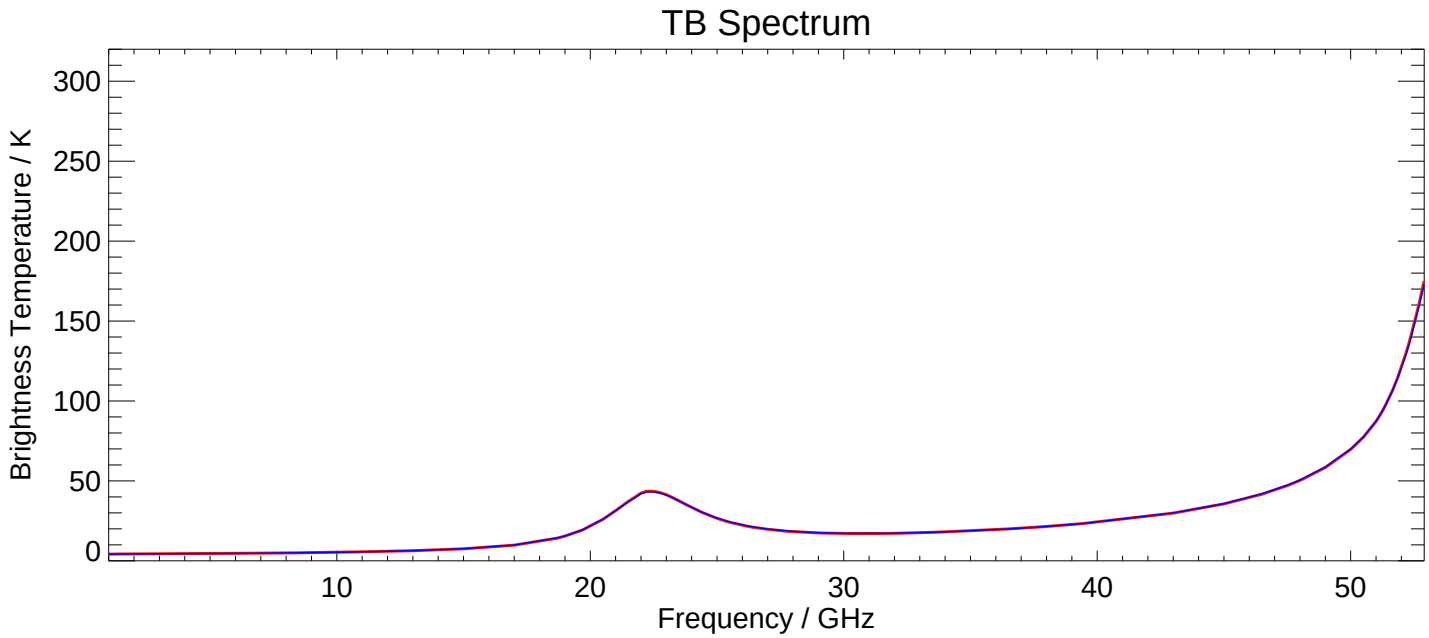
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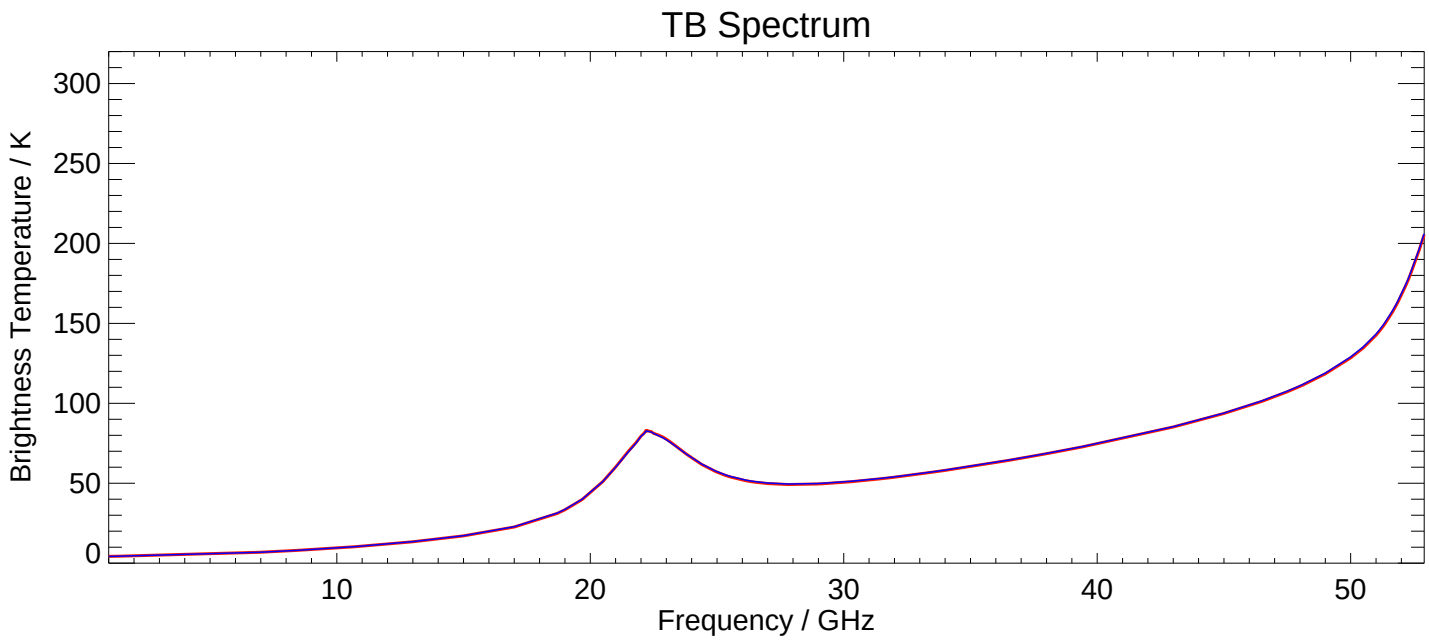
Frequency / GHz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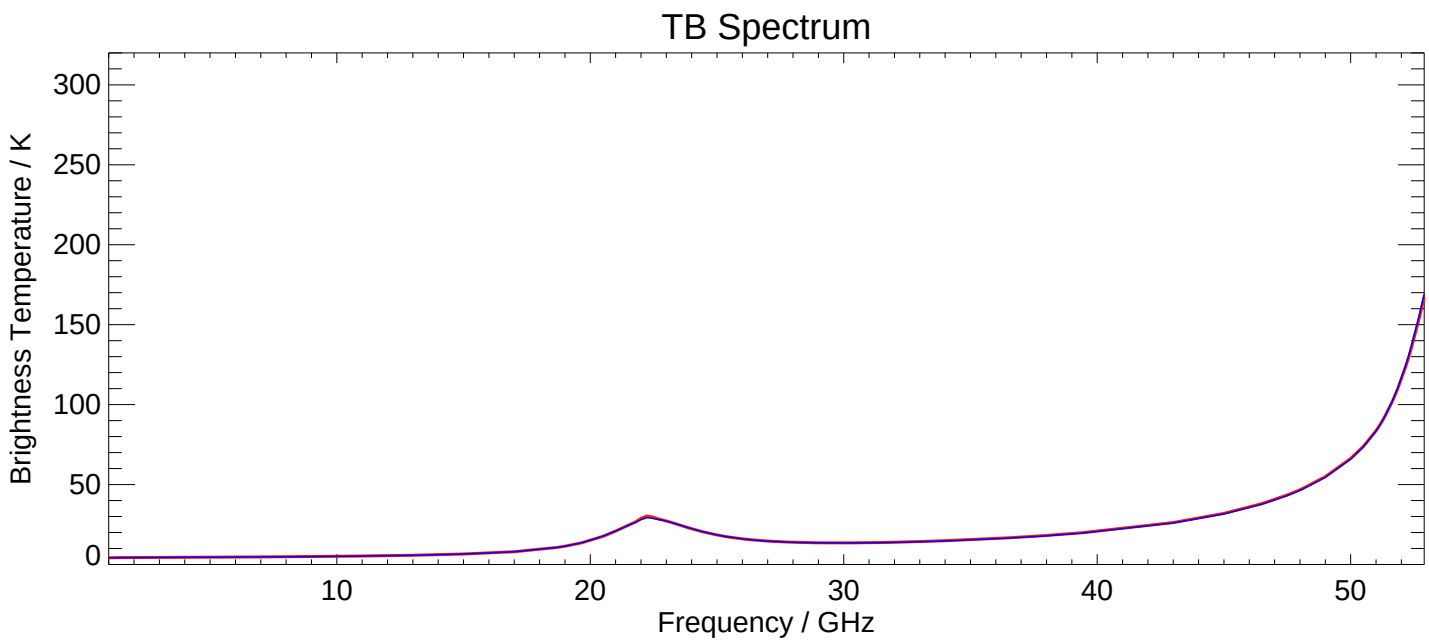
Frequency / GHz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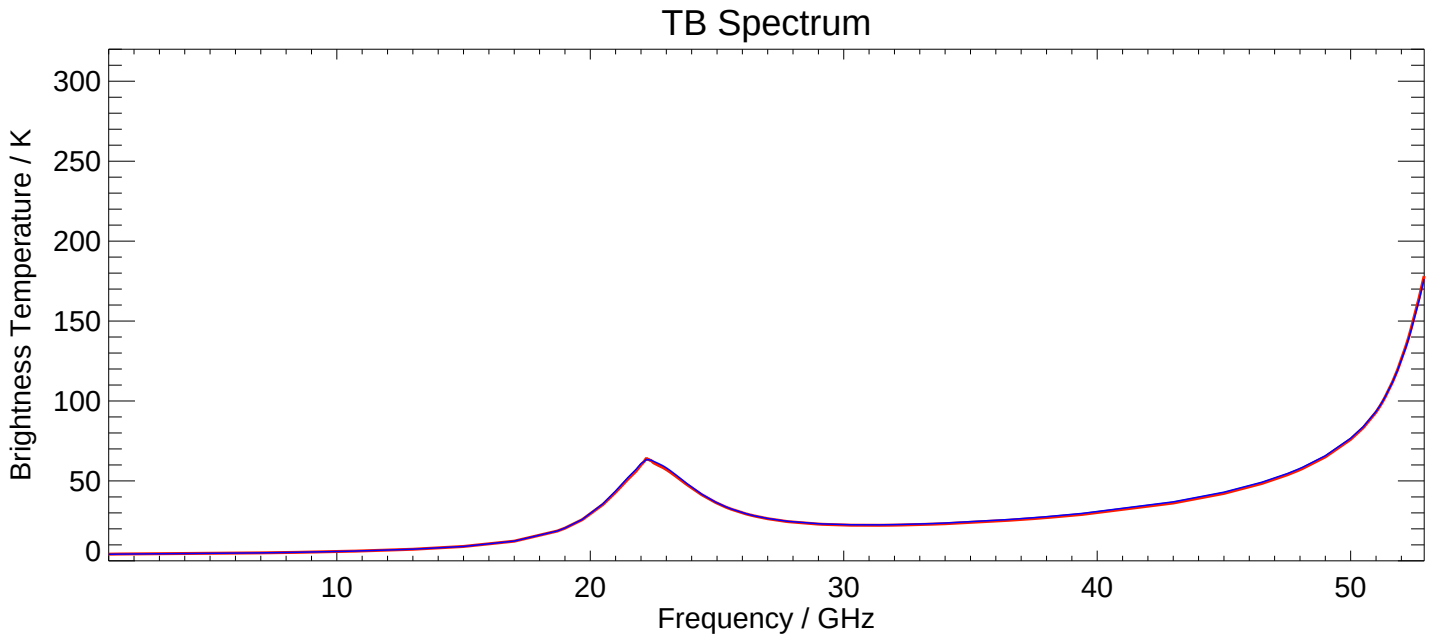
Frequency / GHz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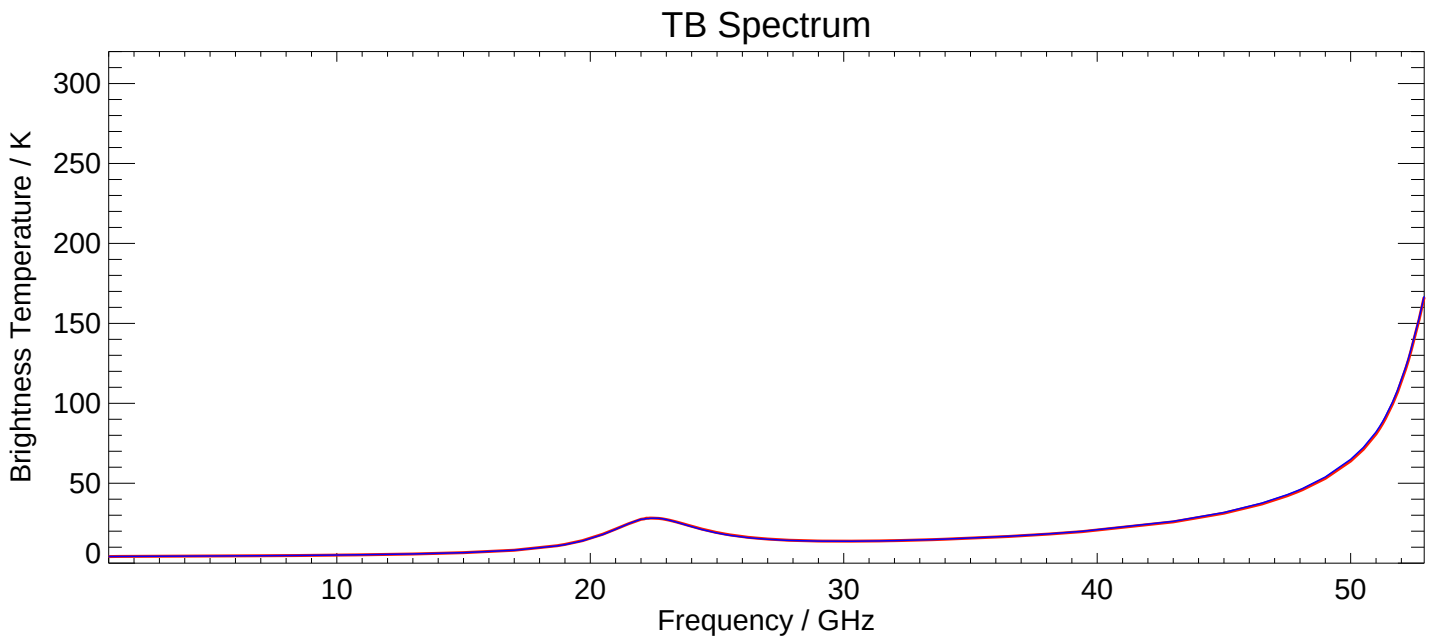
Frequency / GHz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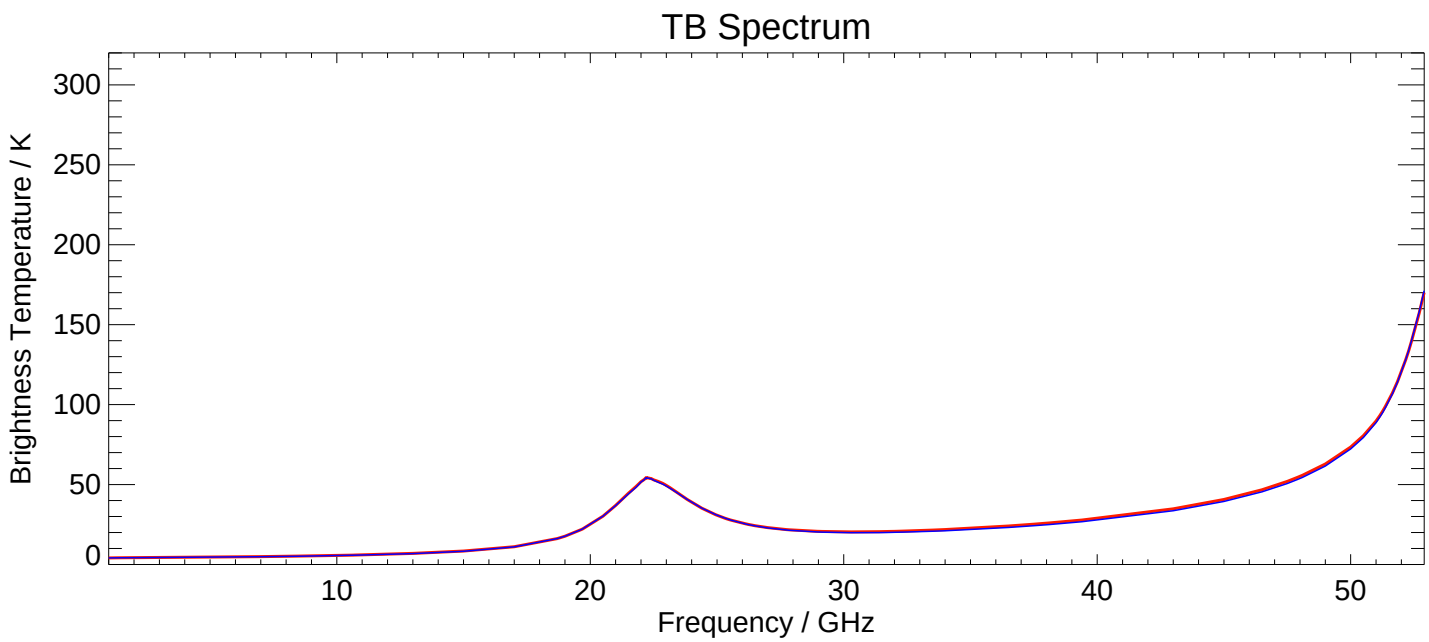
Frequency / GHz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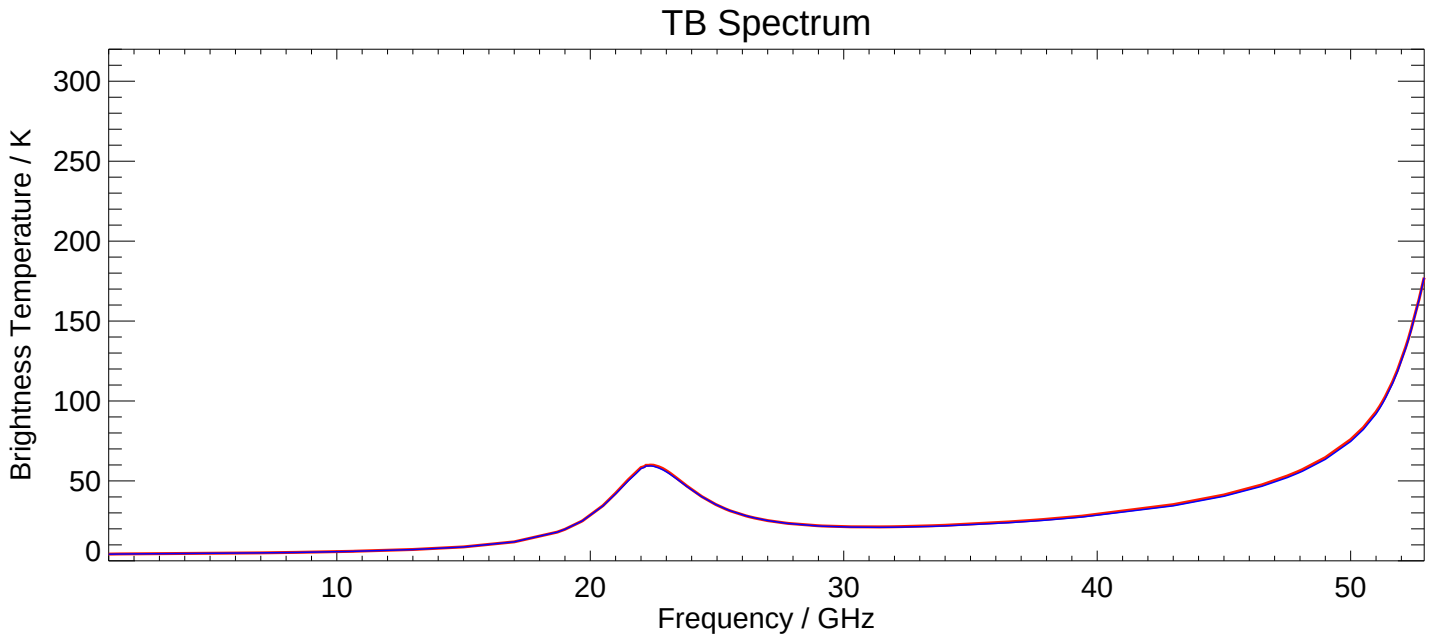
Frequency / GHz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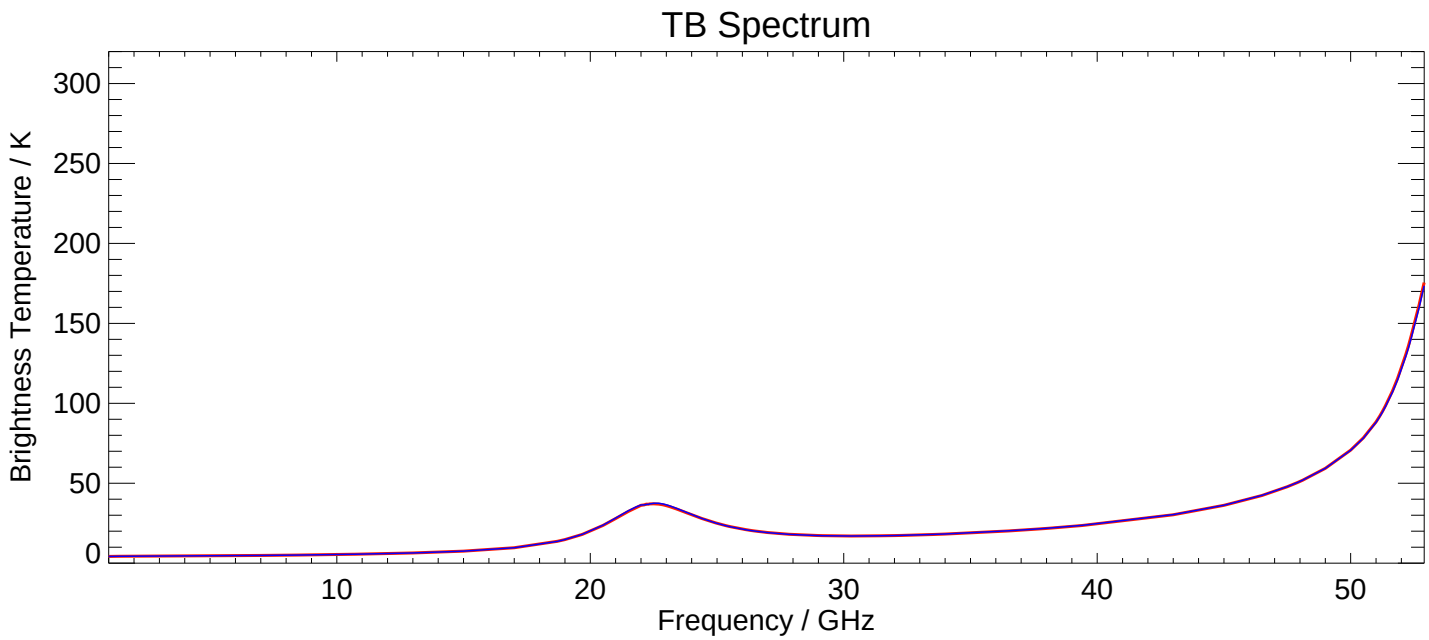
Frequency / GHz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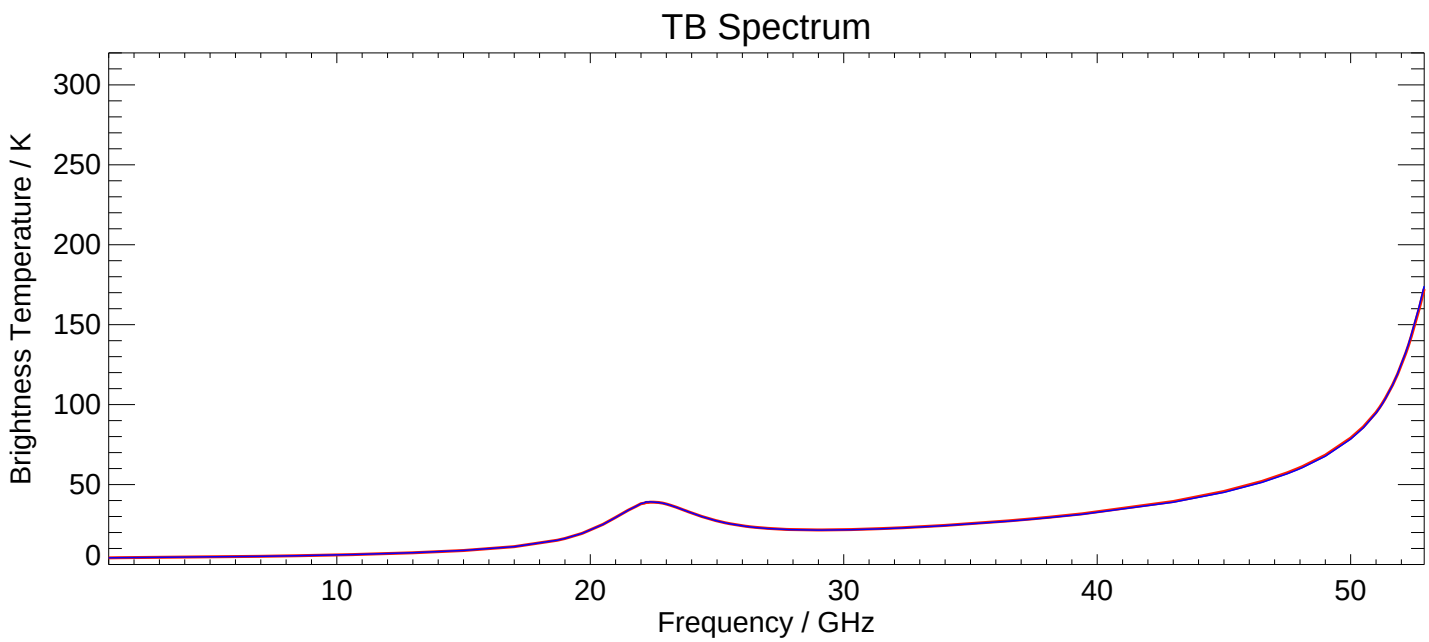
Frequency / GHz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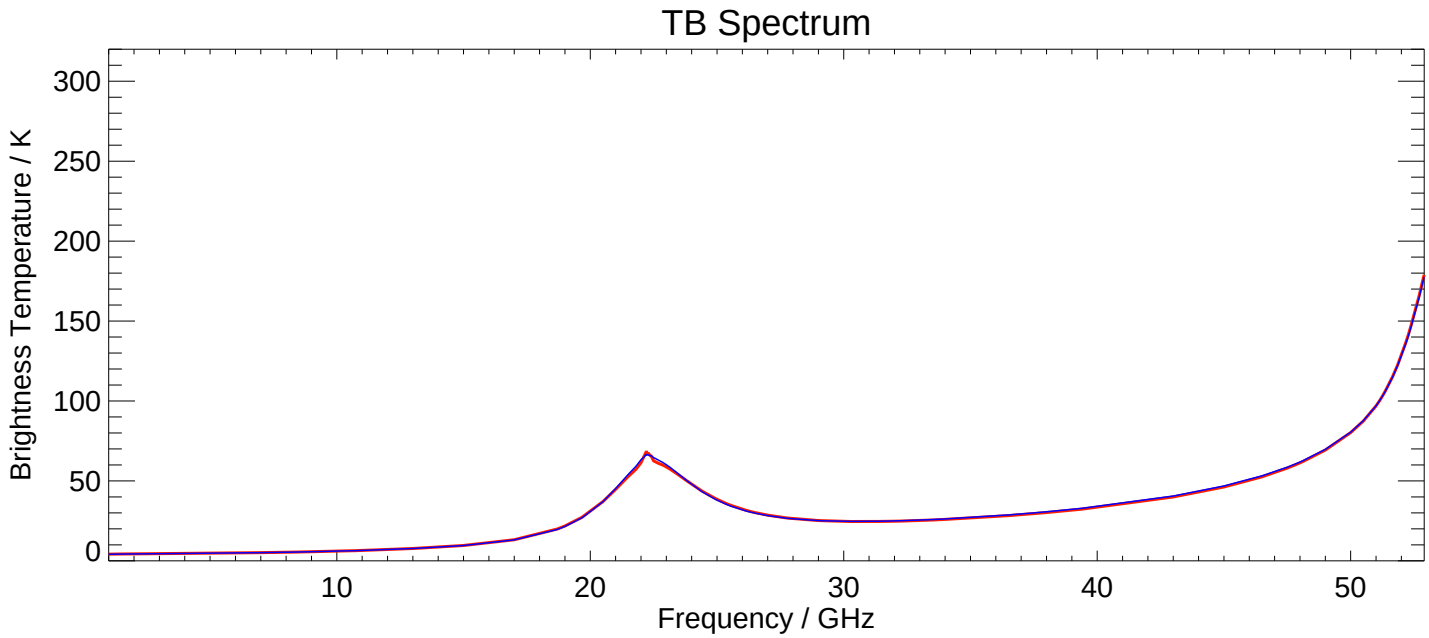
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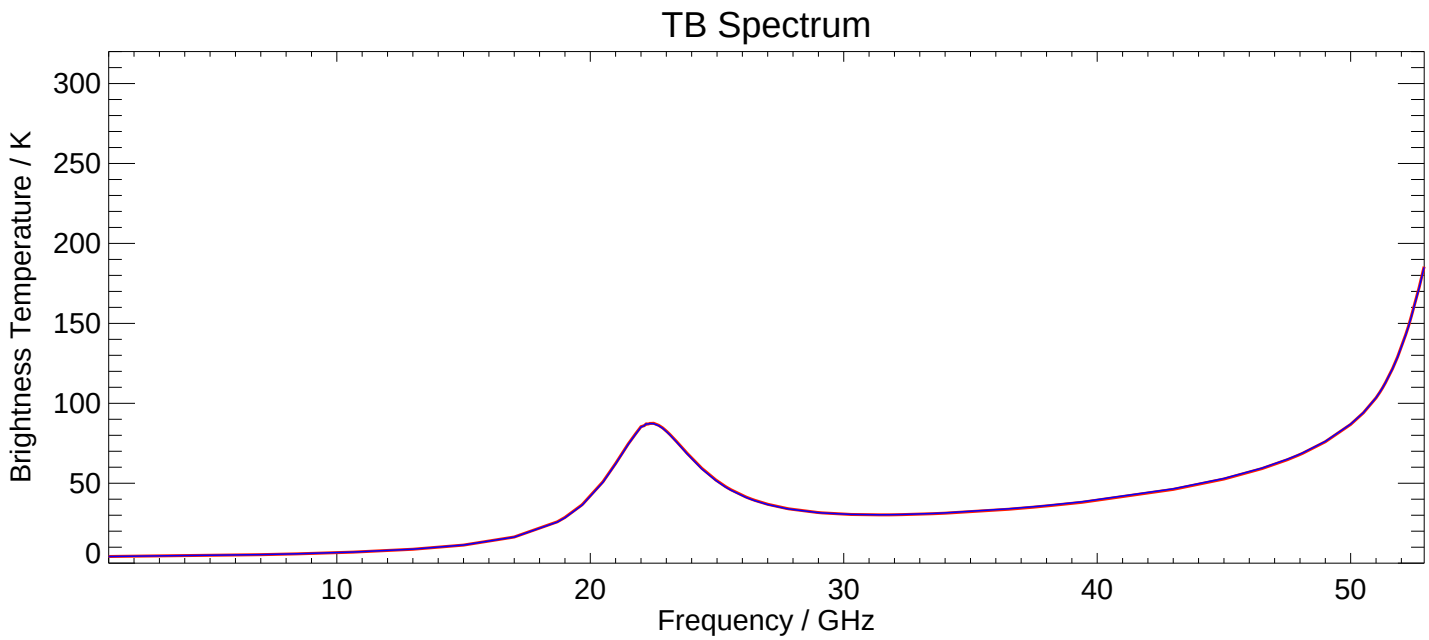
Frequency / GHz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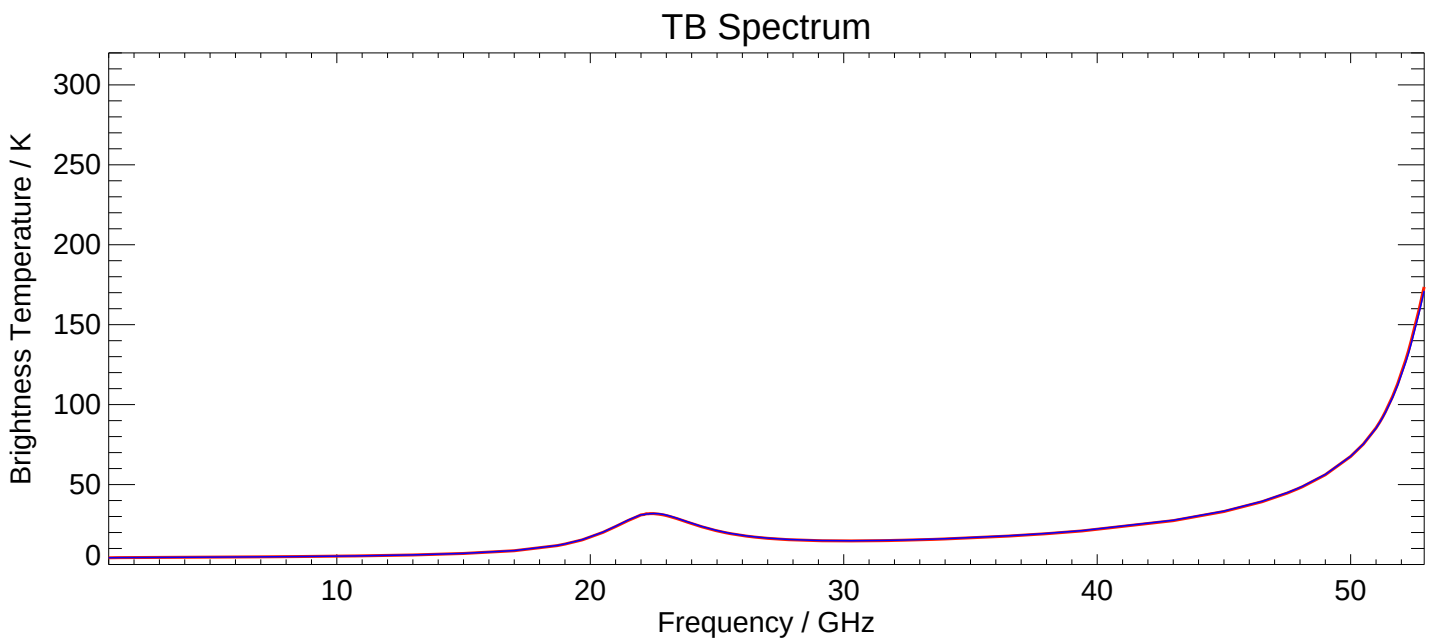
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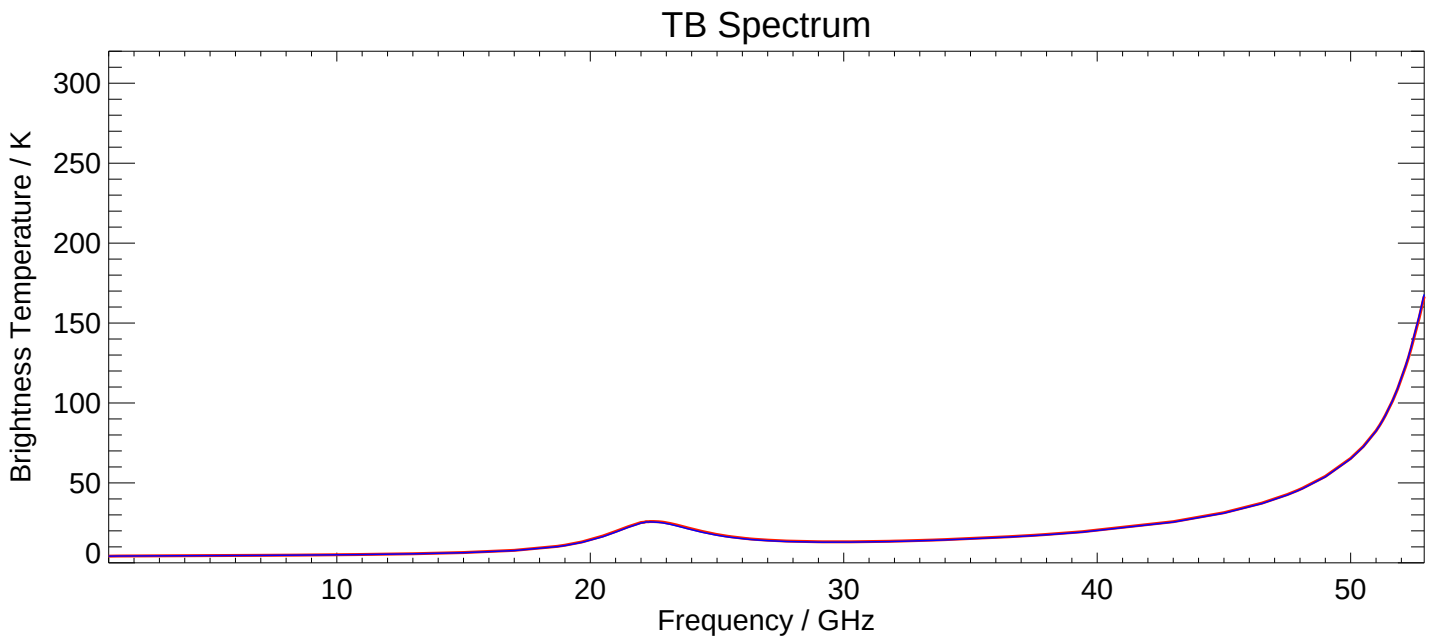
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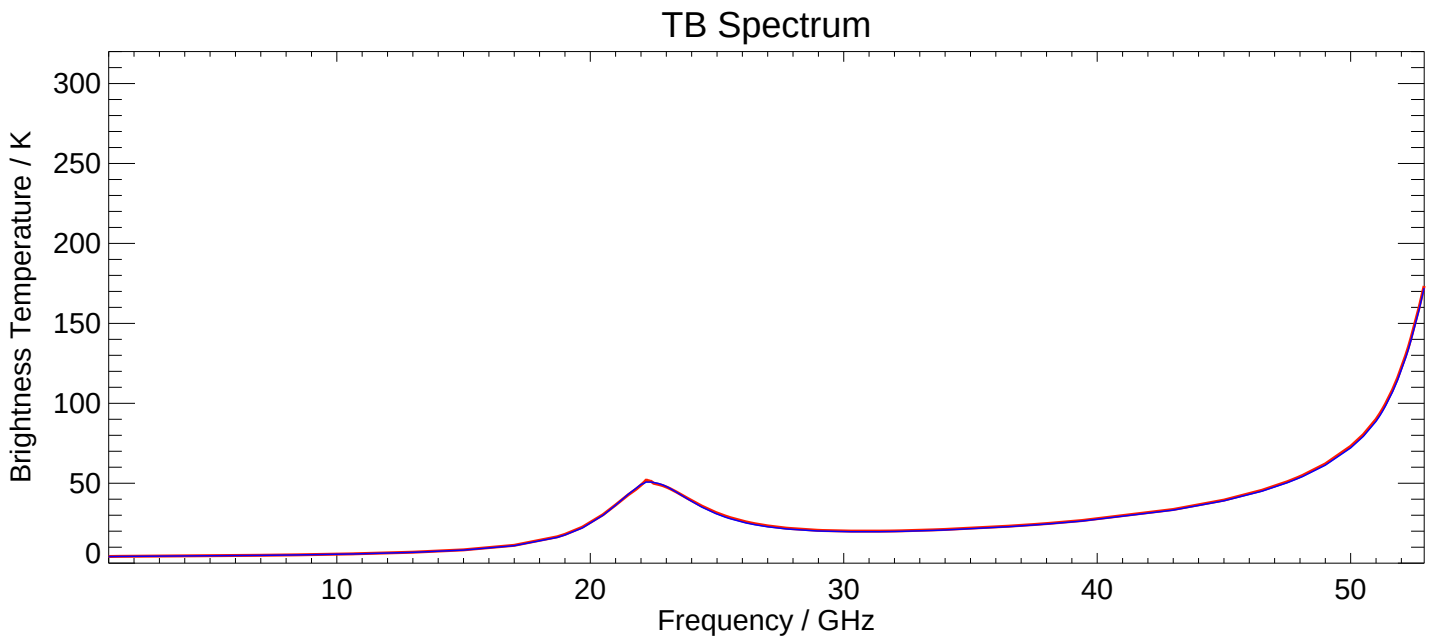
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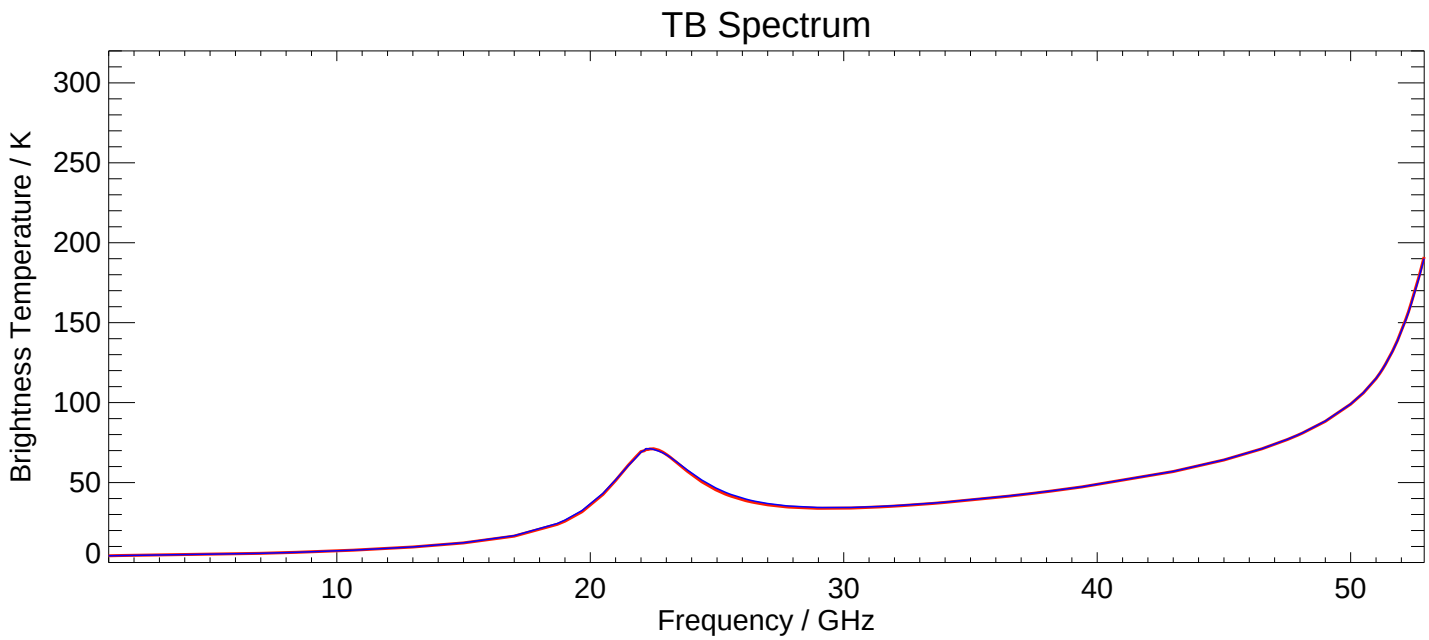
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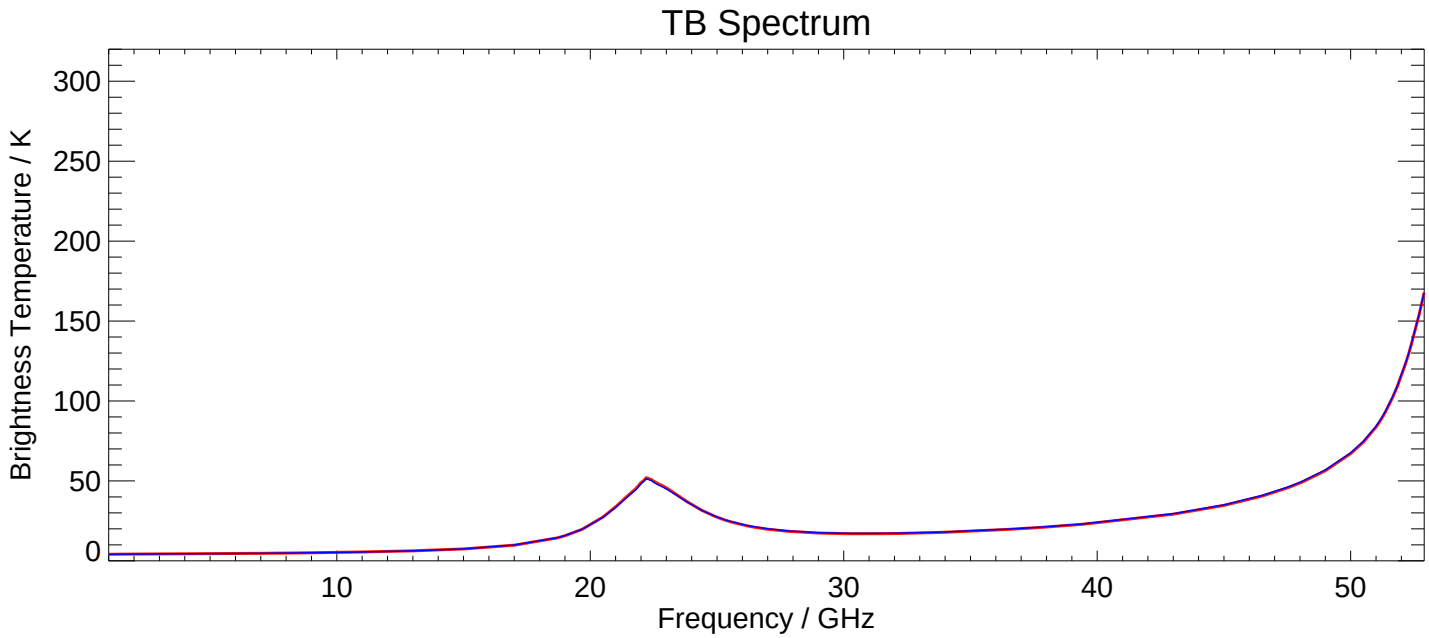
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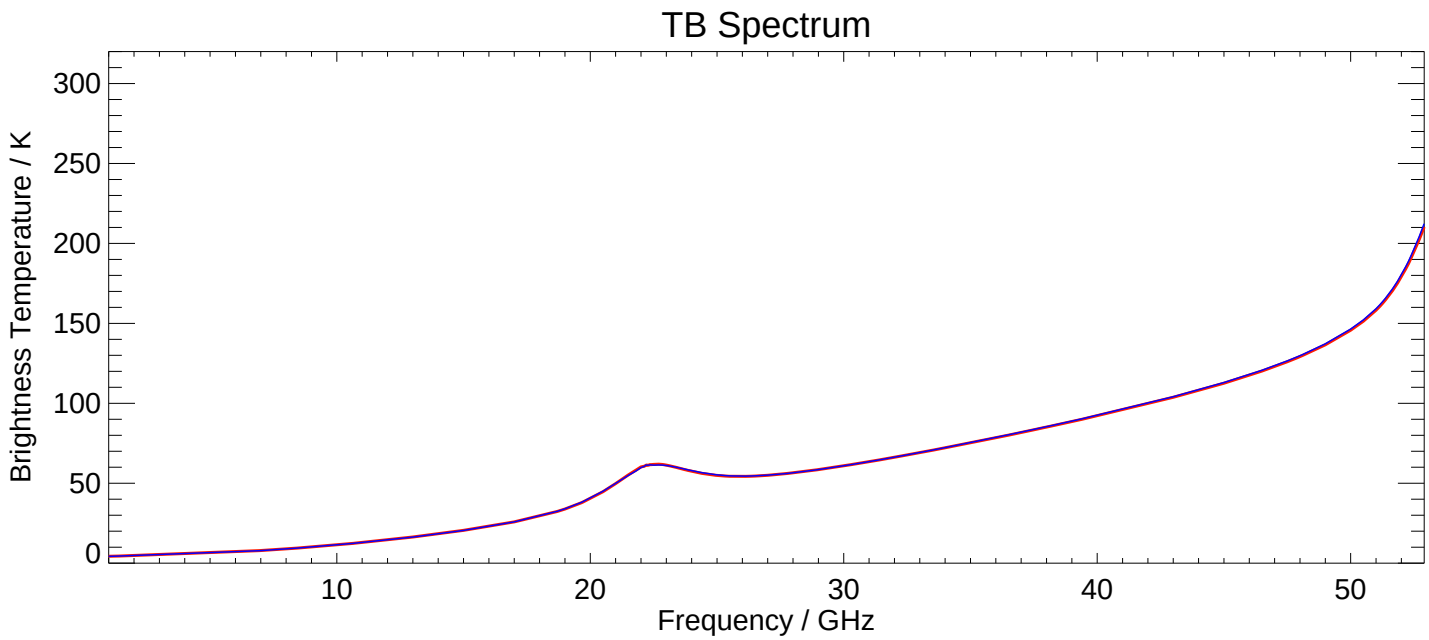
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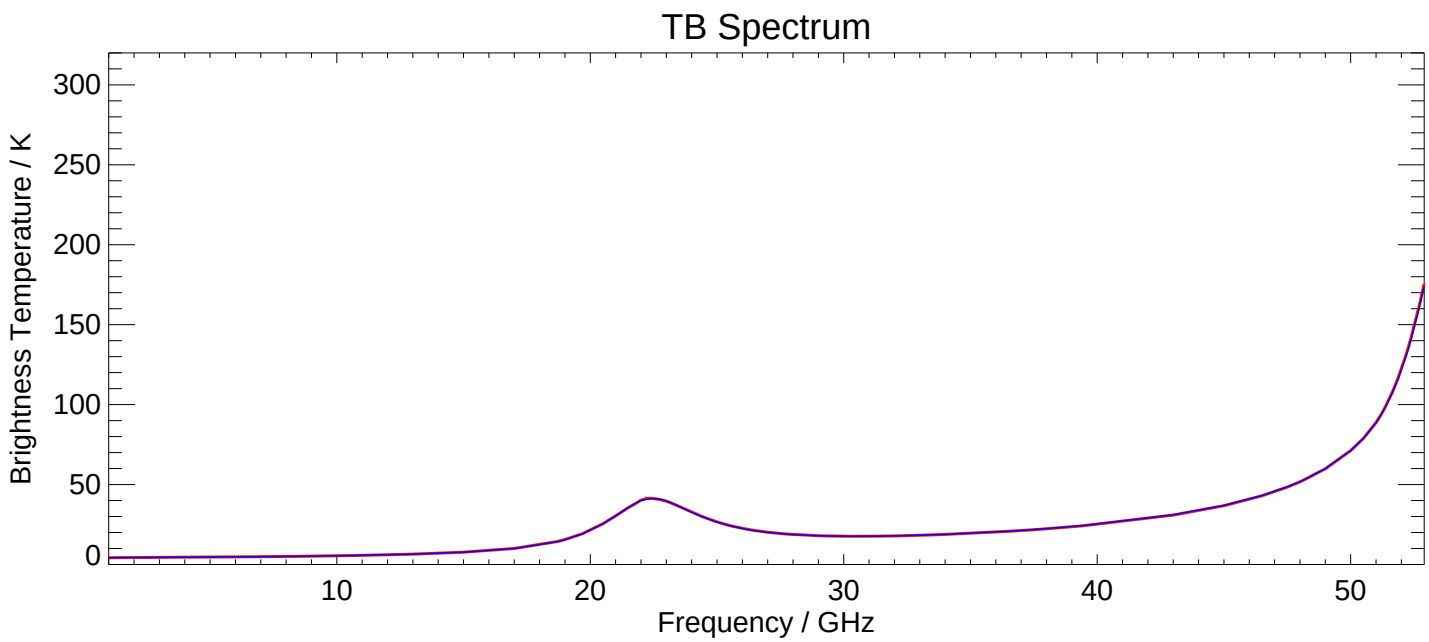
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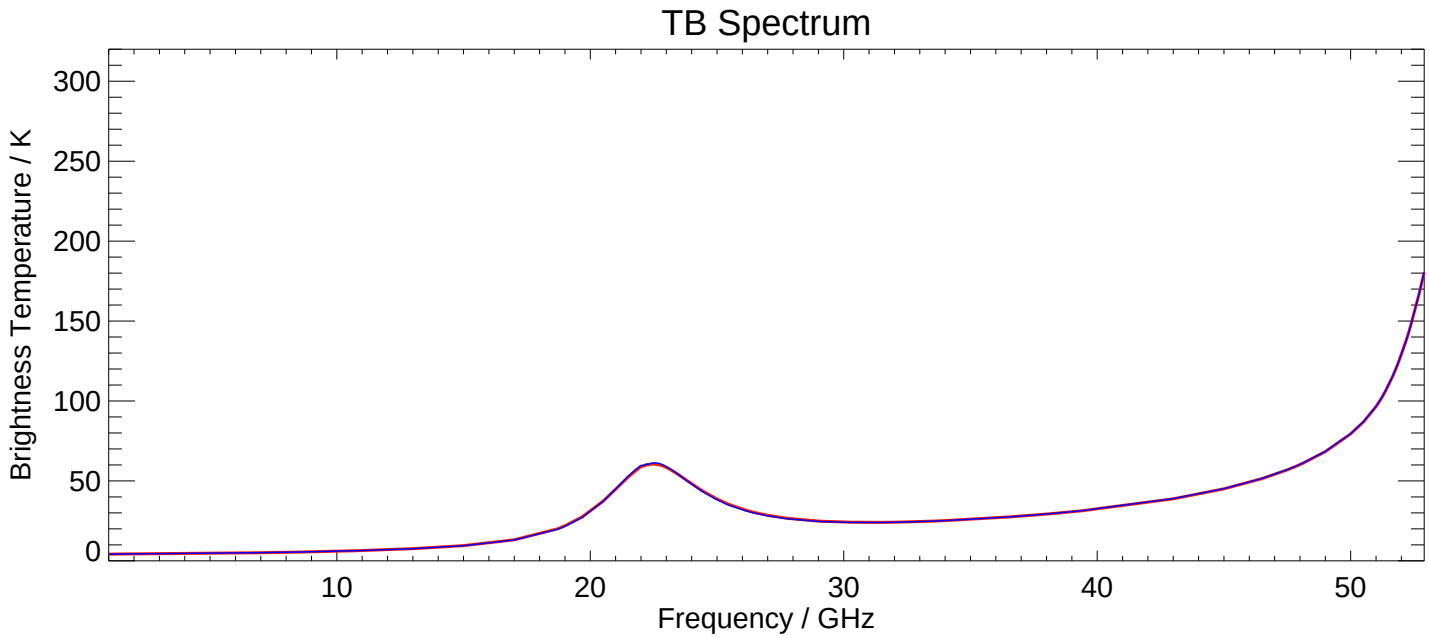
Frequency / GHz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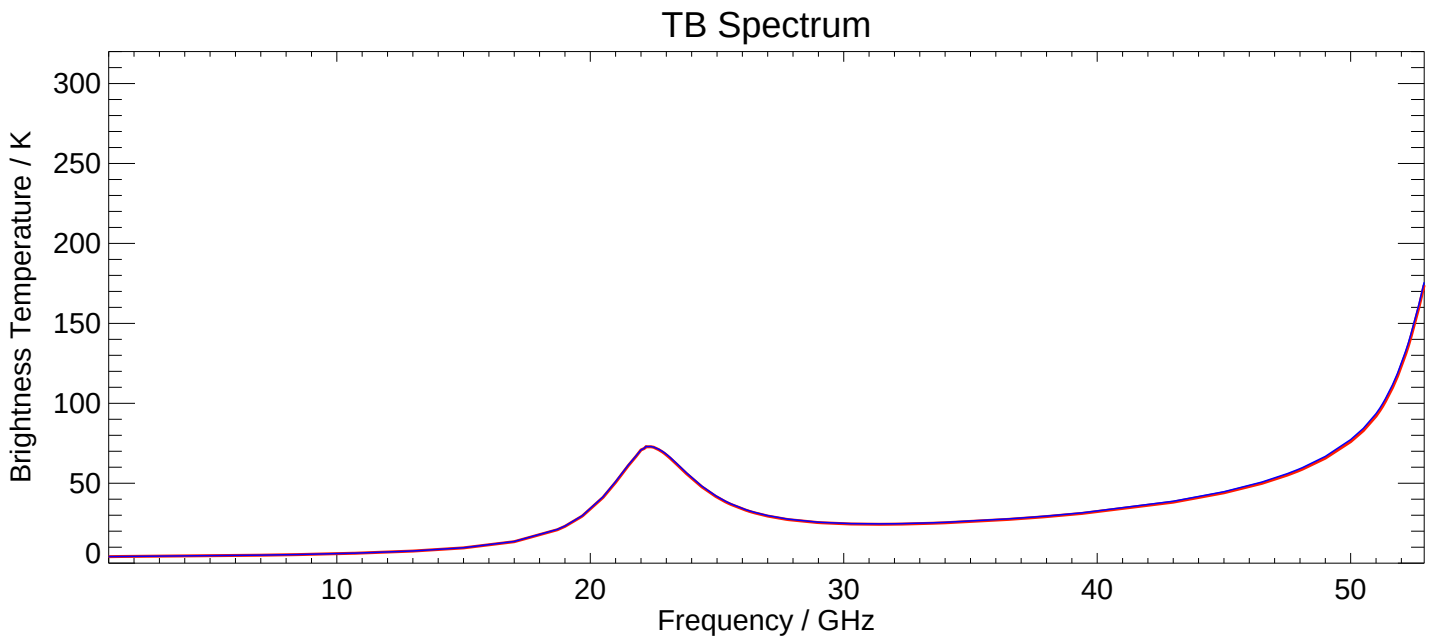
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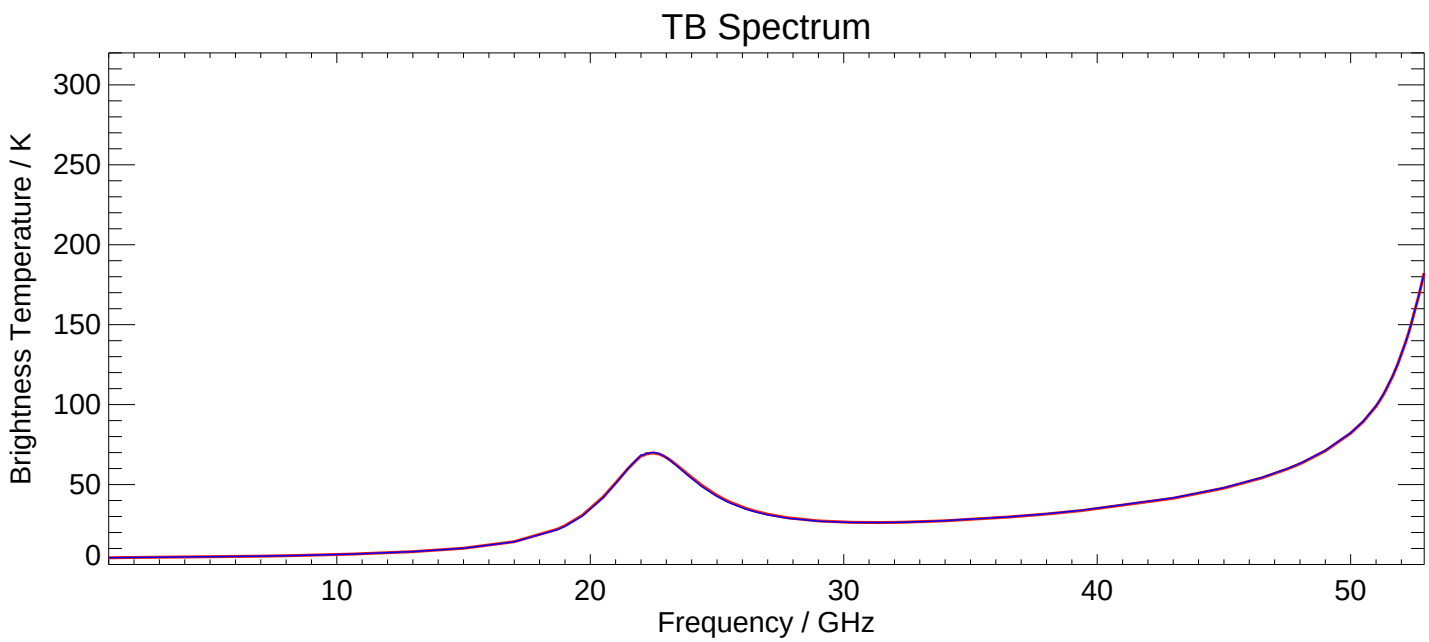
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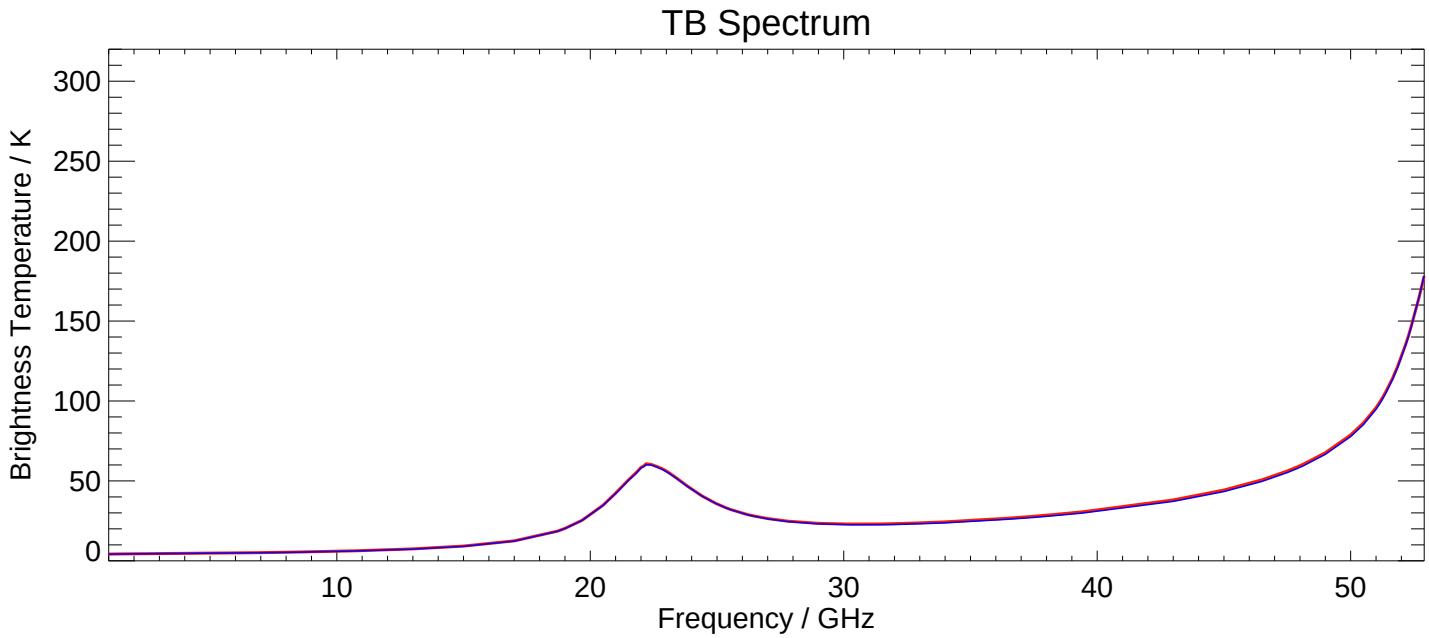
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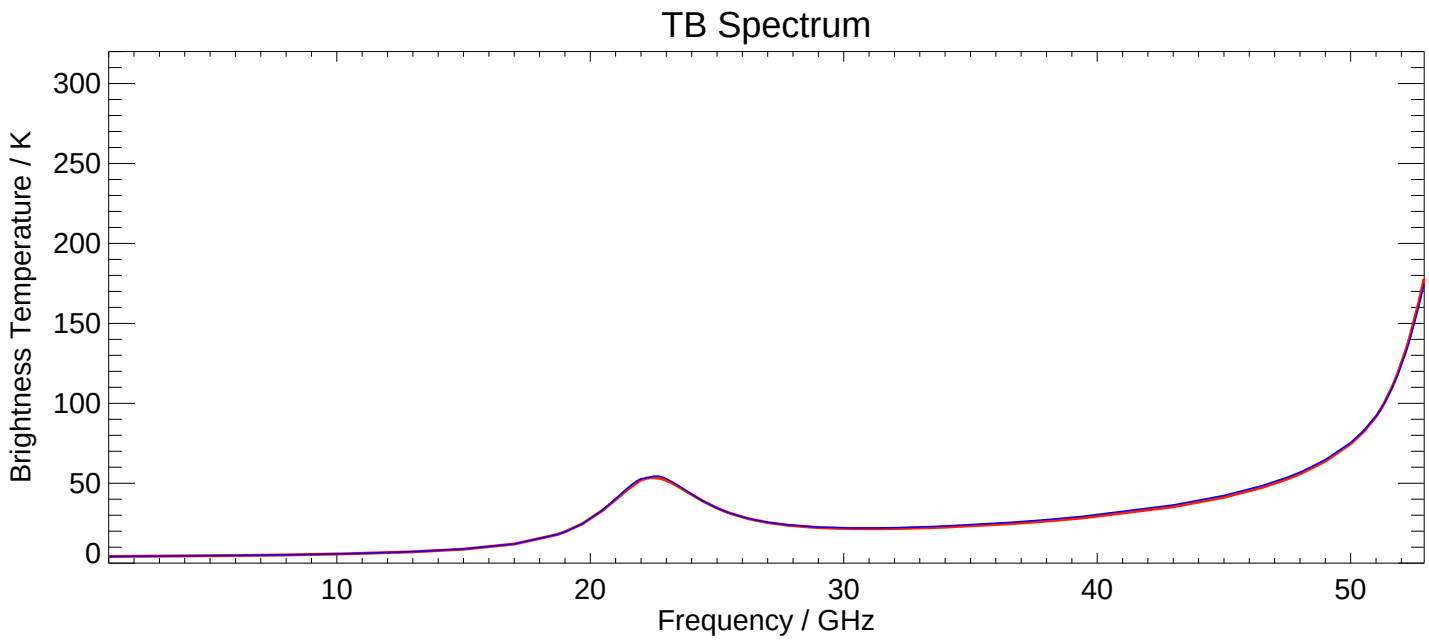
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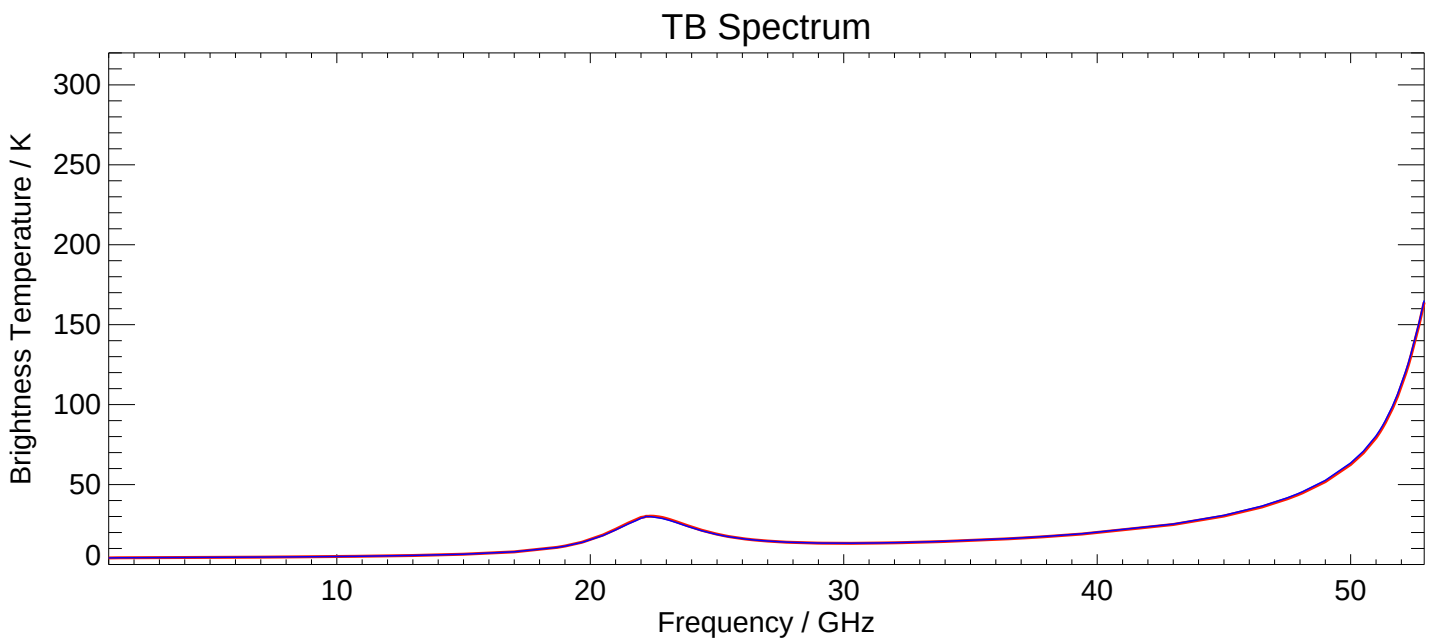
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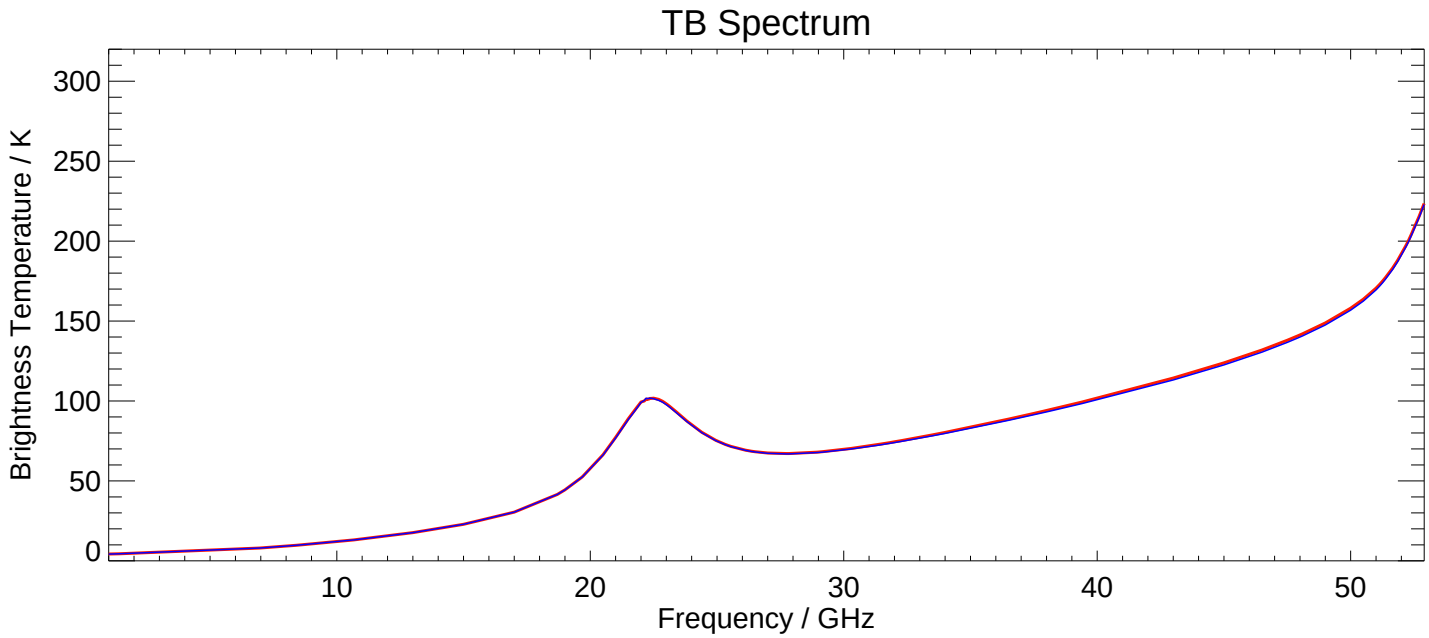
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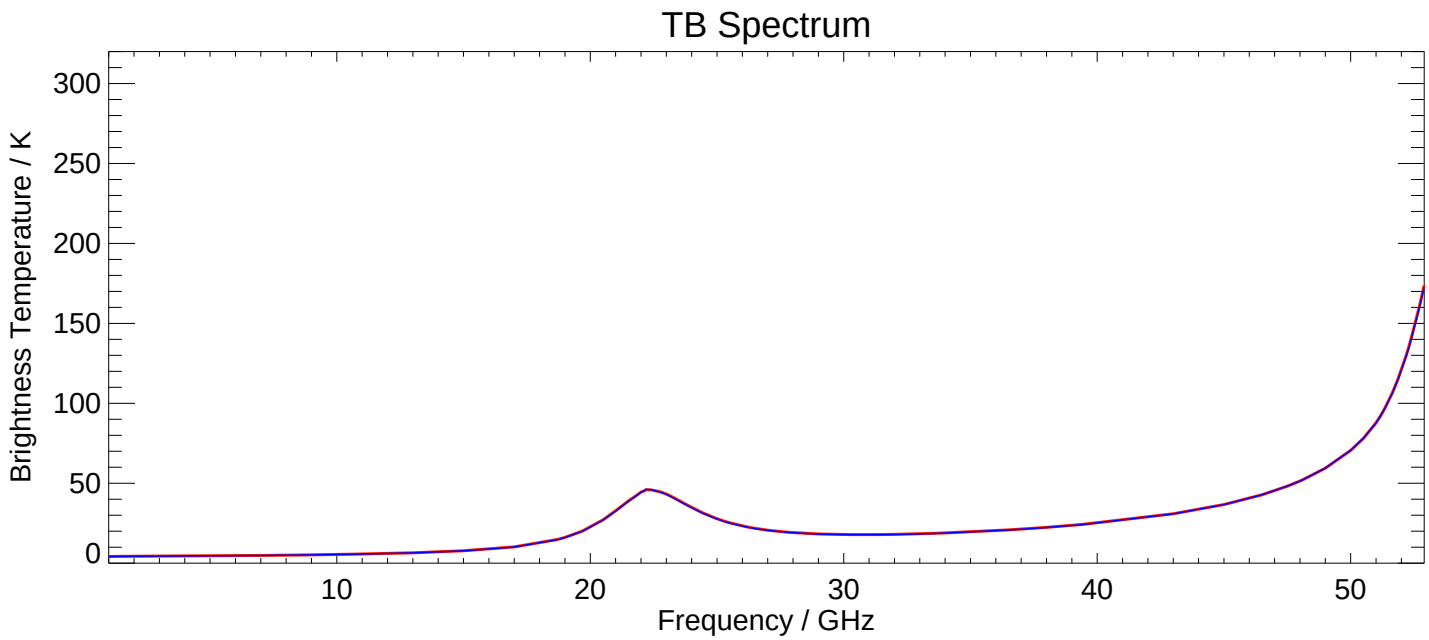
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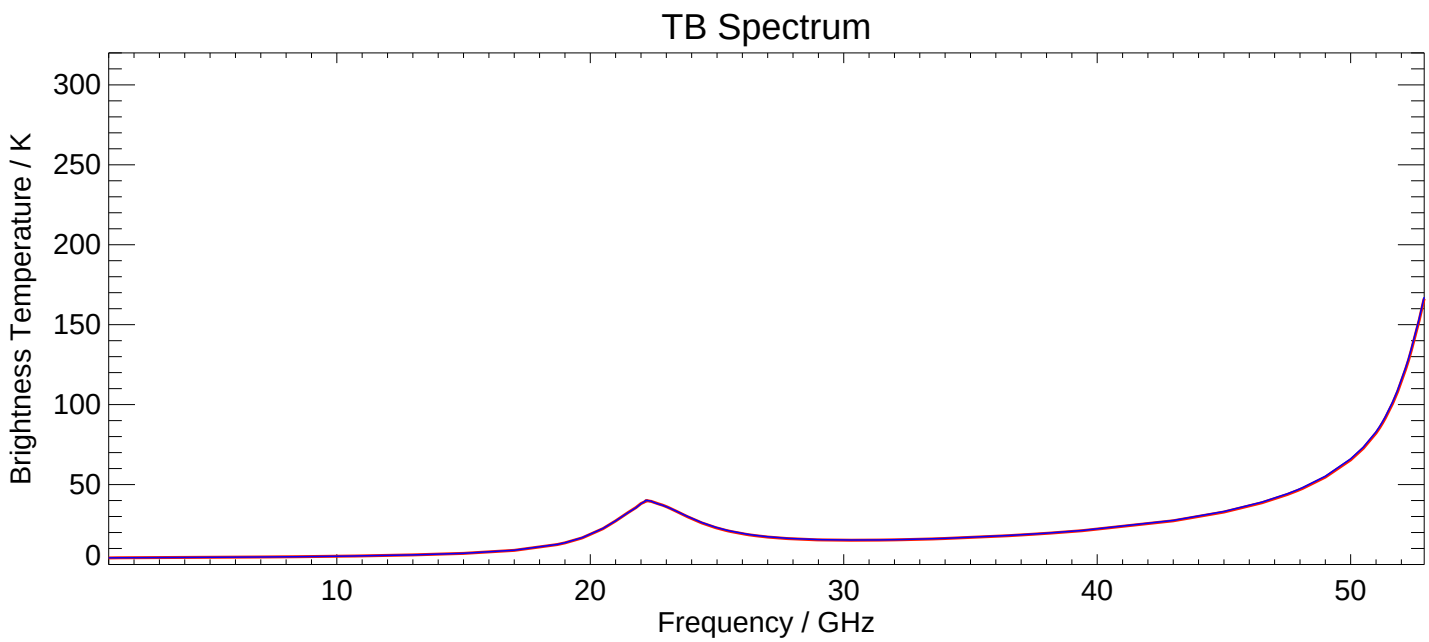
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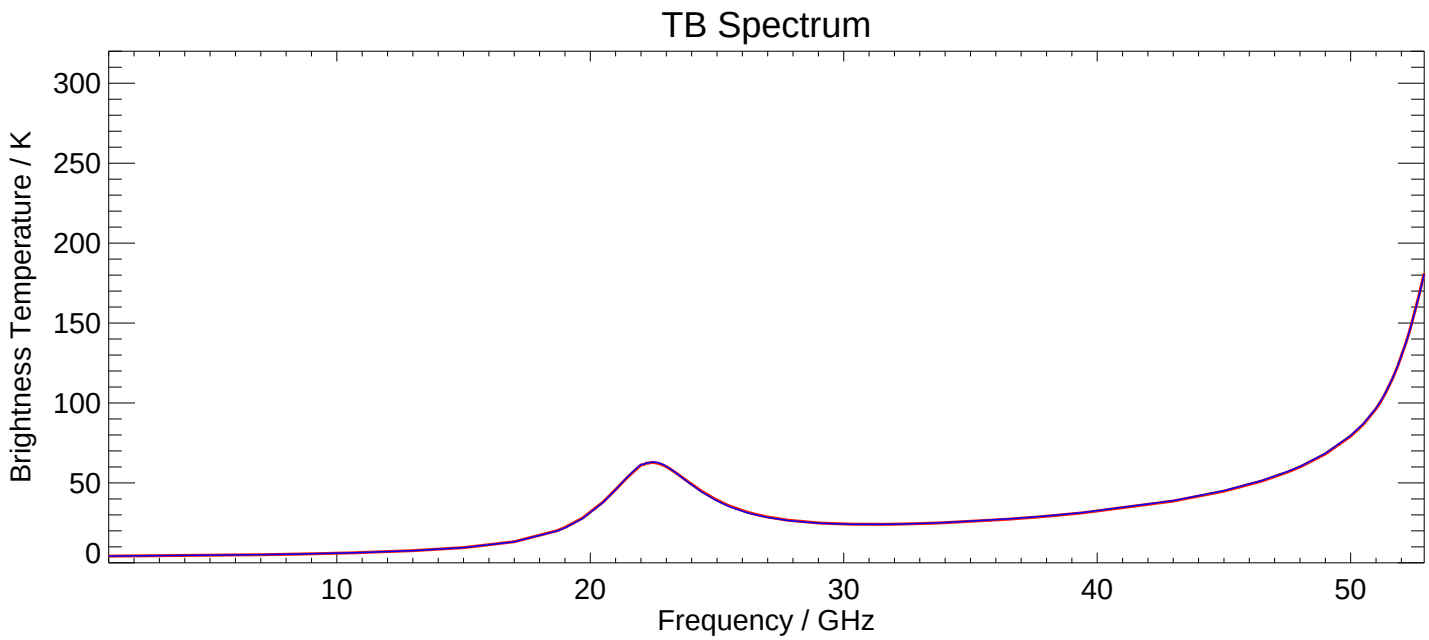
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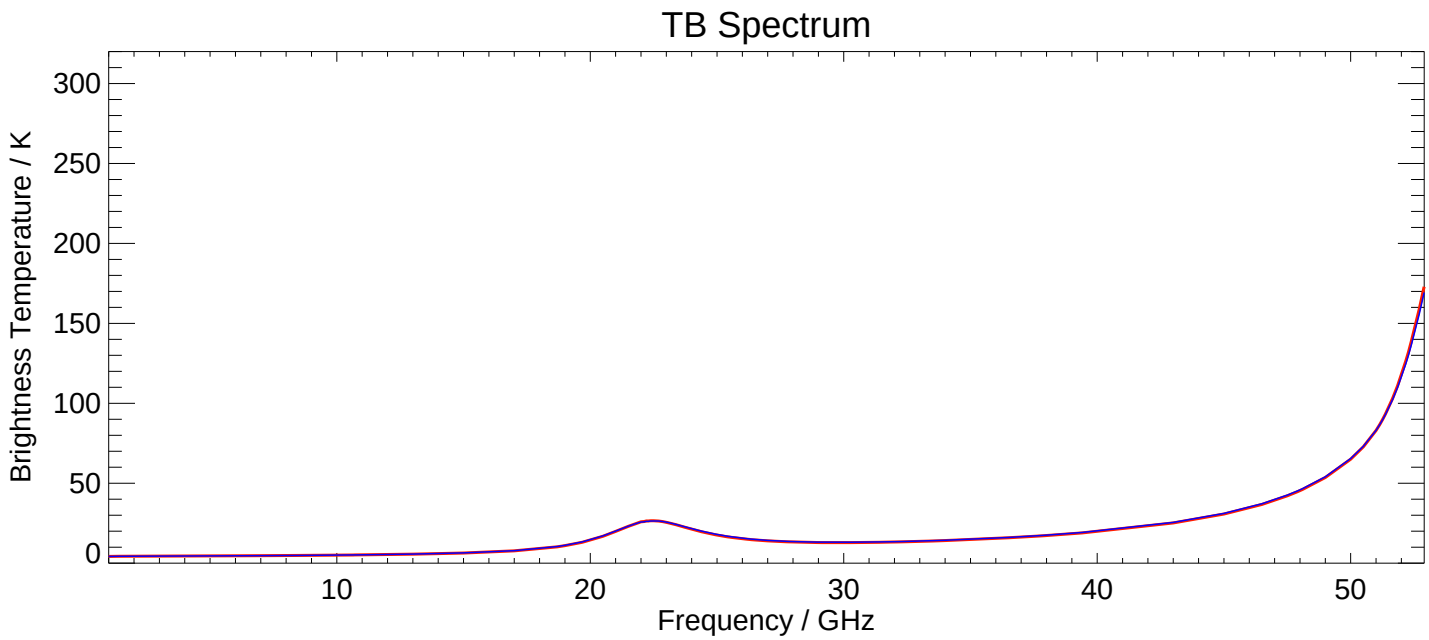
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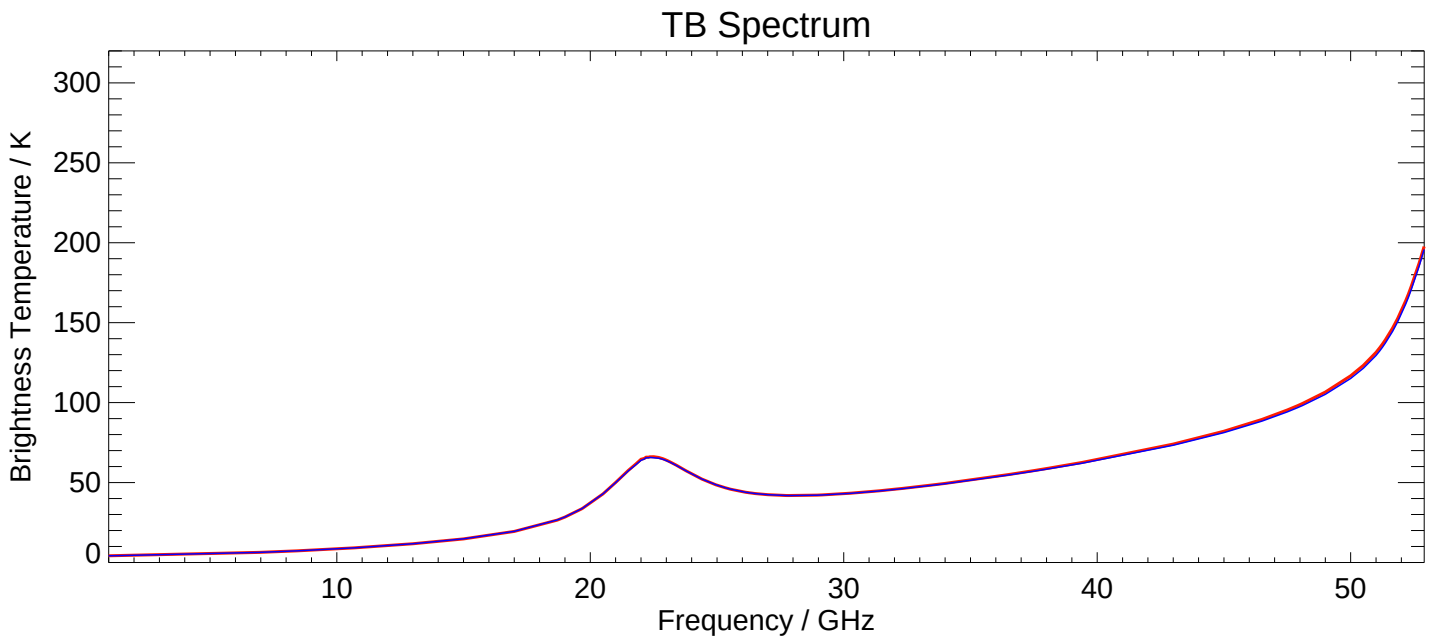
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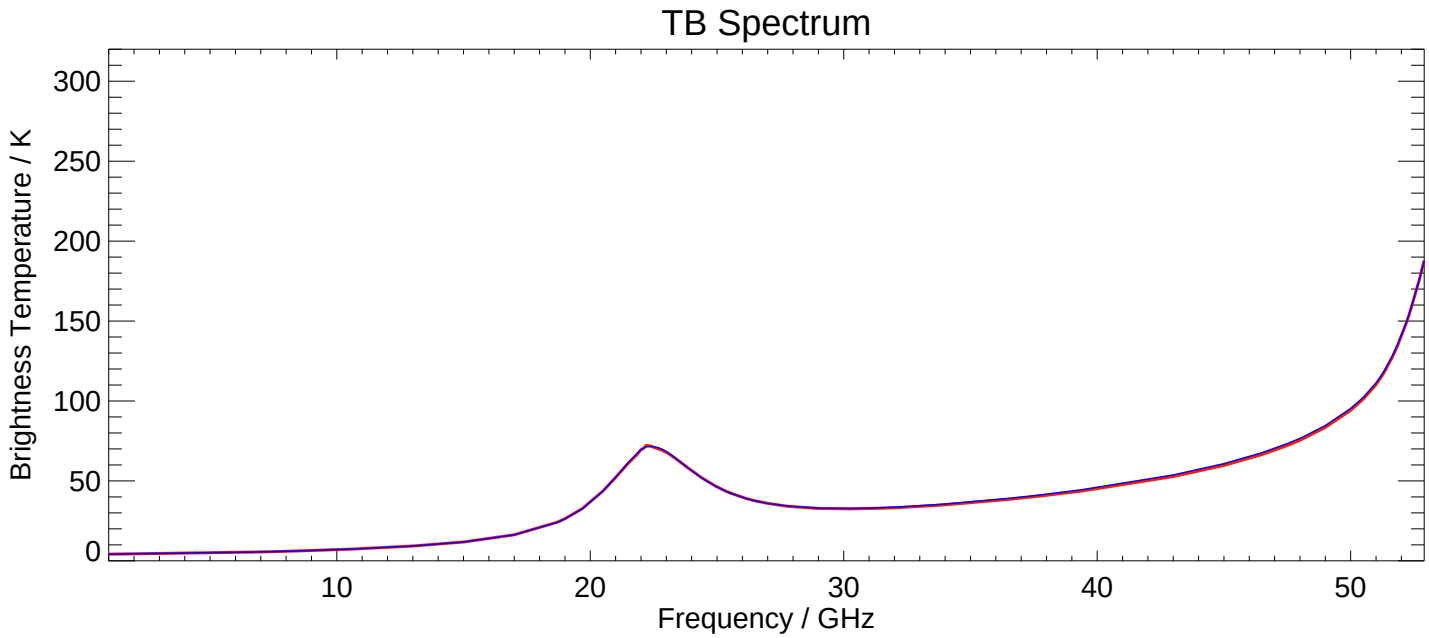
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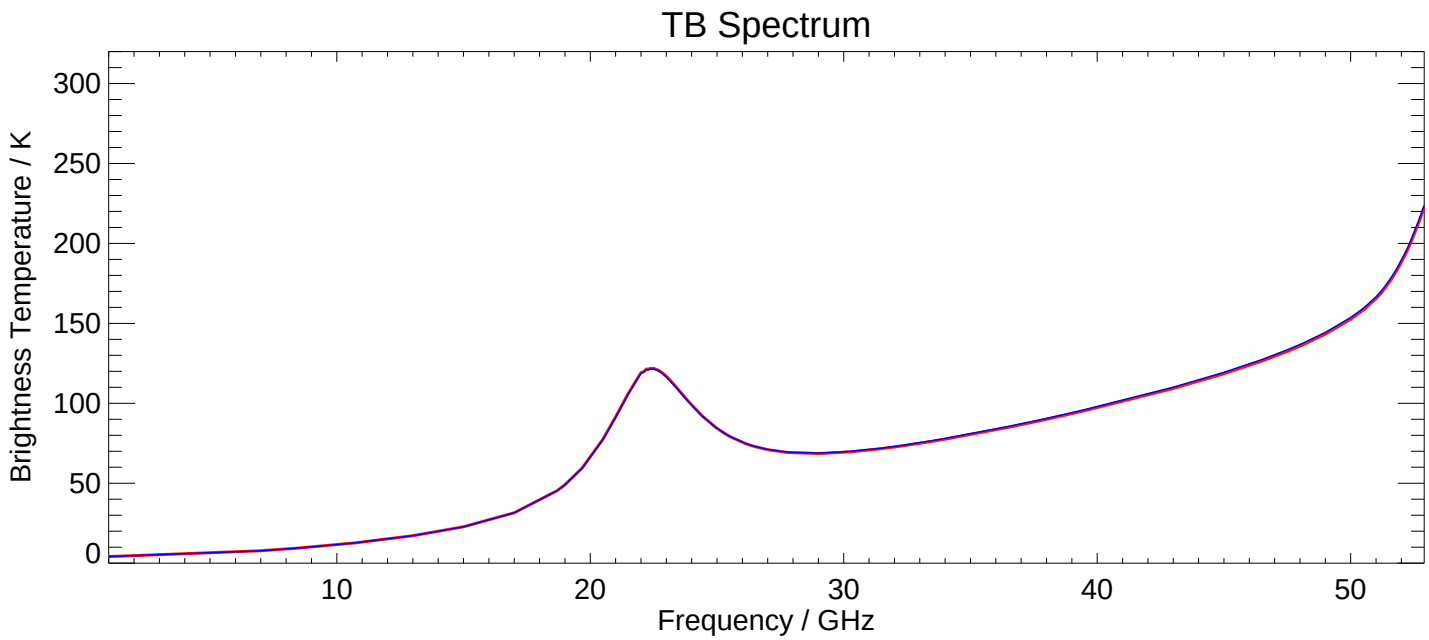
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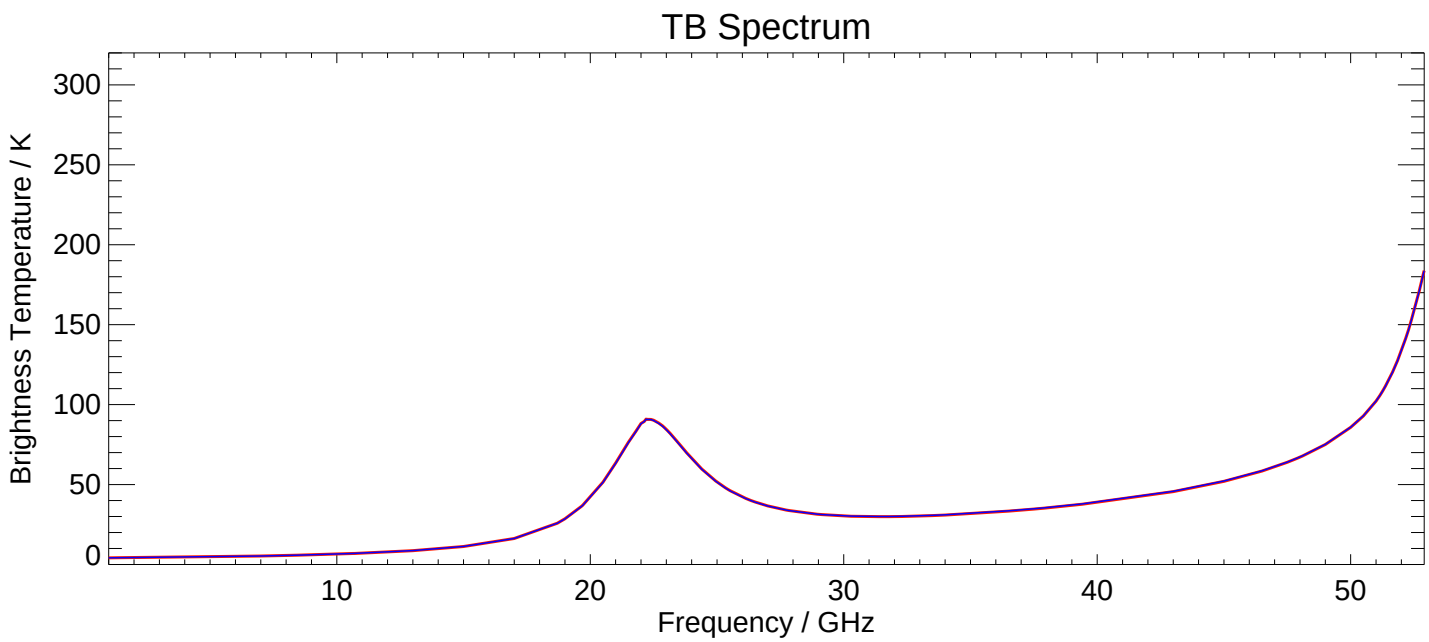
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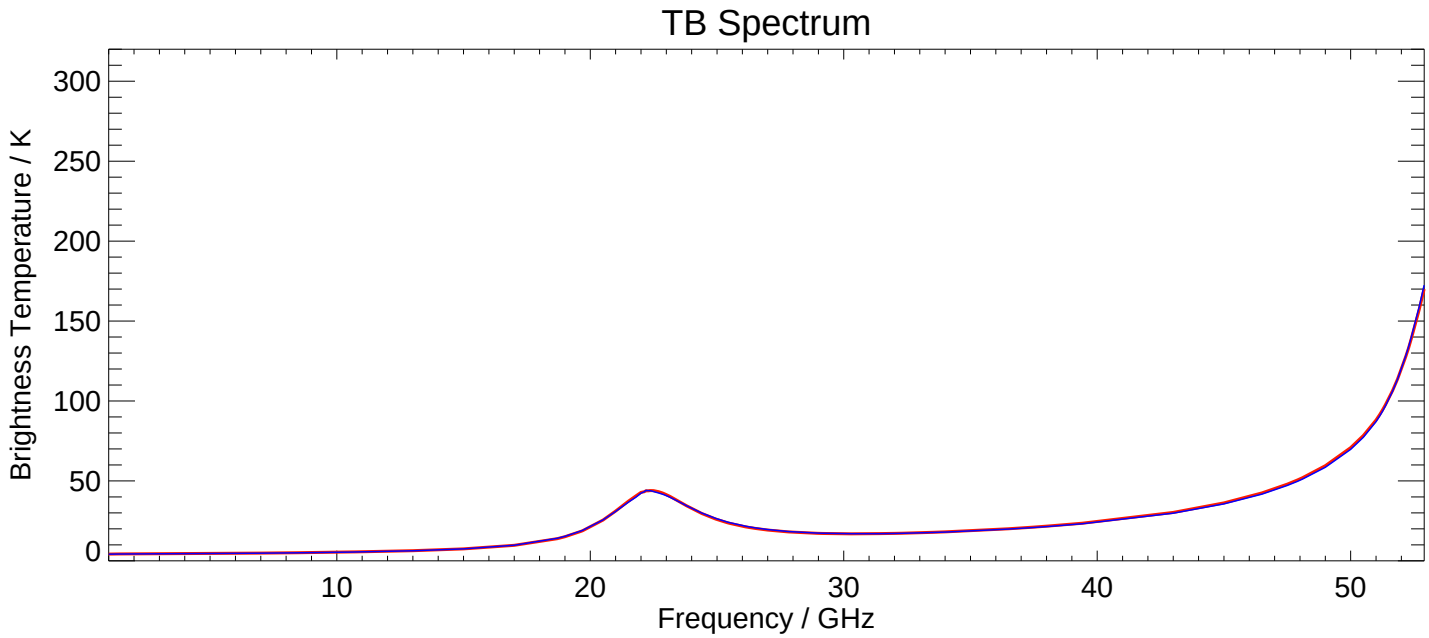
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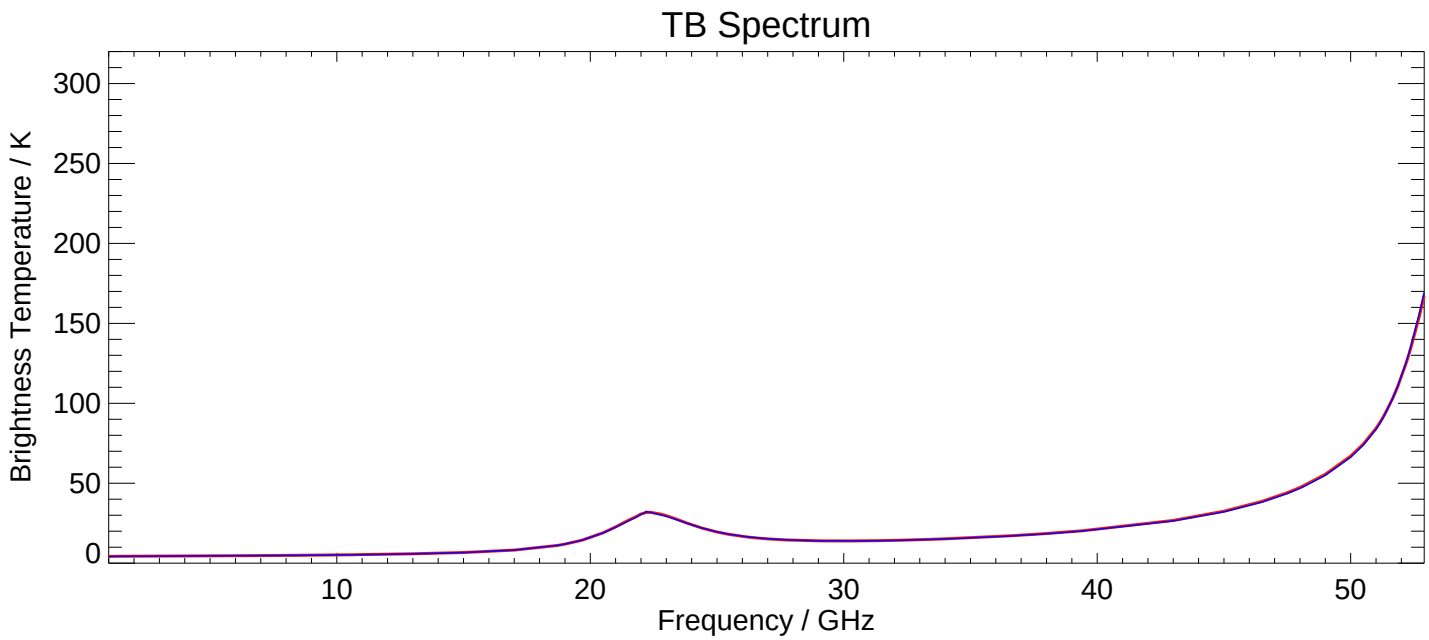
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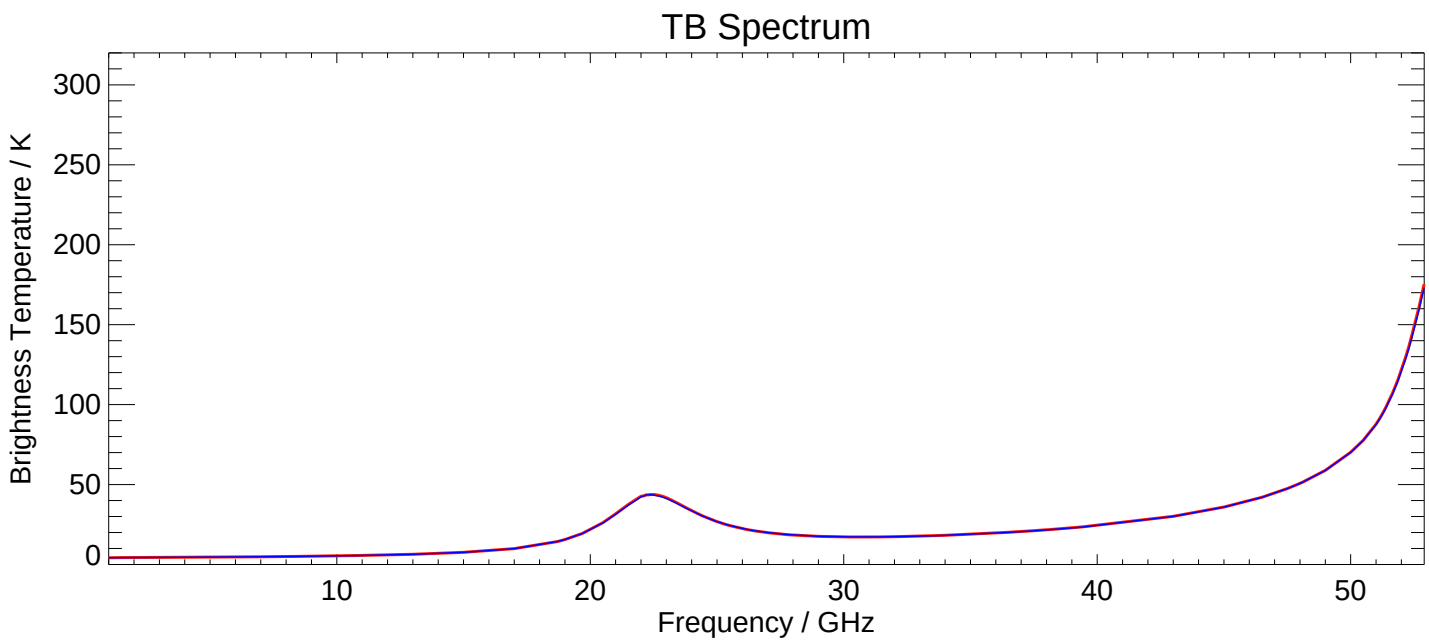
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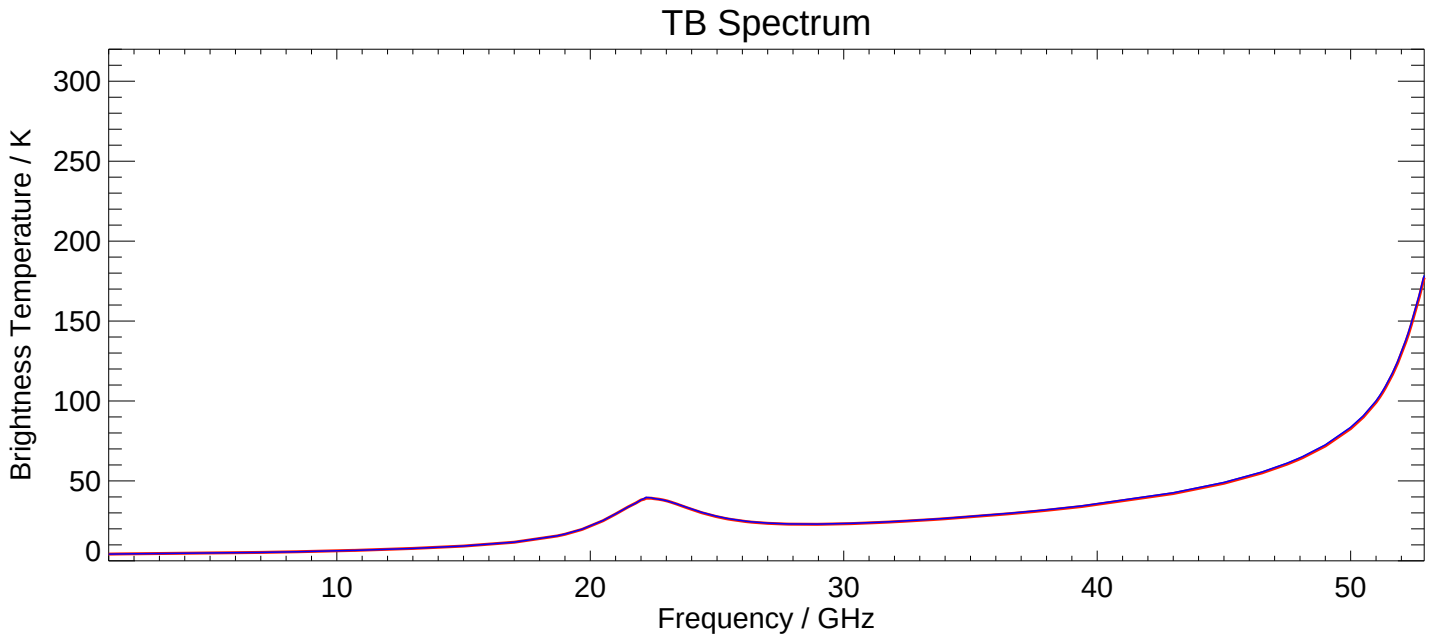
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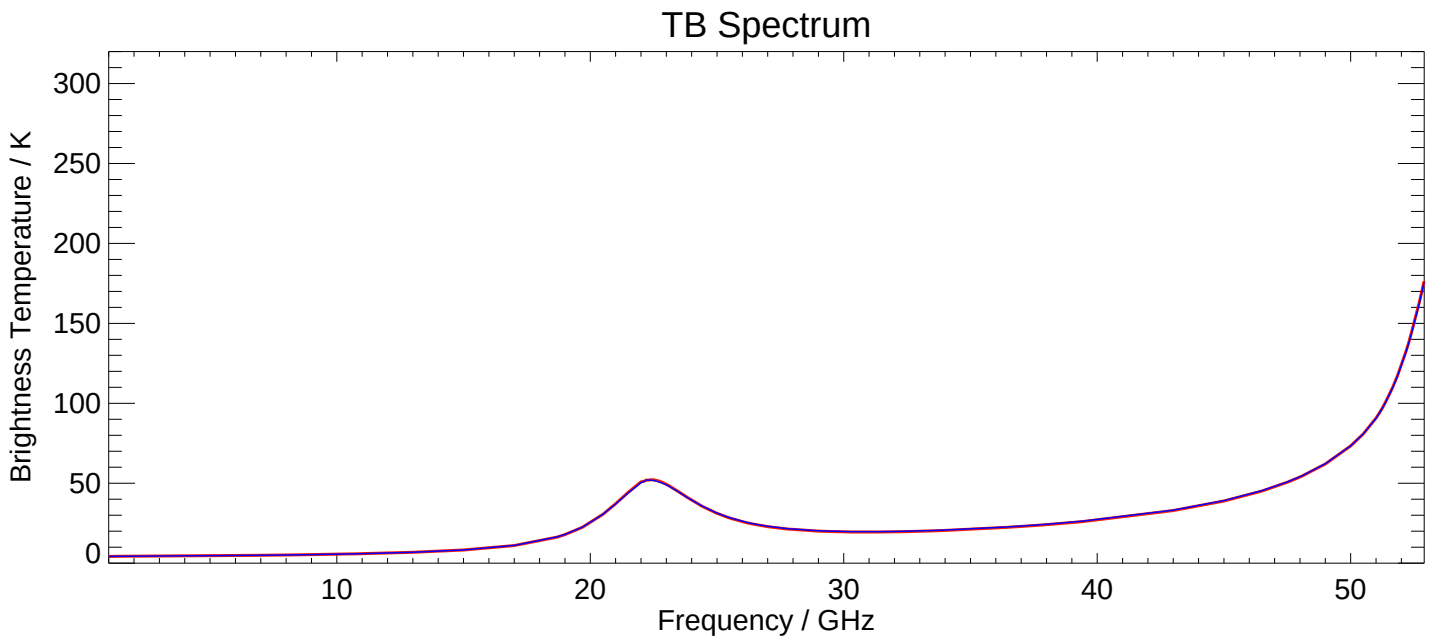
Frequency / GHz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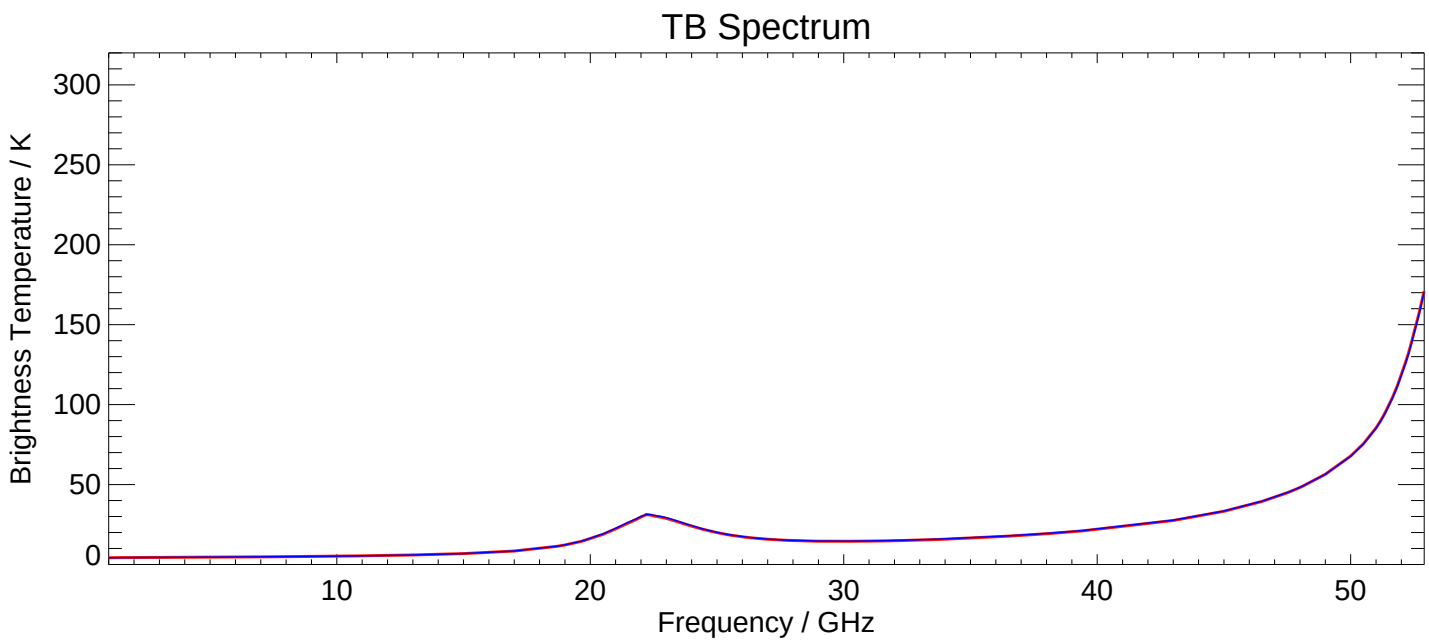
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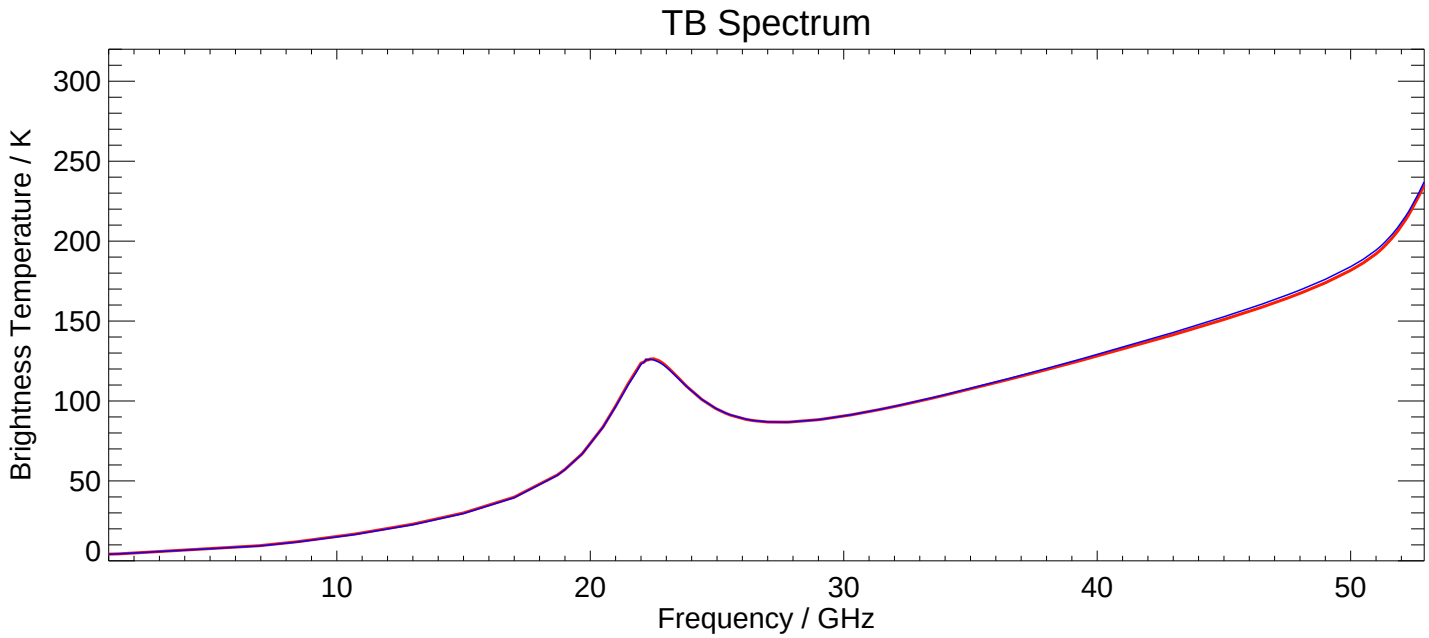
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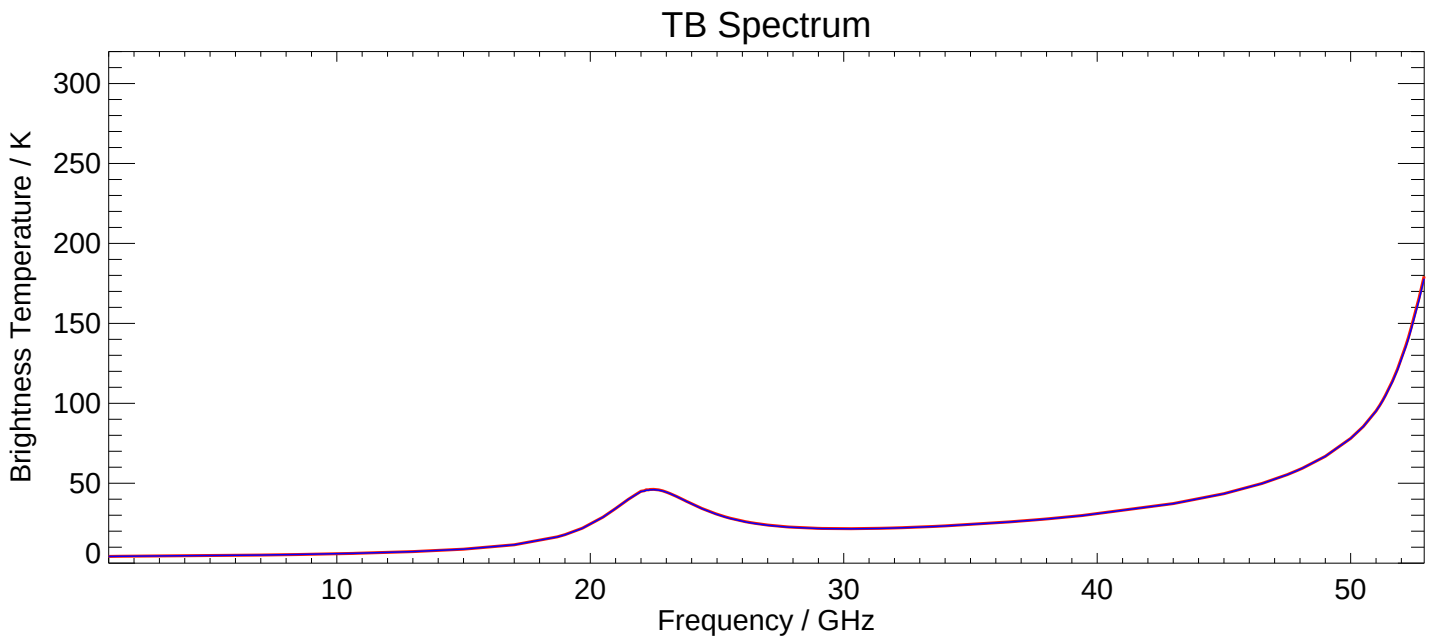
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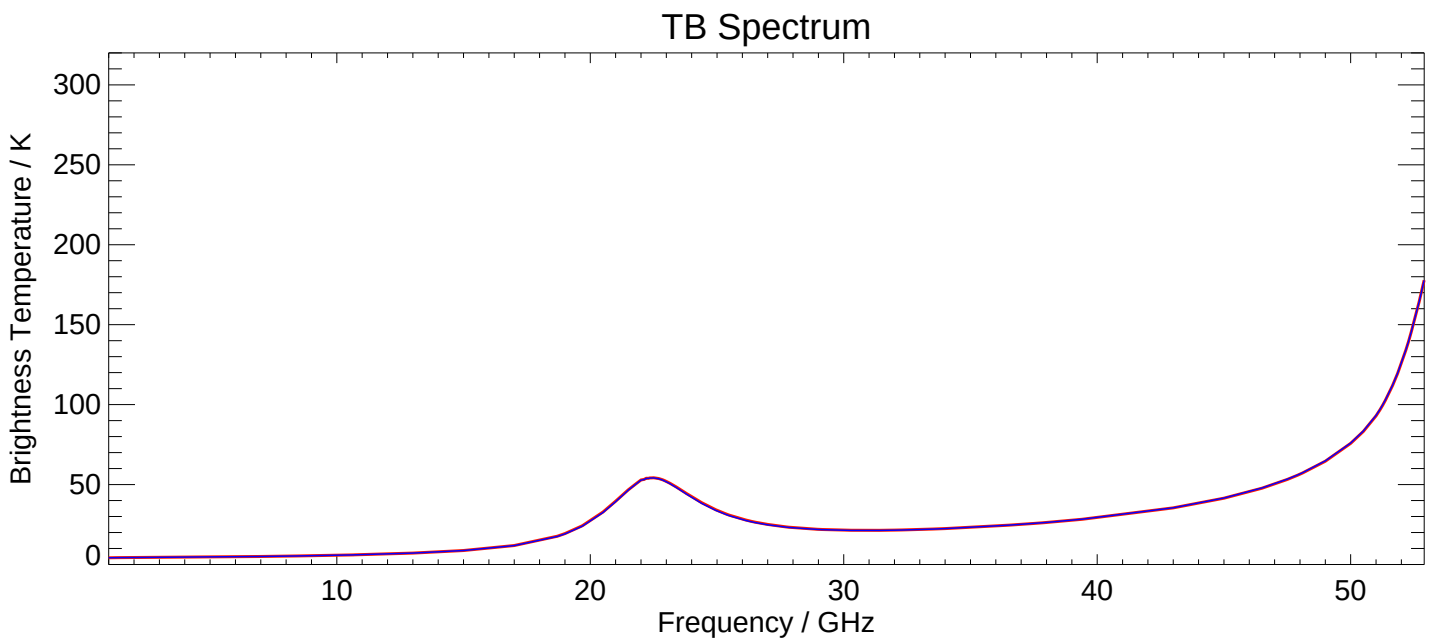
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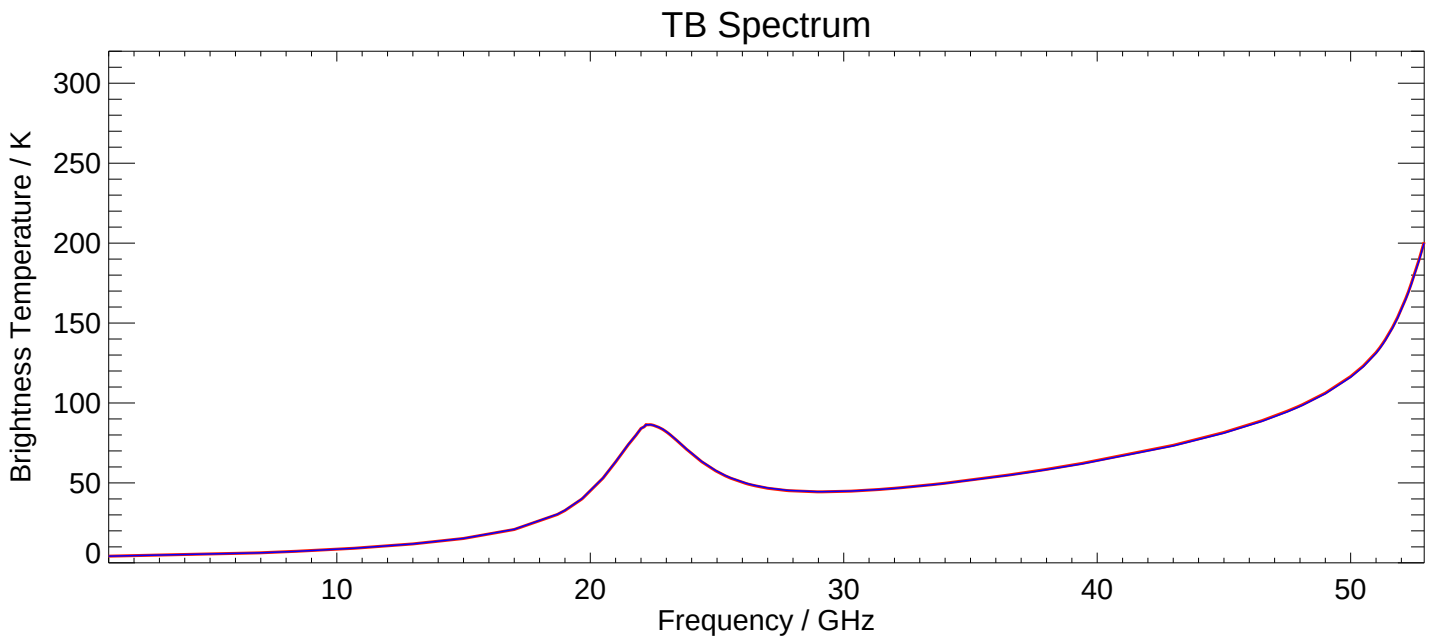
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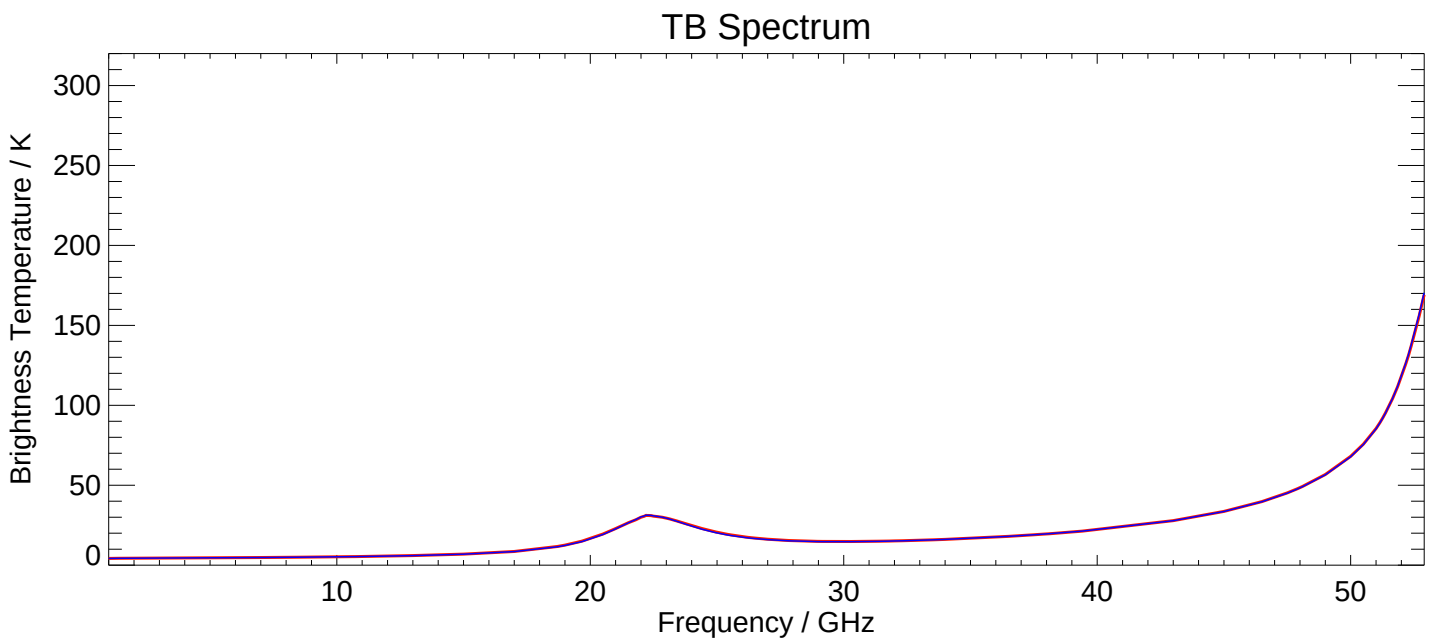
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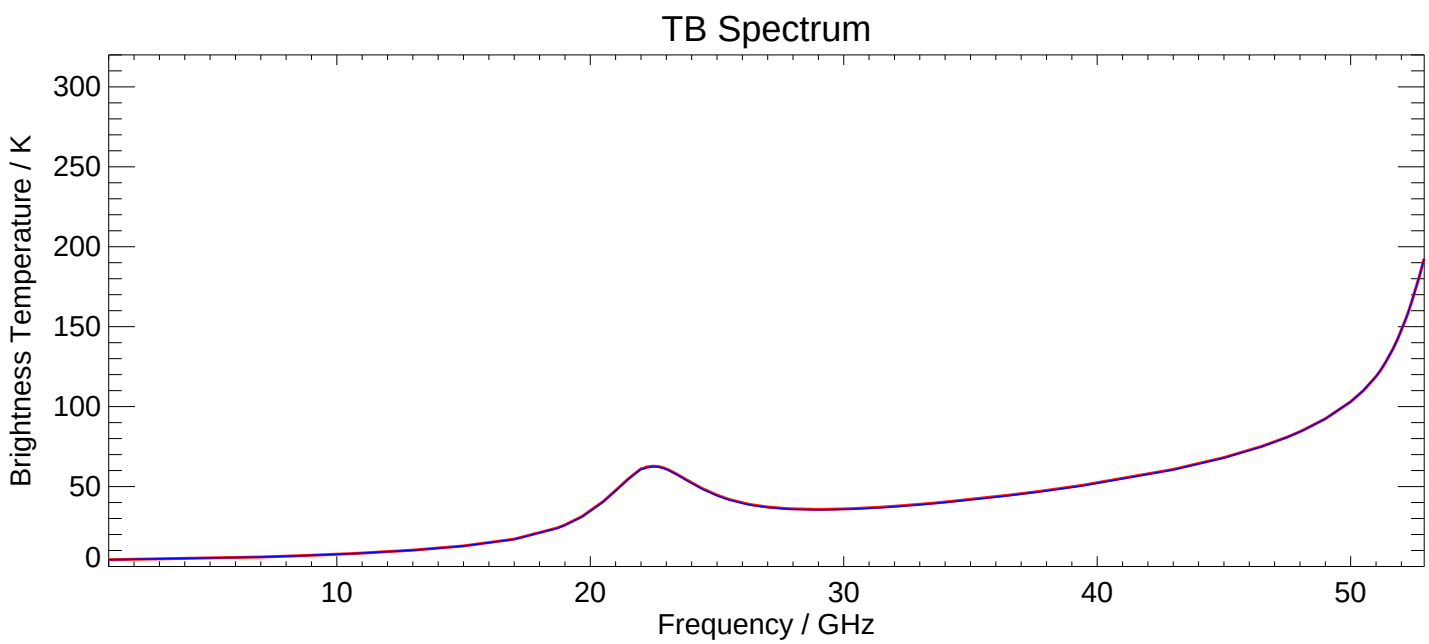
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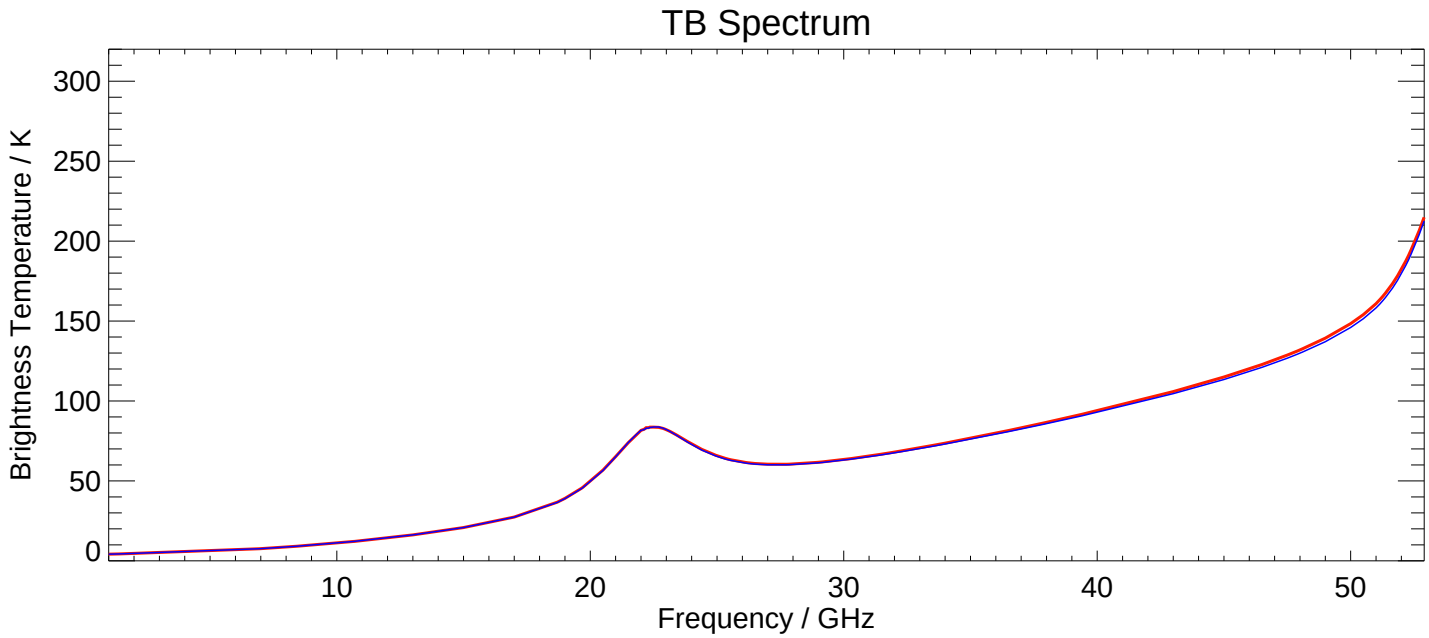
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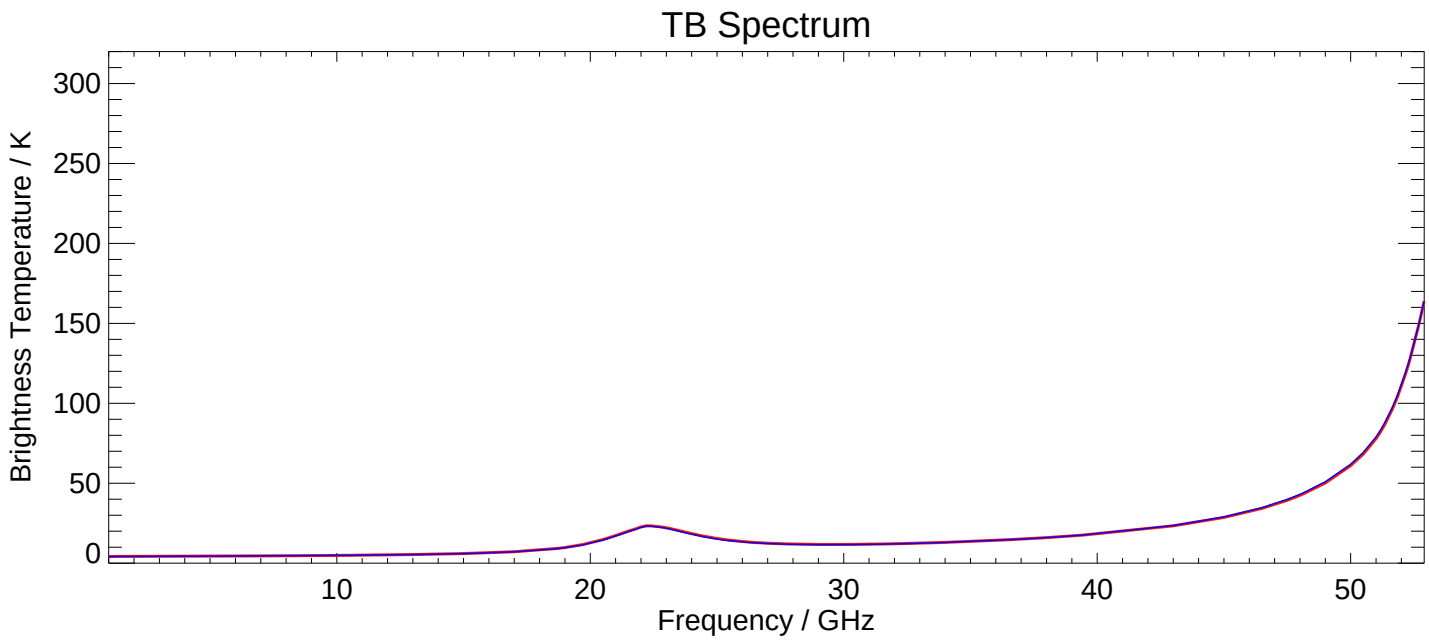
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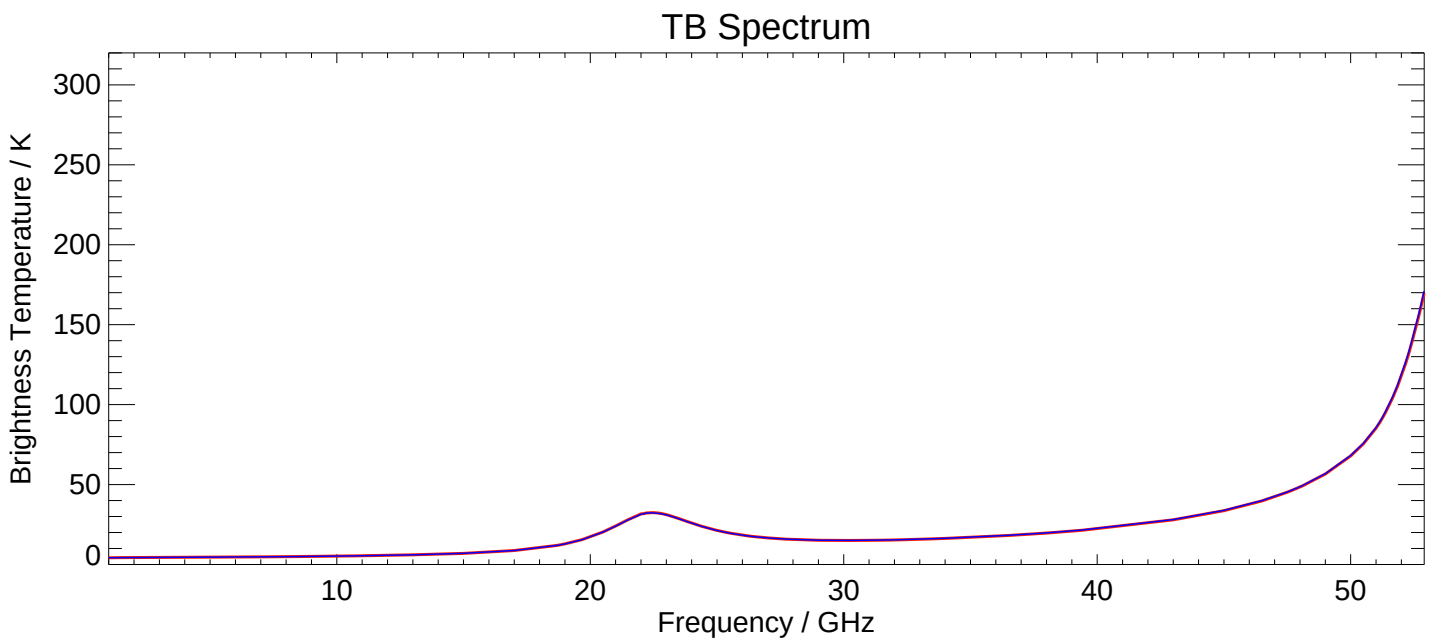
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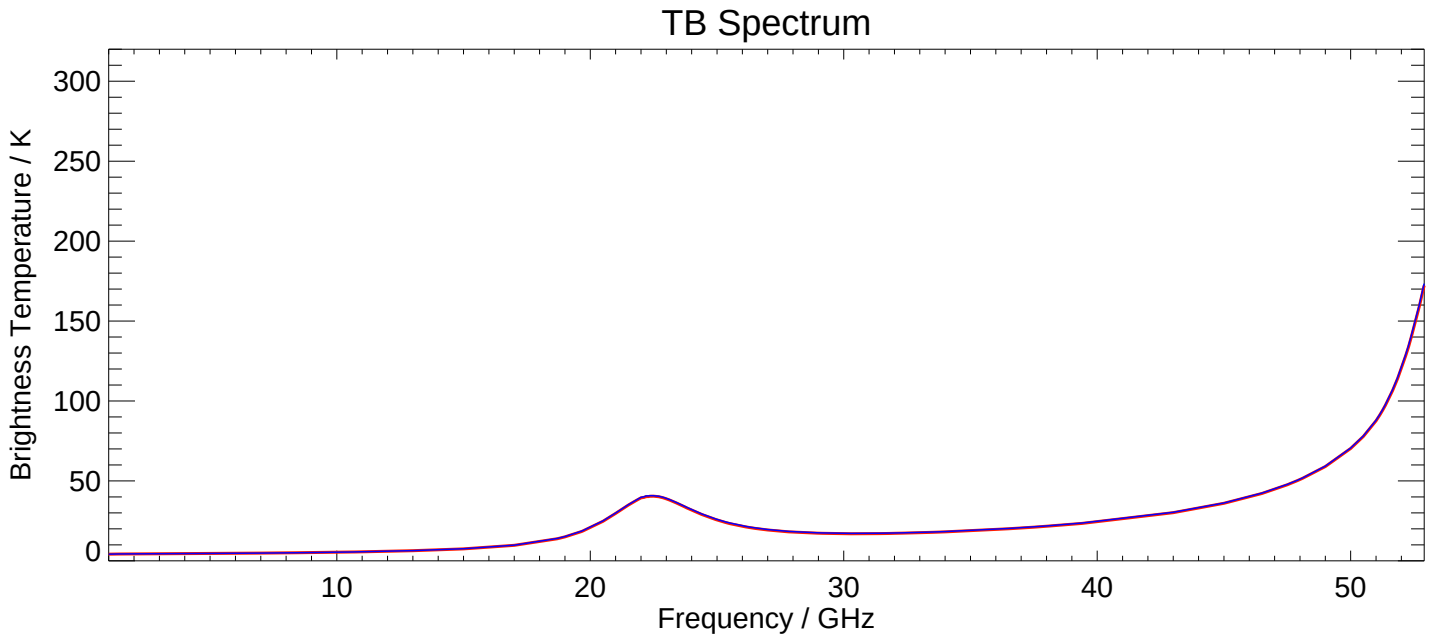
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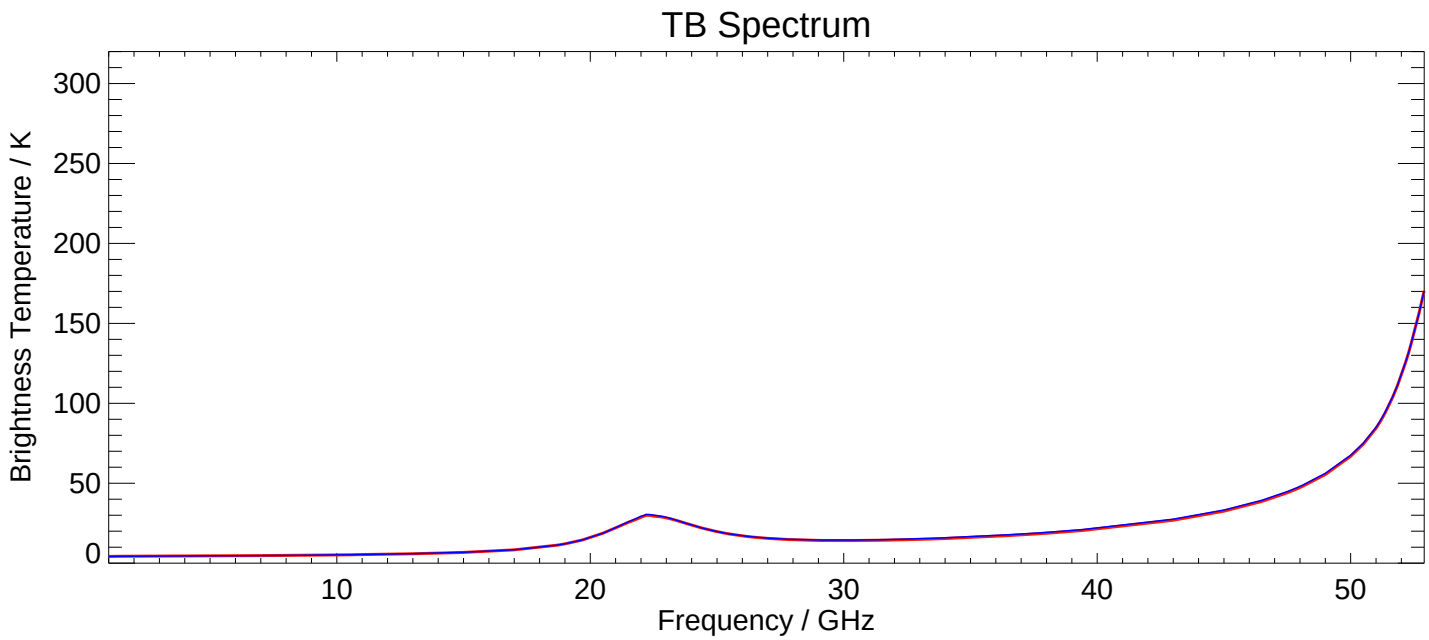
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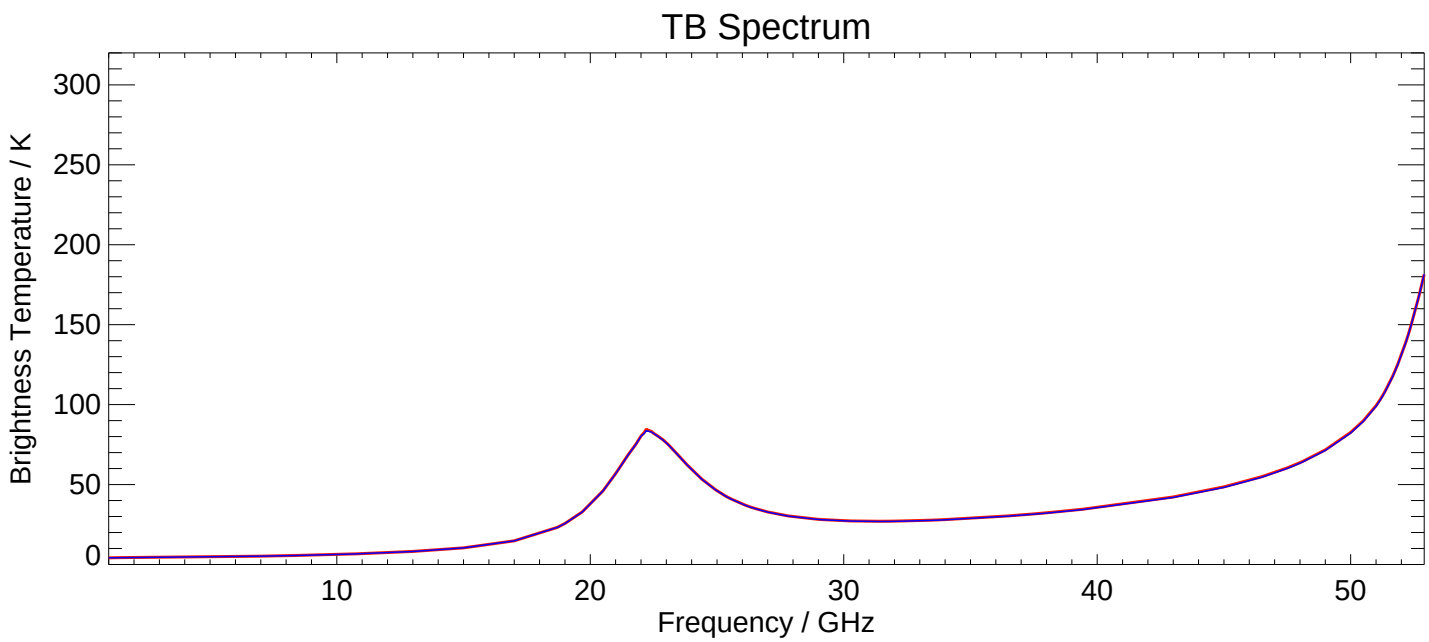
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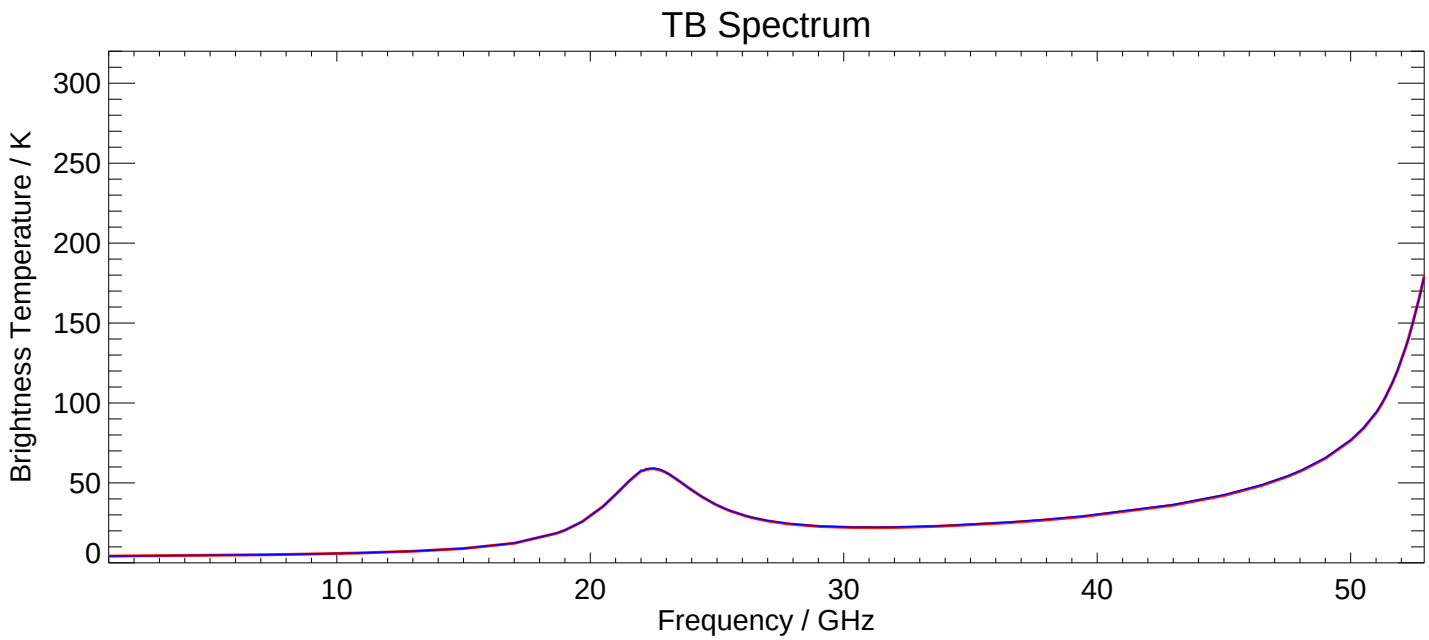
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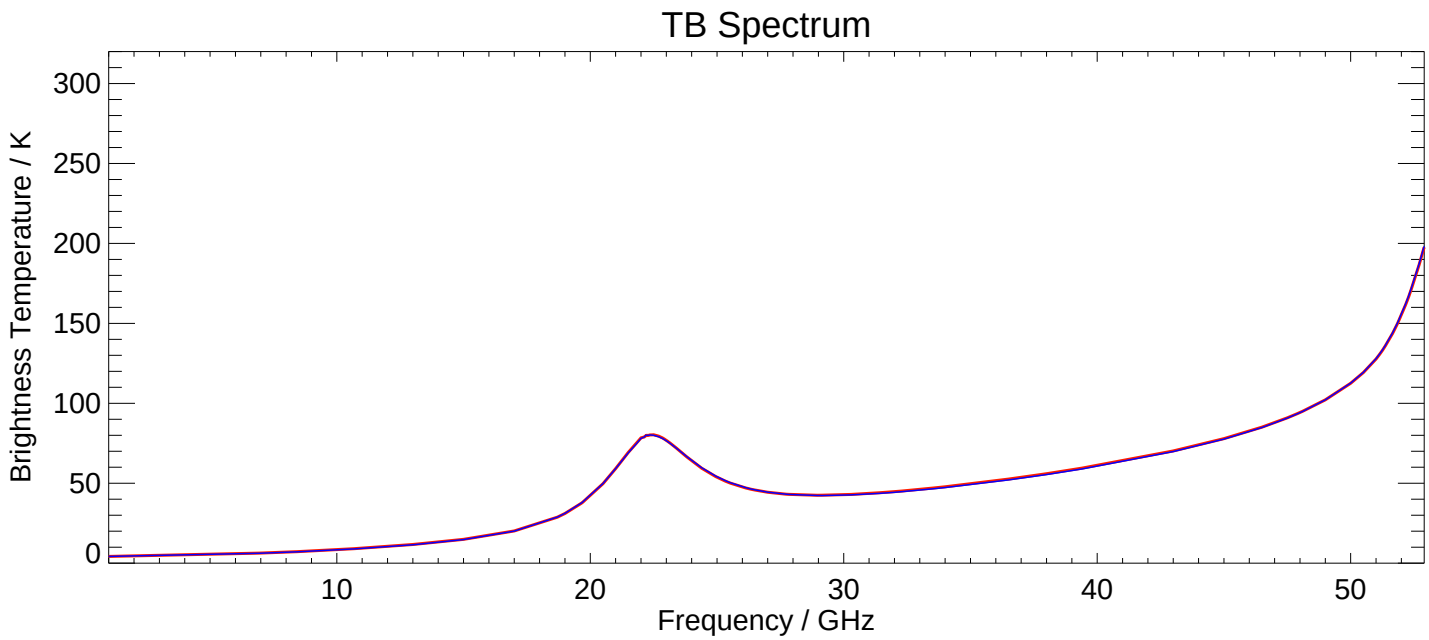
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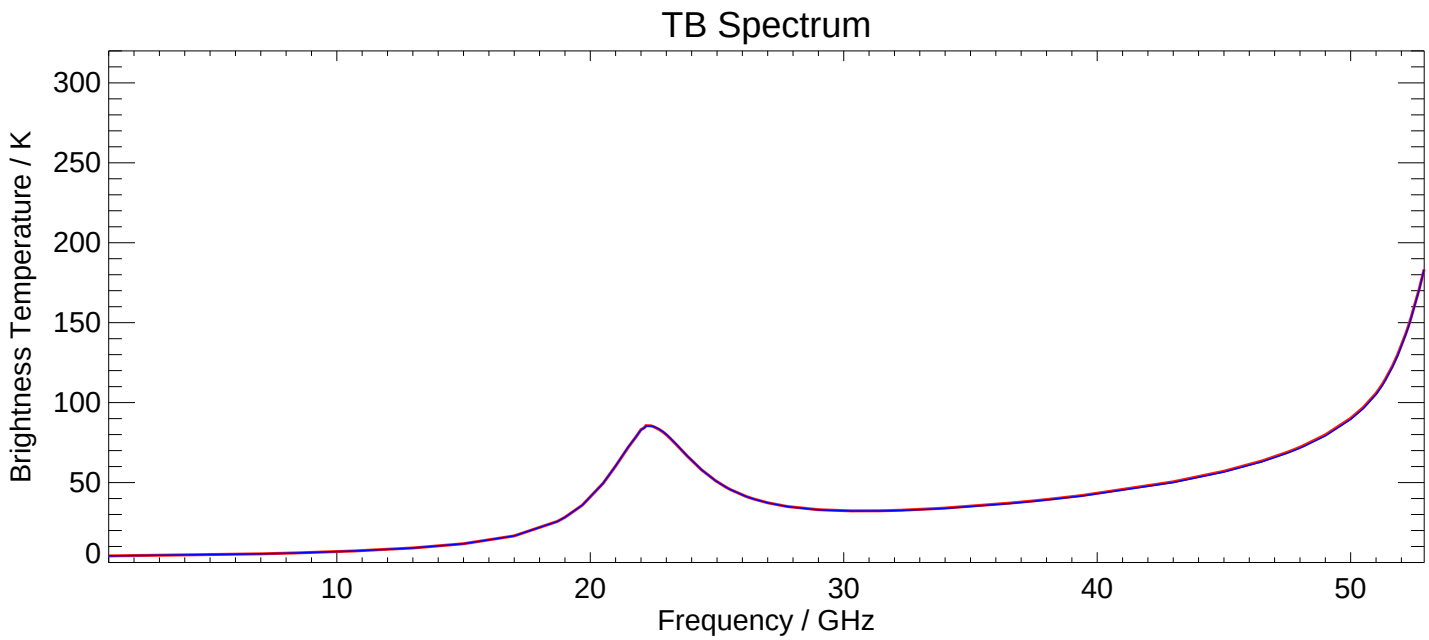
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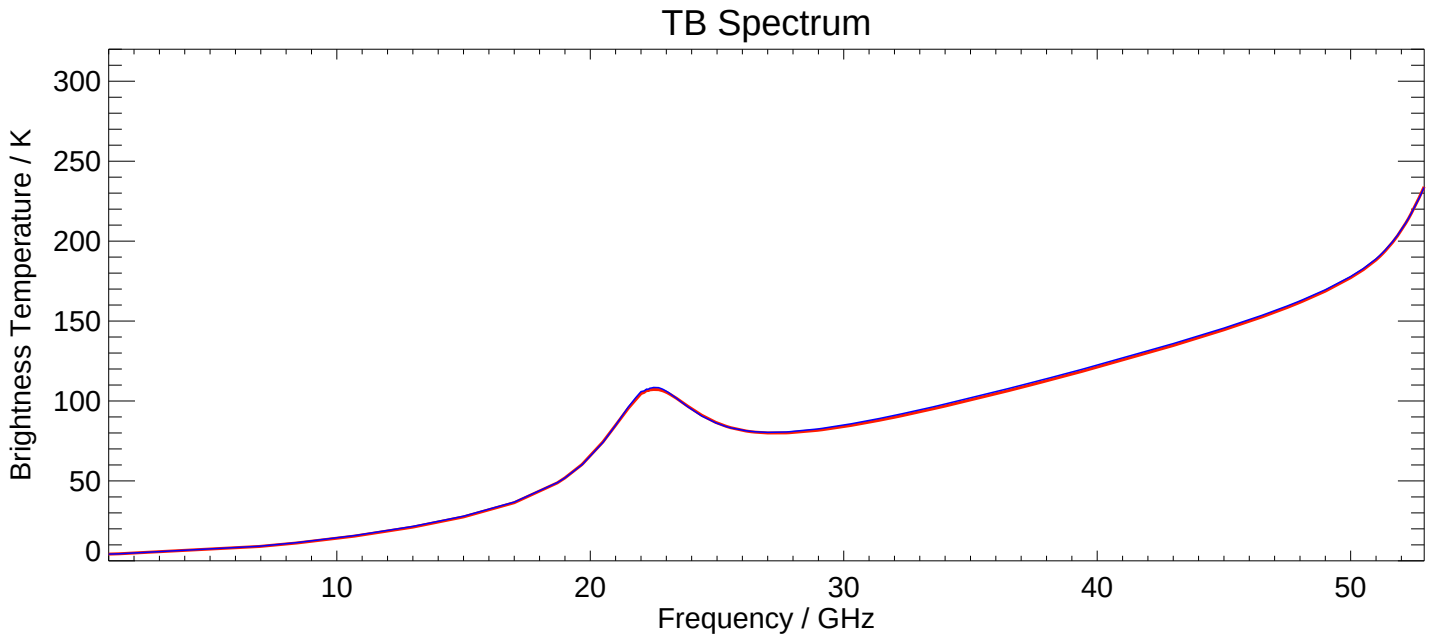
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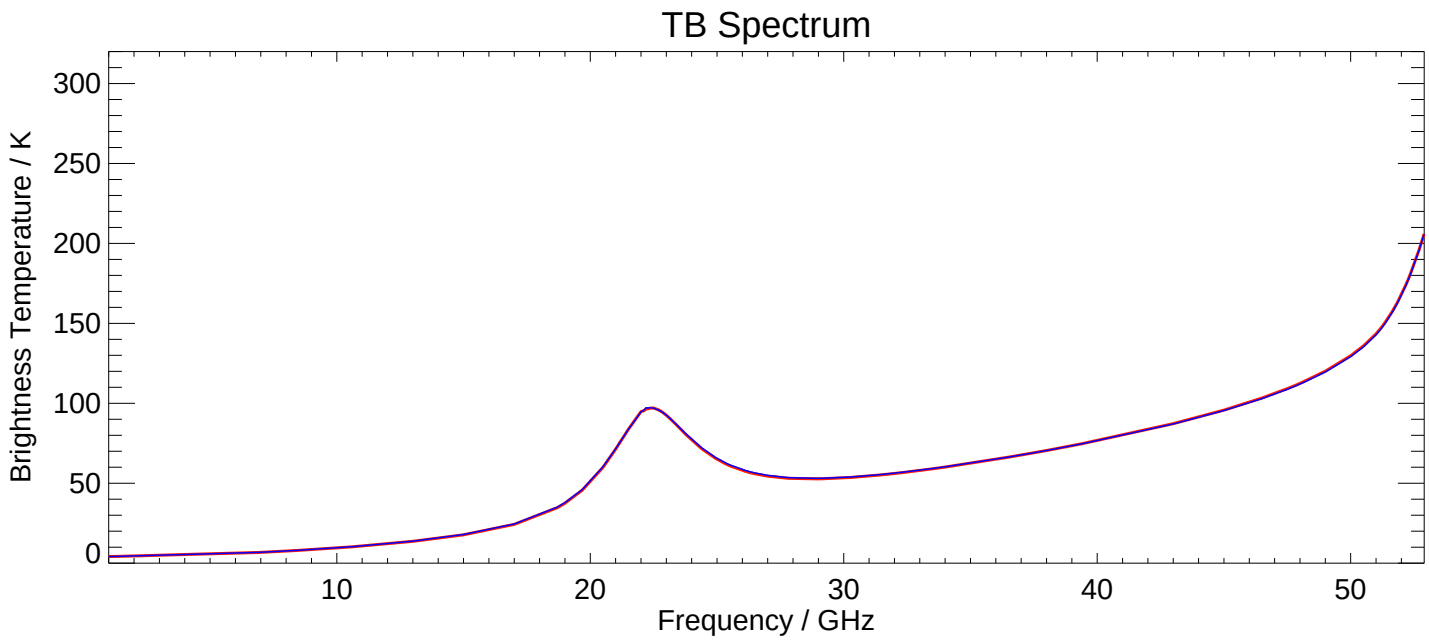
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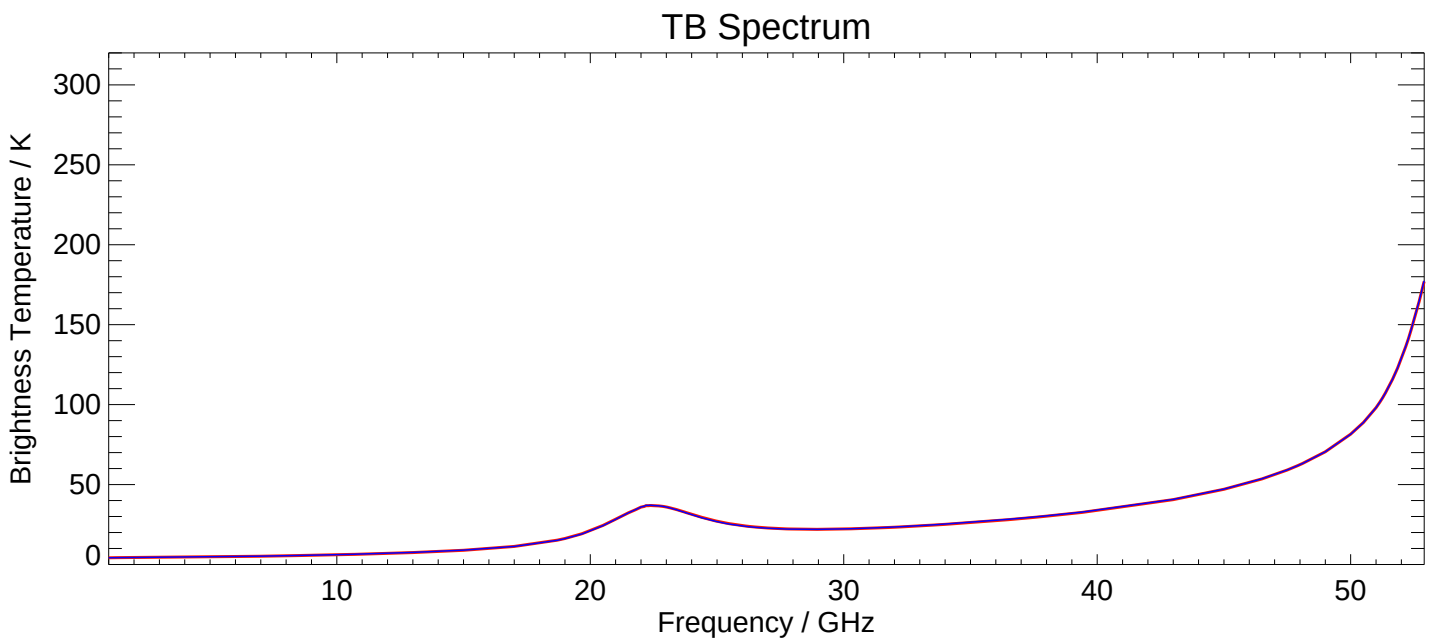
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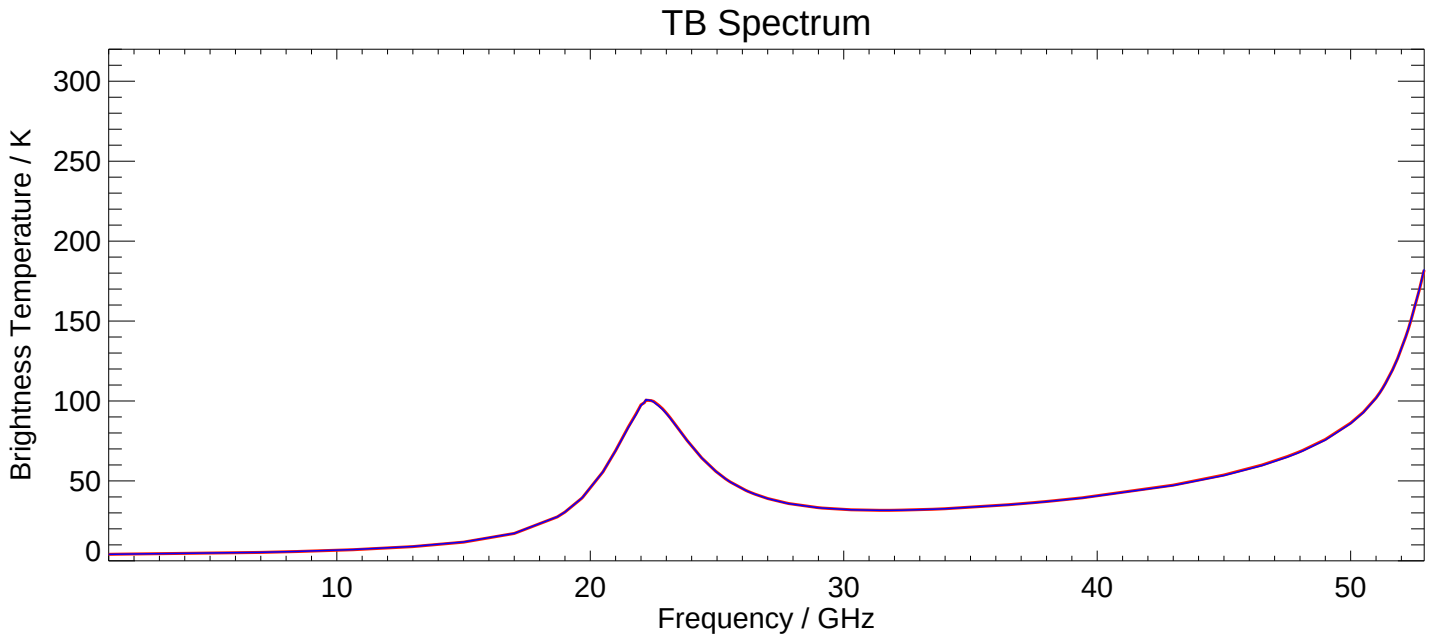
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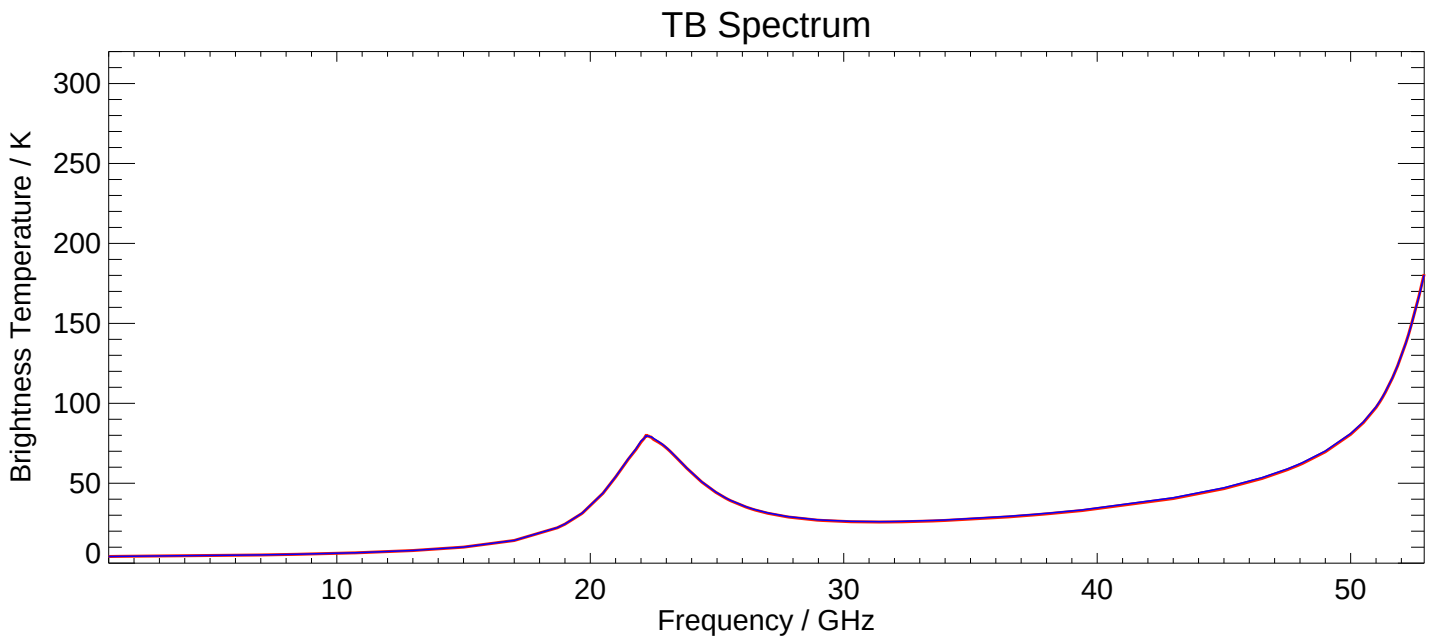
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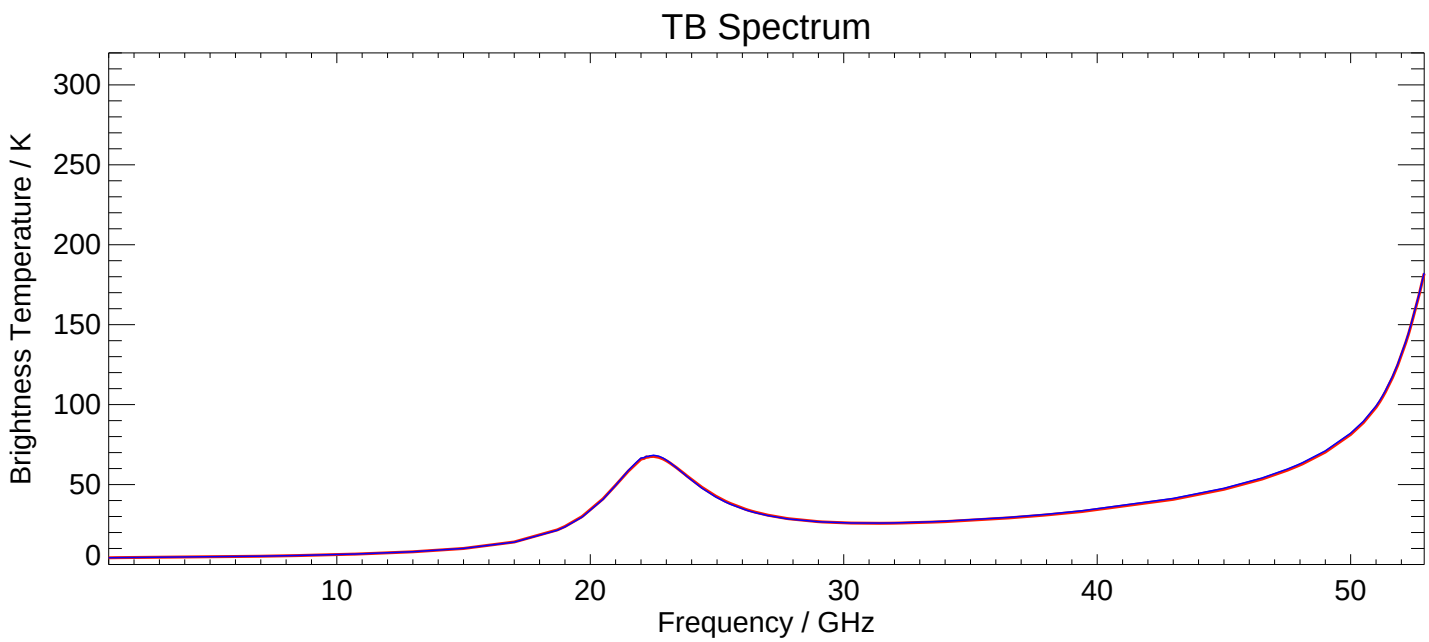
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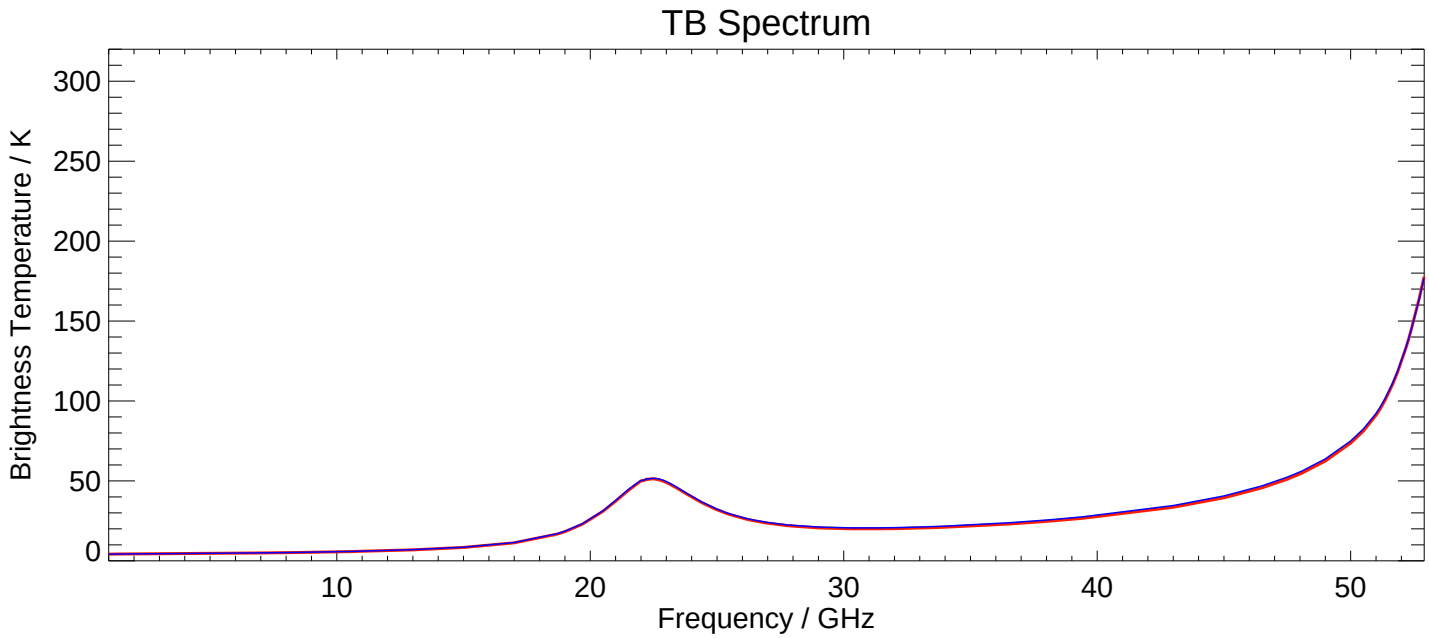
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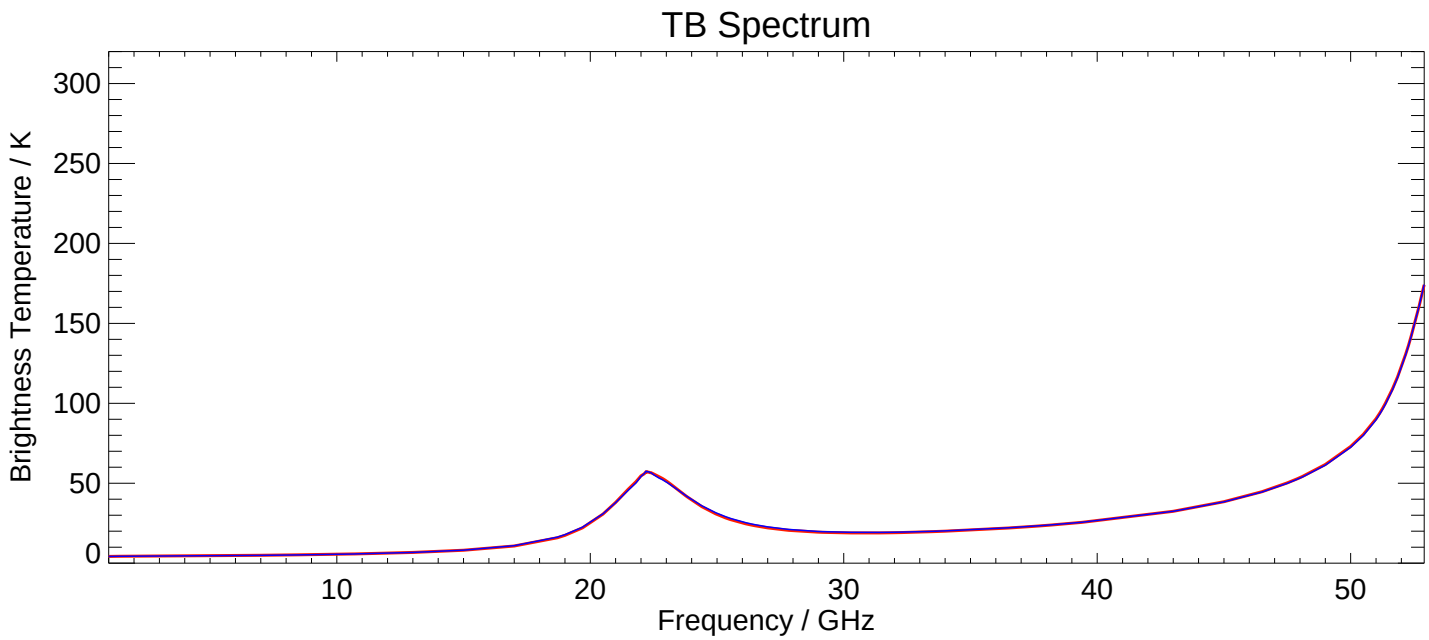
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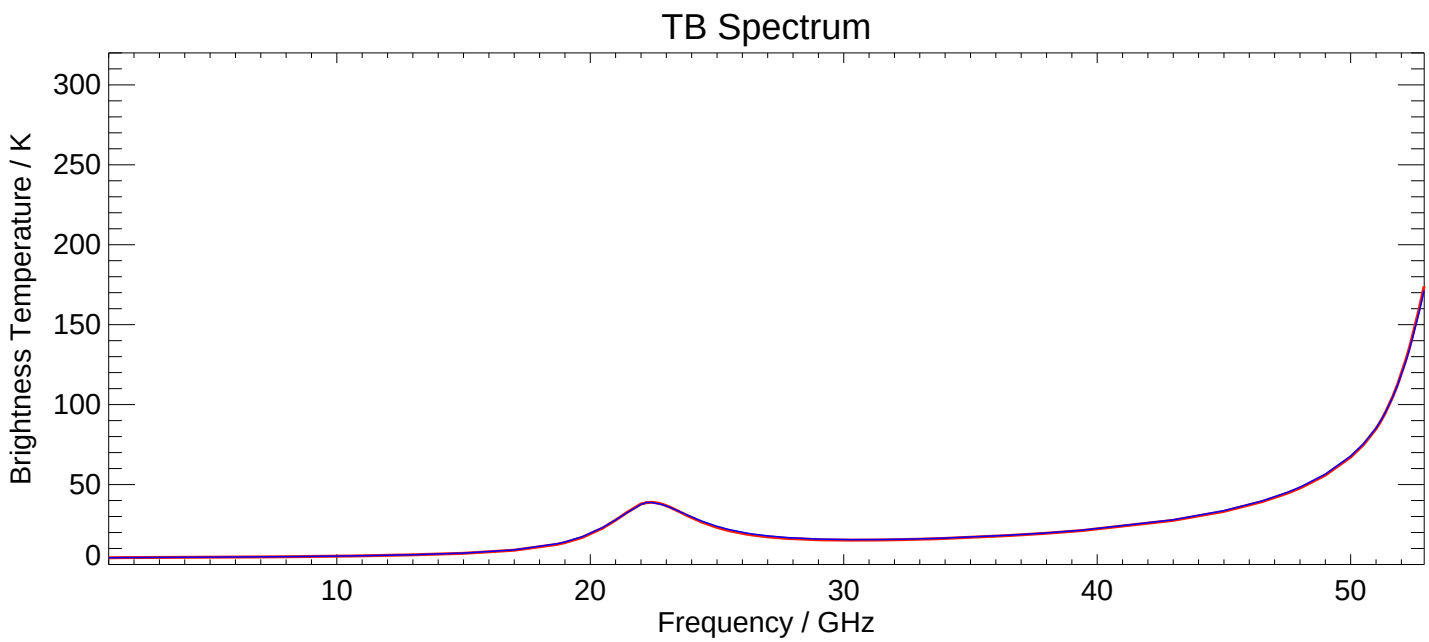
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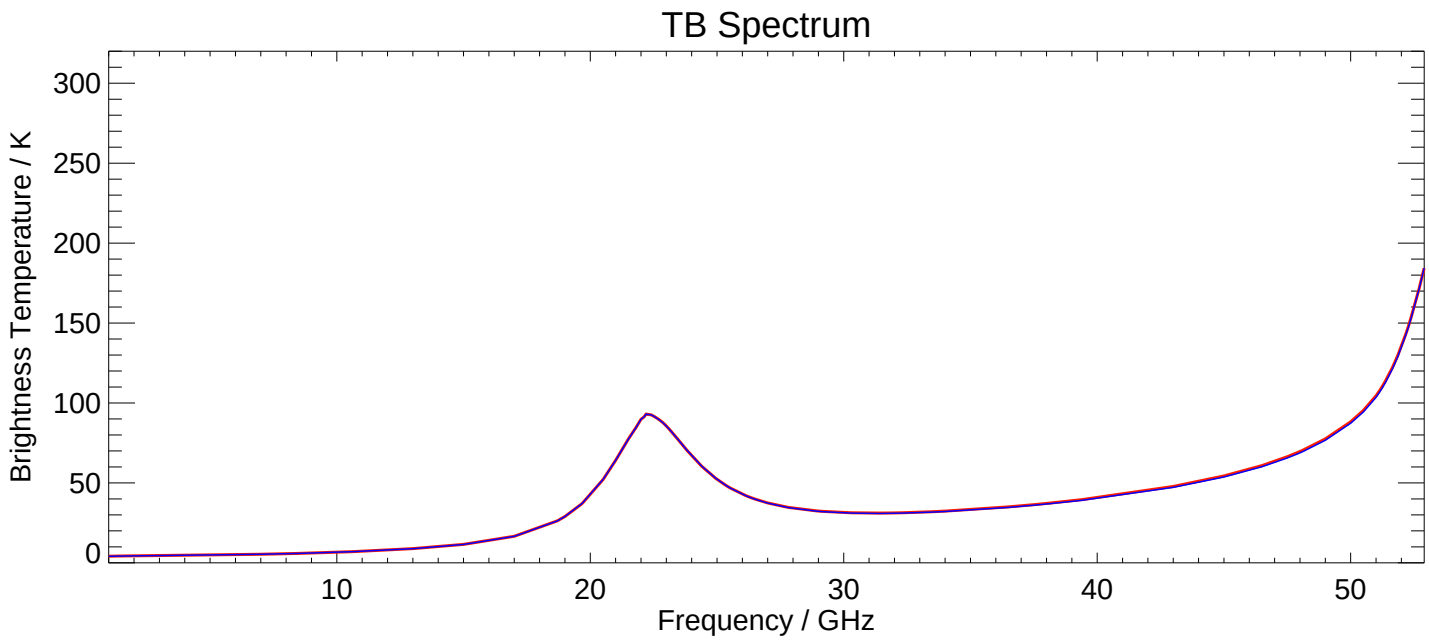
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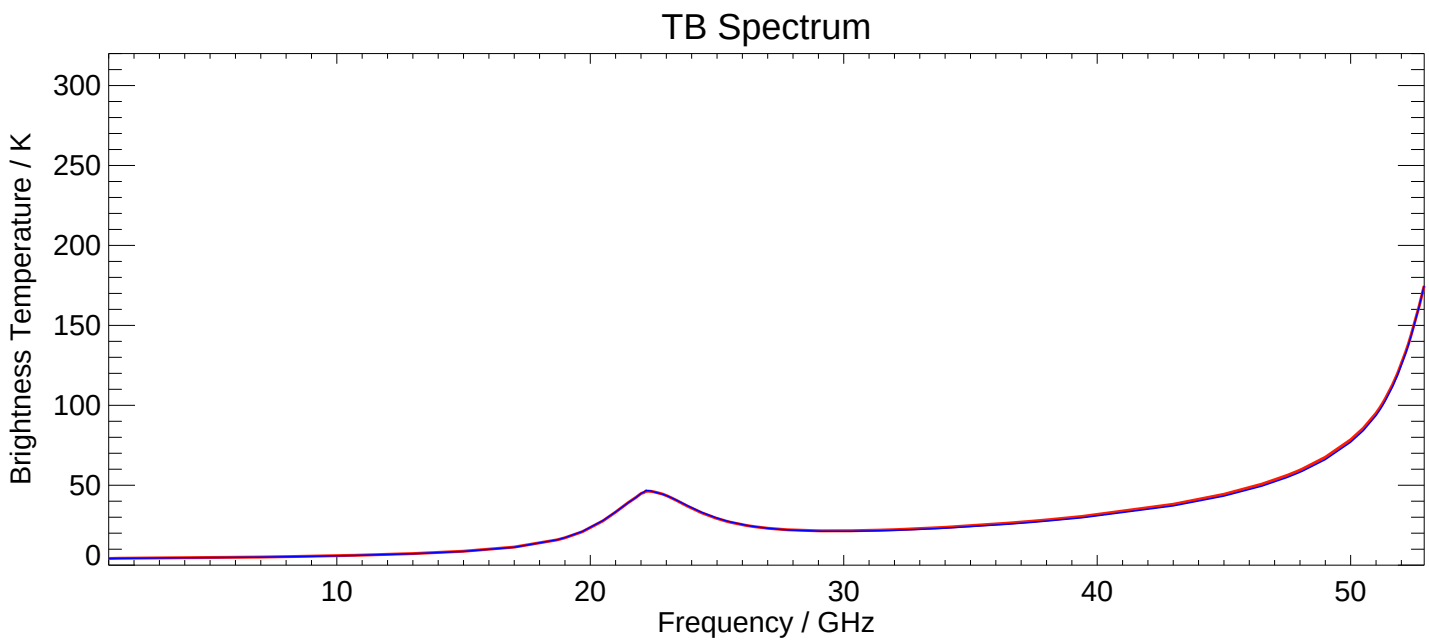
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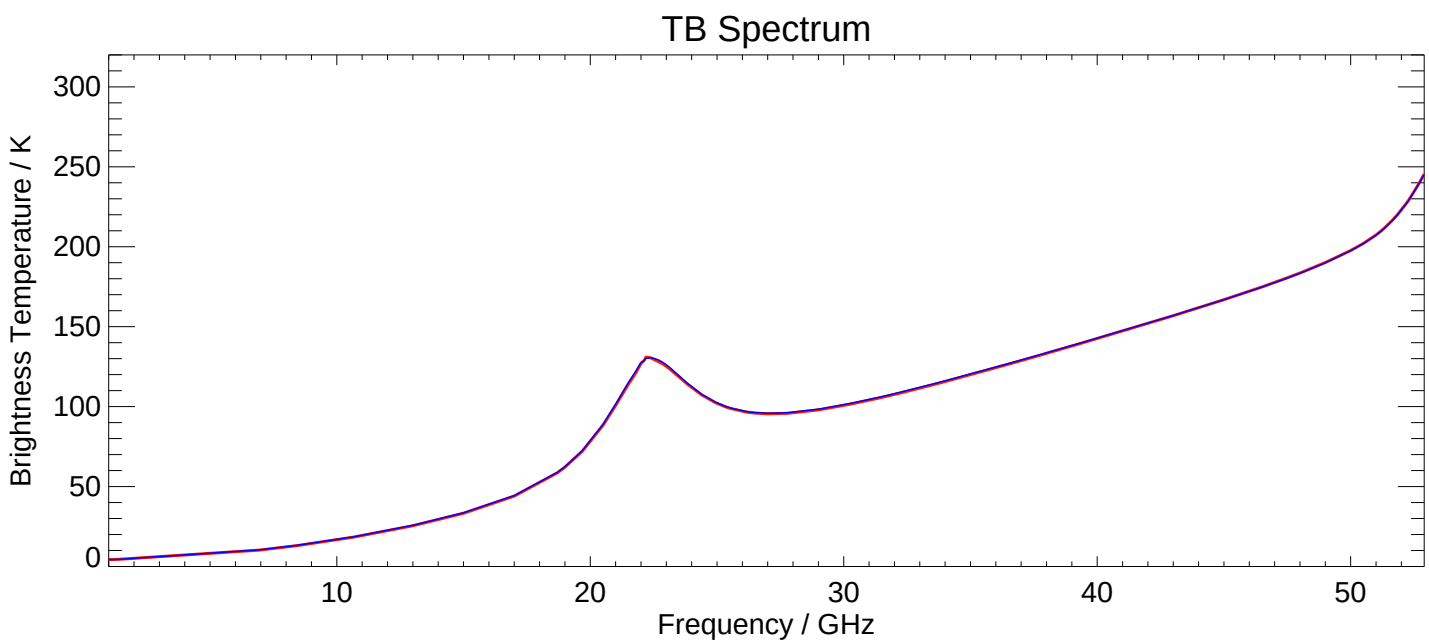
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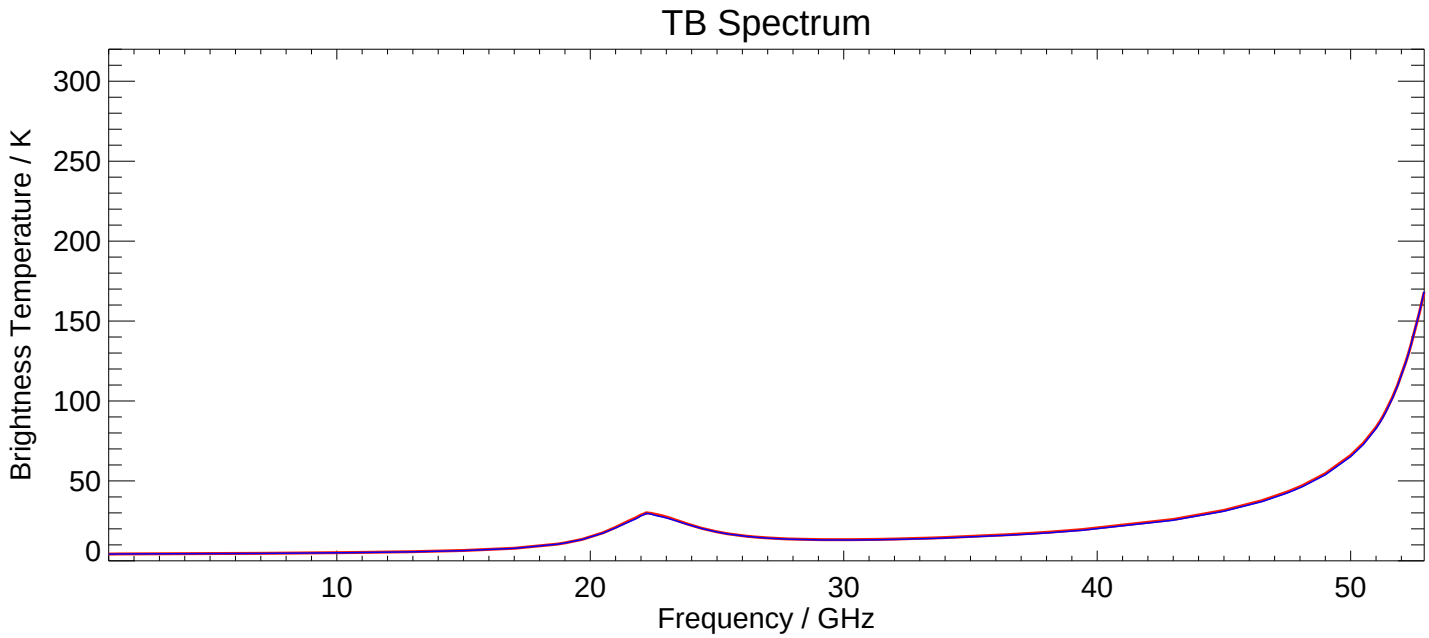
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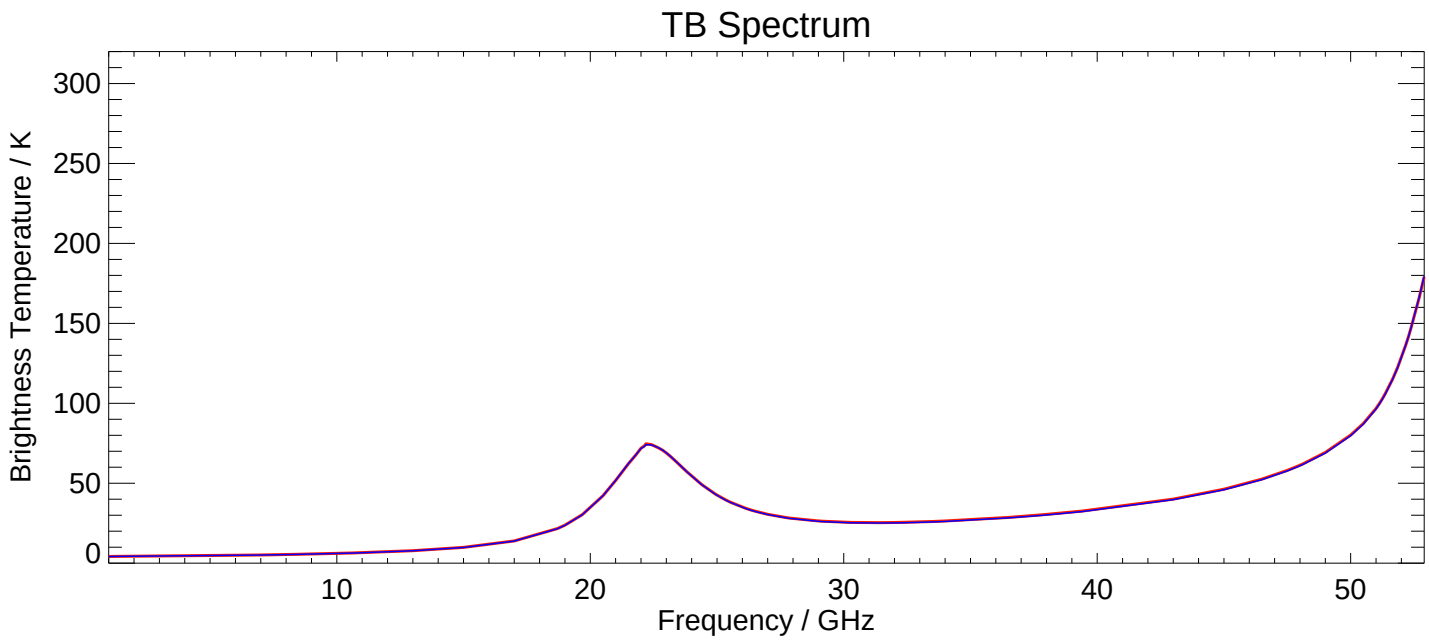
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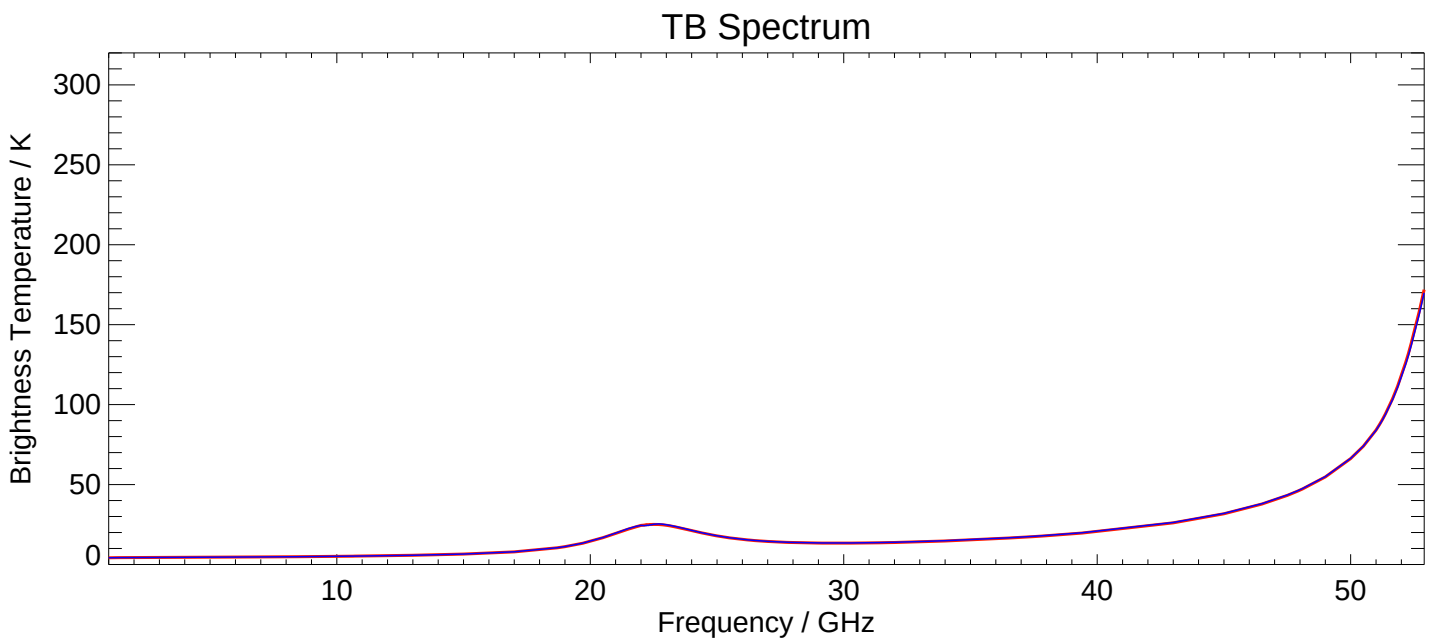
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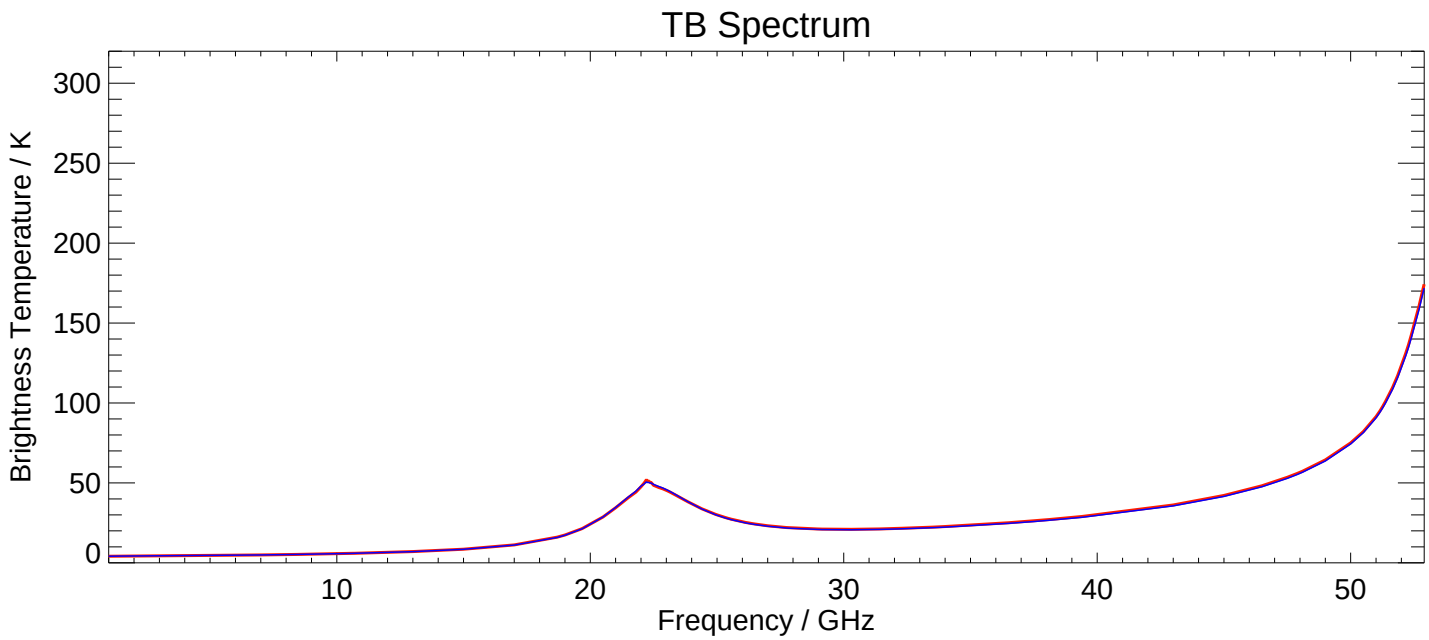
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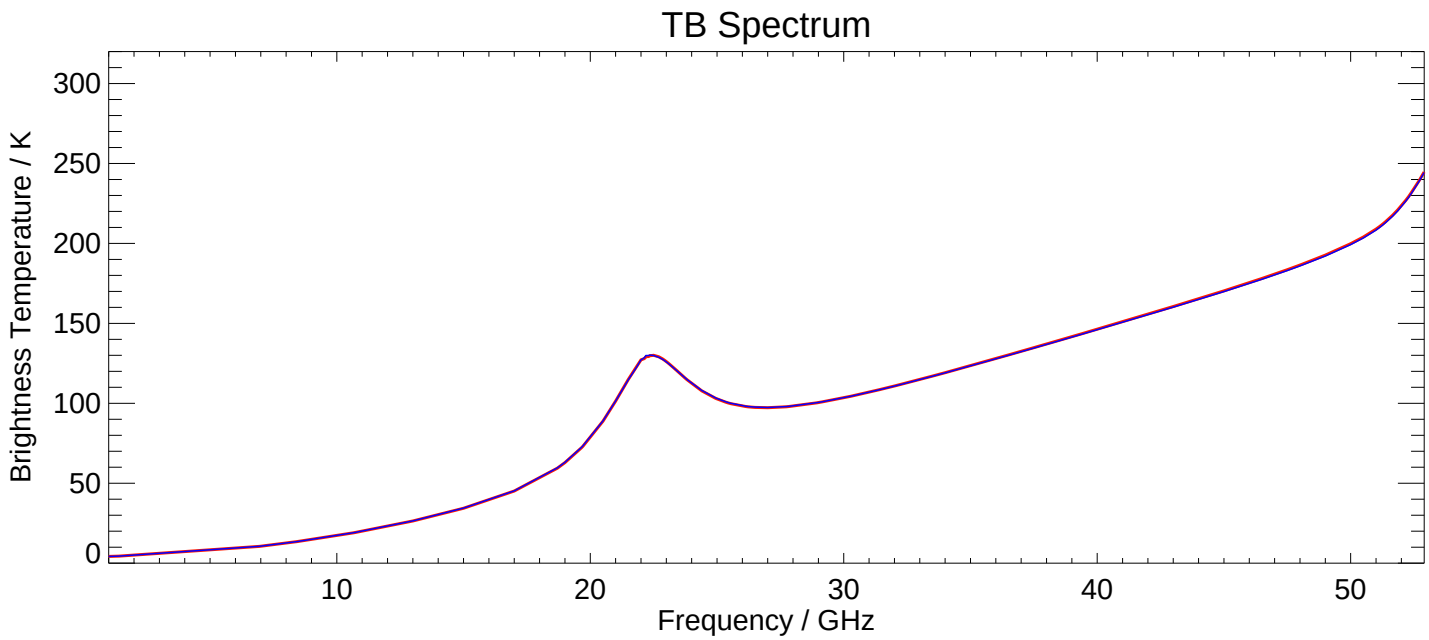
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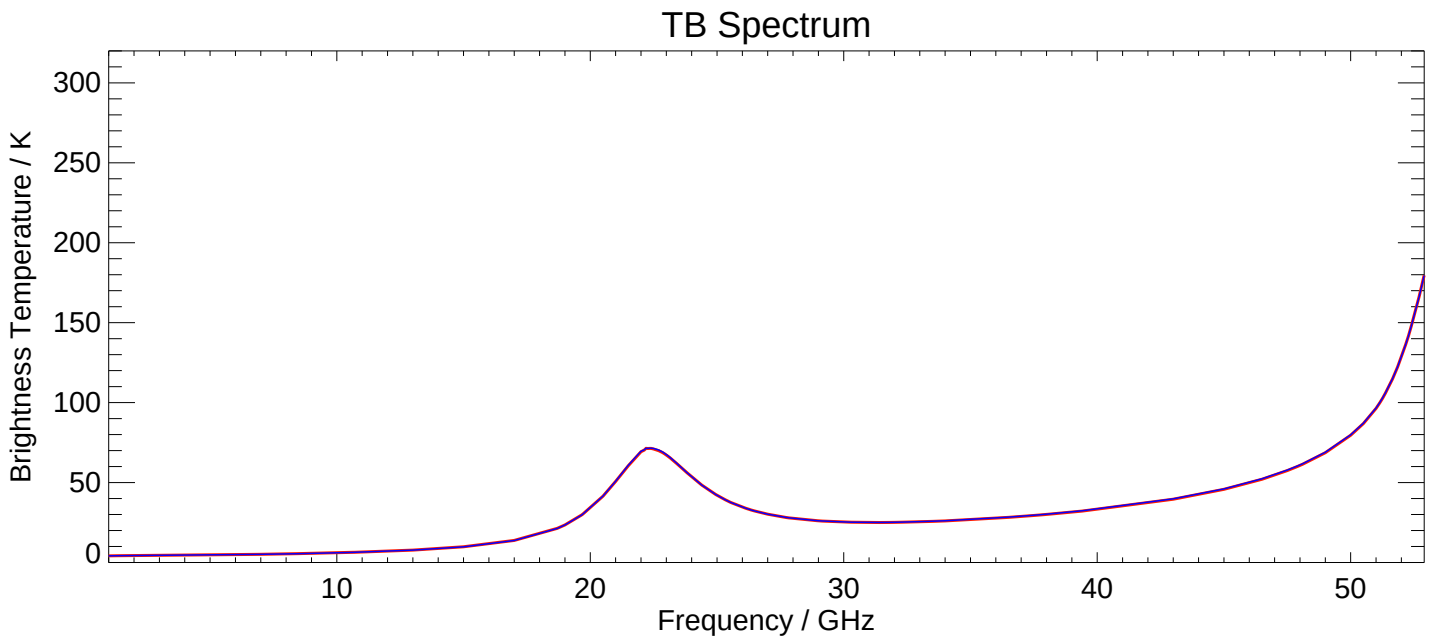
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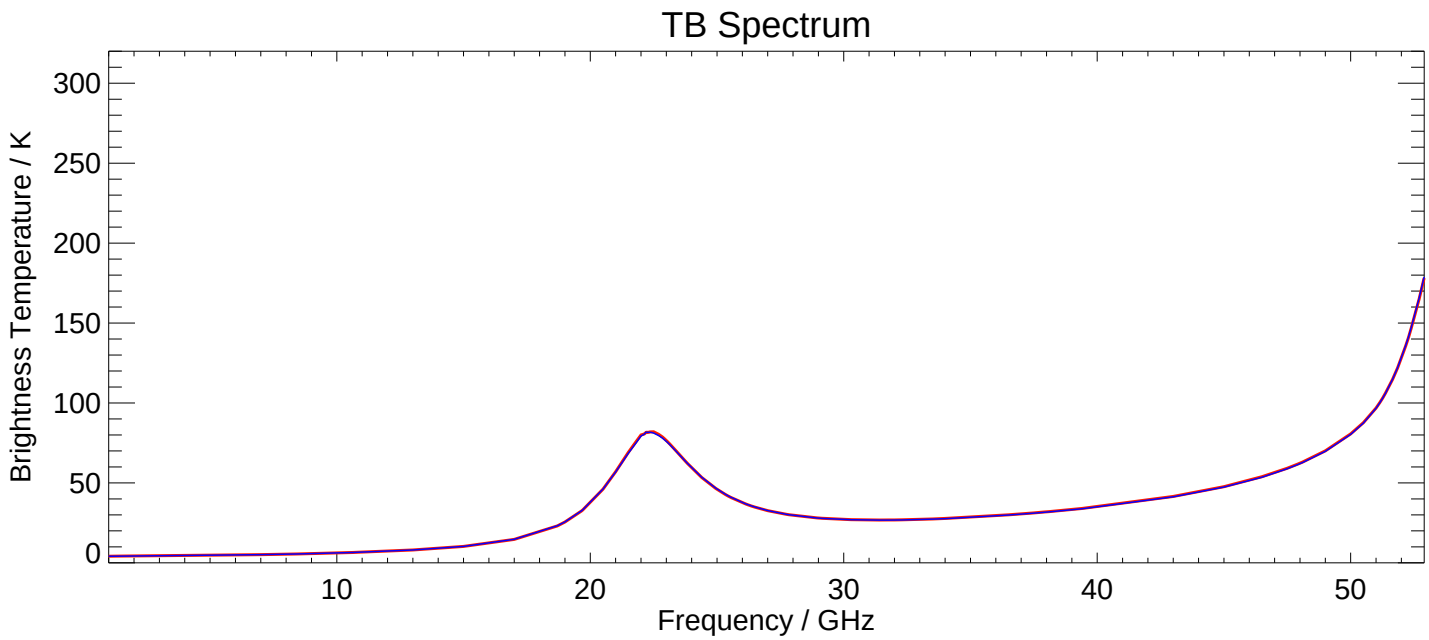
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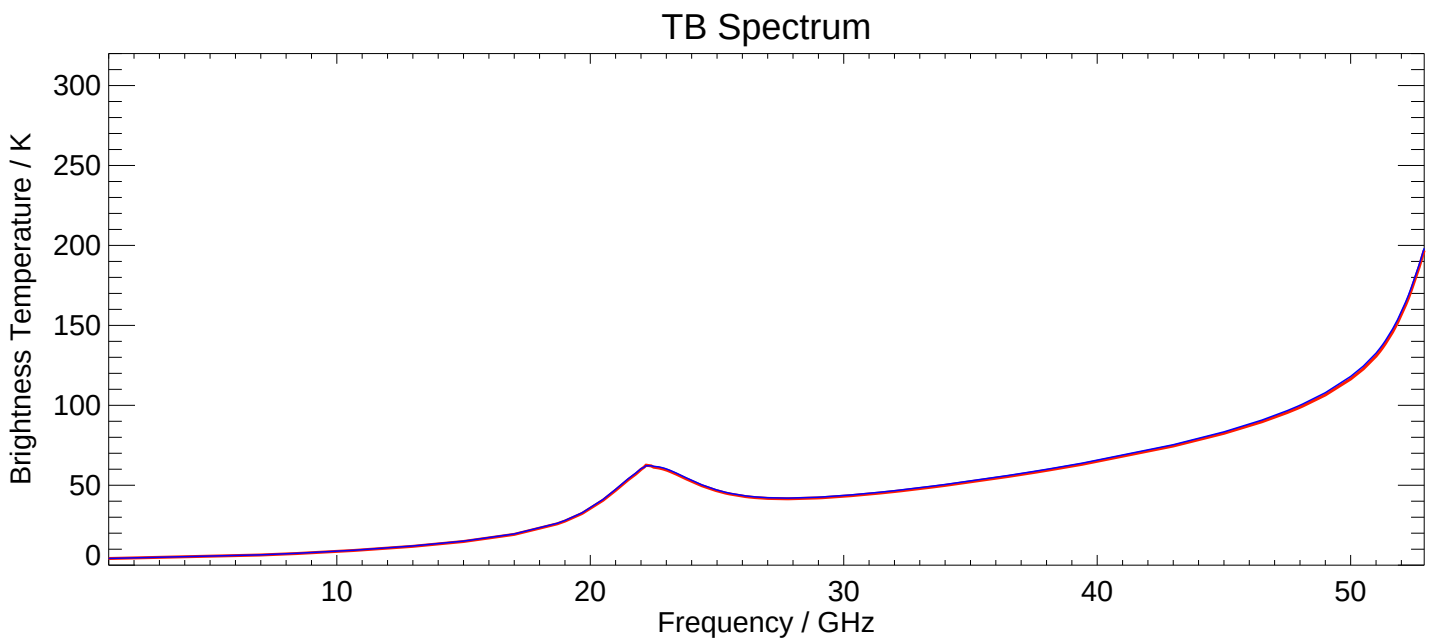
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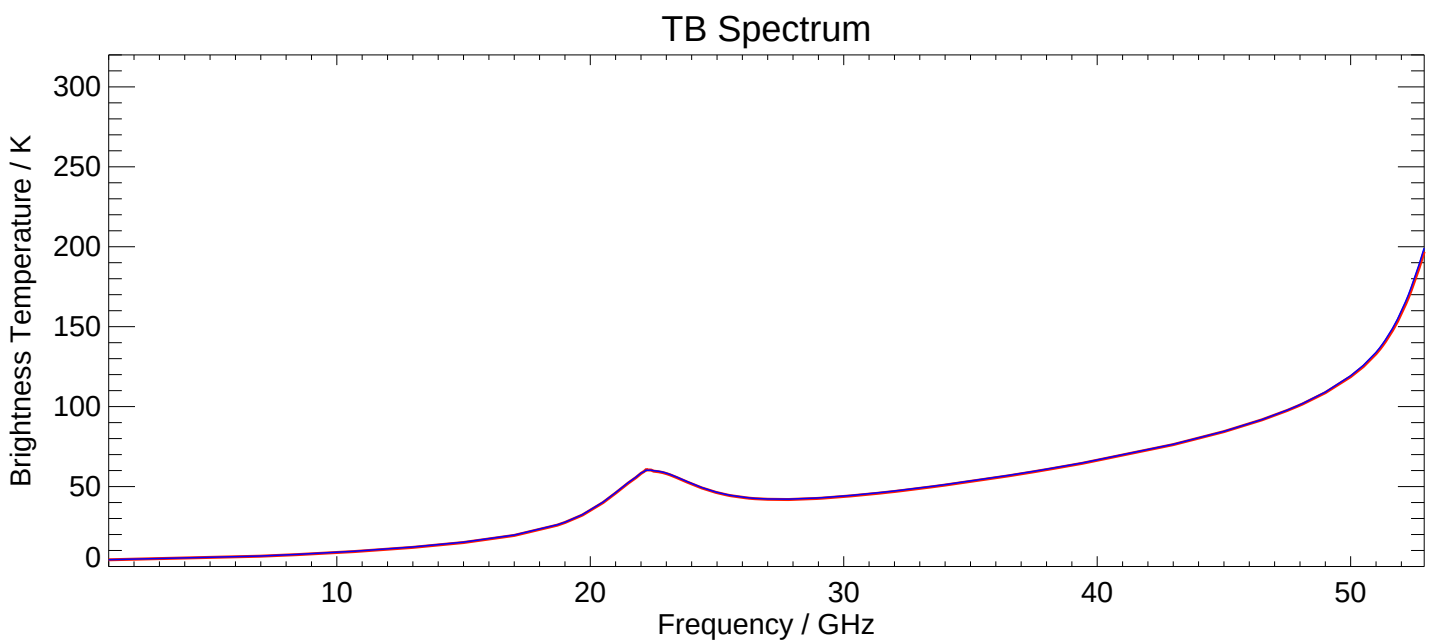
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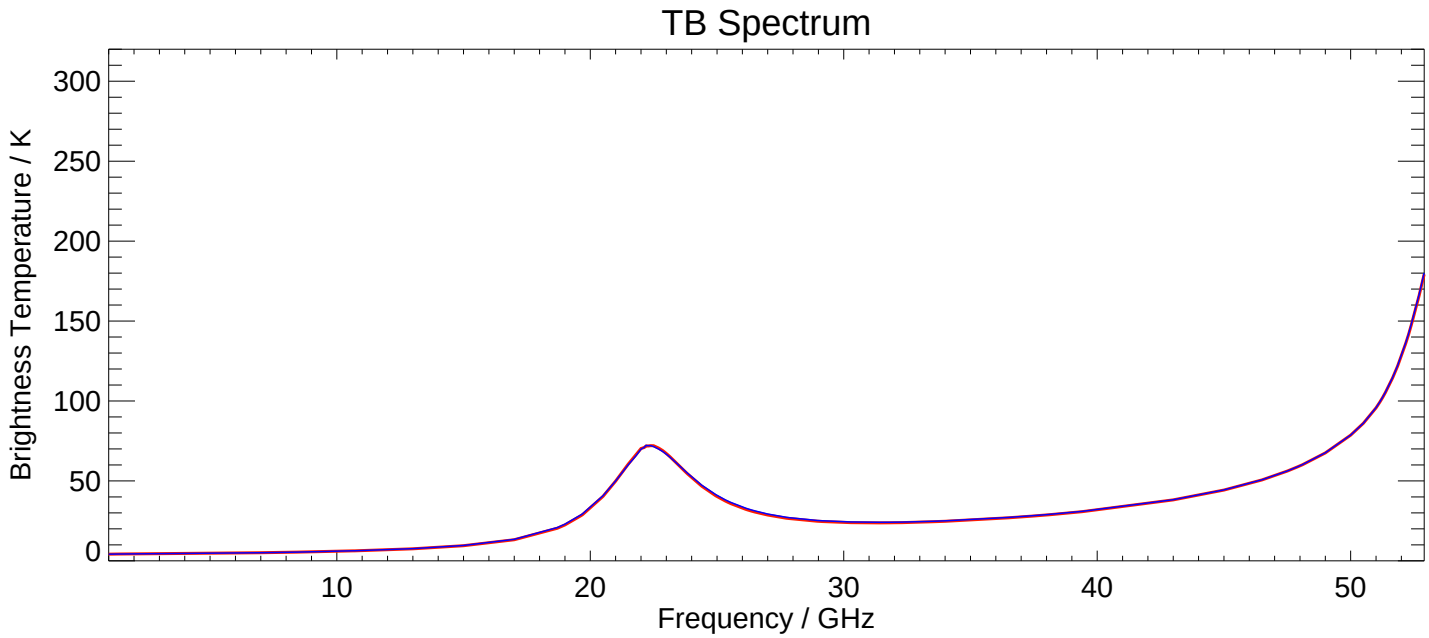
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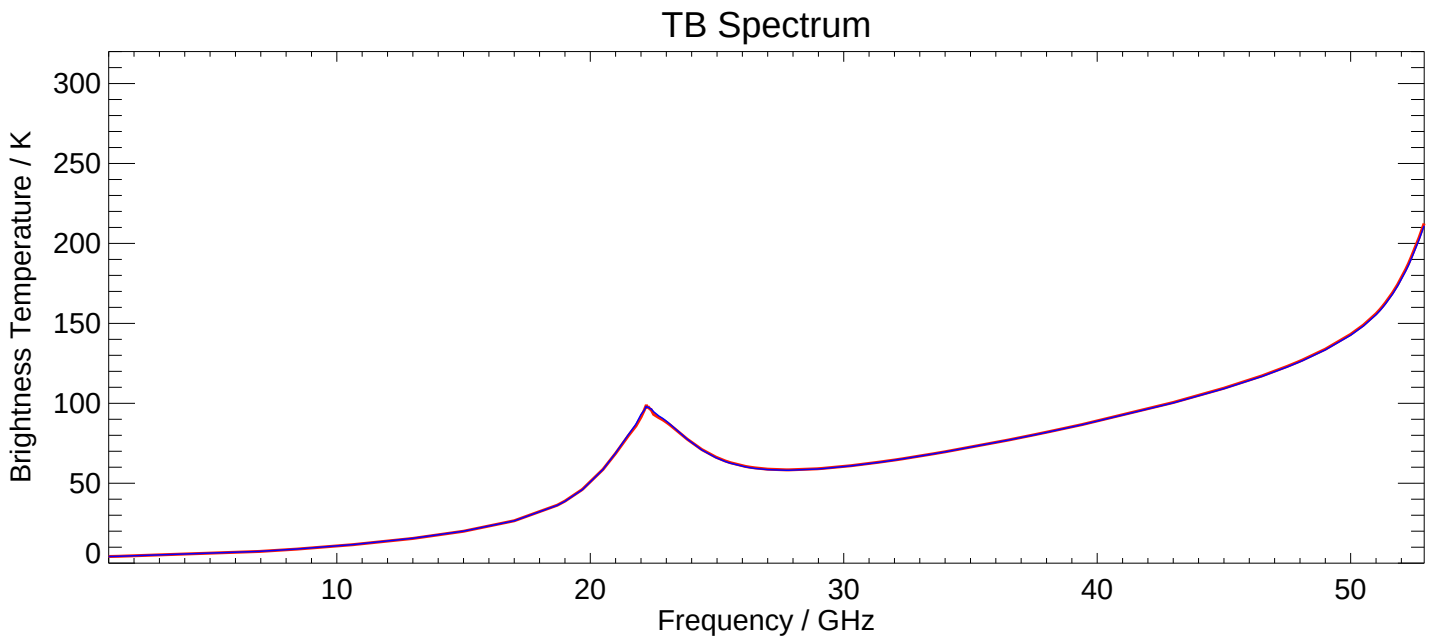
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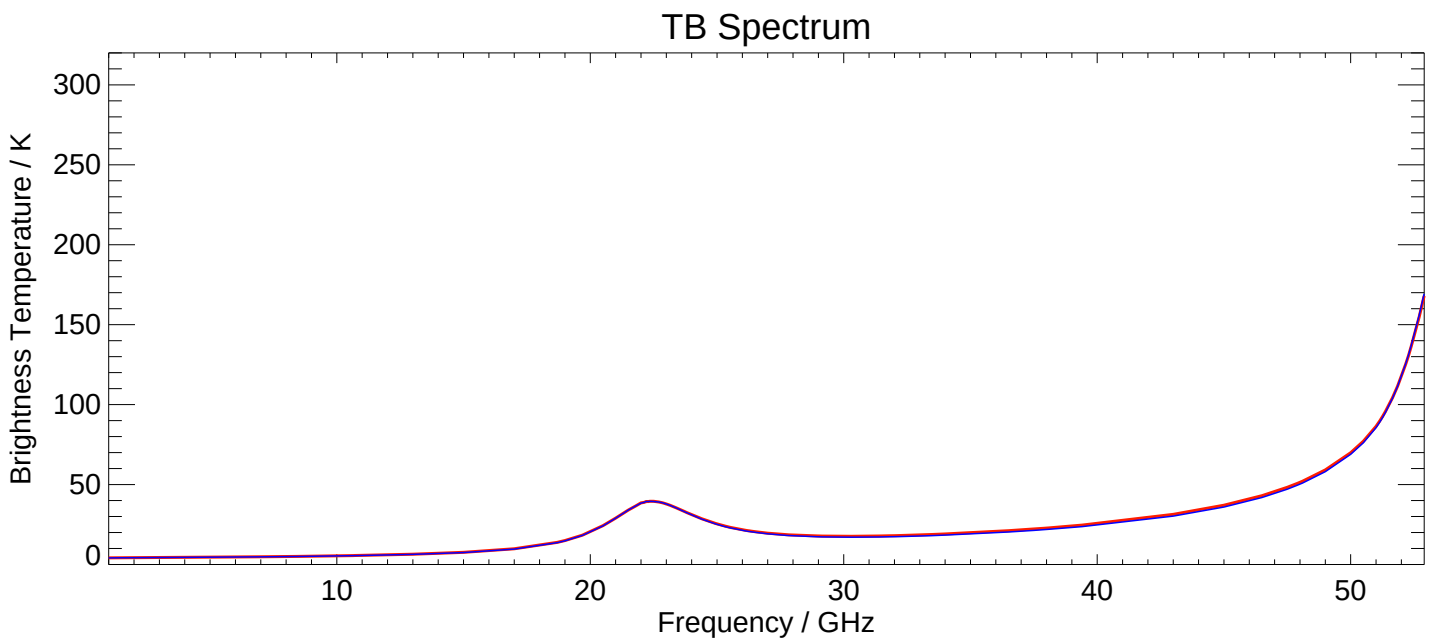
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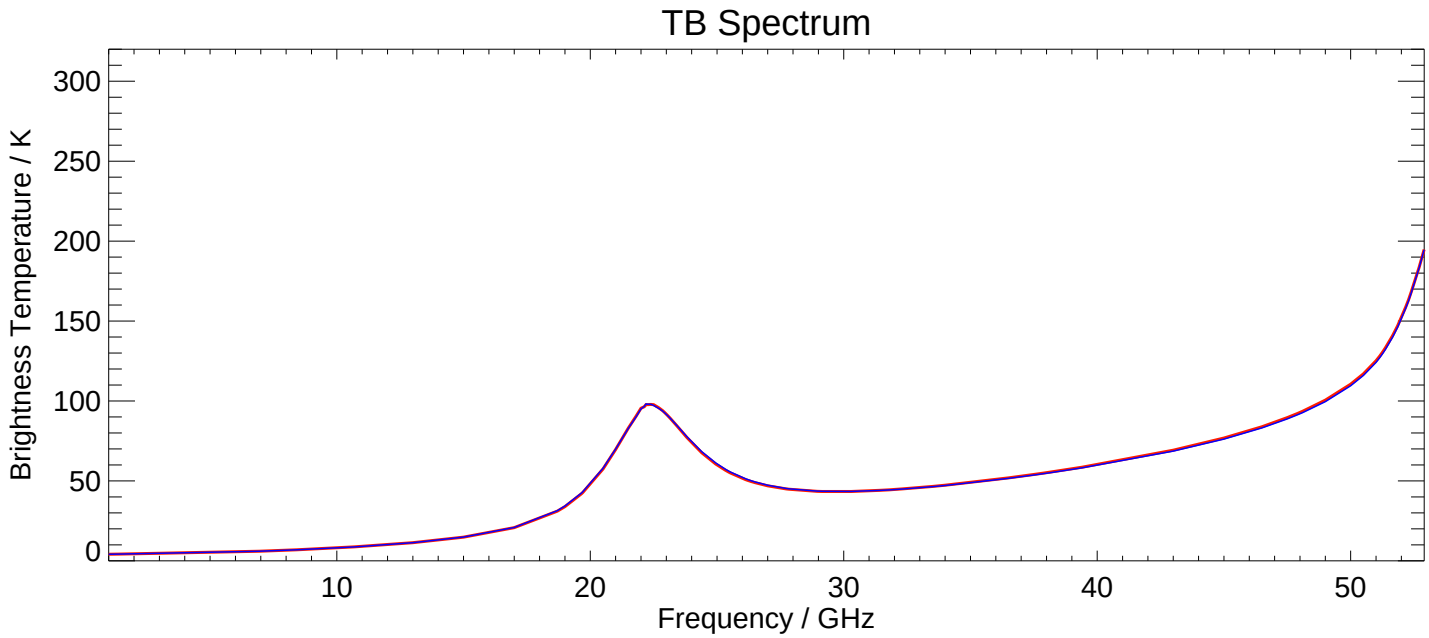
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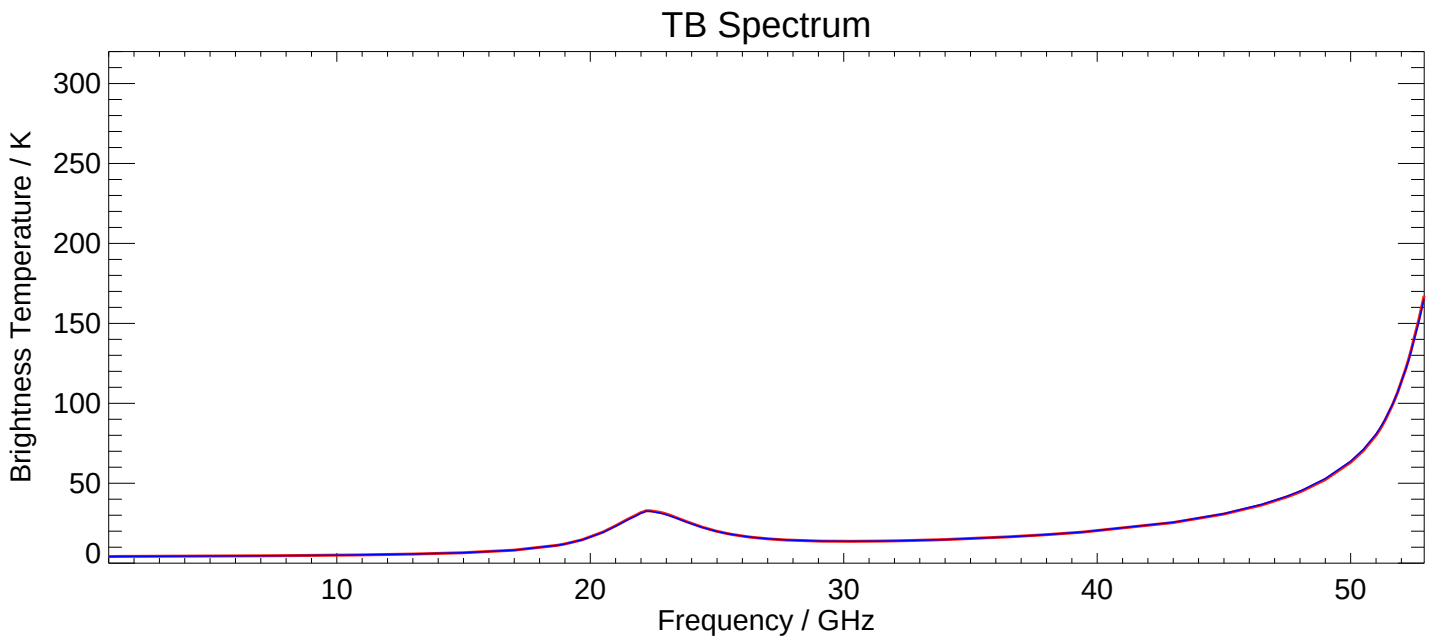
Frequency / GHz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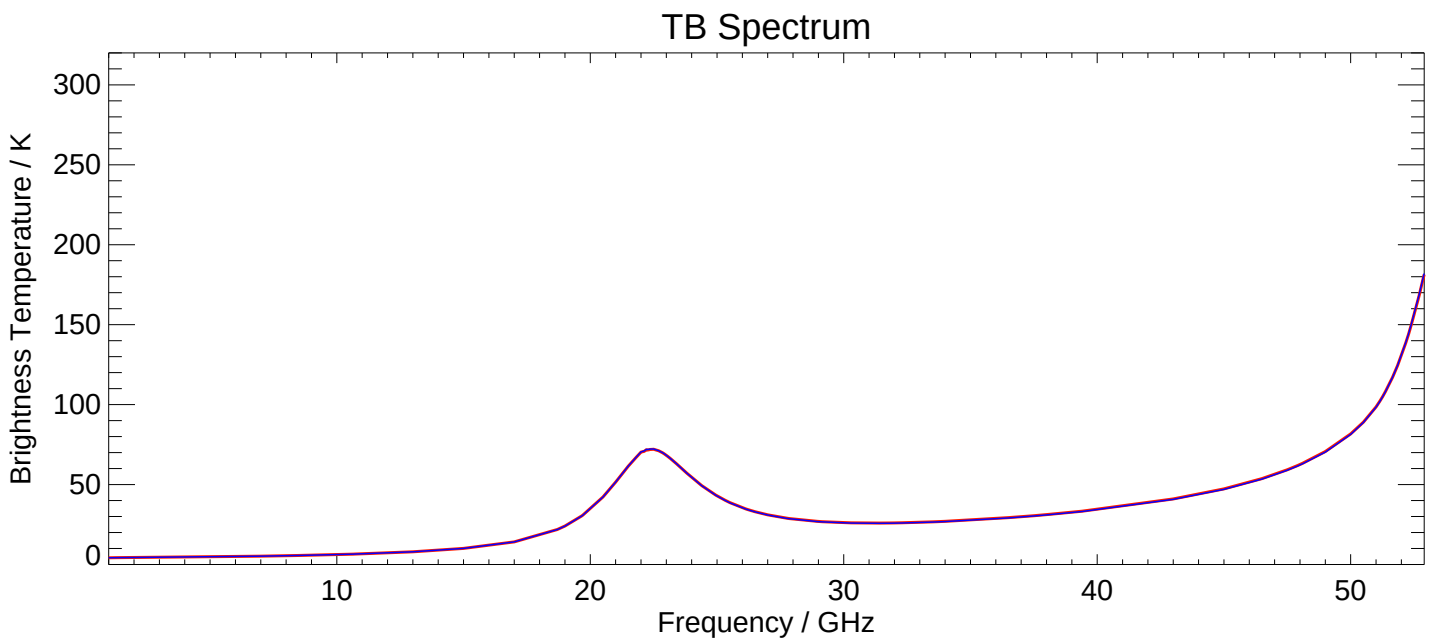
Frequency / GHz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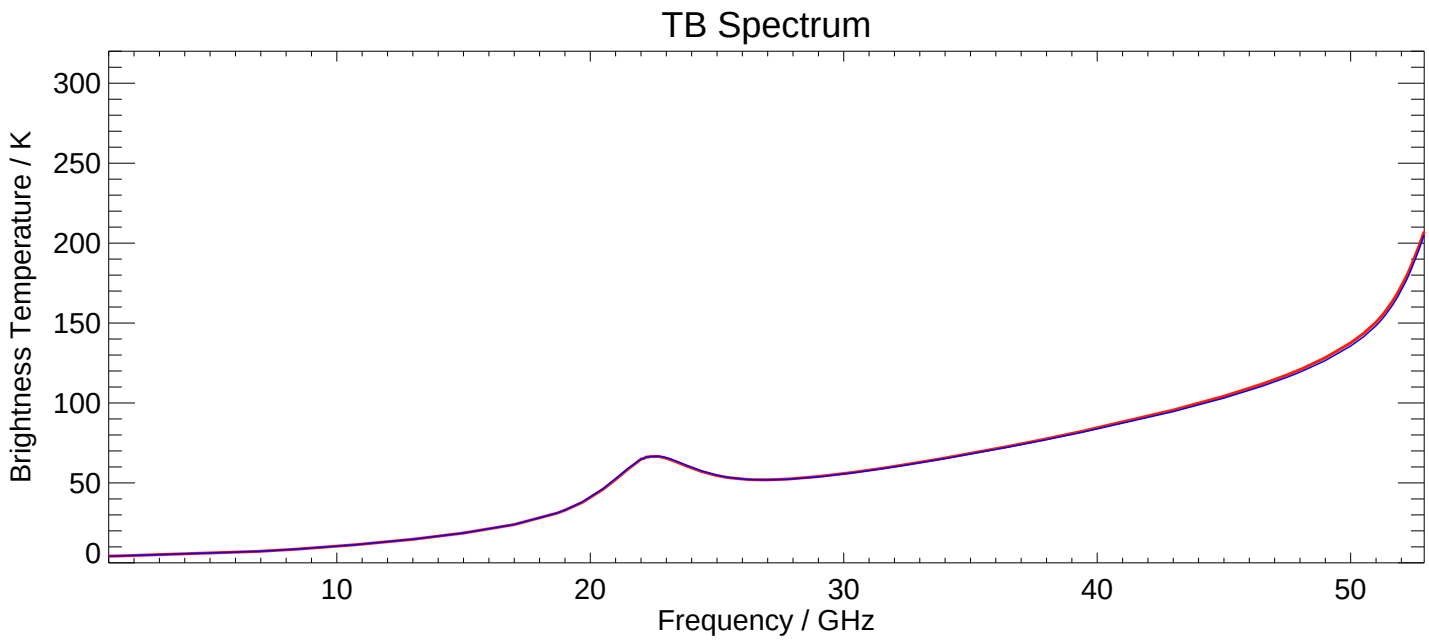
Frequency / GHz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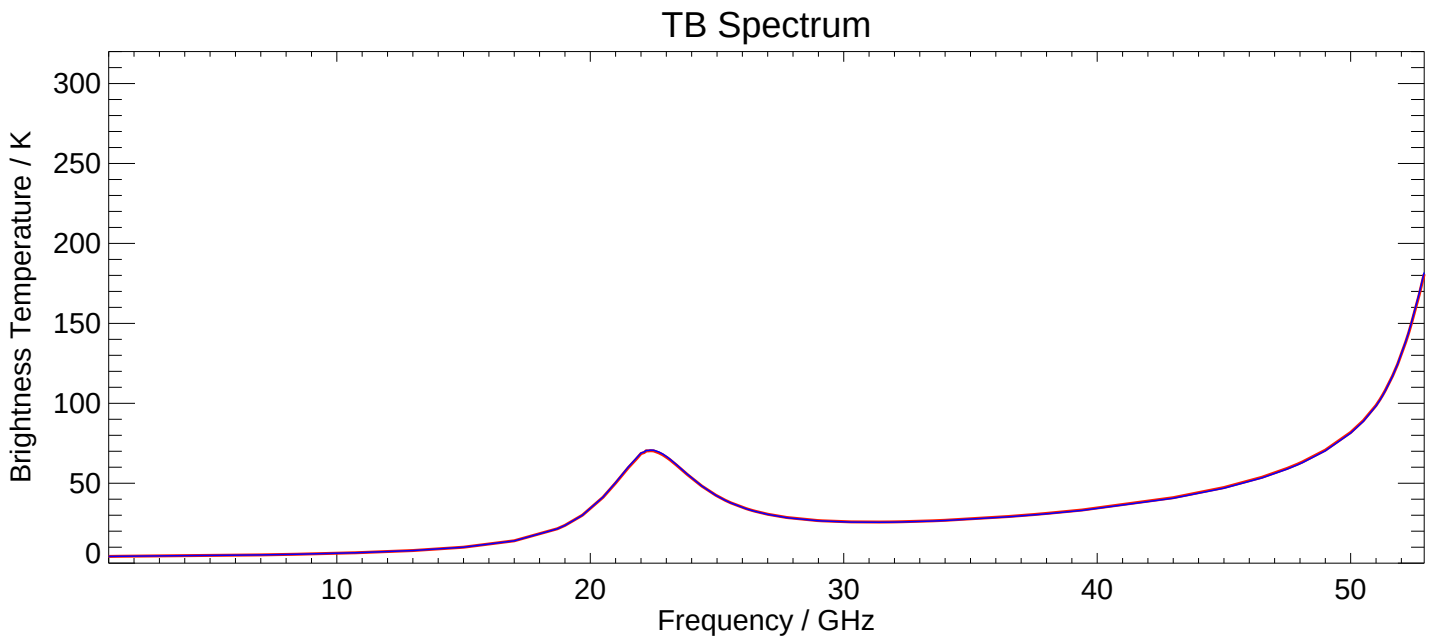
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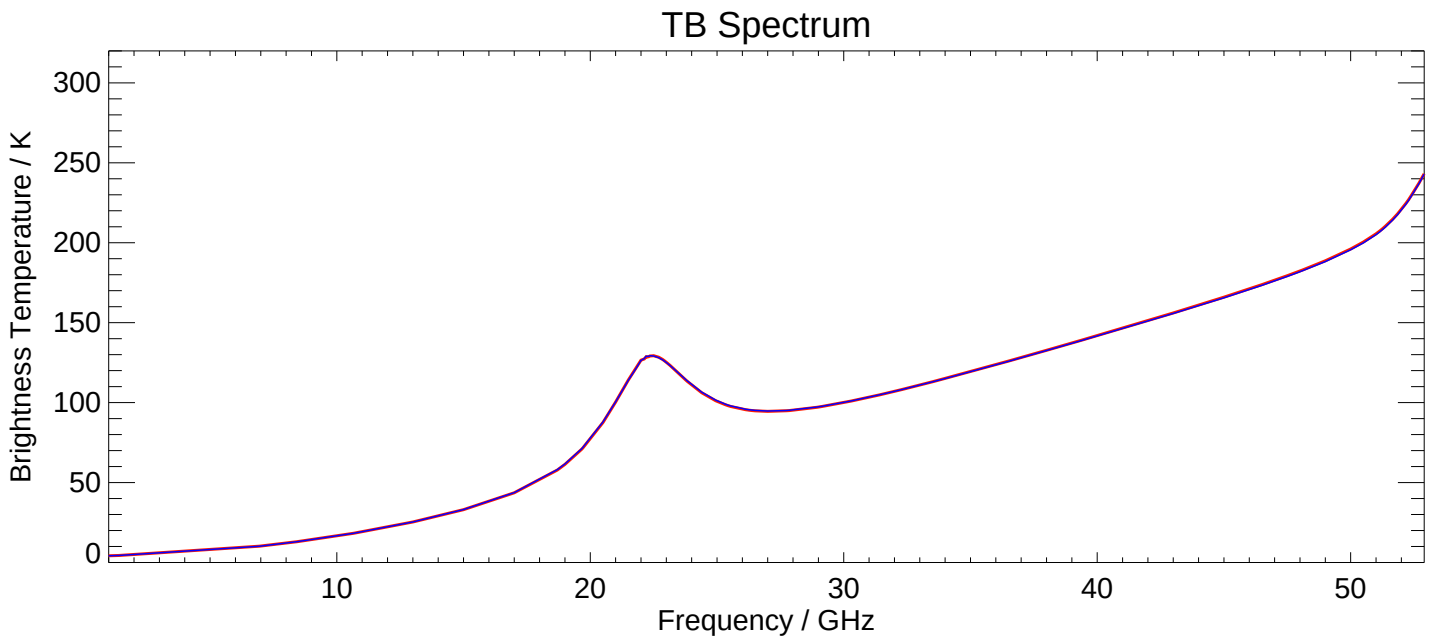
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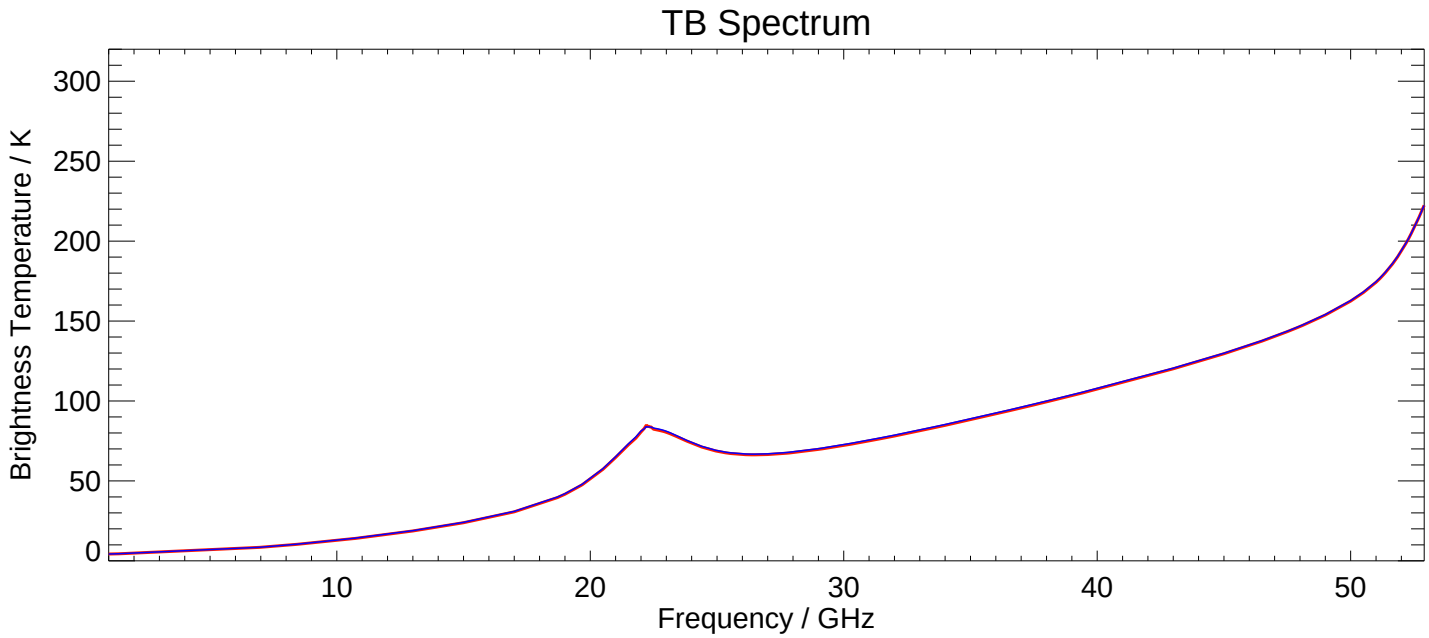
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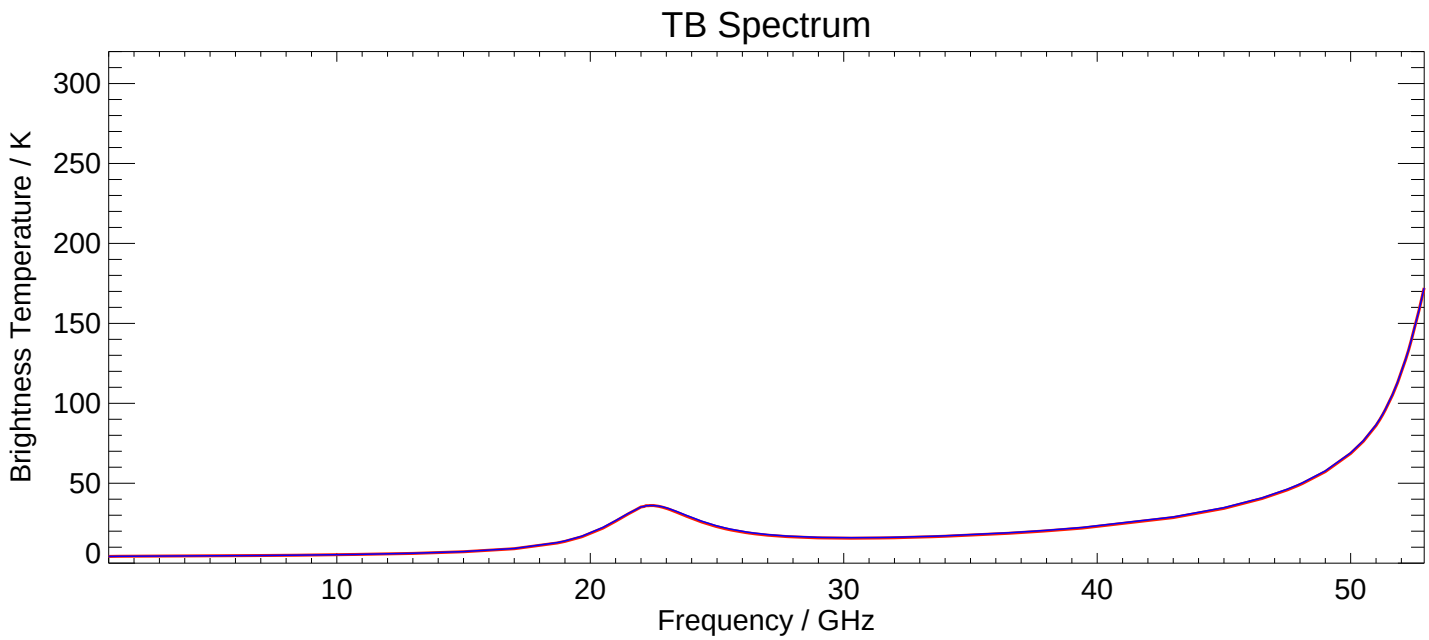
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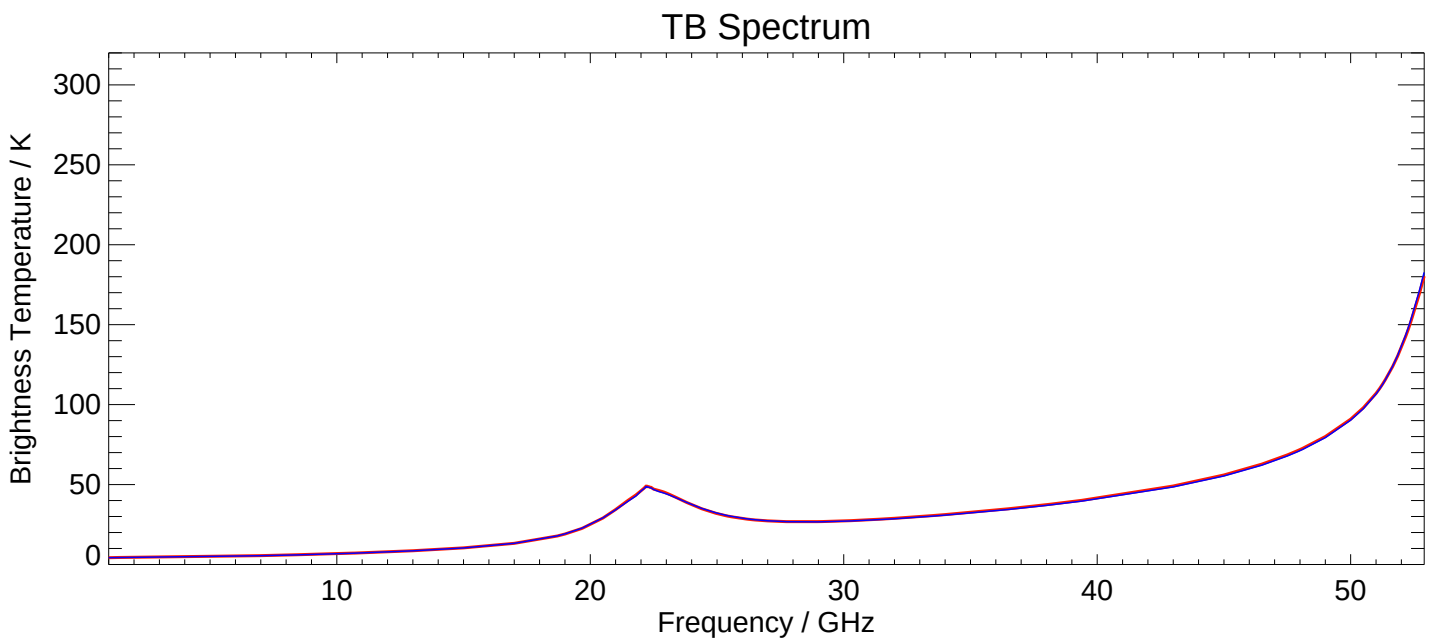
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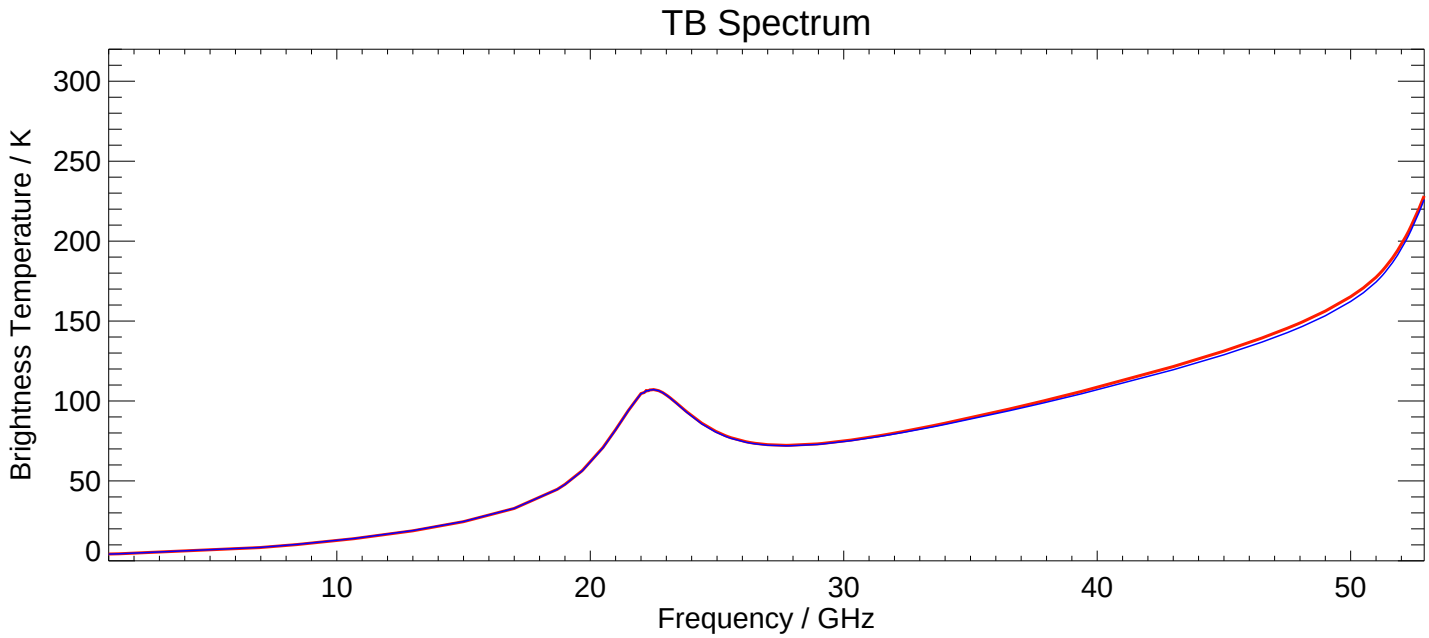
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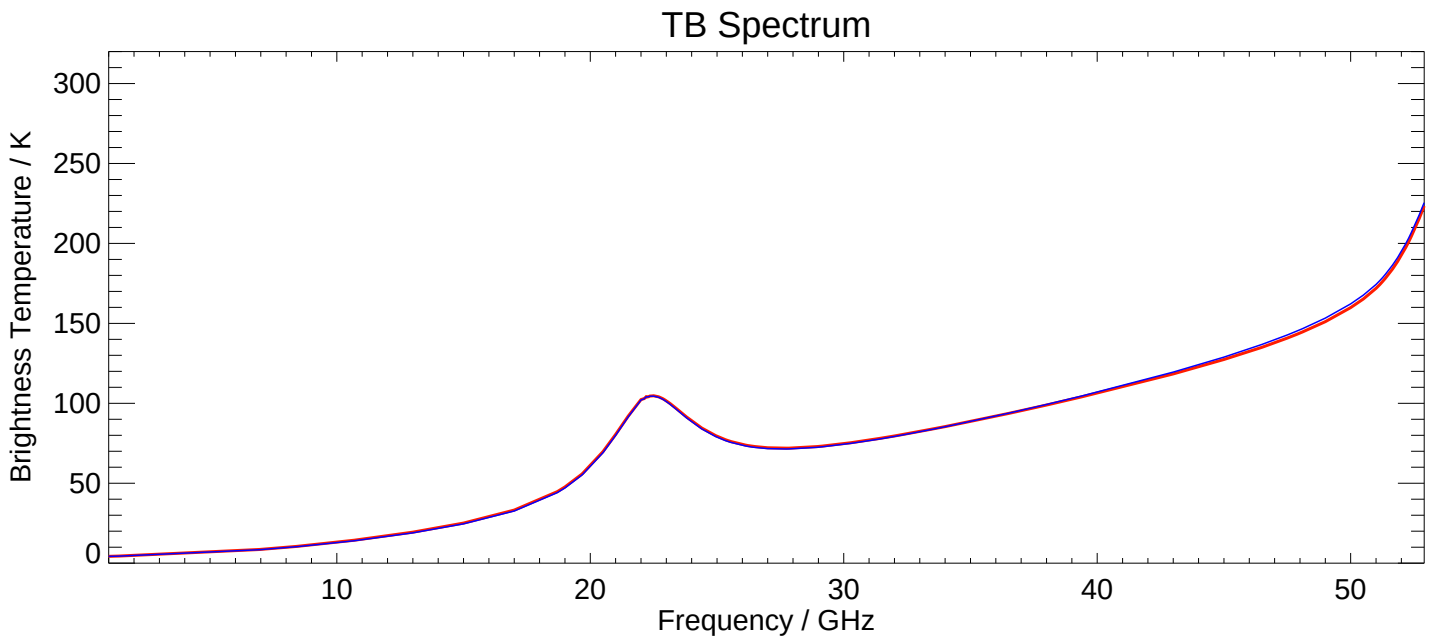
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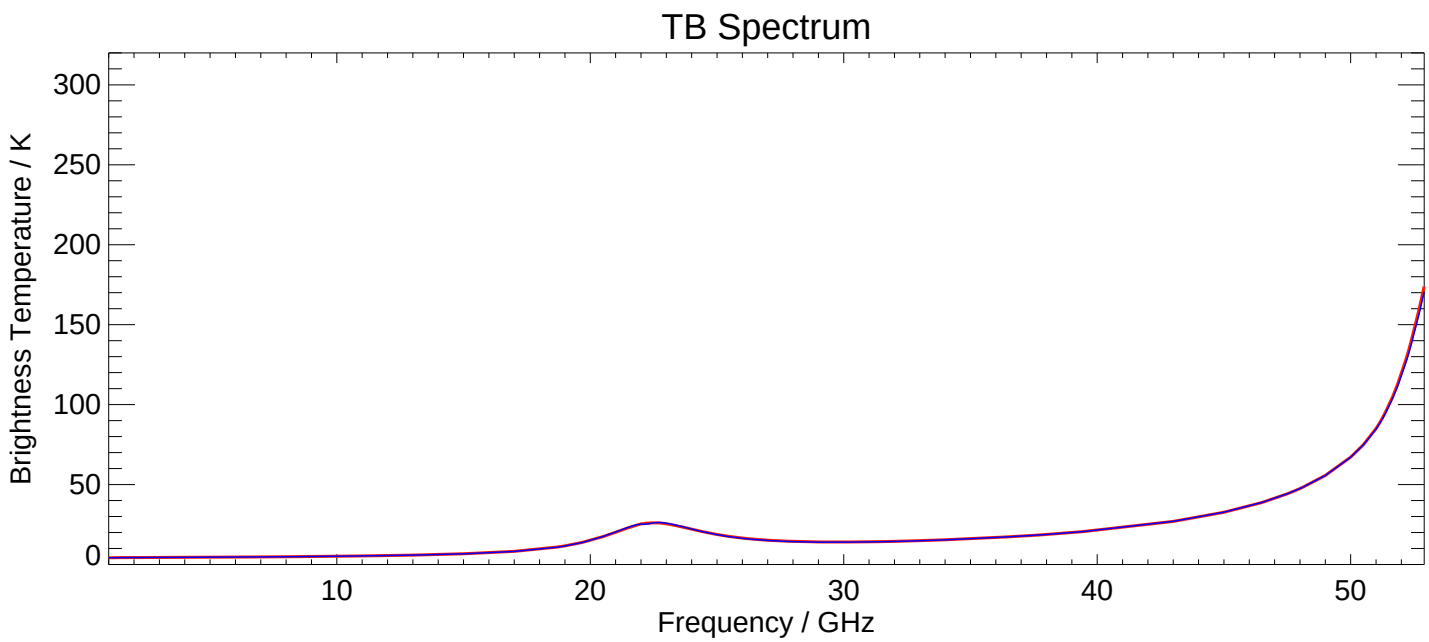
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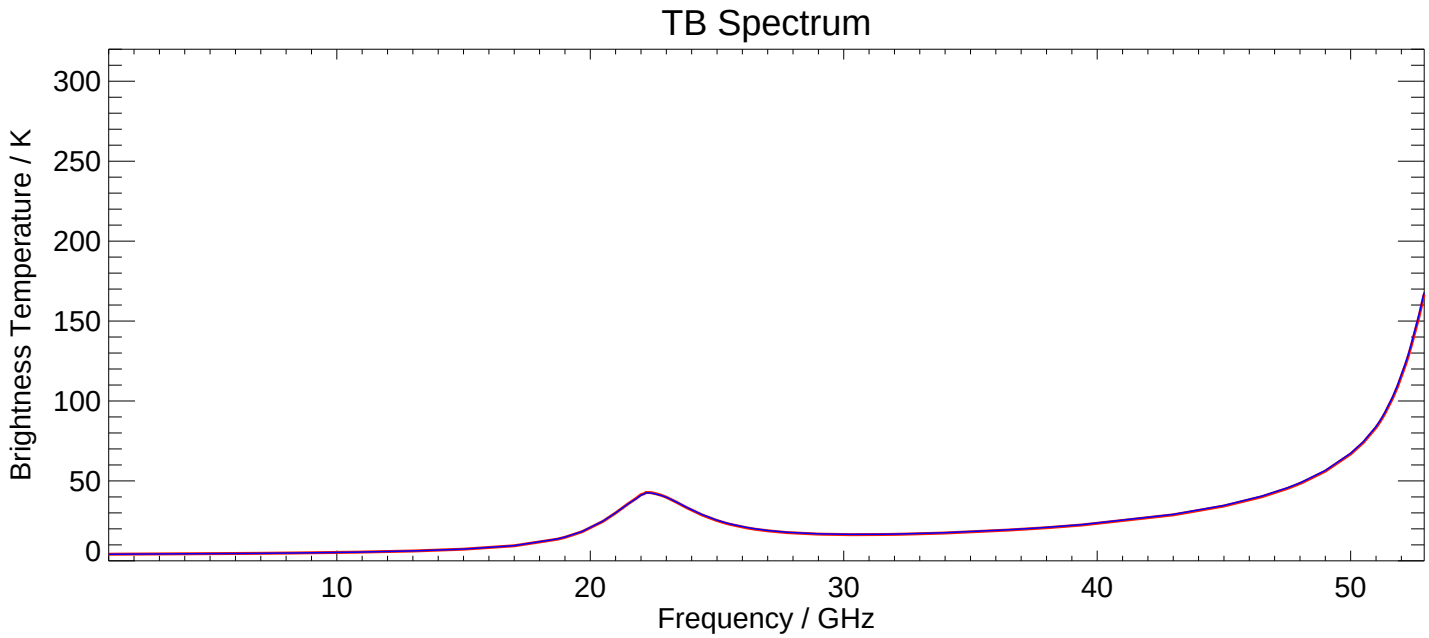
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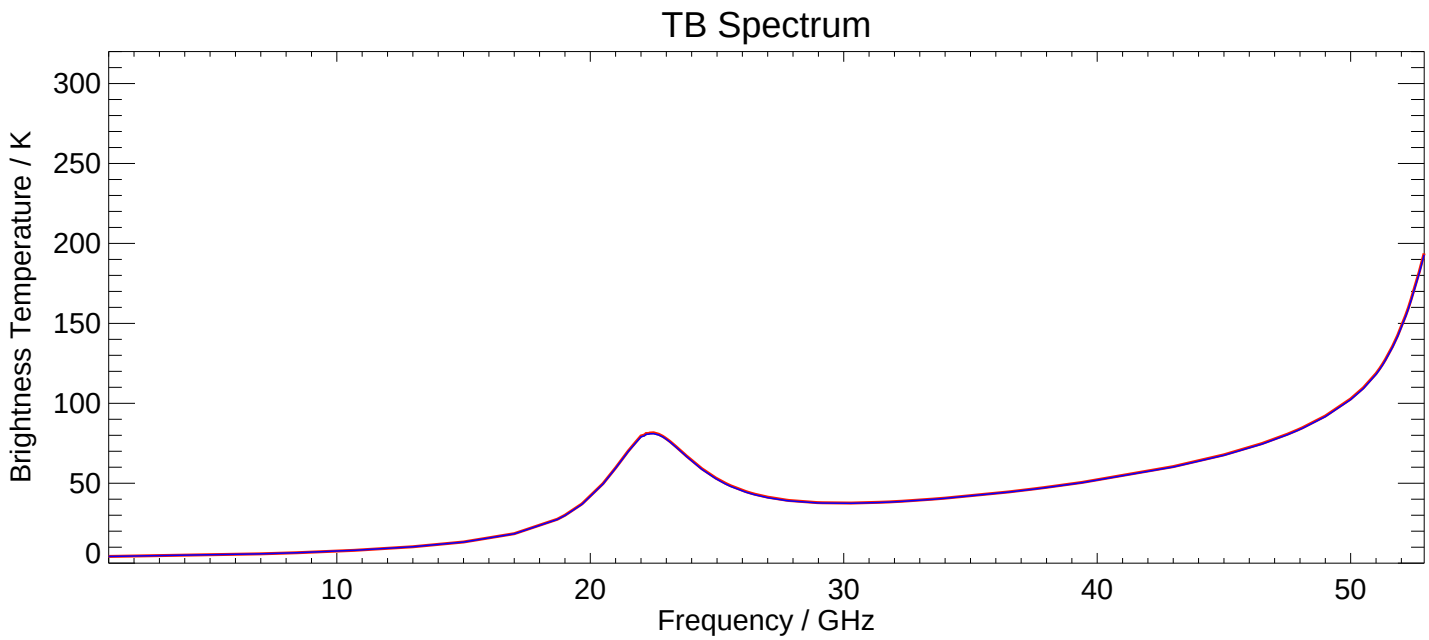
Frequency / GHz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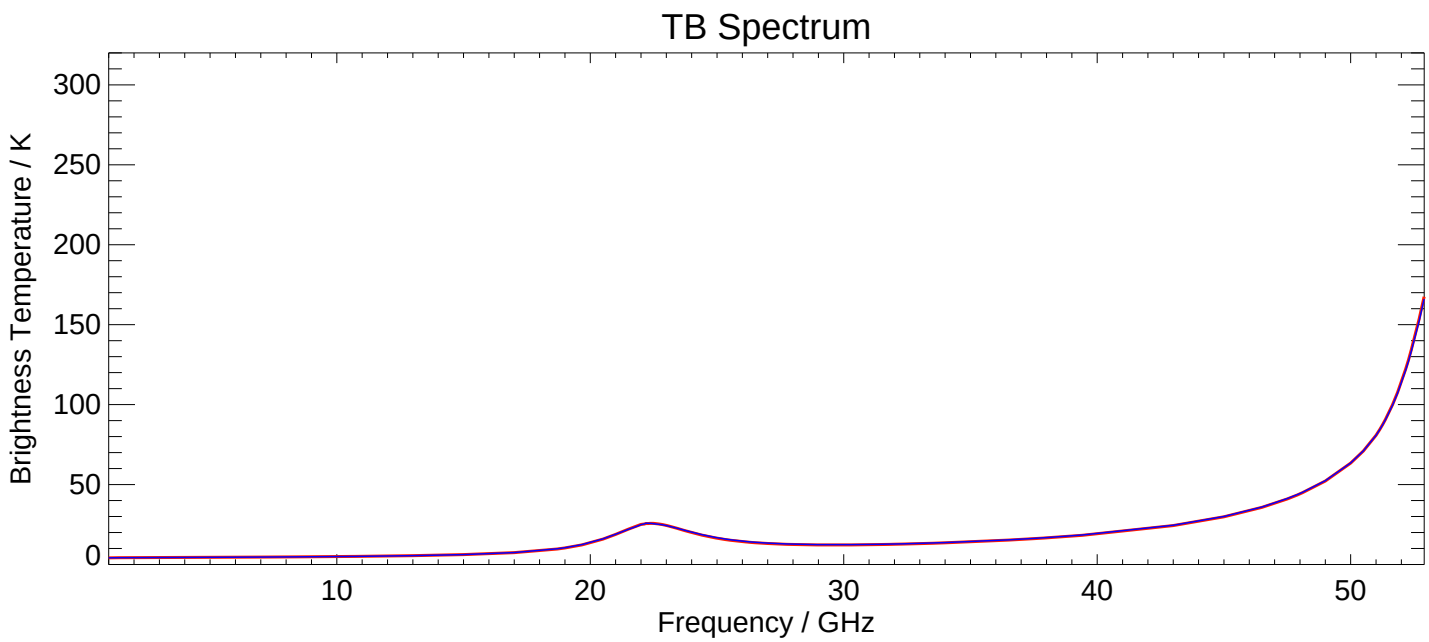
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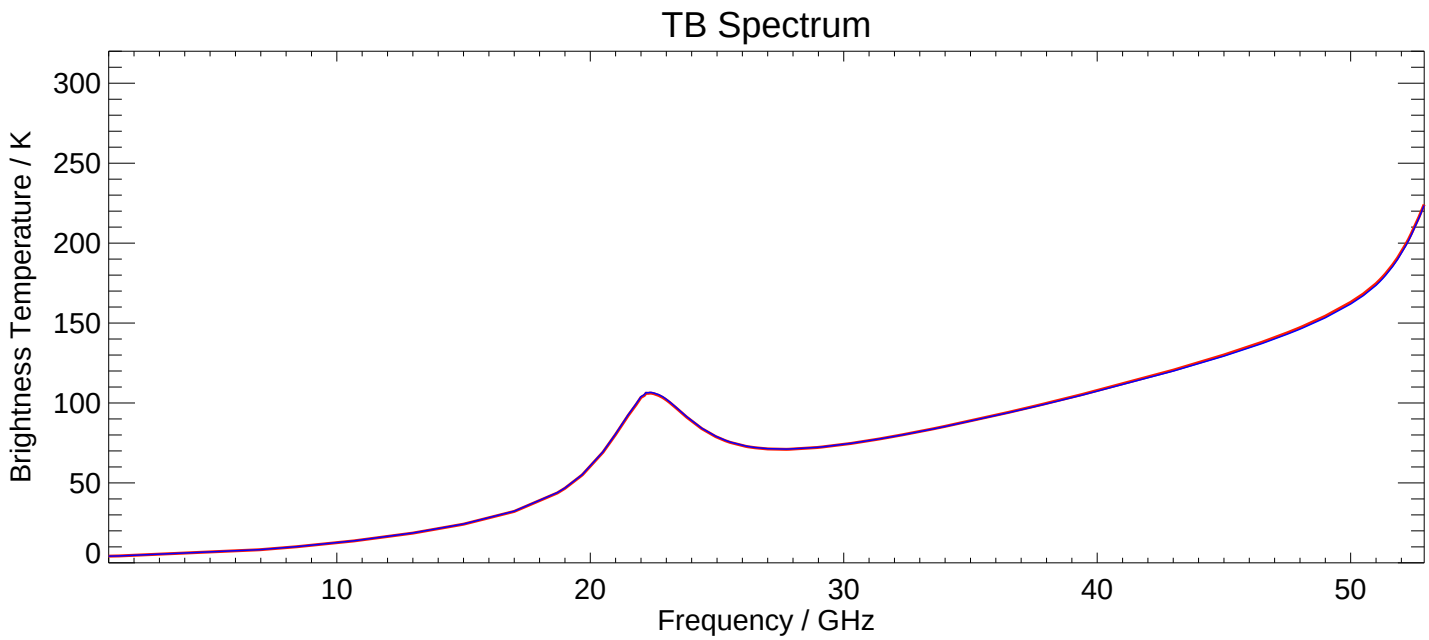
Frequency / GHz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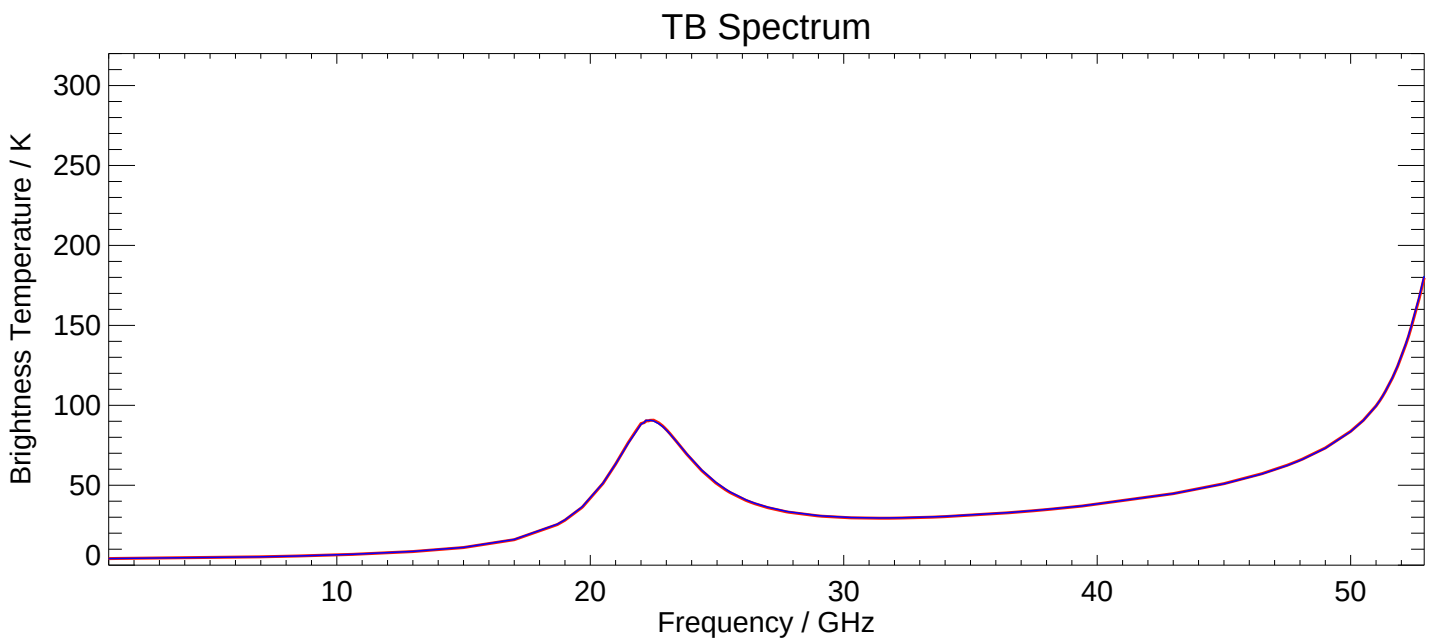
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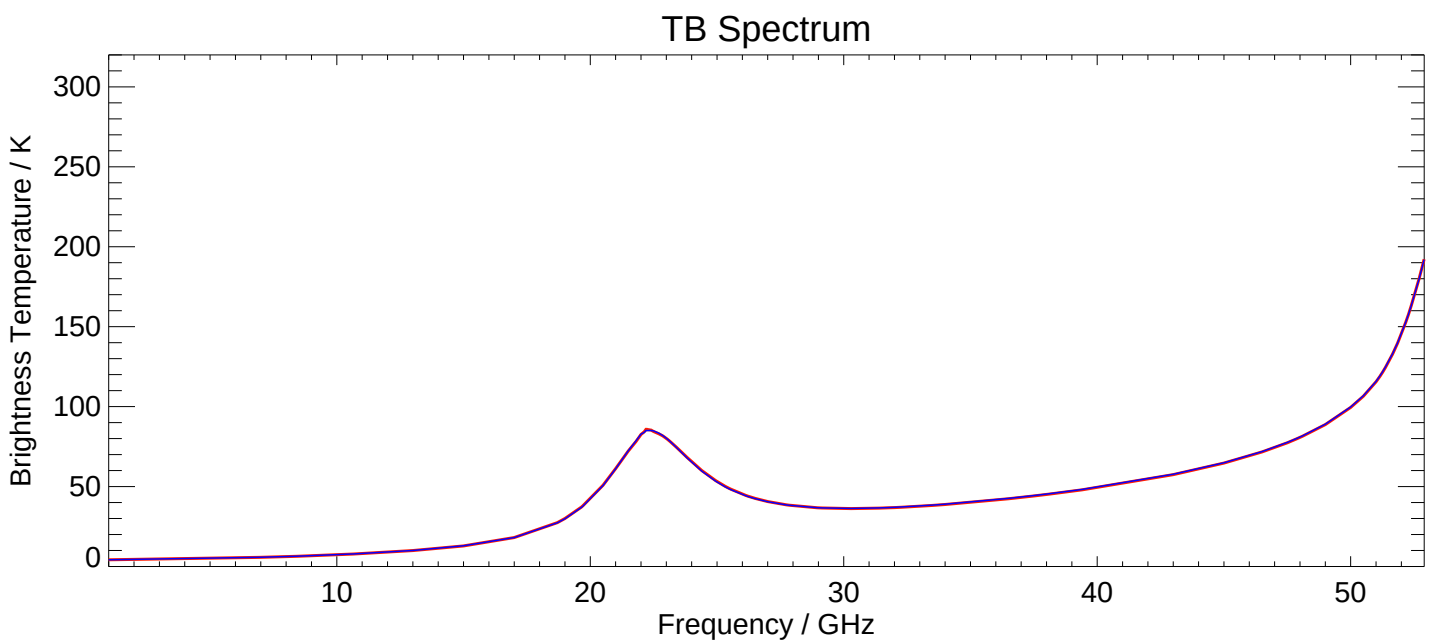
Frequency / GHz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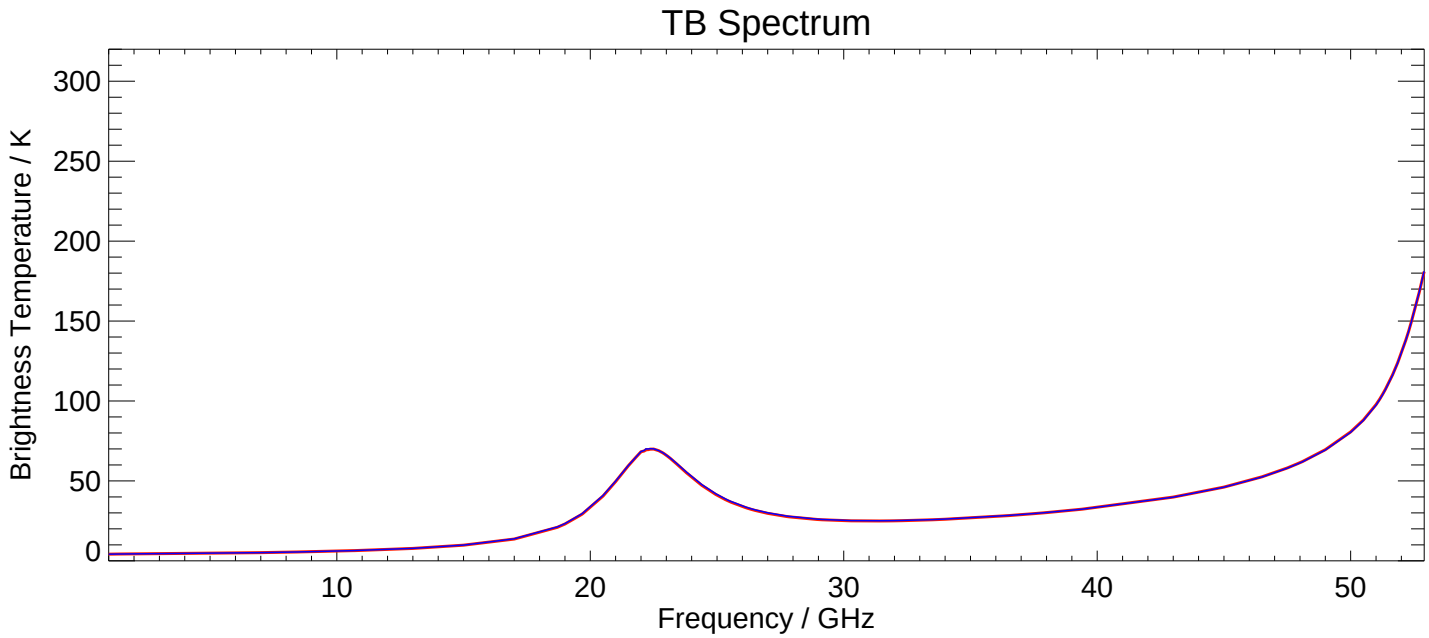
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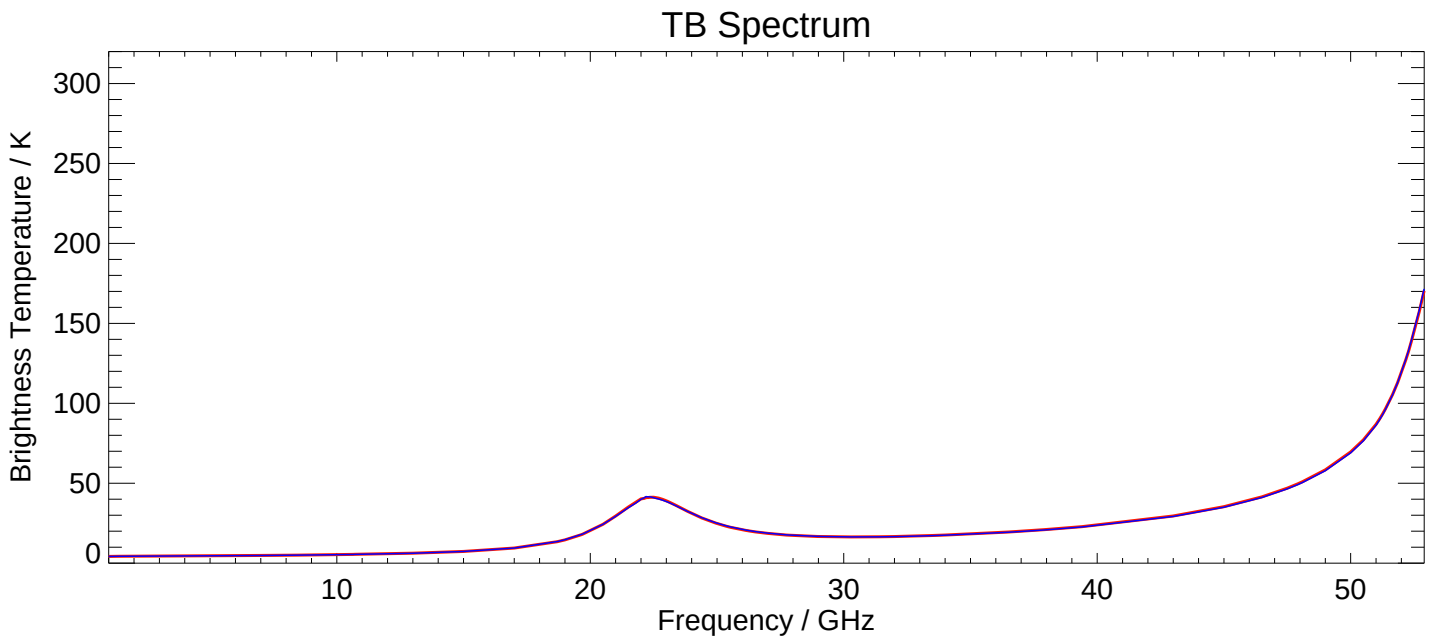
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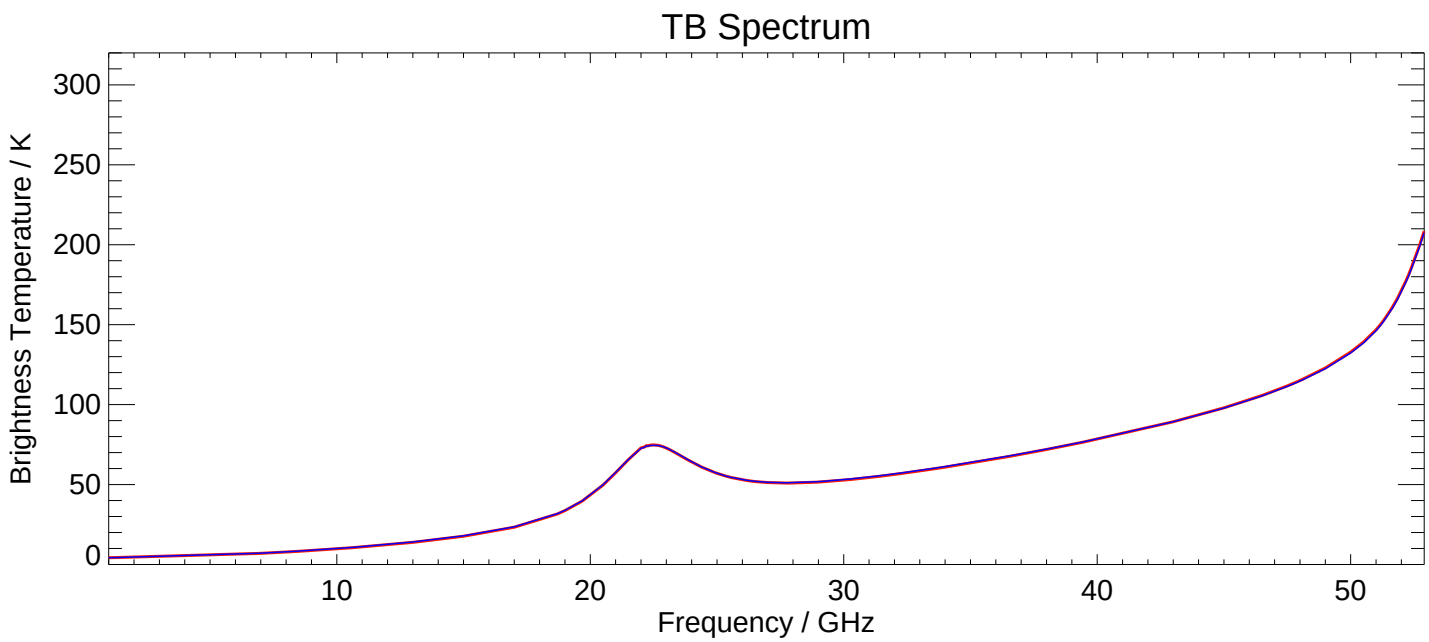
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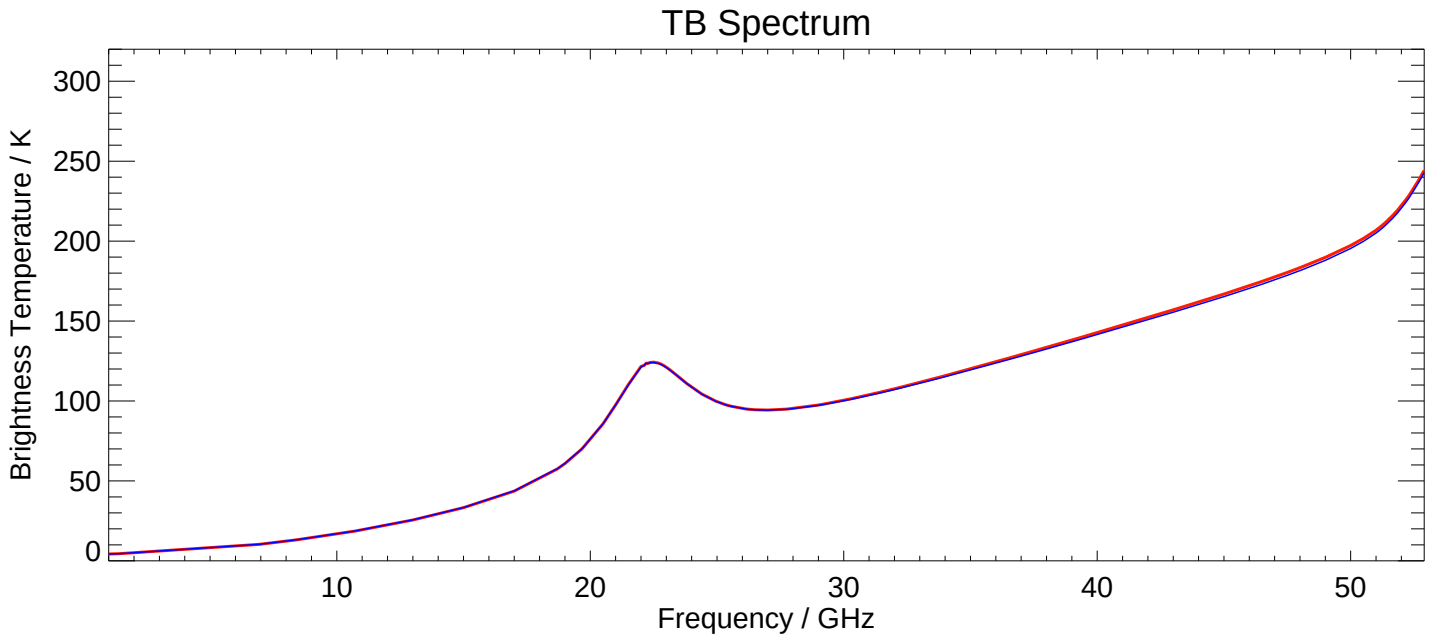
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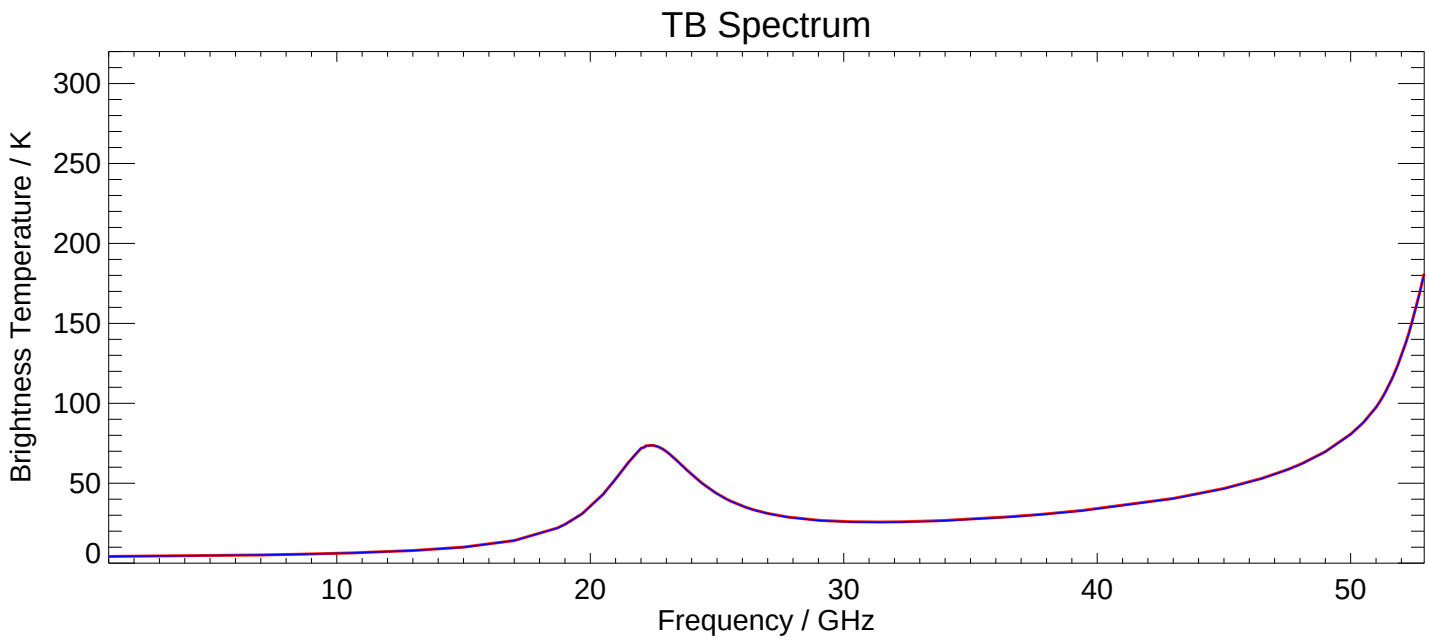
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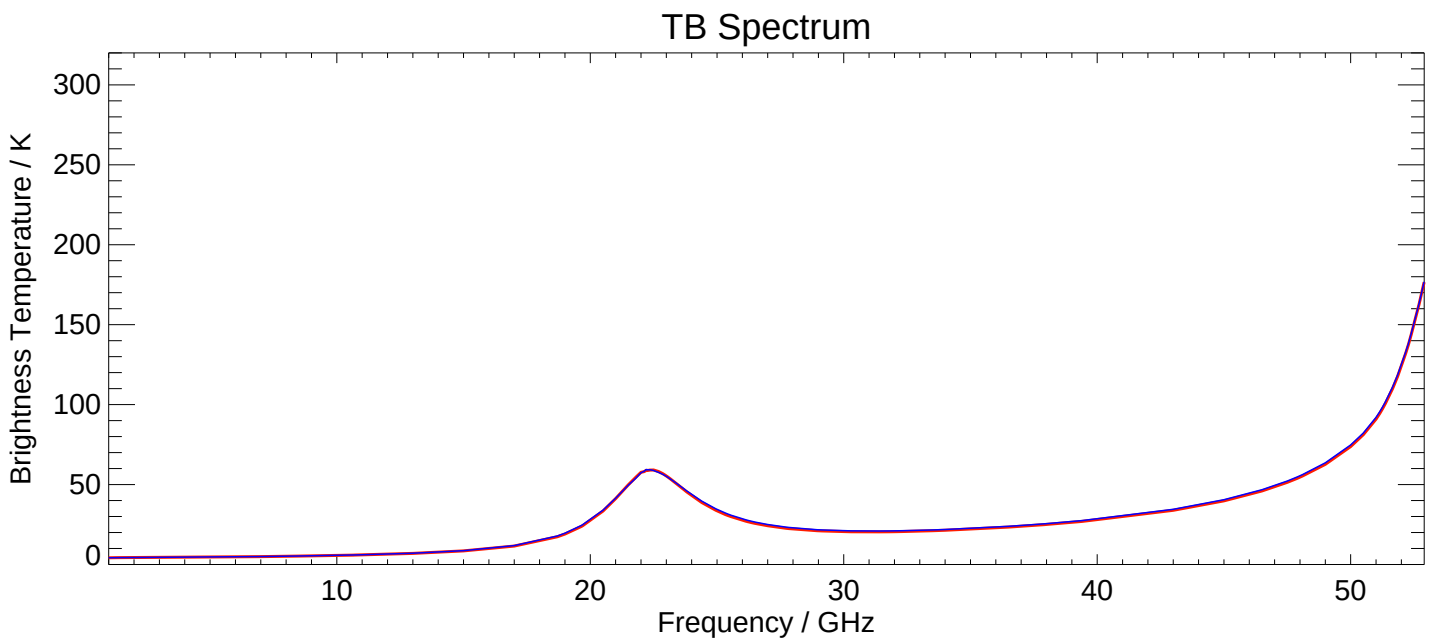
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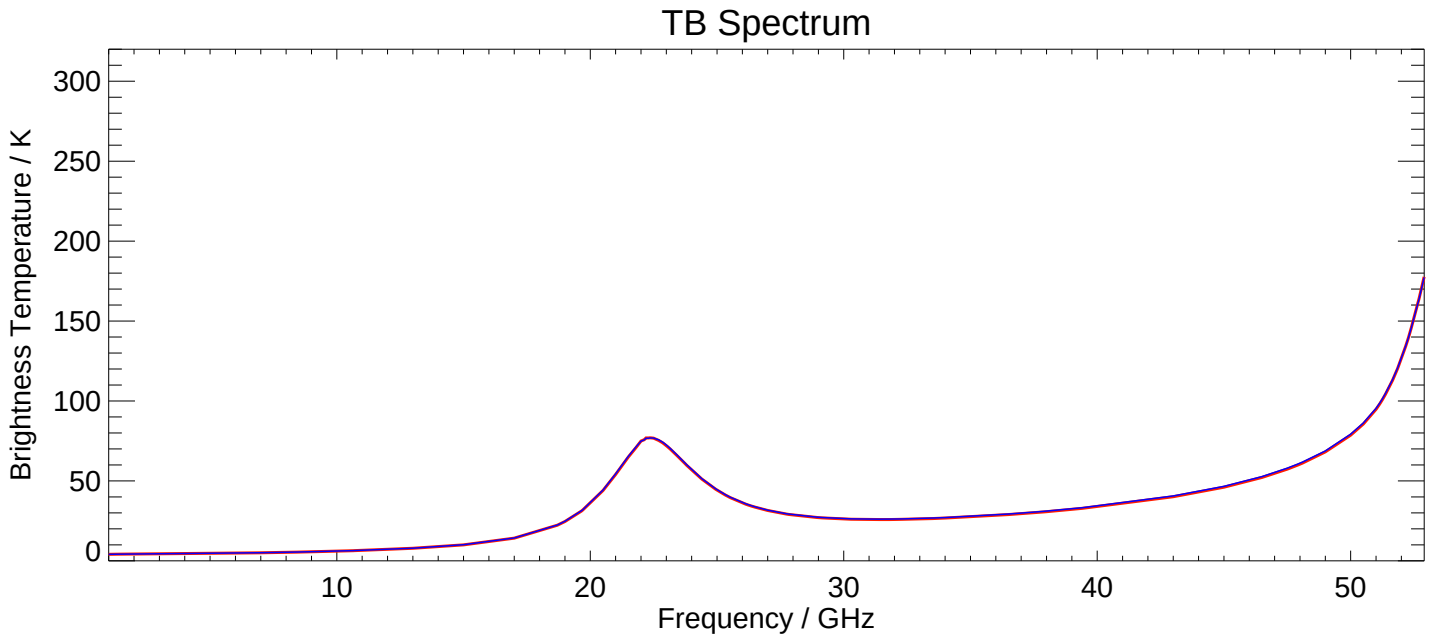
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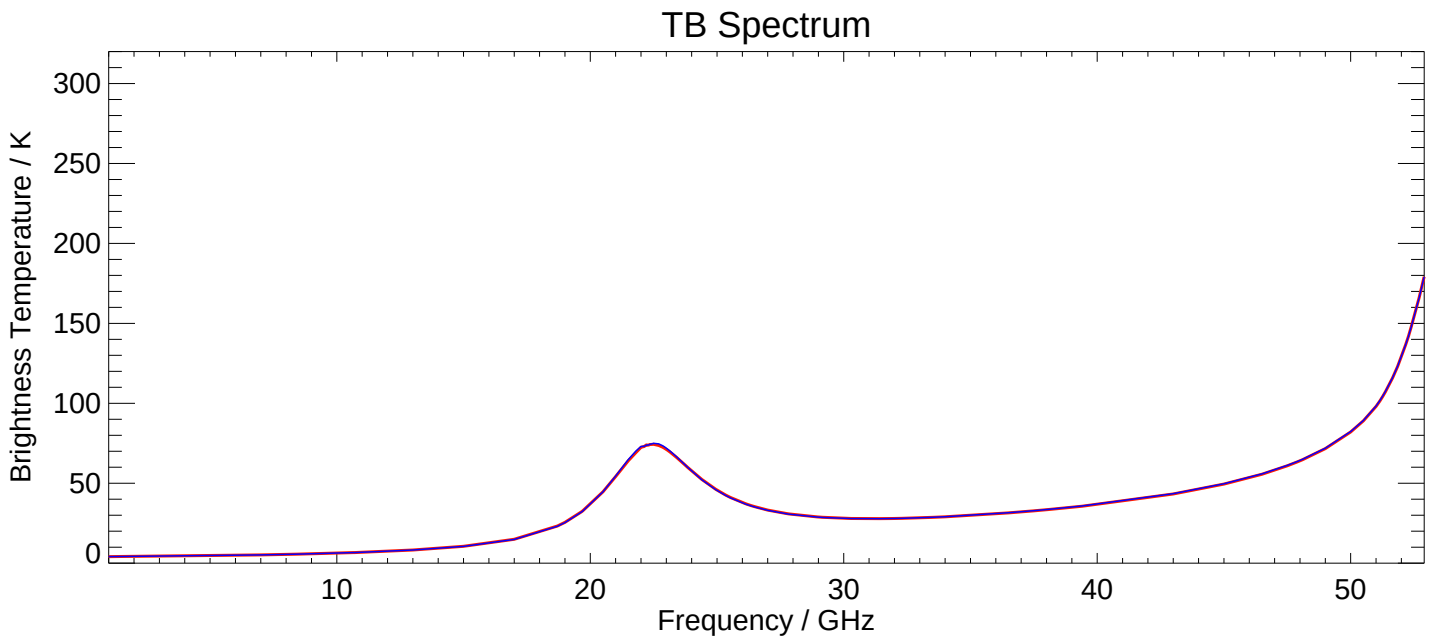
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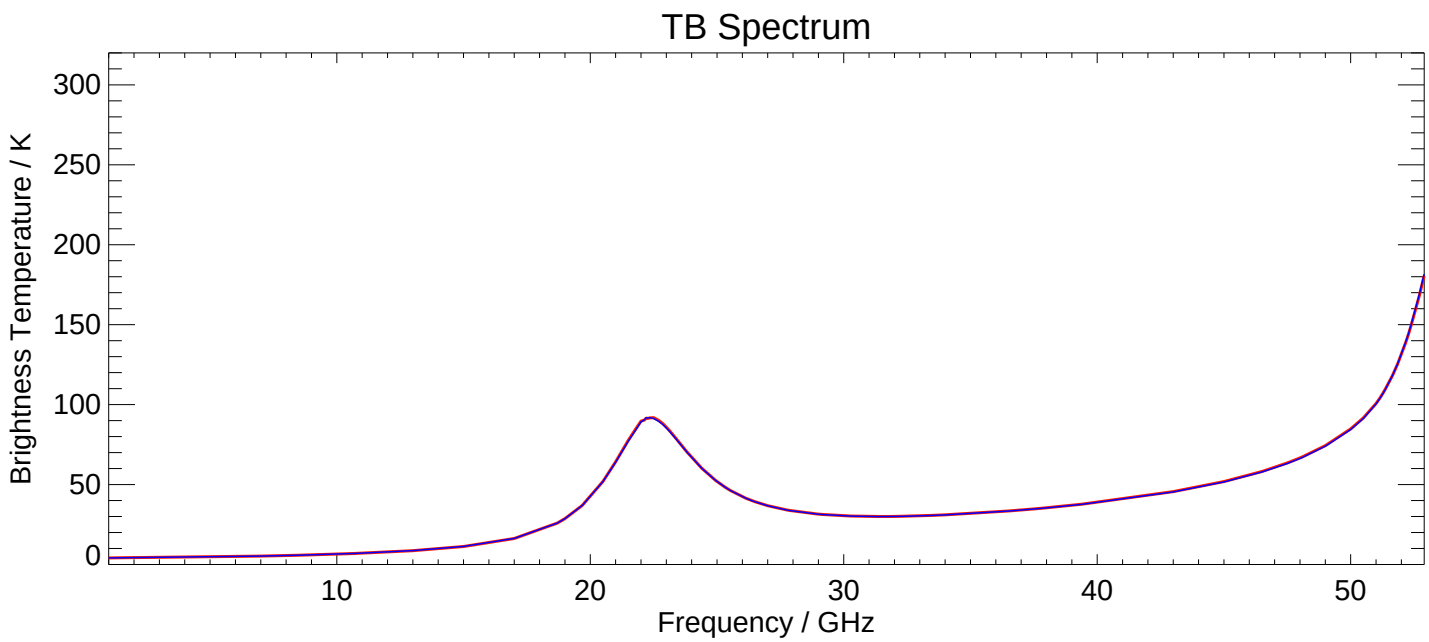
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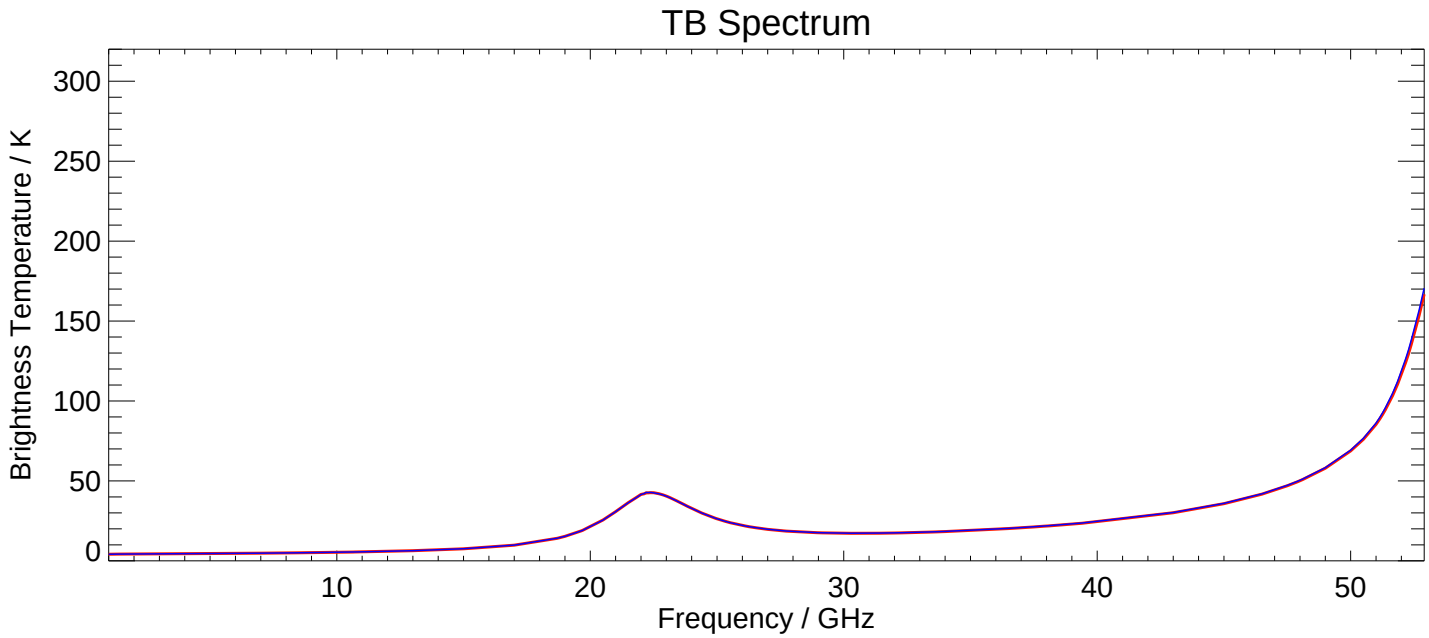
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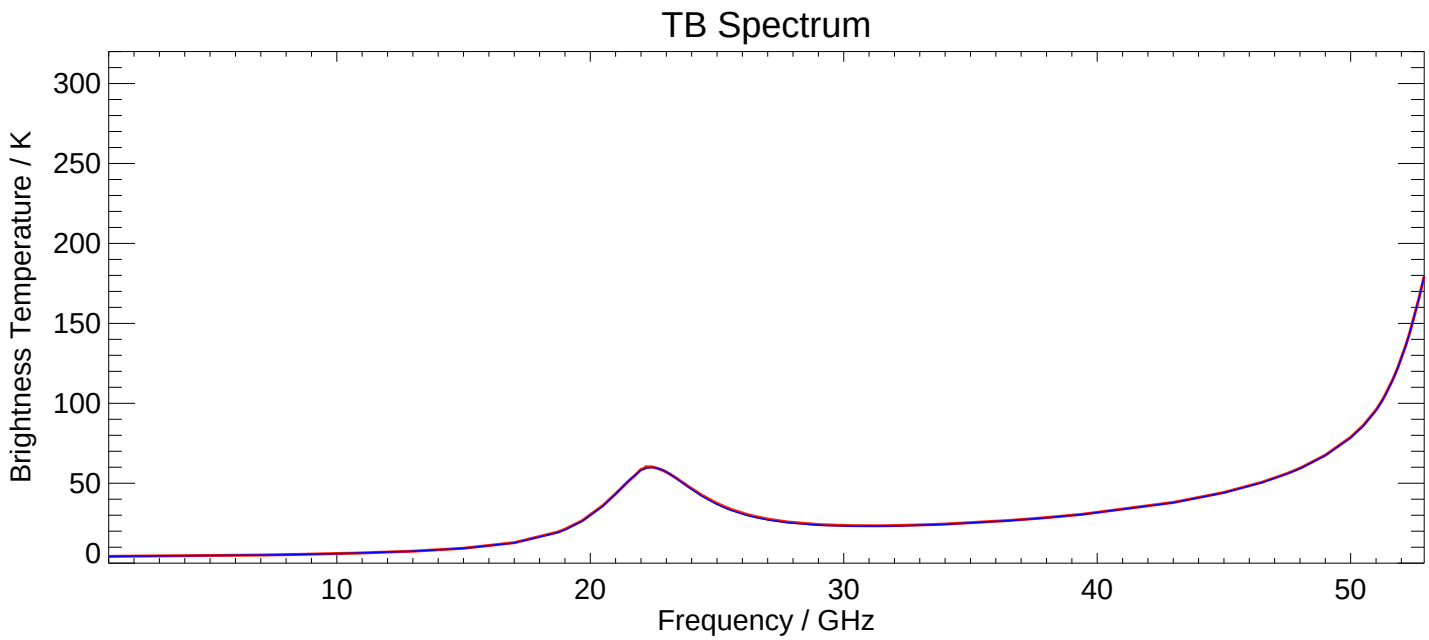
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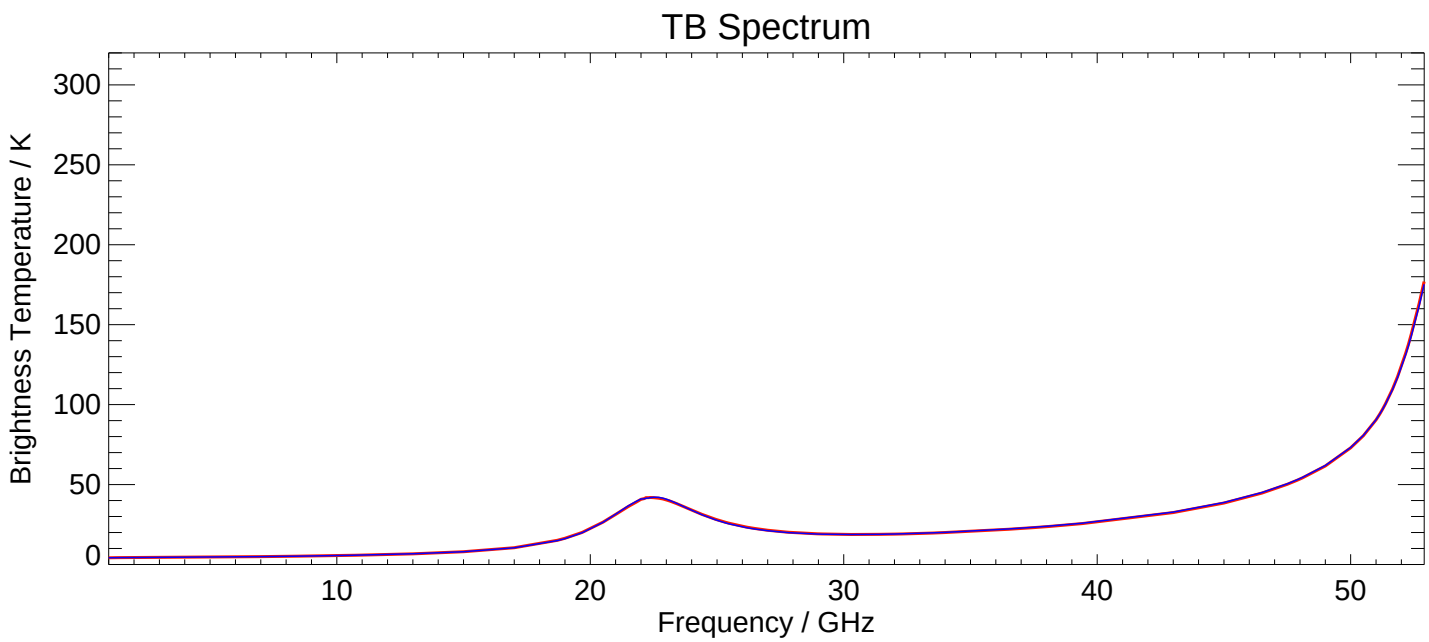
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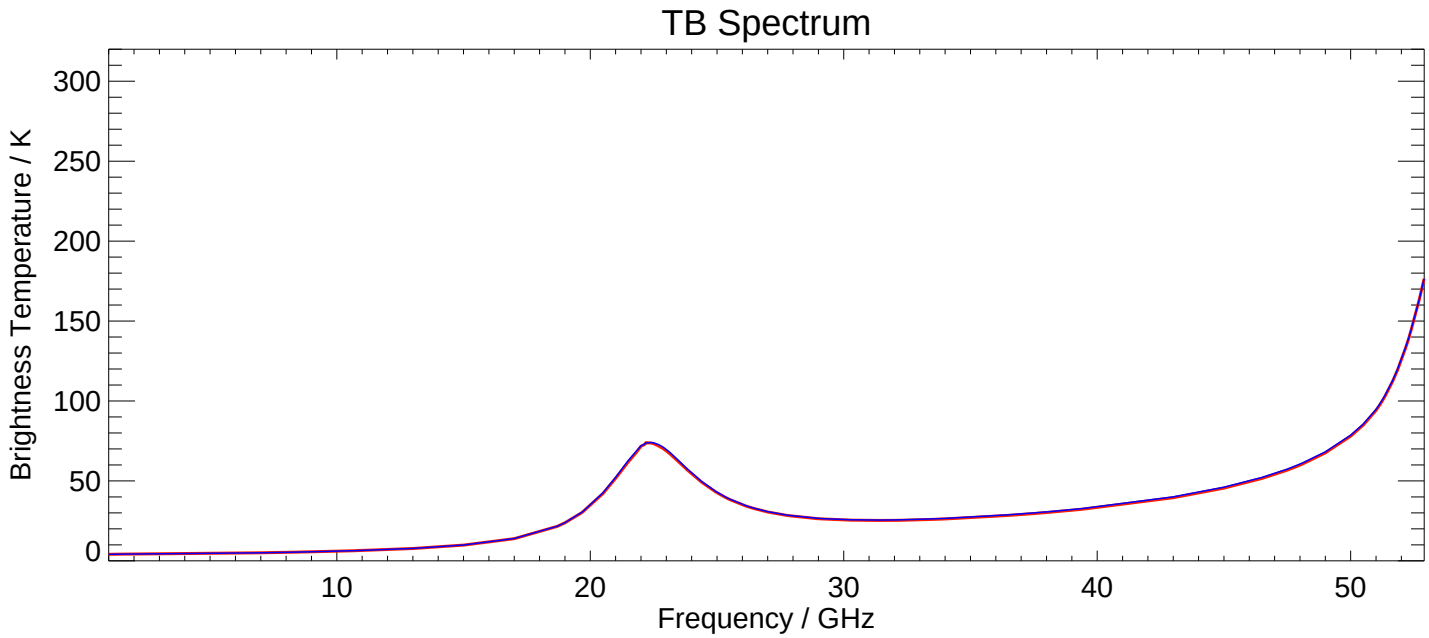
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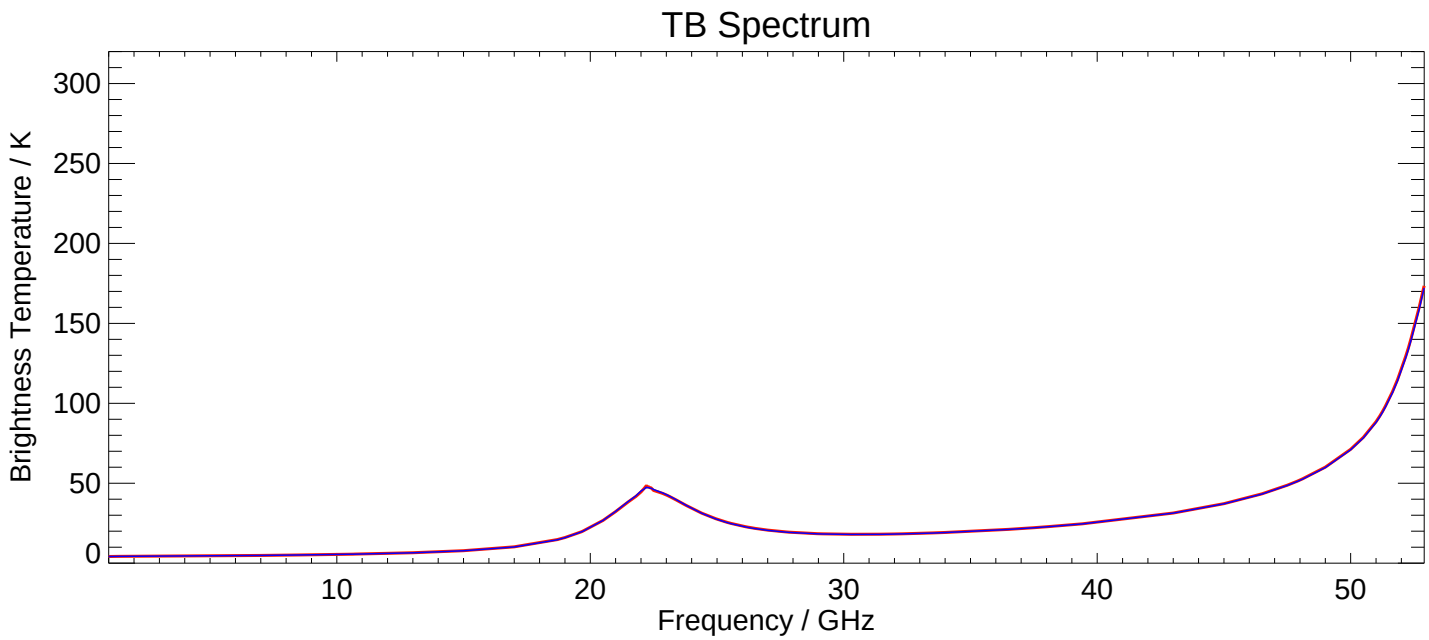
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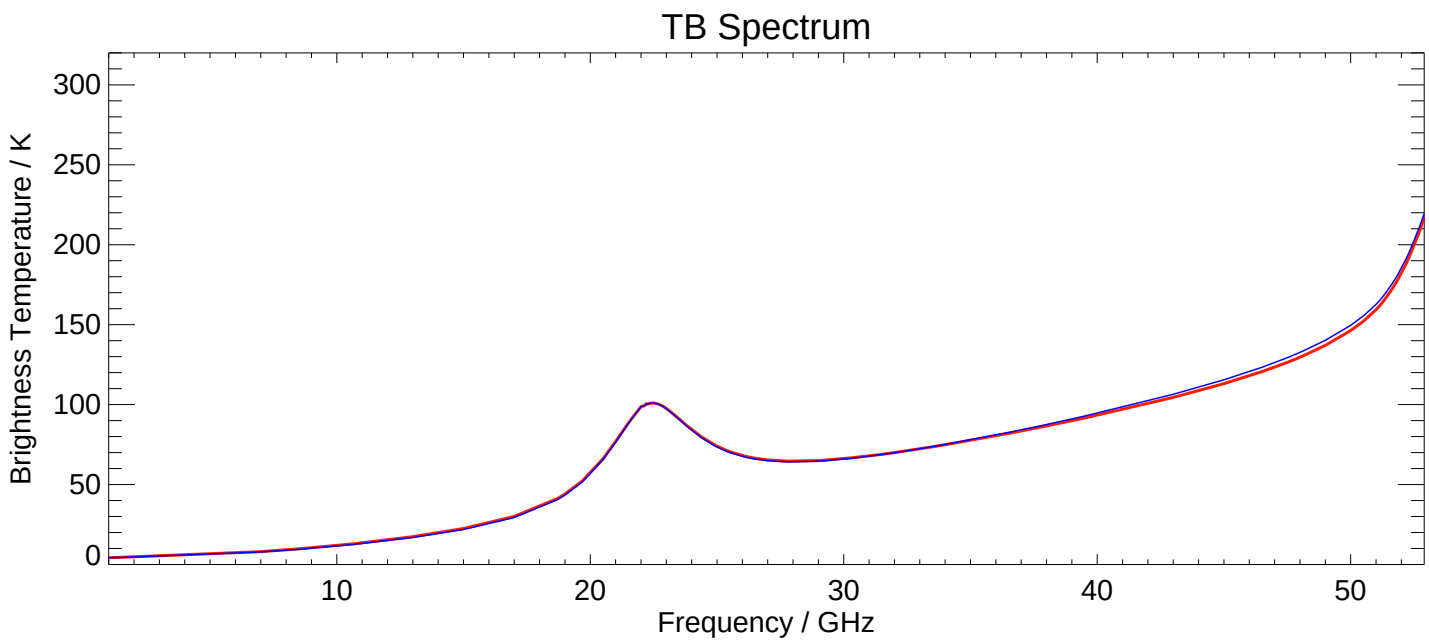
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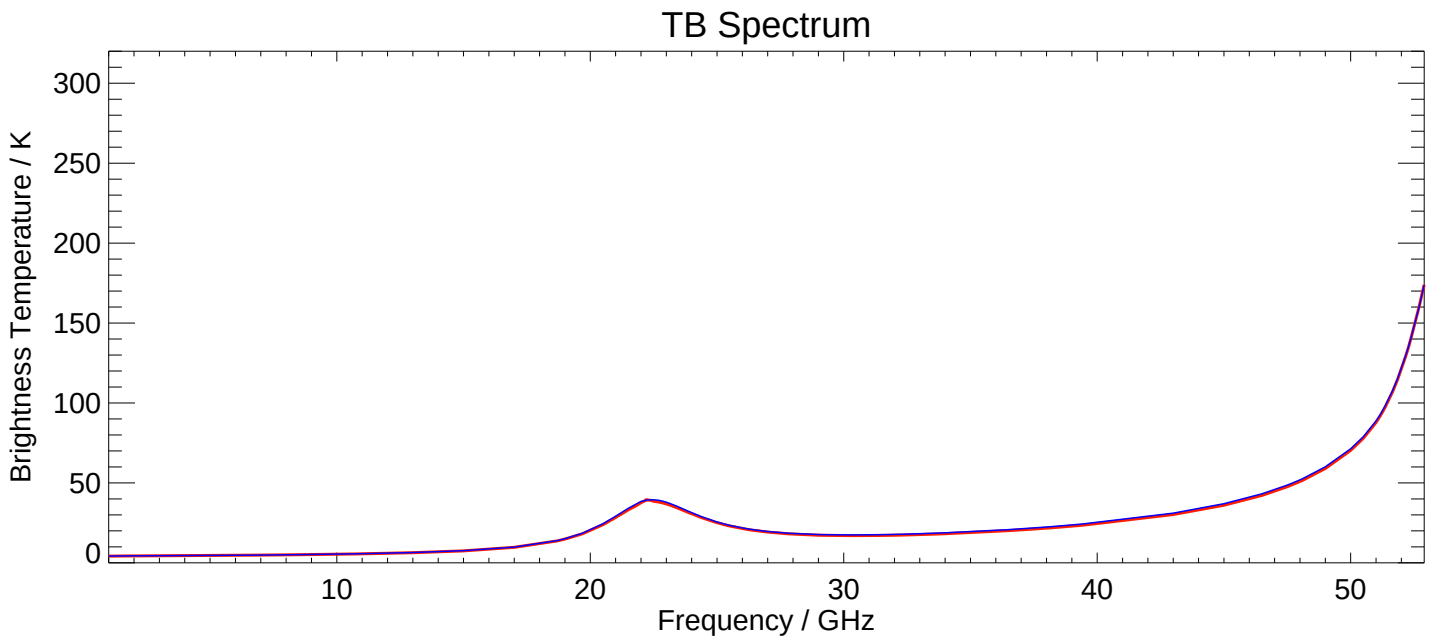
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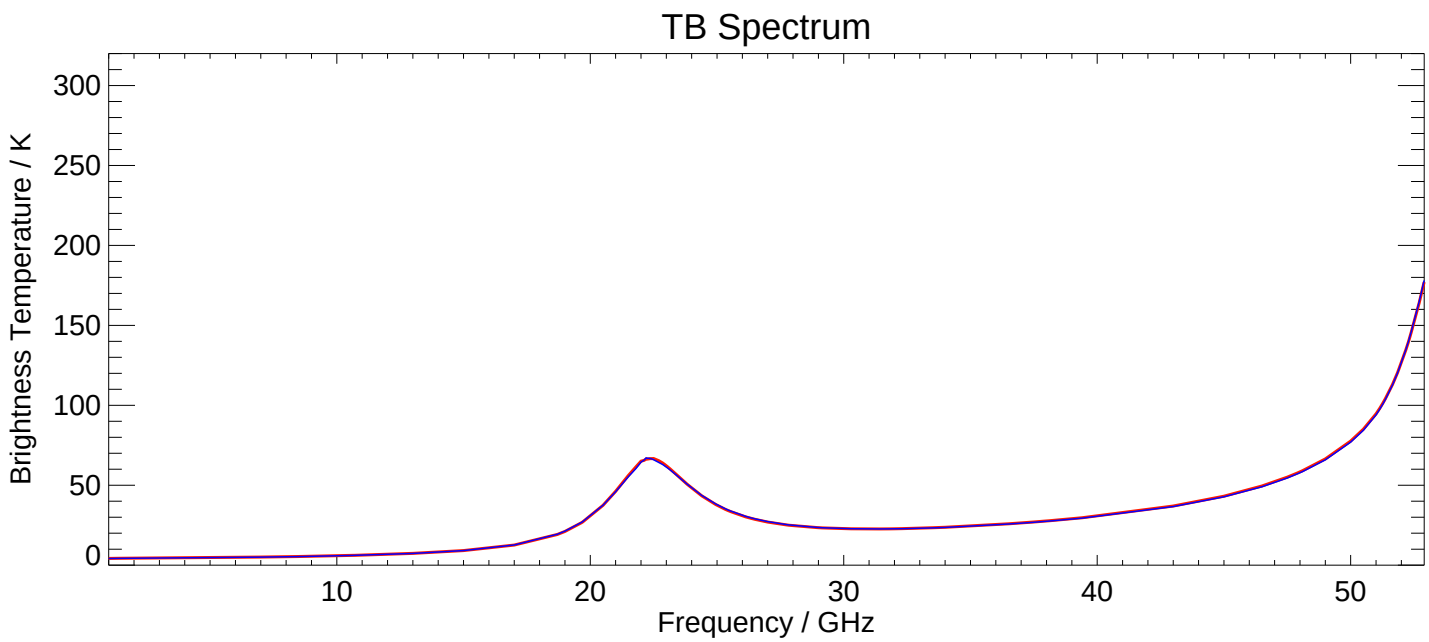
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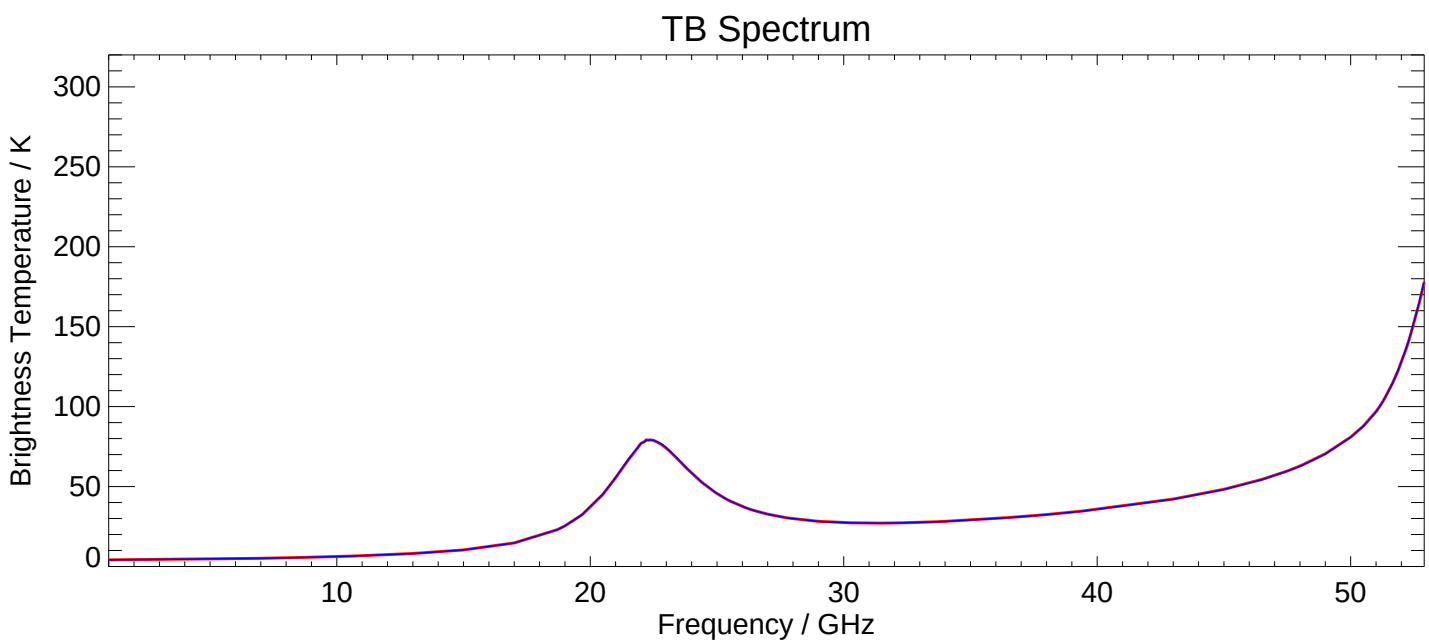
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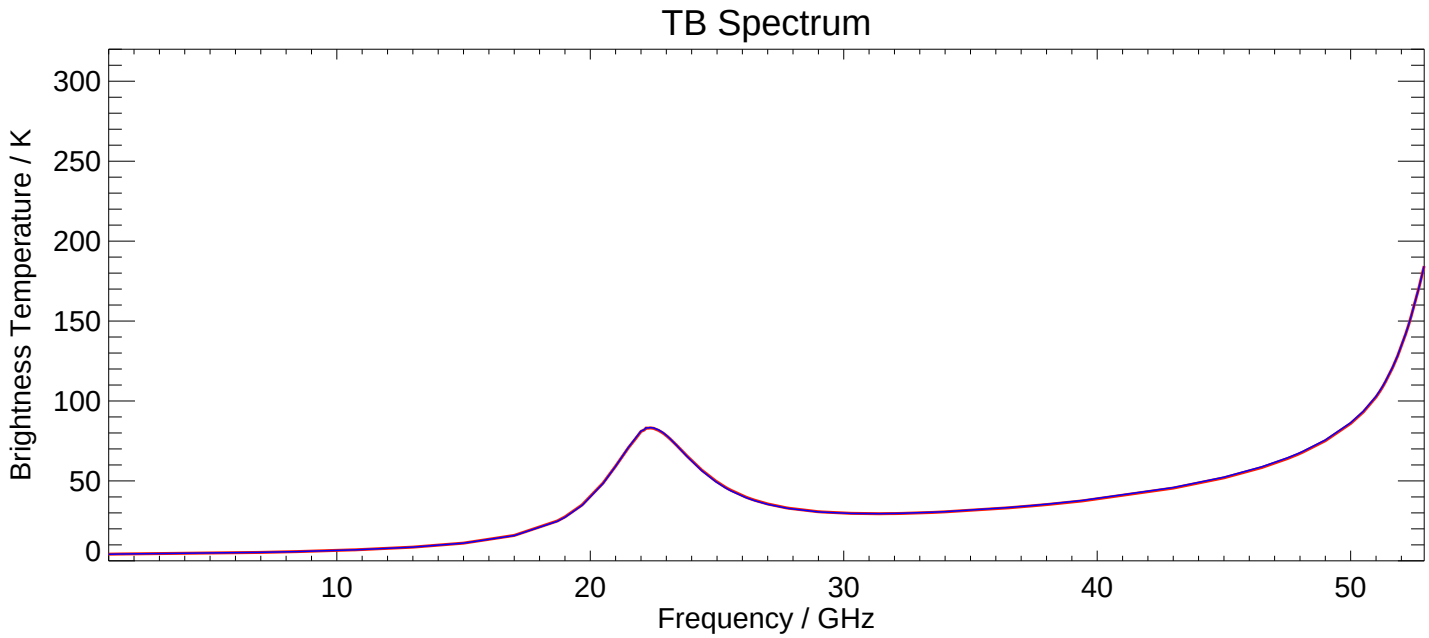
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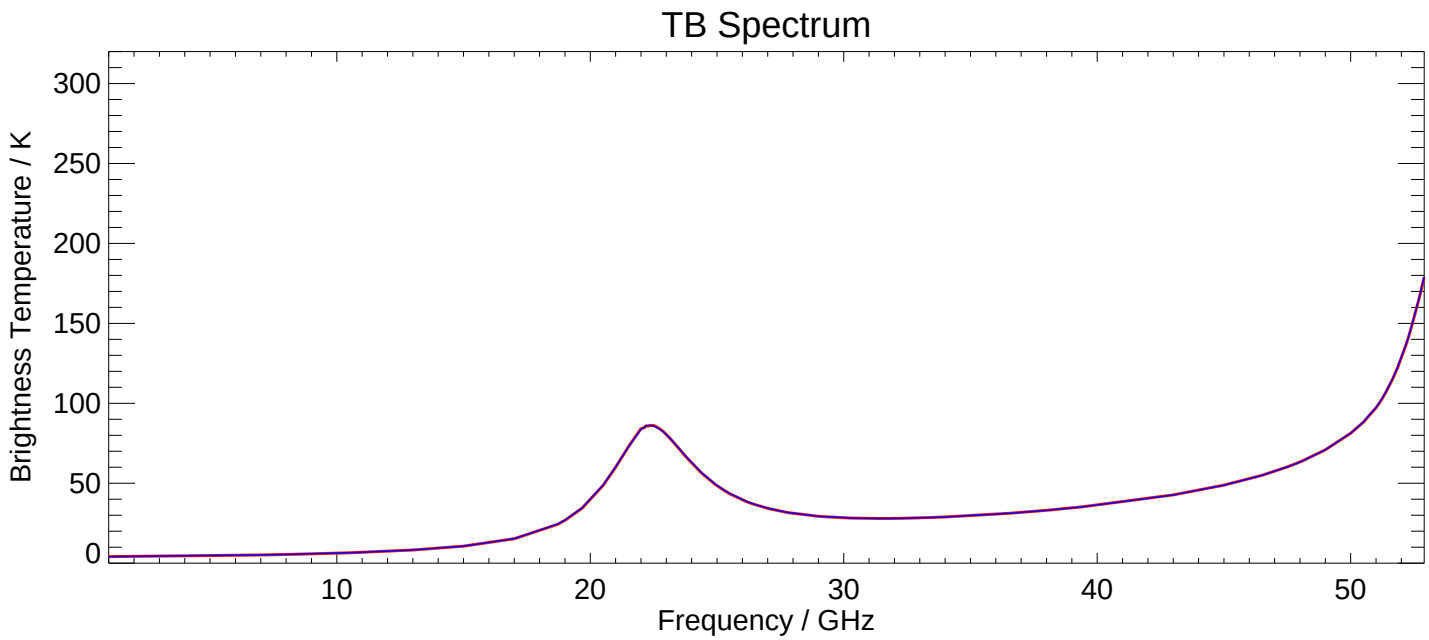
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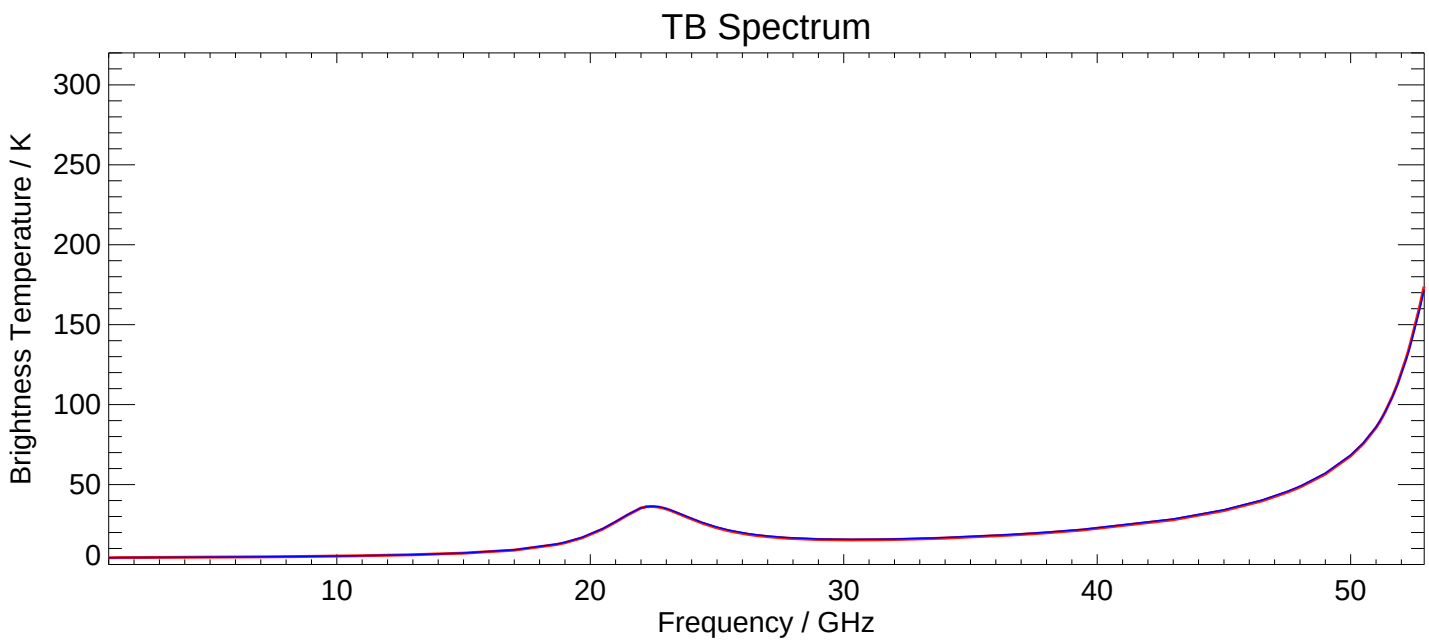
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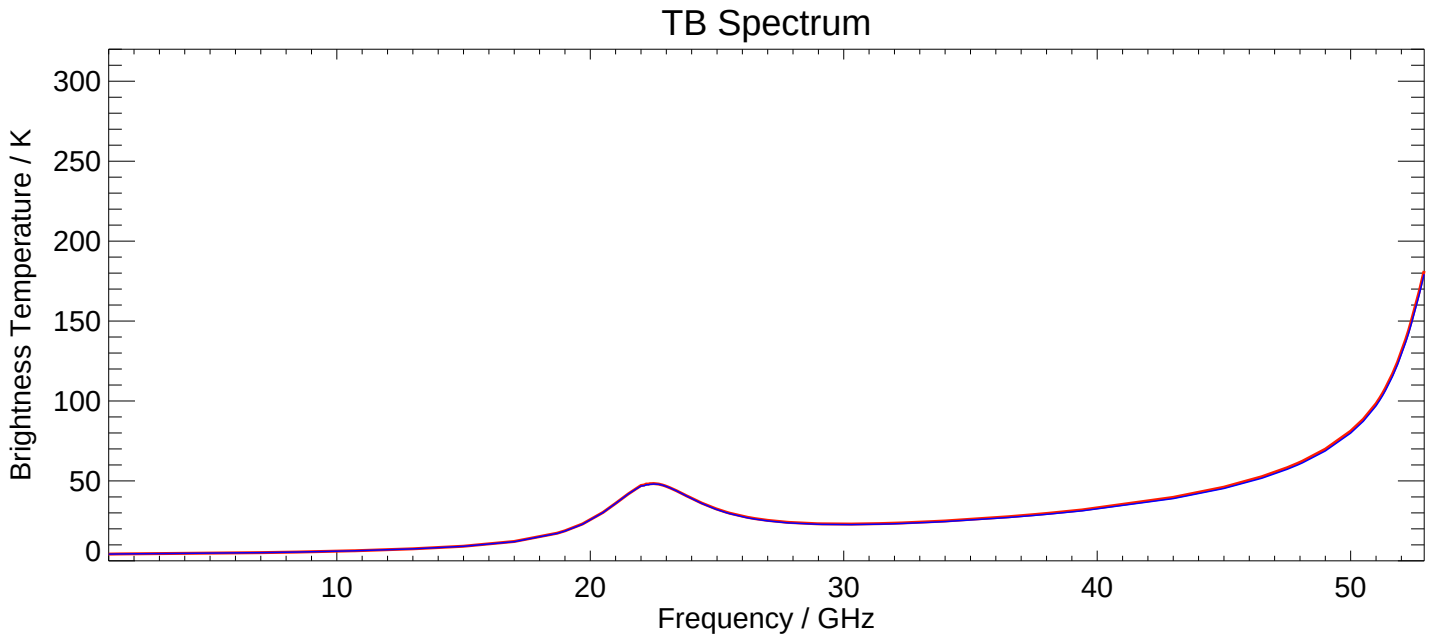
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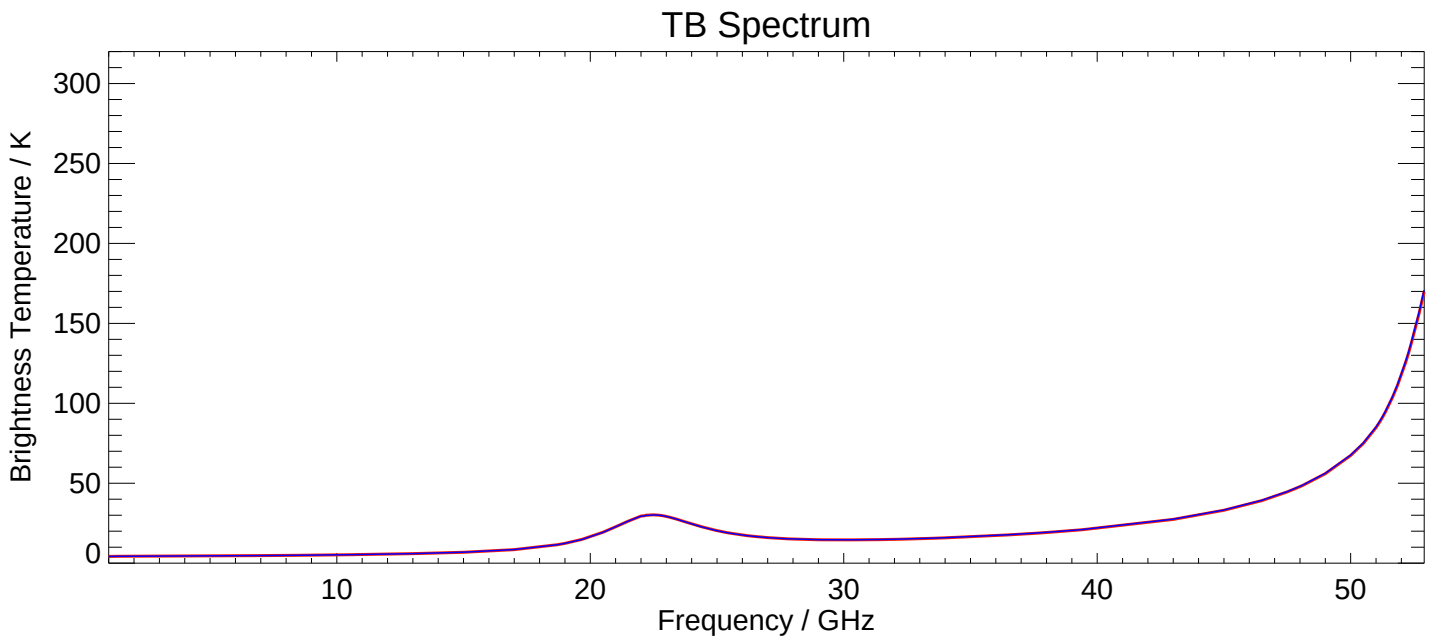
Frequency / GHz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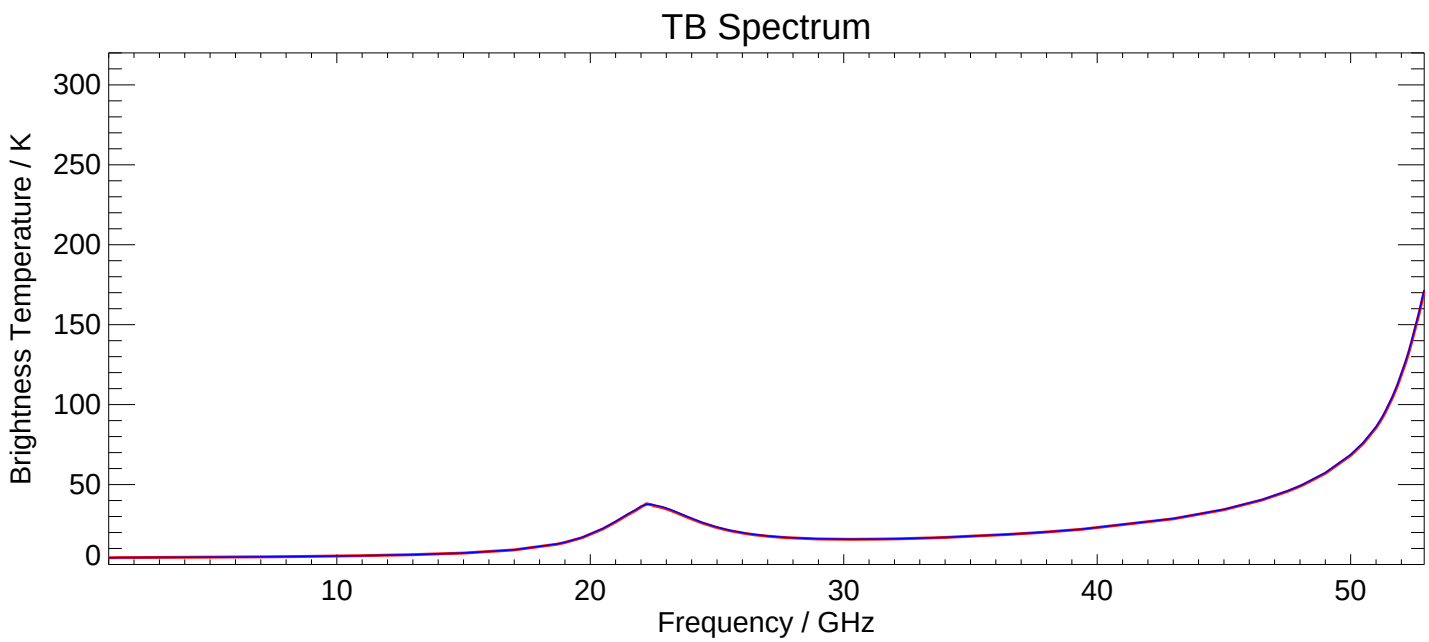
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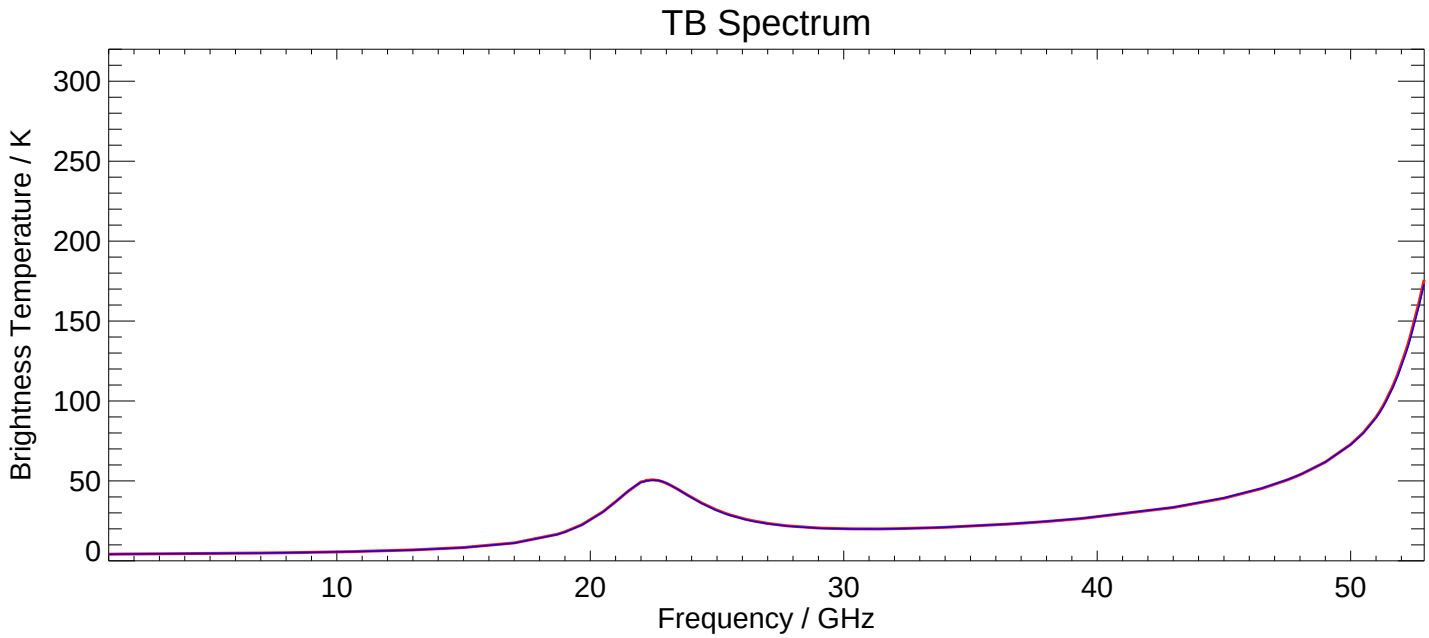
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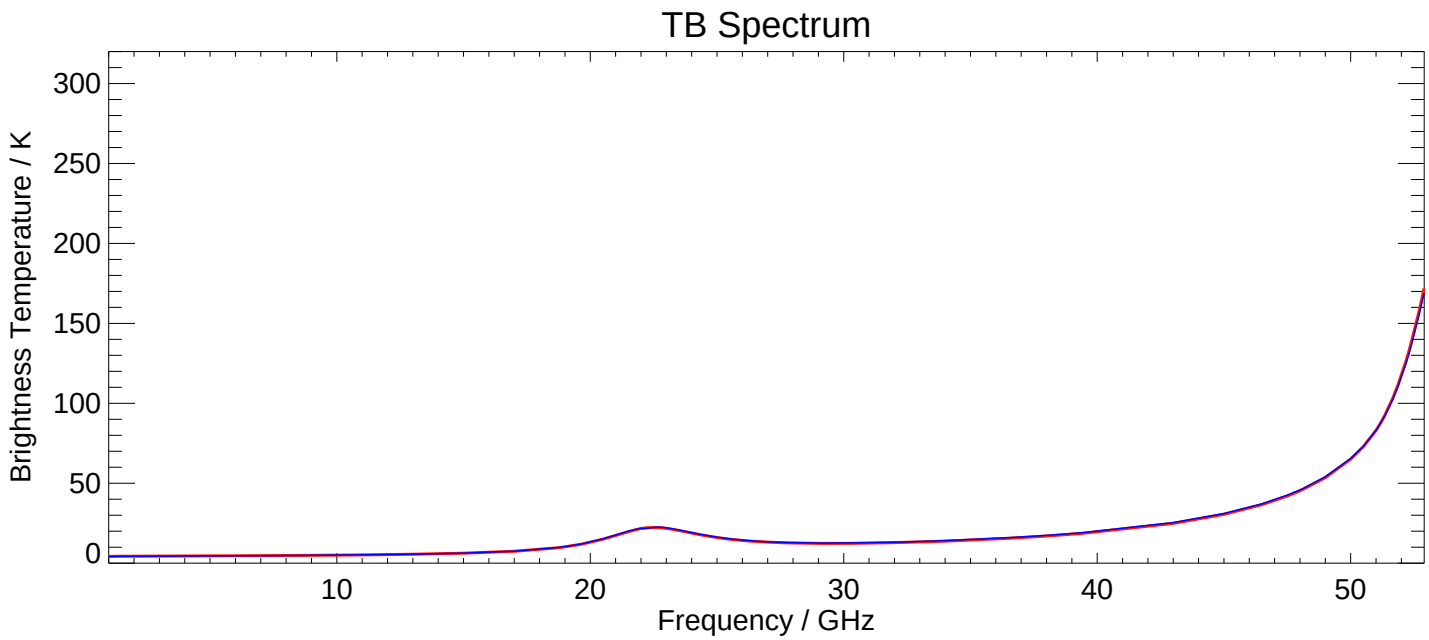
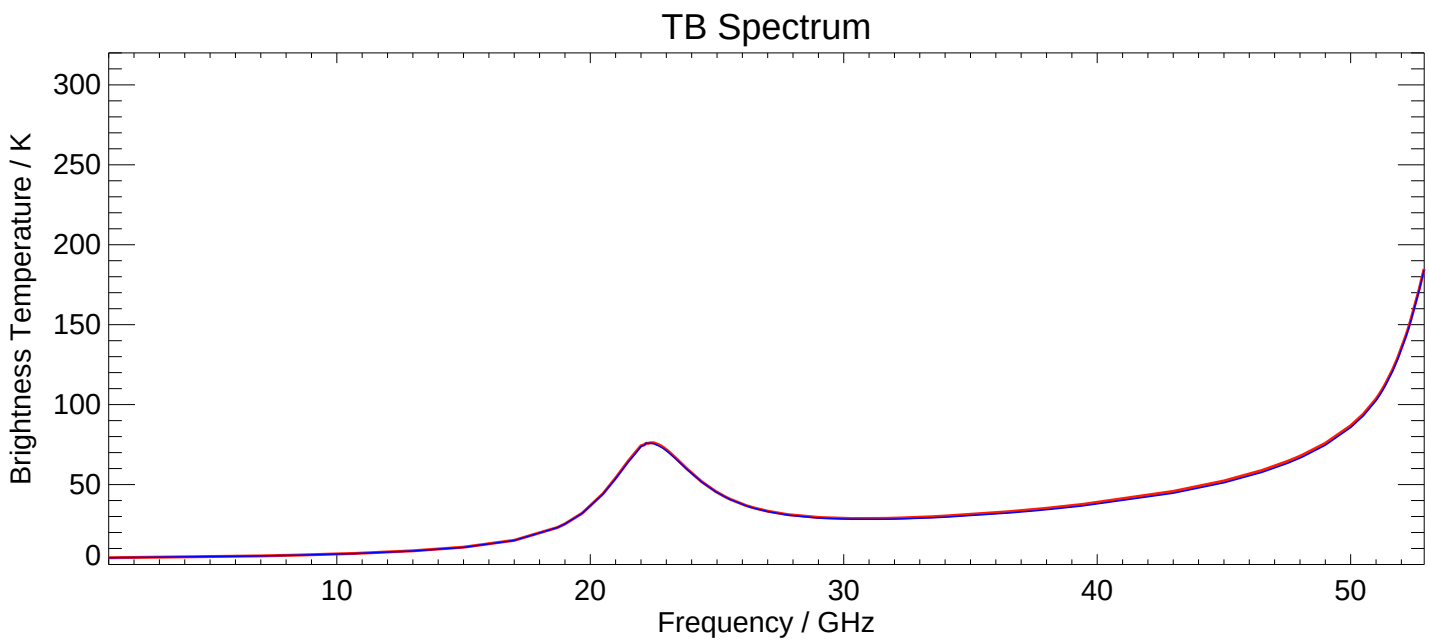
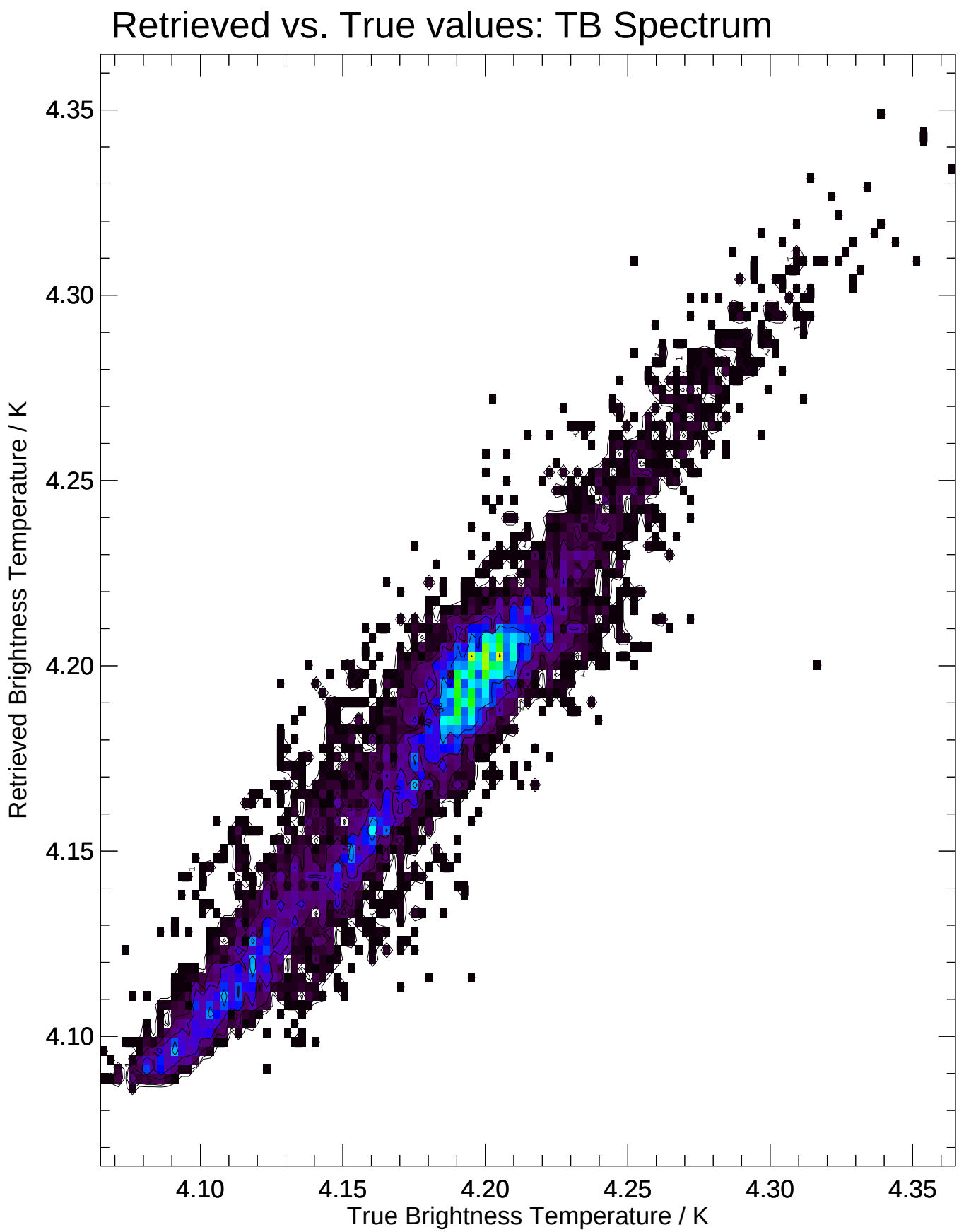
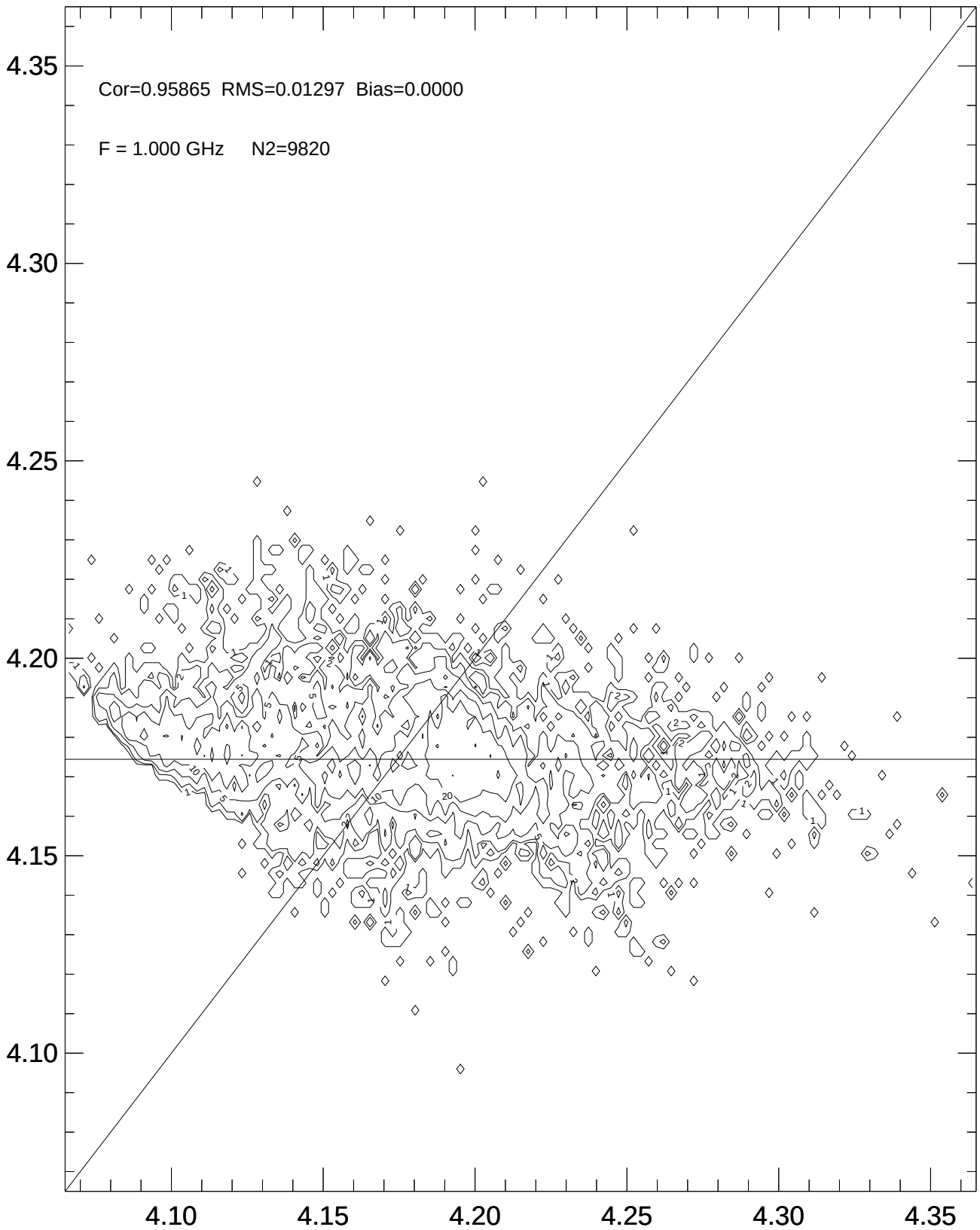
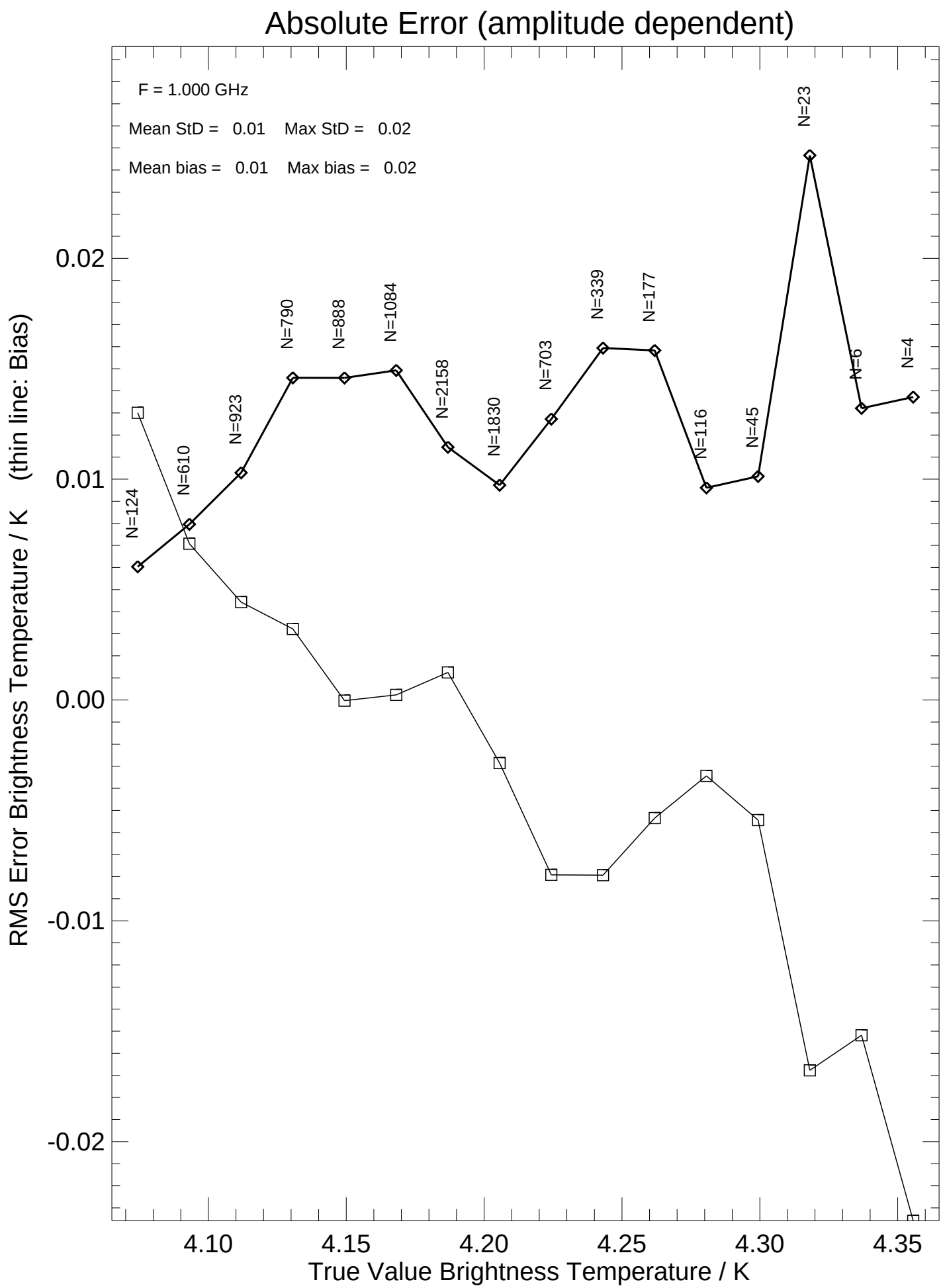
50
Frequency / GHz

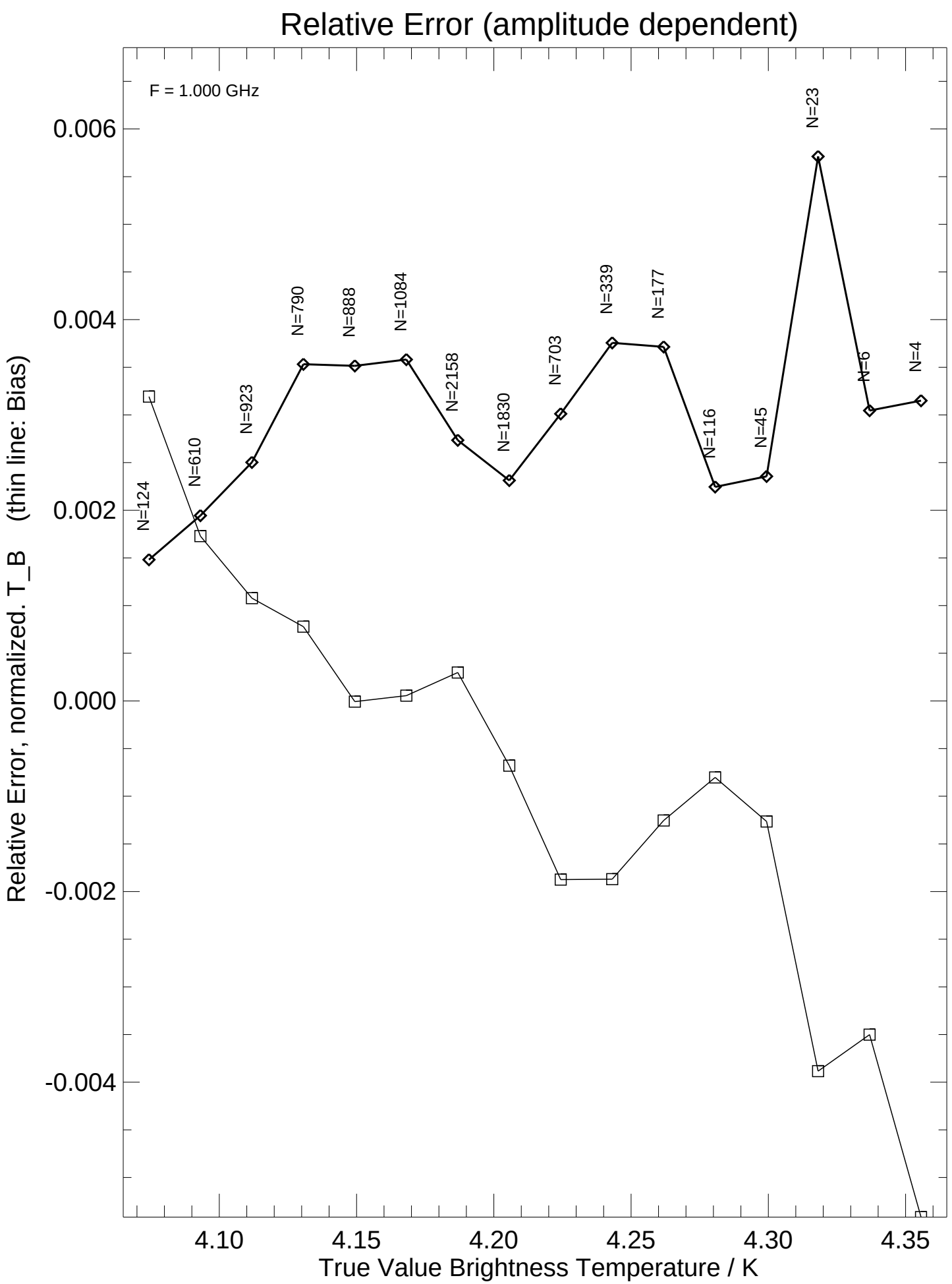

TB Spectrum
Brightness Temperature / K
300
250
200
150
100
50
0
10
20
30
40
50
Frequency / GHz

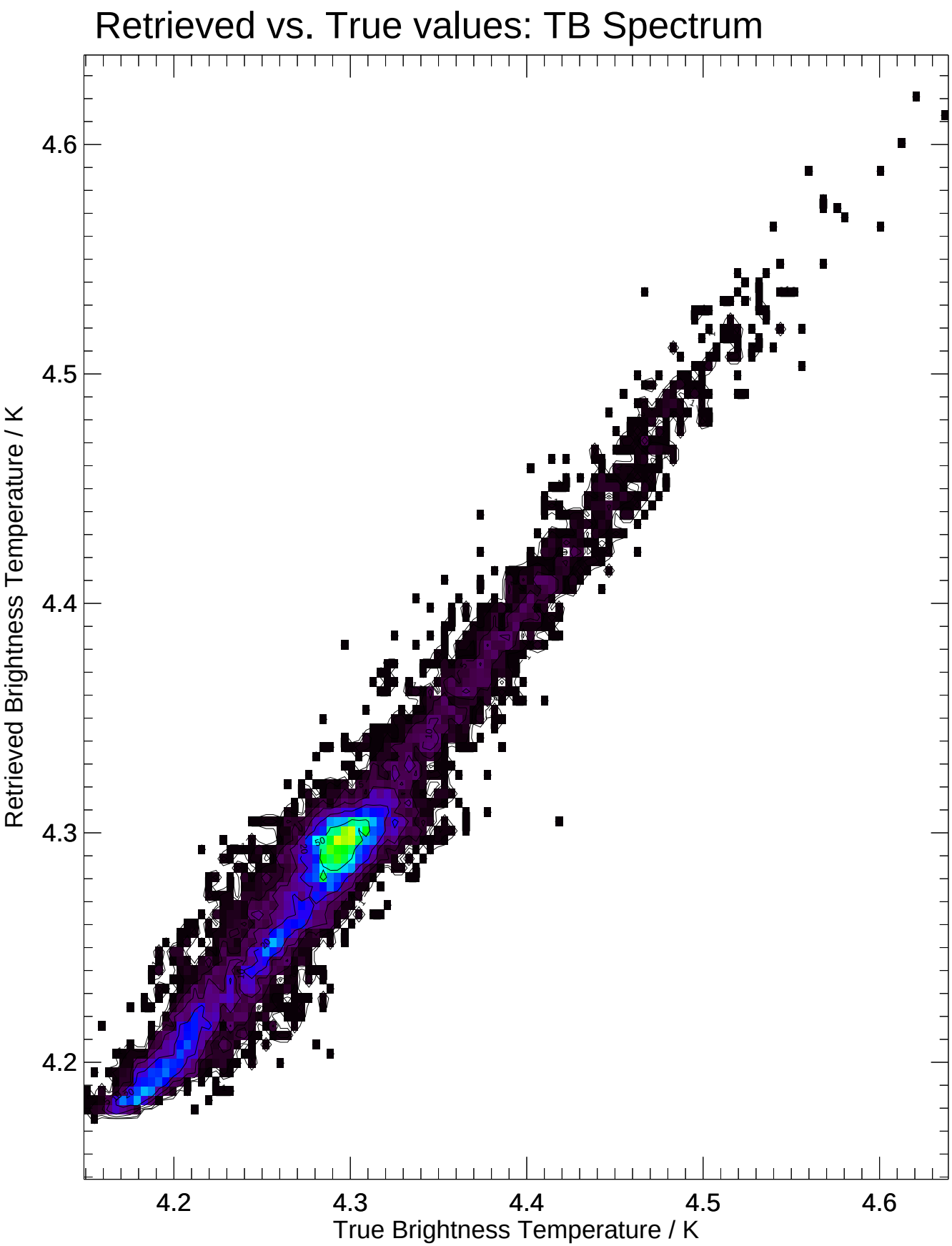

TB Spectrum
Brightness Temperature / K
300
250
200
150
100
50
0
10
20
30
40
50
Frequency / GHz

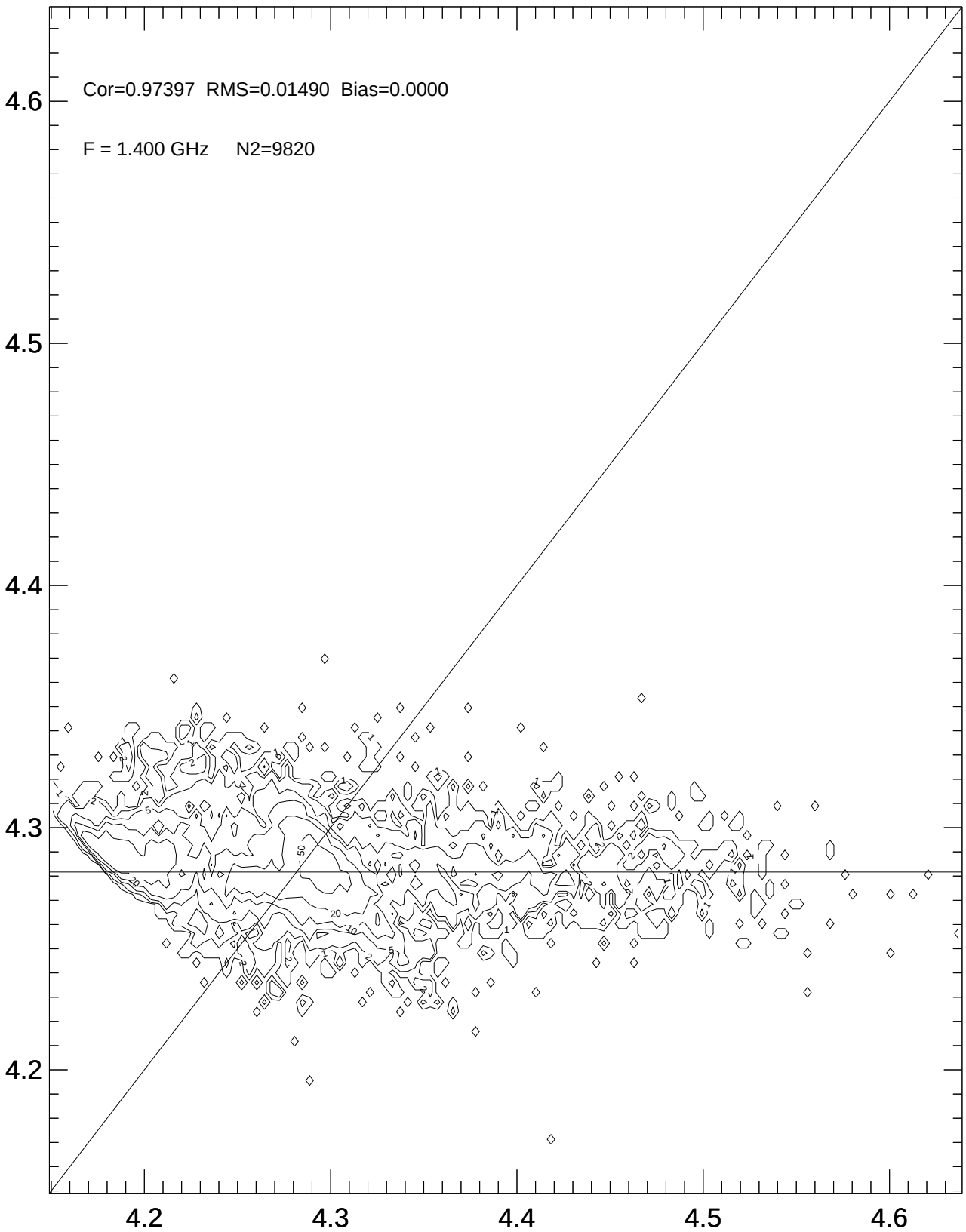

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
4.35
4.30
4.25
4.20
4.15
4.10
4.10
4.15
4.20
4.25
4.30
4.35
True Brightness Temperature / K

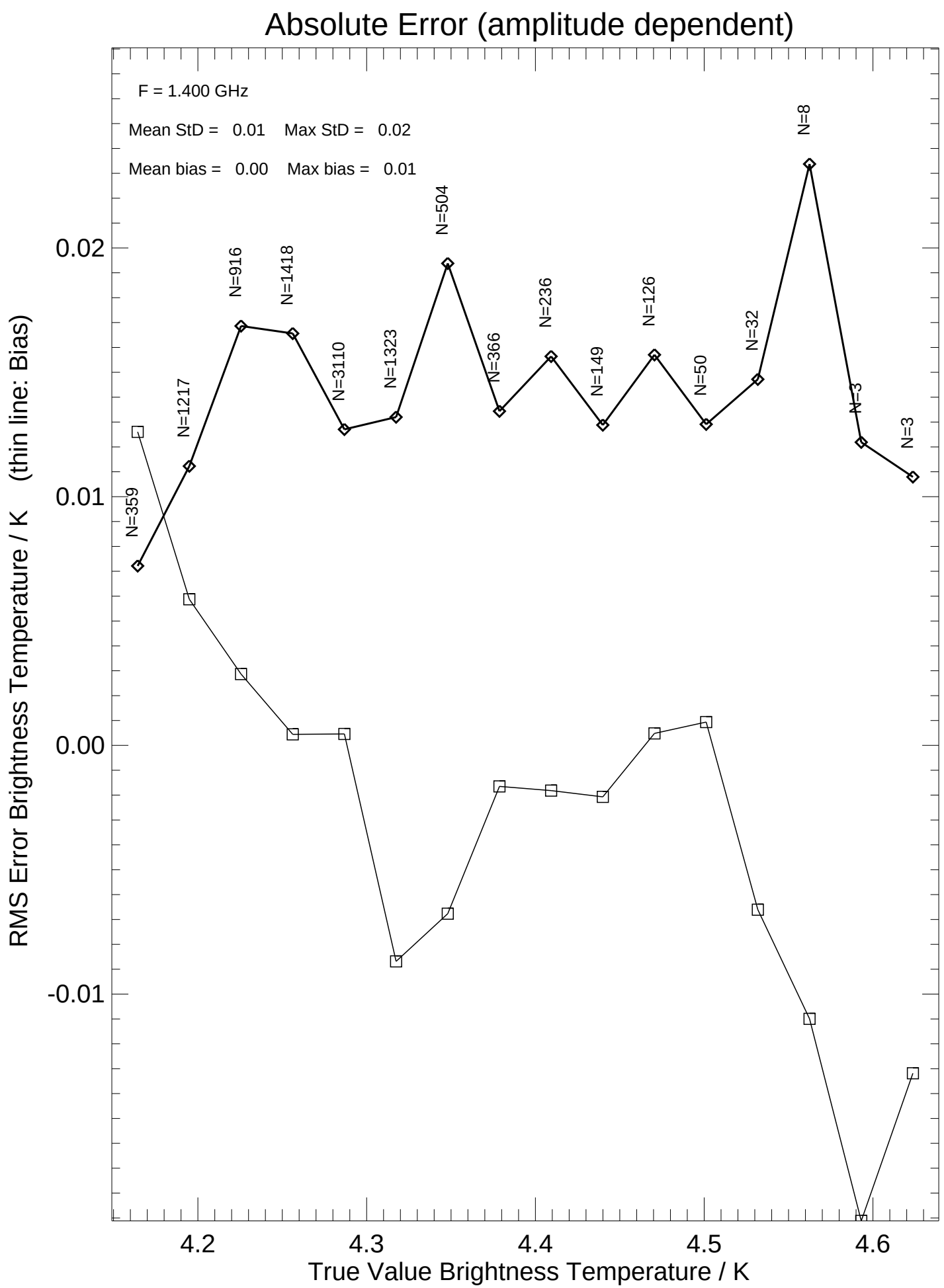

Cor=0.95865 RMS=0.01297 Bias=0.0000
F = 1.000 GHz N2=9820
4.35
4.30
4.25
4.20
4.15
4.10
4.10
4.15
4.20
4.25
4.30
4.35

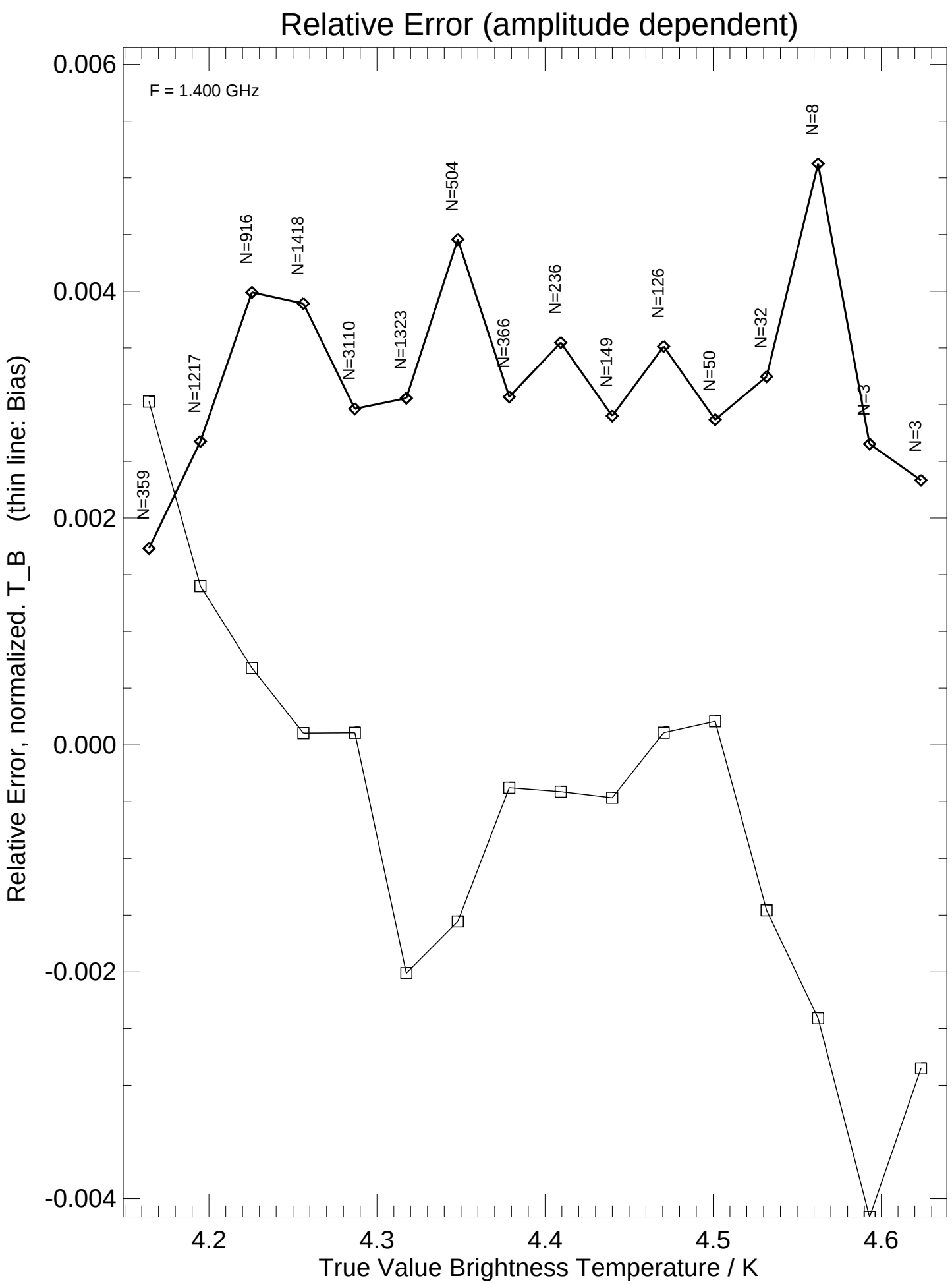

Absolute Error (amplitude dependent)
F = 1.000 GHz
Mean StD = 0.01 Max StD = 0.02
Mean bias = 0.01 Max bias = 0.02
N=124
N=610
N=923
N=790
N=888
N=1084
N=2158
N=1830
N=703
N=339
N=177
N=116
N=45
N=23
N=6
N=4
0.02
0.01
0.00
-0.01
-0.02
4.10
4.15
4.20
4.25
4.30
4.35
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

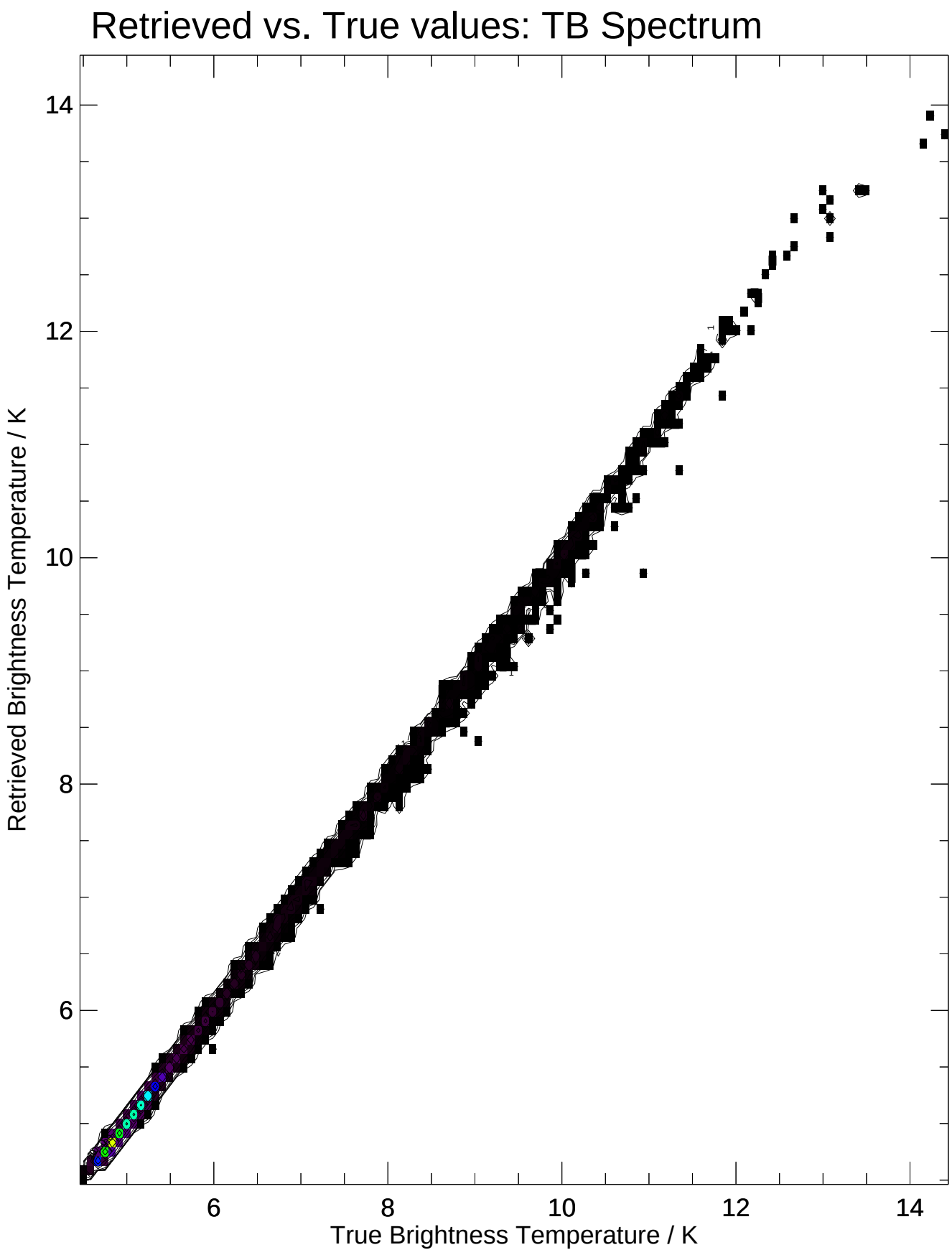

Relative Error (amplitude dependent)
F = 1.000 GHz
0.006
0.004
0.002
0.000
-0.002
-0.004
Relative Error, normalized. T_B (thin line: Bias)
N=124
N=610
N=923
N=790
N=888
N=1084
N=2158
N=1830
N=703
N=339
N=177
N=116
N=45
N=23
N=6
N=4
4.10
4.15
4.20
4.25
4.30
4.35
True Value Brightness Temperature / K

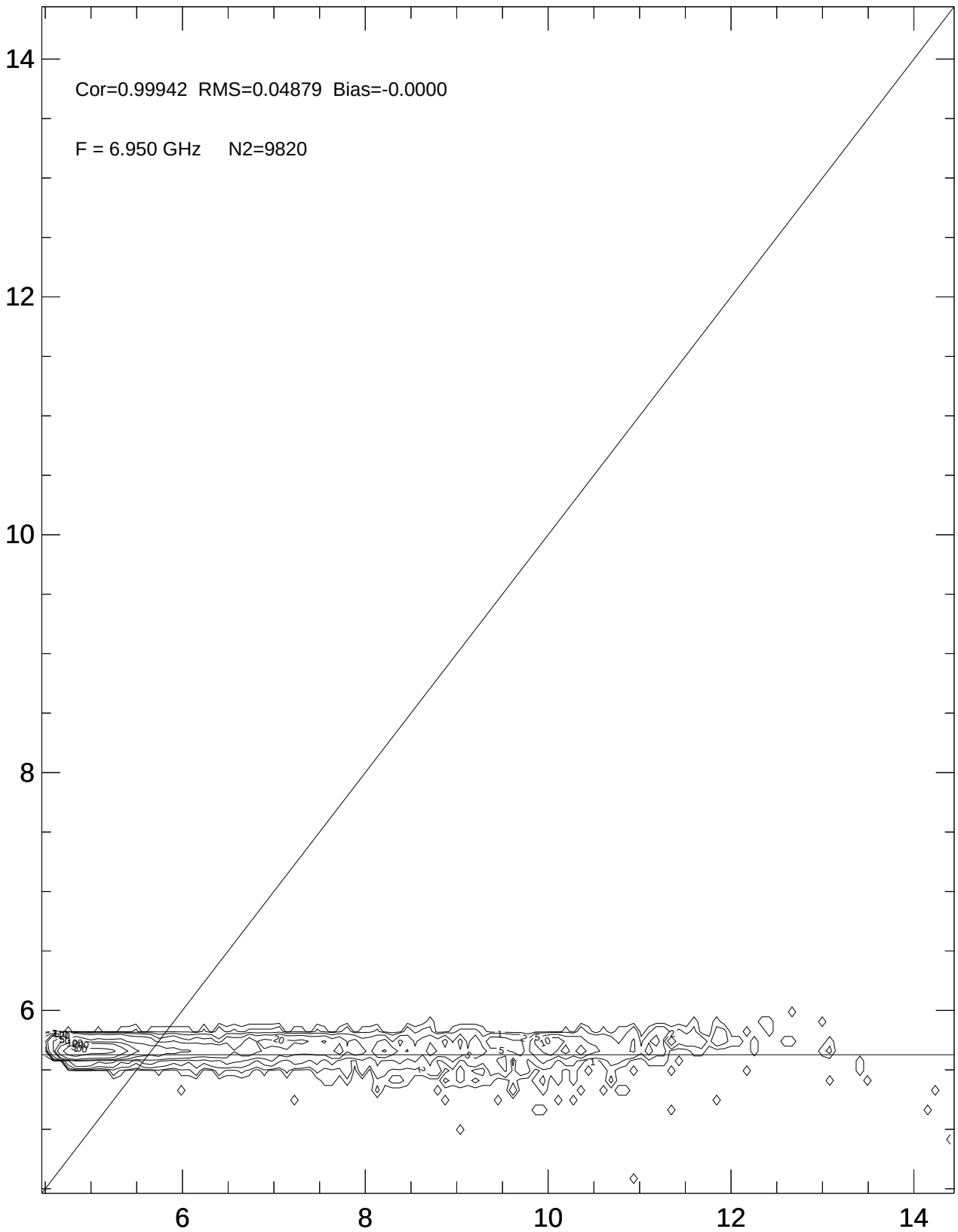

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
4.6
4.5
4.4
4.3
4.2
4.2
4.3
4.4
4.5
4.6
True Brightness Temperature / K

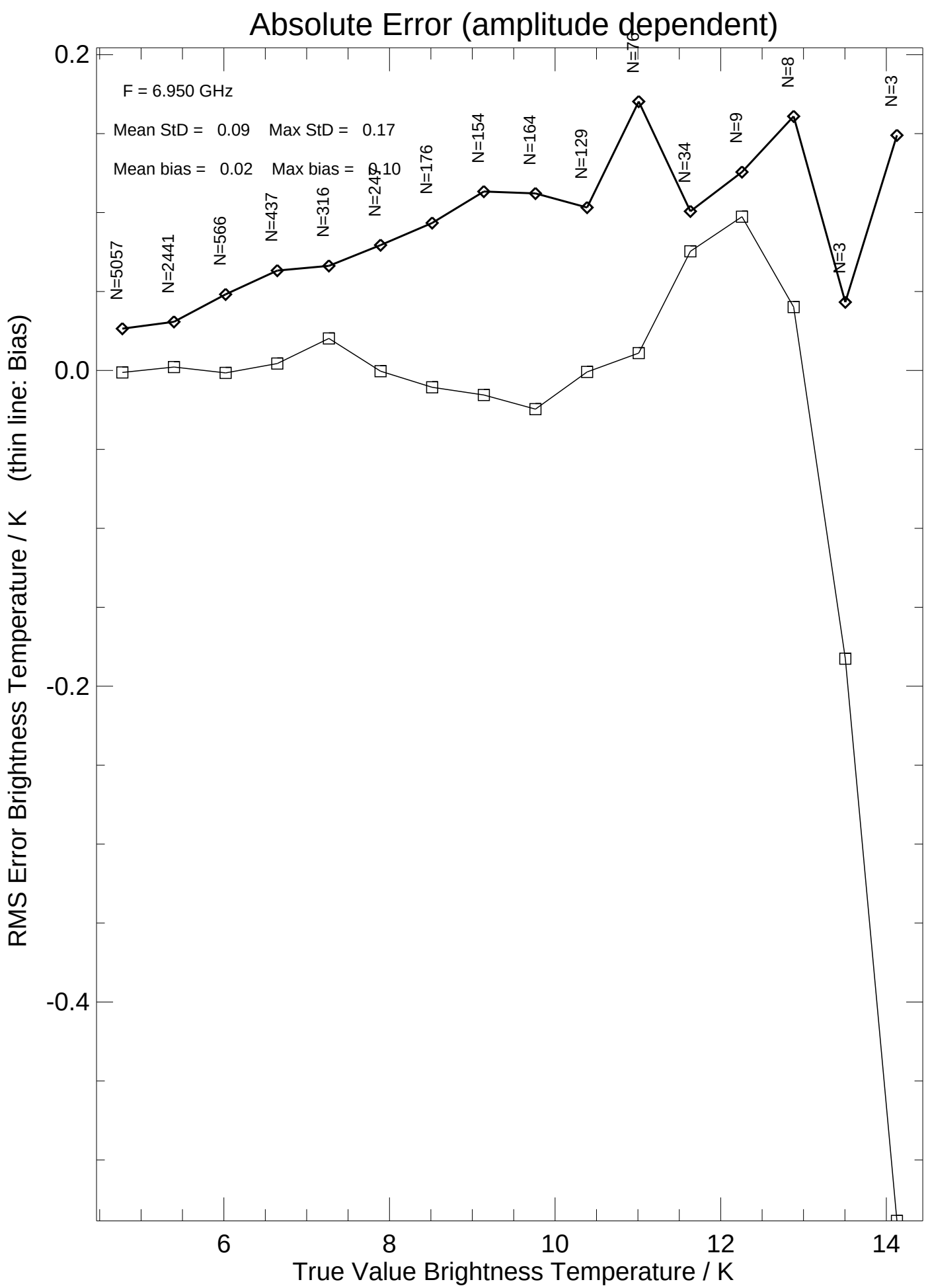

Cor=0.97397 RMS=0.01490 Bias=0.0000
F = 1.400 GHz N2=9820
4.6
4.5
4.4
4.3
4.2
4.2
4.3
4.4
4.5
4.6

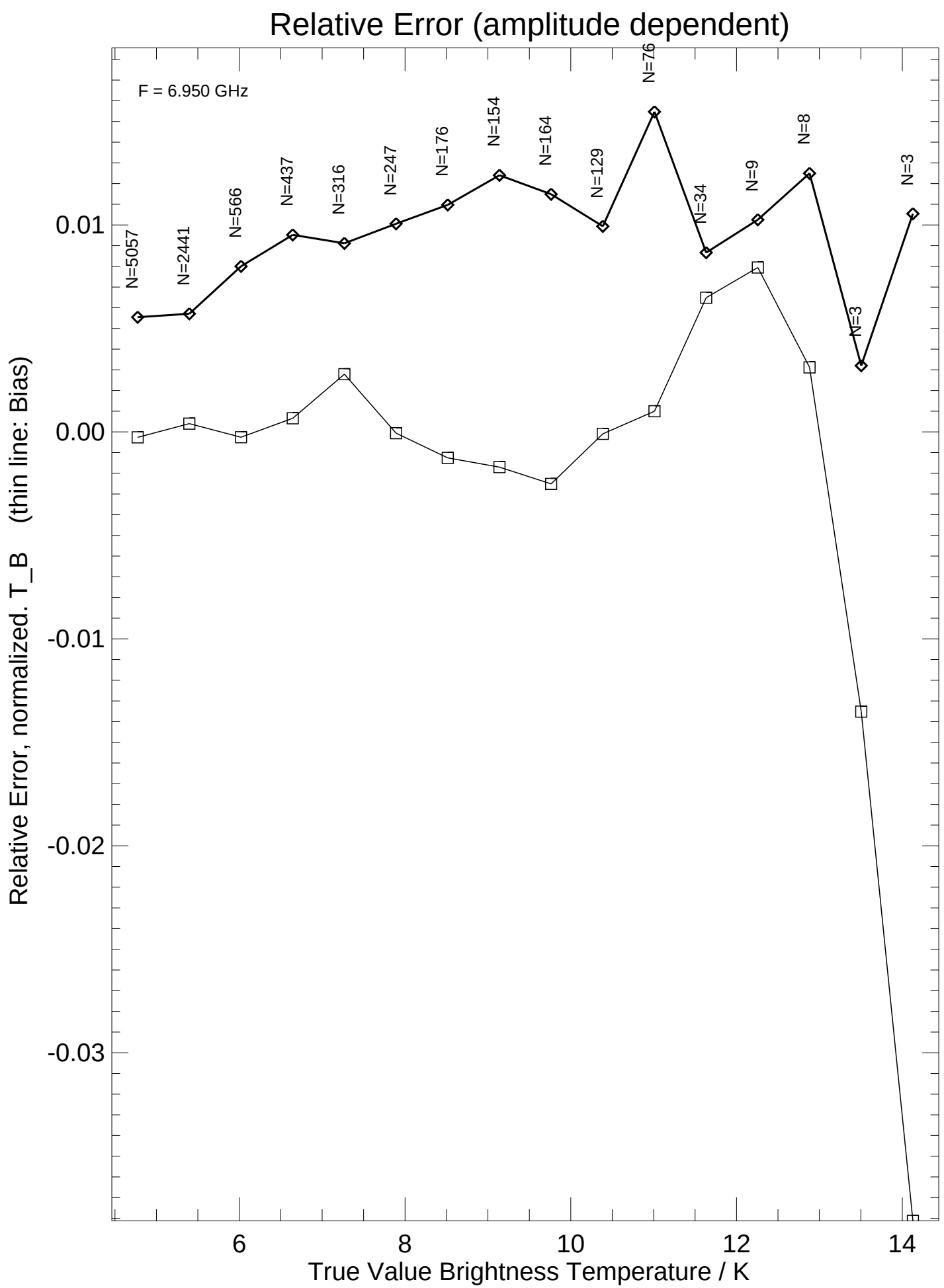

Absolute Error (amplitude dependent)
F = 1.400 GHz
Mean StD = 0.01 Max StD = 0.02
Mean bias = 0.00 Max bias = 0.01
N=359
N=1217
N=916
N=1418
N=3110
N=1323
N=504
N=366
N=236
N=149
N=126
N=50
N=32
N=8
N=3
N=3
0.02
0.01
0.00
-0.01
RMS Error Brightness Temperature / K (thin line: Bias)
4.2
4.3
4.4
4.5
4.6
True Value Brightness Temperature / K

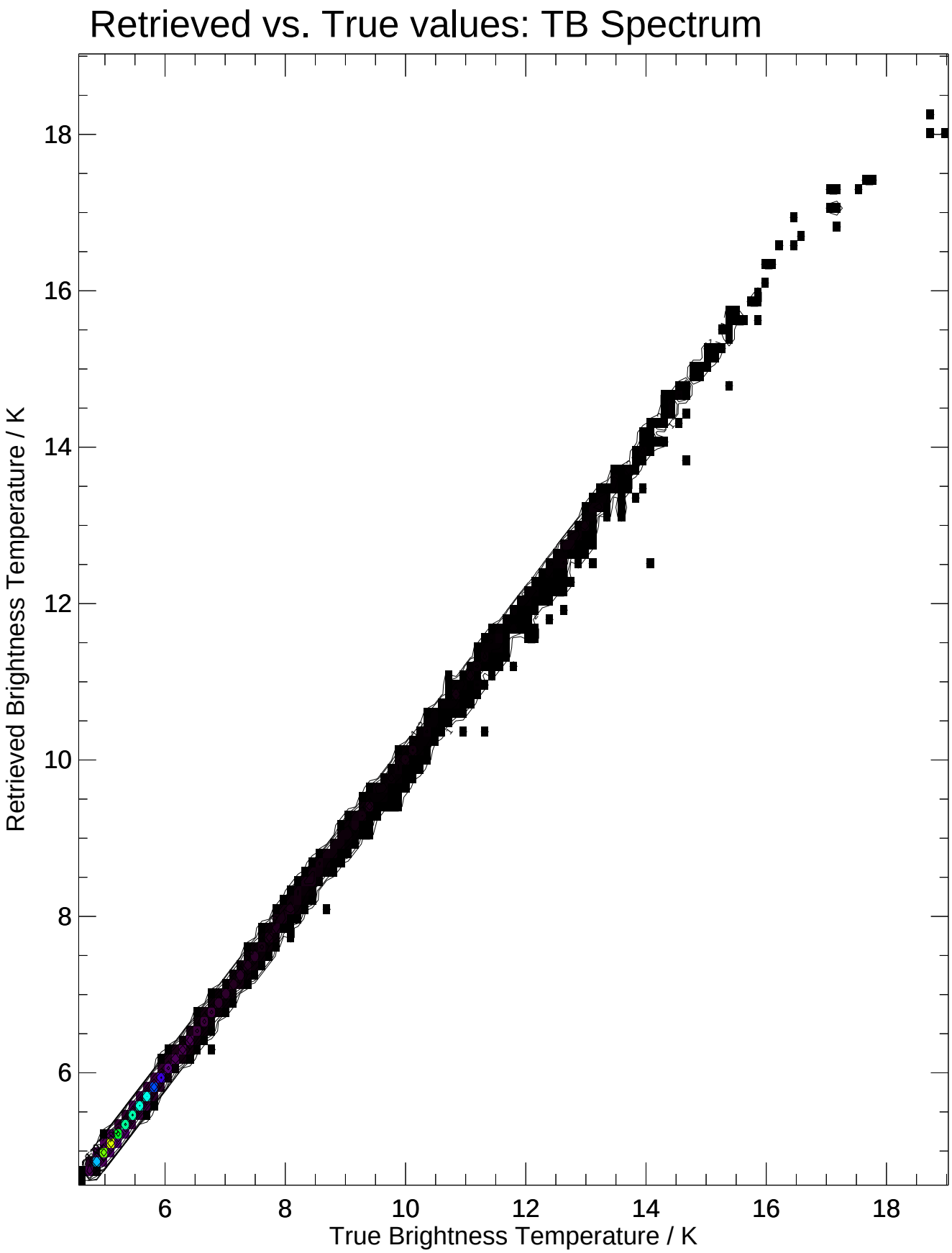

Relative Error (amplitude dependent)
F = 1.400 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.006
0.004
0.002
0.000
-0.002
-0.004
4.2
4.3
4.4
4.5
4.6
N=359
N=1217
N=916
N=1418
N=3110
N=1323
N=504
N=366
N=236
N=149
N=126
N=50
N=32
N=8
N=3
N=3

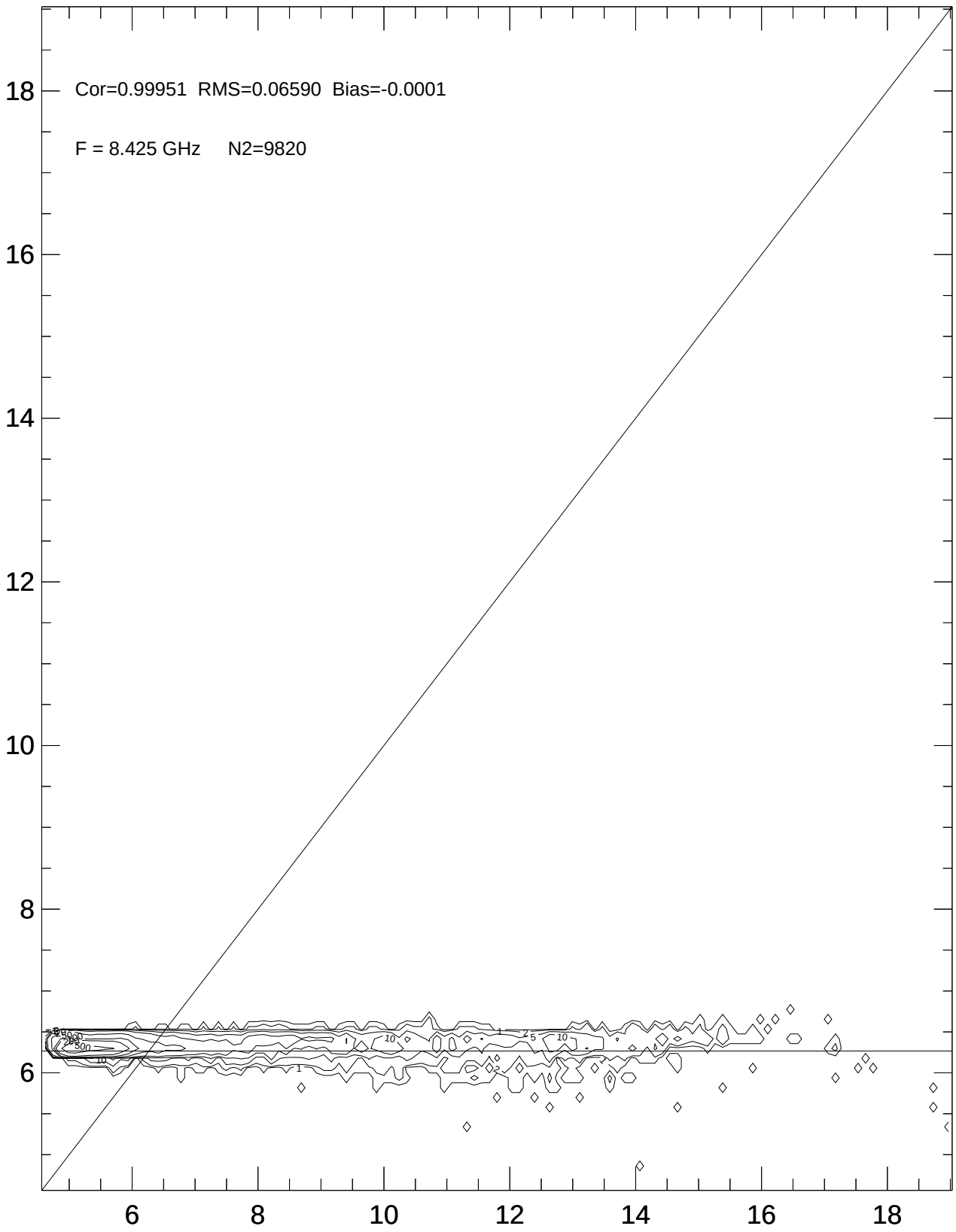

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
6
8
10
12
14
6
8
10
12
14

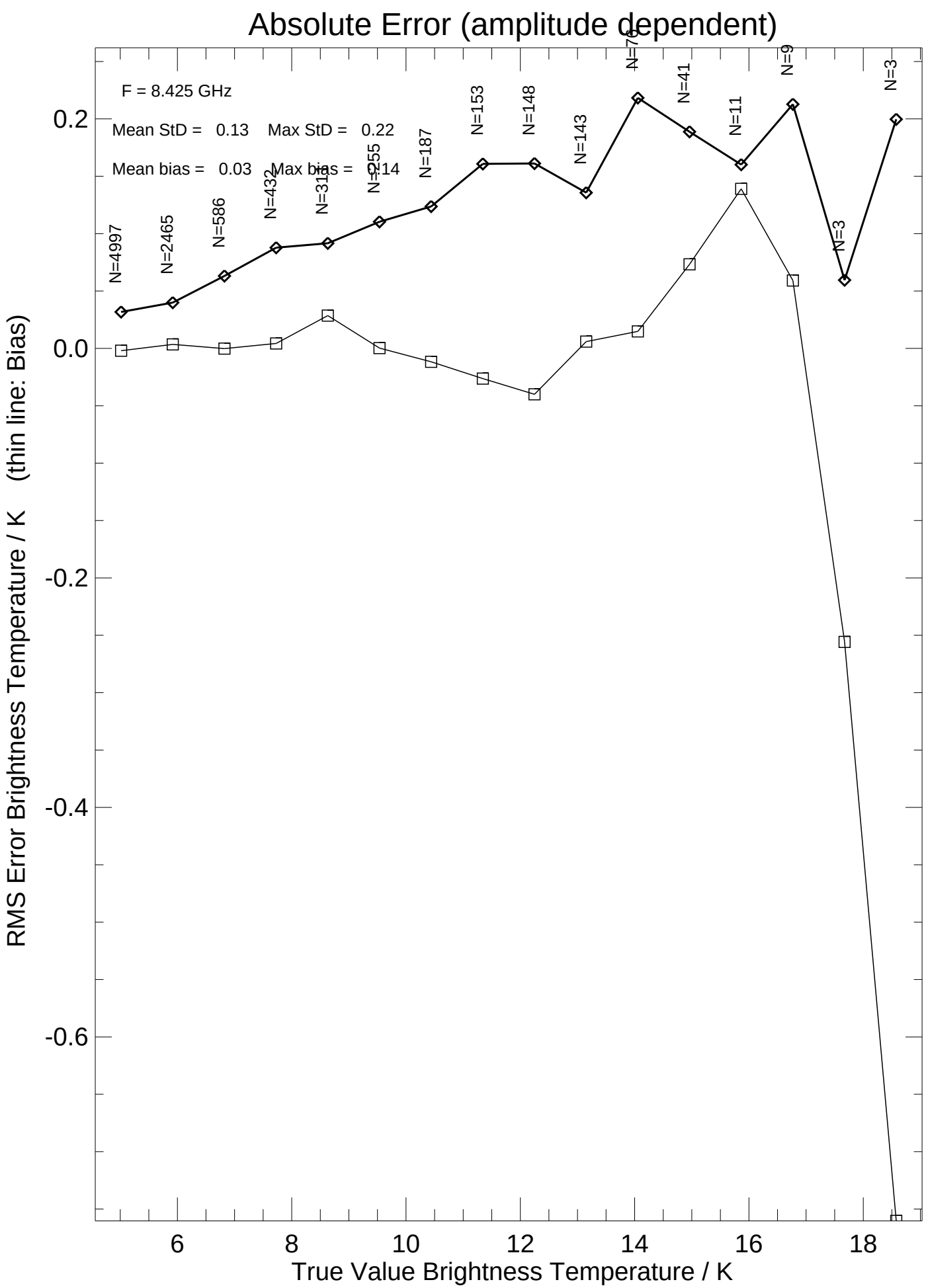

Cor=0.99942 RMS=0.04879 Bias=-0.0000
F = 6.950 GHz N2=9820
14
12
10
8
6
6
8
10
12
14

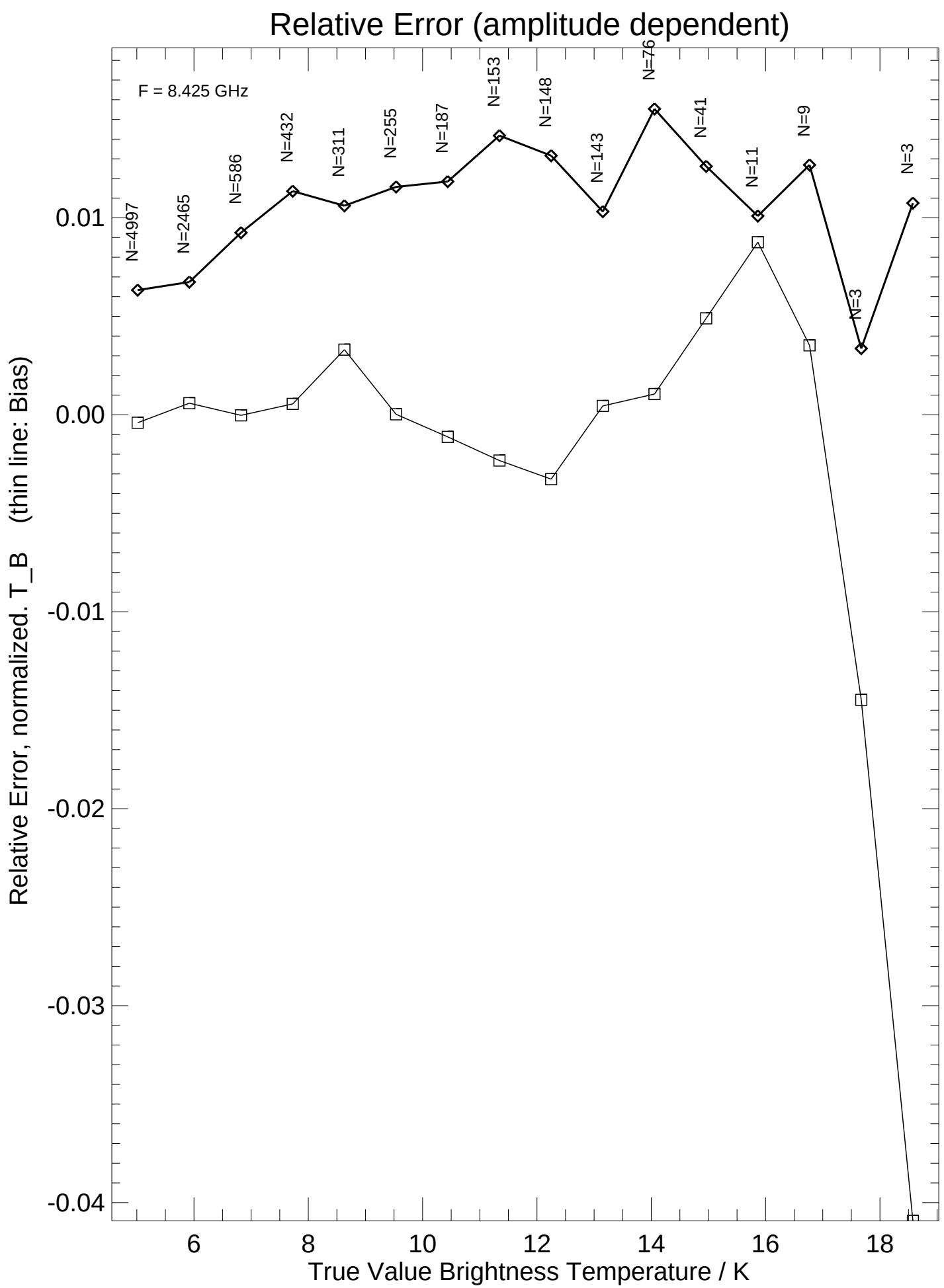

Absolute Error (amplitude dependent)
F = 6.950 GHz
Mean StD = 0.09 Max StD = 0.17
Mean bias = 0.02 Max bias = 0.10
N=5057
N=2441
N=566
N=437
N=316
N=247
N=176
N=154
N=164
N=129
N=76
N=34
N=9
N=8
N=3
N=3
0.2
0.0
-0.2
-0.4
6
8
10
12
14
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

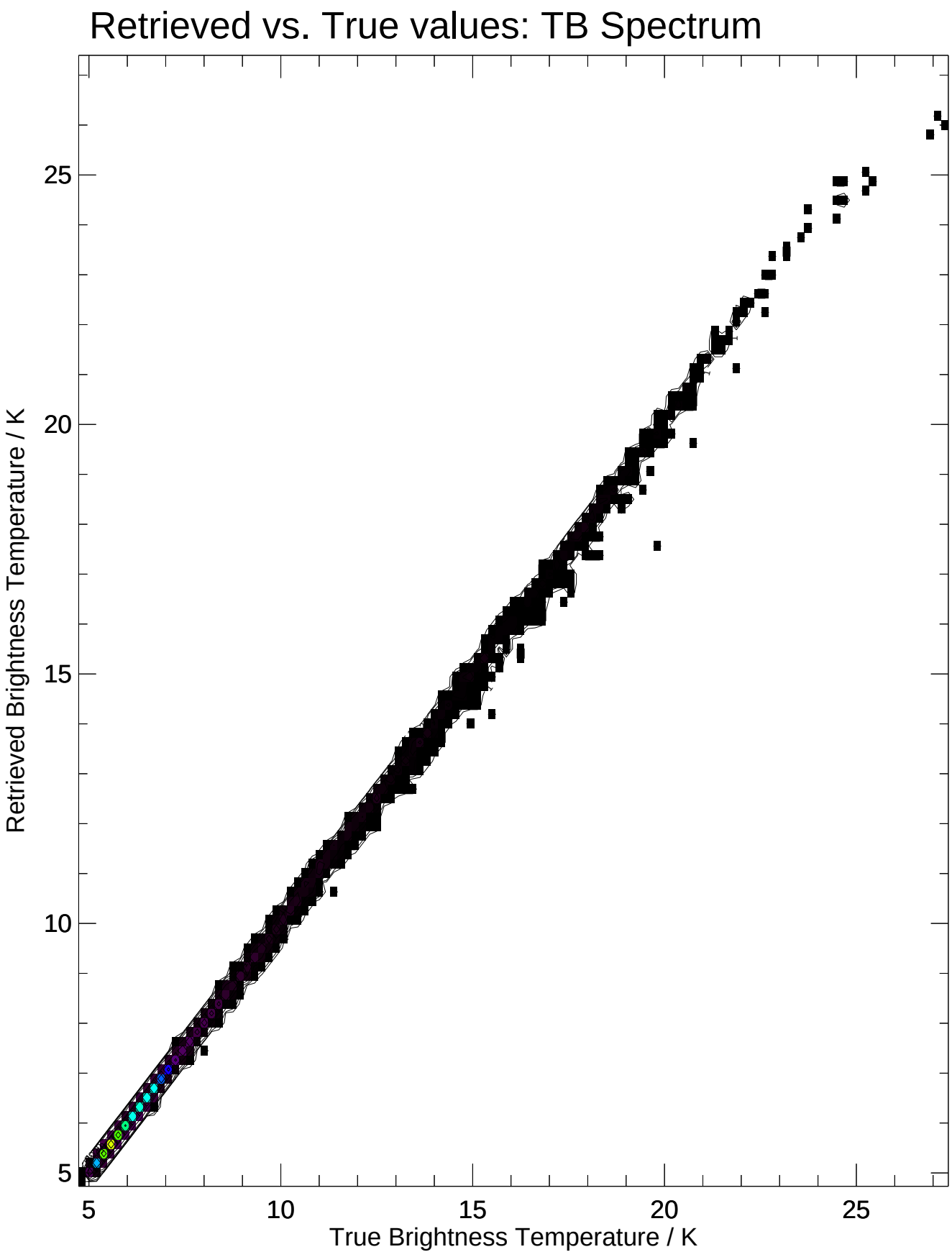

Relative Error (amplitude dependent)
F = 6.950 GHz
N=5057
N=2441
N=566
N=437
N=316
N=247
N=176
N=154
N=164
N=129
N=76
N=34
N=9
N=8
N=3
N=3
0.01
0.00
-0.01
-0.02
-0.03
Relative Error, normalized. T_B (thin line: Bias)
6
8
10
12
14
True Value Brightness Temperature / K

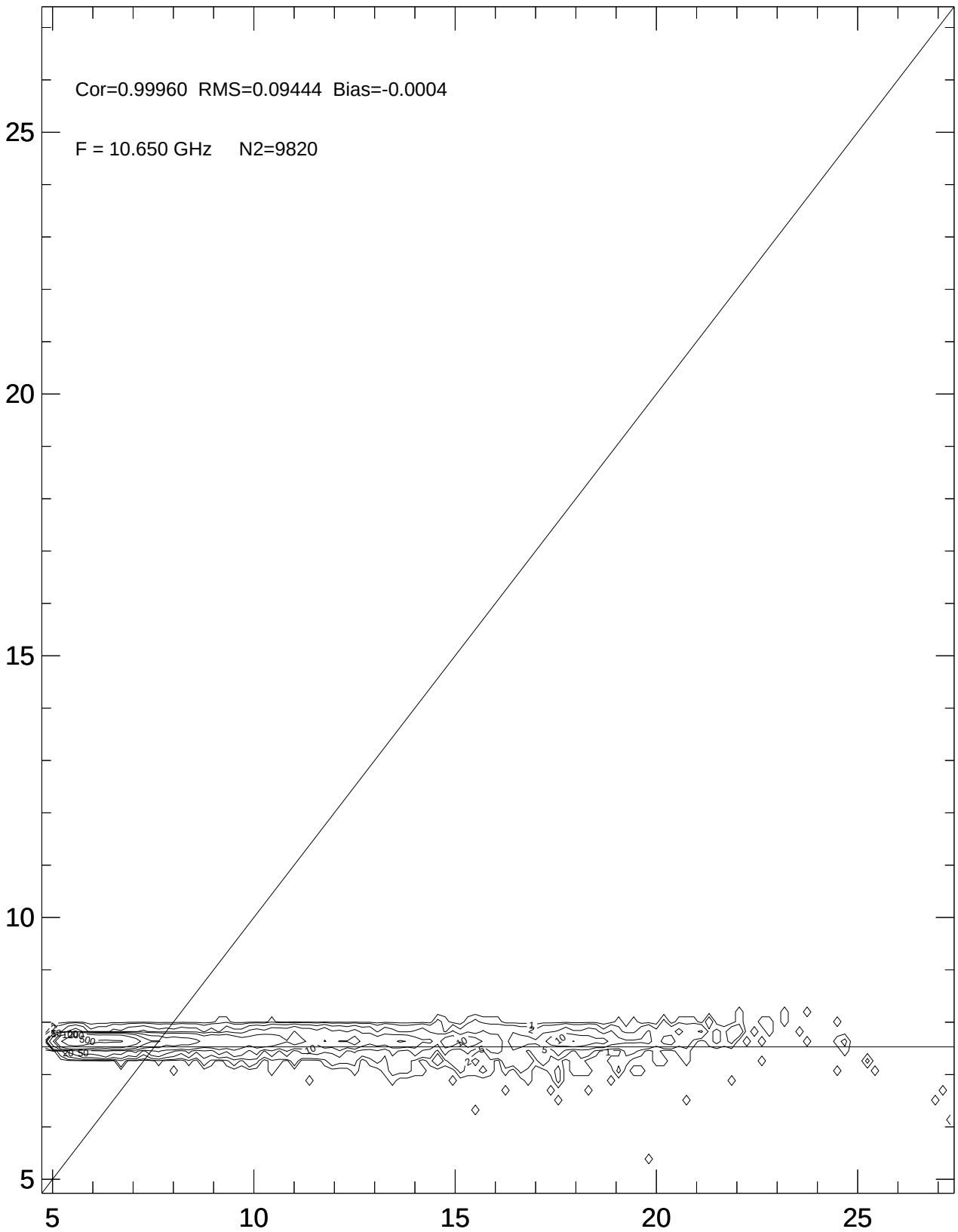

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
6
8
10
12
14
16
18

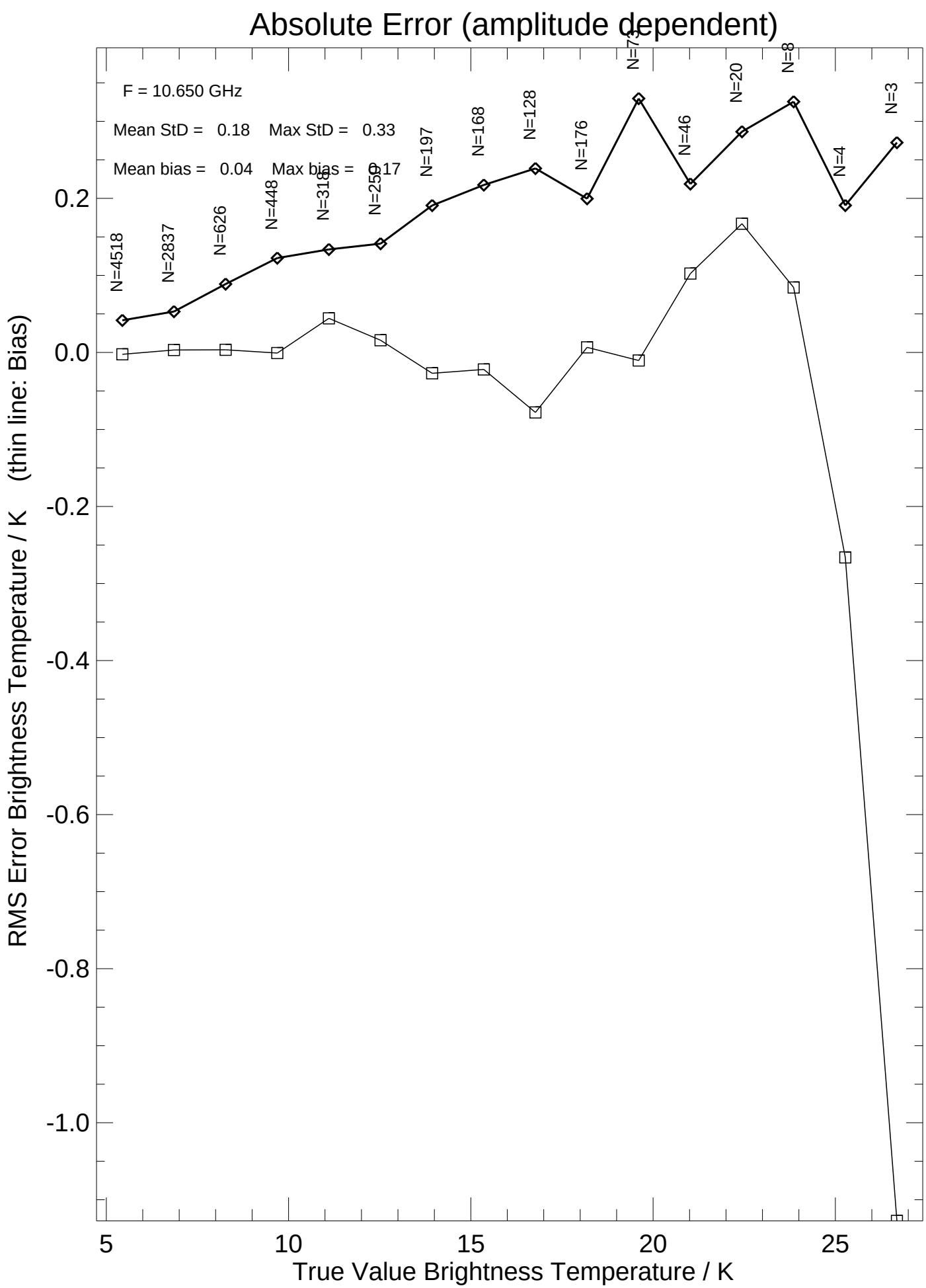

Cor=0.99951 RMS=0.06590 Bias=-0.0001
F = 8.425 GHz N2=9820
18
16
14
12
10
8
6
6
8
10
12
14
16
18

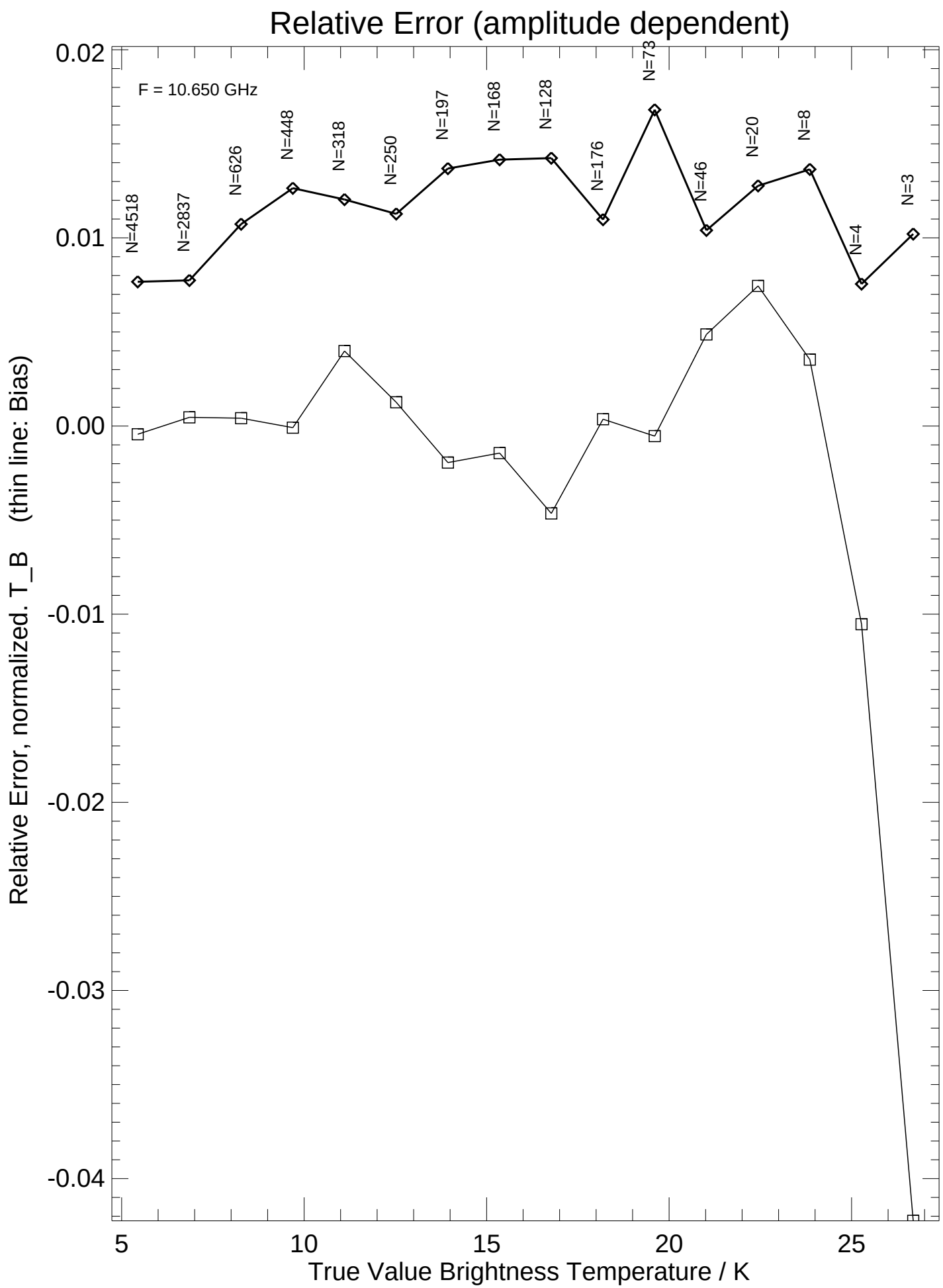

Absolute Error (amplitude dependent)
F = 8.425 GHz
Mean StD = 0.13 Max StD = 0.22
Mean bias = 0.03 Max bias = -.14
N=4997
N=2465
N=586
N=432
N=315
N=255
N=187
N=153
N=148
N=143
N=76
N=41
N=11
N=9
N=3
0.2
0.0
-0.2
-0.4
-0.6
RMS Error Brightness Temperature / K (thin line: Bias)
6
8
10
12
14
16
18
True Value Brightness Temperature / K

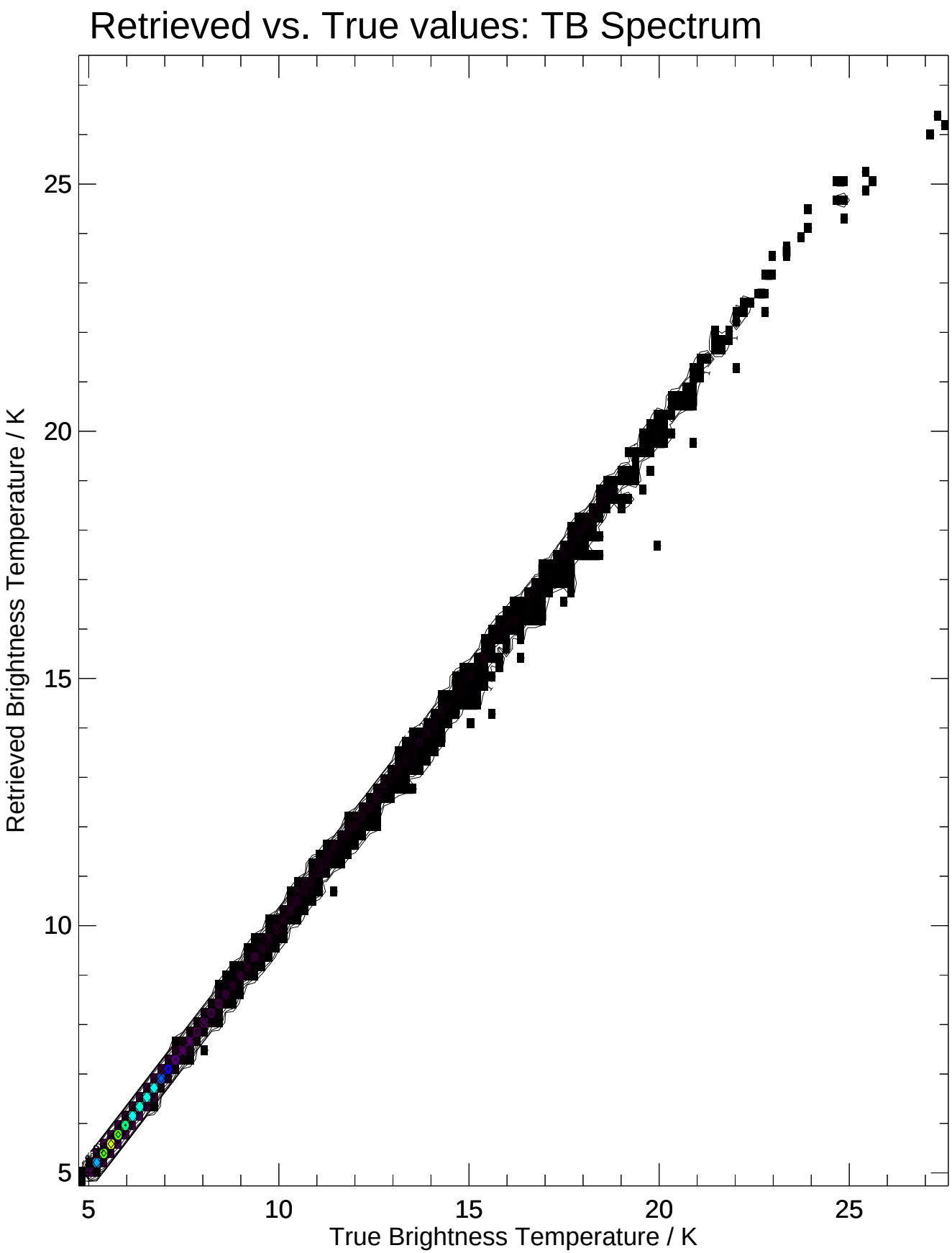

Relative Error (amplitude dependent)
F = 8.425 GHz
N=4997
N=2465
N=586
N=432
N=311
N=255
N=187
N=153
N=148
N=143
N=76
N=41
N=11
N=9
N=3
N=3
0.01
0.00
-0.01
-0.02
-0.03
-0.04
Relative Error, normalized. T_B (thin line: Bias)
6
8
10
12
14
16
18
True Value Brightness Temperature / K

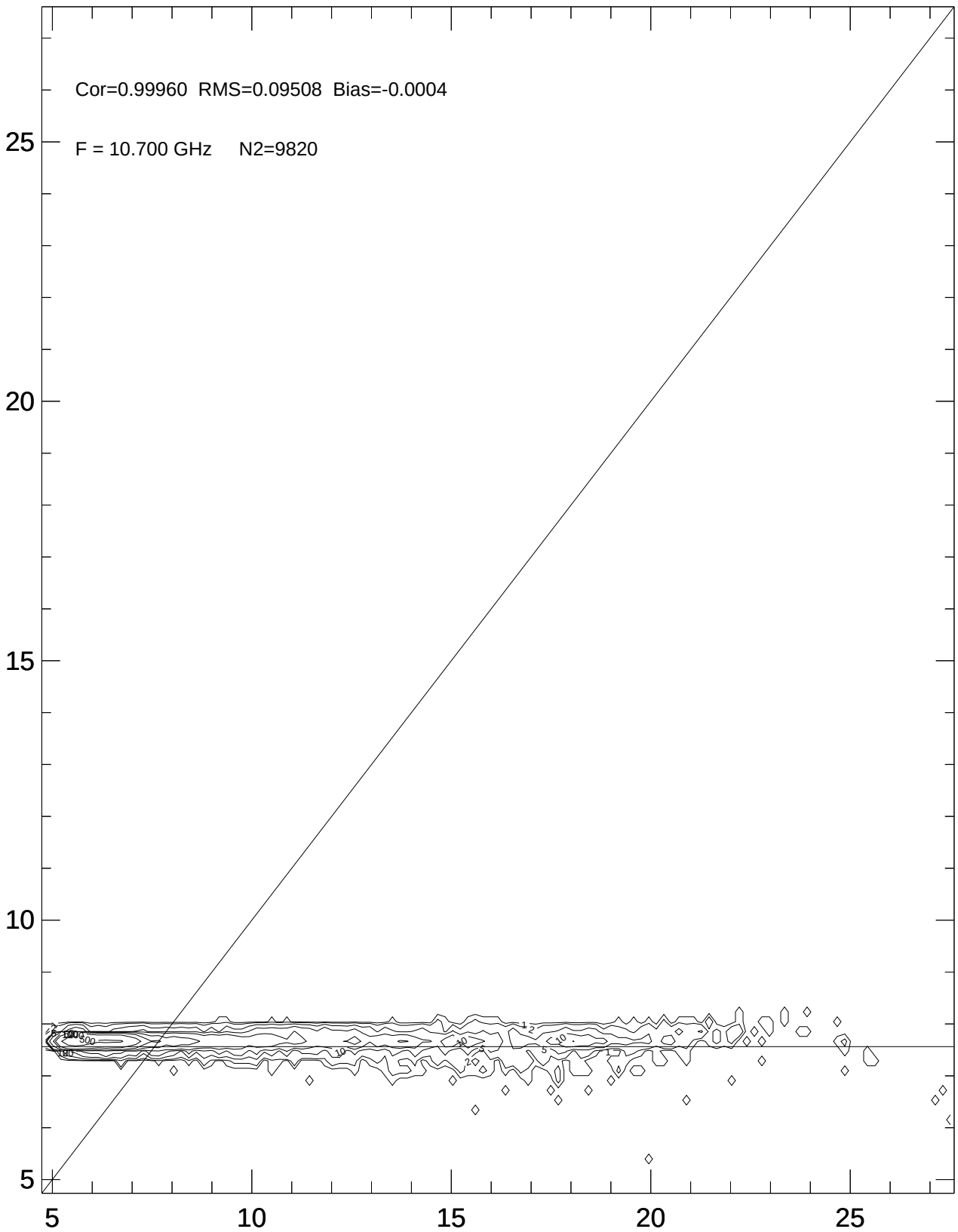

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
5
10
15
20
25

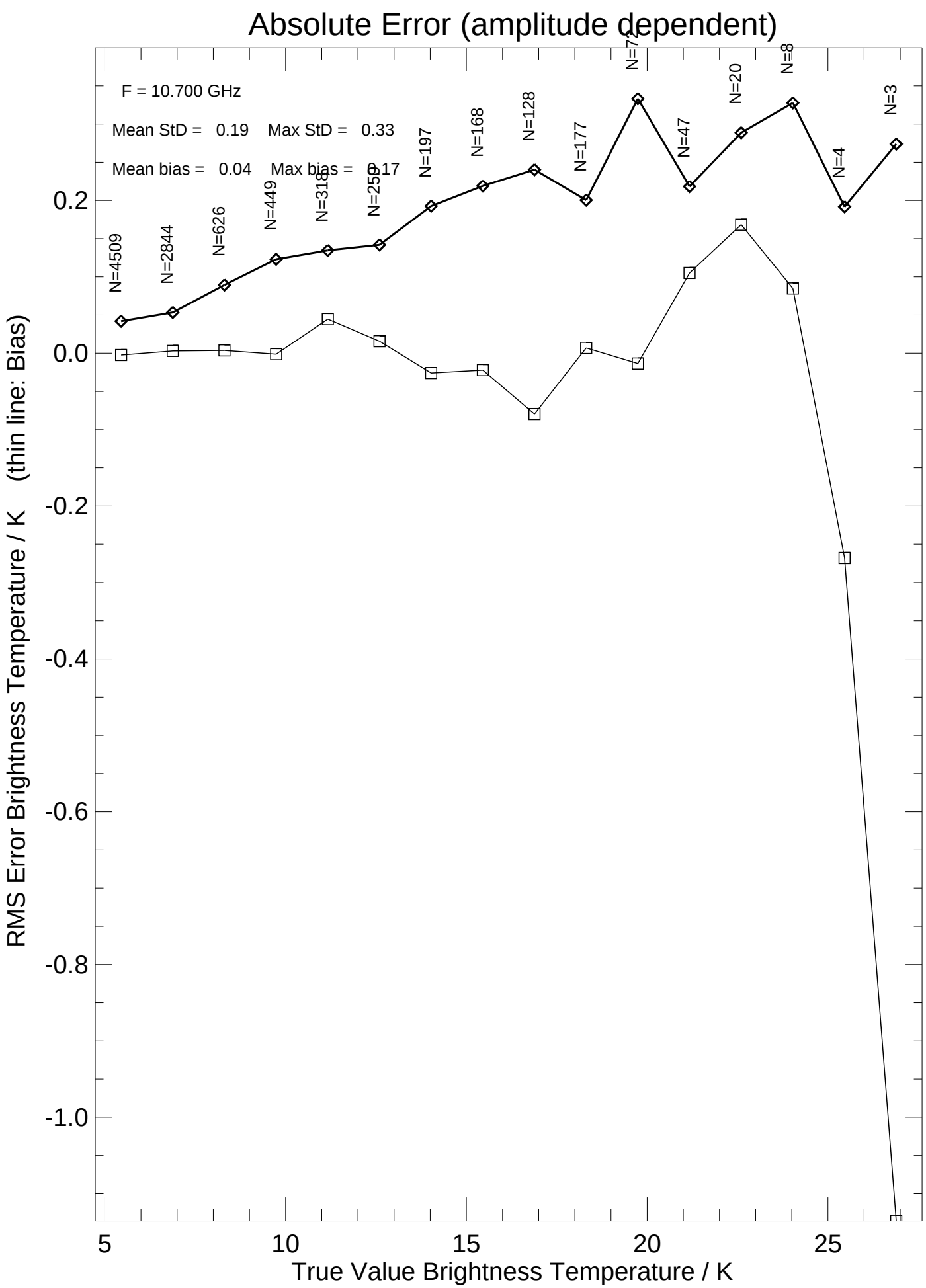

Cor=0.99960 RMS=0.09444 Bias=-0.0004
F = 10.650 GHz N2=9820
25
20
15
10
5
5
10
15
20
25

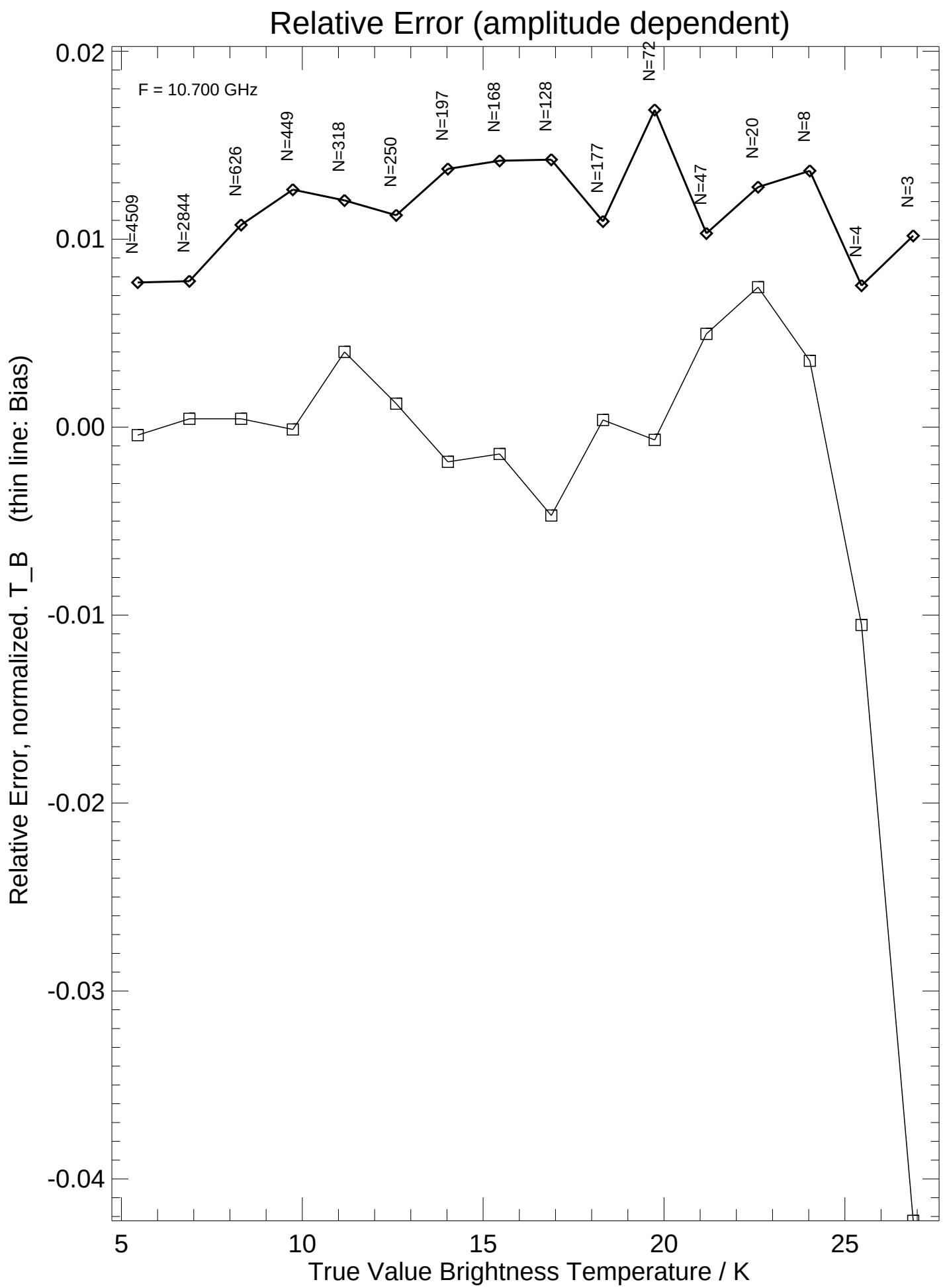

Absolute Error (amplitude dependent)
F = 10.650 GHz
Mean StD = 0.18 Max StD = 0.33
Mean bias = 0.04 Max bias = 0.17
N=4518
N=2837
N=626
N=448
N=318
N=250
N=197
N=168
N=128
N=176
N=73
N=46
N=20
N=8
N=4
N=3
RMS Error Brightness Temperature / K (thin line: Bias)
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
5
10
15
20
25
True Value Brightness Temperature / K

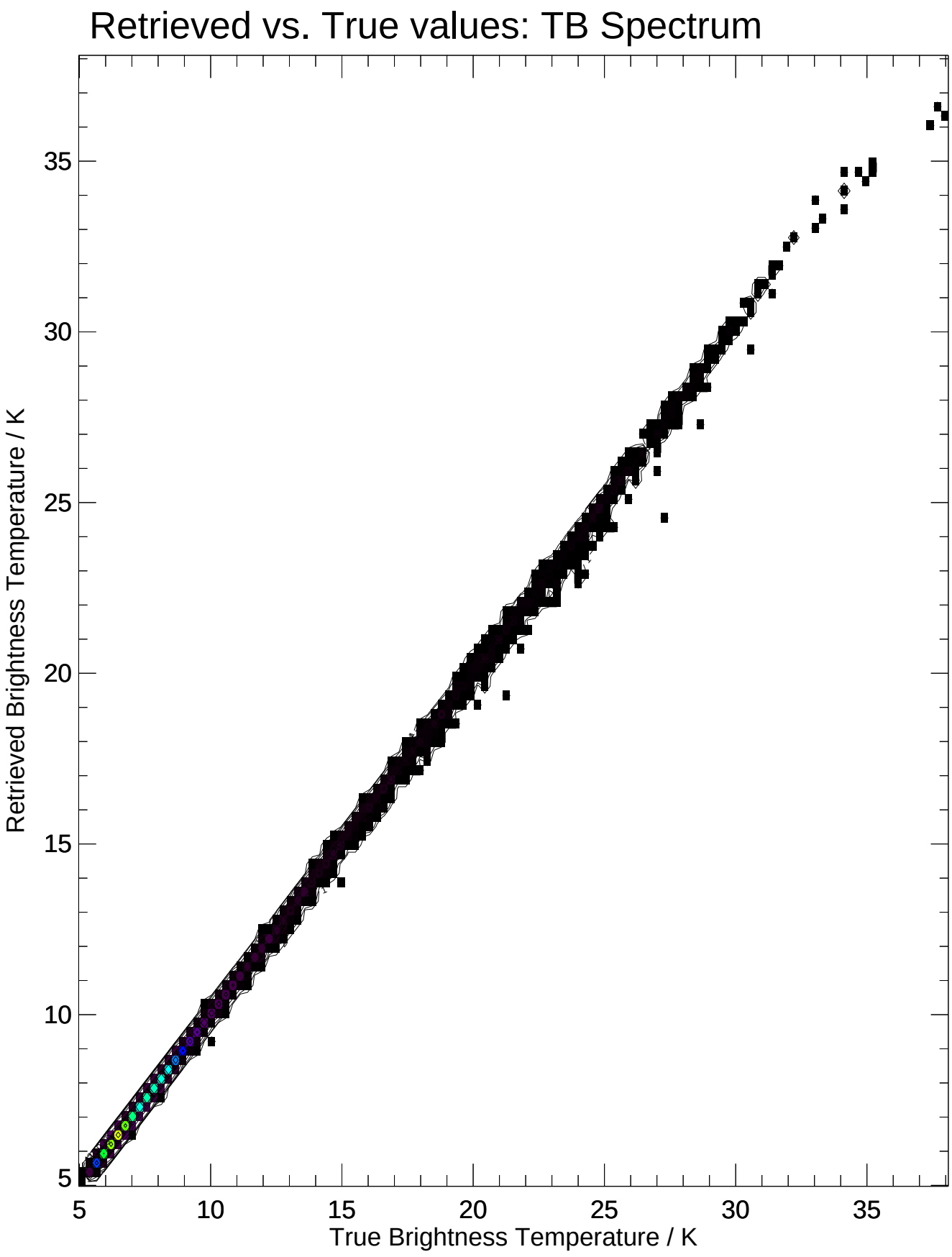

Relative Error (amplitude dependent)
F = 10.650 GHz
N=4518
N=2837
N=626
N=448
N=318
N=250
N=197
N=168
N=128
N=176
N=73
N=46
N=20
N=8
N=4
N=3
0.02
0.01
0.00
-0.01
-0.02
-0.03
-0.04
Relative Error, normalized. T_B (thin line: Bias)
5
10
15
20
25
True Value Brightness Temperature / K

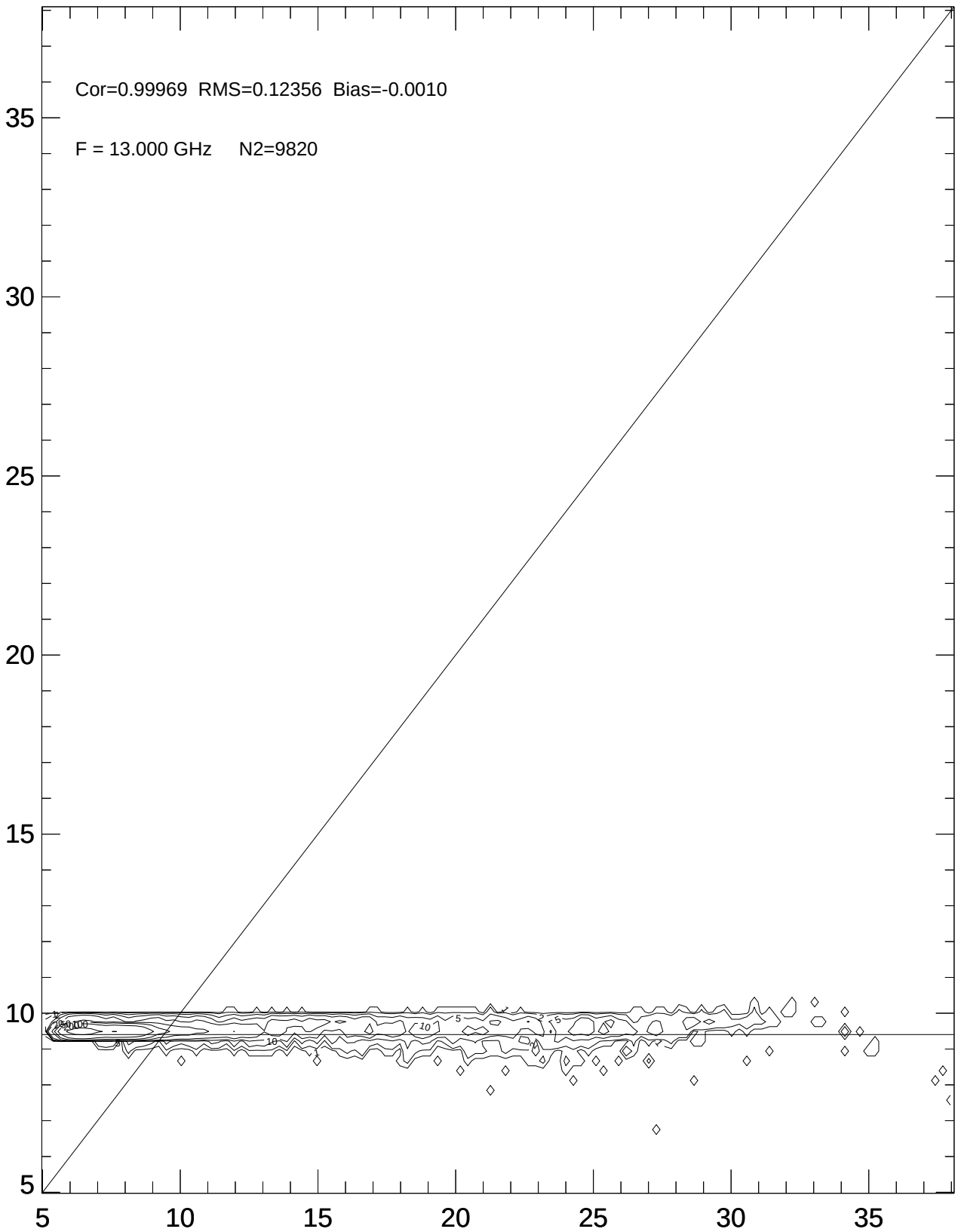

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
5
10
15
20
25

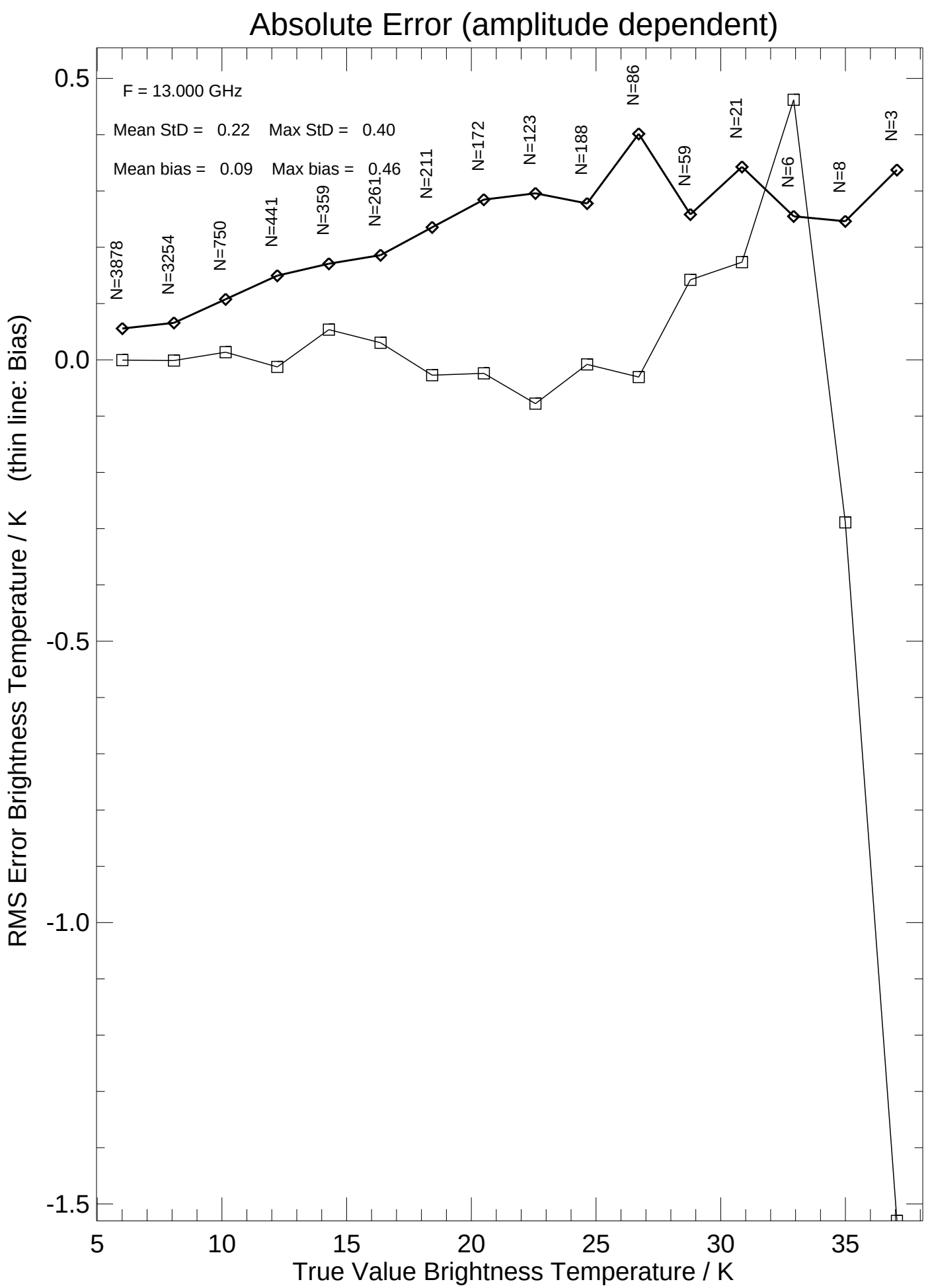

Cor=0.99960 RMS=0.09508 Bias=-0.0004
F = 10.700 GHz N2=9820
25
20
15
10
5
5
10
15
20
25

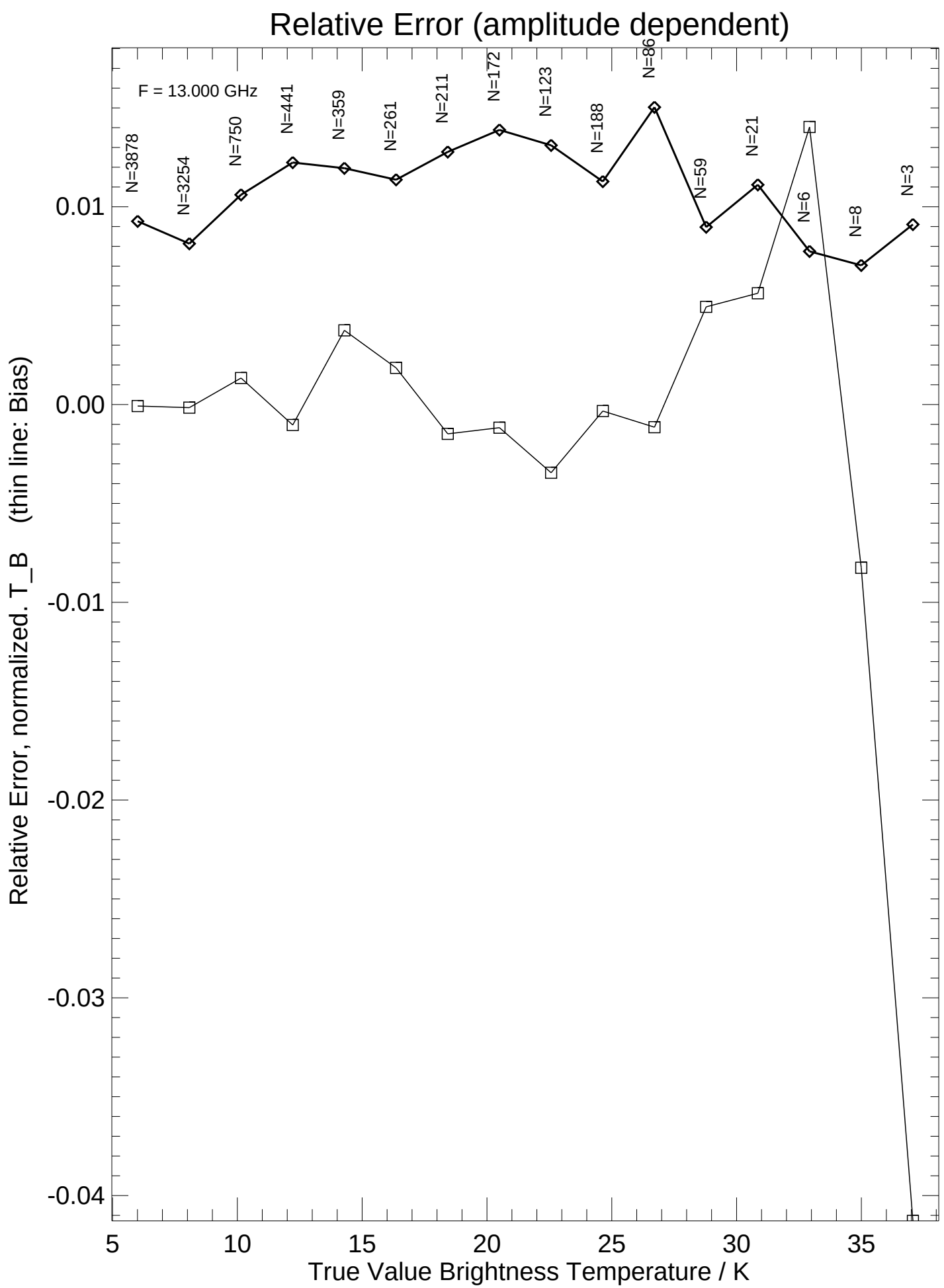

Absolute Error (amplitude dependent)
F = 10.700 GHz
Mean StD = 0.19 Max StD = 0.33
Mean bias = 0.04 Max bias = 0.17
N=4509
N=2844
N=626
N=449
N=318
N=256
N=197
N=168
N=128
N=177
N=74
N=47
N=20
N=8
N=4
N=3
RMS Error Brightness Temperature / K (thin line: Bias)
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
5
10
15
20
25
True Value Brightness Temperature / K

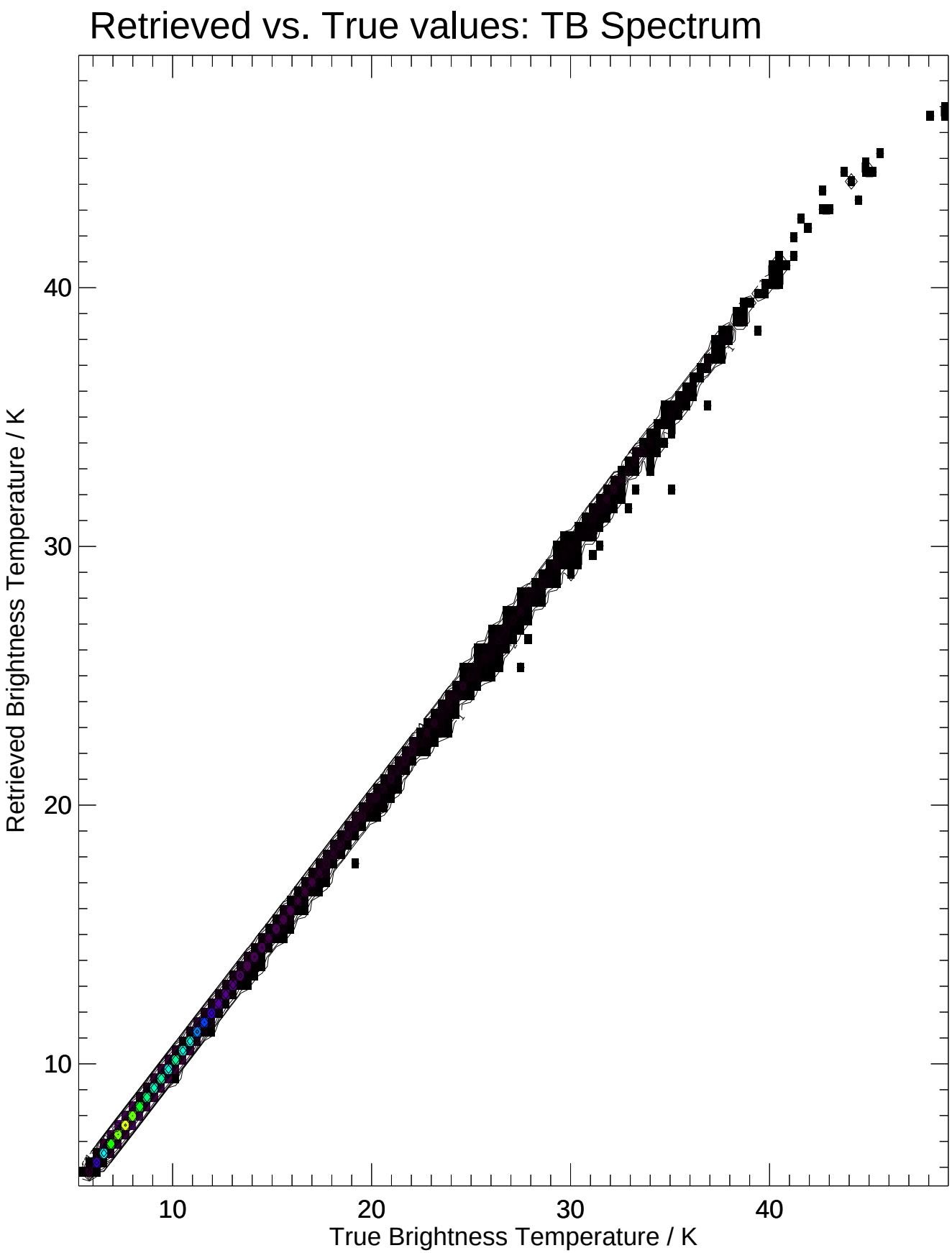

Relative Error (amplitude dependent)
F = 10.700 GHz
N=4509
N=2844
N=626
N=449
N=318
N=250
N=197
N=168
N=128
N=177
N=72
N=47
N=20
N=8
N=4
N=3
0.02
0.01
0.00
-0.01
-0.02
-0.03
-0.04
Relative Error, normalized. T_B (thin line: Bias)
5
10
15
20
25
True Value Brightness Temperature / K

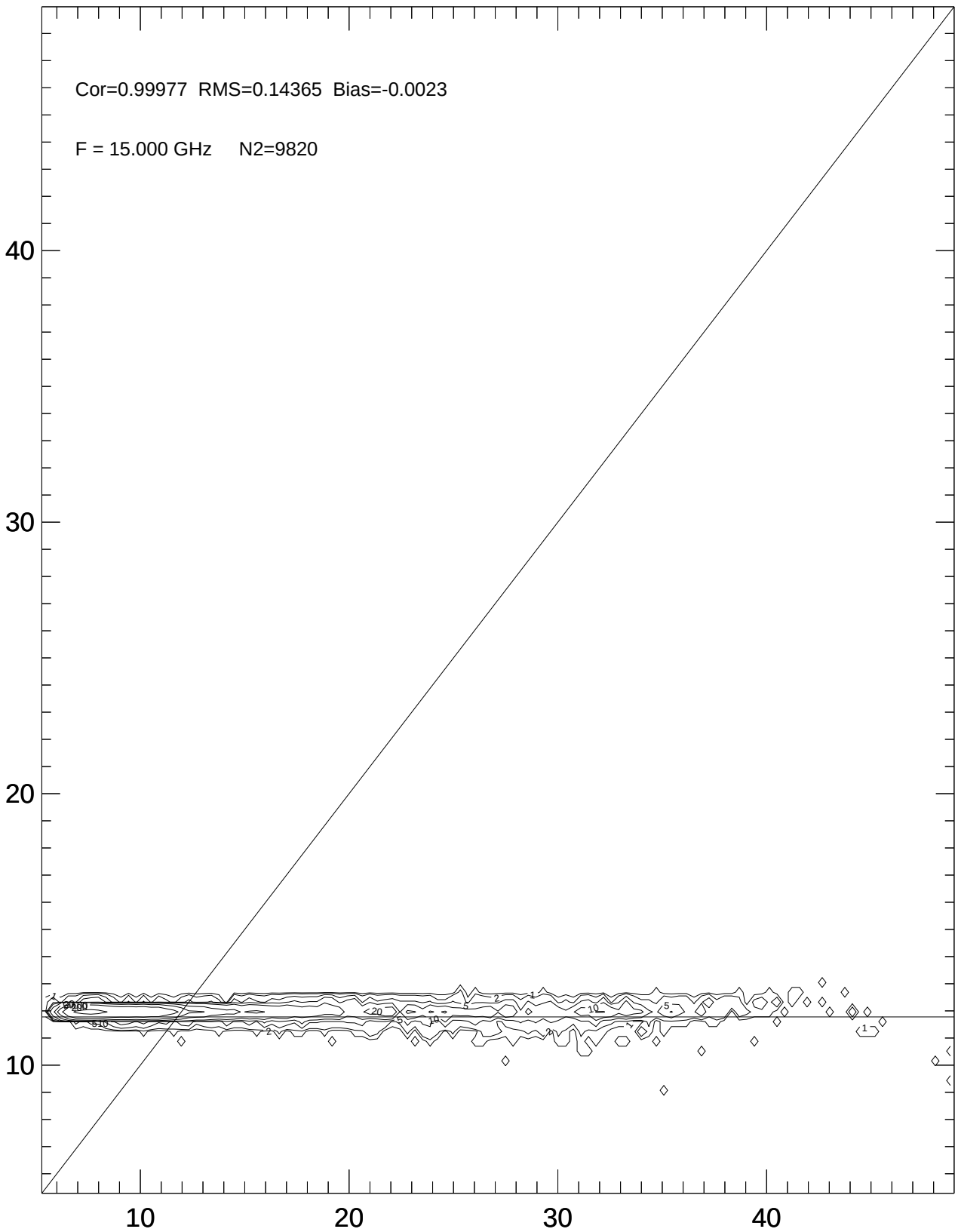

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
5
10
15
20
25
30
35

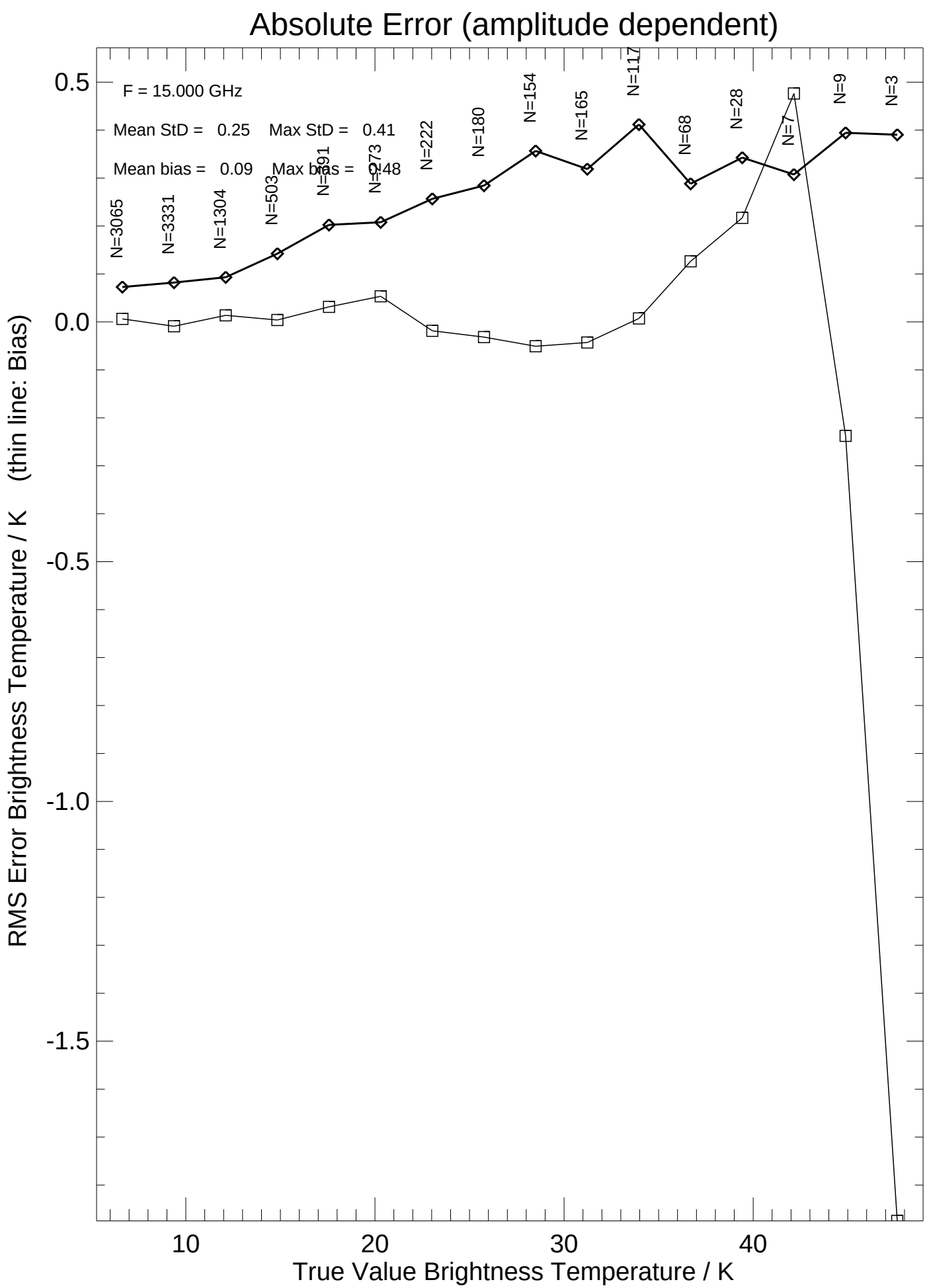

Cor=0.99969 RMS=0.12356 Bias=-0.0010
F = 13.000 GHz N2=9820
35
30
25
20
15
10
5
5
10
15
20
25
30
35

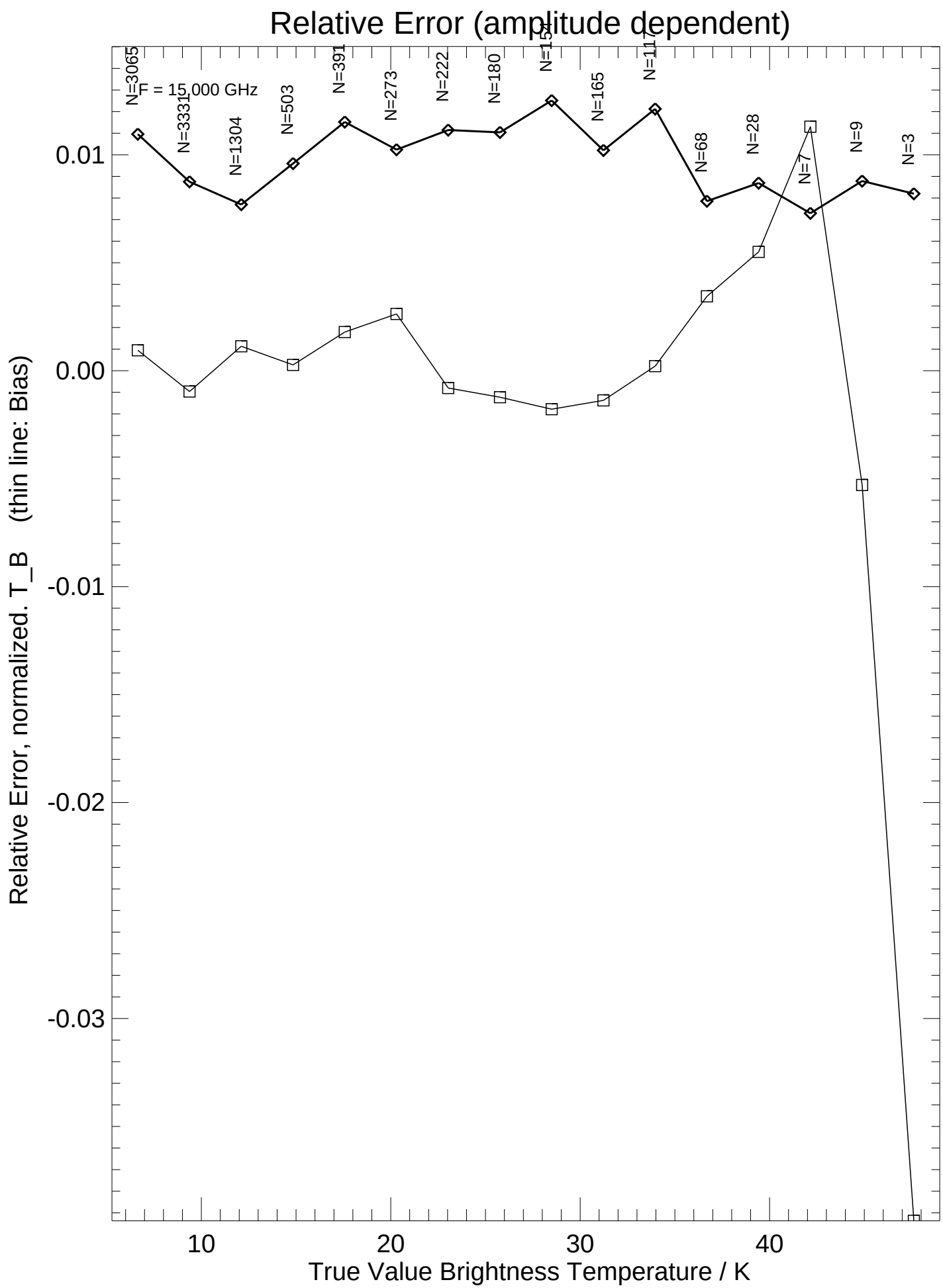

Absolute Error (amplitude dependent)
F = 13.000 GHz
Mean StD = 0.22 Max StD = 0.40
Mean bias = 0.09 Max bias = 0.46
N=3878
N=3254
N=750
N=441
N=359
N=261
N=211
N=172
N=123
N=188
N=86
N=59
N=21
N=6
N=8
N=3
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
0.5
0.0
-0.5
-1.0
-1.5
5
10
15
20
25
30
35

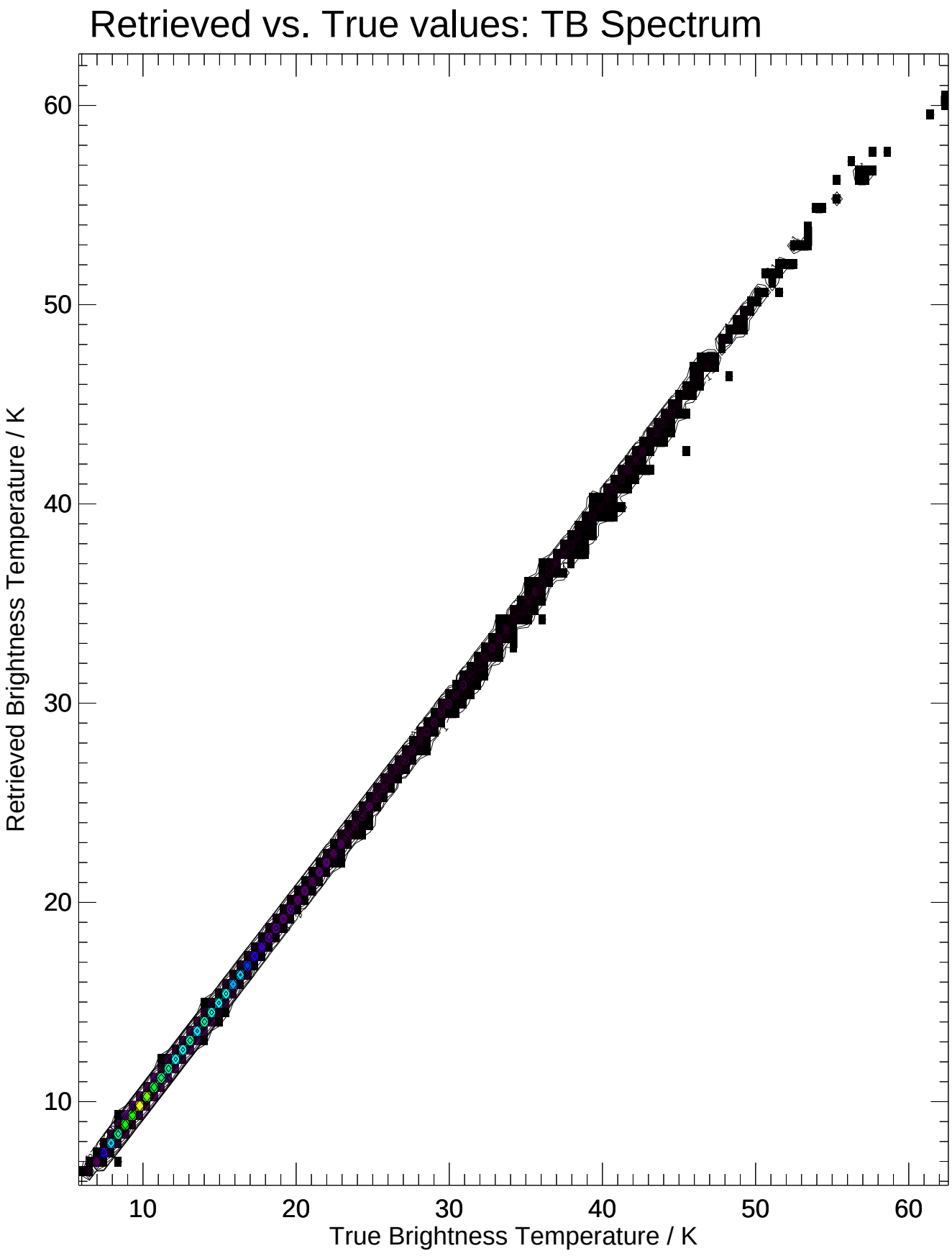

Relative Error (amplitude dependent)
F = 13.000 GHz
N=3878
N=3254
N=750
N=441
N=359
N=261
N=211
N=172
N=123
N=188
N=86
N=59
N=21
N=6
N=8
N=3
0.01
0.00
-0.01
-0.02
-0.03
-0.04
Relative Error, normalized. T_B (thin line: Bias)
5
10
15
20
25
30
35
True Value Brightness Temperature / K

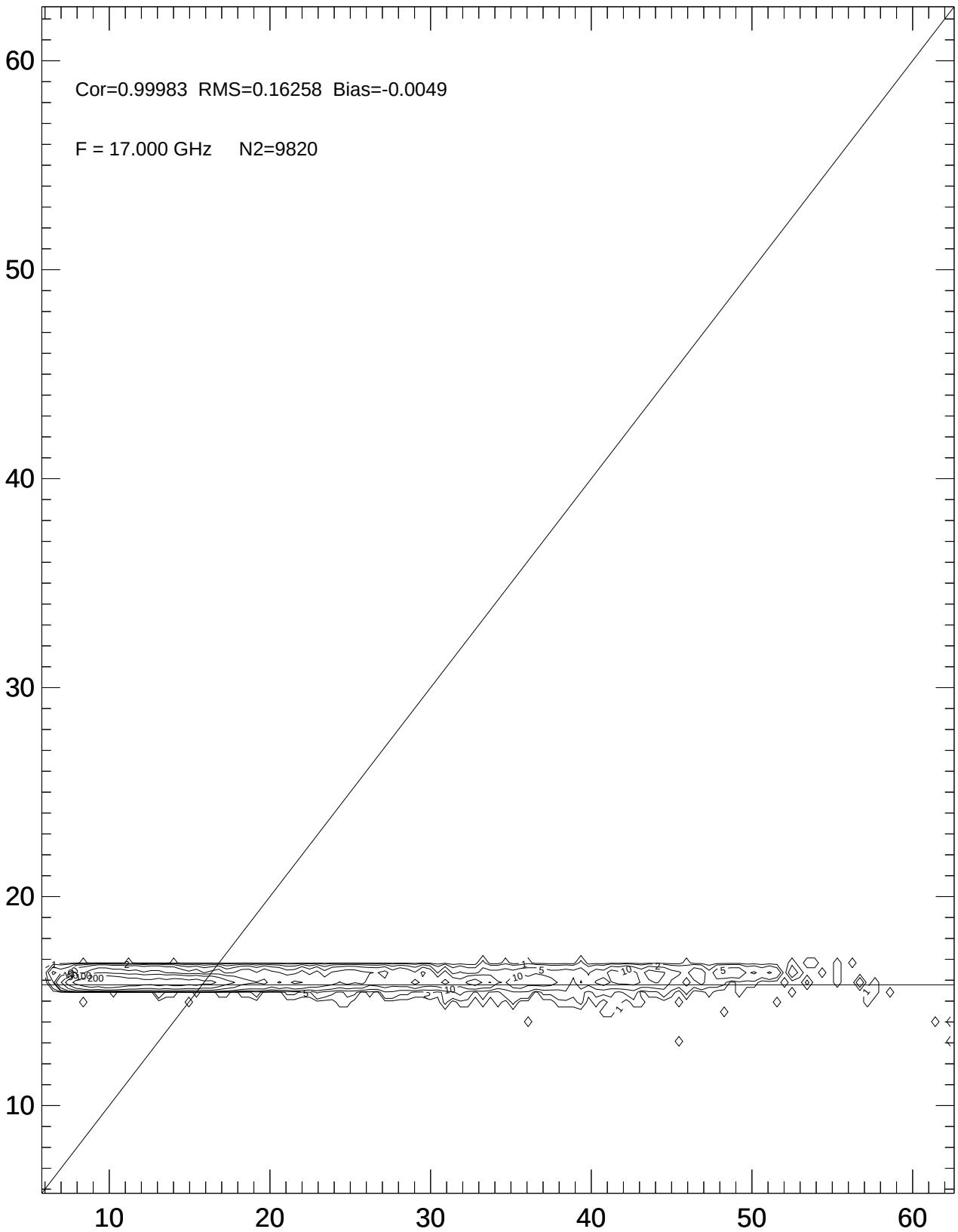

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
10
20
30
40
10
20
30
40

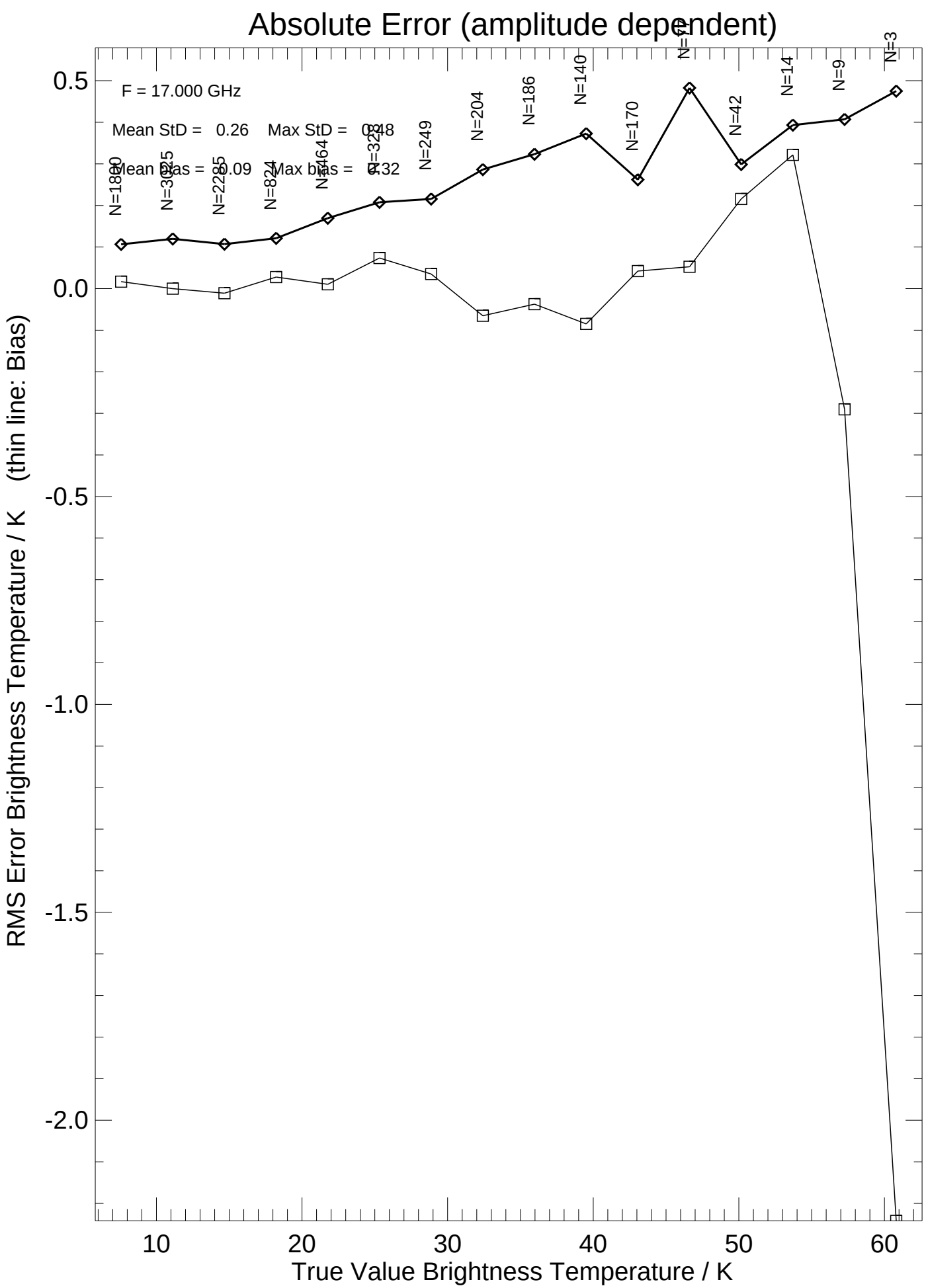

Cor=0.99977 RMS=0.14365 Bias=-0.0023
F = 15.000 GHz N2=9820
40
30
20
10
10
20
30
40

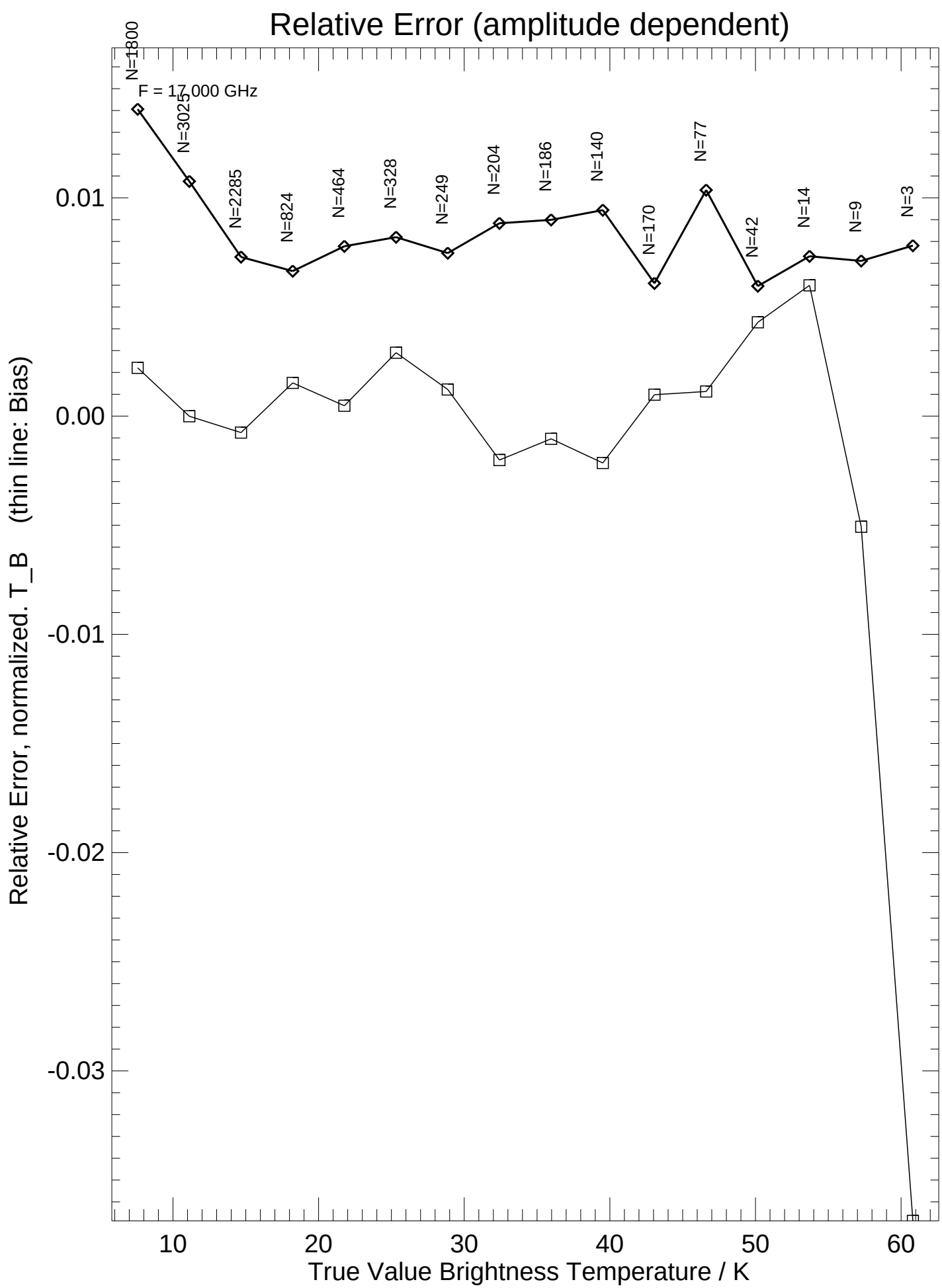

Absolute Error (amplitude dependent)
F = 15.000 GHz
Mean StD = 0.25 Max StD = 0.41
Mean bias = 0.09 Max bias = 2.48
N=3065
N=3331
N=1304
N=503
N=291
N=273
N=222
N=180
N=154
N=165
N=117
N=68
N=28
N=7
N=9
N=3
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
10
20
30
40
True Value Brightness Temperature / K

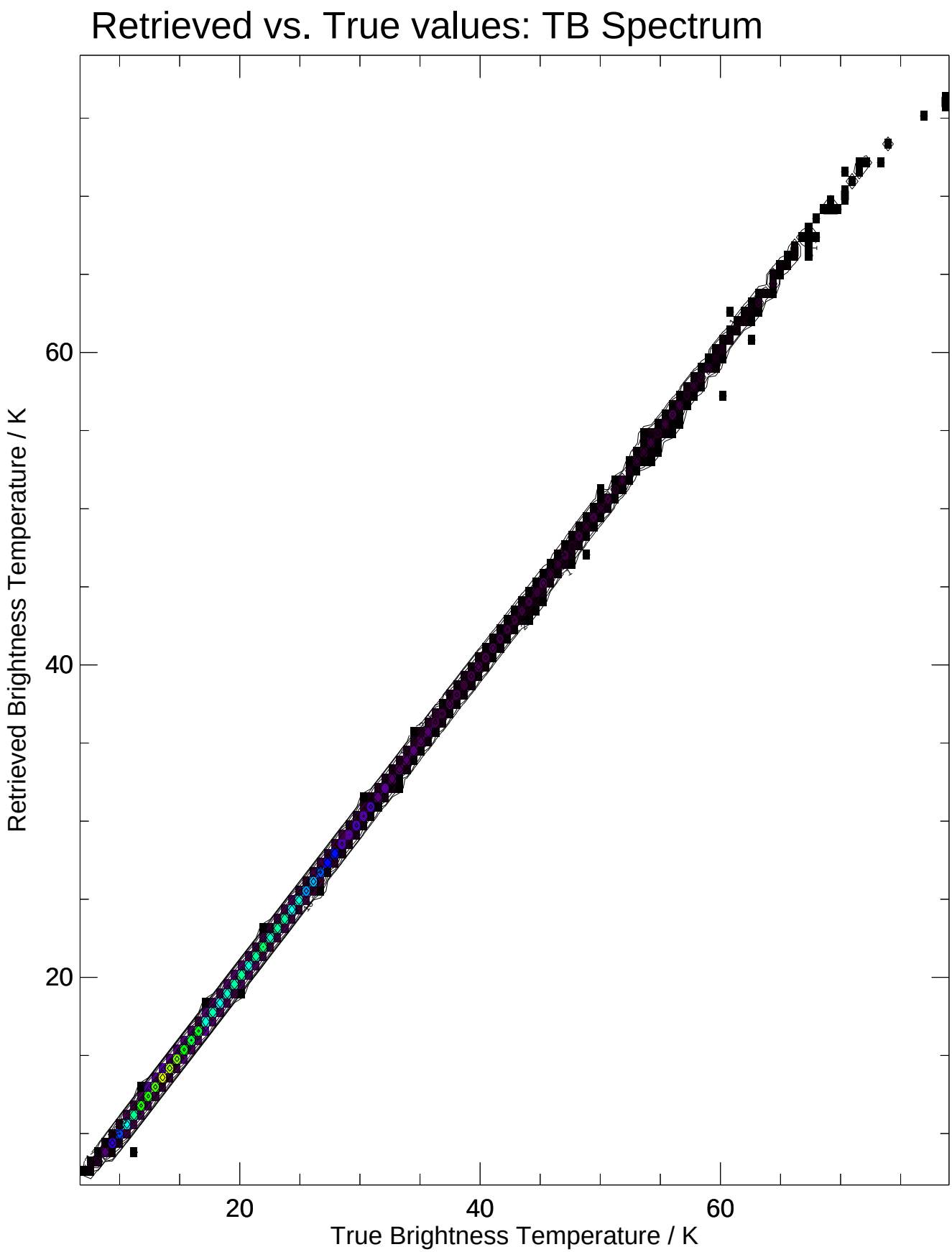

Relative Error (amplitude dependent)
F = 15.000 GHz
N=3065
N=3331
N=1304
N=503
N=391
N=273
N=222
N=180
N=151
N=165
N=117
N=68
N=28
N=7
N=9
N=3
0.01
0.00
-0.01
-0.02
-0.03
Relative Error, normalized. T_B (thin line: Bias)
10
20
30
40
True Value Brightness Temperature / K

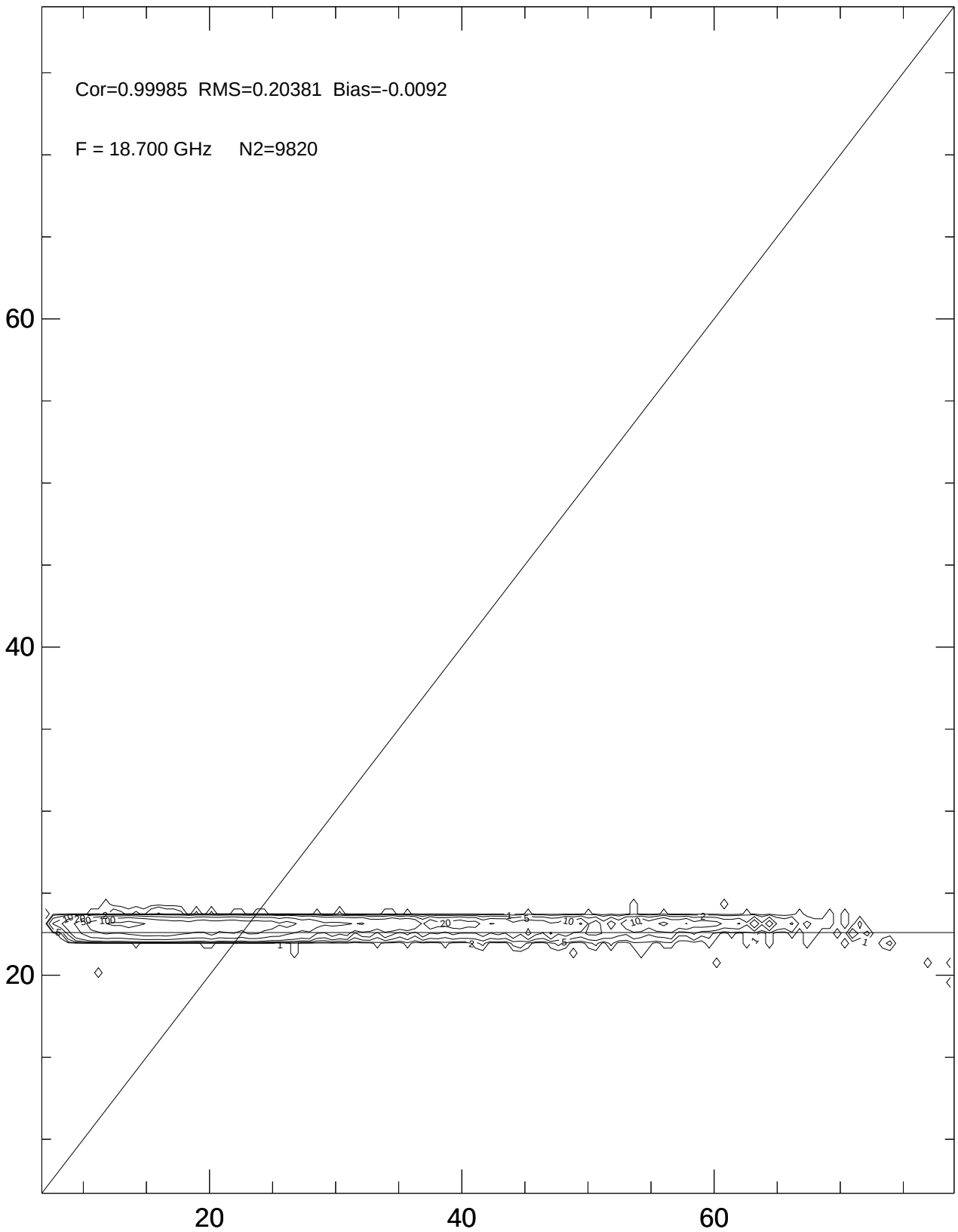

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
10
20
30
40
50
60

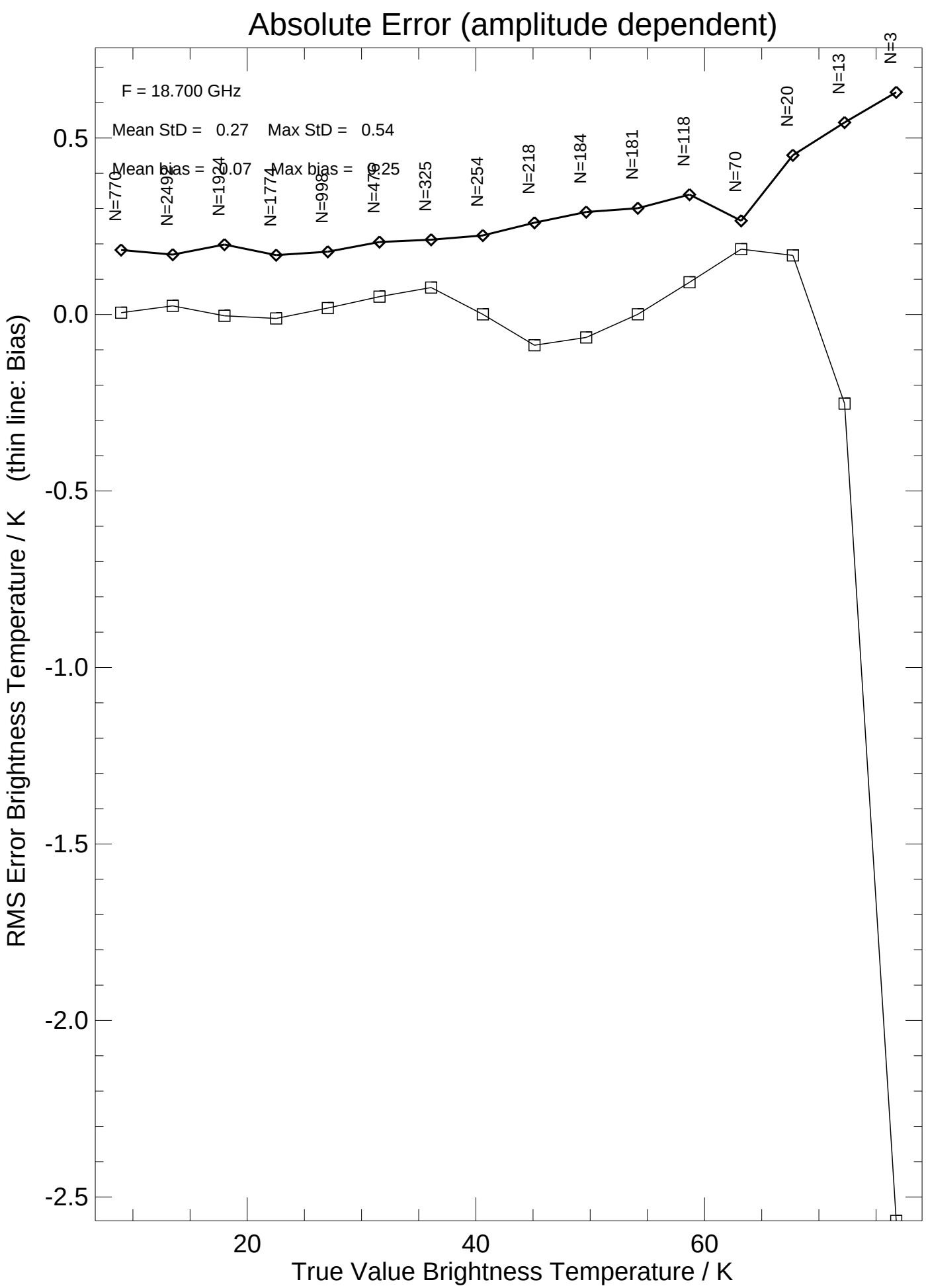

Cor=0.99983 RMS=0.16258 Bias=-0.0049
F = 17.000 GHz N2=9820
60
50
40
30
20
10
10
20
30
40
50
60

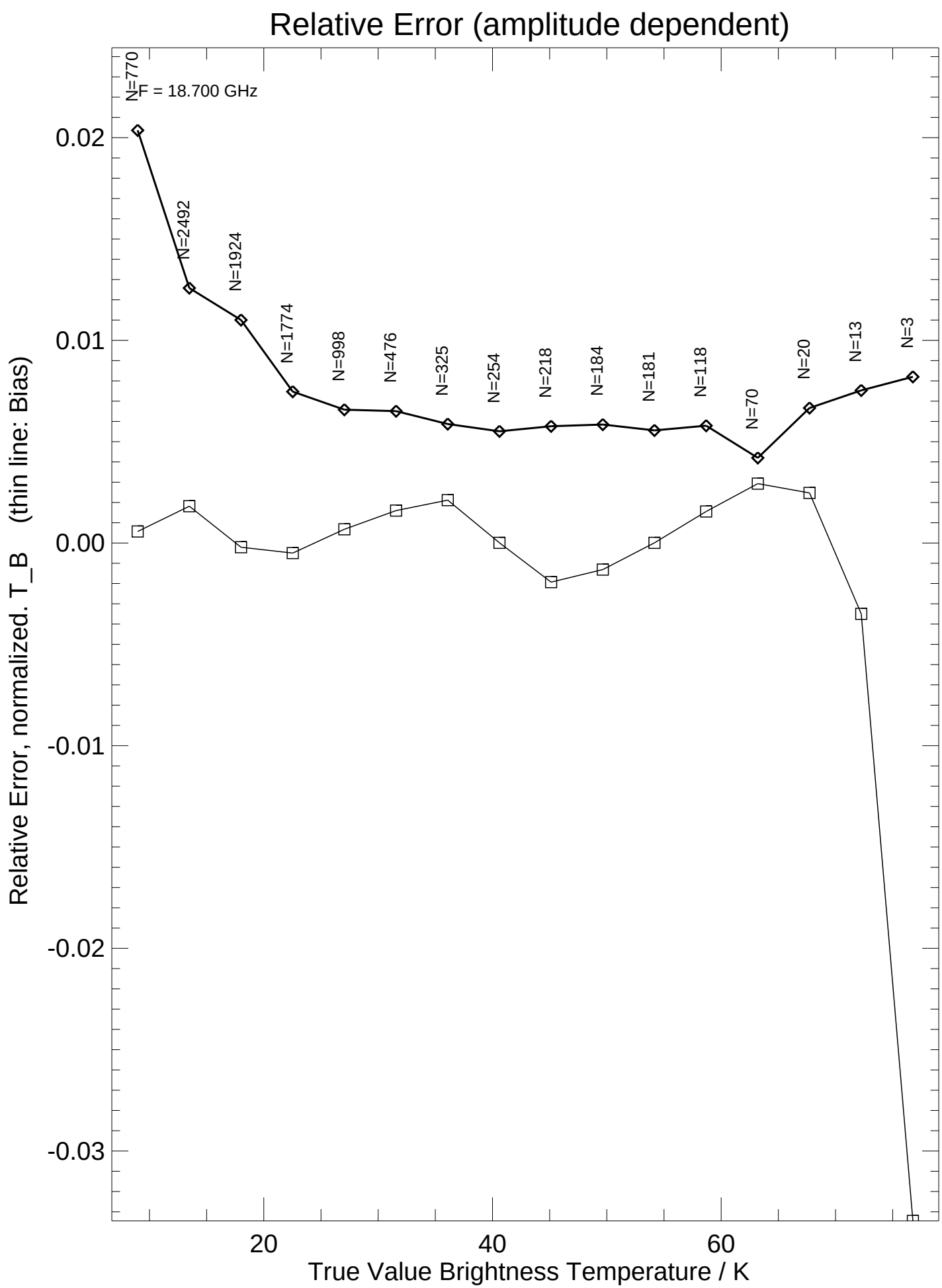

Absolute Error (amplitude dependent)
F = 17.000 GHz
Mean StD = 0.26 Max StD = 0.48
Mean bias = 0.09 Max bias = 0.32
N=1800
N=3025
N=2285
N=824
N=464
N=324
N=249
N=204
N=186
N=140
N=170
N=71
N=42
N=14
N=9
N=3
0.5
0.0
-0.5
-1.0
-1.5
-2.0
RMS Error Brightness Temperature / K (thin line: Bias)
10
20
30
40
50
60
True Value Brightness Temperature / K

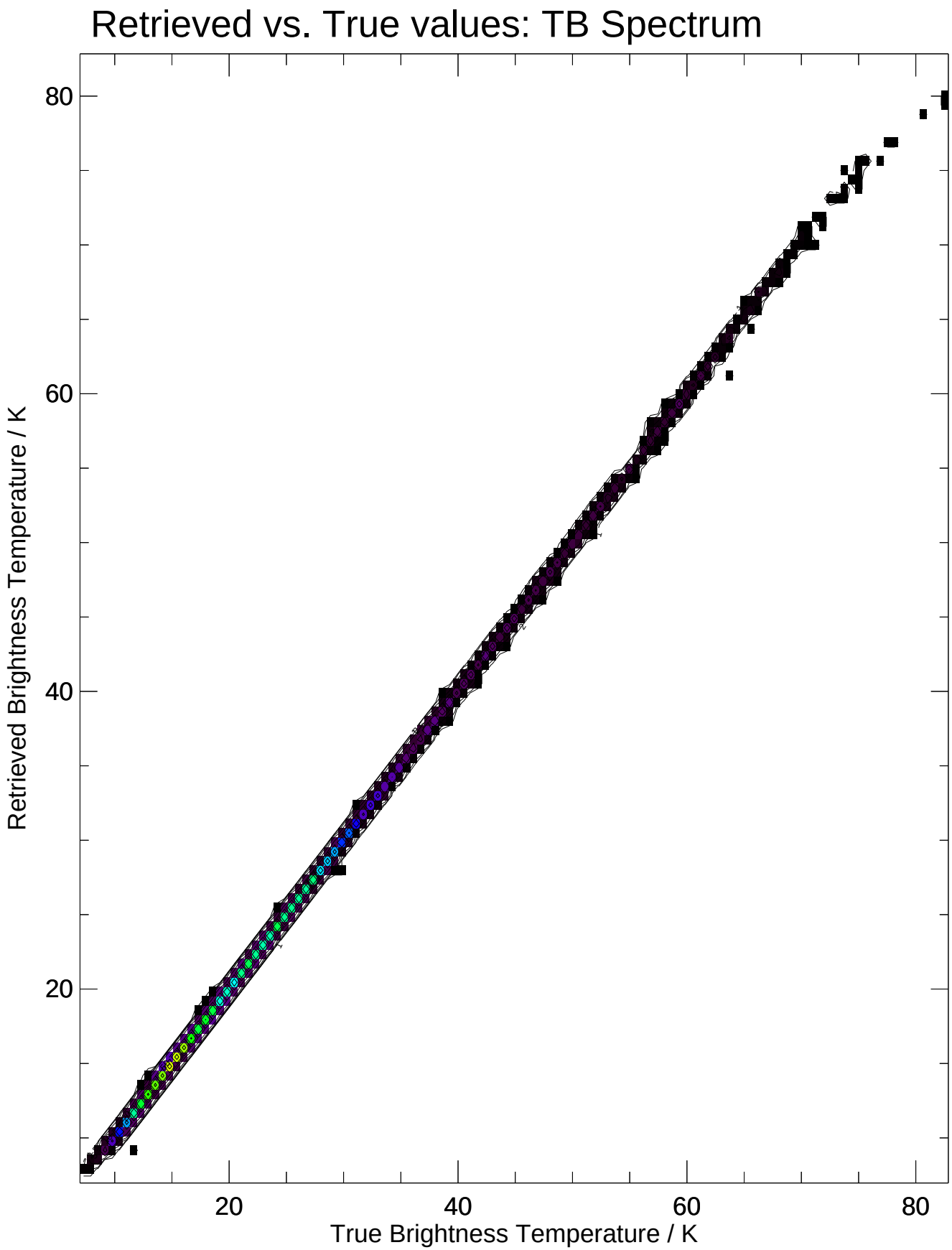

Relative Error (amplitude dependent)
F = 17.000 GHz
N=1800
N=3025
N=2285
N=824
N=464
N=328
N=249
N=204
N=186
N=140
N=170
N=77
N=42
N=14
N=9
N=3
0.01
0.00
-0.01
-0.02
-0.03
Relative Error, normalized. T_B (thin line: Bias)
10
20
30
40
50
60
True Value Brightness Temperature / K

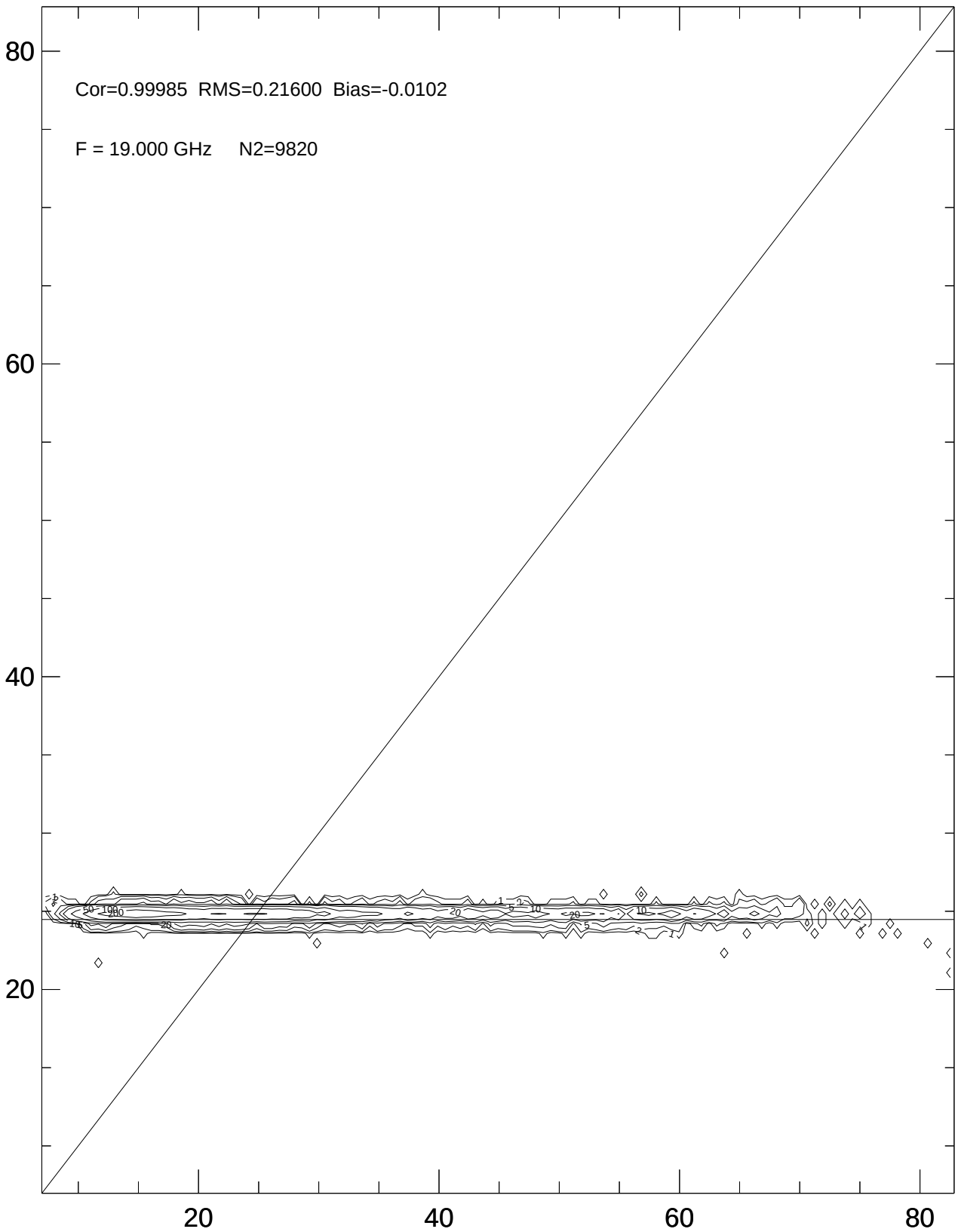

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
20
40
60

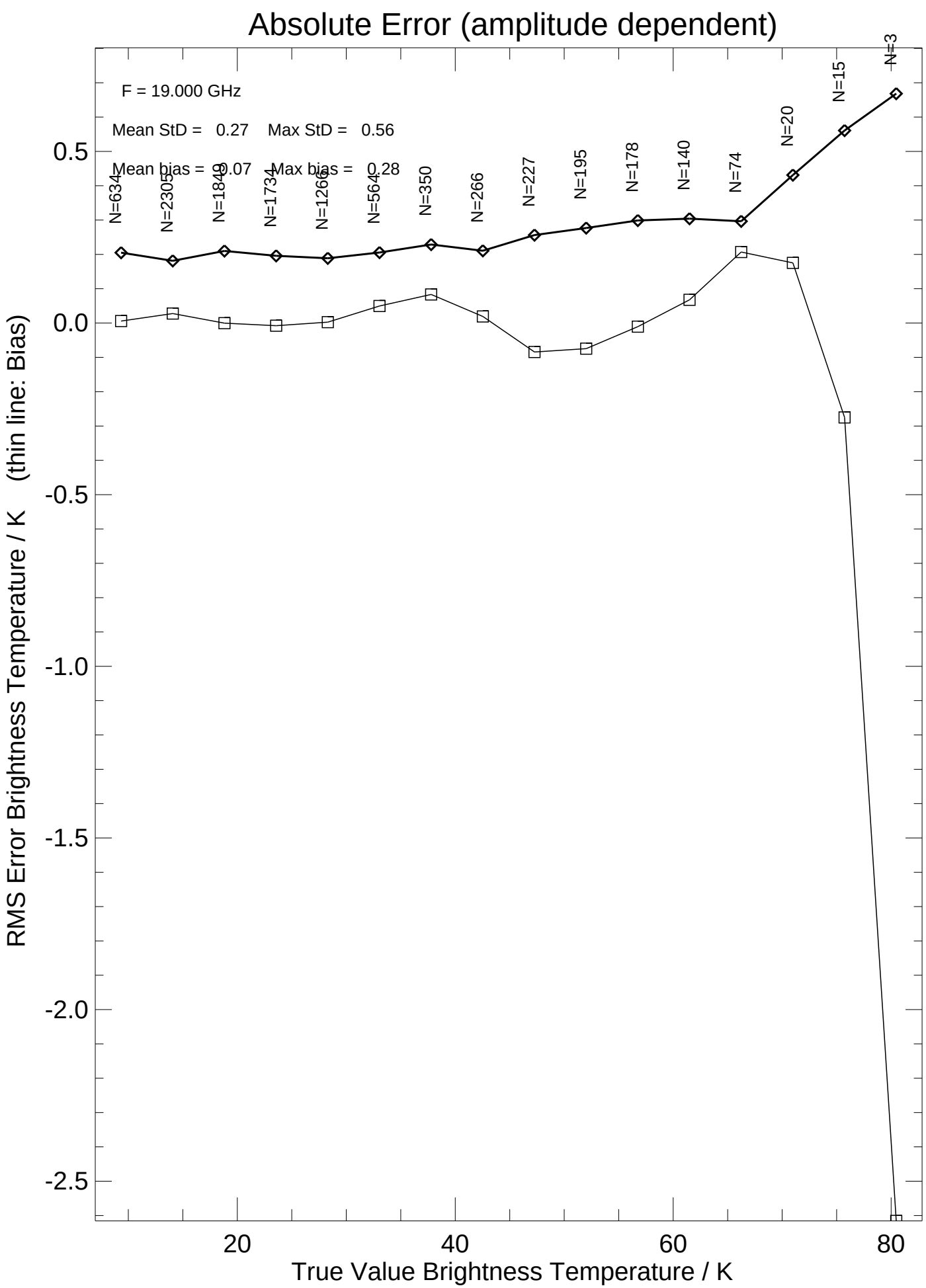

Cor=0.99985 RMS=0.20381 Bias=-0.0092
F = 18.700 GHz N2=9820
60
40
20
20
40
60

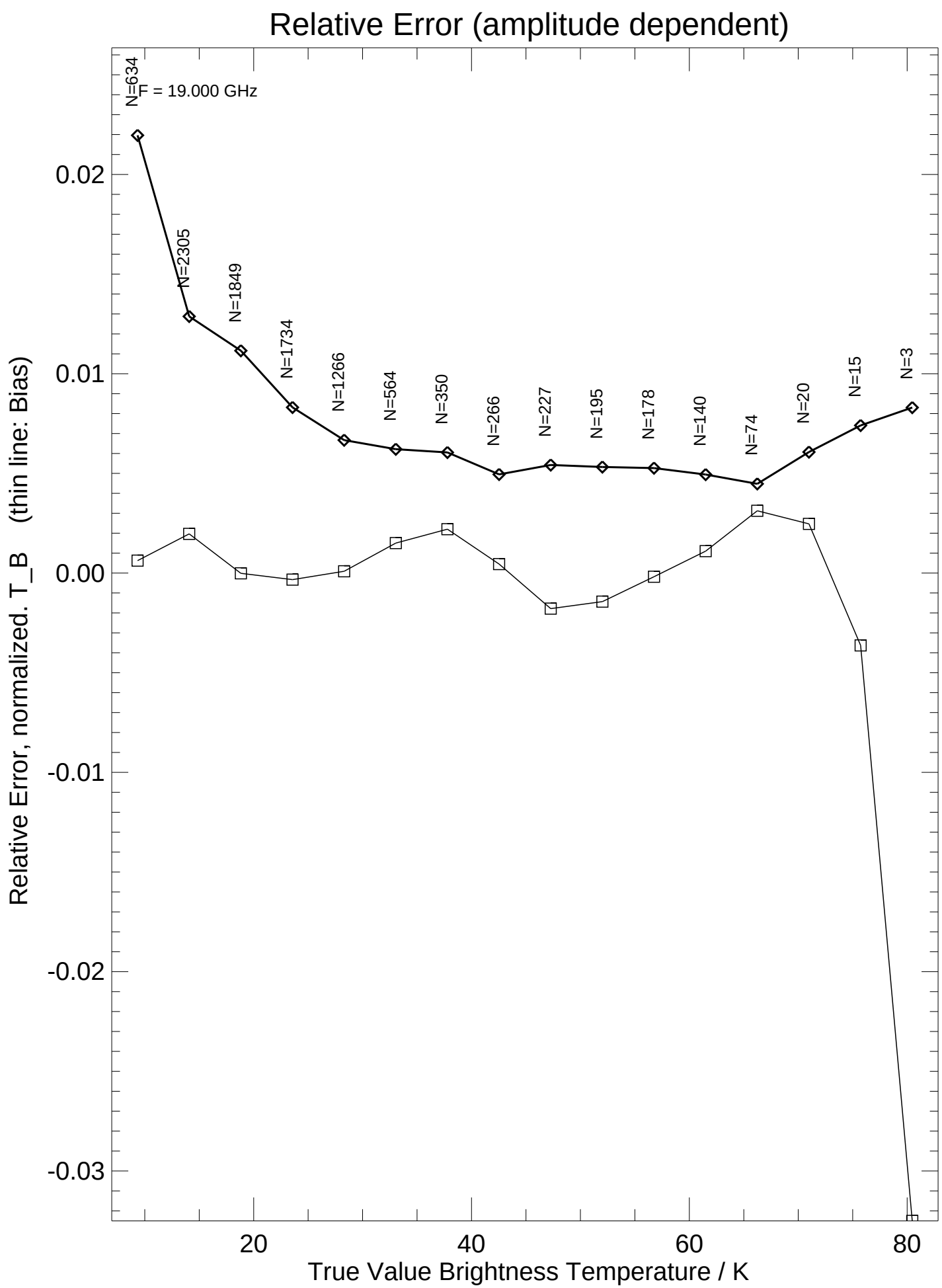

Absolute Error (amplitude dependent)
F = 18.700 GHz
Mean StD = 0.27 Max StD = 0.54
Mean bias = -0.07 Max bias = 0.25
N=770
N=2492
N=1924
N=1774
N=998
N=479
N=325
N=254
N=218
N=184
N=181
N=118
N=70
N=20
N=13
N=3
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
True Value Brightness Temperature / K

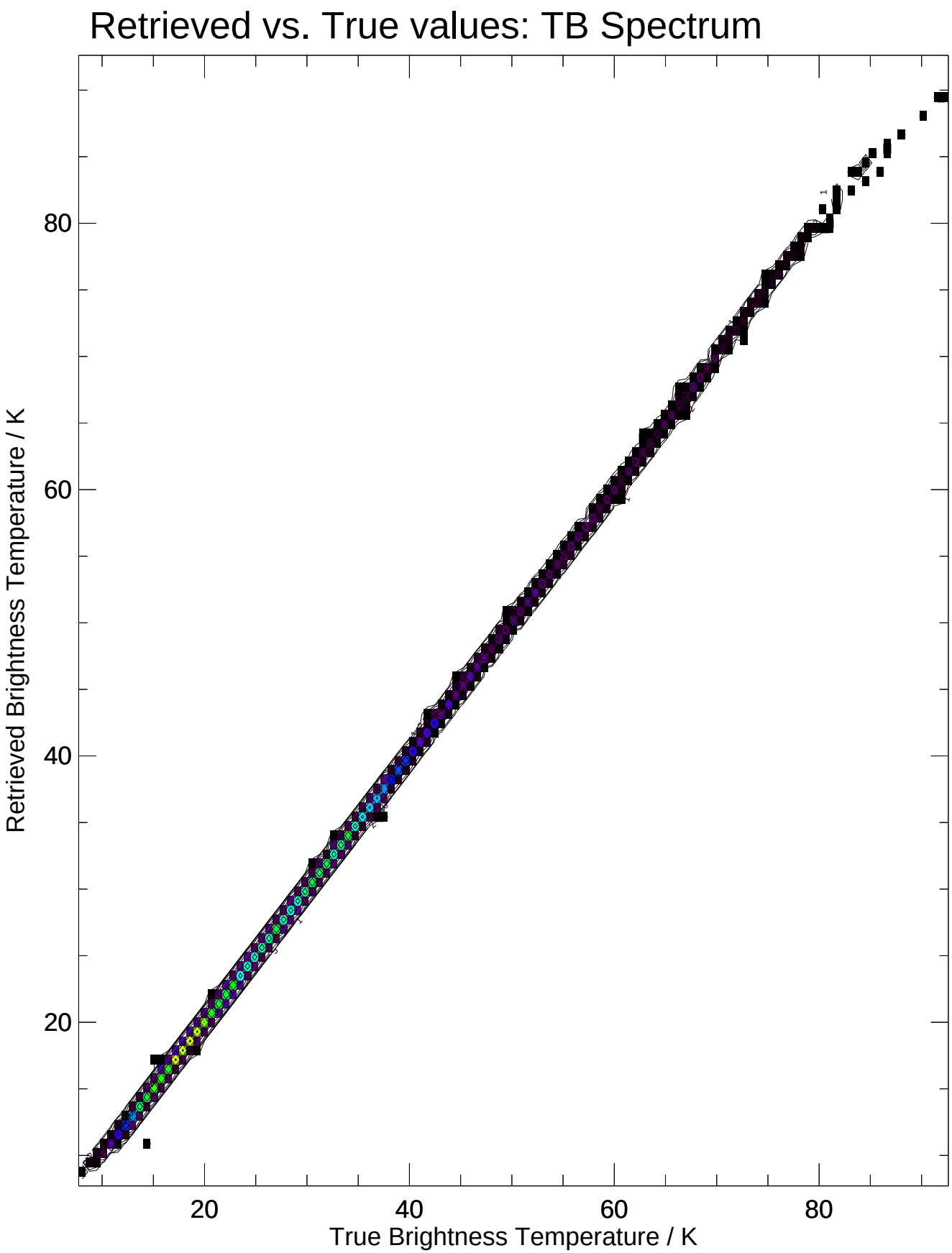

Relative Error (amplitude dependent)
F = 18.700 GHz
N=770
N=2492
N=1924
N=1774
N=998
N=476
N=325
N=254
N=218
N=184
N=181
N=118
N=70
N=20
N=13
N=3
0.02
0.01
0.00
-0.01
-0.02
-0.03
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
True Value Brightness Temperature / K

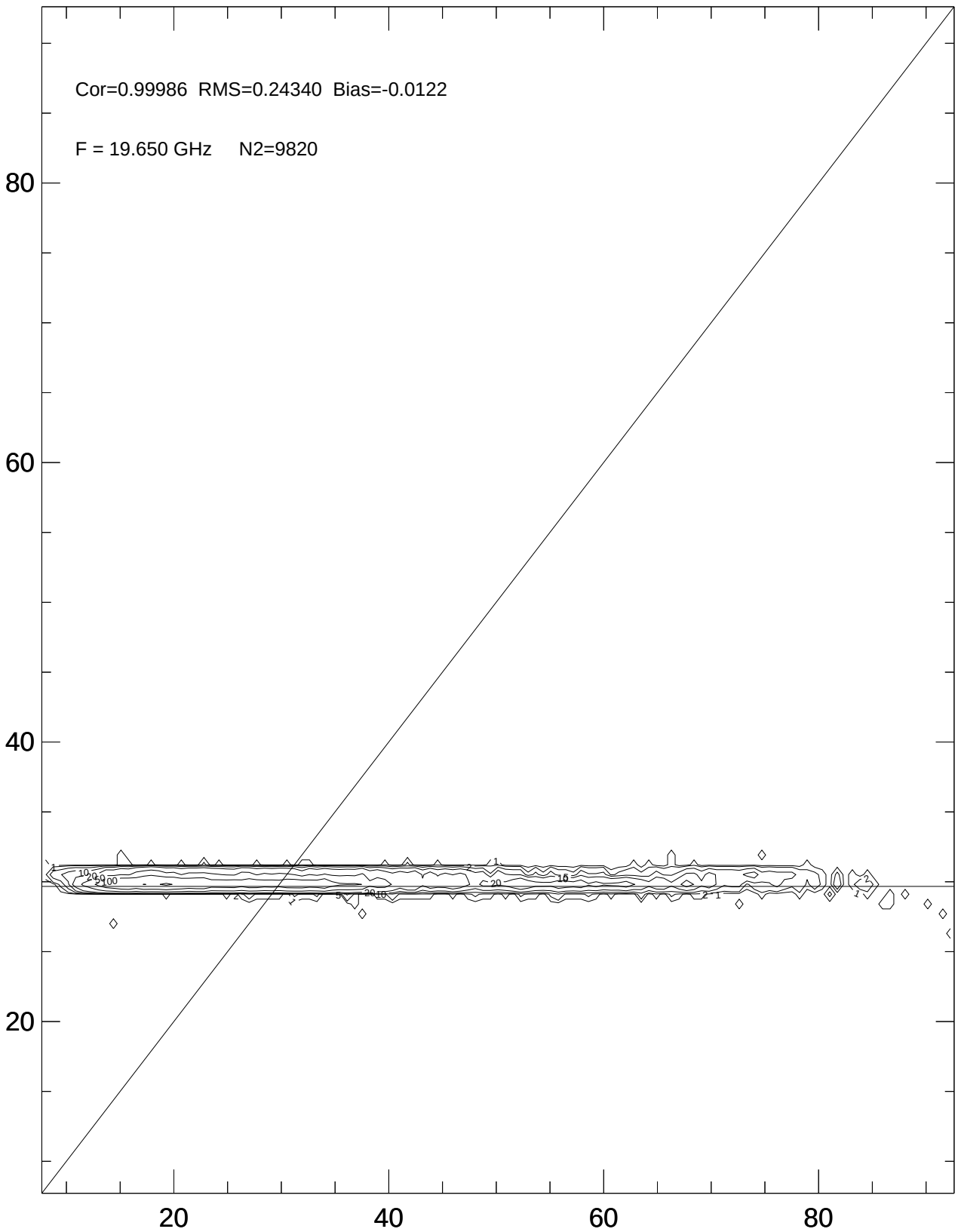

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
20
40
60
80

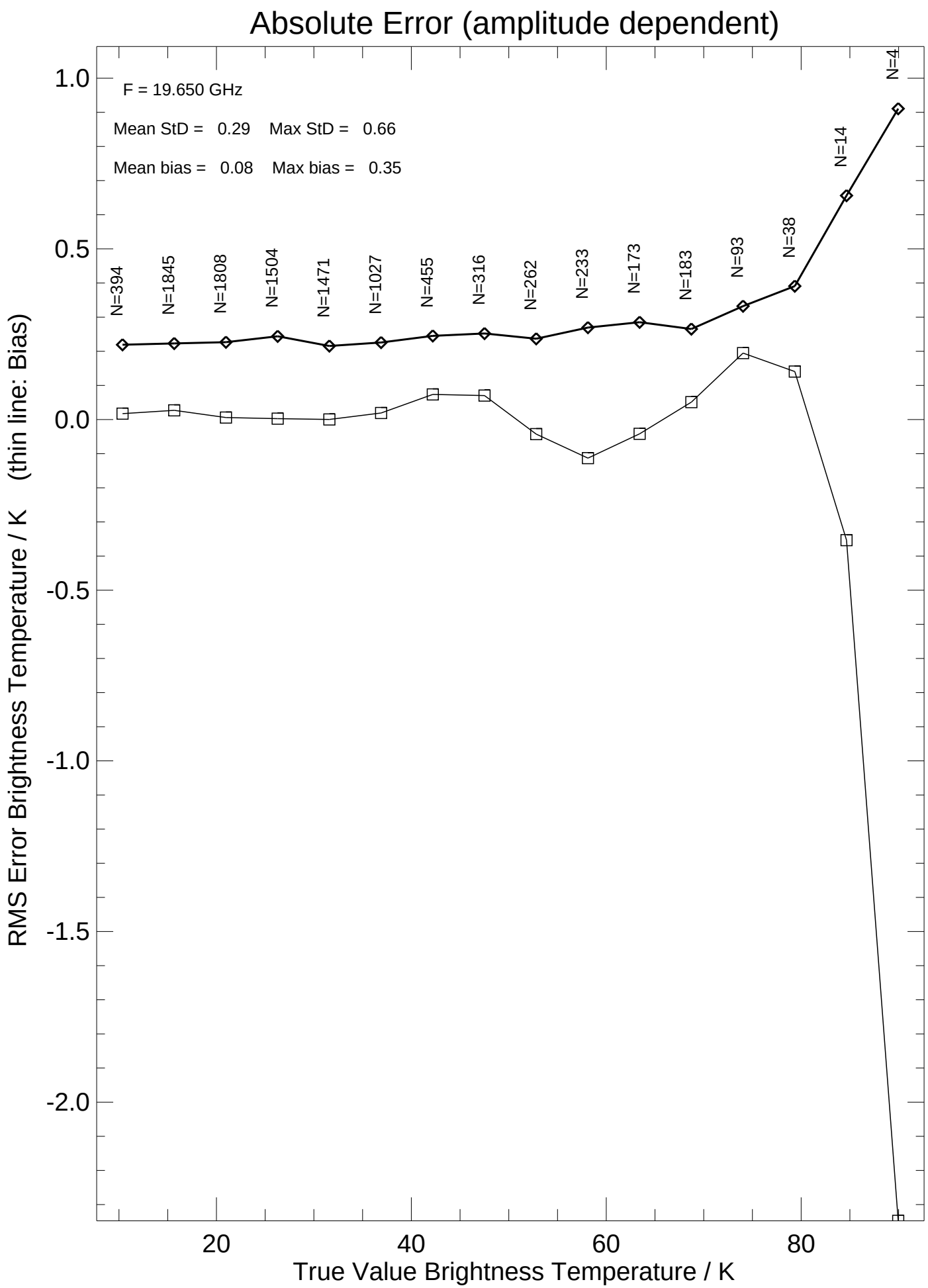

Cor=0.99985 RMS=0.21600 Bias=-0.0102
F = 19.000 GHz N2=9820
80
60
40
20
20
40
60
80

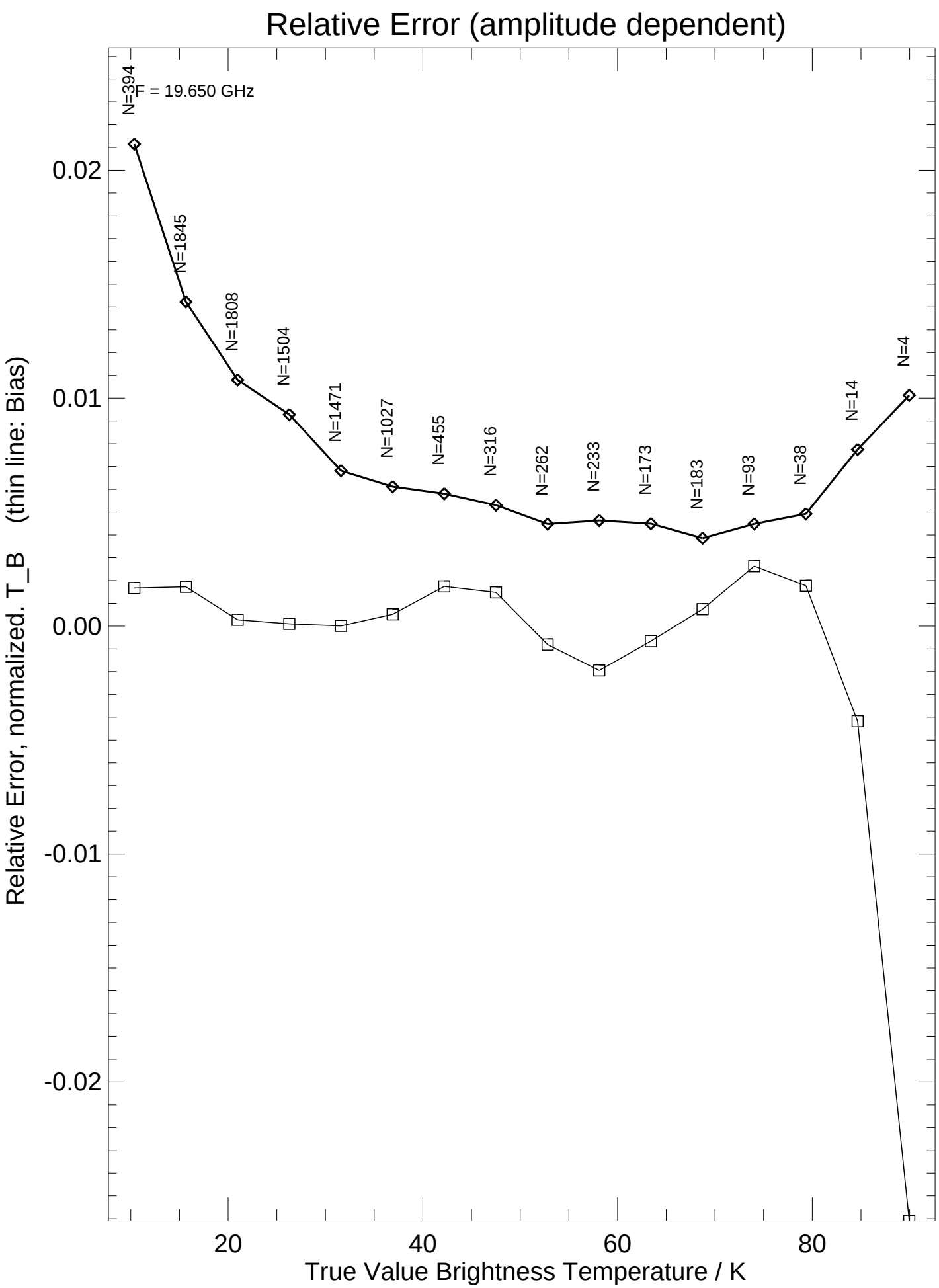

Absolute Error (amplitude dependent)
F = 19.000 GHz
Mean StD = 0.27 Max StD = 0.56
Mean bias = 0.07 Max bias = 0.28
N=634
N=2305
N=1849
N=1734
N=1266
N=564
N=350
N=266
N=227
N=195
N=178
N=140
N=74
N=20
N=15
N=3
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
True Value Brightness Temperature / K

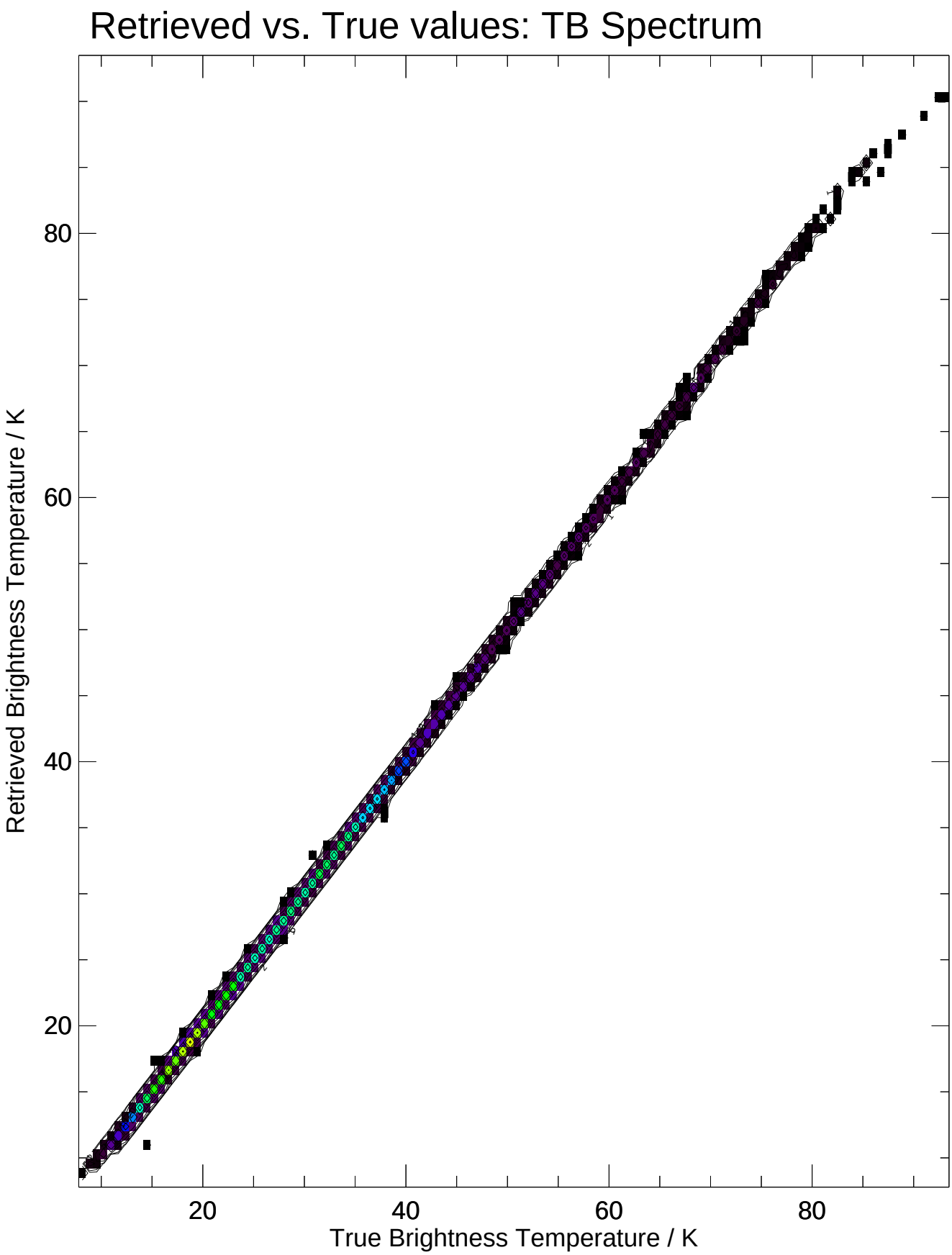

Relative Error (amplitude dependent)
F = 19.000 GHz
N=634
N=2305
N=1849
N=1734
N=1266
N=564
N=350
N=266
N=227
N=195
N=178
N=140
N=74
N=20
N=15
N=3
0.02
0.01
0.00
-0.01
-0.02
-0.03
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
True Value Brightness Temperature / K

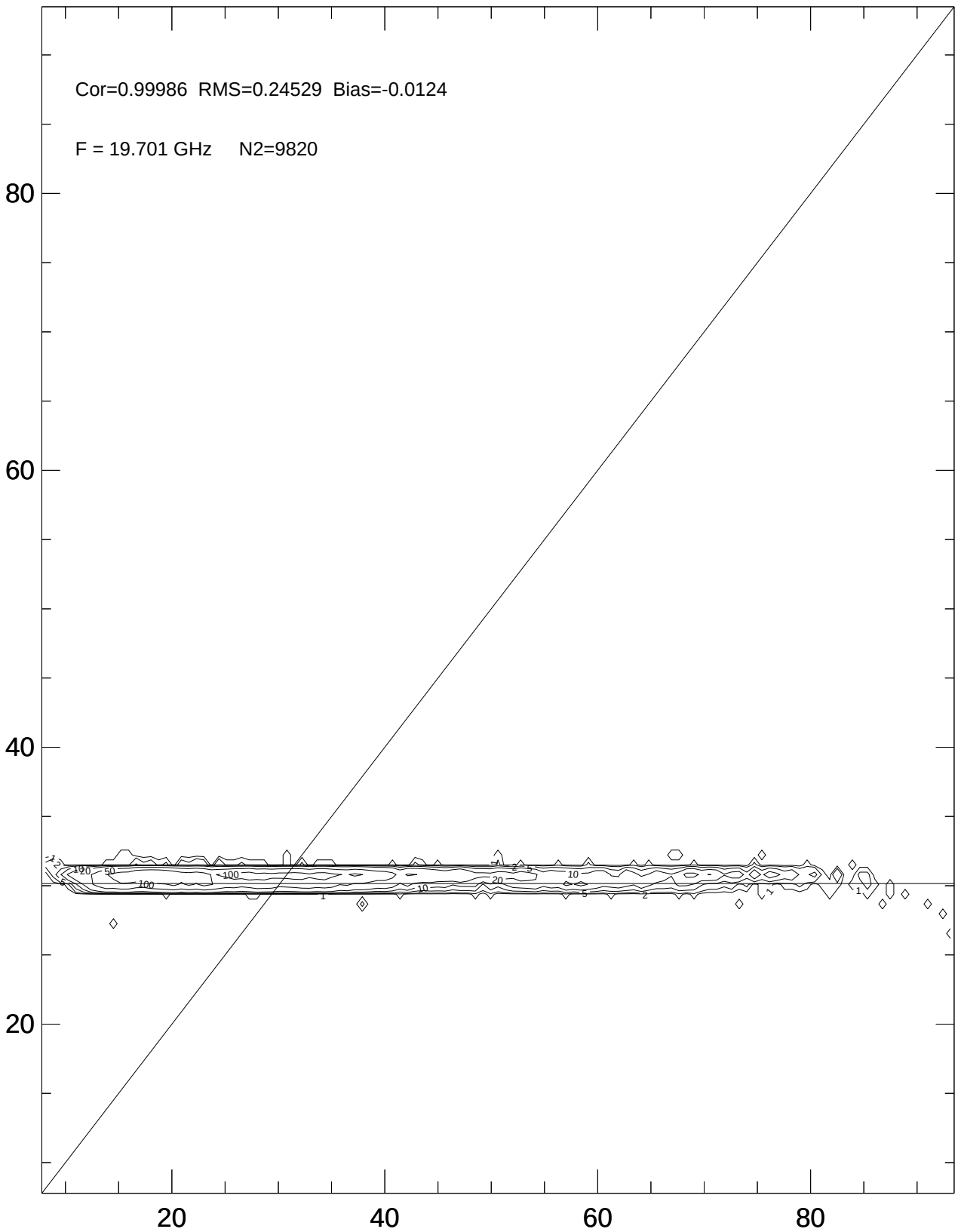

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
20
40
60
80

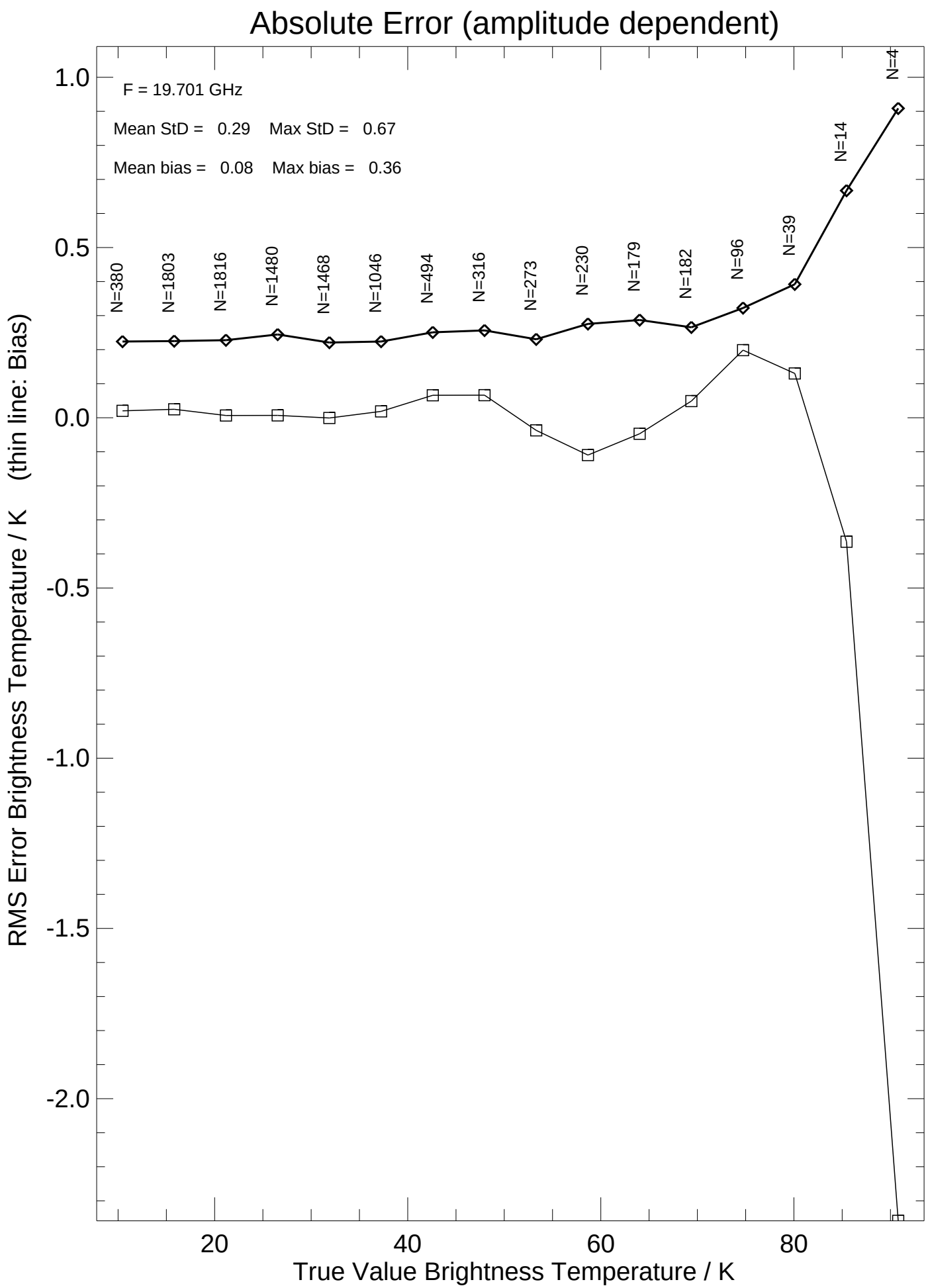

Cor=0.99986 RMS=0.24340 Bias=-0.0122
F = 19.650 GHz N2=9820
80
60
40
20
20
40
60
80

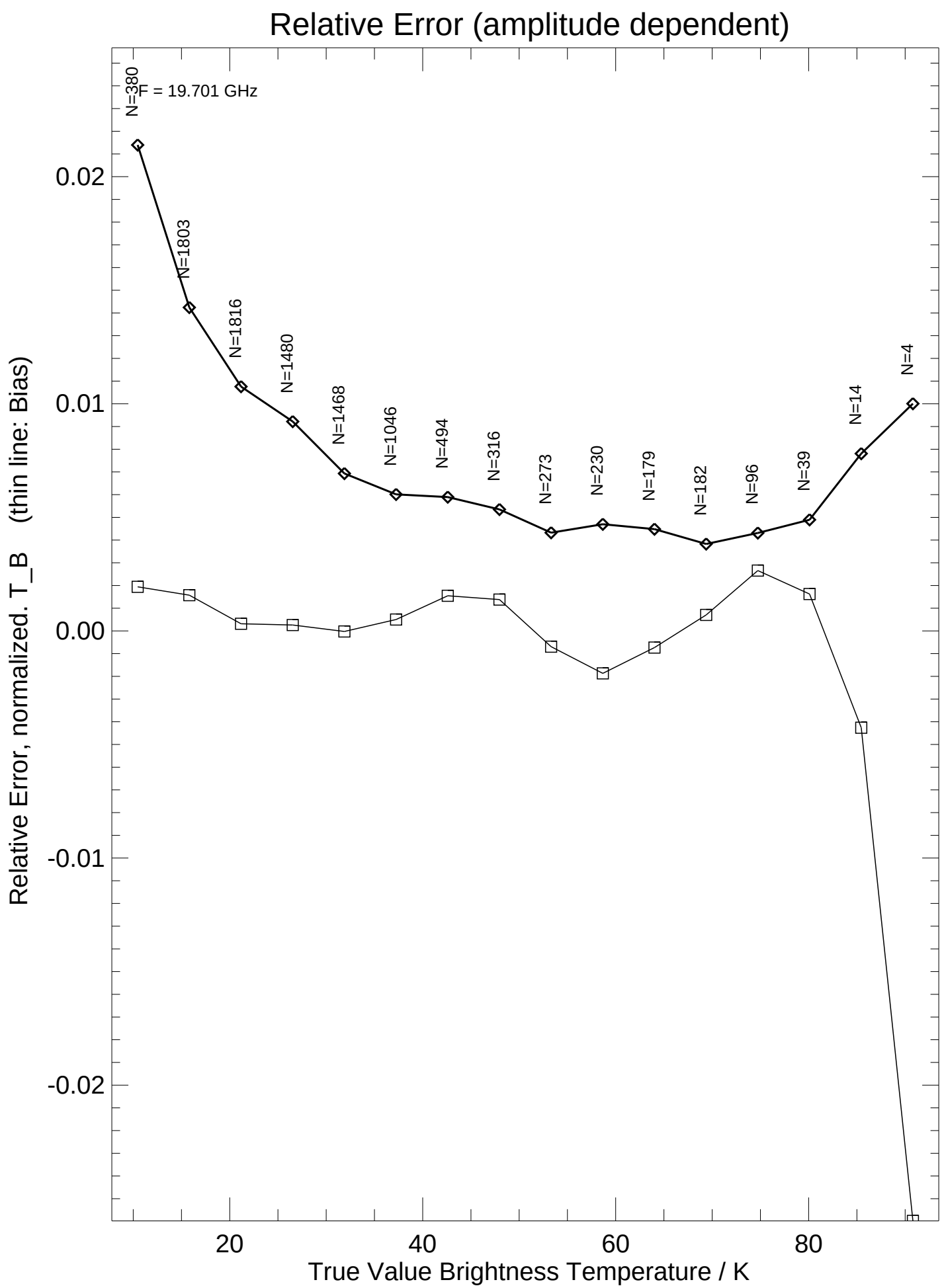

Absolute Error (amplitude dependent)
F = 19.650 GHz
Mean StD = 0.29 Max StD = 0.66
Mean bias = 0.08 Max bias = 0.35
N=394
N=1845
N=1808
N=1504
N=1471
N=1027
N=455
N=316
N=262
N=233
N=173
N=183
N=93
N=38
N=14
N=4
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

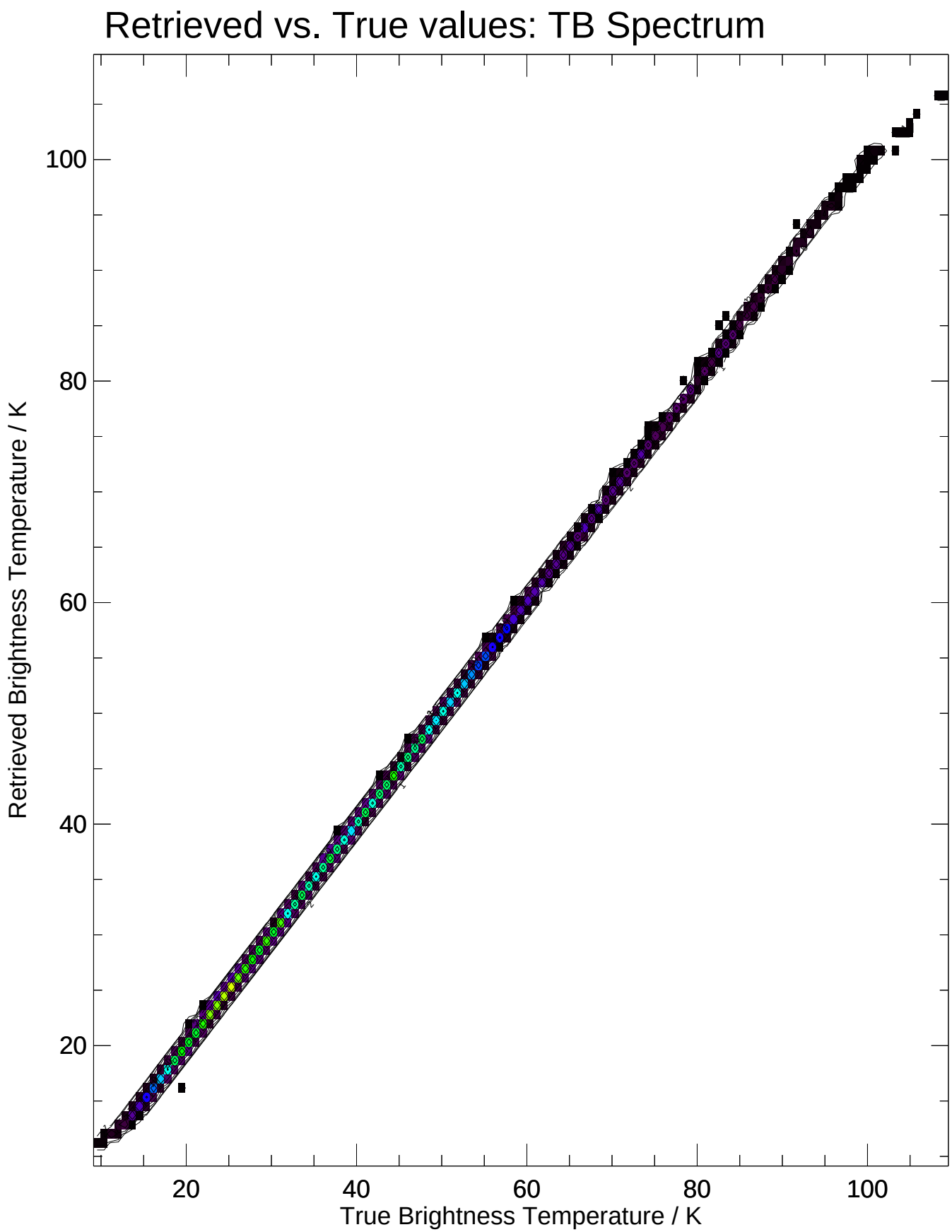

Relative Error (amplitude dependent)
F = 19.650 GHz
N=394
N=1845
N=1808
N=1504
N=1471
N=1027
N=455
N=316
N=262
N=233
N=173
N=183
N=93
N=38
N=14
N=4
0.02
0.01
0.00
-0.01
-0.02
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
True Value Brightness Temperature / K

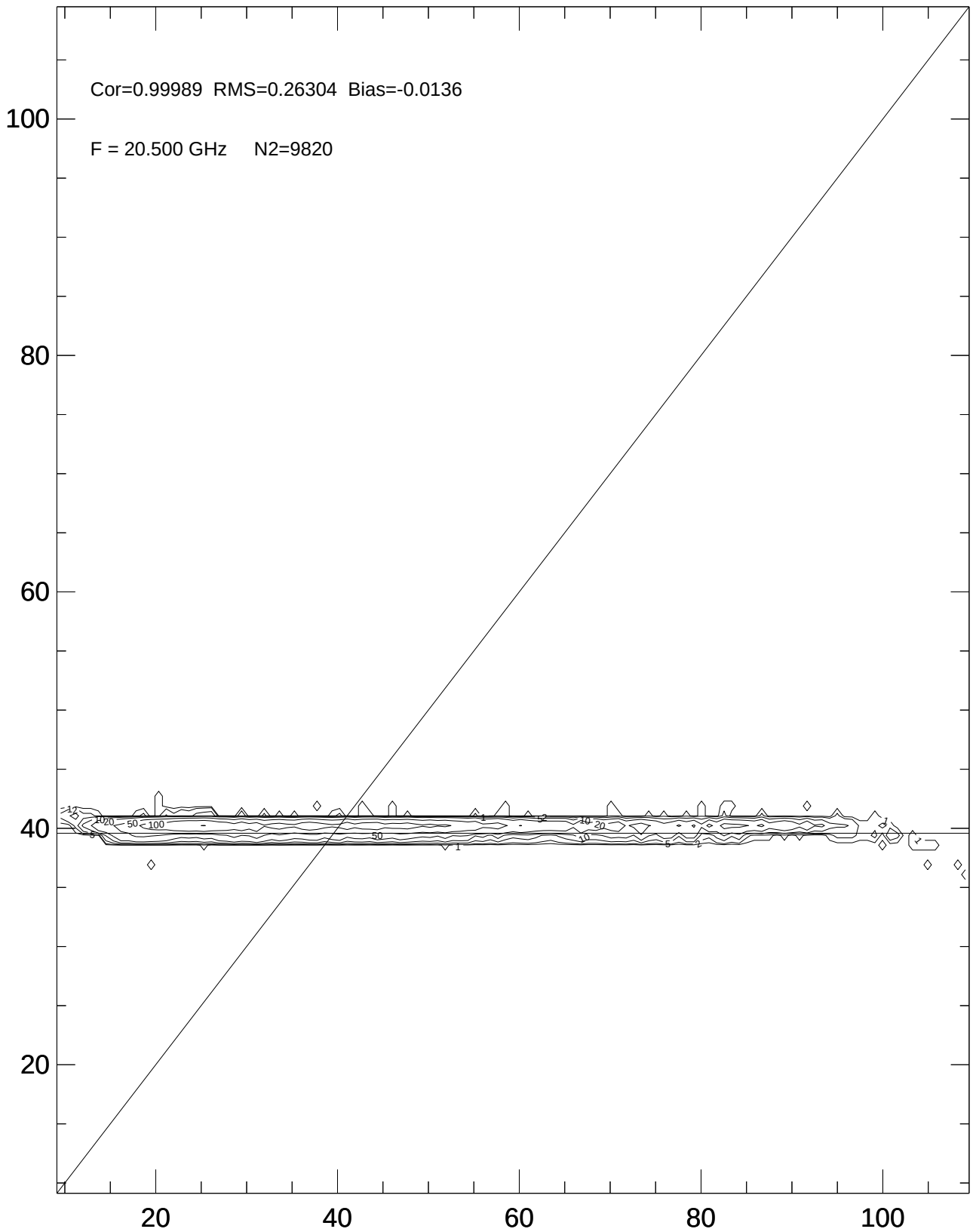

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
20
40
60
80

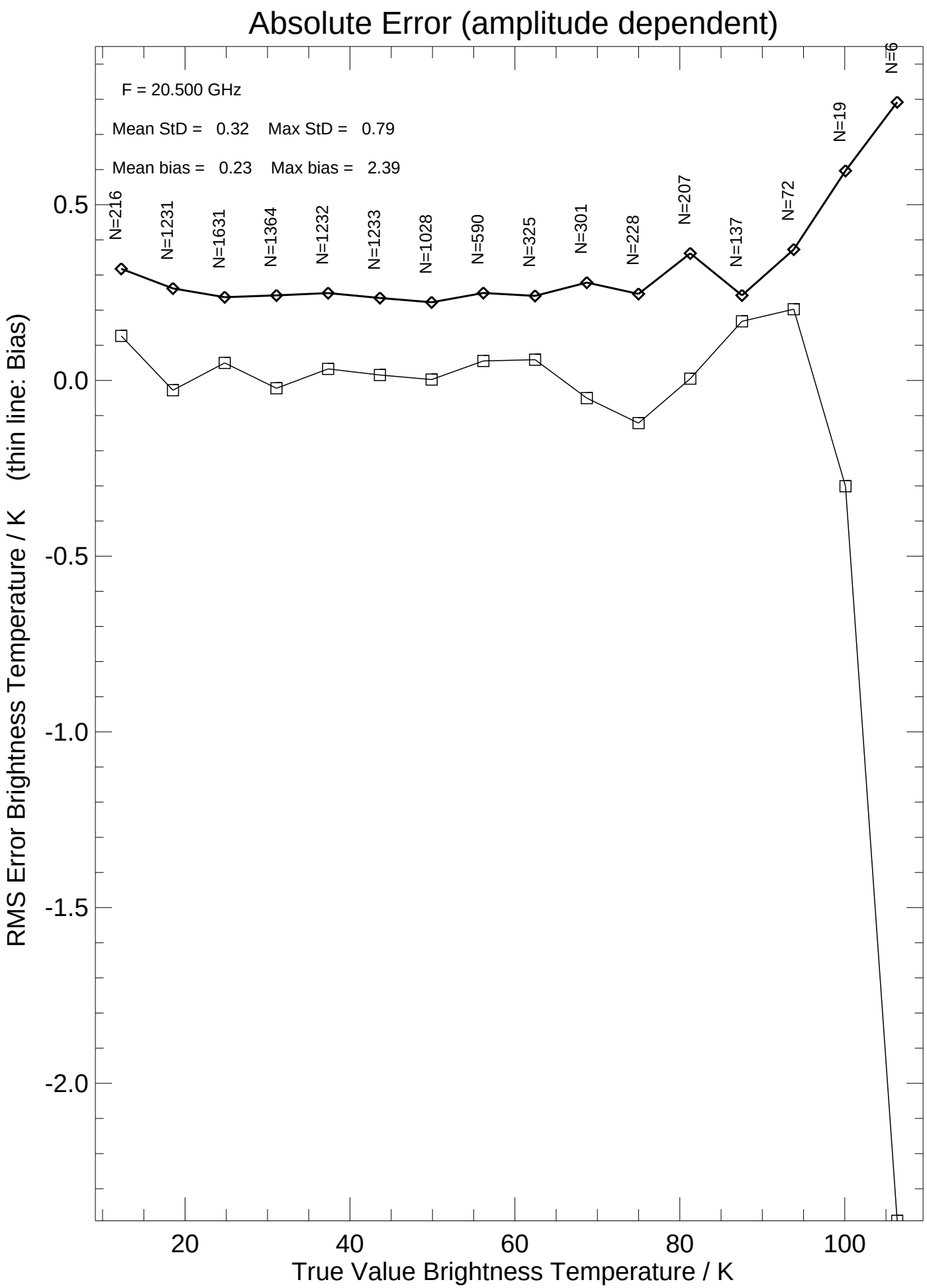

Cor=0.99986 RMS=0.24529 Bias=-0.0124
F = 19.701 GHz N2=9820
80
60
40
20
20
40
60
80

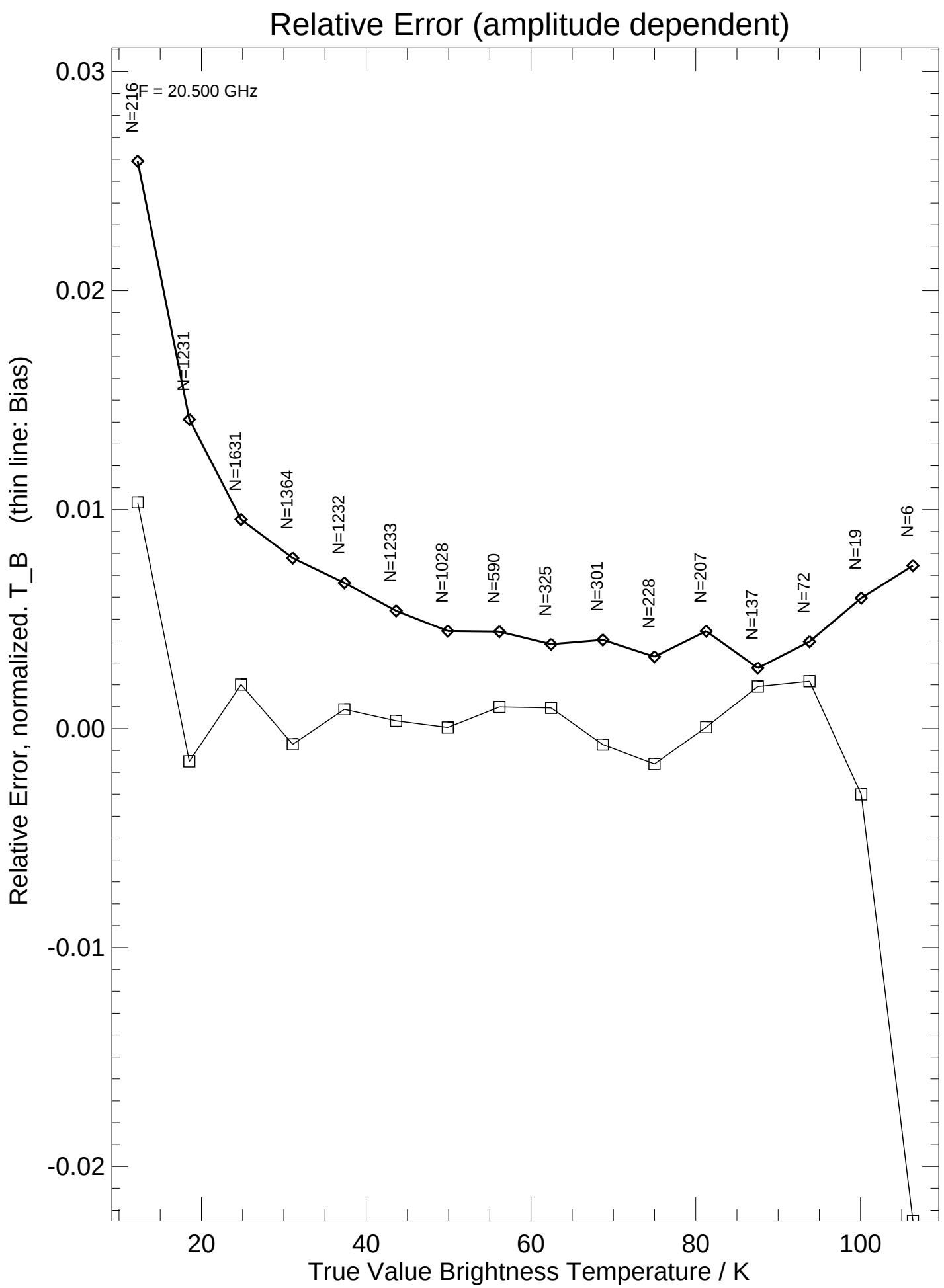

Absolute Error (amplitude dependent)
F = 19.701 GHz
Mean StD = 0.29 Max StD = 0.67
Mean bias = 0.08 Max bias = 0.36
N=380
N=1803
N=1816
N=1480
N=1468
N=1046
N=494
N=316
N=273
N=230
N=179
N=182
N=96
N=39
N=14
N=4
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

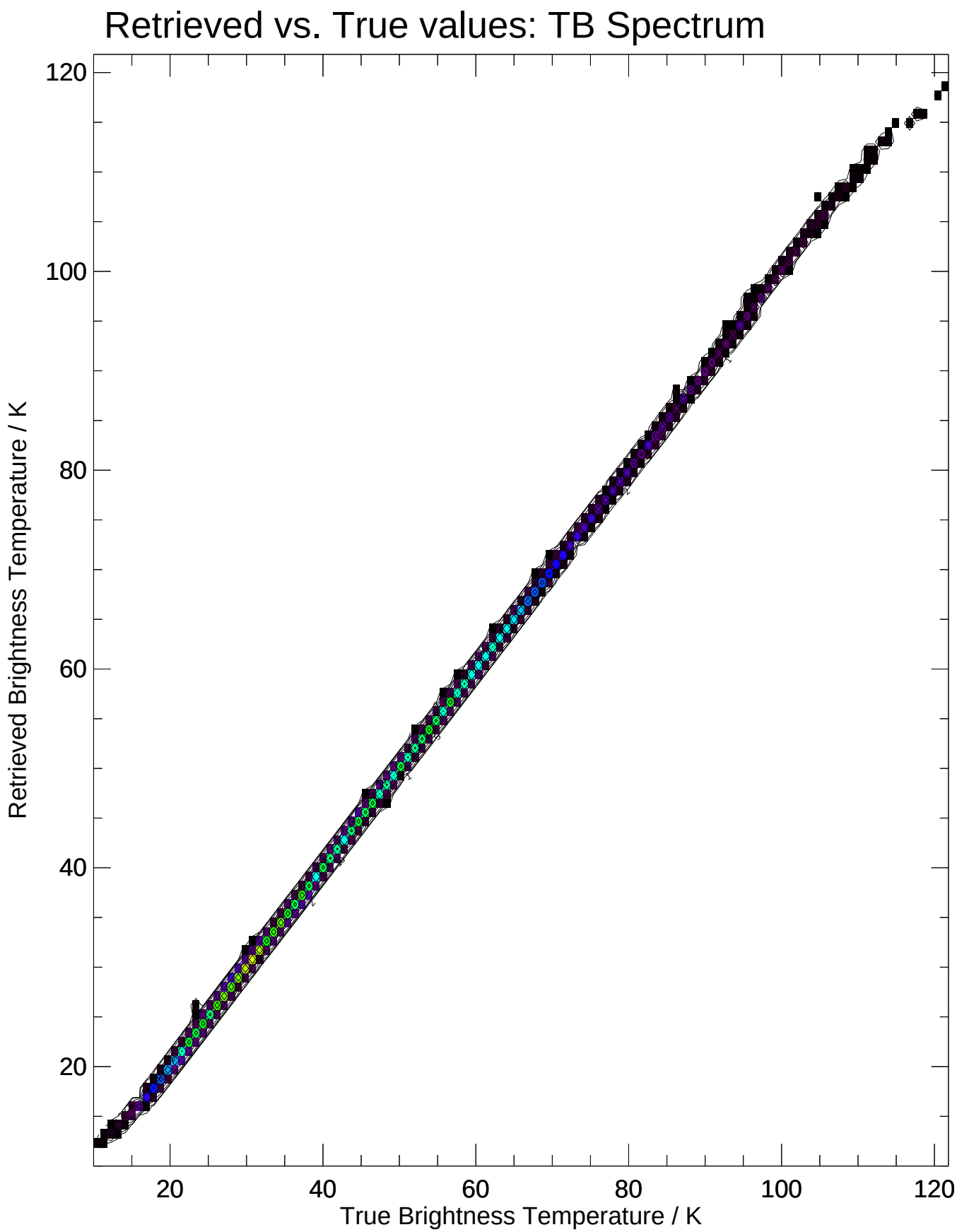

Relative Error (amplitude dependent)
F = 19.701 GHz
N=380
N=1803
N=1816
N=1480
N=1468
N=1046
N=494
N=316
N=273
N=230
N=179
N=182
N=96
N=39
N=14
N=4
0.02
0.01
0.00
-0.01
-0.02
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
True Value Brightness Temperature / K

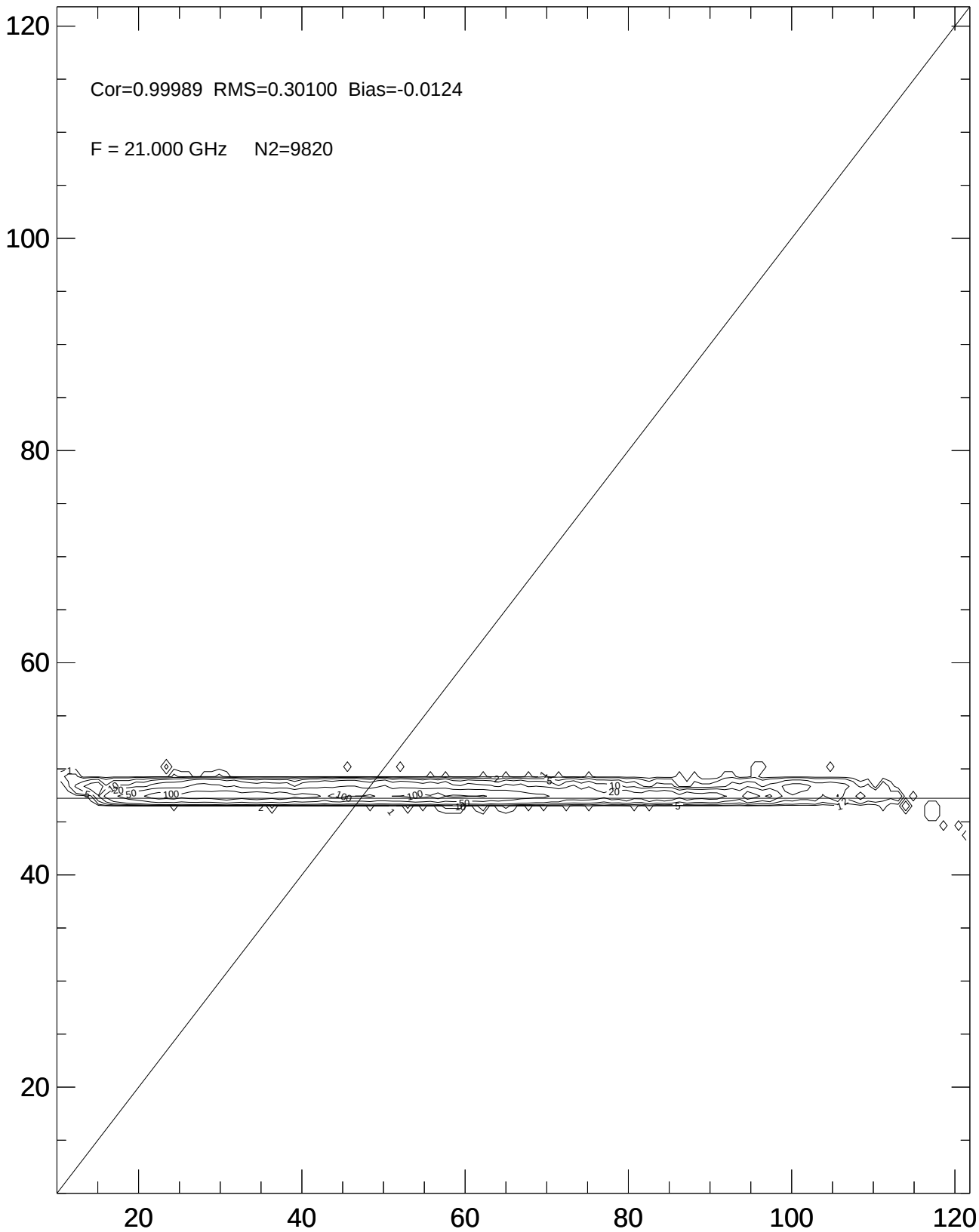

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100

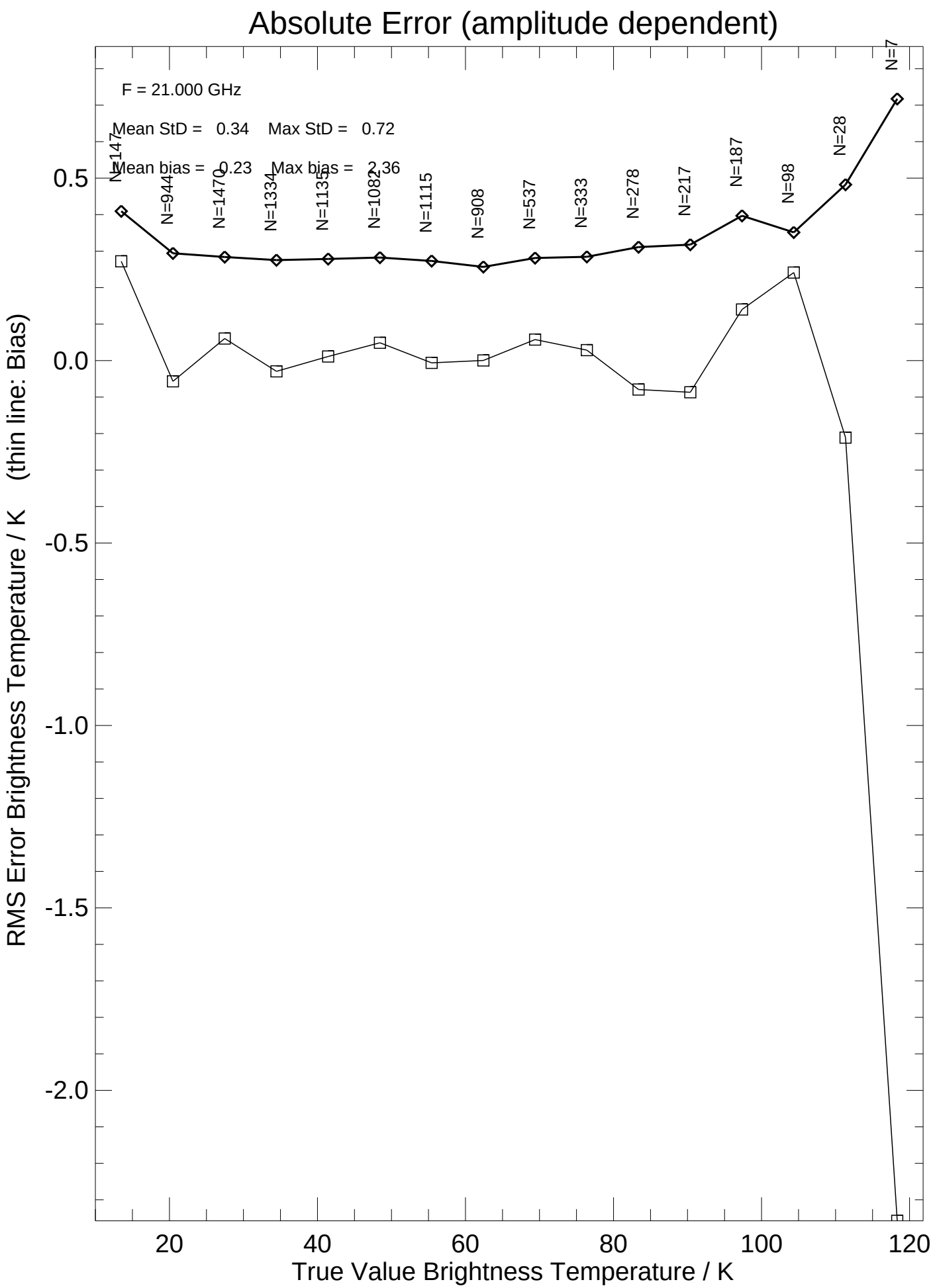

Cor=0.99989 RMS=0.26304 Bias=-0.0136
F = 20.500 GHz N2=9820
100
80
60
40
20
20
40
60
80
100

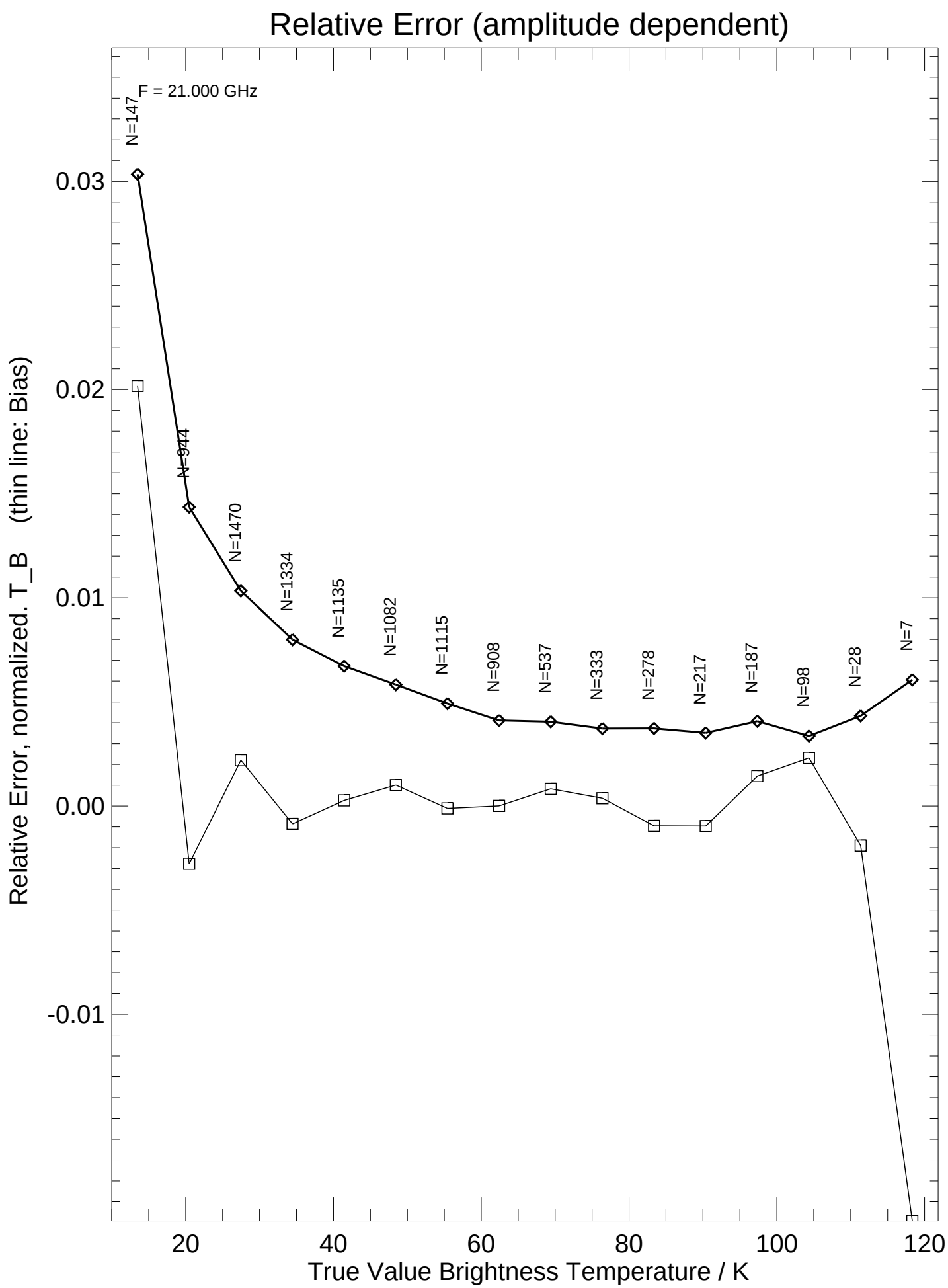

Absolute Error (amplitude dependent)
F = 20.500 GHz
Mean StD = 0.32 Max StD = 0.79
Mean bias = 0.23 Max bias = 2.39
N=216
N=1231
N=1631
N=1364
N=1232
N=1233
N=1028
N=590
N=325
N=301
N=228
N=207
N=137
N=72
N=19
N=6
0.5
0.0
-0.5
-1.0
-1.5
-2.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
True Value Brightness Temperature / K

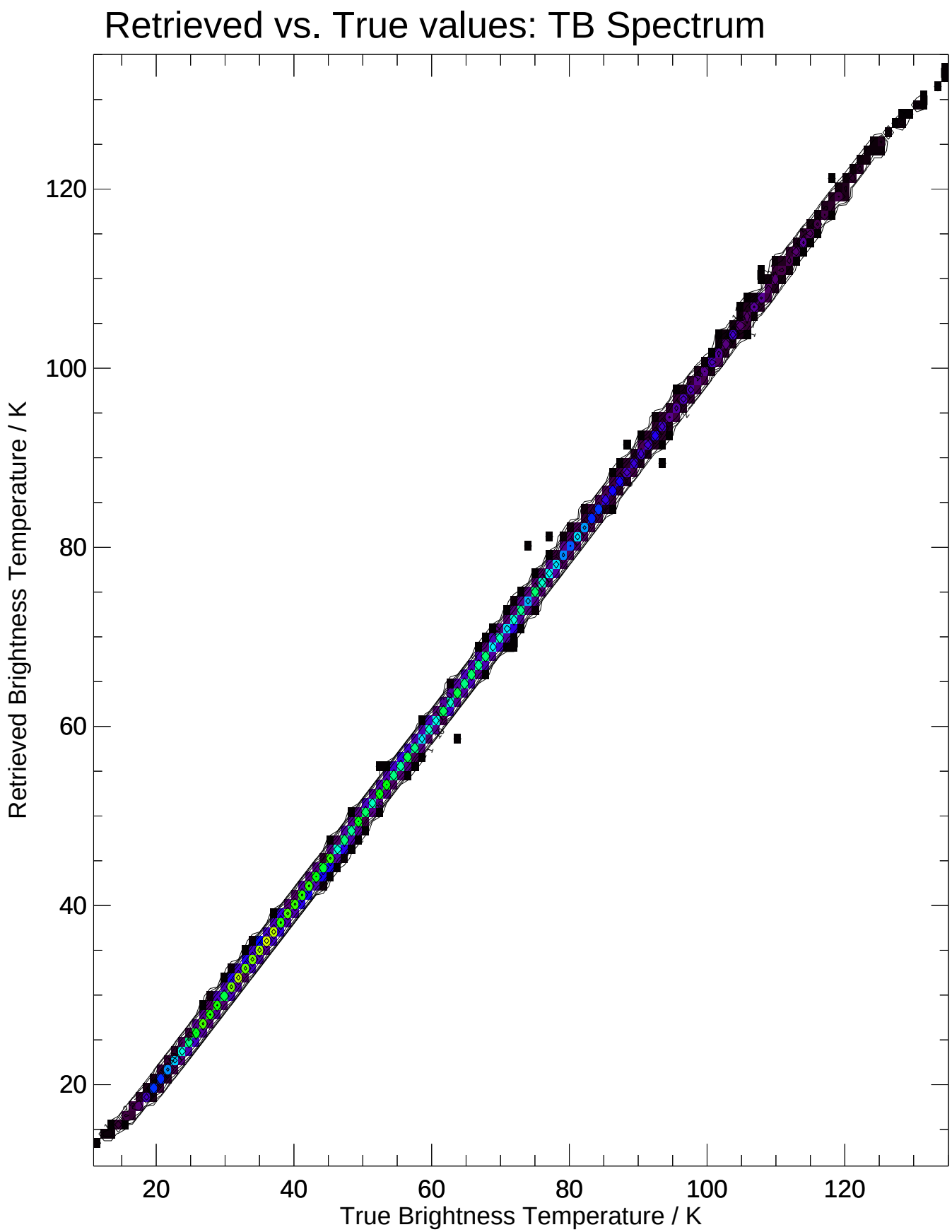

Relative Error (amplitude dependent)
F = 20.500 GHz
N=216
N=1231
N=1631
N=1364
N=1232
N=1233
N=1028
N=590
N=325
N=301
N=228
N=207
N=137
N=72
N=19
N=6
0.03
0.02
0.01
0.00
-0.01
-0.02
20
40
60
80
100
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

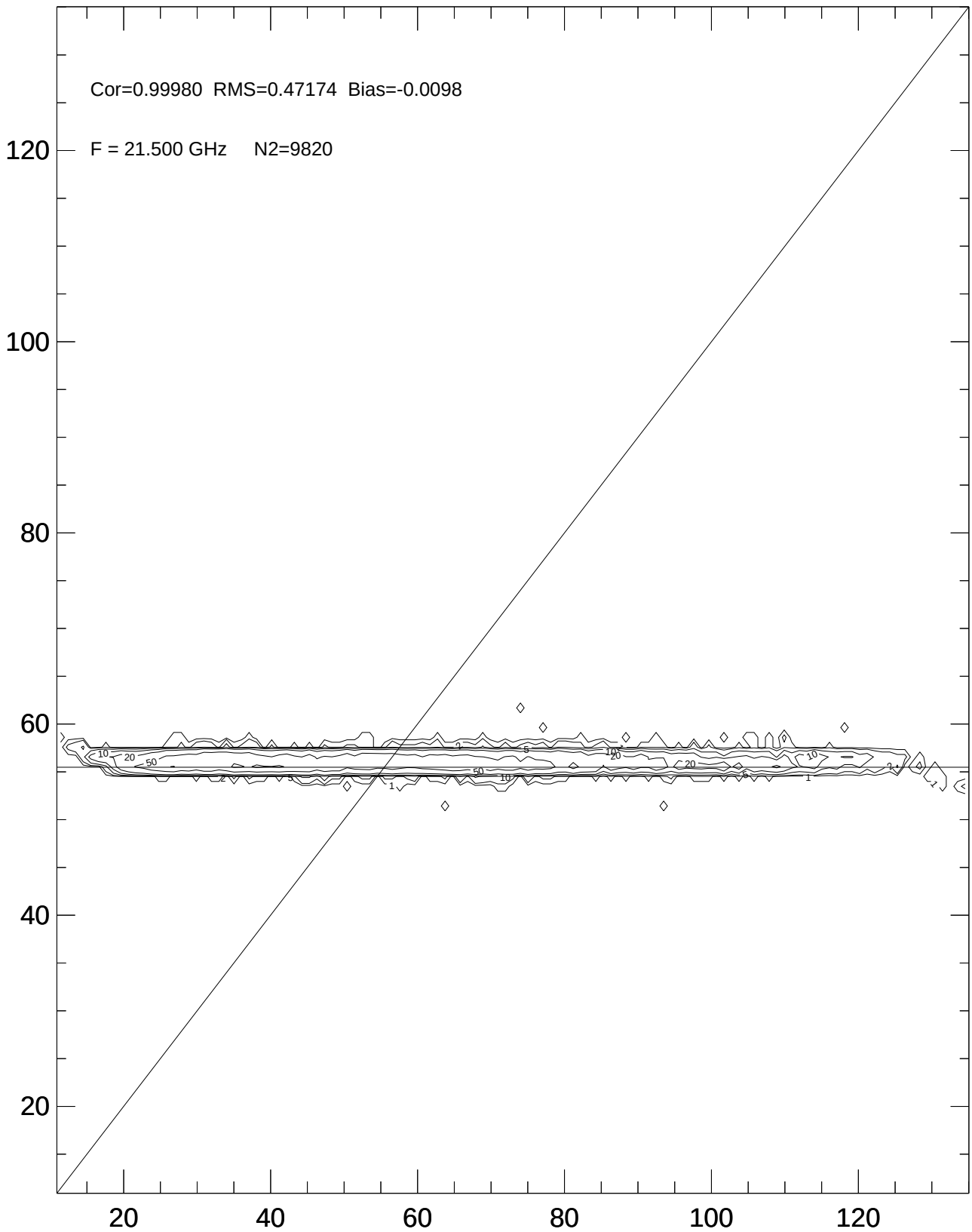

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
120
100
80
60
40
20
20
40
60
80
100
120

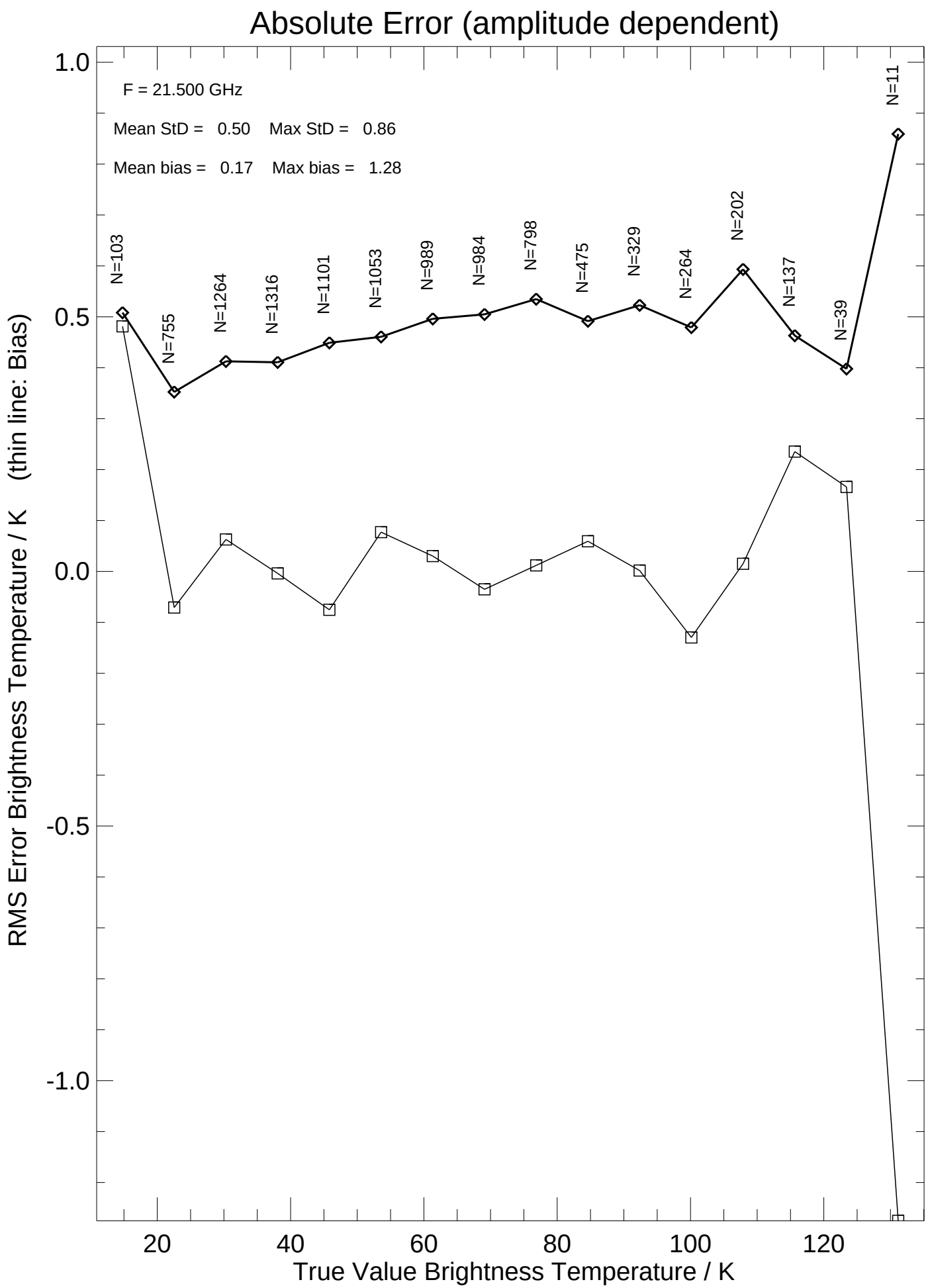

Cor=0.99989 RMS=0.30100 Bias=-0.0124
F = 21.000 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

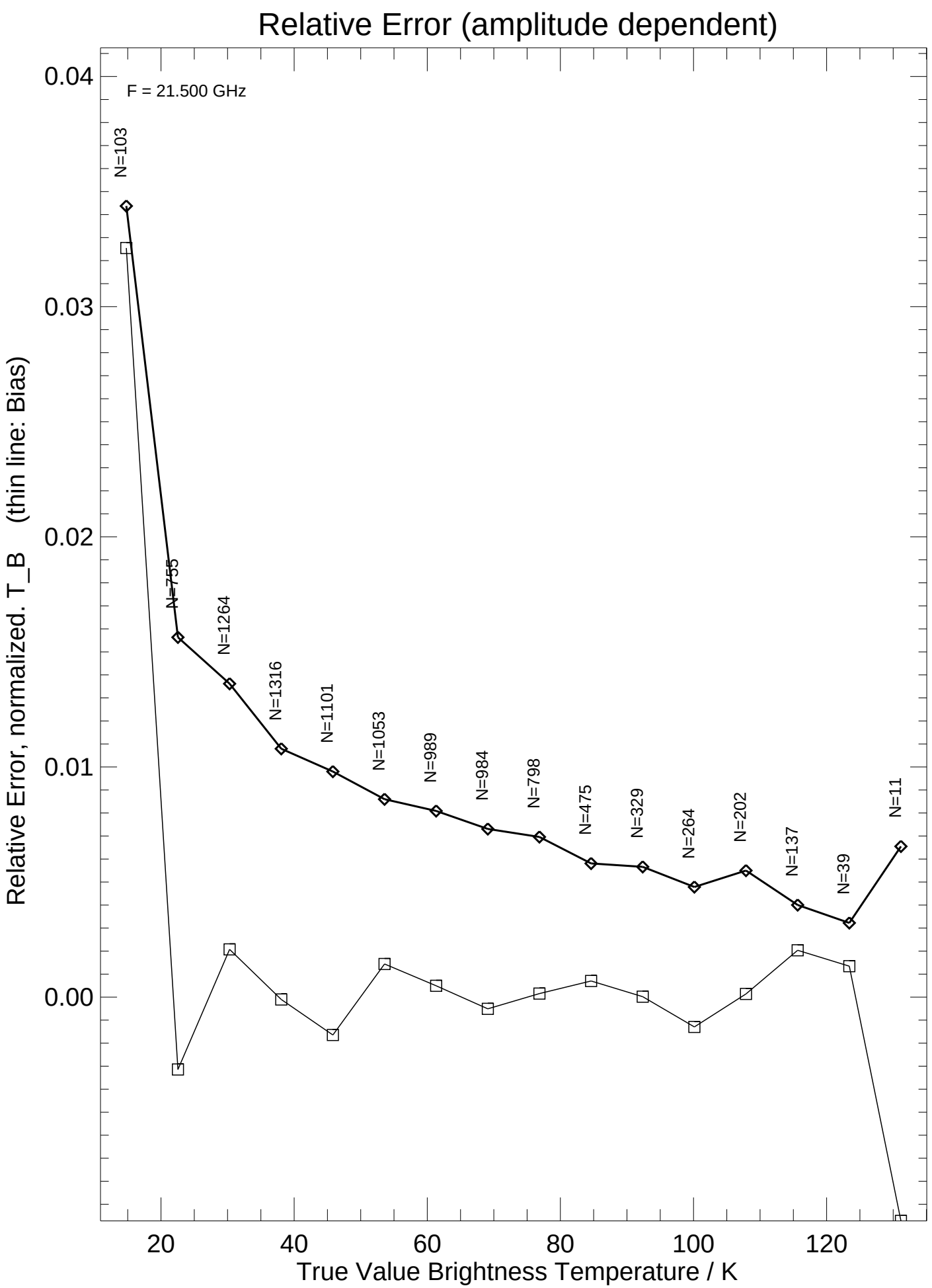

Absolute Error (amplitude dependent)
F = 21.000 GHz
Mean StD = 0.34 Max StD = 0.72
Mean bias = 0.23 Max bias = 2.36
N=147
N=944
N=1470
N=1334
N=1135
N=1082
N=1115
N=908
N=537
N=333
N=278
N=217
N=187
N=98
N=28
N=7
0.5
0.0
-0.5
-1.0
-1.5
-2.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

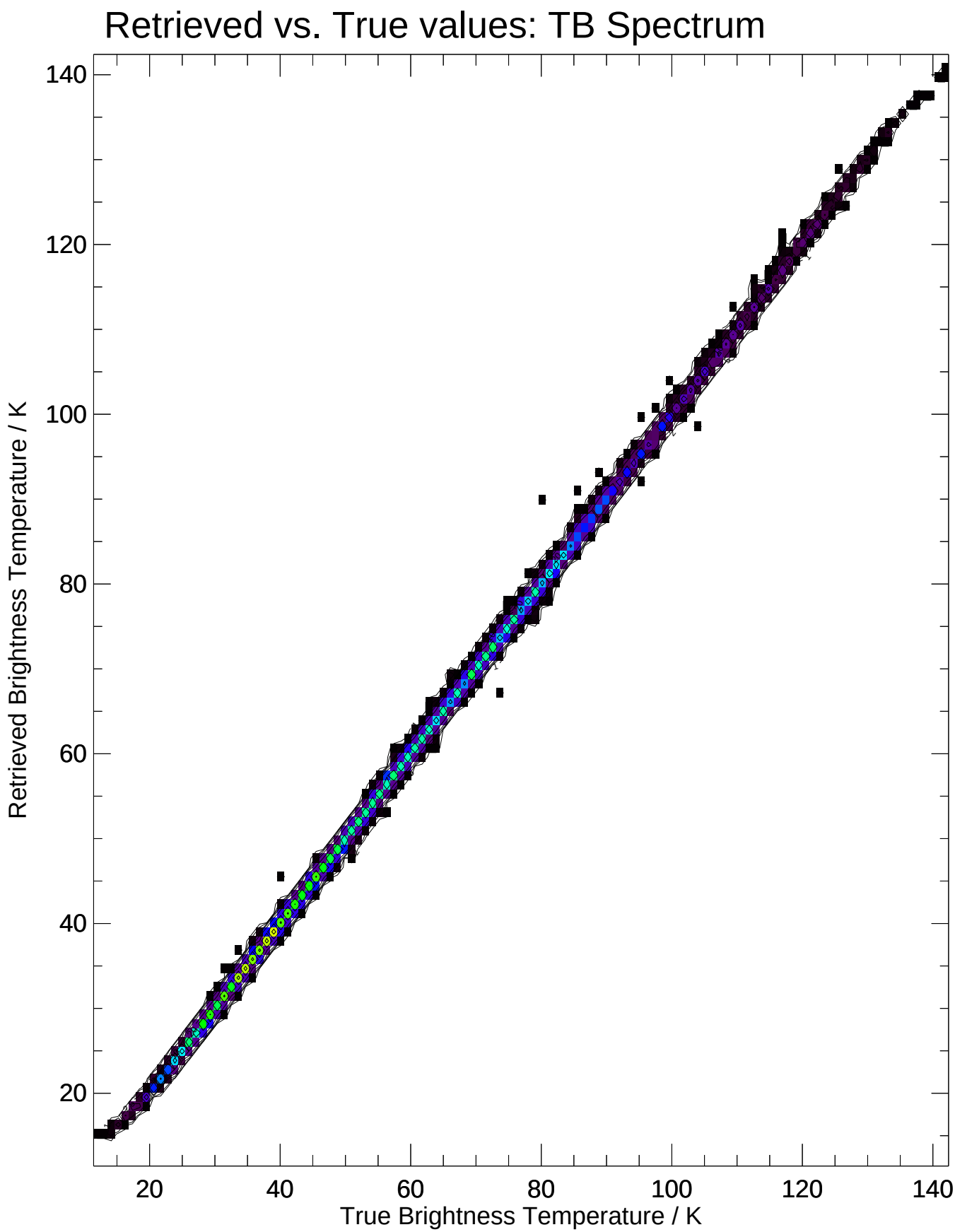

Relative Error (amplitude dependent)
F = 21.000 GHz
N=147
N=944
N=1470
N=1334
N=1135
N=1082
N=1115
N=908
N=537
N=333
N=278
N=217
N=187
N=98
N=28
N=7
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

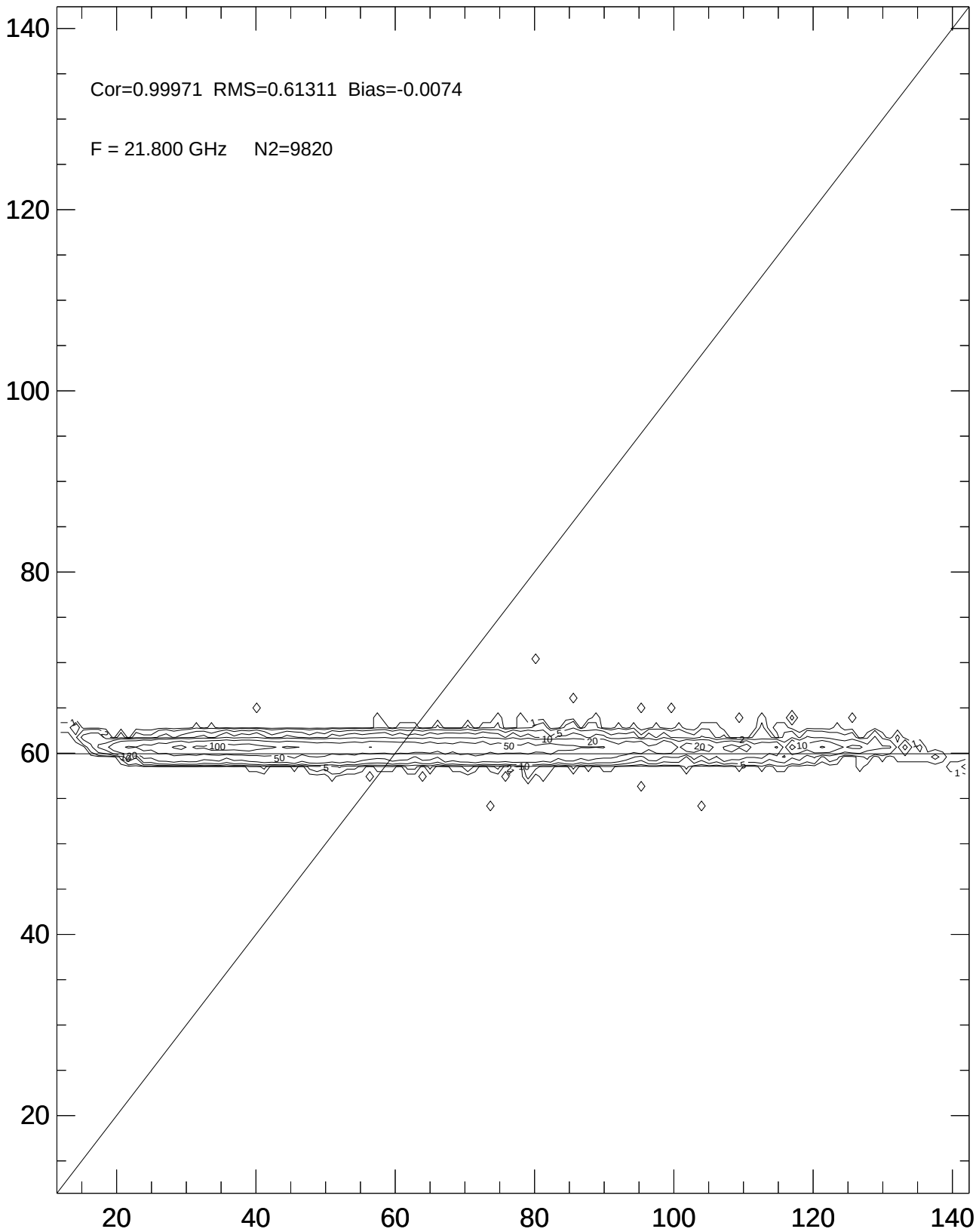

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

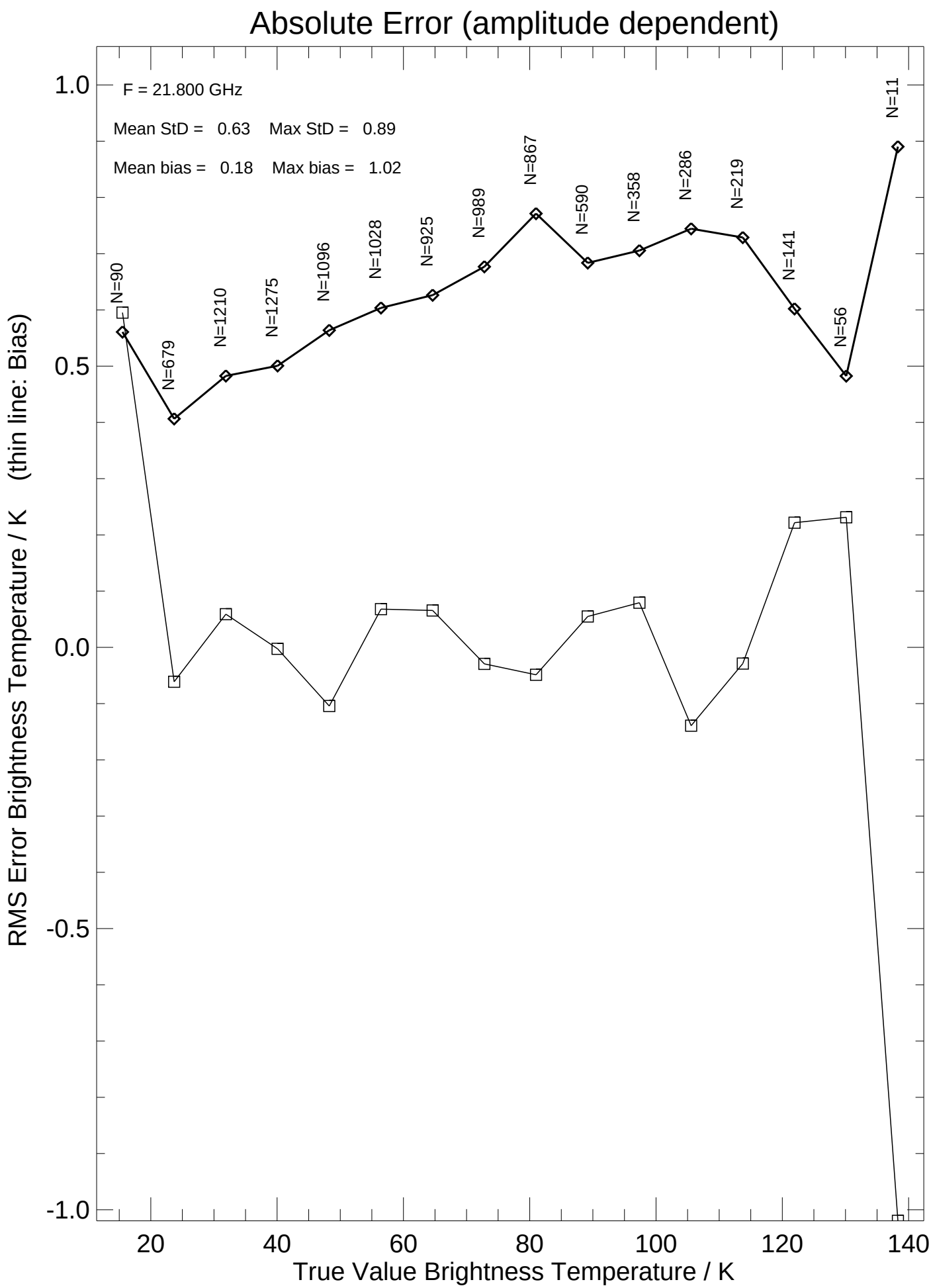

Cor=0.99980 RMS=0.47174 Bias=-0.0098
F = 21.500 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

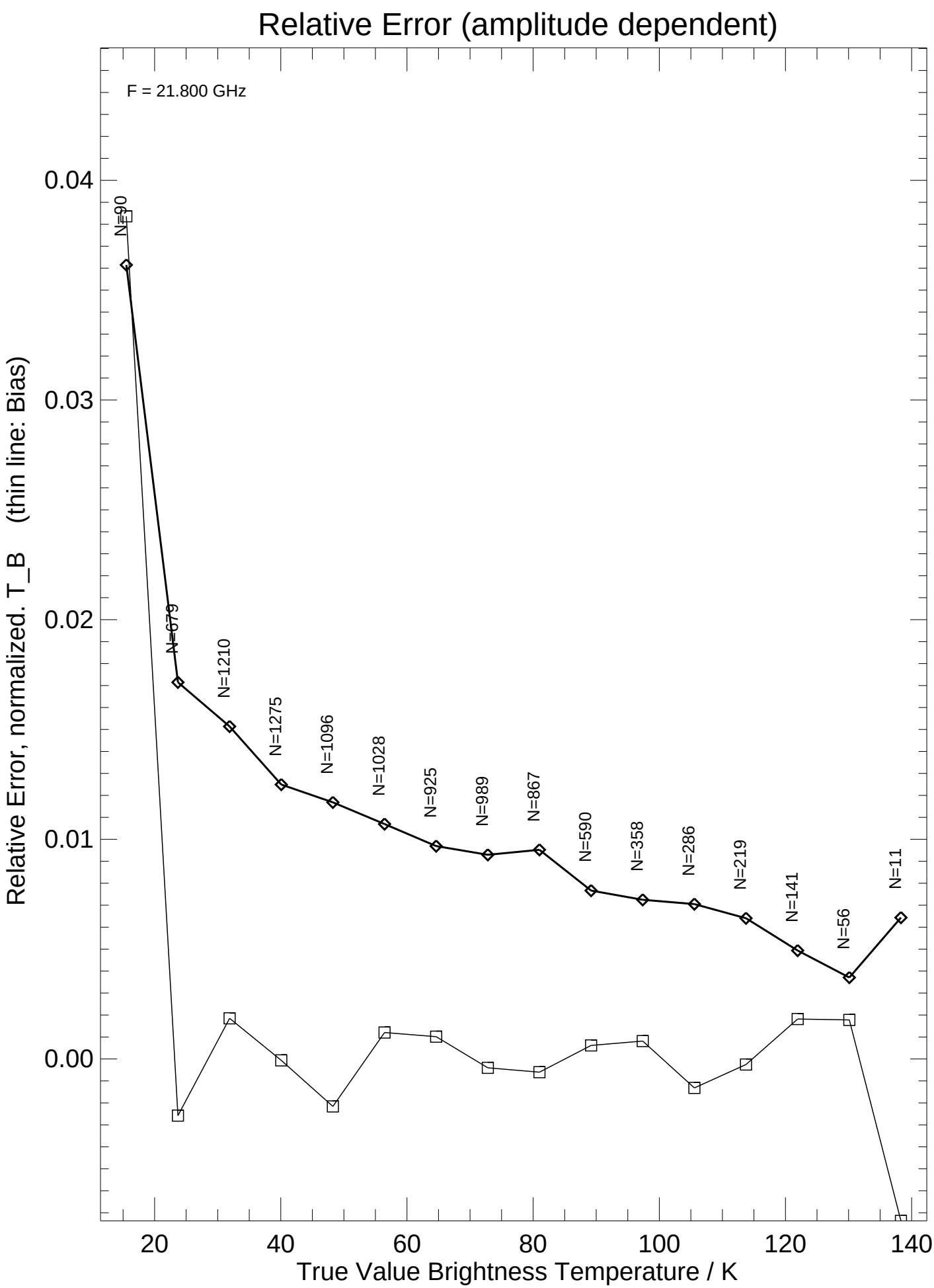

Absolute Error (amplitude dependent)
F = 21.500 GHz
Mean StD = 0.50 Max StD = 0.86
Mean bias = 0.17 Max bias = 1.28
N=103
N=755
N=1264
N=1316
N=1101
N=1053
N=989
N=984
N=798
N=475
N=329
N=264
N=202
N=137
N=39
N=11
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

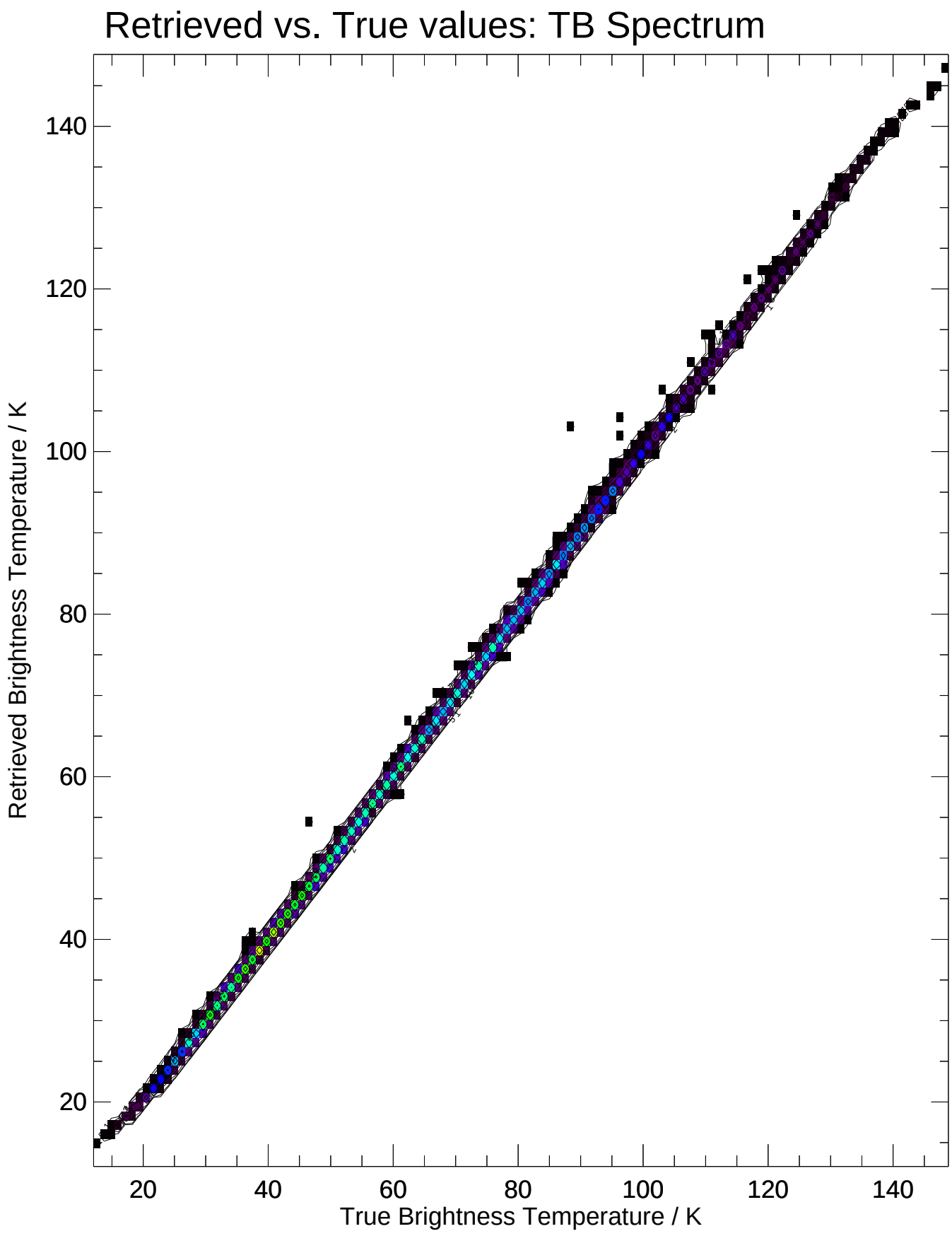

Relative Error (amplitude dependent)
F = 21.500 GHz
N=103
N=755
N=1264
N=1316
N=1101
N=1053
N=989
N=984
N=798
N=475
N=329
N=264
N=202
N=137
N=39
N=11
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
20
40
60
80
100
120
True Value Brightness Temperature / K

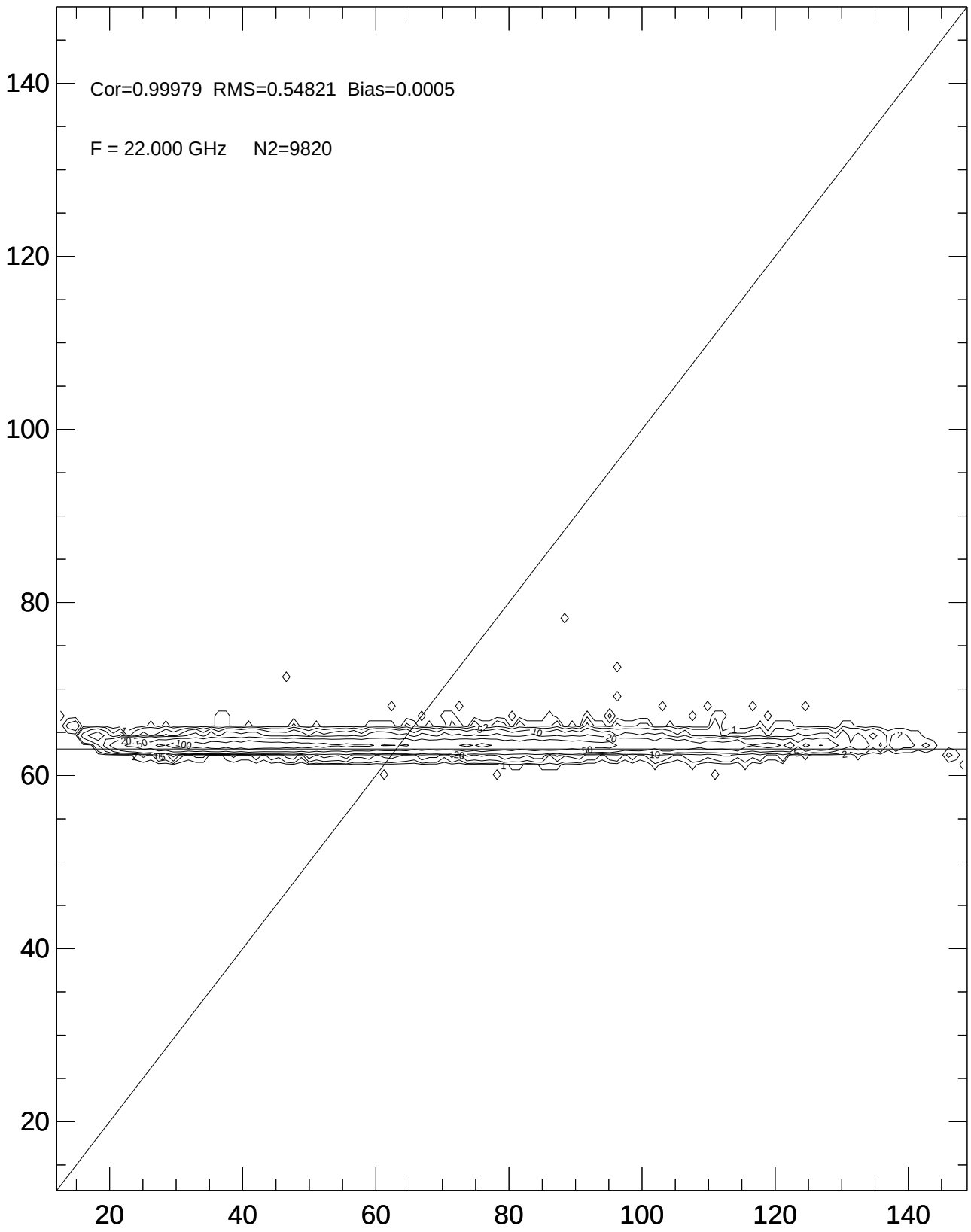

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

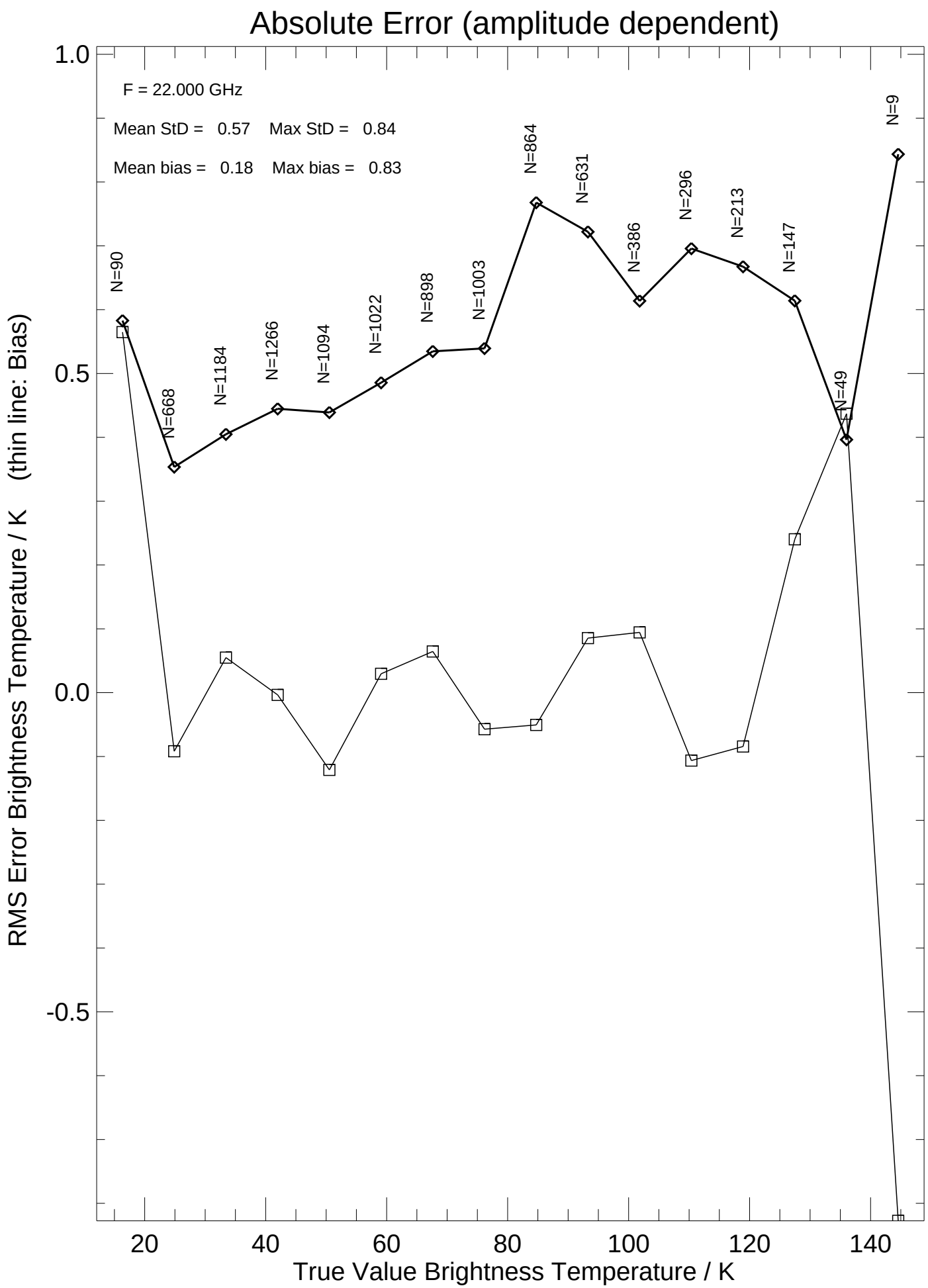

Cor=0.99971 RMS=0.61311 Bias=-0.0074
F = 21.800 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

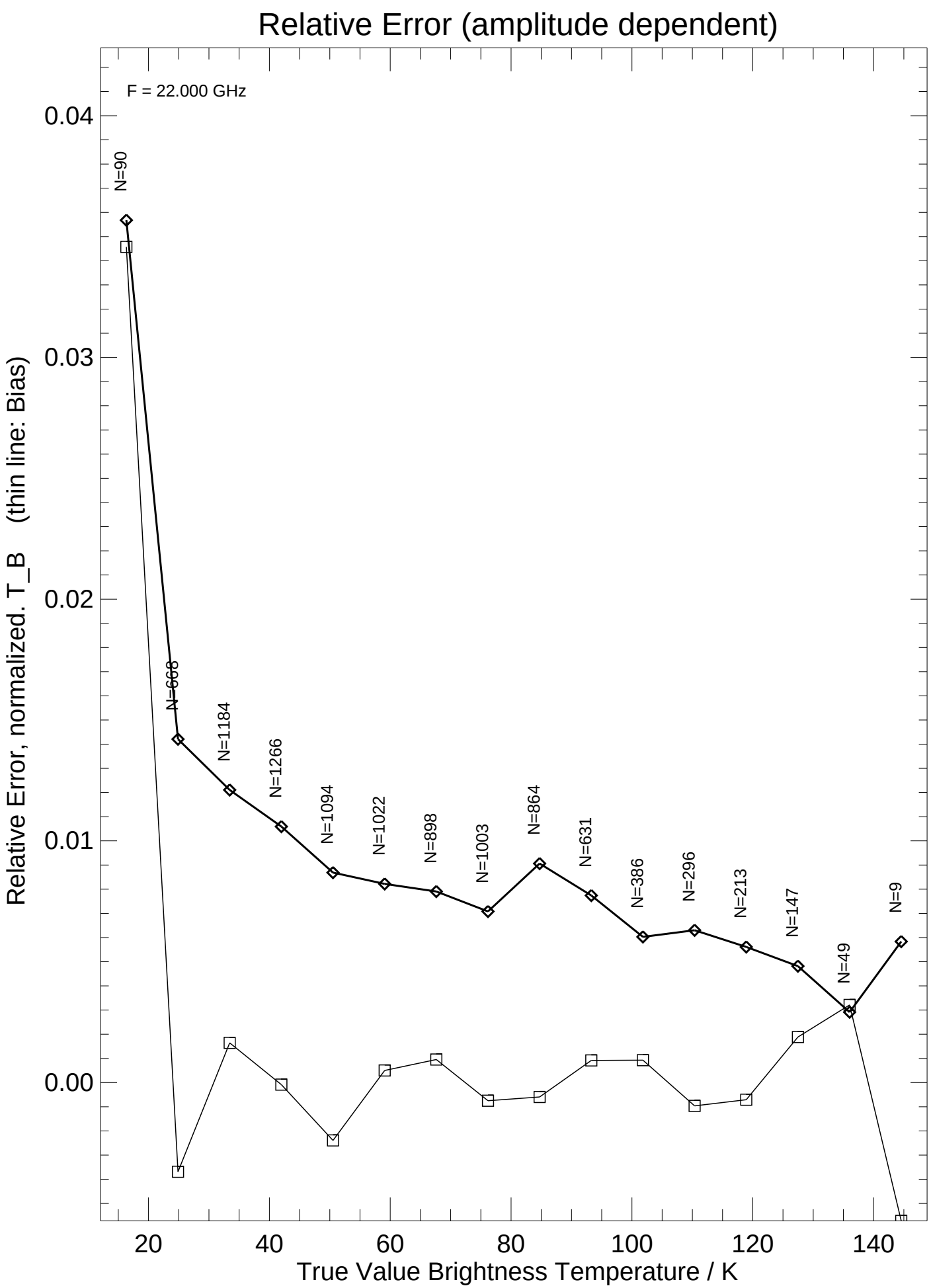

Absolute Error (amplitude dependent)
F = 21.800 GHz
Mean StD = 0.63 Max StD = 0.89
Mean bias = 0.18 Max bias = 1.02
N=90
N=679
N=1210
N=1275
N=1096
N=1028
N=925
N=989
N=867
N=590
N=358
N=286
N=219
N=141
N=56
N=11
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

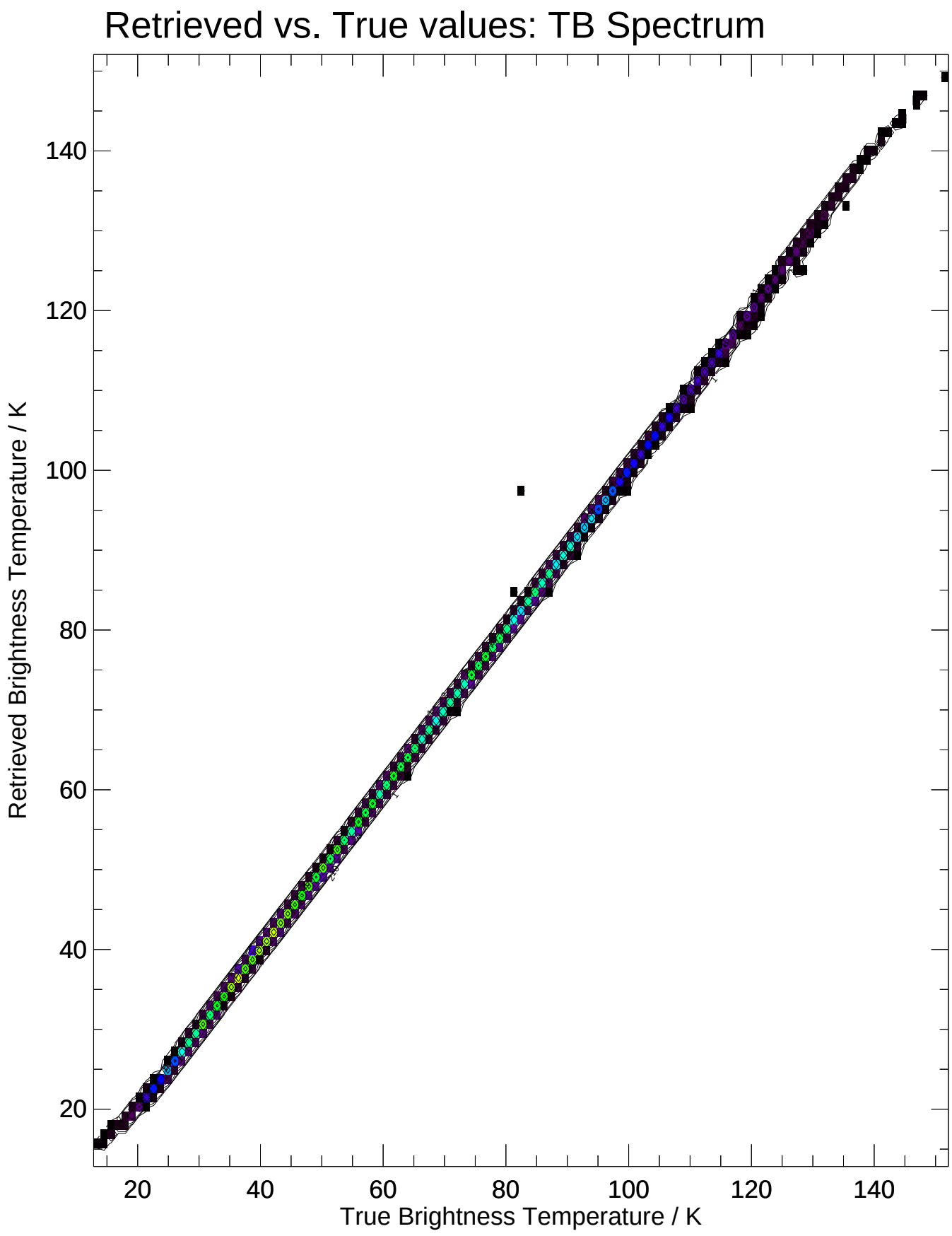

Relative Error (amplitude dependent)
F = 21.800 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.04
0.03
0.02
0.01
0.00
20
40
60
80
100
120
140
N=90
N=679
N=1210
N=1275
N=1096
N=1028
N=925
N=989
N=867
N=590
N=358
N=286
N=219
N=141
N=56
N=11

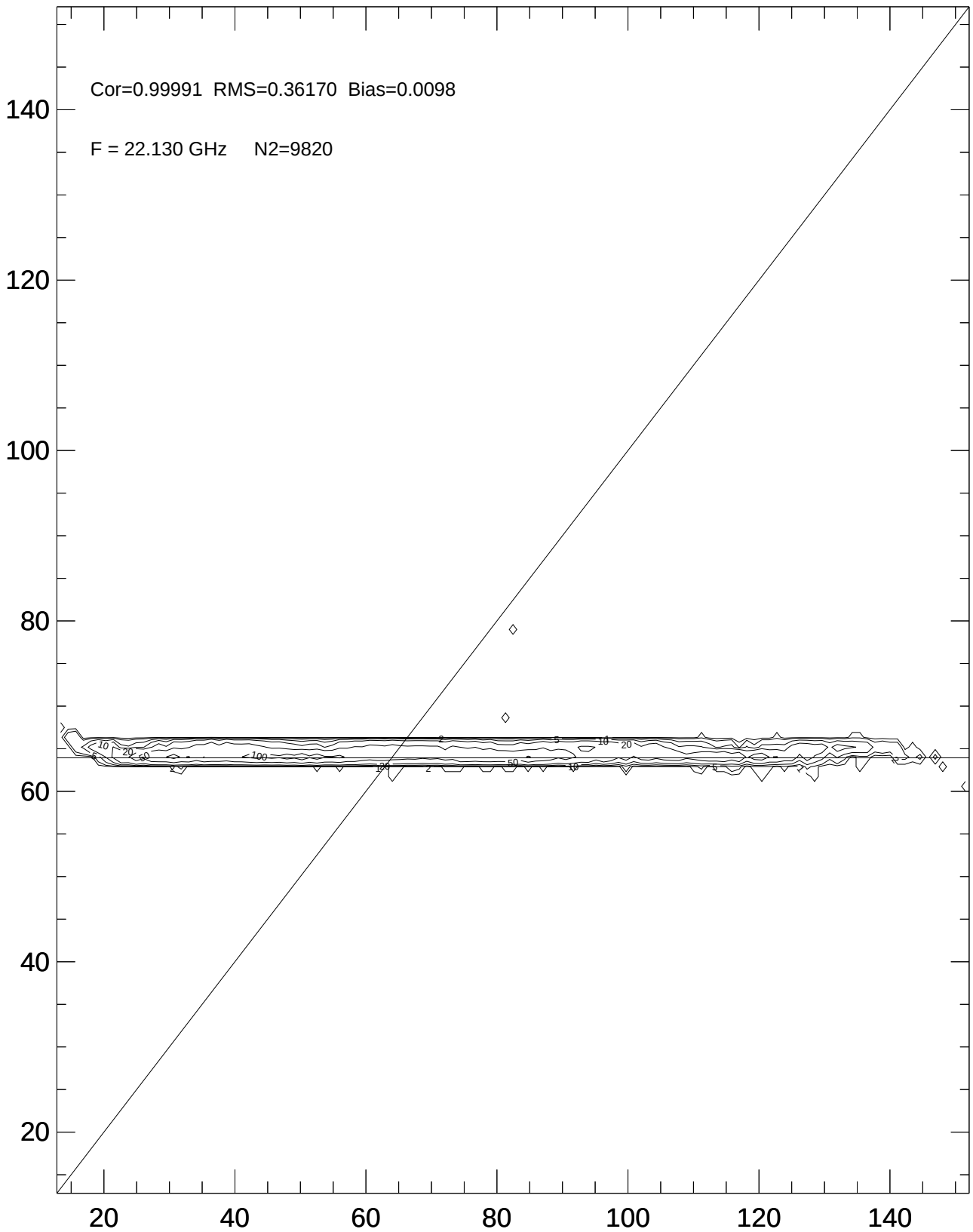

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

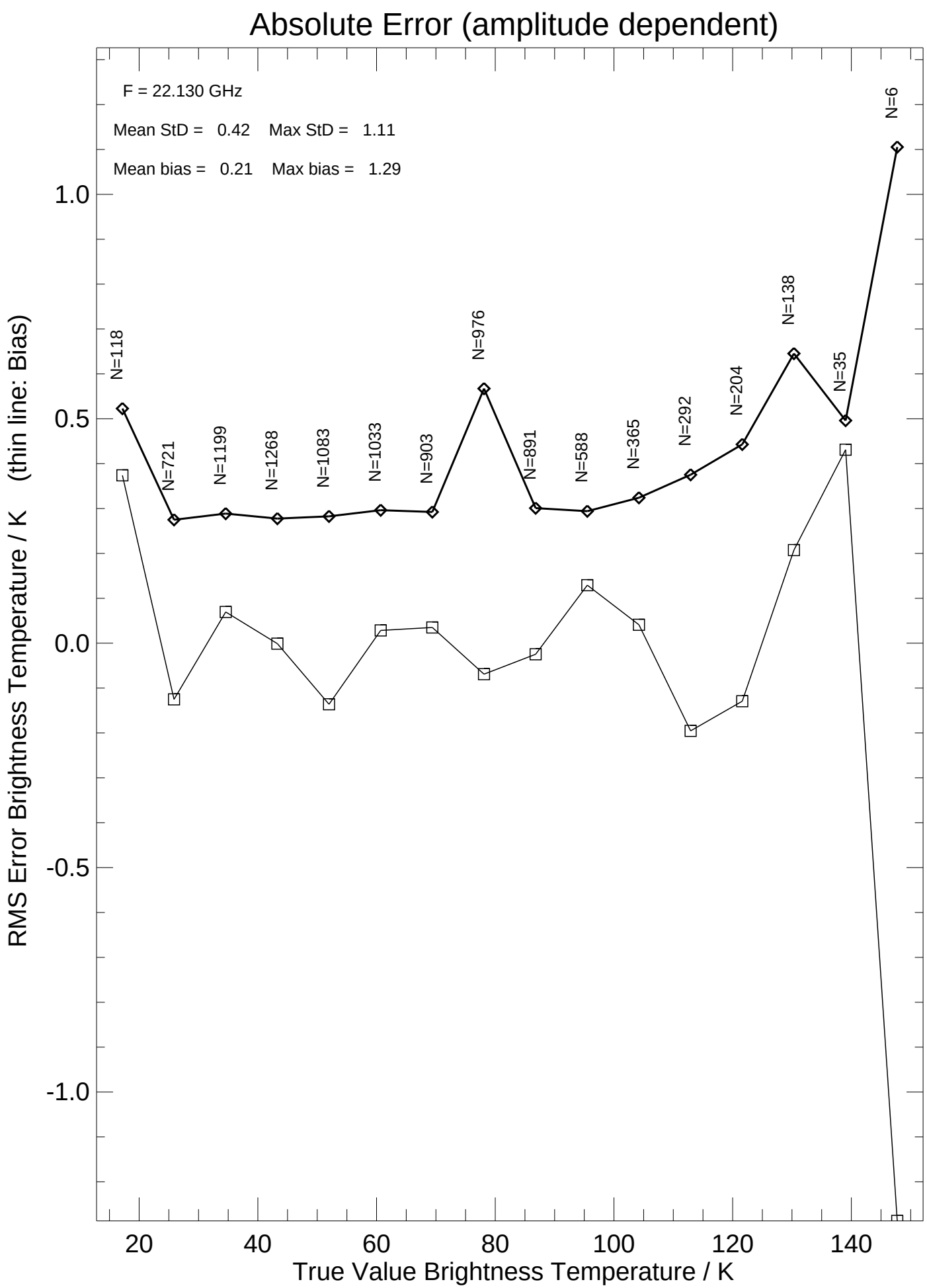

Cor=0.99979 RMS=0.54821 Bias=0.0005
F = 22.000 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

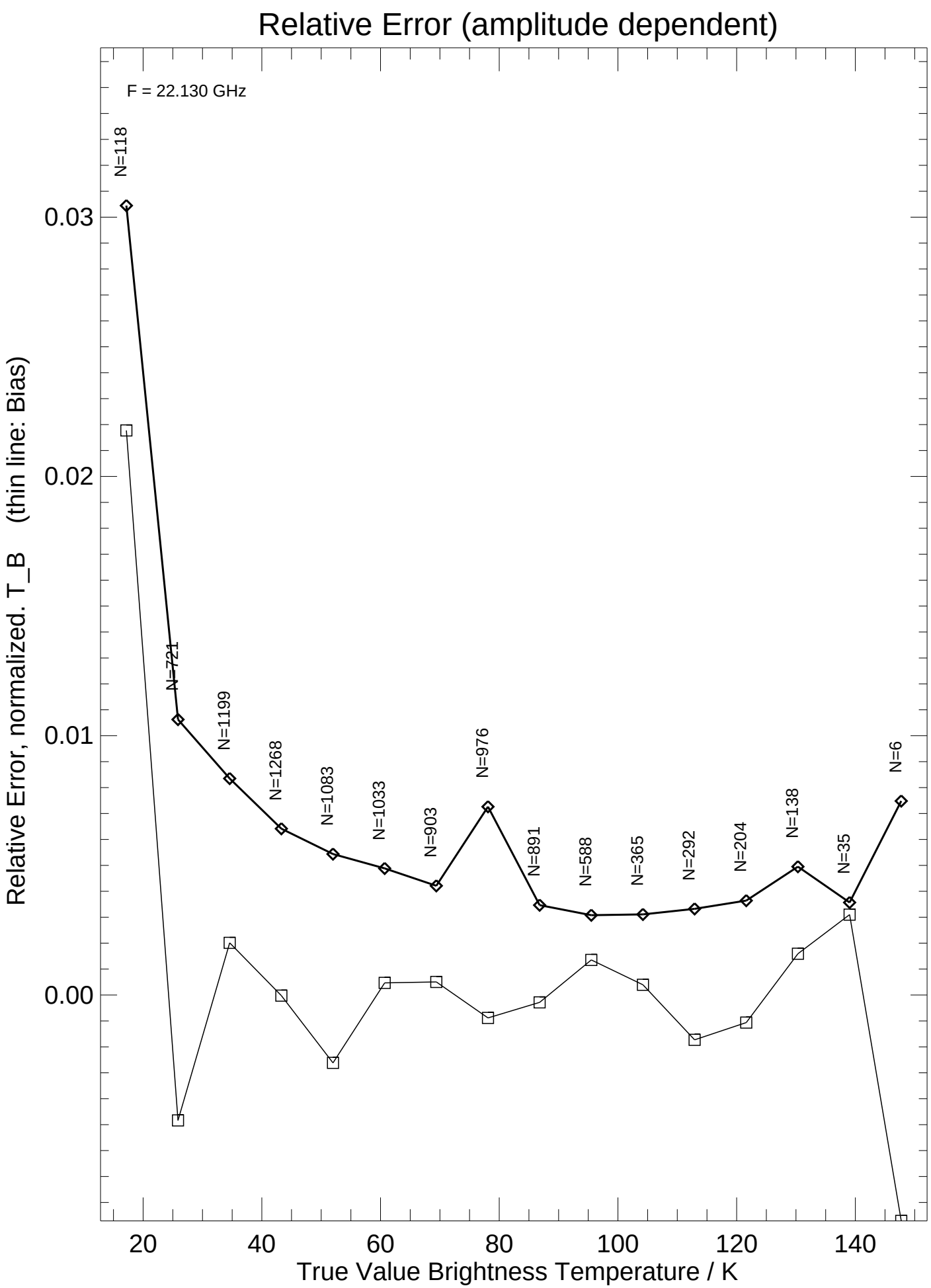

Absolute Error (amplitude dependent)
F = 22.000 GHz
Mean StD = 0.57 Max StD = 0.84
Mean bias = 0.18 Max bias = 0.83
N=90
N=668
N=1184
N=1266
N=1094
N=1022
N=898
N=1003
N=864
N=631
N=386
N=296
N=213
N=147
N=49
N=9
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

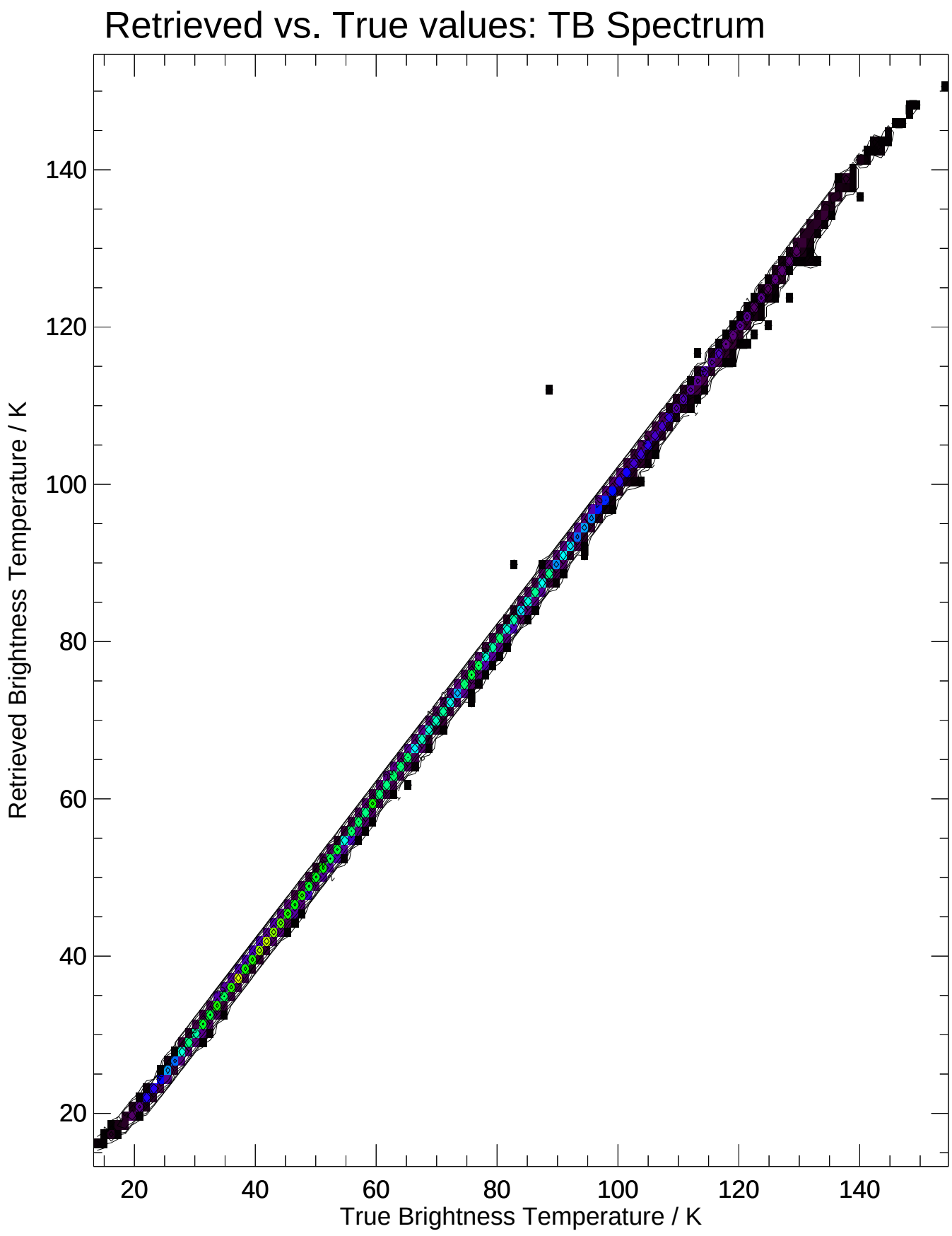

Relative Error (amplitude dependent)
F = 22.000 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.04
0.03
0.02
0.01
0.00
20
40
60
80
100
120
140
N=90
N=668
N=1184
N=1266
N=1094
N=1022
N=898
N=1003
N=864
N=631
N=386
N=296
N=213
N=147
N=49
N=9

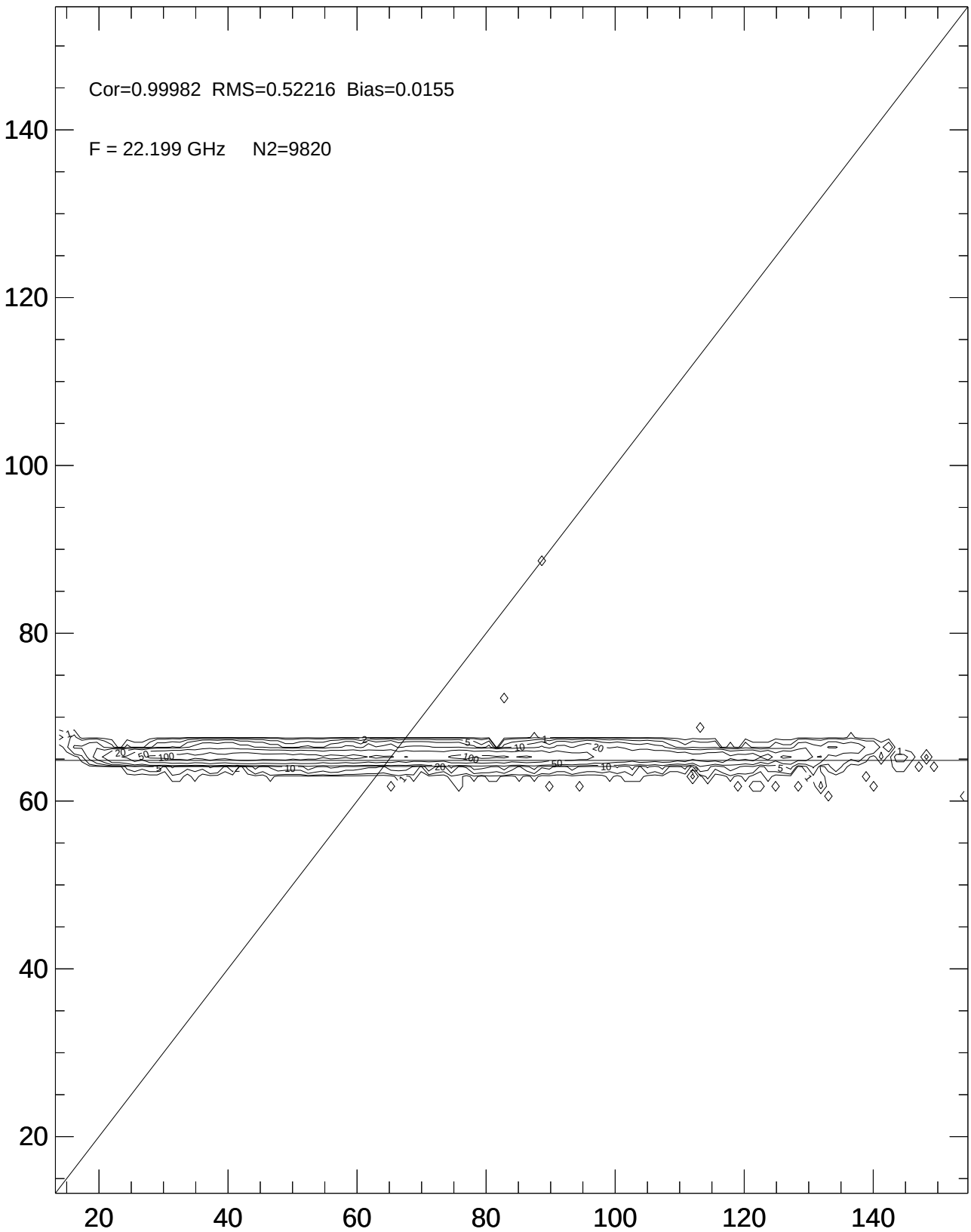

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

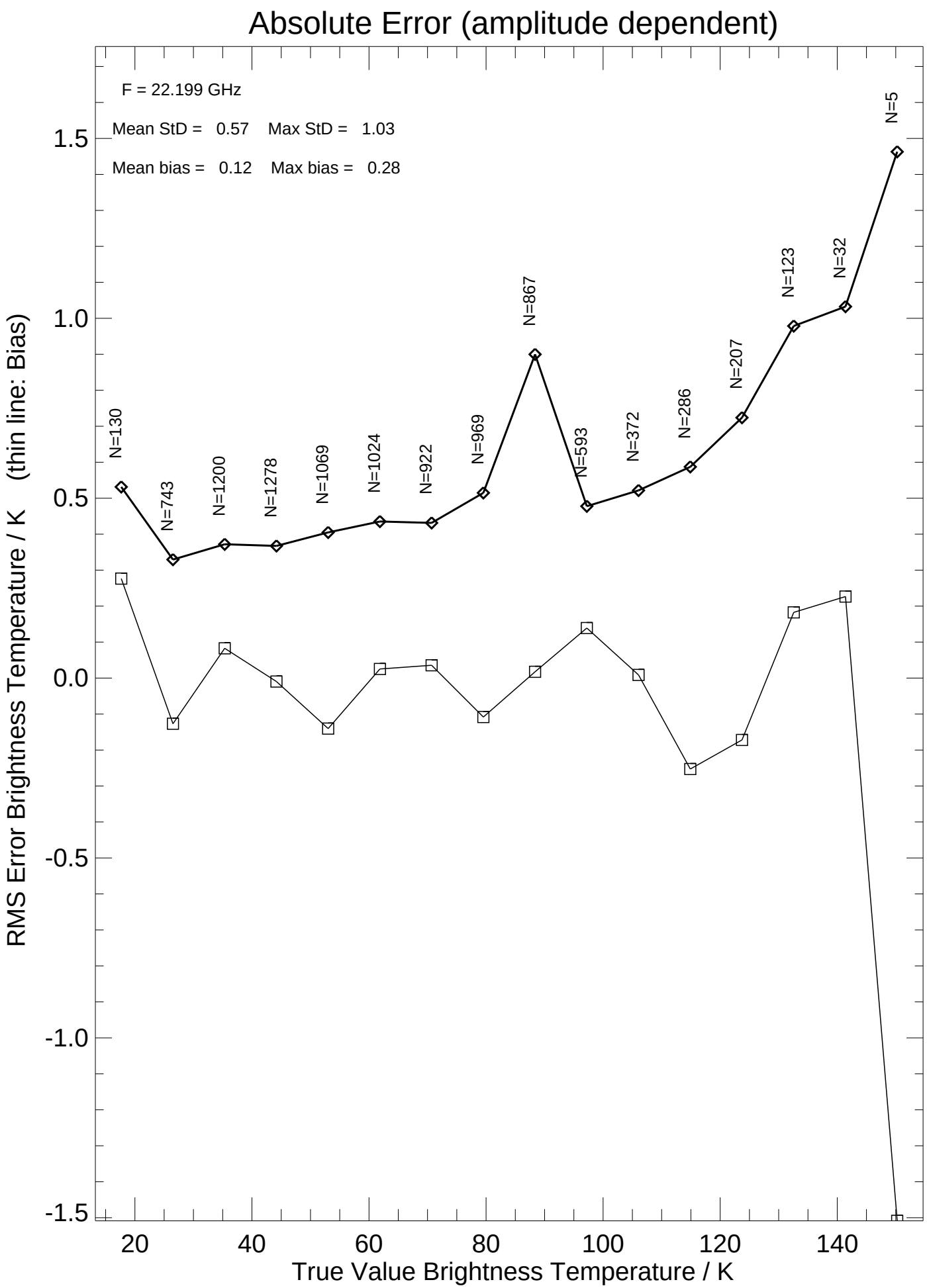

Cor=0.99991 RMS=0.36170 Bias=0.0098
F = 22.130 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

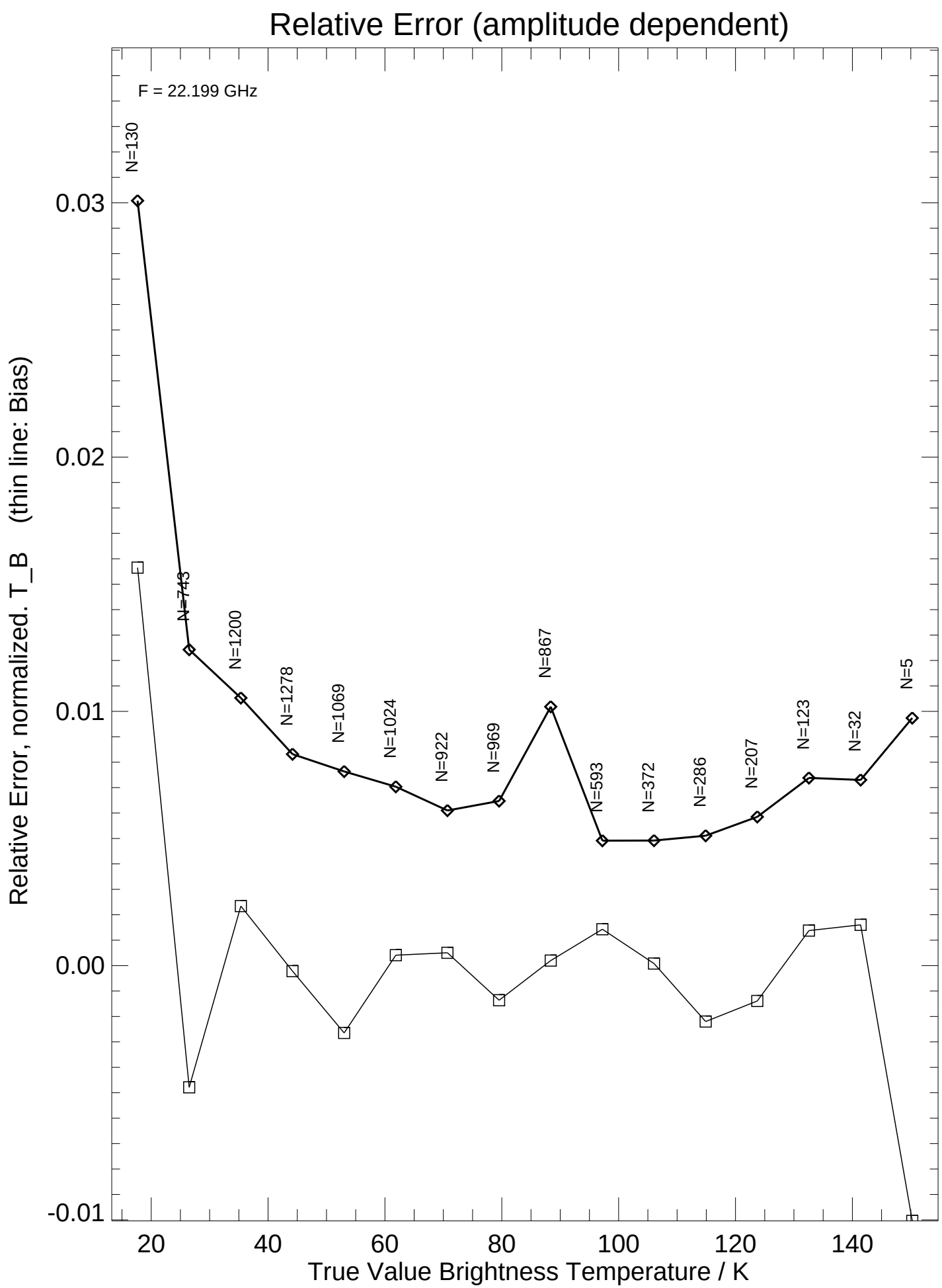

Absolute Error (amplitude dependent)
F = 22.130 GHz
Mean StD = 0.42 Max StD = 1.11
Mean bias = 0.21 Max bias = 1.29
N=118
N=721
N=1199
N=1268
N=1083
N=1033
N=903
N=976
N=891
N=588
N=365
N=292
N=204
N=138
N=35
N=6
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

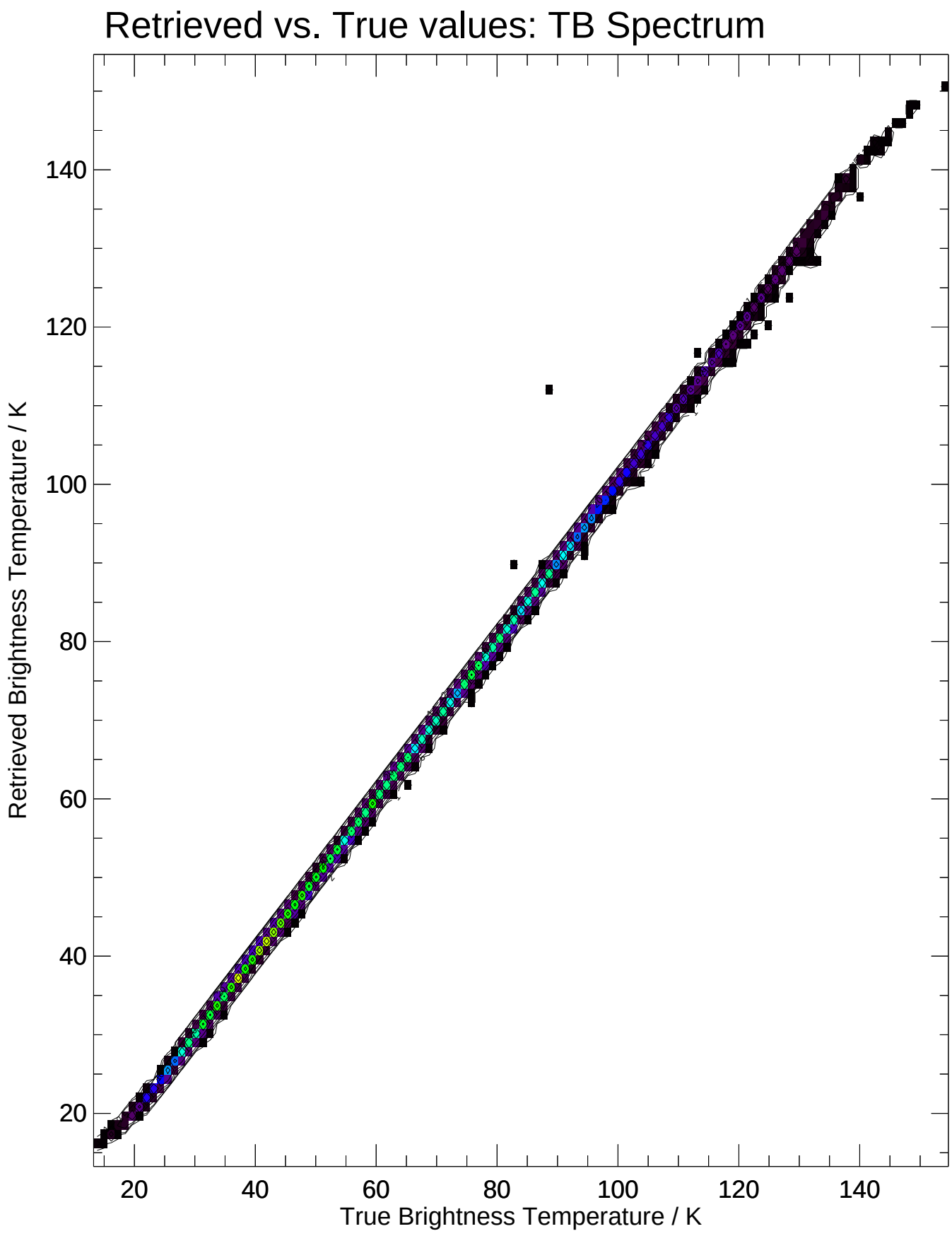

Relative Error (amplitude dependent)
F = 22.130 GHz
N=118
N=721
N=1199
N=1268
N=1083
N=1033
N=903
N=976
N=891
N=588
N=365
N=292
N=204
N=138
N=35
N=6
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

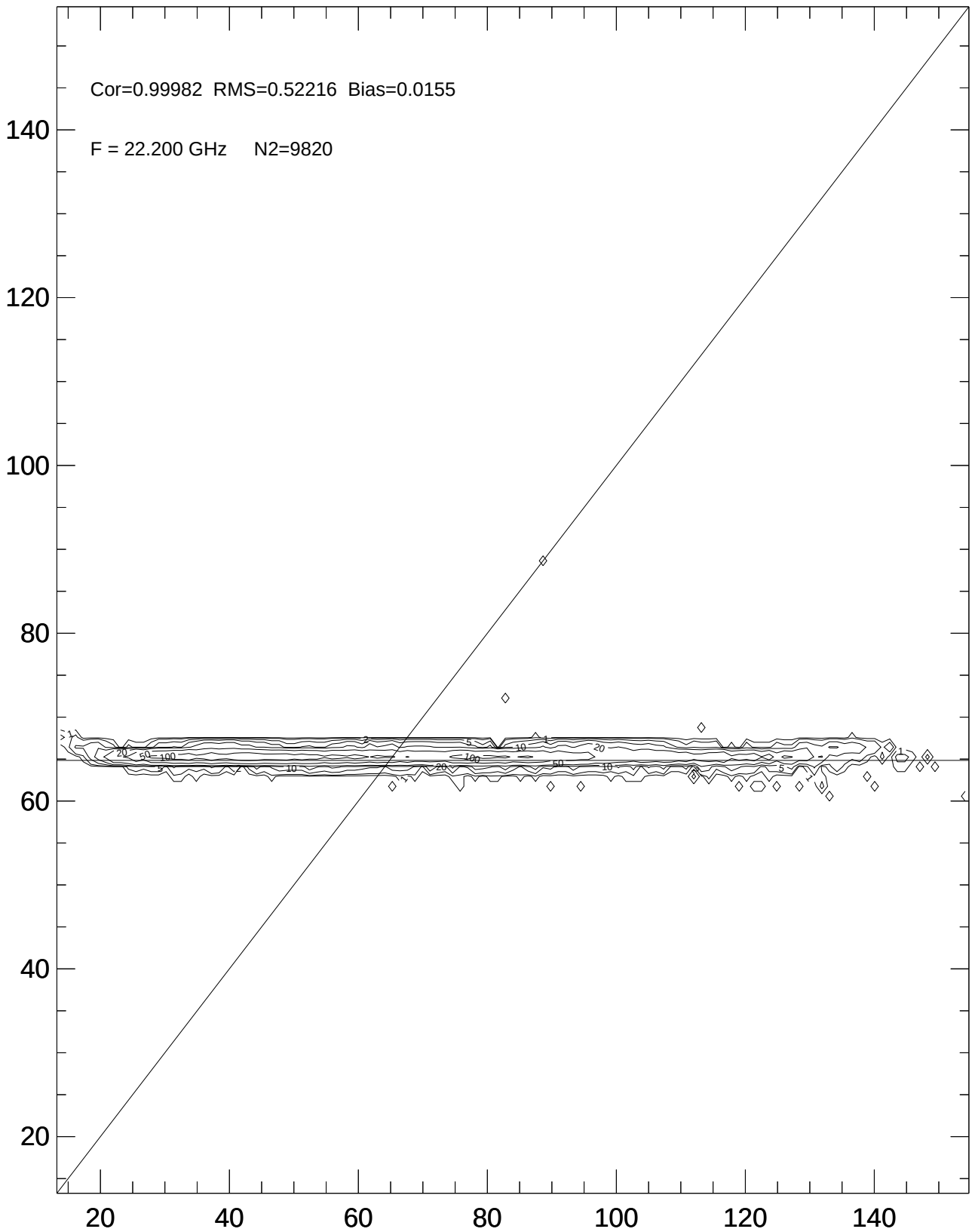

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

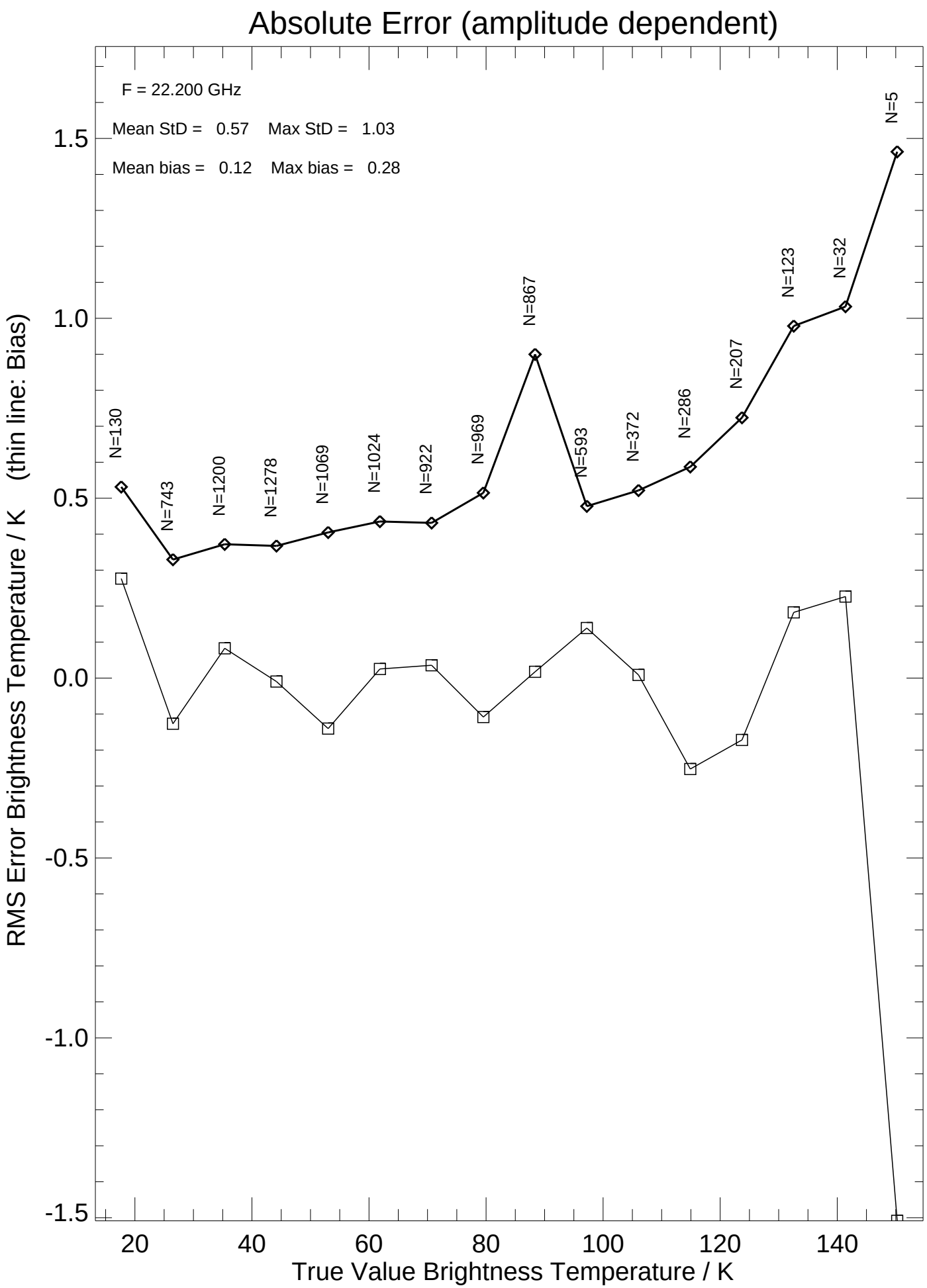

Cor=0.99982 RMS=0.52216 Bias=0.0155
F = 22.199 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

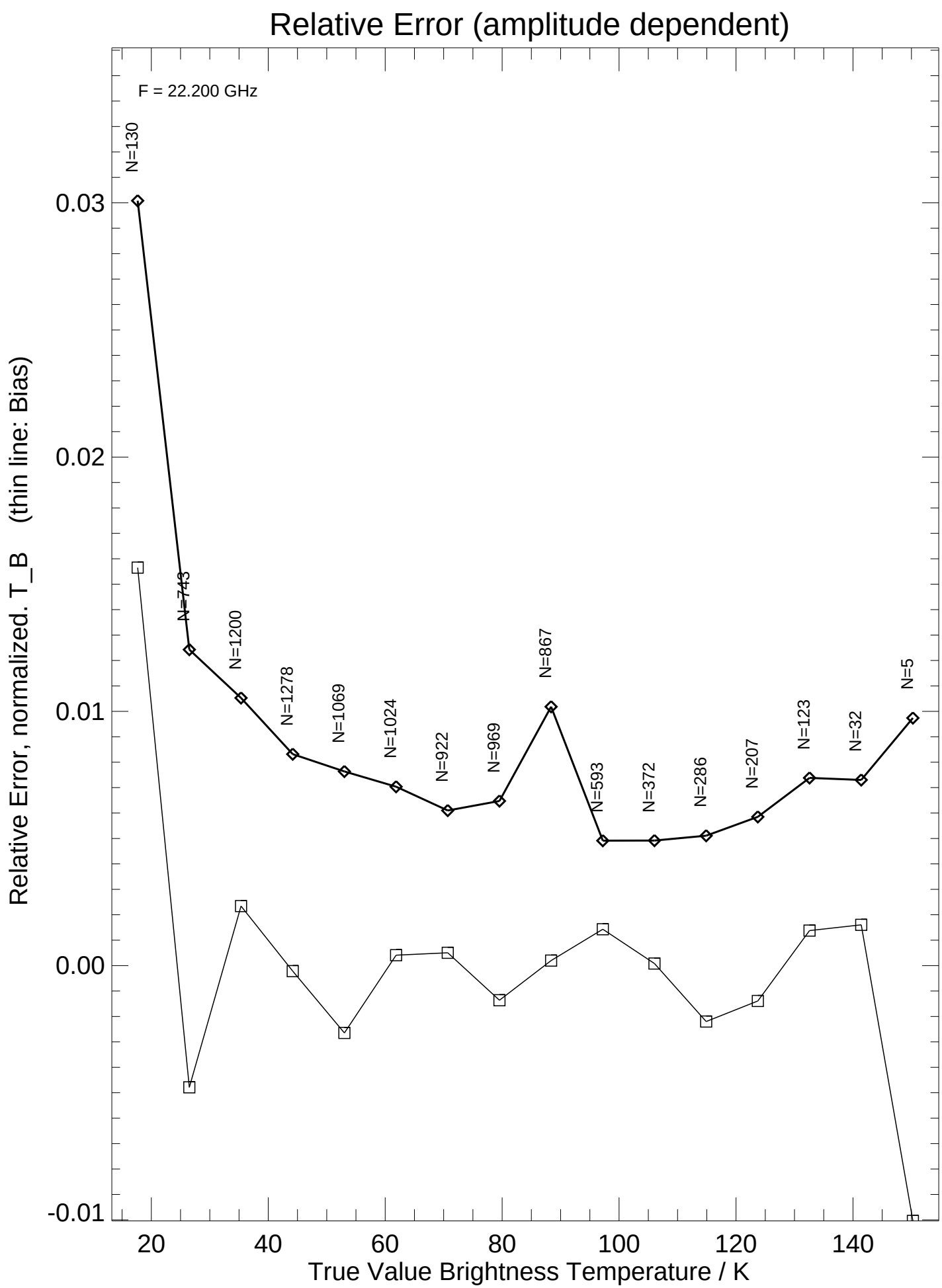

Absolute Error (amplitude dependent)
F = 22.199 GHz
Mean StD = 0.57 Max StD = 1.03
Mean bias = 0.12 Max bias = 0.28
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
140

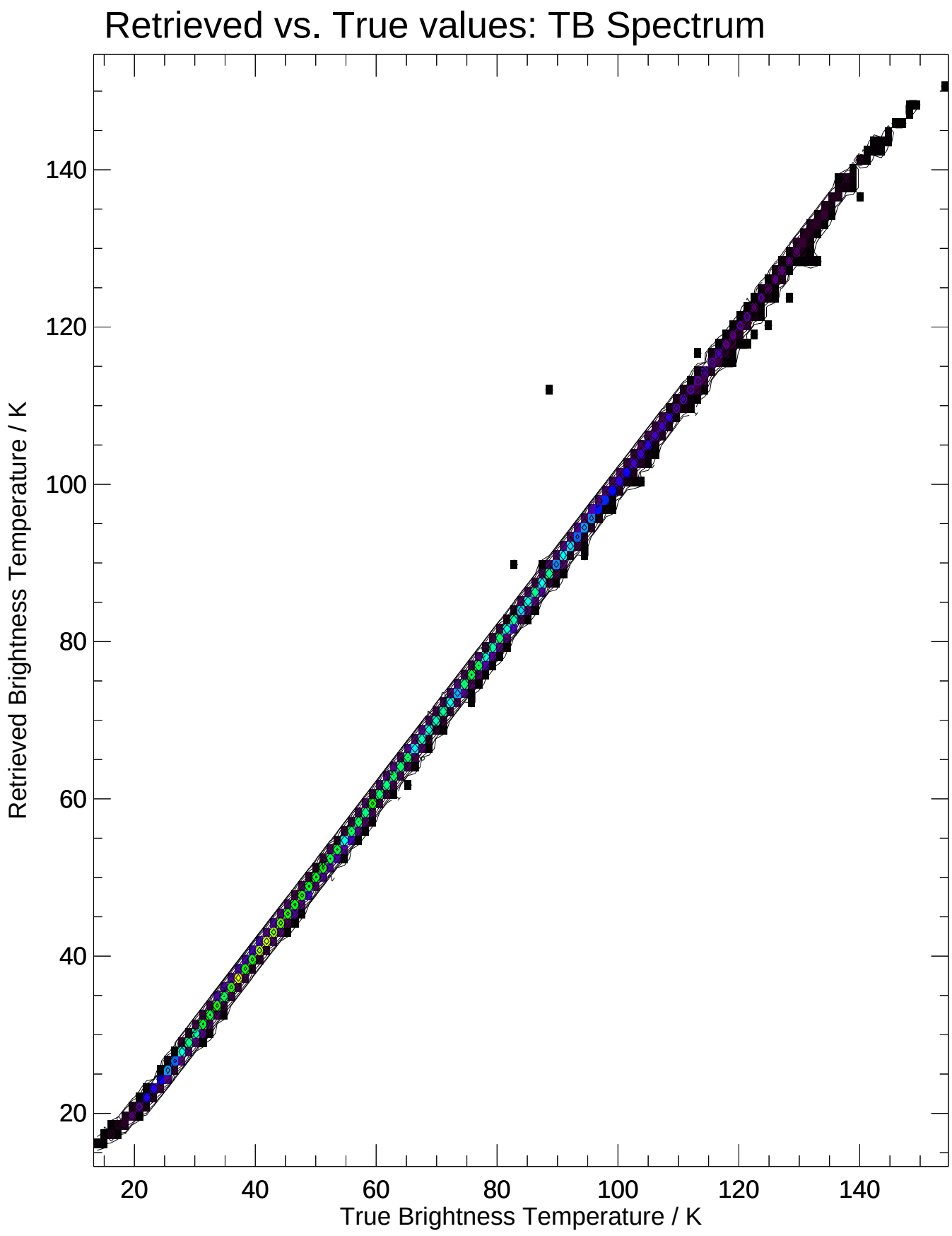

Relative Error (amplitude dependent)
F = 22.199 GHz
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

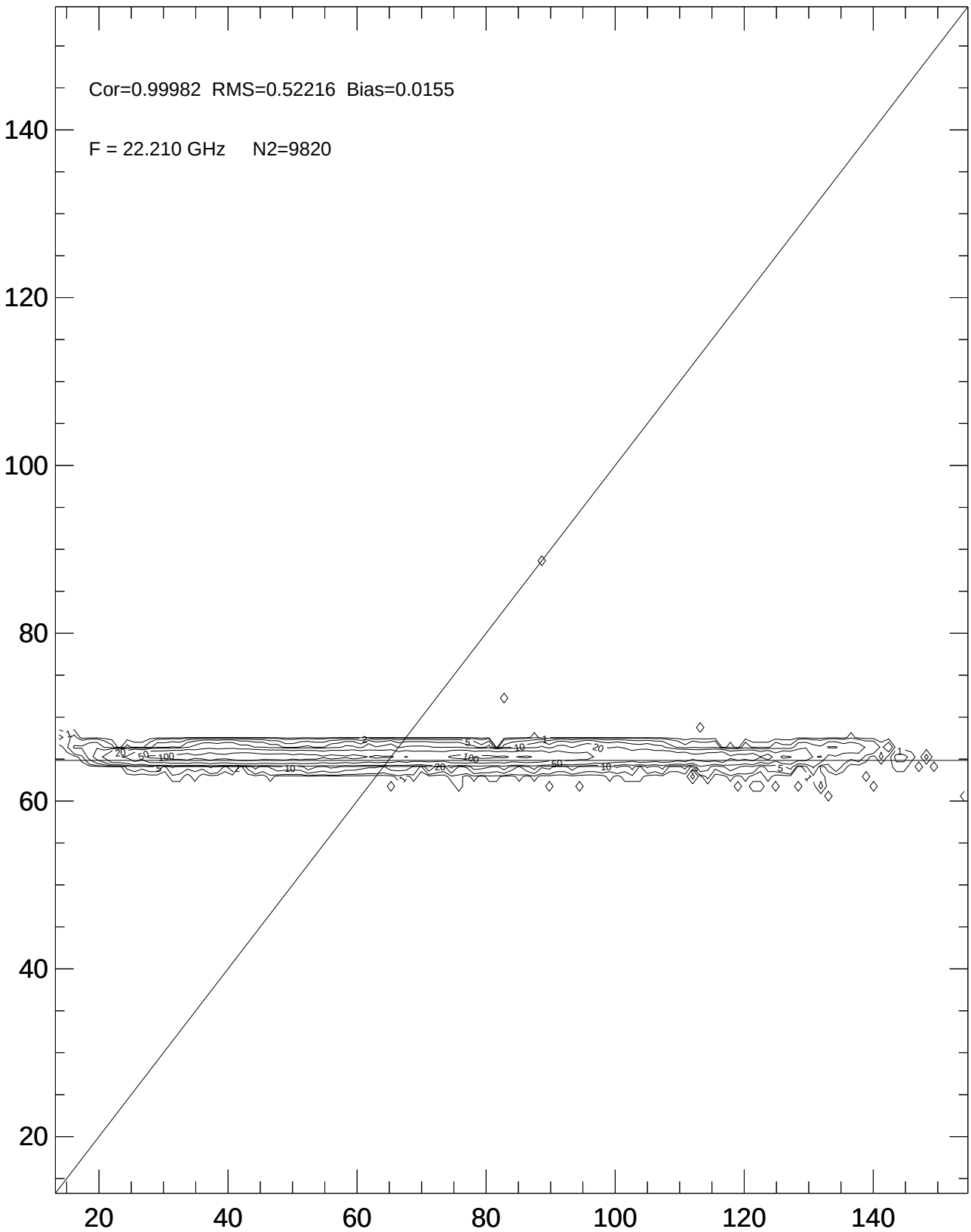

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

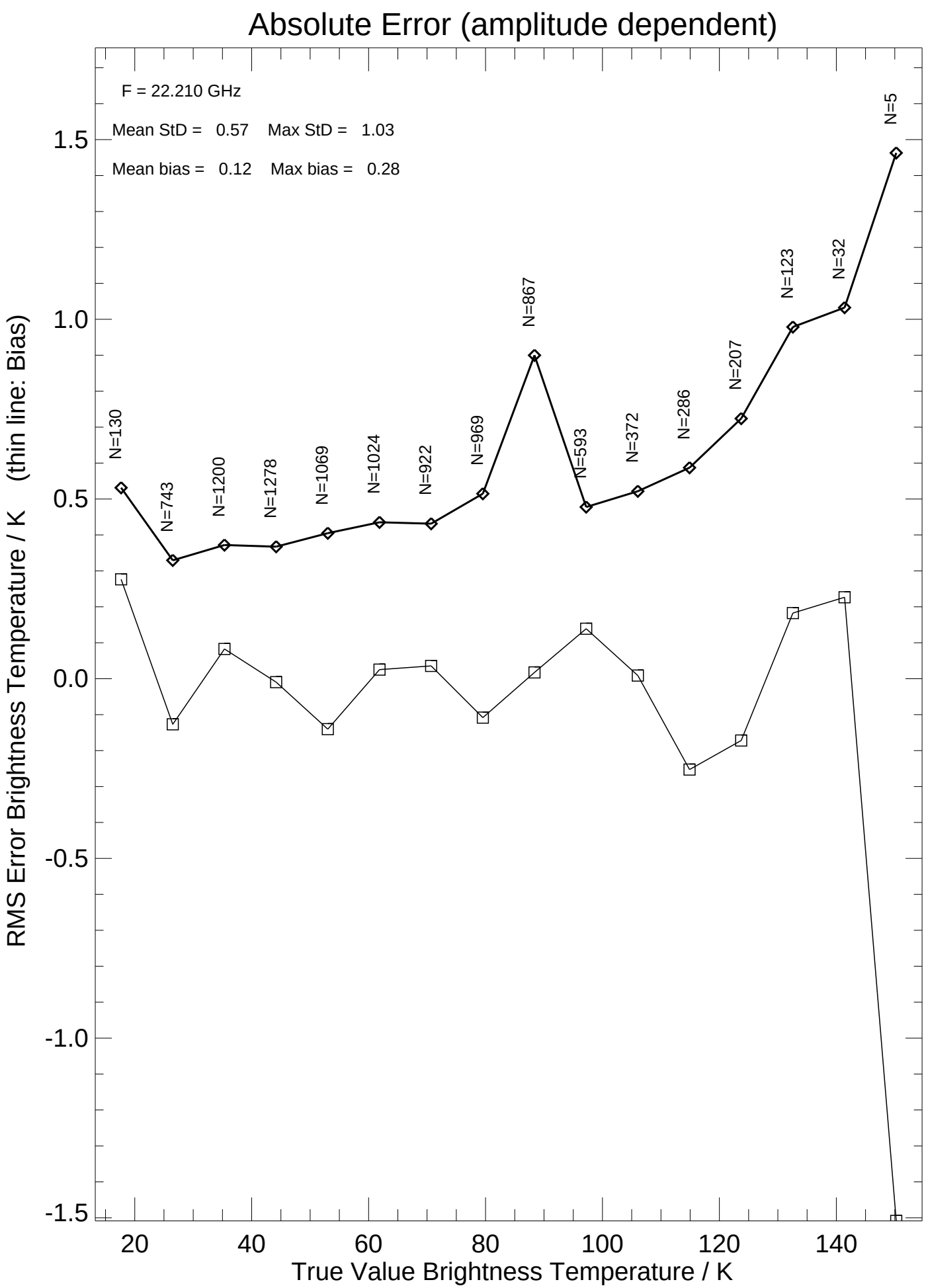

Cor=0.99982 RMS=0.52216 Bias=0.0155
F = 22.200 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

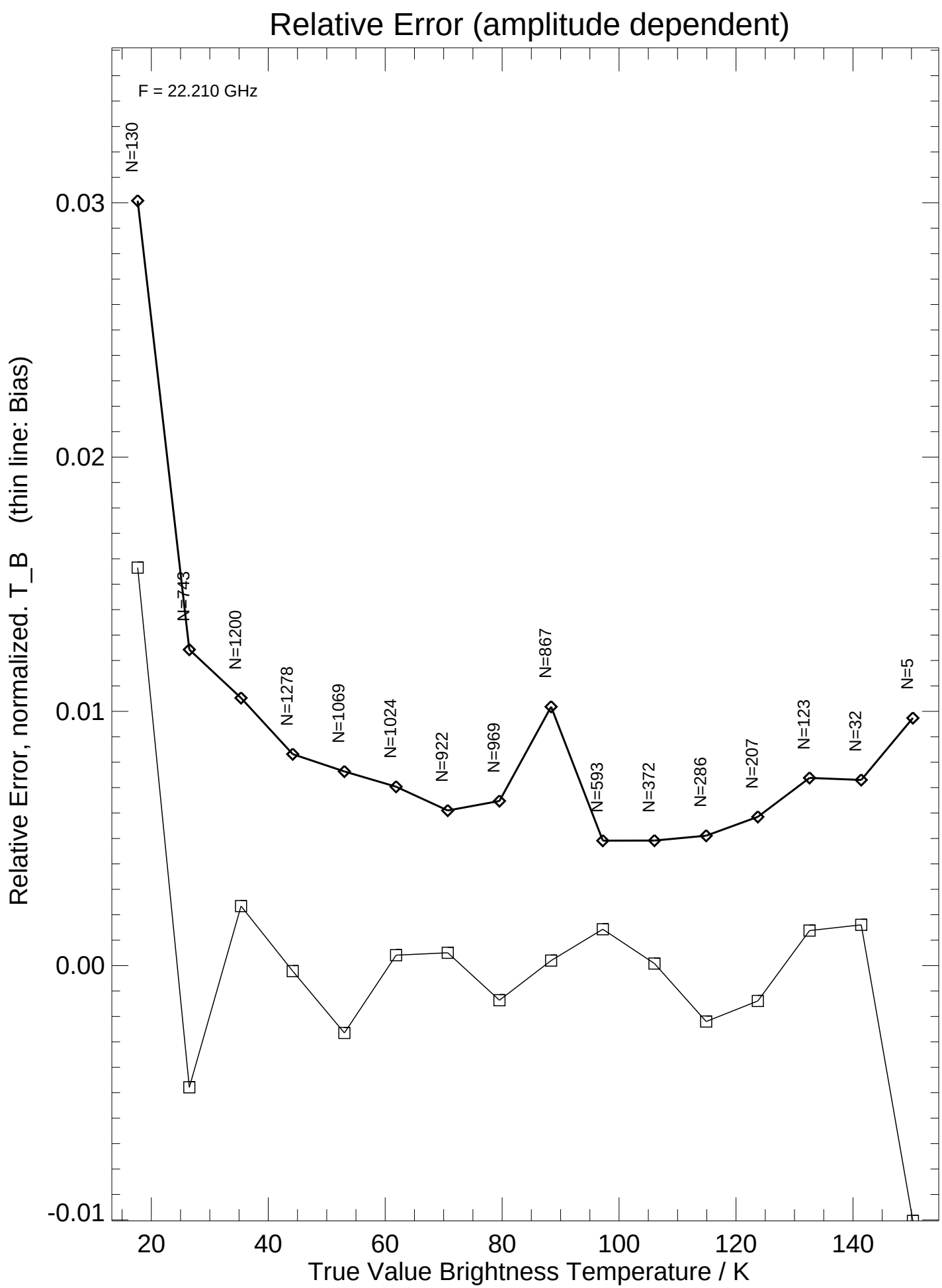

Absolute Error (amplitude dependent)
F = 22.200 GHz
Mean StD = 0.57 Max StD = 1.03
Mean bias = 0.12 Max bias = 0.28
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
140

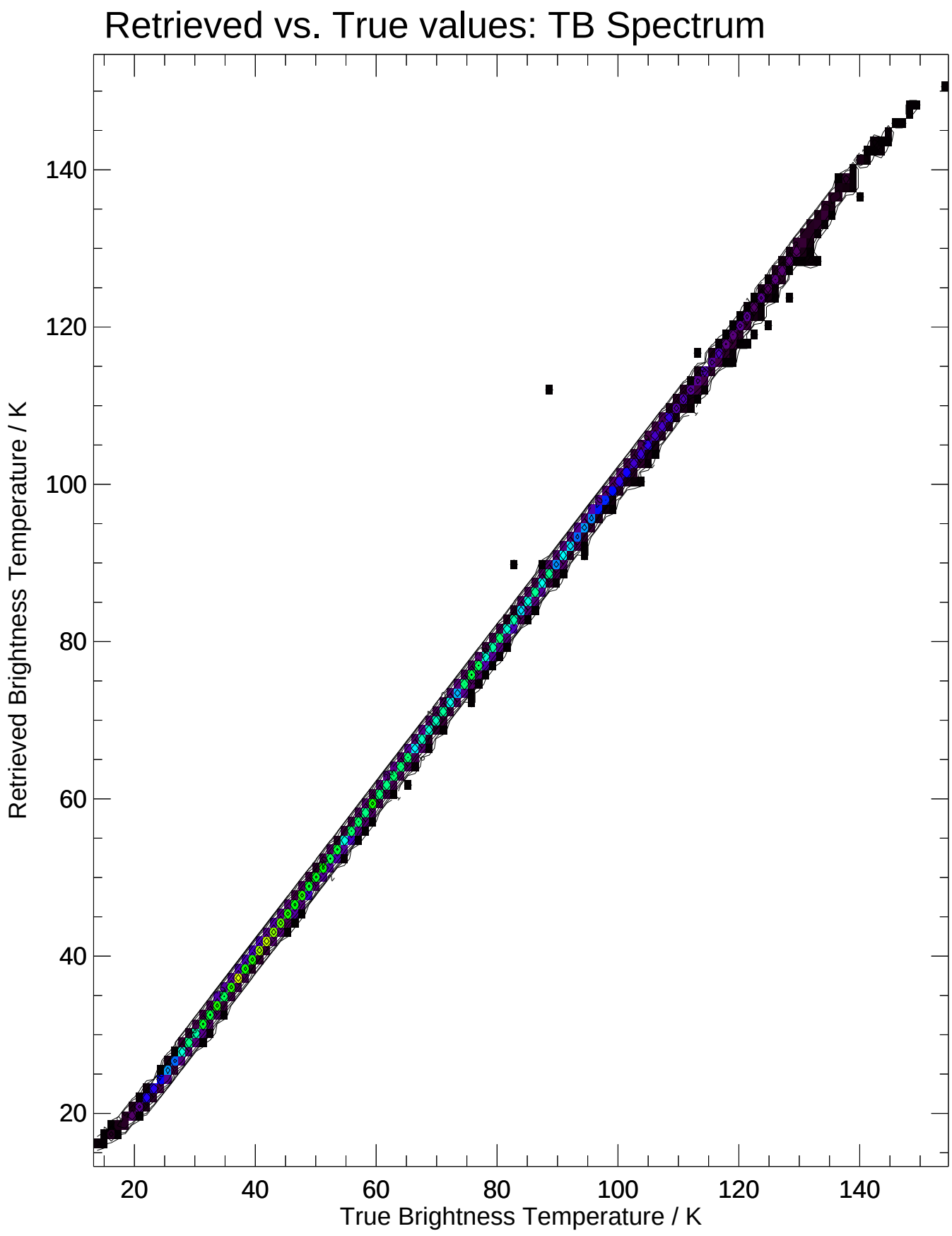

Relative Error (amplitude dependent)
F = 22.200 GHz
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

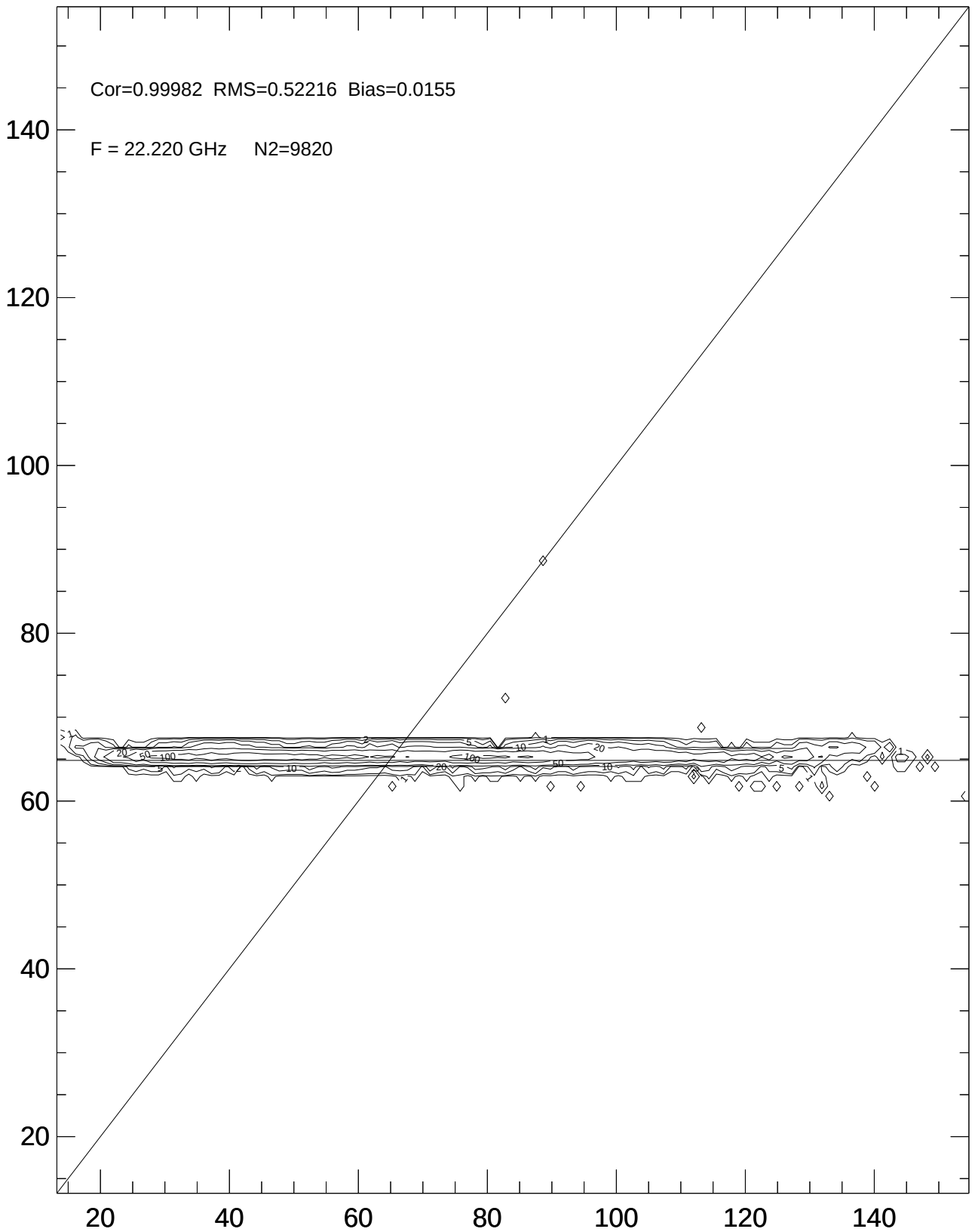

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

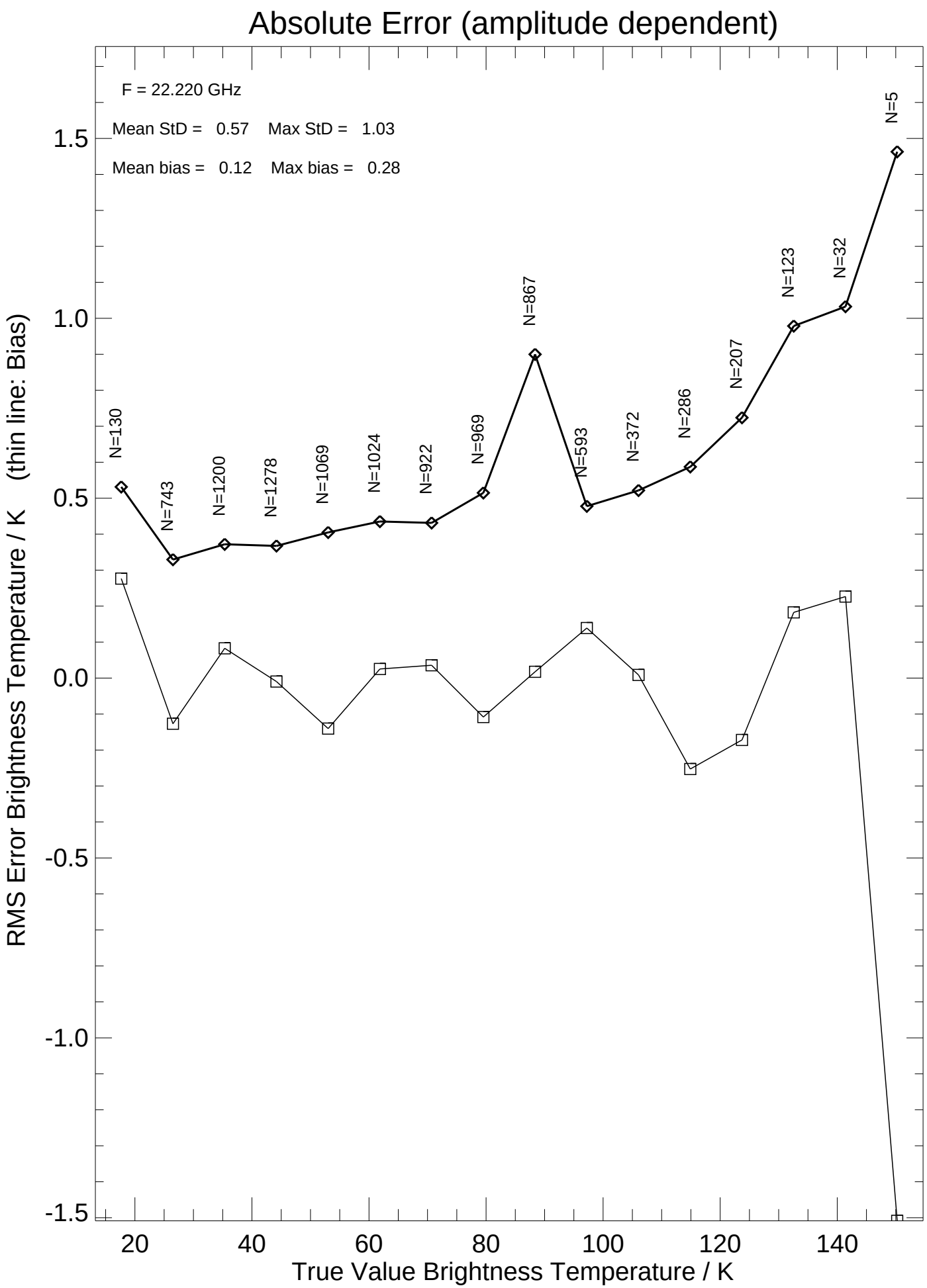

Cor=0.99982 RMS=0.52216 Bias=0.0155
F = 22.210 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

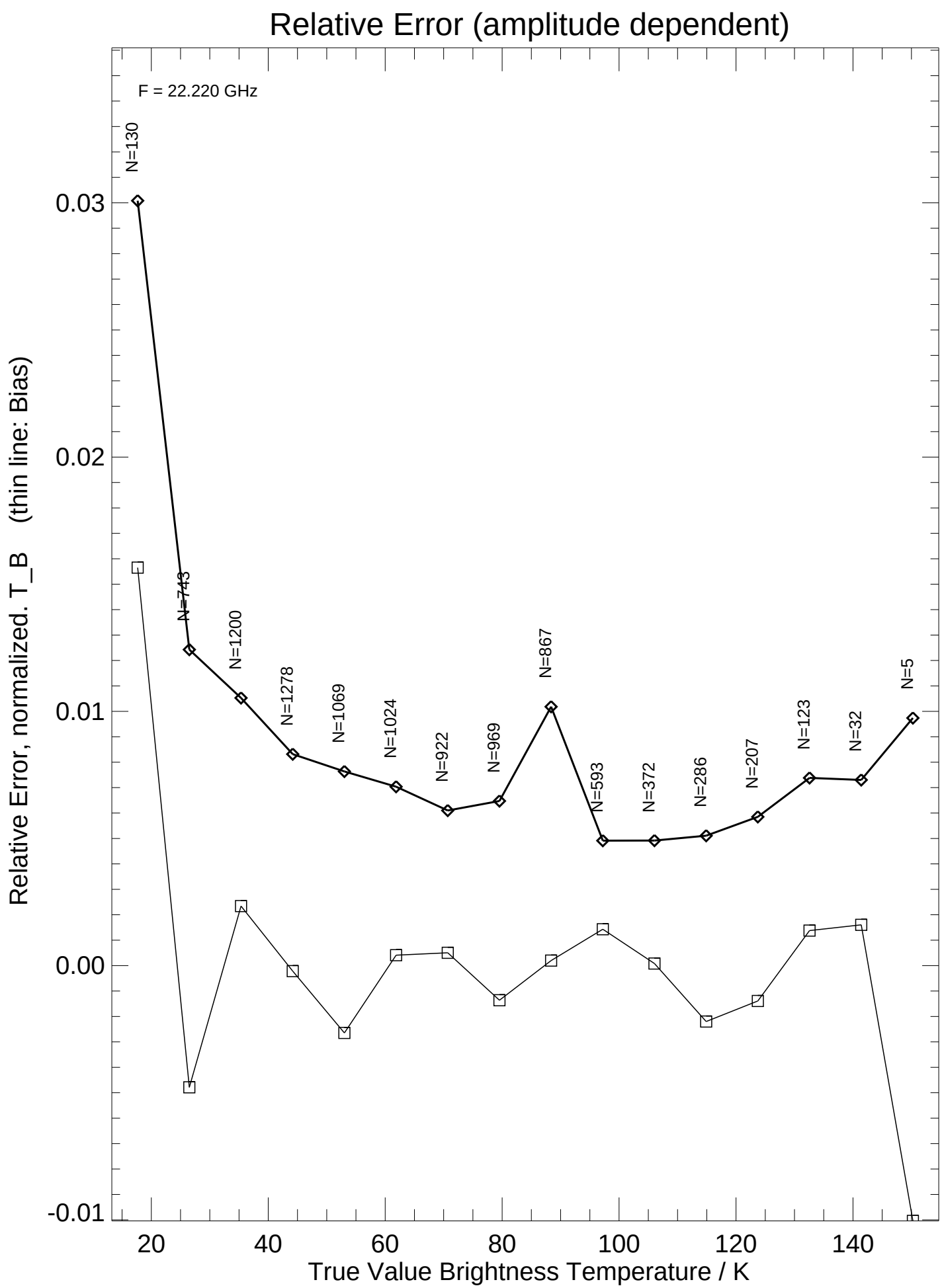

Absolute Error (amplitude dependent)
F = 22.210 GHz
Mean StD = 0.57 Max StD = 1.03
Mean bias = 0.12 Max bias = 0.28
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
140

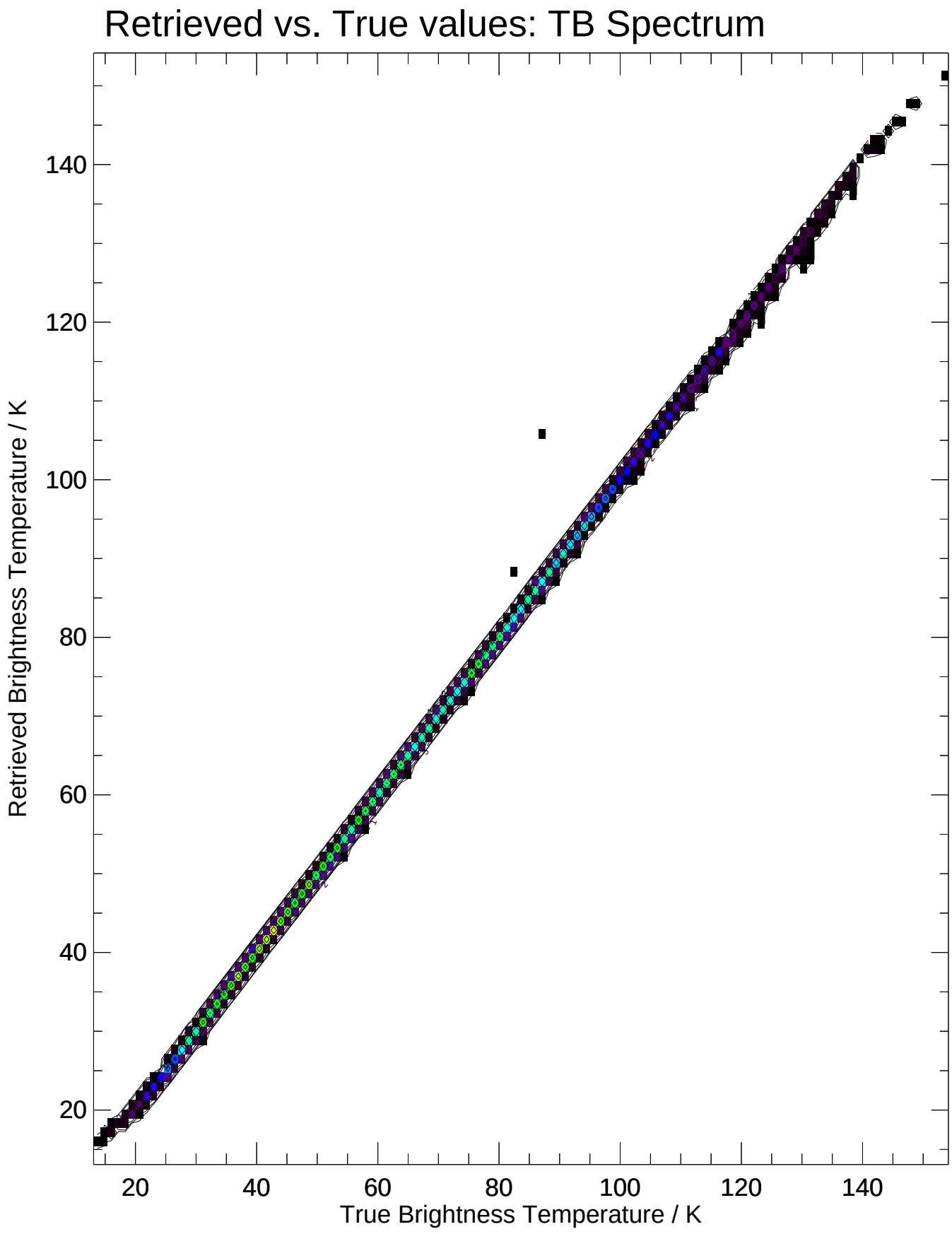

Relative Error (amplitude dependent)
F = 22.210 GHz
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

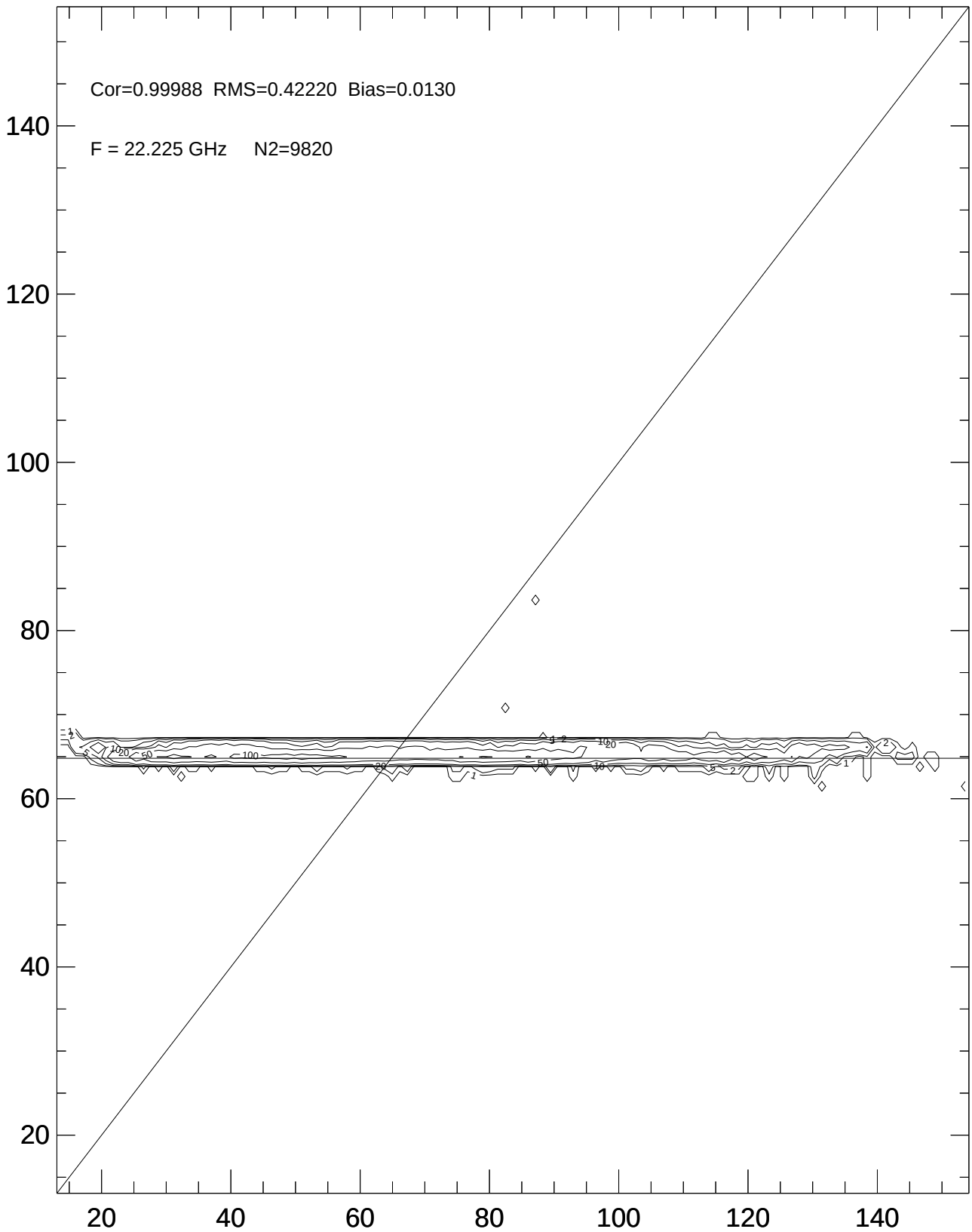

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

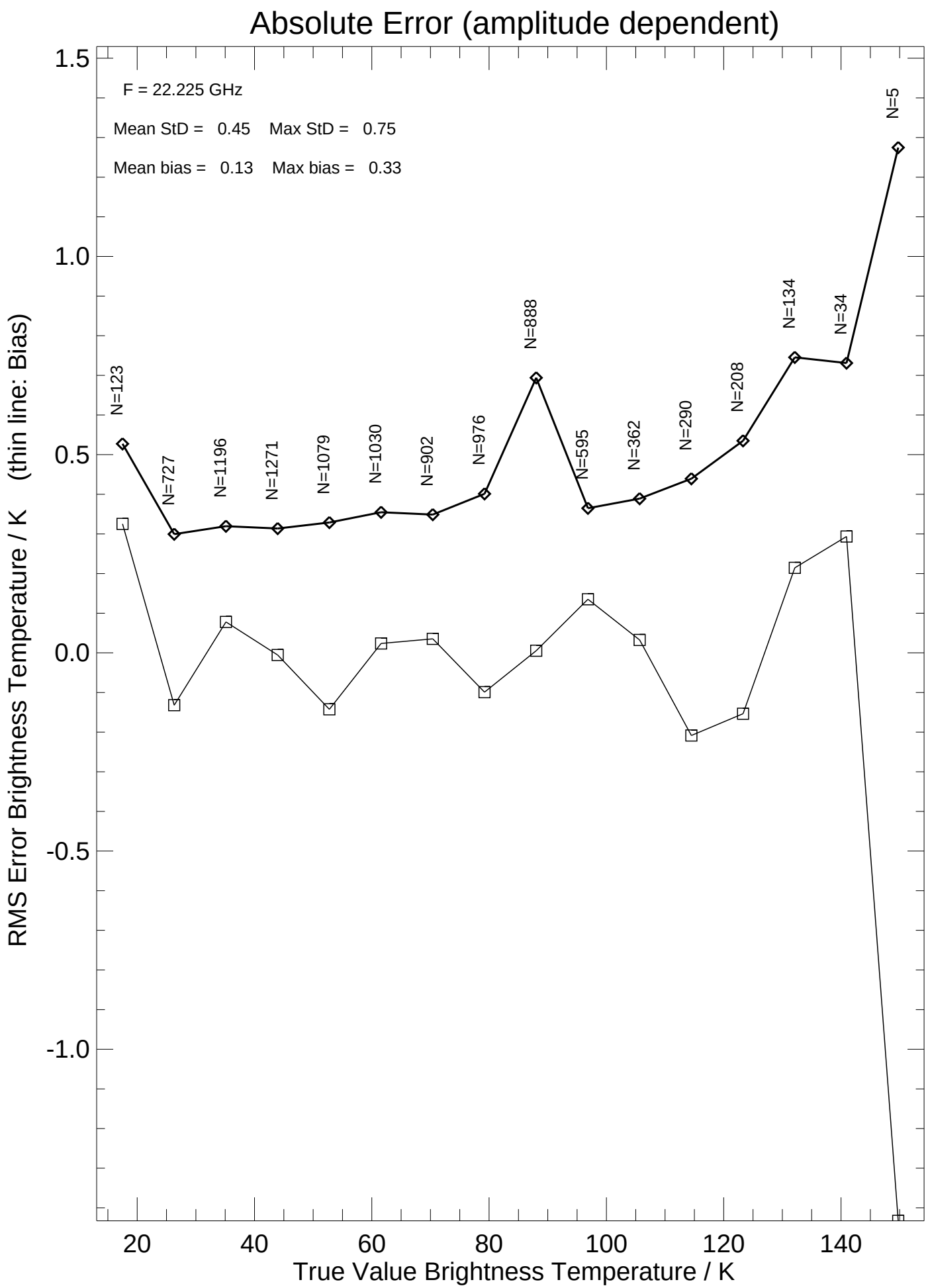

Cor=0.99982 RMS=0.52216 Bias=0.0155
F = 22.220 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

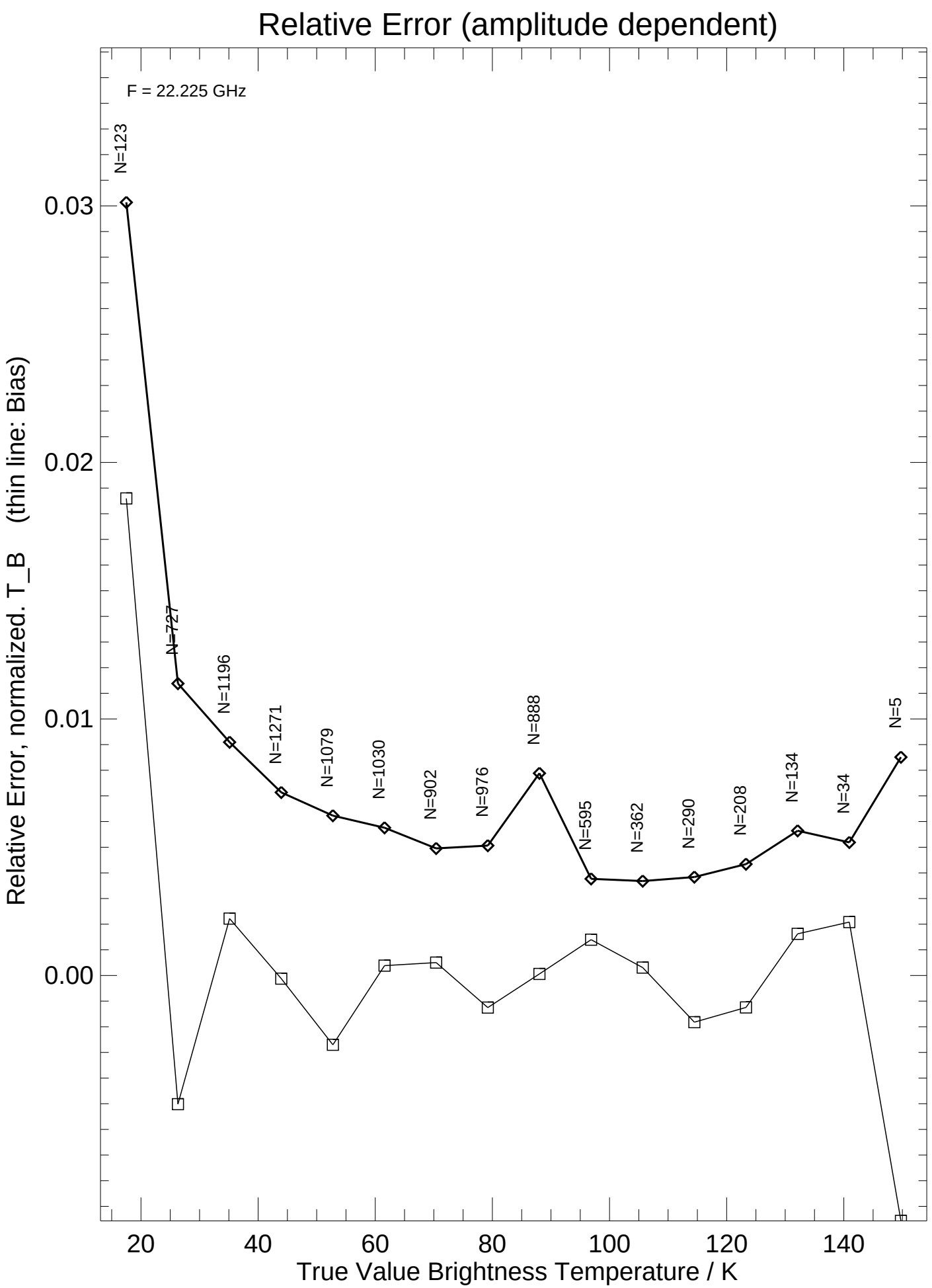

Absolute Error (amplitude dependent)
F = 22.220 GHz
Mean StD = 0.57 Max StD = 1.03
Mean bias = 0.12 Max bias = 0.28
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
140

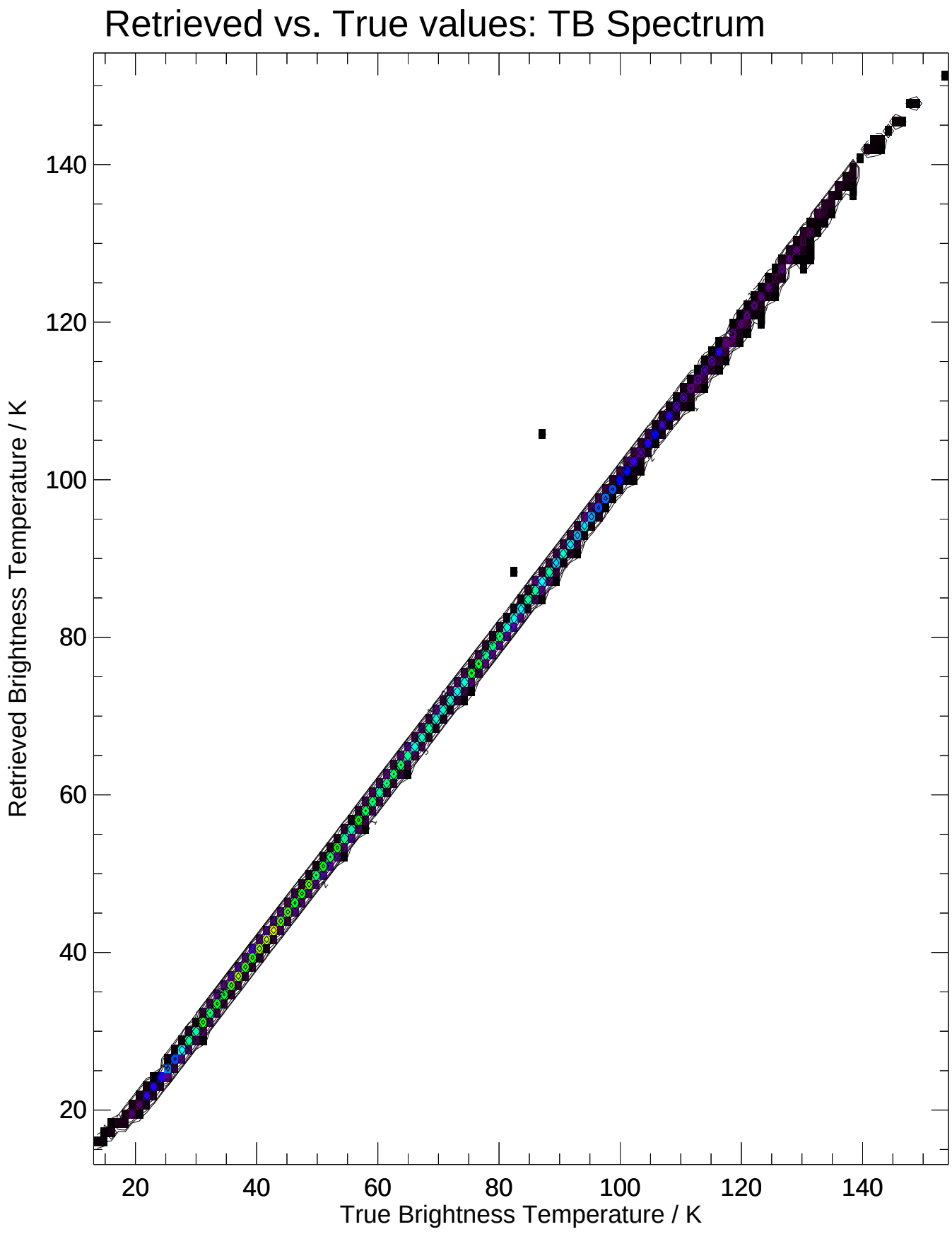

Relative Error (amplitude dependent)
F = 22.220 GHz
N=130
N=743
N=1200
N=1278
N=1069
N=1024
N=922
N=969
N=867
N=593
N=372
N=286
N=207
N=123
N=32
N=5
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

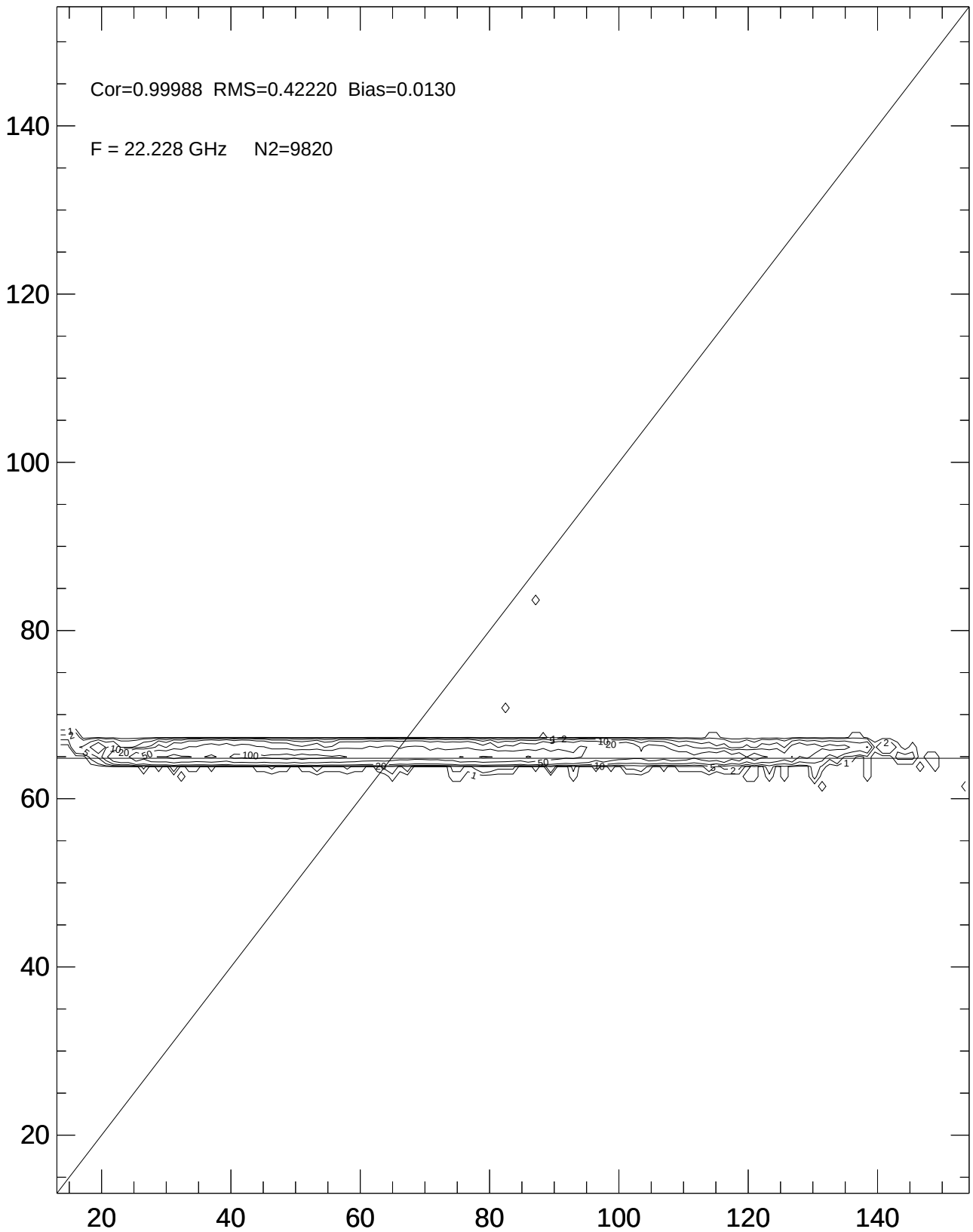

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

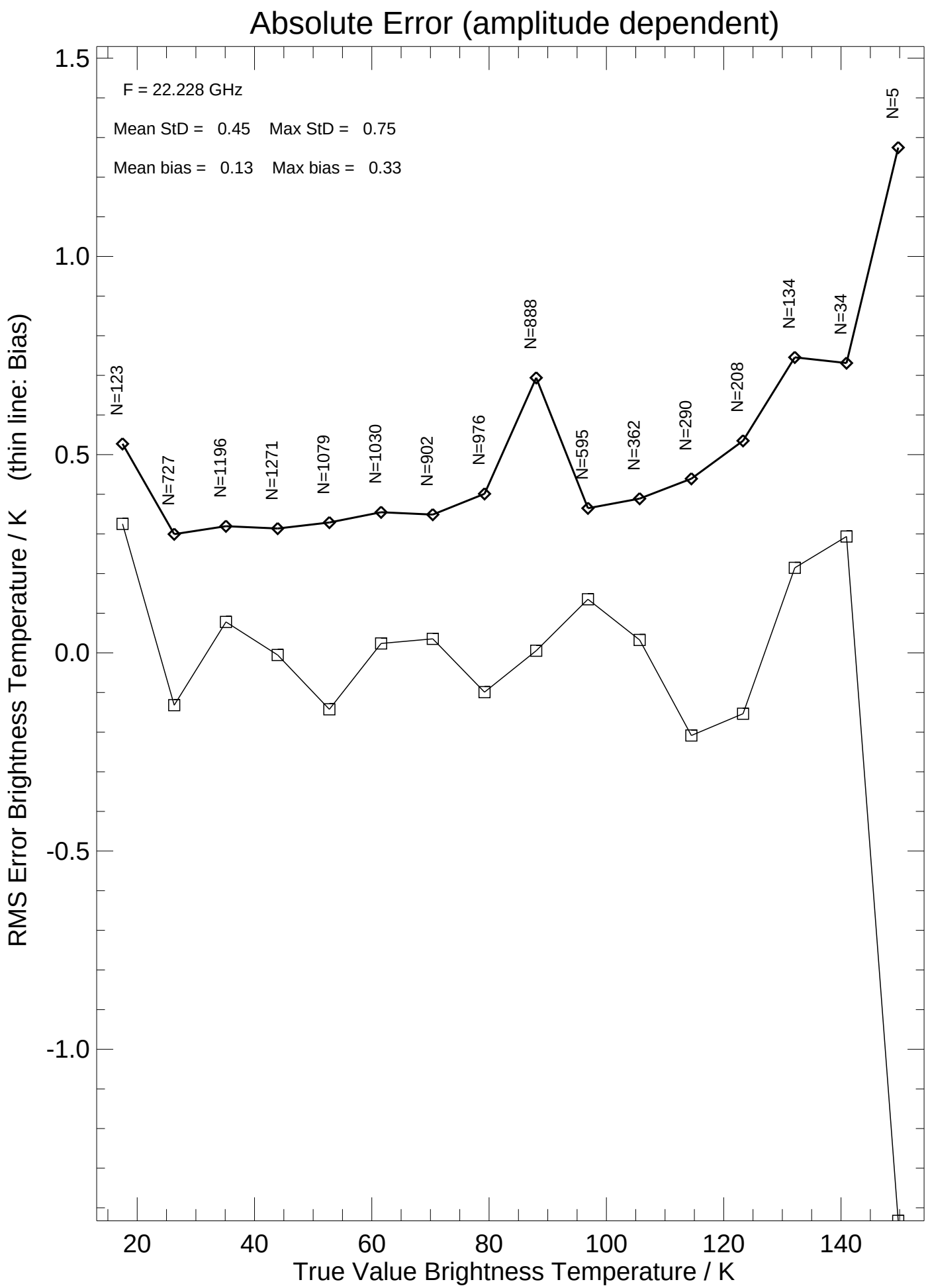

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.225 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

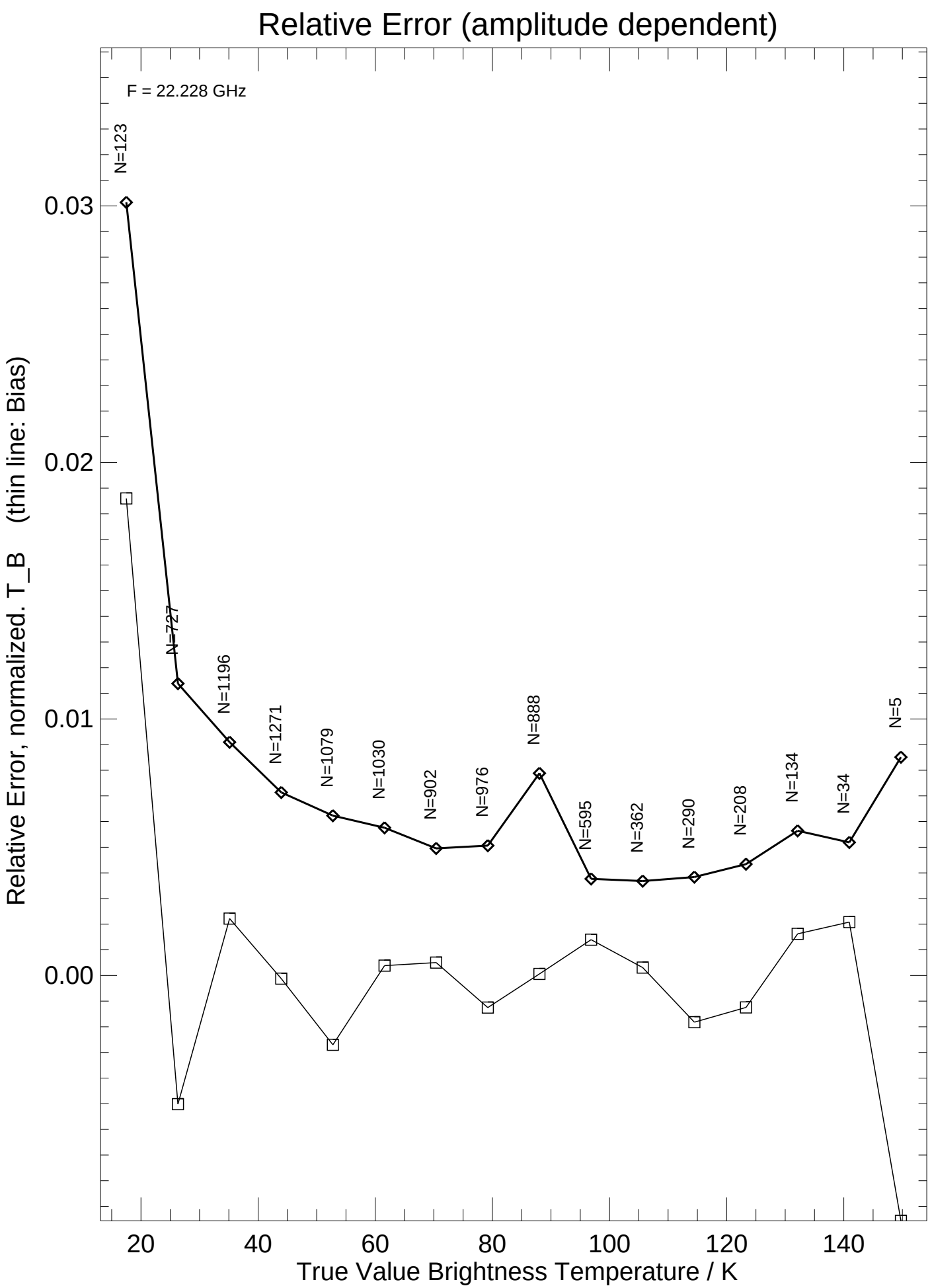

Absolute Error (amplitude dependent)
F = 22.225 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

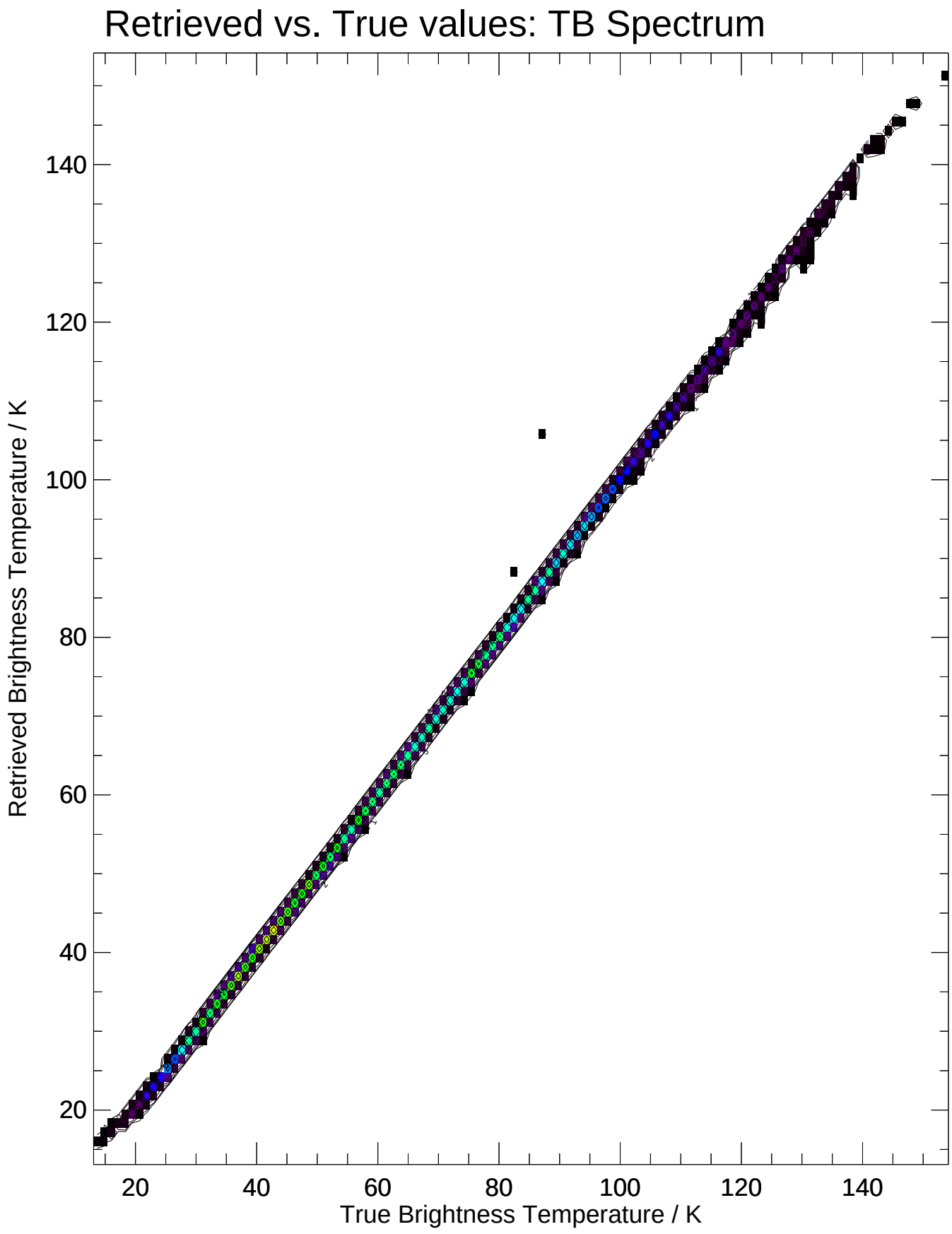

Relative Error (amplitude dependent)
F = 22.225 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

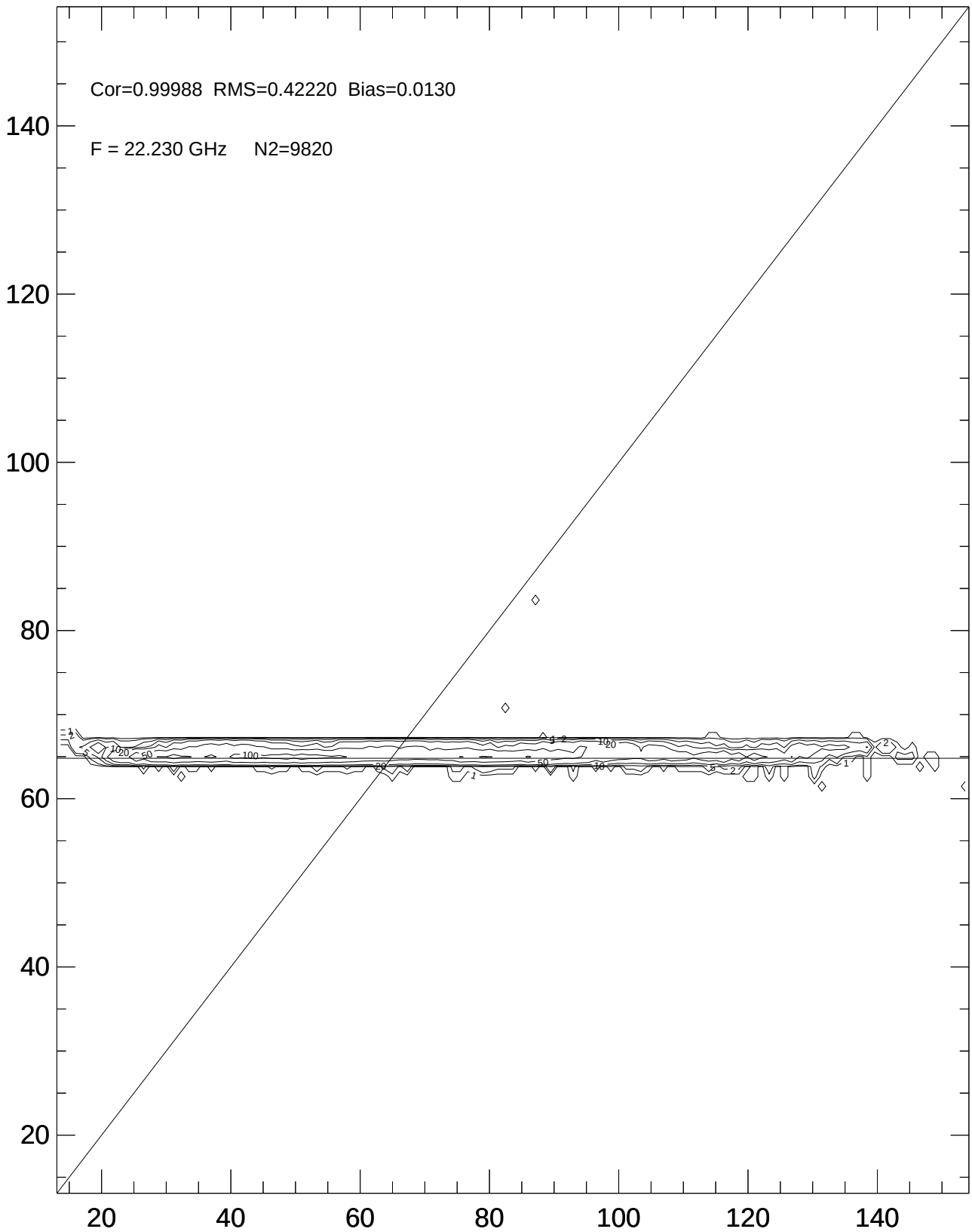

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

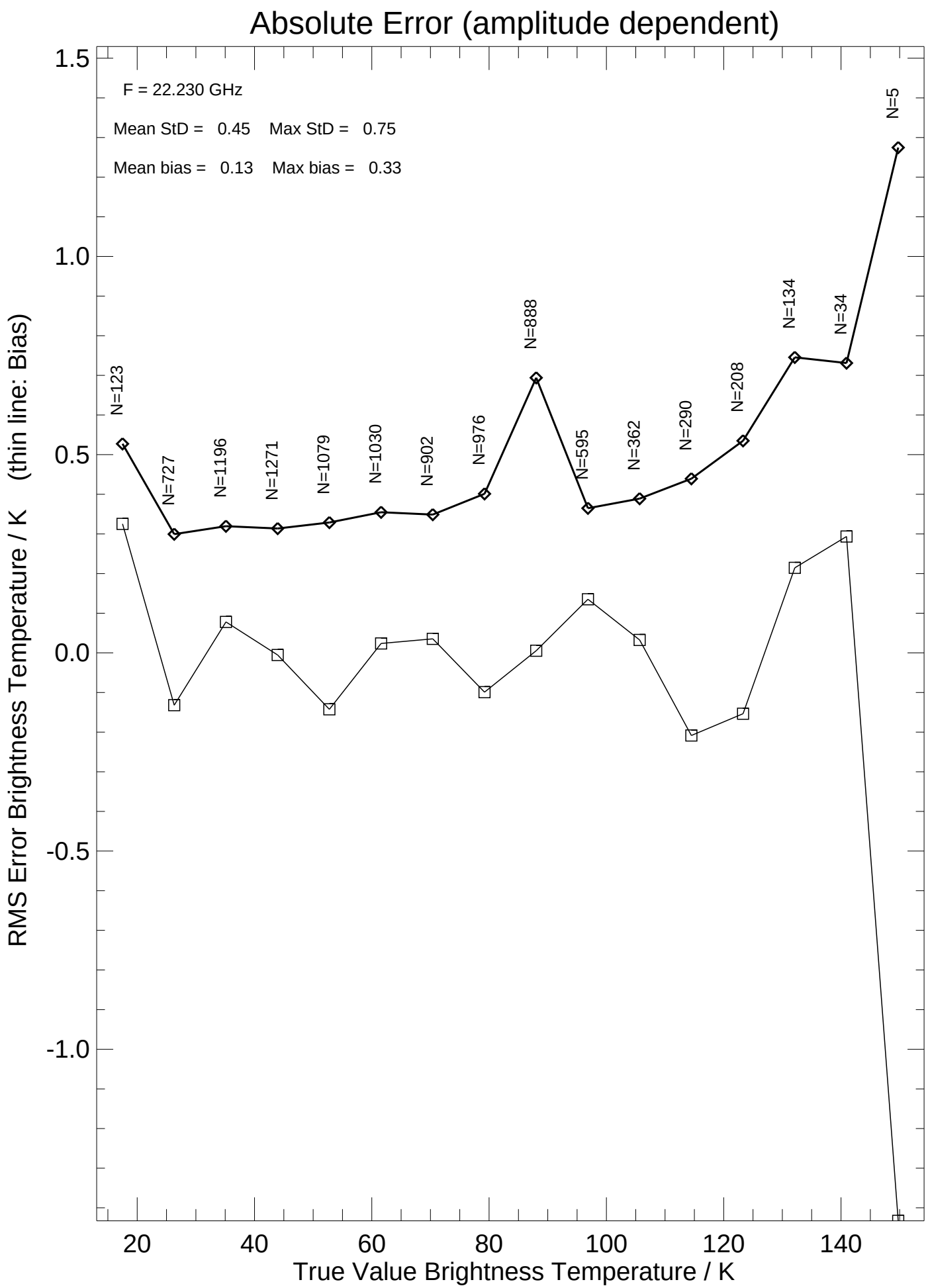

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.228 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

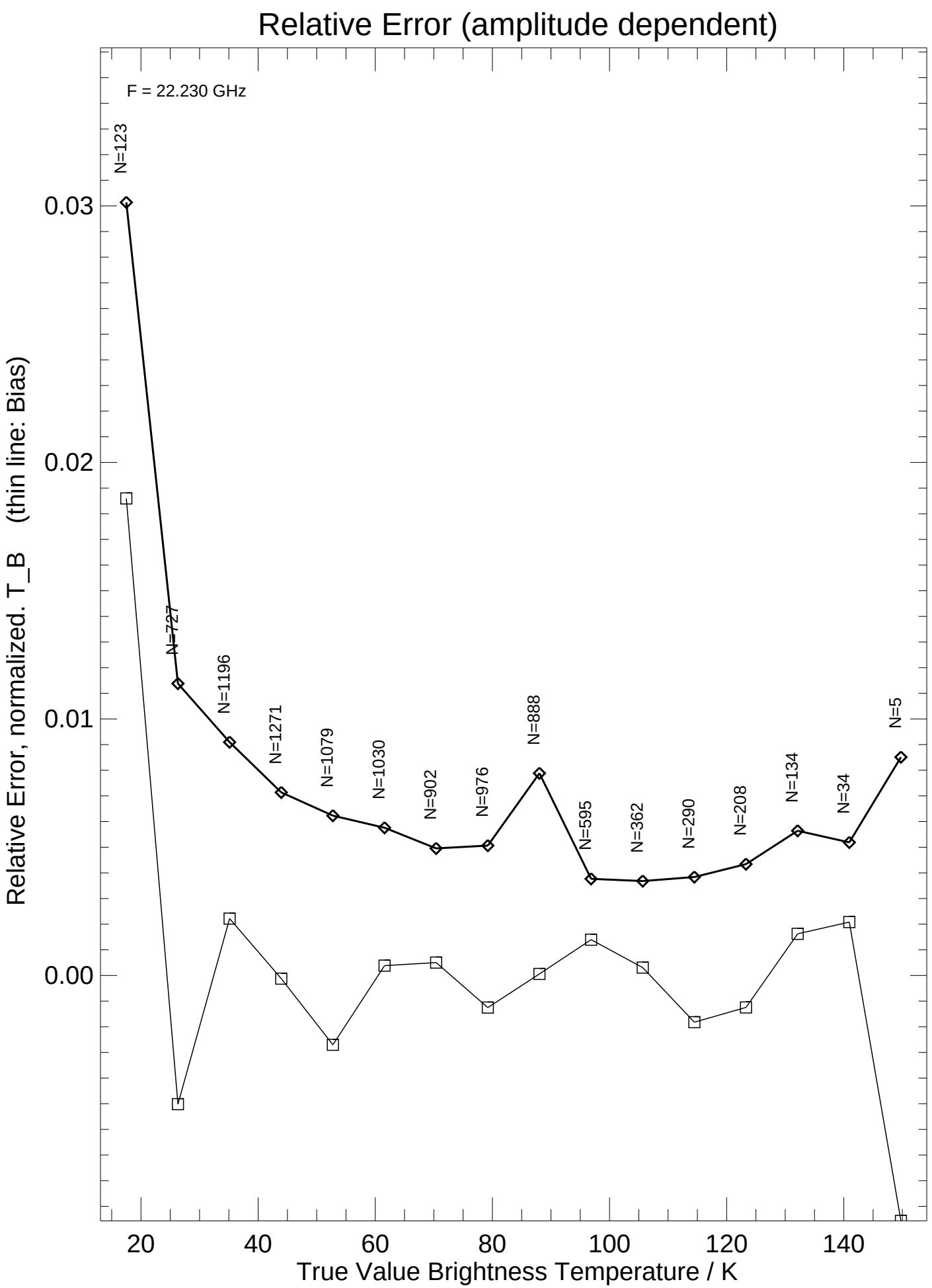

Absolute Error (amplitude dependent)
F = 22.228 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

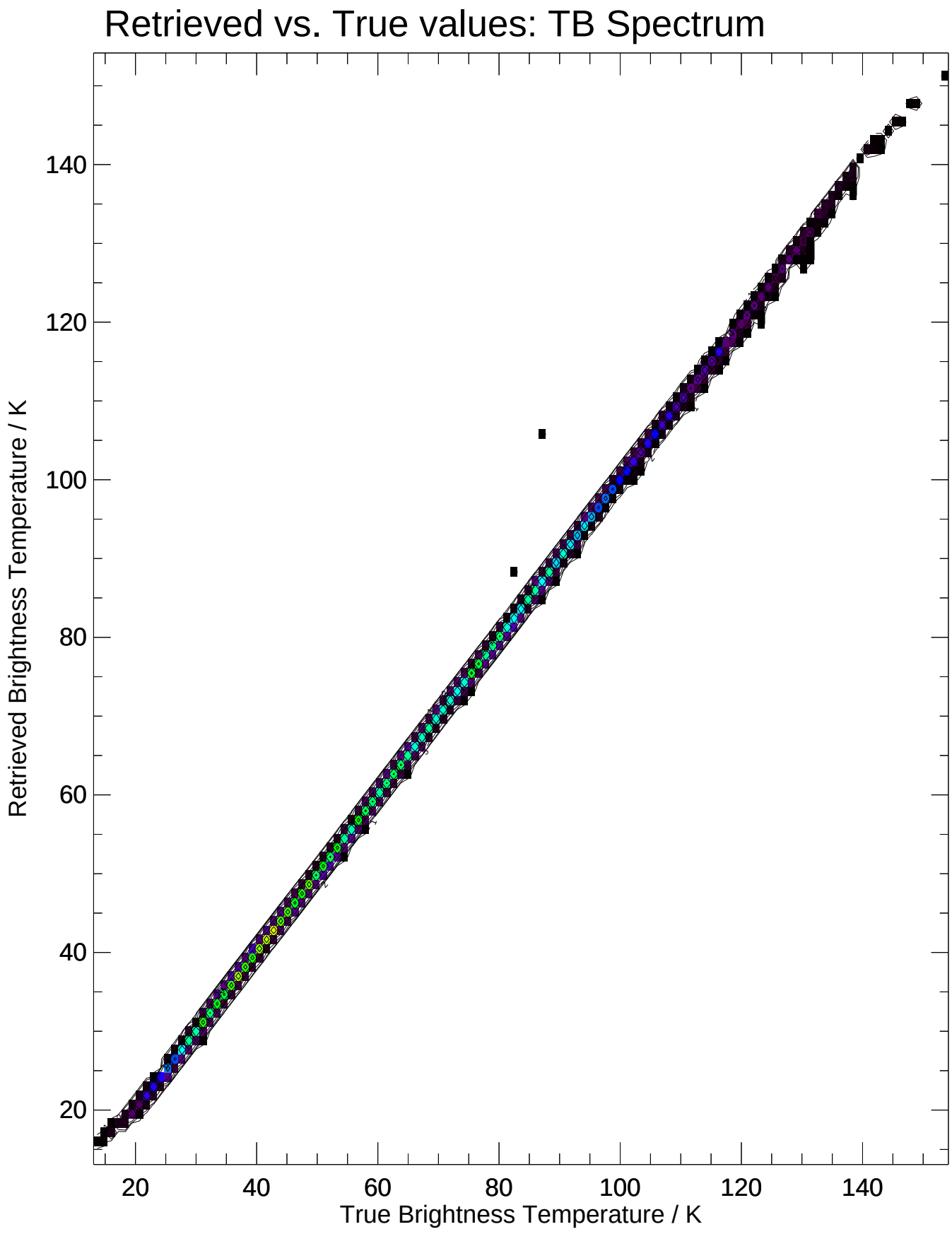

Relative Error (amplitude dependent)
F = 22.228 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

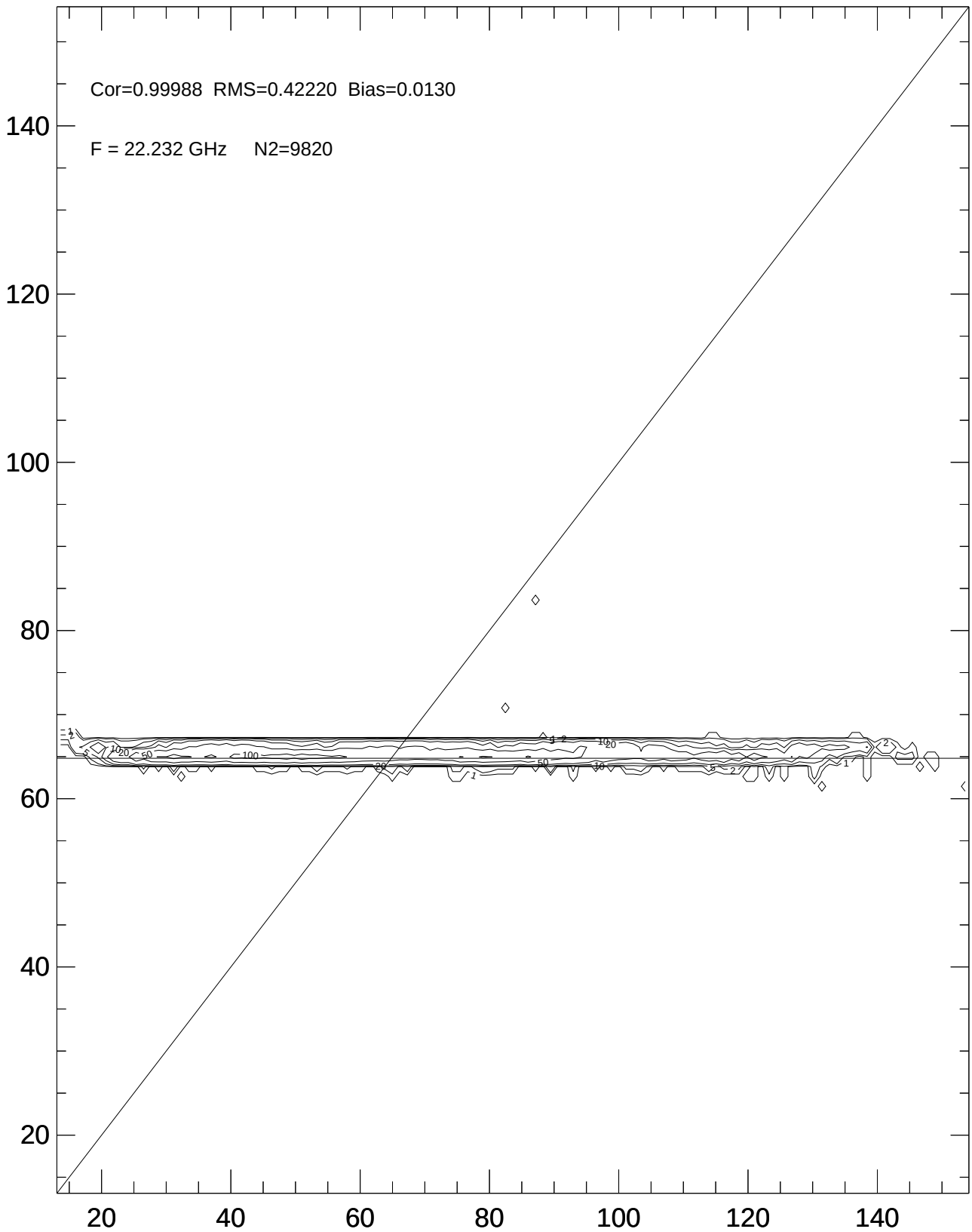

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

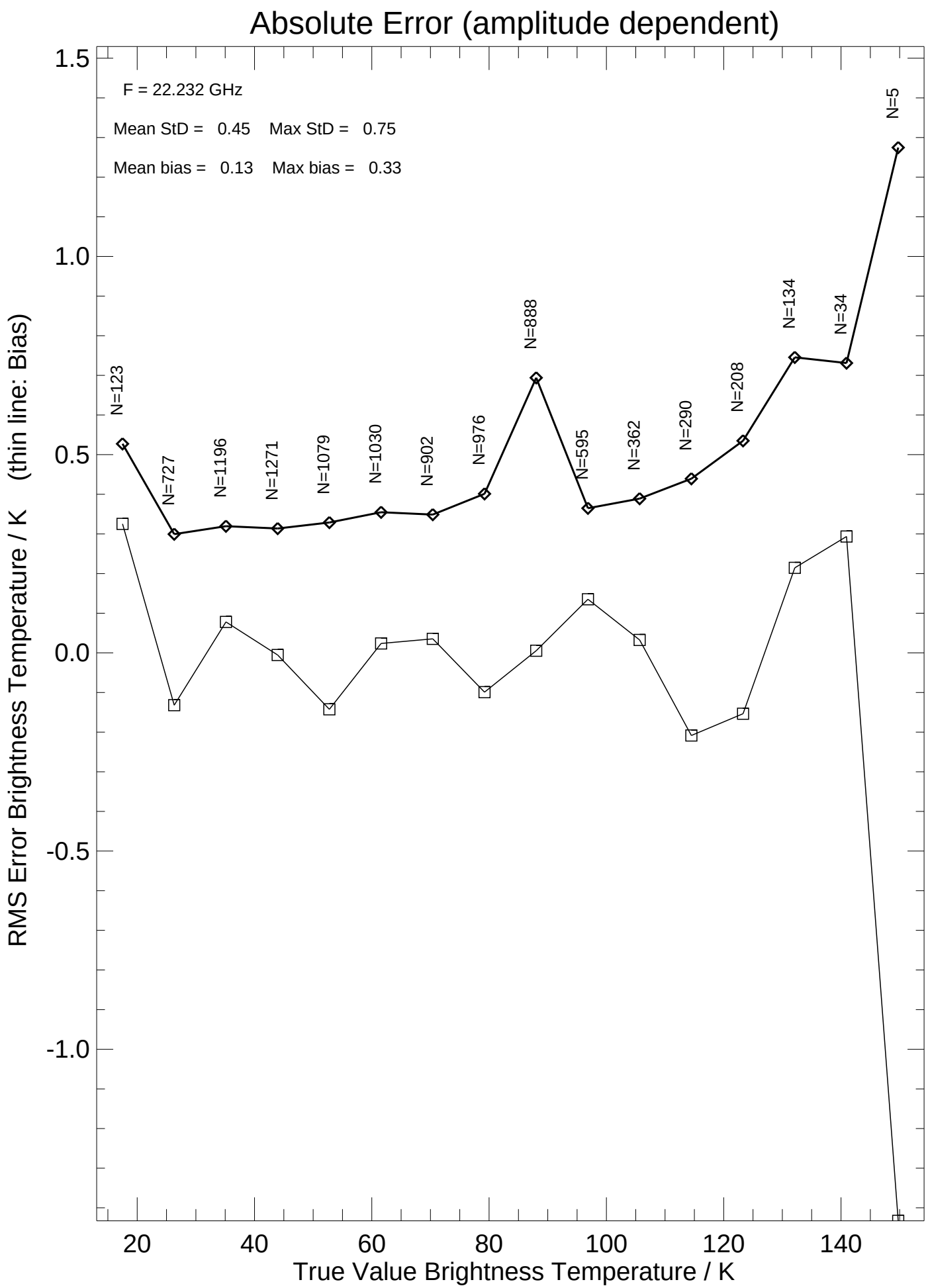

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.230 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

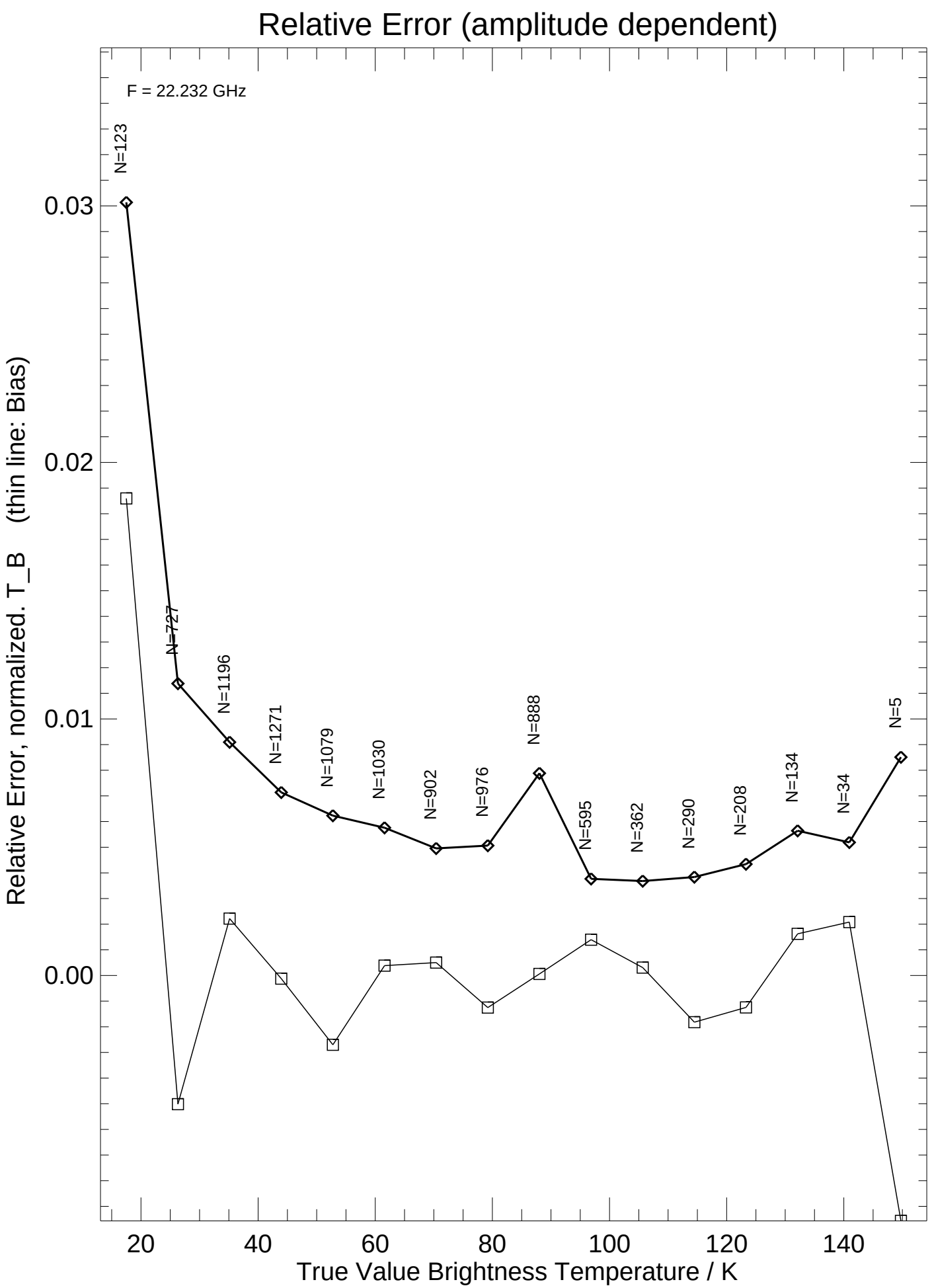

Absolute Error (amplitude dependent)
F = 22.230 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

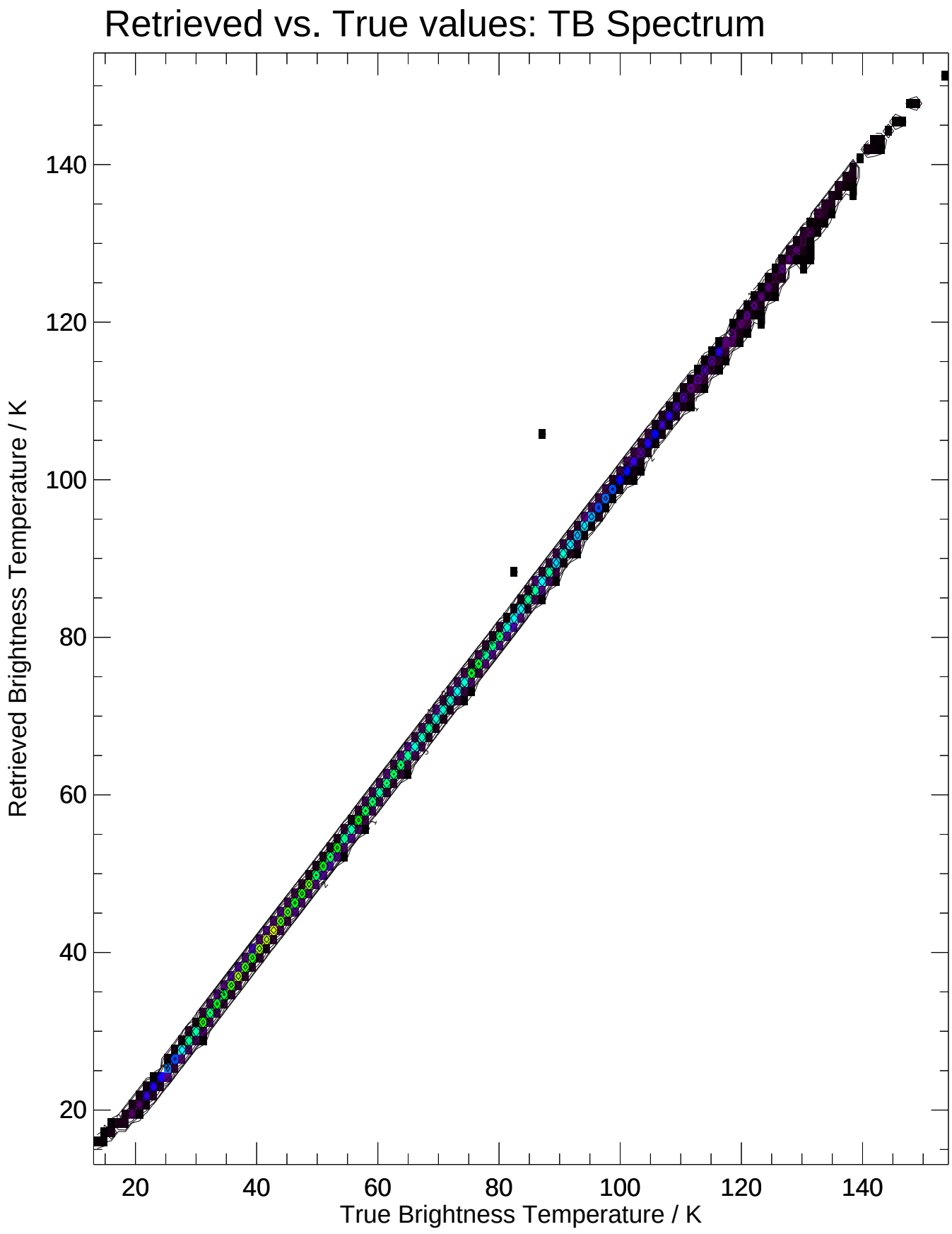

Relative Error (amplitude dependent)
F = 22.230 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

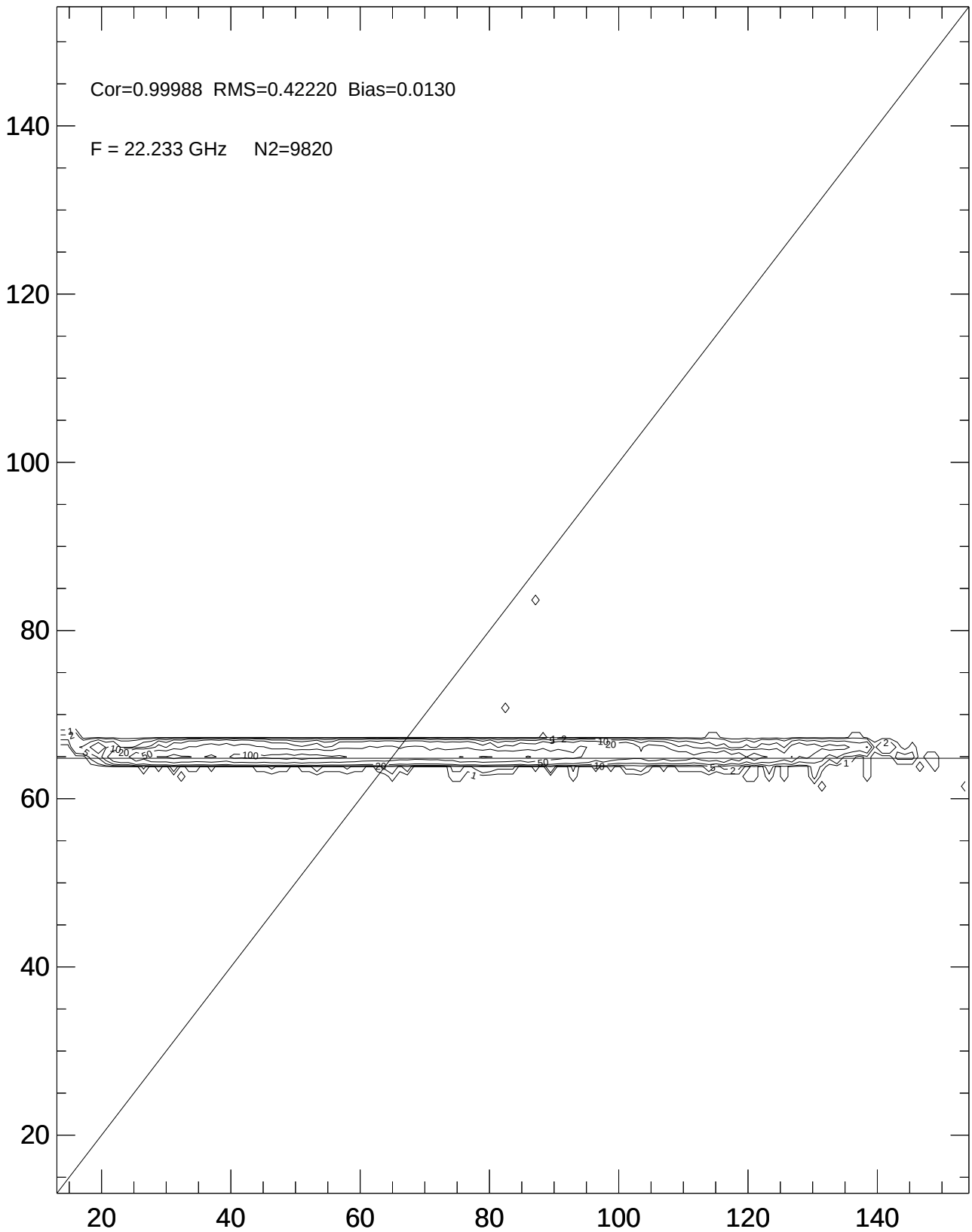

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

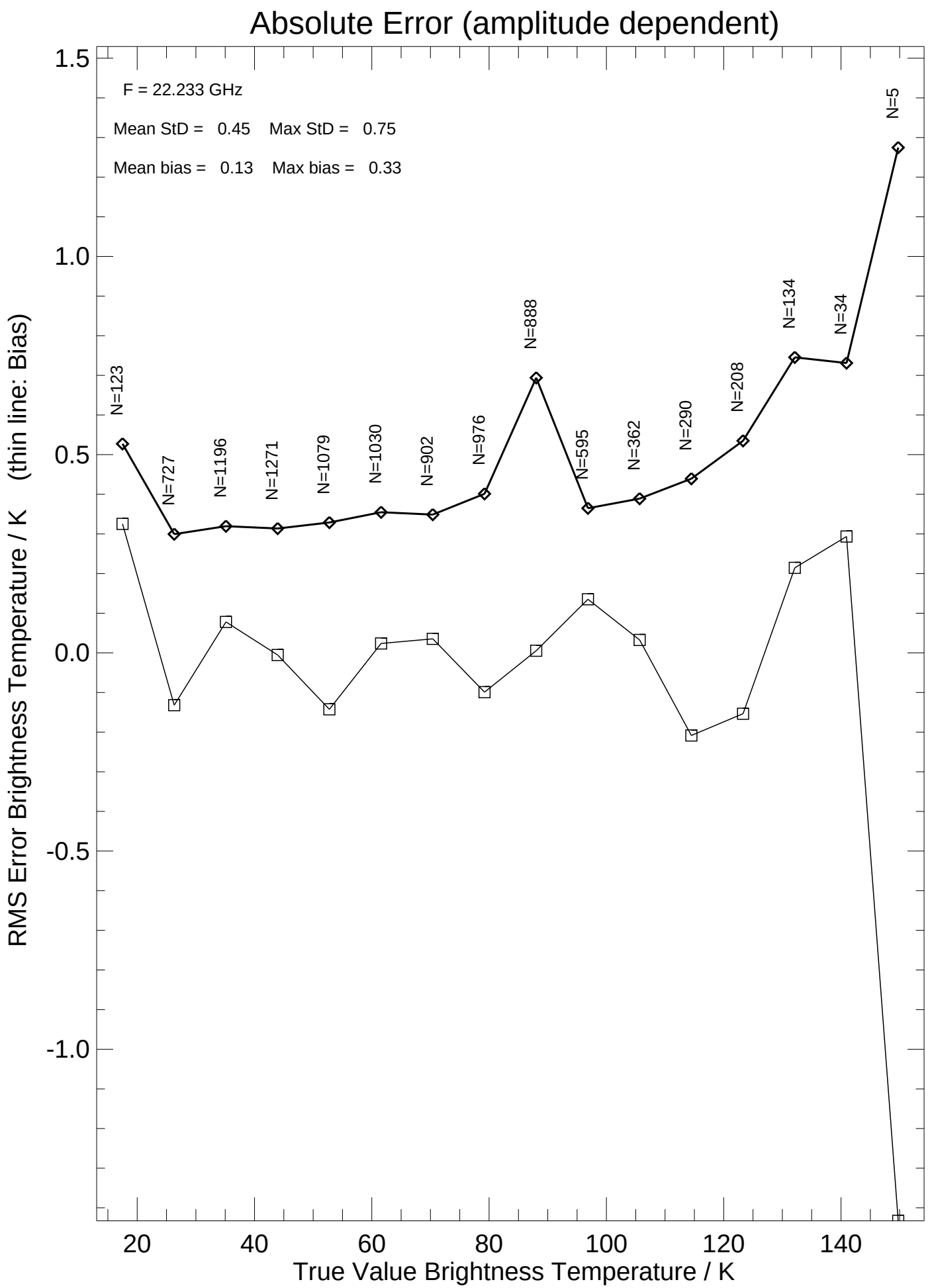

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.232 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

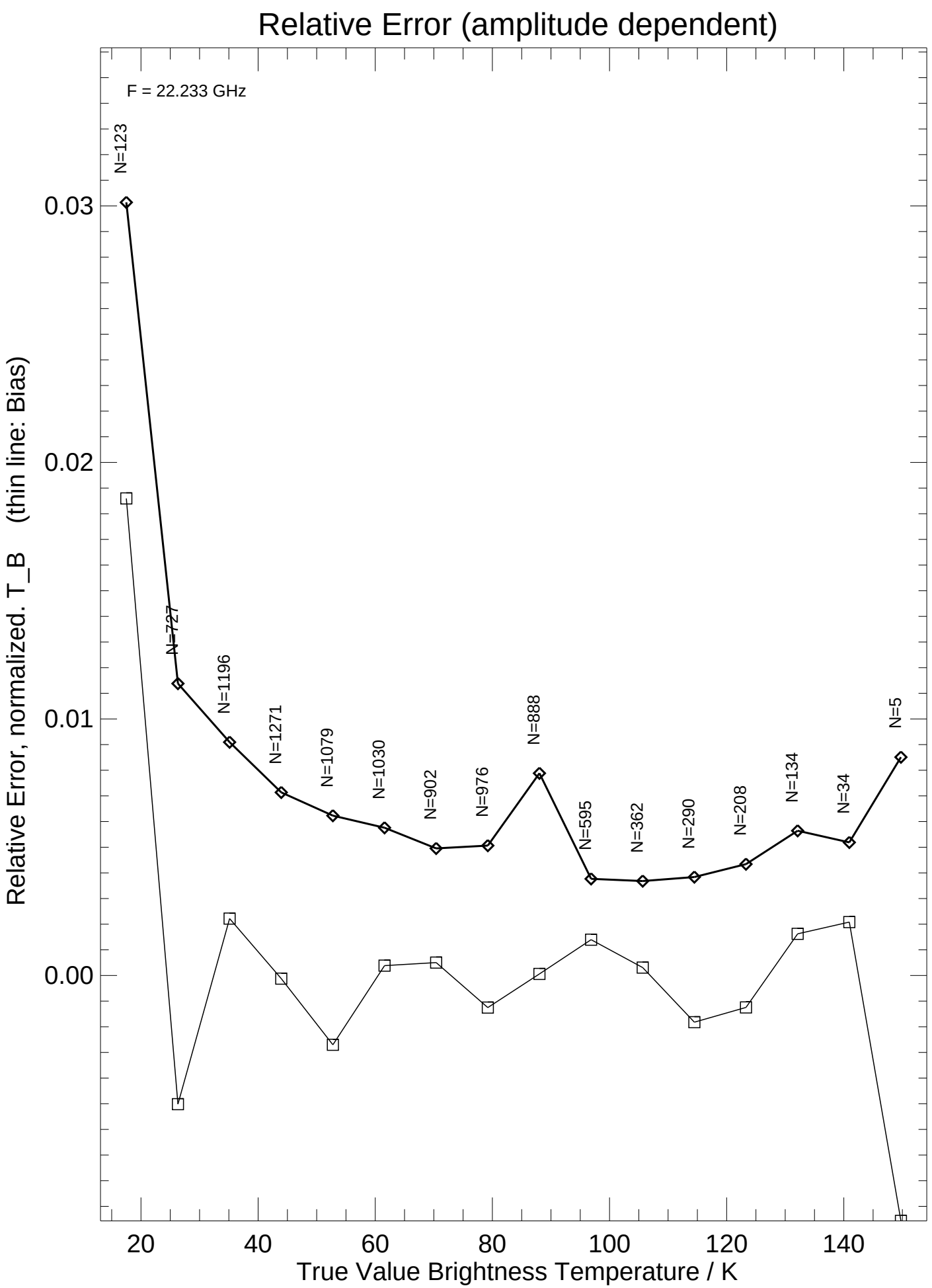

Absolute Error (amplitude dependent)
F = 22.232 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

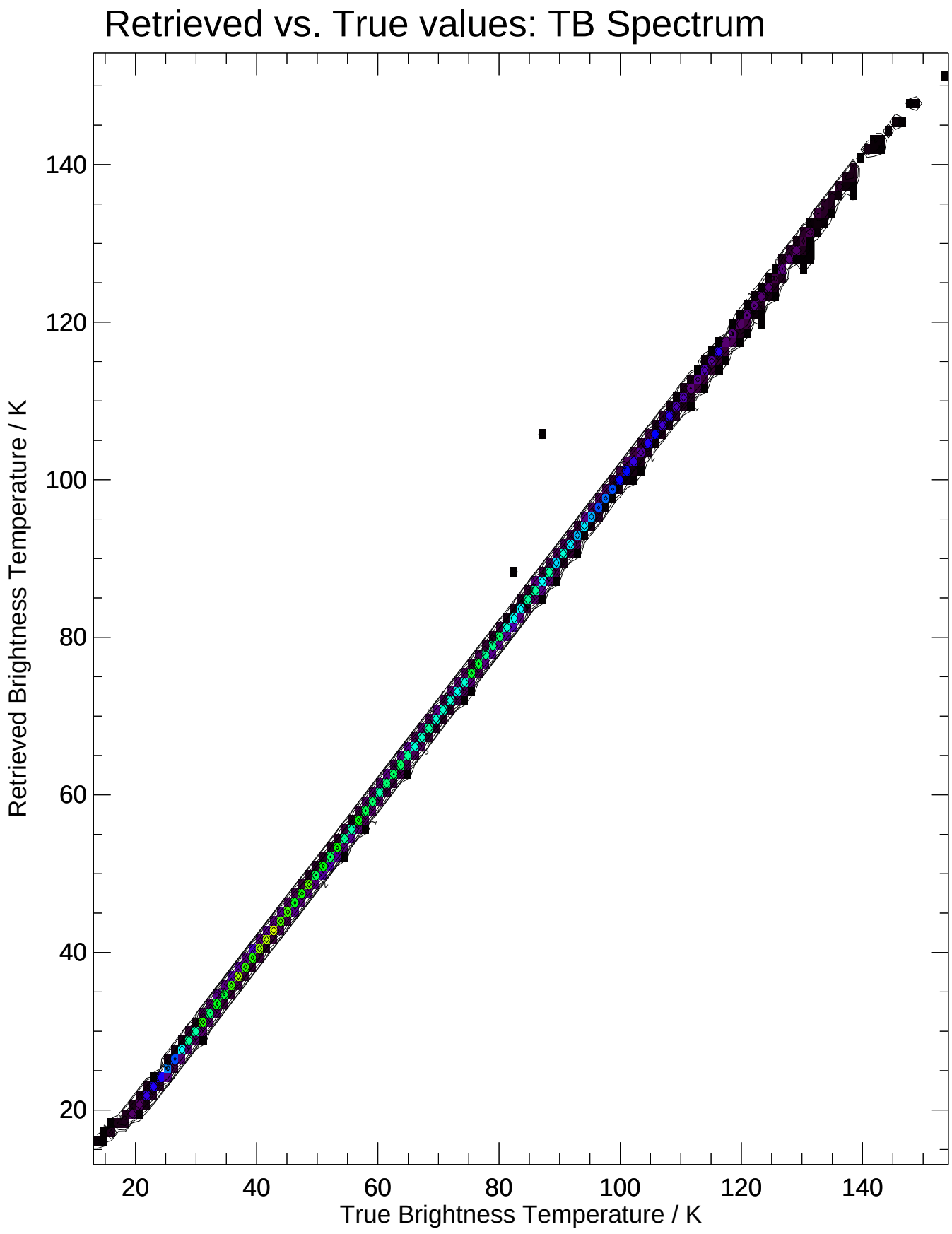

Relative Error (amplitude dependent)
F = 22.232 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

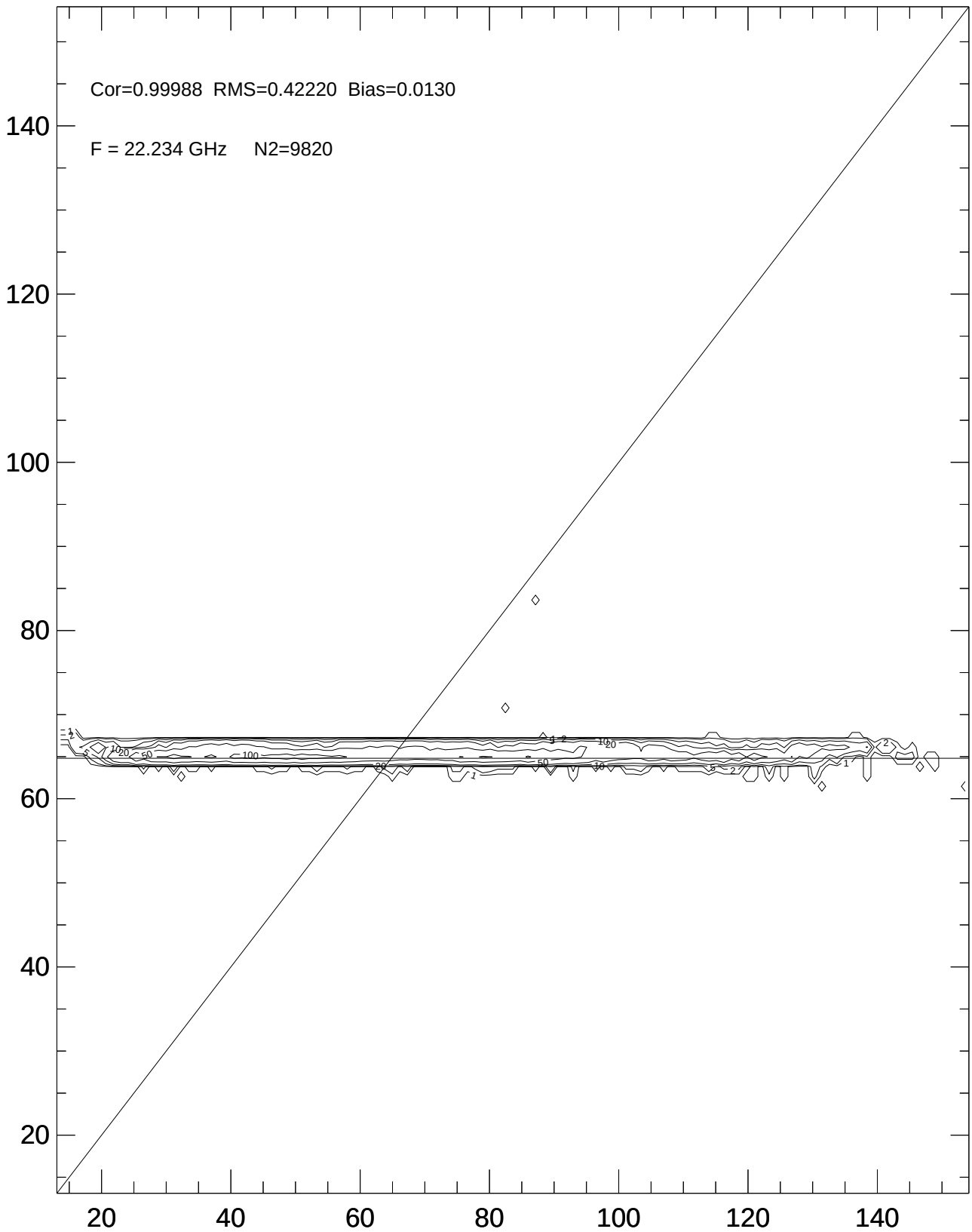

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

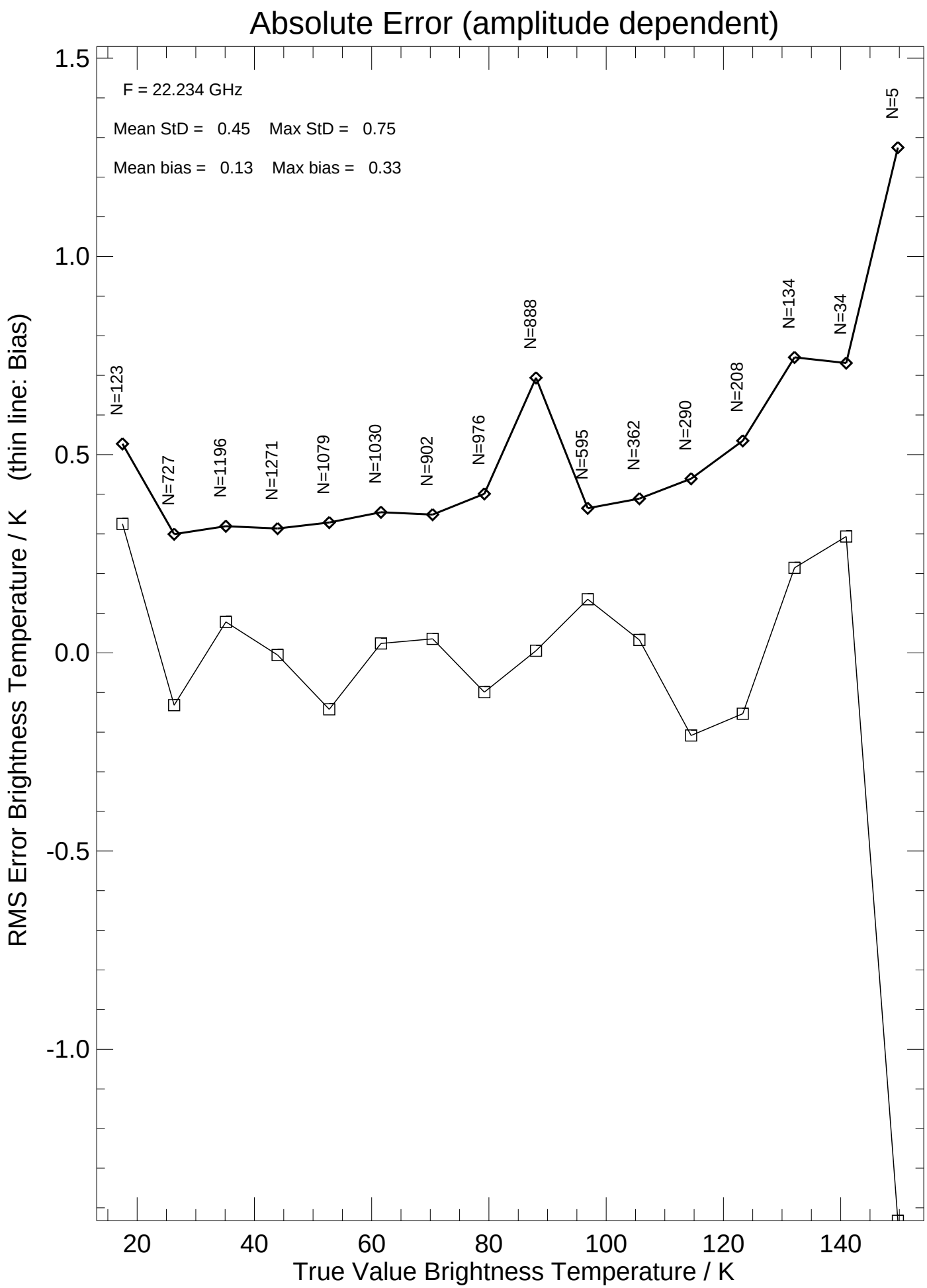

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.233 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

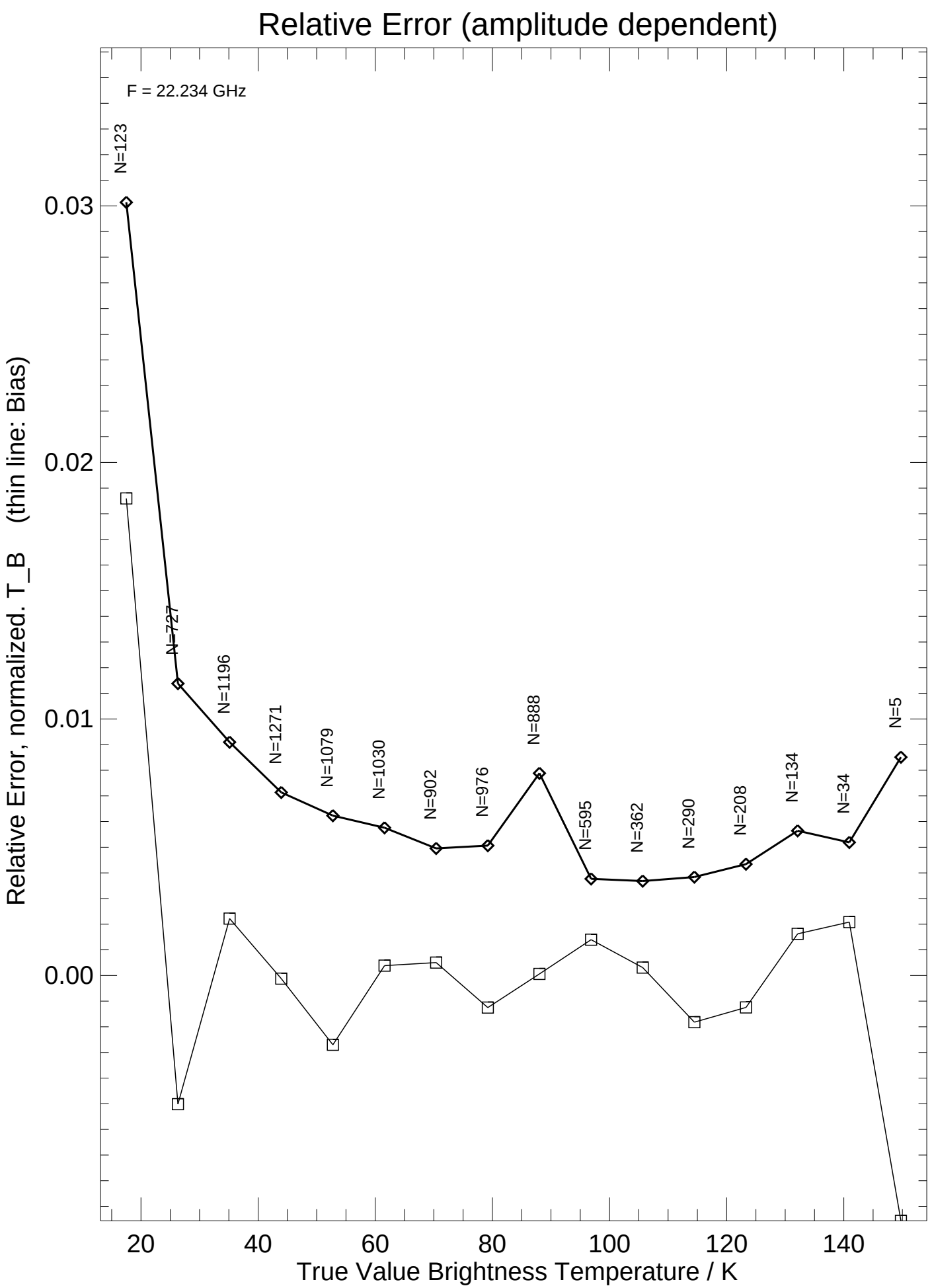

Absolute Error (amplitude dependent)
F = 22.233 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

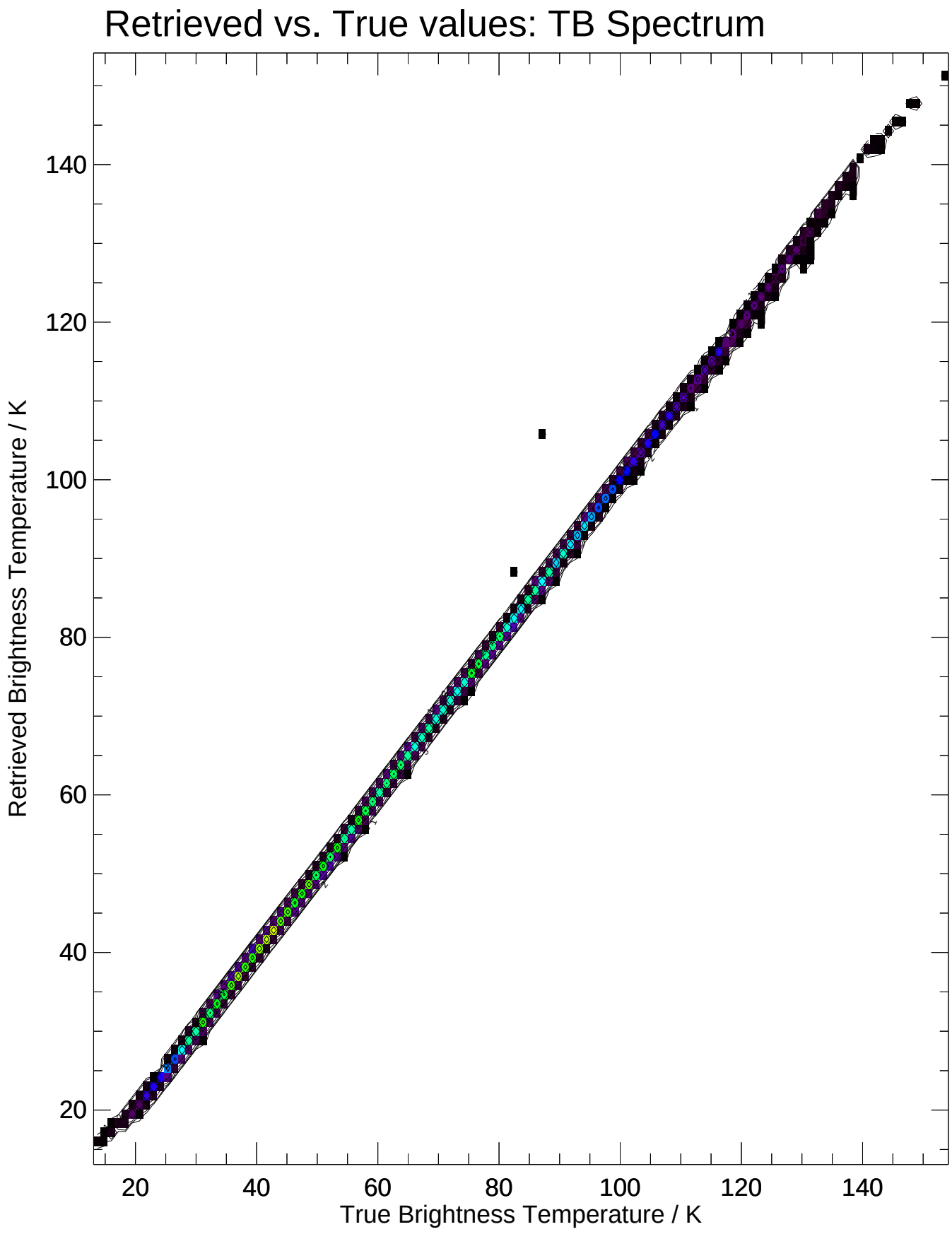

Relative Error (amplitude dependent)
F = 22.233 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

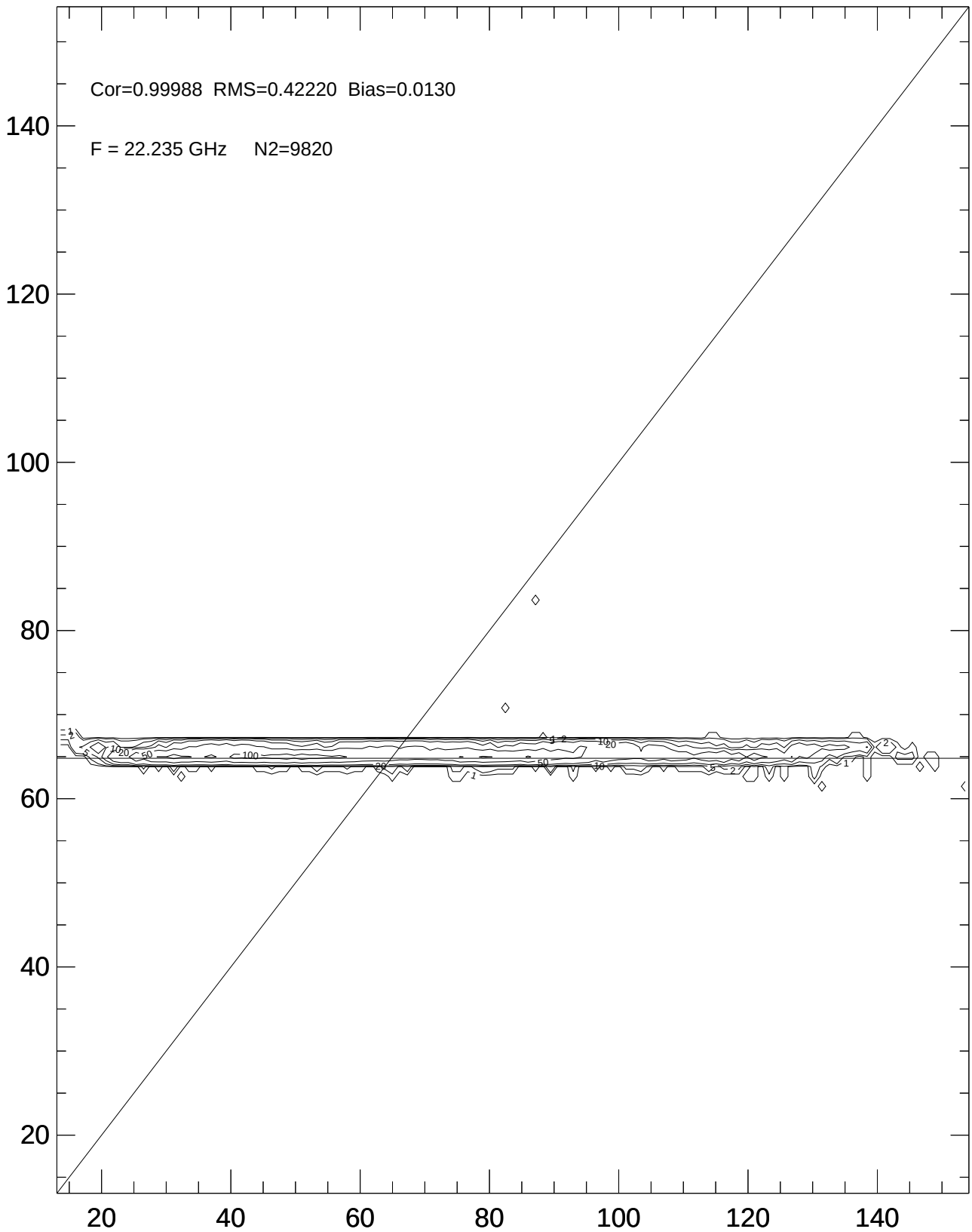

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

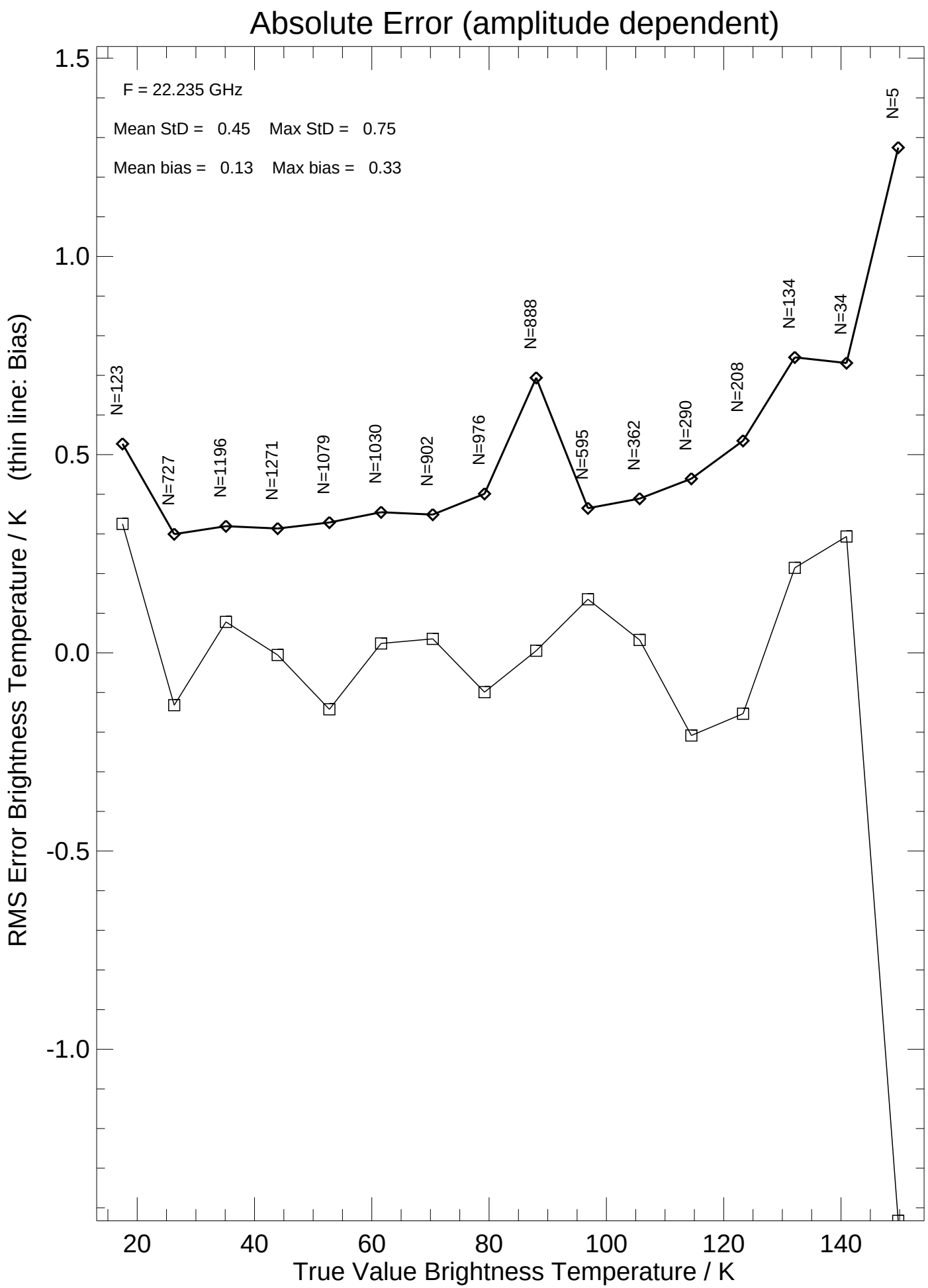

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.234 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

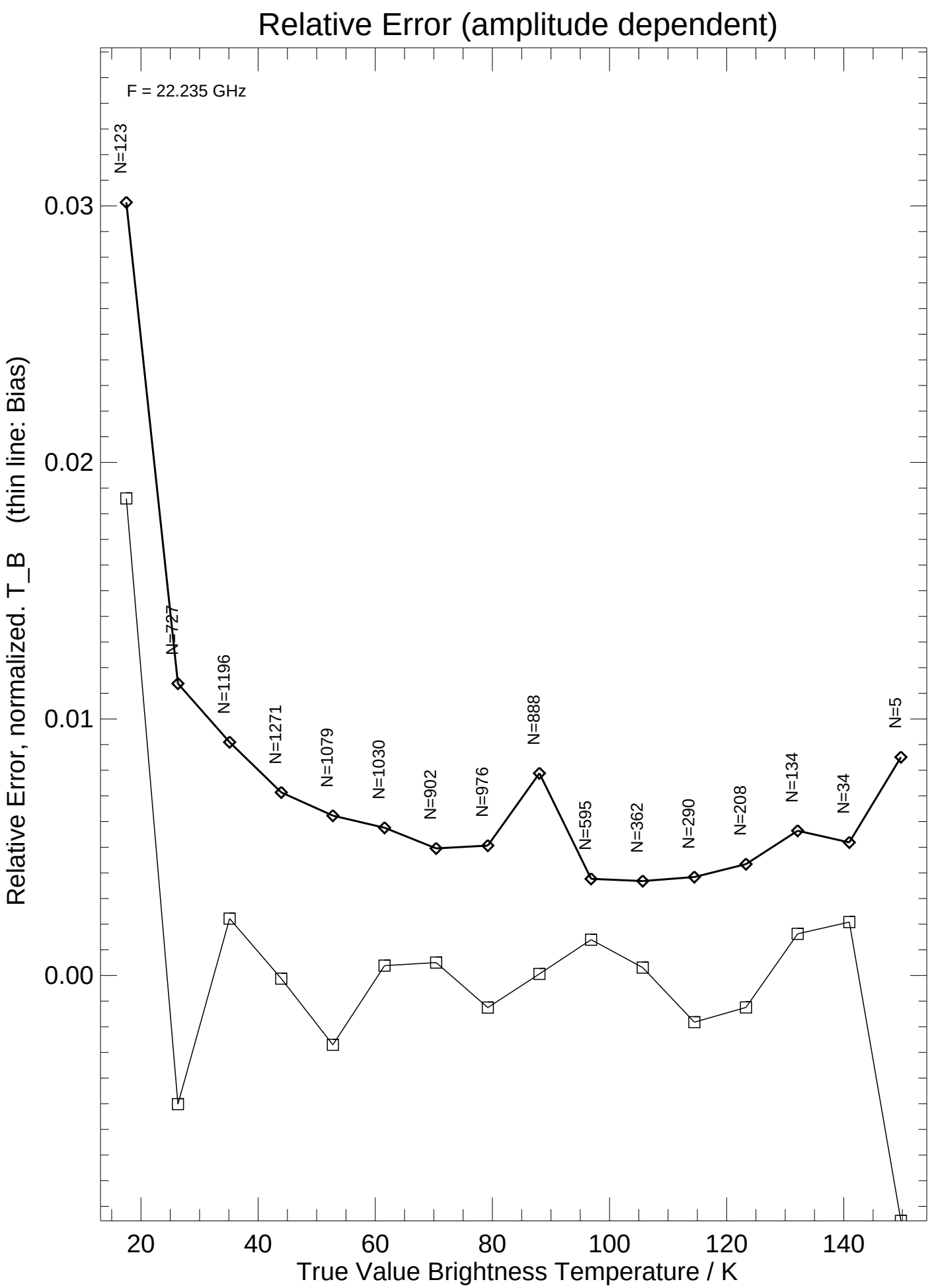

Absolute Error (amplitude dependent)
F = 22.234 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

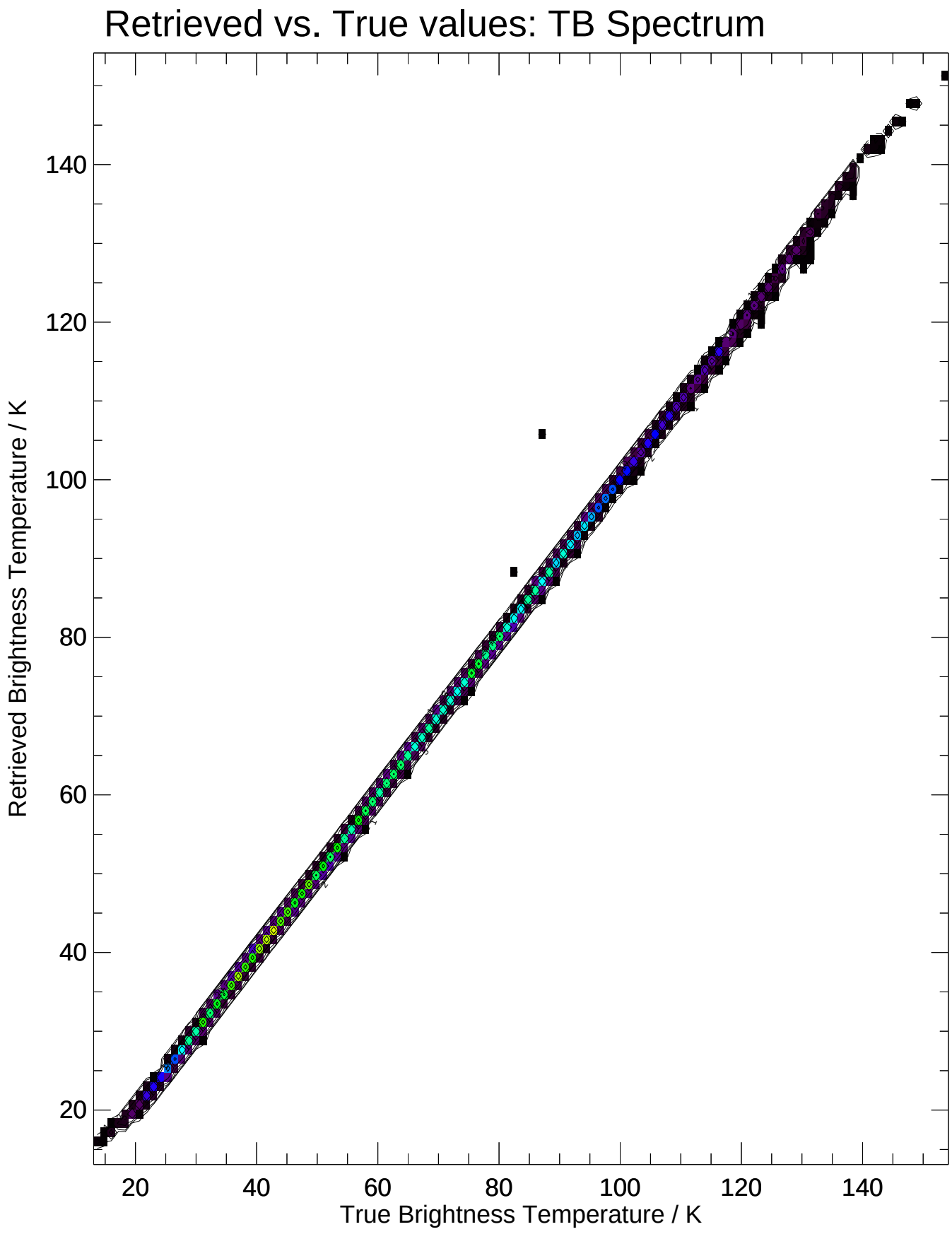

Relative Error (amplitude dependent)
F = 22.234 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

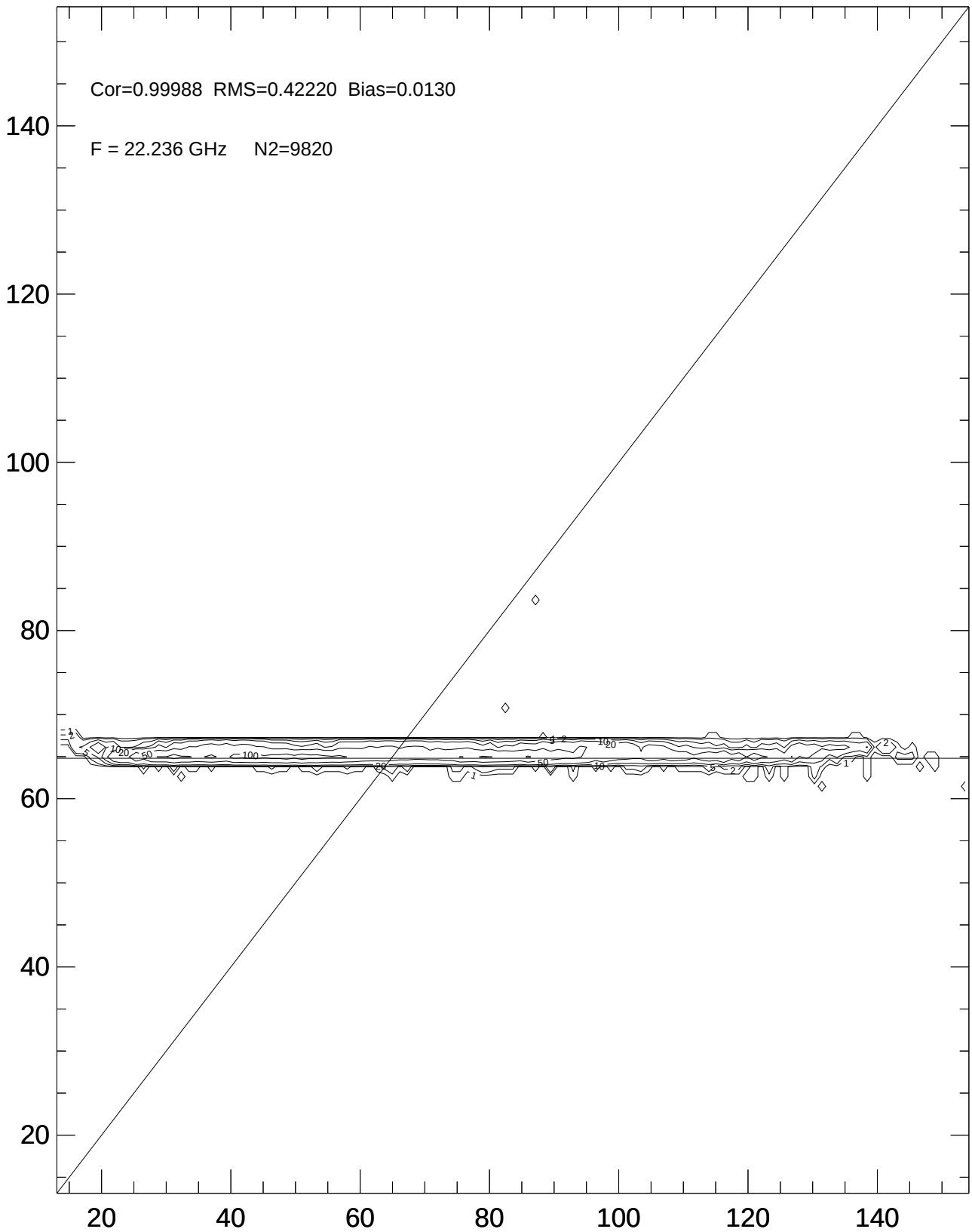

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

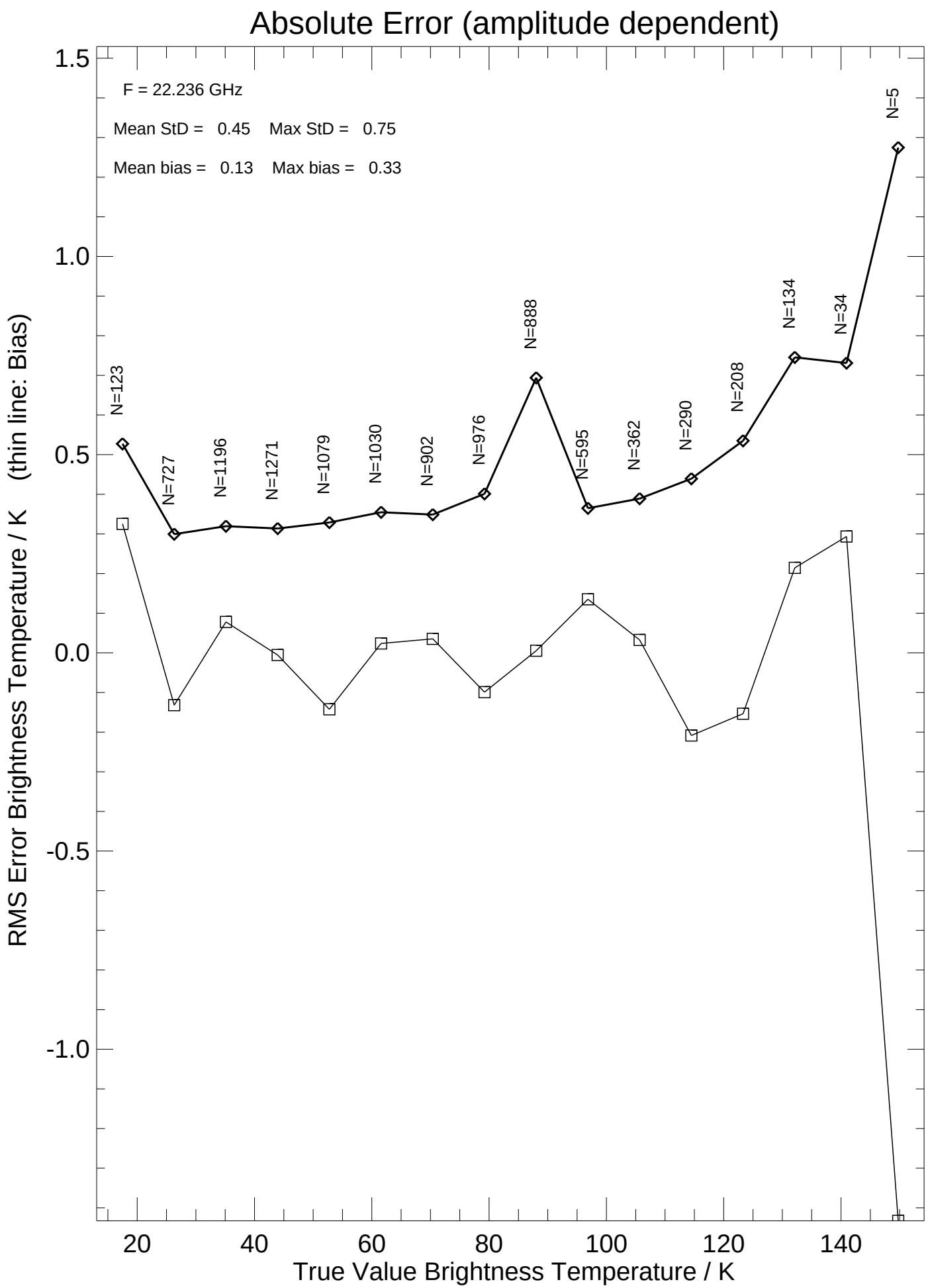

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.235 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

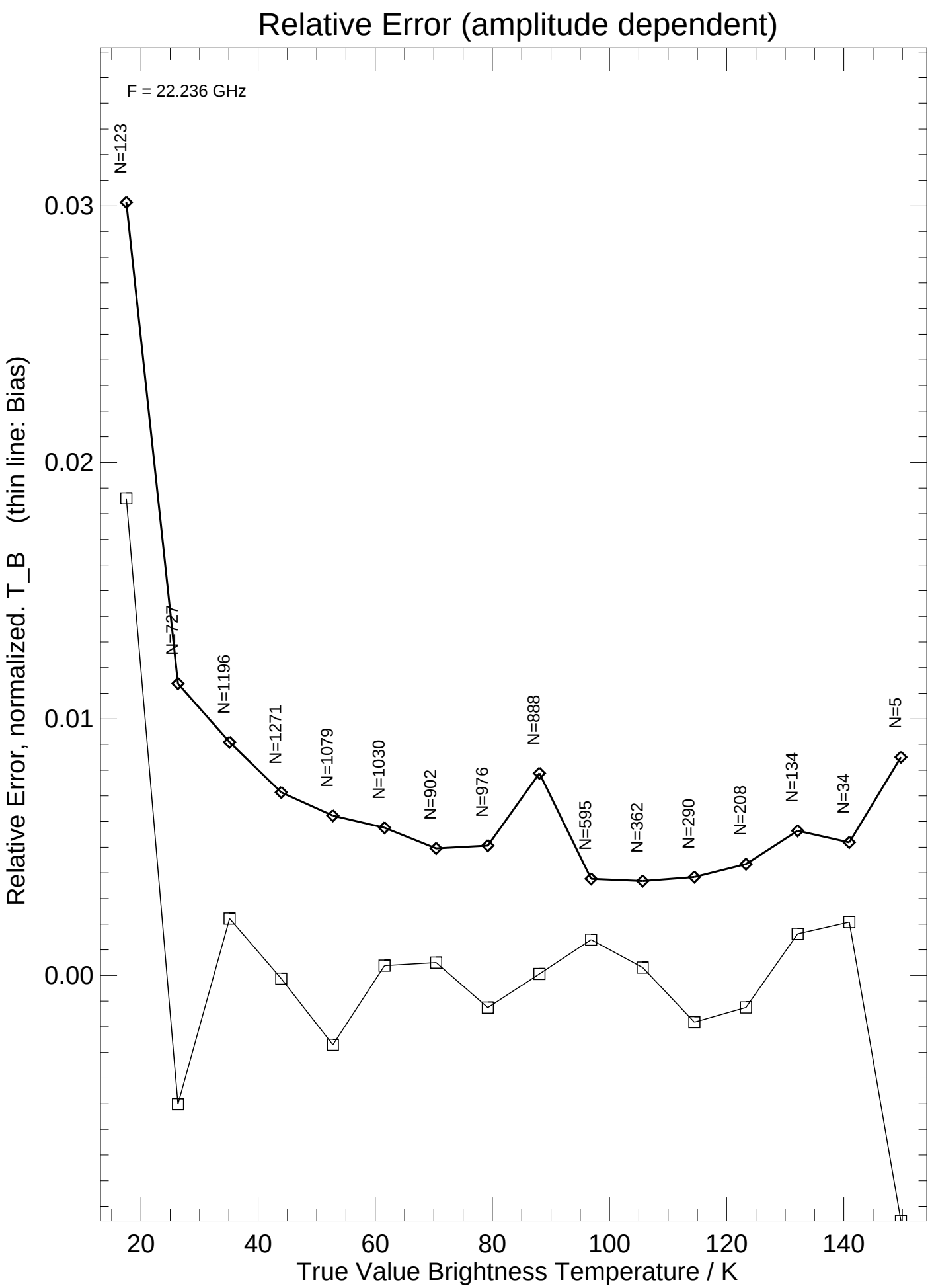

Absolute Error (amplitude dependent)
F = 22.235 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

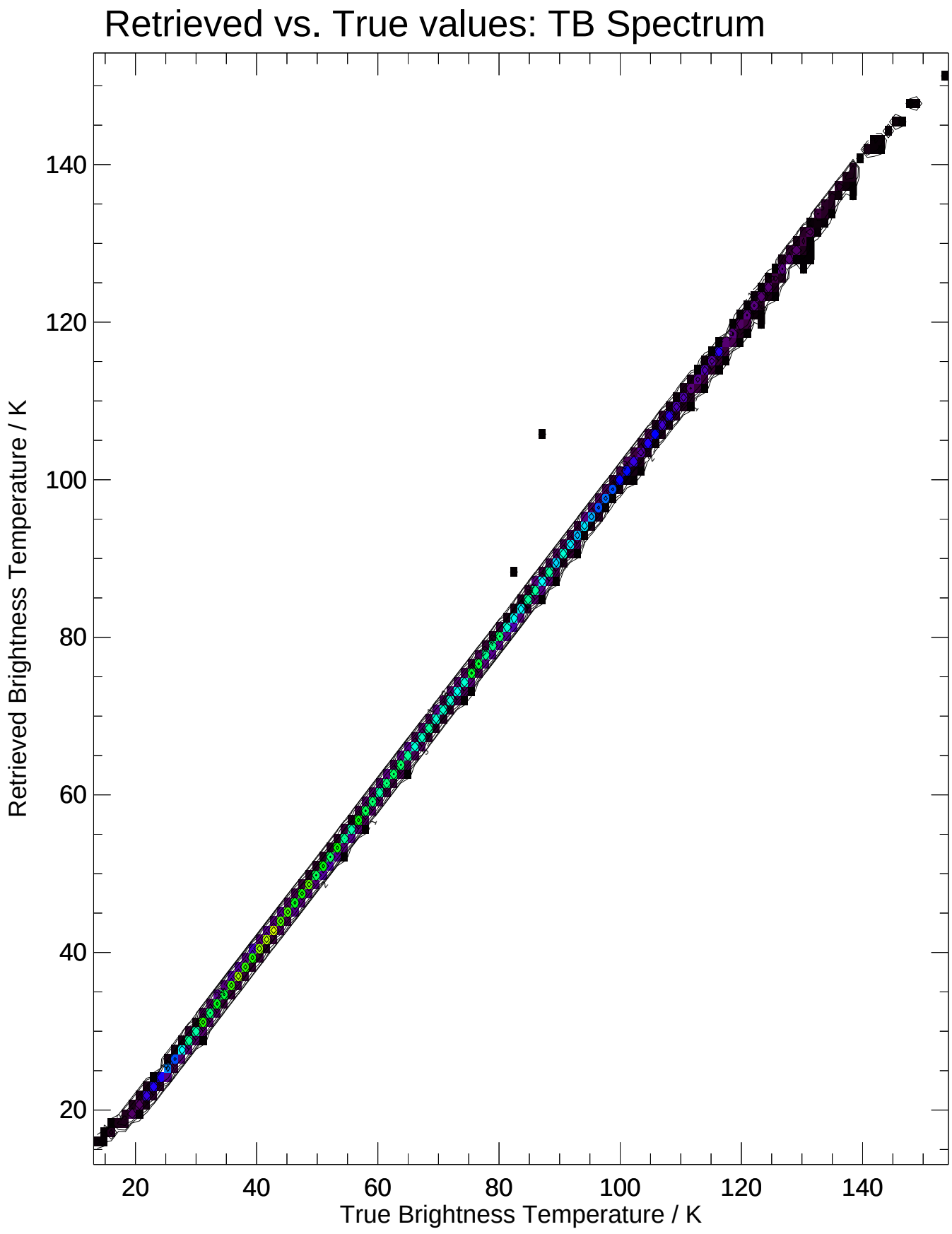

Relative Error (amplitude dependent)
F = 22.235 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

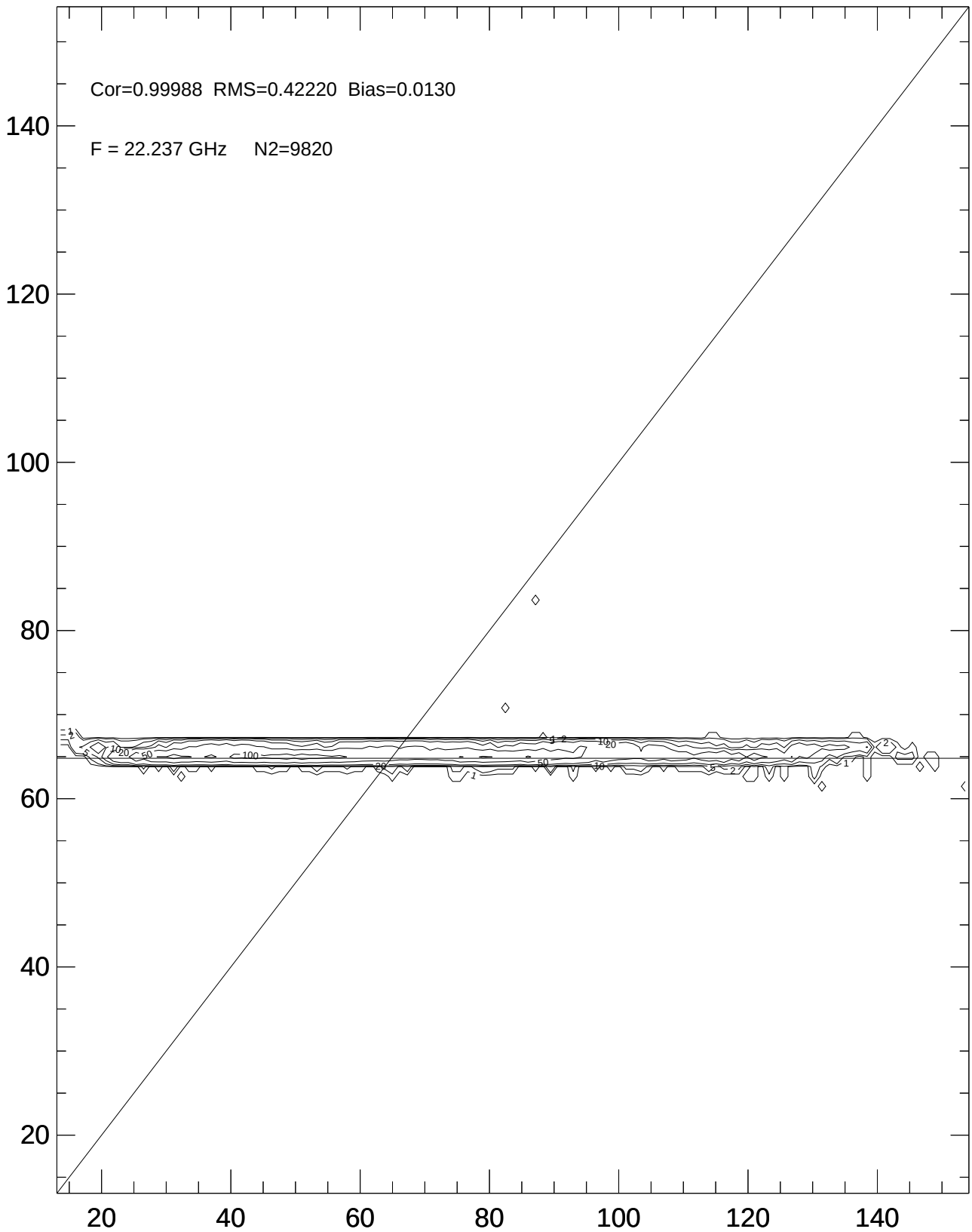

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

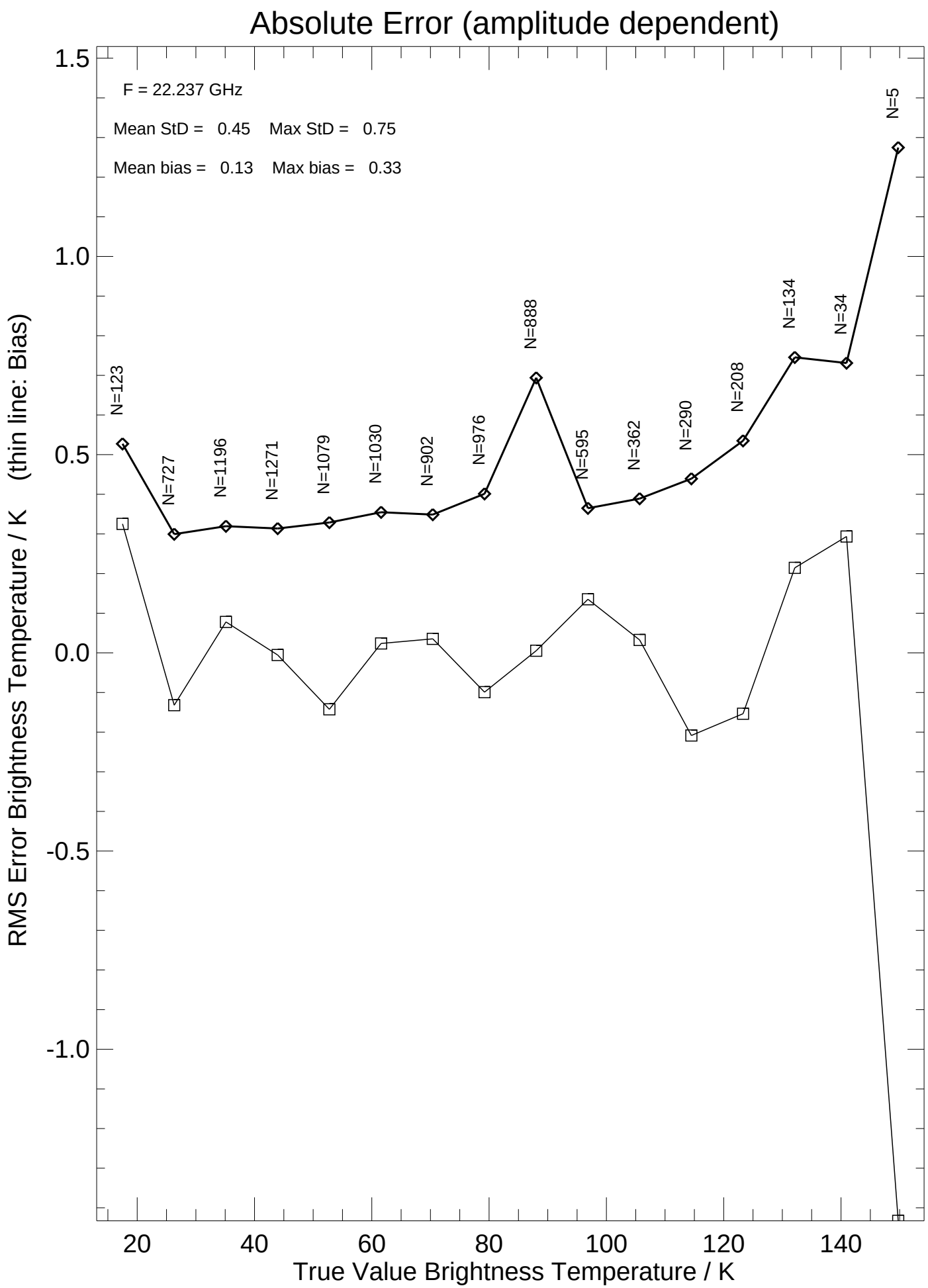

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.236 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

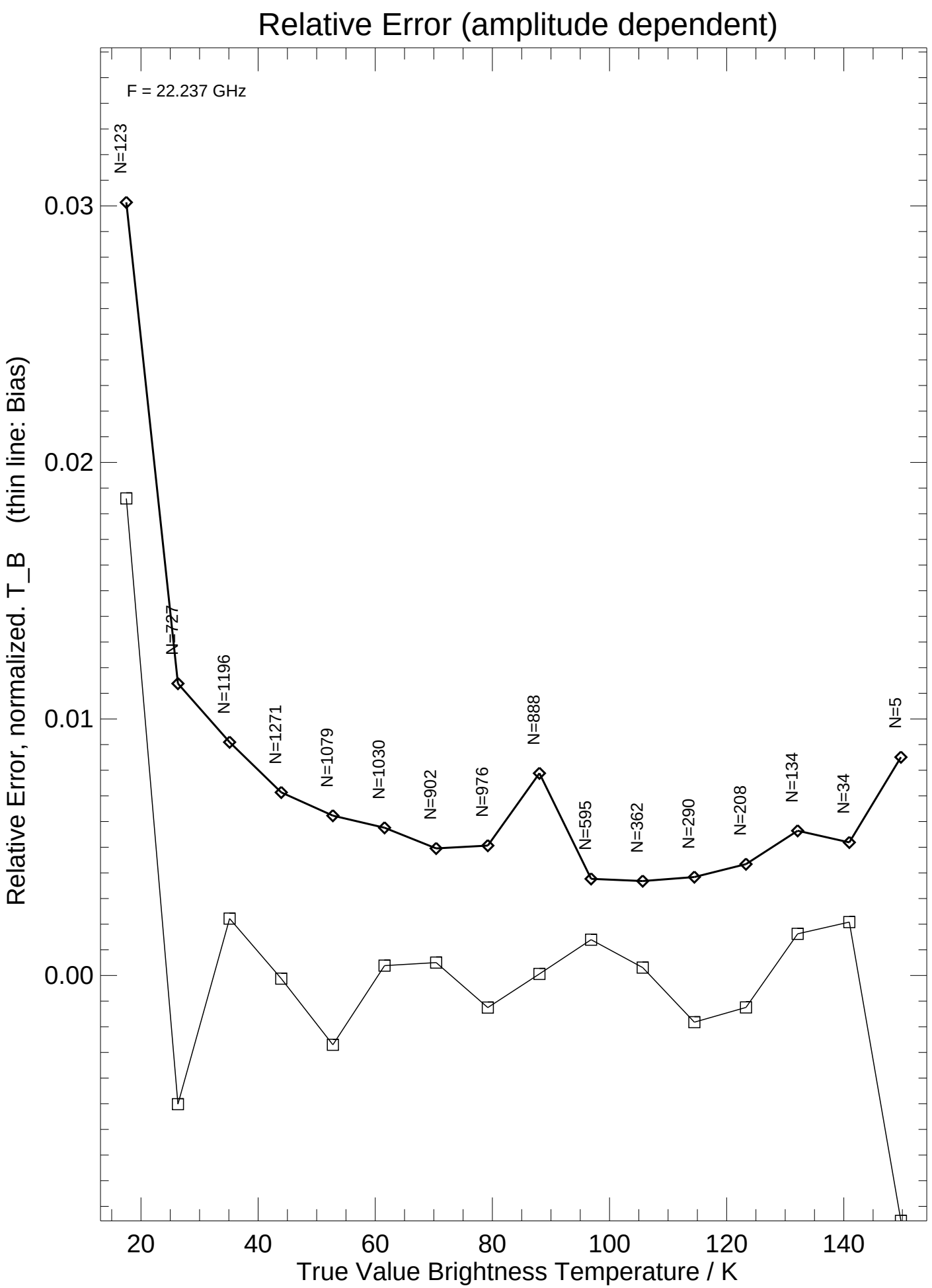

Absolute Error (amplitude dependent)
F = 22.236 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

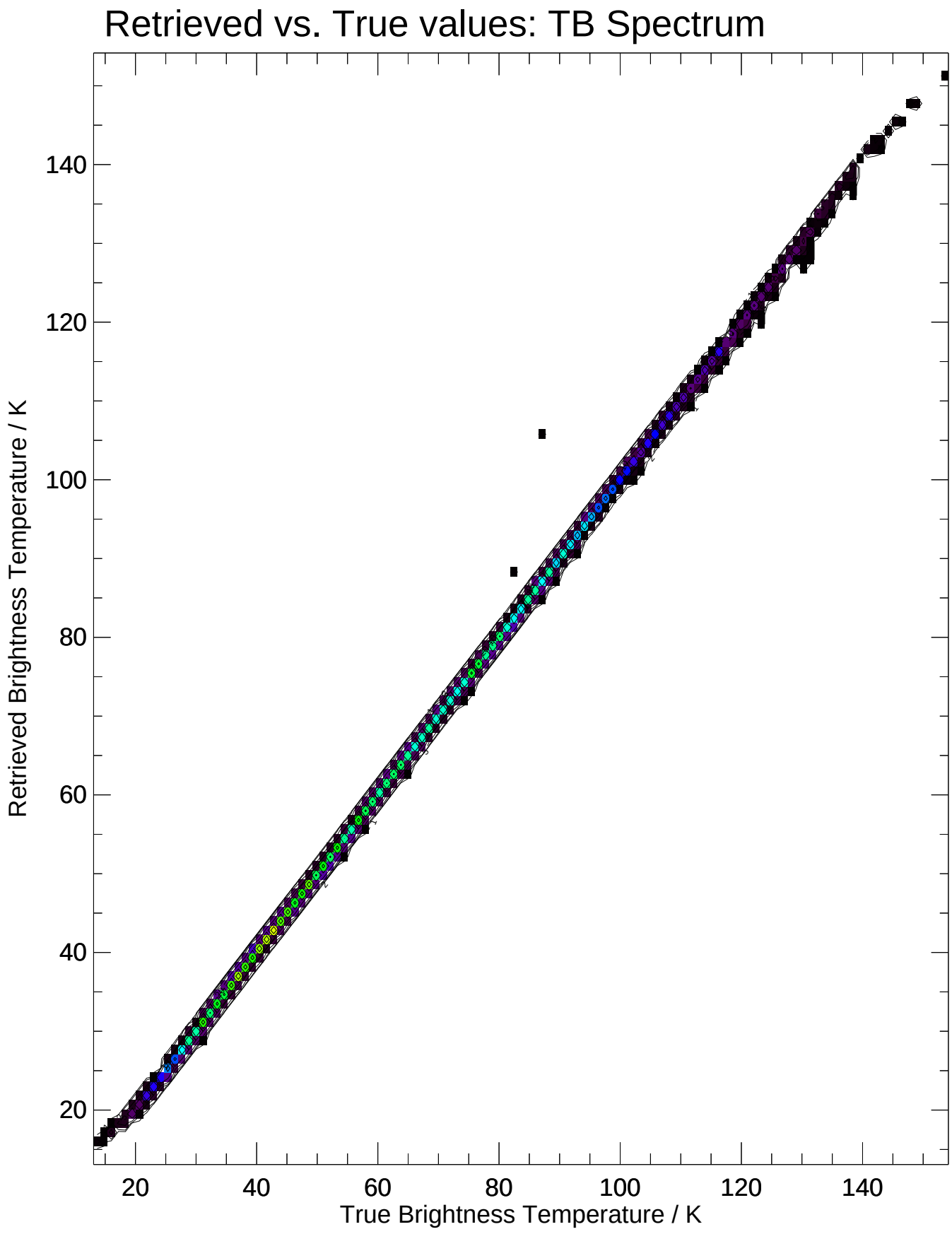

Relative Error (amplitude dependent)
F = 22.236 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

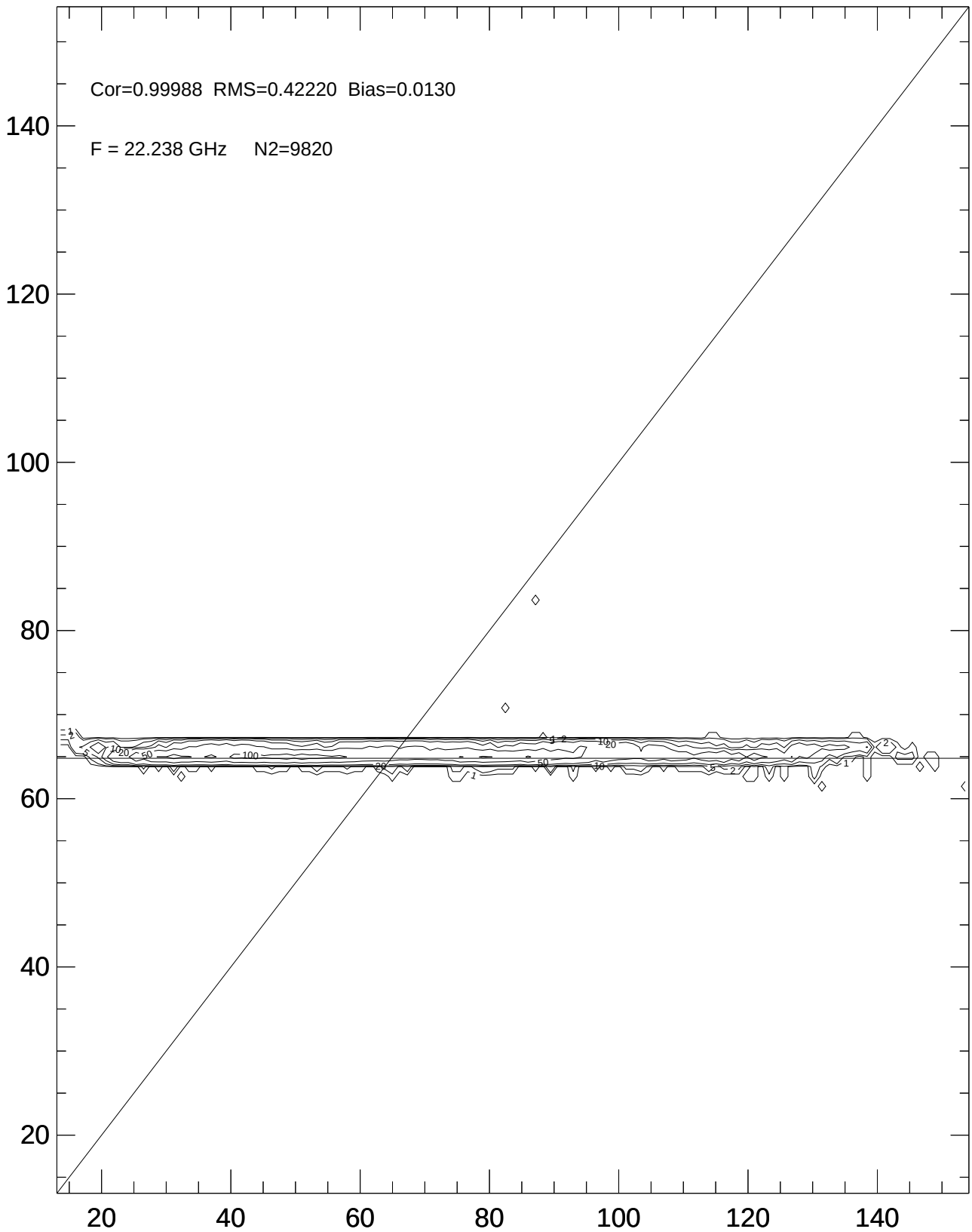

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

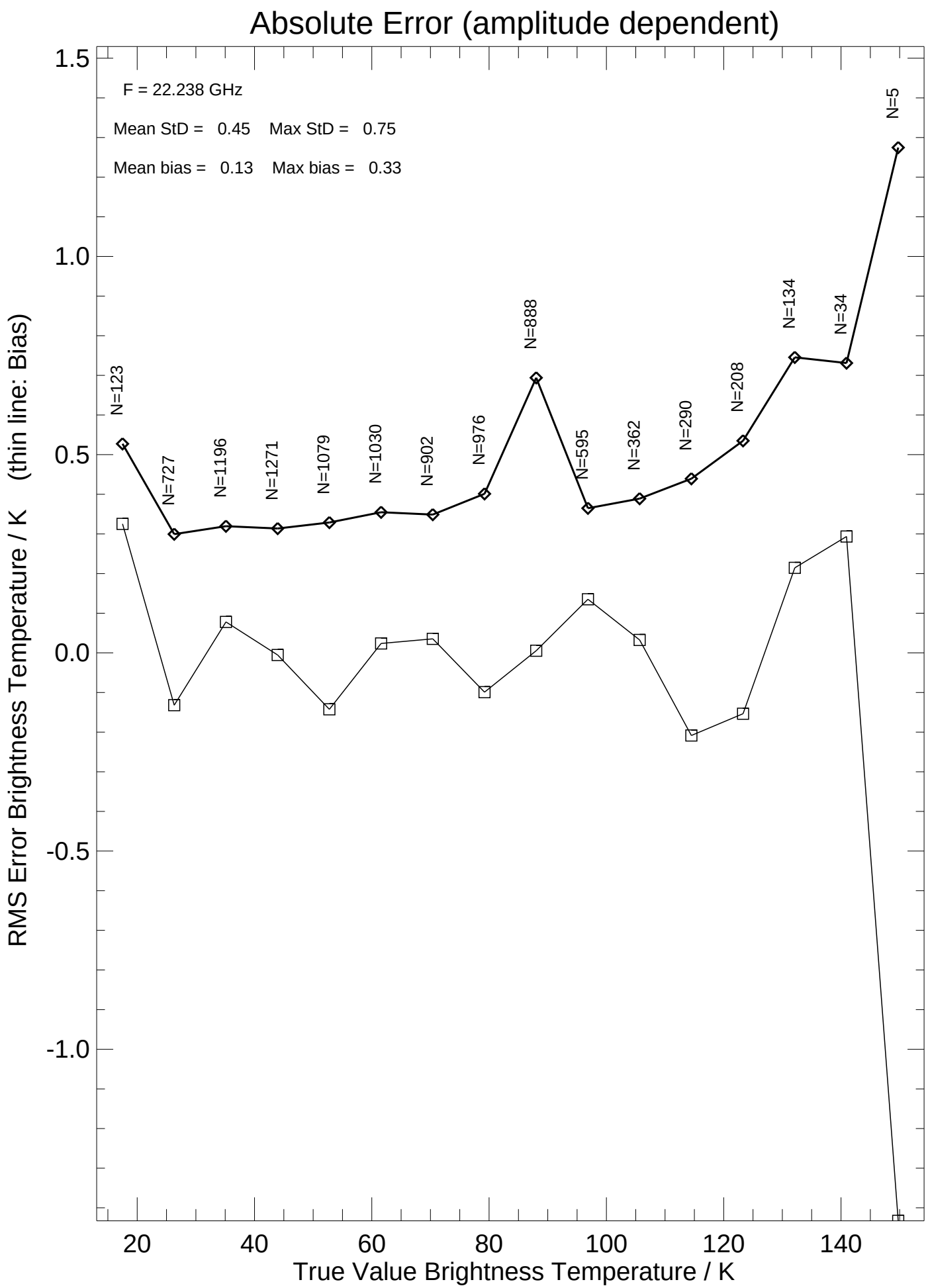

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.237 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

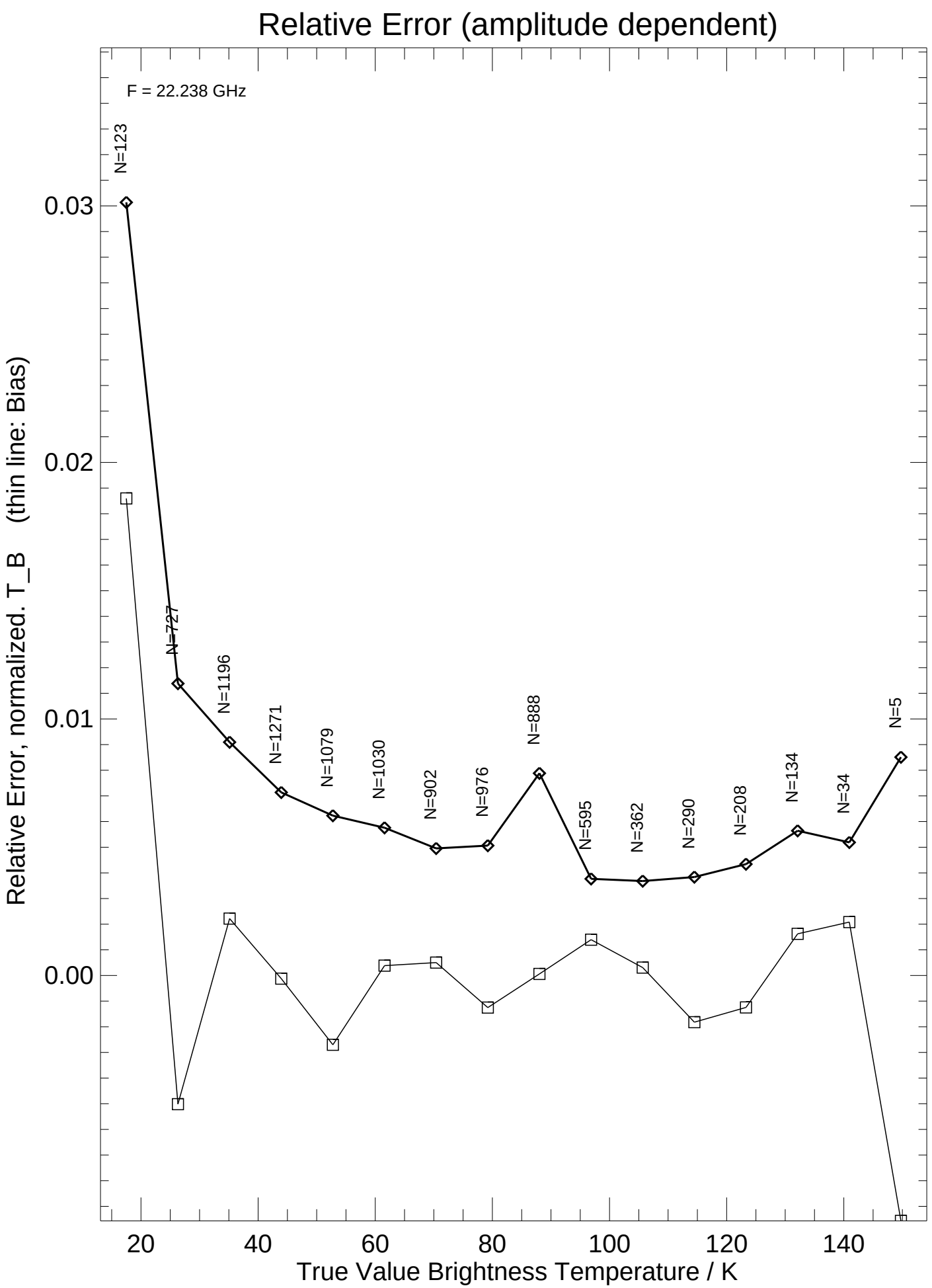

Absolute Error (amplitude dependent)
F = 22.237 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

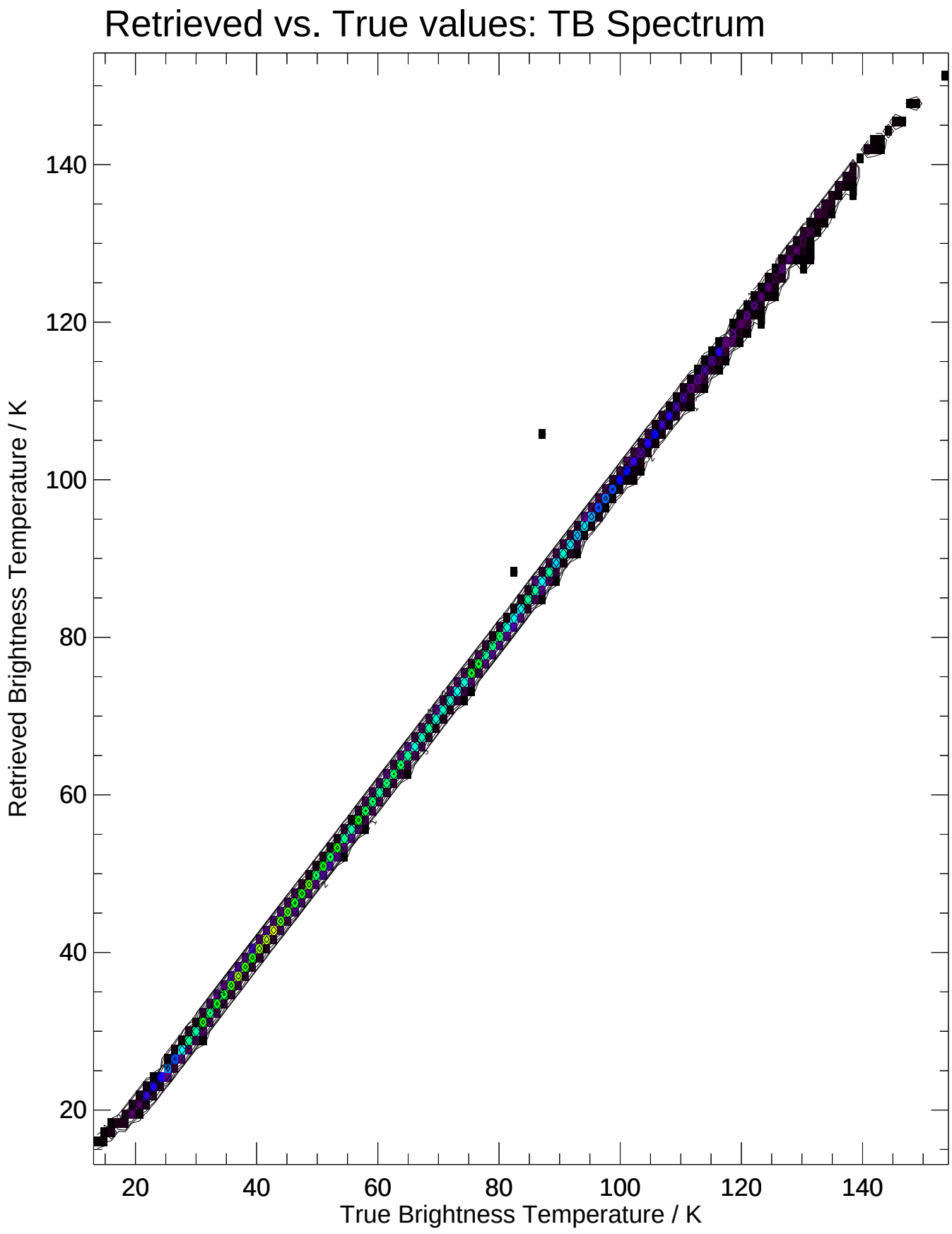

Relative Error (amplitude dependent)
F = 22.237 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

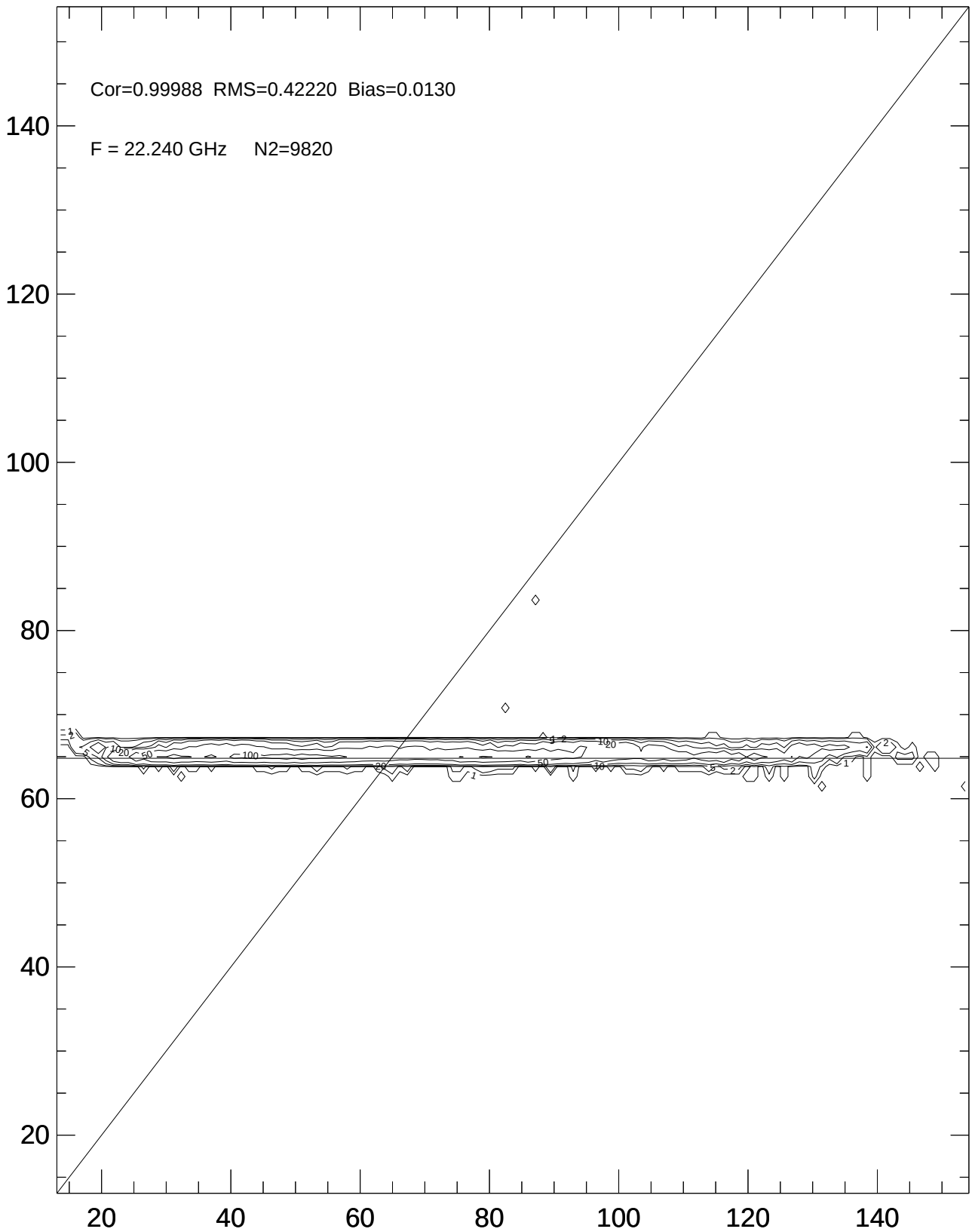

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

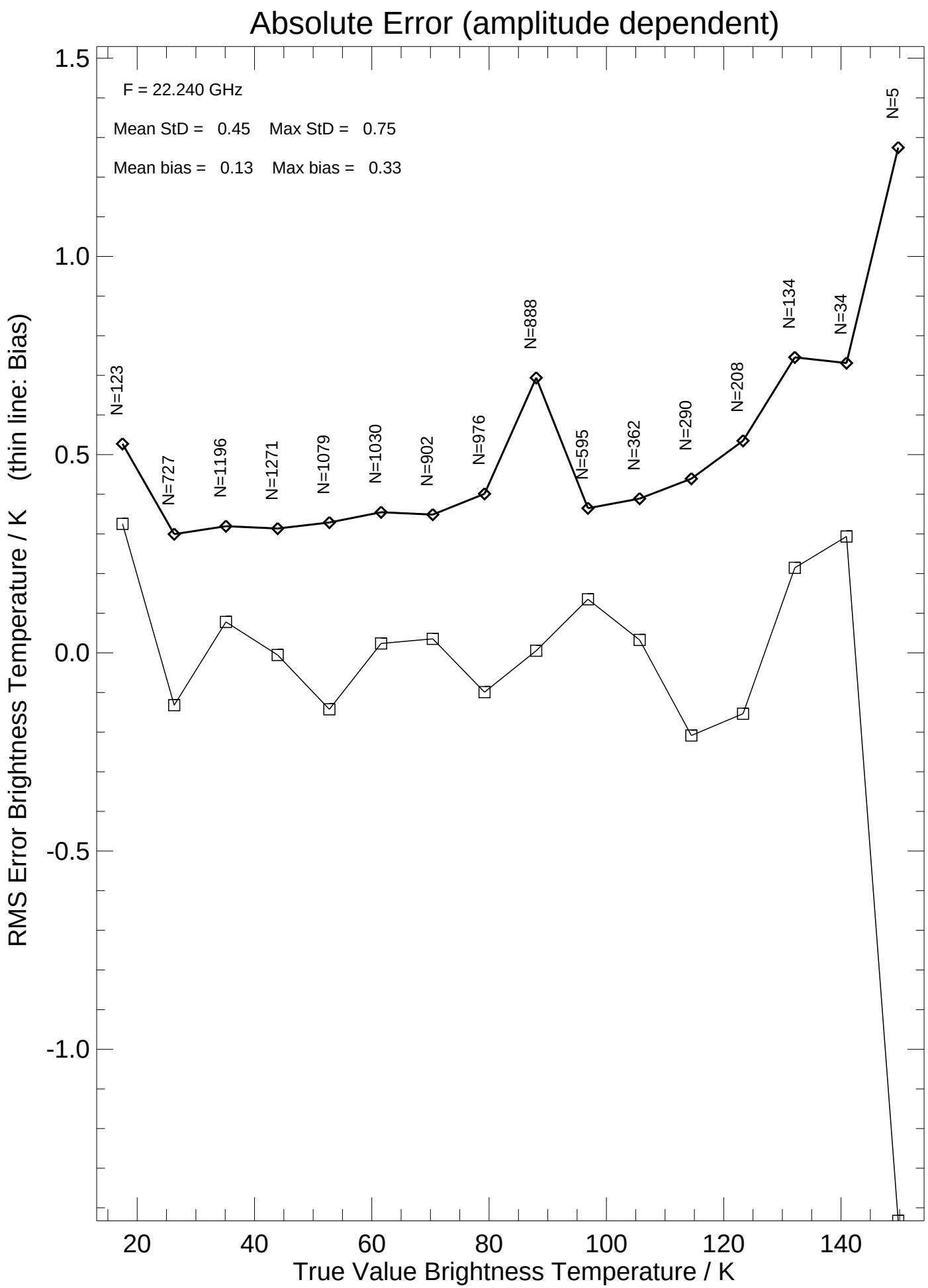

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.238 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

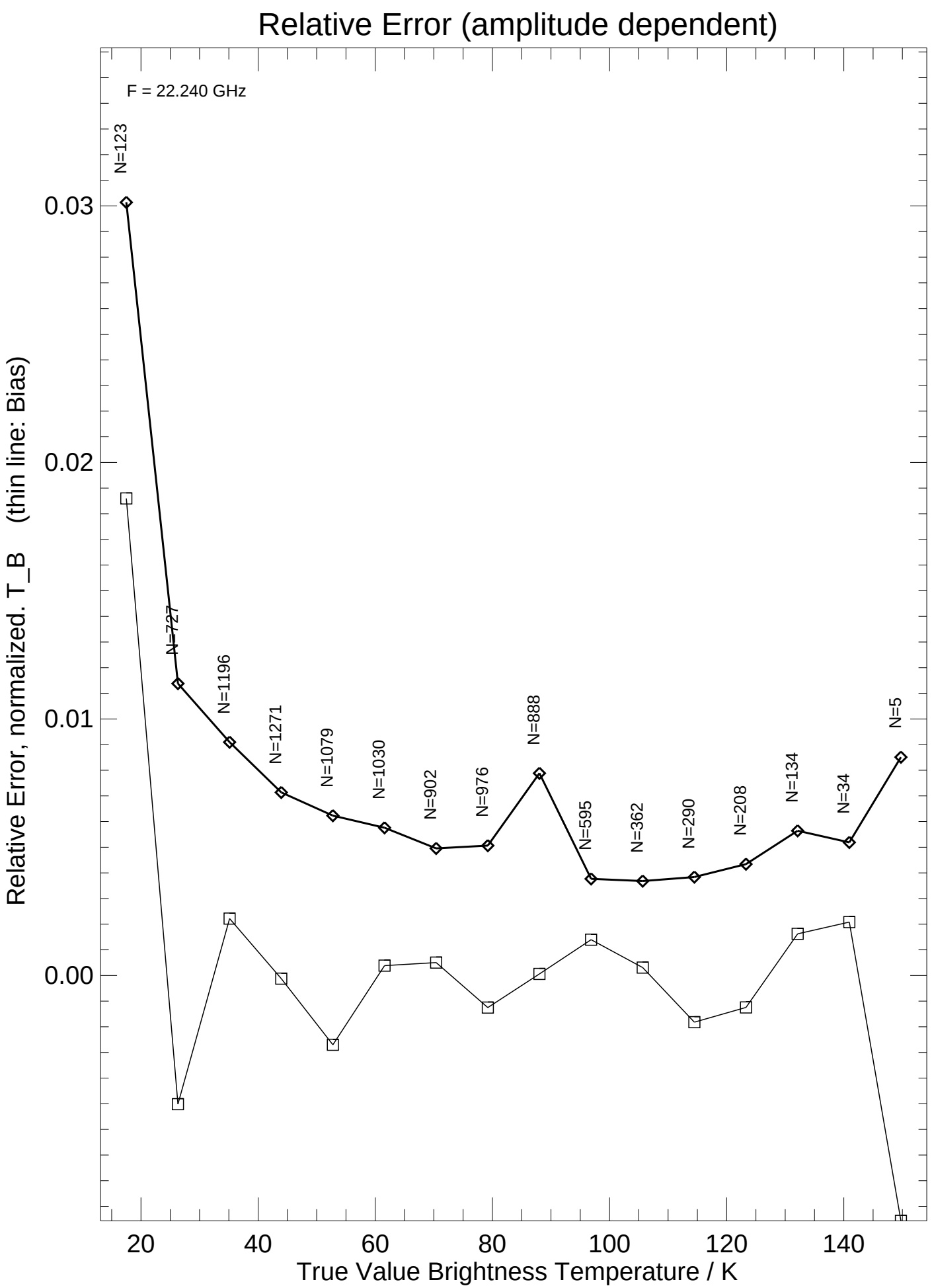

Absolute Error (amplitude dependent)
F = 22.238 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

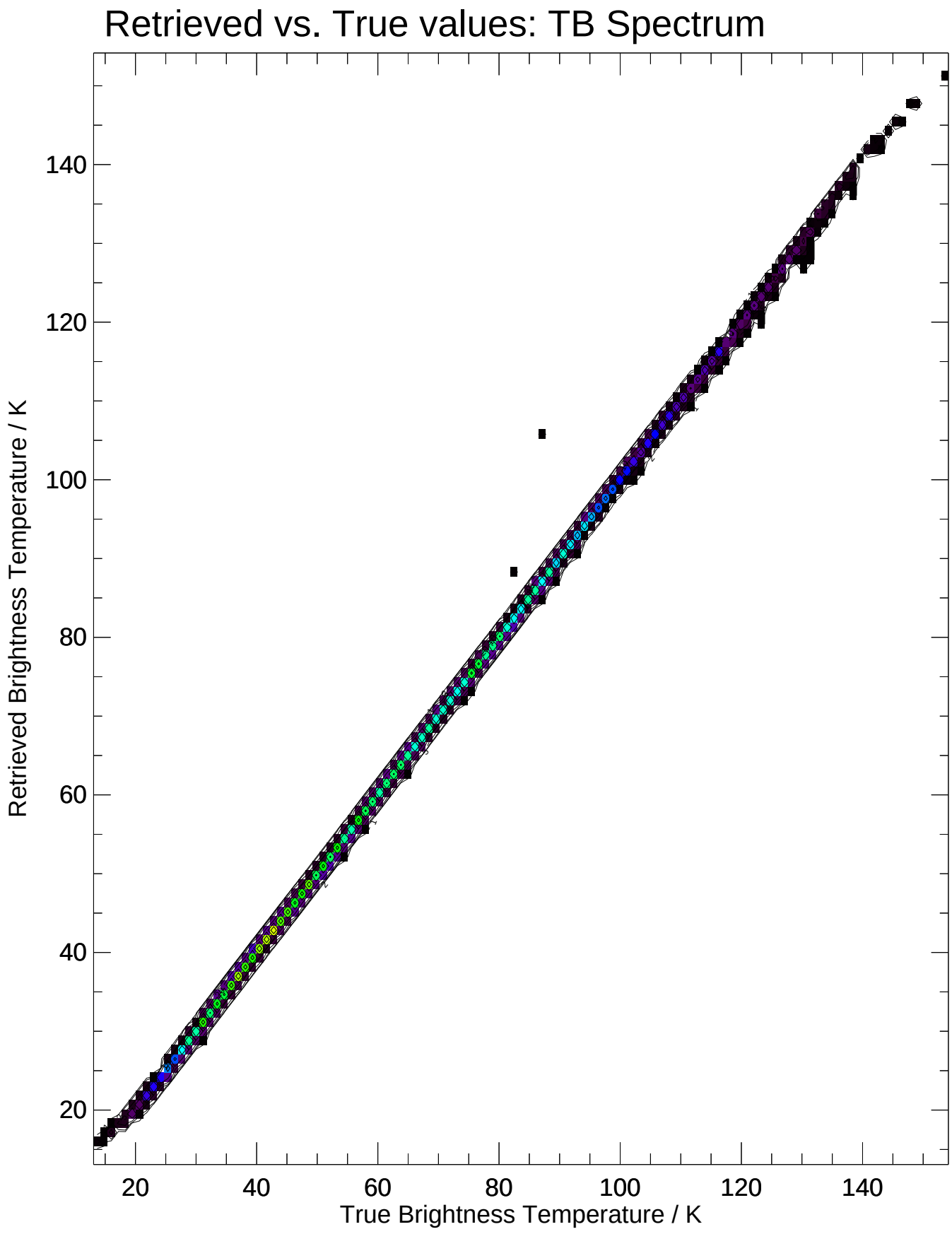

Relative Error (amplitude dependent)
F = 22.238 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

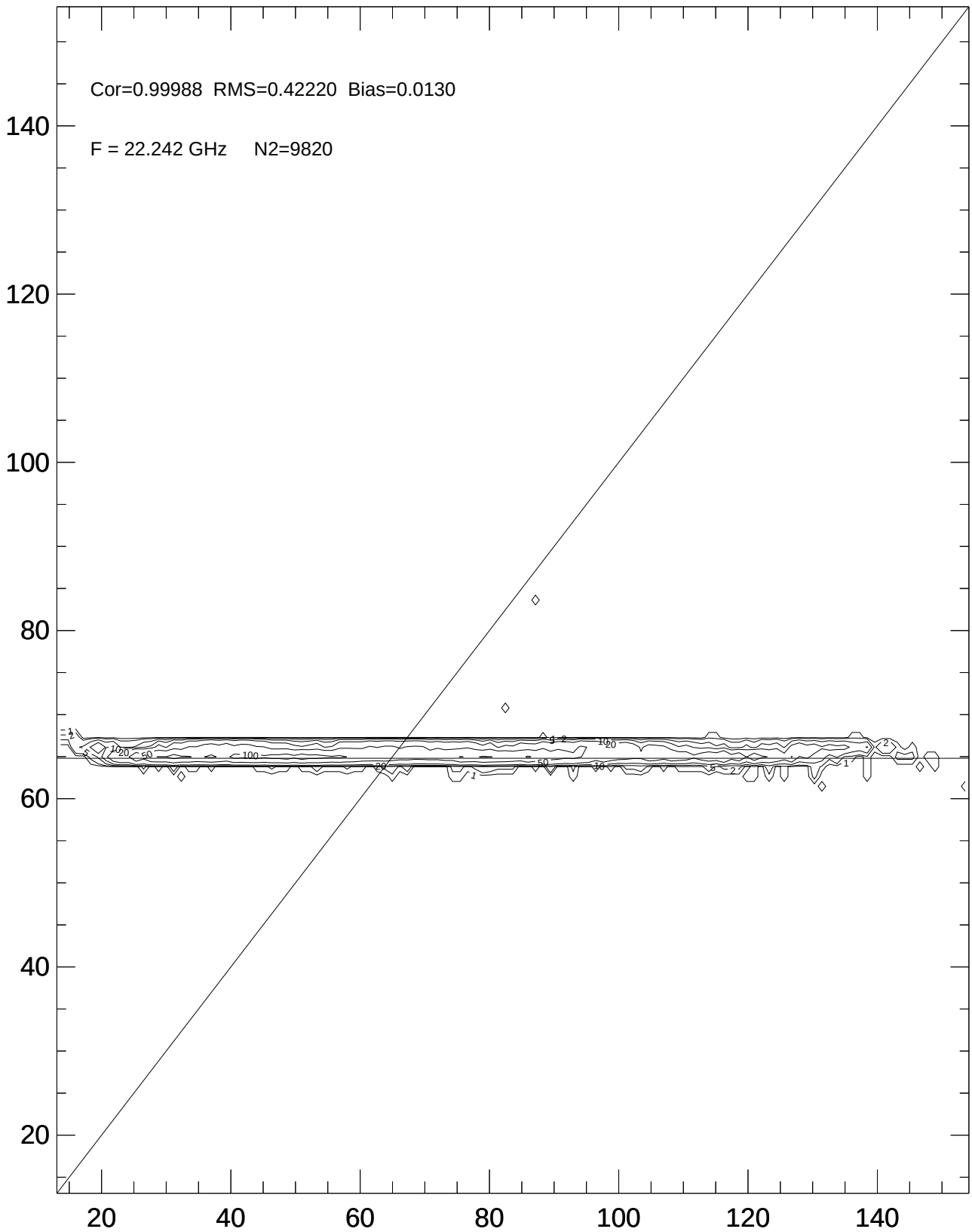

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

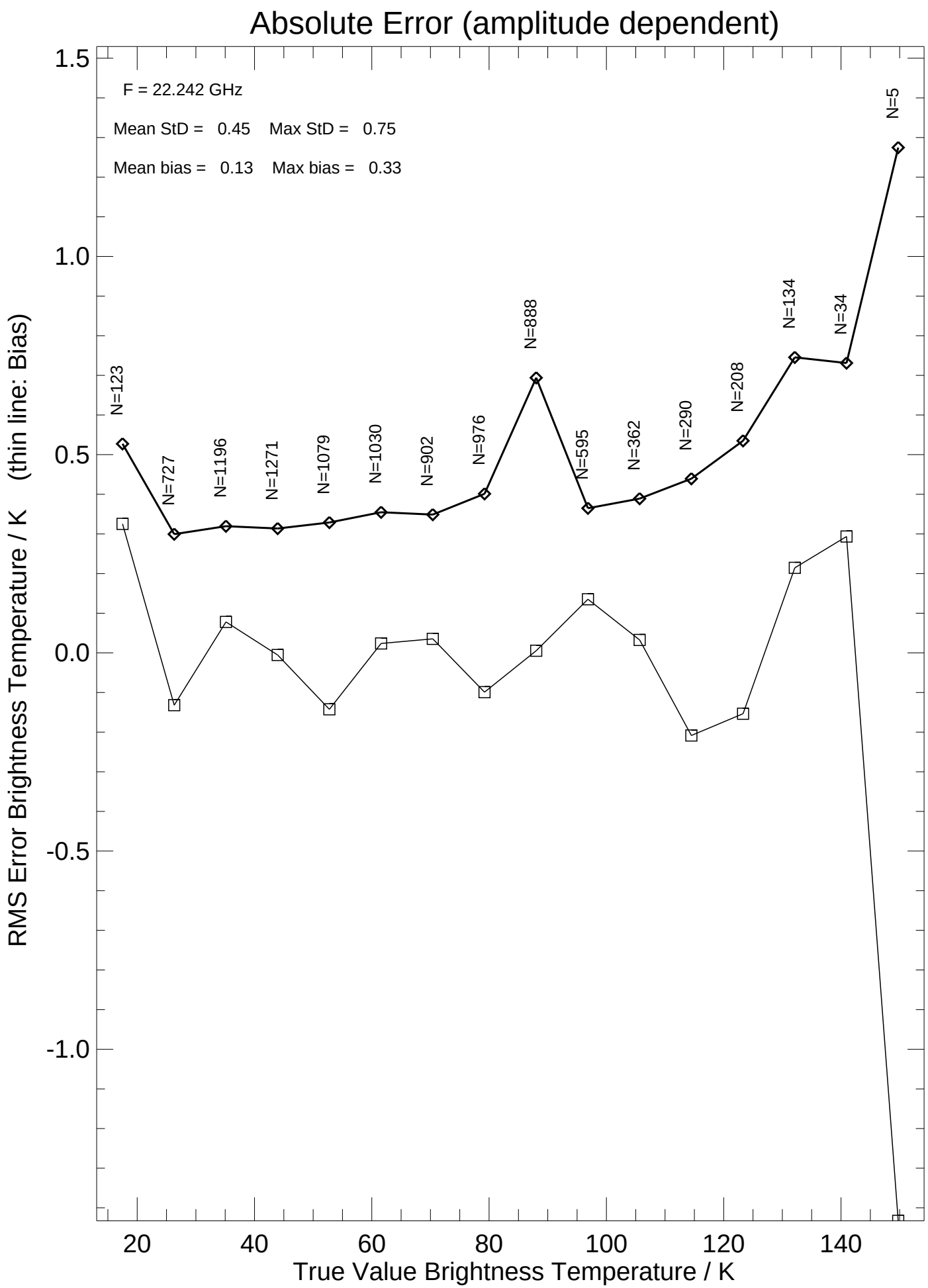

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.240 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

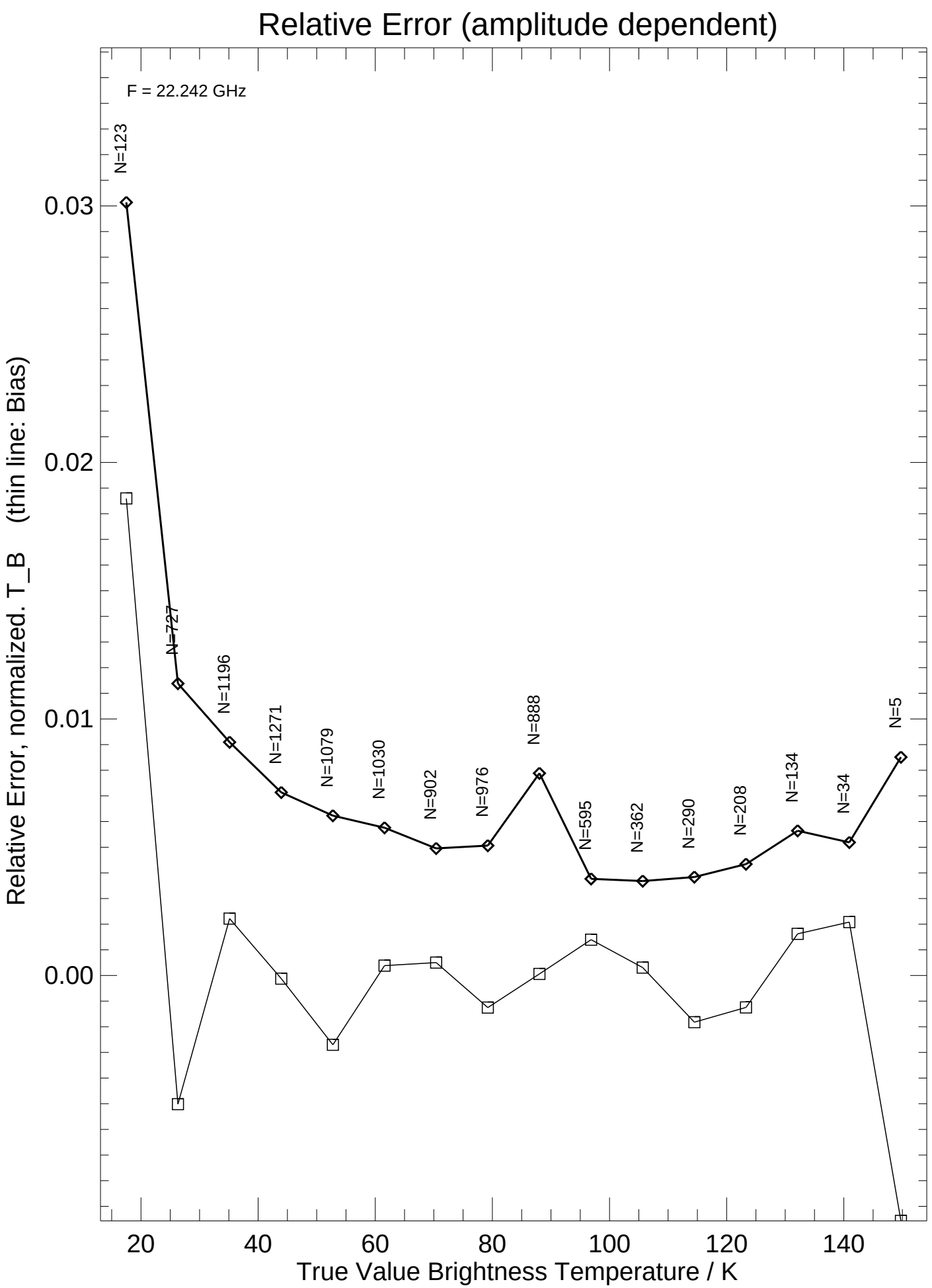

Absolute Error (amplitude dependent)
F = 22.240 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

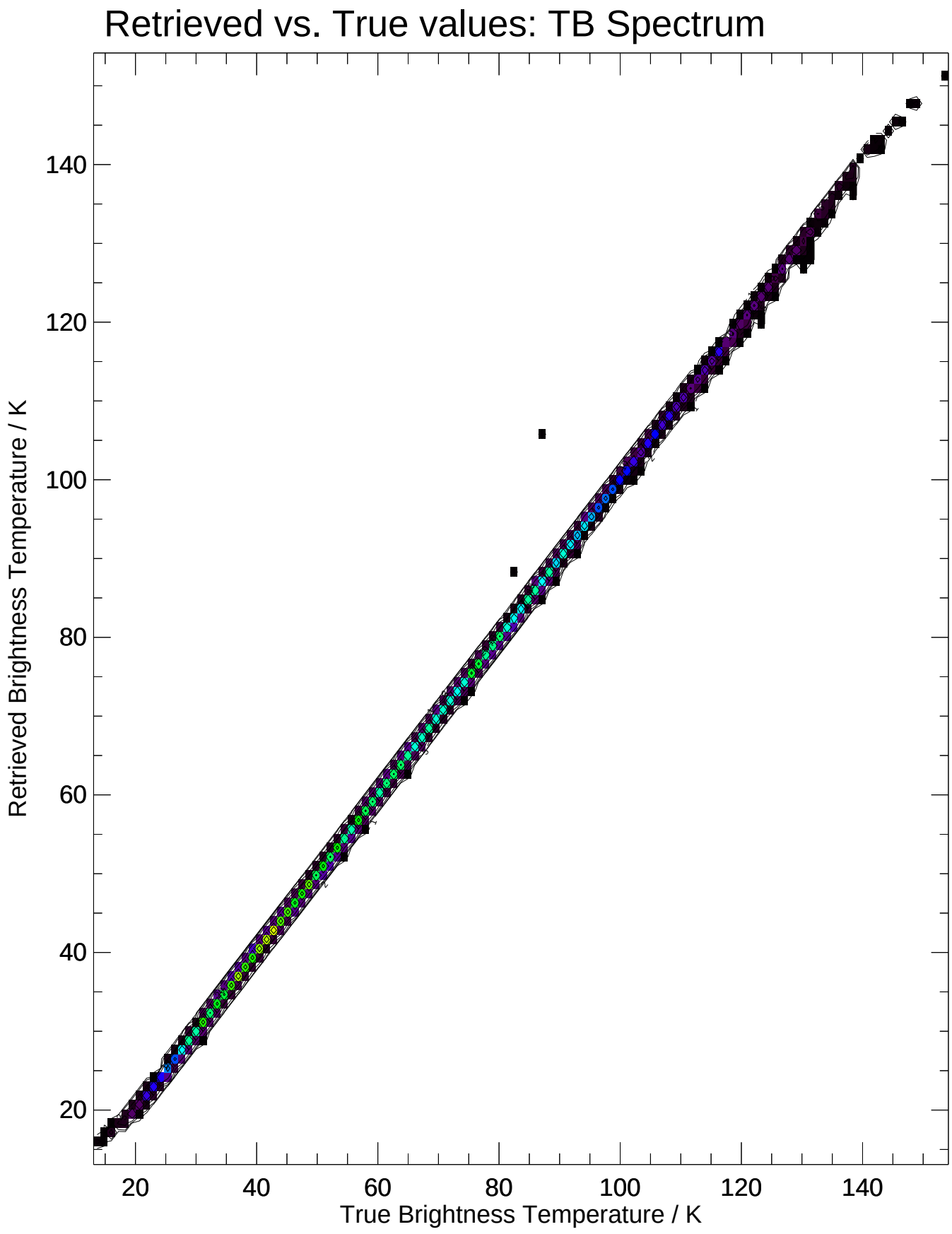

Relative Error (amplitude dependent)
F = 22.240 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

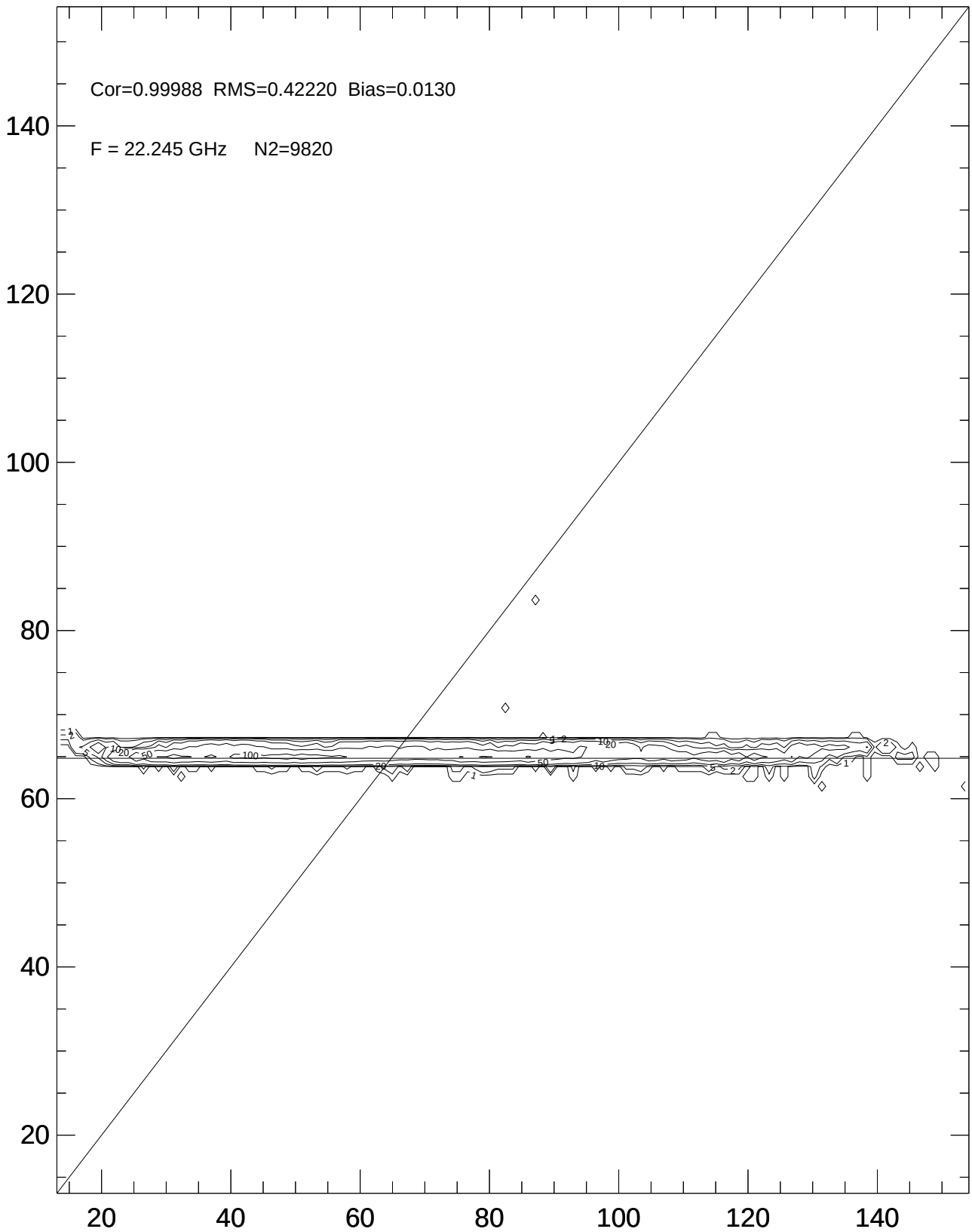

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

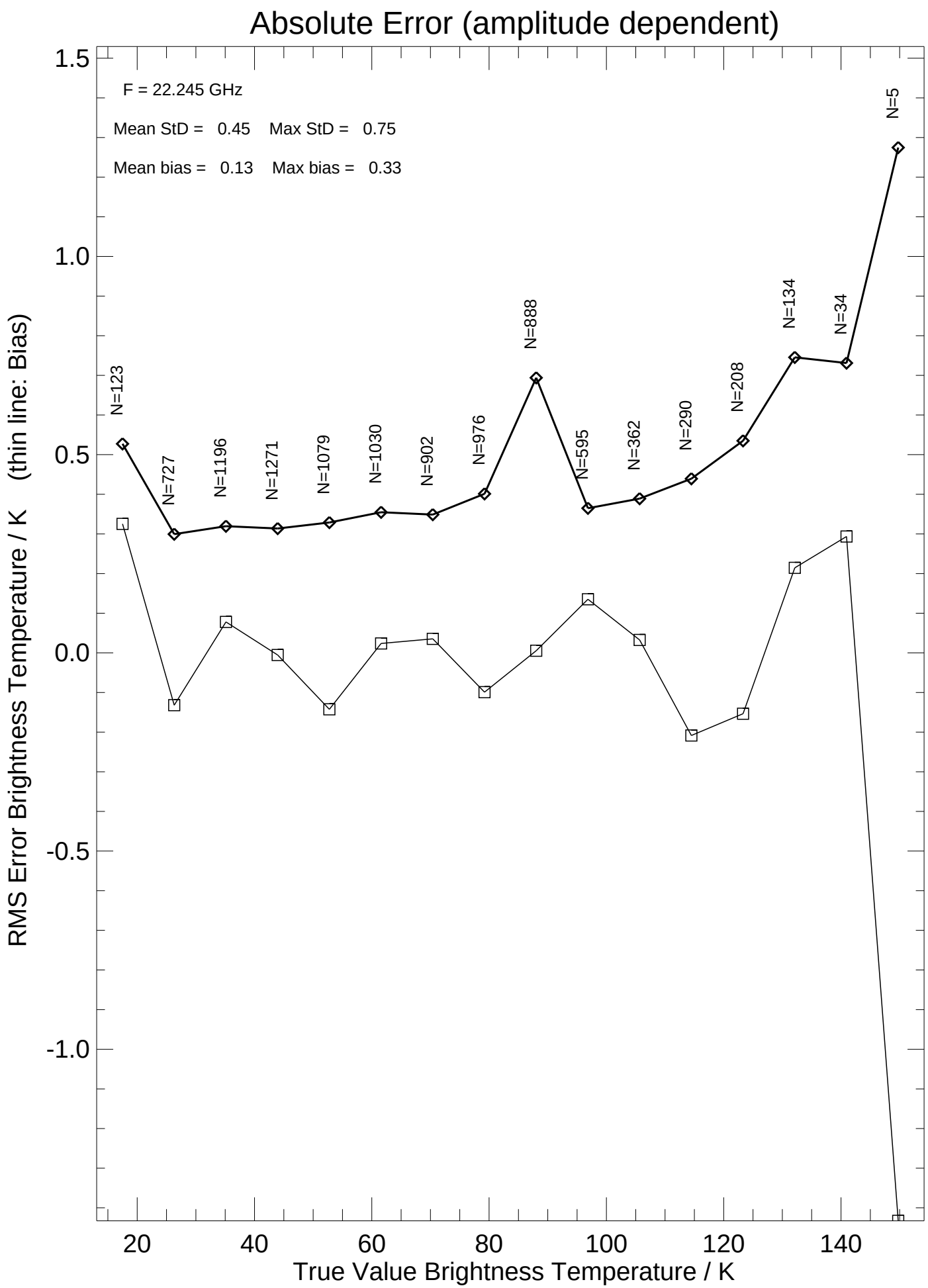

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.242 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

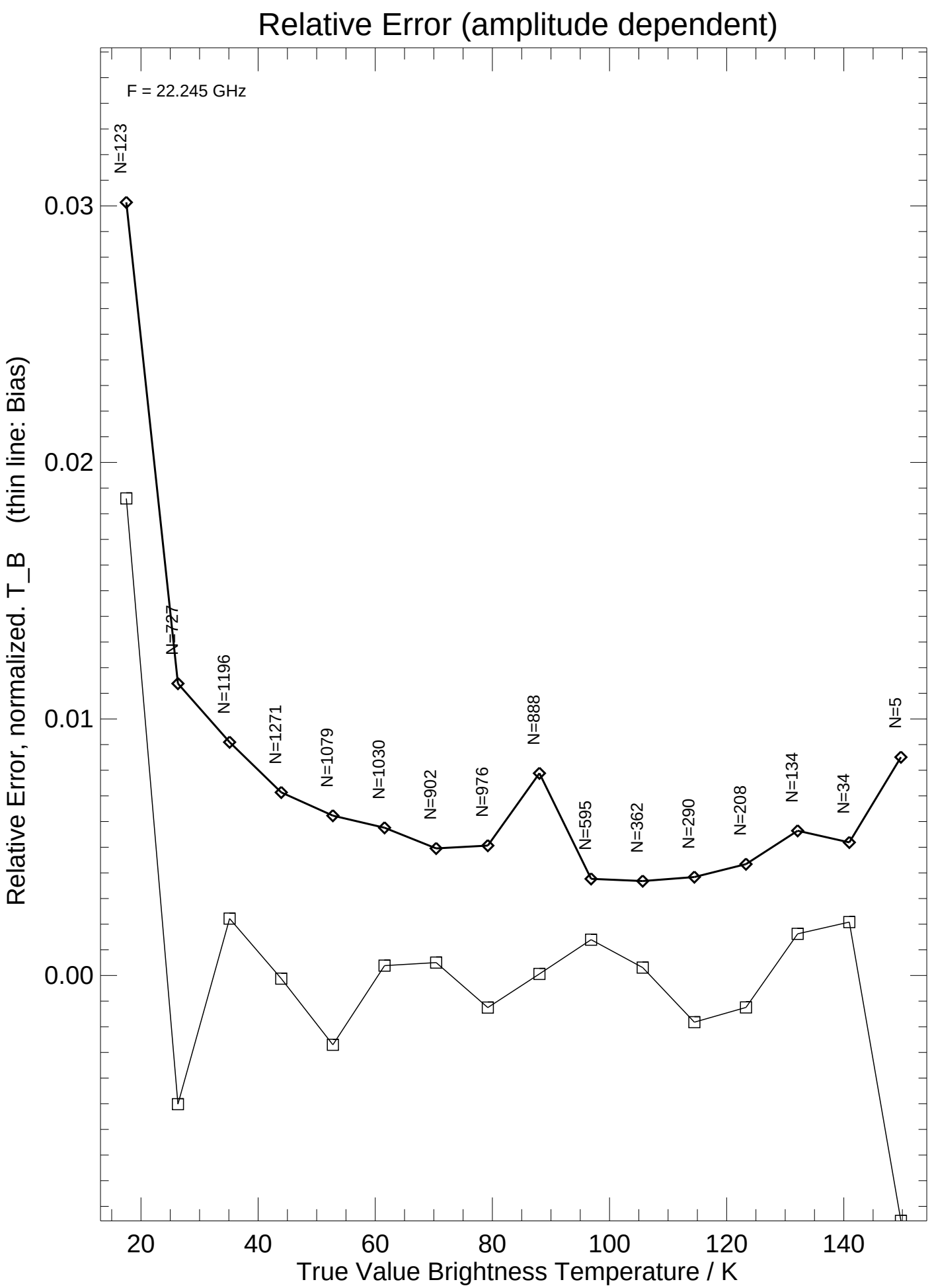

Absolute Error (amplitude dependent)
F = 22.242 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

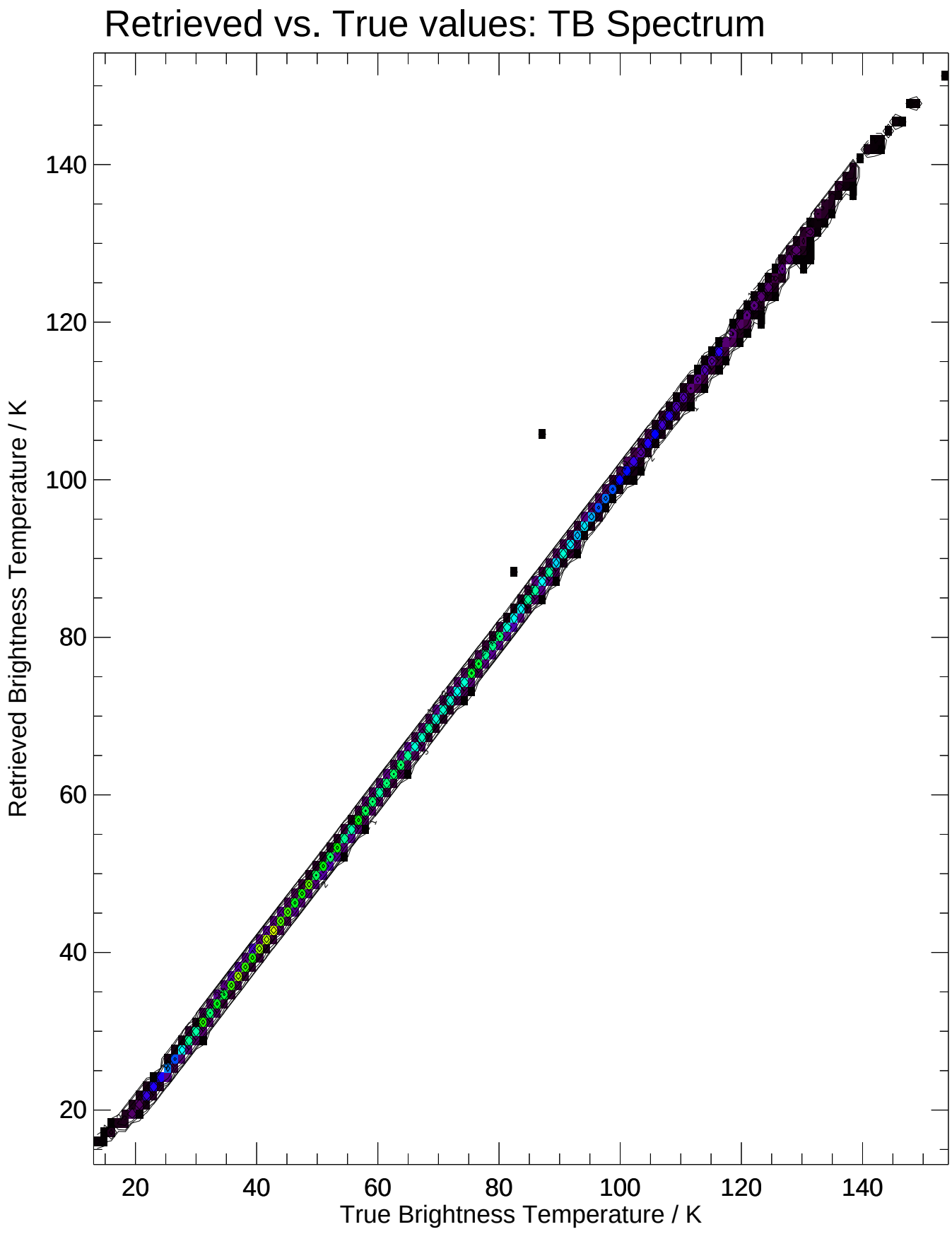

Relative Error (amplitude dependent)
F = 22.242 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

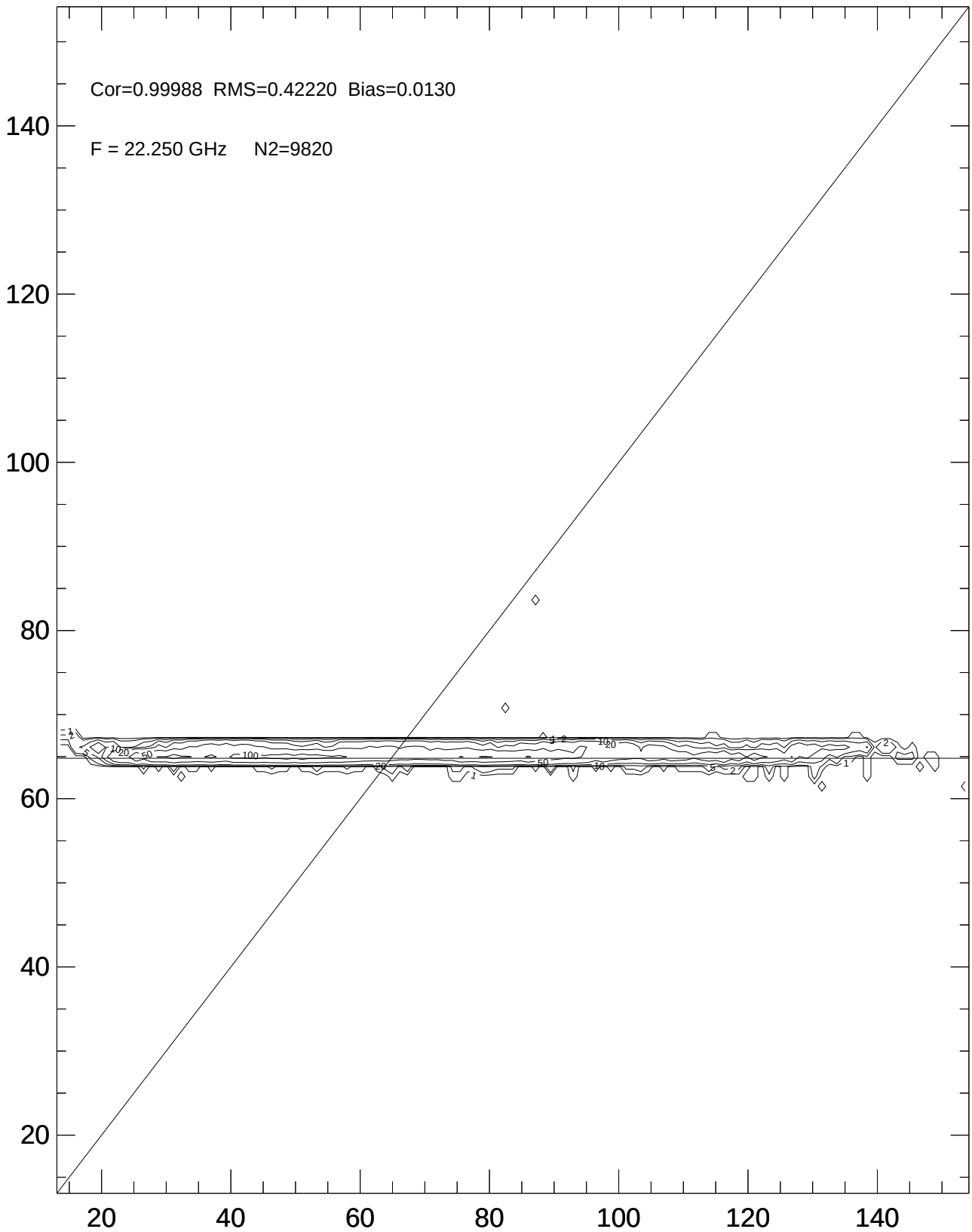

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

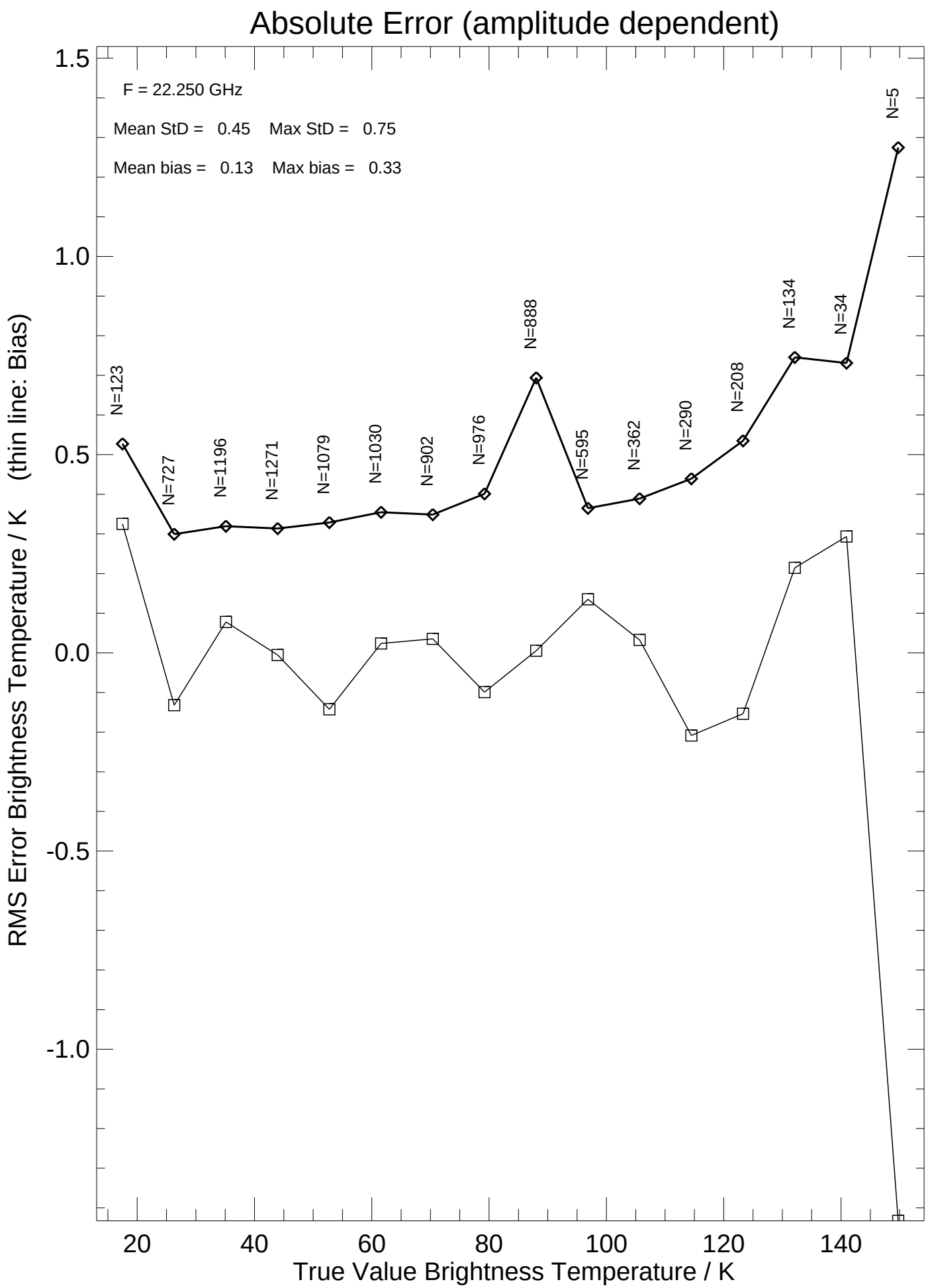

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.245 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

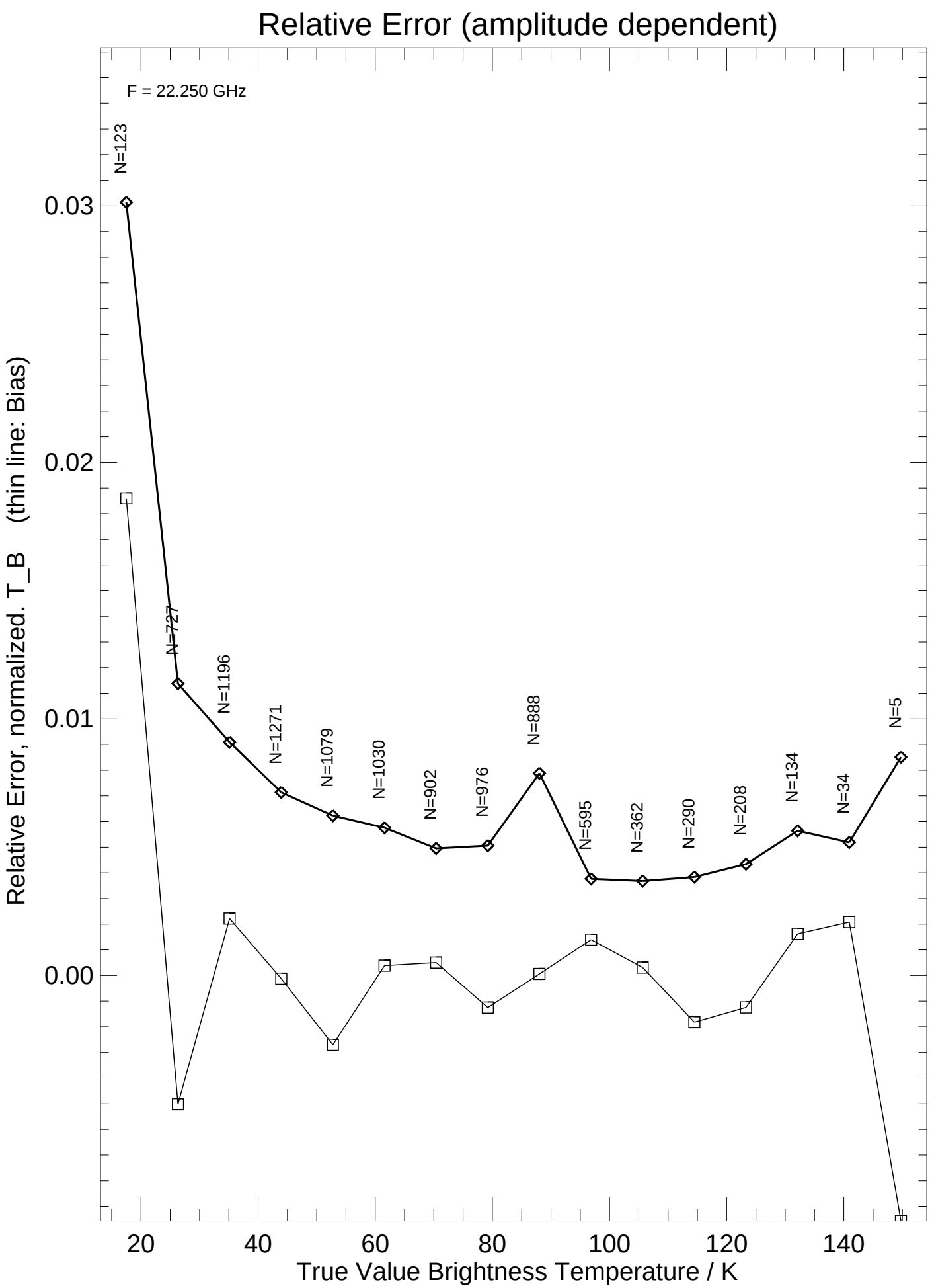

Absolute Error (amplitude dependent)
F = 22.245 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

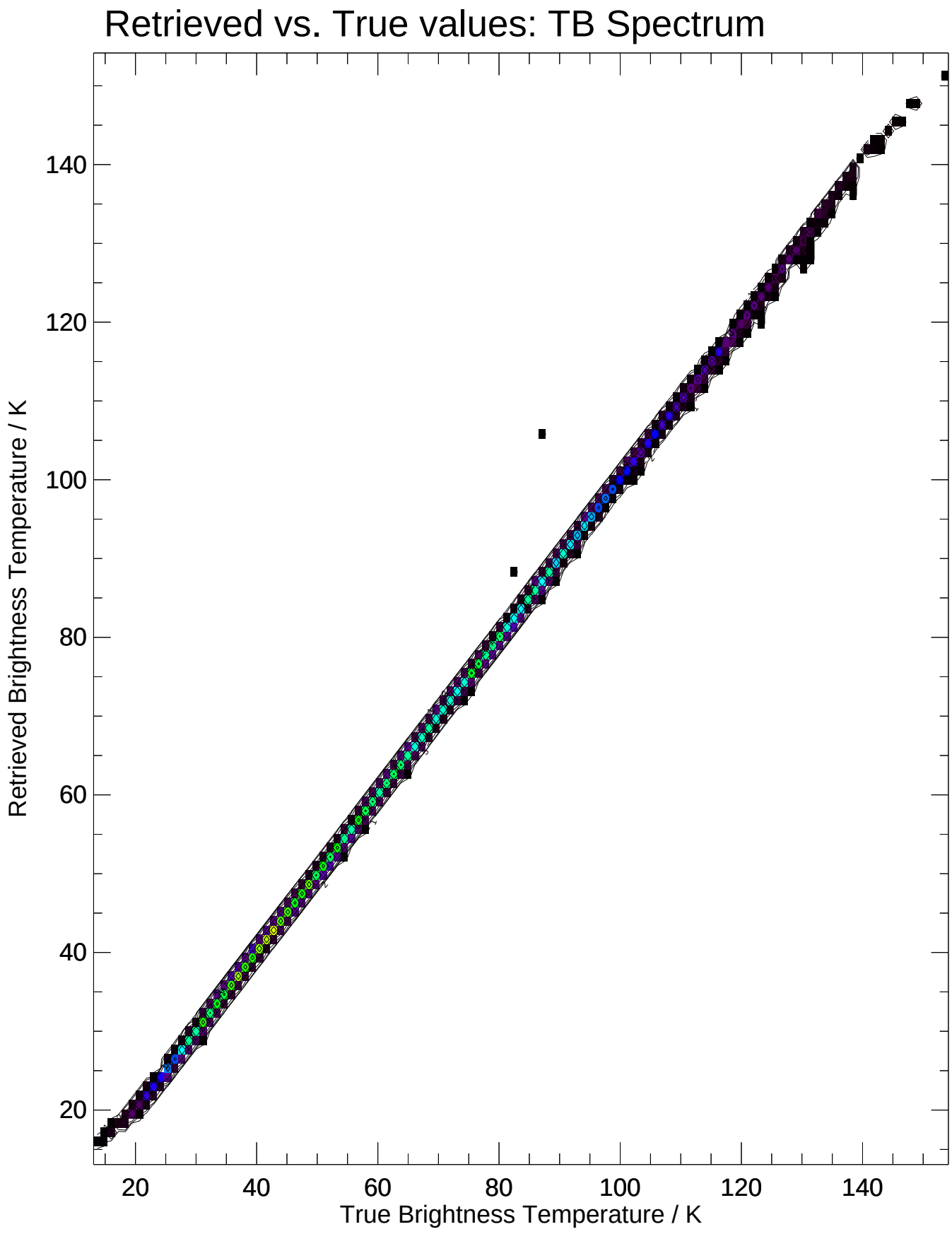

Relative Error (amplitude dependent)
F = 22.245 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

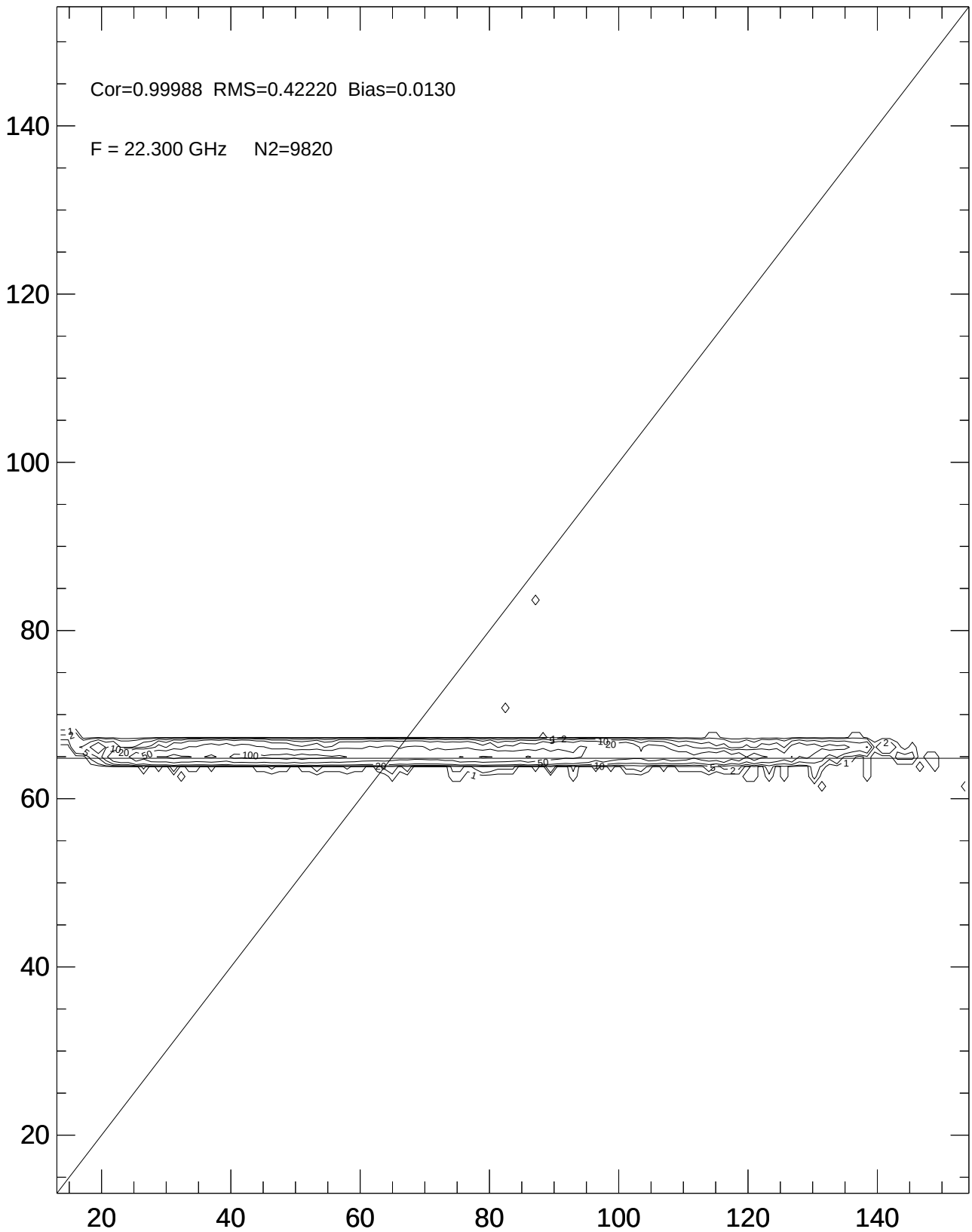

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

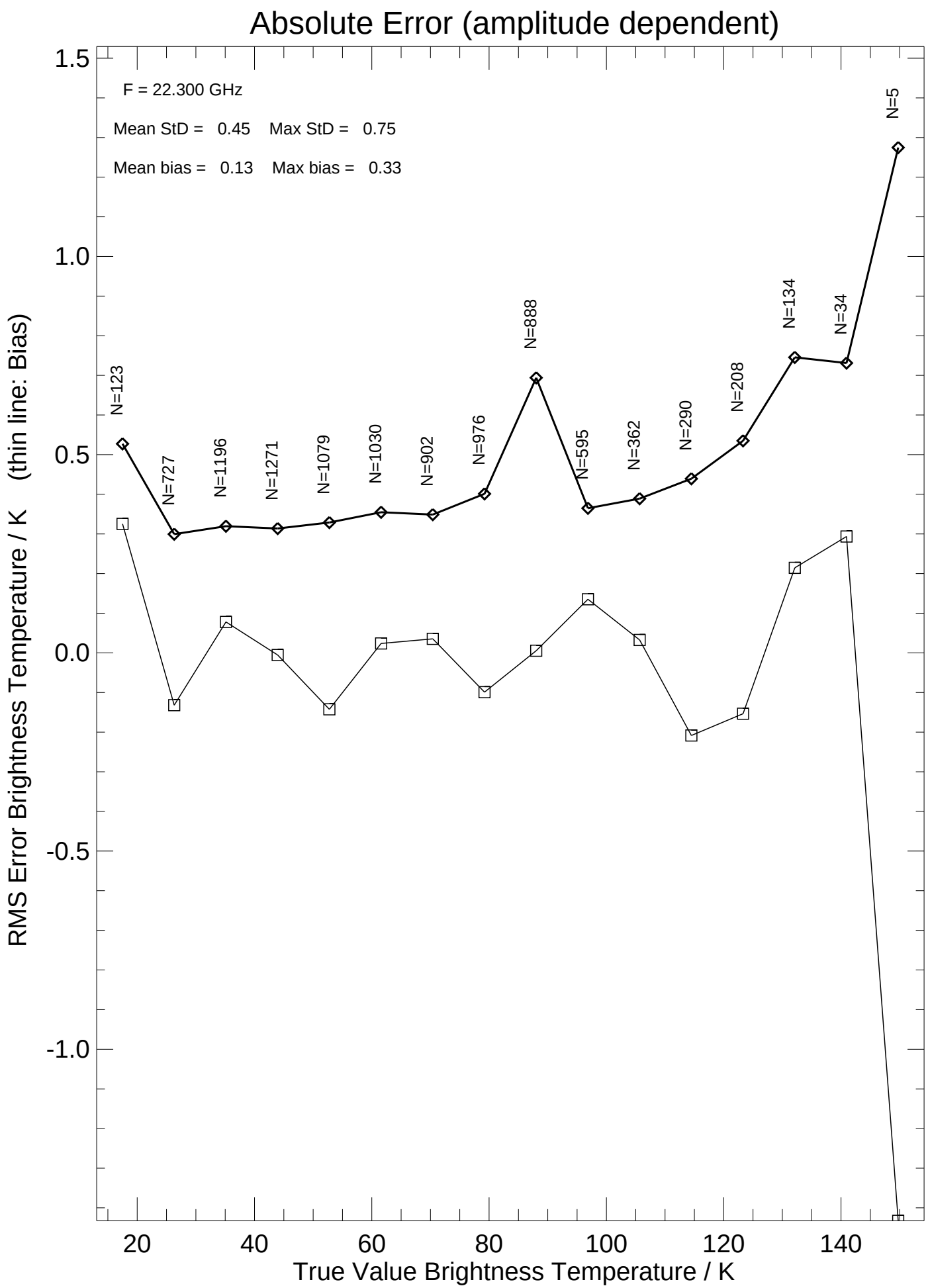

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.250 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

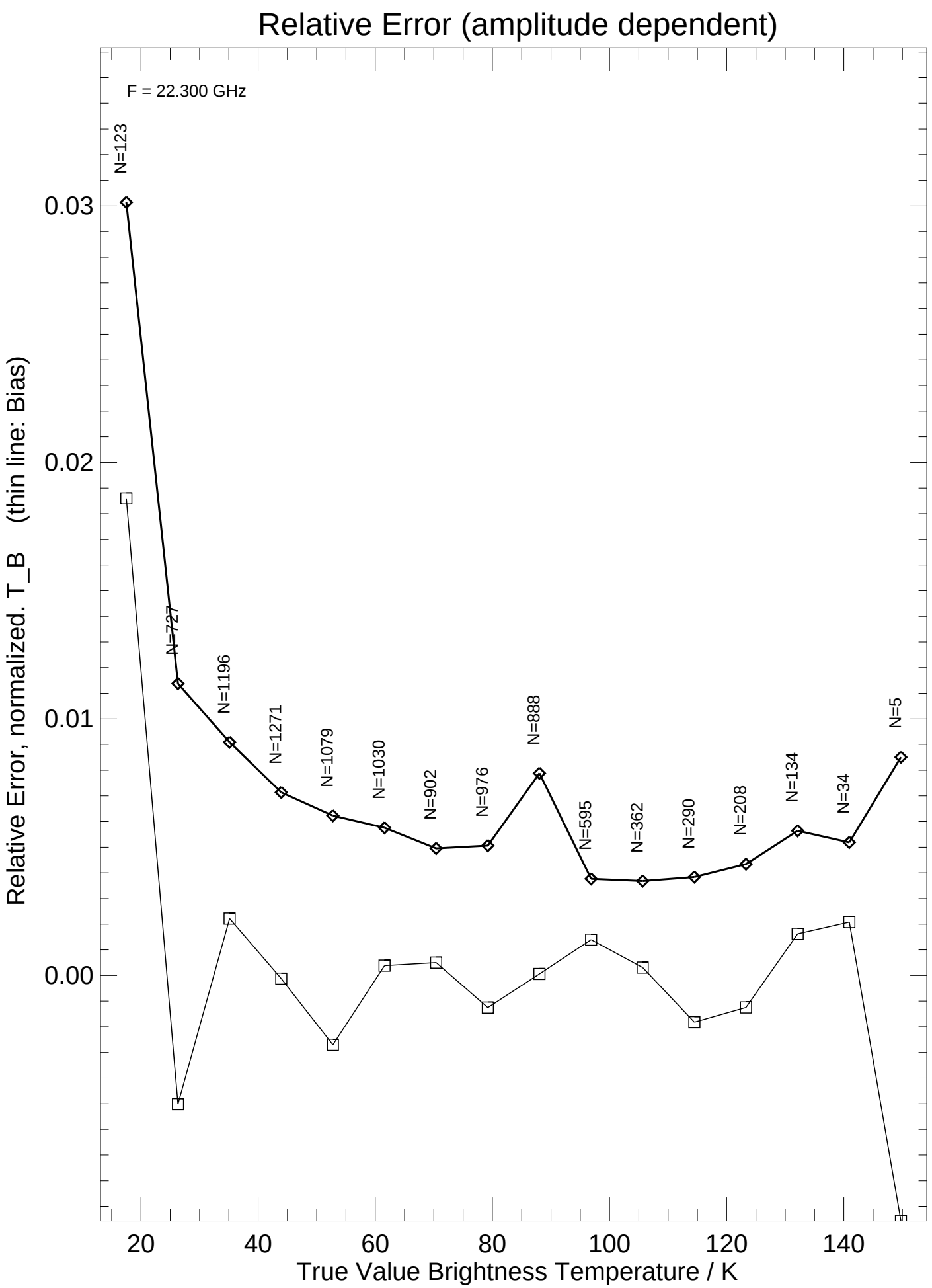

Absolute Error (amplitude dependent)
F = 22.250 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

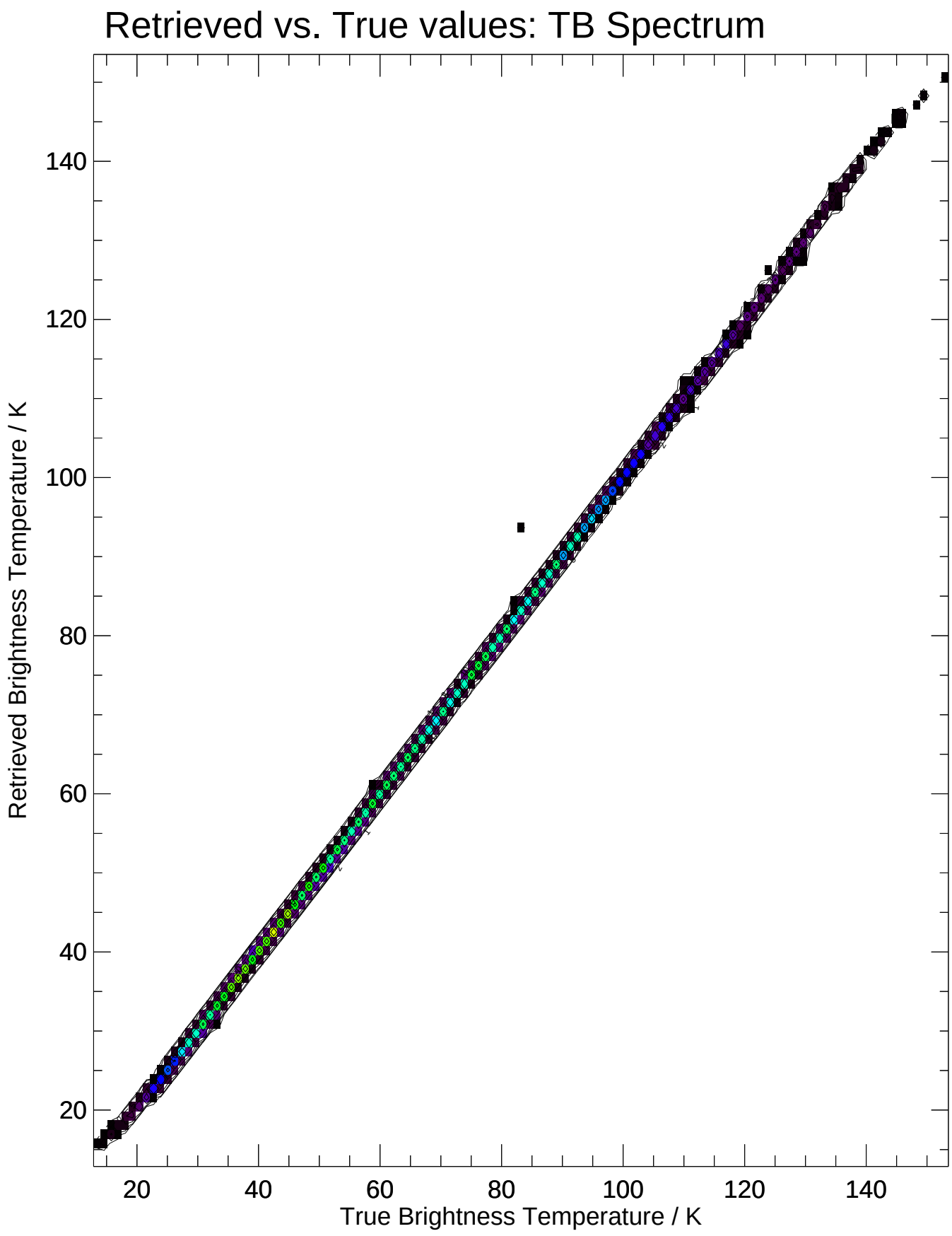

Relative Error (amplitude dependent)
F = 22.250 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

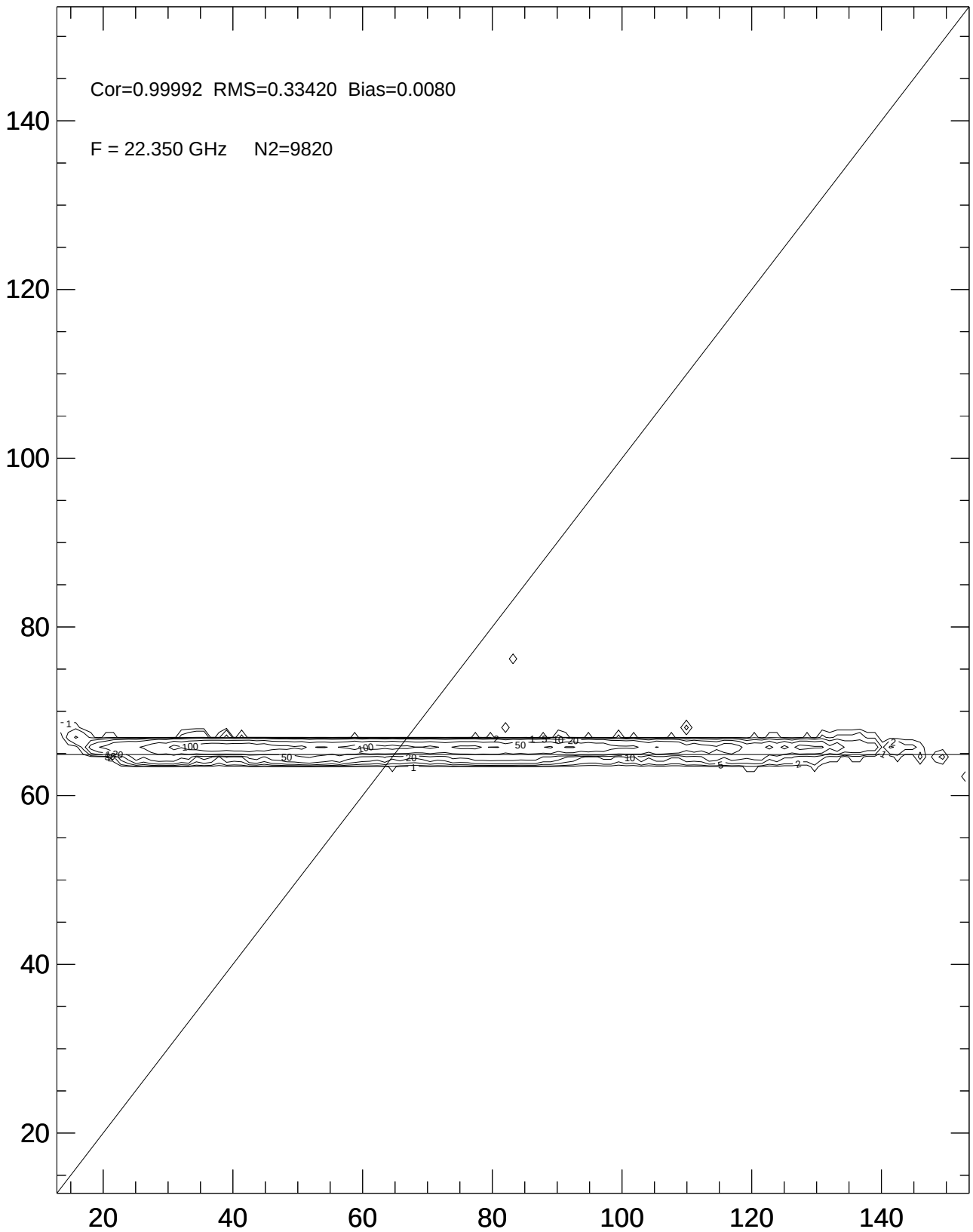

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

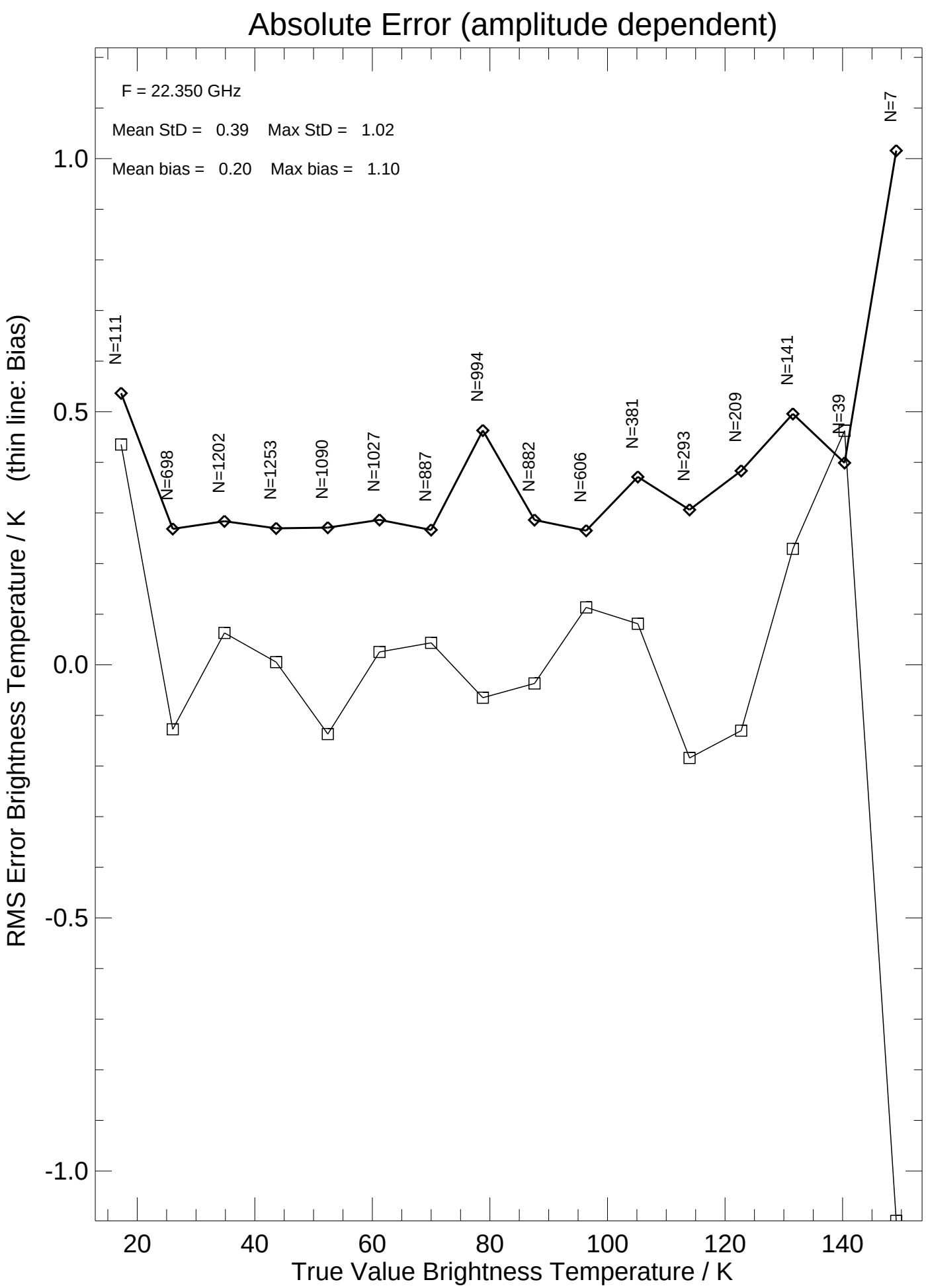

Cor=0.99988 RMS=0.42220 Bias=0.0130
F = 22.300 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

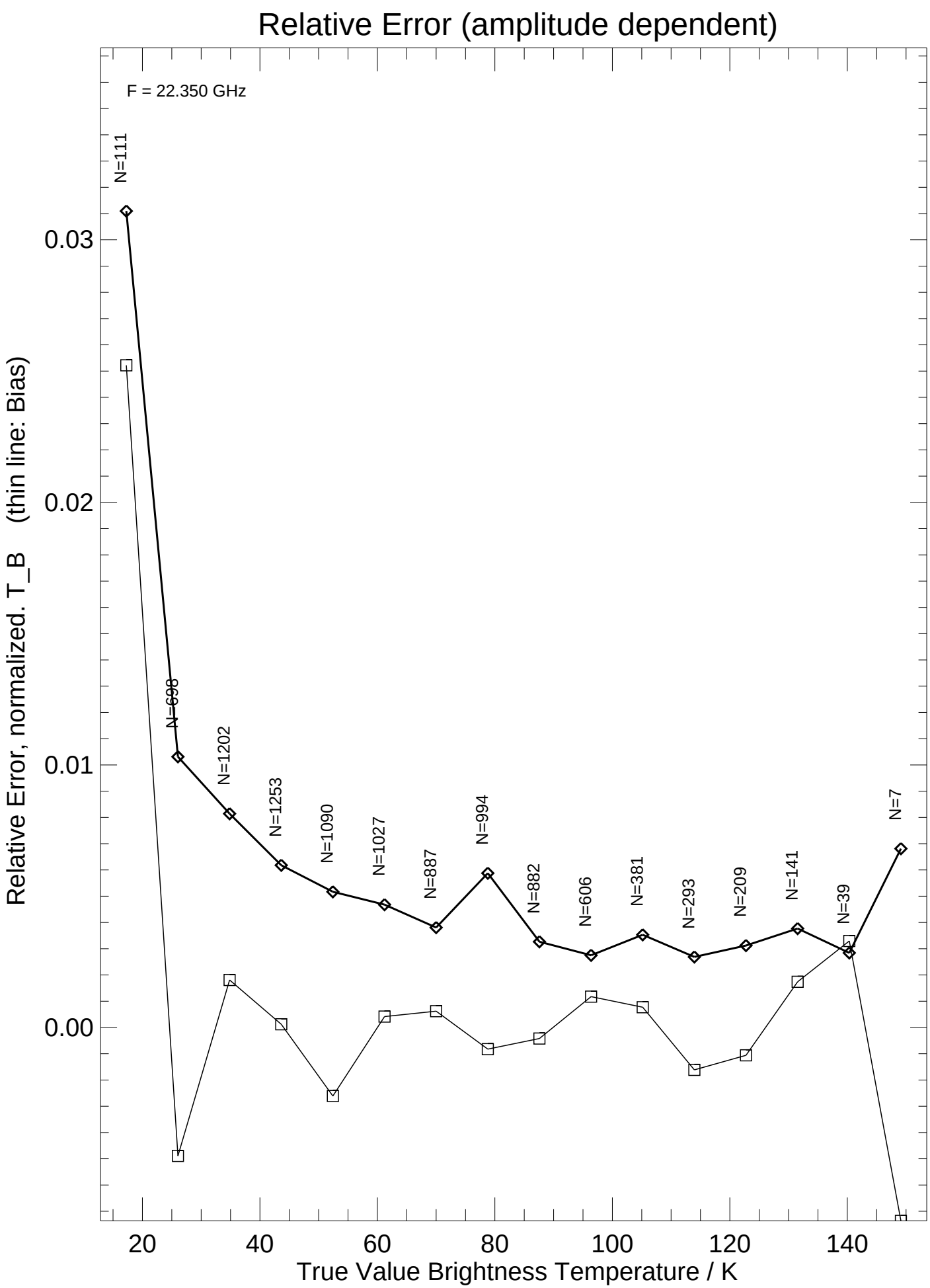

Absolute Error (amplitude dependent)
F = 22.300 GHz
Mean StD = 0.45 Max StD = 0.75
Mean bias = 0.13 Max bias = 0.33
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
1.5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

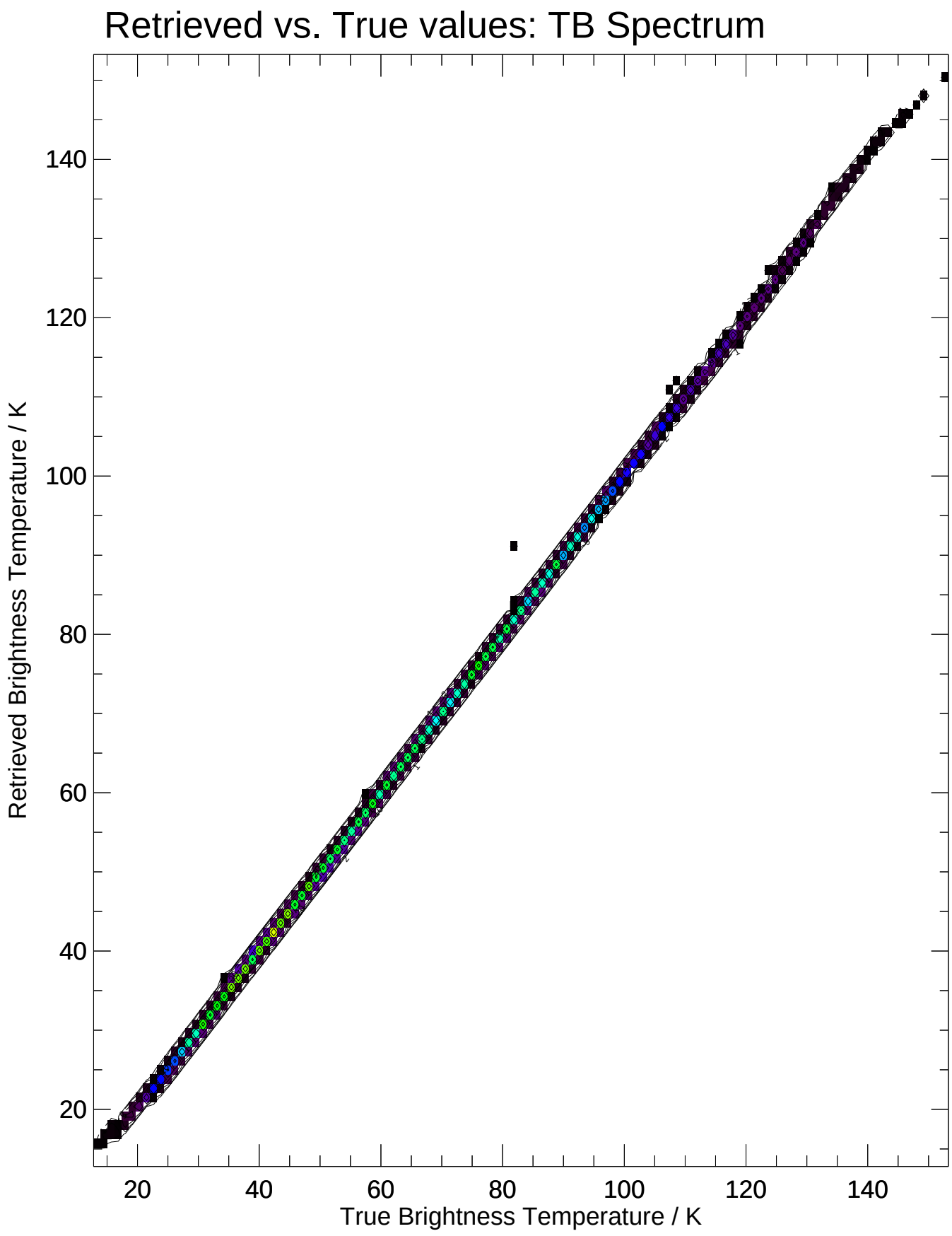

Relative Error (amplitude dependent)
F = 22.300 GHz
N=123
N=727
N=1196
N=1271
N=1079
N=1030
N=902
N=976
N=888
N=595
N=362
N=290
N=208
N=134
N=34
N=5
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

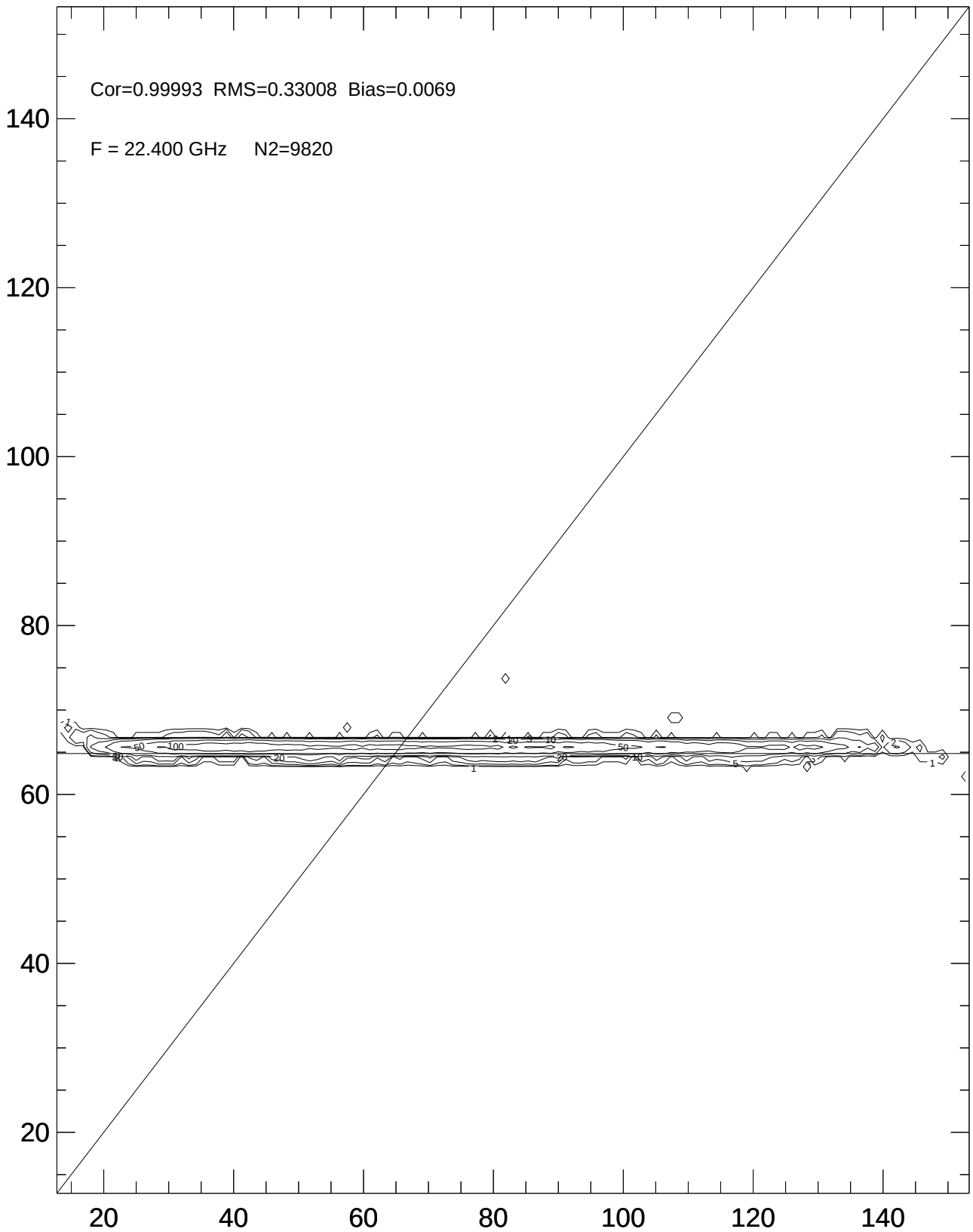

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

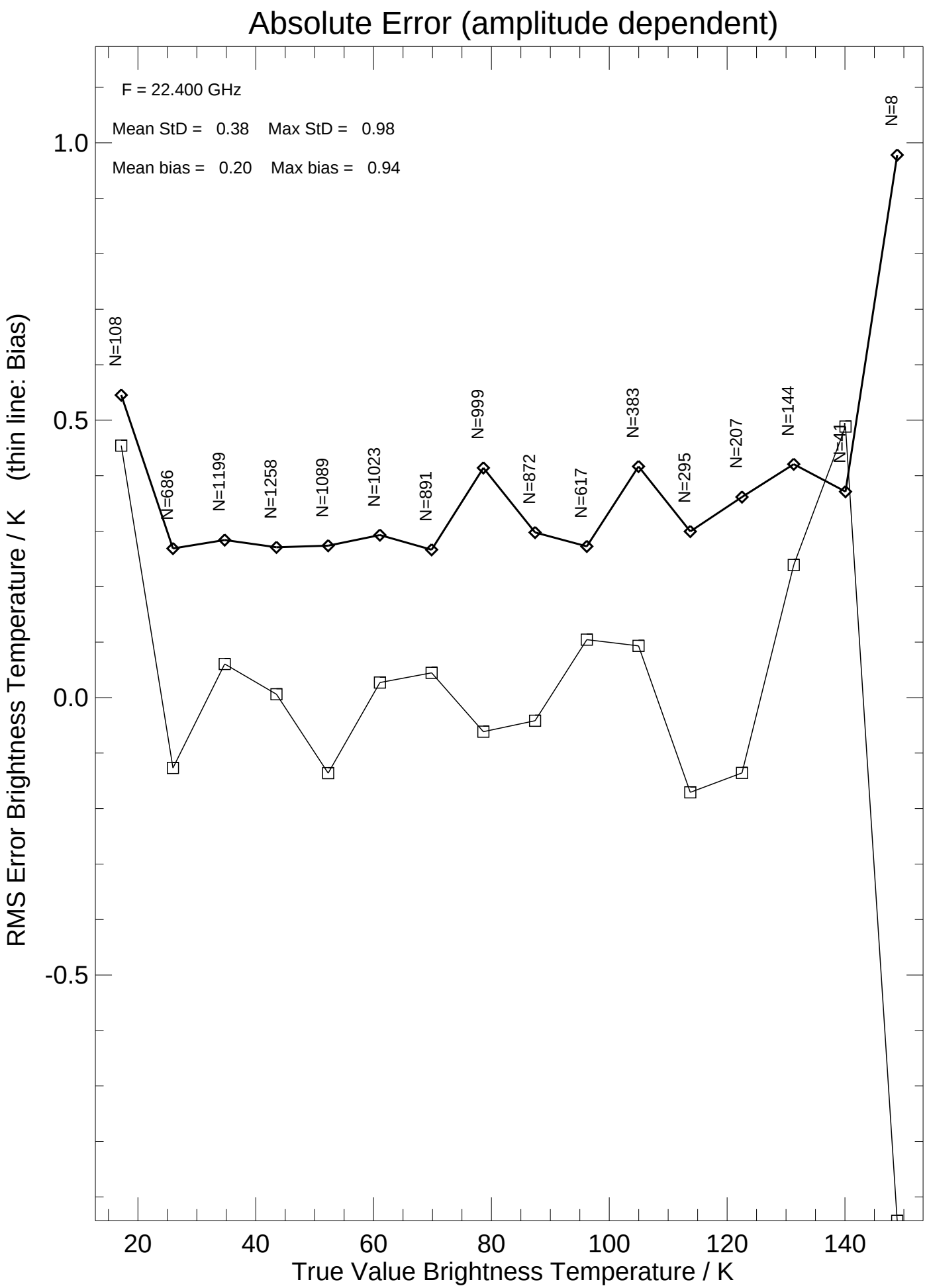

Cor=0.99992 RMS=0.33420 Bias=0.0080
F = 22.350 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

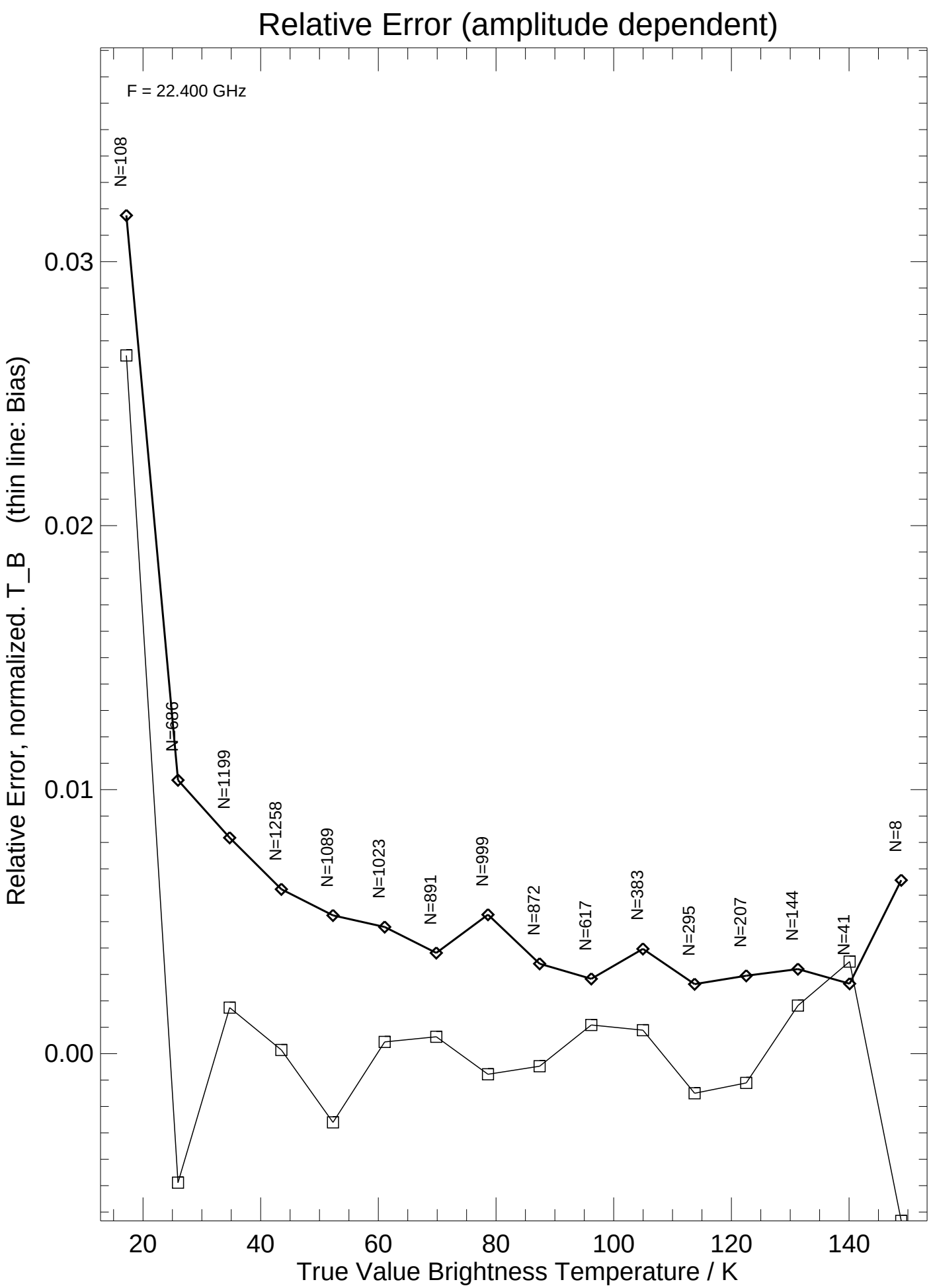

Absolute Error (amplitude dependent)
F = 22.350 GHz
Mean StD = 0.39 Max StD = 1.02
Mean bias = 0.20 Max bias = 1.10
N=111
N=698
N=1202
N=1253
N=1090
N=1027
N=887
N=994
N=882
N=606
N=381
N=293
N=209
N=141
N=39
N=7
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

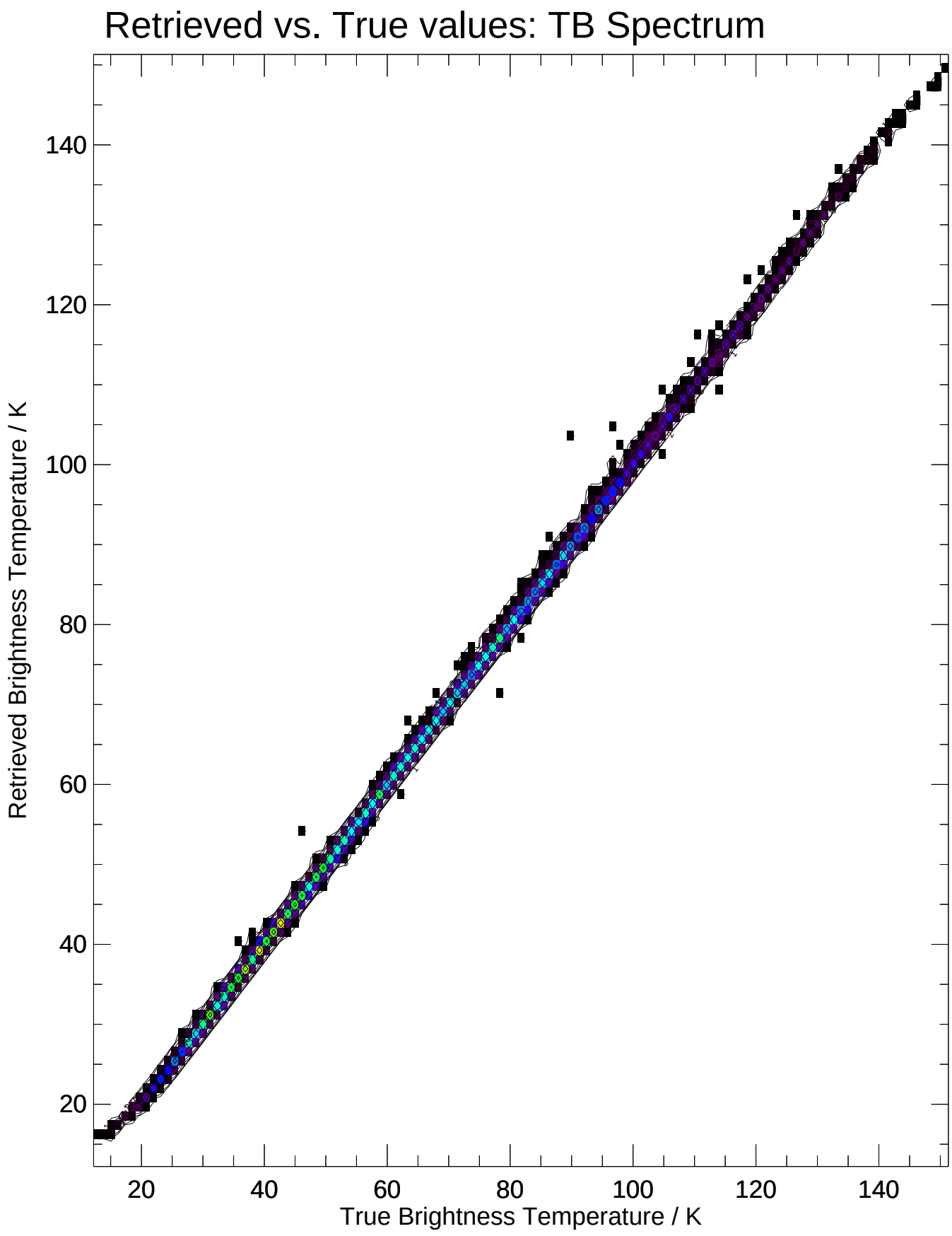

Relative Error (amplitude dependent)
F = 22.350 GHz
N=111
N=698
N=1202
N=1253
N=1090
N=1027
N=887
N=994
N=882
N=606
N=381
N=293
N=209
N=141
N=39
N=7
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

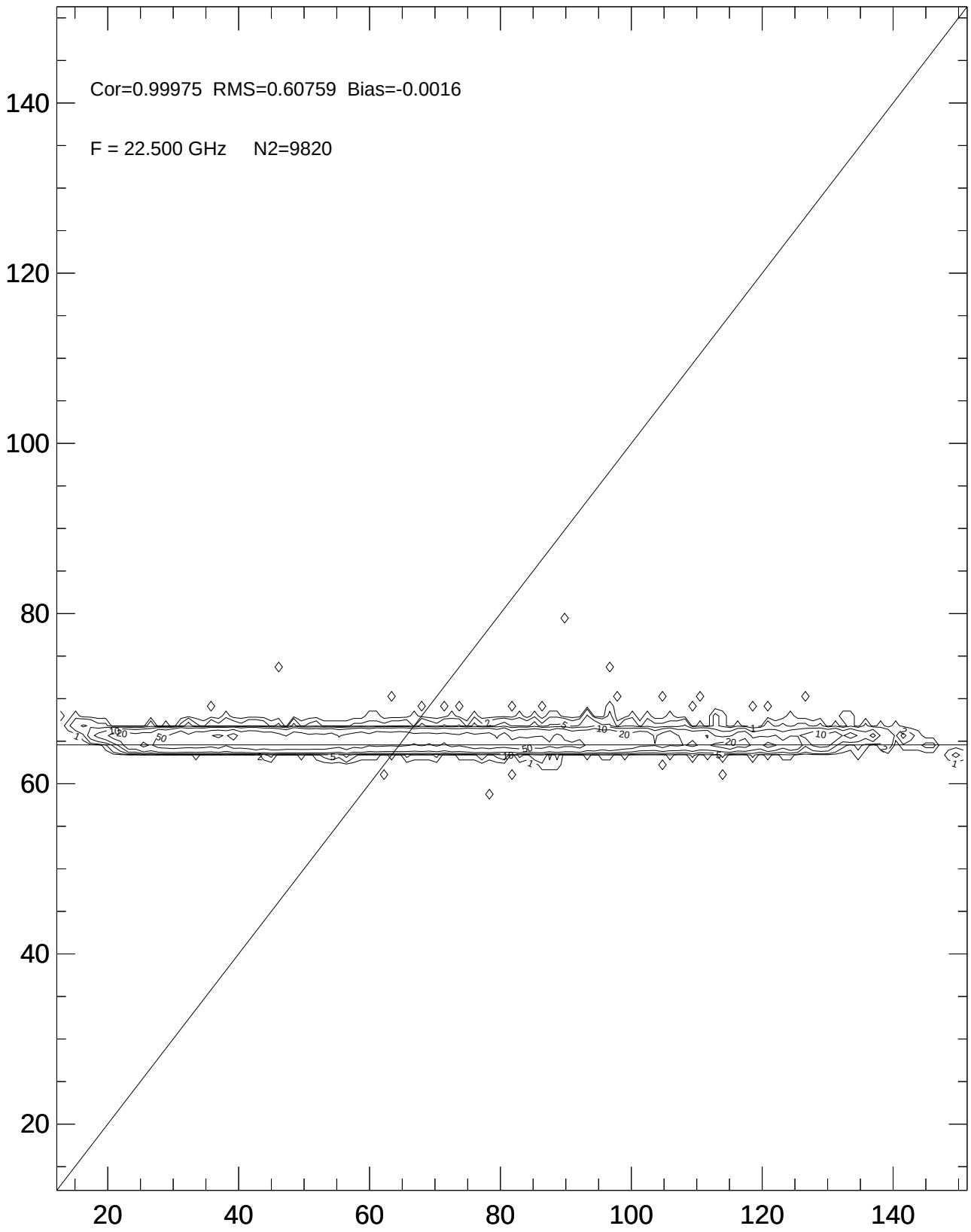

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

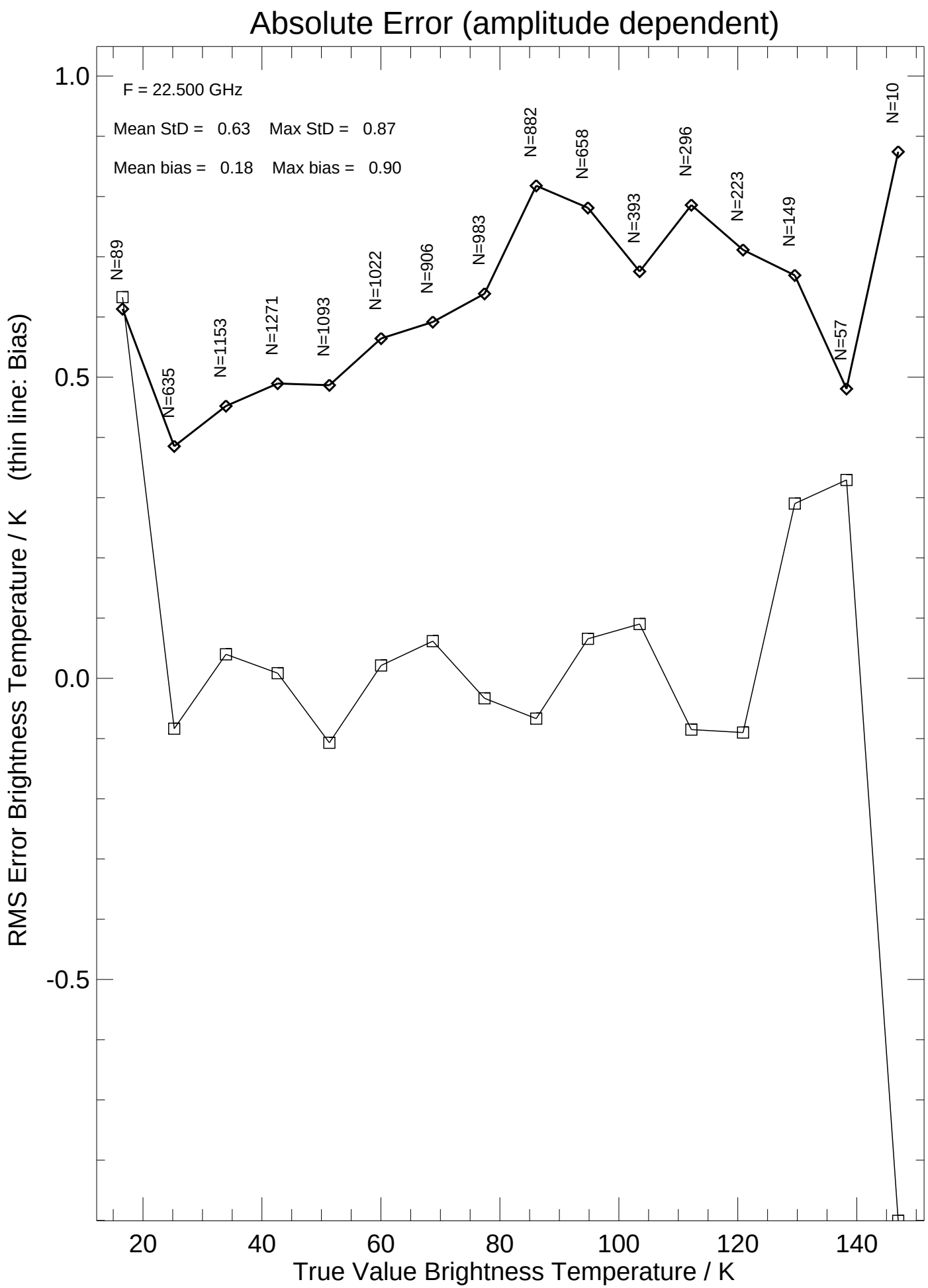

Cor=0.99993 RMS=0.33008 Bias=0.0069
F = 22.400 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

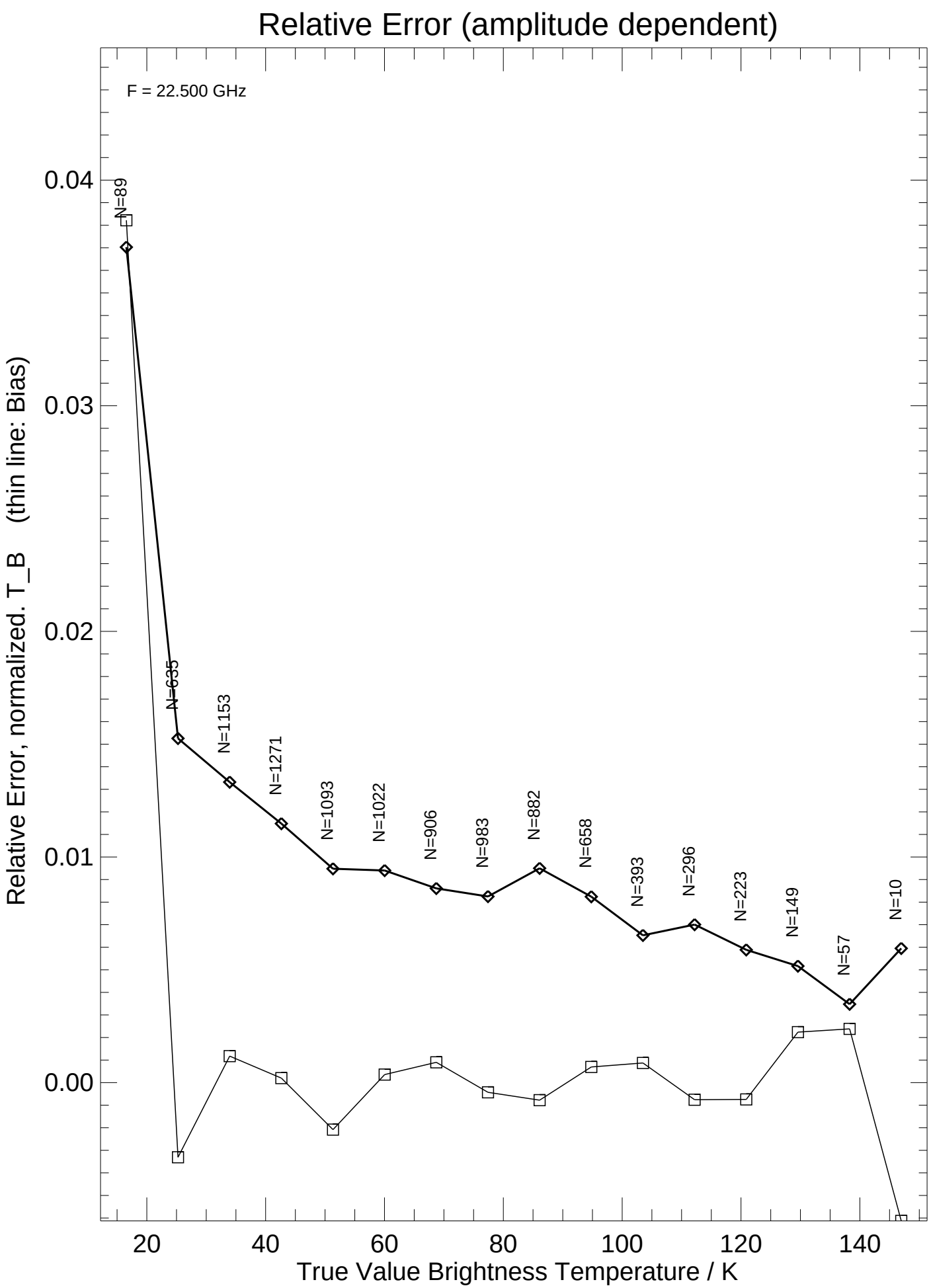

Absolute Error (amplitude dependent)
F = 22.400 GHz
Mean StD = 0.38 Max StD = 0.98
Mean bias = 0.20 Max bias = 0.94
N=108
N=686
N=1199
N=1258
N=1089
N=1023
N=891
N=999
N=872
N=617
N=383
N=295
N=207
N=144
N=41
N=8
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

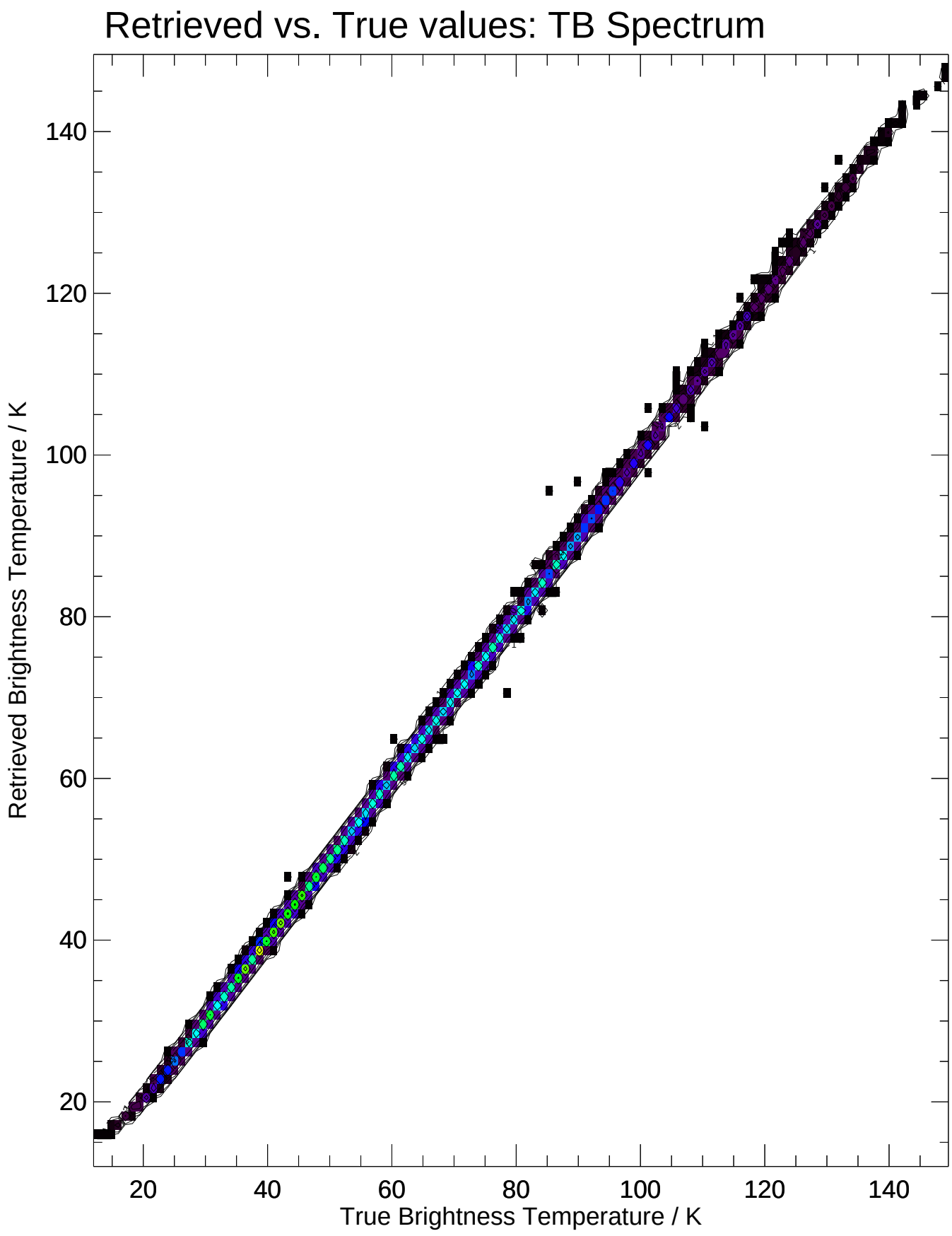

Relative Error (amplitude dependent)
F = 22.400 GHz
N=108
N=686
N=1199
N=1258
N=1089
N=1023
N=891
N=999
N=872
N=617
N=383
N=295
N=207
N=144
N=41
N=8
0.03
0.02
0.01
0.00
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

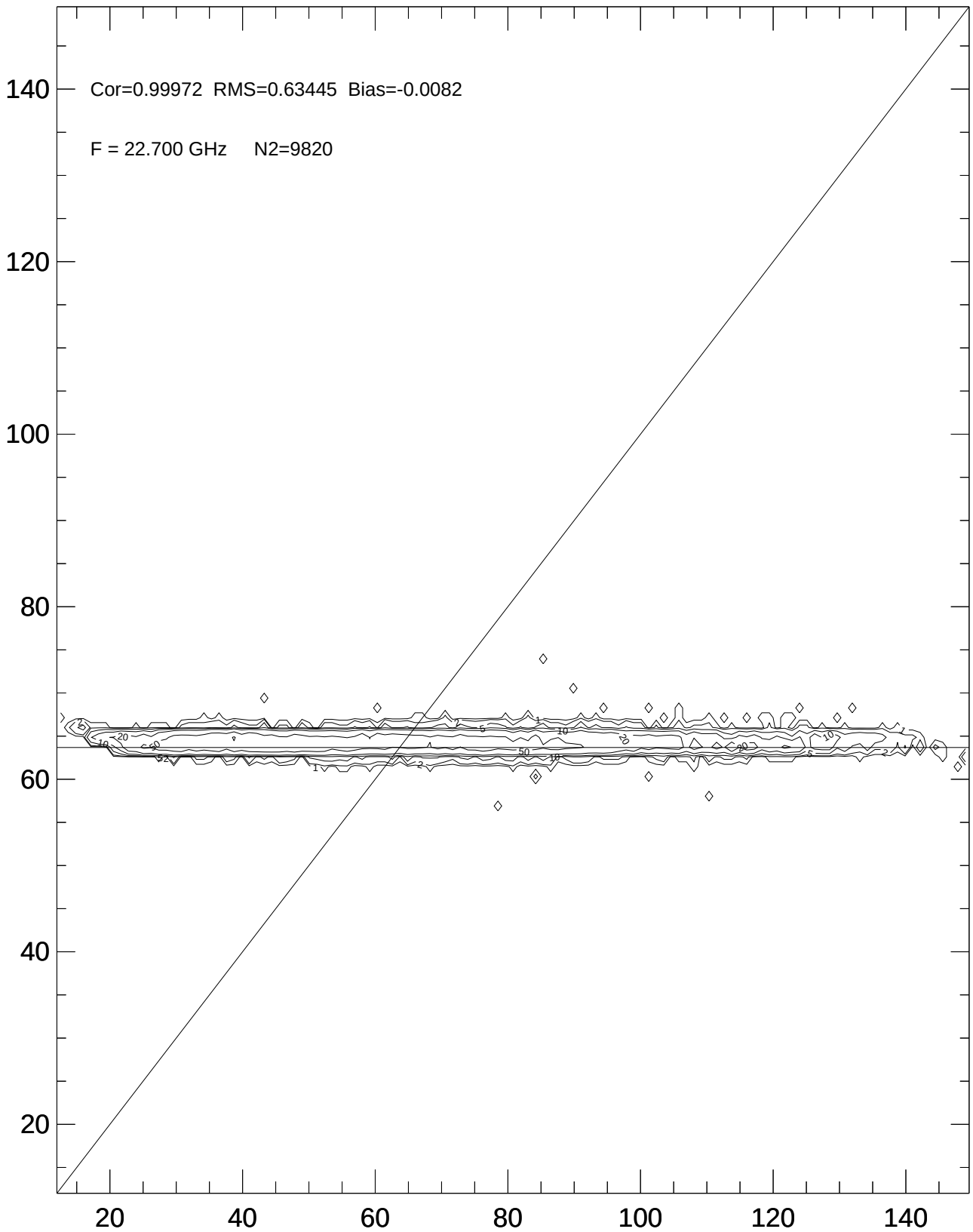

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

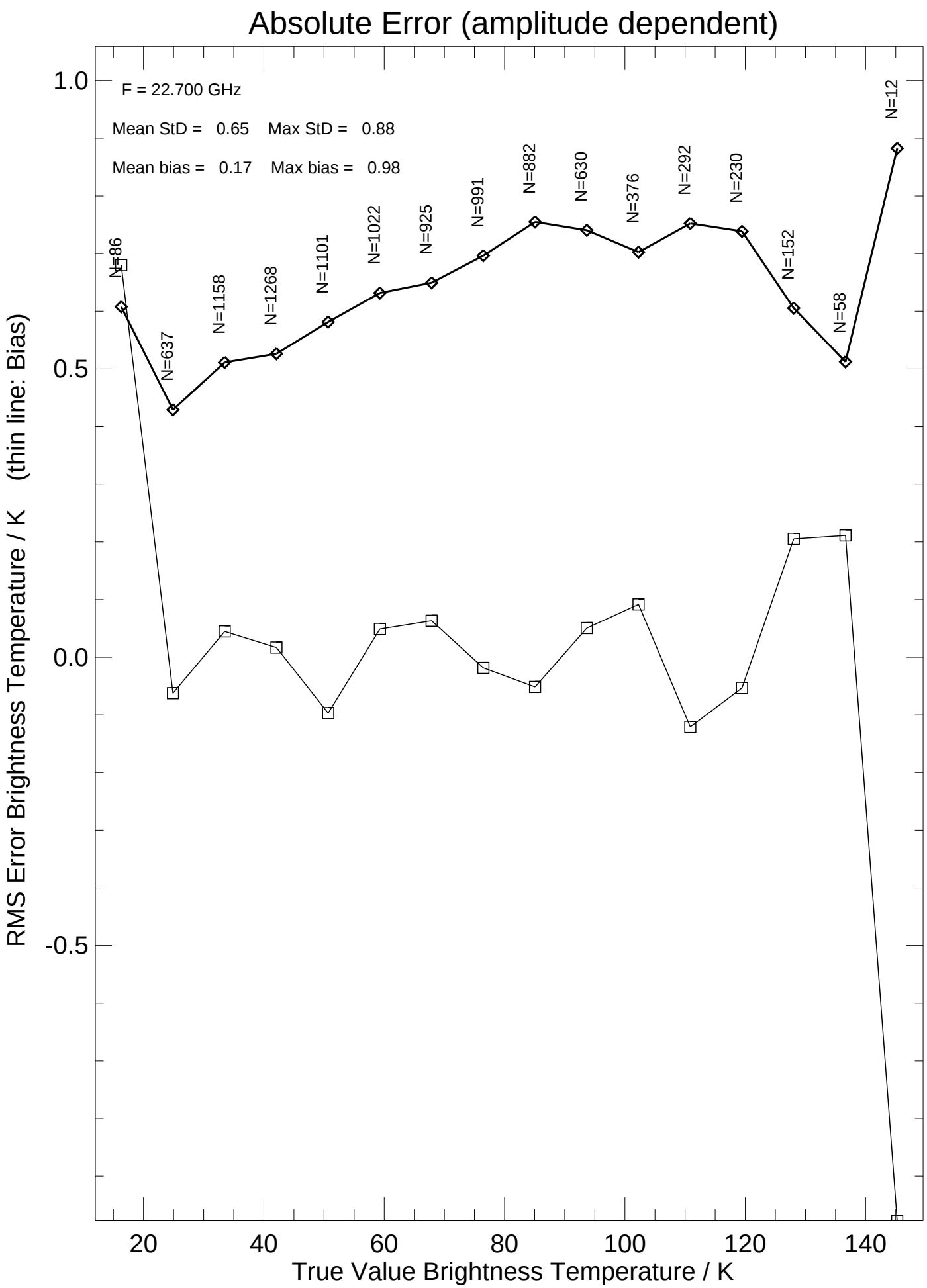

Cor=0.99975 RMS=0.60759 Bias=-0.0016
F = 22.500 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

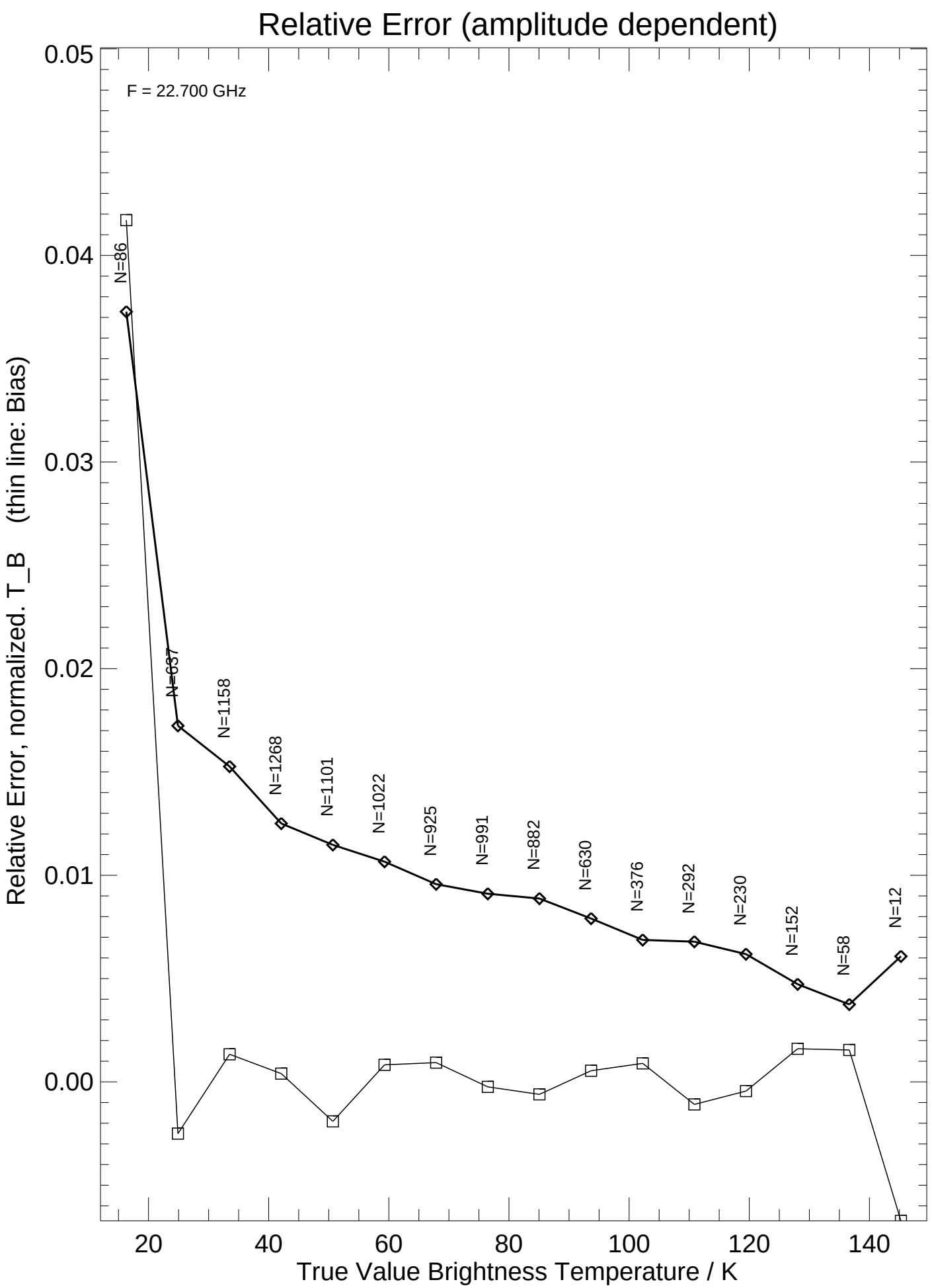

Absolute Error (amplitude dependent)
F = 22.500 GHz
Mean StD = 0.63 Max StD = 0.87
Mean bias = 0.18 Max bias = 0.90
N=89
N=635
N=1153
N=1271
N=1093
N=1022
N=906
N=983
N=882
N=658
N=393
N=296
N=223
N=149
N=57
N=10
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

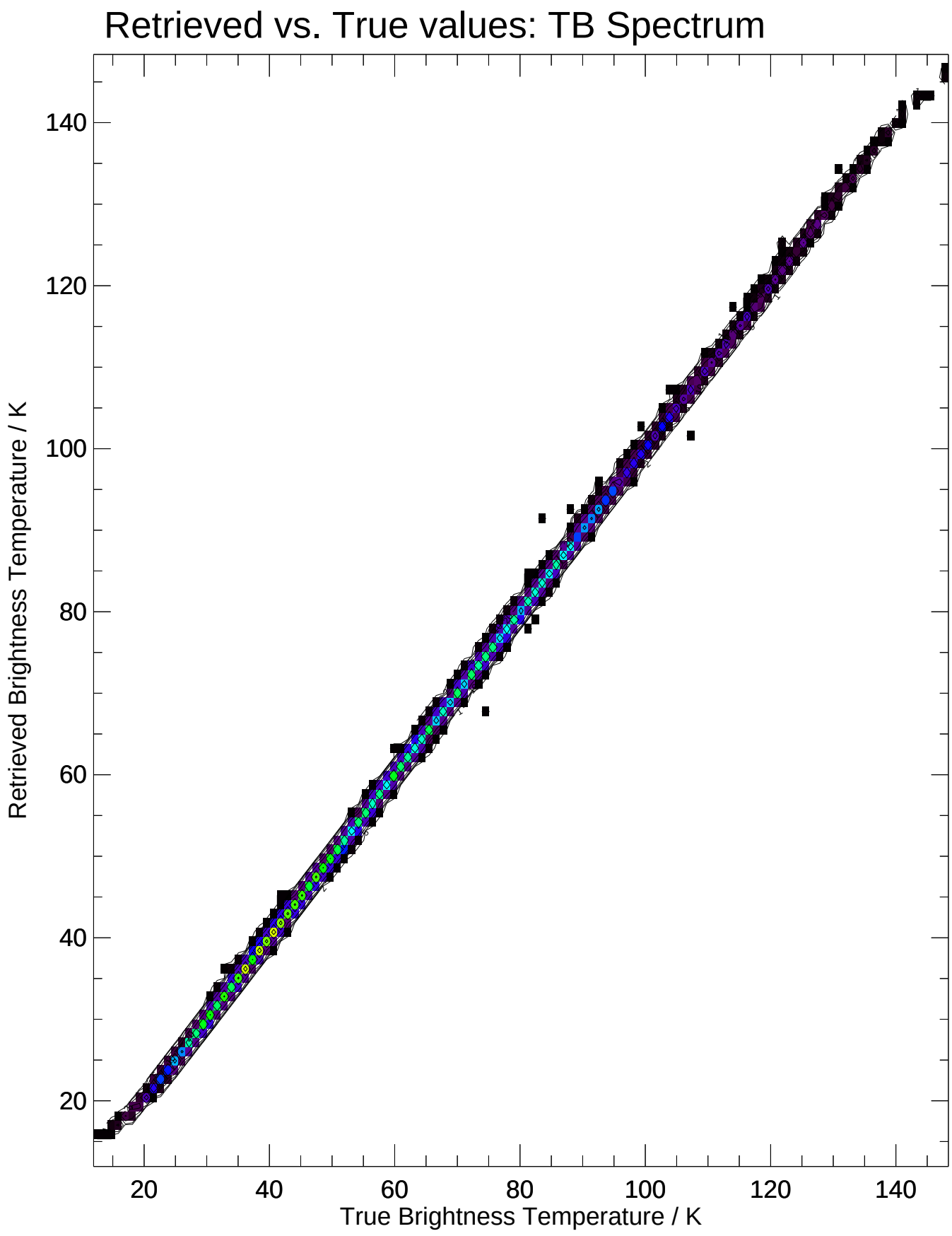

Relative Error (amplitude dependent)
F = 22.500 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
N=89
N=635
N=1153
N=1271
N=1093
N=1022
N=906
N=983
N=882
N=658
N=393
N=296
N=223
N=149
N=57
N=10
20
40
60
80
100
120
140
True Value Brightness Temperature / K

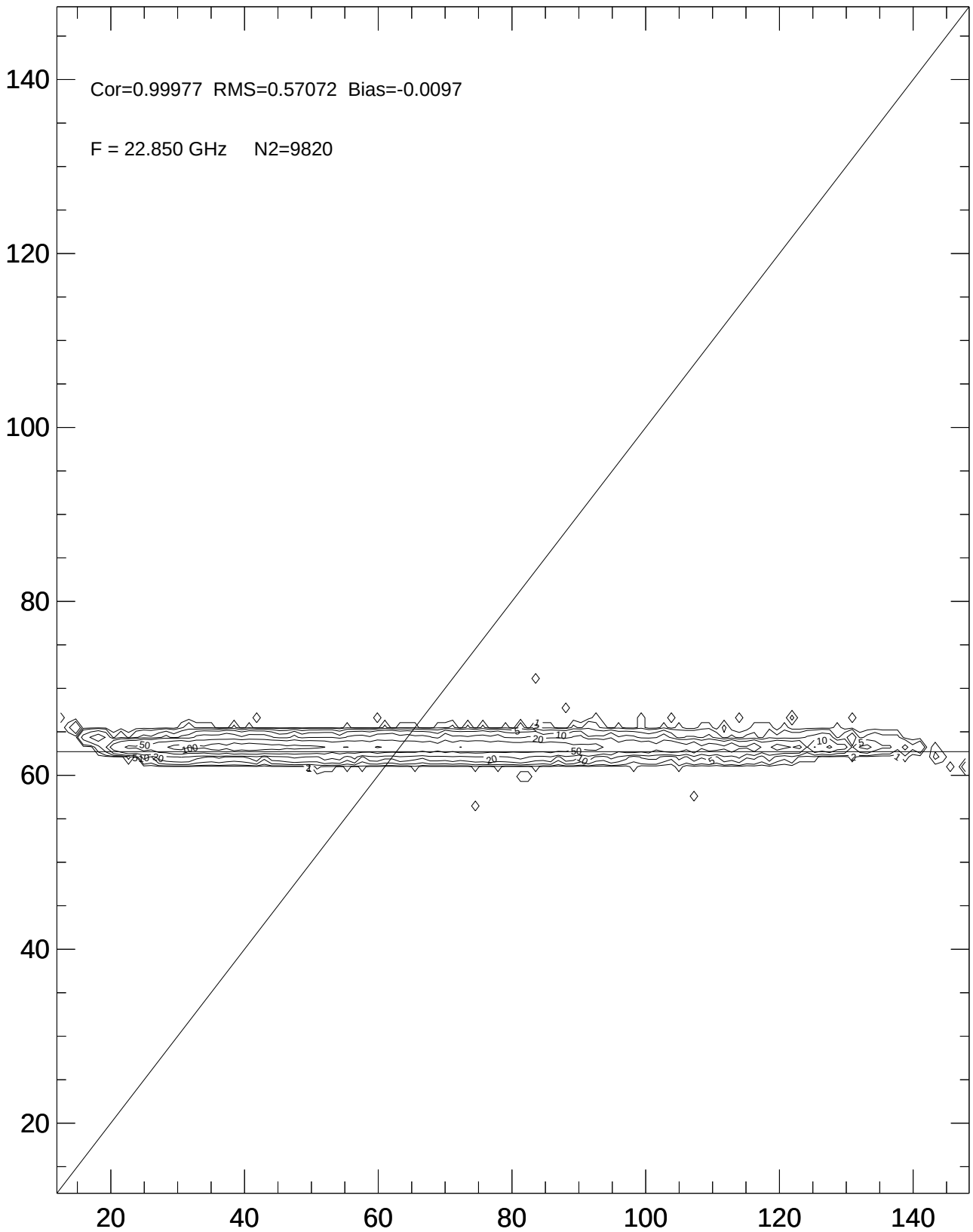

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

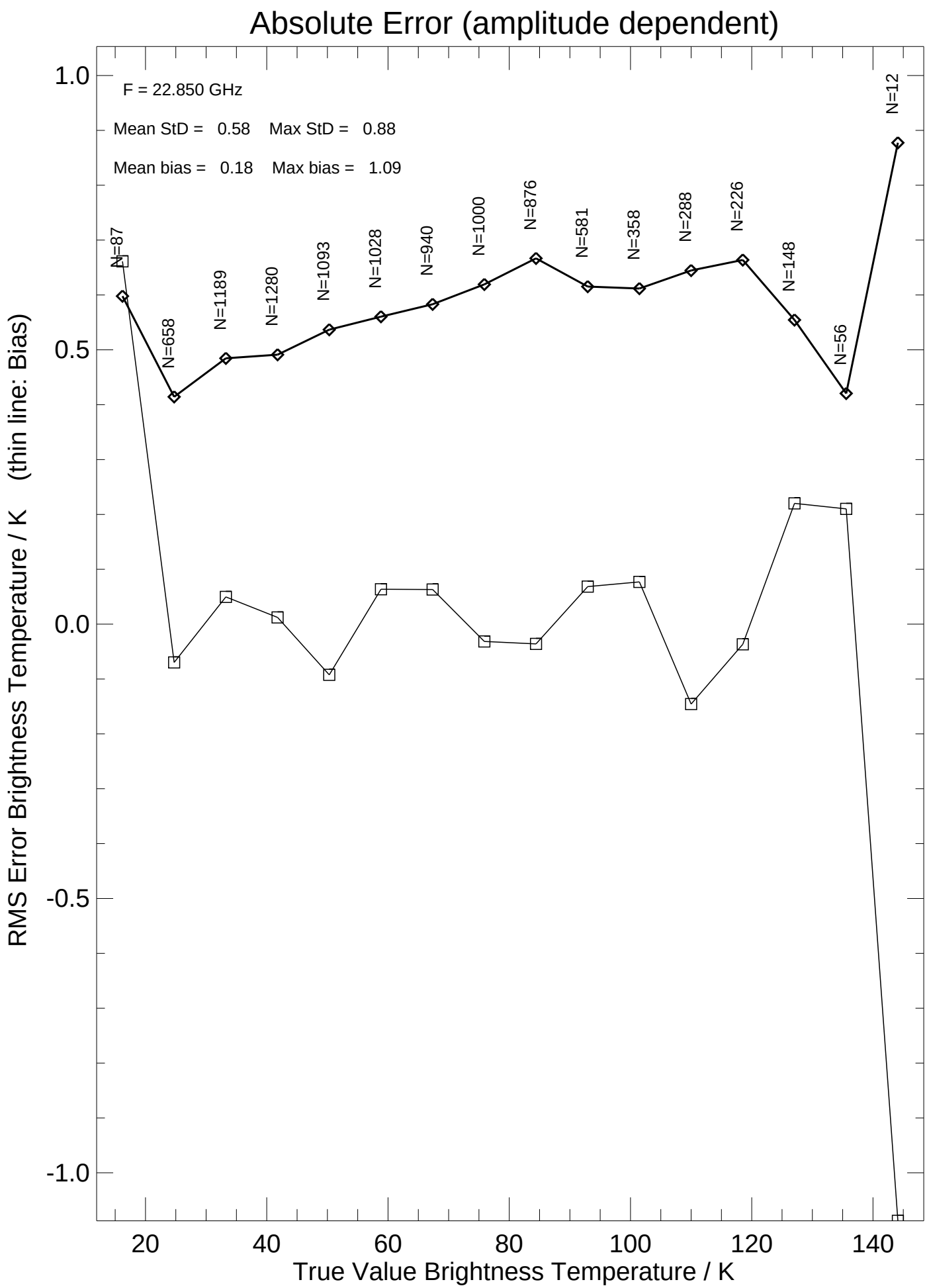

Cor=0.99972 RMS=0.63445 Bias=-0.0082
F = 22.700 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

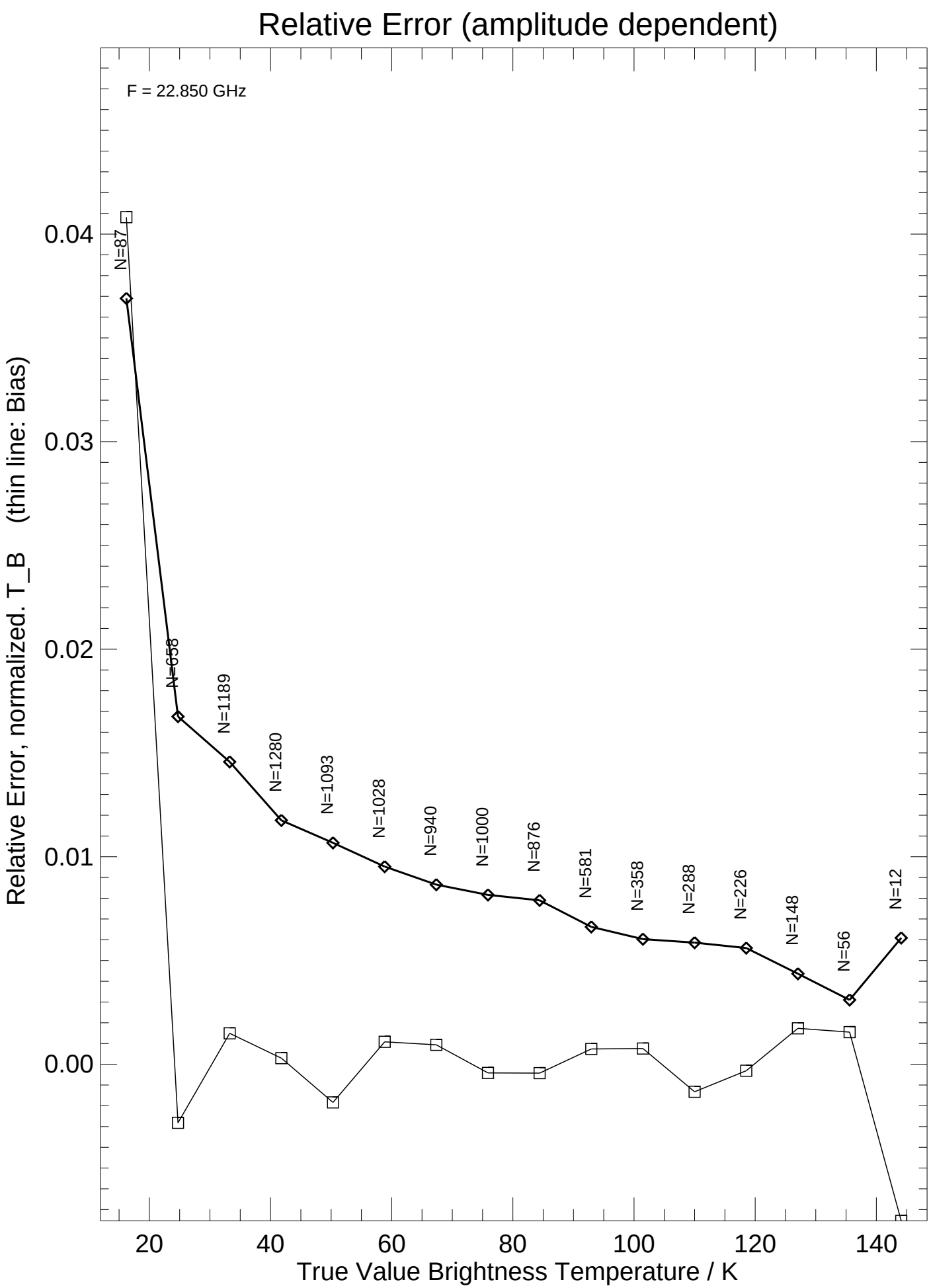

Absolute Error (amplitude dependent)
F = 22.700 GHz
Mean StD = 0.65 Max StD = 0.88
Mean bias = 0.17 Max bias = 0.98
N=86
N=637
N=1158
N=1268
N=1101
N=1022
N=925
N=991
N=882
N=630
N=376
N=292
N=230
N=152
N=58
N=12
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

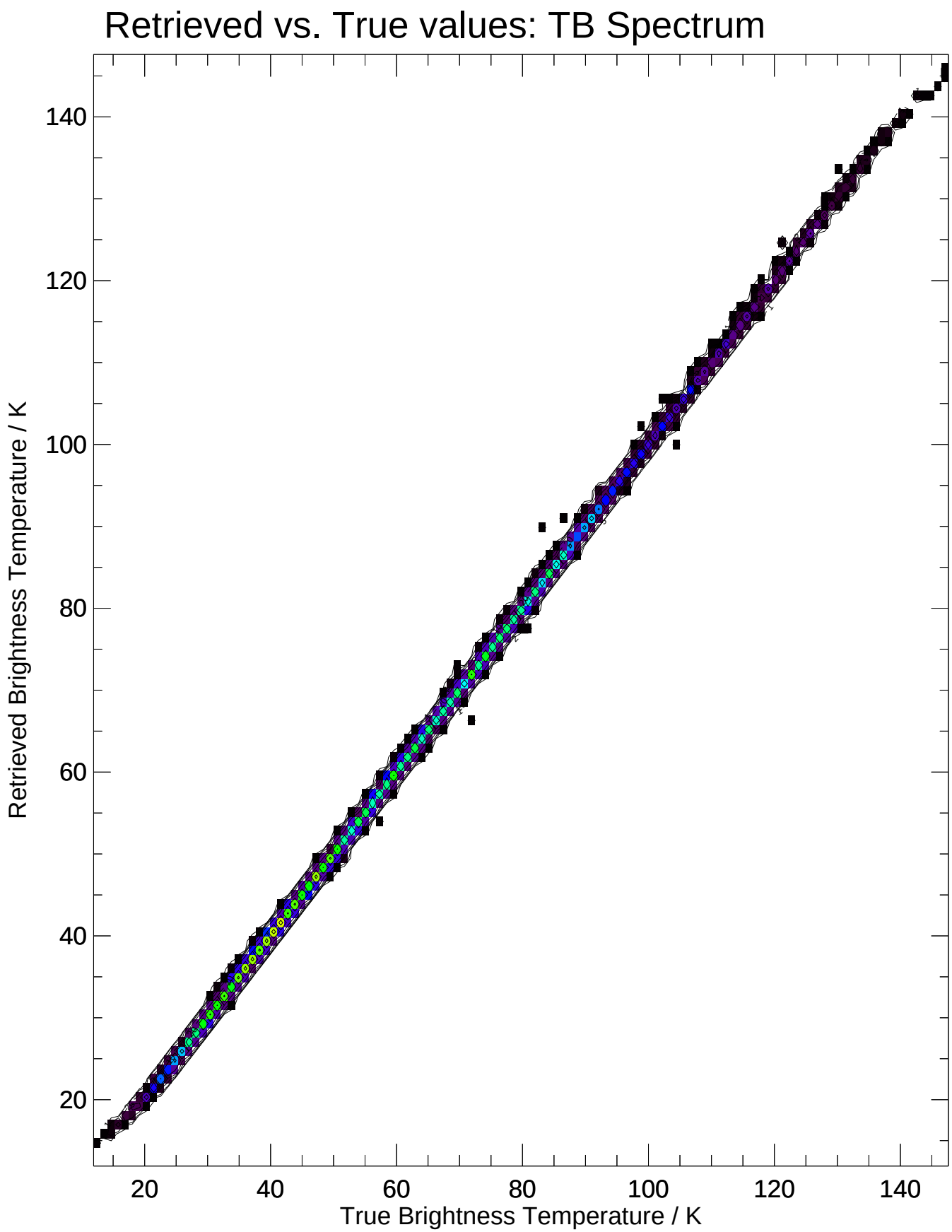

Relative Error (amplitude dependent)
F = 22.700 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.05
0.04
0.03
0.02
0.01
0.00
20
40
60
80
100
120
140
N=86
N=637
N=1158
N=1268
N=1101
N=1022
N=925
N=991
N=882
N=630
N=376
N=292
N=230
N=152
N=58
N=12

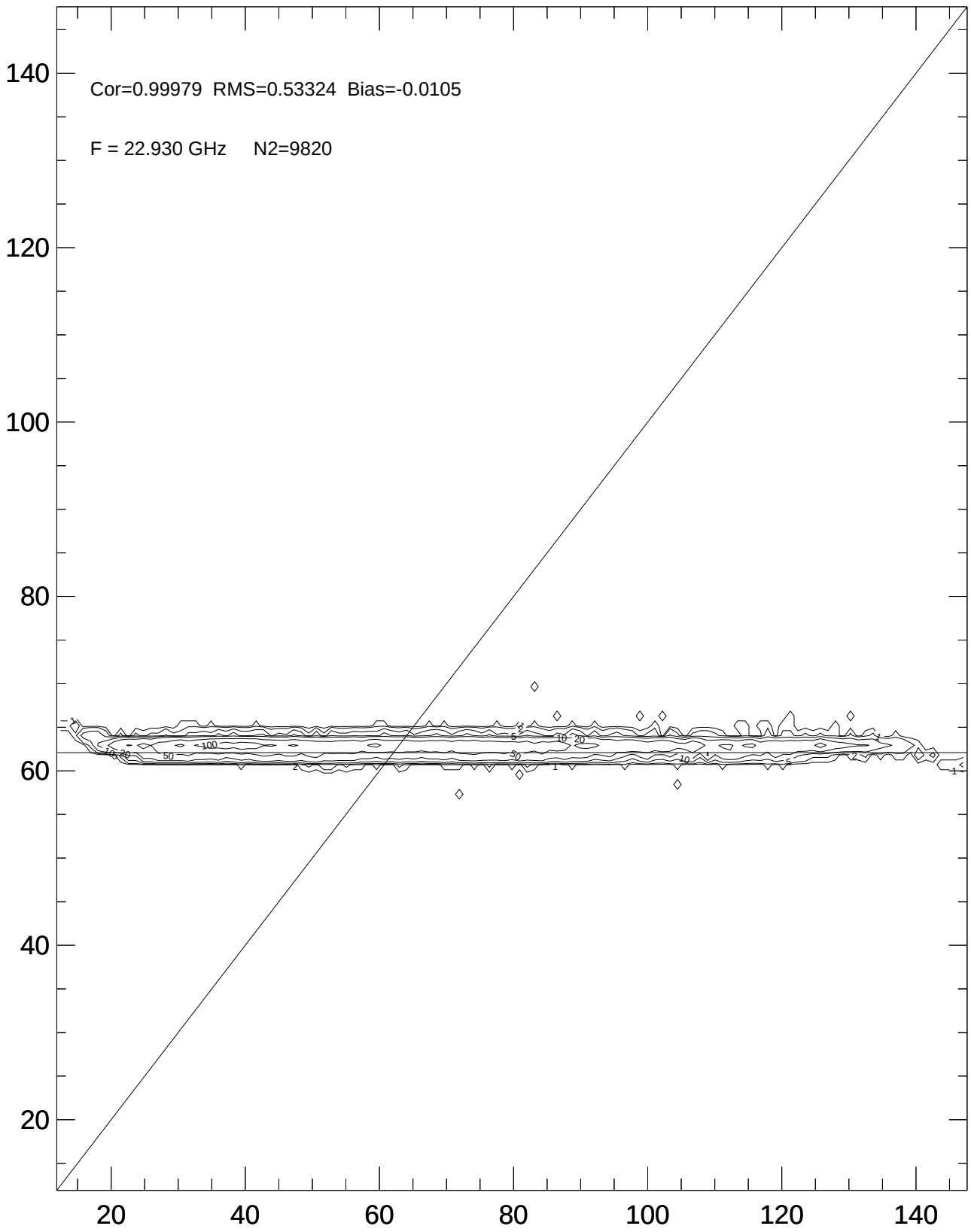

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

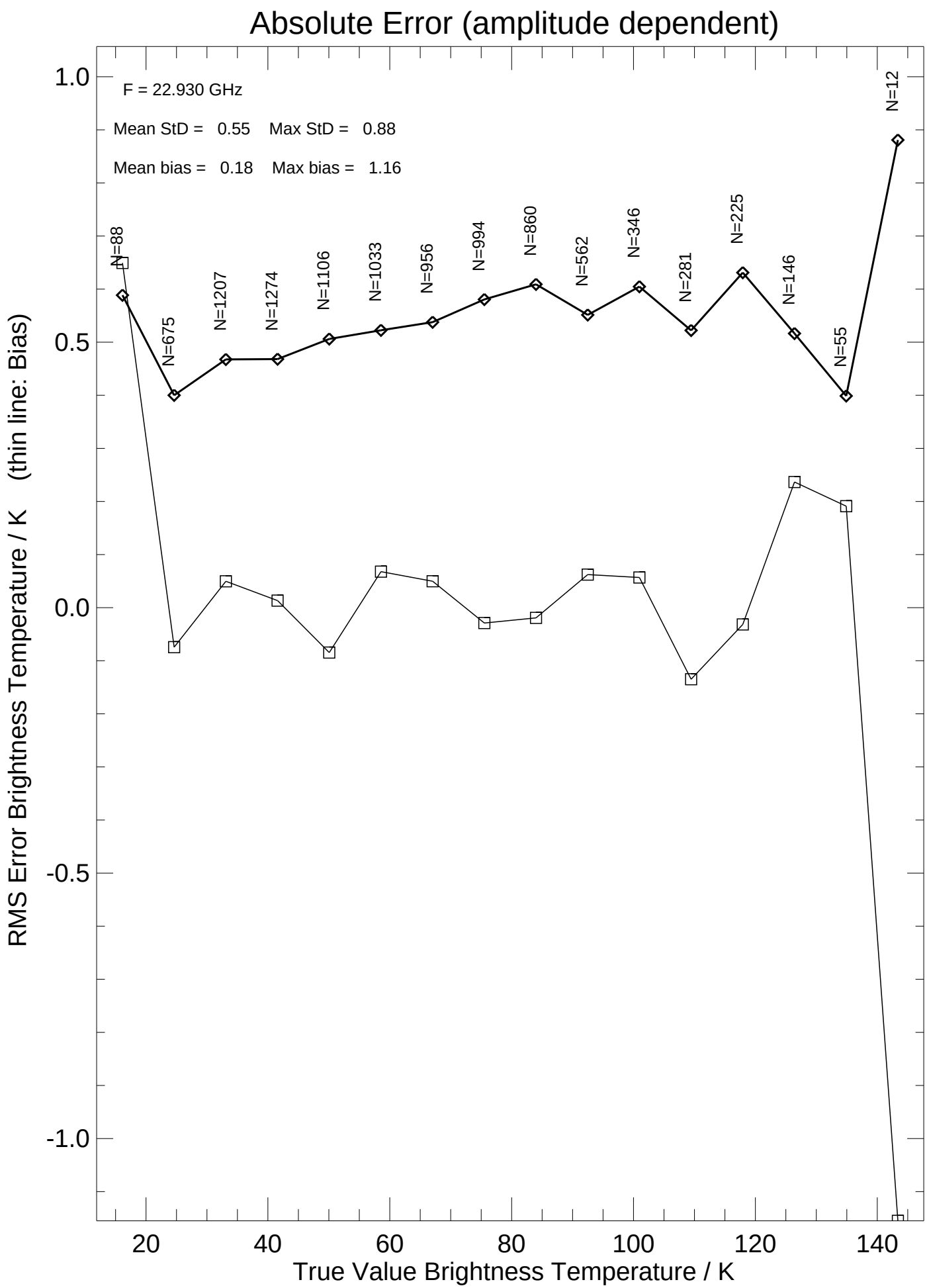

Cor=0.99977 RMS=0.57072 Bias=-0.0097
F = 22.850 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

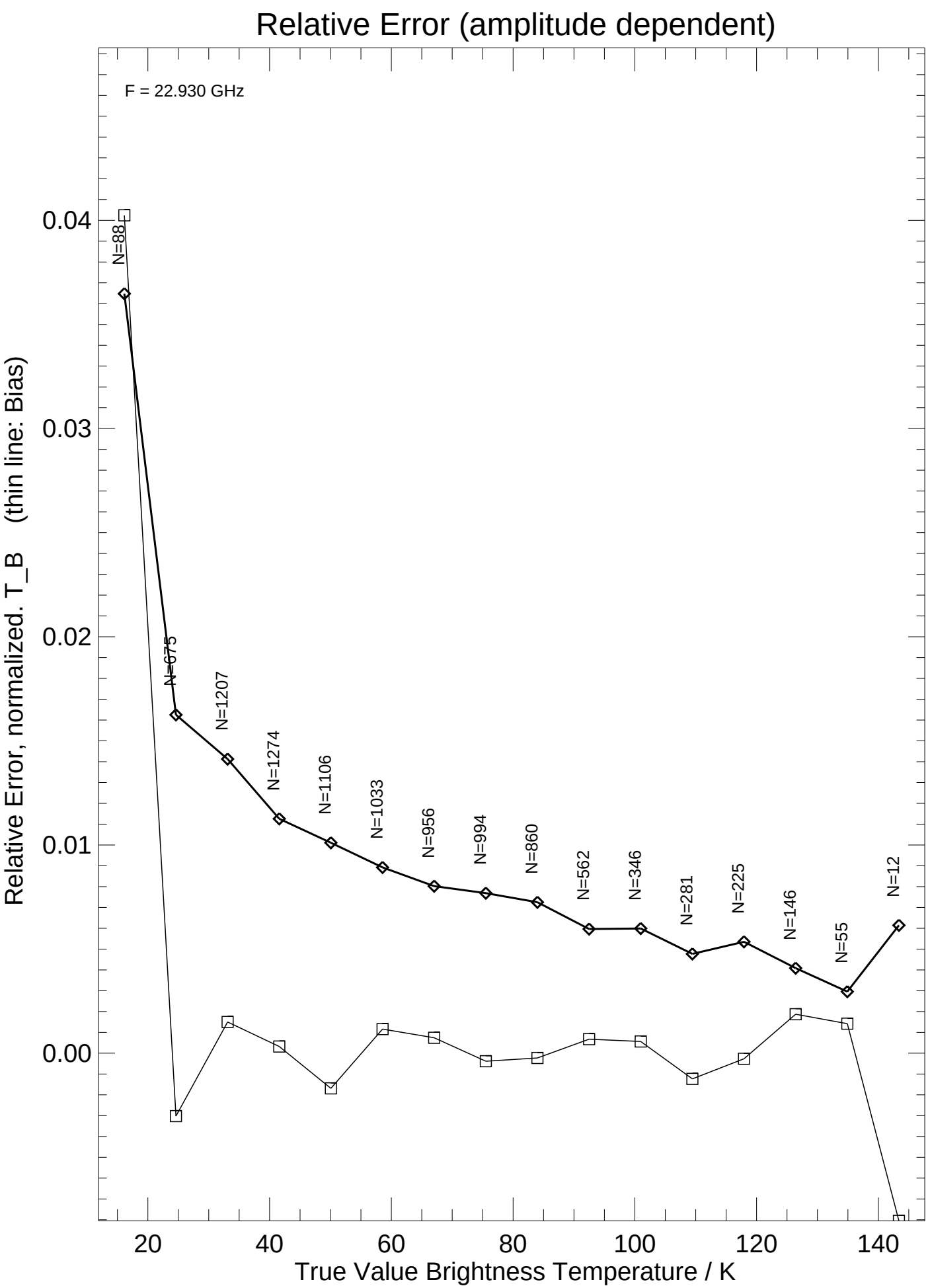

Absolute Error (amplitude dependent)
F = 22.850 GHz
Mean StD = 0.58 Max StD = 0.88
Mean bias = 0.18 Max bias = 1.09
N=87
N=658
N=1189
N=1280
N=1093
N=1028
N=940
N=1000
N=876
N=581
N=358
N=288
N=226
N=148
N=56
N=12
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

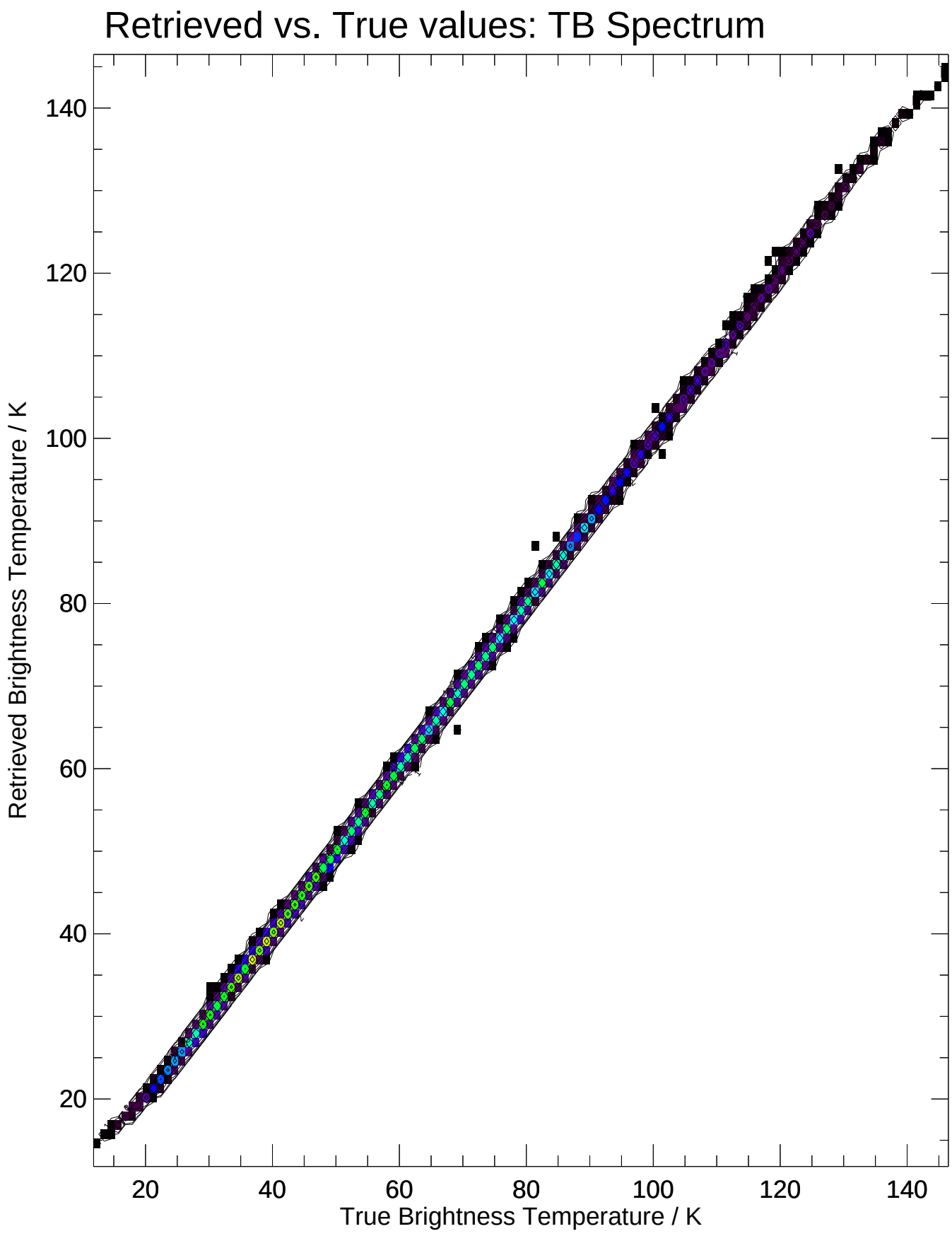

Relative Error (amplitude dependent)
F = 22.850 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
N=87
N=658
N=1189
N=1280
N=1093
N=1028
N=940
N=1000
N=876
N=581
N=358
N=288
N=226
N=148
N=56
N=12
20
40
60
80
100
120
140
True Value Brightness Temperature / K

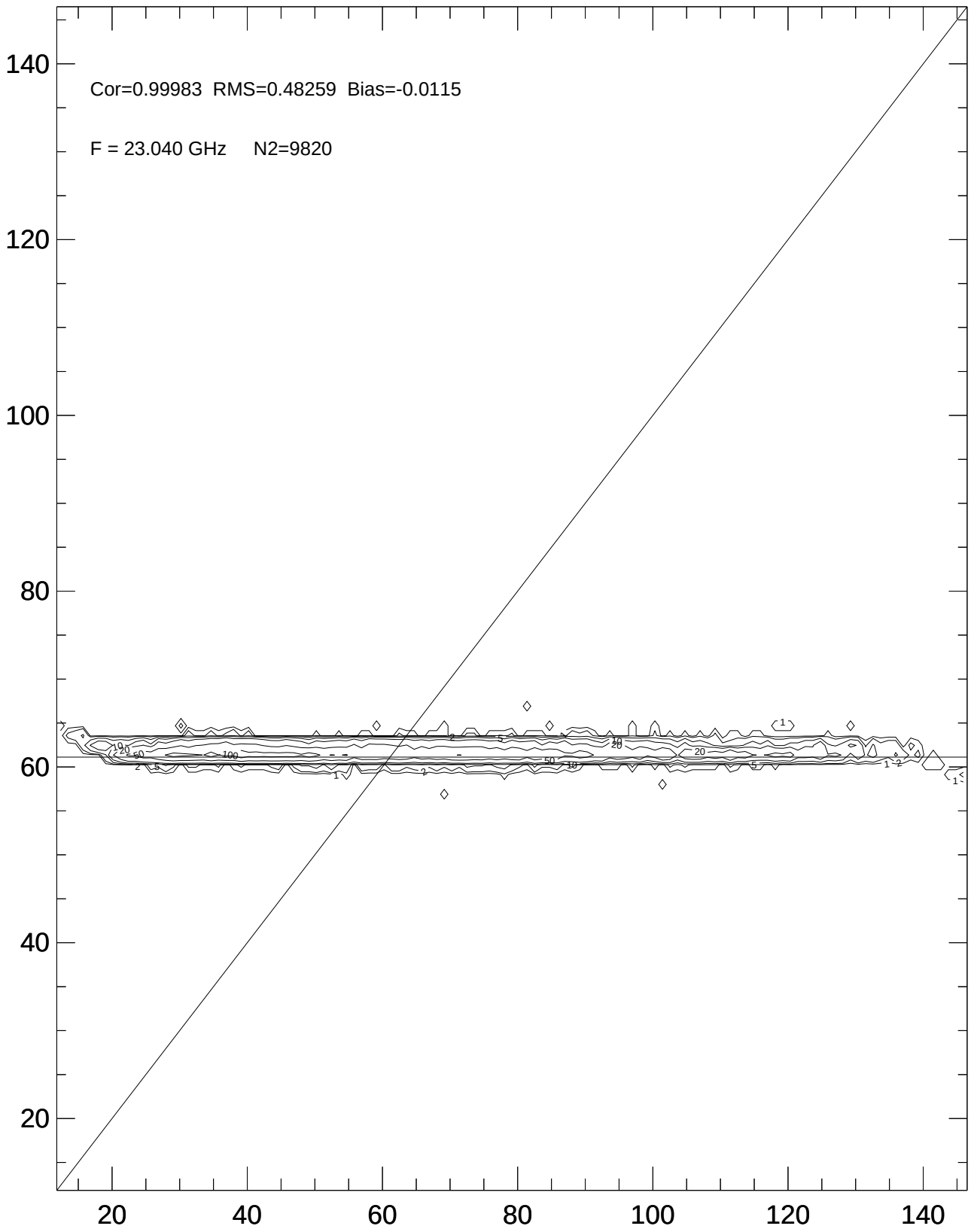

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

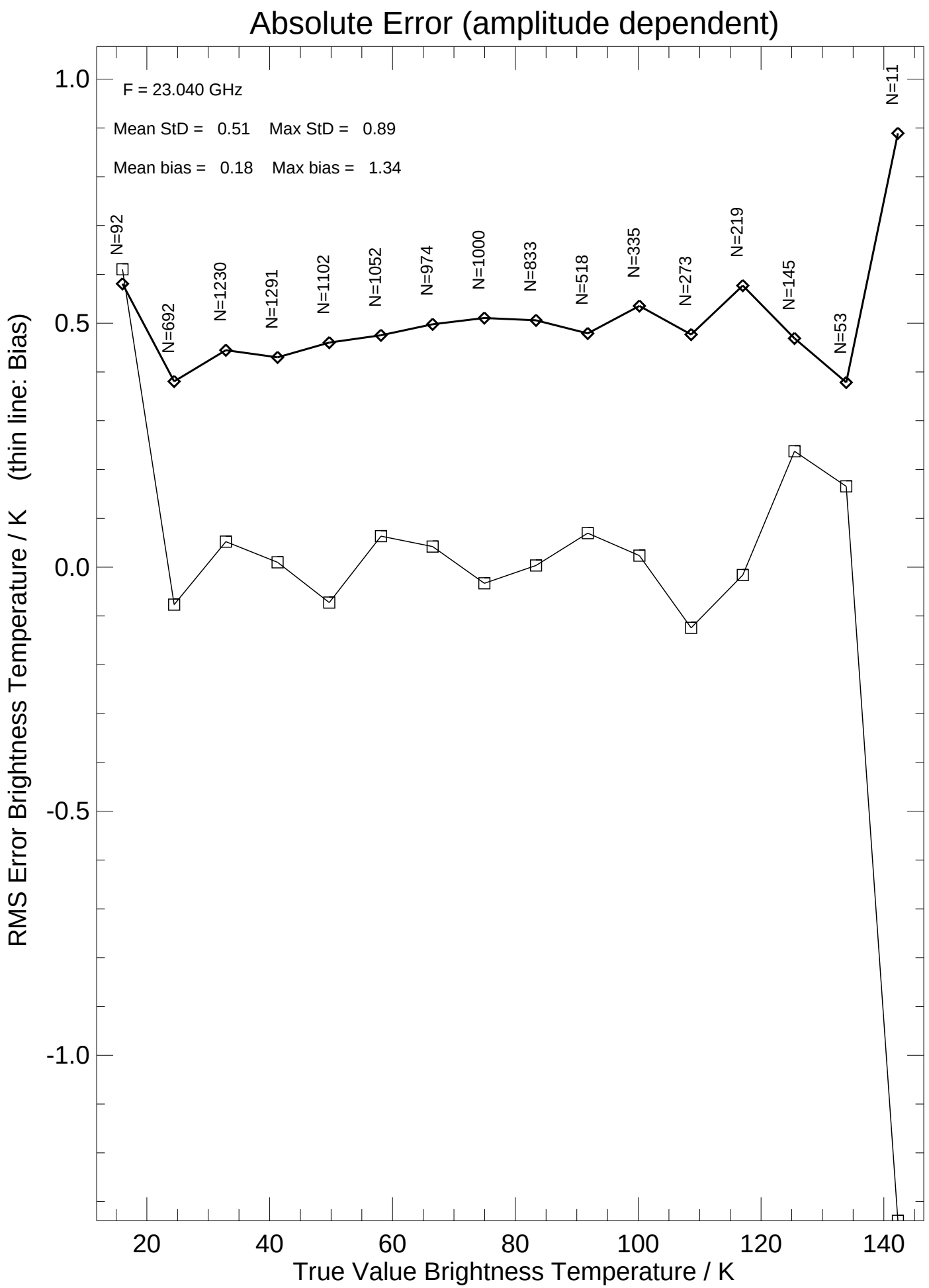

Cor=0.99979 RMS=0.53324 Bias=-0.0105
F = 22.930 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

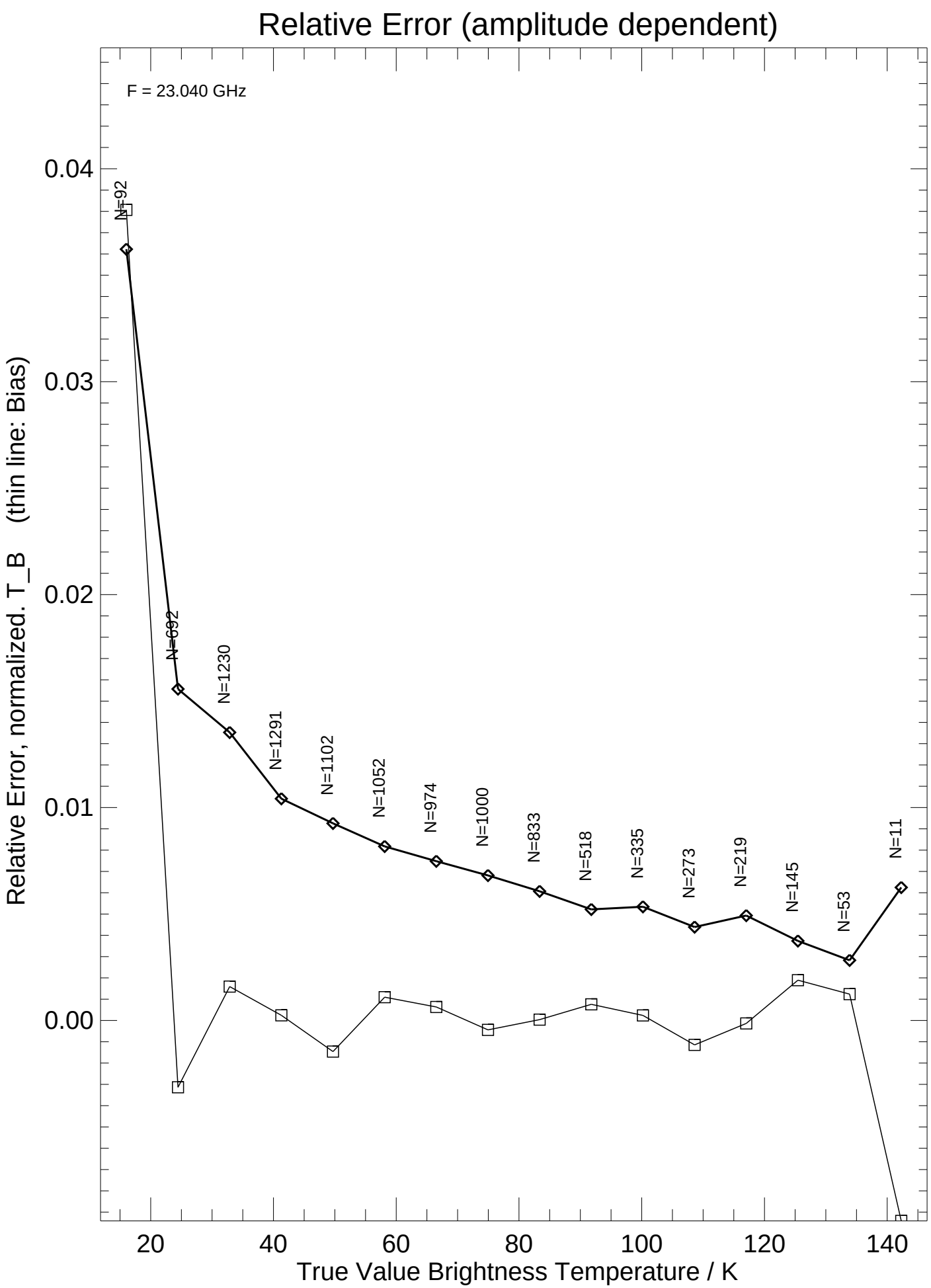

Absolute Error (amplitude dependent)
F = 22.930 GHz
Mean StD = 0.55 Max StD = 0.88
Mean bias = 0.18 Max bias = 1.16
N=88
N=675
N=1207
N=1274
N=1106
N=1033
N=956
N=994
N=860
N=562
N=346
N=281
N=225
N=146
N=55
N=12
1.0
0.5
0.0
-0.5
-1.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

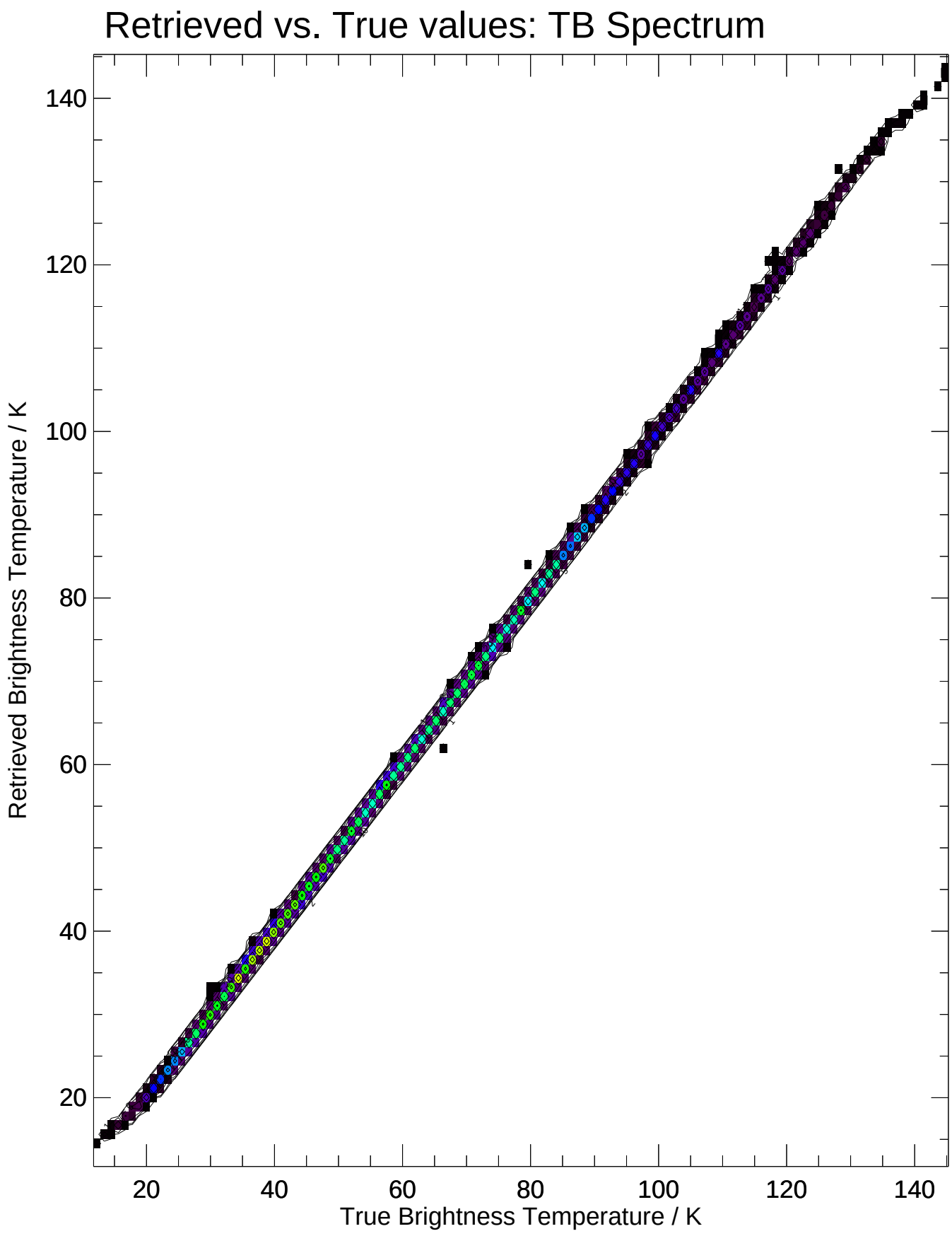

Relative Error (amplitude dependent)
F = 22.930 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
N=88
N=675
N=1207
N=1274
N=1106
N=1033
N=956
N=994
N=860
N=562
N=346
N=281
N=225
N=146
N=55
N=12
20
40
60
80
100
120
140
True Value Brightness Temperature / K

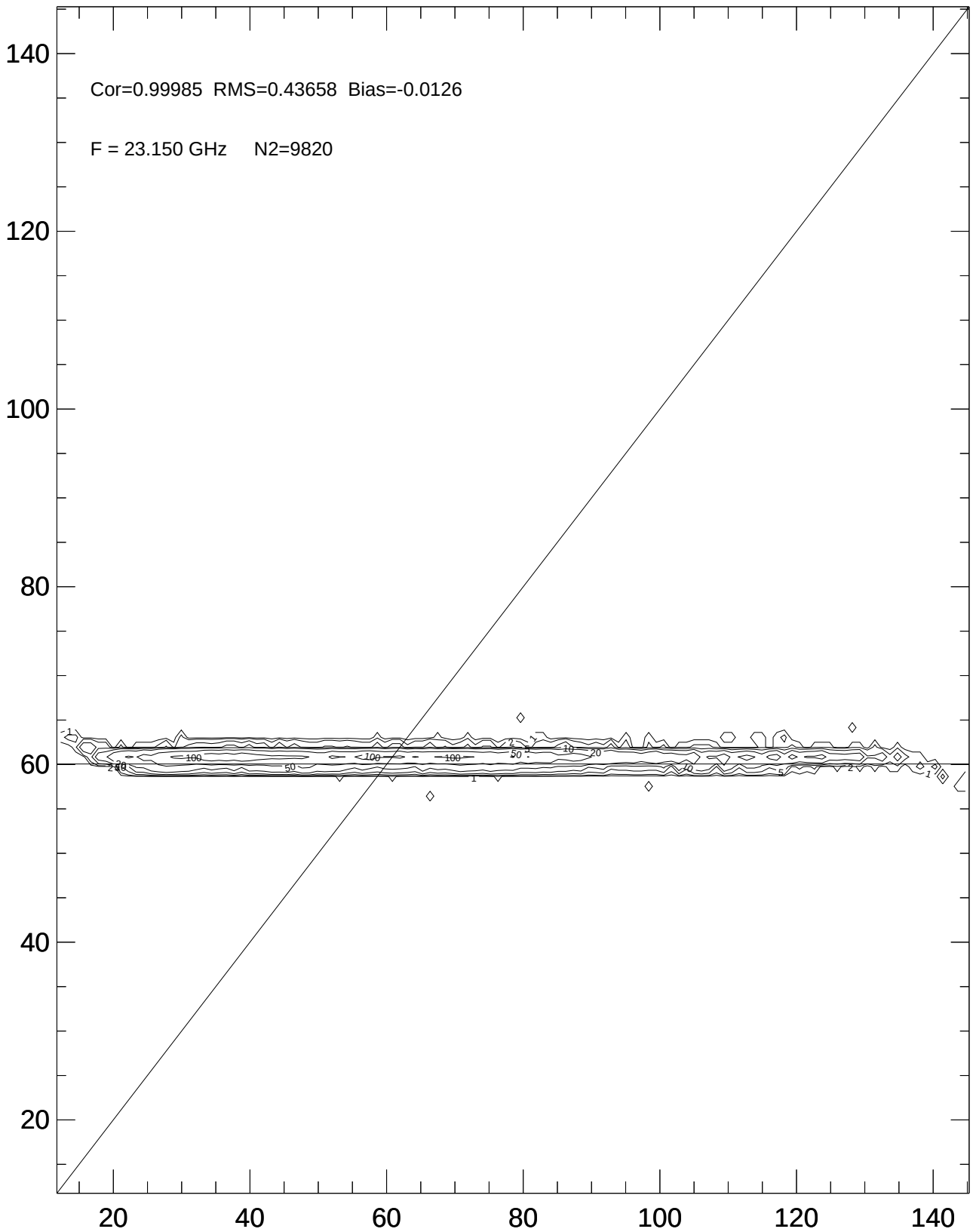

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

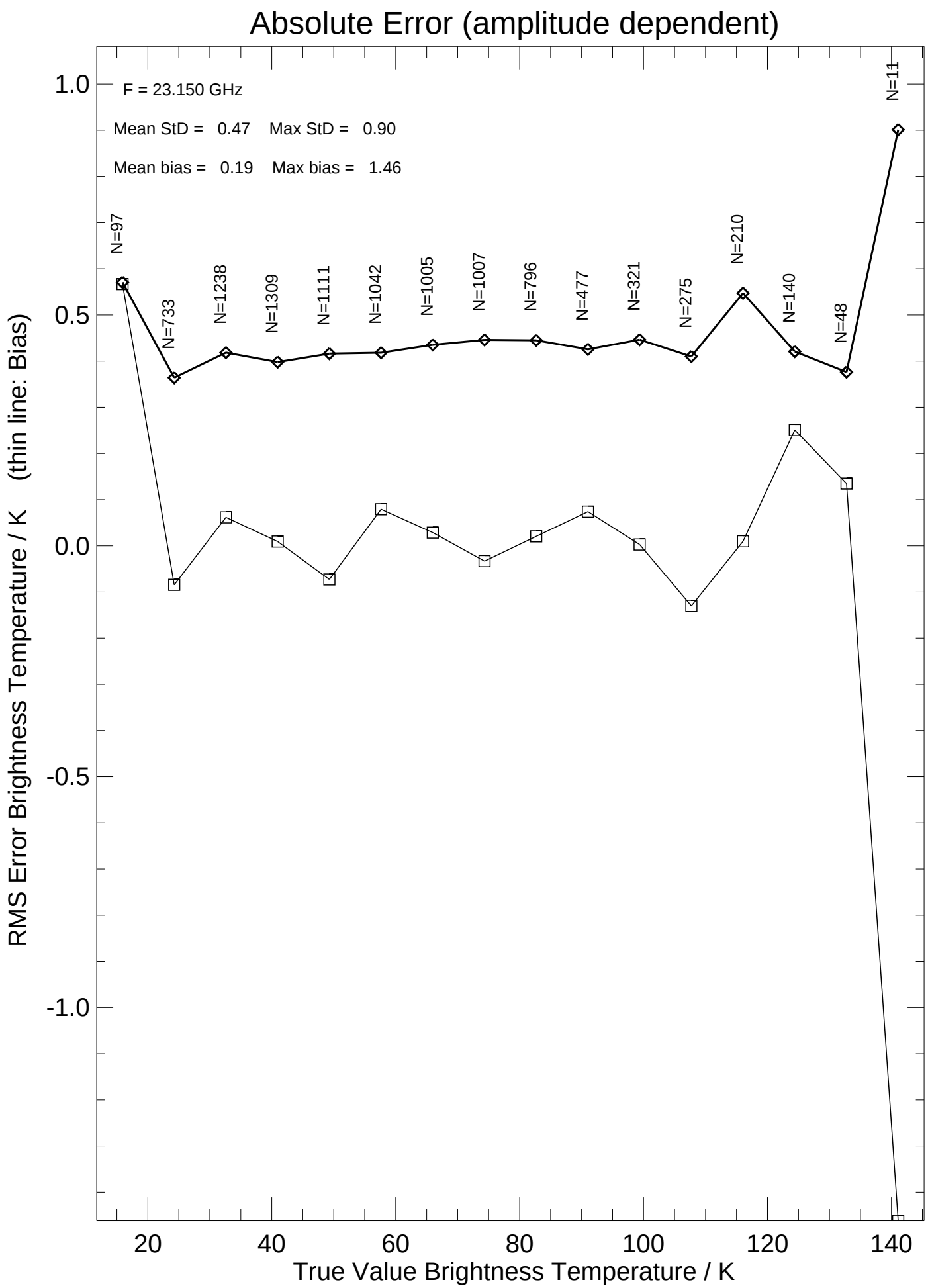

Cor=0.99983 RMS=0.48259 Bias=-0.0115
F = 23.040 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

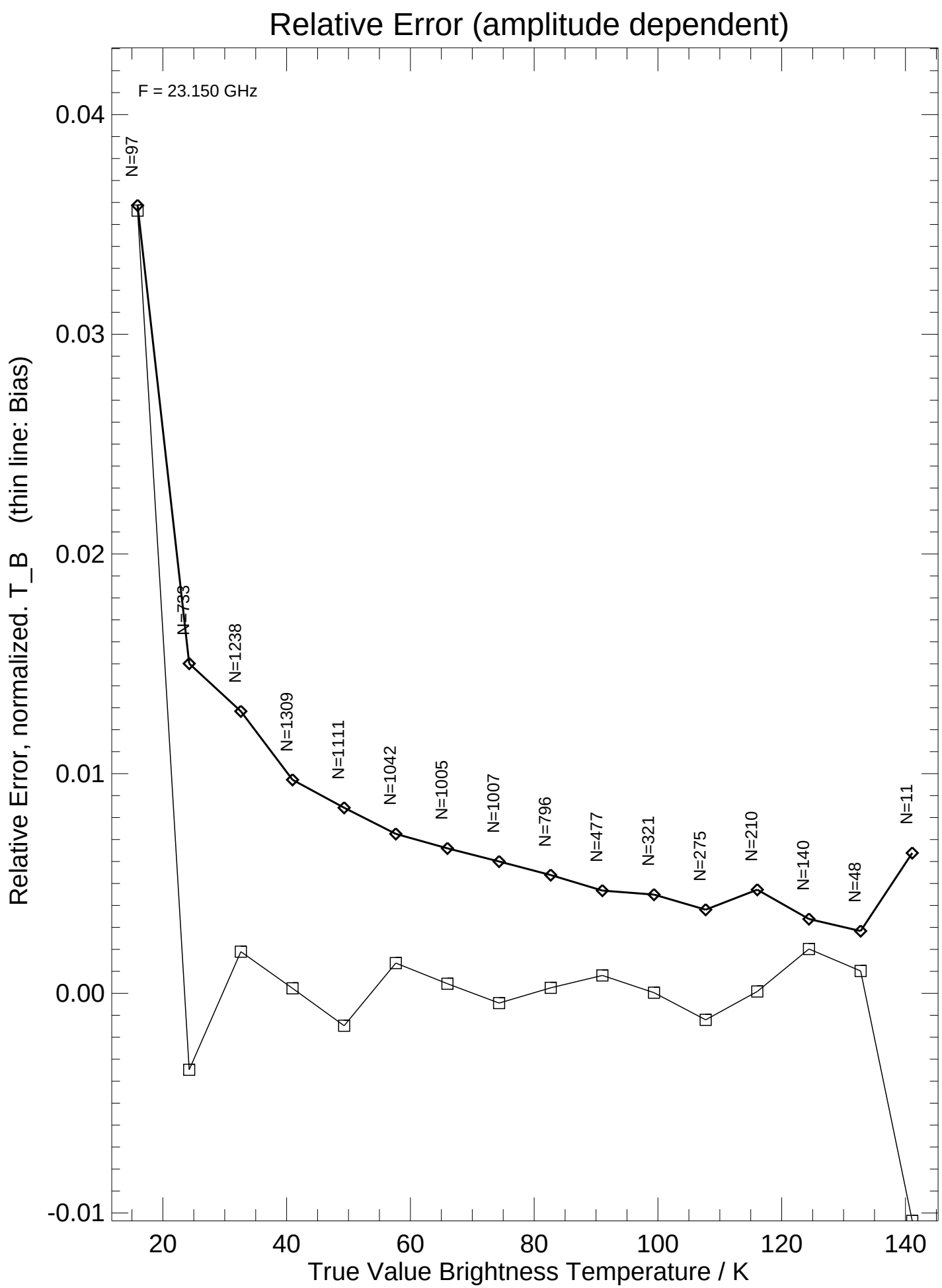

Absolute Error (amplitude dependent)
F = 23.040 GHz
Mean StD = 0.51 Max StD = 0.89
Mean bias = 0.18 Max bias = 1.34
N=92
N=692
N=1230
N=1291
N=1102
N=1052
N=974
N=1000
N=833
N=518
N=335
N=273
N=219
N=145
N=53
N=11
1.0
0.5
0.0
-0.5
-1.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

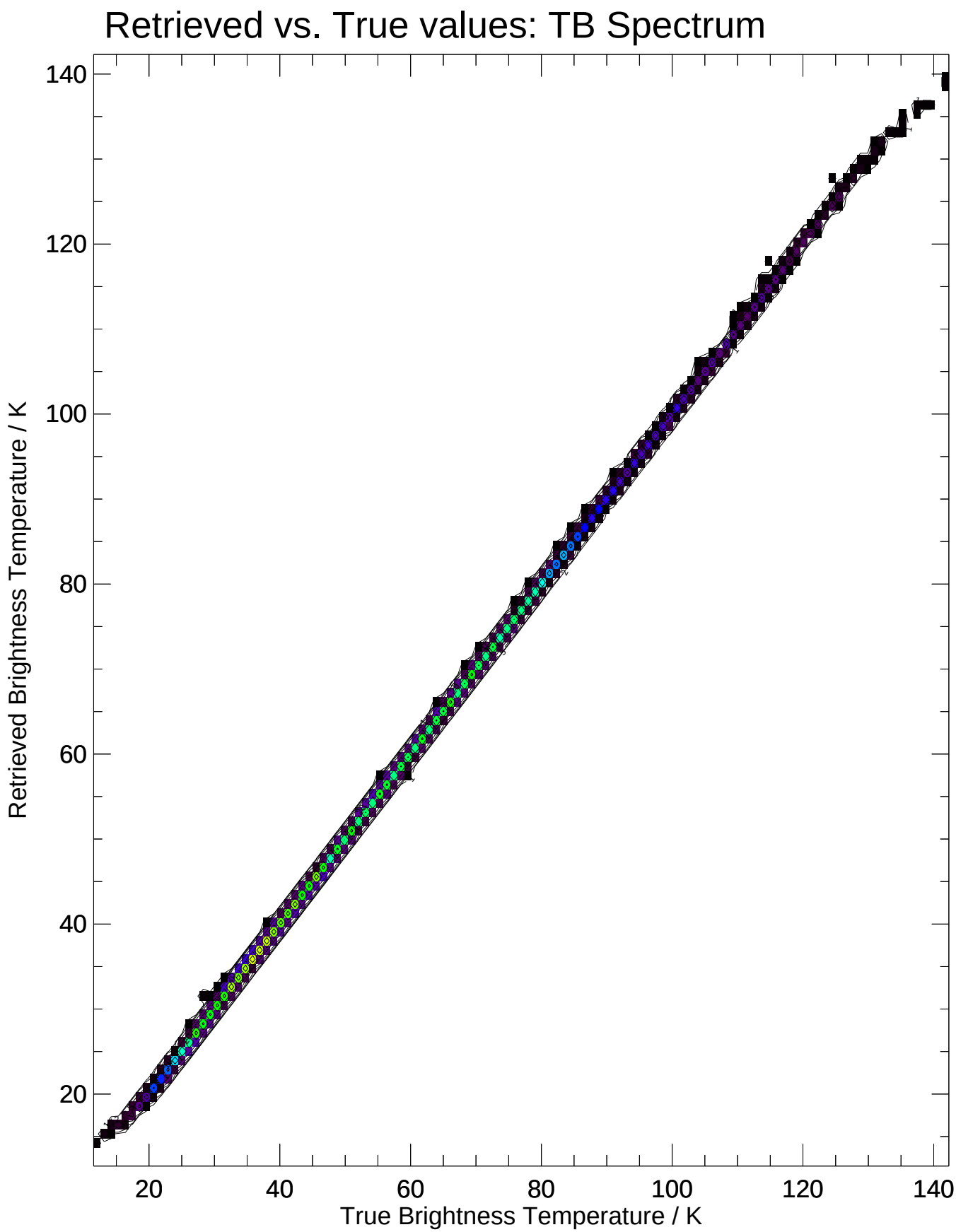

Relative Error (amplitude dependent)
F = 23.040 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
N=92
N=692
N=1230
N=1291
N=1102
N=1052
N=974
N=1000
N=833
N=518
N=335
N=273
N=219
N=145
N=53
N=11
20
40
60
80
100
120
140
True Value Brightness Temperature / K

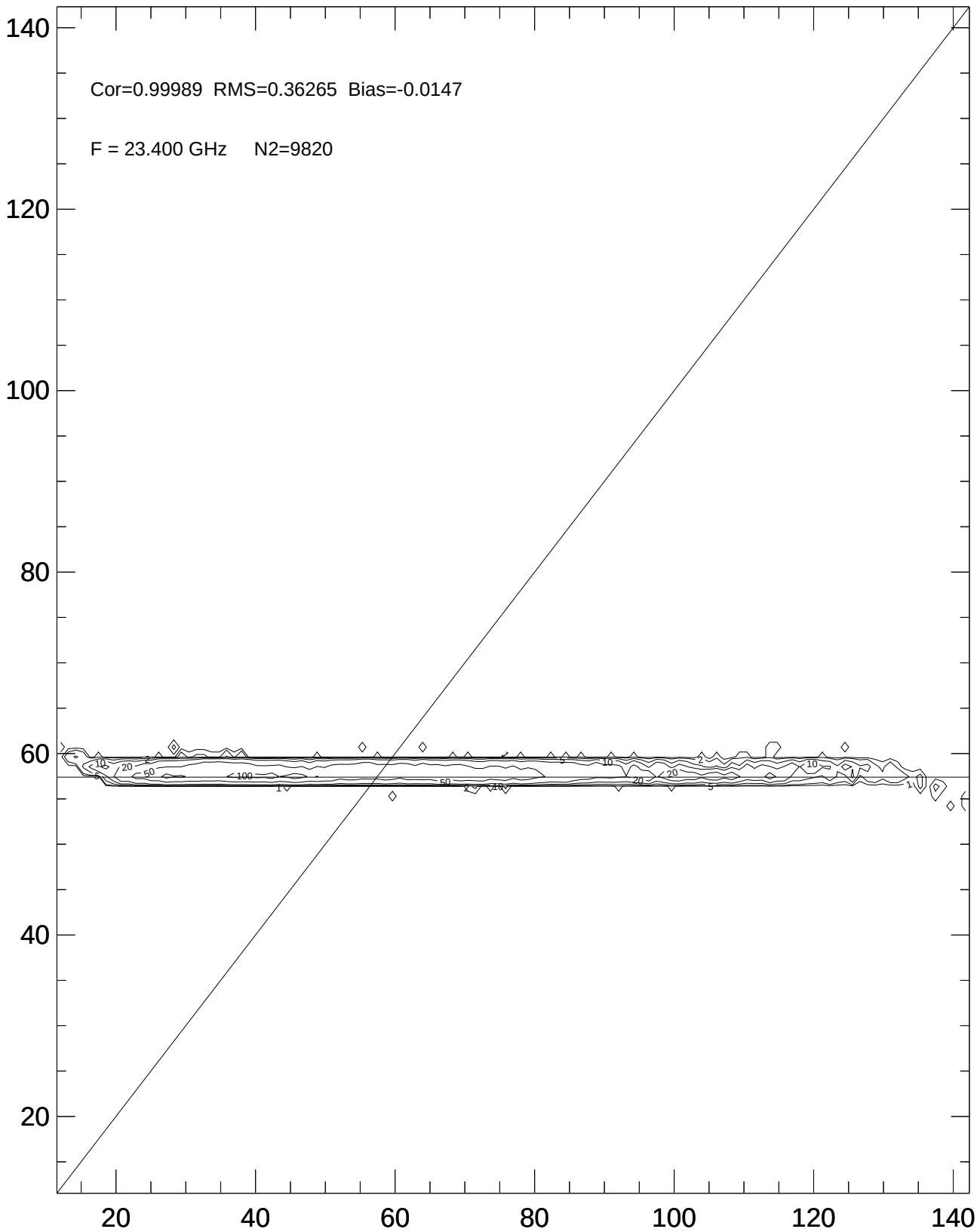

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

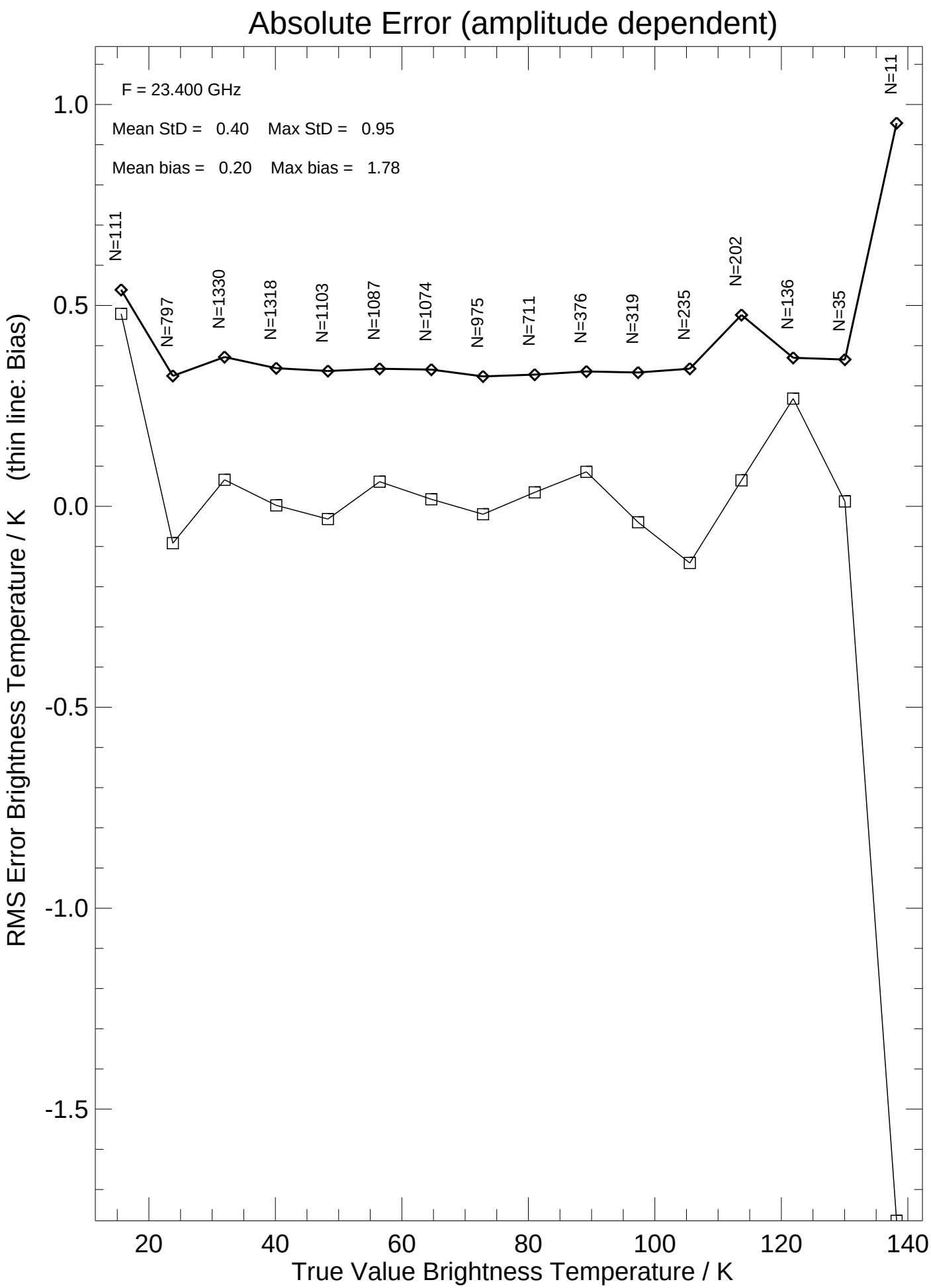

Cor=0.99985 RMS=0.43658 Bias=-0.0126
F = 23.150 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

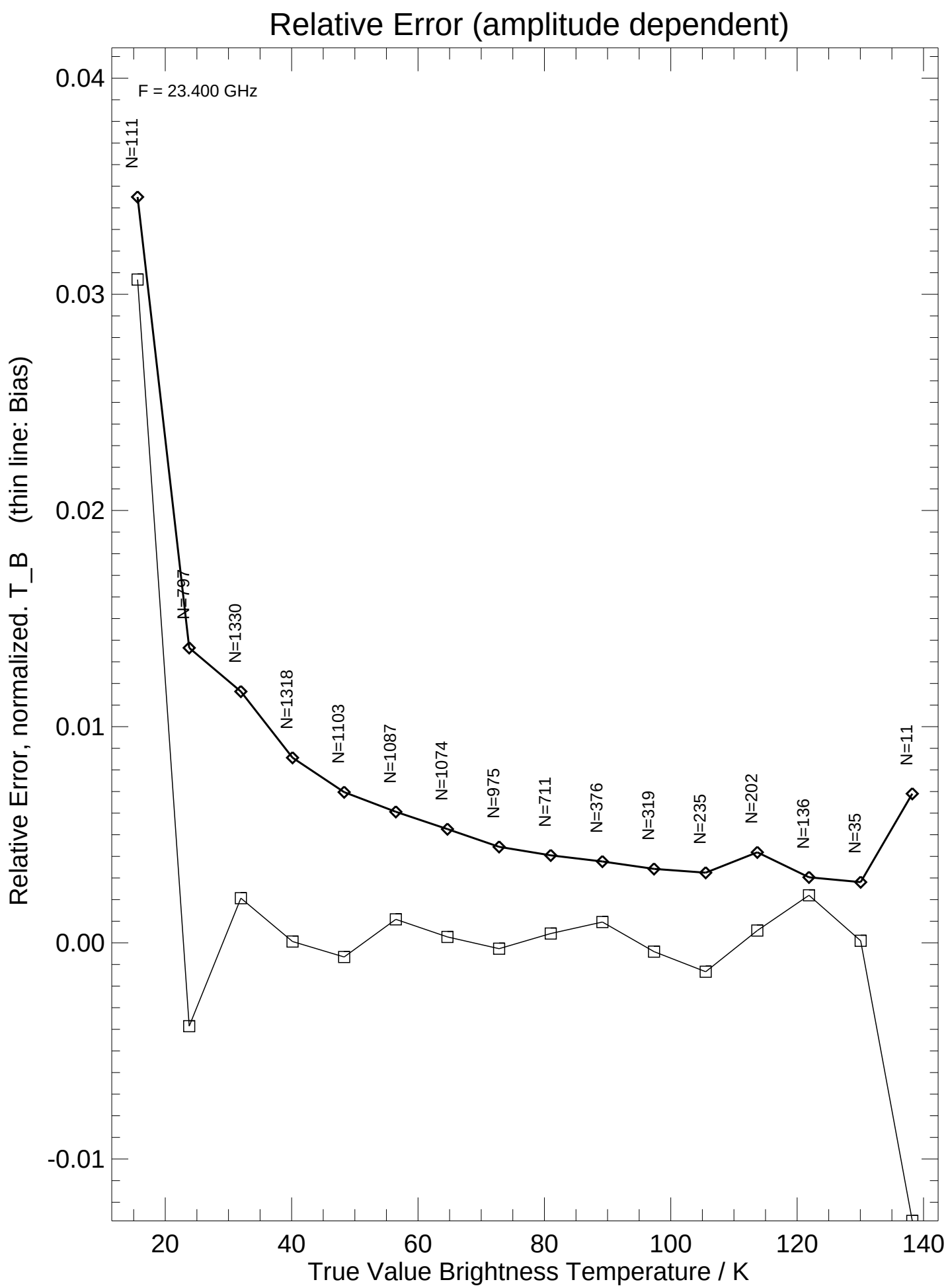

Absolute Error (amplitude dependent)
F = 23.150 GHz
Mean StD = 0.47 Max StD = 0.90
Mean bias = 0.19 Max bias = 1.46
N=97
N=733
N=1238
N=1309
N=1111
N=1042
N=1005
N=1007
N=796
N=477
N=321
N=275
N=210
N=140
N=48
N=11
1.0
0.5
0.0
-0.5
-1.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

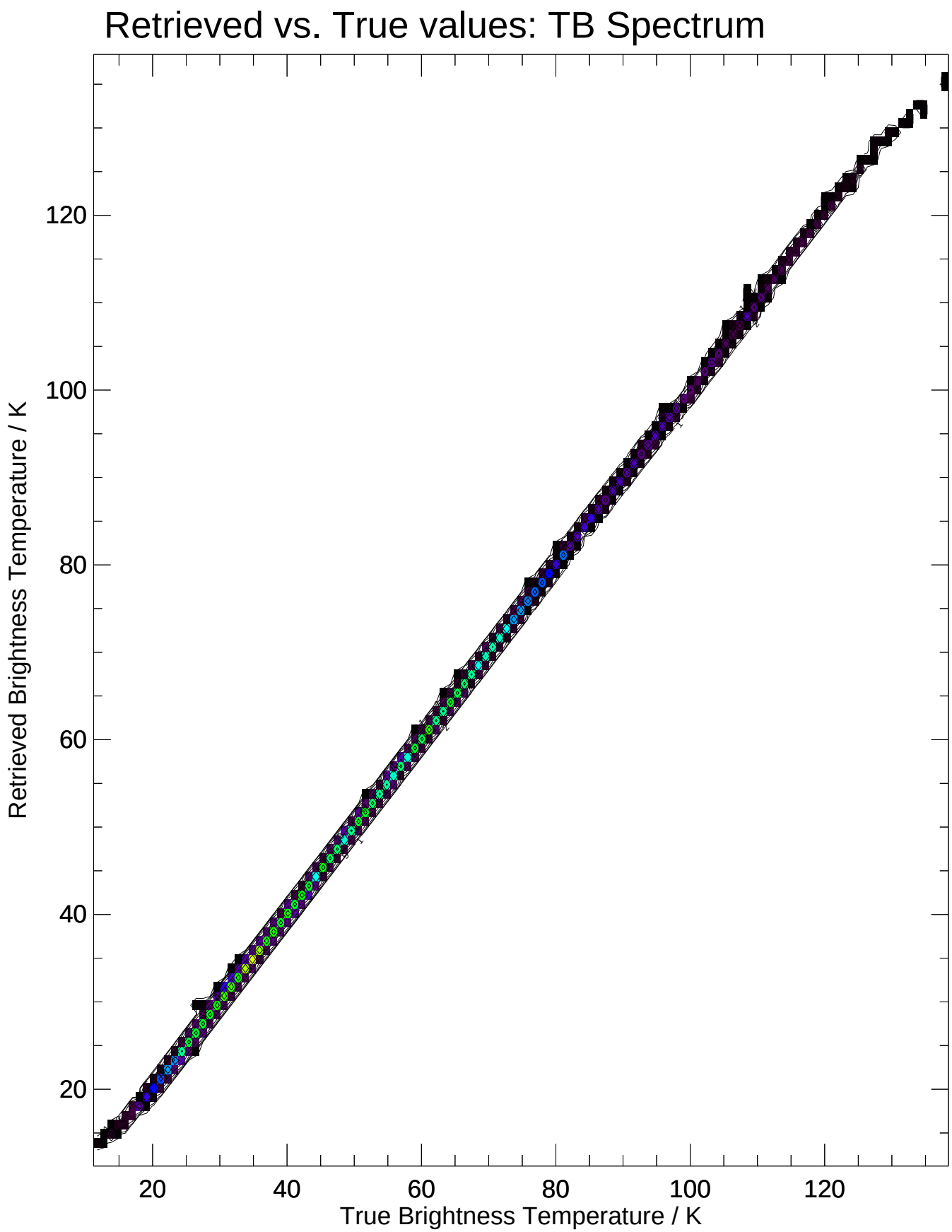

Relative Error (amplitude dependent)
F = 23.150 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.04
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
N=97
N=733
N=1238
N=1309
N=1111
N=1042
N=1005
N=1007
N=796
N=477
N=321
N=275
N=210
N=140
N=48
N=11

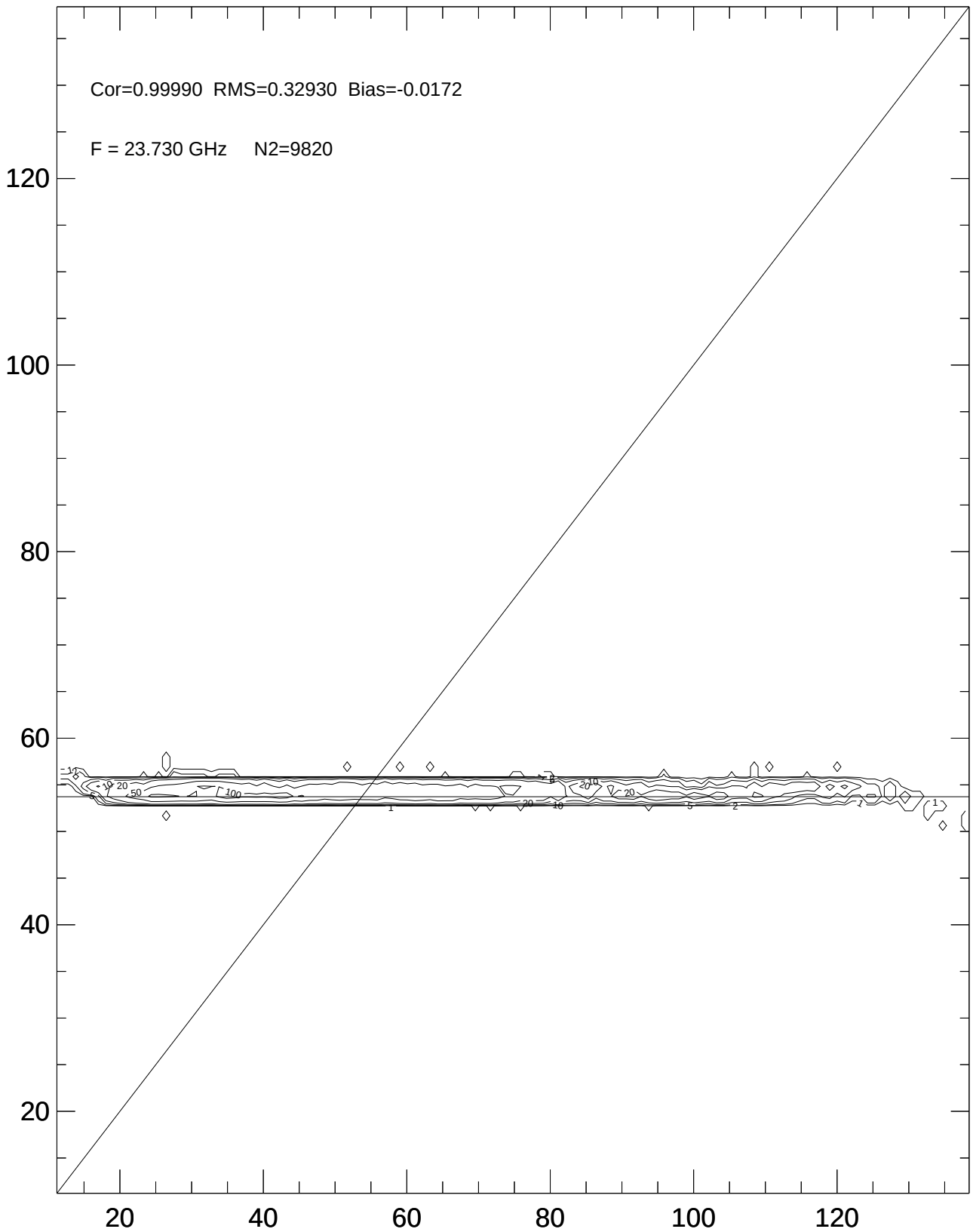

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

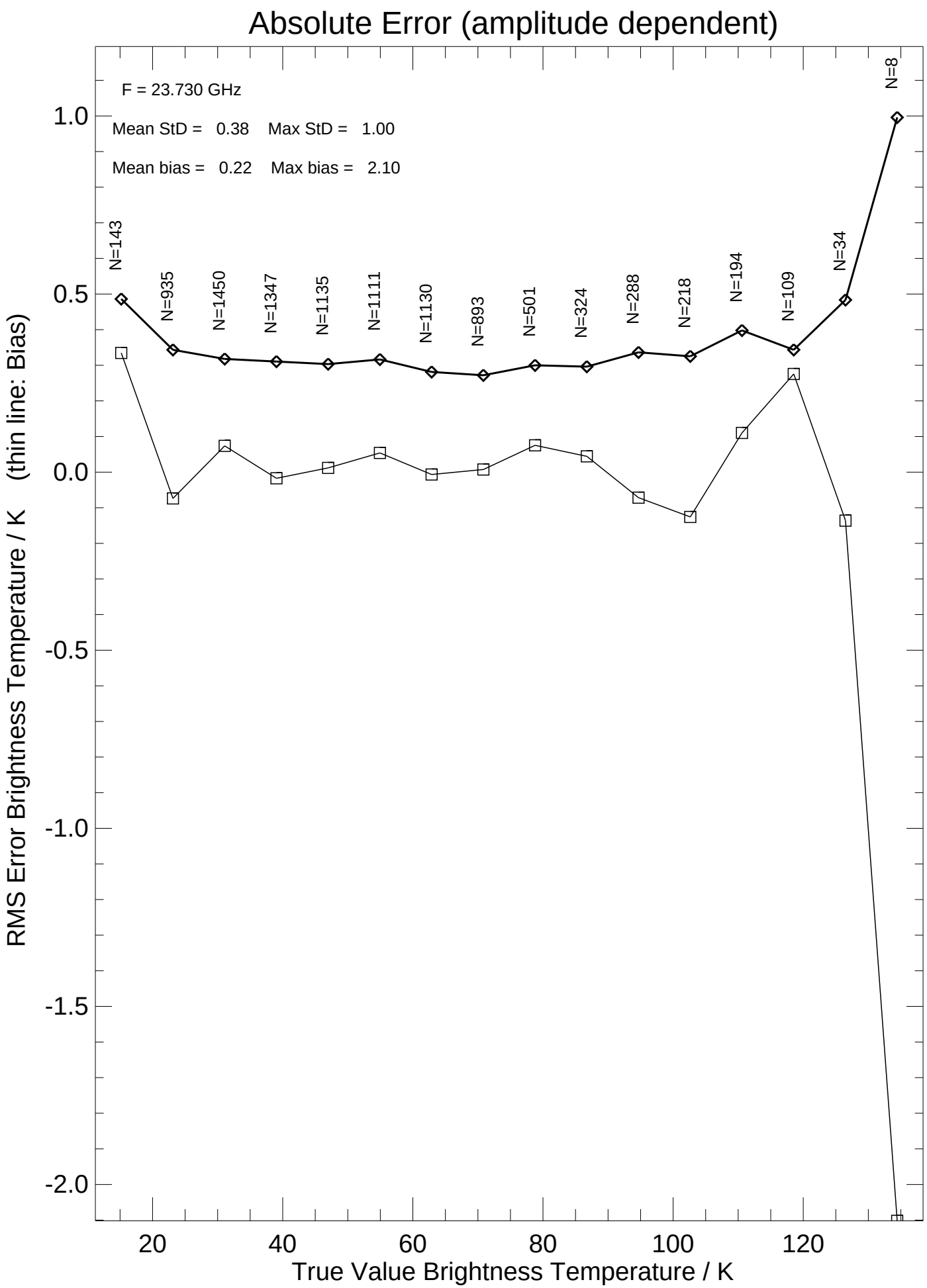

Cor=0.99989 RMS=0.36265 Bias=-0.0147
F = 23.400 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

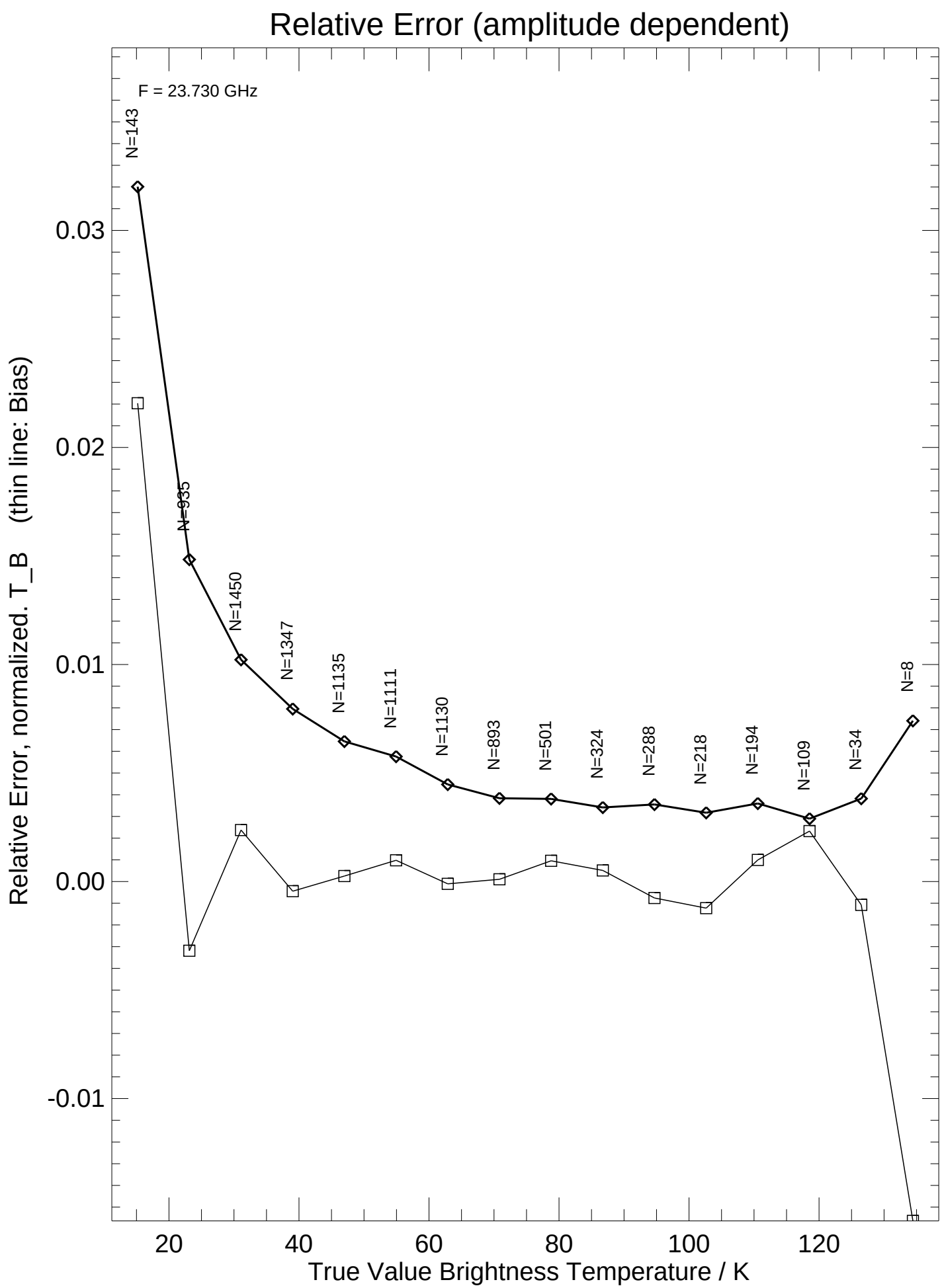

Absolute Error (amplitude dependent)
F = 23.400 GHz
Mean StD = 0.40 Max StD = 0.95
Mean bias = 0.20 Max bias = 1.78
N=111
N=797
N=1330
N=1318
N=1103
N=1087
N=1074
N=975
N=711
N=376
N=319
N=235
N=202
N=136
N=35
N=11
1.0
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

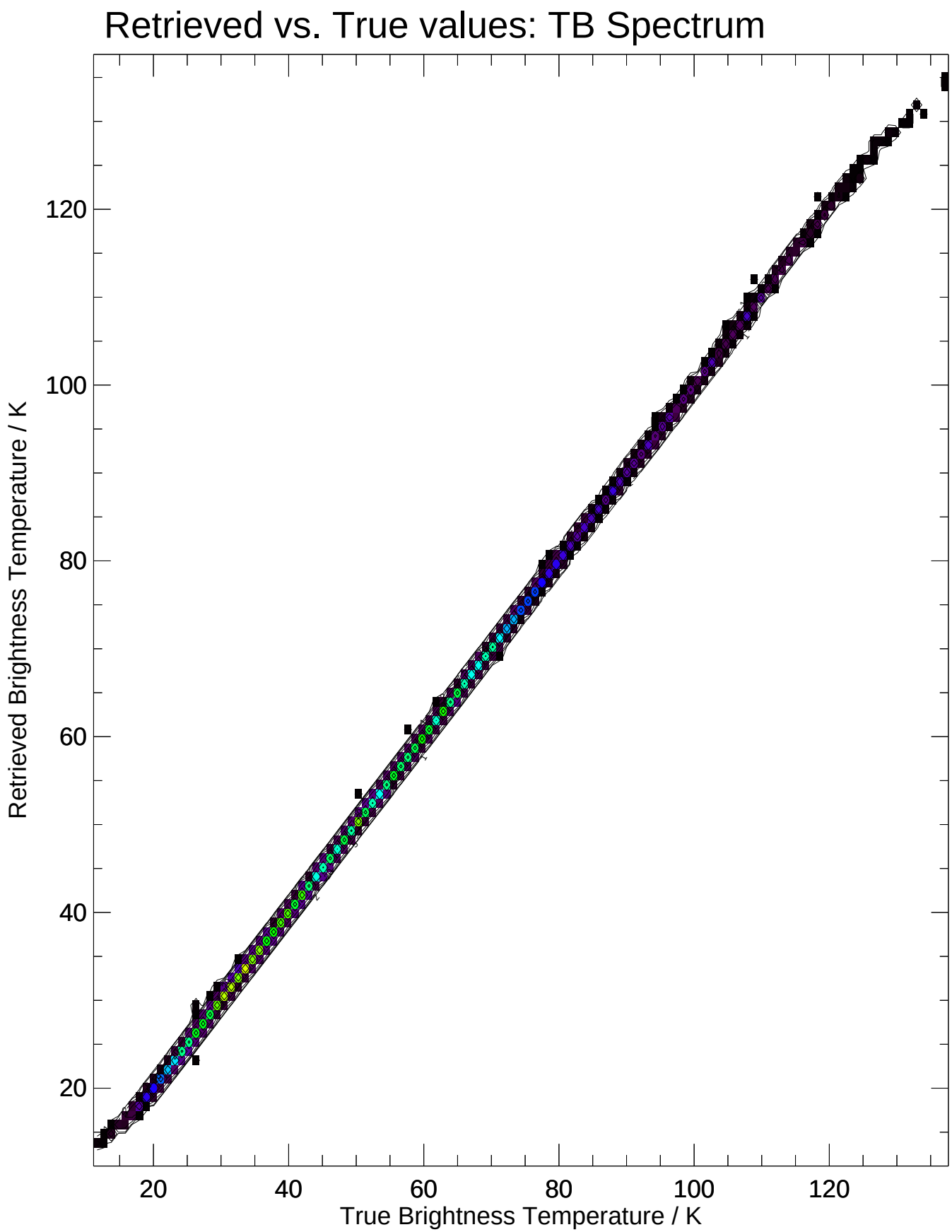

Relative Error (amplitude dependent)
F = 23.400 GHz
N=111
N=797
N=1330
N=1318
N=1103
N=1087
N=1074
N=975
N=711
N=376
N=319
N=235
N=202
N=136
N=35
N=11
Relative Error, normalized. T_B (thin line: Bias)
0.04
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
140
True Value Brightness Temperature / K

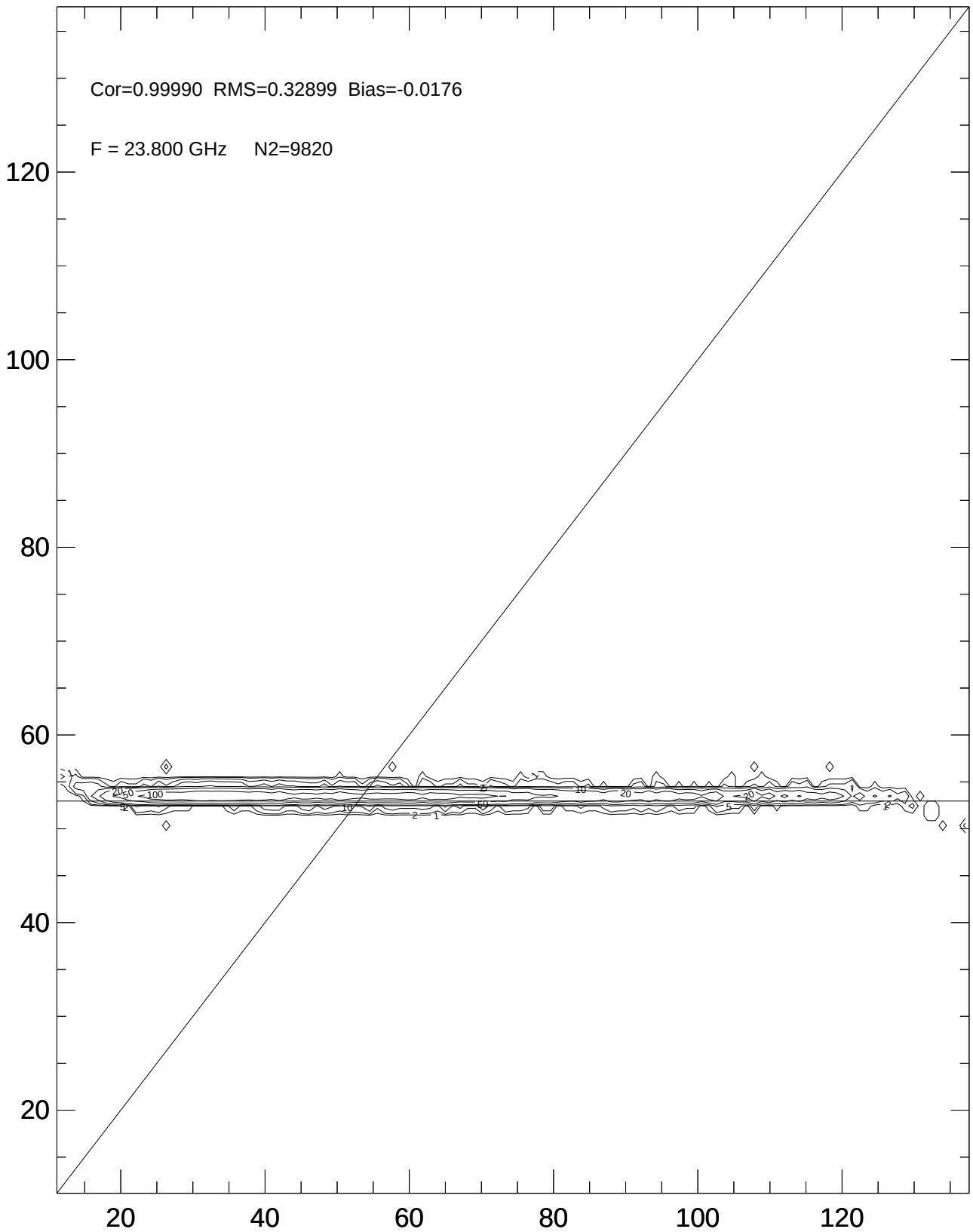

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

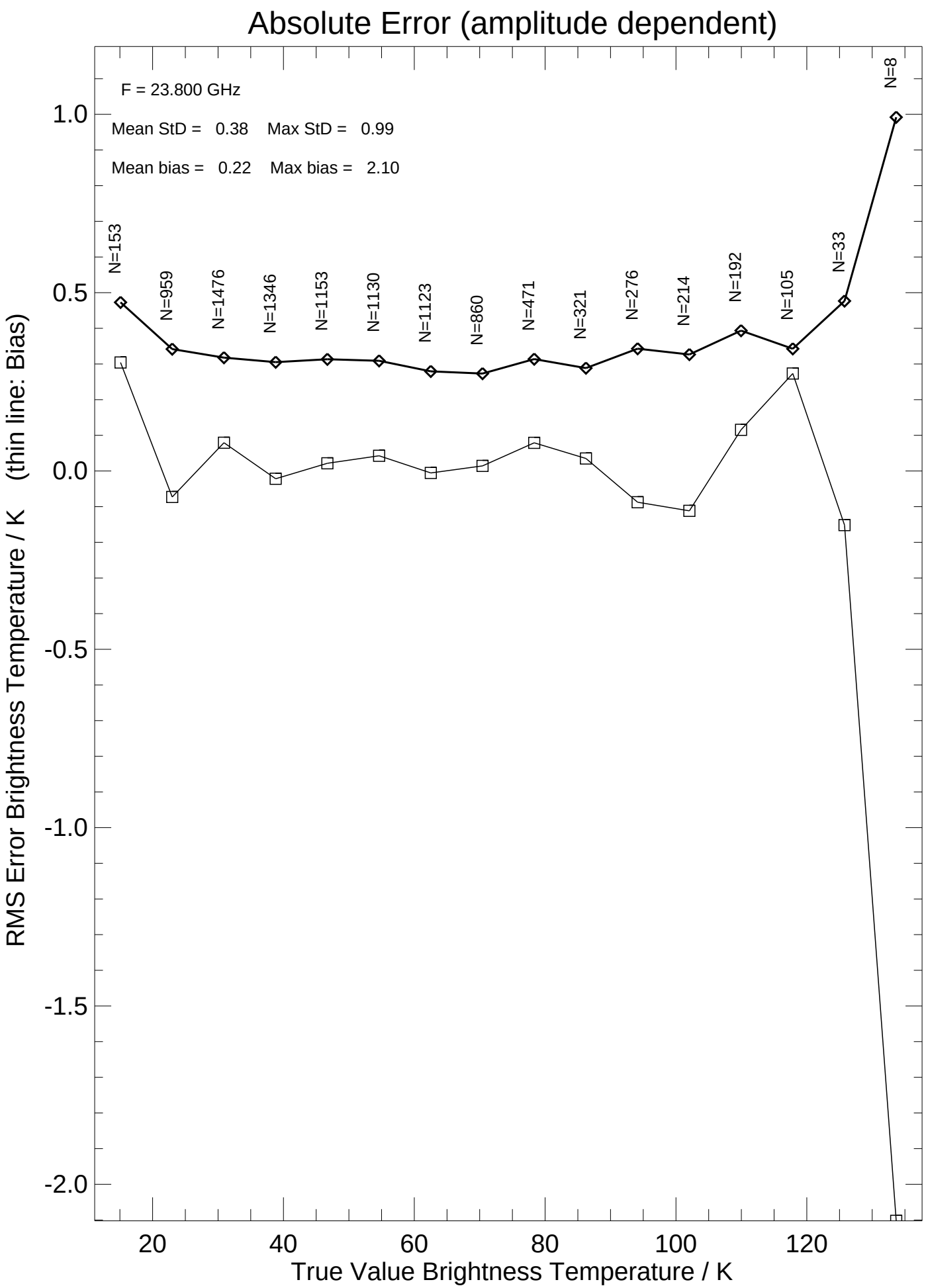

Cor=0.99990 RMS=0.32930 Bias=-0.0172
F = 23.730 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

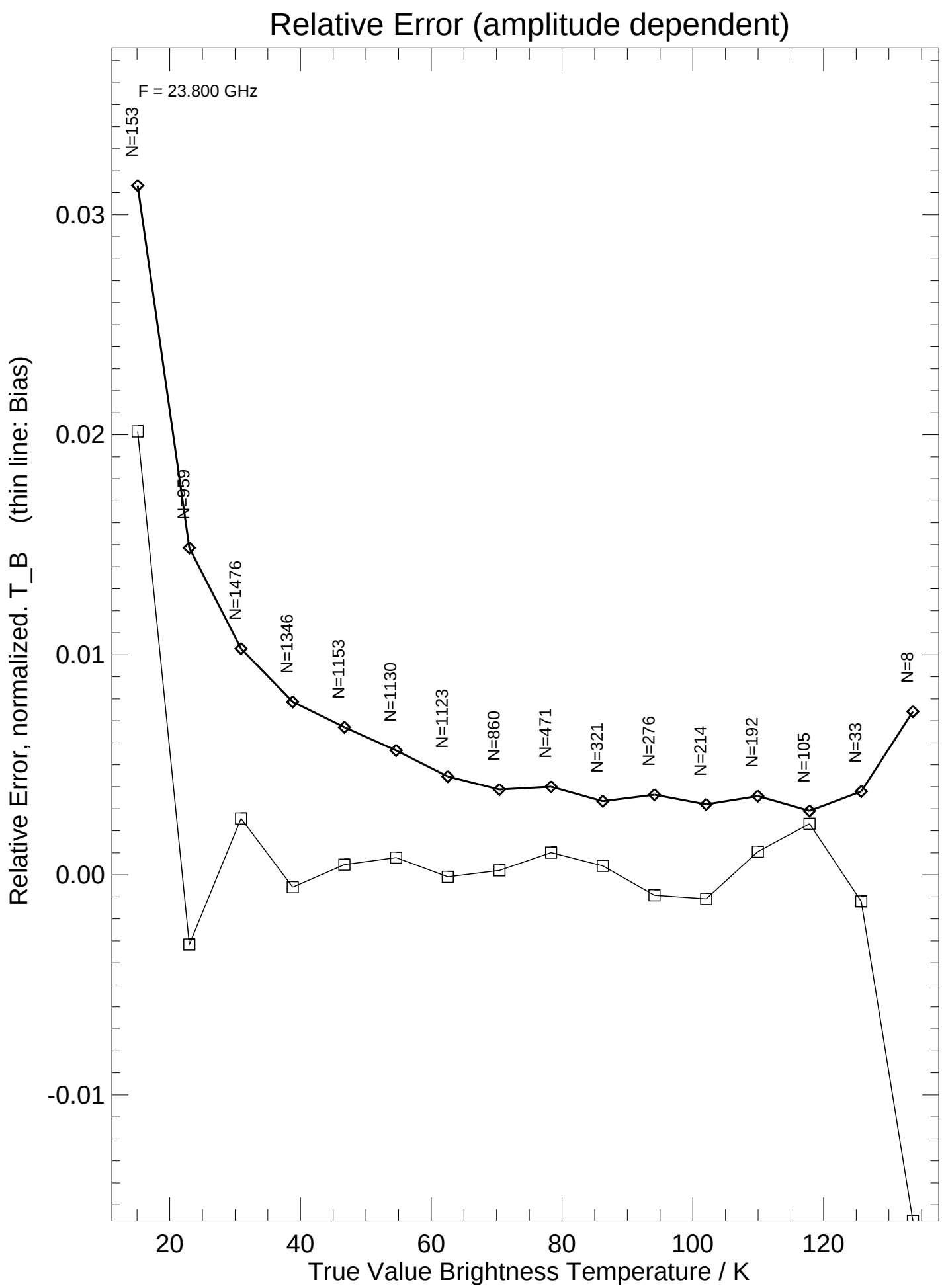

Absolute Error (amplitude dependent)
F = 23.730 GHz
Mean StD = 0.38 Max StD = 1.00
Mean bias = 0.22 Max bias = 2.10
N=143
N=935
N=1450
N=1347
N=1135
N=1111
N=1130
N=893
N=501
N=324
N=288
N=218
N=194
N=109
N=34
N=8
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

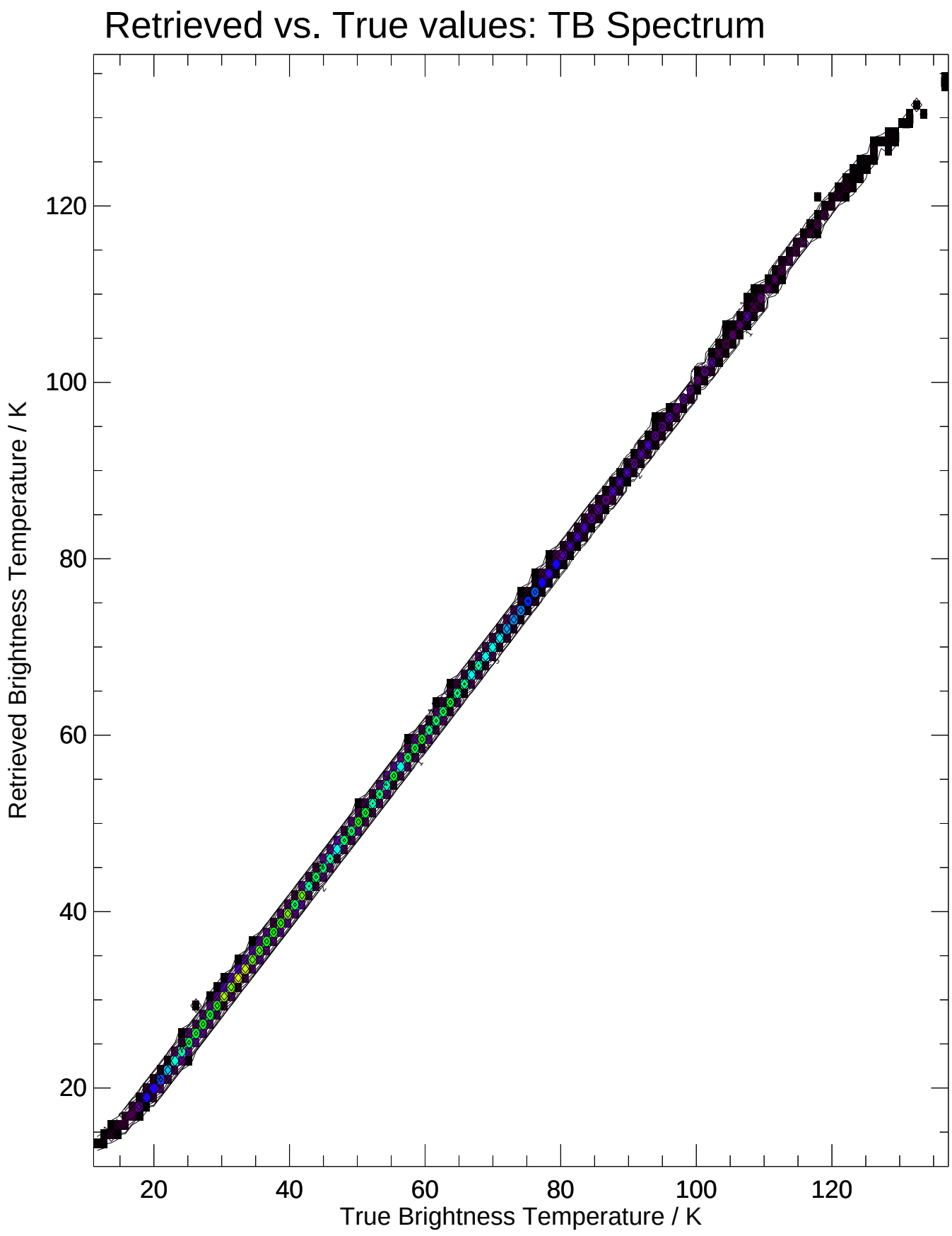

Relative Error (amplitude dependent)
F = 23.730 GHz
N=143
N=935
N=1450
N=1347
N=1135
N=1111
N=1130
N=893
N=501
N=324
N=288
N=218
N=194
N=109
N=34
N=8
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

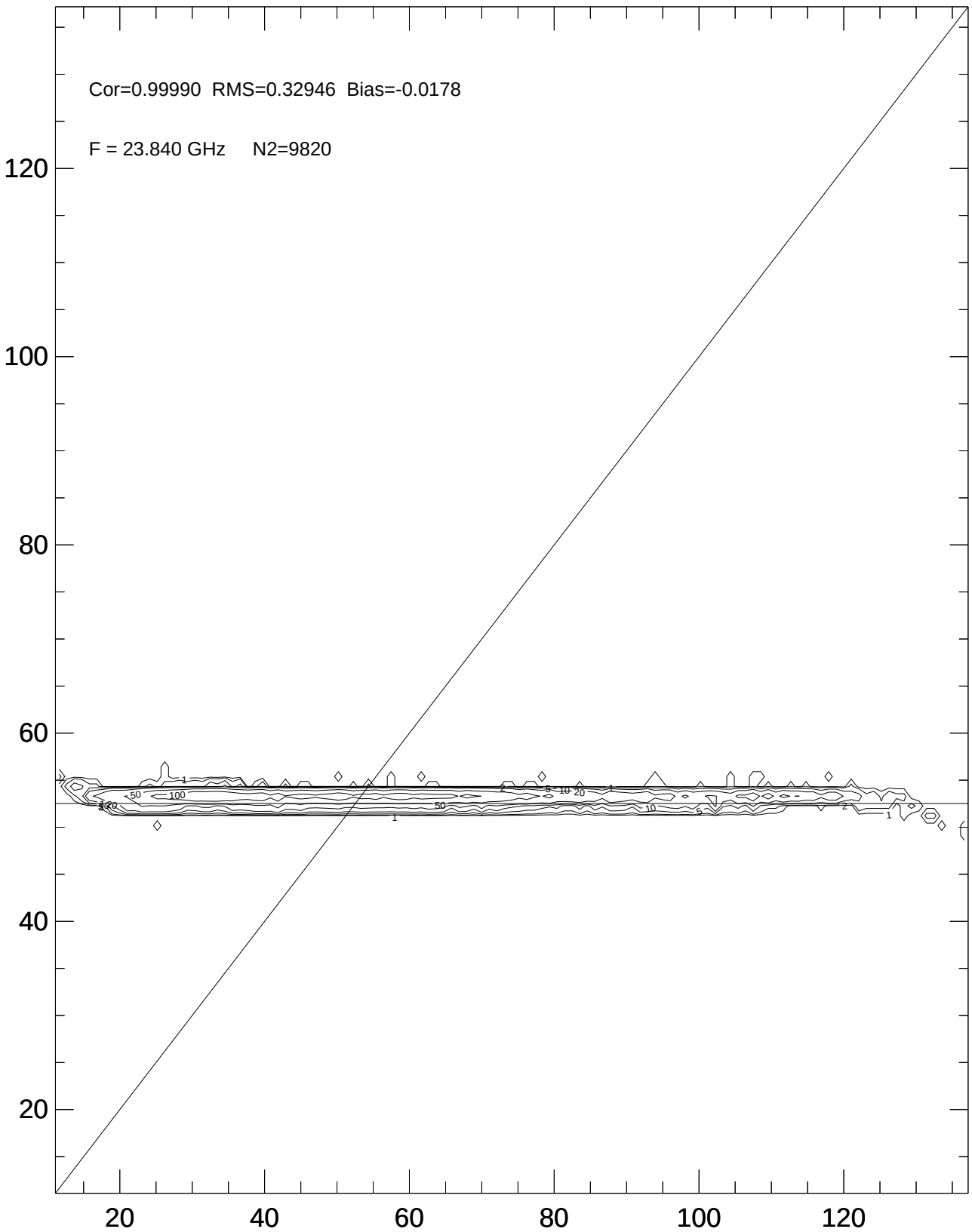

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

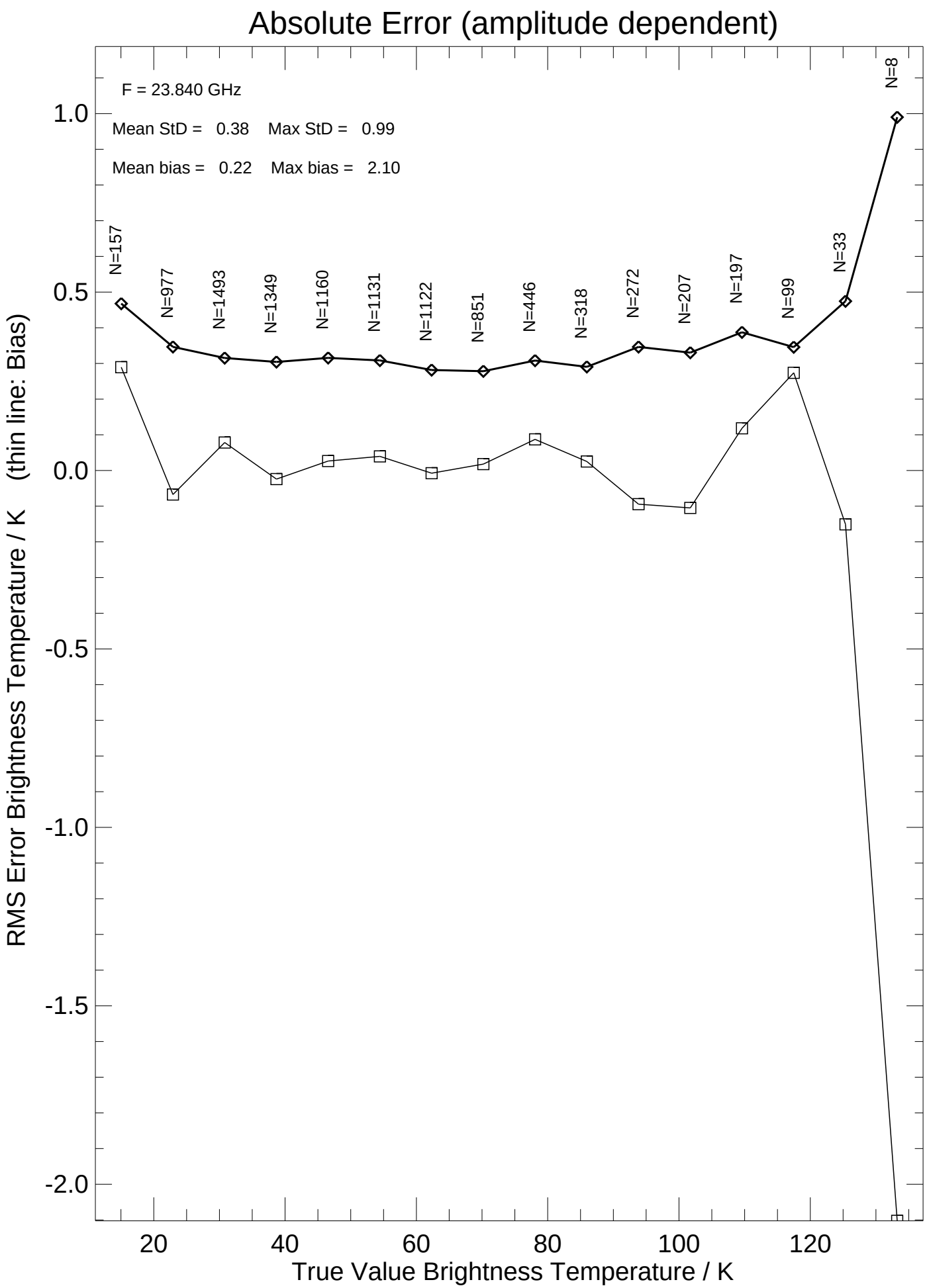

Cor=0.99990 RMS=0.32899 Bias=-0.0176
F = 23.800 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

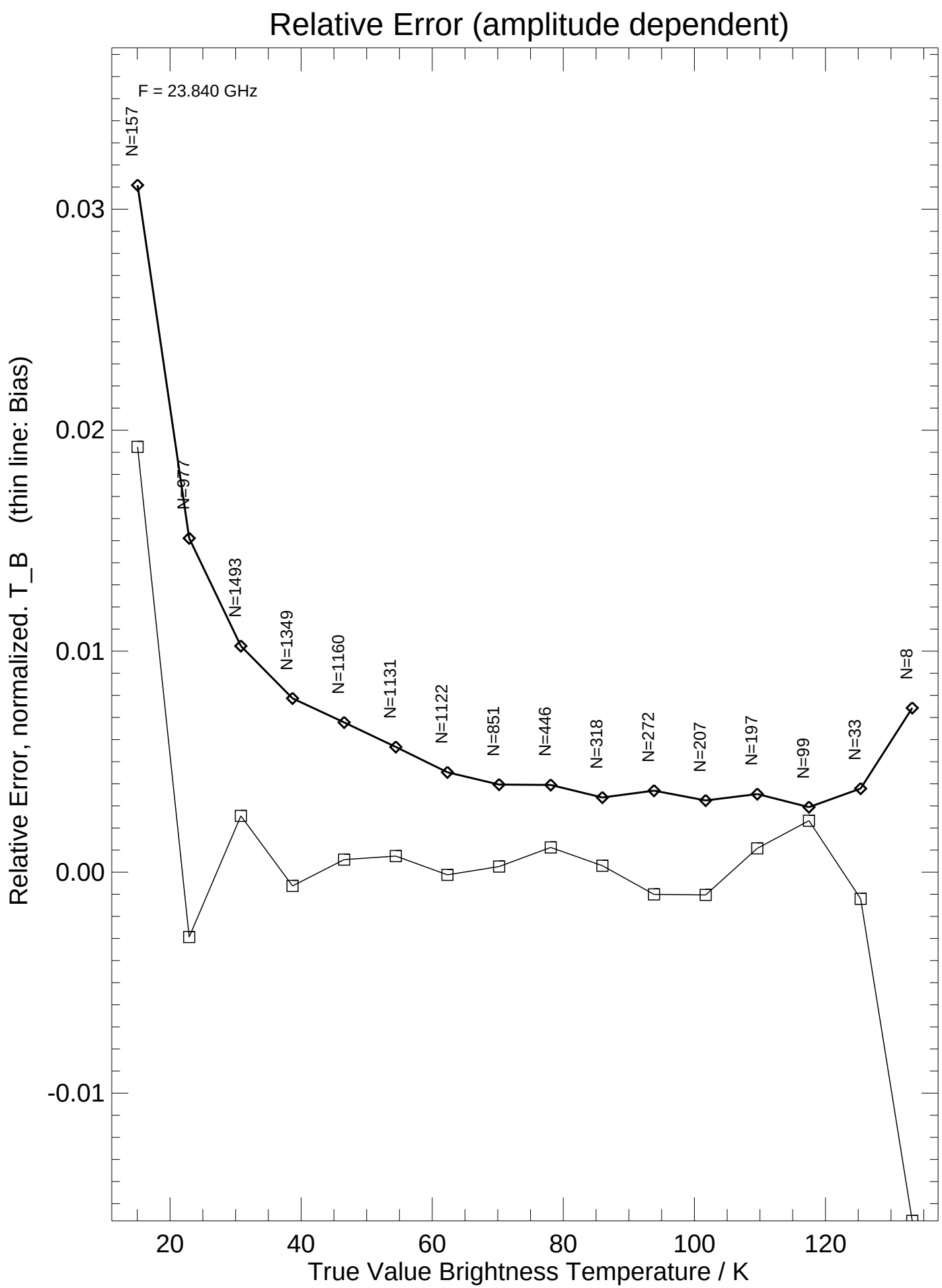

Absolute Error (amplitude dependent)
F = 23.800 GHz
Mean StD = 0.38 Max StD = 0.99
Mean bias = 0.22 Max bias = 2.10
N=153
N=959
N=1476
N=1346
N=1153
N=1130
N=1123
N=860
N=471
N=321
N=276
N=214
N=192
N=105
N=33
N=8
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

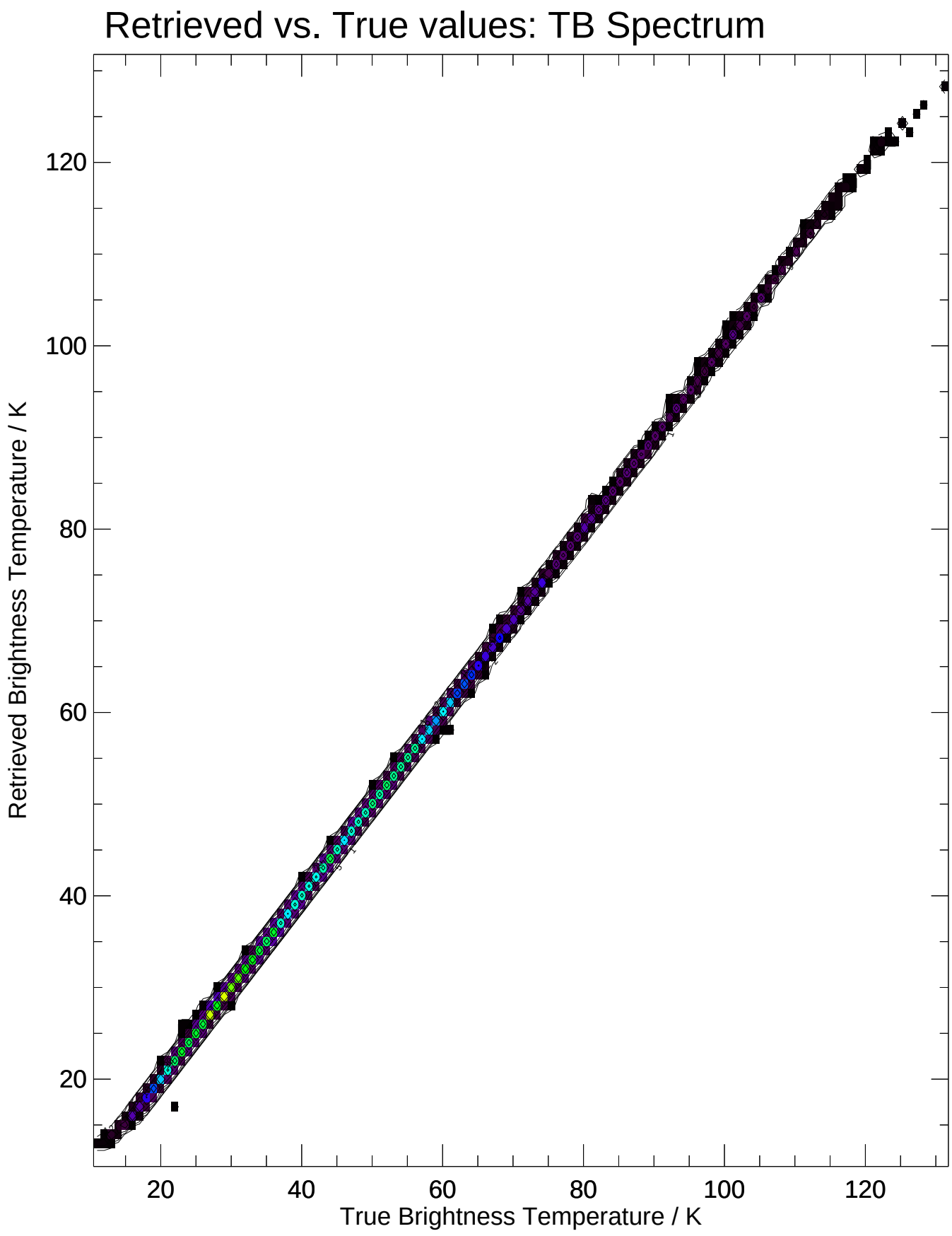

Relative Error (amplitude dependent)
F = 23.800 GHz
N=153
N=959
N=1476
N=1346
N=1153
N=1130
N=1123
N=860
N=471
N=321
N=276
N=214
N=192
N=105
N=33
N=8
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

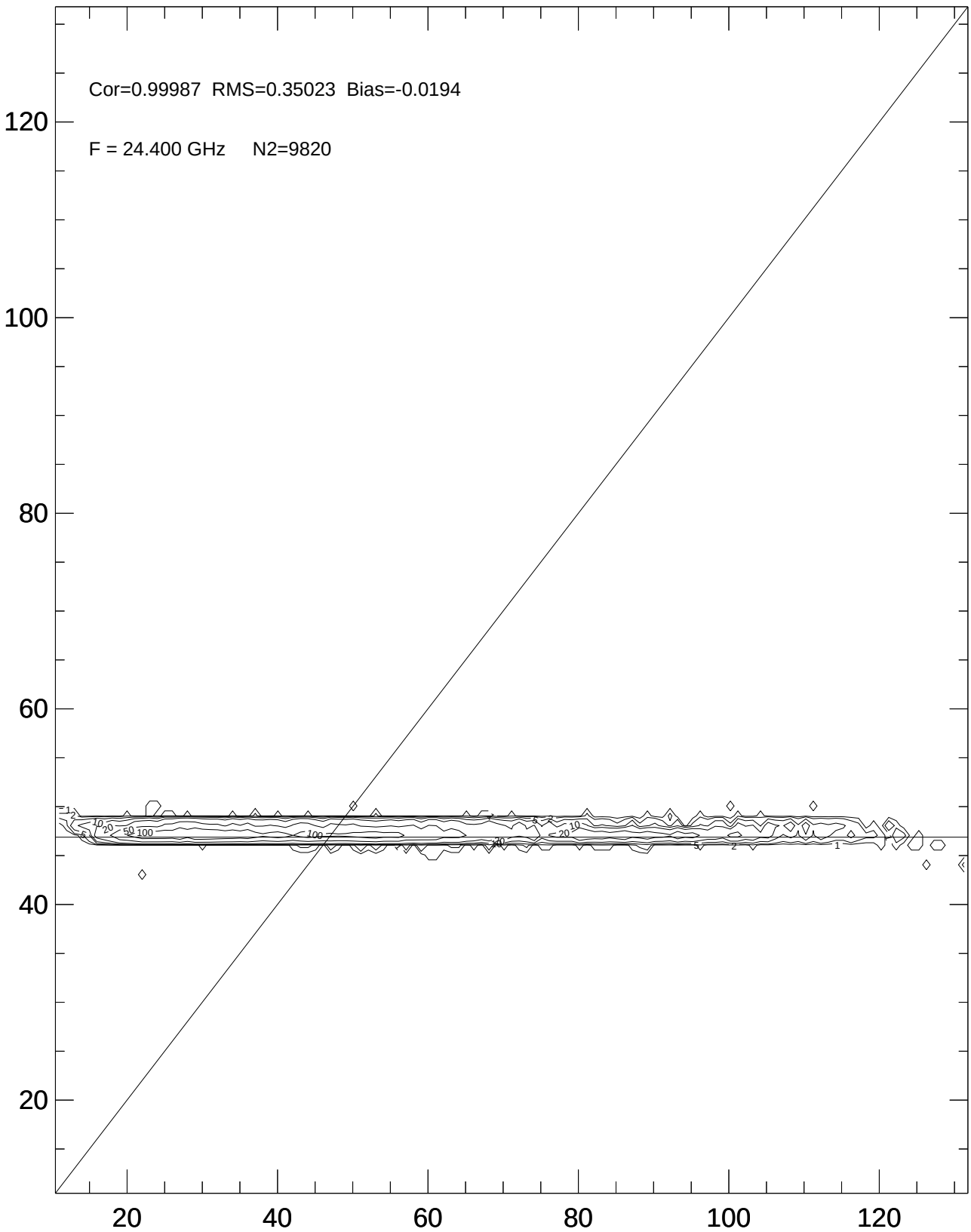

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

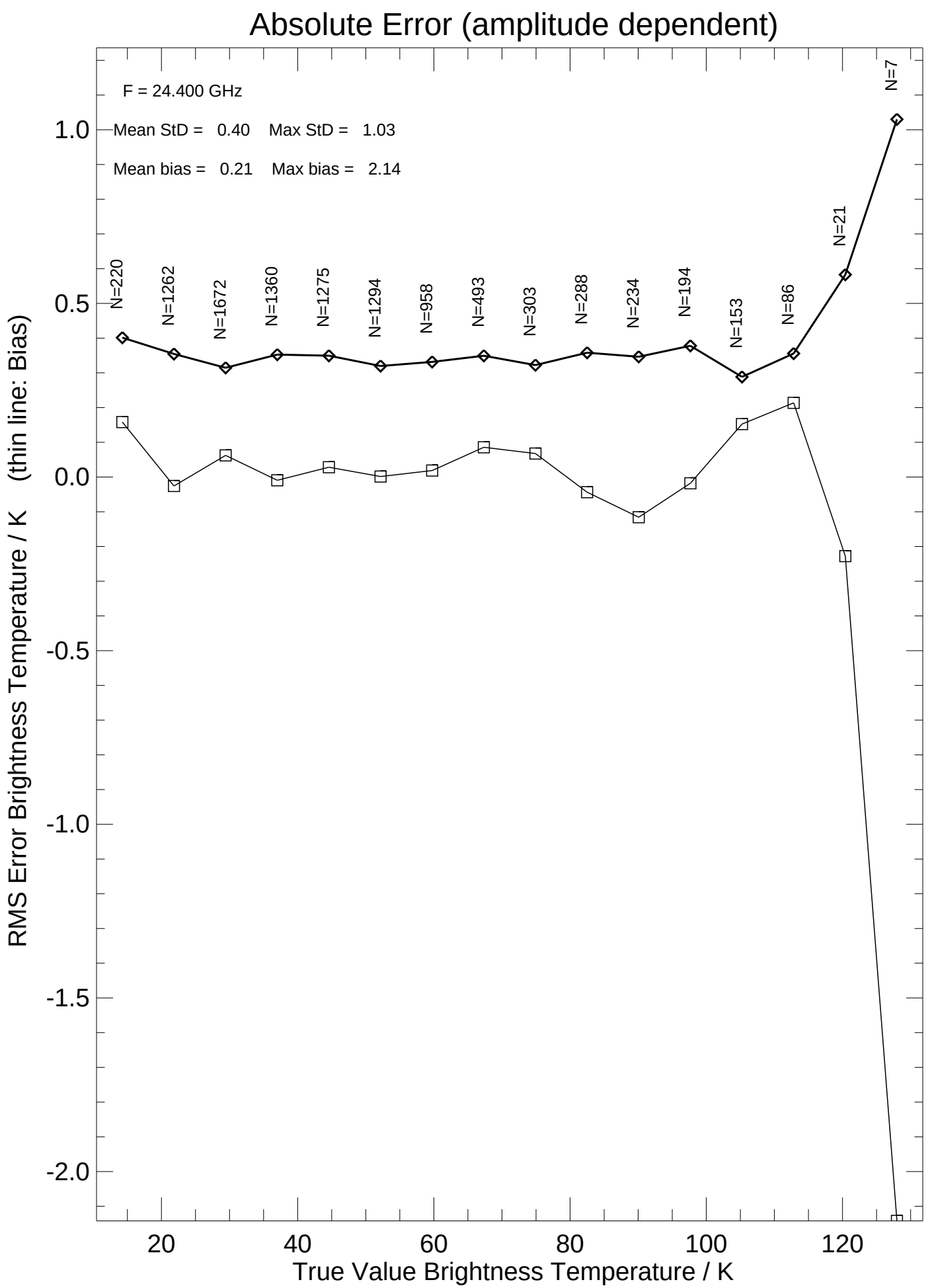

Cor=0.99990 RMS=0.32946 Bias=-0.0178
F = 23.840 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

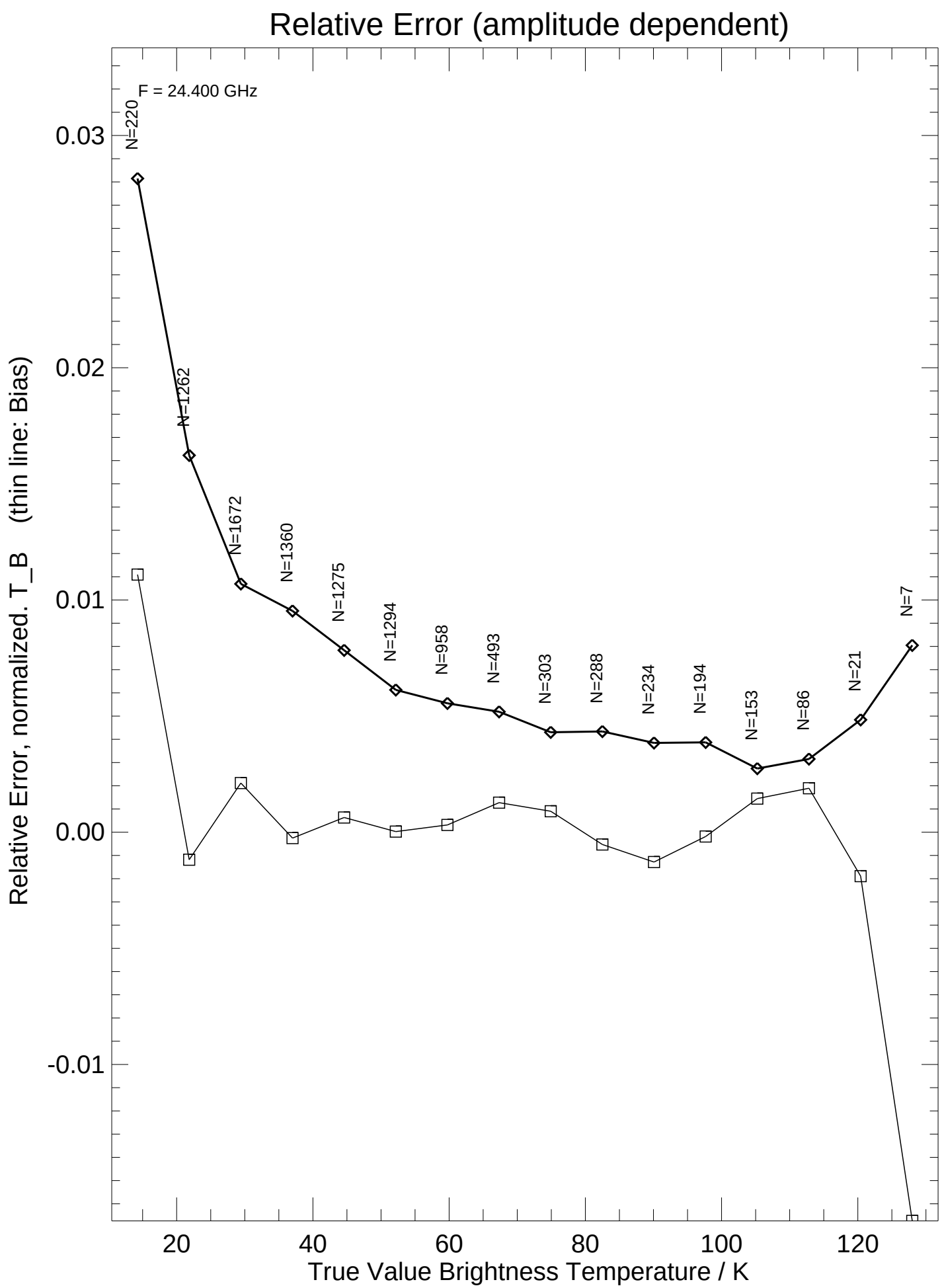

Absolute Error (amplitude dependent)
F = 23.840 GHz
Mean StD = 0.38 Max StD = 0.99
Mean bias = 0.22 Max bias = 2.10
N=157
N=977
N=1493
N=1349
N=1160
N=1131
N=1122
N=851
N=446
N=318
N=272
N=207
N=197
N=99
N=33
N=8
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

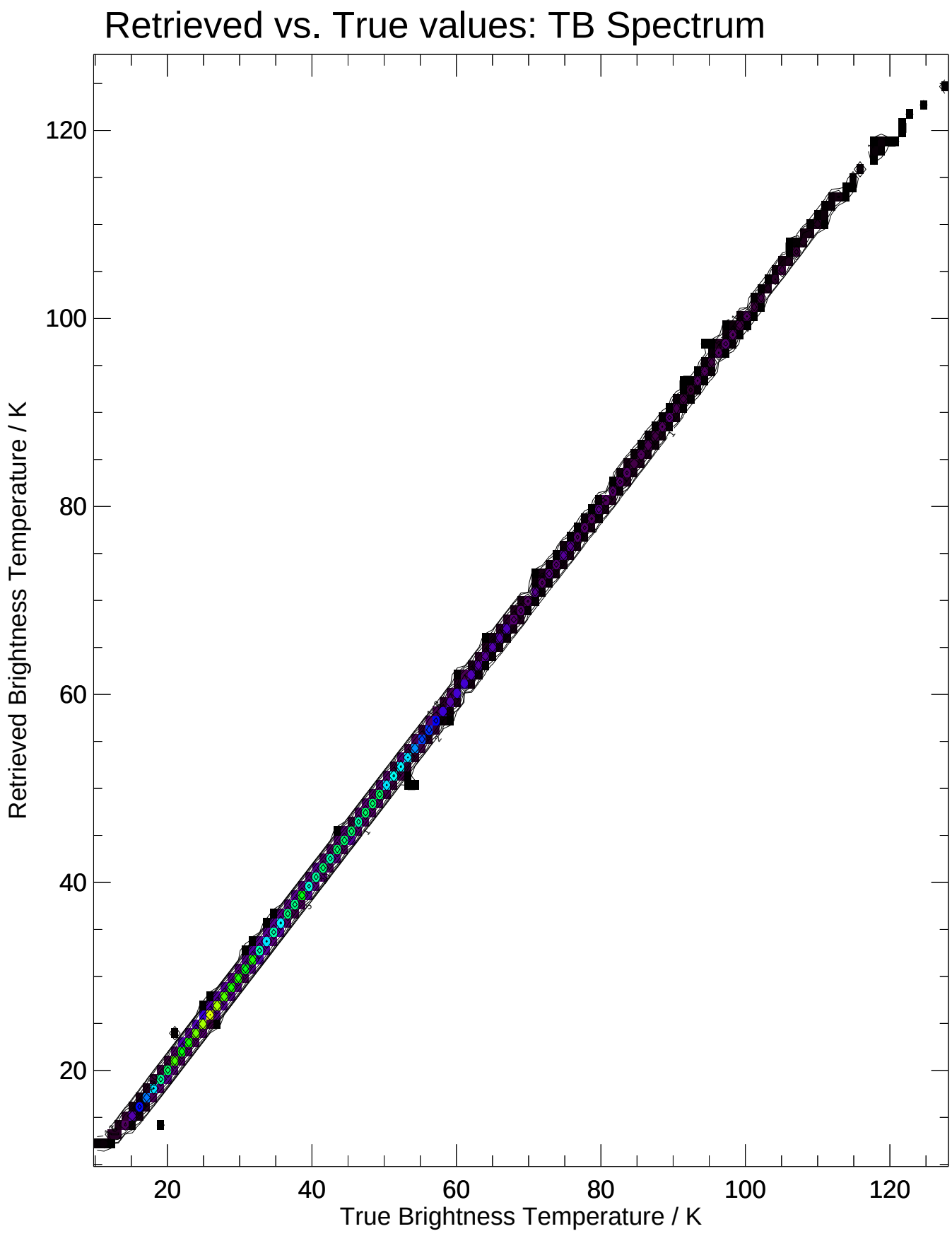

Relative Error (amplitude dependent)
F = 23.840 GHz
N=157
N=977
N=1493
N=1349
N=1160
N=1131
N=1122
N=851
N=446
N=318
N=272
N=207
N=197
N=99
N=33
N=8
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

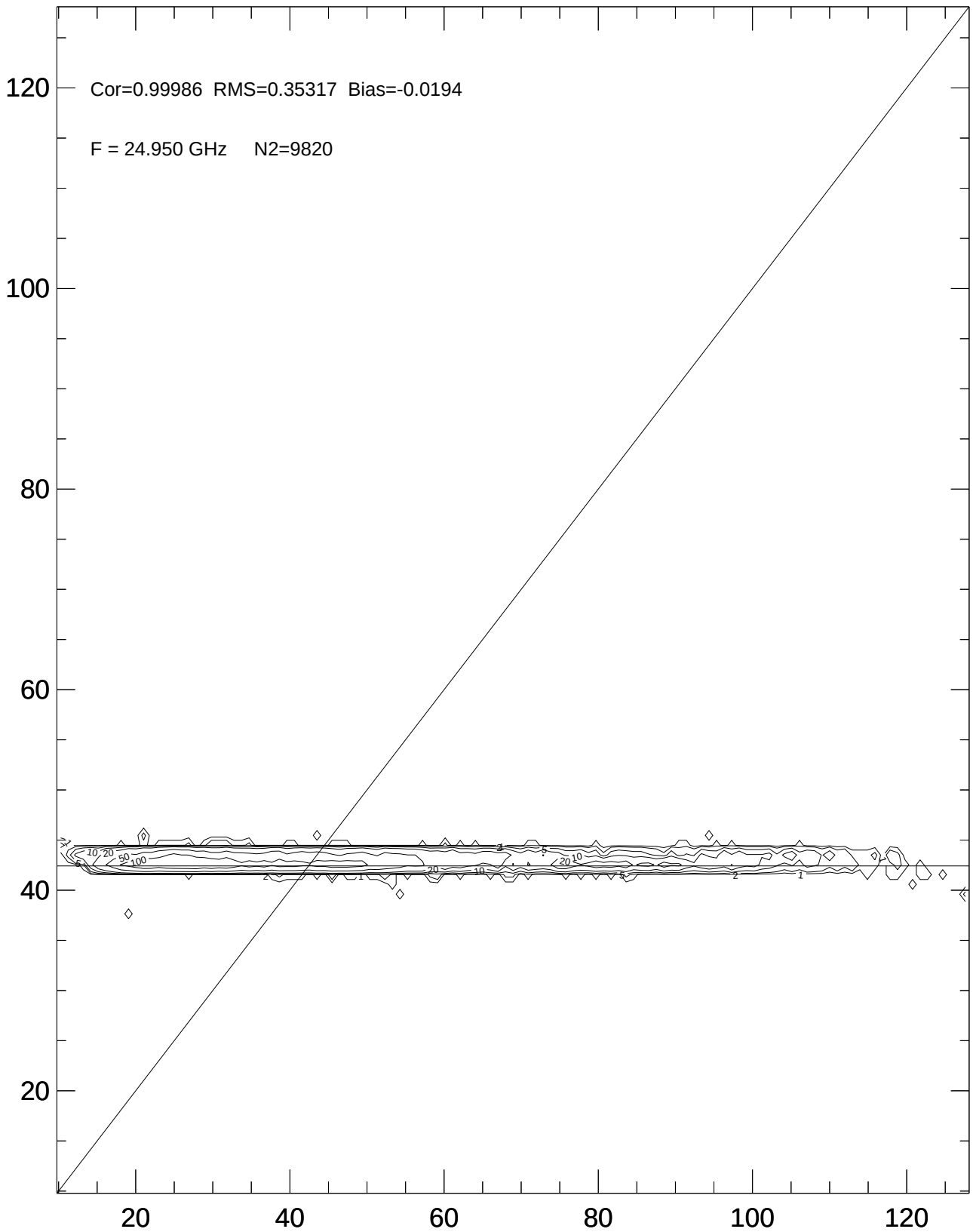

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

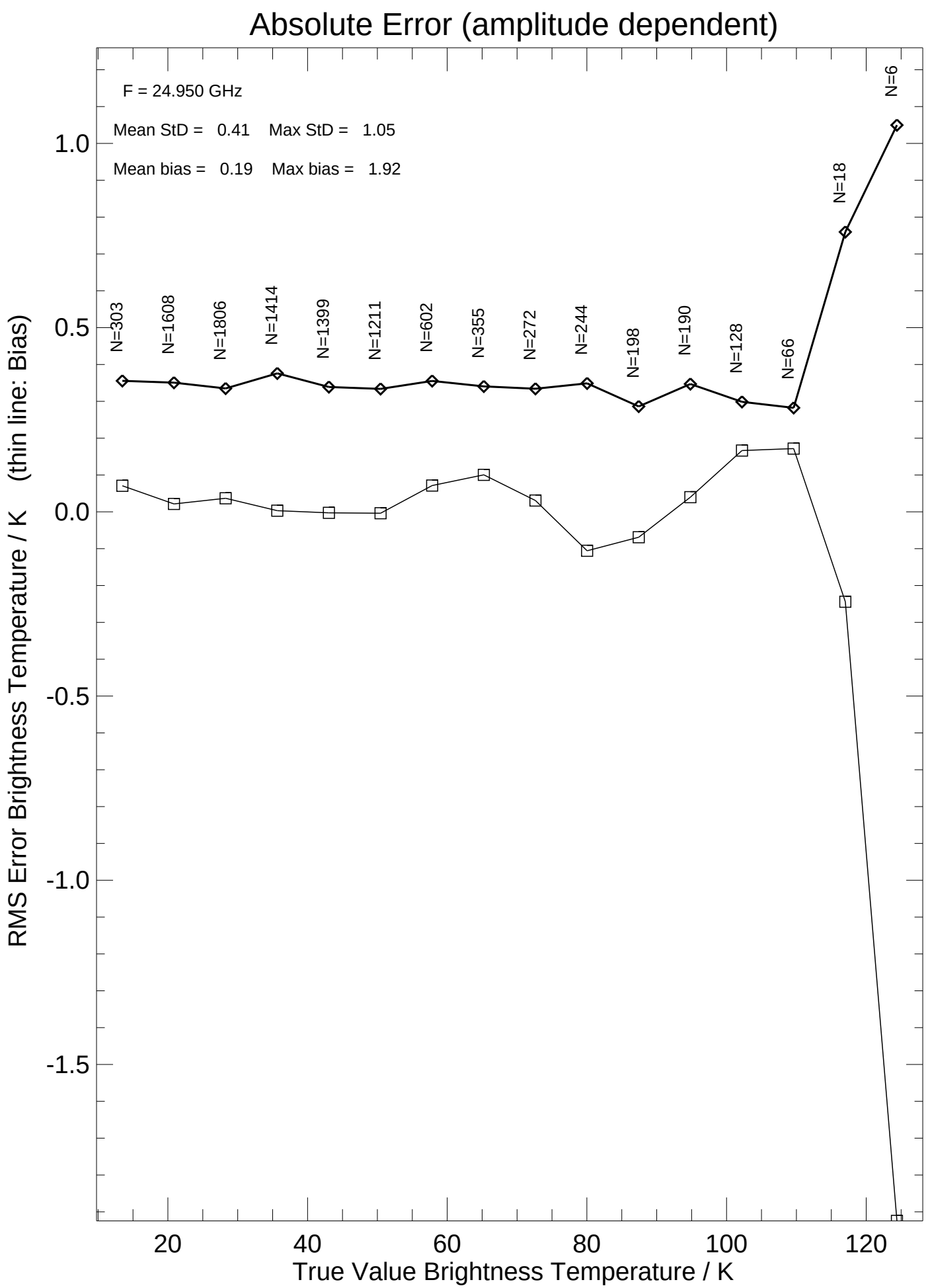

Cor=0.99987 RMS=0.35023 Bias=-0.0194
F = 24.400 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

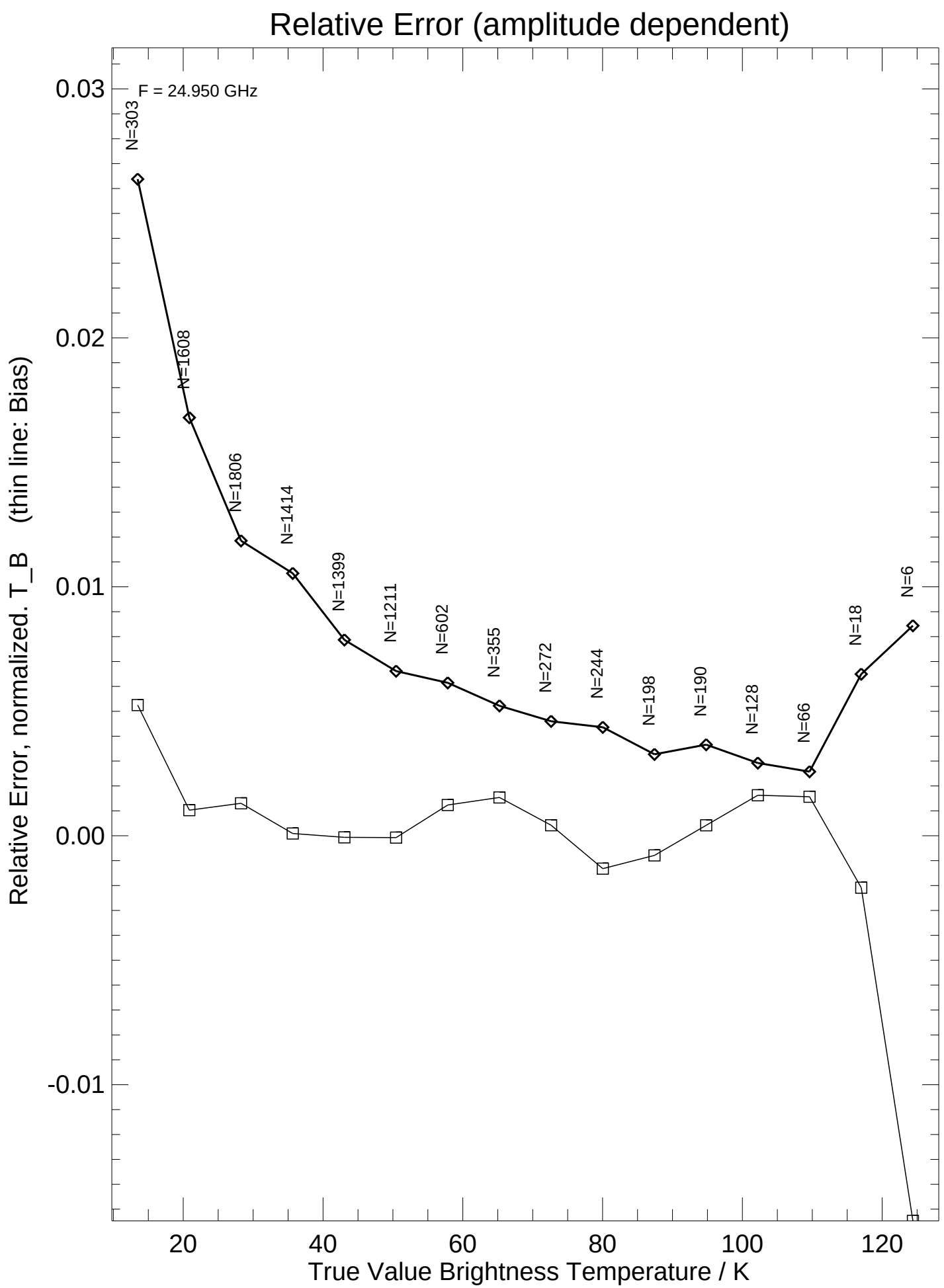

Absolute Error (amplitude dependent)
F = 24.400 GHz
Mean StD = 0.40 Max StD = 1.03
Mean bias = 0.21 Max bias = 2.14
N=220
N=1262
N=1672
N=1360
N=1275
N=1294
N=958
N=493
N=303
N=288
N=234
N=194
N=153
N=86
N=21
N=7
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

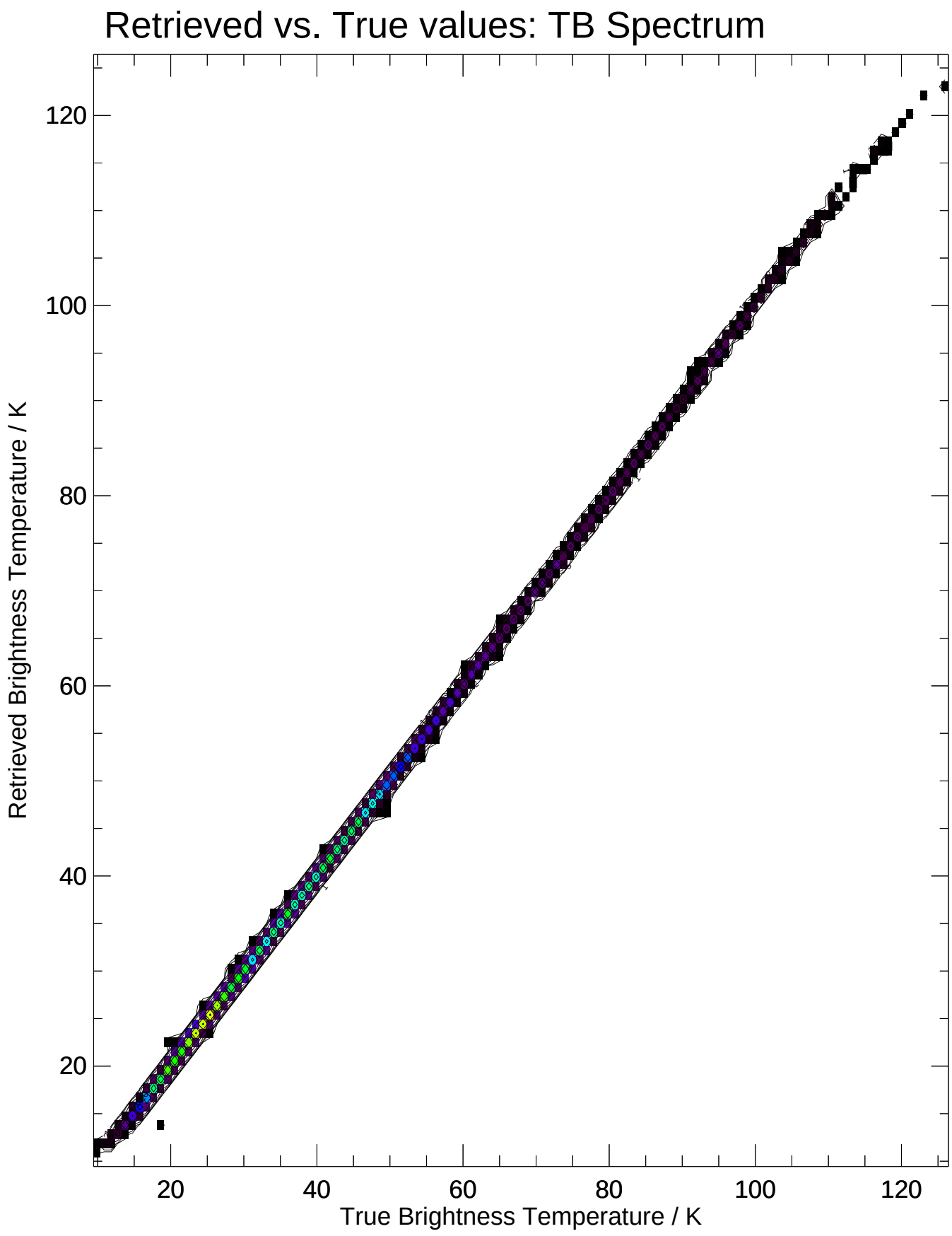

Relative Error (amplitude dependent)
F = 24.400 GHz
N=220
N=1262
N=1672
N=1360
N=1275
N=1294
N=958
N=493
N=303
N=288
N=234
N=194
N=153
N=86
N=21
N=7
0.03
0.02
0.01
0.00
-0.01
20
40
60
80
100
120
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

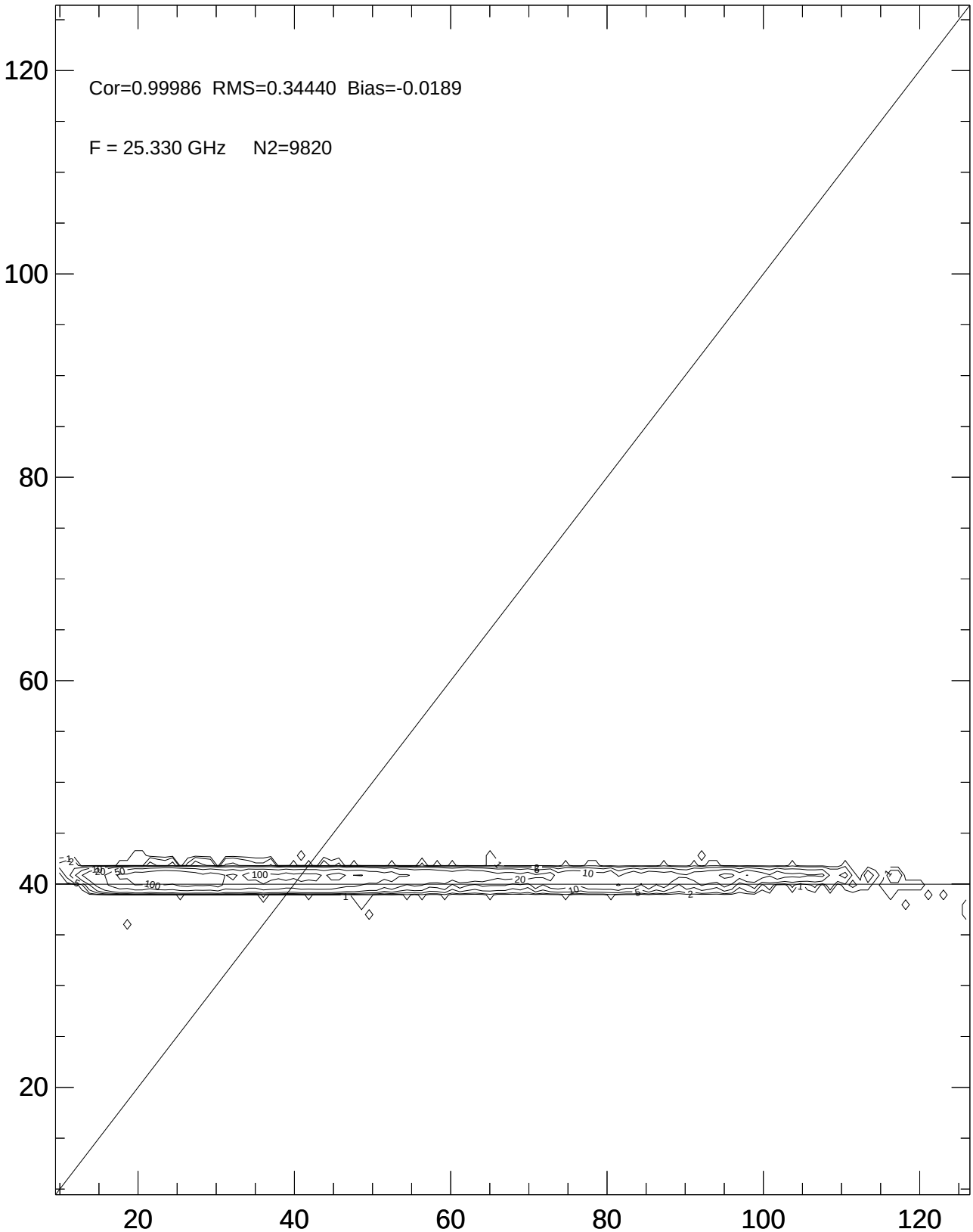

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

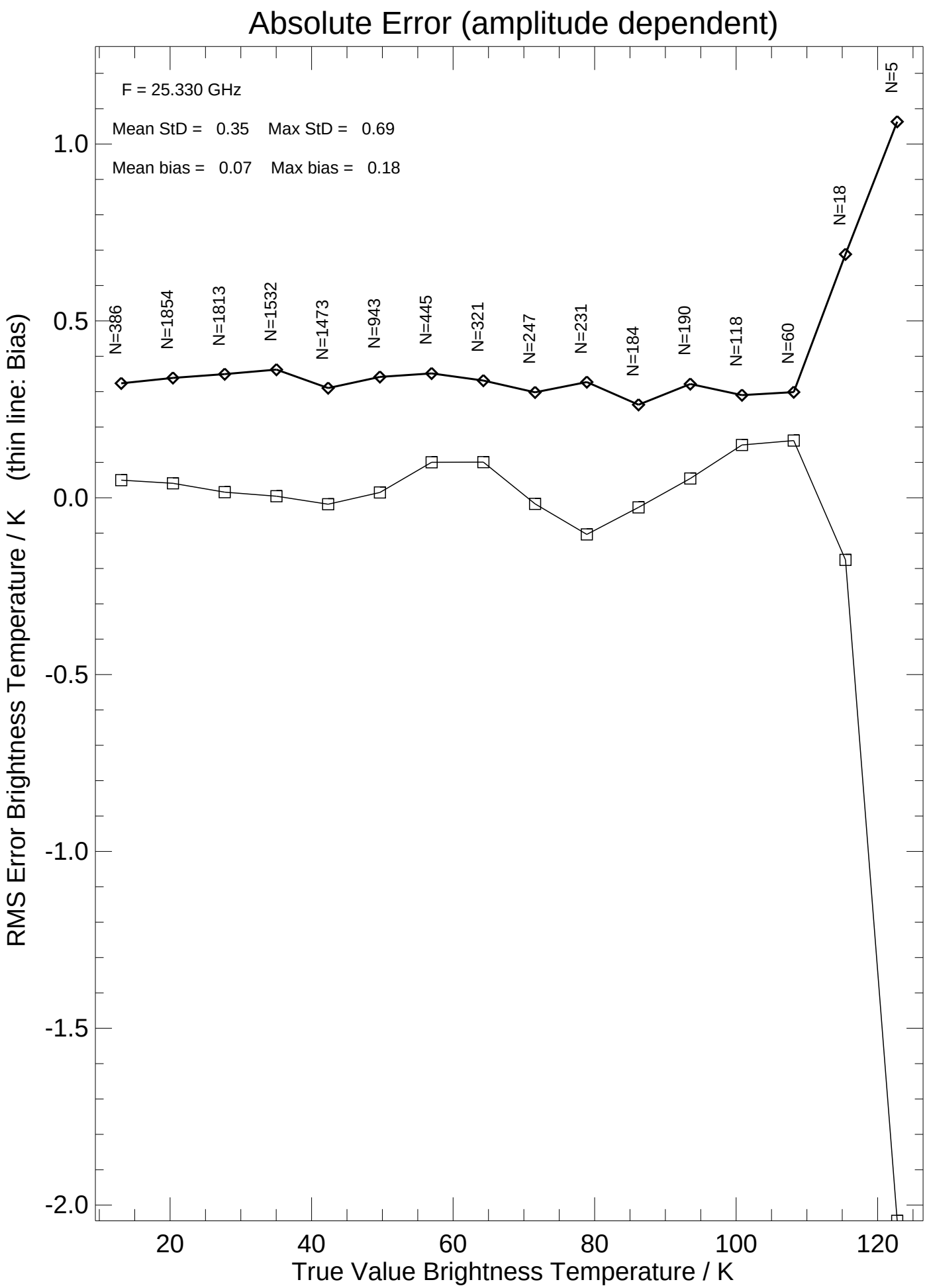

Cor=0.99986 RMS=0.35317 Bias=-0.0194
F = 24.950 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

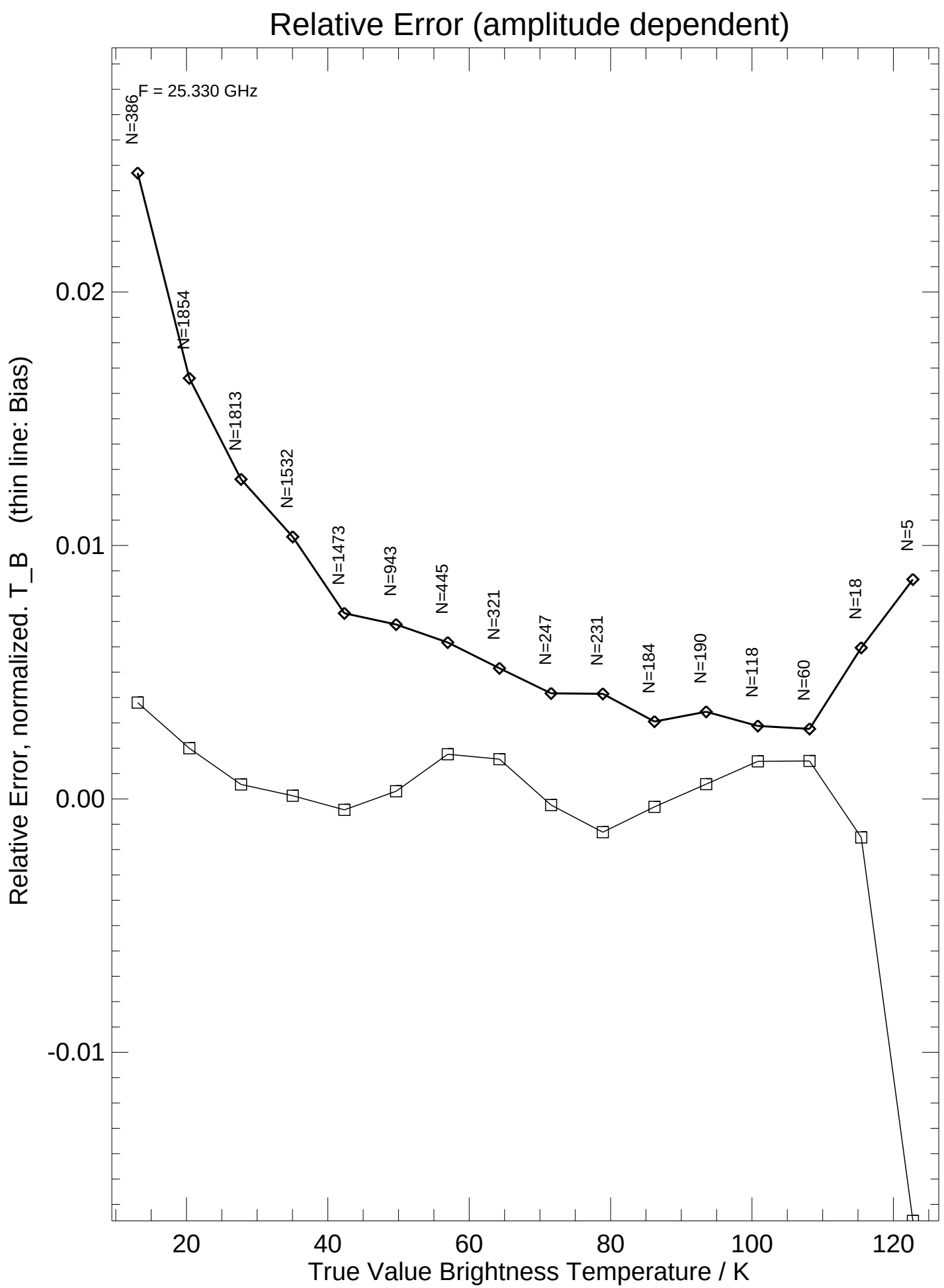

Absolute Error (amplitude dependent)
F = 24.950 GHz
Mean StD = 0.41 Max StD = 1.05
Mean bias = 0.19 Max bias = 1.92
N=303
N=1608
N=1806
N=1414
N=1399
N=1211
N=602
N=355
N=272
N=244
N=198
N=190
N=128
N=66
N=18
N=6
1.0
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

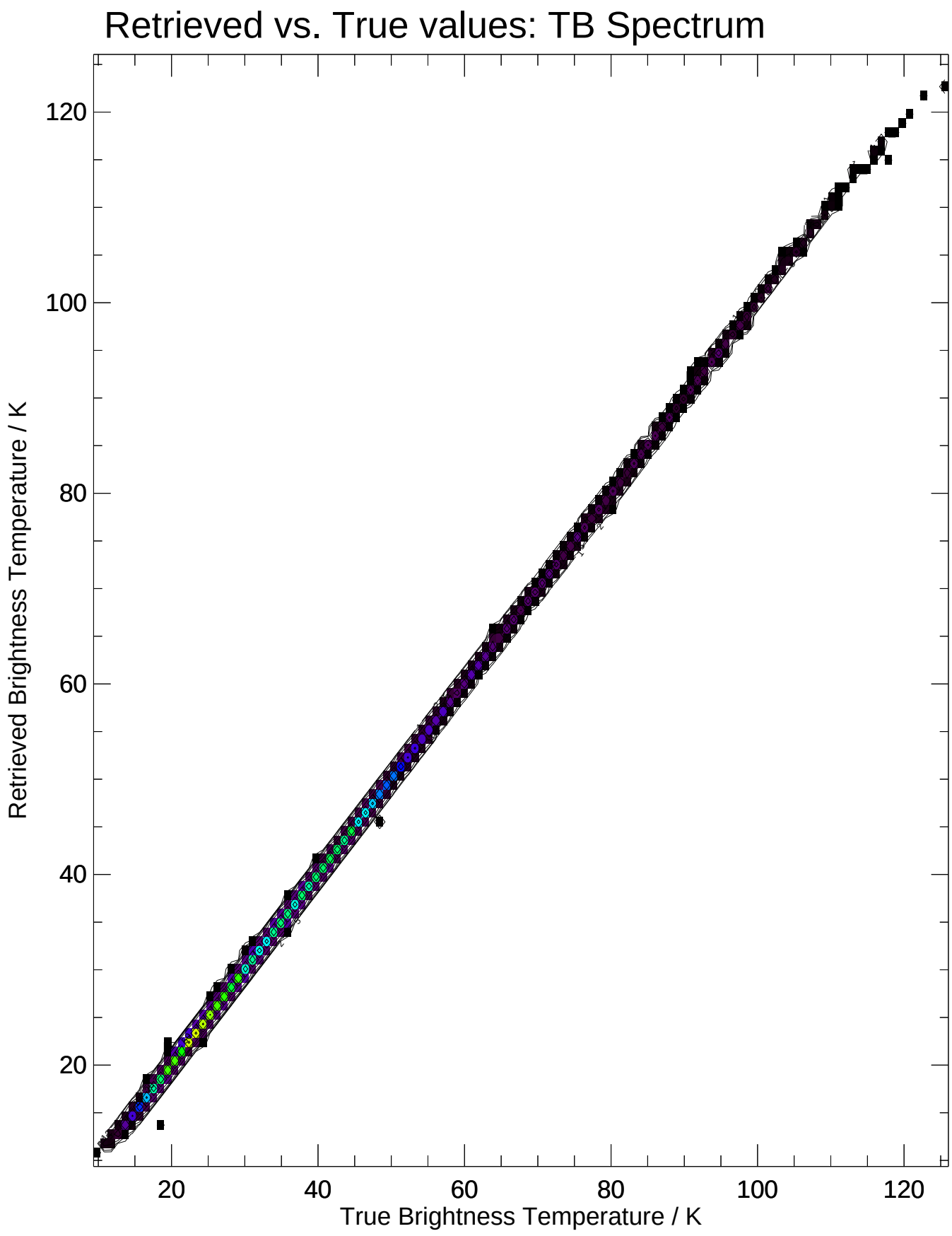

Relative Error (amplitude dependent)
F = 24.950 GHz
N=303
N=1608
N=1806
N=1414
N=1399
N=1211
N=602
N=355
N=272
N=244
N=198
N=190
N=128
N=66
N=18
N=6
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

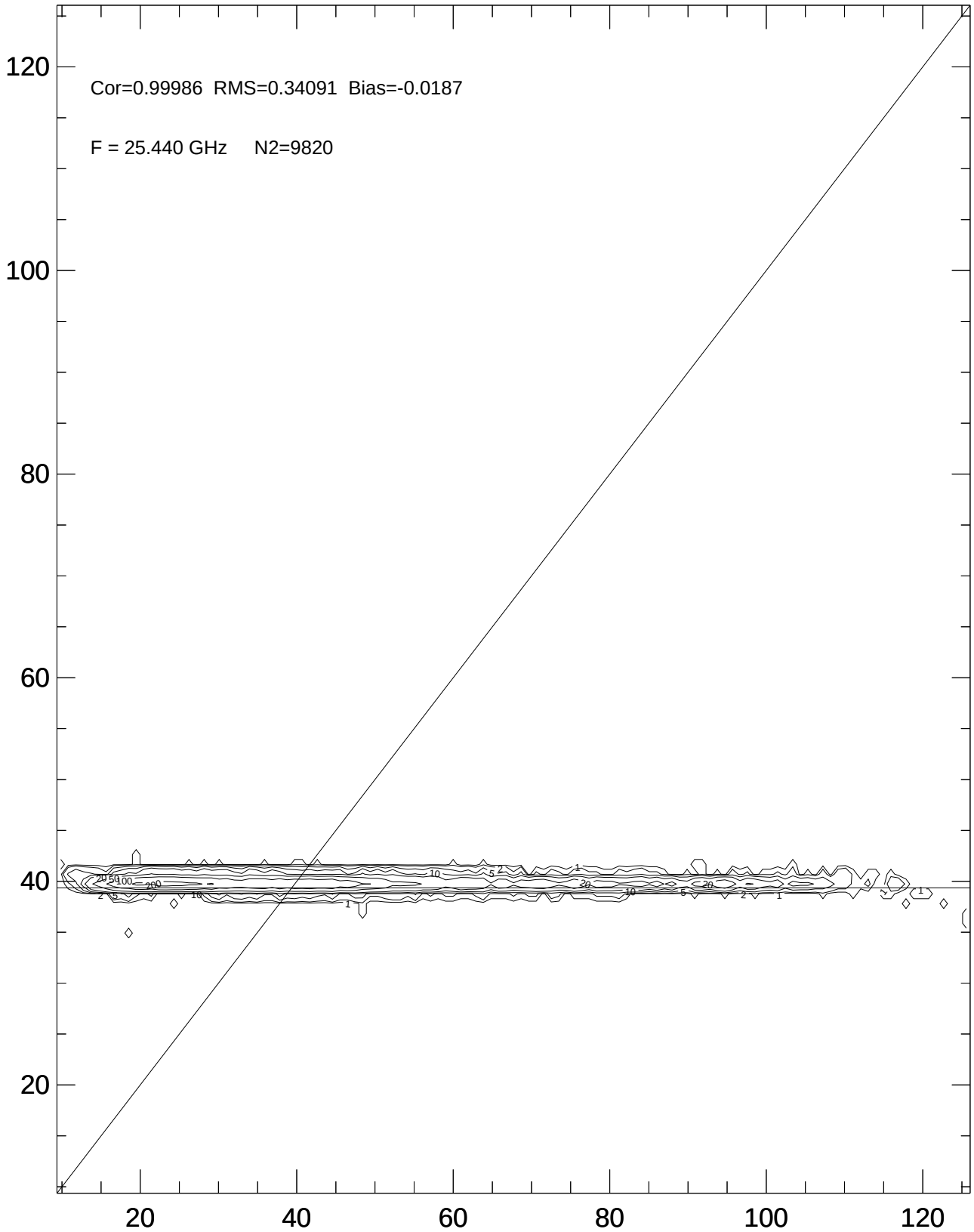

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

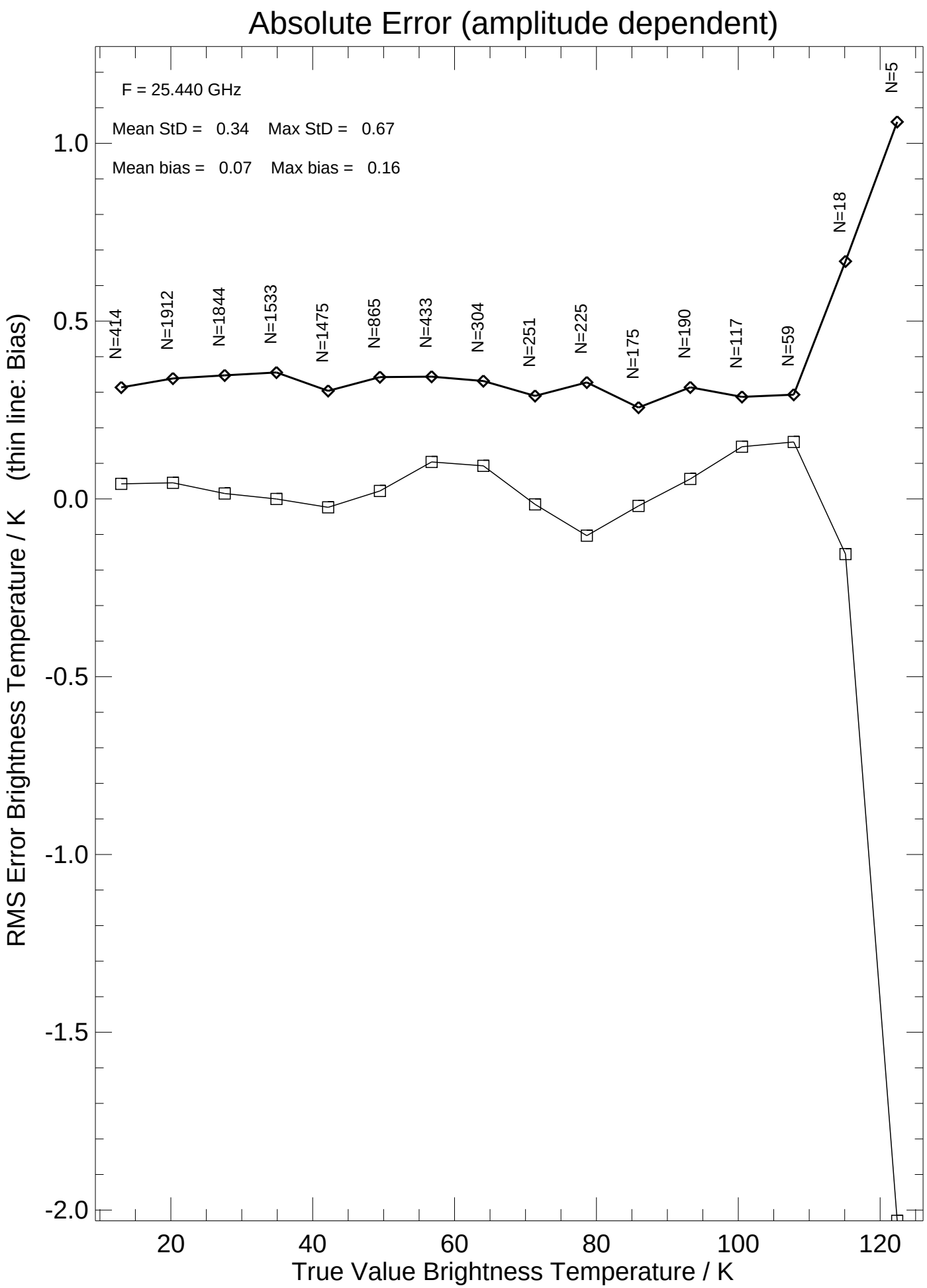

Cor=0.99986 RMS=0.34440 Bias=-0.0189
F = 25.330 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

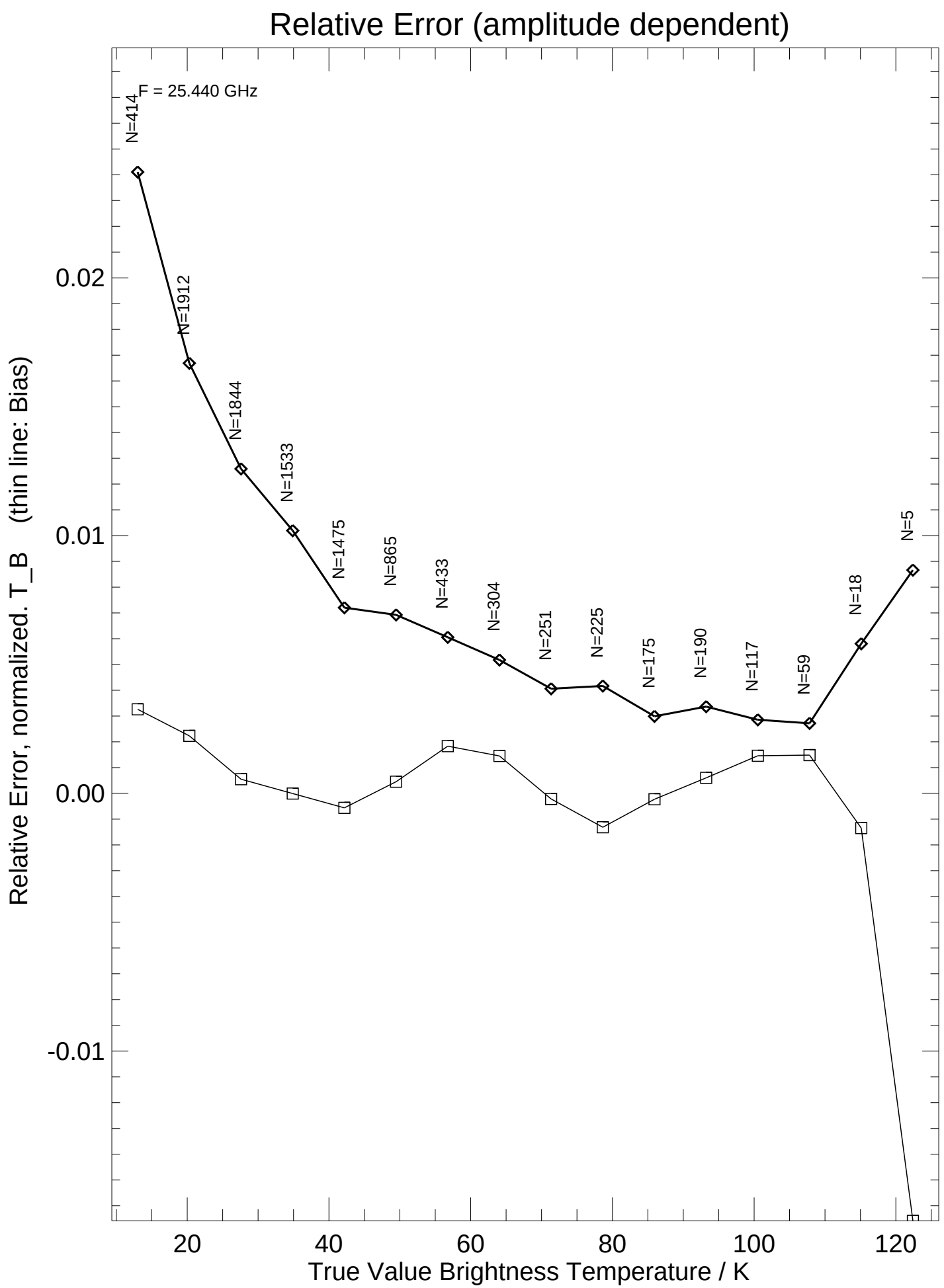

Absolute Error (amplitude dependent)
F = 25.330 GHz
Mean StD = 0.35 Max StD = 0.69
Mean bias = 0.07 Max bias = 0.18
N=386
N=1854
N=1813
N=1532
N=1473
N=943
N=445
N=321
N=247
N=231
N=184
N=190
N=118
N=60
N=18
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

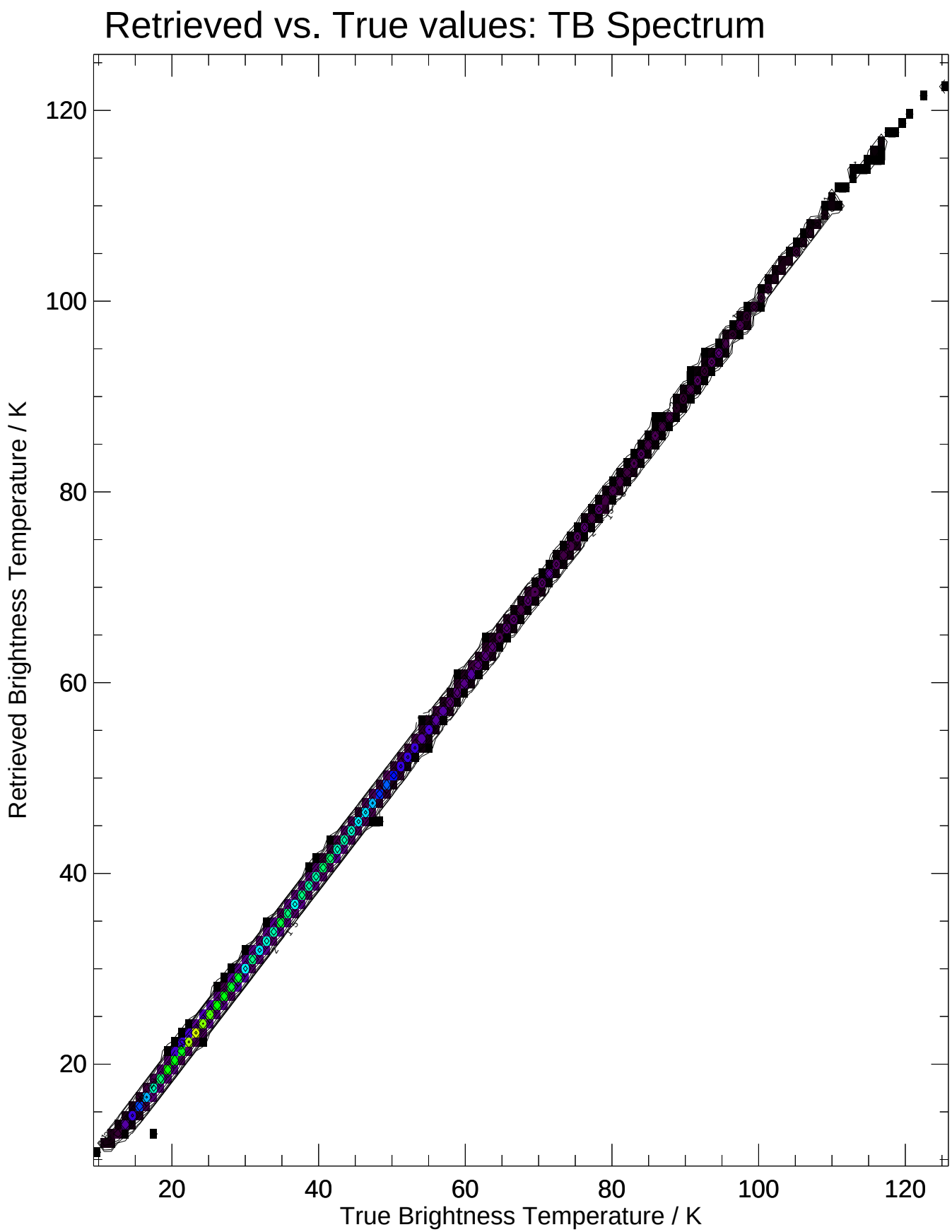

Relative Error (amplitude dependent)
F = 25.330 GHz
N=386
N=1854
N=1813
N=1532
N=1473
N=943
N=445
N=321
N=247
N=231
N=184
N=190
N=118
N=60
N=18
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

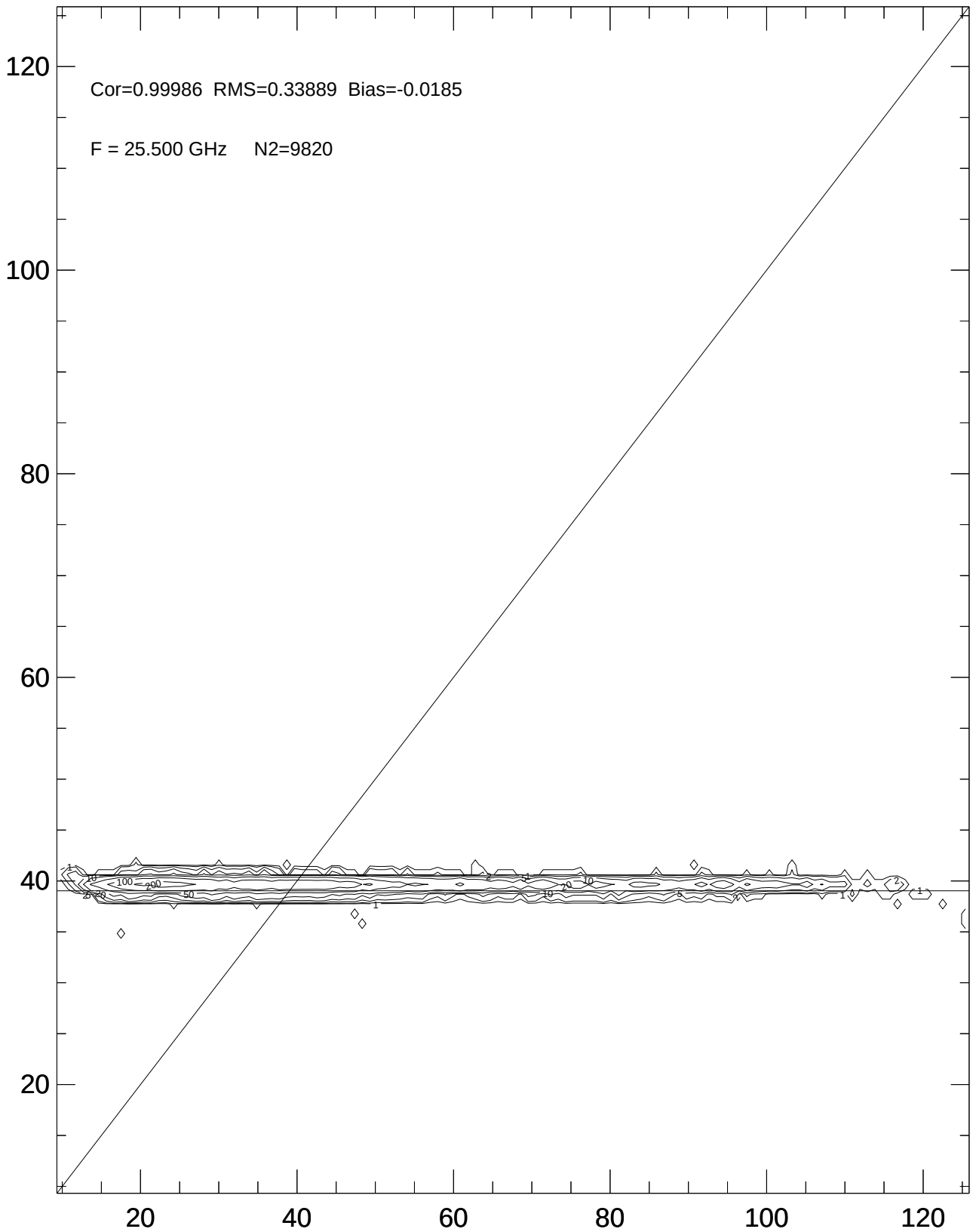

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

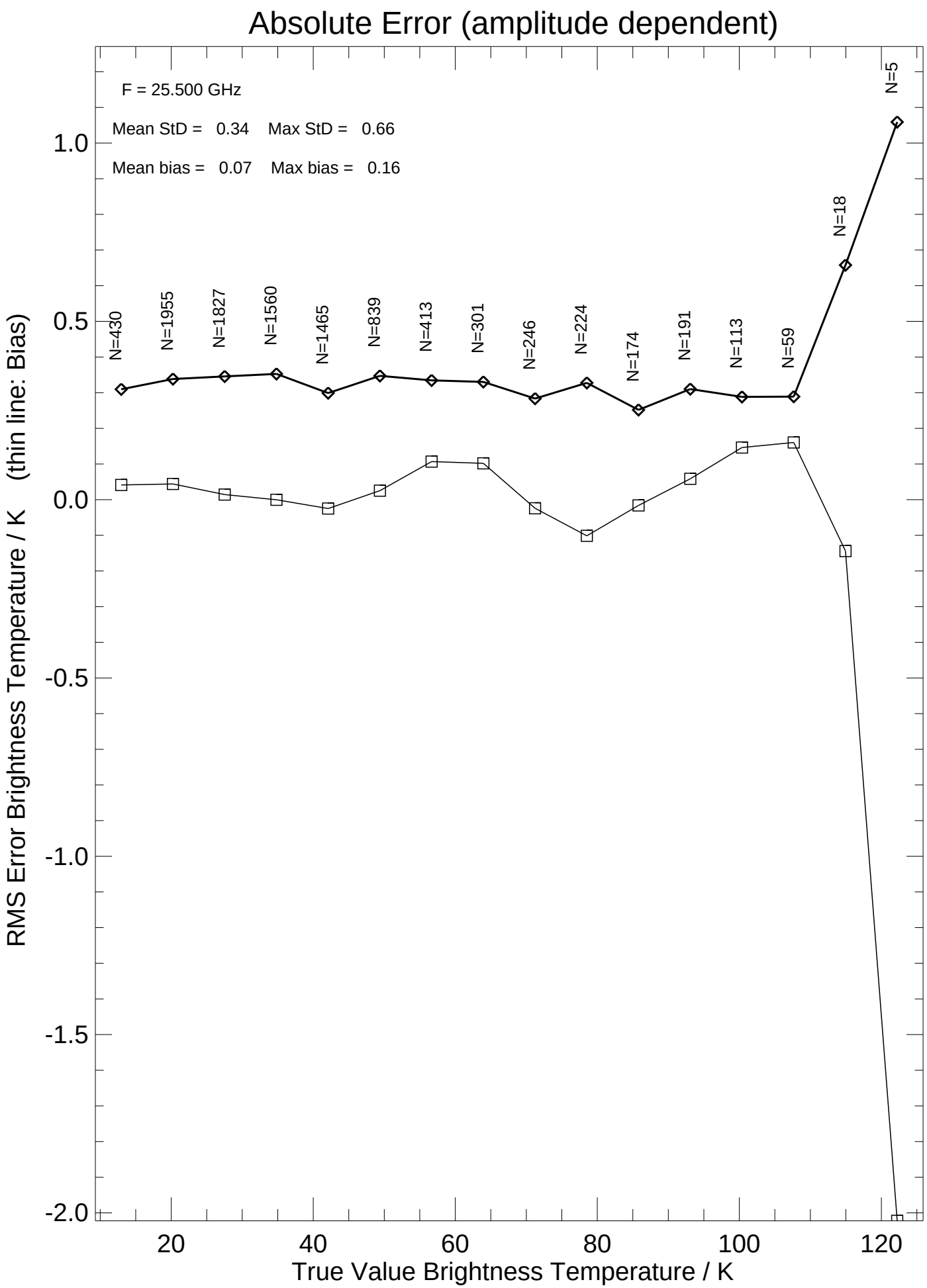

Cor=0.99986 RMS=0.34091 Bias=-0.0187
F = 25.440 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

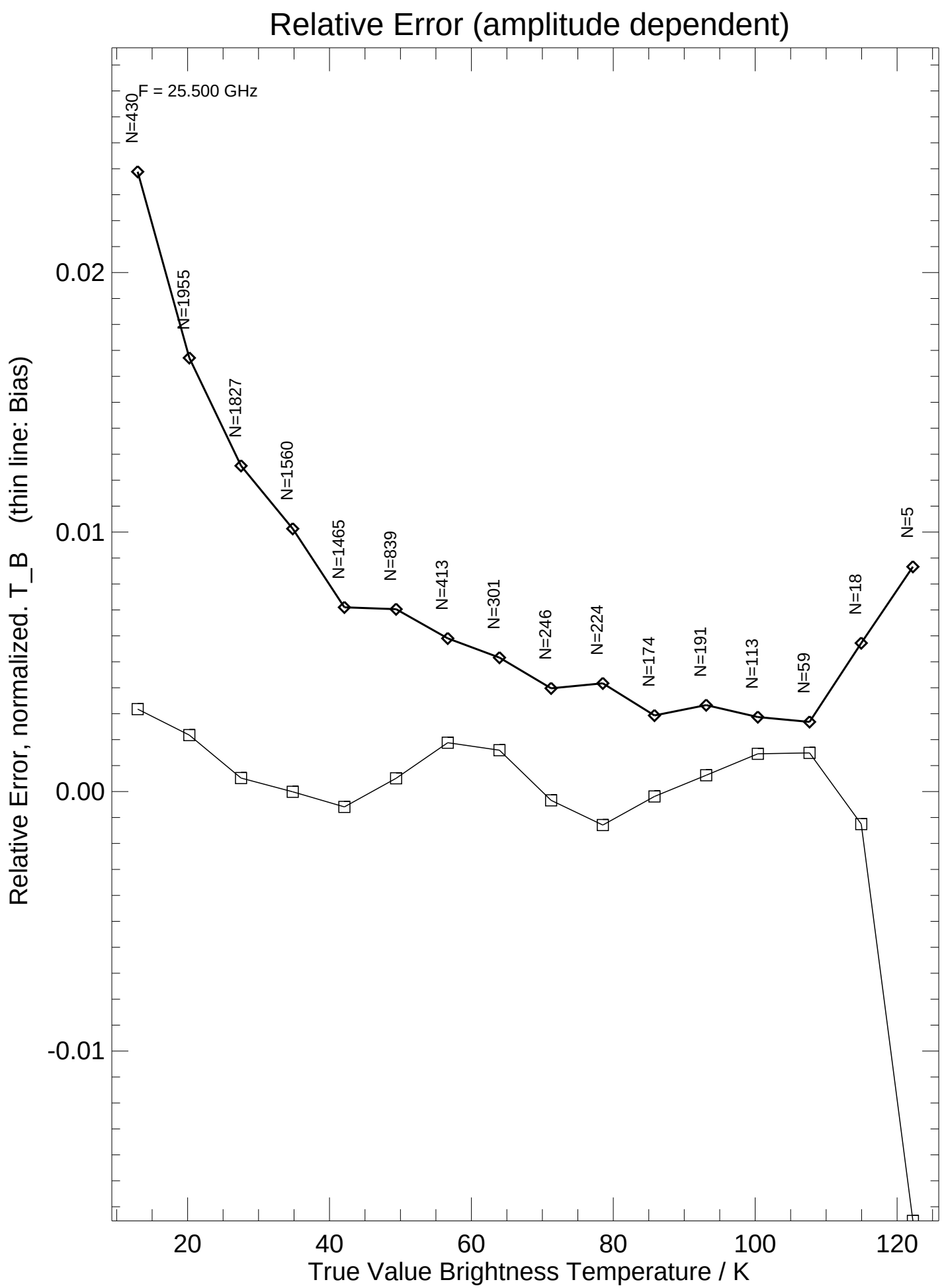

Absolute Error (amplitude dependent)
F = 25.440 GHz
Mean StD = 0.34 Max StD = 0.67
Mean bias = 0.07 Max bias = 0.16
N=414
N=1912
N=1844
N=1533
N=1475
N=865
N=433
N=304
N=251
N=225
N=175
N=190
N=117
N=59
N=18
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

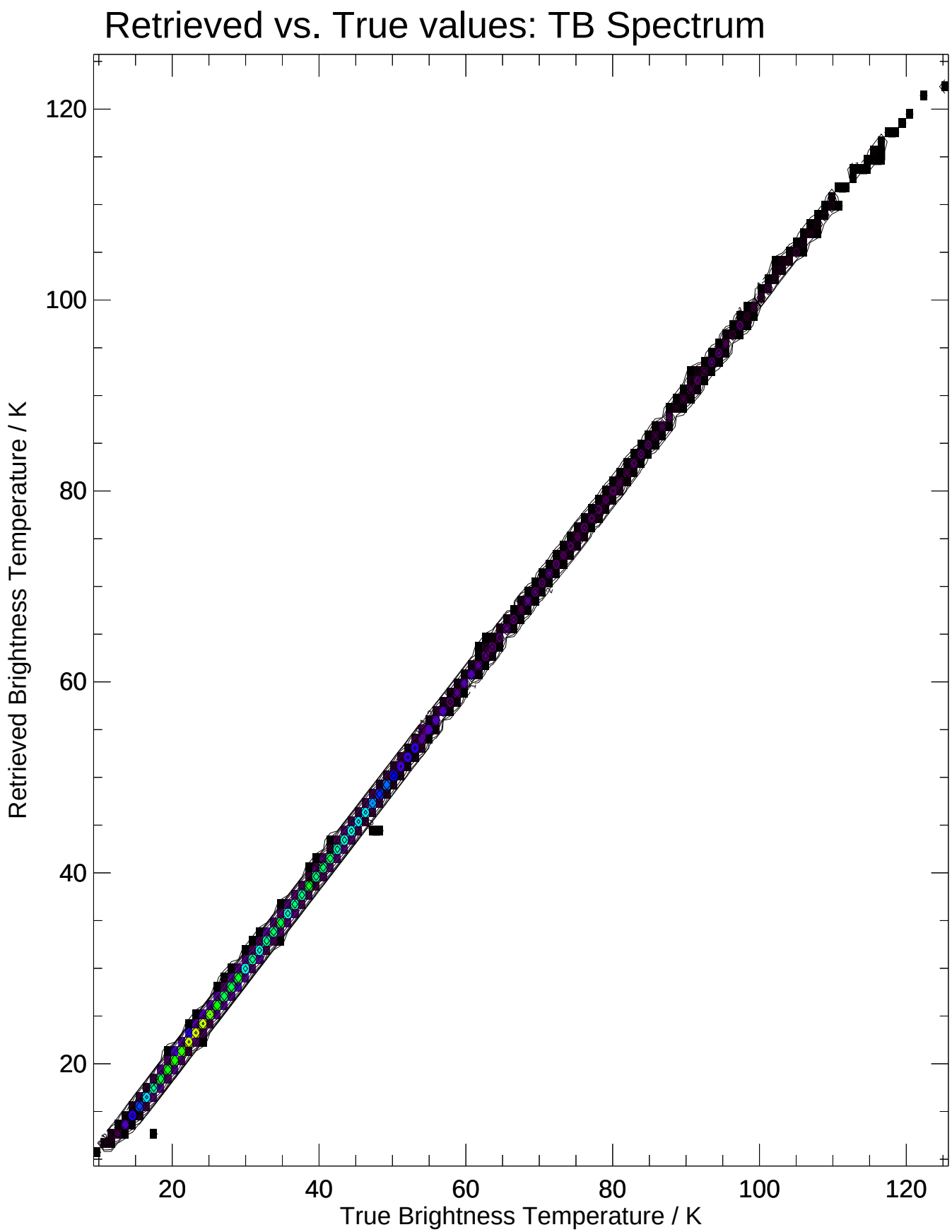

Relative Error (amplitude dependent)
F = 25.440 GHz
N=414
N=1912
N=1844
N=1533
N=1475
N=865
N=433
N=304
N=251
N=225
N=175
N=190
N=117
N=59
N=18
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

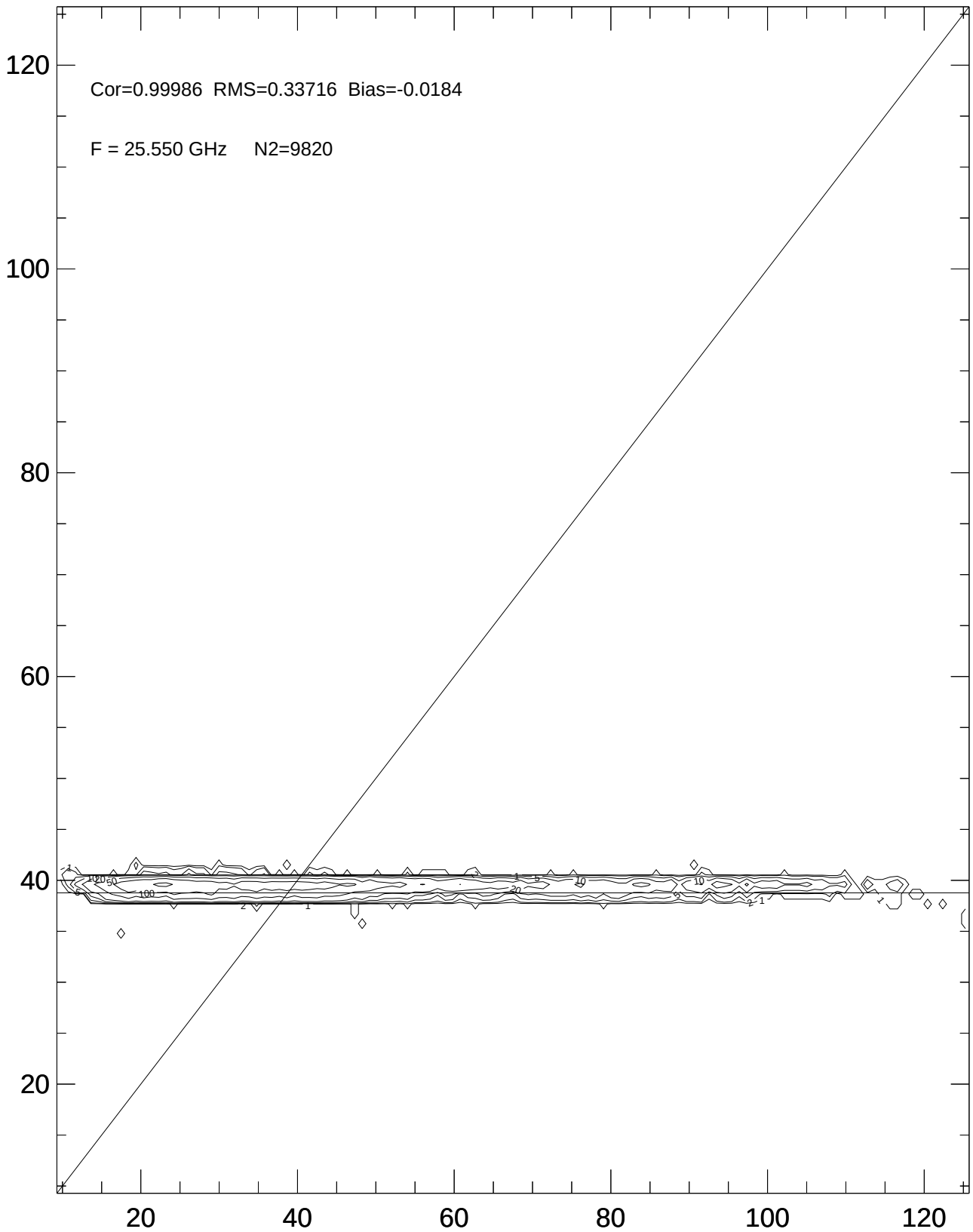

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

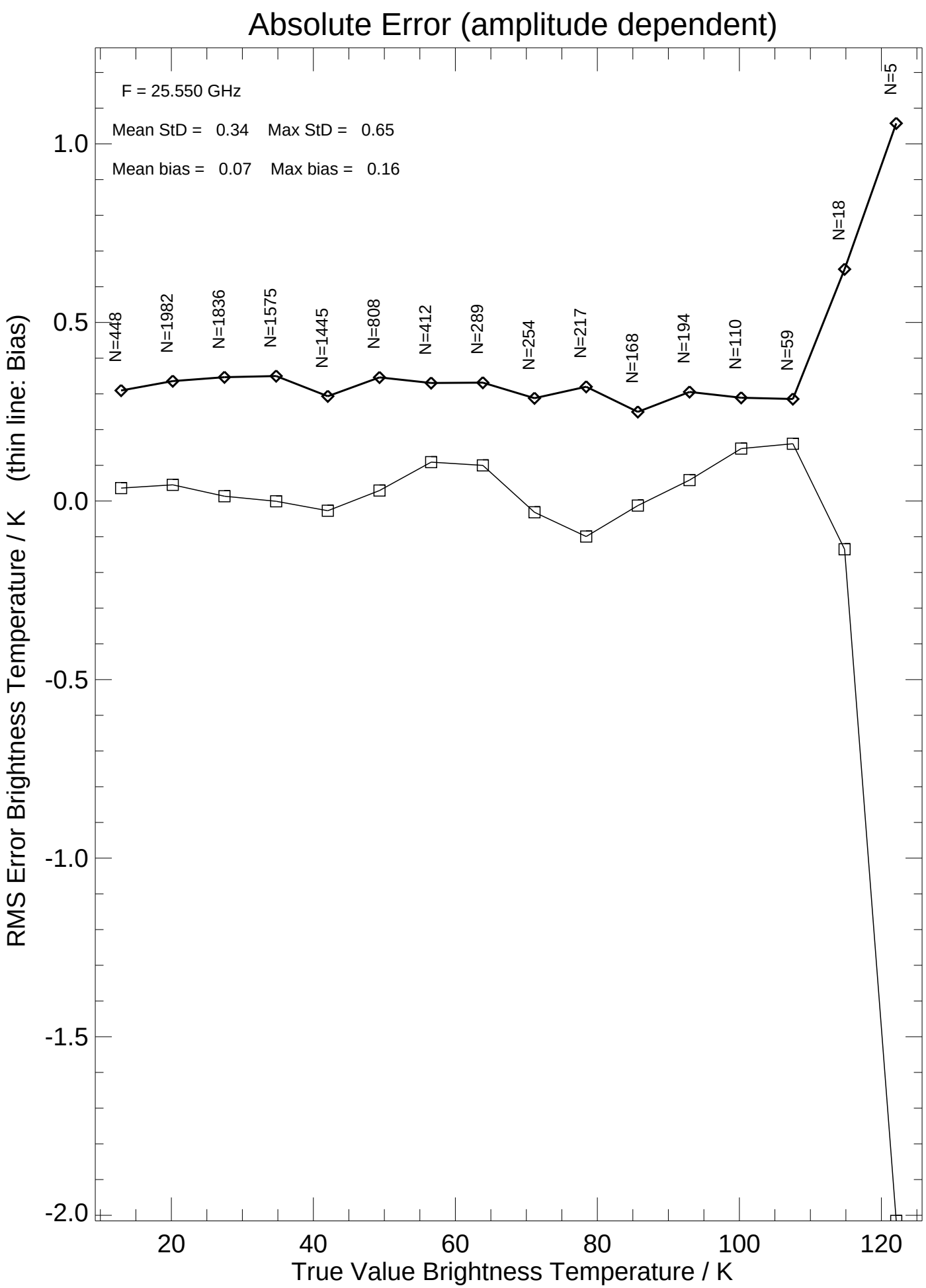

Cor=0.99986 RMS=0.33889 Bias=-0.0185
F = 25.500 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

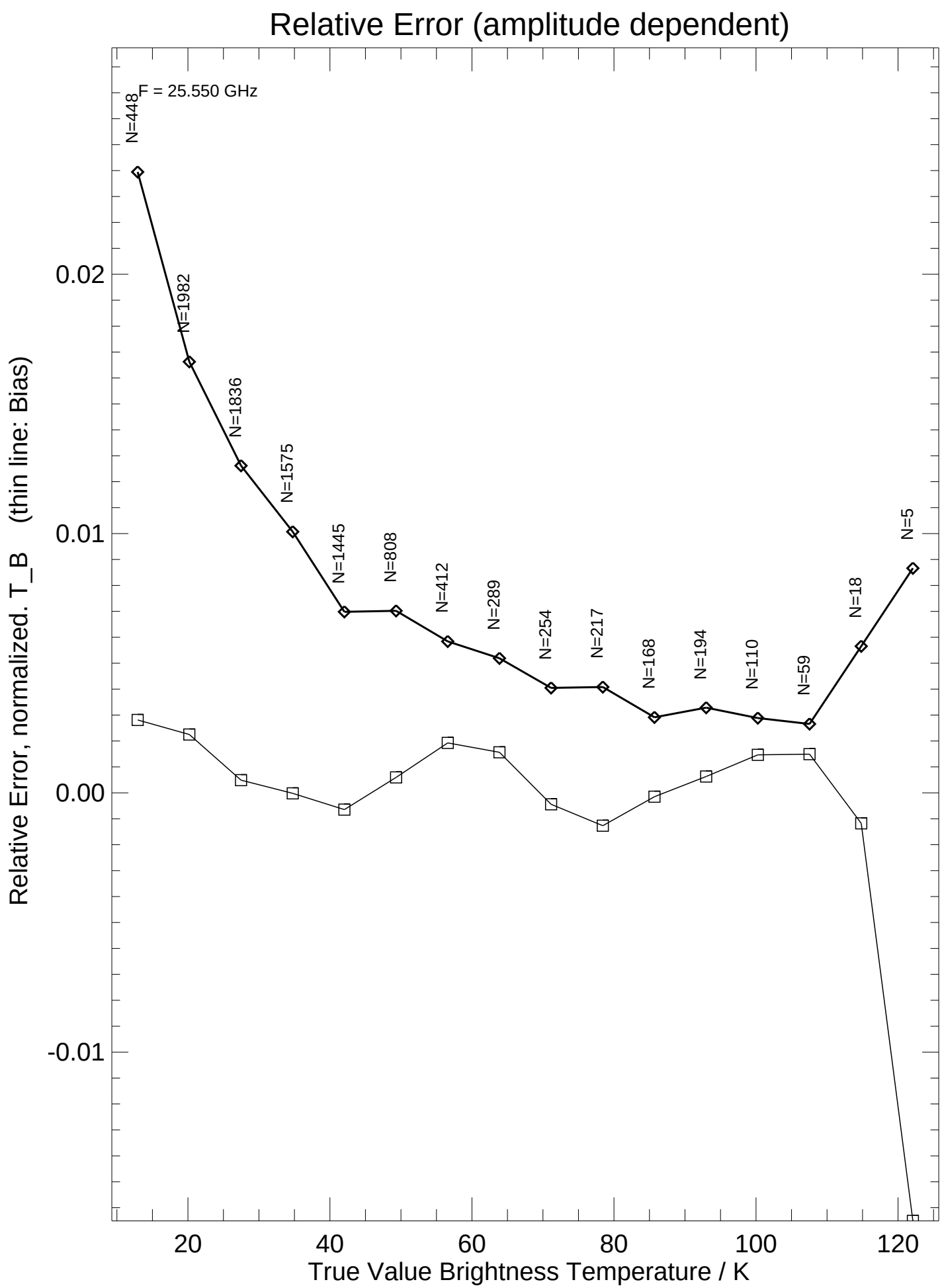

Absolute Error (amplitude dependent)
F = 25.500 GHz
Mean StD = 0.34 Max StD = 0.66
Mean bias = 0.07 Max bias = 0.16
N=430
N=1955
N=1827
N=1560
N=1465
N=839
N=413
N=301
N=246
N=224
N=174
N=191
N=113
N=59
N=18
N=5
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120

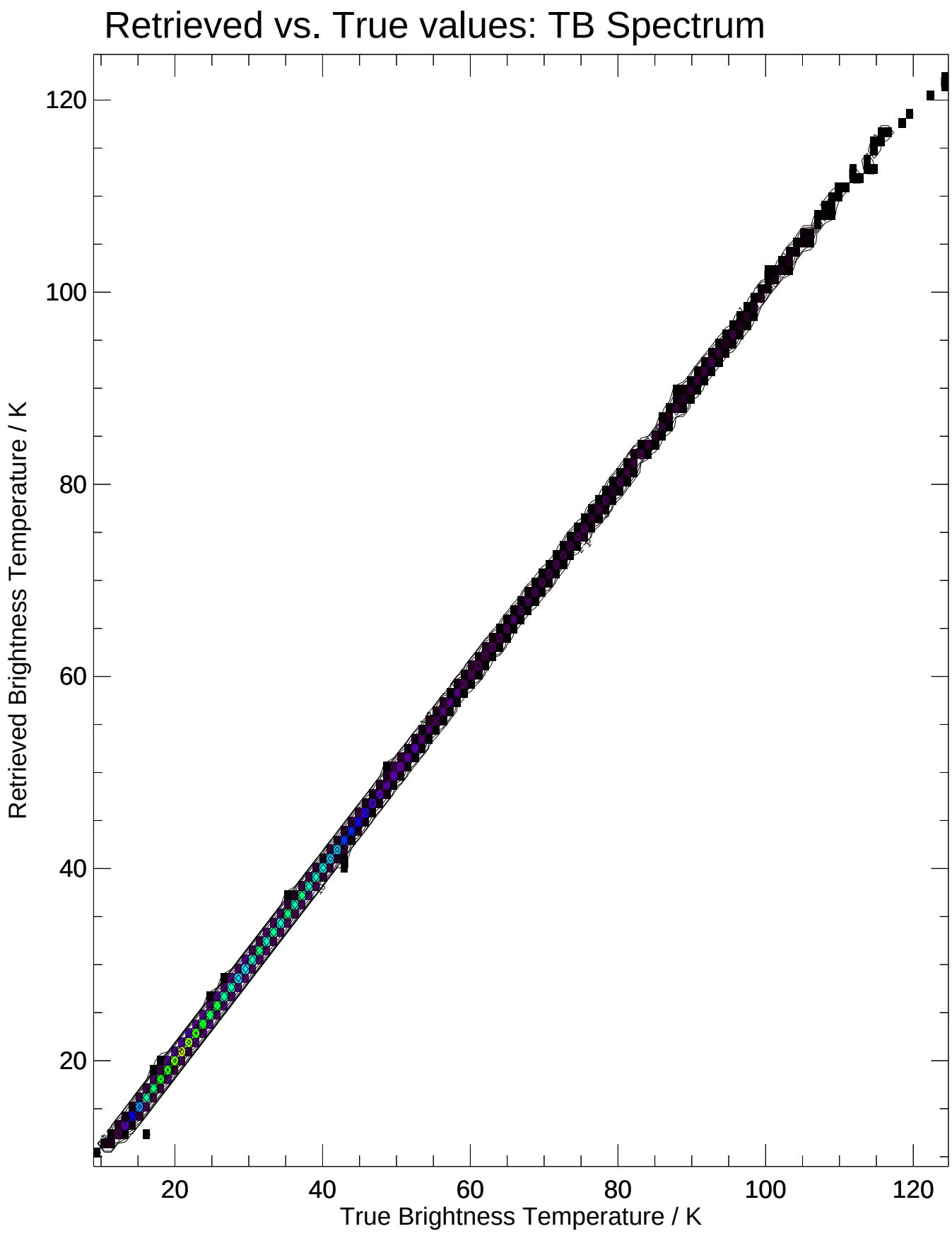

Relative Error (amplitude dependent)
F = 25.500 GHz
N=430
N=1955
N=1827
N=1560
N=1465
N=839
N=413
N=301
N=246
N=224
N=174
N=191
N=113
N=59
N=18
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

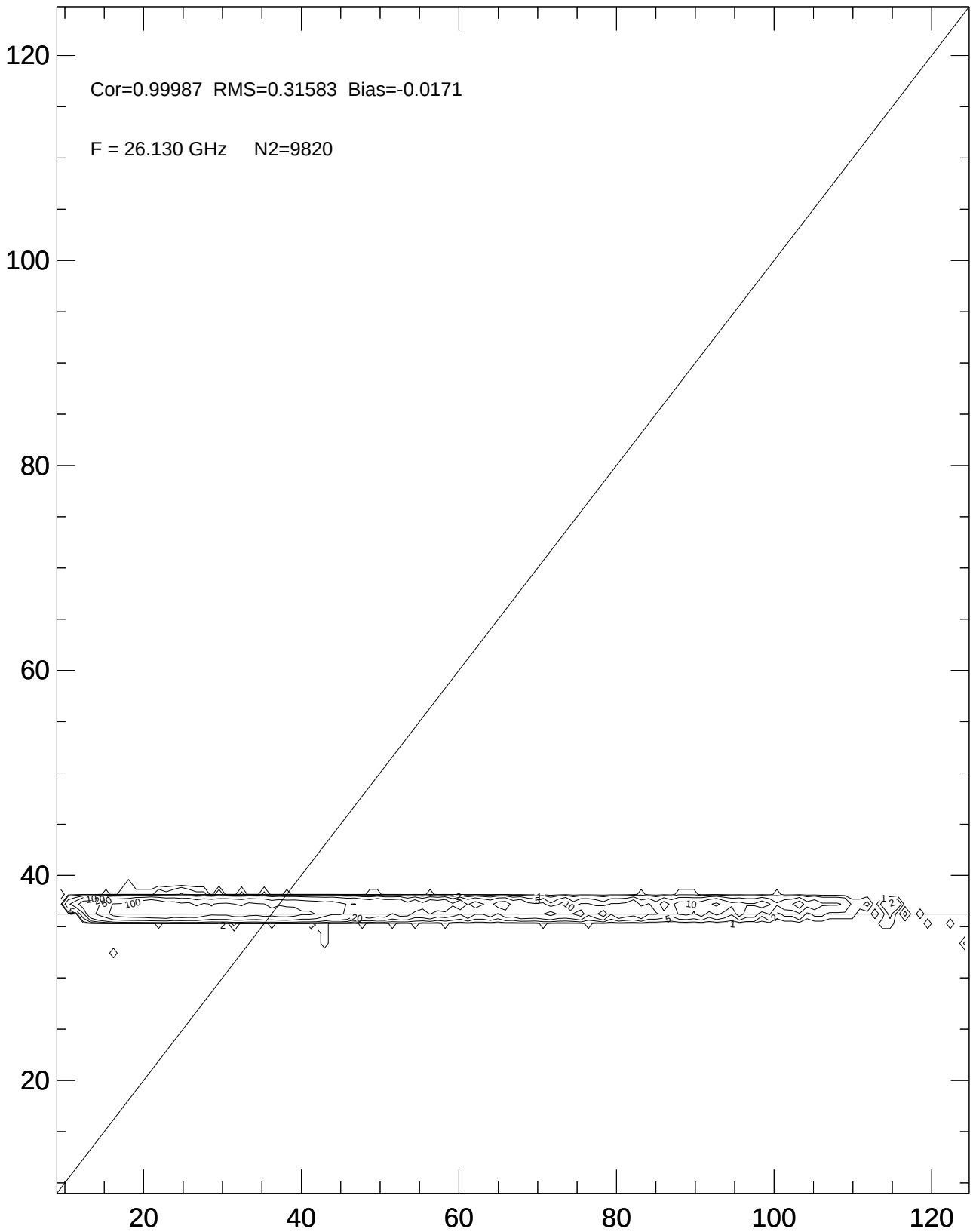

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

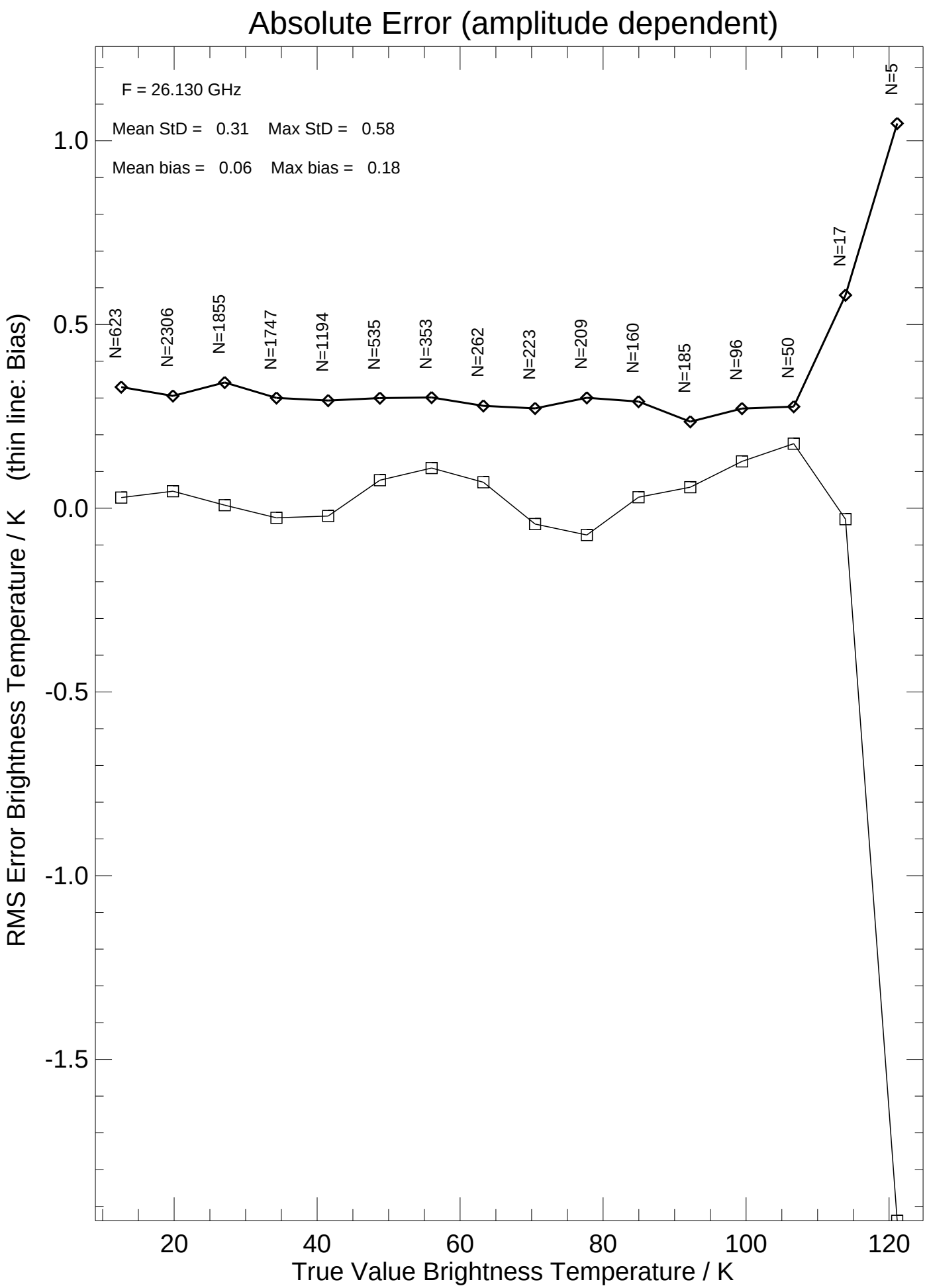

Cor=0.99986 RMS=0.33716 Bias=-0.0184
F = 25.550 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

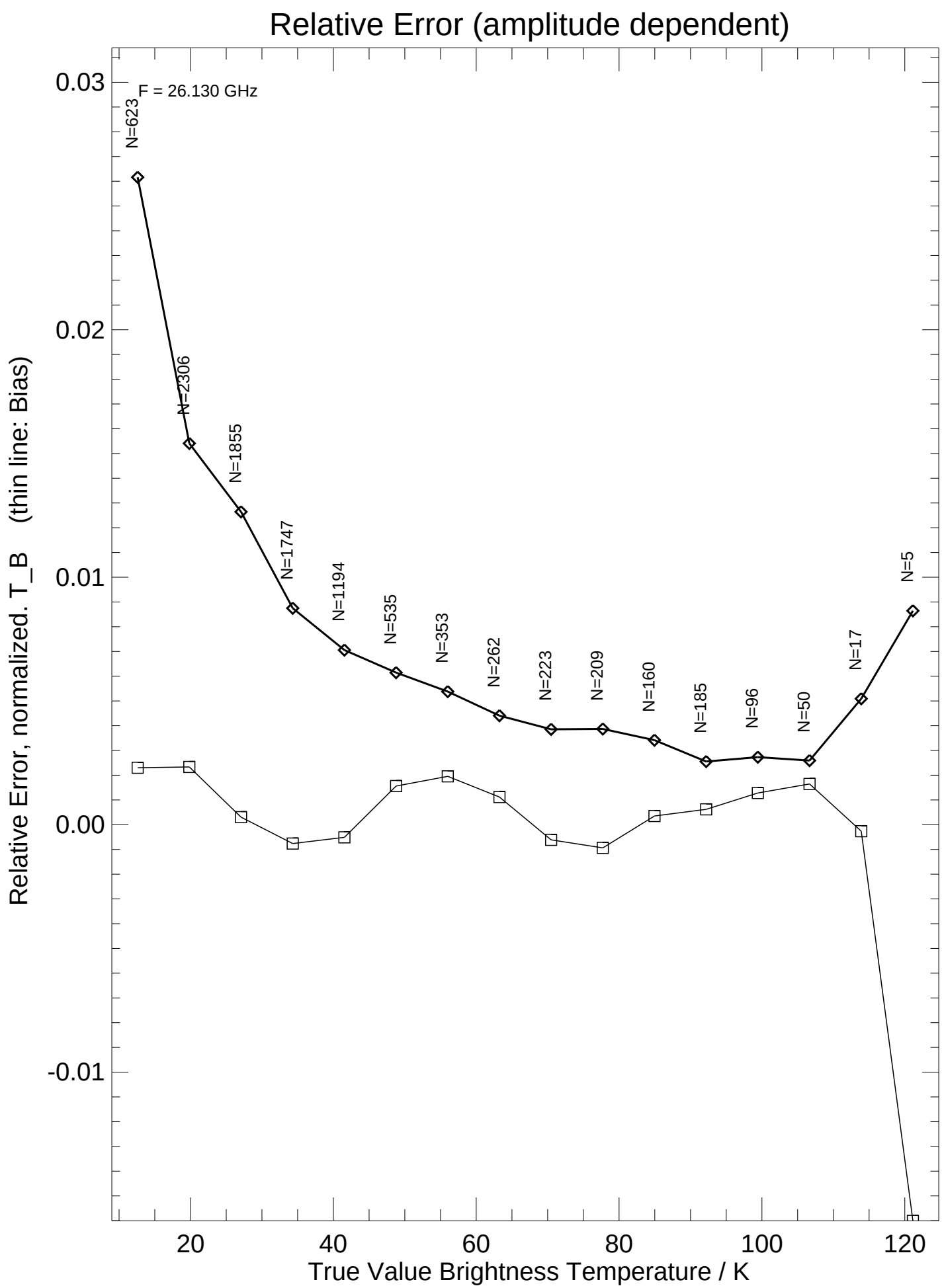

Absolute Error (amplitude dependent)
F = 25.550 GHz
Mean StD = 0.34 Max StD = 0.65
Mean bias = 0.07 Max bias = 0.16
N=448
N=1982
N=1836
N=1575
N=1445
N=808
N=412
N=289
N=254
N=217
N=168
N=194
N=110
N=59
N=18
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

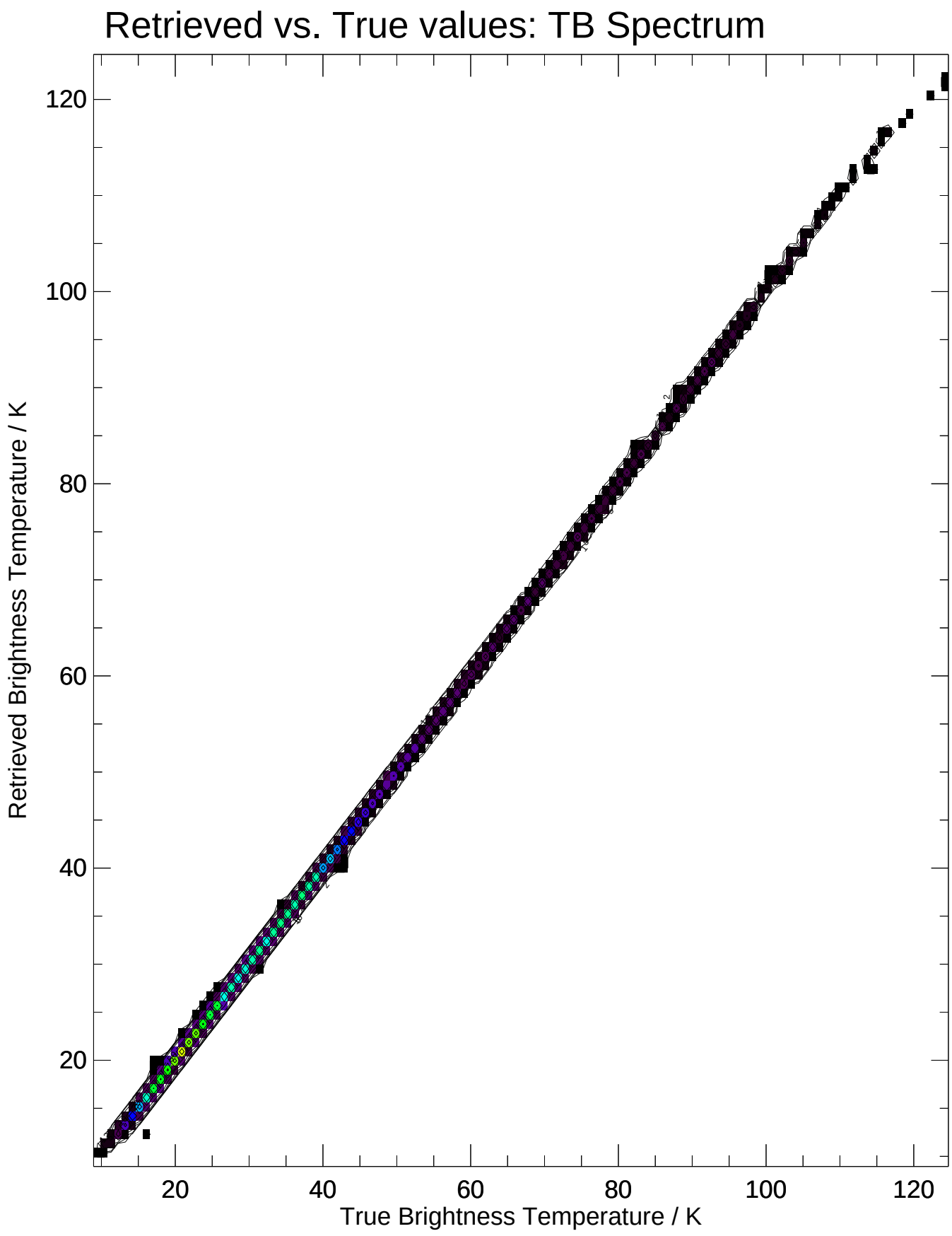

Relative Error (amplitude dependent)
F = 25.550 GHz
N=448
N=1982
N=1836
N=1575
N=1445
N=808
N=412
N=289
N=254
N=217
N=168
N=194
N=110
N=59
N=18
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

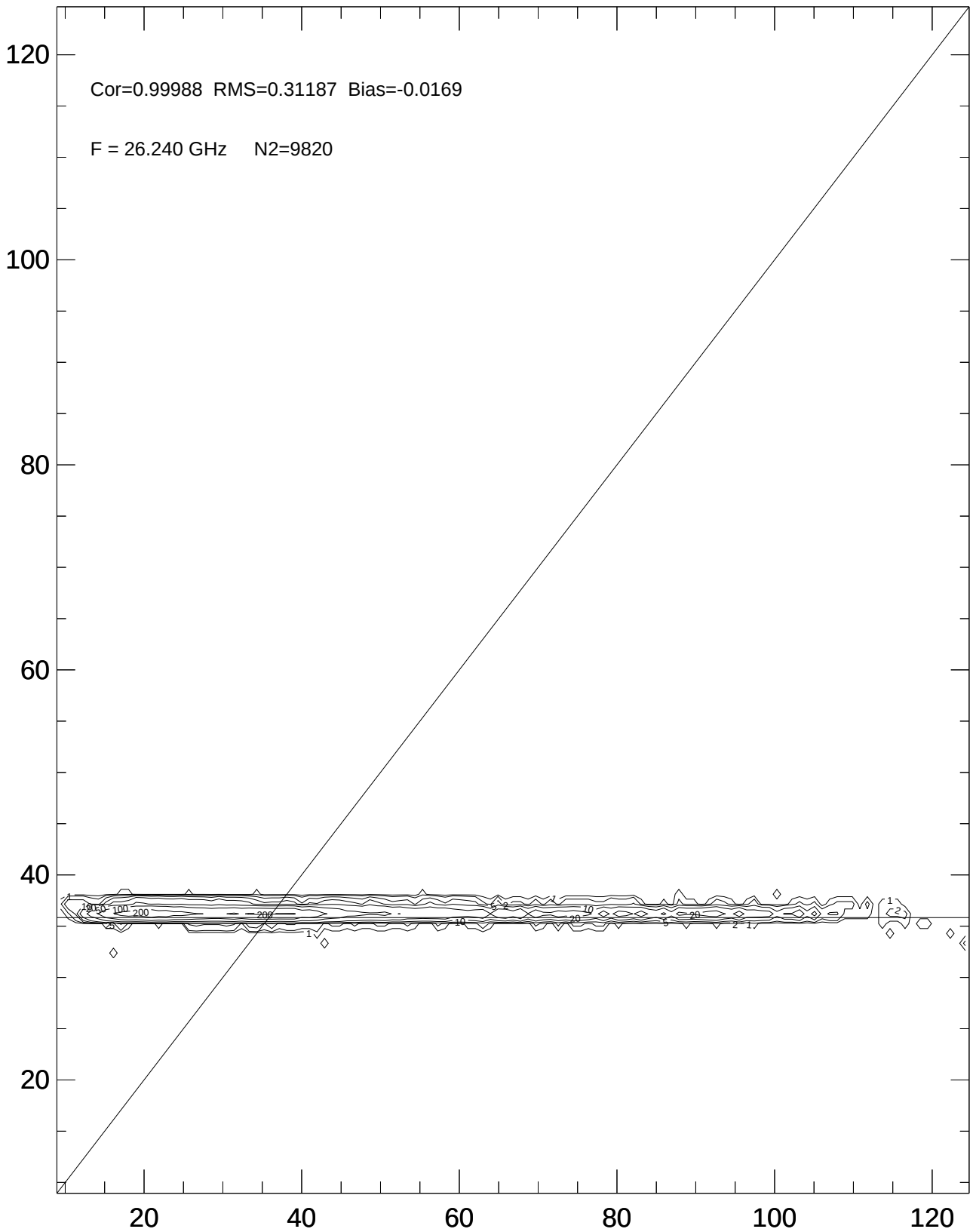

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

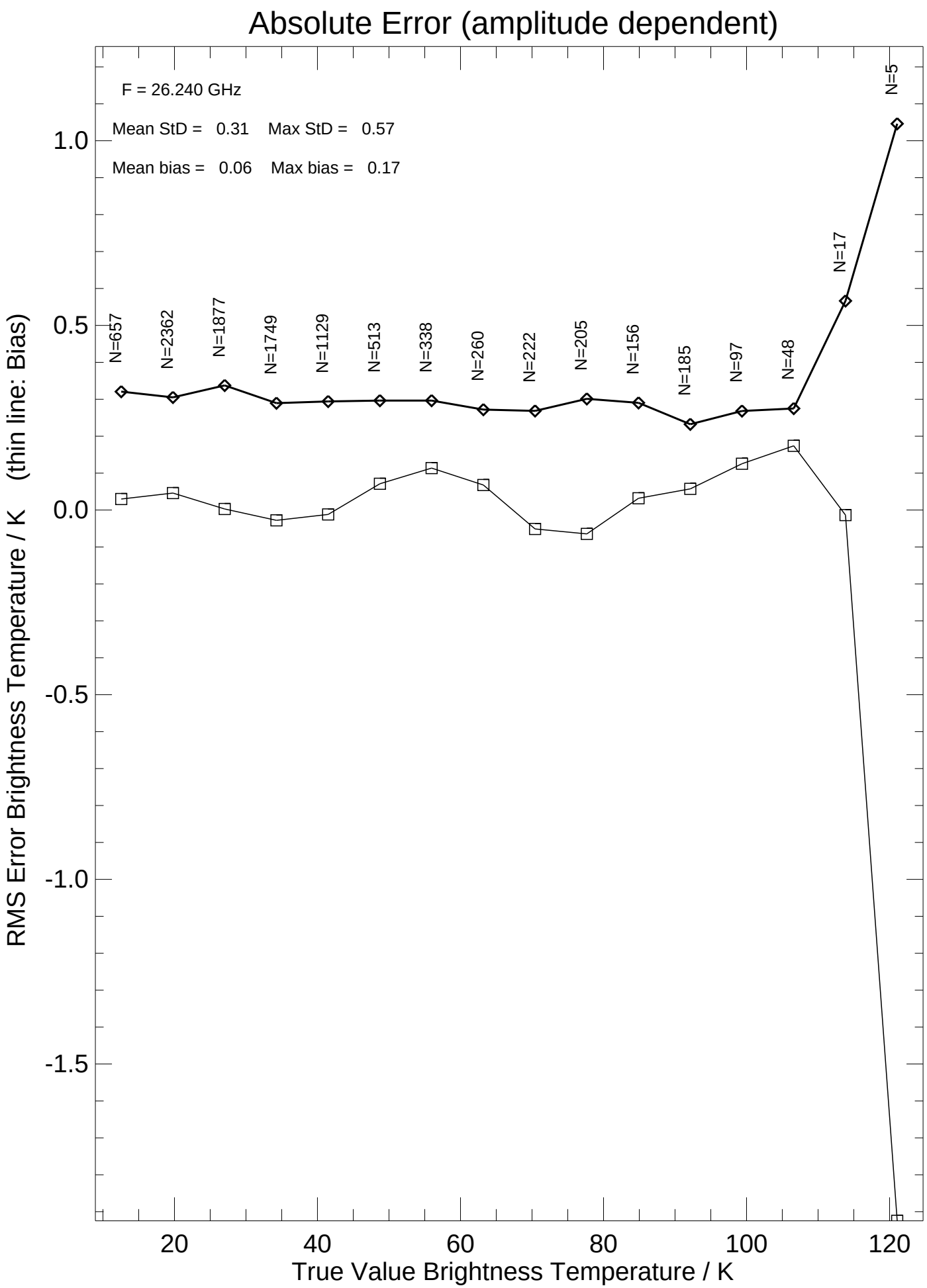

Cor=0.99987 RMS=0.31583 Bias=-0.0171
F = 26.130 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

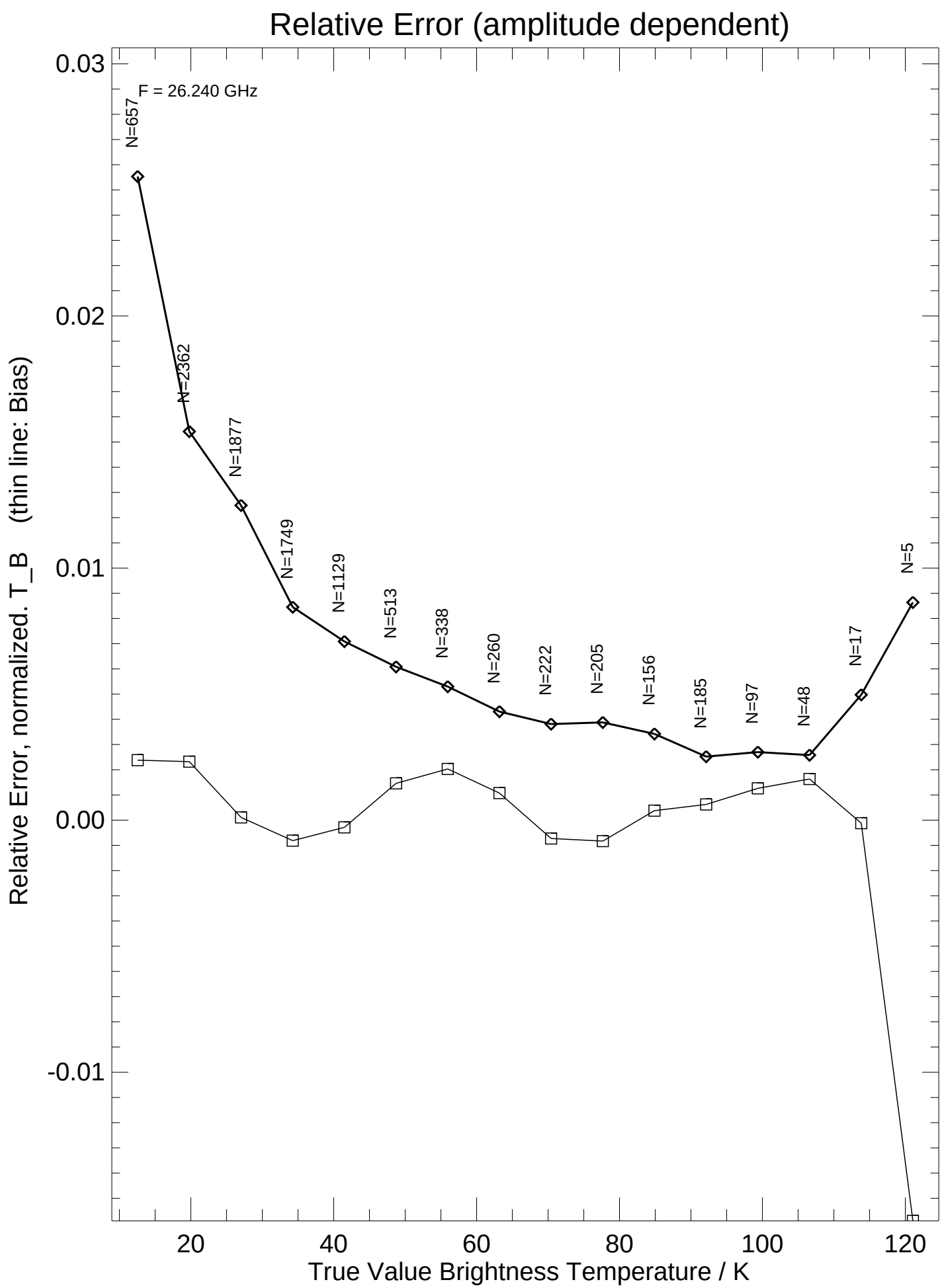

Absolute Error (amplitude dependent)
F = 26.130 GHz
Mean StD = 0.31 Max StD = 0.58
Mean bias = 0.06 Max bias = 0.18
N=623
N=2306
N=1855
N=1747
N=1194
N=535
N=353
N=262
N=223
N=209
N=160
N=185
N=96
N=50
N=17
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

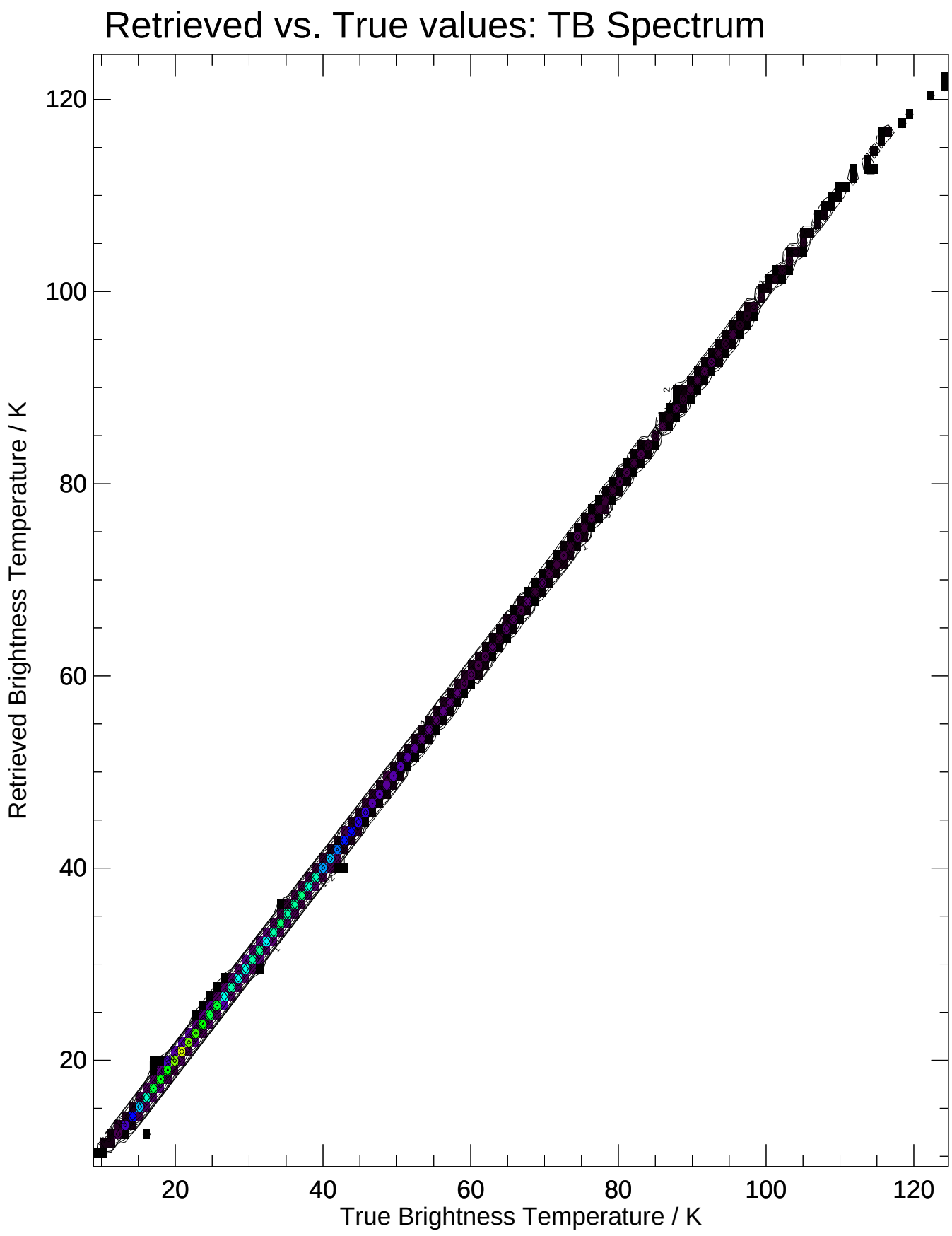

Relative Error (amplitude dependent)
F = 26.130 GHz
N=623
N=2306
N=1855
N=1747
N=1194
N=535
N=353
N=262
N=223
N=209
N=160
N=185
N=96
N=50
N=17
N=5
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

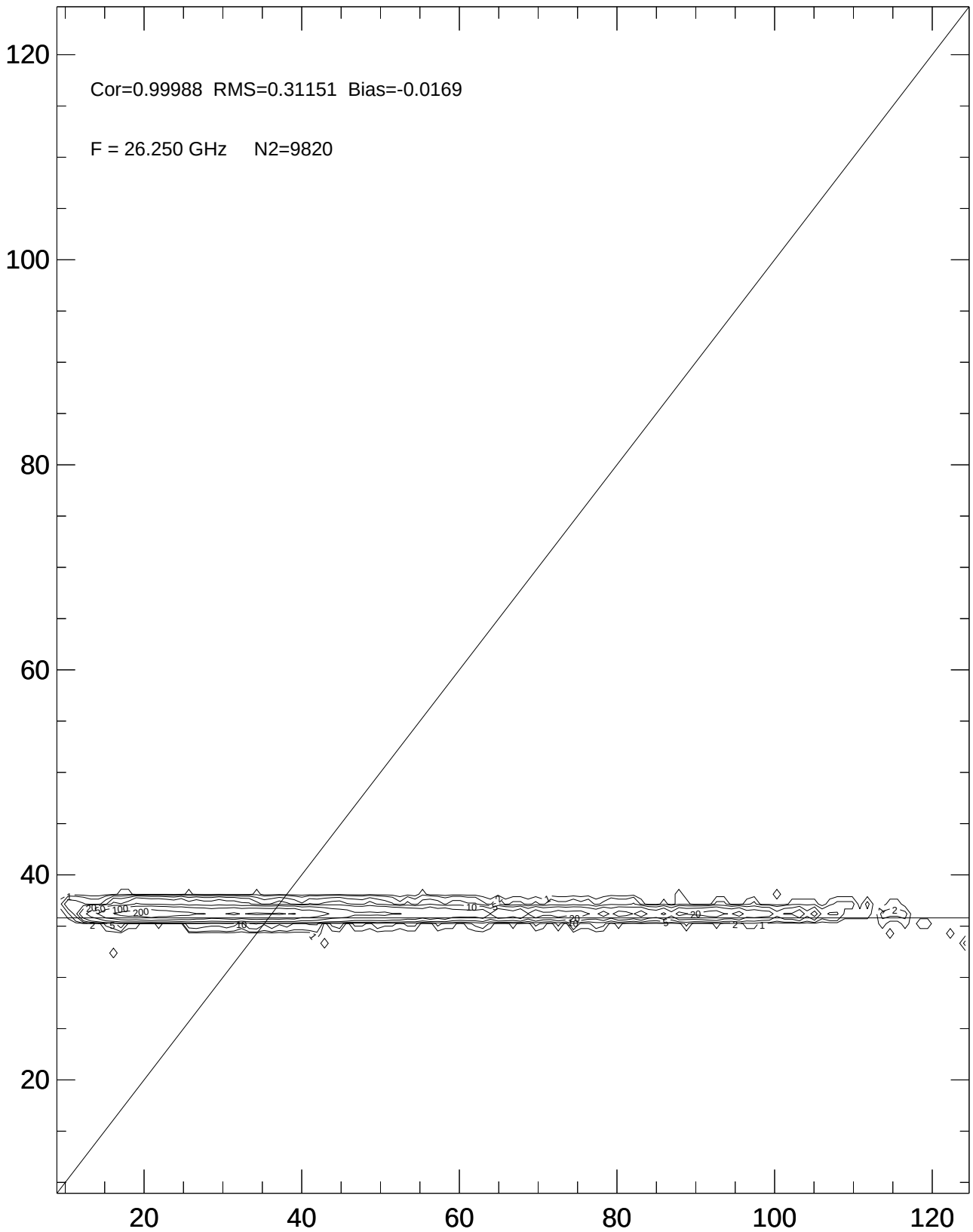

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

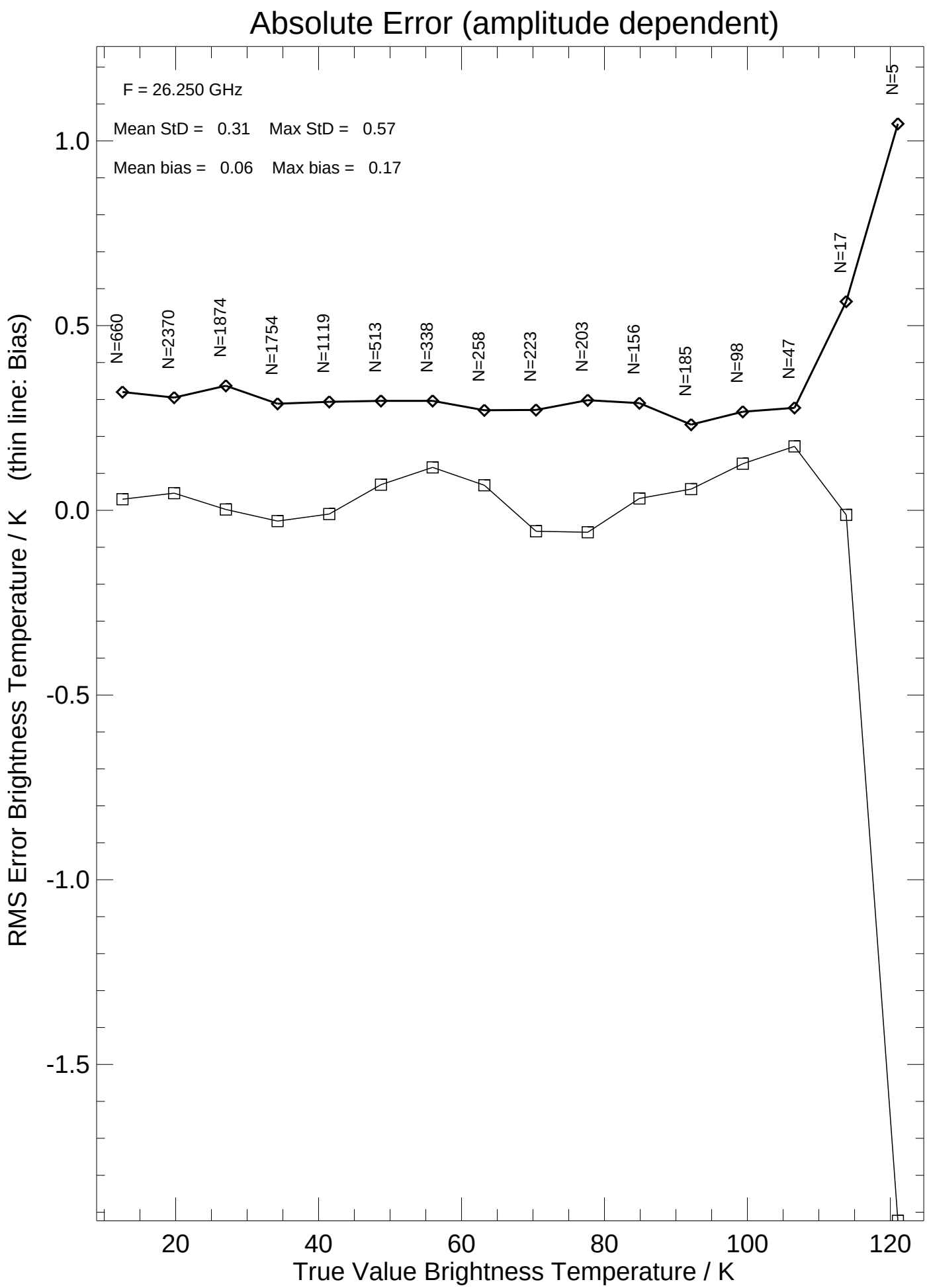

Cor=0.99988 RMS=0.31187 Bias=-0.0169
F = 26.240 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

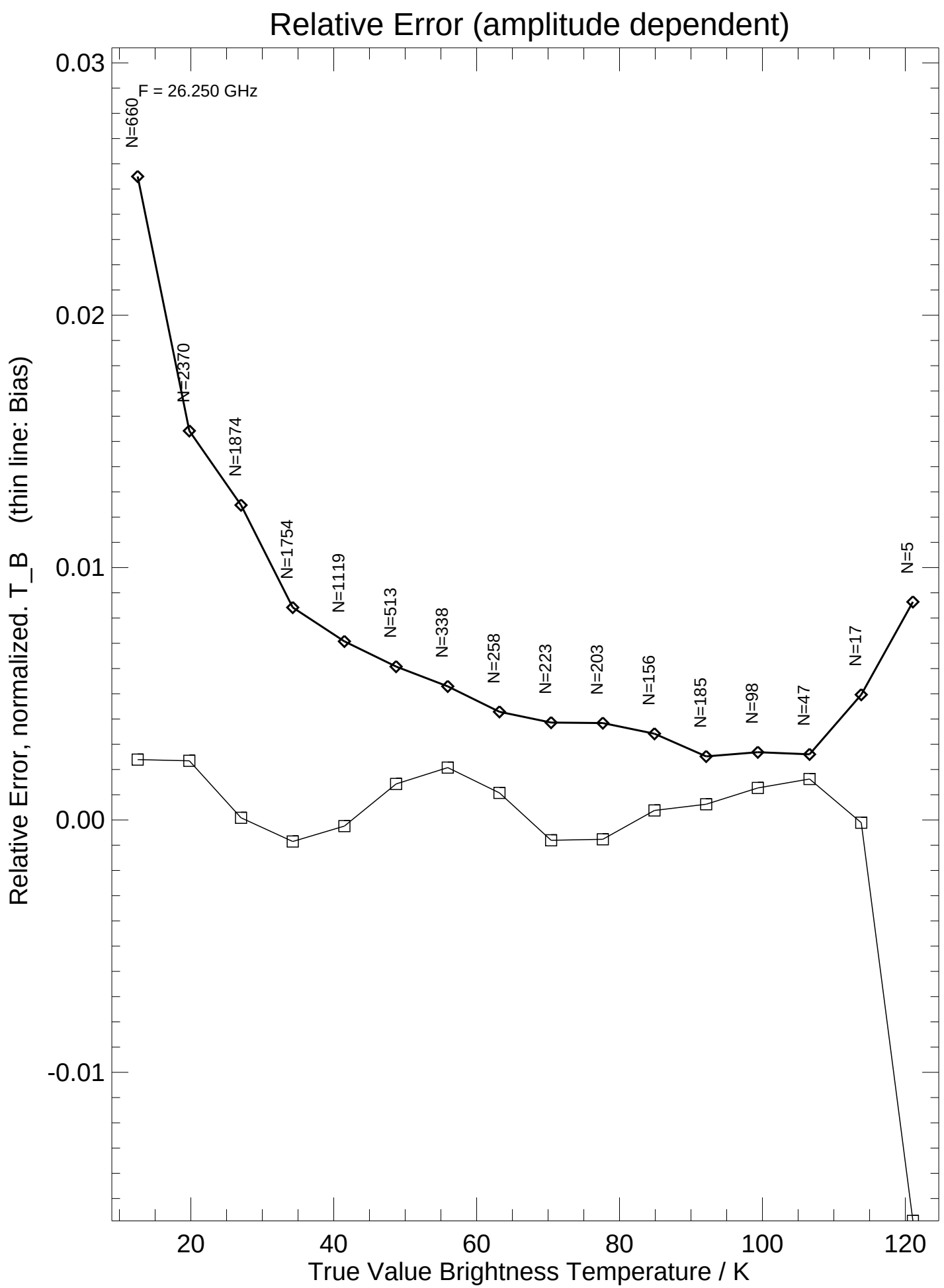

Absolute Error (amplitude dependent)
F = 26.240 GHz
Mean StD = 0.31 Max StD = 0.57
Mean bias = 0.06 Max bias = 0.17
N=657
N=2362
N=1877
N=1749
N=1129
N=513
N=338
N=260
N=222
N=205
N=156
N=185
N=97
N=48
N=17
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

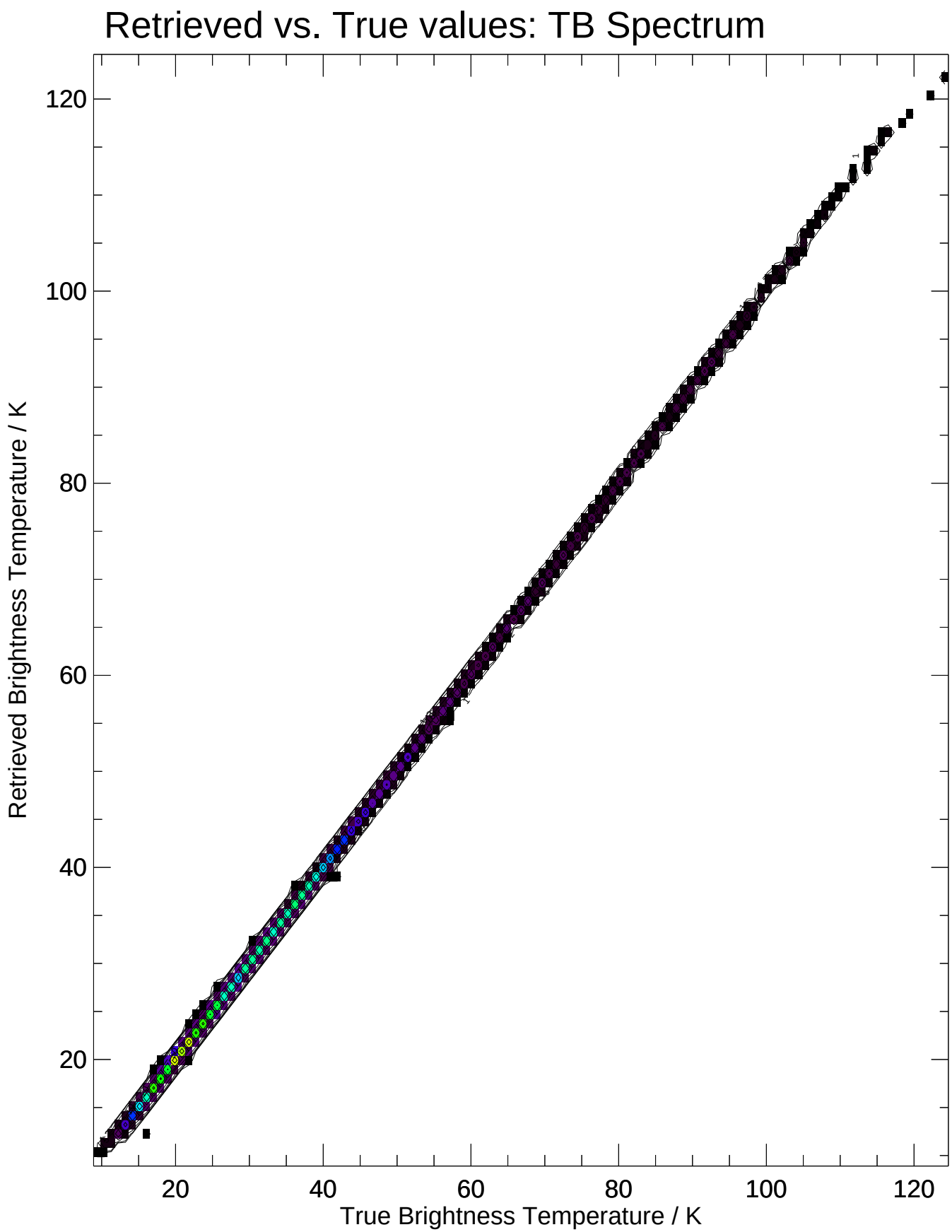

Relative Error (amplitude dependent)
F = 26.240 GHz
N=657
N=2362
N=1877
N=1749
N=1129
N=513
N=338
N=260
N=222
N=205
N=156
N=185
N=97
N=48
N=17
N=5
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

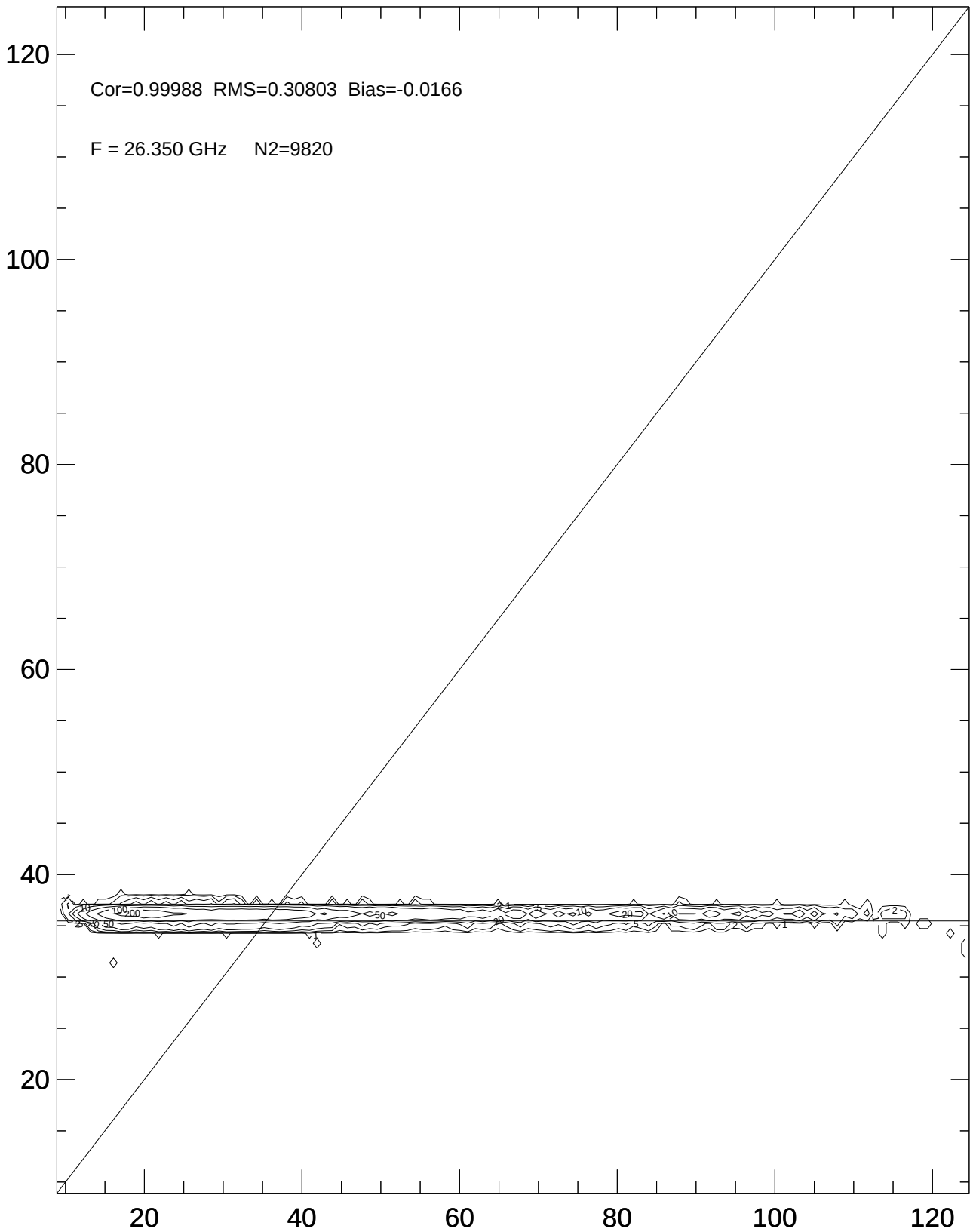

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

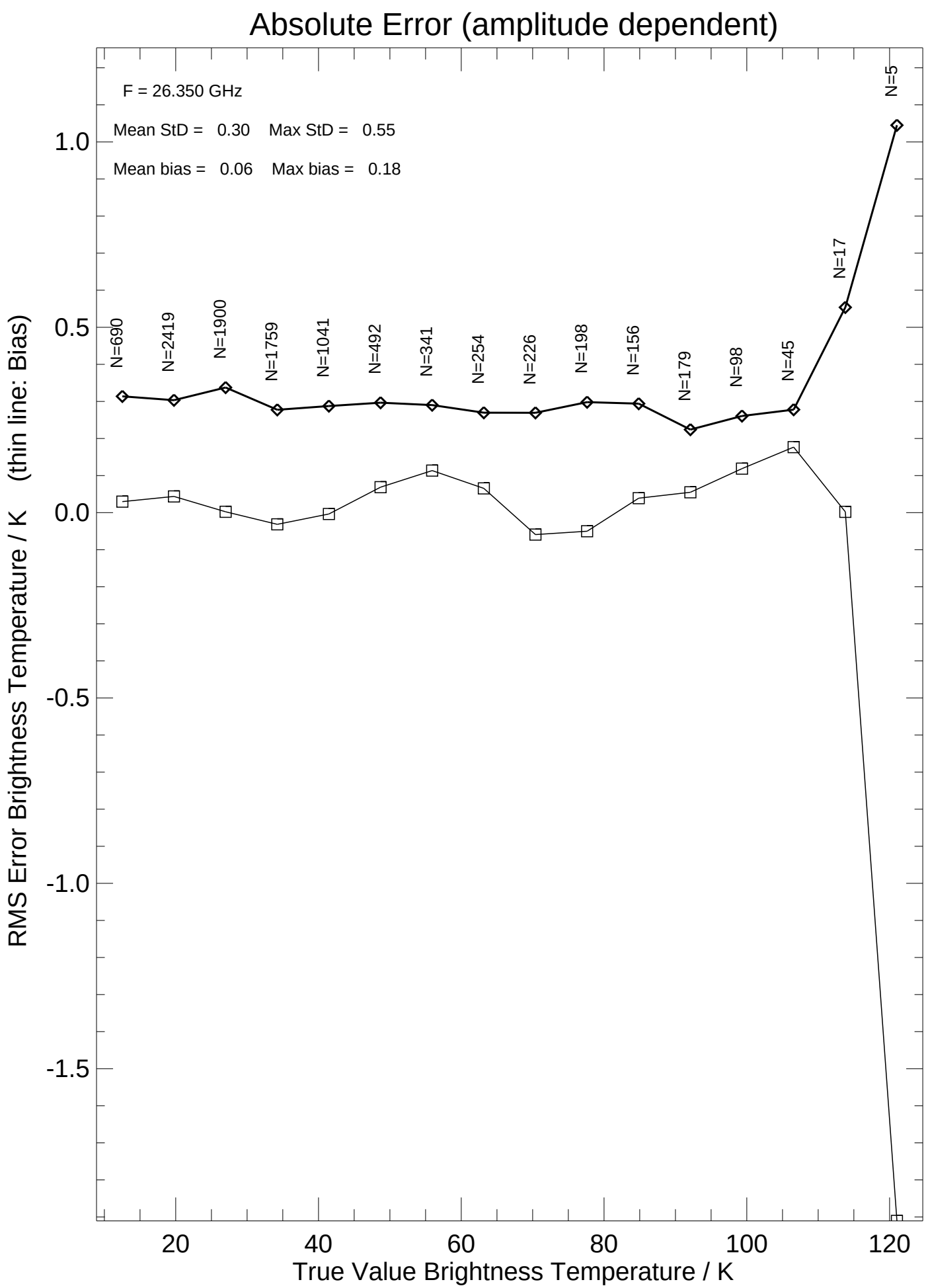

Cor=0.99988 RMS=0.31151 Bias=-0.0169
F = 26.250 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

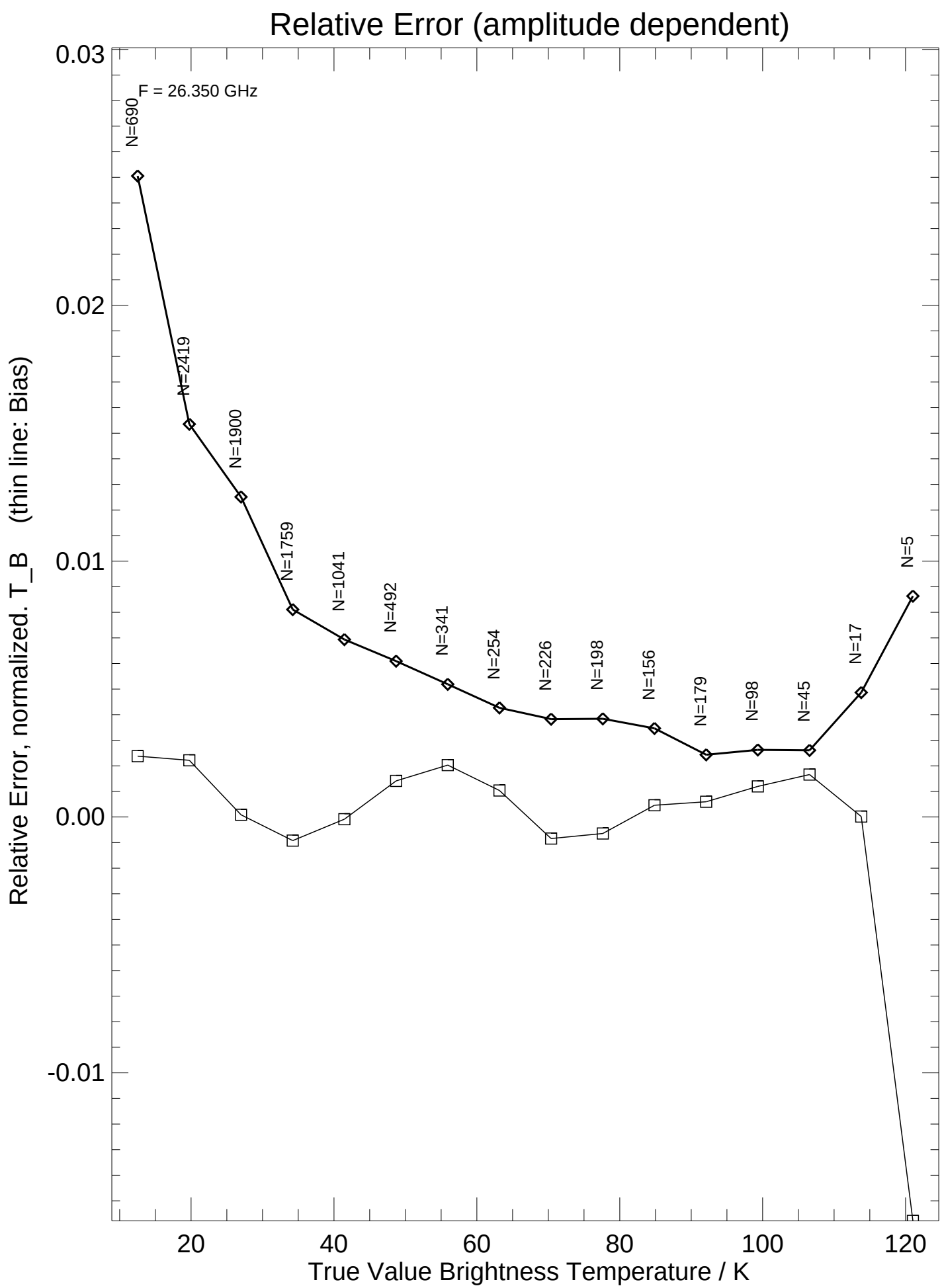

Absolute Error (amplitude dependent)
F = 26.250 GHz
Mean StD = 0.31 Max StD = 0.57
Mean bias = 0.06 Max bias = 0.17
N=660
N=2370
N=1874
N=1754
N=1119
N=513
N=338
N=258
N=223
N=203
N=156
N=185
N=98
N=47
N=17
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

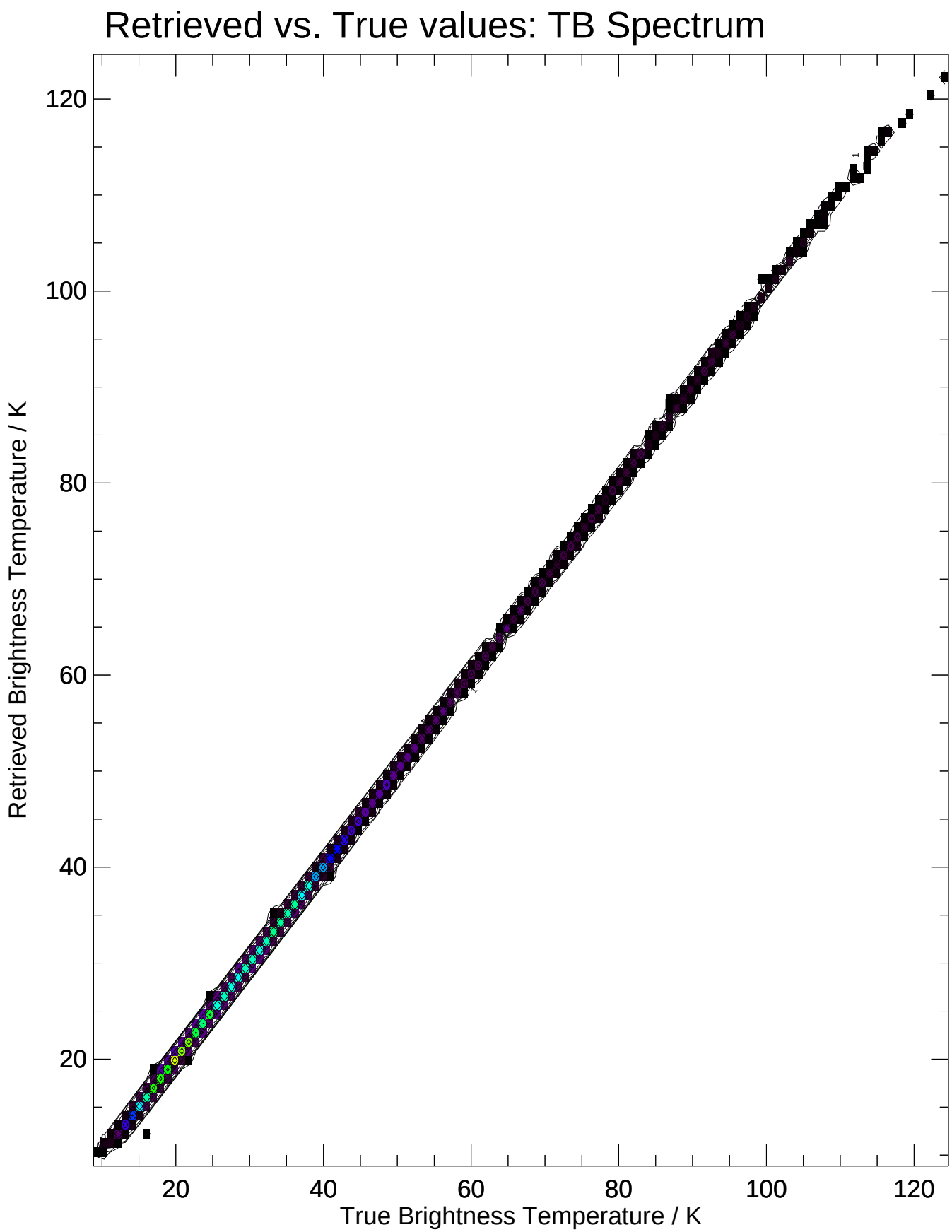

Relative Error (amplitude dependent)
F = 26.250 GHz
N=660
N=2370
N=1874
N=1754
N=1119
N=513
N=338
N=258
N=223
N=203
N=156
N=185
N=98
N=47
N=17
N=5
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

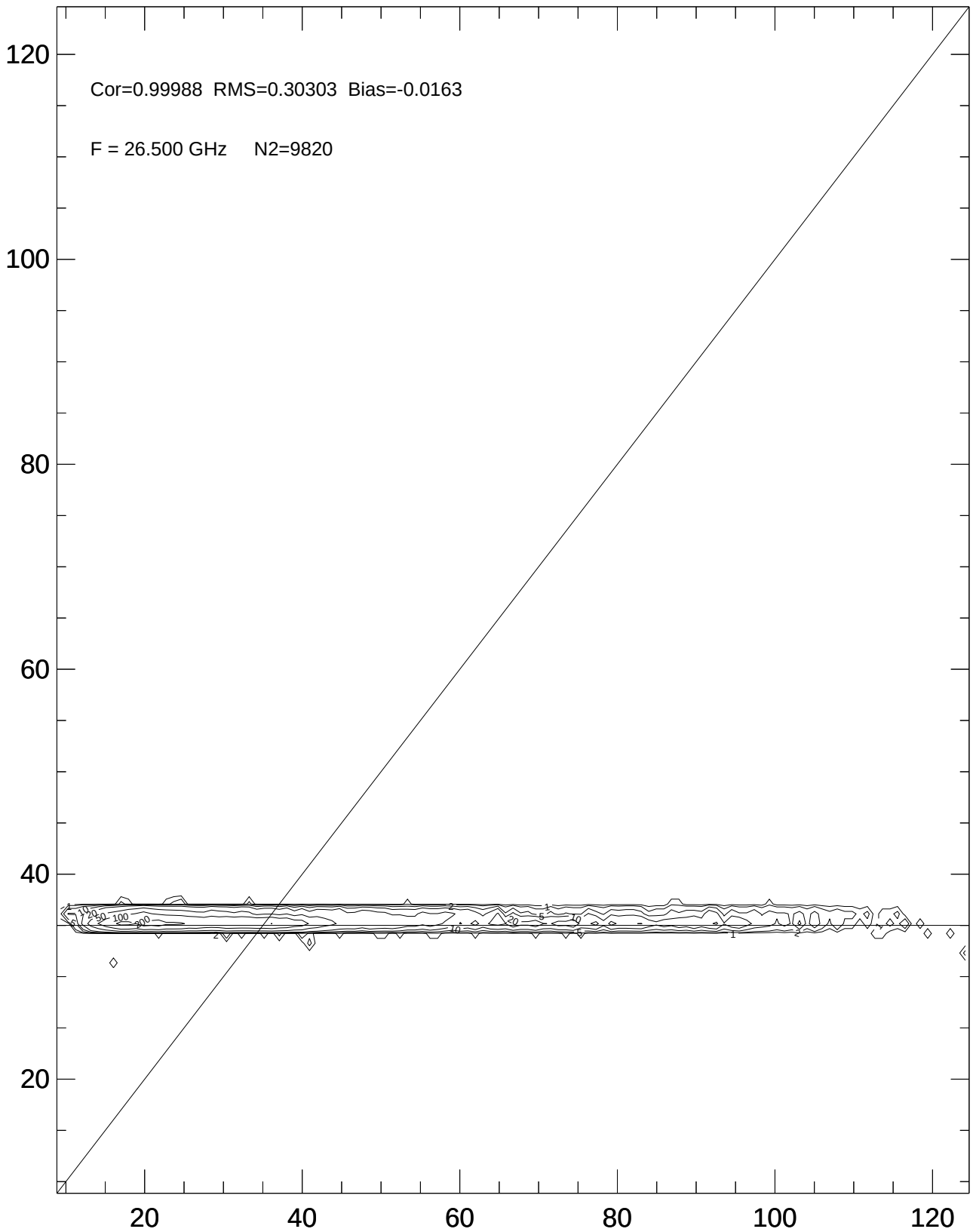

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

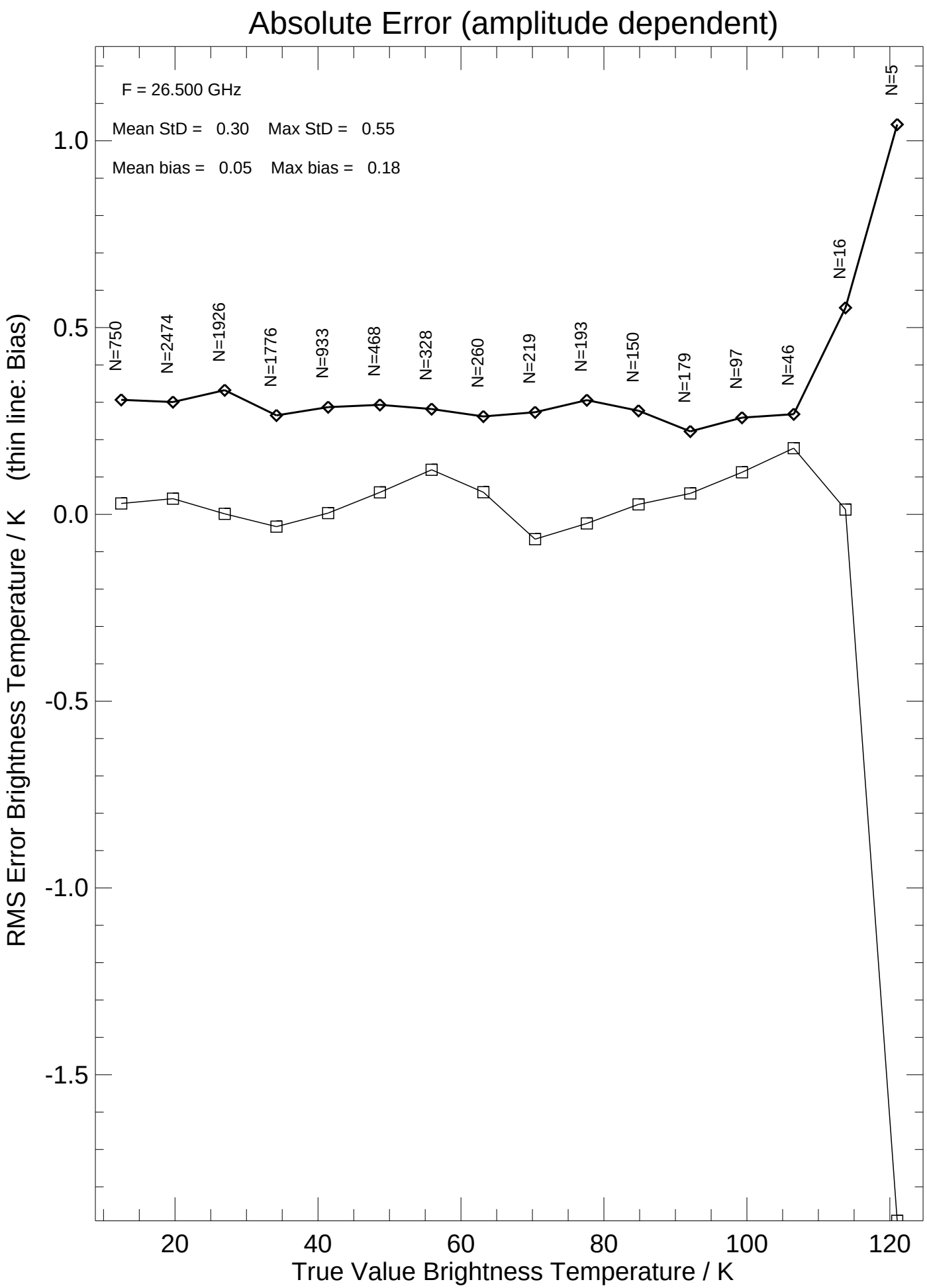

Cor=0.99988 RMS=0.30803 Bias=-0.0166
F = 26.350 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

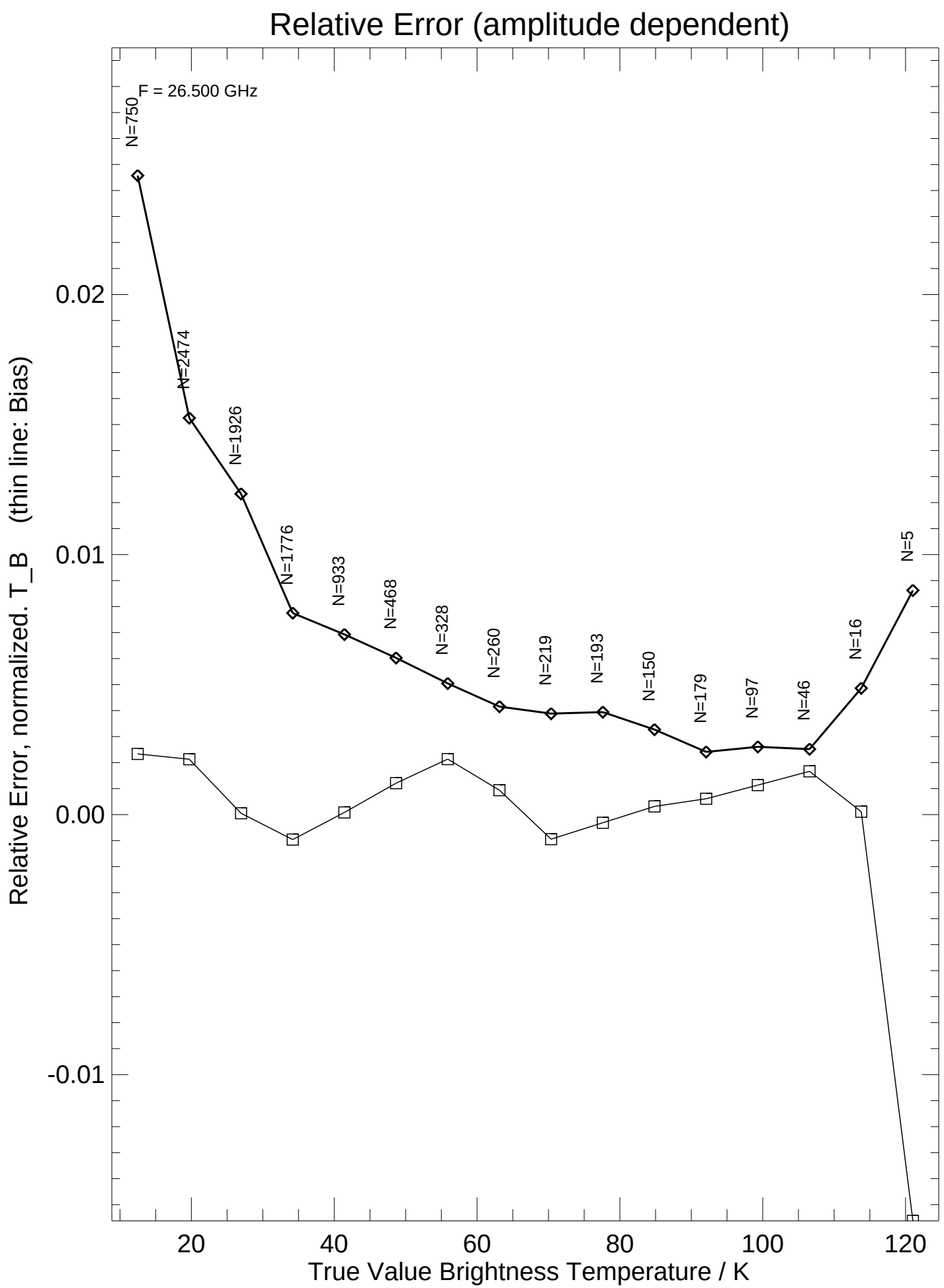

Absolute Error (amplitude dependent)
F = 26.350 GHz
Mean StD = 0.30 Max StD = 0.55
Mean bias = 0.06 Max bias = 0.18
N=690
N=2419
N=1900
N=1759
N=1041
N=492
N=341
N=254
N=226
N=198
N=156
N=179
N=98
N=45
N=17
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

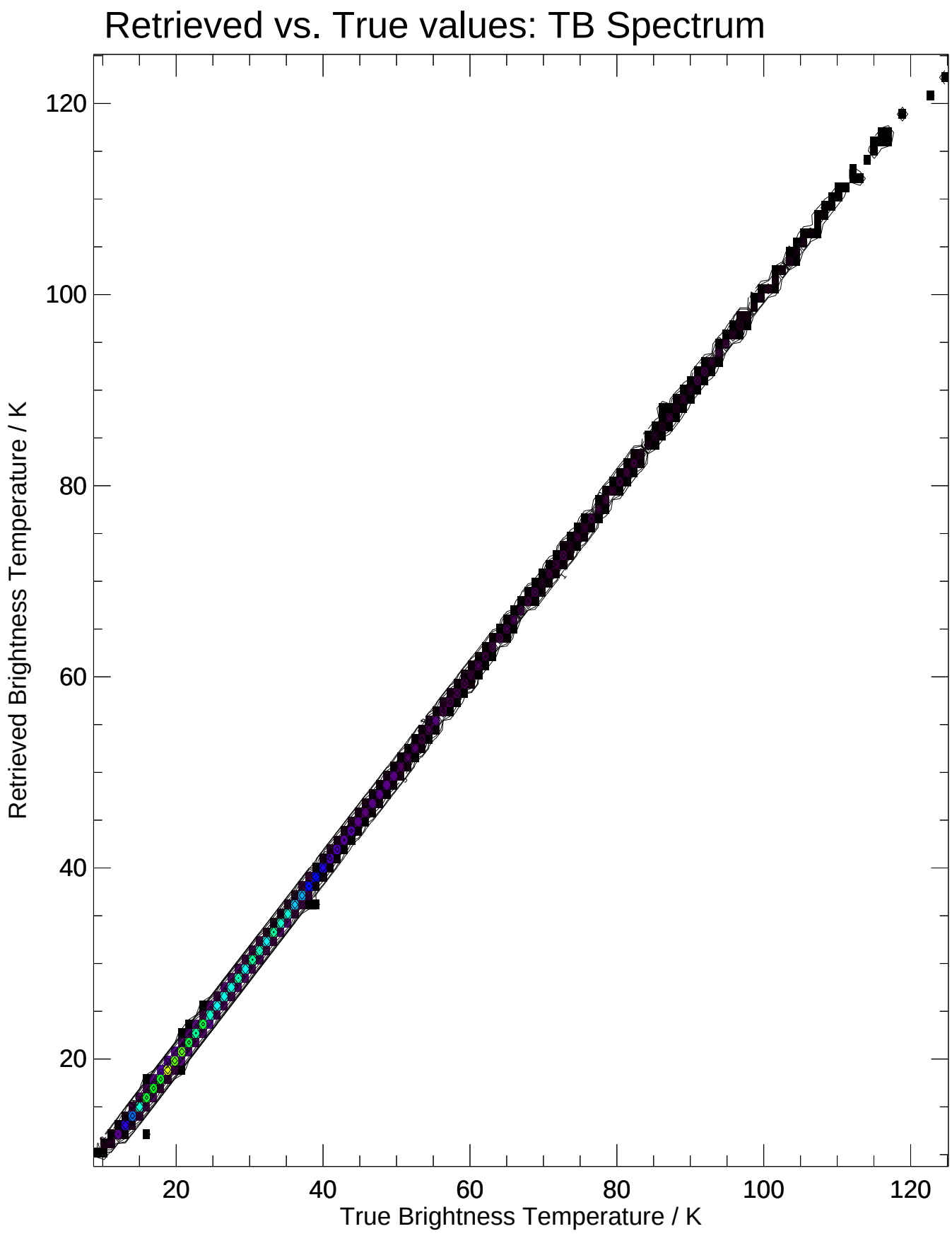

Relative Error (amplitude dependent)
F = 26.350 GHz
N=690
N=2419
N=1900
N=1759
N=1041
N=492
N=341
N=254
N=226
N=198
N=156
N=179
N=98
N=45
N=17
N=5
0.03
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

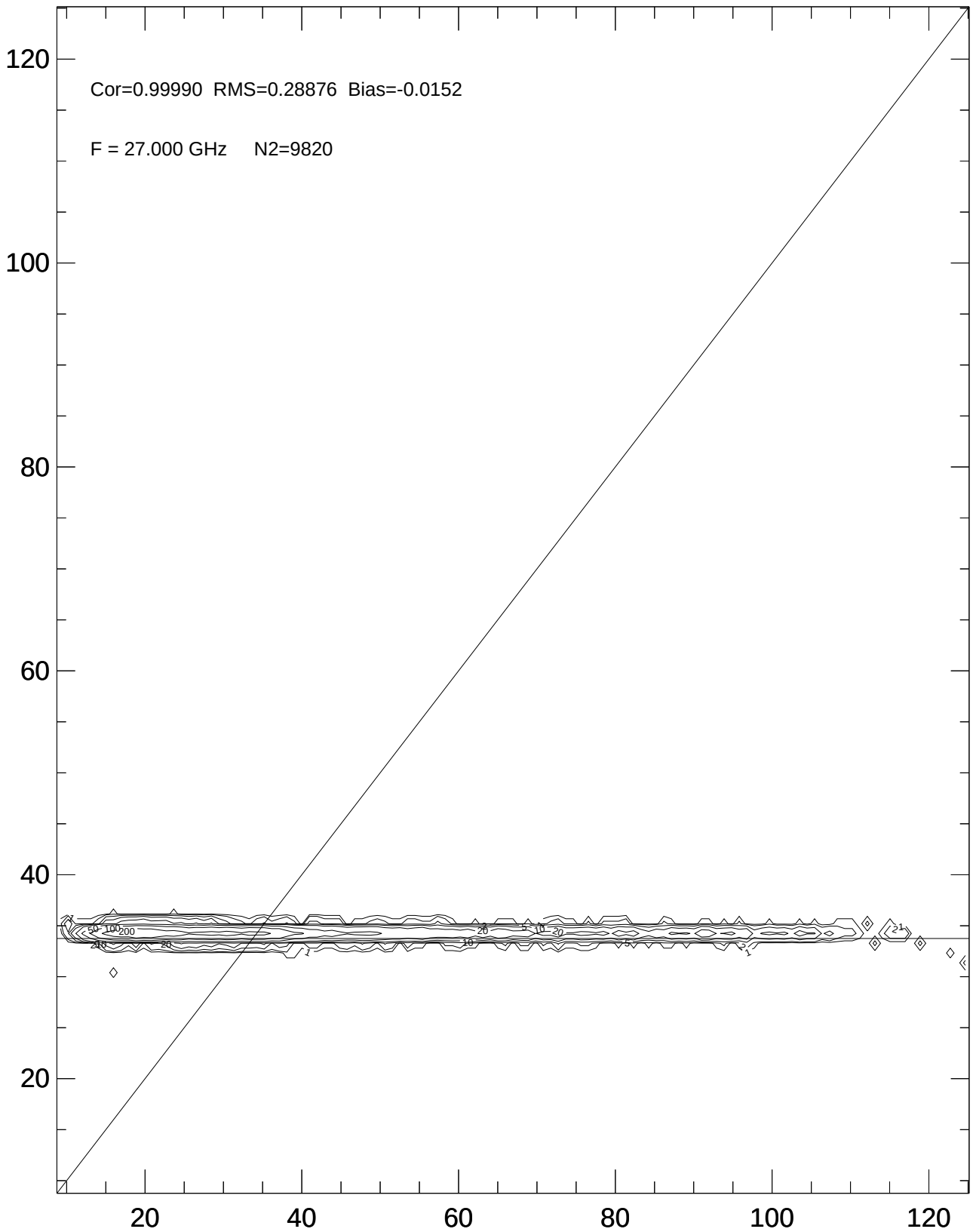

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

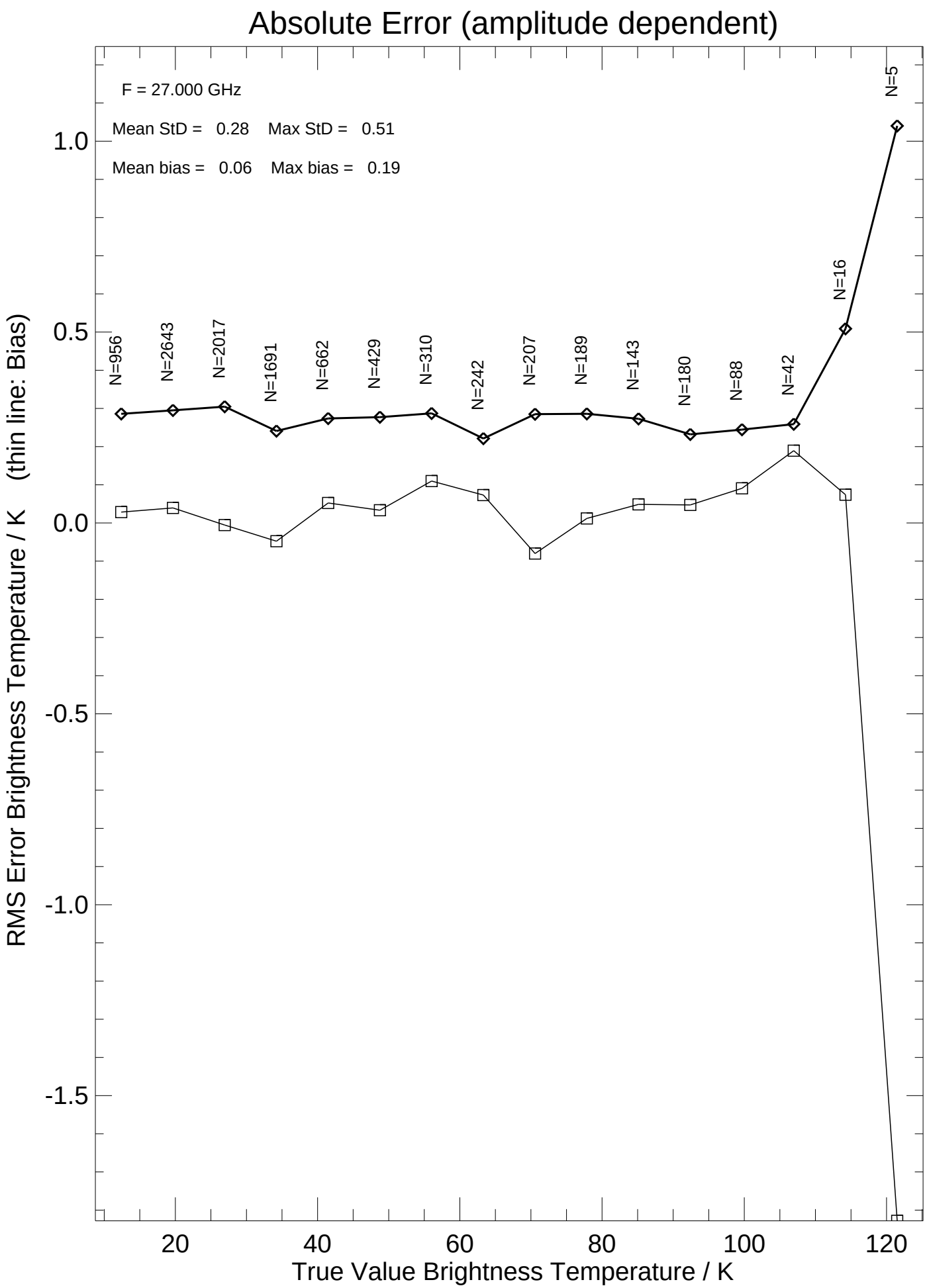

Cor=0.99988 RMS=0.30303 Bias=-0.0163
F = 26.500 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

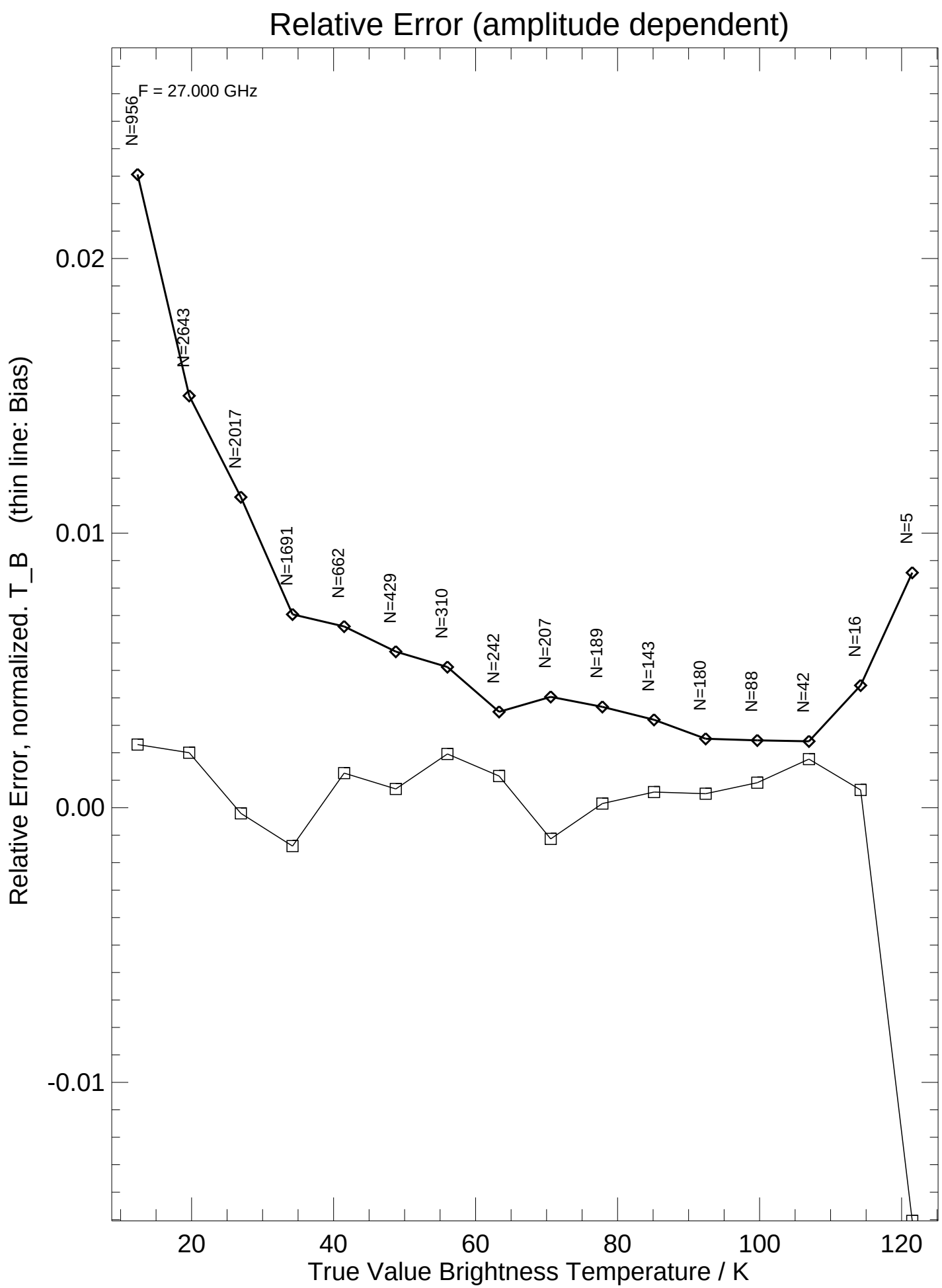

Absolute Error (amplitude dependent)
F = 26.500 GHz
Mean StD = 0.30 Max StD = 0.55
Mean bias = 0.05 Max bias = 0.18
N=750
N=2474
N=1926
N=1776
N=933
N=468
N=328
N=260
N=219
N=193
N=150
N=179
N=97
N=46
N=16
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
RMS Error Brightness Temperature / K (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

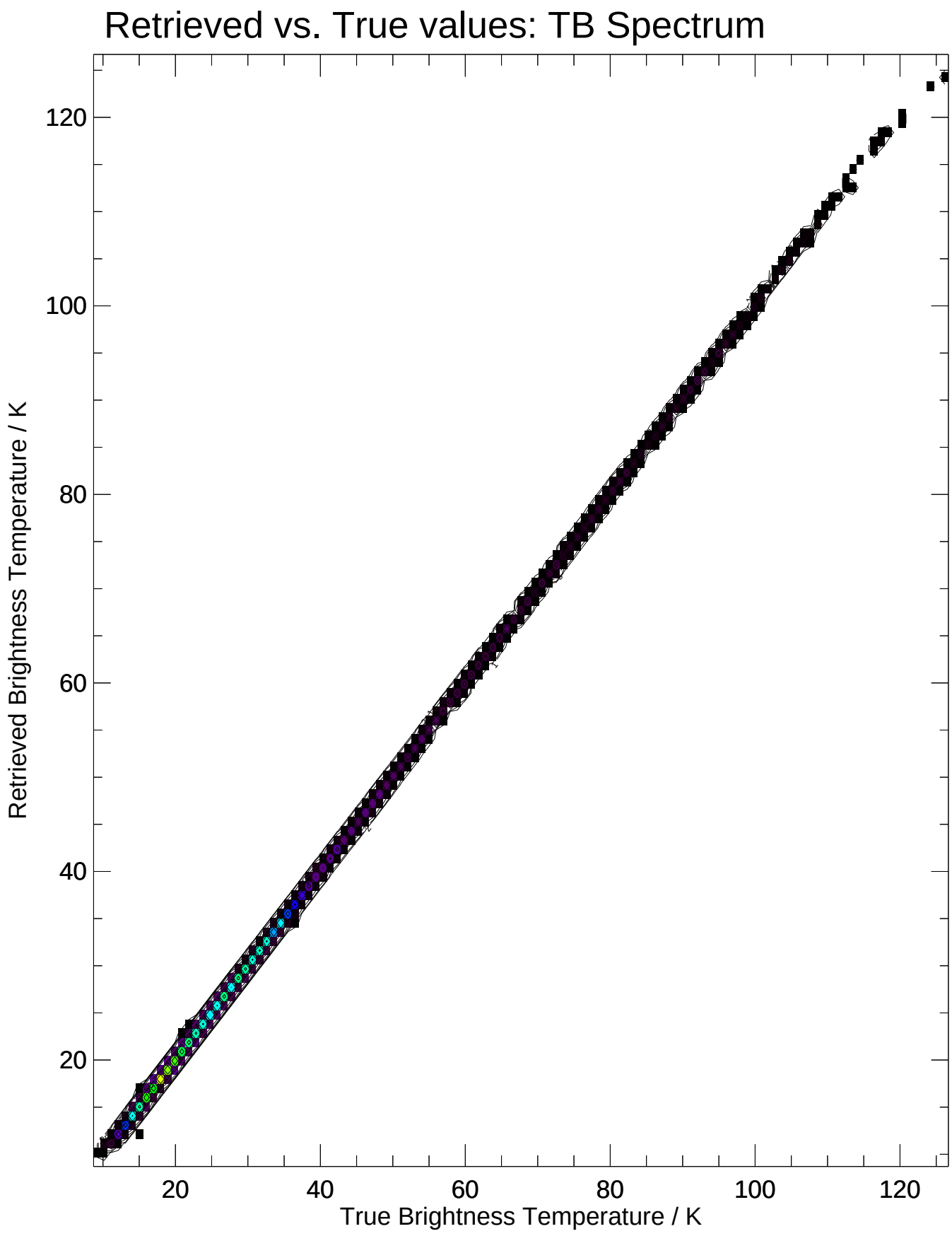

Relative Error (amplitude dependent)
F = 26.500 GHz
N=750
N=2474
N=1926
N=1776
N=933
N=468
N=328
N=260
N=219
N=193
N=150
N=179
N=97
N=46
N=16
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

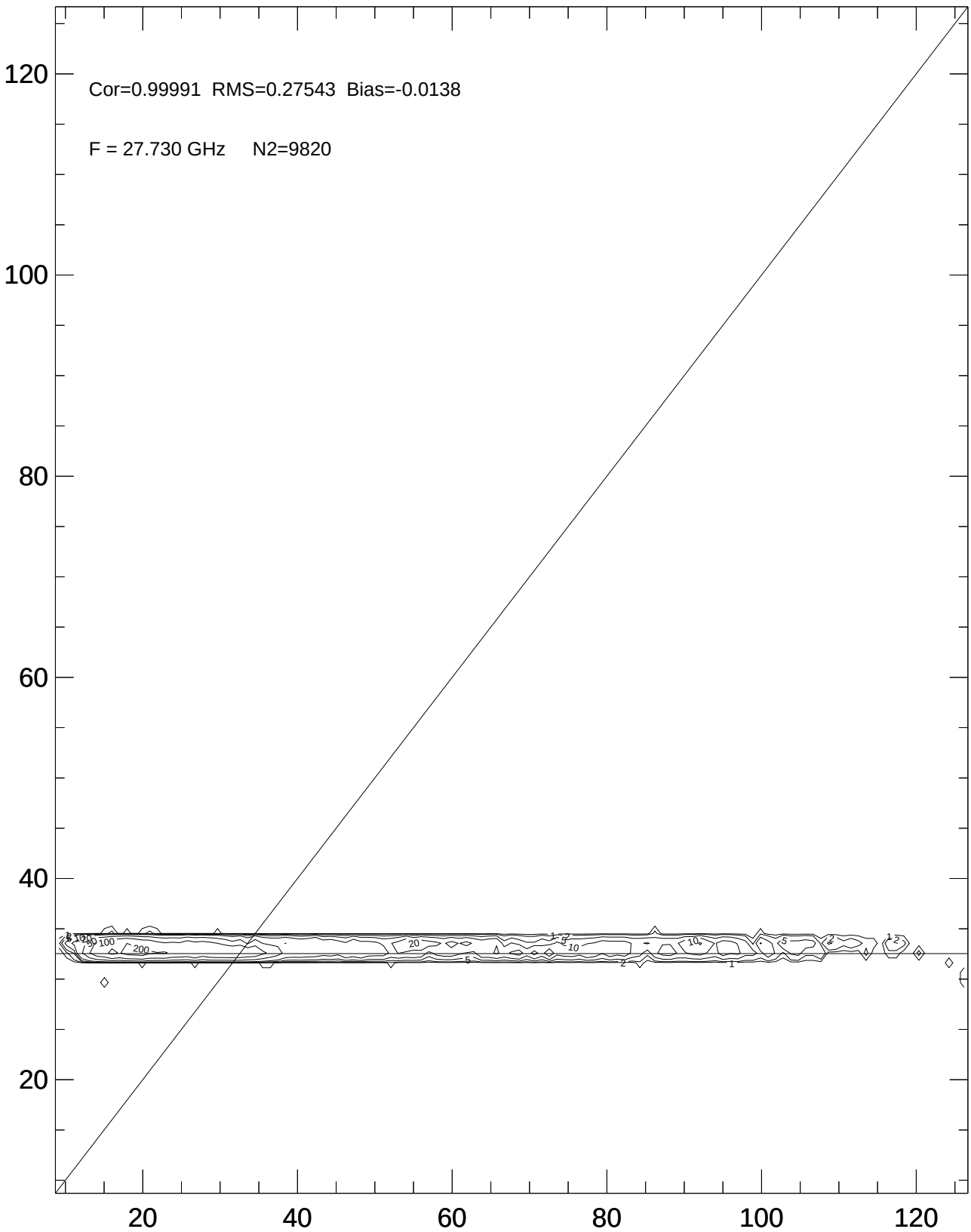

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

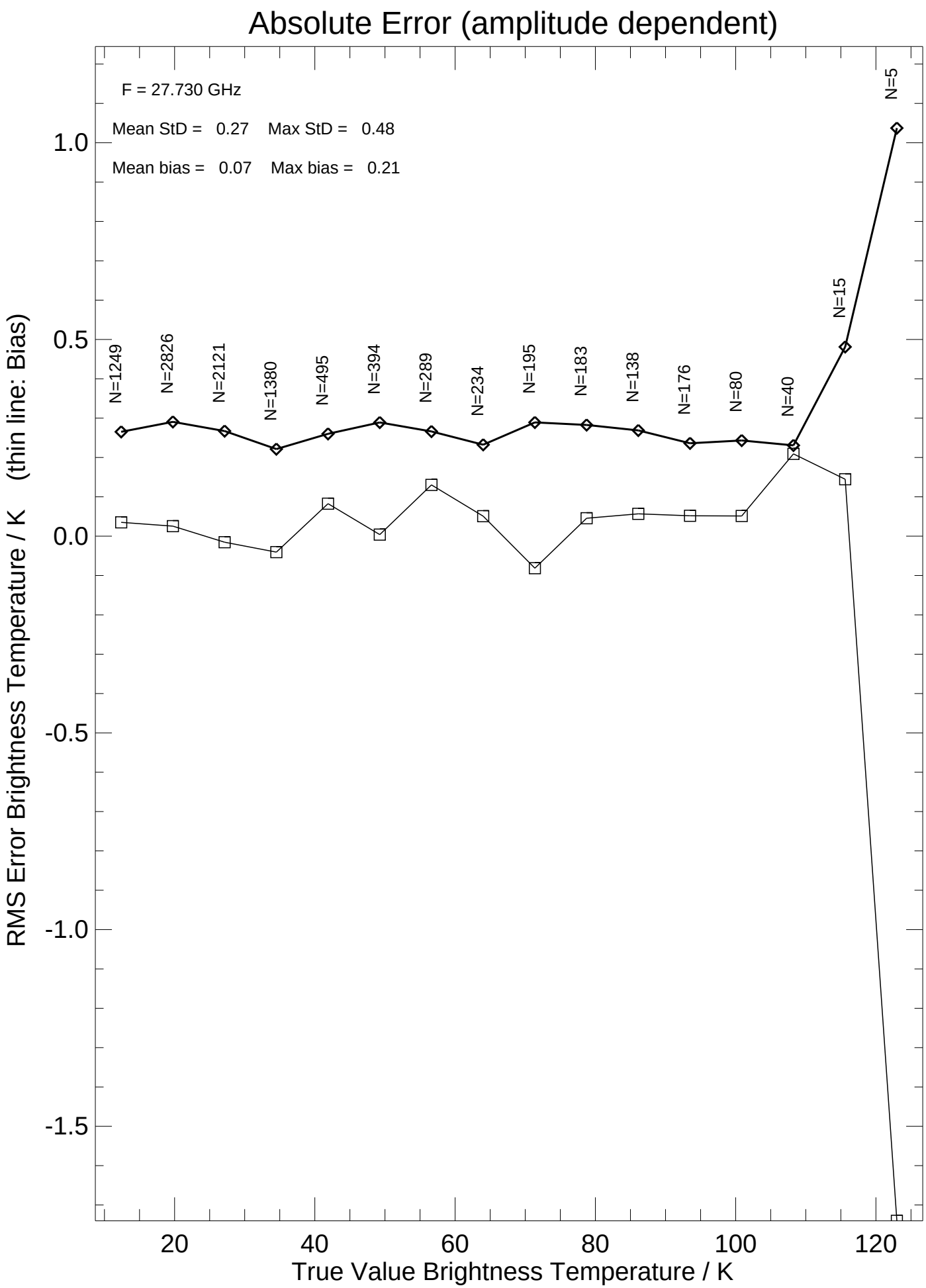

Cor=0.99990 RMS=0.28876 Bias=-0.0152
F = 27.000 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

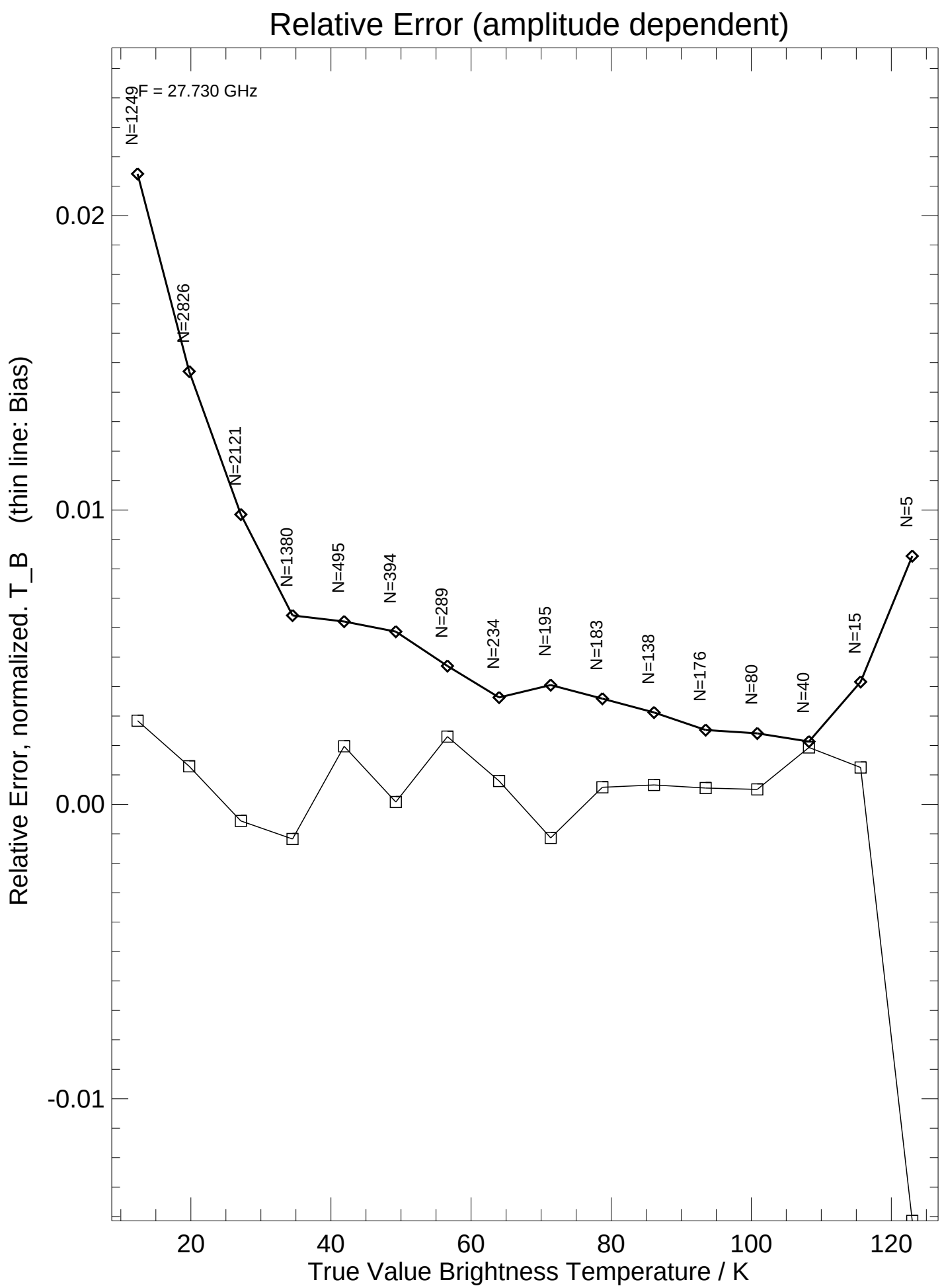

Absolute Error (amplitude dependent)
F = 27.000 GHz
Mean StD = 0.28 Max StD = 0.51
Mean bias = 0.06 Max bias = 0.19
N=956
N=2643
N=2017
N=1691
N=662
N=429
N=310
N=242
N=207
N=189
N=143
N=180
N=88
N=42
N=16
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

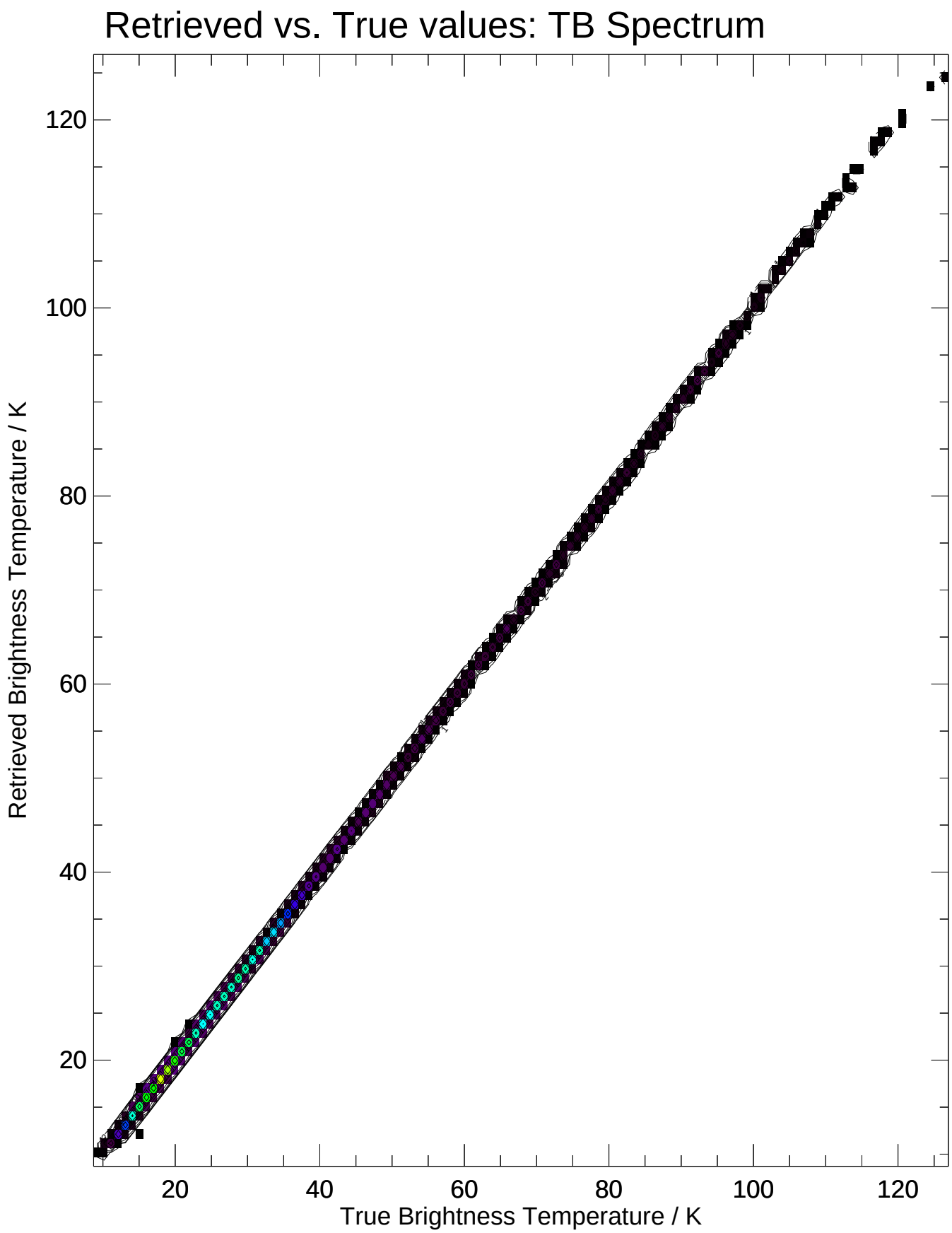

Relative Error (amplitude dependent)
F = 27.000 GHz
N=956
N=2643
N=2017
N=1691
N=662
N=429
N=310
N=242
N=207
N=189
N=143
N=180
N=88
N=42
N=16
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

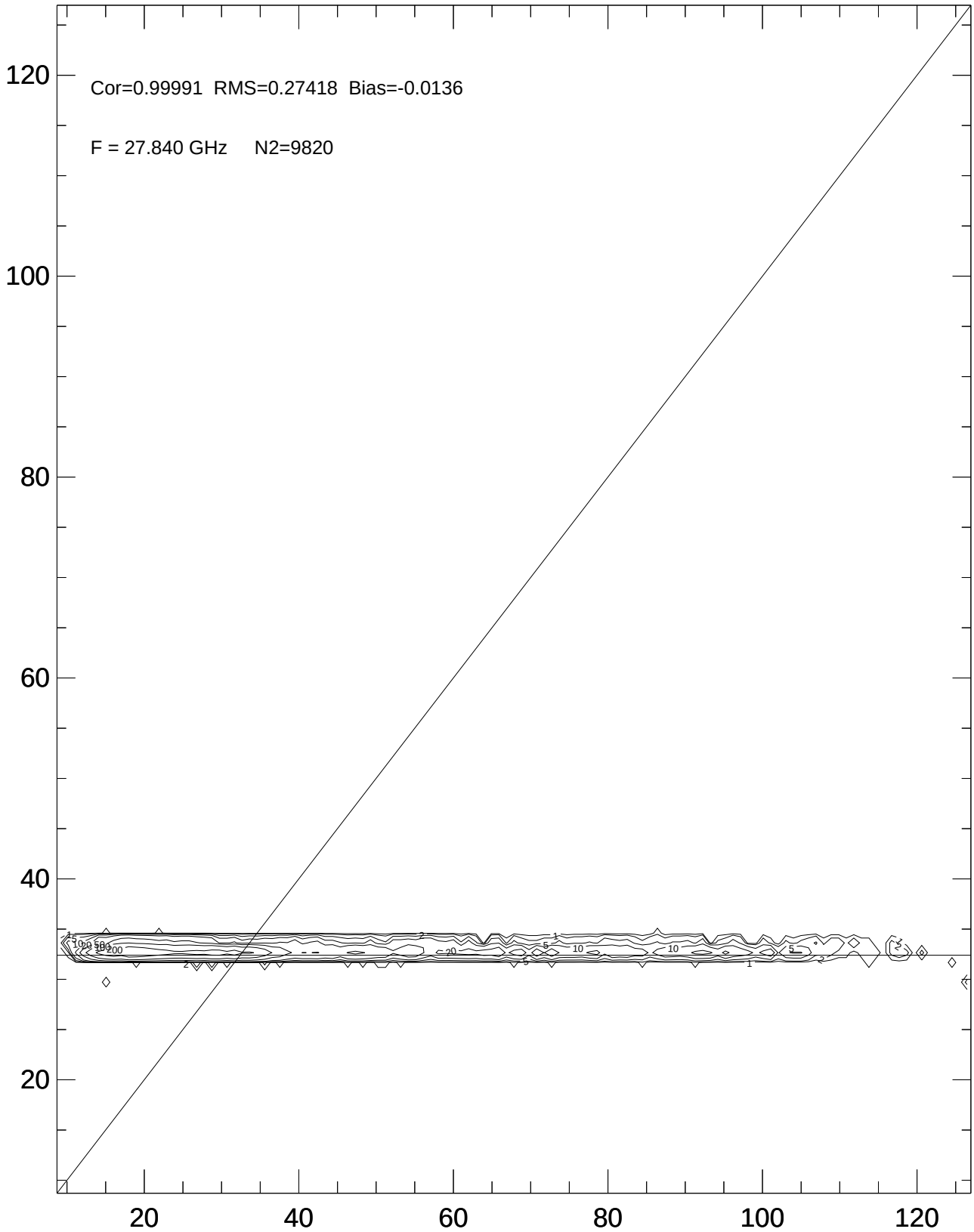

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

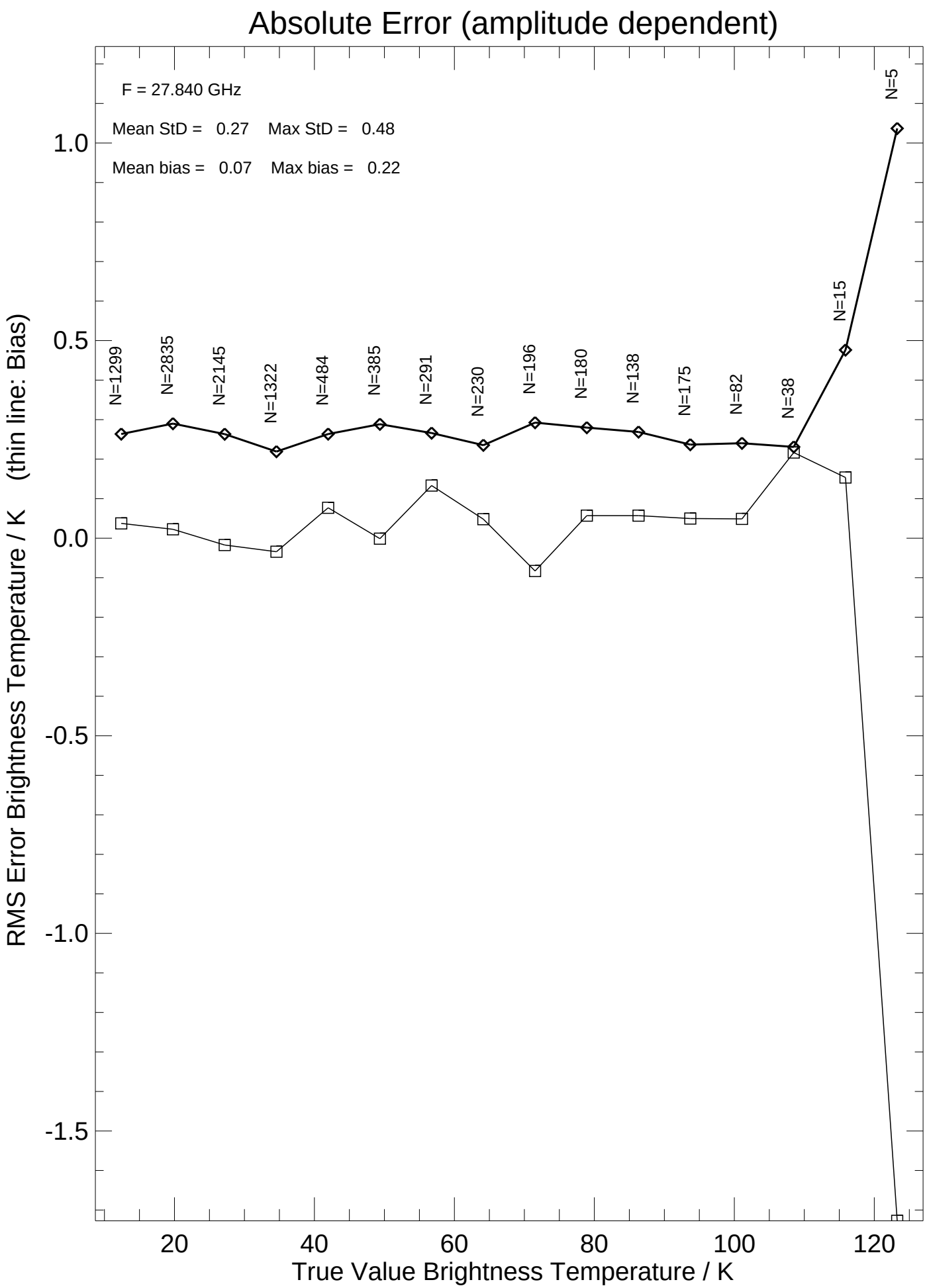

Cor=0.99991 RMS=0.27543 Bias=-0.0138
F = 27.730 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

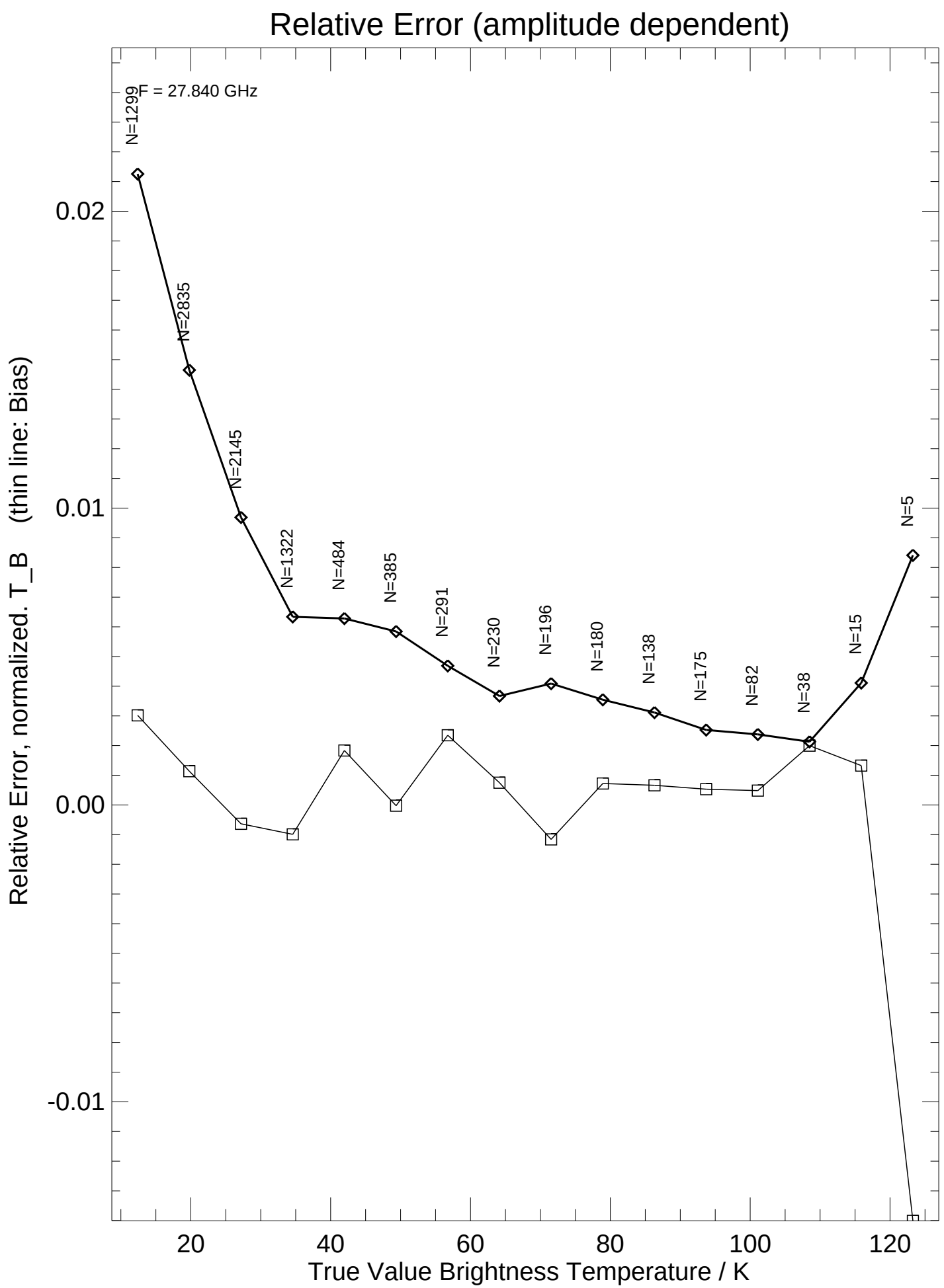

Absolute Error (amplitude dependent)
F = 27.730 GHz
Mean StD = 0.27 Max StD = 0.48
Mean bias = 0.07 Max bias = 0.21
N=1249
N=2826
N=2121
N=1380
N=495
N=394
N=289
N=234
N=195
N=183
N=138
N=176
N=80
N=40
N=15
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

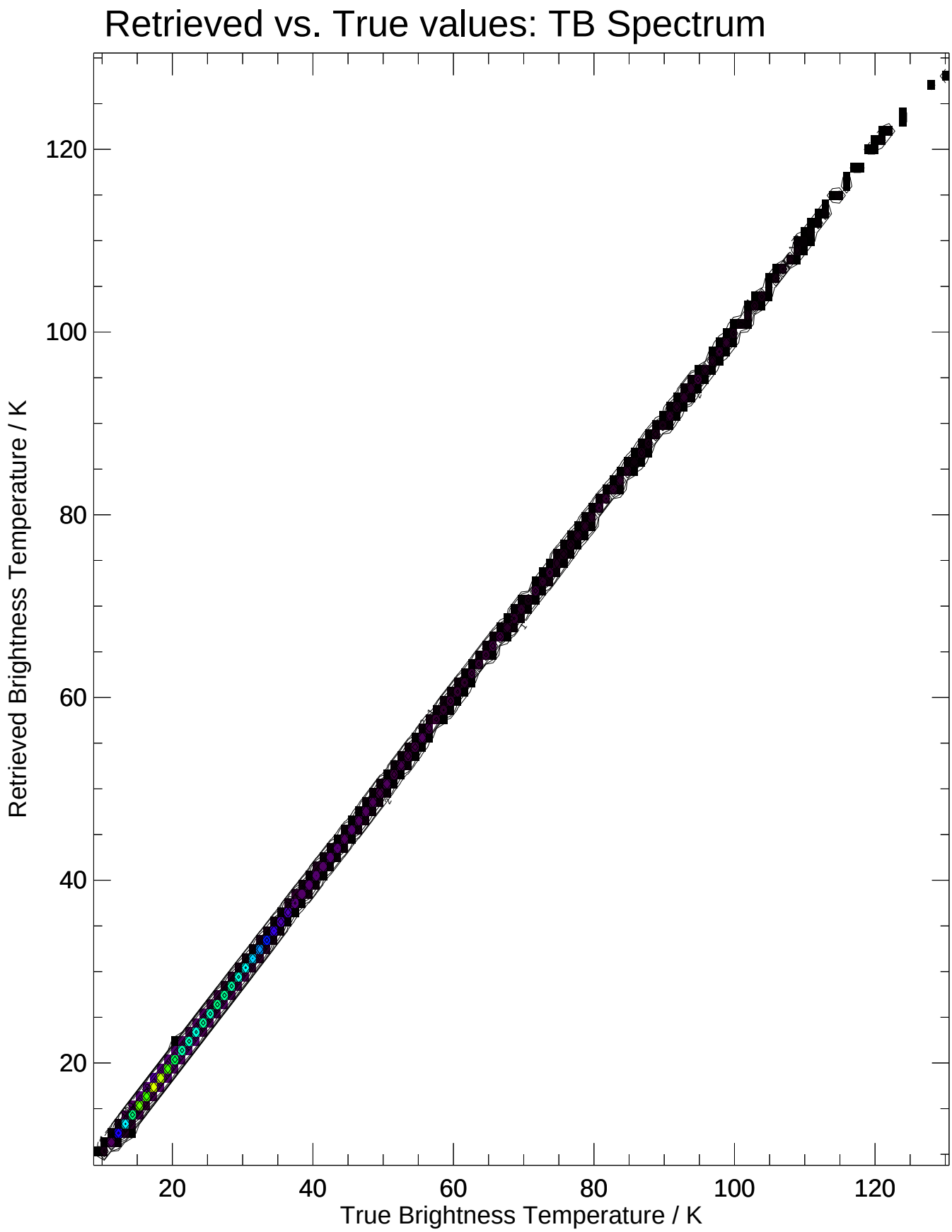

Relative Error (amplitude dependent)
F = 27.730 GHz
N=1249
N=2826
N=2121
N=1380
N=495
N=394
N=289
N=234
N=195
N=183
N=138
N=176
N=80
N=40
N=15
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

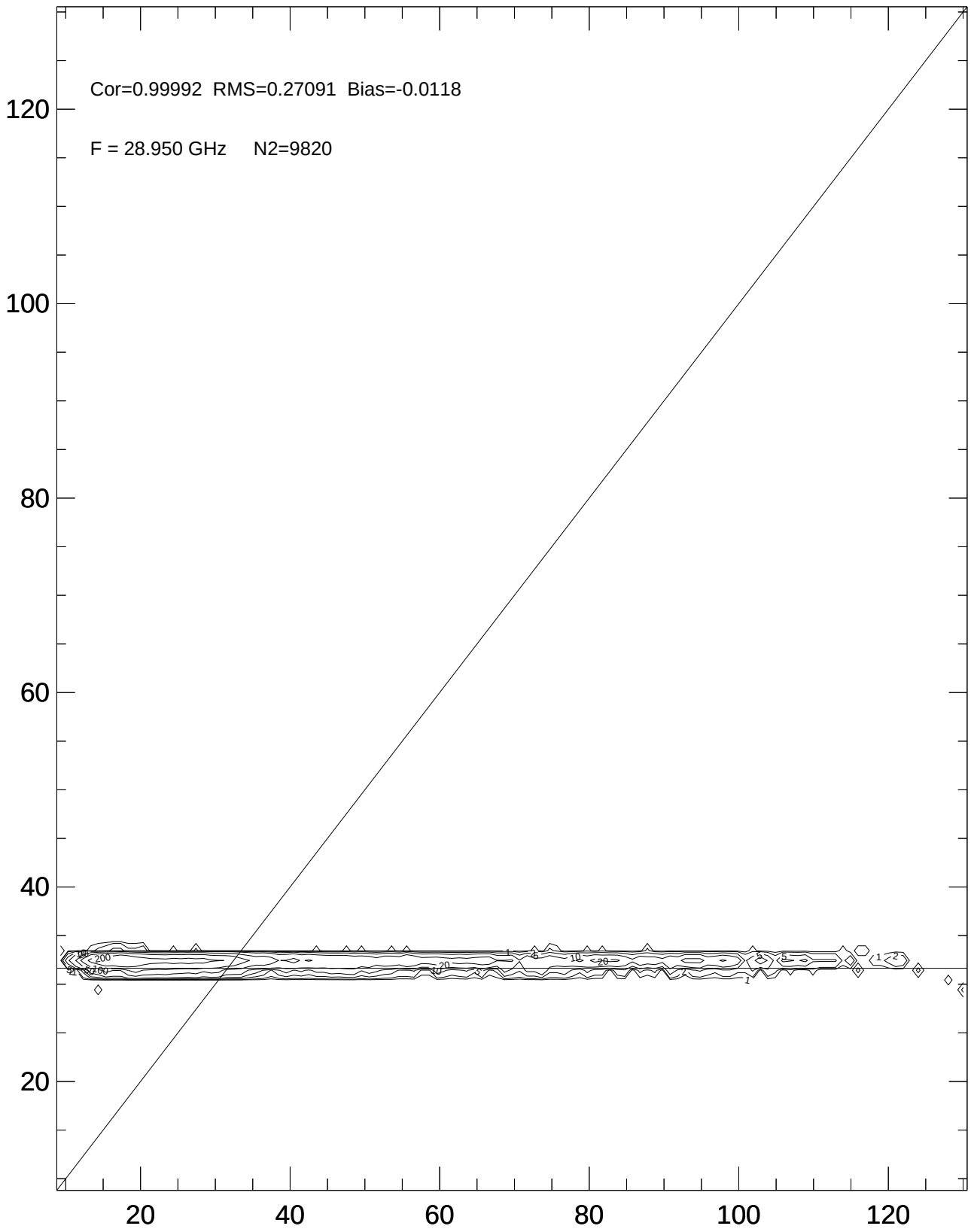

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

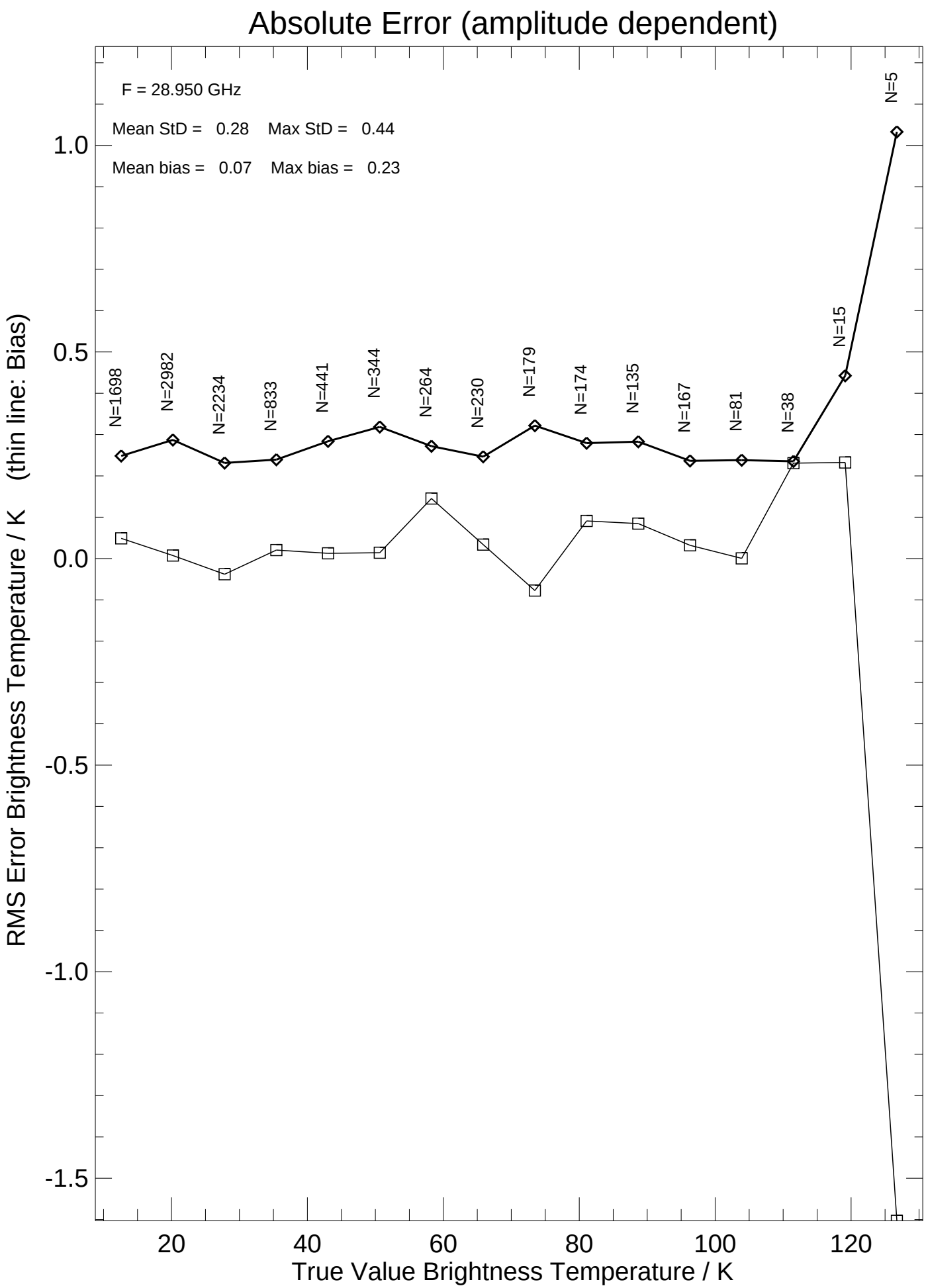

Cor=0.99991 RMS=0.27418 Bias=-0.0136
F = 27.840 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

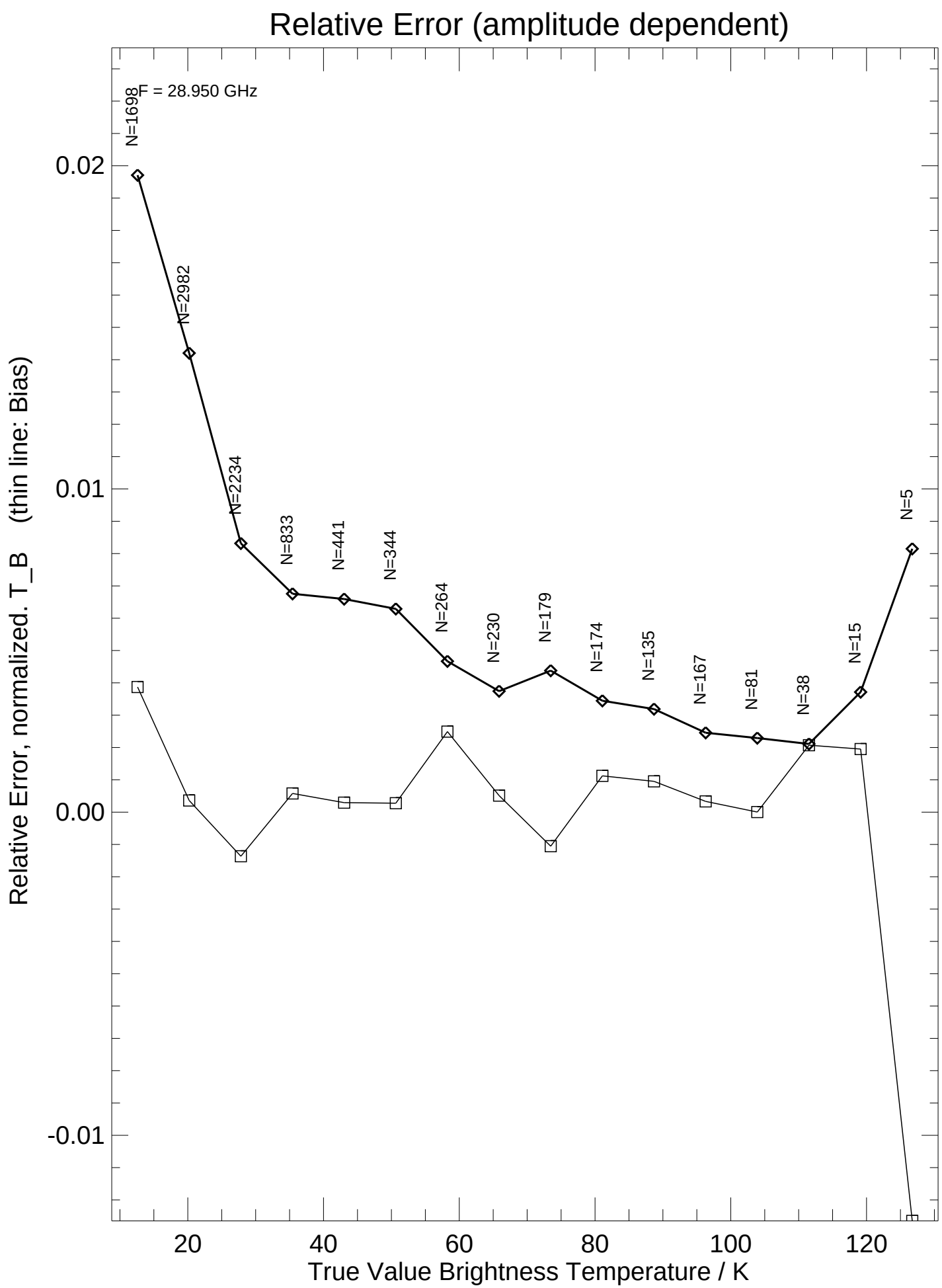

Absolute Error (amplitude dependent)
F = 27.840 GHz
Mean StD = 0.27 Max StD = 0.48
Mean bias = 0.07 Max bias = 0.22
N=1299
N=2835
N=2145
N=1322
N=484
N=385
N=291
N=230
N=196
N=180
N=138
N=175
N=82
N=38
N=15
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

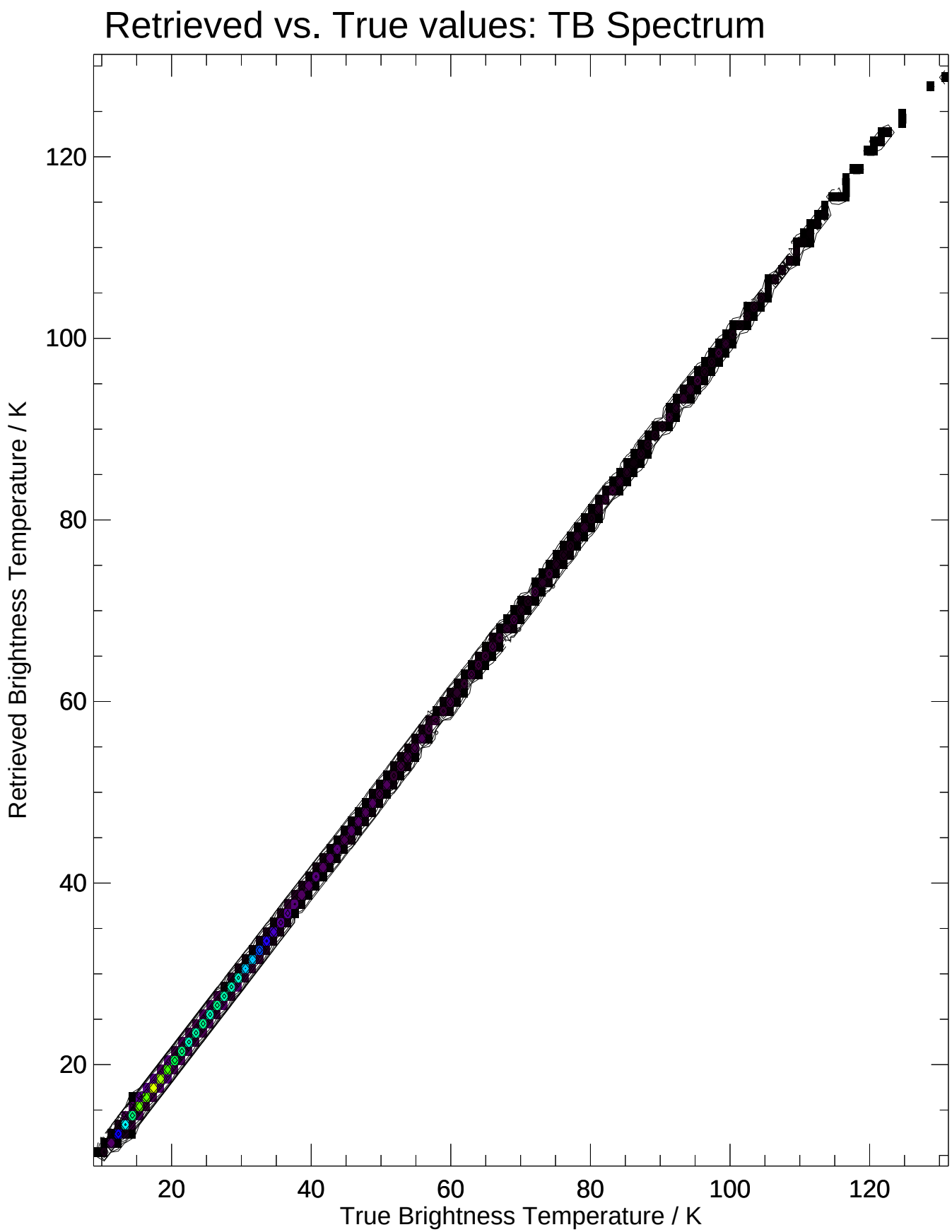

Relative Error (amplitude dependent)
F = 27.840 GHz
N=1299
N=2835
N=2145
N=1322
N=484
N=385
N=291
N=230
N=196
N=180
N=138
N=175
N=82
N=38
N=15
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

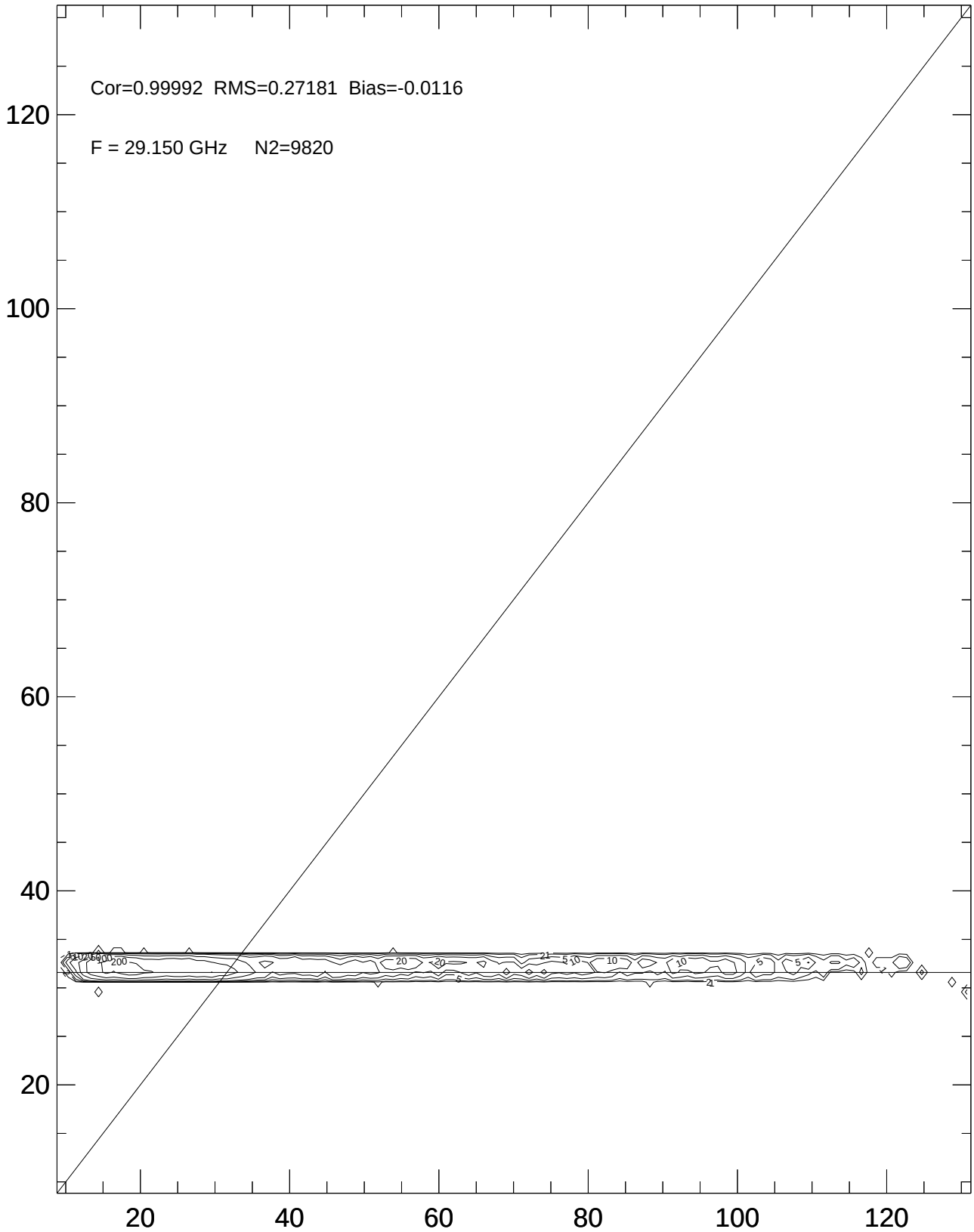

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

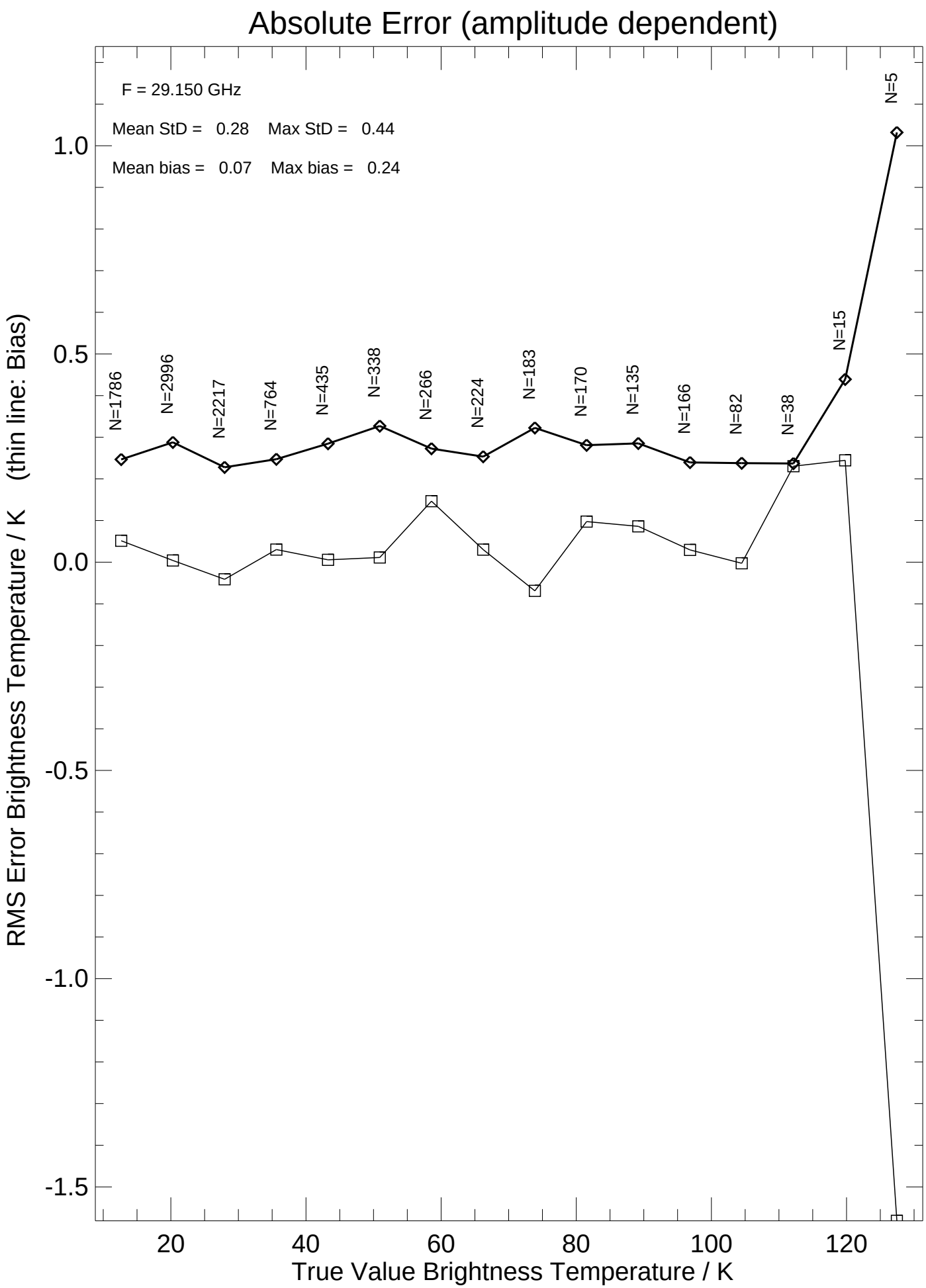

Cor=0.99992 RMS=0.27091 Bias=-0.0118
F = 28.950 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

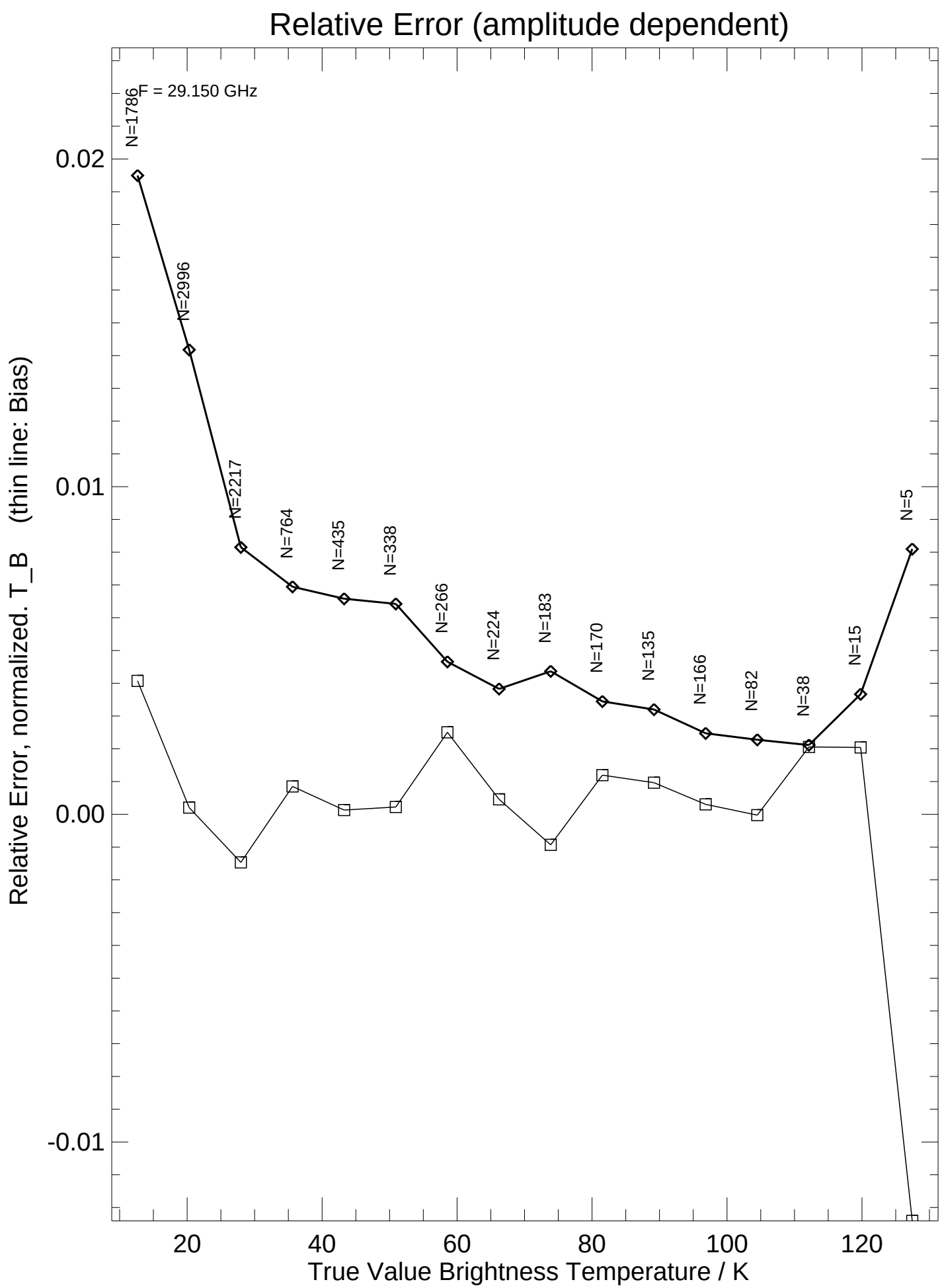

Absolute Error (amplitude dependent)
F = 28.950 GHz
Mean StD = 0.28 Max StD = 0.44
Mean bias = 0.07 Max bias = 0.23
N=1698
N=2982
N=2234
N=833
N=441
N=344
N=264
N=230
N=179
N=174
N=135
N=167
N=81
N=38
N=15
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

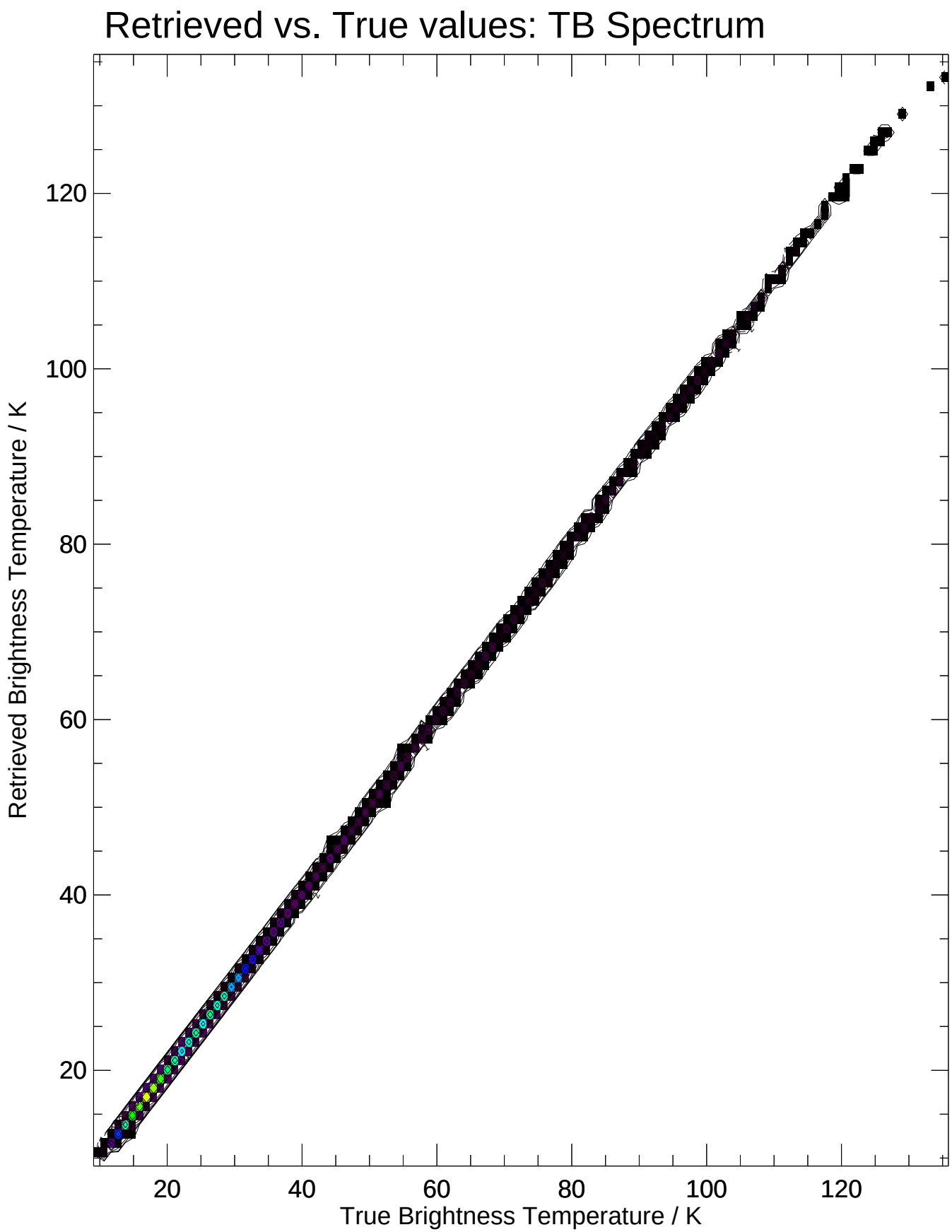

Relative Error (amplitude dependent)
F = 28.950 GHz
N=1698
N=2982
N=2234
N=833
N=441
N=344
N=264
N=230
N=179
N=174
N=135
N=167
N=81
N=38
N=15
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

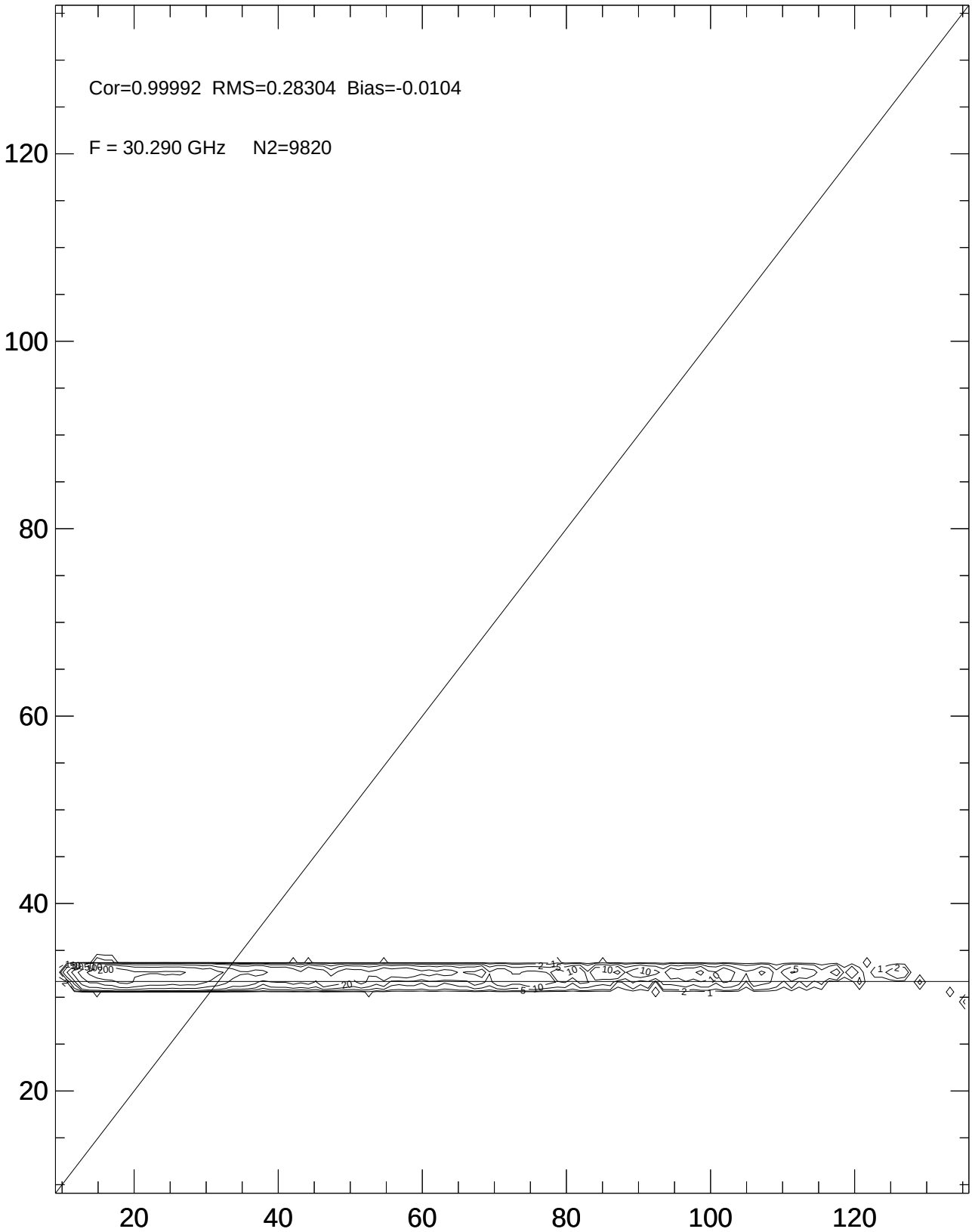

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

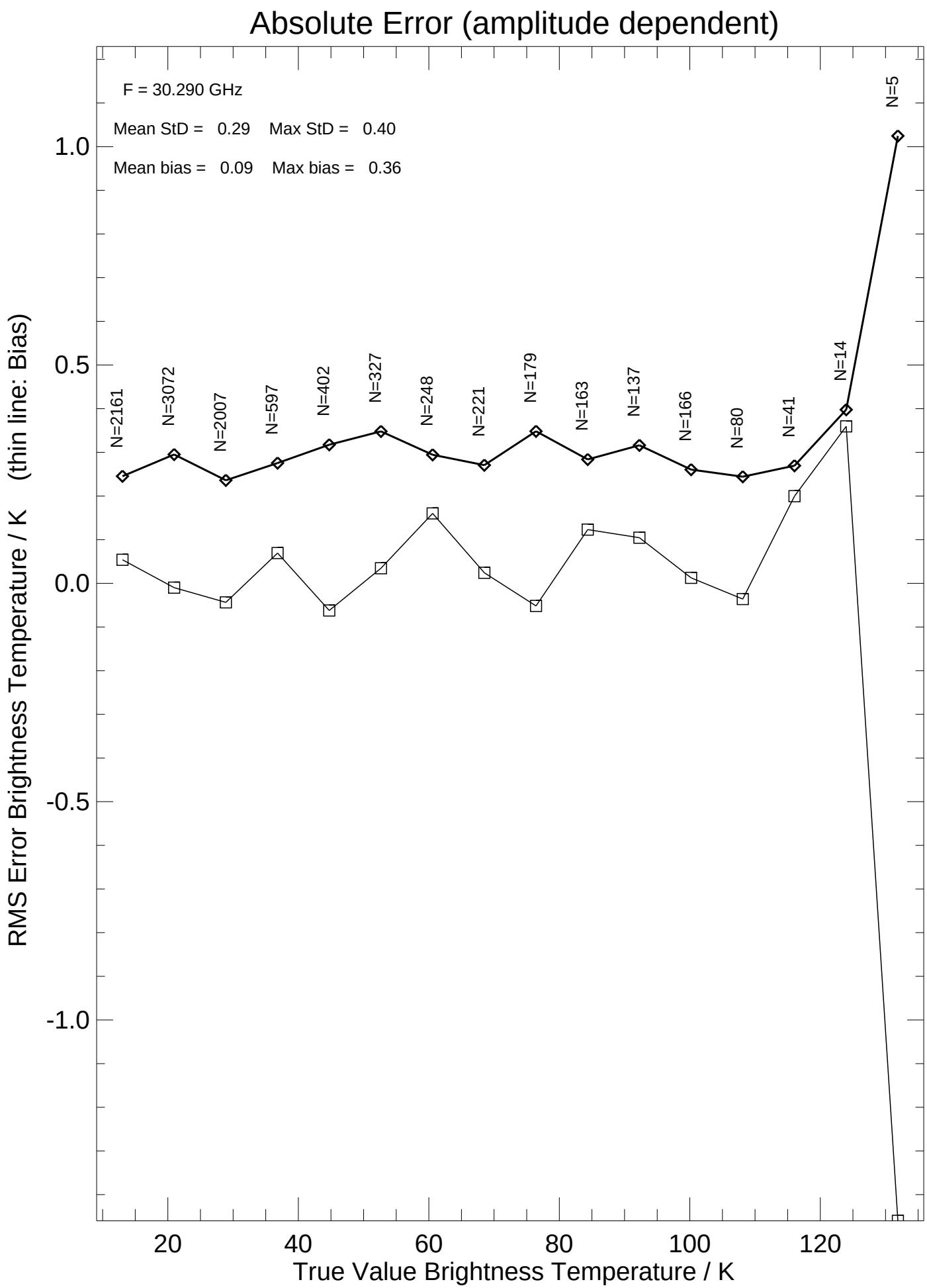

Cor=0.99992 RMS=0.27181 Bias=-0.0116
F = 29.150 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

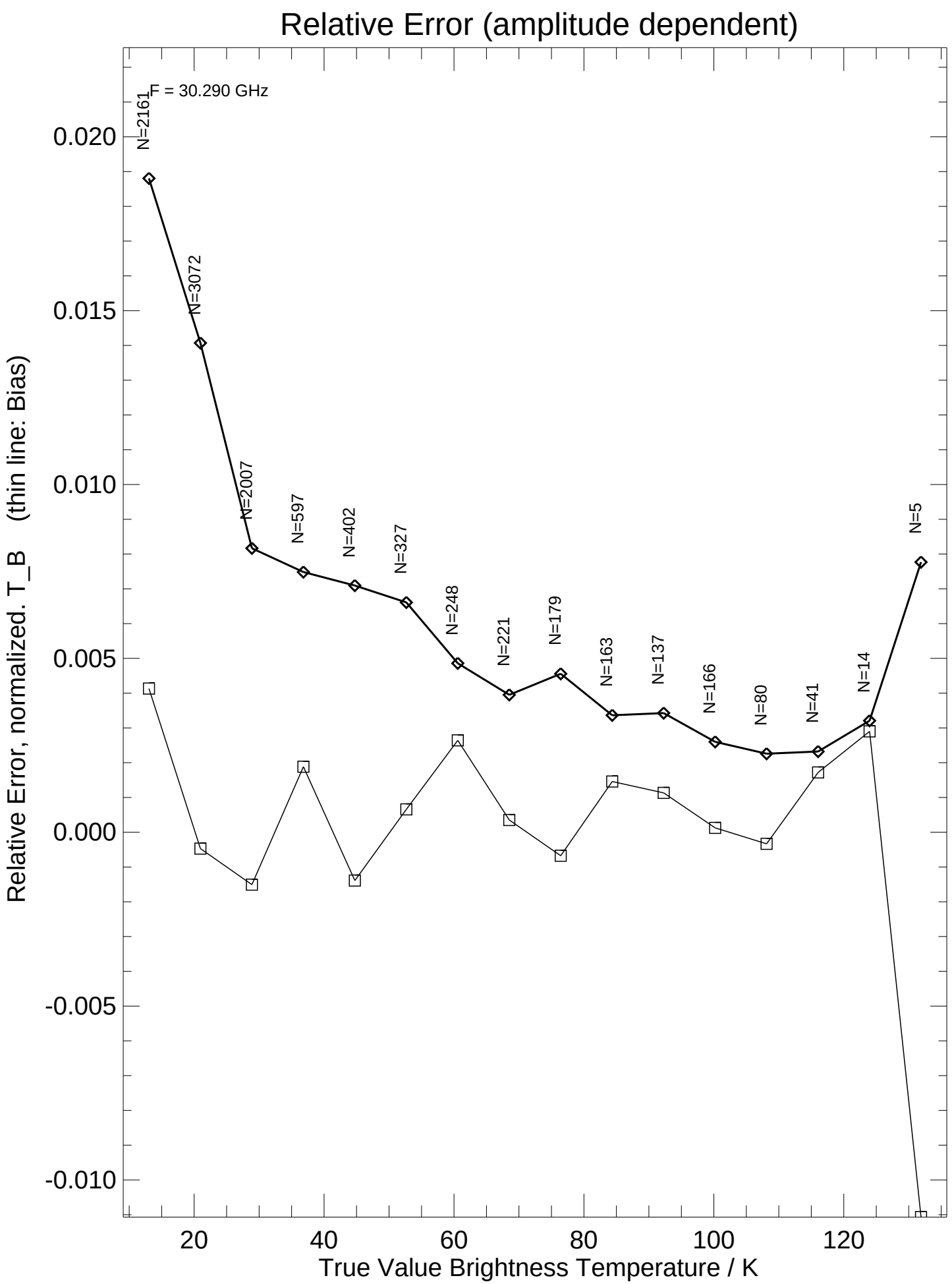

Absolute Error (amplitude dependent)
F = 29.150 GHz
Mean StD = 0.28 Max StD = 0.44
Mean bias = 0.07 Max bias = 0.24
N=1786
N=2996
N=2217
N=764
N=435
N=338
N=266
N=224
N=183
N=170
N=135
N=166
N=82
N=38
N=15
N=5
1.0
0.5
0.0
-0.5
-1.0
-1.5
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

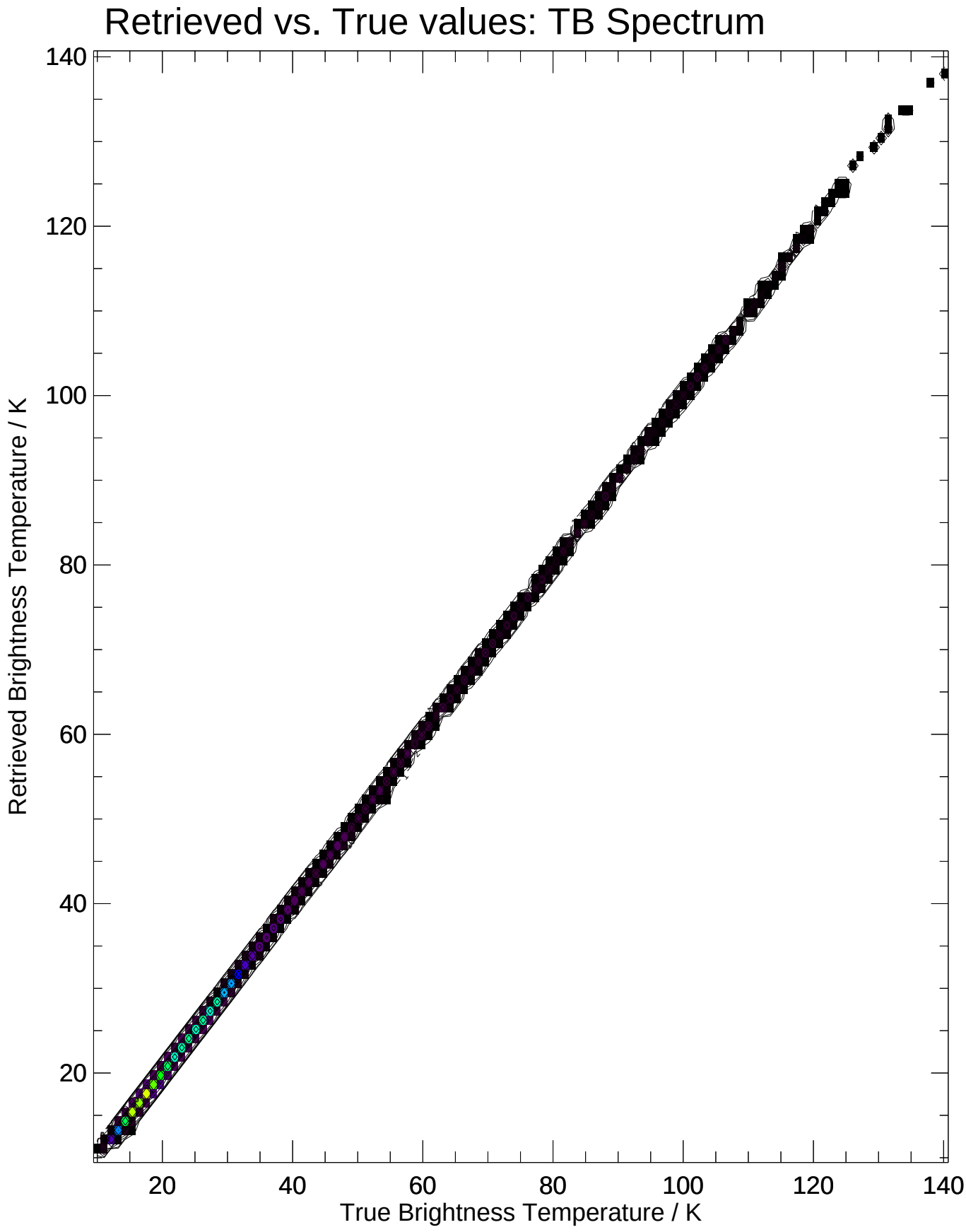

Relative Error (amplitude dependent)
F = 29.150 GHz
N=1786
N=2996
N=2217
N=764
N=435
N=338
N=266
N=224
N=183
N=170
N=135
N=166
N=82
N=38
N=15
N=5
0.02
0.01
0.00
-0.01
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
True Value Brightness Temperature / K

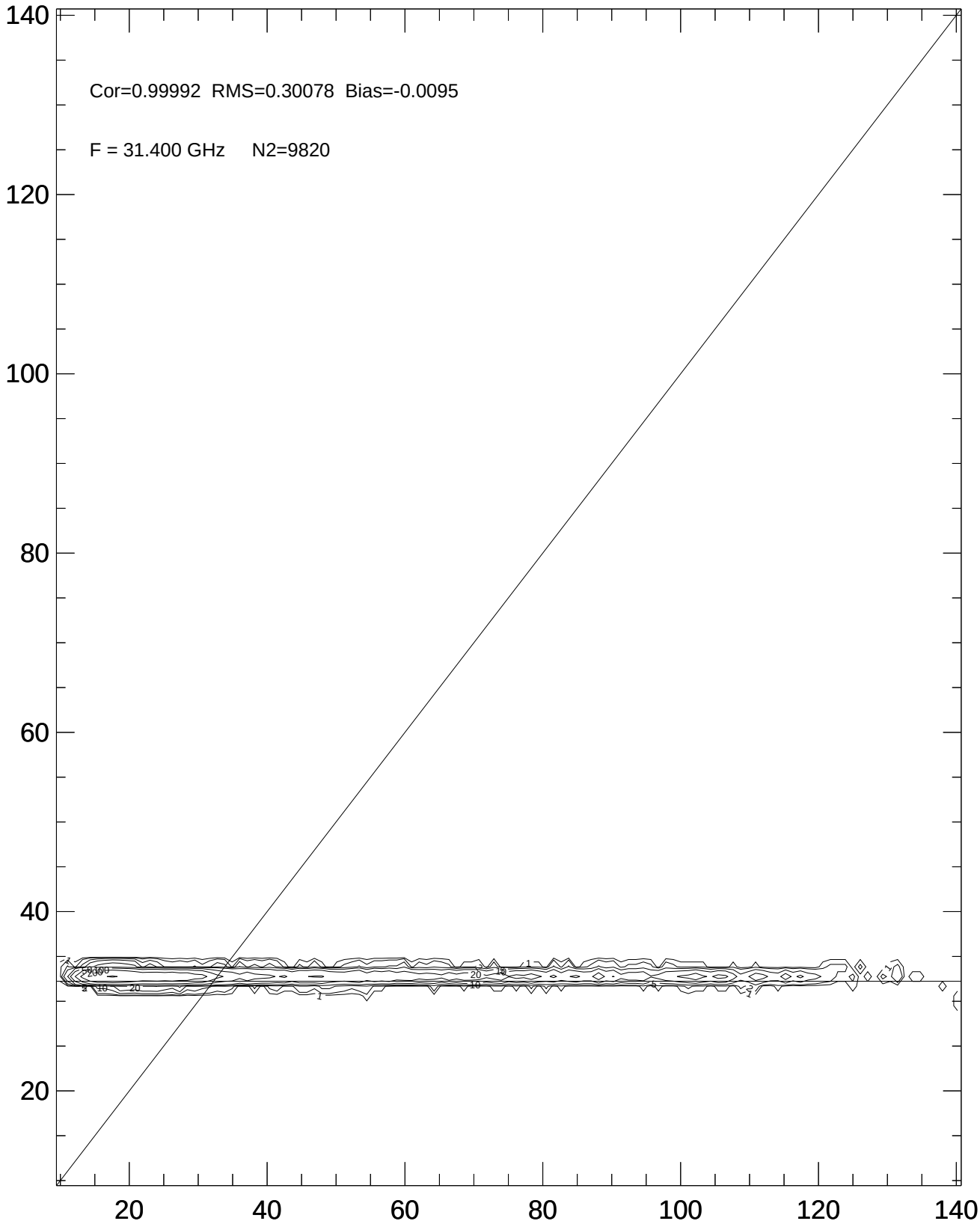

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120

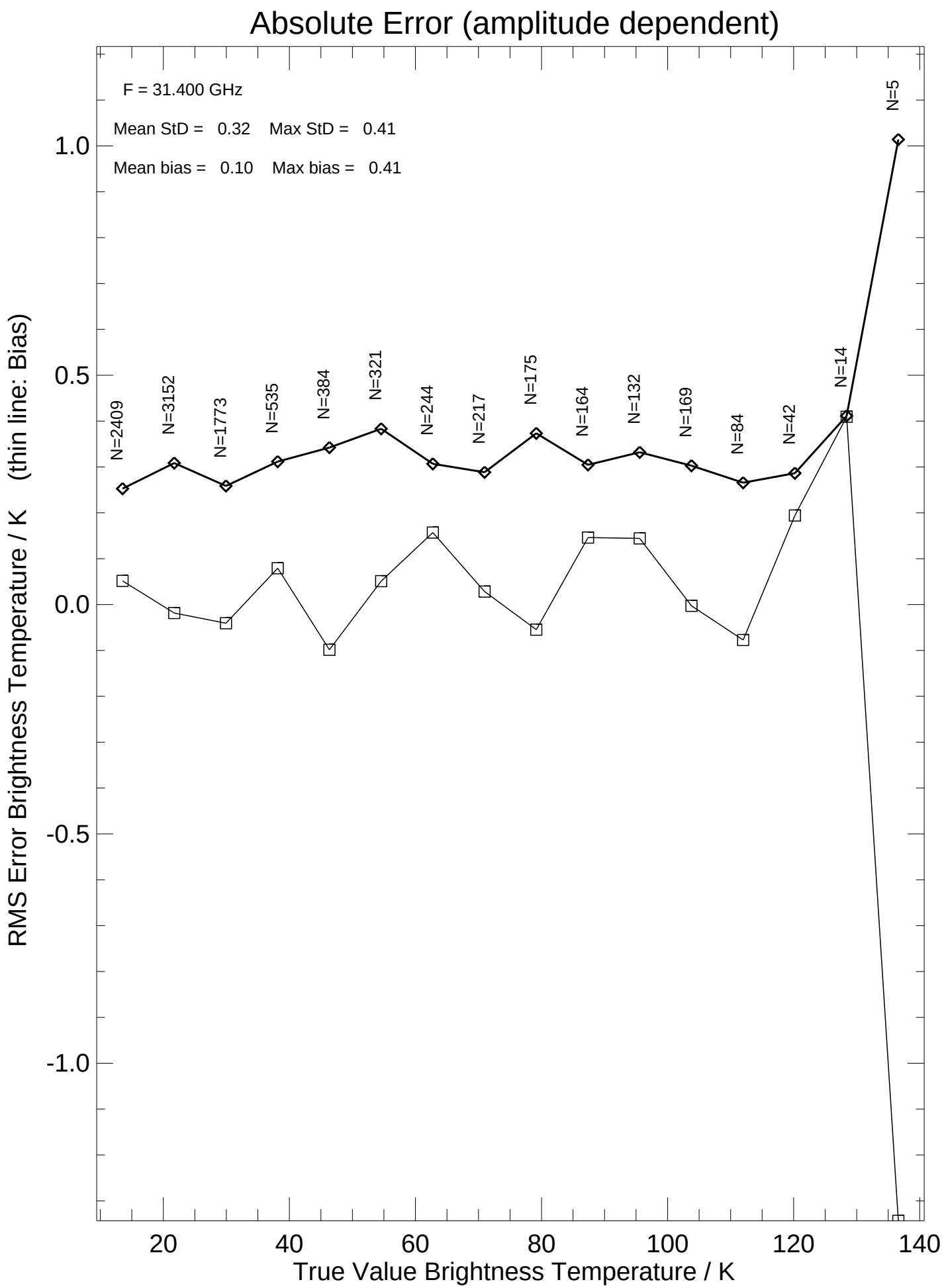

Cor=0.99992 RMS=0.28304 Bias=-0.0104
F = 30.290 GHz N2=9820
120
100
80
60
40
20
20
40
60
80
100
120

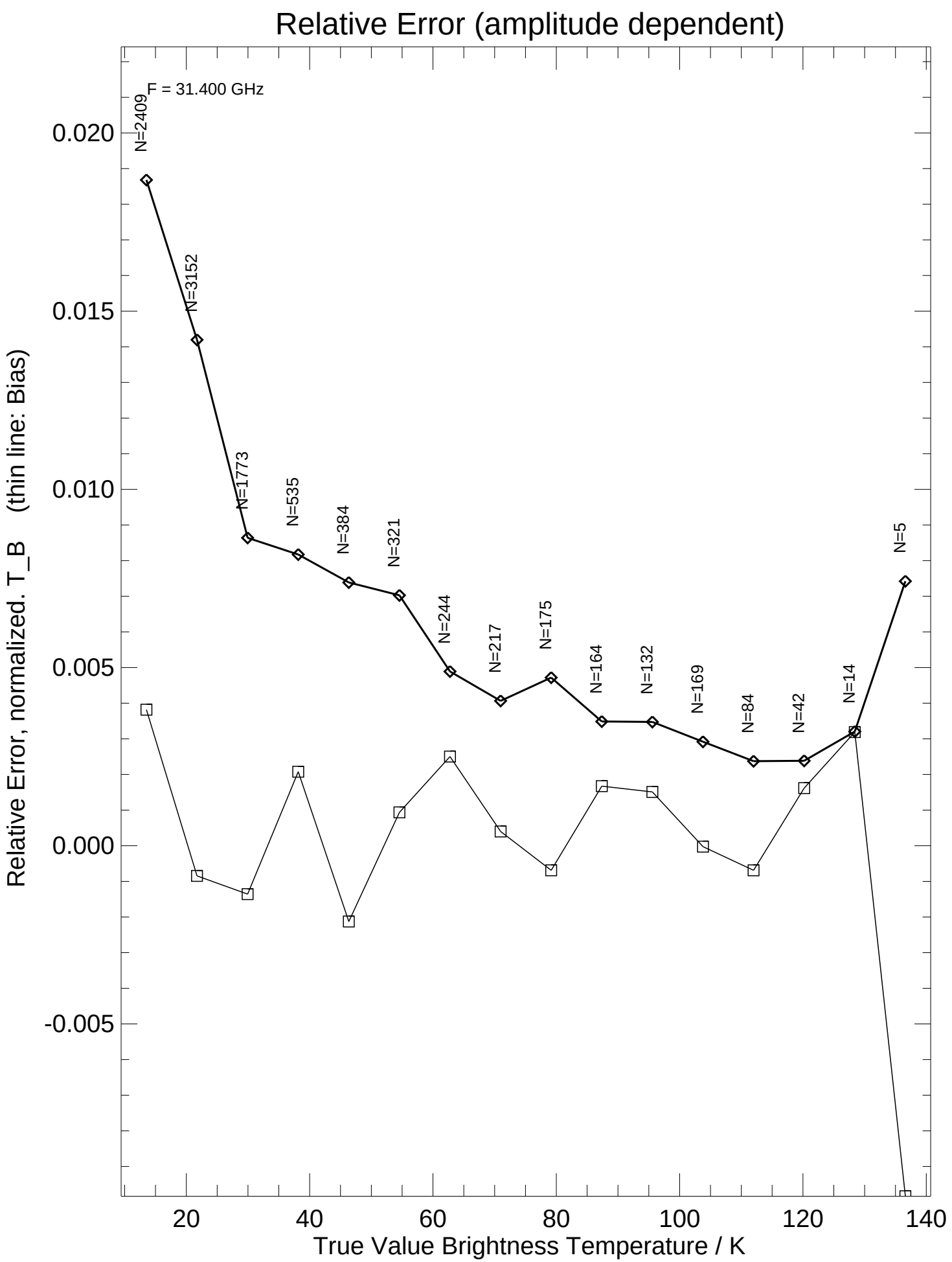

Absolute Error (amplitude dependent)
F = 30.290 GHz
Mean StD = 0.29 Max StD = 0.40
Mean bias = 0.09 Max bias = 0.36
N=2161
N=3072
N=2007
N=597
N=402
N=327
N=248
N=221
N=179
N=163
N=137
N=166
N=80
N=41
N=14
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

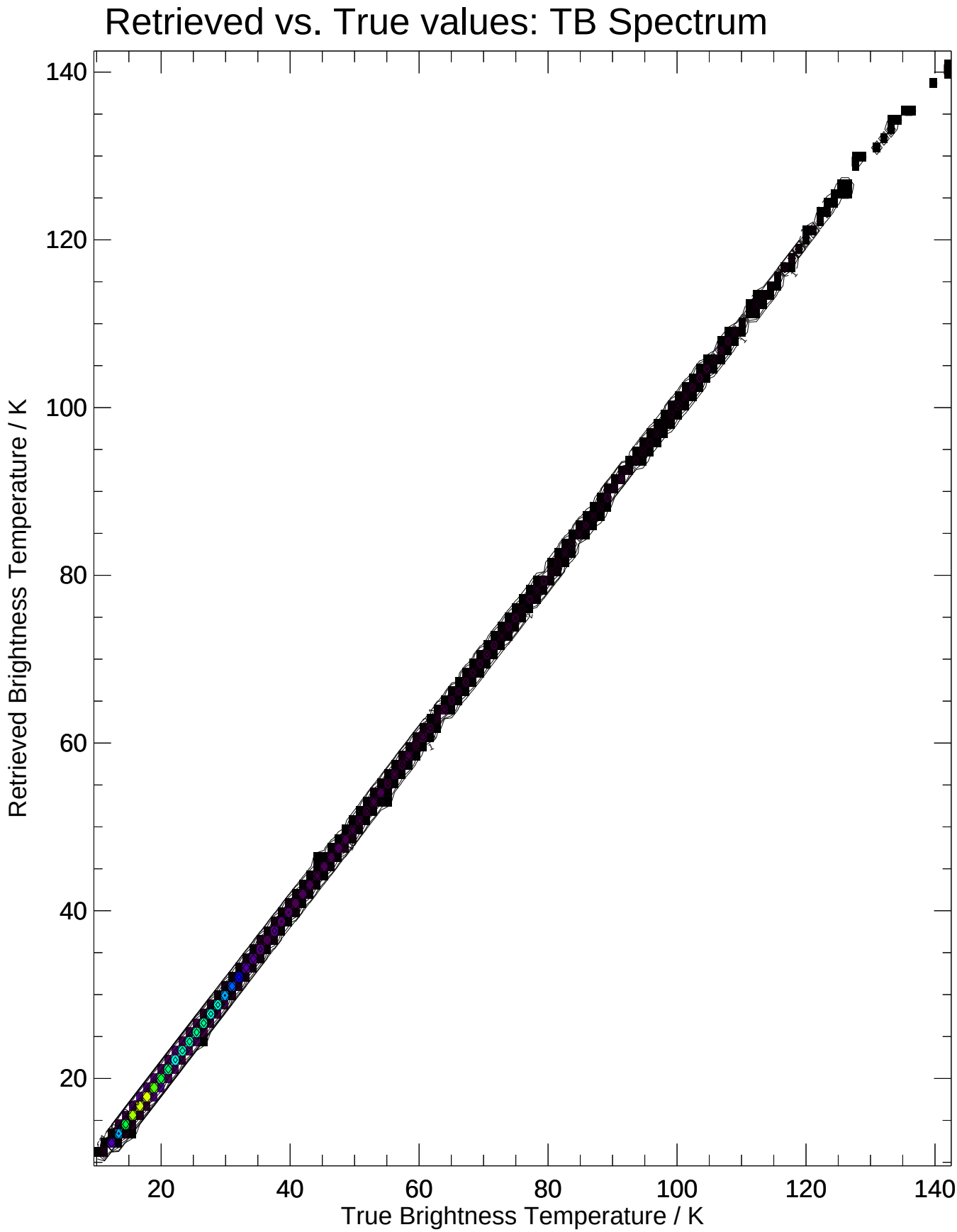

Relative Error (amplitude dependent)
F = 30.290 GHz
N=2161
N=3072
N=2007
N=597
N=402
N=327
N=248
N=221
N=179
N=163
N=137
N=166
N=80
N=41
N=14
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
-0.010
20
40
60
80
100
120
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

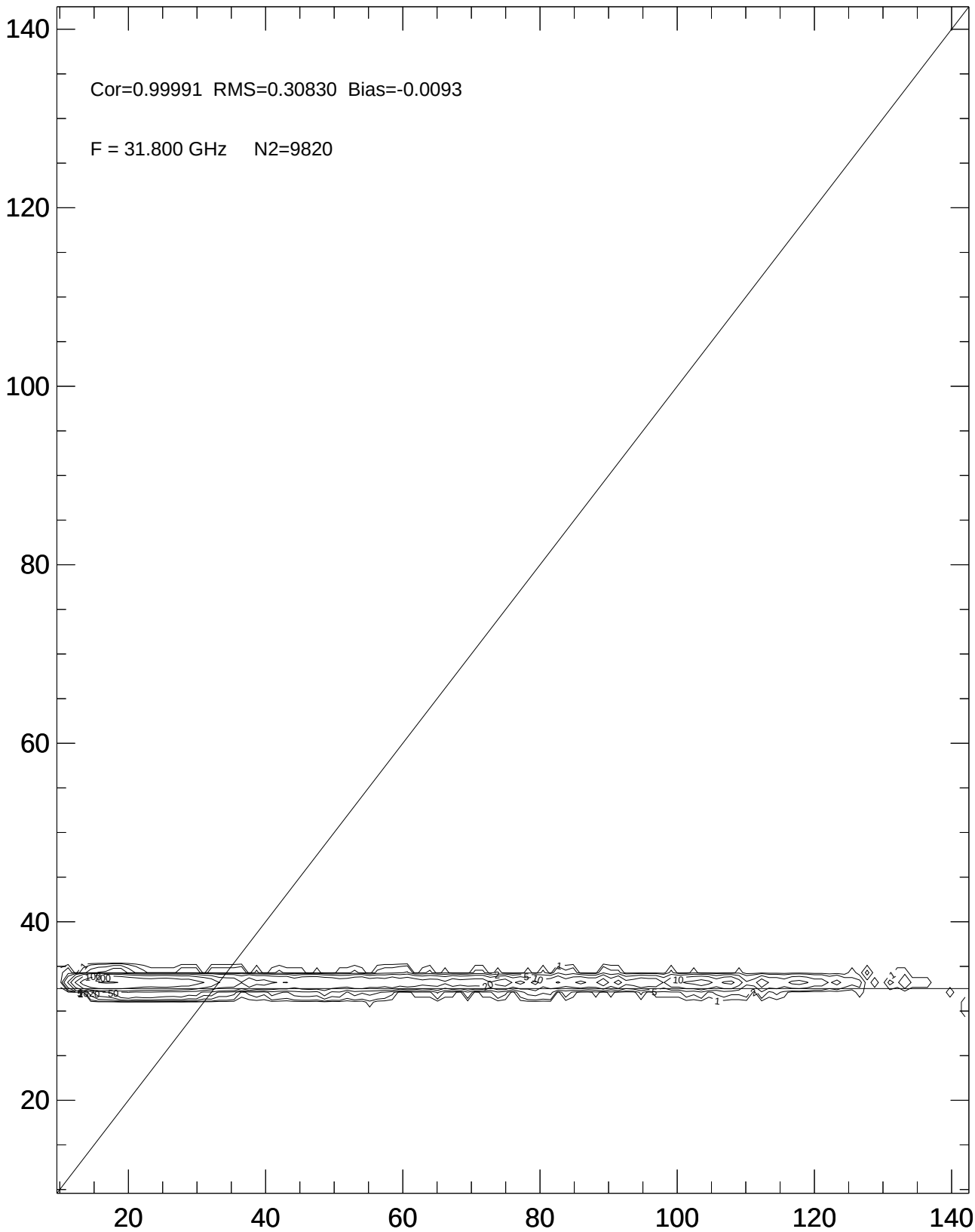

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

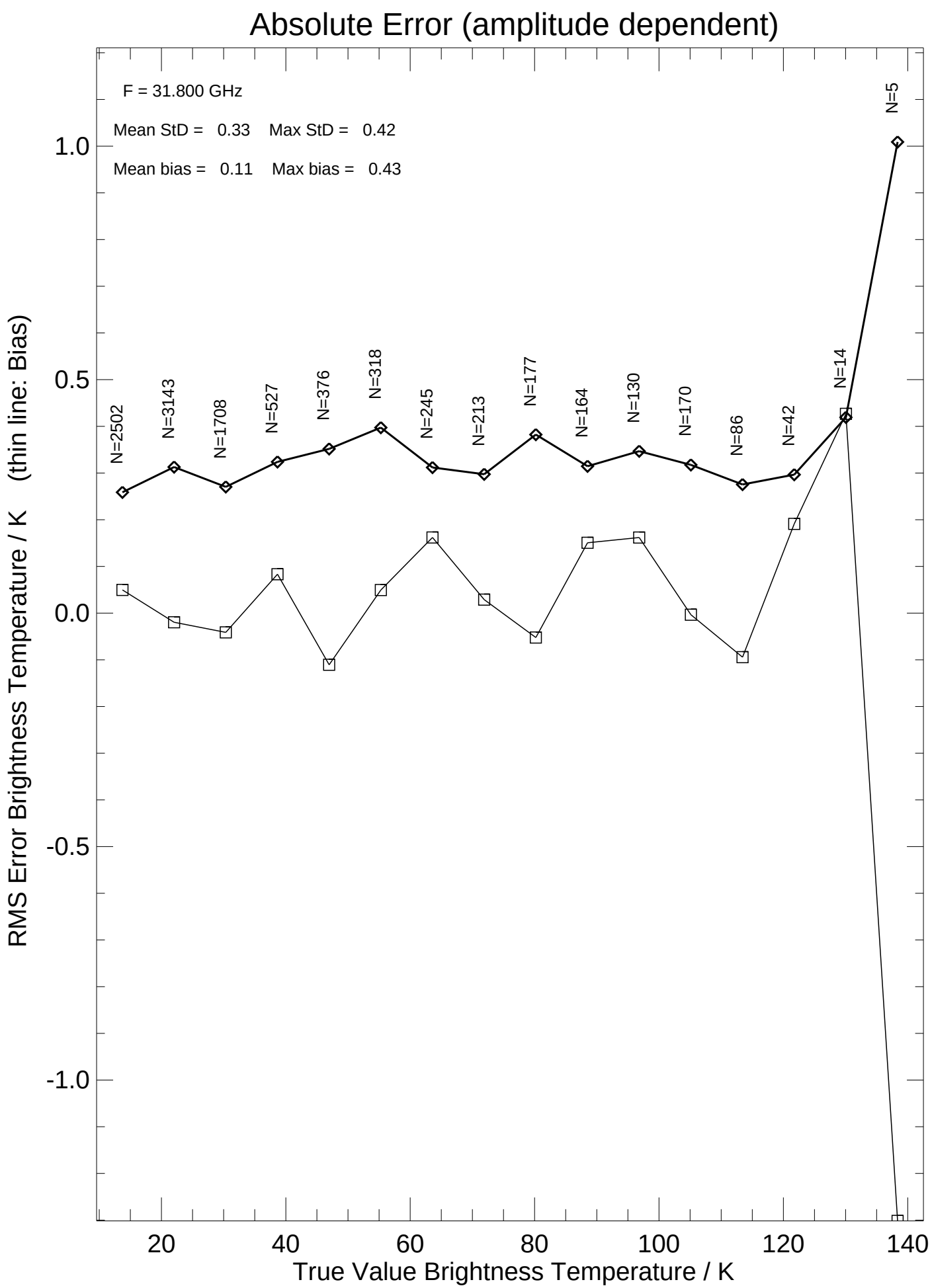

Cor=0.99992 RMS=0.30078 Bias=-0.0095
F = 31.400 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

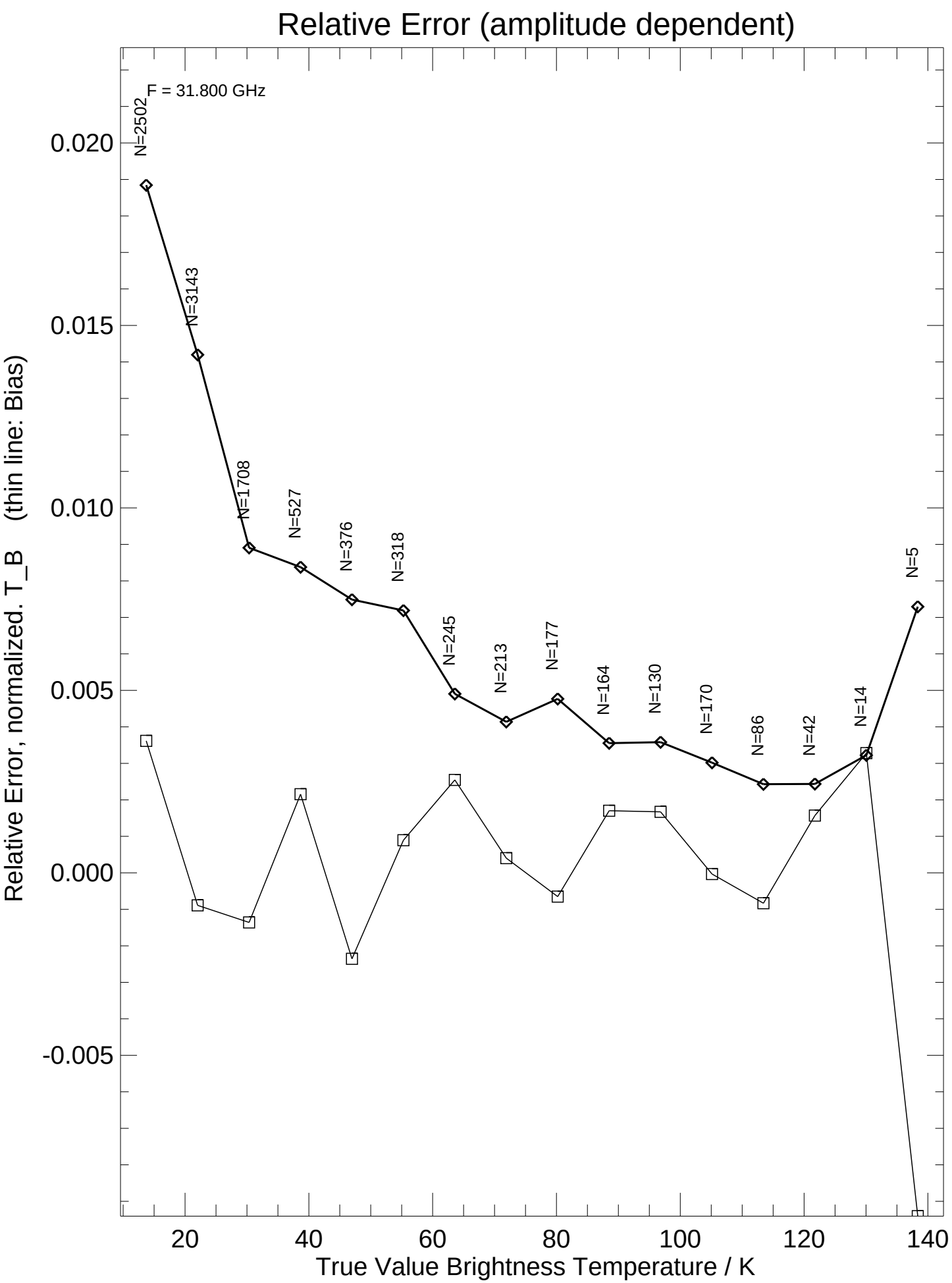

Absolute Error (amplitude dependent)
F = 31.400 GHz
Mean StD = 0.32 Max StD = 0.41
Mean bias = 0.10 Max bias = 0.41
N=2409
N=3152
N=1773
N=535
N=384
N=321
N=244
N=217
N=175
N=164
N=132
N=169
N=84
N=42
N=14
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

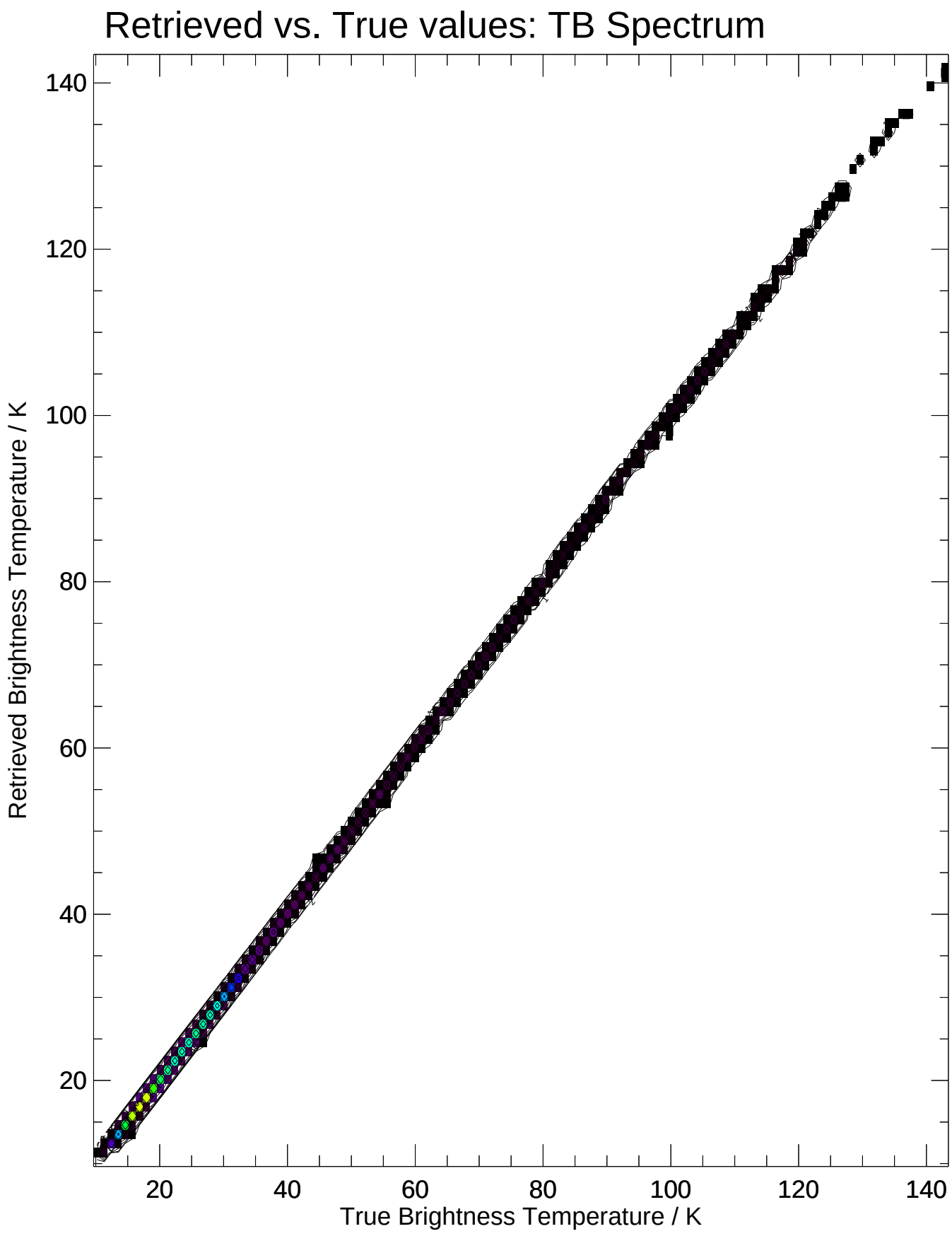

Relative Error (amplitude dependent)
F = 31.400 GHz
N=2409
N=3152
N=1773
N=535
N=384
N=321
N=244
N=217
N=175
N=164
N=132
N=169
N=84
N=42
N=14
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

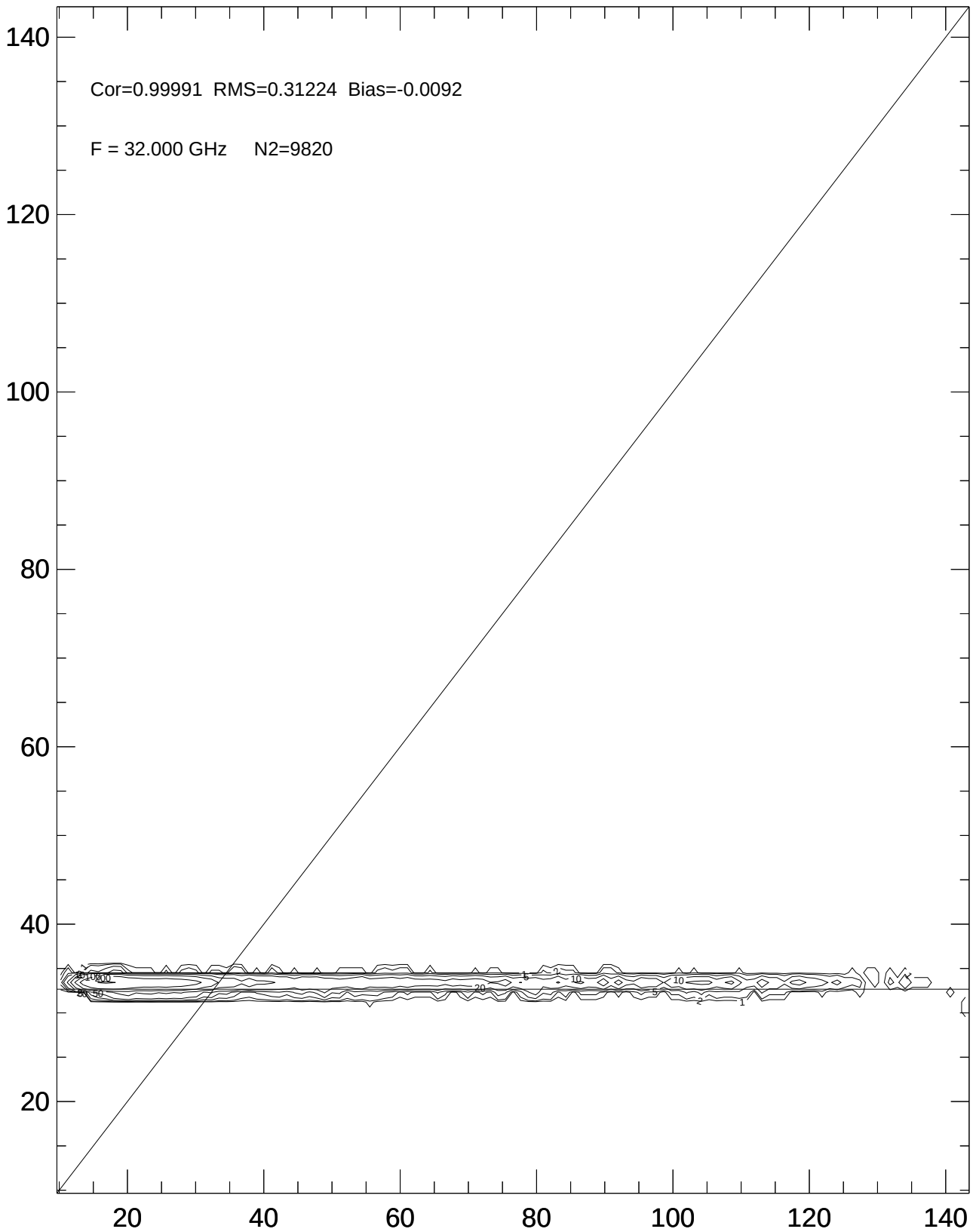

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

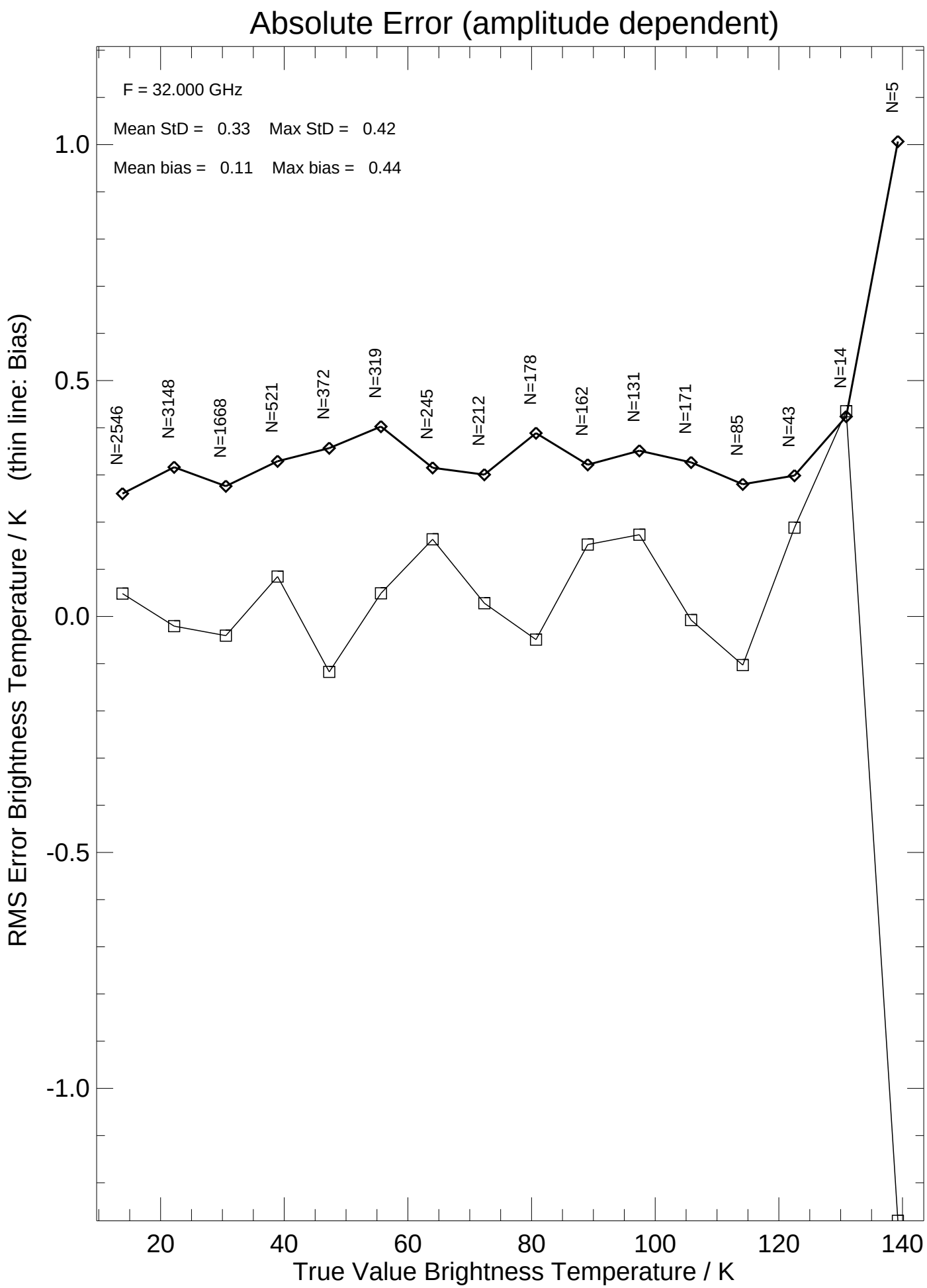

Cor=0.99991 RMS=0.30830 Bias=-0.0093
F = 31.800 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

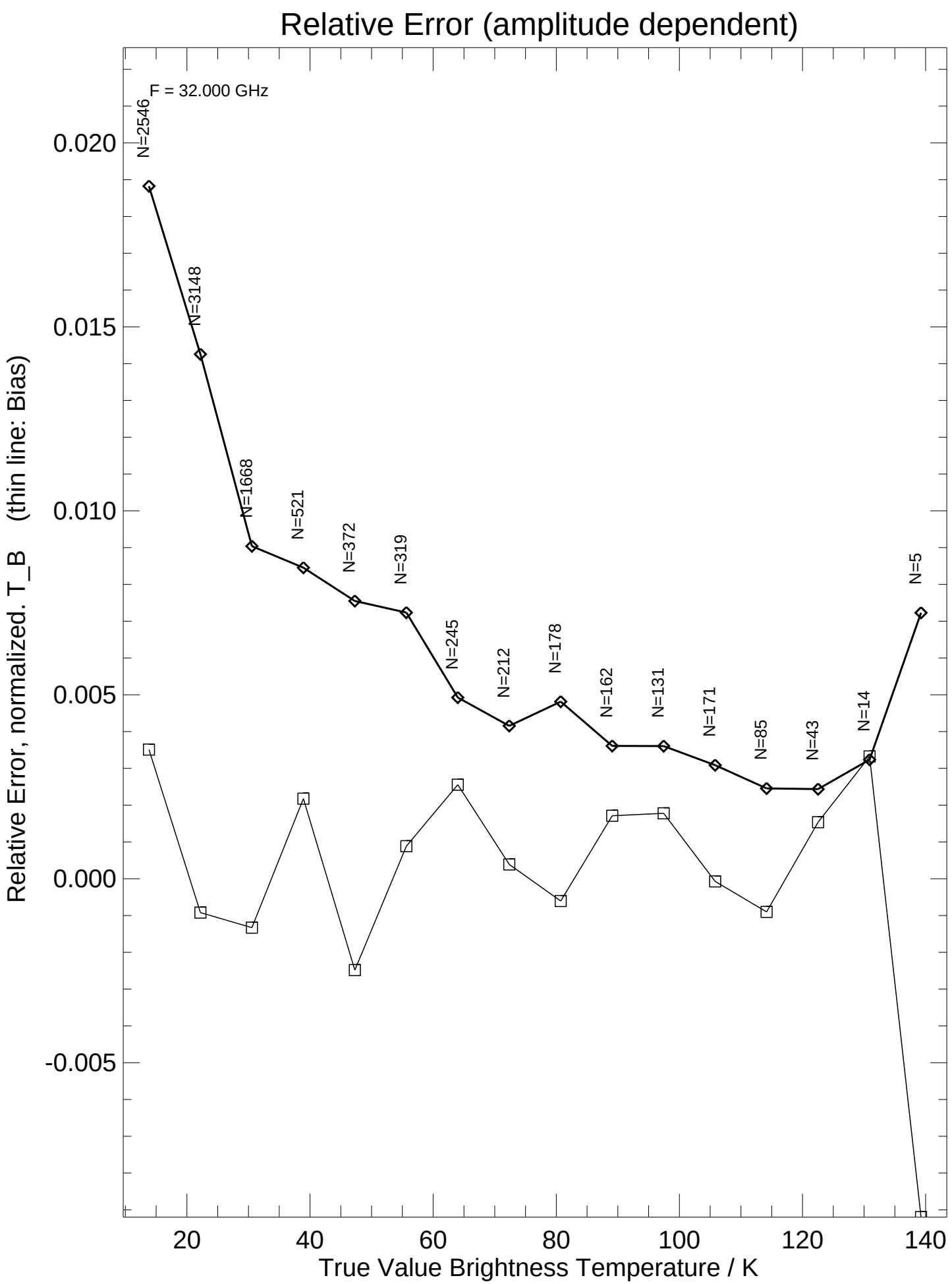

Absolute Error (amplitude dependent)
F = 31.800 GHz
Mean StD = 0.33 Max StD = 0.42
Mean bias = 0.11 Max bias = 0.43
N=2502
N=3143
N=1708
N=527
N=376
N=318
N=245
N=213
N=177
N=164
N=130
N=170
N=86
N=42
N=14
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

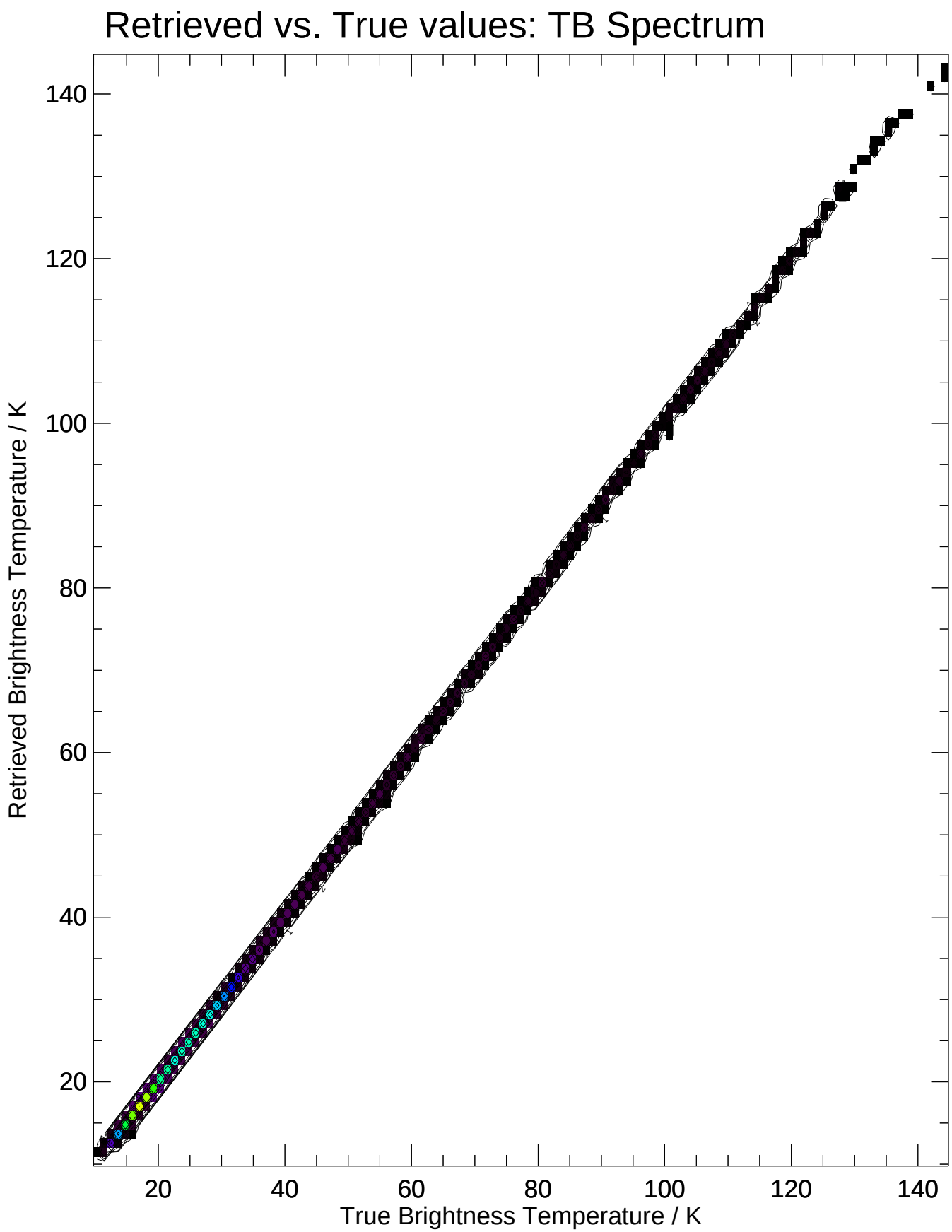

Relative Error (amplitude dependent)
F = 31.800 GHz
N=2502
N=3143
N=1708
N=527
N=376
N=318
N=245
N=213
N=177
N=164
N=130
N=170
N=86
N=42
N=14
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

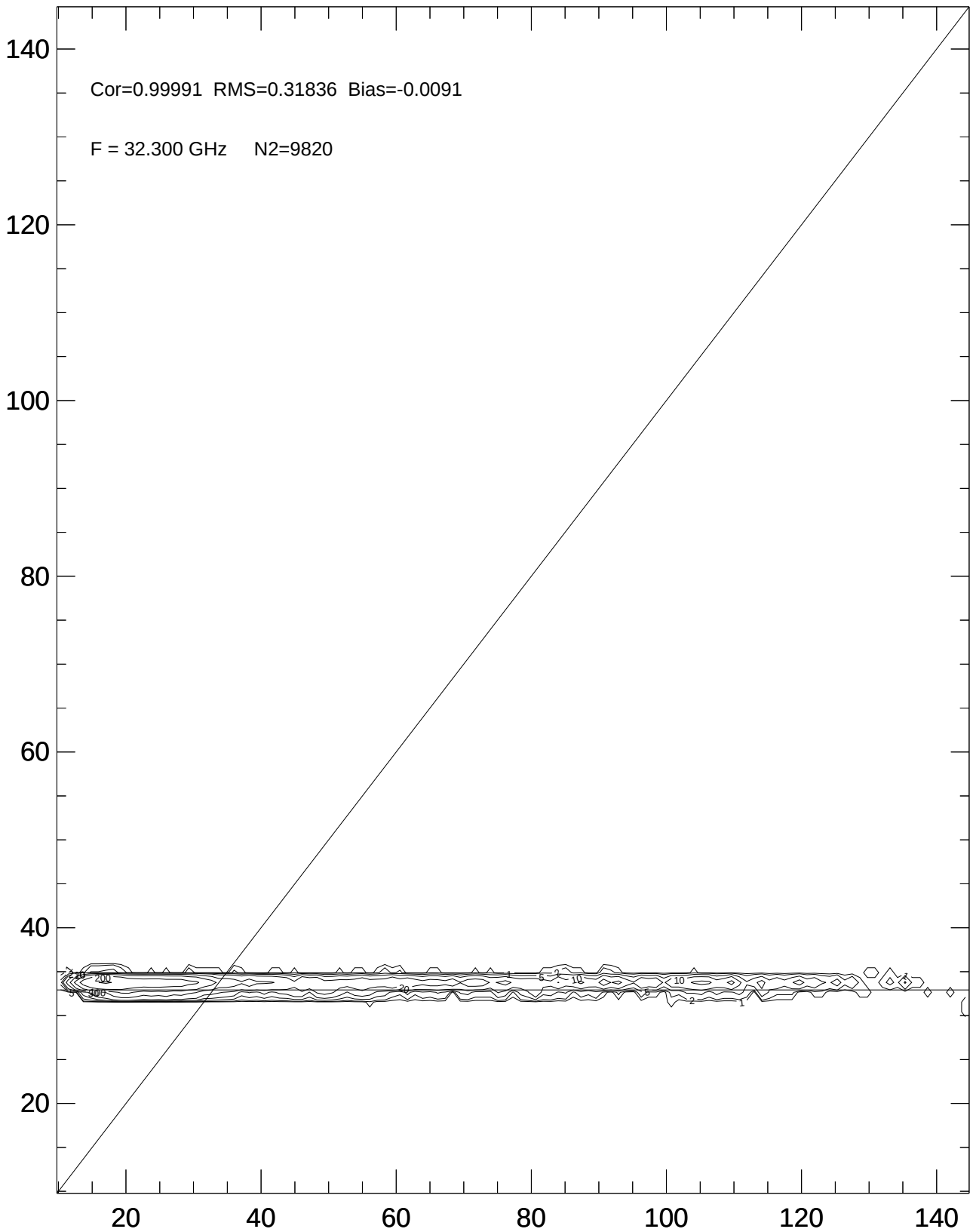

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

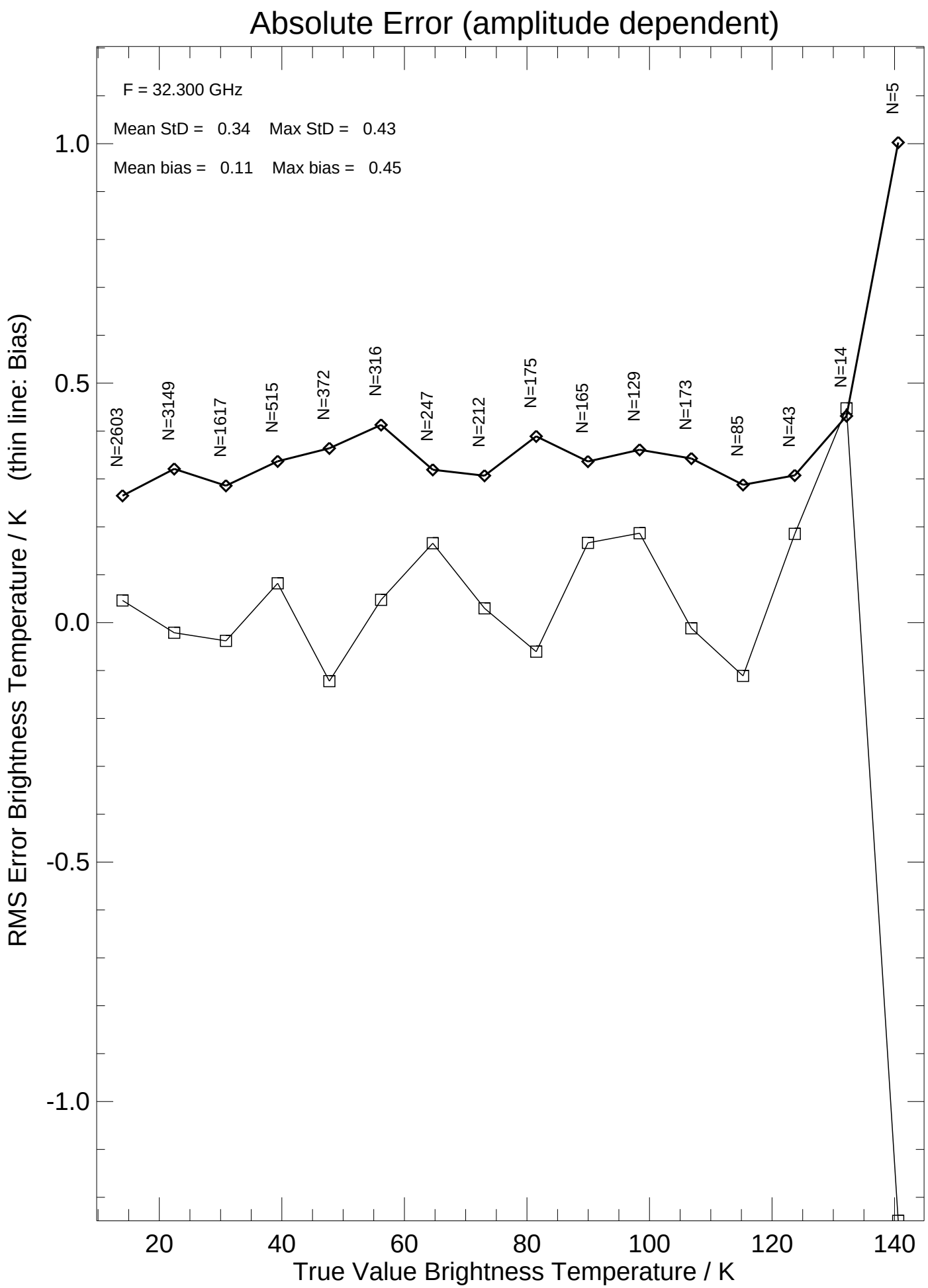

Cor=0.99991 RMS=0.31224 Bias=-0.0092
F = 32.000 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

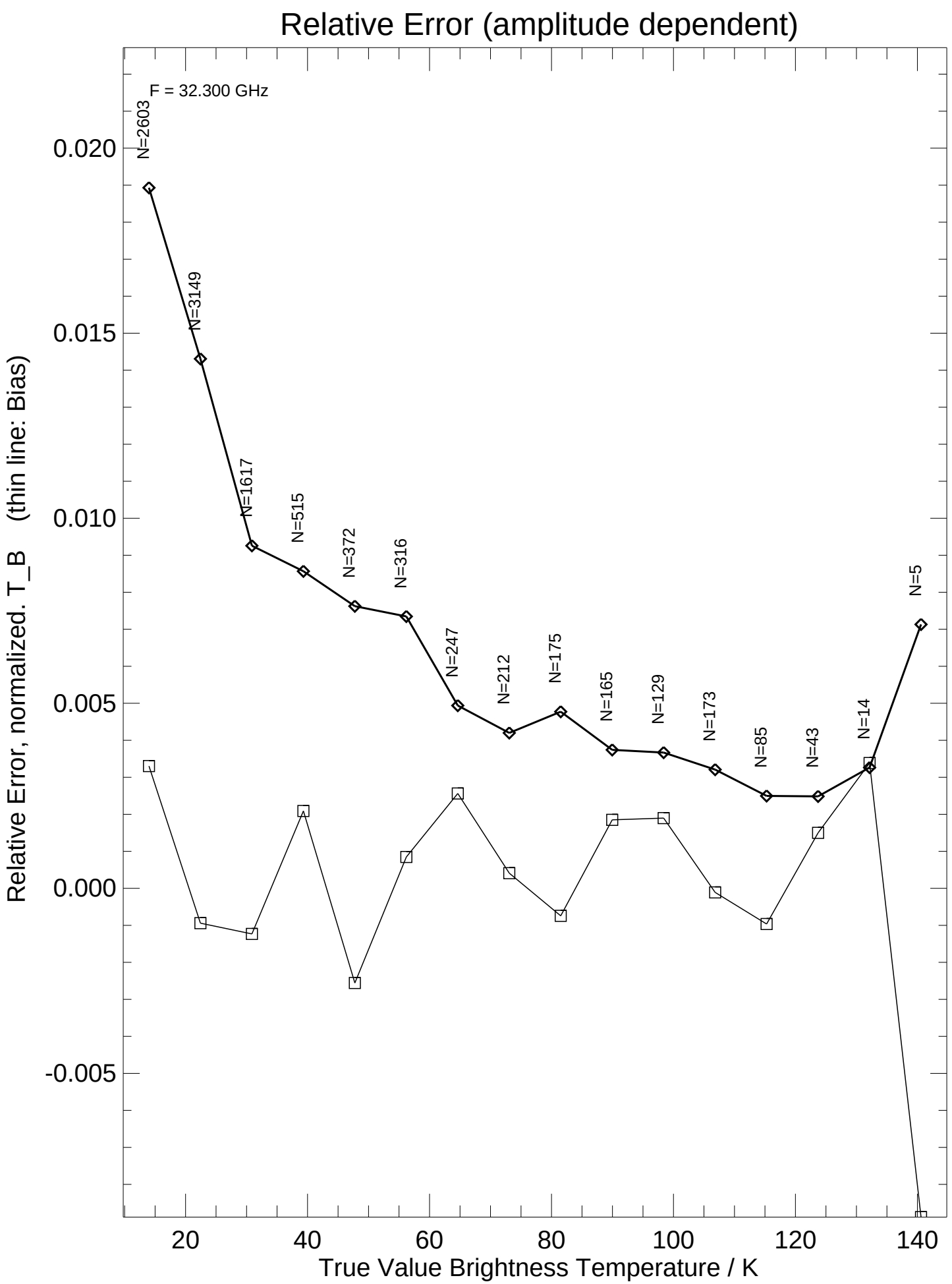

Absolute Error (amplitude dependent)
F = 32.000 GHz
Mean StD = 0.33 Max StD = 0.42
Mean bias = 0.11 Max bias = 0.44
N=2546
N=3148
N=1668
N=521
N=372
N=319
N=245
N=212
N=178
N=162
N=131
N=171
N=85
N=43
N=14
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

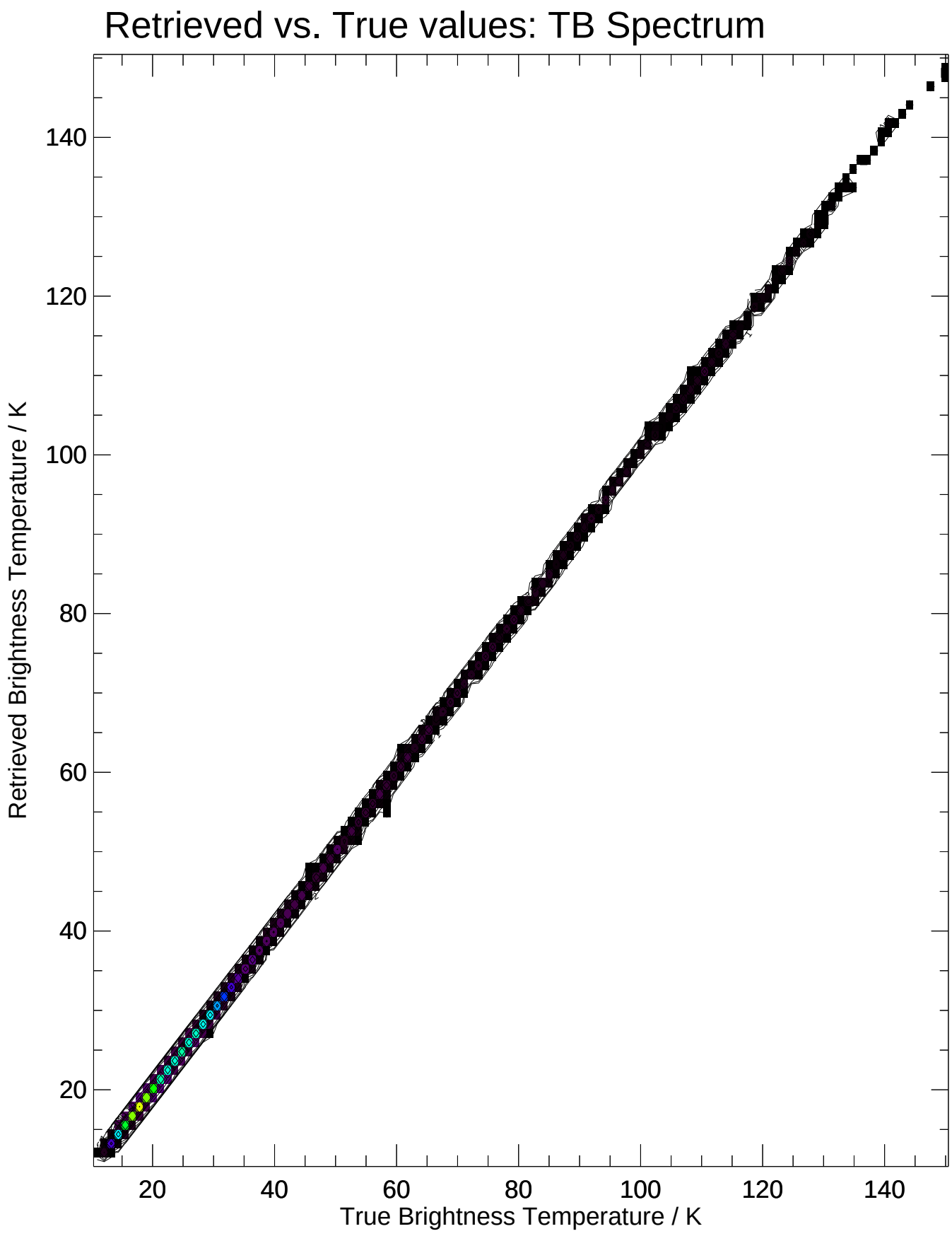

Relative Error (amplitude dependent)
F = 32.000 GHz
N=2546
N=3148
N=1668
N=521
N=372
N=319
N=245
N=212
N=178
N=162
N=131
N=171
N=85
N=43
N=14
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

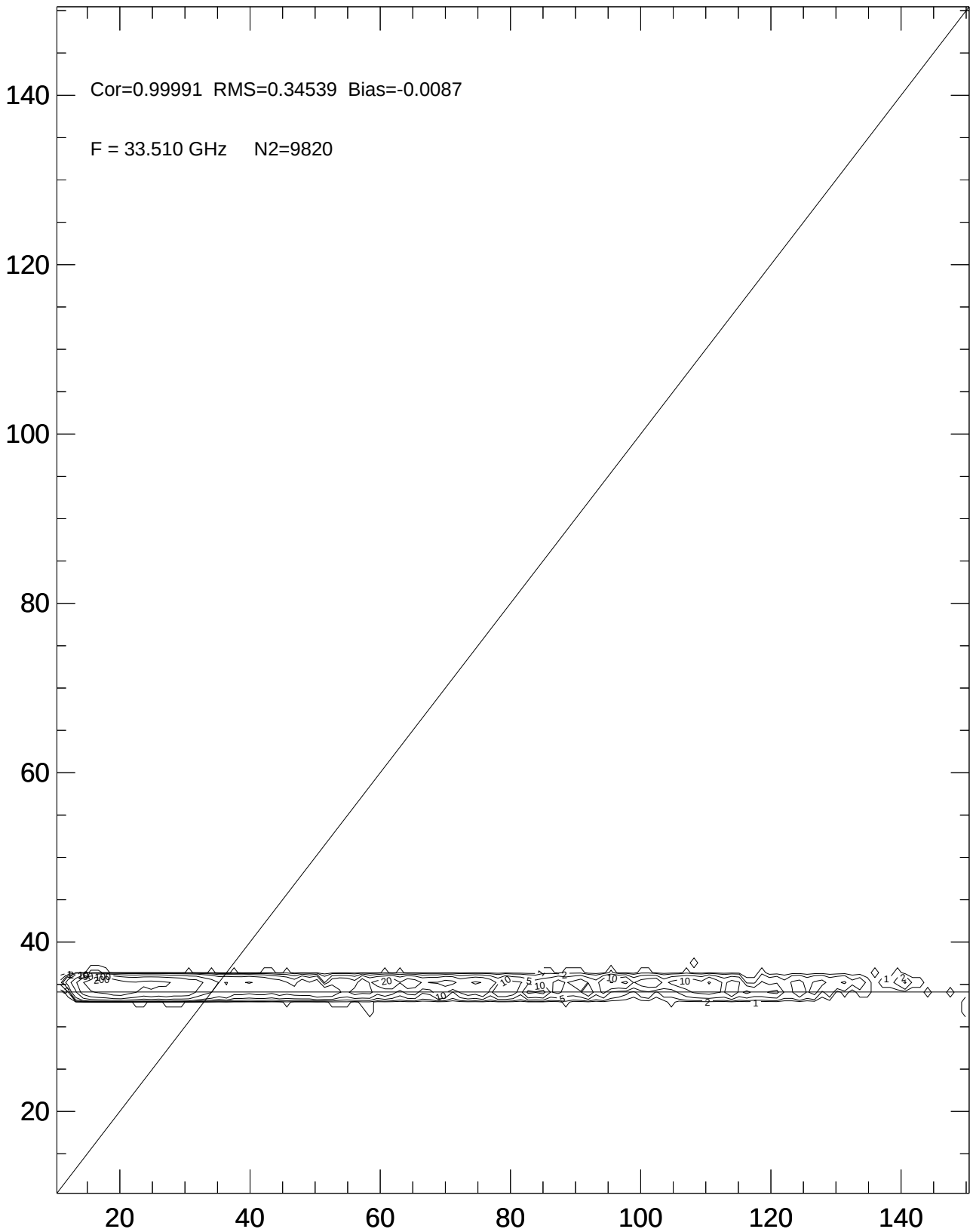

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

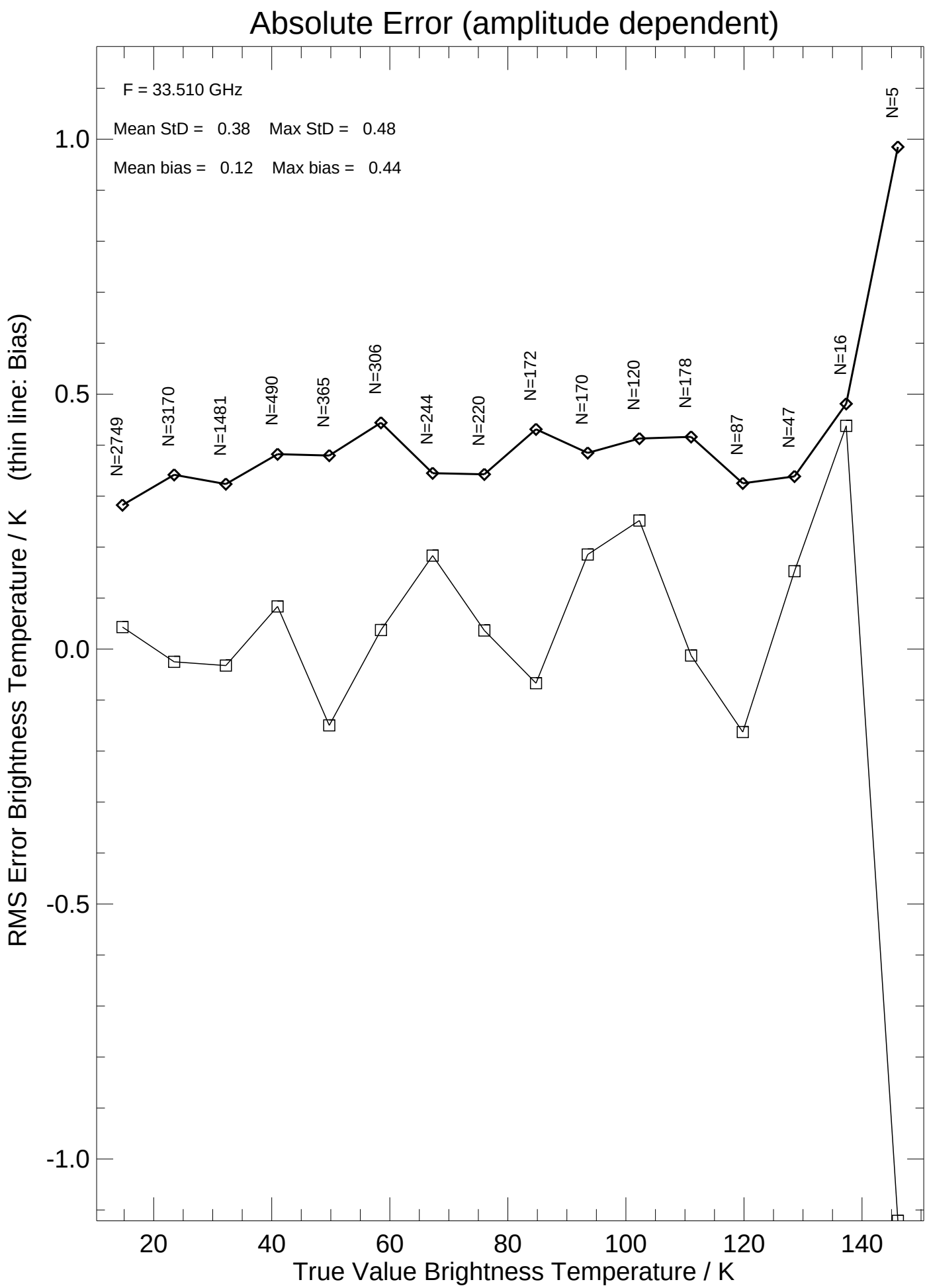

Cor=0.99991 RMS=0.31836 Bias=-0.0091
F = 32.300 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

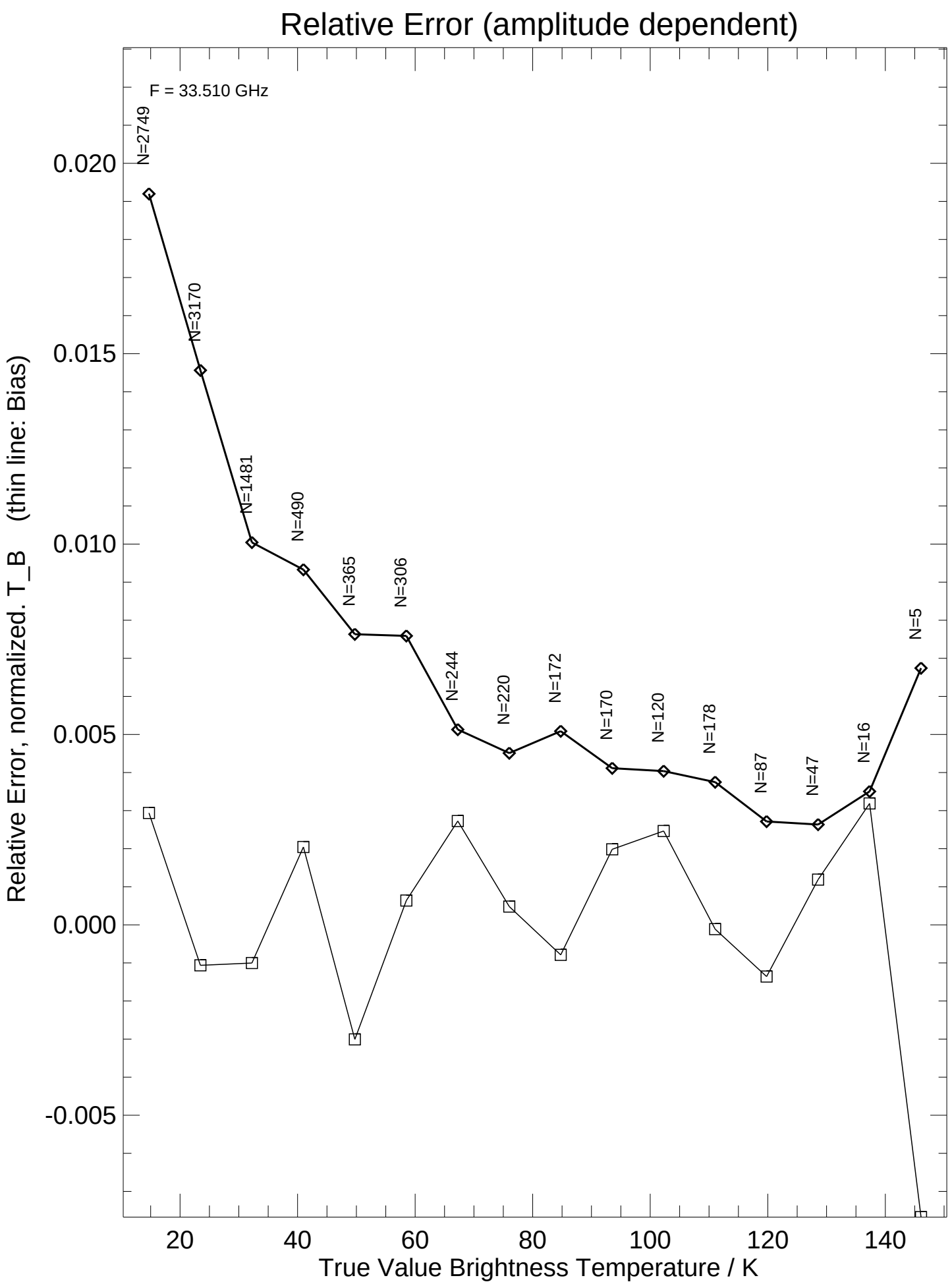

Absolute Error (amplitude dependent)
F = 32.300 GHz
Mean StD = 0.34 Max StD = 0.43
Mean bias = 0.11 Max bias = 0.45
N=2603
N=3149
N=1617
N=515
N=372
N=316
N=247
N=212
N=175
N=165
N=129
N=173
N=85
N=43
N=14
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

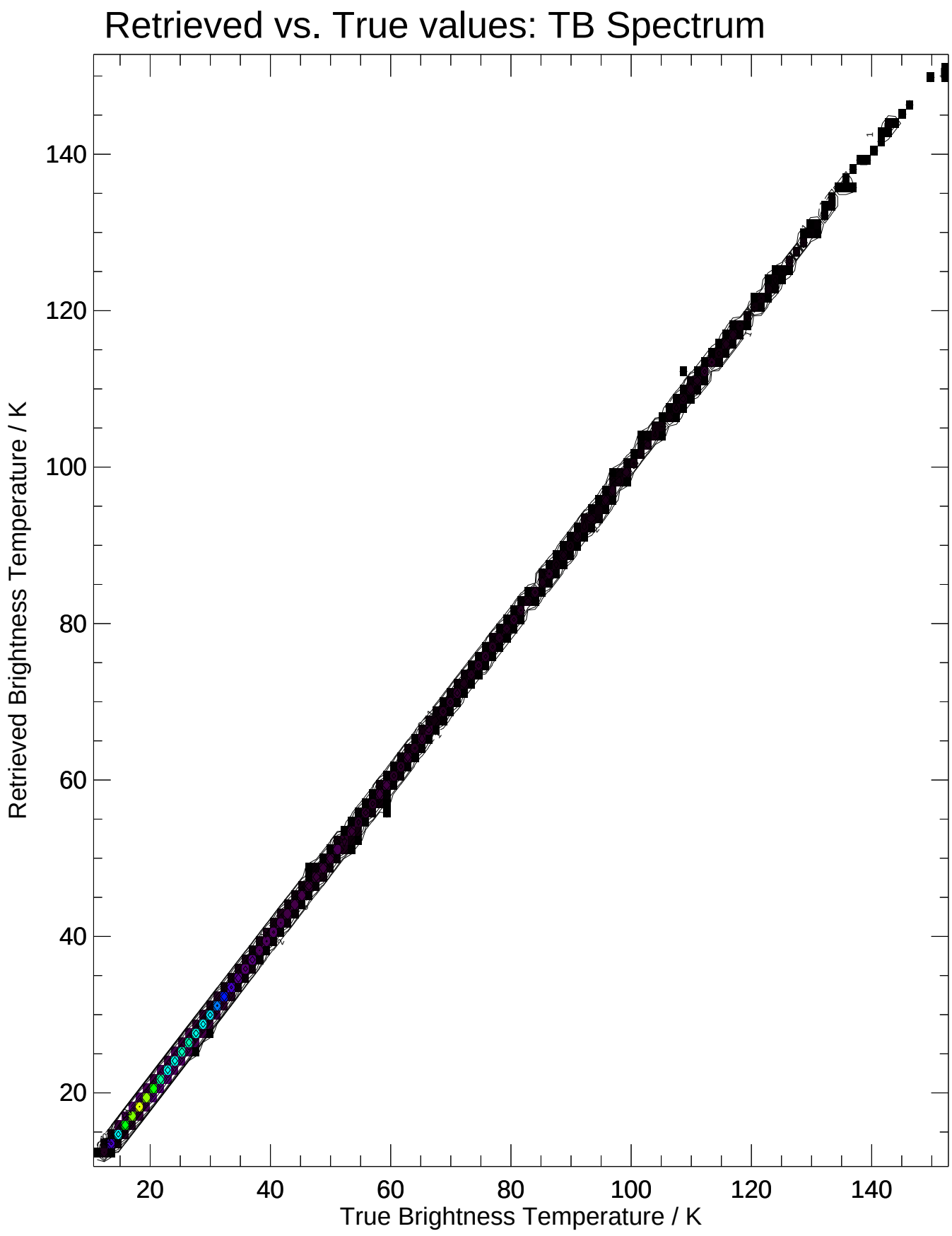

Relative Error (amplitude dependent)
F = 32.300 GHz
N=2603
N=3149
N=1617
N=515
N=372
N=316
N=247
N=212
N=175
N=165
N=129
N=173
N=85
N=43
N=14
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

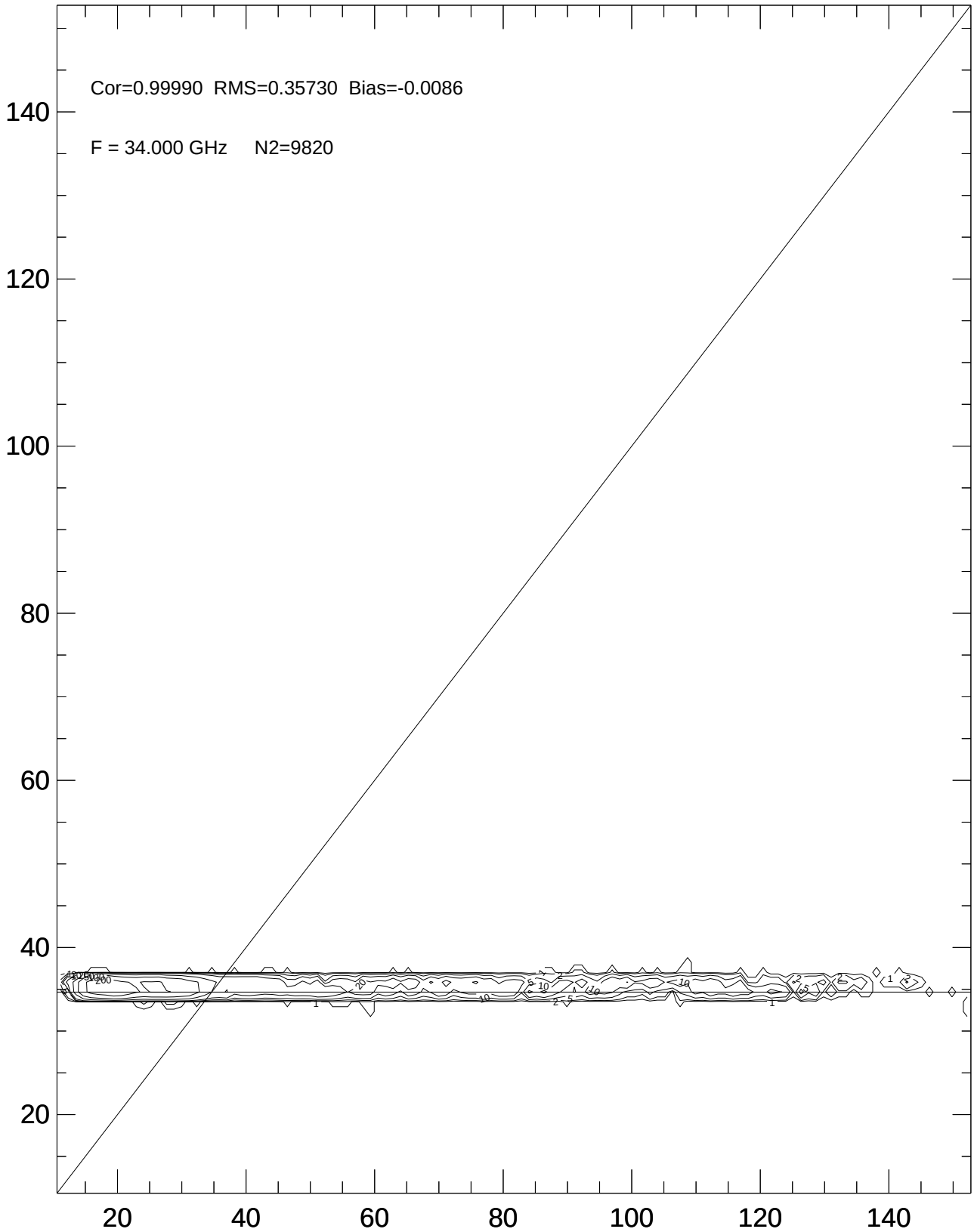

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

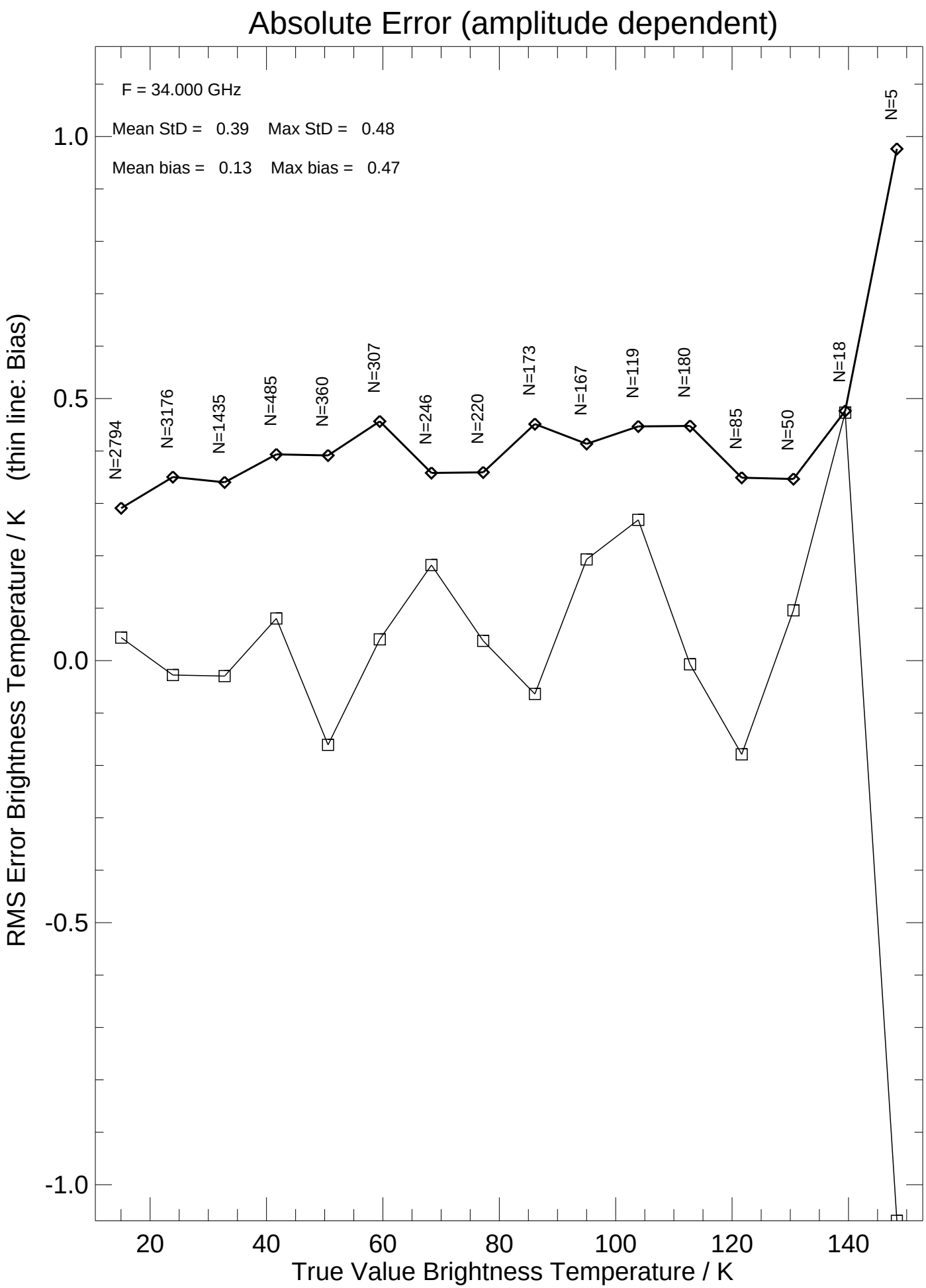

Cor=0.99991 RMS=0.34539 Bias=-0.0087
F = 33.510 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

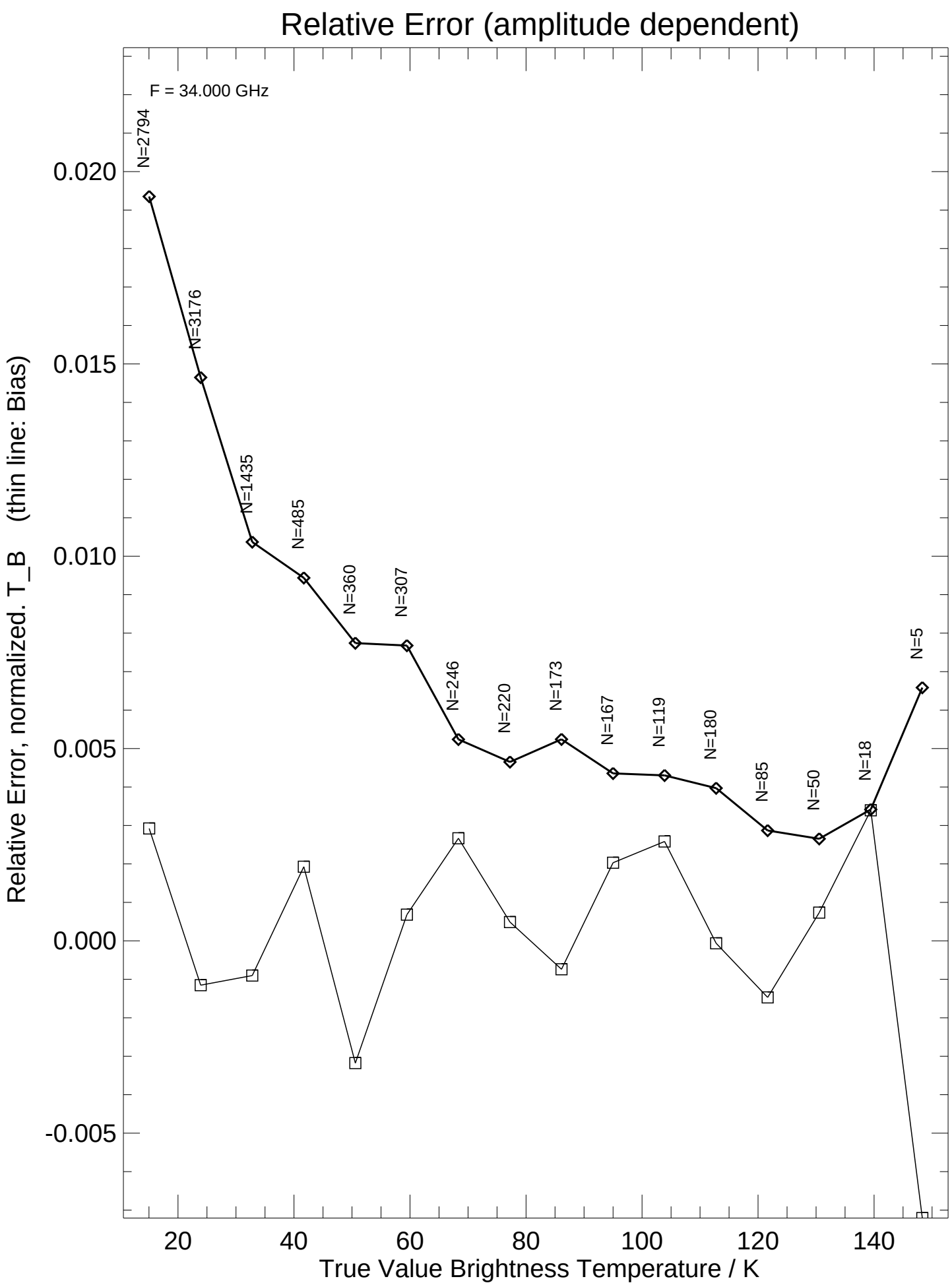

Absolute Error (amplitude dependent)
F = 33.510 GHz
Mean StD = 0.38 Max StD = 0.48
Mean bias = 0.12 Max bias = 0.44
N=2749
N=3170
N=1481
N=490
N=365
N=306
N=244
N=220
N=172
N=170
N=120
N=178
N=87
N=47
N=16
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

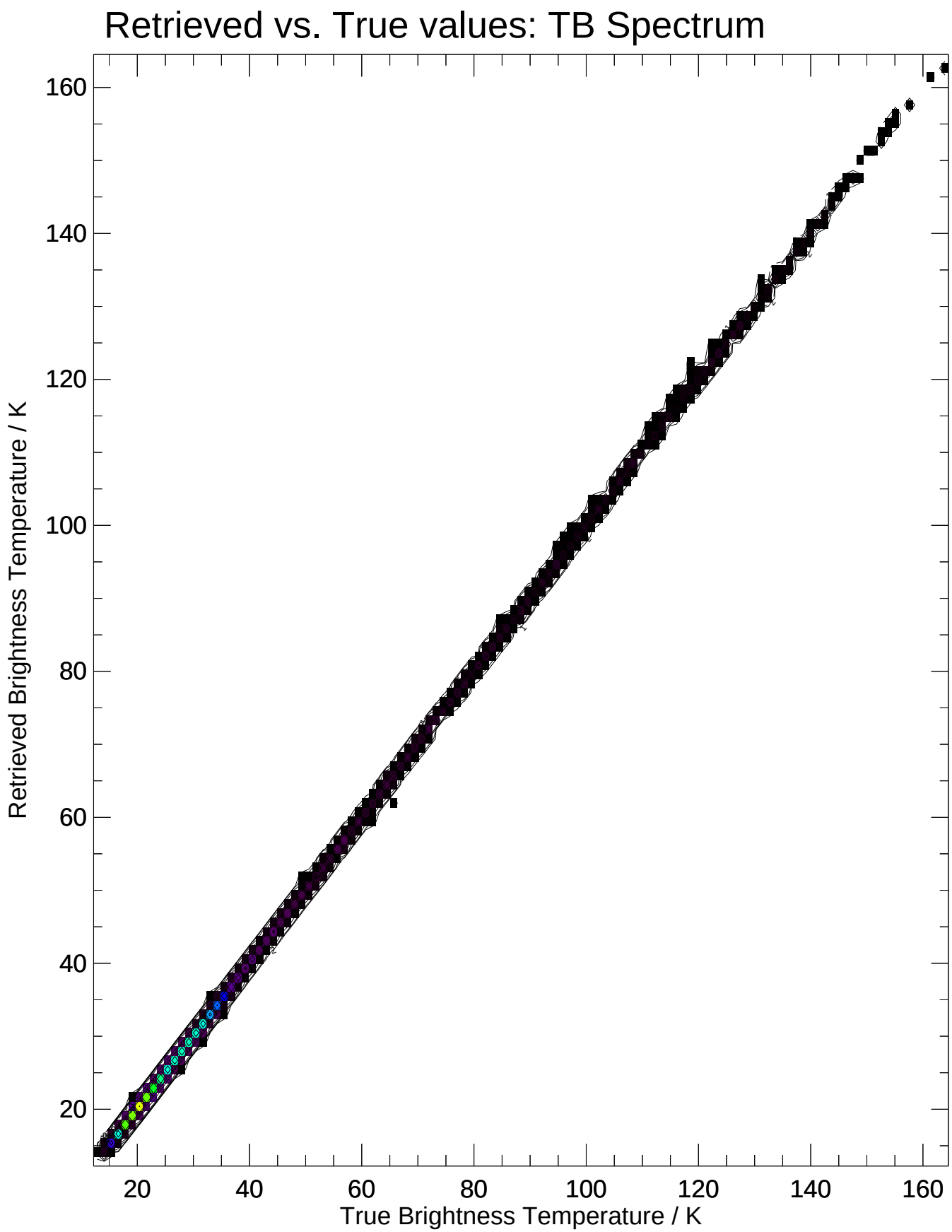

Relative Error (amplitude dependent)
F = 33.510 GHz
N=2749
N=3170
N=1481
N=490
N=365
N=306
N=244
N=220
N=172
N=170
N=120
N=178
N=87
N=47
N=16
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

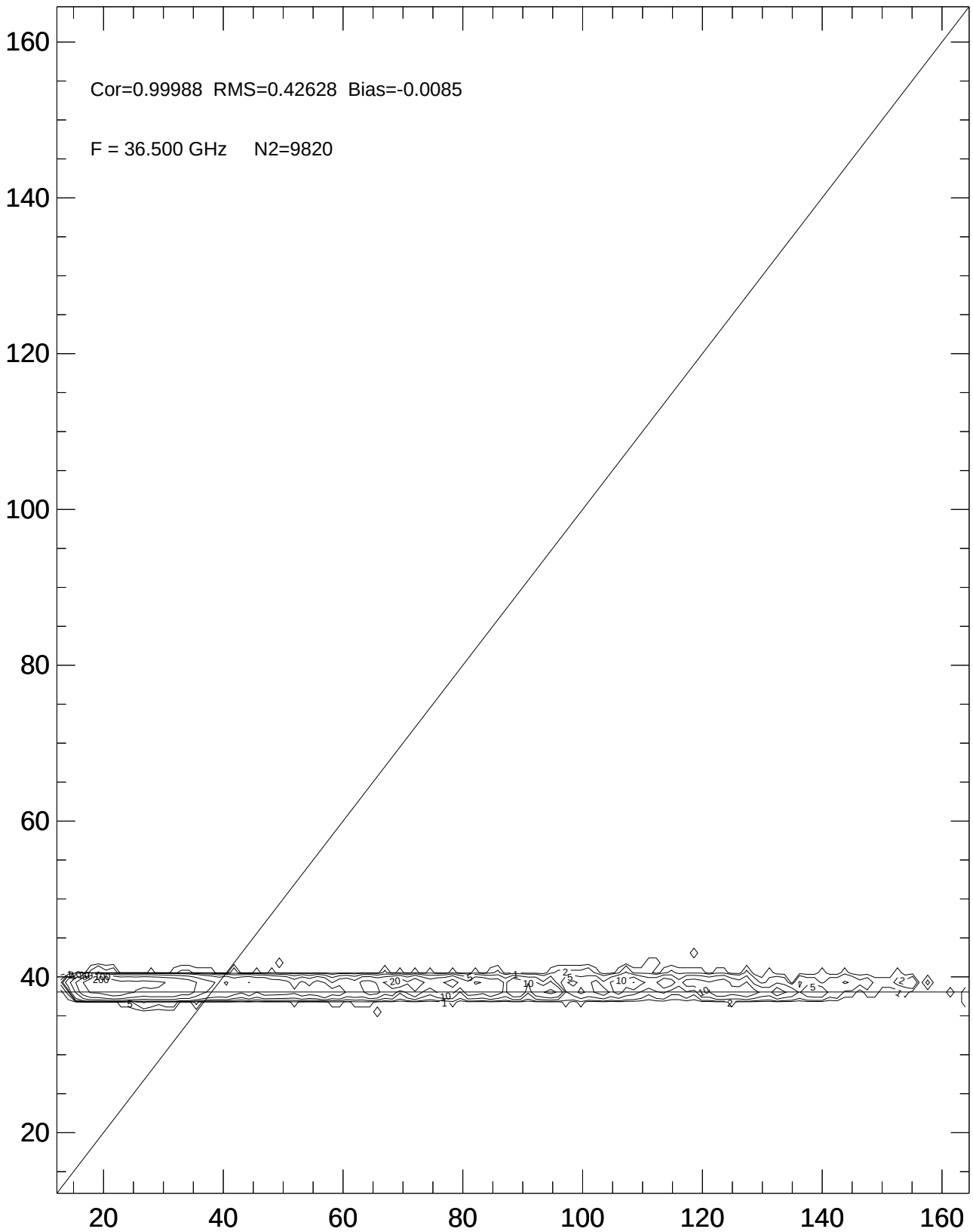

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140

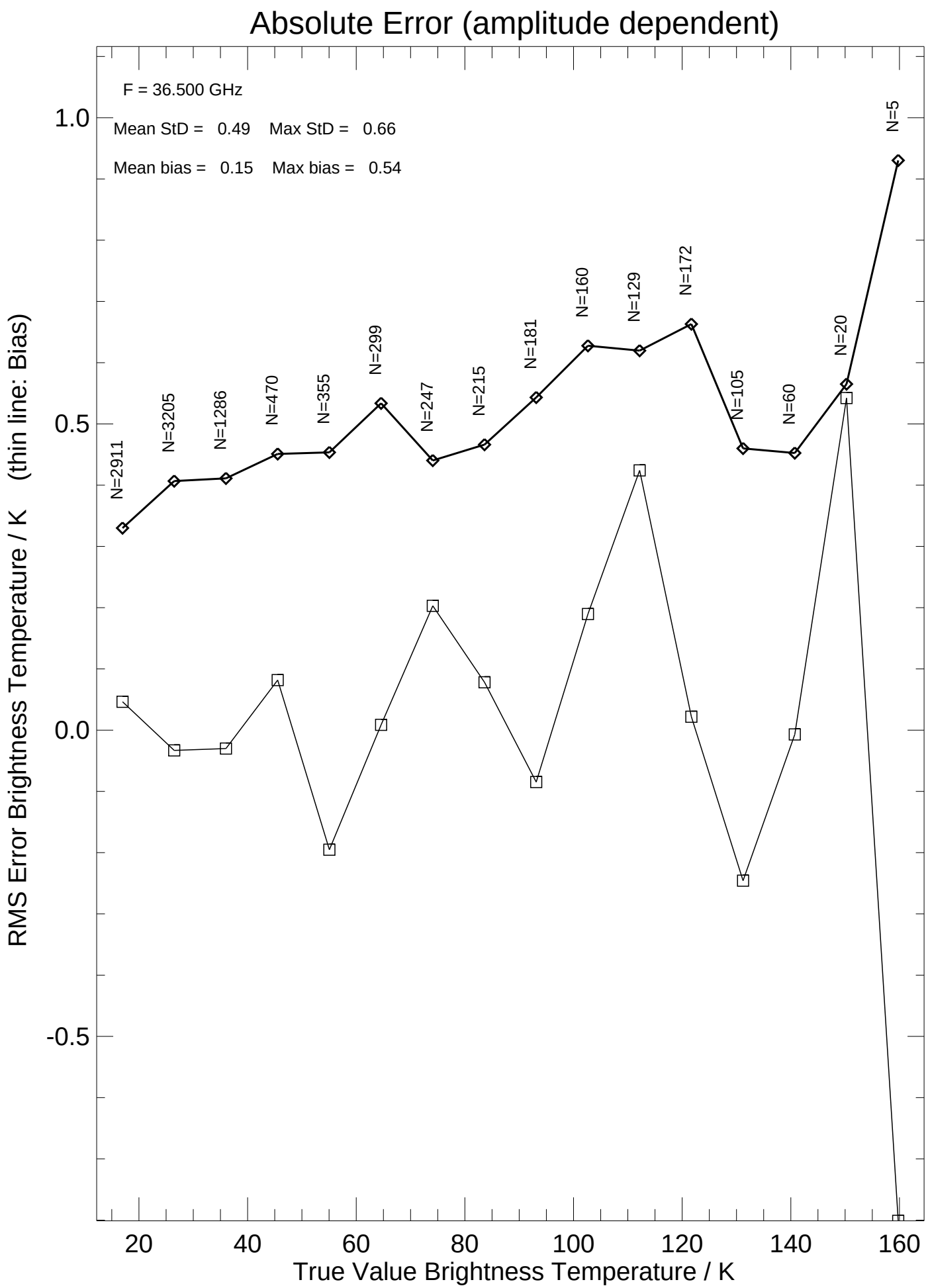

Cor=0.99990 RMS=0.35730 Bias=-0.0086
F = 34.000 GHz N2=9820
140
120
100
80
60
40
20
20
40
60
80
100
120
140

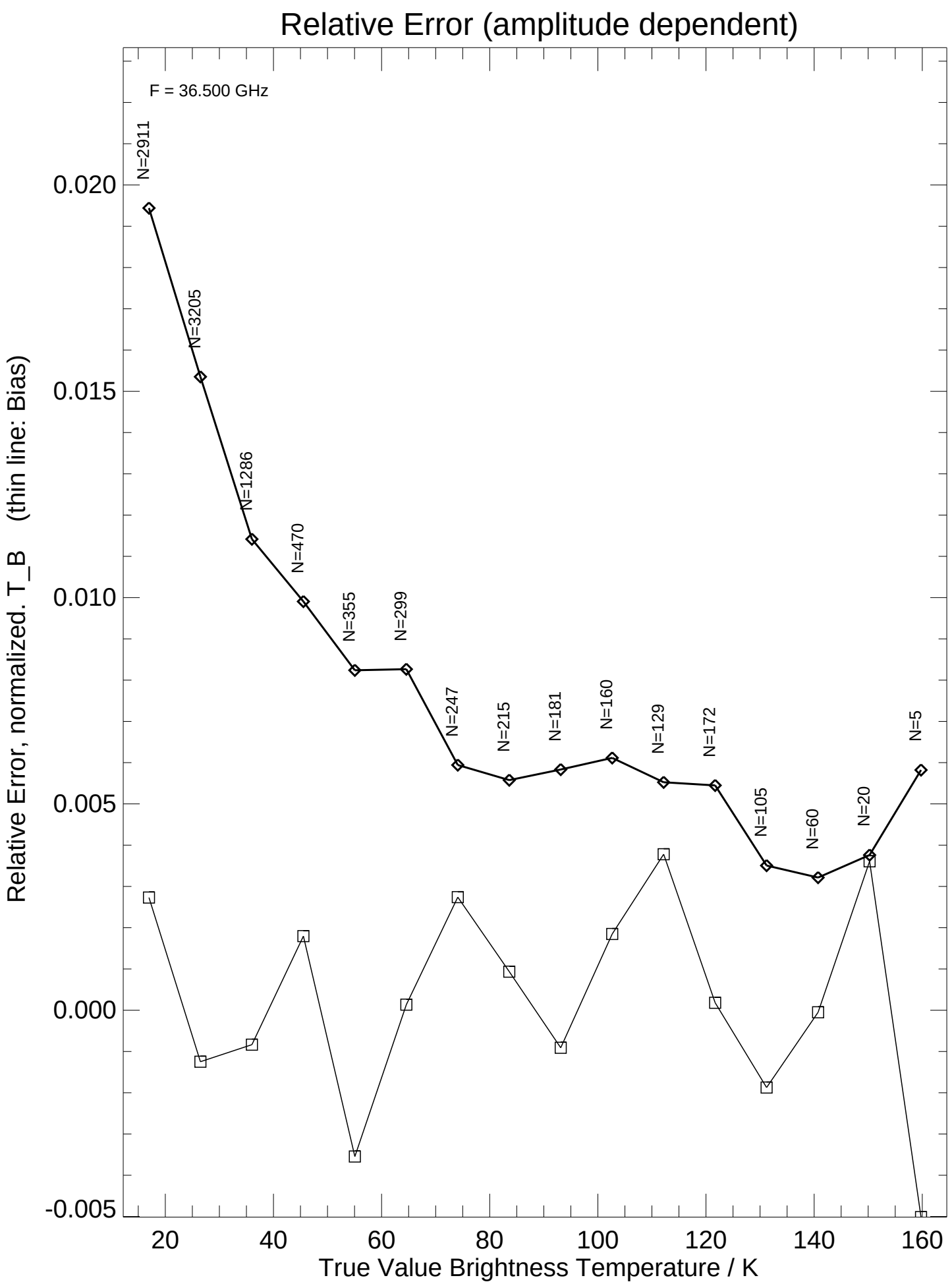

Absolute Error (amplitude dependent)
F = 34.000 GHz
Mean StD = 0.39 Max StD = 0.48
Mean bias = 0.13 Max bias = 0.47
N=2794
N=3176
N=1435
N=485
N=360
N=307
N=246
N=220
N=173
N=167
N=119
N=180
N=85
N=50
N=18
N=5
1.0
0.5
0.0
-0.5
-1.0
20
40
60
80
100
120
140
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

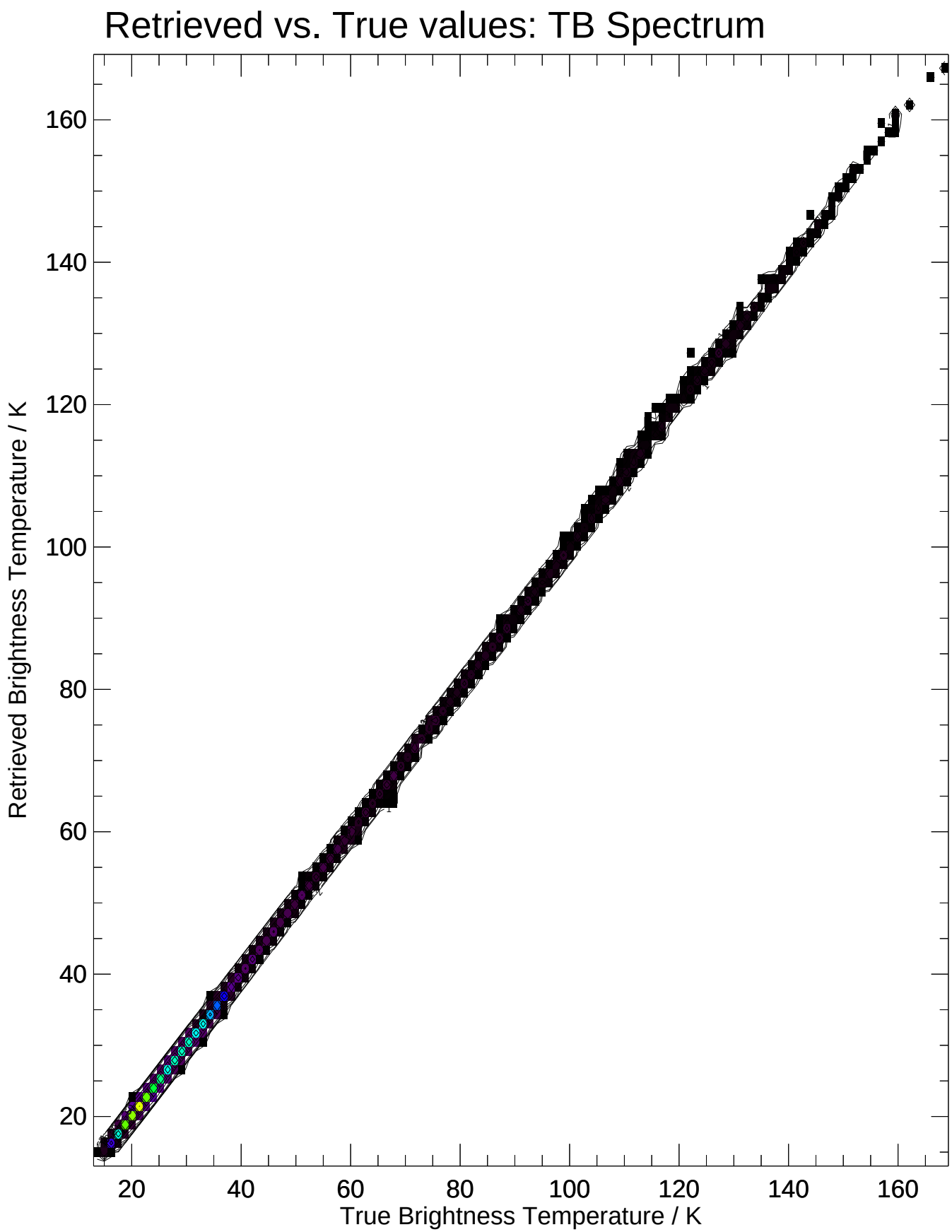

Relative Error (amplitude dependent)
F = 34.000 GHz
N=2794
N=3176
N=1435
N=485
N=360
N=307
N=246
N=220
N=173
N=167
N=119
N=180
N=85
N=50
N=18
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
True Value Brightness Temperature / K

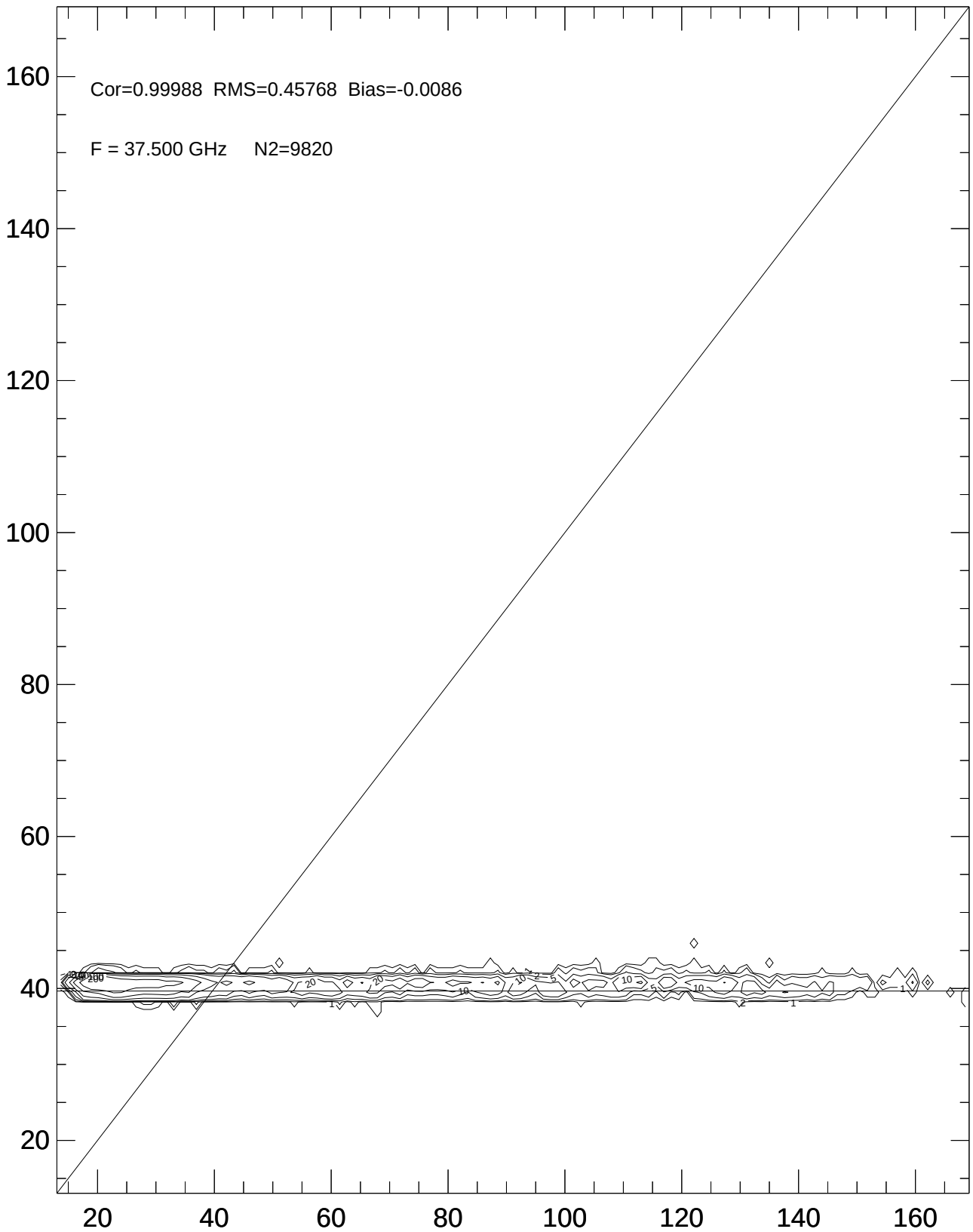

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140
160

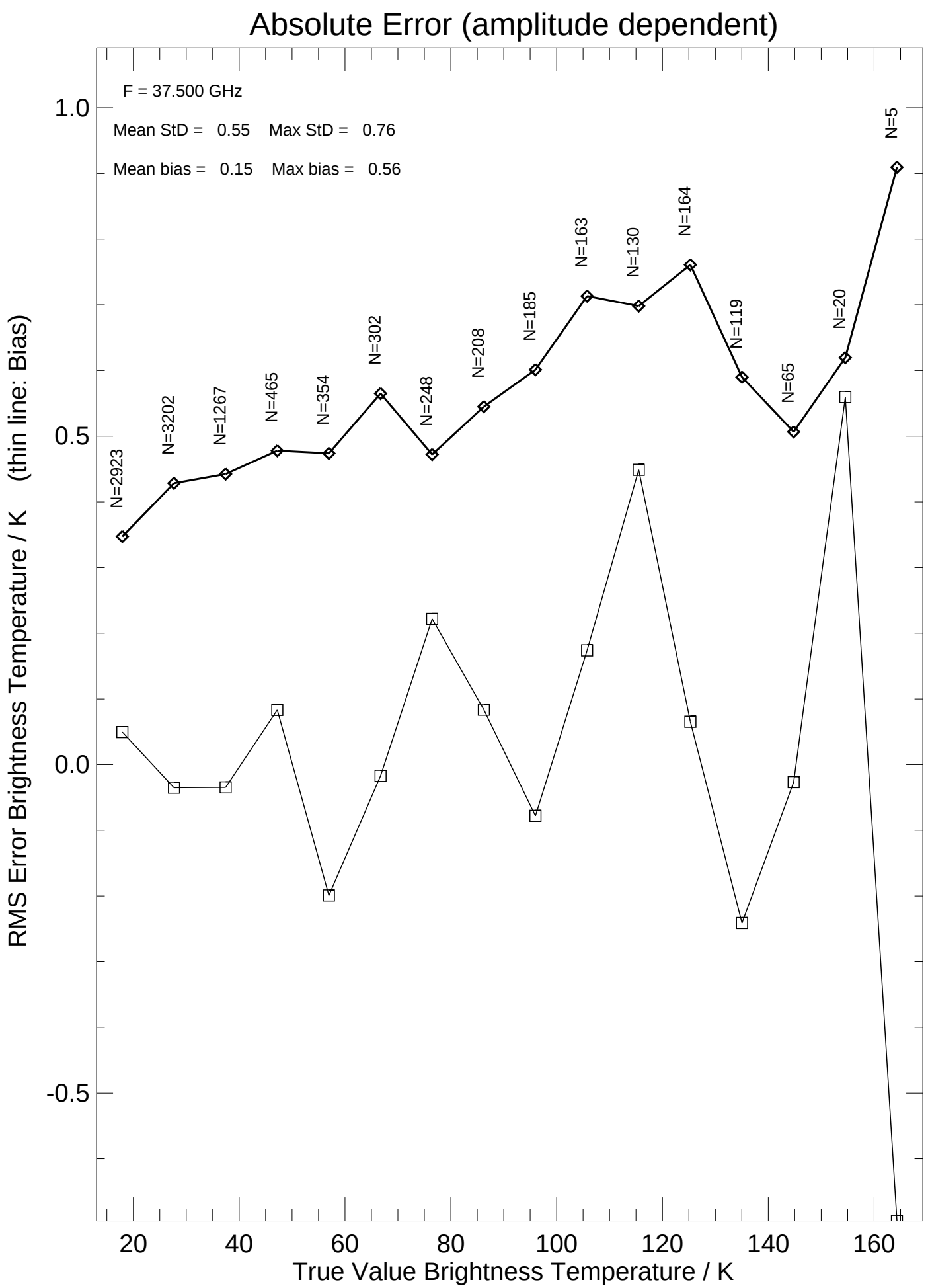

Cor=0.99988 RMS=0.42628 Bias=-0.0085
F = 36.500 GHz N2=9820
160
140
120
100
80
60
40
20
20
40
60
80
100
120
140
160

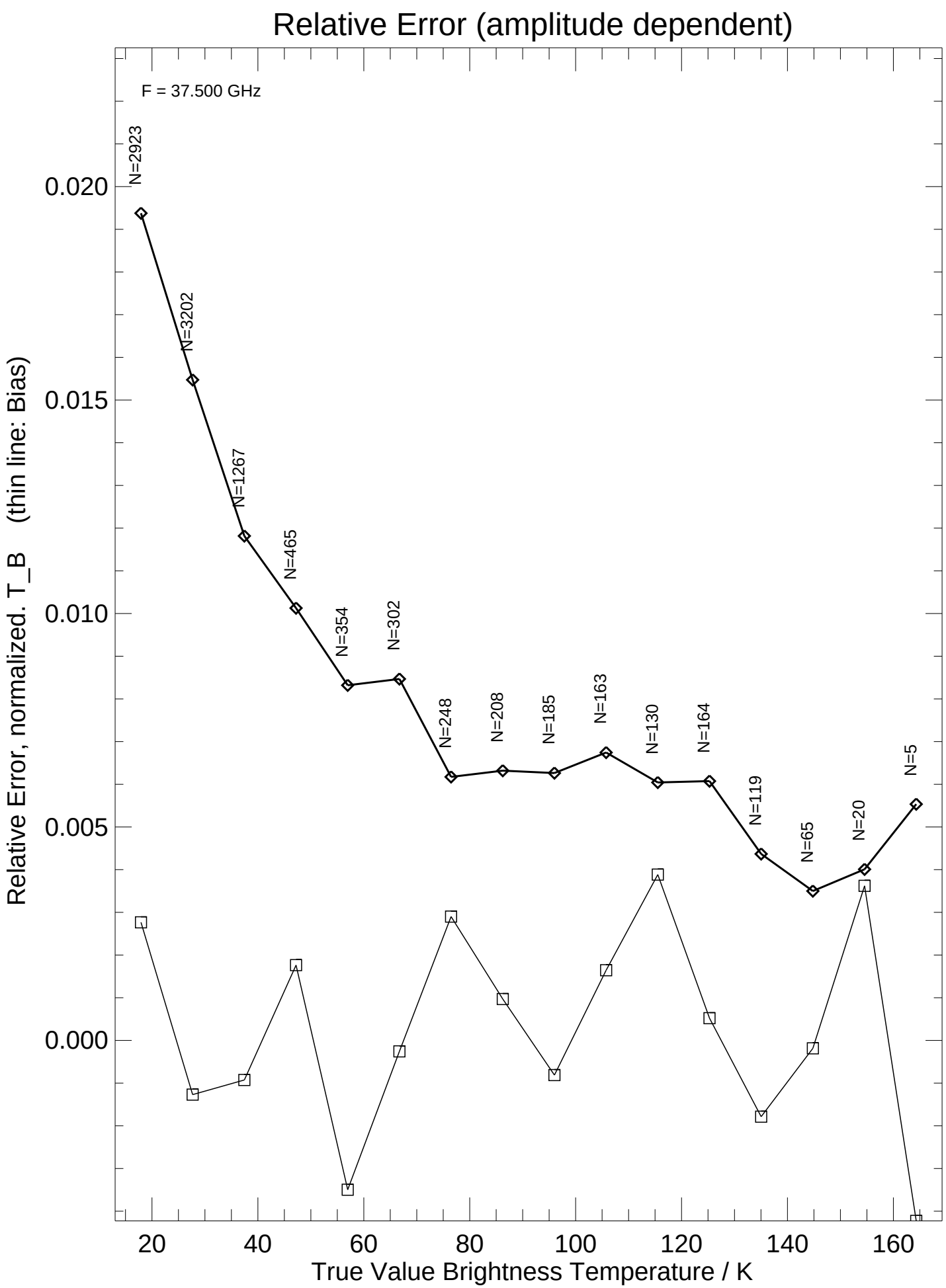

Absolute Error (amplitude dependent)
F = 36.500 GHz
Mean StD = 0.49 Max StD = 0.66
Mean bias = 0.15 Max bias = 0.54
N=2911
N=3205
N=1286
N=470
N=355
N=299
N=247
N=215
N=181
N=160
N=129
N=172
N=105
N=60
N=20
N=5
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
160
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

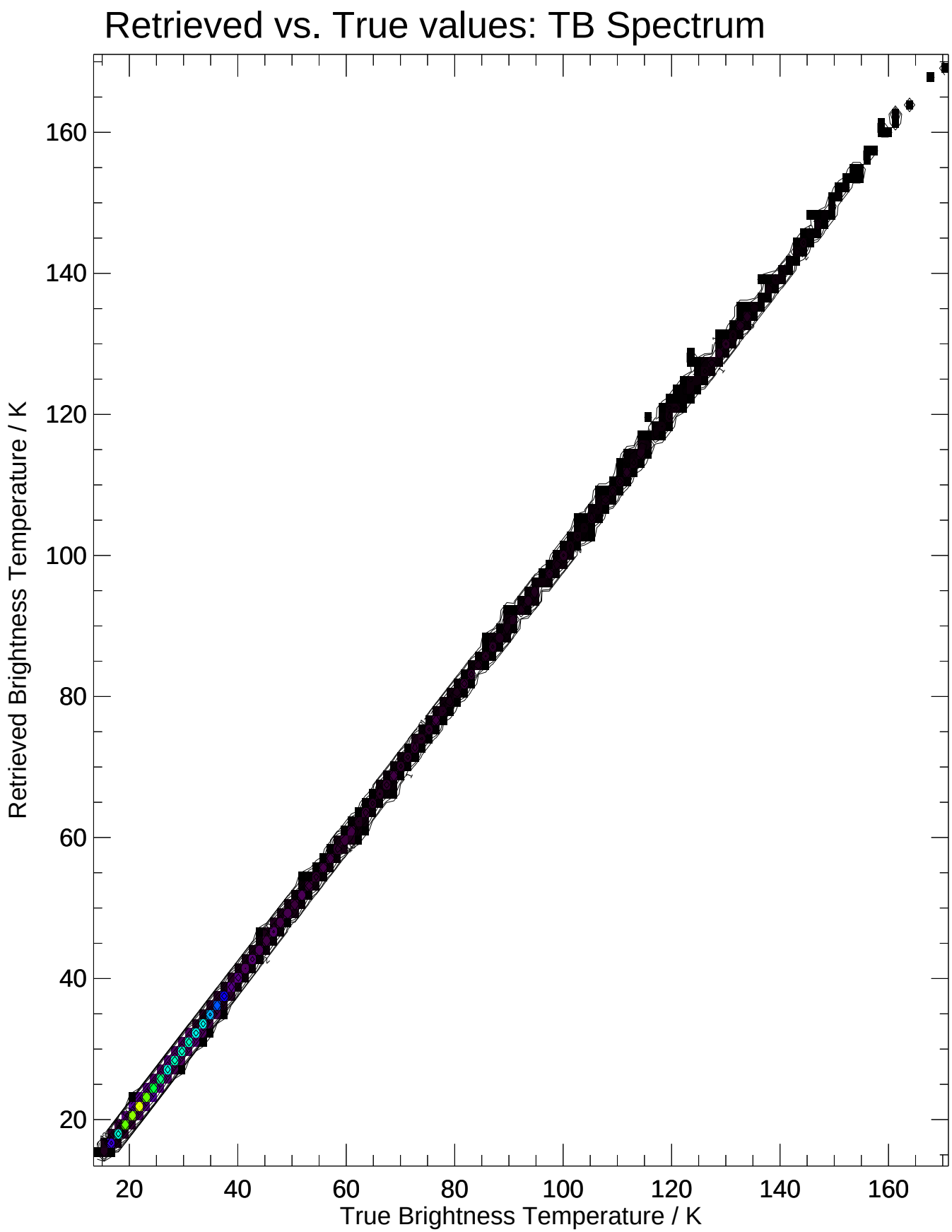

Relative Error (amplitude dependent)
F = 36.500 GHz
N=2911
N=3205
N=1286
N=470
N=355
N=299
N=247
N=215
N=181
N=160
N=129
N=172
N=105
N=60
N=20
N=5
0.020
0.015
0.010
0.005
0.000
-0.005
20
40
60
80
100
120
140
160
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K

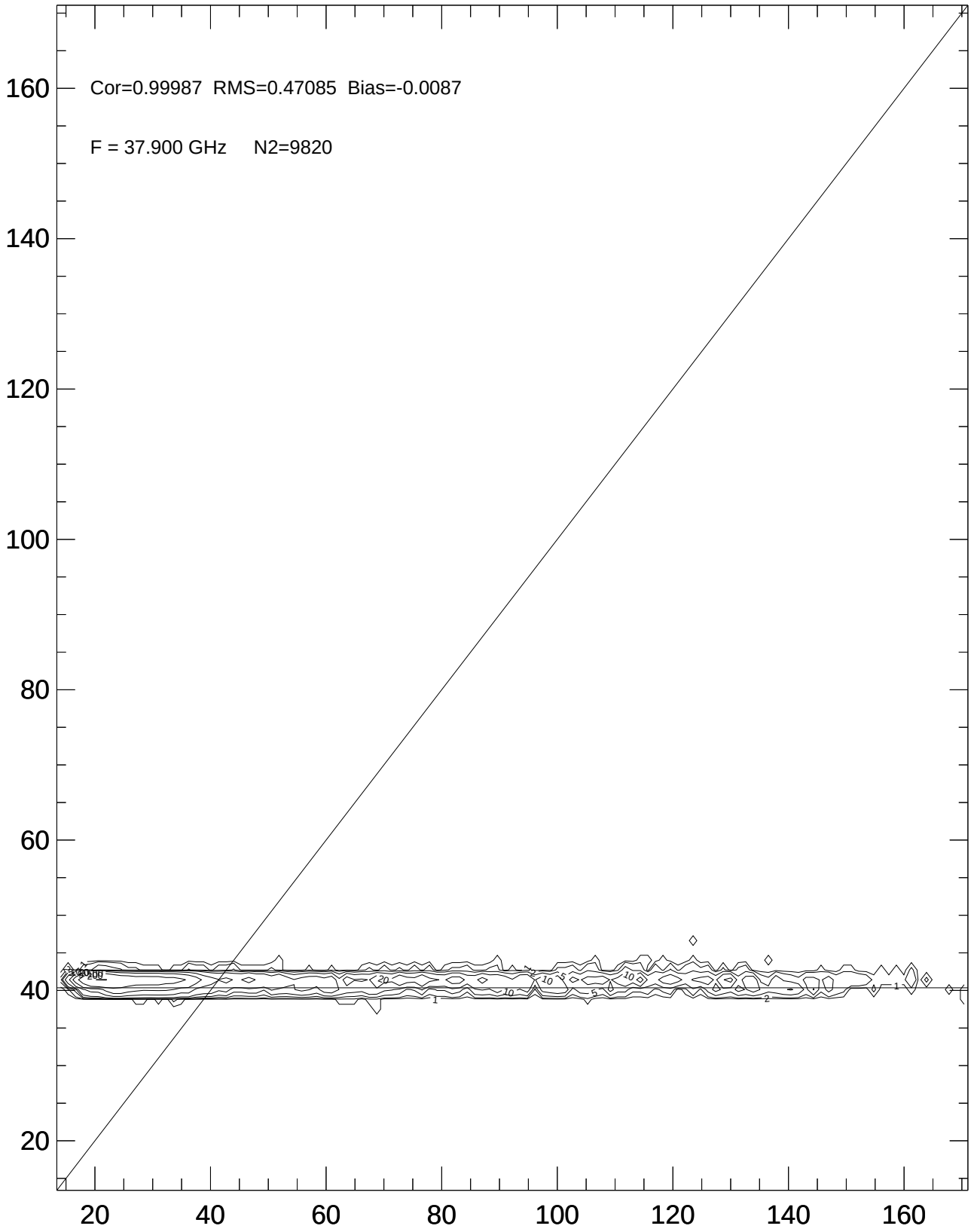

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140
160

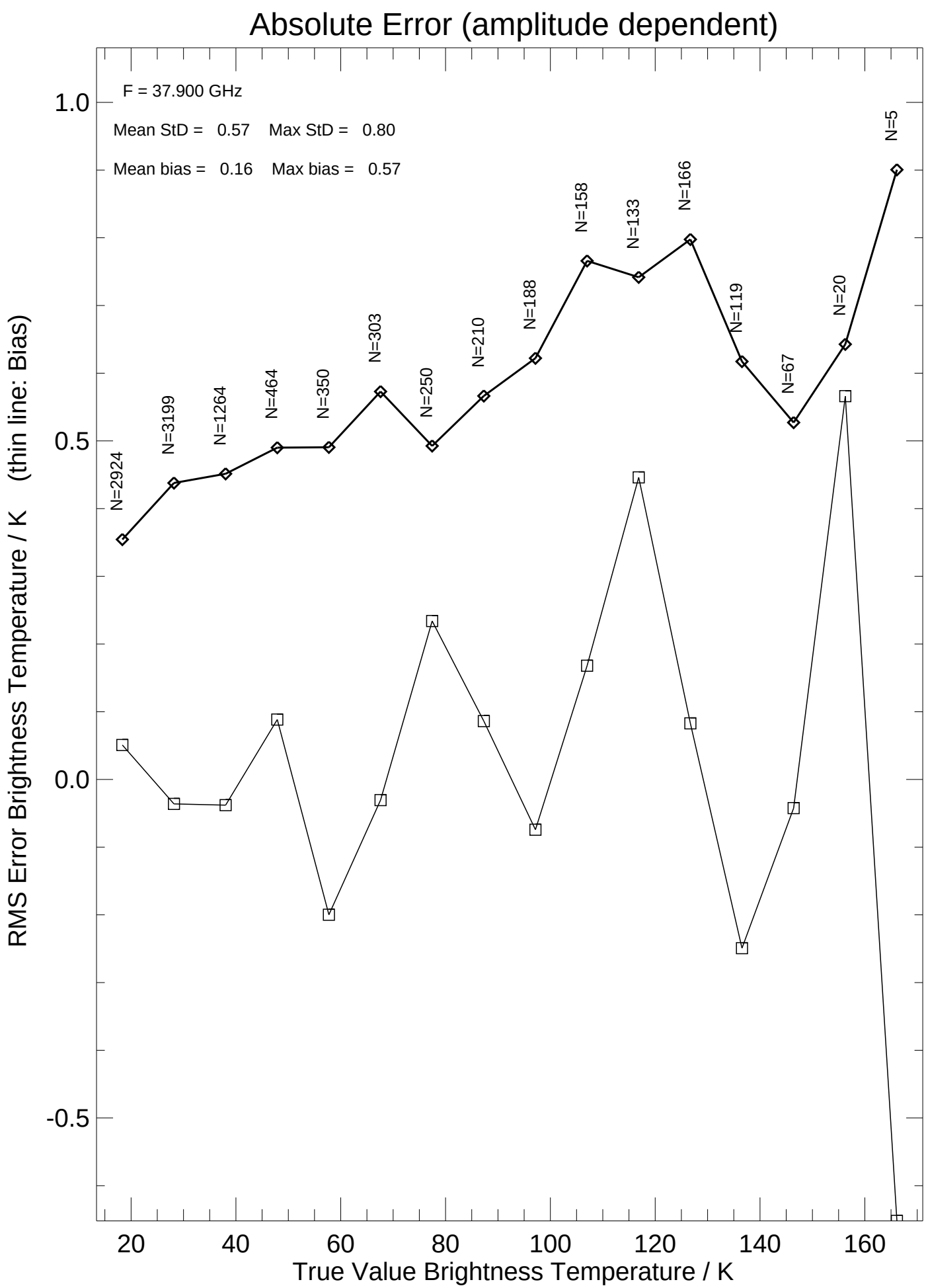

Cor=0.99988 RMS=0.45768 Bias=-0.0086
F = 37.500 GHz N2=9820
160
140
120
100
80
60
40
20
20
40
60
80
100
120
140
160

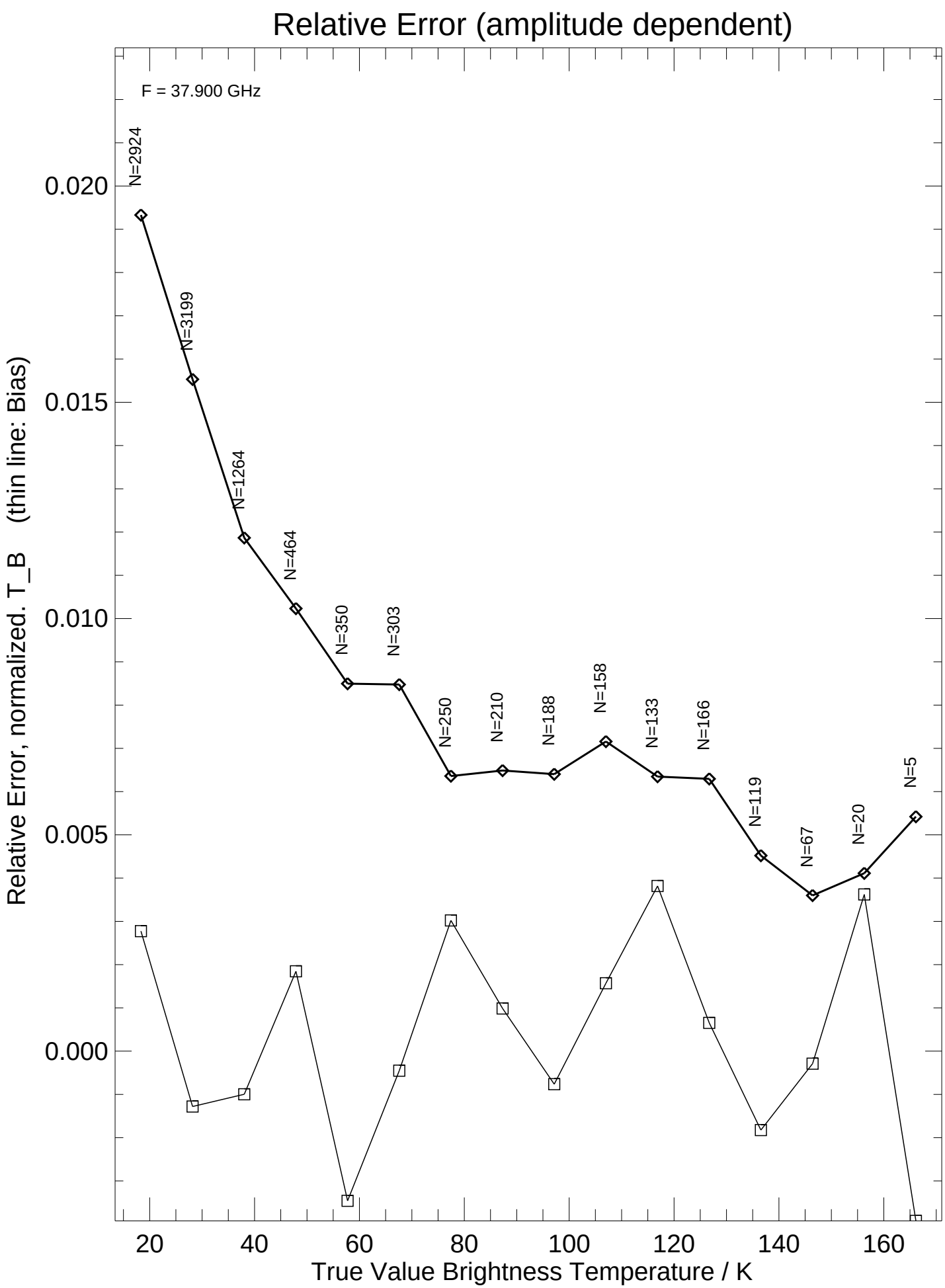

Absolute Error (amplitude dependent)
F = 37.500 GHz
Mean StD = 0.55 Max StD = 0.76
Mean bias = 0.15 Max bias = 0.56
N=2923
N=3202
N=1267
N=465
N=354
N=302
N=248
N=208
N=185
N=163
N=130
N=164
N=119
N=65
N=20
N=5
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
160
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

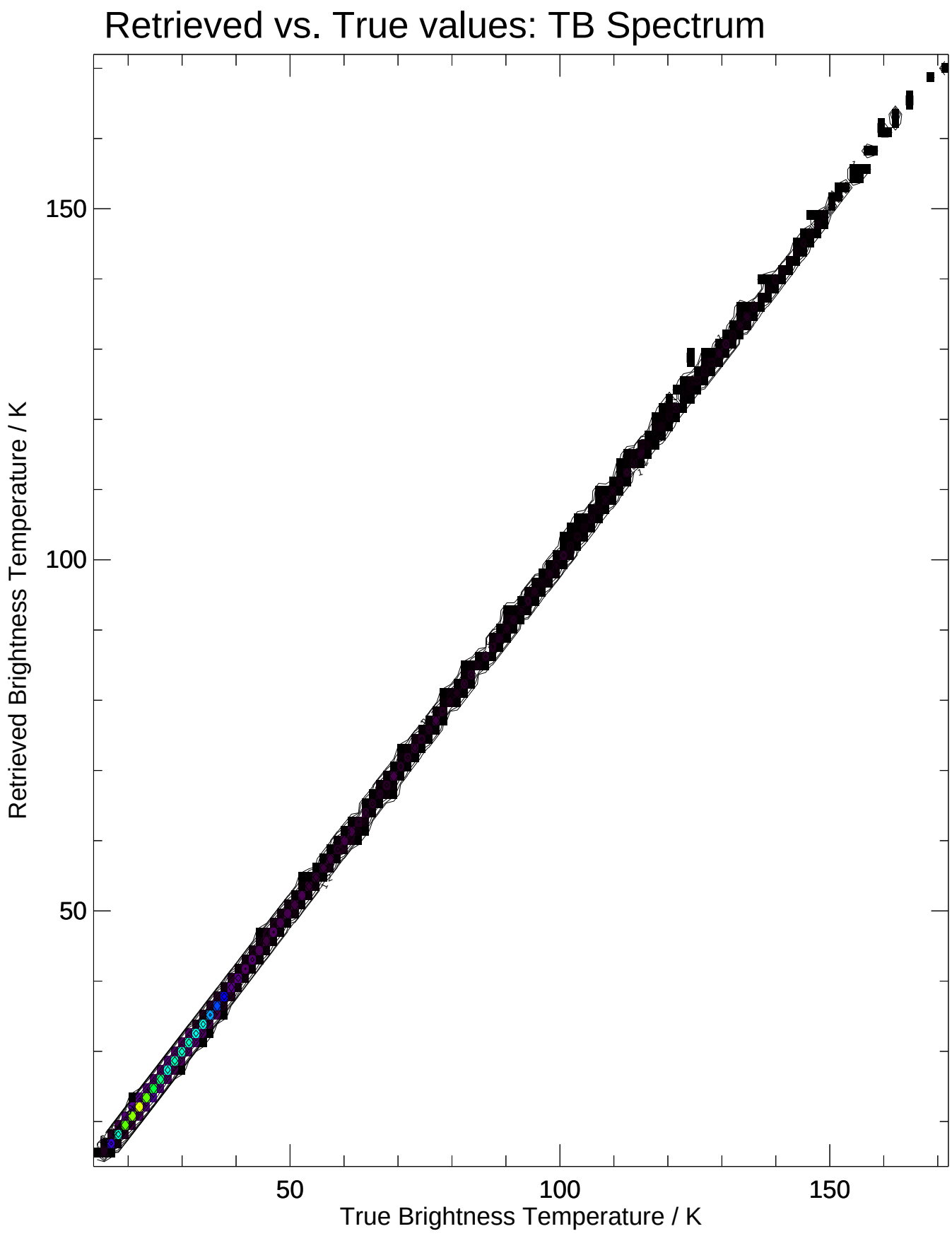

Relative Error (amplitude dependent)
F = 37.500 GHz
N=2923
N=3202
N=1267
N=465
N=354
N=302
N=248
N=208
N=185
N=163
N=130
N=164
N=119
N=65
N=20
N=5
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
160
True Value Brightness Temperature / K

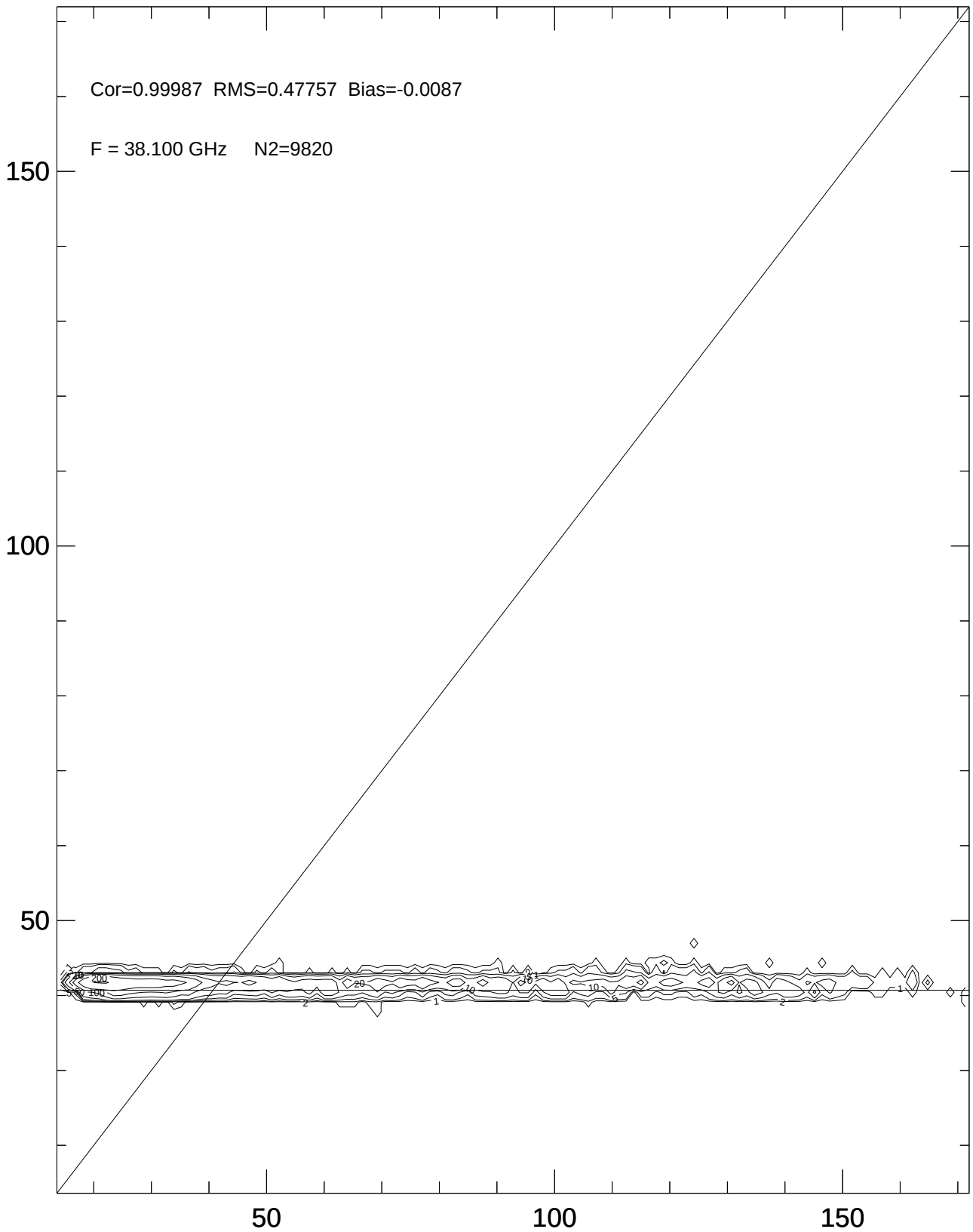

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
20
40
60
80
100
120
140
160

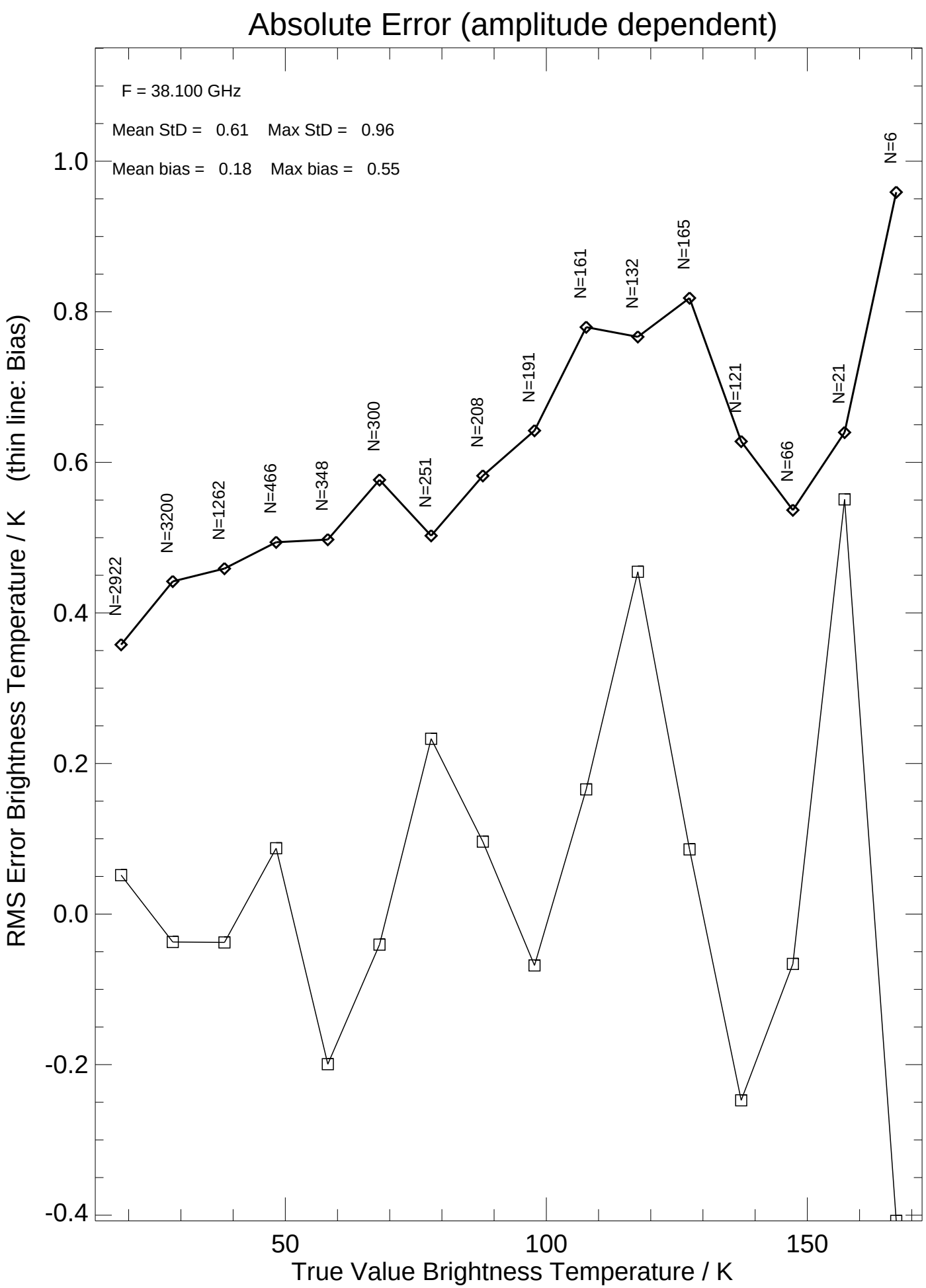

Cor=0.99987 RMS=0.47085 Bias=-0.0087
F = 37.900 GHz N2=9820
160
140
120
100
80
60
40
20
20
40
60
80
100
120
140
160

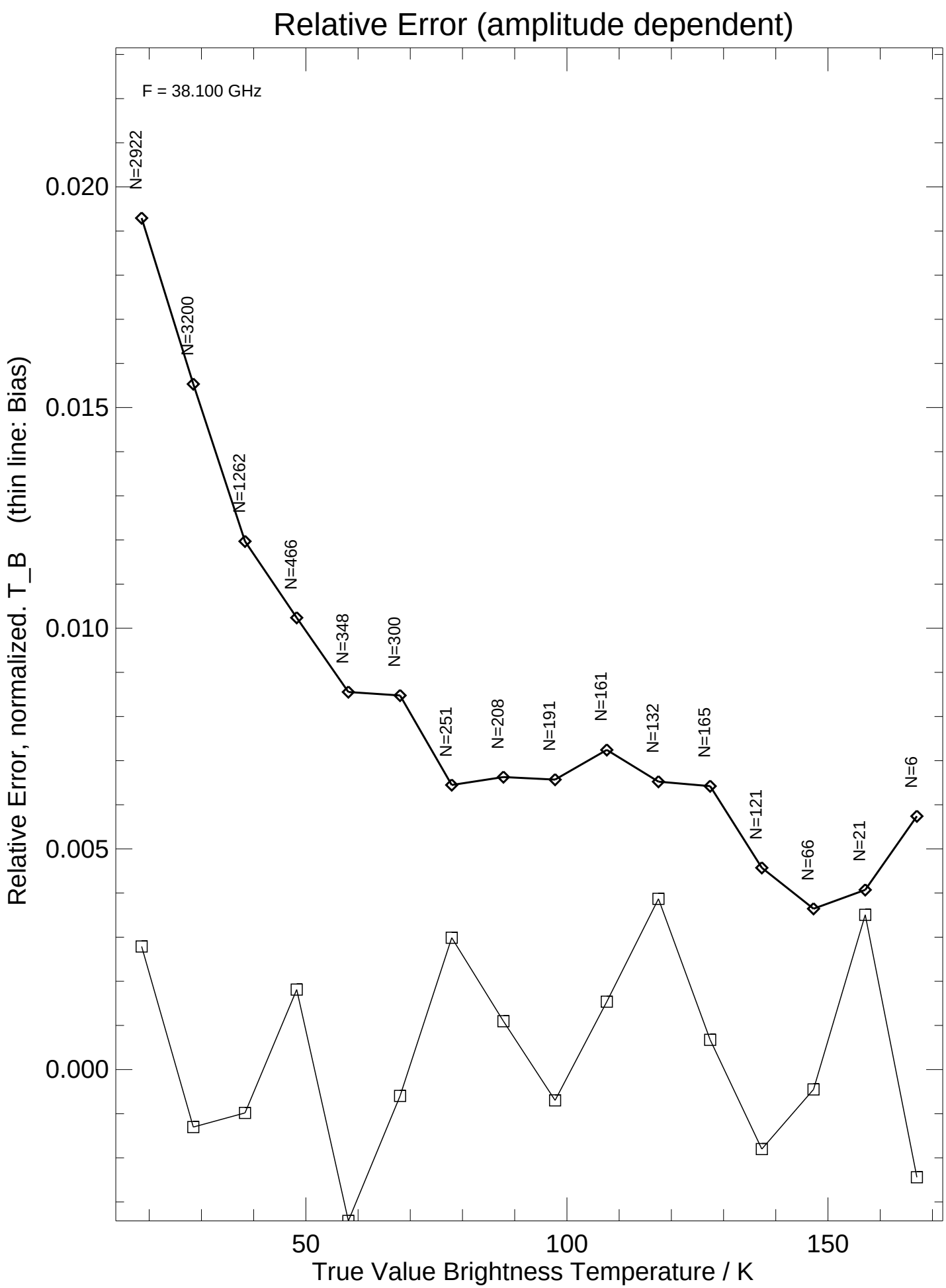

Absolute Error (amplitude dependent)
F = 37.900 GHz
Mean StD = 0.57 Max StD = 0.80
Mean bias = 0.16 Max bias = 0.57
N=2924
N=3199
N=1264
N=464
N=350
N=303
N=250
N=210
N=188
N=158
N=133
N=166
N=119
N=67
N=20
N=5
1.0
0.5
0.0
-0.5
20
40
60
80
100
120
140
160
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

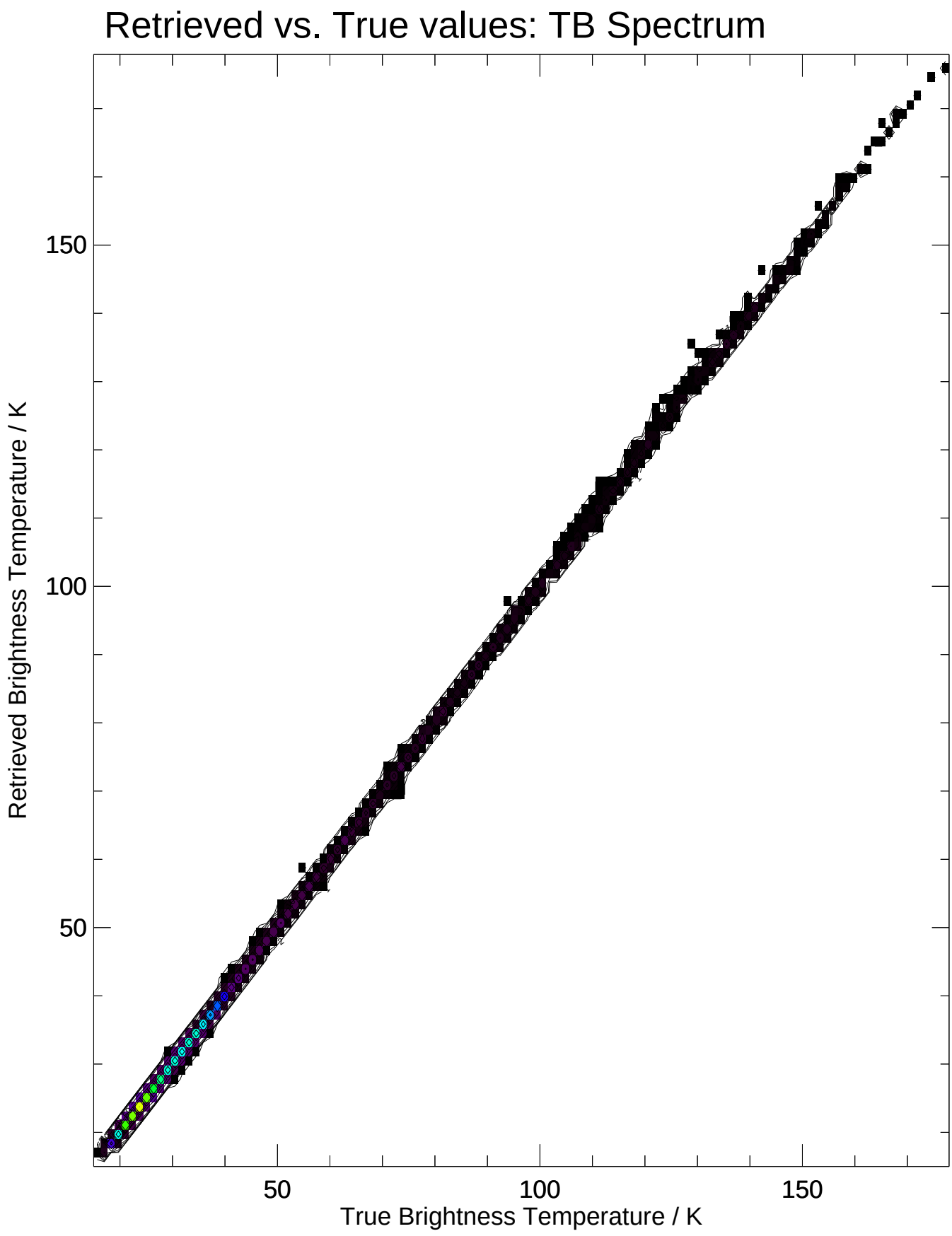

Relative Error (amplitude dependent)
F = 37.900 GHz
N=2924
N=3199
N=1264
N=464
N=350
N=303
N=250
N=210
N=188
N=158
N=133
N=166
N=119
N=67
N=20
N=5
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
20
40
60
80
100
120
140
160
True Value Brightness Temperature / K

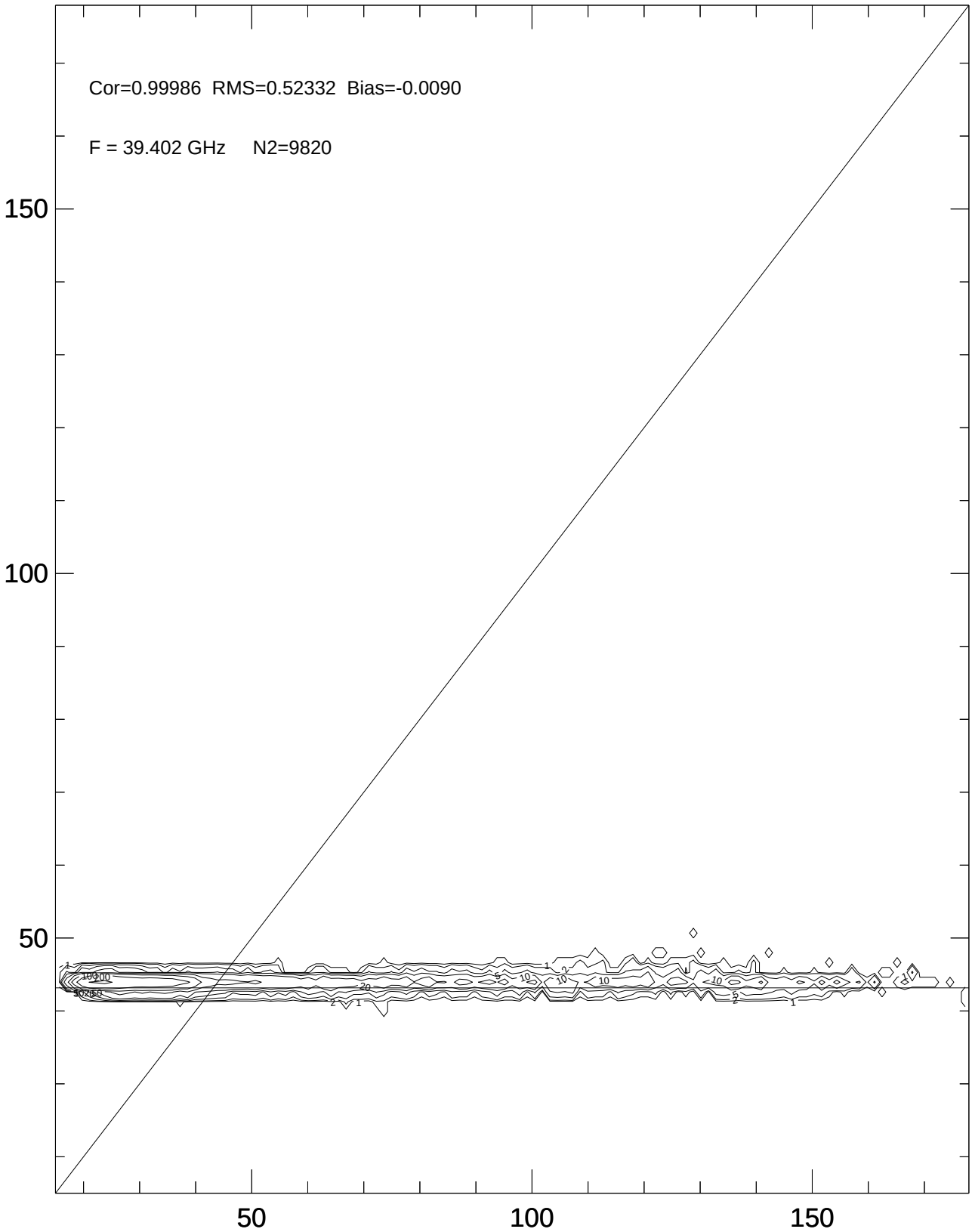

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
50
100
150

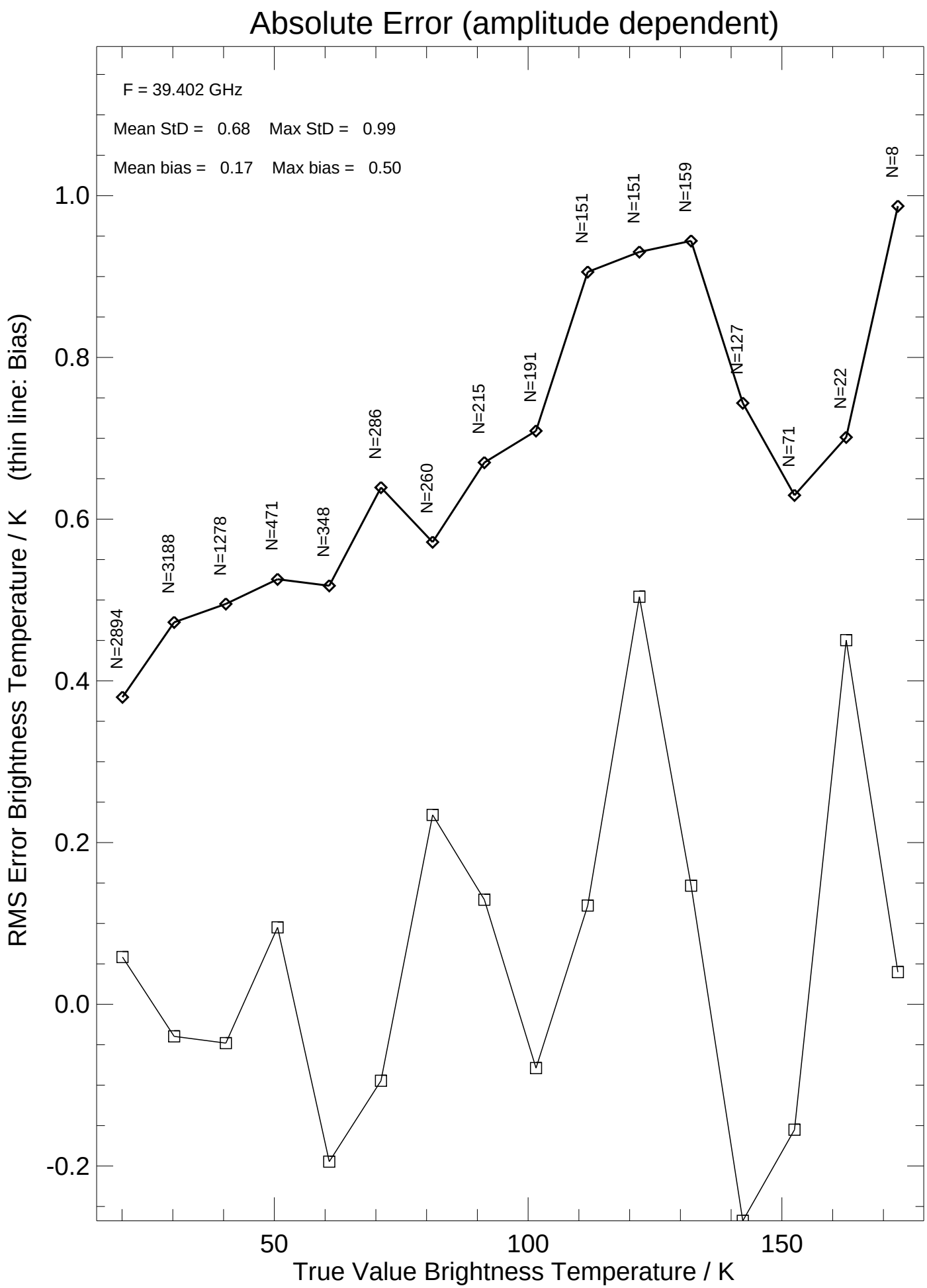

Cor=0.99987 RMS=0.47757 Bias=-0.0087
F = 38.100 GHz N2=9820
150
100
50
50
100
150

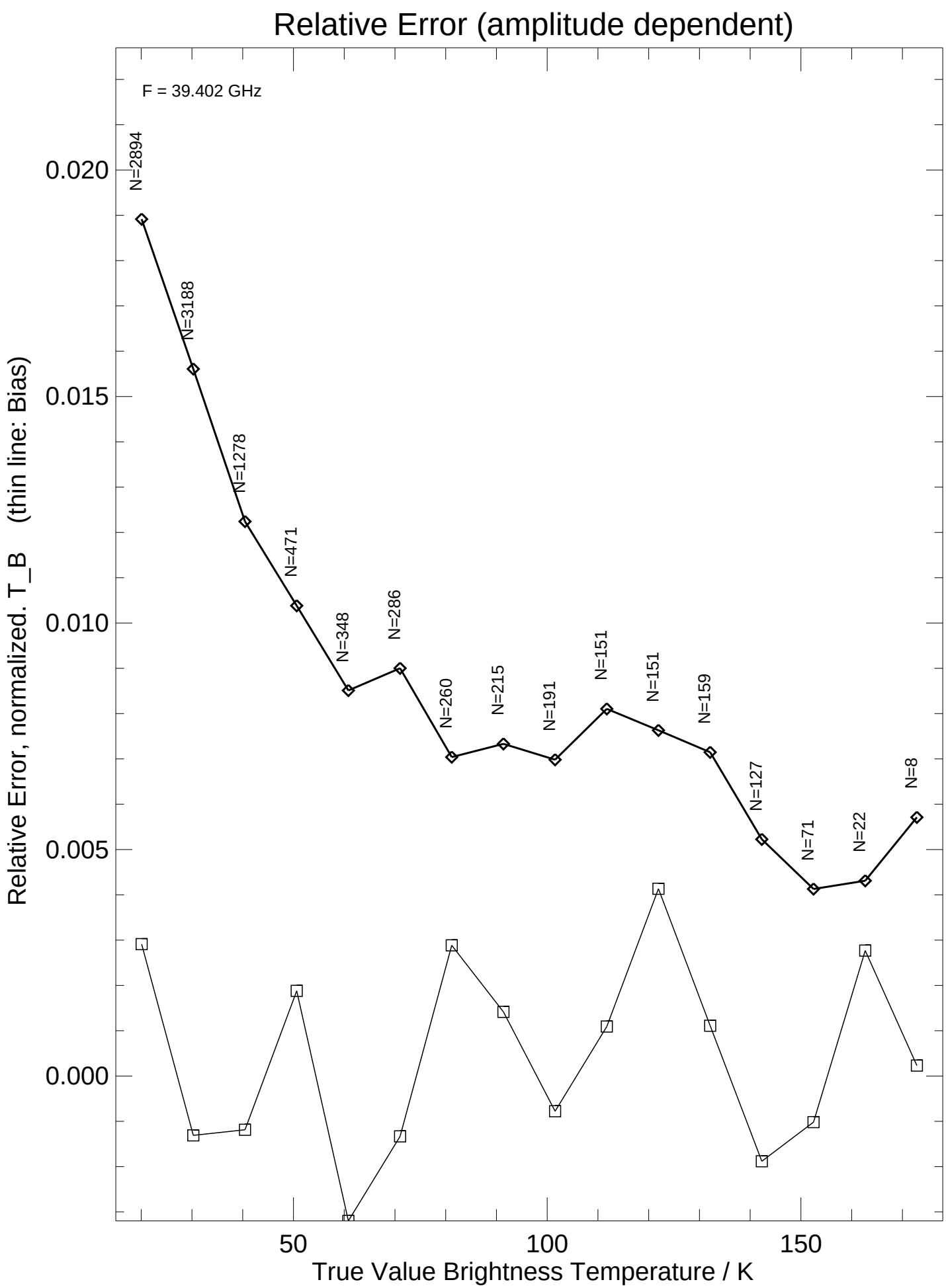

Absolute Error (amplitude dependent)
F = 38.100 GHz
Mean StD = 0.61 Max StD = 0.96
Mean bias = 0.18 Max bias = 0.55
N=2922
N=3200
N=1262
N=466
N=348
N=300
N=251
N=208
N=191
N=161
N=132
N=165
N=121
N=66
N=21
N=6
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
50
100
150
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

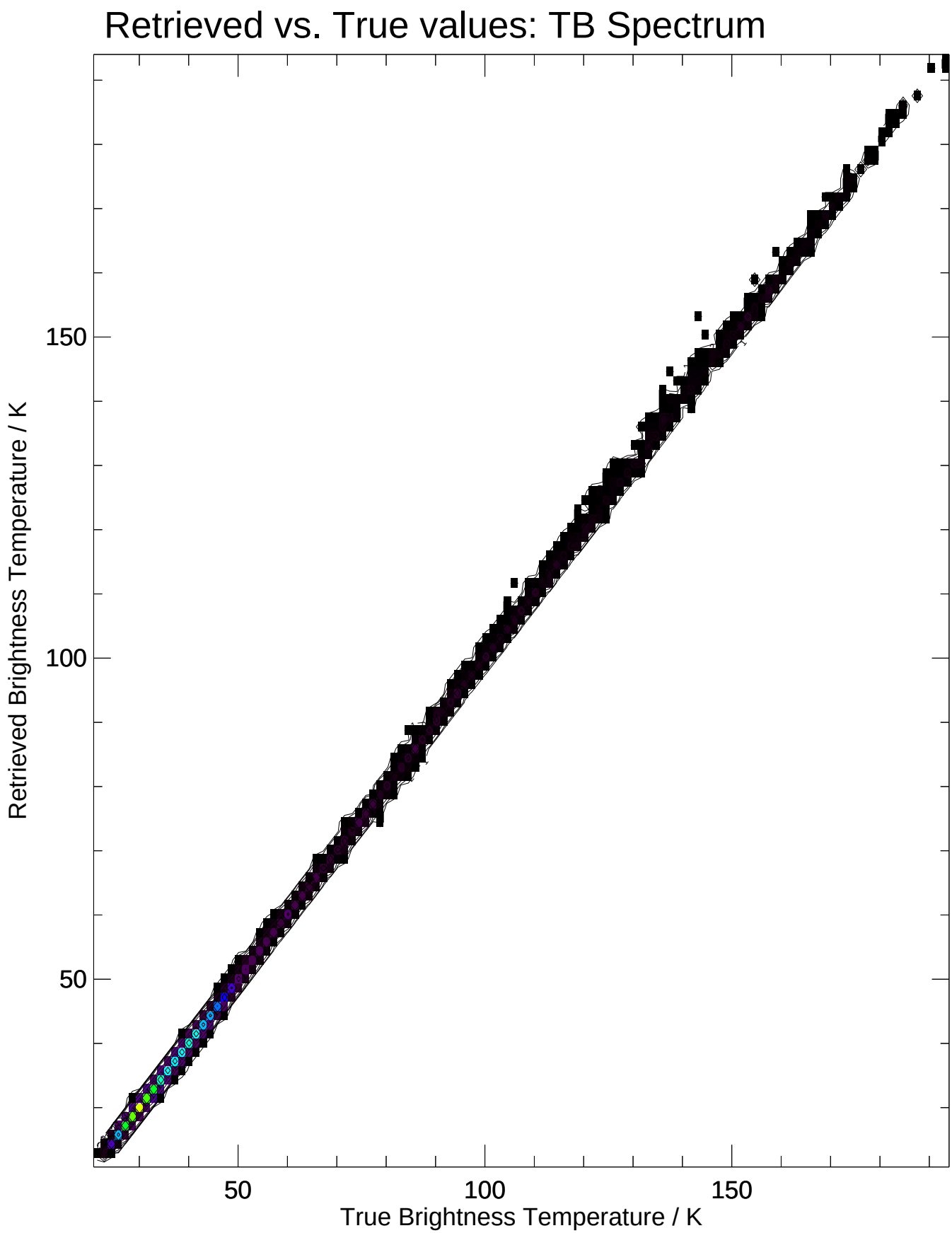

Relative Error (amplitude dependent)
F = 38.100 GHz
N=2922
N=3200
N=1262
N=466
N=348
N=300
N=251
N=208
N=191
N=161
N=132
N=165
N=121
N=66
N=21
N=6
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
True Value Brightness Temperature / K

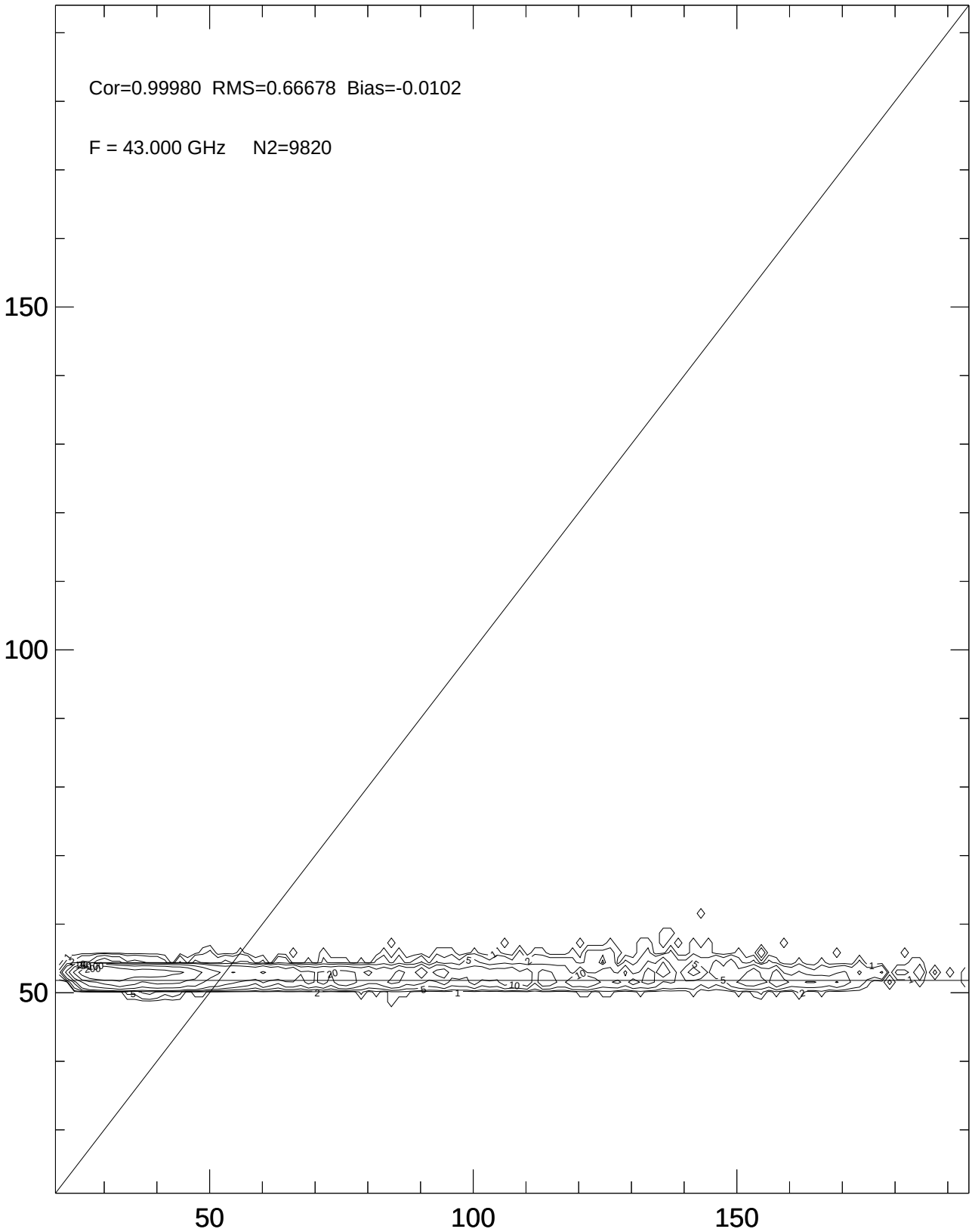

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
50
100
150

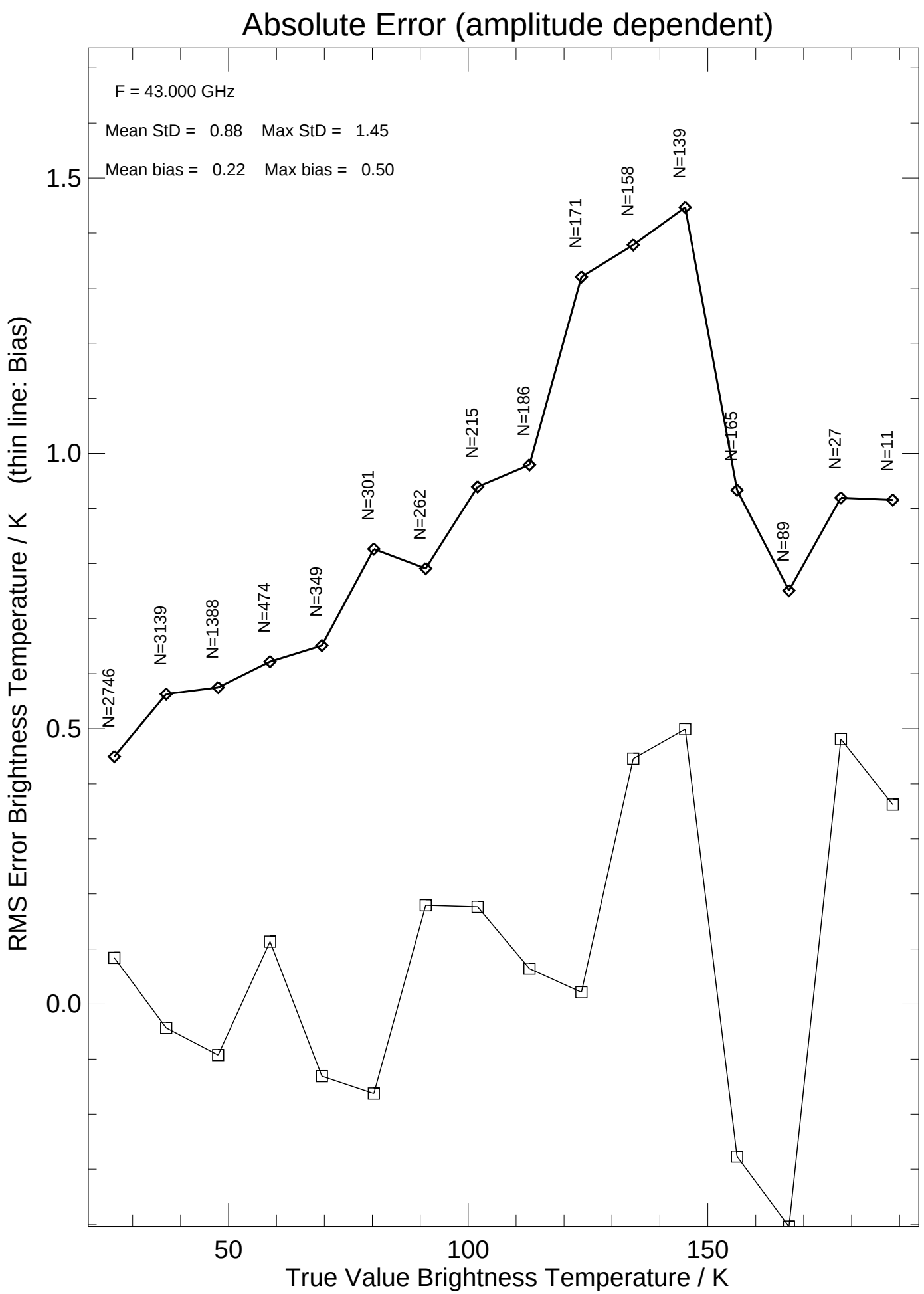

Cor=0.99986 RMS=0.52332 Bias=-0.0090
F = 39.402 GHz N2=9820
150
100
50
50
100
150

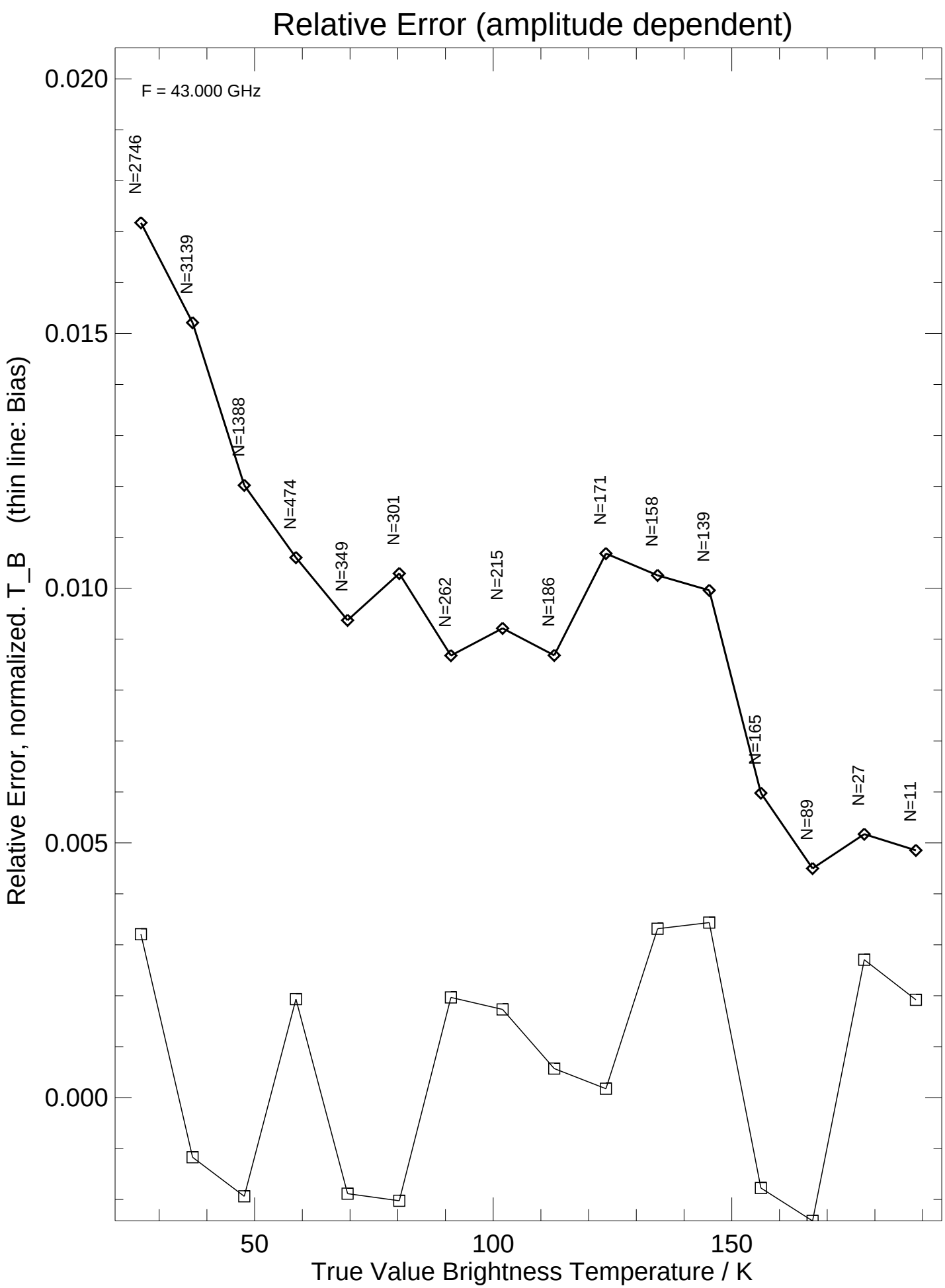

Absolute Error (amplitude dependent)
F = 39.402 GHz
Mean StD = 0.68 Max StD = 0.99
Mean bias = 0.17 Max bias = 0.50
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
50
100
150
N=2894
N=3188
N=1278
N=471
N=348
N=286
N=260
N=215
N=191
N=151
N=151
N=159
N=127
N=71
N=22
N=8

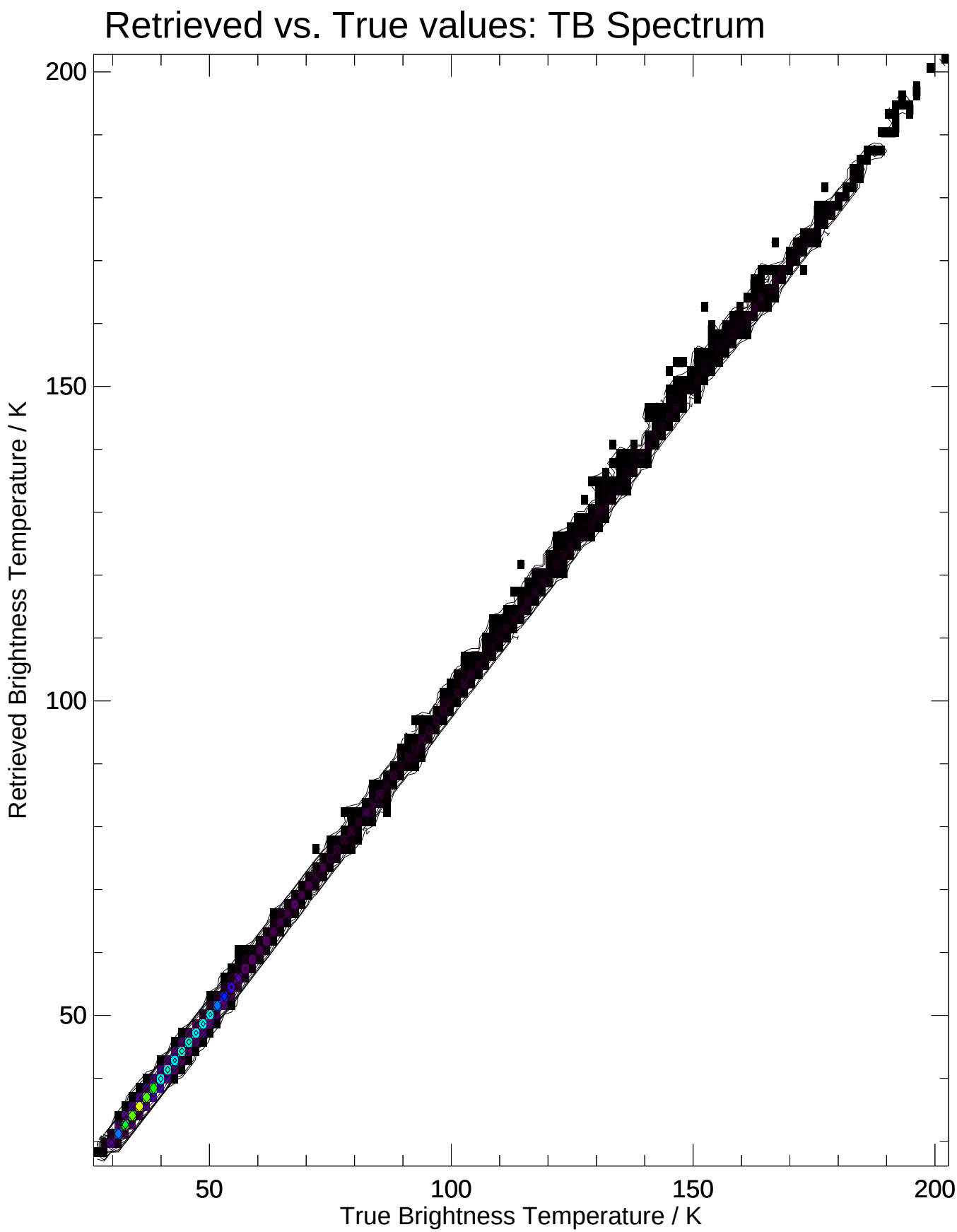

Relative Error (amplitude dependent)
F = 39.402 GHz
N=2894
N=3188
N=1278
N=471
N=348
N=286
N=260
N=215
N=191
N=151
N=151
N=159
N=127
N=71
N=22
N=8
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
True Value Brightness Temperature / K

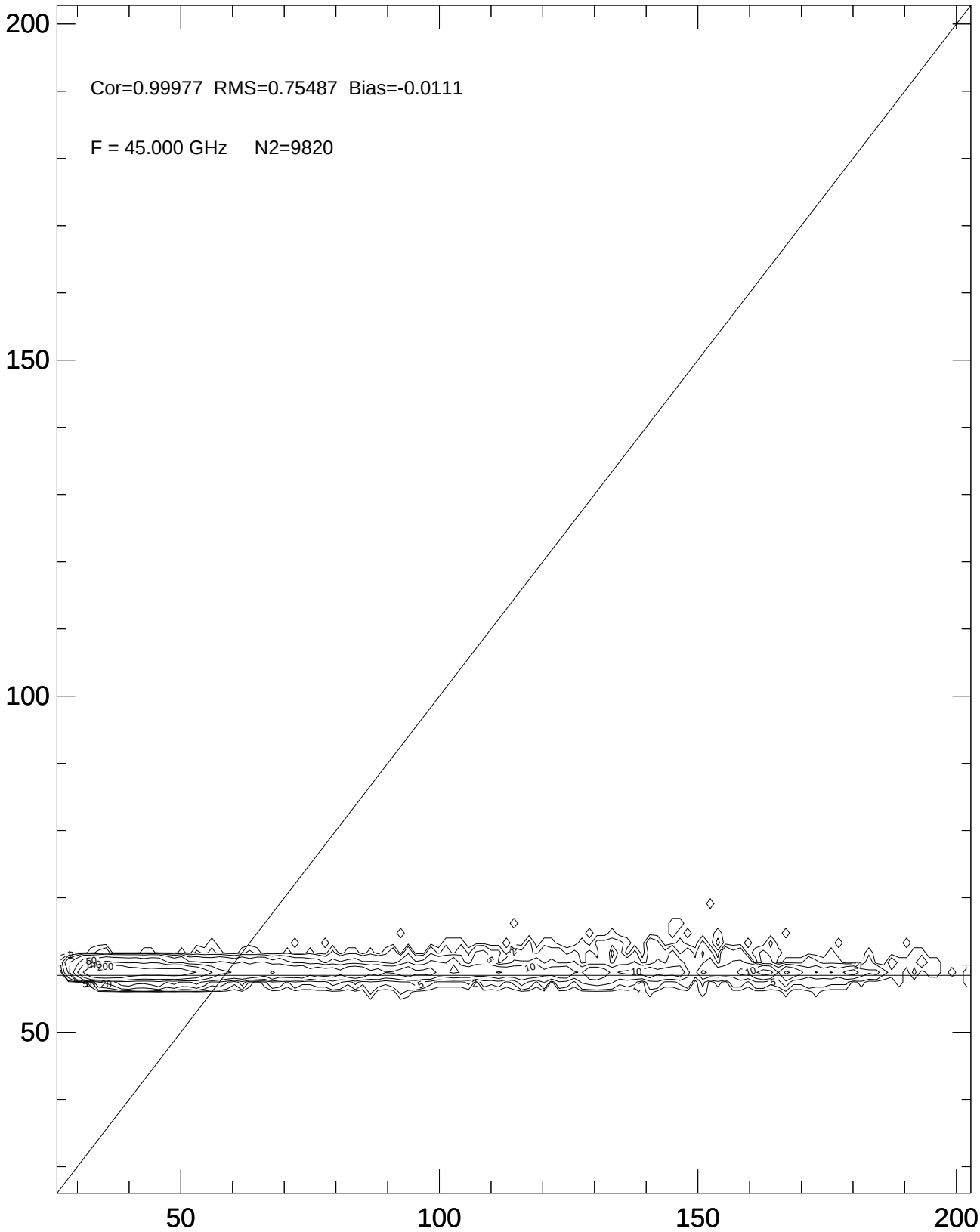

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
50
100
150

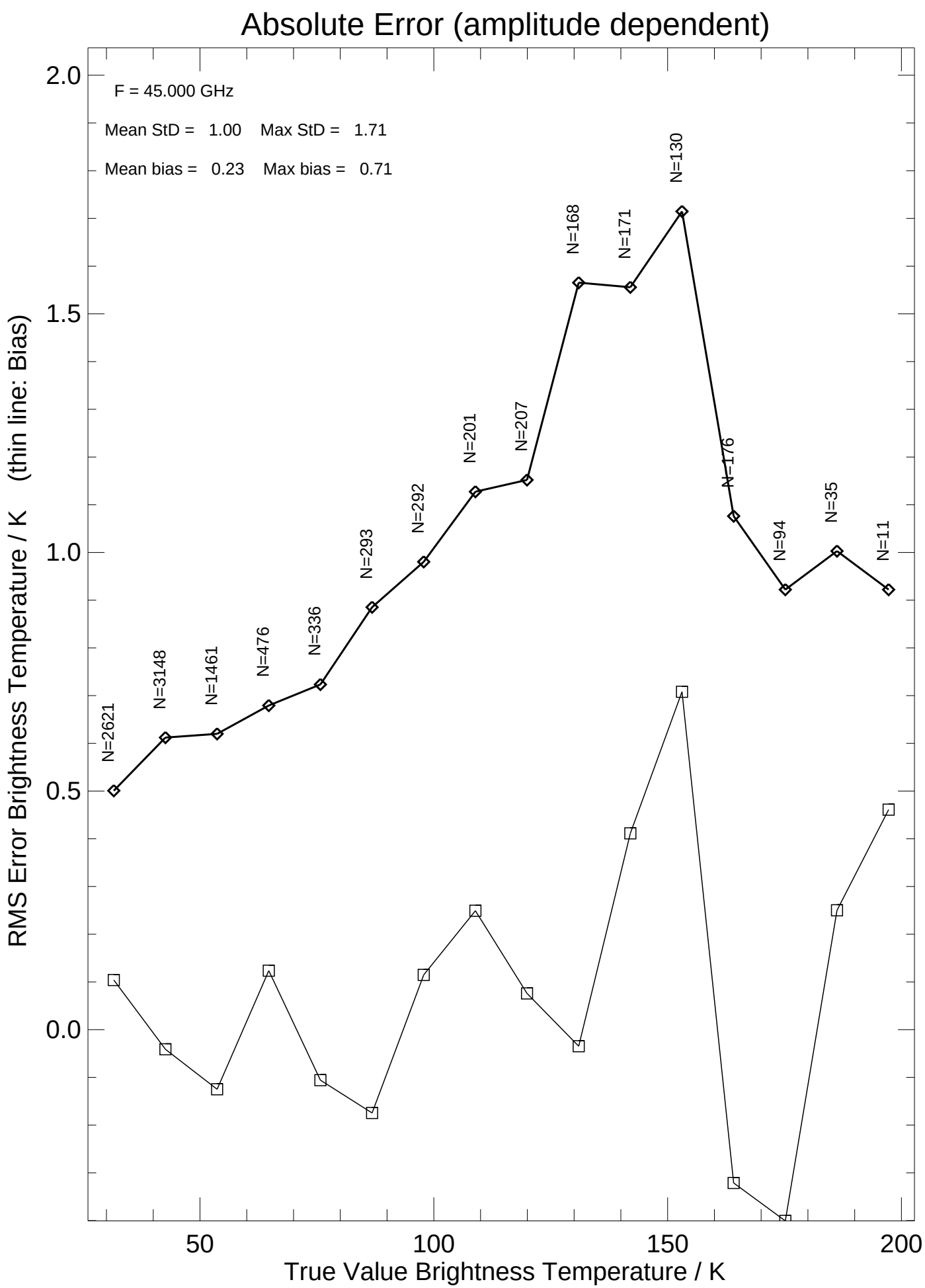

Cor=0.99980 RMS=0.66678 Bias=-0.0102
F = 43.000 GHz N2=9820
150
100
50
50
100
150

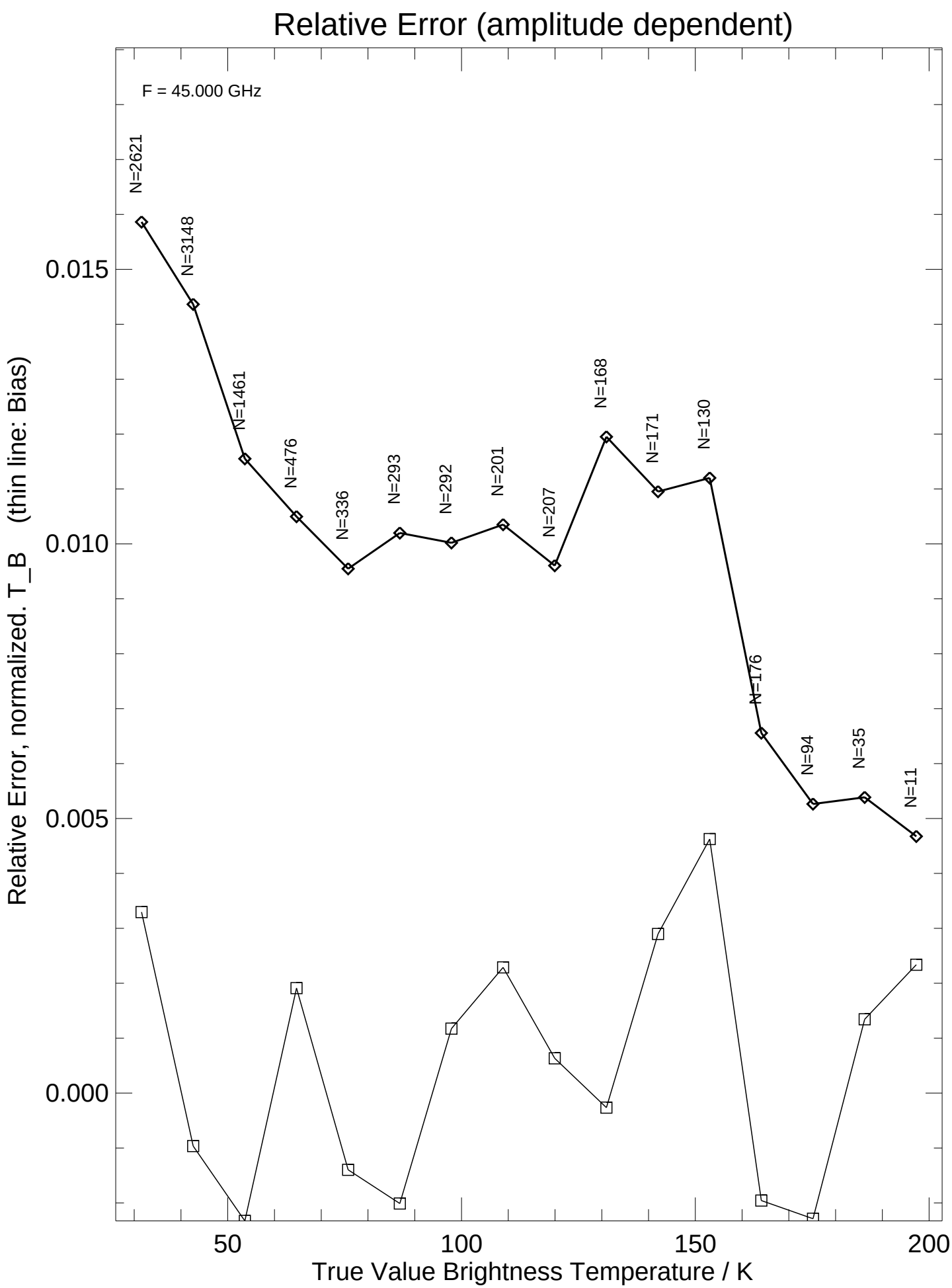

Absolute Error (amplitude dependent)
F = 43.000 GHz
Mean StD = 0.88 Max StD = 1.45
Mean bias = 0.22 Max bias = 0.50
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
1.5
1.0
0.5
0.0
50
100
150
N=2746
N=3139
N=1388
N=474
N=349
N=301
N=262
N=215
N=186
N=171
N=158
N=139
N=165
N=89
N=27
N=11

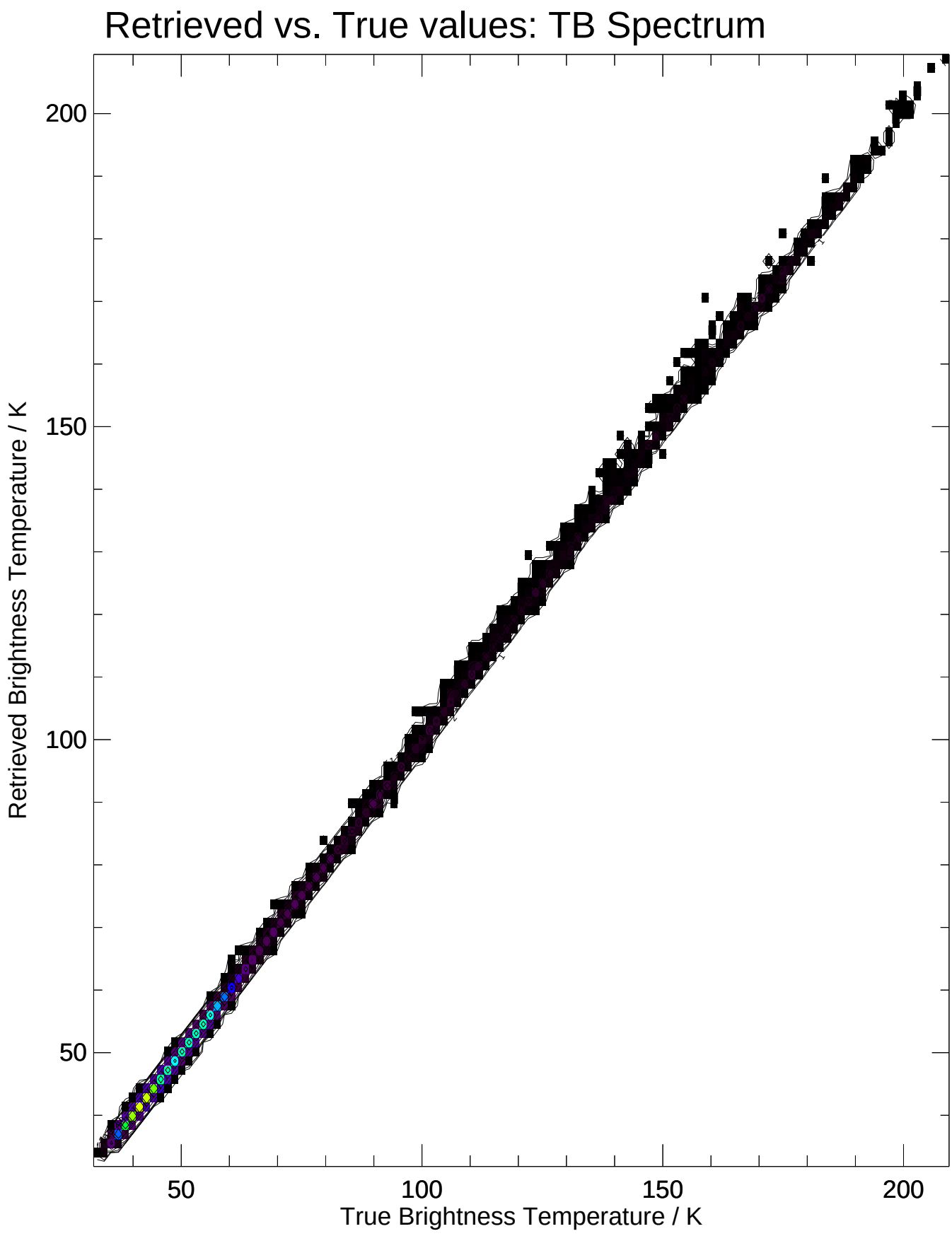

Relative Error (amplitude dependent)
F = 43.000 GHz
N=2746
N=3139
N=1388
N=474
N=349
N=301
N=262
N=215
N=186
N=171
N=158
N=139
N=165
N=89
N=27
N=11
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
True Value Brightness Temperature / K

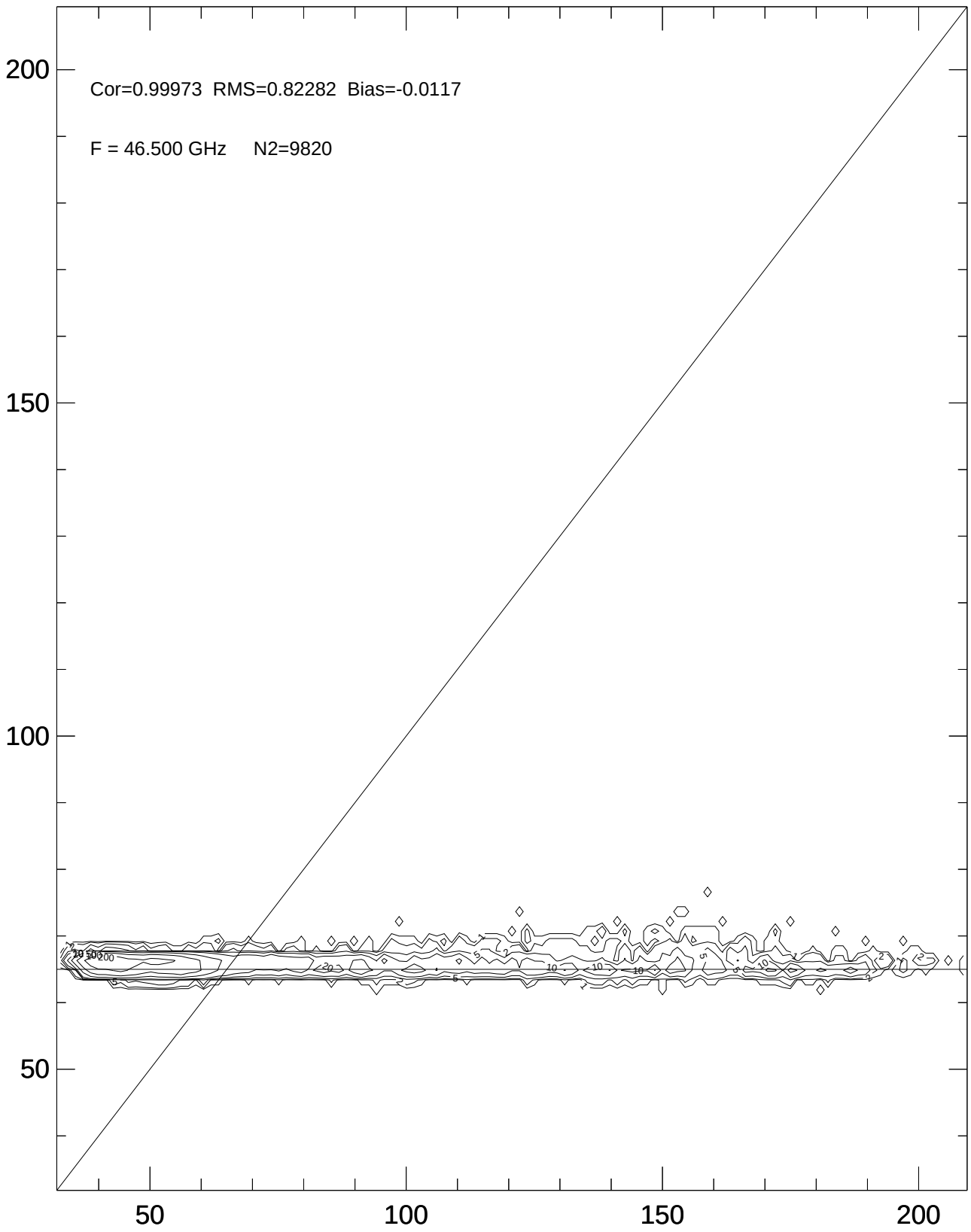

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

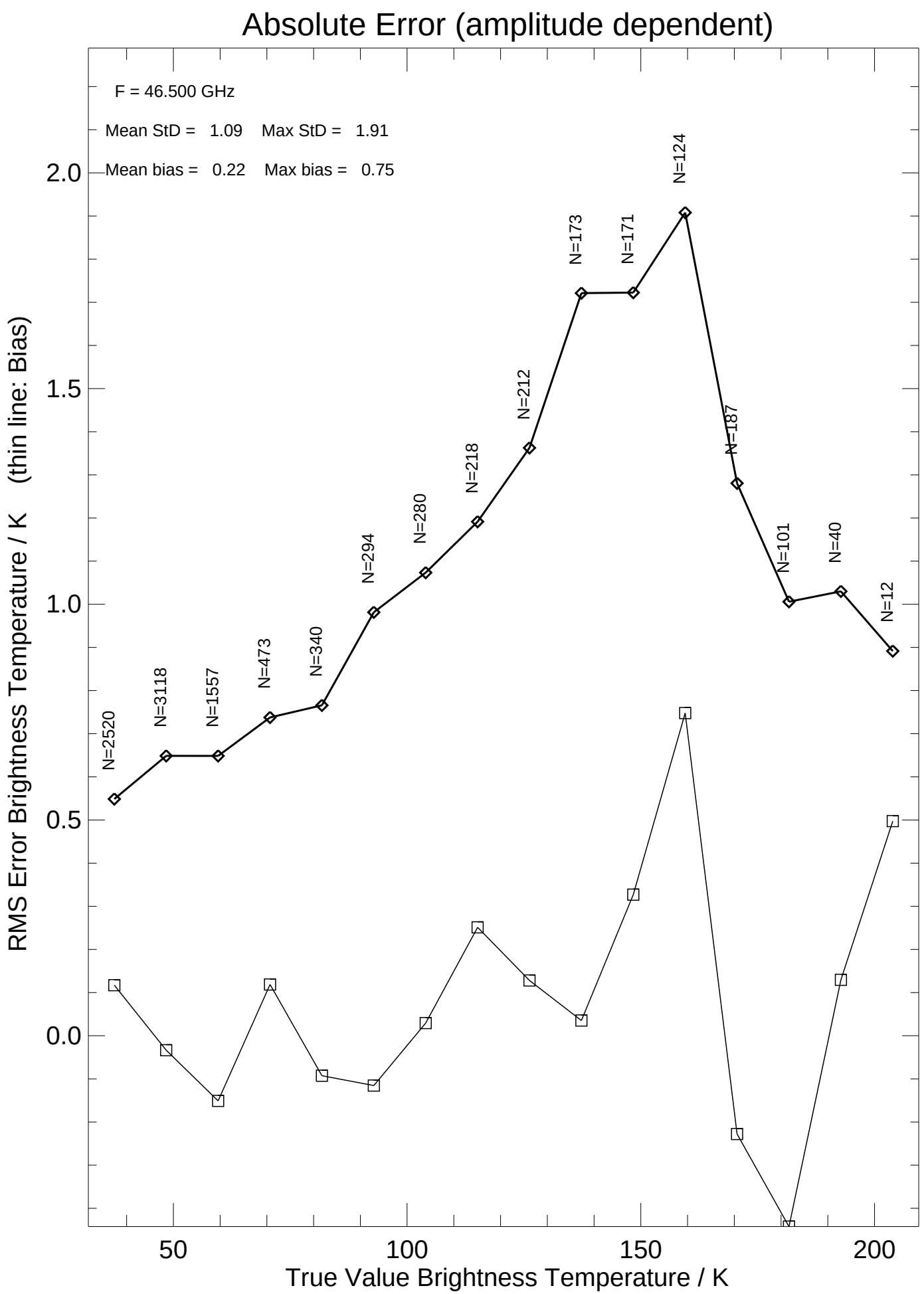

Cor=0.99977 RMS=0.75487 Bias=-0.0111
F = 45.000 GHz N2=9820
200
150
100
50
50
100
150
200

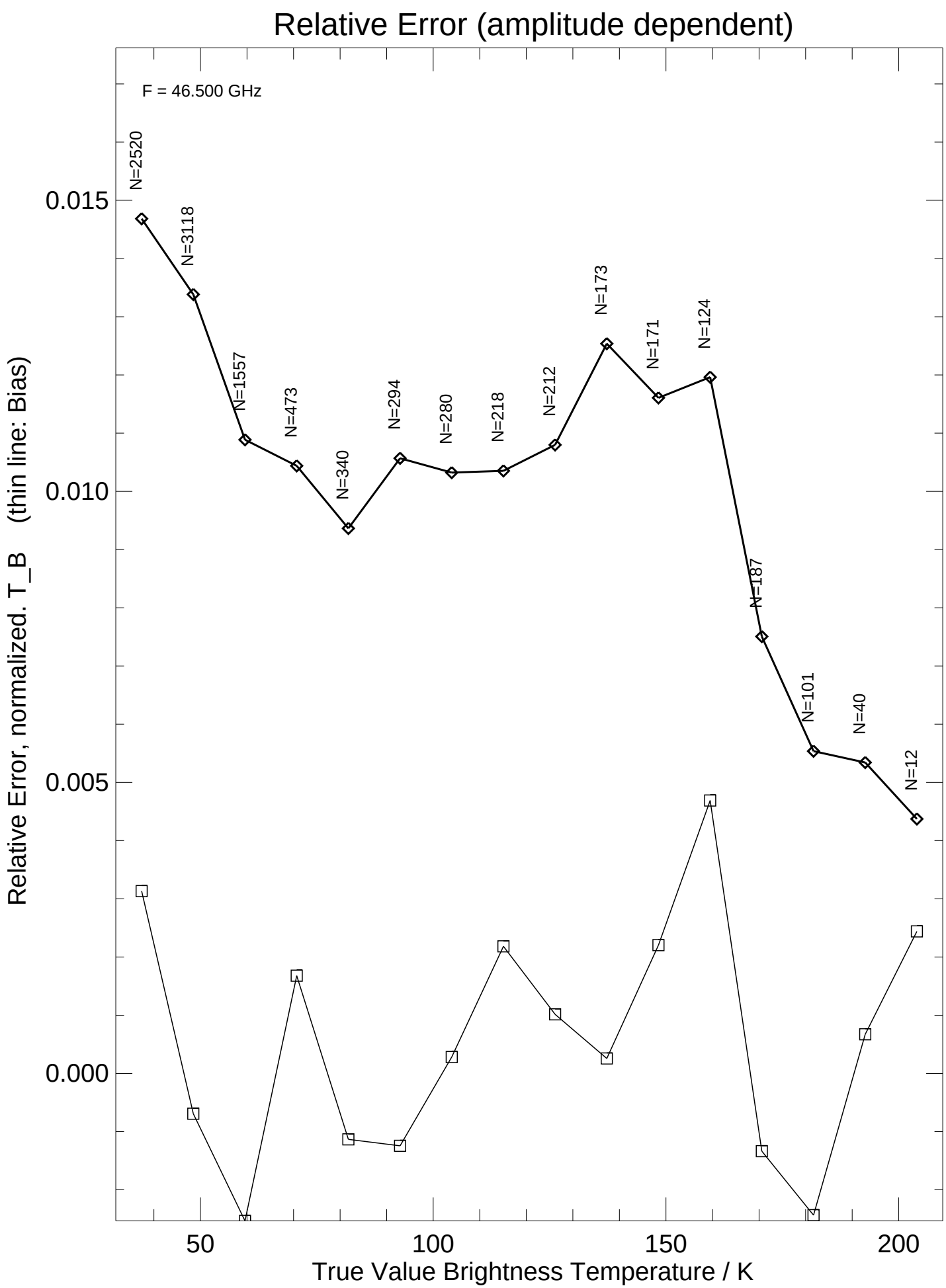

Absolute Error (amplitude dependent)
F = 45.000 GHz
Mean StD = 1.00 Max StD = 1.71
Mean bias = 0.23 Max bias = 0.71
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.0
1.5
1.0
0.5
0.0
50
100
150
200
N=2621
N=3148
N=1461
N=476
N=336
N=293
N=292
N=201
N=207
N=168
N=171
N=130
N=176
N=94
N=35
N=11

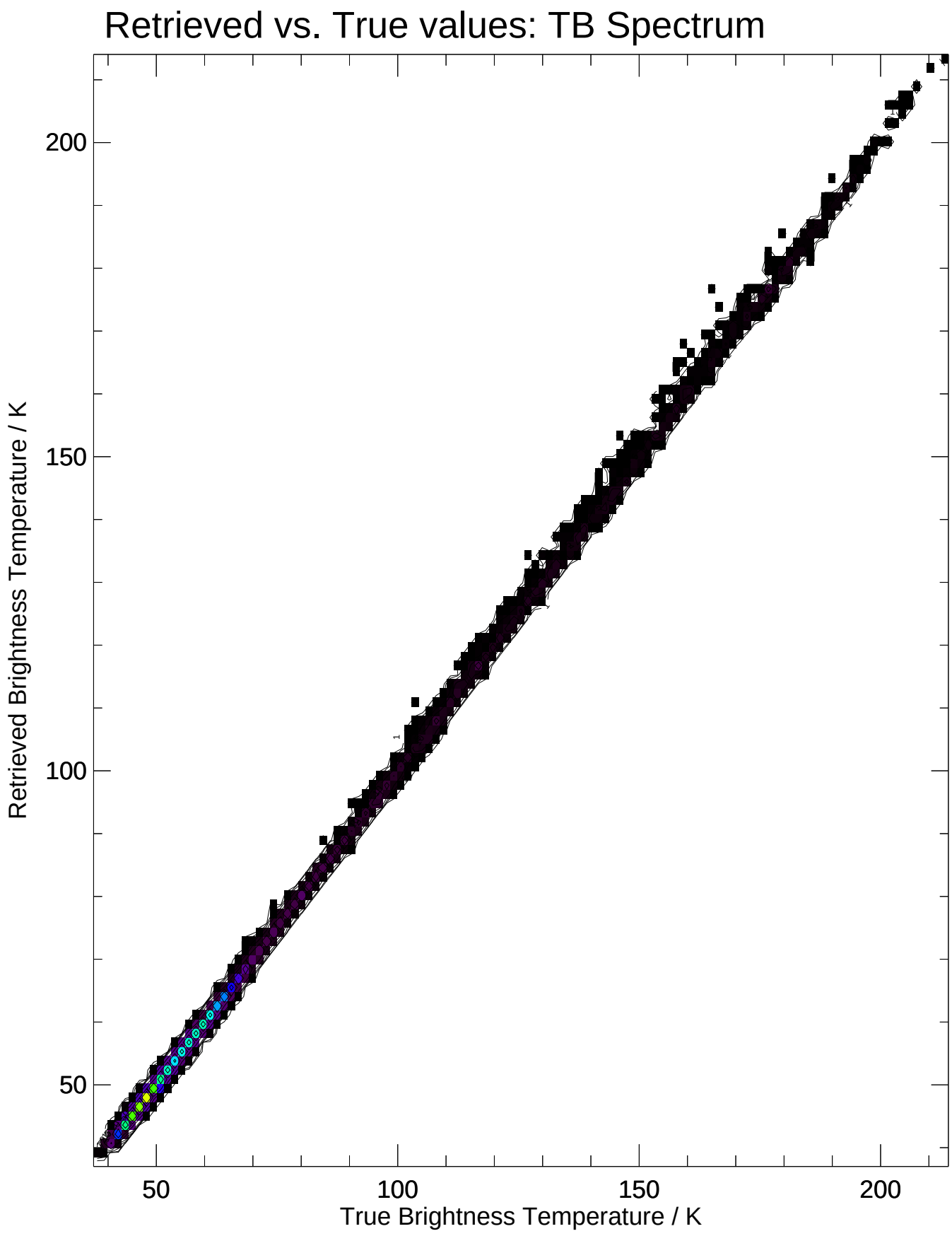

Relative Error (amplitude dependent)
F = 45.000 GHz
N=2621
N=3148
N=1461
N=476
N=336
N=293
N=292
N=201
N=207
N=168
N=171
N=130
N=176
N=94
N=35
N=11
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
True Value Brightness Temperature / K

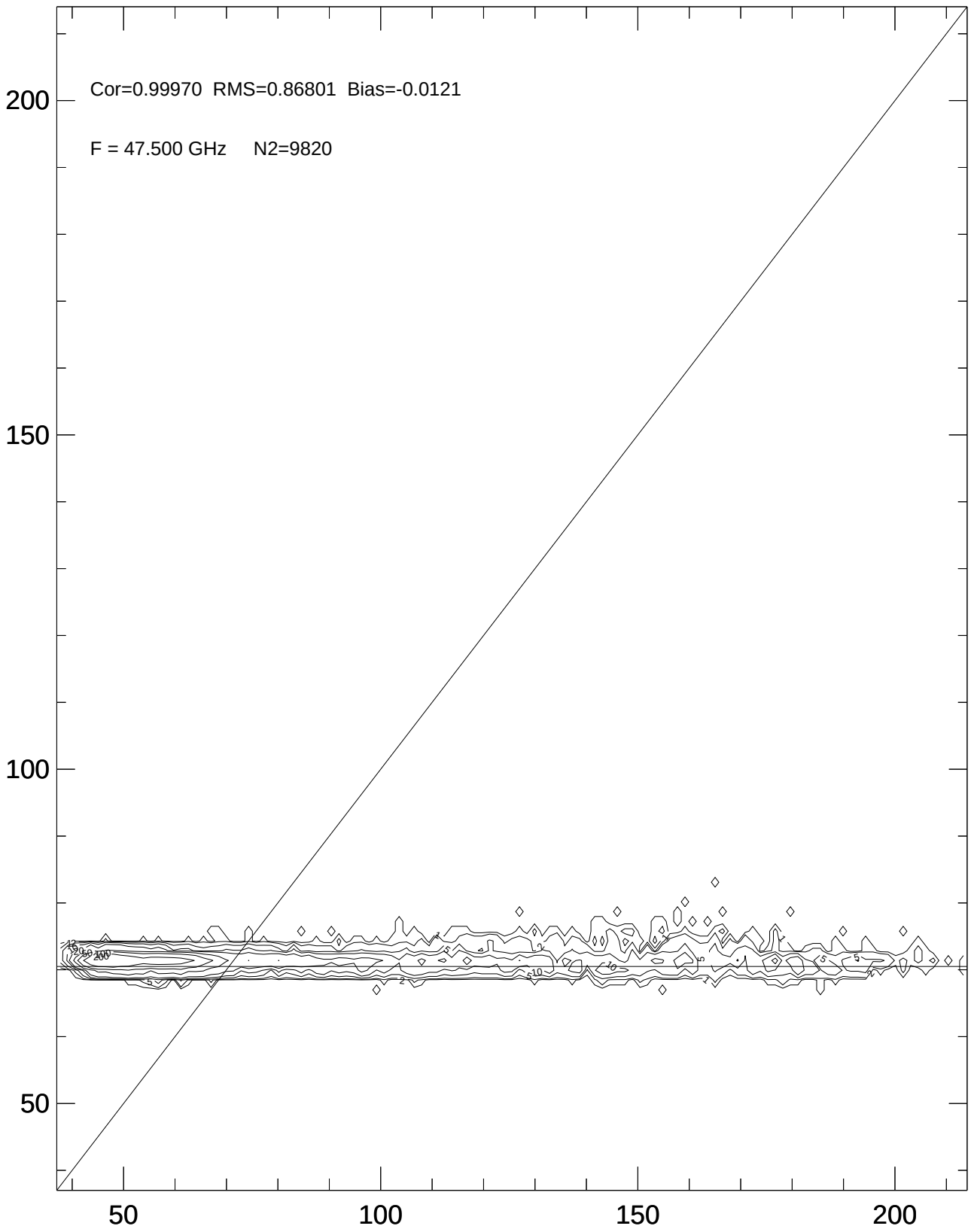

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

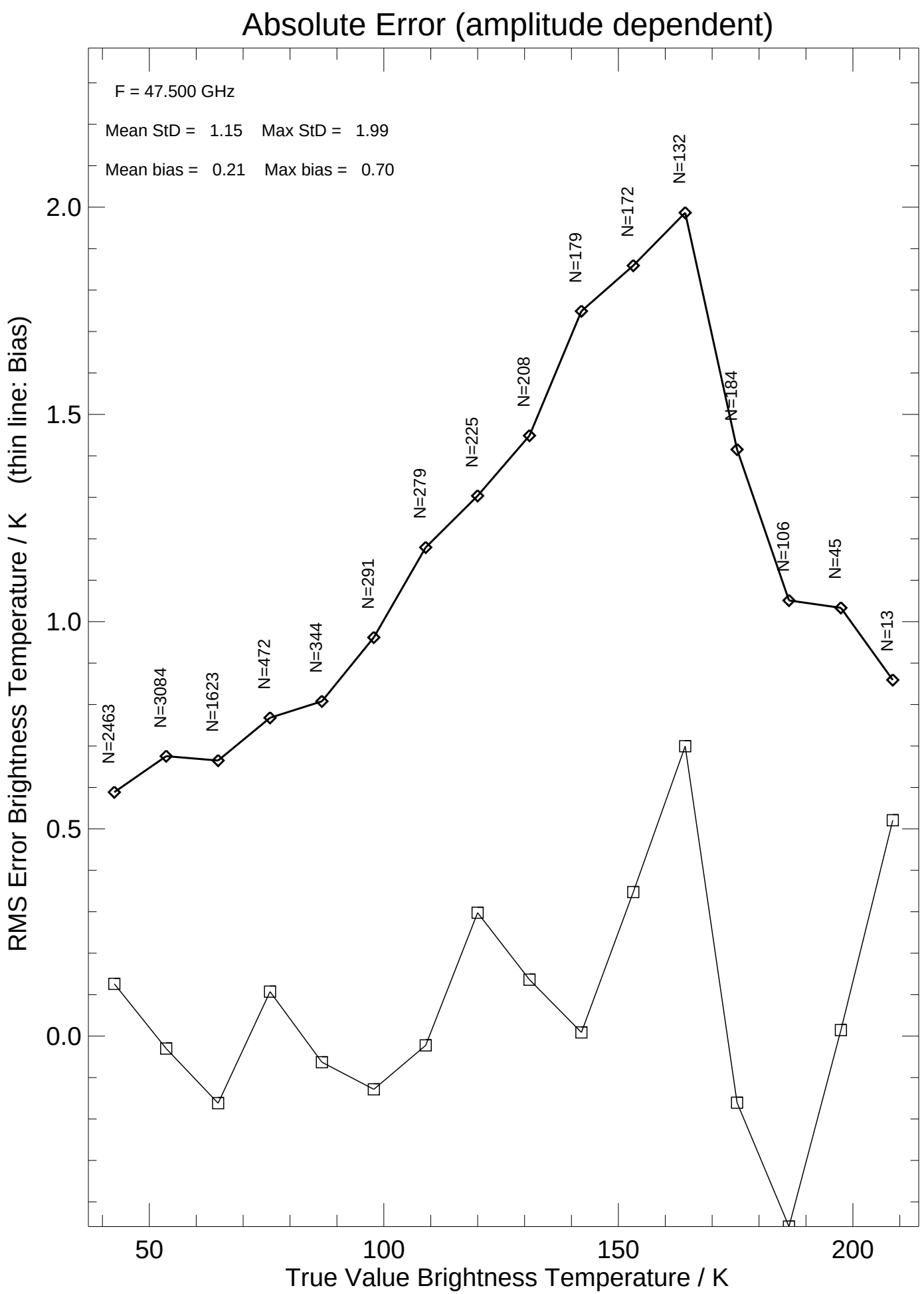

Cor=0.99973 RMS=0.82282 Bias=-0.0117
F = 46.500 GHz N2=9820
200
150
100
50
50
100
150
200

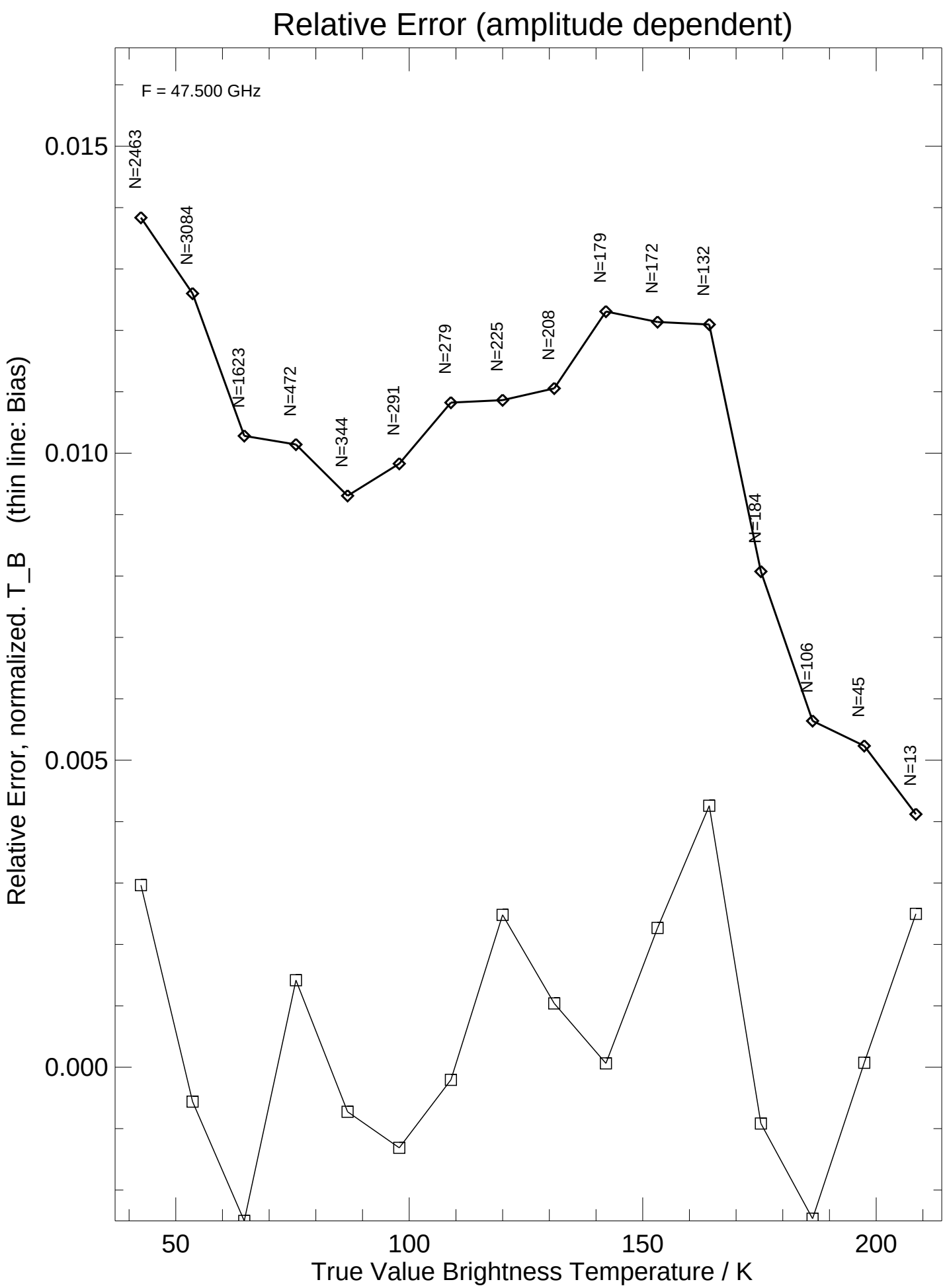

Absolute Error (amplitude dependent)
F = 46.500 GHz
Mean StD = 1.09 Max StD = 1.91
Mean bias = 0.22 Max bias = 0.75
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
0.0
0.5
1.0
1.5
2.0
50
100
150
200
N=2520
N=3118
N=1557
N=473
N=340
N=294
N=280
N=218
N=212
N=173
N=171
N=124
N=187
N=101
N=40
N=12

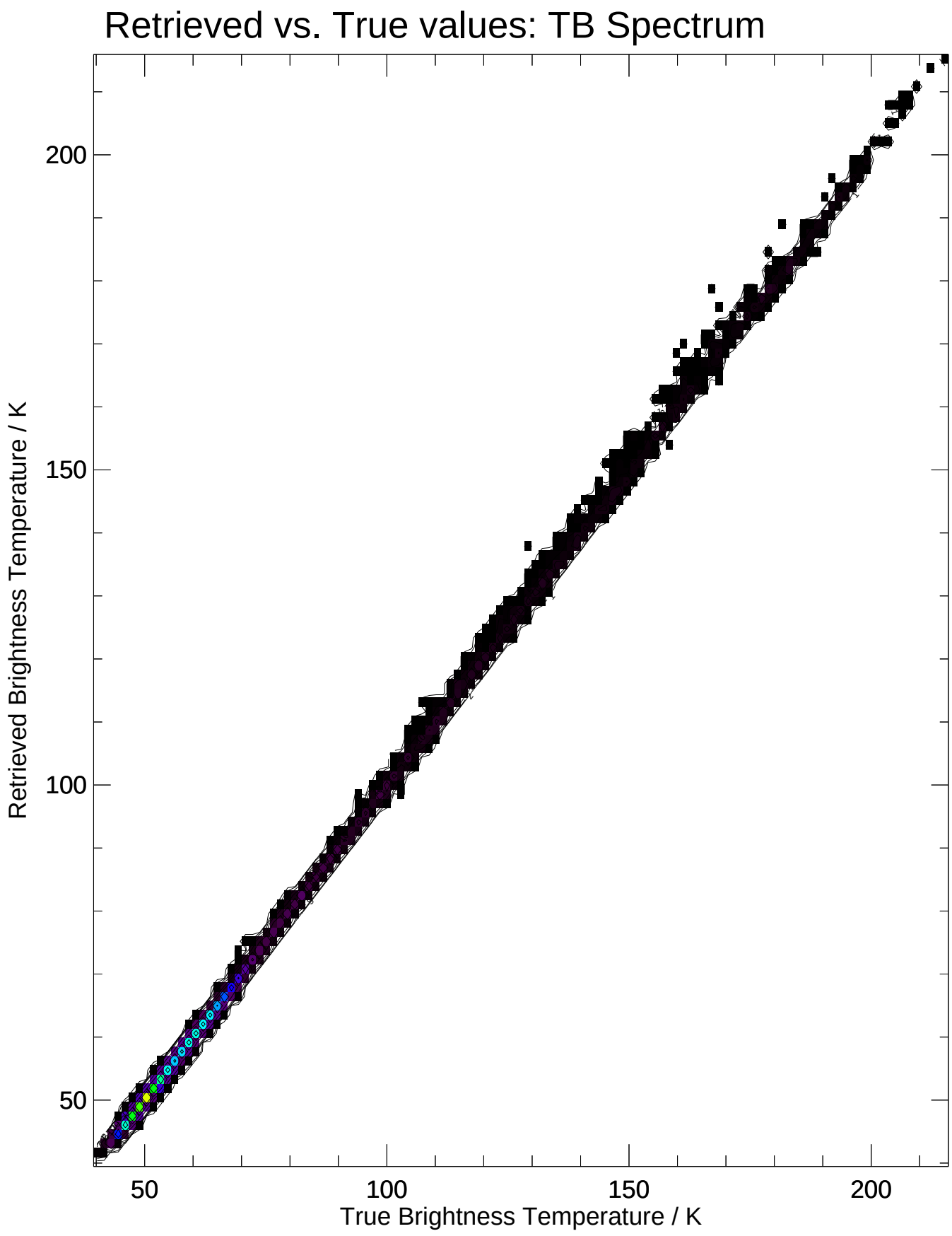

Relative Error (amplitude dependent)
F = 46.500 GHz
N=2520
N=3118
N=1557
N=473
N=340
N=294
N=280
N=218
N=212
N=173
N=171
N=124
N=187
N=101
N=40
N=12
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
True Value Brightness Temperature / K

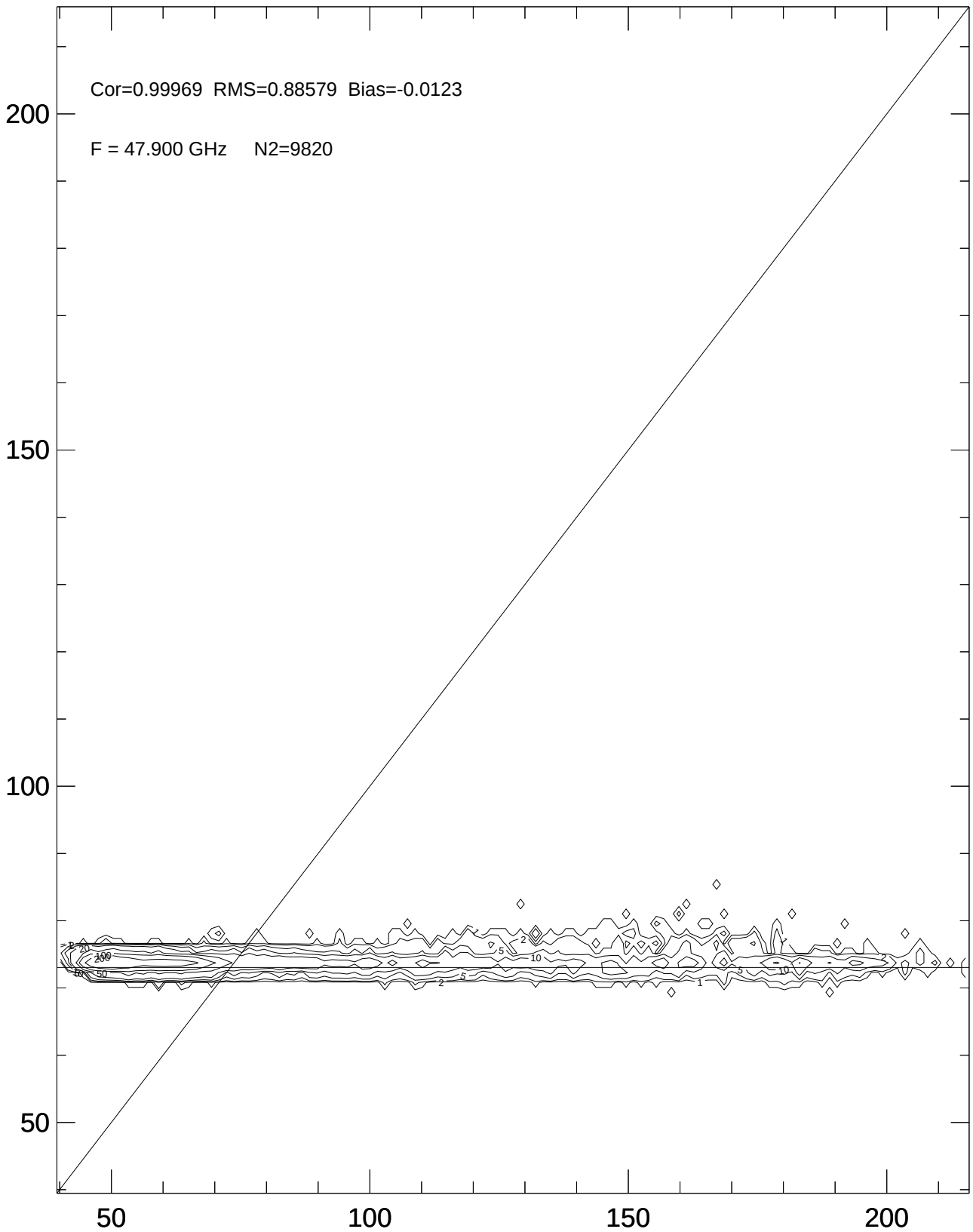

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

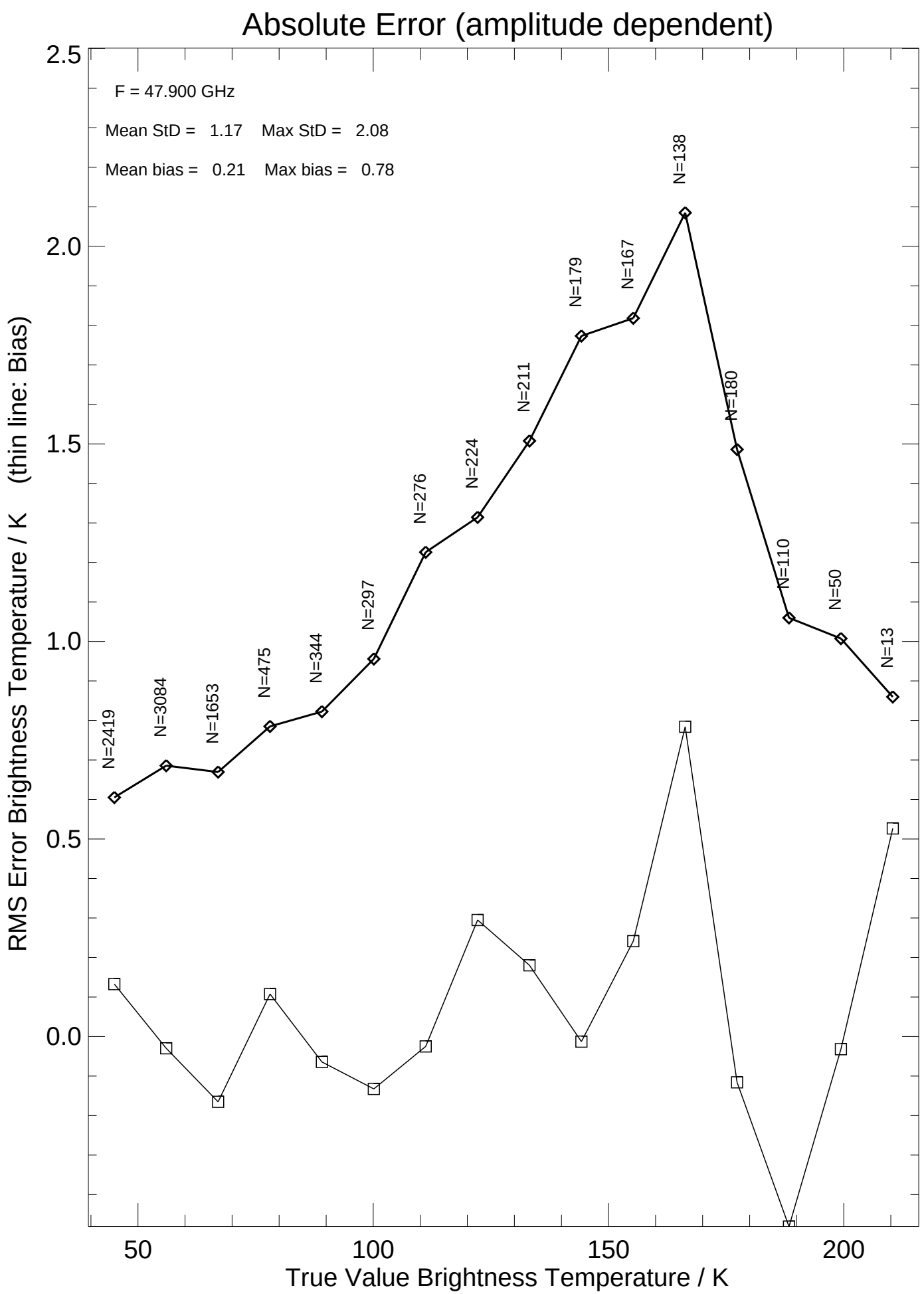

Cor=0.99970 RMS=0.86801 Bias=-0.0121
F = 47.500 GHz N2=9820
200
150
100
50
50
100
150
200

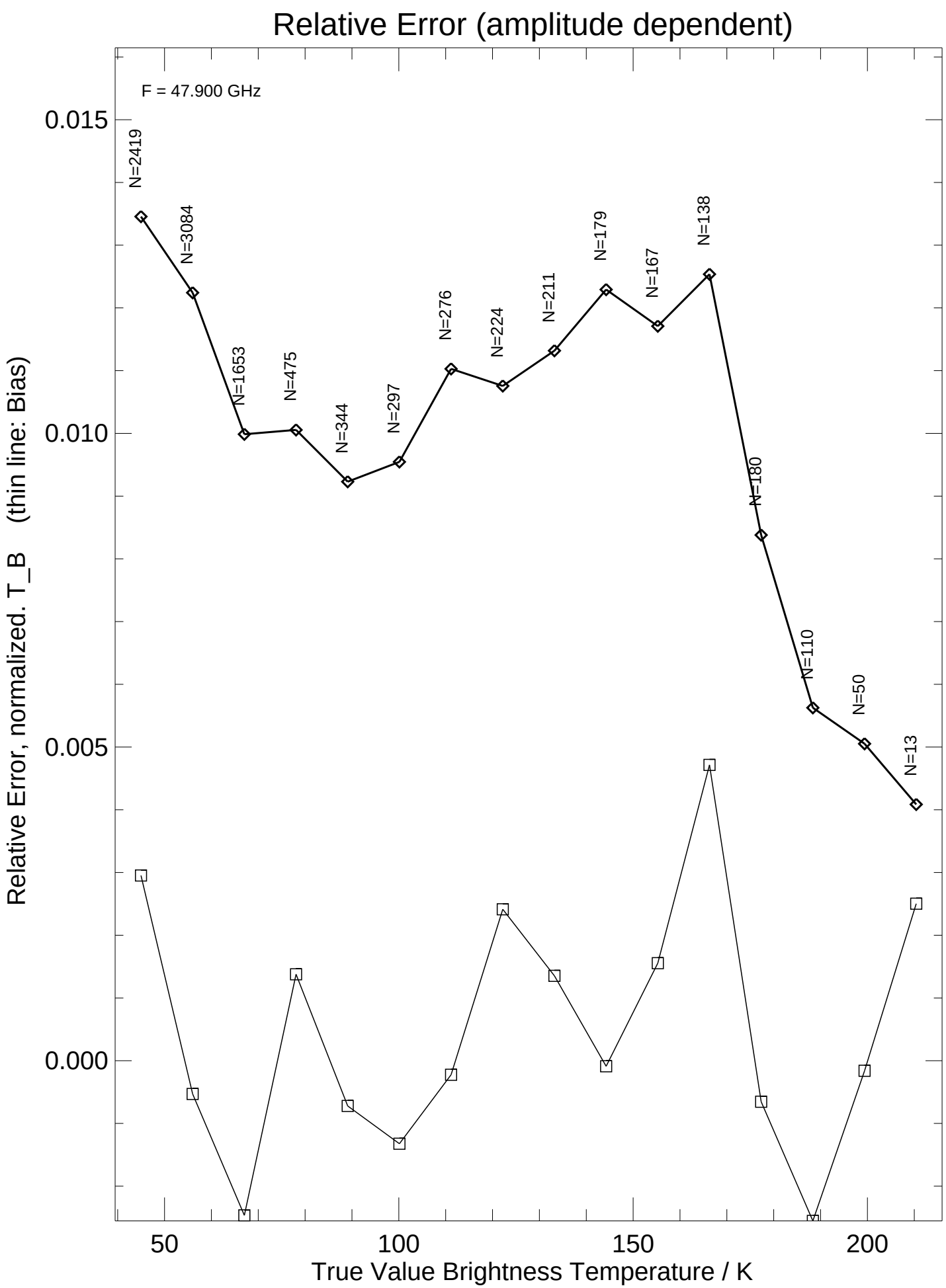

Absolute Error (amplitude dependent)
F = 47.500 GHz
Mean StD = 1.15 Max StD = 1.99
Mean bias = 0.21 Max bias = 0.70
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
0.0
0.5
1.0
1.5
2.0
50
100
150
200
N=2463
N=3084
N=1623
N=472
N=344
N=291
N=279
N=225
N=208
N=179
N=172
N=132
N=184
N=106
N=45
N=13

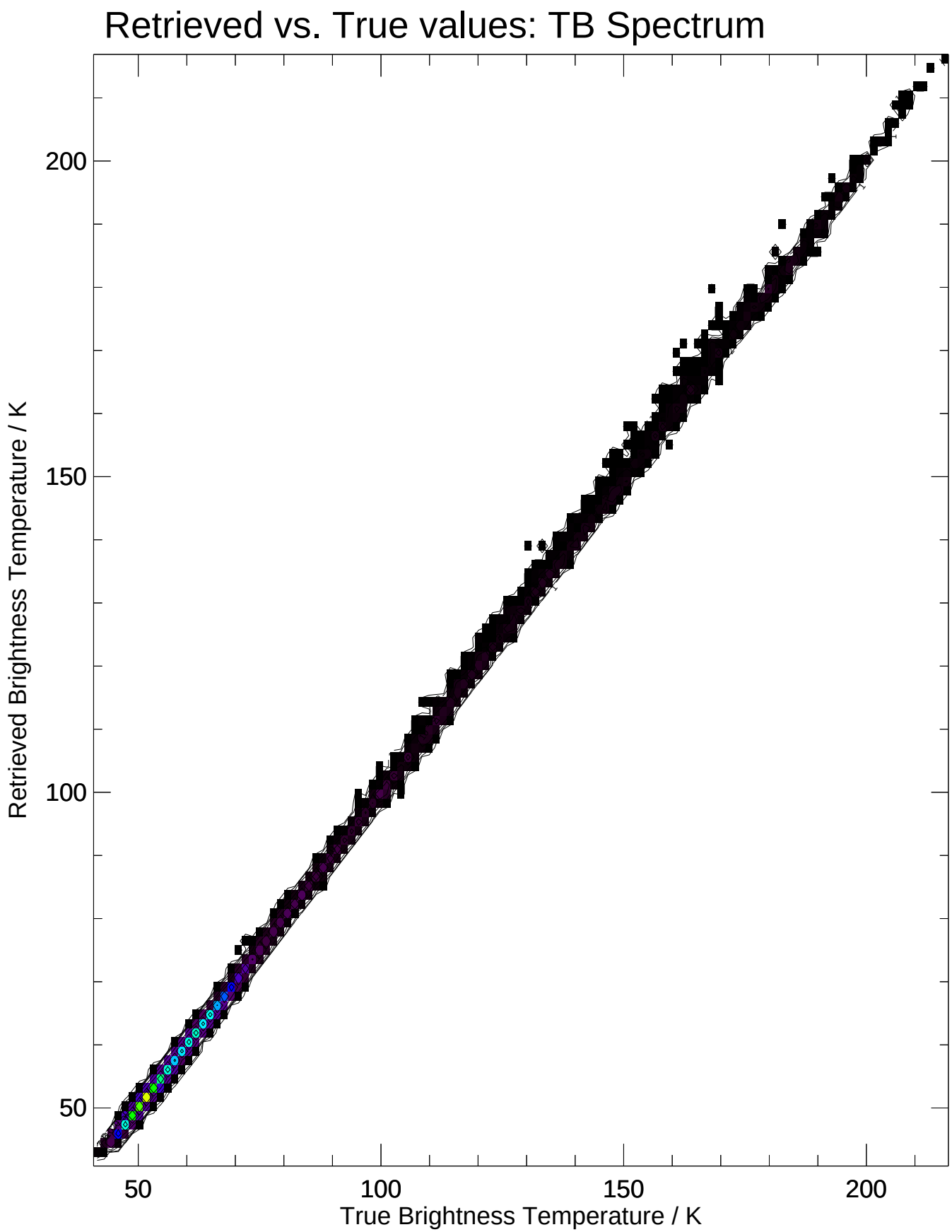

Relative Error (amplitude dependent)
F = 47.500 GHz
N=2463
N=3084
N=1623
N=472
N=344
N=291
N=279
N=225
N=208
N=179
N=172
N=132
N=184
N=106
N=45
N=13
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
True Value Brightness Temperature / K

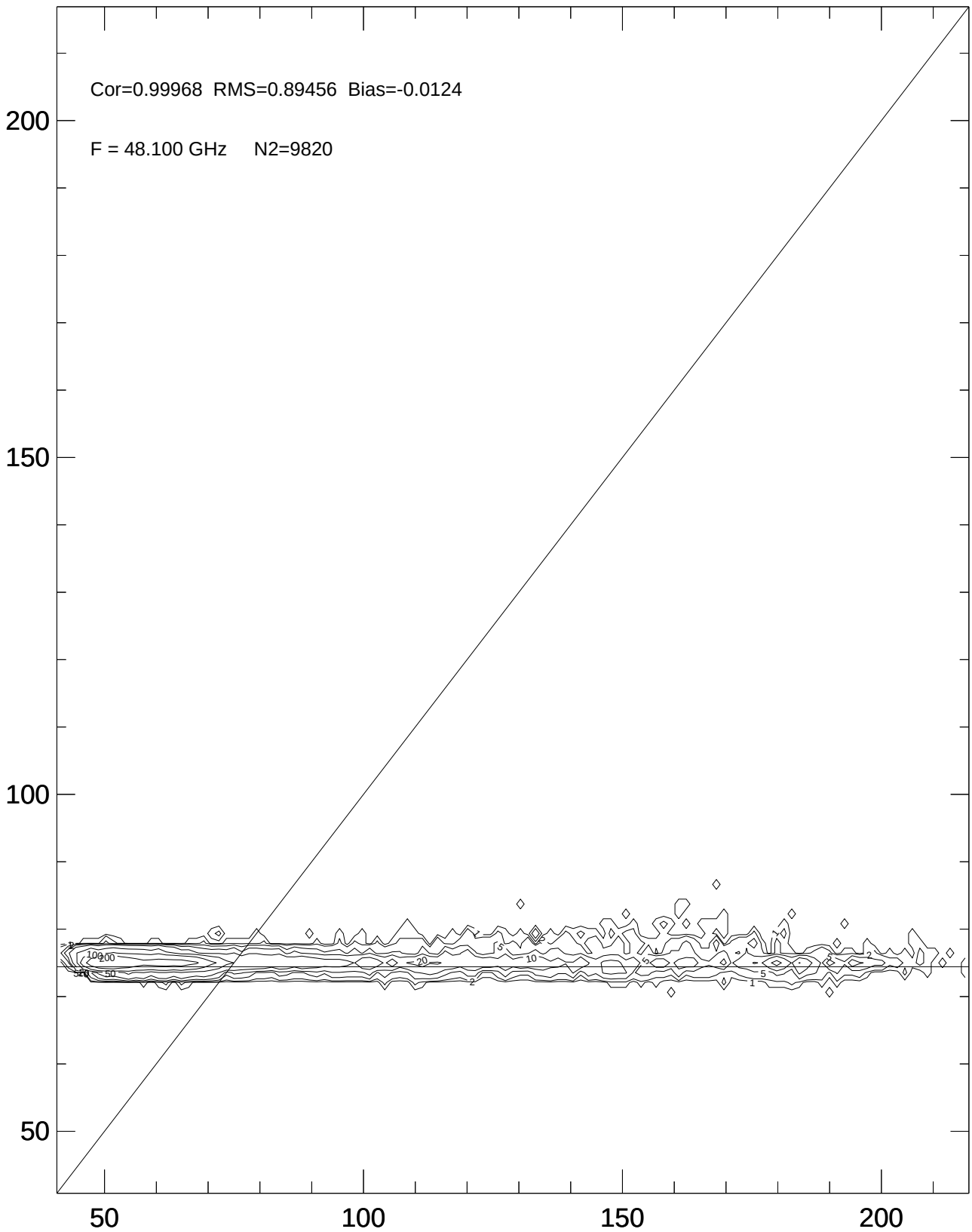

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

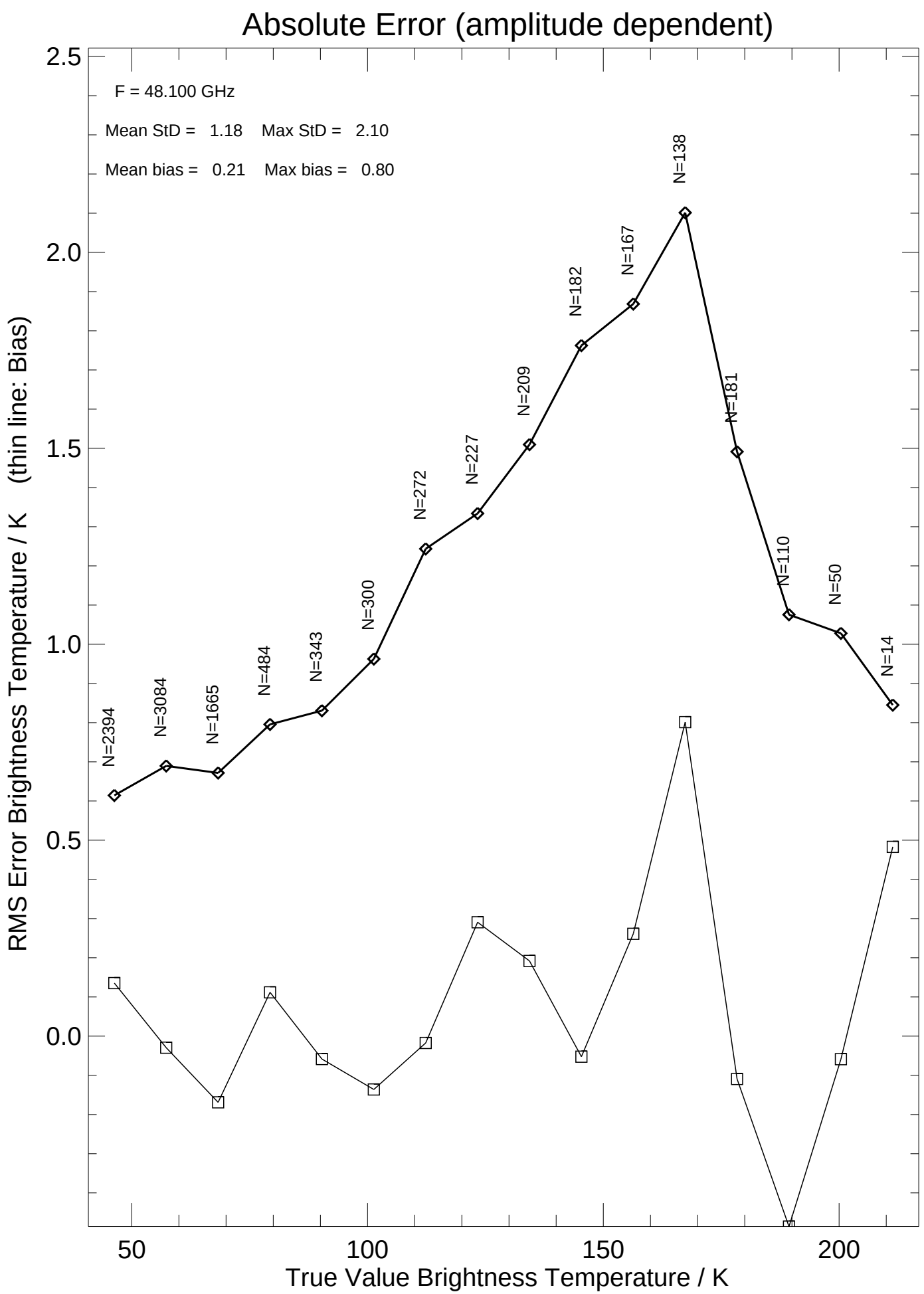

Cor=0.99969 RMS=0.88579 Bias=-0.0123
F = 47.900 GHz N2=9820
200
150
100
50
50
100
150
200

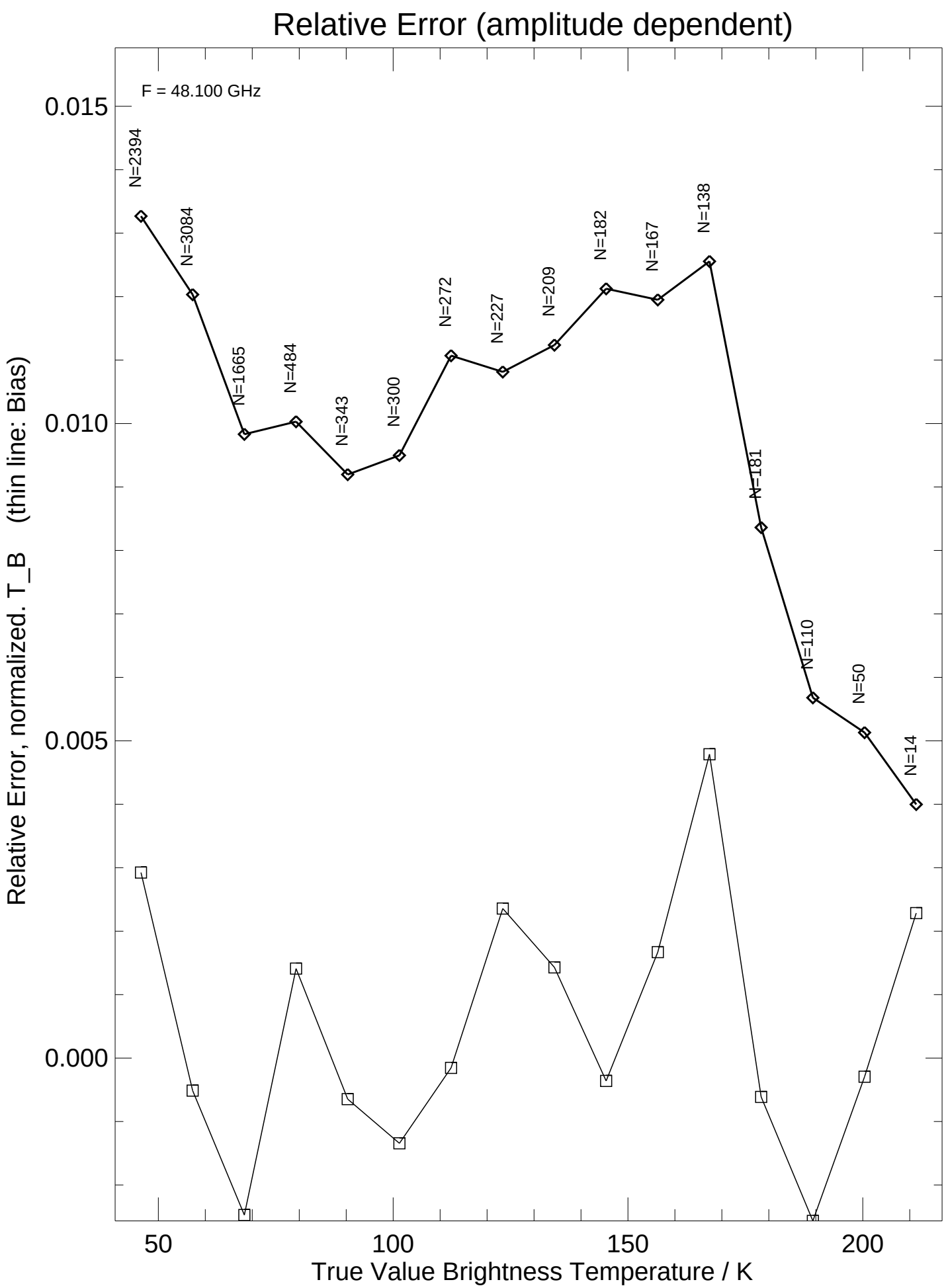

Absolute Error (amplitude dependent)
F = 47.900 GHz
Mean StD = 1.17 Max StD = 2.08
Mean bias = 0.21 Max bias = 0.78
N=2419
N=3084
N=1653
N=475
N=344
N=297
N=276
N=224
N=211
N=179
N=167
N=138
N=180
N=110
N=50
N=13
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
50
100
150
200

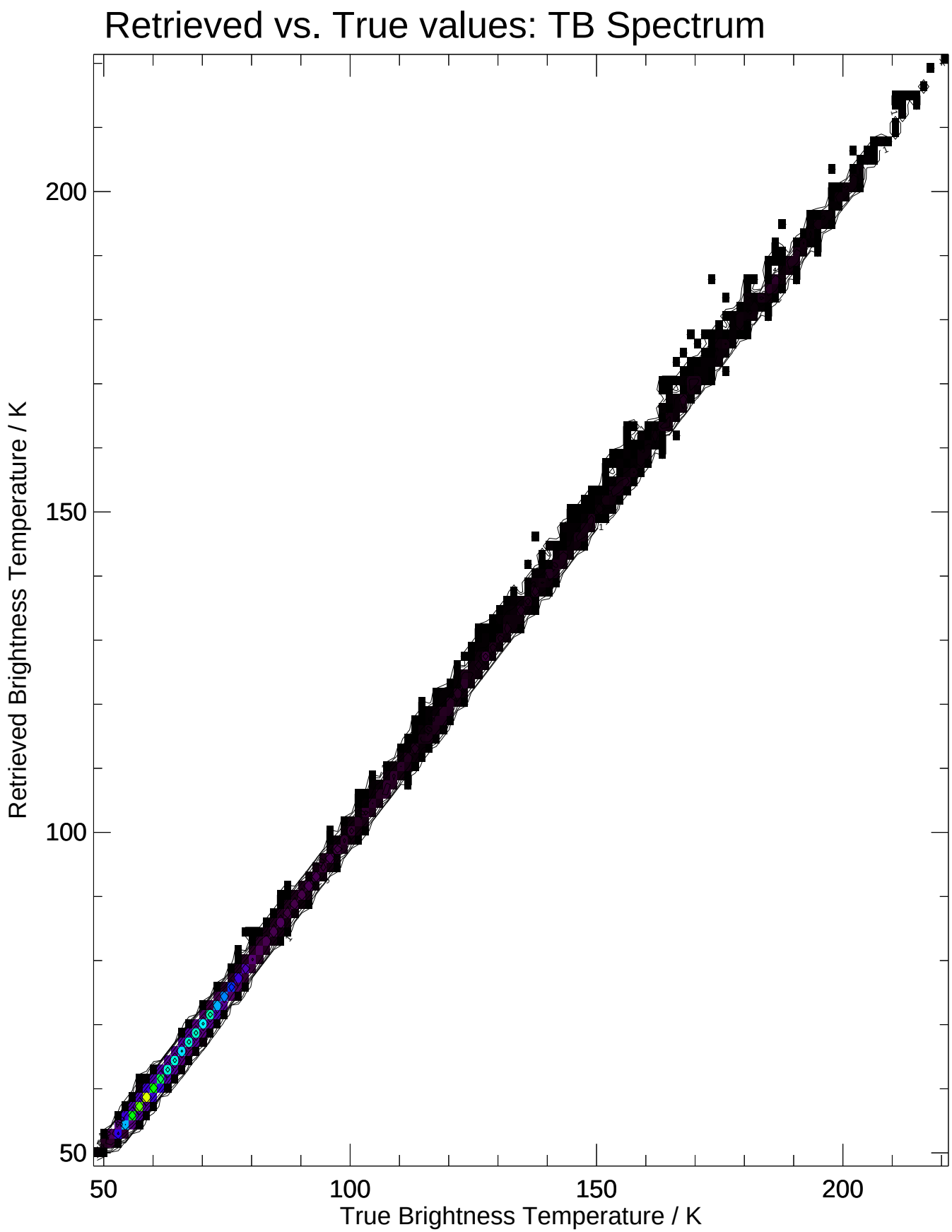

Relative Error (amplitude dependent)
F = 47.900 GHz
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
N=2419
N=3084
N=1653
N=475
N=344
N=297
N=276
N=224
N=211
N=179
N=167
N=138
N=180
N=110
N=50
N=13
50
100
150
200
True Value Brightness Temperature / K

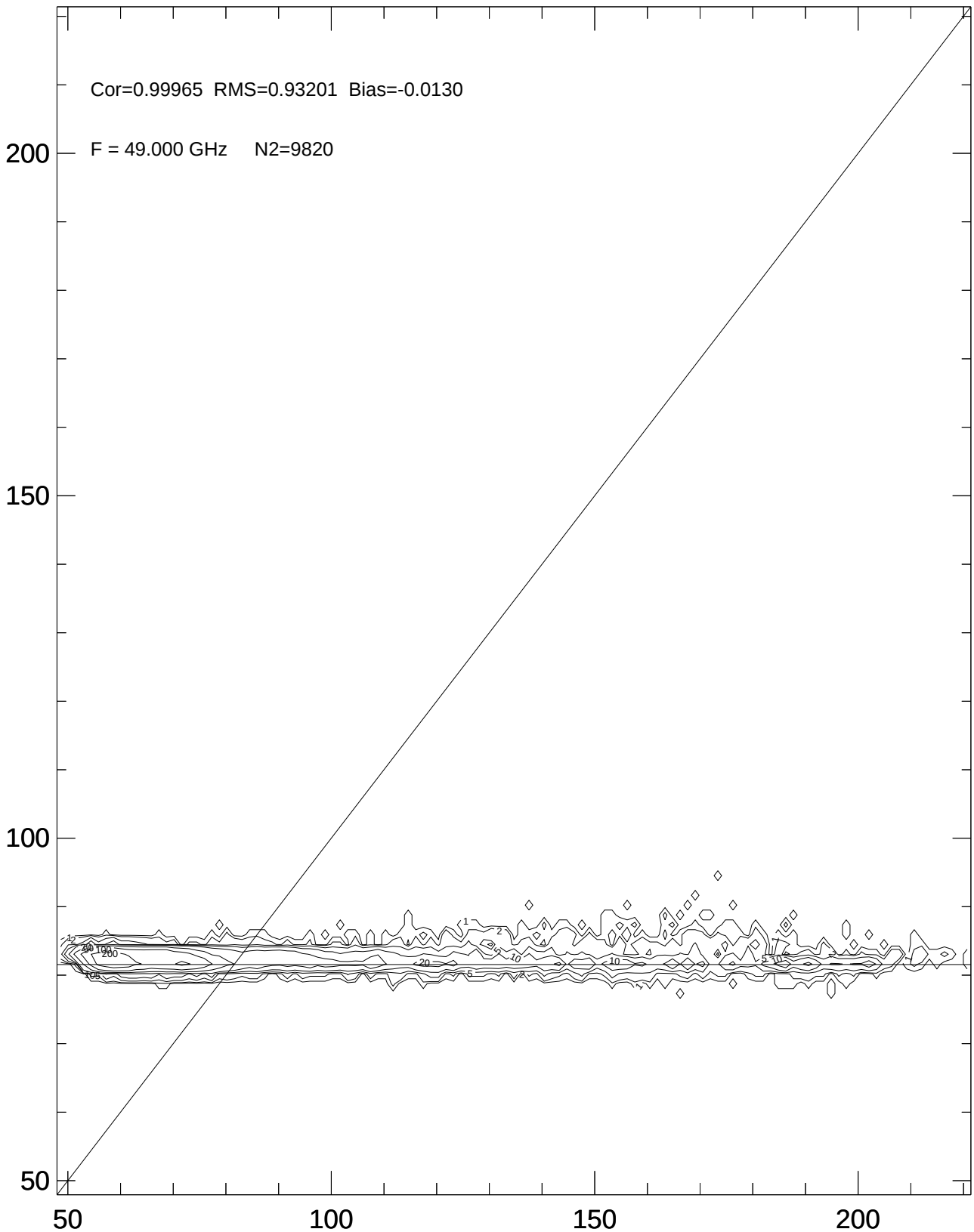

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

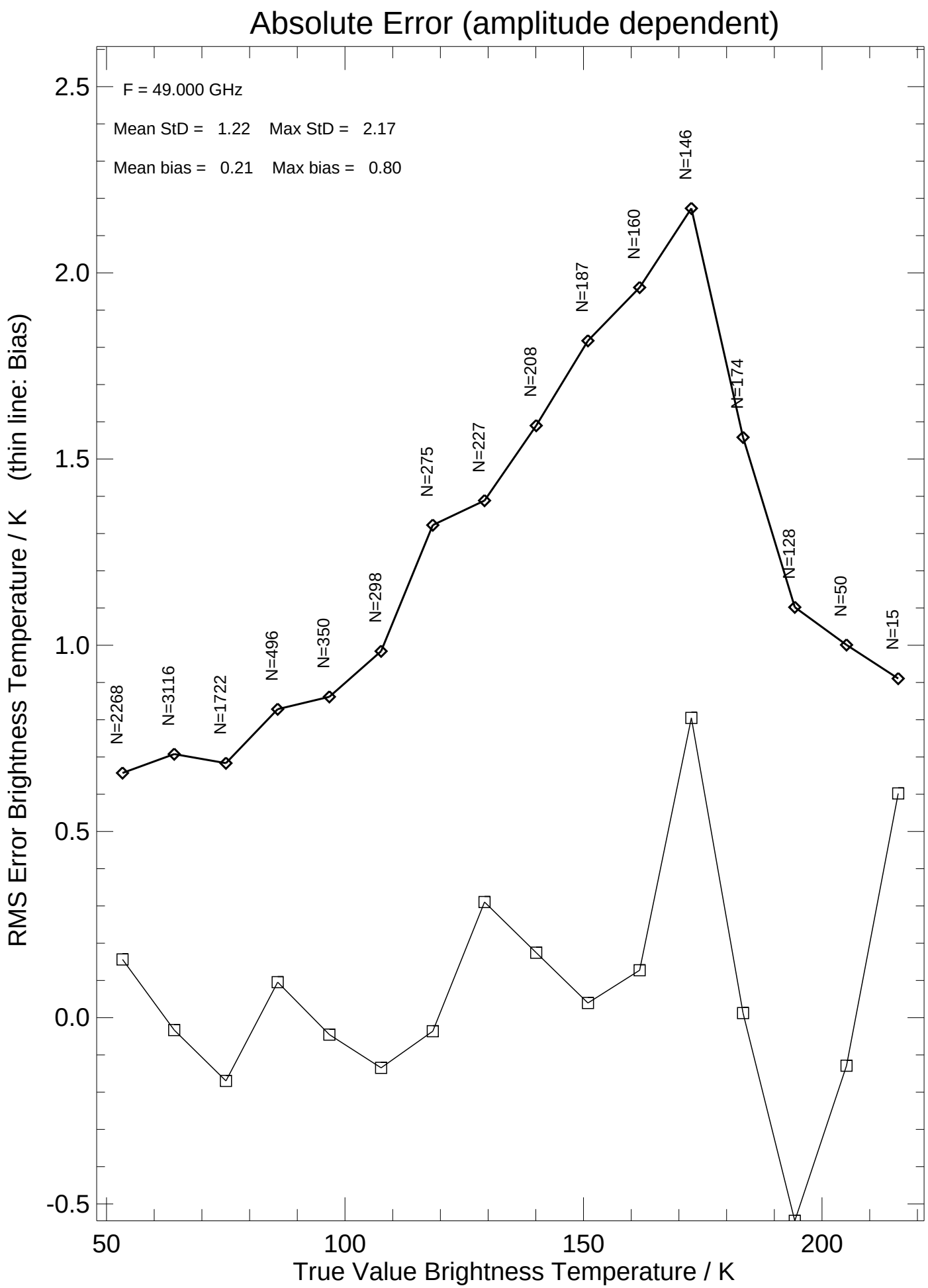

Cor=0.99968 RMS=0.89456 Bias=-0.0124
F = 48.100 GHz N2=9820
200
150
100
50
50
100
150
200

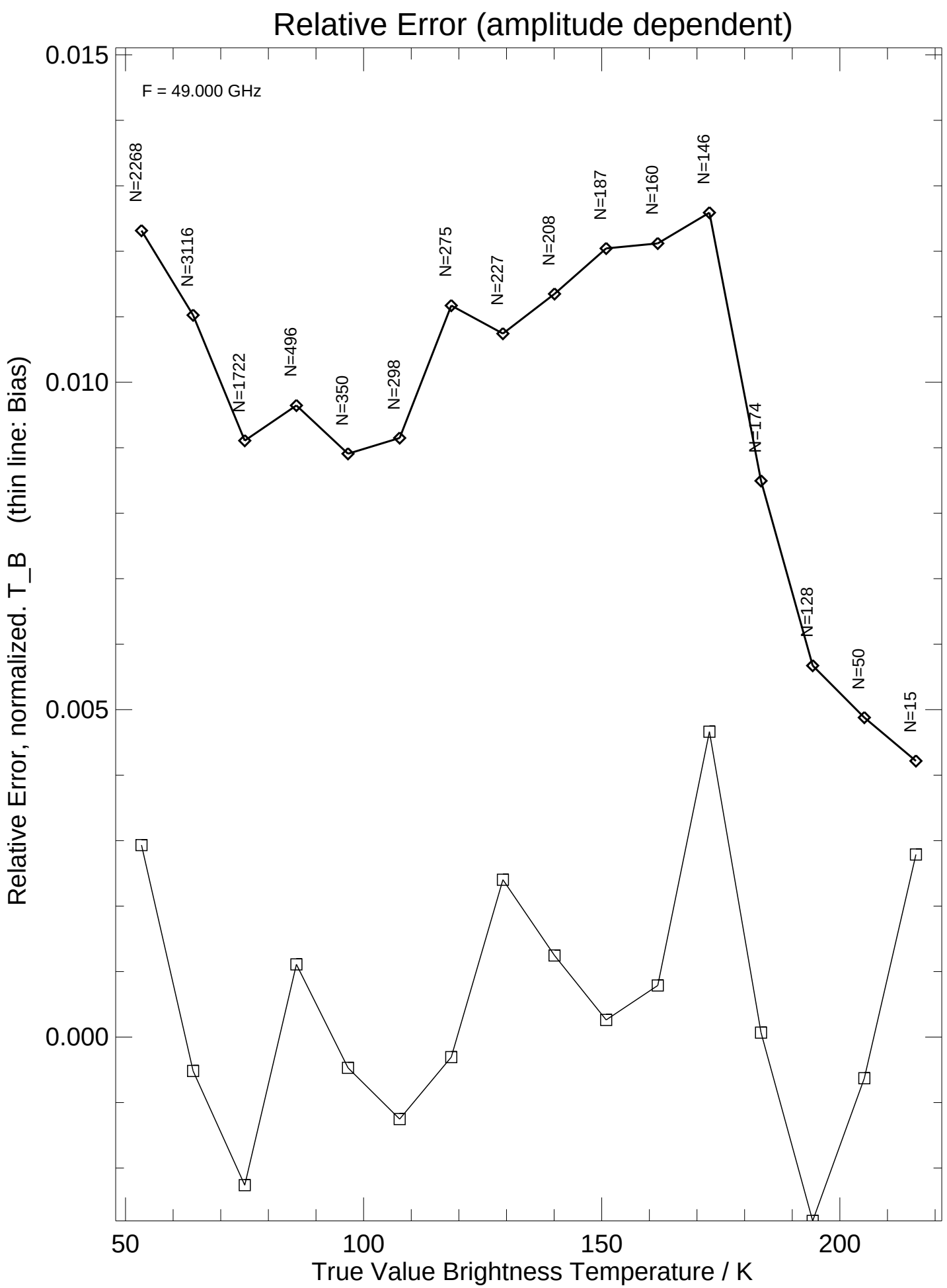

Absolute Error (amplitude dependent)
F = 48.100 GHz
Mean StD = 1.18 Max StD = 2.10
Mean bias = 0.21 Max bias = 0.80
N=2394
N=3084
N=1665
N=484
N=343
N=300
N=272
N=227
N=209
N=182
N=167
N=138
N=181
N=110
N=50
N=14
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
50
100
150
200

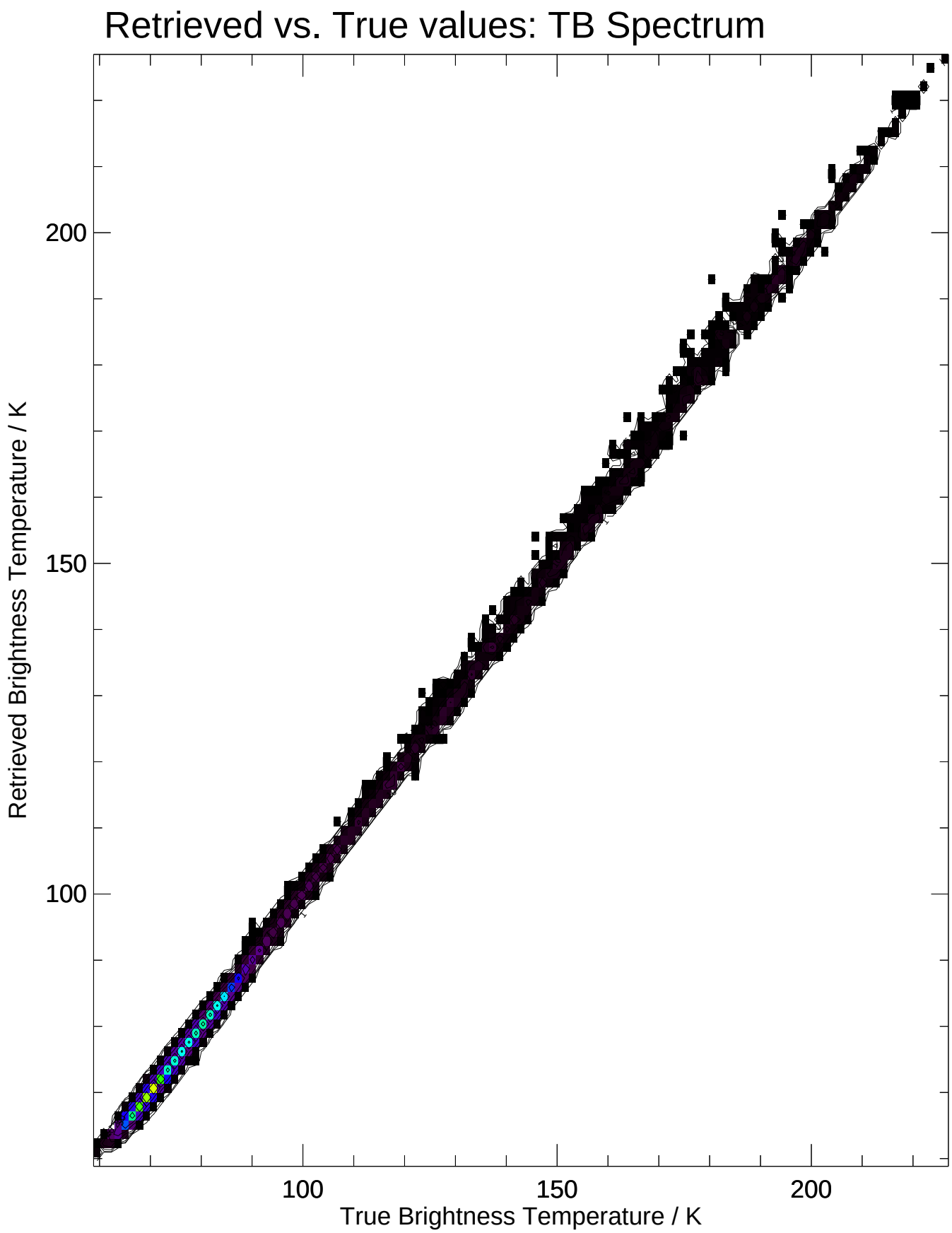

Relative Error (amplitude dependent)
F = 48.100 GHz
N=2394
N=3084
N=1665
N=484
N=343
N=300
N=272
N=227
N=209
N=182
N=167
N=138
N=181
N=110
N=50
N=14
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
True Value Brightness Temperature / K

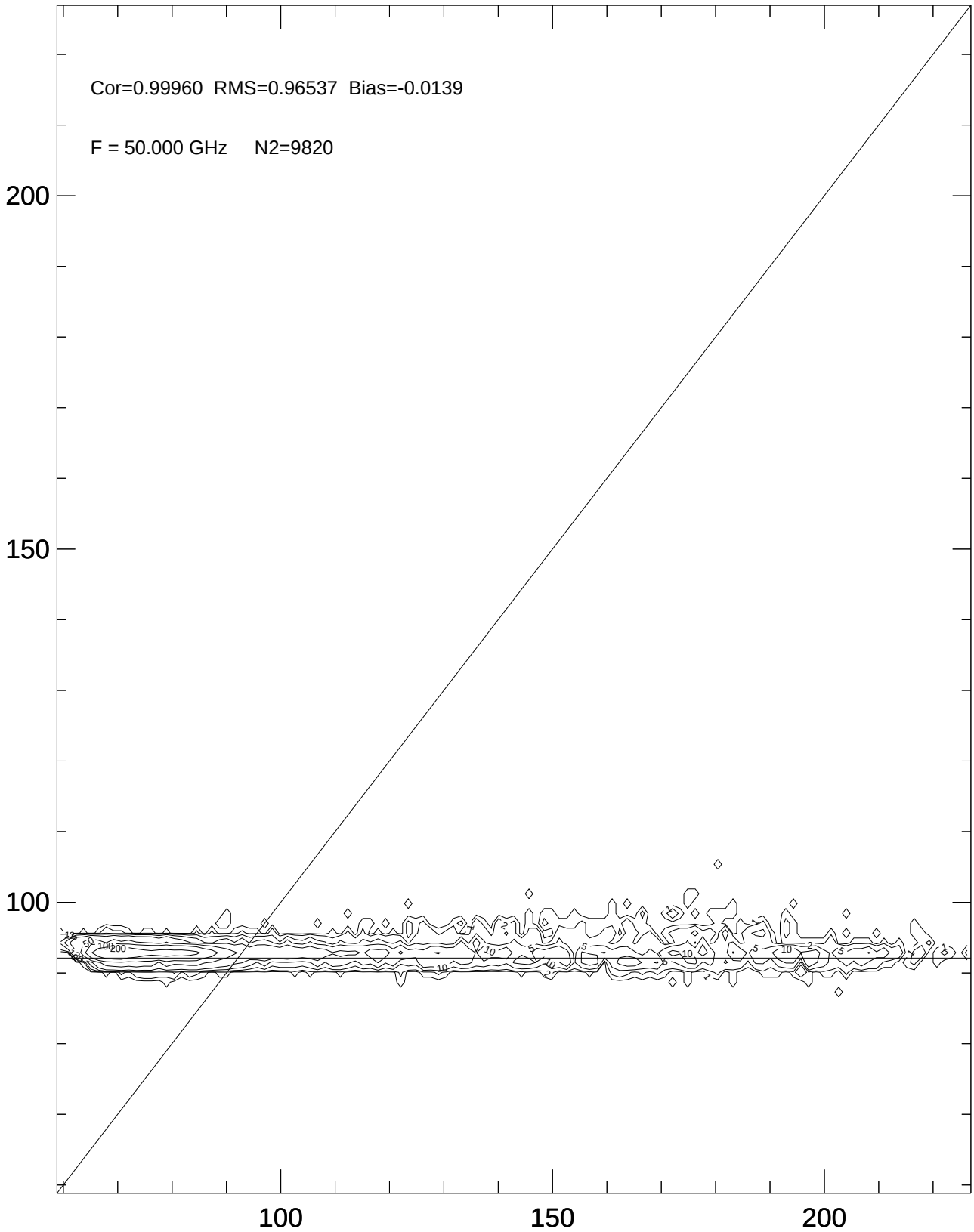

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
50
100
150
200

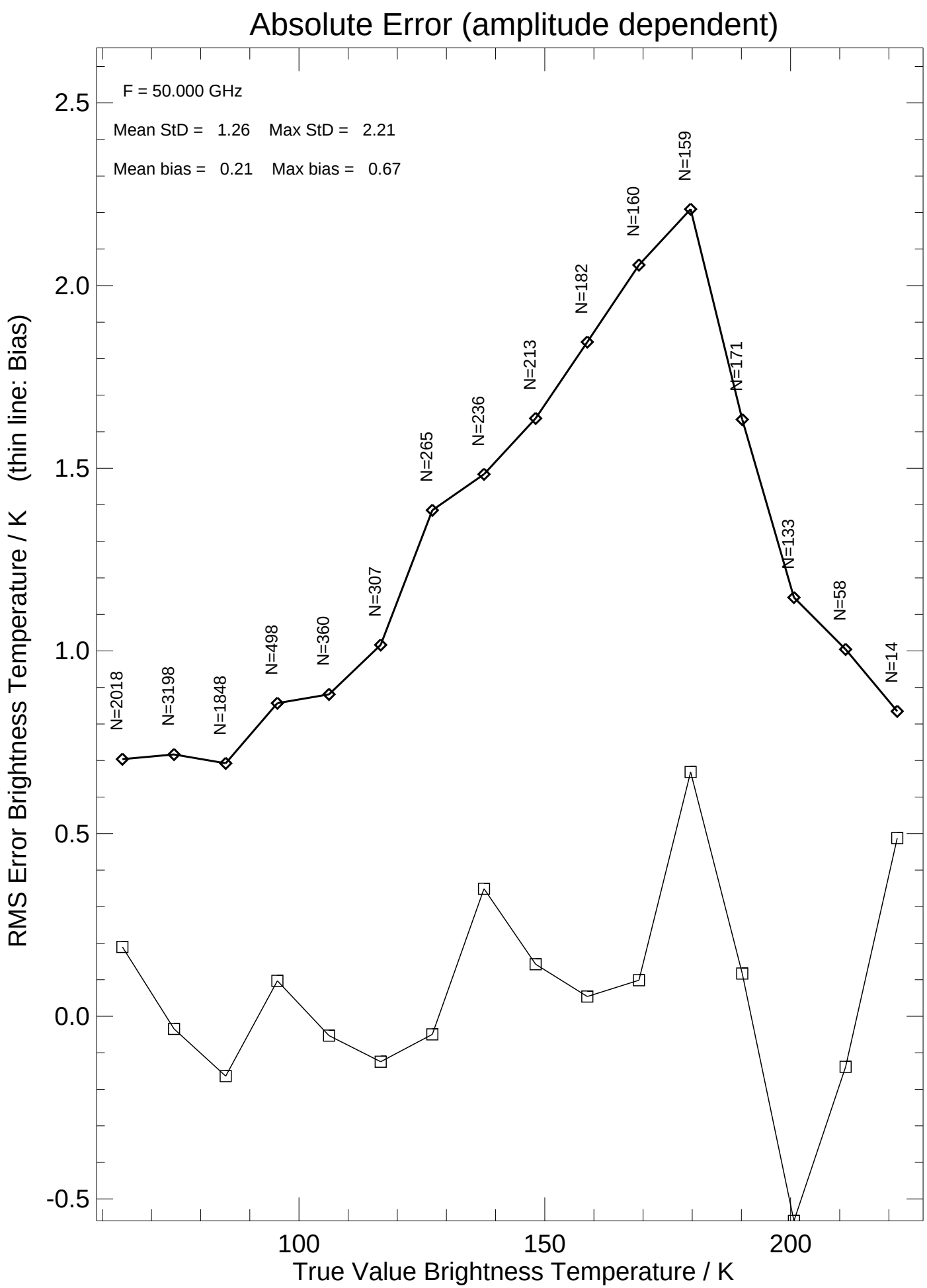

Cor=0.99965 RMS=0.93201 Bias=-0.0130
F = 49.000 GHz N2=9820
200
150
100
50
50
100
150
200

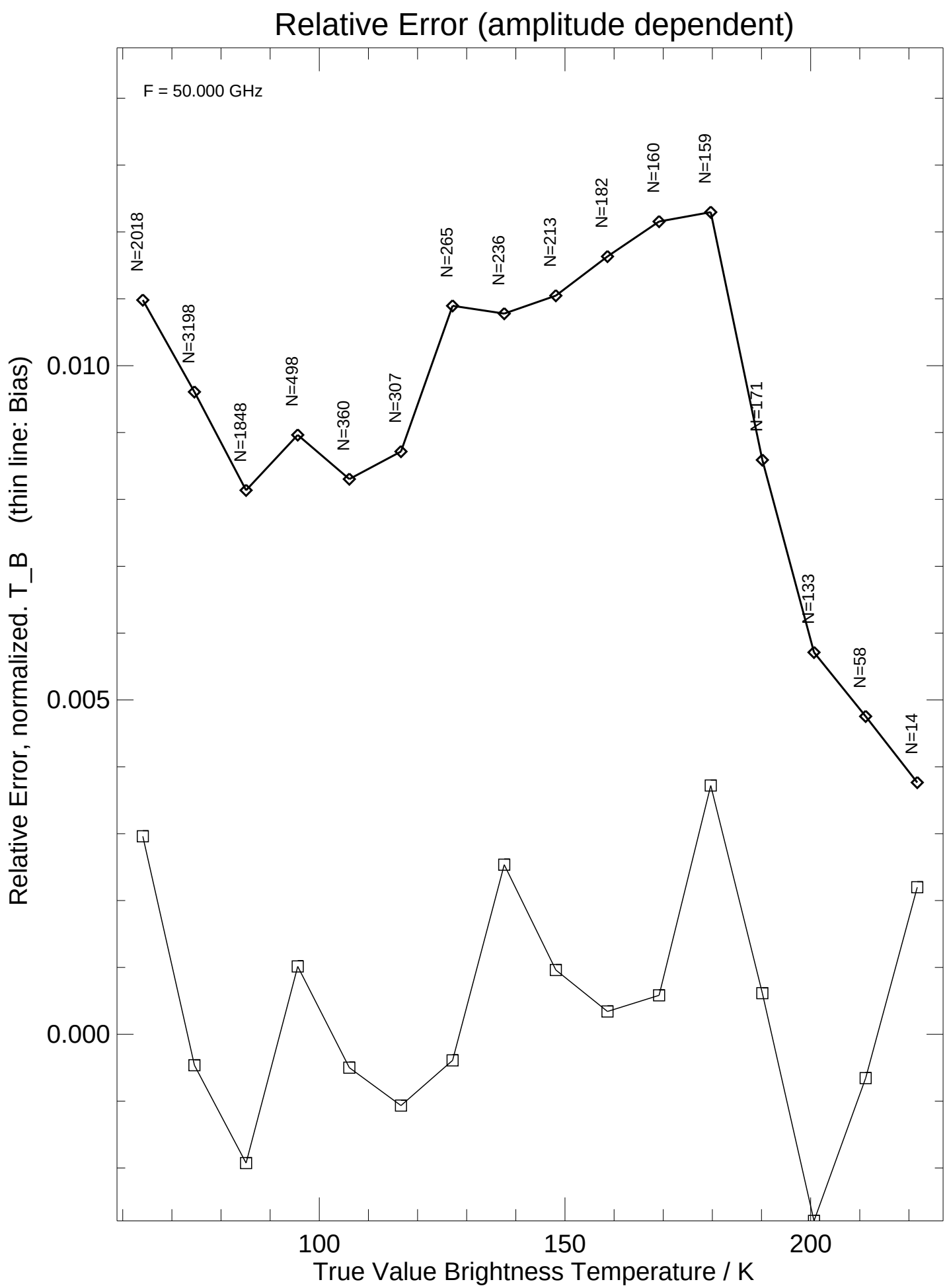

Absolute Error (amplitude dependent)
F = 49.000 GHz
Mean StD = 1.22 Max StD = 2.17
Mean bias = 0.21 Max bias = 0.80
N=2268
N=3116
N=1722
N=496
N=350
N=298
N=275
N=227
N=208
N=187
N=160
N=146
N=174
N=128
N=50
N=15
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
50
100
150
200

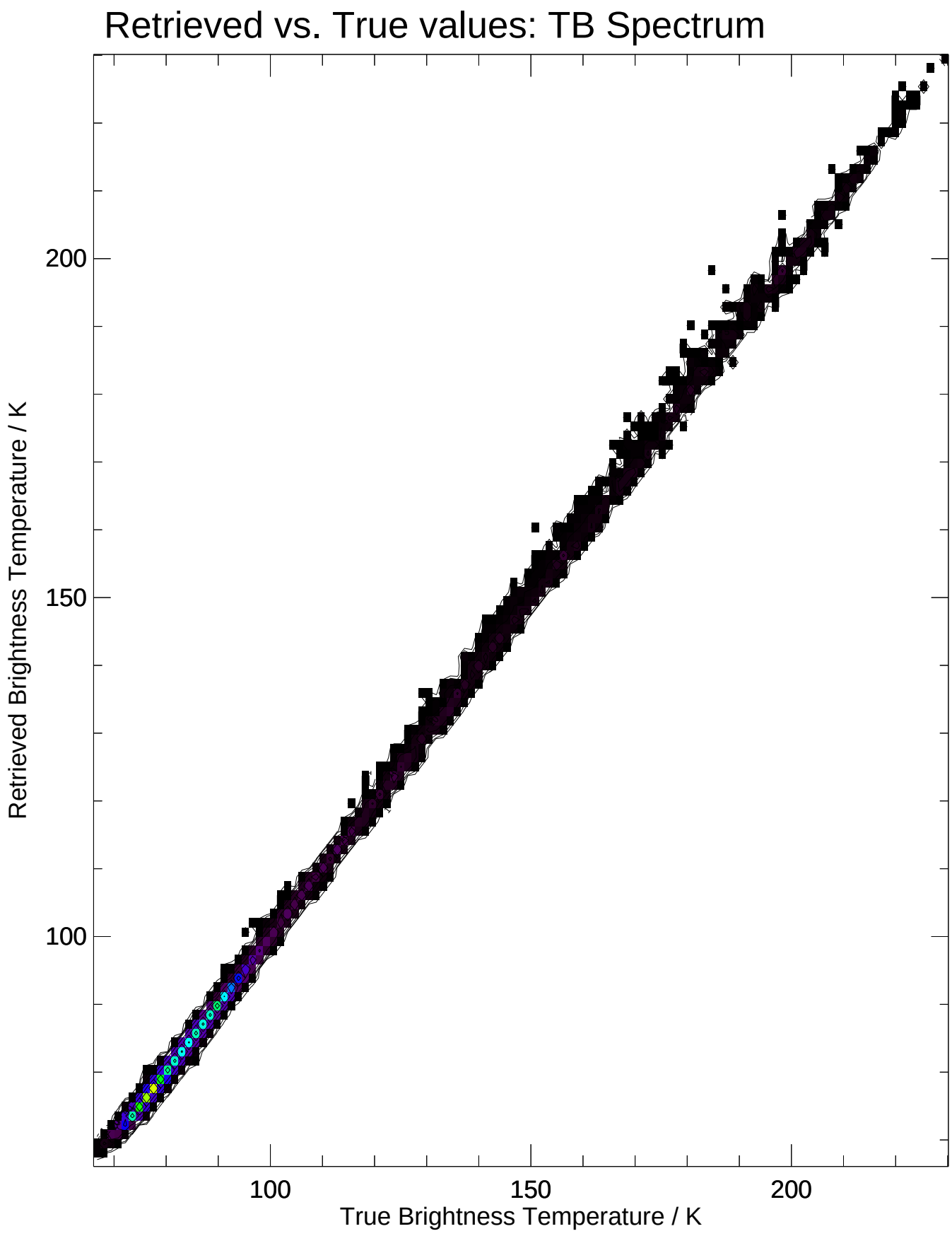

Relative Error (amplitude dependent)
F = 49.000 GHz
N=2268
N=3116
N=1722
N=496
N=350
N=298
N=275
N=227
N=208
N=187
N=160
N=146
N=174
N=128
N=50
N=15
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
True Value Brightness Temperature / K

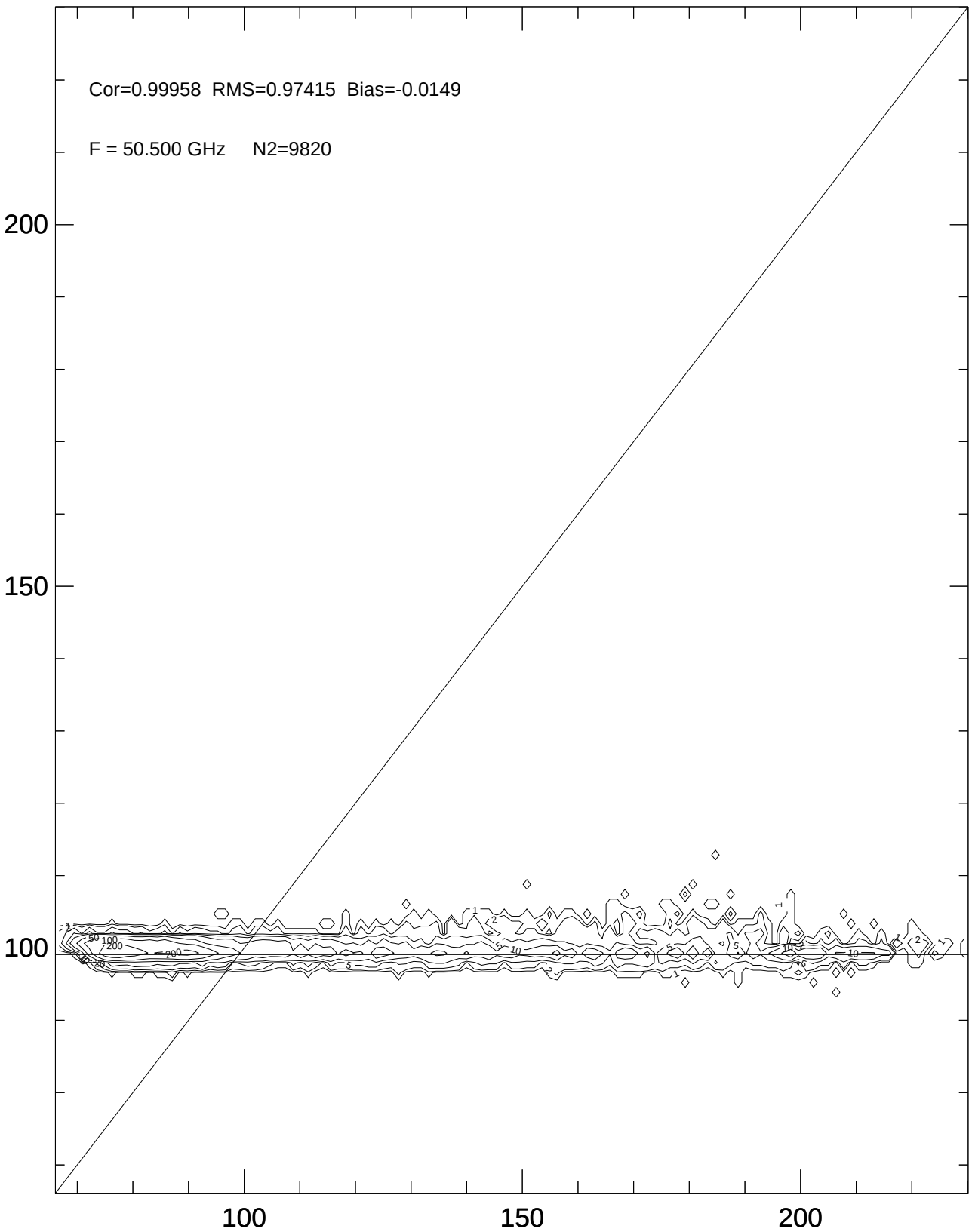

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
100
150
200
100
150
200

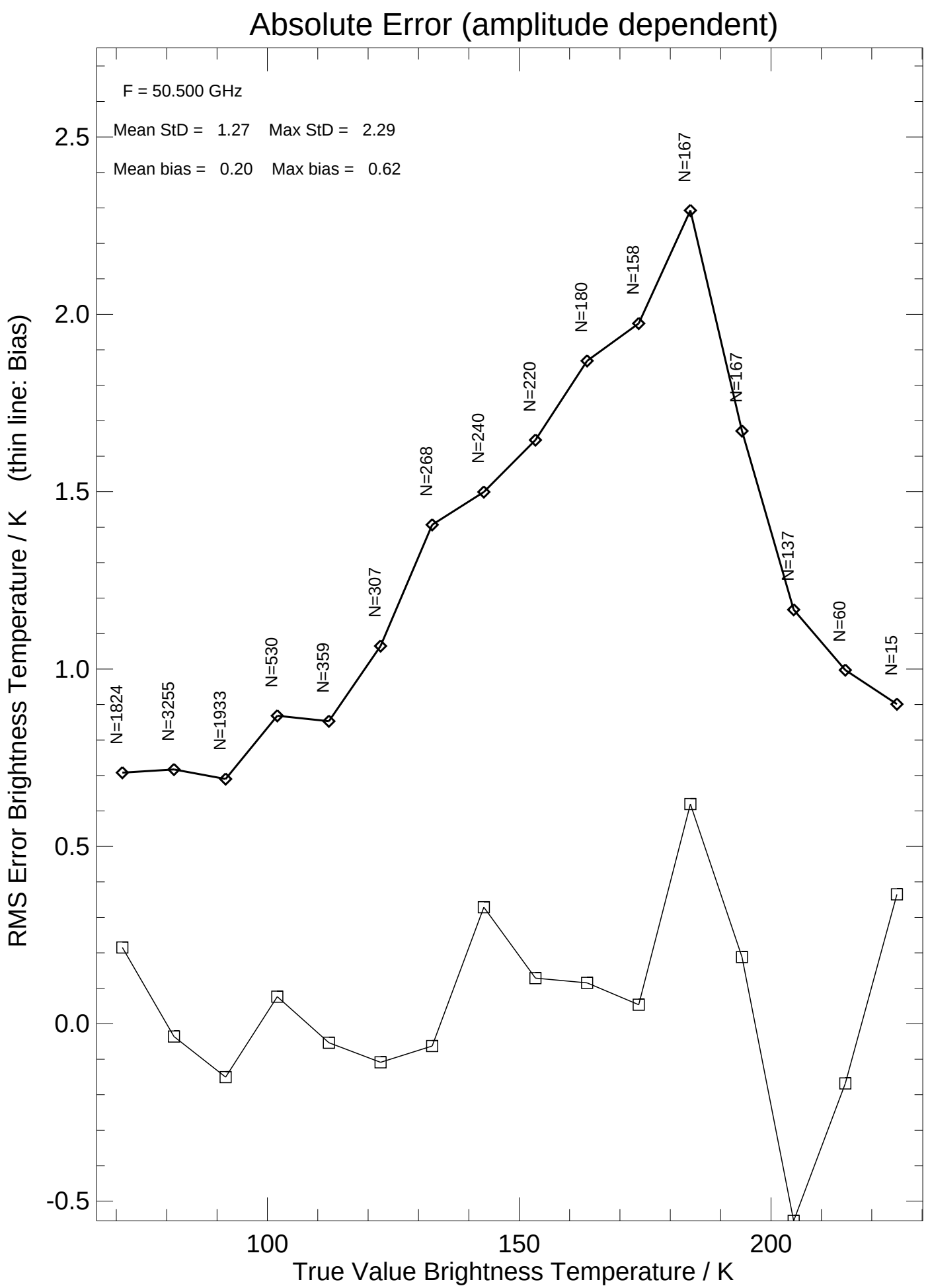

Cor=0.99960 RMS=0.96537 Bias=-0.0139
F = 50.000 GHz N2=9820
200
150
100
100
150
200

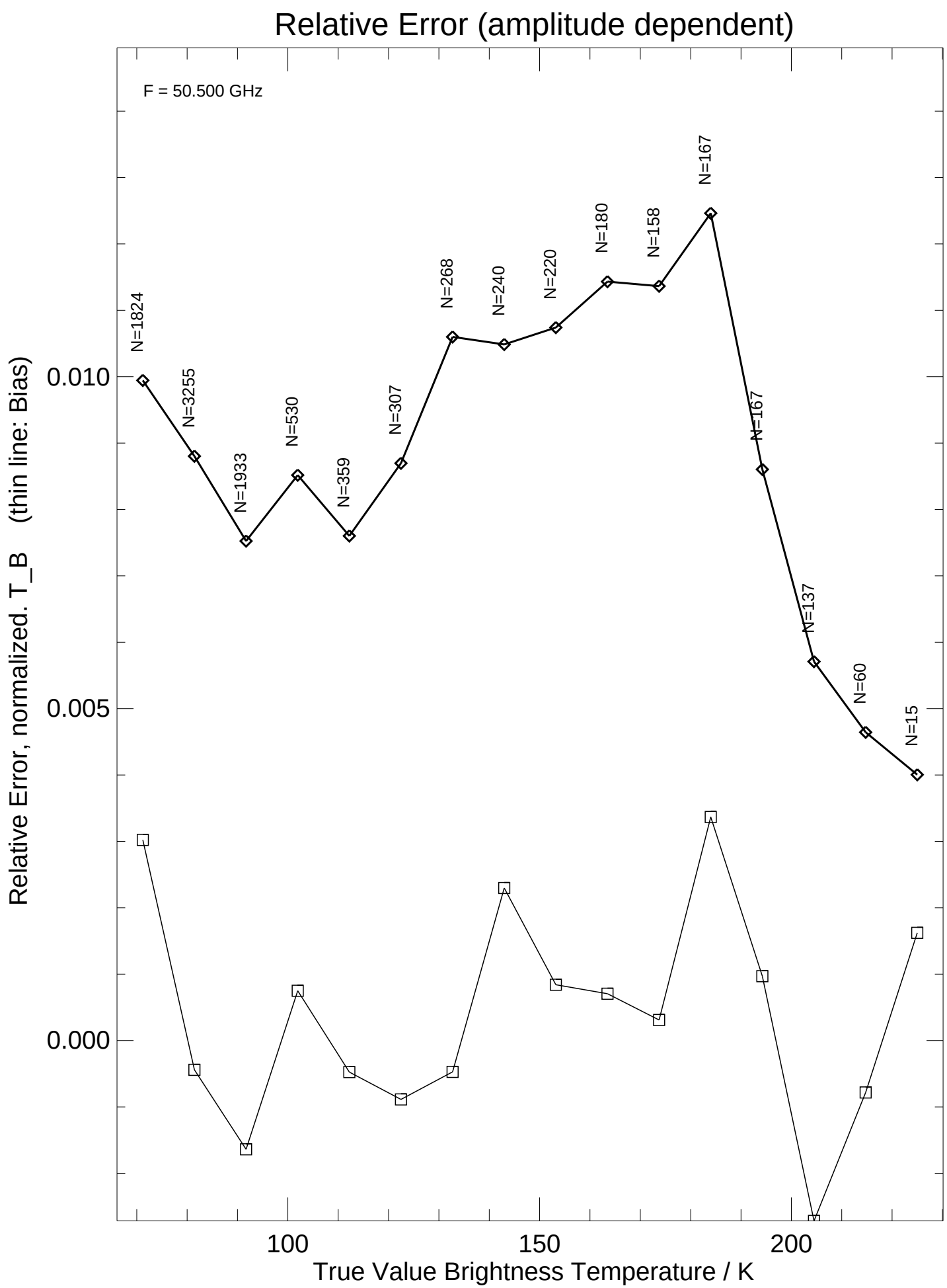

Absolute Error (amplitude dependent)
F = 50.000 GHz
Mean StD = 1.26 Max StD = 2.21
Mean bias = 0.21 Max bias = 0.67
N=2018
N=3198
N=1848
N=498
N=360
N=307
N=265
N=236
N=213
N=182
N=160
N=159
N=171
N=133
N=58
N=14
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
150
200
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K

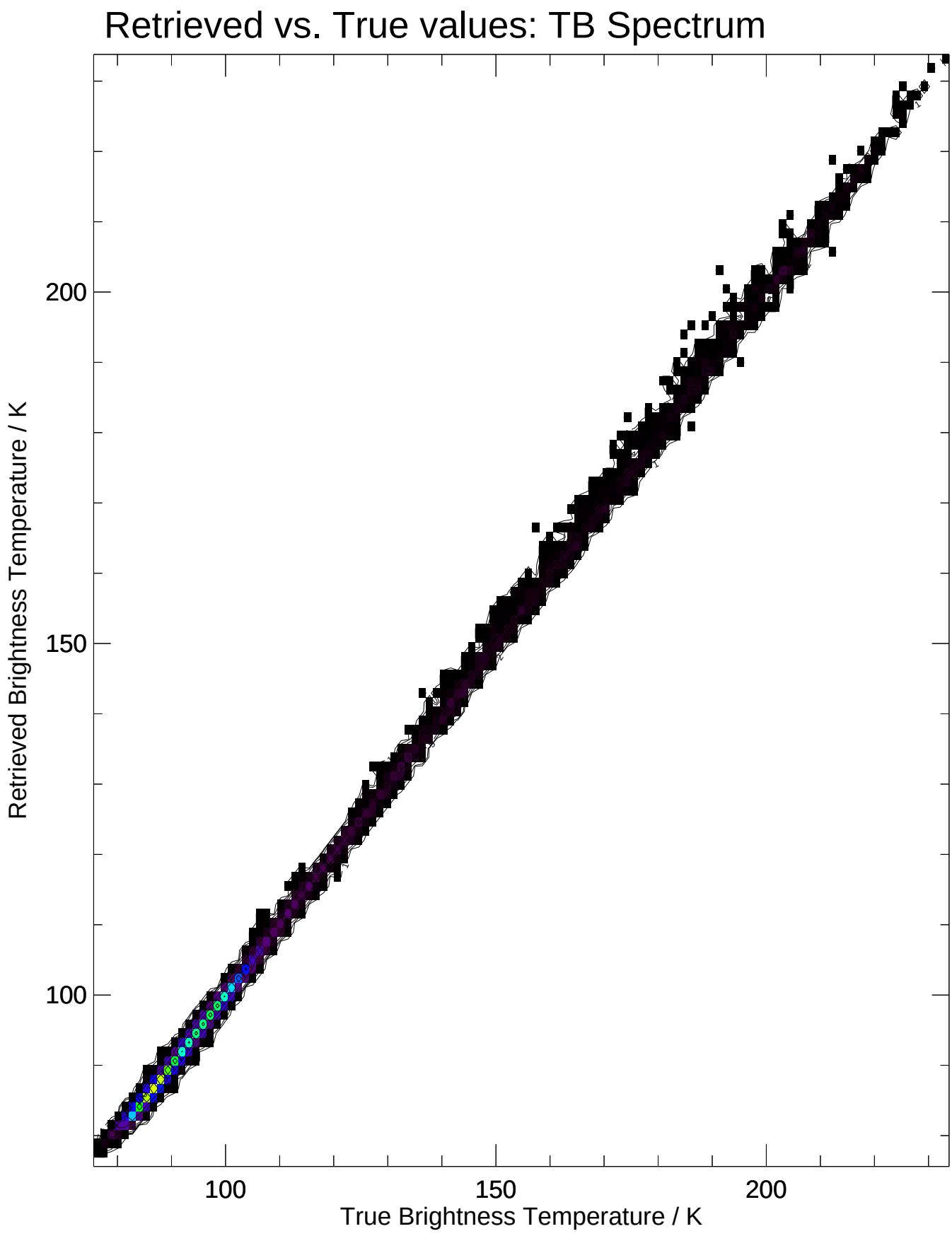

Relative Error (amplitude dependent)
F = 50.000 GHz
N=2018
N=3198
N=1848
N=498
N=360
N=307
N=265
N=236
N=213
N=182
N=160
N=159
N=171
N=133
N=58
N=14
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
100
150
200
True Value Brightness Temperature / K

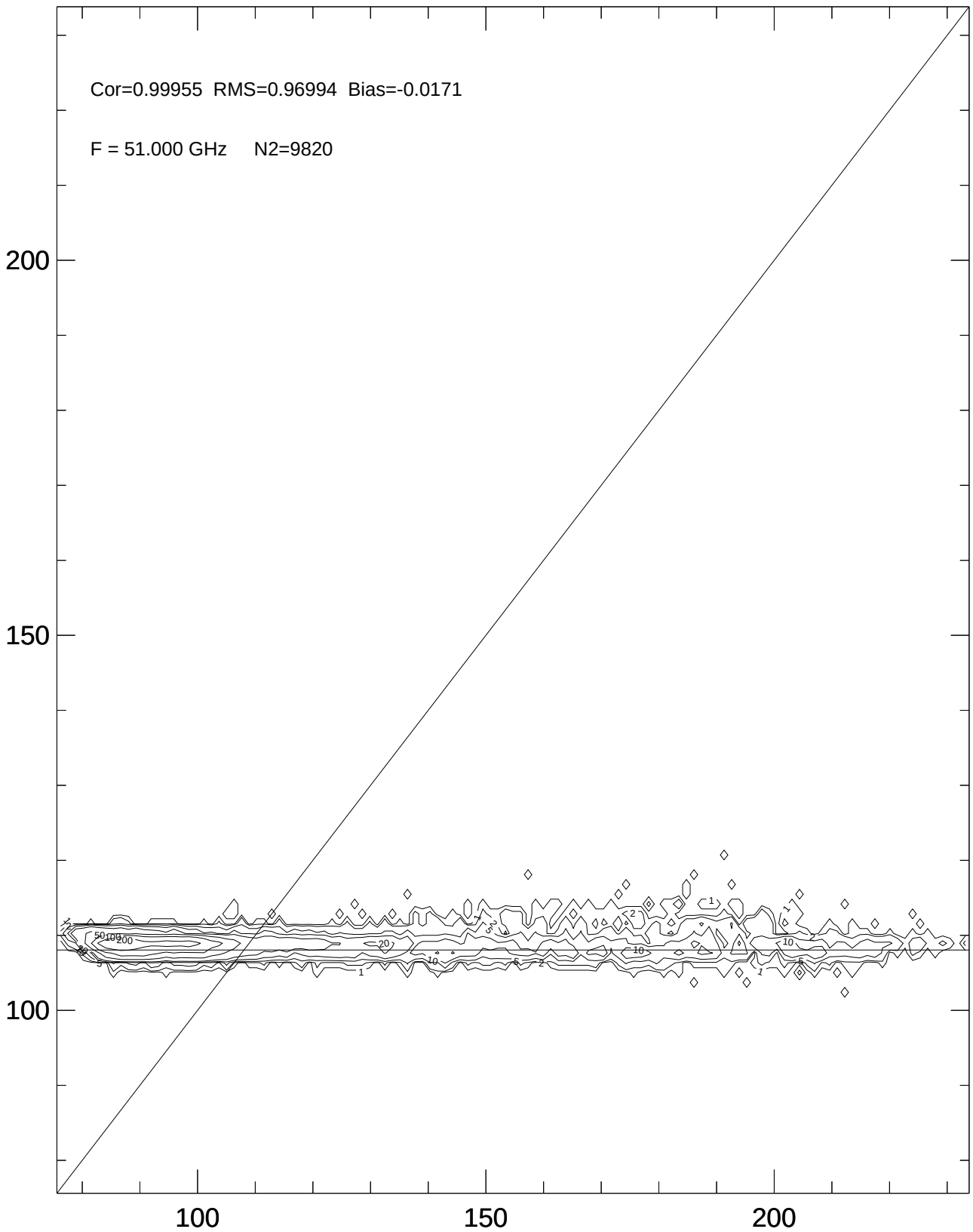

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
100
150
200
100
150
200

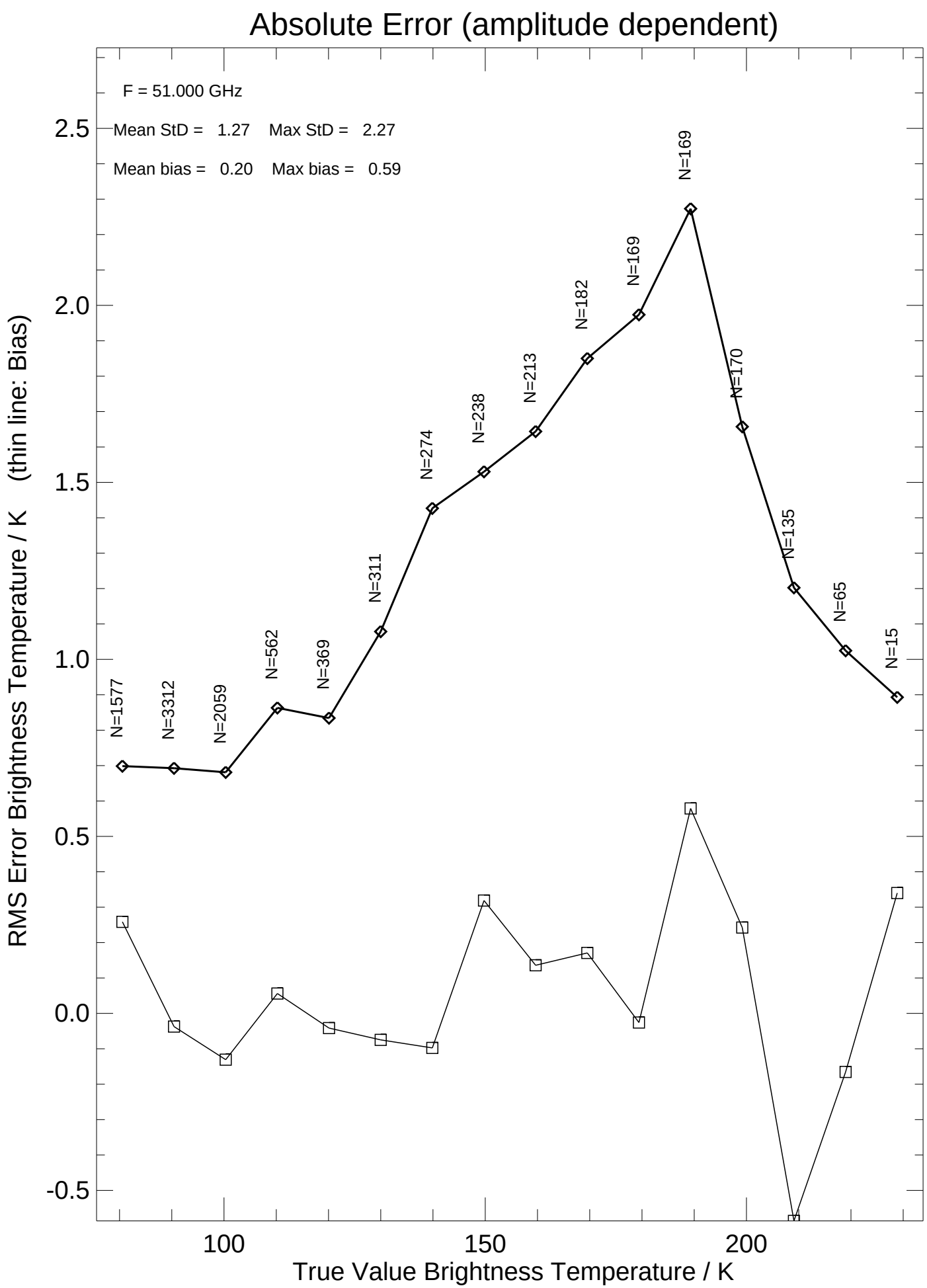

Cor=0.99958 RMS=0.97415 Bias=-0.0149
F = 50.500 GHz N2=9820
200
150
100
100
150
200

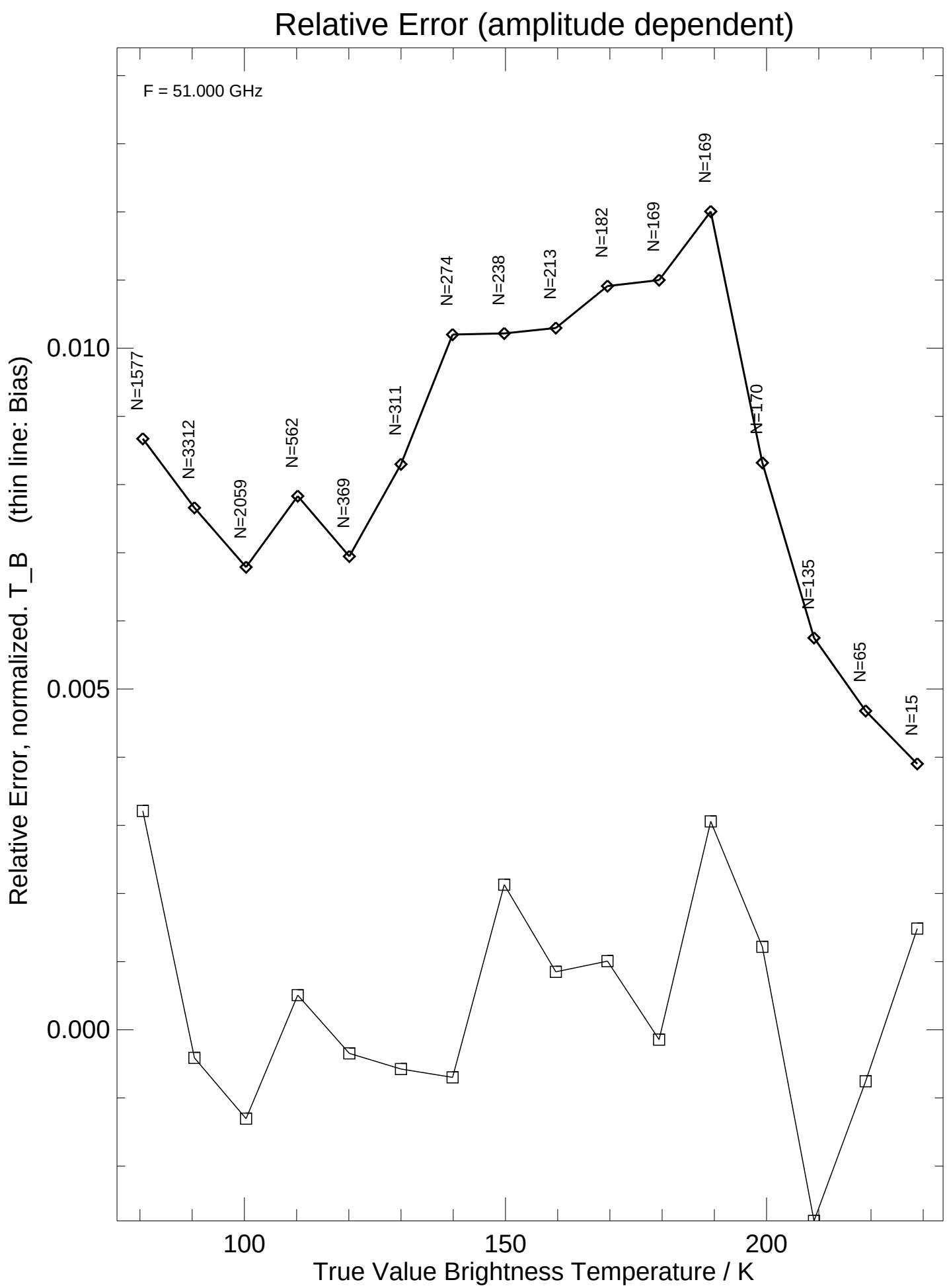

Absolute Error (amplitude dependent)
F = 50.500 GHz
Mean StD = 1.27 Max StD = 2.29
Mean bias = 0.20 Max bias = 0.62
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
150
200
N=1824
N=3255
N=1933
N=530
N=359
N=307
N=268
N=240
N=220
N=180
N=158
N=167
N=167
N=137
N=60
N=15

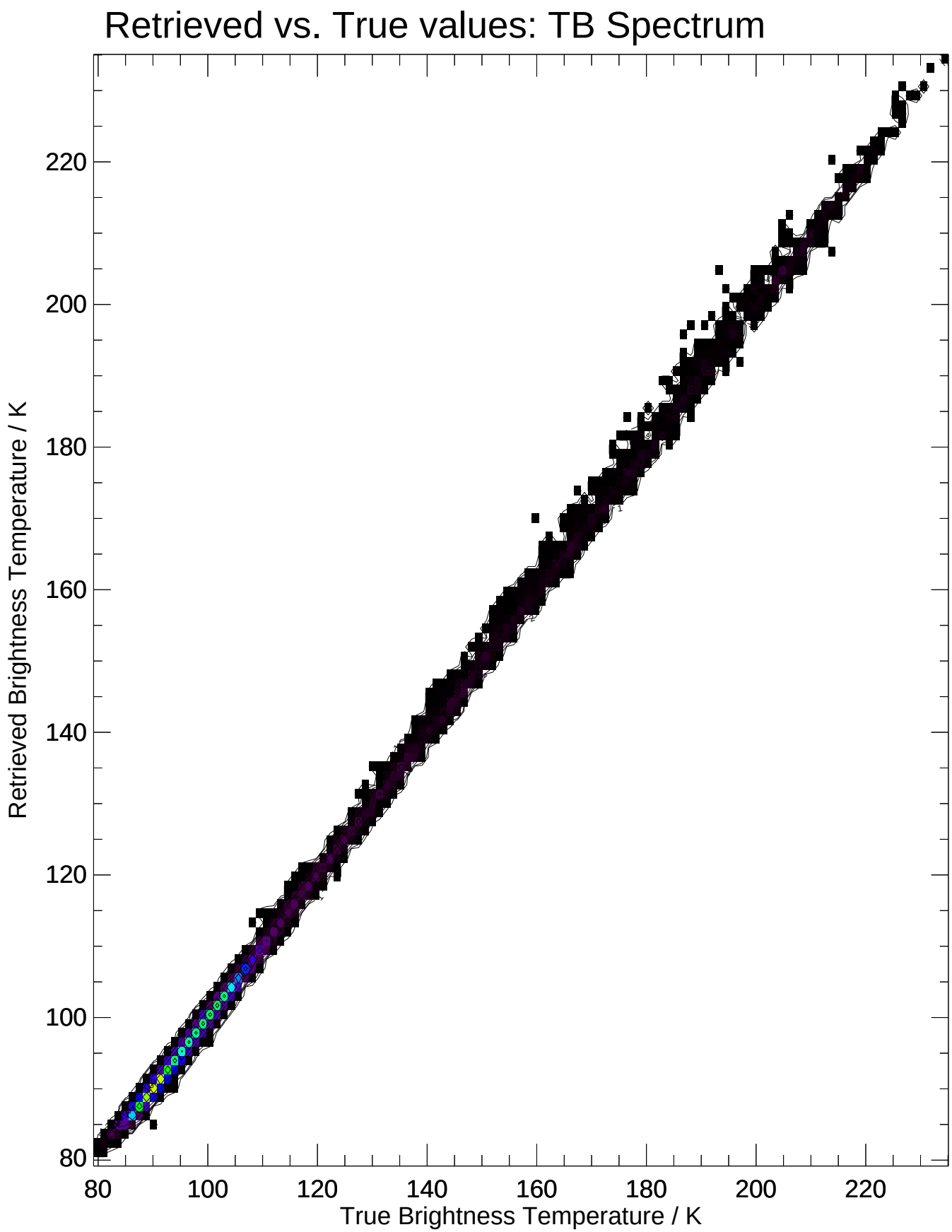

Relative Error (amplitude dependent)
F = 50.500 GHz
N=1824
N=3255
N=1933
N=530
N=359
N=307
N=268
N=240
N=220
N=180
N=158
N=167
N=167
N=137
N=60
N=15
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
100
150
200
True Value Brightness Temperature / K

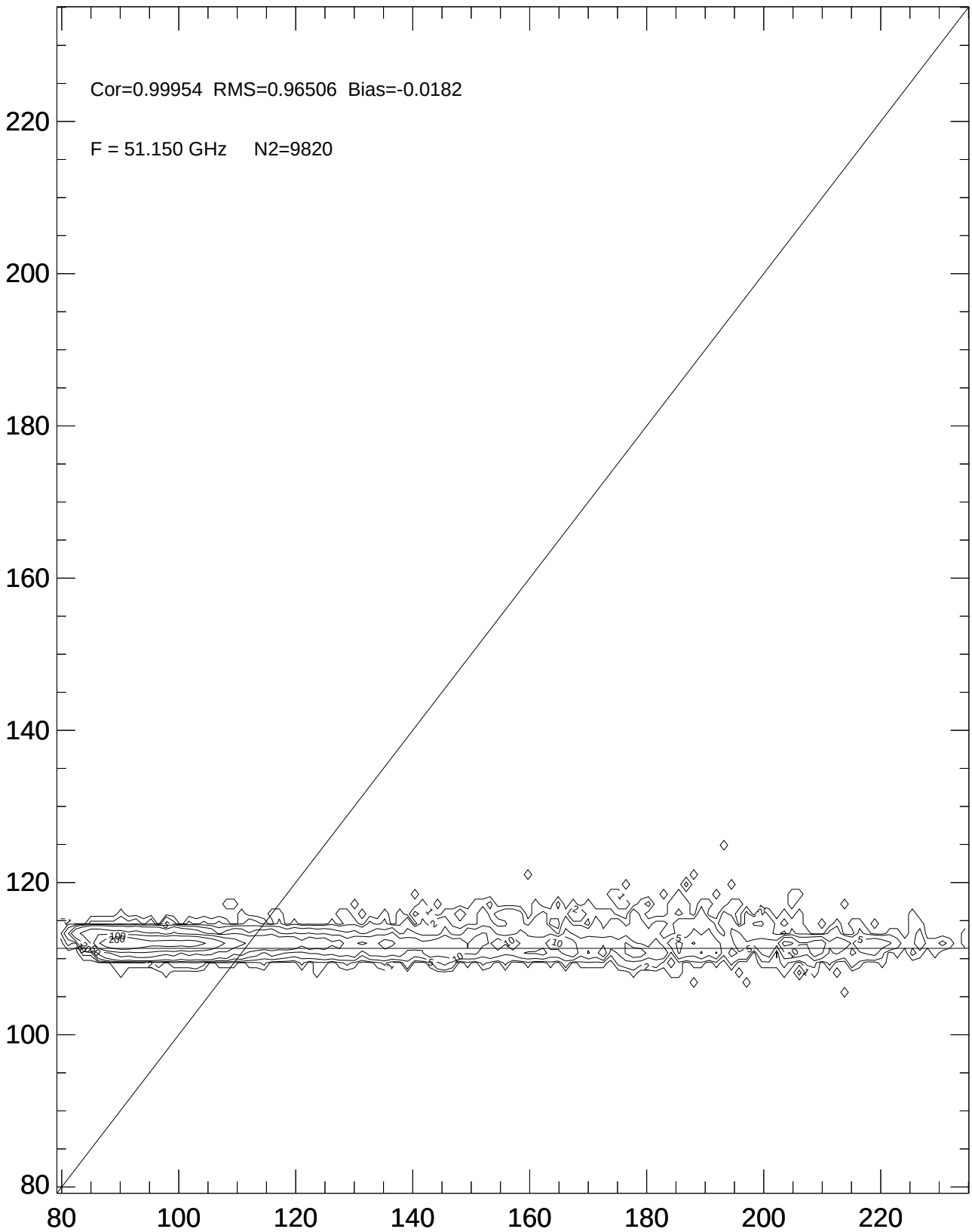

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
100
150
200
100
150
200
True Brightness Temperature / K

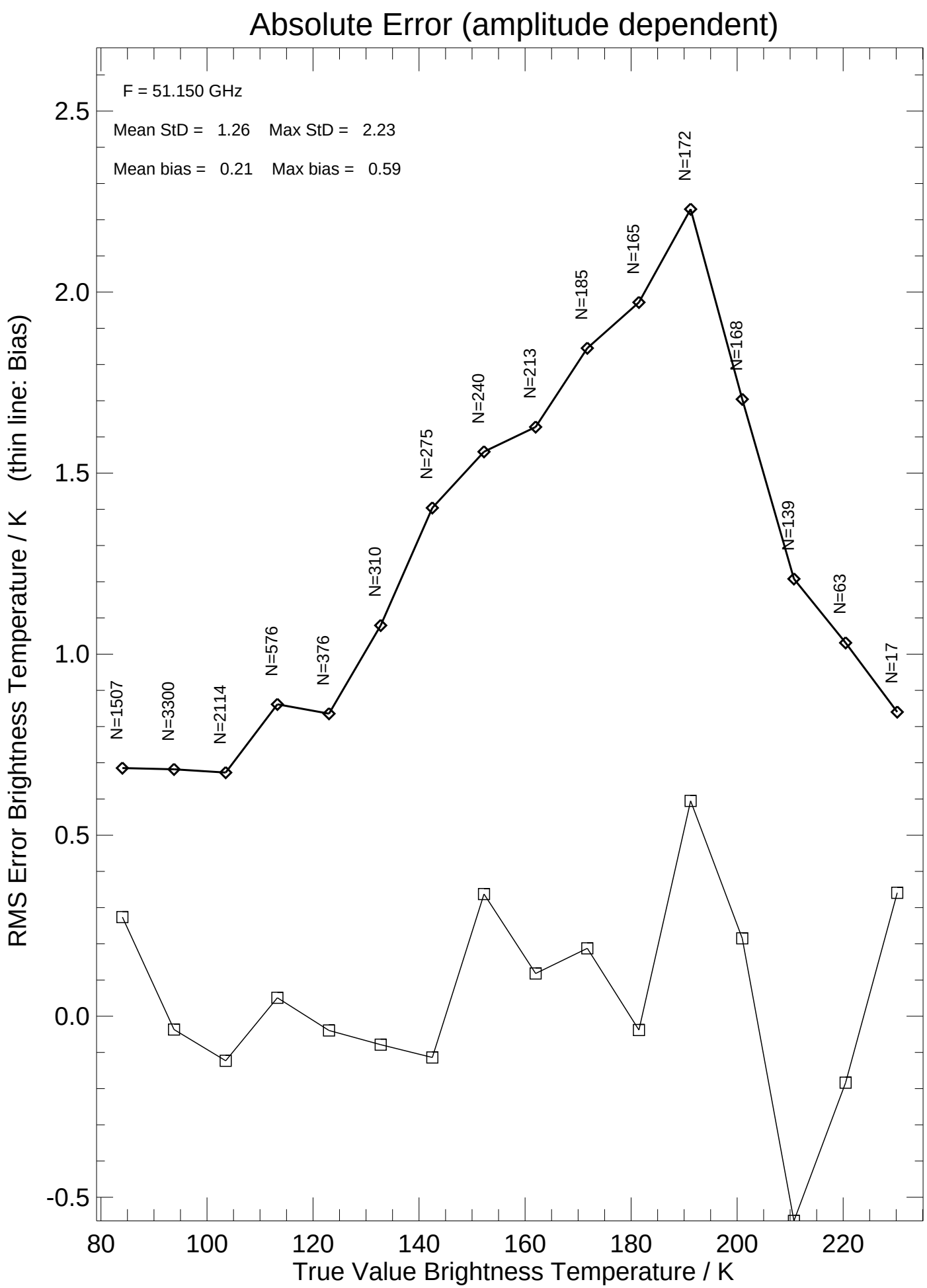

Cor=0.99955 RMS=0.96994 Bias=-0.0171
F = 51.000 GHz N2=9820
200
150
100
100
150
200

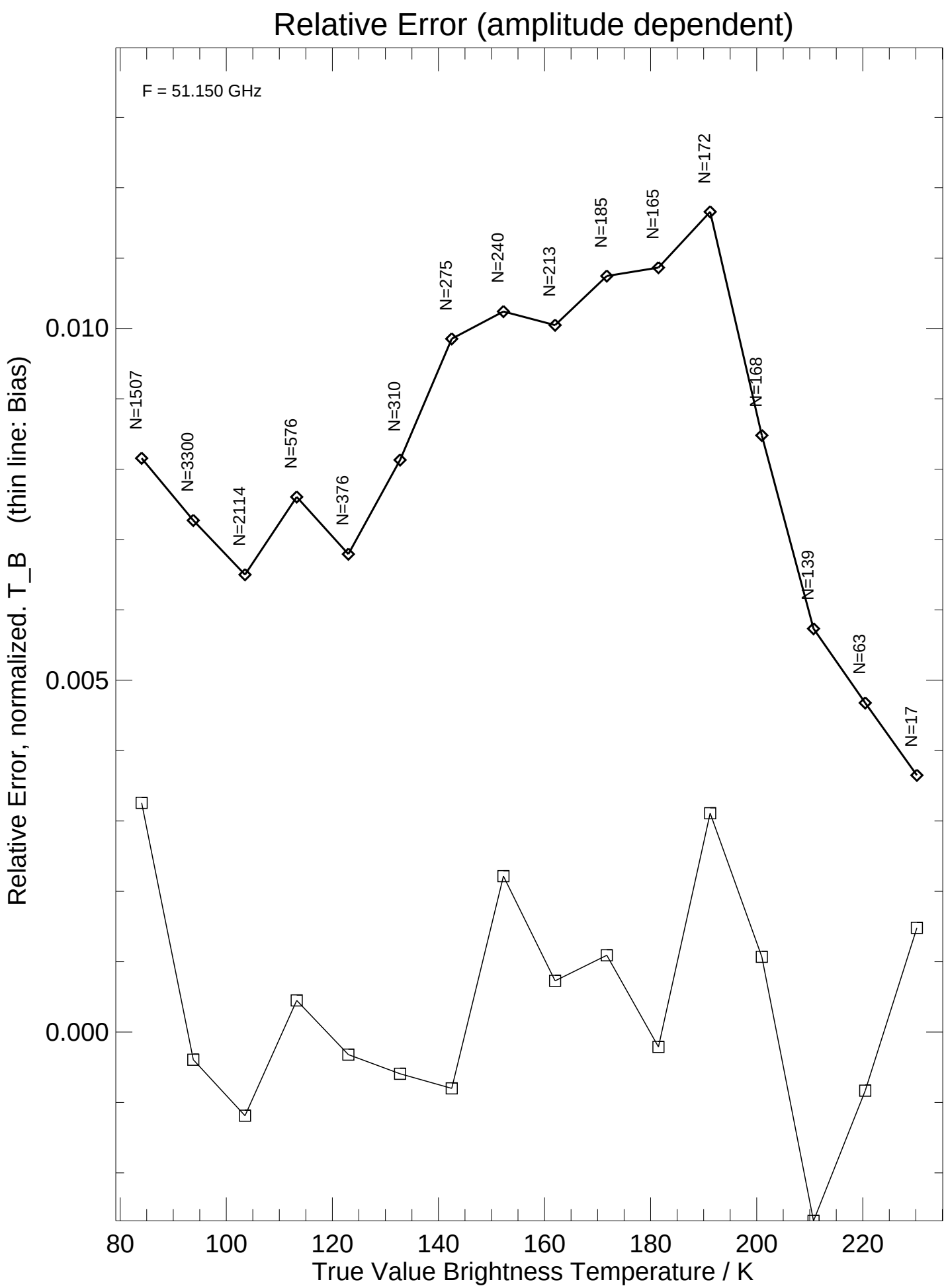

Absolute Error (amplitude dependent)
F = 51.000 GHz
Mean StD = 1.27 Max StD = 2.27
Mean bias = 0.20 Max bias = 0.59
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
150
200
N=1577
N=3312
N=2059
N=562
N=369
N=311
N=274
N=238
N=213
N=182
N=169
N=169
N=170
N=135
N=65
N=15

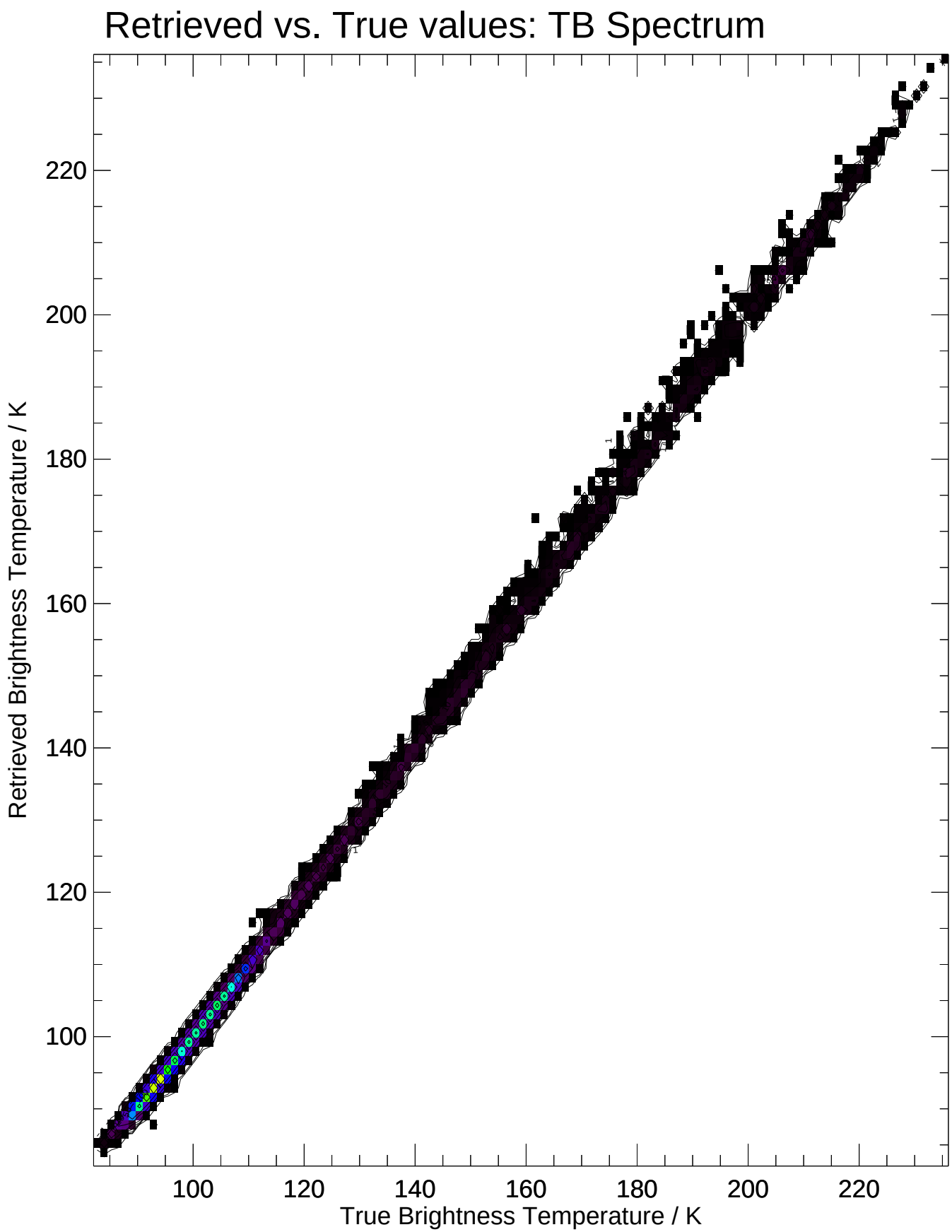

Relative Error (amplitude dependent)
F = 51.000 GHz
N=1577
N=3312
N=2059
N=562
N=369
N=311
N=274
N=238
N=213
N=182
N=169
N=169
N=170
N=135
N=65
N=15
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
100
150
200
True Value Brightness Temperature / K

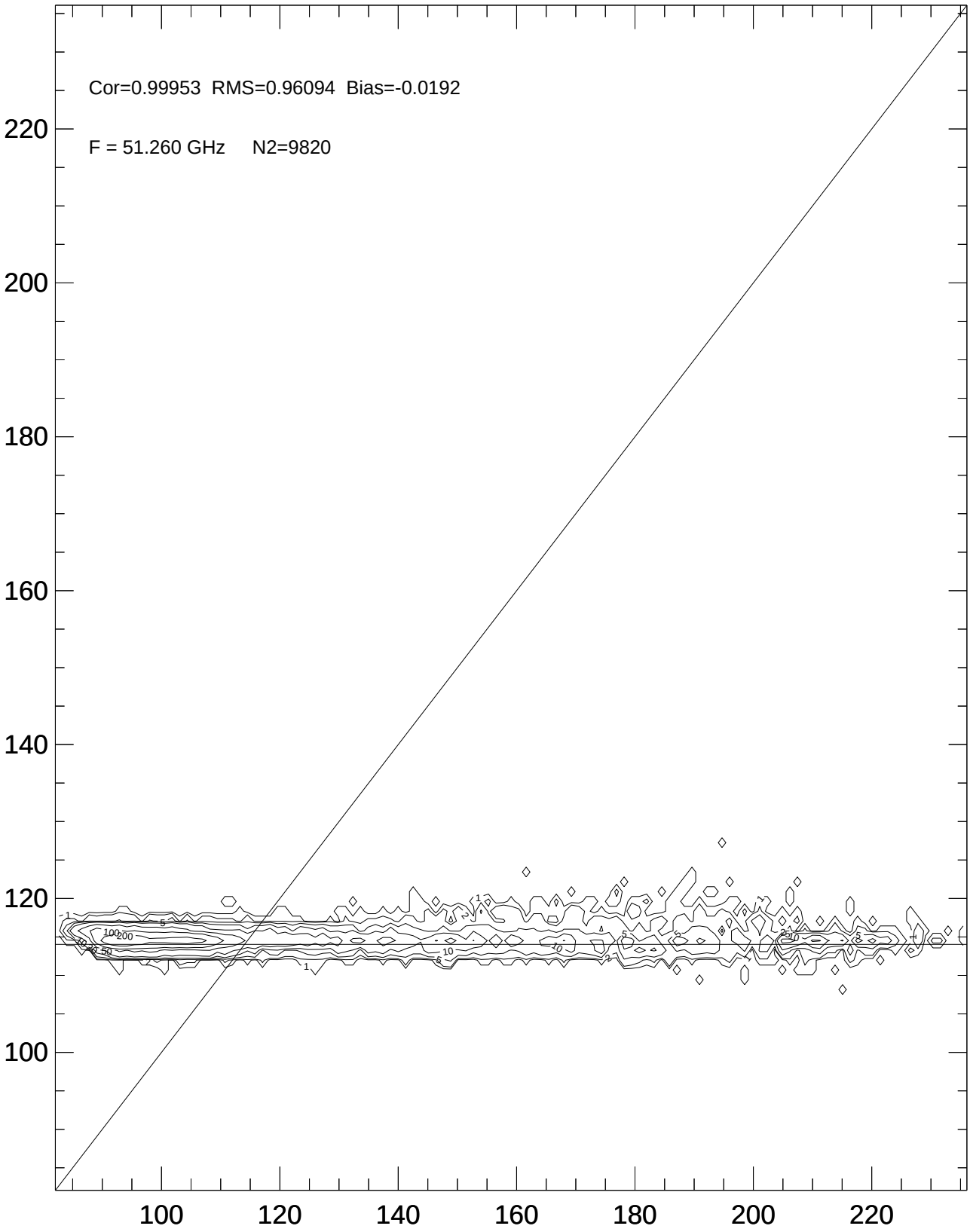

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
80
100
120
140
160
180
200
220

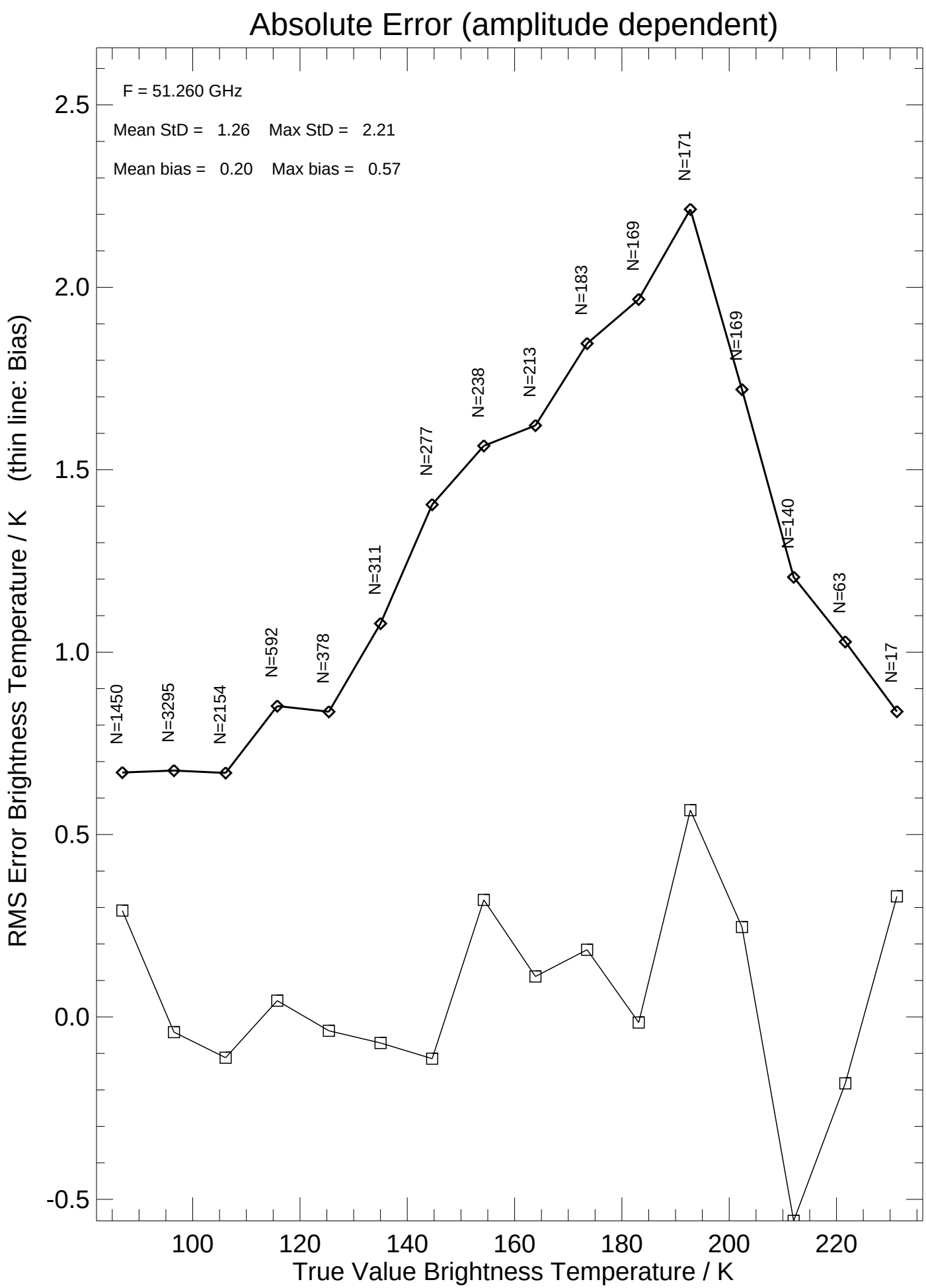

Cor=0.99954 RMS=0.96506 Bias=-0.0182
F = 51.150 GHz N2=9820
220
200
180
160
140
120
100
80
80
100
120
140
160
180
200
220

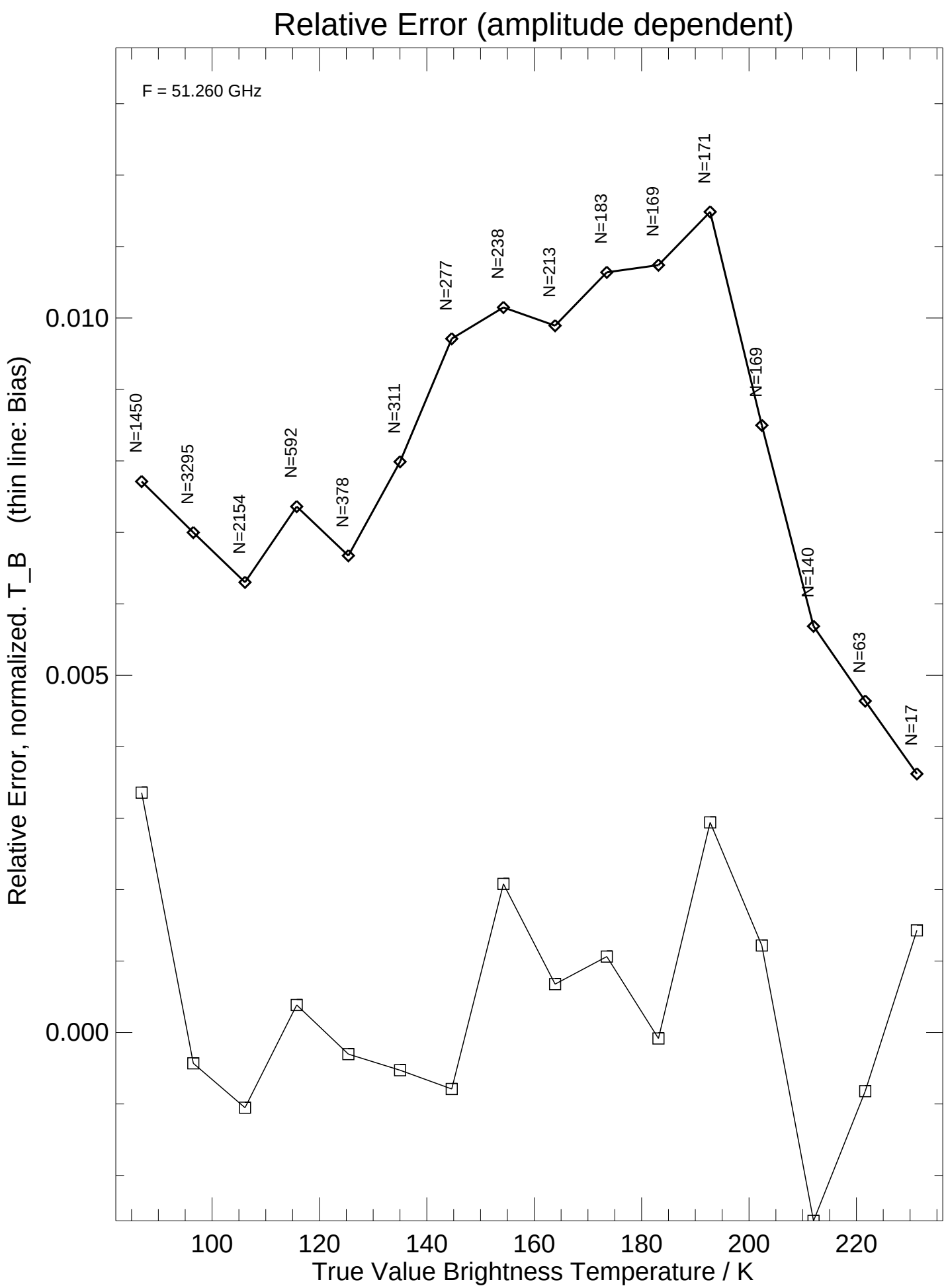

Absolute Error (amplitude dependent)
F = 51.150 GHz
Mean StD = 1.26 Max StD = 2.23
Mean bias = 0.21 Max bias = 0.59
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
80
100
120
140
160
180
200
220
N=1507
N=3300
N=2114
N=576
N=376
N=310
N=275
N=240
N=213
N=185
N=165
N=172
N=168
N=139
N=63
N=17

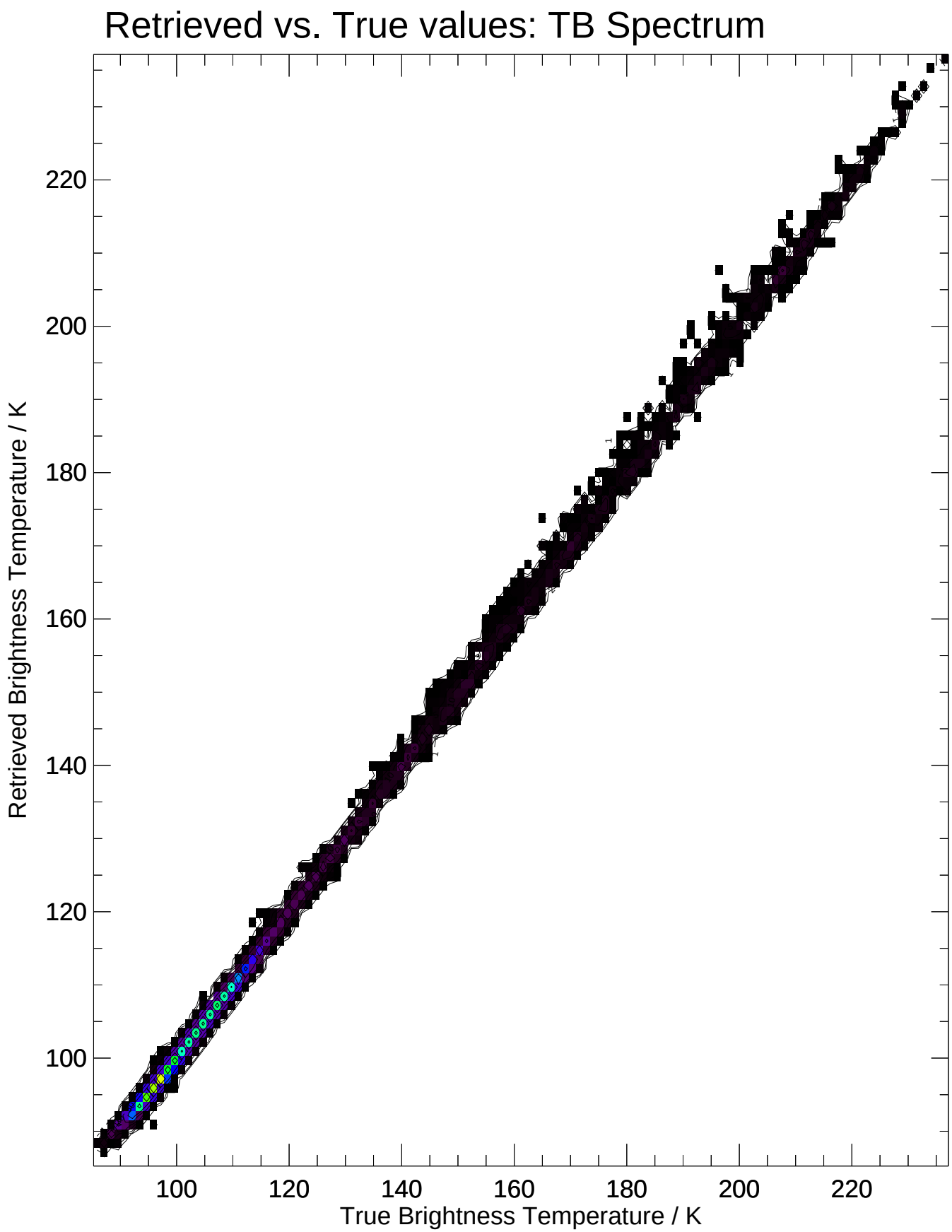

Relative Error (amplitude dependent)
F = 51.150 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.010
0.005
0.000
N=1507
N=3300
N=2114
N=576
N=376
N=310
N=275
N=240
N=213
N=185
N=165
N=172
N=168
N=139
N=63
N=17
80
100
120
140
160
180
200
220
True Value Brightness Temperature / K

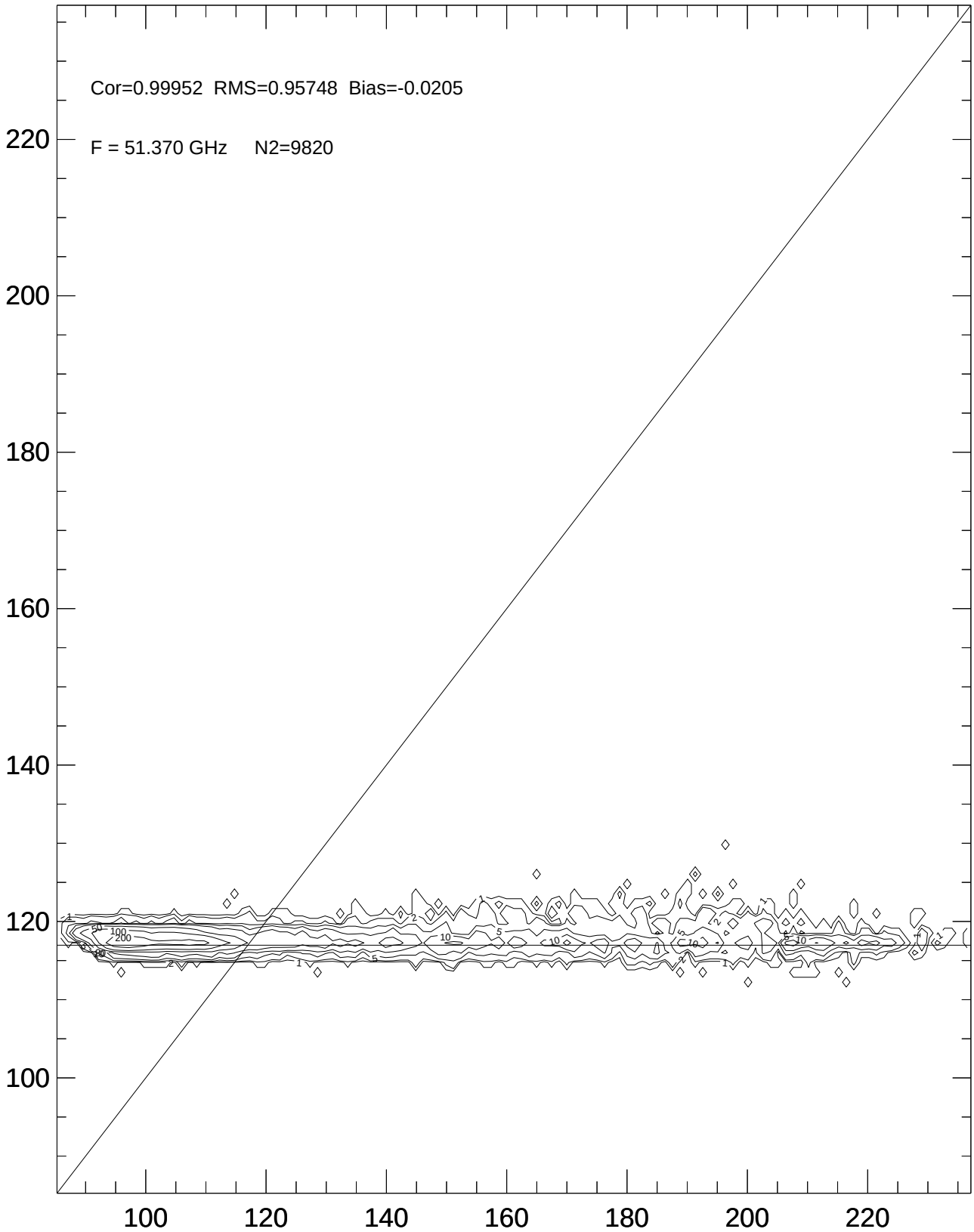

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
100
120
140
160
180
200
220

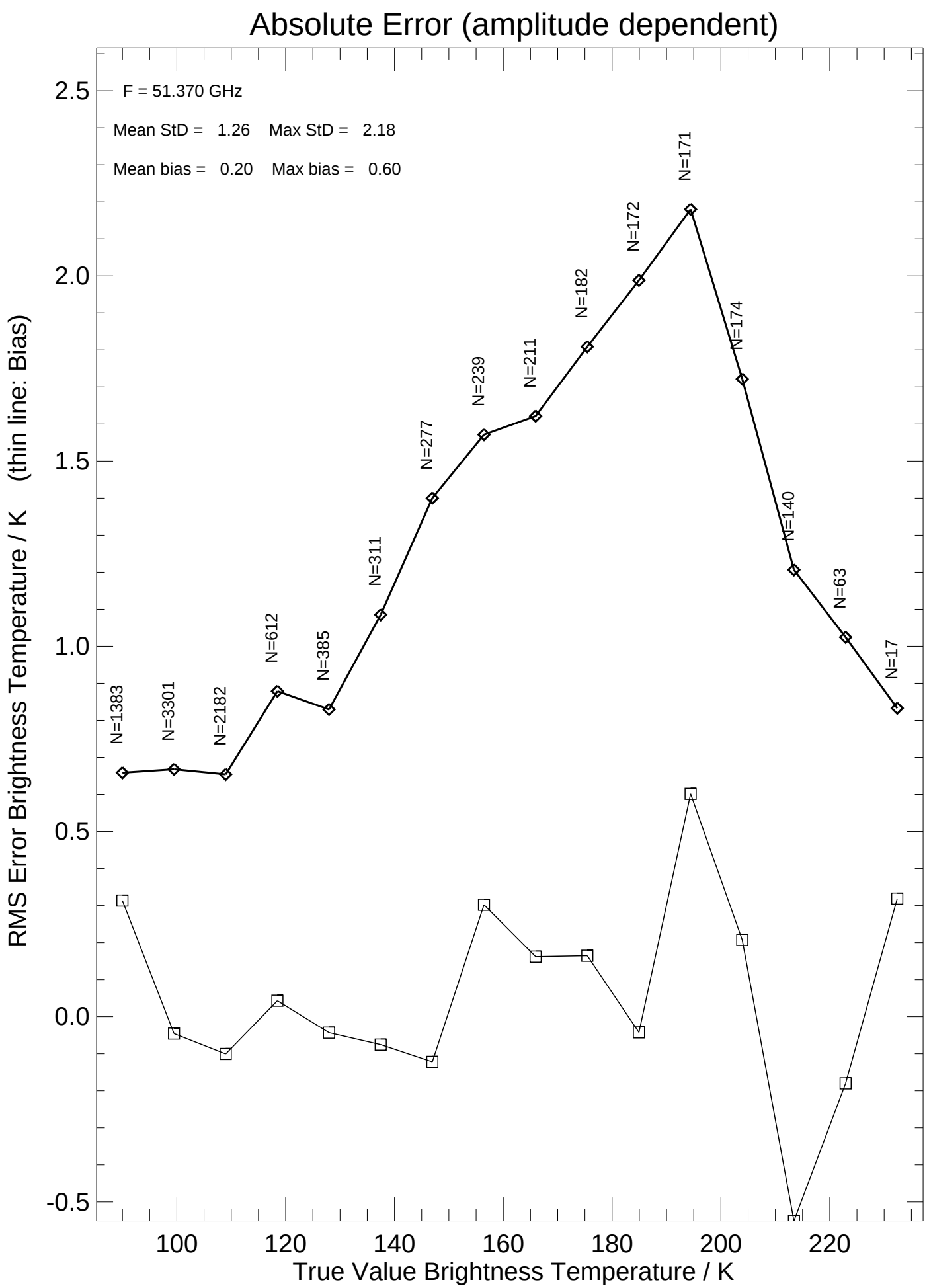

Cor=0.99953 RMS=0.96094 Bias=-0.0192
F = 51.260 GHz N2=9820
220
200
180
160
140
120
100
100
120
140
160
180
200
220

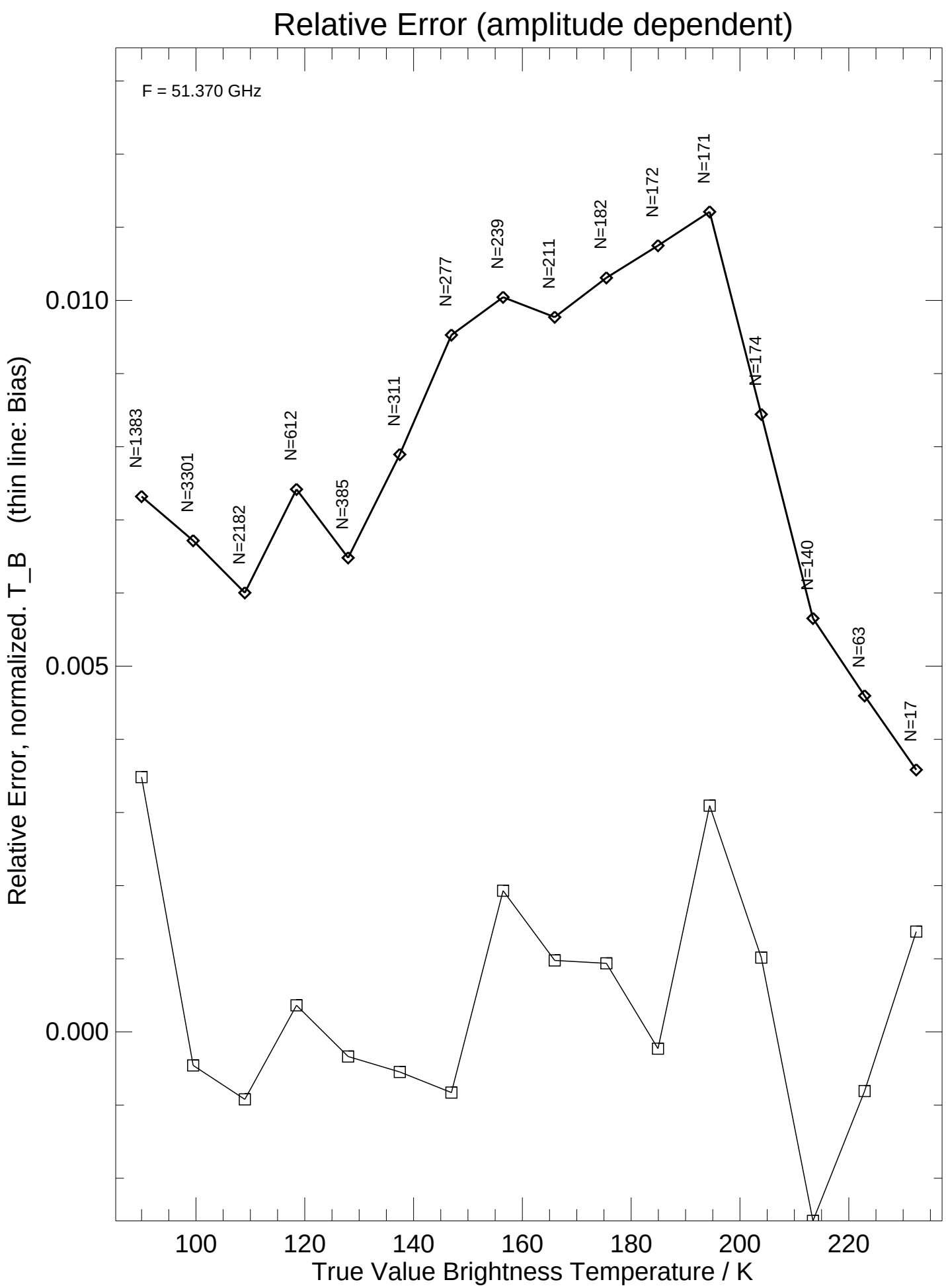

Absolute Error (amplitude dependent)
F = 51.260 GHz
Mean StD = 1.26 Max StD = 2.21
Mean bias = 0.20 Max bias = 0.57
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
120
140
160
180
200
220
N=1450
N=3295
N=2154
N=592
N=378
N=311
N=277
N=238
N=213
N=183
N=169
N=171
N=169
N=140
N=63
N=17

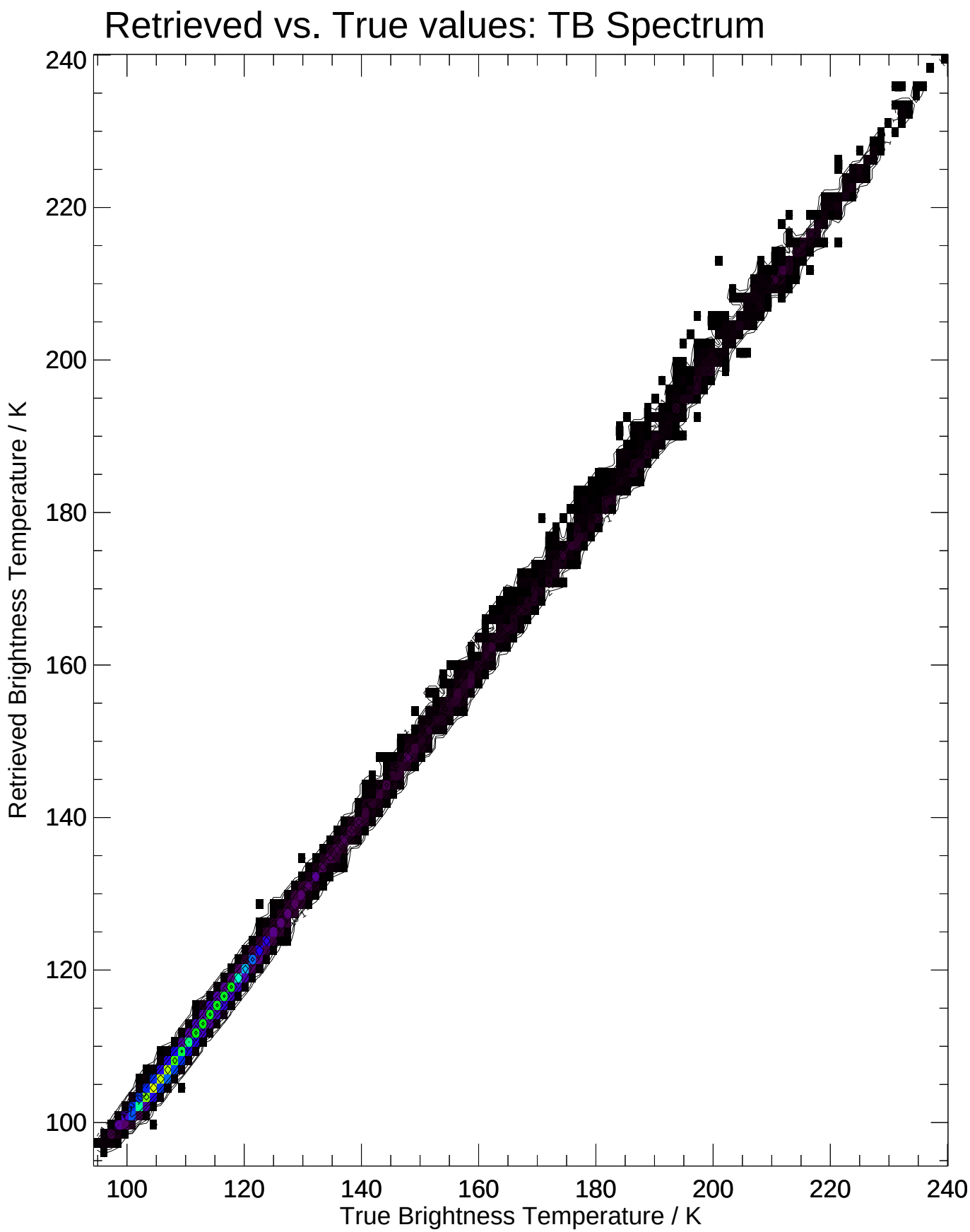

Relative Error (amplitude dependent)
F = 51.260 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.010
0.005
0.000
N=1450
N=3295
N=2154
N=592
N=378
N=311
N=277
N=238
N=213
N=183
N=169
N=171
N=169
N=140
N=63
N=17
100
120
140
160
180
200
220
True Value Brightness Temperature / K

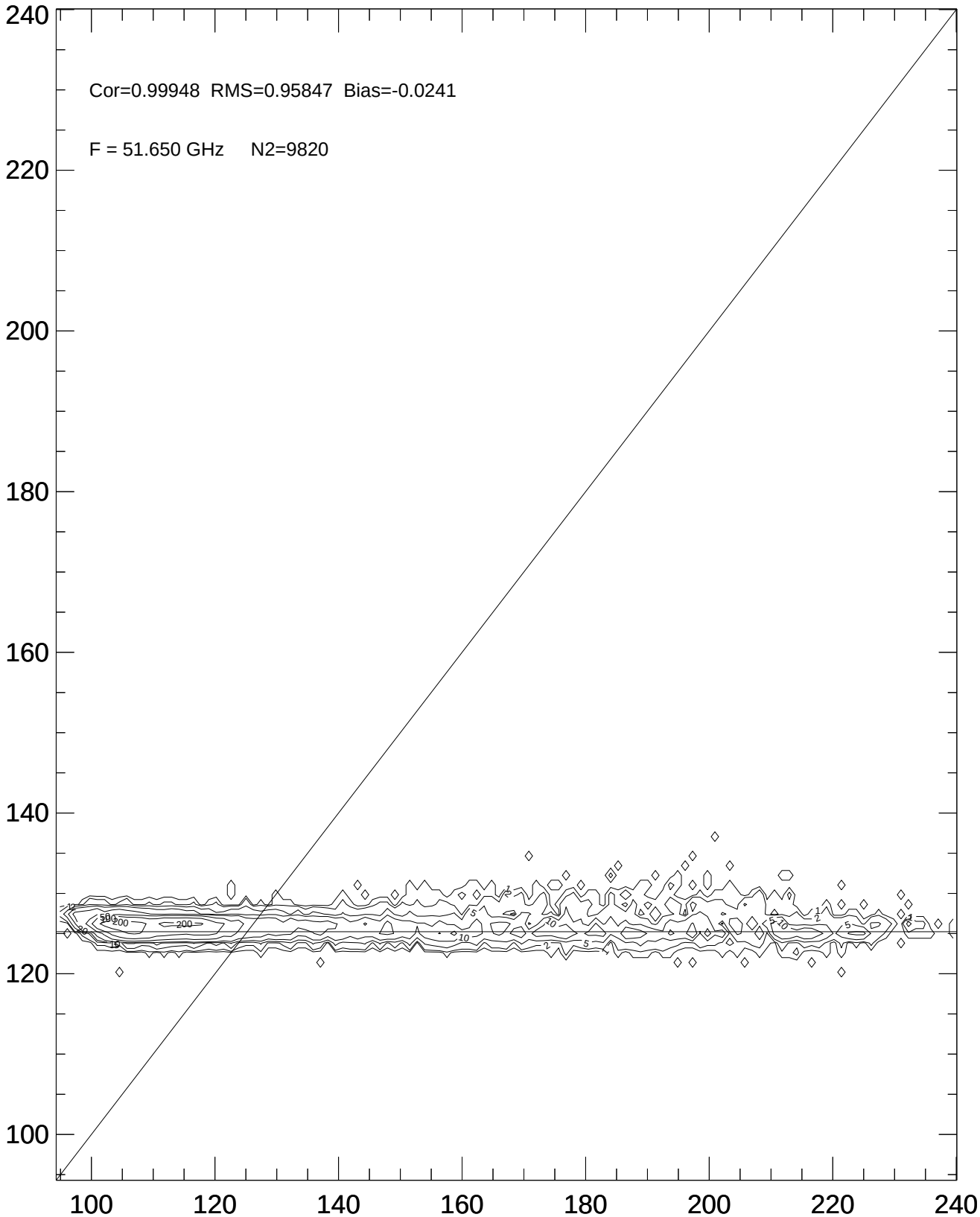

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
100
120
140
160
180
200
220

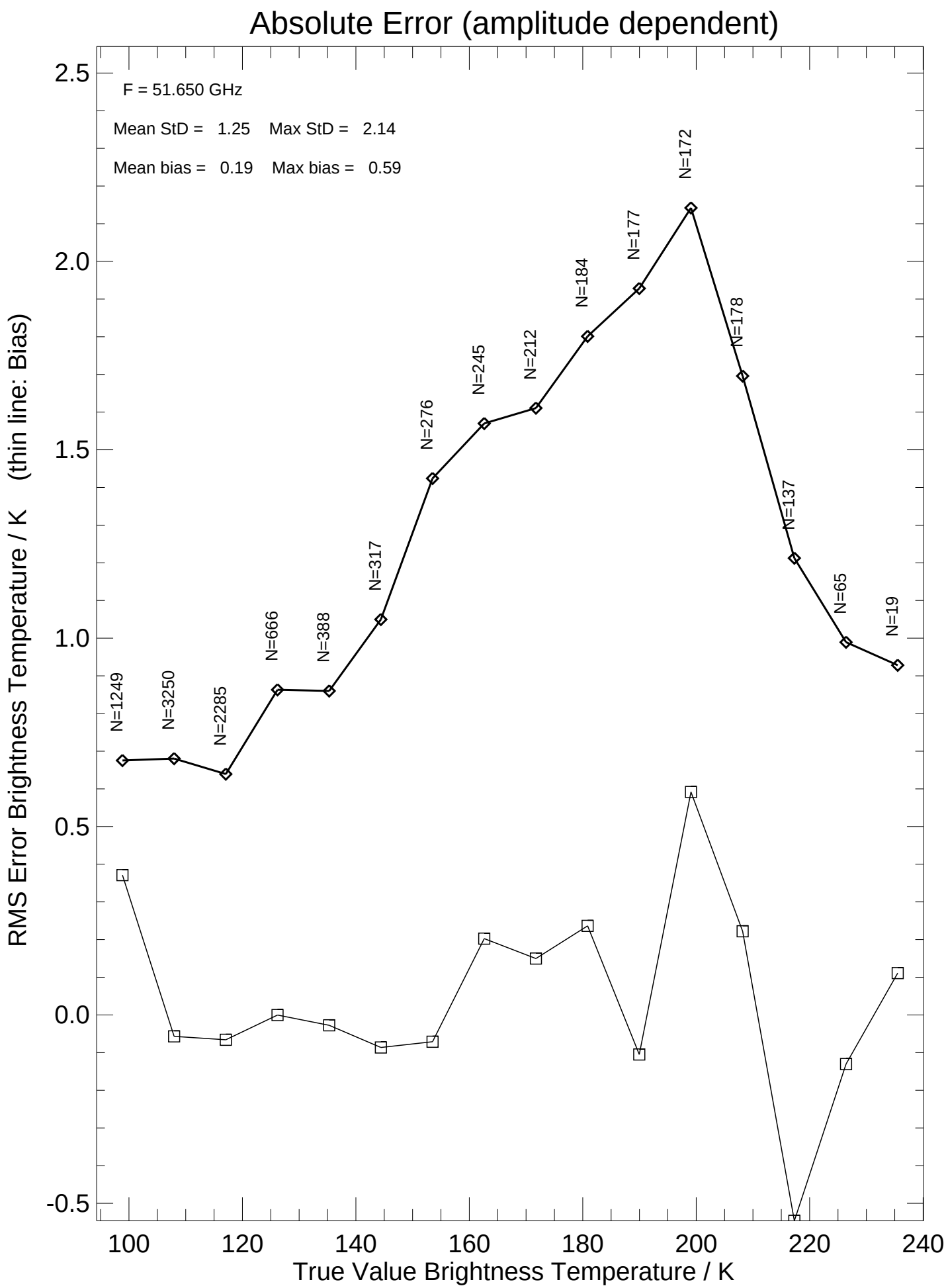

Cor=0.99952 RMS=0.95748 Bias=-0.0205
F = 51.370 GHz N2=9820
220
200
180
160
140
120
100
100
120
140
160
180
200
220

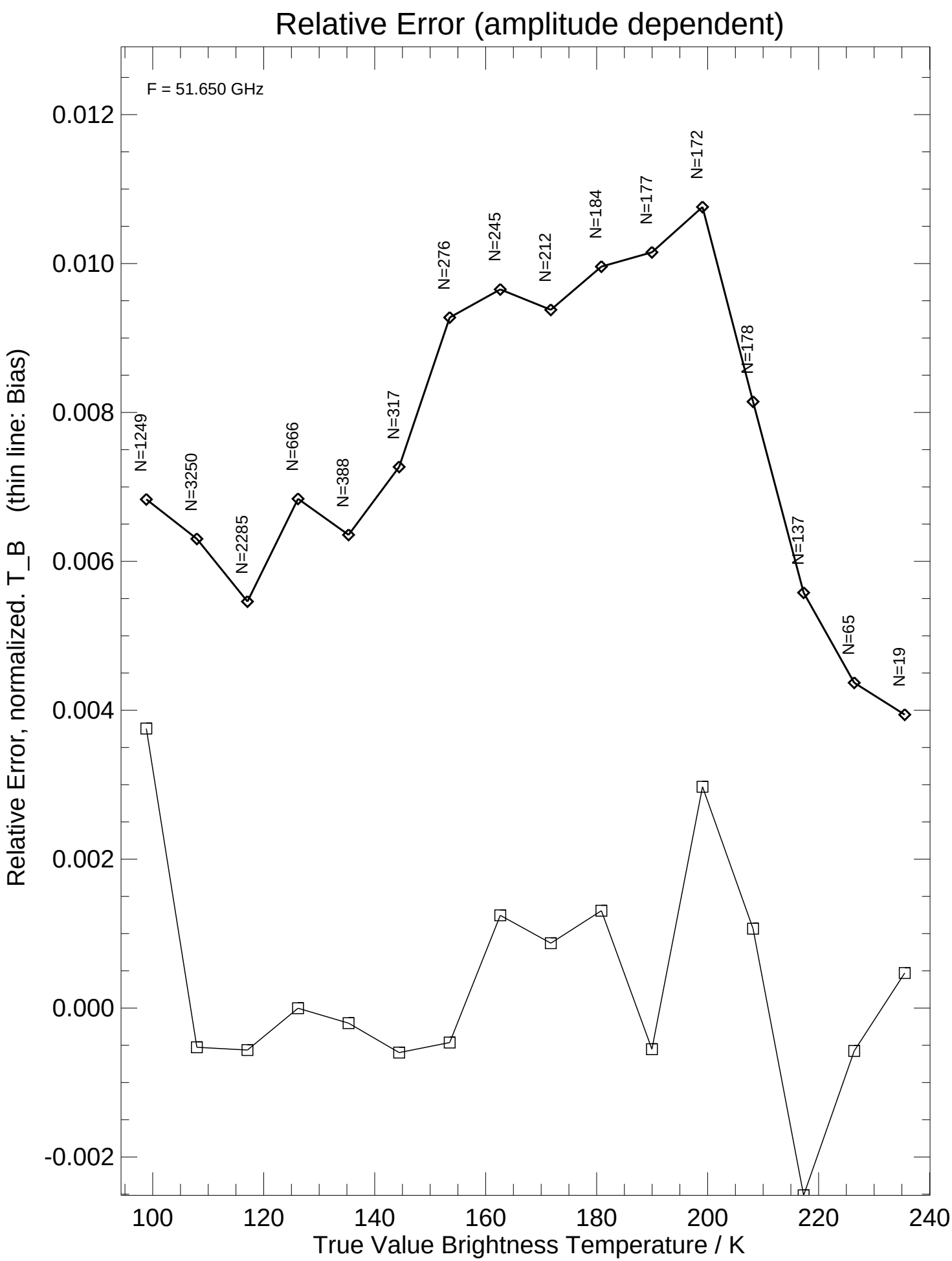

Absolute Error (amplitude dependent)
F = 51.370 GHz
Mean StD = 1.26 Max StD = 2.18
Mean bias = 0.20 Max bias = 0.60
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
120
140
160
180
200
220
N=1383
N=3301
N=2182
N=612
N=385
N=311
N=277
N=239
N=211
N=182
N=172
N=171
N=174
N=140
N=63
N=17

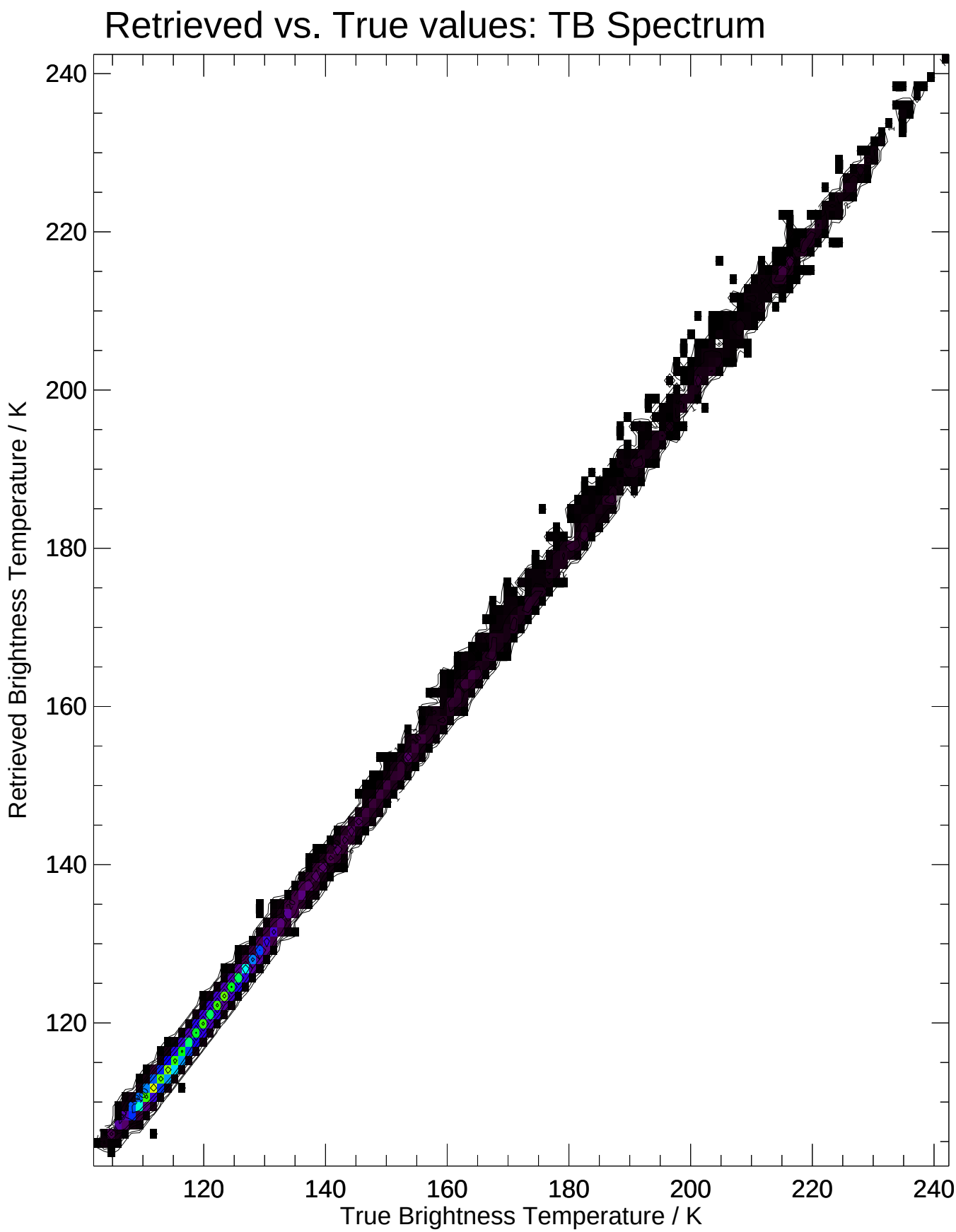

Relative Error (amplitude dependent)
F = 51.370 GHz
Relative Error, normalized. T_B (thin line: Bias)
0.010
0.005
0.000
N=1383
N=3301
N=2182
N=612
N=385
N=311
N=277
N=239
N=211
N=182
N=172
N=171
N=174
N=140
N=63
N=17
100
120
140
160
180
200
220
True Value Brightness Temperature / K

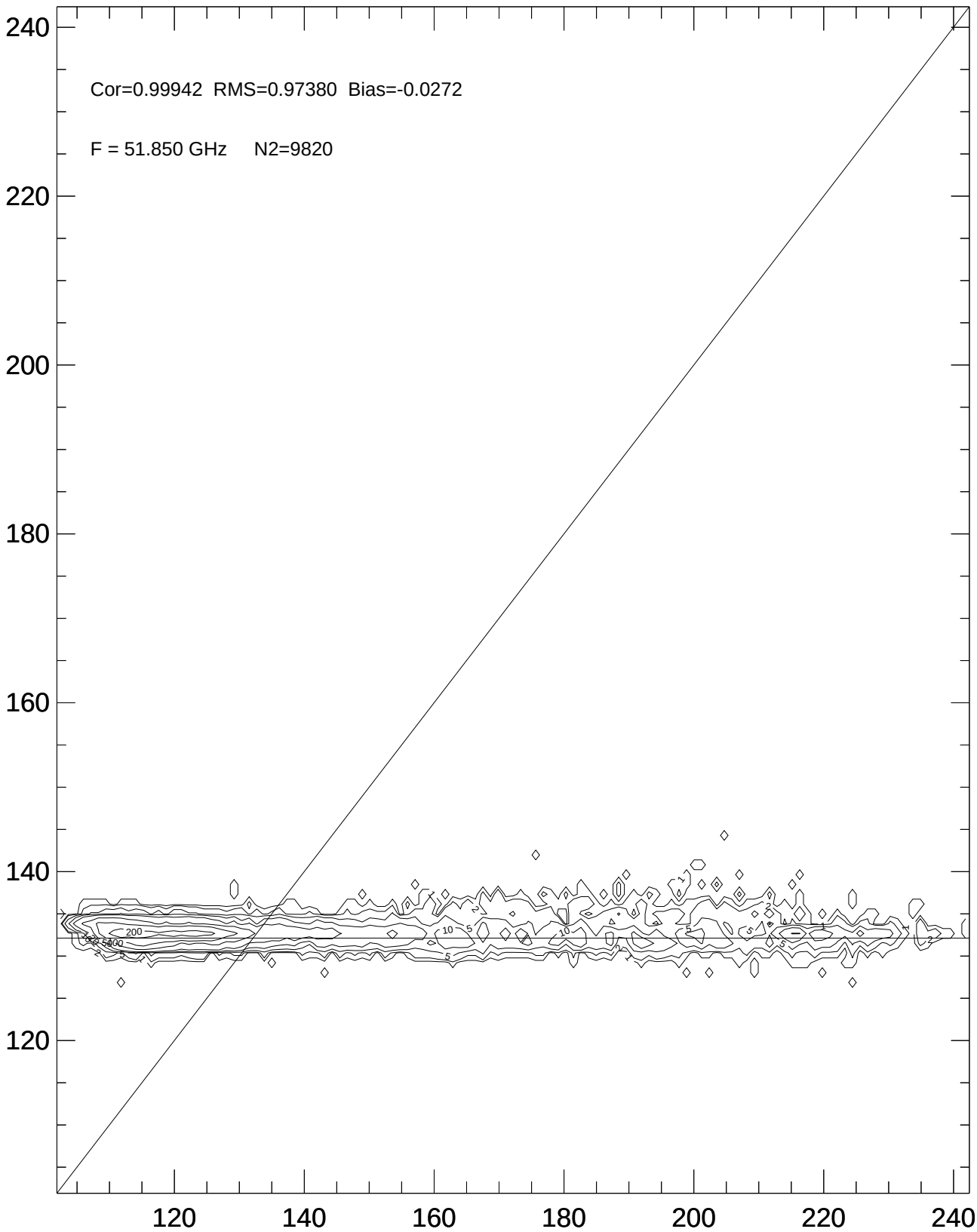

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
100
120
140
160
180
200
220
240

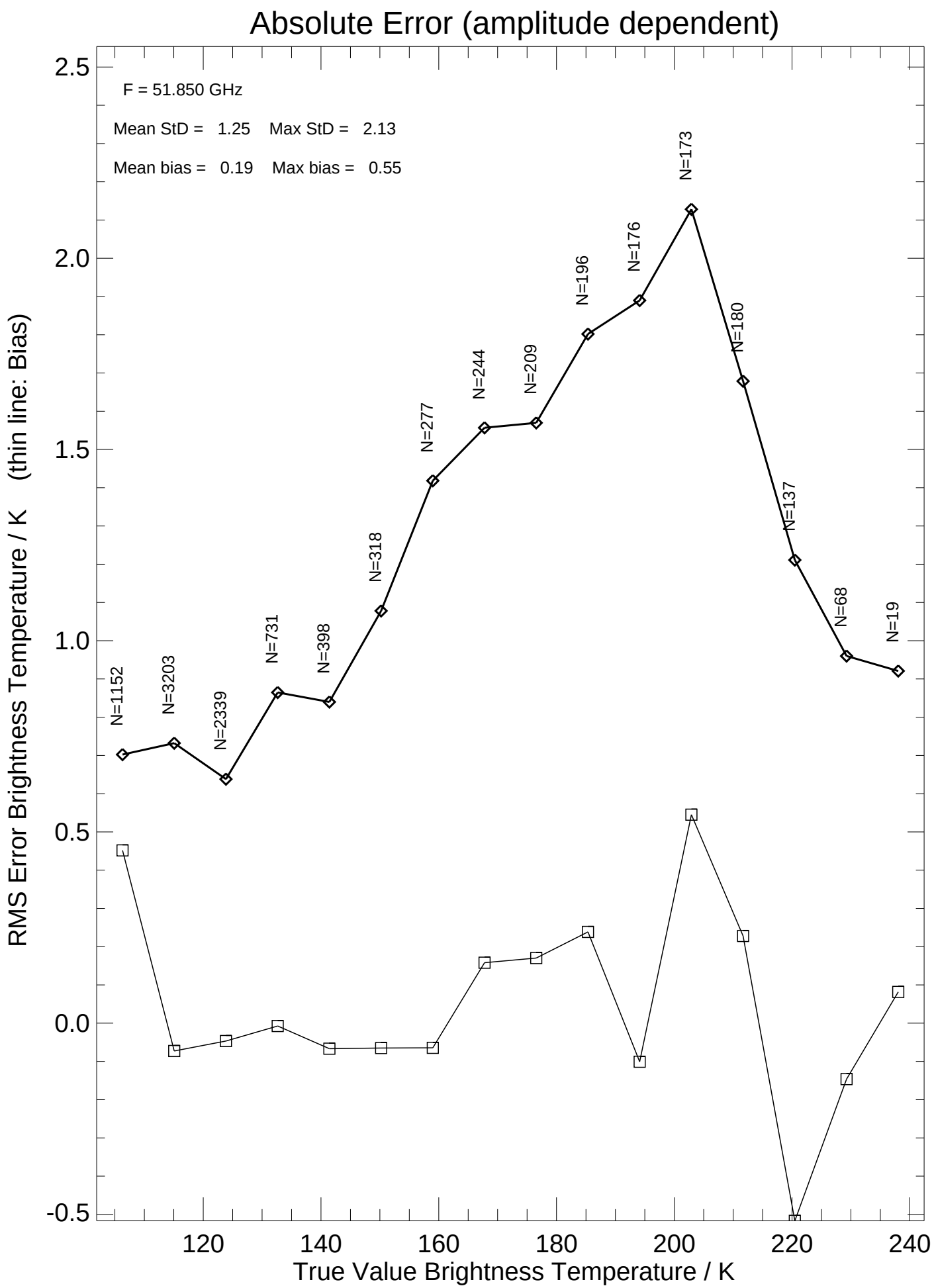

Cor=0.99948 RMS=0.95847 Bias=-0.0241
F = 51.650 GHz N2=9820
240
220
200
180
160
140
120
100
100
120
140
160
180
200
220
240

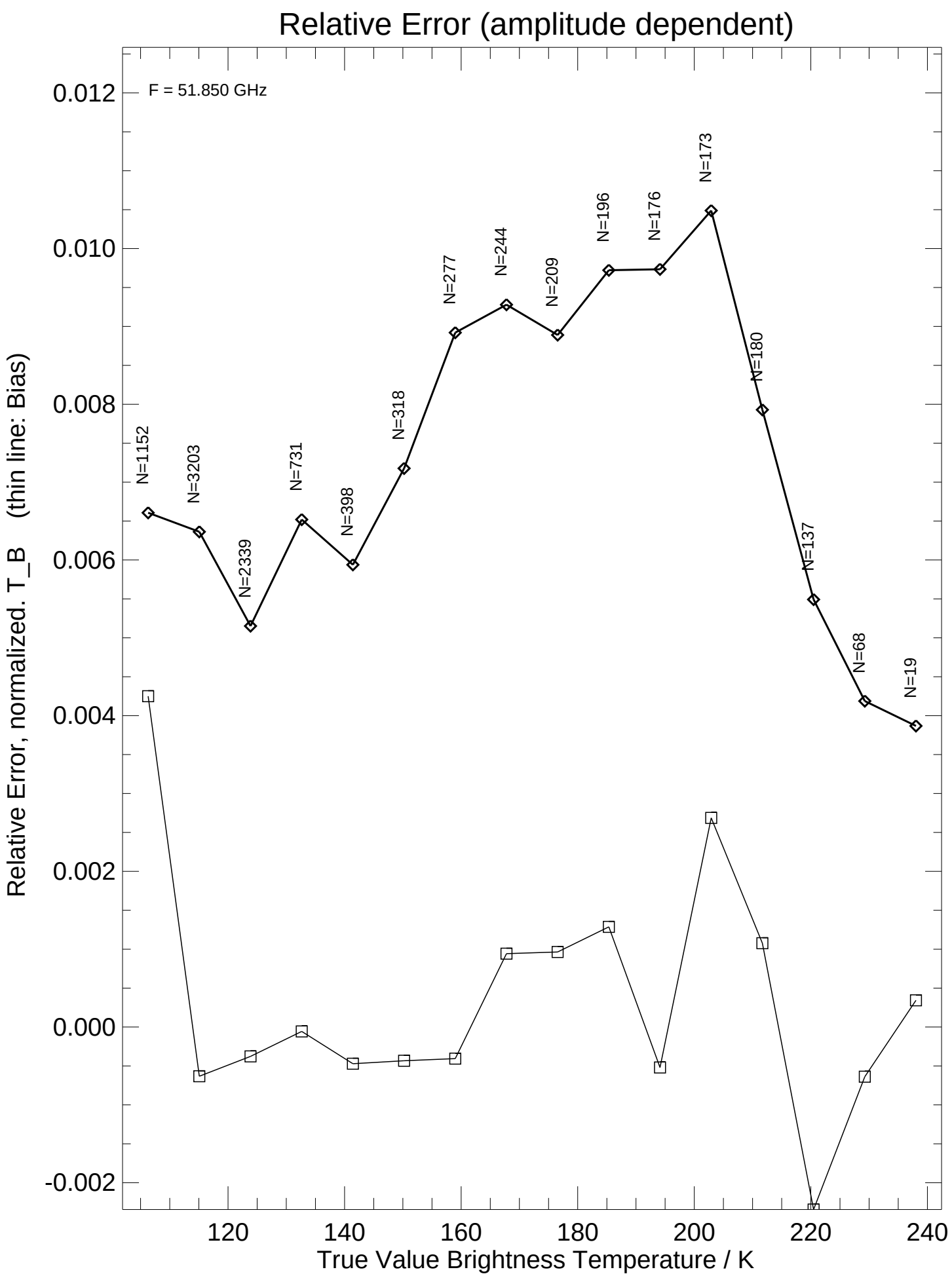

Absolute Error (amplitude dependent)
F = 51.650 GHz
Mean StD = 1.25 Max StD = 2.14
Mean bias = 0.19 Max bias = 0.59
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
100
120
140
160
180
200
220
240
N=1249
N=3250
N=2285
N=666
N=388
N=317
N=276
N=245
N=212
N=184
N=177
N=172
N=178
N=137
N=65
N=19

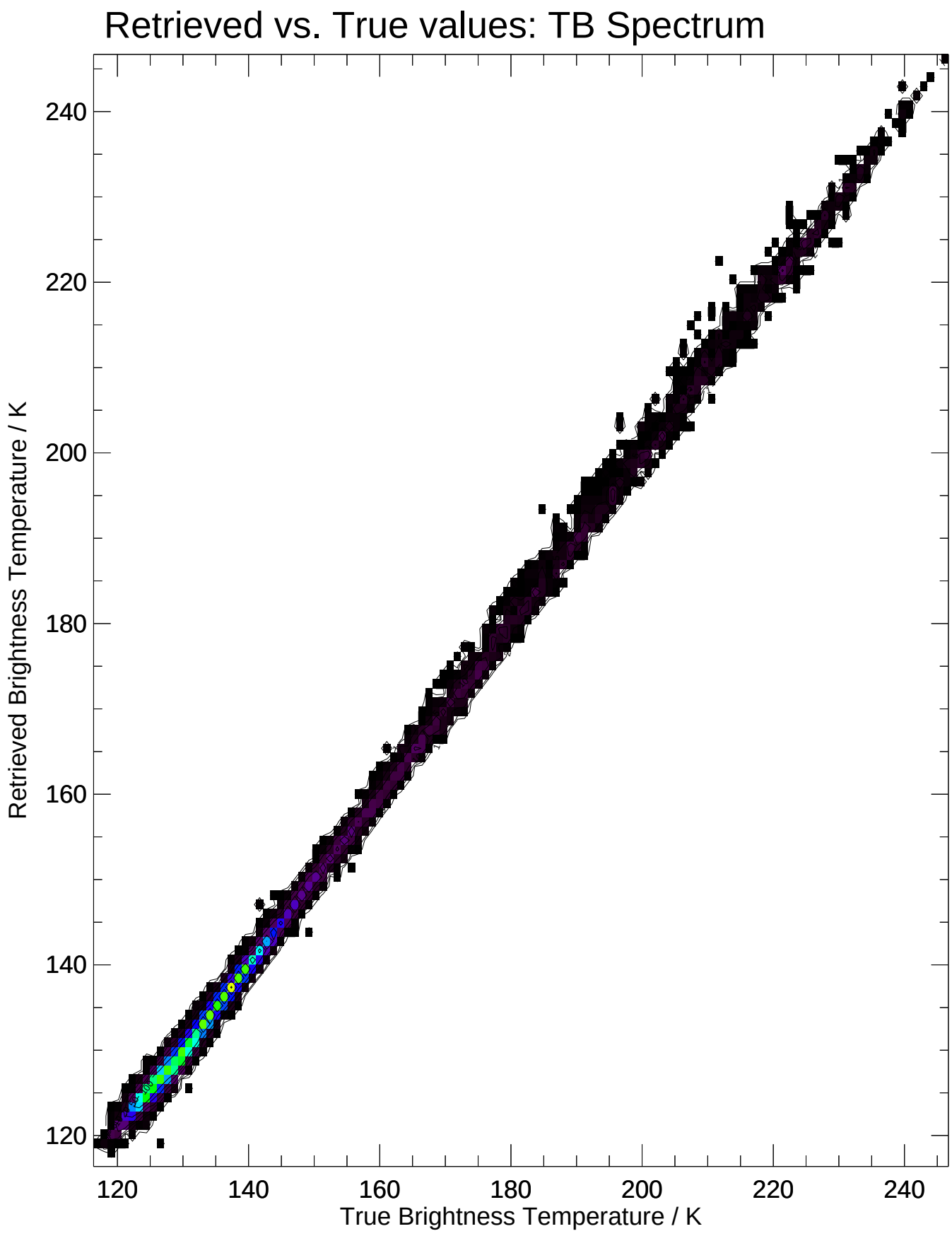

Relative Error (amplitude dependent)
F = 51.650 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.012
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
100
120
140
160
180
200
220
240
N=1249
N=3250
N=2285
N=666
N=388
N=317
N=276
N=245
N=212
N=184
N=177
N=172
N=178
N=137
N=65
N=19

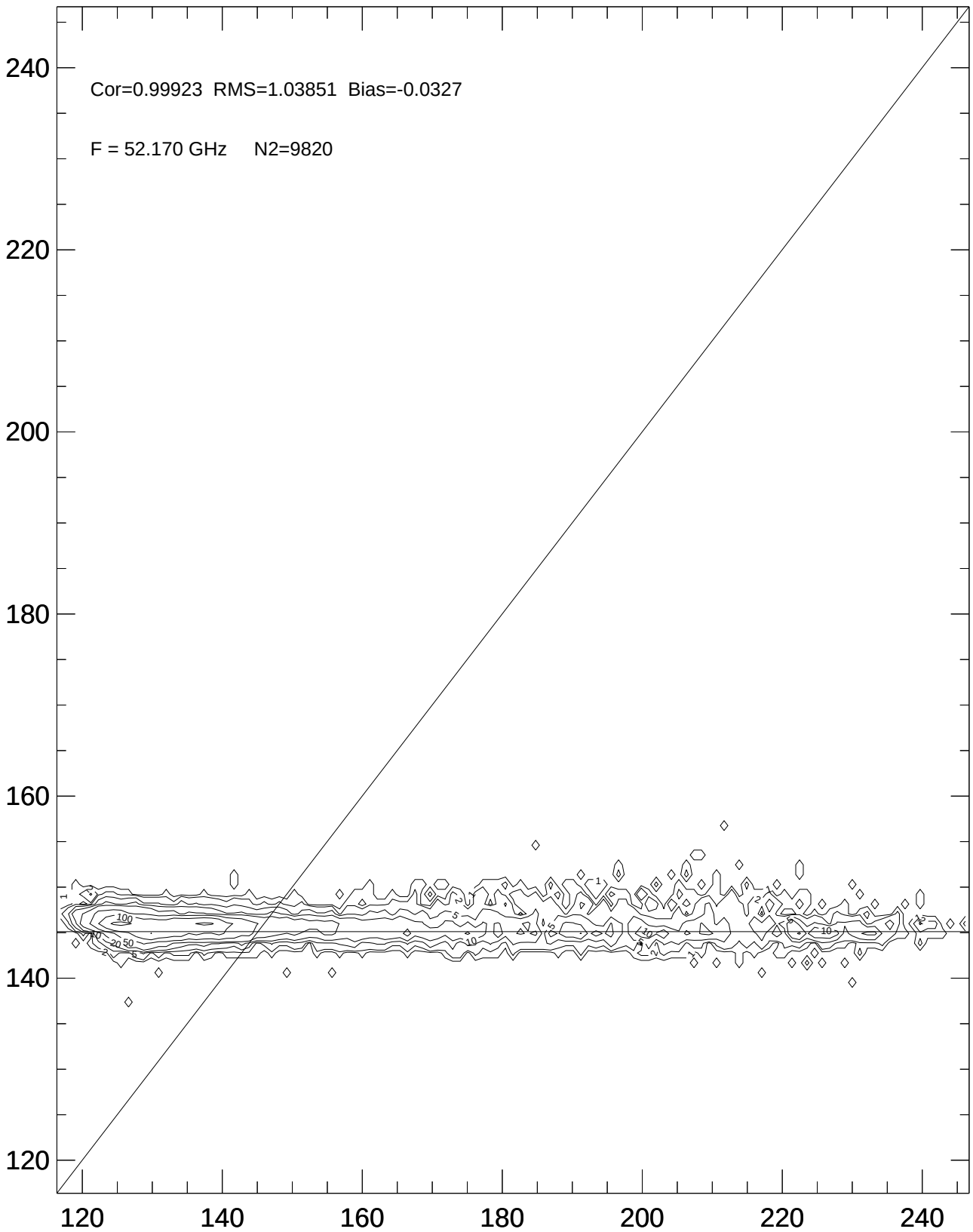

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
120
140
160
180
200
220
240

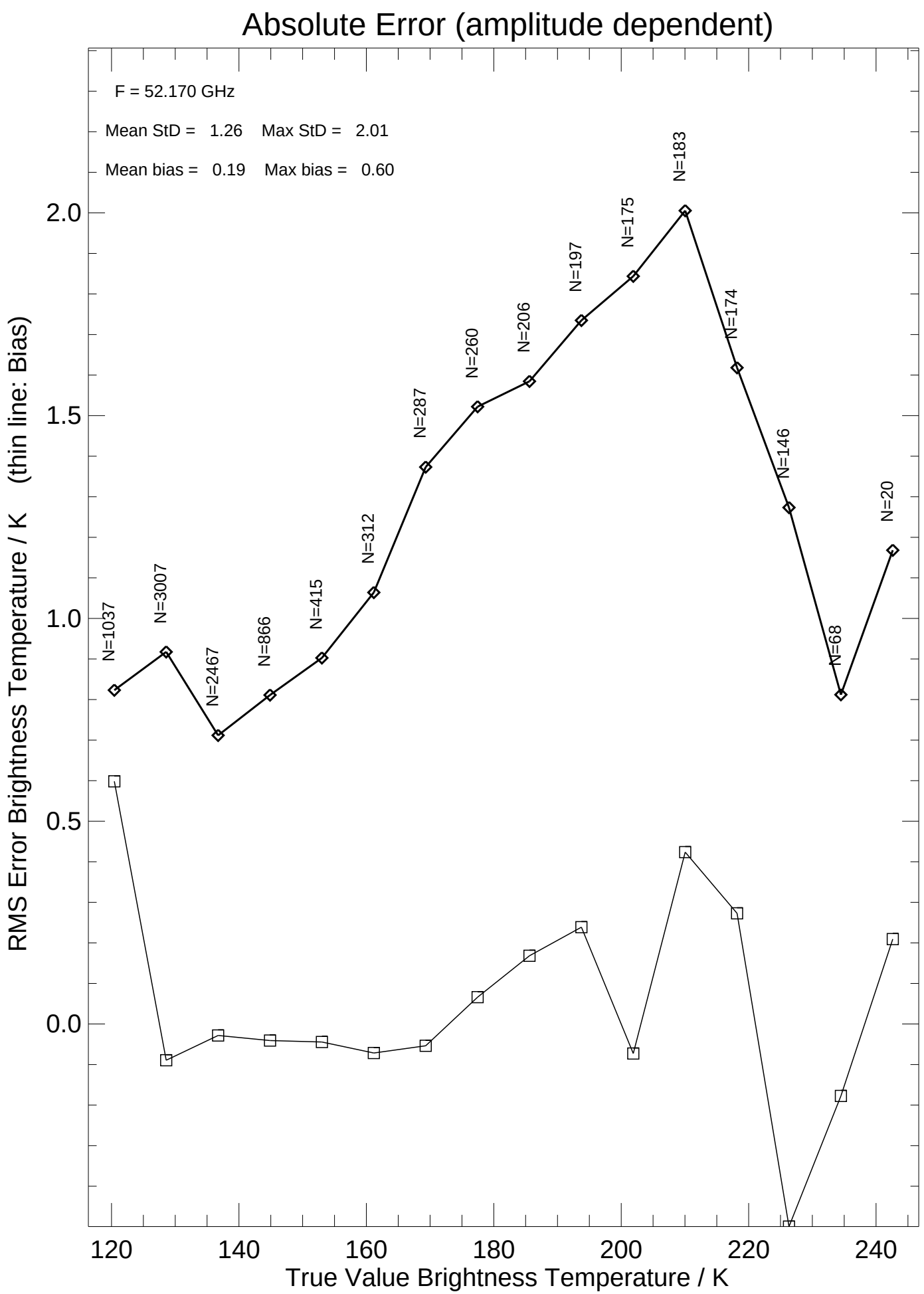

Cor=0.99942 RMS=0.97380 Bias=-0.0272
F = 51.850 GHz N2=9820
240
220
200
180
160
140
120
120
140
160
180
200
220
240

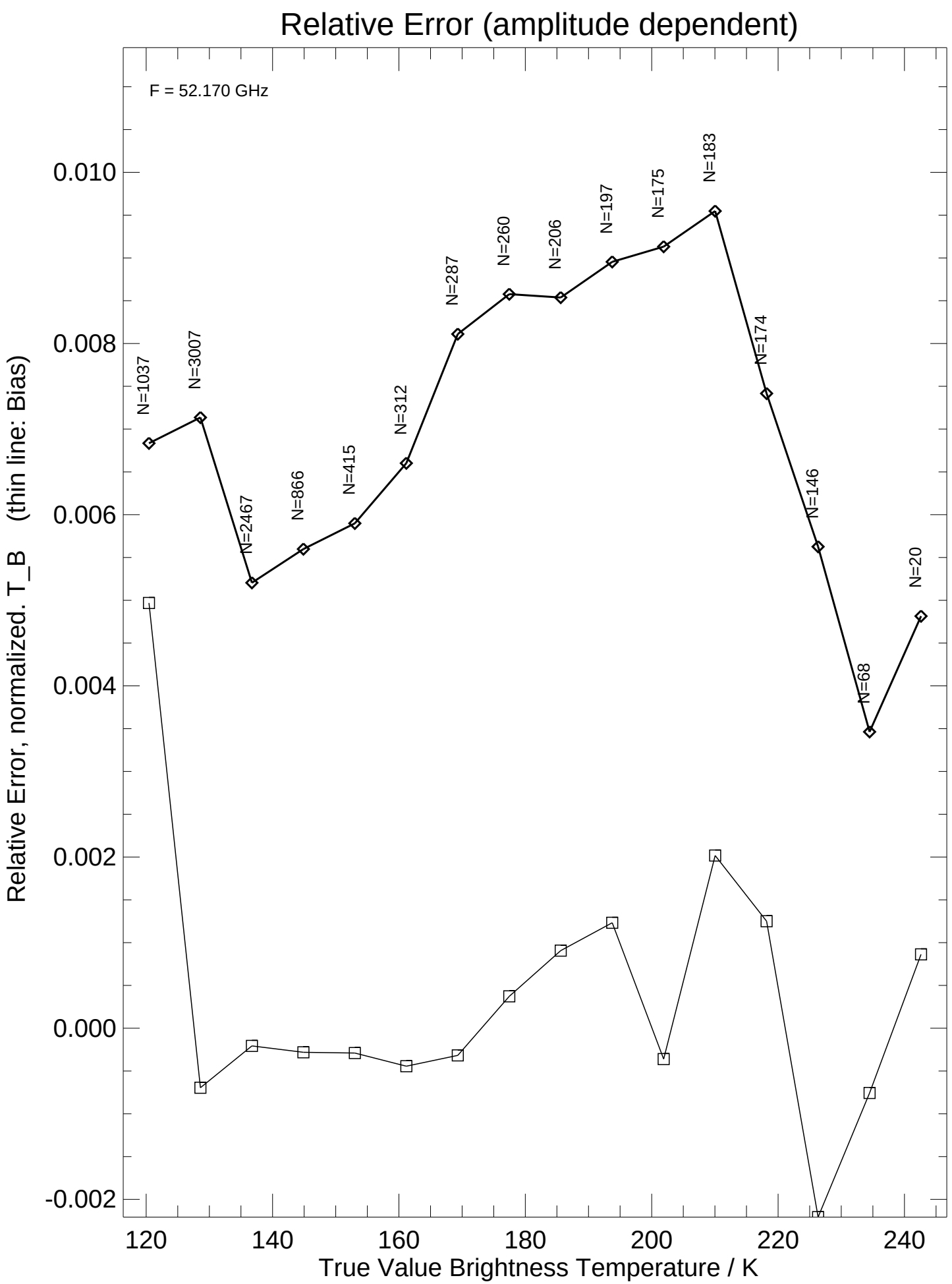

Absolute Error (amplitude dependent)
F = 51.850 GHz
Mean StD = 1.25 Max StD = 2.13
Mean bias = 0.19 Max bias = 0.55
N=1152
N=3203
N=2339
N=731
N=398
N=318
N=277
N=244
N=209
N=196
N=176
N=173
N=180
N=137
N=68
N=19
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
120
140
160
180
200
220
240

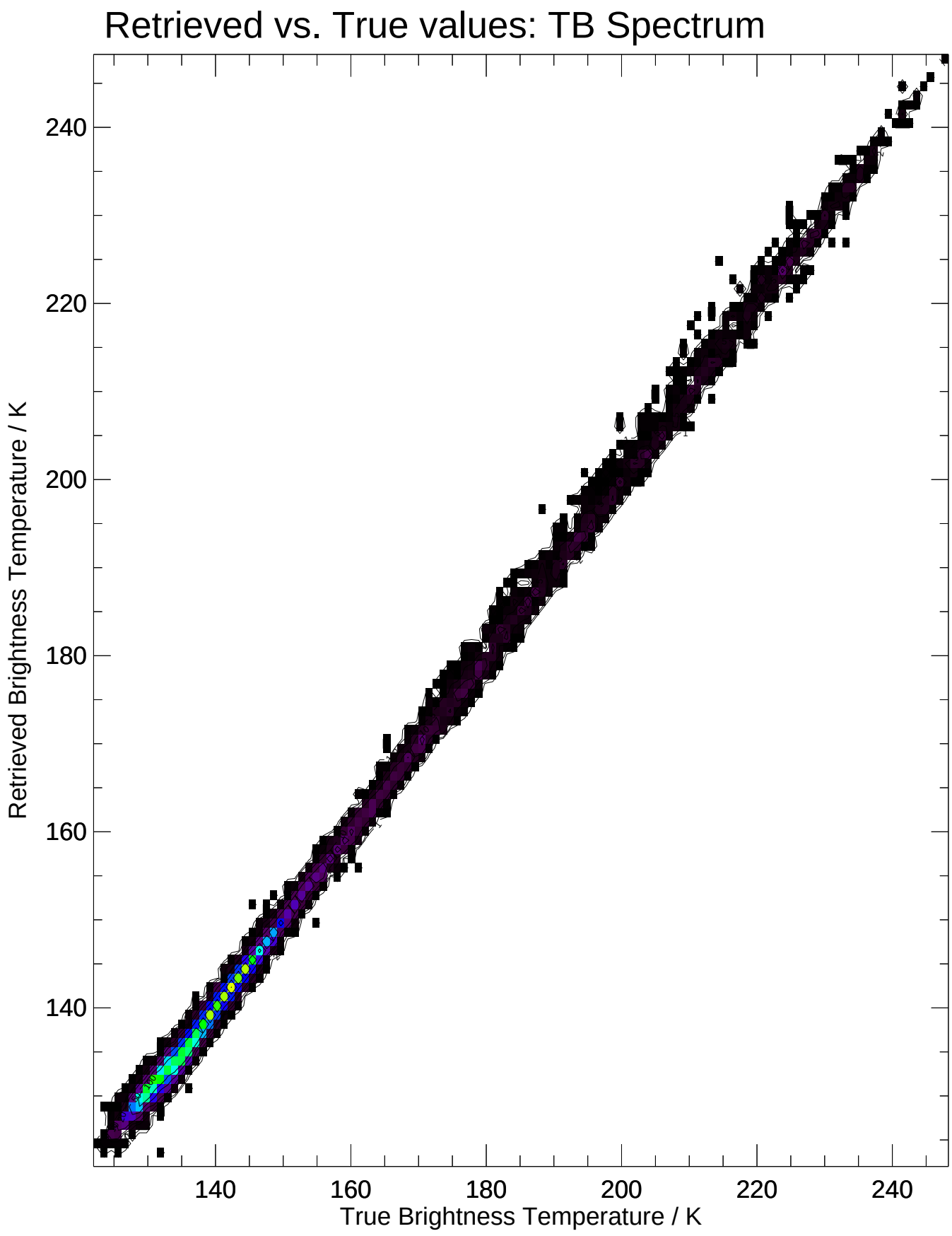

Relative Error (amplitude dependent)
F = 51.850 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.012
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
120
140
160
180
200
220
240
N=1152
N=3203
N=2339
N=731
N=398
N=318
N=277
N=244
N=209
N=196
N=176
N=173
N=180
N=137
N=68
N=19

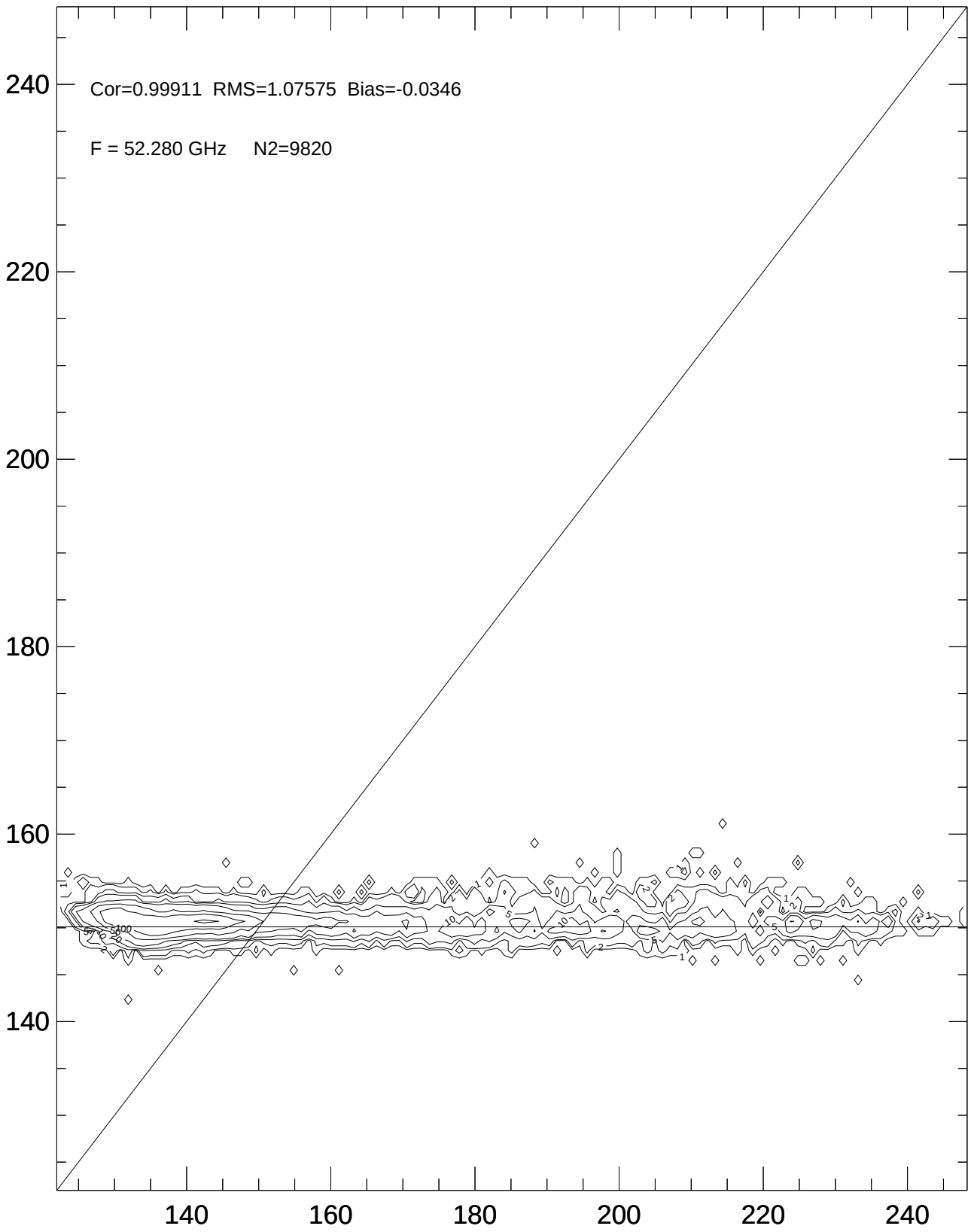

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
120
140
160
180
200
220
240

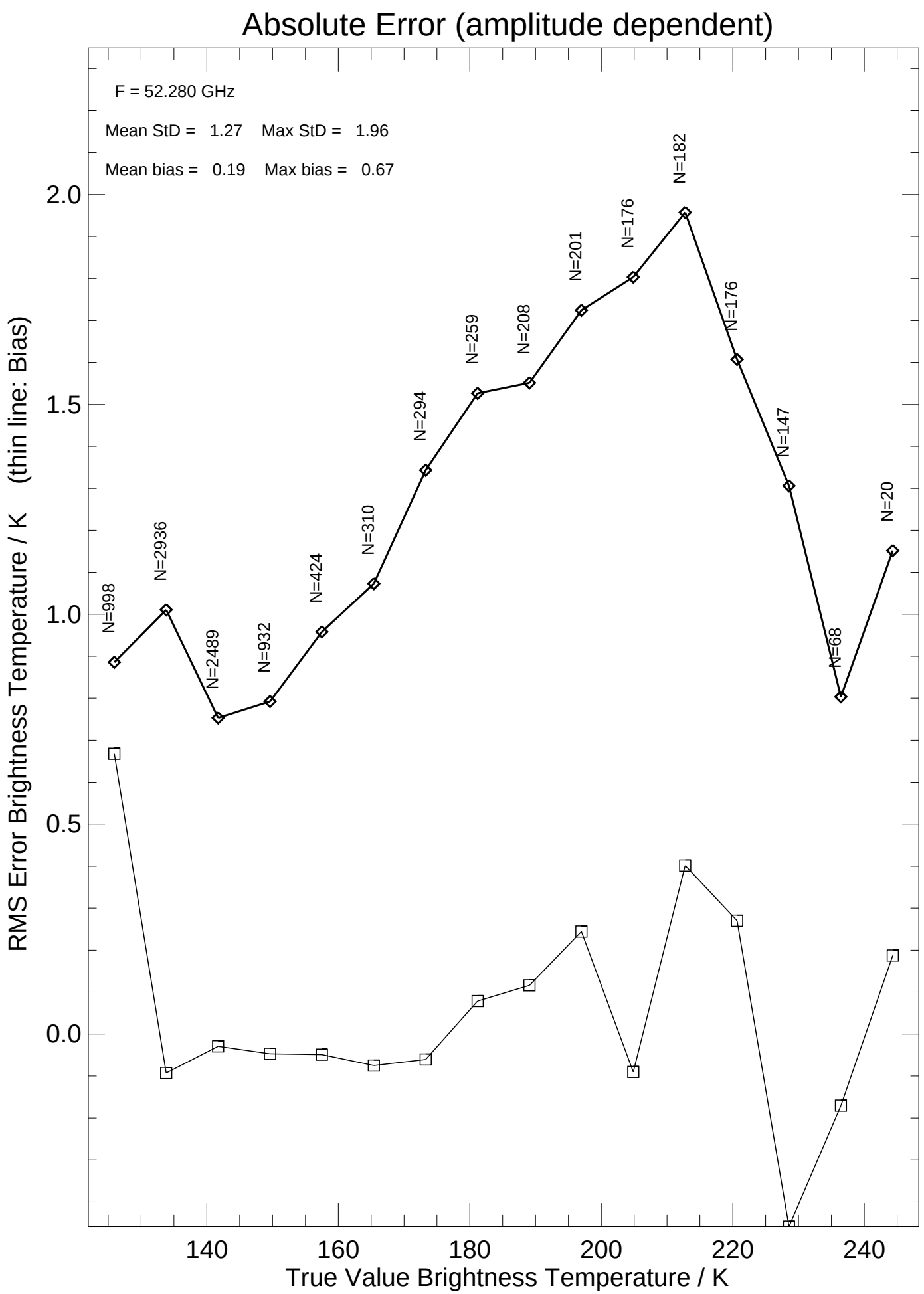

Cor=0.99923 RMS=1.03851 Bias=-0.0327
F = 52.170 GHz N2=9820
240
220
200
180
160
140
120
120
140
160
180
200
220
240

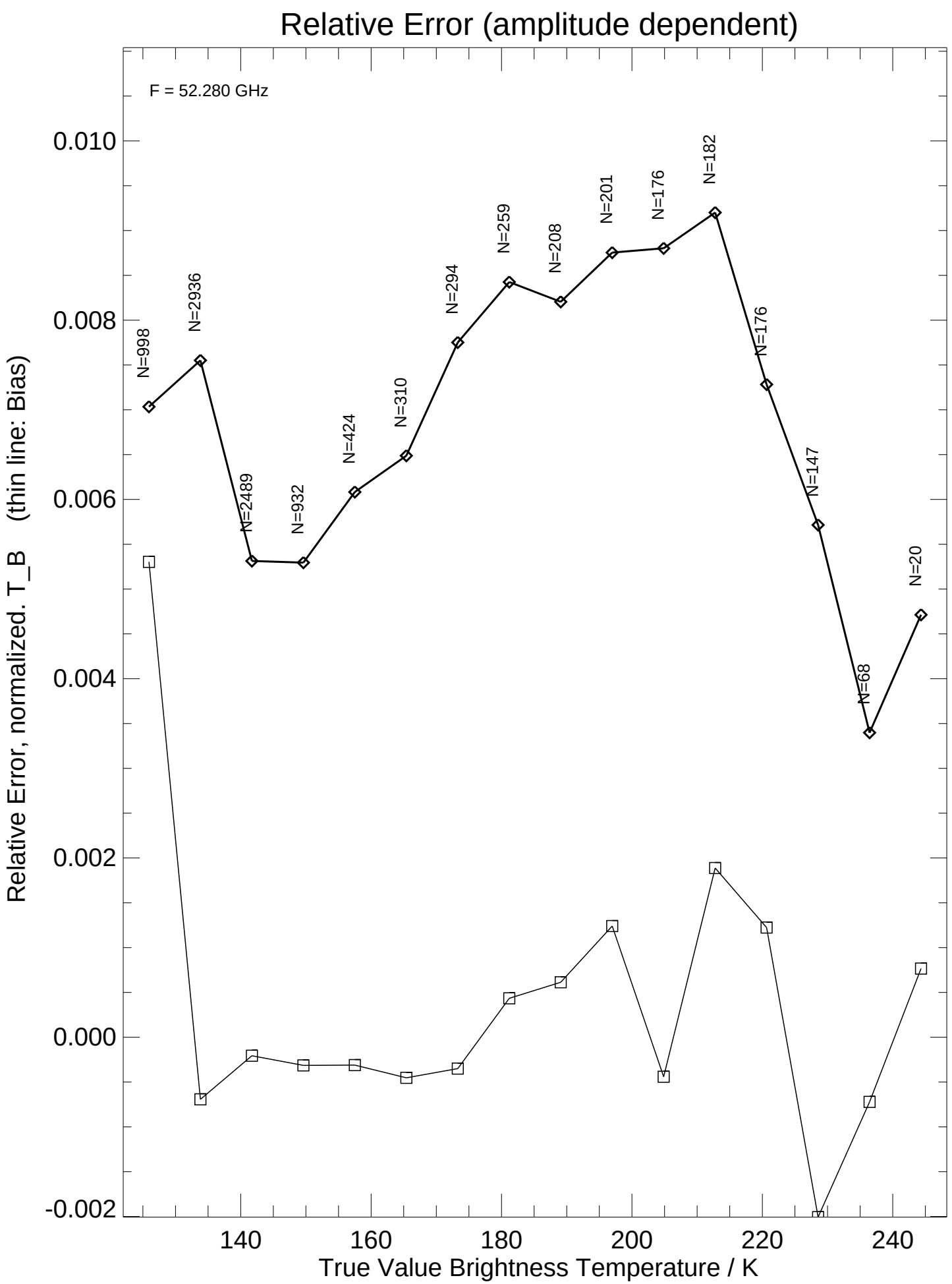

Absolute Error (amplitude dependent)
F = 52.170 GHz
Mean StD = 1.26 Max StD = 2.01
Mean bias = 0.19 Max bias = 0.60
N=1037
N=3007
N=2467
N=866
N=415
N=312
N=287
N=260
N=206
N=197
N=175
N=183
N=174
N=146
N=68
N=20
RMS Error Brightness Temperature / K (thin line: Bias)
2.0
1.5
1.0
0.5
0.0
120
140
160
180
200
220
240
True Value Brightness Temperature / K

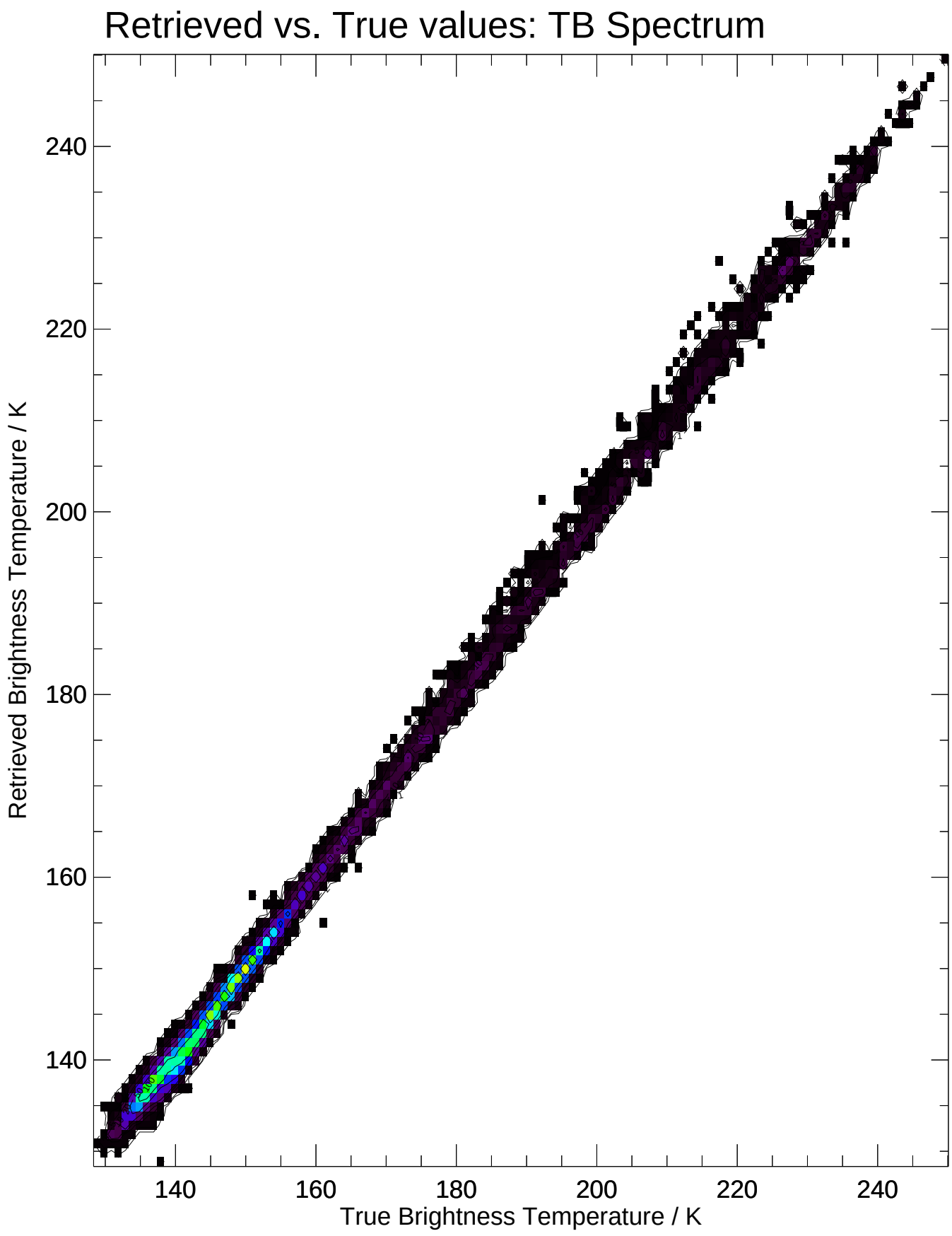

Relative Error (amplitude dependent)
F = 52.170 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
120
140
160
180
200
220
240
N=1037
N=3007
N=2467
N=866
N=415
N=312
N=287
N=260
N=206
N=197
N=175
N=183
N=174
N=146
N=68
N=20

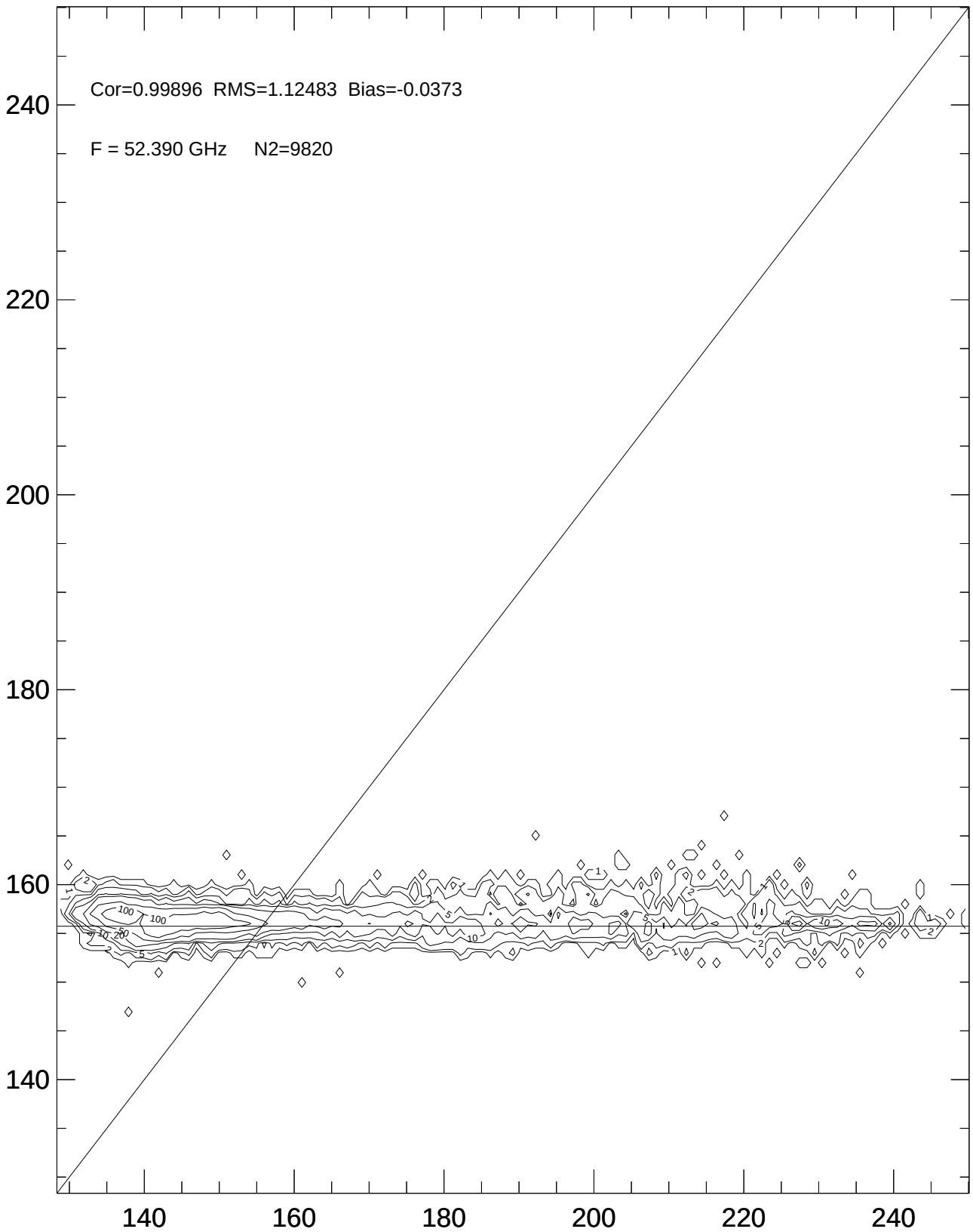

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
140
160
180
200
220
240

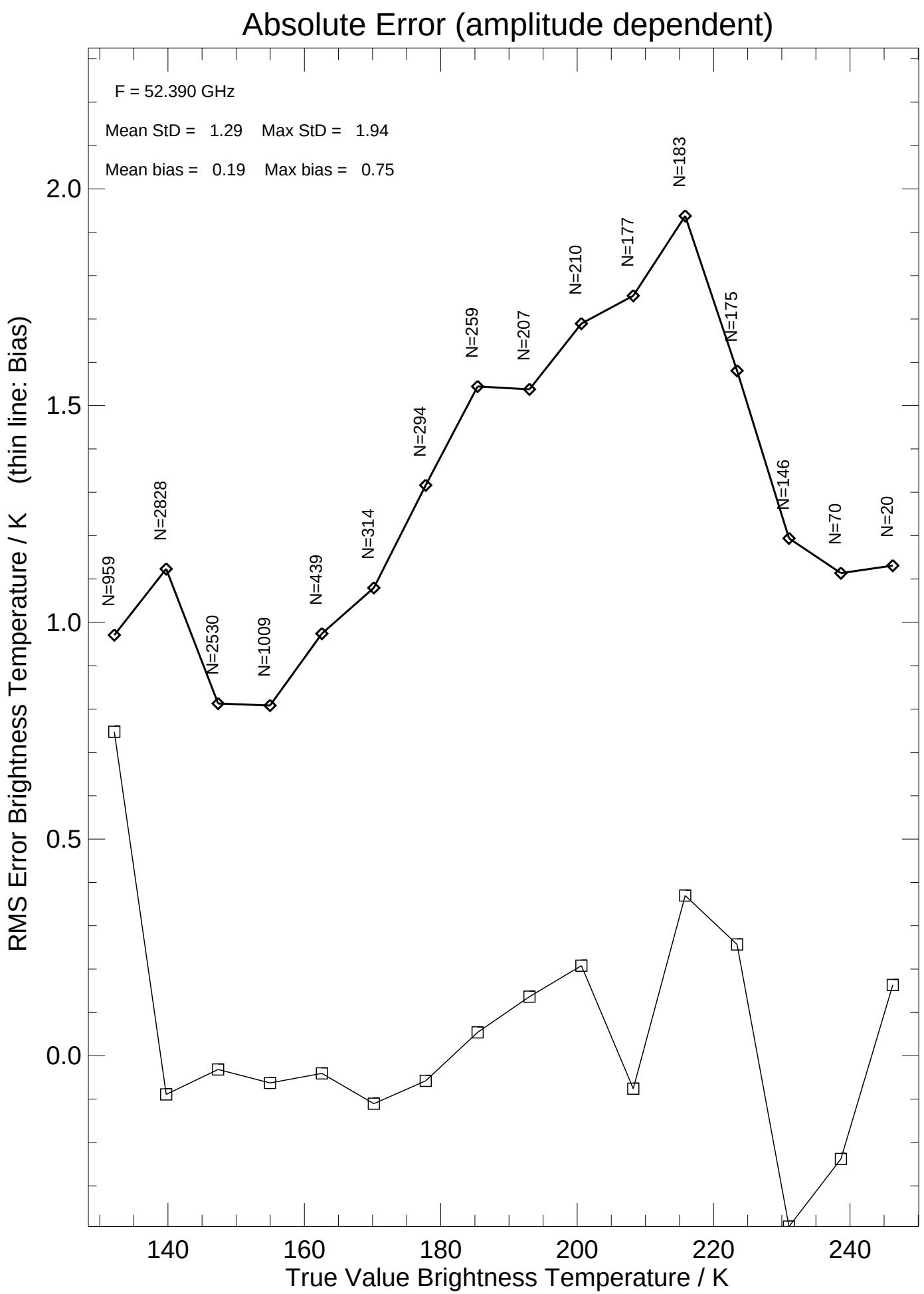

Cor=0.99911 RMS=1.07575 Bias=-0.0346
F = 52.280 GHz N2=9820
240
220
200
180
160
140
140
160
180
200
220
240

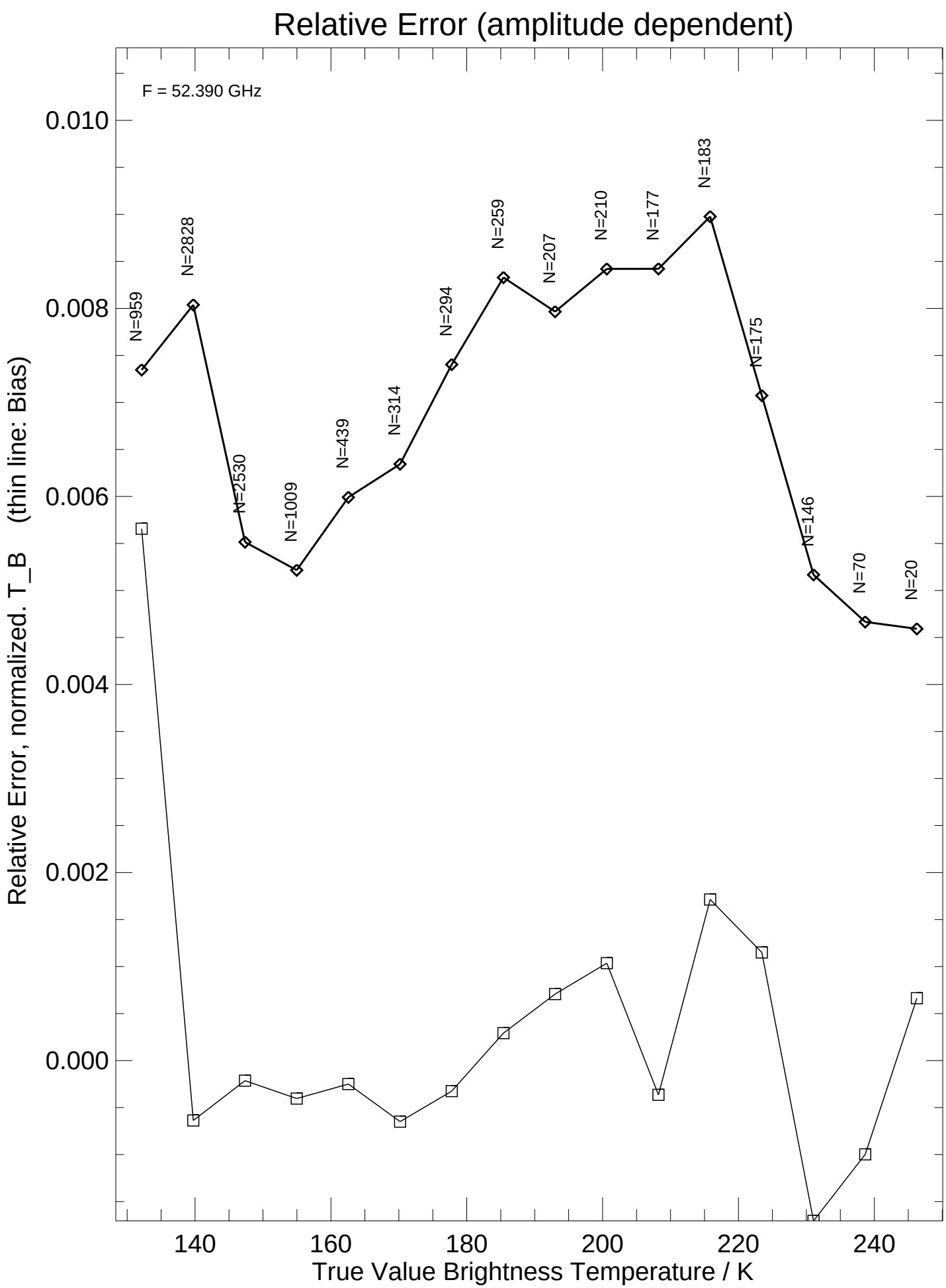

Absolute Error (amplitude dependent)
F = 52.280 GHz
Mean StD = 1.27 Max StD = 1.96
Mean bias = 0.19 Max bias = 0.67
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.0
1.5
1.0
0.5
0.0
140
160
180
200
220
240
N=998
N=2936
N=2489
N=932
N=424
N=310
N=294
N=259
N=208
N=201
N=176
N=182
N=176
N=147
N=68
N=20

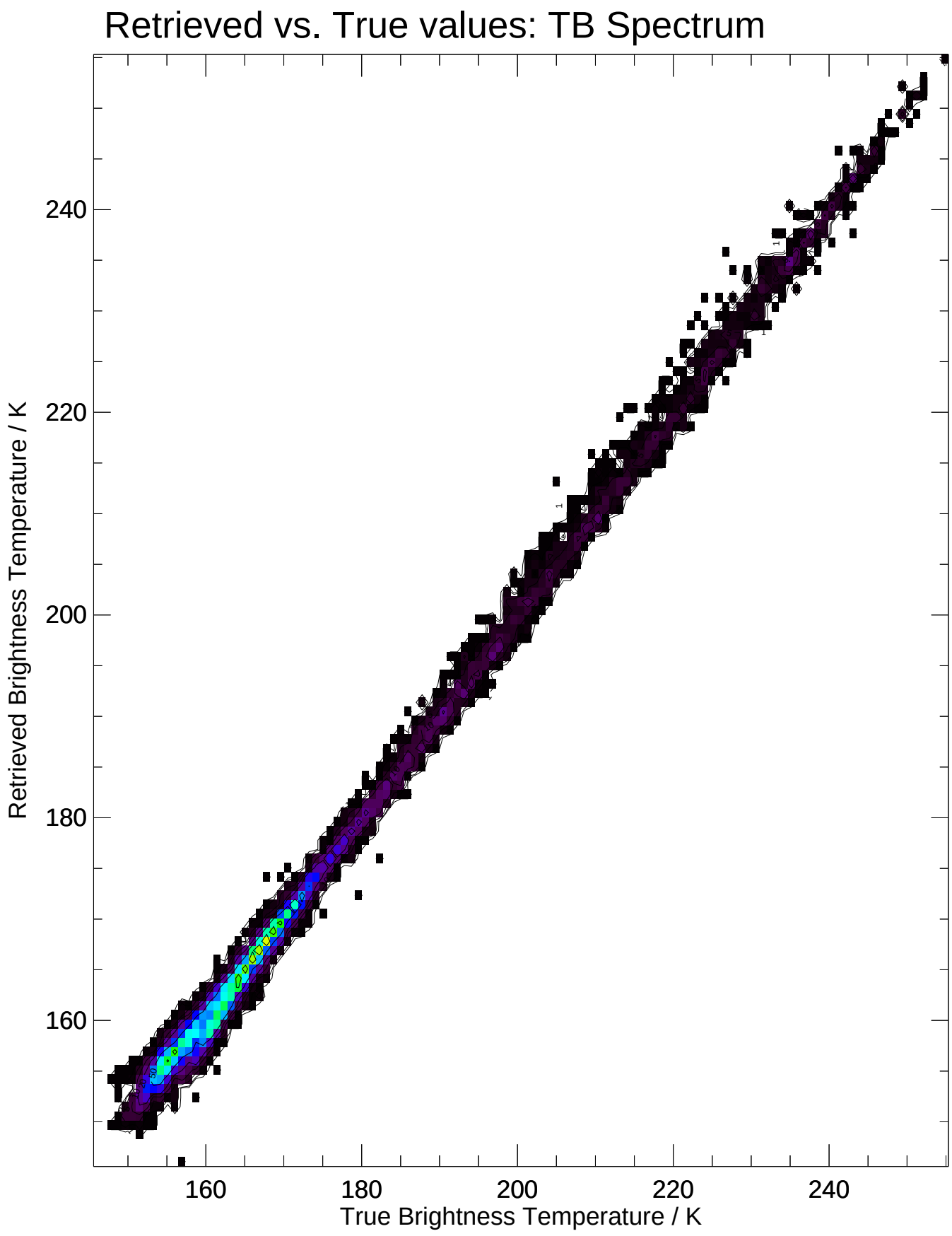

Relative Error (amplitude dependent)
F = 52.280 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
140
160
180
200
220
240
N=998
N=2936
N=2489
N=932
N=424
N=310
N=294
N=259
N=208
N=201
N=176
N=182
N=176
N=147
N=68
N=20

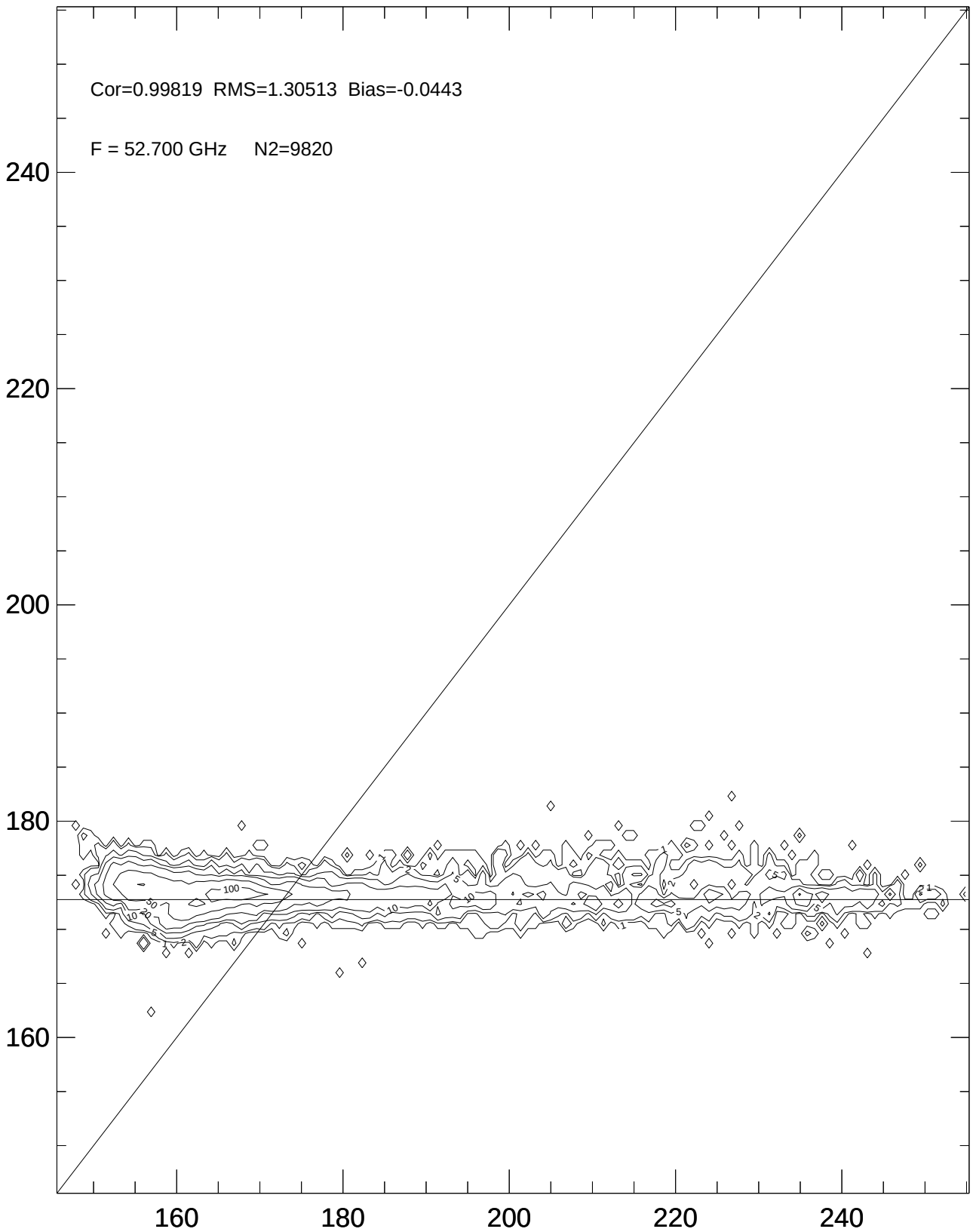

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
140
160
180
200
220
240

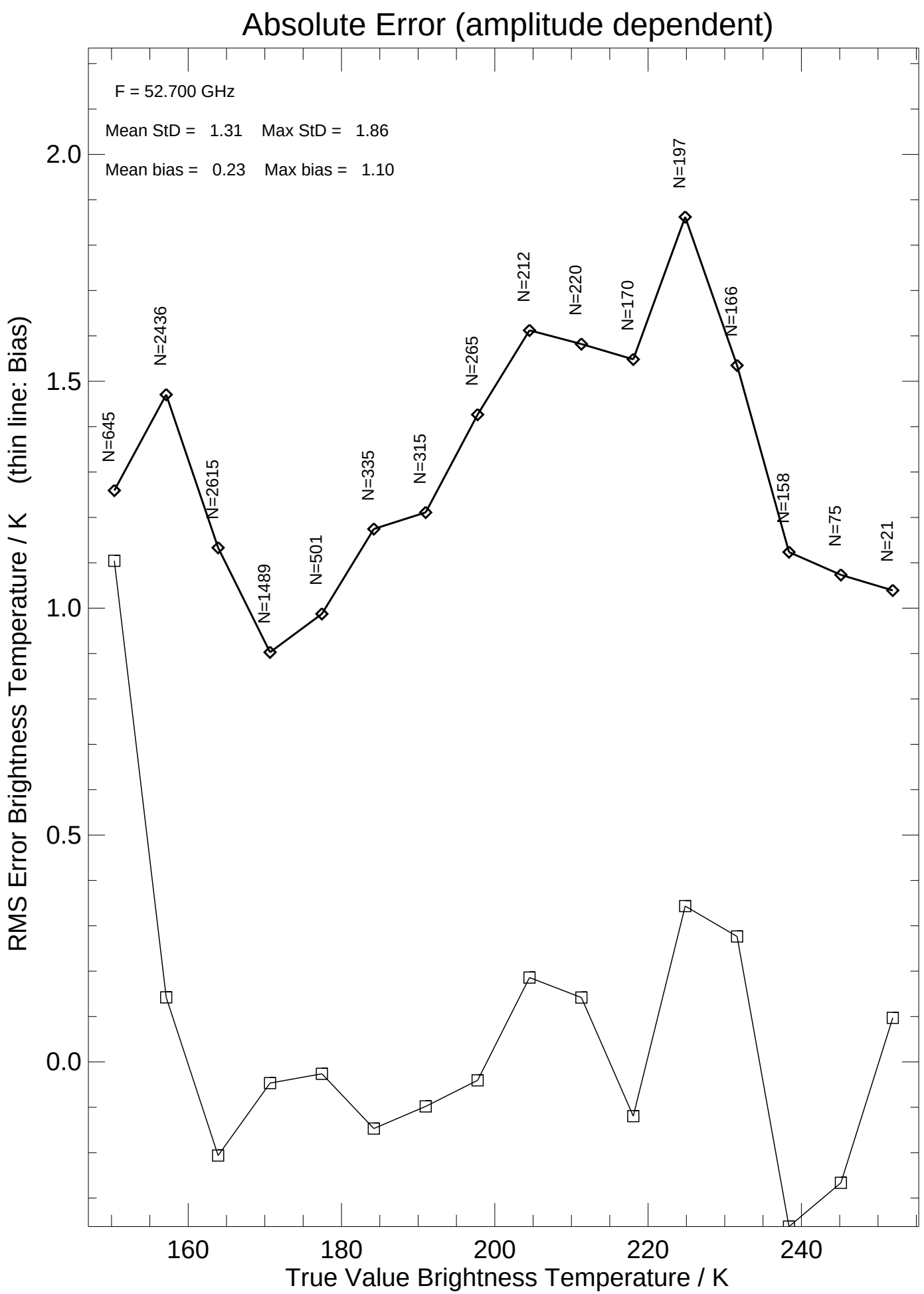

Cor=0.99896 RMS=1.12483 Bias=-0.0373
F = 52.390 GHz N2=9820
240
220
200
180
160
140
140
160
180
200
220
240

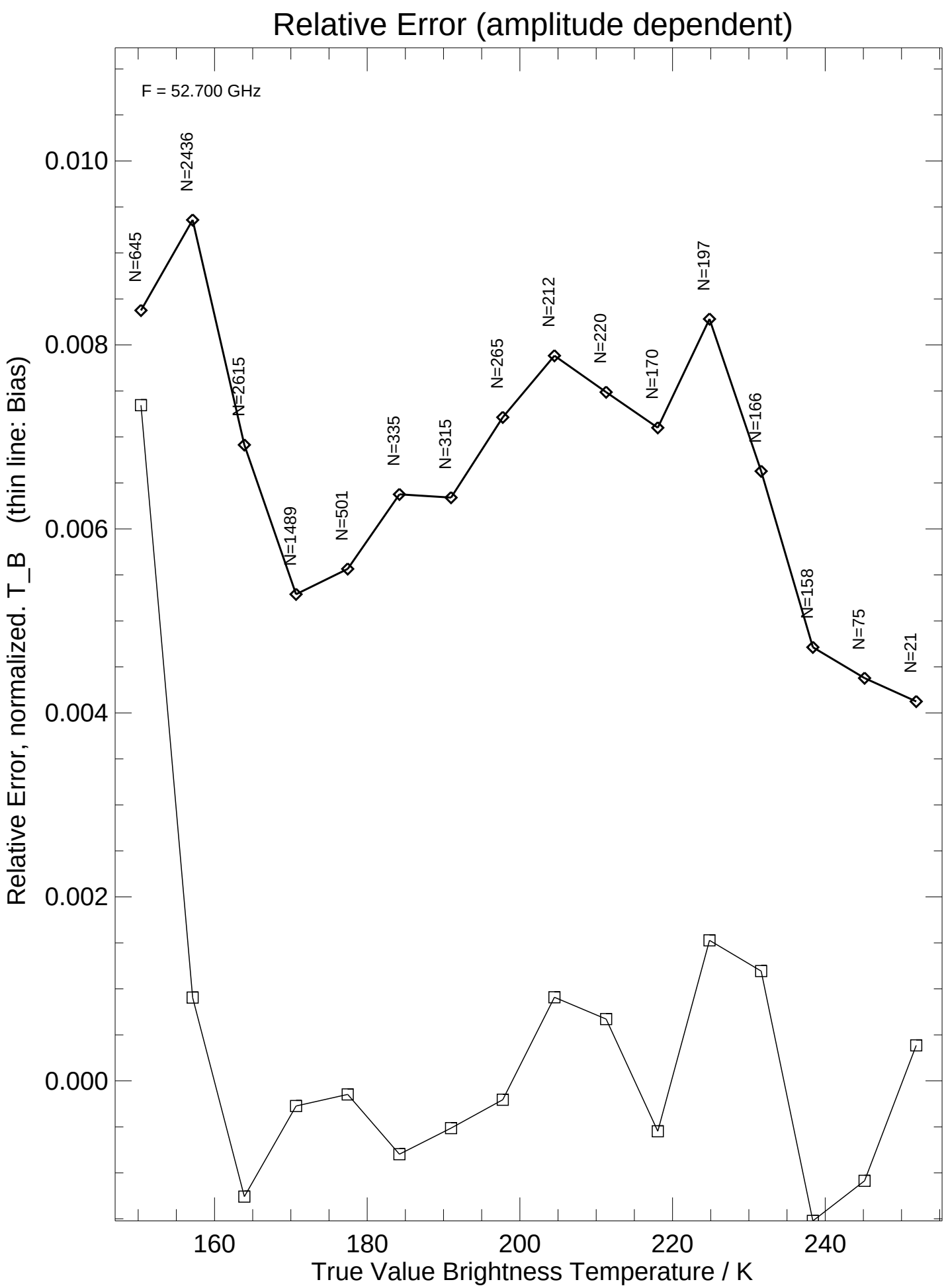

Absolute Error (amplitude dependent)
F = 52.390 GHz
Mean StD = 1.29 Max StD = 1.94
Mean bias = 0.19 Max bias = 0.75
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.0
1.5
1.0
0.5
0.0
140
160
180
200
220
240
N=959
N=2828
N=2530
N=1009
N=439
N=314
N=294
N=259
N=207
N=210
N=177
N=183
N=175
N=146
N=70
N=20

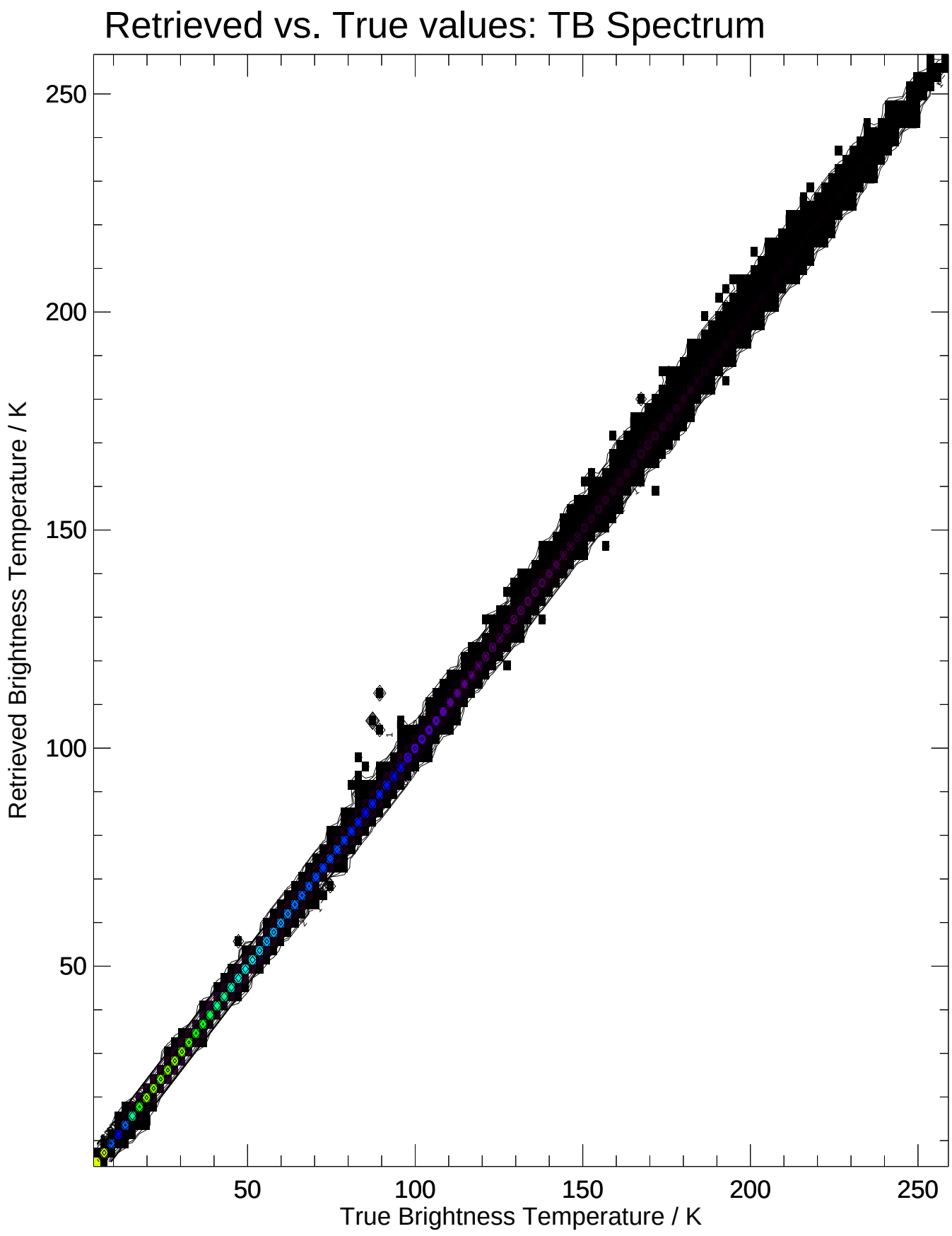

Relative Error (amplitude dependent)
F = 52.390 GHz
Relative Error, normalized. T_B (thin line: Bias)
True Value Brightness Temperature / K
0.010
0.008
0.006
0.004
0.002
0.000
140
160
180
200
220
240
N=959
N=2828
N=2530
N=1009
N=439
N=314
N=294
N=259
N=207
N=210
N=177
N=183
N=175
N=146
N=70
N=20

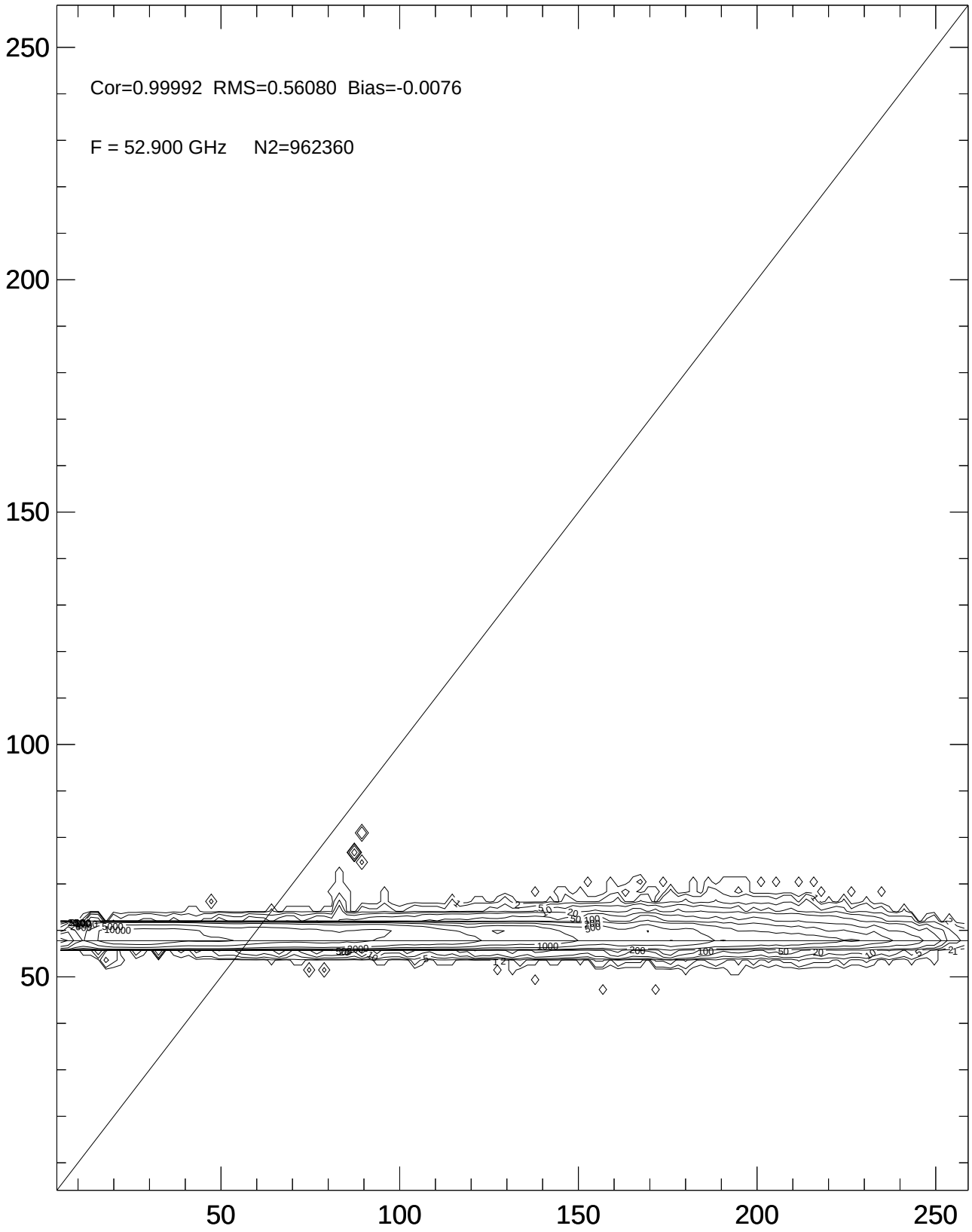

Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
240
220
200
180
160
160
180
200
220
240
True Brightness Temperature / K

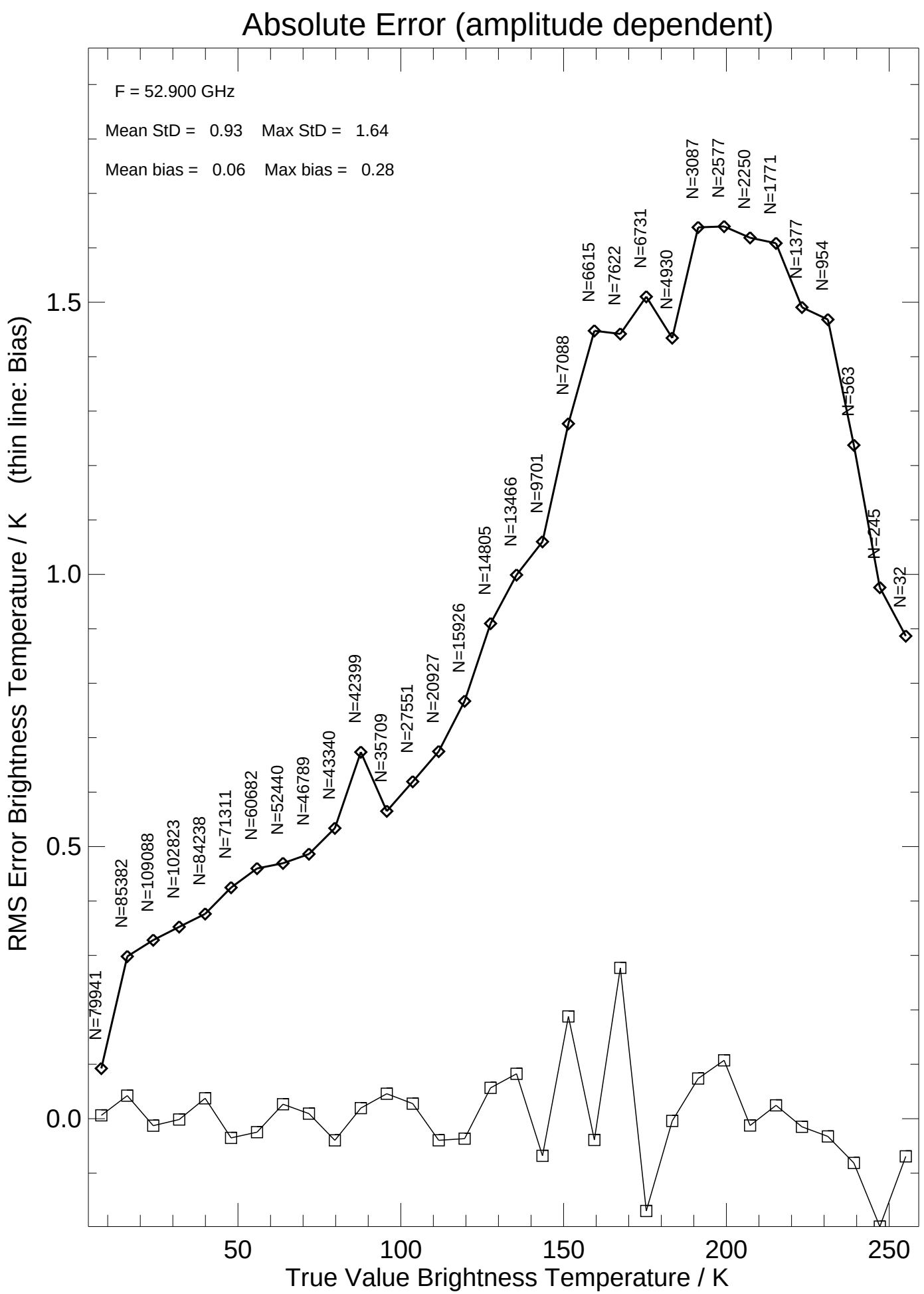

Cor=0.99819 RMS=1.30513 Bias=-0.0443
F = 52.700 GHz N2=9820
240
220
200
180
160
160
180
200
220
240

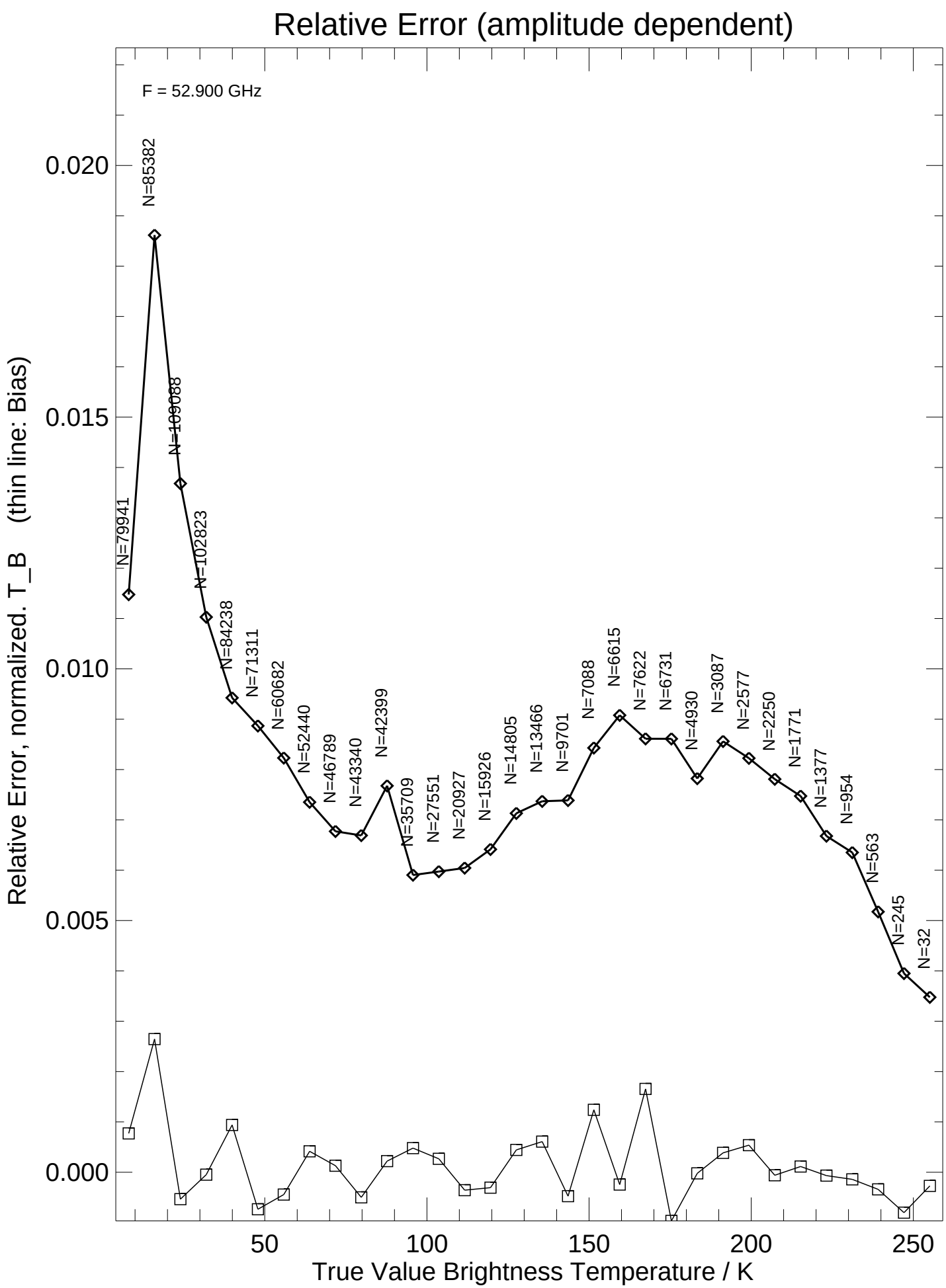

Absolute Error (amplitude dependent)
F = 52.700 GHz
Mean StD = 1.31 Max StD = 1.86
Mean bias = 0.23 Max bias = 1.10
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
2.0
1.5
1.0
0.5
0.0
160
180
200
220
240
N=645
N=2436
N=2615
N=1489
N=501
N=335
N=315
N=265
N=212
N=220
N=170
N=197
N=166
N=158
N=75
N=21


Relative Error (amplitude dependent)
F = 52.700 GHz
N=645
N=2436
N=2615
N=1489
N=501
N=335
N=315
N=265
N=212
N=220
N=170
N=197
N=166
N=158
N=75
N=21
0.010
0.008
0.006
0.004
0.002
0.000
Relative Error, normalized. T_B (thin line: Bias)
160
180
200
220
240
True Value Brightness Temperature / K


Retrieved vs. True values: TB Spectrum
Retrieved Brightness Temperature / K
True Brightness Temperature / K
50
100
150
200
250


Cor=0.99992 RMS=0.56080 Bias=-0.0076
F = 52.900 GHz N2=962360
250
200
150
100
50
50
100
150
200
250


Absolute Error (amplitude dependent)
F = 52.900 GHz
Mean StD = 0.93 Max StD = 1.64
Mean bias = 0.06 Max bias = 0.28
RMS Error Brightness Temperature / K (thin line: Bias)
True Value Brightness Temperature / K
0.0
0.5
1.0
1.5
50
100
150
200
250
N=79941
N=85382
N=109088
N=102823
N=84238
N=71311
N=60682
N=52440
N=46789
N=43340
N=42399
N=35709
N=27551
N=20927
N=15926
N=14805
N=13466
N=9701
N=7088
N=6615
N=7622
N=6731
N=4930
N=3087
N=2577
N=2250
N=1771
N=1377
N=954
N=563
N=245
N=32


Relative Error (amplitude dependent)
F = 52.900 GHz
N=85382
N=109088
N=102823
N=84238
N=79941
N=71311
N=60682
N=52440
N=46789
N=43340
N=42399
N=35709
N=27551
N=20927
N=15926
N=14805
N=13466
N=9701
N=7088
N=6615
N=7622
N=6731
N=4930
N=3087
N=2577
N=2250
N=1771
N=1377
N=954
N=563
N=245
N=32
0.020
0.015
0.010
0.005
0.000
Relative Error, normalized. T_B (thin line: Bias)
50
100
150
200
250
True Value Brightness Temperature / K