

**EXHIBIT 11 - MPE CALCULATION DATA**

Model: IX300 with the three co-located transmitters listed below.

**1.) AirCard750, (WAN)**

$S \text{ (mw/cm}^2\text{) at 20cm} = 0.3164$

Tx Freq: 1850.20 MHz

Antenna Gain: 2.0 dBi

Max Peak Power @ antenna terminal input:

30.02 dBm

Channel #	Frequency (MHz)	Peak Power (Watts)	Peak Power (dBm)
(Ch.512)	1850.2	1.004	30.02
(Ch.661)	1880.0	0.970	29.87
(Ch.810)	1909.8	0.939	29.73

**2.) WM168b-Molex, (WLAN),**

$S \text{ (mw/cm}^2\text{) at 20cm} = 0.0039$

Tx Freq: 2412 MHz

Antenna Gain: -3.04 dBi

Max Peak 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

**3.) MUBTC2-TH, (Bluetooth)**

$S \text{ (mw/cm}^2\text{) at 20cm} = 0.0002$

Tx Freq: 2441MHz

Antenna Gain: 0.11 dBi

Max Peak Power @ antenna terminal input:

0.557dBm

Channel	Frequency (GHz)	Measured Peak Output Power (dBm)	Internal EUT Cable loss dB	Corrected Peak Output Power (dBm))	Corrected Peak Output Power (mW))
Low	2.402	-0.932	1.3	.368	1.088
Middle	2.441	-0.743	1.3	.557	1.137
High	2.480	-1.273	1.3	.027	1.006

The MPE calculations are submitted for multiple frequency exposure criteria. The ratio of the field strength or power density to the applicable exposure limit at the exposure location was determined for each transmitter below and the sum of these ratios does not exceed the 1 mW/cm<sup>2</sup> limit for uncontrolled exposure / general population exposure limits detailed in CFR 47, Part 1.1310.

**Multiple Frequency Exposure Requirements**

Ratio 1	Ratio 2	Ratio 3	Limit
AIRCARD750	MPI350	Bluetooth	
0.3164 / 1	0.0039 / 1	0.0002 / 1	<1.0
= .3164	= .0039	= .0002	<1.0
Sum = 0.3205 (mW/cm <sup>2</sup> )			<1.0

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

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

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

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

**General Population/Uncontrolled**

Tx Frequency: 1850.20 MHz  
 Max. Peak Power Antenna Input Terminal: 30.02 dBm  
 Antenna gain: 2.00 dBi

S= 1.00 (mW/cm<sup>2</sup>)  
 P= 1004.6158 (mW)  
 G= 1.58 (numeric)

R = 11.26 (cm)

S (mw/cm<sup>2</sup>) at 20cm = 0.316416679

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

S= 1.00 mW/cm<sup>2</sup>)  
 P= 40.0867 (mW)  
 G= 0.50 (numeric)

R = 1.26 (cm)

S (mw/cm<sup>2</sup>) at 20cm = 0.003956028

Tx Frequency: 2441.00 MHz  
 Max. Peak Power Antenna Input Terminal: 0.56 dBm  
 Antenna gain: 0.11 dBi

S= 1.00 (mW/cm<sup>2</sup>)  
 P= 1.1368 (mW)  
 G= 1.03 (numeric)

R = 0.30 (cm)

S (mw/cm<sup>2</sup>) at 20cm = 0.000231718