

RF Exposure Statement

1. LIMITS

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

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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

* = Plane-wave equivalent power density

2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

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

3. RESULTS

3-1. CDMA BAND

Average Peak output Power at antenna input terminal	25.000	dBm
Average Peak output Power at antenna input terminal	316.228	mW
Prediction distance	20.000	cm
Prediction frequency	824.700	MHz
Antenna Gain(Peak)	0.890	dBi
Antenna Gain(numeric)	1.227	-
Power density at prediction frequency(S)	0.077	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.550	mW/cm ²

3-2. PCS CDMA BAND

Max Peak output Power at antenna input terminal	25.000	dBm
Max Peak output Power at antenna input terminal	316.228	mW
Prediction distance	20.000	cm
Prediction frequency	1851.250	MHz
Antenna Gain(Peak)	3.200	dBi
Antenna Gain(numeric)	2.089	-
Power density at prediction frequency(S)	0.131	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-3. LTE BAND 4

Max Peak output Power at antenna input terminal	25.700	dBm
Max Peak output Power at antenna input terminal	371.535	mW
Prediction distance	20.000	cm
Prediction frequency	1712.500	MHz
Antenna Gain(Peak)	2.410	dBi
Antenna Gain(numeric)	1.742	-
Power density at prediction frequency(S)	0.129	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-4. LTE BAND 13

Max Peak output Power at antenna input terminal	25.700	dBm
Max Peak output Power at antenna input terminal	371.535	mW
Prediction distance	20.000	cm
Prediction frequency	782.000	MHz
Antenna Gain(Peak)	0.420	dBi
Antenna Gain(numeric)	1.102	-
Power density at prediction frequency(S)	0.081	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.521	mW/cm ²