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

2-1. 12 V (LOW)

Max Peak output Power at antenna input terminal (dBm)	2.47
Max Peak output Power at antenna input terminal (mW)	1.76604
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2400.00
Antenna Gain(typical) (dBi)	0.986
Antenna Gain(numeric)	1.25487
Power density at prediction frequency (mW/cm²)	0.00044
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

2-1. 12 V (MIDDLE)

Max Peak output Power at antenna input terminal (dBm)	2.47
Max Peak output Power at antenna input terminal (mW)	1.76604
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2450.00
Antenna Gain(typical) (dBi)	1.447
Antenna Gain(numeric)	1.39540
Power density at prediction frequency (mW/cm²)	0.00049
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

2-1. 12 V (HIGH)

Max Peak output Power at antenna input terminal (dBm)	2.47
Max Peak output Power at antenna input terminal (mW)	1.76604
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2500.00
Antenna Gain(typical) (dBi)	−0.72100
Antenna Gain(numeric)	0.84703
Power density at prediction frequency (mW/cm²)	0.00030
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

2-4. 24 V (LOW)

Max Peak output Power at antenna input terminal (dBm)	2.19
Max Peak output Power at antenna input terminal (mW)	1.65577
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2400.00
Antenna Gain(typical) (dBi)	0.98600
Antenna Gain(numeric)	1.25487
Power density at prediction frequency (mW/cm²)	0.00041
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

2-5. 24 V (MIDDLE)

Max Peak output Power at antenna input terminal (dBm)	2.19
Max Peak output Power at antenna input terminal (mW)	1.65577
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2450.00
Antenna Gain(typical) (dBi)	1.44700
Antenna Gain(numeric)	1.39540
Power density at prediction frequency (mW/cm²)	0.00046
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

2-6. 24 V (HIGH)

Max Peak output Power at antenna input terminal (dBm)	2.19
Max Peak output Power at antenna input terminal (mW)	1.65577
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2500.00
Antenna Gain(typical) (dBi)	-0.72100
Antenna Gain(numeric)	0.84703
Power density at prediction frequency (mW/cm²)	0.00028
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

3. RESULTS

The power density level at 20 cm is 0.00044 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 12V LOW BAND.

The power density level at 20 cm is 0.00049 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 12V MIDDLE BAND

The power density level at 20 cm is 0.00030 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 12V HIGH BAND

The power density level at 20 cm is 0.00041 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 24V LOW BAND.

The power density level at 20 cm is 0.00046 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 24V MIDDLE BAND

The power density level at 20 cm is 0.00028 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2 402- 2 480 MHz for 24V HIGH BAND