47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Limits

The EUT shows compliance to the requirements of this section, which states the MPE limits for general population / uncontrolled exposure are as shown below:

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (min)
0.3 - 1.34	614	1.63	100 Note 2	30
1.34 - 30	824 / f	2.19 / f	$180 / f^2$ Note 2	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	-	-	f / 1500	30
1500 - 100000	-	-	1.0	30
Notes				
1. f = frequency in MHz				
2. Plane wave equivalent power density				

47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Test Instrumentation

Instrument	Model	S/No	Cal Due Date
PMM 8053 Portable Field Meter	8053	0220J10308	20 Jan 2019
PMM EP330 Electric Field Probe	EP330	1010J10301	20 Jan 2019
R&S Universal Radio Communication Tester	CMU 200	837587/068	24 Dec 2017

47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Results

Operating Mode	PCS 850 Transmit	Temperature	24°C
Test Input Power	12.5Vdc	Relative Humidity	60%
Test Distance	20cm	Atmospheric Pressure	1030mbar
Mode	GSM 850 + WiFi 802.11b @ 11MBps (Worst)	Tested By	Chelmin Li

Channel	Channel Frequency (MHz)	Power Density Value (mW/cm^2)	Averaging Time (min)	Limit (mW/cm^2)
128	824.2000	0.0369	30	0.56
189	836.4000	0.0006	30	0.56
251	848.8000	0.0016	30	0.56

Operating Mode	PCS 1900 Transmit	Temperature	24°C
Test Input Power	12.5Vdc	Relative Humidity	60%
Test Distance	20cm	Atmospheric Pressure	1030mbar
Mode	GSM 1900 + WiFi 802.11b @ 11MBps (Worst)	Tested By	Chelmin Li

Channel	Channel Frequency (MHz)	Power Density Value (mW/cm^2)	Averaging Time (min)	Limit (mW/cm^2)
512	1850.2000	0.0029	30	1.0
661	1880.0000	0.0005	30	1.0
810	1909.8000	0.0010	30	1.0

Notes

1. All possible modes of operation were investigated. Only the worst case highest radiation levels were measured. Measurements were taken at the required averaging time. All other radiation levels were relatively insignificant.
2. A "positive" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency. Conversely, a “negative” margin indicates a FAIL.
3. The EUT shall maintain a minimum distance separation of 60cm from users during operation.
4. Maximum Permissible Exposure (MPE) Measurement Uncertainty
   All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 0.1MHz – 3GHz is ±15%.