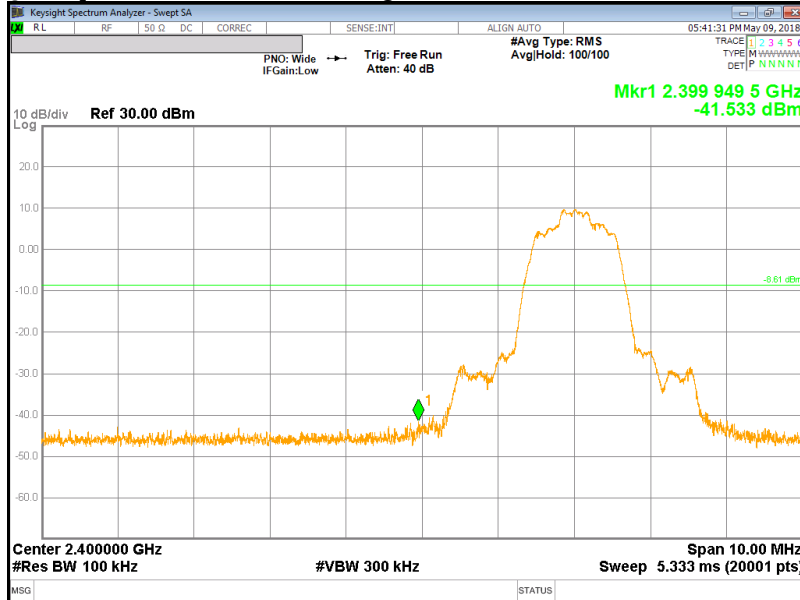
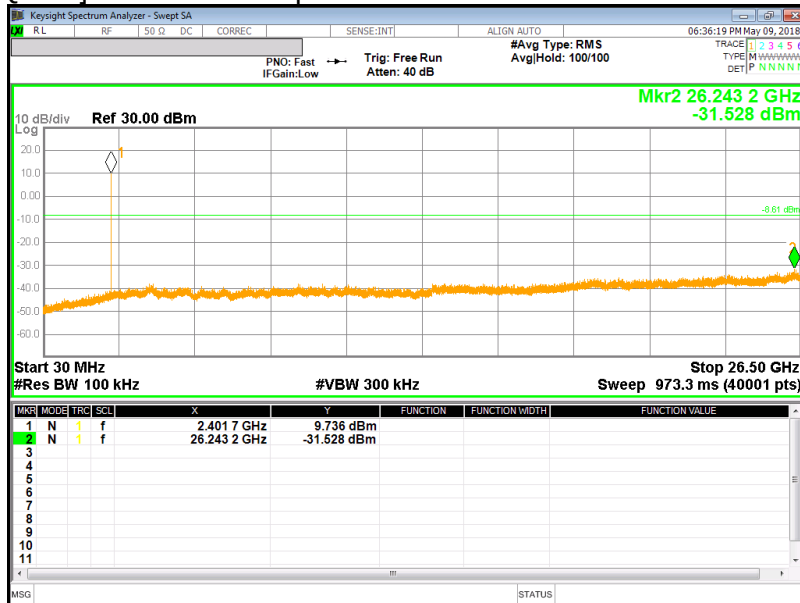


PI/4-DQPSK Mode

[PI/4-DQPSK] Low Channel BandEdge



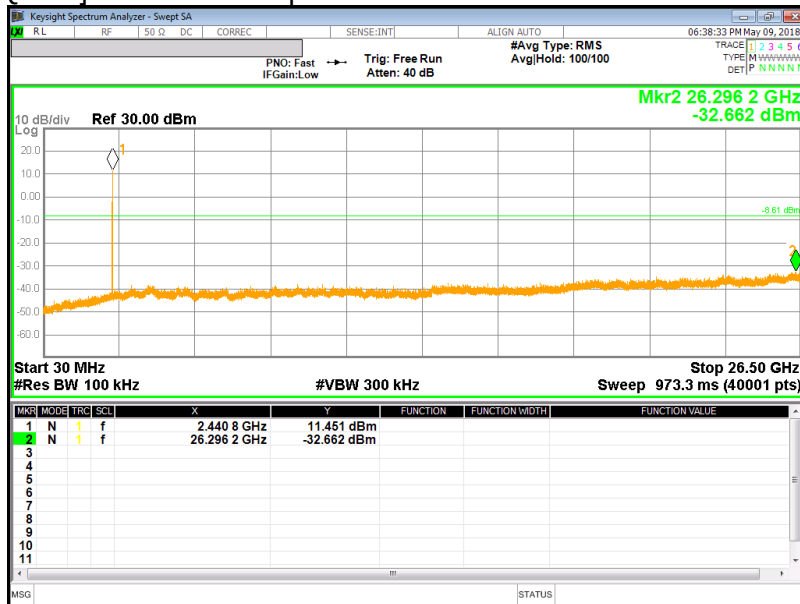
[PI/4-DQPSK] Low Channel Spurious



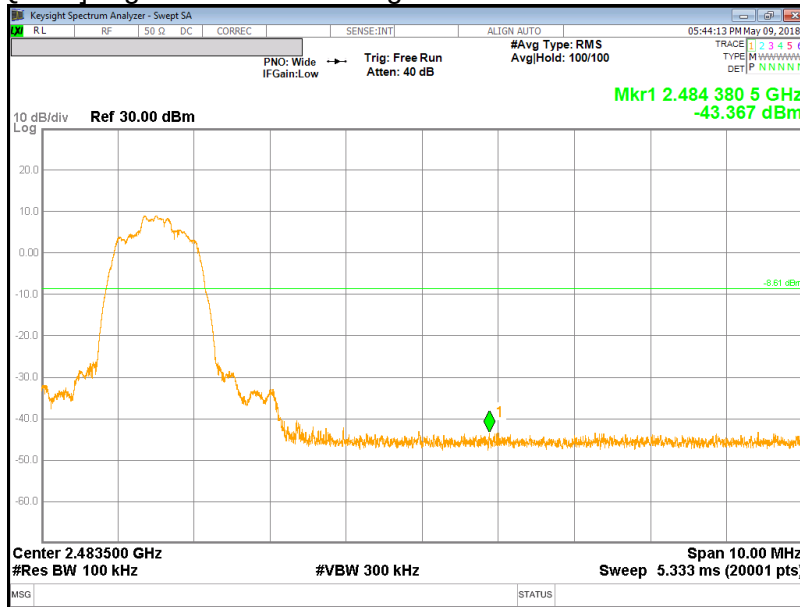
[PI/4-DQPSK] Mid Channel BandEdge



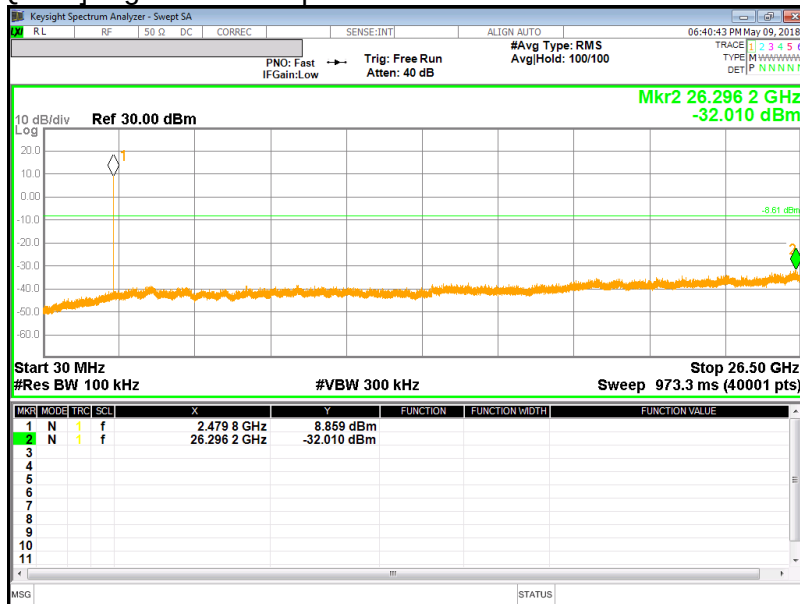
[PI/4-DQPSK] Mid Channel Spurious



[PI/4-DQPSK] High Channel BandEdge

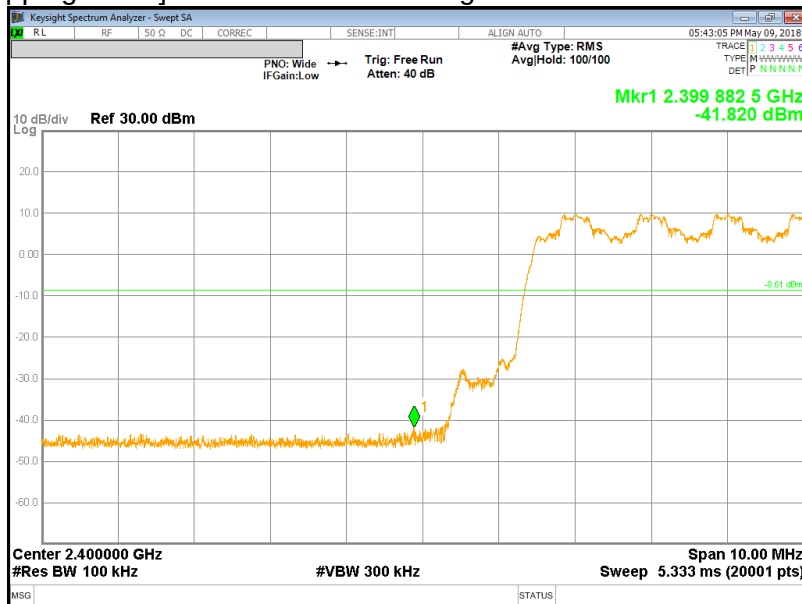


[PI/4-DQPSK] High Channel Spurious



BandEdge Emission at PI/4-DQPSK Hopping Mode

[PI/4-DQPSK Hopping Mode] Low Channel BandEdge

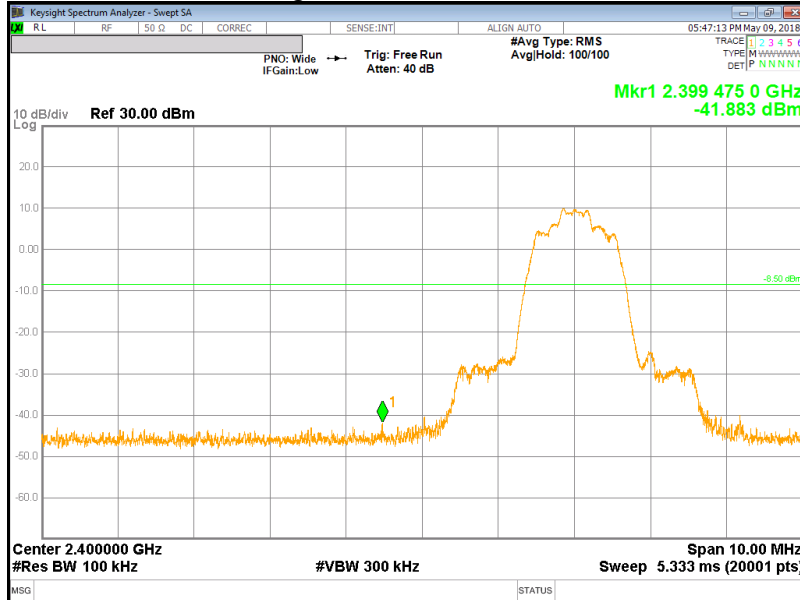


[PI/4-DQPSK Hopping Mode] High Channel BandEdge

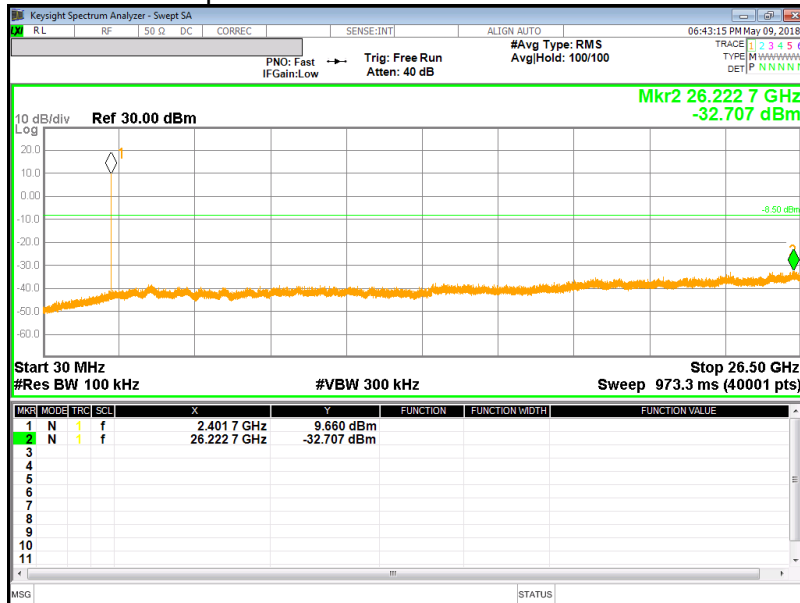


8PSK Mode

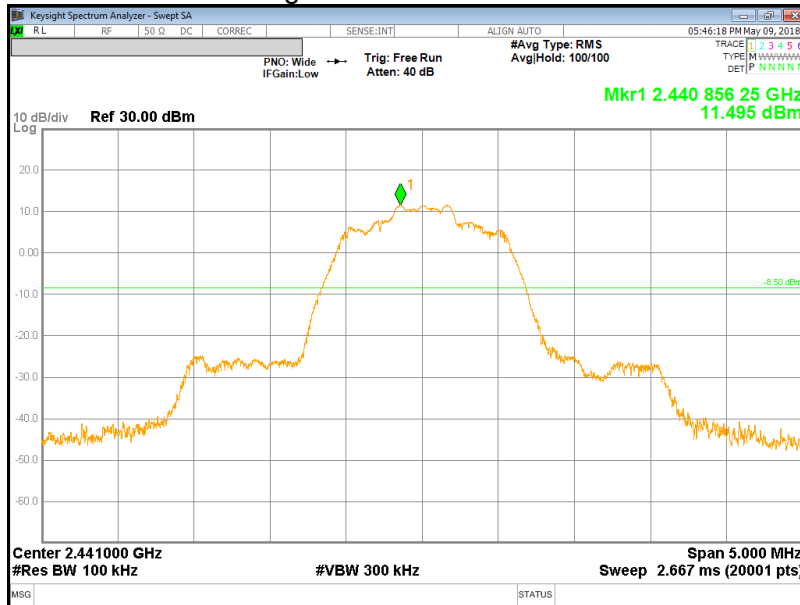
[8PSK] Low Channel BandEdge



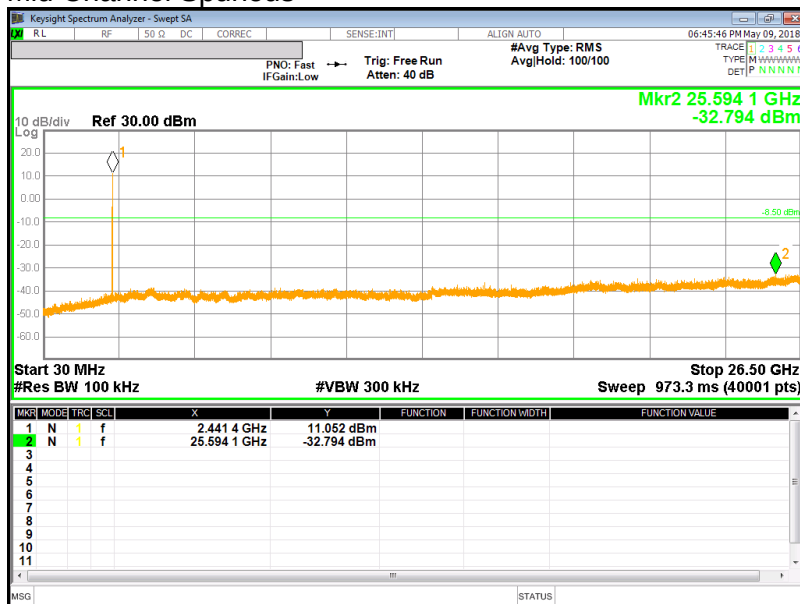
[8PSK] Low Channel Spurious



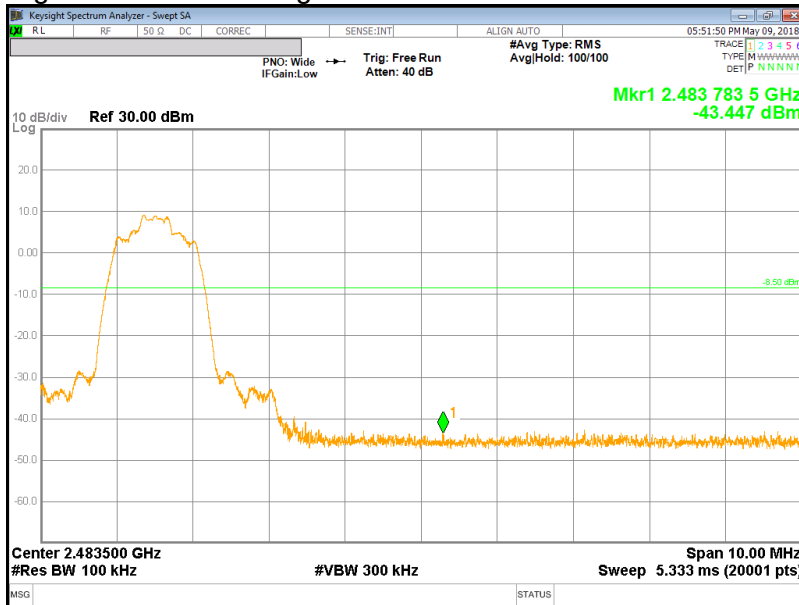
[8PSK] Mid Channel BandEdge



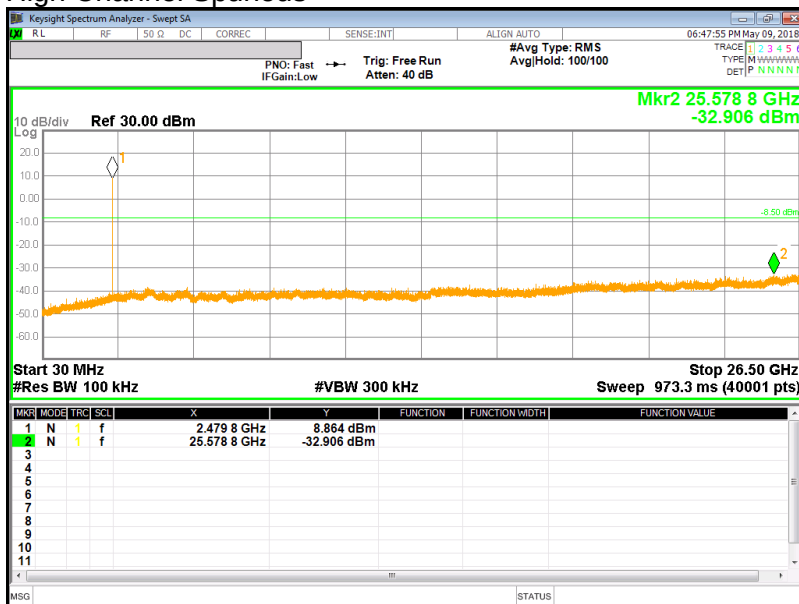
[8PSK] Mid Channel Spurious



[8PSK] High Channel BandEdge

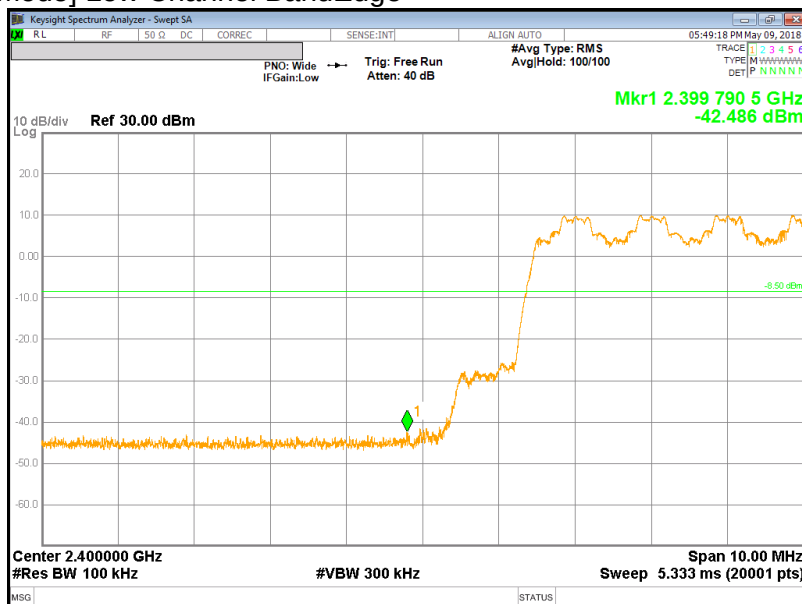


[8PSK] High Channel Spurious

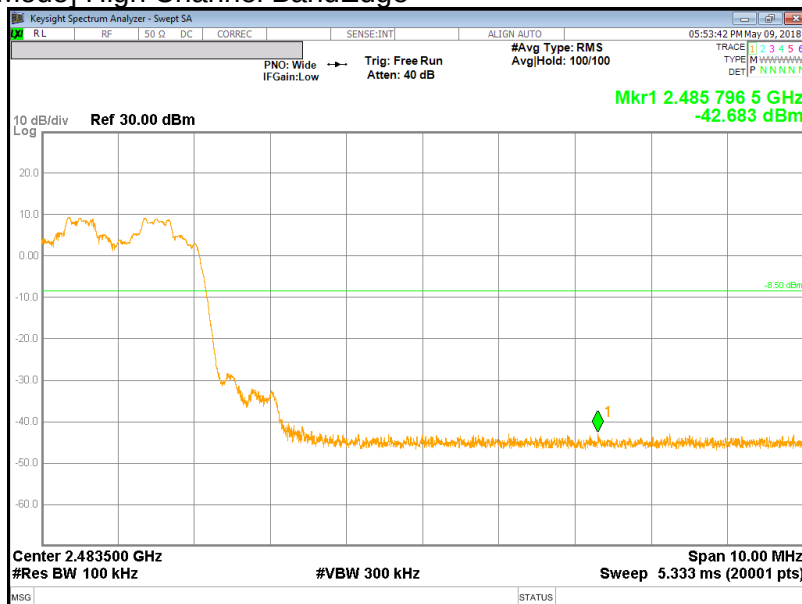


BandEdge Emission at 8PSK Hopping Mode

[8PSK Hopping Mode] Low Channel BandEdge



[8PSK Hopping Mode] High Channel BandEdge



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 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.(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.)

For band edge measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1/T (on time) for average measurement.

$$\text{GFSK} = 1/T = 1 / 0.002884\text{S} = 347\text{Hz}.$$

The minimum VBW was 347Hz, but test receiver(ESU40) couldn't set value 347Hz. Due to this reason, testing VBW was set to 500Hz(Worst cases).

The spectrum from 1GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz 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.

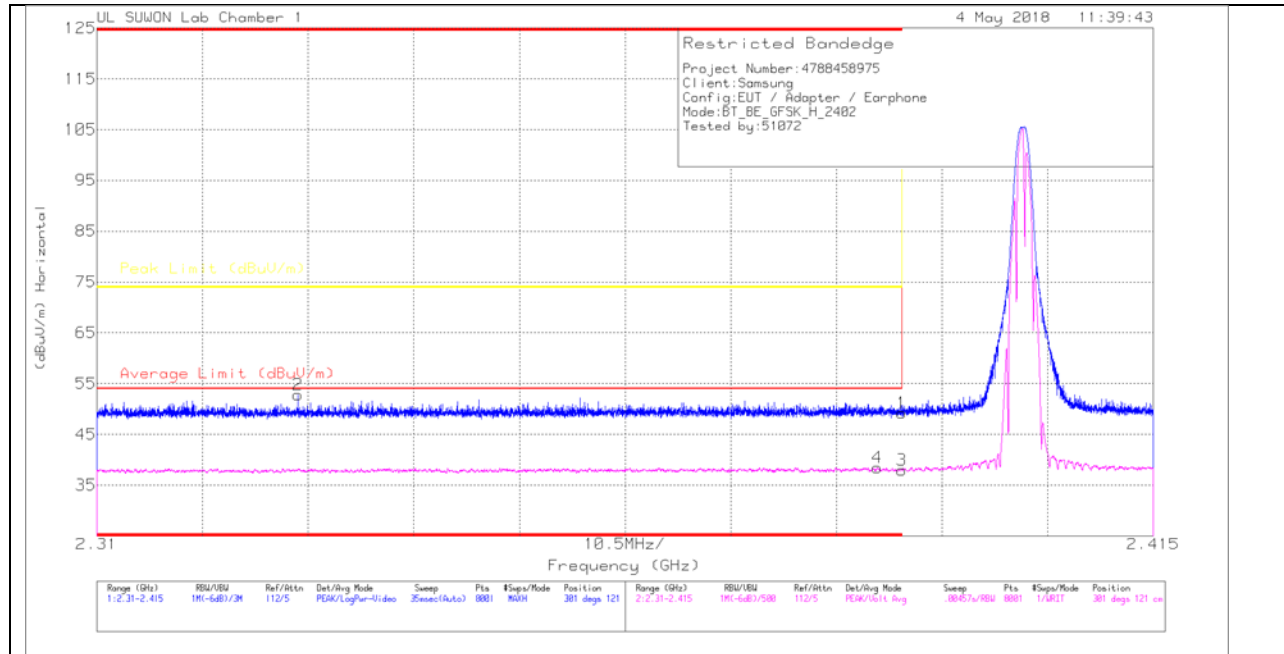
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

11.2. TRANSMITTER ABOVE 1 GHz

11.2.1. BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

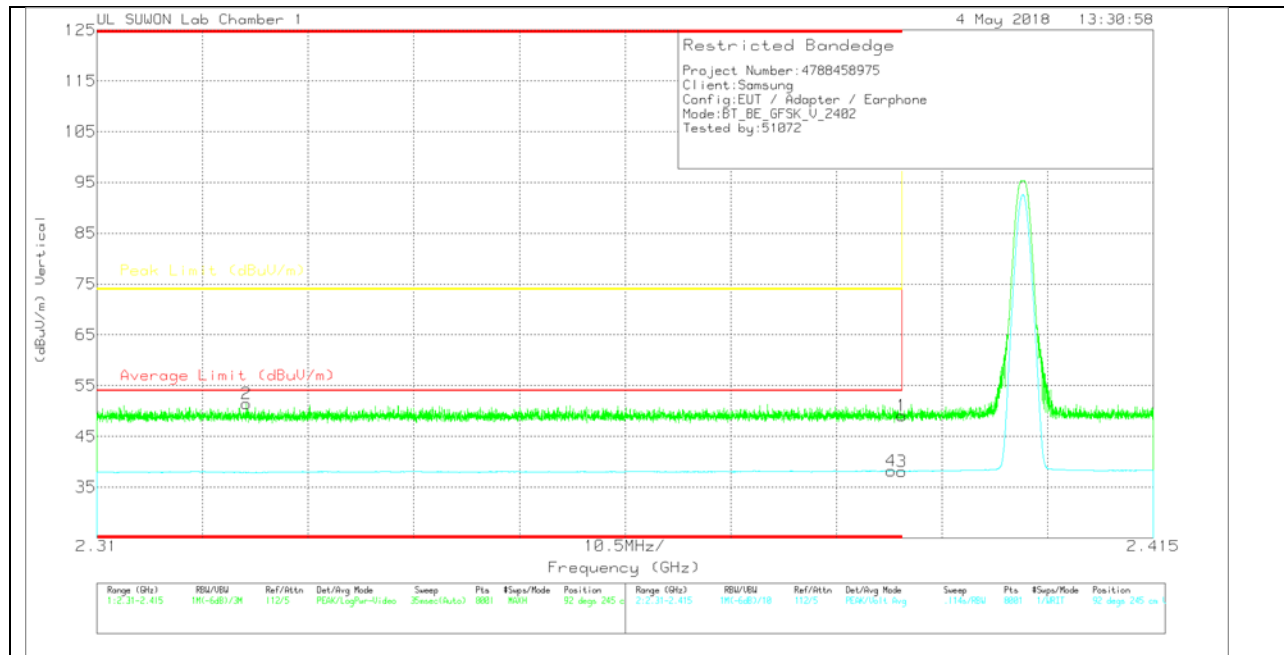
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_170809	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.67	Pk	31.3	-25.7	49.27	-	-	74	-24.73	301	121	H
2	* 2.33	47.49	Pk	31.2	-25.9	52.79	-	-	74	-21.21	301	121	H
3	* 2.39	32.37	VA1T	31.3	-25.7	37.97	54	-16.03	-	-	301	121	H
4	* 2.388	32.85	VA1T	31.3	-25.7	38.45	54	-15.55	-	-	301	121	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_170809	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	43.48	Pk	31.3	-25.7	49.08	-	-	74	-24.92	92	245	V
2	* 2.325	46.1	Pk	31.2	-25.9	51.4	-	-	74	-22.6	92	245	V
3	* 2.39	32.52	VA1T	31.3	-25.7	38.12	54	-15.88	-	-	92	245	V
4	* 2.389	32.61	VA1T	31.3	-25.7	38.21	54	-15.79	-	-	92	245	V

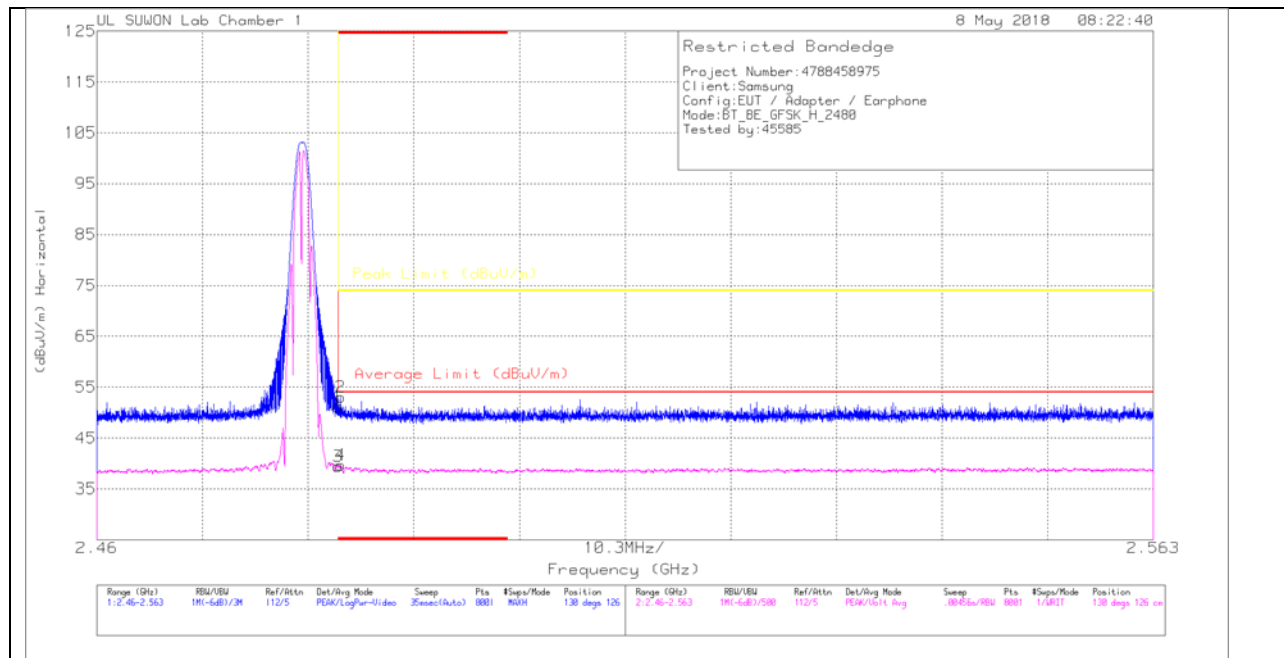
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

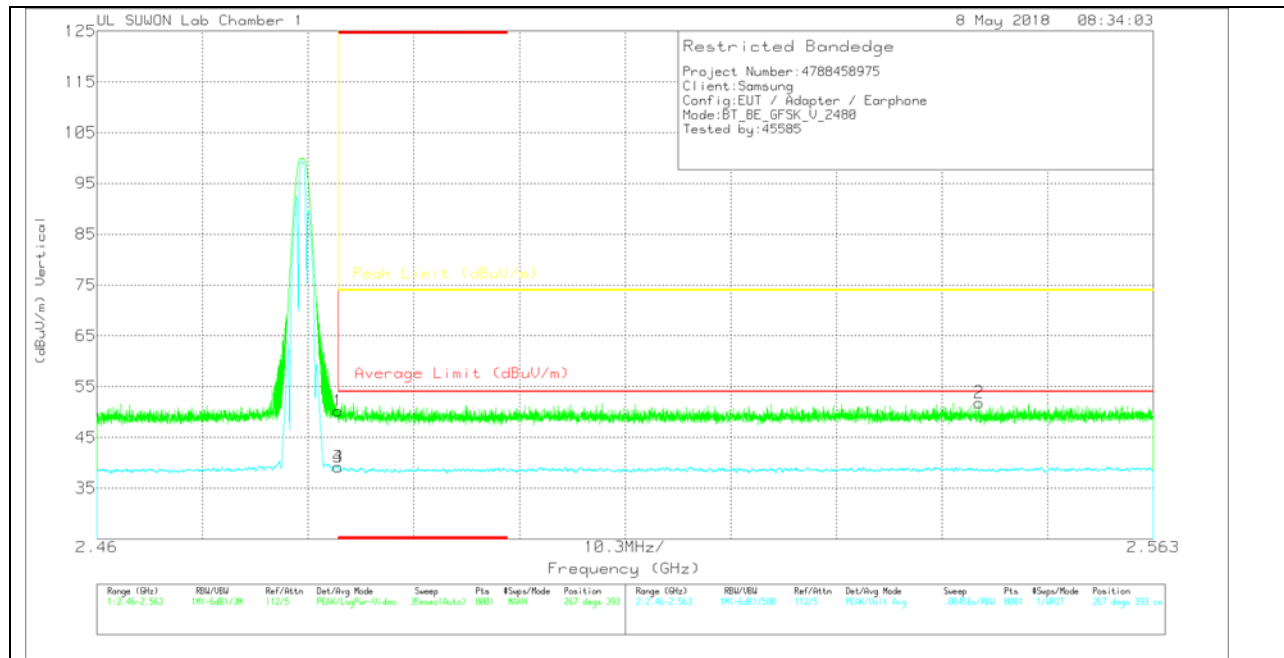
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_17_0809	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.05	Pk		-25.5	51.15	-	-	74	-22.85	130	126	H
2	* 2.484	46.95	Pk		-25.5	53.05	-	-	74	-20.95	130	126	H
3	* 2.484	33.31	VA1T		-25.5	39.41	54	-14.59	-	-	130	126	H
4	* 2.484	33.55	VA1T		-25.5	39.65	54	-14.35	-	-	130	126	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_17 0809	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.06	Pk	31.6	-25.5	50.16	-	-	74	-23.84	267	393	V
2	2.546	45.57	Pk	31.7	-25.4	51.87	-	-	74	-22.13	267	393	V
3	* 2.484	33.13	VA1T	31.6	-25.5	39.23	54	-14.77	-	-	267	393	V
4	* 2.484	33.13	VA1T	31.6	-25.5	39.23	54	-14.77	-	-	267	393	V

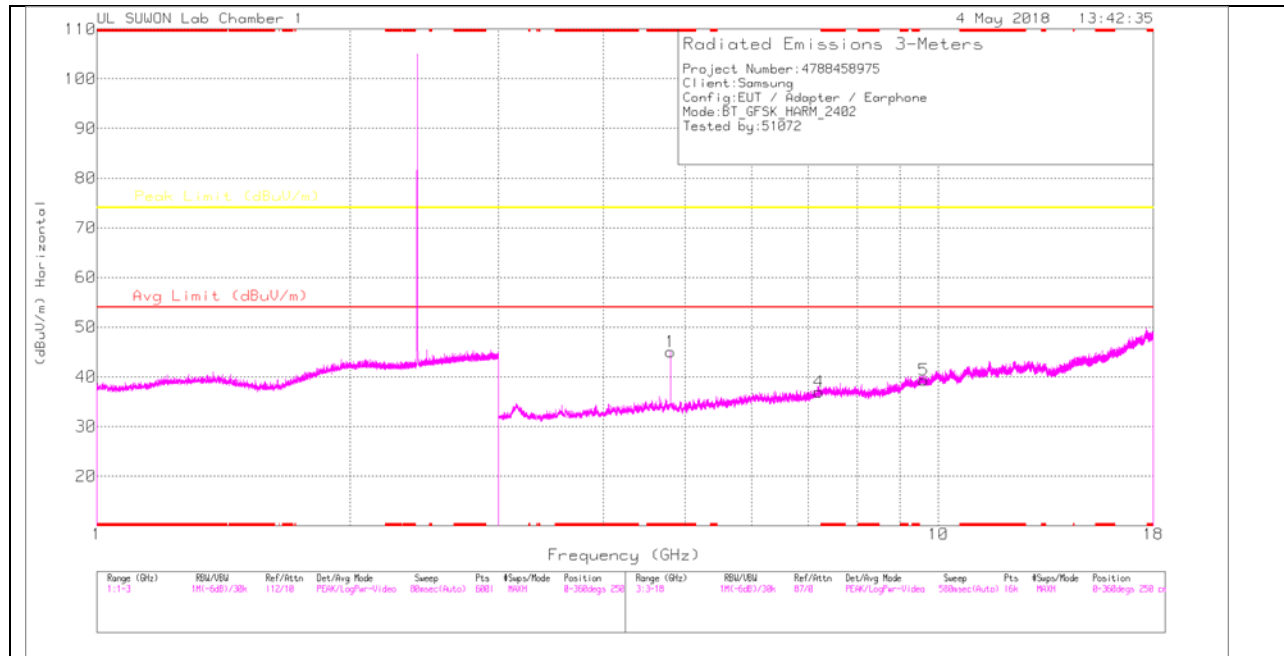
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

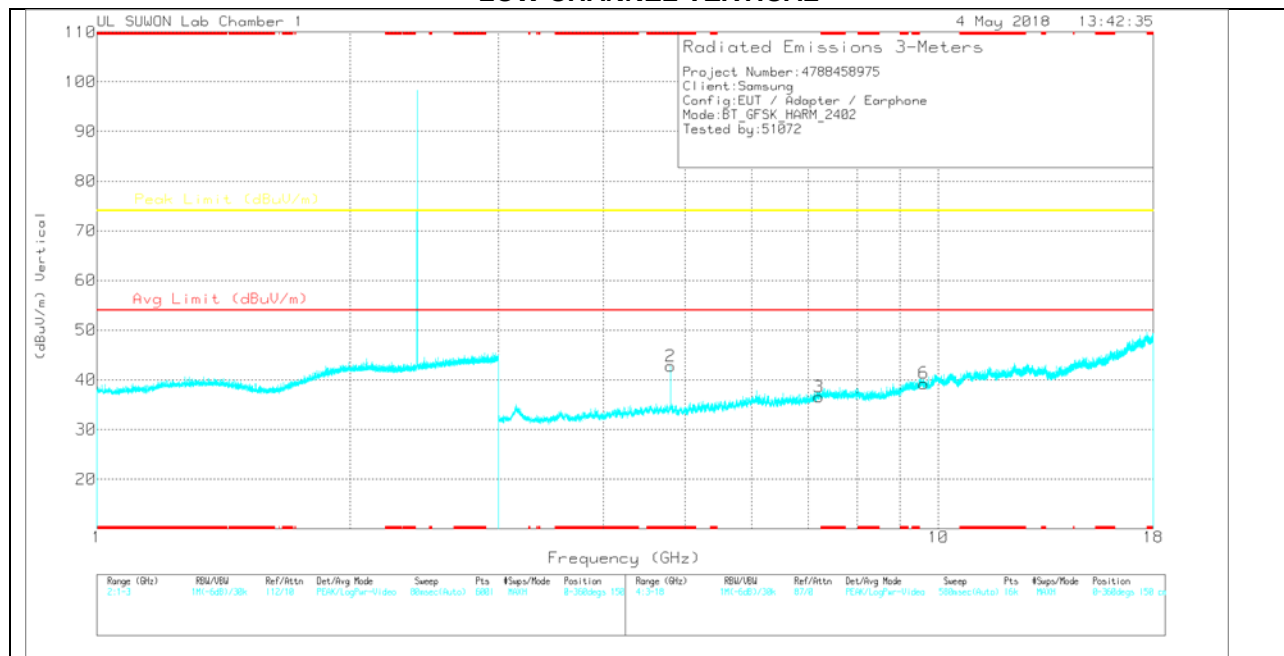
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_0 0168717	3GHz_HP(dB)_170 809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804	42.95	PK	33.8	-31.7	45.05	-	-	74	-28.95	0-360	250	H
4	7.206	29.11	PK	35.9	-28.1	36.91	-	-	74	-37.09	0-360	150	H
5	9.609	26.16	PK	36.7	-23.5	39.36	-	-	74	-34.64	0-360	150	H
2	* 4.804	40.7	PK	33.8	-31.7	42.8	-	-	74	-31.2	0-360	250	V
3	7.206	28.76	PK	35.9	-28.1	36.56	-	-	74	-37.44	0-360	250	V
6	9.609	26.09	PK	36.7	-23.5	39.29	-	-	74	-34.71	0-360	150	V

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

PK – Peak Detector

Radiated Emissions

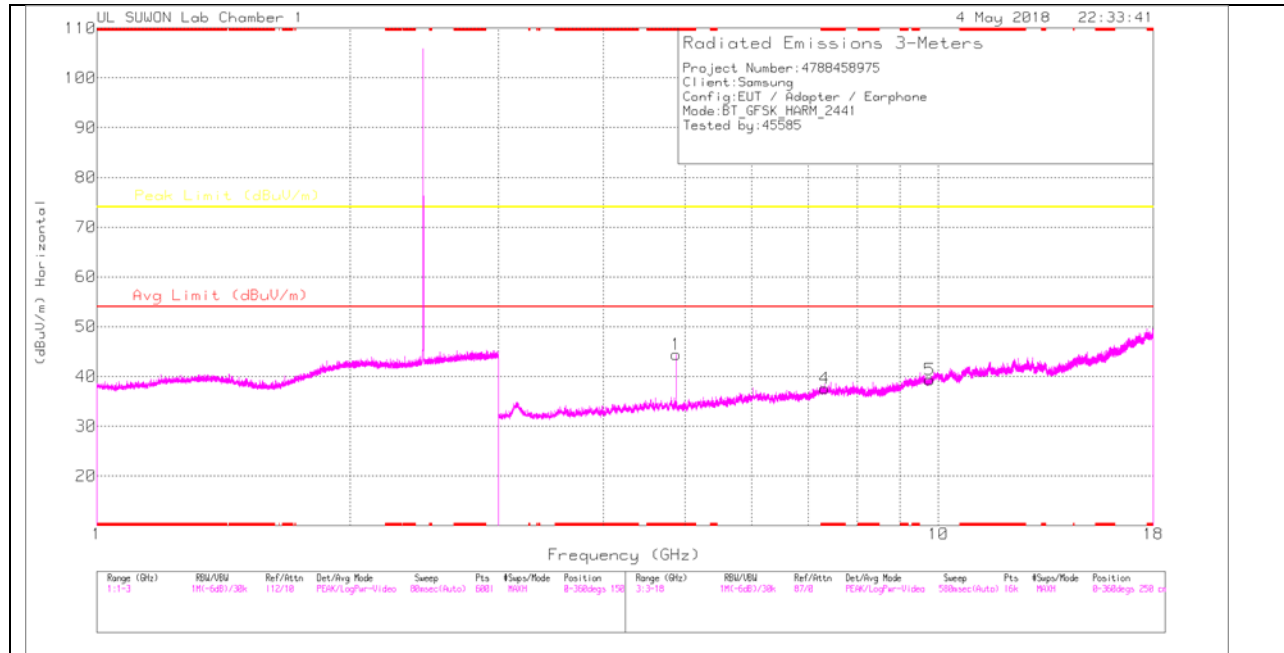
Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_0 00168717	3GHz_HP(dB)_17 0809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.804	46.9	PKFH	33.8	-31.7	49	-	-	74	-25	311	332	H
* 4.804	42.18	VA1T	33.8	-31.7	44.28	54	-9.72	-	-	311	332	H
* 4.804	44.22	PKFH	33.8	-31.7	46.32	-	-	74	-27.68	158	152	V
* 4.804	38.04	VA1T	33.8	-31.7	40.14	54	-13.86	-	-	158	152	V

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

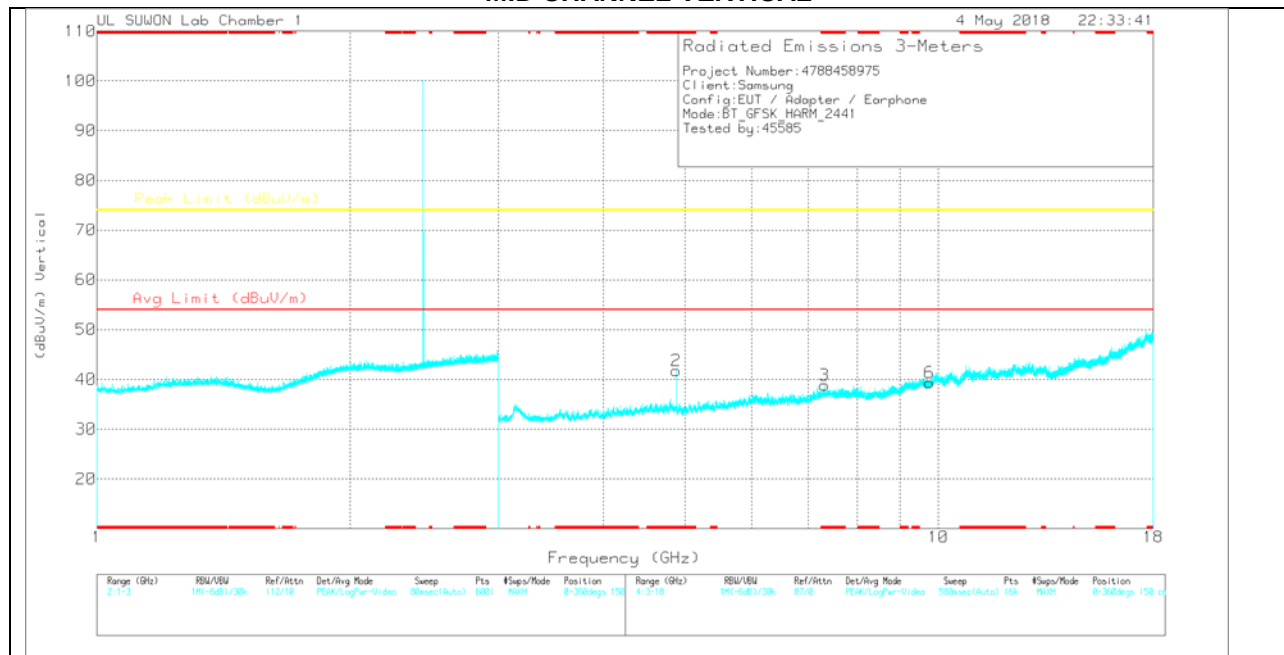
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_00168717	3GHz_HP(dB)_170809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.881	42.35	PK	33.8	-31.7	44.45	-	-	74	-29.55	0-360	150	H
4	* 7.321	29.24	PK	35.9	-27.6	37.54	-	-	74	-36.46	0-360	150	H
5	9.766	26.69	PK	36.9	-24.2	39.39	-	-	74	-34.61	0-360	250	H
2	* 4.881	39.61	PK	33.8	-31.7	41.71	-	-	74	-32.29	0-360	250	V
3	* 7.323	30.54	PK	35.9	-27.6	38.84	-	-	74	-35.16	0-360	250	V
6	9.764	26.62	PK	36.9	-24.2	39.32	-	-	74	-34.68	0-360	250	V

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

PK – Peak Detector

Radiated Emissions

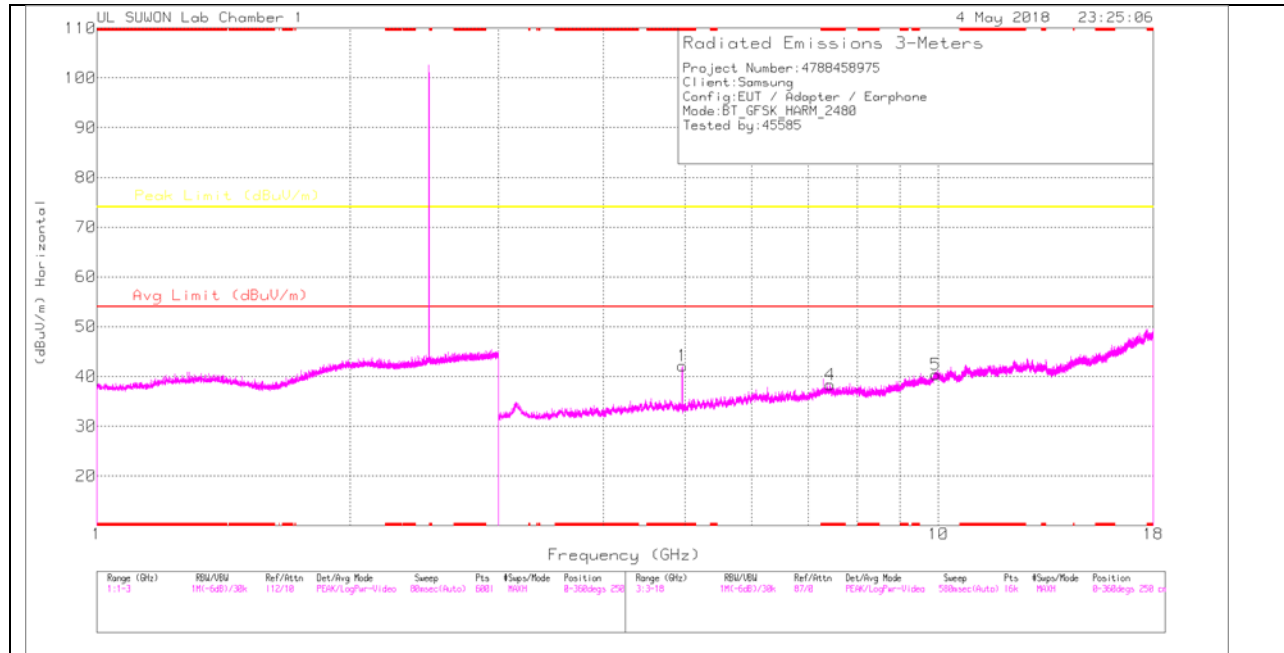
Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	3GHz_HP(dB)_170809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.882	46.95	PKFH	33.8	-31.7	49.05	-	-	74	-24.95	317	322	H
* 4.882	42.36	VA1T	33.8	-31.7	44.46	54	-9.54	-	-	317	322	H
* 4.882	45.5	PKFH	33.8	-31.7	47.6	-	-	74	-26.4	192	385	V
* 4.882	40.57	VA1T	33.8	-31.7	42.67	54	-11.33	-	-	192	385	V

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

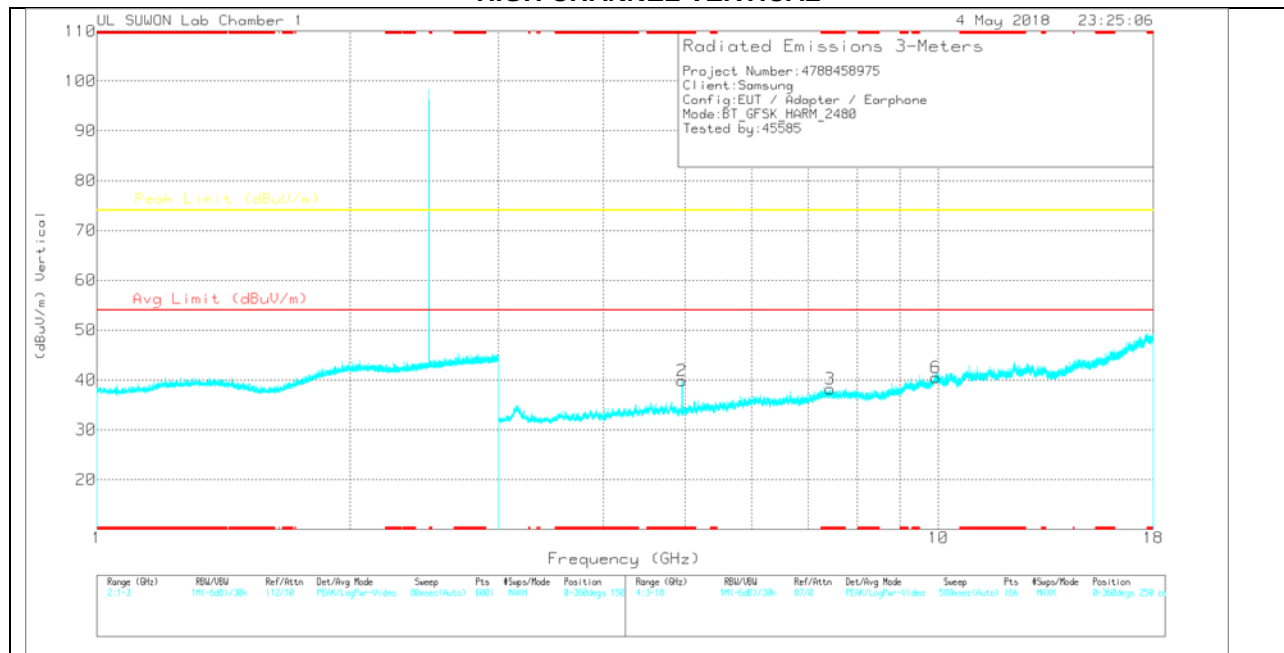
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_0 0168717	3GHz_HP(dB)_170 809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.96	39.91	PK	33.8	-31.6	42.11	-	-	74	-31.89	0-360	150	H
4	* 7.44	29.62	PK	35.9	-27.2	38.32	-	-	74	-35.68	0-360	150	H
5	9.92	25.51	PK	37.1	-22.3	40.31	-	-	74	-33.69	0-360	250	H
2	* 4.959	37.8	PK	33.8	-31.7	39.9	-	-	74	-34.1	0-360	250	V
3	* 7.44	29.47	PK	35.9	-27.2	38.17	-	-	74	-35.83	0-360	150	V
6	9.92	25.74	PK	37.1	-22.3	40.54	-	-	74	-33.46	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	20170531_3117_0 00168717	3GHz_HP(dB)_17 0809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96	44.52	PKFH	33.8	-31.6	46.72	-	-	74	-27.28	181	399	V
* 4.96	38.74	VA1T	33.8	-31.6	40.94	54	-13.06	-	-	181	399	V
* 4.96	45.36	PKFH	33.8	-31.6	47.56	-	-	74	-26.44	307	350	H
* 4.96	40.34	VA1T	33.8	-31.6	42.54	54	-11.46	-	-	307	350	H

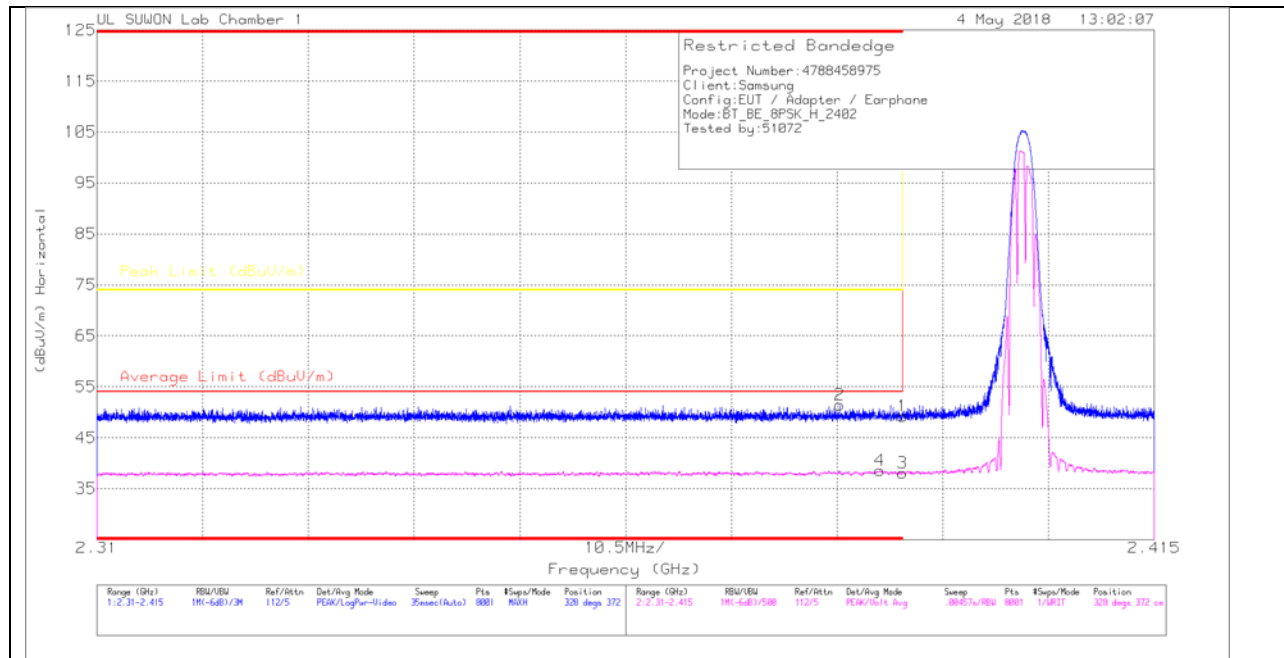
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

11.2.2. ENHANCED DATA RATE 8PSK MODULATION RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

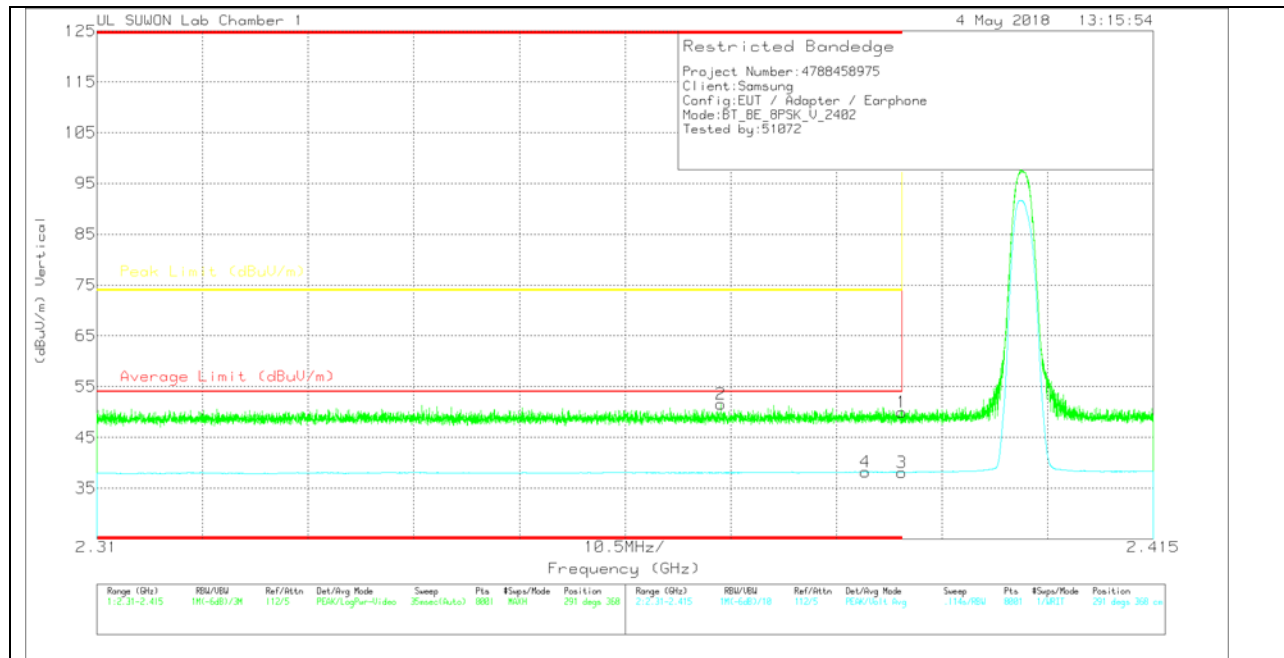
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_170809	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.62	Pk	31.3	-25.7	49.22	-	-	74	-24.78	328	372	H
2	* 2.384	45.85	Pk	31.3	-25.7	51.45	-	-	74	-22.55	328	372	H
3	* 2.39	32.44	VA1T	31.3	-25.7	38.04	54	-15.96	-	-	328	372	H
4	* 2.388	32.98	VA1T	31.3	-25.7	38.58	54	-15.42	-	-	328	372	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_170809	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	44.35	Pk	31.3	-25.7	49.95	-	-	74	-24.05	291	368	V
2	* 2.372	46.12	Pk	31.2	-25.8	51.52	-	-	74	-22.48	291	368	V
3	* 2.39	32.52	VA1T	31.3	-25.7	38.12	54	-15.88	-	-	291	368	V
4	* 2.386	32.59	VA1T	31.3	-25.7	38.19	54	-15.81	-	-	291	368	V

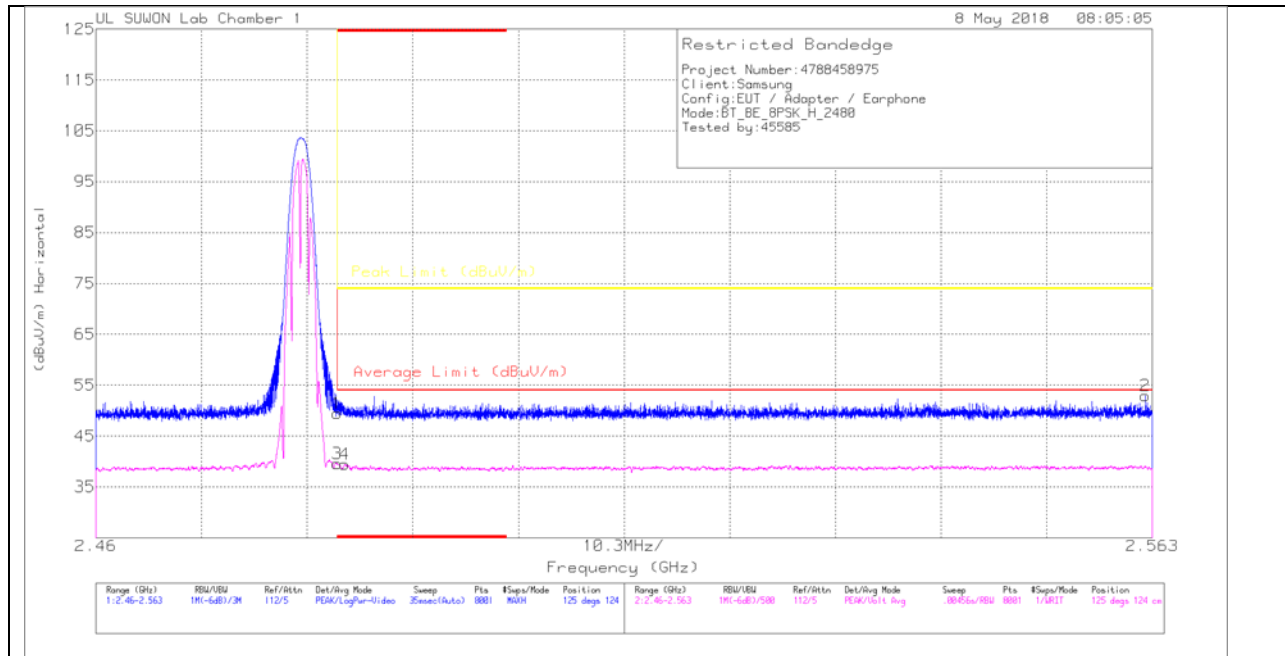
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

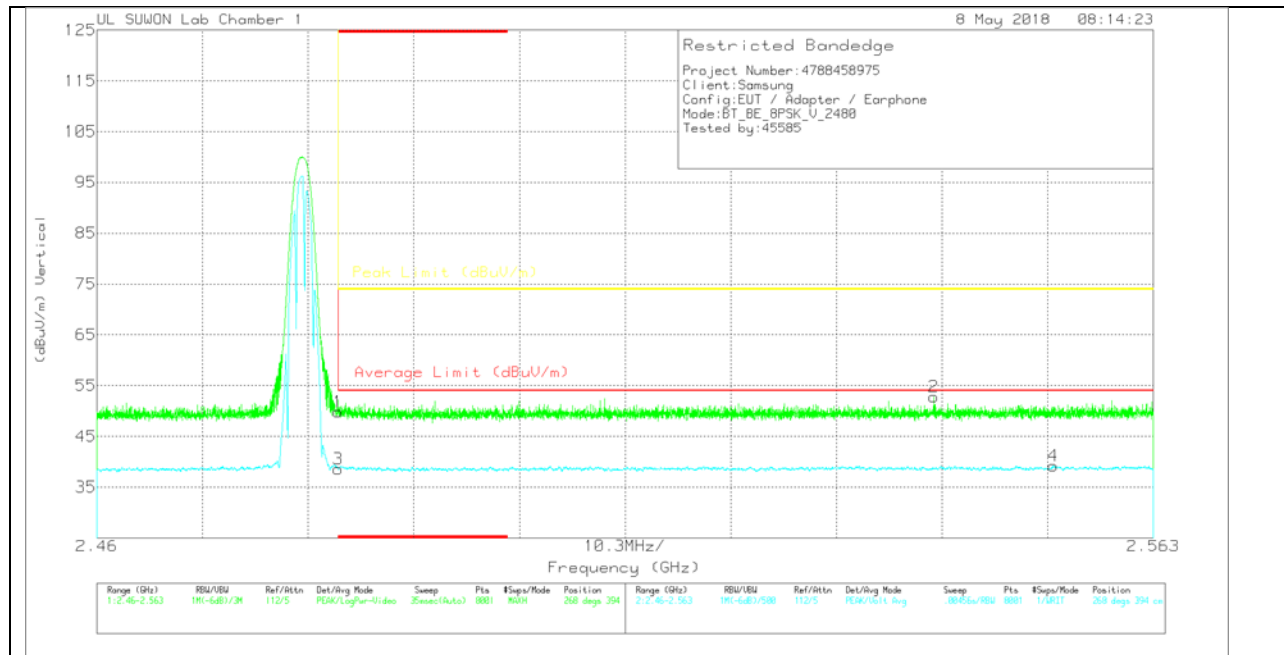
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_17_0809	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.37	Pk		-25.5	49.47	-	-	74	-24.53	125	124	H
2	2.562	46.56	Pk		-25.3	52.96	-	-	74	-21.04	125	124	H
3	* 2.484	33.41	VA1T		-25.5	39.51	54	-14.49	-	-	125	124	H
4	* 2.484	33.35	VA1T		-25.5	39.45	54	-14.55	-	-	125	124	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	10dB_ATT(dB)_170809	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	43.77	Pk	31.6	-25.5	49.87	-	-	74	-24.13	268	394	V
2	2.542	46.35	Pk	31.7	-25.3	52.75	-	-	74	-21.25	268	394	V
3	* 2.484	32.45	VA1T	31.6	-25.5	38.55	54	-15.45	-	-	268	394	V
4	2.553	32.78	VA1T	31.7	-25.3	39.18	54	-14.82	-	-	268	394	V

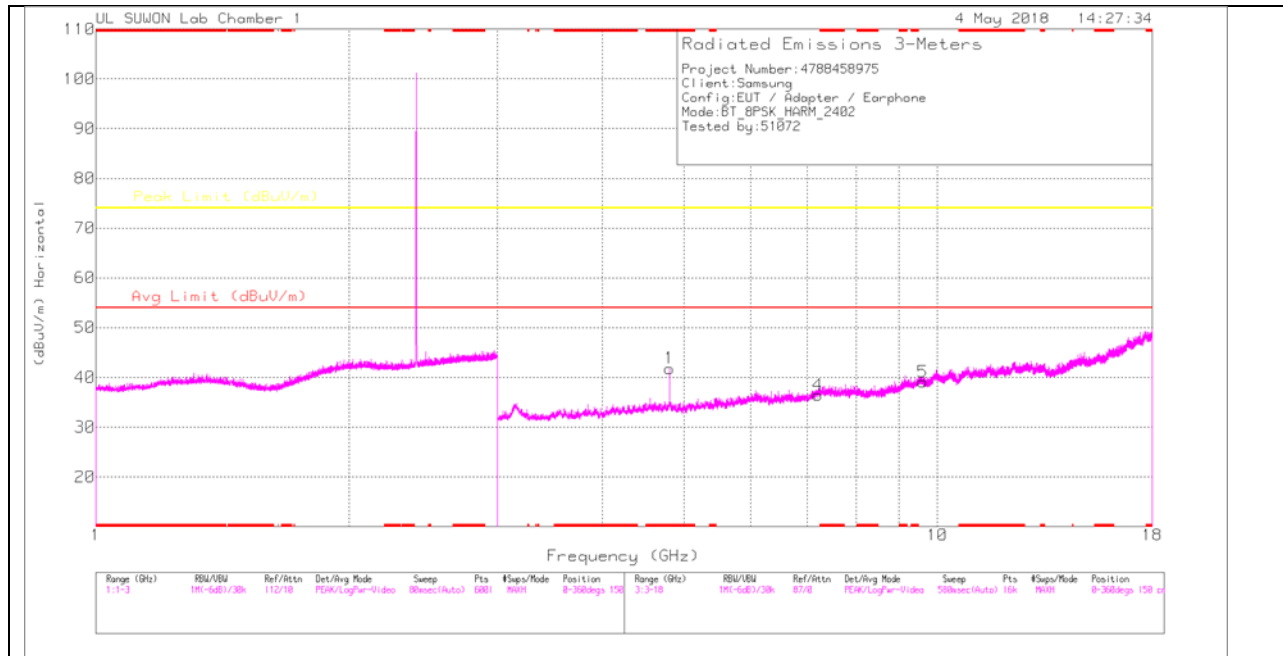
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

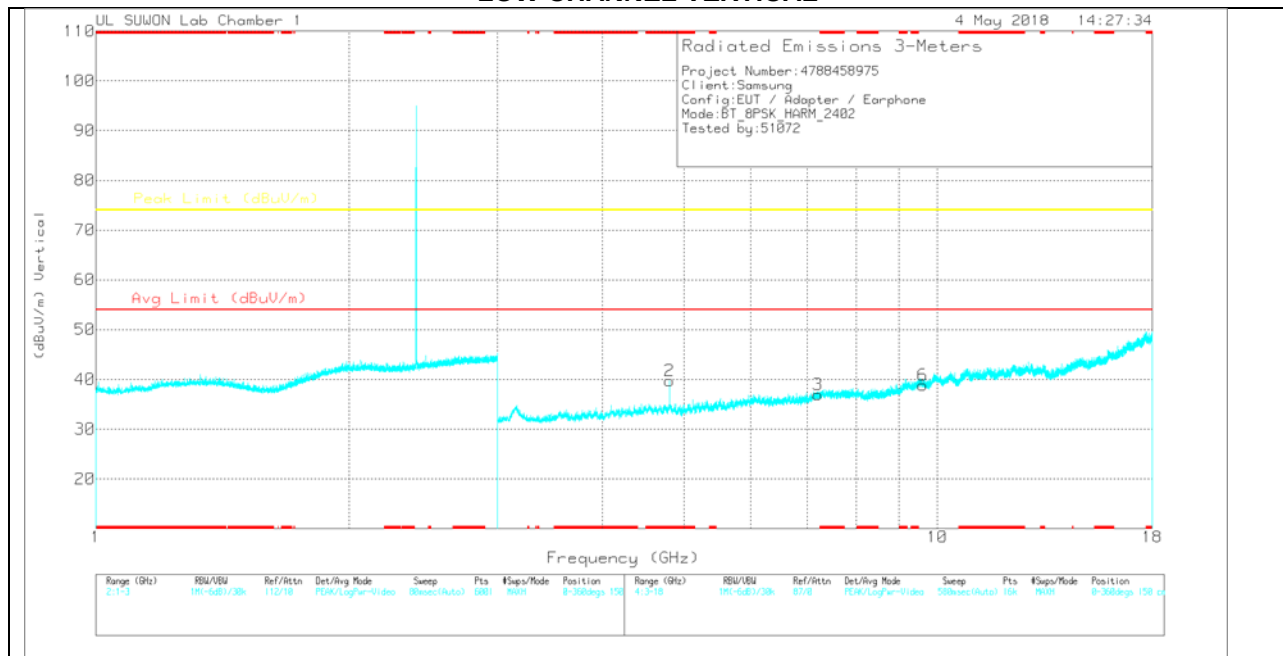
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_0 0168717	3GHz_HP(dB)_170 809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804	39.72	PK	33.8	-31.7	41.82	-	-	74	-32.18	0-360	250	H
4	7.206	28.61	PK	35.9	-28.1	36.41	-	-	74	-37.59	0-360	250	H
5	9.609	25.93	PK	36.7	-23.5	39.13	-	-	74	-34.87	0-360	250	H
2	* 4.804	37.64	PK	33.8	-31.7	39.74	-	-	74	-34.26	0-360	250	V
3	7.206	29.17	PK	35.9	-28.1	36.97	-	-	74	-37.03	0-360	150	V
6	9.609	25.7	PK	36.7	-23.5	38.9	-	-	74	-35.1	0-360	150	V

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

PK – Peak Detector

Radiated Emissions

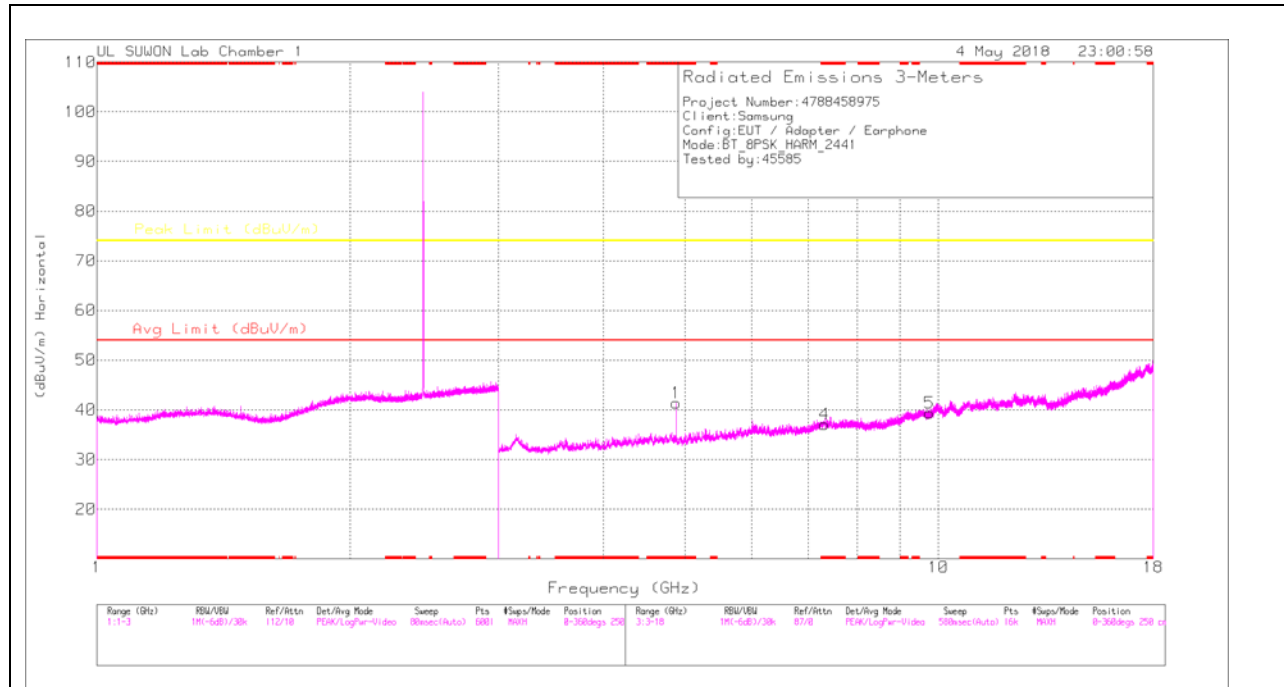
Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_0 00168717	3GHz_HP(dB)_17 0809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.804	46.44	PKFH	33.8	-31.7	48.54	-	-	74	-25.46	311	332	H
* 4.804	38.72	VA1T	33.8	-31.7	40.82	54	-13.18	-	-	311	332	H
* 4.804	43.18	PKFH	33.8	-31.7	45.28	-	-	74	-28.72	159	356	V
* 4.804	33.97	VA1T	33.8	-31.7	36.07	54	-17.93	-	-	159	356	V

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

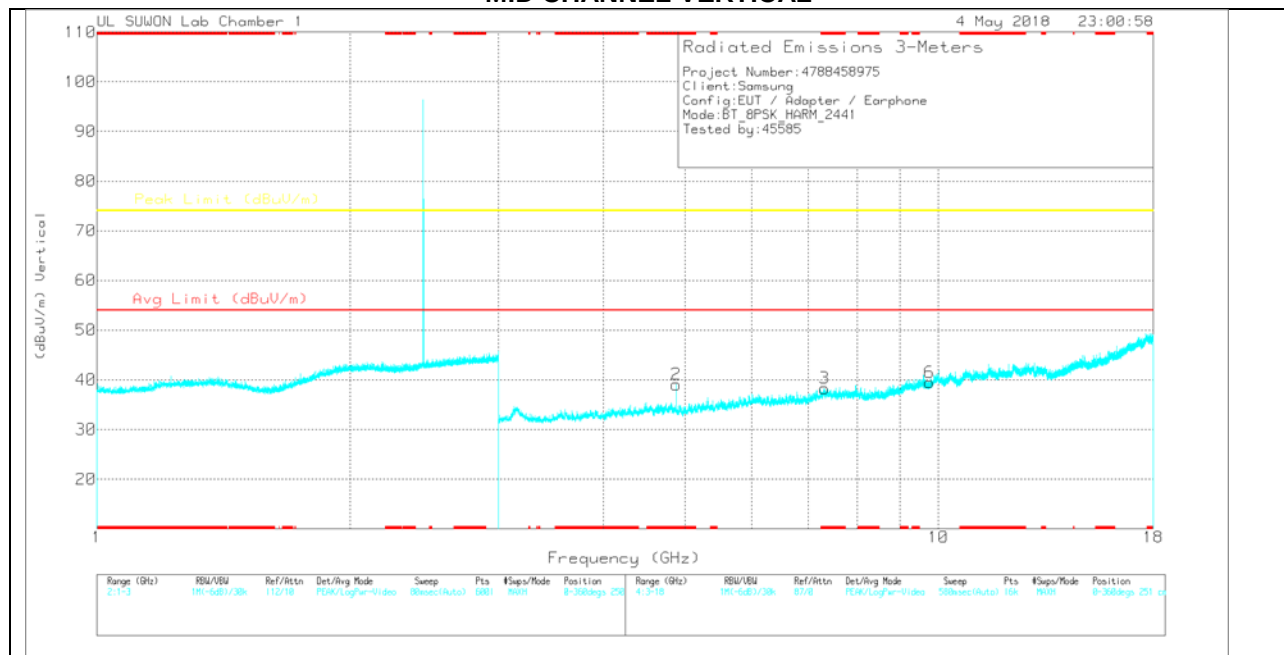
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_00168717	3GHz_HP(dB)_170809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.881	39.28	PK	33.8	-31.7	41.38	-	-	74	-32.62	0-360	150	H
4	* 7.324	28.7	PK	35.9	-27.5	37.1	-	-	74	-36.9	0-360	250	H
5	9.765	26.61	PK	36.9	-24.2	39.31	-	-	74	-34.69	0-360	250	H
2	* 4.882	36.94	PK	33.8	-31.7	39.04	-	-	74	-34.96	0-360	150	V
3	* 7.324	29.88	PK	35.9	-27.5	38.28	-	-	74	-35.72	0-360	251	V
6	9.764	26.74	PK	36.9	-24.2	39.44	-	-	74	-34.56	0-360	150	V

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

PK – Peak Detector

Radiated Emissions

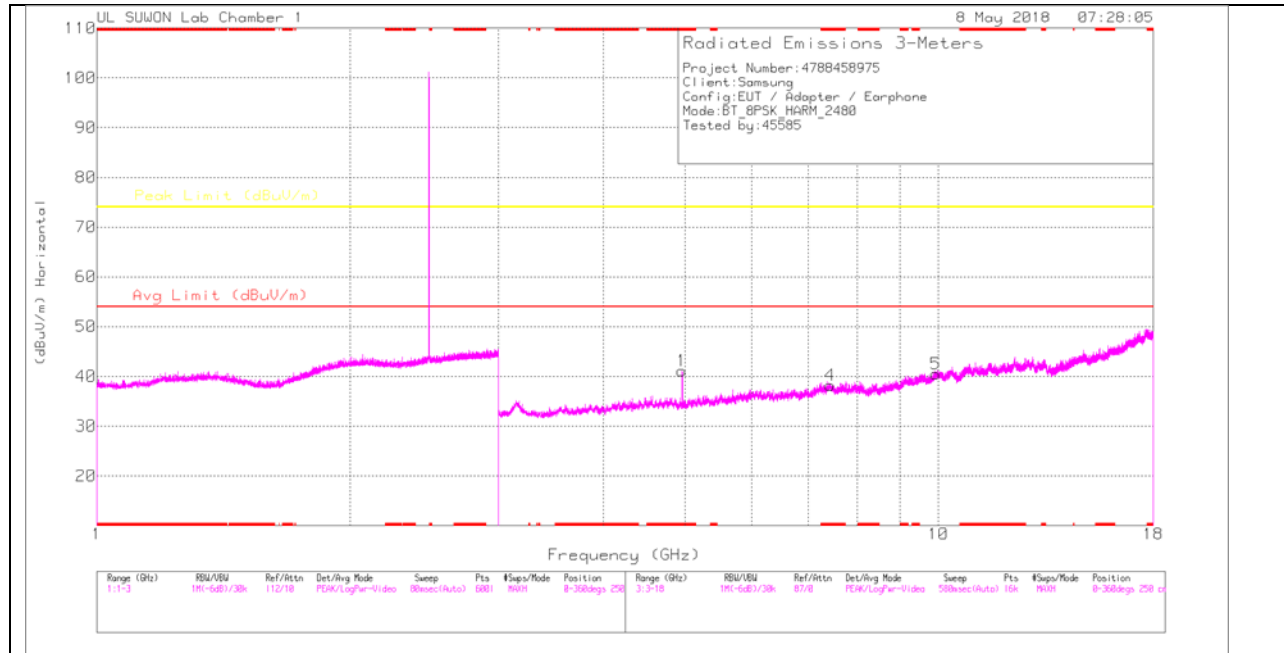
Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	3GHz_HP(dB)_170809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.882	46.06	PKFH	33.8	-31.7	48.16	-	-	74	-25.84	316	321	H
* 4.882	38.63	VA1T	33.8	-31.7	40.73	54	-13.27	-	-	316	321	H
* 4.882	45.01	PKFH	33.8	-31.7	47.11	-	-	74	-26.89	194	384	V
* 4.882	37.11	VA1T	33.8	-31.7	39.21	54	-14.79	-	-	194	384	V

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

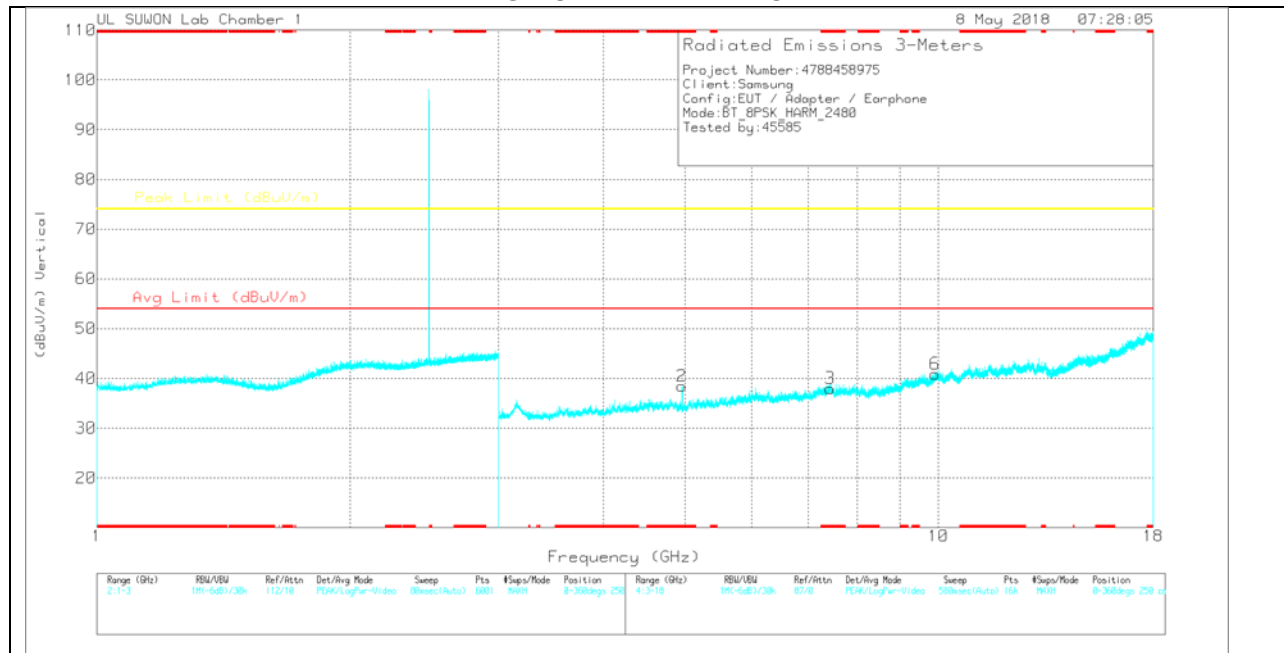
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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	20170531_3117_0 0168717	3GHz_HP(dB)_170 809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.959	39.07	PK	33.8	-31.7	41.17	-	-	74	-32.83	0-360	250	H
4	* 7.442	29.57	PK	35.9	-27.2	38.27	-	-	74	-35.73	0-360	150	H
5	9.923	25.76	PK	37.1	-22.4	40.46	-	-	74	-33.54	0-360	150	H
2	* 4.959	36.32	PK	33.8	-31.7	38.42	-	-	74	-35.58	0-360	250	V
3	* 7.44	29.32	PK	35.9	-27.2	38.02	-	-	74	-35.98	0-360	250	V
6	9.916	26.13	PK	37.1	-22.3	40.93	-	-	74	-33.07	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	20170531_3117_0 00168717	3GHz_HP(dB)_17 0809	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96	45.53	PKFH	33.8	-31.6	47.73	-	-	74	-26.27	307	294	H
* 4.96	37.36	VA1T	33.8	-31.6	39.56	54	-14.44	-	-	307	294	H
* 4.96	42.86	PKFH	33.8	-31.6	45.06	-	-	74	-28.94	167	135	V
* 4.96	34.49	VA1T	33.8	-31.6	36.69	54	-17.31	-	-	167	135	V

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

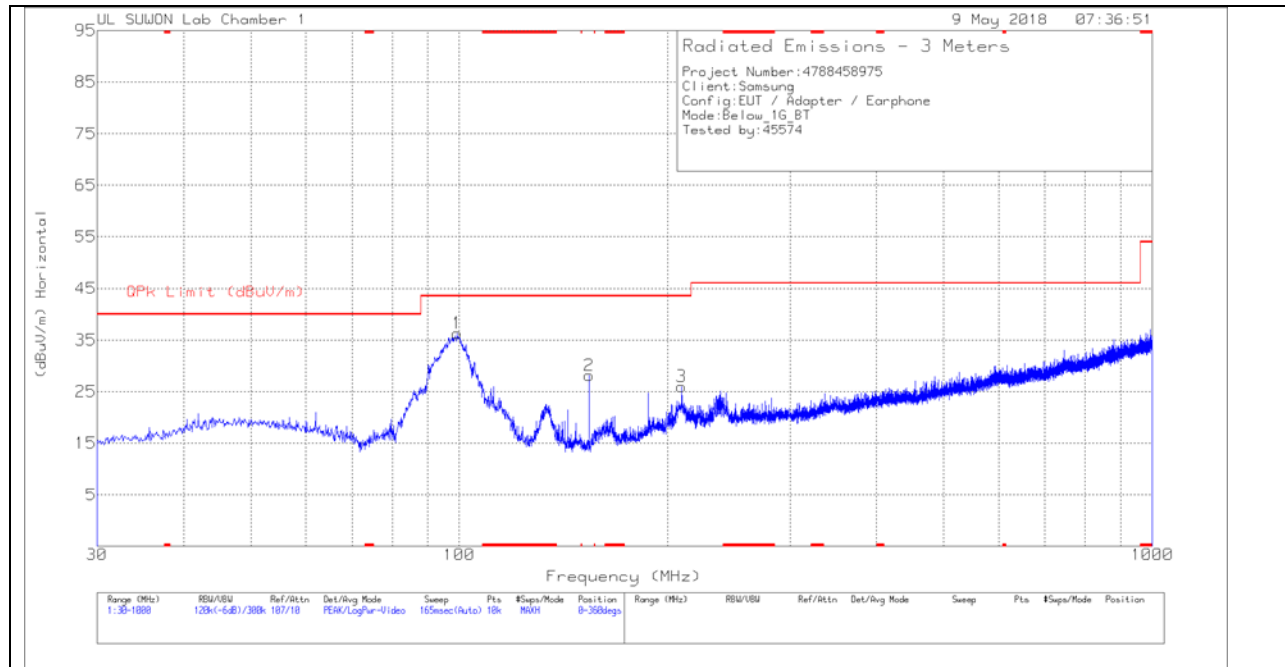
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

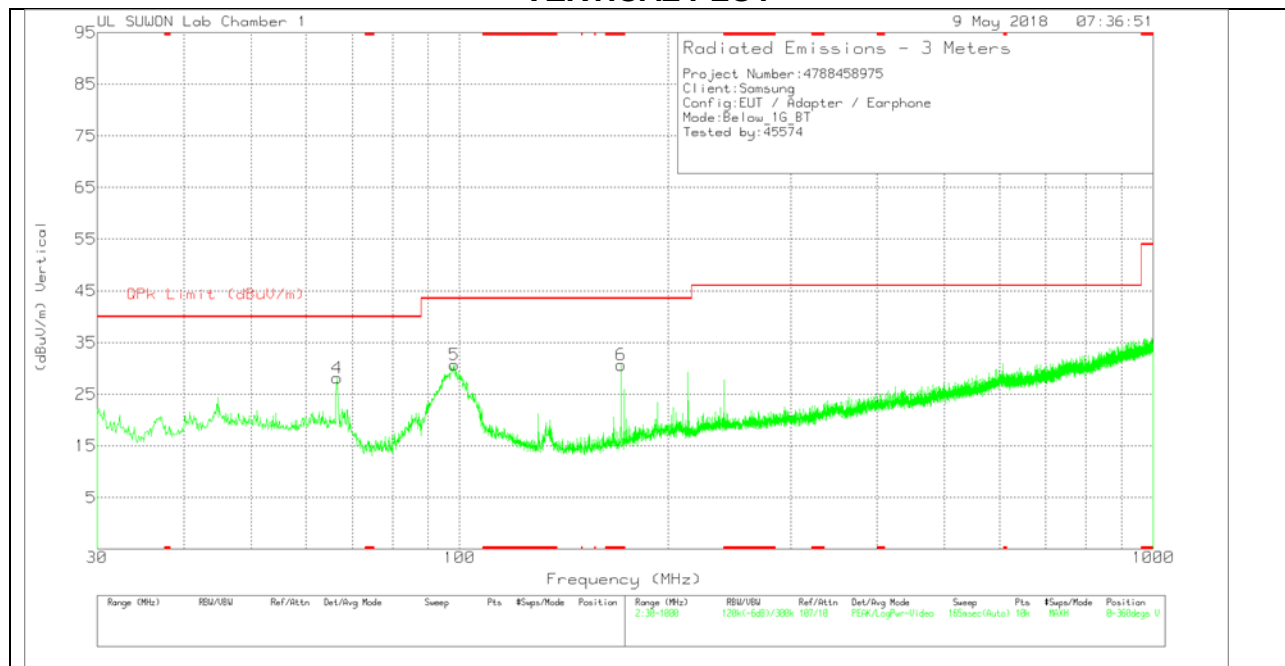
11.3. WORST-CASE BELOW 1 GHz

GFSK SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

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	99.355	47.52	Pk	17.3	-28.5	36.32	43.52	-7.2	0-360	300	H
2	153.869	42.06	Pk	14	-27.9	28.16	43.52	-15.36	0-360	300	H
3	209.159	36.79	Pk	16.7	-27.5	25.99	43.52	-17.53	0-360	200	H
4	66.569	40.64	Pk	16.4	-28.9	28.14	40	-11.86	0-360	100	V
5	98.288	42.01	Pk	17.2	-28.5	30.71	43.52	-12.81	0-360	100	V
6	* 170.844	43.57	Pk	14.8	-27.7	30.67	43.52	-12.85	0-360	200	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
99.355	43.49	Qp	17.3	-28.5	32.29	43.52	-11.23	187	288	H

* - 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)

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.

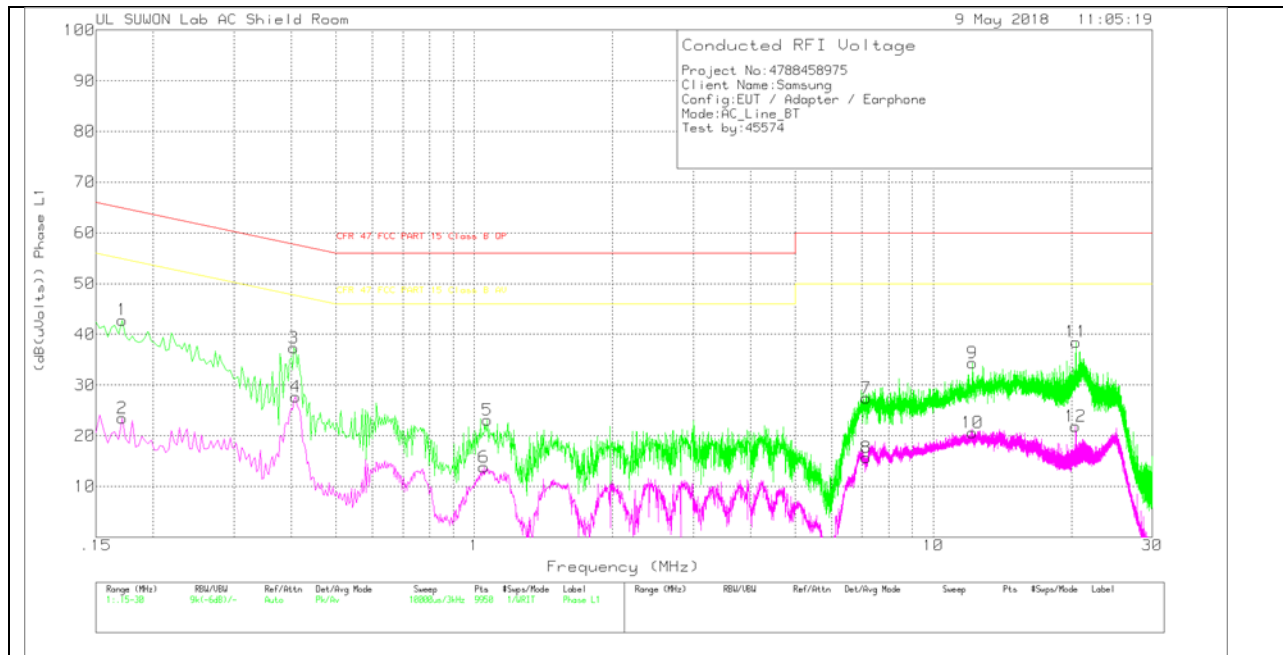
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

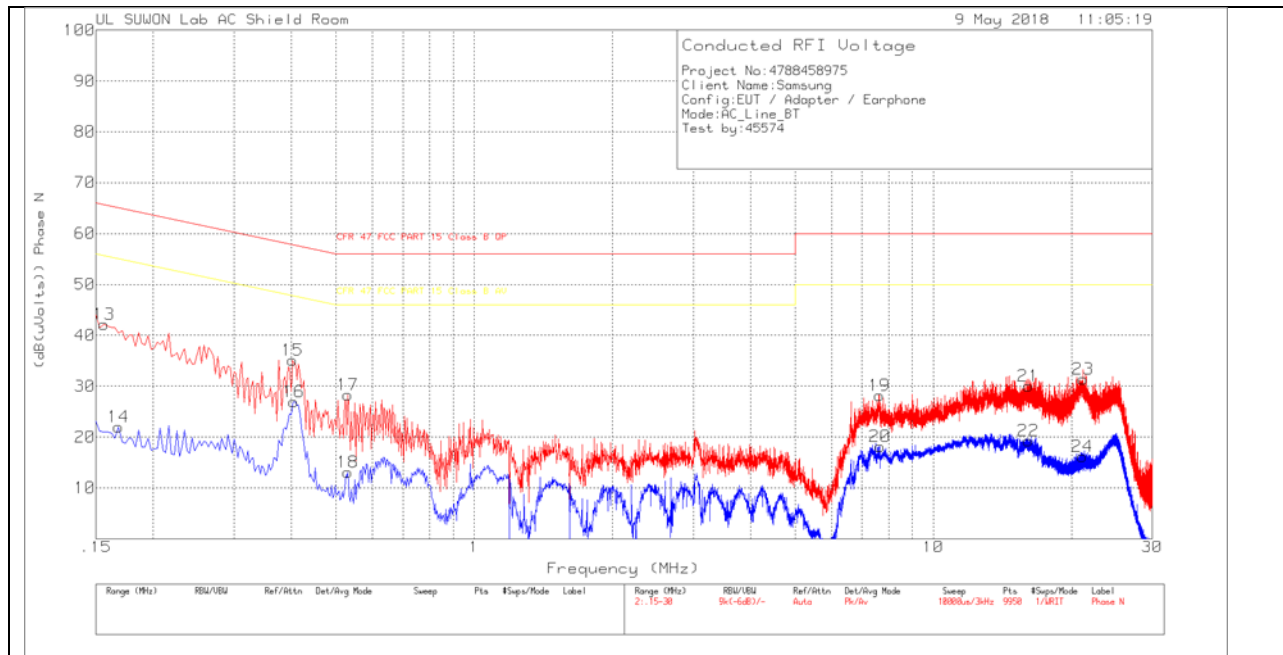
Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_L1_wit h 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	.171	32.63	Pk	10	.2	42.83	64.91	-22.08	-	-
2	.171	13.32	Av	10	.2	23.52	-	-	54.91	-31.39
3	.405	27.29	Pk	9.8	.2	37.29	57.75	-20.46	-	-
4	.408	17.64	Av	9.8	.2	27.64	-	-	47.69	-20.05
5	1.068	13.01	Pk	9.8	.3	23.11	56	-32.89	-	-
6	1.05	3.72	Av	9.8	.3	13.82	-	-	46	-32.18
7	7.155	17.42	Pk	9.7	.3	27.42	60	-32.58	-	-
8	7.143	5.64	Av	9.7	.3	15.64	-	-	50	-34.36
9	12.189	24.25	Pk	9.8	.3	34.35	60	-25.65	-	-
10	12.189	10.57	Av	9.8	.3	20.67	-	-	50	-29.33
11	20.46	28	Pk	10.1	.4	38.5	60	-21.5	-	-
12	20.442	11.39	Av	10.1	.4	21.89	-	-	50	-28.11

Pk - Peak detector

Av - Average detection

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	.156	32.07	Pk	10	.1	42.17	65.67	-23.5	-	-
14	.168	11.91	Av	10	.1	22.01	-	-	55.06	-33.05
15	.402	25.07	Pk	9.8	.2	35.07	57.81	-22.74	-	-
16	.405	16.97	Av	9.8	.2	26.97	-	-	47.75	-20.78
17	.531	18.29	Pk	9.8	.2	28.29	56	-27.71	-	-
18	.531	3.1	Av	9.8	.2	13.1	-	-	46	-32.9
19	7.626	18.05	Pk	9.8	.3	28.15	60	-31.85	-	-
20	7.668	8.03	Av	9.8	.3	18.13	-	-	50	-31.87
21	16.137	19.75	Pk	9.9	.4	30.05	60	-29.95	-	-
22	16.107	8.97	Av	9.9	.4	19.27	-	-	50	-30.73
23	21.171	20.94	Pk	10.1	.4	31.44	60	-28.56	-	-
24	21.15	5.73	Av	10.1	.4	16.23	-	-	50	-33.77

Pk - Peak detector

Av - Average detection