

**FCC §15.247 (I), §2.1091 – RF EXPOSURE****FCC ID: 2A94YAY120B****Applied procedures / limit**

According to FCC §15.247(i) and §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 Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Note: f is frequency in MHz

* = Power density limit is applicable at frequencies greater than 100 MHz

Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	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

* = Plane-wave equivalent power density

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

**TEST RESULTS**

BT

1Mbps			
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)
CH00	2402	5.178	3.295
CH39	2441	5.741	3.751
CH78	2480	5.618	3.646
2Mbps			
CH00	2402	5.580	3.614
CH39	2441	6.036	4.014
CH78	2480	5.962	3.946
3Mbps			
CH00	2402	5.644	3.614
CH39	2441	6.091	4.014
CH78	2480	5.942	3.946

SRD 904-924MHz

Field strength = 76.65 dBuV/m @3m

Ant gain = -1.0 dBi; so Ant numeric gain= 0.79

So $pt = \{ [10^{(76.65/20)} / 10^6 \times 3]^2 / 30 \times 0.79 \} \times 1000 \text{ mW} = 0.011 \text{ mW}$

Mode	Frequency MHz	Peak Output Power (dBm)	Output power (mW)	Antenna Gain (numeric)	Power Density (S) (mW/ cm ²)	Limit of Power Density (S) (mW/ cm ²)	Result
BT	2441	6.091	4.07	2.74(1.88)	0.0015	1	Pass
SRD	904	-19.59	0.011	-1.0(0.79)	0.000002	1	Pass

NOTE: R =20cm

BT and **SRD** can't simultaneously transmission, maximum Power Density (S) is 0.0015(mW/ cm2) does not exceed Limit of Power Density (S) 1 (mW/ cm2).

Conclusion: No SAR is required.