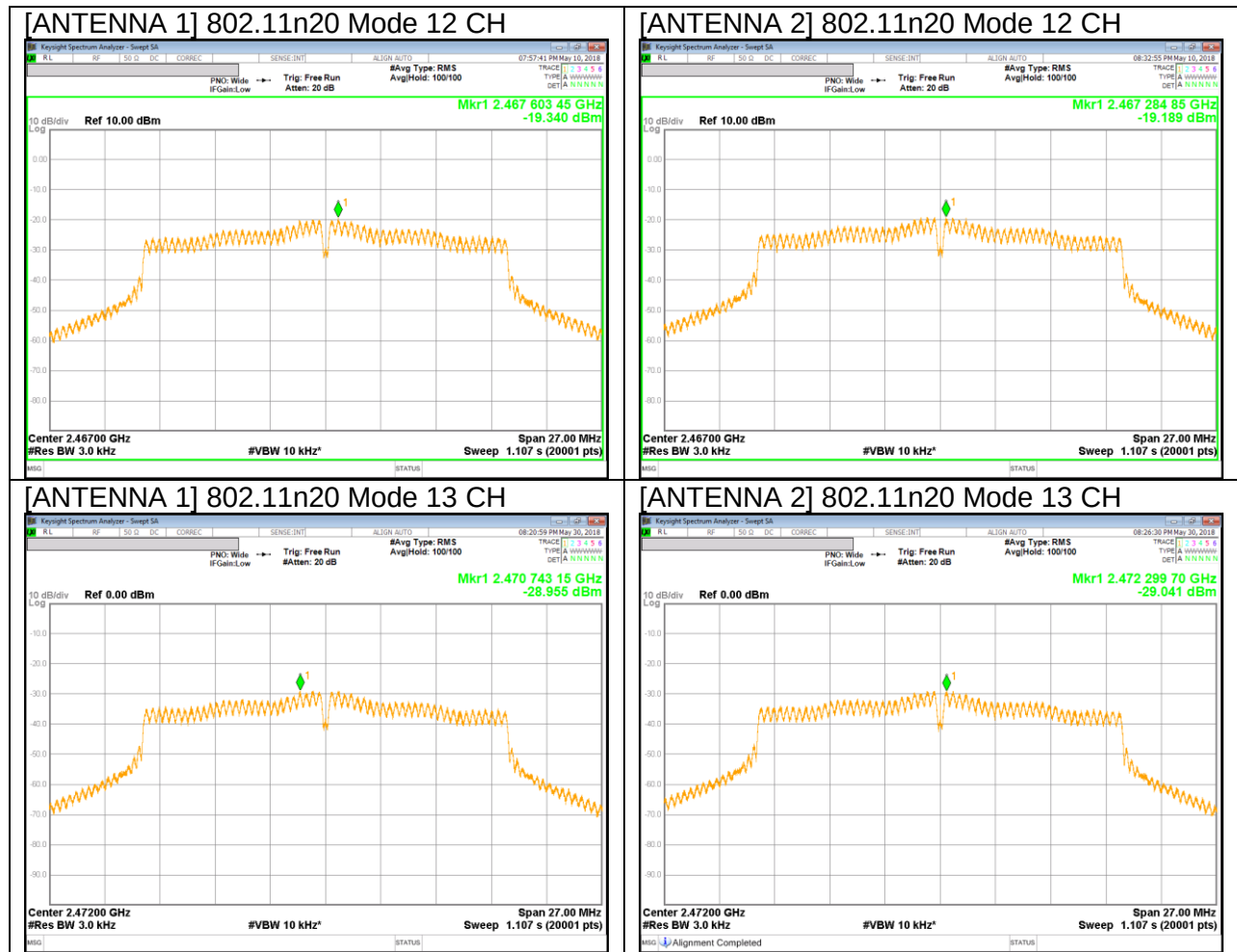






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## **10.4. OUT-OF-BAND EMISSIONS**

### **LIMITS**

FCC §15.247 (d)

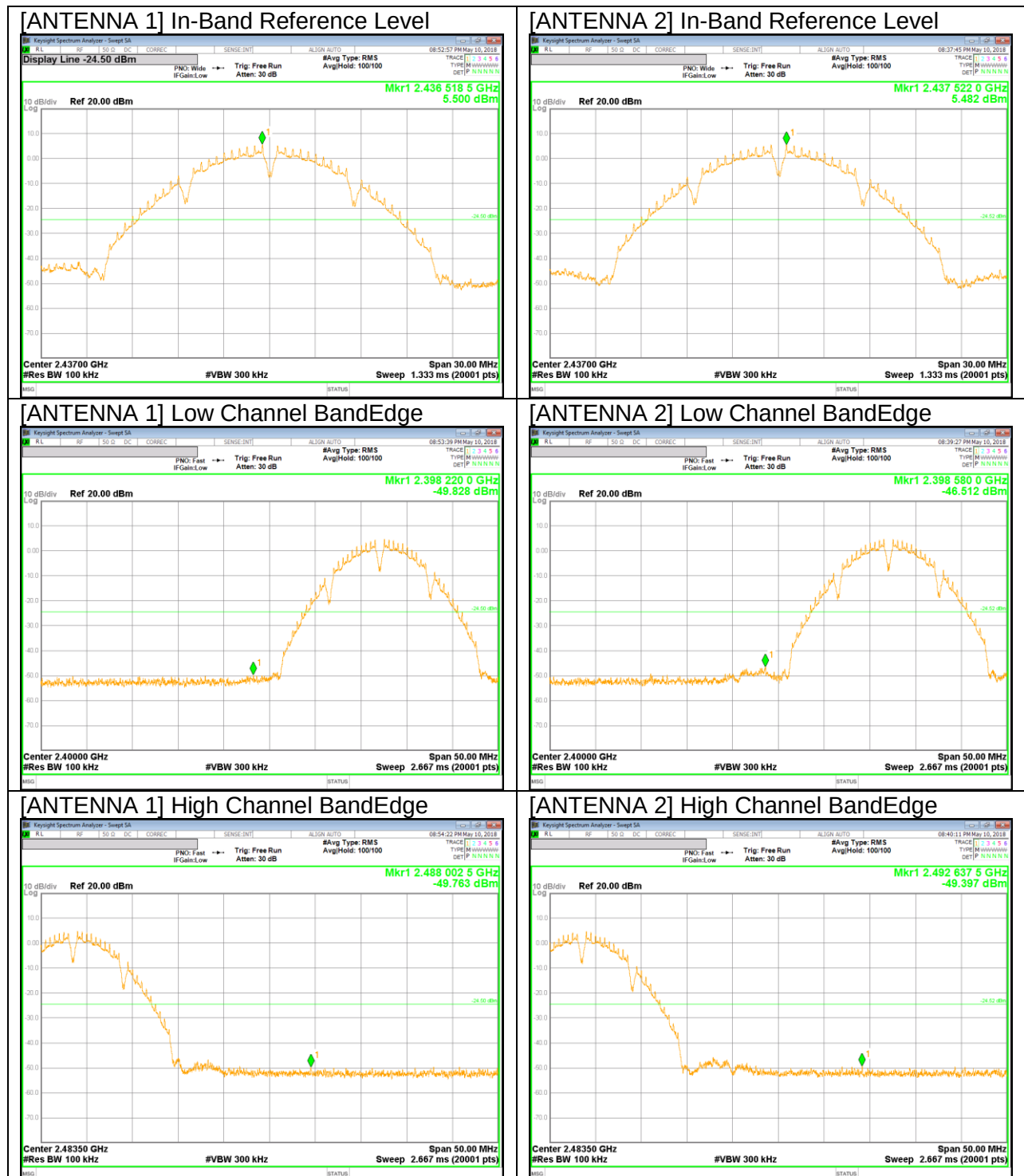
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

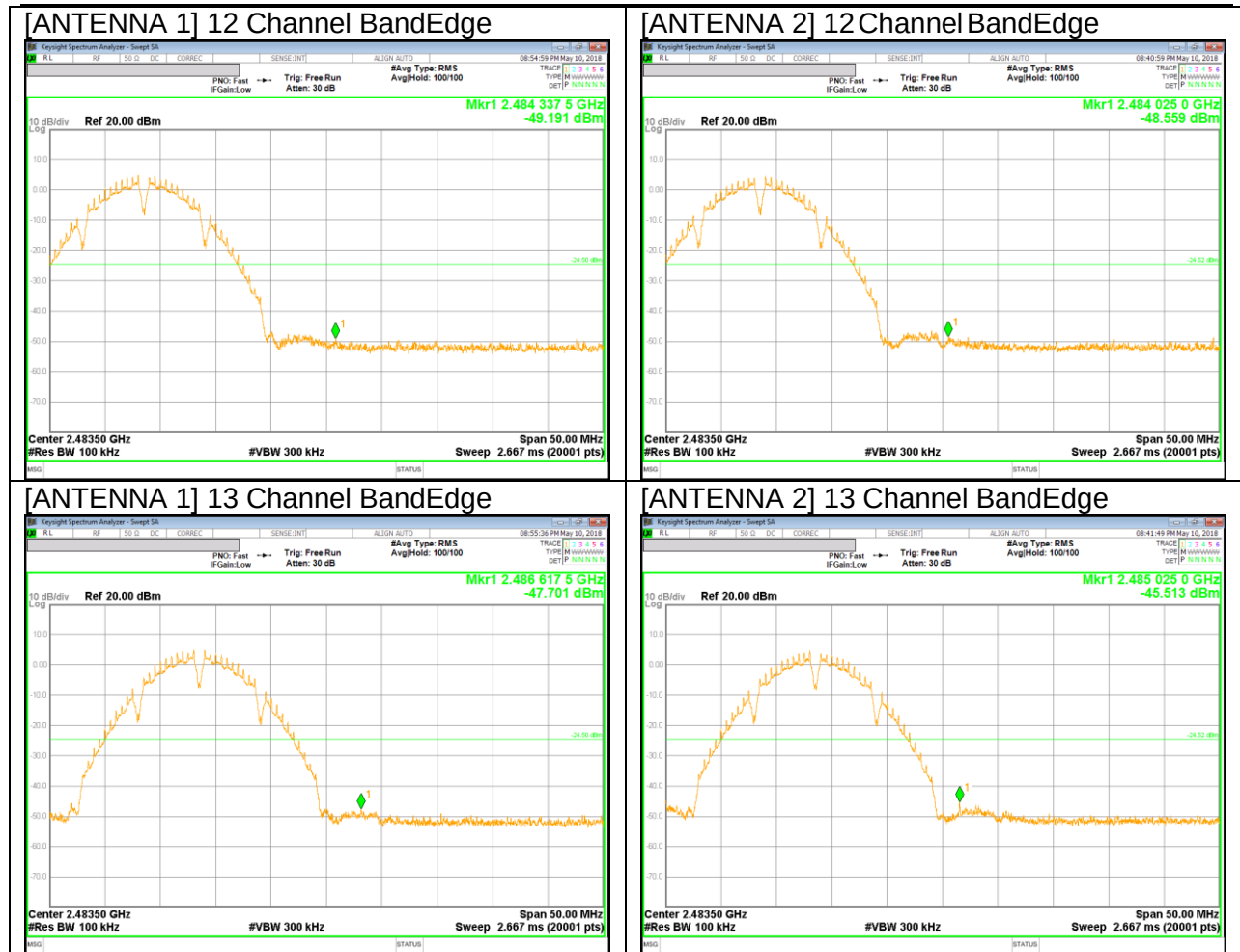
### **TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

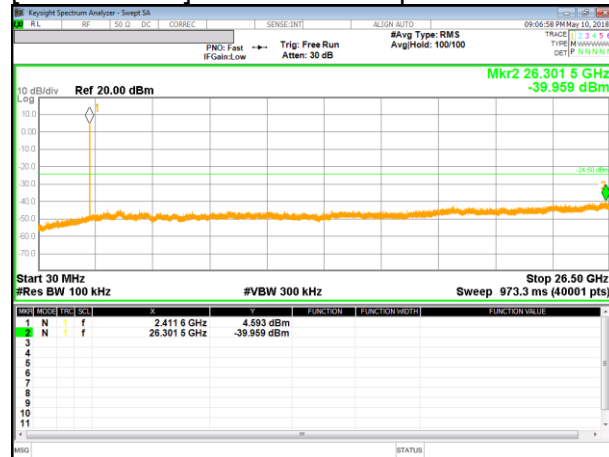
## RESULTS

### 10.4.1. 802.11b MODE IN THE 2.4 GHz BAND

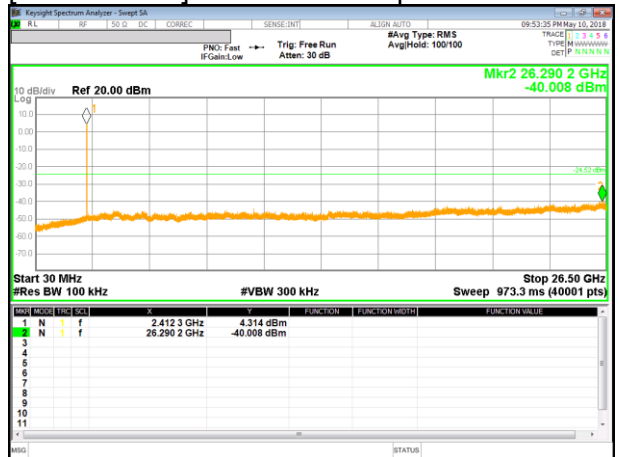




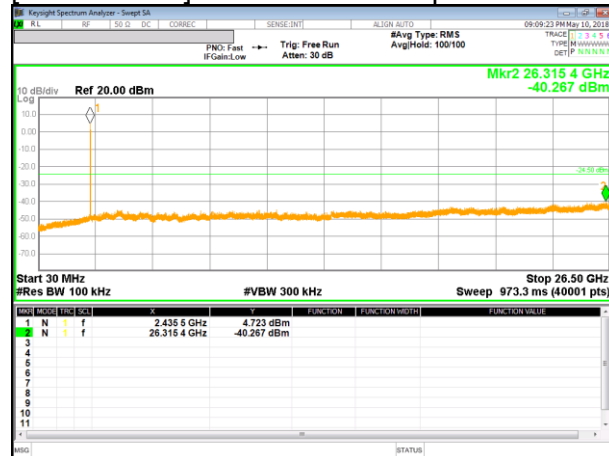
### [ANTENNA 1] Low Channel Spurious



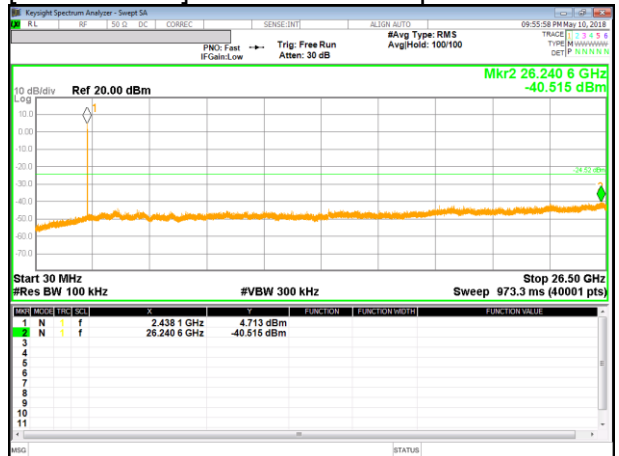
### [ANTENNA 2] Low Channel Spurious



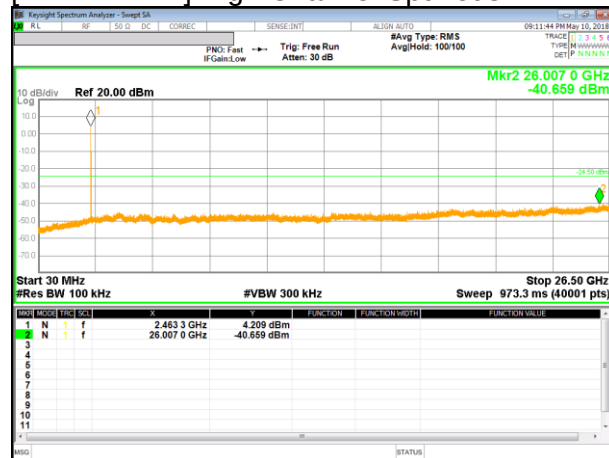
### [ANTENNA 1] Middle Channel Spurious



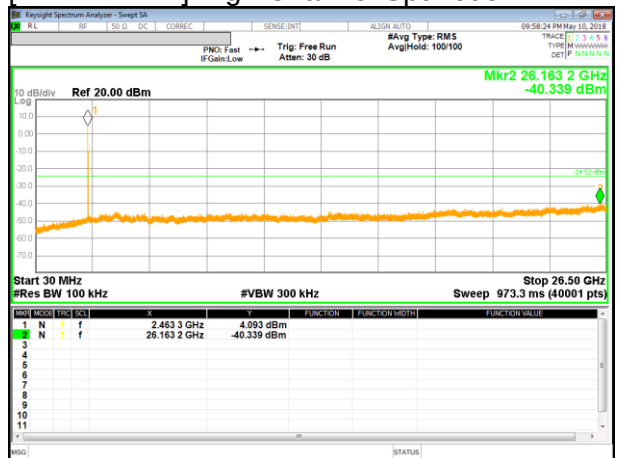
### [ANTENNA 2] Middle Channel Spurious

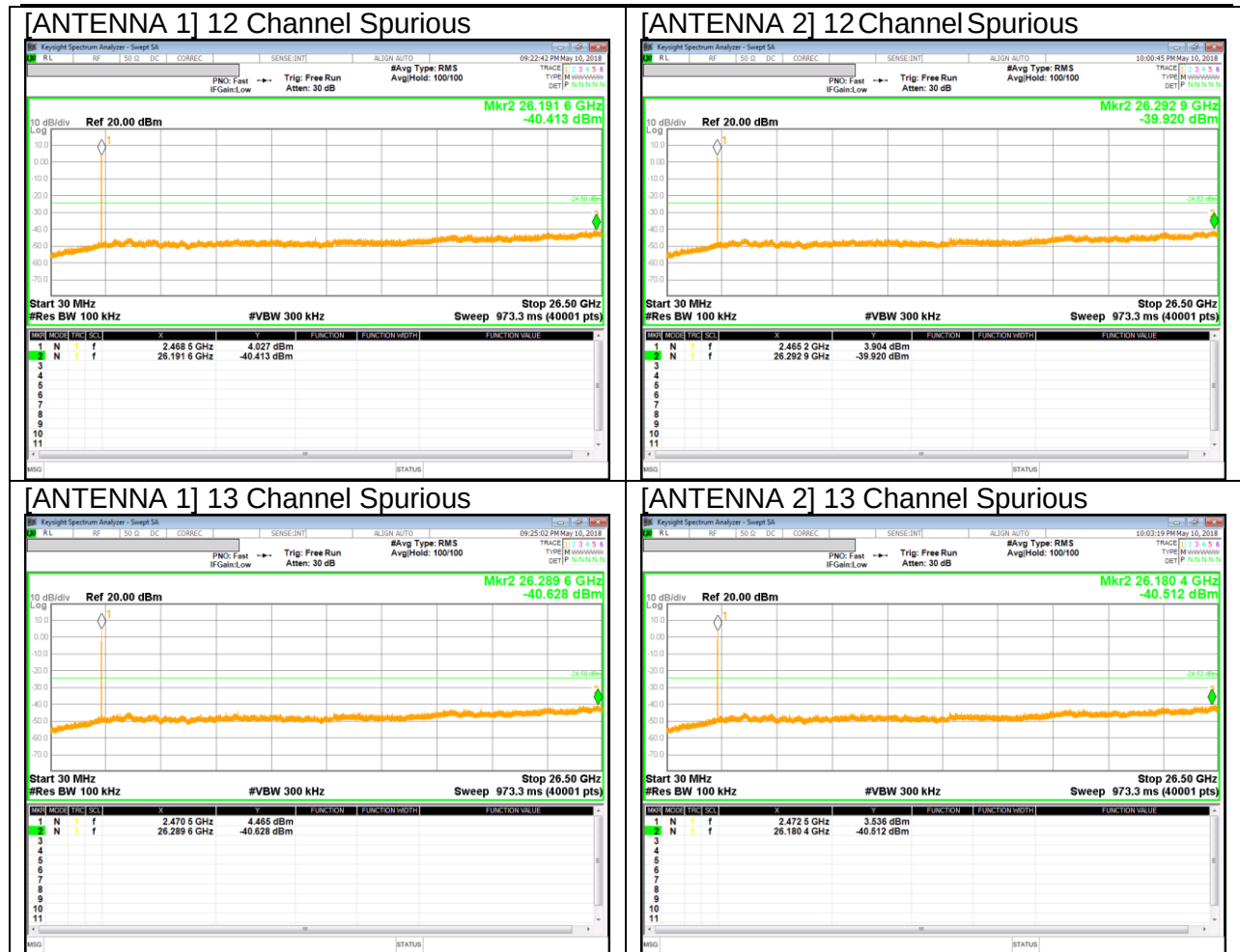


### [ANTENNA 1] High Channel Spurious

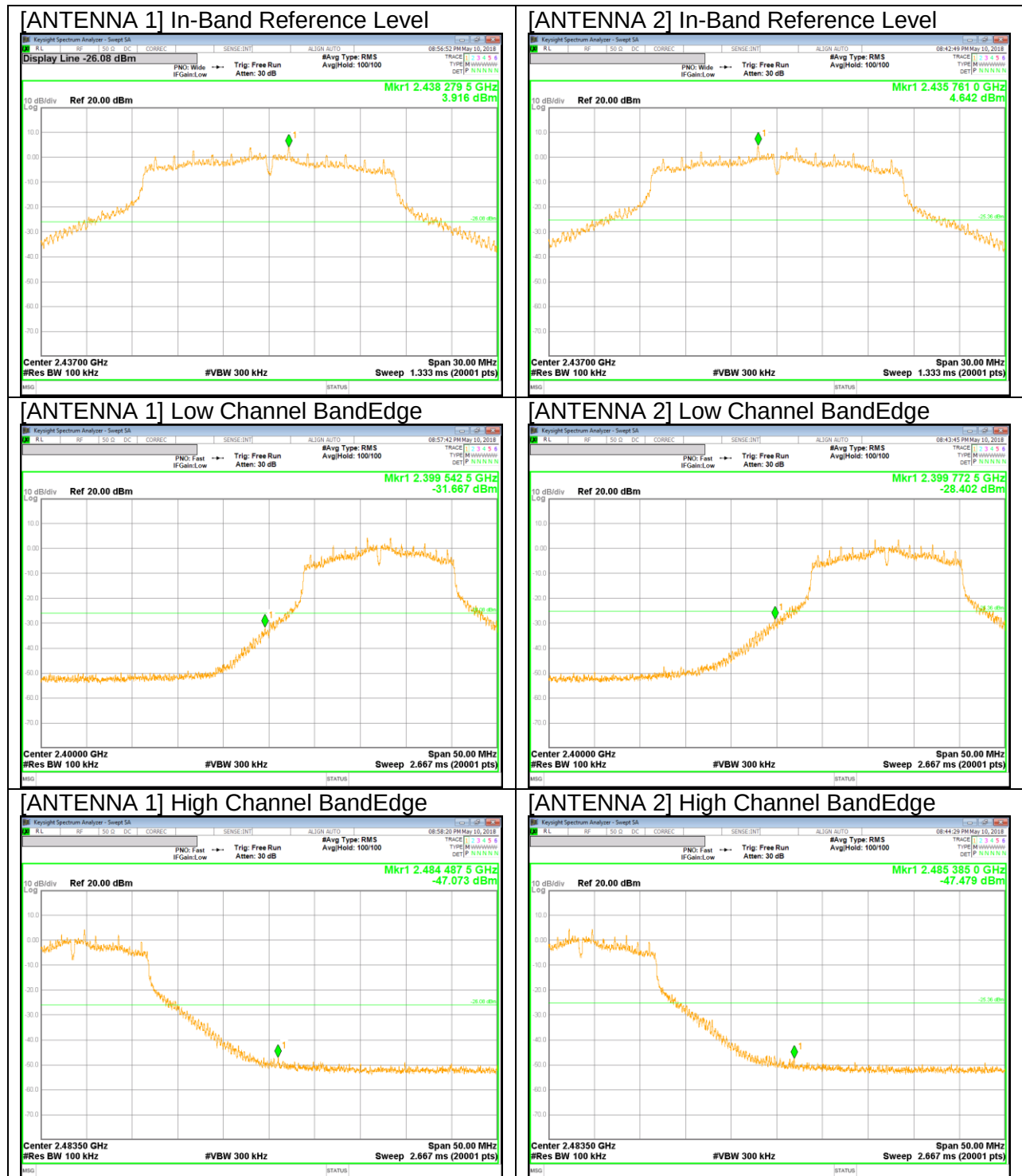


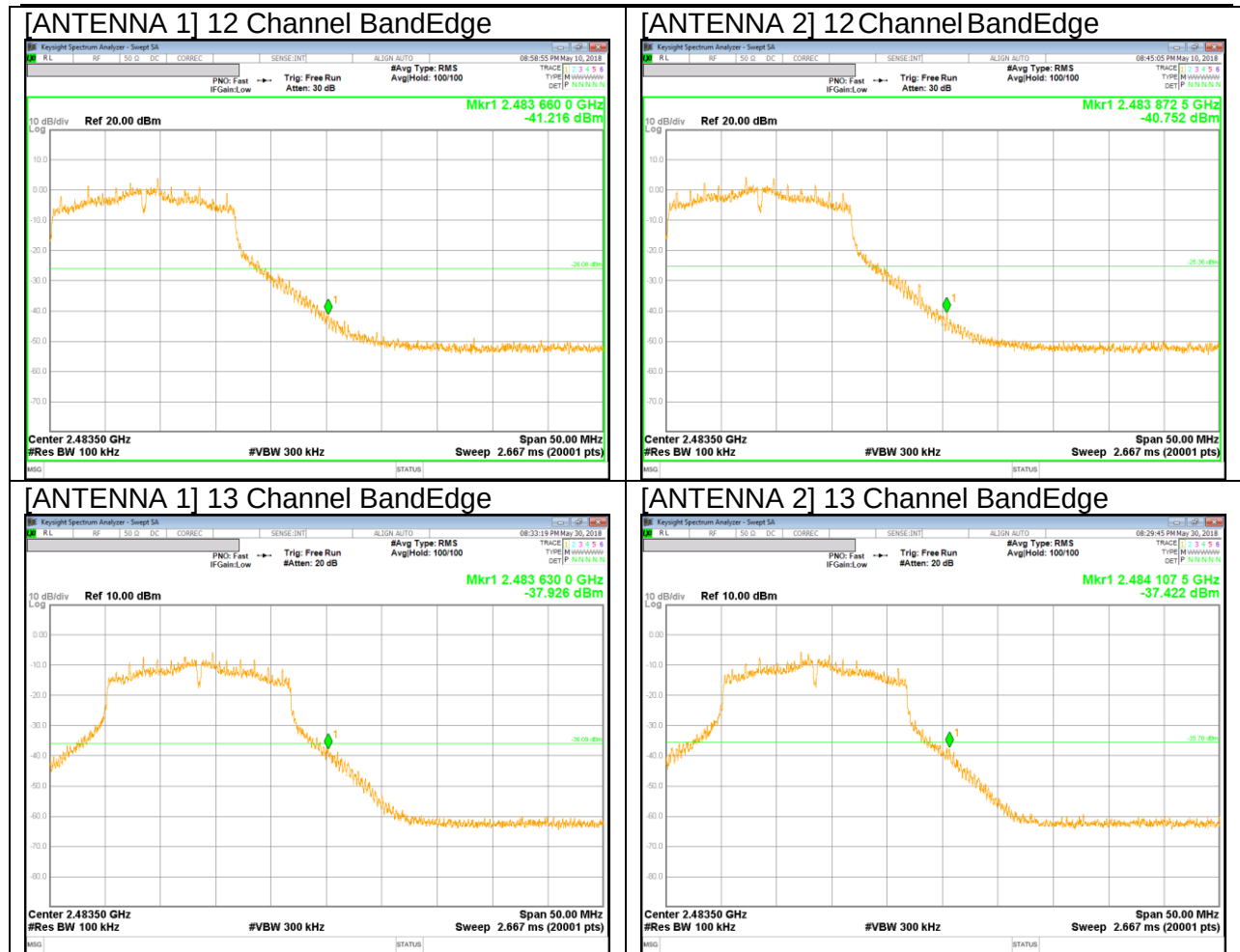
### [ANTENNA 2] High Channel Spurious

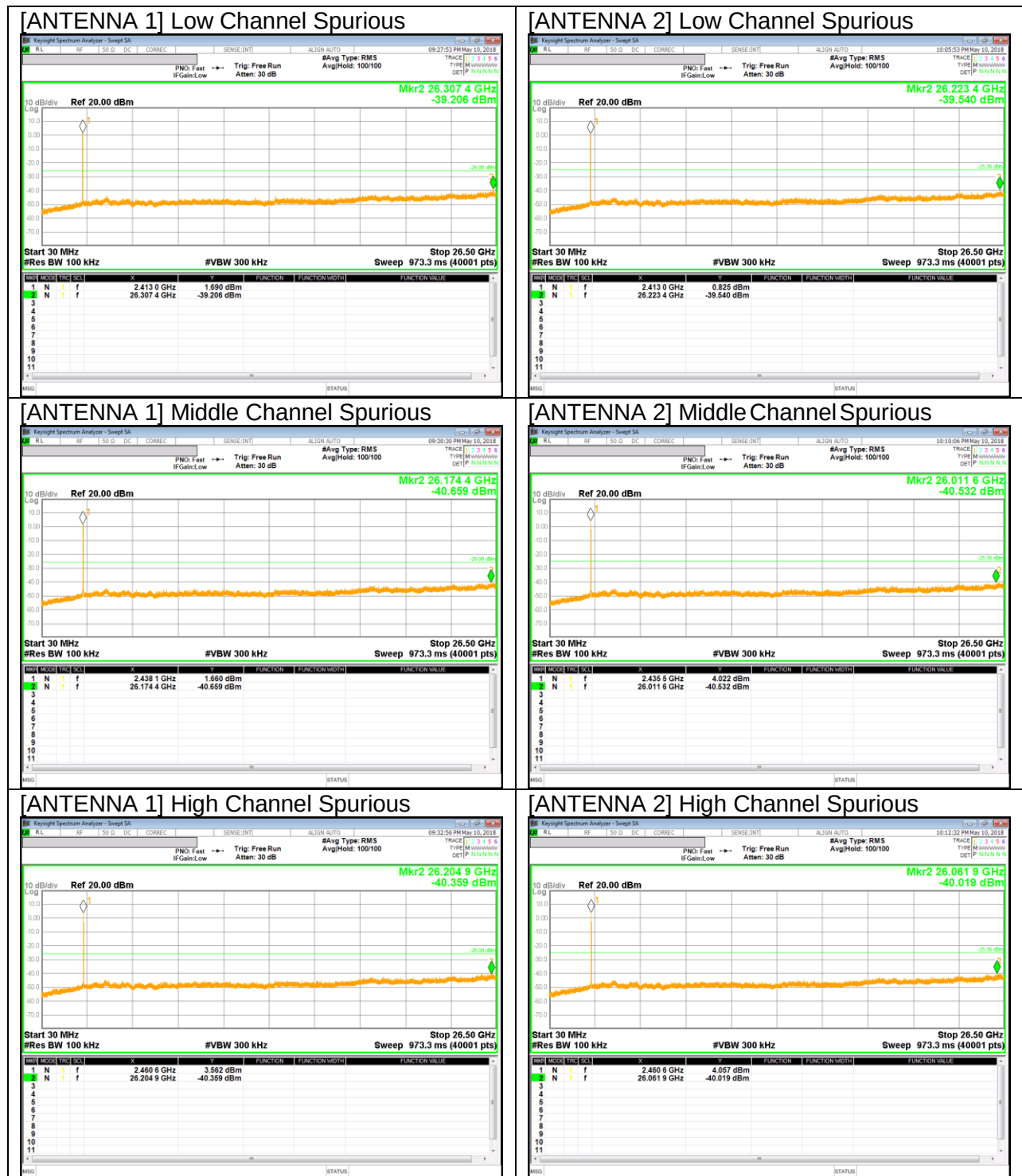


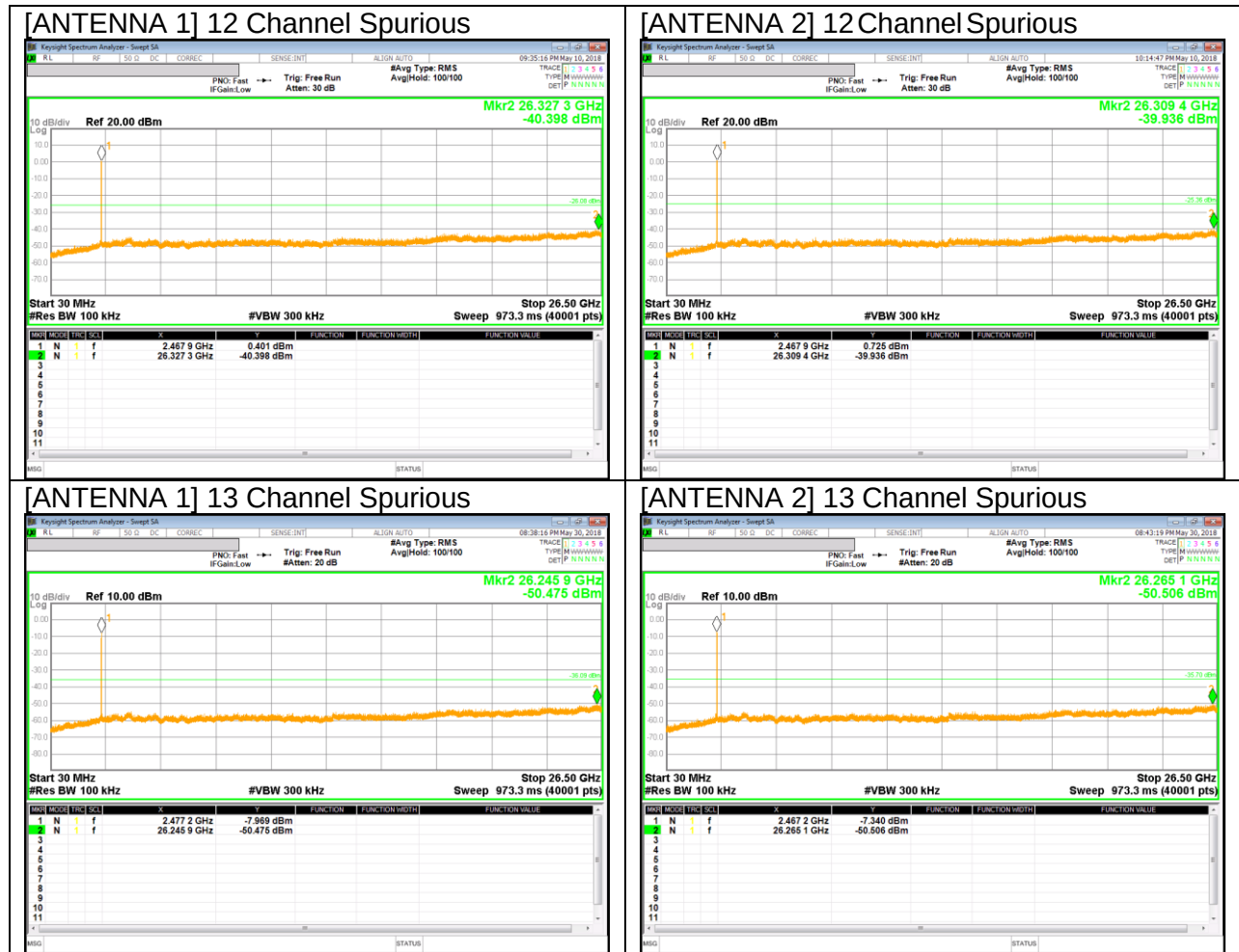


## 10.4.2. 802.11g MODE IN THE 2.4 GHz BAND

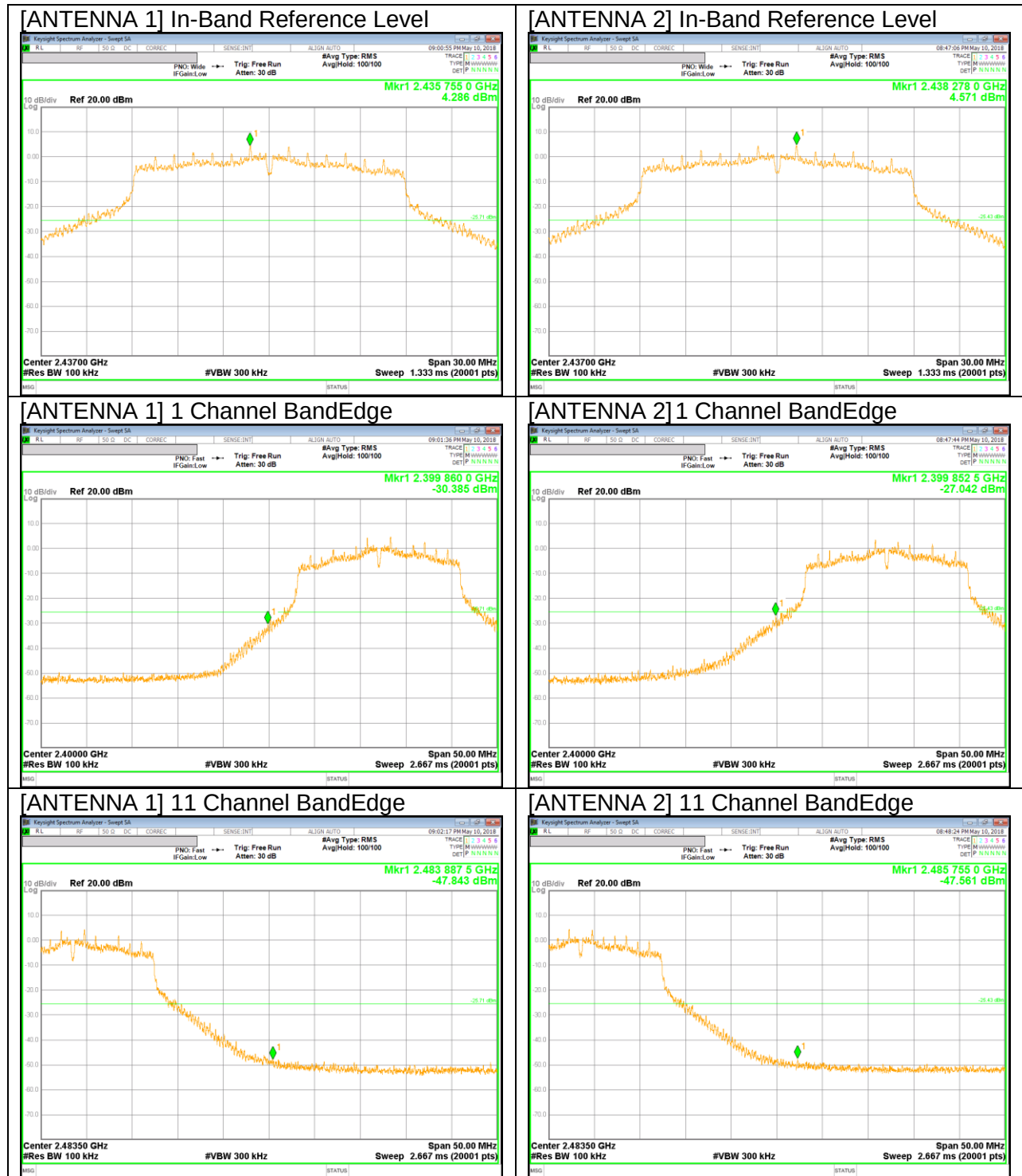


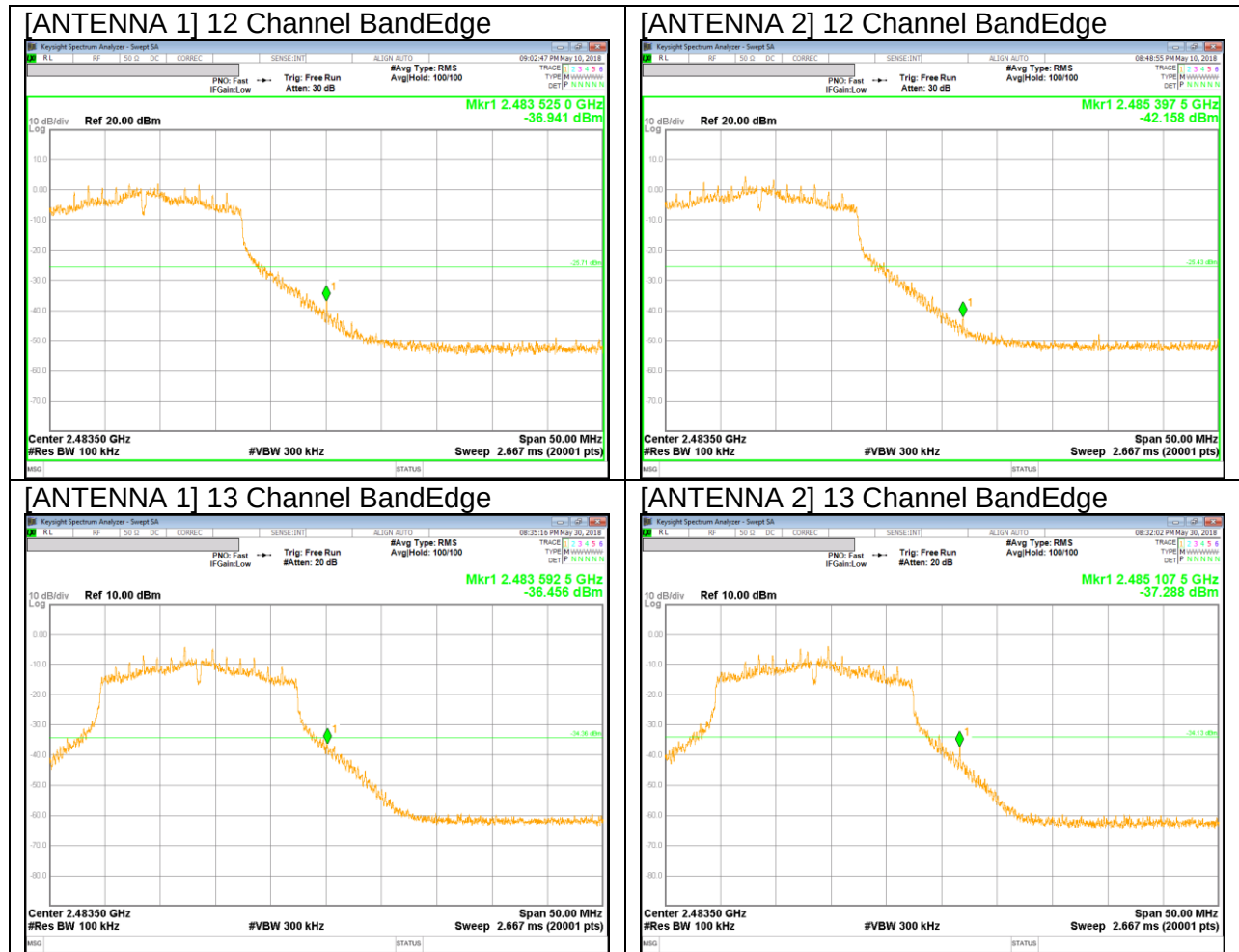


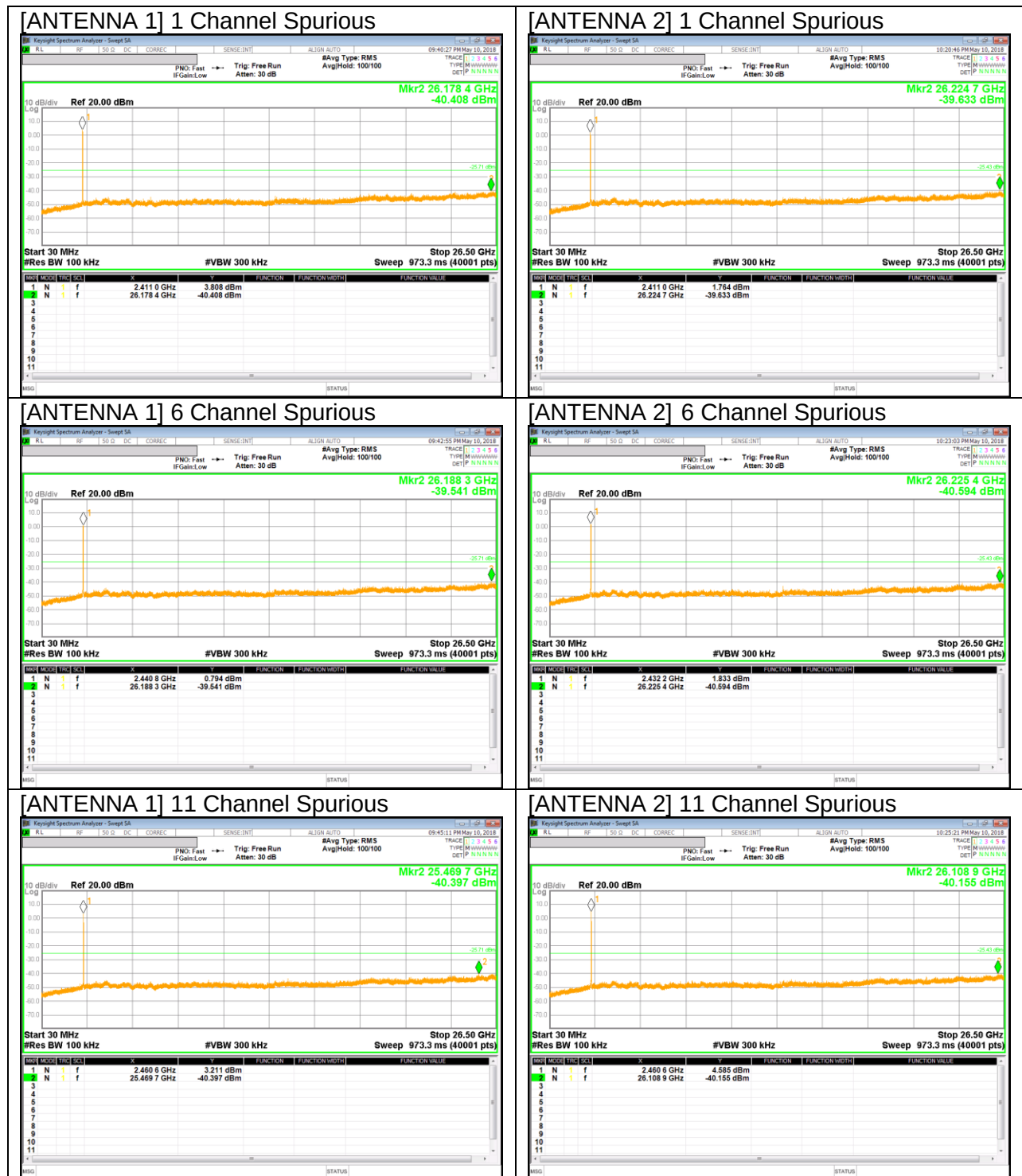


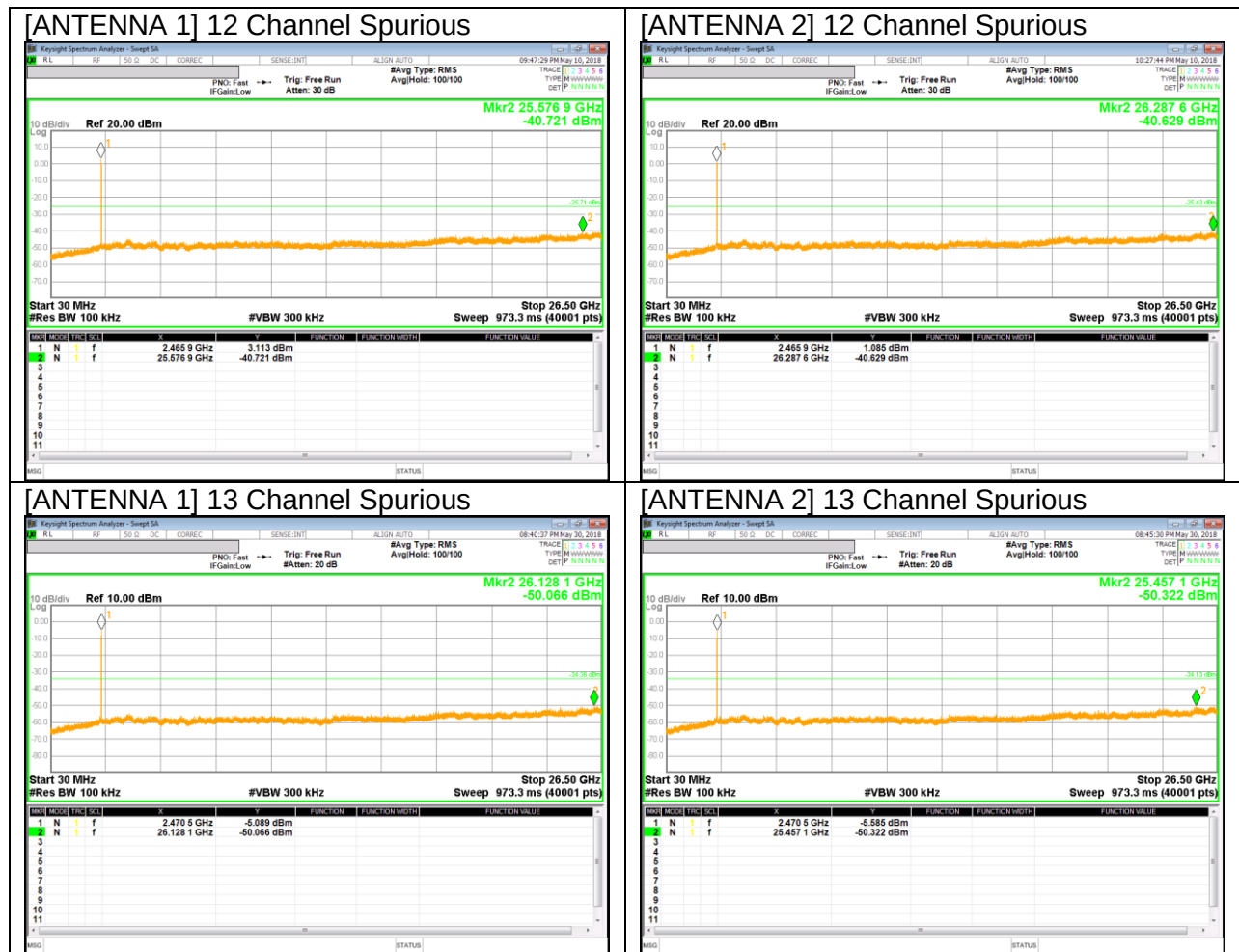


### 10.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND









## 11. RADIATED TEST RESULTS

### 11.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

| Limits for radiated disturbance of an intentional radiator |                 |                          |
|------------------------------------------------------------|-----------------|--------------------------|
| Frequency range (MHz)                                      | Limits (μV/m)   | Measurement Distance (m) |
| 0.009 – 0.490                                              | 2400 / F (kHz)  | 300                      |
| 0.490 – 1.705                                              | 24000 / F (kHz) | 30                       |
| 1.705 – 30.0                                               | 30              | 30                       |
| 30 – 88                                                    | 100**           | 3                        |
| 88 - 216                                                   | 150**           | 3                        |
| 216 – 960                                                  | 200**           | 3                        |
| Above 960                                                  | 500             | 3                        |

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

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**TEST PROCEDURE**

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for 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 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 for average measurements.

(Restricted bandedge, Final detection of spurious harmonic emissions)

Duty cycle factor=  $10\log(1/x)$  For this sample B mode = 0dB (duty cycle >98%); G mode = 0.13dB; N20 mode = 0.14dB.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

The spectrum from 1 GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

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.

Note : Emission was pre-scanned from 9KHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).

Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site.

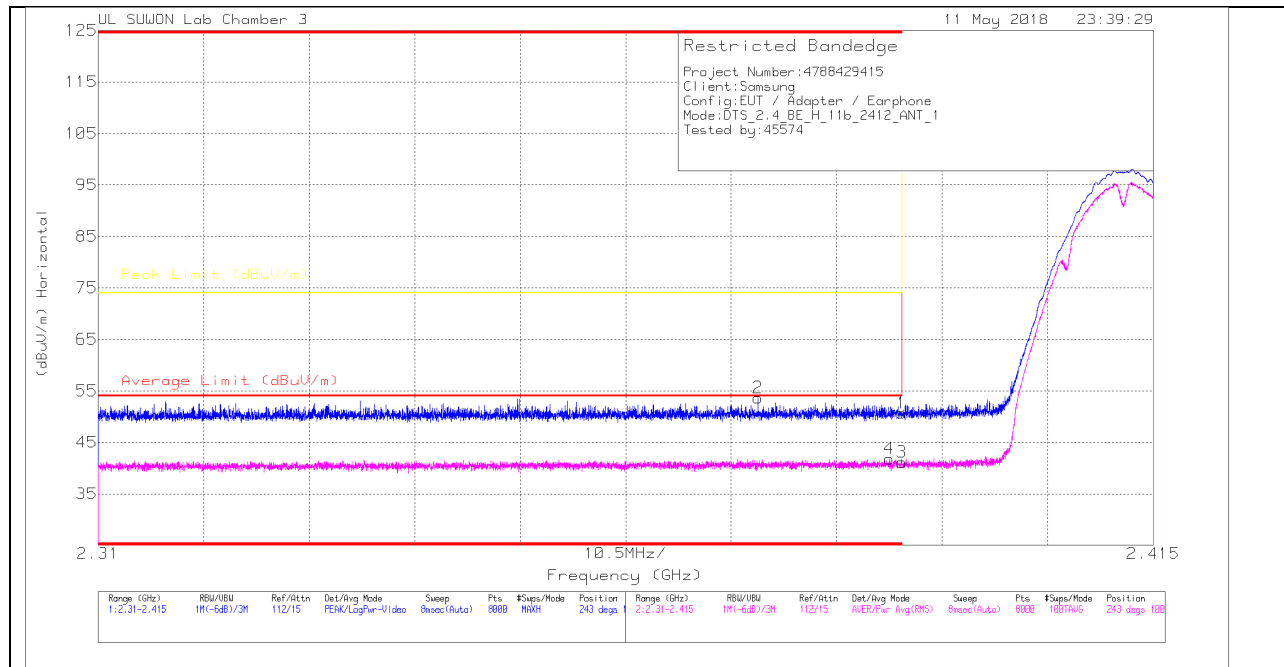
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

## 11.2. TRANSMITTER ABOVE 1 GHz

### 11.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND ANTENNA1

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

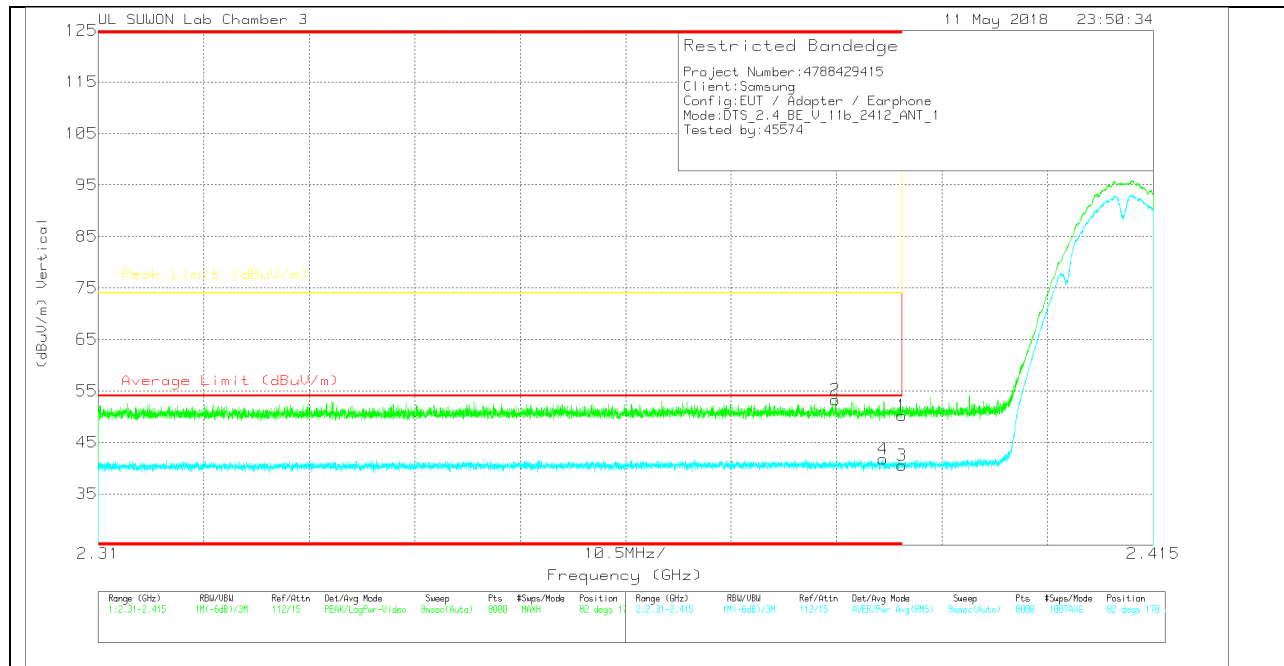
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205559) | 10dB_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.39          | 42.17                | Pk  | 31.8           | -23.3        | 0            | 50.67                      | -                      | -           | 74                  | -23.33         | 243             | 100         | H        |
| 2      | * 2.376         | 45.14                | Pk  | 31.8           | -23.3        | 0            | 53.64                      | -                      | -           | 74                  | -20.36         | 243             | 100         | H        |
| 3      | * 2.39          | 32.62                | RMS | 31.8           | -23.3        | 0            | 41.12                      | 54                     | -12.88      | -                   | -              | 243             | 100         | H        |
| 4      | * 2.389         | 33.34                | RMS | 31.8           | -23.3        | 0            | 41.84                      | 54                     | -12.16      | -                   | -              | 243             | 100         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 100B_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.39          | 41.71                | Pk  | 31.8           | -23.3        | 0            | 50.21                      | -                      | -           | 74                  | -23.79         | 82              | 170         | V        |
| 2      | * 2.383         | 44.65                | Pk  | 31.8           | -23.2        | 0            | 53.25                      | -                      | -           | 74                  | -20.75         | 82              | 170         | V        |
| 3      | * 2.39          | 32.04                | RMS | 31.8           | -23.3        | 0            | 40.54                      | 54                     | -13.46      | -                   | -              | 82              | 170         | V        |
| 4      | * 2.388         | 33.28                | RMS | 31.8           | -23.3        | 0            | 41.78                      | 54                     | -12.22      | -                   | -              | 82              | 170         | V        |

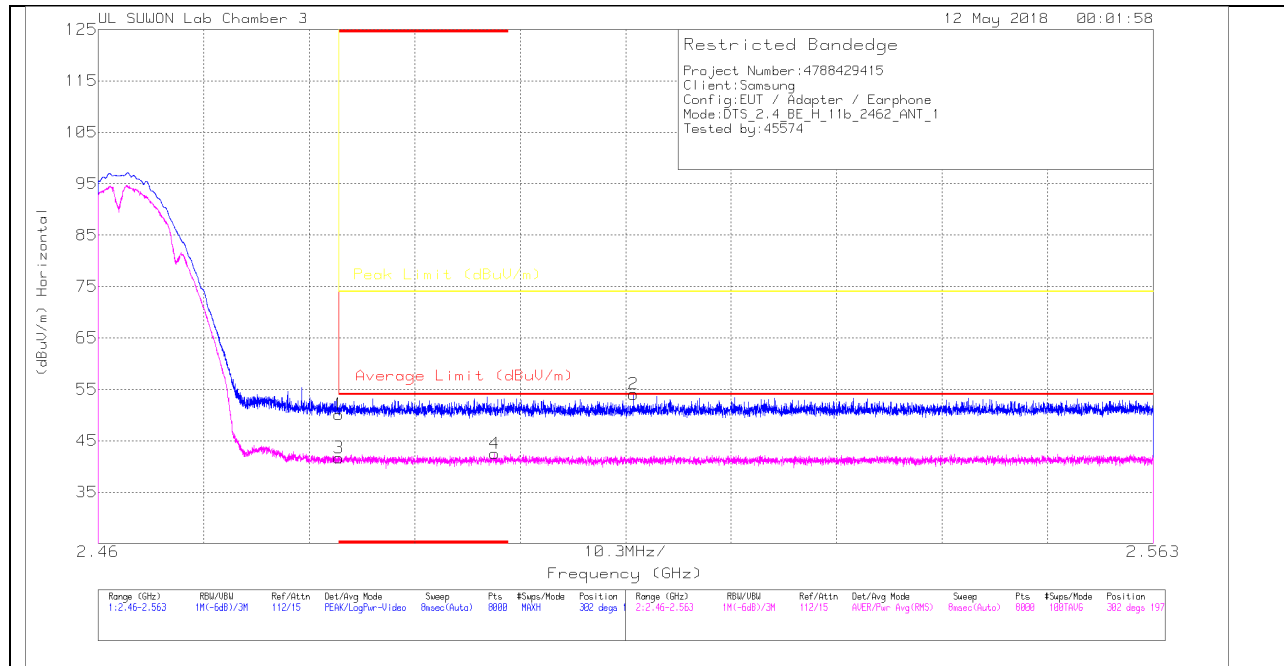
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

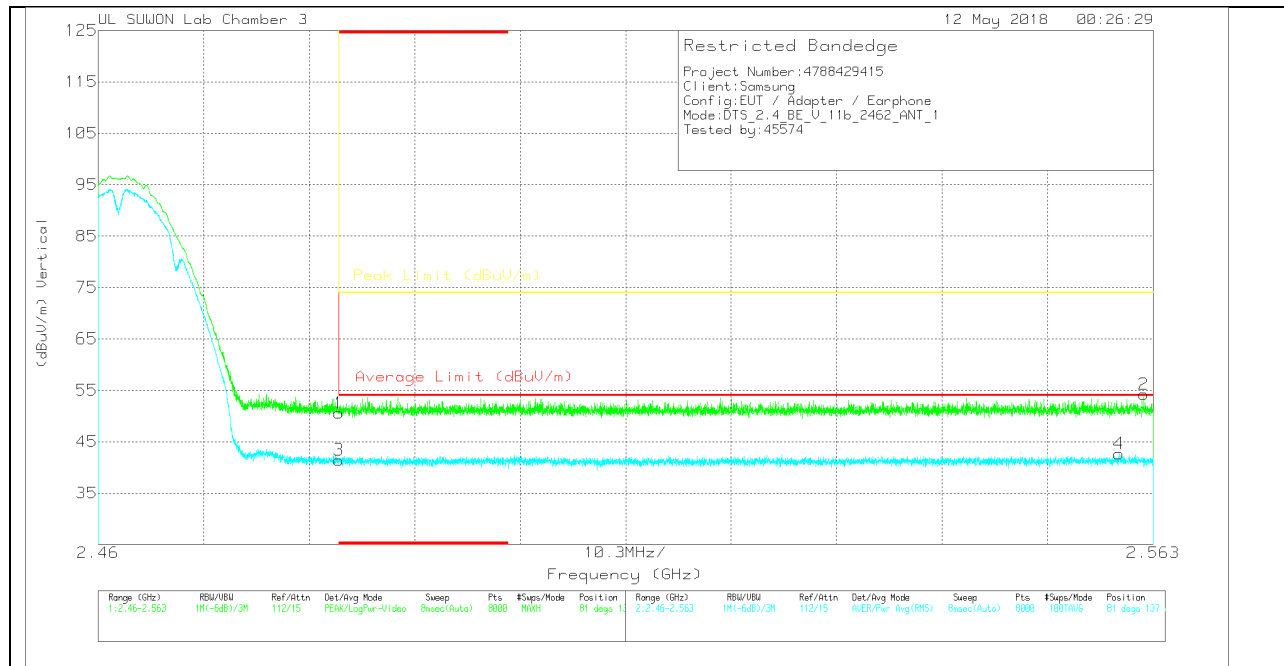
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205999) | 100B_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 41.03                | Pk  | 32.1           | -23          | 0            | 50.13                      | -                      | -           | 74                  | -23.87         | 302             | 197         | H        |
| 2      | 2.512           | 44.96                | Pk  | 32.1           | -23          | 0            | 54.06                      | -                      | -           | 74                  | -19.94         | 302             | 197         | H        |
| 3      | * 2.484         | 32.57                | RMS | 32.1           | -23          | 0            | 41.67                      | 54                     | -12.33      | -                   | -              | 302             | 197         | H        |
| 4      | * 2.499         | 33.49                | RMS | 32.1           | -23.1        | 0            | 42.49                      | 54                     | -11.51      | -                   | -              | 302             | 197         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0020959) | 10dB_ATT(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 |
|--------|-----------------|----------------------|-----|---------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 41.48                | Pk  | 32.1          | -23          | 0            | 50.58                      | -                      | -           | 74                  | -23.42         | 81              | 137         | V        |
| 2      | 2.562           | 45.13                | Pk  | 32.1          | -23          | 0            | 54.23                      | -                      | -           | 74                  | -19.77         | 81              | 137         | V        |
| 3      | * 2.484         | 32.33                | RMS | 32.1          | -23          | 0            | 41.43                      | 54                     | -12.57      | -                   | -              | 81              | 137         | V        |
| 4      | 2.56            | 33.56                | RMS | 32.1          | -23          | 0            | 42.66                      | 54                     | -11.34      | -                   | -              | 81              | 137         | V        |

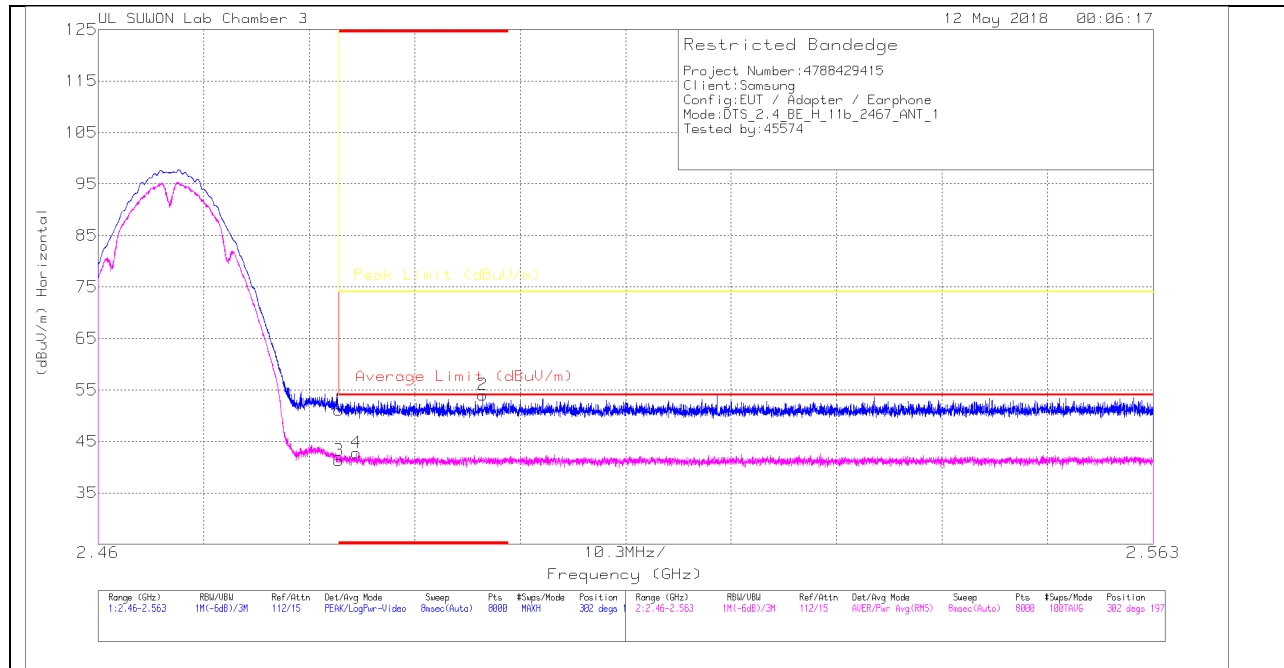
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (12 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

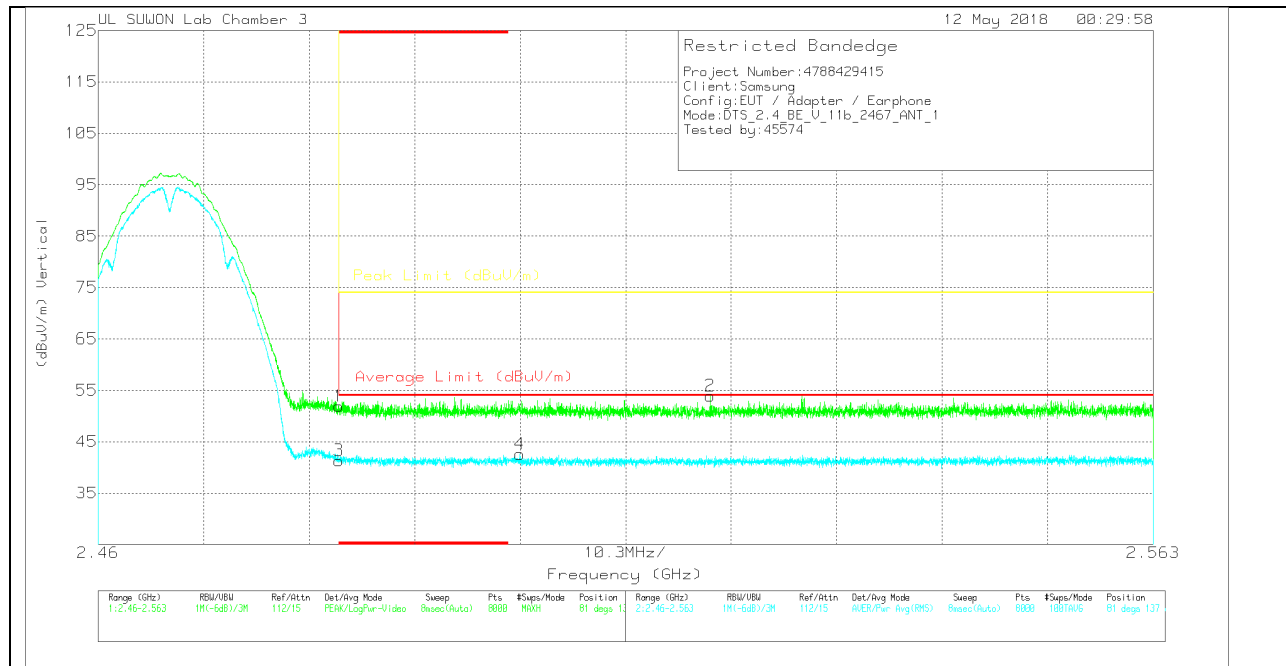
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 10dB_ATT[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 41.99                | Pk  | 32.1           | -23          | 0            | 51.09                      | -                      | -           | 74                  | -22.91         | 302            | 197         | H        |
| 2      | * 2.498         | 44.95                | Pk  | 32.1           | -23          | 0            | 54.05                      | -                      | -           | 74                  | -19.95         | 302            | 197         | H        |
| 3      | * 2.484         | 32.2                 | RMS | 32.1           | -23          | 0            | 41.3                       | 54                     | -12.7       | -                   | -              | 302            | 197         | H        |
| 4      | * 2.485         | 33.8                 | RMS | 32.1           | -23.1        | 0            | 42.8                       | 54                     | -11.2       | -                   | -              | 302            | 197         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0020959) | 10dB_ATT(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         | 42.81                | Pk  | 32.1          | -23          | 0            | 51.91                      | -                      | -           | 74                  | -22.09         | 81             | 137         | V        |
| 2      | 2.52            | 44.91                | Pk  | 32.1          | -23.1        | 0            | 53.91                      | -                      | -           | 74                  | -20.09         | 81             | 137         | V        |
| 3      | * 2.484         | 32.23                | RMS | 32.1          | -23          | 0            | 41.33                      | 54                     | -12.67      | -                   | -              | 81             | 137         | V        |
| 4      | 2.501           | 33.49                | RMS | 32.1          | -23          | 0            | 42.59                      | 54                     | -11.41      | -                   | -              | 81             | 137         | V        |

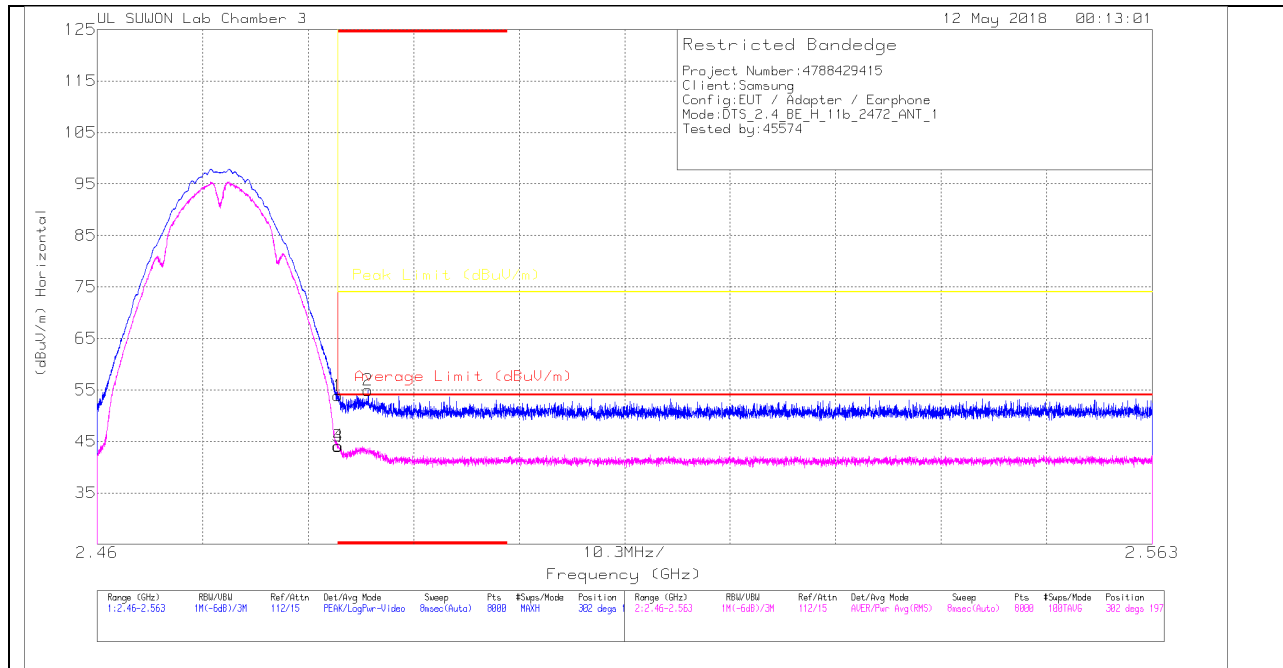
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (13 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

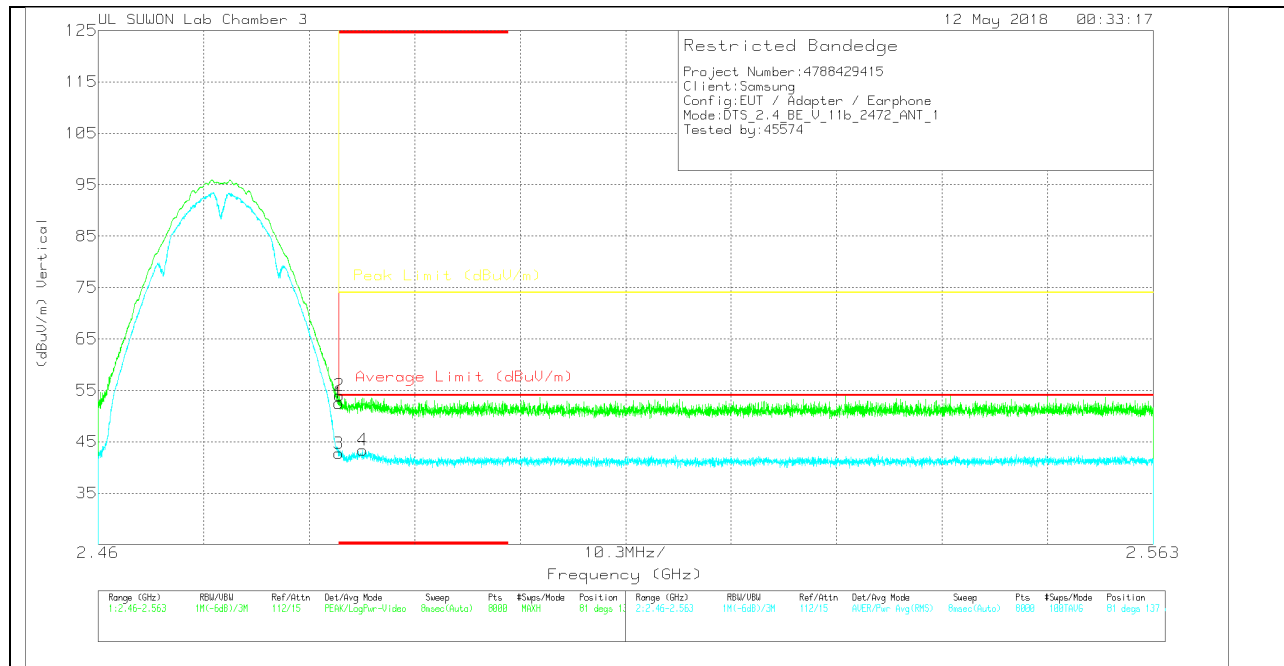
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 10dB_ATT[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 44.75                | Pk  | 32.1           | -23          | 0            | 53.85                      | -                      | -           | 74                  | -20.15         | 302            | 197         | H        |
| 2      | * 2.486         | 45.93                | Pk  | 32.1           | -23.1        | 0            | 54.93                      | -                      | -           | 74                  | -19.07         | 302            | 197         | H        |
| 3      | * 2.484         | 34.96                | RMS | 32.1           | -23          | 0            | 44.06                      | 54                     | -9.94       | -                   | -              | 302            | 197         | H        |
| 4      | * 2.484         | 35.02                | RMS | 32.1           | -23          | 0            | 44.12                      | 54                     | -9.88       | -                   | -              | 302            | 197         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 43.39                | Pk  | 32.1           | -23          | 0            | 52.49                      | -                      | -           | 74                  | -21.51         | 81              | 137         | V        |
| 2      | * 2.484         | 44.92                | Pk  | 32.1           | -23          | 0            | 54.02                      | -                      | -           | 74                  | -19.98         | 81              | 137         | V        |
| 3      | * 2.484         | 33.66                | RMS | 32.1           | -23          | 0            | 42.76                      | 54                     | -11.24      | -                   | -              | 81              | 137         | V        |
| 4      | * 2.486         | 34.39                | RMS | 32.1           | -23.1        | 0            | 43.39                      | 54                     | -10.61      | -                   | -              | 81              | 137         | V        |

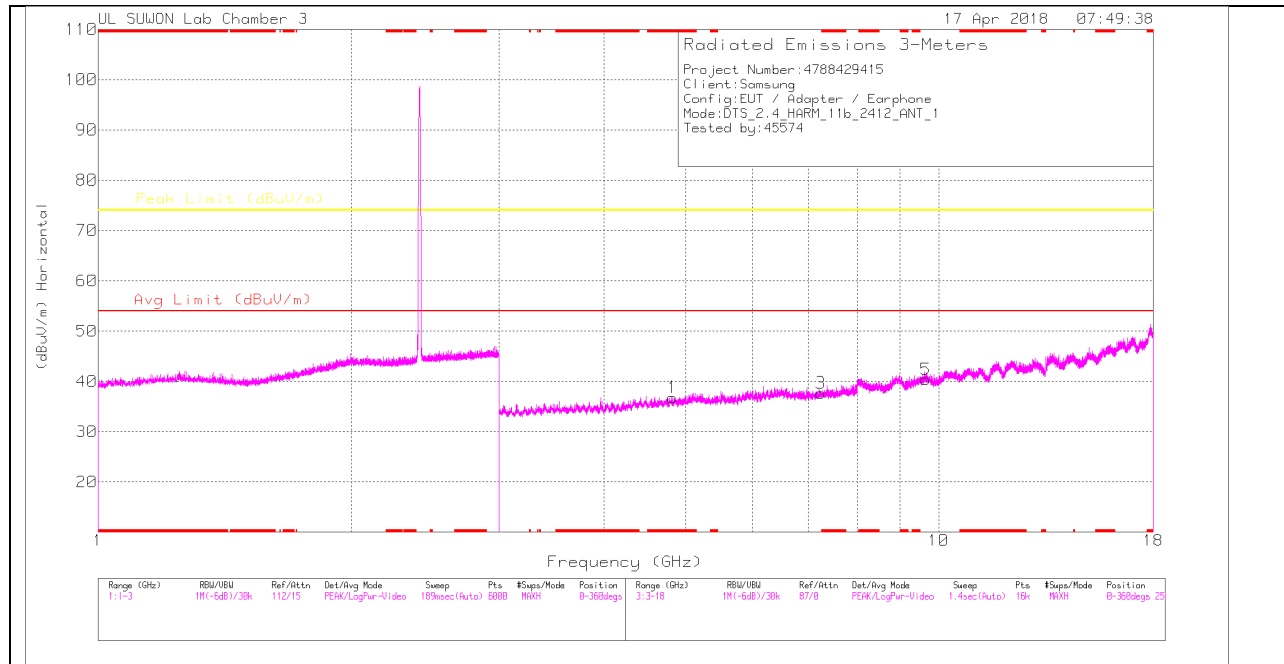
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

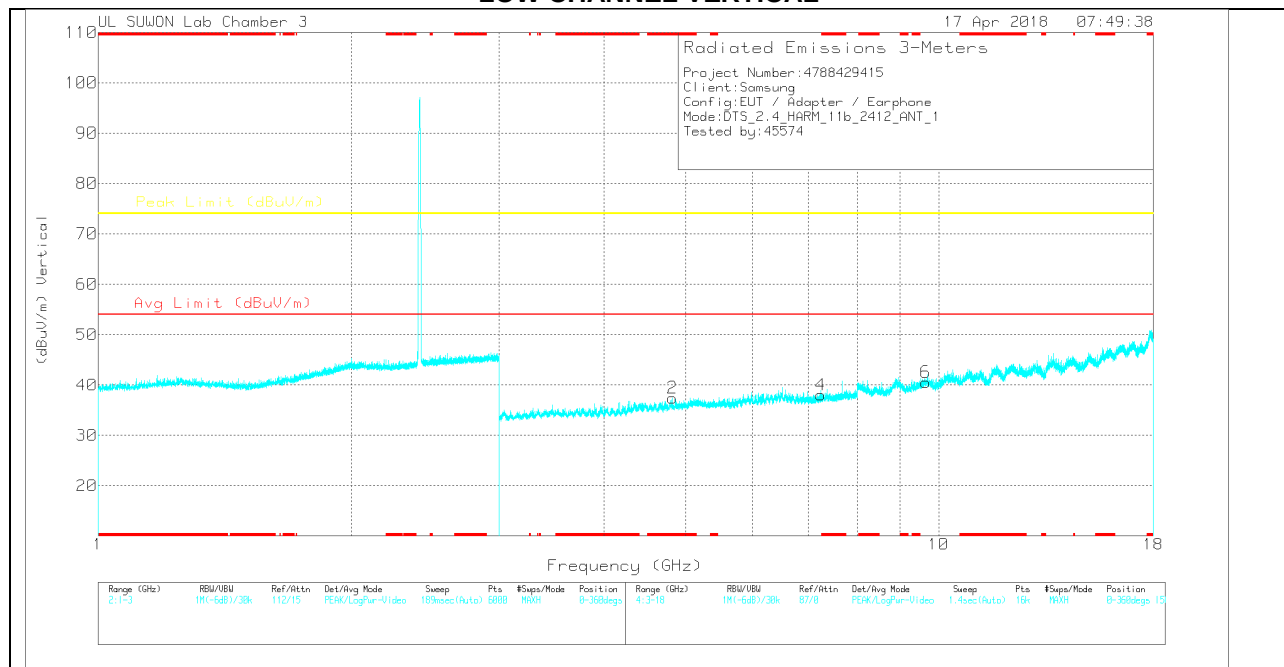
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



### LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

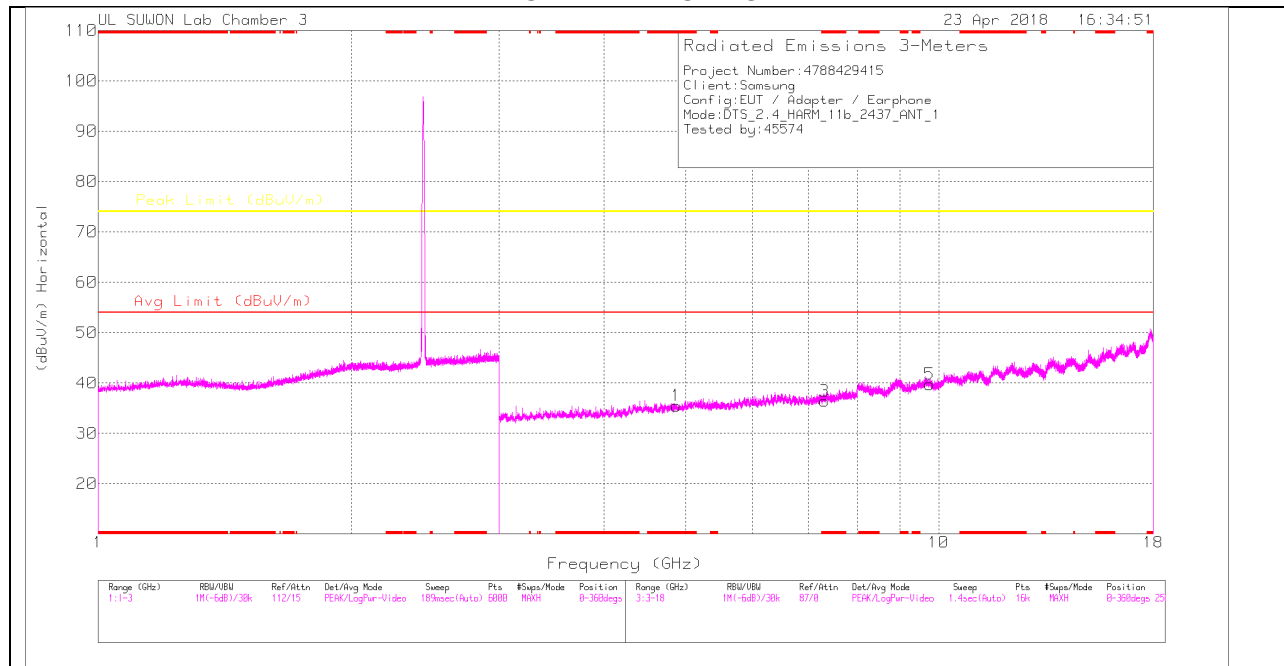
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.824         | 31.1                 | PK  | 34             | -28.3       | 0            | 36.8                       | -                  | -           | 74                  | -37.2       | 0-360          | 250         | H        |
| 3      | 7.238           | 25.97                | PK  | 35.6           | -23.9       | 0            | 37.67                      | -                  | -           | 74                  | -36.33      | 0-360          | 250         | H        |
| 5      | 9.646           | 23.5                 | PK  | 36.7           | -19.8       | 0            | 40.4                       | -                  | -           | 74                  | -33.6       | 0-360          | 250         | H        |
| 2      | * 4.824         | 31.72                | PK  | 34             | -28.3       | 0            | 37.42                      | -                  | -           | 74                  | -36.58      | 0-360          | 250         | V        |
| 4      | 7.238           | 26.32                | PK  | 35.6           | -23.9       | 0            | 38.02                      | -                  | -           | 74                  | -35.98      | 0-360          | 250         | V        |
| 6      | 9.647           | 23.55                | PK  | 36.7           | -19.7       | 0            | 40.55                      | -                  | -           | 74                  | -33.45      | 0-360          | 150         | V        |

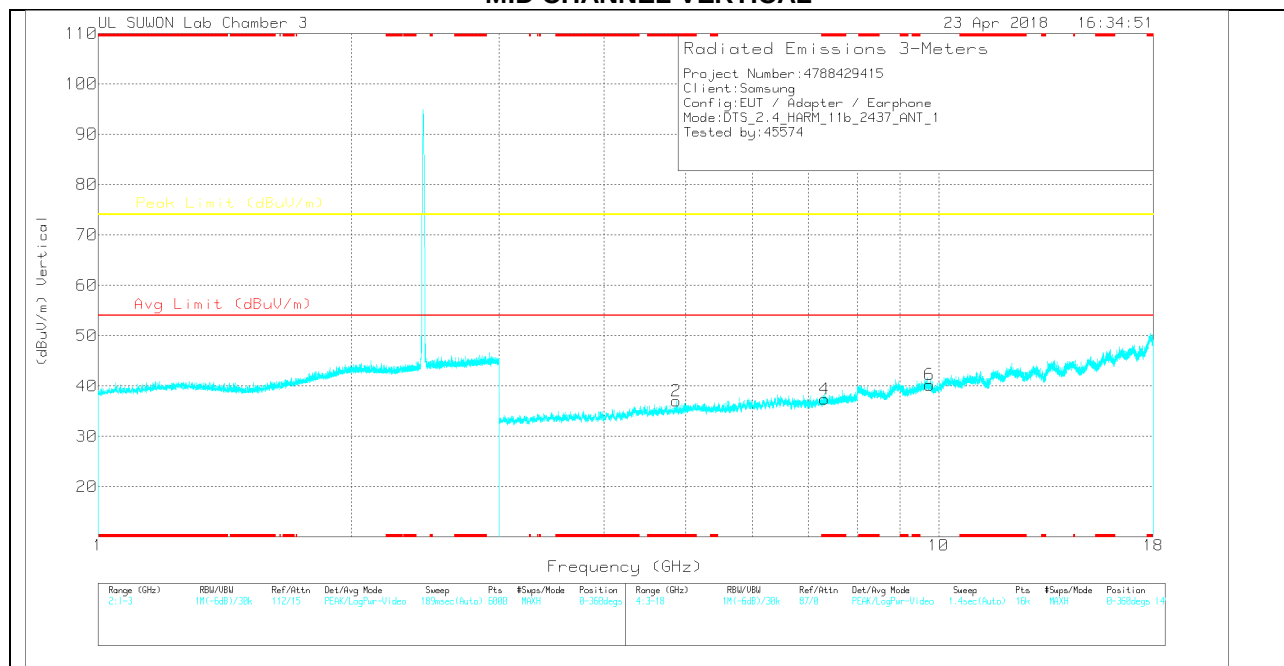
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

### MID CHANNEL HORIZONTAL



### MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# MID CHANNEL DATA

## Trace Markers

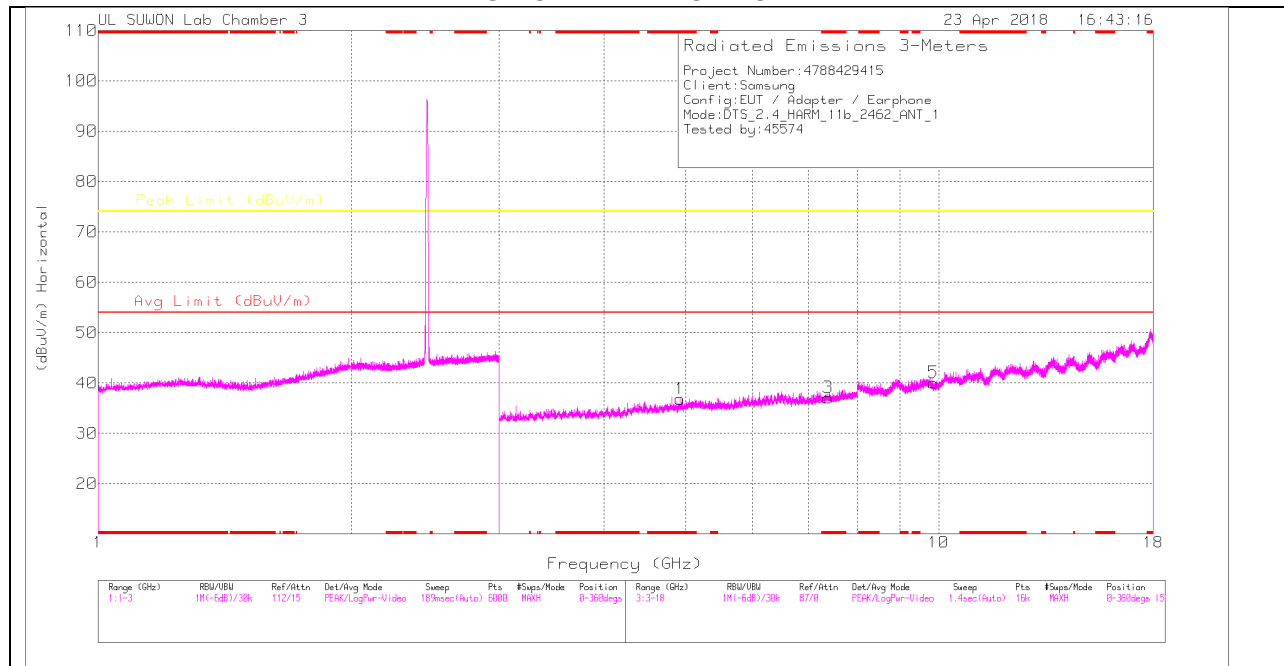
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.873         | 30.29                | PK  | 34             | -28.8       | 0            | 35.49                      | -                  | -           | 74                  | -38.51      | 0-360          | 150         | H        |
| 3      | * 7.312         | 24.31                | PK  | 35.6           | -23.5       | 0            | 36.41                      | -                  | -           | 74                  | -37.59      | 0-360          | 150         | H        |
| 5      | 9.749           | 22.44                | PK  | 36.9           | -19.6       | 0            | 39.74                      | -                  | -           | 74                  | -34.26      | 0-360          | 250         | H        |
| 2      | * 4.873         | 31.84                | PK  | 34             | -28.8       | 0            | 37.04                      | -                  | -           | 74                  | -36.96      | 0-360          | 250         | V        |
| 4      | * 7.312         | 25.27                | PK  | 35.6           | -23.5       | 0            | 37.37                      | -                  | -           | 74                  | -36.63      | 0-360          | 250         | V        |
| 6      | 9.749           | 22.93                | PK  | 36.9           | -19.6       | 0            | 40.23                      | -                  | -           | 74                  | -33.77      | 0-360          | 149         | V        |

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

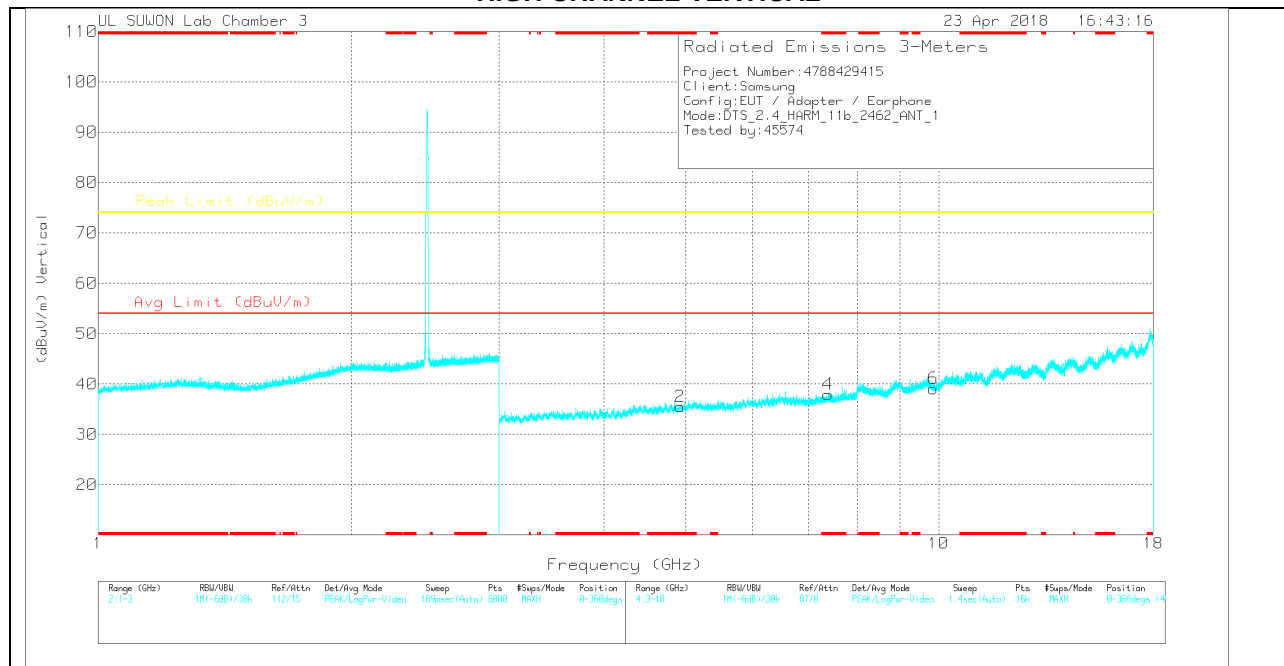
PK – Peak detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

### HIGH CHANNEL HORIZONTAL



### HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

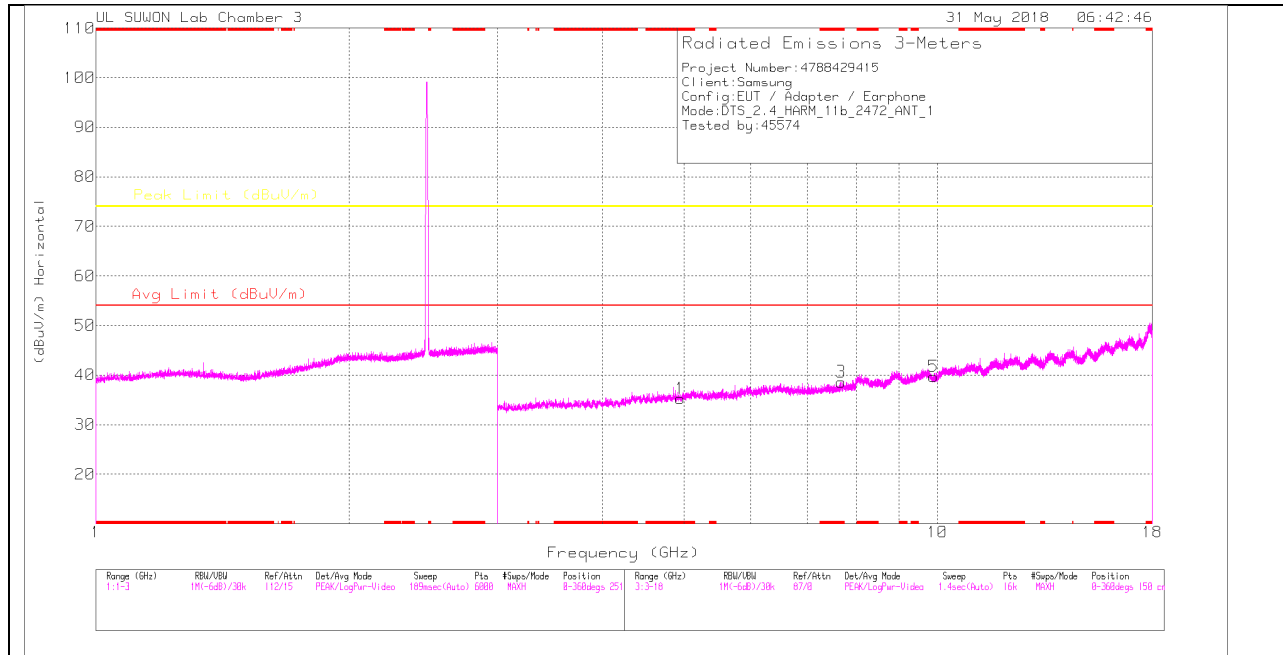
## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.924         | 31.76                | PK  | 34             | -28.9       | 0            | 36.86                      | -                  | -           | 74                  | -37.14      | 0-360          | 250         | H        |
| 3      | * 7.386         | 24.49                | PK  | 35.6           | -23         | 0            | 37.09                      | -                  | -           | 74                  | -36.91      | 0-360          | 250         | H        |
| 5      | 9.85            | 22.78                | PK  | 37             | -19.7       | 0            | 40.08                      | -                  | -           | 74                  | -33.92      | 0-360          | 150         | H        |
| 2      | * 4.924         | 30.42                | PK  | 34             | -28.9       | 0            | 35.52                      | -                  | -           | 74                  | -38.48      | 0-360          | 250         | V        |
| 4      | * 7.386         | 25.34                | PK  | 35.6           | -23         | 0            | 37.94                      | -                  | -           | 74                  | -36.06      | 0-360          | 149         | V        |
| 6      | 9.849           | 21.79                | PK  | 37             | -19.7       | 0            | 39.09                      | -                  | -           | 74                  | -34.91      | 0-360          | 149         | V        |

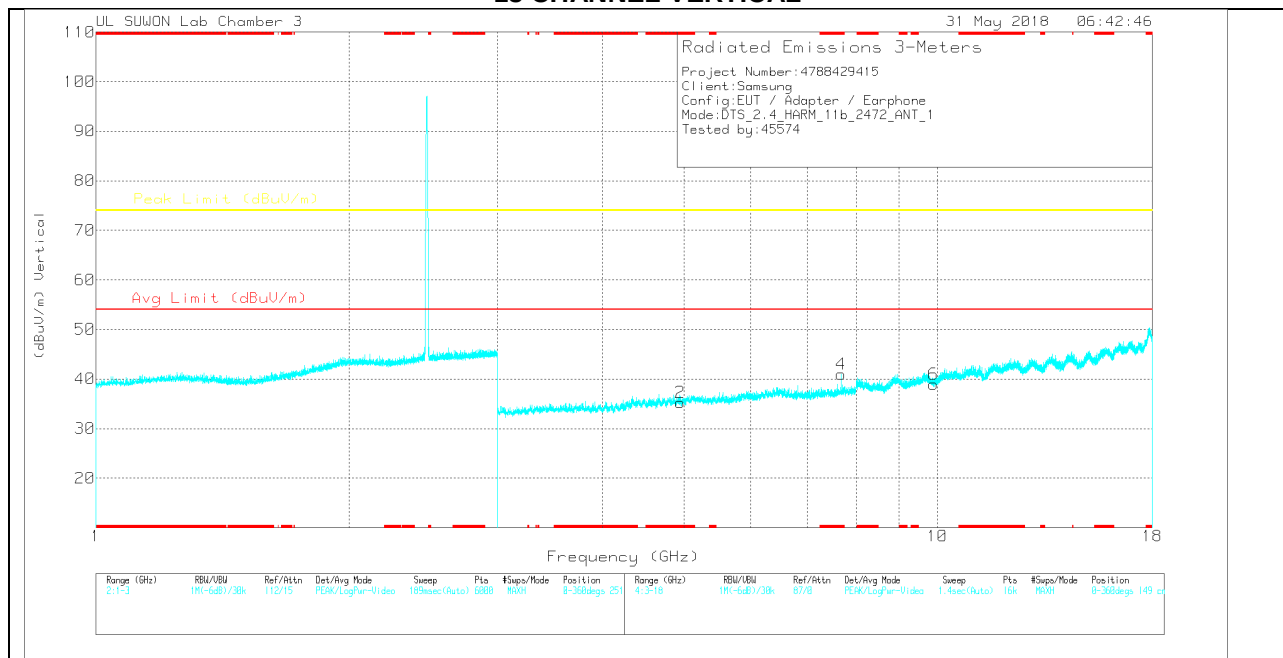
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak Detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

### 13 CHANNEL HORIZONTAL



### 13 CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### 13 CHANNEL DATA

#### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.944         | 30                   | PK  | 34.1           | -28.8       | 0            | 35.3                       | -                  | -           | 74                  | -38.7       | 0-360          | 150         | H        |
| 3      | * 7.679         | 25.33                | PK  | 35.6           | -22.3       | 0            | 38.63                      | -                  | -           | 74                  | -35.37      | 0-360          | 150         | H        |
| 5      | 9.888           | 22.39                | PK  | 37             | -19.7       | 0            | 39.69                      | -                  | -           | 74                  | -34.31      | 0-360          | 250         | H        |
| 2      | * 4.945         | 29.91                | PK  | 34.1           | -28.7       | 0            | 35.31                      | -                  | -           | 74                  | -38.69      | 0-360          | 149         | V        |
| 4      | * 7.679         | 27.74                | PK  | 35.6           | -22.3       | 0            | 41.04                      | -                  | -           | 74                  | -32.96      | 0-360          | 149         | V        |
| 6      | 9.888           | 21.6                 | PK  | 37             | -19.7       | 0            | 38.9                       | -                  | -           | 74                  | -35.1       | 0-360          | 250         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak Detector

#### Radiated Emissions

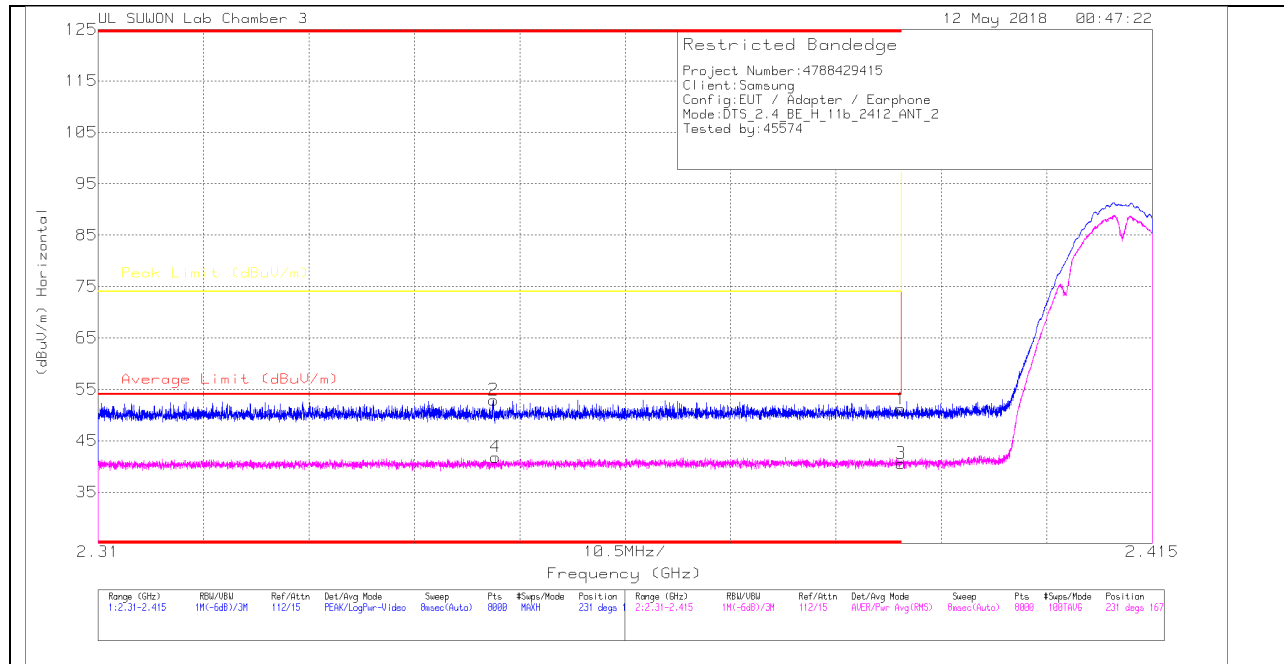
| Frequency (GHz) | Meter Reading (dBuV) | Det  | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| * 7.68          | 36.58                | PK2  | 35.6           | -22.3       | 0            | 49.88                      | -                  | -           | 74                  | -24.12      | 178            | 117         | V        |
| * 7.68          | 26.77                | MAv1 | 35.6           | -22.3       | 0            | 40.07                      | 54                 | -13.93      | -                   | -           | 178            | 117         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK2 - KDB558074 Method: Maximum Peak  
MAv1 - KDB558074 Option 1 Maximum RMS Average

## 11.2.2. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND ANTENNA2

### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

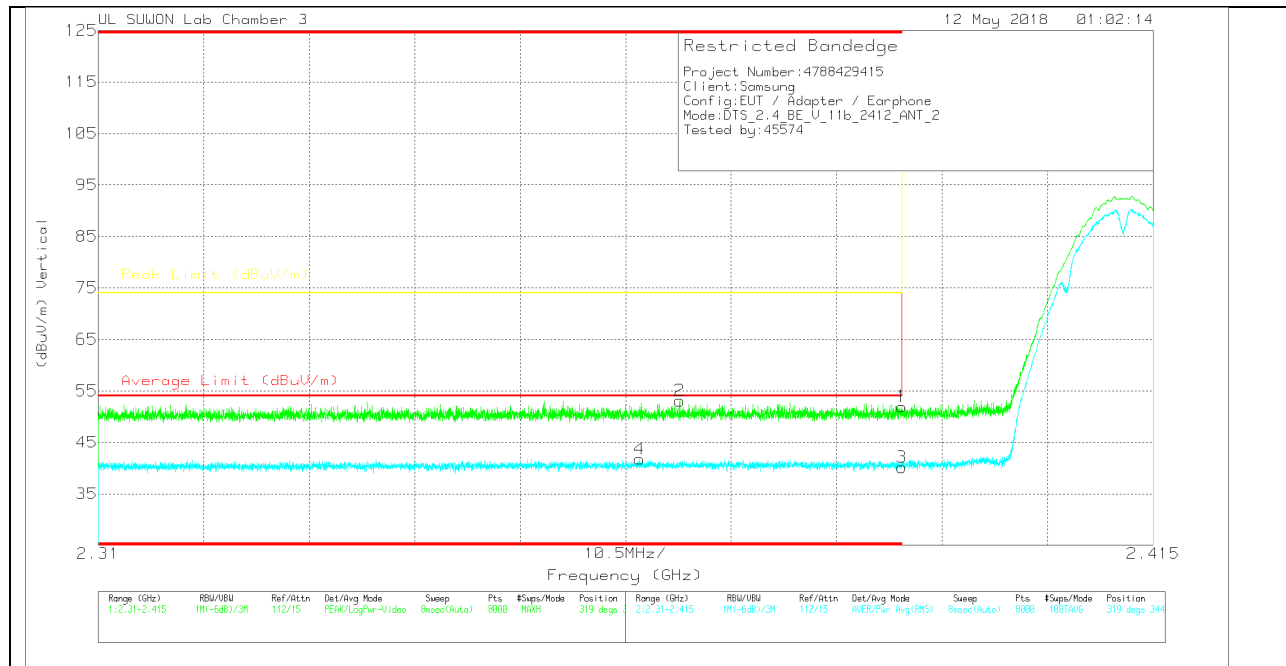
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(0020599) | 10dB_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 42.7                 | Pk  | 31.8          | -23.3        | 0            | 51.2                       | -                      | -           | 74                  | -22.8          | 231            | 167         | H        |
| 2      | * 2.349         | 44.52                | Pk  | 31.7          | -23.3        | 0            | 52.92                      | -                      | -           | 74                  | -21.08         | 231            | 167         | H        |
| 3      | * 2.39          | 32.1                 | RMS | 31.8          | -23.3        | 0            | 40.6                       | 54                     | -13.4       | -                   | -              | 231            | 167         | H        |
| 4      | * 2.35          | 33.43                | RMS | 31.7          | -23.3        | 0            | 41.83                      | 54                     | -12.17      | -                   | -              | 231            | 167         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 100B_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.39          | 43.44                | Pk  | 31.8           | -23.3        | 0            | 51.94                      | -                      | -           | 74                  | -22.06         | 319             | 344         | V        |
| 2      | * 2.368         | 44.59                | Pk  | 31.7           | -23.2        | 0            | 53.09                      | -                      | -           | 74                  | -20.91         | 319             | 344         | V        |
| 3      | * 2.39          | 31.65                | RMS | 31.8           | -23.3        | 0            | 40.15                      | 54                     | -13.85      | -                   | -              | 319             | 344         | V        |
| 4      | * 2.364         | 33.24                | RMS | 31.7           | -23.2        | 0            | 41.74                      | 54                     | -12.26      | -                   | -              | 319             | 344         | V        |

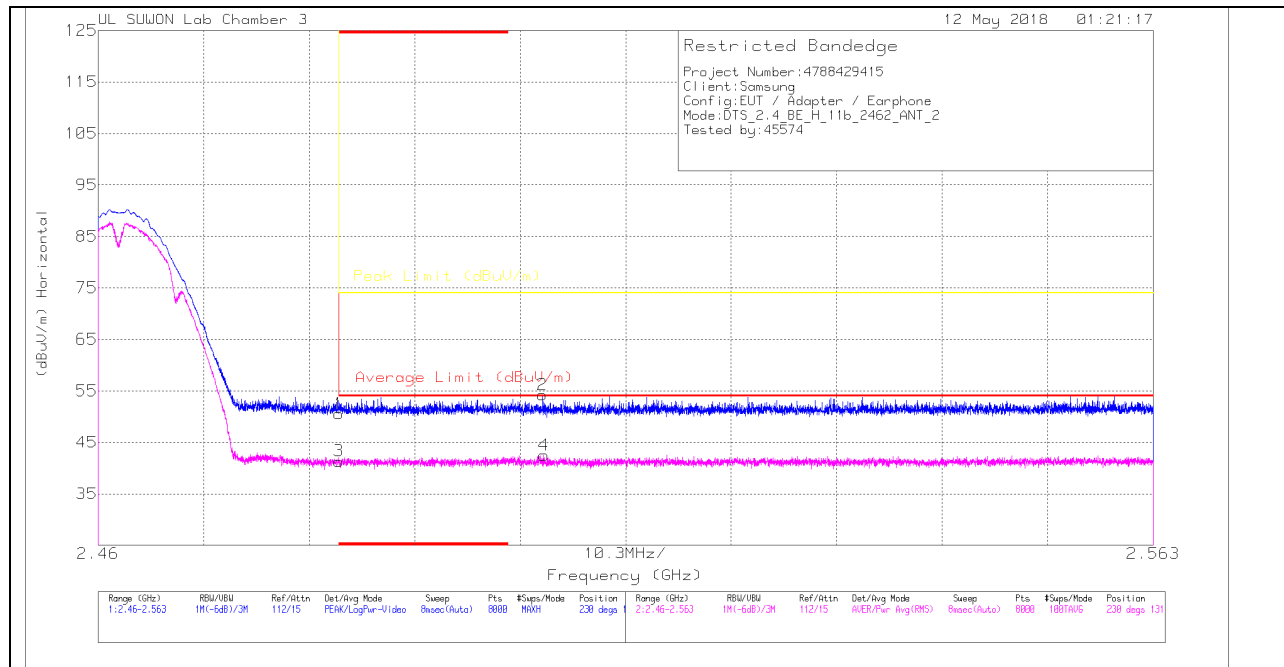
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

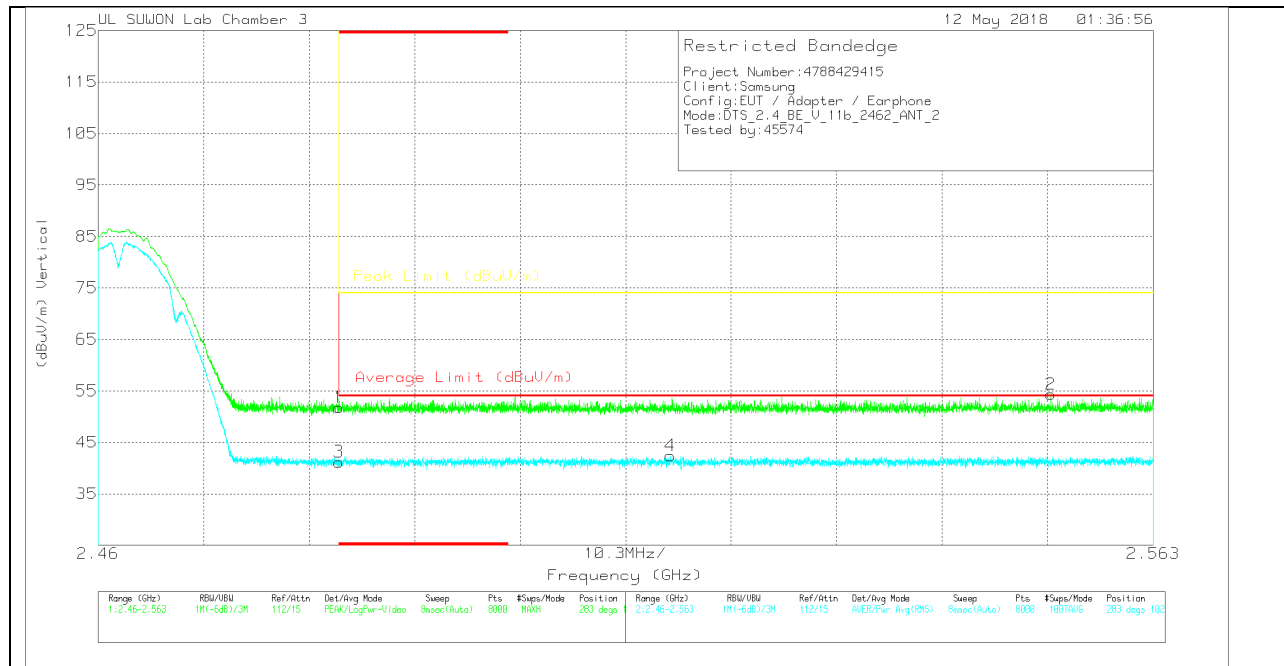
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Pk Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 41.46                | PK  | 32.1           | -23          | 0            | 50.56                      | -                      | -           | 74                  | -23.44         | 230             | 131         | H        |
| 2      | 2.503           | 45.14                | PK  | 32.1           | -23          | 0            | 54.24                      | -                      | -           | 74                  | -19.76         | 230             | 131         | H        |
| 3      | * 2.484         | 32.24                | RMS | 32.1           | -23          | 0            | 41.34                      | 54                     | -12.66      | -                   | -              | 230             | 131         | H        |
| 4      | 2.504           | 33.41                | RMS | 32.1           | -23          | 0            | 42.51                      | 54                     | -11.49      | -                   | -              | 230             | 131         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 100B_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 42.69                | Pk  | 32.1           | -23          | 0            | 51.79                      | -                      | -           | 74                  | -22.21         | 283             | 102         | V        |
| 2      | 2.553           | 45.26                | Pk  | 32.1           | -23          | 0            | 54.36                      | -                      | -           | 74                  | -19.64         | 283             | 102         | V        |
| 3      | * 2.484         | 32.1                 | RMS | 32.1           | -23          | 0            | 41.2                       | 54                     | -12.8       | -                   | -              | 283             | 102         | V        |
| 4      | 2.516           | 33.21                | RMS | 32.1           | -22.9        | 0            | 42.41                      | 54                     | -11.59      | -                   | -              | 283             | 102         | V        |

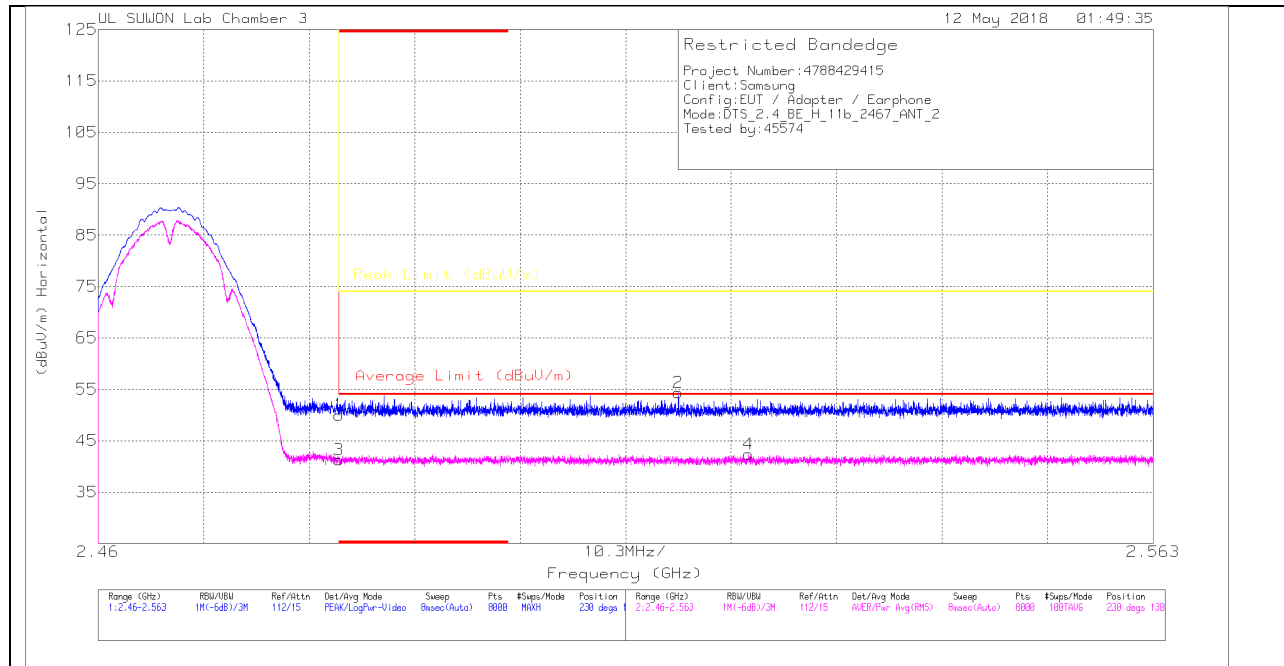
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (12 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

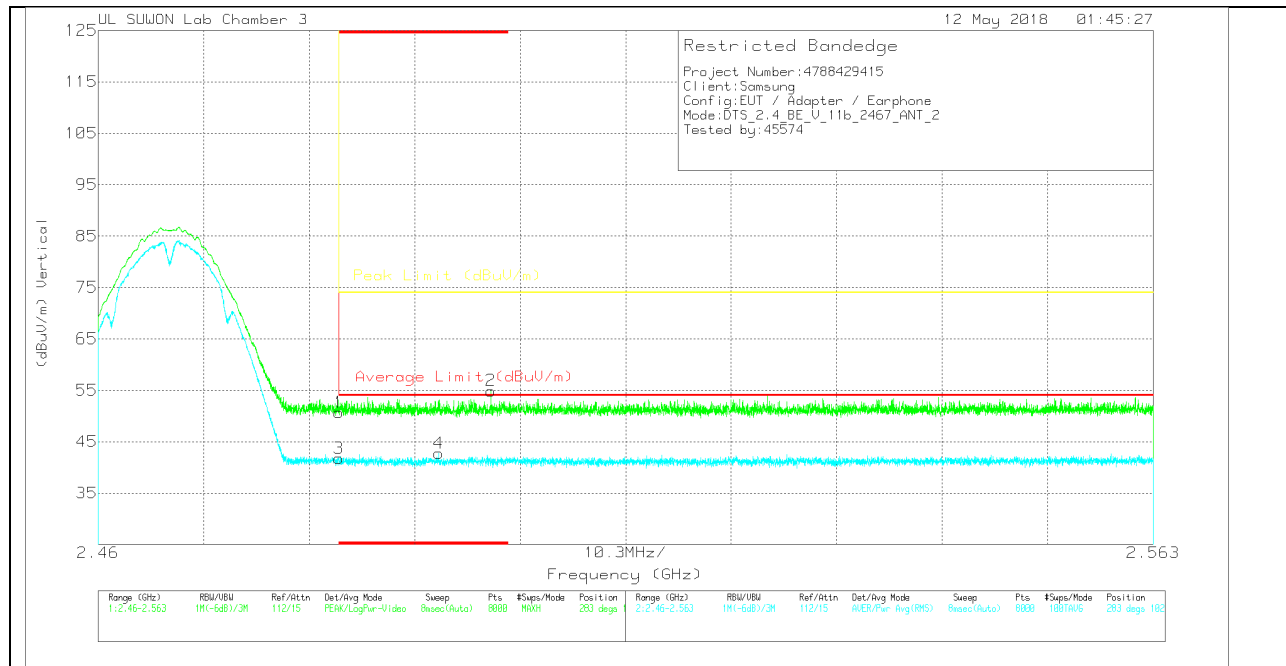
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205999) | 1000_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 40.91                | Pk  | 32.1           | -23          | 0            | 50.01                      | -                      | -           | 74                  | -23.99         | 230             | 130         | H        |
| 2      | 2.517           | 45.23                | Pk  | 32.1           | -23          | 0            | 54.33                      | -                      | -           | 74                  | -19.67         | 230             | 130         | H        |
| 3      | * 2.484         | 32.19                | RMS | 32.1           | -23          | 0            | 41.29                      | 54                     | -12.71      | -                   | -              | 230             | 130         | H        |
| 4      | 2.523           | 33.36                | RMS | 32.1           | -23.1        | 0            | 42.36                      | 54                     | -11.64      | -                   | -              | 230             | 130         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 41.59                | Pk  | 32.1           | -23          | 0            | 50.69                      | -                      | -           | 74                  | -23.31         | 283             | 102         | V        |
| 2      | * 2.498         | 45.81                | Pk  | 32.1           | -23          | 0            | 54.91                      | -                      | -           | 74                  | -19.09         | 283             | 102         | V        |
| 3      | * 2.484         | 32.65                | RMS | 32.1           | -23          | 0            | 41.75                      | 54                     | -12.25      | -                   | -              | 283             | 102         | V        |
| 4      | * 2.493         | 33.74                | RMS | 32.1           | -23.1        | 0            | 42.74                      | 54                     | -11.26      | -                   | -              | 283             | 102         | V        |

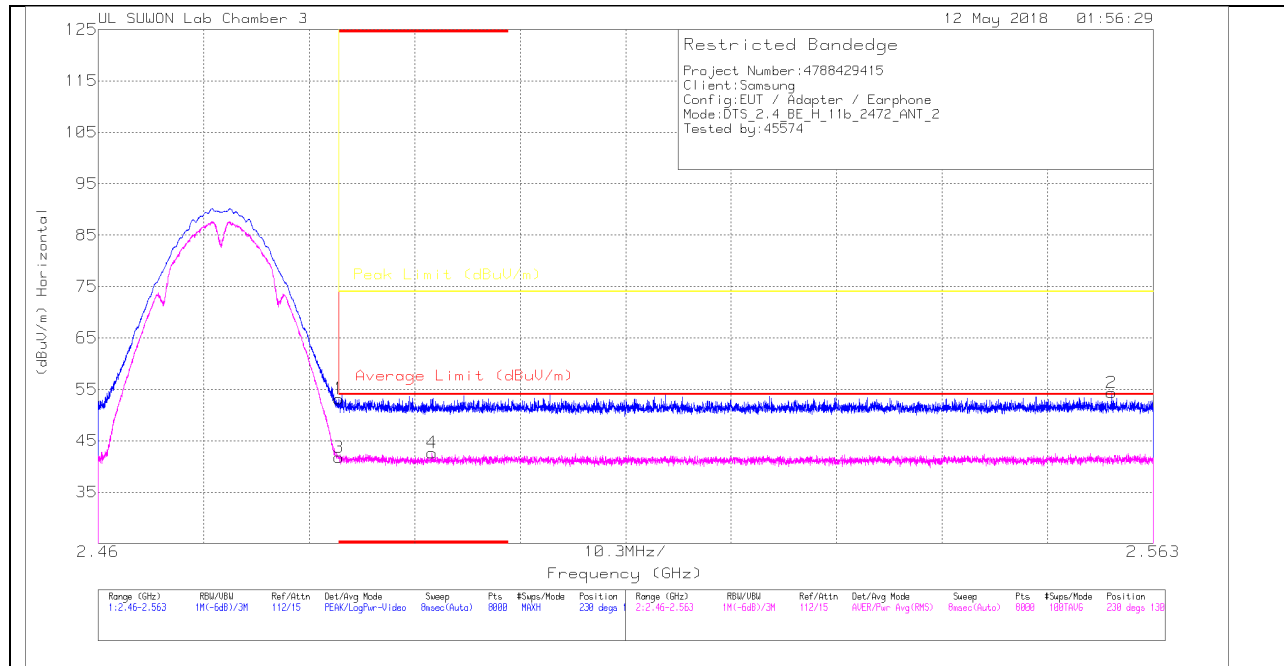
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (13 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205999) | 100B_ATT(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 |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 44.07                | Pk  | 32.1           | -23          | 0            | 53.17                      | -                      | -           | 74                  | -20.83         | 230             | 130         | H        |
| 2      | 2.559           | 45.13                | Pk  | 32.1           | -22.9        | 0            | 54.33                      | -                      | -           | 74                  | -19.67         | 230             | 130         | H        |
| 3      | * 2.484         | 32.64                | RMS | 32.1           | -23          | 0            | 41.74                      | 54                     | -12.26      | -                   | -              | 230             | 130         | H        |
| 4      | * 2.493         | 33.66                | RMS | 32.1           | -23.1        | 0            | 42.66                      | 54                     | -11.34      | -                   | -              | 230             | 130         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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         | 42.48                | Pk  | 32.1           | -23          | 0            | 51.58                      | -                      | -           | 74                  | -22.42         | 283            | 100         | V        |
| 2      | 2.504           | 44.58                | Pk  | 32.1           | -23          | 0            | 53.68                      | -                      | -           | 74                  | -20.32         | 283            | 100         | V        |
| 3      | * 2.484         | 32.41                | RMS | 32.1           | -23          | 0            | 41.51                      | 54                     | -12.49      | -                   | -              | 283            | 100         | V        |
| 4      | 2.517           | 33.38                | RMS | 32.1           | -23.1        | 0            | 42.38                      | 54                     | -11.62      | -                   | -              | 283            | 100         | V        |

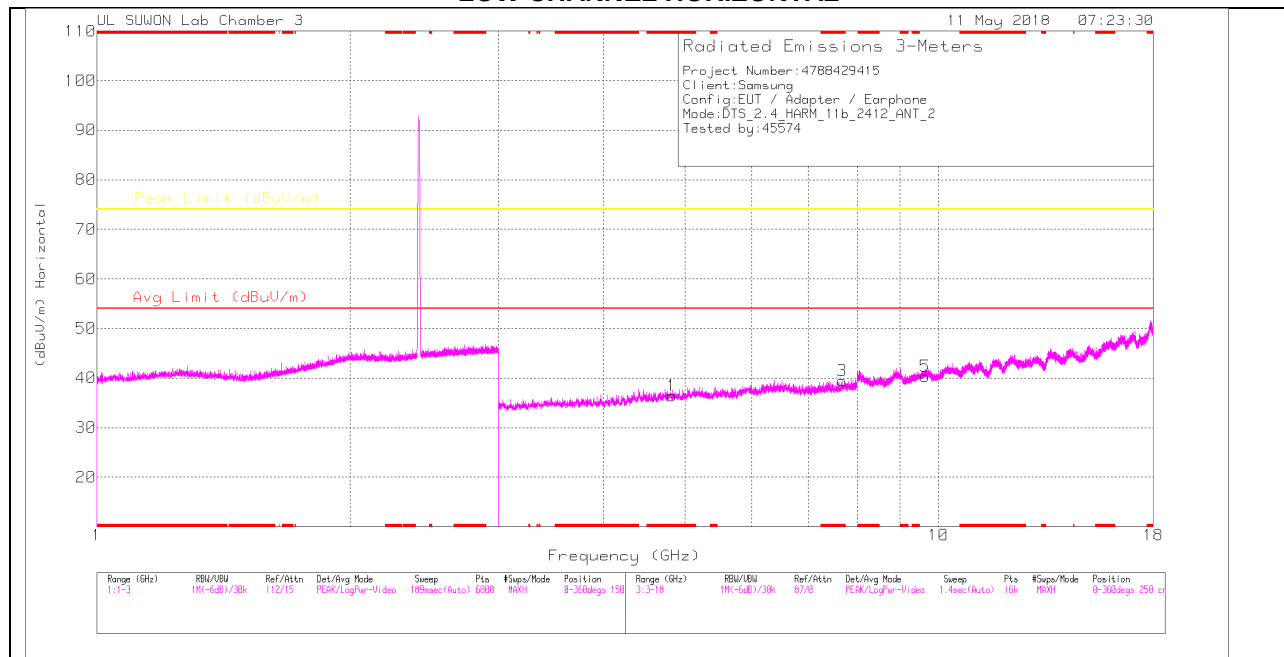
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

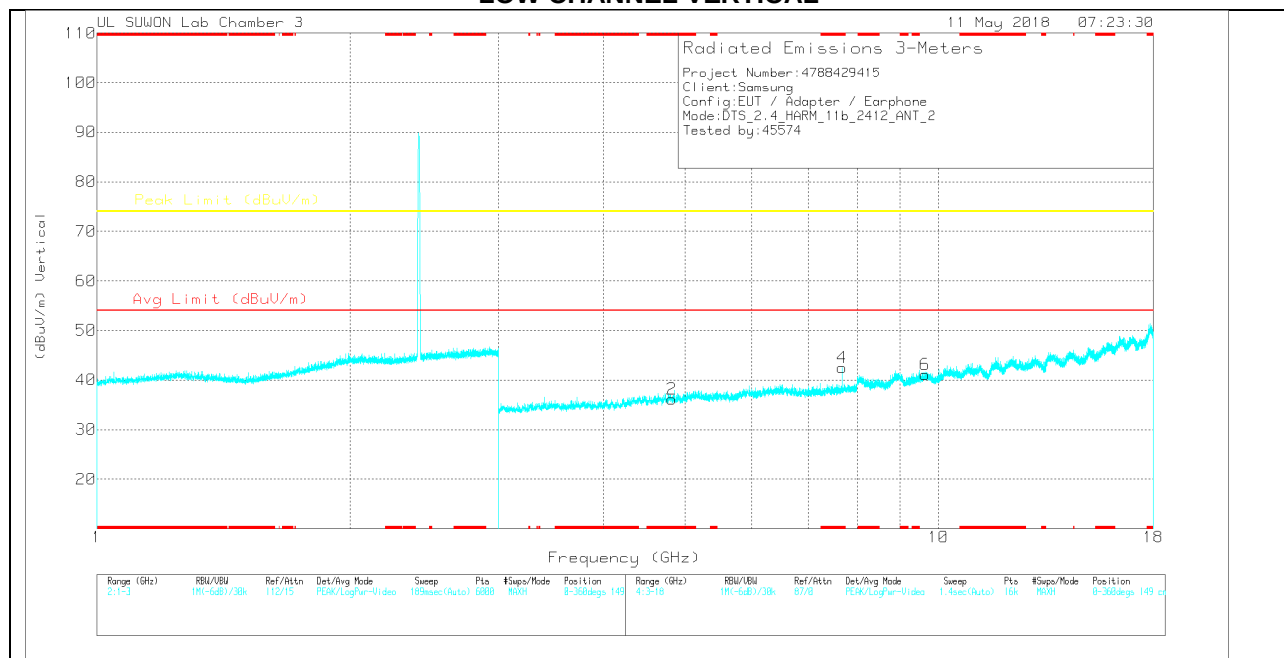
RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL HORIZONTAL



## LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## LOW CHANNEL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.824         | 30.82                | PK  | 34             | -28.4       | 0            | 36.42                      | -                  | -           | 74                  | -37.58      | 0-360          | 250         | H        |
| 3      | * 7.688         | 26.13                | PK  | 35.6           | -22.3       | 0            | 39.43                      | -                  | -           | 74                  | -34.57      | 0-360          | 250         | H        |
| 5      | 9.648           | 23.3                 | PK  | 36.7           | -19.7       | 0            | 40.3                       | -                  | -           | 74                  | -33.7       | 0-360          | 150         | H        |
| 2      | * 4.824         | 30.53                | PK  | 34             | -28.4       | 0            | 36.13                      | -                  | -           | 74                  | -37.87      | 0-360          | 149         | V        |
| 4      | * 7.68          | 29.32                | PK  | 35.6           | -22.4       | 0            | 42.52                      | -                  | -           | 74                  | -31.48      | 0-360          | 149         | V        |
| 6      | 9.648           | 24.15                | PK  | 36.7           | -19.7       | 0            | 41.15                      | -                  | -           | 74                  | -32.85      | 0-360          | 149         | V        |

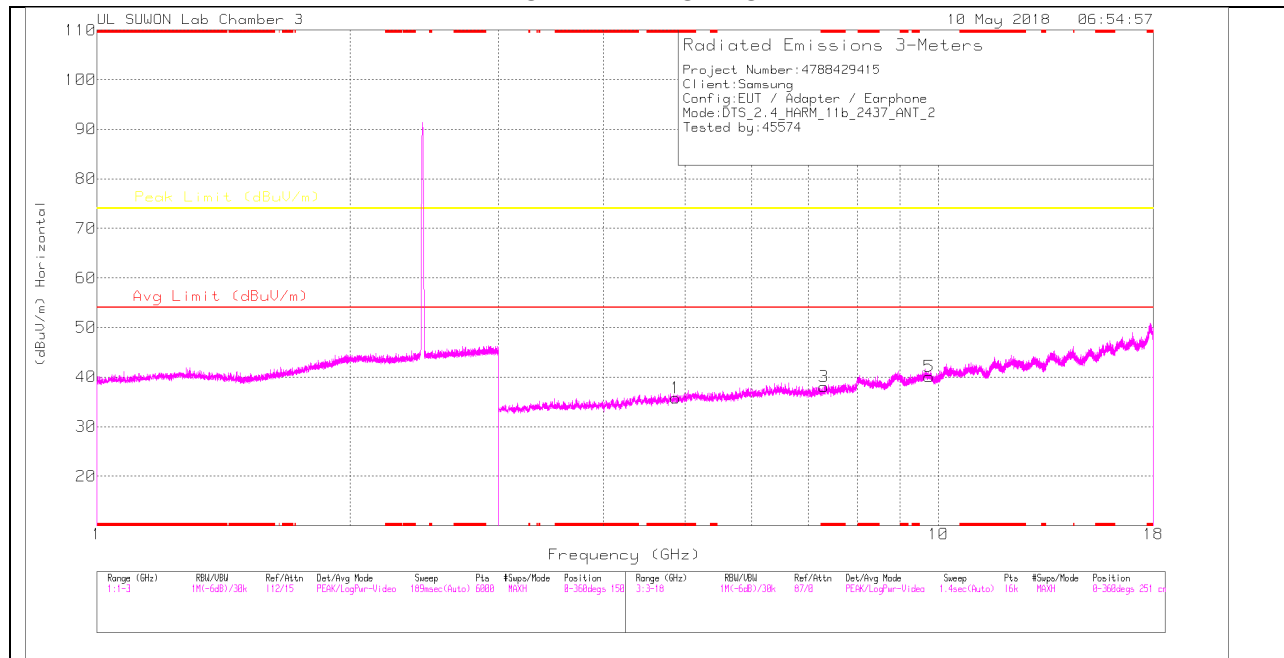
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak Detector

### Radiated Emissions

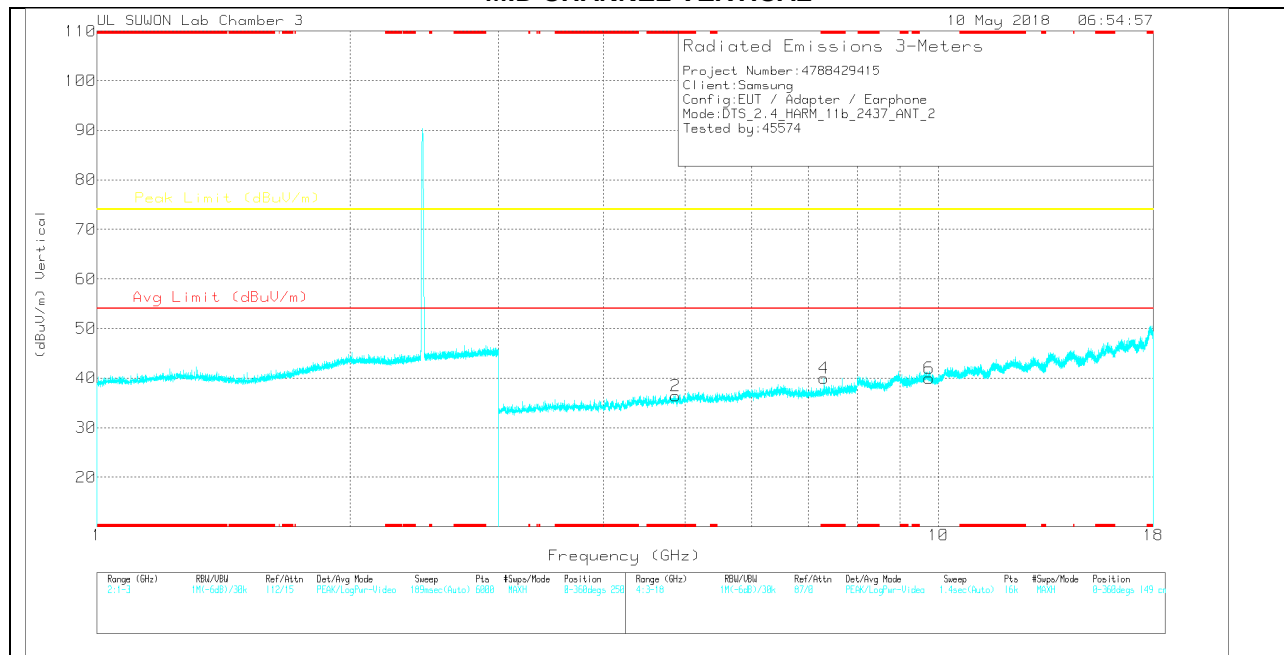
| Frequency (GHz) | Meter Reading (dBuV) | Det  | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| * 7.68          | 37.42                | PK2  | 35.6           | -22.3       | 0            | 50.72                      | -                  | -           | 74                  | -23.28      | 76             | 100         | V        |
| * 7.68          | 30.59                | MAv1 | 35.6           | -22.3       | 0            | 43.89                      | 54                 | -10.11      | -                   | -           | 76             | 100         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK2 - KDB558074 Method: Maximum Peak  
MAv1 - KDB558074 Option 1 Maximum RMS Average

### MID CHANNEL HORIZONTAL



### MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## MID CHANNEL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.874         | 30.65                | PK  | 34             | -28.9       | 0            | 35.75                      | -                  | -           | 74                  | -38.25      | 0-360          | 150         | H        |
| 3      | * 7.309         | 26.07                | PK  | 35.6           | -23.6       | 0            | 38.07                      | -                  | -           | 74                  | -35.93      | 0-360          | 251         | H        |
| 5      | 9.749           | 22.81                | PK  | 36.9           | -19.6       | 0            | 40.11                      | -                  | -           | 74                  | -33.89      | 0-360          | 251         | H        |
| 2      | * 4.874         | 31.34                | PK  | 34             | -28.9       | 0            | 36.44                      | -                  | -           | 74                  | -37.56      | 0-360          | 149         | V        |
| 4      | * 7.31          | 27.84                | PK  | 35.6           | -23.5       | 0            | 39.94                      | -                  | -           | 74                  | -34.06      | 0-360          | 251         | V        |
| 6      | 9.749           | 22.68                | PK  | 36.9           | -19.6       | 0            | 39.98                      | -                  | -           | 74                  | -34.02      | 0-360          | 251         | V        |

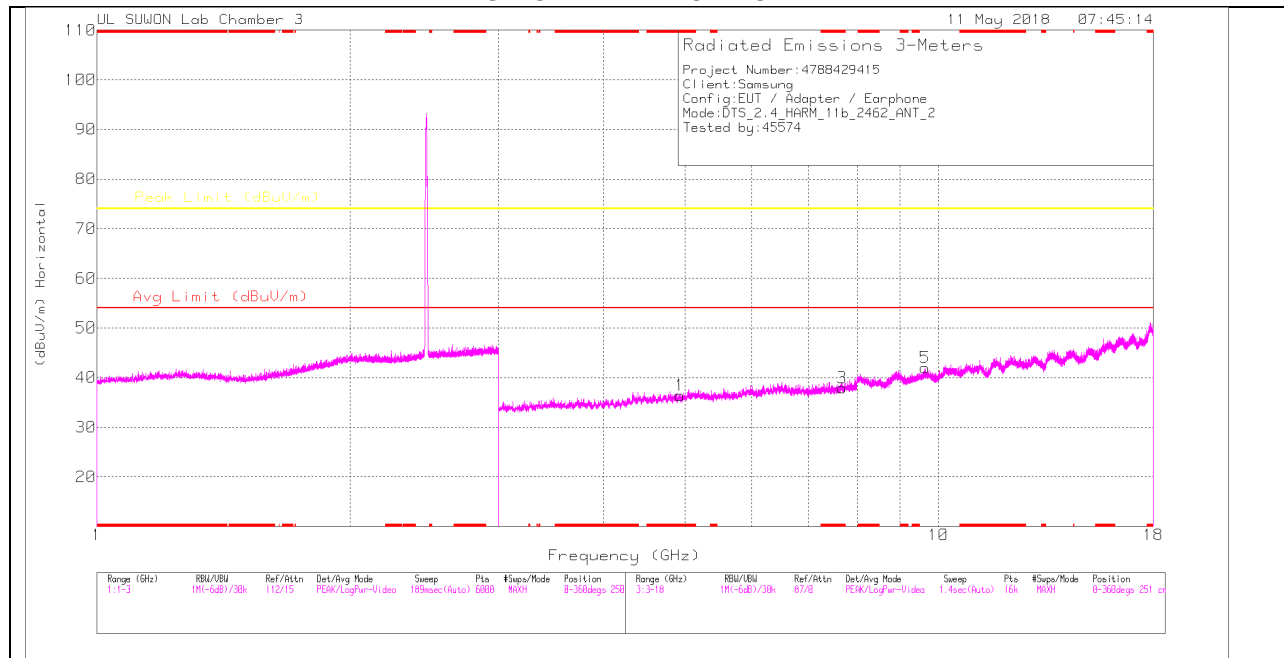
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak Detector

### Radiated Emissions

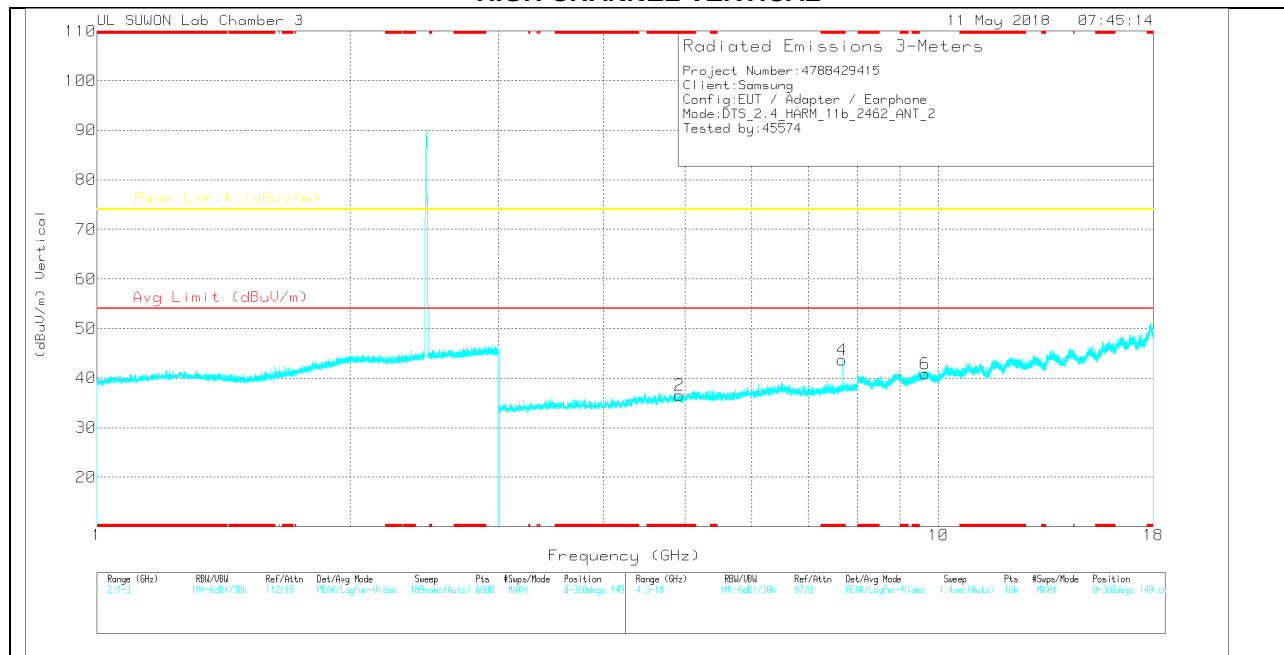
| Frequency (GHz) | Meter Reading (dBuV) | Det  | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| * 7.31          | 36.11                | PK2  | 35.6           | -23.5       | 0            | 48.21                      | -                  | -           | 74                  | -25.79      | 111            | 108         | H        |
| * 7.312         | 25.07                | MAv1 | 35.6           | -23.5       | 0            | 37.17                      | 54                 | -16.83      | -                   | -           | 111            | 108         | H        |
| * 7.303         | 35.94                | PK2  | 35.6           | -23.7       | 0            | 47.84                      | -                  | -           | 74                  | -26.16      | 48             | 163         | V        |
| * 7.298         | 24.49                | MAv1 | 35.6           | -23.7       | 0            | 36.39                      | 54                 | -17.61      | -                   | -           | 48             | 163         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK2 - KDB558074 Method: Maximum Peak  
MAv1 - KDB558074 Option 1 Maximum RMS Average

### HIGH CHANNEL HORIZONTAL



### HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

## Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.927         | 31.32                | PK  | 34             | -28.9       | 0            | 36.42                      | -                  | -           | 74                  | -37.58      | 0-360          | 251         | H        |
| 3      | * 7.679         | 24.69                | PK  | 35.6           | -22.3       | 0            | 37.99                      | -                  | -           | 74                  | -36.01      | 0-360          | 251         | H        |
| 5      | 9.648           | 25.03                | PK  | 36.7           | -19.7       | 0            | 42.03                      | -                  | -           | 74                  | -31.97      | 0-360          | 251         | H        |
| 2      | * 4.926         | 31.44                | PK  | 34             | -28.9       | 0            | 36.54                      | -                  | -           | 74                  | -37.46      | 0-360          | 149         | V        |
| 4      | * 7.679         | 30.35                | PK  | 35.6           | -22.3       | 0            | 43.65                      | -                  | -           | 74                  | -30.35      | 0-360          | 149         | V        |
| 6      | 9.648           | 23.89                | PK  | 36.7           | -19.7       | 0            | 40.89                      | -                  | -           | 74                  | -33.11      | 0-360          | 251         | V        |

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

PK – Peak Detector

## Radiated Emissions

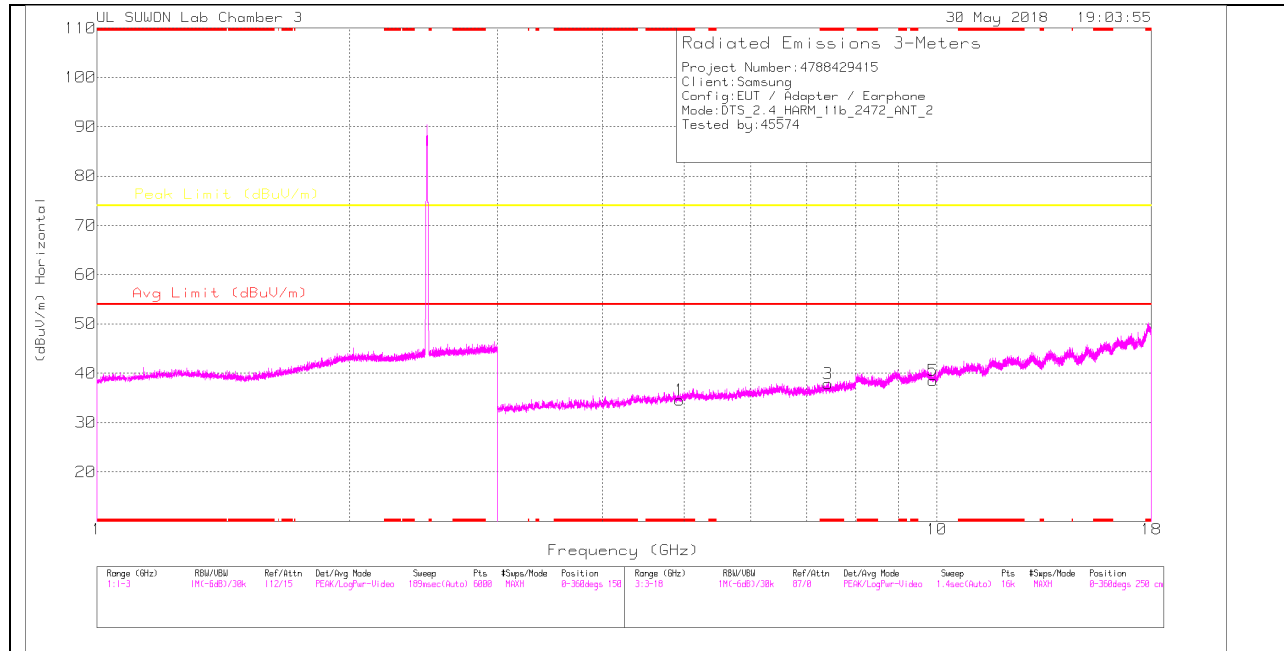
| Frequency (GHz) | Meter Reading (dBuV) | Det  | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| * 7.68          | 34.96                | PK2  | 35.6           | -22.3       | 0            | 48.26                      | -                  | -           | 74                  | -25.74      | 75             | 100         | V        |
| * 7.68          | 29.91                | MAv1 | 35.6           | -22.3       | 0            | 43.21                      | 54                 | -10.79      | -                   | -           | 75             | 100         | V        |

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

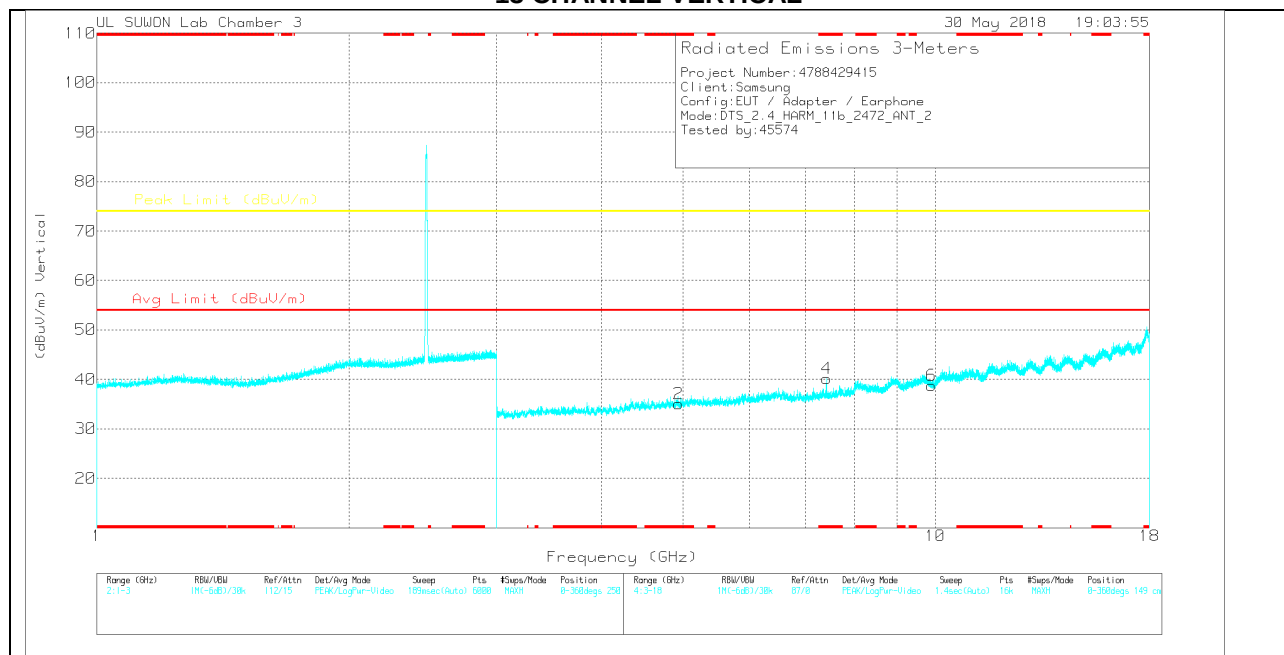
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### 13 CHANNEL HORIZONTAL



### 13 CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### 13 CHANNEL DATA

#### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1      | * 4.944         | 29.31                | PK  | 34.1           | -28.8       | 0            | 34.61                      | -                  | -           | 74                  | -39.39      | 0-360          | 150         | H        |
| 3      | * 7.418         | 25.38                | PK  | 35.6           | -23.1       | 0            | 37.88                      | -                  | -           | 74                  | -36.12      | 0-360          | 150         | H        |
| 5      | 9.888           | 21.2                 | PK  | 37             | -19.7       | 0            | 38.5                       | -                  | -           | 74                  | -35.5       | 0-360          | 250         | H        |
| 2      | * 4.944         | 29.72                | PK  | 34.1           | -28.8       | 0            | 35.02                      | -                  | -           | 74                  | -38.98      | 0-360          | 149         | V        |
| 4      | * 7.414         | 27.54                | PK  | 35.6           | -23         | 0            | 40.14                      | -                  | -           | 74                  | -33.86      | 0-360          | 250         | V        |
| 6      | 9.888           | 21.46                | PK  | 37             | -19.7       | 0            | 38.76                      | -                  | -           | 74                  | -35.24      | 0-360          | 250         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK – Peak detector

#### Radiated Emissions

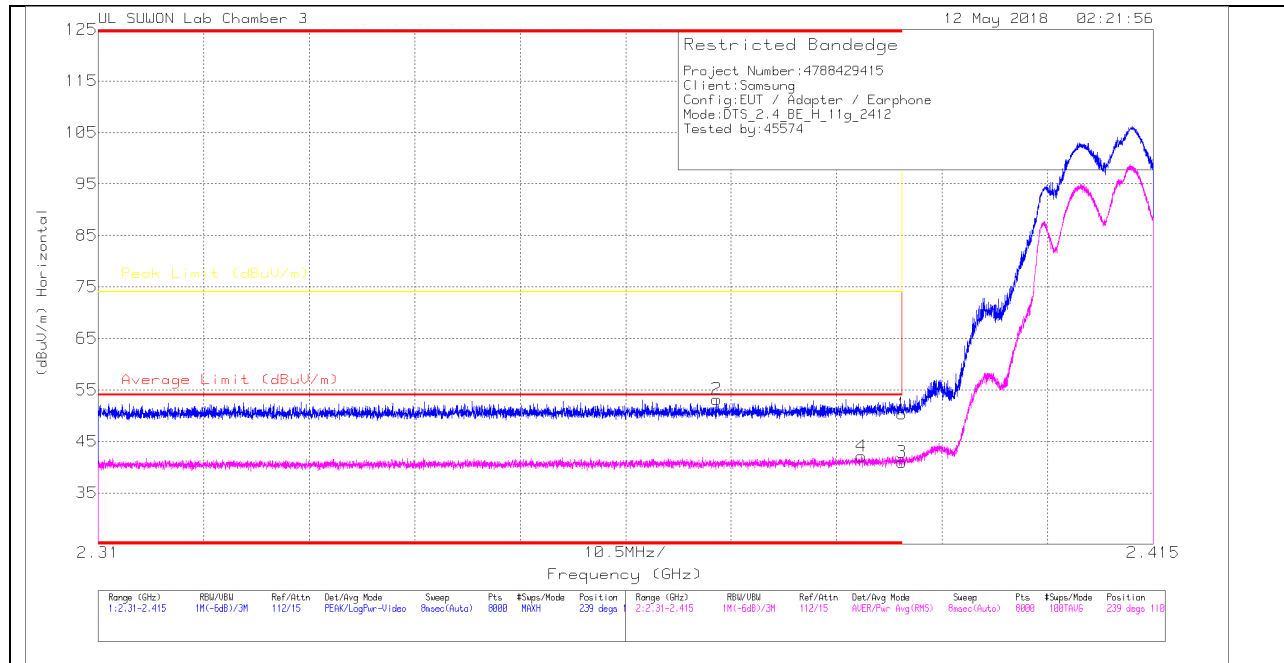
| Frequency (GHz) | Meter Reading (dBuV) | Det  | 3117[00205959] | 3GHz_HP[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-------------|--------------|----------------------------|--------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| * 7.416         | 37.53                | PK2  | 35.6           | -23.1       | 0            | 50.03                      | -                  | -           | 74                  | -23.97      | 346            | 277         | V        |
| * 7.417         | 26.89                | MAv1 | 35.6           | -23.1       | 0            | 39.39                      | 54                 | -14.61      | -                   | -           | 346            | 277         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
PK2 - KDB558074 Method: Maximum Peak  
MAv1 - KDB558074 Option 1 Maximum RMS Average

# 11.2.3. TX ABOVE 1 GHz 802.11g 2TX CDD MODE IN THE 2.4 GHz BAND

## RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

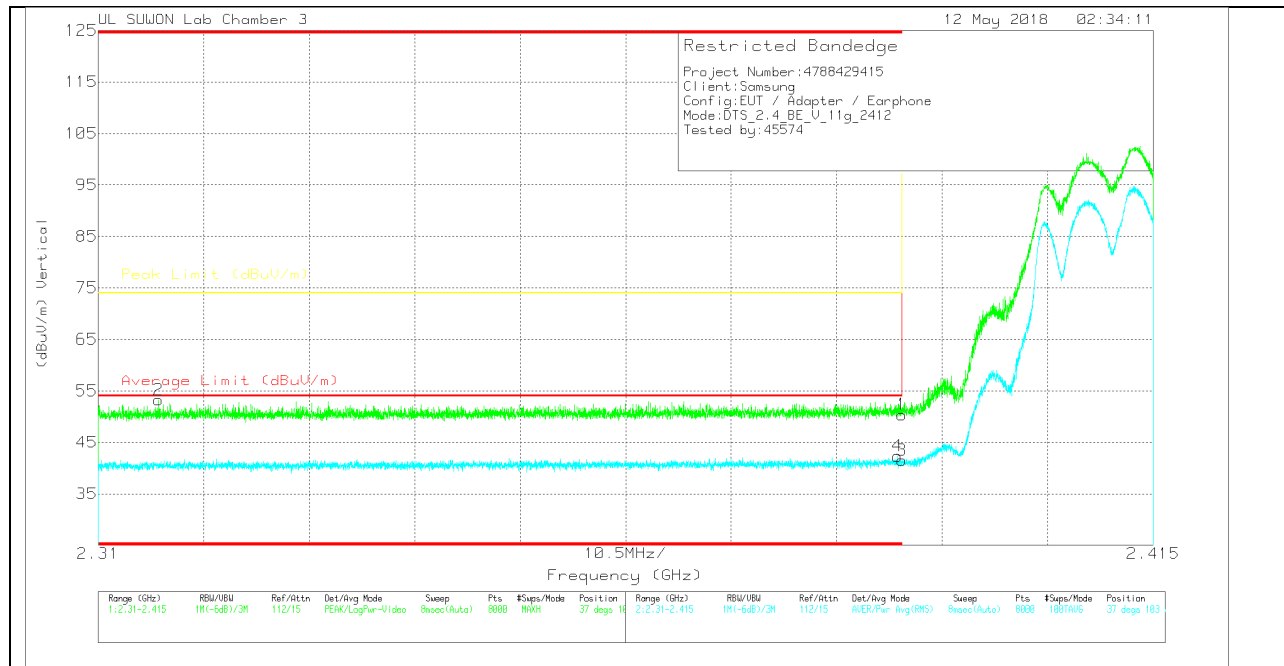
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205999] | 10dB_ATT[dB] | DC Corr [dB] | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.39          | 41.84                | Pk  | 31.8           | -23.3        | 0            | 50.34                      | -                      | -           | 74                  | -23.66         | 239             | 110         | H        |
| 2      | * 2.372         | 44.7                 | Pk  | 31.7           | -23.2        | 0            | 53.2                       | -                      | -           | 74                  | -20.8          | 239             | 110         | H        |
| 3      | * 2.39          | 32.32                | RMS | 31.8           | -23.3        | .13          | 40.95                      | 54                     | -13.05      | -                   | -              | 239             | 110         | H        |
| 4      | * 2.386         | 33.51                | RMS | 31.8           | -23.3        | .13          | 42.14                      | 54                     | -11.86      | -                   | -              | 239             | 110         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 100B_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 41.88                | Pk  | 31.8           | -23.3        | 0            | 50.38                      | -                      | -           | 74                  | -23.62         | 37             | 103         | V        |
| 2      | * 2.316         | 44.84                | Pk  | 31.6           | -23.2        | 0            | 53.24                      | -                      | -           | 74                  | -20.76         | 37             | 103         | V        |
| 3      | * 2.39          | 32.89                | RMS | 31.8           | -23.3        | .13          | 41.52                      | 54                     | -12.48      | -                   | -              | 37             | 103         | V        |
| 4      | * 2.39          | 33.7                 | RMS | 31.8           | -23.3        | .13          | 42.33                      | 54                     | -11.67      | -                   | -              | 37             | 103         | V        |

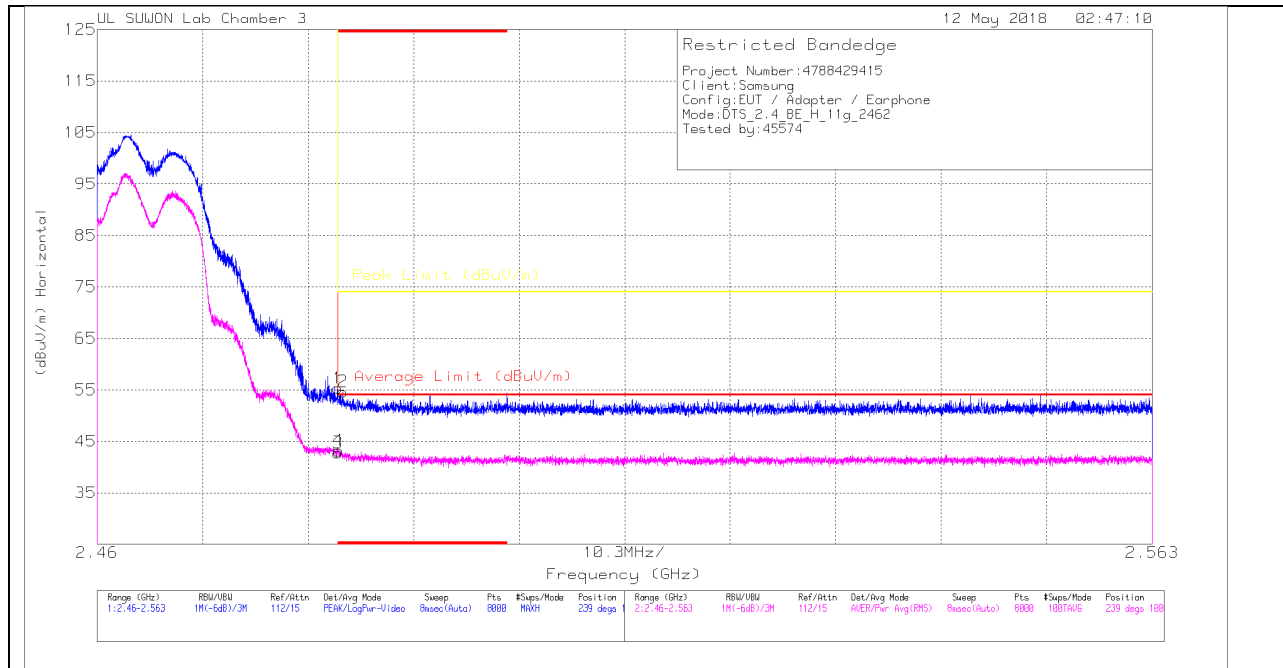
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

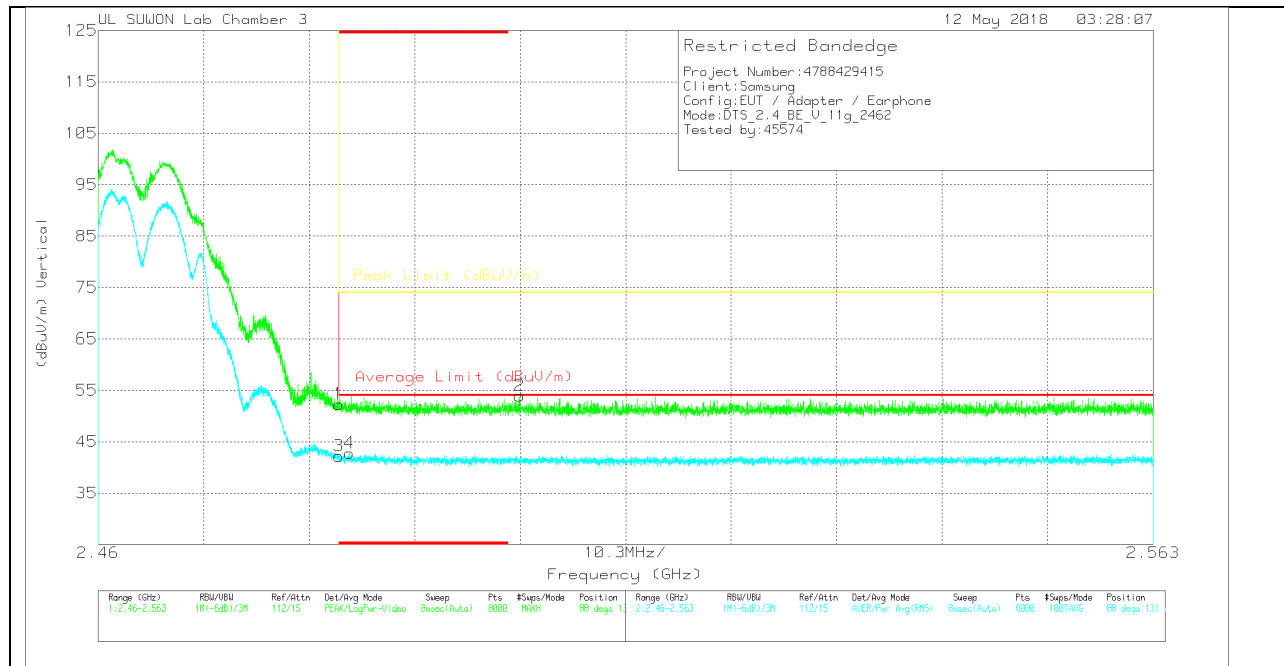
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205959] | 10dB_ATT[dB] | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Altitude (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|-----------------|-------------|----------|
| 1      | * 2.484         | 46.21                | Pk  | 32.1           | -23          | 0            | 55.31                      | -                      | -           | 74                  | -18.69         | 239             | 100         | H        |
| 2      | * 2.484         | 45.62                | Pk  | 32.1           | -23.1        | 0            | 54.62                      | -                      | -           | 74                  | -19.38         | 239             | 100         | H        |
| 3      | * 2.484         | 33.54                | RMS | 32.1           | -23          | .13          | 42.77                      | 54                     | -11.23      | -                   | -              | 239             | 100         | H        |
| 4      | * 2.484         | 33.97                | RMS | 32.1           | -23          | .13          | 43.2                       | 54                     | -10.8       | -                   | -              | 239             | 100         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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         | 43.23                | Pk  | 32.1           | -23          | 0            | 52.33                      | -                      | -           | 74                  | -21.67         | 88             | 131         | V        |
| 2      | 2.501           | 44.85                | Pk  | 32.1           | -23          | 0            | 53.95                      | -                      | -           | 74                  | -20.05         | 88             | 131         | V        |
| 3      | * 2.484         | 32.98                | RMS | 32.1           | -23          | .13          | 42.21                      | 54                     | -11.79      | -                   | -              | 88             | 131         | V        |
| 4      | * 2.485         | 33.64                | RMS | 32.1           | -23.1        | .13          | 42.77                      | 54                     | -11.23      | -                   | -              | 88             | 131         | V        |

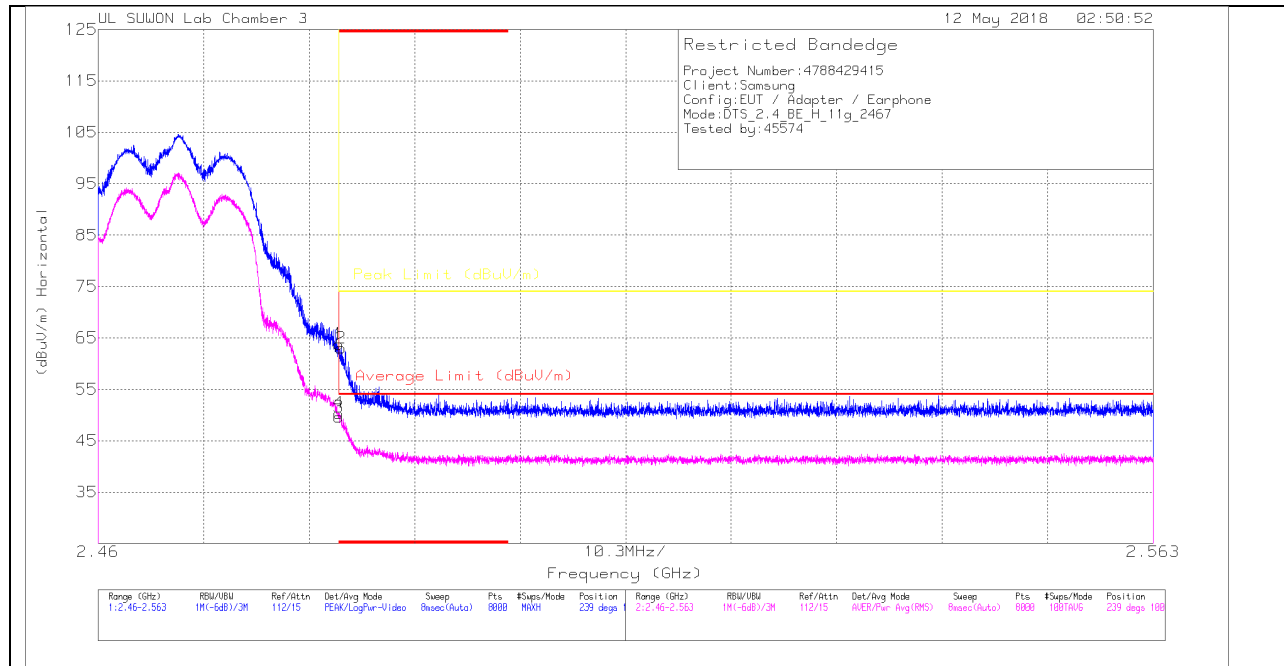
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (12 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

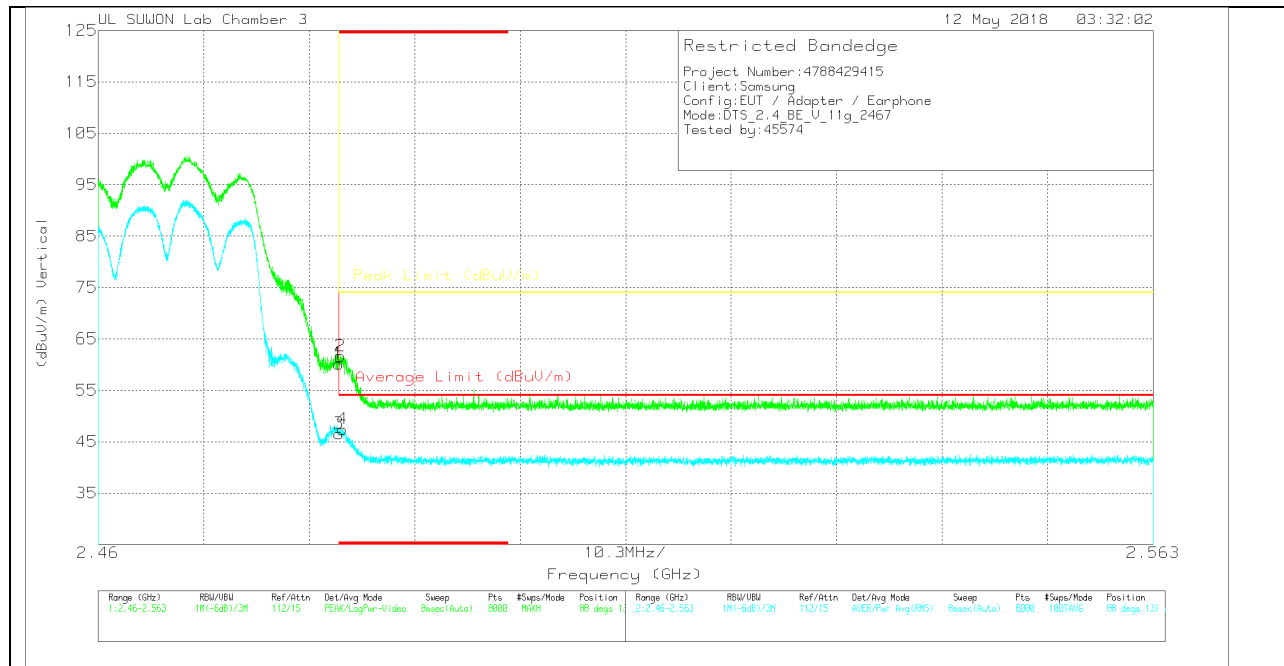
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205999) | 100B_ATT(dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 54.73                | Pk  | 32.1           | -23          | 0            | 63.83                      | -                      | -           | 74                  | -10.17         | 239            | 100         | H        |
| 2      | * 2.484         | 53.92                | Pk  | 32.1           | -23          | 0            | 63.02                      | -                      | -           | 74                  | -10.98         | 239            | 100         | H        |
| 3      | * 2.484         | 40.39                | RMS | 32.1           | -23          | .13          | 49.62                      | 54                     | -4.38       | -                   | -              | 239            | 100         | H        |
| 4      | * 2.484         | 41.16                | RMS | 32.1           | -23          | .13          | 50.39                      | 54                     | -3.61       | -                   | -              | 239            | 100         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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         | 51.05                | Pk  | 32.1           | -23          | 0            | 60.15                      | -                      | -           | 74                  | -13.85         | 88             | 131         | V        |
| 2      | * 2.484         | 52.55                | Pk  | 32.1           | -23          | 0            | 61.65                      | -                      | -           | 74                  | -12.35         | 88             | 131         | V        |
| 3      | * 2.484         | 37.36                | RMS | 32.1           | -23          | .13          | 46.59                      | 54                     | -7.41       | -                   | -              | 88             | 131         | V        |
| 4      | * 2.484         | 38.32                | RMS | 32.1           | -23.1        | .13          | 47.45                      | 54                     | -6.55       | -                   | -              | 88             | 131         | V        |

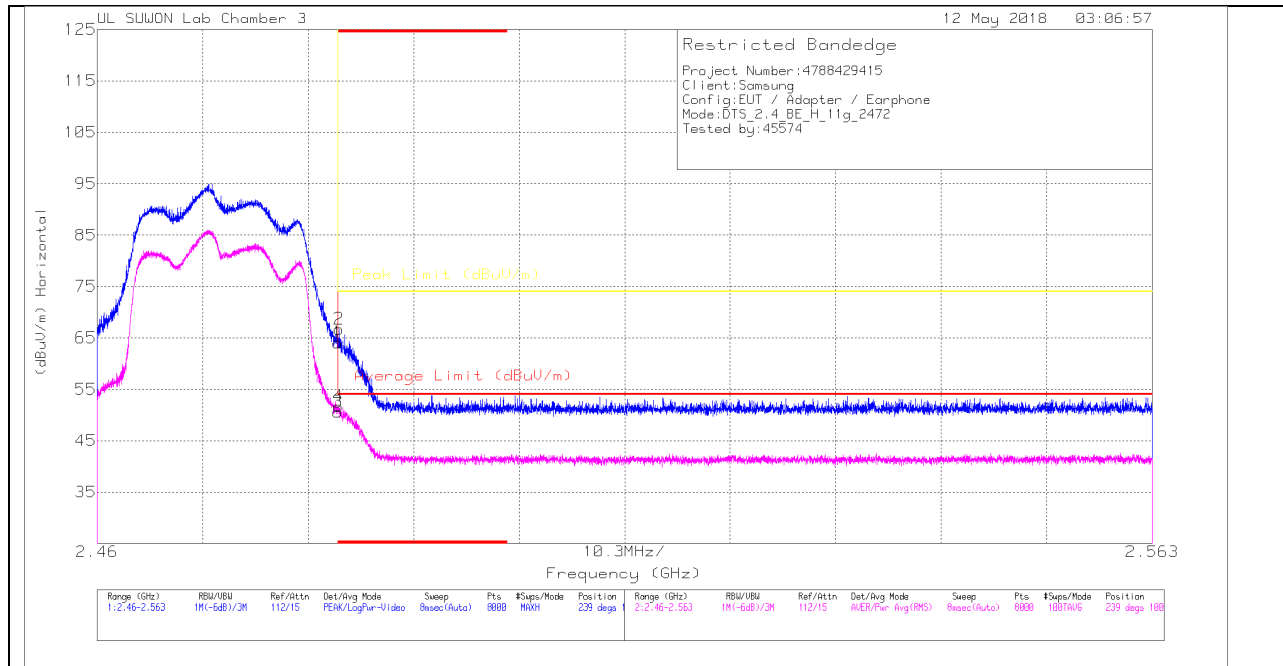
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## AUTHORIZED BANDEDGE (13 CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

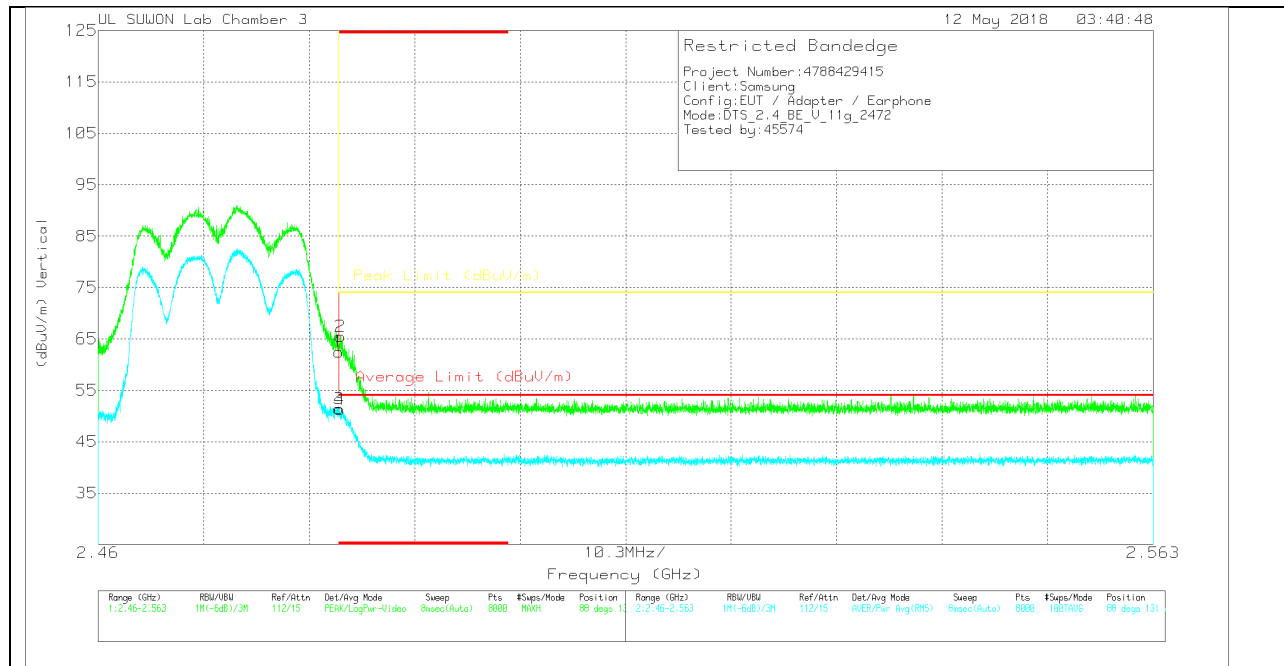
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117[00205999] | 100B_ATT[0B] | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Asimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 54.95                | Pk  | 32.1           | -23          | 0            | 64.05                      | -                      | -           | 74                  | -9.95          | 239            | 100         | H        |
| 2      | * 2.484         | 57.62                | Pk  | 32.1           | -23          | 0            | 66.72                      | -                      | -           | 74                  | -7.28          | 239            | 100         | H        |
| 3      | * 2.484         | 41.38                | RMS | 32.1           | -23          | .13          | 50.61                      | 54                     | -3.39       | -                   | -              | 239            | 100         | H        |
| 4      | * 2.484         | 42.45                | RMS | 32.1           | -23          | .13          | 51.68                      | 54                     | -2.32       | -                   | -              | 239            | 100         | H        |

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL PEAK AND AVERAGE PLOT



## VERTICAL DATA

### Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 3117(00205959) | 10dB_ATT(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         | 53.39                | Pk  | 32.1           | -23          | 0            | 62.49                      | -                      | -           | 74                  | -11.51         | 88             | 131         | V        |
| 2      | * 2.484         | 56.38                | Pk  | 32.1           | -23          | 0            | 65.48                      | -                      | -           | 74                  | -8.52          | 88             | 131         | V        |
| 3      | * 2.484         | 42.19                | RMS | 32.1           | -23          | .13          | 51.42                      | 54                     | -2.58       | -                   | -              | 88             | 131         | V        |
| 4      | * 2.484         | 42.05                | RMS | 32.1           | -23          | .13          | 51.28                      | 54                     | -2.72       | -                   | -              | 88             | 131         | V        |

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

Pk - Peak detector

RMS - RMS detection