## 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

Note: To determine the DUT output power from the measured field strength, the following formula was used and the results are displayed in the first table:

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

- 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.

| Frequency | Peak Field Strength | Distance | Antenna Gain[1] | Measured Output Power |
|---|---|---|---|---|
| (MHz) | (dBµV/m) | (m) | (dBi) | (mW) |
| 908.4 | 91.70 | 3.0 | 4.00 | 0.1766531 |

| Channel Frequency (MHz) | MPE Distance (cm) | DUT Output Power (dBm) | DUT Antenna Gain (dBi) | Power Density | | Limit (mW/cm2) | Result |
|---|---|---|---|---|---|---|---|
| | | | | (mW/cm2) | (W/m2) | | |
| | (1) | (2) | (3) | (4) | | (5) | |
| 908.4 | 20 | -7.53 | 4.00 | 0.0000883 | 0.0008828 | 1 | Compliant |

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

- PD = Power Density ($mW/cm^2$)
- 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 2.5 centimeters of the body of the user.
2. Section 6.2 of this test report. Field strength was converted to power using the method described above.
3. Data supplied by the client. Antenna specification data of worst case antenna used by the DUT.
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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