11 FCC §1.1307(b), §27.52 & §2.1091 - RF EXPOSURE INFORMATION

11.1 Applicable Standard

According to FCC §1.1310 and §2.1091 (Mobile Devices) RF exposure is calculated.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	[1] (100)	30
1.34-30	824/f	2.19/f	[1] ($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Note: f = frequency in MHz
[1] = Plane-wave equivalent power density

11.2 MPE Prediction

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density
P = power input to antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal (dBm):	8.57
Maximum peak output power at antenna input terminal (mW):	7.19
Prediction distance (cm):	60
Prediction frequency (MHz):	2501
Antenna Gain, typical (dBi):	14
Maximum Antenna Gain (numeric):	25.11
Power density at predication frequency and distance (mW/cm^2):	0.004
MPE limit for uncontrolled exposure at predication frequency (mW/cm^2):	1.0

(Note: The MPE was calculated assuming the cable loss between EUT and the antenna was 0 dB.)

11.3 Test Result

For downlink, the indoor antenna with 14 dBi gain should have at least 60 cm prediction distance to meet the MPE limit. The distance needs to be addressed in the user manual.