

EXHIBIT 11 - MPE CALCULATION DATA

Model: IX300 with two co-located transmitters listed below.

1.) AirCard775, (WAN) GSM850

S (mw/cm²) at 20cm = 0.14529791

Tx Freq: 836.6 MHz

Antenna Gain: -2.8 dBi

Max Peak Conducted Power @ antenna terminal input: 31.44 dBm

Channel #	Frequency (MHz)	Peak Power (Watts) GSMK Mode	Peak Power (dBm) GSMK Mode
(Ch.128)	824.2	1.39	31.43
(Ch.190)	836.6	1.39	31.44
(Ch.251)	848.8	1.37	31.38

2.) AirCard775, (WAN) PCS1900

S (mw/cm²) at 20cm = 0.218403386

Tx Freq: 1850.20 MHz

Antenna Gain: 2.0 dBi

Max Peak Conducted Power @ antenna terminal input: 28.41 dBm

Channel #	Frequency (MHz)	Peak Power (Watts) GSMK Mode	Peak Power (dBm) GSMK Mode
(Ch.512)	1850.2	0.684	28.35
(Ch.661)	1880.0	0.693	28.41
(Ch.810)	1909.8	0.687	28.37

3.) WM168b-Molex, (WLAN)

S (mw/cm²) at 20cm = 0.0039

Tx Freq: 2412 MHz

Antenna Gain: -3.04 dBi

Max Peak Conducted Power @ antenna terminal input: 16.03 dBm

Frequency GHz	Power dBm	Cable loss	Corrected Level dBm	Ant. Gain dBi	EIRP
2.412	15.45	.58	16.03	-3.04	12.99
2.437	15.30	.58	15.88	-3.04	12.84
2.462	14.97	.58	15.55	-3.04	12.51

No Multiple Frequency Exposure

The AC775 WAN and WLAN cannot transmit at the same time therefore there is no Multiple Frequency Exposure.

General Population/Uncontrolled

Prediction of MPE Limit OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2 \quad R = \sqrt{PG/4\pi S}$$

S= power density
P= power input to the 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

1.) AirCard775, (WAN) GSM850

Tx Frequency: 836.60 MHz
Max. Peak Power Antenna Input Terminal: 31.44 dBm
Antenna gain: -2.80 dBi

S= 0.56 (mW/cm²)
P= 1393.1568 (mW)
G= 0.52 (numeric)
R = 10.21 (cm)

S (mw/cm²) at 20cm = 0.14529791

2.) AirCard775, (WAN) PCS1900

Tx Frequency: 188000 MHz
Max. Peak Power Antenna Input Terminal: 28.41 dBm
Antenna gain: 2.00 dBi

S= 1.00 (mW/cm²)
P= 693.4258 (mW)
G= 1.58 (numeric)
R = 9.35 (cm)

S (mw/cm²) at 20cm = 0.218403386

3.) WM168b-Molex, (WLAN)

Tx Frequency: 2412.00 MHz
Max. Peak Power Antenna Input Terminal: 16.03 dBm
Antenna gain: -3.04 dBi

S= 1.00 mW/cm²)
P= 40.0867 (mW)
G= 0.50 (numeric)
R = 1.26 (cm)

S (mw/cm²) at 20cm = 0.003956028