

### Output power and PSD verification

Model: WL11A

FCC ID: ACJ9TGWL11A

The WL11A module is used with transmitting antenna of directional gain greater than 6dBi. According to FCC 15.247(b)(4) and 15.407(a), the conducted output power shall be reduced below the stated values in FCC 15.247 (b)(3) and 15.407(a) by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

This document demonstrates compliance for WL11A Module with the reduced conducted output power limit.

Table 1: SISO

Frequency (MHz)	Antenna Gain (dBi)	Output power (W)	Output power (dBm)	Output Power FCC Limit (dBm)	Max. permitted output power with antenna gain exceeds 6dBi (dBm)	PSD	PSD FCC Limit	Max. permitted PSD with antenna gain exceeds 6dBi
5180-5240	6.74	0.032	15.1	17	<b>16.26</b>	2.3 dBm/MHz	4 dBm/MHz	<b>3.26 dBm/MHz</b>
5190-5230	6.74	0.030	14.7	17	<b>16.26</b>	-0.6 dBm/MHz	4 dBm/MHz	<b>3.26 dBm/MHz</b>
5260-5320	6.74	0.028	14.4	24	<b>23.26</b>	1.8 dBm/MHz	11 dBm/MHz	<b>10.26 dBm/MHz</b>
5270-5310	6.74	0.029	14.6	24	<b>23.26</b>	-0.8 dBm/MHz	11 dBm/MHz	<b>10.26 dBm/MHz</b>
5500-5700	5.94	0.033	15.2	<b>24</b>	N/A	2.5 dBm/MHz	11 dBm/MHz	N/A
5510-5670	5.94	0.034	15.3	<b>24</b>	N/A	-0.1 dBm/MHz	11 dBm/MHz	N/A
5745-5825	6.22	0.036	15.6	30	<b>29.78</b>	-8.5 dBm/3kHz	8 dBm/3kHz	<b>7.78 dBm/3kHz</b>
5755-5795	6.22	0.12	20.8	30	<b>29.78</b>	-9 dBm/3kHz	8 dBm/3kHz	<b>7.78 dBm/3kHz</b>

Table 2: MIMO (2X2)

Frequency (MHz)	Antenna Gain (dBi)	Total Output power (W)	Total Output power (dBm)	Output Power FCC Limit (dBm)	Max. permitted output power with antenna gain exceeds 6dBi (dBm)	Total PSD	PSD FCC Limit	Max. permitted PSD with antenna gain exceeds 6dBi
5180-5240	6.74	0.0255	14.1	17	<b>16.26</b>	1.3 dBm/MHz	4 dBm/MHz	<b>3.26 dBm/MHz</b>
5190-5230	6.74	0.0263	14.2	17	<b>16.26</b>	-1.0 dBm/MHz	4 dBm/MHz	<b>3.26 dBm/MHz</b>
5260-5320	6.74	0.0238	13.8	24	<b>23.26</b>	1.0 dBm/MHz	11 dBm/MHz	<b>10.26 dBm/MHz</b>
5270-5310	6.74	0.0255	14.1	24	<b>23.26</b>	-1.1 dBm/MHz	11 dBm/MHz	<b>10.26 dBm/MHz</b>
5500-5700	5.94	0.0306	14.9	<b>24</b>	N/A	2.3 dBm/MHz	11 dBm/MHz	N/A
5510-5670	5.94	0.0289	14.6	<b>24</b>	N/A	-0.6 dBm/MHz	11 dBm/MHz	N/A
5745-5825	6.22	0.035	15.5	30	<b>29.78</b>	-8.1 dBm/3kHz	8 dBm/3kHz	<b>7.78 dBm/3kHz</b>
5755-5795	6.22	0.134	21.3	30	<b>29.78</b>	-9.5 dBm/3kHz	8 dBm/3kHz	<b>7.78 dBm/3kHz</b>