

## PC Trace Antenna Gain

Les

The peak gain for the antenna is 1.4dBi. The FCC grant for the module allows the peak gain to be as high as 3.94dBi from the u-blox datasheet mentioned below.

What the FCC is concerned about is that the reported table is actually a peak gain and not an average gain, which it is a peak gain. The concern is because TRP and TIS test results are an average of the pattern, however, the entire 3D pattern around the antenna is measured for those tests. The 3D pattern is what we are using to measure the directivity, TRP is used to calculate efficiency, and peak gain is the addition of those two.

Thanks

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Les

Yes, the table is peak gain. The reason TIS and TRP are mentioned is that is the actual test method used to provide measured the directivity and efficiency, which by addition provides the peak gain.

I updated the table so it is clear that this is peak gain.

Measurement	Channel	Freq (MHz)	Directivity (dBi)	Efficiency (dB)	Peak Gain (dBi)
TIS	L	752.4	2.4	-1.3	1.1
TRP	L	778.04	2.7	-1.3	1.4
TRP	M	782.36	2.6	-1.5	1.1
TRP	H	785.96	2.6	-1.5	1.1

Thanks

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