

Job Number: 11U13609  
Model Number: SNC1010  
Client Name: LifeShield Inc.  
FCC ID: S9PSNC1010

### Engineering Test Data Only

Test Lab:

Bob DeLisi  
Sr. Staff Engineer  
1285 Walt Whitman Rd.  
Melville, NY 11747  
[bob.delisi@us.ul.com](mailto:bob.delisi@us.ul.com)  
631-546-2452  
631-439-6752

Applicant:

LifeShield, Inc.  
770 Township Line Rd., Suite 350  
Yardley, PA 19067

### Data Sign-Off

The information contained within this data report reflect the item tested. The duty cycle correction factor applied within was supplied by the applicant and not verified by Underwriters Laboratories Inc.

Test Engineer:



Bob DeLisi (Ext.22452)  
Senior Staff Engineer  
International EMC Services  
Conformity Assessment Services-

Reviewer:



Mike Antola(Ext.23053)  
Senior Project Engineer  
International EMC Services  
Conformity Assessment Services

Job Number: 11U13609  
Model Number: SNC1010  
Client Name: LifeShield Inc.  
FCC ID: S9PSNC1010

## 1.1 Test Conditions and Results – RADIATED EMISSIONS

|                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|
| Test Conditions and Results - RADIATED EMISSIONS                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                          |
| Test Description                                                                                                                                                                                                                                                                                                                                                                     | Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4:2003. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meters below 1GHz and at a separation distance of 4-meters above 1GHz. The results above 1GHz are corrected by 2.5dB to account for the 1-meter distance in distance between the distance the limits are specified at and the measurement distance. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (peak, quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable. |                                               |                          |
| Basic Standard                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FCC Part 15, Subpart C, 15.35, 15.209, 15.231 |                          |
| UL LPG                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 80-EM-S0029                                   |                          |
|                                                                                                                                                                                                                                                                                                                                                                                      | Frequency range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Measurement Point                             |                          |
| Fully configured sample scanned over the following frequency range                                                                                                                                                                                                                                                                                                                   | 30 MHz – 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (3 meter measurement distance)                |                          |
|                                                                                                                                                                                                                                                                                                                                                                                      | 1 - 3.5GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (4 meter measurement distance)                |                          |
| Limits                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                          |
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                      | Limit (dBµV/m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |                          |
|                                                                                                                                                                                                                                                                                                                                                                                      | Quasi-Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Average                                       |                          |
|                                                                                                                                                                                                                                                                                                                                                                                      | General Emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Fundamental                                   | Spurious                 |
| 0.009 – 0.490                                                                                                                                                                                                                                                                                                                                                                        | 128.5 – 93.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                                             | -                        |
| 0.490 – 1.705                                                                                                                                                                                                                                                                                                                                                                        | 73.8 – 63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                                             | -                        |
| 1.705 – 30                                                                                                                                                                                                                                                                                                                                                                           | 69.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                                             | -                        |
| 30 – 88                                                                                                                                                                                                                                                                                                                                                                              | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                                             | -                        |
| 88 – 216                                                                                                                                                                                                                                                                                                                                                                             | 43.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                                             | -                        |
| 216-960                                                                                                                                                                                                                                                                                                                                                                              | 46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                                             | -                        |
| 960-1000                                                                                                                                                                                                                                                                                                                                                                             | 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                                             | -                        |
| 1000-3500                                                                                                                                                                                                                                                                                                                                                                            | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                                             | 54 (in restricted bands) |
| 345 Fundamental                                                                                                                                                                                                                                                                                                                                                                      | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 77.2                                          | -                        |
| Harmonics of the Fundamental 345                                                                                                                                                                                                                                                                                                                                                     | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                                             | 57.2                     |
| Supplementary information: Spurious limits are only applied against products of the transmitter. All other emissions must meet the general limits. The EUT was investigated in 3 axes to determine the worst case emissions. The worst case emissions were noted in the X-axis and reported within. Emissions below 30MHz were not investigated as the fundamental lies above 30MHz. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                          |

Job Number: 11U13609  
 Model Number: SNC1010  
 Client Name: LifeShield Inc.  
 FCC ID: S9PSNC1010

**Table 1 Radiated Emissions EUT Configuration Settings**

| Power                           | EUT Configuration | EUT Operation       |
|---------------------------------|-------------------|---------------------|
| 3Vdc battery                    | Stand-alone       | Continuous Transmit |
| Supplementary information: None |                   |                     |

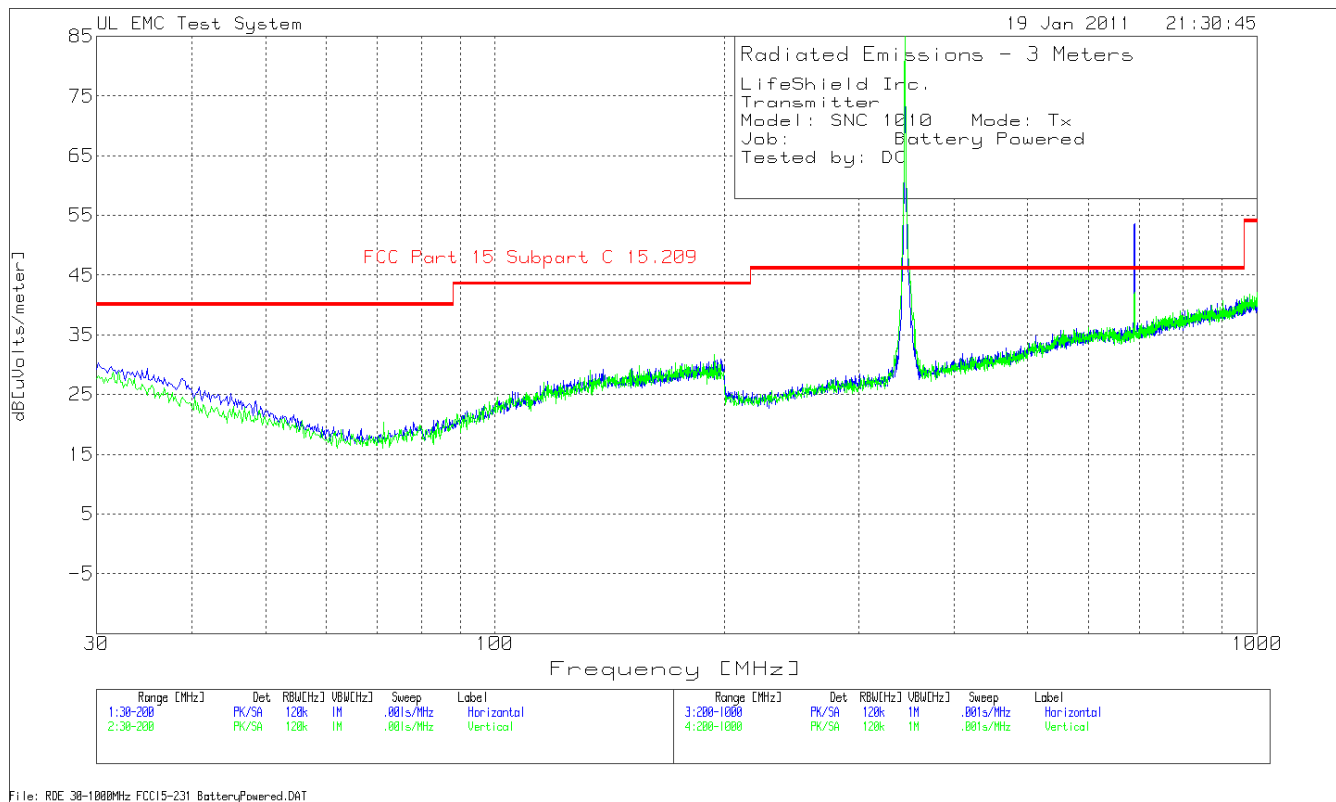
**Table 2 Radiated Emissions Test Equipment**

| Test Equipment Used                |                 |             |            |            |              |
|------------------------------------|-----------------|-------------|------------|------------|--------------|
| Description                        | Manufacturer    | Model       | Identifier | Cal Date   | Cal Due Date |
| 30-1000MHz                         |                 |             |            |            |              |
| EMI Receiver                       | Rohde & Schwarz | ESIB40      | 34968      | 2010-02-22 | 2011-02-22   |
| Bicon Antenna                      | Schaffner       | VBA6106A    | 43441      | 2010-09-09 | 2011-09-09   |
| Log-P Antenna                      | Schaffner       | UPA6109     | 44067      | 2010-04-26 | 2011-04-26   |
| Switch Driver                      | HP              | 11713A      | ME7A-627   | N/A        | N/A          |
| System Controller                  | Sunol Sciences  | SC99V       | 44396      | N/A        | N/A          |
| Camera Controller                  | Panasonic       | WV-CU254    | 44395      | N/A        | N/A          |
| RF Switch Box                      | UL              | 1           | 44398      | N/A        | N/A          |
| Measurement Software               | UL              | Version 9.3 | 44740      | N/A        | N/A          |
| Temp/Humidity/Pressure Meter       | Cole Parmer     | 99760-00    | 4268       | 2010-12-07 | 2012-12-07   |
| Multimeter                         | Fluke           | 83III       | ME5B-305   | 2010-02-01 | 2011-02-01   |
| Above 1GHz (Band Optimized System) |                 |             |            |            |              |
| Spectrum Analyzer                  | Agilent         | E7405A      | 19695      | 2010-02-01 | 2011-02-01   |
| Horn Antenna (1-2 GHz)             | ETS             | 3161-01     | 51442      | 2008-03-28 | See * below  |
| Horn Antenna (2-4 GHz)             | ETS             | 3161-02     | 48107      | 2007-09-27 | See * below  |
| Signal Path Controller             | HP              | 11713A      | 50250      | N/A        | N/A          |
| Gain Controller                    | HP              | 11713A      | 50251      | N/A        | N/A          |
| RF Switch / Preamp Fixture         | UL              | BOMS1       | 50249      | N/A        | N/A          |
| System Controller                  | UL              | BOMS2       | 50252      | N/A        | N/A          |
| Measurement Software               | UL              | Version 9.3 | 44740      | N/A        | N/A          |
| Temp/Humidity/Pressure Meter       | Cole Parmer     | 99760-00    | 43734      | 2009-11-11 | 2010-11-11   |
| Multimeter                         | Fluke           | 83III       | ME5B-305   | 2010-02-02 | 2011-02-02   |

\* Note: As allowed by the calibration standard ANSI C63.4 Section 4.4.2, standard gain horns need only a one-time calibration. Only if physical damage occurs will the horn antenna require re-calibration. Gain standard horn antennas (sometimes called standard gain horn antennas) need not be calibrated beyond that which is provided by the manufacturer unless they are damaged or deterioration is suspected, or they are used at a distance closer than  $2D^2/\lambda$ . Gain standard horn antennas have gains that are fixed by their dimensions and dimensional tolerances.

Job Number: 11U13609  
Model Number: SNC1010  
Client Name: LifeShield Inc.  
FCC ID: S9PSNC1010

Figure 2 Radiated Emissions Graph



Job Number: 11U13609  
 Model Number: SNC1010  
 Client Name: LifeShield Inc.  
 FCC ID: S9PSNC1010

### Table 3 Radiated Emissions Data Points

LifeShield Inc.  
 Transmitter  
 Model: SNC 1010 Mode: Tx  
 Job: Battery Powered  
 Tested by: DC

| Test Frequency [MHz]     | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2     | 3    | 4 | 5 | 6 |
|--------------------------|------------------------|-----------------------|------------------------|------------------------|---------|-------|------|---|---|---|
| =====                    |                        |                       |                        |                        |         |       |      |   |   |   |
| Horizontal 200 - 1000MHz |                        |                       |                        |                        |         |       |      |   |   |   |
| 345.0008                 | 74.62 PK               | 1                     | 15.5                   | 91.12                  | -       | 97.2  | -    | - | - | - |
| Azimuth: 47              | Height:105             | Horz                  | Margin [dB]:           | -                      | -6.08   | -     | -    | - | - | - |
| 345.0008                 | 56.88*                 | 1                     | 15.5                   | 73.38                  | -       | -     | 77.2 | - | - | - |
| Azimuth: 47              | Height:105             | Horz                  | Margin [dB]:           | -                      | -       | -3.82 | -    | - | - | - |
| 690.0001                 | 32.82 PK               | 1.4                   | 21.1                   | 55.32                  | -       | 77.2  | -    | - | - | - |
| Azimuth: 41              | Height:116             | Horz                  | Margin [dB]:           | -                      | -21.88  | -     | -    | - | - | - |
| 690.0001                 | 32.82 PK               | 1.4                   | 21.1                   | 55.32                  | -       | -     | 57.2 | - | - | - |
| Azimuth: 41              | Height:116             | Horz                  | Margin [dB]:           | -                      | -       | -1.88 | -    | - | - | - |
| 885.1426                 | 8.41 QP                | 1.6                   | 23.1                   | 33.11                  | 46      | -     | -    | - | - | - |
| Azimuth: 139             | Height:253             | Horz                  | Margin [dB]:           | -12.89                 | -       | -     | -    | - | - | - |
| 939.1696                 | 8.41 QP                | 1.8                   | 23.6                   | 33.81                  | 46      | -     | -    | - | - | - |
| Azimuth: 230             | Height:297             | Horz                  | Margin [dB]:           | -12.19                 | -       | -     | -    | - | - | - |
| 947.5738                 | 8.46 QP                | 1.8                   | 23.8                   | 34.06                  | 46      | -     | -    | - | - | - |
| Azimuth: 189             | Height:387             | Horz                  | Margin [dB]:           | -11.94                 | -       | -     | -    | - | - | - |
| Vertical 200 - 1000MHz   |                        |                       |                        |                        |         |       |      |   |   |   |
| 345.0001                 | 78.17 PK               | 1                     | 15.3                   | 94.47                  | -       | 97.1  | -    | - | - | - |
| Azimuth: 246             | Height:192             | Vert                  | Margin [dB]:           | -                      | -2.63   | -     | -    | - | - | - |
| 345.0001                 | 60.43*                 | 1                     | 15.3                   | 76.73                  | -       | -     | 77.2 | - | - | - |
| Azimuth: 246             | Height:192             | Vert                  | Margin [dB]:           | -                      | -       | -0.47 | -    | - | - | - |
| 689.9967                 | 23.66 PK               | 1.4                   | 20.9                   | 45.96                  | 46      | -     | -    | - | - | - |
| Azimuth: 88              | Height:167             | Vert                  | Margin [dB]:           | -0.04                  | -       | -     | -    | - | - | - |
| 902.35                   | 8.52 QP                | 1.6                   | 23.2                   | 33.32                  | 46      | -     | -    | - | - | - |
| Azimuth: 267             | Height:229             | Vert                  | Margin [dB]:           | -12.68                 | -       | -     | -    | - | - | - |
| 953.1766                 | 8.46 QP                | 1.7                   | 24.2                   | 34.36                  | 46      | -     | -    | - | - | - |
| Azimuth: 35              | Height:193             | Vert                  | Margin [dB]:           | -11.64                 | -       | -     | -    | - | - | - |

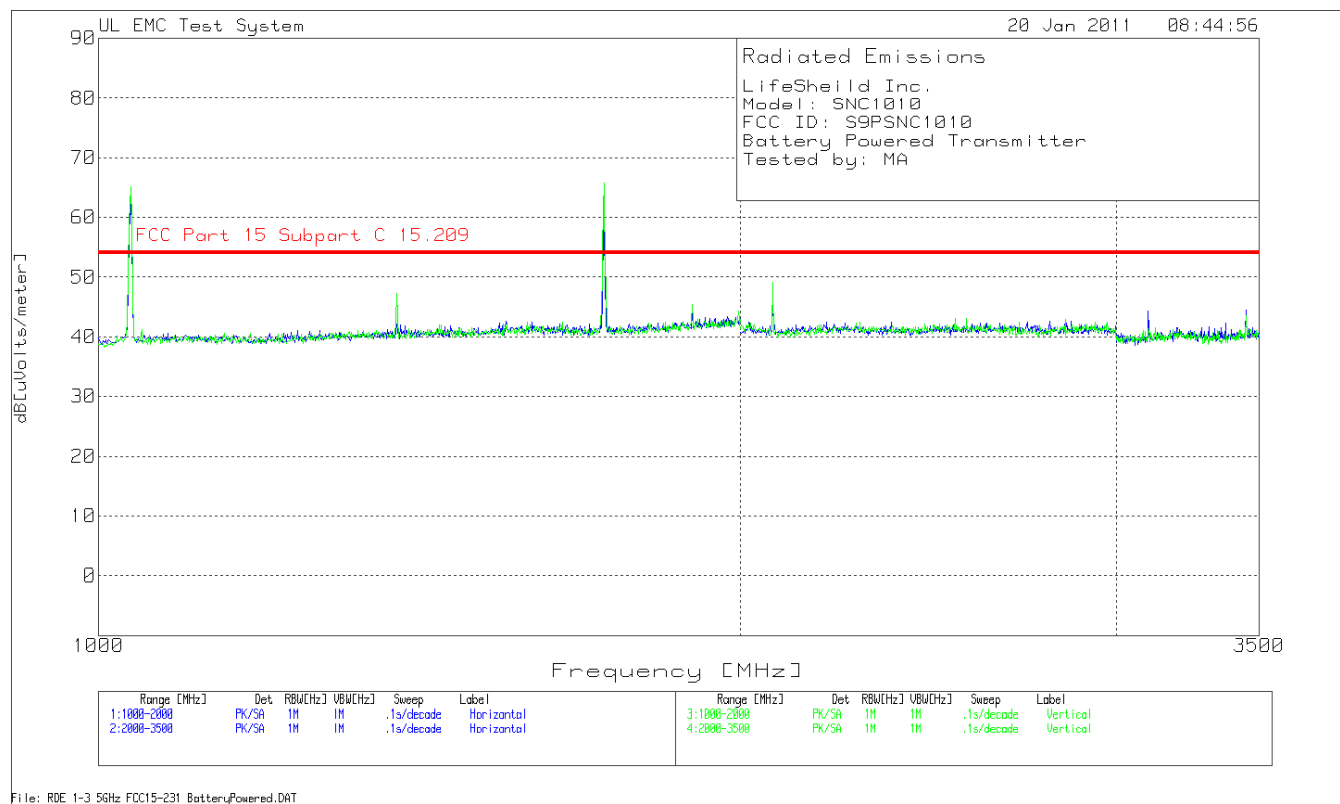
**\*Duty Cycle Correction factor of 17.74dB applied.**

LIMIT 1: FCC Part 15 Subpart C 15.209  
 LIMIT 2: FCC Part 15 Subpart C 15.35 (Peak Limit)  
 LIMIT 2: FCC Part 15 Subpart C 15.231  
 LIMIT 4: NONE  
 LIMIT 5: NONE  
 LIMIT 6: NONE

PK - Peak detector (Maximized)  
 QP - Quasi-Peak detector  
 LnAv - Linear average detector  
 LgAv - Average log detector  
 Av - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection

Job Number: 11U13609  
 Model Number: SNC1010  
 Client Name: LifeShield Inc.  
 FCC ID: S9PSNC1010

Figure 2 Radiated Emissions Graph



Job Number: 11U13609  
 Model Number: SNC1010  
 Client Name: LifeShield Inc.  
 FCC ID: S9PSNC1010

**Table 3 Radiated Emissions Data Points**

LifeShield Inc.

Model: SNC1010

FCC ID: S9PSNC1010

Battery Powered Transmitter

Tested by: MA

| Test Frequency [MHz]      | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2      | 3 | 4 | 5 | 6 |
|---------------------------|------------------------|-----------------------|------------------------|------------------------|---------|--------|---|---|---|---|
| =====                     |                        |                       |                        |                        |         |        |   |   |   |   |
| Horizontal 1000 - 2000MHz |                        |                       |                        |                        |         |        |   |   |   |   |
| 1034.975                  | 87.29 PK               | -42.69                | 19.5                   | 64.1                   | 74      | -      | - | - | - | - |
| Azimuth: 70               | Height:128             | Horz                  | Margin                 | [dB]:                  | -9.9    | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1034.975                  | 69.55*                 | -42.69                | 19.5                   | 46.36                  | 54      | -      | - | - | - | - |
| Azimuth: 70               | Height:128             | Horz                  | Margin                 | [dB]:                  | -7.64   | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1725.025                  | 82.77 PK               | -41.85                | 20.8                   | 61.72                  | 74      | -      | - | - | - | - |
| Azimuth: 42               | Height:352             | Horz                  | Margin                 | [dB]:                  | -12.28  | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1725.025                  | 65.03*                 | -41.85                | 20.8                   | 43.98                  | -       | 57.2   | - | - | - | - |
| Azimuth: 42               | Height:352             | Horz                  | Margin                 | [dB]:                  | -       | -13.22 | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| Horizontal 2000 - 3500MHz |                        |                       |                        |                        |         |        |   |   |   |   |
| 2070.1625                 | 71.01 PK               | -41.9                 | 21.1                   | 50.21                  | 54      | -      | - | - | - | - |
| Azimuth: 287              | Height:397             | Horz                  | Margin                 | [dB]:                  | -3.79   | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| Vertical 1000 - 2000MHz   |                        |                       |                        |                        |         |        |   |   |   |   |
| 1034.9875                 | 91.18 PK               | -42.69                | 19.5                   | 67.99                  | 74      | -      | - | - | - | - |
| Azimuth: 167              | Height:101             | Vert                  | Margin                 | [dB]:                  | -6.01   | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1034.9875                 | 73.44*                 | -42.69                | 19.5                   | 50.25                  | 54      | -      | - | - | - | - |
| Azimuth: 167              | Height:101             | Vert                  | Margin                 | [dB]:                  | -3.75   | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1380.05                   | 73.88 PK               | -42.59                | 20.7                   | 51.99                  | -       | 57.2   | - | - | - | - |
| Azimuth: 47               | Height:280             | Vert                  | Margin                 | [dB]:                  | -       | -5.21  | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1725                      | 86.84 PK               | -41.85                | 20.8                   | 65.79                  | 74      | -      | - | - | - | - |
| Azimuth: 140              | Height:313             | Vert                  | Margin                 | [dB]:                  | -8.21   | -      | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| 1725                      | 69.1*                  | -41.85                | 20.8                   | 48.05                  | -       | 57.2   | - | - | - | - |
| Azimuth: 140              | Height:313             | Vert                  | Margin                 | [dB]:                  | -       | -9.15  | - | - | - | - |
|                           |                        |                       |                        |                        |         |        |   |   |   |   |
| Vertical 2000 - 3500MHz   |                        |                       |                        |                        |         |        |   |   |   |   |
| 2070                      | 71.81 PK               | -41.9                 | 20.9                   | 50.81                  | 54      | -      | - | - | - | - |
| Azimuth: 68               | Height:325             | Vert                  | Margin                 | [dB]:                  | -3.19   | -      | - | - | - | - |

**\*Duty Cycle Correction factor of 17.74dB applied.**

LIMIT 1: FCC Part 15 Subpart C 15.209/15.35(Peak Limit)

LIMIT 2: FCC Part 15 Subpart C 15.231

LIMIT 3: NONE

LIMIT 4: NONE

LIMIT 5: NONE

LIMIT 6: NONE

PK - Peak detector (Maximized)

QP - Quasi-Peak detector

LnAv - Linear average detector

LgAv - Average log detector

Av - Average detector

CAV - CISPR Average detector

RMS - RMS detection