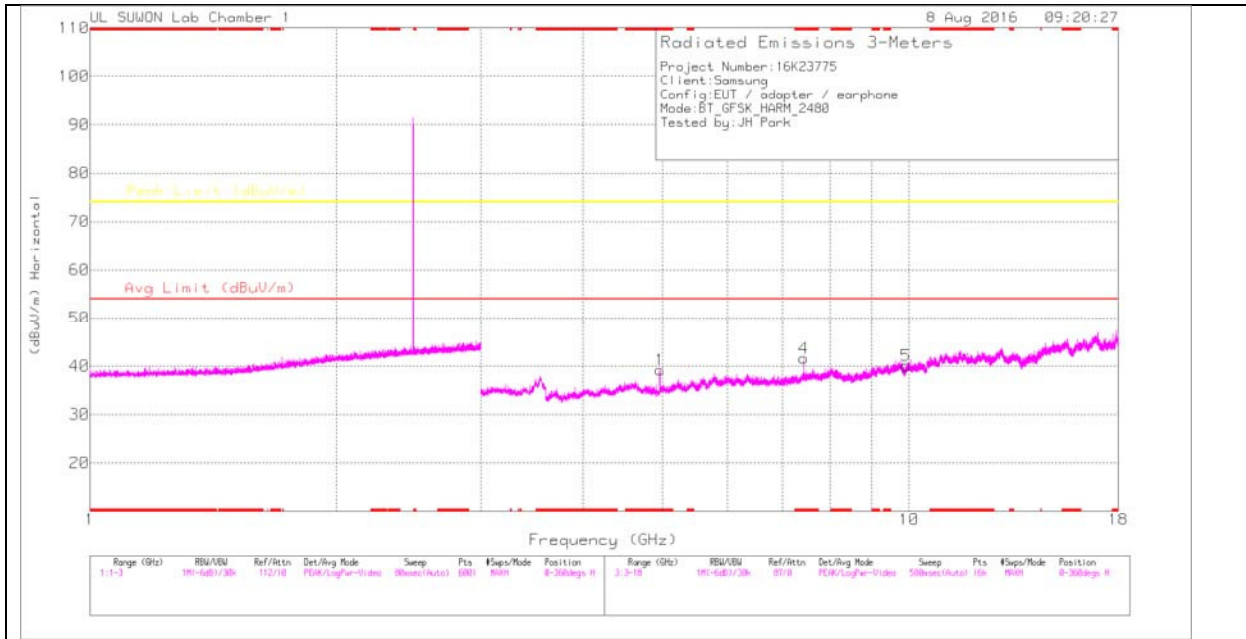
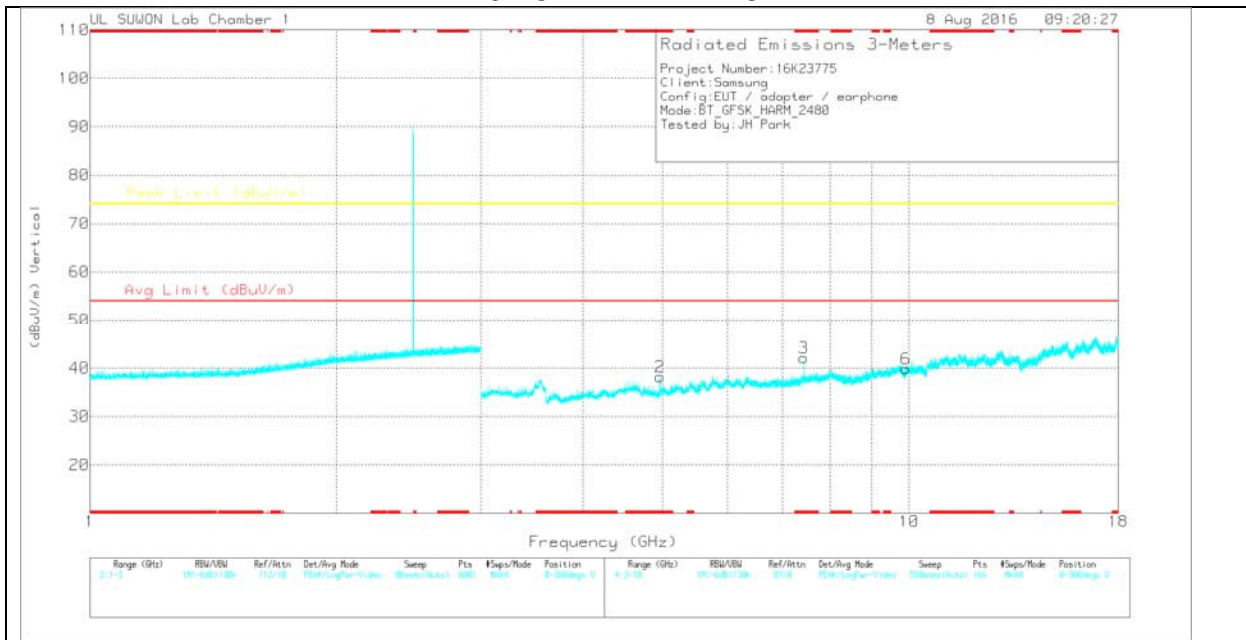


HIGH CHANNEL HORIZONTAL



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(0016 8717)_150 619	Path_3	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.96	39.21	PK	34	-34	39.21	-	-	74	-34.79	0-360	150	H
4	* 7.441	36.55	PK	35.8	-30.7	41.65	-	-	74	-32.35	0-360	250	H
5	9.908	30.15	PK	37.4	-27.5	40.05	-	-	74	-33.95	0-360	250	H
2	* 4.96	38.2	PK	34	-34	38.2	-	-	74	-35.8	0-360	250	V
3	* 7.44	37.06	PK	35.8	-30.7	42.16	-	-	74	-31.84	0-360	250	V
6	9.915	29.79	PK	37.4	-27.3	39.89	-	-	74	-34.11	0-360	150	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	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.44	45.8	PK2	35.8	-30.7	50.9	-	-	74	-23.1	298	139	H
* 7.44	35.33	VA1T	35.8	-30.7	40.43	54	-13.57	-	-	298	139	H
* 7.44	46.31	PK2	35.8	-30.7	51.41	-	-	74	-22.59	360	100	V
* 7.44	35.83	VA1T	35.8	-30.7	40.93	54	-13.07	-	-	360	100	V
* 4.96	47.1	PK2	34	-34	47.1	-	-	74	-26.9	360	100	V
* 4.96	35.95	VA1T	34	-34	35.95	54	-18.05	-	-	360	100	V
* 4.96	47.78	PK2	34	-34	47.78	-	-	74	-26.22	360	100	H
* 4.96	38.13	VA1T	34	-34	38.13	54	-15.87	-	-	360	100	H

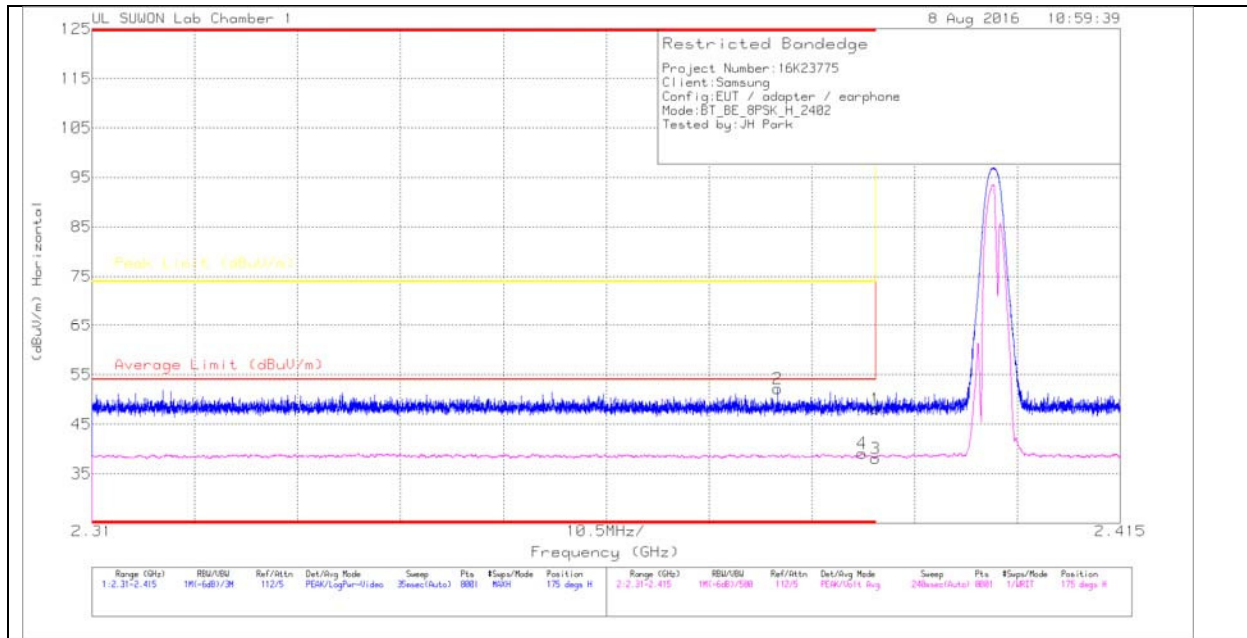
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average $V_B=1/T_{on}$ where: T_{on} is transmit duration

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

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

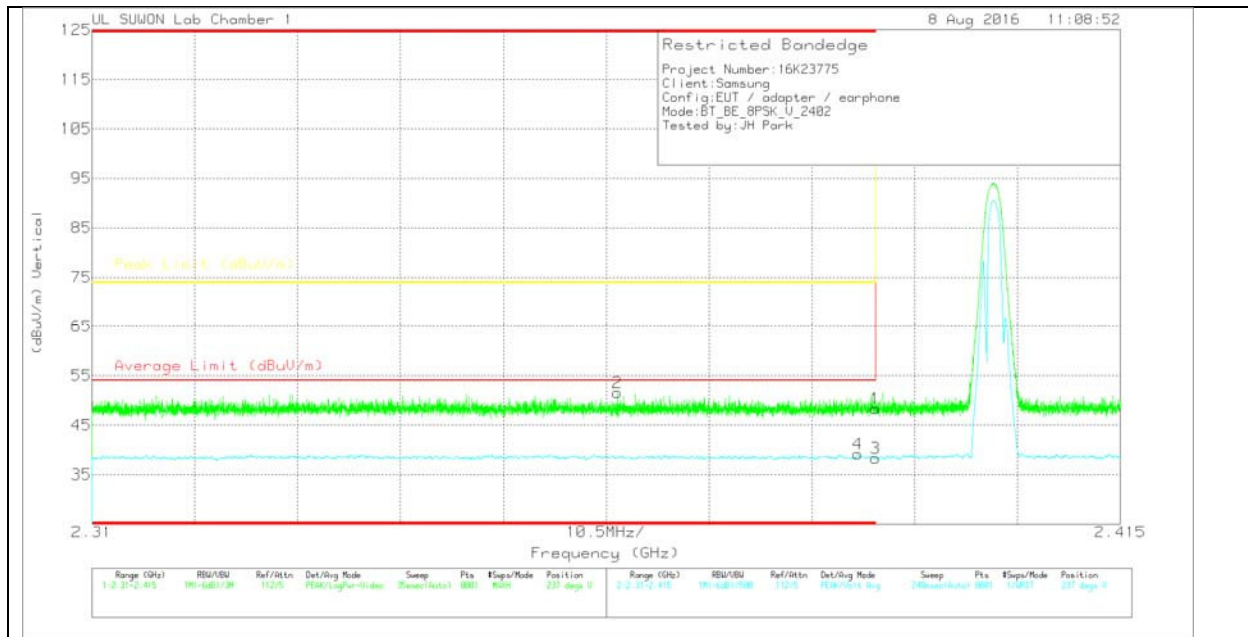
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	45.34	Pk	31.8	-29	48.14	-	-	74	-25.86	175	359	H
2	* 2.38	49.39	Pk	31.8	-29	52.19	-	-	74	-21.81	175	359	H
3	* 2.39	35.27	VA1T	31.8	-29	38.07	54	-15.93	-	-	175	359	H
4	* 2.389	36.33	VA1T	31.8	-29	39.13	54	-14.87	-	-	175	359	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $V_B=1/T_{on}$ where: T_{on} is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	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	45.5	Pk	31.8	-29	48.3	-	-	74	-25.7	237	335	V
2	* 2.364	48.73	Pk	31.8	-29	51.53	-	-	74	-22.47	237	335	V
3	* 2.39	35.5	VA1T	31.8	-29	38.3	54	-15.7	-	-	237	335	V
4	* 2.388	36.37	VA1T	31.8	-29	39.17	54	-14.83	-	-	237	335	V

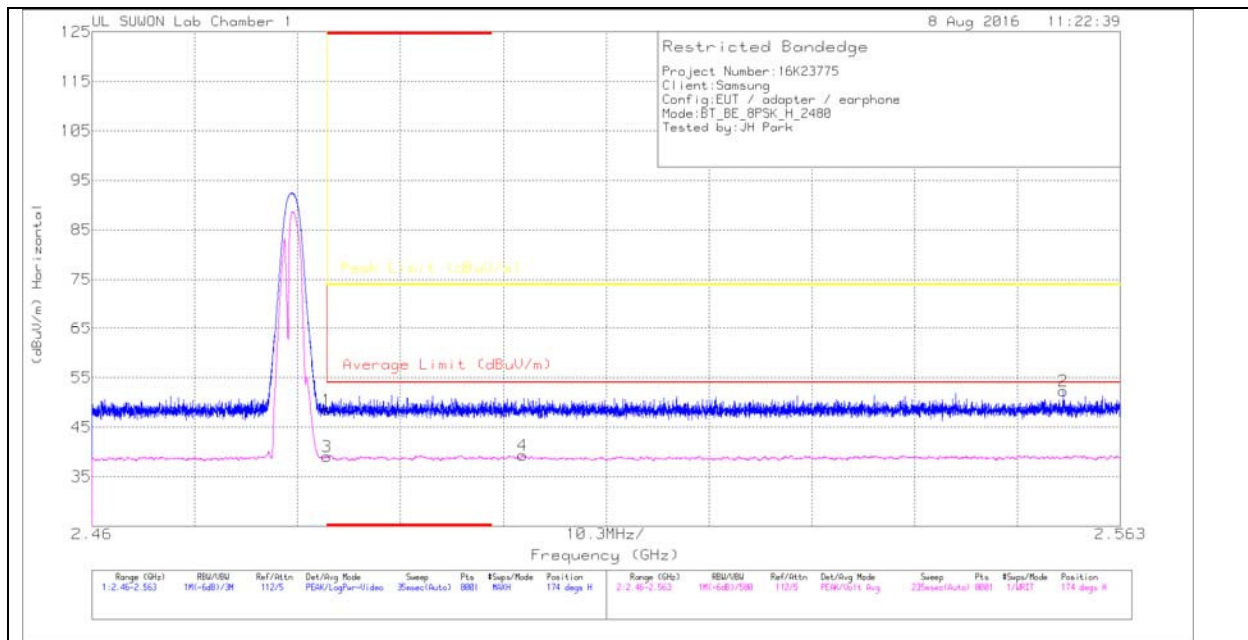
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

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

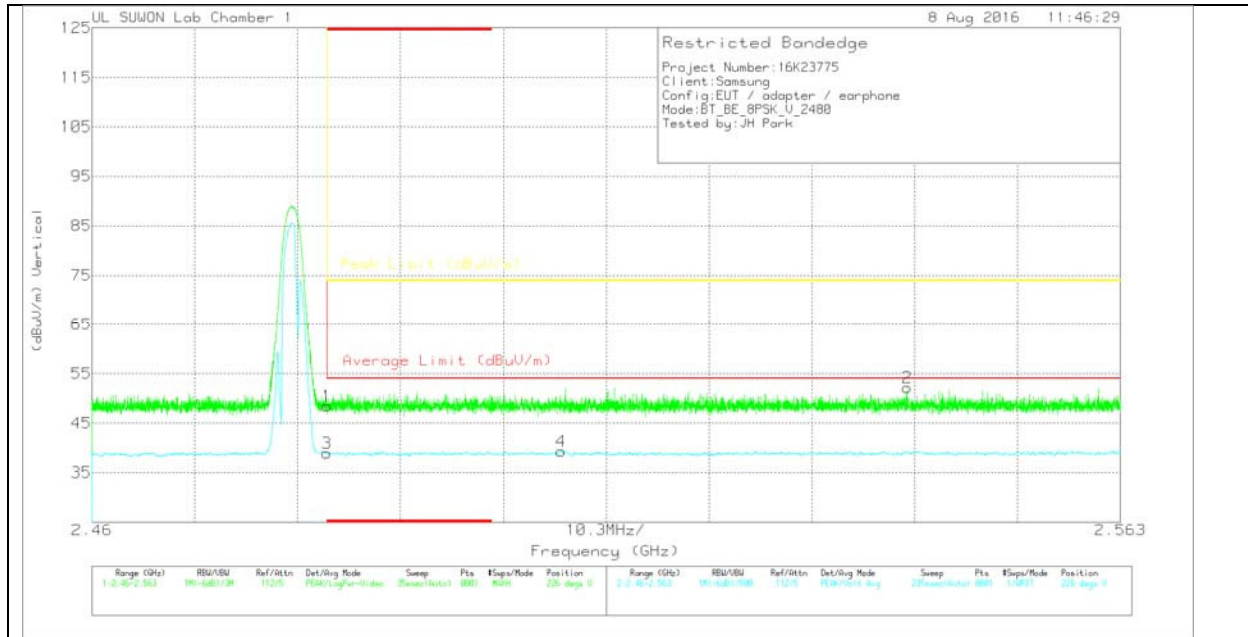
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717_150 619)	Path_2	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.39	Pk	32	-28.9	48.49	-	-	74	-25.51	174	394	H
2	2.557	49.13	Pk	32	-28.8	52.33	-	-	74	-21.67	174	394	H
3	* 2.484	35.95	VA1T	32	-28.9	39.05	54	-14.95	-	-	174	394	H
4	2.503	36.17	VA1T	32	-28.9	39.27	54	-14.73	-	-	174	394	H

* - indicates frequency in CFR15.205/IC7.2.2 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	3117(0016 8717)_150 619	Path_2	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	45.4	Pk	32	-28.9	48.5	-	-	74	-25.5	226	321	V
2	2.542	48.94	Pk	32	-28.8	52.14	-	-	74	-21.86	226	321	V
3	* 2.484	35.86	VA1T	32	-28.9	38.96	54	-15.04	-	-	226	321	V
4	2.507	36.23	VA1T	32	-28.9	39.33	54	-14.67	-	-	226	321	V

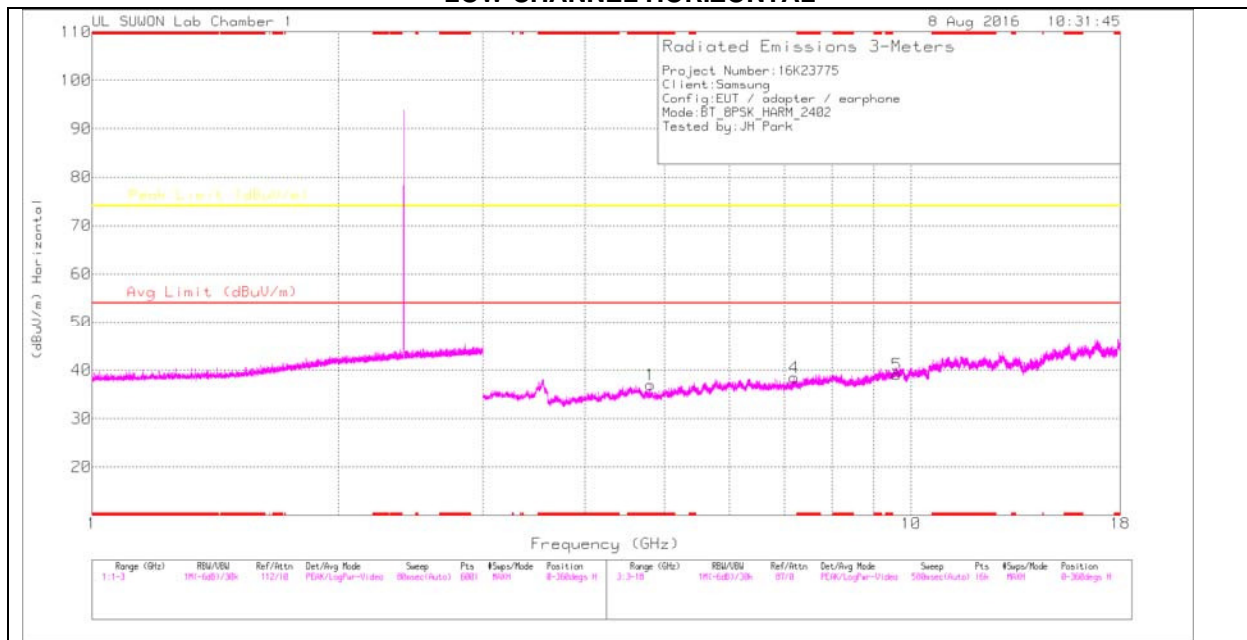
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

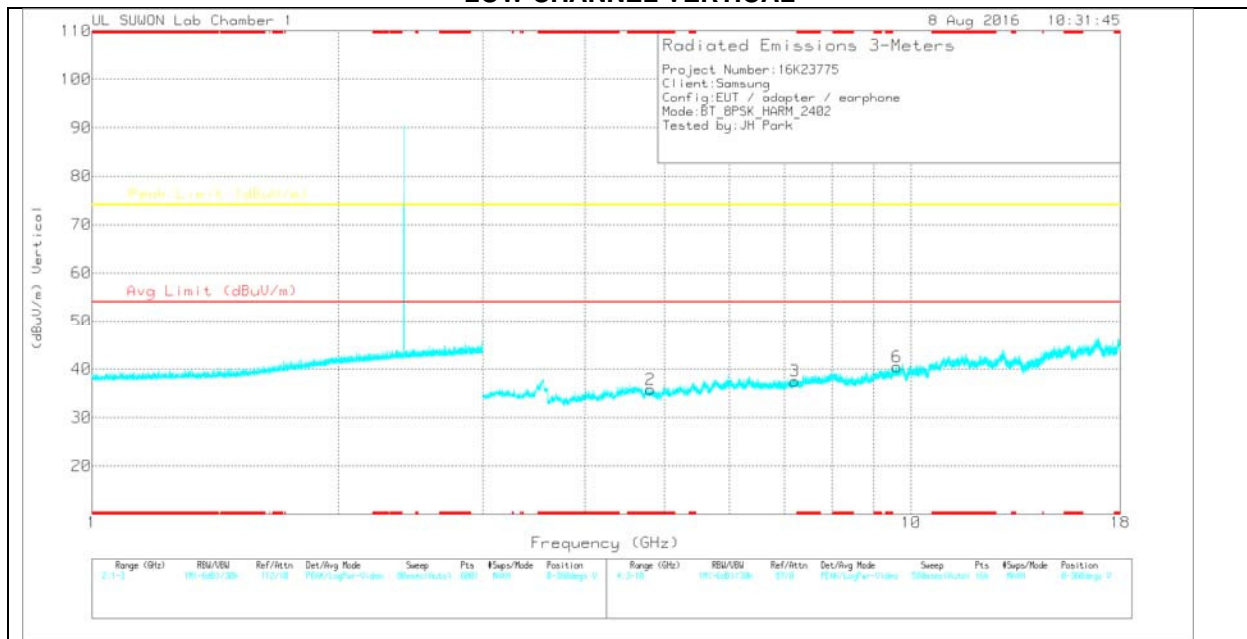
VA1T - FHSS: Linear Voltage Average $V_B=1/T_{on}$ where: T_{on} is transmit duration

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

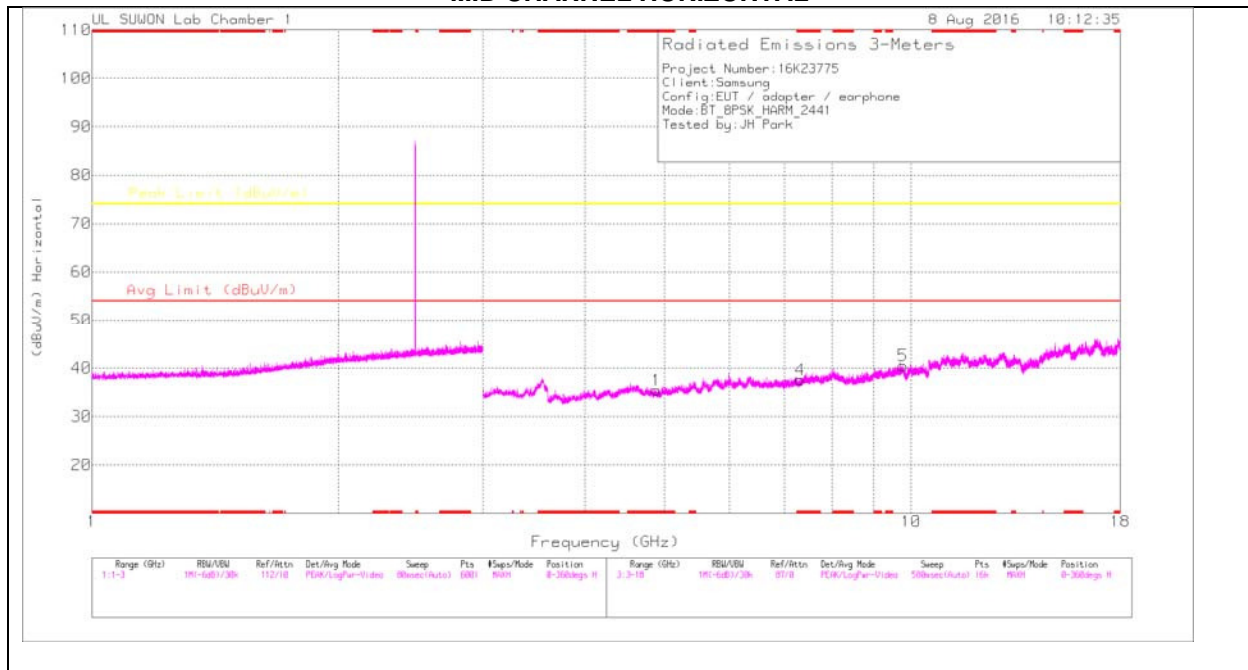
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_3	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804	36.7	PK	34	-33.8	36.9	-	-	74	-37.1	0-360	250	H
4	7.2	33.47	PK	35.7	-30.7	38.47	-	-	74	-35.53	0-360	250	H
5	9.608	29.4	PK	37	-27.3	39.1	-	-	74	-34.9	0-360	250	H
2	* 4.808	35.59	PK	34	-33.8	35.79	-	-	74	-38.21	0-360	250	V
3	7.205	32.62	PK	35.7	-30.8	37.52	-	-	74	-36.48	0-360	150	V
6	9.614	30.7	PK	37	-27.2	40.5	-	-	74	-33.5	0-360	150	V

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

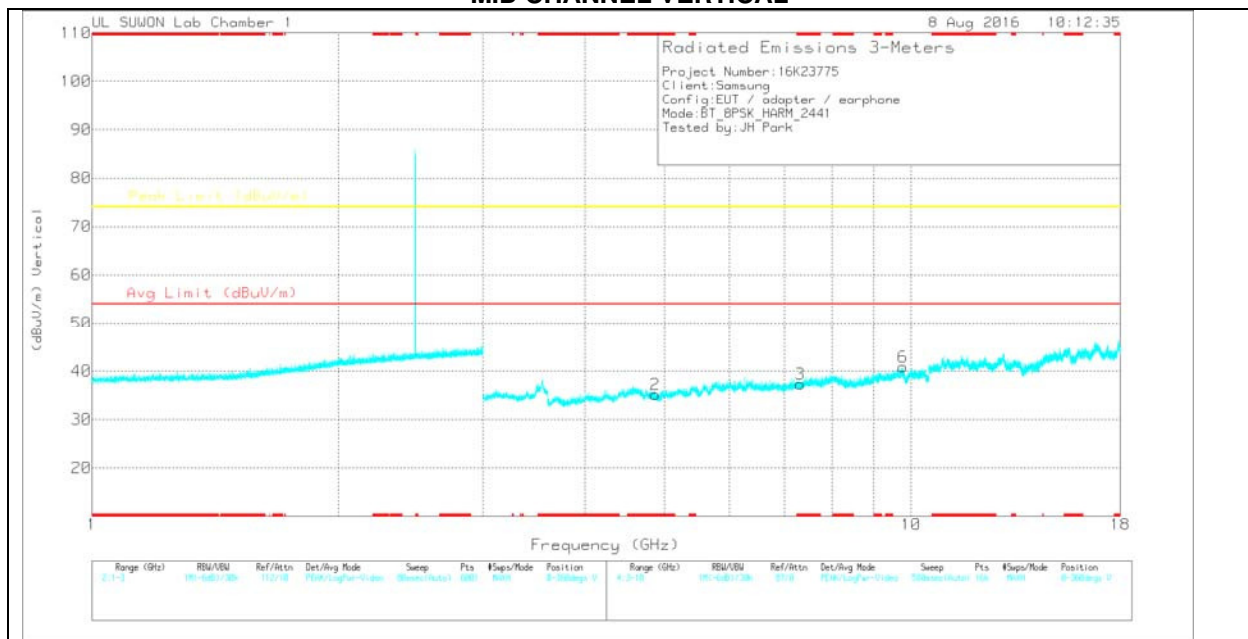
PK – Peak Detector

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

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



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

MID CHANNEL DATA

Trace Markers

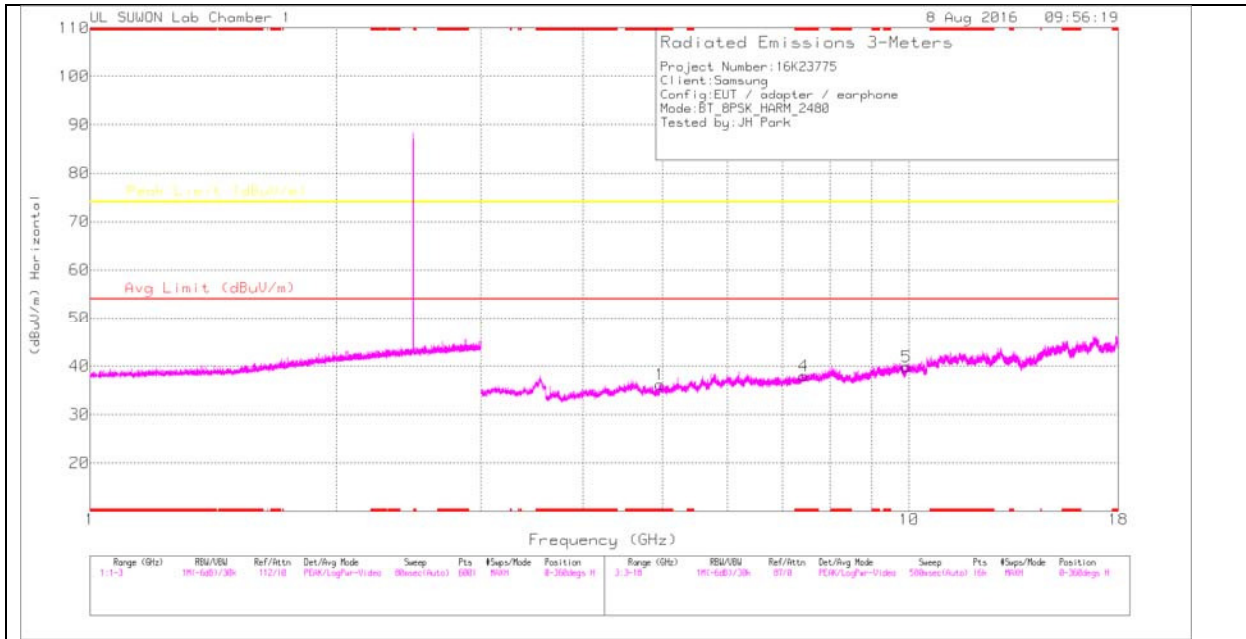
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_3	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.884	35.47	PK	34	-34	35.47	-	-	74	-38.53	0-360	150	H
4	* 7.318	32.69	PK	35.8	-30.9	37.59	-	-	74	-36.41	0-360	250	H
5	9.773	29.85	PK	37.2	-26.5	40.55	-	-	74	-33.45	0-360	250	H
2	* 4.874	35.23	PK	34	-34	35.23	-	-	74	-38.77	0-360	250	V
3	* 7.326	32.31	PK	35.8	-30.8	37.31	-	-	74	-36.69	0-360	250	V
6	9.775	30.08	PK	37.2	-26.4	40.88	-	-	74	-33.12	0-360	250	V

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

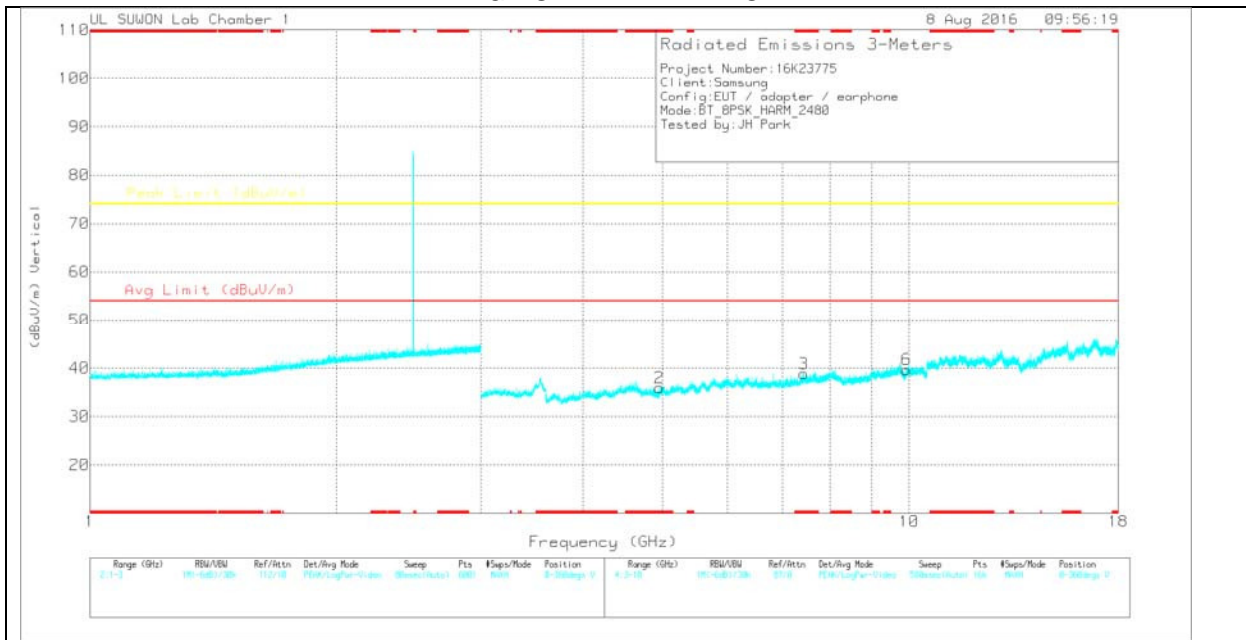
PK – Peak Detector

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

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



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

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_3	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.96	36.15	PK	34	-34	36.15	-	-	74	-37.85	0-360	150	H
4	* 7.432	32.84	PK	35.8	-30.7	37.94	-	-	74	-36.06	0-360	250	H
5	9.924	29.59	PK	37.4	-27.1	39.89	-	-	74	-34.11	0-360	250	H
2	* 4.959	35.93	PK	34	-34	35.93	-	-	74	-38.07	0-360	150	V
3	* 7.435	33.69	PK	35.8	-30.7	38.79	-	-	74	-35.21	0-360	150	V
6	9.919	29.47	PK	37.4	-27.2	39.67	-	-	74	-34.33	0-360	150	V

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

PK – Peak Detector

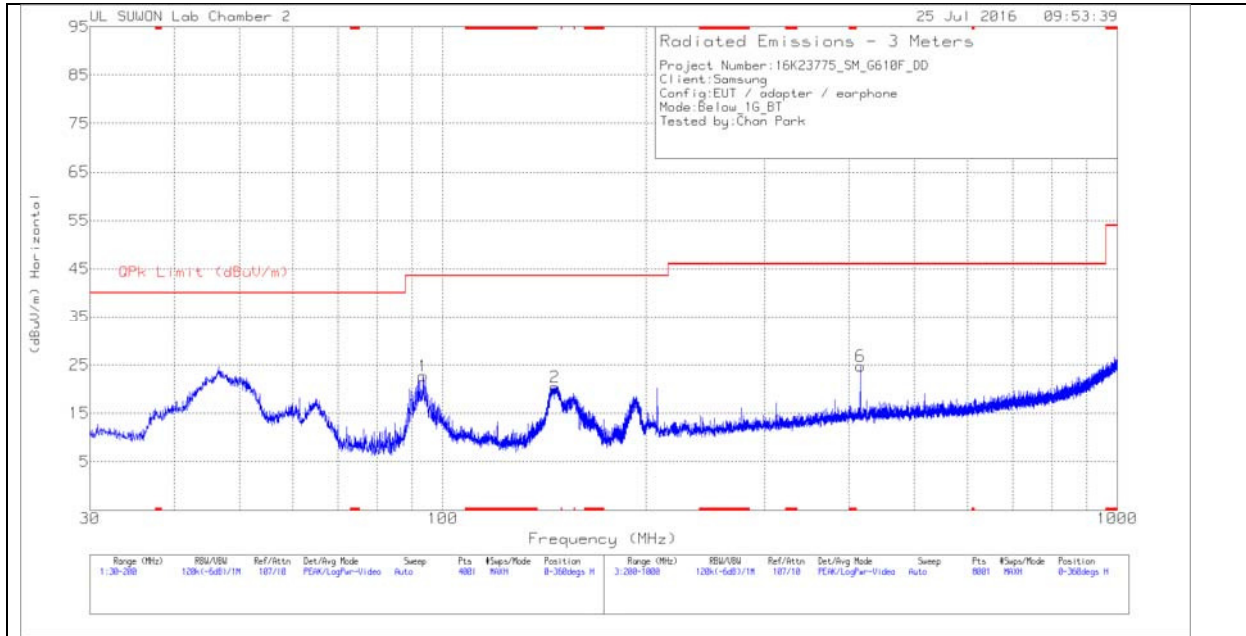
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

9.3. WORST-CASE BELOW 1 GHz

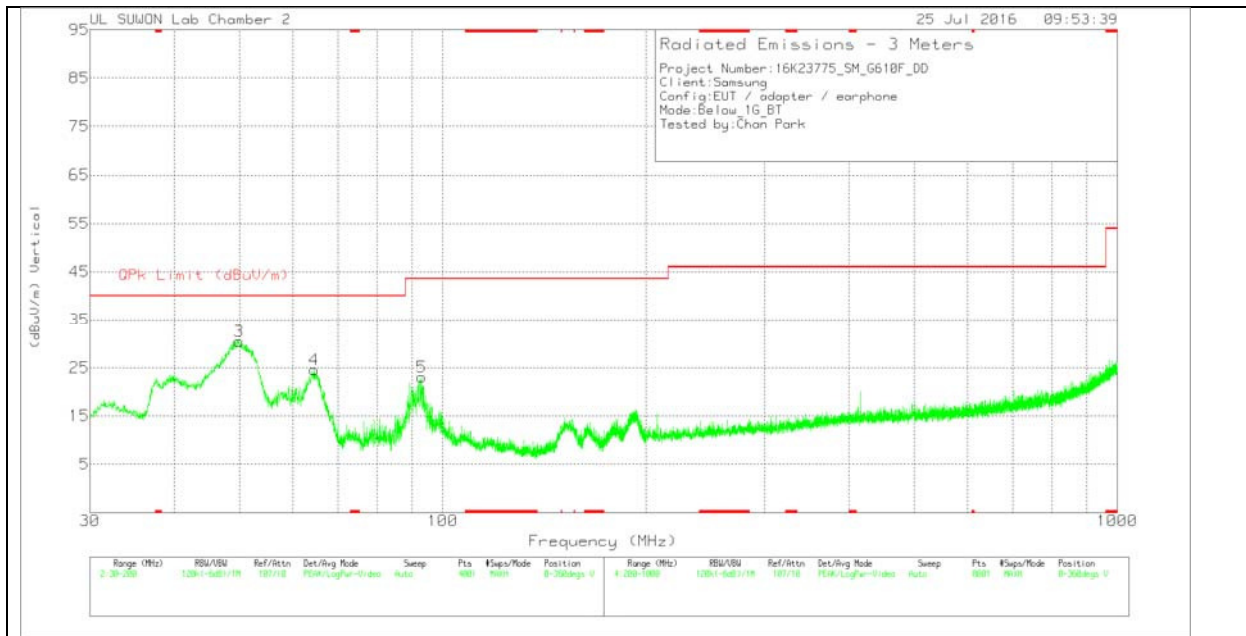
9.3.1. SM-G610F/DD

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

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

Trace Markers

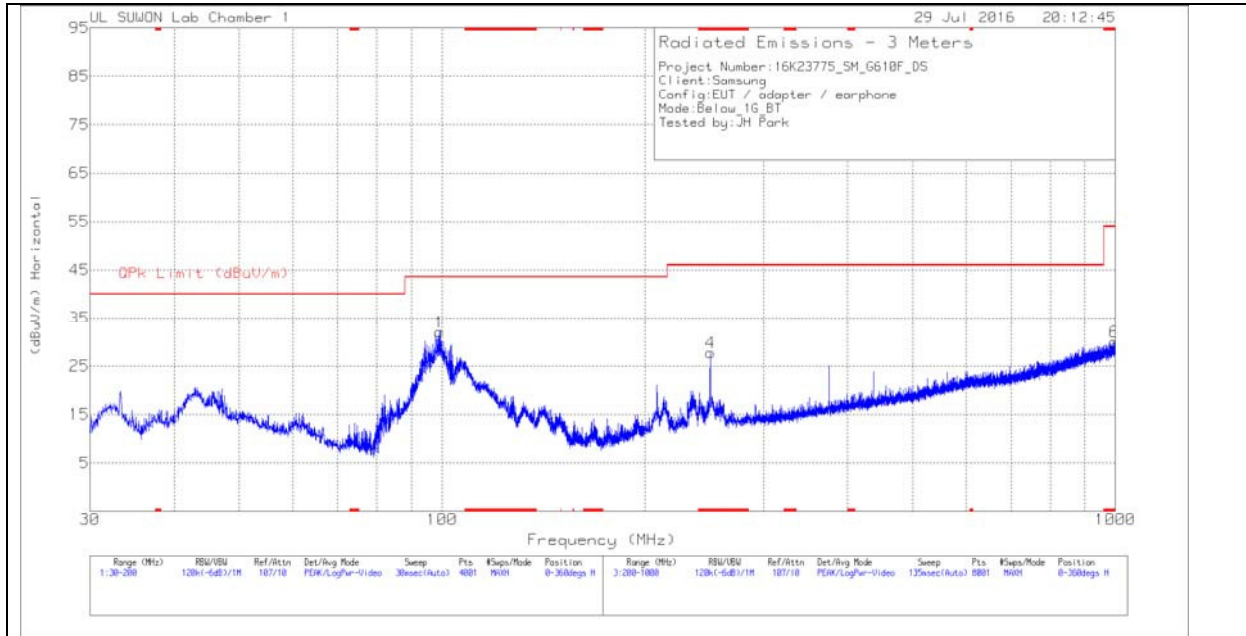
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163-749	Below_1G	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	93.58	42.96	Pk	10.3	-30.6	22.66	43.52	-20.86	0-360	300	H
2	146.7475	42.79	Pk	8.1	-30.4	20.49	43.52	-23.03	0-360	300	H
3	49.9325	47.09	Pk	14.1	-30.7	30.49	40	-9.51	0-360	100	V
4	64.5525	43.89	Pk	11.4	-30.7	24.59	40	-15.41	0-360	100	V
5	93.155	43.44	Pk	10.2	-30.6	23.04	43.52	-20.48	0-360	100	V
6	416	39.09	Pk	15.4	-29.7	24.79	46.02	-21.23	0-360	100	H

Pk - Peak detector

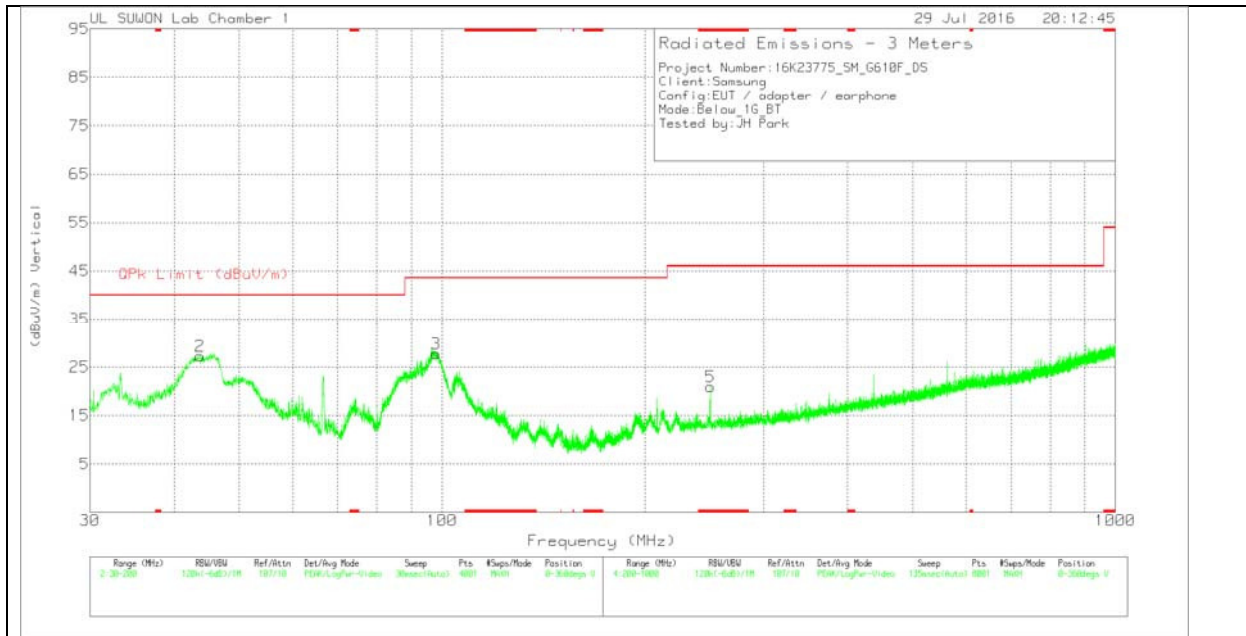
9.3.2. SM-G610F/DS

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	VULB9163-750	Bi-Log	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	99.105	50.11	Pk	11.3	-29.3	32.11	43.52	-11.41	0-360	300	H
2	43.685	44.16	Pk	13.3	-30.2	27.26	40	-12.74	0-360	100	V
3	98	46.01	Pk	11.1	-29.3	27.81	43.52	-15.71	0-360	100	V
4	* 250.2	43.33	Pk	12.3	-27.9	27.73	46.02	-18.29	0-360	101	H
6	* 997.1	30.2	Pk	22.4	-22.5	30.1	53.97	-23.87	0-360	200	H
5	* 250.2	36.51	Pk	12.3	-27.9	20.91	46.02	-25.11	0-360	200	V

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

Pk - Peak detector

10. 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.

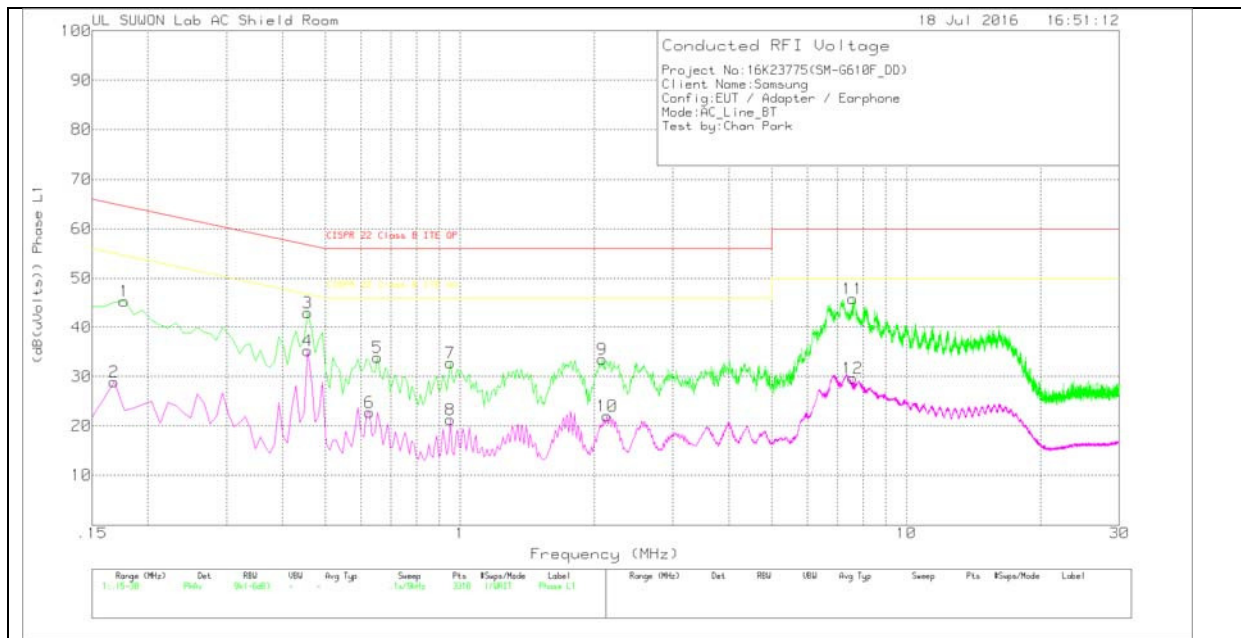
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

10.1. SM-G610F/DD

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

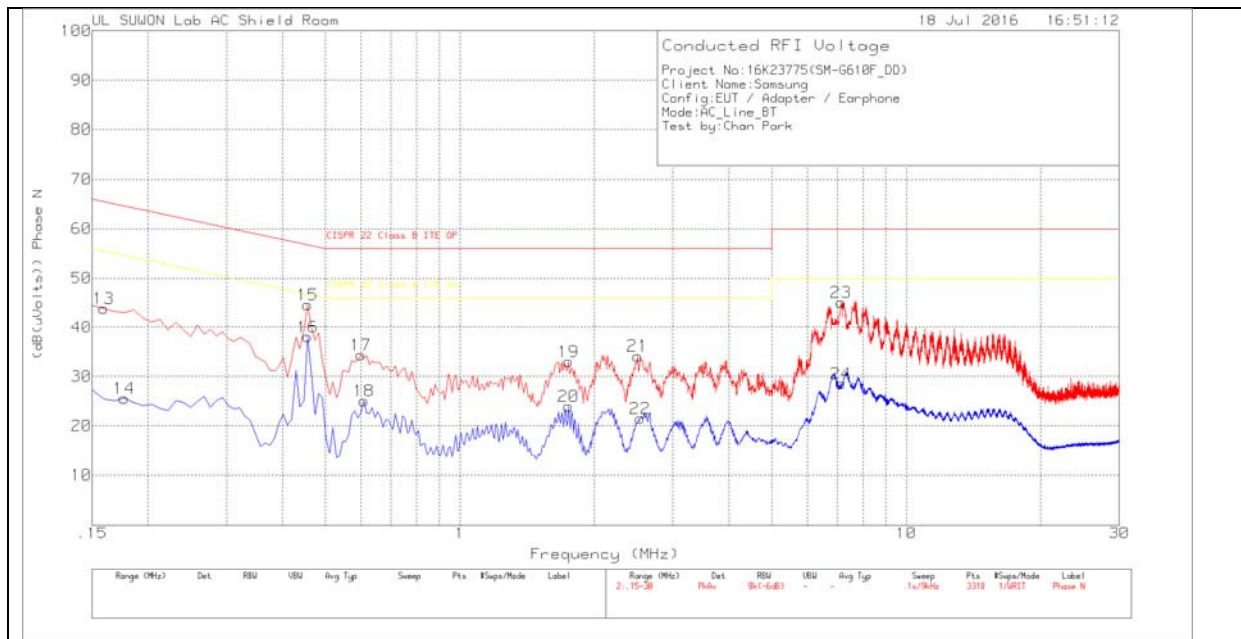
Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex-cord_L1	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
1	.177	35.19	Pk	10.2	0	45.39	64.63	-19.24	-	-
2	.168	18.73	Av	10.2	0	28.93	-	-	55.06	-26.13
3	.456	32.83	Pk	10.2	0	43.03	56.77	-13.74	-	-
4	.456	25.04	Av	10.2	0	35.24	-	-	46.77	-11.53
5	.654	23.78	Pk	10.1	0	33.88	56	-22.12	-	-
6	.627	12.64	Av	10.1	0	22.74	-	-	46	-23.26
7	.951	22.81	Pk	9.9	0	32.71	56	-23.29	-	-
8	.951	11.39	Av	9.9	0	21.29	-	-	46	-24.71
9	2.085	23.59	Pk	9.8	.1	33.49	56	-22.51	-	-
10	2.139	12.13	Av	9.8	.1	22.03	-	-	46	-23.97
11	7.575	35.9	Pk	9.9	.1	45.9	60	-14.1	-	-
12	7.575	19.64	Av	9.9	.1	29.64	-	-	50	-20.36

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex-cord_N	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
13	.159	33.93	Pk	10	0	43.93	65.52	-21.59	-	-
14	.177	15.42	Av	10.1	0	25.52	-	-	54.63	-29.11
15	.456	34.5	Pk	10.1	0	44.6	56.77	-12.17	-	-
16	.456	27.93	Av	10.1	0	38.03	-	-	46.77	-8.74
17	.6	24.25	Pk	10.1	0	34.35	56	-21.65	-	-
18	.609	14.95	Av	10.1	0	25.05	-	-	46	-20.95
19	1.752	23.09	Pk	9.8	.1	32.99	56	-23.01	-	-
20	1.752	14.06	Av	9.8	.1	23.96	-	-	46	-22.04
21	2.499	24.27	Pk	9.8	.1	34.17	56	-21.83	-	-
22	2.535	11.58	Av	9.8	.1	21.48	-	-	46	-24.52
23	7.143	35.16	Pk	9.9	.1	45.16	60	-14.84	-	-
24	7.134	18.58	Av	9.9	.1	28.58	-	-	50	-21.42

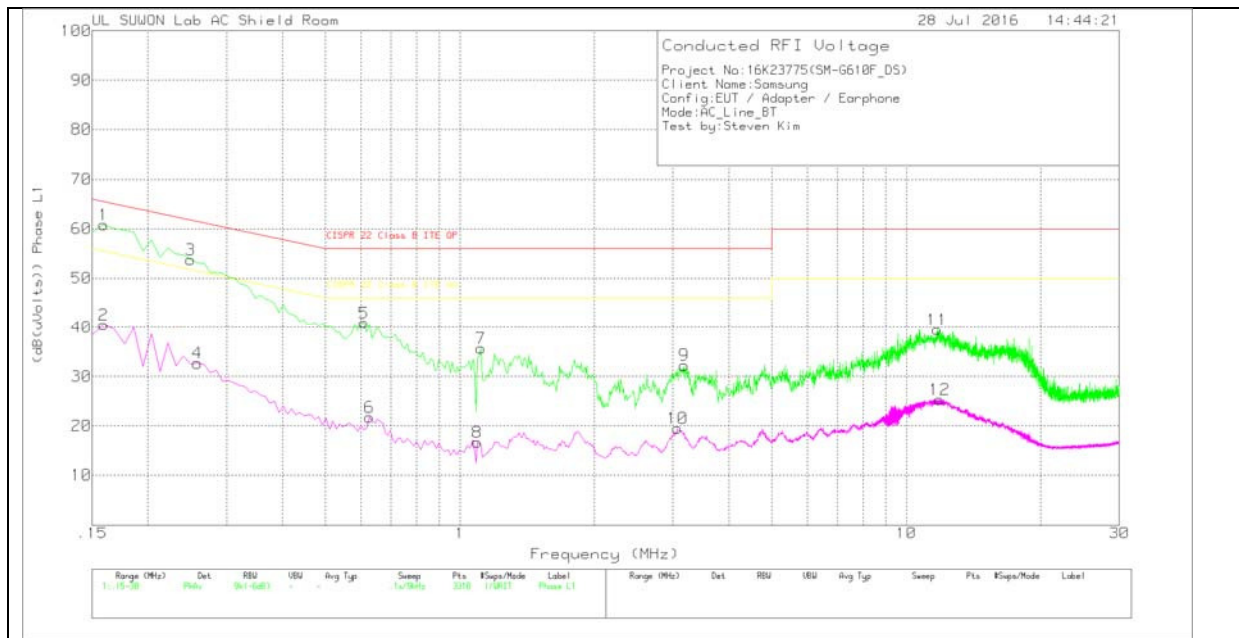
Pk - Peak detector

Av - Average detection

10.2. SM-G610F/DS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex-cord_L1	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
1	.159	50.86	Pk	10	0	60.86	65.52	-4.66	-	-
2	.159	30.52	Av	10	0	40.52	-	-	55.52	-15
3	.249	44.09	Pk	9.7	0	53.79	61.79	-8	-	-
4	.258	22.89	Av	9.8	0	32.69	-	-	51.5	-18.81
5	.609	30.77	Pk	10.1	0	40.87	56	-15.13	-	-
6	.627	11.59	Av	10.1	0	21.69	-	-	46	-24.31
7	1.113	25.86	Pk	9.9	0	35.76	56	-20.24	-	-
8	1.095	6.72	Av	9.9	0	16.62	-	-	46	-29.38
9	3.183	22.41	Pk	9.8	.1	32.31	56	-23.69	-	-
10	3.075	9.59	Av	9.8	.1	19.49	-	-	46	-26.51
11	11.742	29.36	Pk	10	.2	39.56	60	-20.44	-	-
12	11.859	15.05	Av	10.1	.2	25.35	-	-	50	-24.65

Pk - Peak detector

Av - Average detection

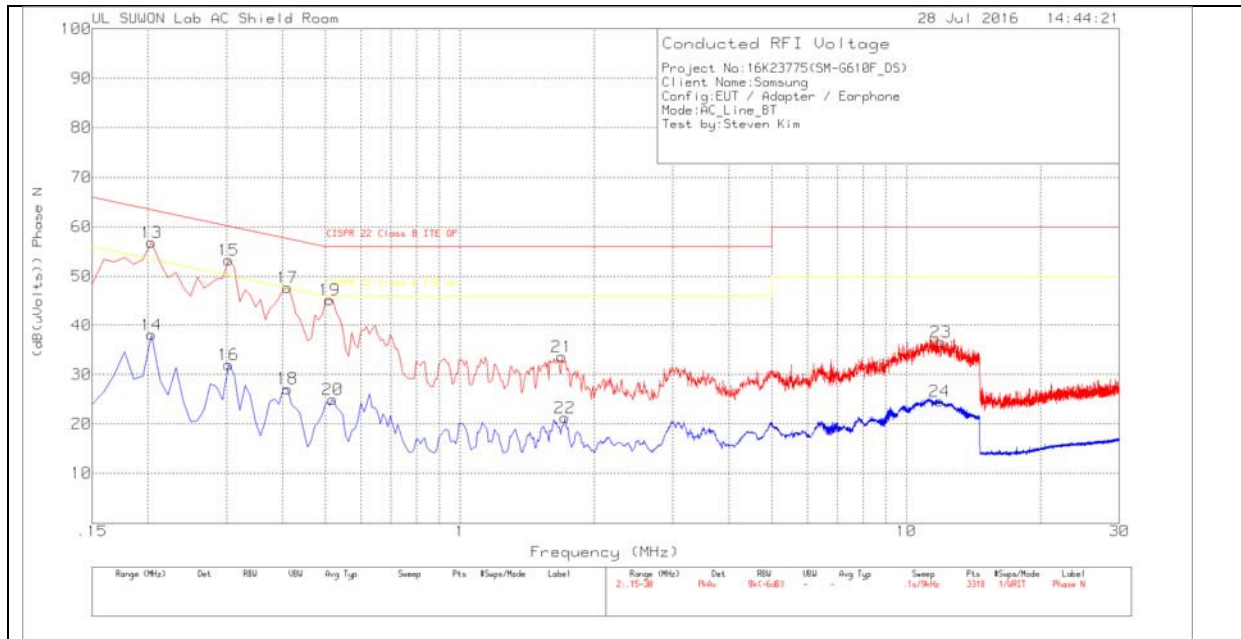
Quasi-Peak Emissions

Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex-cord_L1	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
.1545	41.08	Qp	9.9	0	50.98	65.75	-14.77	-	-
.2535	35.51	Qp	9.7	0	45.21	61.64	-16.43	-	-
.6135	26.25	Qp	10.1	0	36.35	56	-19.65	-	-

Qp – Quasi-Peak detector

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex-cord_N	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
13	.204	46.97	Pk	9.9	0	56.87	63.45	-6.58	-	-
14	.204	28.17	Av	9.9	0	38.07	-	-	53.45	-15.38
15	.303	43.35	Pk	9.9	0	53.25	60.16	-6.91	-	-
16	.303	22.06	Av	9.9	0	31.96	-	-	50.16	-18.2
17	.411	37.65	Pk	10.1	0	47.75	57.63	-9.88	-	-
18	.411	17.02	Av	10.1	0	27.12	-	-	47.63	-20.51
19	.51	35.13	Pk	10.1	0	45.23	56	-10.77	-	-
20	.519	14.8	Av	10.1	0	24.9	-	-	46	-21.1
21	1.689	23.72	Pk	9.8	.1	33.62	56	-22.38	-	-
22	1.716	11.32	Av	9.8	.1	21.22	-	-	46	-24.78
23	11.94	26.18	Pk	10.2	.2	36.58	60	-23.42	-	-
24	11.886	14.21	Av	10.2	.2	24.61	-	-	50	-25.39

Pk - Peak detector

Av - Average detection

Quasi-Peak Emissions

Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101837_wit h ex-cord_N	CE Shield Room	Corrected Reading (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
.2004	46.17	Qp	9.9	0	56.07	63.59	-7.52	-	-
.2994	40.07	Qp	9.9	0	49.97	60.26	-10.29	-	-

Qp – Quasi-Peak detector