

CFR 47, 15.247:200 Section #	RSS 210 Issue 8 Section #	Description	Results
15.247i	RSS Gen (5.5)	RF Exposure Requirement	PASSED

According to §1.1310 and §2.1091 RF exposure is calculated.

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

f = frequency in MHz * = Plane-wave equivalent power density

Prediction of MPE limit at a given distance:

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

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

RESULTS

Max Peak output Power at antenna input terminal (dBm)	12.31
Max Peak output Power at antenna input terminal (mW)	17.02
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2441.00000
Antenna Gain(typical) (dBi)	1.300
Power density at prediction frequency (mW/cm ²)	0.004568
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000