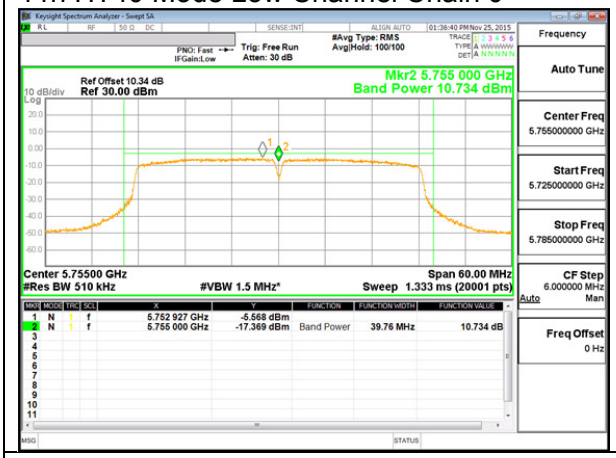
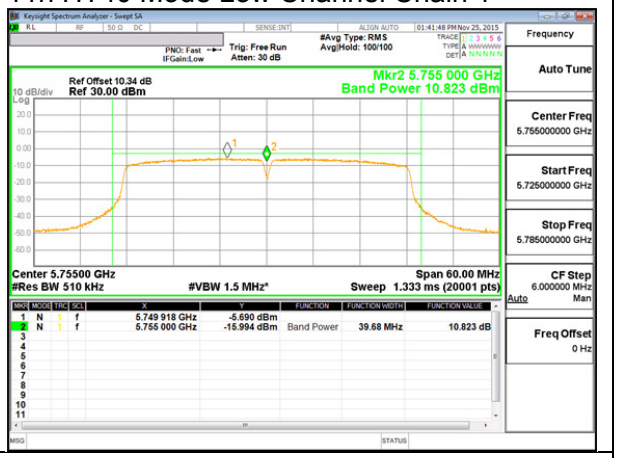
## UNII 5.8 GHz IEEE 802.11n HT40 mode

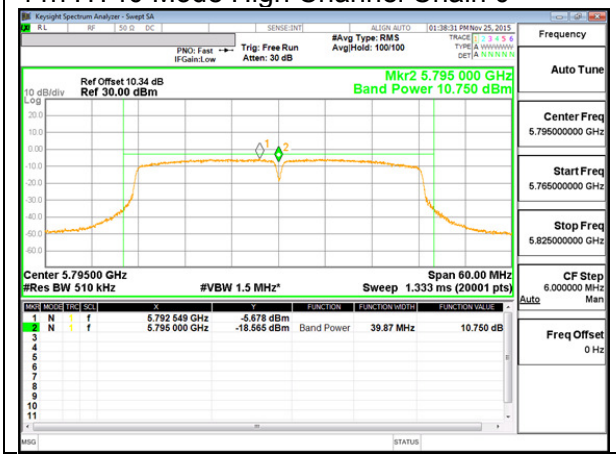
11n HT40 Mode Low Channel Chain 0



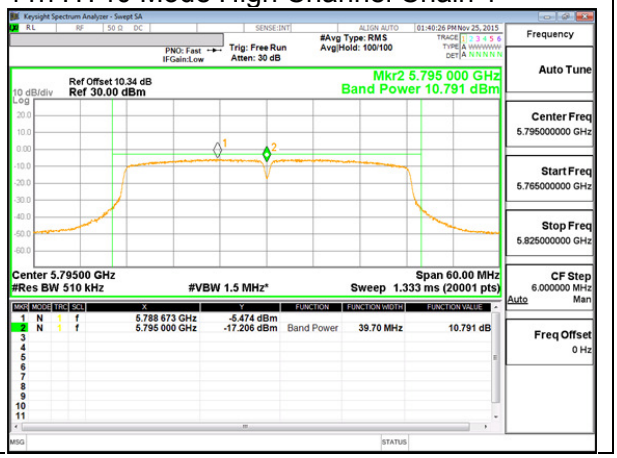

11n HT40 Mode Low Channel Chain 1




11n HT40 Mode High Channel Chain 0

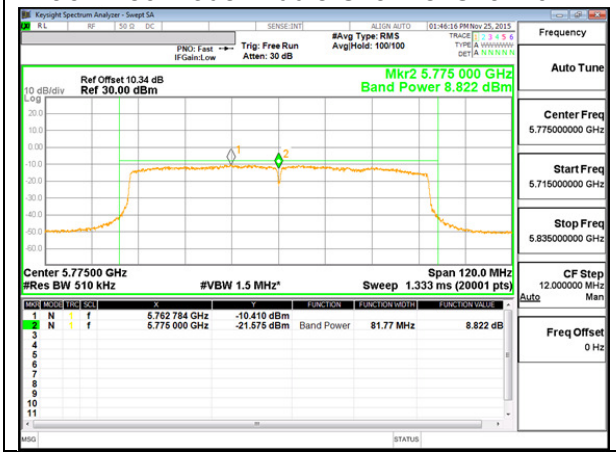



11n HT40 Mode High Channel Chain 1

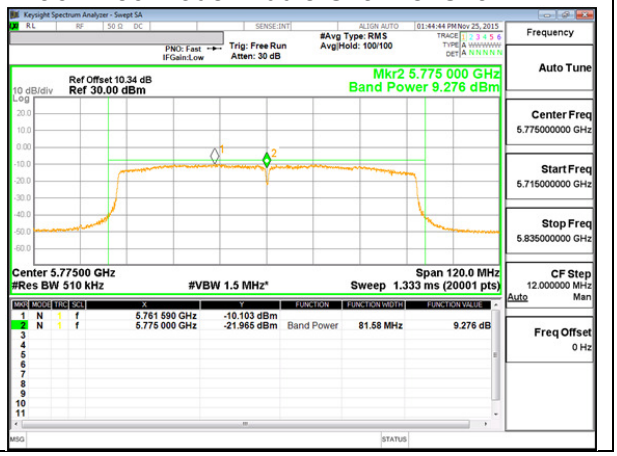



## UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Chain 0




11ac HT80 Mode Middle Channel Chain 1





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# 11. TRANSMITTER ABOVE 1 GHz

**LIMITS**

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|---|---|---|
| 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. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v01r01 UNII part G) 6) c) Method AD:
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

The spectrum from 30 MHz to 40 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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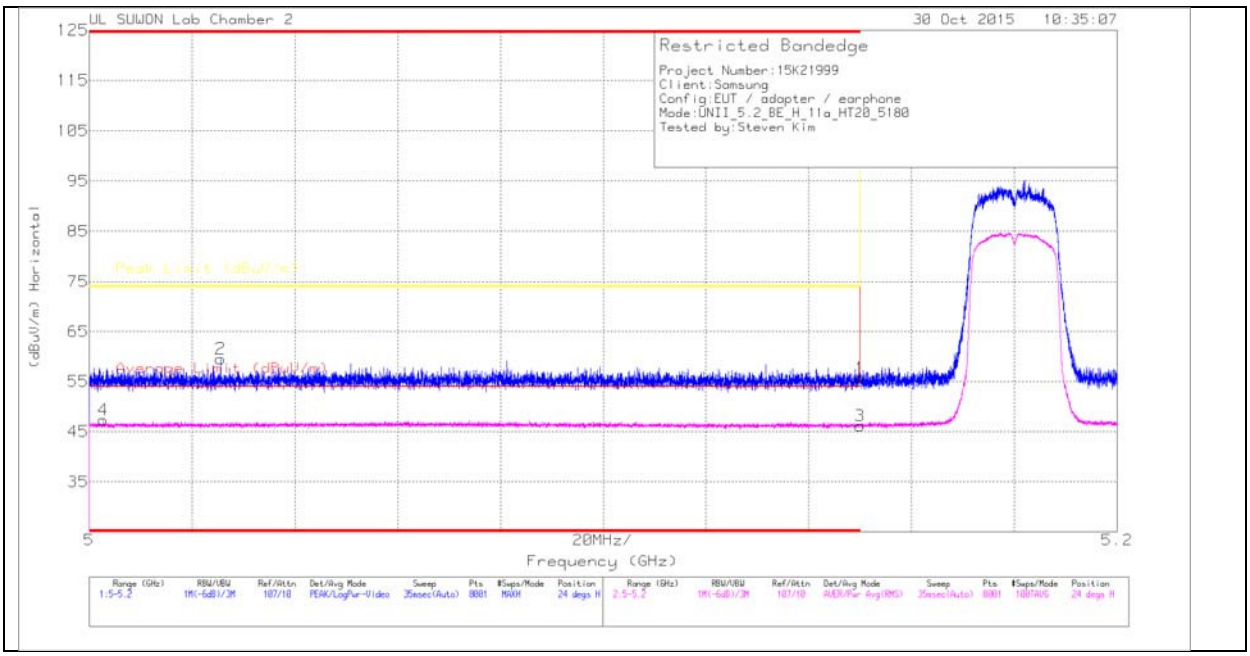
## 11.1. 5.2 GHz

### 11.1.1. TX Above 1GHz 802.11a 2TX CDD MODE IN THE 5.2GHz BAND

### RESTRICTED BANDEDGE (LOW CHANNEL)

**HORIZONTAL PEAK AND AVERAGE PLOT**




**HORIZONTAL DATA**

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 38.03 | Pk | 34.1 | -16.4 | 0 | 55.73 | - | - | 74 | -18.27 | 24 | 292 | H |
| 2 | * 5.026 | 41.84 | Pk | 34 | -16.3 | 0 | 59.54 | - | - | 74 | -14.46 | 24 | 292 | H |
| 3 | * 5.15 | 28.16 | RMS | 34.1 | -16.4 | .31 | 46.17 | 54 | -7.83 | - | - | 24 | 292 | H |
| 4 | * 5.003 | 29.43 | RMS | 33.9 | -16.3 | .31 | 47.34 | 54 | -6.66 | - | - | 24 | 292 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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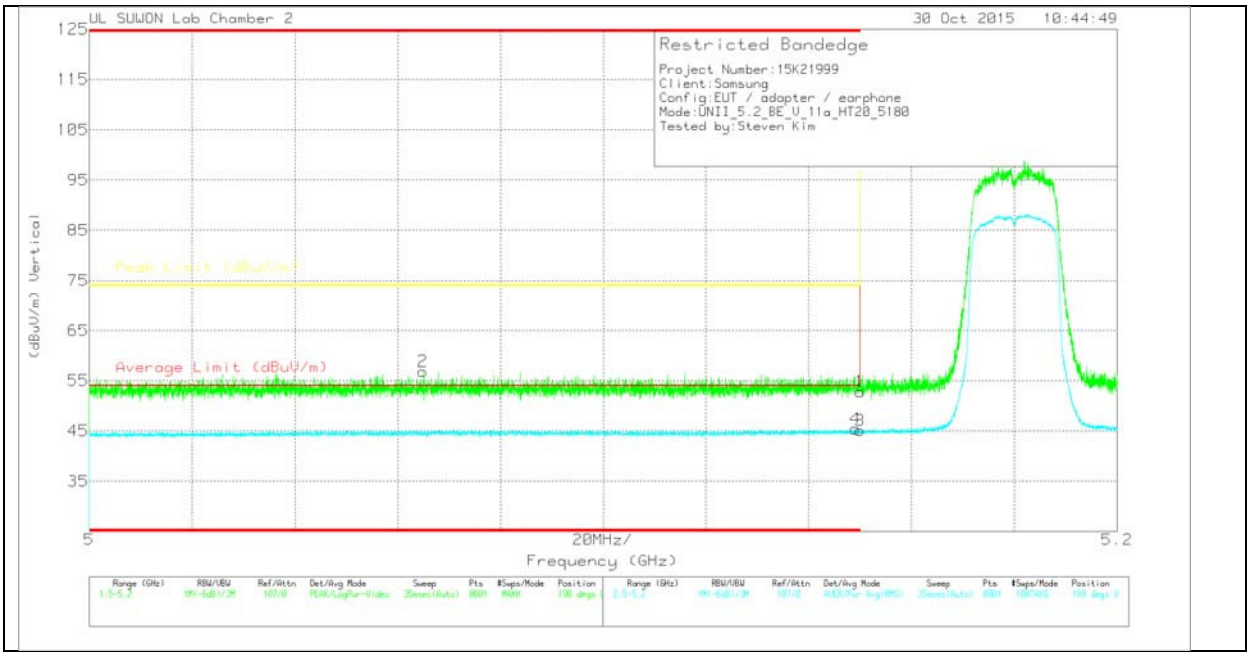
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 35.12 | Pk | 34.1 | -16.4 | 0 | 52.82 | - | - | 74 | -21.18 | 198 | 260 | V |
| 2 | * 5.065 | 39.16 | Pk | 34 | -16.3 | 0 | 56.86 | - | - | 74 | -17.14 | 198 | 260 | V |
| 3 | * 5.15 | 27.09 | RMS | 34.1 | -16.4 | .31 | 45.1 | 54 | -8.9 | - | - | 198 | 260 | V |
| 4 | * 5.149 | 27.43 | RMS | 34.1 | -16.4 | .31 | 45.44 | 54 | -8.56 | - | - | 198 | 260 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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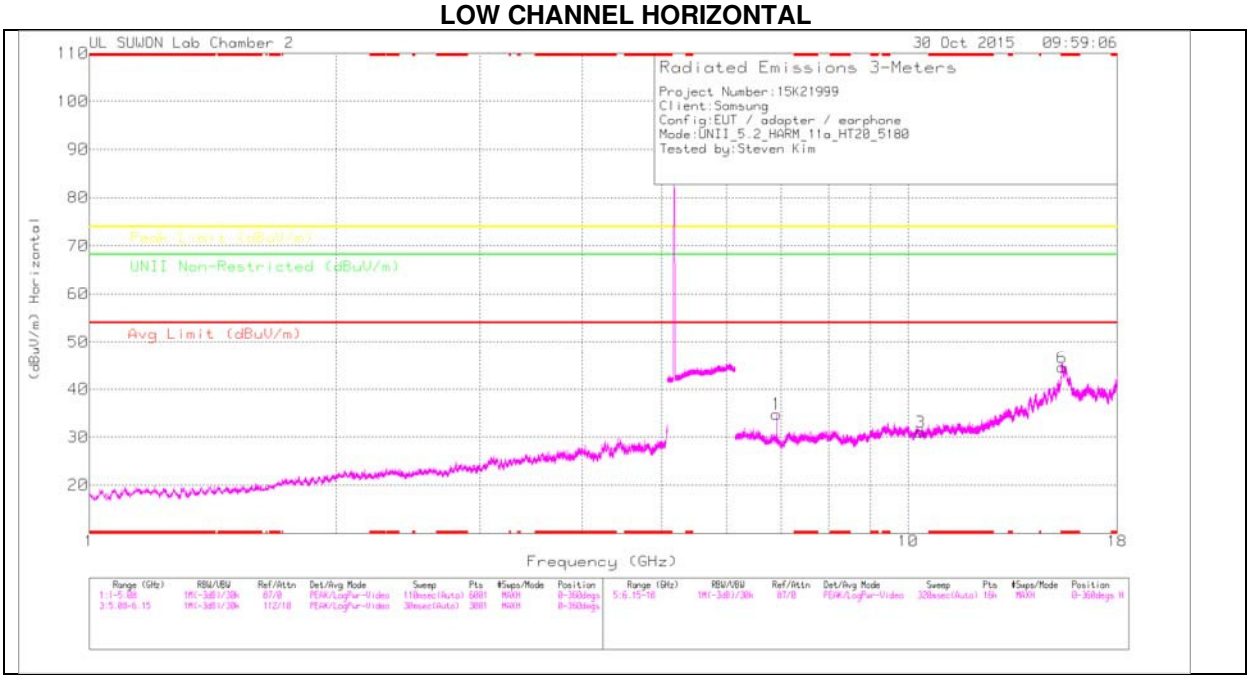
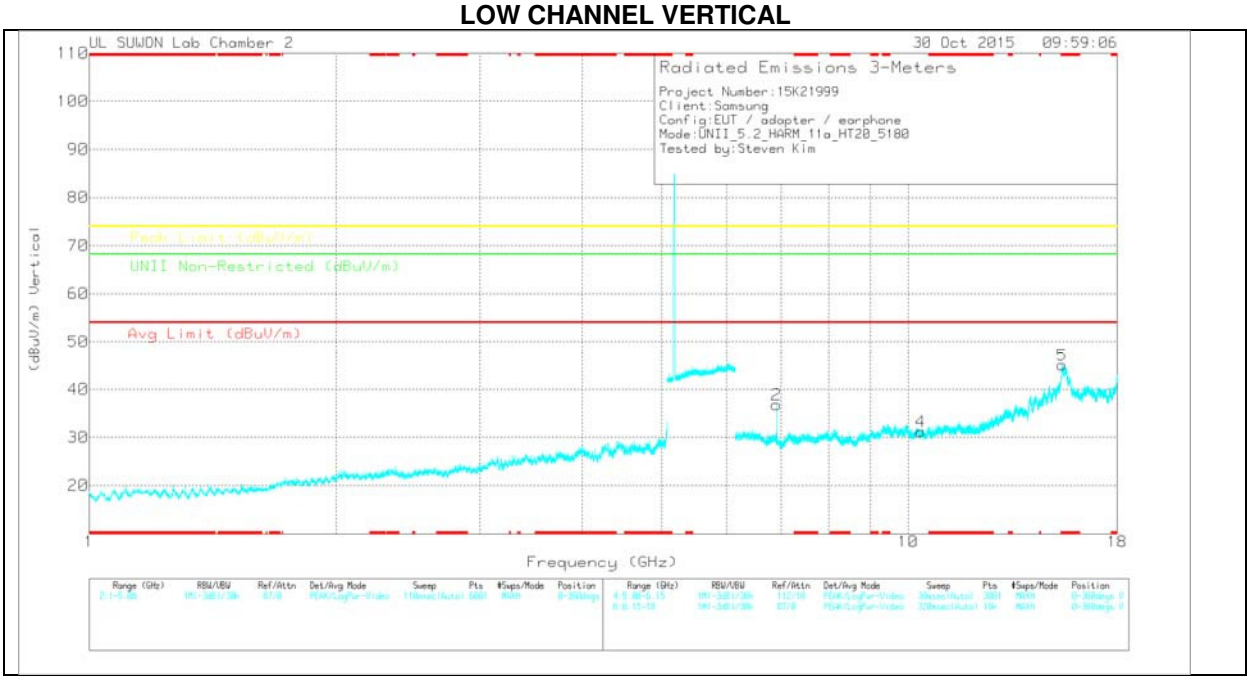
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0016 8717)_150 619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.906 | 29.4 | PK | 35.6 | -30.2 | 0 | 34.8 | - | - | - | - | 68.2 | -33.4 | 0-360 | 100 | H |
| 3 | 10.362 | 19.97 | PK | 37.8 | -26.7 | 0 | 31.07 | - | - | - | - | 68.2 | -37.13 | 0-360 | 100 | H |
| 6 | * 15.423 | 19.54 | PK | 40.2 | -15.2 | 0 | 44.54 | - | - | 74 | -29.46 | - | - | 0-360 | 100 | H |
| 2 | 6.906 | 31.37 | PK | 35.6 | -30.2 | 0 | 36.77 | - | - | - | - | 68.2 | -31.43 | 0-360 | 100 | V |
| 4 | 10.36 | 20.21 | PK | 37.8 | -26.8 | 0 | 31.21 | - | - | - | - | 68.2 | -36.99 | 0-360 | 200 | V |
| 5 | * 15.423 | 20.06 | PK | 40.2 | -15.2 | 0 | 45.06 | - | - | 74 | -28.94 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0016871 7)_150619 | Path_5 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.906 | 35.55 | PK-U | 35.6 | -30.2 | 0 | 40.95 | - | - | - | - | 68.2 | -27.25 | 47 | 205 | H |
| 6.907 | 38.28 | PK-U | 35.6 | -30.2 | 0 | 43.68 | - | - | - | - | 68.2 | -24.52 | 253 | 173 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak


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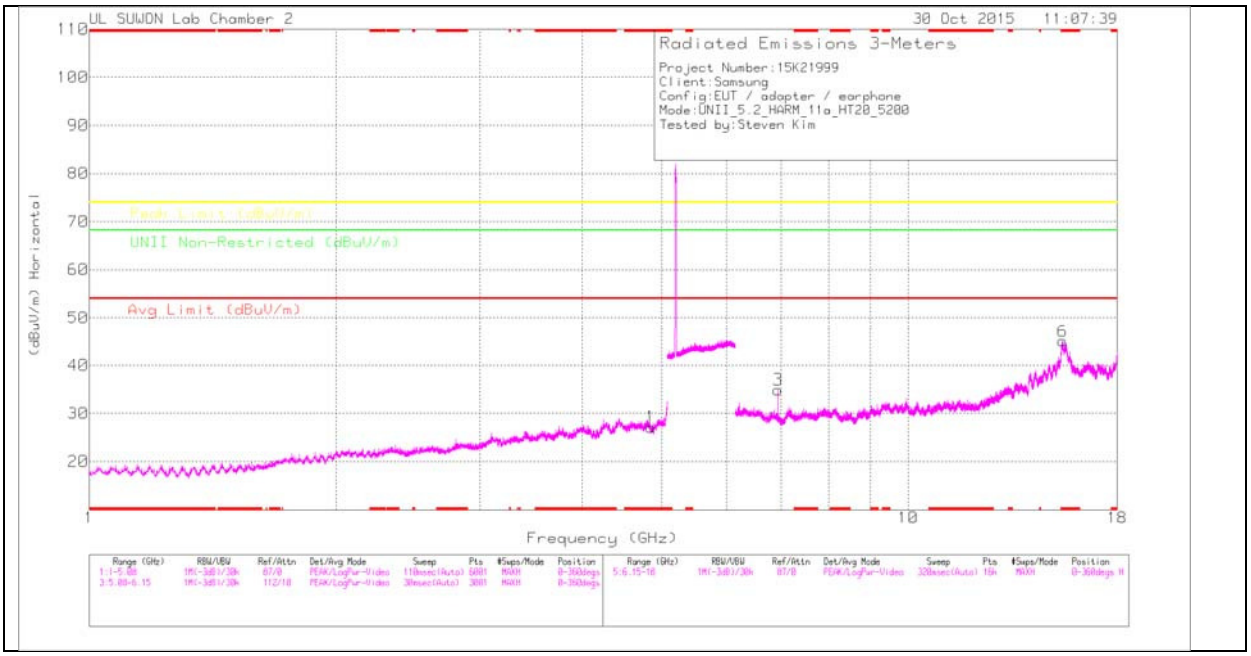
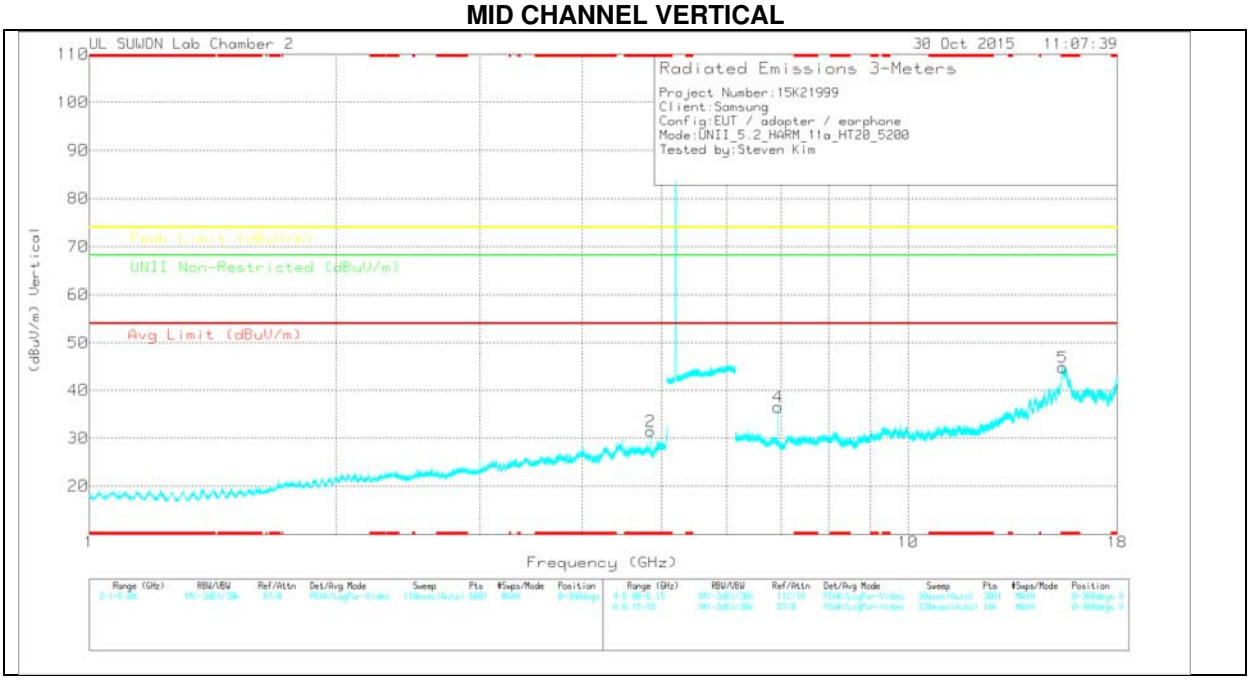
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001688717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.848 | 25.79 | PK | 34 | -32.6 | 0 | 27.19 | - | - | 74 | -46.81 | - | - | 0-360 | 100 | H |
| 2 | * 4.848 | 30.02 | PK | 34 | -32.6 | 0 | 31.42 | - | - | 74 | -42.58 | - | - | 0-360 | 200 | V |
| 3 | 6.933 | 29.23 | PK | 35.7 | -30 | 0 | 34.93 | - | - | - | - | 68.2 | -33.27 | 0-360 | 200 | H |
| 6 | * 15.432 | 19.98 | PK | 40.2 | -15.1 | 0 | 45.08 | - | - | 74 | -28.92 | - | - | 0-360 | 200 | H |
| 4 | 6.933 | 30.79 | PK | 35.7 | -30 | 0 | 36.49 | - | - | - | - | 68.2 | -31.71 | 0-360 | 200 | V |
| 5 | * 15.435 | 19.57 | PK | 40.2 | -15 | 0 | 44.77 | - | - | 74 | -29.23 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.848 | 38.61 | PK-U | 34 | -32.5 | 0 | 40.11 | - | - | 74 | -33.89 | - | - | 264 | 182 | V |
| * 4.848 | 30.12 | ADR | 34 | -32.5 | 0 | 31.62 | 54 | -22.38 | - | - | - | - | 264 | 182 | V |
| 6.933 | 37.9 | PK-U | 35.7 | -30 | 0 | 43.6 | - | - | - | - | 68.2 | -24.6 | 185 | 137 | V |
| 6.933 | 36.72 | PK-U | 35.7 | -30 | 0 | 42.42 | - | - | - | - | 68.2 | -25.78 | 47 | 245 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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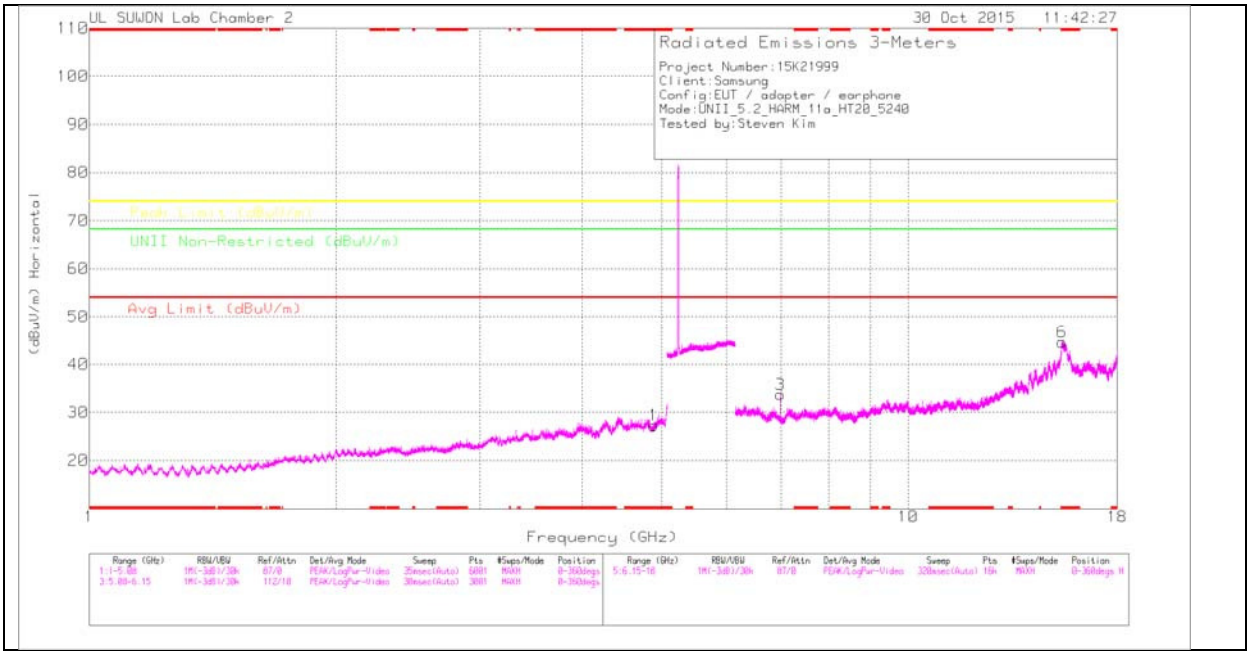
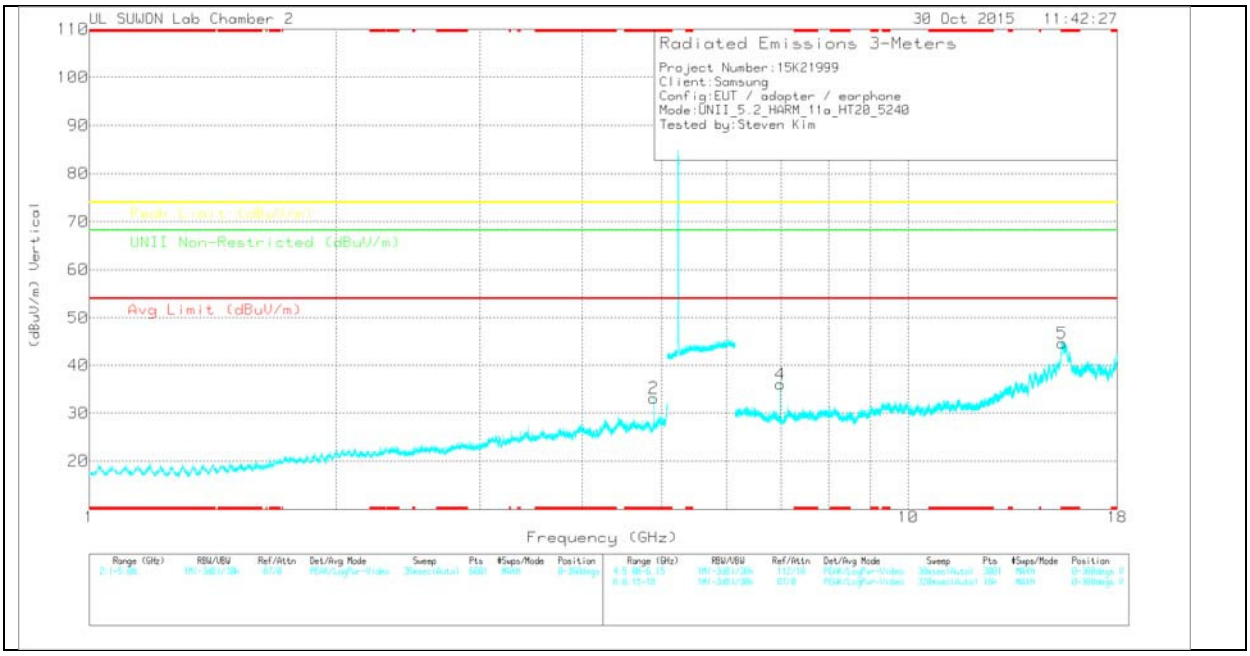
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001688717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.888 | 25.44 | PK | 34 | -32.1 | 0 | 27.34 | - | - | 74 | -46.66 | - | - | 0-360 | 200 | H |
| 2 | * 4.888 | 31.26 | PK | 34 | -32.1 | 0 | 33.16 | - | - | 74 | -40.84 | - | - | 0-360 | 200 | V |
| 3 | 6.986 | 27.94 | PK | 35.7 | -29.9 | 0 | 33.74 | - | - | - | - | 68.2 | -34.46 | 0-360 | 200 | H |
| 6 | * 15.418 | 19.63 | PK | 40.2 | -15.2 | 0 | 44.63 | - | - | 74 | -29.37 | - | - | 0-360 | 200 | H |
| 4 | 6.987 | 30.25 | PK | 35.7 | -29.9 | 0 | 36.05 | - | - | - | - | 68.2 | -32.15 | 0-360 | 200 | V |
| 5 | * 15.41 | 19.71 | PK | 40.2 | -15.3 | 0 | 44.61 | - | - | 74 | -29.39 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.888 | 38.88 | PK-U | 34 | -32.1 | 0 | 40.78 | - | - | 74 | -33.22 | - | - | 271 | 198 | V |
| * 4.888 | 29.35 | ADR | 34 | -32.1 | 0 | 31.25 | 54 | -22.75 | - | - | - | - | 271 | 198 | V |
| 6.987 | 37.2 | PK-U | 35.7 | -29.9 | 0 | 43 | - | - | - | - | 68.2 | -25.2 | 252 | 171 | V |
| 6.986 | 35.71 | PK-U | 35.7 | -29.9 | 0 | 41.51 | - | - | - | - | 68.2 | -26.69 | 47 | 221 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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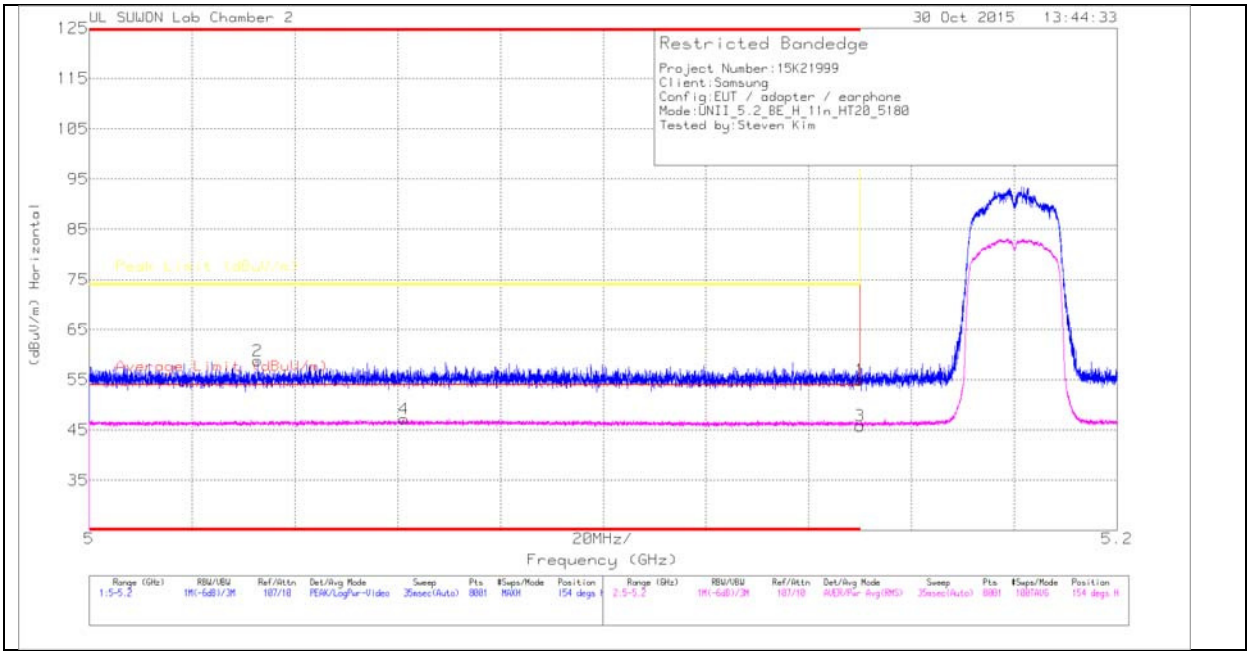
## 11.1.2. TX Above 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 37.24 | Pk | 34.1 | -16.4 | 0 | 54.94 | - | - | 74 | -19.06 | 154 | 171 | H |
| 2 | * 5.033 | 41.07 | Pk | 34 | -16.3 | 0 | 58.77 | - | - | 74 | -15.23 | 154 | 171 | H |
| 3 | * 5.15 | 27.78 | RMS | 34.1 | -16.4 | .33 | 45.81 | 54 | -8.19 | - | - | 154 | 171 | H |
| 4 | * 5.061 | 29.16 | RMS | 34 | -16.3 | .33 | 47.19 | 54 | -6.81 | - | - | 154 | 171 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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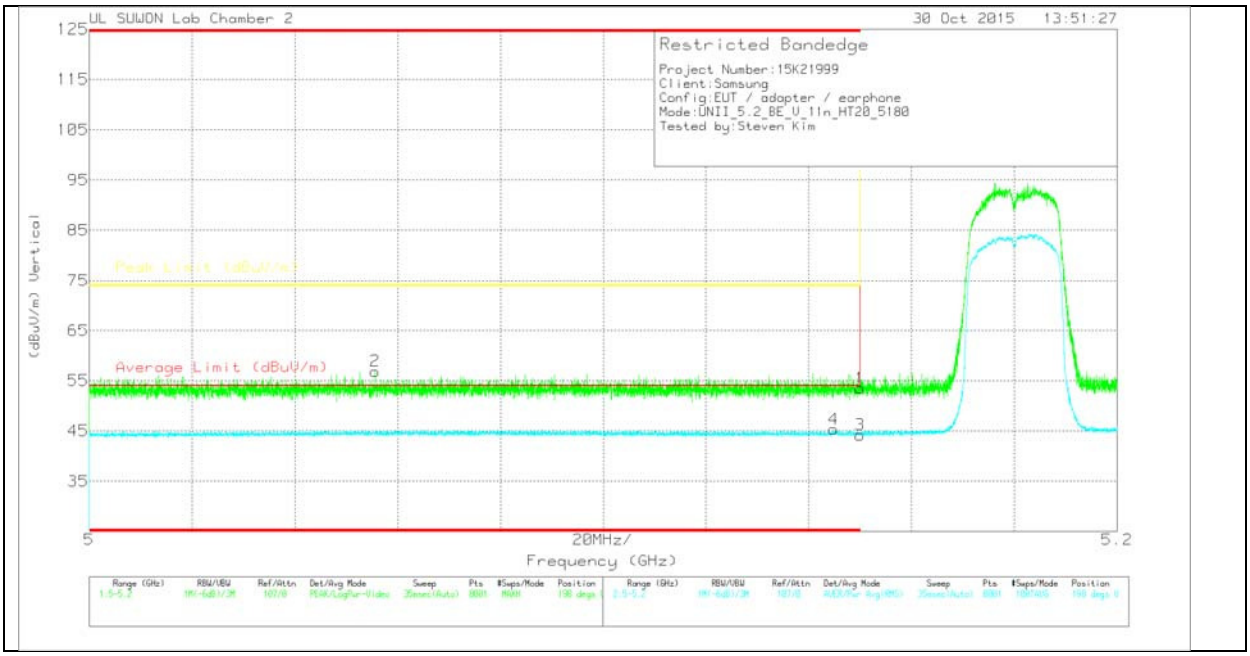
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 35.81 | Pk | 34.1 | -16.4 | 0 | 53.51 | - | - | 74 | -20.49 | 198 | 255 | V |
| 2 | * 5.056 | 39.17 | Pk | 34 | -16.3 | 0 | 56.87 | - | - | 74 | -17.13 | 198 | 255 | V |
| 3 | * 5.15 | 26.19 | RMS | 34.1 | -16.4 | .33 | 44.22 | 54 | -9.78 | - | - | 198 | 255 | V |
| 4 | * 5.145 | 27.34 | RMS | 34.1 | -16.4 | .33 | 45.37 | 54 | -8.63 | - | - | 198 | 255 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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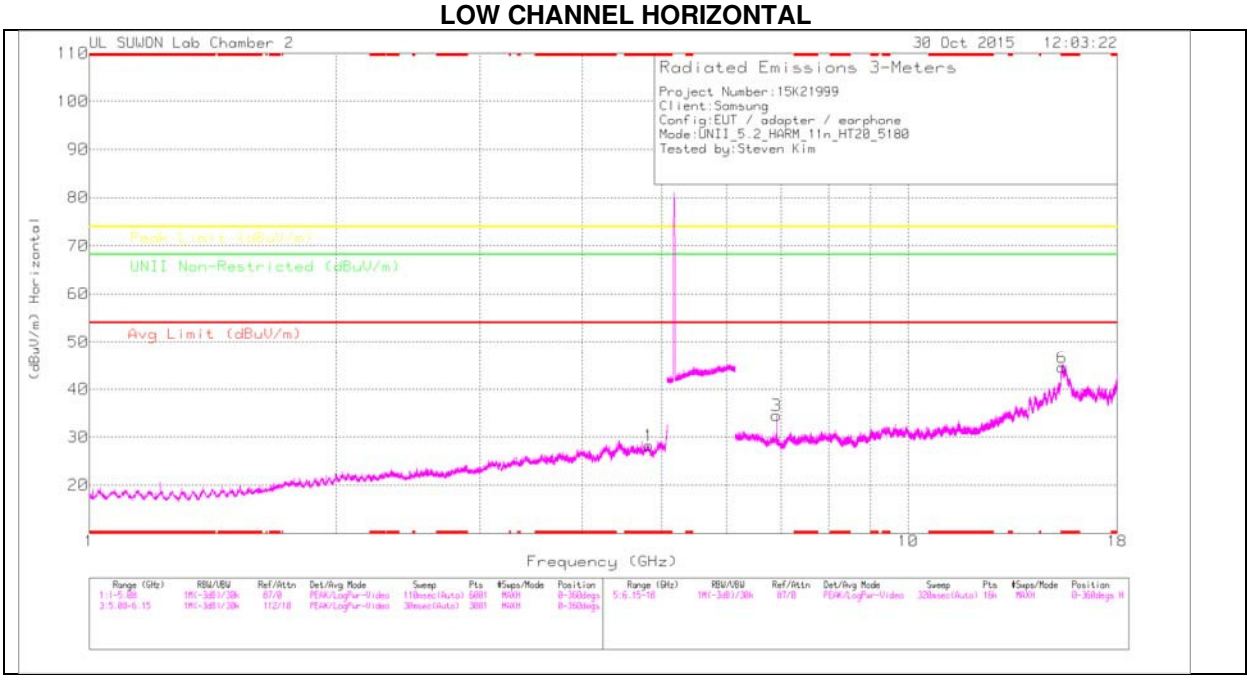
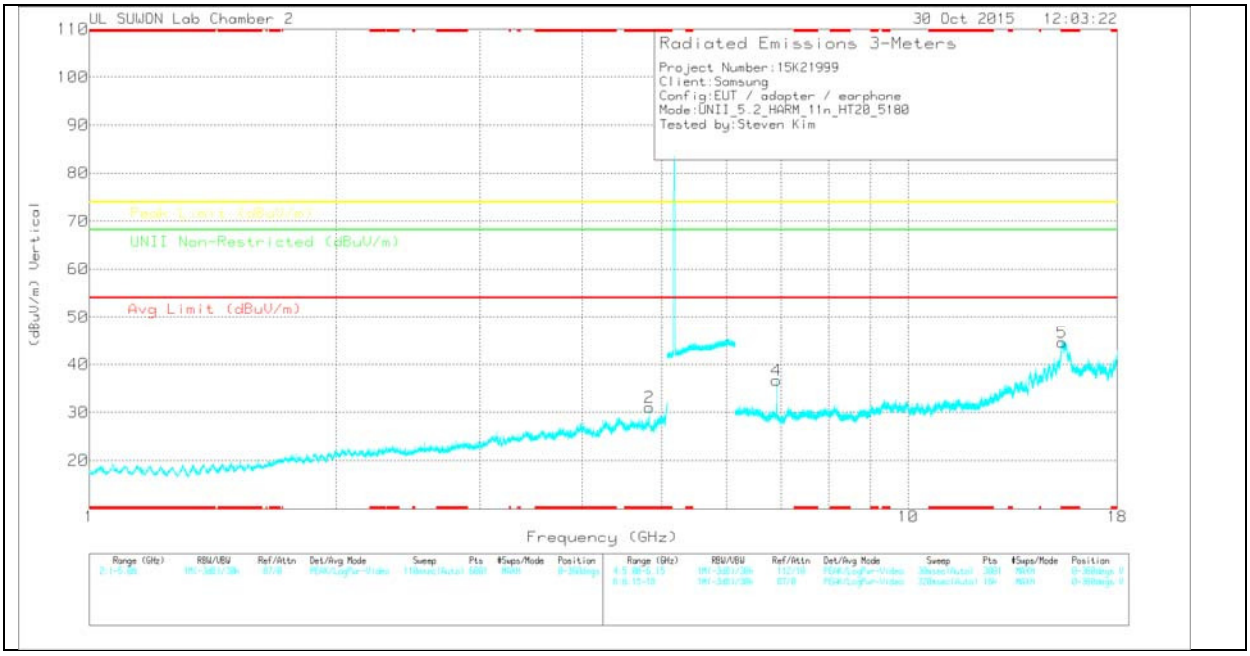
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.825 | 26.68 | PK | 34 | -32.4 | 0 | 28.28 | - | - | 74 | -45.72 | - | - | 0-360 | 100 | H |
| 2 | * 4.828 | 29.47 | PK | 34 | -32.4 | 0 | 31.07 | - | - | 74 | -42.93 | - | - | 0-360 | 200 | V |
| 3 | 6.906 | 29.12 | PK | 35.6 | -30.2 | 0 | 34.52 | - | - | - | - | 68.2 | -33.68 | 0-360 | 200 | H |
| 6 | * 15.423 | 19.53 | PK | 40.2 | -15.2 | 0 | 44.53 | - | - | 74 | -29.47 | - | - | 0-360 | 200 | H |
| 4 | 6.906 | 31.25 | PK | 35.6 | -30.2 | 0 | 36.65 | - | - | - | - | 68.2 | -31.55 | 0-360 | 100 | V |
| 5 | * 15.421 | 19.53 | PK | 40.2 | -15.2 | 0 | 44.53 | - | - | 74 | -29.47 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.825 | 37.32 | PK-U | 34 | -32.4 | 0 | 38.92 | - | - | 74 | -35.08 | - | - | 133 | 389 | V |
| * 4.828 | 25.41 | ADR | 34 | -32.4 | 0 | 27.01 | 54 | -26.99 | - | - | - | - | 133 | 389 | V |
| 6.907 | 37.47 | PK-U | 35.6 | -30.2 | 0 | 42.87 | - | - | - | - | 68.2 | -25.33 | 185 | 170 | V |
| 6.907 | 36.68 | PK-U | 35.6 | -30.2 | 0 | 42.08 | - | - | - | - | 68.2 | -26.12 | 47 | 246 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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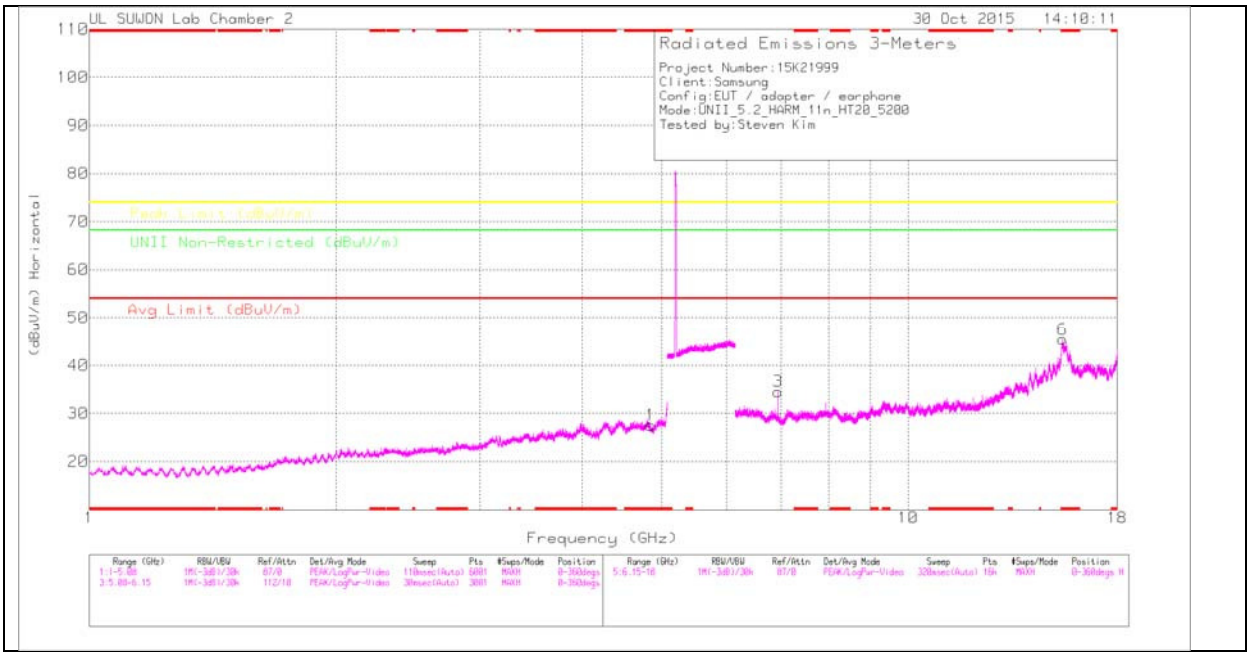
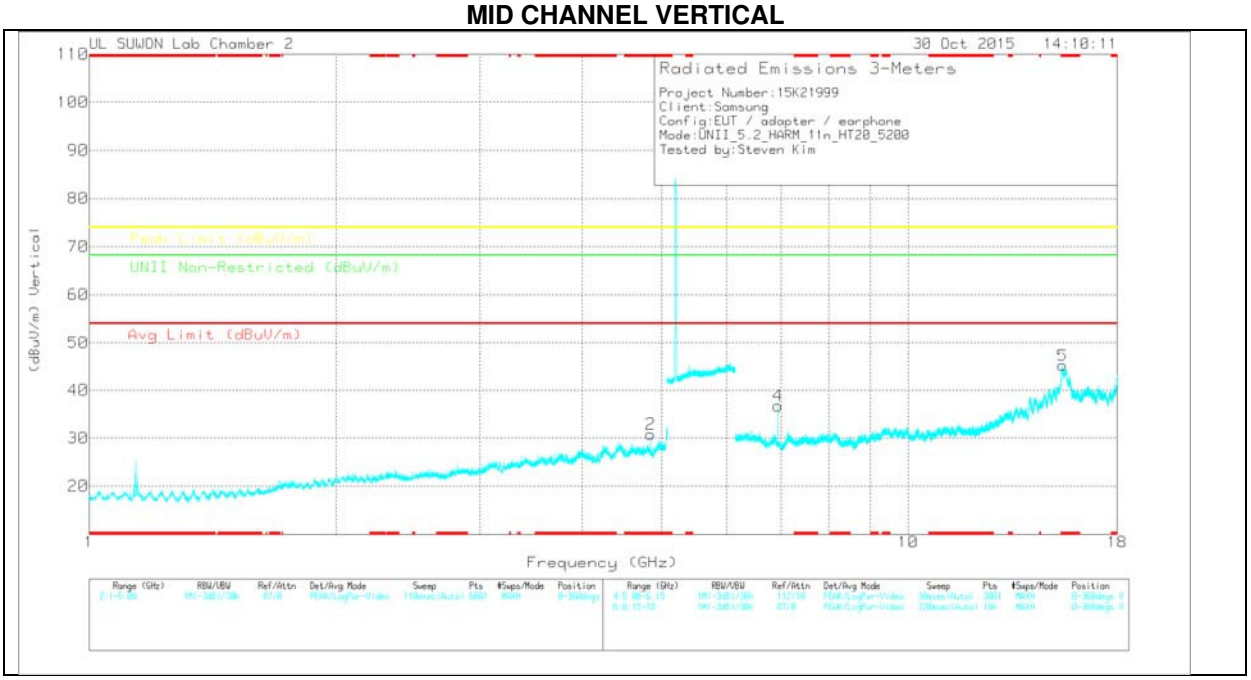
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.848 | 26.19 | PK | 34 | -32.6 | 0 | 27.59 | - | - | 74 | -46.41 | - | - | 0-360 | 100 | H |
| 2 | * 4.848 | 29.43 | PK | 34 | -32.6 | 0 | 30.83 | - | - | 74 | -43.17 | - | - | 0-360 | 200 | V |
| 3 | 6.933 | 28.87 | PK | 35.7 | -30 | 0 | 34.57 | - | - | - | - | 68.2 | -33.63 | 0-360 | 200 | H |
| 6 | * 15.449 | 20.15 | PK | 40.2 | -14.9 | 0 | 45.45 | - | - | 74 | -28.55 | - | - | 0-360 | 100 | H |
| 4 | 6.933 | 31.05 | PK | 35.7 | -30 | 0 | 36.75 | - | - | - | - | 68.2 | -31.45 | 0-360 | 200 | V |
| 5 | * 15.44 | 19.98 | PK | 40.2 | -15 | 0 | 45.18 | - | - | 74 | -28.82 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_5 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.933 | 36.3 | PK-U | 35.7 | -30 | 0 | 42 | - | - | - | - | 68.2 | -26.2 | 46 | 240 | H |
| 6.933 | 37.9 | PK-U | 35.7 | -30 | 0 | 43.27 | - | - | - | - | 68.2 | -24.93 | 185 | 137 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak


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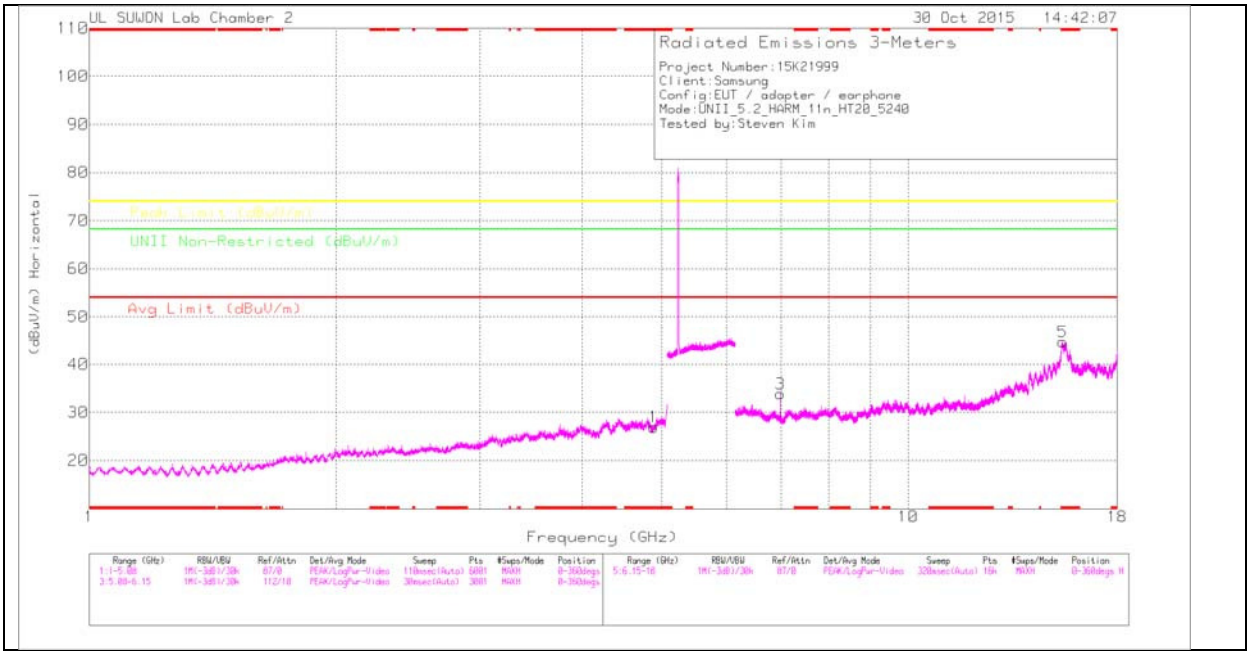
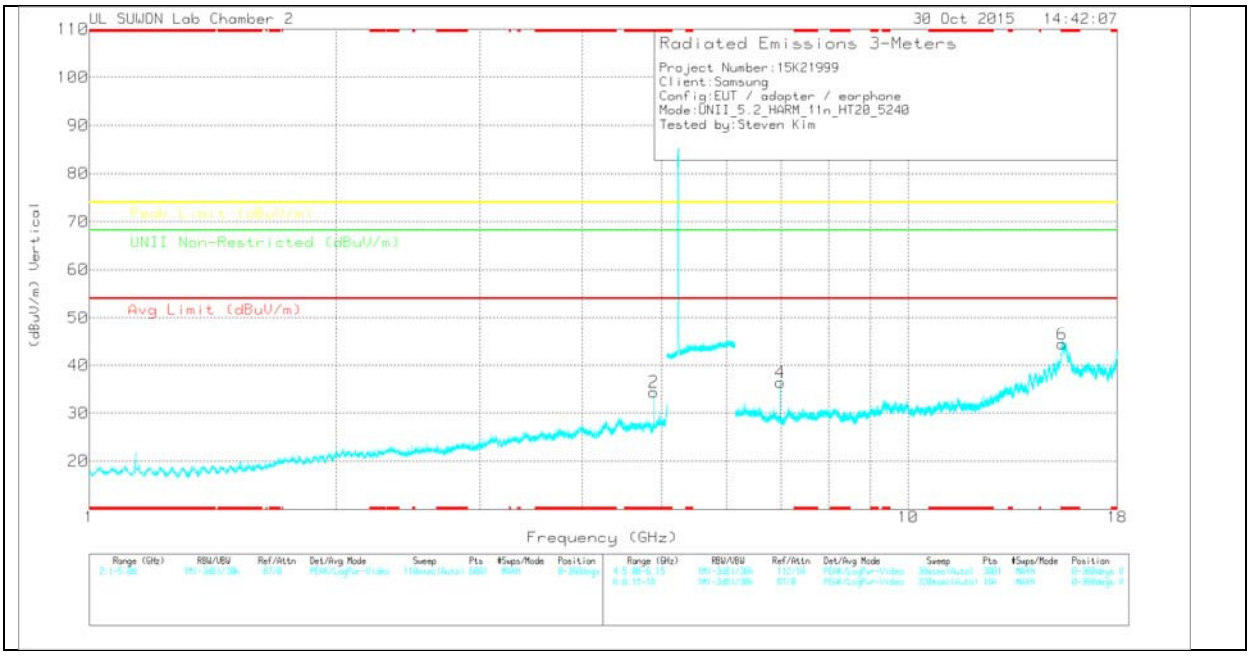
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001688717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.888 | 25.06 | PK | 34 | -32.1 | 0 | 26.96 | - | - | 74 | -47.04 | - | - | 0-360 | 200 | H |
| 2 | * 4.888 | 32.51 | PK | 34 | -32.1 | 0 | 34.41 | - | - | 74 | -39.59 | - | - | 0-360 | 200 | V |
| 3 | 6.986 | 28.06 | PK | 35.7 | -29.9 | 0 | 33.86 | - | - | - | - | 68.2 | -34.34 | 0-360 | 200 | H |
| 5 | * 15.445 | 19.47 | PK | 40.2 | -15 | 0 | 44.67 | - | - | 74 | -29.33 | - | - | 0-360 | 200 | H |
| 4 | 6.986 | 30.63 | PK | 35.7 | -29.9 | 0 | 36.43 | - | - | - | - | 68.2 | -31.77 | 0-360 | 200 | V |
| 6 | * 15.424 | 19.44 | PK | 40.2 | -15.2 | 0 | 44.44 | - | - | 74 | -29.56 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.888 | 39.65 | PK-U | 34 | -32.1 | 0 | 41.55 | - | - | 74 | -32.45 | - | - | 270 | 177 | V |
| * 4.888 | 30.68 | ADR | 34 | -32.1 | 0 | 32.58 | 54 | -21.42 | - | - | - | - | 270 | 177 | V |
| 6.987 | 37.1 | PK-U | 35.7 | -29.9 | 0 | 42.9 | - | - | - | - | 68.2 | -25.3 | 252 | 168 | V |
| 6.987 | 35.23 | PK-U | 35.7 | -29.9 | 0 | 41.03 | - | - | - | - | 68.2 | -27.17 | 29 | 116 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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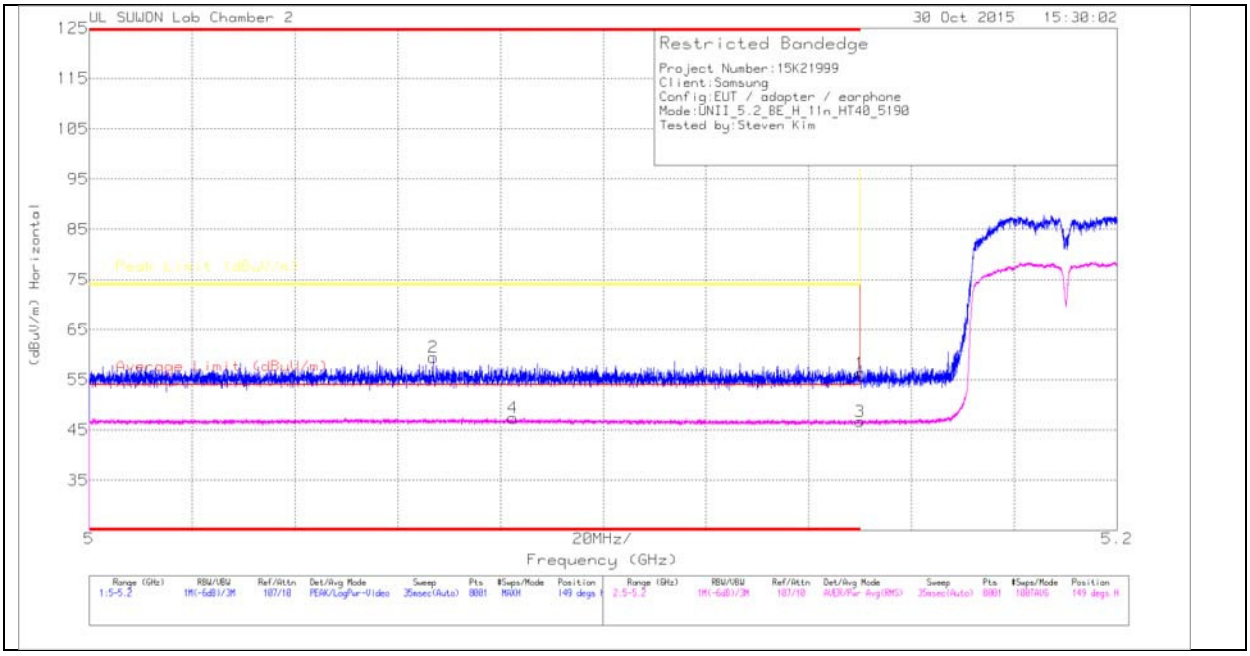
## 11.1.3. TX Above 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 38.61 | Pk | 34.1 | -16.4 | 0 | 56.31 | - | - | 74 | -17.69 | 149 | 100 | H |
| 2 | * 5.067 | 41.75 | Pk | 34 | -16.3 | 0 | 59.45 | - | - | 74 | -14.55 | 149 | 100 | H |
| 3 | * 5.15 | 28.35 | RMS | 34.1 | -16.4 | .63 | 46.68 | 54 | -7.32 | - | - | 149 | 100 | H |
| 4 | * 5.082 | 29.07 | RMS | 34 | -16.3 | .63 | 47.4 | 54 | -6.6 | - | - | 149 | 100 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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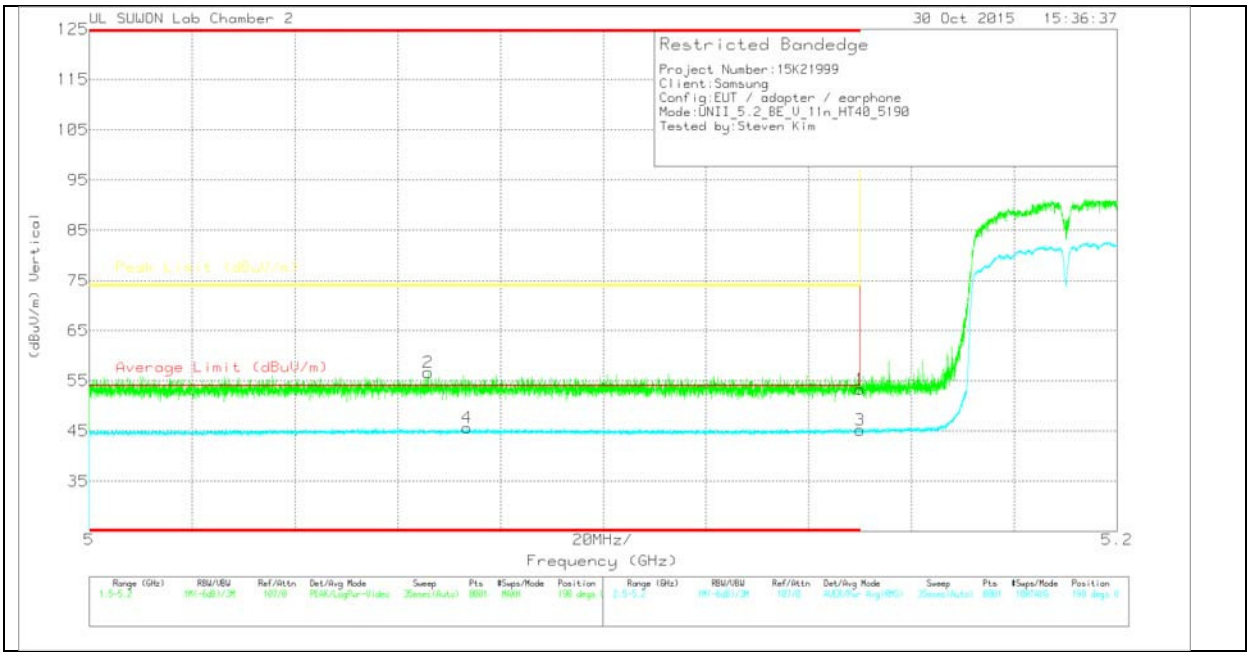
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 35.6 | Pk | 34.1 | -16.4 | 0 | 53.3 | - | - | 74 | -20.7 | 198 | 255 | V |
| 2 | * 5.066 | 38.95 | Pk | 34 | -16.3 | 0 | 56.65 | - | - | 74 | -17.35 | 198 | 255 | V |
| 3 | * 5.15 | 26.88 | RMS | 34.1 | -16.4 | .63 | 45.21 | 54 | -8.79 | - | - | 198 | 255 | V |
| 4 | * 5.074 | 27.33 | RMS | 34 | -16.3 | .63 | 45.66 | 54 | -8.34 | - | - | 198 | 255 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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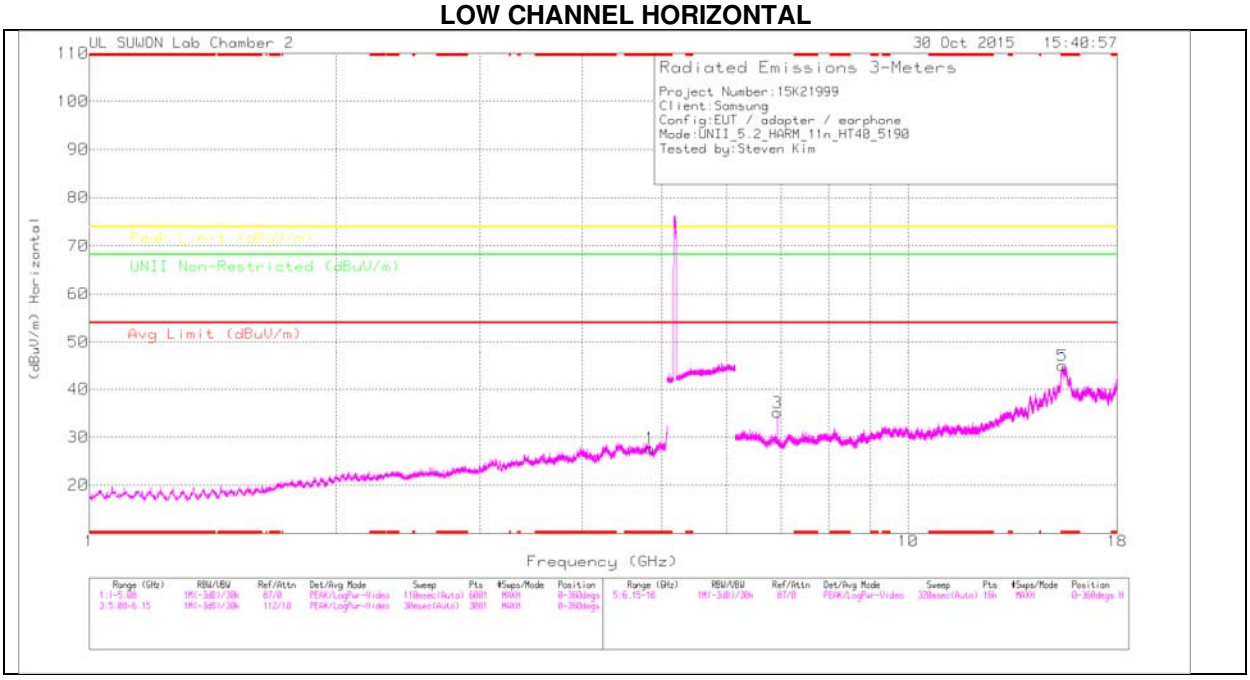
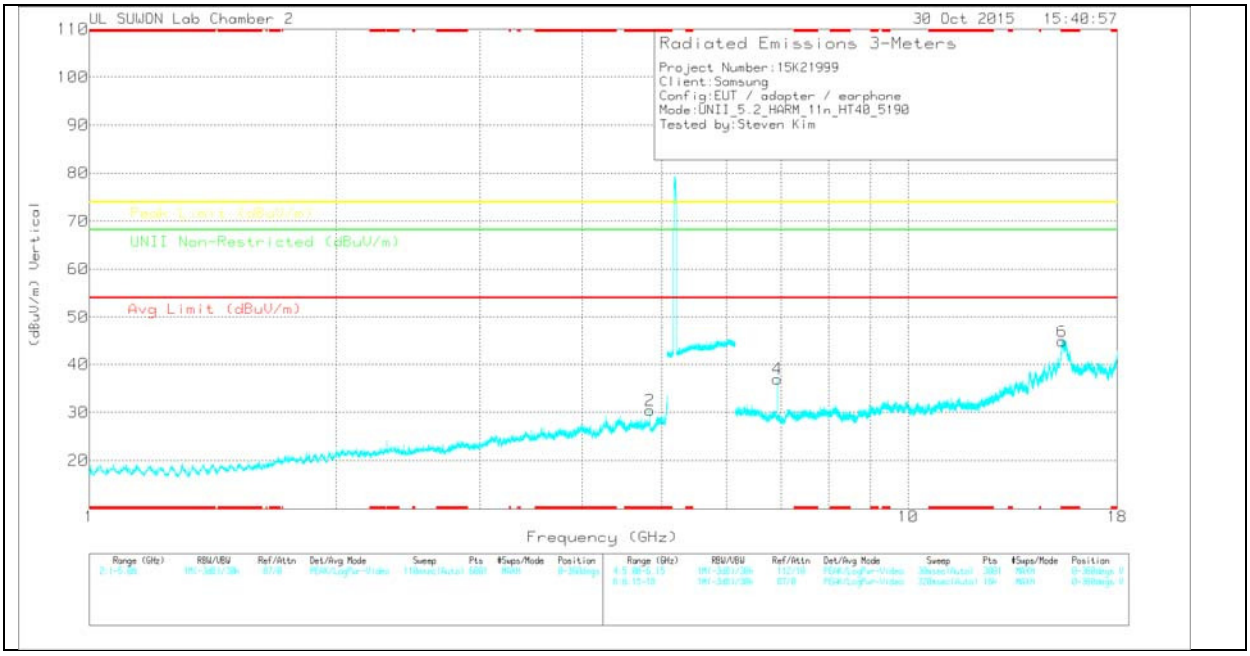
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0016 8717)_150 619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.838 | 26.17 | PK | 34 | -32.5 | 0 | 27.67 | - | - | 74 | -46.33 | - | - | 0-360 | 100 | H |
| 2 | * 4.838 | 28.92 | PK | 34 | -32.5 | 0 | 30.42 | - | - | 74 | -43.58 | - | - | 0-360 | 200 | V |
| 3 | 6.919 | 29.51 | PK | 35.7 | -30.1 | 0 | 35.11 | - | - | - | - | 68.2 | -33.09 | 0-360 | 200 | H |
| 5 | * 15.429 | 19.87 | PK | 40.2 | -15.1 | 0 | 44.97 | - | - | 74 | -29.03 | - | - | 0-360 | 100 | H |
| 4 | 6.919 | 31.34 | PK | 35.7 | -30.1 | 0 | 36.94 | - | - | - | - | 68.2 | -31.26 | 0-360 | 100 | V |
| 6 | * 15.423 | 19.79 | PK | 40.2 | -15.2 | 0 | 44.79 | - | - | 74 | -29.21 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0016871 7)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.838 | 38.93 | PK-U | 34 | -32.5 | 0 | 40.43 | - | - | 74 | -33.57 | - | - | 270 | 226 | V |
| * 4.838 | 28.1 | ADR | 34 | -32.5 | 0 | 29.6 | 54 | -24.4 | - | - | - | - | 270 | 226 | V |
| 6.92 | 37.51 | PK-U | 35.7 | -30.1 | 0 | 43.11 | - | - | - | - | 68.2 | -25.09 | 43 | 186 | H |
| 6.92 | 38.29 | PK-U | 35.7 | -30.1 | 0 | 43.89 | - | - | - | - | 68.2 | -24.31 | 251 | 157 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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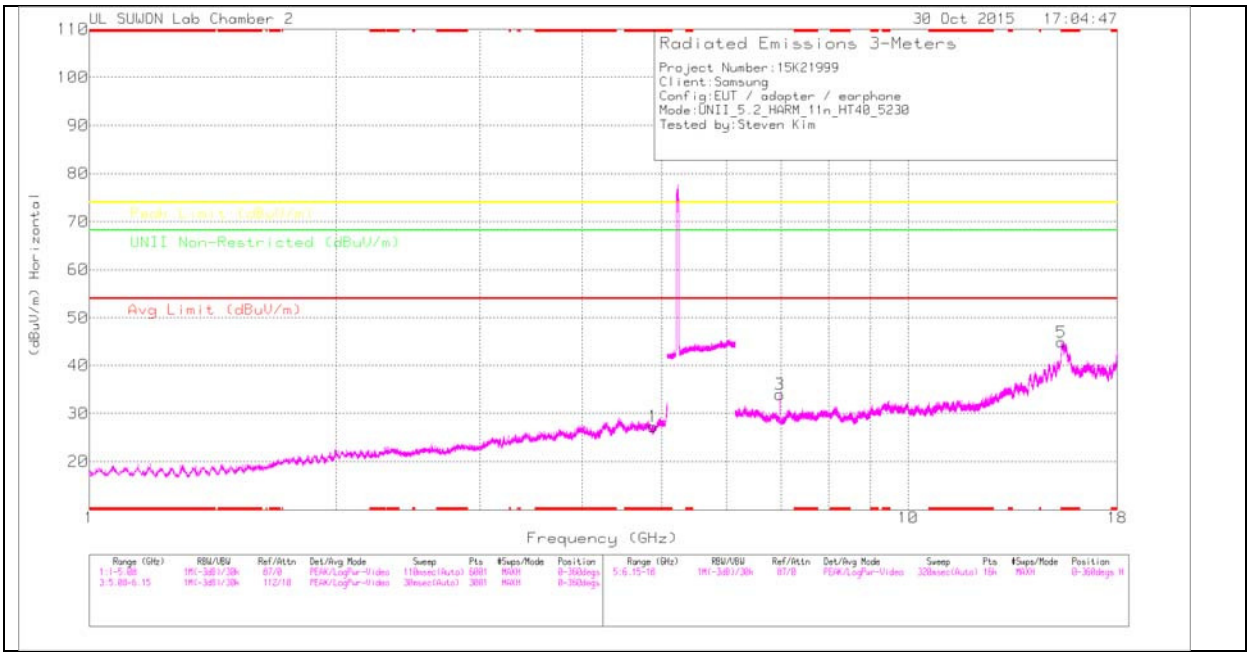
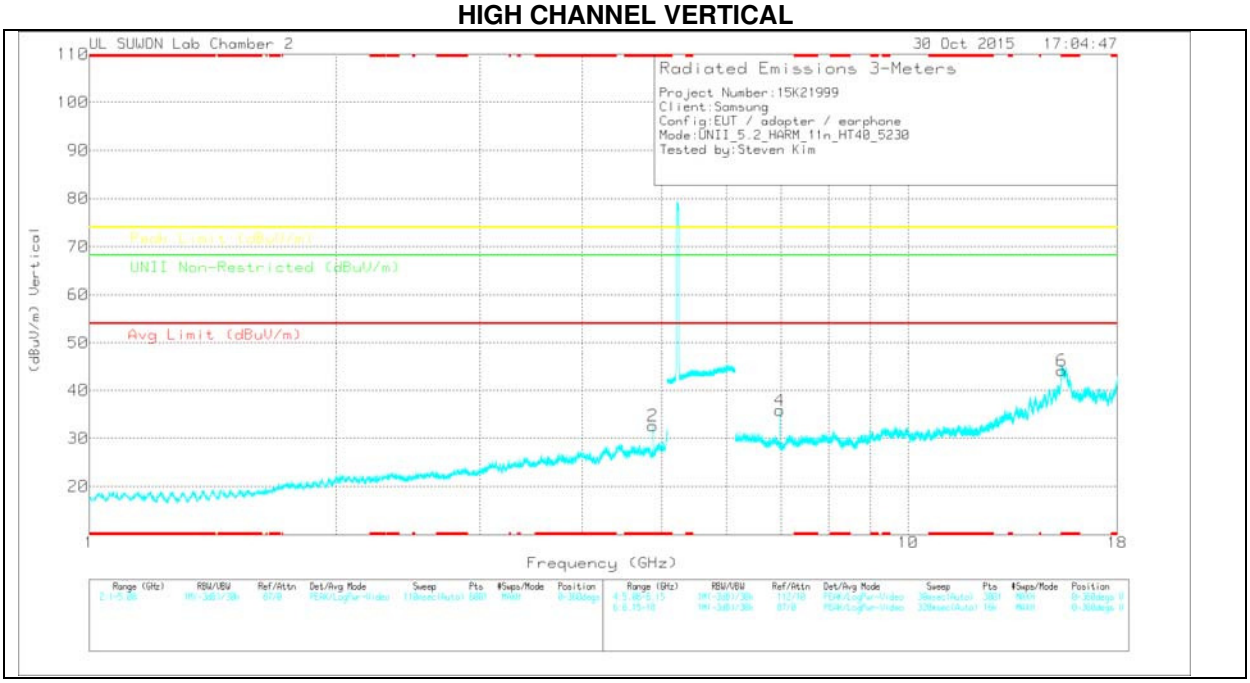
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.879 | 25.48 | PK | 34 | -32.2 | 0 | 27.28 | - | - | 74 | -46.72 | - | - | 0-360 | 100 | H |
| 2 | * 4.878 | 30.83 | PK | 34 | -32.2 | 0 | 32.63 | - | - | 74 | -41.37 | - | - | 0-360 | 200 | V |
| 3 | 6.973 | 28.14 | PK | 35.7 | -29.9 | 0 | 33.94 | - | - | - | - | 68.2 | -34.26 | 0-360 | 100 | H |
| 5 | * 15.395 | 20.34 | PK | 40.2 | -15.7 | 0 | 44.84 | - | - | 74 | -29.16 | - | - | 0-360 | 200 | H |
| 4 | 6.973 | 30.05 | PK | 35.7 | -29.9 | 0 | 35.85 | - | - | - | - | 68.2 | -32.35 | 0-360 | 200 | V |
| 6 | * 15.403 | 19.17 | PK | 40.2 | -15.3 | 0 | 44.07 | - | - | 74 | -29.93 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.878 | 38.95 | PK-U | 34 | -32.2 | 0 | 40.75 | - | - | 74 | -33.25 | - | - | 268 | 177 | V |
| * 4.878 | 28.49 | ADR | 34 | -32.2 | 0 | 30.29 | 54 | -23.71 | - | - | - | - | 268 | 177 | V |
| 6.973 | 36.51 | PK-U | 35.7 | -29.9 | 0 | 42.31 | - | - | - | - | 68.2 | -25.89 | 41 | 185 | H |
| 6.973 | 36.78 | PK-U | 35.7 | -29.9 | 0 | 42.58 | - | - | - | - | 68.2 | -25.62 | 179 | 136 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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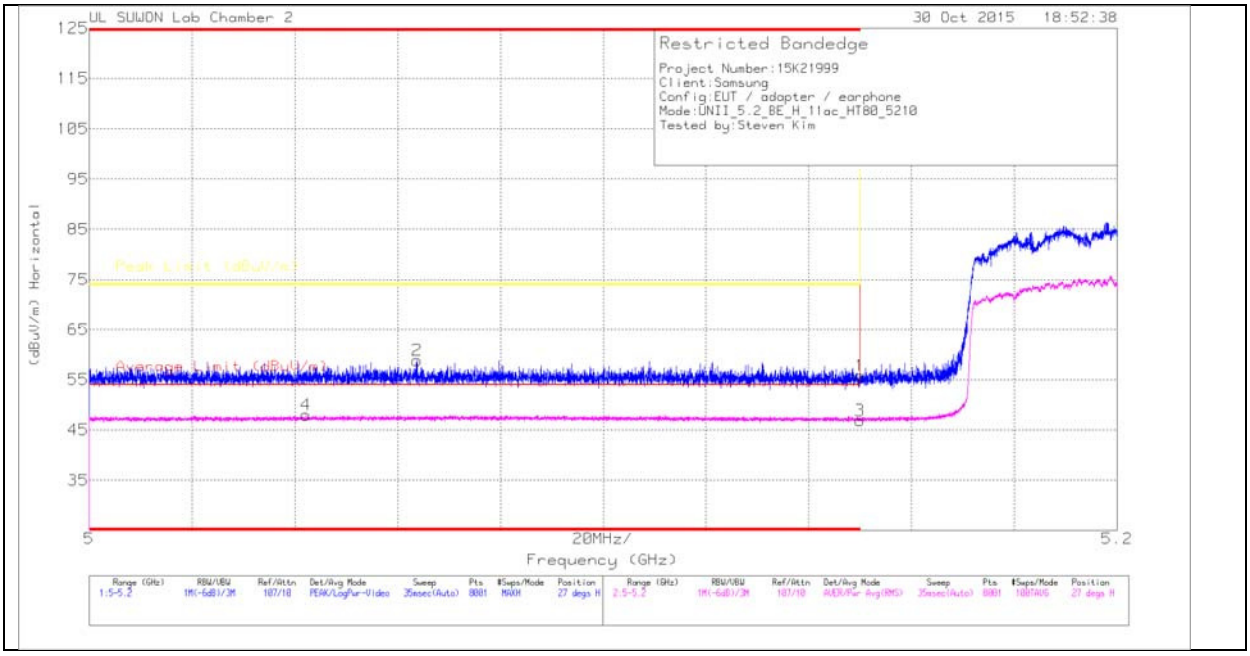
## 11.1.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 38.09 | Pk | 34.1 | -16.4 | 0 | 55.79 | - | - | 74 | -18.21 | 27 | 100 | H |
| 2 | * 5.064 | 41.14 | Pk | 34 | -16.3 | 0 | 58.84 | - | - | 74 | -15.16 | 27 | 100 | H |
| 3 | * 5.15 | 27.97 | RMS | 34.1 | -16.4 | 1.2 | 46.87 | 54 | -7.13 | - | - | 27 | 100 | H |
| 4 | * 5.042 | 29.11 | RMS | 34 | -16.3 | 1.2 | 48.01 | 54 | -5.99 | - | - | 27 | 100 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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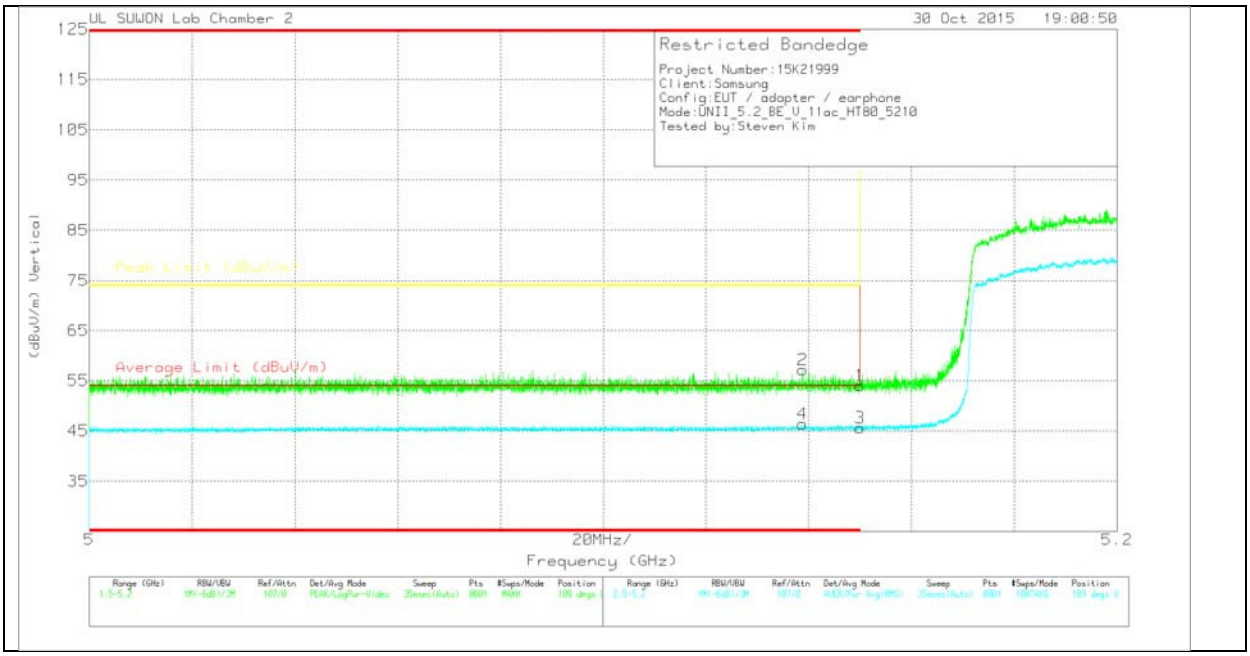
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.15 | 36.34 | Pk | 34.1 | -16.4 | 0 | 54.04 | - | - | 74 | -19.96 | 189 | 259 | V |
| 2 | * 5.139 | 39.49 | Pk | 34.1 | -16.4 | 0 | 57.19 | - | - | 74 | -16.81 | 189 | 259 | V |
| 3 | * 5.15 | 26.74 | RMS | 34.1 | -16.4 | 1.2 | 45.64 | 54 | -8.36 | - | - | 189 | 259 | V |
| 4 | * 5.139 | 27.52 | RMS | 34.1 | -16.4 | 1.2 | 46.42 | 54 | -7.58 | - | - | 189 | 259 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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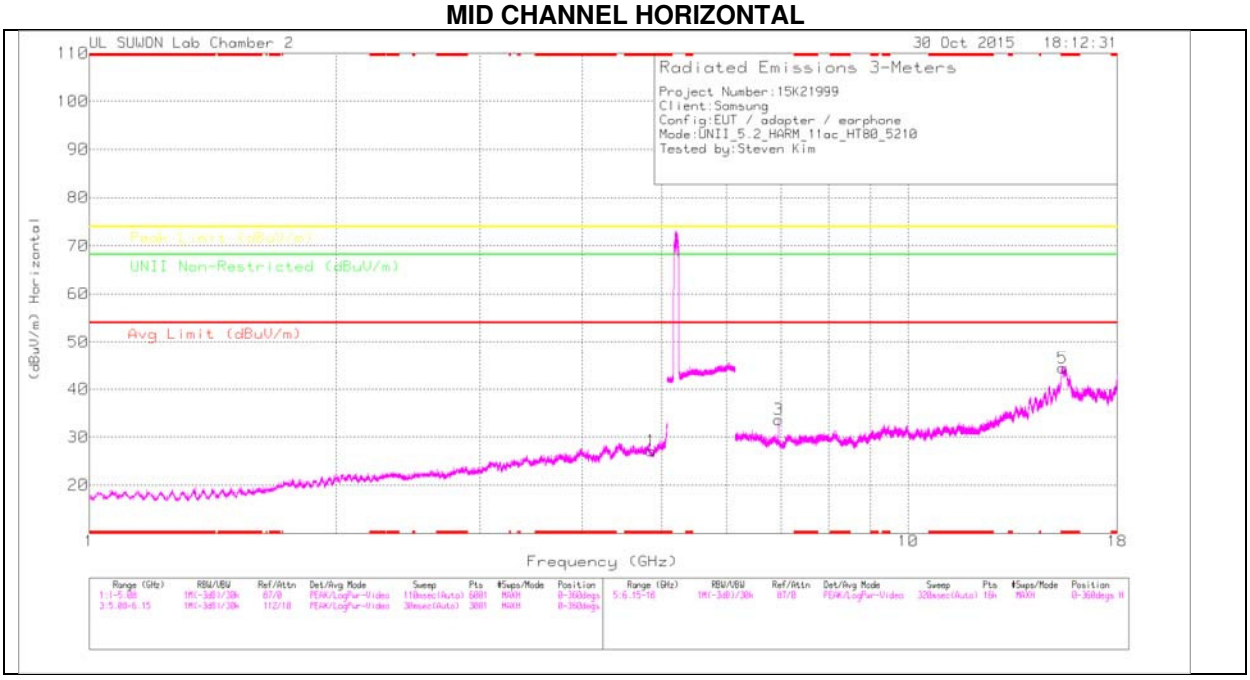
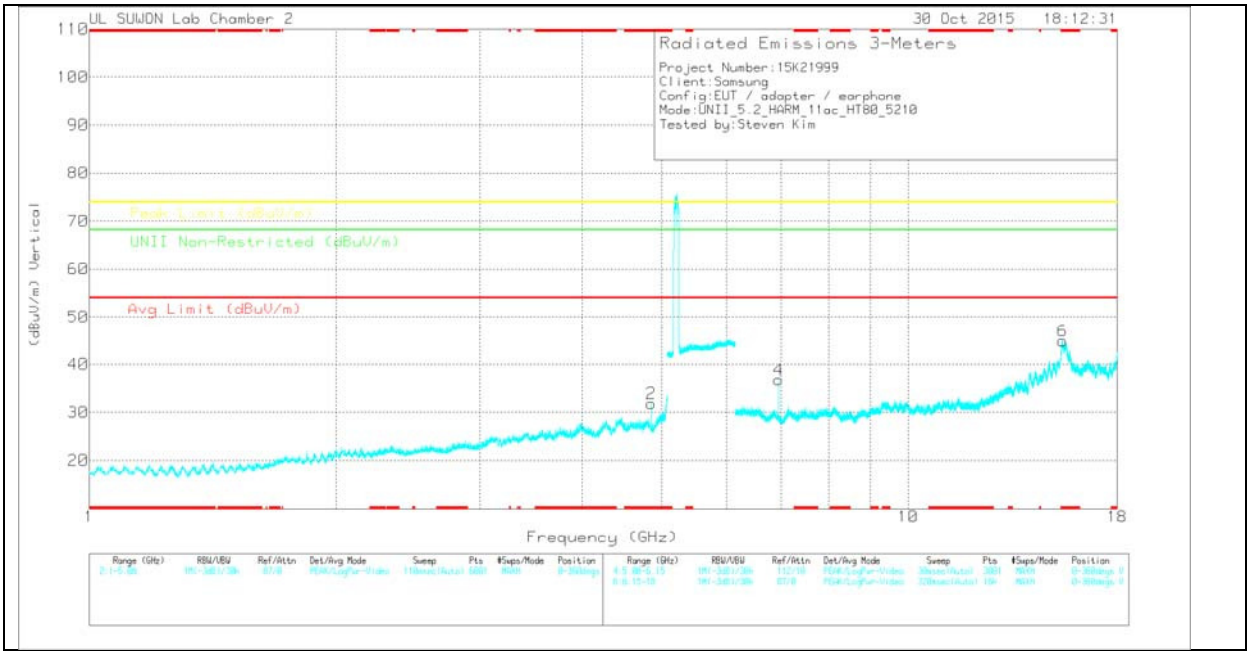
# HARMONICS AND SPURIOUS EMISSIONS

## MID CHANNEL HORIZONTAL




## MID CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.858 | 25.66 | PK | 34 | -32.5 | 0 | 27.16 | - | - | 74 | -46.84 | - | - | 0-360 | 100 | H |
| 2 | * 4.858 | 30.35 | PK | 34 | -32.5 | 0 | 31.85 | - | - | 74 | -42.15 | - | - | 0-360 | 200 | V |
| 3 | 6.946 | 27.98 | PK | 35.7 | -30 | 0 | 33.68 | - | - | - | - | 68.2 | -34.52 | 0-360 | 200 | H |
| 5 | * 15.434 | 19.36 | PK | 40.2 | -15.1 | 0 | 44.46 | - | - | 74 | -29.54 | - | - | 0-360 | 200 | H |
| 4 | 6.946 | 31.1 | PK | 35.7 | -30 | 0 | 36.8 | - | - | - | - | 68.2 | -31.4 | 0-360 | 100 | V |
| 6 | * 15.435 | 19.7 | PK | 40.2 | -15 | 0 | 44.9 | - | - | 74 | -29.1 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.858 | 38.54 | PK-U | 34 | -32.5 | 0 | 40.04 | - | - | 74 | -33.96 | - | - | 266 | 175 | V |
| * 4.858 | 29.02 | ADR | 34 | -32.5 | 0 | 30.52 | 54 | -23.48 | - | - | - | - | 266 | 175 | V |
| 6.946 | 37.14 | PK-U | 35.7 | -30 | 0 | 42.84 | - | - | - | - | 68.2 | -25.36 | 43 | 186 | H |
| 6.947 | 37.66 | PK-U | 35.7 | -30 | 0 | 43.36 | - | - | - | - | 68.2 | -24.84 | 251 | 173 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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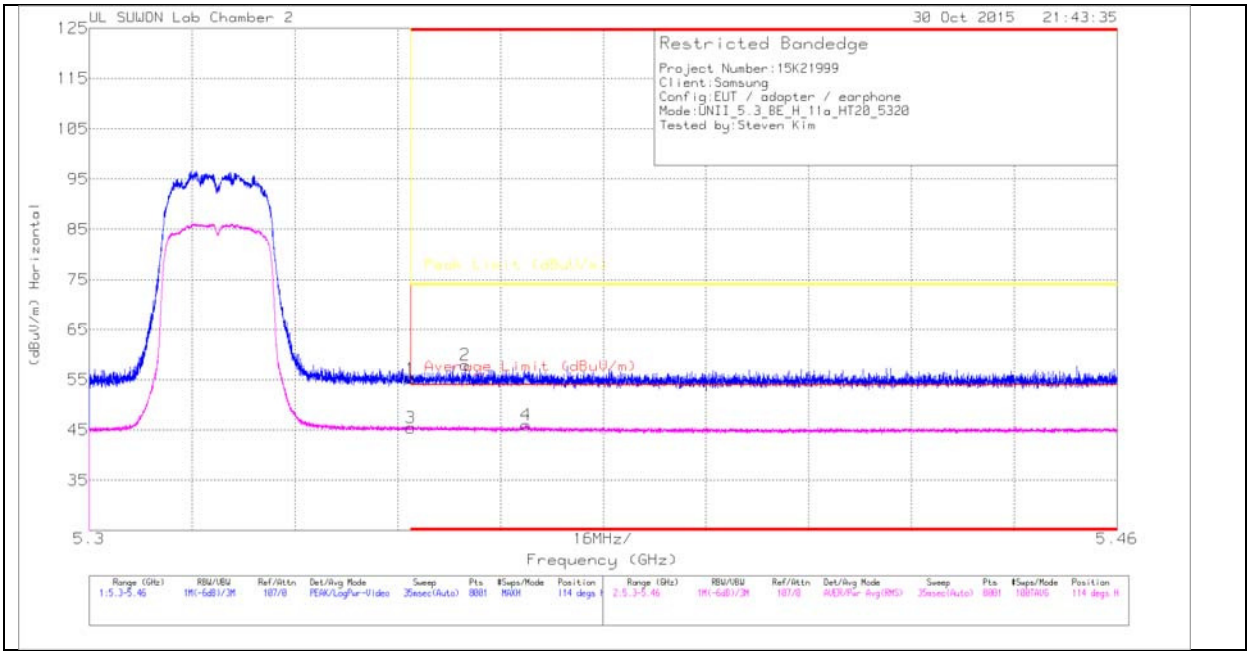
## 11.2. 5.3 GHz

### 11.2.1. TX ABOVE 1 GHz 802.11a 2TX CDD MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

**HORIZONTAL PEAK AND AVERAGE PLOT**




**HORIZONTAL DATA**

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 37.13 | Pk | 34.4 | -16.3 | 0 | 55.23 | - | - | 74 | -18.77 | 114 | 373 | H |
| 2 | * 5.358 | 39.83 | Pk | 34.4 | -16.3 | 0 | 57.93 | - | - | 74 | -16.07 | 114 | 373 | H |
| 3 | * 5.35 | 27.03 | RMS | 34.4 | -16.3 | .31 | 45.44 | 54 | -8.56 | - | - | 114 | 373 | H |
| 4 | * 5.368 | 27.62 | RMS | 34.4 | -16.3 | .31 | 46.03 | 54 | -7.97 | - | - | 114 | 373 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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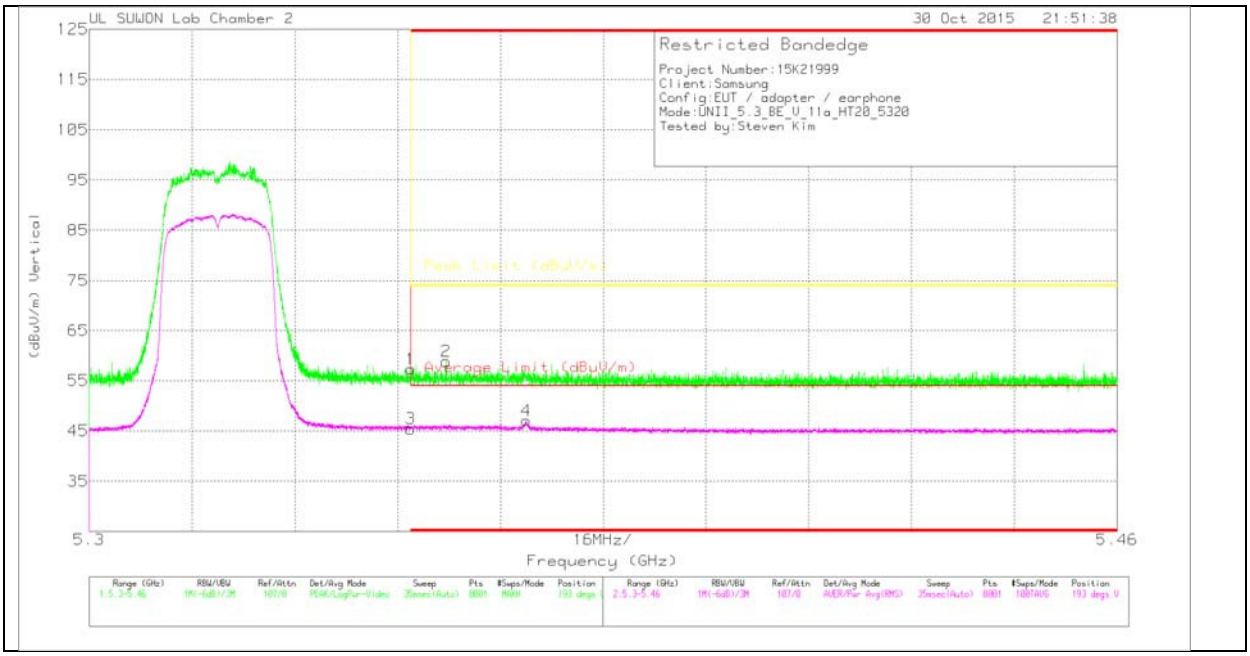
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 39.17 | Pk | 34.4 | -16.3 | 0 | 57.27 | - | - | 74 | -16.73 | 193 | 202 | V |
| 2 | * 5.356 | 40.74 | Pk | 34.4 | -16.3 | 0 | 58.84 | - | - | 74 | -15.16 | 193 | 202 | V |
| 3 | * 5.35 | 27.03 | RMS | 34.4 | -16.3 | .31 | 45.44 | 54 | -8.56 | - | - | 193 | 202 | V |
| 4 | * 5.368 | 28.64 | RMS | 34.4 | -16.3 | .31 | 47.05 | 54 | -6.95 | - | - | 193 | 202 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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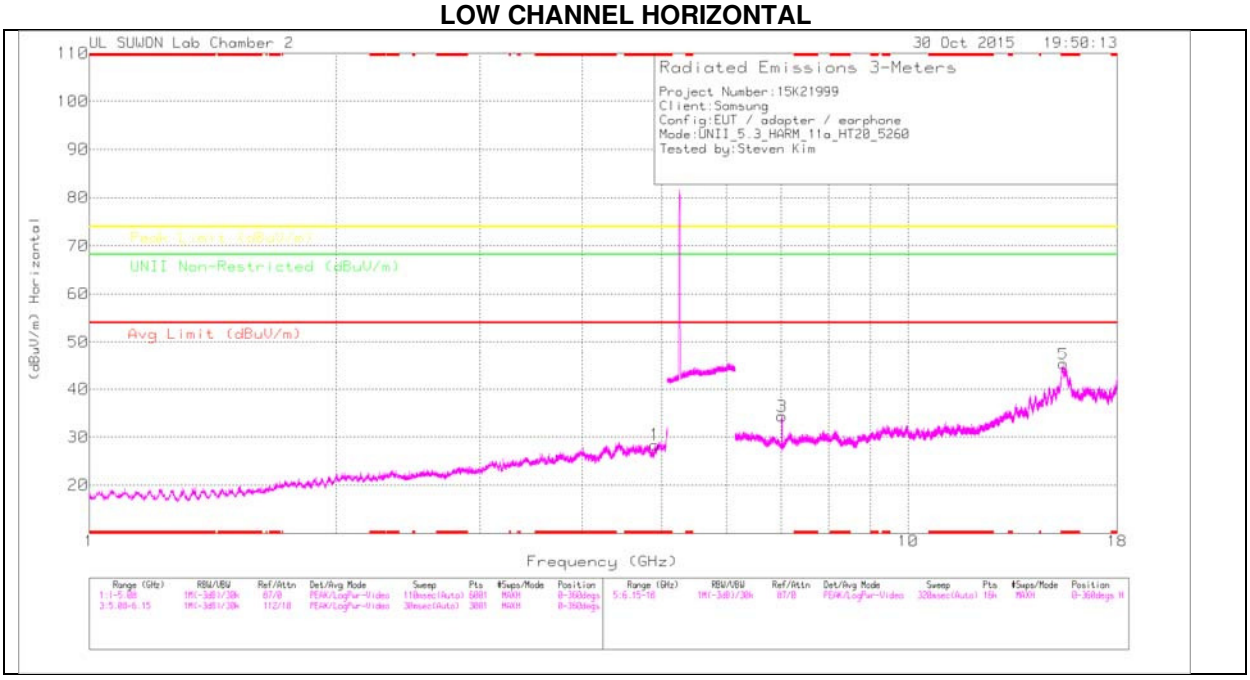
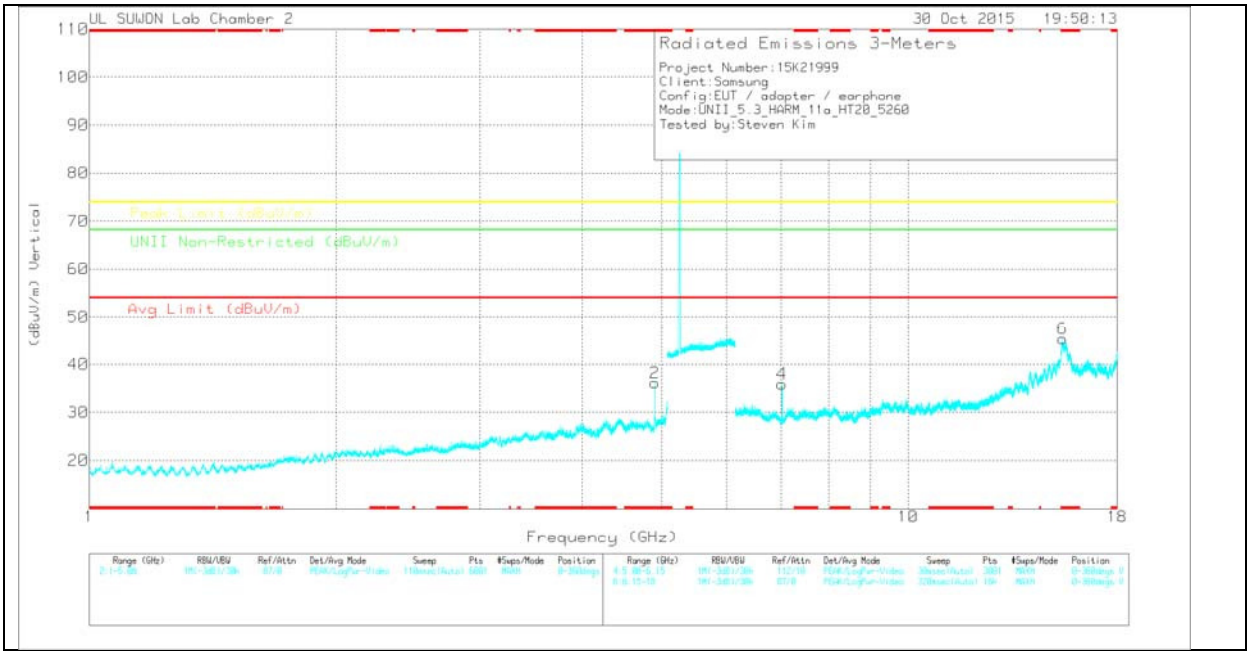
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.909 | 26.33 | PK | 34 | -31.9 | 0 | 28.43 | - | - | 74 | -45.57 | - | - | 0-360 | 200 | H |
| 2 | * 4.909 | 34.06 | PK | 34 | -31.9 | 0 | 36.16 | - | - | 74 | -37.84 | - | - | 0-360 | 200 | V |
| 3 | 7.013 | 28.55 | PK | 35.7 | -29.9 | 0 | 34.35 | - | - | - | - | 68.2 | -33.85 | 0-360 | 200 | H |
| 5 | * 15.459 | 20.19 | PK | 40.2 | -15.1 | 0 | 45.29 | - | - | 74 | -28.71 | - | - | 0-360 | 200 | H |
| 4 | 7.013 | 30.13 | PK | 35.7 | -29.9 | 0 | 35.93 | - | - | - | - | 68.2 | -32.27 | 0-360 | 200 | V |
| 6 | * 15.444 | 20.19 | PK | 40.2 | -15 | 0 | 45.39 | - | - | 74 | -28.61 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.908 | 41.37 | PK-U | 34 | -31.9 | 0 | 43.47 | - | - | 74 | -30.53 | - | - | 270 | 199 | V |
| * 4.908 | 32.17 | ADR | 34 | -31.9 | 0 | 34.27 | 54 | -19.73 | - | - | - | - | 270 | 199 | V |
| 7.013 | 36.79 | PK-U | 35.7 | -29.9 | 0 | 42.59 | - | - | - | - | 68.2 | -25.61 | 16 | 260 | H |
| 7.013 | 37.91 | PK-U | 35.7 | -29.9 | 0 | 43.71 | - | - | - | - | 68.2 | -24.49 | 231 | 204 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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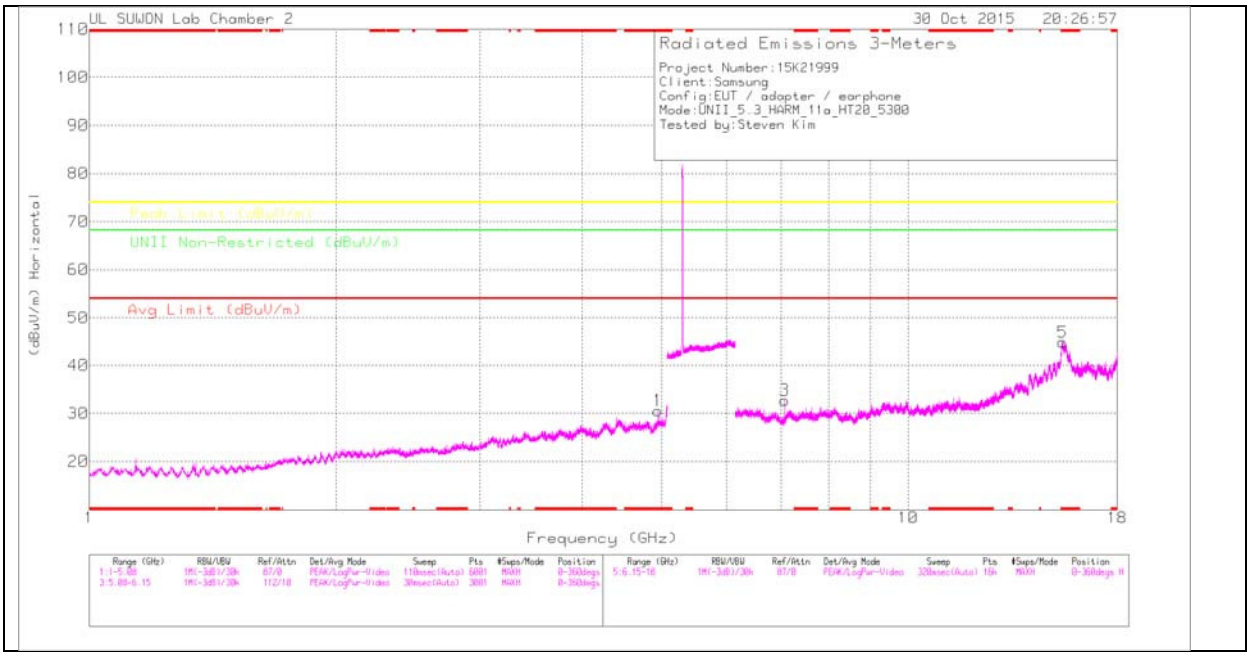
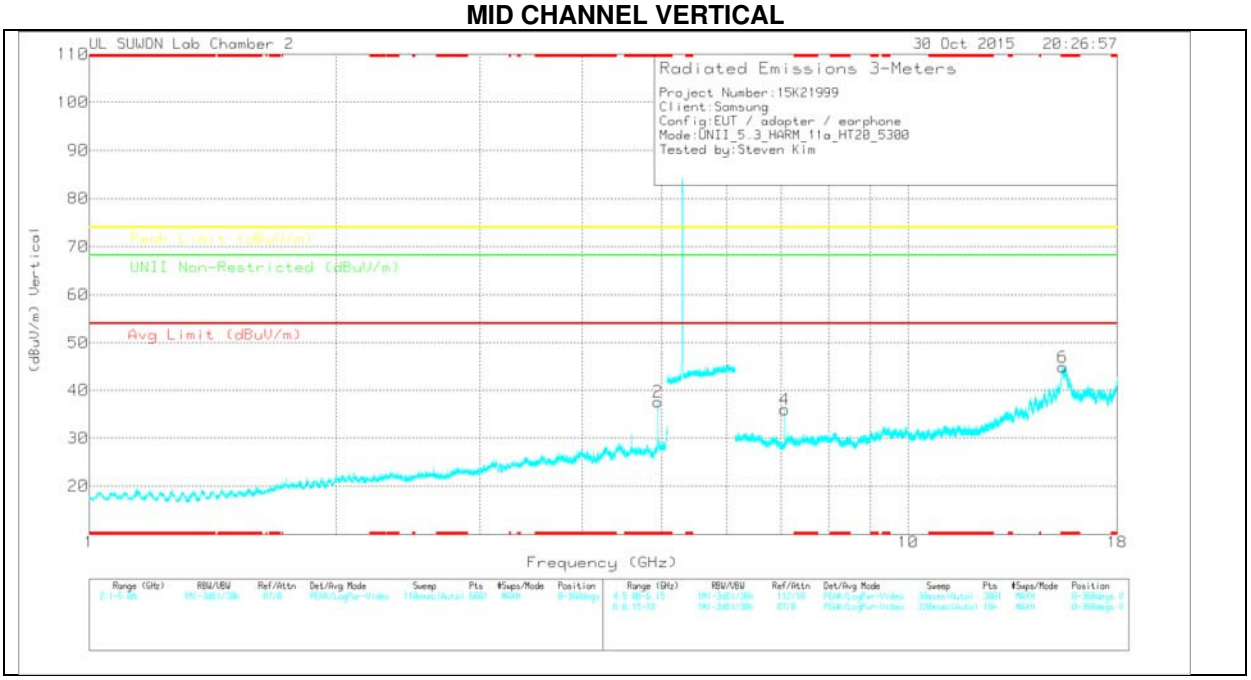
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687 17)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.948 | 28.61 | PK | 34 | -32 | 0 | 30.61 | - | - | 74 | -43.39 | - | - | 0-360 | 200 | H |
| 2 | * 4.948 | 35.61 | PK | 34 | -32 | 0 | 37.61 | - | - | 74 | -36.39 | - | - | 0-360 | 200 | V |
| 3 | 7.066 | 26.87 | PK | 35.7 | -29.8 | 0 | 32.77 | - | - | - | - | 68.2 | -35.43 | 0-360 | 100 | H |
| 5 | * 15.441 | 19.63 | PK | 40.2 | -15 | 0 | 44.83 | - | - | 74 | -29.17 | - | - | 0-360 | 200 | H |
| 4 | 7.066 | 30.09 | PK | 35.7 | -29.8 | 0 | 35.99 | - | - | - | - | 68.2 | -32.21 | 0-360 | 200 | V |
| 6 | * 15.445 | 19.66 | PK | 40.2 | -15 | 0 | 44.86 | - | - | 74 | -29.14 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687 17)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.948 | 41.66 | PK-U | 34 | -32 | 0 | 43.66 | - | - | 74 | -30.34 | - | - | 281 | 193 | V |
| * 4.948 | 32.67 | ADR | 34 | -32 | 0 | 34.67 | 54 | -19.33 | - | - | - | - | 281 | 193 | V |
| 7.067 | 35.51 | PK-U | 35.7 | -29.8 | 0 | 41.41 | - | - | - | - | 68.2 | -26.79 | 33 | 101 | H |
| 7.067 | 37.02 | PK-U | 35.7 | -29.8 | 0 | 42.92 | - | - | - | - | 68.2 | -25.28 | 236 | 169 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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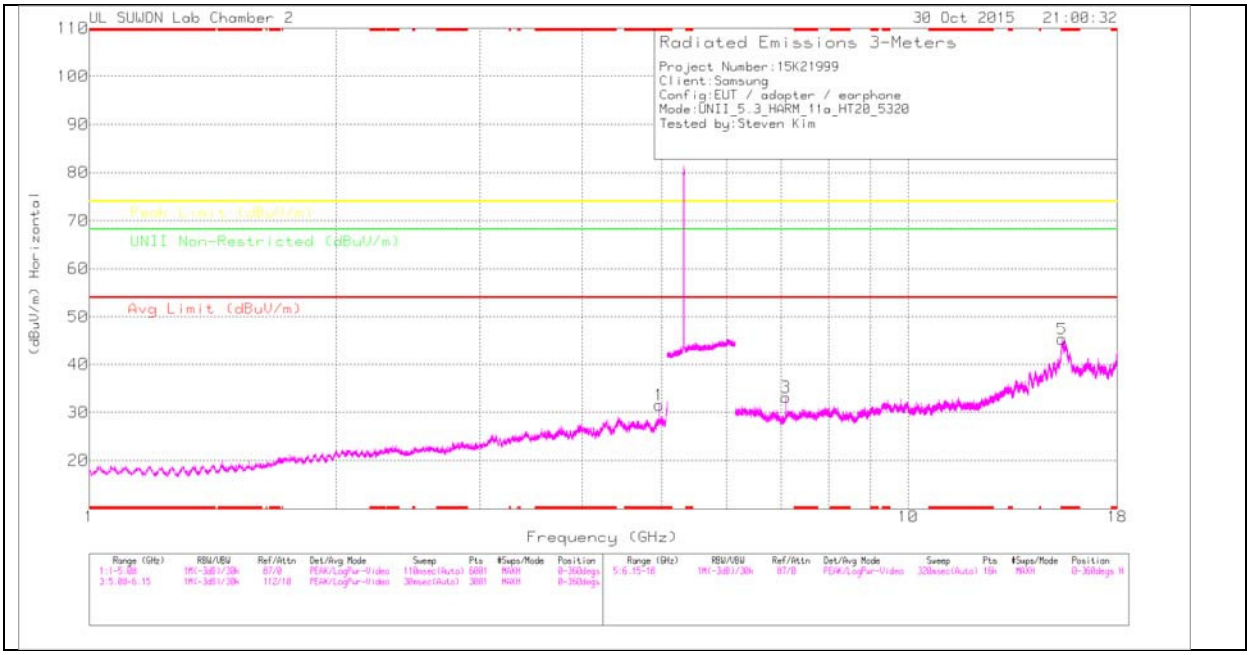
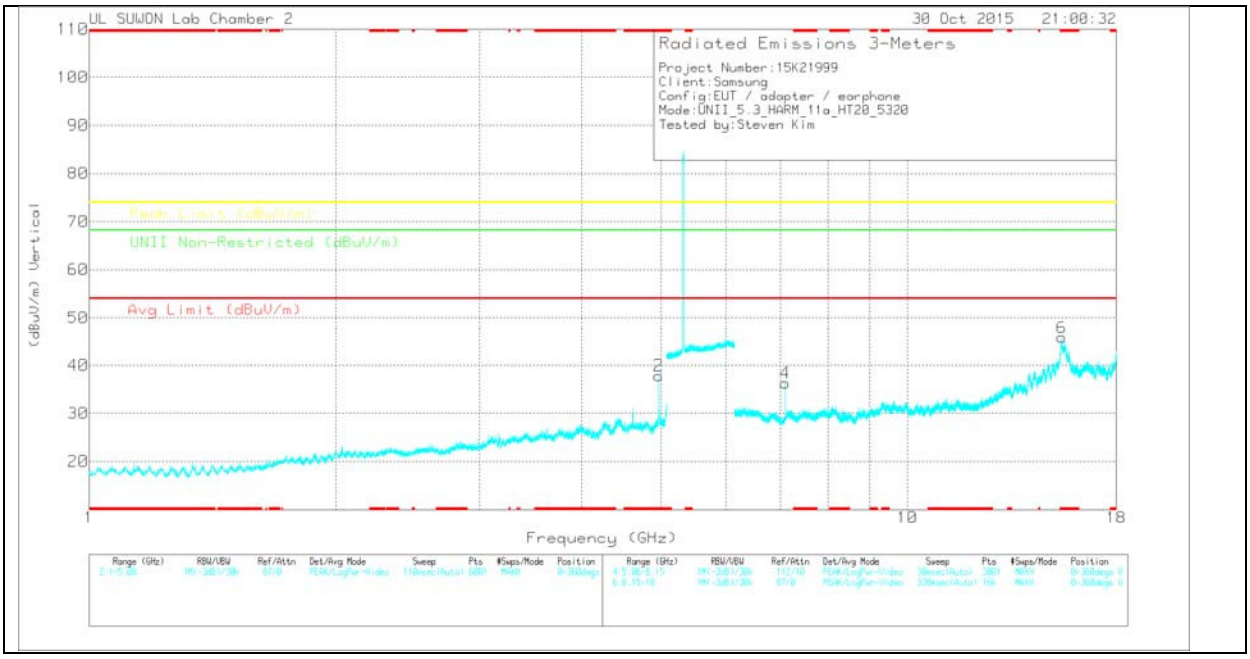
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.968 | 29.24 | PK | 34.1 | -31.8 | 0 | 31.54 | - | - | 74 | -42.46 | - | - | 0-360 | 200 | H |
| 2 | * 4.968 | 35.54 | PK | 34.1 | -31.8 | 0 | 37.84 | - | - | 74 | -36.16 | - | - | 0-360 | 200 | V |
| 3 | 7.093 | 27.24 | PK | 35.7 | -29.8 | 0 | 33.14 | - | - | - | - | 68.2 | -35.06 | 0-360 | 100 | H |
| 5 | * 15.409 | 20.38 | PK | 40.2 | -15.3 | 0 | 45.28 | - | - | 74 | -28.72 | - | - | 0-360 | 200 | H |
| 4 | 7.093 | 30.41 | PK | 35.7 | -29.8 | 0 | 36.31 | - | - | - | - | 68.2 | -31.89 | 0-360 | 200 | V |
| 6 | * 15.432 | 20.73 | PK | 40.2 | -15.1 | 0 | 45.83 | - | - | 74 | -28.17 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.968 | 38.91 | PK-U | 34.1 | -31.8 | 0 | 41.21 | - | - | 74 | -32.79 | - | - | 92 | 387 | H |
| * 4.968 | 28.19 | ADR | 34.1 | -31.8 | 0 | 30.49 | 54 | -23.51 | - | - | - | - | 92 | 387 | H |
| * 4.968 | 40.56 | PK-U | 34.1 | -31.8 | 0 | 42.86 | - | - | 74 | -31.14 | - | - | 78 | 332 | V |
| * 4.968 | 30.84 | ADR | 34.1 | -31.8 | 0 | 33.14 | 54 | -20.86 | - | - | - | - | 78 | 332 | V |
| 7.093 | 36.83 | PK-U | 35.7 | -29.8 | 0 | 42.73 | - | - | - | - | 68.2 | -25.47 | 25 | 229 | H |
| 7.093 | 37.78 | PK-U | 35.7 | -29.8 | 0 | 43.68 | - | - | - | - | 68.2 | -24.52 | 236 | 152 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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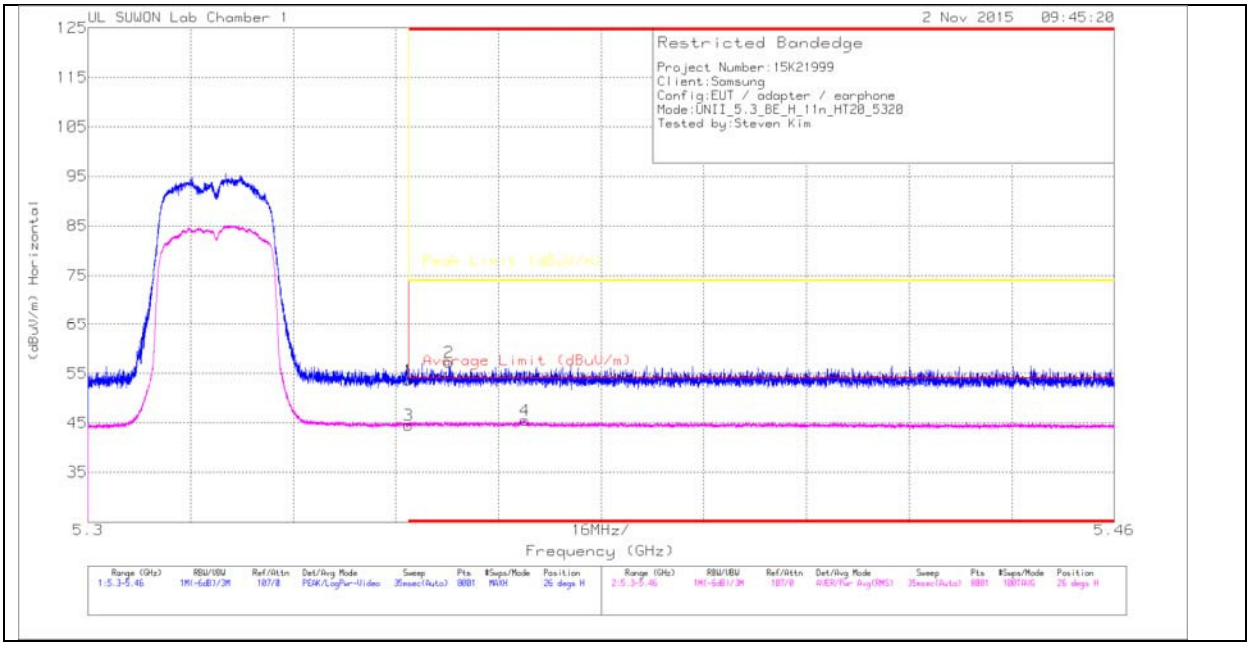
## 11.2.2. TX ABOVE 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.3GHz BAND

## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 42.05 | Pk | 34.5 | -22.9 | 0 | 53.65 | - | - | 74 | -20.35 | 26 | 108 | H |
| 2 | * 5.356 | 45.65 | Pk | 34.5 | -22.9 | 0 | 57.25 | - | - | 74 | -16.75 | 26 | 108 | H |
| 3 | * 5.35 | 32.59 | RMS | 34.5 | -22.9 | .33 | 44.52 | 54 | -9.48 | - | - | 26 | 108 | H |
| 4 | * 5.368 | 33.47 | RMS | 34.5 | -22.8 | .33 | 45.5 | 54 | -8.5 | - | - | 26 | 108 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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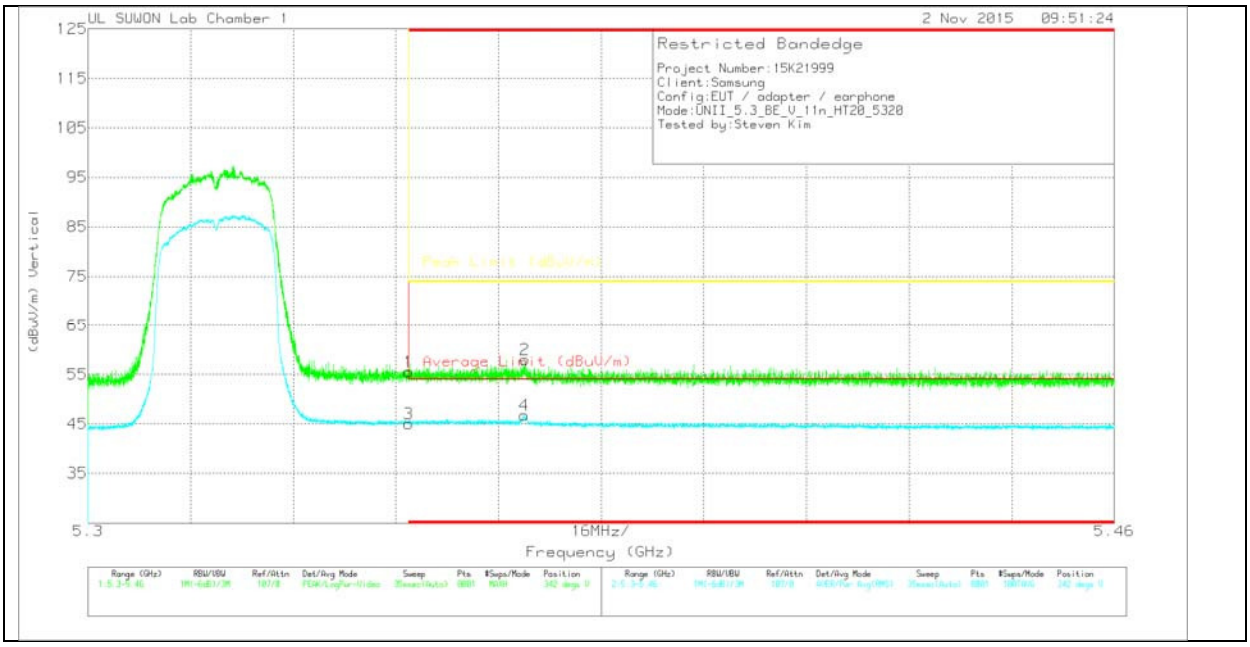
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 43.89 | Pk | 34.5 | -22.9 | 0 | 55.49 | - | - | 74 | -18.51 | 342 | 337 | V |
| 2 | * 5.368 | 46.25 | Pk | 34.5 | -22.8 | 0 | 57.95 | - | - | 74 | -16.05 | 342 | 337 | V |
| 3 | * 5.35 | 33.13 | RMS | 34.5 | -22.9 | .33 | 45.06 | 54 | -8.94 | - | - | 342 | 337 | V |
| 4 | * 5.368 | 34.74 | RMS | 34.5 | -22.8 | .33 | 46.77 | 54 | -7.23 | - | - | 342 | 337 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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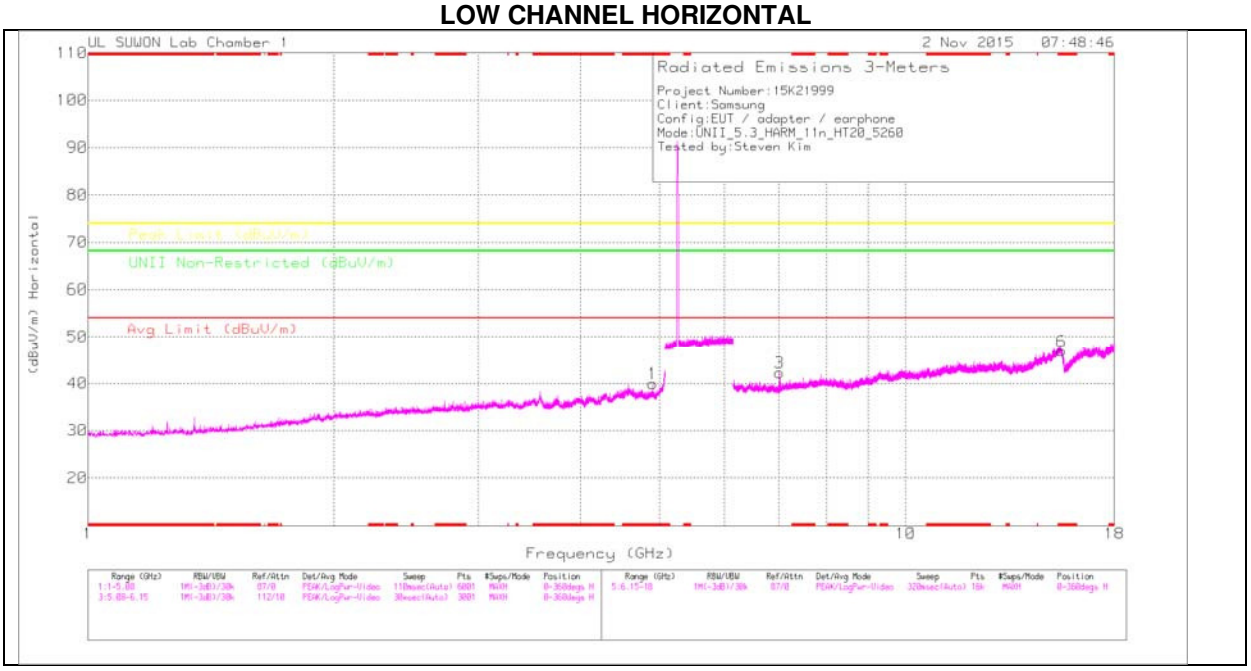
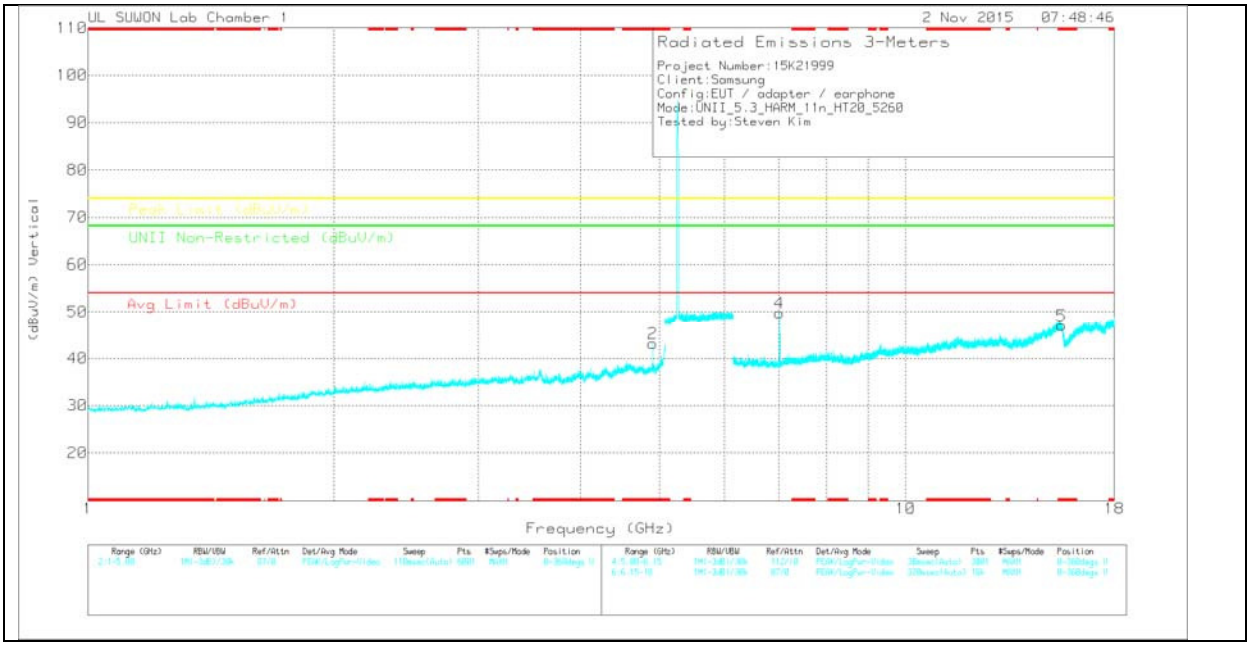
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.908 | 37.9 | PK | 34 | -31.9 | 0 | 40 | - | - | 74 | -34 | - | - | 0-360 | 100 | H |
| 2 | * 4.908 | 41.07 | PK | 34 | -31.9 | 0 | 43.17 | - | - | 74 | -30.83 | - | - | 0-360 | 100 | V |
| 3 | 7.014 | 36.49 | PK | 35.7 | -29.9 | 0 | 42.29 | - | - | - | - | 68.2 | -25.91 | 0-360 | 100 | H |
| 6 | * 15.507 | 22.8 | PK | 40.2 | -16.1 | 0 | 46.9 | - | - | 74 | -27.1 | - | - | 0-360 | 200 | H |
| 4 | 7.013 | 43.98 | PK | 35.7 | -29.9 | 0 | 49.78 | - | - | - | - | 68.2 | -18.42 | 0-360 | 100 | V |
| 5 | * 15.503 | 23.01 | PK | 40.2 | -16.1 | 0 | 47.11 | - | - | 74 | -26.89 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.901 | 47.57 | PK-U | 34 | -31.9 | 0 | 49.67 | - | - | 74 | -24.33 | - | - | 29 | 193 | H |
| * 4.908 | 36.1 | ADR | 34 | -31.9 | 0 | 38.2 | 54 | -15.8 | - | - | - | - | 29 | 193 | H |
| * 4.908 | 50.26 | PK-U | 34 | -31.9 | 0 | 52.36 | - | - | 74 | -21.64 | - | - | 276 | 182 | V |
| * 4.908 | 38.85 | ADR | 34 | -31.9 | 0 | 40.95 | 54 | -13.05 | - | - | - | - | 276 | 182 | V |
| 7.013 | 48.78 | PK-U | 35.7 | -29.9 | 0 | 54.58 | - | - | - | - | 68.2 | -13.62 | 253 | 101 | V |
| 7.013 | 44.78 | PK-U | 35.7 | -29.9 | 0 | 50.58 | - | - | - | - | 68.2 | -17.62 | 29 | 282 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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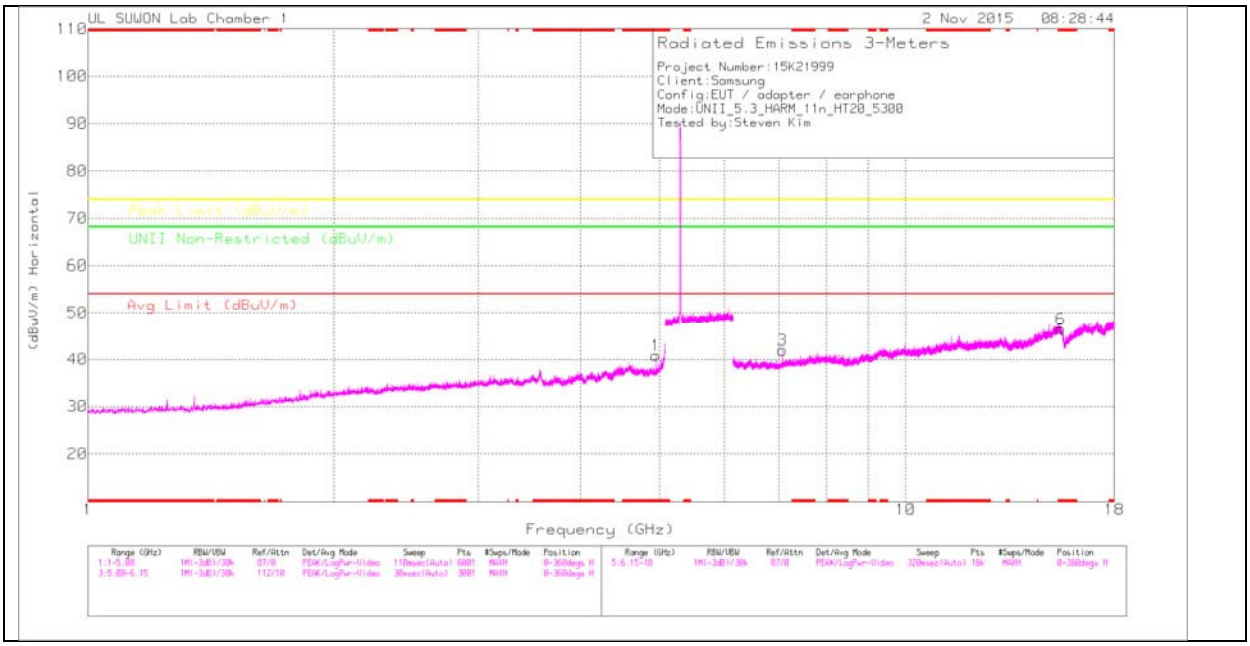
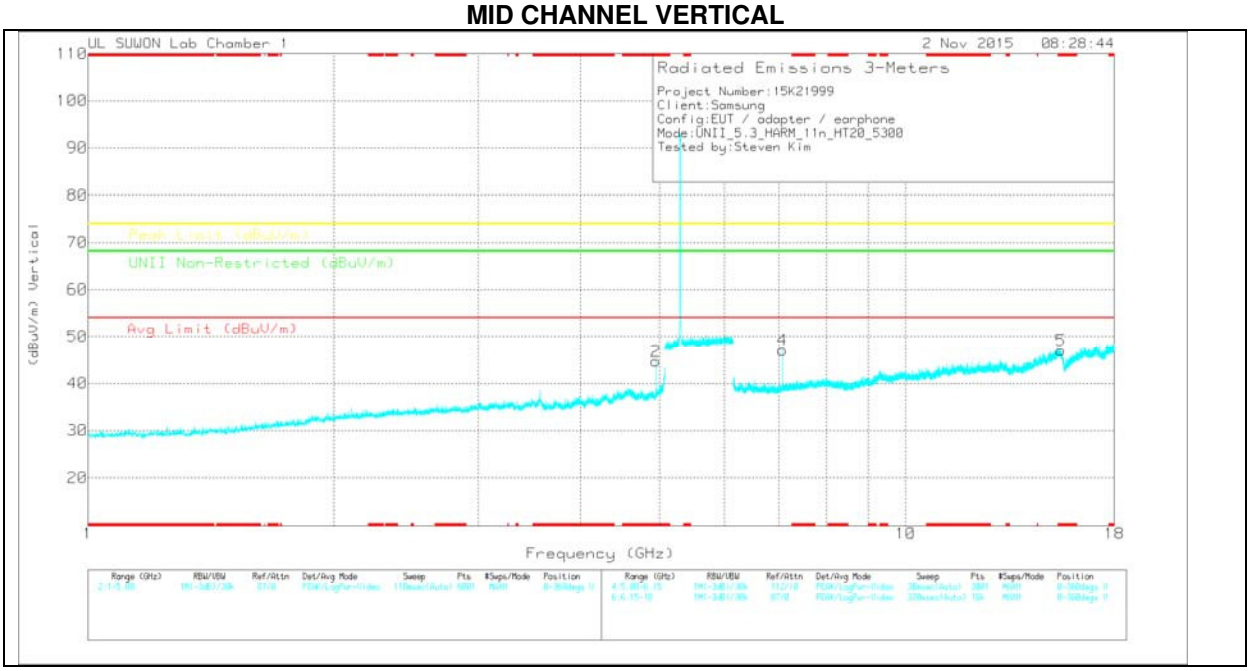
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.948 | 38.84 | PK | 34 | -32 | 0 | 40.84 | - | - | 74 | -33.16 | - | - | 0-360 | 100 | H |
| 2 | * 4.948 | 42.73 | PK | 34 | -32 | 0 | 44.73 | - | - | 74 | -29.27 | - | - | 0-360 | 200 | V |
| 3 | 7.066 | 36.05 | PK | 35.7 | -29.8 | 0 | 41.95 | - | - | - | - | 68.2 | -26.25 | 0-360 | 200 | H |
| 6 | * 15.478 | 21.93 | PK | 40.2 | -15.6 | 0 | 46.53 | - | - | 74 | -27.47 | - | - | 0-360 | 100 | H |
| 4 | 7.066 | 41.22 | PK | 35.7 | -29.8 | 0 | 47.12 | - | - | - | - | 68.2 | -21.08 | 0-360 | 100 | V |
| 5 | * 15.476 | 22.47 | PK | 40.2 | -15.6 | 0 | 47.07 | - | - | 74 | -26.93 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.948 | 49.3 | PK-U | 34 | -32 | 0 | 51.3 | - | - | 74 | -22.7 | - | - | 19 | 101 | H |
| * 4.948 | 39.57 | ADR | 34 | -32 | 0 | 41.57 | 54 | -12.43 | - | - | - | - | 19 | 101 | H |
| * 4.948 | 51.31 | PK-U | 34 | -32 | 0 | 53.31 | - | - | 74 | -20.69 | - | - | 286 | 183 | V |
| * 4.948 | 42.75 | ADR | 34 | -32 | 0 | 44.75 | 54 | -9.25 | - | - | - | - | 286 | 183 | V |
| 7.067 | 47.78 | PK-U | 35.7 | -29.8 | 0 | 53.68 | - | - | - | - | 68.2 | -14.52 | 253 | 100 | V |
| 7.067 | 45 | PK-U | 35.7 | -29.8 | 0 | 50.9 | - | - | - | - | 68.2 | -17.3 | 33 | 348 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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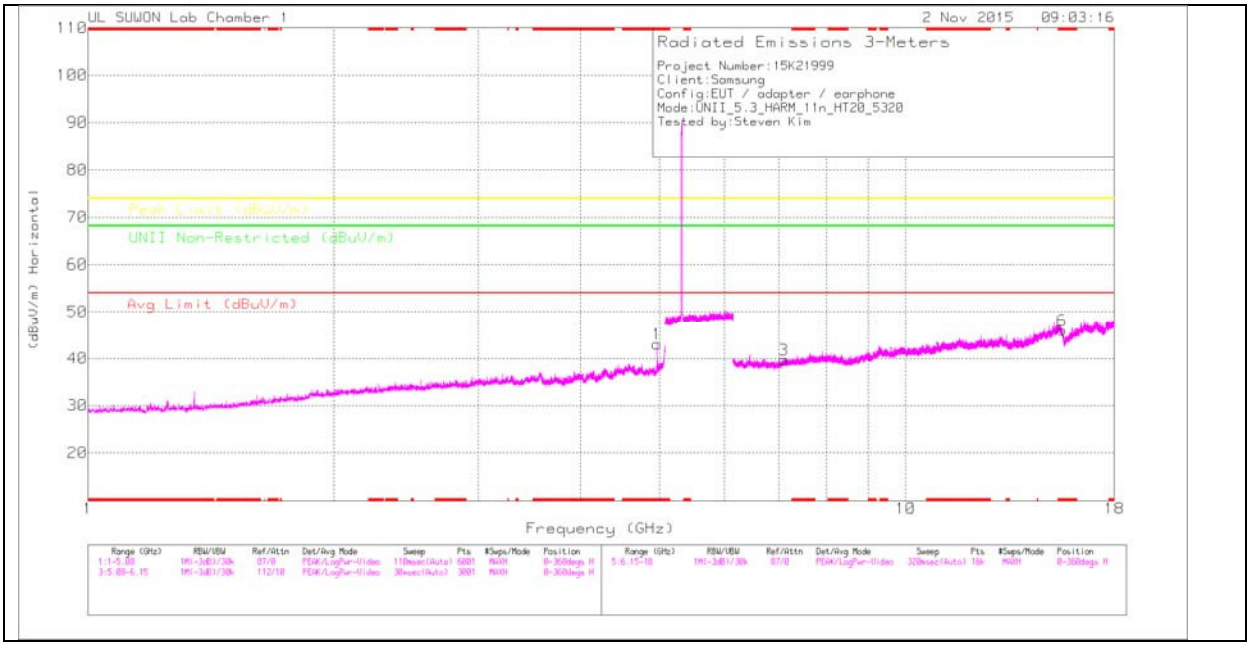
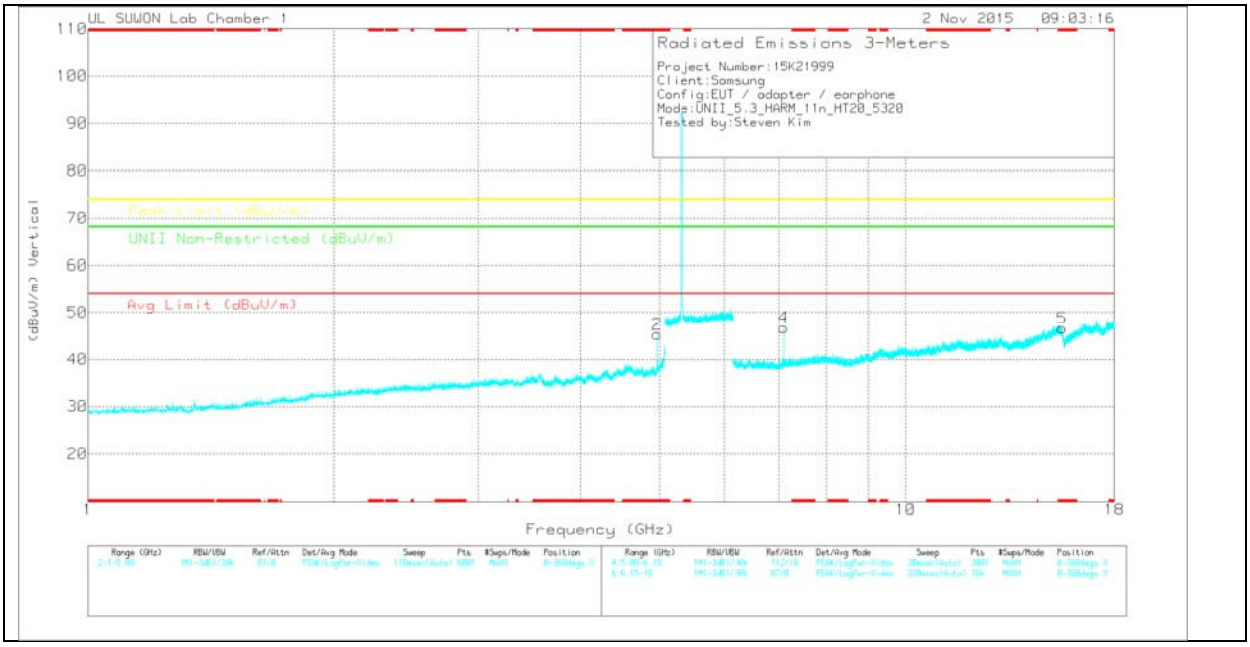
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.968 | 40.79 | PK | 34.1 | -31.8 | 0 | 43.09 | - | - | 74 | -30.91 | - | - | 0-360 | 100 | H |
| 2 | * 4.968 | 43.1 | PK | 34.1 | -31.8 | 0 | 45.4 | - | - | 74 | -28.6 | - | - | 0-360 | 200 | V |
| 3 | 7.093 | 33.83 | PK | 35.7 | -29.8 | 0 | 39.73 | - | - | - | - | 68.2 | -28.47 | 0-360 | 200 | H |
| 6 | * 15.524 | 21.66 | PK | 40.2 | -15.8 | 0 | 46.06 | - | - | 74 | -27.94 | - | - | 0-360 | 200 | H |
| 4 | 7.093 | 40.87 | PK | 35.7 | -29.8 | 0 | 46.77 | - | - | - | - | 68.2 | -21.43 | 0-360 | 100 | V |
| 5 | * 15.524 | 22.31 | PK | 40.2 | -15.8 | 0 | 46.71 | - | - | 74 | -27.29 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.968 | 47.64 | PK-U | 34.1 | -31.8 | 0 | 49.94 | - | - | 74 | -24.06 | - | - | 19 | 115 | H |
| * 4.968 | 37.45 | ADR | 34.1 | -31.8 | 0 | 39.75 | 54 | -14.25 | - | - | - | - | 19 | 115 | H |
| * 4.968 | 50.31 | PK-U | 34.1 | -31.8 | 0 | 52.61 | - | - | 74 | -21.39 | - | - | 279 | 113 | V |
| * 4.968 | 42.14 | ADR | 34.1 | -31.8 | 0 | 44.44 | 54 | -9.56 | - | - | - | - | 279 | 113 | V |
| 7.093 | 46.71 | PK-U | 35.7 | -29.8 | 0 | 52.61 | - | - | - | - | 68.2 | -15.59 | 231 | 102 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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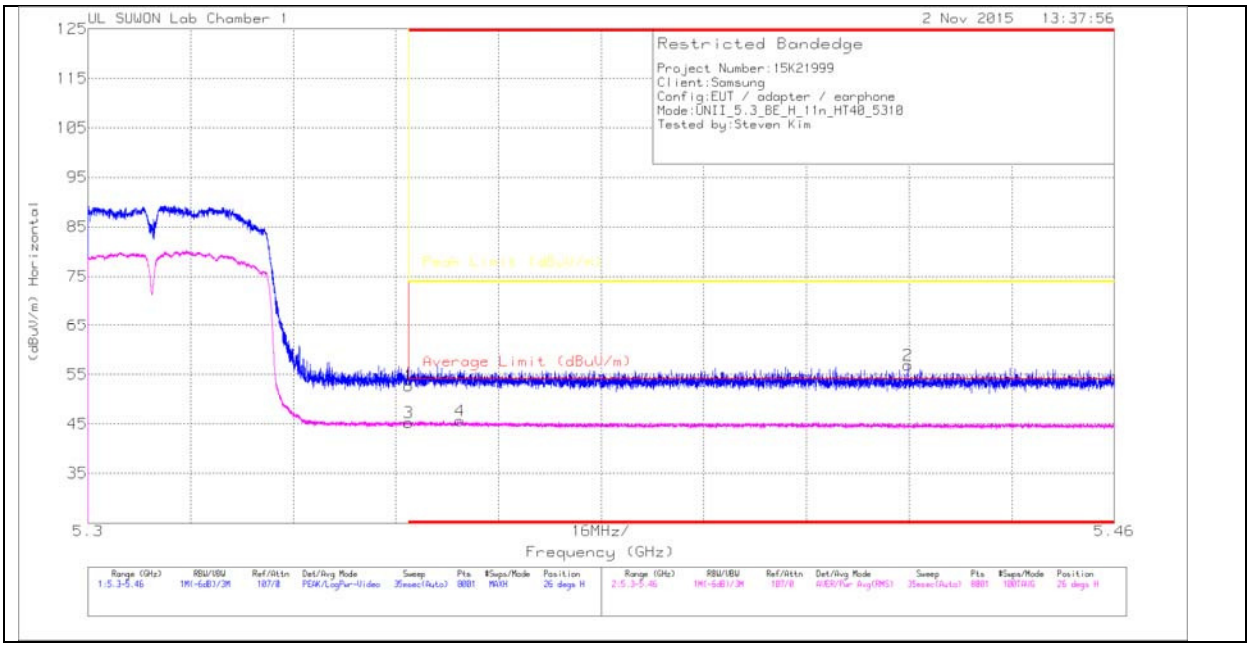
## 11.2.3. TX ABOVE 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.3GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 41.06 | Pk | 34.5 | -22.9 | 0 | 52.66 | - | - | 74 | -21.34 | 26 | 288 | H |
| 2 | * 5.428 | 44.98 | Pk | 34.6 | -22.7 | 0 | 56.88 | - | - | 74 | -17.12 | 26 | 288 | H |
| 3 | * 5.35 | 32.99 | RMS | 34.5 | -22.9 | .63 | 45.22 | 54 | -8.78 | - | - | 26 | 288 | H |
| 4 | * 5.358 | 33.36 | RMS | 34.5 | -22.9 | .63 | 45.59 | 54 | -8.41 | - | - | 26 | 288 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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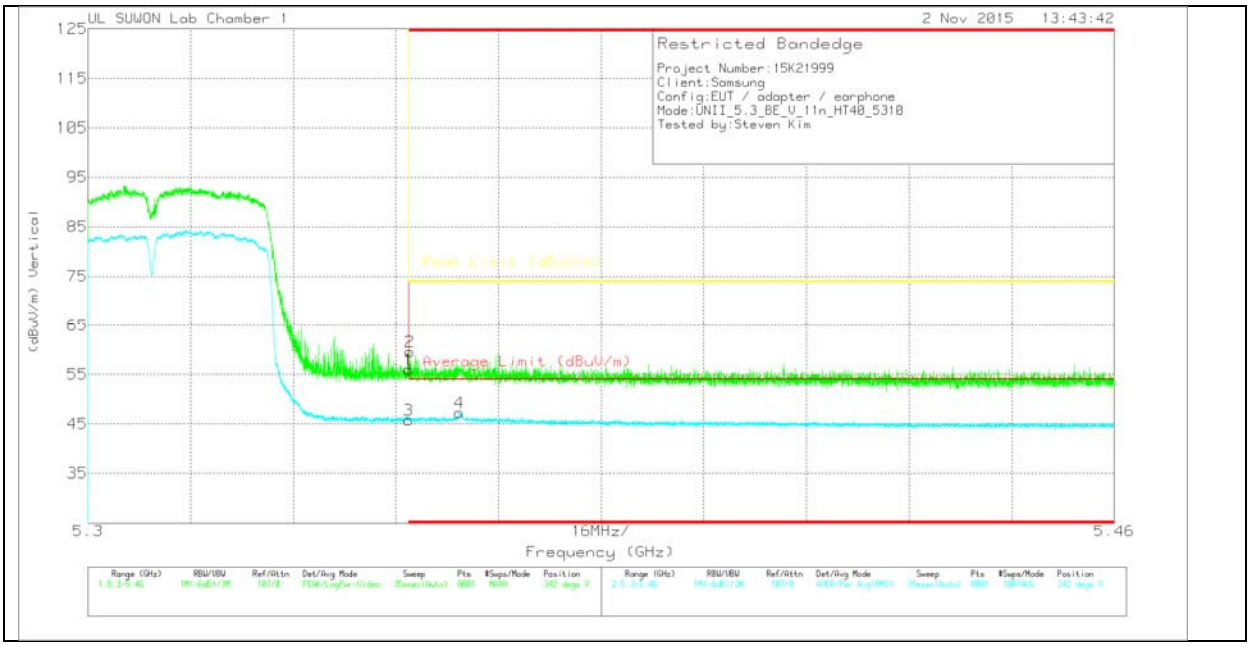
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 44.4 | Pk | 34.5 | -22.9 | 0 | 56 | - | - | 74 | -18 | 342 | 231 | V |
| 2 | * 5.35 | 47.97 | Pk | 34.5 | -22.9 | 0 | 59.57 | - | - | 74 | -14.43 | 342 | 231 | V |
| 3 | * 5.35 | 33.57 | RMS | 34.5 | -22.9 | .63 | 45.8 | 54 | -8.2 | - | - | 342 | 231 | V |
| 4 | * 5.358 | 34.98 | RMS | 34.5 | -22.9 | .63 | 47.21 | 54 | -6.79 | - | - | 342 | 231 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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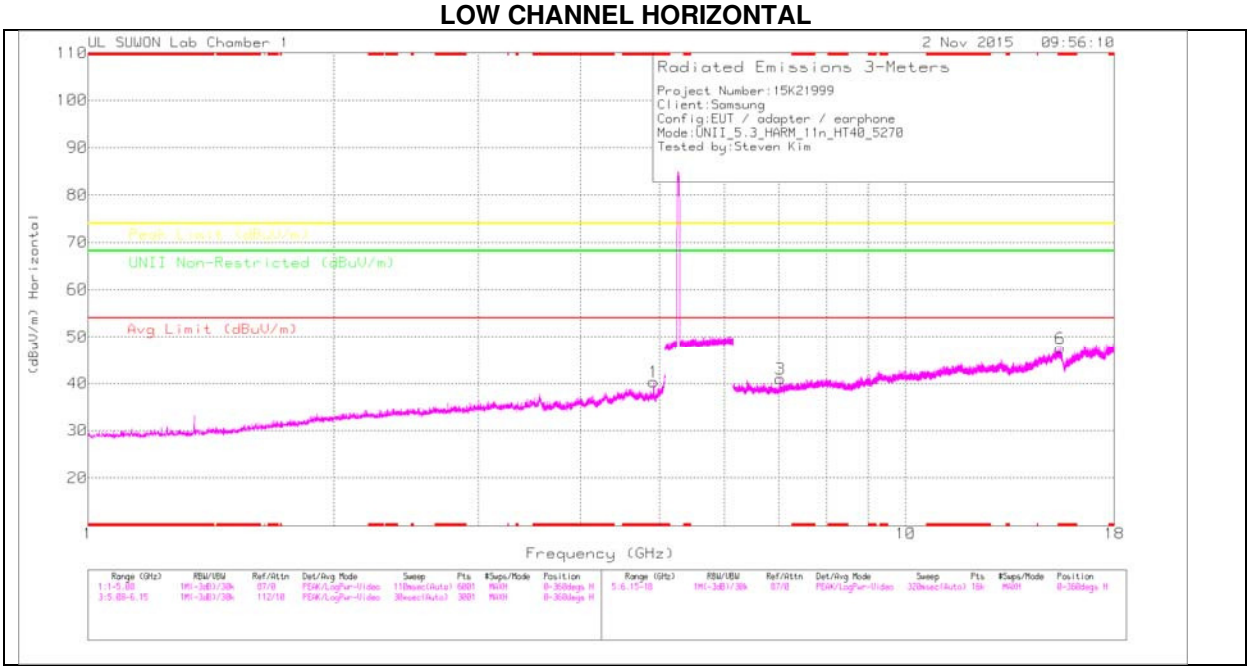
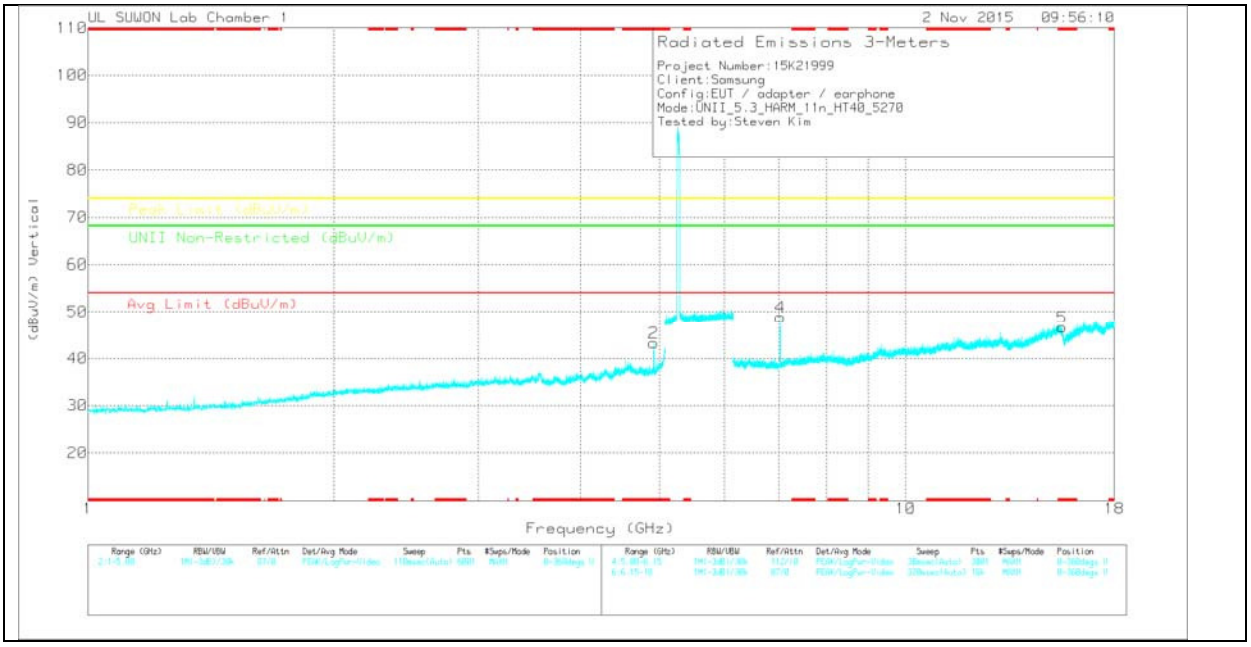
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.918 | 38.35 | PK | 34 | -32 | 0 | 40.35 | - | - | 74 | -33.65 | - | - | 0-360 | 100 | H |
| 2 | * 4.918 | 41.33 | PK | 34 | -32 | 0 | 43.33 | - | - | 74 | -30.67 | - | - | 0-360 | 200 | V |
| 3 | 7.026 | 35.17 | PK | 35.7 | -29.9 | 0 | 40.97 | - | - | - | - | 68.2 | -27.23 | 0-360 | 200 | H |
| 6 | * 15.464 | 22.7 | PK | 40.2 | -15.3 | 0 | 47.6 | - | - | 74 | -26.4 | - | - | 0-360 | 200 | H |
| 4 | 7.026 | 43.11 | PK | 35.7 | -29.9 | 0 | 48.91 | - | - | - | - | 68.2 | -19.29 | 0-360 | 100 | V |
| 5 | * 15.538 | 21.92 | PK | 40.2 | -15.5 | 0 | 46.62 | - | - | 74 | -27.38 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.918 | 47.72 | PK-U | 34 | -32 | 0 | 49.72 | - | - | 74 | -24.28 | - | - | 29 | 100 | H |
| * 4.918 | 37.93 | ADR | 34 | -32 | 0 | 39.93 | 54 | -14.07 | - | - | - | - | 29 | 100 | H |
| * 4.918 | 49.63 | PK-U | 34 | -32 | 0 | 51.63 | - | - | 74 | -22.37 | - | - | 285 | 183 | V |
| * 4.918 | 41.76 | ADR | 34 | -32 | 0 | 43.76 | 54 | -10.24 | - | - | - | - | 285 | 183 | V |
| 7.027 | 47.81 | PK-U | 35.7 | -29.9 | 0 | 53.61 | - | - | - | - | 68.2 | -14.59 | 250 | 100 | V |
| 7.026 | 44.6 | PK-U | 35.7 | -29.9 | 0 | 50.4 | - | - | - | - | 68.2 | -17.8 | 35 | 382 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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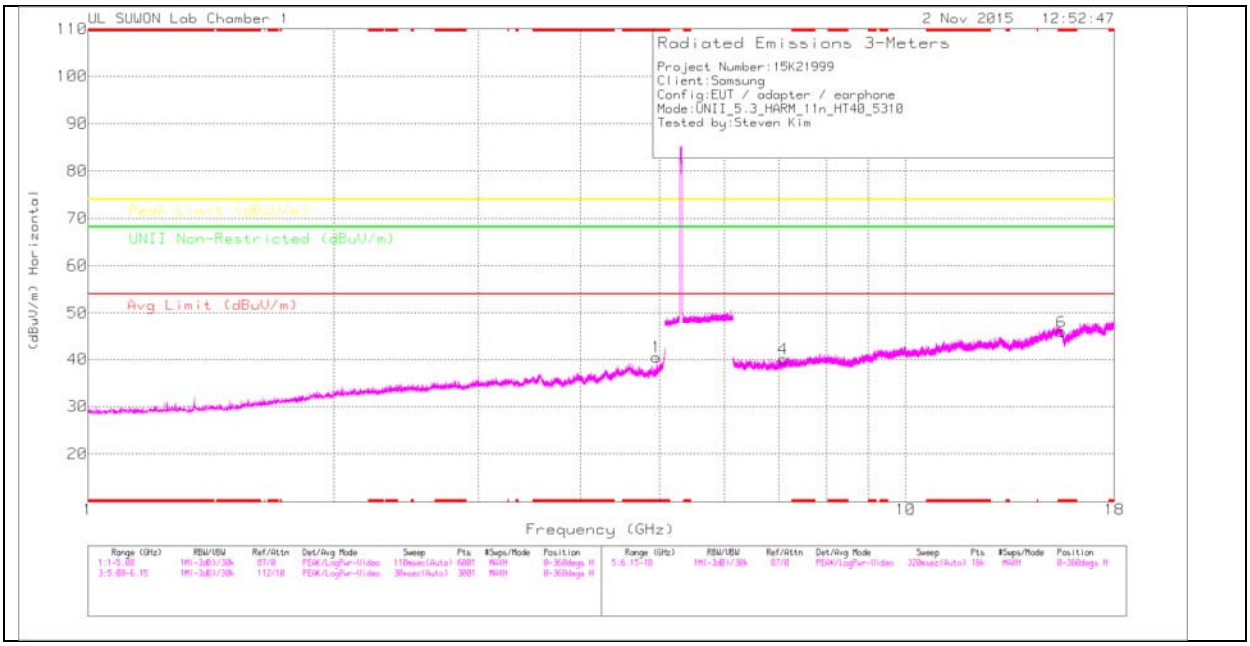
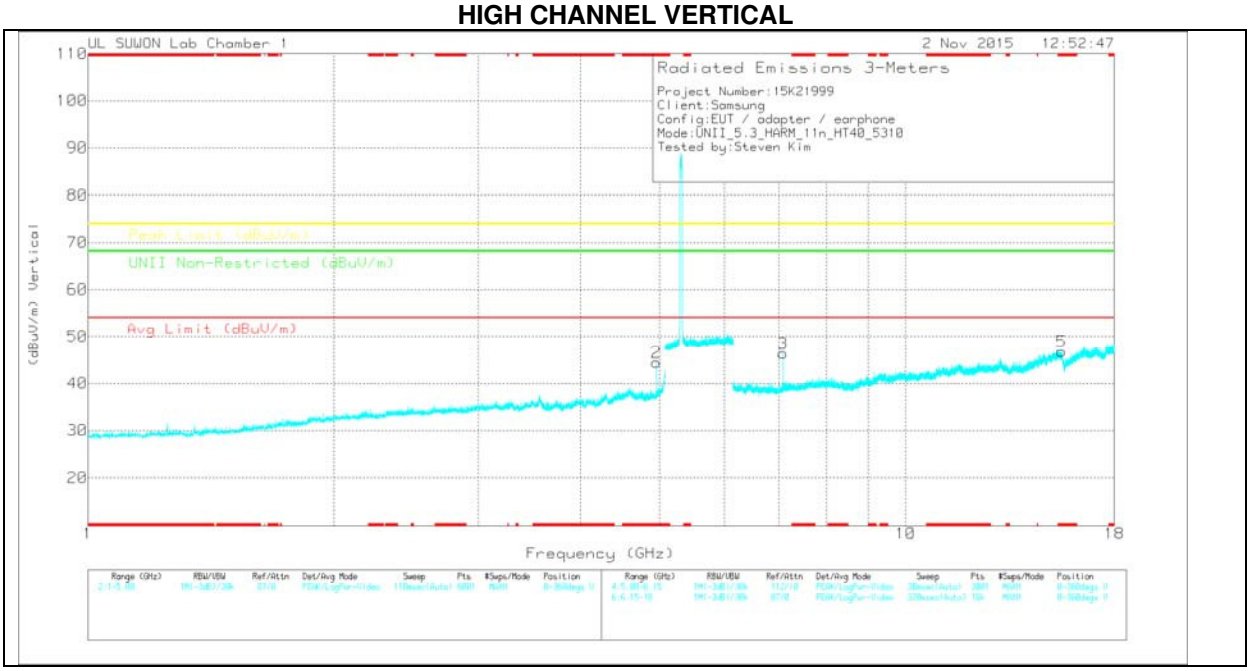
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.958 | 38.34 | PK | 34 | -31.9 | 0 | 40.44 | - | - | 74 | -33.56 | - | - | 0-360 | 100 | H |
| 2 | * 4.958 | 42.31 | PK | 34 | -31.9 | 0 | 44.41 | - | - | 74 | -29.59 | - | - | 0-360 | 200 | V |
| 4 | 7.079 | 34.22 | PK | 35.7 | -29.8 | 0 | 40.12 | - | - | - | - | 68.2 | -28.08 | 0-360 | 200 | H |
| 6 | * 15.509 | 21.73 | PK | 40.2 | -16 | 0 | 45.93 | - | - | 74 | -28.07 | - | - | 0-360 | 200 | H |
| 3 | 7.079 | 40.47 | PK | 35.7 | -29.8 | 0 | 46.37 | - | - | - | - | 68.2 | -21.83 | 0-360 | 100 | V |
| 5 | * 15.521 | 22.45 | PK | 40.2 | -15.8 | 0 | 46.85 | - | - | 74 | -27.15 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.958 | 48.57 | PK-U | 34 | -31.9 | 0 | 50.67 | - | - | 74 | -23.33 | - | - | 20 | 100 | H |
| * 4.958 | 37.99 | ADR | 34 | -31.9 | 0 | 40.09 | 54 | -13.91 | - | - | - | - | 20 | 100 | H |
| * 4.958 | 50.37 | PK-U | 34 | -31.9 | 0 | 52.47 | - | - | 74 | -21.53 | - | - | 282 | 181 | V |
| * 4.958 | 42.39 | ADR | 34 | -31.9 | 0 | 44.49 | 54 | -9.51 | - | - | - | - | 282 | 181 | V |
| 7.08 | 47.01 | PK-U | 35.7 | -29.8 | 0 | 52.91 | - | - | - | - | 68.2 | -15.29 | 250 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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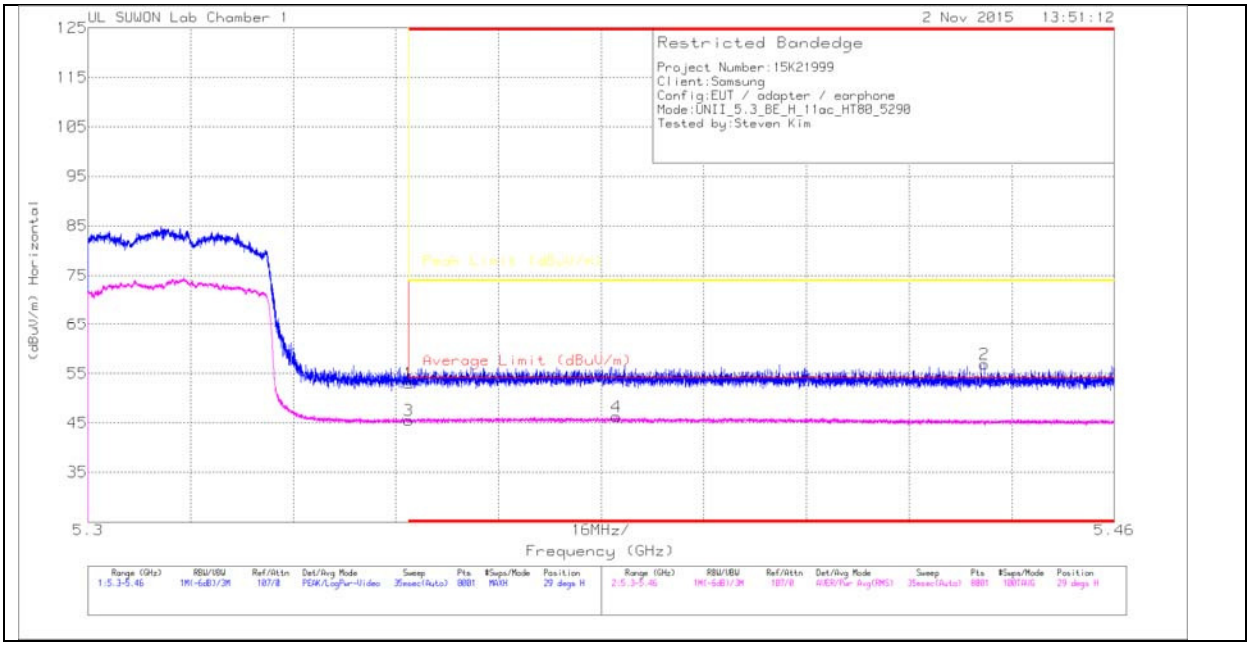
## 11.2.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.3GHz BAND RESTRICTED BANDEDGE (High CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 41.41 | Pk | 34.5 | -22.9 | 0 | 53.01 | - | - | 74 | -20.99 | 29 | 314 | H |
| 2 | * 5.44 | 44.85 | Pk | 34.6 | -22.6 | 0 | 56.85 | - | - | 74 | -17.15 | 29 | 314 | H |
| 3 | * 5.35 | 32.66 | RMS | 34.5 | -22.9 | 1.2 | 45.46 | 54 | -8.54 | - | - | 29 | 314 | H |
| 4 | * 5.382 | 33.29 | RMS | 34.5 | -22.8 | 1.2 | 46.19 | 54 | -7.81 | - | - | 29 | 314 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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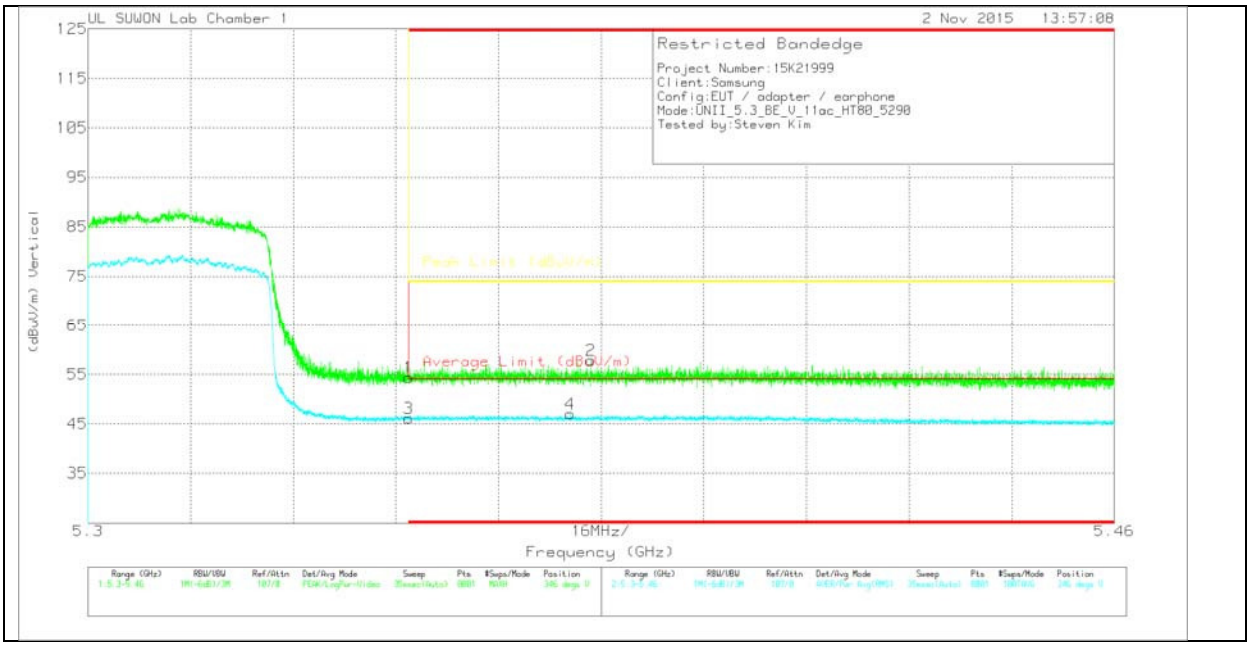
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.35 | 42.86 | Pk | 34.5 | -22.9 | 0 | 54.46 | - | - | 74 | -19.54 | 346 | 281 | V |
| 2 | * 5.378 | 46.17 | Pk | 34.5 | -22.8 | 0 | 57.87 | - | - | 74 | -16.13 | 346 | 281 | V |
| 3 | * 5.35 | 33.34 | RMS | 34.5 | -22.9 | 1.2 | 46.14 | 54 | -7.86 | - | - | 346 | 281 | V |
| 4 | * 5.375 | 34.05 | RMS | 34.5 | -22.8 | 1.2 | 46.95 | 54 | -7.05 | - | - | 346 | 281 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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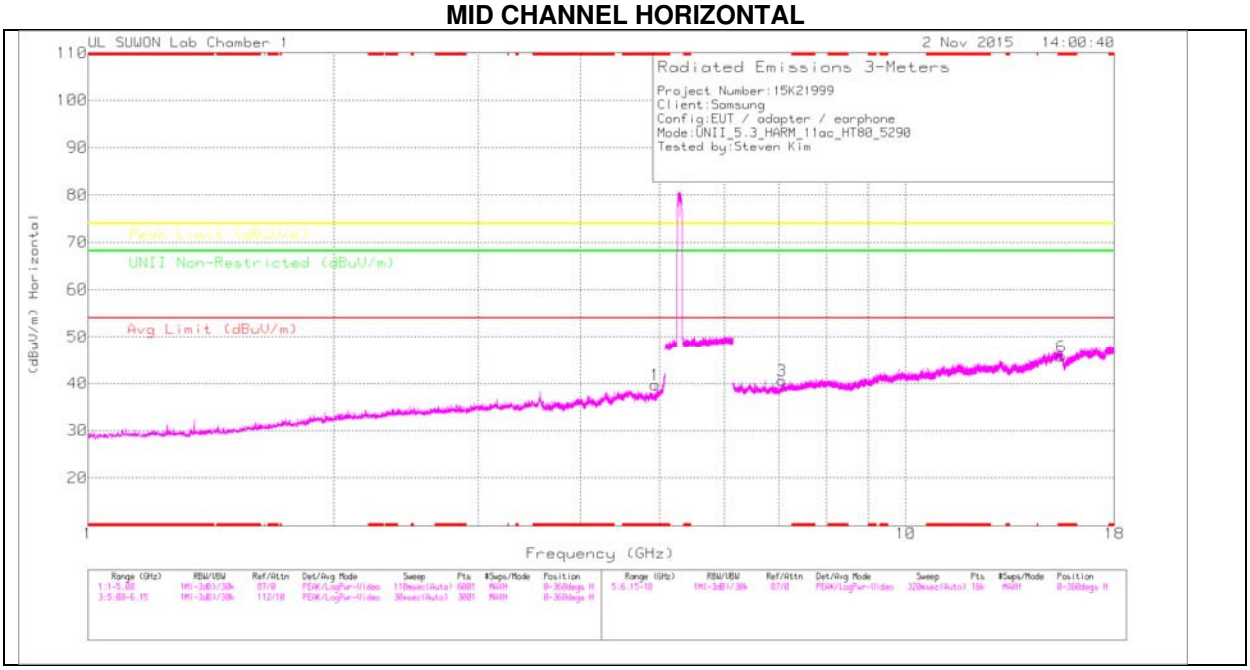
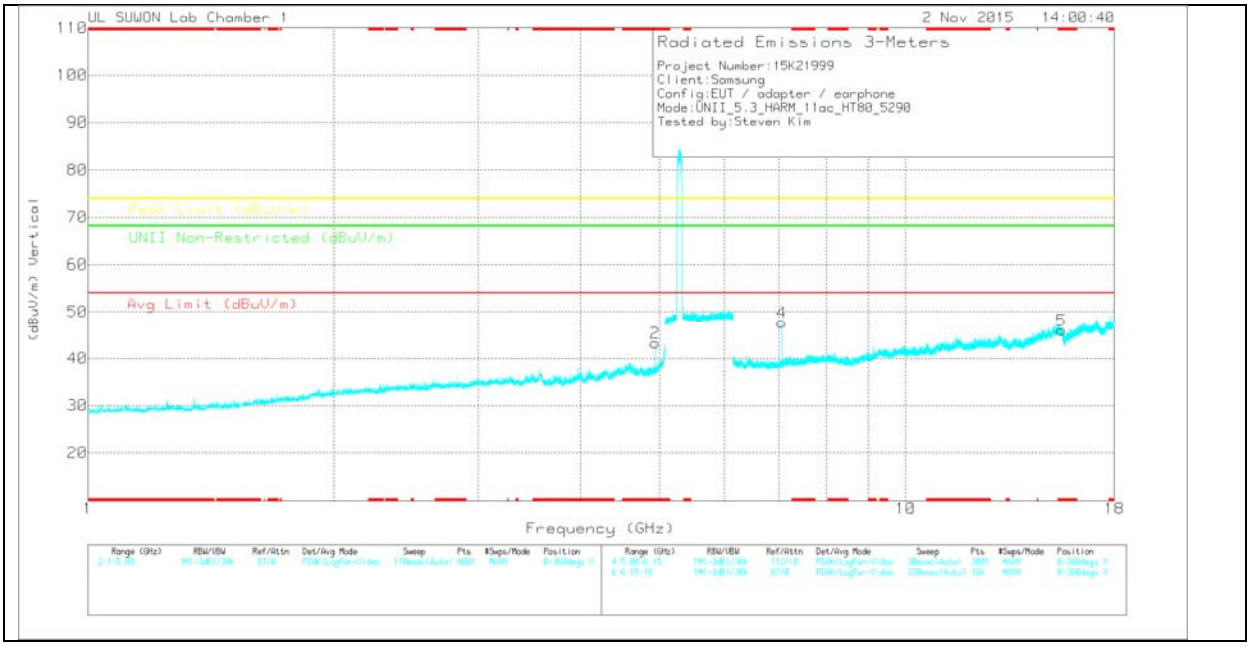
# HARMONICS AND SPURIOUS EMISSIONS

## MID CHANNEL HORIZONTAL




## MID CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.938 | 37.69 | PK | 34 | -32 | 0 | 39.69 | - | - | 74 | -34.31 | - | - | 0-360 | 100 | H |
| 2 | * 4.939 | 41.28 | PK | 34 | -32 | 0 | 43.28 | - | - | 74 | -30.72 | - | - | 0-360 | 100 | V |
| 3 | 7.053 | 34.73 | PK | 35.7 | -29.9 | 0 | 40.53 | - | - | - | - | 68.2 | -27.67 | 0-360 | 200 | H |
| 6 | * 15.505 | 21.62 | PK | 40.2 | -16.1 | 0 | 45.72 | - | - | 74 | -28.28 | - | - | 0-360 | 100 | H |
| 4 | 7.053 | 41.86 | PK | 35.7 | -29.9 | 0 | 47.66 | - | - | - | - | 68.2 | -20.54 | 0-360 | 100 | V |
| 5 | * 15.506 | 21.93 | PK | 40.2 | -16.1 | 0 | 46.03 | - | - | 74 | -27.97 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.938 | 47.69 | PK-U | 34 | -32 | 0 | 49.69 | - | - | 74 | -24.31 | - | - | 32 | 111 | H |
| * 4.938 | 36.36 | ADR | 34 | -32 | 0 | 38.36 | 54 | -15.64 | - | - | - | - | 32 | 111 | H |
| * 4.938 | 49.54 | PK-U | 34 | -32 | 0 | 51.54 | - | - | 74 | -22.46 | - | - | 286 | 180 | V |
| * 4.938 | 39.53 | ADR | 34 | -32 | 0 | 41.53 | 54 | -12.47 | - | - | - | - | 286 | 180 | V |
| 7.053 | 47.25 | PK-U | 35.7 | -29.9 | 0 | 53.05 | - | - | - | - | 68.2 | -15.15 | 253 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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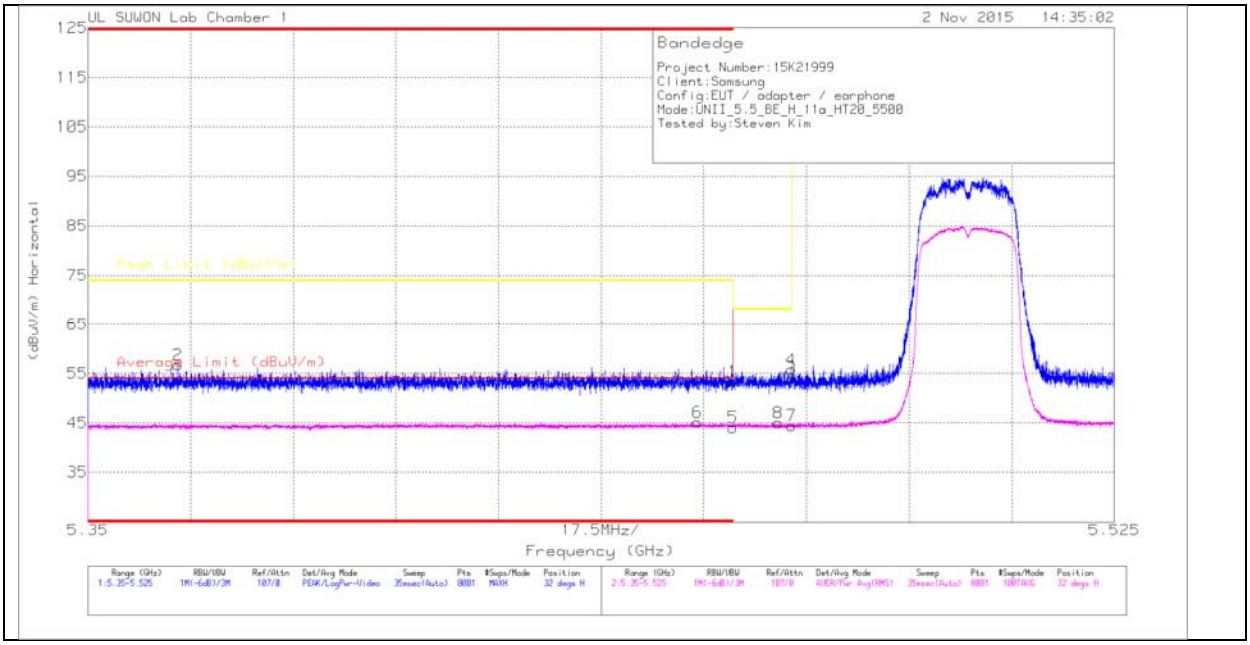
## 11.3. 5.5-5.6 GHz

### 11.3.1. TX ABOVE 1 GHz 802.11a 2TX CDD MODE IN THE 5.5 GHz BAND

### RESTRICTED BANDEDGE (LOW CHANNEL)

**HORIZONTAL PEAK AND AVERAGE PLOT**




**HORIZONTAL DATA**

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.46 | 41.45 | Pk | 34.6 | -22.6 | 0 | 53.45 | - | - | 74 | -20.55 | 32 | 201 | H |
| 2 | * 5.365 | 45.02 | Pk | 34.5 | -22.8 | 0 | 56.72 | - | - | 74 | -17.28 | 32 | 201 | H |
| 3 | 5.47 | 42.04 | Pk | 34.6 | -22.6 | 0 | 54.04 | - | - | 68.2 | -14.16 | 32 | 201 | H |
| 4 | 5.47 | 43.82 | Pk | 34.6 | -22.6 | 0 | 55.82 | - | - | 68.2 | -12.38 | 32 | 201 | H |
| 5 | * 5.46 | 31.77 | RMS | 34.6 | -22.6 | .31 | 44.08 | 54 | -9.92 | - | - | 32 | 201 | H |
| 6 | * 5.454 | 32.78 | RMS | 34.6 | -22.6 | .31 | 45.09 | 54 | -8.91 | - | - | 32 | 201 | H |
| 7 | 5.47 | 32.14 | RMS | 34.6 | -22.6 | .31 | 44.45 | - | - | - | - | 32 | 201 | H |
| 8 | 5.468 | 32.75 | RMS | 34.6 | -22.6 | .31 | 45.06 | - | - | - | - | 32 | 201 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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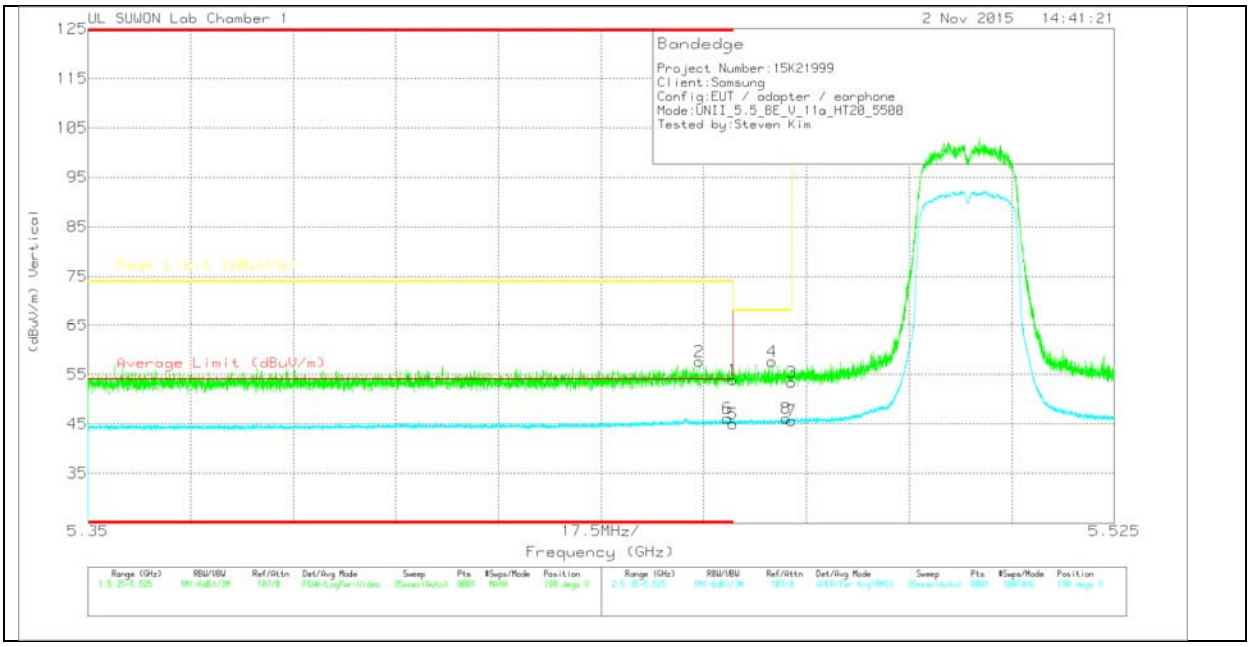
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.46 | 41.93 | Pk | 34.6 | -22.6 | 0 | 53.93 | - | - | 74 | -20.07 | 198 | 103 | V |
| 2 | * 5.454 | 45.6 | Pk | 34.6 | -22.6 | 0 | 57.6 | - | - | 74 | -16.4 | 198 | 103 | V |
| 3 | 5.47 | 41.46 | Pk | 34.6 | -22.6 | 0 | 53.46 | - | - | 68.2 | -14.74 | 198 | 103 | V |
| 4 | 5.467 | 45.59 | Pk | 34.6 | -22.6 | 0 | 57.59 | - | - | 68.2 | -10.61 | 198 | 103 | V |
| 5 | * 5.46 | 32.74 | RMS | 34.6 | -22.6 | .31 | 45.05 | 54 | -8.95 | - | - | 198 | 103 | V |
| 6 | * 5.459 | 33.77 | RMS | 34.6 | -22.6 | .31 | 46.08 | 54 | -7.92 | - | - | 198 | 103 | V |
| 7 | 5.47 | 33.34 | RMS | 34.6 | -22.6 | .31 | 45.65 | - | - | - | - | 198 | 103 | V |
| 8 | 5.469 | 33.79 | RMS | 34.6 | -22.6 | .31 | 46.1 | - | - | - | - | 198 | 103 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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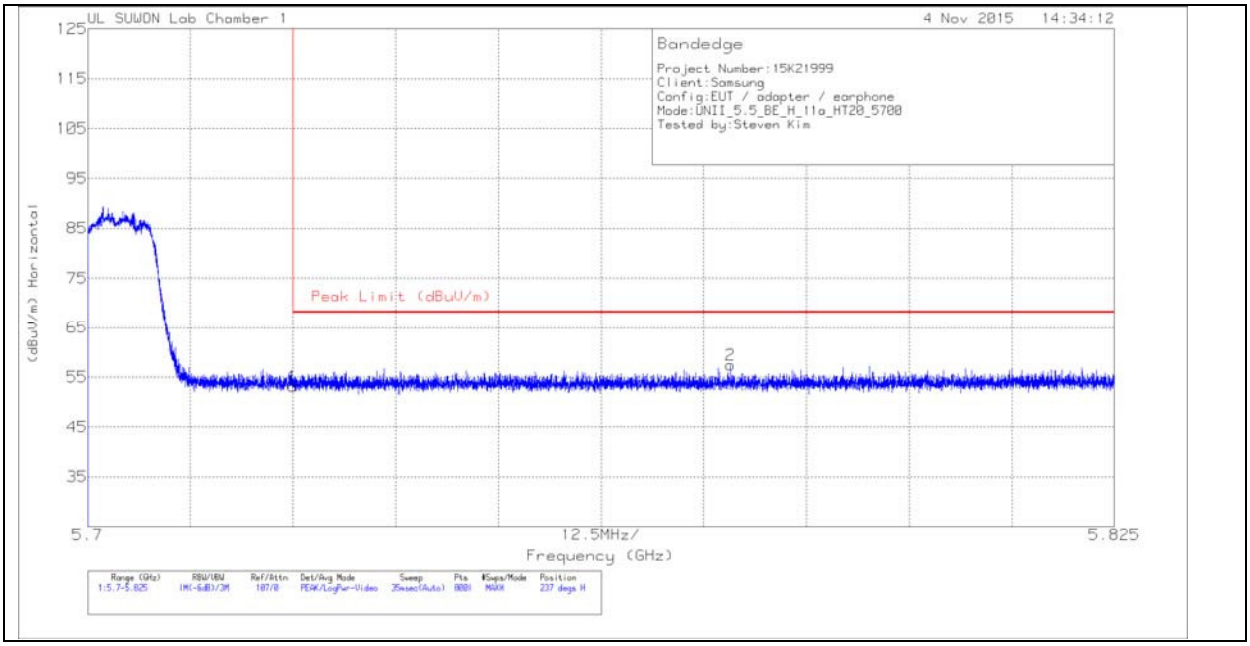
# AUTHORIZED BANDEDGE (HIGH CHANNEL)

## HORIZONTAL PEAK AND AVERAGE PLOT




## HORIZONTAL DATA

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 40.62 | Pk | 34.8 | -22.3 | 0 | 53.12 | 68.2 | -15.08 | 237 | 257 | H |
| 2 | 5.778 | 44.81 | Pk | 34.8 | -22.2 | 0 | 57.41 | 68.2 | -10.79 | 237 | 257 | H |

Pk - Peak detector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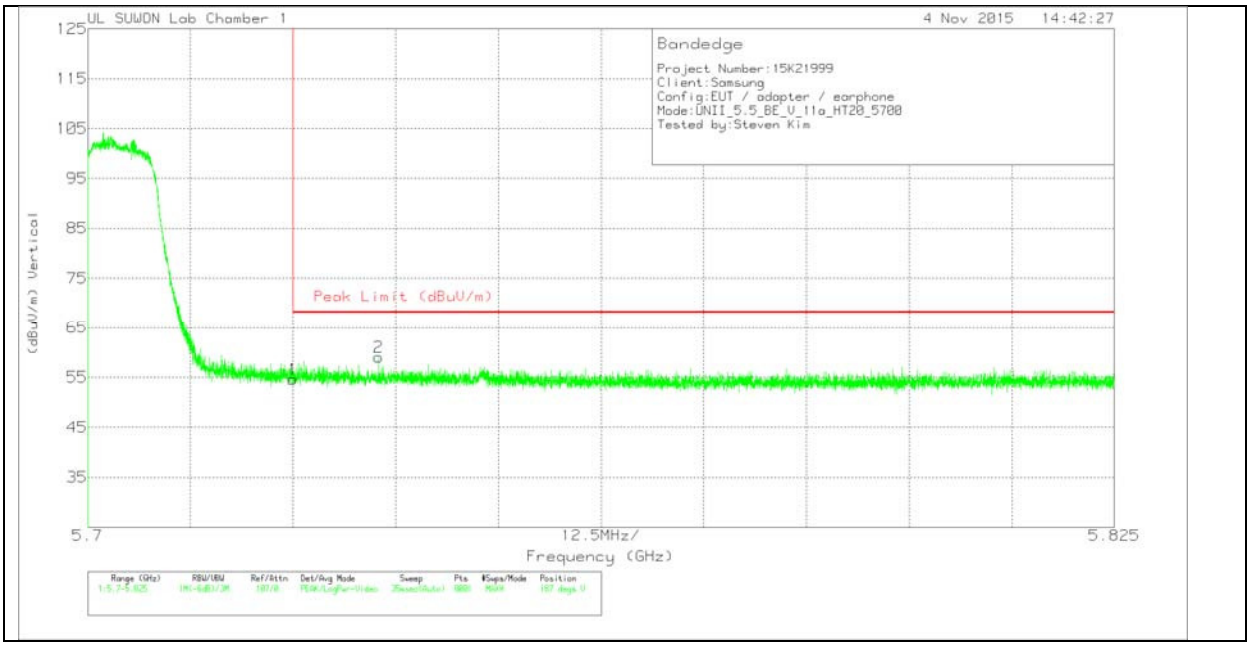
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 42.17 | Pk | 34.8 | -22.3 | 0 | 54.67 | 68.2 | -13.53 | 187 | 104 | V |
| 2 | 5.735 | 46.52 | Pk | 34.8 | -22.3 | 0 | 59.02 | 68.2 | -9.18 | 187 | 104 | V |

Pk - Peak detector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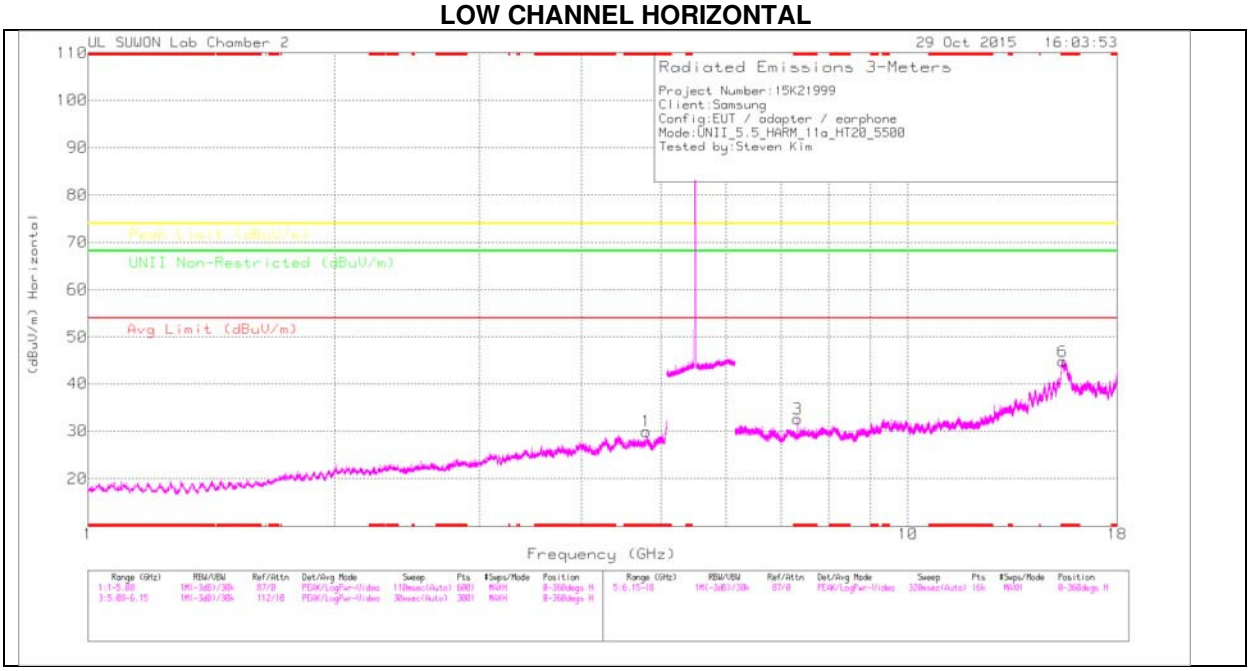
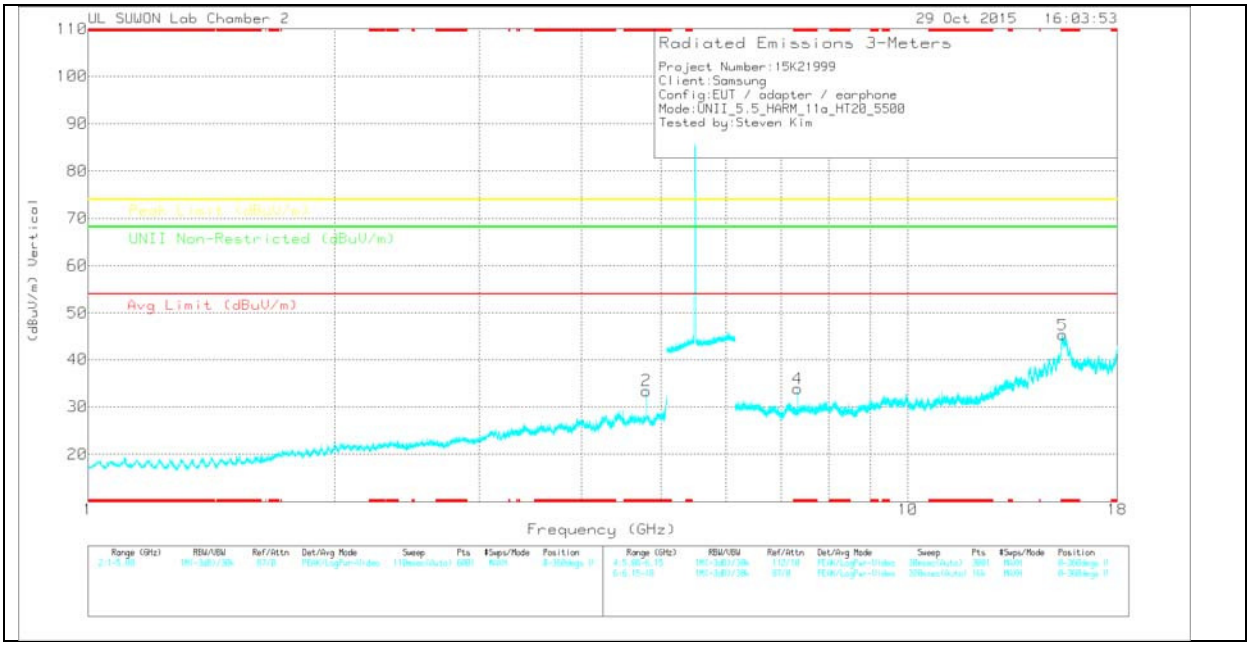
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.796 | 28.22 | PK | 34 | -32.3 | 0 | 29.92 | - | - | 74 | -44.08 | - | - | 0-360 | 100 | H |
| 2 | * 4.796 | 31.71 | PK | 34 | -32.3 | 0 | 33.41 | - | - | 74 | -40.59 | - | - | 0-360 | 200 | V |
| 3 | * 7.333 | 26.56 | PK | 35.8 | -29.8 | 0 | 32.56 | - | - | 74 | -41.44 | - | - | 0-360 | 100 | H |
| 6 | * 15.432 | 19.62 | PK | 40.2 | -15.1 | 0 | 44.72 | - | - | 74 | -29.28 | - | - | 0-360 | 100 | H |
| 4 | * 7.333 | 27.85 | PK | 35.8 | -29.8 | 0 | 33.85 | - | - | 74 | -40.15 | - | - | 0-360 | 99 | V |
| 5 | * 15.441 | 20.1 | PK | 40.2 | -15 | 0 | 45.3 | - | - | 74 | -28.7 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.796 | 37.45 | PK-U | 34 | -32.3 | 0 | 39.15 | - | - | 74 | -34.85 | - | - | 203 | 235 | H |
| * 4.796 | 25.86 | ADR | 34 | -32.3 | 0 | 27.56 | 54 | -26.44 | - | - | - | - | 203 | 235 | H |
| * 4.796 | 40.83 | PK-U | 34 | -32.3 | 0 | 42.53 | - | - | 74 | -31.47 | - | - | 265 | 238 | V |
| * 4.796 | 32.12 | ADR | 34 | -32.3 | 0 | 33.82 | 54 | -20.18 | - | - | - | - | 265 | 238 | V |
| * 7.333 | 27.39 | ADR | 35.8 | -29.8 | 0 | 33.39 | 54 | -20.61 | - | - | - | - | 248 | 163 | V |
| * 7.333 | 25.7 | ADR | 35.8 | -29.8 | 0 | 31.7 | 54 | -22.3 | - | - | - | - | 33 | 205 | H |
| * 7.333 | 35.79 | PK-U | 35.8 | -29.8 | 0 | 41.79 | - | - | 74 | -32.21 | - | - | 248 | 163 | V |
| * 7.333 | 35.18 | PK-U | 35.8 | -29.8 | 0 | 41.18 | - | - | 74 | -32.82 | - | - | 33 | 205 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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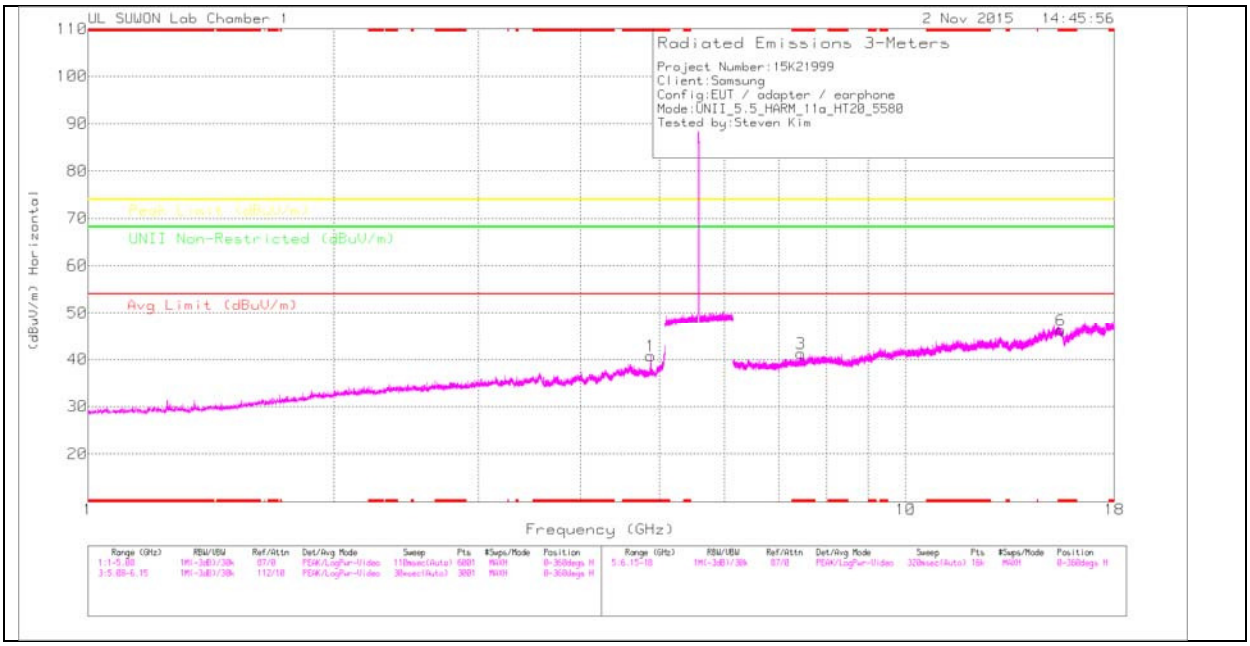
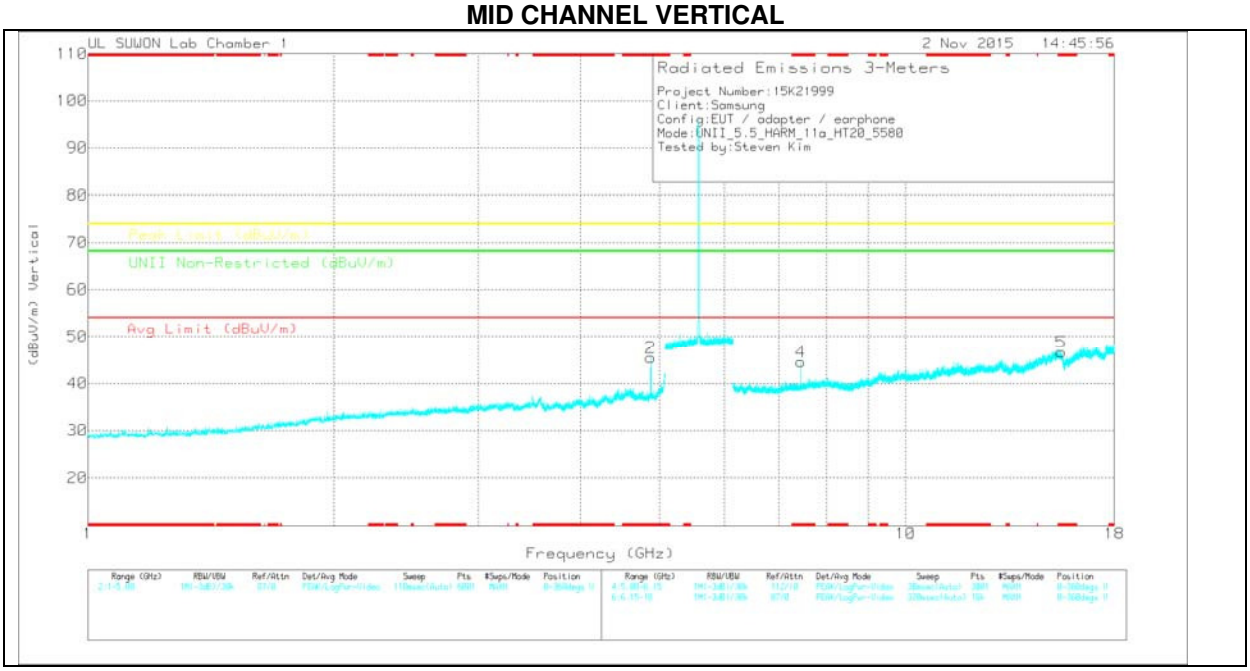
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.876 | 38.95 | PK | 34 | -32.2 | 0 | 40.75 | - | - | 74 | -33.25 | - | - | 0-360 | 100 | H |
| 2 | * 4.876 | 43.68 | PK | 34 | -32.2 | 0 | 45.48 | - | - | 74 | -28.52 | - | - | 0-360 | 100 | V |
| 3 | * 7.439 | 35.29 | PK | 35.8 | -29.9 | 0 | 41.19 | - | - | 74 | -32.81 | - | - | 0-360 | 200 | H |
| 6 | * 15.481 | 21.72 | PK | 40.2 | -15.7 | 0 | 46.22 | - | - | 74 | -27.78 | - | - | 0-360 | 200 | H |
| 4 | * 7.439 | 38.73 | PK | 35.8 | -29.9 | 0 | 44.63 | - | - | 74 | -29.37 | - | - | 0-360 | 100 | V |
| 5 | * 15.496 | 22.61 | PK | 40.2 | -16.1 | 0 | 46.71 | - | - | 74 | -27.29 | - | - | 0-360 | 200 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.876 | 48.26 | PK-U | 34 | -32.2 | 0 | 50.06 | - | - | 74 | -23.94 | - | - | 160 | 102 | H |
| * 4.876 | 38.42 | ADR | 34 | -32.2 | 0 | 40.22 | 54 | -13.78 | - | - | - | - | 160 | 102 | H |
| * 4.876 | 51.53 | PK-U | 34 | -32.2 | 0 | 53.33 | - | - | 74 | -20.67 | - | - | 281 | 182 | V |
| * 4.876 | 43.59 | ADR | 34 | -32.2 | 0 | 45.39 | 54 | -8.61 | - | - | - | - | 281 | 182 | V |
| * 7.44 | 37.47 | ADR | 35.8 | -29.9 | 0 | 43.37 | 54 | -10.63 | - | - | - | - | 224 | 100 | V |
| * 7.44 | 46.16 | PK-U | 35.8 | -29.9 | 0 | 52.06 | - | - | 74 | -21.94 | - | - | 224 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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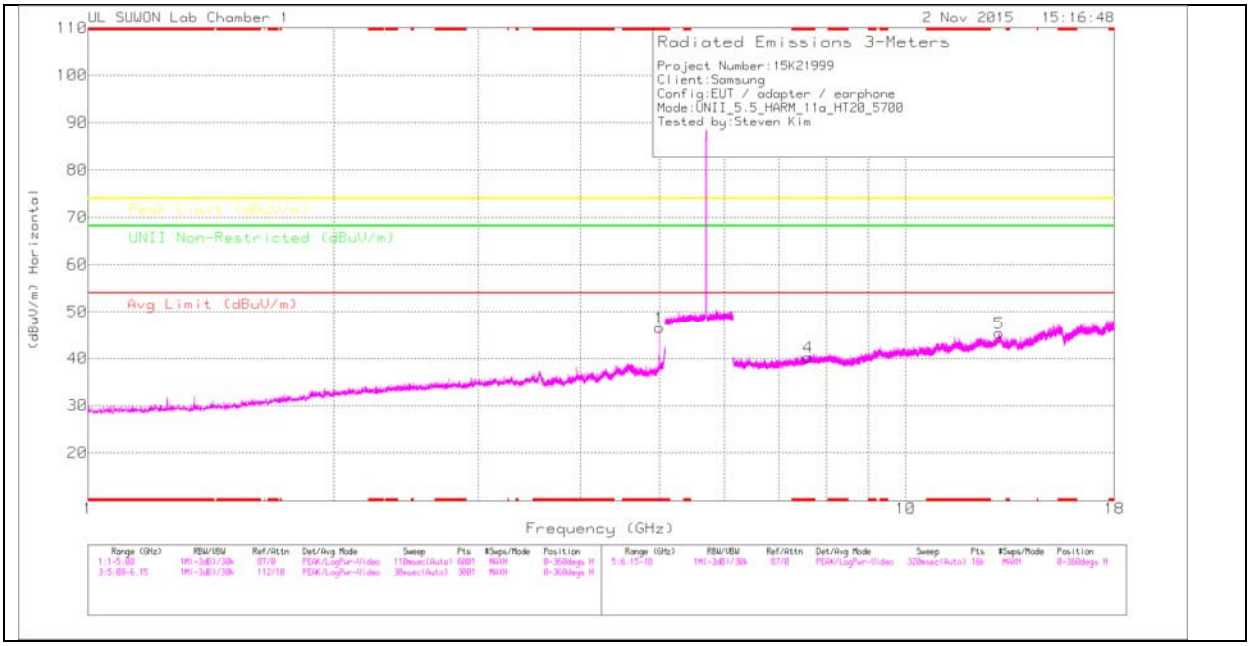
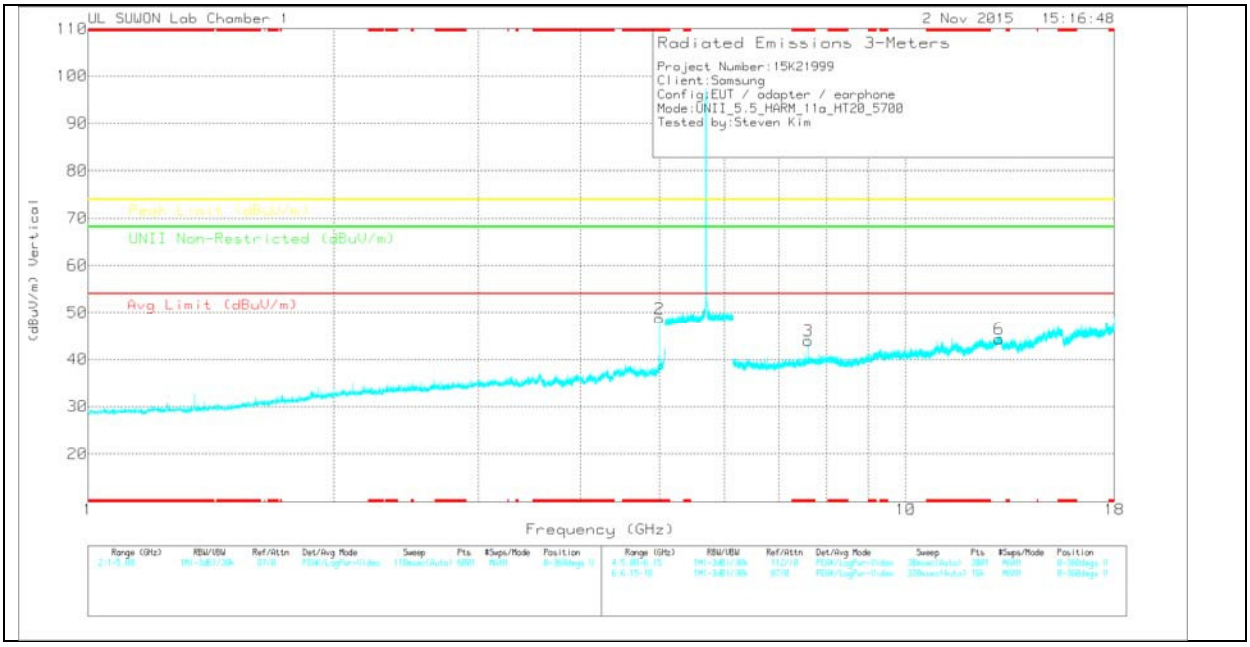
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.996 | 43.78 | PK | 34.1 | -31.4 | 0 | 46.48 | - | - | 74 | -27.52 | - | - | 0-360 | 100 | H |
| 2 | * 4.996 | 45.99 | PK | 34.1 | -31.4 | 0 | 48.69 | - | - | 74 | -25.31 | - | - | 0-360 | 200 | V |
| 4 | * 7.602 | 33.91 | PK | 35.9 | -29.6 | 0 | 40.21 | - | - | 74 | -33.79 | - | - | 0-360 | 200 | H |
| 5 | 13.015 | 31.32 | PK | 39 | -25 | 0 | 45.32 | - | - | - | - | 68.2 | -22.88 | 0-360 | 100 | H |
| 3 | * 7.599 | 37.6 | PK | 35.9 | -29.6 | 0 | 43.9 | - | - | 74 | -30.1 | - | - | 0-360 | 100 | V |
| 6 | 13.02 | 30.26 | PK | 39 | -24.9 | 0 | 44.36 | - | - | - | - | 68.2 | -23.84 | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.996 | 50.95 | PK-U | 34.1 | -31.4 | 0 | 53.65 | - | - | 74 | -20.35 | - | - | 159 | 100 | H |
| * 4.996 | 42.92 | ADR | 34.1 | -31.4 | 0 | 45.62 | 54 | -8.38 | - | - | - | - | 159 | 100 | H |
| * 4.996 | 52.43 | PK-U | 34.1 | -31.4 | 0 | 55.13 | - | - | 74 | -18.87 | - | - | 279 | 181 | V |
| * 4.996 | 45.94 | ADR | 34.1 | -31.4 | 0 | 48.64 | 54 | -5.36 | - | - | - | - | 279 | 181 | V |
| * 7.6 | 36.76 | ADR | 35.9 | -29.6 | 0 | 43.06 | 54 | -10.94 | - | - | - | - | 202 | 103 | V |
| * 7.6 | 46.76 | PK-U | 35.9 | -29.6 | 0 | 53.06 | - | - | 74 | -20.94 | - | - | 202 | 103 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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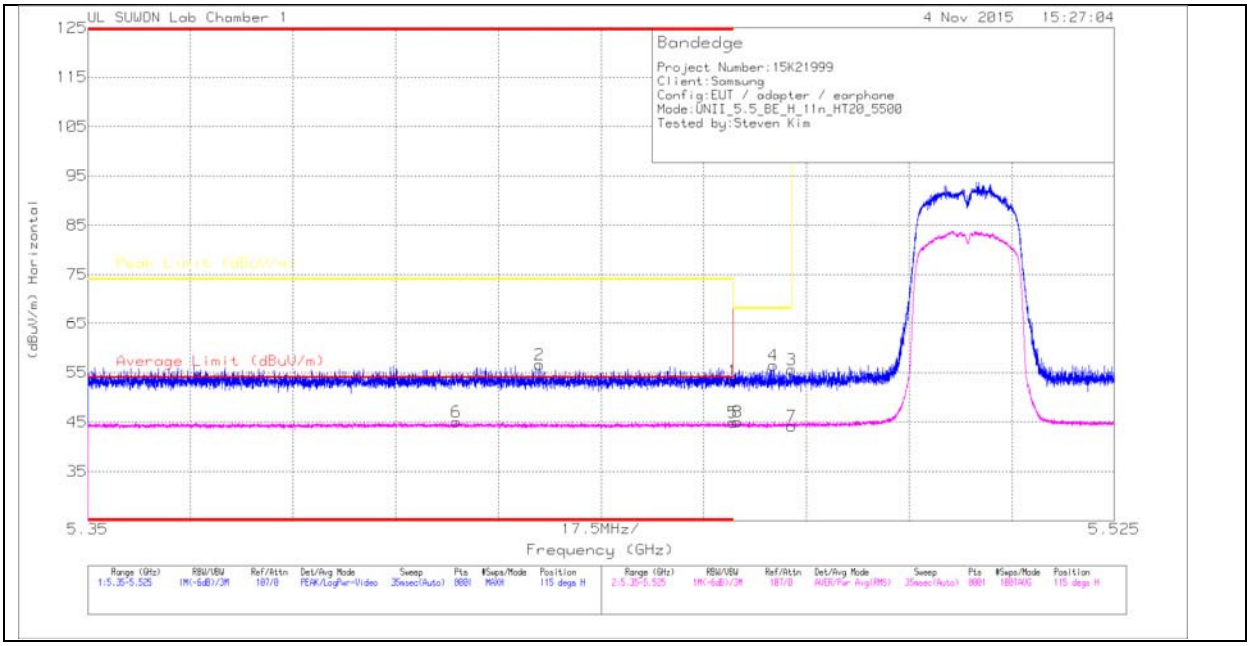
## 11.3.2. TX ABOVE 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.5GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.46 | 41.39 | Pk | 34.6 | -22.6 | 0 | 53.39 | - | - | 74 | -20.61 | 115 | 349 | H |
| 2 | * 5.427 | 44.73 | Pk | 34.6 | -22.7 | 0 | 56.63 | - | - | 74 | -17.37 | 115 | 349 | H |
| 3 | 5.47 | 43.56 | Pk | 34.6 | -22.6 | 0 | 55.56 | - | - | 68.2 | -12.64 | 115 | 349 | H |
| 4 | 5.467 | 44.48 | Pk | 34.6 | -22.6 | 0 | 56.48 | - | - | 68.2 | -11.72 | 115 | 349 | H |
| 5 | * 5.46 | 32.53 | RMS | 34.6 | -22.6 | .33 | 44.86 | 54 | -9.14 | - | - | 115 | 349 | H |
| 6 | * 5.413 | 32.84 | RMS | 34.6 | -22.7 | .33 | 45.07 | 54 | -8.93 | - | - | 115 | 349 | H |
| 7 | 5.47 | 31.84 | RMS | 34.6 | -22.6 | .33 | 44.17 | - | - | - | - | 115 | 349 | H |
| 8 | 5.461 | 32.71 | RMS | 34.6 | -22.6 | .33 | 45.04 | - | - | - | - | 115 | 349 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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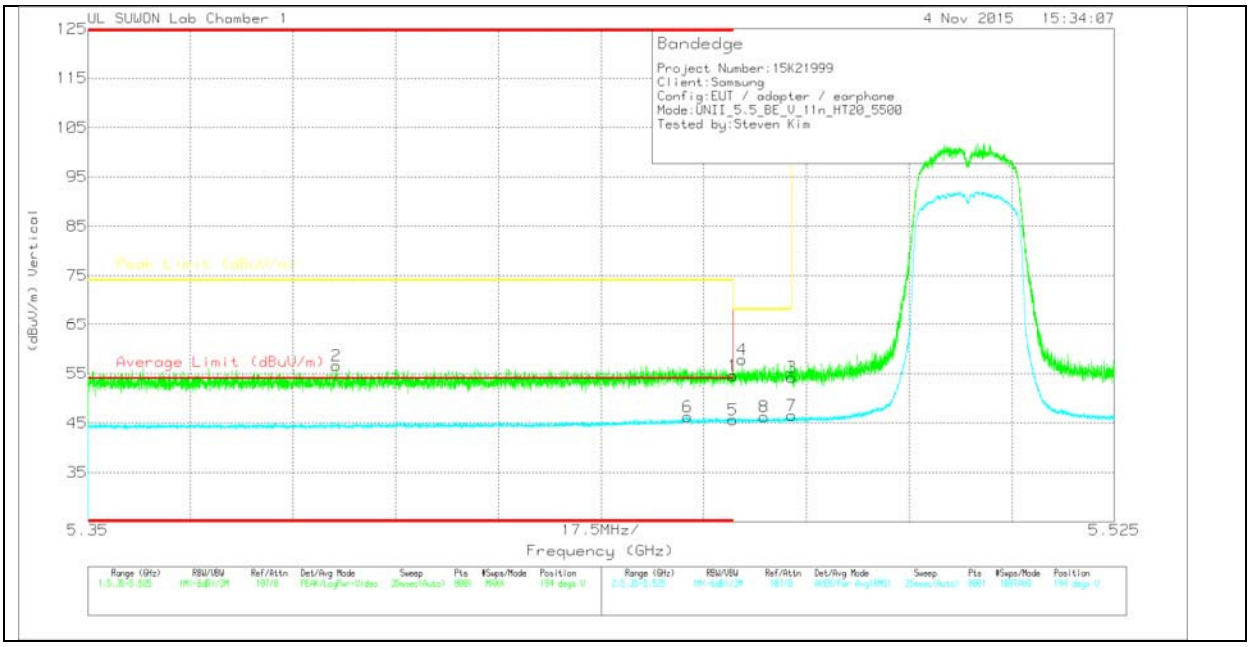
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2 | 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 | * 5.46 | 42.6 | Pk | 34.6 | -22.6 | 0 | 54.6 | - | - | 74 | -19.4 | 194 | 102 | V |
| 2 | * 5.392 | 44.85 | Pk | 34.5 | -22.8 | 0 | 56.55 | - | - | 74 | -17.45 | 194 | 102 | V |
| 3 | 5.47 | 42.25 | Pk | 34.6 | -22.6 | 0 | 54.25 | - | - | 68.2 | -13.95 | 194 | 102 | V |
| 4 | 5.462 | 45.87 | Pk | 34.6 | -22.6 | 0 | 57.87 | - | - | 68.2 | -10.33 | 194 | 102 | V |
| 5 | * 5.46 | 33.31 | RMS | 34.6 | -22.6 | .33 | 45.64 | 54 | -8.36 | - | - | 194 | 102 | V |
| 6 | * 5.452 | 33.99 | RMS | 34.6 | -22.6 | .33 | 46.32 | 54 | -7.68 | - | - | 194 | 102 | V |
| 7 | 5.47 | 34.17 | RMS | 34.6 | -22.6 | .33 | 46.5 | - | - | - | - | 194 | 102 | V |
| 8 | 5.465 | 33.95 | RMS | 34.6 | -22.6 | .33 | 46.28 | - | - | - | - | 194 | 102 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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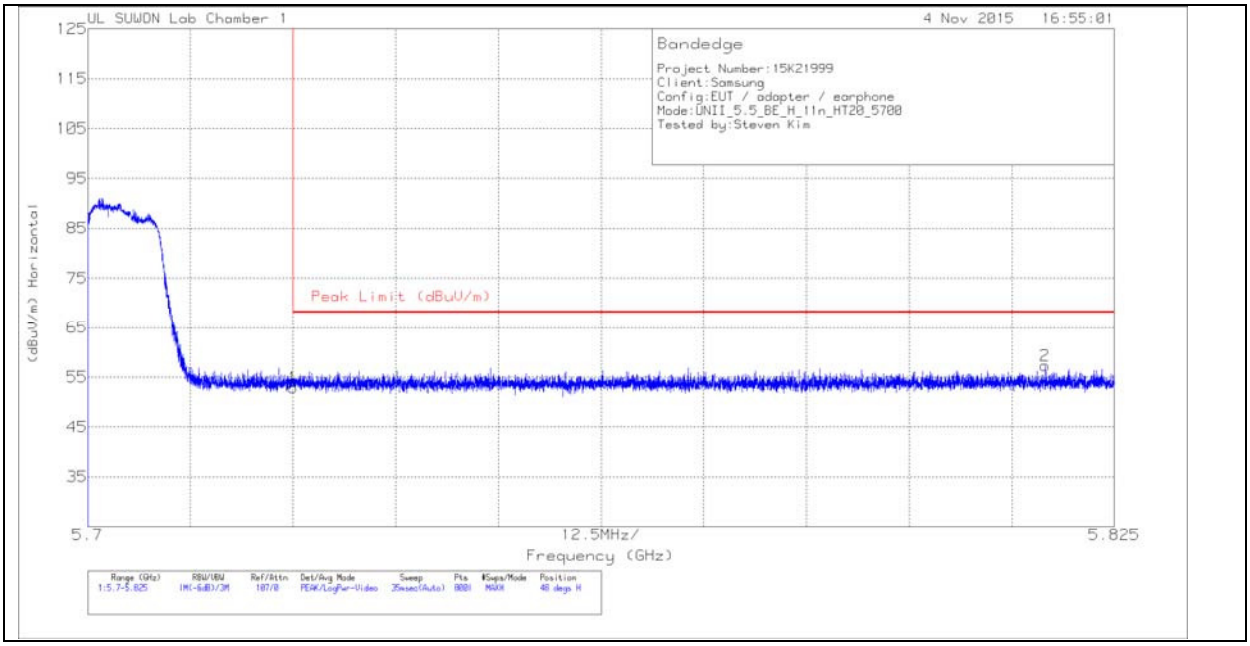
# AUTHORIZED BANDEDGE (HIGH CHANNEL)

## HORIZONTAL PEAK AND AVERAGE PLOT




## HORIZONTAL DATA

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0016 8717)_150 619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 40.38 | Pk | 34.8 | -22.3 | 0 | 52.88 | 68.2 | -15.32 | 48 | 164 | H |
| 2 | 5.817 | 44.55 | Pk | 34.8 | -22 | 0 | 57.35 | 68.2 | -10.85 | 48 | 164 | H |

Pk - Peak detector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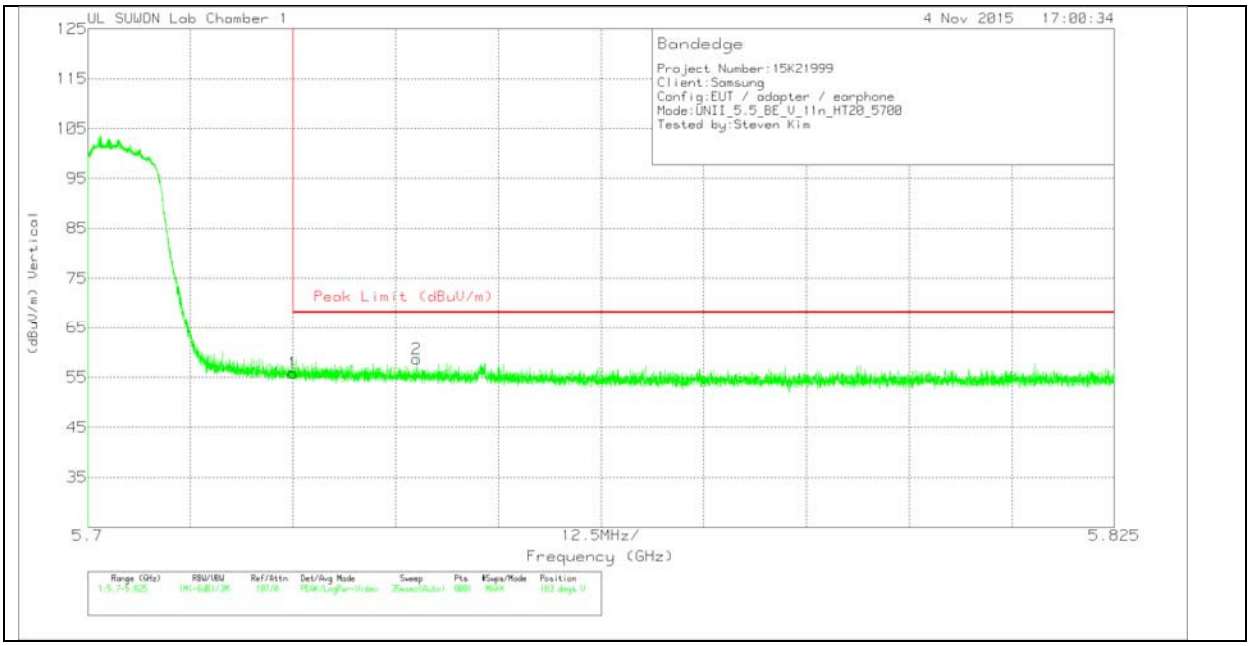
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 43.33 | Pk | 34.8 | -22.3 | 0 | 55.83 | 68.2 | -12.37 | 183 | 106 | V |
| 2 | 5.74 | 46.16 | Pk | 34.8 | -22.3 | 0 | 58.66 | 68.2 | -9.54 | 183 | 106 | V |

Pk - Peak detector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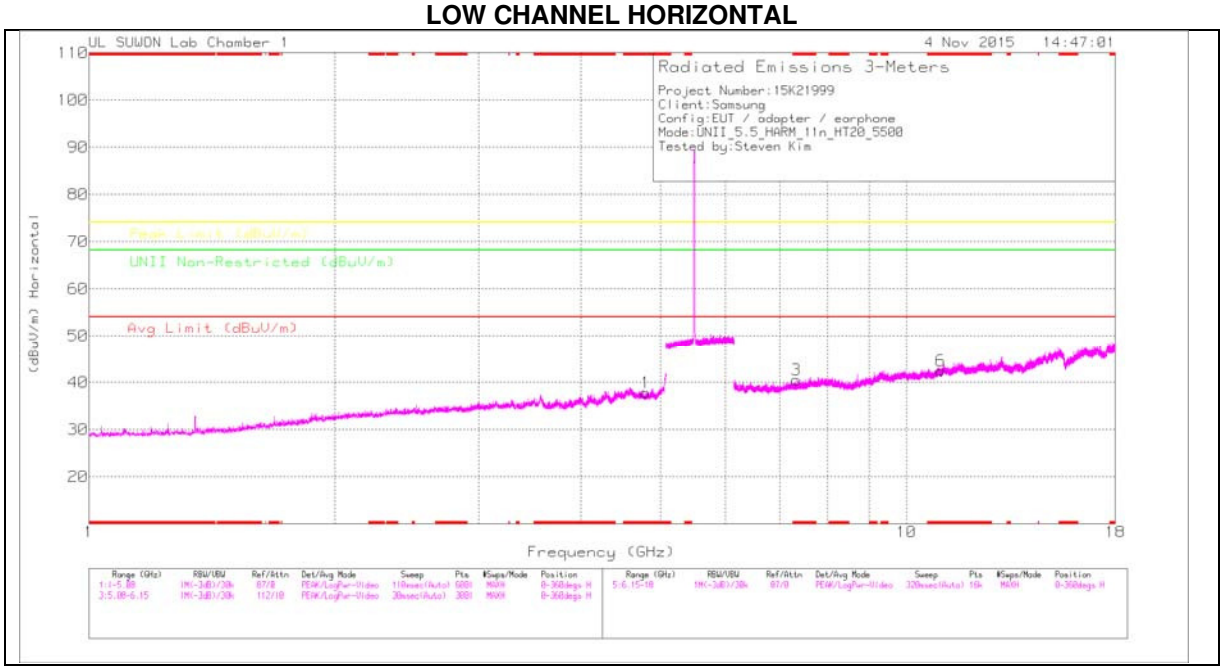
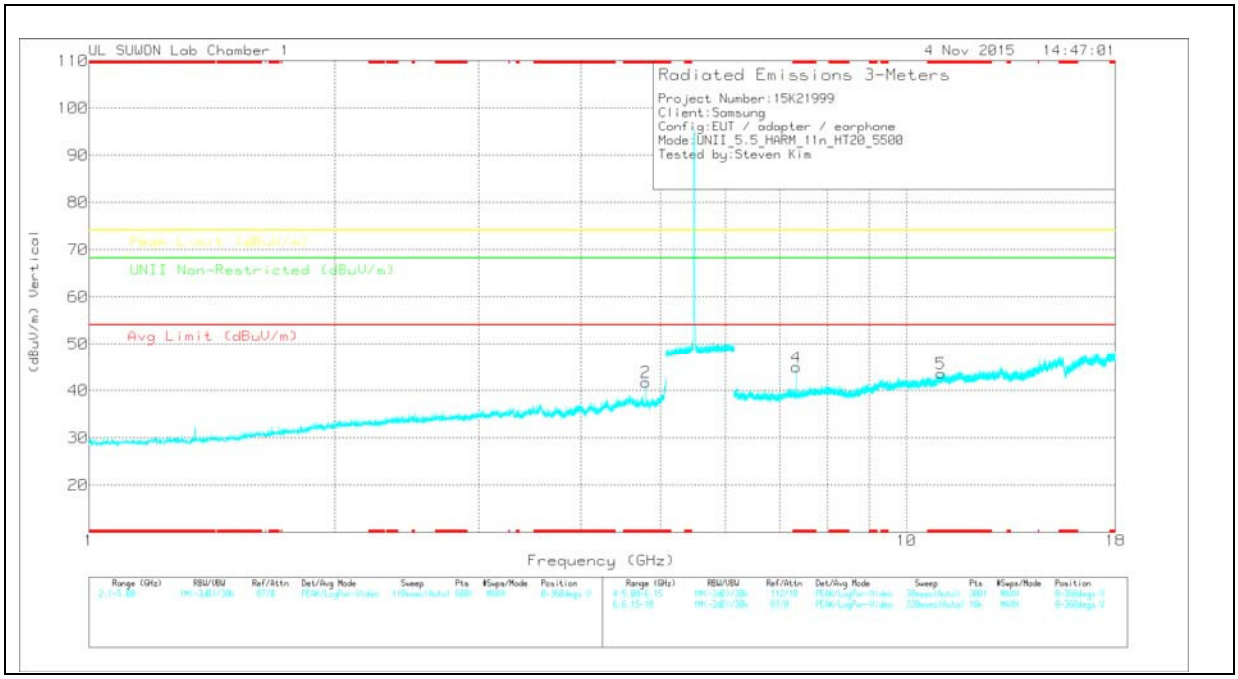
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.796 | 36.15 | PK | 34 | -32.3 | 0 | 37.85 | - | - | 74 | -36.15 | - | - | 0-360 | 100 | H |
| 2 | * 4.796 | 39.96 | PK | 34 | -32.3 | 0 | 41.66 | - | - | 74 | -32.34 | - | - | 0-360 | 200 | V |
| 3 | * 7.333 | 34.55 | PK | 35.8 | -29.8 | 0 | 40.55 | - | - | 74 | -33.45 | - | - | 0-360 | 200 | H |
| 6 | * 11.002 | 31.11 | PK | 38.2 | -26.8 | 0 | 42.51 | - | - | 74 | -31.49 | - | - | 0-360 | 100 | H |
| 4 | * 7.333 | 38.98 | PK | 35.8 | -29.8 | 0 | 44.98 | - | - | 74 | -29.02 | - | - | 0-360 | 100 | V |
| 5 | * 11 | 32.2 | PK | 38.2 | -26.8 | 0 | 43.6 | - | - | 74 | -30.4 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.791 | 47.46 | PK-U | 34 | -32.3 | 0 | 49.16 | - | - | 74 | -24.84 | - | - | 16 | 134 | V |
| * 4.796 | 35.49 | ADR | 34 | -32.3 | 0 | 37.19 | 54 | -16.81 | - | - | - | - | 16 | 134 | V |
| * 7.333 | 39.36 | ADR | 35.8 | -29.8 | 0 | 45.36 | 54 | -8.64 | - | - | - | - | 91 | 100 | V |
| * 7.333 | 32.79 | ADR | 35.8 | -29.8 | 0 | 38.79 | 54 | -15.21 | - | - | - | - | 32 | 280 | H |
| * 7.333 | 47.24 | PK-U | 35.8 | -29.8 | 0 | 53.24 | - | - | 74 | -20.76 | - | - | 91 | 100 | V |
| * 7.34 | 44.81 | PK-U | 35.8 | -29.8 | 0 | 50.81 | - | - | 74 | -23.19 | - | - | 32 | 280 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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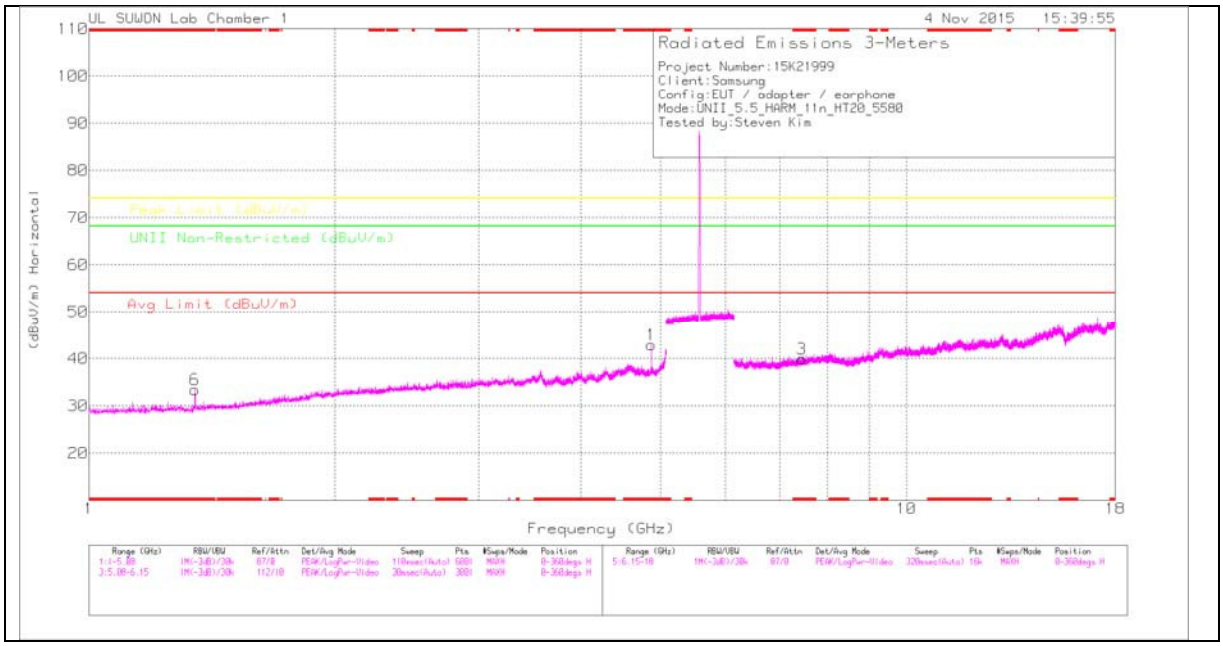
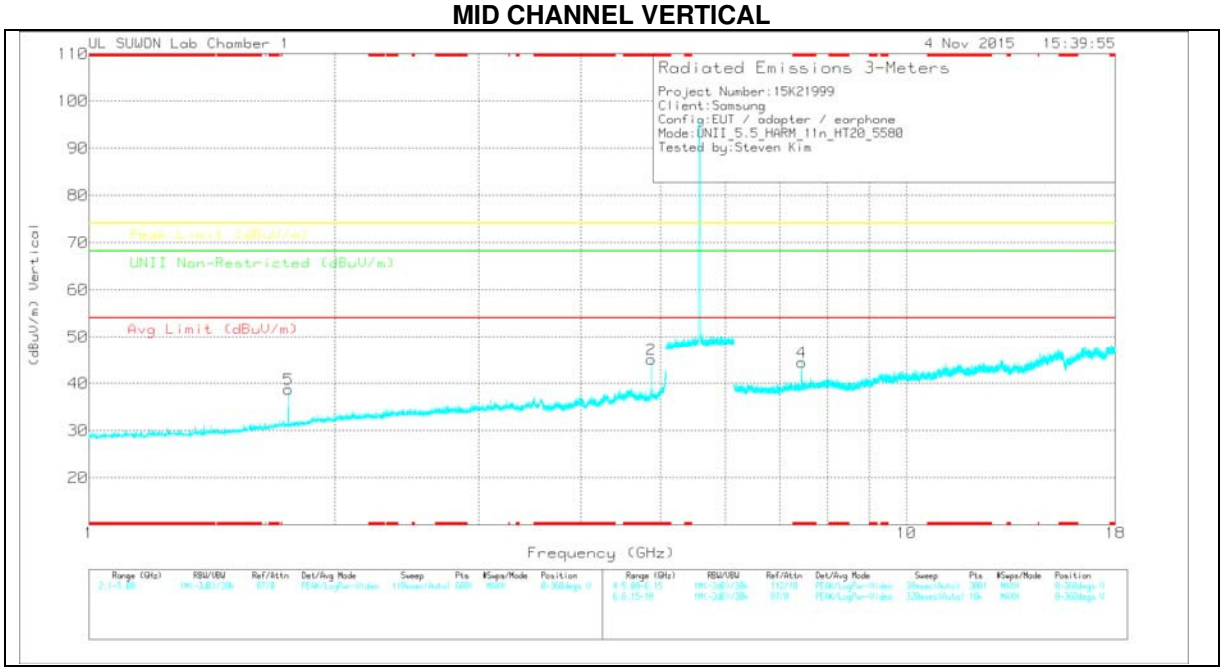
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.876 | 41.03 | PK | 34 | -32.2 | 0 | 42.83 | - | - | 74 | -31.17 | - | - | 0-360 | 100 | H |
| 6 | * 1.349 | 44.27 | PK | 28.4 | -39.3 | 0 | 33.37 | - | - | 74 | -40.63 | - | - | 0-360 | 200 | H |
| 2 | * 4.877 | 43.28 | PK | 34 | -32.2 | 0 | 45.08 | - | - | 74 | -28.92 | - | - | 0-360 | 100 | V |
| 5 | 1.753 | 47.07 | PK | 29.9 | -38.3 | 0 | 38.67 | - | - | - | - | 68.2 | -29.53 | 0-360 | 200 | V |
| 3 | * 7.439 | 34.06 | PK | 35.8 | -29.9 | 0 | 39.96 | - | - | 74 | -34.04 | - | - | 0-360 | 200 | H |
| 4 | * 7.439 | 38.59 | PK | 35.8 | -29.9 | 0 | 44.49 | - | - | 74 | -29.51 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.876 | 49.46 | PK-U | 34 | -32.2 | 0 | 51.26 | - | - | 74 | -22.74 | - | - | 150 | 102 | H |
| * 4.876 | 39.69 | ADR | 34 | -32.2 | 0 | 41.49 | 54 | -12.51 | - | - | - | - | 150 | 102 | H |
| * 4.876 | 51.43 | PK-U | 34 | -32.2 | 0 | 53.23 | - | - | 74 | -20.77 | - | - | 285 | 188 | V |
| * 4.876 | 44.46 | ADR | 34 | -32.2 | 0 | 46.26 | 54 | -7.74 | - | - | - | - | 285 | 188 | V |
| * 7.44 | 38.91 | ADR | 35.8 | -29.9 | 0 | 44.81 | 54 | -9.19 | - | - | - | - | 91 | 100 | V |
| * 7.44 | 33.27 | ADR | 35.8 | -29.9 | 0 | 39.17 | 54 | -14.83 | - | - | - | - | 51 | 377 | H |
| * 7.44 | 46.96 | PK-U | 35.8 | -29.9 | 0 | 52.86 | - | - | 74 | -21.14 | - | - | 91 | 100 | V |
| * 7.44 | 44.96 | PK-U | 35.8 | -29.9 | 0 | 50.86 | - | - | 74 | -23.14 | - | - | 51 | 377 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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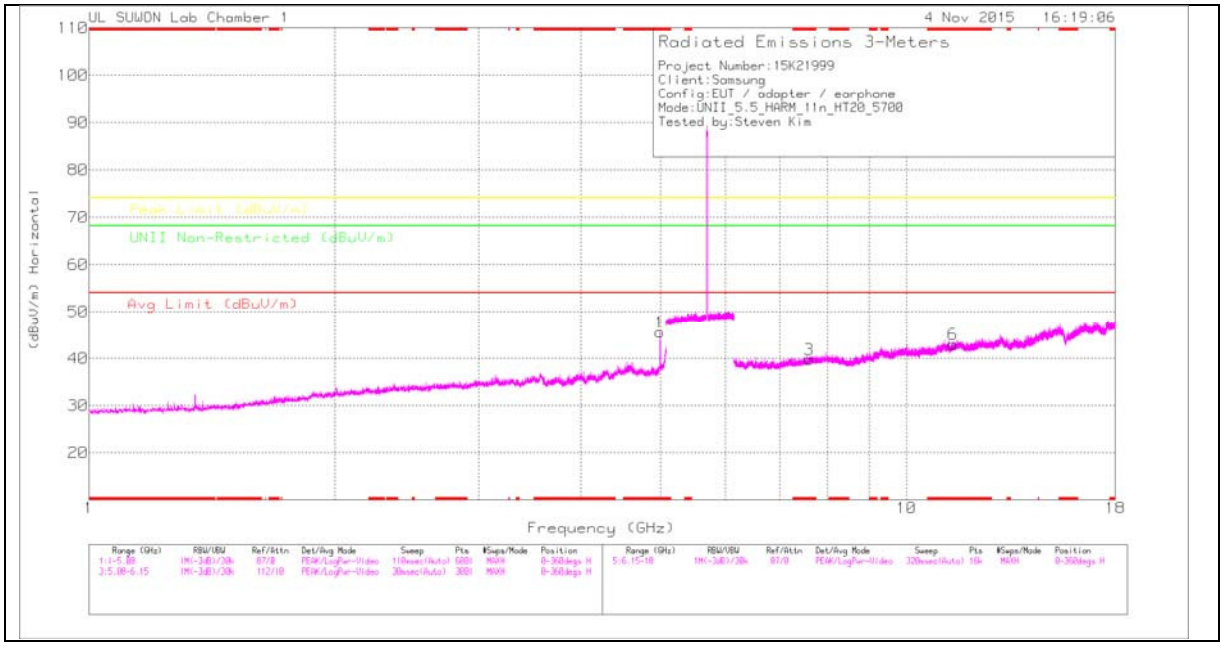
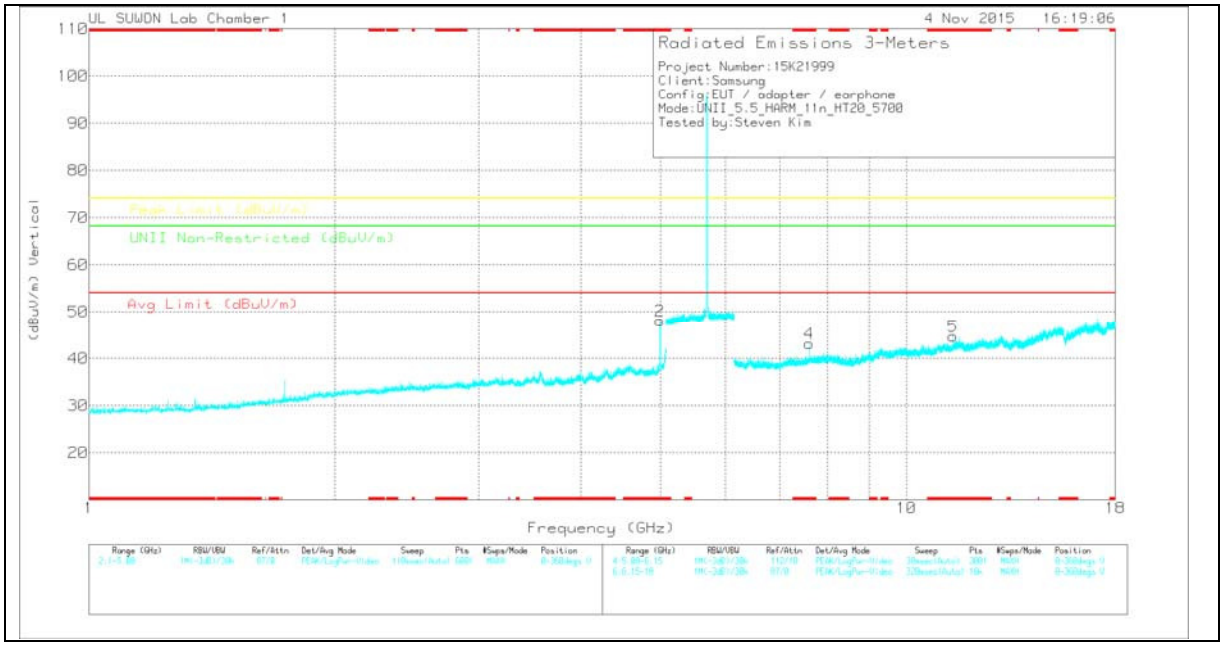
**HIGH CHANNEL HORIZONTAL**




**HIGH CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## HIGH CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.996 | 42.88 | PK | 34.1 | -31.4 | 0 | 45.58 | - | - | 74 | -28.42 | - | - | 0-360 | 100 | H |
| 2 | * 4.996 | 45.34 | PK | 34.1 | -31.4 | 0 | 48.04 | - | - | 74 | -25.96 | - | - | 0-360 | 200 | V |
| 3 | * 7.6 | 33.48 | PK | 35.9 | -29.6 | 0 | 39.78 | - | - | 74 | -34.22 | - | - | 0-360 | 200 | H |
| 6 | * 11.401 | 31.24 | PK | 38.5 | -26.7 | 0 | 43.04 | - | - | 74 | -30.96 | - | - | 0-360 | 200 | H |
| 4 | * 7.599 | 36.88 | PK | 35.9 | -29.6 | 0 | 43.18 | - | - | 74 | -30.82 | - | - | 0-360 | 100 | V |
| 5 | * 11.4 | 32.85 | PK | 38.5 | -26.7 | 0 | 44.65 | - | - | 74 | -29.35 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.996 | 50.78 | PK-U | 34.1 | -31.4 | 0 | 53.48 | - | - | 74 | -20.52 | - | - | 146 | 102 | H |
| * 4.996 | 42.21 | ADR | 34.1 | -31.4 | 0 | 44.91 | 54 | -9.09 | - | - | - | - | 146 | 102 | H |
| * 4.996 | 51.85 | PK-U | 34.1 | -31.4 | 0 | 54.55 | - | - | 74 | -19.45 | - | - | 279 | 181 | V |
| * 4.996 | 45.19 | ADR | 34.1 | -31.4 | 0 | 47.89 | 54 | -6.11 | - | - | - | - | 279 | 181 | V |
| * 7.6 | 36.08 | ADR | 35.9 | -29.6 | 0 | 42.38 | 54 | -11.62 | - | - | - | - | 200 | 100 | V |
| * 7.6 | 45.28 | PK-U | 35.9 | -29.6 | 0 | 51.58 | - | - | 74 | -22.42 | - | - | 200 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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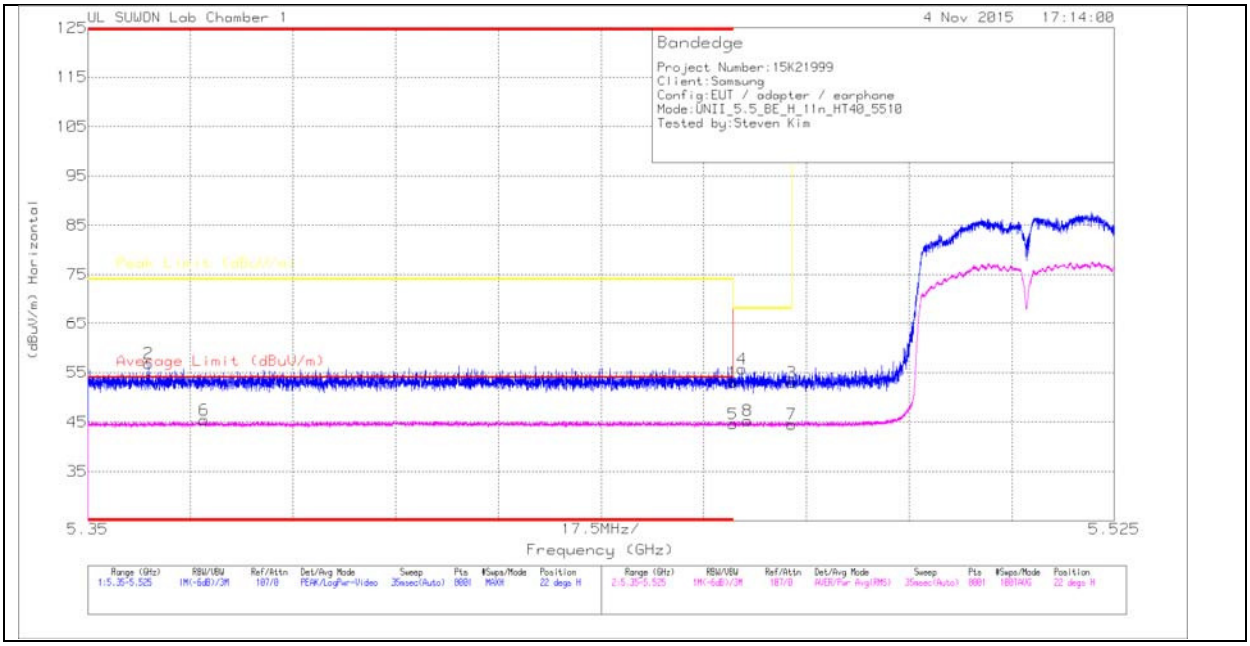
## 11.3.3. TX ABOVE 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.5GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT




### HORIZONTAL DATA

*TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.46 | 41.02 | Pk | 34.6 | -22.6 | 0 | 53.02 | - | - | 74 | -20.98 | 22 | 283 | H |
| 2 | * 5.36 | 45.09 | Pk | 34.5 | -22.8 | 0 | 56.79 | - | - | 74 | -17.21 | 22 | 283 | H |
| 3 | 5.47 | 41.04 | Pk | 34.6 | -22.6 | 0 | 53.04 | - | - | 68.2 | -15.16 | 22 | 283 | H |
| 4 | 5.462 | 43.73 | Pk | 34.6 | -22.6 | 0 | 55.73 | - | - | 68.2 | -12.47 | 22 | 283 | H |
| 5 | * 5.46 | 31.98 | RMS | 34.6 | -22.6 | .63 | 44.61 | 54 | -9.39 | - | - | 22 | 283 | H |
| 6 | * 5.37 | 33.04 | RMS | 34.5 | -22.8 | .63 | 45.37 | 54 | -8.63 | - | - | 22 | 283 | H |
| 7 | 5.47 | 31.96 | RMS | 34.6 | -22.6 | .63 | 44.59 | - | - | - | - | 22 | 283 | H |
| 8 | 5.463 | 32.62 | RMS | 34.6 | -22.6 | .63 | 45.25 | - | - | - | - | 22 | 283 | H |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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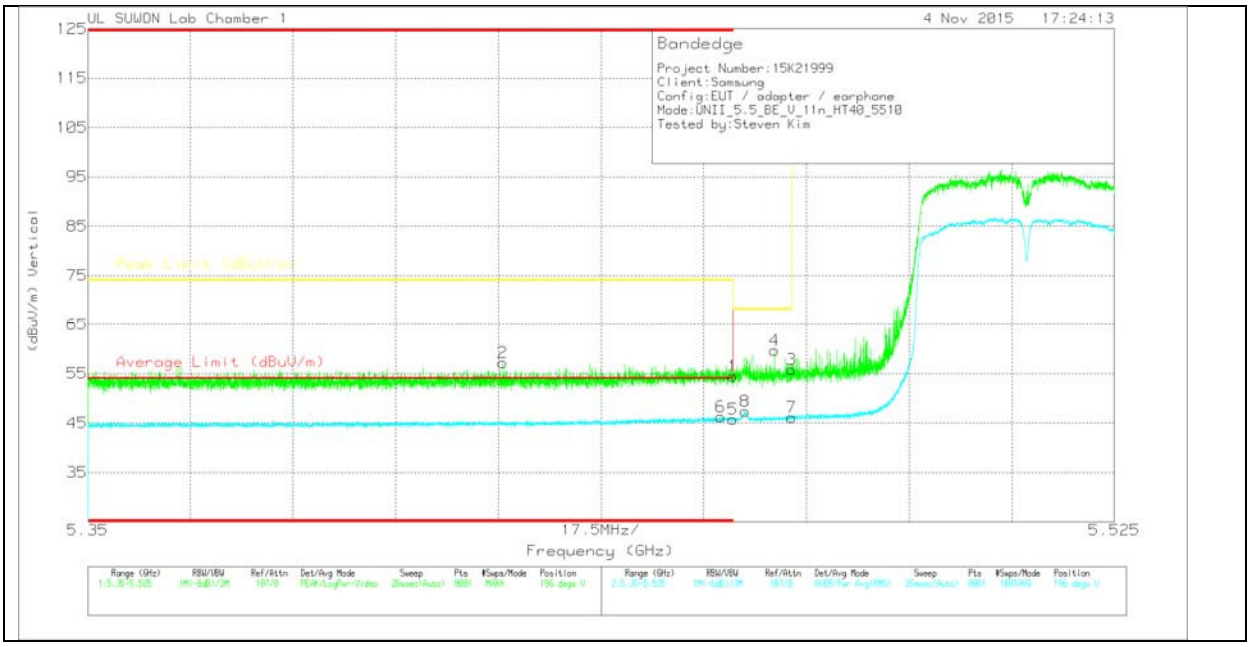
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10dB | 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 | * 5.46 | 42.44 | Pk | 34.6 | -22.6 | 0 | 54.44 | - | - | 74 | -19.56 | 196 | 106 | V |
| 2 | * 5.421 | 45.33 | Pk | 34.6 | -22.7 | 0 | 57.23 | - | - | 74 | -16.77 | 196 | 106 | V |
| 3 | 5.47 | 43.81 | Pk | 34.6 | -22.6 | 0 | 55.81 | - | - | 68.2 | -12.39 | 196 | 106 | V |
| 4 | 5.467 | 47.66 | Pk | 34.6 | -22.6 | 0 | 59.66 | - | - | 68.2 | -8.54 | 196 | 106 | V |
| 5 | * 5.46 | 33.1 | RMS | 34.6 | -22.6 | .63 | 45.73 | 54 | -8.27 | - | - | 196 | 106 | V |
| 6 | * 5.458 | 33.6 | RMS | 34.6 | -22.6 | .63 | 46.23 | 54 | -7.77 | - | - | 196 | 106 | V |
| 7 | 5.47 | 33.54 | RMS | 34.6 | -22.6 | .63 | 46.17 | - | - | - | - | 196 | 106 | V |
| 8 | 5.462 | 34.76 | RMS | 34.6 | -22.6 | .63 | 47.39 | - | - | - | - | 196 | 106 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection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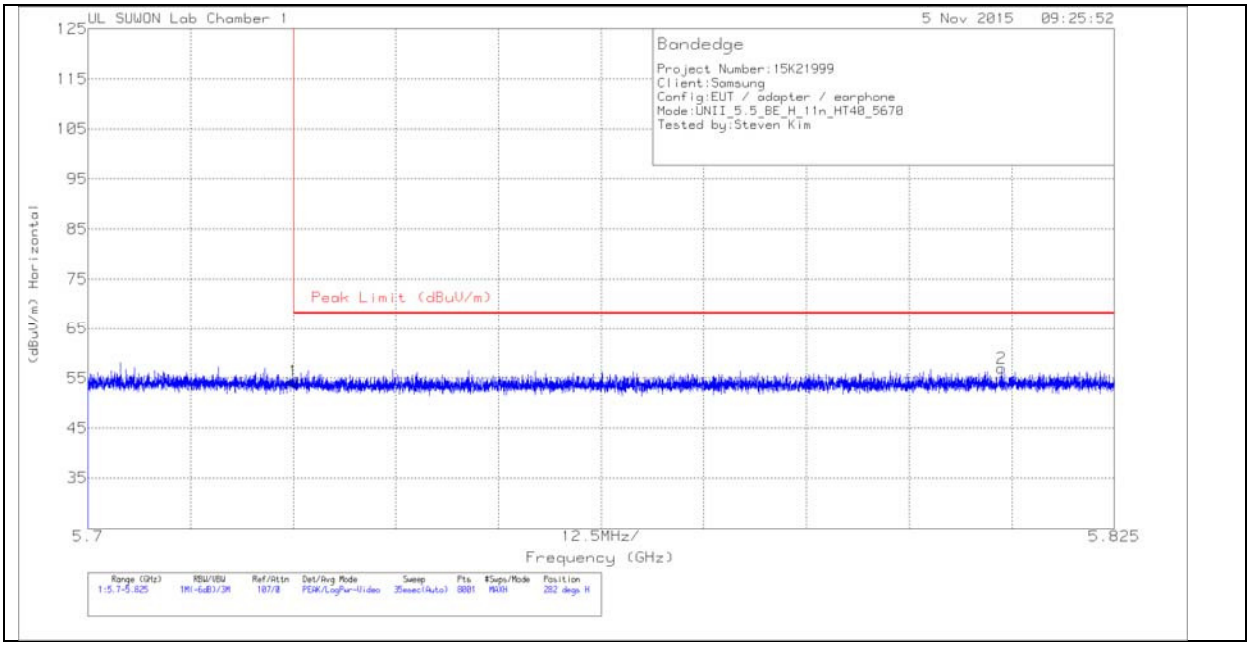
# AUTHORIZED BANDEDGE (HIGH CHANNEL)

## HORIZONTAL PEAK AND AVERAGE PLOT




## HORIZONTAL DATA

***TRACE MARKERS***

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 41.9 | Pk | 34.8 | -22.3 | 0 | 54.4 | 68.2 | -13.8 | 282 | 255 | H |
| 2 | 5.811 | 44.21 | Pk | 34.8 | -22 | 0 | 57.01 | 68.2 | -11.19 | 282 | 255 | H |

Pk - Peak detector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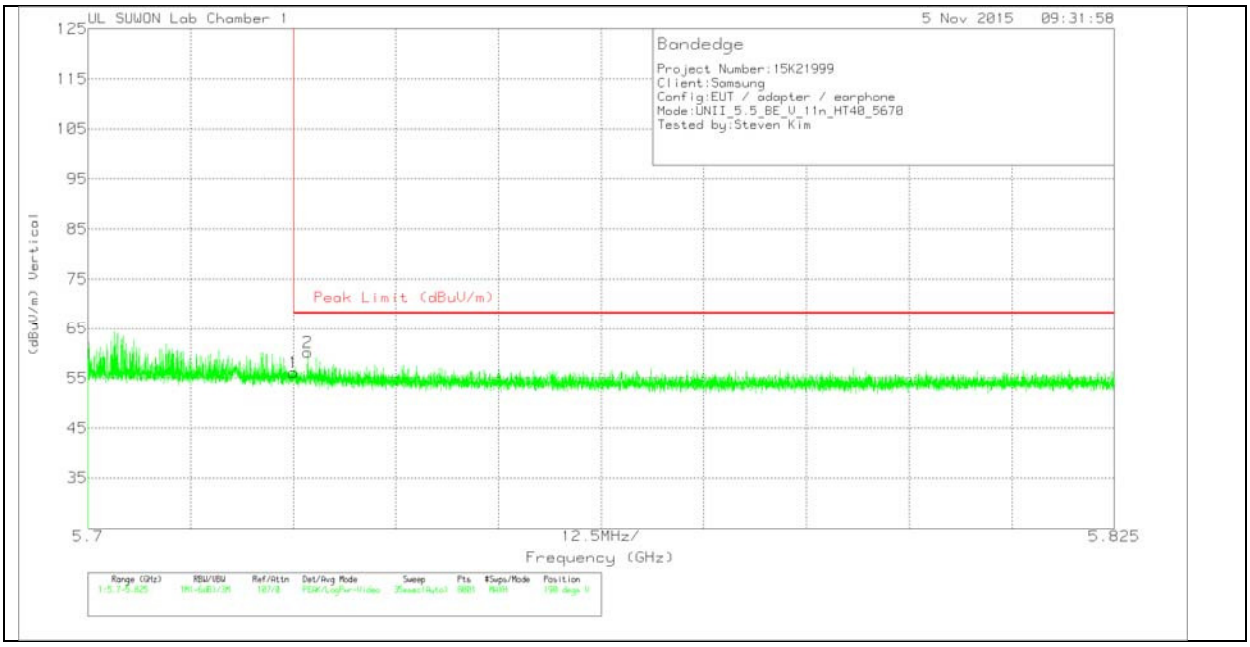
## VERTICAL PEAK AND AVERAGE PLOT




## VERTICAL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_2_10 dB | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.725 | 43.61 | Pk | 34.8 | -22.3 | 0 | 56.11 | 68.2 | -12.09 | 190 | 109 | V |
| 2 | 5.727 | 47.64 | Pk | 34.8 | -22.3 | 0 | 60.14 | 68.2 | -8.06 | 190 | 109 | V |

Pk - Peak detector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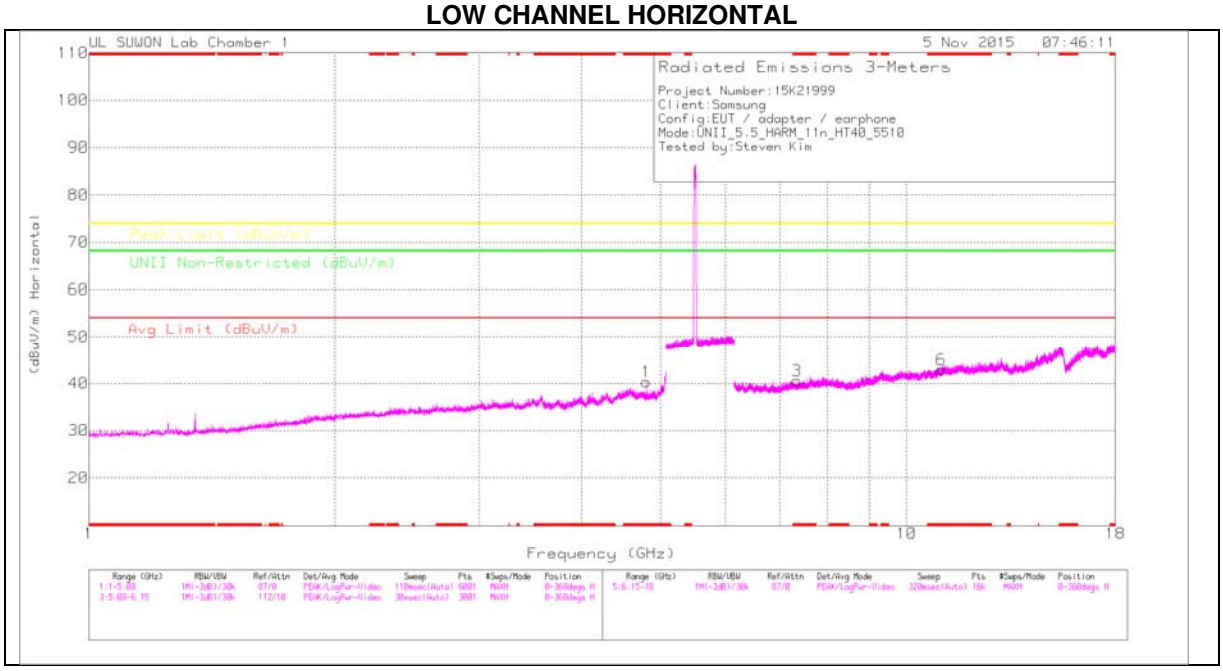
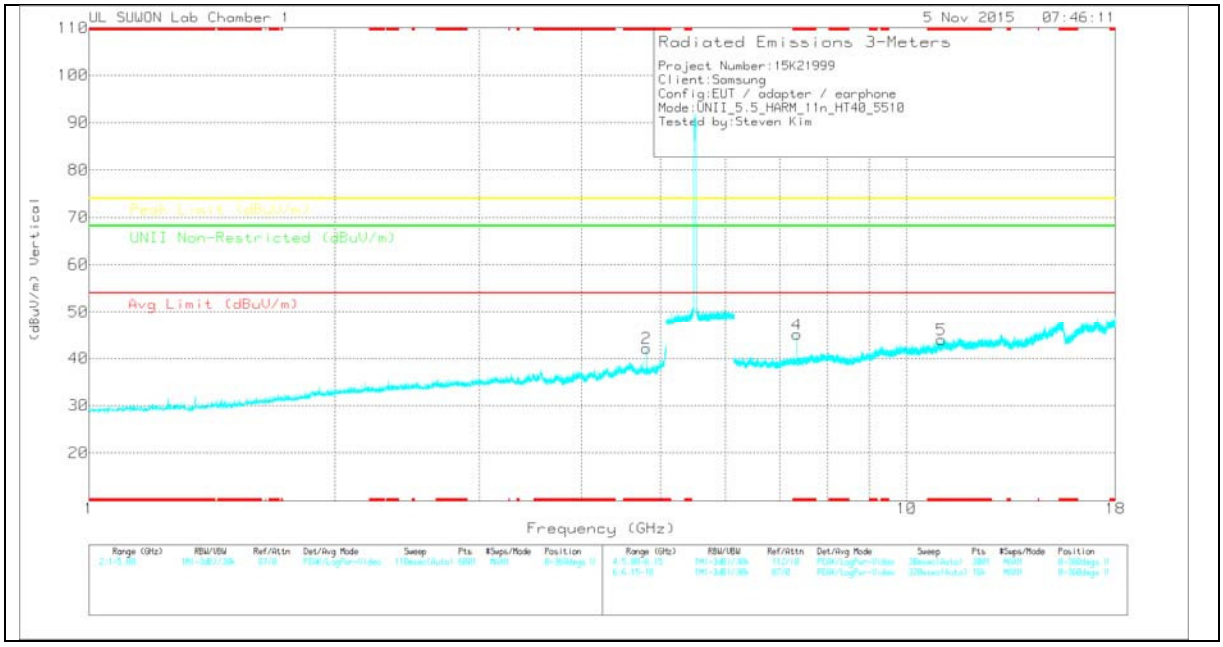
# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL




## LOW CHANNEL VERTICAL




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## LOW CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.807 | 38.61 | PK | 34 | -32.3 | 0 | 40.31 | - | - | 74 | -33.69 | - | - | 0-360 | 100 | H |
| 2 | * 4.806 | 40.48 | PK | 34 | -32.3 | 0 | 42.18 | - | - | 74 | -31.82 | - | - | 0-360 | 200 | V |
| 3 | * 7.347 | 34.57 | PK | 35.8 | -29.8 | 0 | 40.57 | - | - | 74 | -33.43 | - | - | 0-360 | 200 | H |
| 6 | * 11.019 | 31.57 | PK | 38.2 | -26.8 | 0 | 42.97 | - | - | 74 | -31.03 | - | - | 0-360 | 100 | H |
| 4 | * 7.347 | 39.1 | PK | 35.8 | -29.8 | 0 | 45.1 | - | - | 74 | -28.9 | - | - | 0-360 | 100 | V |
| 5 | * 11.02 | 32.52 | PK | 38.2 | -26.8 | 0 | 43.92 | - | - | 74 | -30.08 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.811 | 47.53 | PK-U | 34 | -32.4 | 0 | 49.13 | - | - | 74 | -24.87 | - | - | 33 | 105 | H |
| * 4.806 | 36.45 | ADR | 34 | -32.3 | 0 | 38.15 | 54 | -15.85 | - | - | - | - | 33 | 105 | H |
| * 4.806 | 49.88 | PK-U | 34 | -32.3 | 0 | 51.58 | - | - | 74 | -22.42 | - | - | 276 | 193 | V |
| * 4.806 | 41.21 | ADR | 34 | -32.3 | 0 | 42.91 | 54 | -11.09 | - | - | - | - | 276 | 193 | V |
| * 7.347 | 36.52 | ADR | 35.8 | -29.8 | 0 | 42.52 | 54 | -11.48 | - | - | - | - | 303 | 100 | V |
| * 7.347 | 46.61 | PK-U | 35.8 | -29.8 | 0 | 52.61 | - | - | 74 | -21.39 | - | - | 303 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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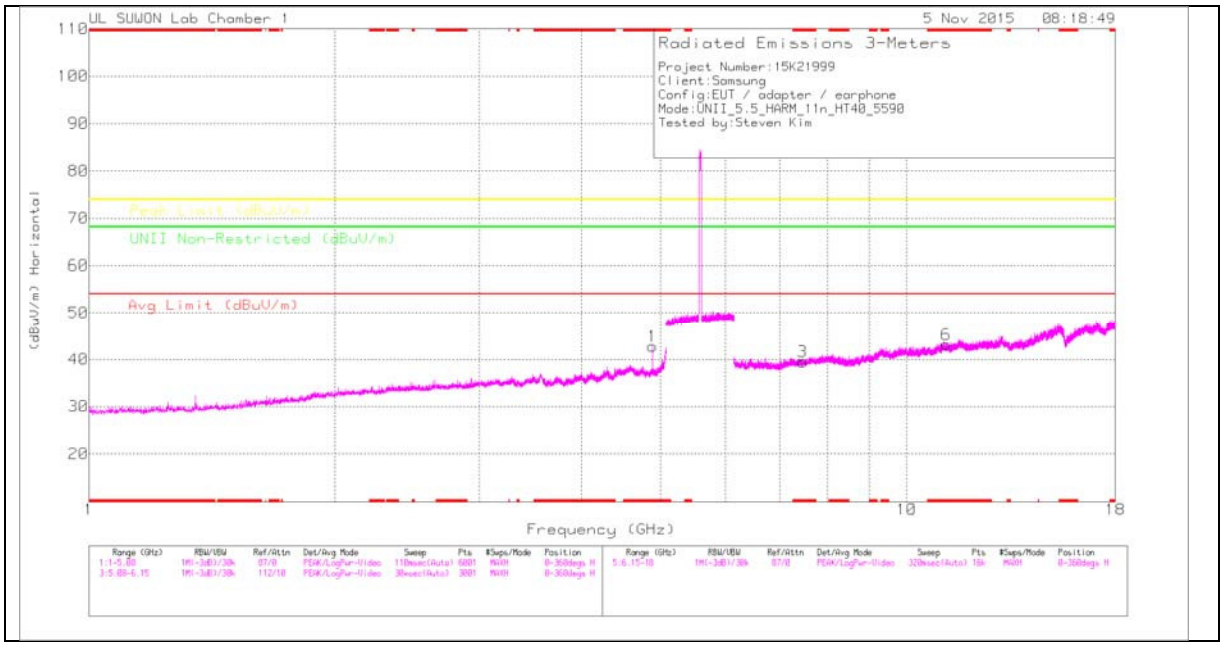
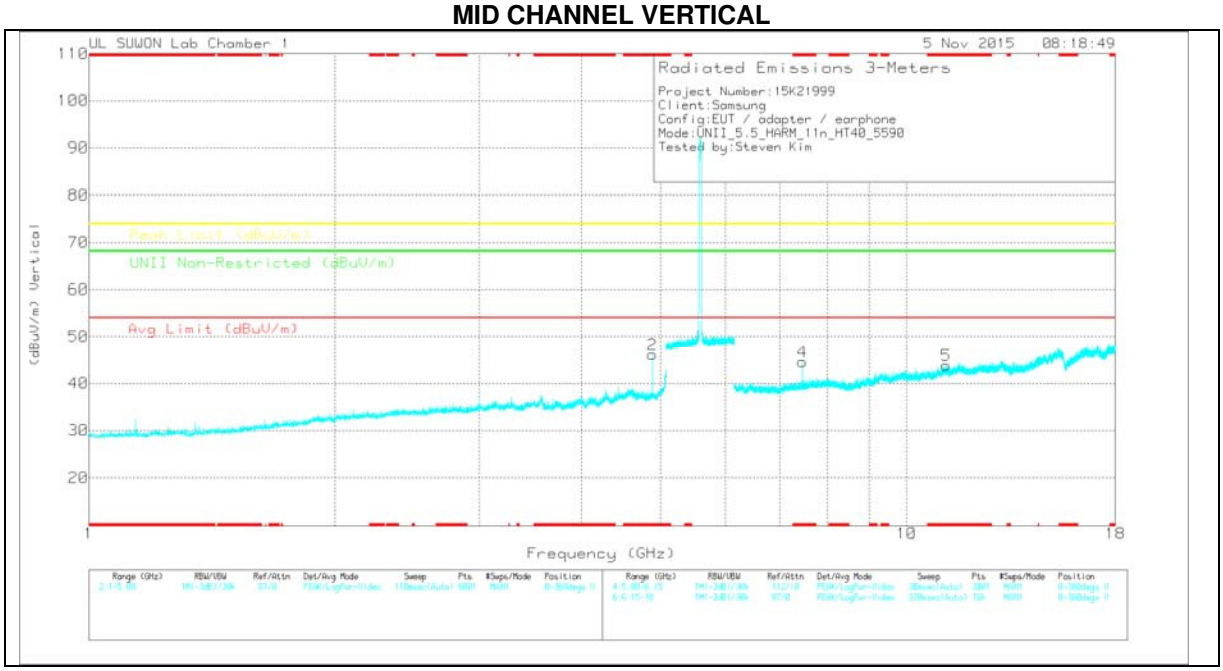
**MID CHANNEL HORIZONTAL**




**MID CHANNEL VERTICAL**




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.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## MID CHANNEL DATA

### *TRACE MARKERS*

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(001687717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * 4.886 | 40.93 | PK | 34 | -32.1 | 0 | 42.83 | - | - | 74 | -31.17 | - | - | 0-360 | 100 | H |
| 2 | * 4.886 | 44.19 | PK | 34 | -32.1 | 0 | 46.09 | - | - | 74 | -27.91 | - | - | 0-360 | 100 | V |
| 3 | * 7.453 | 33.59 | PK | 35.8 | -29.9 | 0 | 39.49 | - | - | 74 | -34.51 | - | - | 0-360 | 100 | H |
| 6 | * 11.176 | 31.37 | PK | 38.3 | -26.5 | 0 | 43.17 | - | - | 74 | -30.83 | - | - | 0-360 | 100 | H |
| 4 | * 7.453 | 38.64 | PK | 35.8 | -29.9 | 0 | 44.54 | - | - | 74 | -29.46 | - | - | 0-360 | 100 | V |
| 5 | * 11.18 | 32.01 | PK | 38.3 | -26.5 | 0 | 43.81 | - | - | 74 | -30.19 | - | - | 0-360 | 100 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

### *Radiated Emissions*

| Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00168717)_150619 | Path_4 | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * 4.887 | 48.98 | PK-U | 34 | -32.1 | 0 | 50.88 | - | - | 74 | -23.12 | - | - | 157 | 100 | H |
| * 4.886 | 38.65 | ADR | 34 | -32.1 | 0 | 40.55 | 54 | -13.45 | - | - | - | - | 157 | 100 | H |
| * 4.886 | 51.14 | PK-U | 34 | -32.1 | 0 | 53.04 | - | - | 74 | -20.96 | - | - | 283 | 187 | V |
| * 4.886 | 43.85 | ADR | 34 | -32.1 | 0 | 45.75 | 54 | -8.25 | - | - | - | - | 283 | 187 | V |
| * 7.453 | 37.94 | ADR | 35.8 | -29.9 | 0 | 43.84 | 54 | -10.16 | - | - | - | - | 93 | 224 | V |
| * 7.454 | 46.29 | PK-U | 35.8 | -29.9 | 0 | 52.19 | - | - | 74 | -21.81 | - | - | 93 | 224 | V |

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average


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