

10.4. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

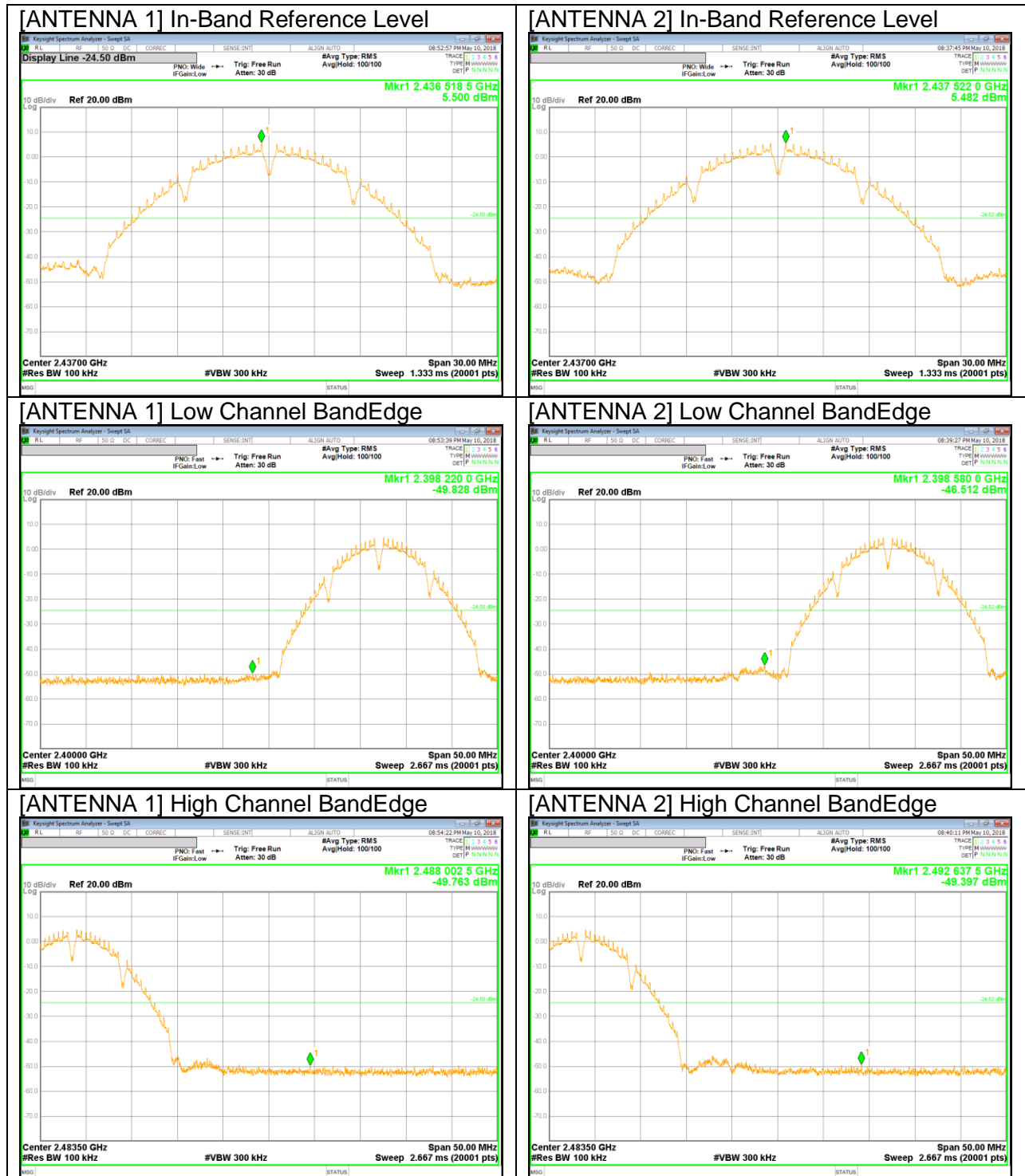
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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.

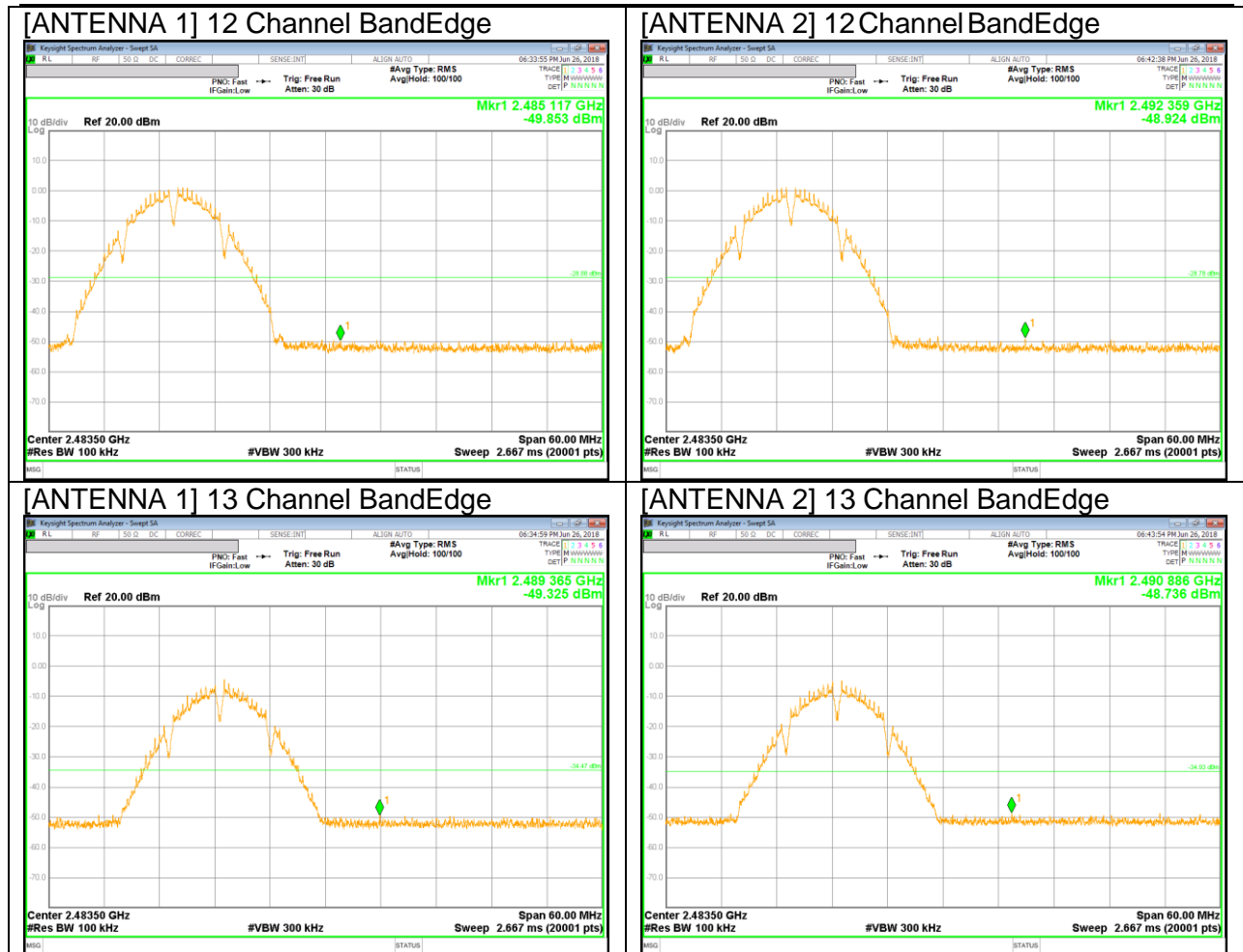
TEST PROCEDURE

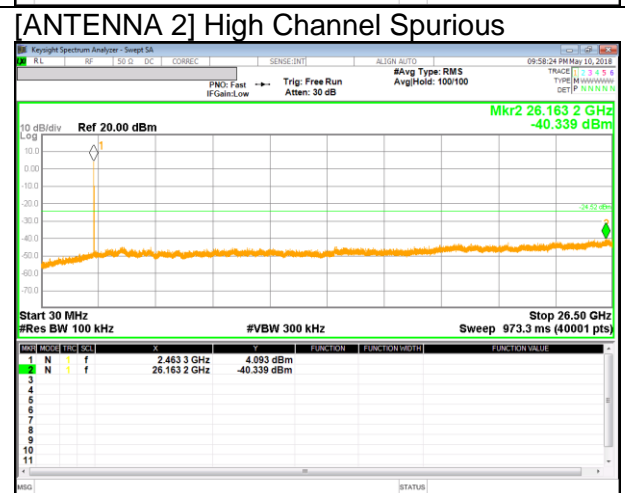
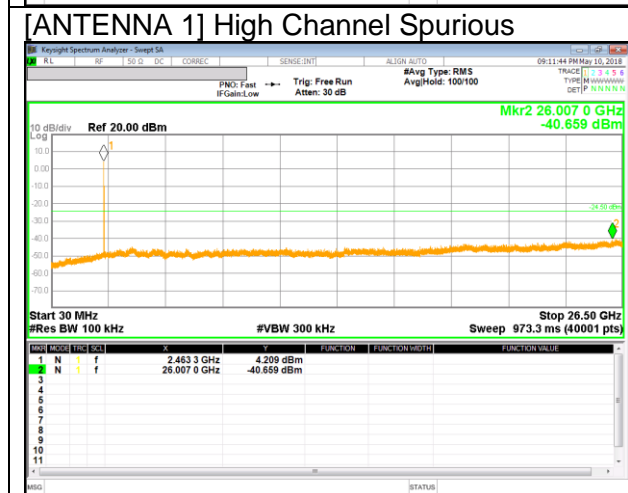
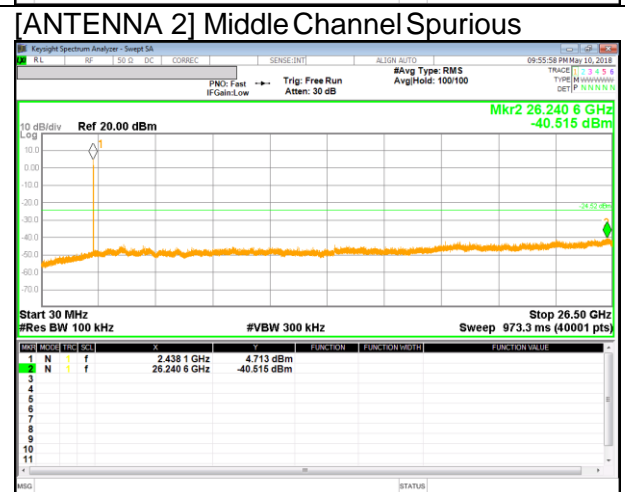
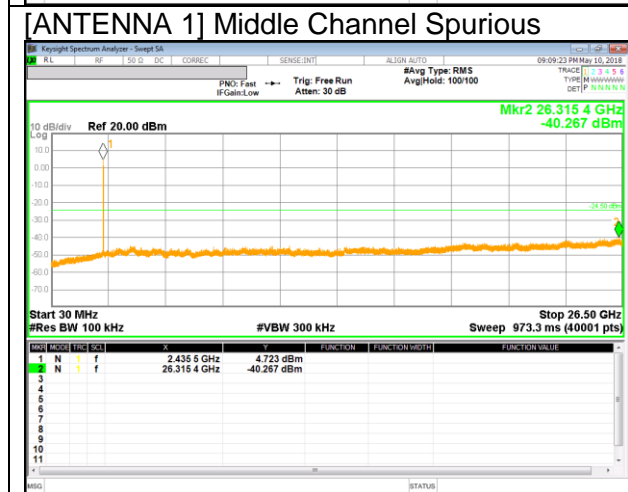
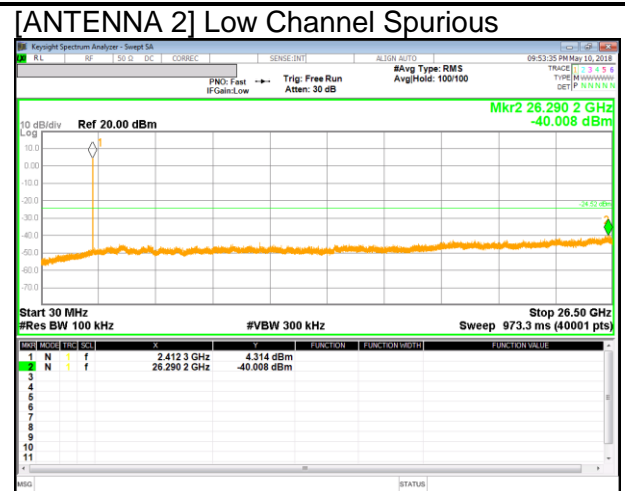
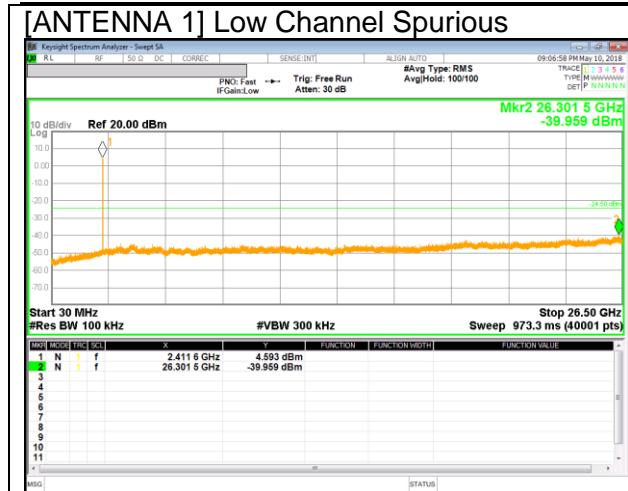
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

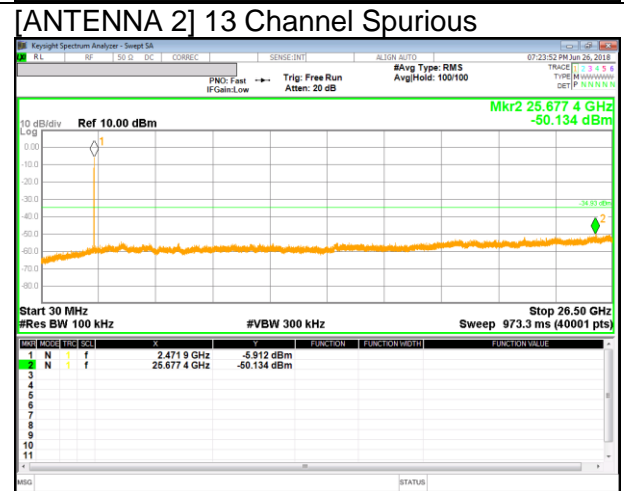
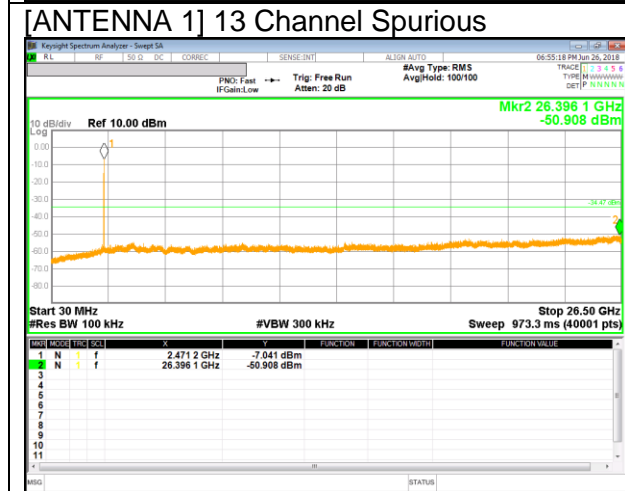
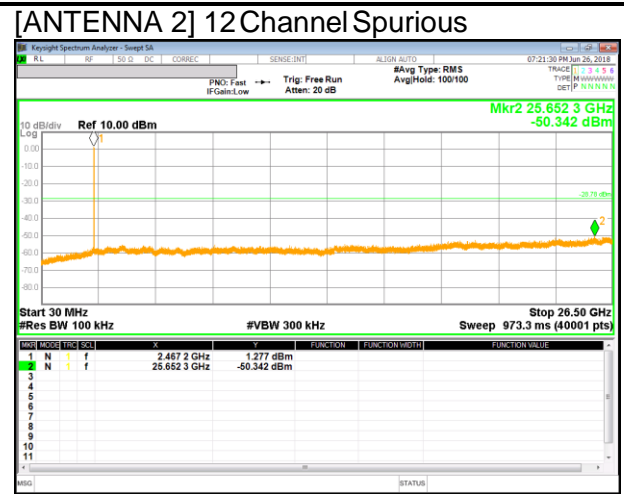
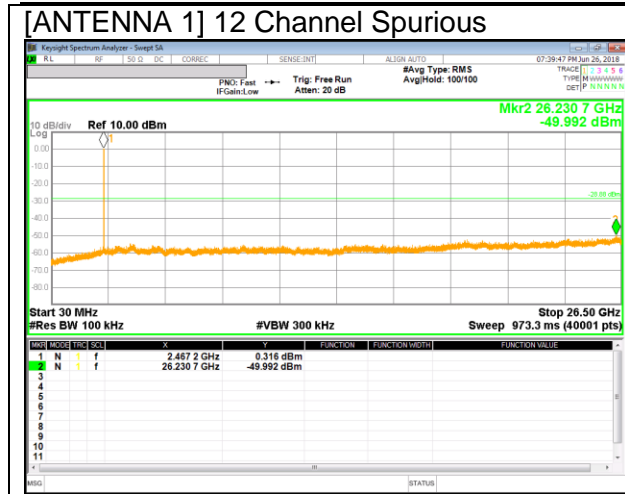
RESULTS

10.4.1. 802.11b MODE IN THE 2.4 GHz BAND

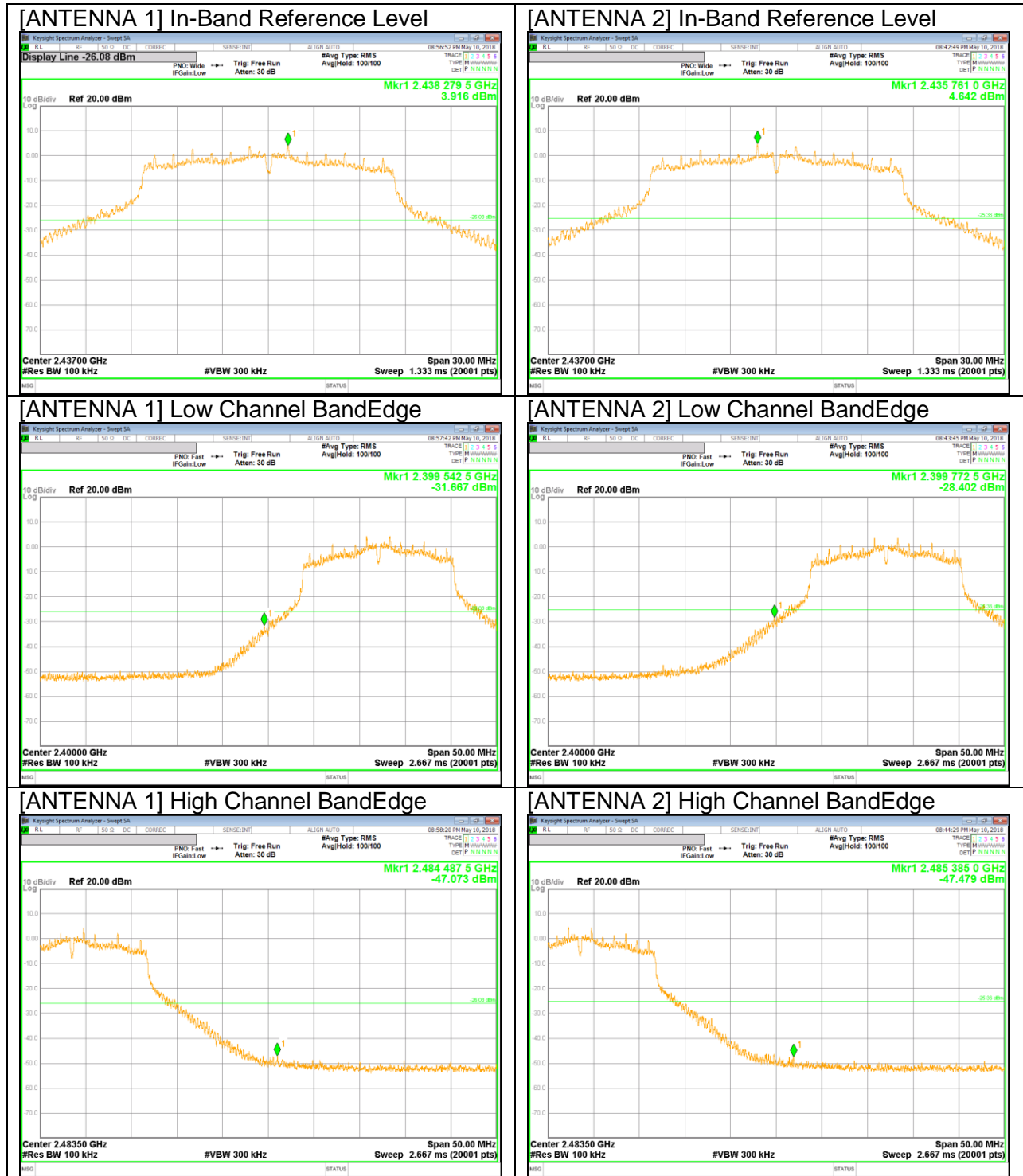


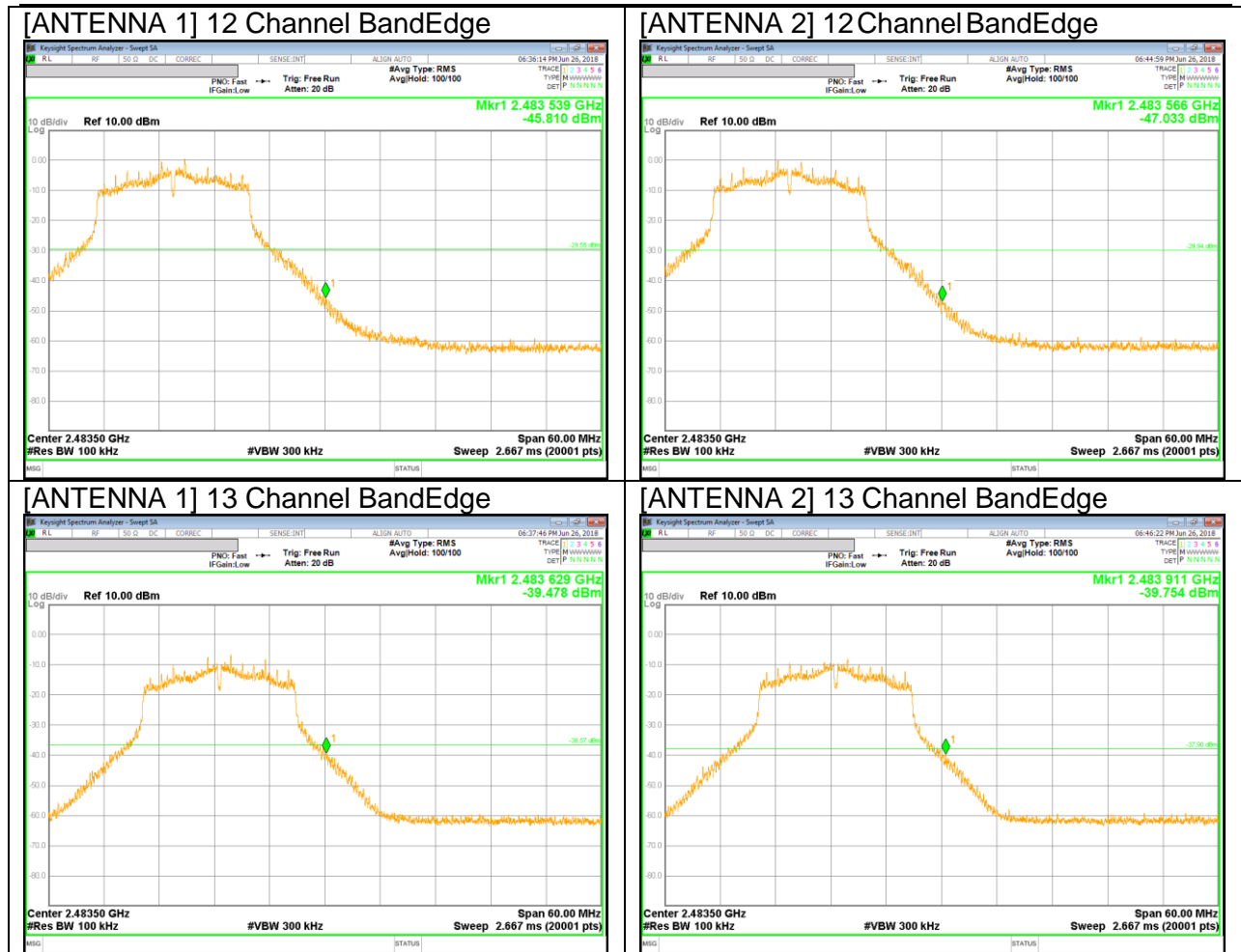


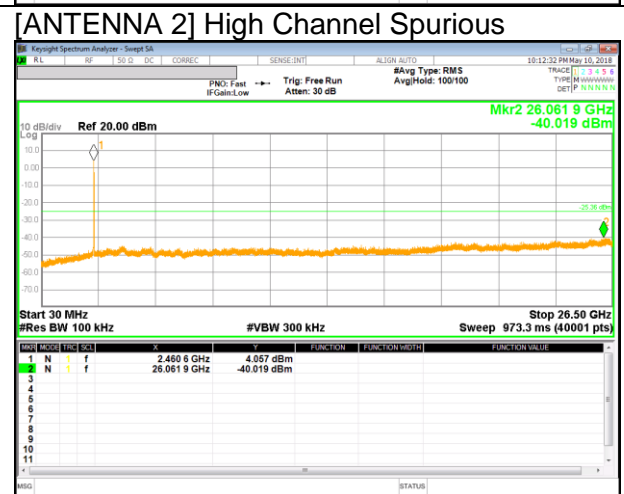
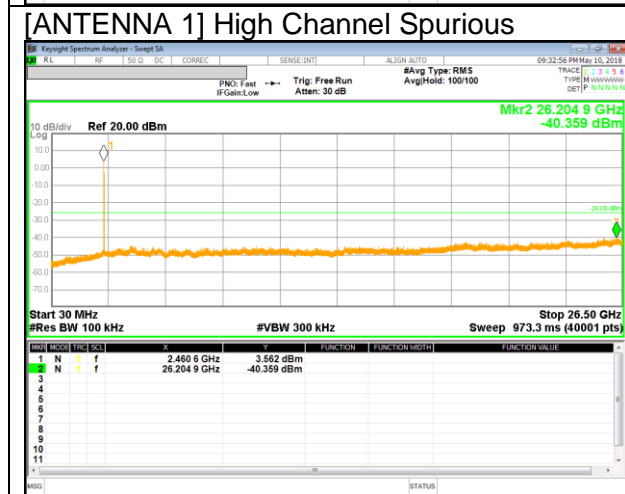
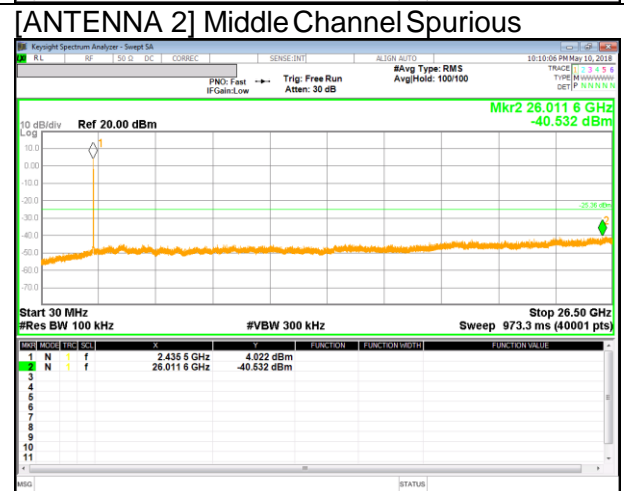
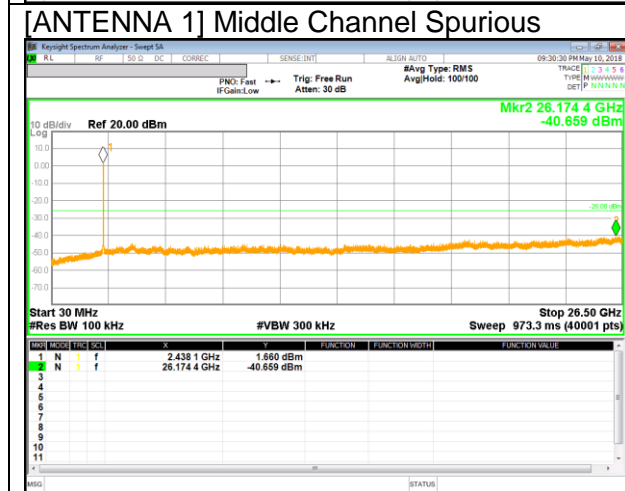
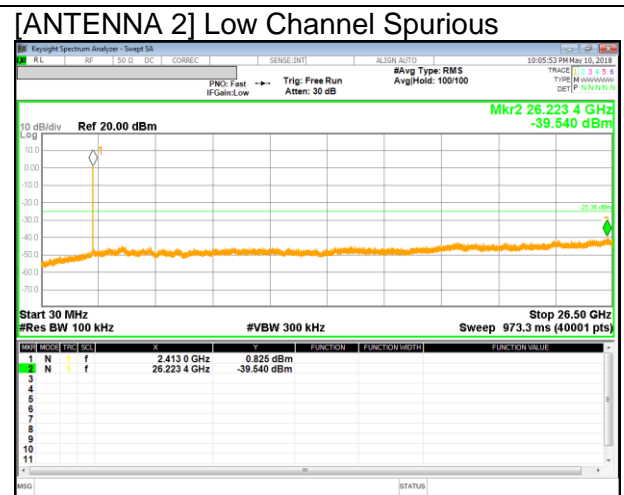
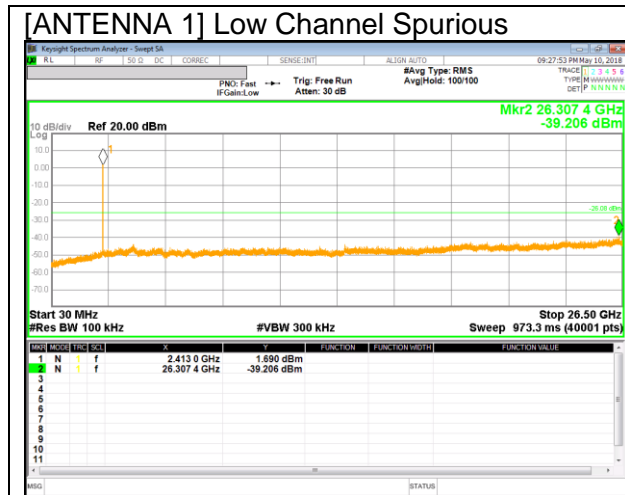


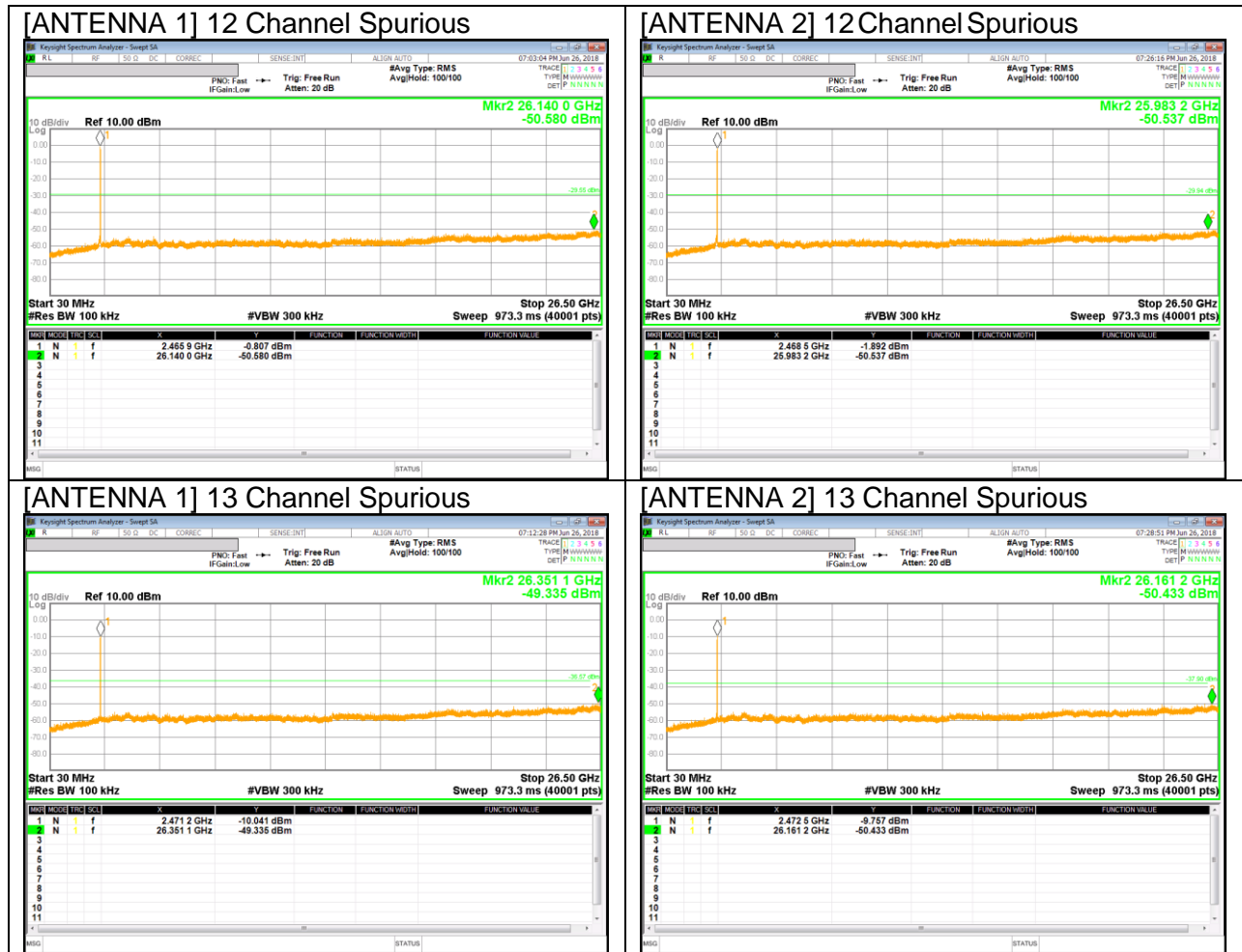


10.4.2. 802.11g MODE IN THE 2.4 GHz BAND

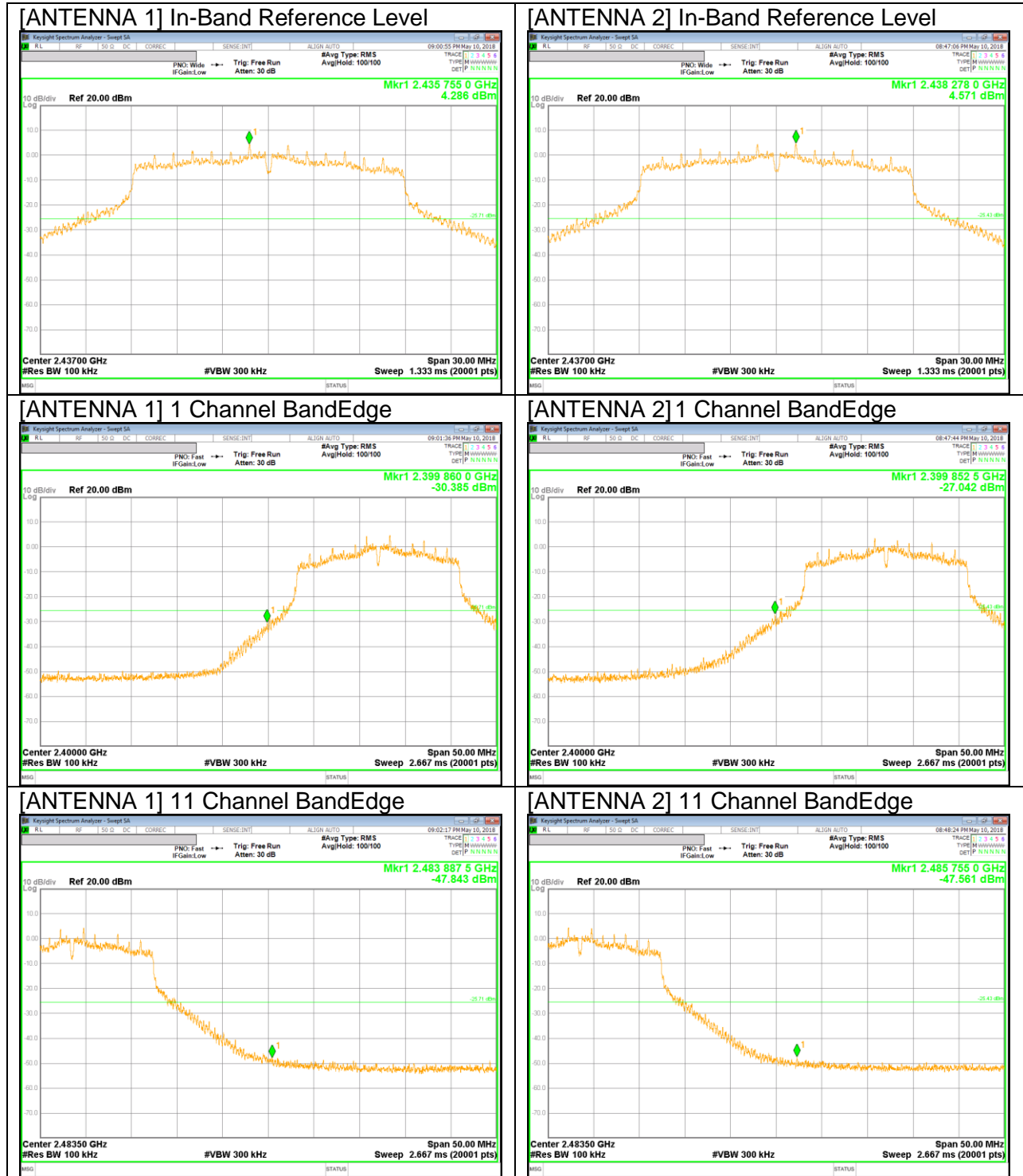


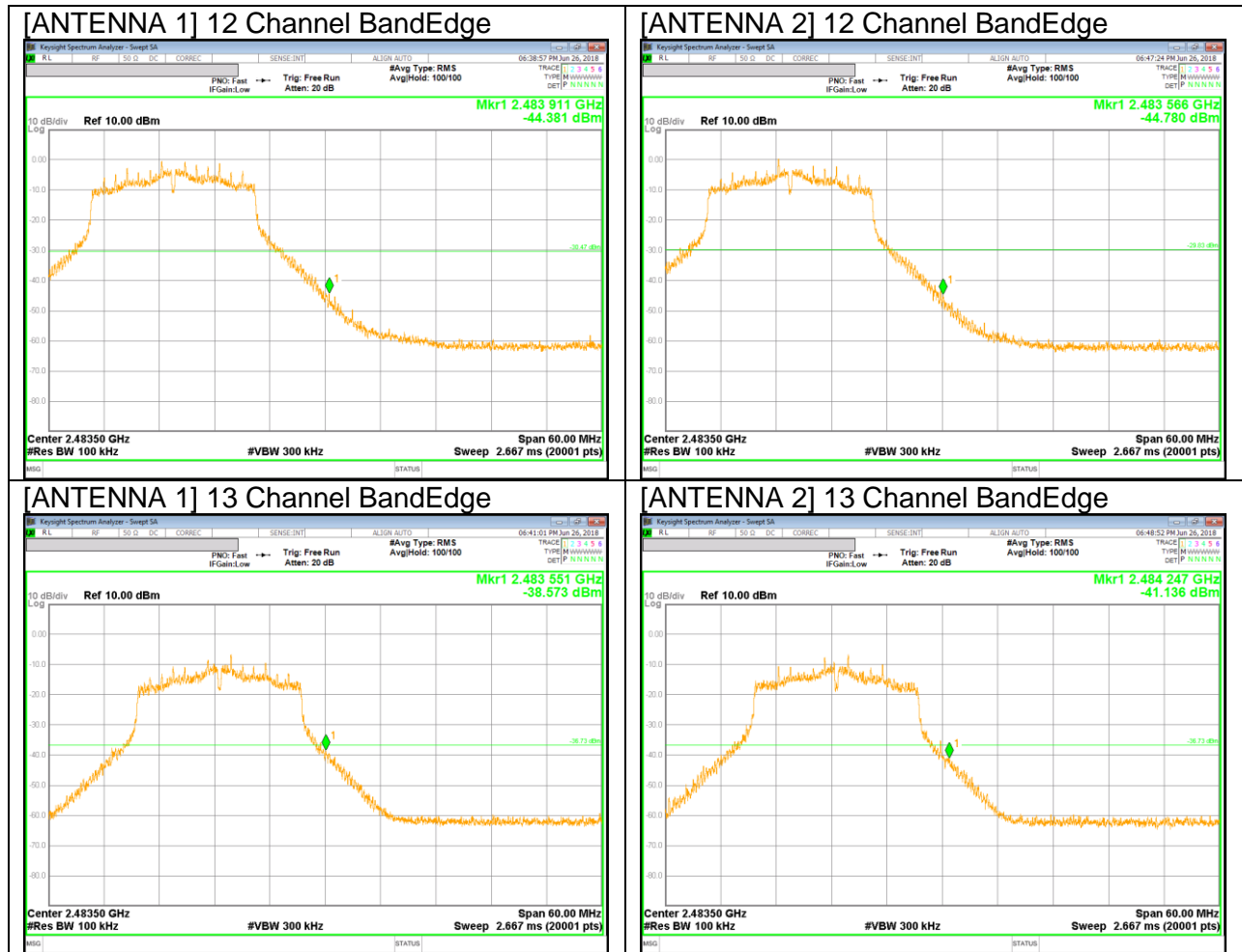


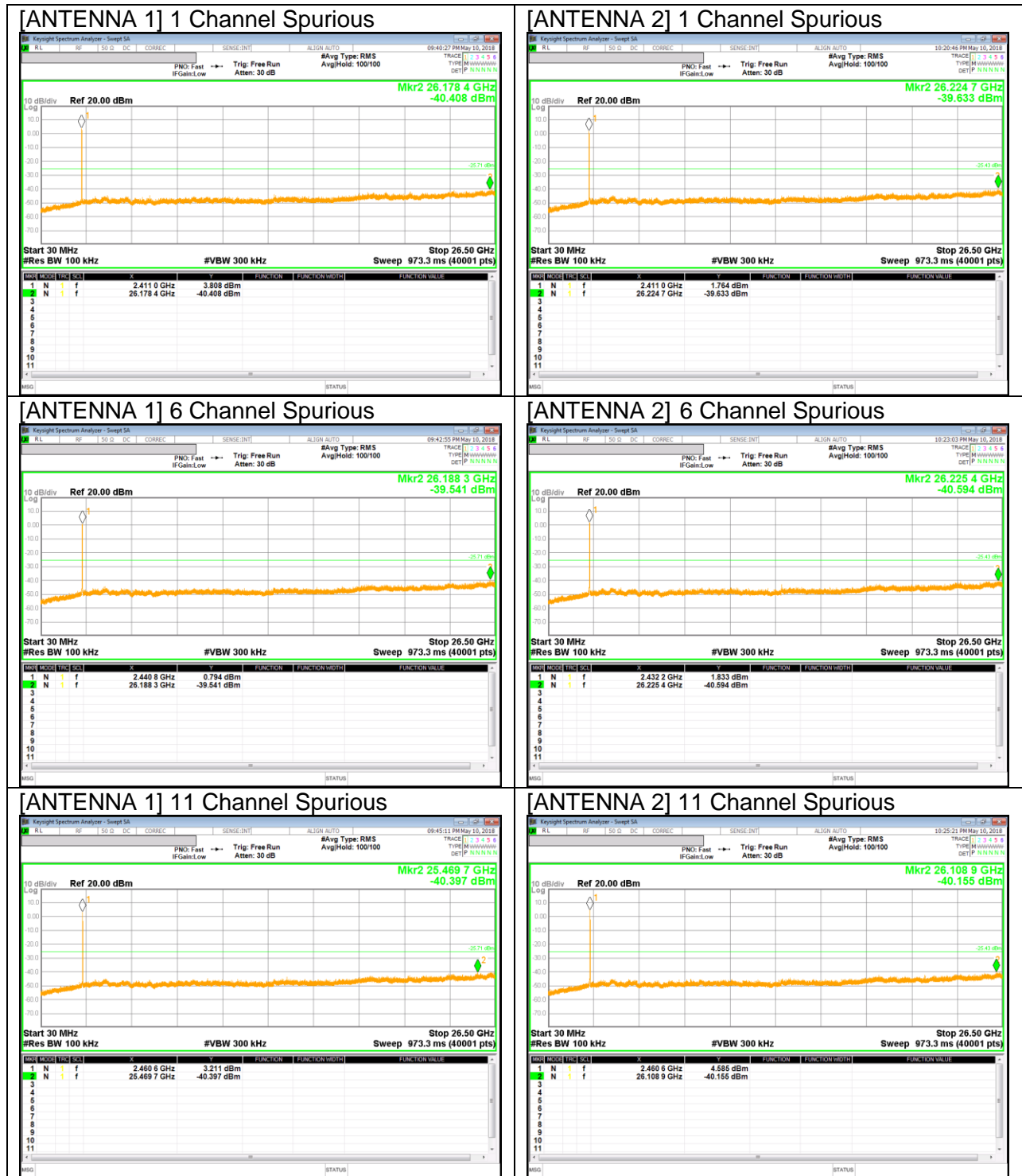


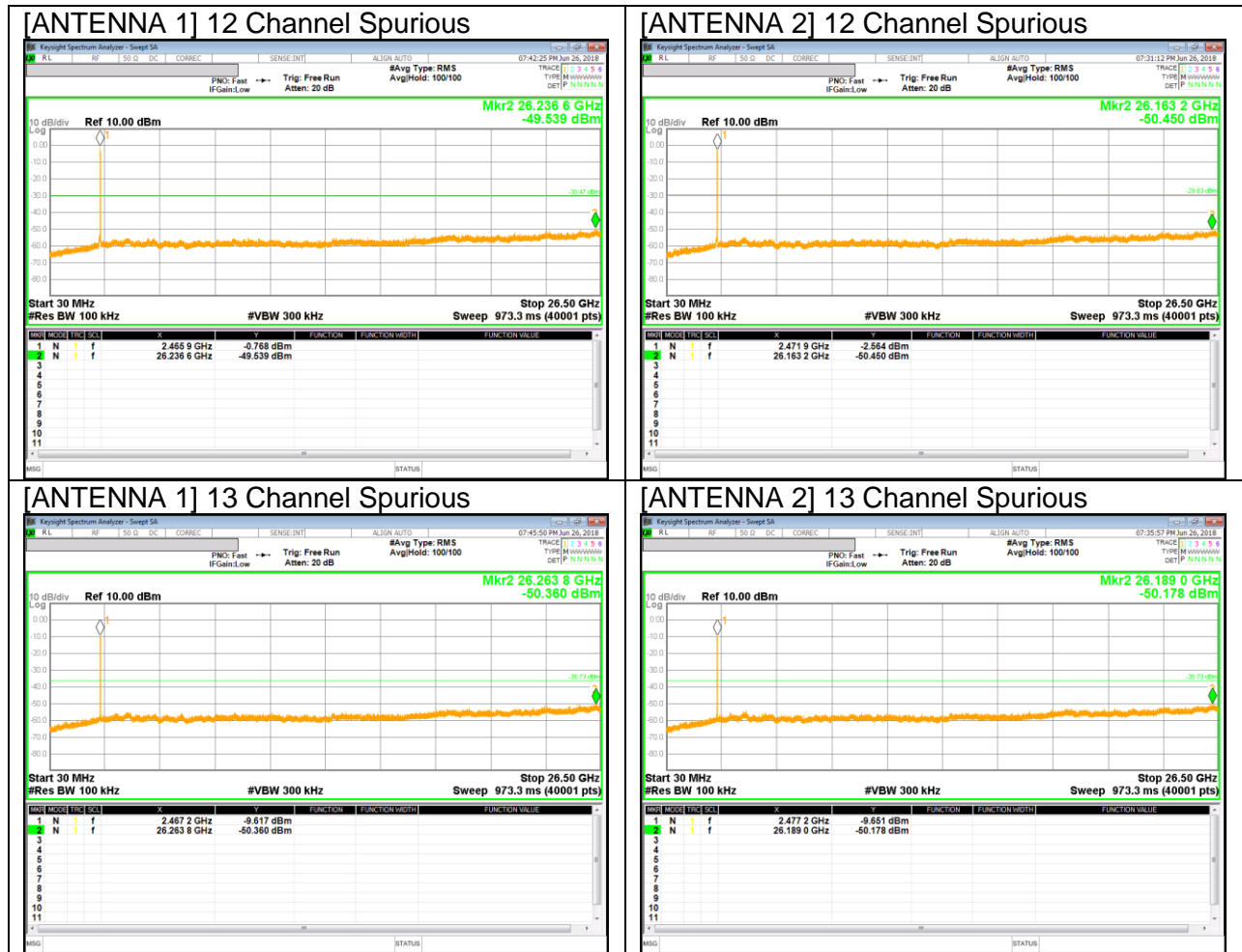


10.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND









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.

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.

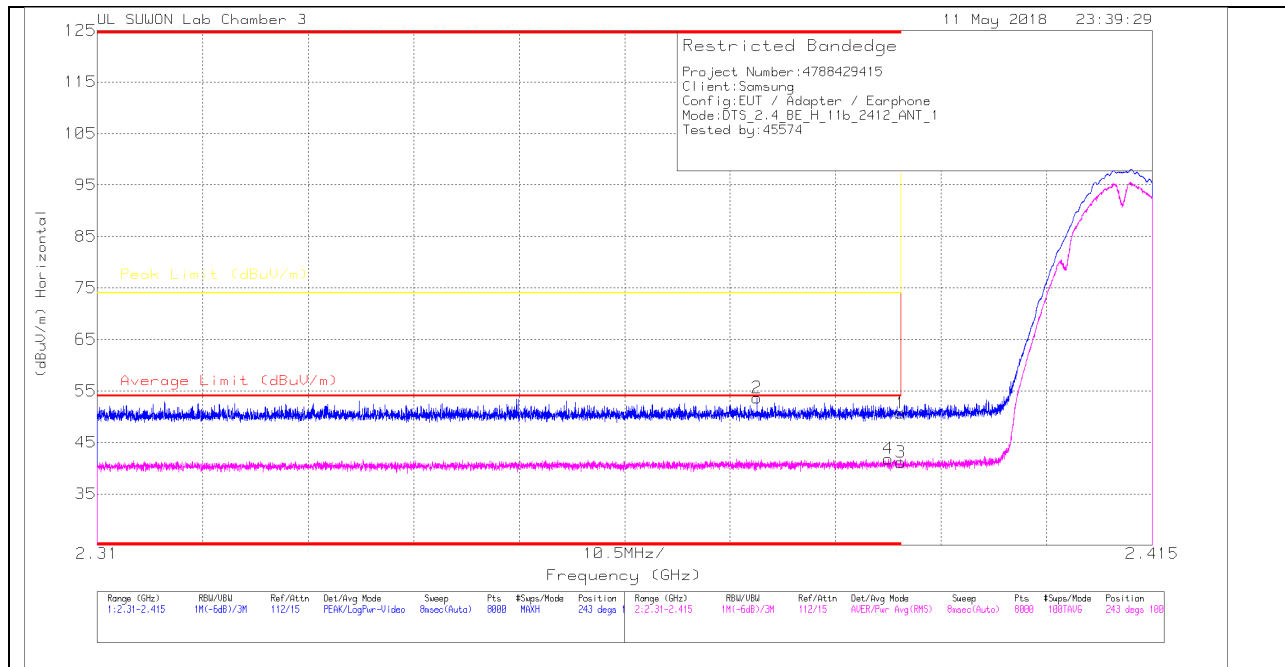
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field 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

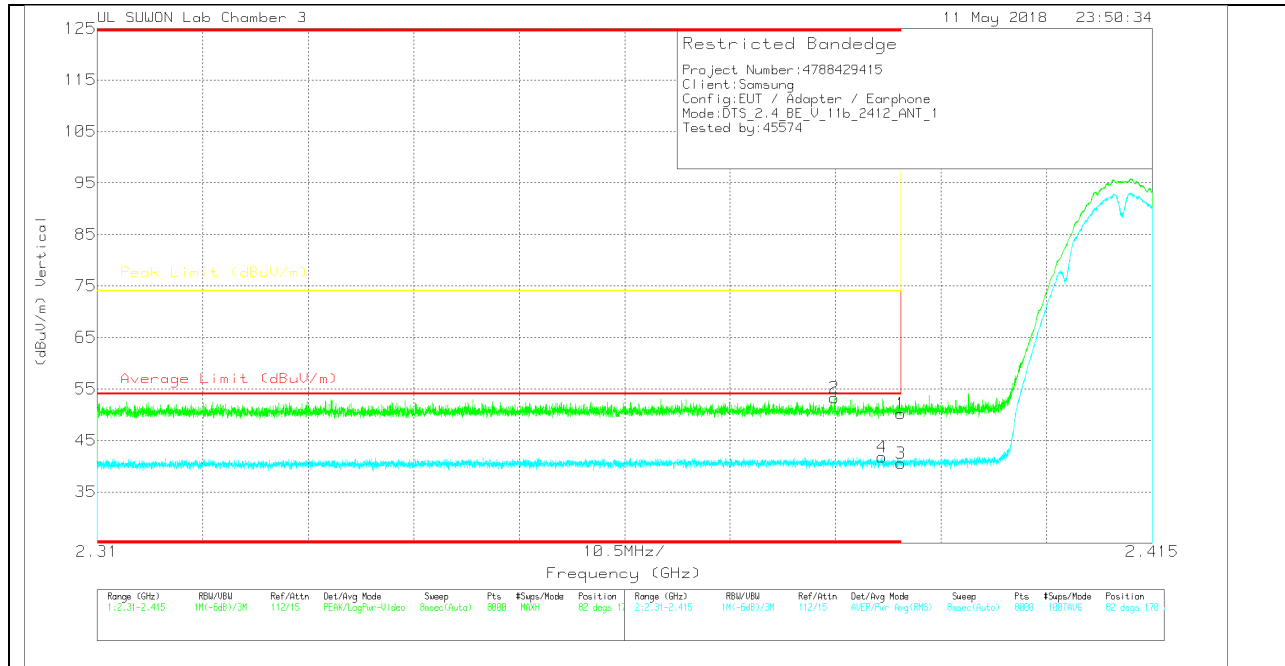
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205959)	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.17	Pk	31.8	-23.3	0	50.67	-	-	74	-23.33	243	100	H
2	* 2.376	45.14	Pk	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)	Azimuth (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

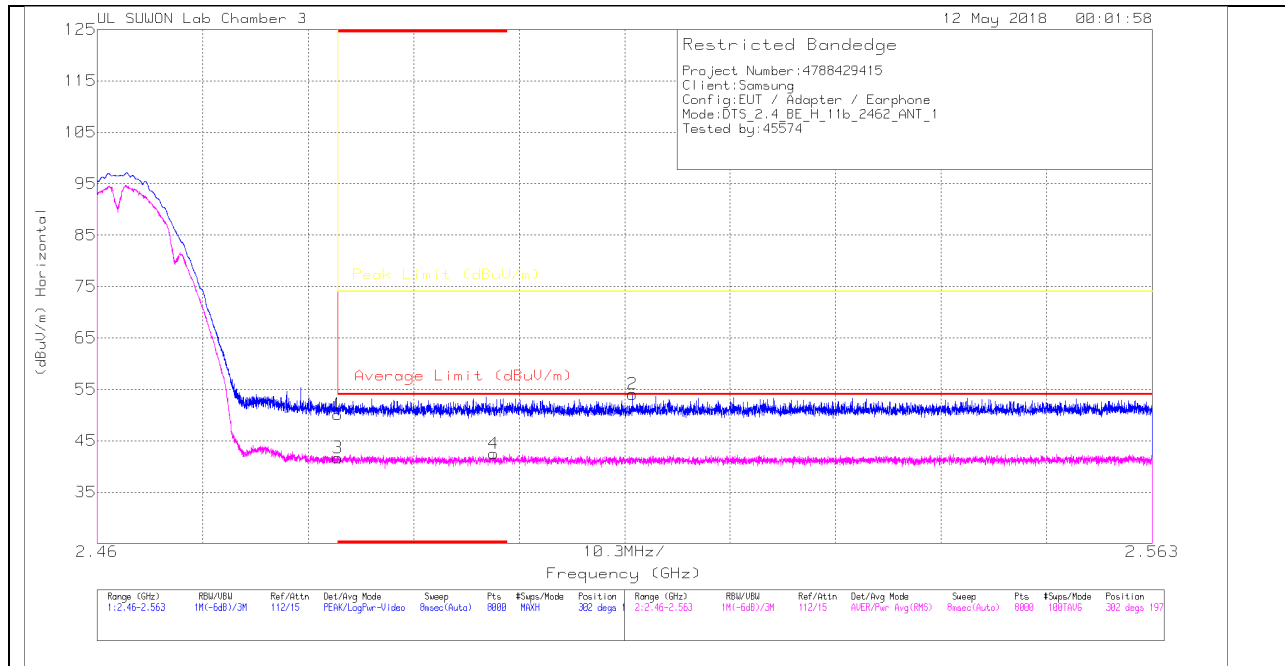
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

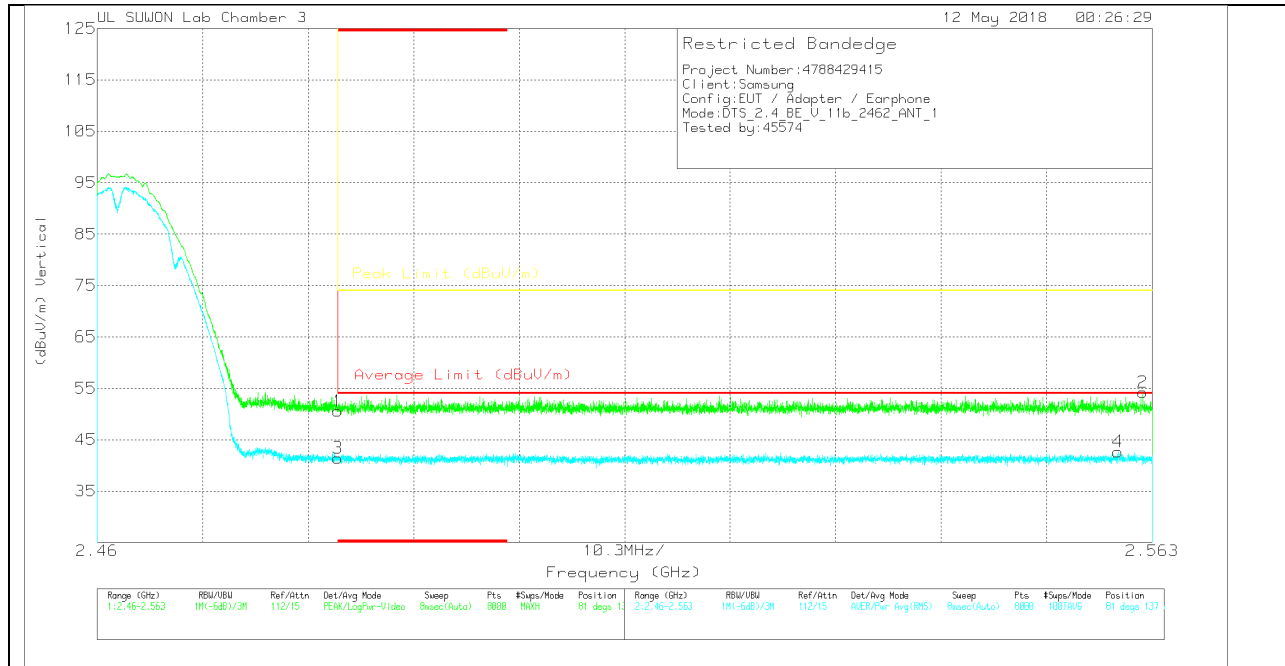
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	100b_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.03	Pk	32.1	-23	0	50.13	-	-	74	-23.87	302	197	H
2	2.512	44.96	Pk	32.1	-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(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	41.48	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

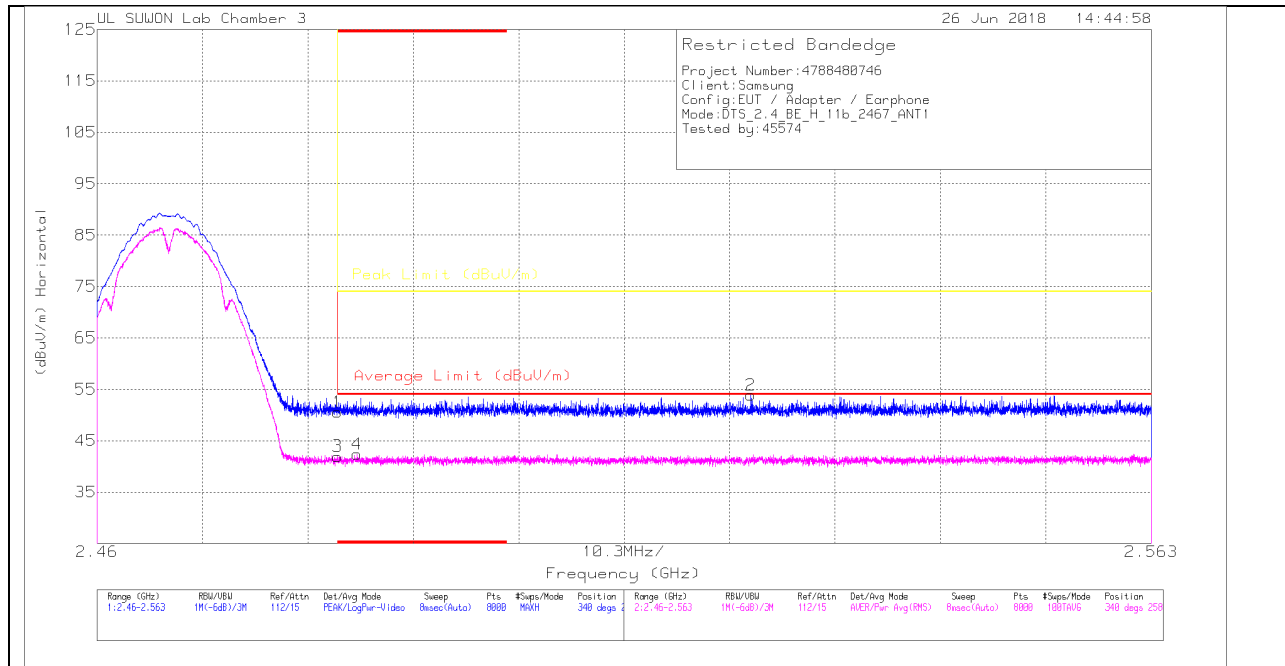
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (12 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

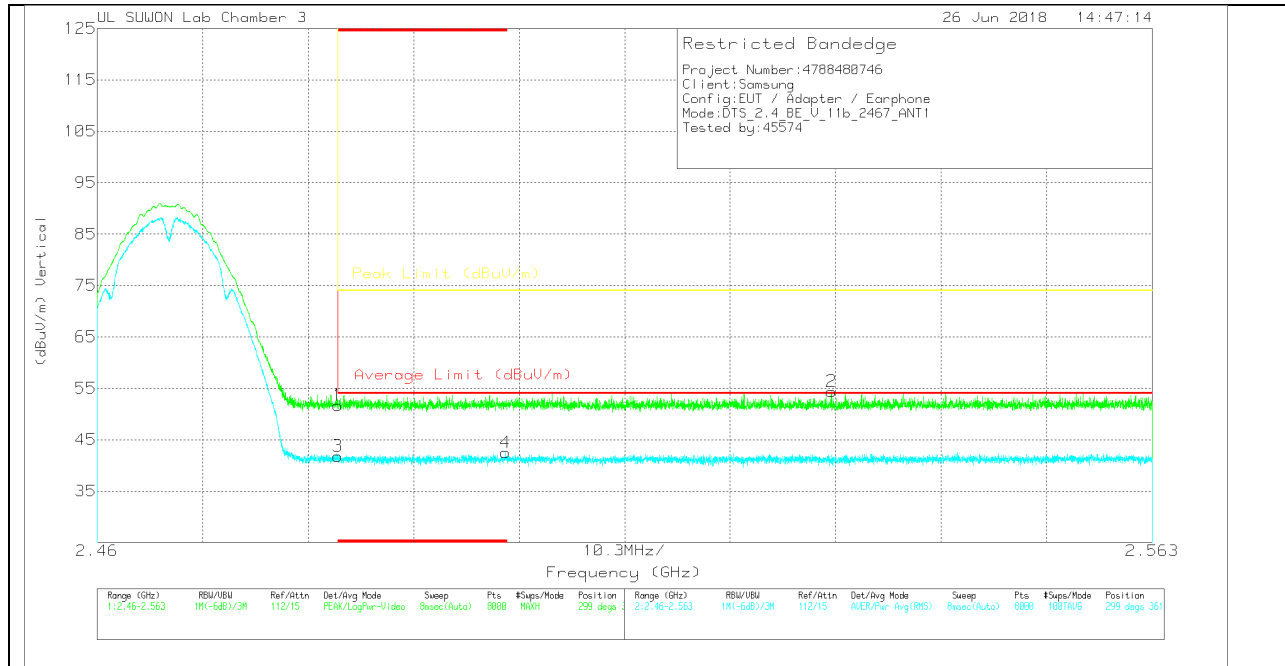
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.45	Pk	32.1	-23	0	50.55	-	-	74	-23.45	340	258	H
2	2.524	44.76	Pk	32.1	-23	0	53.86	-	-	74	-20.14	340	258	H
3	* 2.484	32.84	RMS	32.1	-23	0	41.94	54	-12.06	-	-	340	258	H
4	* 2.485	33.38	RMS	32.1	-23.1	0	42.38	54	-11.62	-	-	340	258	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	42.62	Pk	32.1	-23	0	51.72	-	-	74	-22.28	299	361	V
2	2.532	45.38	Pk	32.1	-23.1	0	54.38	-	-	74	-19.62	299	361	V
3	* 2.484	32.71	RMS	32.1	-23	0	41.81	54	-12.19	-	-	299	361	V
4	* 2.5	33.28	RMS	32.1	-22.9	0	42.48	54	-11.52	-	-	299	361	V

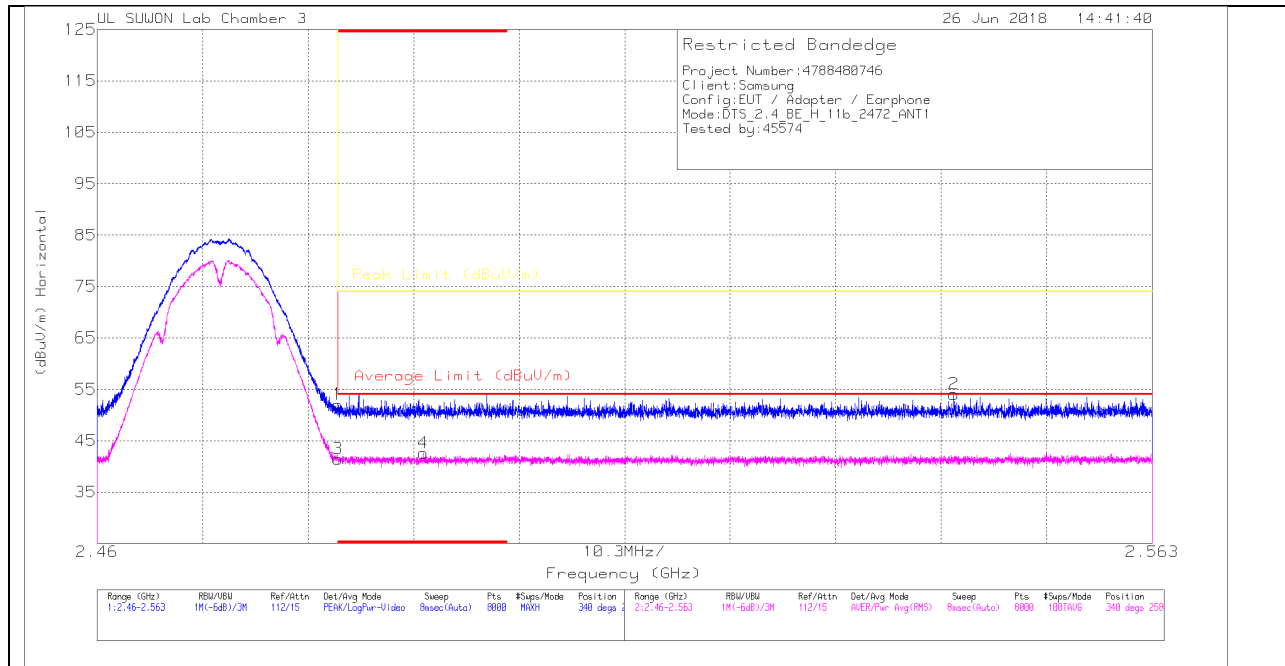
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (13 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

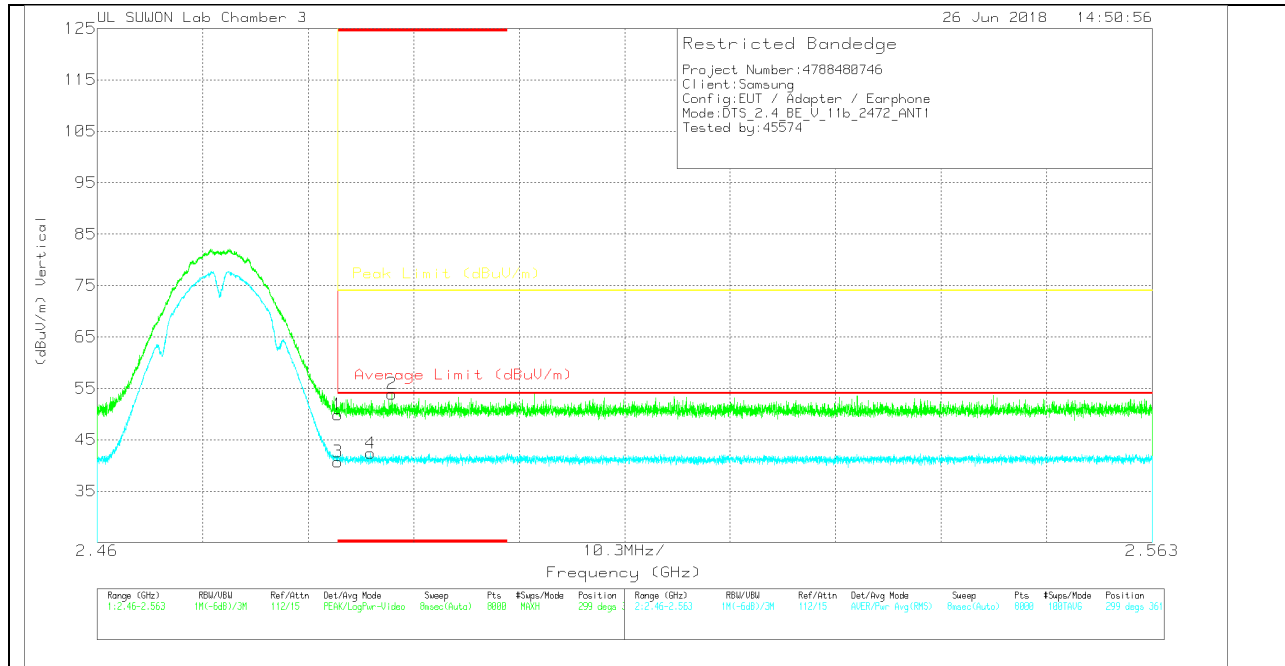
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	100B_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.98	Pk	32.1	-23	0	52.08	-	-	74	-21.92	340	258	H
2	2.544	44.96	Pk	32.1	-23	0	54.06	-	-	74	-19.94	340	258	H
3	* 2.484	32.39	RMS	32.1	-23	0	41.49	54	-12.51	-	-	340	258	H
4	* 2.492	33.58	RMS	32.1	-23.1	0	42.58	54	-11.42	-	-	340	258	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	40.78	Pk	32.1	-23	0	49.88	-	-	74	-24.12	299	361	V
2	* 2.489	44.93	Pk	32.1	-23.1	0	53.93	-	-	74	-20.07	299	361	V
3	* 2.484	31.61	RMS	32.1	-23	0	40.71	54	-13.29	-	-	299	361	V
4	* 2.487	33.37	RMS	32.1	-23.1	0	42.37	54	-11.63	-	-	299	361	V

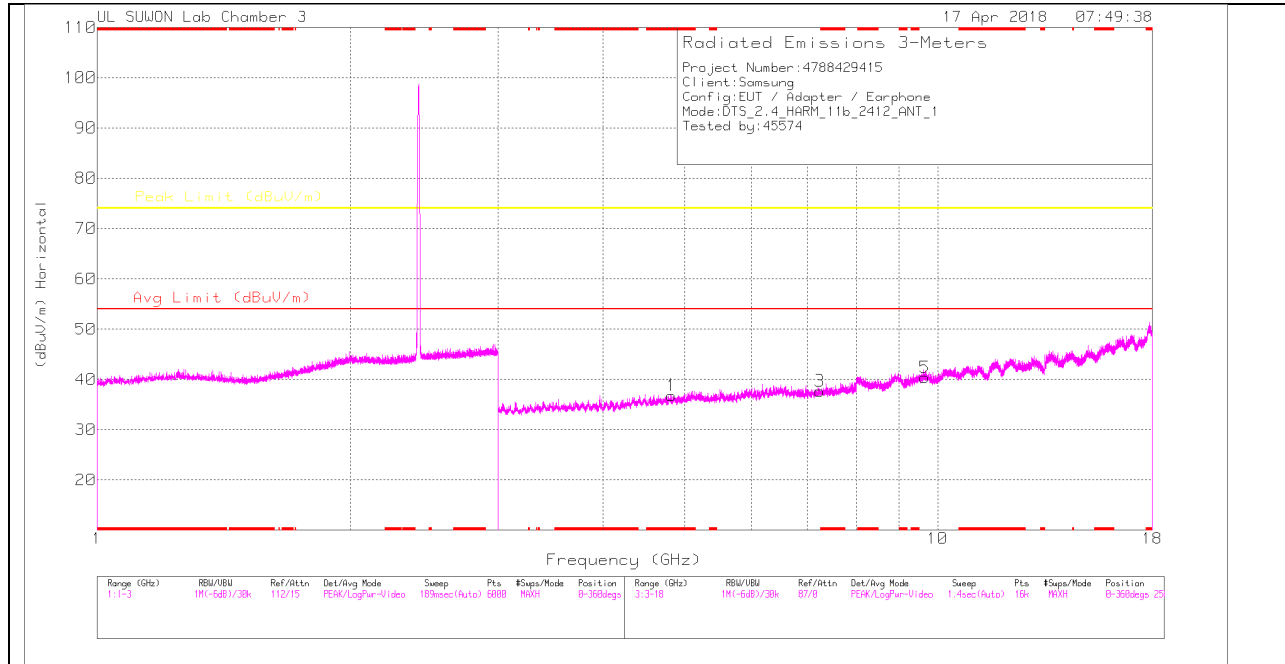
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

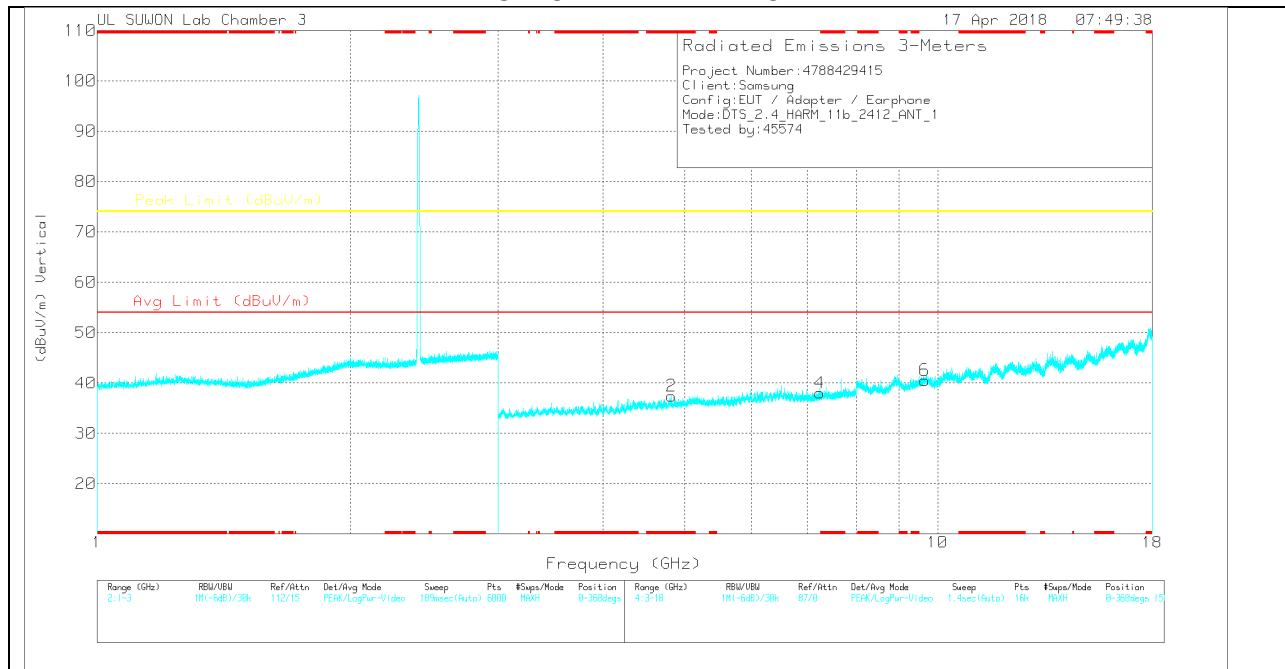
RMS - RMS detection

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

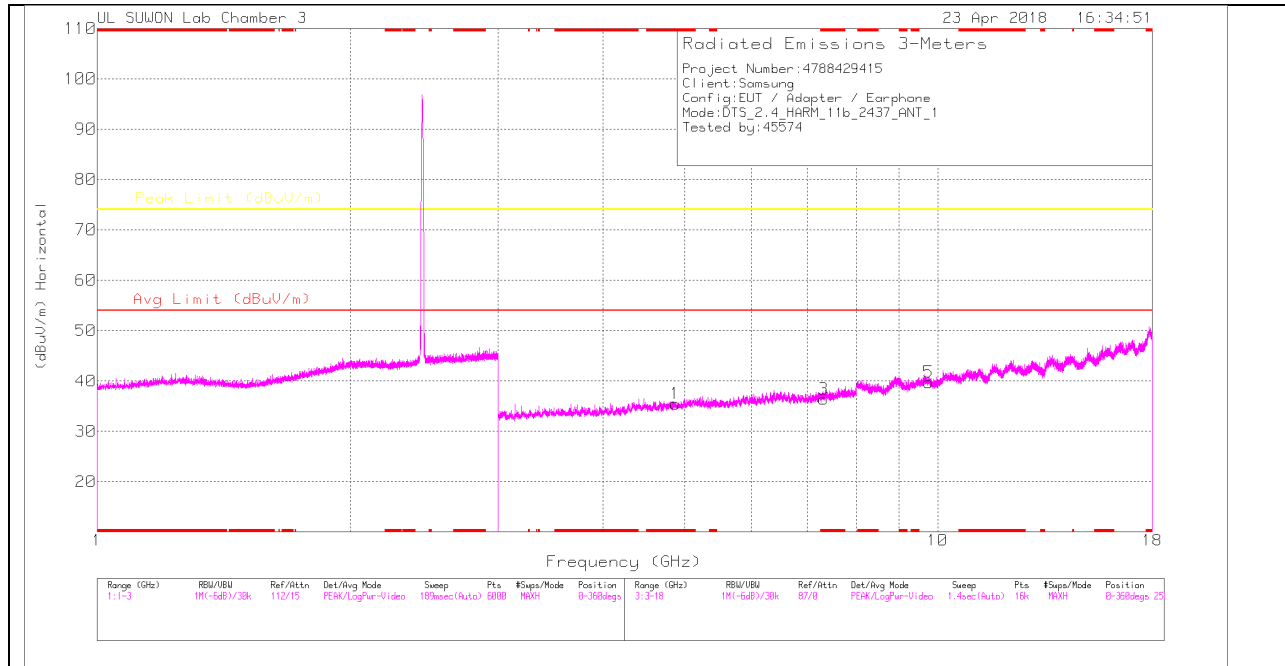
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0205959)	3Ghz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Altitude (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

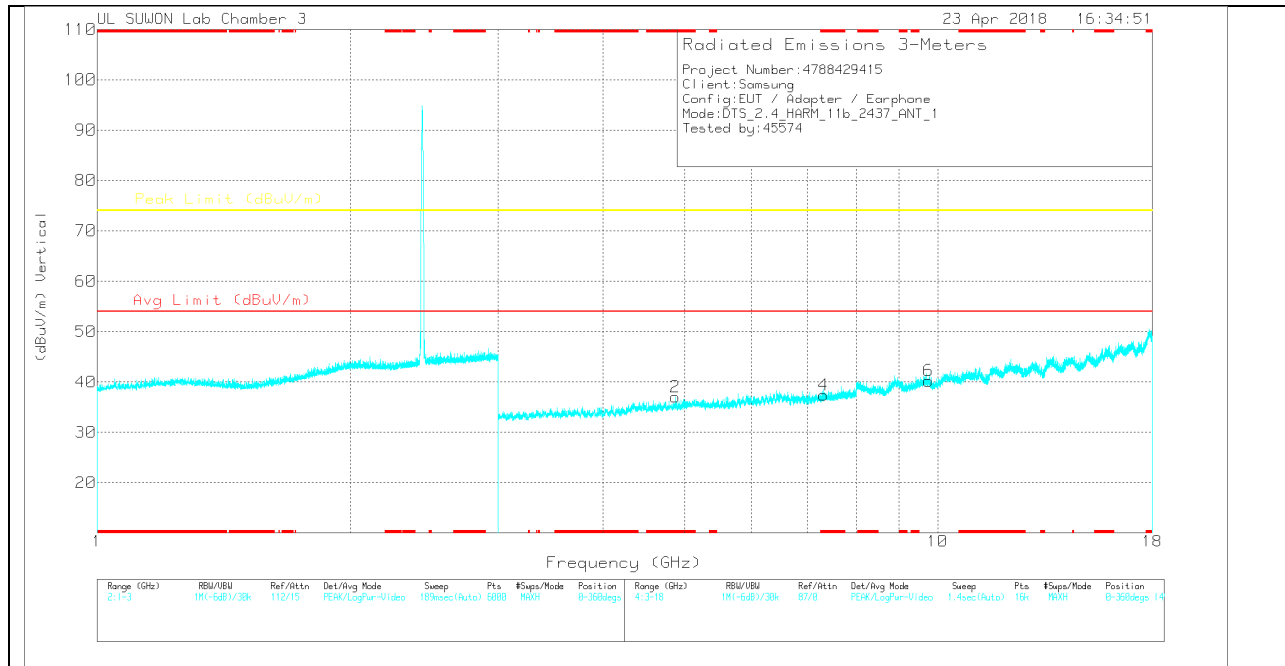
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak detector

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

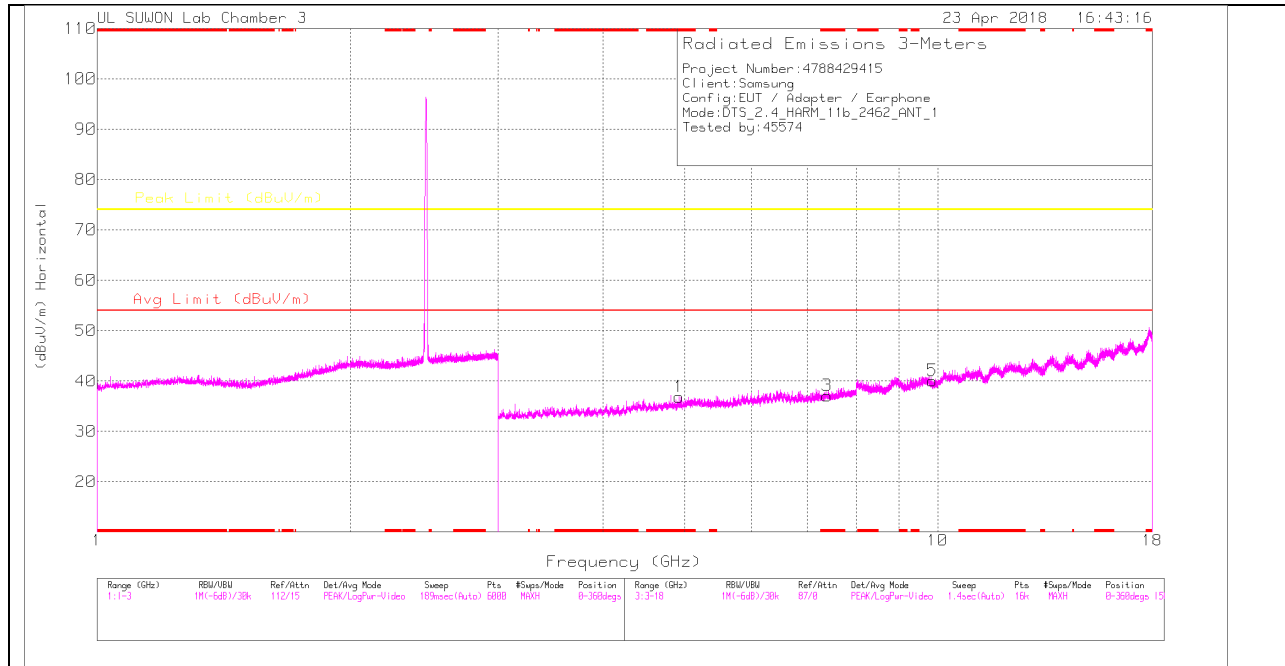
Trace Markers

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)	Altitude (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

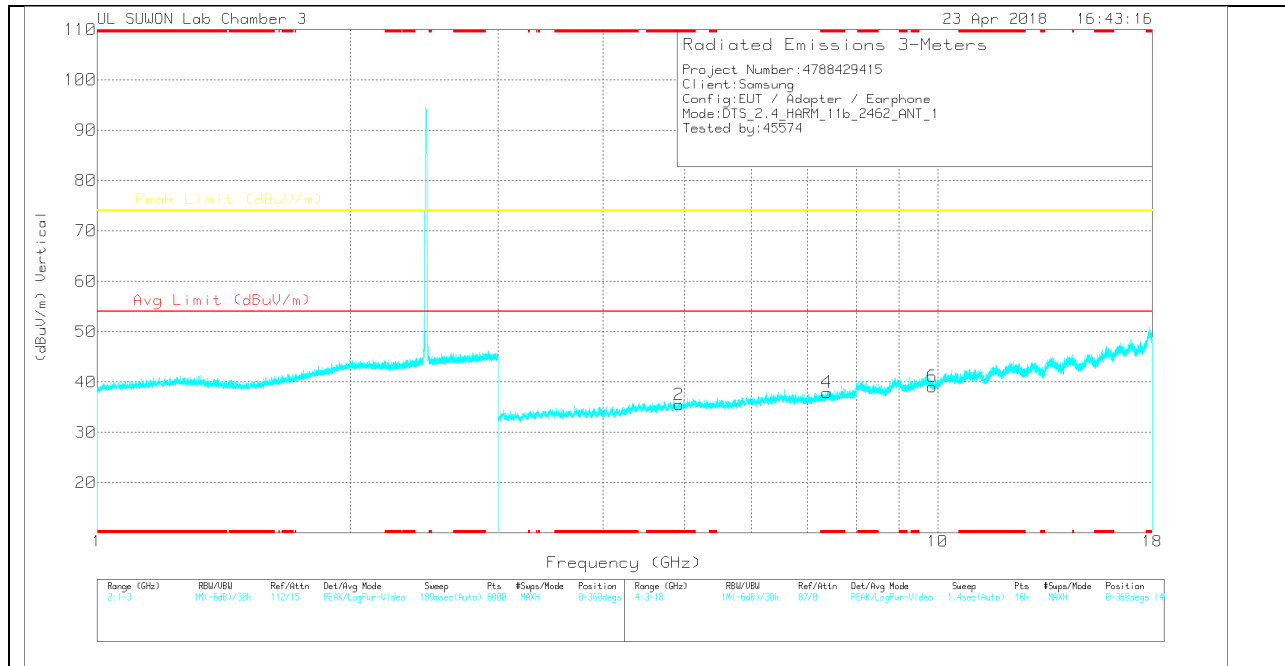
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak detector

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)	Altitude (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

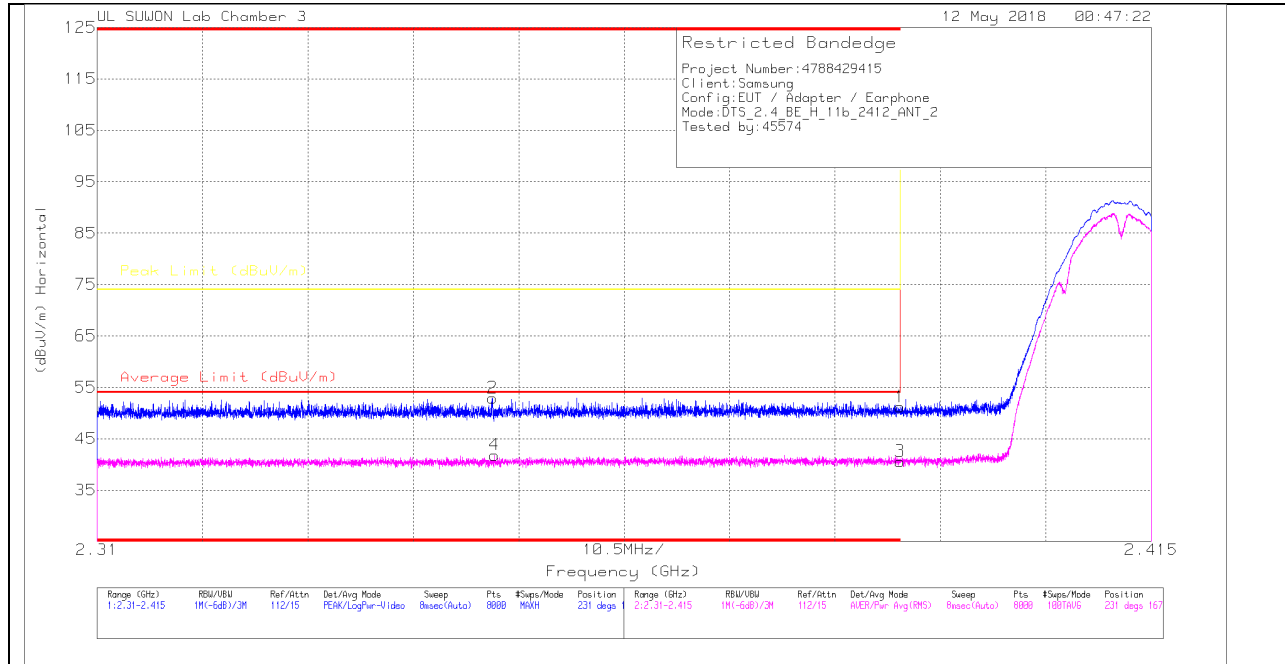
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak Detector

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

**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

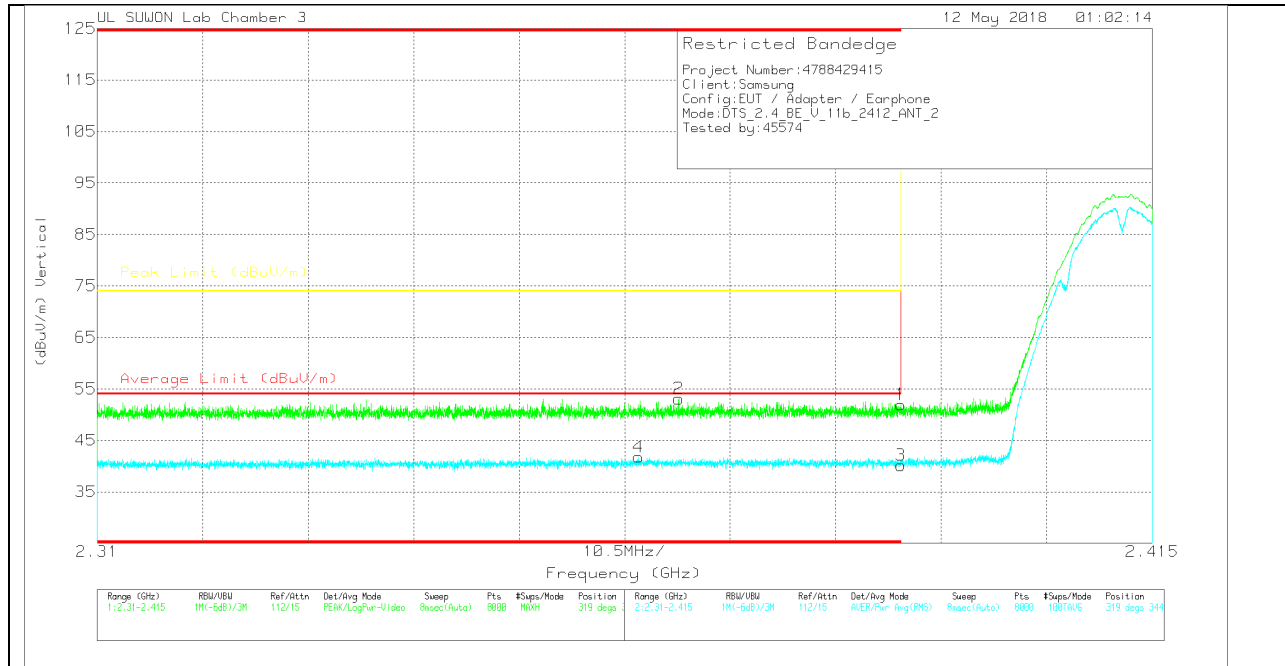
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205959)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.7	Pk	31.8	-23.3	0	51.2	-	-	74	-22.8	231	167	H
2	* 2.349	44.52	Pk	31.7	-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)	Azimuth (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

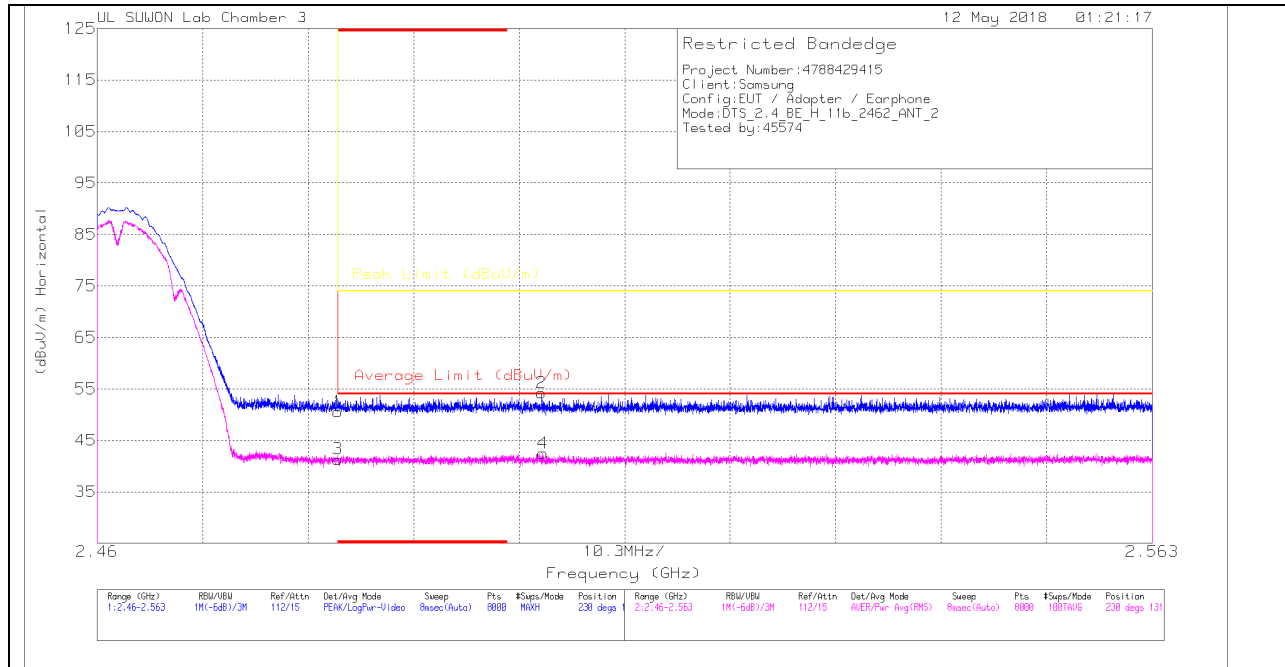
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

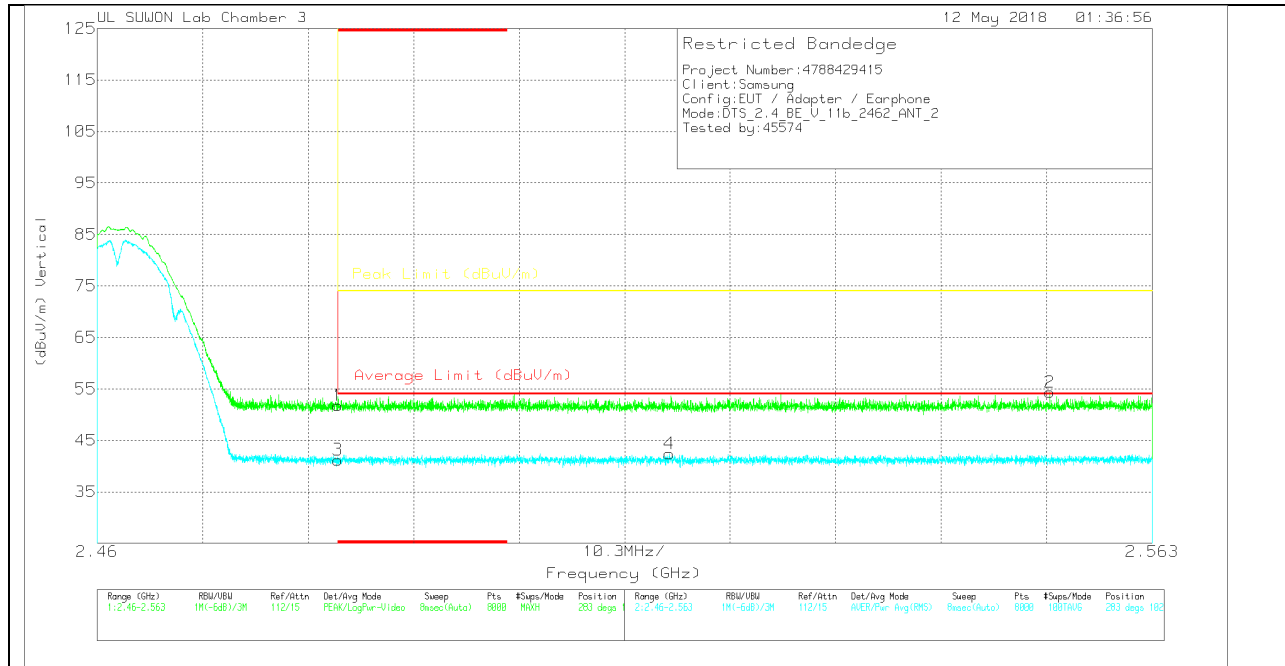
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205959)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.46	PK	32.1	-23	0	50.56	-	-	74	-23.44	230	131	H
2	2.503	45.14	PK	32.1	-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)	Azimuth (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

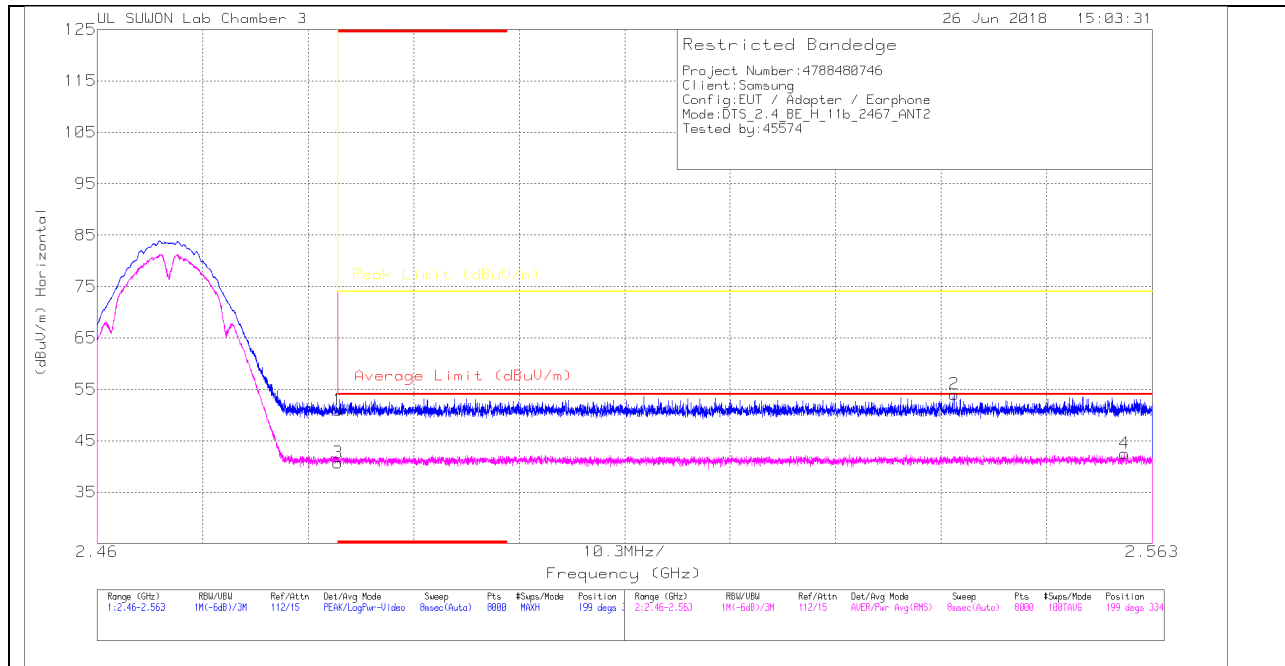
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (12 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

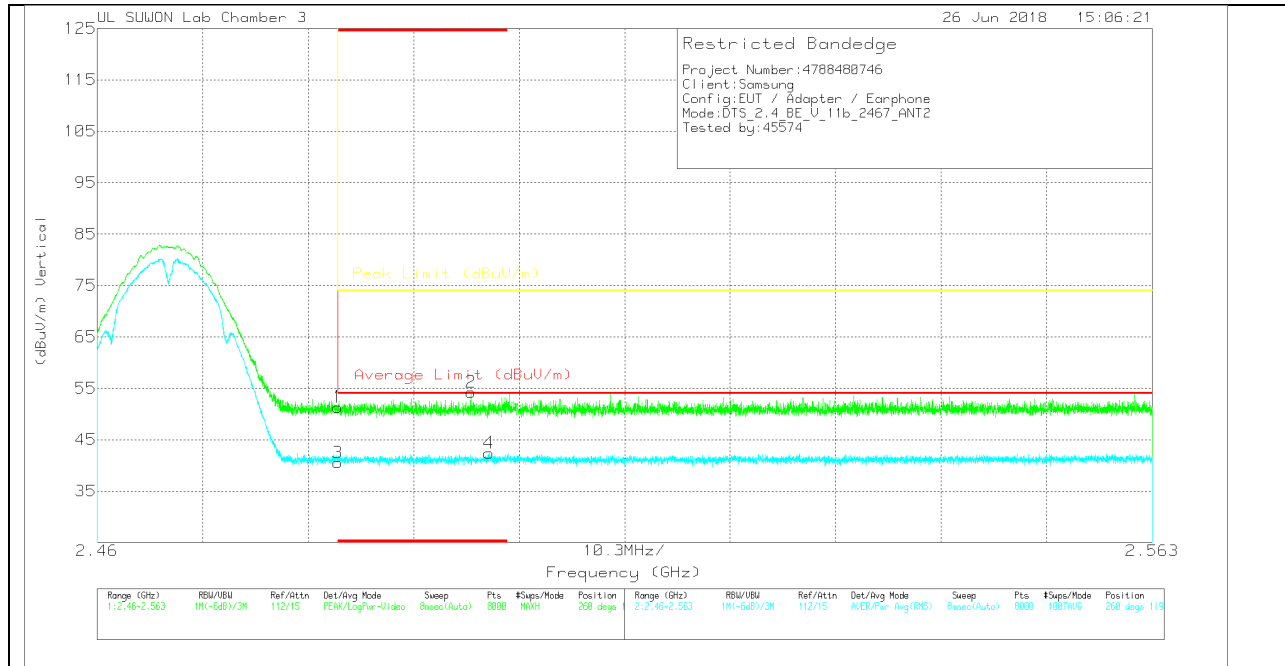
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	100b_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.89	Pk	32.1	-23	0	50.99	-	-	74	-23.01	199	334	H
2	2.544	44.95	Pk	32.1	-23	0	54.05	-	-	74	-19.95	199	334	H
3	* 2.484	31.6	RMS	32.1	-23	0	40.7	54	-13.3	-	-	199	334	H
4	2.56	33.43	RMS	32.1	-23	0	42.53	54	-11.47	-	-	199	334	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	42.25	Pk	32.1	-23	0	51.35	-	-	74	-22.65	260	119	V
2	* 2.496	45.15	Pk	32.1	-23	0	54.25	-	-	74	-19.75	260	119	V
3	* 2.484	31.45	RMS	32.1	-23	0	40.55	54	-13.45	-	-	260	119	V
4	* 2.498	33.31	RMS	32.1	-23	0	42.41	54	-11.59	-	-	260	119	V

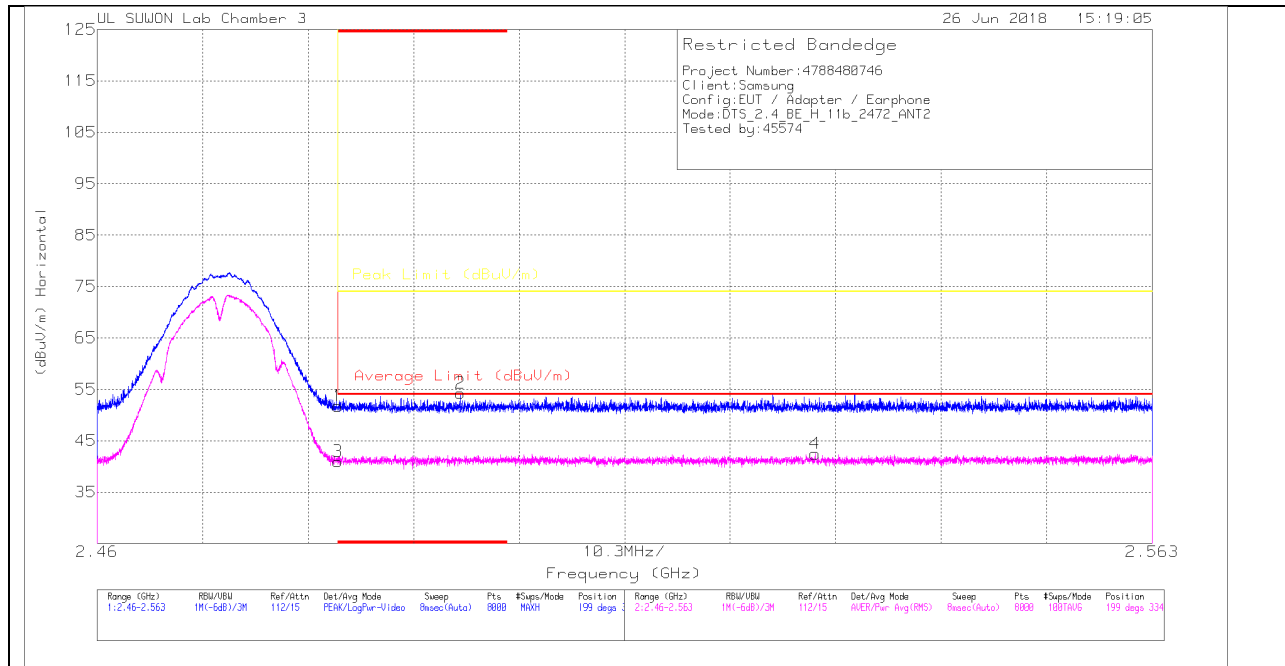
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (13 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

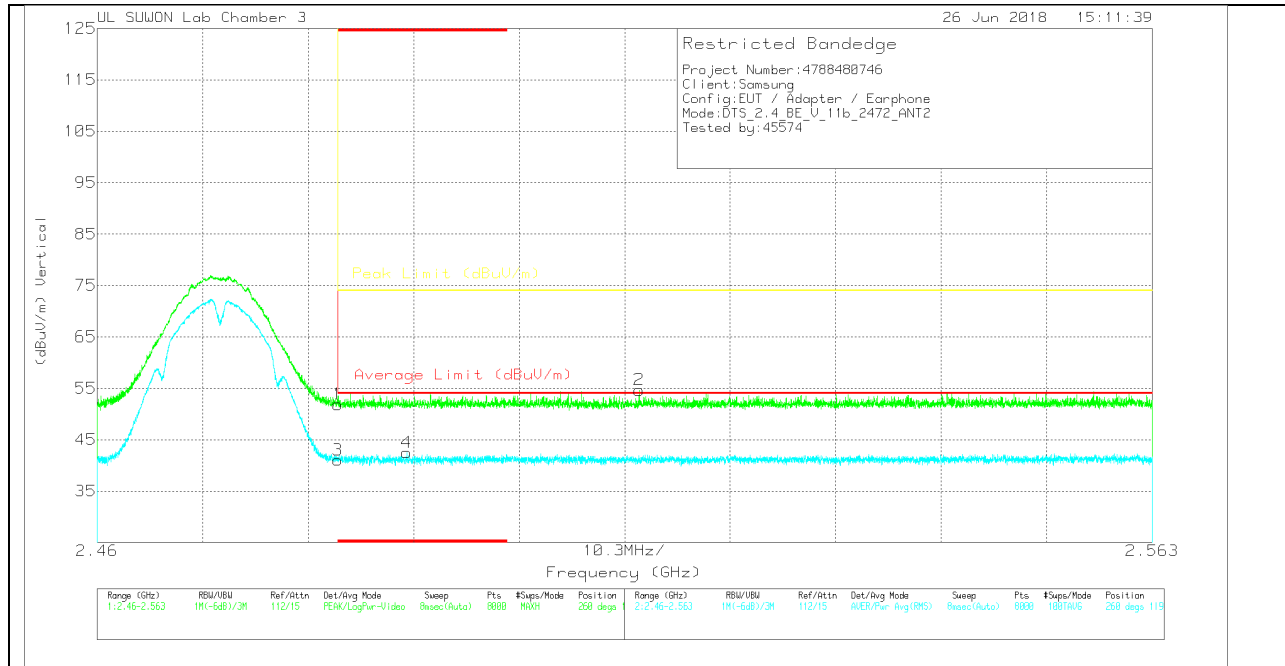
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	100B_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.64	Pk	32.1	-23	0	51.74	-	-	74	-22.26	199	334	H
2	* 2.495	45.25	Pk	32.1	-23.1	0	54.25	-	-	74	-19.75	199	334	H
3	* 2.484	31.84	RMS	32.1	-23	0	40.94	54	-13.06	-	-	199	334	H
4	2.53	33.36	RMS	32.1	-23	0	42.46	54	-11.54	-	-	199	334	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	42.77	Pk	32.1	-23	0	51.87	-	-	74	-22.13	260	119	V
2	2.513	45.57	Pk	32.1	-23	0	54.67	-	-	74	-19.33	260	119	V
3	* 2.484	31.94	RMS	32.1	-23	0	41.04	54	-12.96	-	-	260	119	V
4	* 2.49	33.48	RMS	32.1	-23.1	0	42.48	54	-11.52	-	-	260	119	V

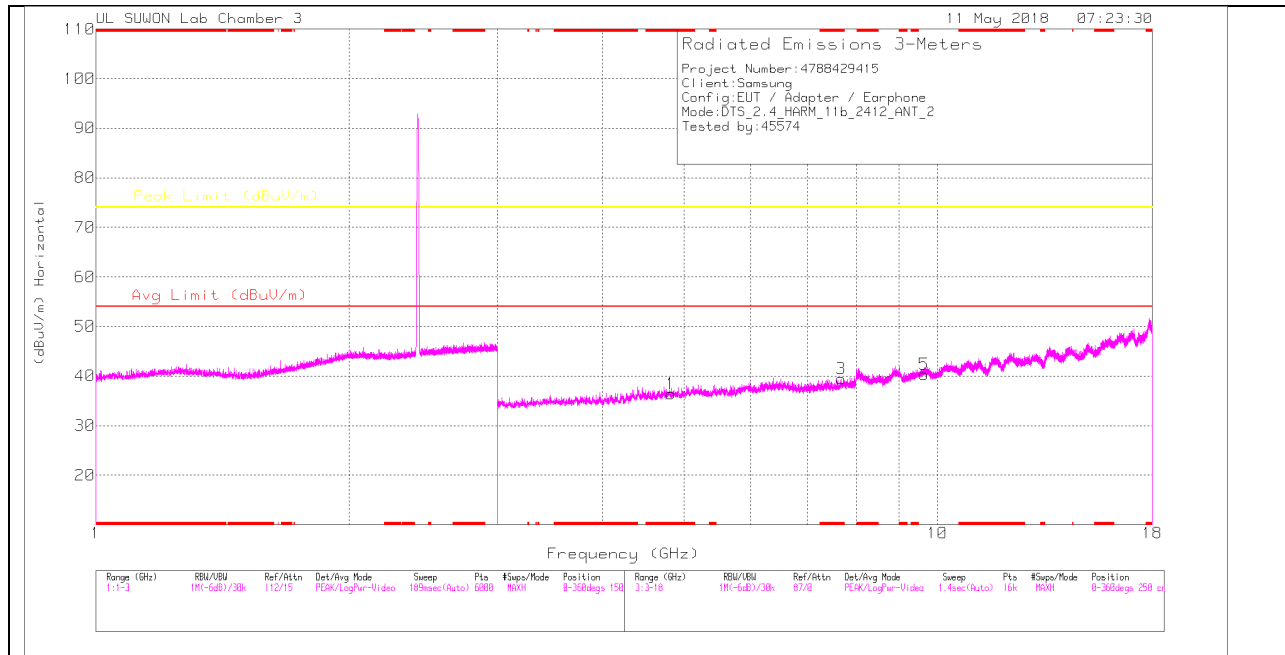
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

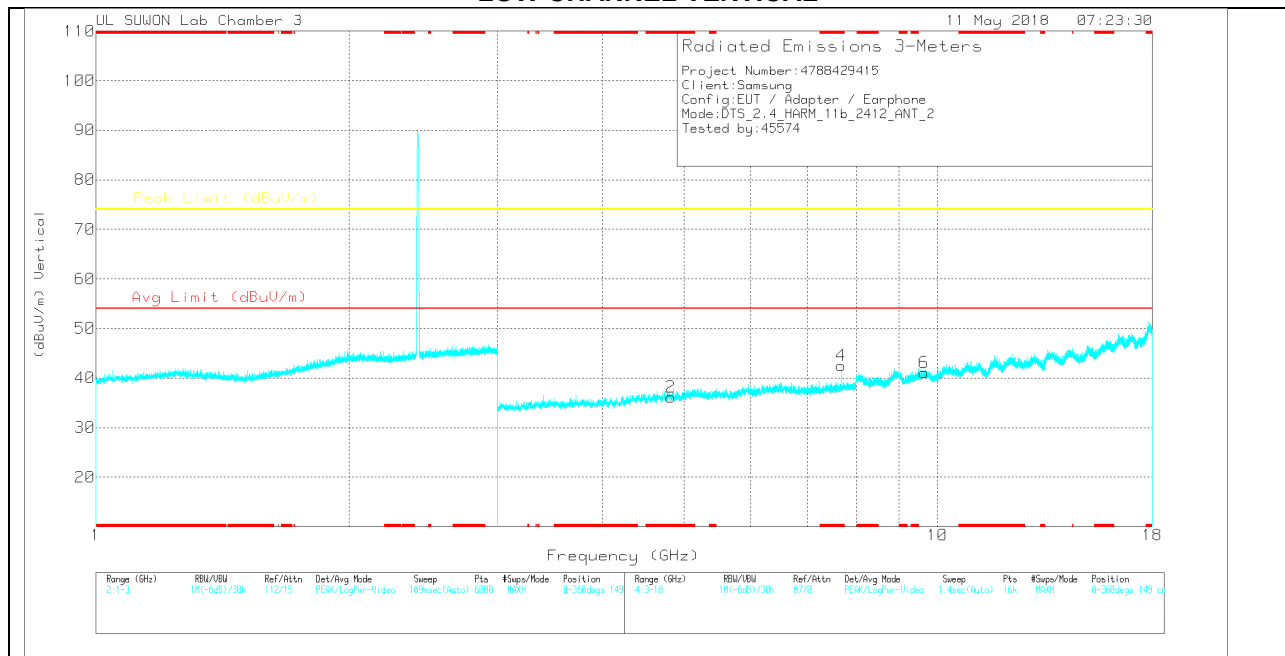
RMS - RMS detection

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)	Altitude (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

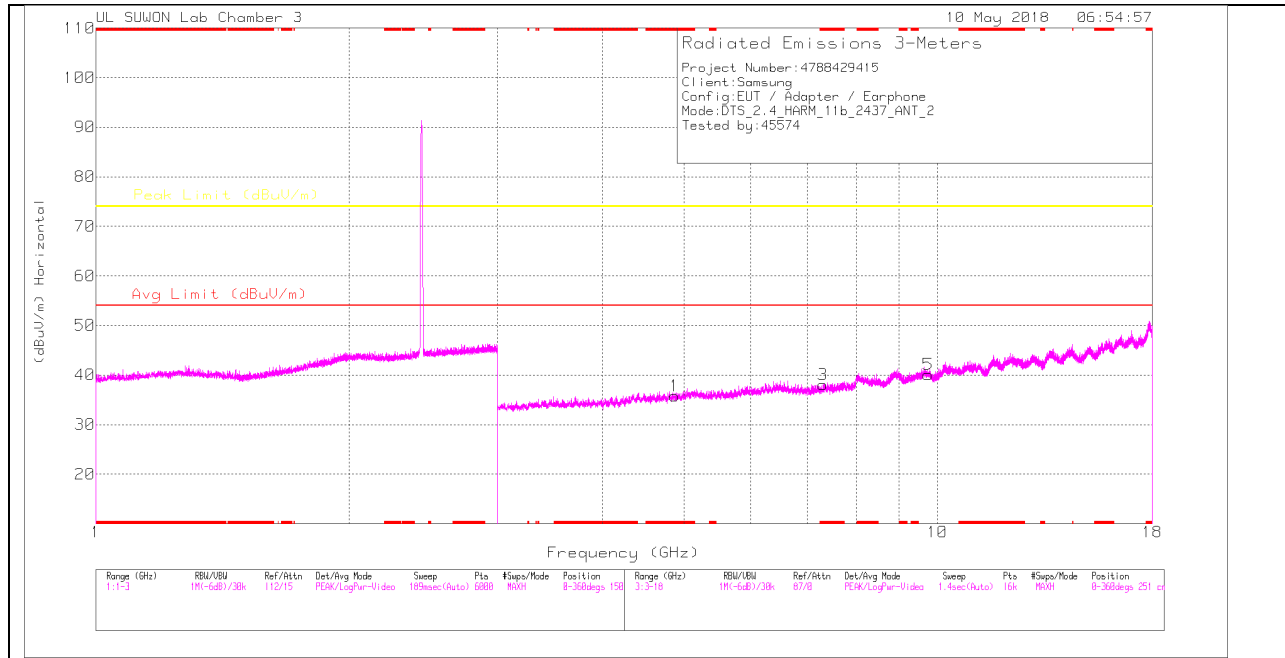
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak Detector

Radiated Emissions

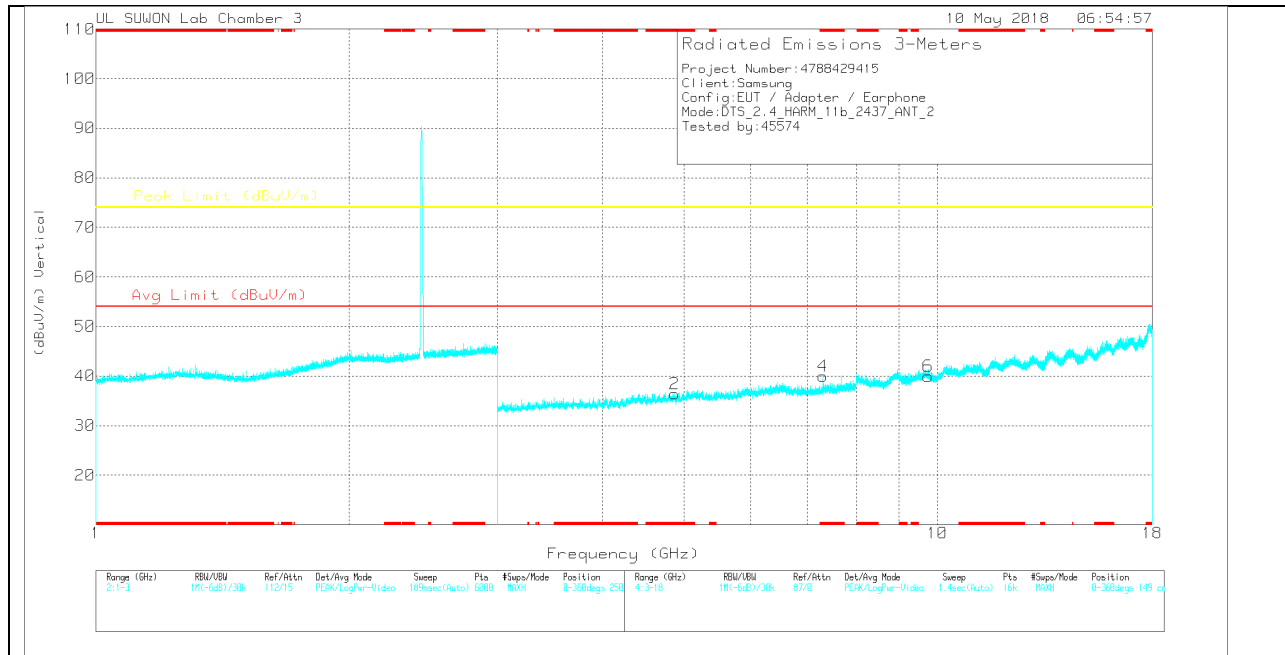
Frequency (GHz)	Meter Reading (dBuV)	Det	3117[00205959]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
* 7.68	37.42	PK2	35.6	-22.3	0	50.72	-	-	74	-23.28	76	100	V
* 7.68	30.59	MAv1	35.6	-22.3	0	43.89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

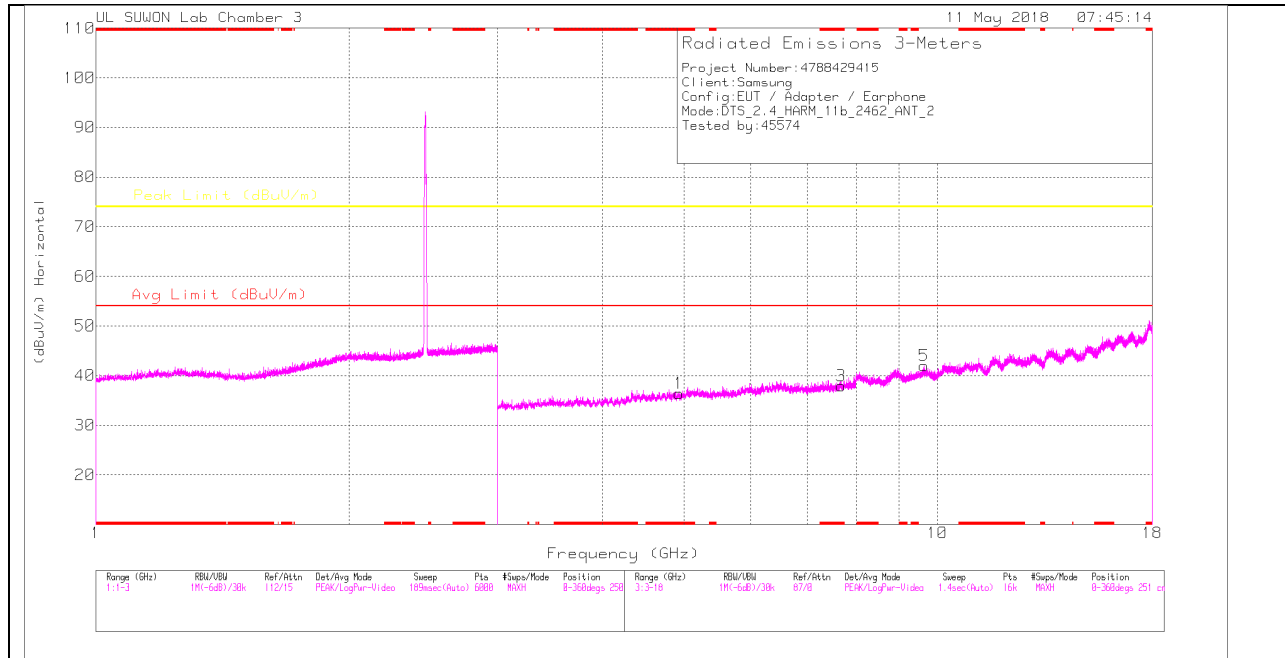
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak Detector

Radiated Emissions

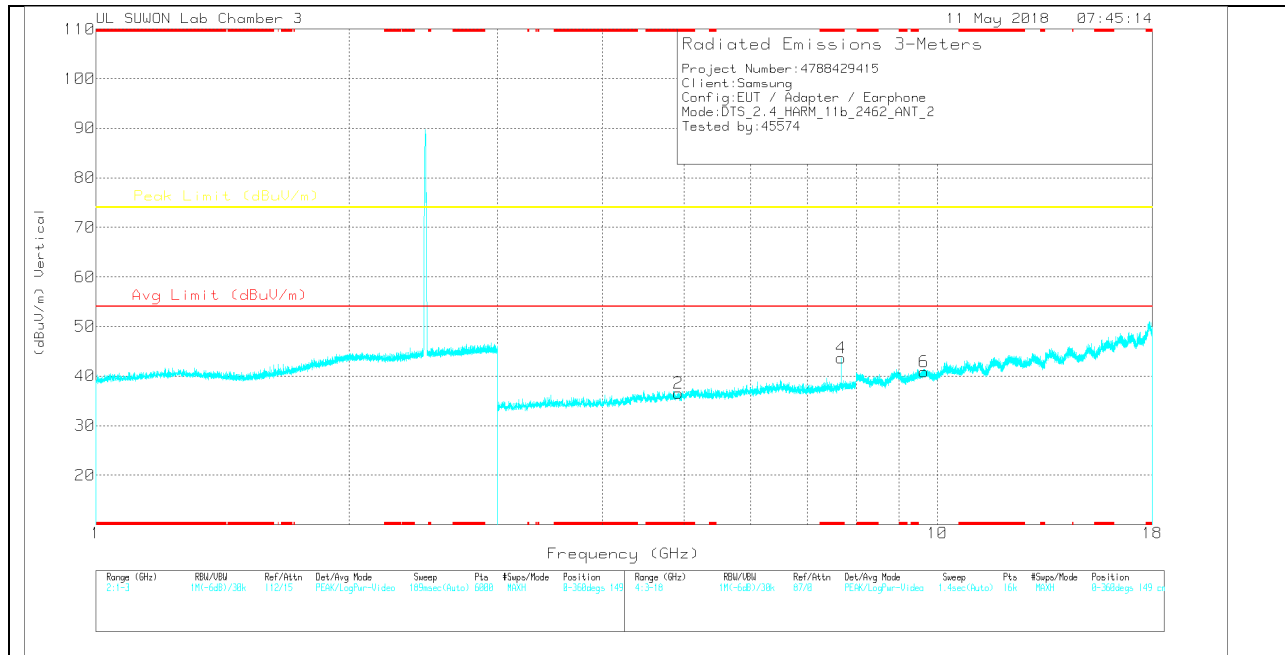
Frequency (GHz)	Meter Reading (dBuV)	Det	3117[00205959]	3Ghz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.31	36.11	PK2	35.6	-23.5	0	48.21	-	-	74	-25.79	111	108	H
* 7.312	25.07	MAv1	35.6	-23.5	0	37.17	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)	Azimuth (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

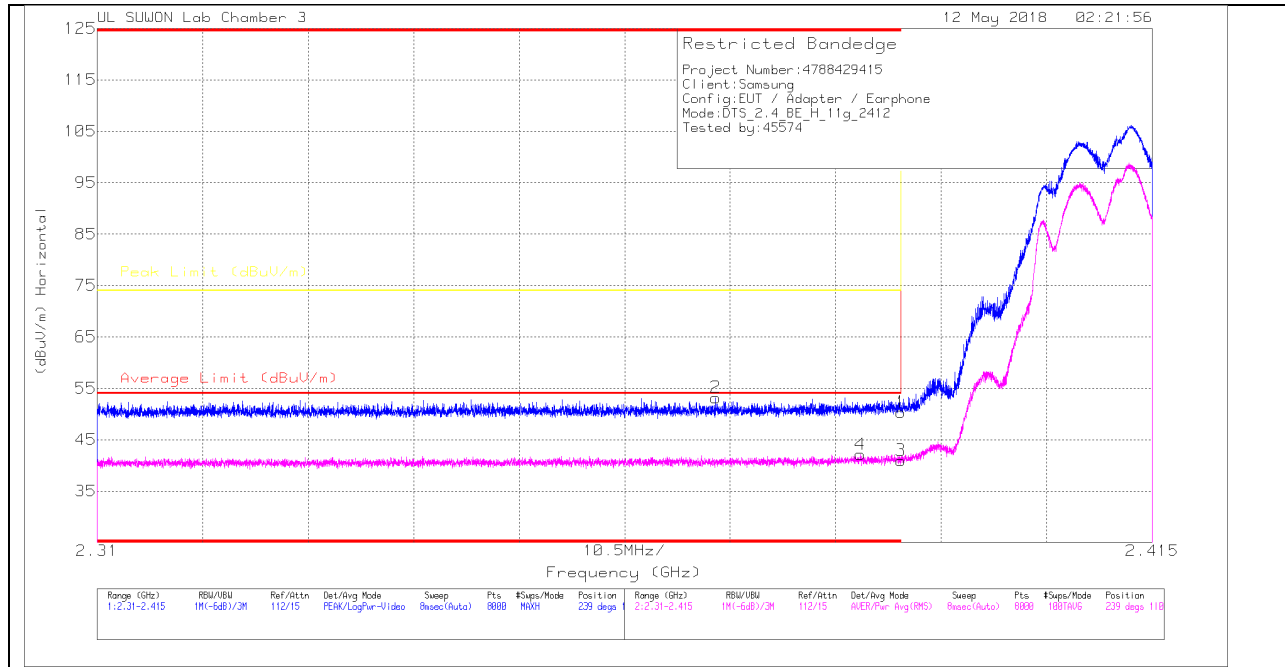
Frequency (GHz)	Meter Reading (dBuV)	Det	3117[00205959]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.68	34.96	PK2	35.6	-22.3	0	48.26	-	-	74	-25.74	75	100	V
* 7.68	29.91	MAv1	35.6	-22.3	0	43.21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

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

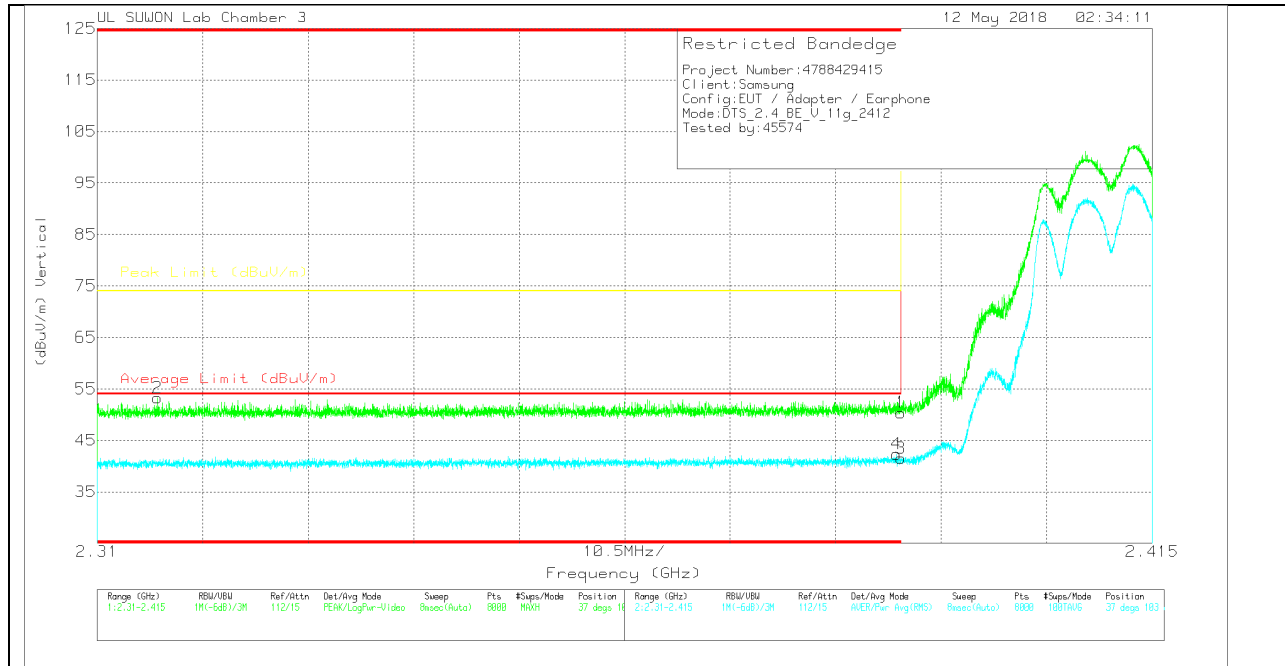
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	311700205959	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.84	Pk	31.8	-23.3	0	50.34	-	-	74	-23.66	239	110	H
2	* 2.372	44.7	Pk	31.7	-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

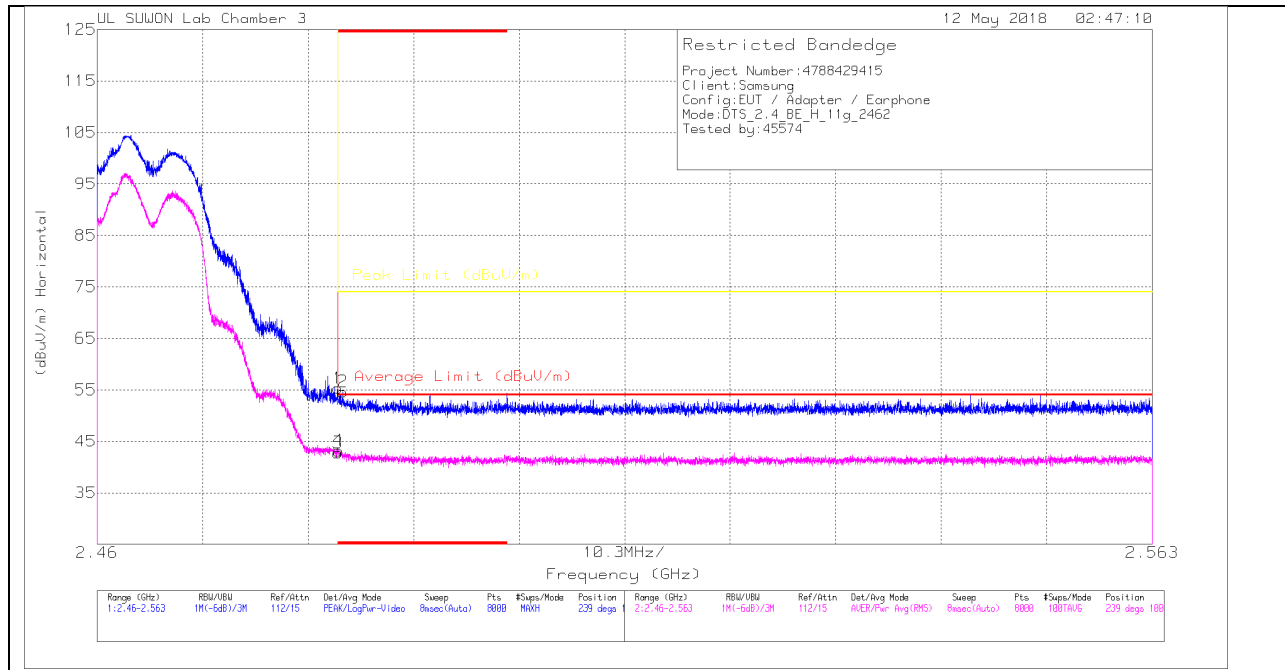
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

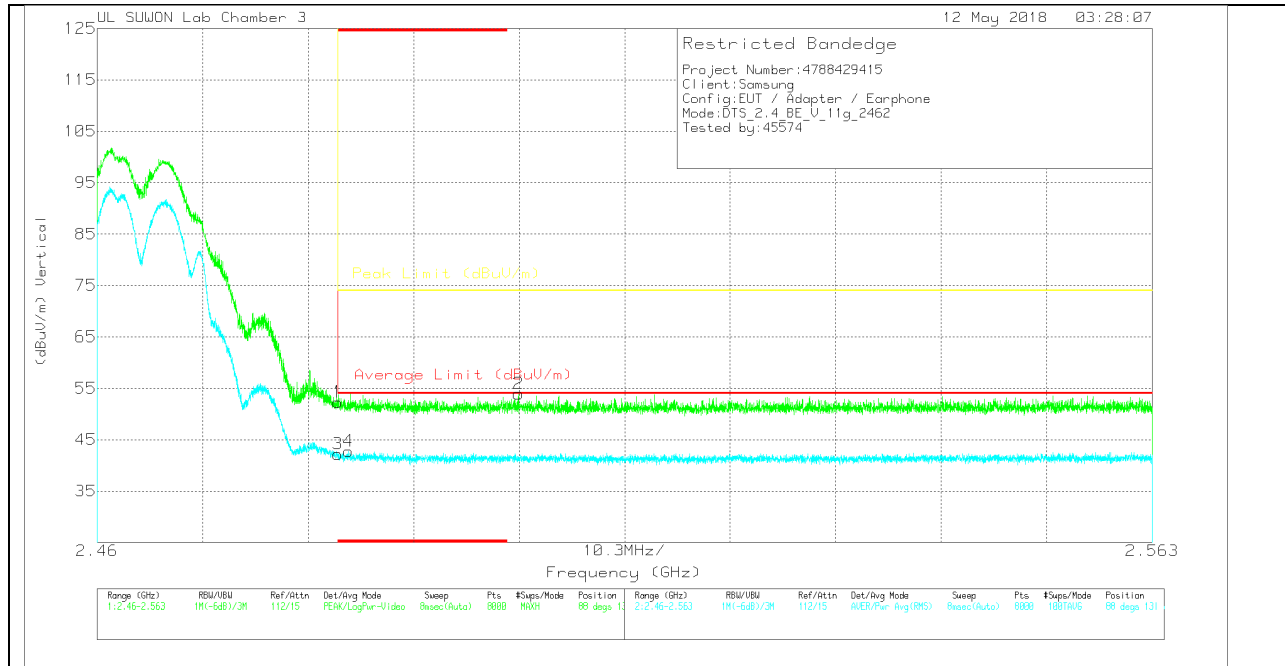
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205959)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	46.21	Pk	32.1	-23	0	55.31	-	-	74	-18.69	239	100	H
2	* 2.484	45.62	Pk	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)	Azimuth (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

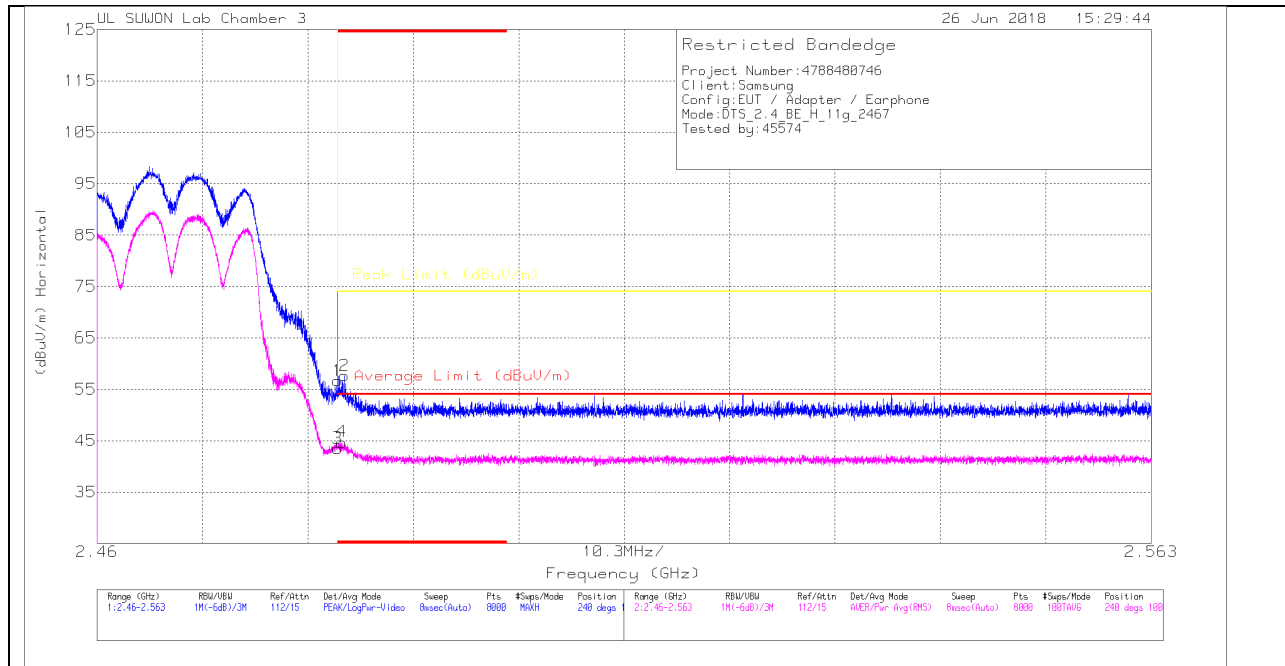
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (12 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

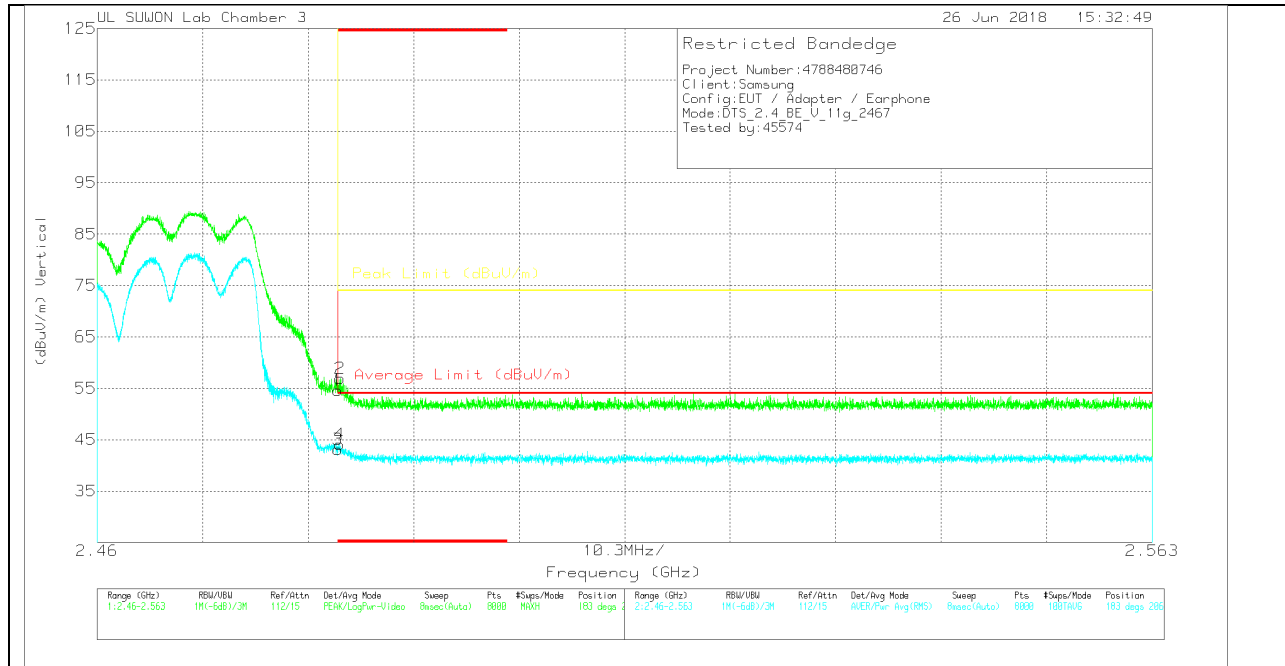
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.55	Pk	32.1	-23	0	56.65	-	-	74	-17.35	240	100	H
2	* 2.484	48.63	Pk	32.1	-23.1	0	57.63	-	-	74	-16.37	240	100	H
3	* 2.484	34.28	RMS	32.1	-23	.13	43.51	54	-10.49	-	-	240	100	H
4	* 2.484	35.63	RMS	32.1	-23.1	.13	44.76	54	-9.24	-	-	240	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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.47	Pk	32.1	-23	0	54.57	-	-	74	-19.43	183	206	V
2	* 2.484	47.82	Pk	32.1	-23	0	56.92	-	-	74	-17.08	183	206	V
3	* 2.484	33.88	RMS	32.1	-23	.13	43.11	54	-10.89	-	-	183	206	V
4	* 2.484	34.84	RMS	32.1	-23	.13	44.07	54	-9.93	-	-	183	206	V

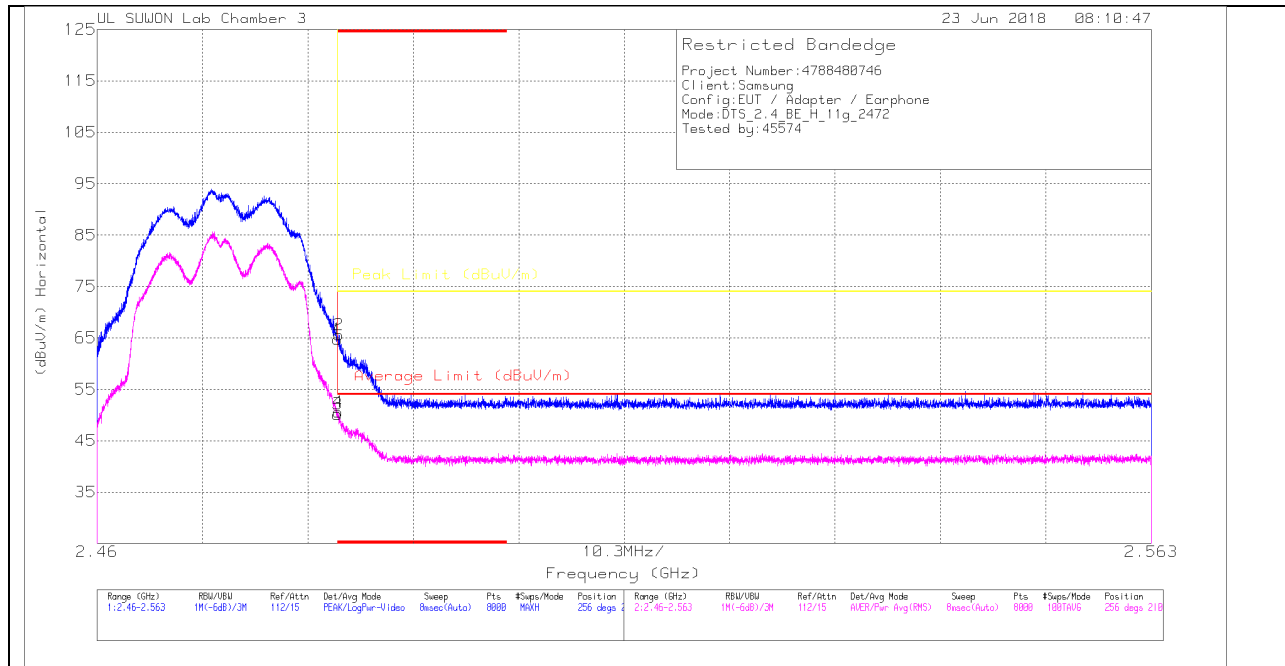
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (13 CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

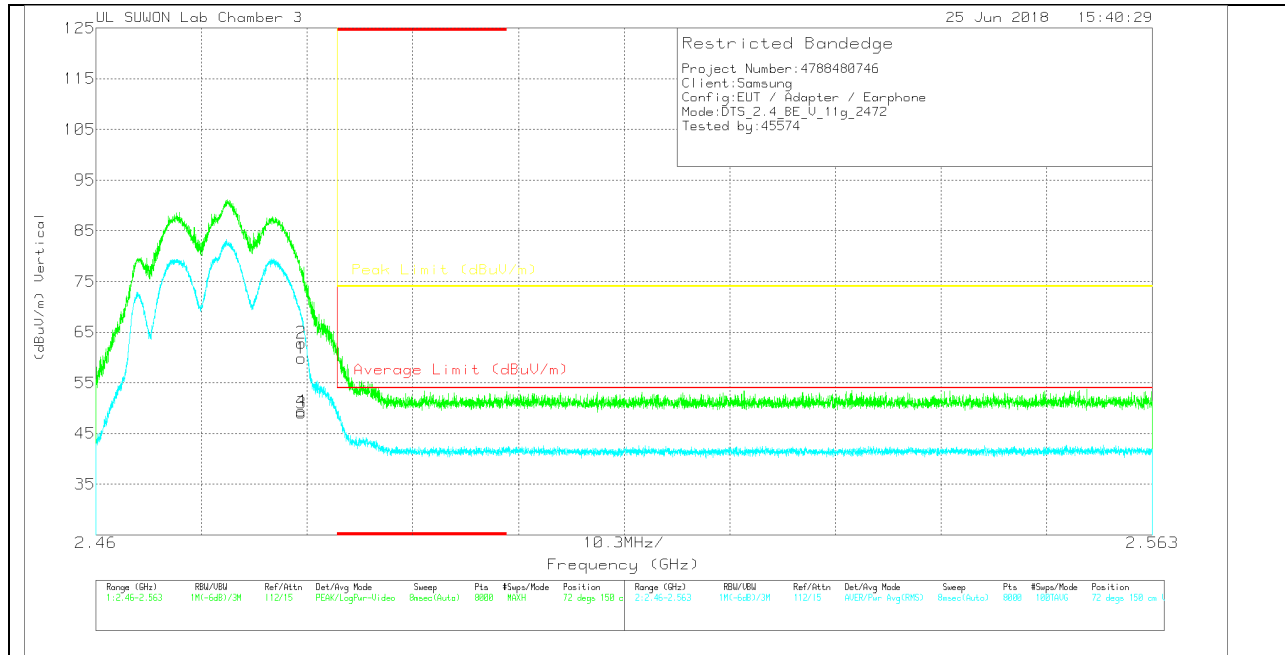
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00205999)	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	55.61	Pk	32.1	-23	0	64.71	-	-	74	-9.29	256	210	H
2	* 2.484	56.47	Pk	32.1	-23	0	65.57	-	-	74	-8.43	256	210	H
3	* 2.484	40.92	RMS	32.1	-23	.13	50.15	54	-3.85	-	-	256	210	H
4	* 2.484	41.34	RMS	32.1	-23	.13	50.57	54	-3.43	-	-	256	210	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

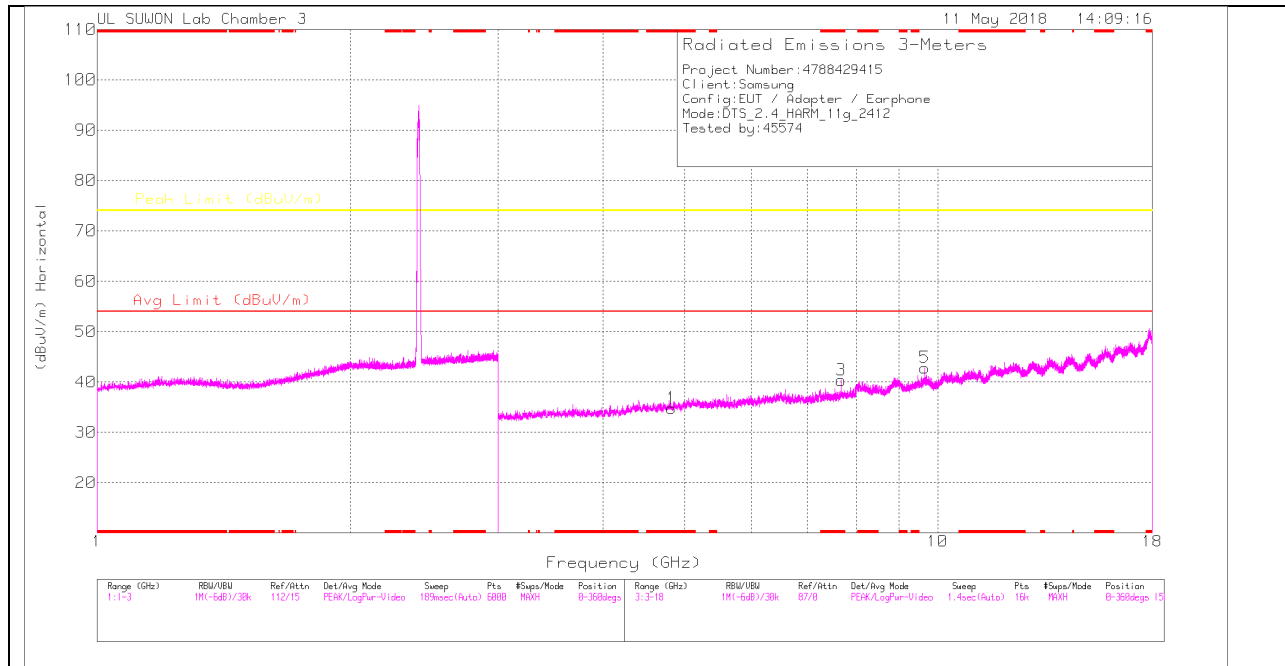
Trace Markers

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	2.48	50.96	Pk	32	-23.1	0	59.86	-	-	-	-	72	150	V
2	2.48	53.99	Pk	32	-23.1	0	62.89	-	-	-	-	72	150	V
3	2.48	40.02	RMS	32	-23.1	.13	49.05	-	-	-	-	72	150	V
4	2.48	40.4	RMS	32	-23.1	.13	49.43	-	-	-	-	72	150	V

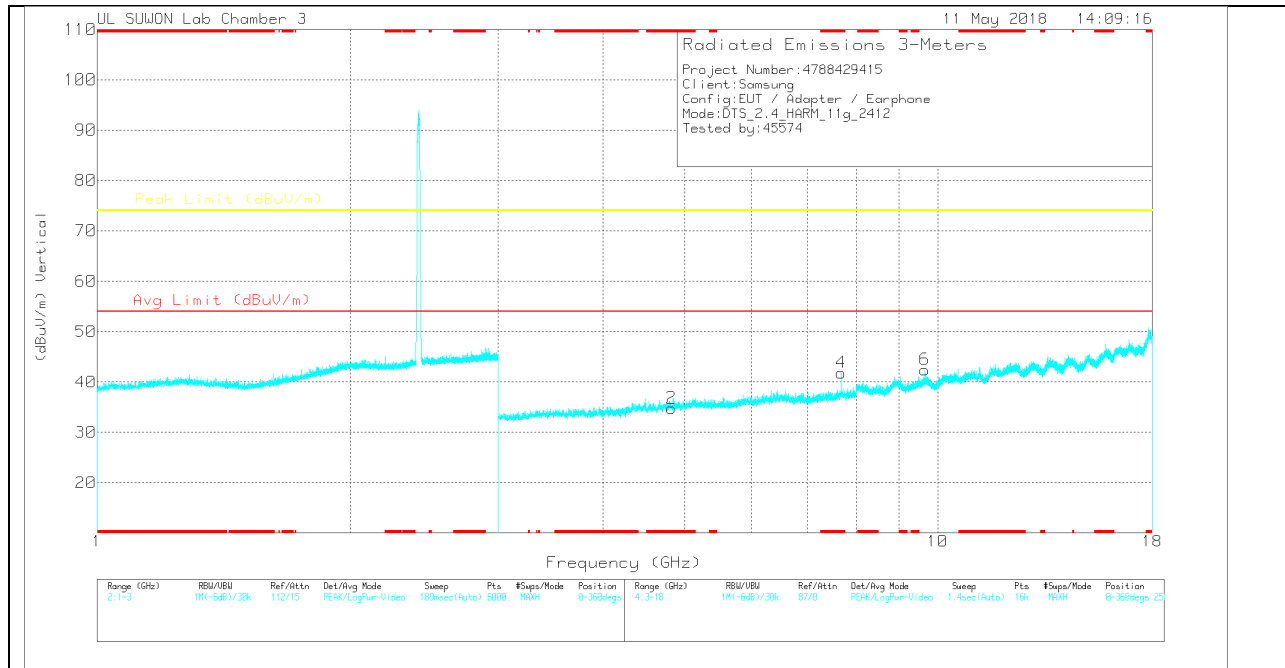
Pk - Peak detector
 RMS - RMS detection

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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.824	29.2	PK	34	-28.4	0	34.8	-	-	74	-39.2	0-360	150	H
3	* 7.679	27.05	PK	35.6	-22.3	0	40.35	-	-	74	-33.65	0-360	250	H
5	9.648	25.84	PK	36.7	-19.7	0	42.84	-	-	74	-31.16	0-360	150	H
2	* 4.824	29.23	PK	34	-28.4	0	34.83	-	-	74	-39.17	0-360	250	V
4	* 7.68	28.63	PK	35.6	-22.4	0	41.83	-	-	74	-32.17	0-360	149	V
6	9.648	25.46	PK	36.7	-19.7	0	42.46	-	-	74	-31.54	0-360	250	V

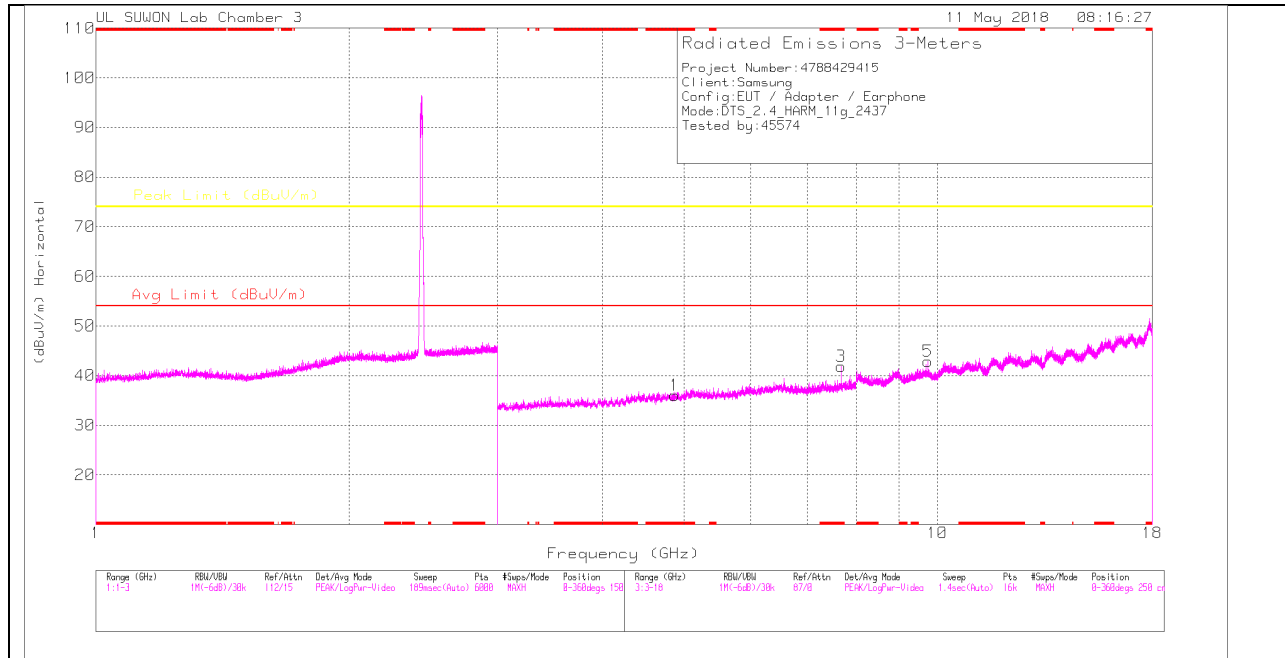
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK – Peak Detector

Radiated Emissions

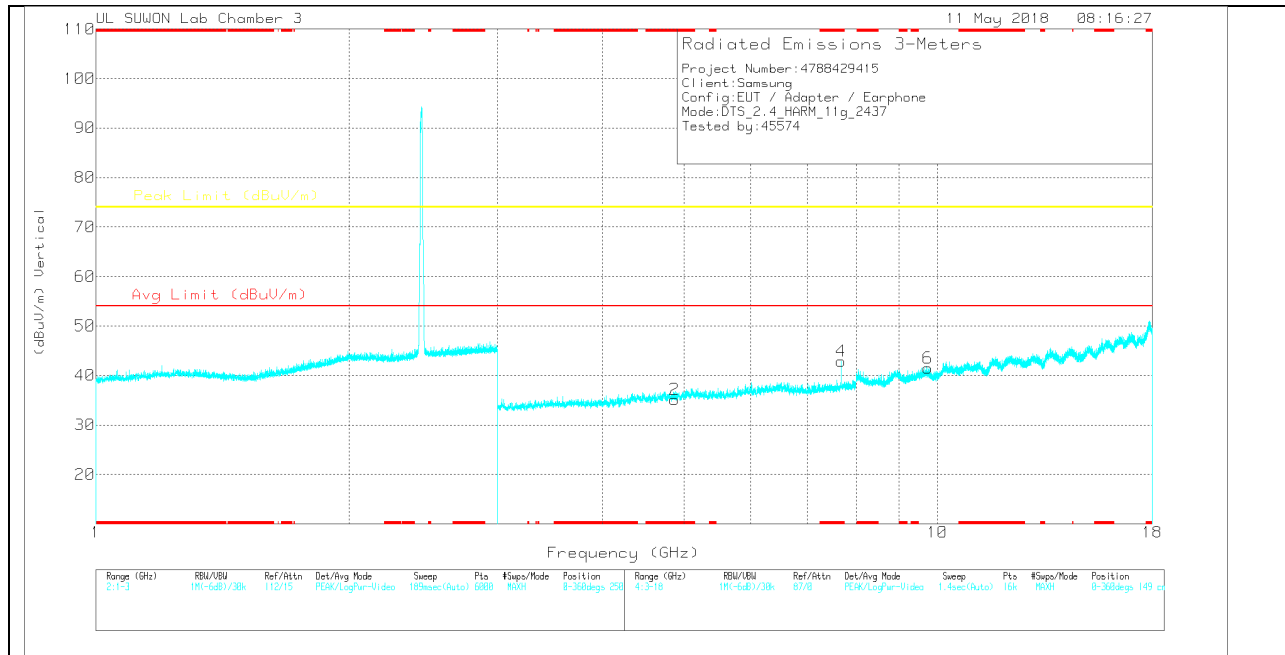
Frequency (GHz)	Meter Reading (dBuV)	Det	3117[00205959]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.68	34.41	PK2	35.6	-22.3	0	47.71	-	-	74	-26.29	200	160	H
* 7.68	25.18	MAv1	35.6	-22.3	.13	38.61	54	-15.39	-	-	200	160	H
* 7.68	34.53	PK2	35.6	-22.3	0	47.83	-	-	74	-26.17	200	139	V
* 7.68	28.17	MAv1	35.6	-22.3	.13	41.6	54	-12.4	-	-	200	139	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	30.92	PK	34	-28.9	0	36.02	-	-	74	-37.98	0-360	149	H
3	* 7.68	28.68	PK	35.6	-22.4	0	41.88	-	-	74	-32.12	0-360	250	H
5	9.748	25.49	PK	36.9	-19.5	0	42.89	-	-	74	-31.11	0-360	149	H
2	* 4.874	30.07	PK	34	-28.9	0	35.17	-	-	74	-38.83	0-360	250	V
4	* 7.68	29.65	PK	35.6	-22.4	0	42.85	-	-	74	-31.15	0-360	149	V
6	9.748	24.12	PK	36.9	-19.5	0	41.52	-	-	74	-32.48	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)	Azimuth (Degs)	Height (cm)	Polarity
* 7.68	36.82	PK2	35.6	-22.3	0	50.12	-	-	74	-23.88	203	160	H
* 7.68	27.84	MAv1	35.6	-22.3	0	41.14	54	-12.86	-	-	203	160	H
* 7.68	37.42	PK2	35.6	-22.3	0	50.72	-	-	74	-23.28	200	141	V
* 7.68	29.26	MAv1	35.6	-22.3	0	42.56	54	-11.44	-	-	200	141	V

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