

**Test Number: 504-11R3**
**Issue Date: 03/24/2014**

## 7. Measurement Data (continued)

### 7.10. Public Exposure to Radio Frequency Energy Levels

Requirement: (15.407(f))

U-NII devices are subject to the radio frequency radiation exposure requirements specified in 47CFR 1.1307(b), FCC 47 CFR 2.1091 and 47 CFR 2.1093, as appropriate. All equipment shall be considered to operate in a "general population/uncontrolled" environment. Applications for equipment authorization of devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request

Procedure: The power density is calculated from the peak field strength and device antenna gain.

$$PD = \frac{OP + AG}{(4 \times \pi \times d^2)}$$

PD	Power Density	mW/cm <sup>2</sup>
OP	DUT Output Power	dBm
AG	DUT Antenna Gain	dBi
d	MPE Distance	cm

Conclusion: The device under test is meets radio frequency radiation exposure requirements specified in 47CFR 1.1307(b), § 2.1091 and § 2.1093.

#### Power Calculated from Peak Field Strength

Channel	Frequency	Field Strength	Distance	Antenna Gain <sup>1</sup>	Measured Output Power		Time Averaged Power				
					(MHz)	(dB $\mu$ V/m)	(m)	(dBi)	(mW)	(dBm)	(mW)
36	5180	108.53	3.0	1.0	5180	108.53	3.0	1.0	16.99	12.30	0.0002718
40	5200	108.82	3.0	1.0	5200	108.82	3.0	1.0	18.16	12.59	0.0002906
48	5240	109.29	3.0	1.0	5240	109.29	3.0	1.0	20.24	13.06	0.0003238
52	5260	109.42	3.0	1.0	5260	109.42	3.0	1.0	20.85	13.19	0.0003336
64	5320	107.00	3.0	1.0	5320	107.00	3.0	1.0	11.94	10.77	0.0001911
100	5500	112.57	3.0	1.0	5500	112.57	3.0	1.0	43.06	16.34	0.0006890
116	5580	112.86	3.0	1.0	5580	112.86	3.0	1.0	46.04	16.63	0.0007366
140	5700	113.01	3.0	1.0	5700	113.01	3.0	1.0	47.66	16.78	0.0007625
149	5745	114.22	3.0	1.0	5745	114.22	3.0	1.0	62.97	17.99	0.0010075
153	5765	113.96	3.0	1.0	5765	113.96	3.0	1.0	59.31	17.73	0.0009489
161	5805	114.46	3.0	1.0	5805	114.46	3.0	1.0	66.55	18.23	0.0010647

<sup>1</sup> Taken from the antenna manufacturer's data guide.

Test Number: 504-11R3

Issue Date: 03/24/2014

## 7. Measurement Data (continued)

### 7.10. Public Exposure to Radio Frequency Energy Levels (continued)

Channel Frequency	MPE Distance (cm)	DUT Output Power (dBm)	Time Averaged Power	DUT Antenna Gain (dBi)	Power Density		Limit (mW/cm2)	Result
					(mW/cm2)	(W/m2)		
					(1)	(2)	(3)	(4)
5180	2.5	12.30	-35.66	1.0	0.000004	0.00004	1	Compliant
5200	2.5	12.59	-35.37	1.0	0.000005	0.00005	1	Compliant
5240	2.5	13.06	-34.90	1.0	0.000005	0.00005	1	Compliant
5260	2.5	13.19	-34.77	1.0	0.000005	0.00005	1	Compliant
5320	2.5	10.77	-37.19	1.0	0.000003	0.00003	1	Compliant
5500	2.5	16.34	-31.62	1.0	0.000011	0.00011	1	Compliant
5580	2.5	16.63	-31.33	1.0	0.000012	0.00012	1	Compliant
5700	2.5	16.78	-31.18	1.0	0.000012	0.00012	1	Compliant
5745	2.5	17.99	-29.97	1.0	0.000016	0.00016	1	Compliant
5765	2.5	17.73	-30.23	1.0	0.000015	0.00015	1	Compliant
5805	2.5	18.23	-29.73	1.0	0.000017	0.00017	1	Compliant

1. Reference CFR 2.1093(b): For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 2.5 centimeters of the body of the user.
2. Peak field strength values derived from measurements taken for Section 6.1 of this test report.
3. Data supplied by the client.
4. Power density is calculated from field strength measurement and antenna gain. Reference the procedure outlined above.
5. Reference FCC 47CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure.

**The transmitter covered in this test report can be operated with other transmitters within the device. A separate Public Exposure Exhibit will be generated for its co-location.**