

Example of PSD Compliance with Higher Gain Antennas:

In the test report, at 5.3GHz the output power tested after the RF cable is 2.3dBm. This allows 27.7dBi gain antenna so that the +30dBm EIRP limit will be met (During testing, EIRP was of 28.4+2.3=30.7dBm. The higher-than-limit EIRP ensures compliance when equipment is used under the limit). Under the tested radio output power, the PSD tested was -10.8dBm/MHz. When using the SSD4-52A antenna with the radio tested to +30dBm EIRP, the radio output power will have to be tuned down to 1.6dBm, which results in a reduction in PSD to -11.5dBm. The following table shows PSD compliance situation using antenna gain of different gains.

G_{ant}	P_{out}	P_{out} limit	PSD [-10.8 – (2.3-P_{out})]	PSD limit [11-(G_{ant} - 6)]
28.4dBi	1.6	1.6	-11.8	-11.4
34.1	-4.1	-4.1	-17.5	-17.1
36.9	-6.9	-6.9	-20.3	-19.9