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Client: Banner Engineering Corporation
Model: RM912HP
Standards: FCC 15.247/IC RSS-210
ID's: UE3RM912HP/7044A-RM912HP
Report #: 2009324

Appendix A: FCC Part 1.1307, 1.1310, 2.1091, 2.1093; IC RSS-Gen: RF Exposure

RF Exposure Calculation – MPE (Frequency Hopping Mode)

Using FCC 1.1310 Table 1A as guidance, the maximum permissible RF exposure for an uncontrolled environment is f/1500 of 0.6 mW/cm^2 for the frequencies used in this device. The worst case power is used for the calculation below.

The actual safe distance for the EUT is calculated as shown below:.

$$S = (P \times G)/(4 \times \pi \times d^2)$$

where:
S = power density
P = transmitter conducted power in (W) (including duty cycle, if applicable)
G = antenna numeric gain
d = distance to radiation center (m)

The power used for this calculation is a source based time averaged power utilizing the duty cycle from section 4 of this report (67%) – note that this device uses a Banner Engineering Corporation proprietary modulation scheme so a source based time average may be used.

Frequency (MHz)	Antenna Gain (dBi)	Conducted Power (W)	Separation Distance (cm)	Power Density (mW/cm^2)
903	8	0.64	23	0.6

NOTICE:

RF Exposure Statement

This equipment shall be installed and operated with an antenna with gain not more than 8 dBi and installed with a minimum of 23 cm of separation distance between the antenna and all persons during normal operation.