



# **CERTIFICATION TEST REPORT**

**Report Number. :** 11526345-E1V2

**Applicant :** NVIDIA CORP.  
2701 SAN TOMAS EXPY  
SANTA CLARA, CA 95050

**Model :** P3310

**FCC ID :** VOB-P3310

**IC :** 7361A-P3310

**EUT Description :** WLAN 2x2 MIMO 802.11a/b/g/n/ac with Bluetooth

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART C  
INDUSTRY CANADA RSS - 247 ISSUE 1  
INDUSTRY CANADA RSS-GEN Issue 4

**Date Of Issue:**

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**Prepared by:**

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NVLAP LAB CODE 200065-0

Revision History

| Rev. | Issue Date | Revisions                                     | Revised By |
|------|------------|-----------------------------------------------|------------|
| V1   | 01/06/17   | Initial Issue                                 | D. Corona  |
| V2   | 01/14/17   | Updated Section 1, 6, 9.6, 10.2 & header date | D. Corona  |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** NVIDIA CORP.

**EUT DESCRIPTION:** WLAN 2x2 MIMO 802.11a/b/g/n/ac with Bluetooth

**MODEL:** P3310

**SERIAL NUMBER:** 0334916000038

**DATE TESTED:** DECEMBER 19 - 28, 2016

| APPLICABLE STANDARDS            |              |
|---------------------------------|--------------|
| STANDARD                        | TEST RESULTS |
| CFR 47 Part 15 Subpart C        | Pass         |
| INDUSTRY CANADA RSS-247 Issue 1 | Pass         |
| INDUSTRY CANADA RSS-GEN Issue 4 | Pass         |

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, KDB 558074 D01 v03r05, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 1.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

| 47173 Benicia Street                |                        | 47266 Benicia Street     |                        |
|-------------------------------------|------------------------|--------------------------|------------------------|
| <input type="checkbox"/>            | Chamber A (IC:2324B-1) | <input type="checkbox"/> | Chamber D (IC:2324B-4) |
| <input type="checkbox"/>            | Chamber B (IC:2324B-2) | <input type="checkbox"/> | Chamber E (IC:2324B-5) |
| <input checked="" type="checkbox"/> | Chamber C (IC:2324B-3) | <input type="checkbox"/> | Chamber F (IC:2324B-6) |
|                                     |                        | <input type="checkbox"/> | Chamber G (IC:2324B-7) |
|                                     |                        | <input type="checkbox"/> | Chamber H (IC:2324B-8) |

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Parameter                                           | Uncertainty |
|-----------------------------------------------------|-------------|
| Worst Case Conducted Disturbance, 9KHz to 0.15 MHz  | 3.84 dB     |
| Worst Case Conducted Disturbance, 0.15 to 30 MHz    | 3.65 dB     |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz     | 3.15 dB     |
| Worst Case Radiated Disturbance, 30 to 1000 MHz     | 5.36 dB     |
| Worst Case Radiated Disturbance, 1000 to 18000 MHz  | 4.32 dB     |
| Worst Case Radiated Disturbance, 18000 to 26000 MHz | 4.45 dB     |
| Worst Case Radiated Disturbance, 26000 to 40000 MHz | 5.24 dB     |

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a WLAN 2x2 MIMO 802.11a/b/g/n/ac with Bluetooth

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

| Frequency Range (MHz) | Mode | Output Power (dBm) | Output Power (mW) |
|-----------------------|------|--------------------|-------------------|
| 2402 - 2480           | BLE  | 5.26               | 3.36              |

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The EUT utilizes a Dipole antenna, with a maximum gain of 2.86dBi across operation frequency 2.4GHz band.

### 5.4. SOFTWARE AND FIRMWARE

The software and firmware in the EUT during testing was C03A10387.0700.

### 5.5. WORST-CASE CONFIGURATION AND MODE

Radiated bandedge, harmonics, and spurious emissions from 1 GHz to 18GHz were performed. The EUT was set to transmit at the Low/Middle/High channels with designed (target) output powers.

Radiated emission below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT was set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three transmitting antenna degrees: 0, 45, and 90. It was determined that 90 degrees was the worst case antenna position; therefore all final radiated testing was performed with the antenna position at 90 degrees.

Worst-case data rates were:

BLE: 1 Mbps.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

| Description       | Manufacturer          | Model    | Serial Number  | FCC ID |
|-------------------|-----------------------|----------|----------------|--------|
| EUT AC/DC Adapter | Mean Well Enterprises | GST90A19 | EB68F90444     | NA     |
| Laptop            | Lenovo                | 7659     | L3-AL664 08/03 | NA     |
| Base Board        | NVIDIA                | P2597    |                | DoC    |

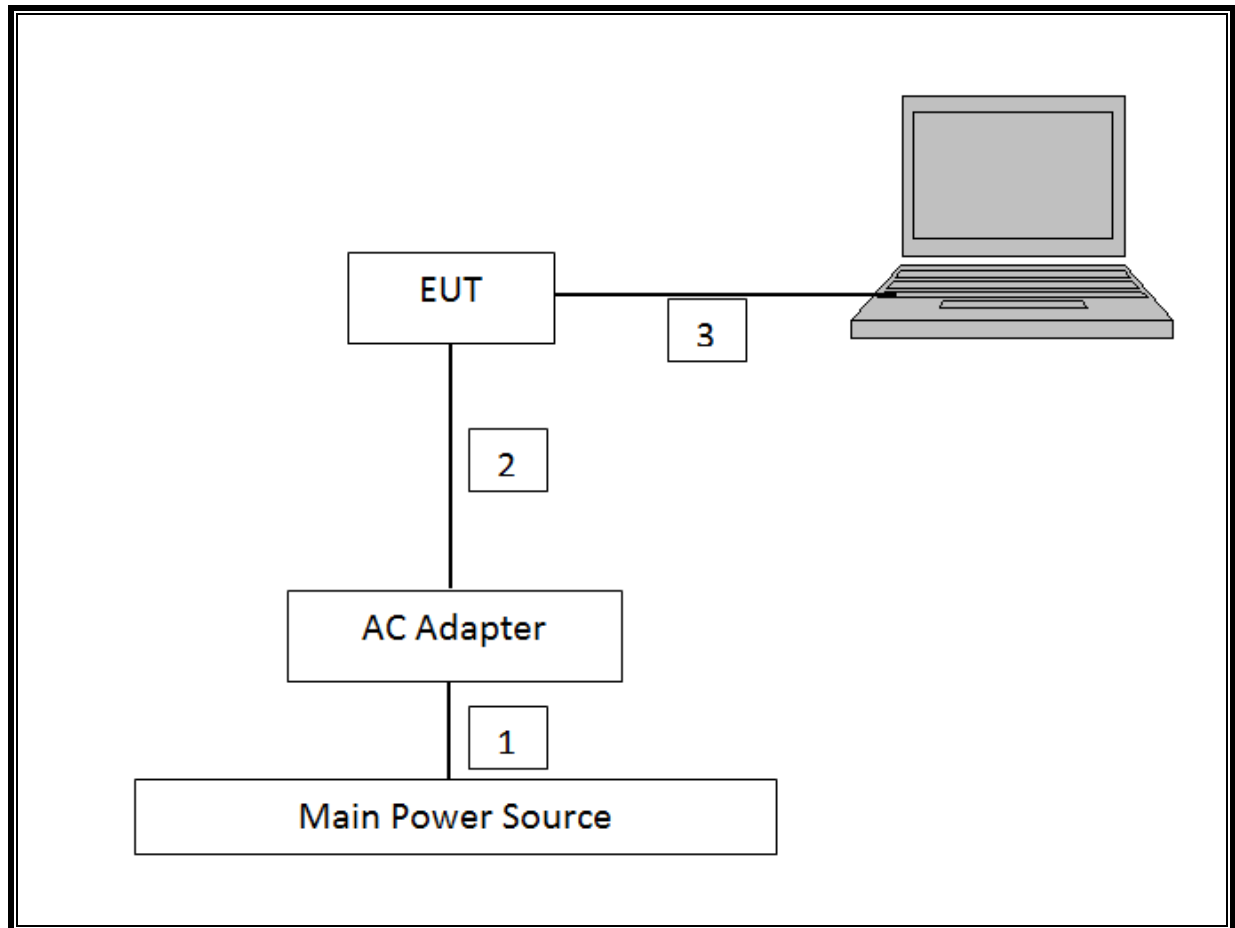
### I/O CABLES (CONDUCTED & RADIATED TEST)

| I/O Cable List |      |                      |                |            |                  |         |
|----------------|------|----------------------|----------------|------------|------------------|---------|
| Cable No       | Port | # of identical ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1              | AC   | 1                    | US115V         | Unshielded | 0.5              | For EUT |
| 2              | DC   | 1                    | 19 Vdc         | Unshielded | 1                | For EUT |
| 3              | USB  | 1                    | USB            | Shielded   | 1.5              |         |

### TEST SETUP

The EUT was connected to a host Laptop via USB cable adapter. Test software exercised the EUT.

**SETUP DIAGRAM**



## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| Test Equipment List                         |                 |                         |          |          |           |
|---------------------------------------------|-----------------|-------------------------|----------|----------|-----------|
| Description                                 | Manufacturer    | Model                   | T Number | Cal Date | Cal Due   |
| PSA Series Spectrum Analyzer, 3Hz - 26.5GHz | Agilent         | E4440A                  | 199      | 07/22/16 | 07/22/17  |
| PSA Series Spectrum Analyzer, 3Hz - 44GHz   | Agilent         | E4446A                  | 146      | 07/13/16 | 07/13/17  |
| Horn Antenna, 18 - 26.5 GHz                 | Seavey Division | MWH-1826/B              | 449      | 05/26/16 | 5/26/2017 |
| Antenna, Horn 1-18GHz                       | ETS Lindgren    | 3117                    | 119      | 02/04/16 | 02/04/17  |
| Antenna, Broadband Hybrid 30MHz to 2000MHz  | Sunol Sciences  | JB1                     | 122      | 01/29/16 | 01/29/17  |
| Loop Antenna                                | EMCO            | 6502                    | 35       | 03/24/16 | 03/24/17  |
| Amplifier, 1-26.5GHz                        | Miteq           | AFS42-00101800-25-S-42  | 931      | 08/26/16 | 08/26/17  |
| Amplifier, 1 to 8GHz                        | Miteq           | AMF-4D-01000800-30-29P  | 1170     | 04/28/16 | 04/28/17  |
| Amplifier, 10KHz to 1GHz, 32dB              | Keysight        | 8447D                   | 15       | 08/26/16 | 08/26/17  |
| P-Series Power Meter                        | Keysight        | N1911A                  | 1264     | 07/08/16 | 07/08/17  |
| Wideband Power Sensor 50MHz - 18GHz         | Agilent         | N1921A                  | 1224     | 03/22/16 | 03/22/17  |
| EMI Receiver                                | Rohde & Schwarz | ESR-EMI                 | 1436     | 12/19/16 | 12/19/17  |
| LISN                                        | FISCHER         | FCC-LISN-50/250-25-2-01 | 1310     | 06/08/16 | 06/08/17  |

| Test Software List    |              |        |                          |
|-----------------------|--------------|--------|--------------------------|
| Description           | Manufacturer | Model  | Version                  |
| Radiated Software     | UL           | UL EMC | Ver 9.5, Apr 26, 2016    |
| Conducted Software    | UL           | UL EMC | Ver 9.5, May 26, 2015    |
| Antenna Port Software | UL           | UL RF  | Ver 5.1.1, July 15, 2016 |

NOTE: \*testing is completed before equipment calibration expiration date.

## 7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r05, Section 8.1.

Output Power: KDB 558074 D01 v03r05, Section 9.1.1.

Power Spectral Density: KDB 558074 D01 v03r05, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r05, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r05, Section 12.1.

Band-edge: KDB 558074 D01 v03r05, Section 12.1.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

## 8. SUMMARY TABLE

| FCC Part Section          | RSS Section(s) | Test Description                        | Test Limit | Test Condition | Test Result |
|---------------------------|----------------|-----------------------------------------|------------|----------------|-------------|
| 15.247 (a)(2)             | RSS-247 5.2.1  | Occupied Band width (6dB)               | >500KHz    | Conducted      | Pass        |
| 2.1051, 15.247 (d)        | RSS-247 5.5    | Band Edge / Conducted Spurious Emission | -30dBc     |                | Pass        |
| 15.247                    | RSS-247 5.4.4  | TX conducted output power               | <30dBm     |                | Pass        |
| 15.247                    | RSS-247 5.2.2  | PSD                                     | <8dBm      |                | Pass        |
| 15.207 (a)                | RSS-GEN 8.8    | AC Power Line conducted emissions       | Section 10 | Radiated       | Pass        |
| 15.205, 15.209, 15.247(d) | RSS-GEN 8.9/7  | Radiated Spurious Emission              | < 54dBuV/m |                | Pass        |

## 9. ANTENNA PORT TEST RESULTS

### 9.1. ON TIME, DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

#### PROCEDURE

KDB 58074 D01 v03r05 Section 6

#### ON TIME AND DUTY CYCLE RESULTS

| ON TIME AND DUTY CYCLE RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                  |                             |                      |                                         |                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|-----------------------------|----------------------|-----------------------------------------|-----------------------------|
| Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ON Time<br>B<br>(msec) | Period<br>(msec) | Duty Cycle<br>x<br>(linear) | Duty<br>Cycle<br>(%) | Duty Cycle<br>Correction Factor<br>(dB) | 1/B<br>Minimum VBW<br>(kHz) |
| BLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.388                  | 0.626            | 0.620                       | 62.00%               | 2.08                                    | 2.578                       |
| DUTY CYCLE PLOTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                  |                             |                      |                                         |                             |
| <div> <div> </div> <div> <p>Agilent 23:46:05 Dec 19, 2016 R L</p> <p>APv5.7(112916),39703, Ref 20 dBm #Atten 30 dB</p> <p>Center 2.440 000 GHz Res BW 8 MHz #VBW 50 MHz Sweep 1.533 ms (1001 pts)</p> <p>Span 0 Hz</p> <p>Marker 1R (1) Time 525.9 μs Amplitude 4.40 dBm</p> <p>Marker 1a (1) Time 387.9 μs Amplitude 0.98 dB</p> <p>Marker 2R (1) Time 527.5 μs Amplitude 4.68 dBm</p> <p>Marker 2a (1) Time 625.6 μs Amplitude 0.09 dB</p> <p>Copyright 2000-2011 Agilent Technologies</p> </div> </div> |                        |                  |                             |                      |                                         |                             |

NOTE: --

## **9.2. 6 dB BANDWIDTH**

### **LIMITS**

FCC §15.247 (a) (2)

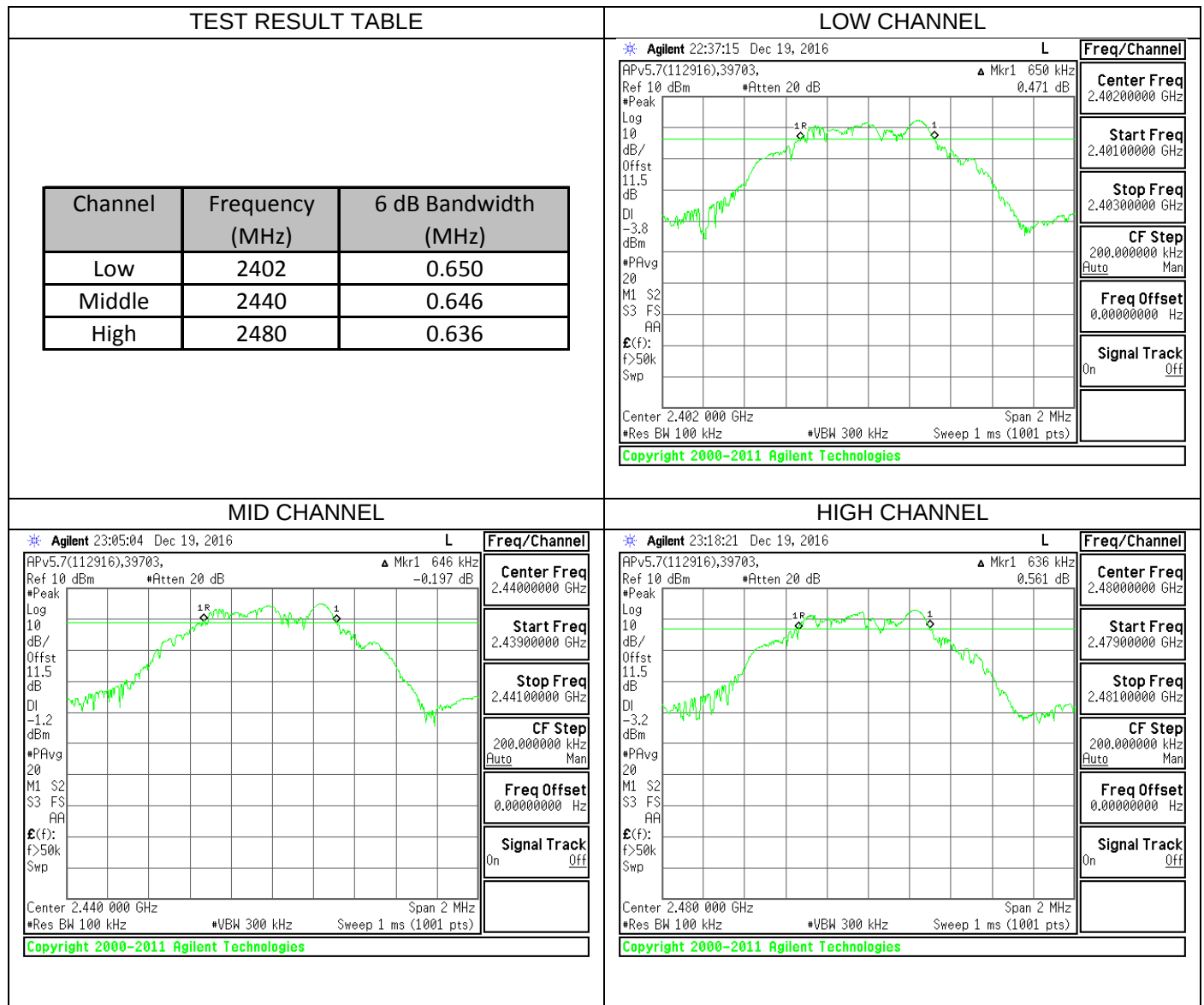
IC RSS-247 (5.2) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

### **TEST PROCEDURE**

KDB 58074 D01 v03r05 Section 8.1

### **RESULTS**



### **9.3. 99% BANDWIDTH**

#### **LIMITS**

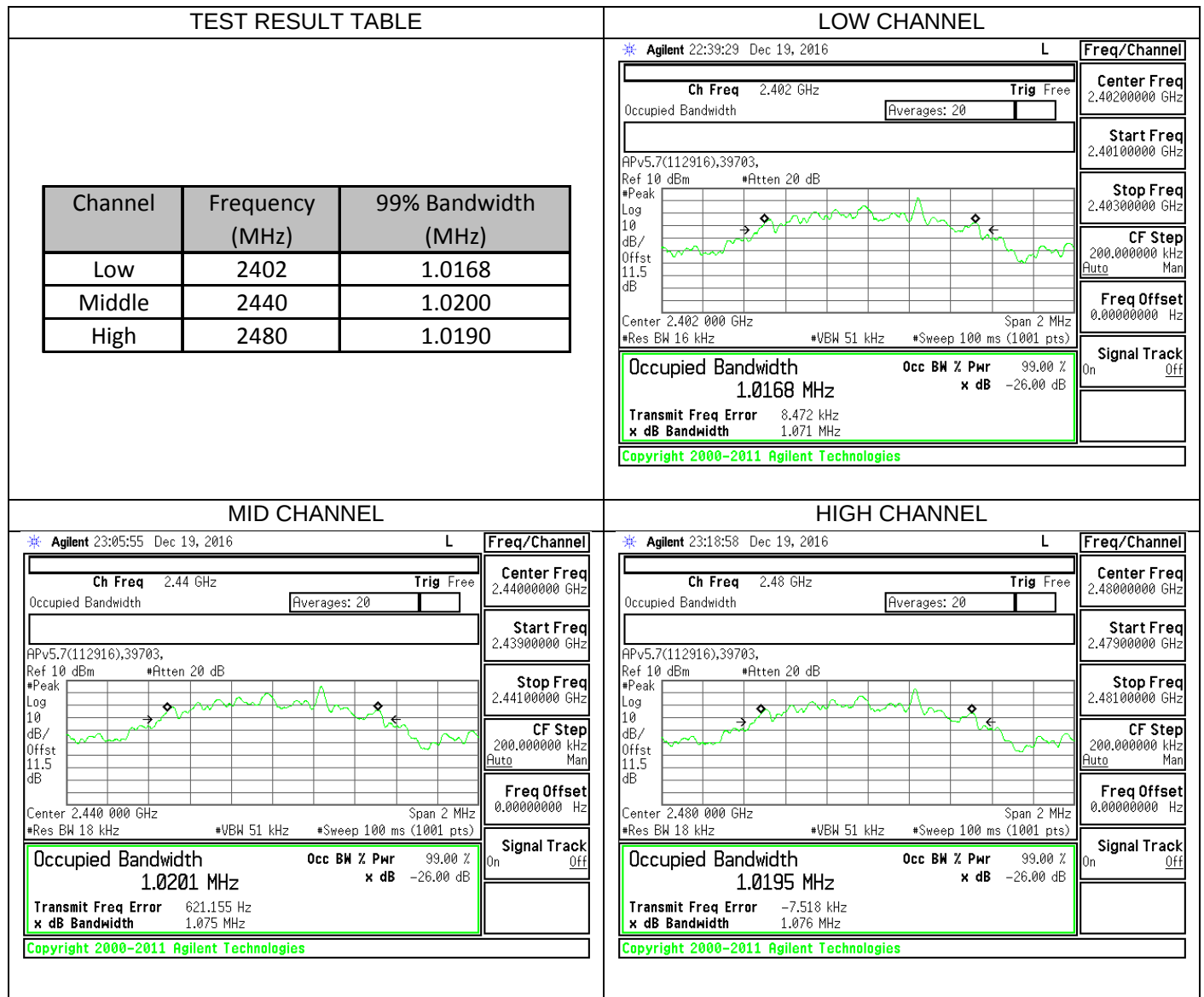
None; for reporting purposes only.

#### **TEST PROCEDURE**

ANSI C63.10: 2013 Section 6.9.3

.

#### **RESULTS**



## **9.4. OUTPUT POWER**

### **LIMITS**

FCC §15.247 (b)

IC RSS-247 (5.4) (4)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

### **TEST PROCEDURE**

KDB 58074 D01 v03r05 Section 9.1.1

### **RESULTS**

### TEST RESULT TABLE

| Channel | Frequency (MHz) | Output Power (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------------|-------------|-------------|
| Low     | 2402            | 2.600              | 30          | -27.40      |
| Middle  | 2440            | 5.260              | 30          | -24.74      |
| High    | 2480            | 3.260              | 30          | -26.74      |

### LOW CHANNEL

✱ Agilent 22:40:07 Dec 19, 2016
L

APv5.7(112916),39703, Ref 30 dBm
Mkr1 2.402 108 GHz

Peak 10 dB/Offst 11.5 dB

•PAvg
M1 S2 S3 FS AA
£(f): FTun Swp

Center 2.402 000 GHz
Span 3 MHz

•Res BW 3 MHz
•VBW 8 MHz
Sweep 1 ms (1001 pts)

**Freq/Channel**  
**Center Freq** 2.40200000 GHz  
**Start Freq** 2.40050000 GHz  
**Stop Freq** 2.40350000 GHz  
**CF Step** 300.000000 kHz  
Auto Man  
**Freq Offset** 0.00000000 Hz  
**Signal Track** On Off

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### MID CHANNEL

✱ Agilent 23:06:21 Dec 19, 2016
L

APv5.7(112916),39703, Ref 30 dBm
Mkr1 2.439 940 GHz

Peak 10 dB/Offst 11.5 dB

•PAvg
M1 S2 S3 FS AA
£(f): FTun Swp

Center 2.440 000 GHz
Span 3 MHz

•Res BW 3 MHz
•VBW 8 MHz
Sweep 1 ms (1001 pts)

**Freq/Channel**  
**Center Freq** 2.44000000 GHz  
**Start Freq** 2.43850000 GHz  
**Stop Freq** 2.44150000 GHz  
**CF Step** 300.000000 kHz  
Auto Man  
**Freq Offset** 0.00000000 Hz  
**Signal Track** On Off

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### HIGH CHANNEL

✱ Agilent 23:19:28 Dec 19, 2016
L

APv5.7(112916),39703, Ref 30 dBm
Mkr1 2.479 877 GHz

Peak 10 dB/Offst 11.5 dB

•PAvg
M1 S2 S3 FS AA
£(f): FTun Swp

Center 2.480 000 GHz
Span 3 MHz

•Res BW 3 MHz
•VBW 8 MHz
Sweep 1 ms (1001 pts)

**Freq/Channel**  
**Center Freq** 2.48000000 GHz  
**Start Freq** 2.47850000 GHz  
**Stop Freq** 2.48150000 GHz  
**CF Step** 300.000000 kHz  
Auto Man  
**Freq Offset** 0.00000000 Hz  
**Signal Track** On Off

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NOTE:

## 9.5. AVERAGE POWER

### LIMITS

None; for reporting purposes only.

### TEST PROCEDURE

The transmitter output is connected to a power meter.

### RESULTS

|          | <table><tr><th>Channel</th><th>Frequency (MHz)</th><th>Average Power (dBm)</th></tr><tr><td>Low</td><td>2402</td><td>1.98</td></tr><tr><td>Middle</td><td>2440</td><td>5.05</td></tr><tr><td>High</td><td>2480</td><td>2.61</td></tr></table> | Channel             | Frequency (MHz) | Average Power (dBm) | Low | 2402 | 1.98 | Middle | 2440 | 5.05 | High | 2480 | 2.61 |  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|---------------------|-----|------|------|--------|------|------|------|------|------|--|
| Channel  | Frequency (MHz)                                                                                                                                                                                                                               | Average Power (dBm) |                 |                     |     |      |      |        |      |      |      |      |      |  |
| Low      | 2402                                                                                                                                                                                                                                          | 1.98                |                 |                     |     |      |      |        |      |      |      |      |      |  |
| Middle   | 2440                                                                                                                                                                                                                                          | 5.05                |                 |                     |     |      |      |        |      |      |      |      |      |  |
| High     | 2480                                                                                                                                                                                                                                          | 2.61                |                 |                     |     |      |      |        |      |      |      |      |      |  |
| NOTE: -- |                                                                                                                                                                                                                                               |                     |                 |                     |     |      |      |        |      |      |      |      |      |  |

## **9.6. POWER SPECTRAL DENSITY**

### **LIMITS**

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

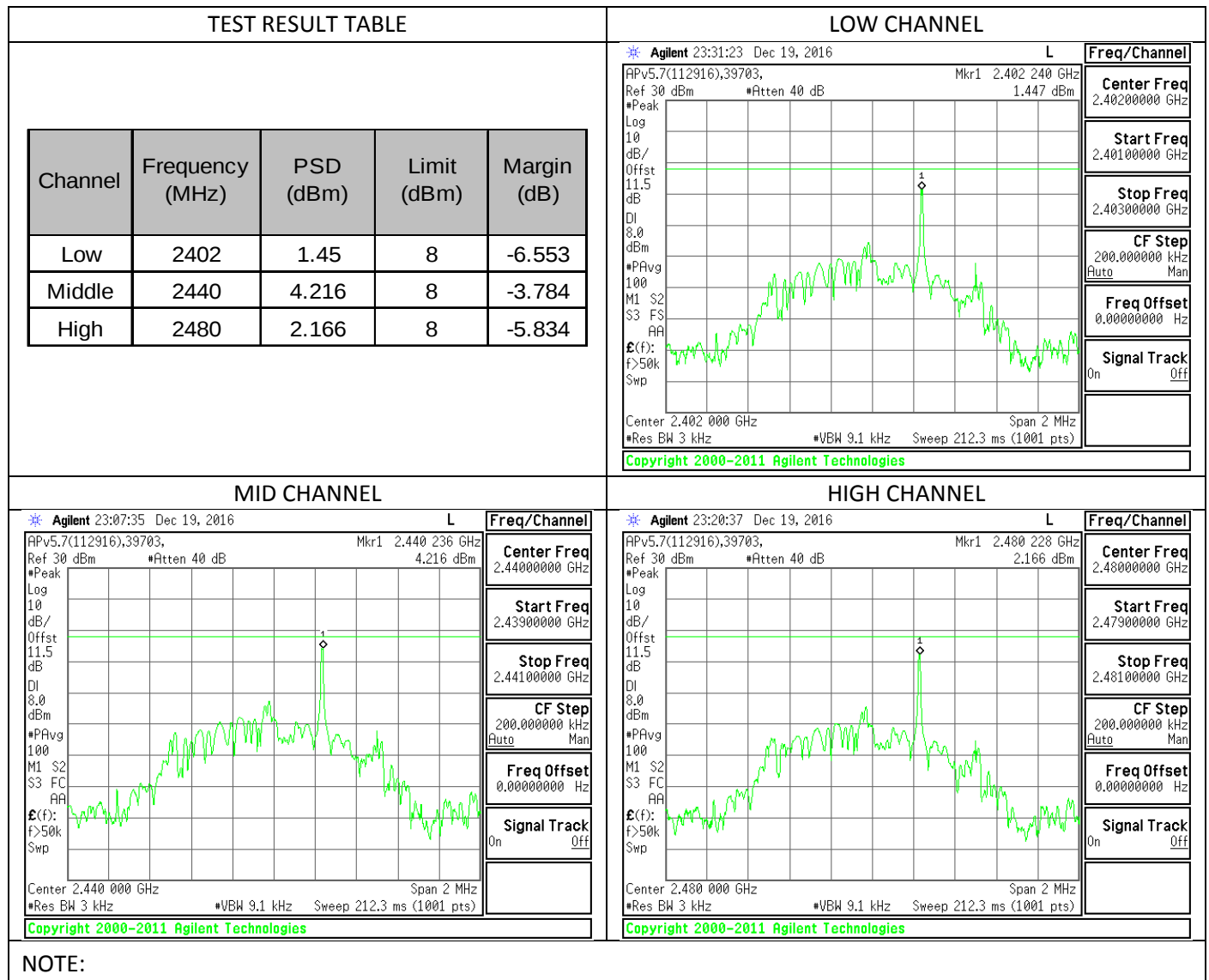
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### **TEST PROCEDURE**

KDB 58074 D01 v03r05 Section 10.2

.

### **RESULTS**



## **9.7. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS**

### **LIMITS**

FCC §15.247 (d)

IC RSS-247 (5.5)

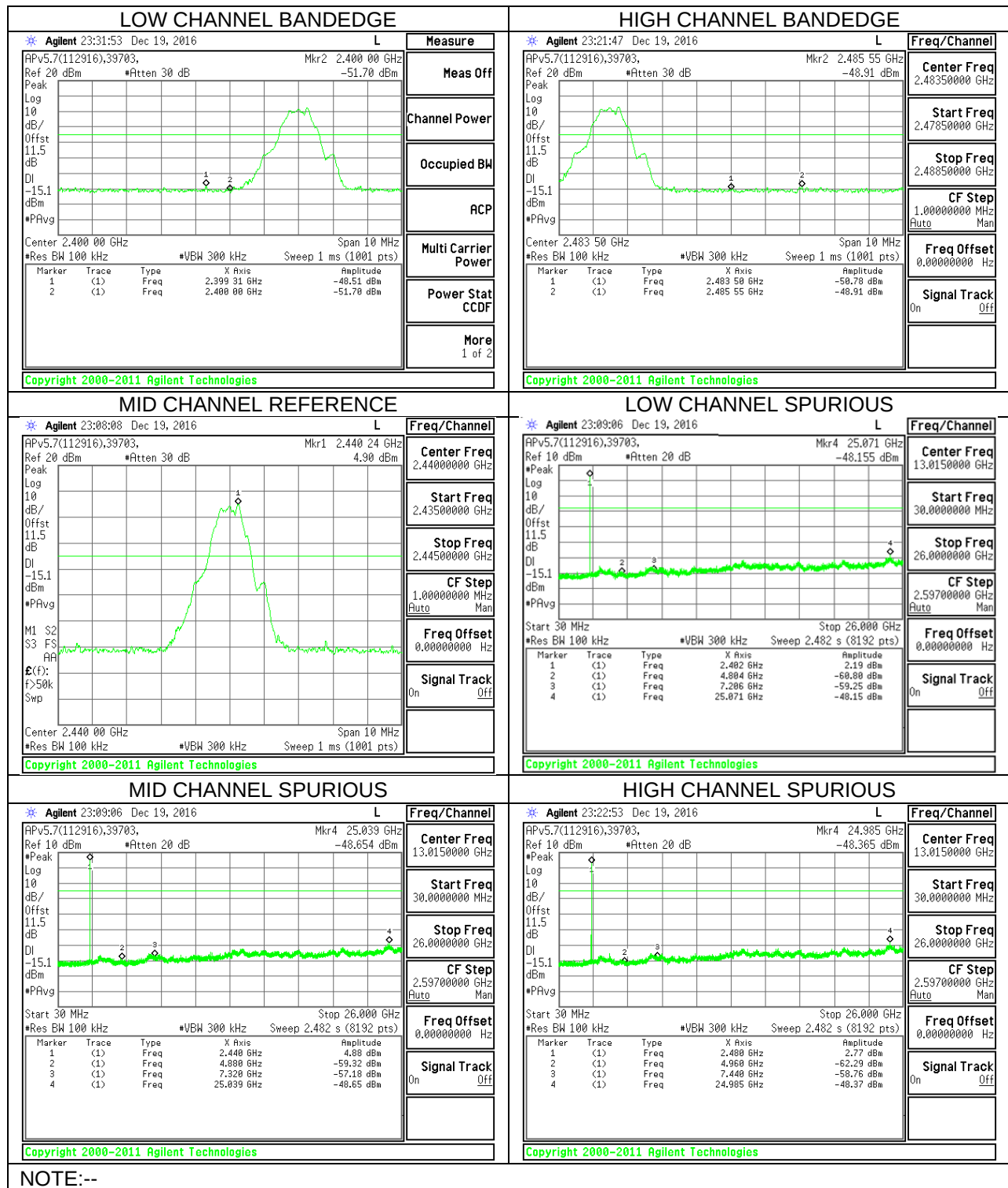
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

### **TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

### **RESULTS**



## 10. RADIATED TEST RESULTS

### 10.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10.

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|-----------------------|------------------------------------|--------------------------------------|
| 0.009-0.490           | 2400/F(kHz) @ 300m                 | 2400/F(kHz) @ 300m                   |
| 0.490-1.705           | 24000/F(kHz) @ 30m                 | 24000/F(kHz) @ 30m                   |
| 1.705-30.0            | 30 @ 30m                           | 30 @ 30m                             |
| 30 - 88               | 100                                | 40                                   |
| 88 - 216              | 150                                | 43.5                                 |
| 216 - 960             | 200                                | 46                                   |
| Above 960             | 500                                | 54                                   |

**NOTE: KDB 937606 OATS and Chamber Correlation Justification**

- Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.
- OATs and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

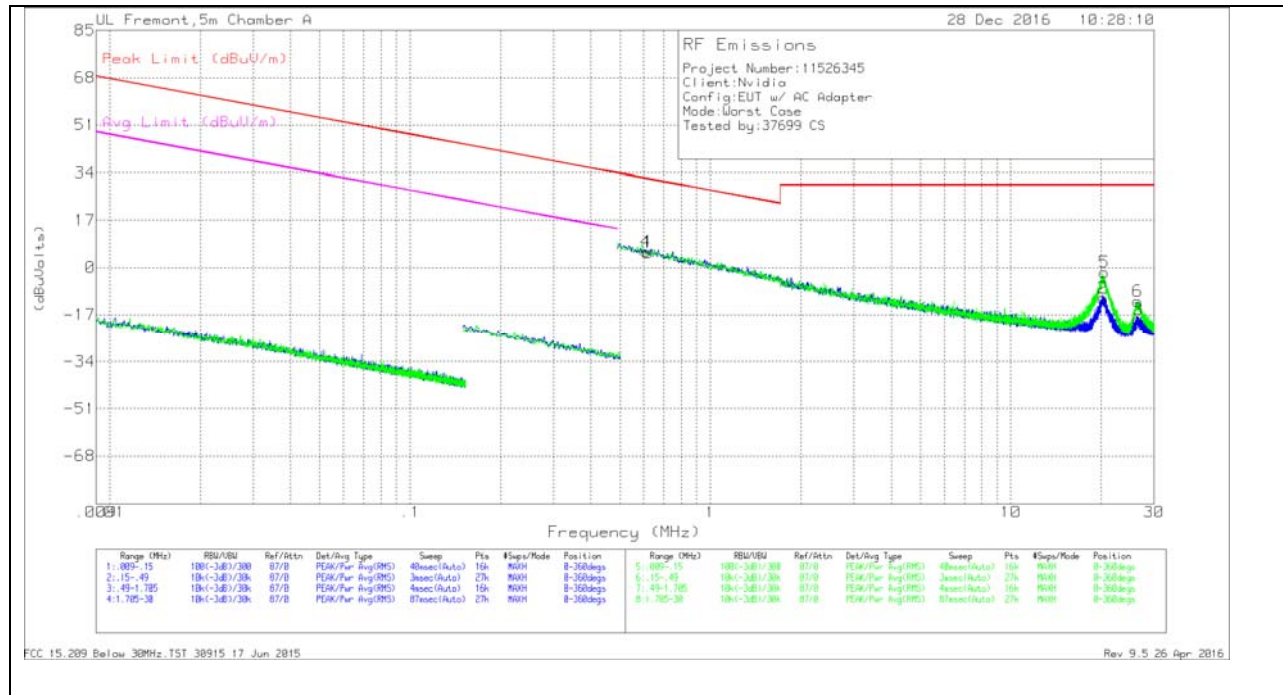
The spectrum from 9 kHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

Note: The pre-scan measurements above 1GHz the VBW is set to 30 kHz.

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.

### 10.3. WORST-CASE BELOW 30 MHz

#### SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



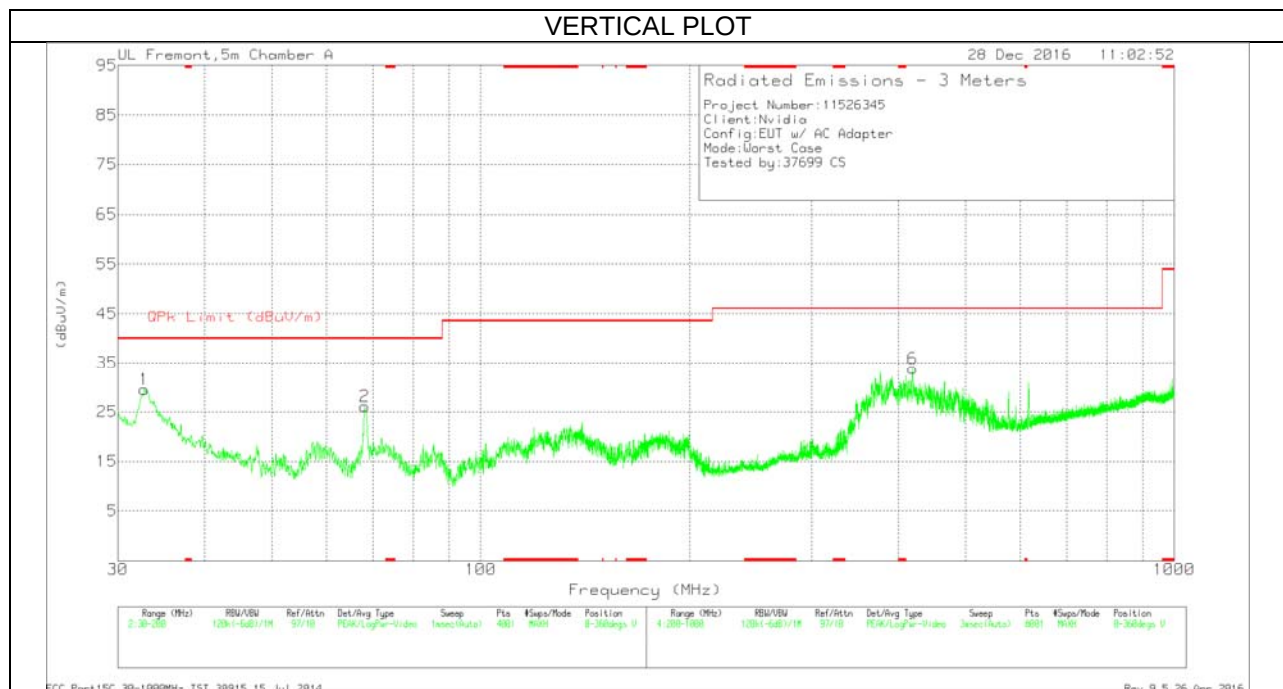
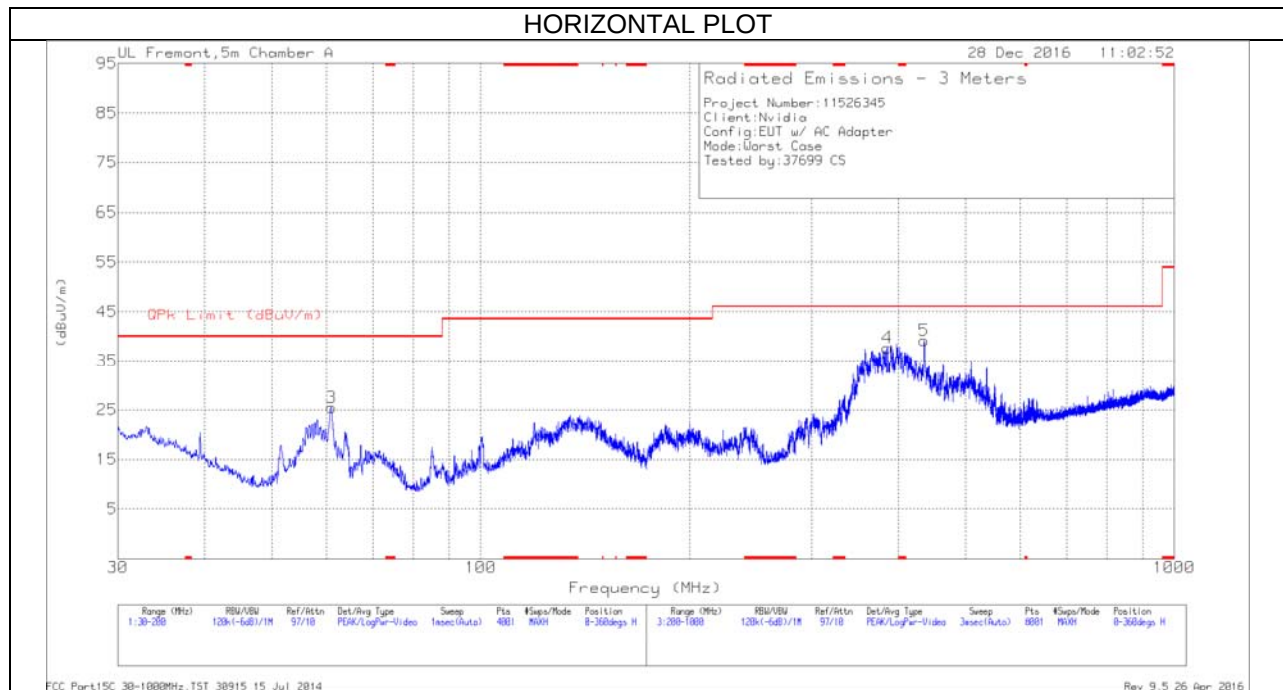
#### Trace Markers

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna (dB/m) | Cbl (dB) | Dist Corr 30m | Corrected Reading (dBuVolts) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|-----------------|----------------------|-----|---------------------|----------|---------------|------------------------------|---------------------|-------------|--------------------|-------------|----------------|
| 4      | .61084          | 4.85                 | Pk  | 10.6                | .1       | -40           | -24.45                       | 31.89               | -56.34      | -                  | -           | 0-360          |
| 1      | .61973          | 34.73                | Pk  | 10.6                | .1       | -40           | 5.43                         | 31.76               | -26.33      | -                  | -           | 0-360          |
| 2      | 20.2829         | 18.27                | Pk  | 10                  | .7       | -40           | -11.03                       | 29.54               | -40.57      | -                  | -           | 0-360          |
| 5      | 20.47258        | -4.89                | Pk  | 10                  | .7       | -40           | -34.19                       | 29.54               | -63.73      | -                  | -           | 0-360          |
| 6      | 26.40164        | 18.22                | Pk  | 8.9                 | .8       | -40           | -12.08                       | 29.54               | -41.62      | -                  | -           | 0-360          |
| 3      | 26.57247        | 11.87                | Pk  | 8.8                 | .8       | -40           | -18.53                       | 29.54               | -48.07      | -                  | -           | 0-360          |

Pk - Peak detector

## 10.4. WORST-CASE BELOW 1 GHz

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



# BELOW 1 GHz TABLE

## Trace Markers

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AF T130 (dB/m) | Amp/Cbl (dB/m) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 1      | 32.7625         | 37.01                | Pk  | 23.7           | -31.2          | 29.51                      | 40                 | -10.49      | 0-360          | 100         | V        |
| 3      | 60.8975         | 44.39                | Pk  | 11.9           | -30.8          | 25.49                      | 40                 | -14.51      | 0-360          | 300         | H        |
| 2      | 68.08           | 44.39                | Pk  | 12.5           | -30.8          | 26.09                      | 40                 | -13.91      | 0-360          | 100         | V        |
| 4      | 385.75          | 47.72                | Pk  | 19.1           | -29.1          | 37.72                      | 46.02              | -8.3        | 0-360          | 100         | H        |
| 6      | 419.7           | 42.51                | Pk  | 20.3           | -28.9          | 33.91                      | 46.02              | -12.11      | 0-360          | 200         | V        |
| 5      | 436.1           | 47.28                | Pk  | 20.7           | -28.8          | 39.18                      | 46.02              | -6.84       | 0-360          | 100         | H        |

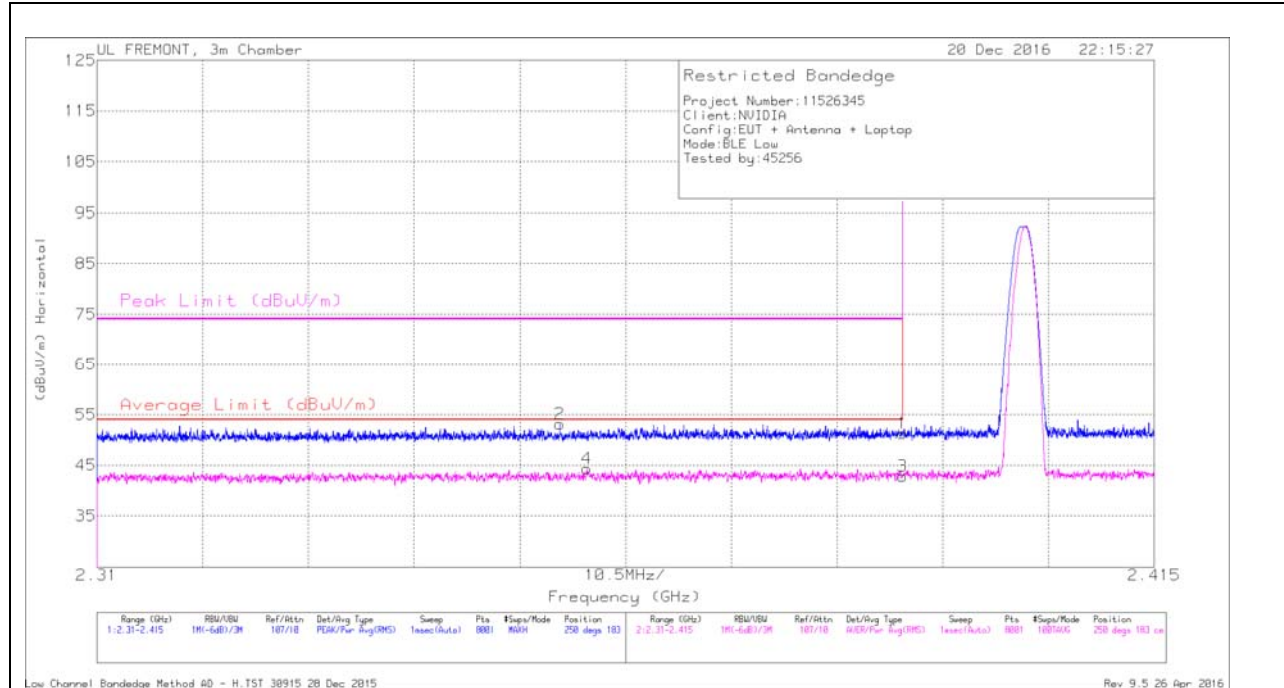
\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

## 10.1. TRANSMITTER ABOVE 1 GHz

### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

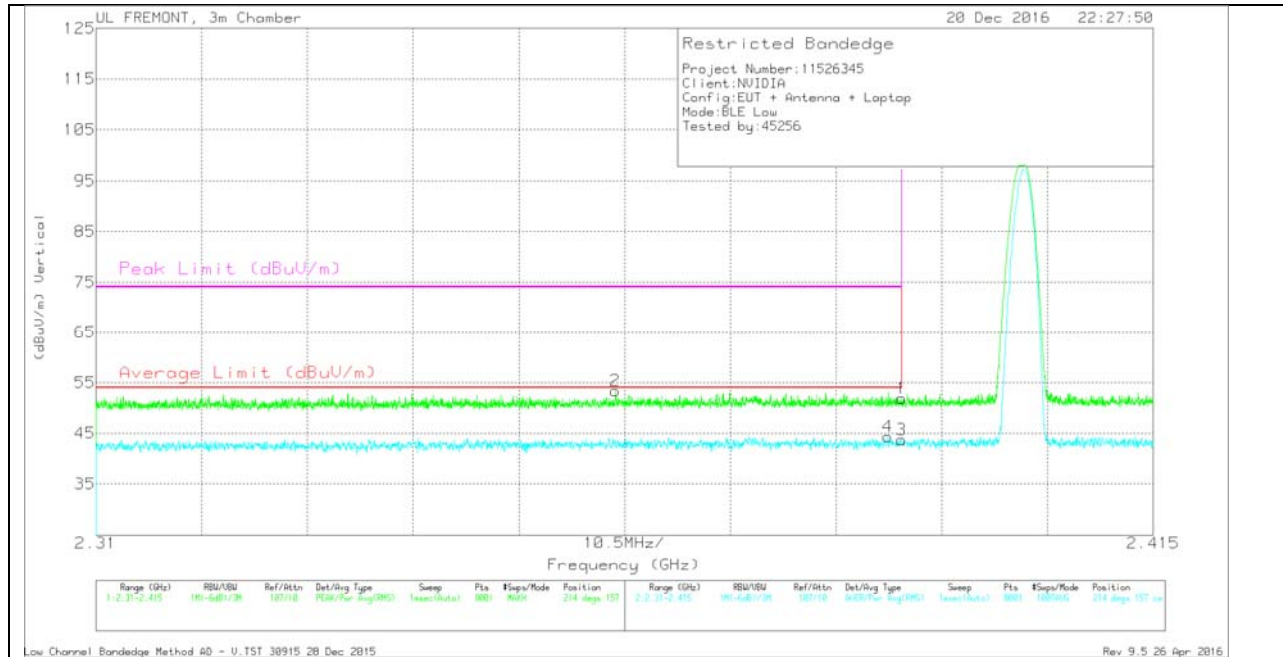
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T119 (dB/m) | Amp/Cb/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|---------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 2      | 2.356           | 42.05                | Pk  | 31.9           | -20.8               | 0            | 53.15                      | -                      | -           | 74                  | -20.85         | 250             | 183         | H        |
| 4      | 2.359           | 31.23                | RMS | 31.9           | -20.9               | 2.08         | 44.31                      | 54                     | -9.69       | -                   | -              | 250             | 183         | H        |
| 1      | 2.39            | 40.01                | Pk  | 32.1           | -20.8               | 0            | 51.31                      | -                      | -           | 74                  | -22.69         | 250             | 183         | H        |
| 3      | 2.39            | 29.46                | RMS | 32.1           | -20.8               | 2.08         | 42.84                      | 54                     | -11.16      | -                   | -              | 250             | 183         | H        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBUV) | Det | AF T119 (dB/m) | Amp/Cb/Filt/Pad (dB) | DC Corr (dB) | Corrected Reading (dBUV/m) | Average Limit (dBUV/m) | Margin (dB) | Peak Limit (dBUV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 2      | 2.362           | 42.26                | Pk  | 31.9           | -20.8                | 0            | 53.36                      | -                      | -           | 74                  | -20.64         | 214             | 157         | V        |
| 4      | 2.389           | 30.95                | RMS | 32.1           | -20.8                | 2.08         | 44.33                      | 54                     | -9.67       | -                   | -              | 214             | 157         | V        |
| 1      | 2.39            | 40.56                | Pk  | 32.1           | -20.8                | 0            | 51.86                      | -                      | -           | 74                  | -22.14         | 214             | 157         | V        |
| 3      | 2.39            | 30.36                | RMS | 32.1           | -20.8                | 2.08         | 43.74                      | 54                     | -10.26      | -                   | -              | 214             | 157         | V        |

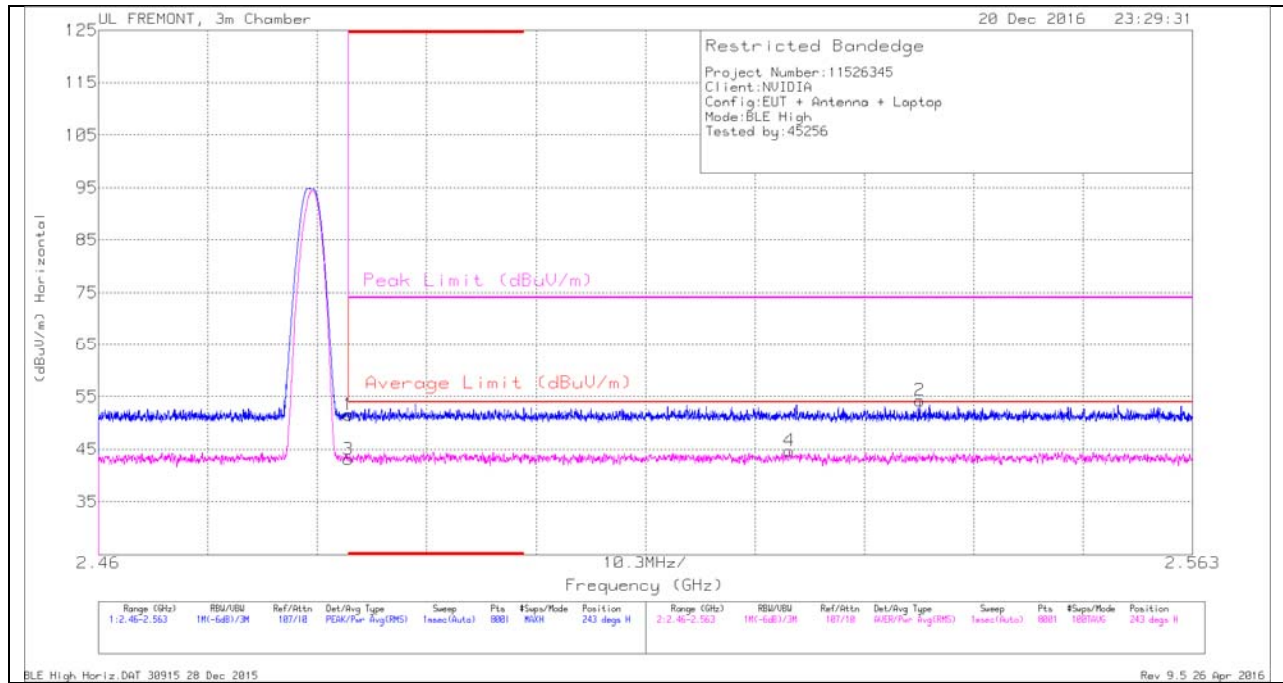
\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

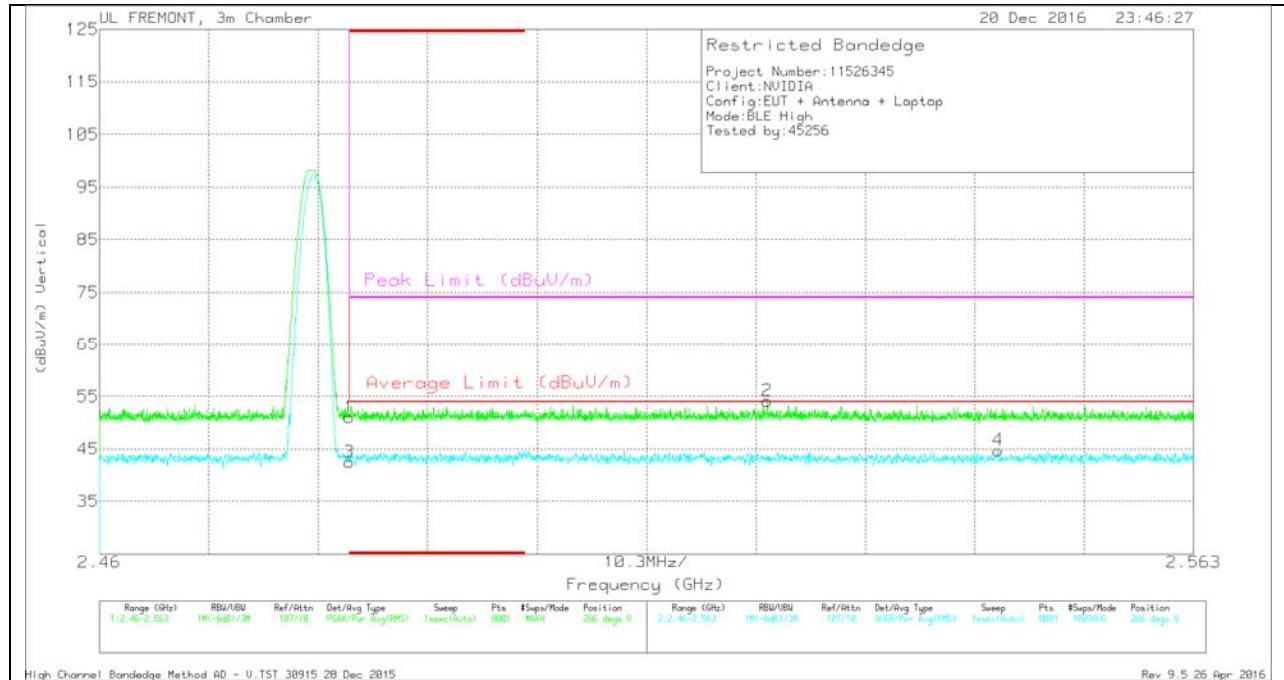
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T119 (dB/m) | Amp/Cb/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|---------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 39.91                | Pk  | 32.4           | -20.8               | 0            | 51.51                      | -                      | -           | 74                  | -22.49         | 243            | 257         | H        |
| 3      | * 2.484         | 29.39                | RMS | 32.4           | -20.8               | 2.08         | 43.07                      | 54                     | -10.93      | -                   | -              | 243            | 257         | H        |
| 4      | 2.525           | 30.81                | RMS | 32.4           | -20.6               | 2.08         | 44.69                      | 54                     | -9.31       | -                   | -              | 243            | 257         | H        |
| 2      | 2.537           | 42.74                | Pk  | 32.4           | -20.9               | 0            | 54.24                      | -                      | -           | 74                  | -19.76         | 243            | 257         | H        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

### VERTICAL PEAK AND AVERAGE PLOT



### VERTICAL DATA

#### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T119 (dB/m) | Amp/Cd/Filt/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 39.39                | Pk  | 32.4           | -20.8                | 0            | 50.99                      | -                      | -           | 74                  | -23.01         | 266            | 266         | V        |
| 3      | * 2.484         | 28.75                | RMS | 32.4           | -20.8                | 2.08         | 42.43                      | 54                     | -11.57      | -                   | -              | 266            | 266         | V        |
| 2      | 2.523           | 42.49                | Pk  | 32.4           | -20.7                | 0            | 54.19                      | -                      | -           | 74                  | -19.81         | 266            | 266         | V        |
| 4      | 2.545           | 31.03                | RMS | 32.4           | -20.8                | 2.08         | 44.71                      | 54                     | -9.29       | -                   | -              | 266            | 266         | V        |

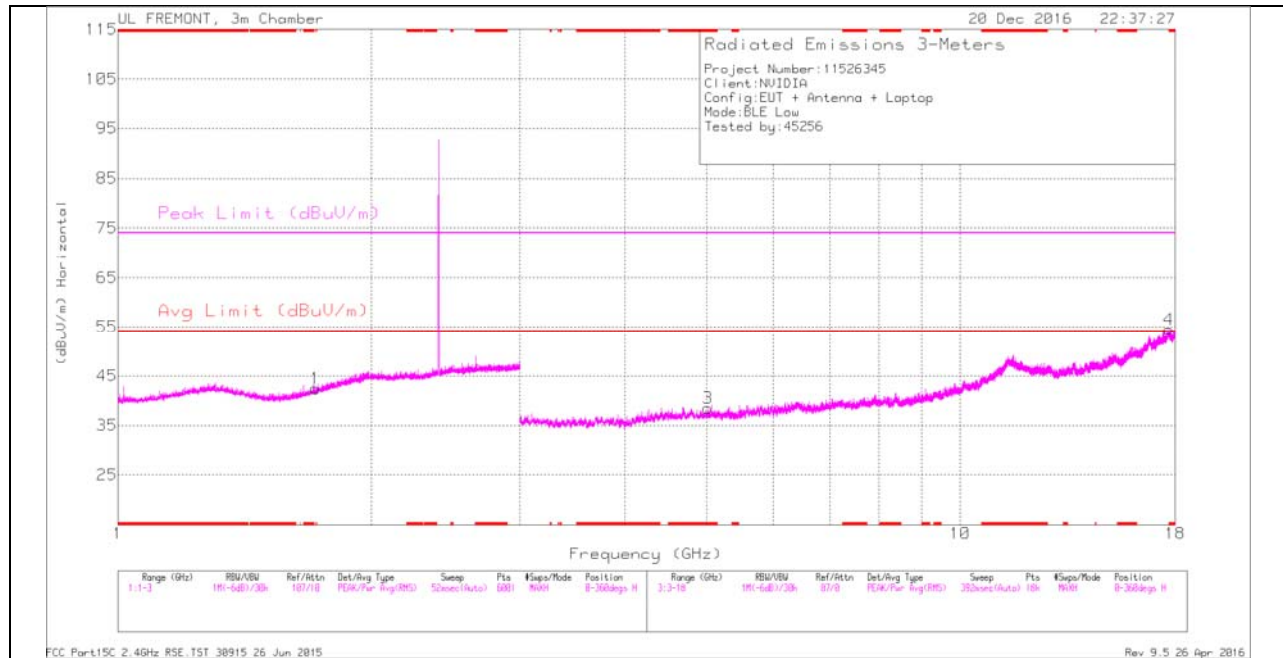
\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

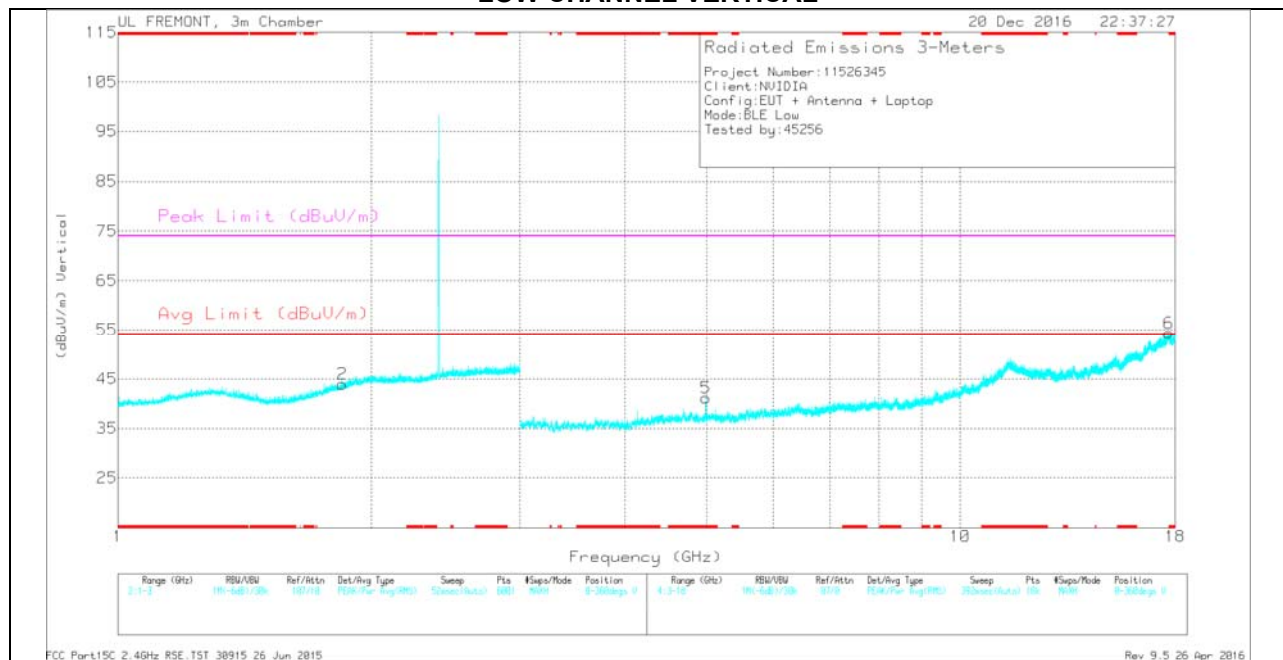
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



### LOW CHANNEL VERTICAL



## LOW CHANNEL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T119 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 3      | * 5.014         | 32.24                | Pk  | 34.2           | -28                  | 0            | 38.44                      | -                  | -           | 74                  | -35.56         | 0-360          | 200         | H        |
| 5      | * 4.988         | 35.5                 | Pk  | 34.2           | -28.5                | 0            | 41.2                       | -                  | -           | 74                  | -32.8          | 0-360          | 100         | V        |
| 1      | 1.715           | 34.82                | Pk  | 29.2           | -21.6                | 0            | 42.42                      | -                  | -           | -                   | -              | 0-360          | 200         | H        |
| 2      | 1.848           | 34.62                | Pk  | 30.7           | -21.4                | 0            | 43.92                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |
| 4      | 17.679          | 24.23                | Pk  | 41.3           | -11                  | 0            | 54.53                      | -                  | -           | -                   | -              | 0-360          | 100         | H        |
| 6      | 17.681          | 24.03                | Pk  | 41.3           | -11                  | 0            | 54.33                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

### Radiated Emissions

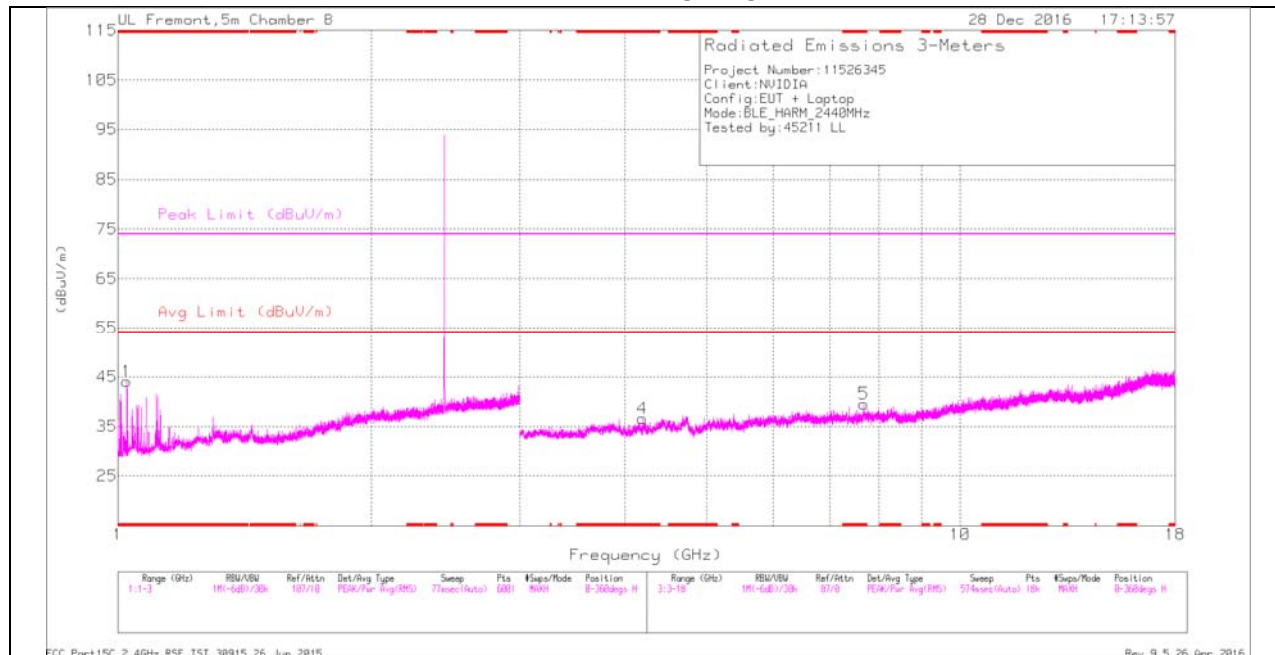
| Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T119 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| * 5.014         | 38.05                | PK2  | 34.2           | -28                  | 0            | 44.25                      | -                  | -           | 74                  | -29.75         | 190            | 204         | H        |
| * 5.012         | 27.79                | MAv1 | 34.2           | -28                  | 2.08         | 36.07                      | 54                 | -17.93      | -                   | -              | 190            | 204         | H        |
| * 4.988         | 41.33                | PK2  | 34.2           | -28.5                | 0            | 47.03                      | -                  | -           | 74                  | -26.97         | 293            | 227         | V        |
| * 4.988         | 28.57                | MAv1 | 34.2           | -28.5                | 2.08         | 36.35                      | 54                 | -17.65      | -                   | -              | 293            | 227         | V        |
| 1.713           | 42.57                | PK2  | 29.2           | -21.6                | 0            | 50.17                      | -                  | -           | -                   | -              | 156            | 228         | H        |
| 1.716           | 30.64                | MAv1 | 29.2           | -21.6                | 2.08         | 40.32                      | -                  | -           | -                   | -              | 156            | 228         | H        |
| 1.849           | 42.28                | PK2  | 30.8           | -21.4                | 0            | 51.68                      | -                  | -           | -                   | -              | 246            | 395         | V        |
| 1.85            | 30.41                | MAv1 | 30.8           | -21.4                | 2.08         | 41.89                      | -                  | -           | -                   | -              | 246            | 395         | V        |
| 17.677          | 20.35                | MAv1 | 41.3           | -11                  | 2.08         | 52.73                      | -                  | -           | -                   | -              | 0              | 158         | H        |
| 17.68           | 30.7                 | PK2  | 41.3           | -11                  | 0            | 61                         | -                  | -           | -                   | -              | 0              | 158         | H        |
| 17.68           | 20.18                | MAv1 | 41.3           | -11                  | 2.08         | 52.56                      | -                  | -           | -                   | -              | 8              | 236         | V        |
| 17.683          | 31.44                | PK2  | 41.3           | -11                  | 0            | 61.74                      | -                  | -           | -                   | -              | 8              | 236         | V        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

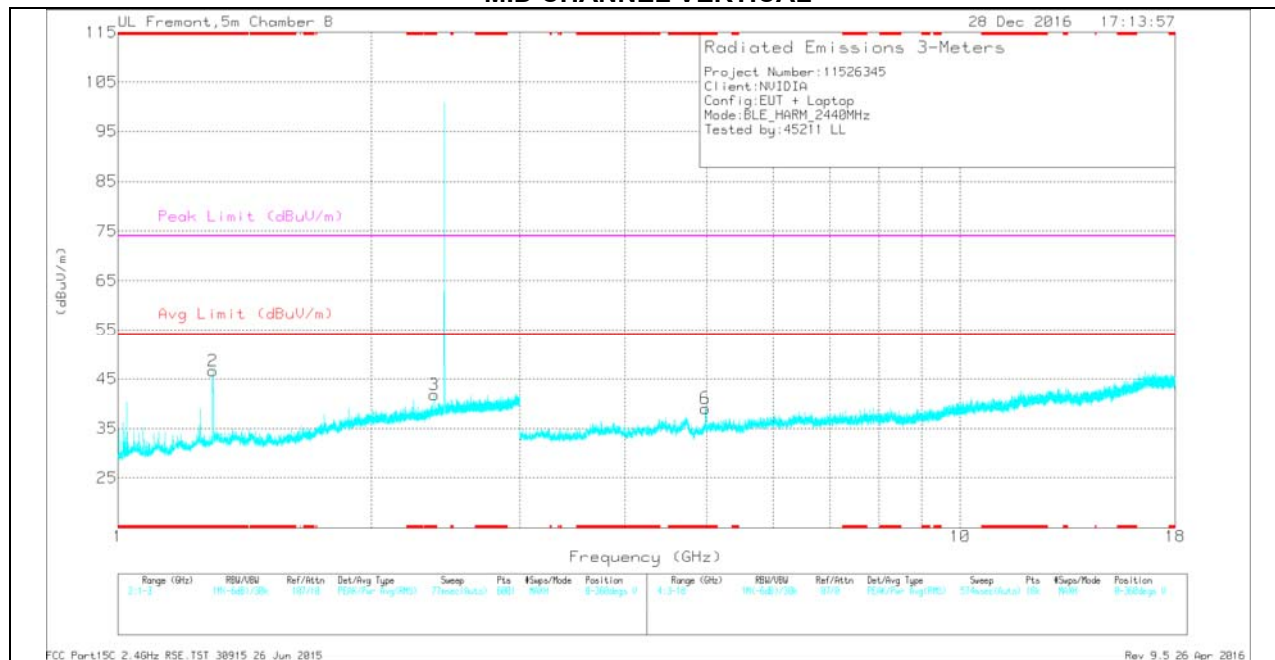
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### MID CHANNEL HORIZONTAL



### MID CHANNEL VERTICAL



## MID CHANNEL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 1.025         | 40.75                | Pk  | 27.8           | -24.5                | 0            | 44.05                      | -                  | -           | 74                  | -29.95         | 0-360          | 201         | H        |
| 2      | * 1.296         | 40.76                | Pk  | 29             | -23.1                | 0            | 46.66                      | -                  | -           | 74                  | -27.34         | 0-360          | 98          | V        |
| 3      | * 2.375         | 32.1                 | Pk  | 32             | -22.3                | 0            | 41.8                       | -                  | -           | 74                  | -32.2          | 0-360          | 98          | V        |
| 4      | * 4.192         | 34.81                | Pk  | 33.7           | -31.9                | 0            | 36.61                      | -                  | -           | 74                  | -37.39         | 0-360          | 98          | H        |
| 5      | * 7.677         | 32.67                | Pk  | 35.7           | -28.8                | 0            | 39.57                      | -                  | -           | 74                  | -34.43         | 0-360          | 201         | H        |
| 6      | * 4.982         | 36.86                | Pk  | 34             | -31.8                | 0            | 39.06                      | -                  | -           | 74                  | -34.94         | 0-360          | 201         | V        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

### Radiated Emissions

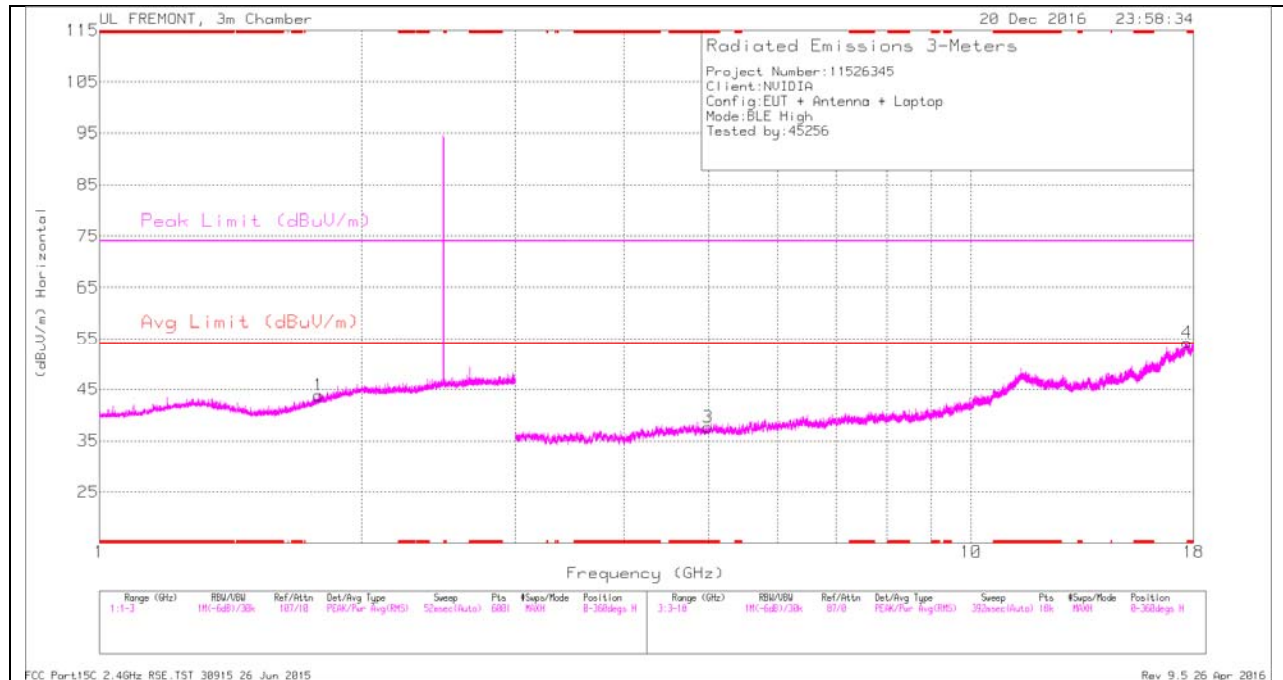
| Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| * 1.025         | 41.8                 | PK2  | 27.8           | -24.5                | 0            | 45.1                       | -                  | -           | 74                  | -28.9          | 216            | 285         | H        |
| * 1.024         | 19.62                | MAv1 | 27.8           | -24.5                | 2.08         | 25                         | 54                 | -29         | -                   | -              | 216            | 285         | H        |
| * 1.297         | 39.89                | PK2  | 29             | -23.1                | 0            | 45.79                      | -                  | -           | 74                  | -28.21         | 298            | 112         | V        |
| * 1.3           | 19.2                 | MAv1 | 29             | -23                  | 2.08         | 27.28                      | 54                 | -26.72      | -                   | -              | 298            | 112         | V        |
| * 2.375         | 37.83                | PK2  | 32             | -22.3                | 0            | 47.53                      | -                  | -           | 74                  | -26.47         | 65             | 313         | V        |
| * 2.375         | 30.1                 | MAv1 | 32             | -22.3                | 2.08         | 41.88                      | 54                 | -12.12      | -                   | -              | 65             | 313         | V        |
| * 4.193         | 39.22                | PK2  | 33.7           | -31.9                | 0            | 41.02                      | -                  | -           | 74                  | -32.98         | 67             | 226         | H        |
| * 4.195         | 28.45                | MAv1 | 33.7           | -31.9                | 2.08         | 32.33                      | 54                 | -21.67      | -                   | -              | 67             | 226         | H        |
| * 7.679         | 37.21                | PK2  | 35.7           | -28.8                | 0            | 44.11                      | -                  | -           | 74                  | -29.89         | 301            | 273         | H        |
| * 7.675         | 26.21                | MAv1 | 35.7           | -28.8                | 2.08         | 35.19                      | 54                 | -18.81      | -                   | -              | 301            | 273         | H        |
| * 4.978         | 43.31                | PK2  | 34             | -31.9                | 0            | 45.41                      | -                  | -           | 74                  | -28.59         | 360            | 105         | V        |
| * 4.979         | 29.81                | MAv1 | 34             | -31.9                | 2.08         | 33.99                      | 54                 | -20.01      | -                   | -              | 360            | 105         | V        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

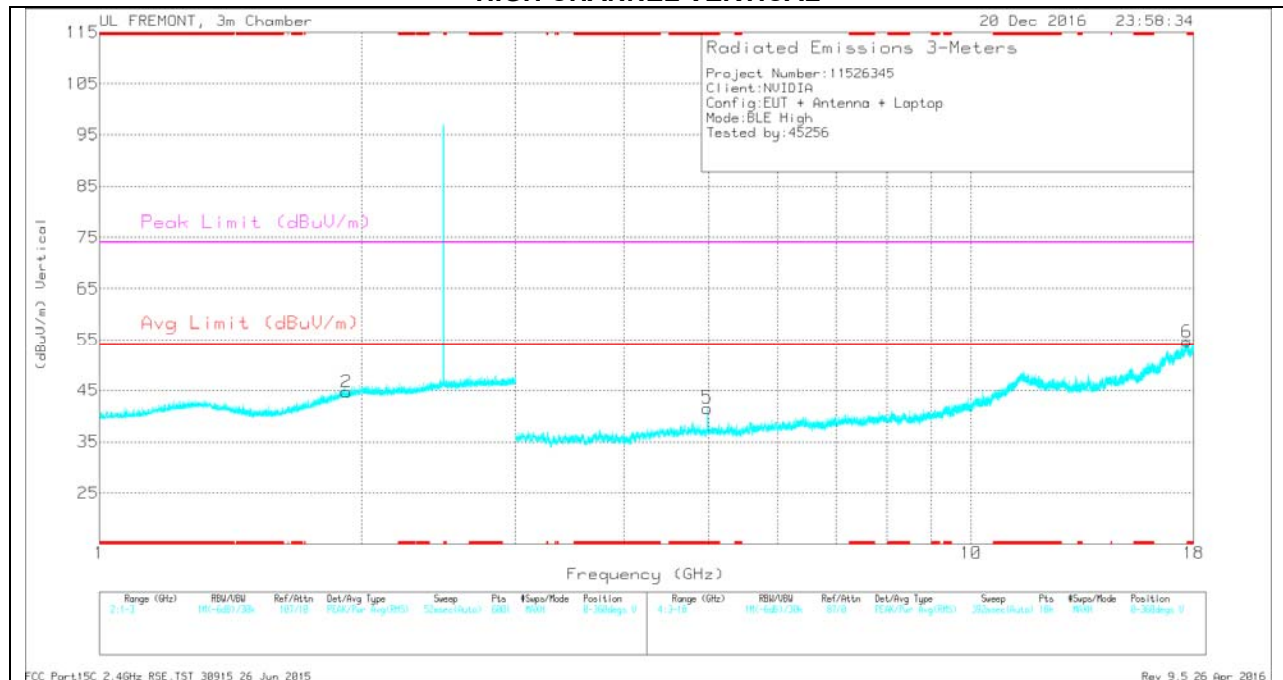
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### HIGH CHANNEL HORIZONTAL



### HIGH CHANNEL VERTICAL



## HIGH CHANNEL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T119 (dB/m) | Amp/Cb/Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 3      | * 4.991         | 31.83                | Pk  | 34.2           | -28.4                | 0            | 37.63                      | -                  | -           | 74                  | -36.37         | 0-360          | 200         | H        |
| 5      | * 4.978         | 35.8                 | Pk  | 34.2           | -28.4                | 0            | 41.6                       | -                  | -           | 74                  | -32.4          | 0-360          | 100         | V        |
| 1      | 1.785           | 35.2                 | Pk  | 30.1           | -21.5                | 0            | 43.8                       | -                  | -           | -                   | -              | 0-360          | 200         | H        |
| 2      | 1.92            | 34.49                | Pk  | 31.4           | -21.2                | 0            | 44.69                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |
| 4      | 17.684          | 24.09                | Pk  | 41.3           | -11.1                | 0            | 54.29                      | -                  | -           | -                   | -              | 0-360          | 200         | H        |
| 6      | 17.684          | 24.42                | Pk  | 41.3           | -11.1                | 0            | 54.62                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |

\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

Pk - Peak detector

### Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det  | AFT119 (dB/m) | Amp/Cb/Fltr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| * 4.99          | 39.16                | PK2  | 34.2          | -28.4                | 0            | 44.96                      | -                  | -           | 74                  | -29.04         | 133            | 228         | H        |
| * 4.989         | 27.77                | MAv1 | 34.2          | -28.5                | 2.18         | 35.65                      | 54                 | -18.35      | -                   | -              | 133            | 228         | H        |
| * 4.979         | 43.39                | PK2  | 34.2          | -28.4                | 0            | 49.19                      | -                  | -           | 74                  | -24.81         | 298            | 198         | V        |
| * 4.979         | 29.42                | MAv1 | 34.2          | -28.4                | 2.18         | 37.4                       | 54                 | -16.6       | -                   | -              | 298            | 198         | V        |
| 1.784           | 41.86                | PK2  | 30            | -21.5                | 0            | 50.36                      | -                  | -           | -                   | -              | 210            | 249         | H        |
| 1.786           | 30.62                | MAv1 | 30.1          | -21.5                | 2.18         | 41.4                       | -                  | -           | -                   | -              | 210            | 249         | H        |
| 1.919           | 41.88                | PK2  | 31.4          | -21.2                | 0            | 52.08                      | -                  | -           | -                   | -              | 91             | 325         | V        |
| 1.919           | 30.27                | MAv1 | 31.4          | -21.2                | 2.18         | 42.65                      | -                  | -           | -                   | -              | 91             | 325         | V        |
| 17.683          | 20.44                | MAv1 | 41.3          | -11.1                | 2.18         | 52.82                      | -                  | -           | -                   | -              | 155            | 175         | H        |
| 17.684          | 30.53                | PK2  | 41.3          | -11.1                | 0            | 60.73                      | -                  | -           | -                   | -              | 255            | 359         | V        |
| 17.685          | 20.03                | MAv1 | 41.3          | -11.1                | 2.18         | 52.41                      | -                  | -           | -                   | -              | 255            | 359         | V        |
| 17.686          | 30.83                | PK2  | 41.3          | -11.1                | 0            | 61.03                      | -                  | -           | -                   | -              | 155            | 175         | H        |

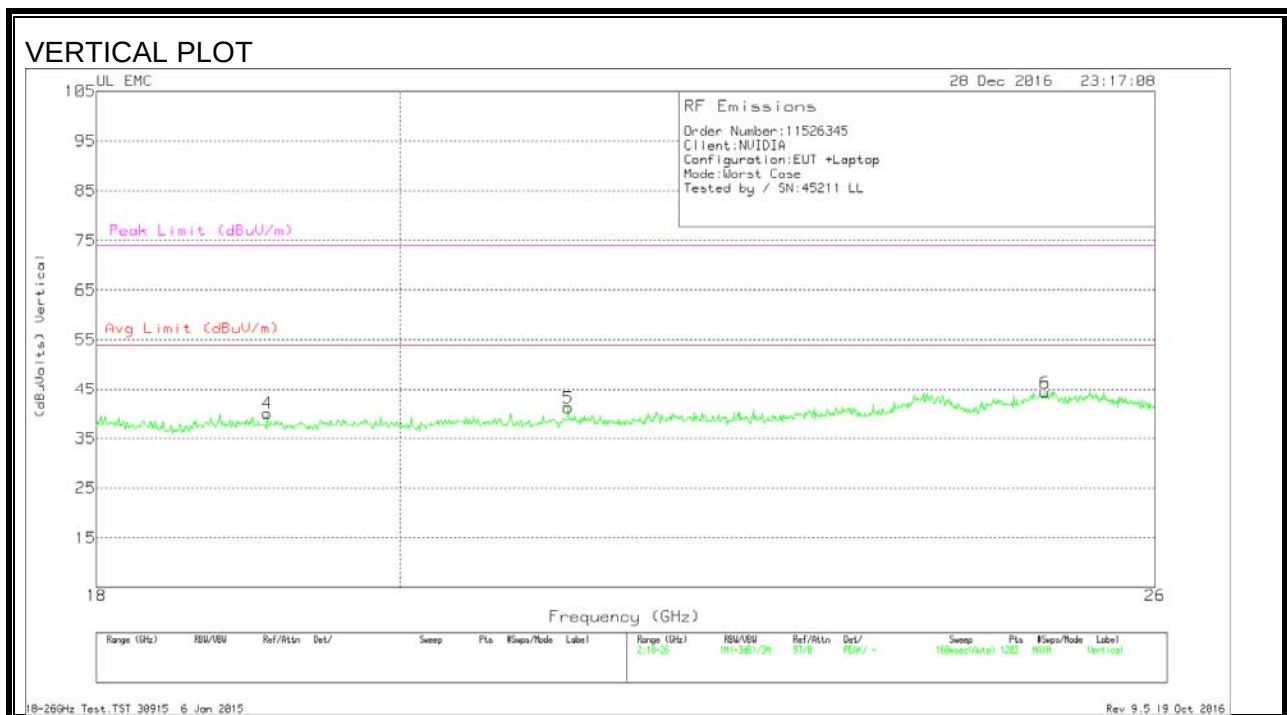
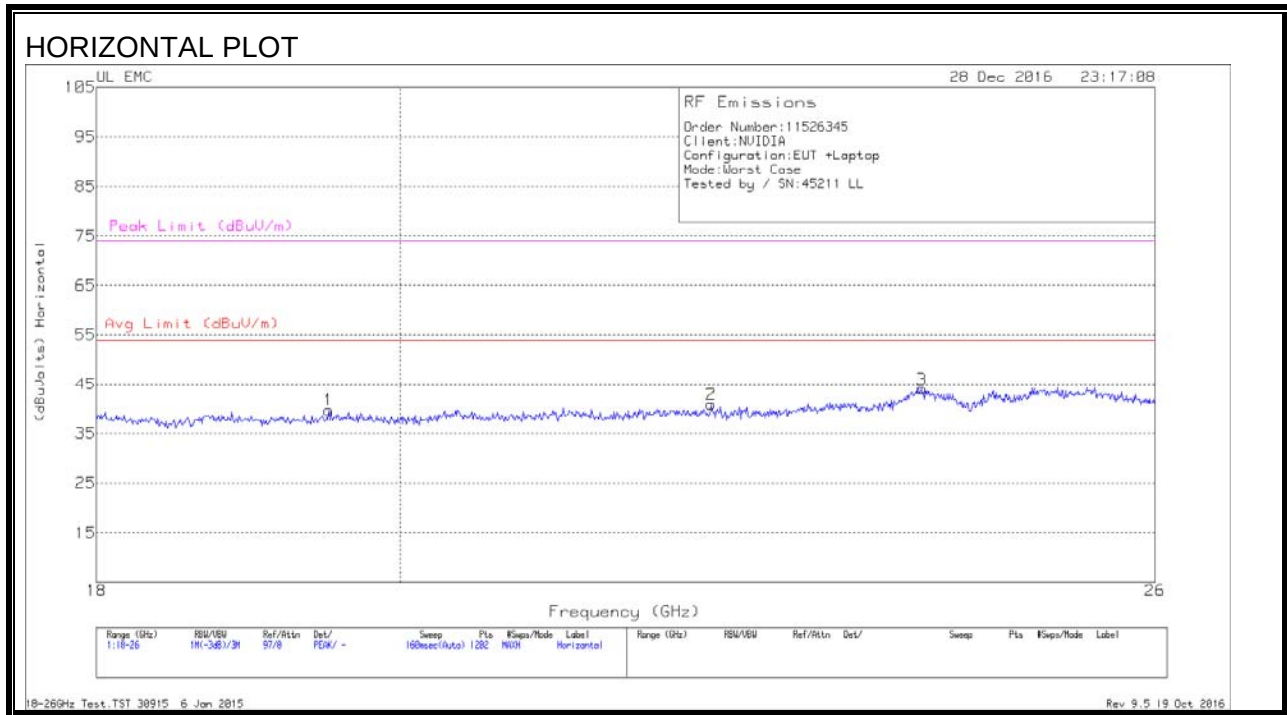
\* - indicates frequency in CFR15.205/RSS-GEN 8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

## 10.1. WORST-CASE 18 - 26 GHz

### SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION)



## 18 to 26 GHz TABLE

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T449 (dB/m) | Amp/Cbl (dB) | Dist Corr (dB) | Corrected Reading (dBuVolts) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) |
|--------|-----------------|----------------------|-----|----------------|--------------|----------------|------------------------------|--------------------|-------------|---------------------|----------------|
| 1      | 19.512          | 41.57                | Pk  | 32.7           | -25.1        | -9.5           | 39.67                        | 54                 | -14.33      | 74                  | -34.33         |
| 2      | 22.283          | 41.43                | Pk  | 33.5           | -24.6        | -9.5           | 40.83                        | 54                 | -13.17      | 74                  | -33.17         |
| 3      | 23.975          | 43.7                 | Pk  | 34             | -24.2        | -9.5           | 44                           | 54                 | -10         | 74                  | -30            |
| 4      | 19.099          | 41.8                 | Pk  | 32.7           | -25          | -9.5           | 40                           | 54                 | -14         | 74                  | -34            |
| 5      | 21.204          | 42.27                | Pk  | 33.1           | -24.7        | -9.5           | 41.17                        | 54                 | -12.83      | 74                  | -32.83         |
| 6      | 25.027          | 44.33                | Pk  | 34.2           | -24.7        | -9.5           | 44.33                        | 54                 | -9.67       | 74                  | -29.67         |

Pk - Peak detector

## 10.2. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

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

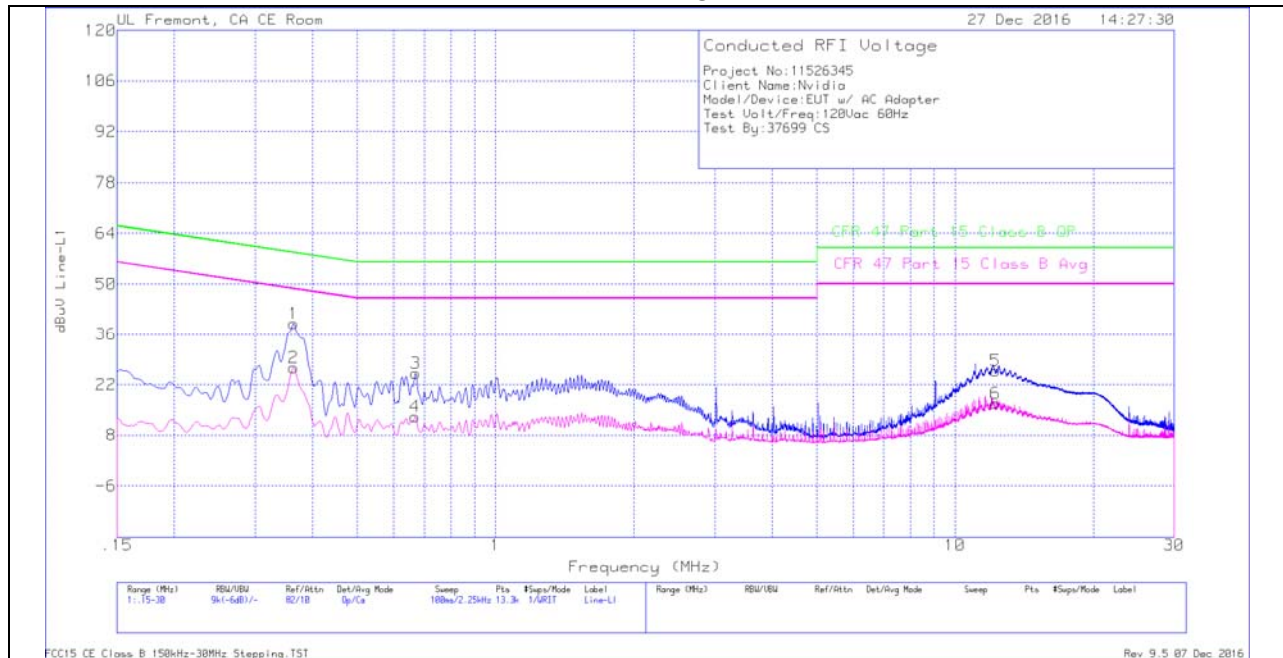
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

### RESULTS

## 6 WORST EMISSIONS

### LINE 1 PLOT



### LINE 1 RESULT

#### Trace Markers

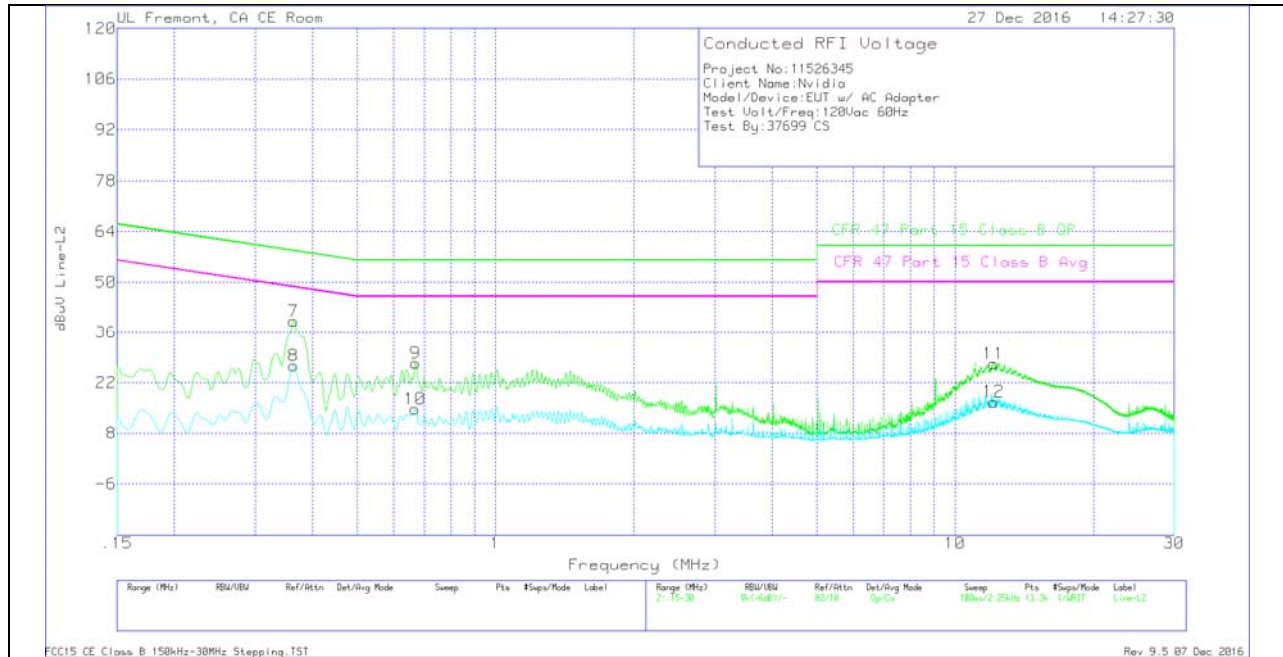
#### Range 1: Line-L1 .15 - 30MHz

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | USN L1 | LC Cables 1&3 | Limiter (dB) | Corrected Reading dBuV | CFR 47 Part 15 Class B QP | QP Margin (dB) | CFR 47 Part 15 Class B Avg | Av(CISPR)Margin (dB) |
|--------|-----------------|----------------------|-----|--------|---------------|--------------|------------------------|---------------------------|----------------|----------------------------|----------------------|
| 1      | .36375          | 28.97                | Qp  | 0      | 0             | 10.1         | 39.07                  | 58.64                     | -19.57         | -                          | -                    |
| 2      | .36375          | 16.61                | Ca  | 0      | 0             | 10.1         | 26.71                  | -                         | -              | 48.64                      | -21.93               |
| 3      | .66975          | 15.12                | Qp  | 0      | 0             | 10.1         | 25.22                  | 56                        | -30.78         | -                          | -                    |
| 4      | .6675           | 3.02                 | Ca  | 0      | 0             | 10.1         | 13.12                  | -                         | -              | 46                         | -32.88               |
| 5      | 12.25275        | 15.34                | Qp  | .1     | .2            | 10.2         | 25.84                  | 60                        | -34.16         | -                          | -                    |
| 6      | 12.25275        | 6.27                 | Ca  | .1     | .2            | 10.2         | 16.77                  | -                         | -              | 50                         | -33.23               |

Qp - Quasi-Peak detector

Ca - CISPR average detection

## LINE 2 PLOT



## LINE 2 RESULT

### Trace Markers

Range 2: Line-L2 .15 - 30MHz

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN L2 | LC Cables 2&3 | Limiter (dB) | Corrected Reading dBuV | CFR 47 Part 15 Class B QP | QP Margin (dB) | CFR 47 Part 15 Class B Avg | Av(CISPR)Margin (dB) |
|--------|-----------------|----------------------|-----|---------|---------------|--------------|------------------------|---------------------------|----------------|----------------------------|----------------------|
| 7      | .36375          | 29.1                 | Qp  | 0       | 0             | 10.1         | 39.2                   | 58.64                     | -19.44         | -                          | -                    |
| 8      | .36375          | 16.54                | Ca  | 0       | 0             | 10.1         | 26.64                  | -                         | -              | 48.64                      | -22                  |
| 9      | .66975          | 17.31                | Qp  | 0       | 0             | 10.1         | 27.41                  | 56                        | -28.59         | -                          | -                    |
| 10     | .6675           | 4.63                 | Ca  | 0       | 0             | 10.1         | 14.73                  | -                         | -              | 46                         | -31.27               |
| 11     | 12.12675        | 16.89                | Qp  | 0       | .2            | 10.2         | 27.29                  | 60                        | -32.71         | -                          | -                    |
| 12     | 12.147          | 6.31                 | Ca  | 0       | .2            | 10.2         | 16.71                  | -                         | -              | 50                         | -33.29               |

Qp - Quasi-Peak detector

Ca - CISPR average detection