

RF Power Output Measurement

hField Technologies
FCC ID: UILHFWFG10

Peak Power Limit:

The power output limit for the device as derived from CFR Title 47, Part 15, Section 15.247(b)(3), reduced in accordance with 15.247 (b)(4).

Maximum allowed power output = 1 Watt = 30 dBm

EUT antenna Gain = 10.4 dBi

Therefore the limit is reduced by: Antenna Gain - 6 db = 10.4 - 6 dB = 4.4 dB

The maximum allowed power output given a 10.4 dBi gain antenna is therefore:

$$30 \text{ dBm} - 4.4 \text{ dB} = 25.6 \text{ dBm} = 363.1 \text{ mW}$$

Conducted Peak RF Power output of the equipment under test was measured as follows:

- 1) The antenna was removed from the EUT at the PC board U.FL connector.
- 2) A U.FL to SMA adaptor was connected to the EUT RF connector.
- 3) The SMA connector was connected directly to a 10 dB attenuator (Aeroflex Model 75A-10-12, DC to 40 GHZ) which was connected directly to the input of the peak power meter (No RF cabling was utilized).
- 4) The EUT was configured to transmit data continuously on Channel 1.
- 5) The peak output power was measured at four (4) data rates. (1.0, 2.0, 5.5 and 11 MBPS) utilizing a Wavetek Model 1018B RF Peak Power Meter.
- 6) These steps were repeated for Channels 6 and 11.

All measurements performed at Retlif Testing Laboratories, Ronkonkoma, NY.

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EUT Channel	EUT Data Rate	Meter Reading	Atten	Corrected Reading	Converted	Limit
	MBPS	dBm	dB	dBm	mW	mW
1	1.0	5.0	10.0	15.0	31.62	363.1
1	2.0	4.8	10.0	14.8	30.20	363.1
1	5.5	4.0	10.0	14.0	25.12	363.1
1	11.0	3.6	10.0	13.6	22.91	363.1
6	1.0	5.9	10.0	15.9	38.90	363.1
6	2.0	5.9	10.0	15.9	38.90	363.1
6	5.5	5.1	10.0	15.1	32.36	363.1
6	11.0	4.8	10.0	14.8	30.20	363.1
11	1.0	5.8	10.0	15.8	38.02	363.1
11	2.0	6.1	10.0	16.1	40.73	363.1
11	5.5	5.2	10.0	15.2	33.11	363.1
11	11.0	5.2	10.0	15.2	33.11	363.1