6. Measurement Data (continued)

6.8. Public Exposure to Radio Frequency Energy Levels (15.247(i) (1.1307 (b)(1)) RSS-GEN 5.5, RSS 102

6.8.1. Note: The following equation is used to determine the output power from the measured worst case field strength:

$$P = \frac{(E \times d)^2}{(30 \times G)}$$

P = the power in Watts.
E = the measured maximum field in V/m
G = the numeric gain of the transmitting antenna over an isotropic radiator.
d = the distance in meters of the field strength measurement.

Channel	Frequency	Peak Field Strength	Distance	Antenna Gain[1]	Measured Output Power
	(GHz)	(dBµV/m)	(m)	(dBi)	(mW)
LCA	24.060390	105.55	3.0	12.200	0.649
BSD	24.200005	106.07	3.0	12.200	0.731
RCTA	24.060390	108.48	3.0	12.200	1.274
RCTA	24.200400	109.26	3.0	12.200	1.524

Channel	MPE Distance (cm)	DUT Output Power (dBm)	DUT Antenna Gain (dBi)	Power Density		Limit (mW/cm²)	Result
				(mW/cm^2)	(W/m^2)		
	(1)	(2)	(3)	(4)		(5)	
LCA	20	-1.88	12.20	0.0021422	0.0214216	1	Compliant
BSD	20	-1.36	12.20	0.0024146	0.0241463	1	Compliant
RCTA	20	1.05	12.20	0.0042058	0.0420583	1	Compliant
RCTA	20	1.83	12.20	0.0050333	0.0503328	1	Compliant

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

PD = Power Density (mW/cm2)
OP = DUT Output Power (dBm)
AG = DUT Antenna Gain (dBi)
d = MPE Distance (cm)

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 20 centimeters of the body of the user.
2. Sections 6.2 of this test report.
3. Antenna gain data provided by the client.
4. Power density is calculated from field strength measurement and antenna gain.
5. Reference CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure.

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