# **EXHIBIT 11 - MPE CALCULATION DATA**

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

## 1.) AirCard750, (WAN)

# S (mw/cm^2) at 20cm =0.3164

Tx Freq: 1850.20 MHz Max Peak Power @ <u>antenna terminal</u> input:

Antenna Gain: 2.0 dBi 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),

Tx Freq: 2412 MHz Max Peak Power @ antenna terminal input: S (mw/cm^2) at 20cm = 0.0039

Antenna Gain: -3.04 dBi 16.03 dBm

Frequency	Power	Cable loss	Corrected Level	Ant. Gain	EIRP
GHz	dBm		dBm	dBi	
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 (mw/cm^2) at 20cm = 0.0002

Tx Freq: 2441MHz Max Peak Power @ antenna terminal input: Antenna Gain: 0.11 dBi 0.557dBm

Channel	Frequency (GHz)	Measured Peak Output Power	Internal EUT Cable loss	Corrected Peak Output Power	Corrected Peak Output Power
Low	2.402	(dBm) -0.932	<u>dB</u> 1.3	(dBm)) .368	(mW)) 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.

#### Ratio 2 Ratio 3 Ratio 1 Limit AIRCARD750 **MPI350** Bluetooth 0.3164 / 1 0.0039 / 1 0.0002 / 1 <1.0 = .3164 = .0039 = .0002 <1.0 Sum = 0.3205 $(mW/cm^{2})$ <1.0

### **Multiple Frequency Exposure Requirements**

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

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

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- S= power density
- P=
- power input to the antenna power gain of the antenna in the direction of interest relative to an isotropic radiator distance to the center of radiation of the antenna G=
- R=

#### **General Population/Uncontrolled**

Tx Frequency: Max. Peak Power Antenna Input Terminal: Antenna gain:				1850.20 30.02 2.00	MHz dBm dBi		
		S= P= G=	1.00 1004.6158 1.58		(mW/cm^2) (mW) (numeric)		
		R =	11.26	(cm)			
		S (mw/	cm^2) a	t 20cm =	cm = 0.316416679		
Tx Frequency: Max. Peak Power Anter Antenna gain:	ıt Termir	nal:		2412.00 16.03 -3.04	MHz dBm dBi		
	S=	1.00 P= G=	40.086 0.50	7	mW/cm^ (mW) (numeric	,	
		R =	1.26	(cm)			
		S (mw/cm^2) at 20cm = 0.003956028				6028	
Tx Frequency: Max. Peak Power Anter Antenna gain:	ıt Termir	nal:		2441.00 0.56 0.11	MHz dBm dBi		
		S= P= G=	1.00 1.1368 1.03		(mW/cm (mW) (numeric		
		R =	0.30	(cm)			
S (mw/cm^2) at 20cm = 0.0002317				1718			