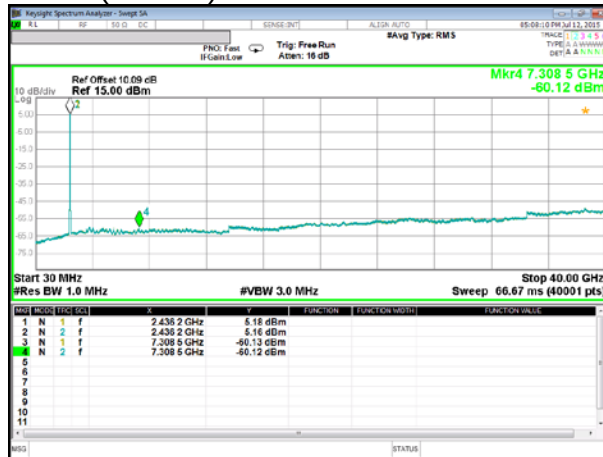


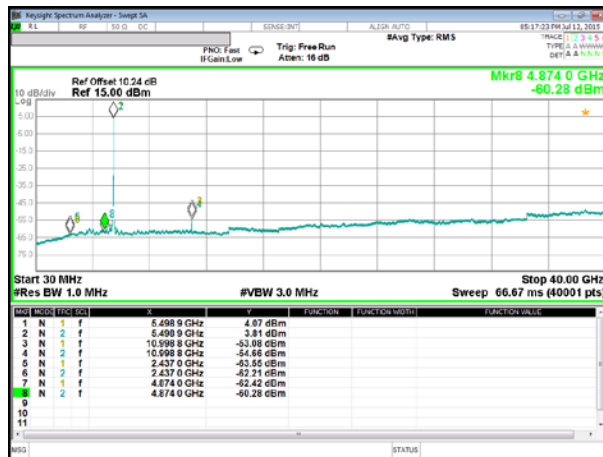
802.11n (2.4GHz) Mode + 802.11ac VHT80 Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	2.4 GHz only	RMS	Average	3 rd Harmonic
Trace 2	2.4 GHz + 5GHz	RMS	Average	3 rd Harmonic

- New emission in not observed.

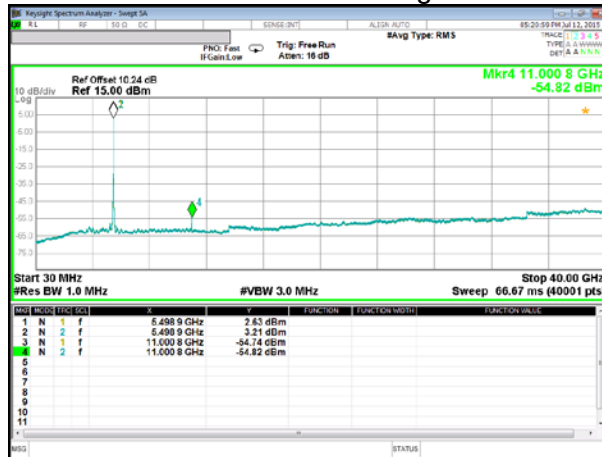
802.11a Mode + 802.11b Mode



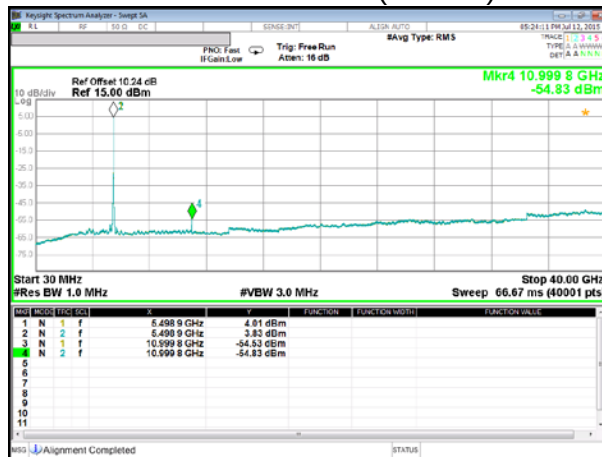
Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

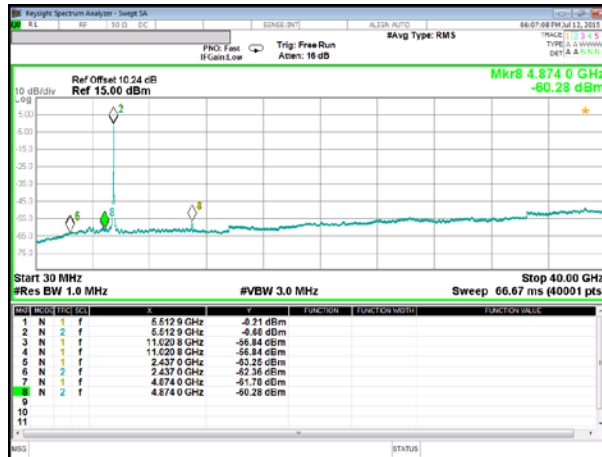
802.11a Mode + 802.11g Mode



802.11a Mode + 802.11n (2.4GHz) Mode



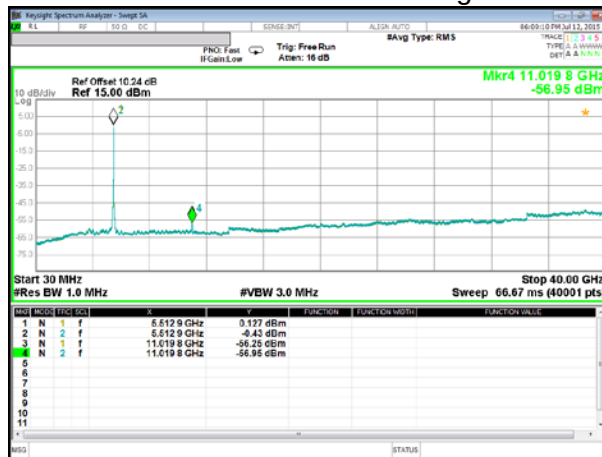
802.11n HT40 Mode + 802.11b Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

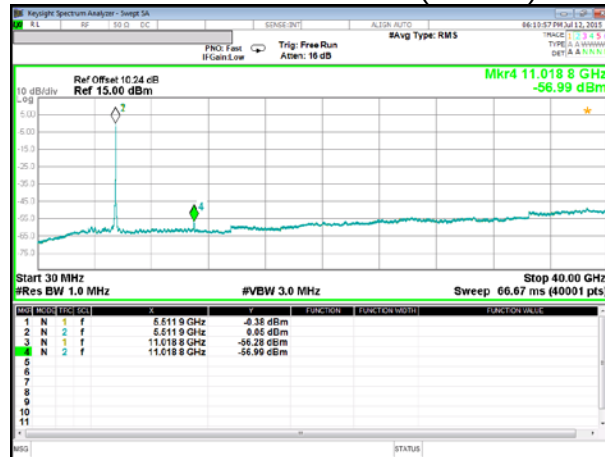
802.11n HT40 Mode + 802.11g Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

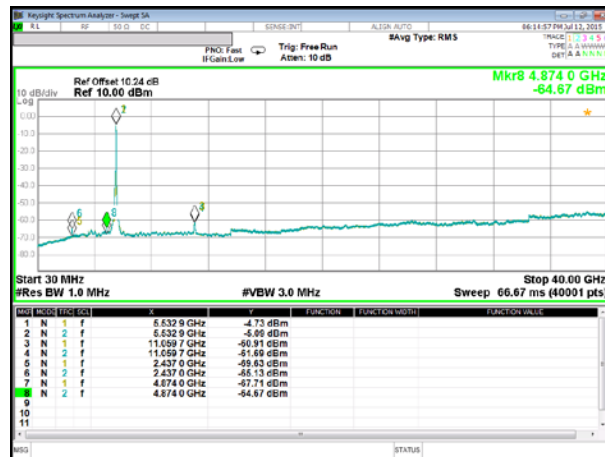
802.11n HT40 Mode + 802.11n (2.4GHz) Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

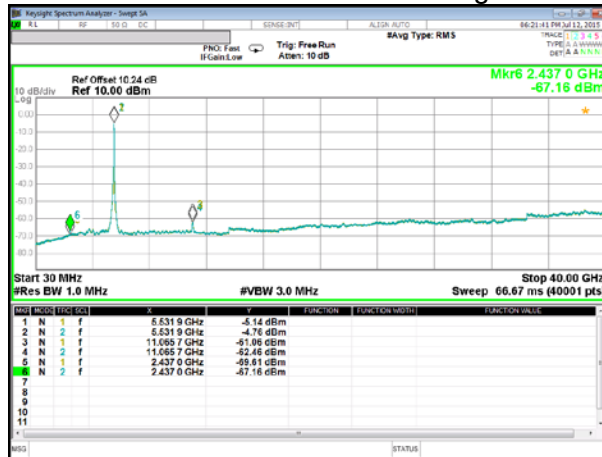
802.11ac VHT80 Mode + 802.11b Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

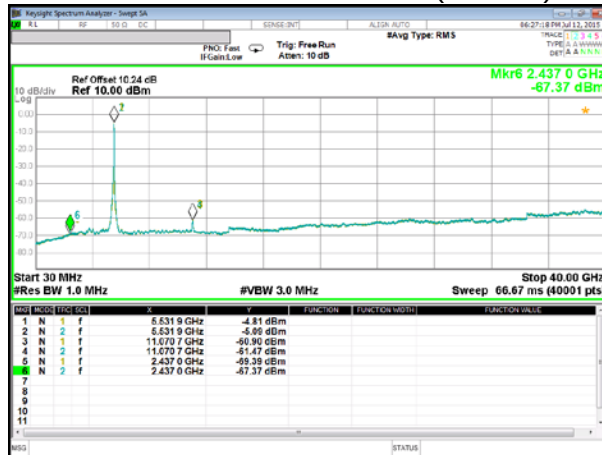
802.11ac VHT80 Mode + 802.11g Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

802.11ac VHT80 Mode + 802.11n (2.4GHz) Mode



Trace	TX Configuration	Detect Mode	Trace Mode	Unwanted Emission
Trace 1	5 GHz only	RMS	Average	2 nd Harmonic
Trace 2	5GHz + 2.4 GHz	RMS	Average	2 nd Harmonic

- New emission in not observed.

11. RADIATED TEST RESULTS

11.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

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. Duty cycle factor= $10\log(1/x)$ For this sample B mode = 0dB (duty cycle >98%); G mode = 0.30dB; N mode = 0.32dB.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

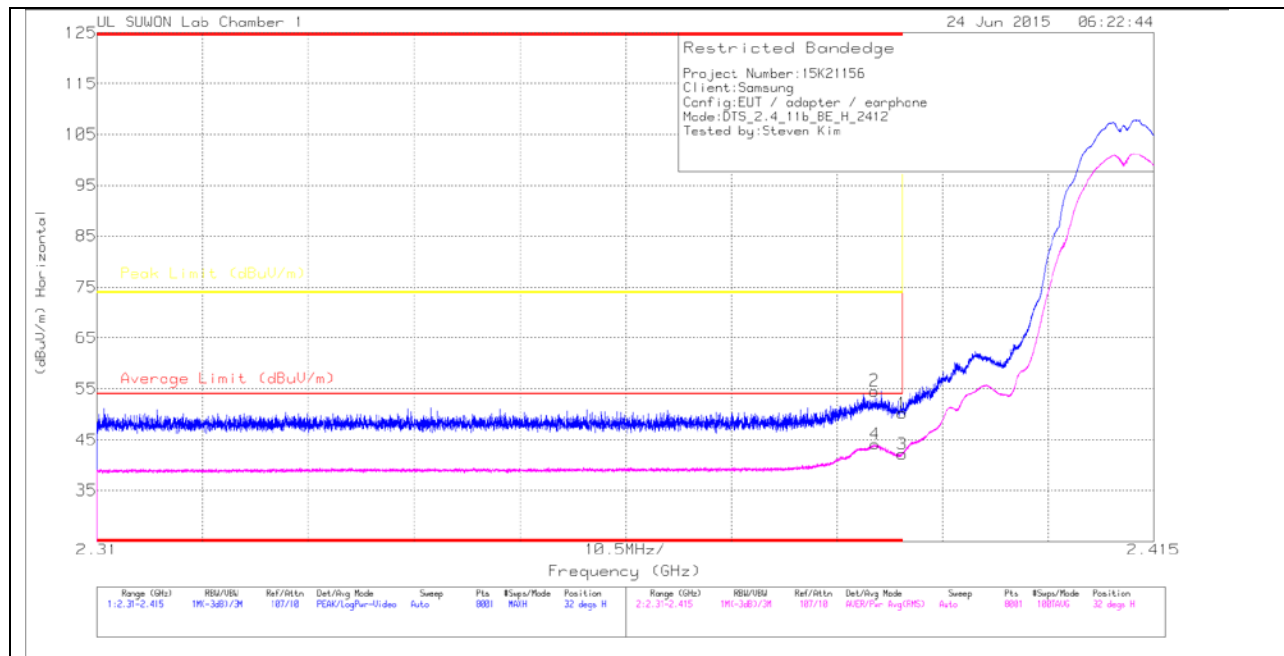
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

11.2. TRANSMITTER ABOVE 1 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

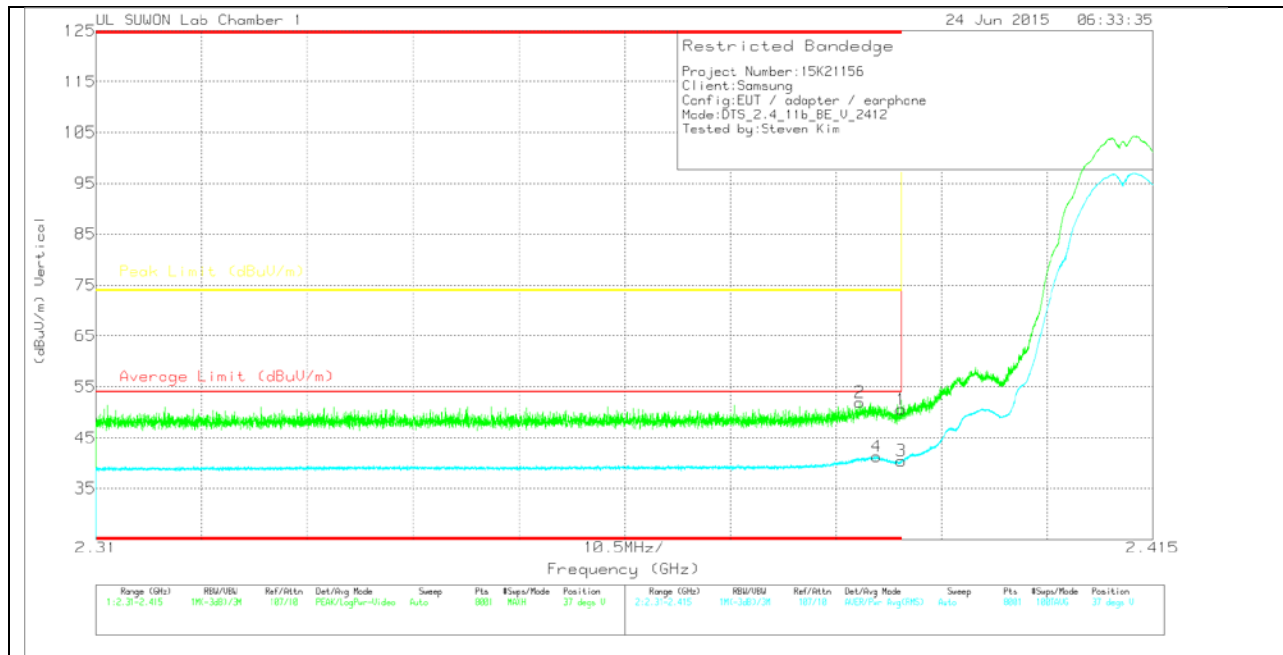
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.25	Pk			0	50.25	-	-	74	-23.75	32	106	H
2	* 2.387	45.59	PK			0	54.59	-	-	74	-19.41	32	106	H
3	* 2.39	33.2	RMS			0	42.2	54	-11.8	-	-	32	106	H
4	* 2.387	35.09	RMS			0	44.09	54	-9.91	-	-	32	106	H

* - indicates frequency in CFR15.205/IC7.2.2 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(00168 717)_15061 9	Path_2_10d 8	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	41.61	Pk			0	50.61	-	-	74	-23.39	37	102	V
2	* 2.386	42.96	Pk			0	51.96	-	-	74	-22.04	37	102	V
3	* 2.39	31.41	RMS			0	40.41	54	-13.59	-	-	37	102	V
4	* 2.388	32.31	RMS			0	41.31	54	-12.69	-	-	37	102	V

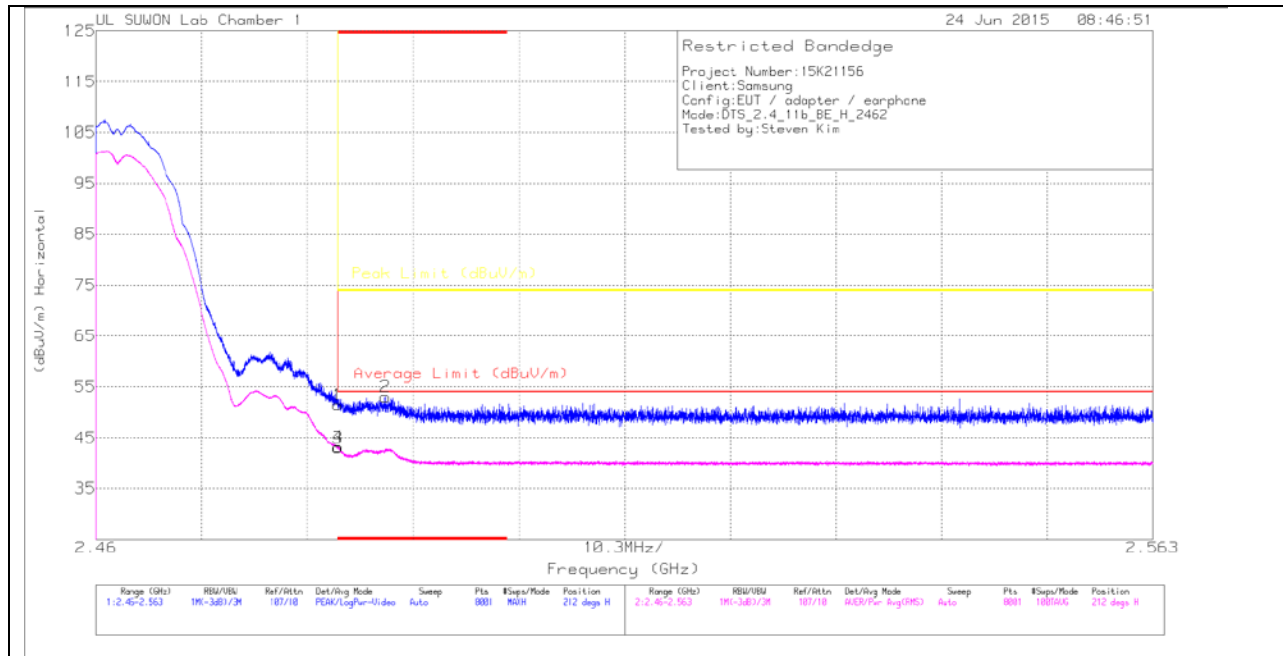
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

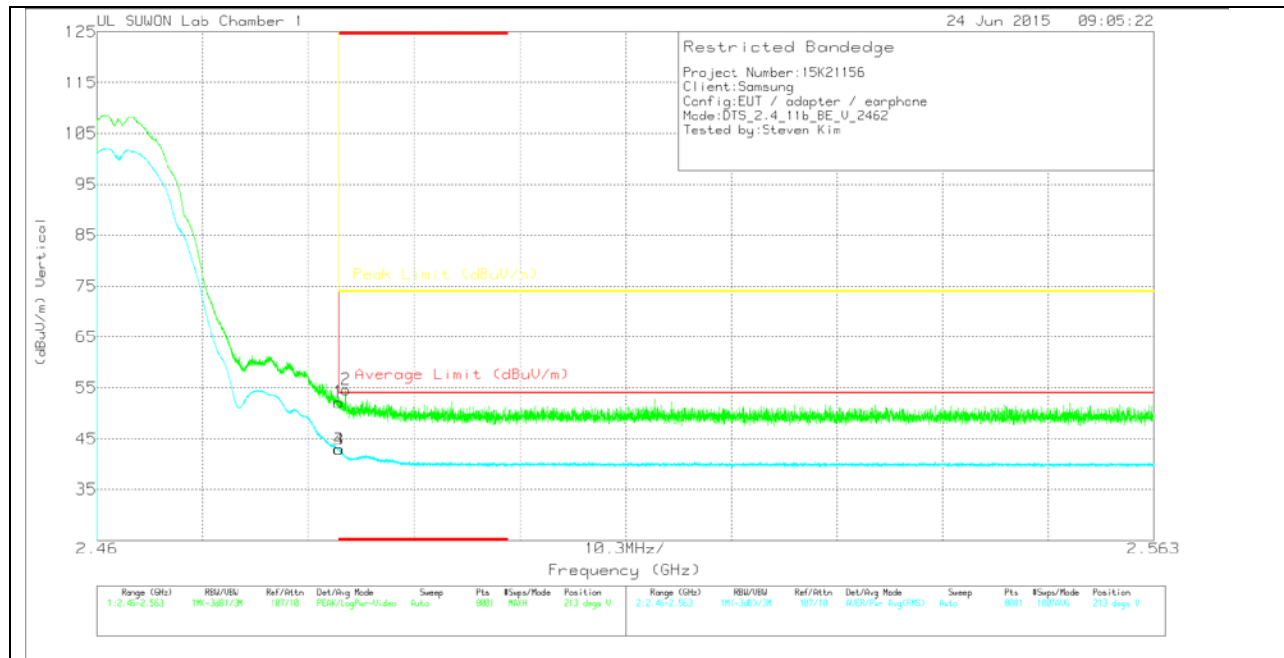
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/00168 717/_15061 9	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.07	Pk	32	-22.6	0	51.47	-	-	74	-22.53	212	101	H
2	* 2.488	43.7	Pk	32	-22.6	0	53.1	-	-	74	-20.9	212	101	H
3	* 2.484	33.61	RMS	32	-22.6	0	43.01	54	-10.99	-	-	212	101	H
4	* 2.484	33.79	RMS	32	-22.6	0	43.19	54	-10.81	-	-	212	101	H

* - indicates frequency in CFR15.205/IC7.2.2 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(00168 717)_15061 g	Path_2_10d B	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	42.84	Pk	32	-22.6	0	52.24	-	-	74	-21.76	213	217	V
2	* 2.484	45.23	Pk	32	-22.6	0	54.63	-	-	74	-19.37	213	217	V
3	* 2.484	33.55	RMS	32	-22.6	0	42.95	54	-11.05	-	-	213	217	V
4	* 2.484	33.55	RMS	32	-22.6	0	42.95	54	-11.05	-	-	213	217	V

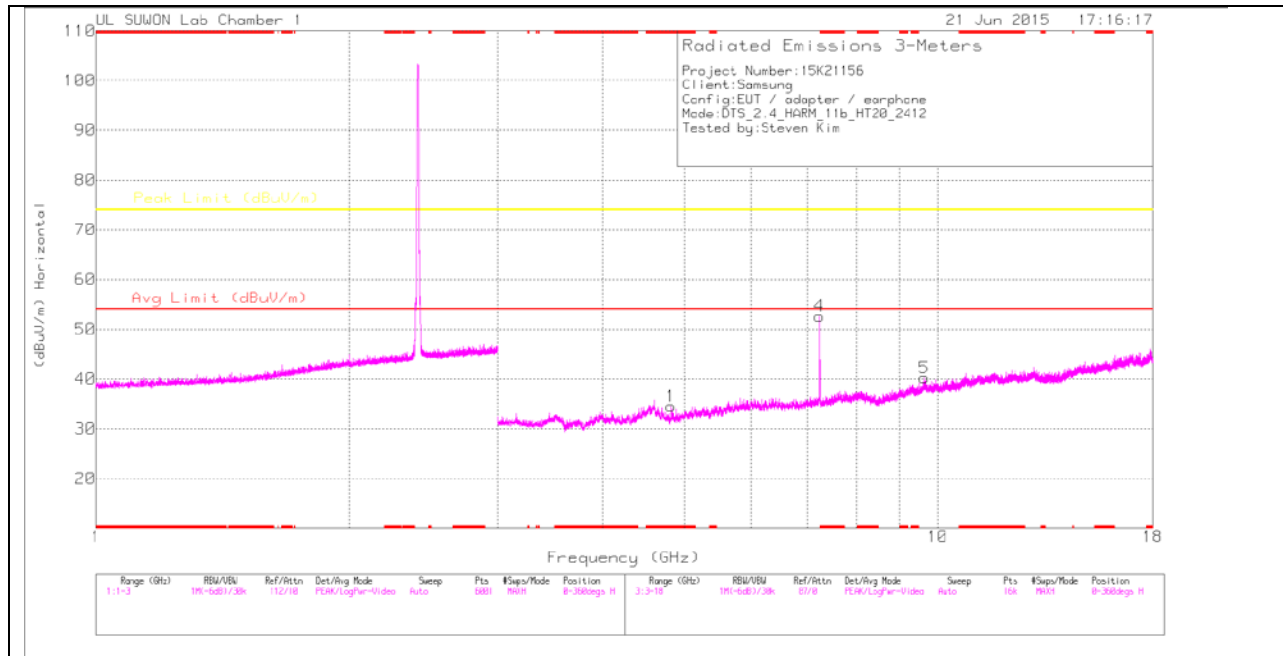
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

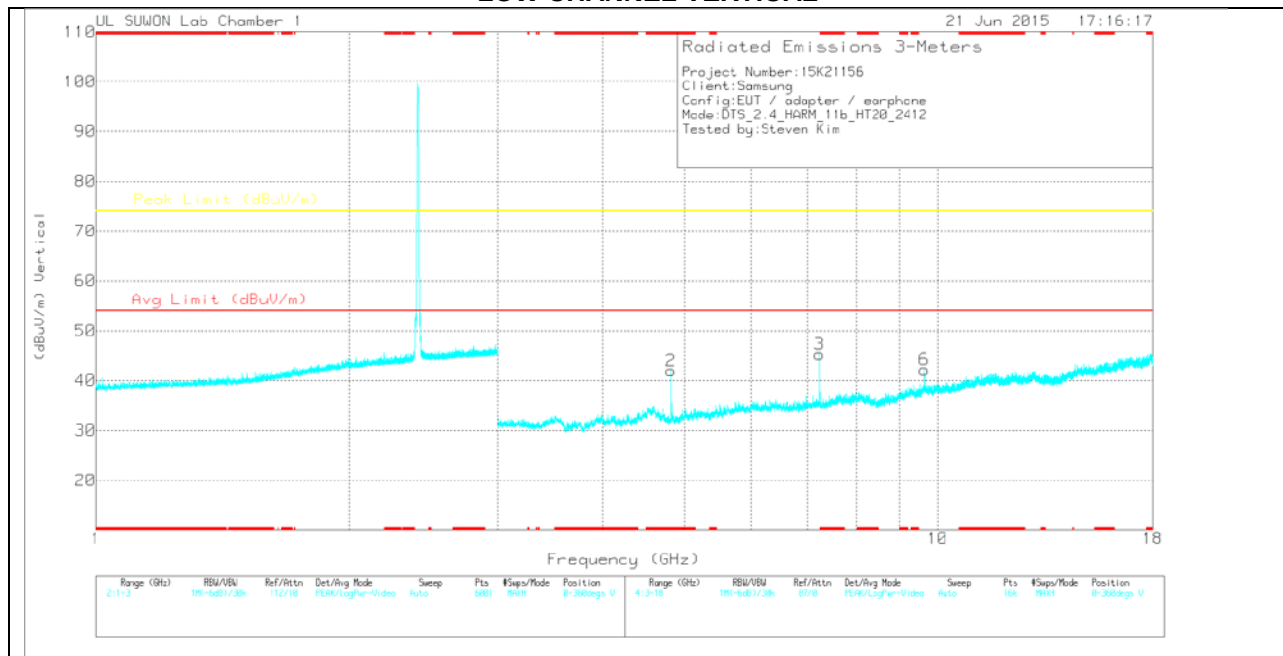
RMS - RMS detection

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(001687 17)_150619	Path_3_3GHP	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	30.1	PK	34	-29.6	0	34.5	-	-	74	-39.5	0-360	100	H
4	7.235	42.4	PK	35.7	-25.5	0	52.6	-	-	-	-	0-360	200	H
5	9.648	23.97	PK	37.1	-20.8	0	40.27	-	-	-	-	0-360	200	H
2	* 4.824	37.58	PK	34	-29.6	0	41.98	-	-	74	-32.02	0-360	200	V
3	7.234	35.04	PK	35.7	-25.5	0	45.24	-	-	-	-	0-360	100	V
6	9.648	25.9	PK	37.1	-20.8	0	42.2	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

Radiated Emissions

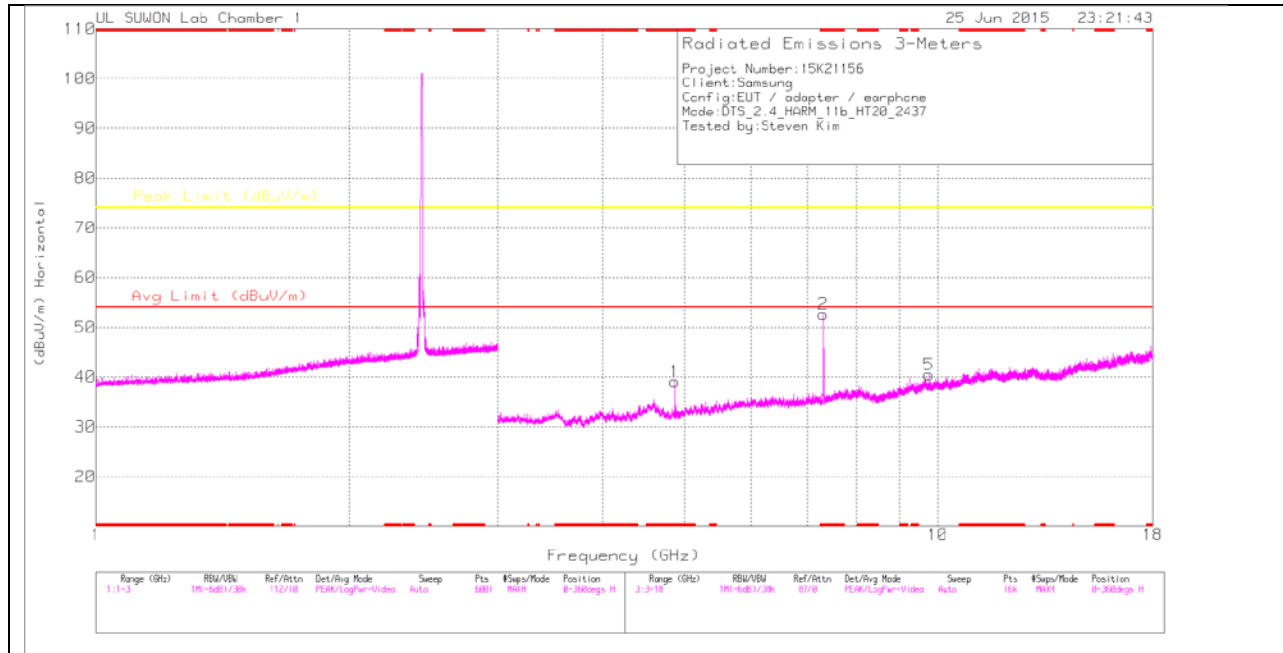
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001 68717)_1 50619	Path_3_3 GHP	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.824	40.48	PK2	34	-29.6	0	44.88	-	-	74	-29.12	221	105	H
* 4.824	30.65	MAv1	34	-29.6	0	35.05	54	-18.95	-	-	221	105	H
7.237	48.62	PK2	35.7	-25.5	0	58.82	-	-	-	-	198	185	H
7.235	40.01	MAv1	35.7	-25.5	0	50.21	-	-	-	-	198	185	H
9.648	34.54	PK2	37.1	-20.8	0	50.84	-	-	-	-	158	210	H
9.648	26.02	MAv1	37.1	-20.8	0	42.32	-	-	-	-	158	210	H
* 4.824	44.58	PK2	34	-29.6	0	48.98	-	-	74	-25.02	255	200	V
* 4.824	37.41	MAv1	34	-29.6	0	41.81	54	-12.19	-	-	255	200	V
7.237	39.37	PK2	35.7	-25.5	0	49.57	-	-	-	-	90	248	V
7.235	29.63	MAv1	35.7	-25.5	0	39.83	-	-	-	-	90	248	V
9.648	34.66	PK2	37.1	-20.8	0	50.96	-	-	-	-	157	209	H
9.648	24.81	MAv1	37.1	-20.8	0	41.11	-	-	-	-	157	209	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

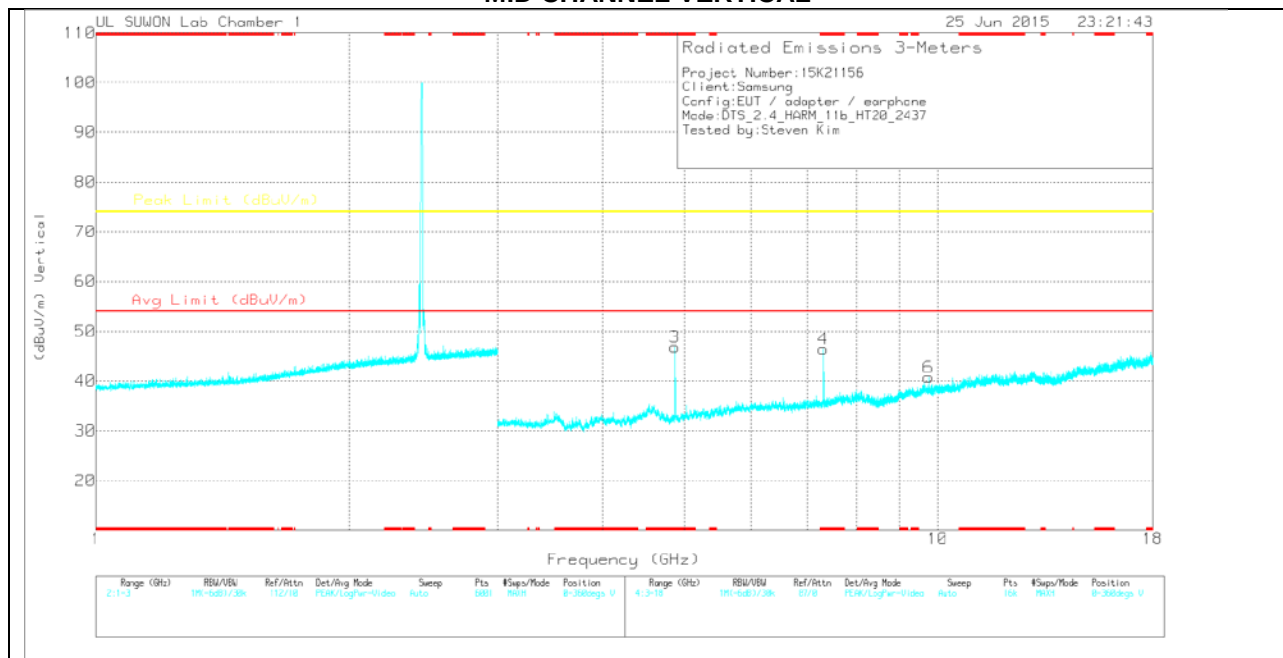
PK2 - KDB558074 Method: Maximum Peak

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(001687 17)_150619	Path_3_3G HP	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	34.32	PK	34	-29.2	0	39.12	-	-	74	-34.88	0-360	100	H
2	* 7.31	42.61	PK	35.7	-25.7	0	52.61	-	-	74	-21.39	0-360	100	H
5	9.75	25.13	PK	37.2	-21.9	0	40.43	-	-	-	-	0-360	200	H
3	* 4.874	41.99	PK	34	-29.2	0	46.79	-	-	74	-27.21	0-360	200	V
4	* 7.31	36.47	PK	35.7	-25.7	0	46.47	-	-	74	-27.53	0-360	100	V
6	9.749	25.41	PK	37.2	-21.9	0	40.71	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

Radiated Emissions

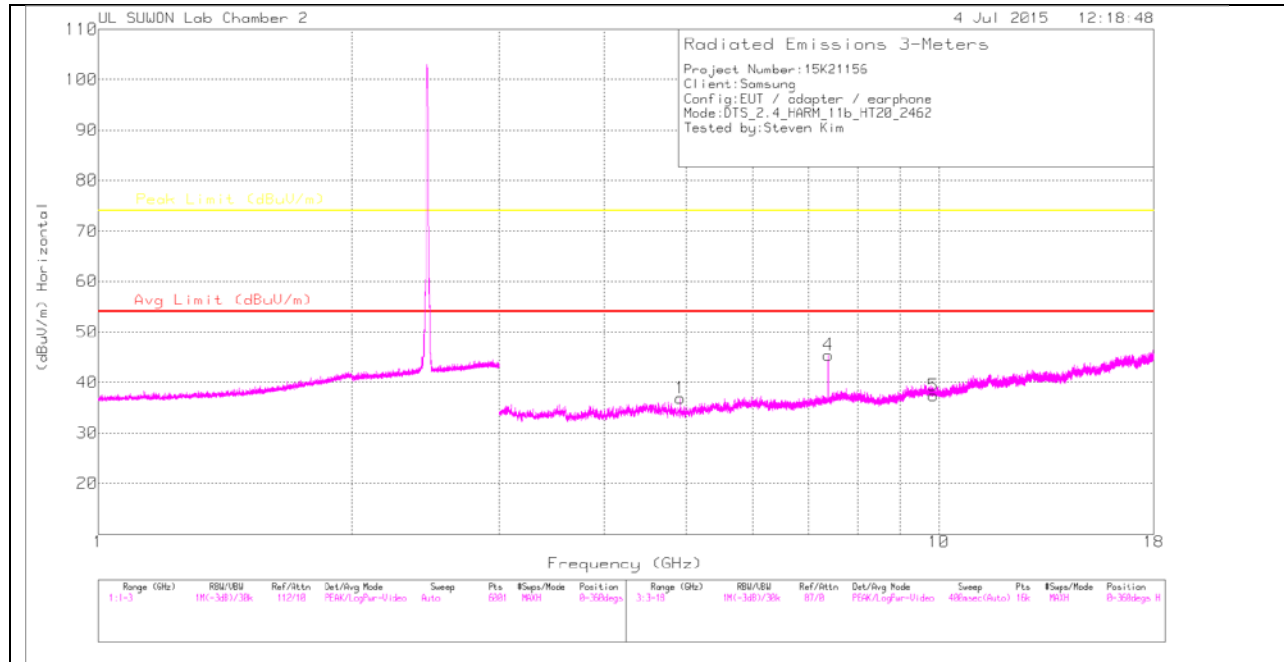
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_3_3 GHP	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.313	48.82	PK2	35.8	-25.7	0	58.92	-	-	74	-15.08	143	214	H
* 7.311	40.28	MAV1	35.7	-25.7	0	50.28	54	-3.72	-	-	143	214	H
* 4.875	43.02	PK2	34	-29.2	0	47.82	-	-	74	-26.18	56	166	H
* 4.875	31.86	MAV1	34	-29.2	0	36.66	54	-17.34	-	-	56	166	H
* 4.875	47.48	PK2	34	-29.2	0	52.28	-	-	74	-21.72	246	334	V
* 4.875	42.32	MAV1	34	-29.2	0	47.12	54	-6.88	-	-	246	334	V
* 7.313	44.61	PK2	35.8	-25.7	0	54.71	-	-	74	-19.29	81	100	V
* 7.313	35.98	MAV1	35.8	-25.7	0	46.08	54	-7.92	-	-	81	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

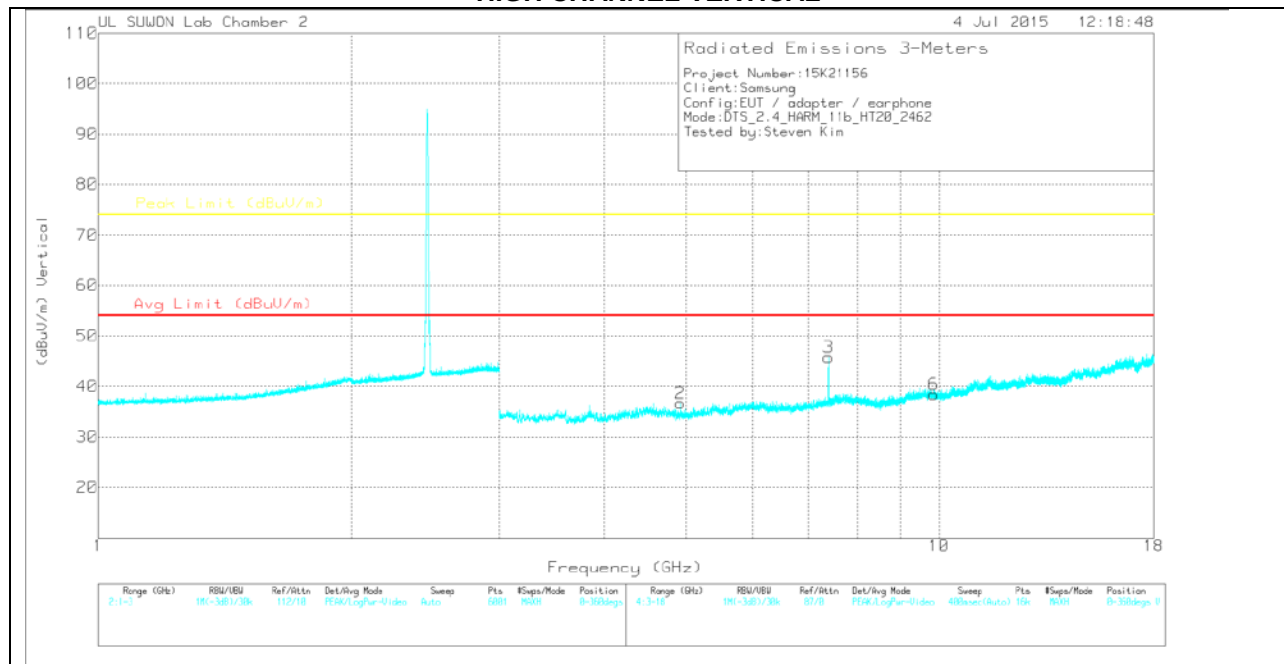
PK2 - KDB558074 Method: Maximum Peak

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(001687 24)_150619	Path_3	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	28.08	PK	33.9	-25.1	0	36.88	-	-	74	-37.12	0-360	100	H
4	* 7.386	31.73	PK	35.9	-22.2	0	45.43	-	-	74	-28.57	0-360	100	H
5	9.848	19.5	PK	37.1	-19.2	0	37.4	-	-	-	-	0-360	100	H
2	* 4.925	27.88	PK	33.9	-25.1	0	36.68	-	-	74	-37.32	0-360	200	V
3	* 7.386	32.07	PK	35.9	-22.2	0	45.77	-	-	74	-28.23	0-360	200	V
6	9.848	20.5	PK	37.1	-19.2	0	38.4	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8724)_150 619	Path_3	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.385	41.28	PK2	35.9	-22.2	0	54.98	-	-	74	-19.02	157	148	H
* 7.388	34.27	MAV1	35.9	-22.2	0	47.97	54	-6.03	-	-	157	148	H
* 7.386	40.34	PK2	35.9	-22.2	0	54.04	-	-	74	-19.96	112	266	V
* 7.386	32.52	MAV1	35.9	-22.2	0	46.22	54	-7.78	-	-	112	266	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

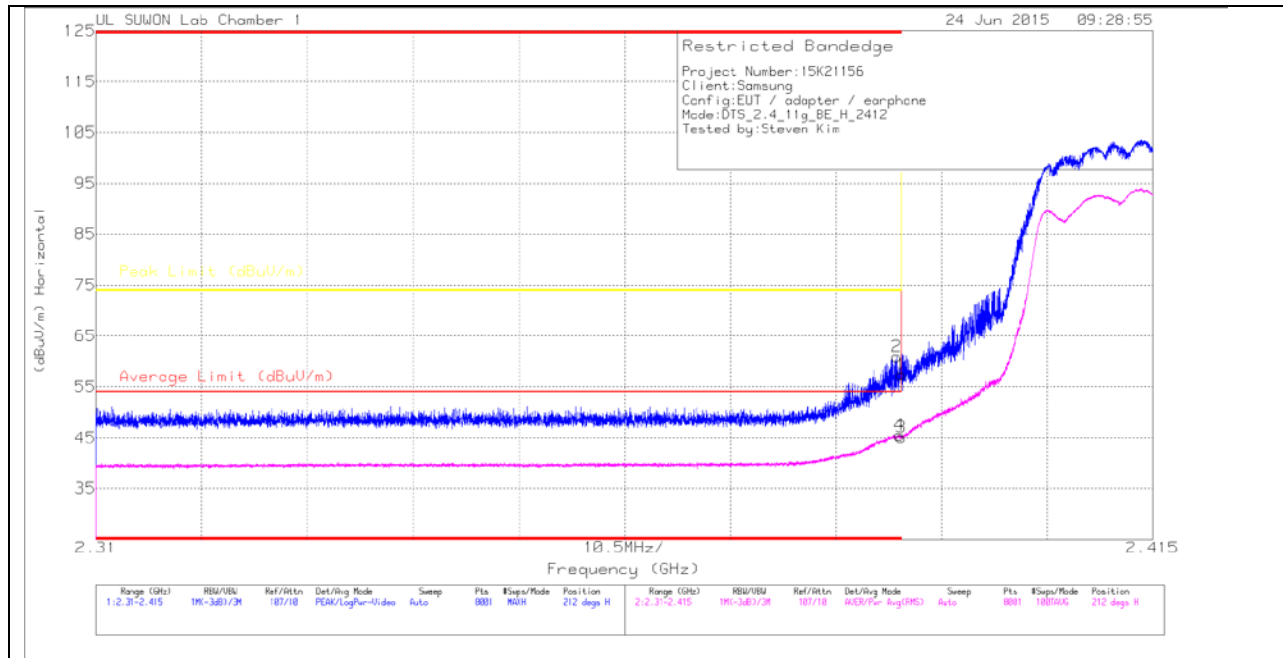
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

11.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

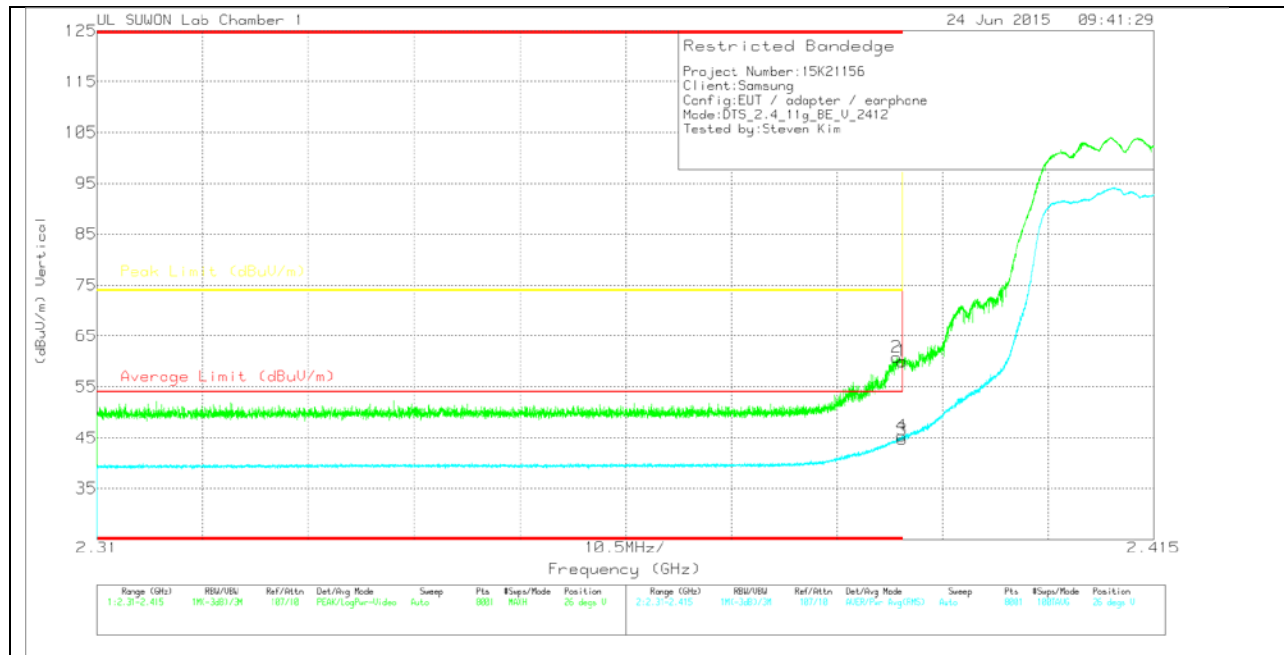
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168 717)_15061 9	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.43	Pk	31.8	-22.8	0	57.43	-	-	74	-16.57	212	107	H
2	* 2.39	52.02	Pk	31.8	-22.8	0	61.02	-	-	74	-12.98	212	107	H
3	* 2.39	35.8	RMS	31.8	-22.8	.3	45.1	54	-8.9	-	-	212	107	H
4	* 2.39	36.24	RMS	31.8	-22.8	.3	45.54	54	-8.46	-	-	212	107	H

* - indicates frequency in CFR15.205/IC7.2.2 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(00168 717)_15061 g	Path_2_10d B	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	51.04	Pk	31.8	-22.8	0	60.04	-	-	74	-13.96	26	339	V
2	* 2.389	51.8	Pk	31.8	-22.8	0	60.8	-	-	74	-13.2	26	339	V
3	* 2.39	35.31	RMS	31.8	-22.8	.3	44.61	54	-9.39	-	-	26	339	V
4	* 2.39	36.06	RMS	31.8	-22.8	.3	45.36	54	-8.64	-	-	26	339	V

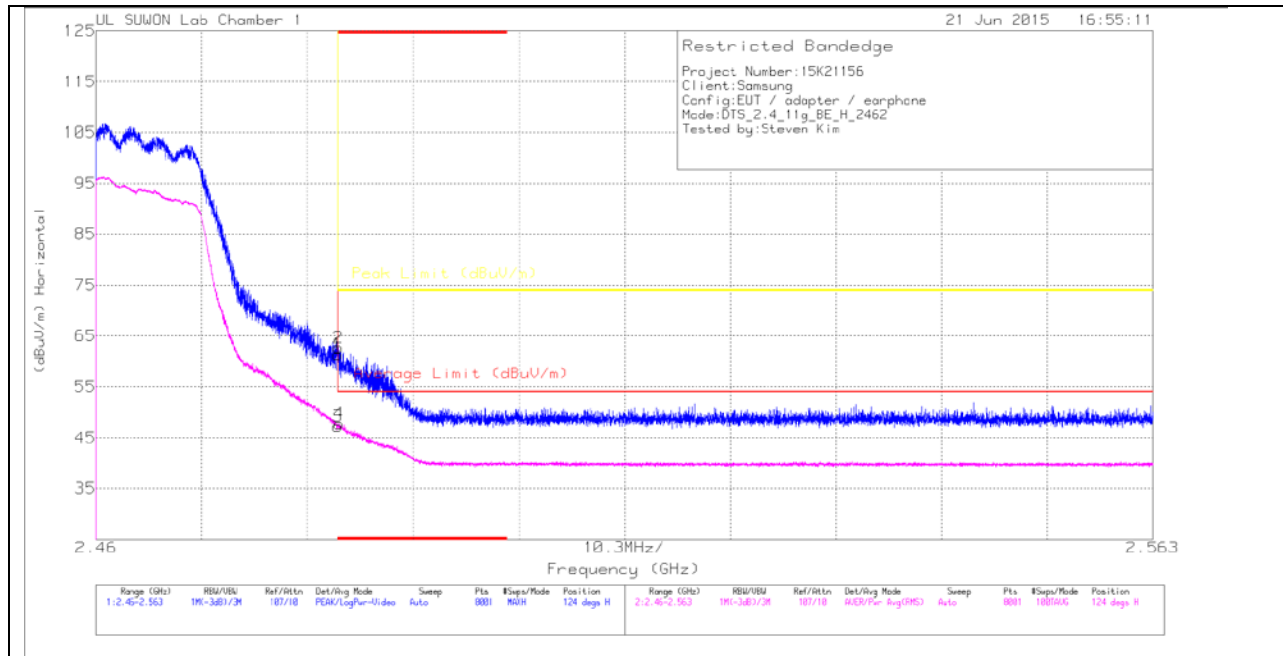
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

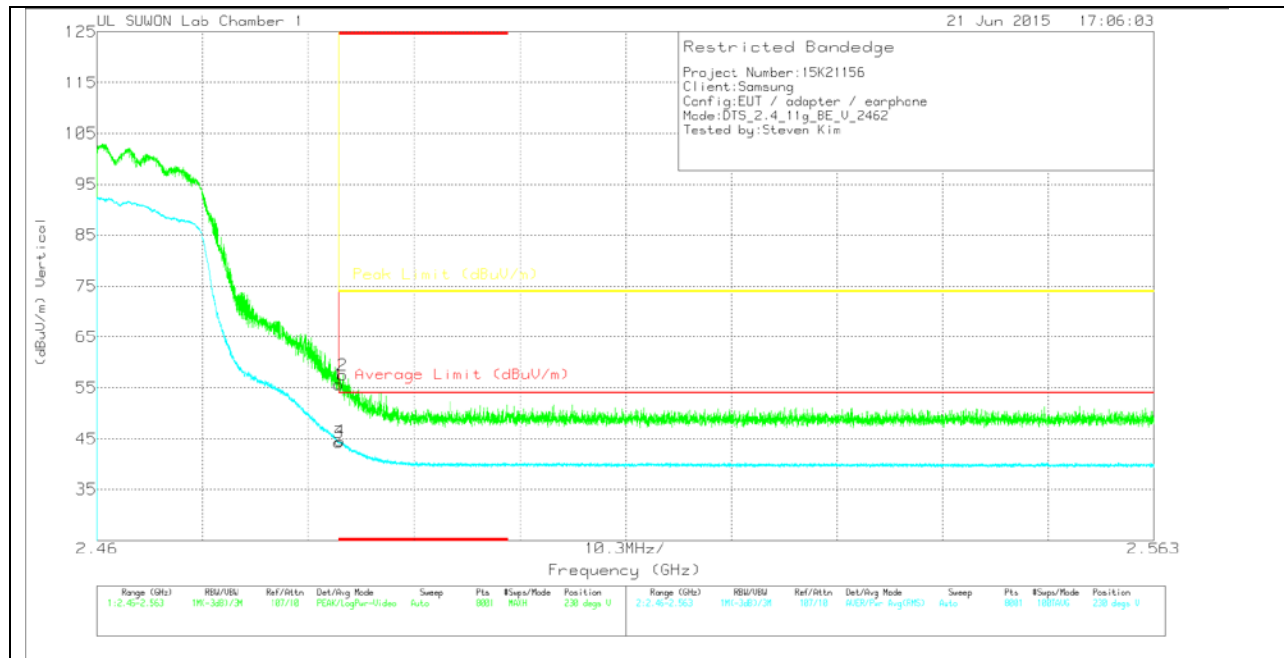
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168 717)_15061 9	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	51.95	Pk	32	-22.6	0	61.35	-	-	74	-12.65	124	100	H
2	* 2.484	53.31	Pk	32	-22.6	0	62.71	-	-	74	-11.29	124	100	H
3	* 2.484	37.58	RMS	32	-22.6	.3	47.28	54	-6.72	-	-	124	100	H
4	* 2.484	38.07	RMS	32	-22.6	.3	47.77	54	-6.23	-	-	124	100	H

* - indicates frequency in CFR15.205/IC7.2.2 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(00168 717)_15061 g	Path_2_10d B	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	46.26	Pk	32	-22.6	0	55.66	-	-	74	-18.34	230	242	V
2	* 2.484	48.12	Pk	32	-22.6	0	57.52	-	-	74	-16.48	230	242	V
3	* 2.484	34.6	RMS	32	-22.6	.3	44.3	54	-9.7	-	-	230	242	V
4	* 2.484	34.84	RMS	32	-22.6	.3	44.54	54	-9.46	-	-	230	242	V

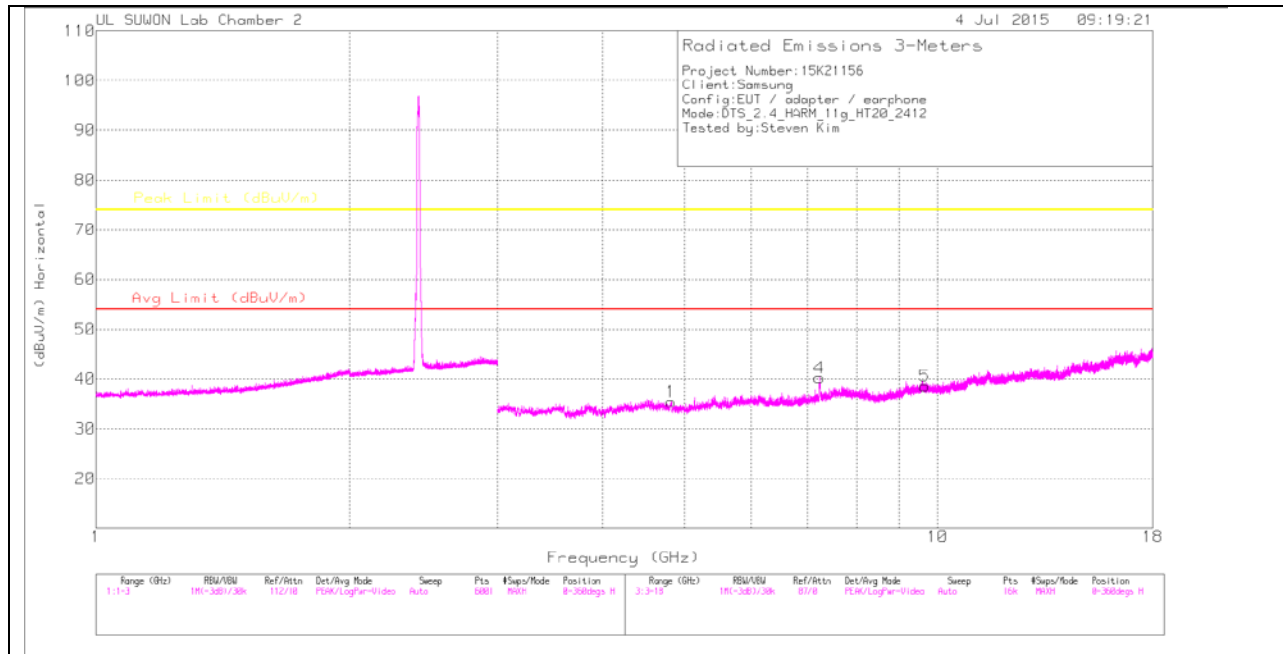
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

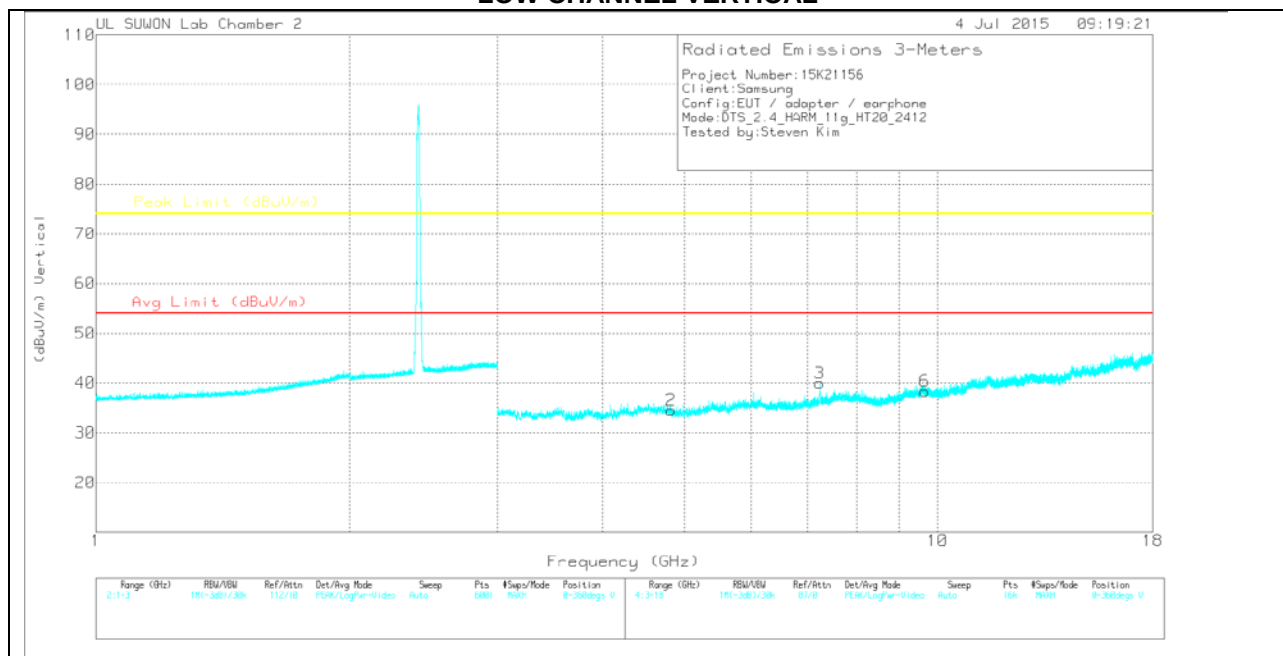
RMS - RMS detection

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(001687 24)_150619	Path_3	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	26.85	PK	33.9	-25.3	0	35.45	-	-	74	-38.55	0-360	200	H
4	7.228	27.46	PK	35.8	-23	0	40.26	-	-	-	-	0-360	200	H
5	9.649	20.74	PK	36.9	-19	0	38.64	-	-	-	-	0-360	200	H
2	* 4.824	25.98	PK	33.9	-25.3	0	34.58	-	-	74	-39.42	0-360	200	V
3	7.238	27.14	PK	35.8	-23	0	39.94	-	-	-	-	0-360	200	V
6	9.649	20.46	PK	36.9	-19	0	38.36	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

Radiated Emissions

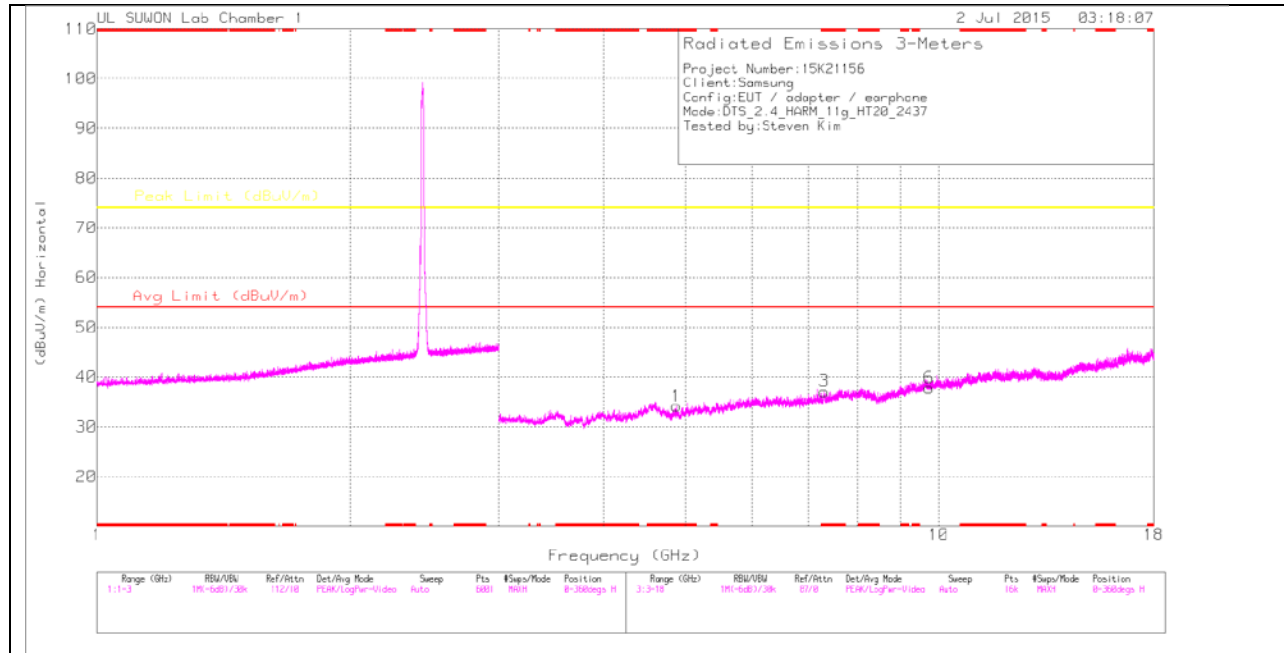
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8724)_150 619	Path_3	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.231	37.69	PK2	35.8	-23	0	50.49	-	-	-	-	152	245	H
7.231	24.04	MAV1	35.8	-23	.3	37.14	-	-	-	-	152	245	H
7.238	40.69	PK2	35.8	-23	0	53.49	-	-	-	-	198	197	V
7.237	26.85	MAV1	35.8	-23	.3	39.95	-	-	-	-	198	197	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

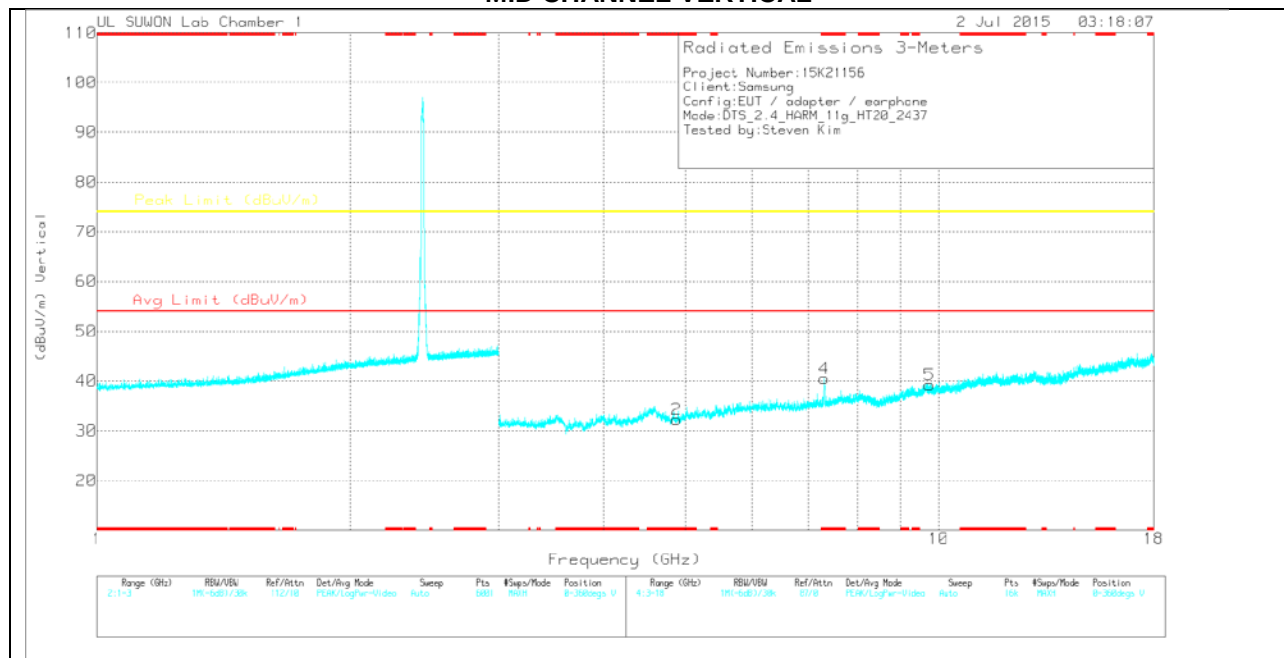
PK2 - KDB558074 Method: Maximum Peak

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(001687 17)_150619	Path_3_3GHP	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	* 4.876	29.42	PK	34	-29.2	0	34.22	-	-	74	-39.78	0-360	100	H
3	* 7.312	27.14	PK	35.7	-25.7	0	37.14	-	-	74	-36.86	0-360	200	H
6	9.748	22.48	PK	37.2	-21.9	0	37.78	-	-	-	-	0-360	200	H
2	* 4.878	27.37	PK	34	-29.1	0	32.27	-	-	74	-41.73	0-360	200	V
4	* 7.311	30.44	PK	35.7	-25.7	0	40.44	-	-	74	-33.56	0-360	100	V
5	9.749	23.94	PK	37.2	-21.9	0	39.24	-	-	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

Radiated Emissions

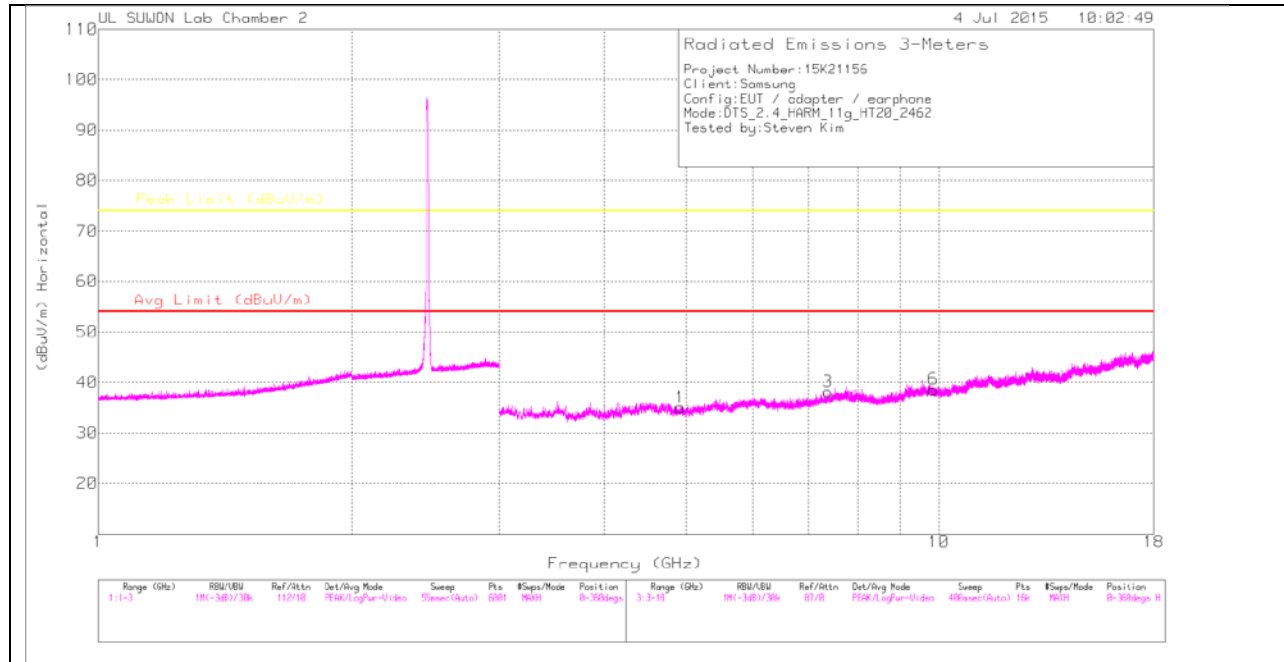
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001 68717)_1 50619	Path_3_3 GHP	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.314	41.82	PK2	35.8	-25.7	0	51.92	-	-	74	-22.08	169	107	V
* 7.309	27.37	MAV1	35.7	-25.7	.3	37.67	54	-16.33	-	-	169	107	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

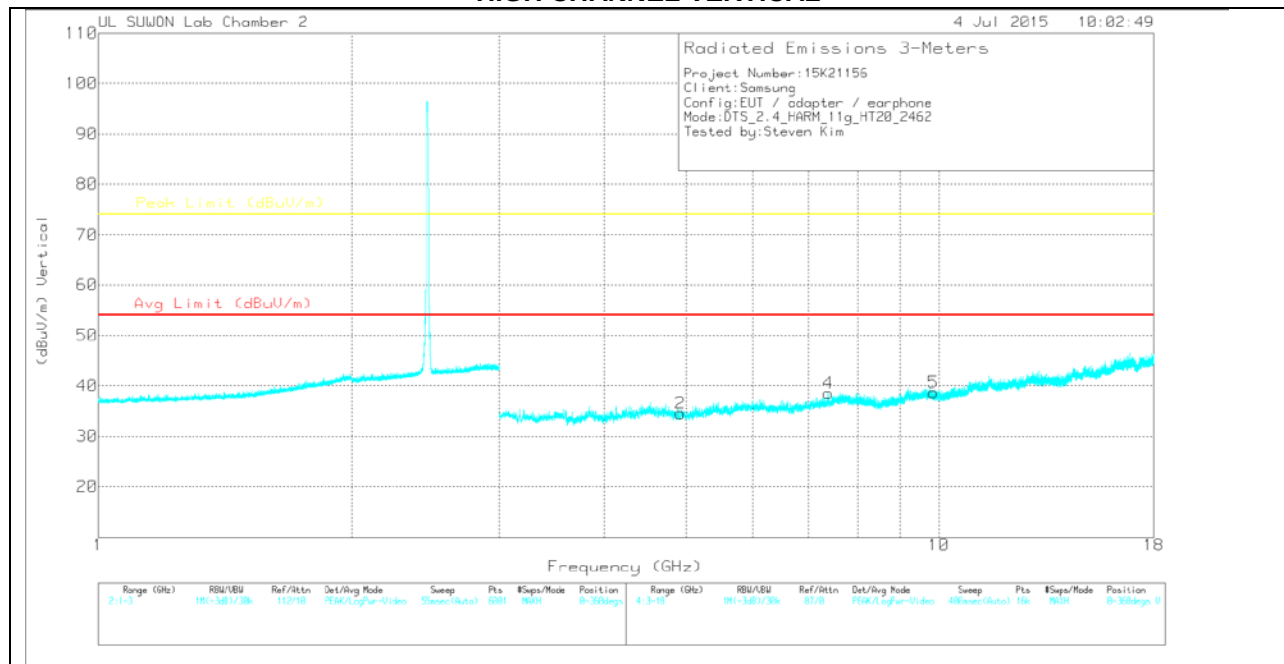
PK2 - KDB558074 Method: Maximum Peak

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[001687 24]_150619	Path_3	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	* 4.924	26.22	PK	33.9	-25.1	0	35.02	-	-	74	-38.98	0-360	200	H
3	* 7.381	24.48	PK	35.9	-22.2	0	38.18	-	-	74	-35.82	0-360	200	H
6	9.848	20.71	PK	37.1	-19.2	0	38.61	-	-	-	-	0-360	200	H
2	* 4.925	25.72	PK	33.9	-25.1	0	34.52	-	-	74	-39.48	0-360	200	V
4	* 7.385	24.85	PK	35.9	-22.2	0	38.55	-	-	74	-35.45	0-360	200	V
5	9.848	20.77	PK	37.1	-19.2	0	38.67	-	-	-	-	0-360	200	V

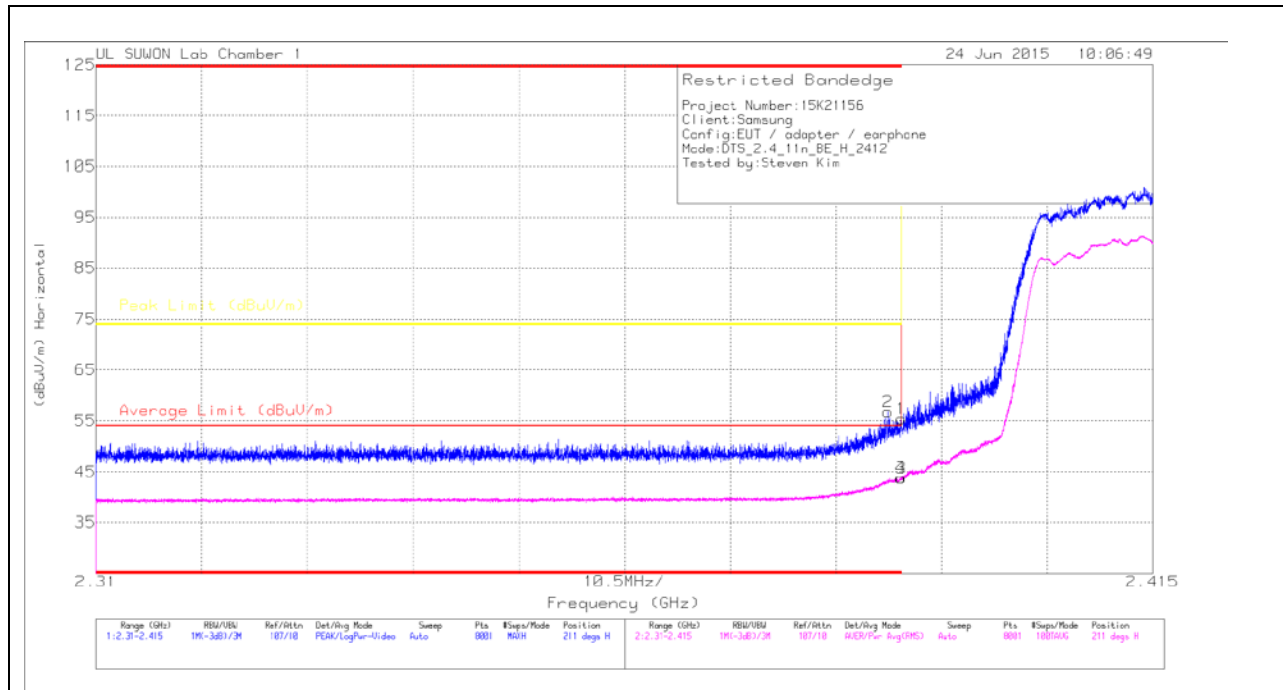
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

11.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

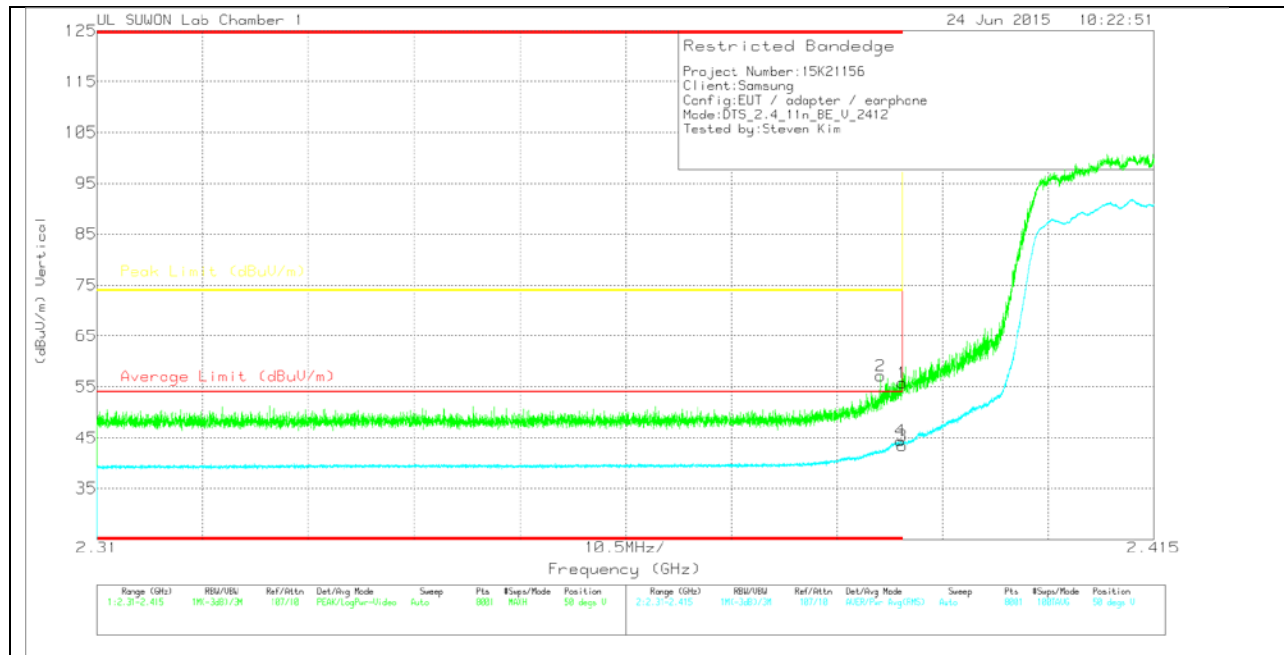
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168 717)_15061 9	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.39	Pk	31.8	-22.8	0	55.39	-	-	74	-18.61	211	100	H
2	* 2.389	47.73	Pk	31.8	-22.8	0	56.73	-	-	74	-17.27	211	100	H
3	* 2.39	34.5	RMS	31.8	-22.8	.32	43.82	54	-10.18	-	-	211	100	H
4	* 2.39	34.46	RMS	31.8	-22.8	.32	43.78	54	-10.22	-	-	211	100	H

* - indicates frequency in CFR15.205/IC7.2.2 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[00168 717]_15061 9	Path_2_10d 8	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	46.77	Pk	31.8	-22.8	0	55.77	-	-	74	-18.23	50	328	V
2	* 2.388	48.11	Pk	31.8	-22.8	0	57.11	-	-	74	-16.89	50	328	V
3	* 2.39	34.11	RMS	31.8	-22.8	.32	43.43	54	-10.57	-	-	50	328	V
4	* 2.39	35.1	RMS	31.8	-22.8	.32	44.42	54	-9.58	-	-	50	328	V

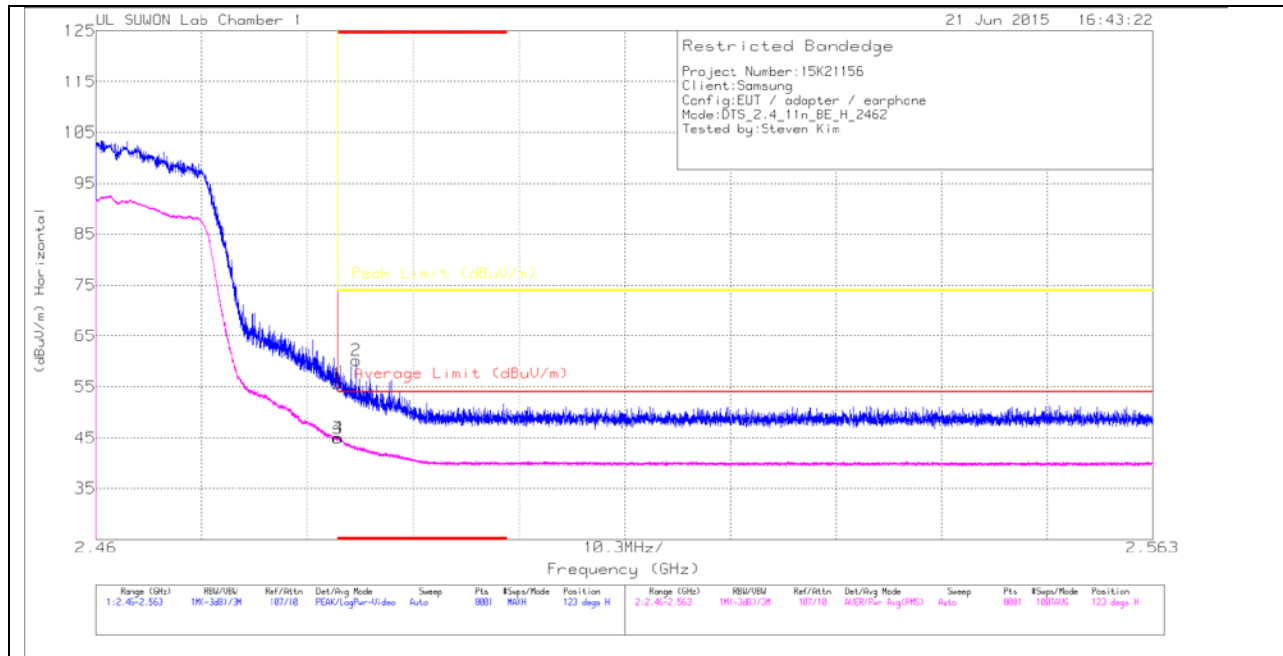
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

TRACE MARKERS

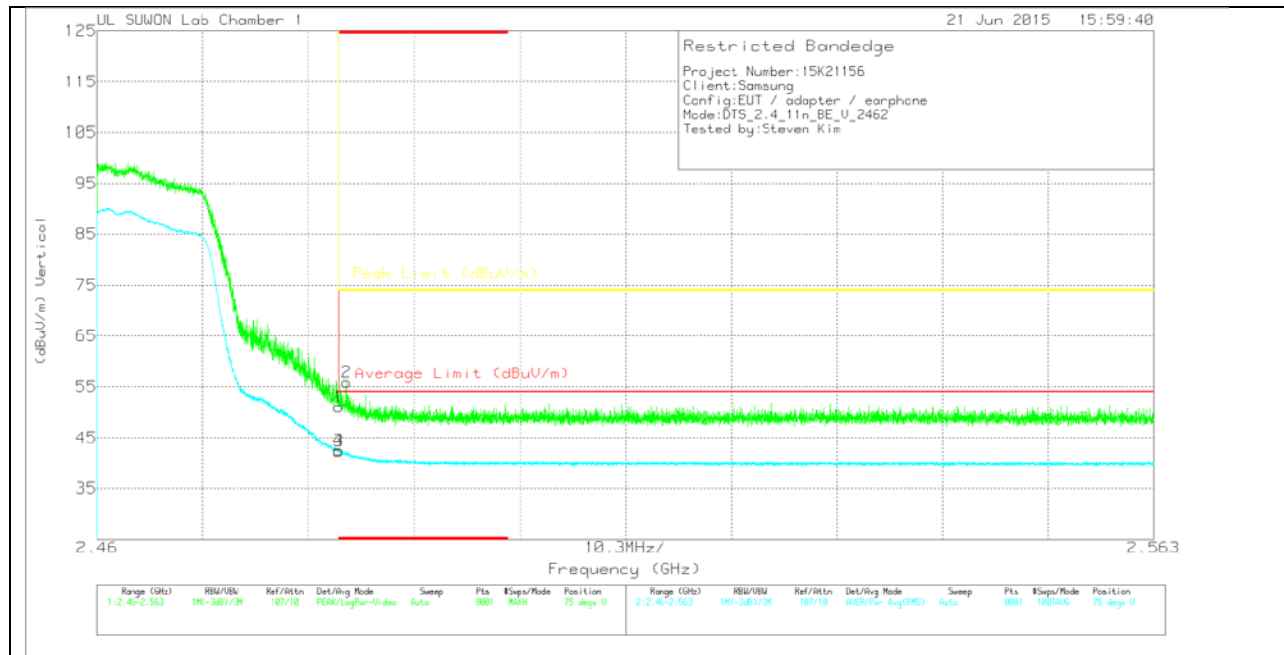
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2_10d B	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	46.3	Pk	32	-22.6	0	55.7	-	-	74	-18.3	123	100	H
2	* 2.485	50.78	Pk	32	-22.6	0	60.18	-	-	74	-13.82	123	100	H
3	* 2.484	35.14	RMS	32	-22.6	.32	44.86	54	-9.14	-	-	123	100	H
4	* 2.484	35.29	RMS	32	-22.6	.32	45.01	54	-8.99	-	-	123	100	H

* - indicates frequency in CFR15.205/IC7.2.2 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[00168 717]_15061 9	Path_2_10d B	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	41.72	Pk	32	-22.6	0	51.12	-	-	74	-22.88	75	337	V
2	* 2.484	46.47	Pk	32	-22.6	0	55.87	-	-	74	-18.13	75	337	V
3	* 2.484	32.63	RMS	32	-22.6	.32	42.35	54	-11.65	-	-	75	337	V
4	* 2.484	32.83	RMS	32	-22.6	.32	42.55	54	-11.45	-	-	75	337	V

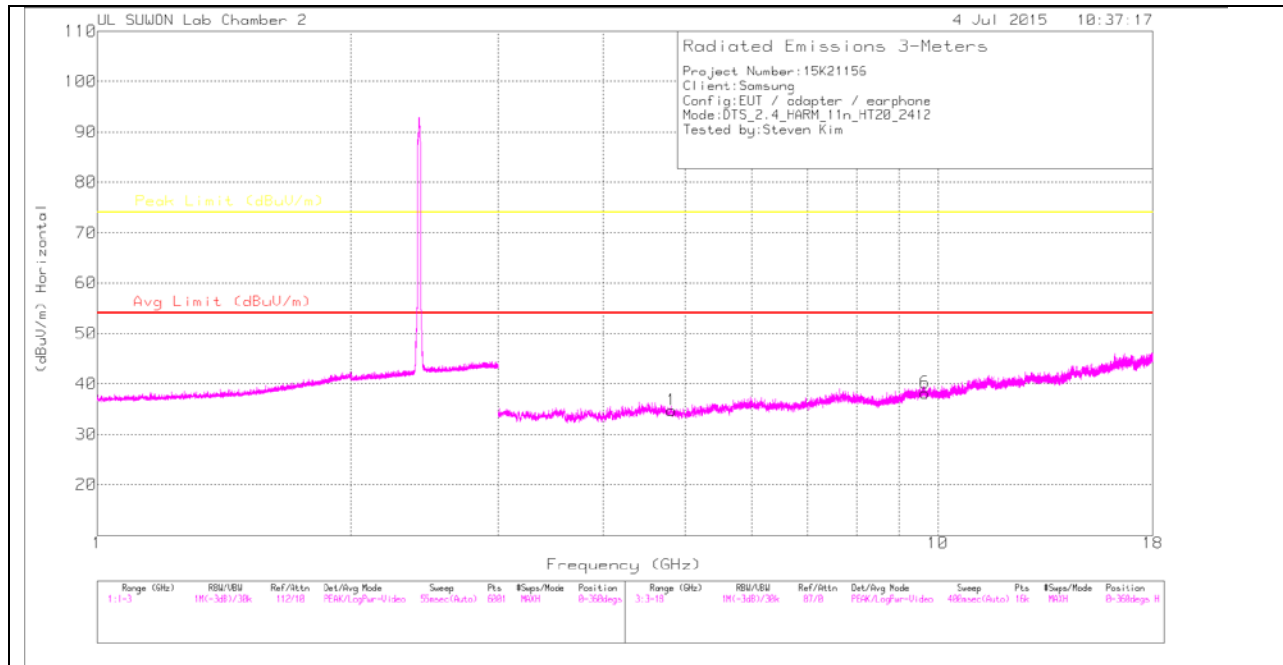
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

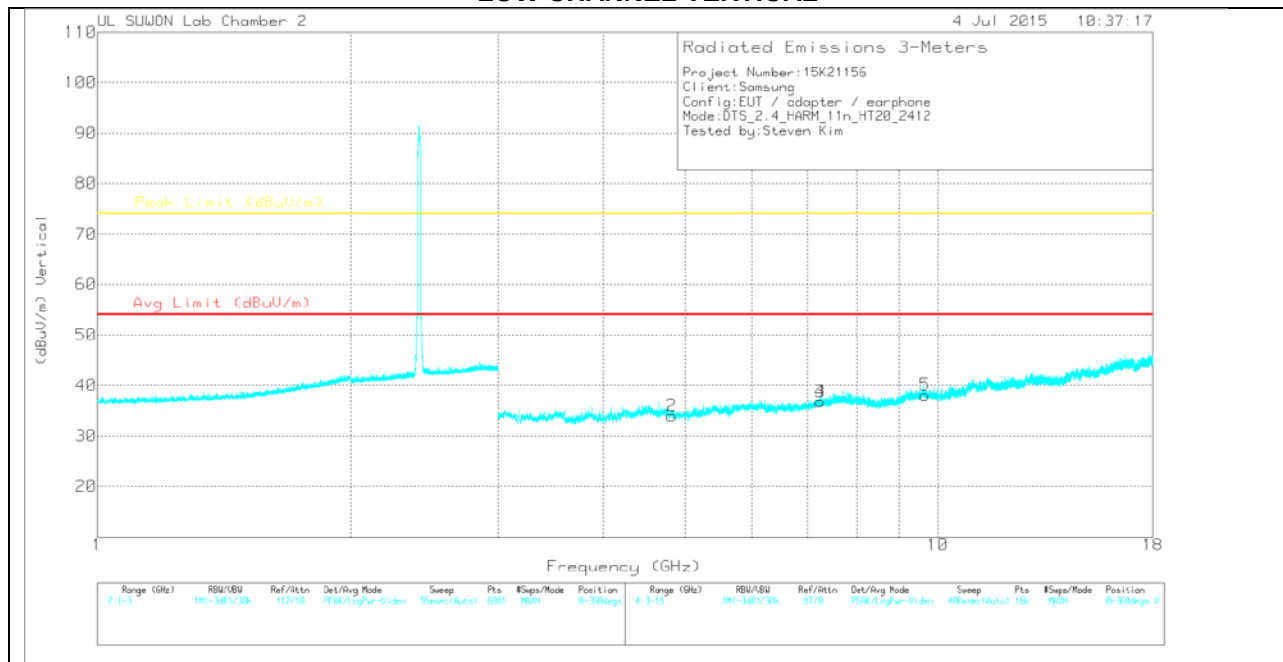
RMS - RMS detection

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

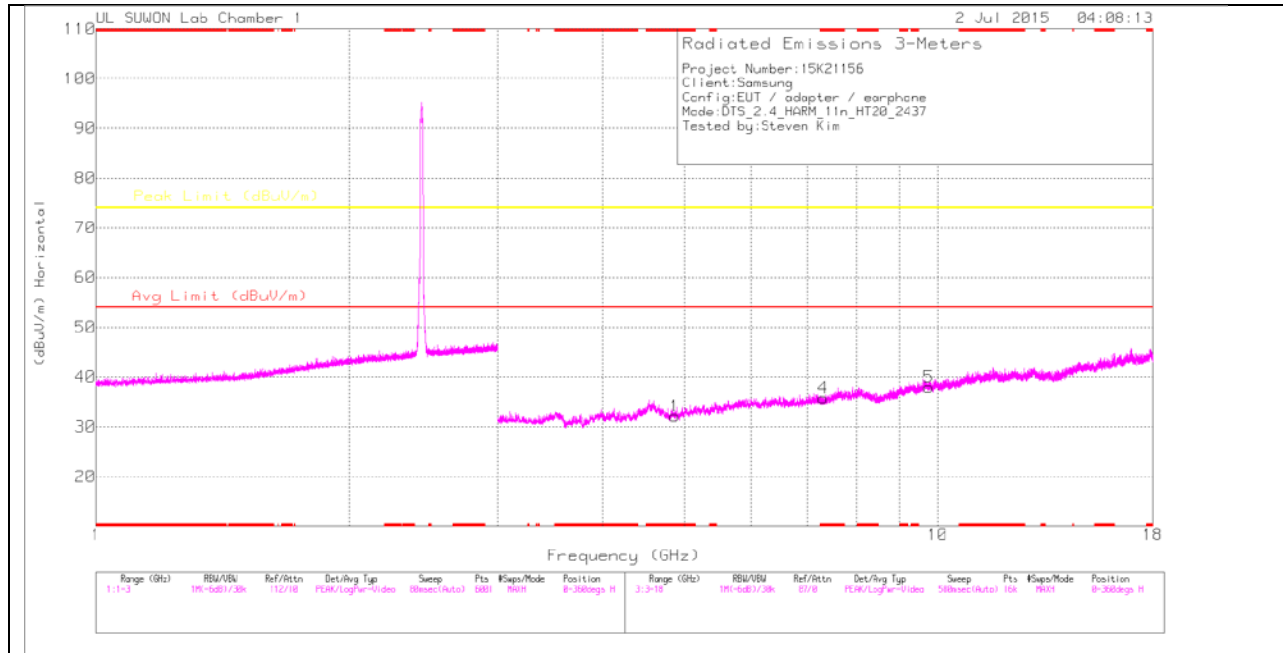
TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117[001687 24]_150619	Path_3	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	* 4.823	26.16	PK	33.9	-25.3	0	34.76	-	-	74	-39.24	0-360	200	H
6	9.648	20.33	PK	36.9	-19	0	38.23	-	-	-	-	0-360	200	H
2	* 4.823	25.38	PK	33.9	-25.3	0	33.98	-	-	74	-40.02	0-360	200	V
3	7.237	24.01	PK	35.8	-23	0	36.81	-	-	-	-	0-360	200	V
4	7.237	24.01	PK	35.8	-23	0	36.81	-	-	-	-	0-360	200	V
5	9.649	20.19	PK	36.9	-19	0	38.09	-	-	-	-	0-360	200	V

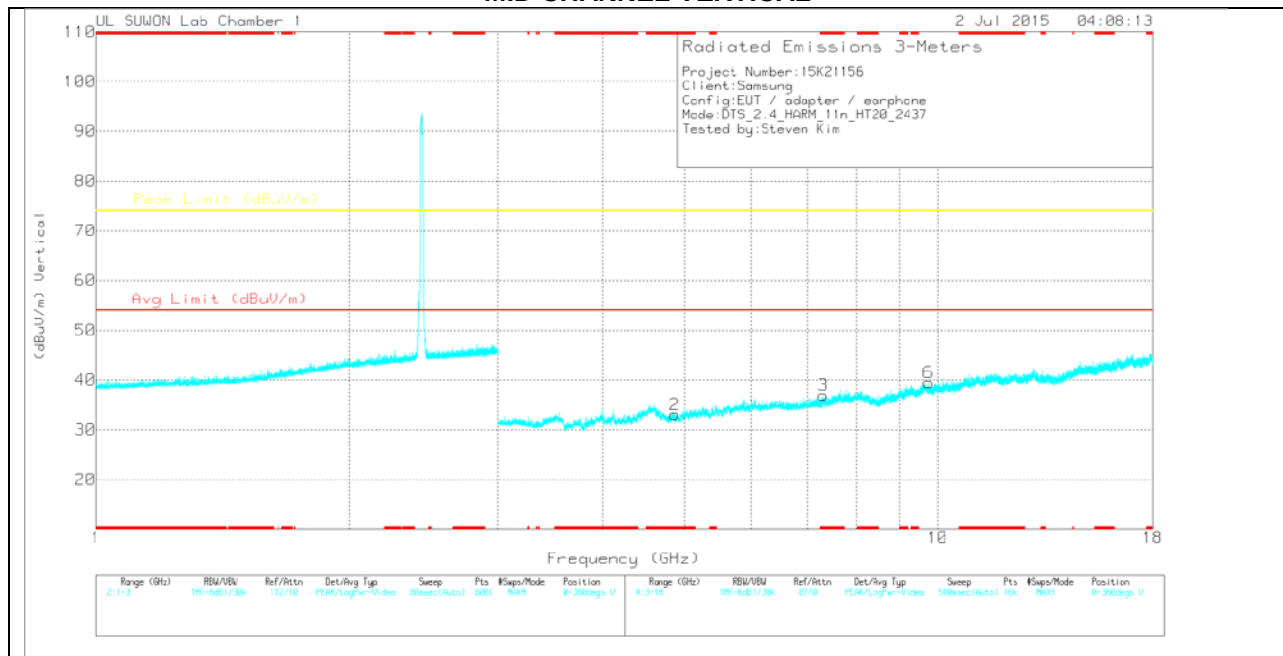
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

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

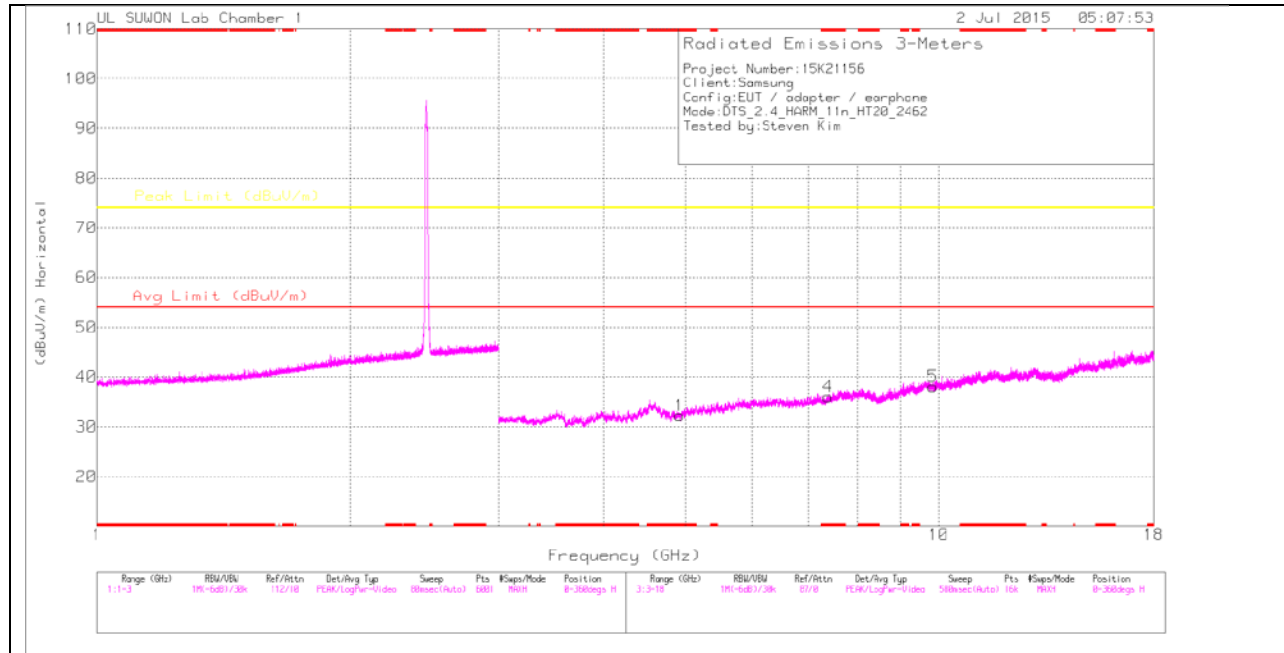
TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_3_3GHP	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	27.4	PK	34	-29.2	0	32.2	-	-	74	-41.8	0-360	100	H
4	* 7.315	25.64	PK	35.8	-25.6	0	35.84	-	-	74	-38.16	0-360	200	H
5	9.75	22.67	PK	37.2	-21.9	0	37.97	-	-	-	-	0-360	200	H
2	* 4.874	28.27	PK	34	-29.2	0	33.07	-	-	74	-40.93	0-360	200	V
3	* 7.313	26.81	PK	35.8	-25.7	0	36.91	-	-	74	-37.09	0-360	100	V
6	9.749	24.17	PK	37.2	-21.9	0	39.47	-	-	-	-	0-360	100	V

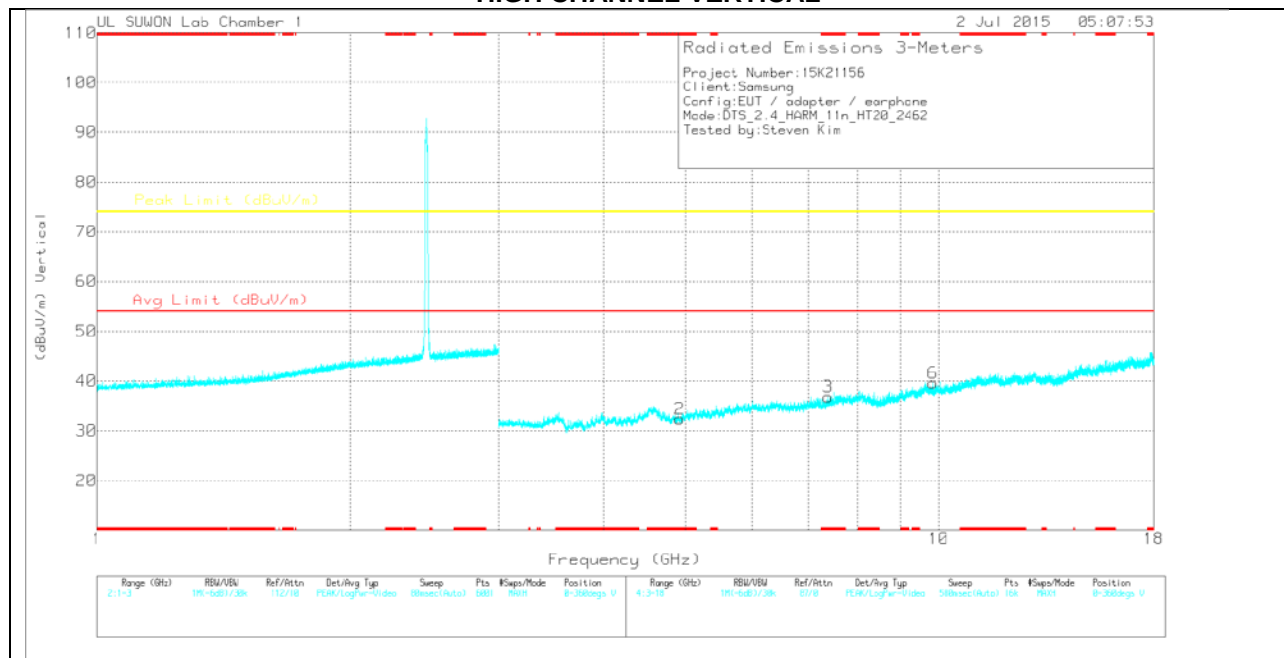
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

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

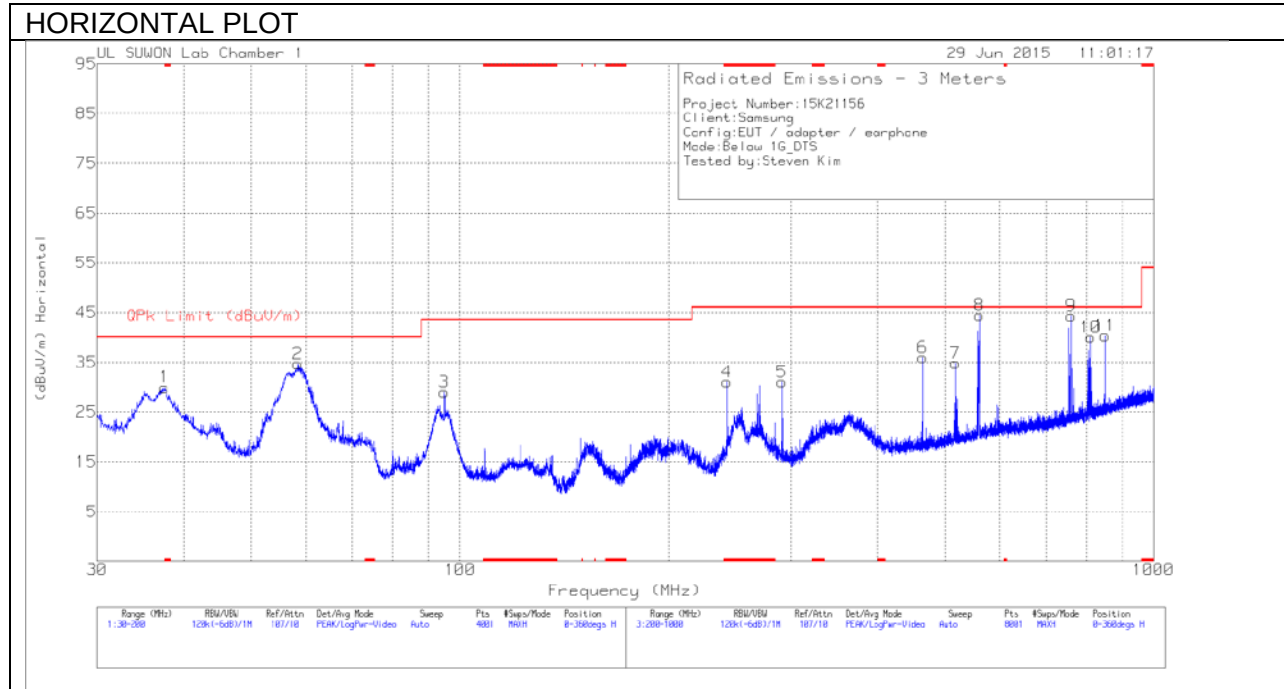
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016871 7)_150619	Path_3_3G HP	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.926	27.31	PK	34	-29	0	32.31	-	-	74	-41.69	0-360	100	H
4	* 7.383	25.4	PK	35.8	-25.1	0	36.1	-	-	74	-37.9	0-360	200	H
5	9.848	22.33	PK	37.3	-21.6	0	38.03	-	-	-	-	0-360	100	H
2	* 4.923	27.4	PK	34	-29	0	32.4	-	-	74	-41.6	0-360	200	V
3	* 7.386	26.13	PK	35.8	-25.1	0	36.83	-	-	74	-37.17	0-360	200	V
6	9.848	23.94	PK	37.3	-21.6	0	39.64	-	-	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

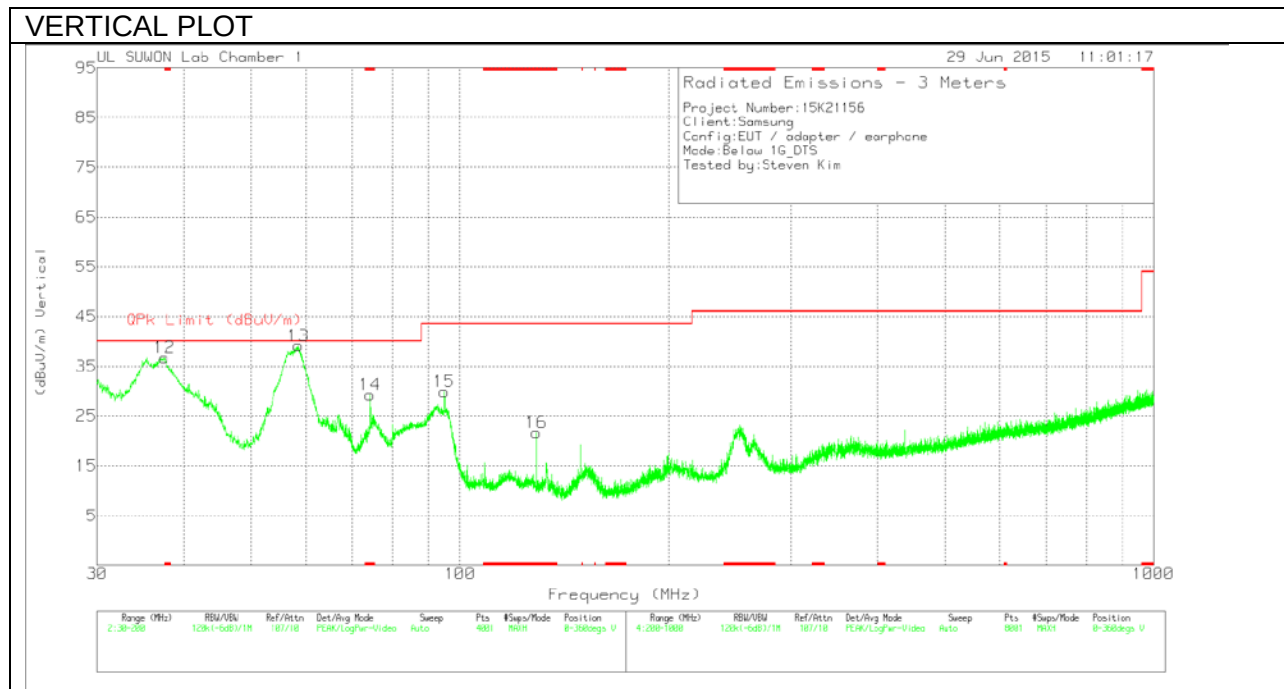
PK – Peak detector

11.3. WORST-CASE BELOW 1 GHz

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



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



Below 1G Data

TRACE MARKERS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163-750	Bi-Log	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	37.48	48.88	Pk	11.5	-30.4	29.98	40	-10.02	0-360	300	H
2	58.3475	51.88	Pk	12.8	-30	34.68	40	-5.32	0-360	400	H
3	94.8975	47.78	Pk	10.5	-29.3	28.98	43.52	-14.54	0-360	200	H
12	* 37.5225	55.67	Pk	11.5	-30.4	36.77	40	-3.23	0-360	100	V
13	58.4325	56.38	Pk	12.8	-30	39.18	40	-.82	0-360	200	V
14	* 74.1575	50.45	Pk	8.5	-29.7	29.25	40	-10.75	0-360	200	V
15	94.94	48.7	Pk	10.5	-29.3	29.9	43.52	-13.62	0-360	100	V
16	* 128.94	41.62	Pk	9	-28.9	21.72	43.52	-21.8	0-360	400	V
4	* 242.5	46.73	Pk	12.2	-27.9	31.03	46.02	-14.99	0-360	400	H
5	291.6	45.4	Pk	13.2	-27.5	31.1	46.02	-14.92	0-360	400	H
6	464.6	45.77	Pk	16.5	-26.3	35.97	46.02	-10.05	0-360	100	H
7	517.8	43.58	Pk	17.4	-26.1	34.88	46.02	-11.14	0-360	100	H
8	560.9	52.2	Pk	18.3	-26	44.5	46.02	-1.52	0-360	100	H
9	761.4	48.98	Pk	20.3	-24.9	44.38	46.02	-1.64	0-360	100	H
10	811.5	43.53	Pk	20.9	-24.4	40.03	46.02	-5.99	0-360	100	H
11	851.4	43.15	Pk	21.4	-24.2	40.35	46.02	-5.67	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163-750	Bi-Log	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 37.5224	53.21	Qp	11.5	-30.4	34.31	40	-5.69	214	111	V
58.4324	54.31	Qp	12.8	-30	37.11	40	-2.89	341	276	V
560.66	19.58	Qp	18.3	-26	11.88	46.02	-34.14	106	396	H
761.16	19.33	Qp	20.3	-24.9	14.73	46.02	-31.29	347	168	H

* - indicates frequency in CFR15.205/IC7.2.2 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 2009.

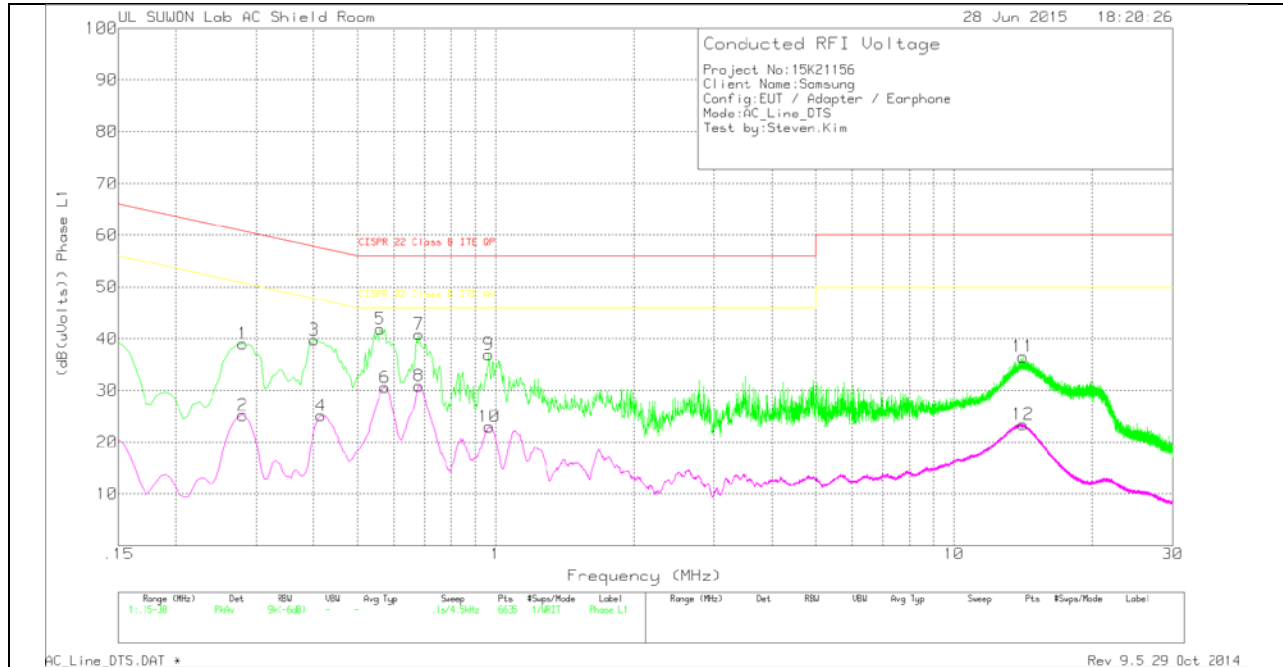
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



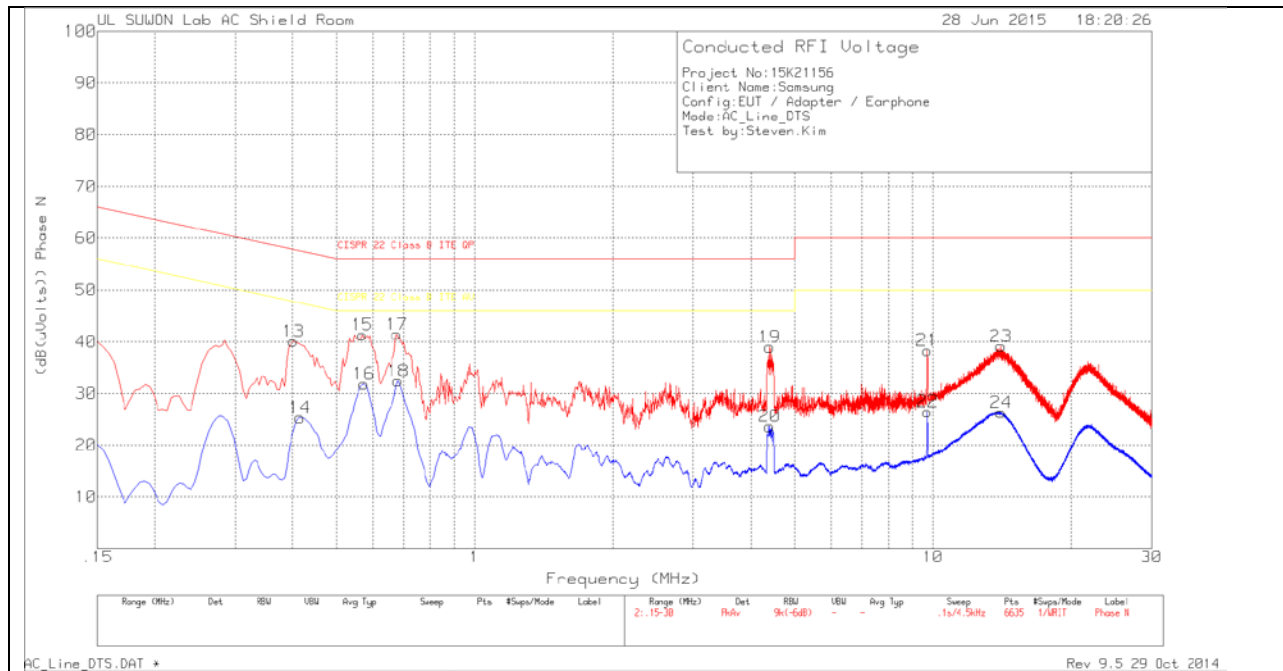
LINE 1 RESULTS

Phase L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_wit h ex-cord_L1	CE Shield Room	Corrected Reading (dBuV)	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
1	.2805	29.22	Pk	9.8	0	39.02	60.8	-21.78	-	-
2	.2805	15.4	Av	9.8	0	25.2	-	-	50.8	-25.6
3	.402	29.66	Pk	10.1	0	39.76	57.81	-18.05	-	-
4	.4155	15.03	Av	10.1	0	25.13	-	-	47.54	-22.41
5	.5595	31.82	Pk	10.1	0	41.92	56	-14.08	-	-
6	.573	20.49	Av	10.1	0	30.59	-	-	46	-15.41
7	.681	30.75	Pk	10.1	0	40.85	56	-15.15	-	-
8	.681	20.79	Av	10.1	0	30.89	-	-	46	-15.11
9	.9645	27.06	Pk	9.9	0	36.96	56	-19.04	-	-
10	.969	13.1	Av	9.9	0	23	-	-	46	-23
11	14.154	26.21	Pk	10.1	.2	36.51	60	-23.49	-	-
12	14.145	13.14	Av	10.1	.2	23.44	-	-	50	-26.56

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex- cord_N	CE Shield Room	Corrected Reading (dBuV)	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
13	.402	29.96	Pk	10.1	0	40.06	57.81	-17.75	-	-
14	.4155	15.22	Av	10.1	0	25.32	-	-	47.54	-22.22
15	.5685	31.22	Pk	10.1	0	41.32	56	-14.68	-	-
16	.573	21.74	Av	10.1	0	31.84	-	-	46	-14.16
17	.6765	31.4	Pk	10	0	41.4	56	-14.6	-	-
18	.681	22.41	Av	10	0	32.41	-	-	46	-13.59
19	4.4025	29.05	Pk	9.8	.1	38.95	56	-17.05	-	-
20	4.407	13.71	Av	9.8	.1	23.61	-	-	46	-22.39
21	9.7125	28.1	Pk	10	.2	38.3	60	-21.7	-	-
22	9.7305	16.29	Av	10	.2	26.49	-	-	50	-23.51
23	14.082	28.61	Pk	10.3	.2	39.11	60	-20.89	-	-
24	14.091	15.84	Av	10.3	.2	26.34	-	-	50	-23.66

Pk - Peak detector

Av - Average detection