

Appendix B : Cellular receiver Part 15B test results

1. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. ANSI C63.4 : 2014

2. EQUIPMENT UNDER TEST

2.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac, ANT+ and NFC
This test report addresses the WWAN receiver mode. (GSM850/WCDMA B5/LTE B5)

2.2. TEST MODE

Mode	Description
GSM850	Communicating with Call simulator(CMW500)
WCDMA BAND 5	Communicating with Call simulator(CMW500)
LTE BAND 5	Communicating with Call simulator(CMW500)

2.3. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA200	R37KC3B01GORC3	N/A
Data Cable	SAMSUNG	EP-D140AWE	N/A	N/A
Earphone	SAMSUNG	EHS61ASFWE	N/A	N/A

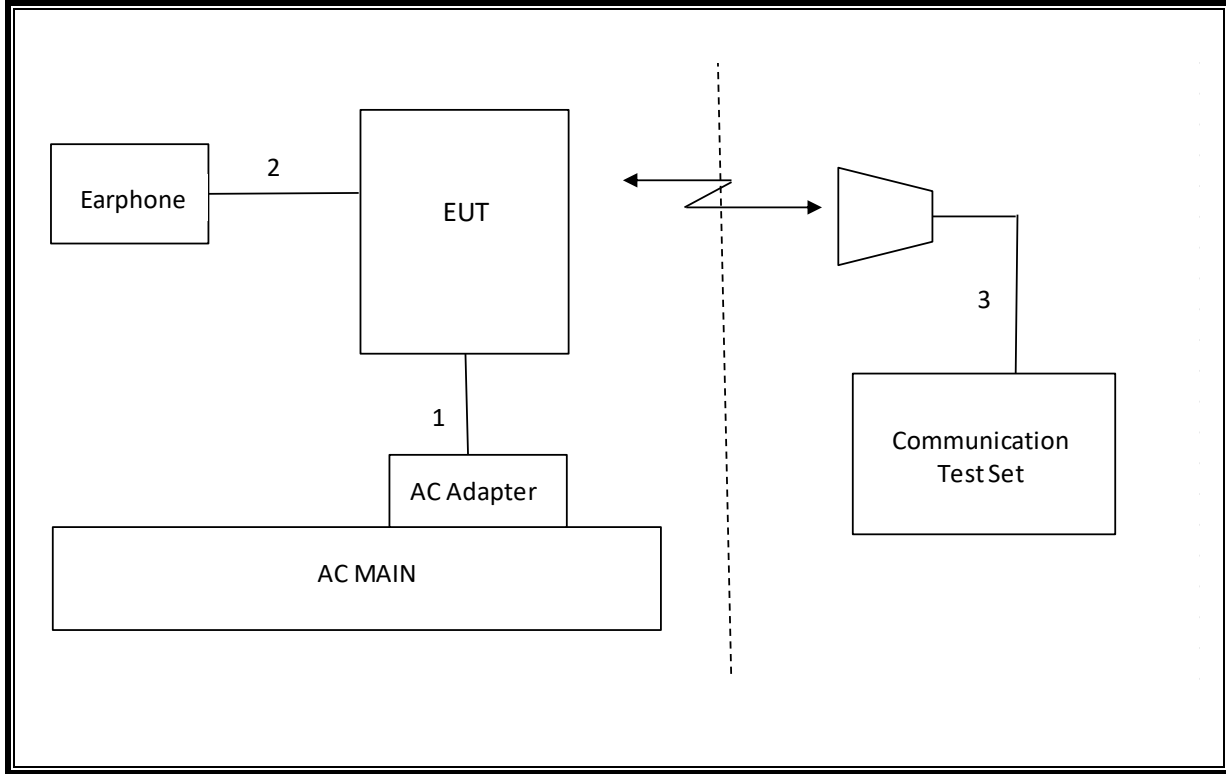
I/O CABLE

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.1m	N/A
2	Audio	2	Mini-Jack	Unshielded	1.2m	N/A

TEST SETUP

The EUT is continuously communicated to the call box during the tests.

SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



3. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121D DB4	00164753	06-30-19
Antenna, Horn, 40 GHz	ETS	3116C	00166155	12-04-19
Preamplifier	ETS	3116C-PA	00168841	08-09-19
Antenna, Horn, 40 GHz	ETS	3116C	00168645	12-04-19
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	08-04-20
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	08-04-20
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	08-04-20
Antenna, Horn, 18 GHz	ETS	3115	00167211	08-04-20
Antenna, Horn, 18 GHz	ETS	3115	00161451	08-04-20
Antenna, Horn, 18 GHz	ETS	3117	00168724	08-04-20
Antenna, Horn, 18 GHz	ETS	3117	00205959	08-04-20
Antenna, Horn, 18 GHz	ETS	3117	00168717	08-04-20
Combiner	WEINSCHL	1575	2152	08-08-19
Communications Test Set	R&S	CMW500	115331	08-07-19
DC Power Supply	Agilent / HP	E3640A	MY54226395	08-06-19
Preamplifier, 1000 MHz	Sonoma	310N	341282	08-07-19
Preamplifier, 1000 MHz	Sonoma	310N	370599	08-06-19
Preamplifier, 1000 MHz	Sonoma	310N	351741	08-07-19
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1876511	08-07-19
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	08-07-19
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	08-07-19
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	08-06-19
EMI Test Receive, 40 GHz	R&S	ESU40	100439	08-06-19
EMI Test Receive, 40 GHz	R&S	ESU40	100457	08-06-19
EMI Test Receive, 44 GHz	R&S	ESW40	101590	08-06-19
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	08-08-19
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	08-08-19
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	08-08-19
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	08-08-19
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	08-08-19
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	08-08-19
Attenuator	PASTERNAK	PE7087-10	A009	08-08-19
Attenuator	PASTERNAK	PE7087-10	A001	08-08-19
Attenuator	PASTERNAK	PE7087-10	A008	08-08-19
Attenuator	PASTERNAK	PE7087-10	2	08-07-19
Attenuator	PASTERNAK	PE7395-10	A011	08-08-19
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	10-26-19
Temperature Chamber	ESPEC	SH-642	93001109	08-06-19
UL Software				
Description	Manufacturer	Model	Version	
Antenna port test software	UL	CLT	Ver 2.5	

4. APPLICABLE LIMITS AND TEST RESULTS

TEST PROCEDURE

ANSI C63.4: 2014

LIMIT

§15.109 (a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

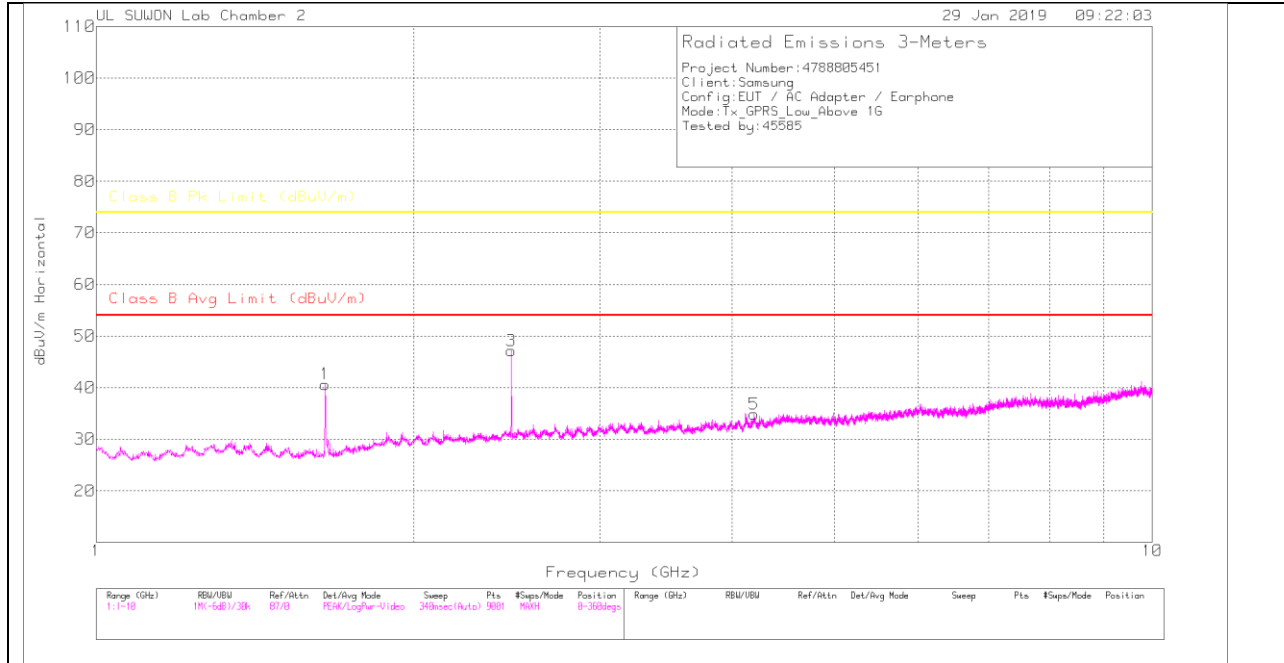
Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dB μ V/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960 MHz	54

Note: The lower limit shall apply at the transition frequency.

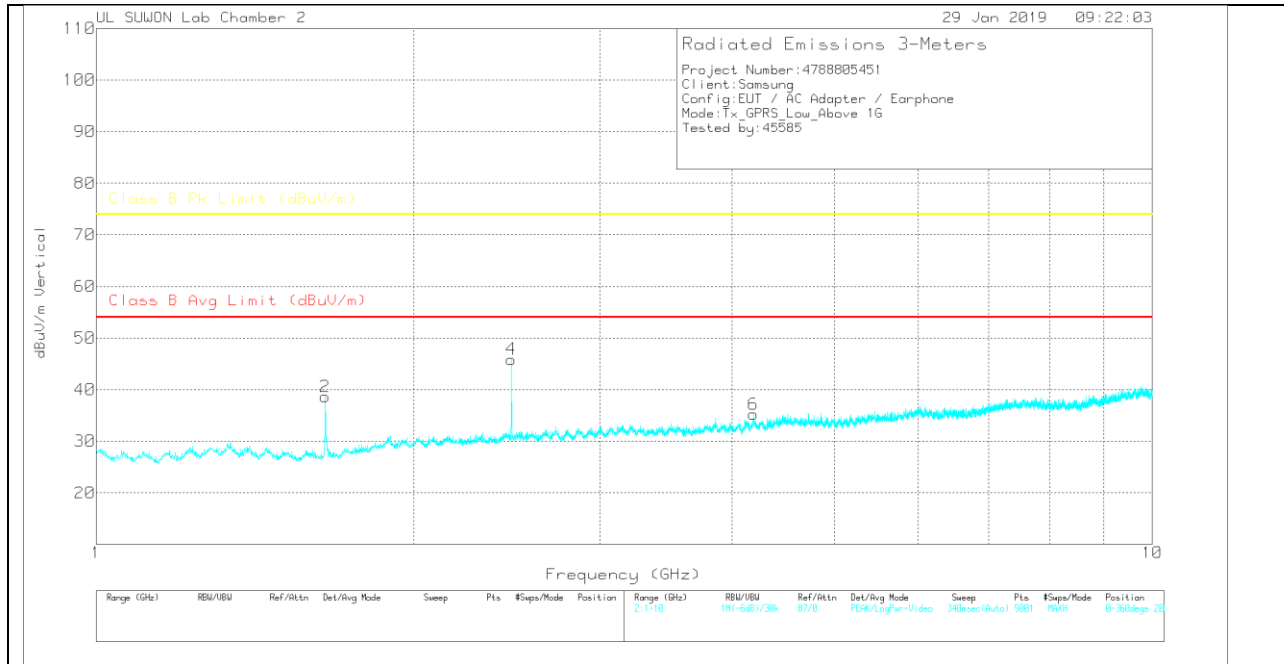
4.1. Above 1 GHz in the GSM850

LOW CHANNEL(869.2MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

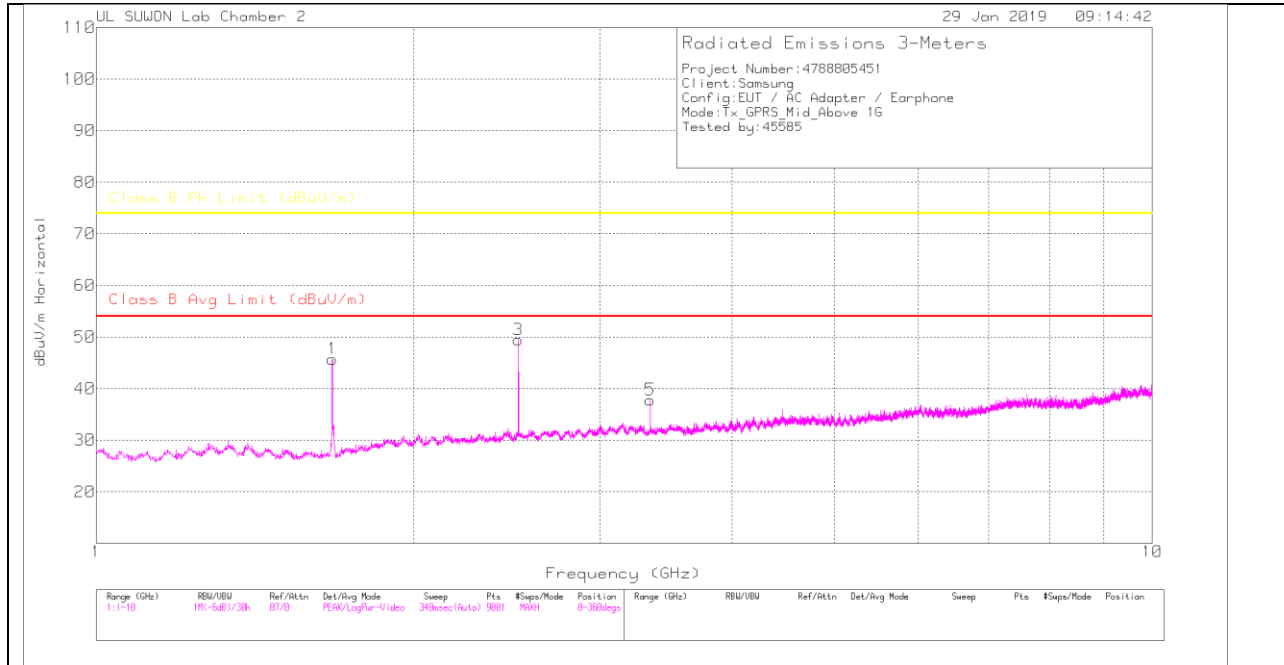
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.648	43.16	PK	28.3	-31.4	.6	40.66	-	-	74	-33.34	0-360	200	H
3	2.472	44.85	PK	31.8	-30.2	.7	47.15	-	-	74	-26.85	0-360	200	H
5	4.199	29.24	PK	33.4	-28.2	.4	34.84	-	-	74	-39.16	0-360	100	H
2	1.648	41.12	PK	28.3	-31.4	.6	38.62	-	-	74	-35.38	0-360	200	V
4	2.472	43.57	PK	31.8	-30.2	.7	45.87	-	-	74	-28.13	0-360	100	V
6	4.193	29.65	PK	33.4	-28.2	.4	35.25	-	-	74	-38.75	0-360	200	V

PK – Peak Detector

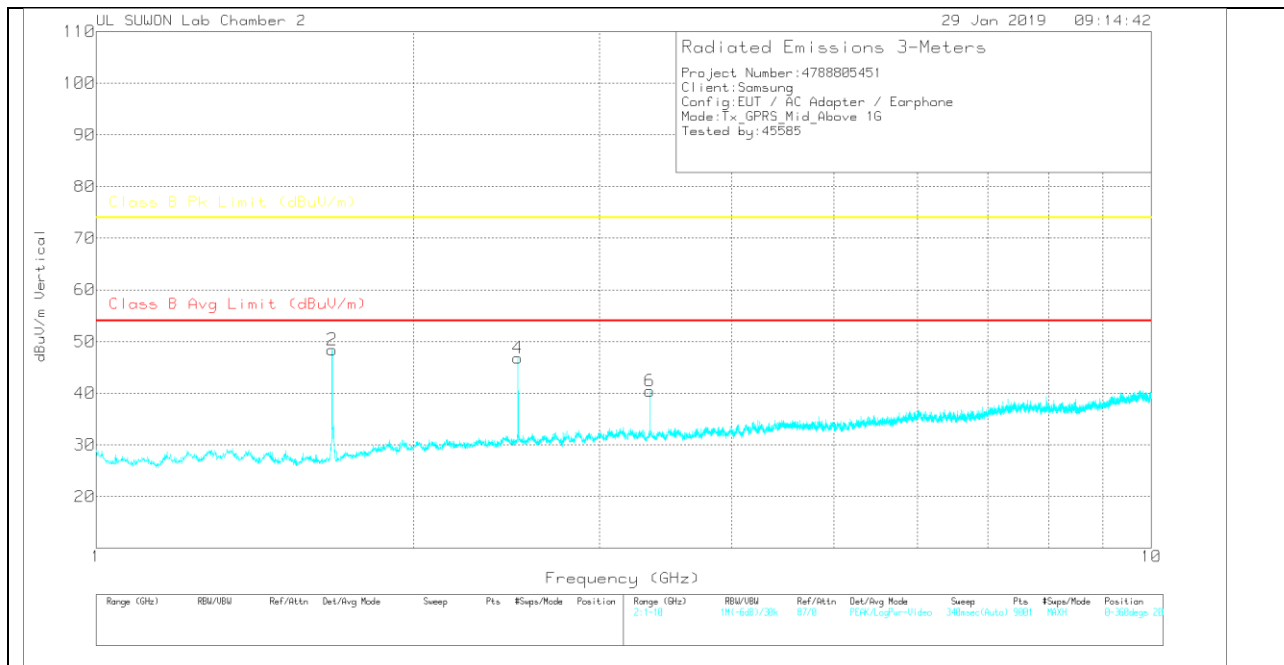
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

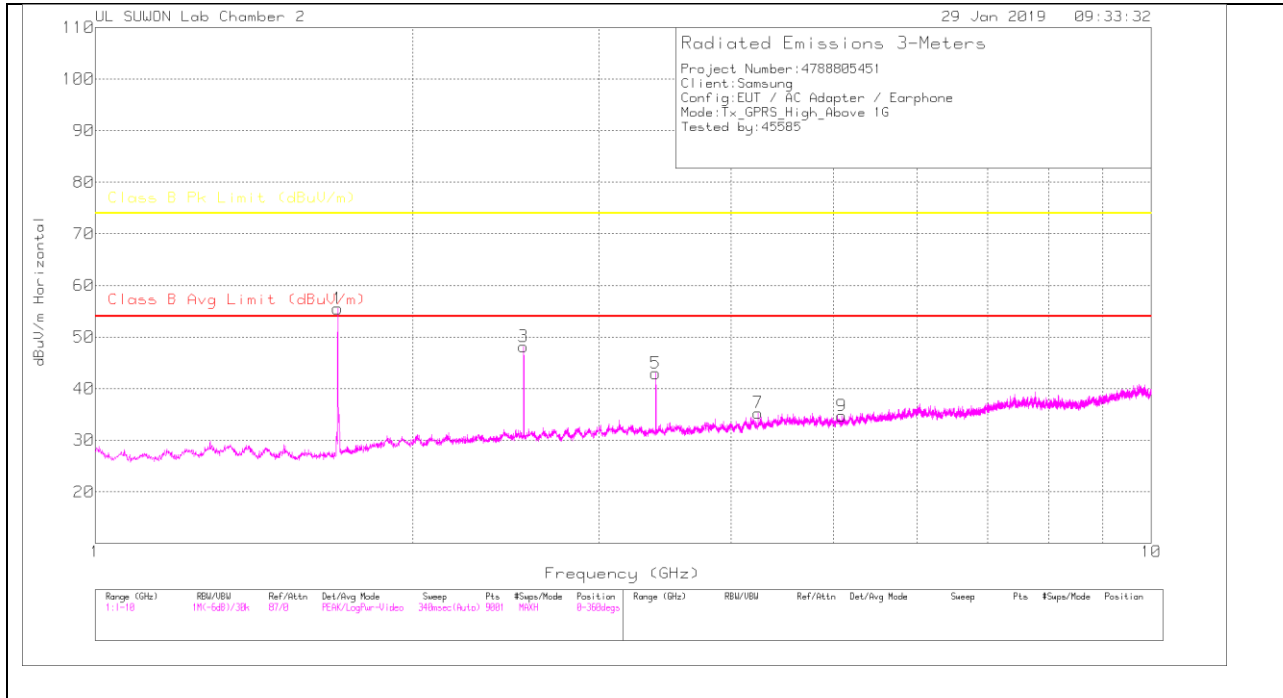
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.674	48.16	PK	28.5	-31.4	.5	45.76	-	-	74	-28.24	0-360	100	H
3	2.511	47.27	PK	31.9	-30.2	.5	49.47	-	-	74	-24.53	0-360	200	H
5	3.348	34.64	PK	32.6	-29.9	.5	37.84	-	-	74	-36.16	0-360	200	H
2	1.674	50.81	PK	28.5	-31.4	.5	48.41	-	-	74	-25.59	0-360	100	V
4	2.511	44.63	PK	31.9	-30.2	.5	46.83	-	-	74	-27.17	0-360	100	V
6	3.348	37.23	PK	32.6	-29.9	.5	40.43	-	-	74	-33.57	0-360	200	V

PK – Peak Detector

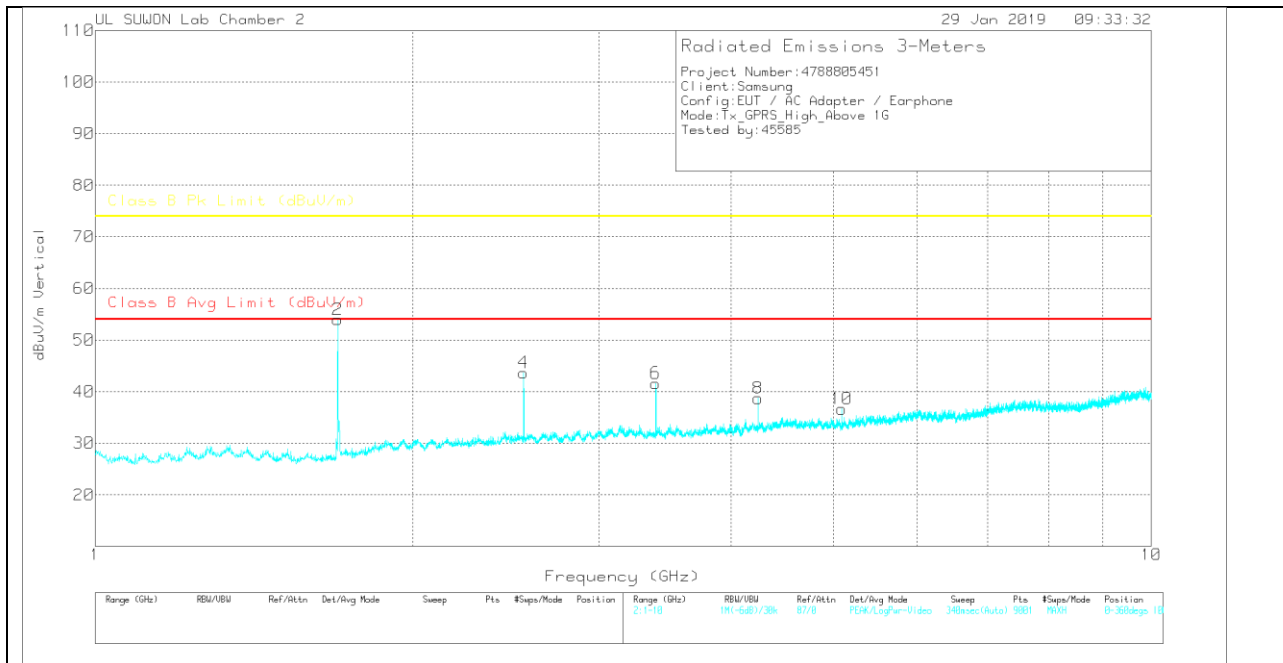
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(893.8MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.697	57.63	PK	28.6	-31.3	.6	55.53	-	-	74	-18.47	0-360	200	H
3	2.546	45.68	PK	32	-30.2	.7	48.18	-	-	74	-25.82	0-360	100	H
5	3.395	39.09	PK	32.6	-29.4	.7	42.99	-	-	74	-31.01	0-360	200	H
7	4.244	30	PK	33.4	-28.5	.4	35.3	-	-	74	-38.7	0-360	200	H
9	5.092	28.11	PK	34.2	-28	.4	34.71	-	-	74	-39.29	0-360	100	H
2	1.697	56.09	PK	28.6	-31.3	.6	53.99	-	-	74	-20.01	0-360	100	V
4	2.546	41.19	PK	32	-30.2	.7	43.69	-	-	74	-30.31	0-360	200	V
6	3.395	37.72	PK	32.6	-29.4	.7	41.62	-	-	74	-32.38	0-360	200	V
8	4.244	33.43	PK	33.4	-28.5	.4	38.73	-	-	74	-35.27	0-360	200	V
10	5.093	30.16	PK	34.2	-28.1	.4	36.66	-	-	74	-37.34	0-360	200	V

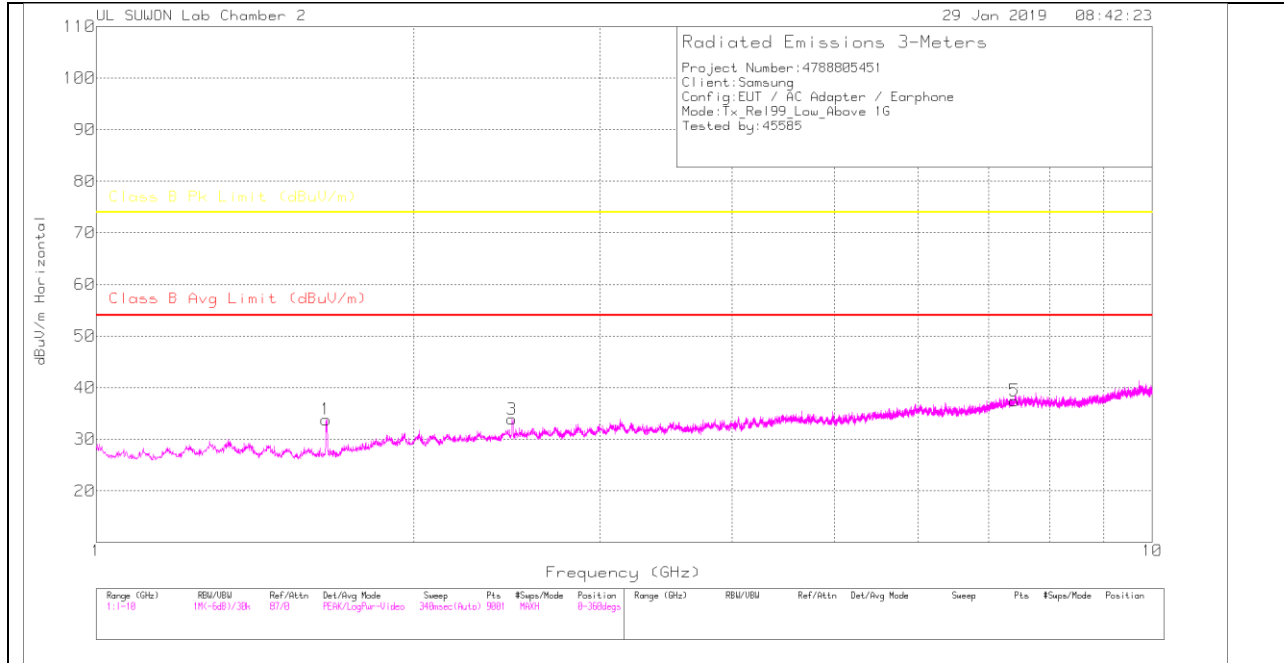
PK – Peak Detector

Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

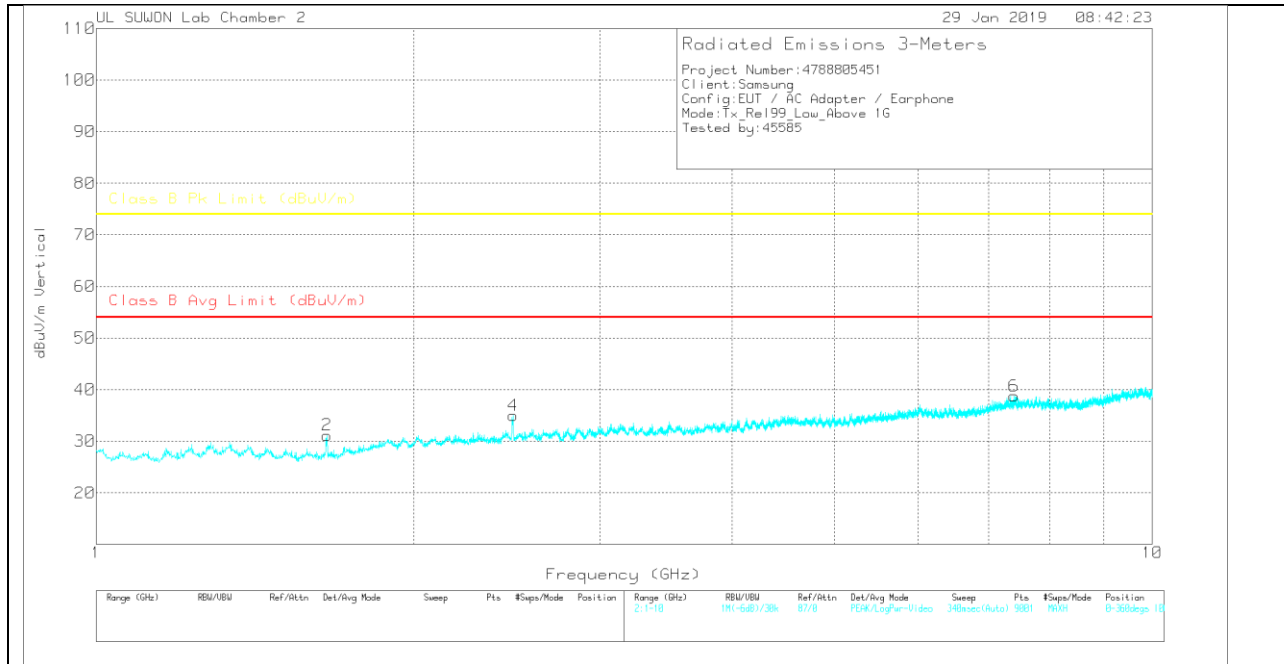
4.2. Above 1 GHz in the WCDMA Band 5

LOW CHANNEL(871.4MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

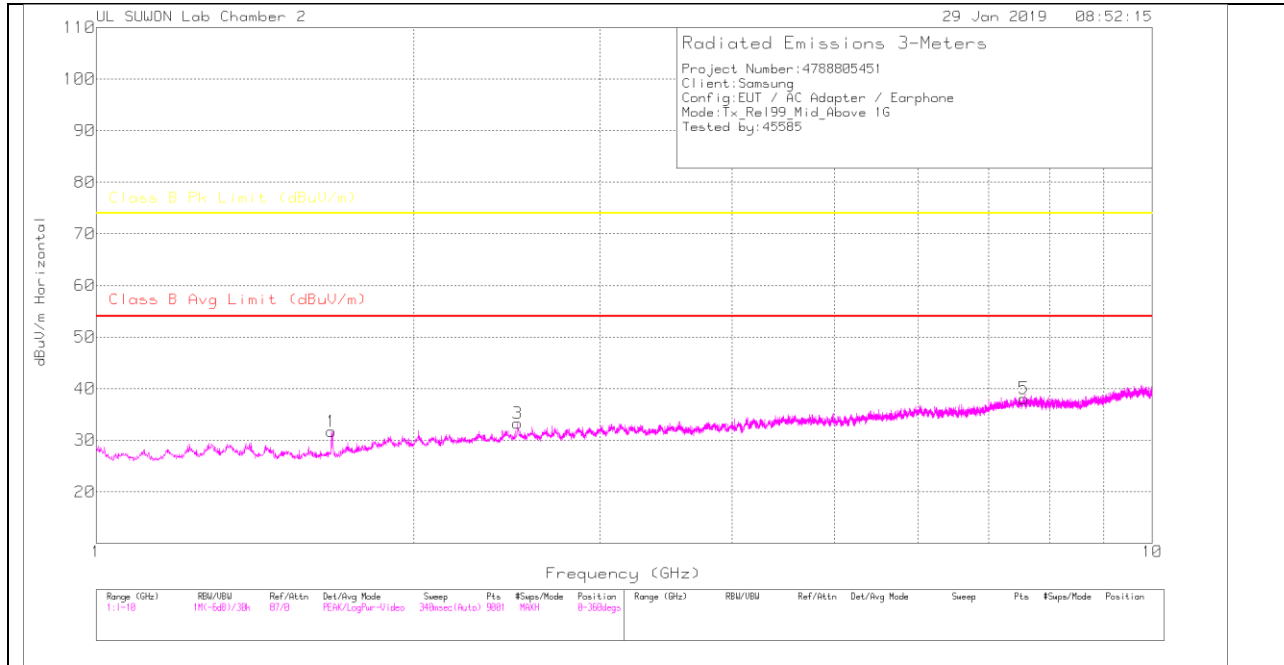
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.651	36.34	PK	28.3	-31.4	.6	33.84	-	-	74	-40.16	0-360	200	H
3	2.476	31.38	PK	31.9	-30.1	.7	33.88	-	-	74	-40.12	0-360	100	H
5	7.402	26.08	PK	36.2	-25.4	.6	37.48	-	-	74	-36.52	0-360	200	H
2	1.654	33.86	PK	28.3	-31.5	.5	31.16	-	-	74	-42.84	0-360	100	V
4	2.483	32.57	PK	31.9	-30.1	.6	34.97	-	-	74	-39.03	0-360	200	V
6	7.399	27.34	PK	36.2	-25.4	.6	38.74	-	-	74	-35.26	0-360	100	V

PK – Peak Detector

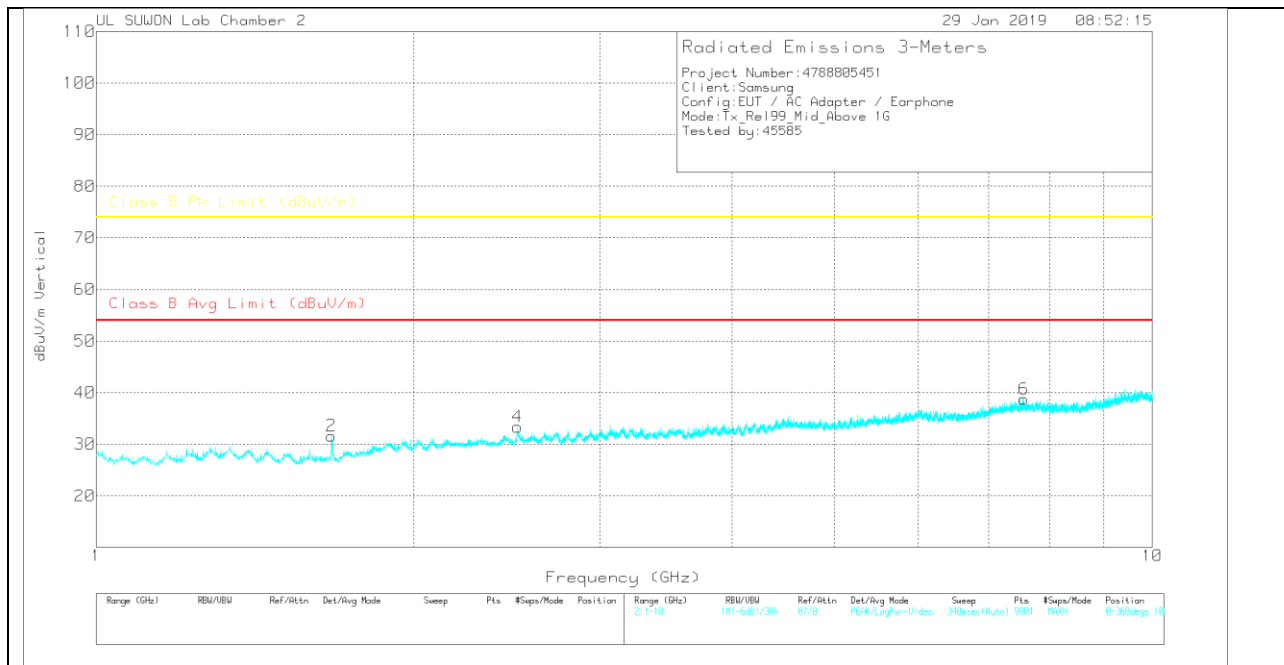
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

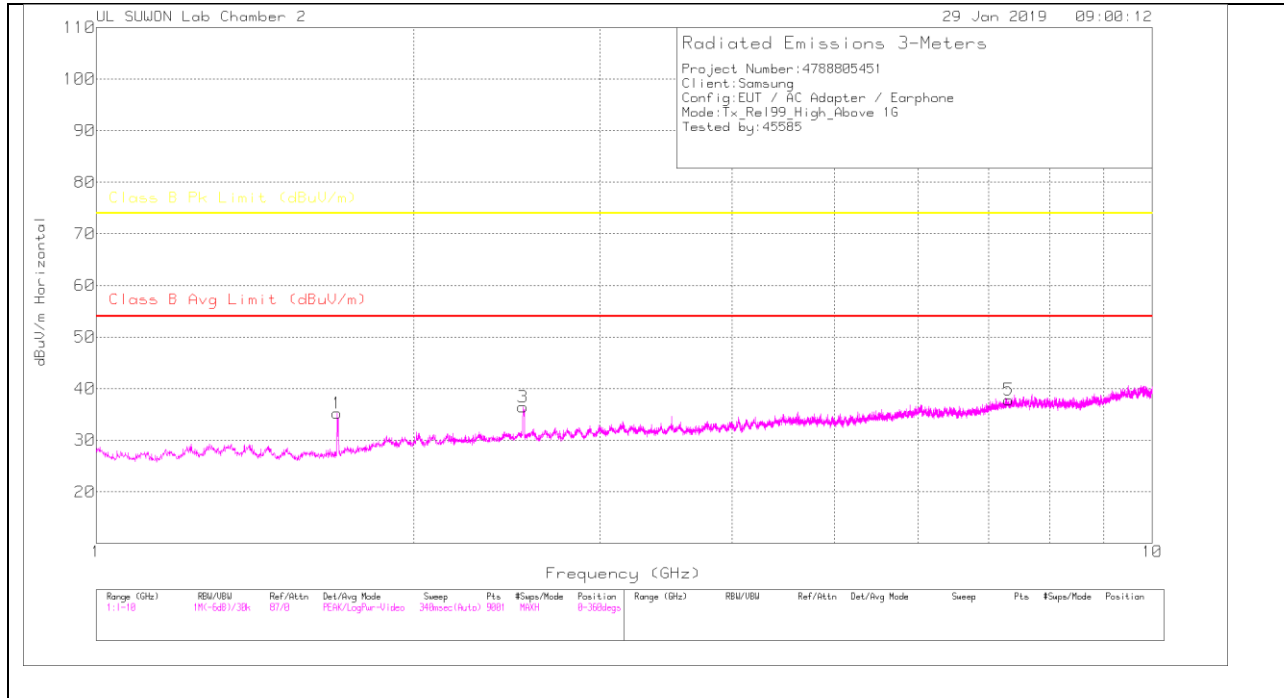
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.671	34.08	PK	28.5	-31.4	.5	31.68	-	-	74	-42.32	0-360	200	H
3	2.507	31.07	PK	31.9	-30.2	.5	33.27	-	-	74	-40.73	0-360	200	H
5	7.557	26.39	PK	36.1	-25.1	.7	38.09	-	-	74	-35.91	0-360	200	H
2	1.671	34.02	PK	28.5	-31.4	.5	31.62	-	-	74	-42.38	0-360	100	V
4	2.506	31.37	PK	31.9	-30.4	.5	33.37	-	-	74	-40.63	0-360	200	V
6	7.562	27.05	PK	36.1	-25.1	.7	38.75	-	-	74	-35.25	0-360	100	V

PK – Peak Detector

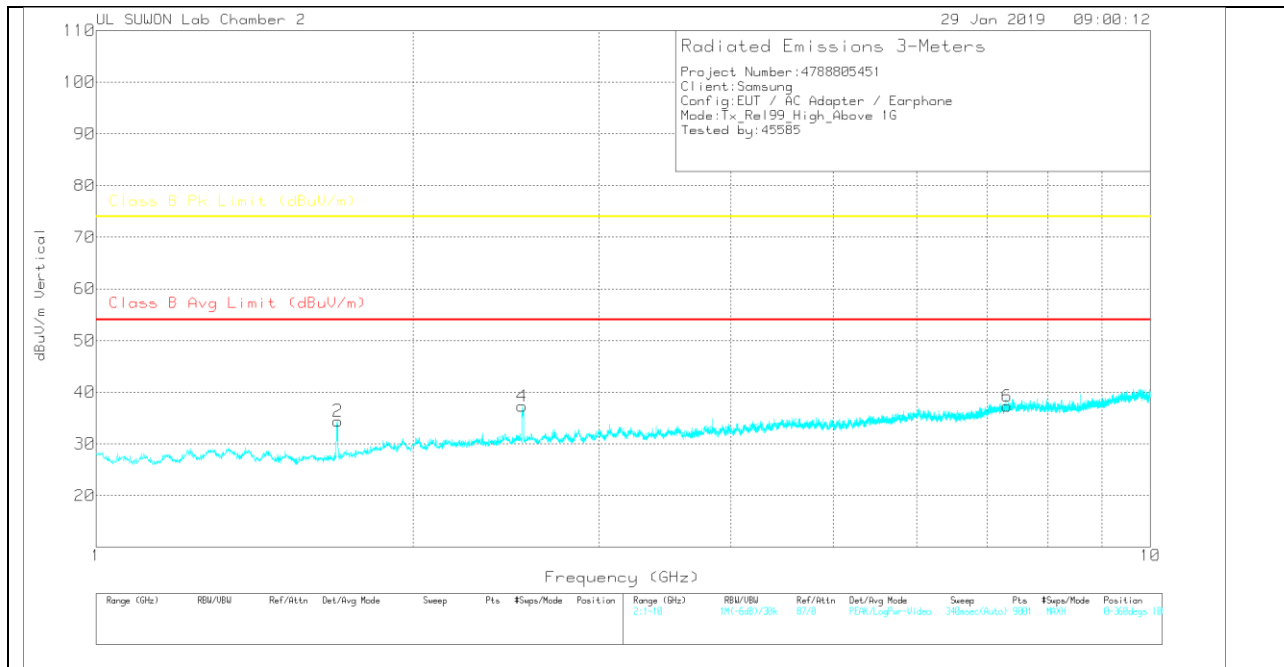
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(891.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.691	37.25	PK	28.6	-31.2	.6	35.25	-	-	74	-38.75	0-360	200	H
3	2.536	34.03	PK	32	-30.2	.6	36.43	-	-	74	-37.57	0-360	100	H
5	7.313	27.14	PK	36.2	-25.9	.4	37.84	-	-	74	-36.16	0-360	100	H
2	1.695	36.51	PK	28.6	-31.3	.6	34.41	-	-	74	-39.59	0-360	100	V
4	2.536	34.89	PK	32	-30.2	.6	37.29	-	-	74	-36.71	0-360	100	V
6	7.314	26.49	PK	36.2	-25.8	.4	37.29	-	-	74	-36.71	0-360	200	V

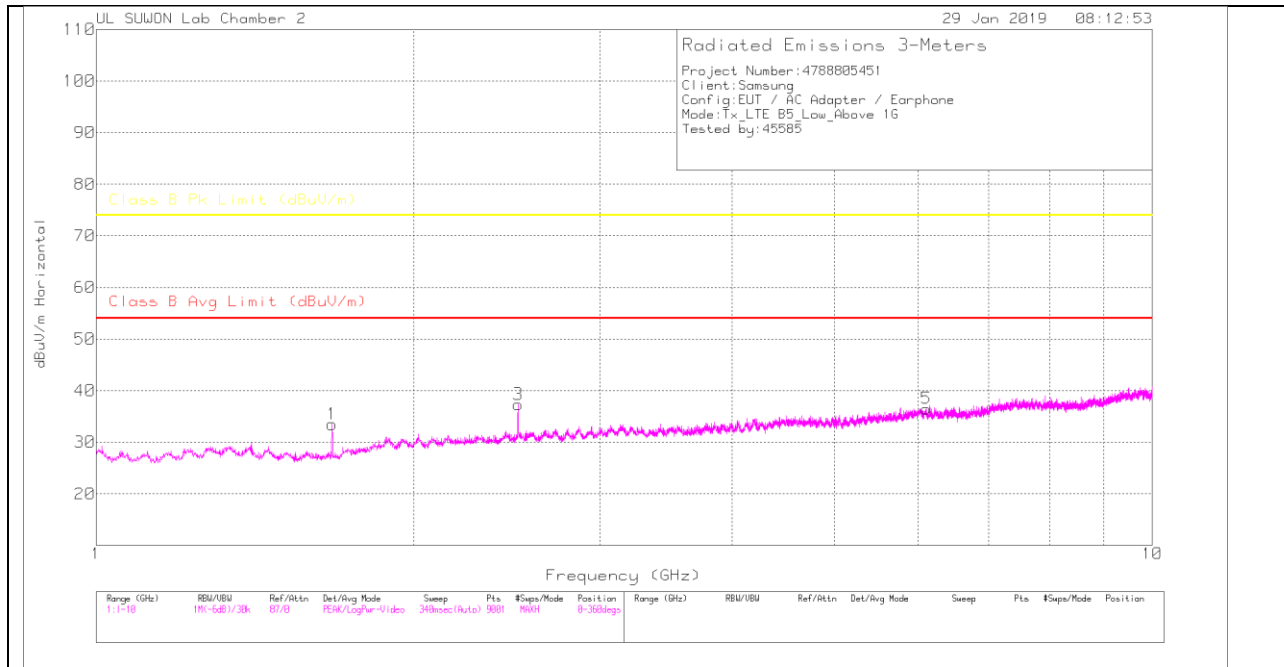
PK – Peak Detector

Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

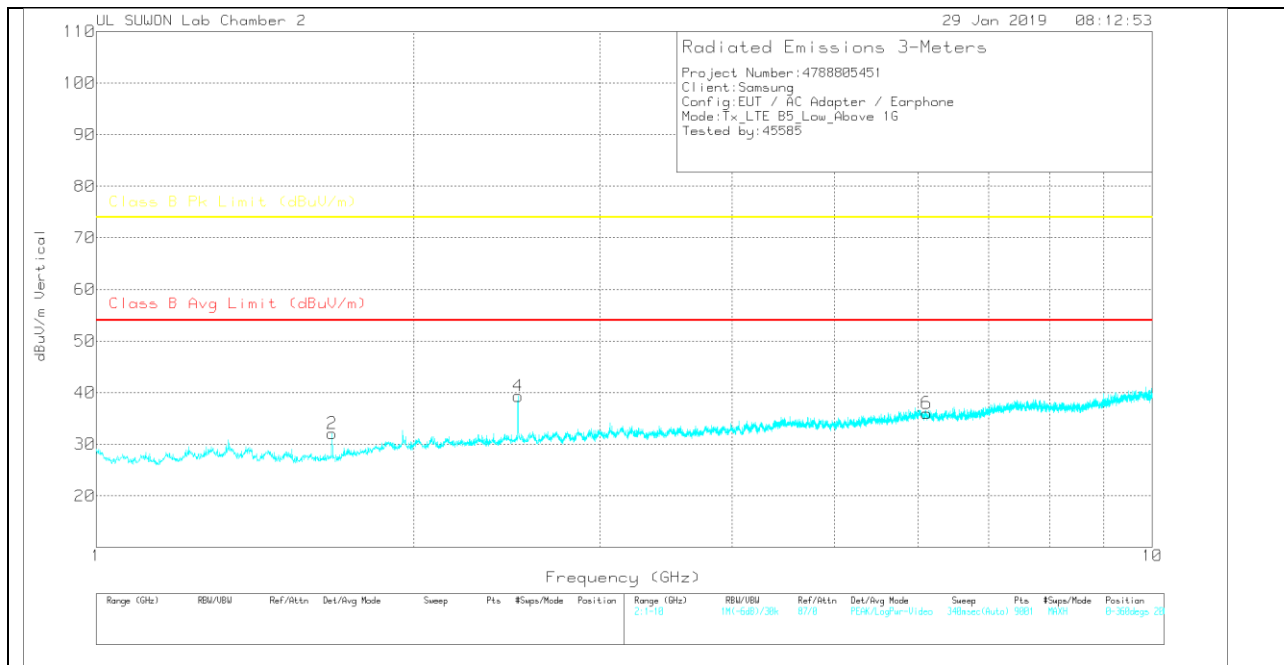
4.3. Above 1 GHz in the LTE Band 5

LOW CHANNEL(870.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

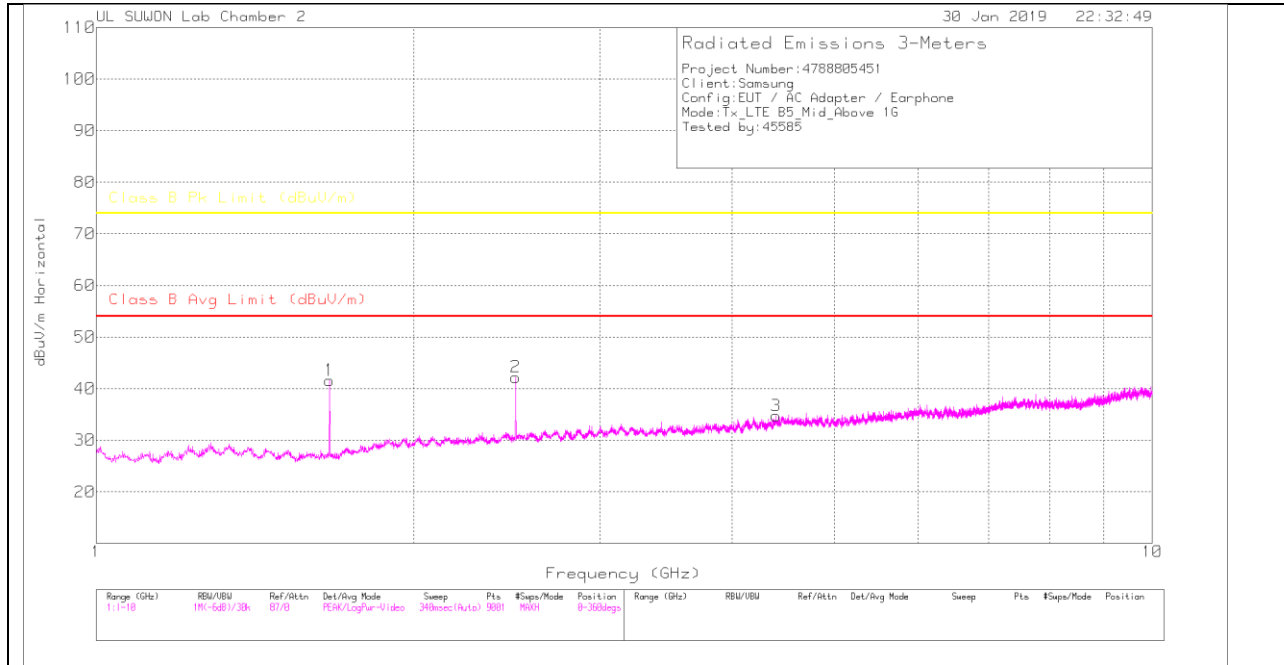
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.673	35.79	PK	28.5	-31.3	.5	33.49	-	-	74	-40.51	0-360	100	H
3	2.51	35.23	PK	31.9	-30.3	.5	37.33	-	-	74	-36.67	0-360	200	H
5	6.111	28.02	PK	35.1	-27	.4	36.52	-	-	74	-37.48	0-360	200	H
2	1.672	34.39	PK	28.5	-31.3	.5	32.09	-	-	74	-41.91	0-360	200	V
4	2.509	37.23	PK	31.9	-30.3	.5	39.33	-	-	74	-34.67	0-360	100	V
6	6.115	27.51	PK	35.1	-27	.4	36.01	-	-	74	-37.99	0-360	200	V

PK – Peak Detector

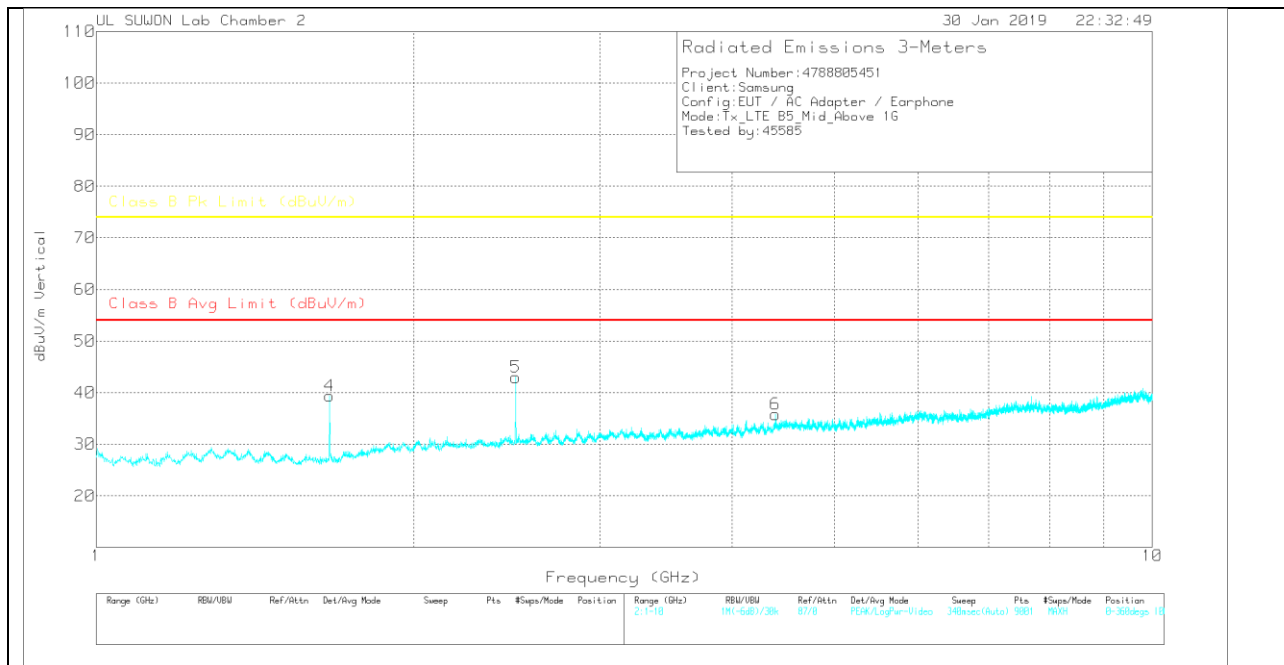
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(881.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

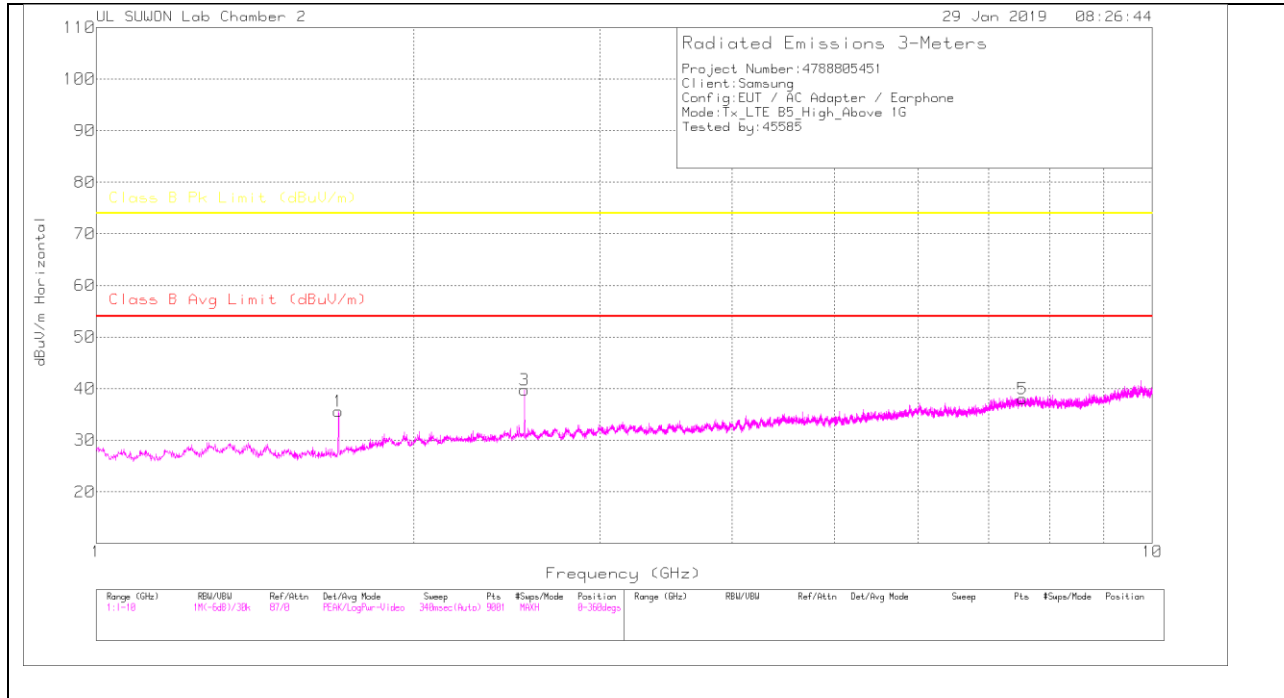
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.664	44.11	PK	28.4	-31.4	.5	41.61	-	-	74	-32.39	0-360	200	H
2	2.496	39.94	PK	31.9	-30.2	.6	42.24	-	-	74	-31.76	0-360	200	H
3	4.404	29.23	PK	33.7	-28.6	.4	34.73	-	-	74	-39.27	0-360	200	H
4	1.664	41.89	PK	28.4	-31.4	.5	39.39	-	-	74	-34.61	0-360	100	V
5	2.496	40.68	PK	31.9	-30.2	.6	42.98	-	-	74	-31.02	0-360	100	V
6	4.4	30.3	PK	33.7	-28.6	.4	35.8	-	-	74	-38.2	0-360	200	V

PK – Peak Detector

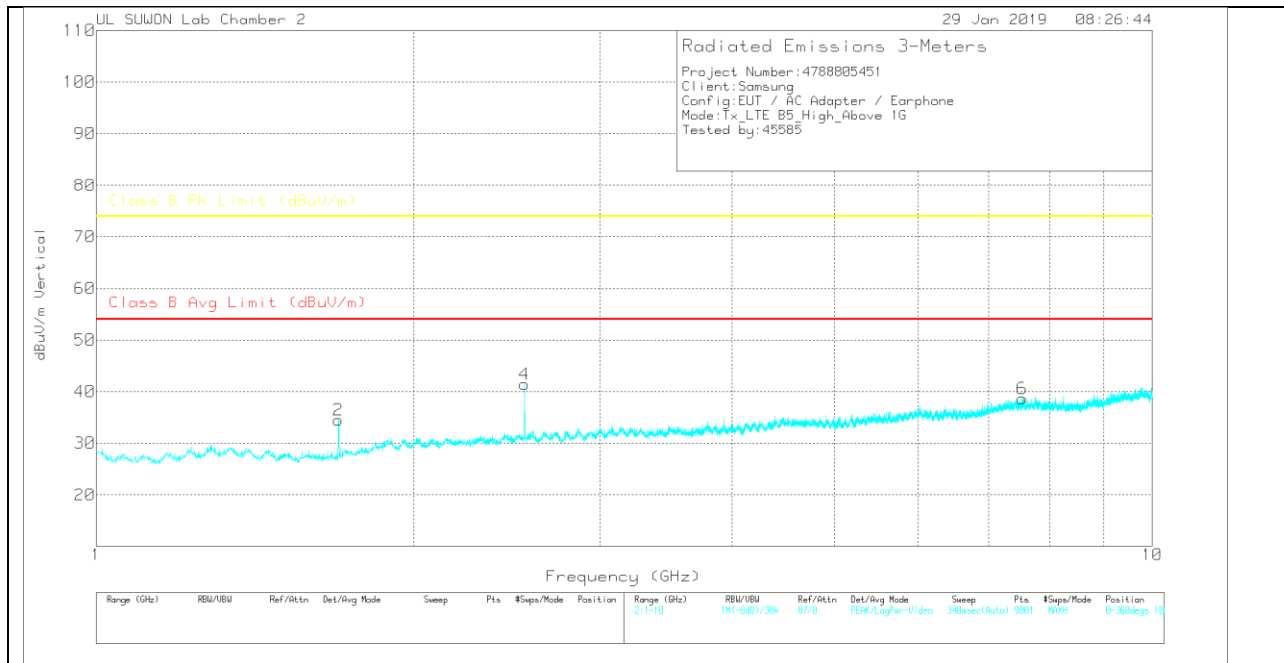
Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(892.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.696	37.67	PK	28.6	-31.3	.6	35.57	-	-	74	-38.43	0-360	200	H
3	2.545	37.03	PK	32	-30	.7	39.73	-	-	74	-34.27	0-360	100	H
5	7.537	26.32	PK	36.1	-25.1	.7	38.02	-	-	74	-35.98	0-360	100	H
2	1.696	36.61	PK	28.6	-31.3	.6	34.51	-	-	74	-39.49	0-360	100	V
4	2.545	38.76	PK	32	-30	.7	41.46	-	-	74	-32.54	0-360	100	V
6	7.532	27.04	PK	36.1	-25.1	.6	38.64	-	-	74	-35.36	0-360	100	V

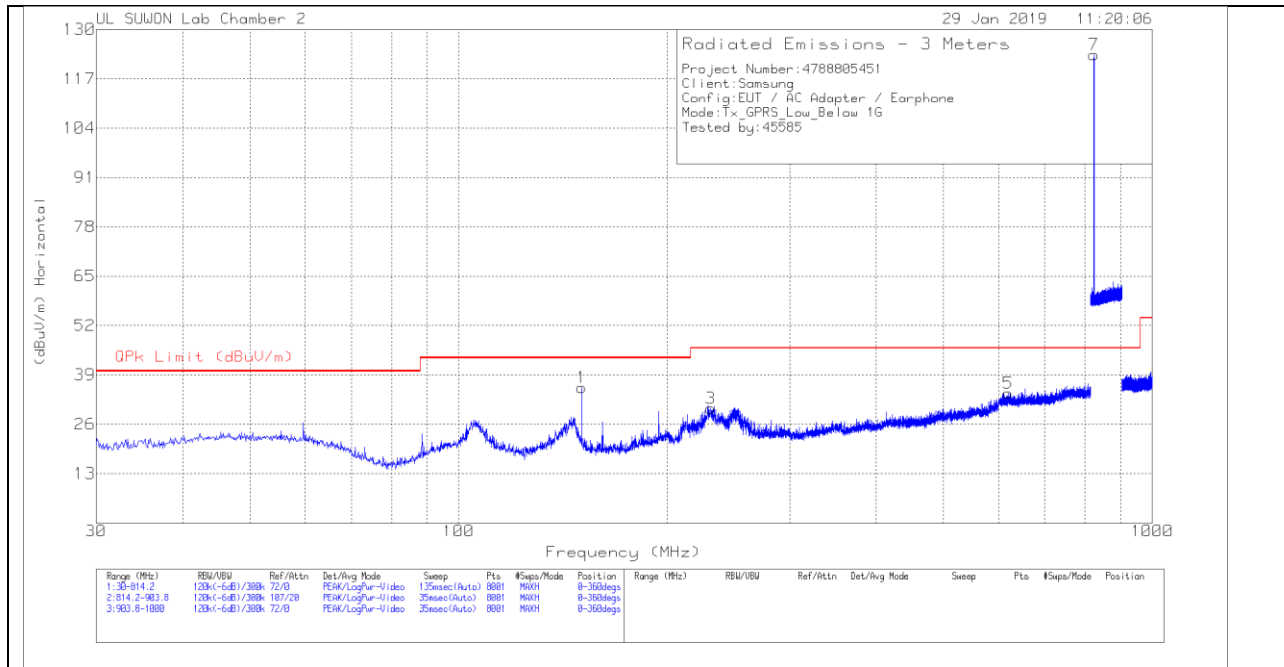
PK – Peak Detector

Note: Unwanted emissions on the harmonic frequency were generated from the call-simulator with the TX and RX signals.

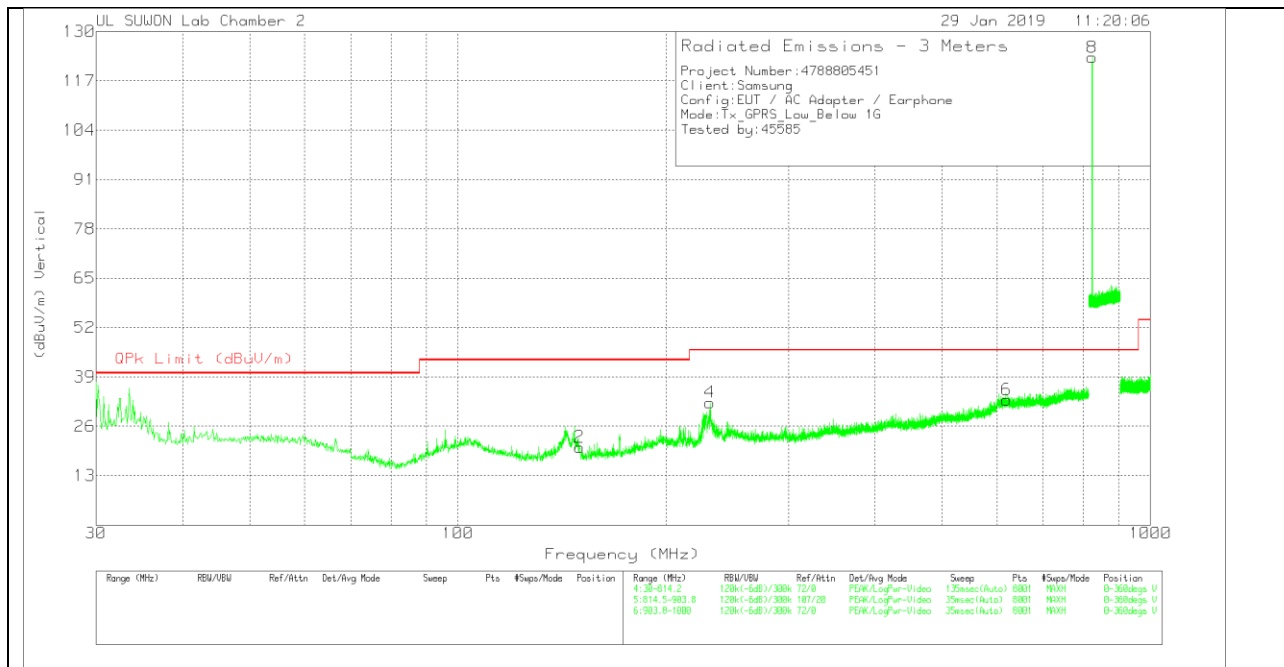
4.4. Below 1 GHz in the GSM850

LOW CHANNEL(869.2MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

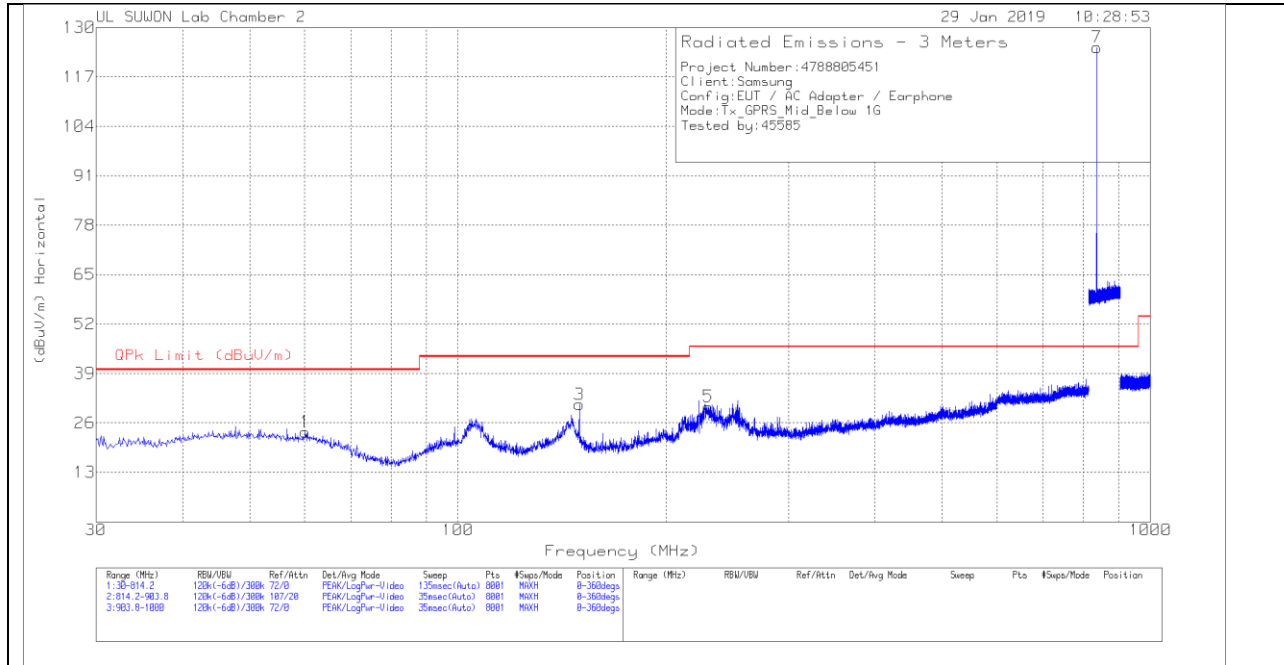
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	150.3747	20.23	Pk	14.1	1.3	35.63	43.52	-7.89	0-360	400	H
3	230.7552	10.29	Pk	18.3	1.6	30.19	46.02	-15.83	0-360	100	H
5	620.0125	6.03	Pk	25.4	2.7	34.13	46.02	-11.89	0-360	100	H
7	824.1904	93.35	Pk	26.9	3.1	123.35	46.02	77.33	0-360	200	H
2	149.8846	5.11	Pk	14.1	1.3	20.51	43.52	-23.01	0-360	100	V
4	231.0493	12.37	Pk	18.3	1.6	32.27	46.02	-13.75	0-360	100	V
6	619.6204	4.85	Pk	25.4	2.7	32.95	46.02	-13.07	0-360	200	V
8	824.223	93.19	Pk	26.9	3.1	123.19	46.02	77.17	0-360	100	V

Pk - Peak detector

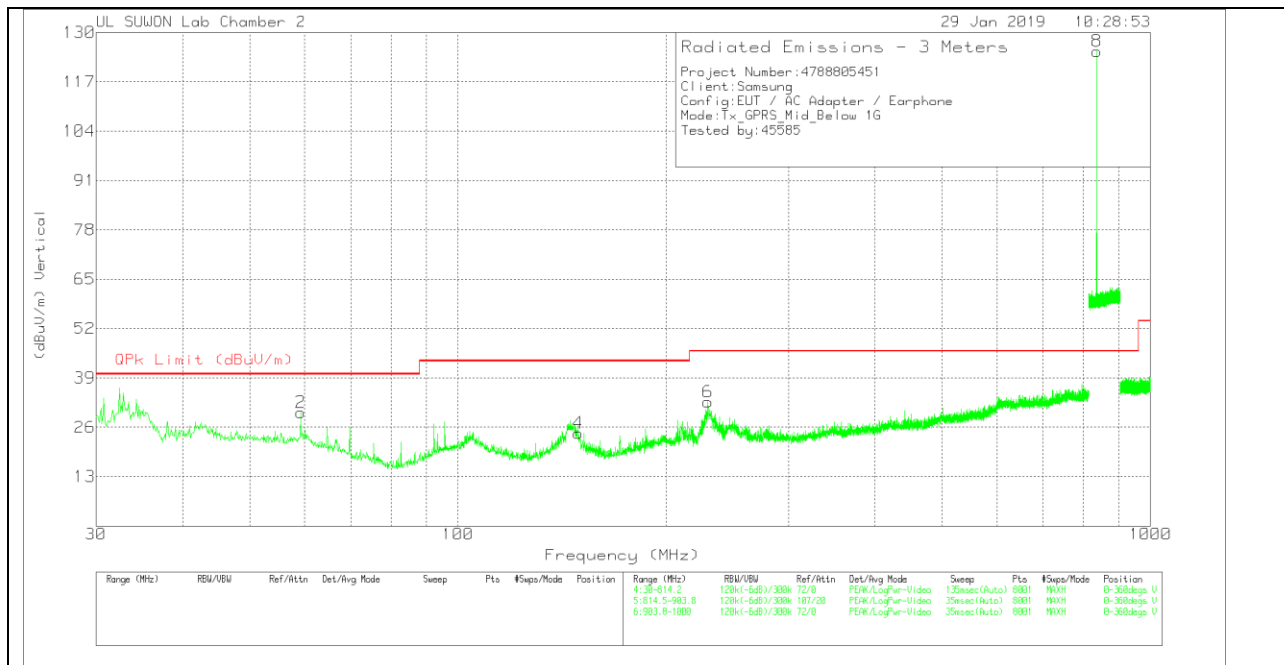
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

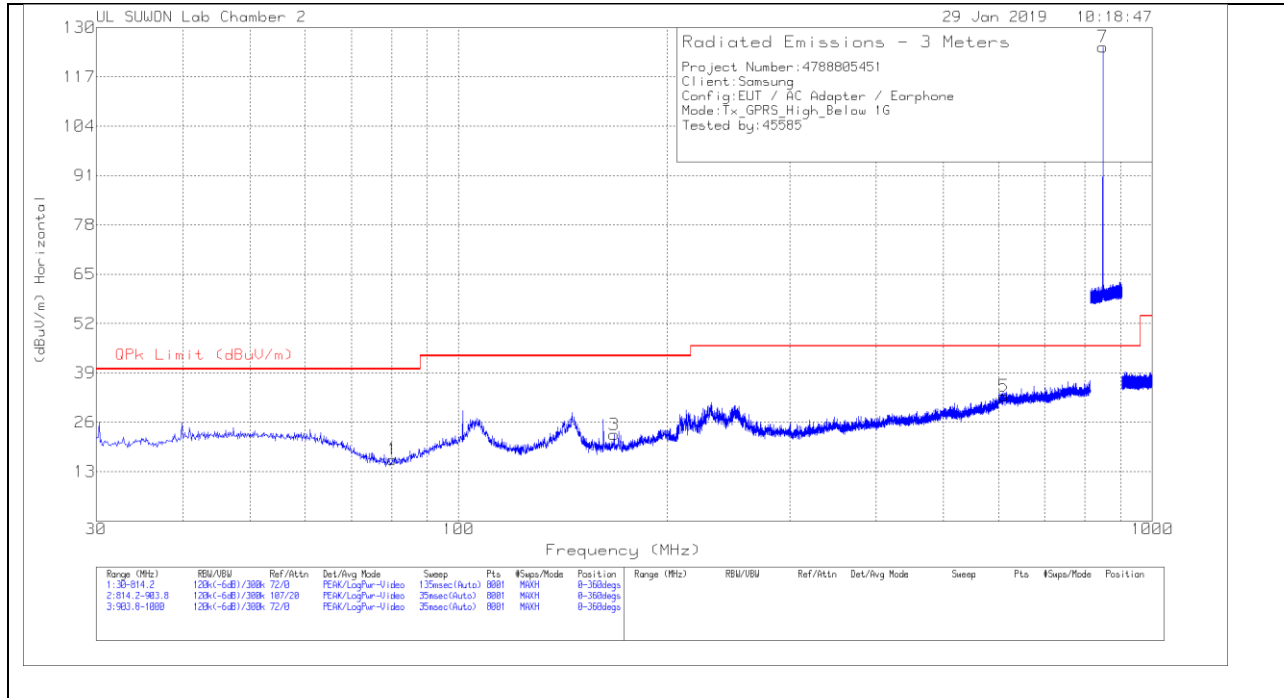
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	60.1917	4.21	Pk	18.5	.9	23.61	40	-16.39	0-360	400	H
3	149.6885	15.56	Pk	14	1.3	30.86	43.52	-12.66	0-360	100	H
5	229.971	10.27	Pk	18.4	1.6	30.27	46.02	-15.75	0-360	100	H
7	836.6112	94.56	Pk	27.1	3.1	124.76	46.02	78.74	0-360	200	H
2	59.3095	10.51	Pk	18.6	.8	29.91	40	-10.09	0-360	200	V
4	149.1984	9.14	Pk	14	1.3	24.44	43.52	-19.08	0-360	100	V
6	229.5789	12.64	Pk	18.3	1.7	32.64	46.02	-13.38	0-360	100	V
8	836.5358	94.85	Pk	27.1	3.1	125.05	46.02	79.03	0-360	100	V

Pk - Peak detector

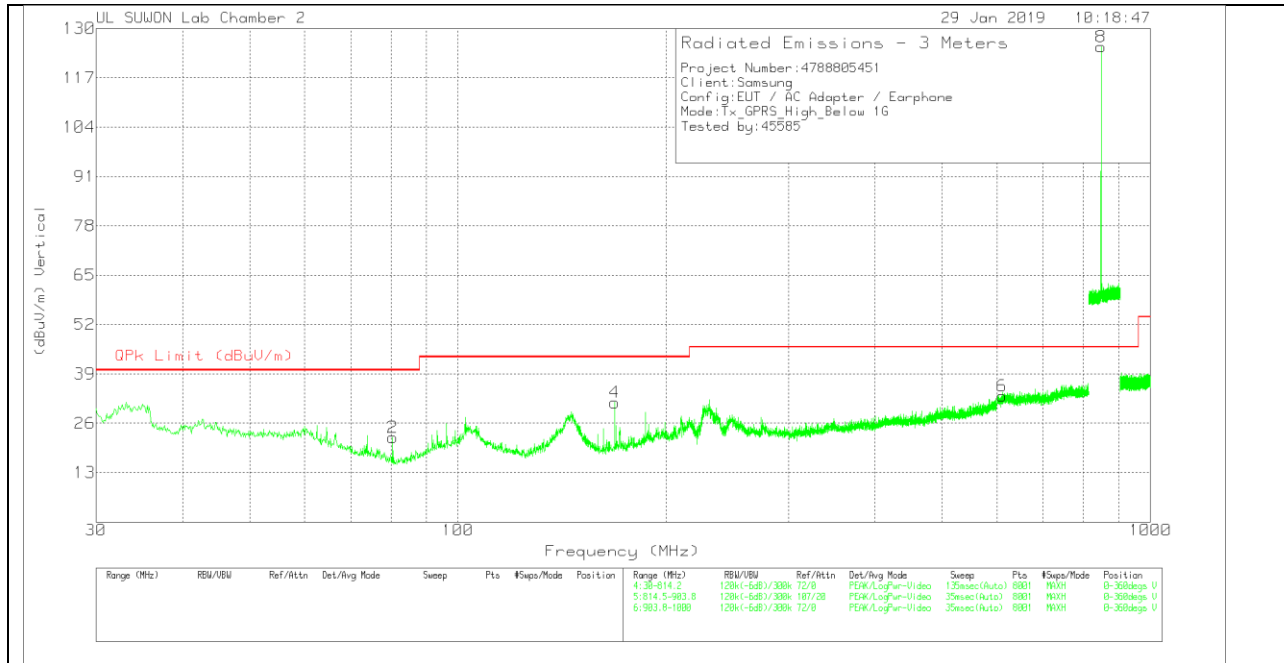
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

HIGH CHANNEL(893.8MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	80.1888	2.57	Pk	12.6	1	16.17	40	-23.83	0-360	200	H
3	167.5291	6.43	Pk	14.9	1.4	22.73	43.52	-20.79	0-360	200	H
5	610.9942	4.88	Pk	25.3	2.7	32.88	46.02	-13.14	0-360	400	H
7	848.7968	94.28	Pk	27.4	3.2	124.88	46.02	78.86	0-360	200	H
2	80.4829	8.67	Pk	12.6	1	22.27	40	-17.73	0-360	100	V
4	168.4113	15.16	Pk	14.9	1.4	31.46	43.52	-12.06	0-360	100	V
6	610.8962	5.19	Pk	25.3	2.7	33.19	46.02	-12.83	0-360	100	V
8	848.7592	94.55	Pk	27.4	3.2	125.15	46.02	79.13	0-360	100	V

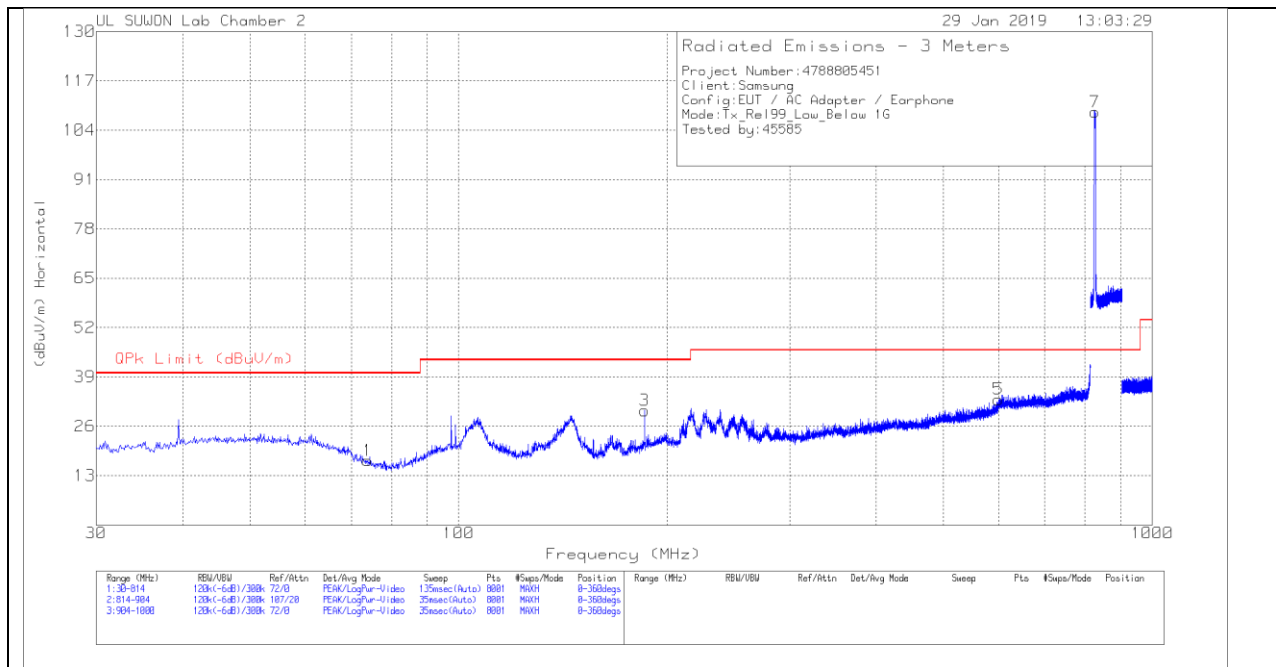
Pk - Peak detector

Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

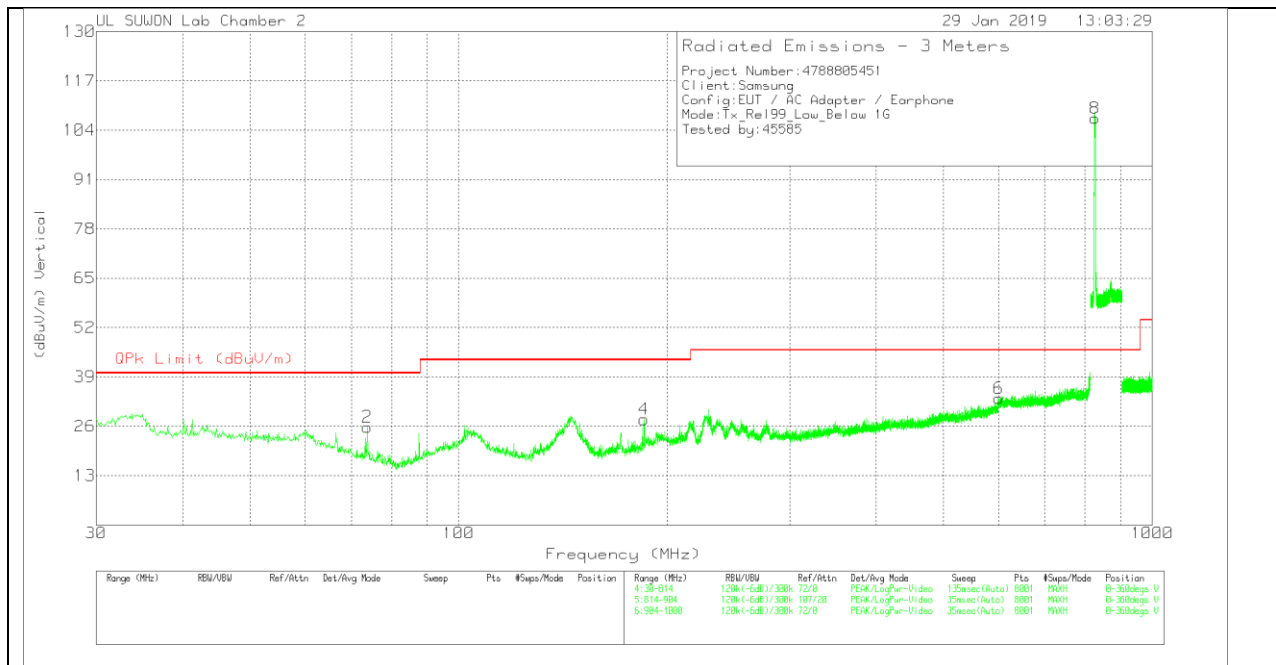
4.5. Below 1 GHz in the WCDMA Band 5

LOW CHANNEL(871.4MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

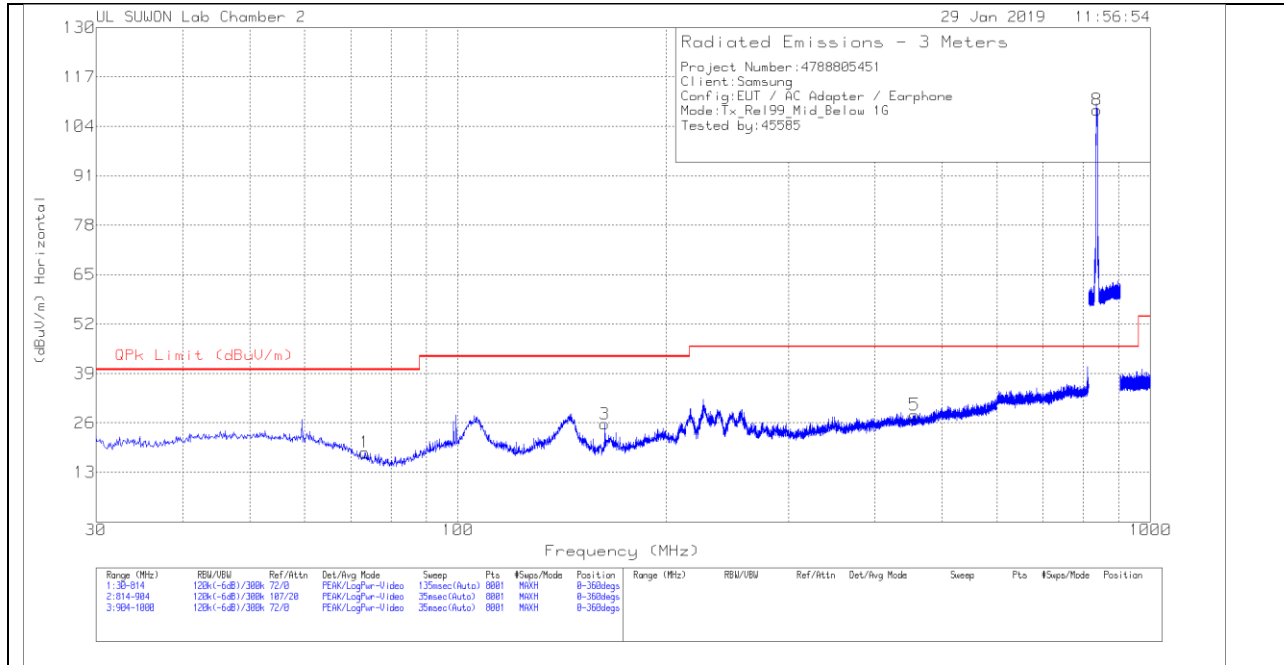
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	73.904	2.18	Pk	13.9	.9	16.98	40	-23.02	0-360	300	H
3	185.33	12.35	Pk	16.4	1.4	30.15	43.52	-13.37	0-360	200	H
5	600.066	5.09	Pk	25.3	2.7	33.09	46.02	-12.93	0-360	400	H
7	826.465	78.68	Pk	27	3.1	108.78	46.02	62.76	0-360	100	H
2	73.806	10.96	Pk	13.9	.9	25.76	40	-14.24	0-360	200	V
4	185.134	9.93	Pk	16.4	1.5	27.83	43.52	-15.69	0-360	200	V
6	600.556	5.4	Pk	25.3	2.6	33.3	46.02	-12.72	0-360	300	V
8	826.3863	77.01	Pk	27	3.1	107.11	46.02	61.09	0-360	100	V

Pk - Peak detector

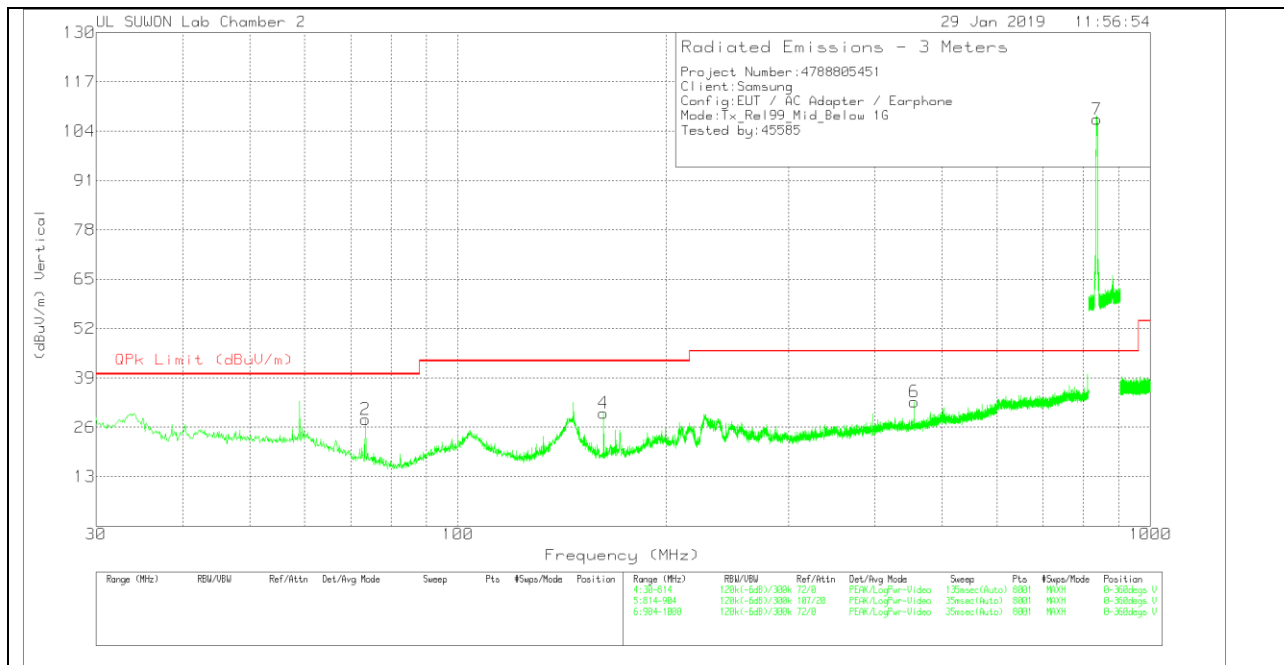
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

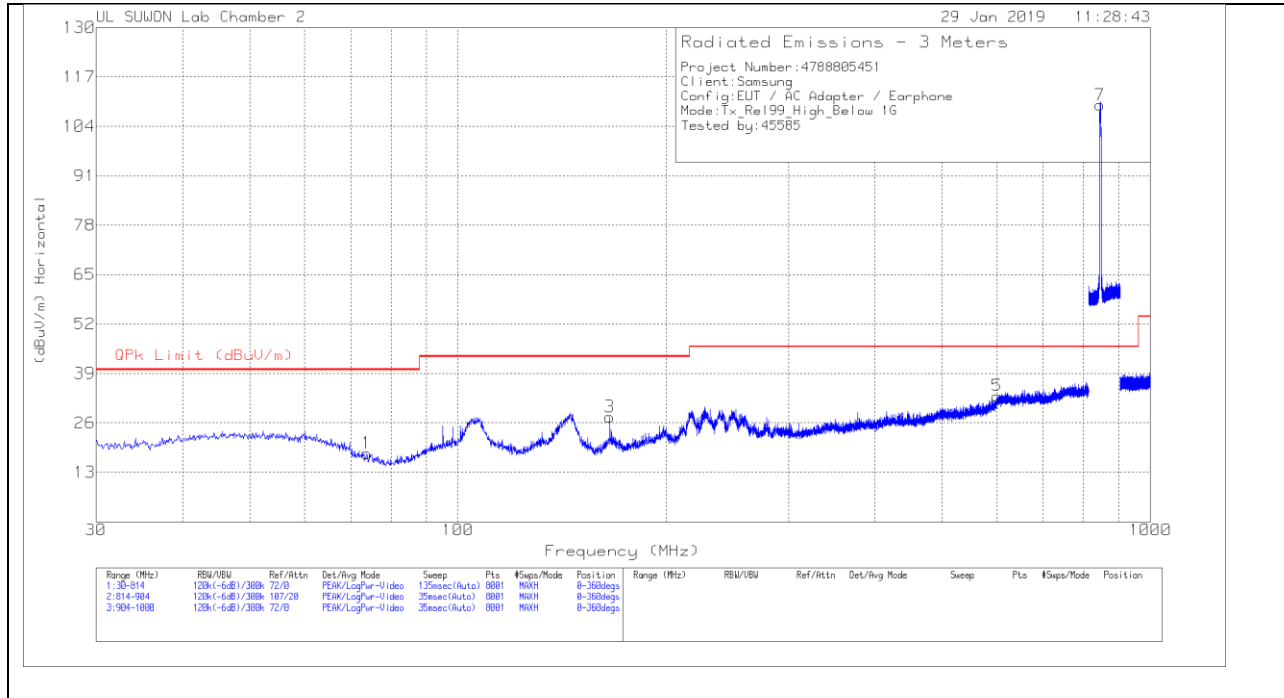
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	73.316	3.12	Pk	14.2	.9	18.22	40	-21.78	0-360	200	H
3	162.986	9.59	Pk	14.7	1.4	25.69	43.52	-17.83	0-360	200	H
5	456.398	3.51	Pk	22.3	2.3	28.11	46.02	-17.91	0-360	400	H
8	836.6125	78.12	Pk	27.1	3.1	108.32	46.02	62.3	0-360	100	H
2	73.512	13.09	Pk	14.1	.9	28.09	40	-11.91	0-360	100	V
4	162.3	13.65	Pk	14.7	1.4	29.75	43.52	-13.77	0-360	200	V
6	455.81	8.11	Pk	22.3	2.3	32.71	46.02	-13.31	0-360	100	V
7	836.545	76.9	Pk	27.1	3.1	107.1	46.02	61.08	0-360	200	V

Pk - Peak detector

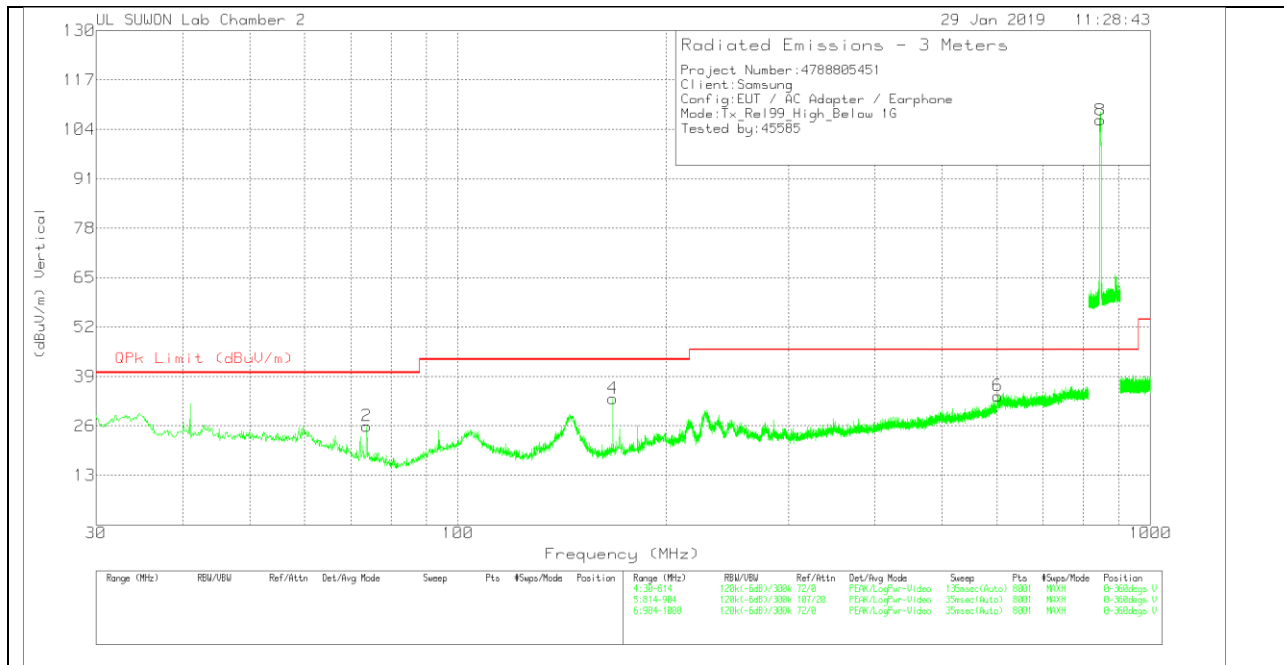
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

HIGH CHANNEL(891.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	73.806	3.23	Pk	13.9	.9	18.03	40	-21.97	0-360	400	H
3	165.534	11.38	Pk	14.8	1.4	27.58	43.52	-15.94	0-360	100	H
5	601.046	5.1	Pk	25.3	2.7	33.1	46.02	-12.92	0-360	400	H
7	846.6588	79.13	Pk	27.3	3.2	109.63	46.02	63.61	0-360	100	H
2	73.806	11.18	Pk	13.9	.9	25.98	40	-14.02	0-360	200	V
4	167.396	16.94	Pk	14.9	1.4	33.24	43.52	-10.28	0-360	100	V
6	601.732	6.03	Pk	25.3	2.6	33.93	46.02	-12.09	0-360	400	V
8	846.6813	75.93	Pk	27.3	3.2	106.43	46.02	60.41	0-360	100	V

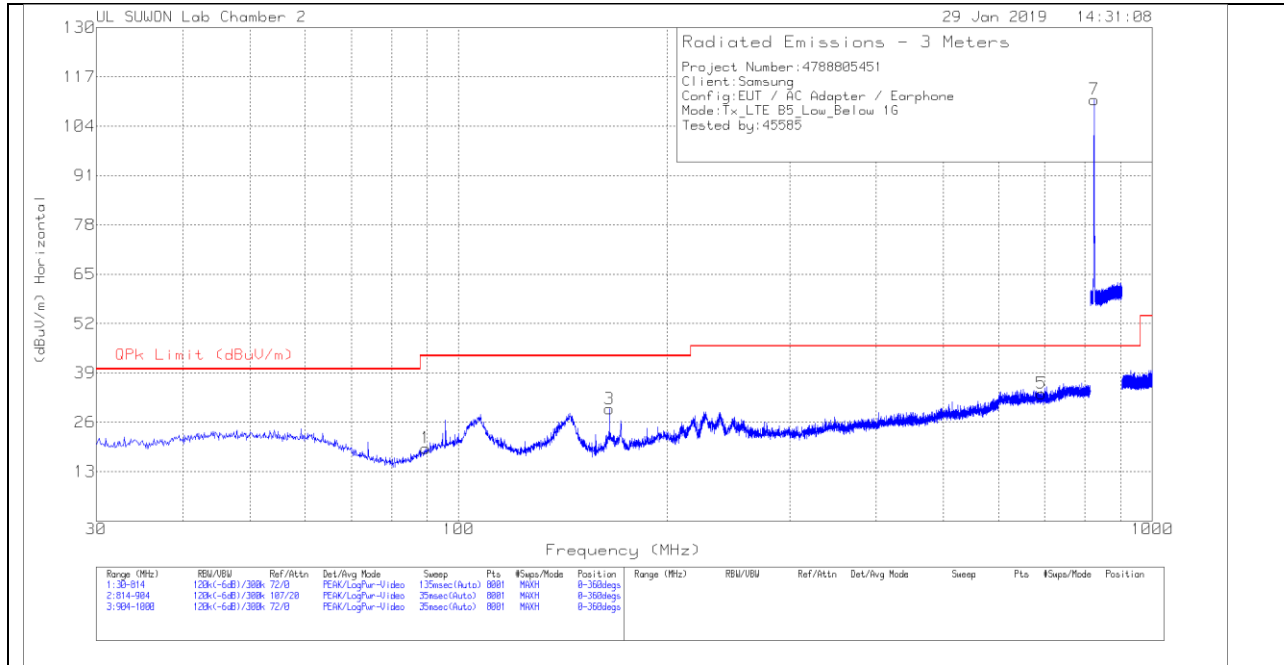
Pk - Peak detector

Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

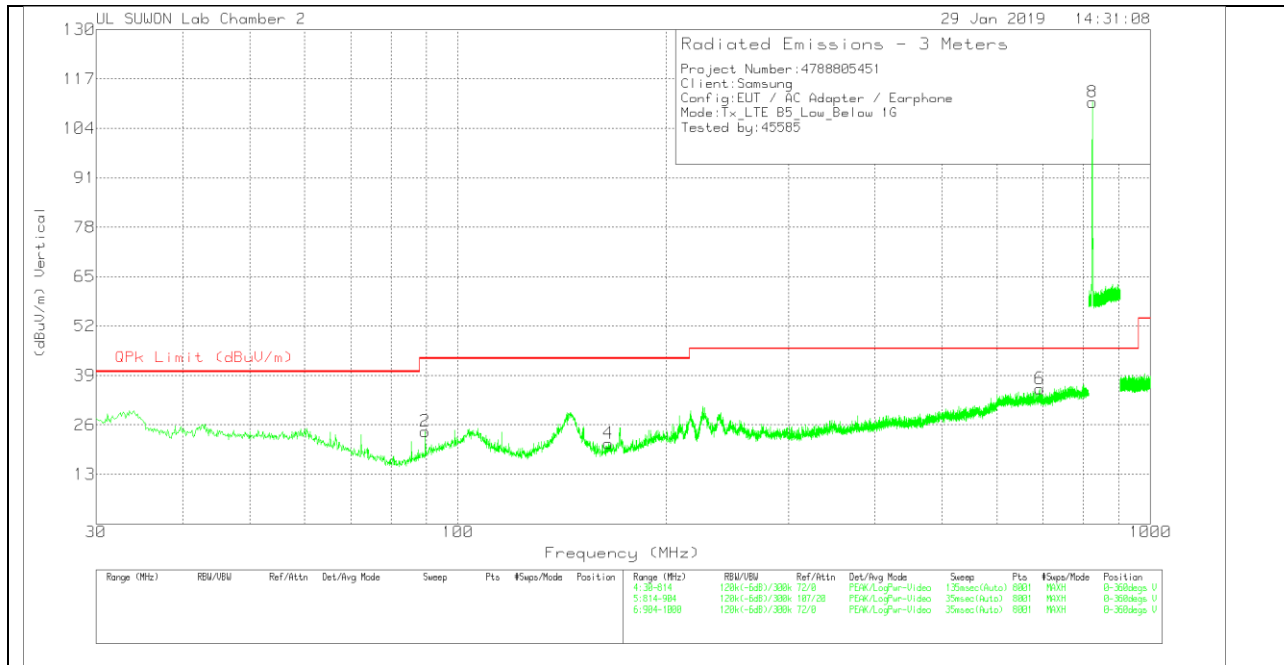
4.6. Below 1 GHz in the LTE Band 5

LOW CHANNEL(870.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

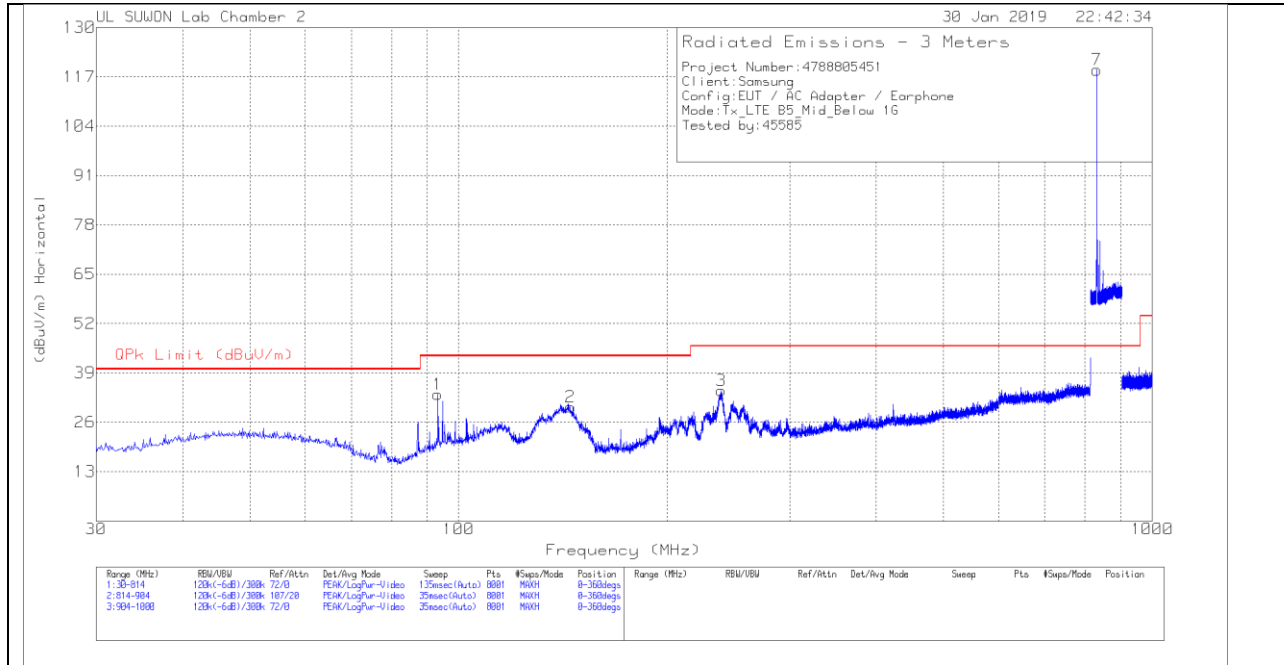
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	89.682	2.69	Pk	15.5	1	19.19	43.52	-24.33	0-360	400	H
3	164.848	13.33	Pk	14.8	1.4	29.53	43.52	-13.99	0-360	200	H
5	692.284	5.1	Pk	25.6	2.9	33.6	46.02	-12.42	0-360	300	H
7	824.6875	81.02	Pk	26.9	3.1	111.02	46.02	65	0-360	200	H
2	89.682	7.82	Pk	15.5	1	24.32	43.52	-19.2	0-360	300	V
4	164.946	4.97	Pk	14.8	1.4	21.17	43.52	-22.35	0-360	200	V
6	692.088	7.12	Pk	25.6	2.8	35.52	46.02	-10.5	0-360	200	V
8	824.7438	80.89	Pk	26.9	3.1	110.89	46.02	64.87	0-360	100	V

Pk - Peak detector

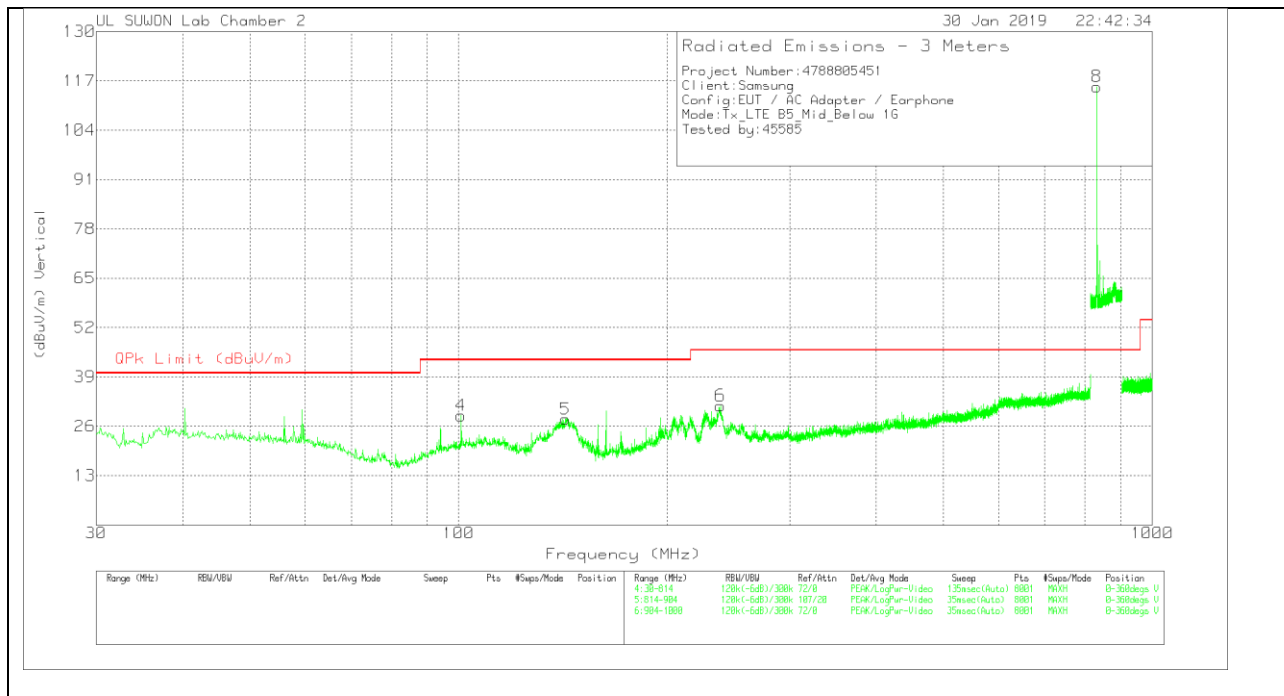
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(881.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

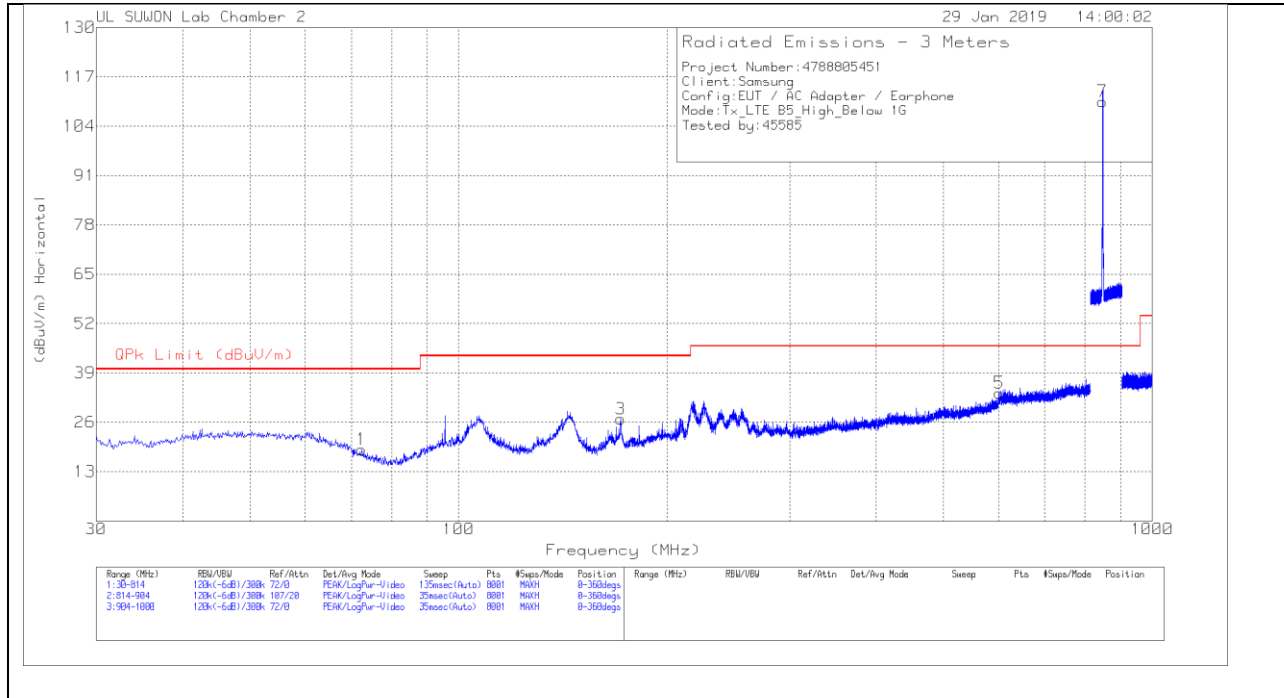
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	93.308	15.5	Pk	16.8	1	33.3	43.52	-10.22	0-360	100	H
2	144.954	14.61	Pk	14.1	1.3	30.01	43.52	-13.51	0-360	200	H
3	239.23	14.15	Pk	18.5	1.7	34.35	46.02	-11.67	0-360	100	H
7	832.1013	88.62	Pk	27.1	3.1	118.82	46.02	72.8	0-360	200	H
4	100.756	10.02	Pk	17.7	1.1	28.82	43.52	-14.7	0-360	100	V
5	142.504	12.44	Pk	14.1	1.3	27.84	43.52	-15.68	0-360	100	V
6	238.446	11.31	Pk	18.4	1.7	31.41	46.02	-14.61	0-360	100	V
8	832.0563	85.25	Pk	27.1	3.1	115.45	46.02	69.43	0-360	100	V

Pk - Peak detector

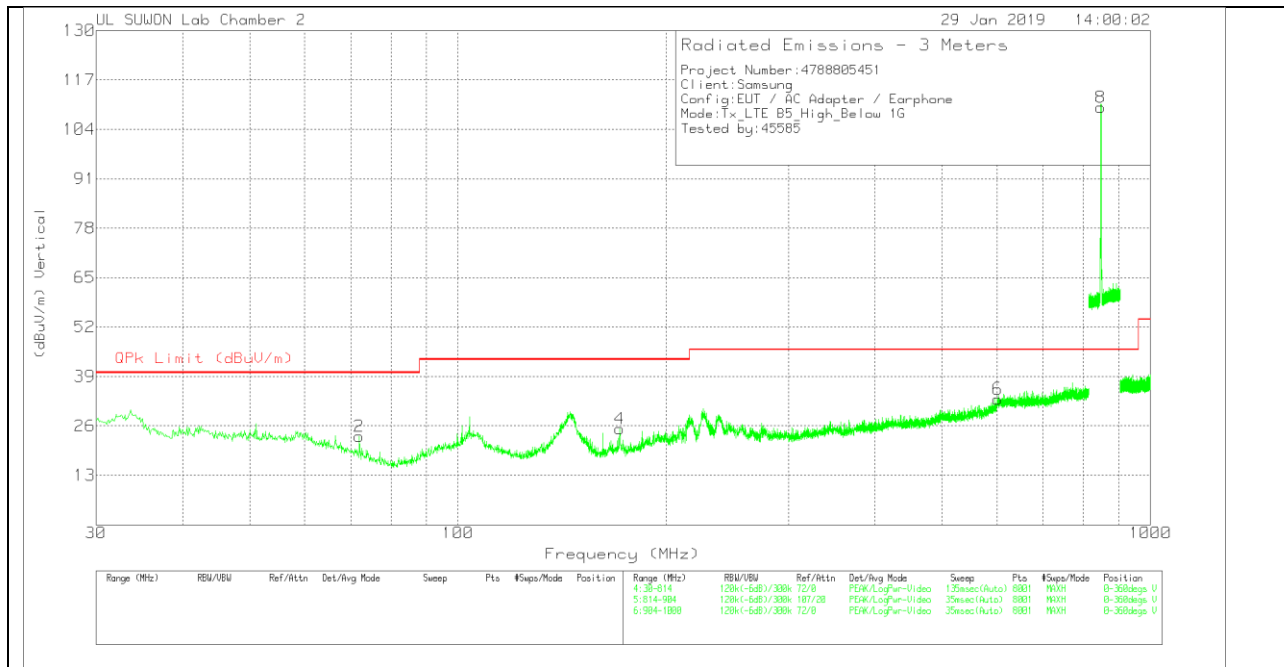
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

HIGH CHANNEL(892.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	72.434	3.34	Pk	14.6	.9	18.84	40	-21.16	0-360	400	H
3	171.12	10.56	Pk	14.9	1.4	26.86	43.52	-16.66	0-360	100	H
5	601.928	5.71	Pk	25.3	2.7	33.71	46.02	-12.31	0-360	200	H
7	848.0988	79.86	Pk	27.4	3.2	110.46	46.02	64.44	0-360	100	H
2	72.042	7.55	Pk	14.8	.9	23.25	40	-16.75	0-360	200	V
4	171.218	8.93	Pk	14.9	1.4	25.23	43.52	-18.29	0-360	100	V
6	602.222	5.05	Pk	25.3	2.7	33.05	46.02	-12.97	0-360	100	V
8	848.1213	79.18	Pk	27.4	3.2	109.78	46.02	63.76	0-360	100	V

Pk - Peak detector

Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.