

## 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 = 0.15dB.

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.

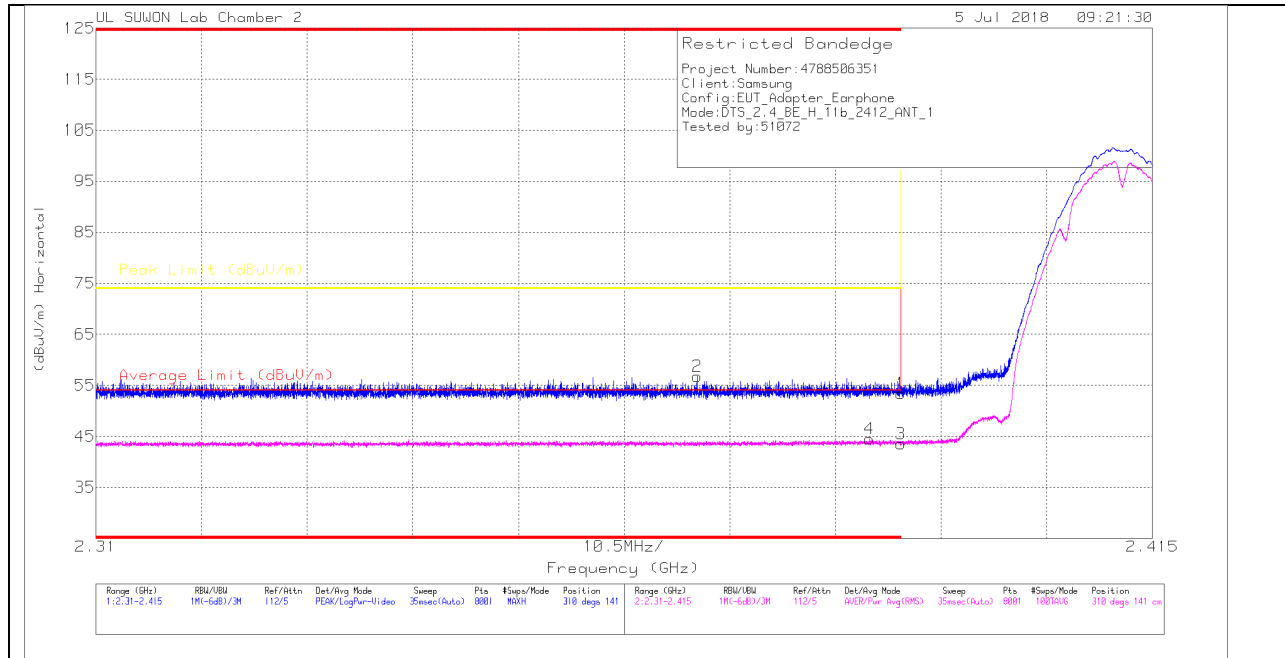
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site.  
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field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

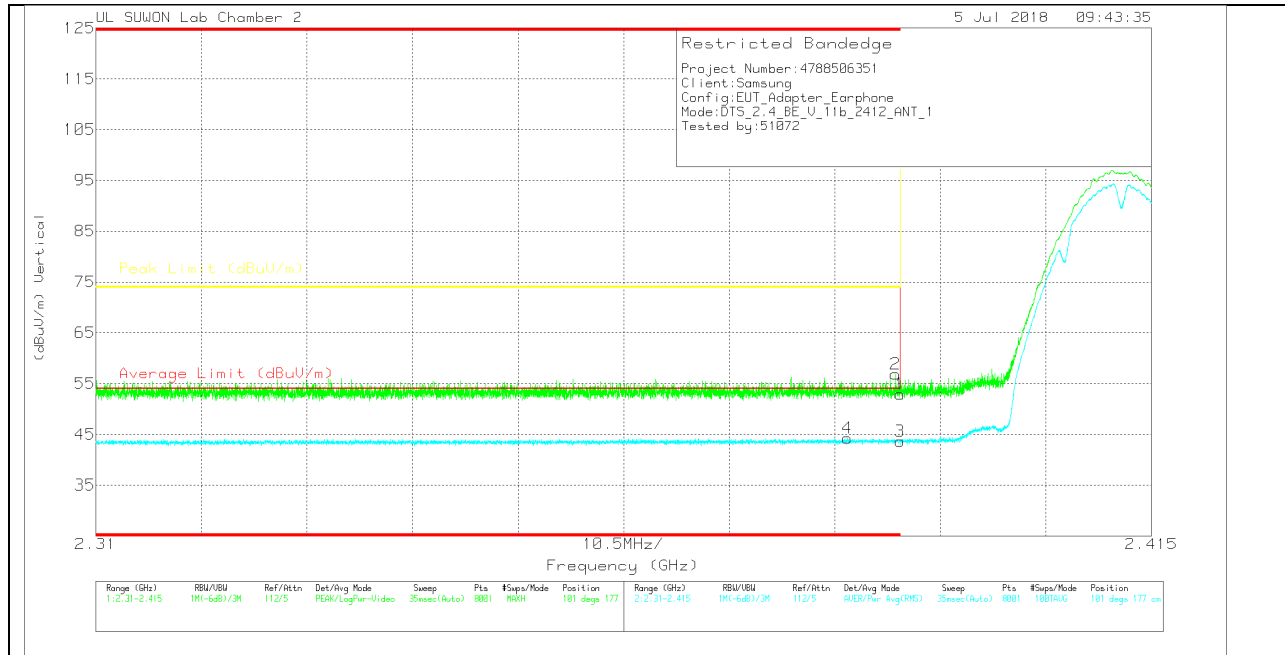
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(dB)	OC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.33	Pk	31.3	-18.2	0	53.43	-	-	74	-20.57	310	141	H
2	* 2.37	43.89	Pk	31.2	-18.3	0	56.79	-	-	74	-17.21	310	141	H
3	* 2.39	30.48	RMS	31.3	-18.2	0	43.58	54	-10.42	-	-	310	141	H
4	* 2.387	31.38	RMS	31.3	-18.2	0	44.48	54	-9.52	-	-	310	141	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	170531_3117(00168724)	IOdB(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	39.78	Pk	31.3	-18.2	0	52.88	-	-	74	-21.12	101	177	V
2	* 2.39	43.8	Pk	31.3	-18.2	0	56.9	-	-	74	-17.1	101	177	V
3	* 2.39	30.5	RMS	31.3	-18.2	0	43.6	54	-10.4	-	-	101	177	V
4	* 2.385	31.13	RMS	31.3	-18.2	0	44.23	54	-9.77	-	-	101	177	V

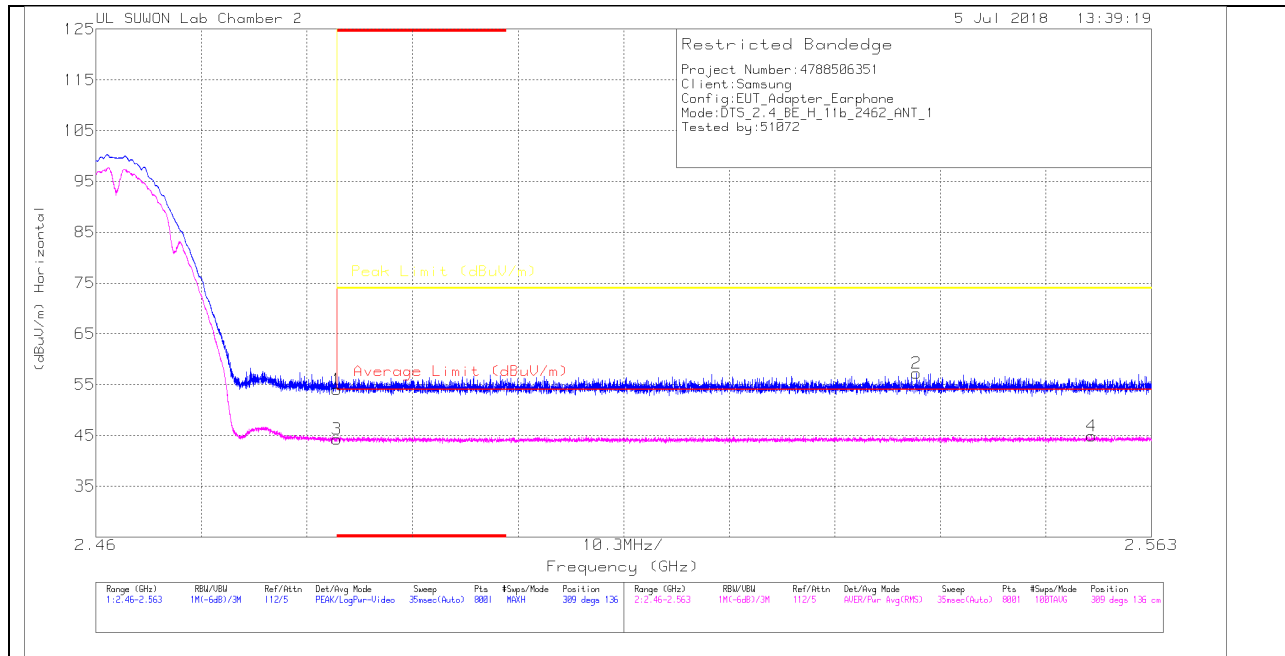
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



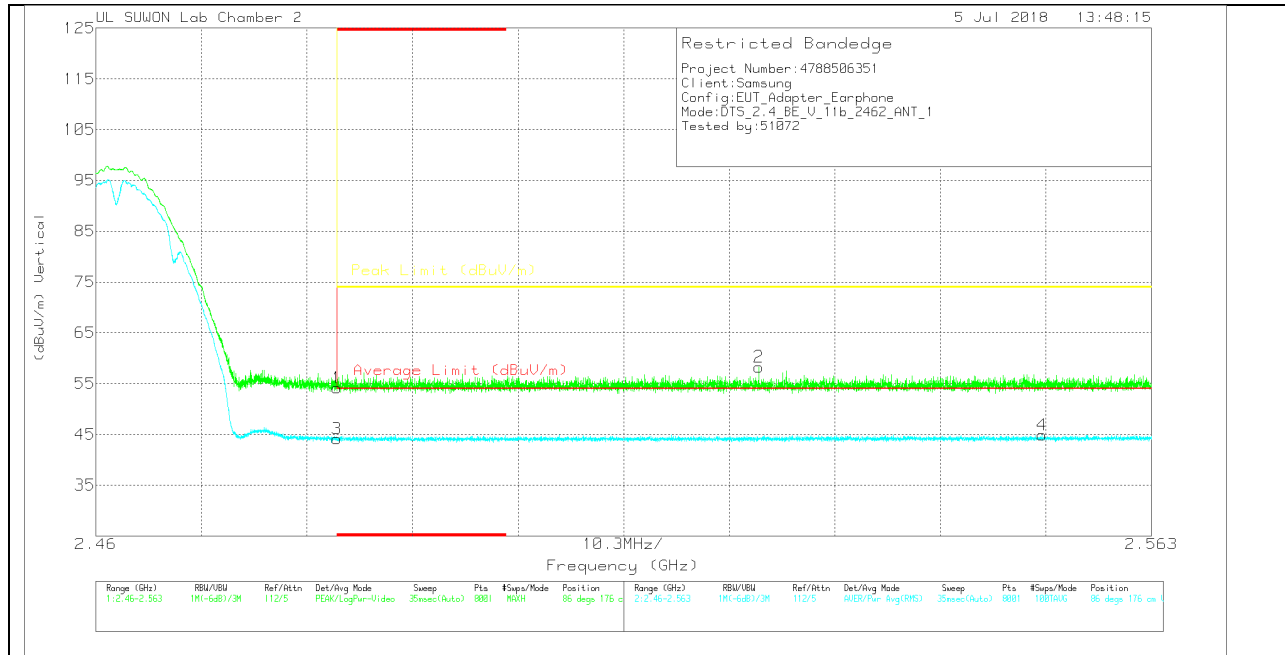
**HORIZONTAL DATA**

**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(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	40.39	Pk		31.6	-18	0	53.99	-	74	-20.01	309	136	H
2	2.54	43.59	Pk		31.7	-18	0	57.29	-	74	-16.71	309	136	H
3	* 2.484	30.68	RMS		31.6	-18	0	44.28	54	-9.72	-	309	136	H
4	2.557	31.22	RMS		31.7	-18	0	44.92	54	-9.08	-	309	136	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	170531_3117[0016 8724]	10dB(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	40.56	PK	31.6	-18	54.16	-	-	74	-19.84	86	176	V
2	2.525	44.7	PK	31.6	-18	58.3	-	-	74	-15.7	86	176	V
3	* 2.484	30.51	RMS	31.6	-18	44.11	54	-9.89	-	-	86	176	V
4	2.552	31.17	RMS	31.7	-18	44.87	54	-9.13	-	-	86	176	V

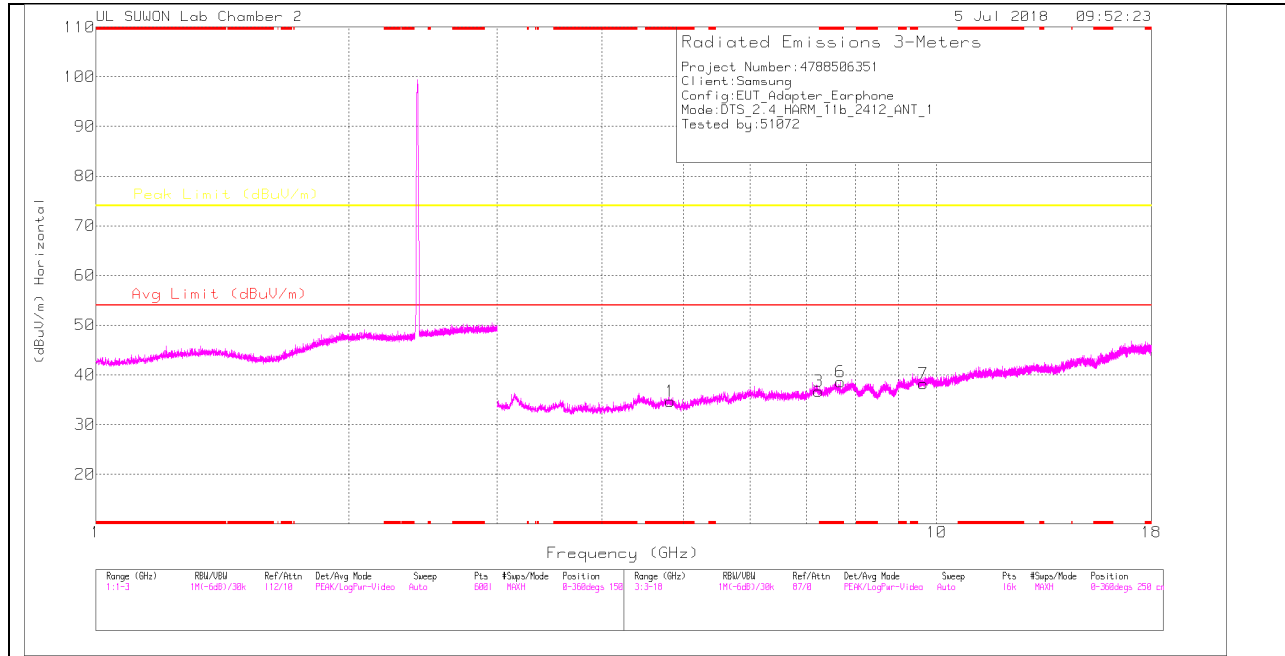
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

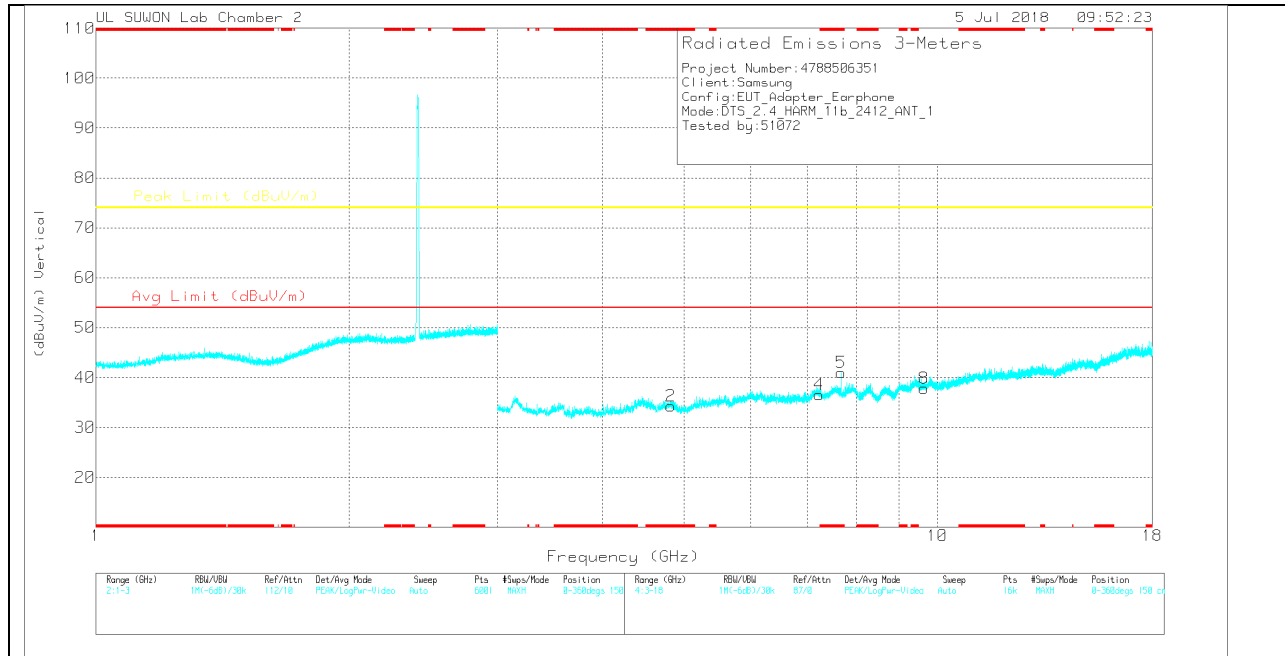
RMS - RMS detection

### 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	170531_3117[00168724]	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	25.2	PK		33.8	-24.3	0	34.7	-	-	74	-39.3	0-360	250	H
3	7.236	22.77	PK		35.9	-22	0	36.67	-	-	74	-37.33	0-360	250	H
6	* 7.68	24.18	PK		35.7	-21.3	0	38.58	-	-	74	-35.42	0-360	150	H
7	9.648	19.69	PK		36.8	-18.3	0	38.19	-	-	74	-35.81	0-360	250	H
2	* 4.824	24.75	PK		33.8	-24.3	0	34.25	-	-	74	-39.75	0-360	150	V
4	7.236	22.67	PK		35.9	-22	0	36.57	-	-	74	-37.43	0-360	150	V
5	* 7.68	26.54	PK		35.7	-21.3	0	40.94	-	-	74	-33.06	0-360	150	V
8	9.648	19.39	PK		36.8	-18.3	0	37.89	-	-	74	-36.11	0-360	150	V

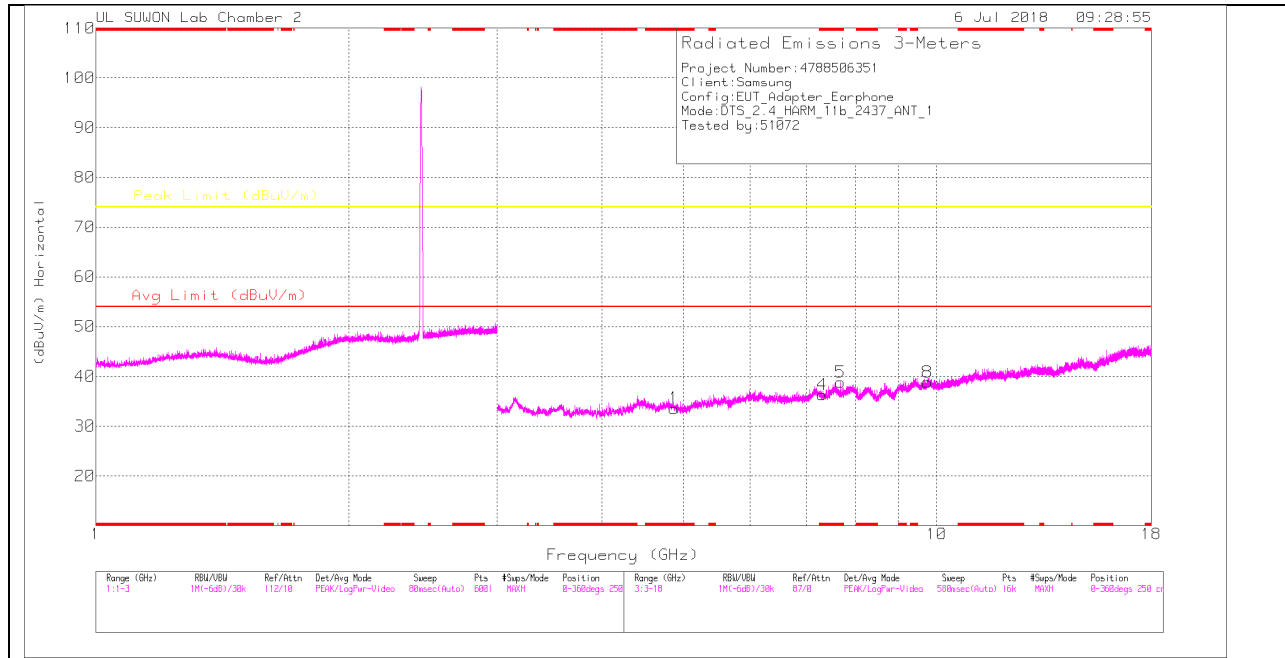
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

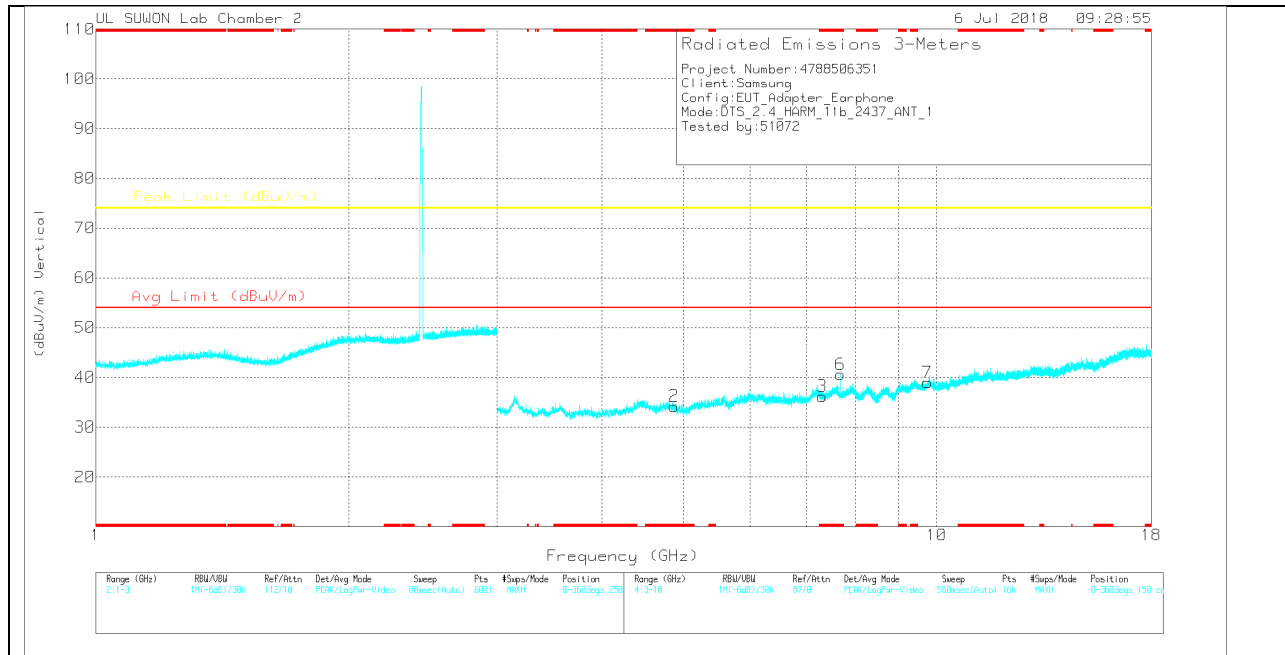
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.68	32.49	PK2		35.7	-21.3	0	46.89	-	-	74	-27.11	215	136	H
* 7.68	21.5	MAv1		35.7	-21.3	0	35.9	54	-18.1	-	-	215	136	H
7.234	32.91	PK2		35.9	-21.9	0	46.91	-	-	74	-27.09	223	100	V
7.236	20.67	MAv1		35.9	-21.9	0	34.67	-	-	-	-	223	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	170531_3117[00168724]	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	* 4.875	24.3	PK		33.8	-24.5	0	33.6	-	-	74	-40.4	0-360	150	H
4	* 7.311	22.38	PK		35.9	-22	0	36.28	-	-	74	-37.72	0-360	250	H
5	* 7.68	24.44	PK		35.7	-21.3	0	38.84	-	-	74	-35.16	0-360	150	H
8	9.749	20.02	PK		36.9	-18.1	0	38.82	-	-	74	-35.18	0-360	250	H
2	* 4.875	24.93	PK		33.8	-24.5	0	34.23	-	-	74	-39.77	0-360	150	V
3	* 7.311	22.35	PK		35.9	-22	0	36.25	-	-	74	-37.75	0-360	250	V
6	* 7.68	26.22	PK		35.7	-21.3	0	40.62	-	-	74	-33.38	0-360	250	V
7	9.749	20.16	PK		36.9	-18.1	0	38.96	-	-	74	-35.04	0-360	250	V

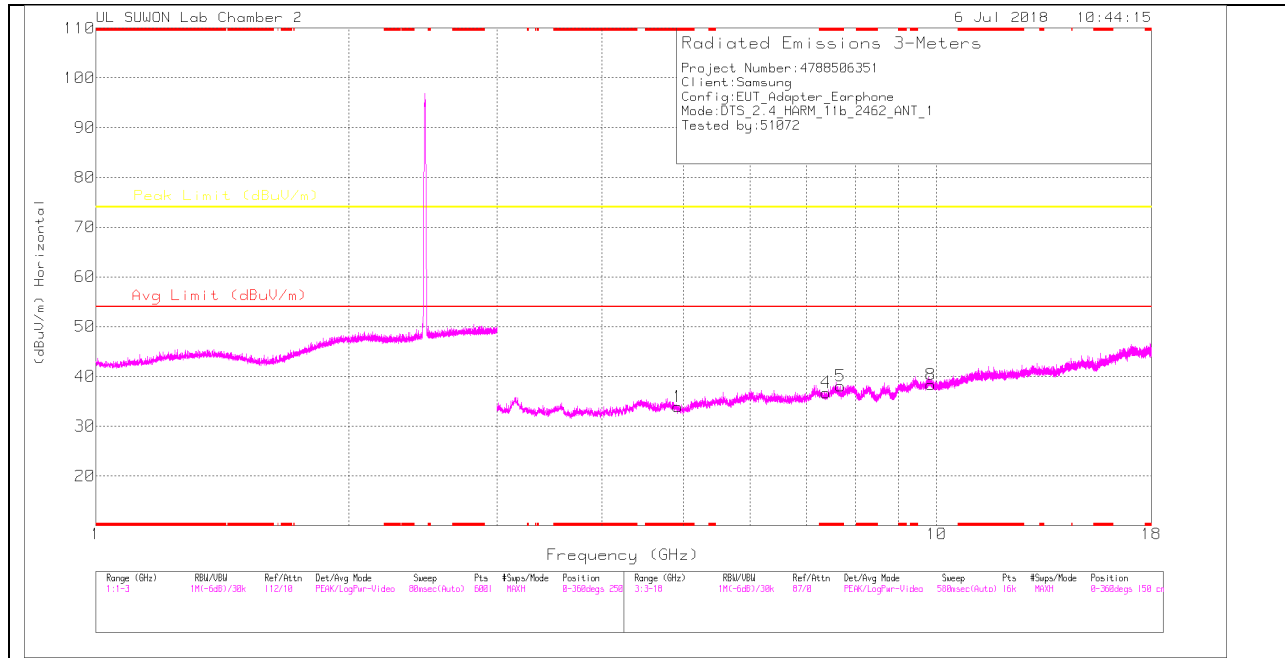
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

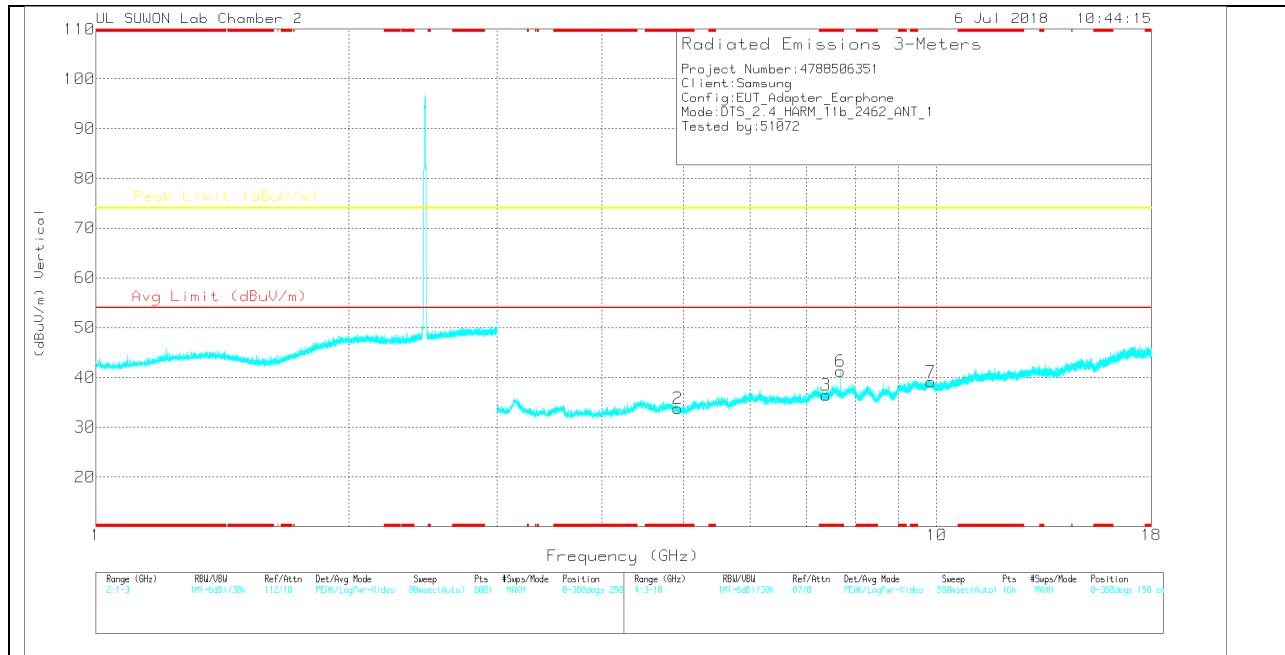
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.678	31.6	PK2		35.7	-21.3	0	46	-	-	74	-28	260	274	H
* 7.68	19.56	MAv1		35.7	-21.3	0	33.96	54	-20.04	-	-	260	274	H
* 7.68	34.16	PK2		35.7	-21.3	0	48.56	-	-	74	-25.44	171	179	V
* 7.68	25.87	MAv1		35.7	-21.3	0	40.27	54	-13.73	-	-	171	179	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	170531_3117[00168724]	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	* 4.925	24.85	PK		33.8	-24.7	0	33.95	-	-	74	-40.05	0-360	150	H
4	* 7.386	22.26	PK		35.9	-21.4	0	36.76	-	-	74	-37.24	0-360	150	H
5	* 7.68	23.73	PK		35.7	-21.3	0	38.13	-	-	74	-35.87	0-360	150	H
8	9.848	19.27	PK		37	-17.9	0	38.37	-	-	74	-35.63	0-360	150	H
2	* 4.925	24.73	PK		33.8	-24.7	0	33.83	-	-	74	-40.17	0-360	150	V
3	* 7.386	21.93	PK		35.9	-21.4	0	36.43	-	-	74	-37.57	0-360	250	V
6	* 7.68	26.8	PK		35.7	-21.3	0	41.2	-	-	74	-32.8	0-360	250	V
7	9.848	20.03	PK		37	-17.9	0	39.13	-	-	74	-34.87	0-360	250	V

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

Radiated Emissions

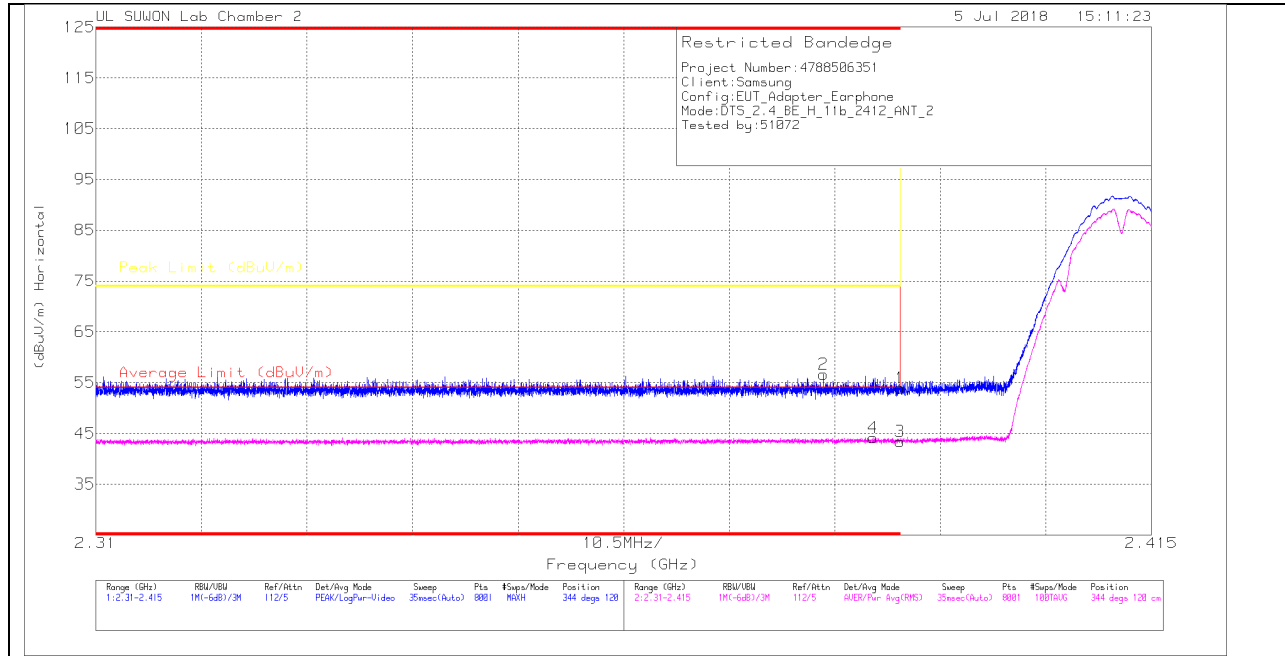
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[0 0168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.679	31.45	PK2		35.7	-21.3	0	45.85	-	-	74	-28.15	138	354	H
* 7.68	19.32	MAv1		35.7	-21.3	0	33.72	54	-20.28	-	-	138	354	H

\* - 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**

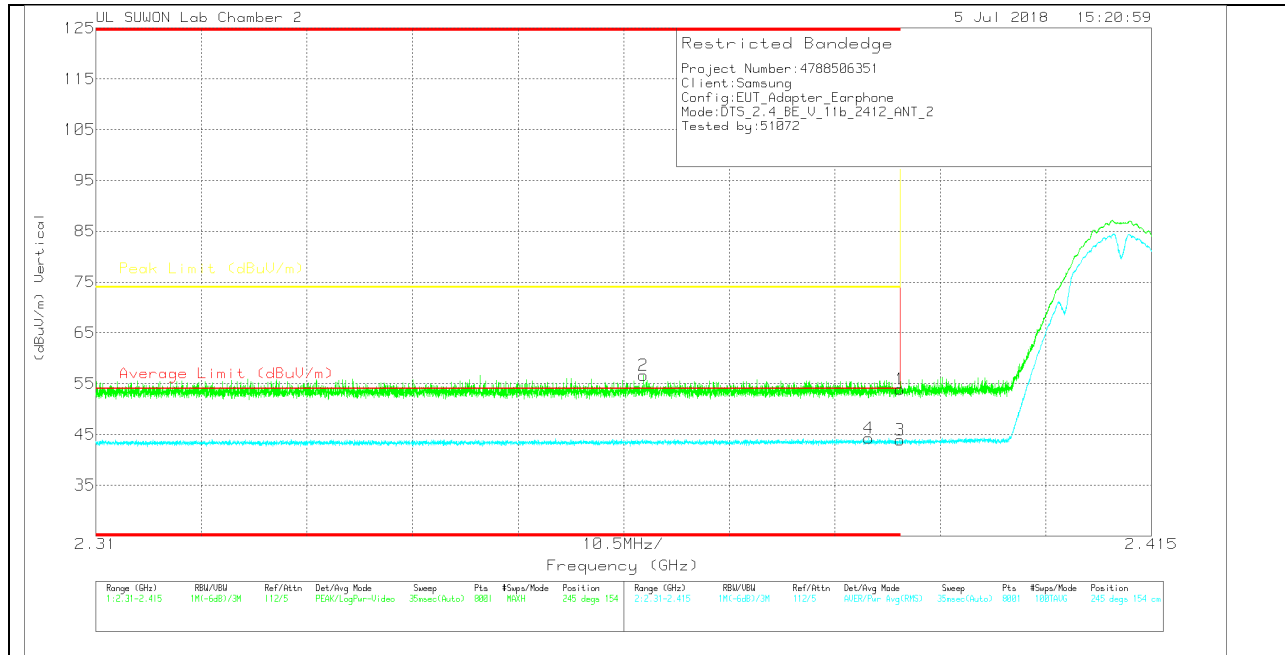
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_311700168724	10dB[db]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.84	Pk		-18.2	0	53.94	-	-	74	-20.06	344	120	H
2	* 2.382	43.48	Pk		-18.2	0	56.58	-	-	74	-17.42	344	120	H
3	* 2.39	30.27	RMS		-18.2	0	43.37	54	-10.63	-	-	344	120	H
4	* 2.387	31.07	RMS		-18.2	0	44.17	54	-9.83	-	-	344	120	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	170531_3117(00168724)	10dB(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	40.79	Pk	31.3	-18.2	0	53.89	-	-	74	-20.11	245	154	V
2	* 2.364	43.79	Pk	31.2	-18.3	0	56.69	-	-	74	-17.31	245	154	V
3	* 2.39	30.79	RMS	31.3	-18.2	0	43.89	54	-10.11	-	-	245	154	V
4	* 2.387	31.21	RMS	31.3	-18.2	0	44.31	54	-9.69	-	-	245	154	V

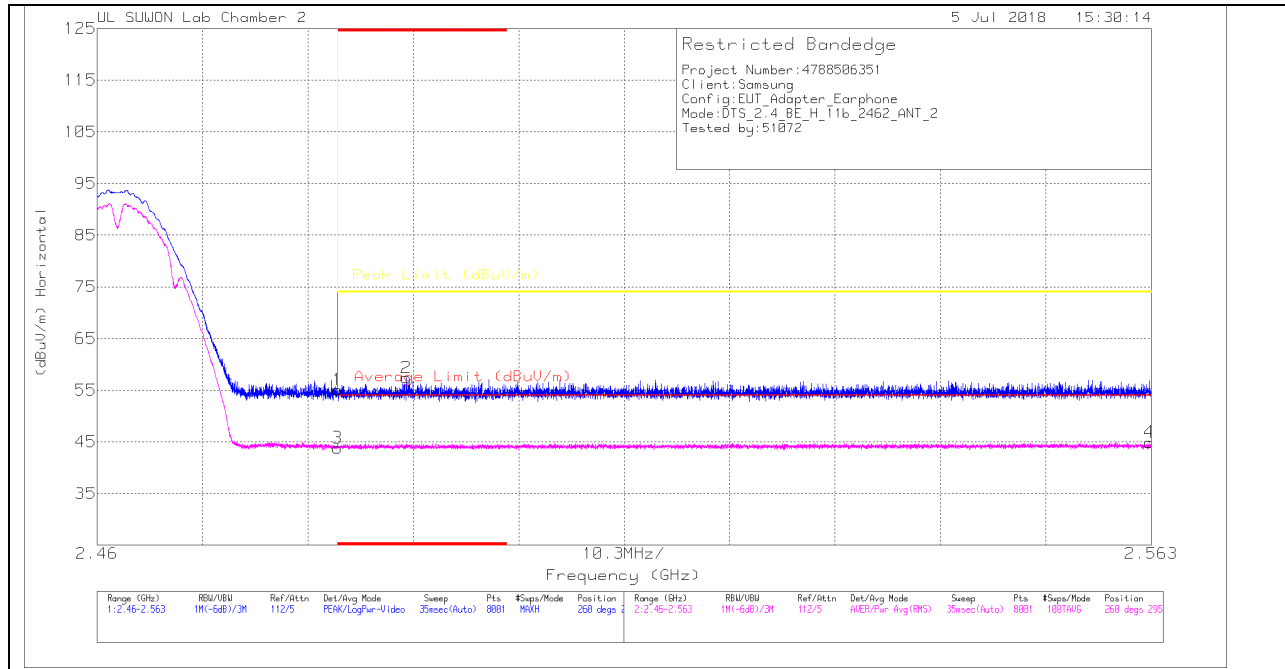
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

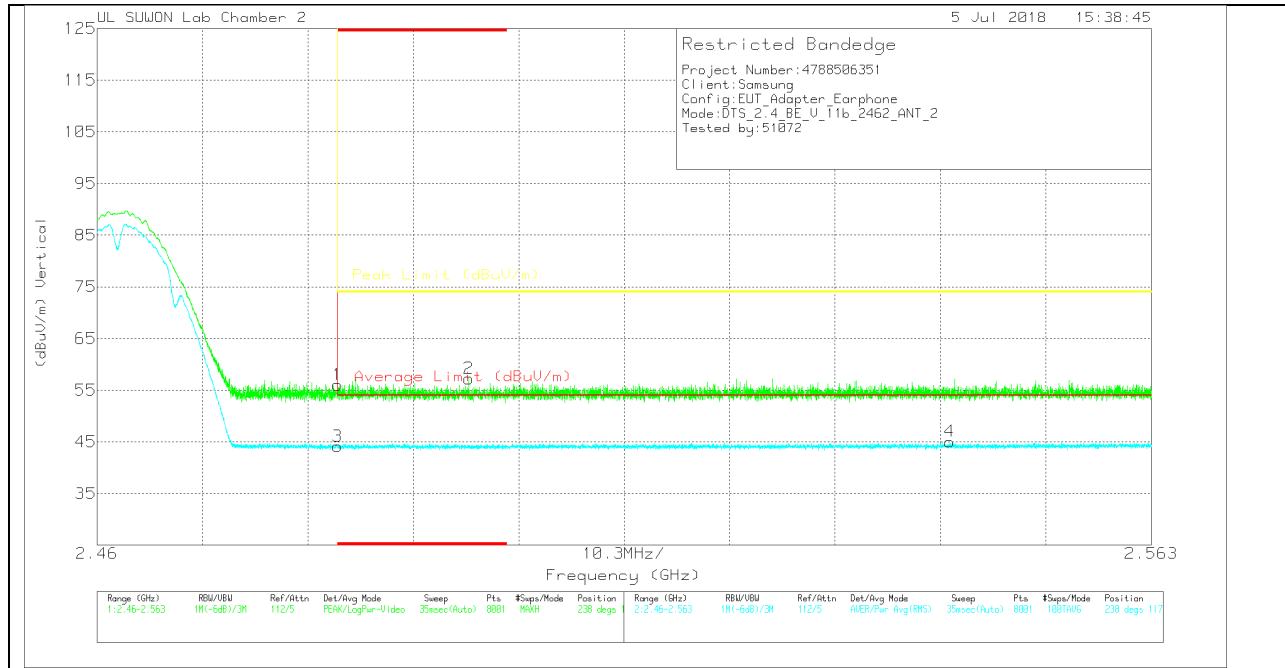
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.5	Pk	31.6	-18	0	55.1	-	-	74	-18.9	260	295	H
2	* 2.49	43.8	Pk	31.6	-18	0	57.4	-	-	74	-16.6	260	295	H
3	* 2.484	30.21	RMS	31.6	-18	0	43.81	54	-10.19	-	-	260	295	H
4	2.563	31.12	RMS	31.8	-18	0	44.92	54	-9.08	-	-	260	295	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	170531_311700168724	10dB(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	42.44	Pk		31.6	-18	56.04	-	-	74	-17.96	238	117	V
2	* 2.496	43.66	Pk		31.6	-18	57.26	-	-	74	-16.74	238	117	V
3	* 2.484	30.54	RMS		31.6	-18	44.14	54	-9.86	-	-	238	117	V
4	2.543	31.37	RMS		31.7	-18	45.07	54	-8.93	-	-	238	117	V

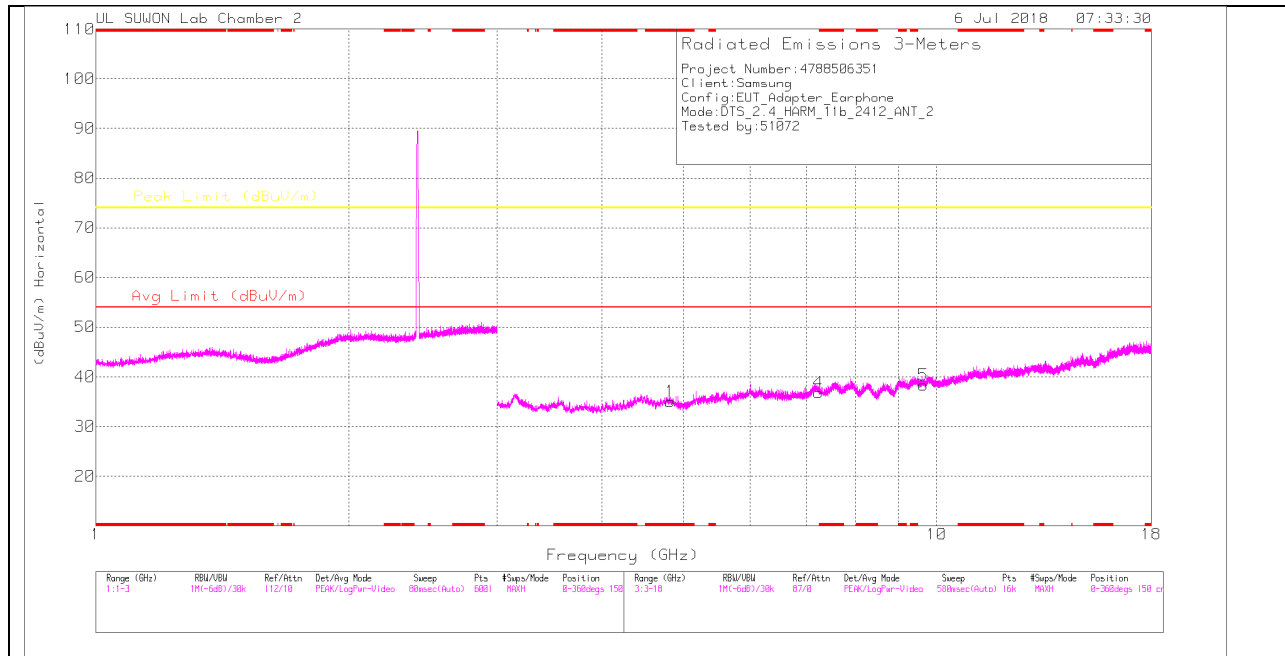
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

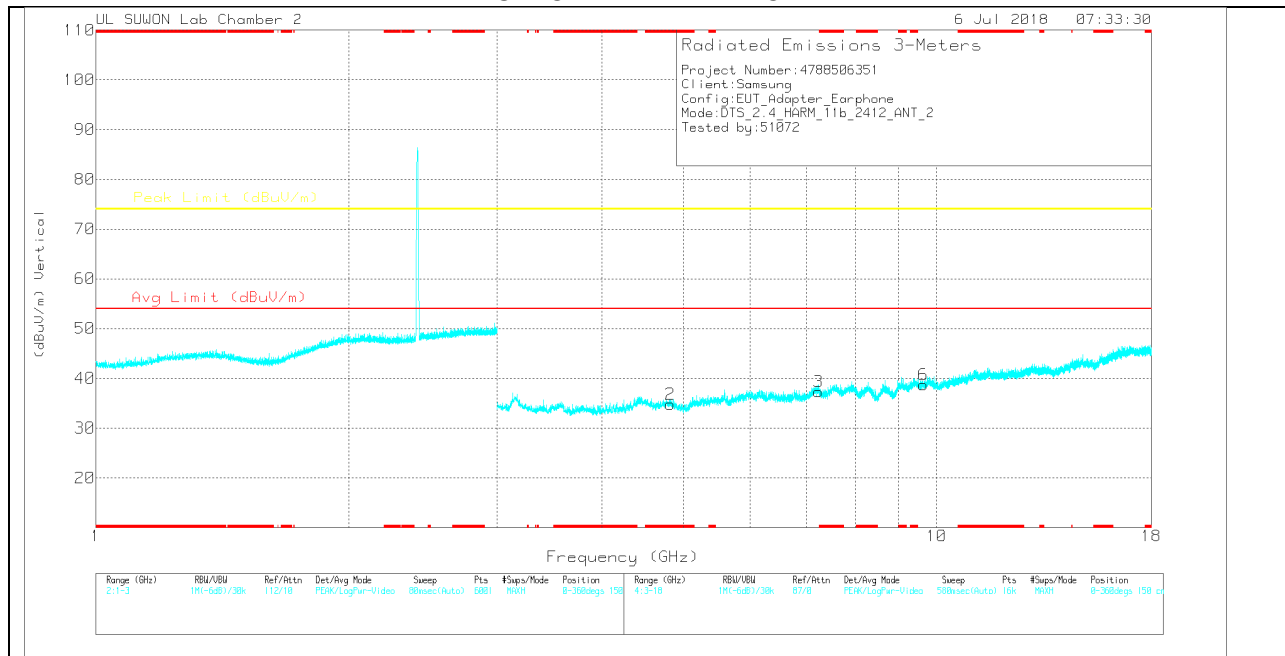
RMS - RMS detection

## 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	170531_3117[00168724]	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	25.58	PK		33.8	-24.3	0	35.08	-	-	74	-38.92	0-360	250	H
4	7.236	22.97	PK		35.9	-22	0	36.87	-	-	74	-37.13	0-360	250	H
5	9.648	19.83	PK		36.8	-18.3	0	38.33	-	-	74	-35.67	0-360	150	H
2	* 4.824	25.35	PK		33.8	-24.3	0	34.85	-	-	74	-39.15	0-360	150	V
3	7.236	23.38	PK		35.9	-22	0	37.28	-	-	74	-36.72	0-360	250	V
6	9.648	20.18	PK		36.8	-18.3	0	38.68	-	-	74	-35.32	0-360	250	V

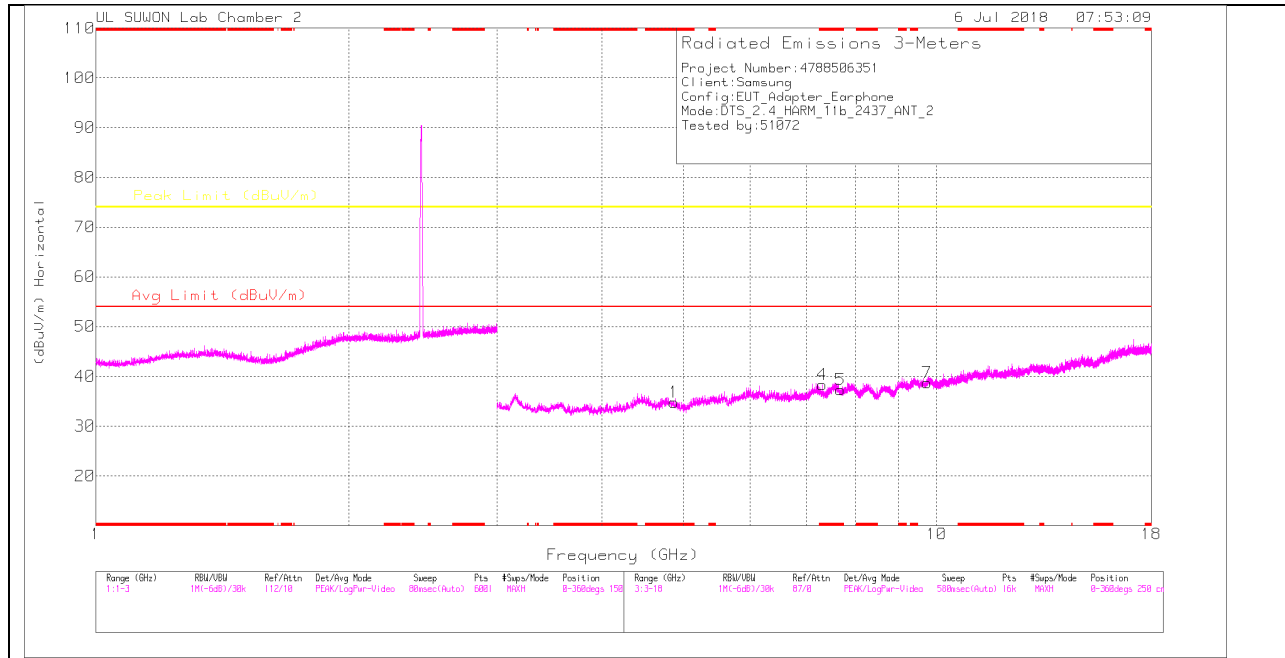
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

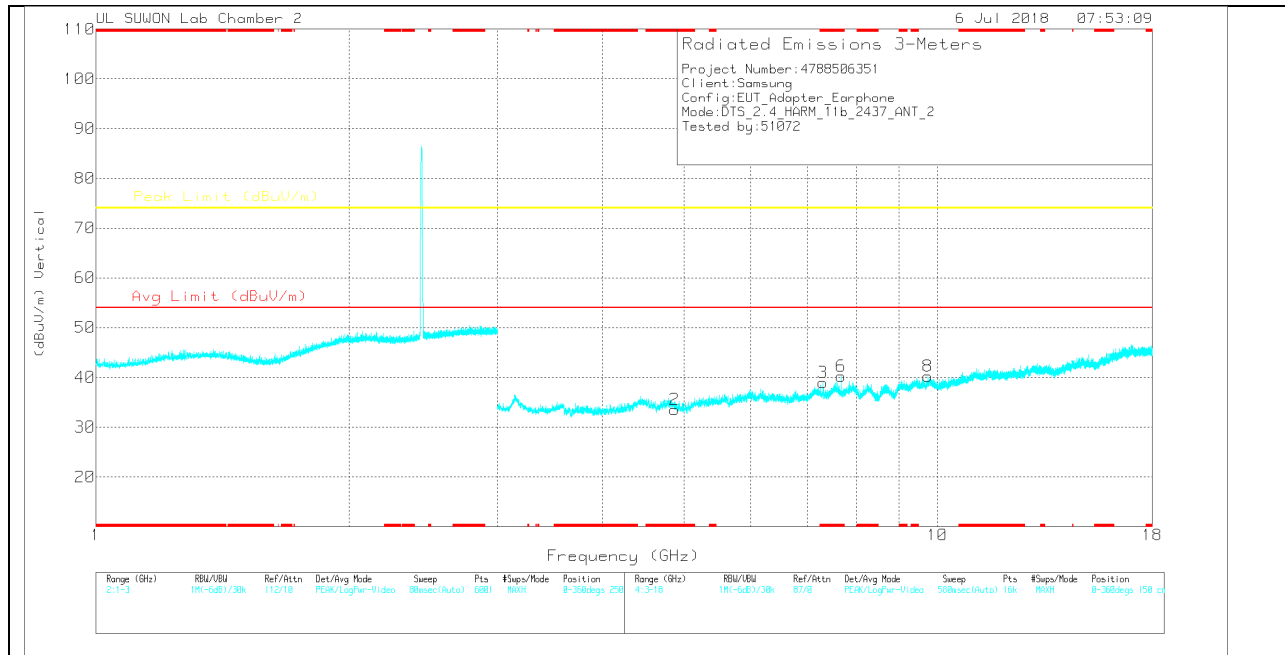
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.311	33.4	PK2		35.9	-22	0	47.3	-	-	74	-26.7	30	138	H
* 7.312	20.48	MAv1		35.9	-22	0	34.38	54	-19.62	-	-	30	138	H
* 7.68	31.26	PK2		35.7	-21.3	0	45.66	-	-	74	-28.34	9	281	H
* 7.68	19.35	MAv1		35.7	-21.3	0	33.75	54	-20.25	-	-	9	281	H
* 7.68	33.54	PK2		35.7	-21.3	0	47.94	-	-	74	-26.06	75	125	V
* 7.68	24.98	MAv1		35.7	-21.3	0	39.38	54	-14.62	-	-	75	125	V
* 7.68	34.29	PK2		35.7	-21.3	0	48.69	-	-	74	-25.31	78	116	V
* 7.68	25.98	MAv1		35.7	-21.3	0	40.38	54	-13.62	-	-	78	116	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	170531_3117[00168724]	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	* 4.875	25.5	PK	33.8	-24.5	0	34.8	-	-	74	-39.2	0-360	150	H
4	* 7.311	24.39	PK	35.9	-22	0	38.29	-	-	74	-35.71	0-360	150	H
5	* 7.68	22.9	PK	35.7	-21.3	0	37.3	-	-	74	-36.7	0-360	250	H
7	9.748	19.92	PK	36.9	-18.1	0	38.72	-	-	74	-35.28	0-360	150	H
2	* 4.875	24.28	PK	33.8	-24.5	0	33.58	-	-	74	-40.42	0-360	250	V
3	* 7.309	25.07	PK	35.9	-22	0	38.97	-	-	74	-35.03	0-360	150	V
6	* 7.68	25.83	PK	35.7	-21.3	0	40.23	-	-	74	-33.77	0-360	150	V
8	9.748	21.44	PK	36.9	-18.1	0	40.24	-	-	74	-33.76	0-360	150	V

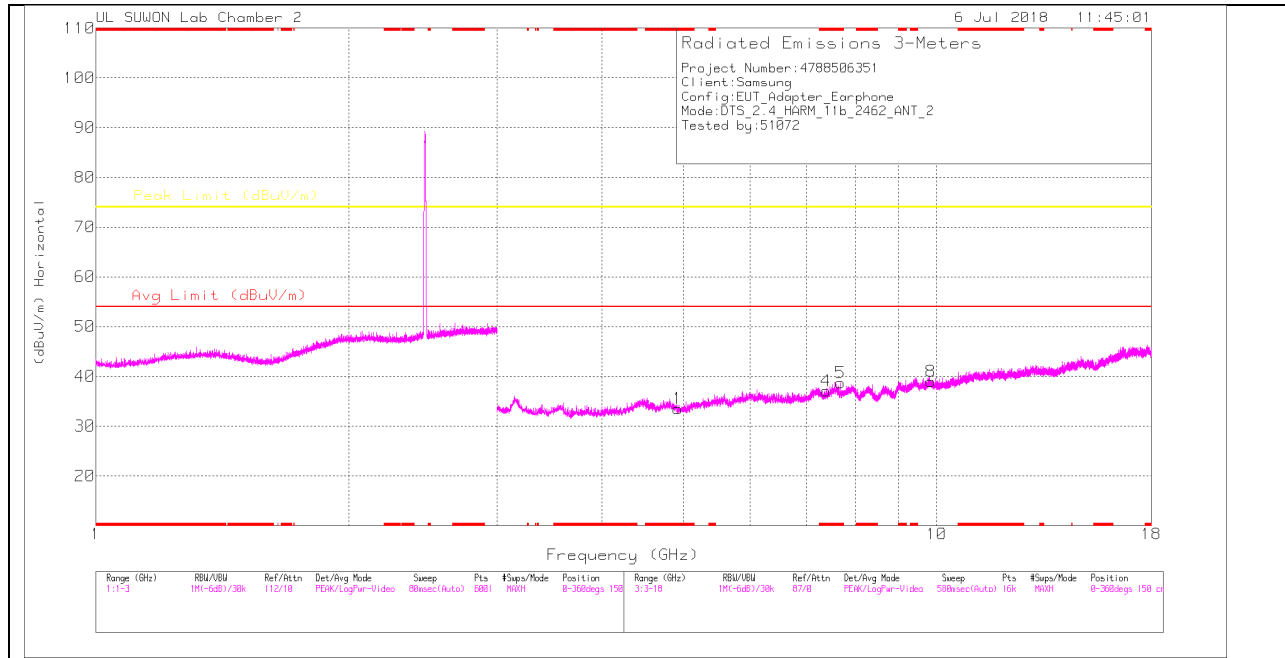
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

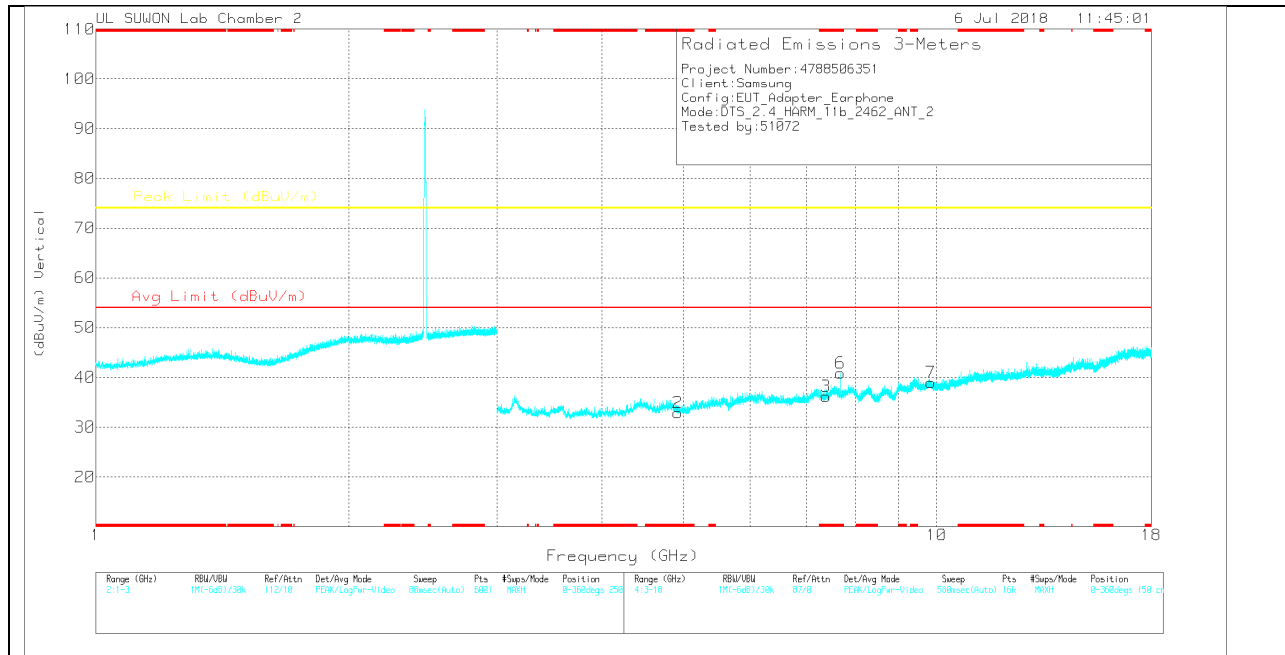
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.311	33.4	PK2	35.9	-22	0	47.3	-	-	74	-26.7	30	138	H
* 7.312	20.48	MAv1	35.9	-22	0	34.38	54	-19.62	-	-	30	138	H
* 7.68	31.26	PK2	35.7	-21.3	0	45.66	-	-	74	-28.34	9	281	H
* 7.68	19.35	MAv1	35.7	-21.3	0	33.75	54	-20.25	-	-	9	281	H
* 7.68	33.54	PK2	35.7	-21.3	0	47.94	-	-	74	-26.06	75	125	V
* 7.68	24.98	MAv1	35.7	-21.3	0	39.38	54	-14.62	-	-	75	125	V
* 7.68	34.29	PK2	35.7	-21.3	0	48.69	-	-	74	-25.31	78	116	V
* 7.68	25.98	MAv1	35.7	-21.3	0	40.38	54	-13.62	-	-	78	116	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	170531_3117[00168724]	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	* 4.925	24.48	PK		33.8	-24.7	0	33.58	-	-	74	-40.42	0-360	150	H
4	* 7.387	22.56	PK		35.9	-21.4	0	37.06	-	-	74	-36.94	0-360	250	H
5	* 7.68	24.32	PK		35.7	-21.3	0	38.72	-	-	74	-35.28	0-360	250	H
8	9.848	19.84	PK		37	-17.9	0	38.94	-	-	74	-35.06	0-360	250	H
2	* 4.925	23.84	PK		33.8	-24.7	0	32.94	-	-	74	-41.06	0-360	150	V
3	* 7.386	21.74	PK		35.9	-21.4	0	36.24	-	-	74	-37.76	0-360	150	V
6	* 7.68	26.51	PK		35.7	-21.3	0	40.91	-	-	74	-33.09	0-360	250	V
7	9.848	19.88	PK		37	-17.9	0	38.98	-	-	74	-35.02	0-360	150	V

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

Radiated Emissions

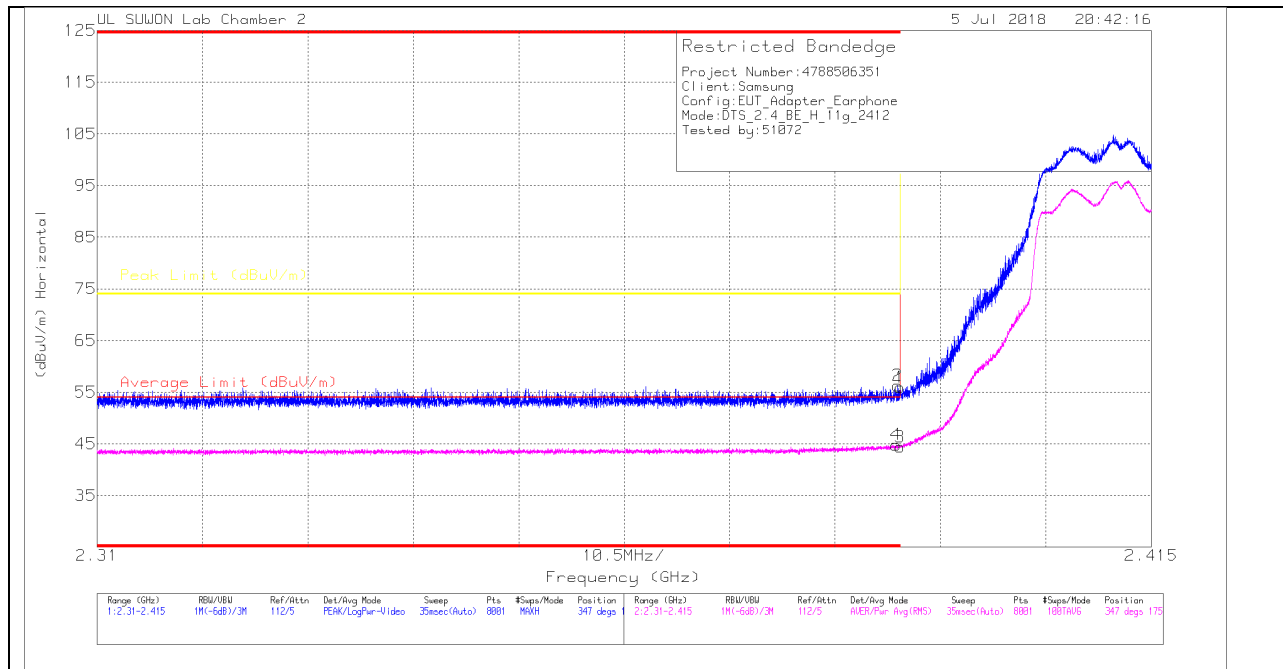
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.679	32.07	PK2		35.7	-21.3	0	46.47	-	-	74	-27.53	74	324	H
* 7.68	19.76	MAv1		35.7	-21.3	0	34.16	54	-19.84	-	-	74	324	H
* 7.68	34.73	PK2		35.7	-21.3	0	49.13	-	-	74	-24.87	198	129	V
* 7.68	27.56	MAv1		35.7	-21.3	0	41.96	54	-12.04	-	-	198	129	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

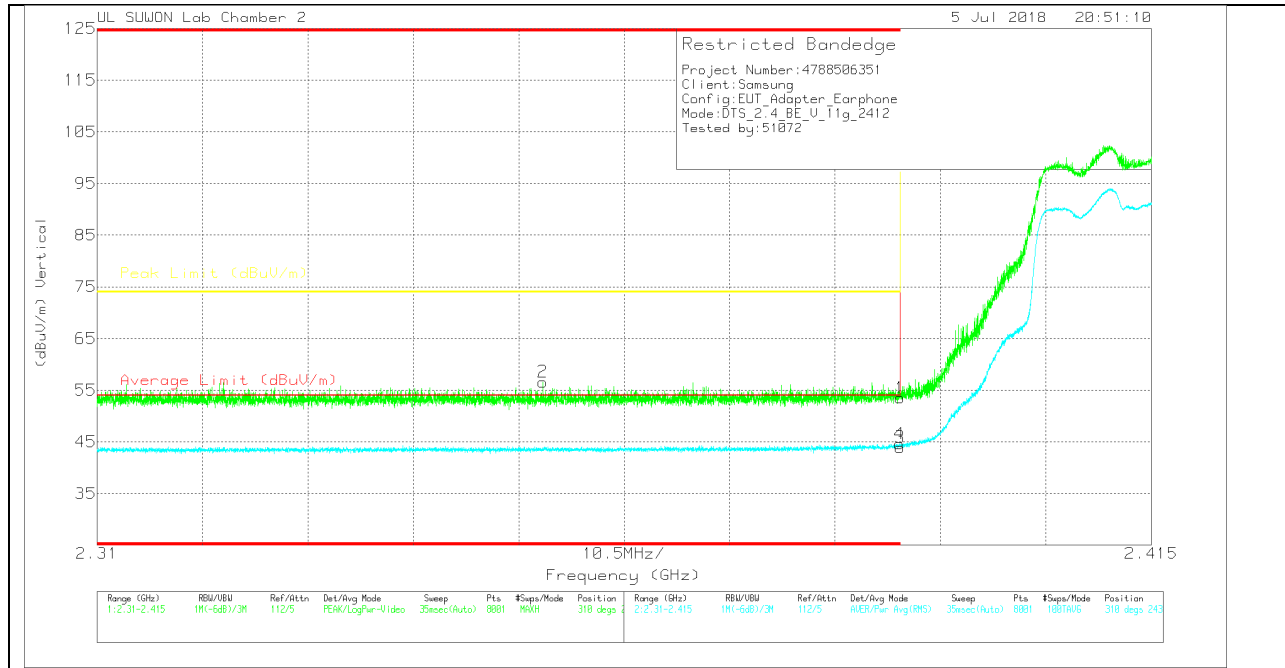
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.83	Pk	31.3	-18.2	0	55.93	-	-	74	-18.07	347	175	H
2	* 2.39	43.18	Pk	31.3	-18.2	0	56.28	-	-	74	-17.72	347	175	H
3	* 2.39	31.14	RMS	31.3	-18.2	.13	44.37	54	-9.63	-	-	347	175	H
4	* 2.39	31.6	RMS	31.3	-18.2	.13	44.83	54	-9.17	-	-	347	175	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	1705311_311700168724	10dB(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	40.4	Pk	31.3	-18.2	0	53.5	-	-	74	-20.5	310	243	V
2	* 2.354	43.71	Pk	31.2	-18.3	0	56.61	-	-	74	-17.39	310	243	V
3	* 2.39	30.71	RMS	31.3	-18.2	.13	43.94	54	-10.06	-	-	310	243	V
4	* 2.39	31.41	RMS	31.3	-18.2	.13	44.64	54	-9.36	-	-	310	243	V

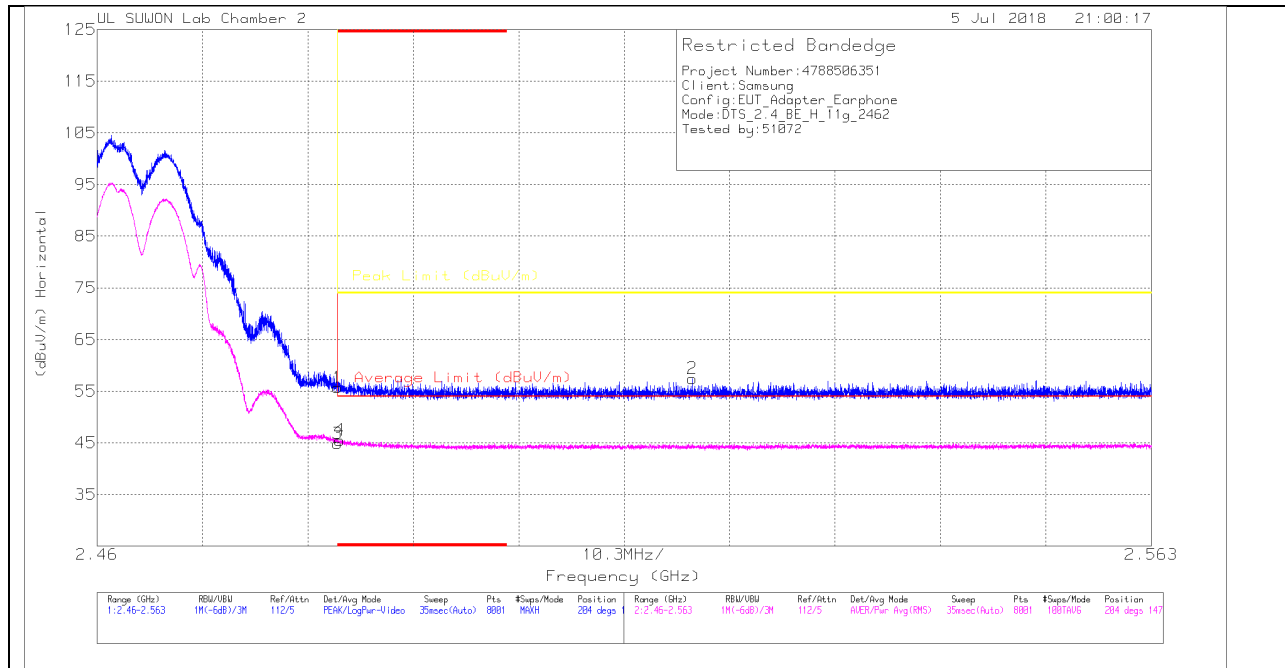
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



**HORIZONTAL DATA**

Trace Markers

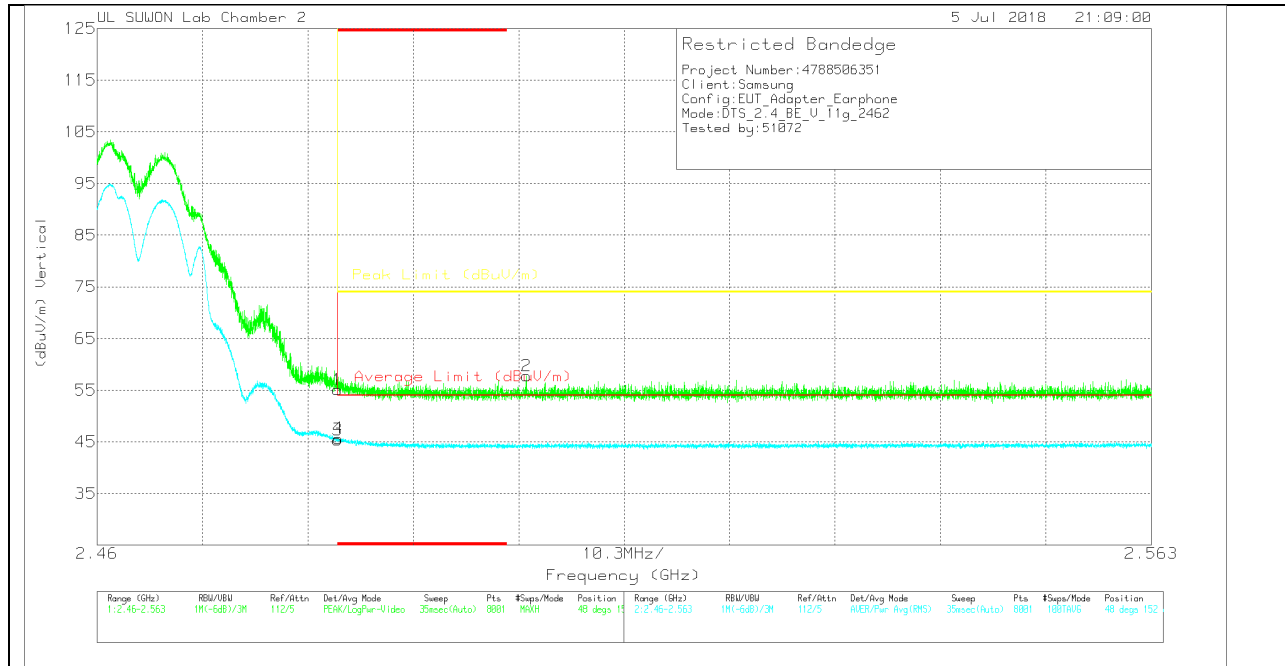
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.12	Pk	31.6	-18	0	55.72	-	-	74	-18.28	204	147	H
2	2.518	43.85	Pk	31.6	-18	0	57.45	-	-	74	-16.55	204	147	H
3	* 2.484	31.13	RMS	31.6	-18	.13	44.86	54	-9.14	-	-	204	147	H
4	* 2.484	31.81	RMS	31.6	-18	.13	45.54	54	-8.46	-	-	204	147	H

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

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

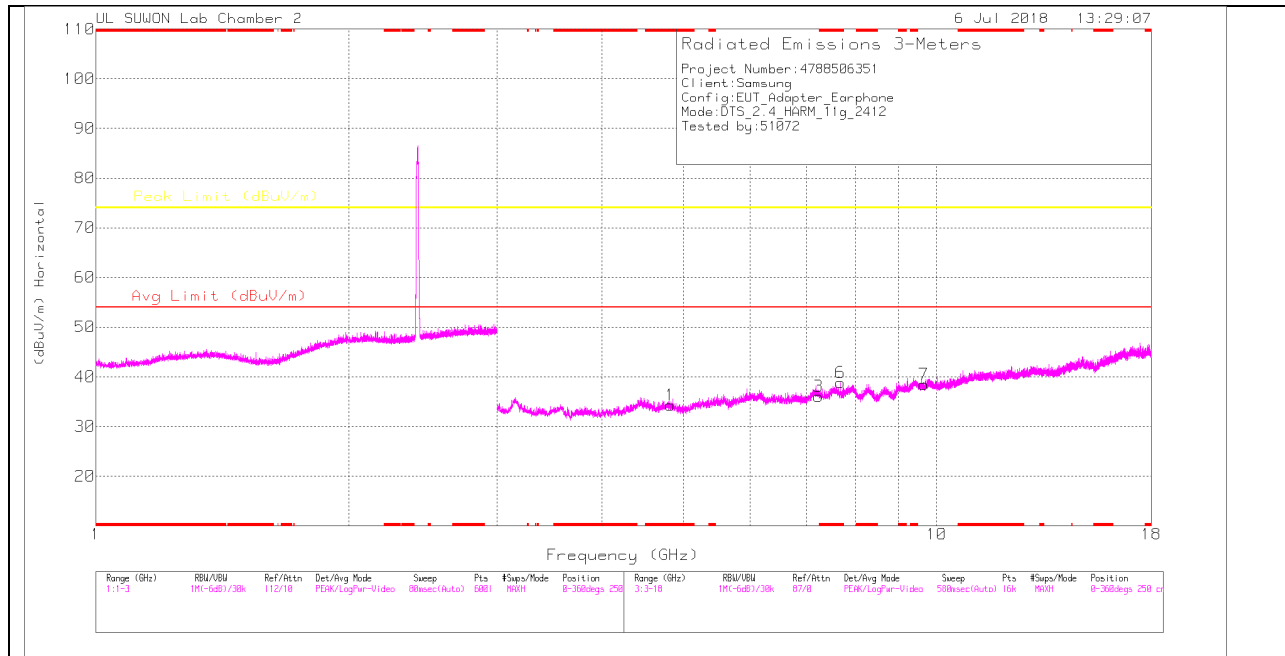
**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_311700168724	10dB(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	41.51	Pk		31.6	-18	55.11	-	-	74	-18.89	48	152	V
2	2.502	44.17	Pk		31.6	-18	57.77	-	-	74	-16.23	48	152	V
3	* 2.484	31.68	RMS		31.6	-18	45.41	54	-8.59	-	-	48	152	V
4	* 2.484	31.94	RMS		31.6	-18	45.67	54	-8.33	-	-	48	152	V

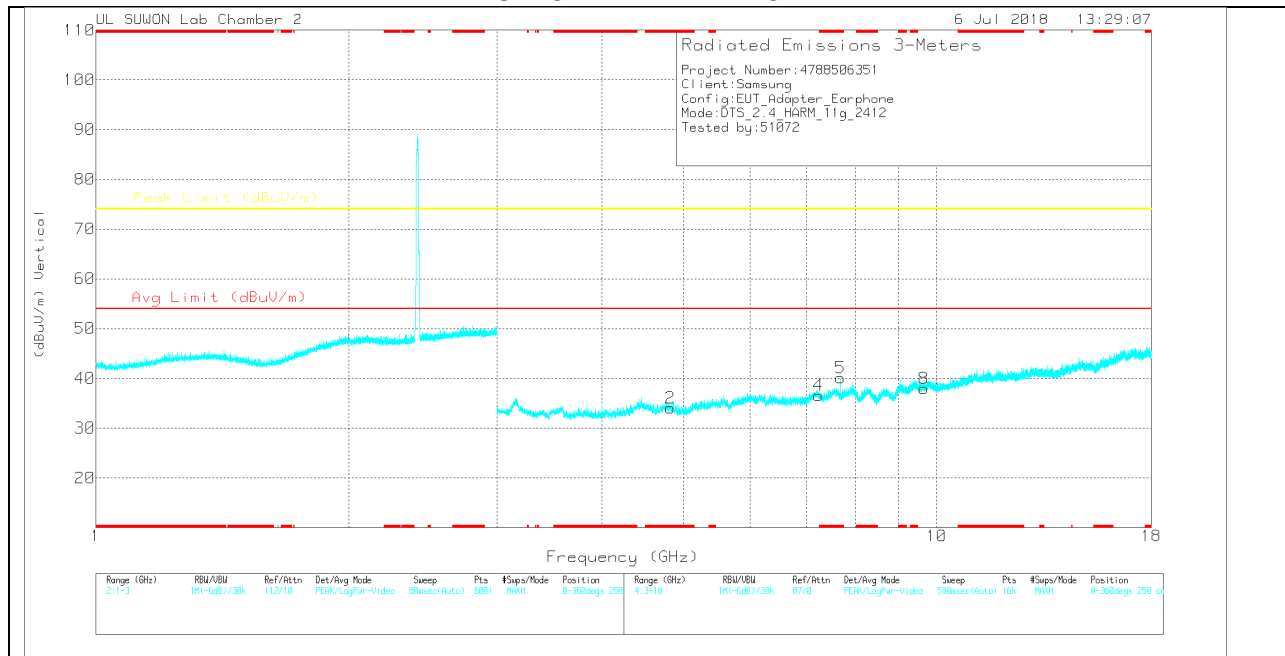
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

## 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	170531_3117[00168724]	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	24.83	PK		33.8	-24.3	0	34.33	-	-	74	-39.67	0-360	150	H
3	7.236	22.15	PK		35.9	-22	0	36.05	-	-	74	-37.95	0-360	150	H
6	* 7.68	24.41	PK		35.7	-21.3	0	38.81	-	-	74	-35.19	0-360	250	H
7	9.649	19.92	PK		36.8	-18.3	0	38.42	-	-	74	-35.58	0-360	250	H
2	* 4.824	24.51	PK		33.8	-24.3	0	34.01	-	-	74	-39.99	0-360	150	V
4	7.236	22.67	PK		35.9	-22	0	36.57	-	-	74	-37.43	0-360	150	V
5	* 7.68	25.73	PK		35.7	-21.3	0	40.13	-	-	74	-33.87	0-360	250	V
8	9.649	19.45	PK		36.8	-18.3	0	37.95	-	-	74	-36.05	0-360	250	V

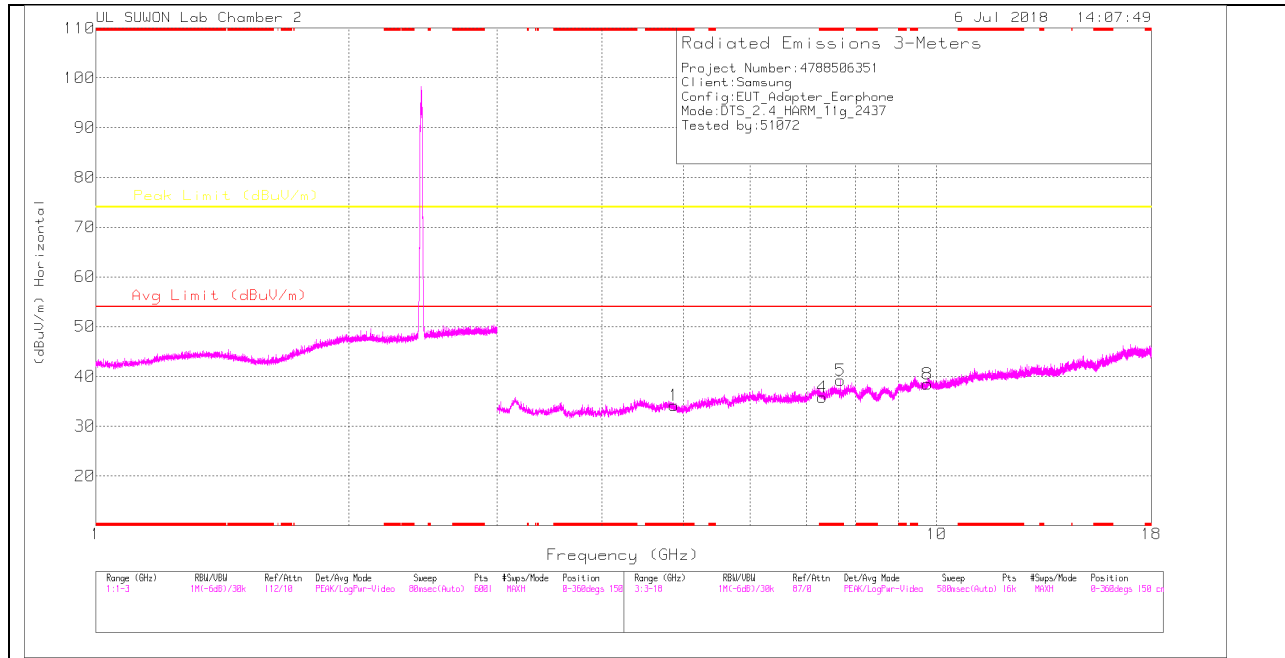
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

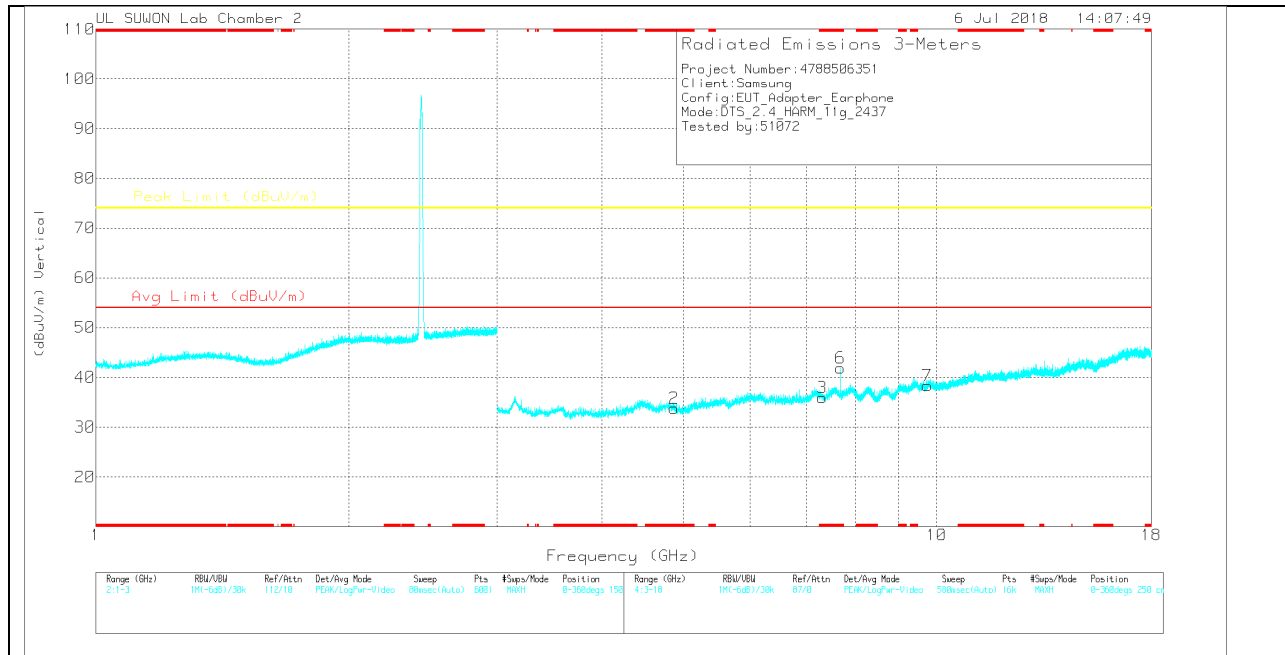
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[db]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.68	31.8	PK2		35.7	-21.3	0	46.2	-	-	74	-27.8	210	156	H
* 7.68	20.97	MAv1		35.7	-21.3	.13	35.5	54	-18.5	-	-	210	156	H
* 7.68	34.32	PK2		35.7	-21.3	0	48.72	-	-	74	-25.28	166	176	V
* 7.68	26.18	MAv1		35.7	-21.3	.13	40.71	54	-13.29	-	-	166	176	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	170531_3117[00168724]	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	* 4.875	24.84	PK		33.8	-24.5	0	34.14	-	-	74	-39.86	0-360	250	H
4	* 7.311	21.9	PK		35.9	-22	0	35.8	-	-	74	-38.2	0-360	250	H
5	* 7.68	24.81	PK		35.7	-21.3	0	39.21	-	-	74	-34.79	0-360	150	H
8	9.749	19.72	PK		36.9	-18.1	0	38.52	-	-	74	-35.48	0-360	250	H
2	* 4.875	24.52	PK		33.8	-24.5	0	33.82	-	-	74	-40.18	0-360	150	V
3	* 7.311	22.06	PK		35.9	-22	0	35.96	-	-	74	-38.04	0-360	250	V
6	* 7.68	27.43	PK		35.7	-21.3	0	41.83	-	-	74	-32.17	0-360	150	V
7	9.749	19.53	PK		36.9	-18.1	0	38.33	-	-	74	-35.67	0-360	250	V

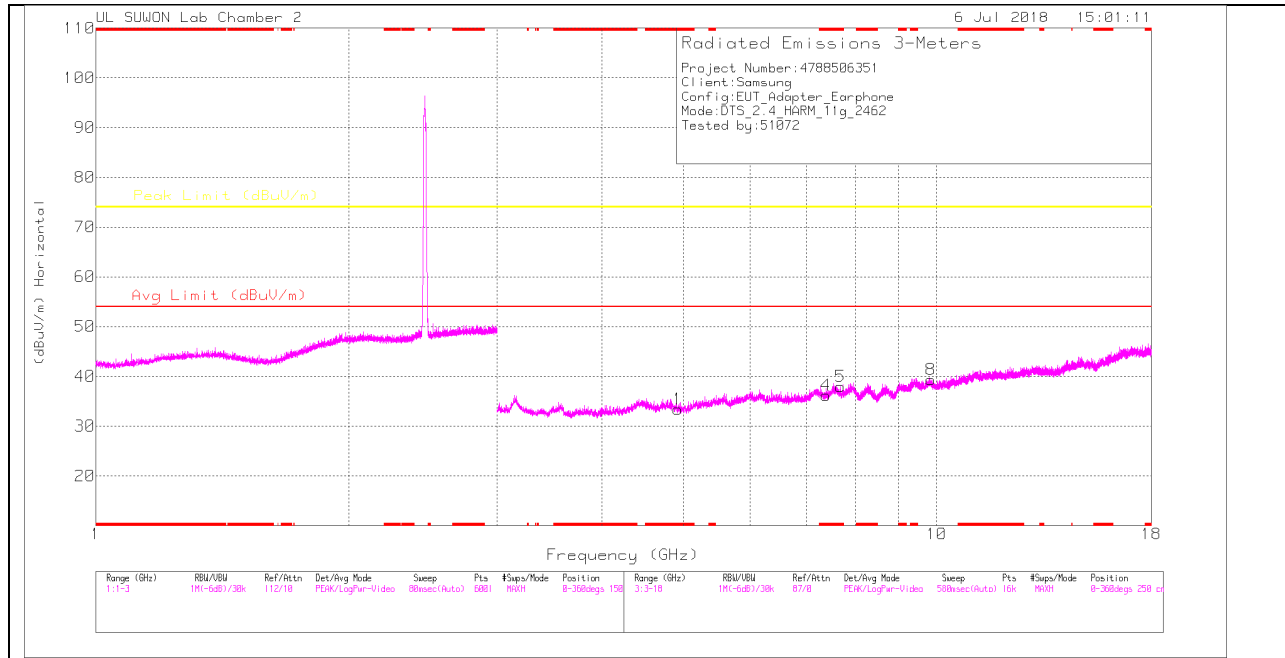
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Avg - Video bandwidth < Resolution bandwidth

Radiated Emissions

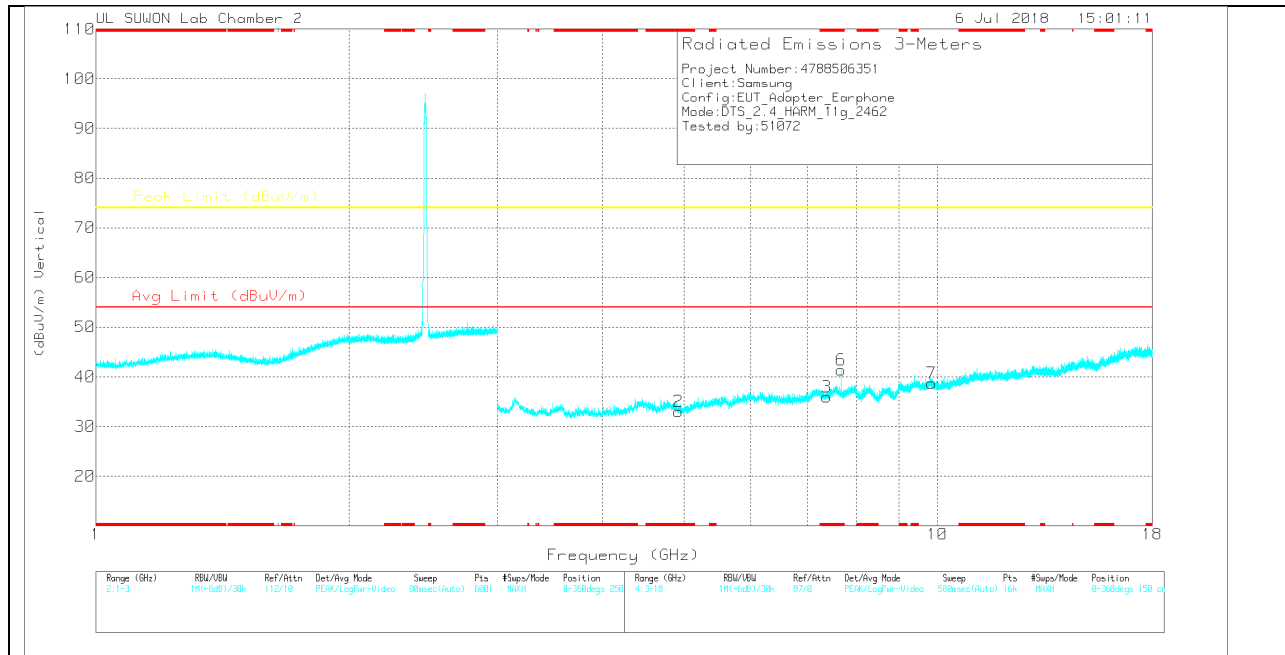
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.678	31.46	PK2		35.7	-21.3	0	45.86	-	-	74	-28.14	162	241	H
* 7.68	19.83	MAv1		35.7	-21.3	.13	34.36	54	-19.64	-	162	241	H	
* 7.68	33.14	PK2		35.7	-21.3	0	47.54	-	-	74	-26.46	168	173	V
* 7.68	24.44	MAv1		35.7	-21.3	.13	38.97	54	-15.03	-	168	173	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	170531_3117[00168724]	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	* 4.925	24.32	PK		33.8	-24.7	0	33.42	-	-	74	-40.58	0-360	250	H
4	* 7.386	21.69	PK		35.9	-21.4	0	36.19	-	-	74	-37.81	0-360	150	H
5	* 7.68	23.6	PK		35.7	-21.3	0	38	-	-	74	-36	0-360	150	H
8	9.849	20.24	PK		37	-17.9	0	39.34	-	-	74	-34.66	0-360	250	H
2	* 4.925	23.91	PK		33.8	-24.7	0	33.01	-	-	74	-40.99	0-360	250	V
3	* 7.386	21.48	PK		35.9	-21.4	0	35.98	-	-	74	-38.02	0-360	250	V
6	* 7.68	27.03	PK		35.7	-21.3	0	41.43	-	-	74	-32.57	0-360	150	V
7	9.848	19.6	PK		37	-17.9	0	38.7	-	-	74	-35.3	0-360	250	V

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

Radiated Emissions

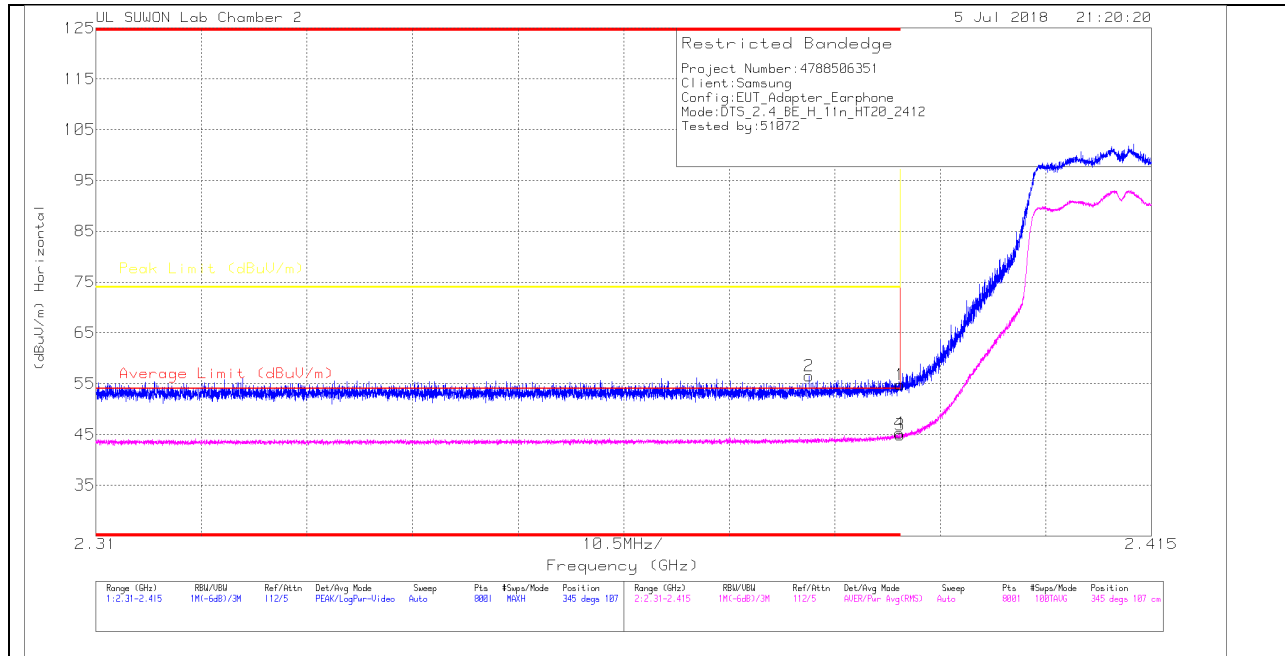
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.681	31.73	PK2		35.7	-21.3	0	46.13	-	-	74	-27.87	222	156	H
* 7.68	21.37	MAv1		35.7	-21.3	0	35.77	54	-18.23	-	-	222	156	H
* 7.68	34.4	PK2		35.7	-21.3	0	48.8	-	-	74	-25.2	201	140	V
* 7.68	26.79	MAv1		35.7	-21.3	0	41.19	54	-12.81	-	-	201	140	V

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

**11.2.4. TX ABOVE 1 GHz 802.11n HT20 2TX CDD MODE IN THE 2.4 GHz BAND**

**RESTRICTED BANDEDGE (LOW CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



**HORIZONTAL DATA**

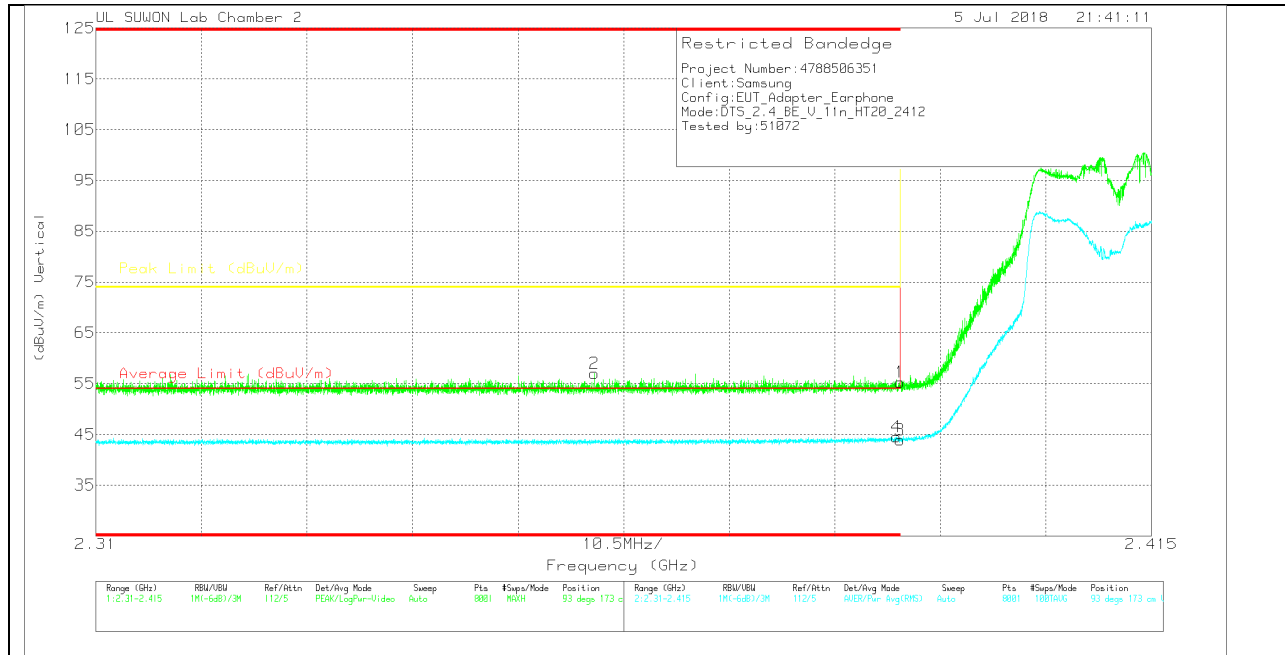
**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_311700168724	10dB(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	41.69	Pk	31.3	-18.2	0	54.79	-	-	74	-19.21	345	107	H
2	* 2.381	43.52	Pk	31.3	-18.3	0	56.52	-	-	74	-17.48	345	107	H
3	* 2.39	31.62	RMS	31.3	-18.2	-15	44.87	54	-9.13	-	-	345	107	H
4	* 2.39	32.02	RMS	31.3	-18.2	-15	45.27	54	-8.73	-	-	345	107	H

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

Pk - Peak detector

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_311700168724	10dB(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	42.14	Pk	31.3	-18.2	0	55.24	-	-	74	-18.76	93	173	V
2	* 2.36	44.14	Pk	31.2	-18.3	0	57.04	-	-	74	-16.96	93	173	V
3	* 2.39	30.66	RMS	31.3	-18.2	.15	43.91	54	-10.09	-	-	93	173	V
4	* 2.39	31.22	RMS	31.3	-18.2	.15	44.47	54	-9.53	-	-	93	173	V

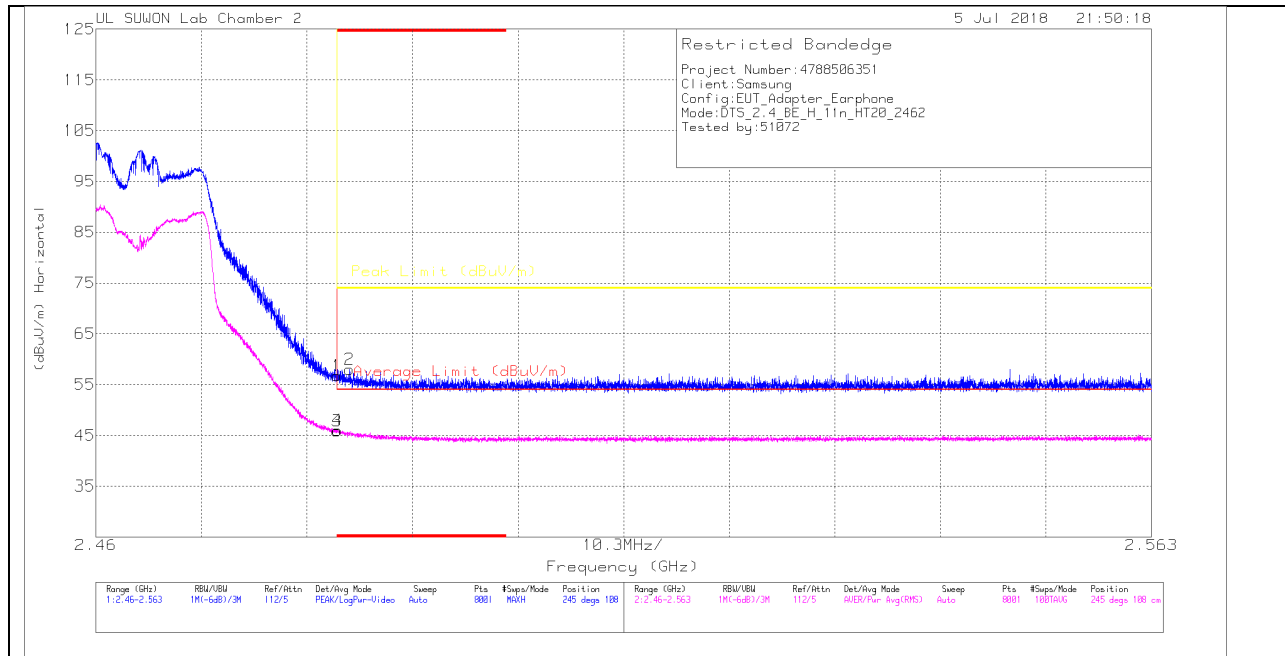
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



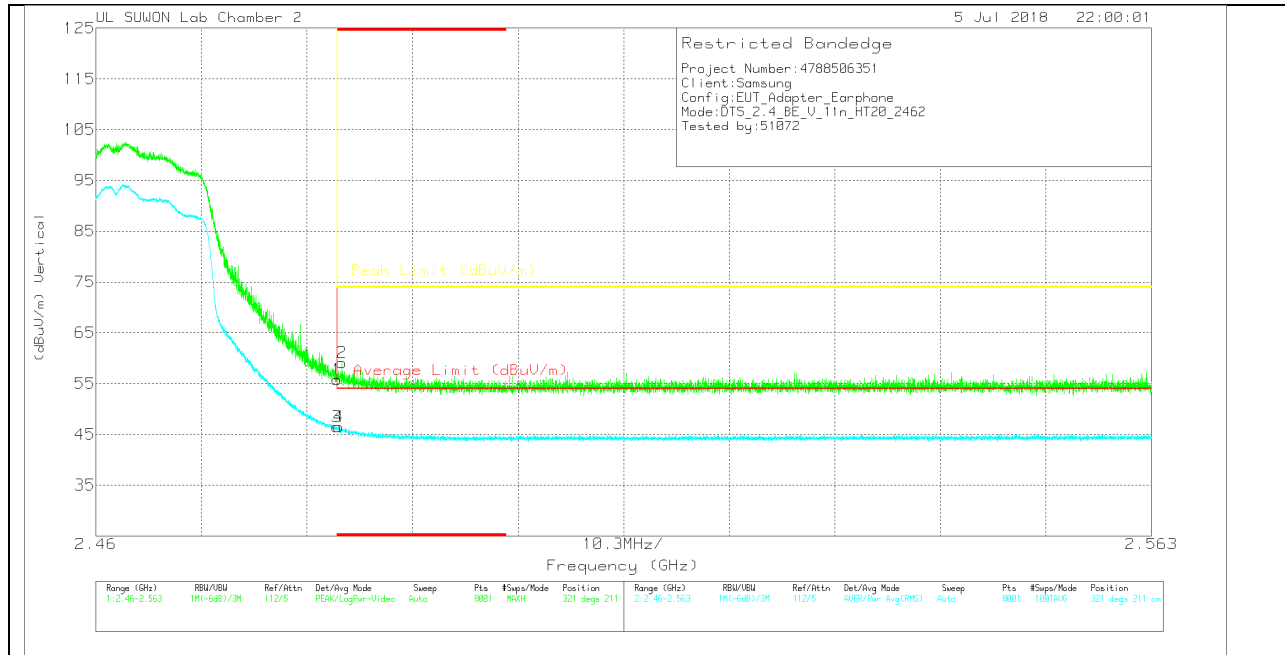
**HORIZONTAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(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	43.14	Pk	31.6	-18	0	56.74	-	-	74	-17.26	245	108	H
2	* 2.485	44.45	Pk	31.6	-18	0	58.05	-	-	74	-15.95	245	108	H
3	* 2.484	32.15	RMS	31.6	-18	.15	45.9	54	-8.1	-	-	245	108	H
4	* 2.484	32.28	RMS	31.6	-18	.15	46.03	54	-7.97	-	-	245	108	H

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

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

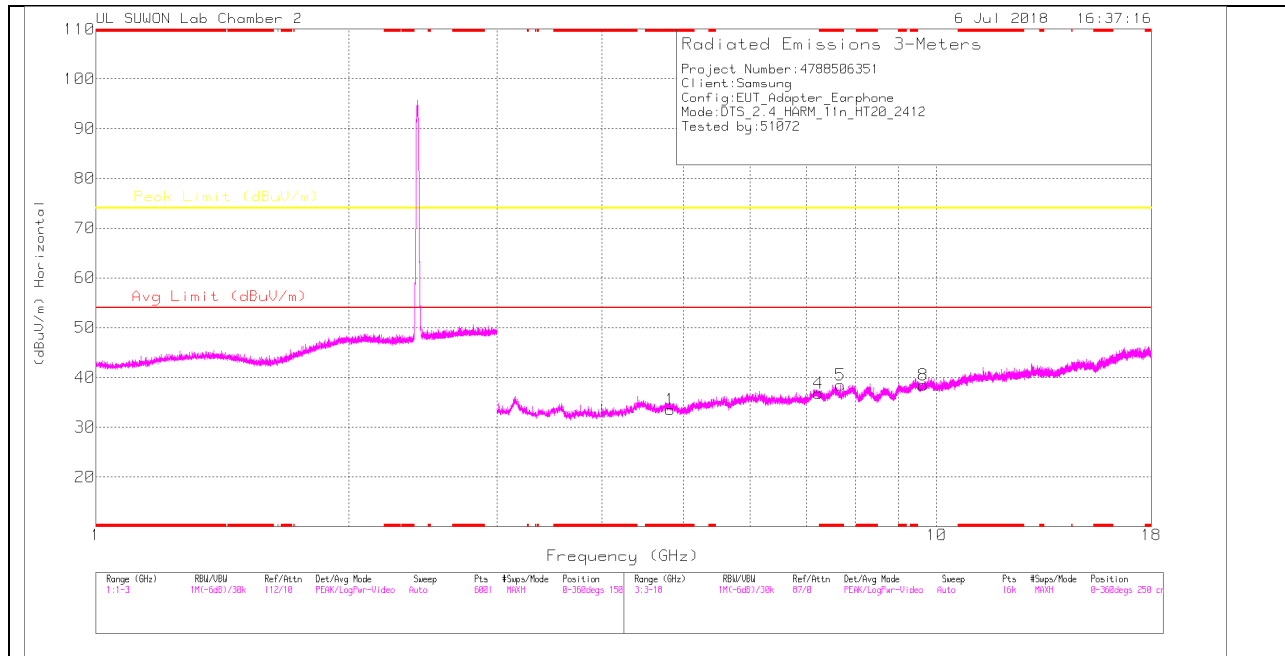
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117(00168724)	10dB(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.12	Pk	31.6	-18	0	55.72	-	-	74	-18.28	321	211	V
2	* 2.484	45.5	Pk	31.6	-18	0	59.1	-	-	74	-14.9	321	211	V
3	* 2.484	32.74	RMS	31.6	-18	.15	46.49	54	-7.51	-	-	321	211	V
4	* 2.484	32.71	RMS	31.6	-18	.15	46.46	54	-7.54	-	-	321	211	V

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

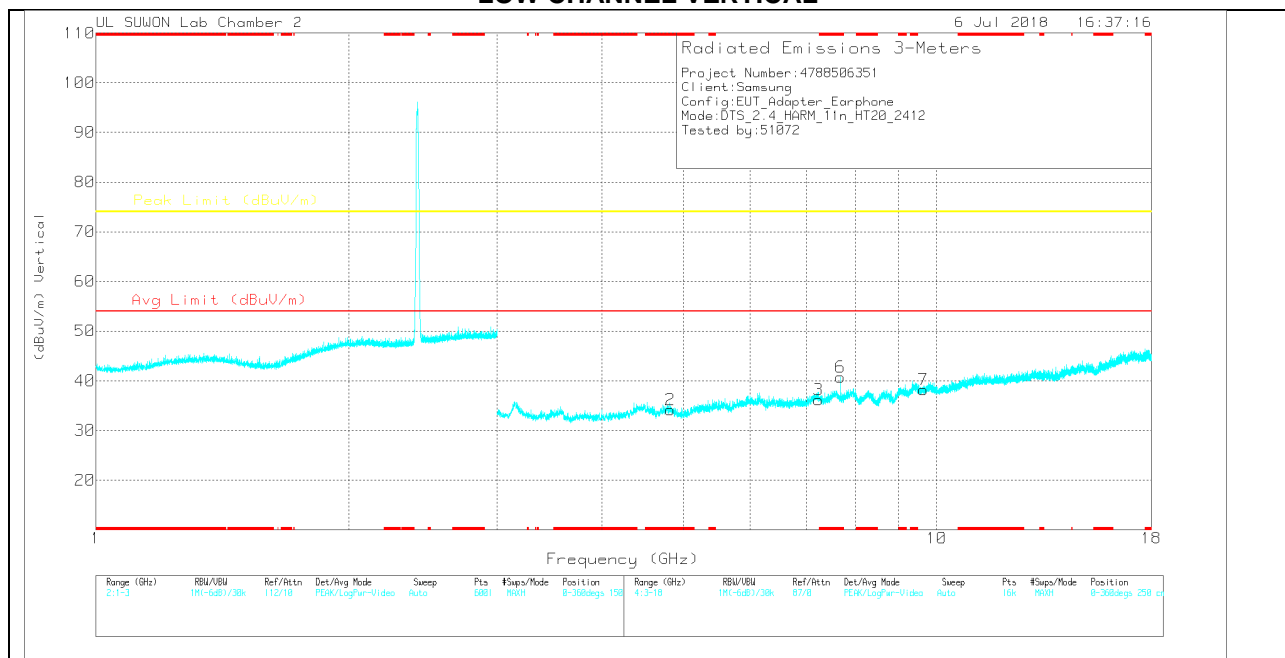
Pk - Peak detector

## 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	170531_3117[00168724]	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	24.03	PK		33.8	-24.3	0	33.53	-	-	74	-40.47	0-360	250	H
4	7.236	22.98	PK		35.9	-22	0	36.88	-	-	74	-37.12	0-360	150	H
5	* 7.68	24.07	PK		35.7	-21.3	0	38.47	-	-	74	-35.53	0-360	150	H
8	9.648	19.91	PK		36.8	-18.3	0	38.41	-	-	74	-35.59	0-360	150	H
2	* 4.824	24.69	PK		33.8	-24.3	0	34.19	-	-	74	-39.81	0-360	150	V
3	7.236	22.33	PK		35.9	-22	0	36.23	-	-	74	-37.77	0-360	150	V
6	* 7.68	26.36	PK		35.7	-21.3	0	40.76	-	-	74	-33.24	0-360	150	V
7	9.648	19.7	PK		36.8	-18.3	0	38.2	-	-	74	-35.8	0-360	150	V

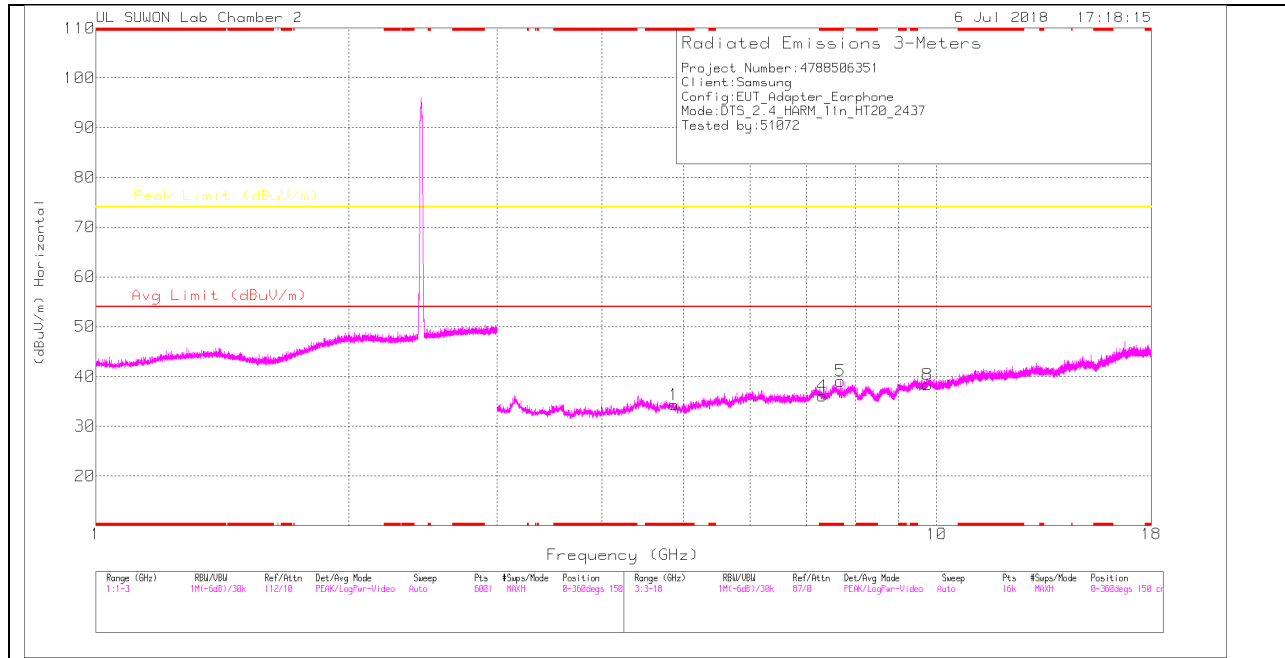
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

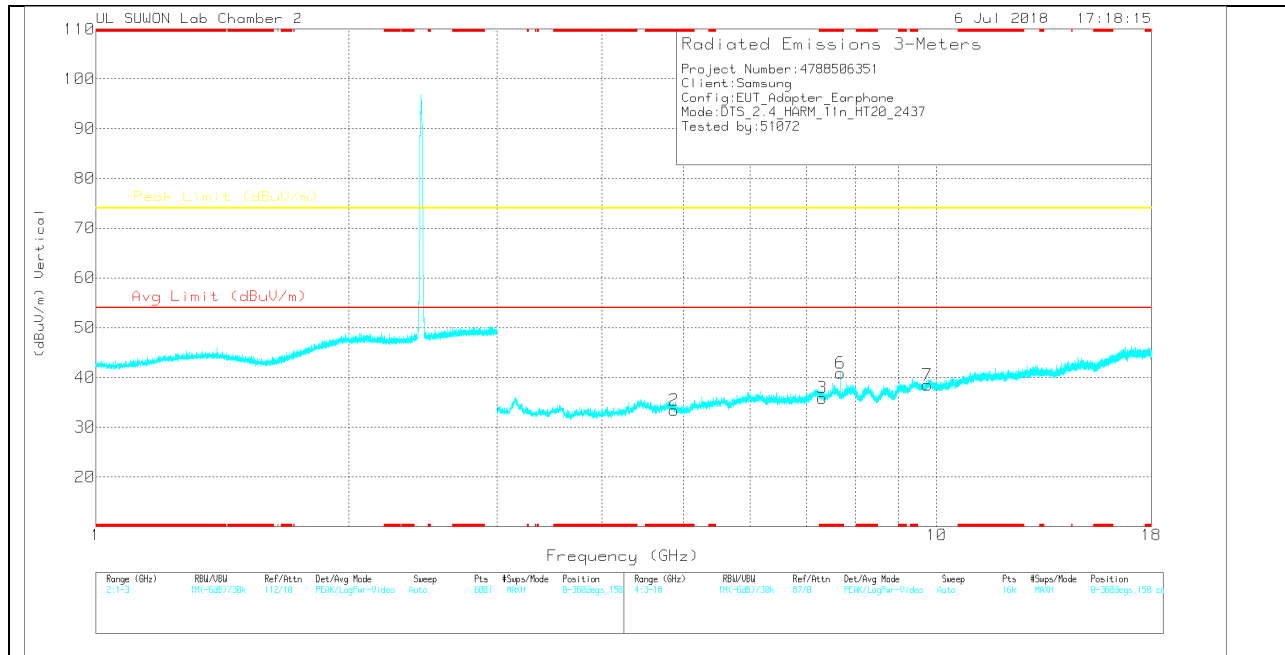
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.678	31.6	PK2		35.7	-21.3	0	46	-	-	74	-28	133	153	H
* 7.679	19.24	MAv1		35.7	-21.3	0	33.64	54	-20.36	-	-	133	153	H
* 7.68	32.01	PK2		35.7	-21.3	0	46.41	-	-	74	-27.59	242	102	V
* 7.68	20.94	MAv1		35.7	-21.3	0	35.34	54	-18.66	-	-	242	102	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	170531_3117[00168724]	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	24.98	PK		33.8	-24.5	0	34.28	-	-	74	-39.72	0-360	250	H
4	* 7.311	22.2	PK		35.9	-22	0	36.1	-	-	74	-37.9	0-360	150	H
5	* 7.68	24.64	PK		35.7	-21.3	0	39.04	-	-	74	-34.96	0-360	150	H
8	9.749	19.59	PK		36.9	-18.1	0	38.39	-	-	74	-35.61	0-360	250	H
2	* 4.874	24.13	PK		33.8	-24.5	0	33.43	-	-	74	-40.57	0-360	250	V
3	* 7.311	21.98	PK		35.9	-22	0	35.88	-	-	74	-38.12	0-360	250	V
6	* 7.68	26.47	PK		35.7	-21.3	0	40.87	-	-	74	-33.13	0-360	150	V
7	9.749	19.67	PK		36.9	-18.1	0	38.47	-	-	74	-35.53	0-360	250	V

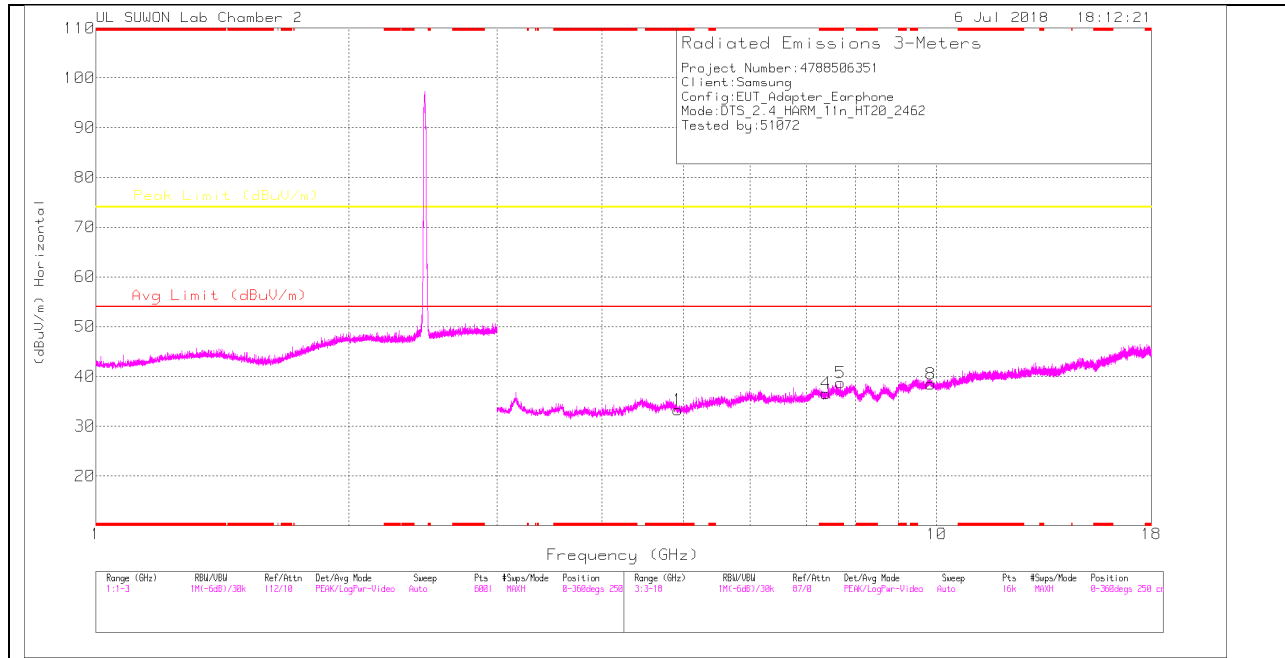
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK – Peak Detector

Radiated Emissions

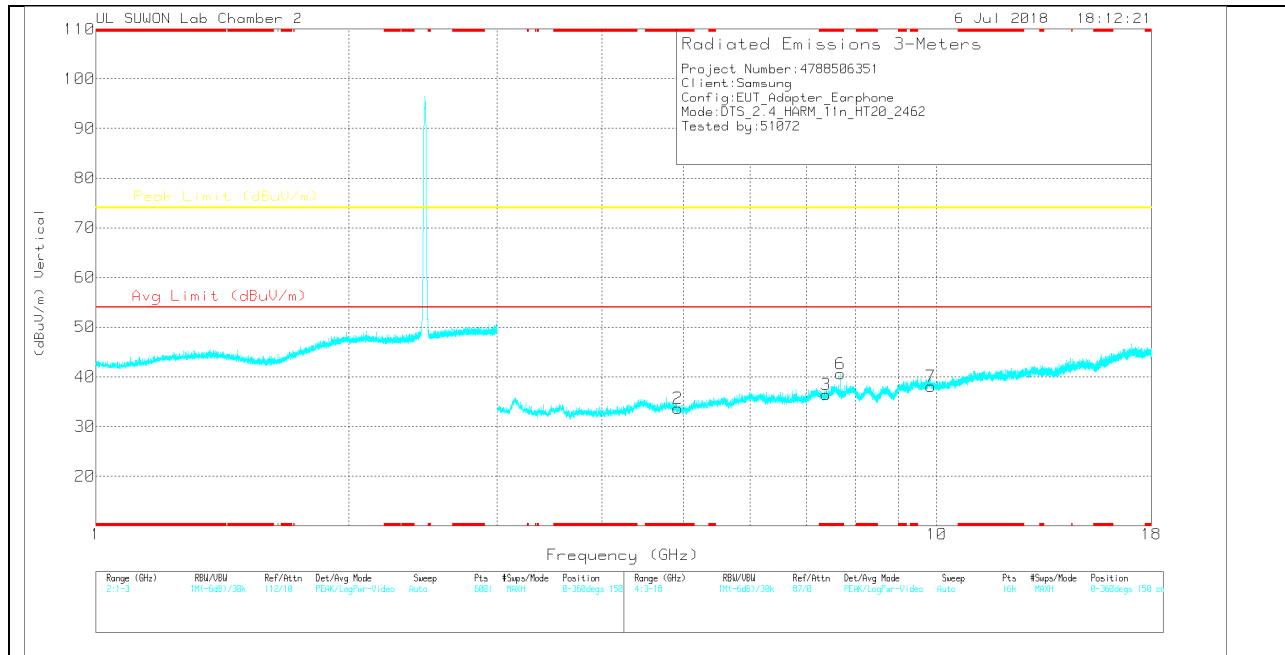
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.682	31.54	PK2		35.7	-21.3	0	45.94	-	-	74	-28.06	315	317	H
* 7.68	19.75	MAv1		35.7	-21.3	0	34.15	54	-19.85	-	-	315	317	H
* 7.68	34.58	PK2		35.7	-21.3	0	48.98	-	-	74	-25.02	201	150	V
* 7.68	26.69	MAv1		35.7	-21.3	0	41.09	54	-12.91	-	-	201	150	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	170531_3117[00168724]	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	* 4.925	24.2	PK		33.8	-24.7	0	33.3	-	-	74	-40.7	0-360	250	H
4	* 7.386	22.03	PK		35.9	-21.4	0	36.53	-	-	74	-37.47	0-360	250	H
5	* 7.68	24.37	PK		35.7	-21.3	0	38.77	-	-	74	-35.23	0-360	250	H
8	9.848	19.38	PK		37	-17.9	0	38.48	-	-	74	-35.52	0-360	250	H
2	* 4.925	24.62	PK		33.8	-24.7	0	33.72	-	-	74	-40.28	0-360	150	V
3	* 7.386	21.93	PK		35.9	-21.4	0	36.43	-	-	74	-37.57	0-360	150	V
6	* 7.68	26.22	PK		35.7	-21.3	0	40.62	-	-	74	-33.38	0-360	150	V
7	9.848	18.94	PK		37	-17.9	0	38.04	-	-	74	-35.96	0-360	150	V

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

Radiated Emissions

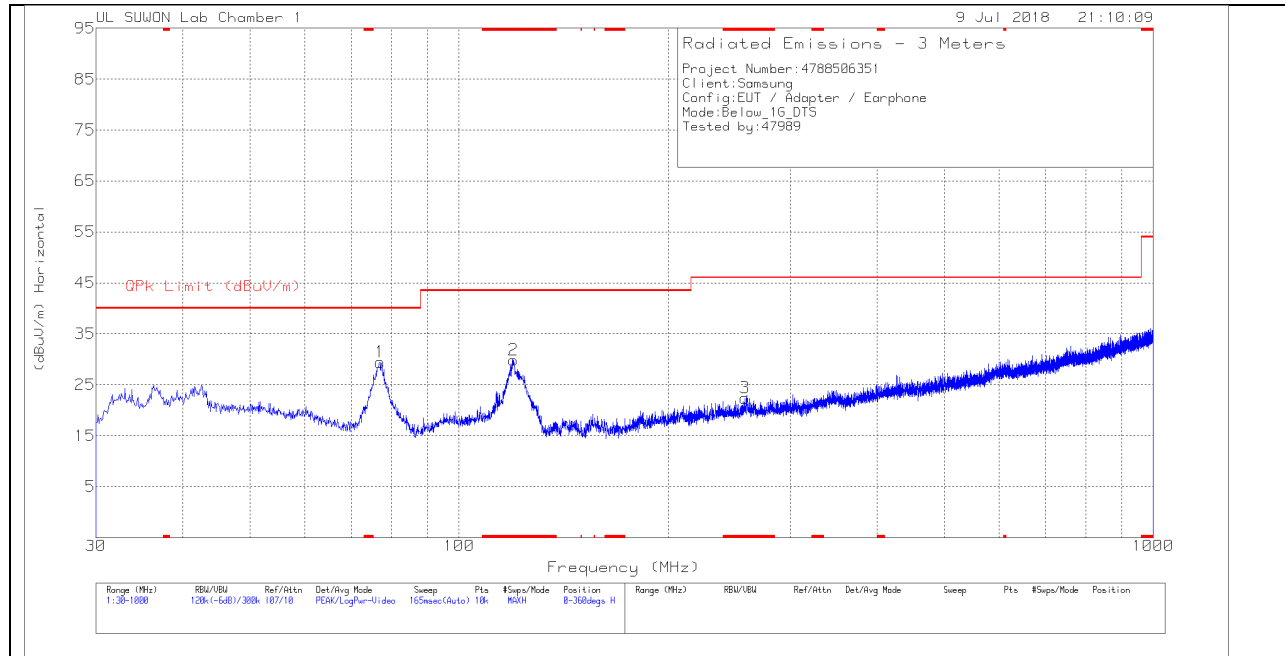
Frequency (GHz)	Meter Reading (dBuV)	Det	170531_3117[00168724]	3GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity	
* 7.68	32.03	PK2		35.7	-21.3	0	46.43	-	-	74	-27.57	218	120	H
* 7.68	20.84	MAv1		35.7	-21.3	.15	35.39	54	-18.61	-	-	218	120	H
* 7.68	33.98	PK2		35.7	-21.3	0	48.38	-	-	74	-25.62	203	150	V
* 7.68	25.66	MAv1		35.7	-21.3	.15	40.21	54	-13.79	-	-	203	150	V

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

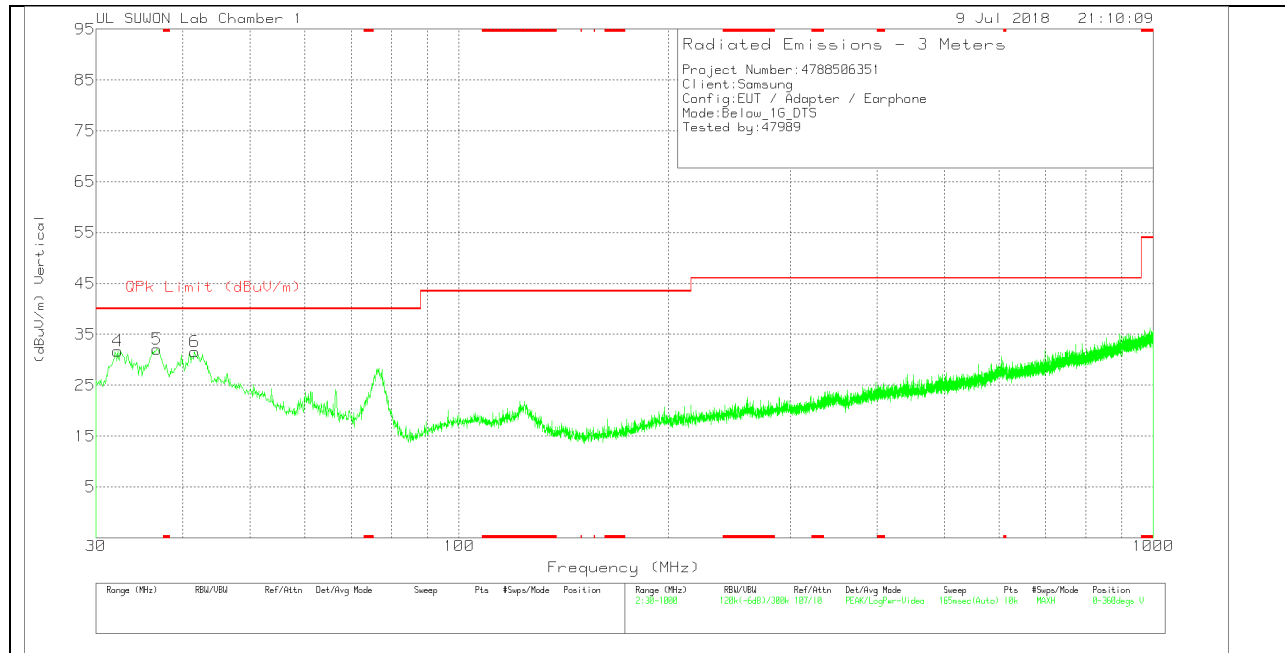
### 11.3. WORST-CASE BELOW 1 GHz

#### SPURIOUS EMISSIONS 30 TO 1000 MHz

#### HORIZONTAL PLOT



#### VERTICAL PLOT



**Below 1G Data**

Trace Markers

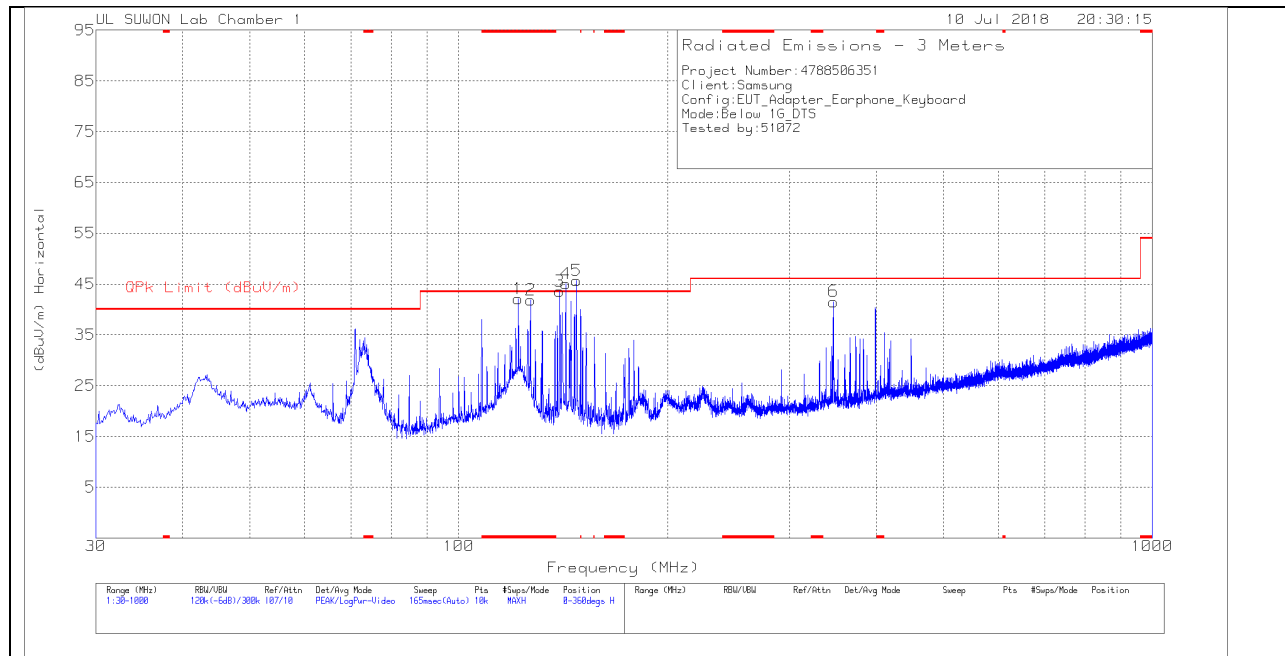
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	750_20170831	30-1000MHz[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	76.948	45.02	Pk	13.1	-28.7	29.42	40	-10.58	0-360	300	H
2	* 119.822	42.08	Pk	15.9	-28.1	29.88	43.52	-13.64	0-360	200	H
3	* 257.95	30.97	Pk	18.4	-27	22.37	46.02	-23.65	0-360	100	H
4	32.231	45.06	Pk	16.2	-29.5	31.76	40	-8.24	0-360	100	V
5	36.693	44.83	Pk	17.3	-30	32.13	40	-7.87	0-360	100	V
6	41.64	41.95	Pk	19	-29.4	31.55	40	-8.45	0-360	100	V

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

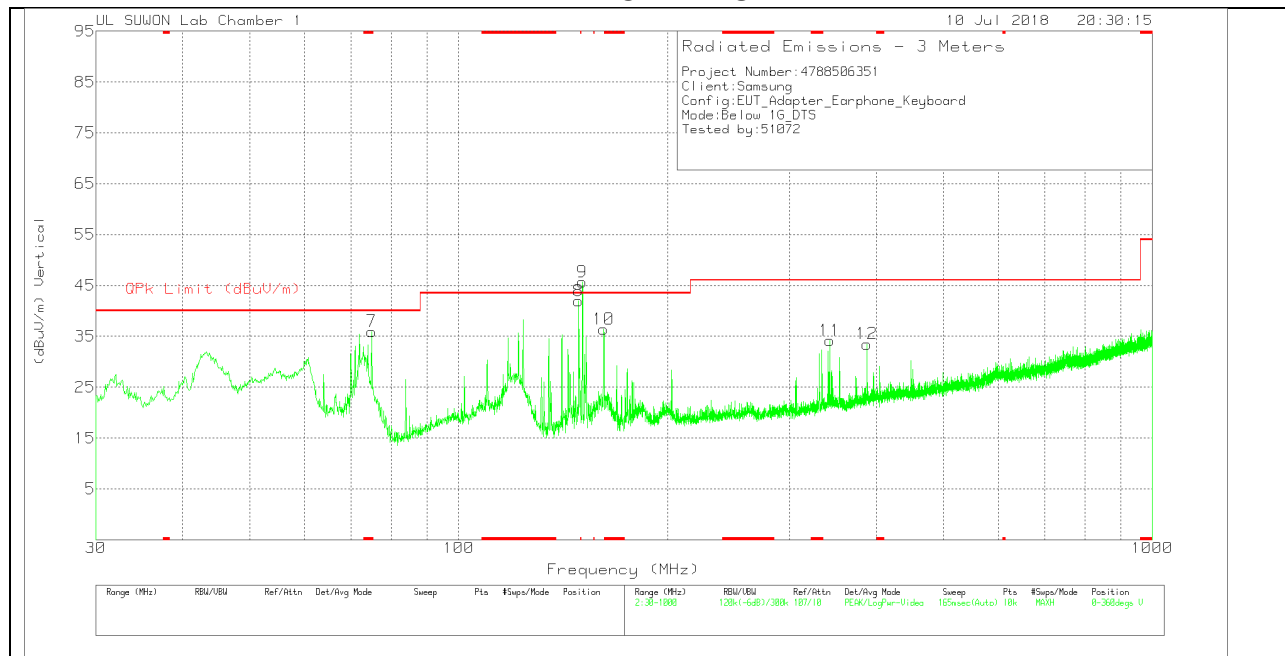
Pk - Peak detector

**SPURIOUS EMISSIONS 30 TO 1000 MHz(EQUIPPED WITH KEYBOARD)**

**HORIZONTAL PLOT**



**VERTICAL PLOT**



**Below 1G Data**

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	750_20170831	30-1000MHz[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 121.956	54.79	Pk	15.5	-28.2	42.09	43.52	-1.43	0-360	200	H
2	* 127	55.06	Pk	14.8	-28	41.86	43.52	-1.66	0-360	400	H
3	139.901	57.7	Pk	13.8	-27.9	43.6	43.52	.08	0-360	100	H
4	142.908	59.21	Pk	13.7	-27.9	45.01	43.52	1.49	0-360	200	H
5	147.855	59.9	Pk	13.7	-27.9	45.7	43.52	2.18	0-360	100	H
6	346.899	47.44	Pk	20.8	-26.7	41.54	46.02	-4.48	0-360	100	H
7	* 74.911	51.57	Pk	13.4	-29	35.97	40	-4.03	0-360	200	V
8	148.825	56.14	Pk	13.7	-27.9	41.94	43.52	-1.58	0-360	100	V
9	150.862	59.75	Pk	13.8	-27.9	45.65	43.52	2.13	0-360	100	V
10	161.92	49.85	Pk	14.4	-27.8	36.45	43.52	-7.07	0-360	200	V
11	342.728	40.22	Pk	20.7	-26.7	34.22	46.02	-11.8	0-360	100	V
12	387.736	38.6	Pk	21.2	-26.3	33.5	46.02	-12.52	0-360	100	V

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

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	750_20170831	30-1000MHz[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 121.9979	36.82	Qp	15.5	-28.2	24.12	43.52	-19.4	135	162	H
* 127	38.35	Qp	14.8	-28	25.15	43.52	-18.37	9	211	H
139.901	44.17	Qp	13.8	-27.9	30.07	43.52	-13.45	48	264	H
142.908	45.71	Qp	13.7	-27.9	31.51	43.52	-12.01	34	144	H
147.855	41.91	Qp	13.7	-27.9	27.71	43.52	-15.81	21	203	H
346.899	26.7	Qp	20.8	-26.7	20.8	46.02	-25.22	270	105	H
148.585	33.08	Qp	13.7	-27.9	18.88	43.52	-24.64	278	101	V

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

## 12. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)  
IC RSS-GEN Clause 8.8

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

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

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

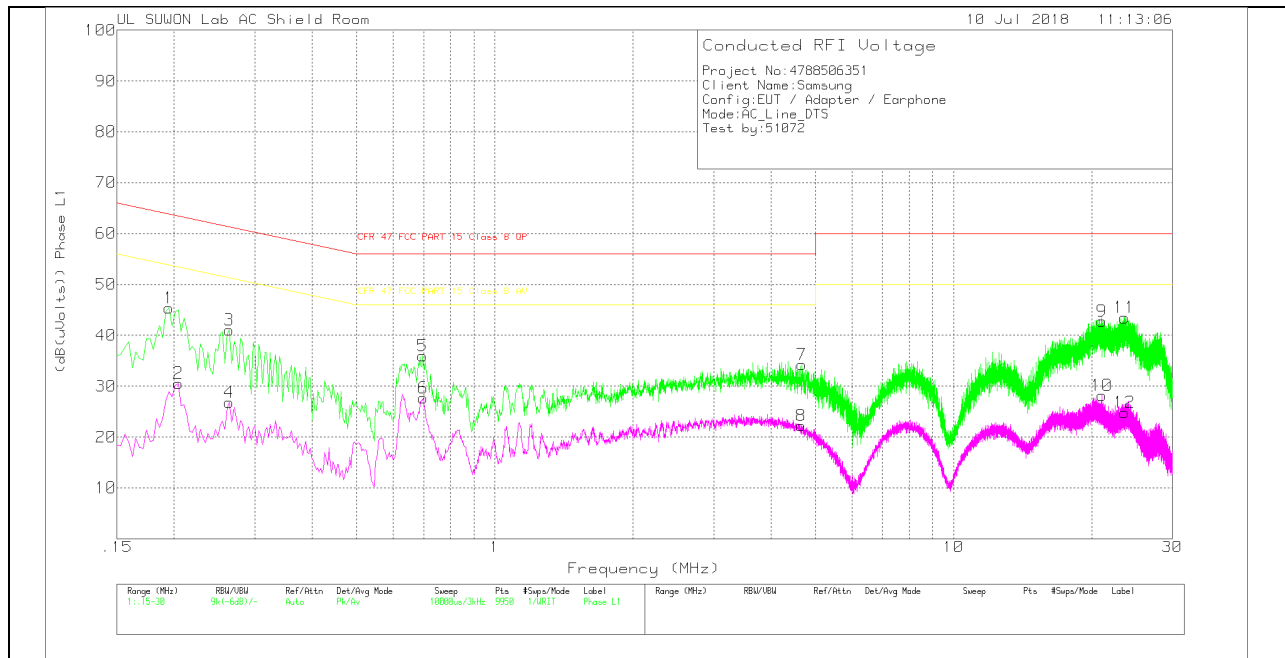
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

**RESULTS**

**6 WORST EMISSIONS**

**LINE 1 PLOT**



**LINE 1 RESULTS**

Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_L1_with extension	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.195	35.36	Pk	9.8	.2	45.36	63.82	-18.46	-	-
2	.204	20.58	Av	9.8	.2	30.58	-	-	53.45	-22.87
3	.264	31.32	Pk	9.5	.2	41.02	61.3	-20.28	-	-
4	.264	17.06	Av	9.5	.2	26.76	-	-	51.3	-24.54
5	.696	26.09	Pk	9.7	.2	35.99	56	-20.01	-	-
6	.699	17.81	Av	9.7	.2	27.71	-	-	46	-18.29
7	4.671	24.19	Pk	9.7	.3	34.19	56	-21.81	-	-
8	4.662	12.23	Av	9.7	.3	22.23	-	-	46	-23.77
9	21.066	32.29	Pk	10.1	.4	42.79	60	-17.21	-	-
10	21.045	17.64	Av	10.1	.4	28.14	-	-	50	-21.86
11	23.595	32.85	Pk	10.2	.4	43.45	60	-16.55	-	-
12	23.619	14.2	Av	10.2	.4	24.8	-	-	50	-25.2

Pk - Peak detector  
 Av - Average detection

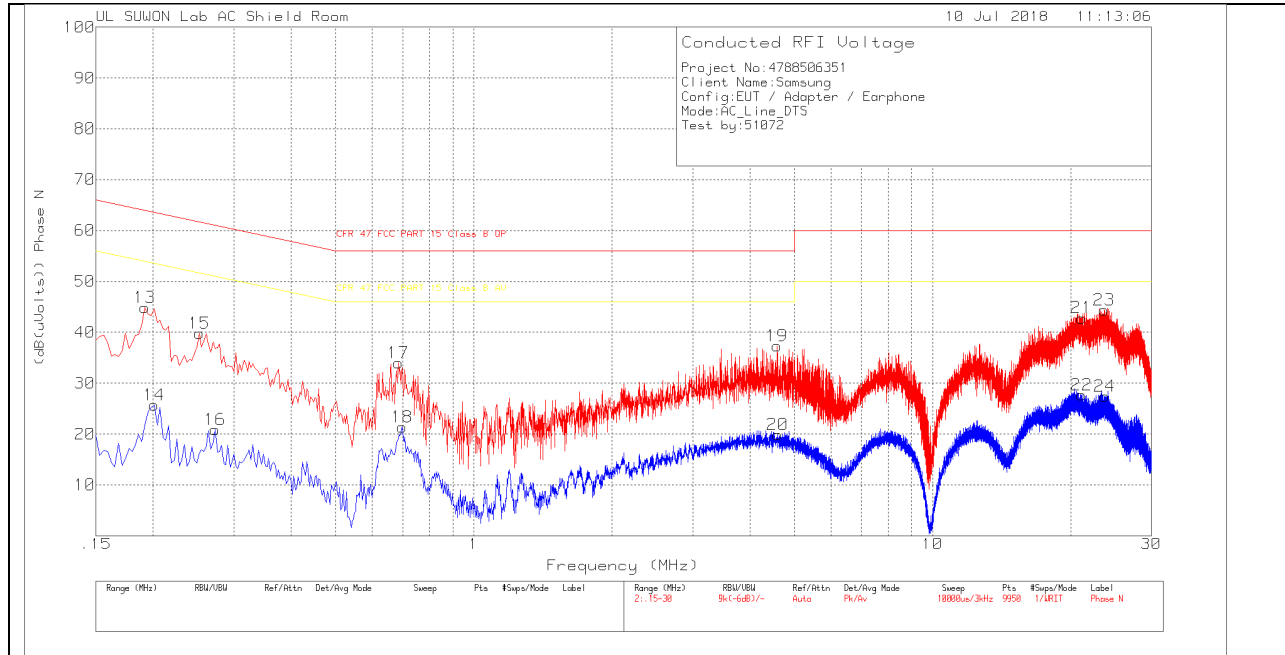
Quasi-Peak Emissions

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101837_L1_with extension	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.19575	31.58	Qp	9.8	.2	41.58	63.79	-22.21	-	-
.20325	31.85	Qp	9.8	.2	41.85	63.48	-21.63	-	-
.26325	26.39	Qp	9.5	.2	36.09	61.33	-25.24	-	-
.69615	22.4	Qp	9.7	.2	32.3	56	-23.7	-	-
.69975	22.16	Qp	9.7	.2	32.06	56	-23.94	-	-
4.67025	18.29	Qp	9.7	.3	28.29	56	-27.71	-	-
4.66275	18.23	Qp	9.7	.3	28.23	56	-27.77	-	-
21.0668	26.29	Qp	10.1	.4	36.79	60	-23.21	-	-
21.0443	26.25	Qp	10.1	.4	36.75	60	-23.25	-	-
23.5958	26.82	Qp	10.2	.4	37.42	60	-22.58	-	-
23.6198	26.7	Qp	10.2	.4	37.3	60	-22.7	-	-

Qp - Quasi-Peak detector

**LINE 2 PLOT**



**LINE 2 RESULTS**

Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_N_with extension	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.192	34.82	Pk	9.9	.2	44.92	63.95	-19.03	-	-
14	.201	15.7	Av	9.8	.2	25.7	-	-	53.57	-27.87
15	.252	30.01	Pk	9.6	.2	39.81	61.69	-21.88	-	-
16	.273	11.11	Av	9.6	.2	20.91	-	-	51.03	-30.12
17	.684	24.01	Pk	9.8	.2	34.01	56	-21.99	-	-
18	.699	11.33	Av	9.8	.2	21.33	-	-	46	-24.67
19	4.581	27.23	Pk	9.8	.3	37.33	56	-18.67	-	-
20	4.599	9.83	Av	9.8	.3	19.93	-	-	46	-26.07
21	21.147	32.33	Pk	10.1	.4	42.83	60	-17.17	-	-
22	21.156	17.23	Av	10.1	.4	27.73	-	-	50	-22.27
23	23.706	33.78	Pk	10.2	.4	44.38	60	-15.62	-	-
24	23.727	16.81	Av	10.2	.4	27.41	-	-	50	-22.59

Pk - Peak detector  
 Av - Average detection

Quasi-Peak Emissions

Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101837_N_with extension	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.19275	29.87	Qp	9.9	.2	39.97	63.92	-23.95	-	-
.20025	31.24	Qp	9.8	.2	41.24	63.6	-22.36	-	-
.25275	24.01	Qp	9.6	.2	33.81	61.67	-27.86	-	-
.27225	24.32	Qp	9.6	.2	34.12	61.05	-26.93	-	-
.68475	18.59	Qp	9.8	.2	28.59	56	-27.41	-	-
.69825	18.06	Qp	9.8	.2	28.06	56	-27.94	-	-
4.58115	18	Qp	9.8	.3	28.1	56	-27.9	-	-
4.59825	18.12	Qp	9.8	.3	28.22	56	-27.78	-	-
21.1463	26.87	Qp	10.1	.4	37.37	60	-22.63	-	-
21.1553	26.9	Qp	10.1	.4	37.4	60	-22.6	-	-
23.7053	27.68	Qp	10.2	.4	38.28	60	-21.72	-	-
23.7272	27.76	Qp	10.2	.4	38.36	60	-21.64	-	-

Qp - Quasi-Peak detector