# 9. RADIATED TEST RESULTS

## 9.1. LIMITS AND PROCEDURE

**LIMITS**

FCC §15.205, §15.209, §15.247 (d)

IC RSS-GEN Clause 8.9 (Transmitter)

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|---|---|---|
| 0.009-0.490 | 2400/F(kHz) @ 300 m | - |
| 0.490-1.705 | 24000/F(kHz) @ 30 m | - |
| 1.705 - 30 | 30 @ 30m | - |
| 30 - 88 | 100 | 40 |
| 88 - 216 | 150 | 43.5 |
| 216 - 960 | 200 | 46 |
| Above 960 | 500 | 54 |

**TEST PROCEDURE**

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements for the 30-1000 MHz range, 9 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements for the 0.15-30 MHz range and 200 Hz for peak detection measurements or 200 Hz for quasi-peak detection measurements for the 9 to 150 kHz range. Peak detection is used unless otherwise noted as quasi-peak.

For peak measurements above 1 GHz, the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 3 MHz. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. For this evaluation, RMS Power Averaging was used and the resolution/video bandwidth settings were 1MHz/3MHz.

The spectrum from 9kHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.


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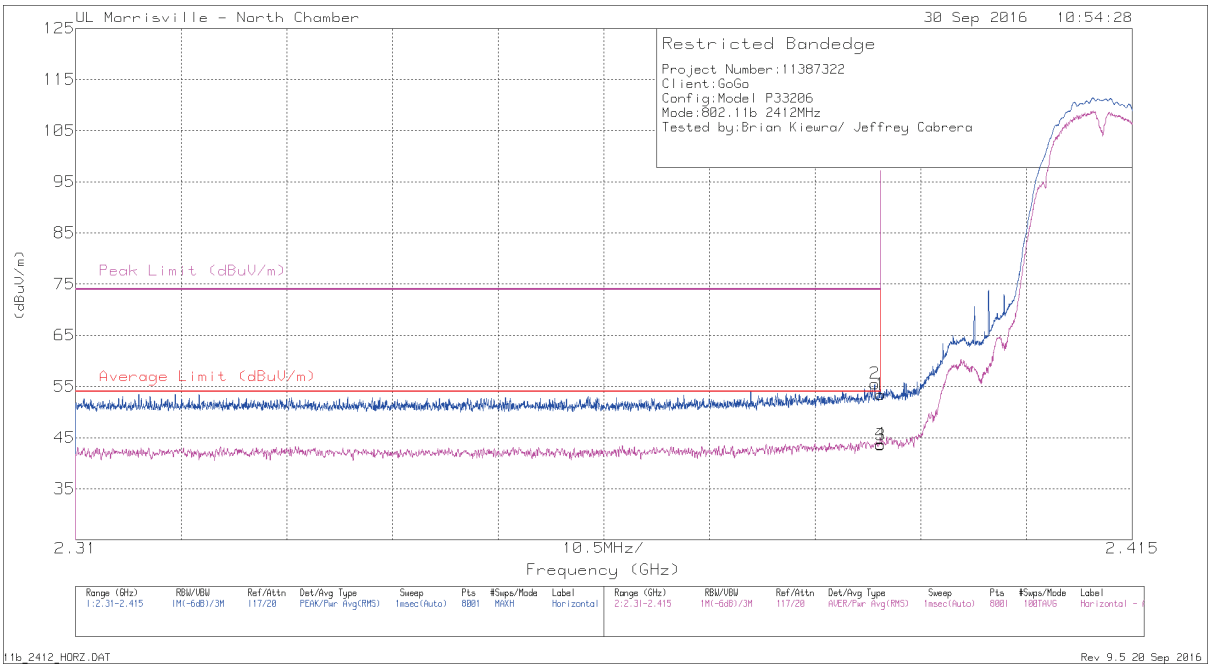
## 9.2. TRANSMITTER ABOVE 1 GHz

### 9.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

**RESTRICTED BANDEDGE (LOW CHANNEL)**




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.389 | 47.47 | Pk | 32.2 | -24.1 | 0 | 55.57 | - | - | 74 | -18.43 | 200 | 390 | H |
| 1 | * 2.39 | 45.46 | Pk | 32.2 | -24.2 | 0 | 53.46 | - | - | 74 | -20.54 | 200 | 390 | H |
| 3 | * 2.39 | 35.57 | RMS | 32.2 | -24.2 | 1.01 | 44.58 | 54 | -9.42 | - | - | 200 | 390 | H |
| 4 | * 2.39 | 35.76 | RMS | 32.2 | -24.2 | 1.01 | 44.77 | 54 | -9.23 | - | - | 200 | 390 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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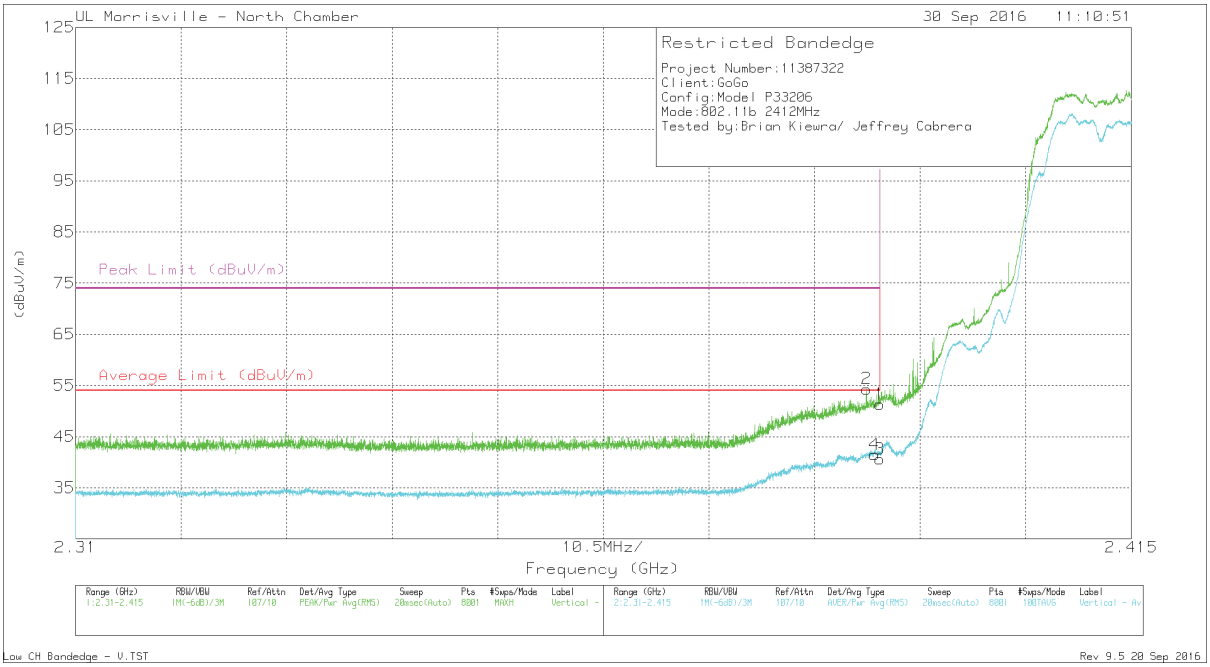


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 43.76 | Pk | 32.1 | -24.5 | 0 | 51.36 | - | - | 74 | -22.64 | 354 | 386 | V |
| 2 | * 2.389 | 46.74 | Pk | 32.1 | -24.5 | 0 | 54.34 | - | - | 74 | -19.66 | 354 | 386 | V |
| 3 | * 2.39 | 33.01 | RMS | 32.1 | -24.5 | 1.01 | 41.62 | 54 | -12.38 | - | - | 354 | 386 | V |
| 4 | * 2.389 | 33.89 | RMS | 32.1 | -24.5 | 1.01 | 42.5 | 54 | -11.5 | - | - | 354 | 386 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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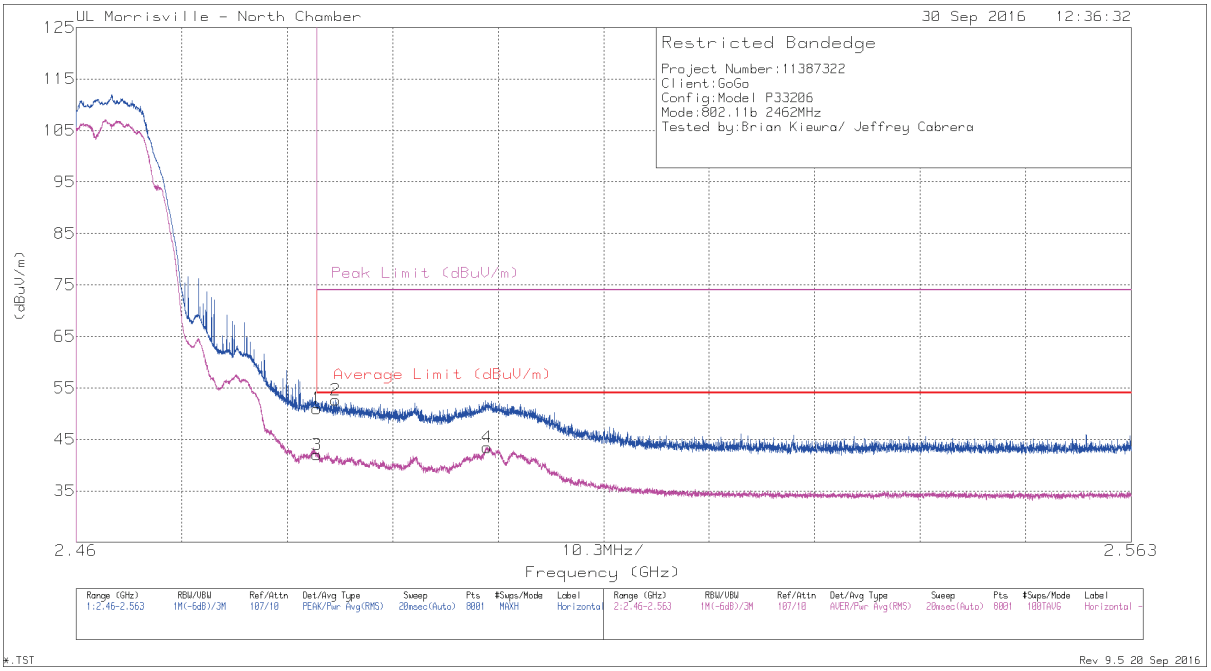
**RESTRICTED BANDEDGE (HIGH CHANNEL 11)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 43.08 | Pk | 32.3 | -24.4 | 0 | 50.98 | - | - | 74 | -23.02 | 44 | 393 | H |
| 2 | * 2.485 | 44.76 | Pk | 32.3 | -24.4 | 0 | 52.66 | - | - | 74 | -21.34 | 44 | 393 | H |
| 3 | * 2.484 | 33.1 | RMS | 32.3 | -24.4 | 1.01 | 42.01 | 54 | -11.99 | - | - | 44 | 393 | H |
| 4 | 2.5 | 34.54 | RMS | 32.3 | -24.4 | 1.01 | 43.45 | 54 | -10.55 | - | - | 44 | 393 | H |

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Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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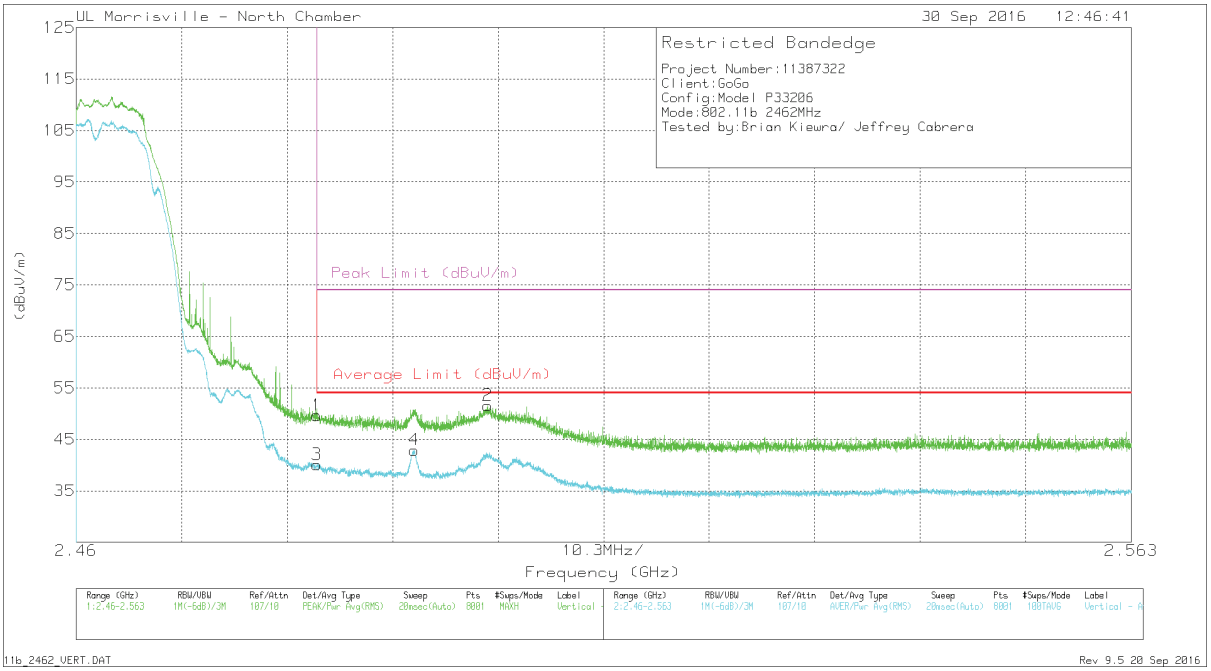


Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 41.76 | Pk | 32.3 | -24.4 | 0 | 49.66 | - | - | 74 | -24.34 | 1 | 353 | V |
| 3 | * 2.484 | 31.19 | RMS | 32.3 | -24.4 | 1.01 | 40.1 | 54 | -13.9 | - | - | 1 | 353 | V |
| 4 | * 2.493 | 34.02 | RMS | 32.3 | -24.4 | 1.01 | 42.93 | 54 | -11.07 | - | - | 1 | 353 | V |
| 2 | 2.5 | 43.69 | Pk | 32.3 | -24.4 | 0 | 51.59 | - | - | 74 | -22.41 | 1 | 353 | V |

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Pk - Peak detector
RMS - RMS detection
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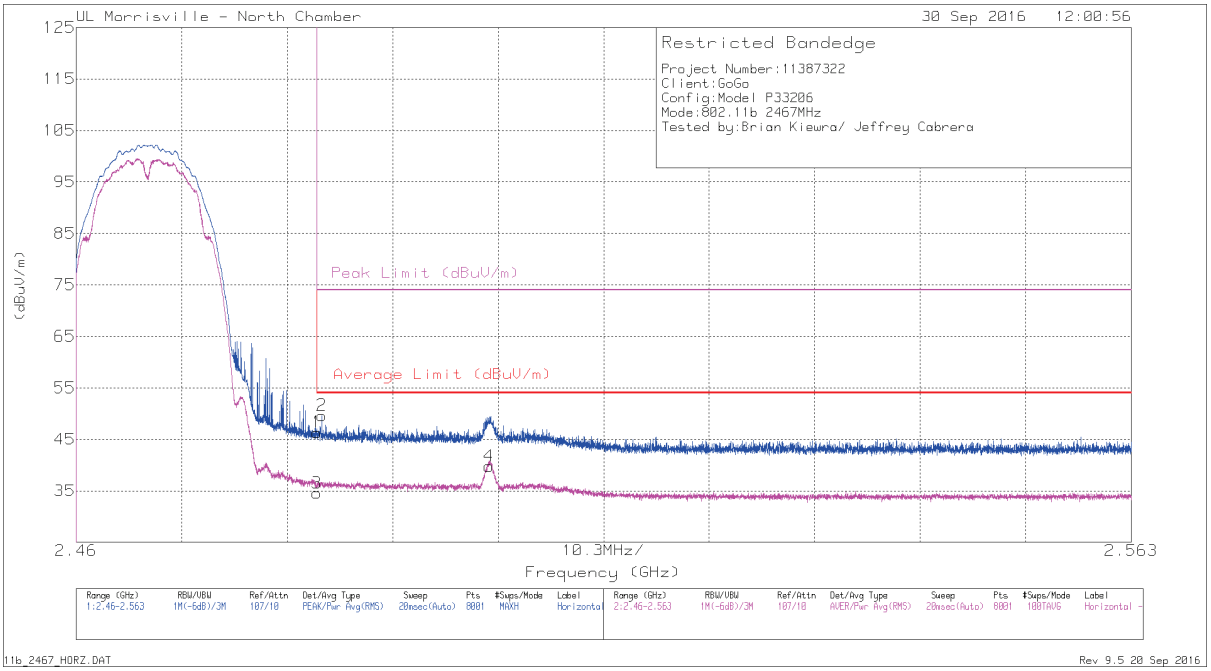
**RESTRICTED BANDEDGE (HIGH CHANNEL 12)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 38.45 | Pk | 32.3 | -24.4 | 0 | 46.35 | - | - | 74 | -27.65 | 106 | 341 | H |
| 2 | * 2.484 | 41.72 | Pk | 32.3 | -24.4 | 0 | 49.62 | - | - | 74 | -24.38 | 106 | 341 | H |
| 3 | * 2.484 | 26.65 | RMS | 32.3 | -24.4 | 1.01 | 35.56 | 54 | -18.44 | - | - | 106 | 341 | H |
| 4 | 2.5 | 31.88 | RMS | 32.3 | -24.4 | 1.01 | 40.79 | 54 | -13.21 | - | - | 106 | 341 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
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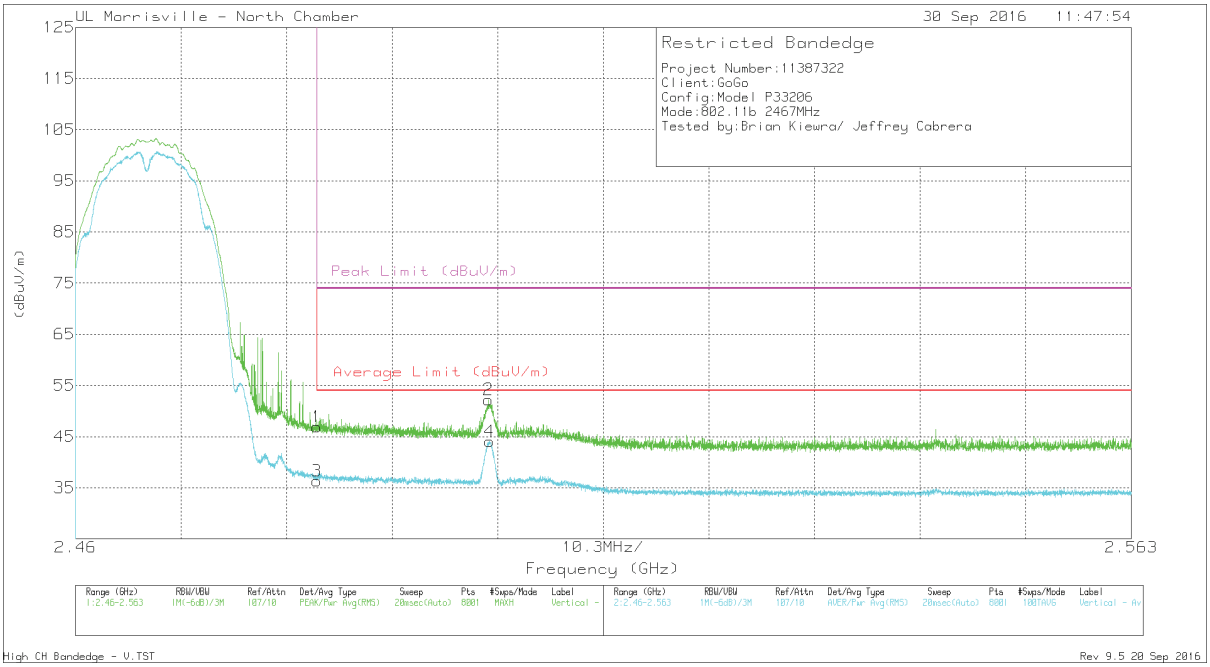


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 39.02 | Pk | 32.3 | -24.4 | 0 | 46.92 | - | - | 74 | -27.08 | 360 | 345 | V |
| 3 | * 2.484 | 27.41 | RMS | 32.3 | -24.4 | 1.01 | 36.32 | 54 | -17.68 | - | - | 360 | 345 | V |
| 2 | 2.5 | 44.32 | Pk | 32.3 | -24.4 | 0 | 52.22 | - | - | 74 | -21.78 | 360 | 345 | V |
| 4 | 2.5 | 35.17 | RMS | 32.3 | -24.4 | 1.01 | 44.08 | 54 | -9.92 | - | - | 360 | 345 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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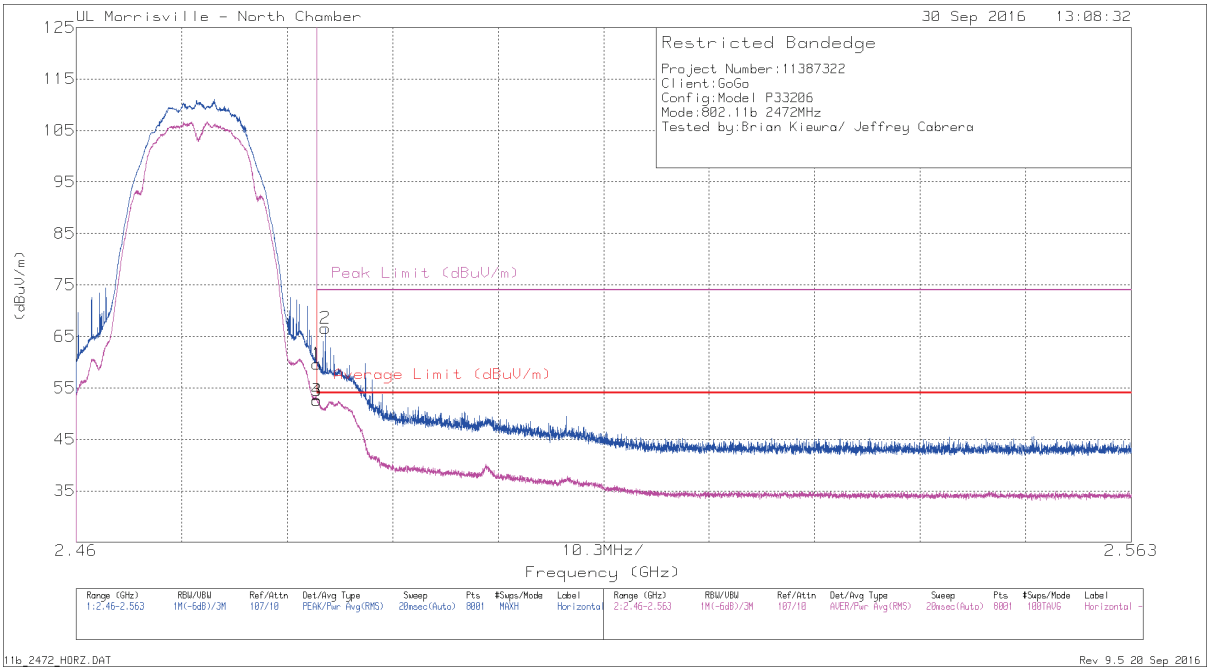
**RESTRICTED BANDEDGE (HIGH CHANNEL 13)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.74 | Pk | 32.3 | -24.4 | 0 | 59.64 | - | - | 74 | -14.36 | 40 | 350 | H |
| 2 | * 2.484 | 58.71 | Pk | 32.3 | -24.4 | 0 | 66.61 | - | - | 74 | -7.39 | 40 | 350 | H |
| 3 | * 2.484 | 43.65 | RMS | 32.3 | -24.4 | 1.01 | 52.56 | 54 | -1.44 | - | - | 40 | 350 | H |
| 4 | * 2.484 | 43.7 | RMS | 32.3 | -24.4 | 1.01 | 52.61 | 54 | -1.39 | - | - | 40 | 350 | H |

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Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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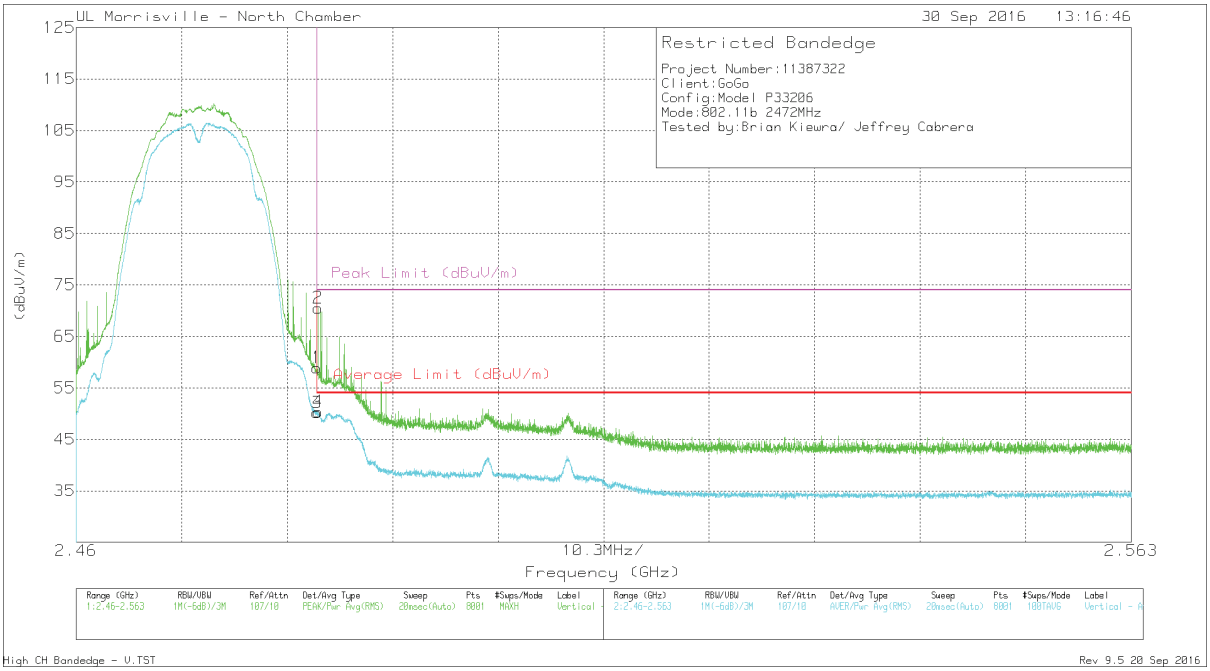


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.02 | Pk | 32.3 | -24.4 | 0 | 58.92 | - | - | 74 | -15.08 | 1 | 345 | V |
| 2 | * 2.484 | 62.63 | Pk | 32.3 | -24.4 | 0 | 70.53 | - | - | 74 | -3.47 | 1 | 345 | V |
| 3 | * 2.484 | 41.28 | RMS | 32.3 | -24.4 | 1.01 | 50.19 | 54 | -3.81 | - | - | 1 | 345 | V |
| 4 | * 2.484 | 41.43 | RMS | 32.3 | -24.4 | 1.01 | 50.34 | 54 | -3.66 | - | - | 1 | 345 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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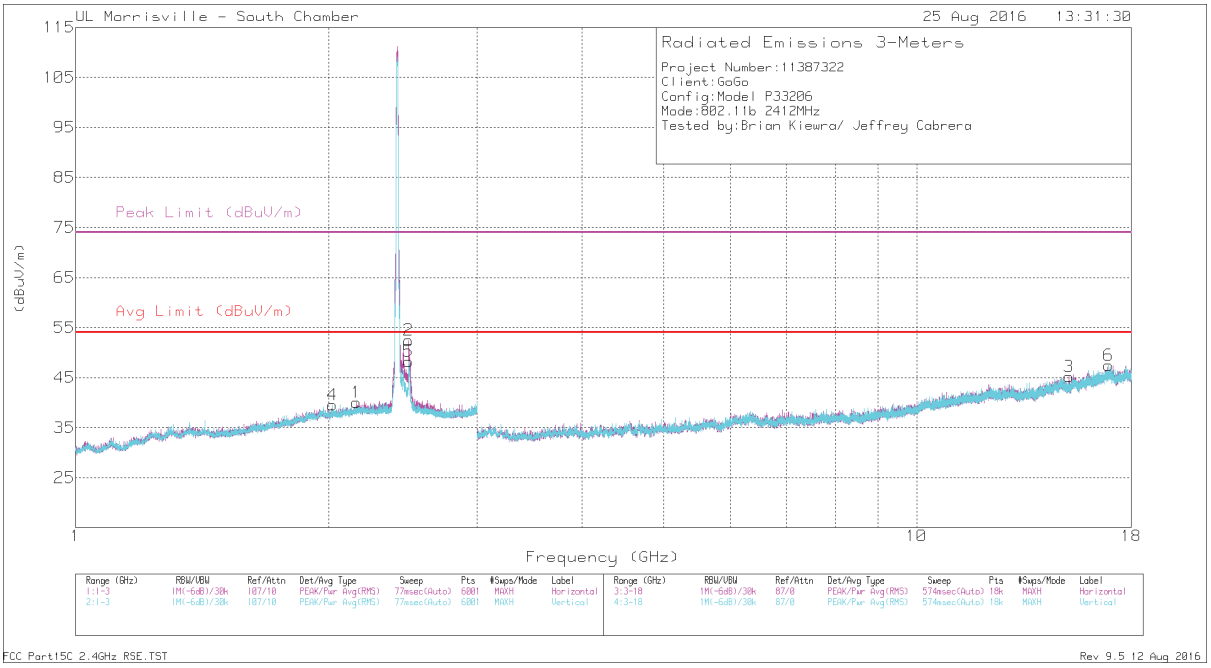
## HARMONICS AND SPURIOUS EMISSIONS

### Low Channel




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.488 | 50.92 | PK2 | 32.4 | -24.7 | 0 | 58.62 | - | - | 74 | -15.38 | 78 | 199 | H |
| | * 2.487 | 42.17 | MAv1 | 32.4 | -24.7 | 1.01 | 50.88 | 54 | -3.12 | - | - | 78 | 199 | H |
| 5 | * 2.487 | 47.1 | PK2 | 32.4 | -24.7 | 0 | 54.8 | - | - | 74 | -19.2 | 71 | 199 | V |
| | * 2.487 | 38.97 | MAv1 | 32.4 | -24.7 | 1.01 | 47.68 | 54 | -6.32 | - | - | 71 | 199 | V |
| 4 | 2.02 | 31.33 | Pk | 31.2 | -23 | 0 | 39.53 | - | - | - | - | 0-360 | 199 | V |
| 1 | 2.156 | 31.67 | Pk | 31.7 | -23.3 | 0 | 40.07 | - | - | - | - | 0-360 | 101 | H |
| 3 | 15.17 | 30.32 | Pk | 39.9 | -25 | 0 | 45.22 | - | - | - | - | 0-360 | 101 | H |
| 6 | 16.923 | 30.18 | Pk | 41.6 | -24.3 | 0 | 47.48 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 -Maximum Peak
MAv1 - Maximum RMS Average
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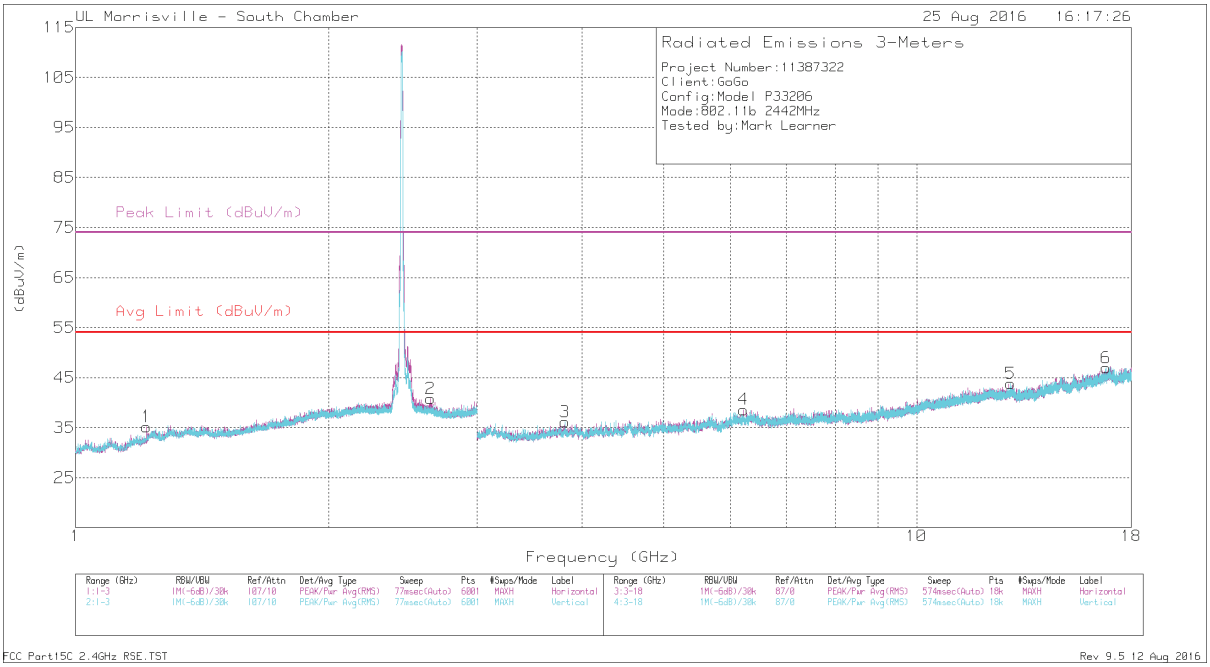
## Mid Channel




## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 1.214 | 35.59 | PK2 | 28.4 | -23.9 | 0 | 40.09 | - | - | 74 | -33.91 | 284 | 100 | H |
| | * 1.216 | 23.38 | MAv1 | 28.4 | -23.9 | 1.01 | 27.88 | 54 | -25.11 | - | - | 284 | 100 | H |
| 3 | * 3.822 | 40.7 | PK2 | 33.4 | -33 | 0 | 41.1 | - | - | 74 | -32.9 | 235 | 198 | V |
| | * 3.821 | 29.88 | MAv1 | 33.4 | -33 | 1.01 | 31.29 | 54 | -22.71 | - | - | 235 | 198 | V |
| 2 | 2.643 | 34.02 | Pk | 32.5 | -25.7 | 0 | 40.82 | - | - | - | - | 0-360 | 100 | H |
| 4 | 6.221 | 32.71 | Pk | 35.4 | -29.5 | 0 | 38.61 | - | - | - | - | 0-360 | 101 | H |
| 5 | 12.924 | 29.73 | Pk | 39.2 | -25.1 | 0 | 43.83 | - | - | - | - | 0-360 | 101 | V |
| 6 | 16.797 | 29.97 | Pk | 41.6 | -24.6 | 0 | 46.97 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 -Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 12 Aug 2016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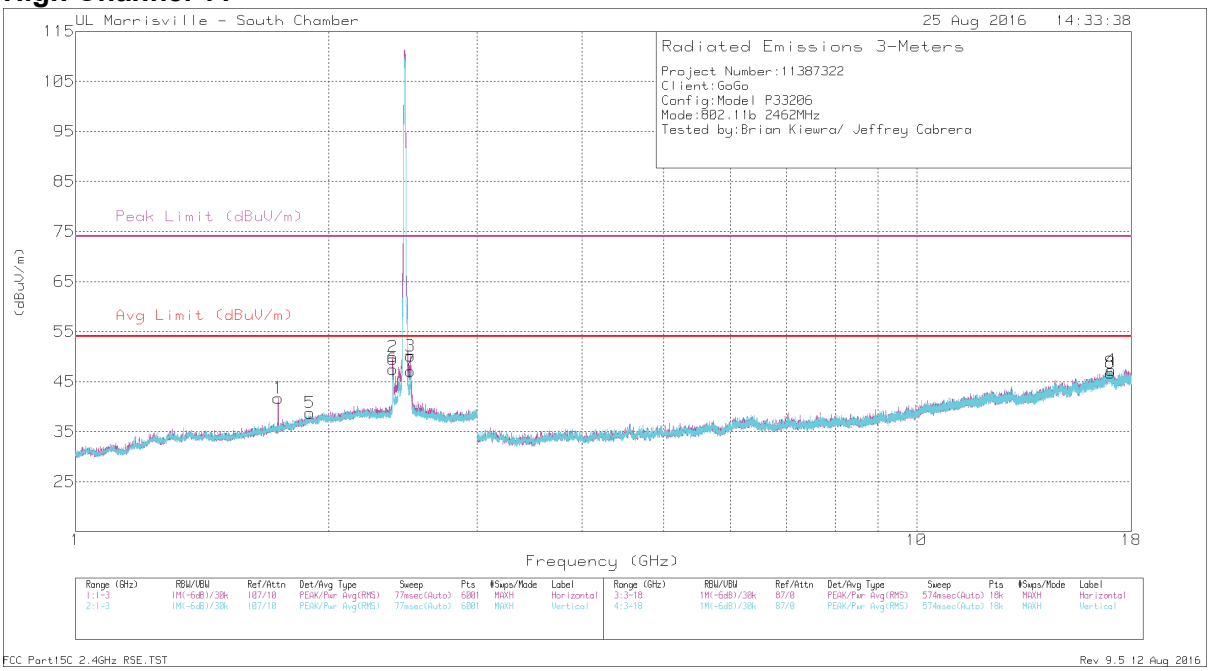
## High Channel 11




## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.383 | 46.71 | PK2 | 32.1 | -24.1 | 0 | 54.71 | - | - | 74 | -19.29 | 13 | 198 | H |
| | * 2.383 | 38.86 | MAv1 | 32.1 | -24.1 | 1.01 | 47.87 | 54 | -6.13 | - | - | 13 | 198 | H |
| 3 | * 2.5 | 48.43 | PK2 | 32.5 | -24.8 | 0 | 56.13 | - | - | 74 | -17.87 | 94 | 104 | H |
| | *2.5 | 38.07 | MAv1 | 32.5 | -24.8 | 1.01 | 46.78 | 54 | -7.22 | - | - | 94 | 104 | H |
| 6 | * 2.385 | 44.46 | PK2 | 32.2 | -24.1 | 0 | 52.56 | - | - | 74 | -21.44 | 113 | 198 | V |
| | * 2.383 | 35.92 | MAv1 | 32.1 | -24.1 | 1.01 | 44.93 | 54 | -9.07 | - | - | 113 | 198 | V |
| 1 | 1.741 | 34.84 | Pk | 29.4 | -22.5 | 0 | 41.74 | - | - | - | - | 0-360 | 199 | H |
| 5 | 1.899 | 30.55 | Pk | 30.7 | -22.5 | 0 | 38.75 | - | - | - | - | 0-360 | 199 | V |
| 7 | 2.501 | 39.46 | Pk | 32.5 | -24.8 | 0 | 47.16 | - | - | - | - | 0-360 | 199 | V |
| 8 | 17.006 | 30.07 | Pk | 41.5 | -24.8 | 0 | 46.77 | - | - | - | - | 0-360 | 101 | V |
| 4 | 17.029 | 30.19 | Pk | 41.5 | -24.4 | 0 | 47.29 | - | - | - | - | 0-360 | 199 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
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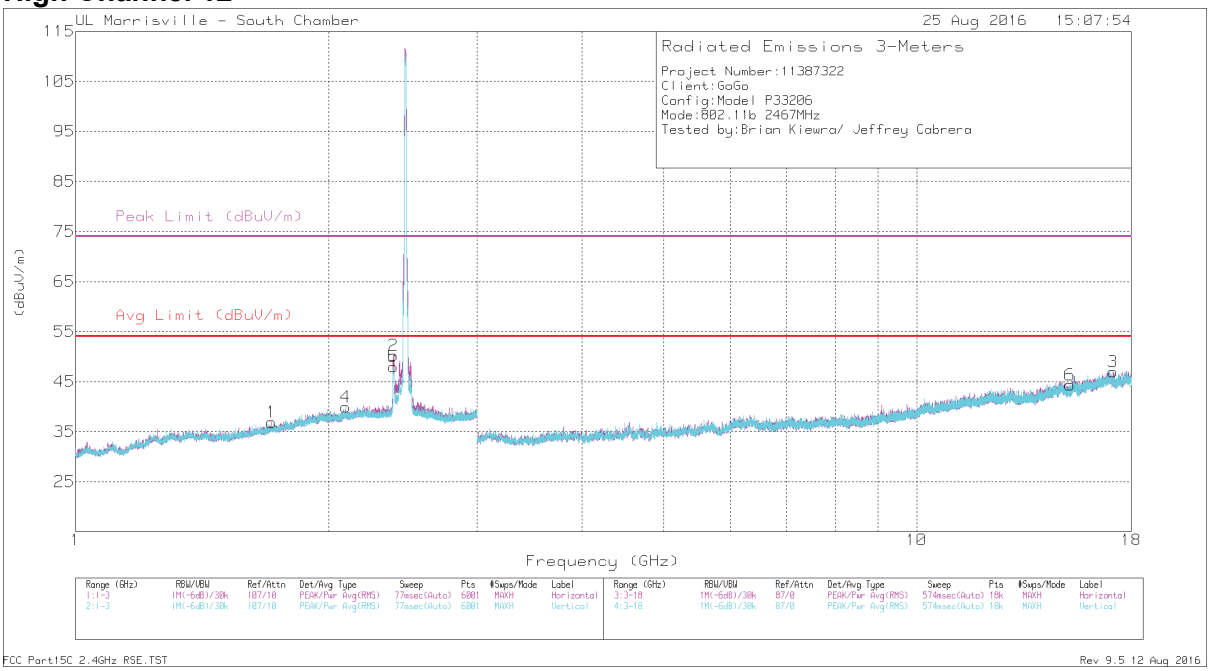
## High Channel 12




## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.39 | 44.23 | PK2 | 32.2 | -24.2 | 0 | 52.23 | - | - | 74 | -21.77 | 164 | 103 | H |
| | * 2.39 | 35.1 | MAv1 | 32.2 | -24.2 | 1.01 | 44.11 | 54 | -9.89 | - | - | 164 | 103 | H |
| 5 | * 2.39 | 42.38 | PK2 | 32.2 | -24.2 | 0 | 50.38 | - | - | 74 | -23.62 | 86 | 103 | V |
| | * 2.39 | 32.12 | MAv1 | 32.2 | -24.2 | 1.01 | 41.13 | 54 | -12.87 | - | - | 86 | 103 | V |
| 4 | 1.893 | 30.32 | Pk | 30.7 | -22.5 | 0 | 38.52 | - | - | - | - | 0-360 | 101 | V |
| 1 | 1.908 | 30.41 | Pk | 30.8 | -22.6 | 0 | 38.61 | - | - | - | - | 0-360 | 199 | H |
| 6 | 14.841 | 30.1 | Pk | 39.8 | -24.2 | 0 | 45.7 | - | - | - | - | 0-360 | 101 | V |
| 3 | 14.865 | 29.33 | Pk | 39.8 | -23.9 | 0 | 45.23 | - | - | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
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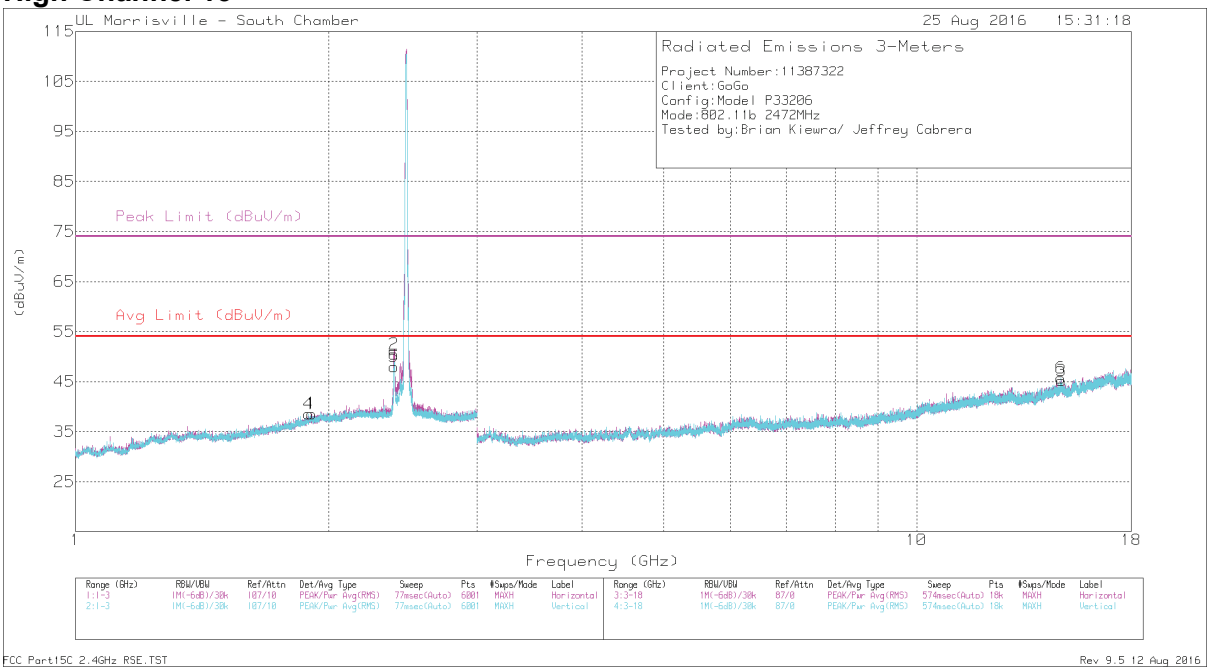
## High Channel 13




## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 2.392 | 48.74 | PK2 | 32.2 | -24.2 | 0 | 56.74 | - | - | 74 | -17.26 | 202 | 100 | H |
| | 2.391 | 40.55 | MAv1 | 32.2 | -24.2 | 1.01 | 49.56 | 54 | -4.44 | - | - | 202 | 100 | H |
| 5 | 2.391 | 45 | PK2 | 32.2 | -24.2 | 0 | 53 | - | - | 74 | -21 | 358 | 100 | V |
| | 2.391 | 36.35 | MAv1 | 32.2 | -24.2 | 1.01 | 45.36 | 54 | -8.64 | - | - | 358 | 100 | V |
| 4 | 1.893 | 30.32 | Pk | 30.7 | -22.5 | 0 | 38.52 | - | - | - | - | 0-360 | 101 | V |
| 1 | 1.908 | 30.41 | Pk | 30.8 | -22.6 | 0 | 38.61 | - | - | - | - | 0-360 | 199 | H |
| 6 | 14.841 | 30.1 | Pk | 39.8 | -24.2 | 0 | 45.7 | - | - | - | - | 0-360 | 101 | V |
| 3 | 14.865 | 29.33 | Pk | 39.8 | -23.9 | 0 | 45.23 | - | - | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 12 Aug 2016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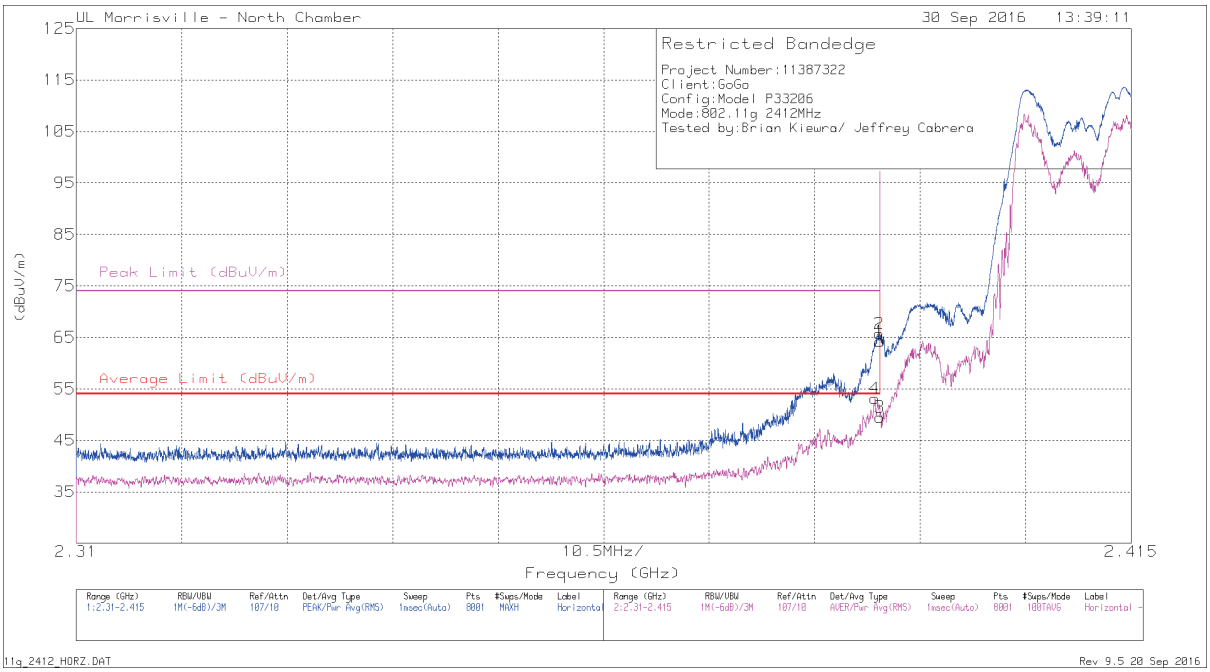
## 9.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

**RESTRICTED BANDEDGE (LOW CHANNEL)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | * 2.389 | 40.33 | RMS | 32.2 | -24.1 | 4.68 | 53.11 | 54 | -.89 | - | - | 101 | 328 | H |
| 1 | * 2.39 | 56.23 | Pk | 32.2 | -24.2 | 0 | 64.23 | - | - | 74 | -9.77 | 101 | 328 | H |
| 2 | * 2.39 | 57.71 | Pk | 32.2 | -24.2 | 0 | 65.71 | - | - | 74 | -8.29 | 101 | 328 | H |
| 3 | * 2.39 | 36.78 | RMS | 32.2 | -24.2 | 4.68 | 49.46 | 54 | -4.54 | - | - | 101 | 328 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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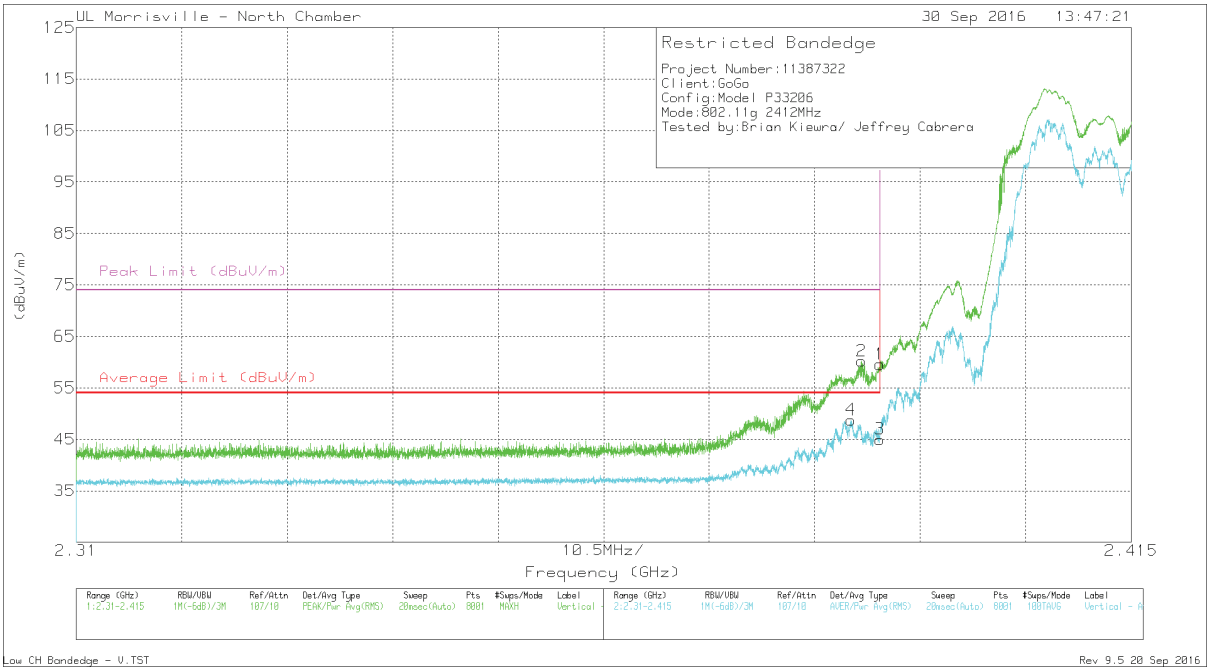


Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | * 2.387 | 36.47 | RMS | 32.1 | -24.5 | 4.68 | 48.75 | 54 | -5.25 | - | - | 16 | 331 | V |
| 2 | * 2.388 | 52.59 | Pk | 32.1 | -24.5 | 0 | 60.19 | - | - | 74 | -13.81 | 16 | 331 | V |
| 1 | * 2.39 | 51.96 | Pk | 32.1 | -24.5 | 0 | 59.56 | - | - | 74 | -14.44 | 16 | 331 | V |
| 3 | * 2.39 | 32.7 | RMS | 32.1 | -24.5 | 4.68 | 44.98 | 54 | -9.02 | - | - | 16 | 331 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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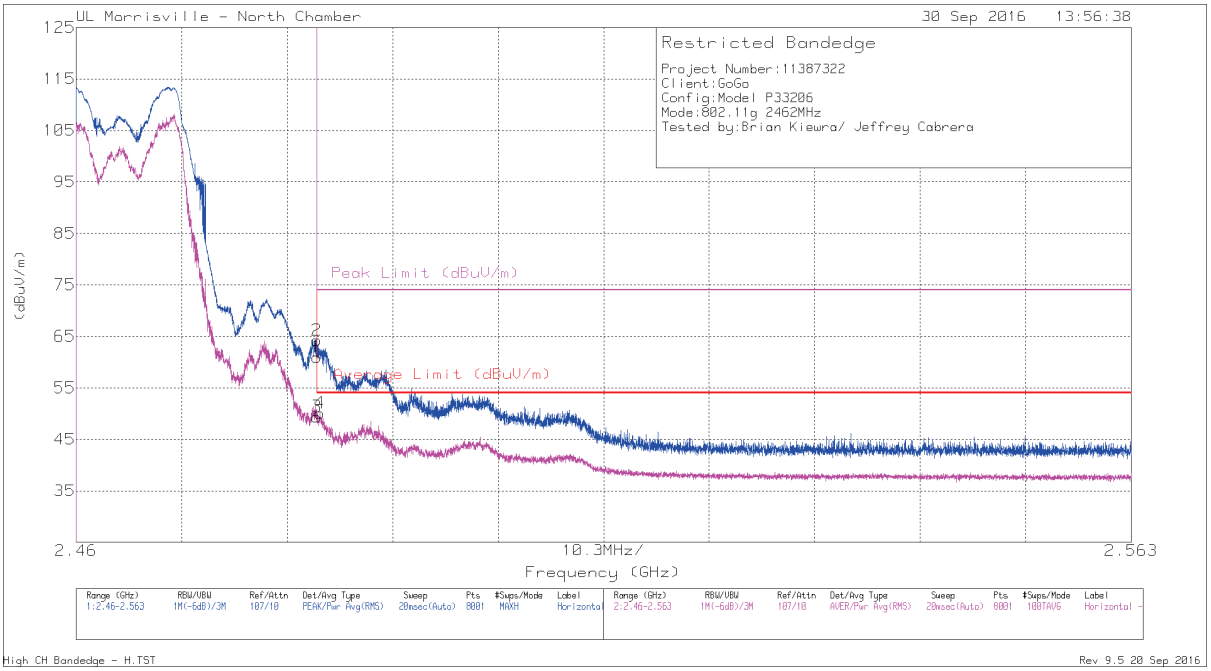
**RESTRICTED BANDEDGE (HIGH CHANNEL 11)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 53.09 | Pk | 32.3 | -24.4 | 0 | 60.99 | - | - | 74 | -13.01 | 258 | 340 | H |
| 2 | * 2.484 | 56.35 | Pk | 32.3 | -24.4 | 0 | 64.25 | - | - | 74 | -9.75 | 258 | 340 | H |
| 3 | * 2.484 | 36.76 | RMS | 32.3 | -24.4 | 4.68 | 49.34 | 54 | -4.66 | - | - | 258 | 340 | H |
| 4 | * 2.484 | 37.51 | RMS | 32.3 | -24.4 | 4.68 | 50.09 | 54 | -3.91 | - | - | 258 | 340 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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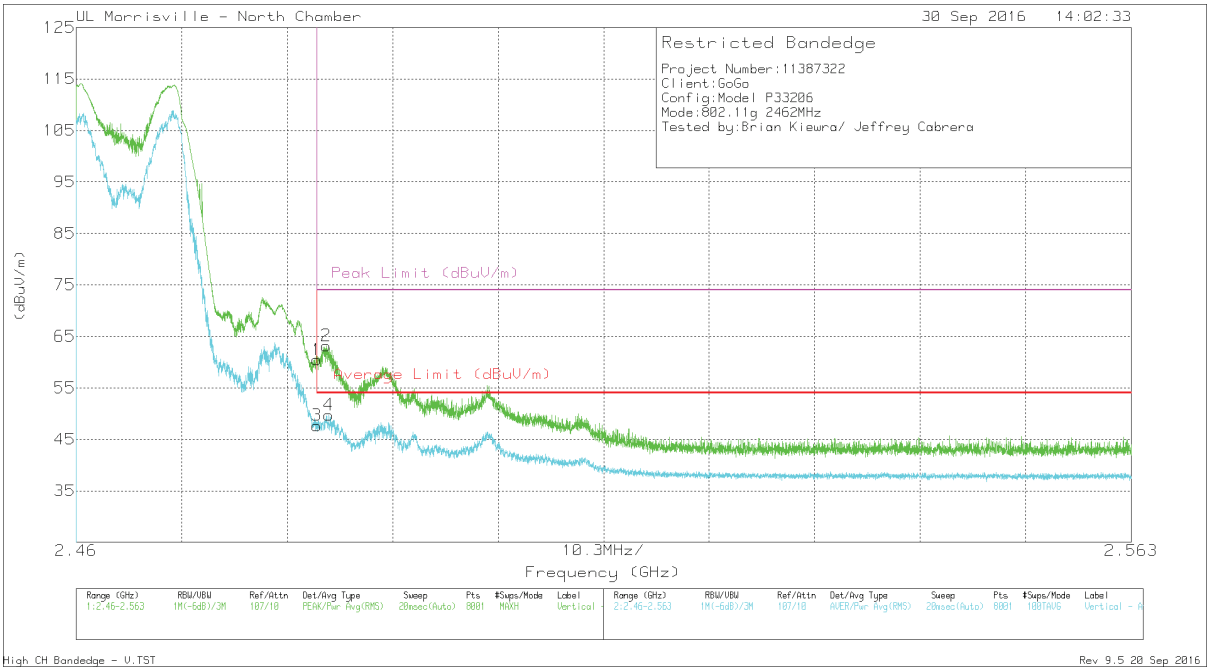


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 52.56 | Pk | 32.3 | -24.4 | 0 | 60.46 | - | - | 74 | -13.54 | 7 | 273 | V |
| 2 | * 2.484 | 55.29 | Pk | 32.3 | -24.4 | 0 | 63.19 | - | - | 74 | -10.81 | 7 | 273 | V |
| 3 | * 2.484 | 35.09 | RMS | 32.3 | -24.4 | 4.68 | 47.67 | 54 | -6.33 | - | - | 7 | 273 | V |
| 4 | * 2.485 | 37.13 | RMS | 32.3 | -24.4 | 4.68 | 49.71 | 54 | -4.29 | - | - | 7 | 273 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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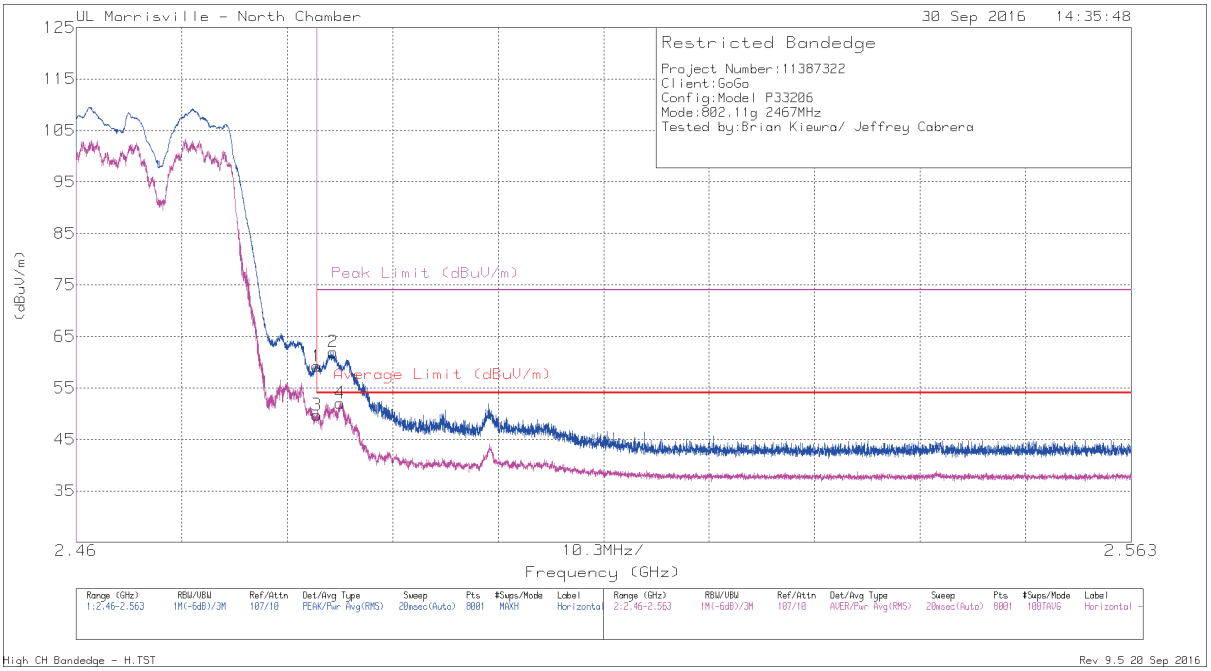
**RESTRICTED BANDEDGE (HIGH CHANNEL 12)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.34 | Pk | 32.3 | -24.4 | 0 | 59.24 | - | - | 74 | -14.76 | 98 | 277 | H |
| 2 | * 2.485 | 54.09 | Pk | 32.3 | -24.4 | 0 | 61.99 | - | - | 74 | -12.01 | 98 | 277 | H |
| 3 | * 2.484 | 37.13 | RMS | 32.3 | -24.4 | 4.68 | 49.71 | 54 | -4.29 | - | - | 98 | 277 | H |
| 4 | * 2.486 | 39.46 | RMS | 32.3 | -24.4 | 4.68 | 52.04 | 54 | -1.96 | - | - | 98 | 277 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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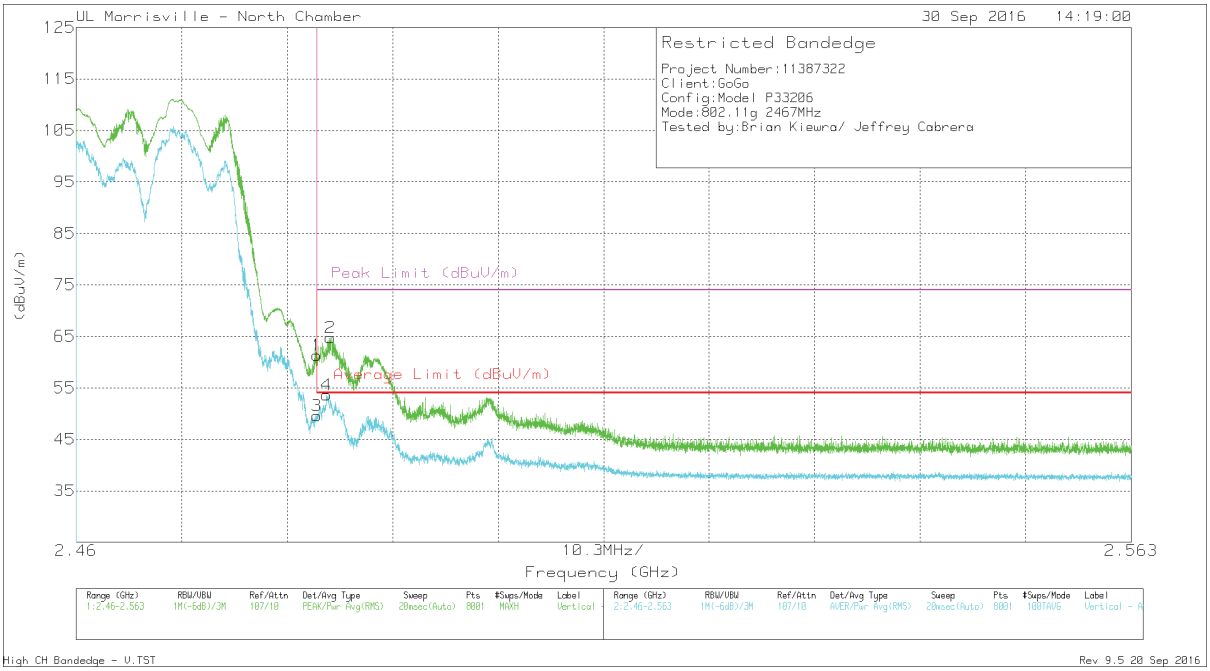


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 53.43 | Pk | 32.3 | -24.4 | 0 | 61.33 | - | - | 74 | -12.67 | 7 | 271 | V |
| 2 | * 2.485 | 56.83 | Pk | 32.3 | -24.4 | 0 | 64.73 | - | - | 74 | -9.27 | 7 | 271 | V |
| 3 | * 2.484 | 36.96 | RMS | 32.3 | -24.4 | 4.68 | 49.54 | 54 | -4.46 | - | - | 7 | 271 | V |
| 4 | * 2.484 | 41.02 | RMS | 32.3 | -24.4 | 4.68 | 53.60 | 54 | -.40 | - | - | 7 | 271 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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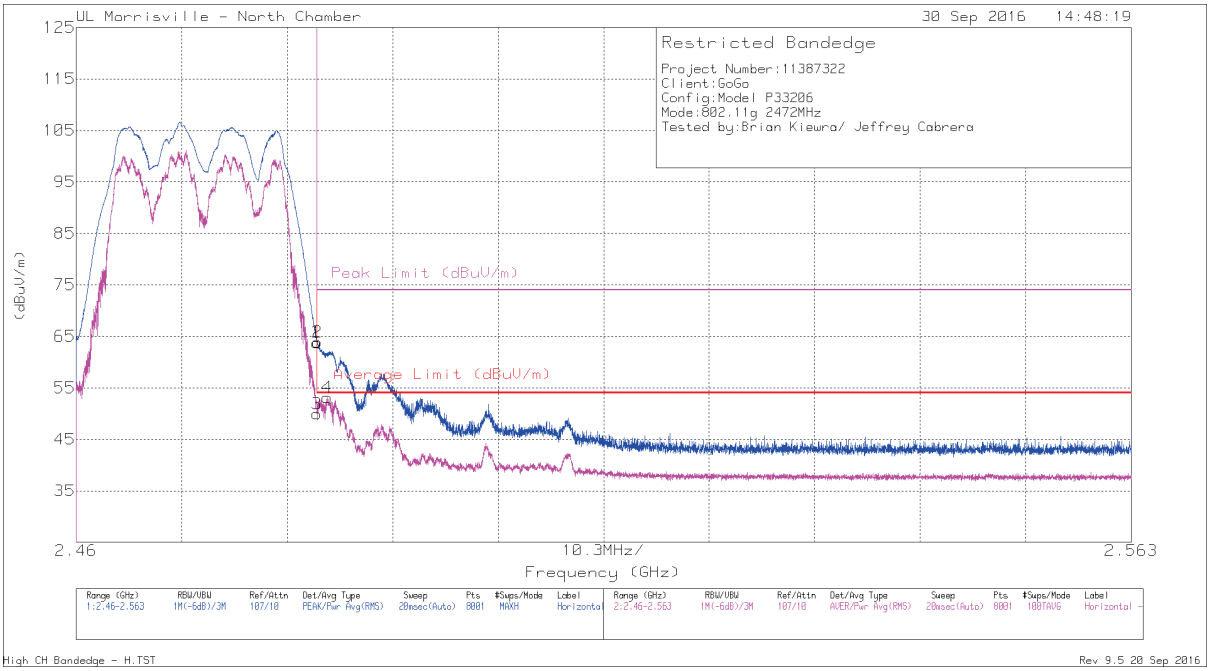
**RESTRICTED BANDEDGE (HIGH CHANNEL 13)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 55.87 | Pk | 32.3 | -24.4 | 0 | 63.77 | - | - | 74 | -10.23 | 24 | 276 | H |
| 2 | * 2.484 | 56 | Pk | 32.3 | -24.4 | 0 | 63.9 | - | - | 74 | -10.1 | 24 | 276 | H |
| 3 | * 2.484 | 37.34 | RMS | 32.3 | -24.4 | 4.68 | 49.92 | 54 | -4.08 | - | - | 24 | 276 | H |
| 4 | * 2.485 | 40.53 | RMS | 32.3 | -24.4 | 4.68 | 53.11 | 54 | -.89 | - | - | 24 | 276 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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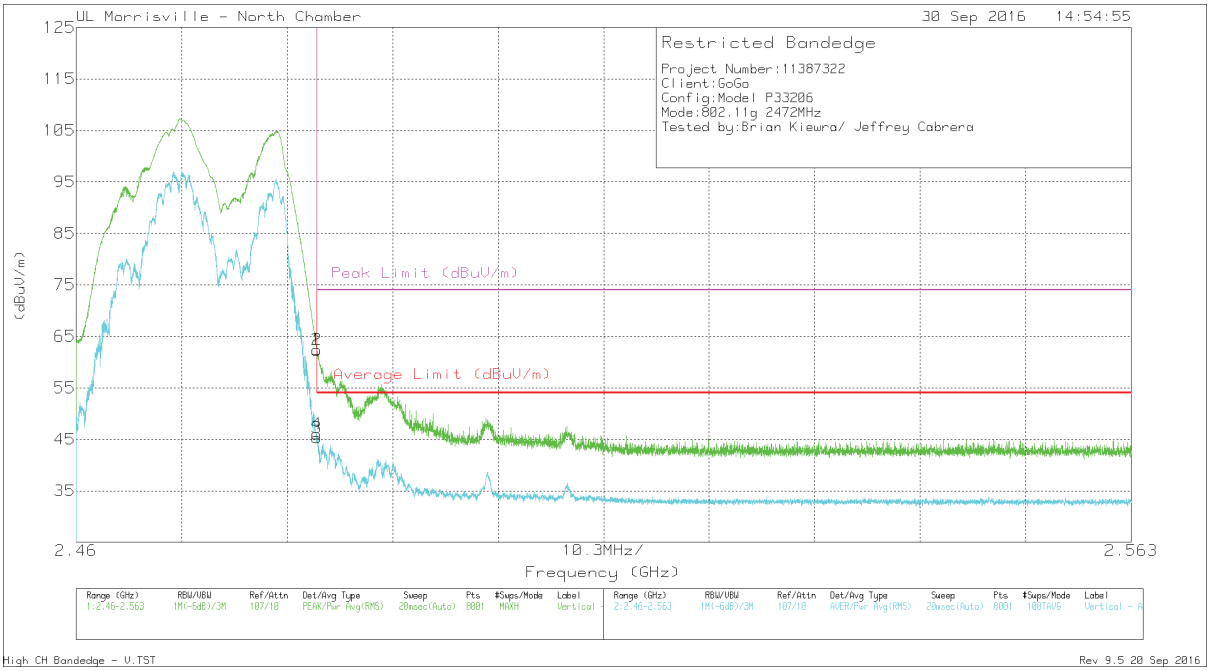


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 54.48 | Pk | 32.3 | -24.4 | 0 | 62.38 | - | - | 74 | -11.62 | 25 | 275 | V |
| 2 | * 2.484 | 54.49 | Pk | 32.3 | -24.4 | 0 | 62.39 | - | - | 74 | -11.61 | 25 | 275 | V |
| 3 | * 2.484 | 37.4 | RMS | 32.3 | -24.4 | 4.68 | 49.98 | 54 | -4.02 | - | - | 25 | 275 | V |
| 4 | * 2.484 | 38.12 | RMS | 32.3 | -24.4 | 4.68 | 50.74 | 54 | -3.26 | - | - | 25 | 275 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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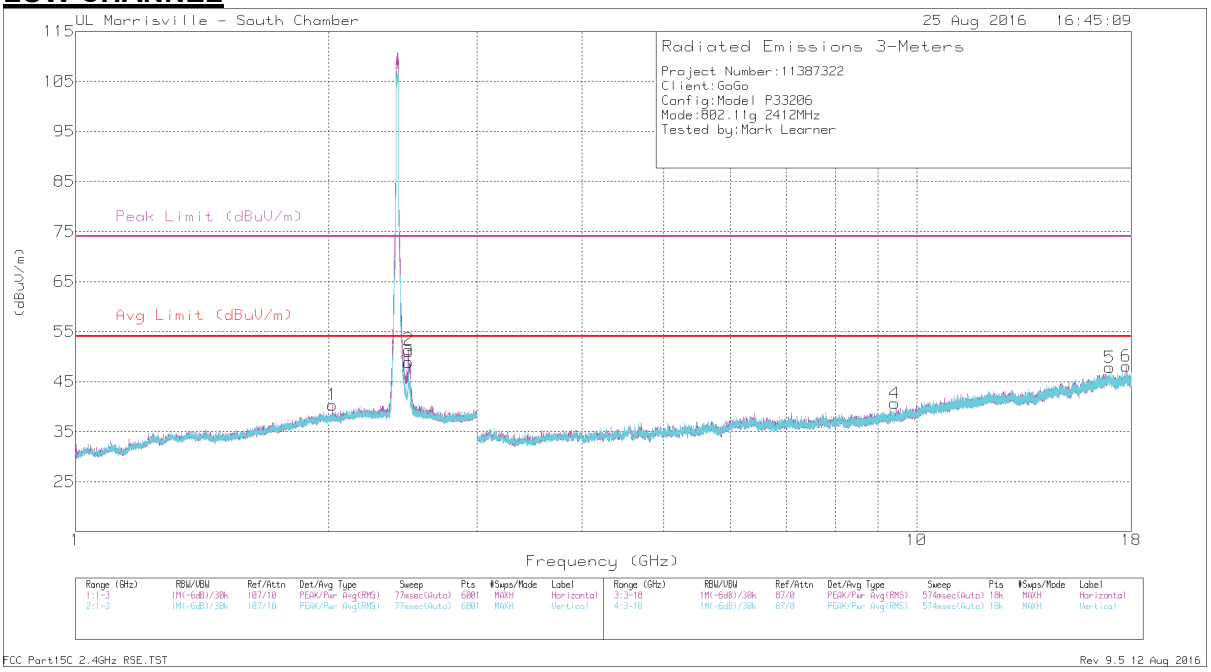
## HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.487 | 50.18 | PK2 | 32.4 | -24.7 | 0 | 57.88 | - | - | 74 | -16.12 | 78 | 200 | H |
| | * 2.487 | 40.94 | MAv1 | 32.4 | -24.7 | 4.68 | 53.32 | 54 | -0.68 | - | - | 78 | 200 | H |
| 3 | * 2.487 | 46.8 | PK2 | 32.4 | -24.7 | 0 | 54.5 | - | - | 74 | -19.5 | 71 | 198 | V |
| | * 2.487 | 37.9 | MAv1 | 32.4 | -24.7 | 4.68 | 50.28 | 54 | -3.72 | - | - | 71 | 198 | V |
| 6 | * 17.739 | 34.6 | PK2 | 41.2 | -22.6 | 0 | 53.2 | - | - | 74 | -20.8 | 91 | 103 | H |
| | * 17.739 | 23.25 | MAv1 | 41.2 | -22.6 | 4.68 | 46.53 | 54 | -7.47 | - | - | 91 | 103 | H |
| 4 | * 9.418 | 35.71 | PK2 | 36.4 | -27.1 | 0 | 45.01 | - | - | 74 | -28.99 | 59 | 199 | V |
| | * 9.414 | 24.7 | MAv1 | 36.4 | -27.1 | 4.68 | 38.68 | 54 | -15.32 | - | - | 59 | 199 | V |
| 1 | 2.021 | 32.17 | Pk | 31.2 | -23 | 0 | 40.37 | - | - | - | - | 0-360 | 199 | H |
| 5 | 16.961 | 30.85 | Pk | 41.5 | -24.5 | 0 | 47.85 | - | - | - | - | 0-360 | 199 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 12 Aug 2016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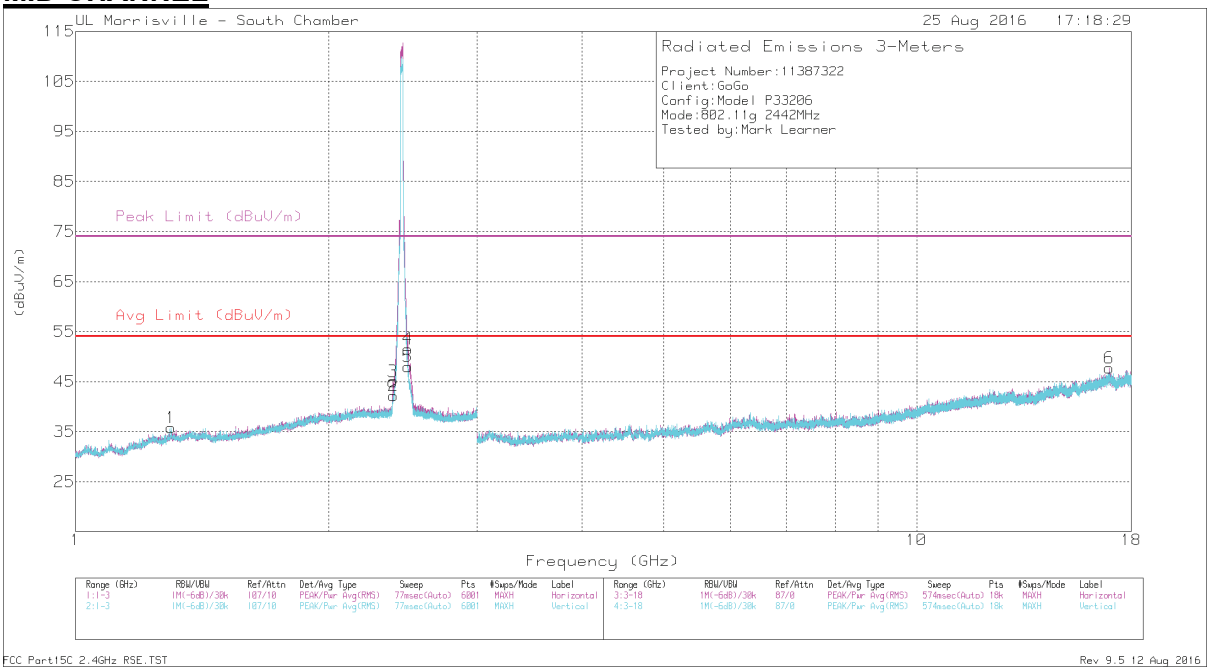
## MID CHANNEL




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | * 2.383 | 44 | PK2 | 32.1 | -24.1 | 0 | 52 | - | - | 74 | -22 | 155 | 268 | H |
| | * 2.383 | 30.86 | MAv1 | 32.1 | -24.1 | 4.68 | 43.54 | 54 | -10.46 | - | - | 155 | 268 | H |
| 4 | * 2.484 | 52.37 | PK2 | 32.4 | -24.7 | 0 | 60.07 | - | - | 74 | -13.93 | 89 | 110 | H |
| | * 2.485 | 38.75 | MAv1 | 32.4 | -24.7 | 4.68 | 51.13 | 54 | -2.87 | - | - | 89 | 110 | H |
| 1 | * 1.298 | 36.09 | PK2 | 28.8 | -23.3 | 0 | 41.59 | - | - | 74 | -32.41 | 123 | 103 | V |
| | * 1.3 | 24.35 | MAv1 | 28.8 | -23.3 | 4.68 | 34.53 | 54 | -19.47 | - | - | 123 | 103 | V |
| 2 | * 2.389 | 42.19 | PK2 | 32.2 | -24.1 | 0 | 50.29 | - | - | 74 | -23.71 | 53 | 240 | V |
| | * 2.389 | 29.18 | MAv1 | 32.2 | -24.1 | 4.68 | 41.96 | 54 | -12.04 | - | - | 53 | 240 | V |
| 5 | * 2.484 | 50.02 | PK2 | 32.4 | -24.7 | 0 | 57.72 | - | - | 74 | -16.28 | 93 | 288 | V |
| | * 2.484 | 35.82 | MAv1 | 32.4 | -24.7 | 4.68 | 48.20 | 54 | -5.8 | - | - | 93 | 288 | V |
| 6 | 16.948 | 30.75 | Pk | 41.5 | -24.5 | 0 | 47.75 | - | - | - | - | 0-360 | 199 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 12 Aug 2016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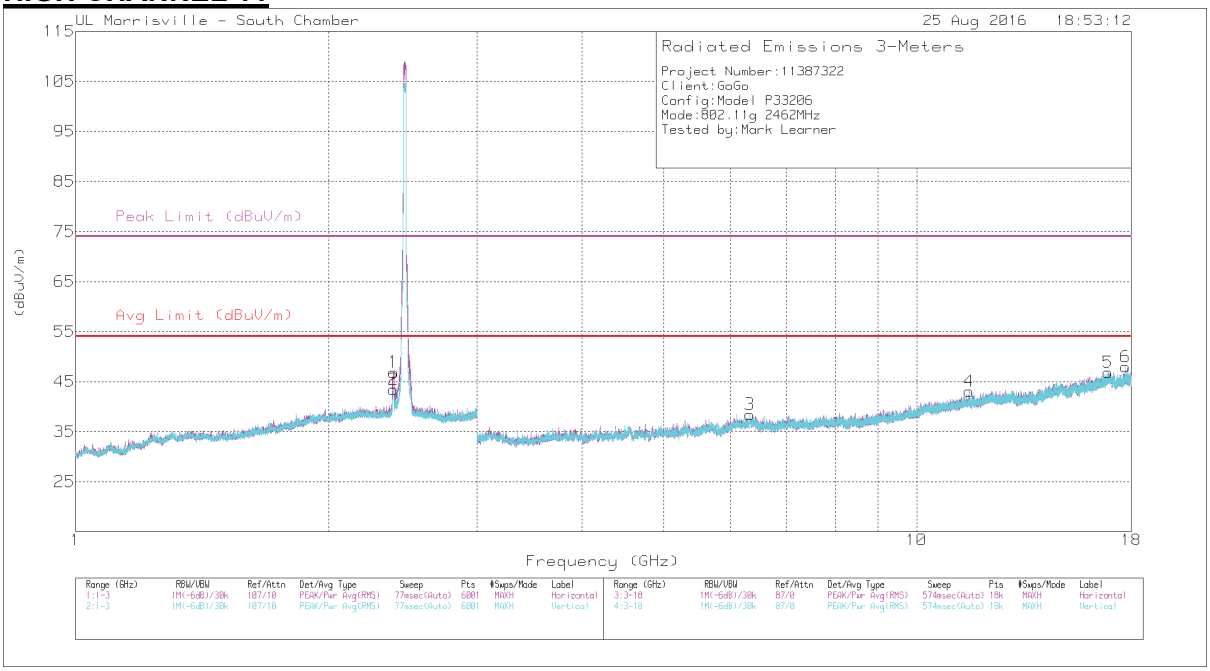
## HIGH CHANNEL 11




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.389 | 47.86 | PK2 | 32.2 | -24.1 | 0 | 55.96 | - | - | 74 | -18.04 | 151 | 333 | H |
| | * 2.388 | 36.19 | MAv1 | 32.2 | -24.1 | 4.68 | 48.97 | 54 | -5.03 | - | - | 151 | 333 | H |
| 2 | * 2.389 | 45.38 | PK2 | 32.2 | -24.1 | 0 | 53.48 | - | - | 74 | -20.52 | 48 | 337 | V |
| | * 2.389 | 33.62 | MAv1 | 32.2 | -24.1 | 4.68 | 46.40 | 54 | -7.6 | - | - | 48 | 337 | V |
| 4 | * 11.554 | 34.77 | PK2 | 38.4 | -25.2 | 0 | 47.97 | - | - | 74 | -26.03 | 127 | 201 | H |
| | * 11.554 | 23.81 | MAv1 | 38.4 | -25.2 | 4.68 | 41.69 | 54 | -12.31 | - | - | 127 | 201 | H |
| 6 | * 17.727 | 35 | PK2 | 41.2 | -22.8 | 0 | 53.4 | - | - | 74 | -20.6 | 56 | 103 | V |
| | * 17.726 | 24.12 | MAv1 | 41.2 | -22.8 | 4.68 | 47.2 | 54 | -6.8 | - | - | 56 | 103 | V |
| 3 | 6.336 | 31.66 | Pk | 35.4 | -28.6 | 0 | 38.46 | - | - | - | - | 0-360 | 199 | V |
| 5 | 16.885 | 28.96 | Pk | 41.6 | -23.7 | 0 | 46.86 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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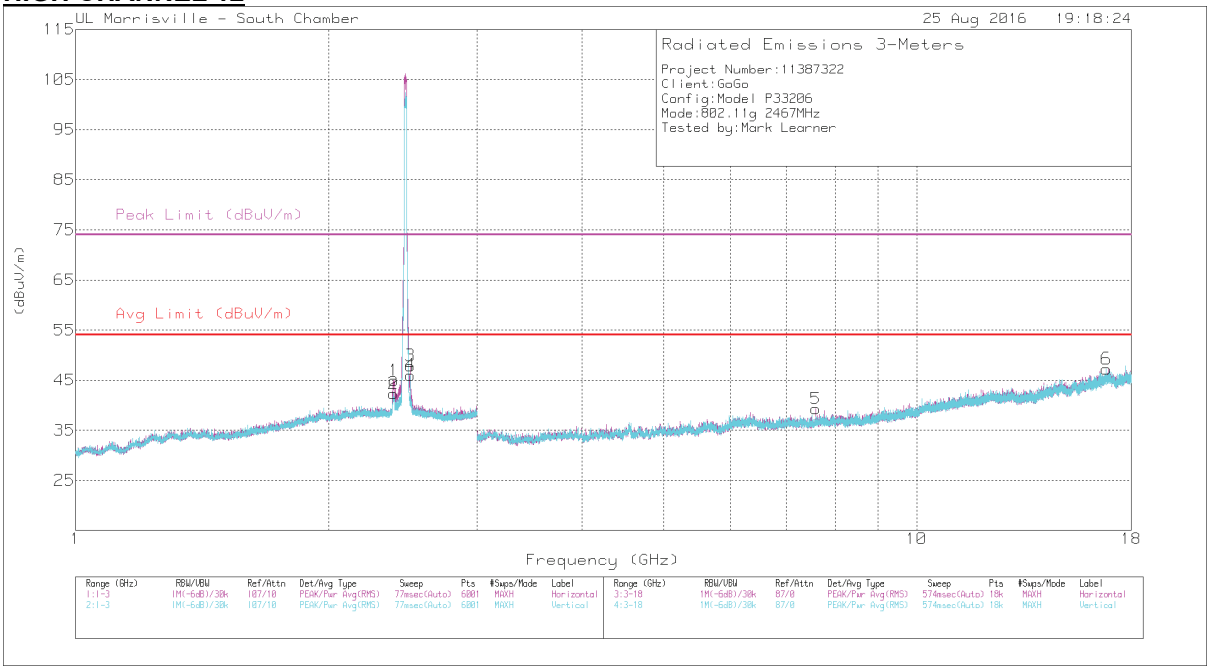
**HIGH CHANNEL 12**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.389 | 42.4 | PK2 | 32.2 | -24.1 | 0 | 50.5 | - | - | 74 | -23.5 | 49 | 299 | V |
| | * 2.389 | 30.74 | MAv1 | 32.2 | -24.1 | 4.68 | 43.52 | 54 | -10.48 | - | - | 49 | 299 | V |
| 5 | * 7.582 | 36.6 | PK2 | 35.7 | -28.5 | 0 | 43.8 | - | - | 74 | -30.2 | 83 | 299 | H |
| | * 7.584 | 25.56 | MAv1 | 35.7 | -28.5 | 4.68 | 37.44 | 54 | -16.56 | - | - | 83 | 299 | H |
| 1 | 2.393 | 36.95 | Pk | 32.2 | -24.2 | 0 | 44.95 | - | - | - | - | 0-360 | 102 | H |
| 3 | 2.5 | 40.2 | Pk | 32.5 | -24.8 | 0 | 47.9 | - | - | - | - | 0-360 | 236 | H |
| 4 | 2.5 | 38.31 | Pk | 32.5 | -24.8 | 0 | 46.01 | - | - | - | - | 0-360 | 101 | V |
| 6 | 16.813 | 29.75 | Pk | 41.6 | -24.1 | 0 | 47.25 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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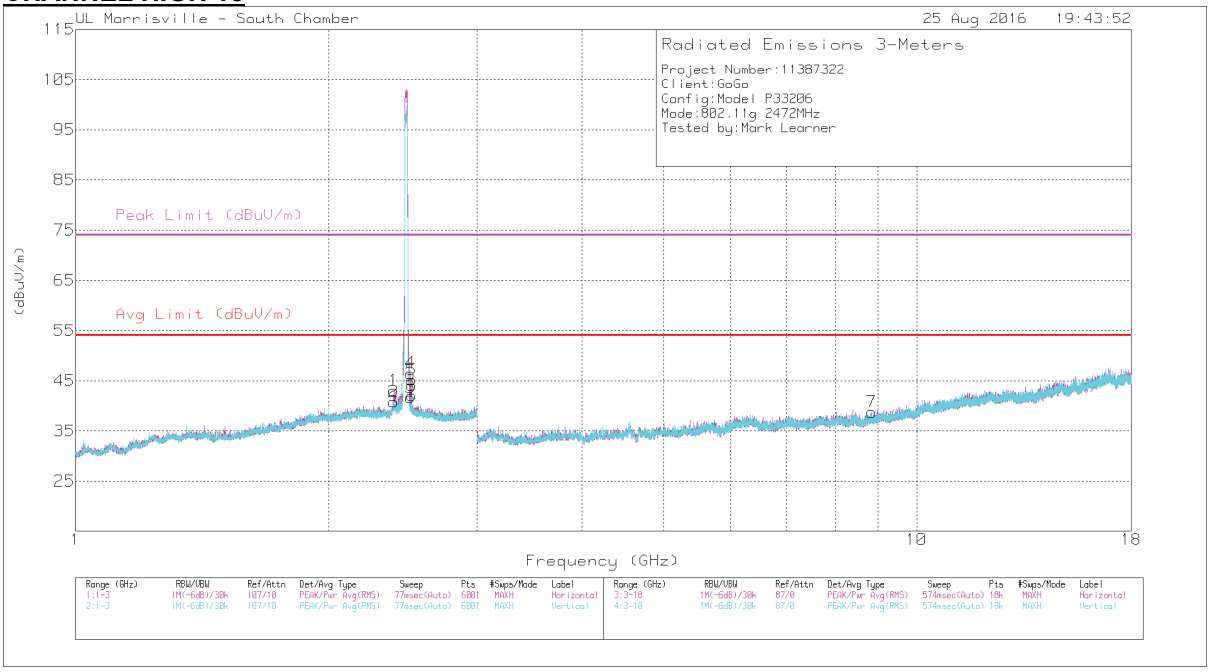
**CHANNEL HIGH 13**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 39.48 | PK2 | 32.2 | -24.2 | 0 | 47.48 | - | - | 74 | -26.52 | 77 | 148 | H |
| | * 2.389 | 28.52 | MAv1 | 32.2 | -24.1 | 4.68 | 41.3 | 54 | -12.7 | - | - | 77 | 148 | H |
| 2 | * 2.388 | 38.94 | PK2 | 32.2 | -24.1 | 0 | 47.04 | - | - | 74 | -26.96 | 148 | 331 | V |
| | * 2.388 | 26.49 | MAv1 | 32.2 | -24.1 | 4.68 | 39.27 | 54 | -14.73 | - | - | 148 | 331 | V |
| 4 | 2.5 | 38.81 | Pk | 32.5 | -24.8 | 0 | 46.51 | - | - | - | - | 0-360 | 199 | H |
| 3 | 2.5 | 33.99 | Pk | 32.5 | -24.8 | 0 | 41.69 | - | - | - | - | 0-360 | 199 | V |
| 5 | 2.508 | 37.58 | Pk | 32.5 | -24.9 | 0 | 45.18 | - | - | - | - | 0-360 | 101 | H |
| 6 | 2.508 | 34.48 | Pk | 32.5 | -24.9 | 0 | 42.08 | - | - | - | - | 0-360 | 101 | V |
| 7 | 8.837 | 30.35 | Pk | 35.8 | -27.4 | 0 | 38.75 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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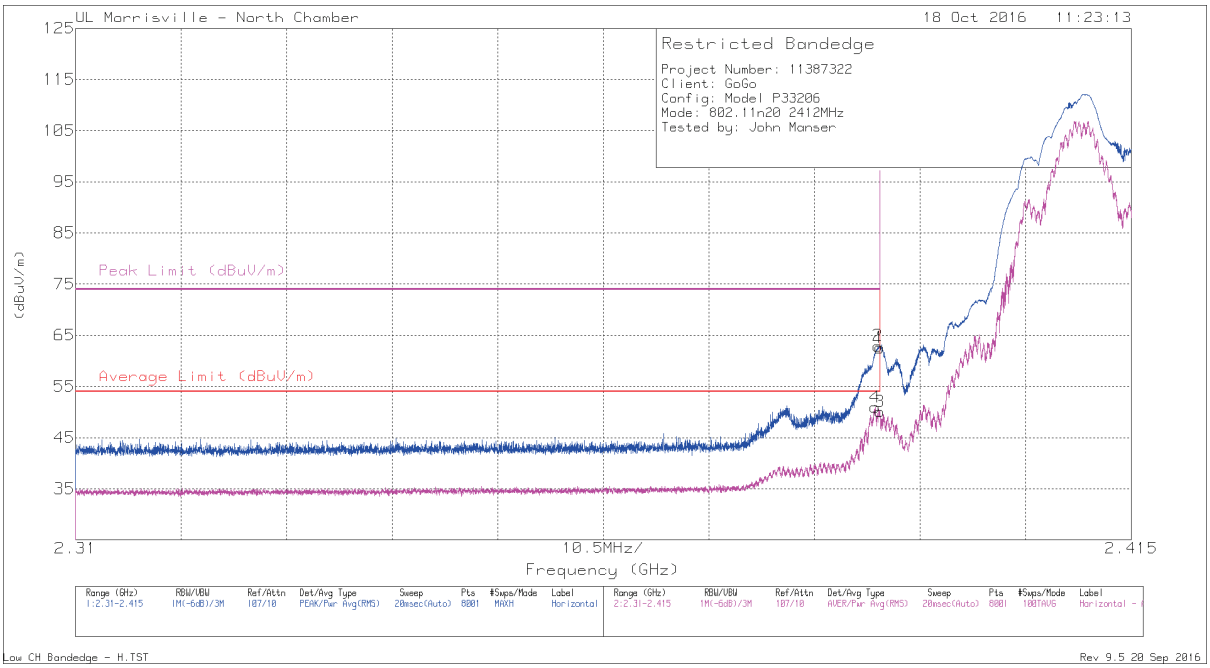
## 9.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

**RESTRICTED BANDEDGE (LOW CHANNEL – CDD MCS0)**




| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 54.99 | Pk | 32.1 | -24.5 | 0 | 62.59 | - | - | 74 | -11.41 | 86 | 207 | H |
| 2 | * 2.39 | 55.34 | Pk | 32.1 | -24.5 | 0 | 62.94 | - | - | 74 | -11.06 | 86 | 207 | H |
| 3 | * 2.39 | 40.2 | RMS | 32.1 | -24.5 | 2.28 | 50.08 | 54 | -3.92 | - | - | 86 | 207 | H |
| 4 | * 2.39 | 41.1 | RMS | 32.1 | -24.5 | 2.28 | 50.98 | 54 | -3.02 | - | - | 86 | 207 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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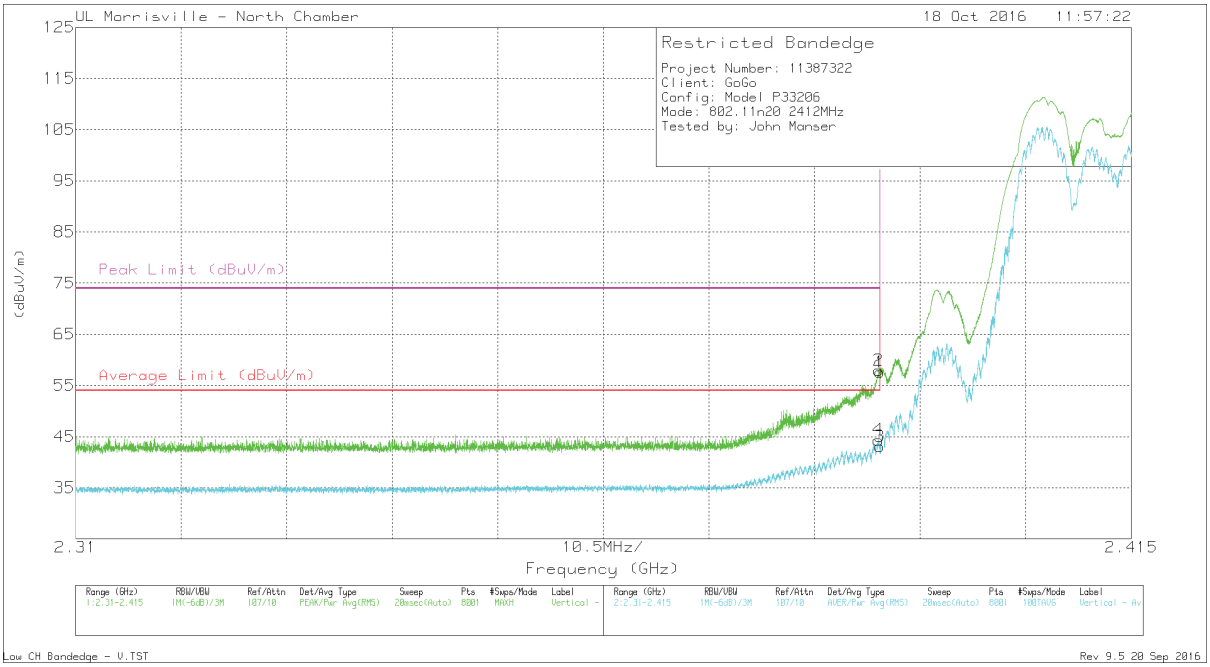


| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl /Fltr/Pa d (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 49.99 | Pk | 32.1 | -24.5 | 0 | 57.59 | - | - | 74 | -16.41 | 3 | 397 | V |
| 2 | * 2.39 | 50.37 | Pk | 32.1 | -24.5 | 0 | 57.97 | - | - | 74 | -16.03 | 3 | 397 | V |
| 3 | * 2.39 | 33.18 | RMS | 32.1 | -24.5 | 2.28 | 43.06 | 54 | -10.94 | - | - | 3 | 397 | V |
| 4 | * 2.39 | 34.49 | RMS | 32.1 | -24.5 | 2.28 | 44.37 | 54 | -9.63 | - | - | 3 | 397 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

Rev 9.5 20 Sep 2016


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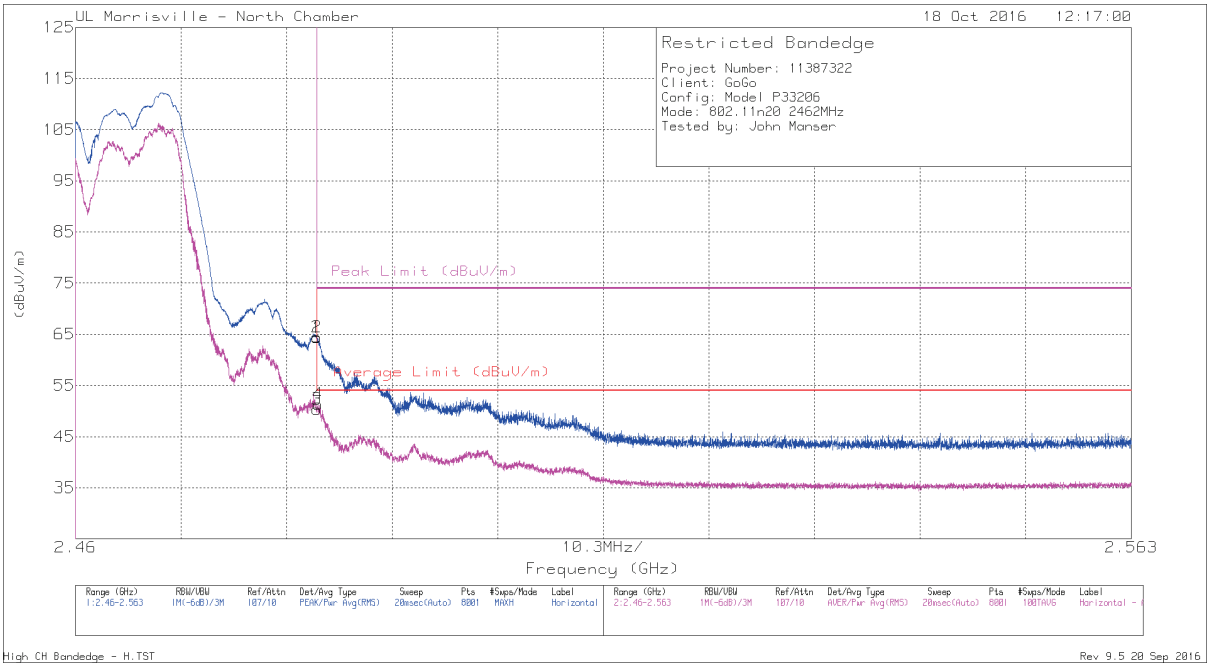
## RESTRICTED BANDEDGE (HIGH CHANNEL 11 – CDD MCS0)




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 56.42 | Pk | 32.3 | -24.4 | 0 | 64.32 | - | - | 74 | -9.68 | 64 | 396 | H |
| 2 | * 2.484 | 56.55 | Pk | 32.3 | -24.4 | 0 | 64.45 | - | - | 74 | -9.55 | 64 | 396 | H |
| 3 | * 2.484 | 40.2 | RMS | 32.3 | -24.4 | 2.28 | 50.38 | 54 | -3.62 | - | - | 64 | 396 | H |
| 4 | * 2.484 | 41.18 | RMS | 32.3 | -24.4 | 2.28 | 51.36 | 54 | -2.64 | - | - | 64 | 396 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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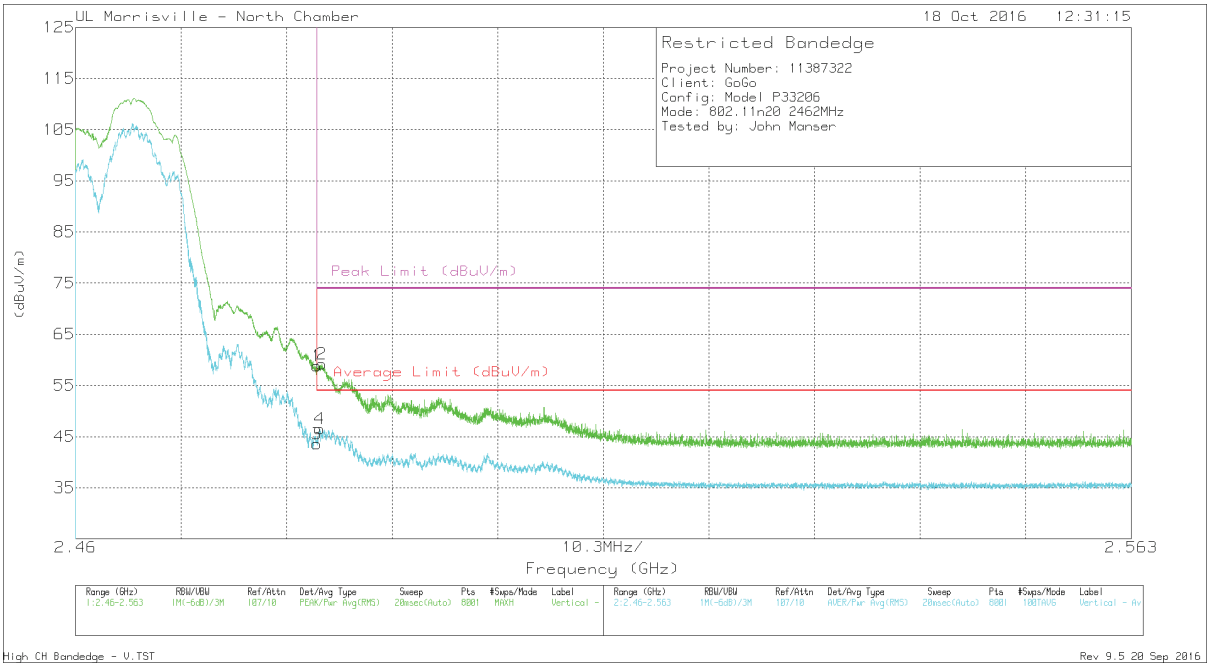


| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 50.9 | Pk | 32.3 | -24.4 | 0 | 58.8 | - | - | 74 | -15.2 | 11 | 349 | V |
| 2 | * 2.484 | 51.28 | Pk | 32.3 | -24.4 | 0 | 59.18 | - | - | 74 | -14.82 | 11 | 349 | V |
| 3 | * 2.484 | 33.43 | RMS | 32.3 | -24.4 | 2.28 | 43.61 | 54 | -10.39 | - | - | 11 | 349 | V |
| 4 | * 2.484 | 36.36 | RMS | 32.3 | -24.4 | 2.28 | 46.54 | 54 | -7.46 | - | - | 11 | 349 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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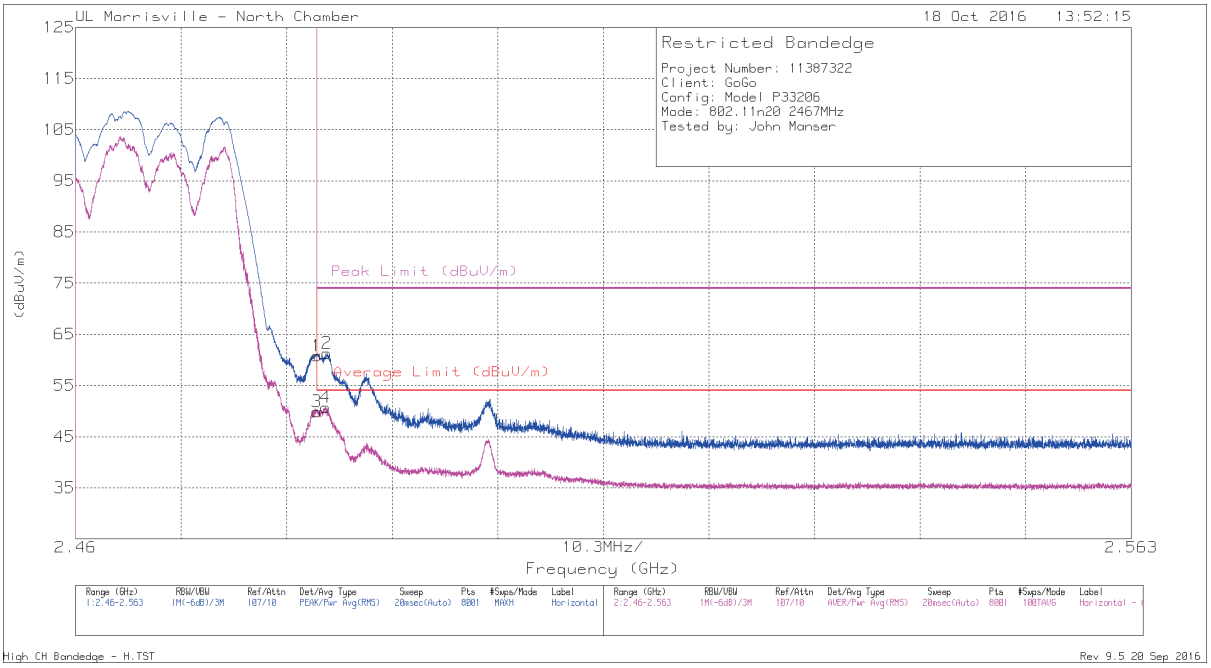
**RESTRICTED BANDEDGE (HIGH CHANNEL 12 – CDD MCS0)**




| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl /Fltr/Pa d (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 52.91 | Pk | 32.3 | -24.4 | 0 | 60.81 | - | - | 74 | -13.19 | 69 | 353 | H |
| 2 | * 2.485 | 53.43 | Pk | 32.3 | -24.4 | 0 | 61.33 | - | - | 74 | -12.67 | 69 | 353 | H |
| 3 | * 2.484 | 39.71 | RMS | 32.3 | -24.4 | 2.28 | 49.89 | 54 | -4.11 | - | - | 69 | 353 | H |
| 4 | * 2.484 | 40.52 | RMS | 32.3 | -24.4 | 2.28 | 50.7 | 54 | -3.3 | - | - | 69 | 353 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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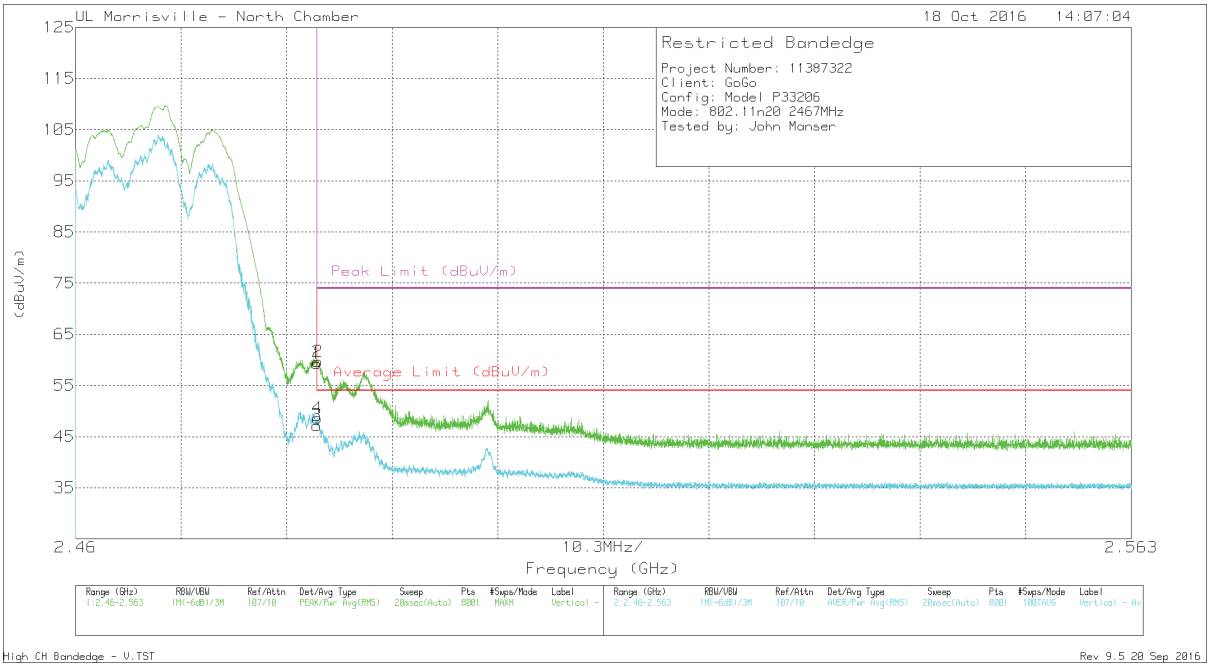


| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl /Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.45 | Pk | 32.3 | -24.4 | 0 | 59.35 | - | - | 74 | -14.65 | 6 | 386 | V |
| 2 | * 2.484 | 51.78 | Pk | 32.3 | -24.4 | 0 | 59.68 | - | - | 74 | -14.32 | 6 | 386 | V |
| 3 | * 2.484 | 37.01 | RMS | 32.3 | -24.4 | 2.28 | 47.19 | 54 | -6.81 | - | - | 6 | 386 | V |
| 4 | * 2.484 | 38.46 | RMS | 32.3 | -24.4 | 2.28 | 48.64 | 54 | -5.36 | - | - | 6 | 386 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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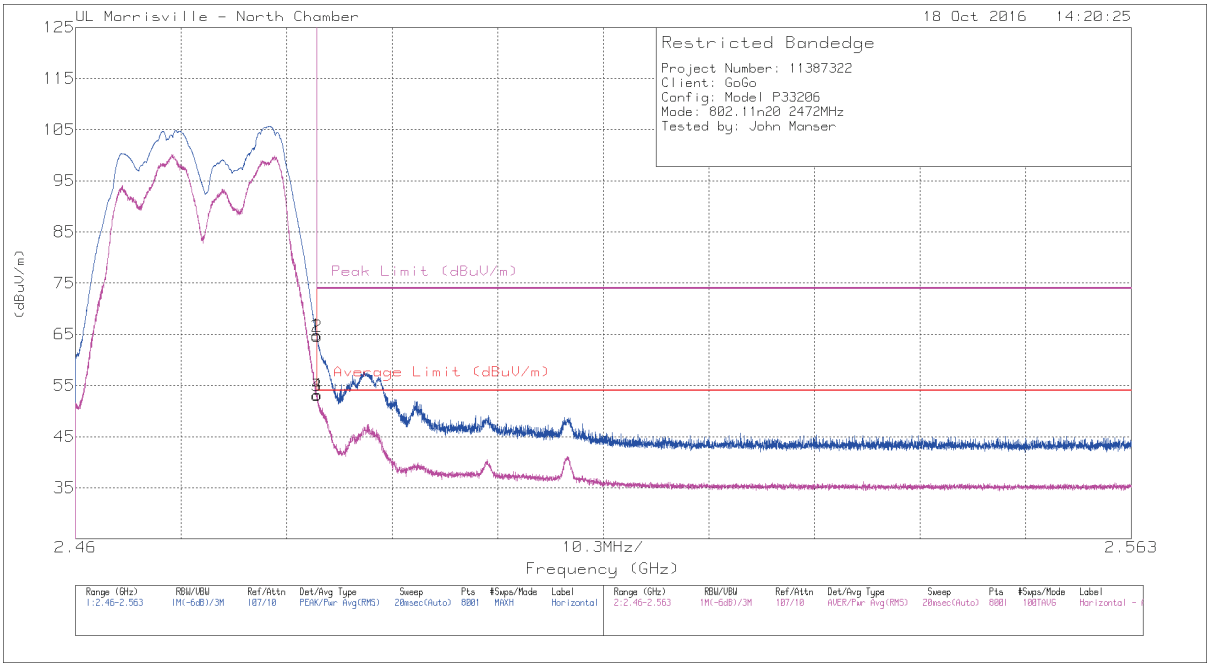
**RESTRICTED BANDEDGE (HIGH CHANNEL 13 – CDD MCS0)**




| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl /Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 56.92 | Pk | 32.3 | -24.4 | 0 | 64.82 | - | - | 74 | -9.18 | 249 | 384 | H |
| 2 | * 2.484 | 56.69 | Pk | 32.3 | -24.4 | 0 | 64.59 | - | - | 74 | -9.41 | 249 | 384 | H |
| 3 | * 2.484 | 42.89 | RMS | 32.3 | -24.4 | 2.28 | 53.07 | 54 | -.93 | - | - | 249 | 384 | H |
| 4 | * 2.484 | 42.98 | RMS | 32.3 | -24.4 | 2.28 | 53.16 | 54 | -.84 | - | - | 249 | 384 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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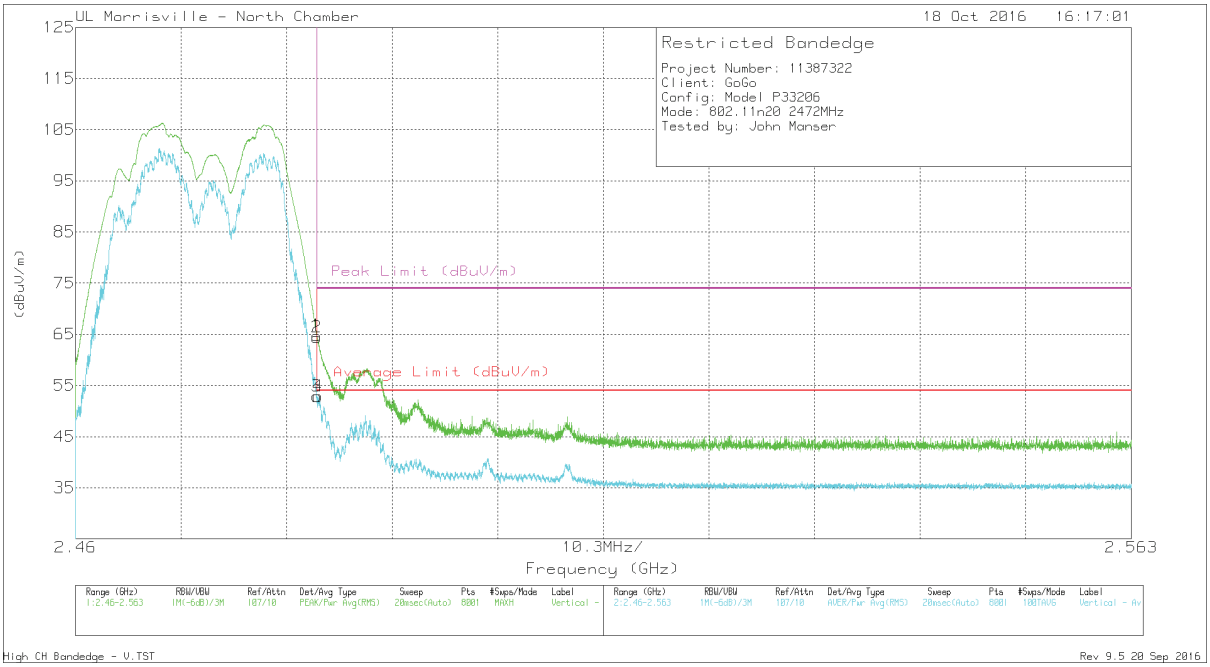


| Marker | Freq. (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 56.88 | Pk | 32.3 | -24.4 | 0 | 64.78 | - | - | 74 | -9.22 | 353 | 373 | V |
| 2 | * 2.484 | 56.52 | Pk | 32.3 | -24.4 | 0 | 64.42 | - | - | 74 | -9.58 | 353 | 373 | V |
| 3 | * 2.484 | 42.7 | RMS | 32.3 | -24.4 | 2.28 | 52.88 | 54 | -1.12 | - | - | 353 | 373 | V |
| 4 | * 2.484 | 42.7 | RMS | 32.3 | -24.4 | 2.28 | 52.88 | 54 | -1.12 | - | - | 353 | 373 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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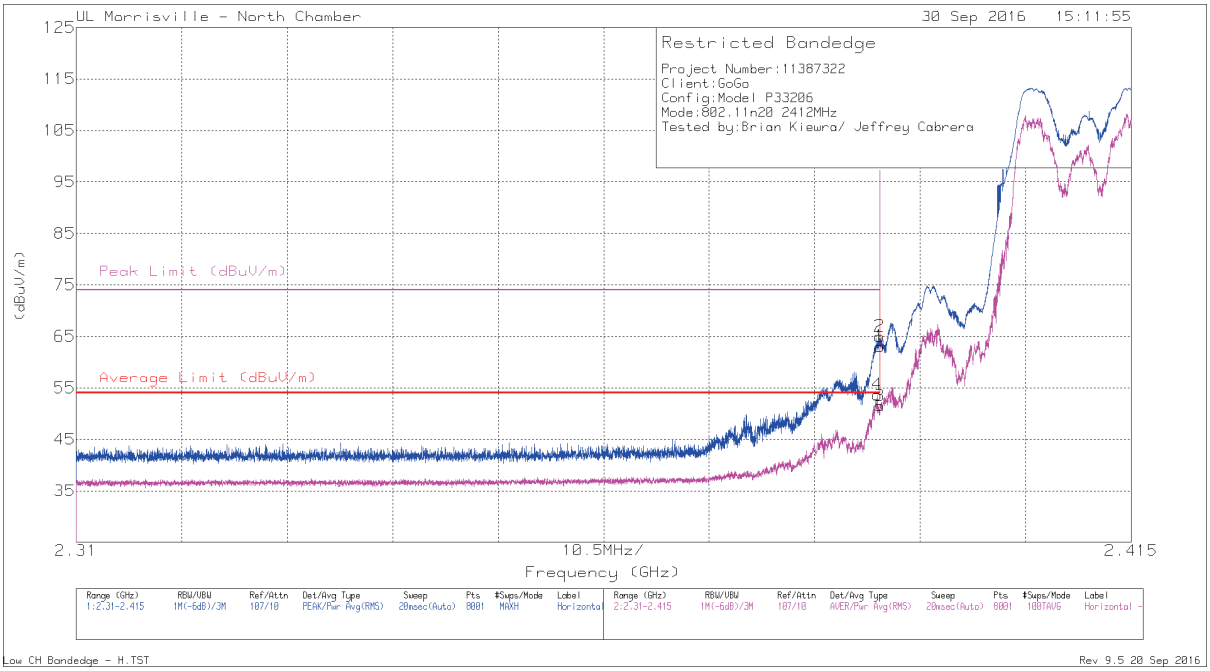
## RESTRICTED BANDEDGE (LOW CHANNEL – SDM MCS16)




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 55.49 | Pk | 32.1 | -24.5 | 0 | 63.09 | - | - | 74 | -10.91 | 99 | 288 | H |
| 2 | * 2.39 | 57.43 | Pk | 32.1 | -24.5 | 0 | 65.03 | - | - | 74 | -8.97 | 99 | 288 | H |
| 3 | * 2.39 | 39.22 | RMS | 32.1 | -24.5 | 4.68 | 51.50 | 54 | -2.50 | - | - | 99 | 288 | H |
| 4 | * 2.39 | 41.36 | RMS | 32.1 | -24.5 | 4.68 | 53.64 | 54 | -.36 | - | - | 99 | 288 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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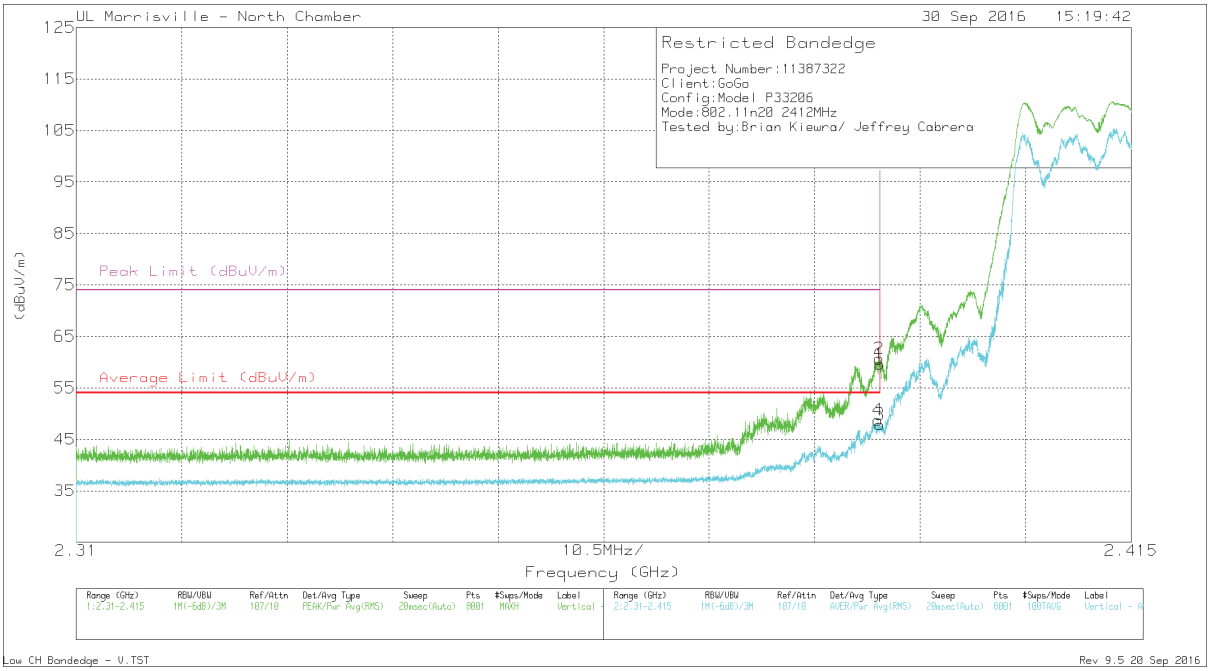


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 52.02 | Pk | 32.1 | -24.5 | 0 | 59.62 | - | - | 74 | -14.38 | 20 | 255 | V |
| 2 | * 2.39 | 53.06 | Pk | 32.1 | -24.5 | 0 | 60.66 | - | - | 74 | -13.34 | 20 | 255 | V |
| 3 | * 2.39 | 35.59 | RMS | 32.1 | -24.5 | 4.68 | 47.87 | 54 | -6.07 | - | - | 20 | 255 | V |
| 4 | * 2.39 | 36.46 | RMS | 32.1 | -24.5 | 4.68 | 48.74 | 54 | -5.20 | - | - | 20 | 255 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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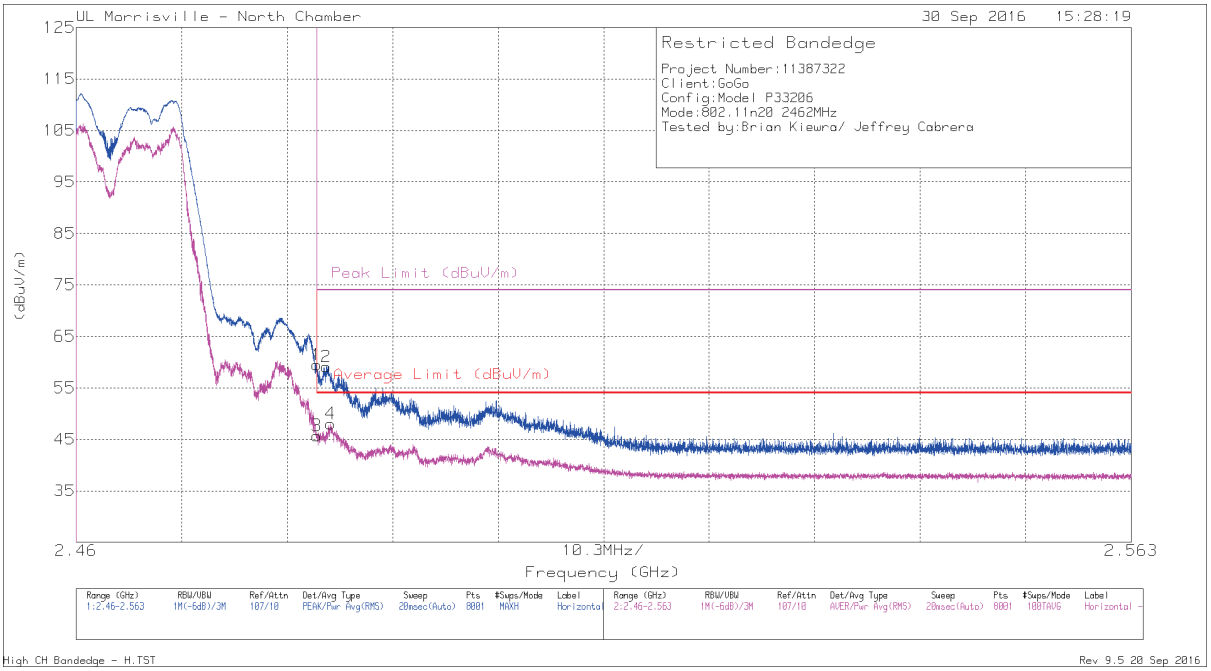
**RESTRICTED BANDEDGE (HIGH CHANNEL 11 – SDM MCS16)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.58 | Pk | 32.3 | -24.4 | 0 | 59.48 | - | - | 74 | -14.52 | 46 | 256 | H |
| 2 | * 2.484 | 51.22 | Pk | 32.3 | -24.4 | 0 | 59.12 | - | - | 74 | -14.88 | 46 | 256 | H |
| 3 | * 2.484 | 33.1 | RMS | 32.3 | -24.4 | 4.68 | 45.68 | 54 | -8.32 | - | - | 46 | 256 | H |
| 4 | * 2.485 | 35.41 | RMS | 32.3 | -24.4 | 4.68 | 47.99 | 54 | -6.02 | - | - | 46 | 256 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
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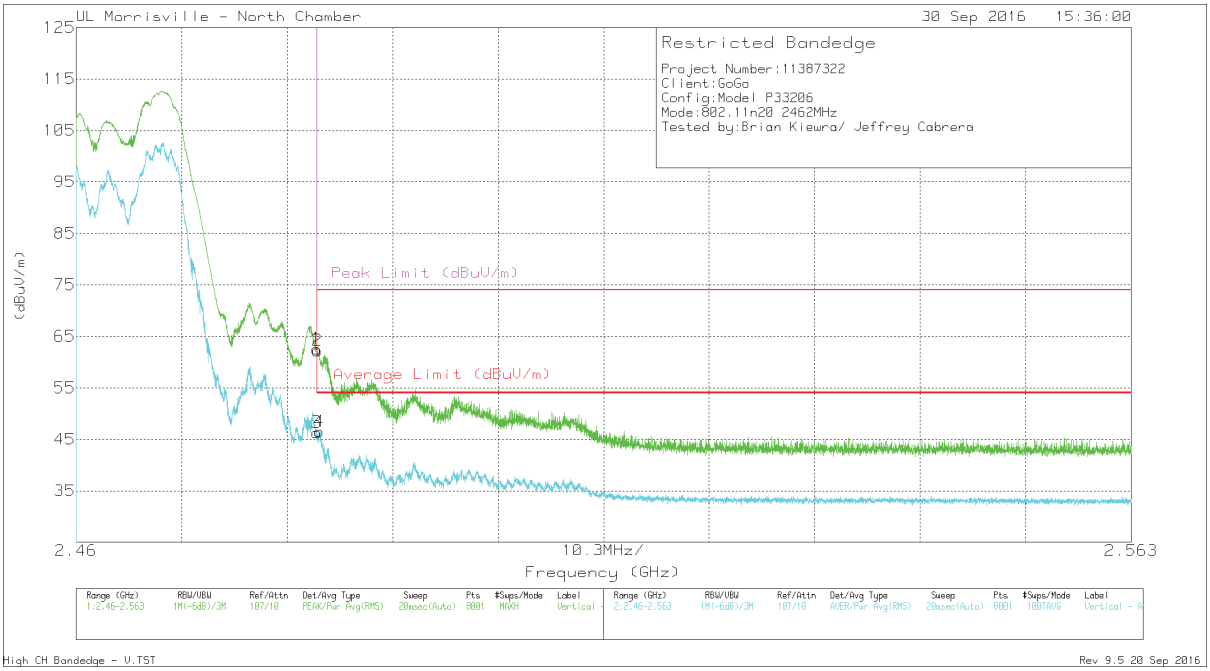


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl /Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 54.68 | Pk | 32.3 | -24.4 | 0 | 62.58 | - | - | 74 | -11.42 | 3 | 269 | V |
| 2 | * 2.484 | 54.35 | Pk | 32.3 | -24.4 | 0 | 62.25 | - | - | 74 | -11.75 | 3 | 269 | V |
| 3 | * 2.484 | 33.72 | RMS | 32.3 | -24.4 | 4.68 | 46.30 | 54 | -7.70 | - | - | 3 | 269 | V |
| 4 | * 2.484 | 33.93 | RMS | 32.3 | -24.4 | 4.68 | 46.51 | 54 | -7.49 | - | - | 3 | 269 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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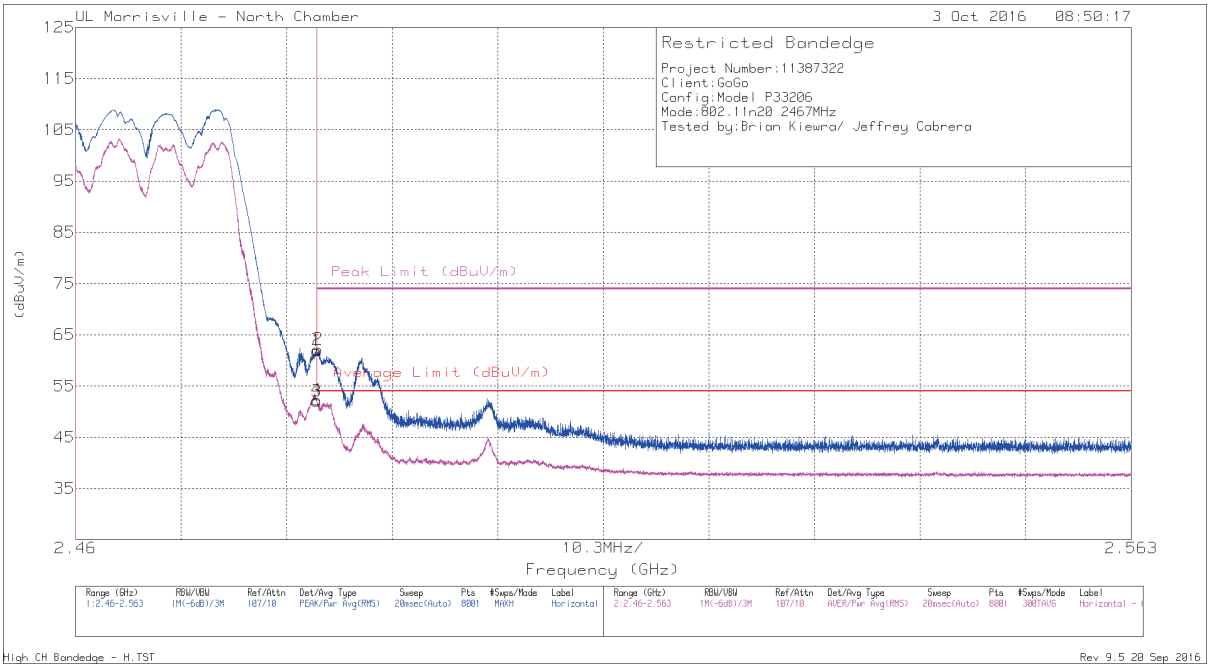
**RESTRICTED BANDEDGE (HIGH CHANNEL 12 – SDM MCS16)**




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 54.05 | Pk | 32.3 | -24.4 | 0 | 61.95 | - | - | 74 | -12.05 | 53 | 266 | H |
| 2 | * 2.484 | 54.29 | Pk | 32.3 | -24.4 | 0 | 62.19 | - | - | 74 | -11.81 | 53 | 266 | H |
| 3 | * 2.484 | 39.51 | RMS | 32.3 | -24.4 | 4.68 | 52.09 | 54 | -1.91 | - | - | 53 | 266 | H |
| 4 | * 2.484 | 39.69 | RMS | 32.3 | -24.4 | 4.68 | 52.27 | 54 | -1.73 | - | - | 53 | 266 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 201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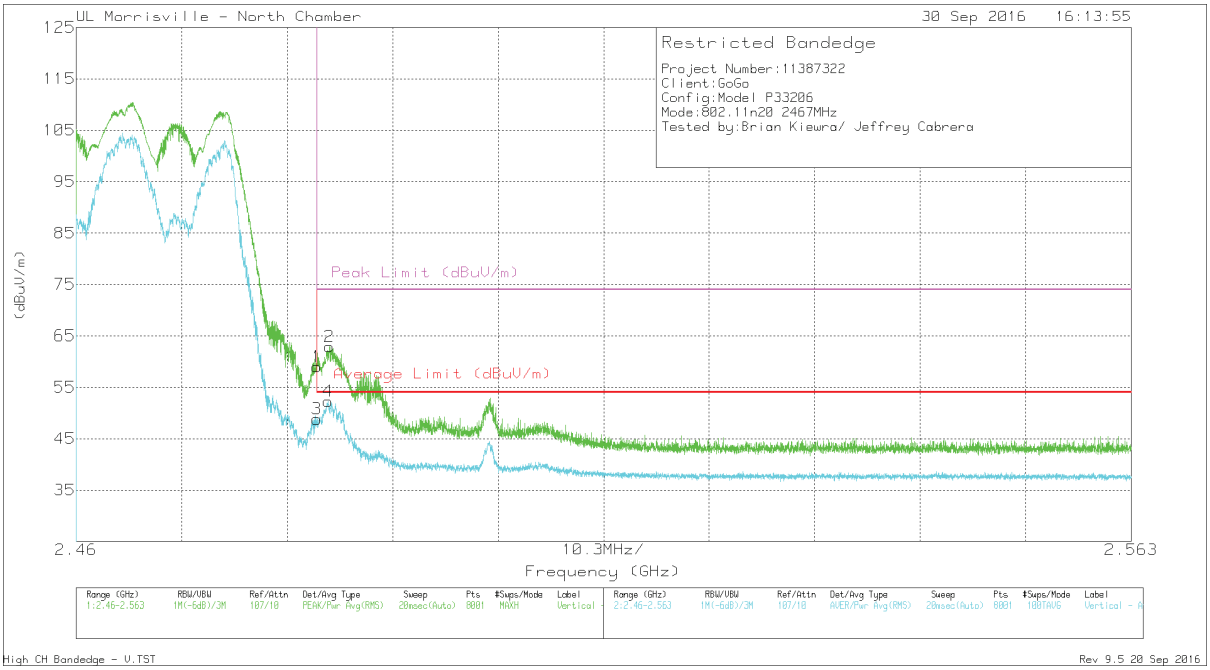


## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.1 | Pk | 32.3 | -24.4 | 0 | 59 | - | - | 74 | -15 | 24 | 276 | V |
| 2 | * 2.485 | 55 | Pk | 32.3 | -24.4 | 0 | 62.9 | - | - | 74 | -11.1 | 24 | 276 | V |
| 3 | * 2.484 | 36.2 | RMS | 32.3 | -24.4 | 4.68 | 48.78 | 54 | -5.22 | - | - | 24 | 276 | V |
| 4 | * 2.485 | 39.68 | RMS | 32.3 | -24.4 | 4.68 | 52.26 | 54 | -1.74 | - | - | 24 | 276 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016


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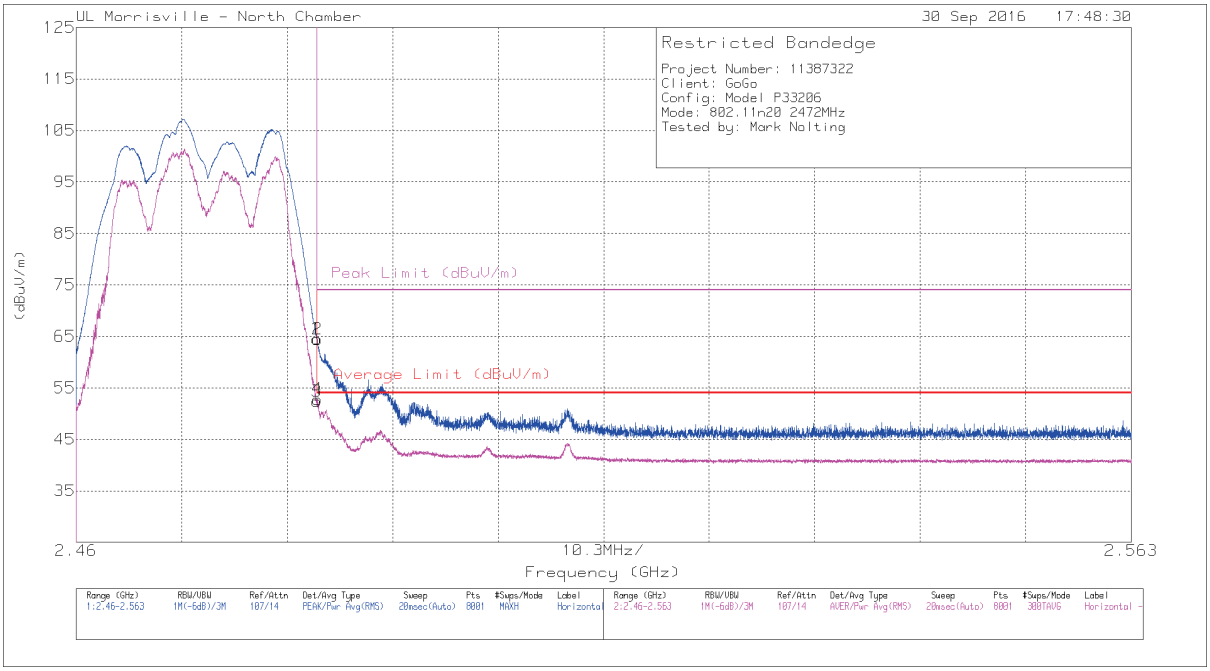
**RESTRICTED BANDEDGE (HIGH CHANNEL 13 – SDM MCS16)**




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 56.58 | Pk | 32.3 | -24.4 | 0 | 64.48 | - | - | 74 | -9.52 | 308 | 106 | H |
| 2 | * 2.484 | 56.55 | Pk | 32.3 | -24.4 | 0 | 64.45 | - | - | 74 | -9.55 | 308 | 106 | H |
| 3 | * 2.484 | 39.81 | RMS | 32.3 | -24.4 | 4.68 | 52.39 | 54 | -1.61 | - | - | 308 | 106 | H |
| 4 | * 2.484 | 40.23 | RMS | 32.3 | -24.4 | 4.68 | 52.81 | 54 | -1.19 | - | - | 308 | 106 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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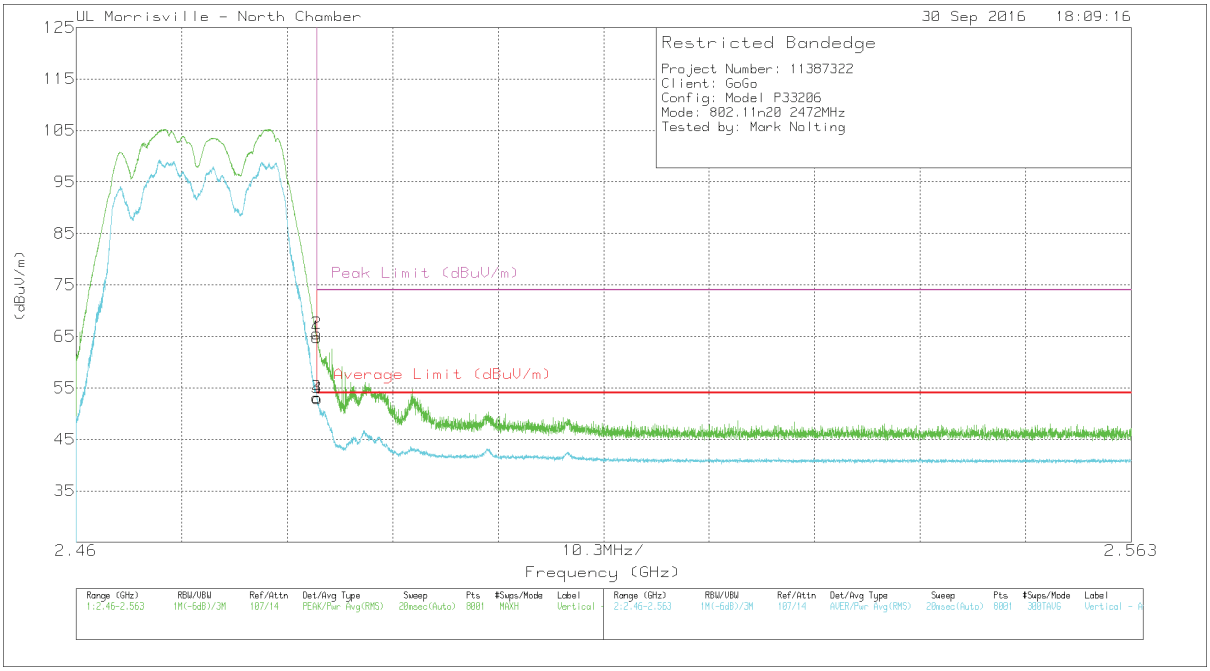


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 56.92 | Pk | 32.3 | -24.4 | 0 | 64.82 | - | - | 74 | -9.18 | 7 | 267 | V |
| 2 | * 2.484 | 57.66 | Pk | 32.3 | -24.4 | 0 | 65.56 | - | - | 74 | -8.44 | 7 | 267 | V |
| 3 | * 2.484 | 40.57 | RMS | 32.3 | -24.4 | 4.68 | 53.15 | 54 | -.85 | - | - | 7 | 267 | V |
| 4 | * 2.484 | 40.38 | RMS | 32.3 | -24.4 | 4.68 | 52.96 | 54 | -1.04 | - | - | 7 | 267 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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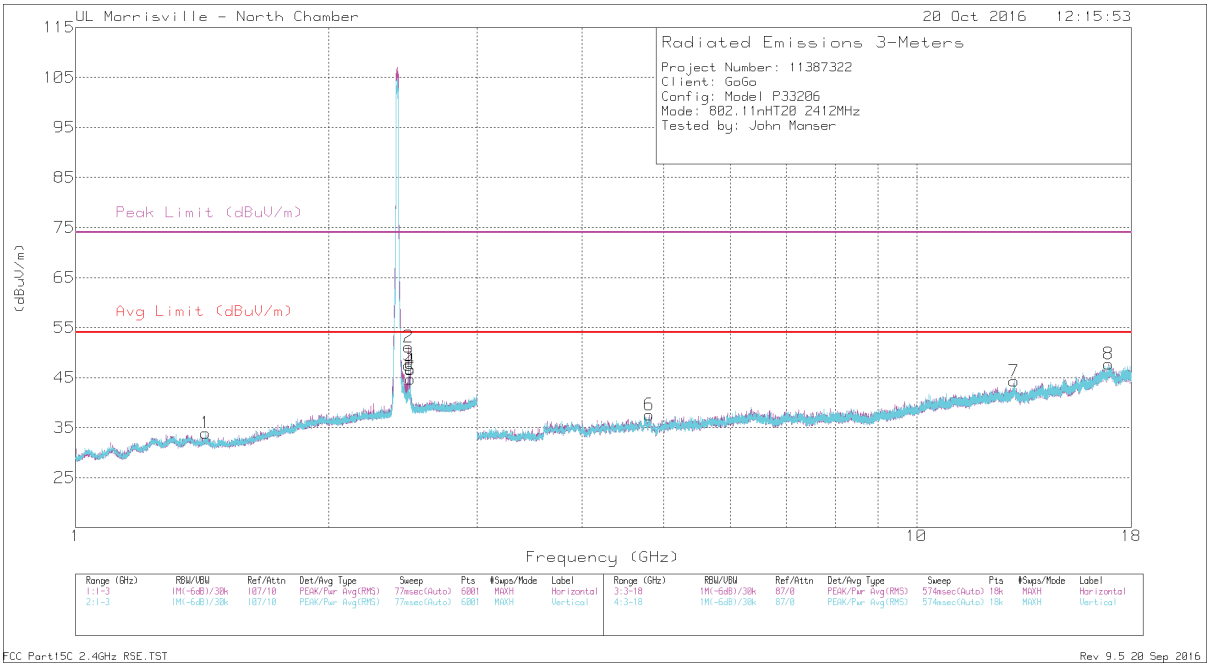
**HARMONICS AND SPURIOUS EMISSIONS**

Note – Low Channel for both 802.11g and 802.11n HT20 SDM Mode was found to be worst-case. Therefore, Low channel CDD (MCS0) was spot checked to compare to 802.11g and 802.11n SDM. The results were found to be similar, therefore no additional Radiated Spurious Emissions were performed in the 802.11n HT20 CDD mode.

LOW CHANNEL – CDD (MCS0)




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | * 2.487 | 48.24 | PK2 | 32.3 | -24.4 | 0 | 56.14 | - | - | 74 | -17.86 | 58 | 309 | H |
| | * 2.487 | 41.06 | MAv1 | 32.3 | -24.4 | 2.28 | 51.24 | 54 | -2.76 | - | - | 58 | 309 | H |
| 1 | * 1.426 | 36.24 | PK2 | 28.5 | -25.2 | 0 | 39.54 | - | - | 74 | -34.46 | 308 | 159 | V |
| | * 1.426 | 24.05 | MAv1 | 28.5 | -25.2 | 2.28 | 29.63 | 54 | -24.37 | - | - | 308 | 159 | V |
| 3 | * 2.487 | 47.6 | PK2 | 32.3 | -24.4 | 0 | 55.5 | - | - | 74 | -18.5 | 326 | 280 | V |
| | * 2.487 | 39.79 | MAv1 | 32.3 | -24.4 | 2.28 | 49.97 | 54 | -4.03 | - | - | 326 | 280 | V |
| 5 | * 2.5 | 45.22 | PK2 | 32.3 | -24.4 | 0 | 53.12 | - | - | 74 | -20.88 | 324 | 348 | V |
| | * 2.5 | 34.91 | MAv1 | 32.3 | -24.4 | 2.28 | 45.09 | 54 | -8.91 | - | - | 324 | 348 | V |
| 6 | * 4.812 | 41.34 | PK2 | 34 | -31.7 | 0 | 43.64 | - | - | 74 | -30.36 | 331 | 109 | H |
| | * 4.811 | 29.14 | MAv1 | 34 | -31.7 | 2.28 | 33.72 | 54 | -20.28 | - | - | 331 | 109 | H |
| 4 | 2.5 | 38.69 | Pk | 32.3 | -24.4 | 0 | 46.59 | - | - | - | - | 0-360 | 103 | H |
| 7 | 13.058 | 30.72 | Pk | 39.2 | -25.6 | 0 | 44.32 | - | - | - | - | 0-360 | 102 | V |
| 8 | 16.924 | 29.96 | Pk | 42 | -24.2 | 0 | 47.76 | - | - | - | - | 0-360 | 199 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 -Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 20 Sep 2016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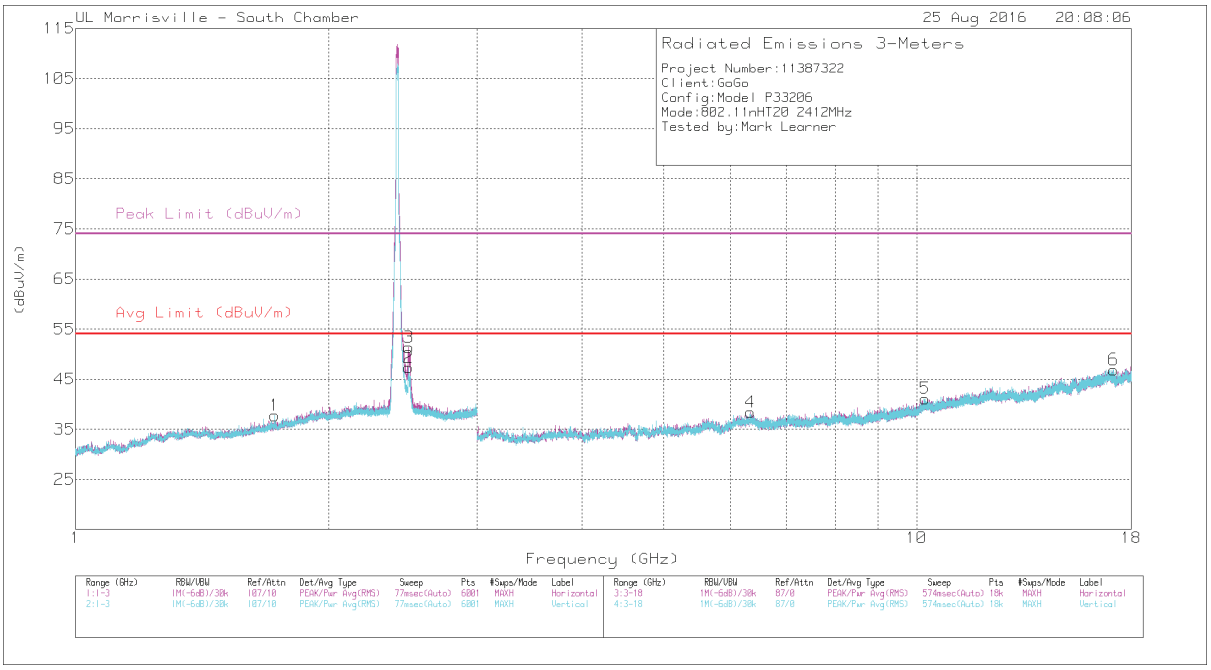
LOW CHANNEL – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | * 2.488 | 50.06 | PK2 | 32.4 | -24.7 | 0 | 57.76 | - | - | 74 | -16.24 | 82 | 130 | H |
| | * 2.488 | 38.5 | MAv1 | 32.4 | -24.7 | 4.68 | 50.88 | 54 | -3.12 | - | - | 82 | 130 | H |
| 2 | * 2.487 | 46.01 | PK2 | 32.4 | -24.7 | 0 | 53.71 | - | - | 74 | -20.29 | 69 | 202 | V |
| | * 2.487 | 35.69 | MAv1 | 32.4 | -24.7 | 4.68 | 48.07 | 54 | -5.93 | - | - | 69 | 202 | V |
| 1 | 1.724 | 30.85 | Pk | 29.3 | -22.4 | 0 | 37.75 | - | - | - | - | 0-360 | 201 | V |
| 4 | 6.341 | 31.41 | Pk | 35.5 | -28.5 | 0 | 38.41 | - | - | - | - | 0-360 | 199 | H |
| 5 | 10.23 | 29.52 | Pk | 37.3 | -25.7 | 0 | 41.12 | - | - | - | - | 0-360 | 101 | V |
| 6 | 17.151 | 29.09 | Pk | 41.4 | -23.6 | 0 | 46.89 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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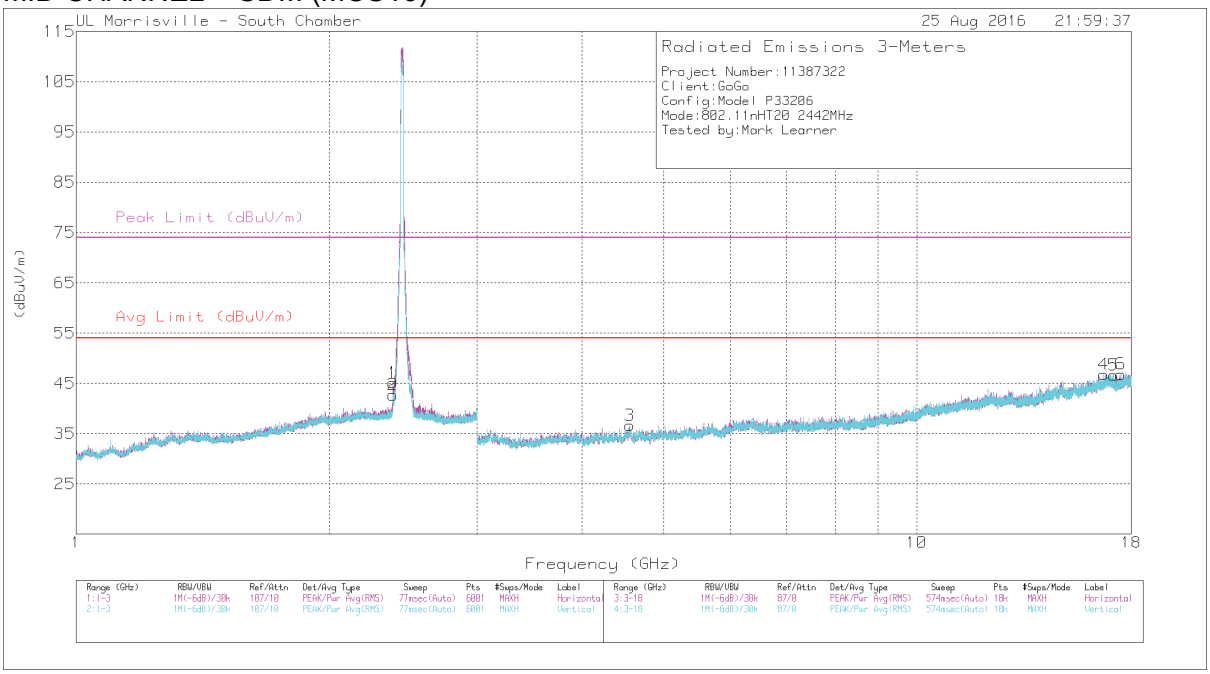
MID CHANNEL – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.384 | 43.24 | PK2 | 32.1 | -24.1 | 0 | 51.24 | - | - | 74 | -22.76 | 187 | 100 | H |
| | * 2.383 | 29.91 | MAv1 | 32.1 | -24.1 | 4.68 | 42.59 | 54 | -11.41 | - | - | 187 | 100 | H |
| 2 | * 2.384 | 40.5 | PK2 | 32.1 | -24.1 | 0 | 48.5 | - | - | 74 | -25.5 | 26 | 199 | V |
| | * 2.383 | 28.23 | MAv1 | 32.1 | -24.1 | 4.68 | 40.91 | 54 | -13.09 | - | - | 26 | 199 | V |
| 3 | * 4.559 | 40.88 | PK2 | 34 | -32 | 0 | 42.88 | - | - | 74 | -31.12 | 71 | 199 | V |
| | * 4.558 | 29.52 | MAv1 | 34 | -32 | 4.68 | 36.2 | 54 | -17.8 | - | - | 71 | 199 | V |
| 4 | 16.696 | 30.48 | Pk | 41.5 | -25.2 | 0 | 46.78 | - | - | - | - | 0-360 | 101 | V |
| 5 | 17.147 | 28.83 | Pk | 41.4 | -23.6 | 0 | 46.63 | - | - | - | - | 0-360 | 101 | H |
| 6 | 17.493 | 29.64 | Pk | 41.1 | -23.9 | 0 | 46.84 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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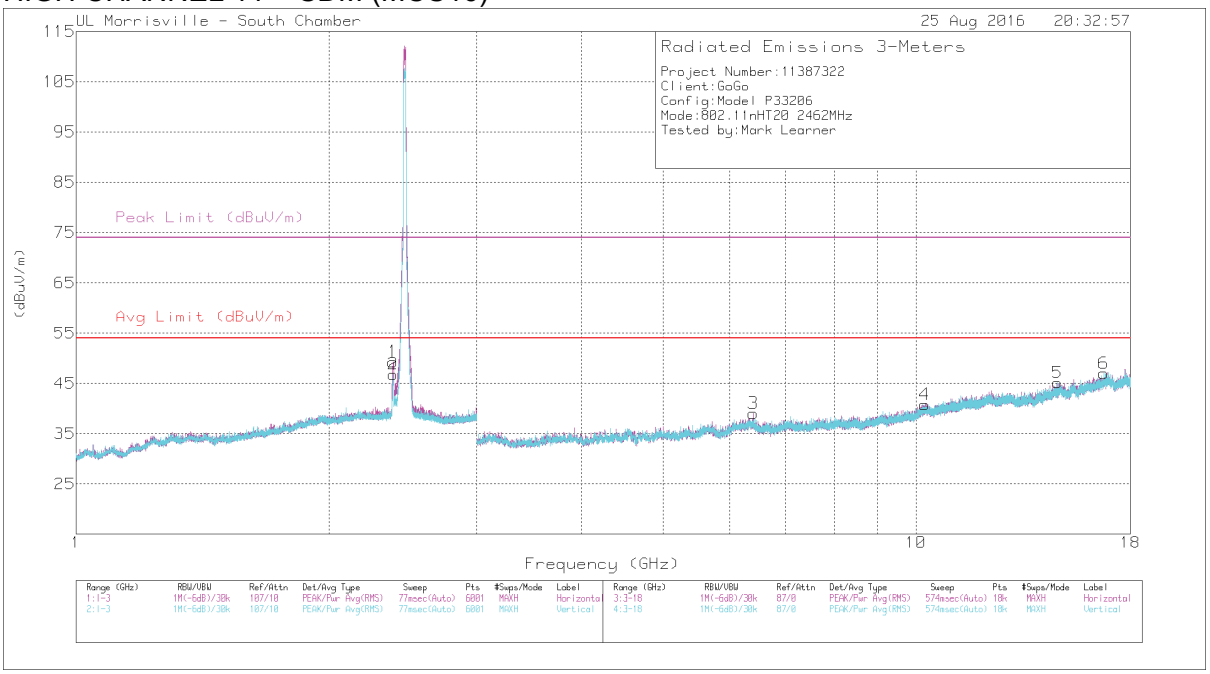
## HIGH CHANNEL 11 – SDM (MCS16)




## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.384 | 48.93 | PK2 | 32.2 | -24.1 | 0 | 57.03 | - | - | 74 | -16.97 | 154 | 269 | H |
| | * 2.383 | 37.94 | MAv1 | 32.1 | -24.1 | 4.68 | 50.62 | 54 | -3.38 | - | - | 154 | 269 | H |
| 2 | * 2.388 | 47.16 | PK2 | 32.2 | -24.1 | 0 | 55.26 | - | - | 74 | -18.74 | 44 | 304 | V |
| | * 2.388 | 35.12 | MAv1 | 32.2 | -24.1 | 4.68 | 47.90 | 54 | -6.1 | - | - | 44 | 304 | V |
| 3 | 6.402 | 32.96 | Pk | 35.4 | -29.3 | 0 | 39.06 | - | - | - | - | 0-360 | 199 | H |
| 4 | 10.242 | 29.1 | Pk | 37.3 | -25.6 | 0 | 40.8 | - | - | - | - | 0-360 | 101 | V |
| 5 | 14.736 | 30.64 | Pk | 39.8 | -25.3 | 0 | 45.14 | - | - | - | - | 0-360 | 101 | V |
| 6 | 16.73 | 30.69 | Pk | 41.6 | -25.3 | 0 | 46.99 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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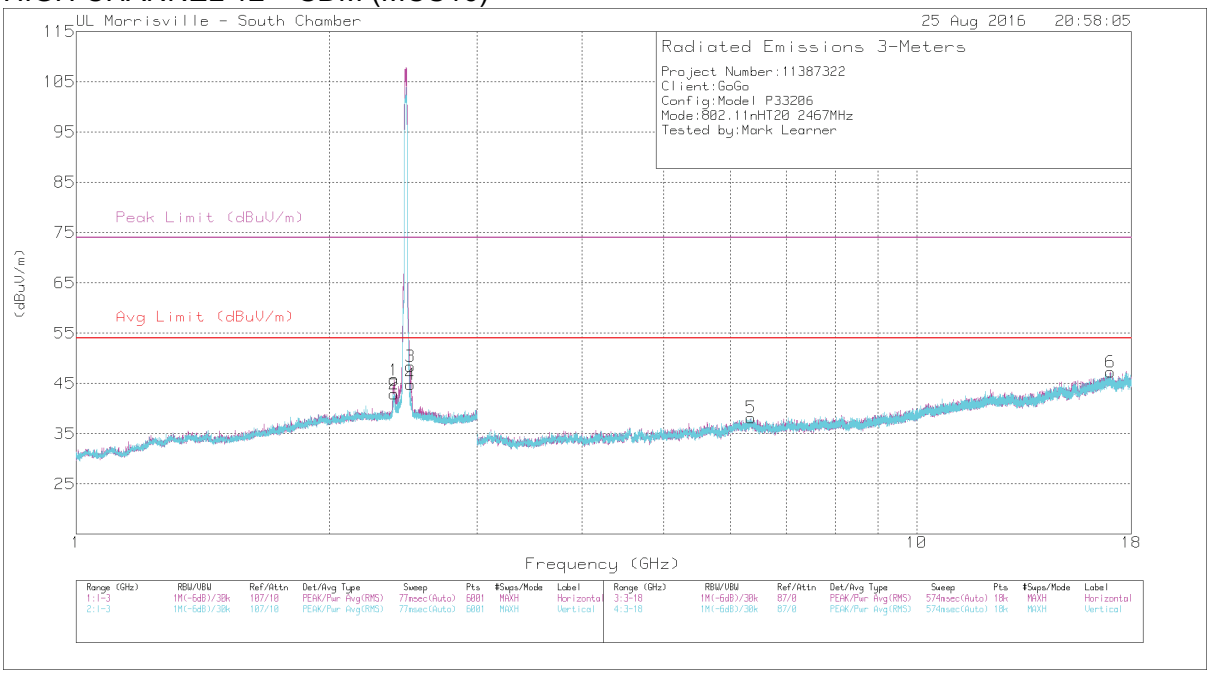
HIGH CHANNEL 12 – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 44.2 | PK2 | 32.2 | -24.1 | 0 | 52.3 | - | - | 74 | -21.7 | 186 | 204 | H |
| | * 2.389 | 32.59 | MAv1 | 32.2 | -24.1 | 4.68 | 45.37 | 54 | -8.63 | - | - | 186 | 203 | H |
| 2 | * 2.388 | 43.26 | PK2 | 32.2 | -24.1 | 0 | 51.36 | - | - | 74 | -22.64 | 66 | 281 | V |
| | * 2.388 | 31.18 | MAv1 | 32.2 | -24.1 | 4.68 | 43.96 | 54 | -10.04 | - | - | 66 | 281 | V |
| 3 | 2.5 | 40.68 | Pk | 32.5 | -24.8 | 0 | 48.38 | - | - | - | - | 0-360 | 102 | H |
| 4 | 2.5 | 37.08 | Pk | 32.5 | -24.8 | 0 | 44.78 | - | - | - | - | 0-360 | 101 | V |
| 5 | 6.355 | 31.7 | Pk | 35.5 | -29 | 0 | 38.2 | - | - | - | - | 0-360 | 199 | V |
| 6 | 16.993 | 30.65 | Pk | 41.5 | -24.9 | 0 | 47.25 | - | - | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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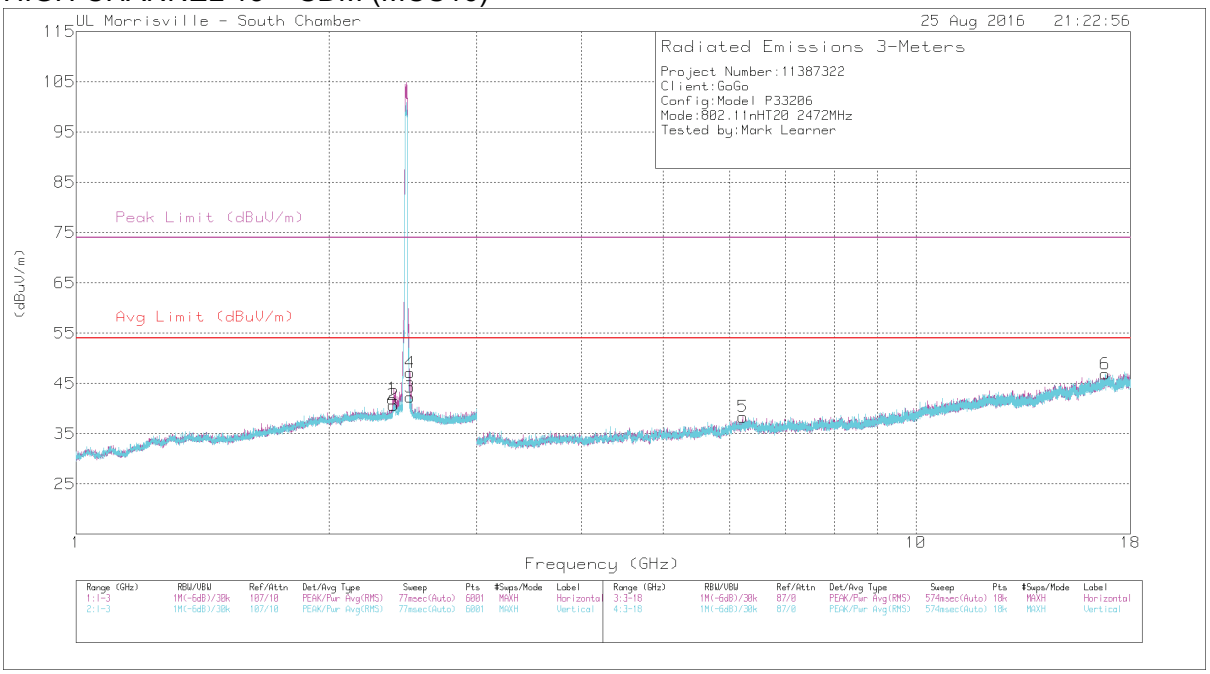
HIGH CHANNEL 13 – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.385 | 40.58 | PK2 | 32.2 | -24.1 | 0 | 48.68 | - | - | 74 | -25.32 | 187 | 196 | H |
| | * 2.385 | 28.05 | MAv1 | 32.2 | -24.1 | 4.68 | 40.83 | 54 | -13.17 | - | - | 187 | 196 | H |
| 4 | * 2.5 | 43.81 | PK2 | 32.5 | -24.8 | 0 | 51.51 | - | - | 74 | -22.49 | 77 | 221 | H |
| | * 2.5 | 33.44 | MAv1 | 32.5 | -24.8 | 4.68 | 45.82 | 54 | -8.18 | - | - | 77 | 221 | H |
| 2 | * 2.387 | 39.02 | PK2 | 32.2 | -24.1 | 0 | 47.12 | - | - | 74 | -26.88 | 135 | 179 | V |
| | * 2.389 | 26.65 | MAv1 | 32.2 | -24.1 | 4.68 | 39.43 | 54 | -14.57 | - | - | 135 | 179 | V |
| 3 | 2.5 | 41.45 | PK2 | 32.5 | -24.8 | 0 | 49.15 | - | - | - | - | 100 | 199 | V |
| | 2.5 | 29.78 | MAv1 | 32.5 | -24.8 | .3 | 37.78 | - | - | - | - | 100 | 199 | V |
| 5 | 6.223 | 32.46 | Pk | 35.4 | -29.5 | 0 | 38.36 | - | - | - | - | 0-360 | 101 | H |
| 6 | 16.792 | 29.9 | Pk | 41.6 | -24.6 | 0 | 46.9 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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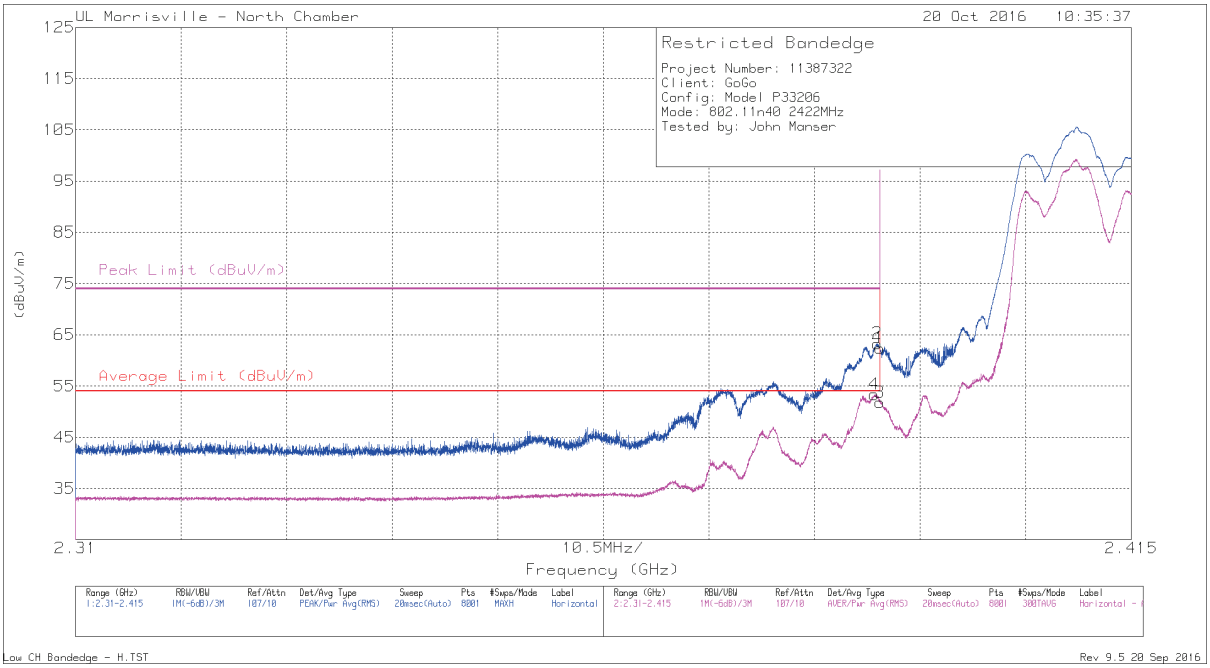
## 9.2.4. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 2.4 GHz BAND

**RESTRICTED BANDEDGE (LOW CHANNEL – CDD MCS0)**




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 54.85 | Pk | 32.1 | -24.5 | 0 | 62.45 | - | - | 74 | -11.55 | 59 | 329 | H |
| 2 | * 2.39 | 55.7 | Pk | 32.1 | -24.5 | 0 | 63.3 | - | - | 74 | -10.7 | 59 | 329 | H |
| 3 | * 2.39 | 43.08 | RMS | 32.1 | -24.5 | 1.11 | 51.79 | 54 | -2.21 | - | - | 59 | 329 | H |
| 4 | * 2.389 | 44.65 | RMS | 32.1 | -24.5 | 1.11 | 53.36 | 54 | -.64 | - | - | 59 | 329 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection
Rev 9.5 20 Sep 2016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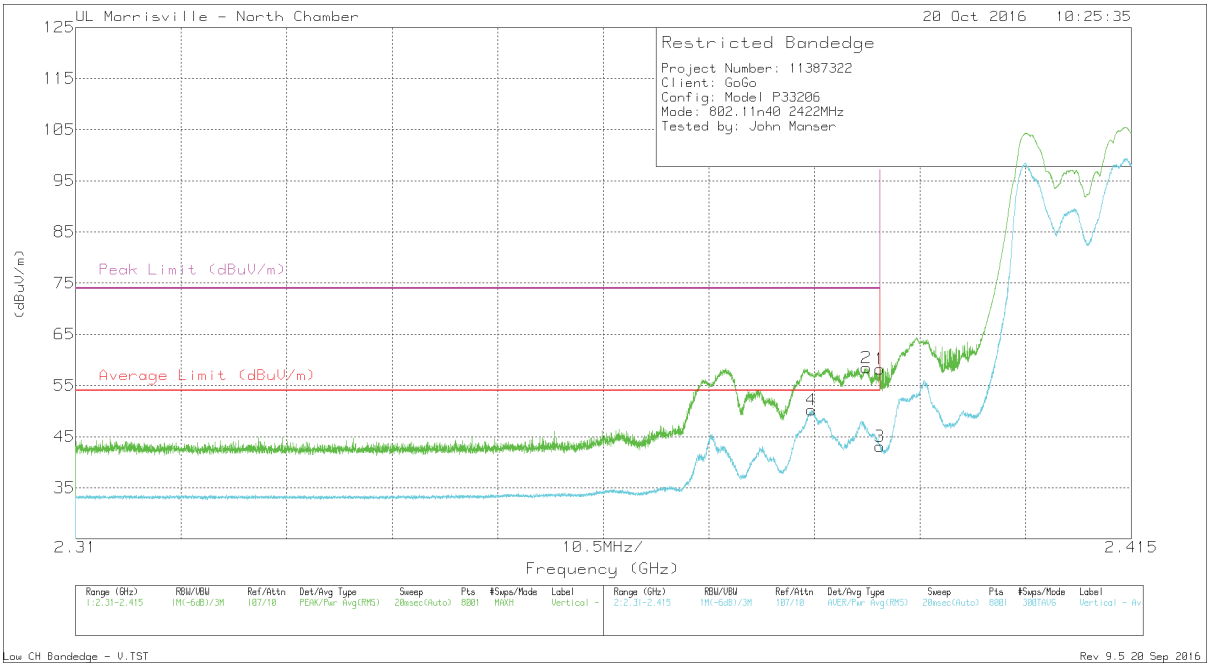


| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 50.58 | Pk | 32.1 | -24.5 | 0 | 58.18 | - | - | 74 | -15.82 | 8 | 329 | V |
| 2 | * 2.389 | 50.83 | Pk | 32.1 | -24.5 | 0 | 58.43 | - | - | 74 | -15.57 | 8 | 329 | V |
| 3 | * 2.39 | 34.4 | RMS | 32.1 | -24.5 | 1.11 | 43.11 | 54 | -10.89 | - | - | 8 | 329 | V |
| 4 | * 2.383 | 41.5 | RMS | 32.1 | -24.5 | 1.11 | 50.21 | 54 | -3.79 | - | - | 8 | 329 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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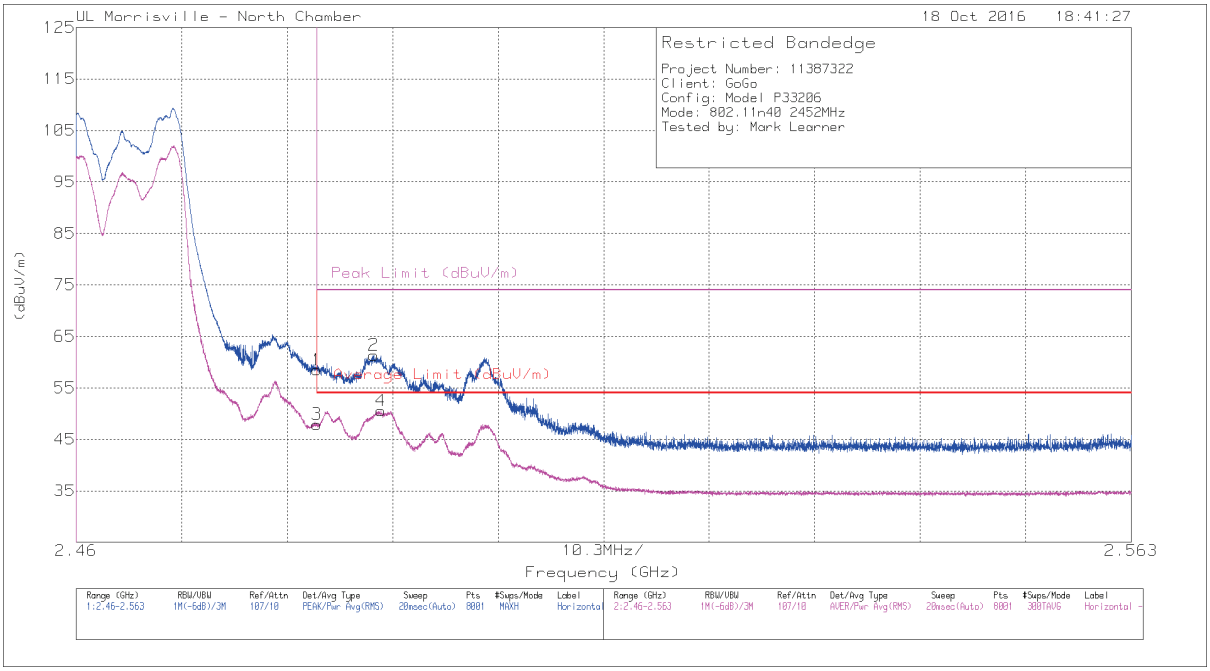
**RESTRICTED BANDEDGE (HIGH CHANNEL 9 – CDD MCS0)**




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 50.62 | Pk | 32.3 | -24.4 | 0 | 58.52 | - | - | 74 | -15.48 | 60 | 352 | H |
| 2 | * 2.489 | 53.47 | Pk | 32.3 | -24.4 | 0 | 61.37 | - | - | 74 | -12.63 | 60 | 352 | H |
| 3 | * 2.484 | 38.92 | RMS | 32.3 | -24.4 | 1.11 | 47.93 | 54 | -6.07 | - | - | 60 | 352 | H |
| 4 | * 2.49 | 41.57 | RMS | 32.3 | -24.4 | 1.11 | 50.58 | 54 | -3.42 | - | - | 60 | 352 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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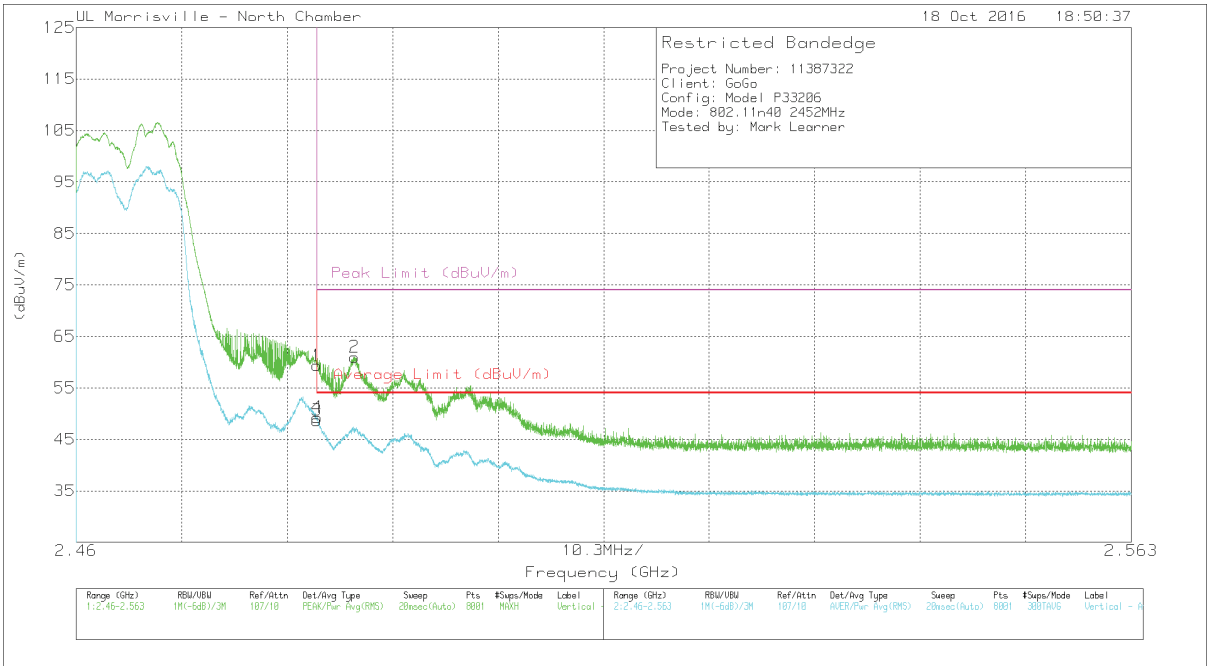


| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.48 | Pk | 32.3 | -24.4 | 0 | 59.38 | - | - | 74 | -14.62 | 3 | 388 | V |
| 2 | * 2.487 | 53.1 | Pk | 32.3 | -24.4 | 0 | 61 | - | - | 74 | -13 | 3 | 388 | V |
| 3 | * 2.484 | 39.68 | RMS | 32.3 | -24.4 | 1.11 | 48.69 | 54 | -5.31 | - | - | 3 | 388 | V |
| 4 | * 2.484 | 40.25 | RMS | 32.3 | -24.4 | 1.11 | 49.26 | 54 | -4.74 | - | - | 3 | 388 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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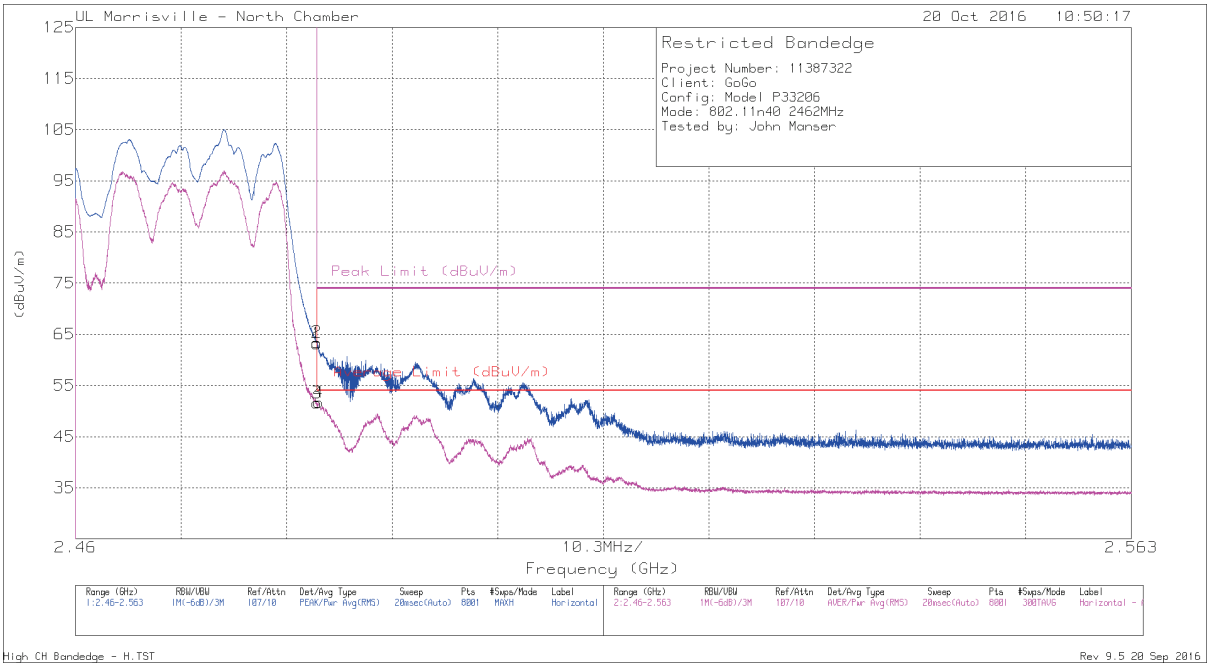
## RESTRICTED BANDEDGE (HIGH CHANNEL 11 – CDD MCS0)




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 55.3 | Pk | 32.3 | -24.4 | 0 | 63.2 | - | - | 74 | -10.8 | 218 | 330 | H |
| 2 | * 2.484 | 55.52 | Pk | 32.3 | -24.4 | 0 | 63.42 | - | - | 74 | -10.58 | 218 | 330 | H |
| 3 | * 2.484 | 42.6 | RMS | 32.3 | -24.4 | 1.11 | 51.61 | 54 | -2.39 | - | - | 218 | 330 | H |
| 4 | * 2.484 | 42.65 | RMS | 32.3 | -24.4 | 1.11 | 51.66 | 54 | -2.34 | - | - | 218 | 330 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

Rev 9.5 20 Sep 2016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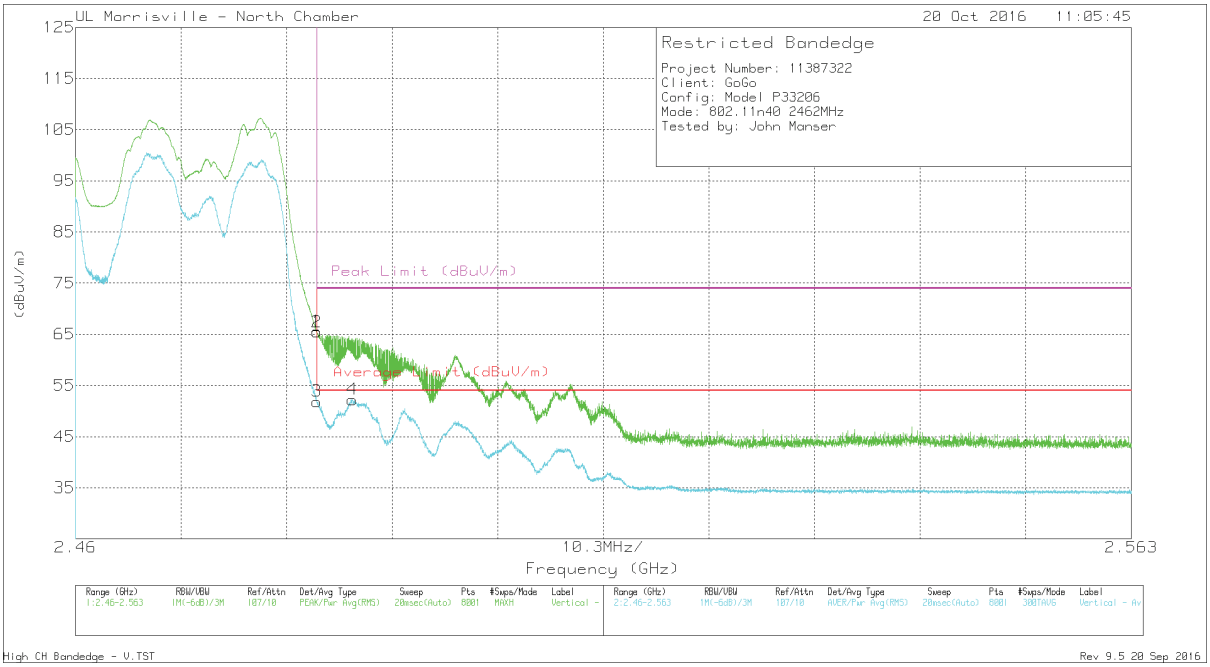


| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 57.64 | Pk | 32.3 | -24.4 | 0 | 65.54 | - | - | 74 | -8.46 | 352 | 373 | V |
| 2 | * 2.484 | 57.52 | Pk | 32.3 | -24.4 | 0 | 65.42 | - | - | 74 | -8.58 | 352 | 373 | V |
| 3 | * 2.484 | 42.87 | RMS | 32.3 | -24.4 | 1.11 | 51.88 | 54 | -2.12 | - | - | 352 | 373 | V |
| 4 | * 2.487 | 43.24 | RMS | 32.3 | -24.4 | 1.11 | 52.25 | 54 | -1.75 | - | - | 352 | 373 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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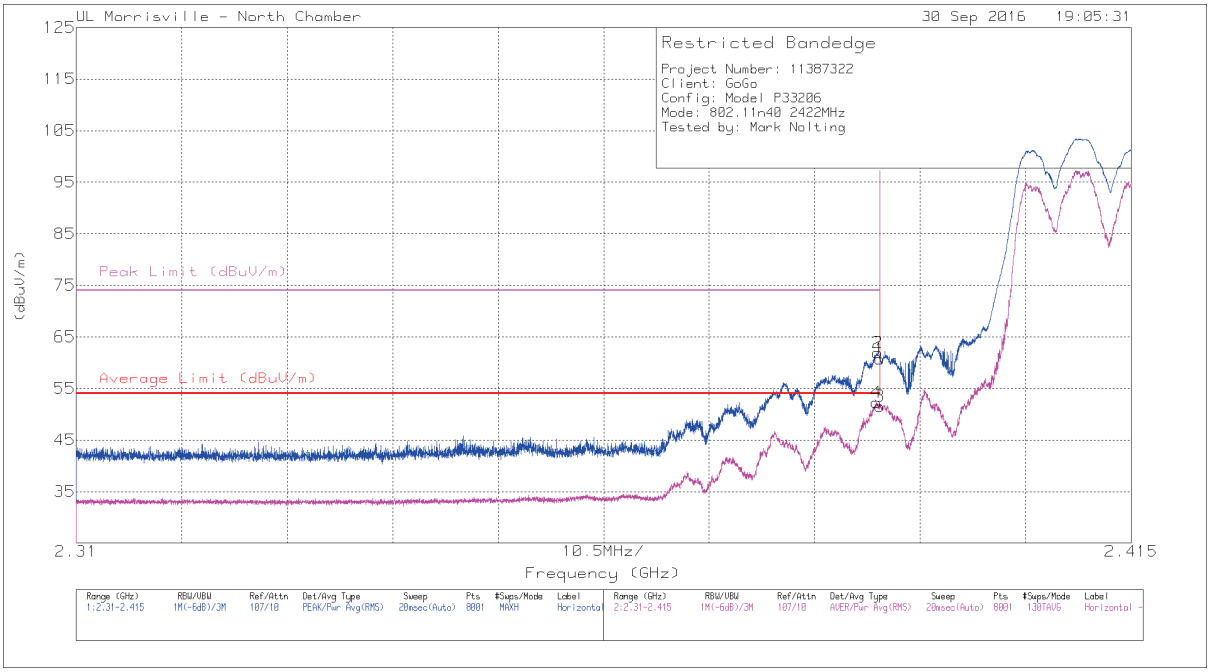
**RESTRICTED BANDEDGE (LOW CHANNEL – SDM MCS16)**




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 53.12 | Pk | 32.1 | -24.5 | 0 | 60.72 | - | - | 74 | -13.28 | 308 | 124 | H |
| 2 | * 2.39 | 54.34 | Pk | 32.1 | -24.5 | 0 | 61.94 | - | - | 74 | -12.06 | 308 | 124 | H |
| 3 | * 2.39 | 42.81 | RMS | 32.1 | -24.5 | 1.12 | 51.53 | 54 | -2.47 | - | - | 308 | 124 | H |
| 4 | * 2.39 | 43.56 | RMS | 32.1 | -24.5 | 1.12 | 52.28 | 54 | -1.72 | - | - | 308 | 124 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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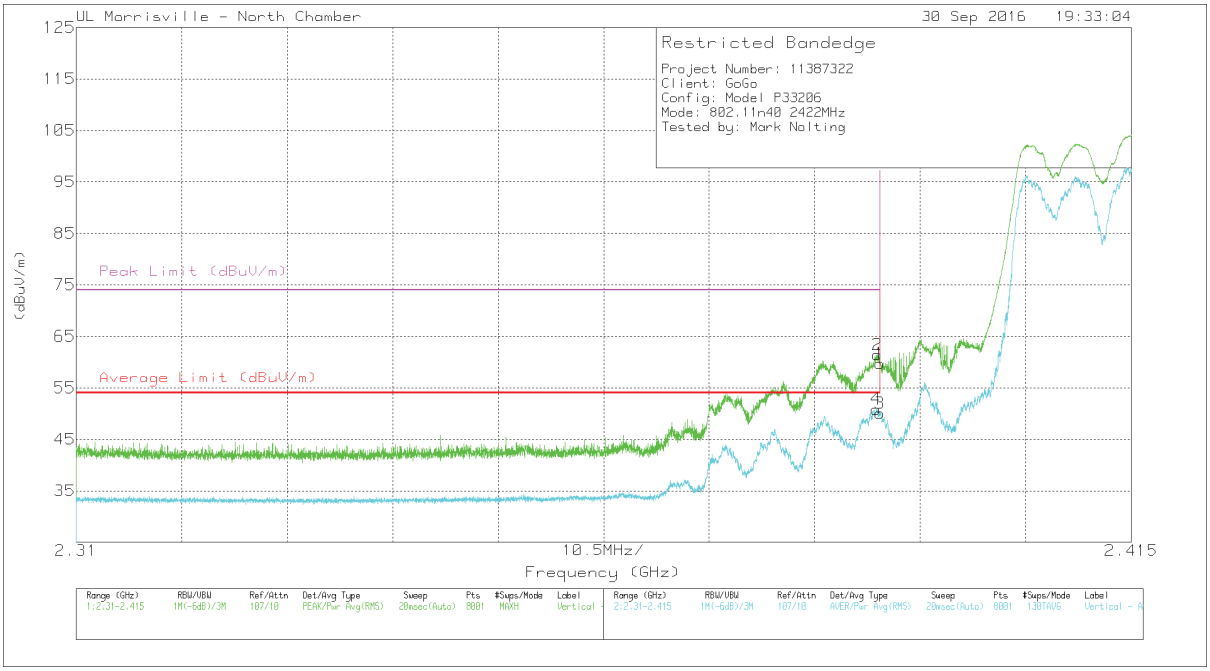


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.39 | 52.12 | Pk | 32.1 | -24.5 | 0 | 59.72 | - | - | 74 | -14.28 | 359 | 245 | V |
| 2 | * 2.39 | 53.83 | Pk | 32.1 | -24.5 | 0 | 61.43 | - | - | 74 | -12.57 | 359 | 245 | V |
| 3 | * 2.39 | 41.37 | RMS | 32.1 | -24.5 | 1.12 | 50.09 | 54 | -3.91 | - | - | 359 | 245 | V |
| 4 | * 2.39 | 42.14 | RMS | 32.1 | -24.5 | 1.12 | 50.86 | 54 | -3.14 | - | - | 359 | 245 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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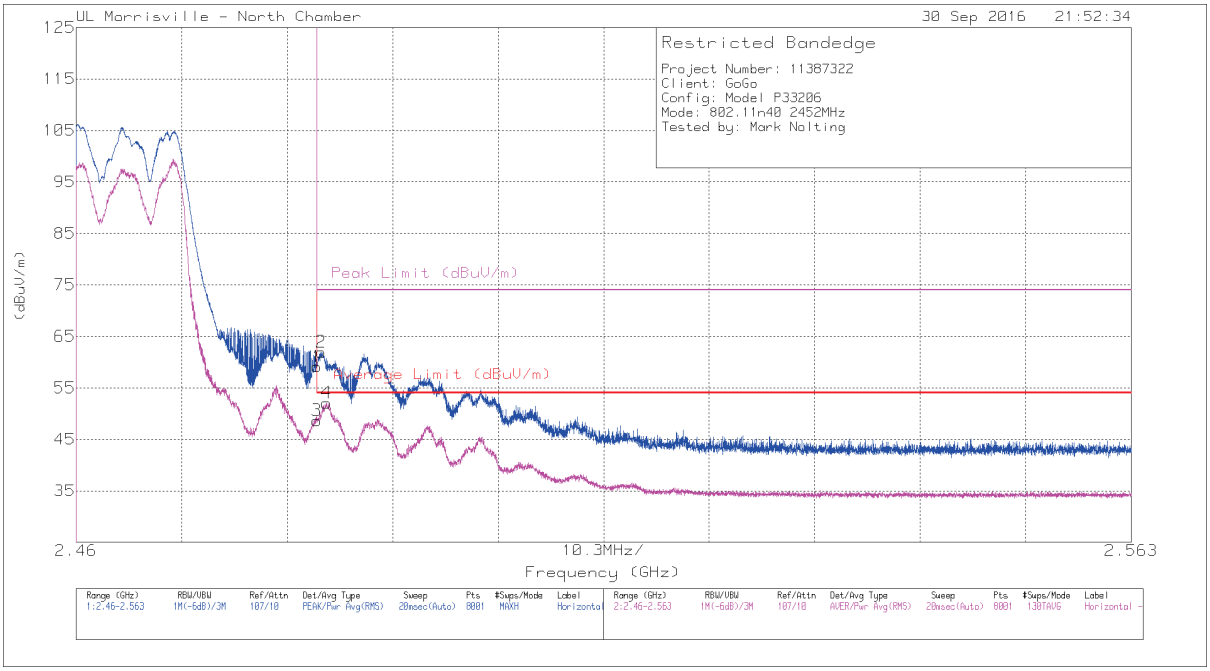
**RESTRICTED BANDEDGE (HIGH CHANNEL 9 – SDM MCS16)**




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.2 | Pk | 32.3 | -24.4 | 0 | 59.1 | - | - | 74 | -14.9 | 308 | 146 | H |
| 2 | * 2.484 | 54.06 | Pk | 32.3 | -24.4 | 0 | 61.96 | - | - | 74 | -12.04 | 308 | 146 | H |
| 3 | * 2.484 | 39.63 | RMS | 32.3 | -24.4 | 1.12 | 48.65 | 54 | -5.35 | - | - | 308 | 146 | H |
| 4 | * 2.484 | 43.06 | RMS | 32.3 | -24.4 | 1.12 | 52.08 | 54 | -1.92 | - | - | 308 | 146 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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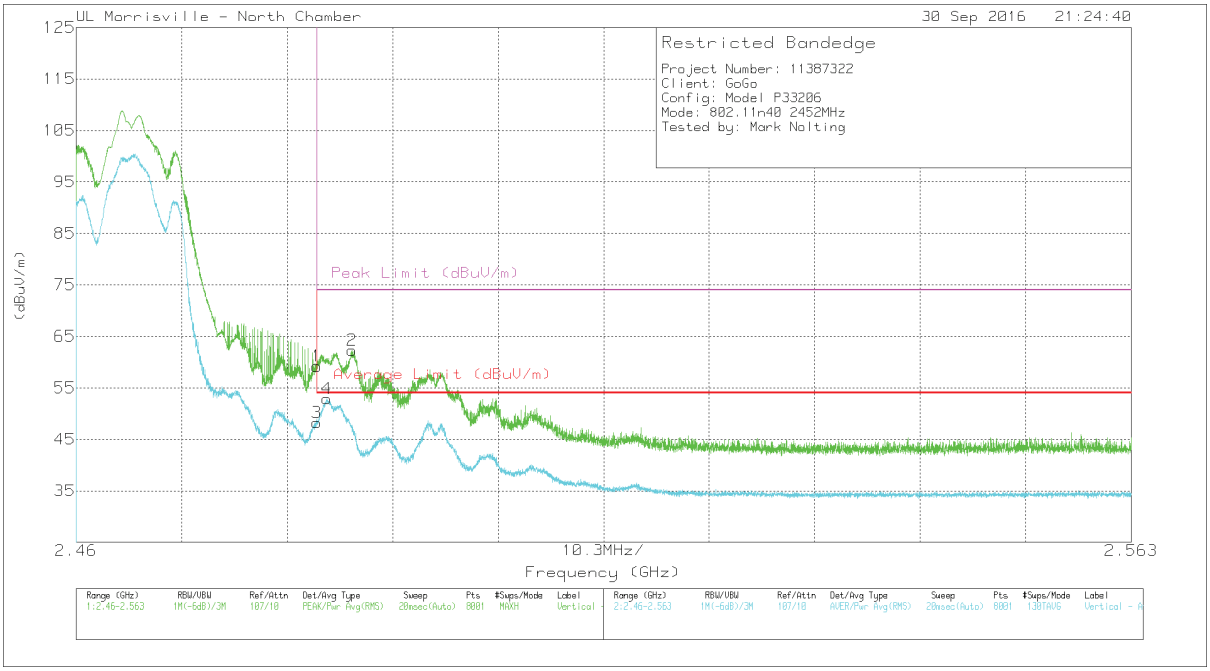


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 51.3 | Pk | 32.3 | -24.4 | 0 | 59.2 | - | - | 74 | -14.8 | 12 | 275 | V |
| 3 | * 2.484 | 39.23 | RMS | 32.3 | -24.4 | 1.12 | 48.25 | 54 | -5.75 | - | - | 12 | 275 | V |
| 4 | * 2.484 | 43.87 | RMS | 32.3 | -24.4 | 1.12 | 52.89 | 54 | -1.11 | - | - | 12 | 275 | V |
| 2 | * 2.487 | 54.37 | Pk | 32.3 | -24.4 | 0 | 62.27 | - | - | 74 | -11.73 | 12 | 275 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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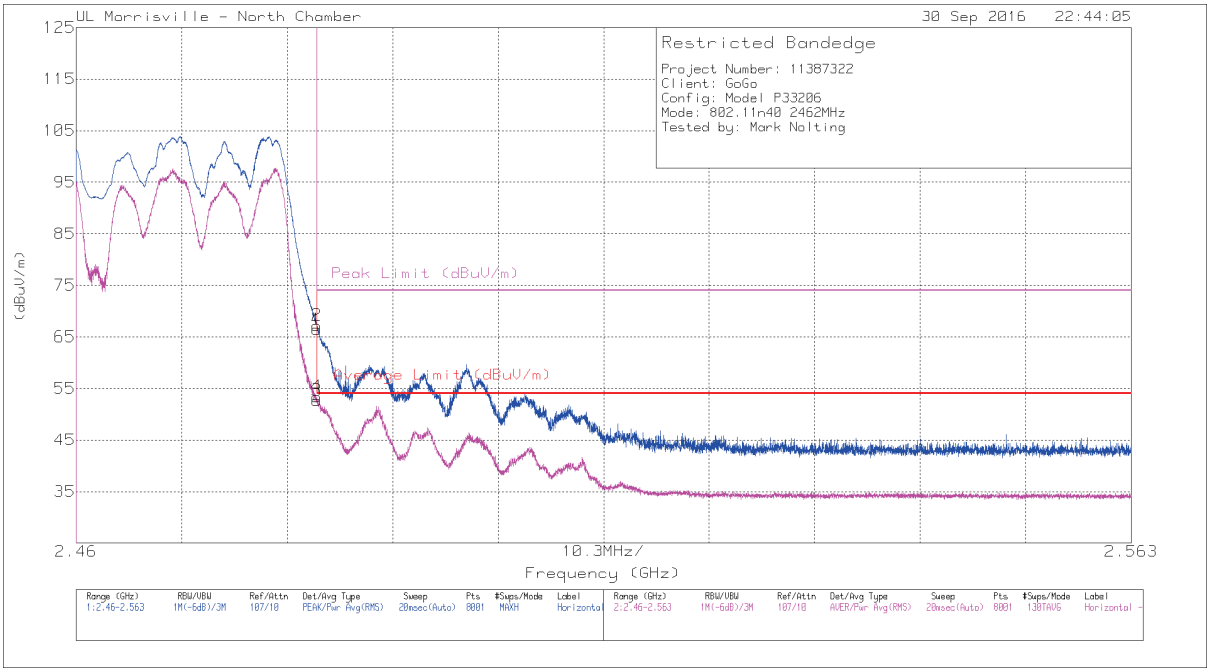
**RESTRICTED BANDEDGE (HIGH CHANNEL 11 – SDM MCS16)**




| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 58.55 | Pk | 32.3 | -24.4 | 0 | 66.45 | - | - | 74 | -7.55 | 307 | 110 | H |
| 2 | * 2.484 | 59.33 | Pk | 32.3 | -24.4 | 0 | 67.23 | - | - | 74 | -6.77 | 307 | 110 | H |
| 3 | * 2.484 | 43.67 | RMS | 32.3 | -24.4 | 1.12 | 52.69 | 54 | -1.31 | - | - | 307 | 110 | H |
| 4 | * 2.484 | 44.4 | RMS | 32.3 | -24.4 | 1.12 | 53.42 | 54 | -.58 | - | - | 307 | 110 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection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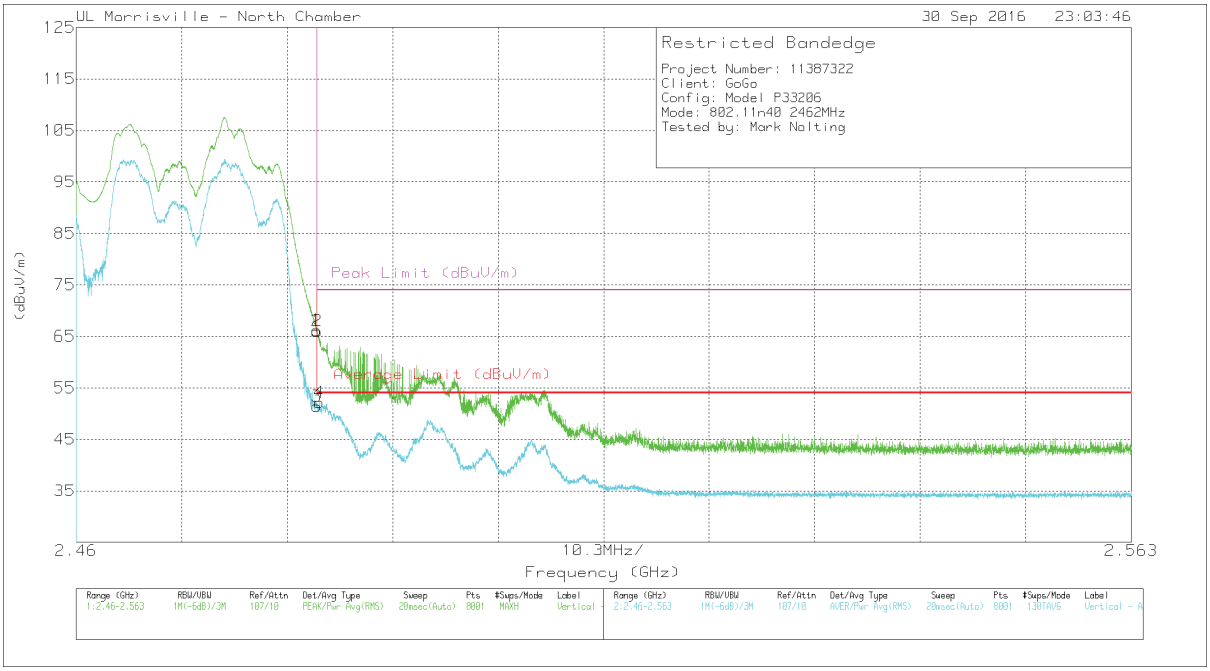


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.484 | 58.27 | Pk | 32.3 | -24.4 | 0 | 66.17 | - | - | 74 | -7.83 | 11 | 273 | V |
| 2 | * 2.484 | 58.13 | Pk | 32.3 | -24.4 | 0 | 66.03 | - | - | 74 | -7.97 | 11 | 273 | V |
| 3 | * 2.484 | 42.39 | RMS | 32.3 | -24.4 | 1.12 | 51.41 | 54 | -2.59 | - | - | 11 | 273 | V |
| 4 | * 2.484 | 43.12 | RMS | 32.3 | -24.4 | 1.12 | 52.14 | 54 | -1.86 | - | - | 11 | 273 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection


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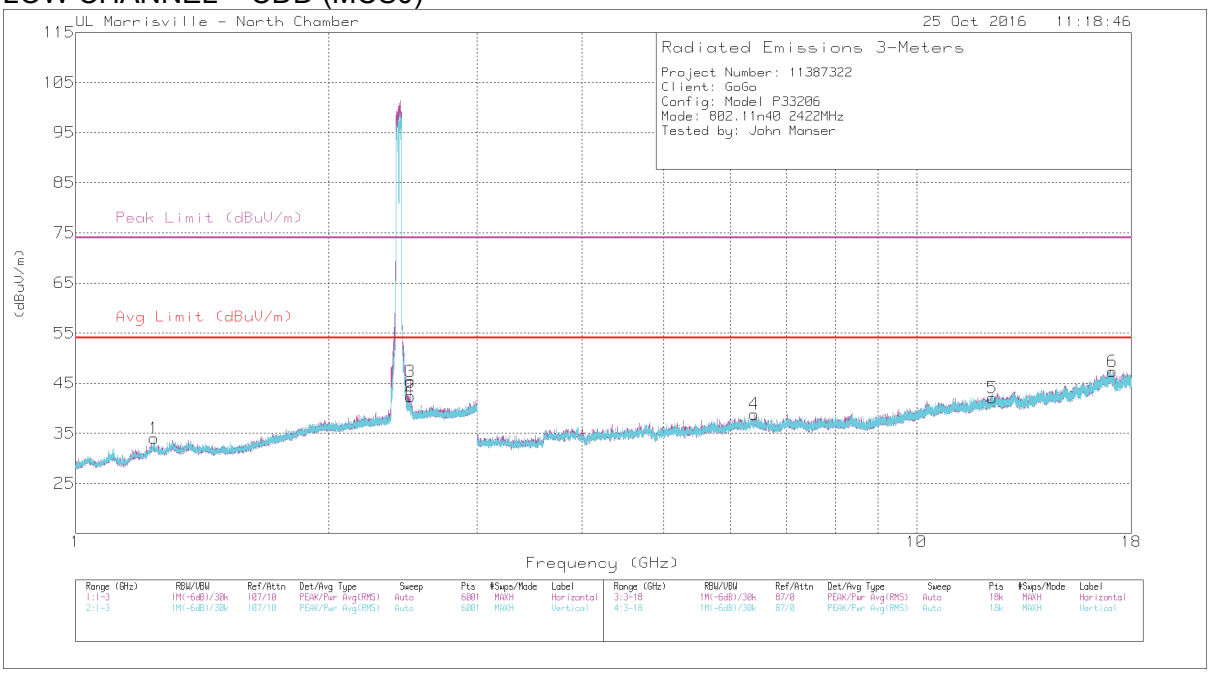
**HARMONICS AND SPURIOUS EMISSIONS**

Note – Low Channel for 802.11n HT40 SDM Mode was found to be worst-case. Therefore, Low channel CDD (MCS0) was spot checked to compare to 802.11n SDM. The results were found to be similar, therefore no additional Radiated Spurious Emissions were performed in the 802.11n HT40 CDD mode.

LOW CHANNEL – CDD (MCS0)




| Marker | Freq (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | * 2.5 | 44.52 | PK2 | 32.3 | -24.4 | 0 | 52.42 | - | - | 74 | -21.58 | 55 | 352 | H |
| | * 2.5 | 34.65 | MAv1 | 32.3 | -24.4 | 1.11 | 43.66 | 54 | -10.34 | - | - | 55 | 352 | H |
| 1 | * 1.237 | 36.16 | PK2 | 29 | -26 | 0 | 39.16 | - | - | 74 | -34.84 | 85 | 160 | V |
| | * 1.239 | 24.43 | MAv1 | 29 | -26 | 1.11 | 28.54 | 54 | -25.46 | - | - | 85 | 160 | V |
| 2 | * 2.5 | 42.5 | PK2 | 32.3 | -24.4 | 0 | 50.4 | - | - | 74 | -23.6 | 357 | 375 | V |
| | * 2.5 | 32.58 | MAv1 | 32.3 | -24.4 | 1.11 | 41.59 | 54 | -12.41 | - | - | 357 | 375 | V |
| 5 | * 12.307 | 35.94 | PK2 | 38.9 | -26 | 0 | 48.84 | - | - | 74 | -25.16 | 106 | 152 | H |
| | * 12.308 | 24.52 | MAv1 | 38.9 | -26 | 1.11 | 38.53 | 54 | -15.47 | - | - | 106 | 152 | H |
| 4 | 6.406 | 33.44 | Pk | 35.4 | -30 | 0 | 38.84 | - | - | - | - | 0-360 | 102 | H |
| 6 | 17.098 | 30.85 | Pk | 41.7 | -25.2 | 0 | 47.35 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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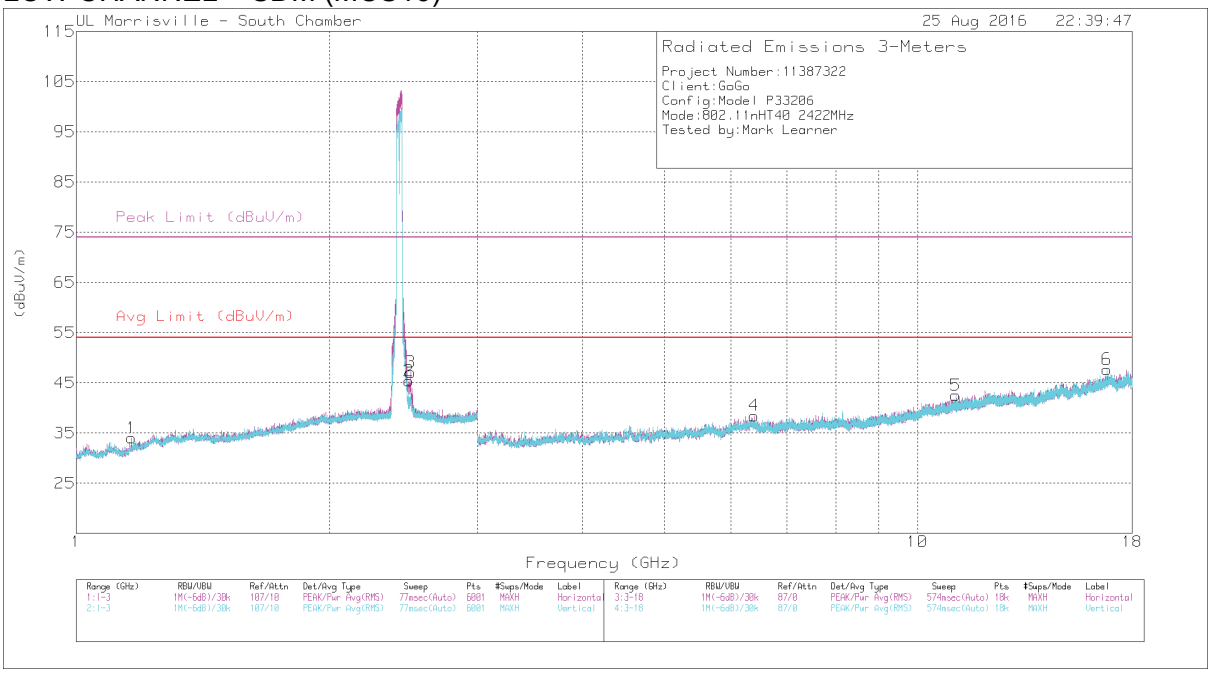
LOW CHANNEL – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 1.164 | 35.57 | PK2 | 27.6 | -24.2 | 0 | 38.97 | - | - | 74 | -35.03 | 47 | 199 | H |
| | * 1.164 | 24.32 | MAv1 | 27.6 | -24.2 | 1.12 | 28.84 | 54 | -25.16 | - | - | 47 | 199 | H |
| 2 | * 2.488 | 45.65 | PK2 | 32.4 | -24.7 | 0 | 53.35 | - | - | 74 | -20.65 | 81 | 200 | H |
| | * 2.487 | 33.79 | MAv1 | 32.4 | -24.7 | 1.12 | 42.61 | 54 | -11.39 | - | - | 81 | 200 | H |
| 3 | * 2.5 | 44.84 | PK2 | 32.5 | -24.8 | 0 | 52.54 | - | - | 74 | -21.46 | 78 | 220 | H |
| | * 2.5 | 35.43 | MAv1 | 32.5 | -24.8 | 1.12 | 44.25 | 54 | -9.75 | - | - | 78 | 220 | H |
| 5 | * 11.106 | 34.85 | PK2 | 38 | -25.1 | 0 | 47.75 | - | - | 74 | -26.25 | 84 | 221 | V |
| | * 11.104 | 22.84 | MAv1 | 38 | -25.1 | 1.12 | 36.86 | 54 | -17.14 | - | - | 84 | 221 | V |
| 4 | 6.4 | 32.37 | Pk | 35.4 | -29.3 | 0 | 38.47 | - | - | - | - | 0-360 | 101 | H |
| 6 | 16.797 | 30.68 | Pk | 41.6 | -24.6 | 0 | 47.68 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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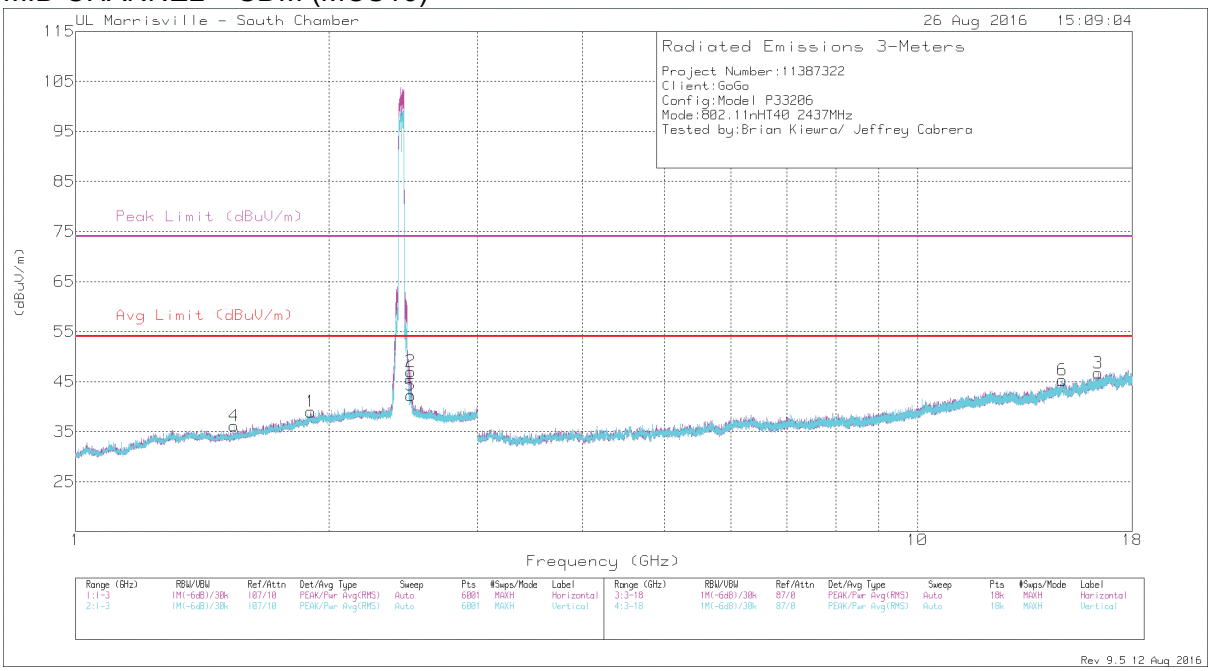
MID CHANNEL – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | * 1.544 | 35.46 | PK2 | 28.1 | -22.6 | 0 | 40.96 | - | - | 74 | -33.04 | 118 | 199 | V |
| | * 1.544 | 23.53 | MAv1 | 28.1 | -22.6 | 1.12 | 30.15 | 54 | -23.85 | - | - | 118 | 199 | V |
| 1 | 1.902 | 30.7 | Pk | 30.8 | -22.5 | 0 | 39 | - | - | - | - | 0-360 | 199 | H |
| 2 | 2.5 | 39.32 | Pk | 32.5 | -24.8 | 0 | 47.02 | - | - | - | - | 0-360 | 101 | H |
| 5 | 2.502 | 34.56 | Pk | 32.5 | -24.8 | 0 | 42.26 | - | - | - | - | 0-360 | 199 | V |
| 6 | 14.867 | 29.19 | Pk | 39.9 | -23.8 | 0 | 45.29 | - | - | - | - | 0-360 | 199 | V |
| 3 | 16.396 | 31.01 | Pk | 41 | -25.3 | 0 | 46.71 | - | - | - | - | 0-360 | 199 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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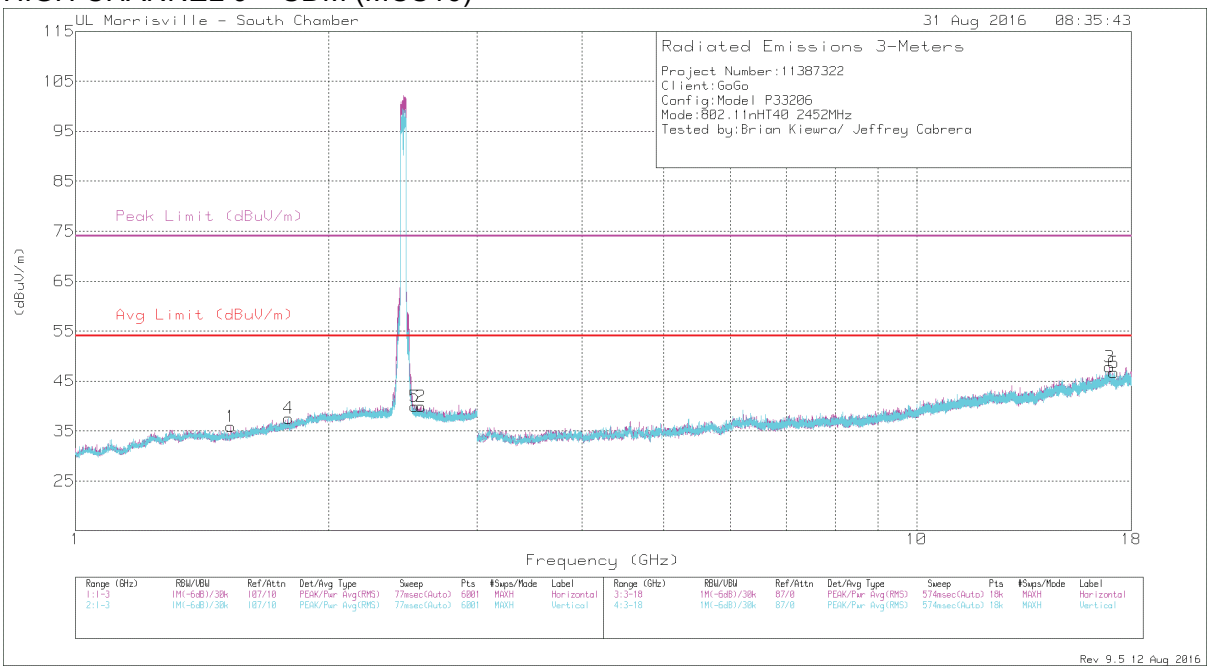
HIGH CHANNEL 9 – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 1.53 | 35.43 | PK2 | 28 | -22.6 | 0 | 40.83 | - | - | 74 | -33.17 | 107 | 198 | H |
| | * 1.529 | 23.37 | MAv1 | 28 | -22.6 | 1.12 | 29.89 | 54 | -24.11 | - | - | 107 | 198 | H |
| 4 | 1.792 | 30.28 | Pk | 29.9 | -22.6 | 0 | 37.58 | - | - | - | - | 0-360 | 199 | V |
| 5 | 2.53 | 32.31 | Pk | 32.5 | -24.9 | 0 | 39.91 | - | - | - | - | 0-360 | 199 | V |
| 2 | 2.576 | 32.73 | Pk | 32.4 | -25.2 | 0 | 39.93 | - | - | - | - | 0-360 | 101 | H |
| 3 | 16.958 | 30.87 | Pk | 41.5 | -24.5 | 0 | 47.87 | - | - | - | - | 0-360 | 199 | H |
| 6 | 17.165 | 29.14 | Pk | 41.3 | -23.7 | 0 | 46.74 | - | - | - | - | 0-360 | 199 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average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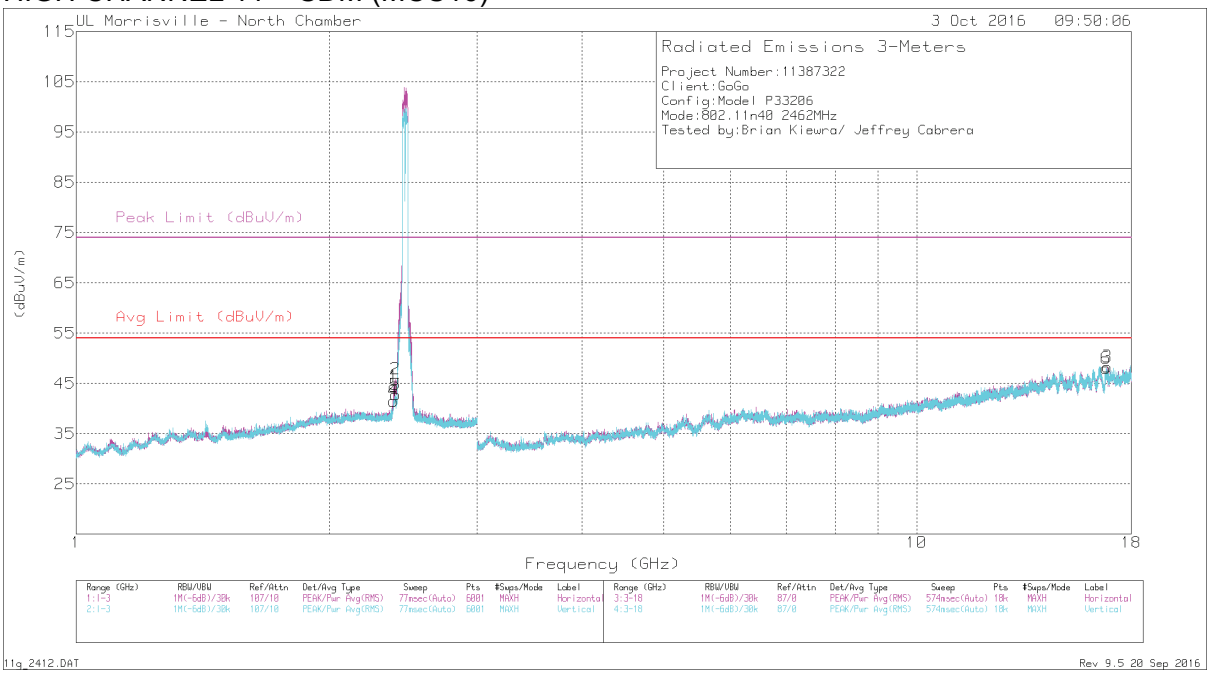
HIGH CHANNEL 11 – SDM (MCS16)




Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0069 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 2.388 | 42.43 | PK2 | 32.2 | -24.1 | 0 | 50.53 | - | - | 74 | -23.47 | 89 | 101 | H |
| | * 2.388 | 31.3 | MAv1 | 32.2 | -24.1 | 1.12 | 40.52 | 54 | -13.48 | - | - | 89 | 101 | H |
| 4 | * 2.384 | 41.39 | PK2 | 32.1 | -24.1 | 0 | 49.39 | - | - | 74 | -24.61 | 26 | 198 | V |
| | * 2.386 | 29.15 | MAv1 | 32.2 | -24.1 | 1.12 | 38.37 | 54 | -15.63 | - | - | 26 | 198 | V |
| 2 | 2.398 | 37.73 | Pk | 32.3 | -24.2 | 0 | 45.83 | - | - | - | - | 0-360 | 199 | H |
| 5 | 2.4 | 34.79 | Pk | 32.3 | -24.3 | 0 | 42.79 | - | - | - | - | 0-360 | 102 | V |
| 6 | 16.808 | 30.55 | Pk | 41.6 | -24.1 | 0 | 48.05 | - | - | - | - | 0-360 | 102 | V |
| 3 | 16.849 | 30.69 | Pk | 41.6 | -24 | 0 | 48.29 | - | - | - | - | 0-360 | 102 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
Rev 9.5 20 Sep 2016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## 9.2.5. WORST-CASE ABOVE 18GHz

**SPURIOUS EMISSIONS 18-26GHz (WORST-CASE CONFIGURATION)**

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0076 (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 20.562 | 46.85 | PK2 | 33.2 | -40 | 40.05 | 54 | -13.95 | 74 | -33.95 | 358 | 102 | H |
| 4 | * 20.378 | 46.71 | PK2 | 33.3 | -39.9 | 40.11 | 54 | -13.89 | 74 | -33.89 | 171 | 201 | V |
| 5 | 21.578 | 46.92 | Pk | 33.4 | -39.7 | 40.62 | 54 | -13.38 | 74 | -33.38 | 0-360 | 101 | V |
| 2 | 21.759 | 46.86 | Pk | 33.4 | -40 | 40.26 | 54 | -13.74 | 74 | -33.74 | 0-360 | 101 | H |
| 3 | 24.104 | 47.07 | Pk | 34.1 | -38.8 | 42.37 | 54 | -11.63 | 74 | -31.63 | 0-360 | 101 | H |
| 6 | 24.599 | 46.86 | Pk | 34.3 | -38.6 | 42.56 | 54 | -11.44 | 74 | -31.44 | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
PK2 - Maximum Peak
MAv1 - Maximum RMS Average
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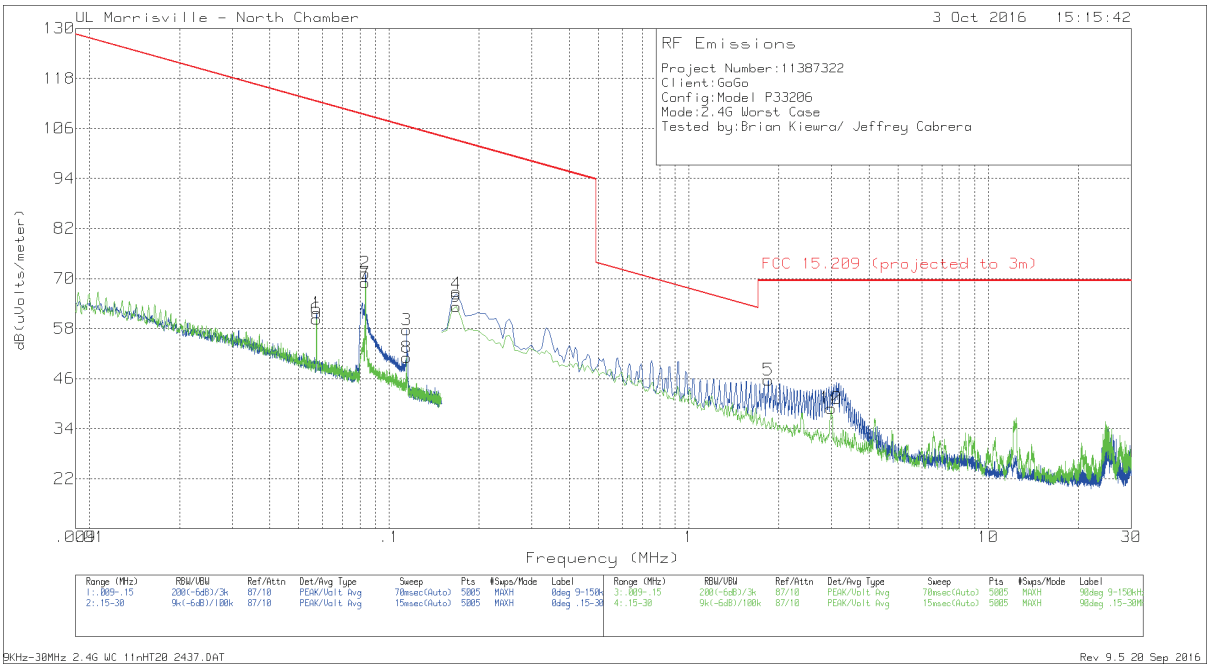
## 9.3. WORST-CASE BELOW 1 GHz

**Note**: All measurements were made at a test distance of 3 m. The limits in the plots and tabular data are the FCC/IC limits extrapolated from the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to the measurement distance to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 40*Log (specification distance / test distance). Although these tests were performed at a test site other than an open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

**SPURIOUS EMISSIONS 9kHz to 30 MHz (WORST-CASE CONFIGURATION)**




| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0079 AF (dB/m) | Cbl (dB) | Corrected Reading dB(uV/m) | FCC 15.209 (projected to 3m) | Margin (dB) | Azimuth (Degs) |
|---|---|---|---|---|---|---|---|---|---|
| 6 | .0573 | 47.95 | Pk | 12.3 | .1 | 60.35 | 112.44 | -52.09 | 0-360 |
| 1 | .05733 | 49.39 | Pk | 12.3 | .1 | 61.79 | 112.44 | -50.65 | 0-360 |
| 2 | .08342 | 59.23 | Pk | 12 | .1 | 71.33 | 109.18 | -37.85 | 0-360 |
| 7 | .08345 | 56.87 | Pk | 12 | .1 | 68.97 | 109.18 | -40.21 | 0-360 |
| 3 | .11462 | 45.62 | Pk | 12 | .1 | 57.72 | 106.42 | -48.7 | 0-360 |
| 8 | .11462 | 38.95 | Pk | 12 | .1 | 51.05 | 106.42 | -55.37 | 0-360 |
| 4 | .1679 | 54.35 | Pk | 11.9 | .1 | 66.35 | 103.1 | -36.75 | 0-360 |
| 9 | .1679 | 51.28 | Pk | 11.9 | .1 | 63.28 | 103.1 | -39.82 | 0-360 |
| 5 | 1.84406 | 33.4 | Pk | 12.1 | .2 | 45.7 | 69.54 | -23.84 | 0-360 |
| 10 | 2.98934 | 26.51 | Pk | 12.1 | .3 | 38.91 | 69.54 | -30.63 | 0-360 |

Pk - Peak detector
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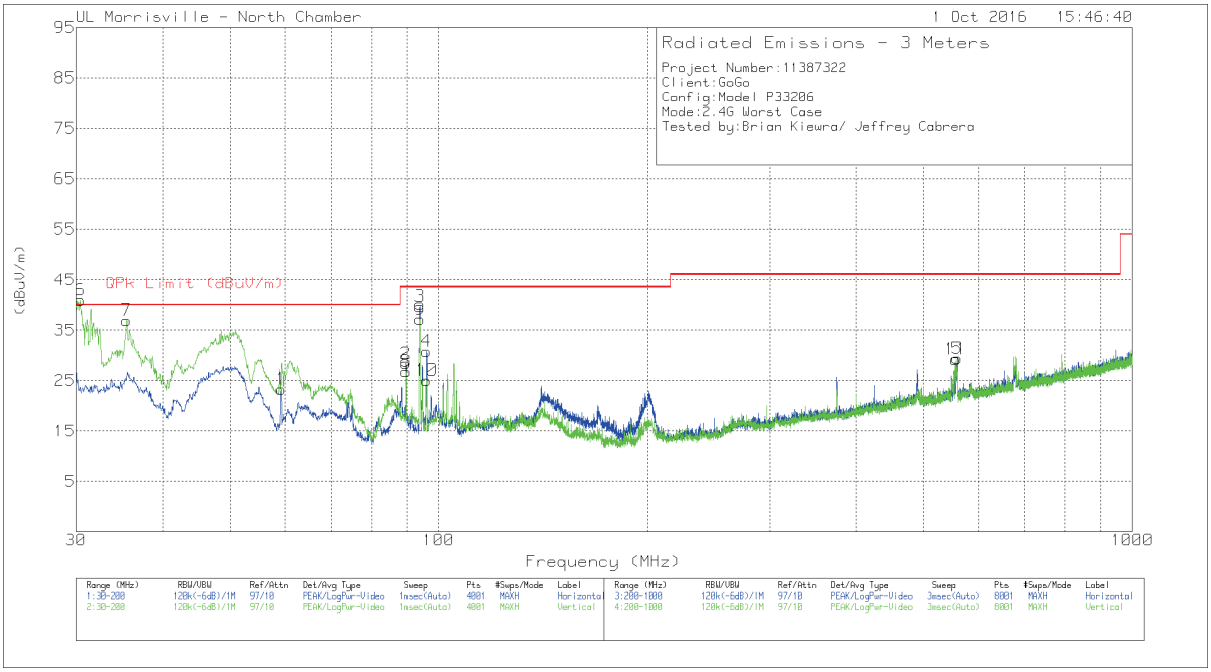
## SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)




| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0074 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 30.3084 | 36.44 | Qp | 25.8 | -31.8 | 30.44 | 40 | -9.56 | 120 | 104 | V |
| 7 | 35.4742 | 38.33 | Qp | 21.8 | -31.7 | 28.43 | 40 | -11.57 | 9 | 104 | V |
| 1 | 59.2825 | 42.92 | Pk | 11.8 | -31.4 | 23.32 | 40 | -16.68 | 0-360 | 199 | H |
| 2 | 89.67 | 47.78 | Pk | 11.7 | -31.1 | 28.38 | 43.52 | -15.14 | 0-360 | 298 | H |
| 8 | 89.7125 | 46.22 | Pk | 11.7 | -31.1 | 26.82 | 43.52 | -16.7 | 0-360 | 102 | V |
| 3 | 93.9083 | 56.05 | Qp | 12.5 | -31.1 | 37.45 | 43.52 | -6.07 | 271 | 198 | H |
| 9 | 93.9625 | 55.72 | Pk | 12.5 | -31.1 | 37.12 | 43.52 | -6.4 | 0-360 | 102 | V |
| 4 | 96.045 | 48.72 | Pk | 13.1 | -31 | 30.82 | 43.52 | -12.7 | 0-360 | 298 | H |
| 10 | 96.0875 | 42.98 | Pk | 13.1 | -31 | 25.08 | 43.52 | -18.44 | 0-360 | 102 | V |
| 11 | 556.6 | 35.22 | Pk | 22.7 | -28.7 | 29.22 | 46.02 | -16.8 | 0-360 | 202 | V |
| 5 | 559 | 35.28 | Pk | 22.8 | -28.7 | 29.38 | 46.02 | -16.64 | 0-360 | 199 | H |

Pk - Peak detector

Qp - Quasi-Peak detector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# 10. AC POWER LINE CONDUCTED EMISSIONS

**LIMITS**

FCC §15.207 (a)
RSS-Gen 7.2.2

| Frequency of Emission (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 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.

**TEST PROCEDURE**

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

**RESULTS**

This testing was deemed not applicable because the EUT is supplied via an aircraft's APU (auxiliary power unit) and not via direct or indirect connection to the public utility (AC) power line.


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