

**EXHIBIT 11 - MPE CALCULATION DATA**

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

**1.) AirCard775, (WAN) GSM850**

$S$  (mw/cm<sup>2</sup>) 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)<br>GSMK Mode | Peak Power (dBm)<br>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/cm<sup>2</sup>) 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)<br>GSMK Mode | Peak Power (dBm)<br>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/cm<sup>2</sup>) at 20cm = 0.0039

Tx Freq: 2412 MHz

Antenna Gain: -3.04 dBi

Max Peak Conducted Power @ antenna terminal input: 16.03 dBm

| Frequency<br>GHz | Power<br>dBm | Cable loss | Corrected Level<br>dBm | Ant. Gain<br>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 |

**4.) MUBTC2-TH, (Bluetooth)****S (mw/cm<sup>2</sup>) at 20cm = 0.0002**

Tx Freq: 2441MHz

Antenna Gain: 0.11 dBi

Max Peak Conducted 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                             |

**Multiple Frequency Exposure Requirements**

The AC775 WAN and Bluetooth can transmit at the same time.

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In normal operation all three cannot transmit at the same time. However for worst case multi-frequency exposure we shall include all three transmitters

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 with GSM850**

| Ratio 1                            | Ratio 2    | Ratio 3    | Limit |
|------------------------------------|------------|------------|-------|
| AIRCARD775                         | WLAN       | Bluetooth  |       |
| 0.1453 / 0.56                      | 0.0039 / 1 | 0.0002 / 1 | <1.0  |
| = .2595                            | = .0039    | = .0002    | <1.0  |
| Sum = 0.2636 (mW/cm <sup>2</sup> ) |            |            | <1.0  |

**Multiple Frequency Exposure Requirements with PCS1900**

| Ratio 1                            | Ratio 2    | Ratio 3    | Limit |
|------------------------------------|------------|------------|-------|
| AIRCARD775                         | WLAN       | Bluetooth  |       |
| 0.2184 / 1                         | 0.0039 / 1 | 0.0002 / 1 | <1.0  |
| = .2184                            | = .0039    | = .0002    | <1.0  |
| Sum = 0.2225 (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

### 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/cm<sup>2</sup>)  
 P= 1393.1568 (mW)  
 G= 0.52 (numeric)  
 R = 10.21 (cm)

S (mw/cm<sup>2</sup>) 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/cm<sup>2</sup>)  
 P= 693.4258 (mW)  
 G= 1.58 (numeric)  
 R = 9.35 (cm)

S (mw/cm<sup>2</sup>) 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/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

### 4.) MUBTC2-TH, (Bluetooth)

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