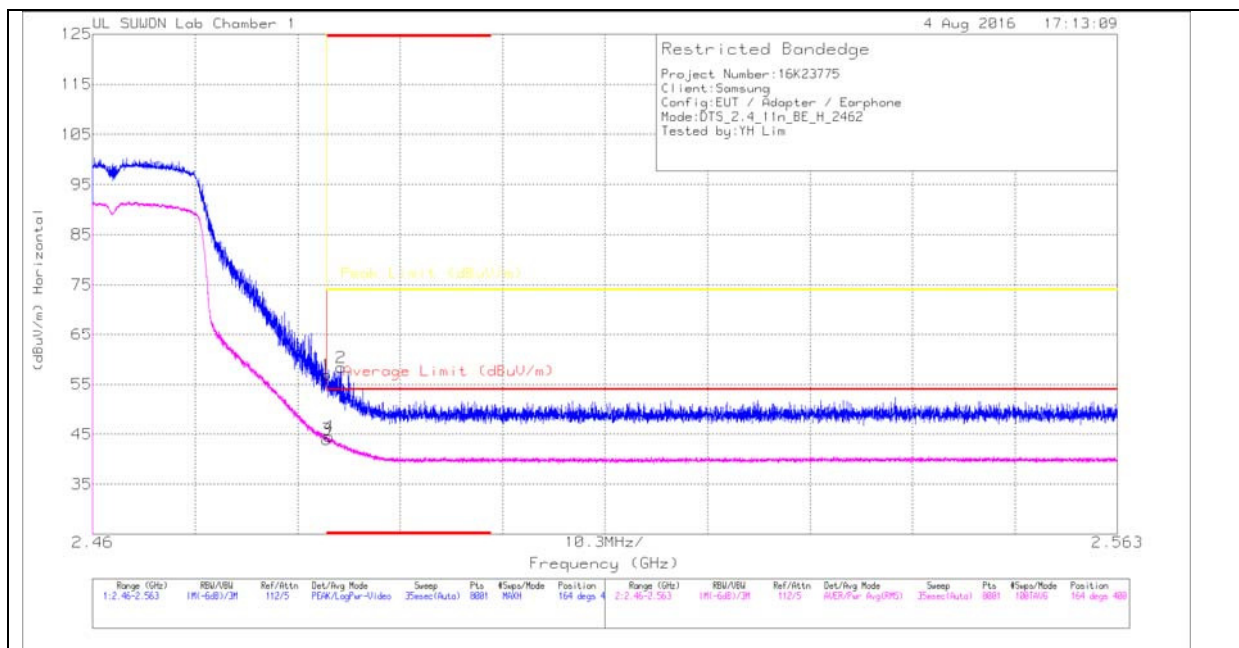


AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

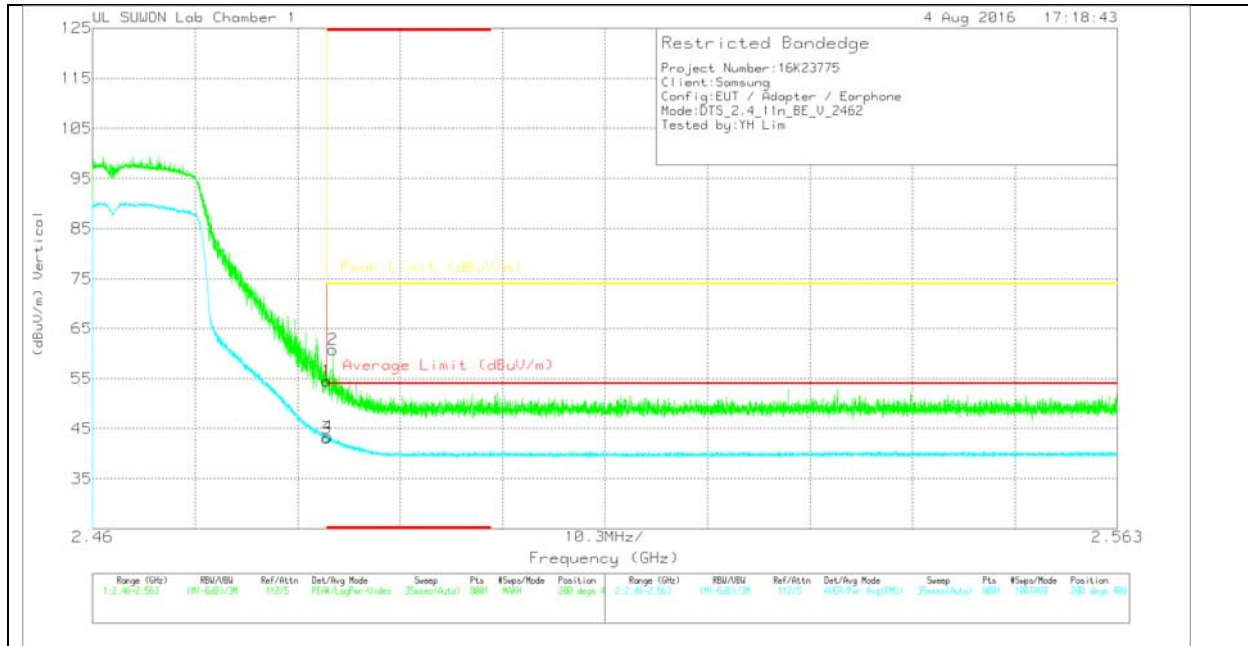
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.18	PK	32	-28.3	0	56.88	-	-	74	-17.12	164	400	H
2	* 2.485	54.63	PK	32	-28.3	0	58.33	-	-	74	-15.67	164	400	H
3	* 2.484	39.95	RMS	32	-28.3	.32	43.97	54	-10.03	-	-	164	400	H
4	* 2.484	40.53	RMS	32	-28.3	.32	44.55	54	-9.45	-	-	164	400	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(001687 17)_150619	Path_2	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	50.79	PK	32	-28.3	0	54.49	-	-	74	-19.51	200	400	V
2	* 2.484	57.06	PK	32	-28.3	0	60.76	-	-	74	-13.24	200	400	V
3	* 2.484	39.09	RMS	32	-28.3	.32	43.11	54	-10.89	-	-	200	400	V
4	* 2.484	39.38	RMS	32	-28.3	.32	43.4	54	-10.6	-	-	200	400	V

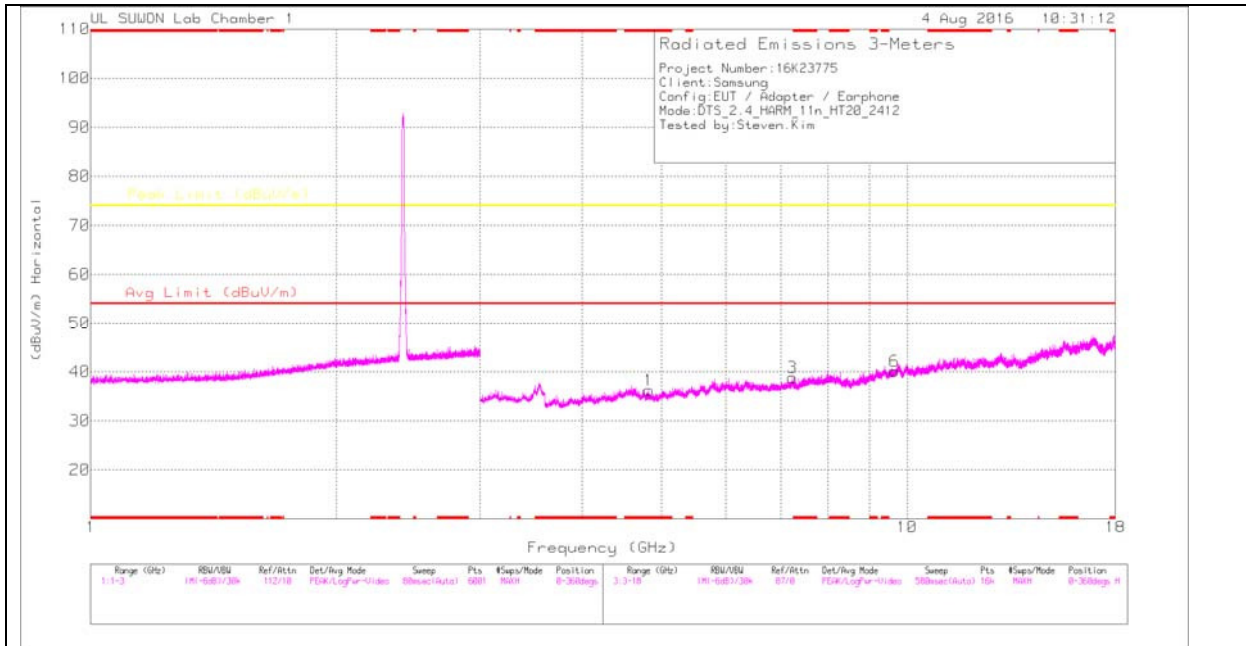
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

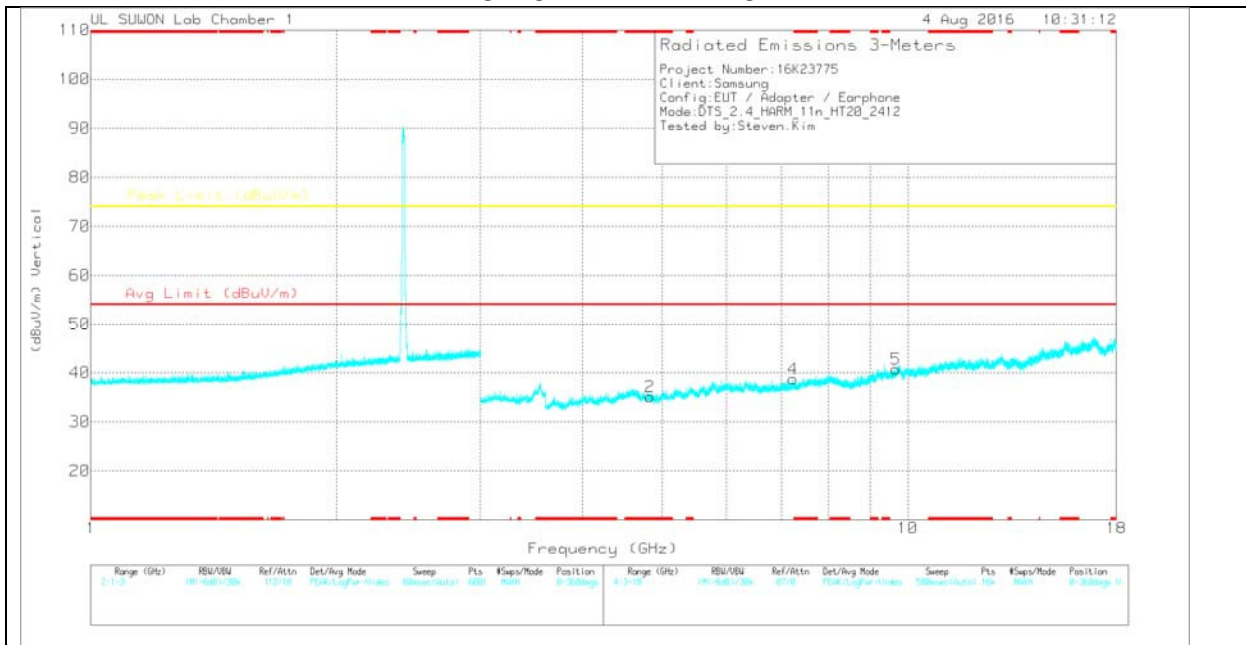
RMS - RMS detection

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

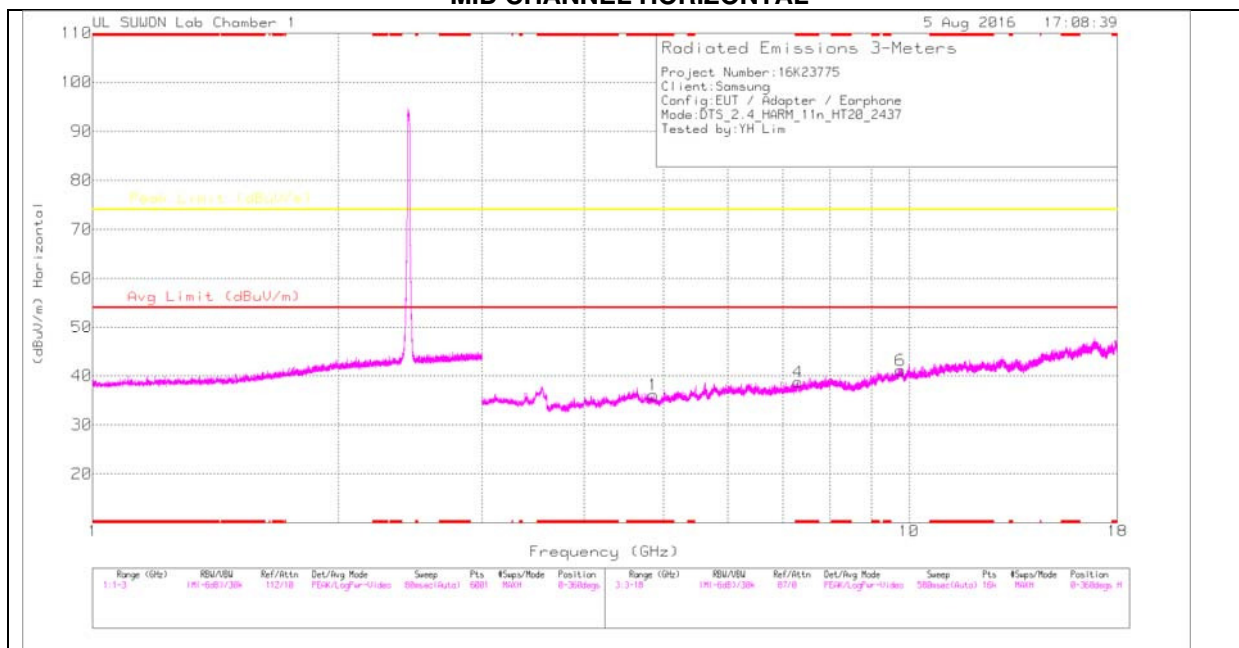
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_3	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.829	36.06	PK	34	-33.8	0	36.26	-	-	74	-37.74	0-360	150	H
3	7.233	34.03	PK	35.7	-30.9	0	38.83	-	-	74	-35.17	0-360	150	H
6	9.659	30.5	PK	37.1	-27.5	0	40.1	-	-	74	-33.9	0-360	250	H
2	* 4.831	34.95	PK	34	-33.8	0	35.15	-	-	74	-38.85	0-360	250	V
4	7.239	33.92	PK	35.7	-30.9	0	38.72	-	-	74	-35.28	0-360	250	V
5	9.662	31.25	PK	37.1	-27.6	0	40.75	-	-	74	-33.25	0-360	150	V

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

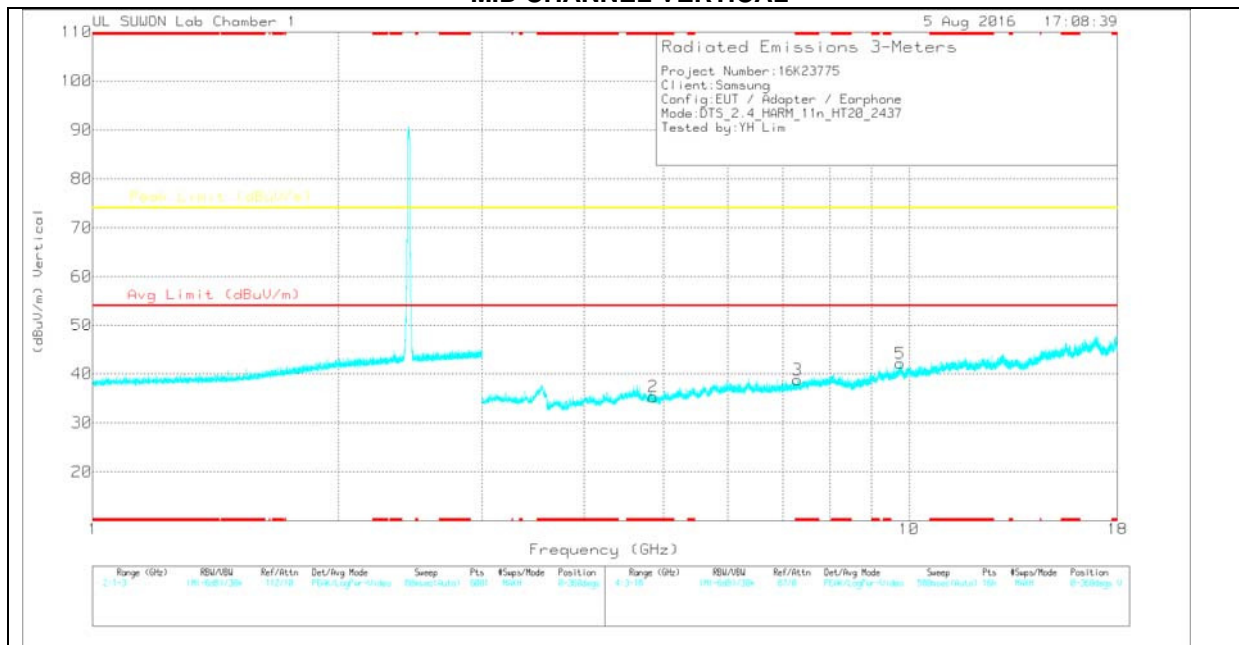
PK – Peak detector

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

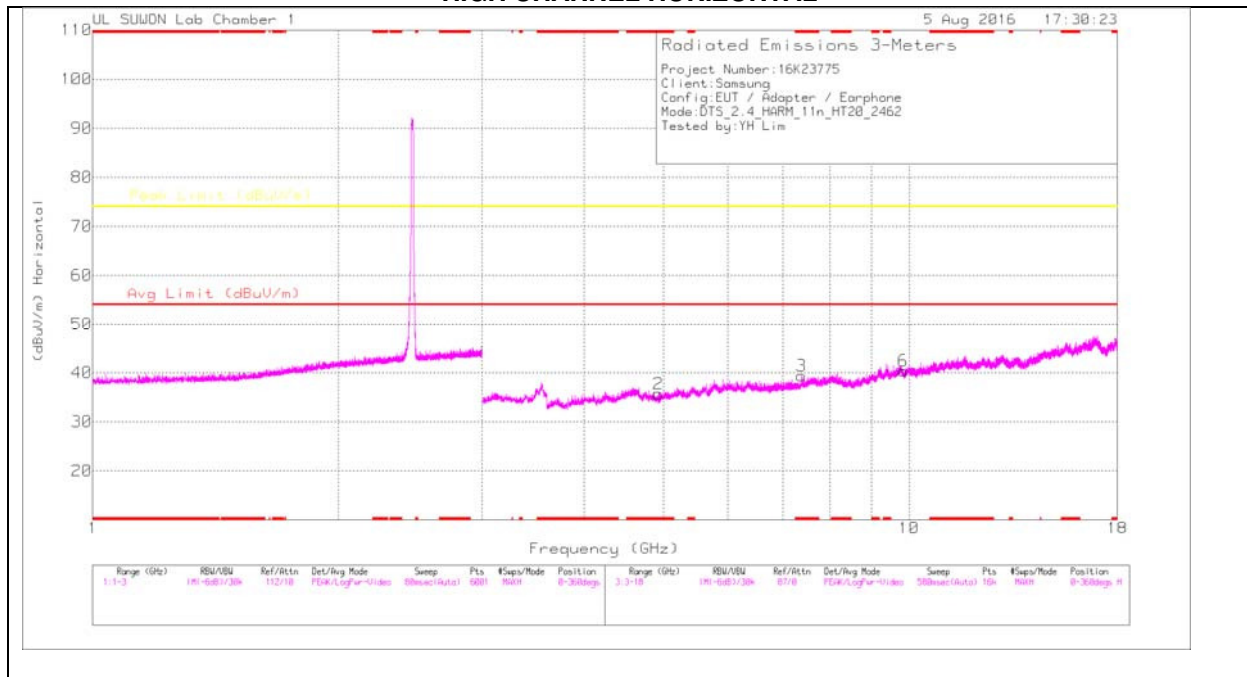
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_3	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.863	36.07	PK	34	-34	0	36.07	-	-	74	-37.93	0-360	250	H
4	* 7.317	33.85	PK	35.8	-30.9	0	38.75	-	-	74	-35.25	0-360	250	H
6	9.762	30.52	PK	37.2	-26.6	0	41.12	-	-	74	-32.88	0-360	250	H
2	* 4.857	35.33	PK	34	-34	0	35.33	-	-	74	-38.67	0-360	250	V
3	* 7.302	33.98	PK	35.7	-30.9	0	38.78	-	-	74	-35.22	0-360	150	V
5	9.758	31.59	PK	37.2	-26.7	0	42.09	-	-	74	-31.91	0-360	250	V

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

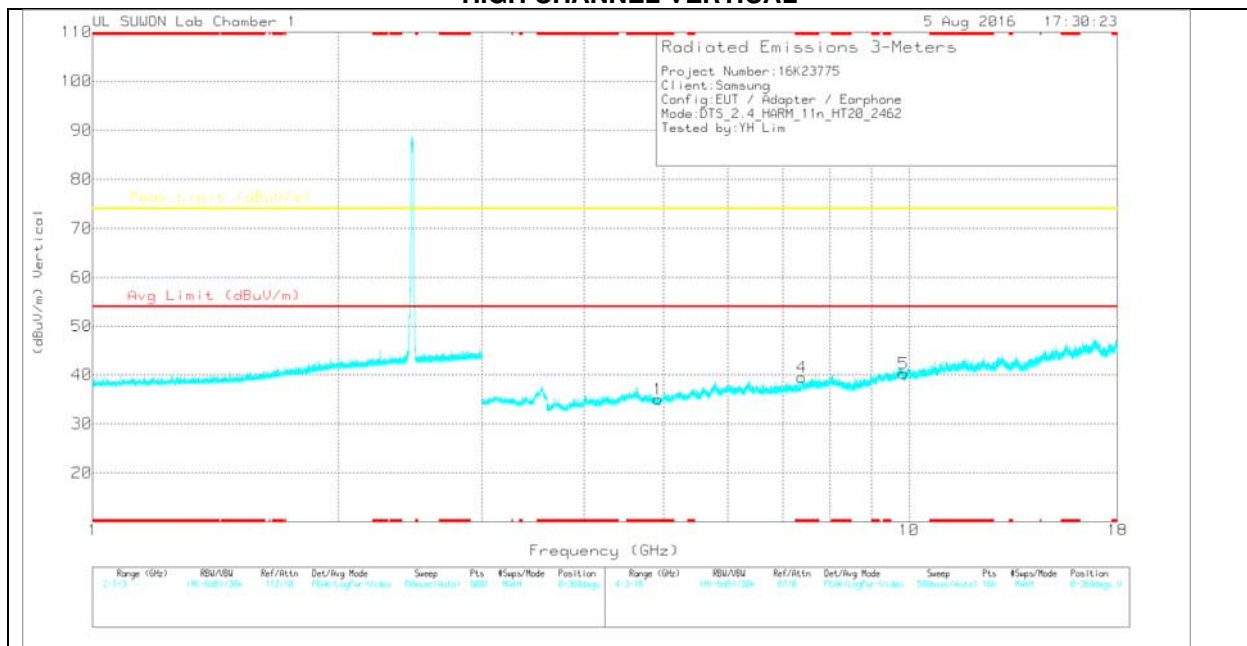
PK – Peak detector

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(001687 17)_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
2	* 4.931	35.7	PK	34	-34	0	35.7	-	-	74	-38.3	0-360	150	H
3	* 7.383	34.4	PK	35.8	-30.8	0	39.4	-	-	74	-34.6	0-360	150	H
6	9.843	30.6	PK	37.3	-27.5	0	40.4	-	-	74	-33.6	0-360	250	H
1	* 4.925	34.99	PK	34	-34	0	34.99	-	-	74	-39.01	0-360	250	V
4	* 7.39	34.4	PK	35.8	-30.7	0	39.5	-	-	74	-34.5	0-360	250	V
5	9.846	30.52	PK	37.3	-27.6	0	40.22	-	-	74	-33.78	0-360	250	V

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

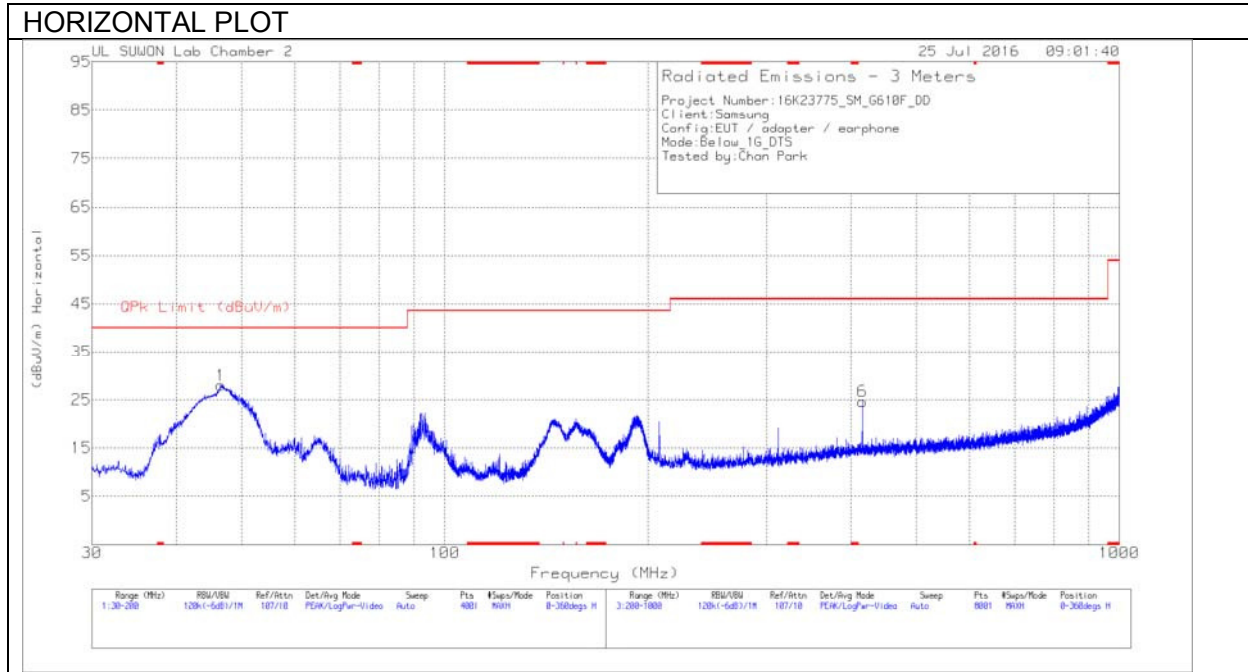
PK – Peak detector

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

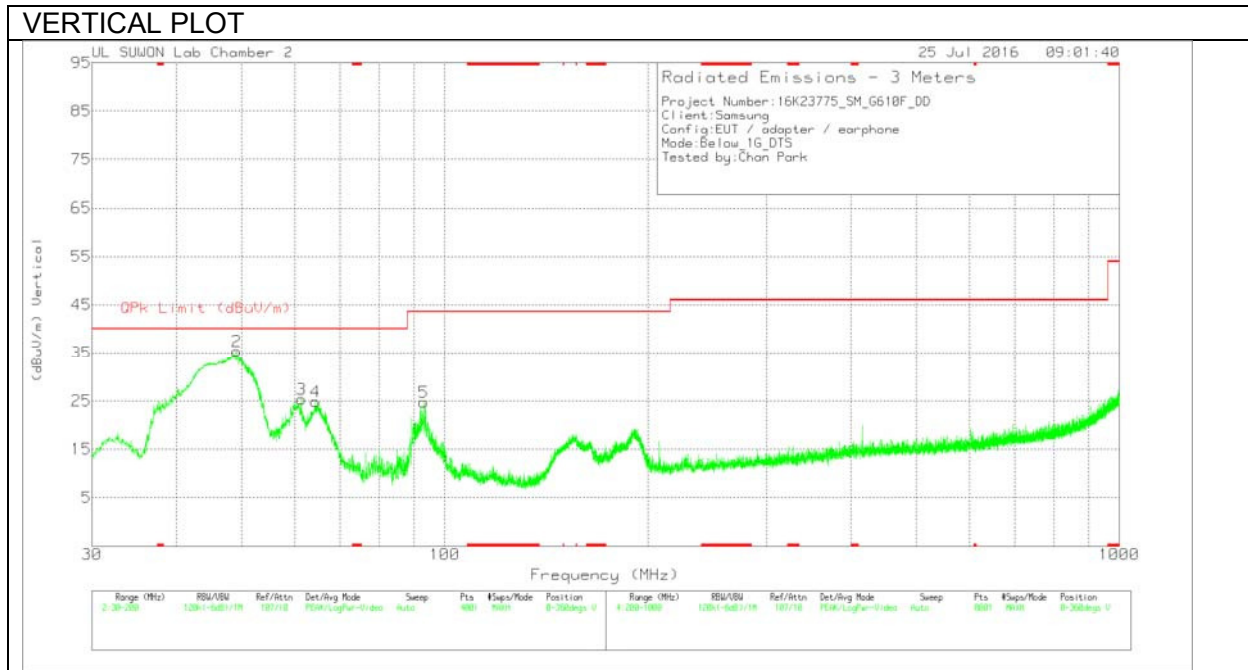
11.3. WORST-CASE BELOW 1 GHz

11.3.1. SM-G610F/DD

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



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



Below 1G Data

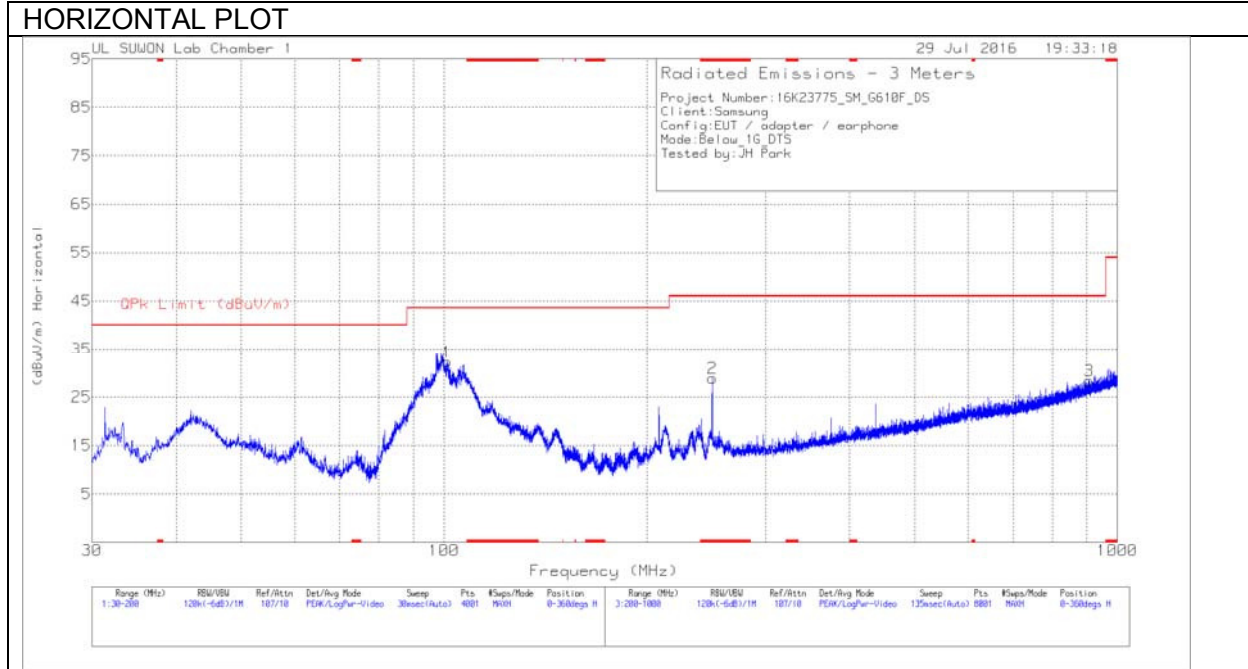
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163-749	Below_1G	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	46.575	44.77	Pk	14	-30.8	27.97	40	-12.03	0-360	400	H
2	49.1675	51.95	Pk	14.1	-30.7	35.35	40	-4.65	0-360	100	V
3	61.28	43.69	Pk	12.4	-30.7	25.39	40	-14.61	0-360	100	V
4	64.2975	44.13	Pk	11.4	-30.7	24.83	40	-15.17	0-360	100	V
5	93.1125	45.09	Pk	10.2	-30.6	24.69	43.52	-18.83	0-360	100	V
6	416	38.97	Pk	15.4	-29.7	24.67	46.02	-21.35	0-360	200	H

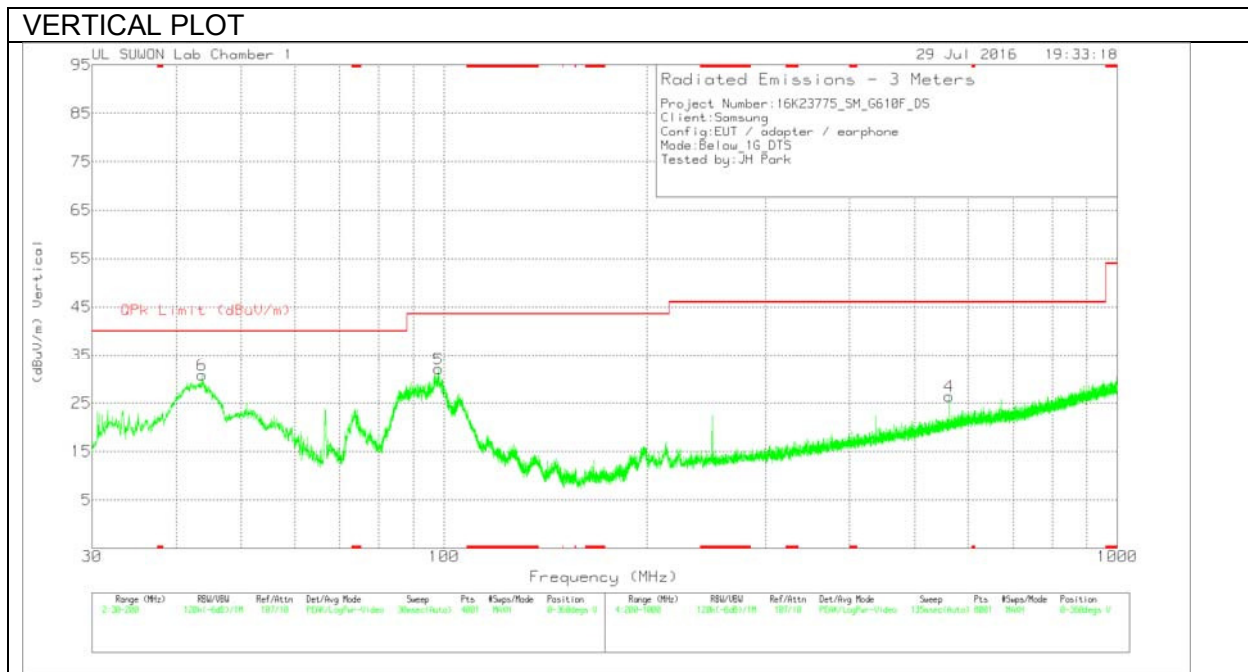
Pk - Peak detector

11.3.2. SM-G610F/DS

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	101.145	50.23	Pk	11.4	-29.3	32.33	43.52	-11.19	0-360	300	H
5	98.1275	50.21	Pk	11.2	-29.3	32.11	43.52	-11.41	0-360	100	V
6	43.685	47.68	Pk	13.3	-30.2	30.78	40	-9.22	0-360	100	V
2	* 250.2	44.53	Pk	12.3	-27.9	28.93	46.02	-17.09	0-360	100	H
3	907.1	29.9	Pk	22.1	-23.6	28.4	46.02	-17.62	0-360	300	H
4	562.5	34.06	Pk	18.3	-26	26.36	46.02	-19.66	0-360	100	V

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

Pk - 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.

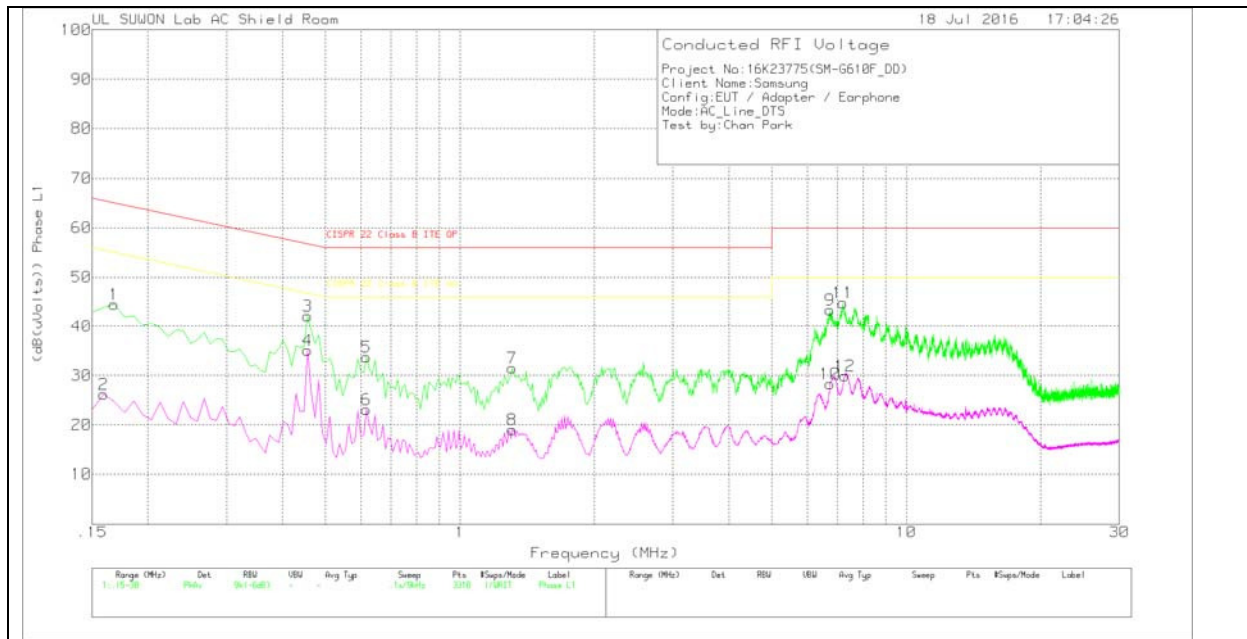
Line conducted data is recorded for both NEUTRAL and HOT lines.

12.1. SM-G610F/DD

RESULTS

WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

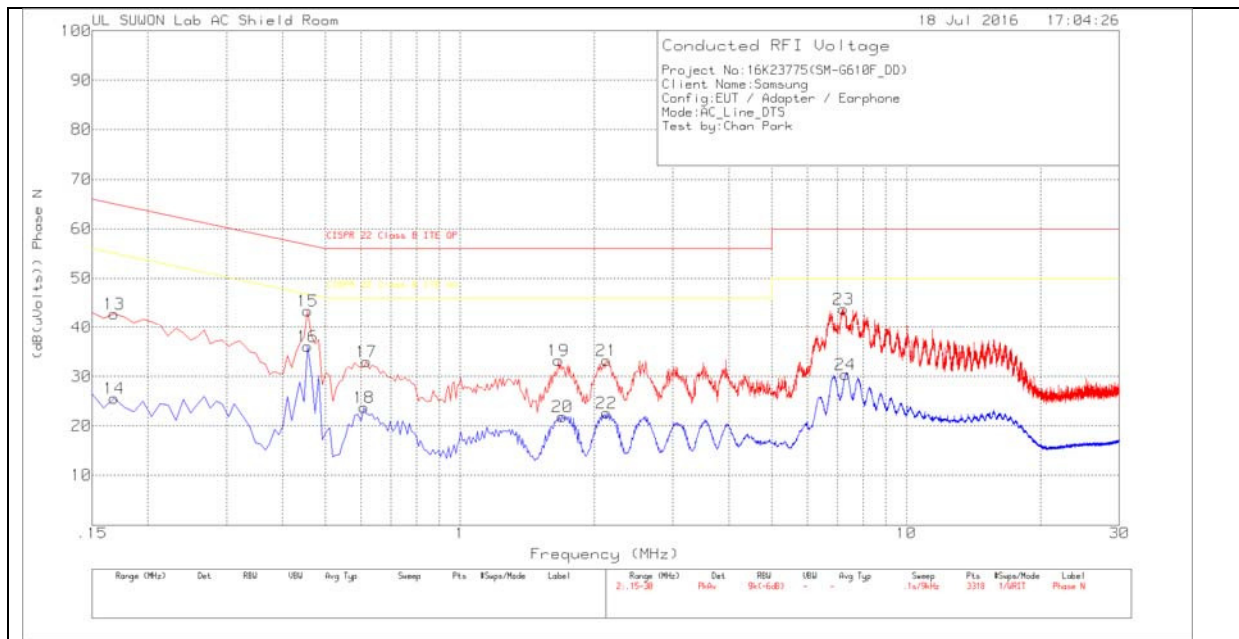
Phase L1 .15 - 30MHz

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	.168	34.25	Pk	10.2	0	44.45	65.06	-20.61	-	-
2	.159	16.16	Av	10	0	26.16	-	-	55.52	-29.36
3	.456	31.98	Pk	10.2	0	42.18	56.77	-14.59	-	-
4	.456	24.88	Av	10.2	0	35.08	-	-	46.77	-11.69
5	.618	23.62	Pk	10.1	0	33.72	56	-22.28	-	-
6	.618	13.03	Av	10.1	0	23.13	-	-	46	-22.87
7	1.311	21.5	Pk	9.9	.1	31.5	56	-24.5	-	-
8	1.311	9.06	Av	9.9	.1	19.06	-	-	46	-26.94
9	6.756	33.42	Pk	9.9	.1	43.42	60	-16.58	-	-
10	6.756	18.3	Av	9.9	.1	28.3	-	-	50	-21.7
11	7.206	34.81	Pk	9.9	.1	44.81	60	-15.19	-	-
12	7.287	19.93	Av	9.9	.1	29.93	-	-	50	-20.07

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 (dB(uVolts))	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
13	.168	32.58	Pk	10.2	0	42.78	65.06	-22.28	-	-
14	.168	15.34	Av	10.2	0	25.54	-	-	55.06	-29.52
15	.456	33.23	Pk	10.1	0	43.33	56.77	-13.44	-	-
16	.456	25.99	Av	10.1	0	36.09	-	-	46.77	-10.68
17	.618	22.95	Pk	10.1	0	33.05	56	-22.95	-	-
18	.609	13.65	Av	10.1	0	23.75	-	-	46	-22.25
19	1.662	23.36	Pk	9.8	.1	33.26	56	-22.74	-	-
20	1.698	11.99	Av	9.8	.1	21.89	-	-	46	-24.11
21	2.13	23.33	Pk	9.8	.1	33.23	56	-22.77	-	-
22	2.13	12.76	Av	9.8	.1	22.66	-	-	46	-23.34
23	7.233	33.78	Pk	9.9	.1	43.78	60	-16.22	-	-
24	7.305	20.41	Av	9.9	.1	30.41	-	-	50	-19.59

Pk - Peak detector

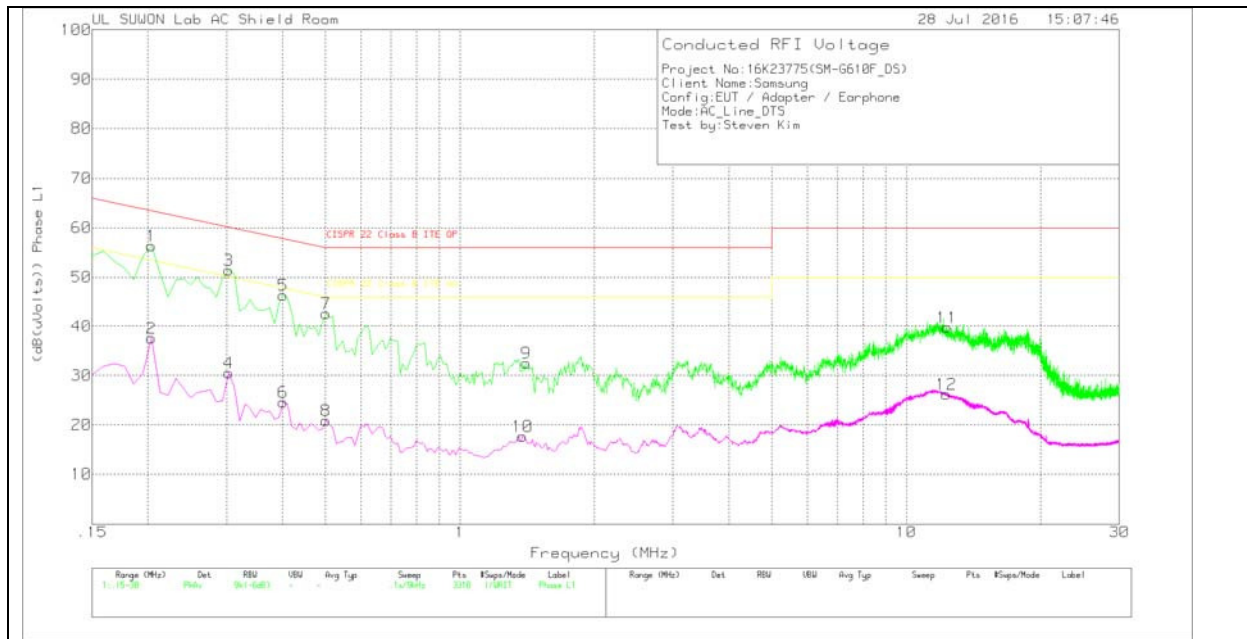
Av - Average detection

12.2. SM-G610F/DS

RESULTS

WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

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	.204	46.44	Pk	9.9	0	56.34	63.45	-7.11	-	-
2	.204	27.7	Av	9.9	0	37.6	-	-	53.45	-15.85
3	.303	41.55	Pk	9.9	0	51.45	60.16	-8.71	-	-
4	.303	20.65	Av	9.9	0	30.55	-	-	50.16	-19.61
5	.402	36.28	Pk	10.1	0	46.38	57.81	-11.43	-	-
6	.402	14.53	Av	10.1	0	24.63	-	-	47.81	-23.18
7	.501	32.49	Pk	10.2	0	42.69	56	-13.31	-	-
8	.501	10.7	Av	10.2	0	20.9	-	-	46	-25.1
9	1.41	22.64	Pk	9.8	.1	32.54	56	-23.46	-	-
10	1.383	7.75	Av	9.8	.1	17.65	-	-	46	-28.35
11	12.318	29.5	Pk	10.1	.2	39.8	60	-20.2	-	-
12	12.291	15.94	Av	10.1	.2	26.24	-	-	50	-23.76

Pk - Peak detector

Av - Average detection

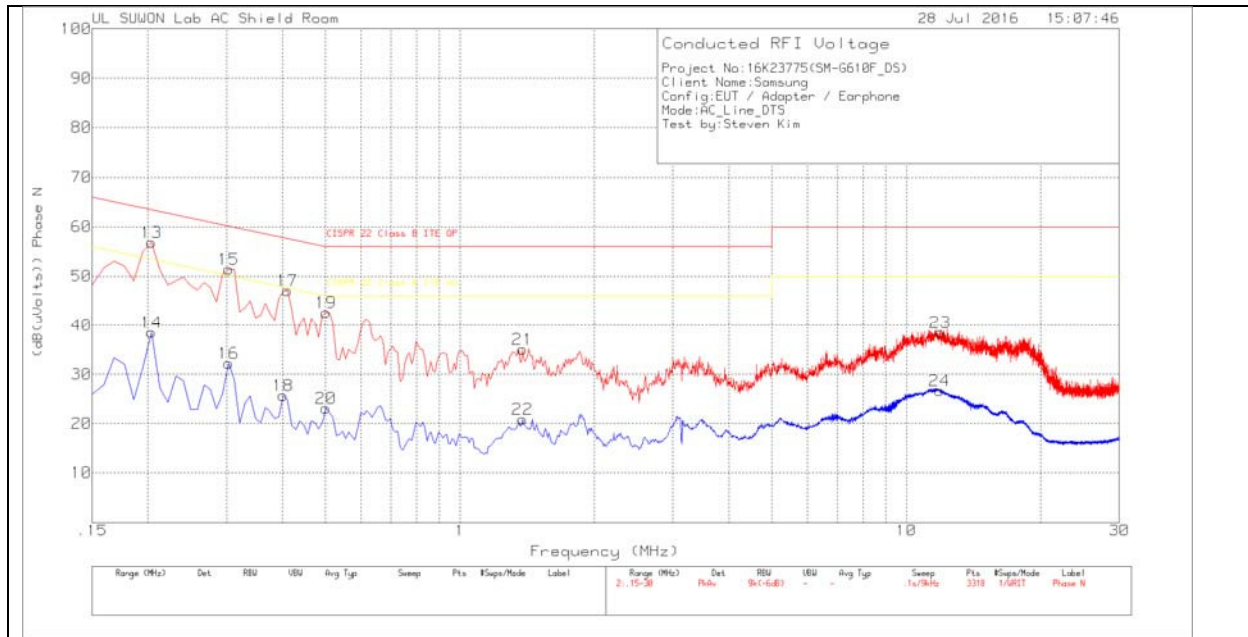
Quasi-Peak Emissions

Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101837_wit h 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)
.1995	43.83	Qp	10	0	53.83	63.63	-9.8	-	-
.2985	37.81	Qp	9.9	0	47.71	60.28	-12.57	-	-
.3975	32.18	Qp	10.1	0	42.28	57.91	-15.63	-	-
.4974	27.46	Qp	10.2	0	37.66	56.04	-18.38	-	-

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	46.96	Pk	9.9	0	56.86	63.45	-6.59	-	-
14	.204	28.66	Av	9.9	0	38.56	-	-	53.45	-14.89
15	.303	41.5	Pk	9.9	0	51.4	60.16	-8.76	-	-
16	.303	22.3	Av	9.9	0	32.2	-	-	50.16	-17.96
17	.411	36.95	Pk	10.1	0	47.05	57.63	-10.58	-	-
18	.402	15.56	Av	10.1	0	25.66	-	-	47.81	-22.15
19	.501	32.57	Pk	10.1	0	42.67	56	-13.33	-	-
20	.501	12.97	Av	10.1	0	23.07	-	-	46	-22.93
21	1.383	25.25	Pk	9.8	.1	35.15	56	-20.85	-	-
22	1.383	10.98	Av	9.8	.1	20.88	-	-	46	-25.12
23	11.913	28.14	Pk	10.2	.2	38.54	60	-21.46	-	-
24	11.868	16.32	Av	10.2	.2	26.72	-	-	50	-23.28

Pk - Peak detector

Av - Average detection

Quasi-Peak Emissions

Phase N .15 - 30MHz

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)
.1995	43.29	Qp	9.9	0	53.19	63.63	-10.44	-	-
.2985	37.39	Qp	9.9	0	47.29	60.28	-12.99	-	-
.4074	31.08	Qp	10.1	0	41.18	57.7	-16.52	-	-
.4965	27.26	Qp	10.1	0	37.36	56.06	-18.7	-	-

Qp - Quasi-Peak detector