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# Test Report

Curtis-Straus LLC, a wholly owned subsidiary of BV CPS

|                     |   |
|---------------------|---|
| Report No           | EL0206-1  |
| Client              | INNCOM International  |
| Address             | 277 West Main Street<br>Niantic, CT 06357   |
| Phone               | 860-739-4468  |
| Items tested        | Mini Radio  |
| FCC ID              | GTC202515I5RF   |
| FRN                 | 0017924150  |
| Equipment Type      | Low power communications device transmitter   |
| Equipment Code      | DXX   |
| Standards           | 47CFR 15.249  |
| Test Dates          | February 25-26, 2011 and March 18, 2011   |
| Results             | As detailed within this report  |
| Prepared by         | <br>Matthew Burman – EMC Engineer          |
| Authorized by       | <br>Mairaj Hussain – EMC Supervisor        |
| Issue Date          | <u>March 18, 2011</u>   |
| Conditions of Issue | This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 16 of this report. |

Curtis-Straus LLC is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.



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**Product Tested - Configuration Documentation**

| EUT Configuration  |           |              |               |              |          |           |        |            |                  |                    |  |           |
|--|-----------|--------------|---------------|--------------|----------|-----------|--------|------------|------------------|--------------------|--|-----------|
| <b>Work Order:</b> L0206<br><b>Company:</b> Inncom<br><b>Company Address:</b> 277 West Main Street<br>Niantic, CT 06357<br><b>Contact:</b> Ryan Gardner<br><b>Person Present:</b> Ryan Gardner |           |              |               |              |          |           |        |            |                  |                    |  |           |
| <b>MN</b>  |           |              |               |              |          | <b>SN</b> |        |            |                  |                    |  |           |
| EUT: 202-515   |           |              |               |              |          | Sample 1  |        |            |                  |                    |  |           |
| EUT Description: Mini Radio<br>EUT Tx Frequency: 2405-2480MHz  |           |              |               |              |          |           |        |            |                  |                    |  |           |
| <b>Support Equipment:</b>  |           |              |               |              |          | <b>MN</b> |        |            |                  |                    |  | <b>SN</b> |
| Sunny switching power supply   |           |              |               |              |          | SW-2506   |        |            |                  |                    |  | sample 1  |
| <b>EUT Ports:</b>  |           |              |               |              |          |           |        |            |                  |                    |  |           |
| Port Label   | Port Type | No. of ports | No. Populated | Cable Type   | Shielded | Ferrites  | Length | Max Length | In/Out NEBS Type | Unpopulated Reason |  |           |
| DC Power   | Power DC  | 1            | 1             | twisted pair | no       | none      | 1m     | 1m         | indoor           |                    |  |           |
| <b>Software / Operating Mode Description:</b>  |           |              |               |              |          |           |        |            |                  |                    |  |           |
| EUT continues to transmit atmospheric conditions   |           |              |               |              |          |           |        |            |                  |                    |  |           |



## Summary

This test report supports a limited modular approval of a transmitter operating pursuant to 47 CFR 15.249. The product is the Mini Radio. It is a transmitter that operates in the range 2400-2483.5MHz

We found that the product met the above requirements without modification. The test sample was received in good condition.

## Test Methodology

Radiated emission and AC Line conducted testing was performed according to the procedures specified in ANSI C63.4 (2009). Radiated Emissions were maximized by rotating the device around three orthogonal axes as well as varying the test antenna's height and polarity. The device antenna cannot be maximized separately.

The product was tested with modulation on and peak readings were compared against the average limit presented in section CFR 15.249.

The EUT operating voltage is 12Vdc.

The following bandwidths were used during radiated spurious and line conducted emissions.

| Frequency  | RBW    | VBW   |
|------------|--------|-------|
| 0.15-30MHz | 9kHz   | 30kHz |
| 30-1000MHz | 120kHz | 1MHz  |
| 1-25GHz    | 1MHz   | 3MHz  |

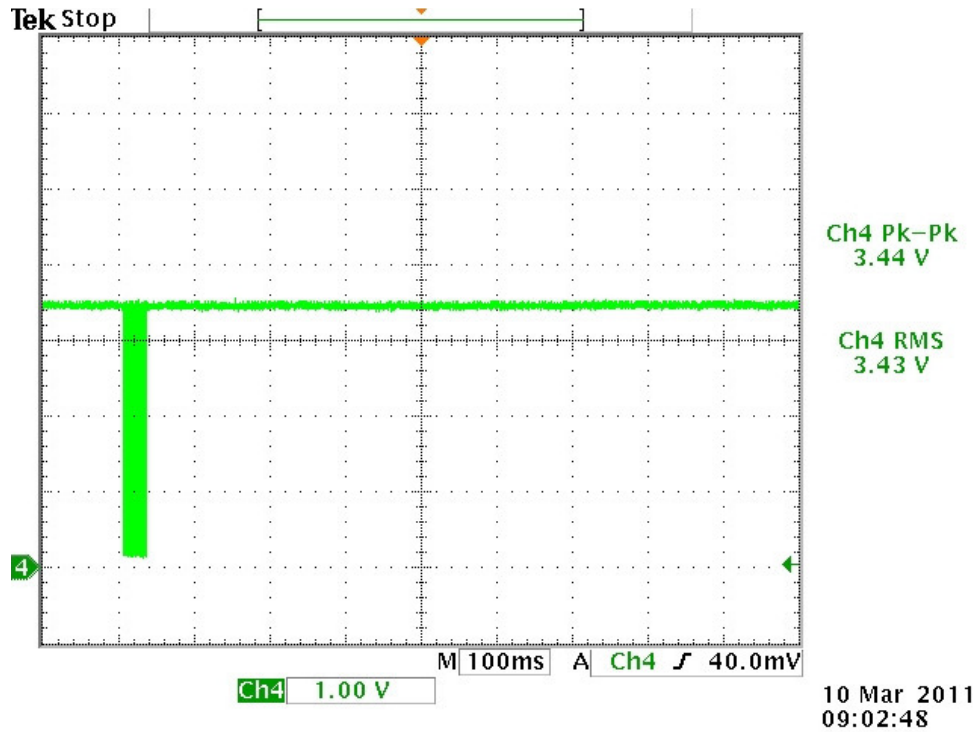
**Compliance Statement**

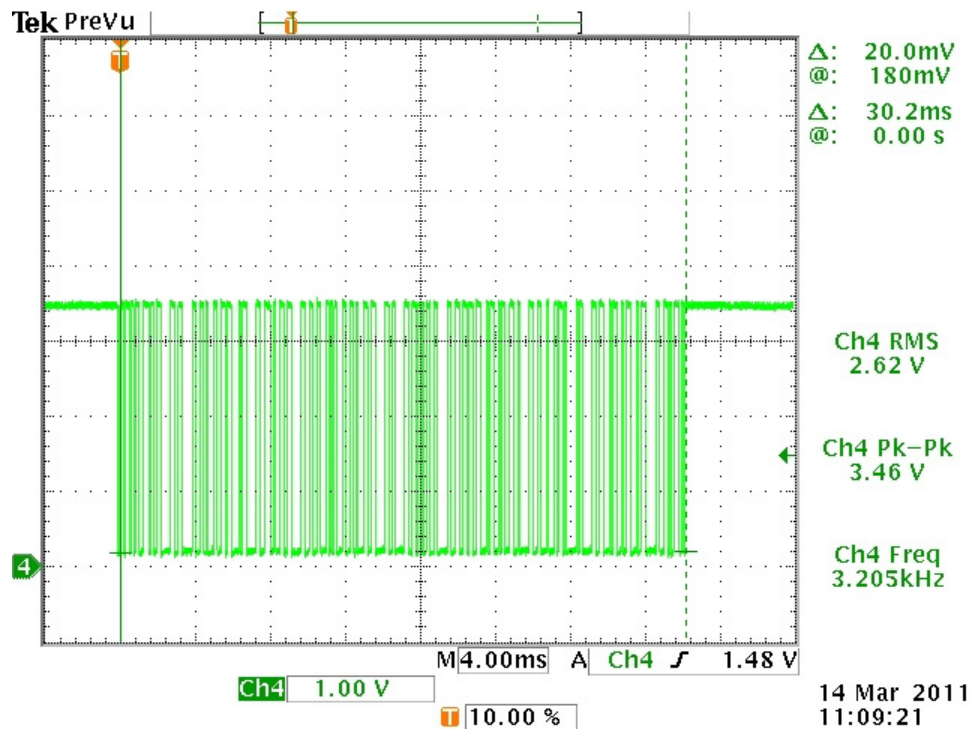
The Mini Radio has been found to conform to the following parts of 47 CFR as detailed below:

| Part 15          | Comments   |
|------------------|--|
| 15.15(b)         | There are no controls accessible to the user that vary the output power.   |
| 15.19            | The label is shown in the label exhibit.   |
| 15.21            | Information to the user is shown in the instruction manual exhibit.  |
| 15.27            | No special accessories are required for compliance.  |
| 15.203           | The antenna for this device is a SMT   |
| 15.205<br>15.209 | The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209. |
| 15.207           | EUT meets the AC Line conducted emissions requirements of 15.207.  |
| 15.249(a)        | The fundamental and harmonics meet the limits in 15.249(a)   |
| 15.249(d)        | Spurious emissions meet the limits in 15.209.  |

## Test Results

### Duty Cycle Correction Factor (DCF)





In any 100ms time period, the product could be on for 30.2ms

$$DCCF = 20 \times \log (30.2/100)$$

$$DCCF = -10.3$$

A duty cycle correction factor of -10.3dB was applied

## Fundamental Measurements

### LIMITS

The field strength from intentional radiators operated within these frequency bands shall comply with the following:

| Fundamental Frequency | Field Strength of Fundamental (millivolts/meter) | Field Strength of Harmonics (microvolts/meter) |
|-----------------------|--|--|
| 902 - 928 MHz         | 50   | 500  |
| 2400 - 2483.5 MHz     | 50   | 500  |
| 5725 - 5875 MHz       | 50   | 500  |
| 24.0 - 24.25 GHz      | 250  | 2500   |

[15.249(a)]

### MEASUREMENTS / RESULTS

| Radiated Emissions Table  |                    |                   |                       |                          |                      |                           |                              |  |                |                       |  |
|---|--------------------|-------------------|-----------------------|--------------------------|----------------------|---------------------------|------------------------------|--|----------------|-----------------------|--|
| Date: 15-Mar-11   |                    |                   | Company: Inncom       |                          |                      |                           |                              | Work Order: L0206                      |                |                       |  |
| Engineer: Evan Gould  |                    |                   | EUT Desc: 202-515     |                          |                      |                           |                              | EUT Operating Voltage/Frequency: 12VDC |                |                       |  |
| Temp: 23.1°C  |                    |                   | Humidity: 22%         |                          |                      |                           |                              | Pressure: 1028.4mBar                   |                |                       |  |
| Frequency Range: 2400-2483.5MHz   |                    |                   |                       |                          |                      |                           | Measurement Distance: 3 m    |  |                |                       |  |
| Notes: Duty Cycle Correction Factor = 10.3dB<br>Worst Case 100ms On Time = 30.2ms |                    |                   |                       |                          |                      |                           |                              |  |                |                       |  |
| Antenna Polarization<br>(H / V)   | Frequency<br>(MHz) | Reading<br>(dBμV) | Preamp Factor<br>(dB) | Antenna Factor<br>(dB/m) | Cable Factor<br>(dB) | Duty Cycle Factor<br>(dB) | Adjusted Reading<br>(dBμV/m) | 47 CFR 15.249(a)                       |                |                       |  |
|   |                    |                   |                       |                          |                      |                           |                              | Limit<br>(dBμV/m)                      | Margin<br>(dB) | Result<br>(Pass/Fail) |  |
| Hpk   | 2404.6             | 67.4              | 0.0                   | 28.9                     | 3.1                  | 0.0                       | 99.4                         | 114.0                                  | -14.6          | Pass                  |  |
| Hav   | 2404.6             | 67.4              | 0.0                   | 28.9                     | 3.1                  | 10.3                      | 89.1                         | 94.0                                   | -4.9           | Pass                  |  |
| Hpk   | 2445.6             | 67.3              | 0.0                   | 29.0                     | 3.2                  | 0.0                       | 99.5                         | 114.0                                  | -14.5          | Pass                  |  |
| Hav   | 2445.6             | 67.3              | 0.0                   | 29.0                     | 3.2                  | 10.3                      | 89.2                         | 94.0                                   | -4.8           | Pass                  |  |
| Hpk   | 2480.6             | 67.2              | 0.0                   | 29.0                     | 3.3                  | 0.0                       | 99.5                         | 114.0                                  | -14.5          | Pass                  |  |
| Hav   | 2480.6             | 67.2              | 0.0                   | 29.0                     | 3.3                  | 10.3                      | 89.2                         | 94.0                                   | -4.8           | Pass                  |  |
| Table Result: Pass  |                    |                   | by -4.8 dB            |                          | Worst Freq:          |                           |                              | 2445.6 MHz                             |                |                       |  |
| Test Site: 1DCC-OATS-3M-I   |                    |                   |                       | Cable 1: EMIR-HIGH-22    |                      |                           |                              | Cable 2: ---                           |                |                       |  |
| Analyzer: Black   |                    |                   |                       | Preamp: none             |                      |                           |                              | Antenna: Black Horn                    |                |                       |  |

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|  |  |                 |                    |                  |            |              |            |                        |
|--|--|-----------------|--------------------|------------------|------------|--------------|------------|------------------------|
| <b>Spectrum Analyzers / Receivers / Preselectors</b> |  | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Rental SA #1 (Brown)                                 |  | 9kHz-26.5GHz    | E4407B             | Agilent          | SG44210511 | 1510         | I          | 25-Mar-2011            |
| <b>Radiated Emissions Sites</b>                      |  | <b>FCC Code</b> | <b>IC Code</b>     | <b>VCCI Code</b> |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| 1DCC-OATS-3M-II                                      |  | 719150          | 2762A-10           | NA               |            |              | II         | 5-Oct-2012             |
| <b>Antennas</b>                                      |  | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Black Horn   |  | 1-18GHz         | 3115               | EMCO             | 9703-5148  | 56           | I          | 6-Jul-2011             |
| <b>Meteorological Meters</b>                         |  |                 | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Temp./Humidity/Atm. Pressure Gauge                   |  |                 | 7400 Perception II | Davis            | N/A        | 965          | I          | 6-Apr-2011             |
| 1DCC-OATS-3M-I Thermohygrometer                      |  |                 | 35519-044          | Control Company  | 72457635   | 1334         | II         | 18-Aug-2011            |
| <b>Cables</b>  |  | <b>Range</b>    |                    | <b>Mfr</b>       |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| REMI-High-21   |  | 9kHz - 26.5GHz  |                    | C-S              |            |              | II         | 18-Jan-2012            |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



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## Band Edge Measurements

### LIMITS

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).  
[15.247(d)]

### MEASUREMENTS / RESULTS

| Bandedge                         |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                        |  |  |  |  |
|----------------------------------|--------------------|------------------------|---------------------------|-----------------------|-------------------------|----------------------|-----------------------------------|----------------------------------|-----------------------------------|--|-----------------------|--------------------------------------|----------------|-----------------------|------------------------|--|--|--|--|
| Date: 18-Mar-11                  |                    |                        |                           |                       | Company: Inncom         |                      |                                   |                                  |                                   | Work Order: L0206                      |                       |                                      |                |                       |                        |  |  |  |  |
| Engineer: Matthew Burman         |                    |                        |                           |                       | EUT Desc: 202-515       |                      |                                   |                                  |                                   | EUT Operating Voltage/Frequency: 12Vdc |                       |                                      |                |                       |                        |  |  |  |  |
| Temp: 23.2°C                     |                    |                        |                           |                       | Humidity: 21%           |                      |                                   |                                  |                                   | Pressure: 1015mBar                     |                       |                                      |                |                       |                        |  |  |  |  |
| Frequency Range: 2400MHz         |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   | Measurement Distance: 3 m              |                       |                                      |                |                       |                        |  |  |  |  |
| Notes: Bandedge<br>DCCF = 10.3dB |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                        |  |  |  |  |
| Peak values<br>RBW = 1MHz        |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                        |  |  |  |  |
| Antenna Polarization<br>(H/V)    | Frequency<br>(MHz) | Peak Reading<br>(dBuV) | Average Reading<br>(dBuV) | Preamp Factor<br>(dB) | Antenna Factor<br>(dBm) | Cable Factor<br>(dB) | Adjusted Peak Reading<br>(dBuV/m) | Adjusted Avg Reading<br>(dBuV/m) | FCC Class B High Frequency - Peak |  |                       | FCC Class B High Frequency - Average |                |                       |                        |  |  |  |  |
|                                  |                    |                        |                           |                       |                         |                      |                                   |                                  | Limit<br>(dBuV/m)                 | Margin<br>(dB)                         | Result<br>(Pass/Fail) | Limit<br>(dBuV/m)                    | Margin<br>(dB) | Result<br>(Pass/Fail) |                        |  |  |  |  |
|                                  |                    |                        |                           |                       |                         |                      |                                   |                                  | Limit<br>(dBuV/m)                 | Margin<br>(dB)                         | Result<br>(Pass/Fail) | Limit<br>(dBuV/m)                    | Margin<br>(dB) | Result<br>(Pass/Fail) |                        |  |  |  |  |
| h                                | 2400.0             | 63.12                  | 52.8                      | 36.7                  | 28.9                    | 3.1                  | 58.4                              | 48.1                             | 74.0                              | -15.6                                  | Pass                  | 54.0                                 | -5.9           | Pass                  |                        |  |  |  |  |
| v                                | 2400.0             | 58.04                  | 47.7                      | 36.7                  | 28.9                    | 3.1                  | 53.3                              | 43.0                             | 74.0                              | -20.7                                  | Pass                  | 54.0                                 | -11.0          | Pass                  |                        |  |  |  |  |
| Table Result:                    |                    |                        |                           |                       | Pass                    |                      |                                   |                                  |                                   | by -5.9 dB                             |                       |                                      |                |                       | Worst Freq: 2400.0 MHz |  |  |  |  |
| Test Site: 1DCC-OATS-3M-I        |                    |                        |                           |                       | Cable 1: EMIR-HIGH-22   |                      |                                   |                                  |                                   | Cable 2: ---                           |                       |                                      |                |                       | Cable 3: ---           |  |  |  |  |
| Analyzer: Gold                   |                    |                        |                           |                       | Preamp: Red-Blue        |                      |                                   |                                  |                                   | Antenna: Black Horn                    |                       |                                      |                |                       | Preselector: ---       |  |  |  |  |

| Bandedge  |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                  |  |  |  |  |
|---|--------------------|------------------------|---------------------------|-----------------------|-------------------------|----------------------|-----------------------------------|----------------------------------|-----------------------------------|--|-----------------------|--------------------------------------|----------------|-----------------------|------------------|--|--|--|--|
| Date: 18-Mar-11   |                    |                        |                           |                       | Company: Inncom         |                      |                                   |                                  |                                   | Work Order: L0206                      |                       |                                      |                |                       |                  |  |  |  |  |
| Engineer: Matthew Burman                                  |                    |                        |                           |                       | EUT Desc: 202-515       |                      |                                   |                                  |                                   | EUT Operating Voltage/Frequency: 12Vdc |                       |                                      |                |                       |                  |  |  |  |  |
| Temp: 23.2°C  |                    |                        |                           |                       | Humidity: 21%           |                      |                                   |                                  |                                   | Pressure: 1015mBar                     |                       |                                      |                |                       |                  |  |  |  |  |
| Frequency Range: 2483.5MHz                                |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   | Measurement Distance: 3 m              |                       |                                      |                |                       |                  |  |  |  |  |
| Notes: Bandedge<br>DCCF = 9.6dB                           |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                  |  |  |  |  |
| Marker - Delta Method<br>RBW = 1MHz, reduced RBW = 100kHz |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                  |  |  |  |  |
| Antenna Polarization<br>(H/V)                             | Frequency<br>(MHz) | Peak Reading<br>(dBuV) | Average Reading<br>(dBuV) | Preamp Factor<br>(dB) | Antenna Factor<br>(dBm) | Cable Factor<br>(dB) | Adjusted Peak Reading<br>(dBuV/m) | Adjusted Avg Reading<br>(dBuV/m) | FCC Class B High Frequency - Peak |  |                       | FCC Class B High Frequency - Average |                |                       |                  |  |  |  |  |
|   |                    |                        |                           |                       |                         |                      |                                   |                                  | Limit<br>(dBuV/m)                 | Margin<br>(dB)                         | Result<br>(Pass/Fail) | Limit<br>(dBuV/m)                    | Margin<br>(dB) | Result<br>(Pass/Fail) |                  |  |  |  |  |
| h   | 2483.5             | 54.98                  | 50.1                      | 36.8                  | 29.0                    | 3.3                  | 50.4                              | 45.6                             | 74.0                              | -23.6                                  | Pass                  | 54.0                                 | -8.4           | Pass                  |                  |  |  |  |  |
| v   | 2483.5             | 51.2                   | 46.2                      | 36.8                  | 29.0                    | 3.3                  | 46.7                              | 41.7                             | 74.0                              | -27.3                                  | Pass                  | 54.0                                 | -12.3          | Pass                  |                  |  |  |  |  |
| Table Result: Pass by -8.4 dB Worst Freq: 2483.5 MHz      |                    |                        |                           |                       |                         |                      |                                   |                                  |                                   |  |                       |                                      |                |                       |                  |  |  |  |  |
| Test Site: 1DCC-OATS-3M-I                                 |                    |                        |                           |                       | Cable 1: EMIR-HIGH-22   |                      |                                   |                                  |                                   | Cable 2: ---                           |                       |                                      |                |                       | Cable 3: ---     |  |  |  |  |
| Analyzer: Gold  |                    |                        |                           |                       | Preamp: Red-Blue        |                      |                                   |                                  |                                   | Antenna: Black Horn                    |                       |                                      |                |                       | Preselector: --- |  |  |  |  |

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| Spectrum Analyzers / Receivers / Preselectors |  | Range          | MN                       | Mfr             | SN         | Asset | Cat | Calibration Due |
|---|--|----------------|--------------------------|-----------------|------------|-------|-----|-----------------|
| Gold  |  | 100Hz-26.5 GHz | E4407B                   | Agilent         | MY45113816 | 1284  | I   | 9-Apr-2011      |
| Radiated Emissions Sites                      |  | FCC Code       | IC Code                  | VCCI Code       |            |       | Cat | Calibration Due |
| 1DCC-OATS-3M-II                               |  | 719150         | 2762A-10                 | NA              |            |       | II  | 5-Oct-2012      |
| Preamps / Couplers Attenuators / Filters      |  | Range          | MN                       | Mfr             | SN         | Asset | Cat | Calibration Due |
| Red-Blue                                      |  | 1-18GHz        | PE2-38-218-4R5-17-15-SFF | CS              | NA         | 1257  | II  | 15-Jun-2011     |
| Antennas                                      |  | Range          | MN                       | Mfr             | SN         | Asset | Cat | Calibration Due |
| Black Horn                                    |  | 1-18GHz        | 3115                     | EMCO            | 9703-5148  | 56    | I   | 6-Jul-2011      |
| Meteorological Meters                         |  |                | MN                       | Mfr             | SN         | Asset | Cat | Calibration Due |
| Temp./Humidity/Atm. Pressure Gauge            |  |                | 7400 Perception II       | Davis           | N/A        | 965   | I   | 6-Apr-2011      |
| 1DCC-OATS-3M-I Thermohygrometer               |  |                | 35519-044                | Control Company | 72457635   | 1334  | II  | 18-Aug-2011     |
| Cables  |  | Range          |                          | Mfr             |            |       | Cat | Calibration Due |
| REMI-High-22                                  |  | 9kHz - 15GHz   |                          | C-S             |            |       | II  | 18-Jan-2012     |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

For the 2483.5MHz bandedge, the marker-delta method from FCC public notification was used.

To calculate the bandedge for horizontal:

Fundamental peak (2480.635) at highest channel = 95.54dBuV/m (1MHz RBW, 3MHz VBW)

Fundamental average 2480.635MHz = 90.65dBuV/m (1MHz RBW, 10Hz VBW)

Fundamental peak 2480.635MHz = 89.92 (100kHz RBW, 3MHz VBW)

Bandedge peak at 2483.5MHz = 49.36dBuV/m (100kHz RBW, 3MHz VBW)



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$$\Delta = 89.92 - 49.36 = 40.56 \text{ dBuV/m}$$

$$\text{Bandedge average} = 90.65 - 40.56 = 50.1 \text{ dBuV/m}$$

$$\text{Bandedge peak} = 95.54 - 40.56 = 54.98$$

To calculate the bandedge for vertical:

$$\text{Fundamental peak (2480.635) at highest channel} = 94.23 \text{ dBuV/m (1MHz RBW, 3MHz VBW)}$$

$$\text{Fundamental average 2480.635MHz} = 89.16 \text{ dBuV/m (1MHz RBW, 10Hz VBW)}$$

$$\text{Fundamental peak 2480.635MHz} = 88.1 \text{ (100kHz RBW, 3MHz VBW)}$$

$$\text{Bandedge peak at 2483.5MHz} = 45.1 \text{ dBuV/m (100kHz RBW, 3MHz VBW)}$$

$$\Delta = 88.1 - 45.1 = 43.0 \text{ dBuV/m}$$

$$\text{Bandedge average} = 89.16 - 40.56 = 46.2 \text{ dBuV/m}$$

$$\text{Bandedge peak} = 94.23 - 40.56 = 51.2 \text{ dBuV/m}$$

## Radiated Spurious Emissions

### LIMITS

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).  
[15.247(d)]

### MEASUREMENTS / RESULTS

| Radiated Emissions Table    |                 |                |                      |                       |                   |  |                |             |                      |                |             |                    |
|-----------------------------|-----------------|----------------|----------------------|-----------------------|-------------------|--|----------------|-------------|----------------------|----------------|-------------|--------------------|
| Date: 26-Feb-11             |                 |                | Company: Inncom      |                       |                   | Work Order: L0206                          |                |             |                      |                |             |                    |
| Engineer: Kyle Neffendorf   |                 |                | EUT Desc: 202-515    |                       |                   | EUT Operating Voltage/Frequency: 120V 60Hz |                |             |                      |                |             |                    |
| Temp: 22.2 °C               |                 |                | Humidity: 13%        |                       |                   | Pressure: 1003mBar                         |                |             |                      |                |             |                    |
| Frequency Range: 30-1000MHz |                 |                |                      |                       |                   | Measurement Distance: 3 m                  |                |             |                      |                |             |                    |
| Notes:                      |                 |                |                      |                       |                   | EUT Max Freq:                              |                |             |                      |                |             |                    |
| Antenna Polarization (H/V)  | Frequency (MHz) | Reading (dBuV) | Preamp Factor (dB)   | Antenna Factor (dB/m) | Cable Factor (dB) | Adjusted Reading (dBuV/m)                  | CISPR Class B  |             |                      | FCC Class B    |             |                    |
|                             |                 |                |                      |                       |                   |  | Limit (dBuV/m) | Margin (dB) | Result (Pass/Fail)   | Limit (dBuV/m) | Margin (dB) | Result (Pass/Fail) |
| V                           | 36.0            | 34.3           | 22.6                 | 16.8                  | 0.4               | 28.9                                       | 40.5           | -11.6       | Pass                 | 40.0           | -11.1       | Pass               |
| V                           | 48.0            | 52.3           | 22.6                 | 8.7                   | 0.5               | 38.9                                       | 40.5           | -1.6        | Pass                 | 40.0           | -1.1        | Pass               |
| V                           | 60.0            | 47.4           | 22.6                 | 7.7                   | 0.5               | 33.0                                       | 40.5           | -7.5        | Pass                 | 40.0           | -7.0        | Pass               |
| V                           | 72.0            | 47.3           | 22.6                 | 8.1                   | 0.6               | 33.4                                       | 40.5           | -7.1        | Pass                 | 40.0           | -6.6        | Pass               |
| V                           | 84.0            | 47.8           | 22.6                 | 7.4                   | 0.7               | 33.3                                       | 40.5           | -7.2        | Pass                 | 40.0           | -6.7        | Pass               |
| V                           | 204.0           | 35.5           | 22.6                 | 11.1                  | 0.9               | 24.9                                       | 40.5           | -15.6       | Pass                 | 43.5           | -18.6       | Pass               |
| H                           | 466.4           | 31.6           | 22.6                 | 17.2                  | 1.3               | 27.5                                       | 47.5           | -20.0       | Pass                 | 46.0           | -18.5       | Pass               |
| Table Result: Pass          |                 |                |                      |                       |                   | by -1.1 dB                                 |                |             | Worst Freq: 48.0 MHz |                |             |                    |
| Test Site: EMI Chamber 2    |                 |                | Cable 1: Asset #1506 |                       |                   | Cable 2: Asset #1508                       |                |             | Cable 3: ---         |                |             |                    |
| Analyzer: Asset #1327       |                 |                | Preamp: Blue         |                       |                   | Antenna: Red-Black                         |                |             | Preselector: ---     |                |             |                    |

Rev: 15-Mar-2011

#### Spectrum Analyzers / Receivers / Preselectors

SA EMI Chamber (1327)

Range 9kHz-13.2 GHz

MN E4405B

Mfr Agilent

SN MY45103416

Asset 1327

Cat I

Calibration Due 11-Apr-2011

#### Radiated Emissions Sites

EMI Chamber 2

FCC Code 719150

IC Code 2762A-7

VCCI Code R-3033, G-107

Cat I

Calibration Due 12-Mar-2013

#### Preamps / Couplers Attenuators / Filters

Blue

Range 0.009-2000MHz

MN ZFL-1000-LN

Mfr CS

SN N/A

Asset 759

Cat II

Calibration Due 6-Apr-2011

#### Antennas

Red-Black Bilog

Range 30-2000MHz

MN JB1

Mfr Sunol

SN A091604-2

Asset 1106

Cat I

Calibration Due 3-Dec-2012

#### Meteorological Meters

Temp./Humidity/Atm. Pressure Gauge  
CHAMBER2 Thermohygrometer

MN 7400 Perception II  
35519-044

Mfr Davis  
Control Company

SN N/A  
72457639

Asset 965  
1347

Cat I  
II

Calibration Due 6-Apr-2011  
18-Aug-2011

#### Cables

Asset #1506  
Asset #1508

Range 9kHz - 18GHz  
9kHz - 26.5GHz

Mfr Florida RF  
Florida RF

Cat II  
II

Calibration Due 16-Aug-2011  
20-Apr-2011

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

| Radiated Emissions Table  |  |  |                       |  |  |  |  |  |                                  |                                       |  |  |   |  |
|---|--|--|-----------------------|--|--|--|--|--|----------------------------------|---------------------------------------|--|--|---|--|
| Date: 25-Feb-11   |  |  | Company: Inncom       |  |  |  |  |  | Work Order: L0206                |                                       |  |  |   |  |
| Engineer: Evan Gould  |  |  | EUT Desc: 202-515     |  |  |  |  |  | EUT Operating Voltage/Frequency: |                                       |  |  |   |  |
| Temp: 22.1°C  |  |  | Humidity: 21%         |  |  |  |  |  | Pressure: 983mBar                |                                       |  |  |   |  |
| Frequency Range: 1-18GHz  |  |  |                       |  |  |  | Measurement Distance: 1 m                |  |                                  |                                       |  |  |   |  |
| Notes:  |  |  |                       |  |  |  | EUT Max Freq:                            |  |                                  |                                       |  |  |   |  |
| <div>Antenna Polarization (H / V)</div> <div>Frequency (MHz)</div> <div>Reading (dBuV)</div> <div>Preamp Factor (dB)</div> <div>Antenna Factor (dB/m)</div> <div>Cable Factor (dB)</div> <div>Adjusted Reading (dBuV/m)</div> <div>Hpk</div> <div>4959.3</div> <div>42.2</div> <div>19.8</div> <div>34.1</div> <div>2.2</div> <div>58.7</div> |  |  |                       |  |  |  | <div>---</div> <div>FCC Class B</div>    |  |                                  |                                       |  |  |   |  |
|   |  |  |                       |  |  |  | <div>Limit (dBuV/m)</div> <div>---</div> |  |                                  | <div>Margin (dB)</div> <div>---</div> |  | <div>Result (Pass/Fail)</div> <div>---</div> | <div>Limit (dBuV/m)</div> <div>63.5</div> |  |
| Table Result: Pass by -4.8 dB   |  |  |                       |  |  |  | Worst Freq: 4959.3 MHz                   |  |                                  |                                       |  |  |   |  |
| Test Site: 1DCC-OATS-3M-I   |  |  | Cable 1: EMIR-HIGH-21 |  |  |  |  |  | Cable 2: ---                     |                                       |  | Cable 3: ---                                 |   |  |
| Analyzer: Rental SA#1   |  |  | Preamp: Brown         |  |  |  |  |  | Antenna: Black Horn              |                                       |  | Preselector: ---                             |   |  |



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Rev: 15-Mar-2011

|  |                 |                    |                  |            |              |            |                        |
|--|-----------------|--------------------|------------------|------------|--------------|------------|------------------------|
| <b>Spectrum Analyzers / Receivers / Preselectors</b> | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Rental SA #1 (Brown)                                 | 9kHz-26.5GHz    | E4407B             | Agilent          | SG44210511 | 1510         | I          | 25-Mar-2011            |
| <b>Radiated Emissions Sites</b>                      | <b>FCC Code</b> | <b>IC Code</b>     | <b>VCCI Code</b> |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| 1DCC-OATS-3M-II                                      | 719150          | 2762A-10           | NA               |            |              | II         | 5-Oct-2012             |
| <b>Preamps / Couplers Attenuators / Filters</b>      | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Brown  | 1-18GHz         | CS                 | CS               | N/A        | 1523         | II         | 30-Jul-2011            |
| <b>Antennas</b>                                      | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Black Horn   | 1-18GHz         | 3115               | EMCO             | 9703-5148  | 56           | I          | 6-Jul-2011             |
| <b>Meteorological Meters</b>                         |                 | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Temp./Humidity/Atm. Pressure Gauge                   |                 | 7400 Perception II | Davis            | N/A        | 965          | I          | 6-Apr-2011             |
| 1DCC-OATS-3M-I Thermohygrometer                      |                 | 35519-044          | Control Company  | 72457635   | 1334         | II         | 18-Aug-2011            |
| <b>Cables</b>  | <b>Range</b>    |                    | <b>Mfr</b>       |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| REMI-High-21   | 9kHz - 26.5GHz  |                    | C-S              |            |              | II         | 18-Jan-2012            |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

| Radiated Emissions Table        |                    |                   |                       |                          |                      |                              |                           |                |                                  |                   |                |                       |
|---------------------------------|--------------------|-------------------|-----------------------|--------------------------|----------------------|------------------------------|---------------------------|----------------|----------------------------------|-------------------|----------------|-----------------------|
| Date: 25-Feb-11                 |                    |                   | Company: Inncom       |                          |                      |                              |                           |                | Work Order: L0206                |                   |                |                       |
| Engineer: Evan Gould            |                    |                   | EUT Desc: 202-515     |                          |                      |                              |                           |                | EUT Operating Voltage/Frequency: |                   |                |                       |
| Temp: 22.1°C                    |                    |                   | Humidity: 21%         |                          |                      |                              |                           |                | Pressure: 983mBar                |                   |                |                       |
| Frequency Range: 18-25GHz       |                    |                   |                       |                          |                      |                              | Measurement Distance: 1 m |                |                                  |                   |                |                       |
| Notes:                          |                    |                   |                       |                          |                      |                              |                           |                |                                  |                   |                |                       |
| Antenna Polarization<br>(H / V) | Frequency<br>(MHz) | Reading<br>(dBμV) | Preamp Factor<br>(dB) | Antenna Factor<br>(dB/m) | Cable Factor<br>(dB) | Adjusted Reading<br>(dBμV/m) | ---                       |                |                                  | FCC Class B       |                |                       |
|                                 |                    |                   |                       |                          |                      |                              | Limit<br>(dBμV/m)         | Margin<br>(dB) | Result<br>(Pass/Fail)            | Limit<br>(dBμV/m) | Margin<br>(dB) | Result<br>(Pass/Fail) |
|                                 |                    |                   |                       |                          |                      |                              | no emissions found        |                |                                  |                   |                |                       |
| Table Result: --- by --- dB     |                    |                   |                       |                          |                      |                              | Worst Freq: --- MHz       |                |                                  |                   |                |                       |
| Test Site: 1DCC-OATS-3M-I       |                    |                   | Cable 1: EMIR-HIGH-21 |                          |                      |                              | Cable 2: ---              |                |                                  | Cable 3: ---      |                |                       |
| Analyzer: Rental SA#1           |                    |                   | Preamp: 18-26.5GHz    |                          |                      |                              | Antenna: Yellow Horn      |                |                                  | Preselector: ---  |                |                       |

Rev: 2-Mar-2011

|  |                 |                       |                  |            |              |            |                         |
|--|-----------------|-----------------------|------------------|------------|--------------|------------|-------------------------|
| <b>Spectrum Analyzers / Receivers / Preselectors</b> | <b>Range</b>    | <b>MN</b>             | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b>  |
| Rental SA #1 (Brown)                                 | 9kHz-26.5GHz    | E4407B                | Agilent          | SG44210511 | 1510         | I          | 25-Mar-2011             |
| <b>Radiated Emissions Sites</b>                      | <b>FCC Code</b> | <b>IC Code</b>        | <b>VCCI Code</b> |            |              | <b>Cat</b> | <b>Calibration Due</b>  |
| 1DCC-OATS-3M-I                                       | 719150          | 2762A-8               | R-3109           |            |              | II         | 7-Jul-2011              |
| <b>Preamps / Couplers Attenuators / Filters</b>      | <b>Range</b>    | <b>MN</b>             | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b>  |
| HF (Yellow)  | 18-26.5GHz      | AFS4-18002650-60-8P-4 | CS               | 467559     | 1266         | I          | 5-Oct-2011              |
| <b>Antennas</b>                                      | <b>Range</b>    | <b>MN</b>             | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b>  |
| HF (White) Horn                                      | 18-26.5GHz      | 801-WLM               | Waveline         | 758        | 758          | I          | Cal / Verify before Use |
| <b>Meteorological Meters</b>                         |                 | <b>MN</b>             | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b>  |
| Temp./Humidity/Atm. Pressure Gauge                   |                 | 7400 Perception II    | Davis            | N/A        | 965          | I          | 6-Apr-2011              |
| 1DCC-OATS-3M-I Thermohygrometer                      |                 | 35519-044             | Control Company  | 72457635   | 1334         | II         | 18-Aug-2011             |
| <b>Cables</b>  | <b>Range</b>    |                       | <b>Mfr</b>       |            |              | <b>Cat</b> | <b>Calibration Due</b>  |
| REMI-High-21   | 9kHz - 26.5GHz  |                       | C-S              |            |              | II         | 18-Jan-2012             |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



## AC Line Conducted Emissions LIMITS

| Frequency of emission (MHz) | Quasi-peak limit (dBμV) | Average limit (dBμV) |
|-----------------------------|-------------------------|----------------------|
| 0.15-0.5                    | 66 to 56*               | 56 to 46*            |
| 0.5-5                       | 56                      | 46                   |
| 5-30                        | 60                      | 50                   |

\*Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

## MEASUREMENTS / RESULTS

| AC Mains Conducted Emissions         |               |               |   |               |  |                    |                 |                     |                  |                                      |
|--------------------------------------|---------------|---------------|---|---------------|--|--------------------|-----------------|---------------------|------------------|--------------------------------------|
| Date: 26-Feb-11                      |               |               | Company: Inncom   |               |  |                    |                 | Work Order: L0206   |                  |                                      |
| Engineer: Kyle Neffendorf            |               |               | EUT Desc: Mini Radio within temperature/humidity sensor |               |  |                    |                 | Test Site: CEMI2    |                  |                                      |
| Temp: 16.3°C                         |               |               | Humidity: 23%   |               |  |                    |                 | Pressure: 1001mBar  |                  |                                      |
| Notes: normal operation              |               |               |   |               |  |                    |                 |                     |                  |                                      |
| Measurement Device: Asset #1495 LISN |               |               |   |               | EUT Operating Voltage/Frequency: 120V 60Hz |                    |                 |                     |                  |                                      |
| Range: 0.15-30MHz                    |               |               |   |               | Spectrum Analyzer: Red                     |                    |                 |                     |                  |                                      |
| Frequency<br>(MHz)                   | Q.P. Readings |               | Ave. Readings   |               | Impedance<br>Factor                        | FCC/CISPR B        |                 | FCC/CISPR B         |                  | Overall<br>Result<br><br>(Pass/Fail) |
|                                      | QP1<br>(dBµV) | QP2<br>(dBµV) | AV1<br>(dBµV)   | AV2<br>(dBµV) |  | qp Limit<br>(dBµV) | qp Margin<br>dB | AVE Limit<br>(dBµV) | AVE Margin<br>dB |                                      |
| 0.15                                 | 29.4          | 28.7          | 14.4  | 13.7          | 20.1                                       | 66.0               | -16.5           | 56.0                | -21.5            | Pass                                 |
| 0.21                                 | 29.3          | 29.6          | 13.9  | 14.8          | 20.1                                       | 63.2               | -13.5           | 53.2                | -18.3            | Pass                                 |
| 0.31                                 | 15.4          | 24.8          | 13.8  | 14.5          | 20.1                                       | 59.9               | -15.0           | 49.9                | -15.3            | Pass                                 |
| 0.58                                 | 30.6          | 30.9          | 18.7  | 18.4          | 20.1                                       | 56.0               | -5.0            | 46.0                | -7.2             | Pass                                 |
| 3.81                                 | 26.3          | 26.9          | 15.3  | 14.9          | 20.1                                       | 56.0               | -9.0            | 46.0                | -10.6            | Pass                                 |
| 4.13                                 | 24.2          | 26.6          | 16.3  | 15.9          | 20.1                                       | 56.0               | -9.3            | 46.0                | -9.6             | Pass                                 |
| Table Result:                        |               | Pass          | by  |               | -5.00 dB                                   |                    | Worst Freq:     |                     | 0.58 MHz         |                                      |

Rev: 16-Feb-2011

|  |  |                 |                    |                  |            |              |            |                        |
|--|--|-----------------|--------------------|------------------|------------|--------------|------------|------------------------|
| <b>Spectrum Analyzers / Receivers / Preselectors</b> |  | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Red  |  | 9kHz-1.8GHz     | 8591E              | Agilent          | 3441A03559 | 24           | I          | 10-Mar-2011            |
| <b>LISNs/Measurement Probes</b>                      |  | <b>Range</b>    | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| 230VAC LISN Asset 1495                               |  | 10kHz-50MHz     | 9252-50-R-24-BNC   | Solar            | 84716      | 1495         | I          | 13-Apr-2011            |
| <b>Conducted Test Sites (Mains / Telco)</b>          |  | <b>FCC Code</b> |                    | <b>VCCI Code</b> |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| CEMI 2   |  | 719150          |                    | C-3361, T-1576   |            |              | III        | NA                     |
| <b>Meteorological Meters</b>                         |  |                 | <b>MN</b>          | <b>Mfr</b>       | <b>SN</b>  | <b>Asset</b> | <b>Cat</b> | <b>Calibration Due</b> |
| Temp./Humidity/Atm. Pressure Gauge                   |  |                 | 7400 Perception II | Davis            | N/A        | 965          | I          | 6-Apr-2011             |
| CEMI2 Thermohygrometer                               |  |                 | 35519-044          | Control Company  | 72436083   | 1336         | II         | 18-Aug-2011            |
| <b>Cables</b>  |  | <b>Range</b>    |                    | <b>Mfr</b>       |            |              | <b>Cat</b> | <b>Calibration Due</b> |
| CEMI-03  |  | 9kHz - 2GHz     |                    | C-S              |            |              | II         | 23-Sep-2011            |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



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## Measurement Uncertainty

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

| Measurement   | Expanded Uncertainty k=2 | Maximum allowable uncertainty |
|---|--------------------------|-------------------------------|
| Radiated Emissions (30-1000MHz)   |                          |                               |
| NIST  | 5.6dB                    | N/A                           |
| CISPR   | 4.6dB                    | 5.2dB (Ucisprr)               |
| Radiated Emissions (1-26.5GHz)  | 4.6dB                    | N/A                           |
| Radiated Emissions (above 26.5GHz)  | 4.9dB                    | N/A                           |
| Magnetic Radiated Emissions   | 5.6dB                    | N/A                           |
| Conducted Emissions   |                          |                               |
| NIST  | 3.9dB                    | N/A                           |
| CISPR   | 3.6dB                    | 3.6dB (Ucisprr)               |
| Telco Conducted Emissions (Current)   | 2.9dB                    | N/A                           |
| Telco Conducted Emissions (Voltage)   | 4.4dB                    | N/A                           |
| Electrostatic Discharge   | 11.5%                    | N/A                           |
| Radiated RF Immunity (Uniform Field)  | 1.6dB                    | N/A                           |
| Electrical Fast Transients  | 23.1%                    | N/A                           |
| Surge   | 23.1%                    | N/A                           |
| Conducted RF Immunity   | 3dB                      | N/A                           |
| Magnetic Immunity   | 12.8%                    | N/A                           |
| Dips and Interrupts   | 2.3V                     | N/A                           |
| Harmonics   | 3.5%                     | N/A                           |
| Flicker   | 3.5%                     | N/A                           |
| Radio frequency (@ 2.4GHz)  | $3.23 \times 10^{-8}$    | $1 \times 10^{-7}$            |
| RF power, conducted   | 0.40dB                   | 0.75dB                        |
| Maximum frequency deviation:  |                          |                               |
| • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency | 3.4%<br>0.3dB            | 5%<br>3dB                     |
| Adjacent channel power  | 1.9dB                    | 3dB                           |
| Conducted spurious emission of transmitter, valid up to 12.75GHz                      | 2.39dB                   | 3dB                           |
| Conducted emission of receivers   | 1.3dB                    | 3dB                           |
| Radiated emission of transmitter, valid up to 26.5GHz                                 | 3.9dB                    | 6dB                           |
| Radiated emission of transmitter, valid up to 80GHz                                   | 3.3dB                    | 6dB                           |
| Radiated emission of receiver, valid up to 26.5GHz                                    | 3.9dB                    | 6dB                           |
| Radiated emission of receiver, valid up to 80GHz                                      | 3.3dB                    | 6dB                           |
| Humidity  | 2.37%                    | 5%                            |
| Temperature   | 0.7°C                    | 1.0°C                         |
| Time  | 4.1%                     | 10%                           |
| RF Power Density, Conducted   | 0.4dB                    | 3dB                           |
| DC and low frequency voltages   | 1.3%                     | 3%                            |
| Voltage (AC, <10kHz)  | 1.3%                     | 2%                            |
| Voltage (DC)  | 0.62%                    | 1%                            |
| The above reflects a 95% confidence level   |                          |                               |



### ***Product Documentation***

The following documentation has been provided by the client for inclusion in this report.

## Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPS," "MTL," "ACTS," "MTL-ACTS" and "CURTIS-STRAUS" (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only where such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.



BUREAU  
VERITAS

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13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.

14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B) NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

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