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FCC ID:T62-ULTERRAIP20

IC:4397A-ULTERRAIP20

Maximum exposure limits from CFR 47, FCC Part 1.1310:

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) 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
300-1,500			f/1500	30
1,500-100,000			1.0	30

The power density is calculated as shown below:

$$S = (P \times G)/(4 \times \pi \times d^2) - \text{used to calculate exposure at 20 cm}$$

S= power density

P = transmitter conducted power (in mW)

G = antenna numeric gain

D = distance to radiation center (20 cm)

Table 2 – Power Density Calculations

Frequency	Antenna Gain	EIRP	Power Density	Limit	% of limit
MHz	numerical	mW	mW/cm ²	mW/cm ²	
916.74	0	0.38	0.0000000	0.0611	0.00%
918	0	0.38	0.0000756	0.0612	0.12%
921	0	0.41*	0.0000816	0.0614	0.13%
915	0	0.80*	0.0001592	0.0610	0.26%
918	0	0.65	0.0001294	0.0612	0.21%
921	0	0.69	0.0001373	0.0614	0.22%
2436	0	53.23	0.0105951	1.0000	1.06%
2442	0	58.36	0.0116162	1.0000	1.16%
2447	0	60.27*	0.0119964	1.0000	1.20%

Note: This equipment is not intended to be operated by hand, and instead is operated by a separate handheld remote. It is expected that a 20cm separation will be maintained at all times.

All EIRP values were taken from the maximum field strength measurements in the test reports.

*Maximum values for each radio are indicated by an asterisk

If all three radios are operating simultaneously on the highest output channel, It would be:

$0.13\% + 0.26\% + 1.20\% = 1.59\%$ of the maximum allowed power density.