
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. GSM 850 BAND

Average Max output Power at antenna input terminal (dBm)	34.000
Average Max output Power at antenna input terminal (mW)	2511.886
Prediction distance (cm)	20.000
Prediction frequency (MHz)	824.200
Antenna Gain(Peak) (dBi)	-2.400
Antenna Gain(numeric)	0.600
Power density at prediction frequency (mW/cm ²)	0.28756
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.549

3-2. GSM 1900 BAND

Average Max output Power at antenna input terminal (dBm)	32.000
Average Max output Power at antenna input terminal (mW)	1584.893
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1930.200
Antenna Gain(Peak) (dBi)	-0.3000
Antenna Gain(numeric)	0.93325
Power density at prediction frequency (mW/cm ²)	0.294259
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.0000

3-3. WCDMA 850 BAND

Average Max output Power at antenna input terminal (dBm)	25.700
Average Max output Power at antenna input terminal (mW)	371.535
Prediction distance (cm)	20.000
Prediction frequency (MHz)	826.400
Antenna Gain(Peak) (dBi)	-2.400
Antenna Gain(numeric)	0.575
Power density at prediction frequency (mW/cm ²)	0.04253
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.551

3-4. WCDMA 1900 BAND

Average Max output Power at antenna input terminal (dBm)	25.700
Average Max output Power at antenna input terminal (mW)	371.535
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1852.400
Antenna Gain(Peak) (dBi)	-0.3000
Antenna Gain(numeric)	0.93325
Power density at prediction frequency (mW/cm ²)	0.068981
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.0000

3-5. WCDMA 1700 BAND

Average Max output Power at antenna input terminal (dBm)	25.700
Average Max output Power at antenna input terminal (mW)	371.535
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1712.4
Antenna Gain(Peak) (dBi)	-1.600
Antenna Gain(numeric)	0.69183
Power density at prediction frequency (mW/cm ²)	0.0451136
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.0000

3-6. LTE BAND 2

Average Max output Power at antenna input terminal (dBm)	26.2000
Average Max output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1850.700
Antenna Gain(Peak) (dBi)	-0.3000
Antenna Gain(numeric)	0.93325
Power density at prediction frequency (mW/cm ²)	0.0773398
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.0000

3-7. LTE BAND 5

Average Max output Power at antenna input terminal (dBm)	26.200
Average Max output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	824.700
Antenna Gain(Peak) (dBi)	-2.400
Antenna Gain(numeric)	0.6
Power density at prediction frequency (mW/cm ²)	0.04772
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.550

3-8. LTE BAND 4

Average Max output Power at antenna input terminal (dBm)	26.200
Average Max output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1710.700
Antenna Gain(Peak) (dBi)	-1.6000
Antenna Gain(numeric)	0.69183
Power density at prediction frequency (mW/cm ²)	0.057376
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.0000

3-9. LTE BAND 13

Average Max output Power at antenna input terminal (dBm)	26.200
Average Max output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	779.500
Antenna Gain(Peak) (dBi)	-1.500
Antenna Gain(numeric)	0.7
Power density at prediction frequency (mW/cm ²)	0.05871
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.520

3-10. LTE BAND 17

Average Max output Power at antenna input terminal (dBm)	26.200
Average Max output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	706.500
Antenna Gain(Peak) (dBi)	-0.300
Antenna Gain(numeric)	0.9
Power density at prediction frequency (mW/cm ²)	0.07740
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.471