

10. 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

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

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

Port 1~8

Maximum output, including the tolerance	44.00	dBm
Maximum output, including the tolerance	25118.86432	mW
Prediction distance	1600.00	cm
Prediction frequency	2593.0	MHz
Antenna Peak Gain	22.00	dBi
Antenna Gain(numeric)	158.48932	–
Power density at prediction frequency (S)	0.1238	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm ²

Notes: TX output power is 43dBm and output power tolerance is +1dB / -1.5dB

The power density level at 1600 cm is 0.1238 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at Port 1~8

Simultaneous MPE at 1500 cm is $(0.1238/1.0) * 8 < 1$
 $= (0.9900/1.0) < 1$