

# 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 <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f <sup>2</sup> )	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

**2-1. LTE\_BAND 2**

Max Peak output Power at antenna input terminal (dBm)	26.20
Max Peak output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	1855.00000
Antenna Gain(typical) (dBi)	-0.30000
Antenna Gain(numeric)	0.93325
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.077398
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	1.00000

**2-2. LTE\_BAND 5**

Max Peak output Power at antenna input terminal (dBm)	26.200
Max Peak output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	826.500
Antenna Gain(typical) (dBi)	-2.400
Antenna Gain(numeric)	0.575
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.04772
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	0.551

**2-3. LTE \_ BAND 4**

Max Peak output Power at antenna input terminal (dBm)	26.20
Max Peak output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	1712.50000
Antenna Gain(typical) (dBi)	-1.60000
Antenna Gain(numeric)	0.69183
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.057376
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	1.00000

**2-4. LTE \_ BAND 17**

Max Peak output Power at antenna input terminal (dBm)	26.200
Max Peak output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	710.000
Antenna Gain(typical) (dBi)	-0.300
Antenna Gain(numeric)	0.933
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.07740
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	0.473

**2-5. LTE \_ BAND 13**

Max Peak output Power at antenna input terminal (dBm)	26.200
Max Peak output Power at antenna input terminal (mW)	416.869
Prediction distance (cm)	20.000
Prediction frequency (MHz)	782.000
Antenna Gain(typical) (dBi)	-1.500
Antenna Gain(numeric)	0.708
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.05871
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	0.521