Savari, Inc. FCC ID: 2AADT-SDR1000

4 FCC §2.1091- RF Exposure

4.1 Applicable Standard

According to FCC §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* (100)	30
1.34-30	824/f	2.19/f	* (180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

4.2 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

4.3 MPE Results

Report Number: R1805313-90&95

RSU:

Maximum peak output power at antenna input terminal (dBm): 9.62

Maximum peak output power at antenna input terminal (mW): 9.16

Prediction distance (cm): 20

Prediction frequency (MHz): 5875

Maximum Antenna Gain, typical (dBi): 6

Maximum Antenna Gain (numeric): 3.98

Power density of prediction frequency at 20 cm (mW/cm²): 0.007253

MPE limit for uncontrolled exposure at prediction frequency (mW/cm²): 1

The device compliances with FCC MPE limit at 20 cm distance.

^{* =} Plane-wave equivalent power density

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OBU:

Maximum peak output power at antenna input terminal (dBm): 19.71

Maximum peak output power at antenna input terminal (mW): 93.54

Prediction distance (cm): 20

Prediction frequency (MHz): 5905

Maximum Antenna Gain, typical (dBi): 3

Maximum Antenna Gain (numeric): 1.99

Power density of prediction frequency at 20 cm (mW/cm²): 0.037032

MPE limit for uncontrolled exposure at prediction frequency (mW/cm²): 1

The device compliances with FCC MPE limit at 20 cm distance.