

Appendix B : Cellular receiver Part15B test results

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: GSM/WCDMA/LTE Phone + BT/BLE and DTS b/g/n
MODEL NUMBER: SM-A205S
SERIAL NUMBER: R39M30M7RKF, R39M30M7RFM
DATE TESTED: APR 16, 2019 – APR 18, 2019

2. 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

3. EQUIPMENT UNDER TEST

3.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + BT/BLE, DTS b/g/n and NFC
This test report addresses the WWAN receiver mode.
(WCDMA B5/LTE B5/LTE B17)

3.2. TEST MODE

Mode	Description
WCDMA BAND 5	Communicating with Call simulator(CMW500)
LTE BAND 5	Communicating with Call simulator(CMW500)
LTE BAND 17	Communicating with Call simulator(CMW500)

3.3. WORST-CASE ORIENTATION

For LTE B5 / LTE B17, EUT was investigated in three orthogonal orientations X, Y and Z it was determined that X orientation was worst-case orientation.

For WCDMA B5, EUT was investigated in three orthogonal orientations X, Y and Z it was determined that Z orientation was worst-case orientation.

Note : All radiated tests were performed connected with earphone and charger for evaluation of worst case mode.

3.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA200	R37M16TB401SE3	N/A
Data Cable	SAMSUNG	EP-DR140ABE	N/A	N/A
Earphone	SAMSUNG	EHS64AVFBE	N/A	N/A

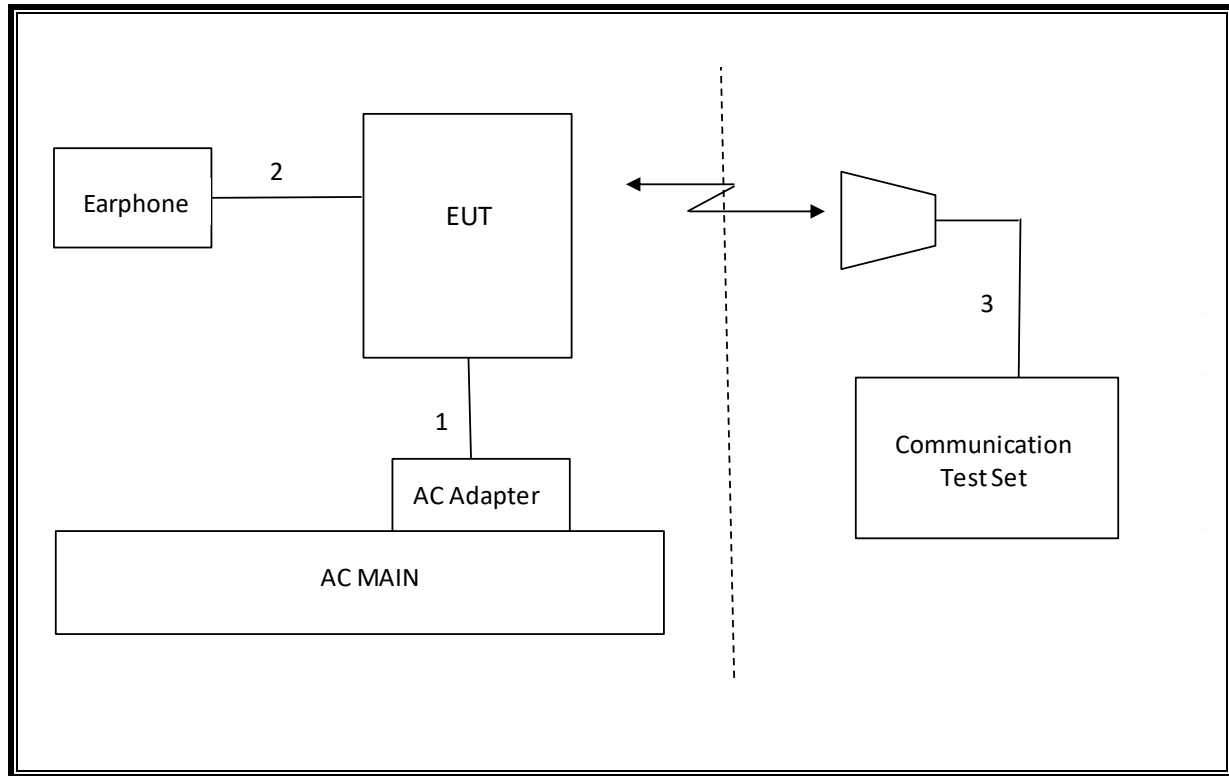
I/O CABLE

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)



4. 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	08-14-20
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
Communications Test Set	R&S	CMW500	115331	08-07-19
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
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
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	

5. APPLICABLE LIMITS AND TEST RESULTS

TEST PROCEDURE

ANSI C63.4: 2014

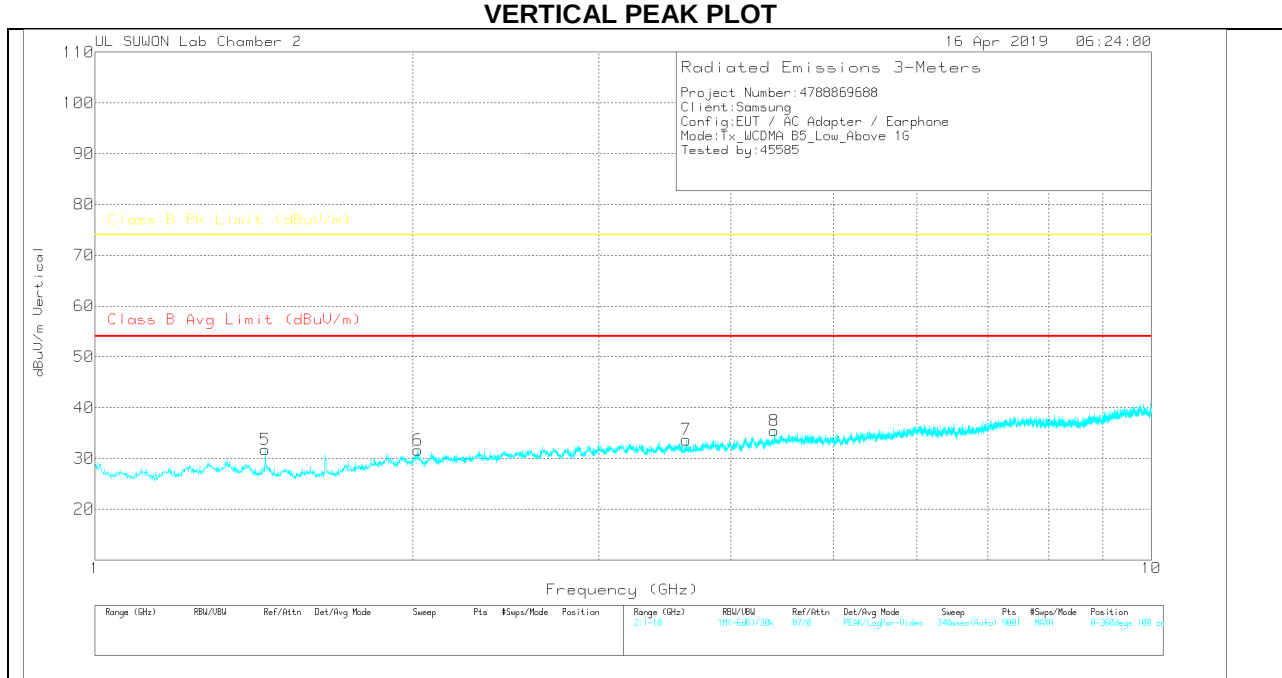
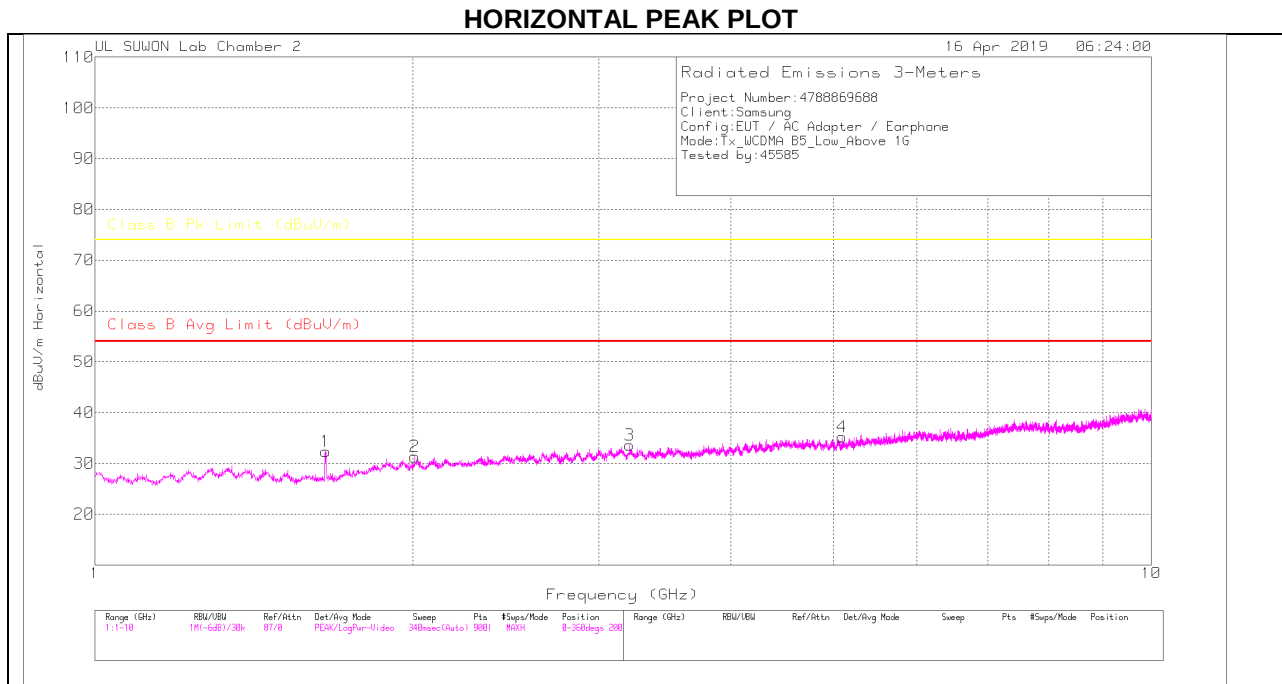
LIMIT

§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 (dBμV/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.	

5.1. Above 1 GHz in the WCDMA Band 5

LOW CHANNEL(871.4MHz)



DATA

Trace Markers

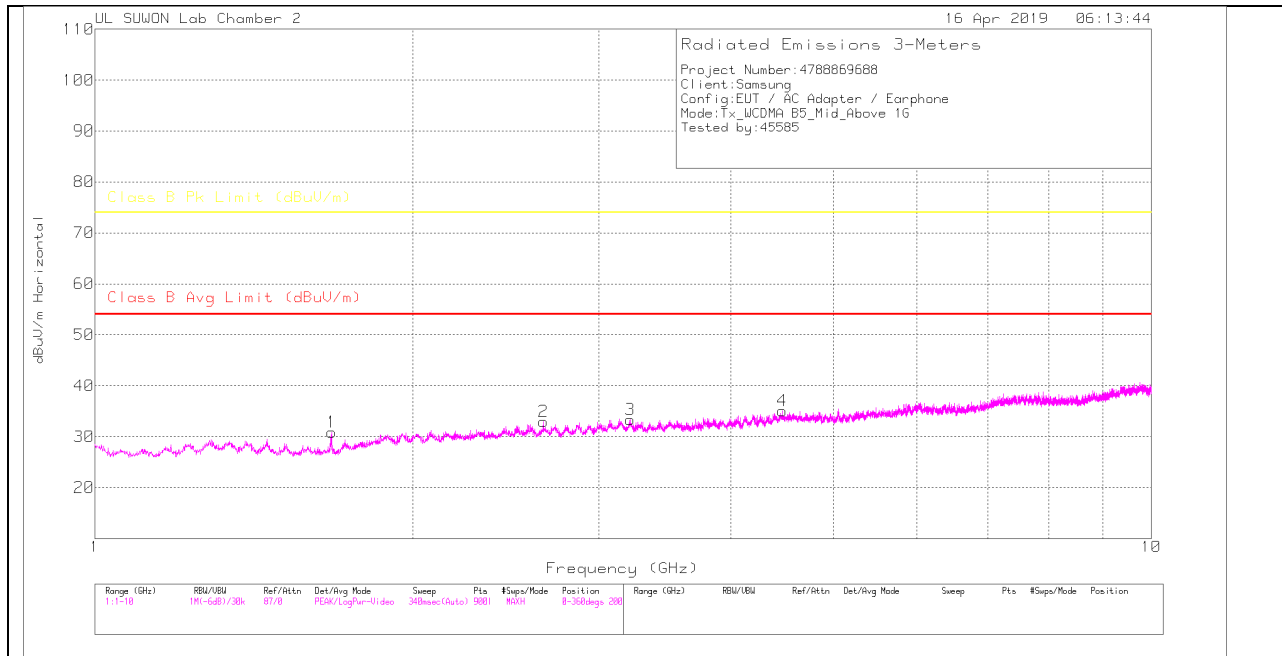
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.654	35.06	PK	28.3	-31.5	.5	32.36	-	-	74	-41.64	0-360	200	H
2	2.008	30.61	PK	31.2	-31.1	.6	31.31	-	-	74	-42.69	0-360	200	H
3	3.208	29.94	PK	32.9	-29.7	.5	33.64	-	-	74	-40.36	0-360	200	H
4	5.097	28.63	PK	34.2	-28	.4	35.23	-	-	74	-38.77	0-360	200	H
5	1.45	33.68	PK	29	-31.6	.7	31.78	-	-	74	-42.22	0-360	100	V
6	2.022	30.87	PK	31.2	-31	.6	31.67	-	-	74	-42.33	0-360	200	V
7	3.629	29.86	PK	32.8	-29.5	.5	33.66	-	-	74	-40.34	0-360	100	V
8	4.397	30.05	PK	33.7	-28.7	.4	35.45	-	-	74	-38.55	0-360	100	V

PK – Peak Detector

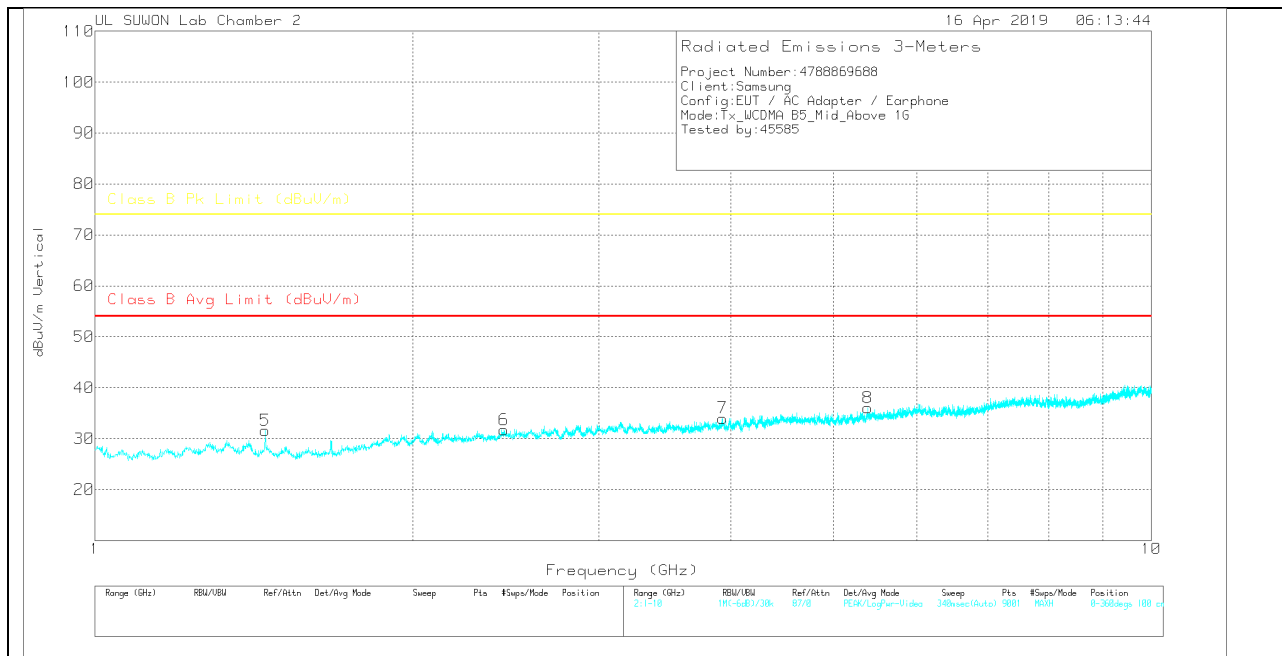
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

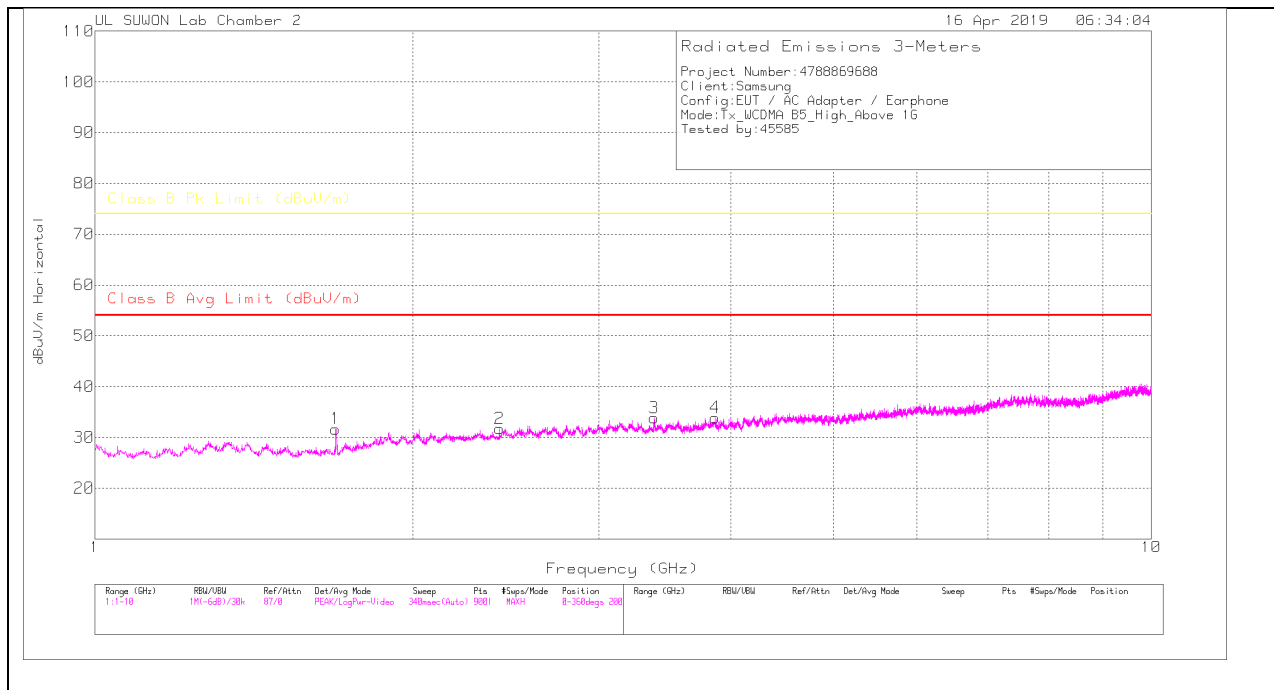
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.675	33.23	PK	28.5	-31.3	.5	30.93	-	-	74	-43.07	0-360	100	H
2	2.659	30.54	PK	32.1	-30.3	.6	32.94	-	-	74	-41.06	0-360	100	H
3	3.213	29.44	PK	32.9	-29.5	.5	33.34	-	-	74	-40.66	0-360	100	H
4	4.473	29.26	PK	33.8	-28.4	.4	35.06	-	-	74	-38.94	0-360	200	H
5	1.45	33.51	PK	29	-31.6	.7	31.61	-	-	74	-42.39	0-360	100	V
6	2.439	29.62	PK	31.8	-30.5	.8	31.72	-	-	74	-42.28	0-360	100	V
7	3.926	29.73	PK	33.4	-29.6	.5	34.03	-	-	74	-39.97	0-360	100	V
8	5.39	29.21	PK	34.5	-28	.4	36.11	-	-	74	-37.89	0-360	100	V

PK – Peak Detector

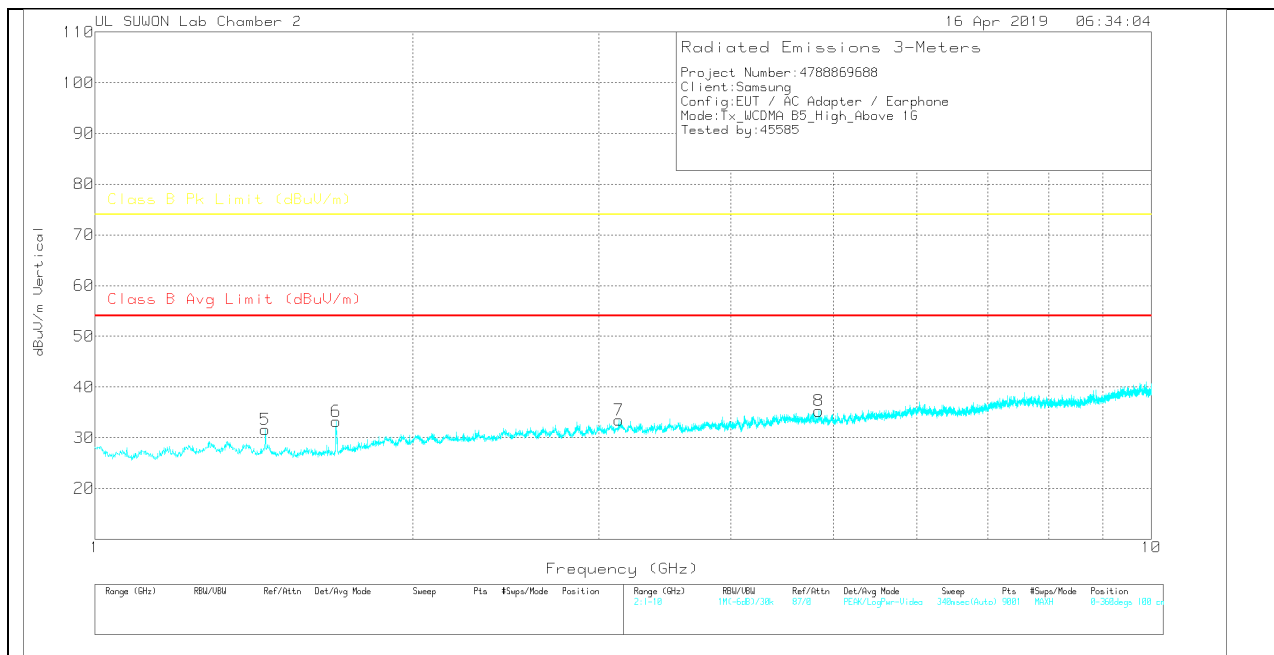
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(891.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	5117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.69	33.78	PK	28.6	-31.3	.6	31.68	-	-	74	-42.32	0-360	100	H
2	2.416	29.97	PK	31.7	-30.5	.6	31.77	-	-	74	-42.23	0-360	200	H
3	3.383	30.26	PK	32.6	-29.6	.6	33.86	-	-	74	-40.14	0-360	200	H
4	3.865	29.4	PK	33.3	-29.2	.4	33.9	-	-	74	-40.1	0-360	100	H
5	1.45	33.46	PK	29	-31.6	.7	31.56	-	-	74	-42.44	0-360	100	V
6	1.691	35.21	PK	28.6	-31.2	.6	33.21	-	-	74	-40.79	0-360	200	V
7	3.133	29.55	PK	32.9	-29.7	.7	33.45	-	-	74	-40.55	0-360	200	V
8	4.842	28.87	PK	34	-28	.4	35.27	-	-	74	-38.73	0-360	200	V

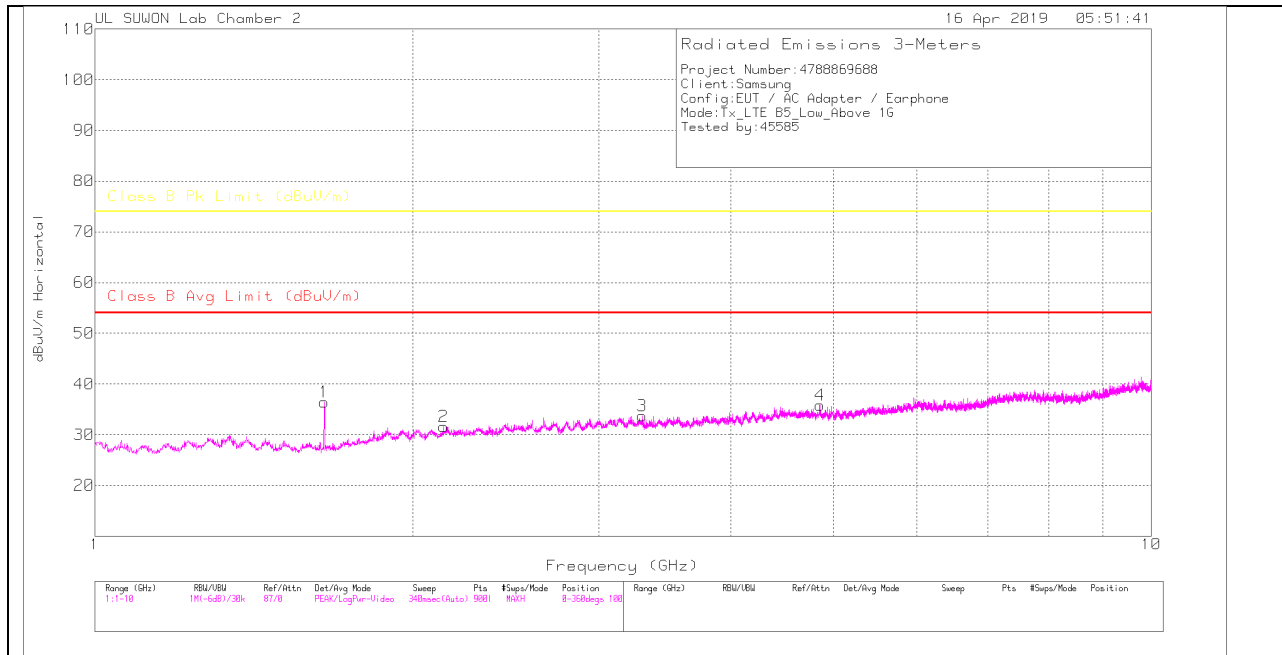
PK – Peak Detector

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

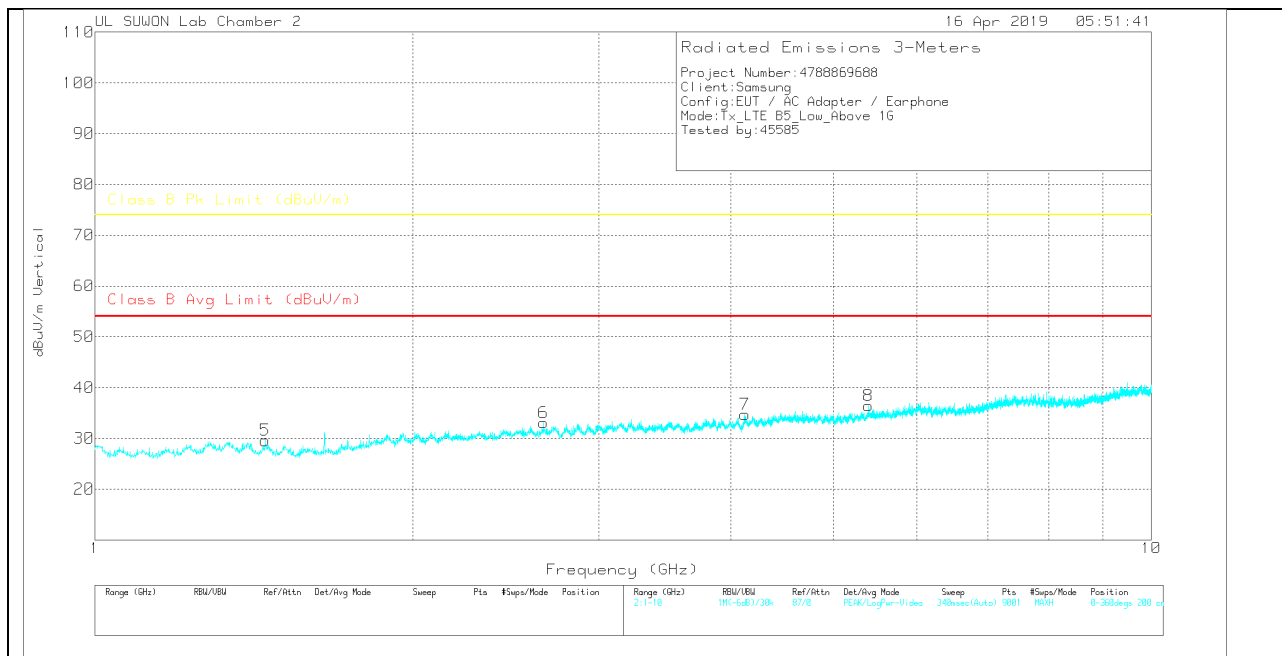
5.2. Above 1 GHz in the LTE Band 5

LOW CHANNEL(870.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

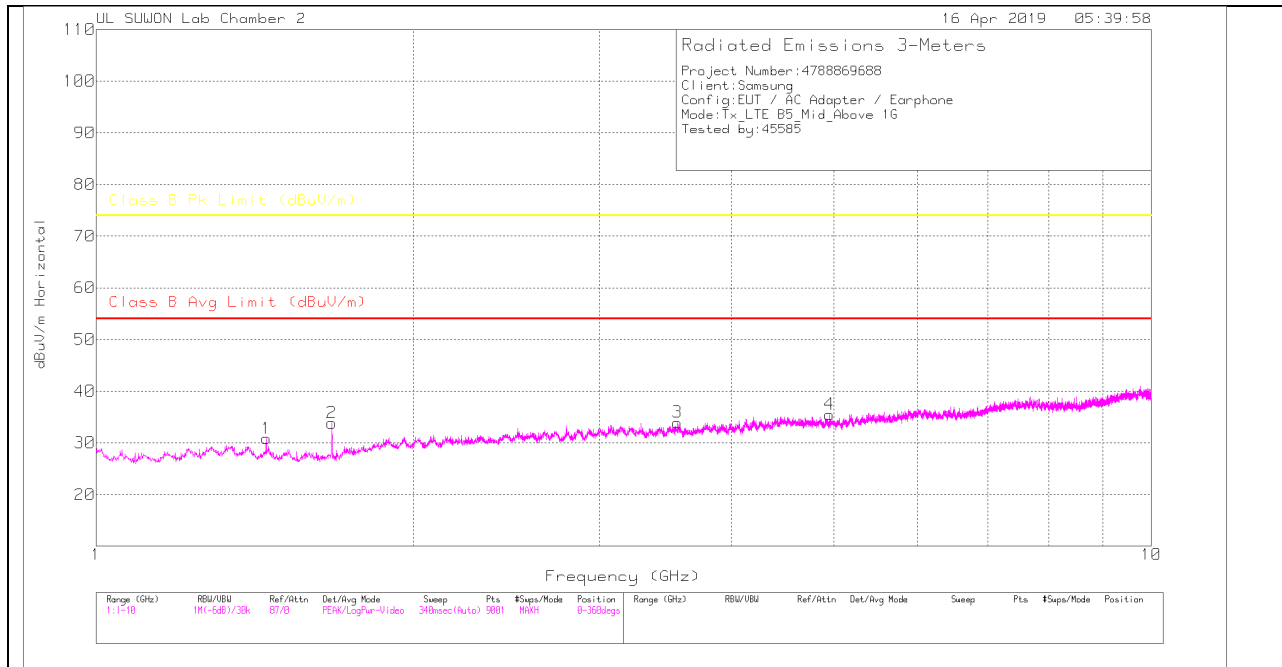
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.649	38.96	PK	28.3	-31.4	.6	36.46	-	-	74	-37.54	0-360	100	H
2	2.138	30.41	PK	31.3	-30.7	.6	31.61	-	-	74	-42.39	0-360	100	H
3	3.298	30.57	PK	32.6	-30	.6	33.77	-	-	74	-40.23	0-360	100	H
4	4.855	29.45	PK	34	-28	.4	35.85	-	-	74	-38.15	0-360	200	H
5	1.45	31.48	PK	29	-31.6	.7	29.58	-	-	74	-44.42	0-360	100	V
6	2.659	30.66	PK	32.1	-30.3	.6	33.06	-	-	74	-40.94	0-360	200	V
7	4.124	29.42	PK	33.4	-28.5	.4	34.72	-	-	74	-39.28	0-360	200	V
8	5.398	29.39	PK	34.5	-27.9	.4	36.39	-	-	74	-37.61	0-360	200	V

PK – Peak Detector

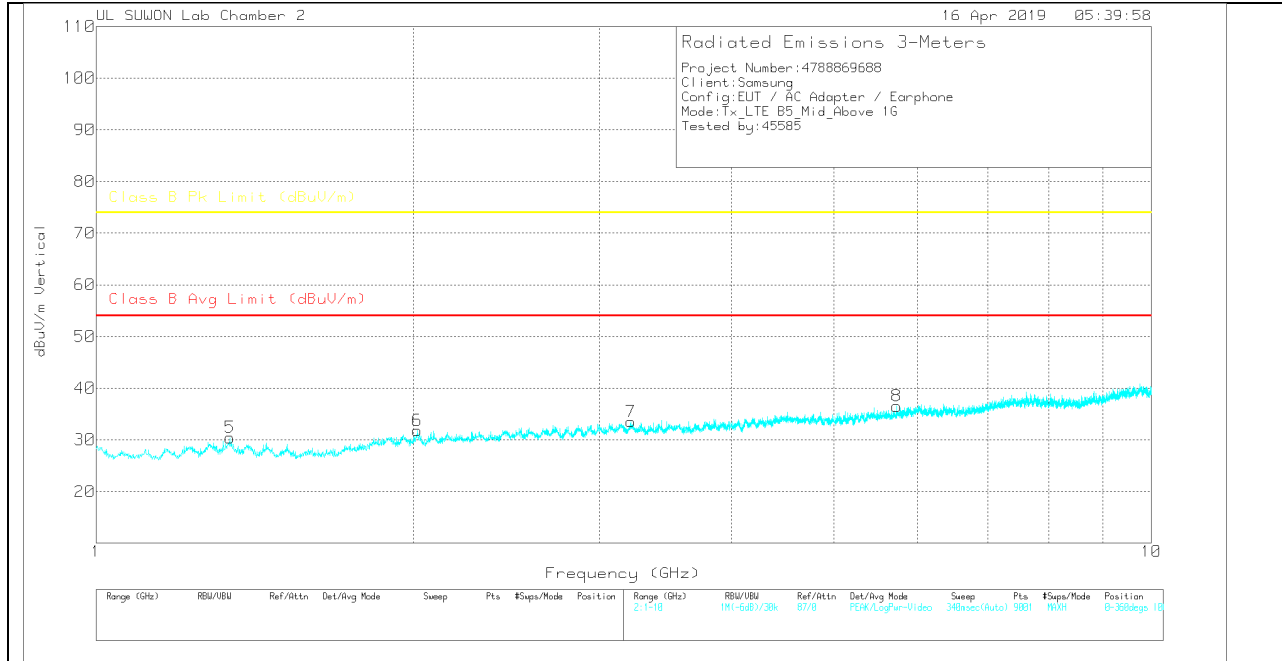
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(881.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

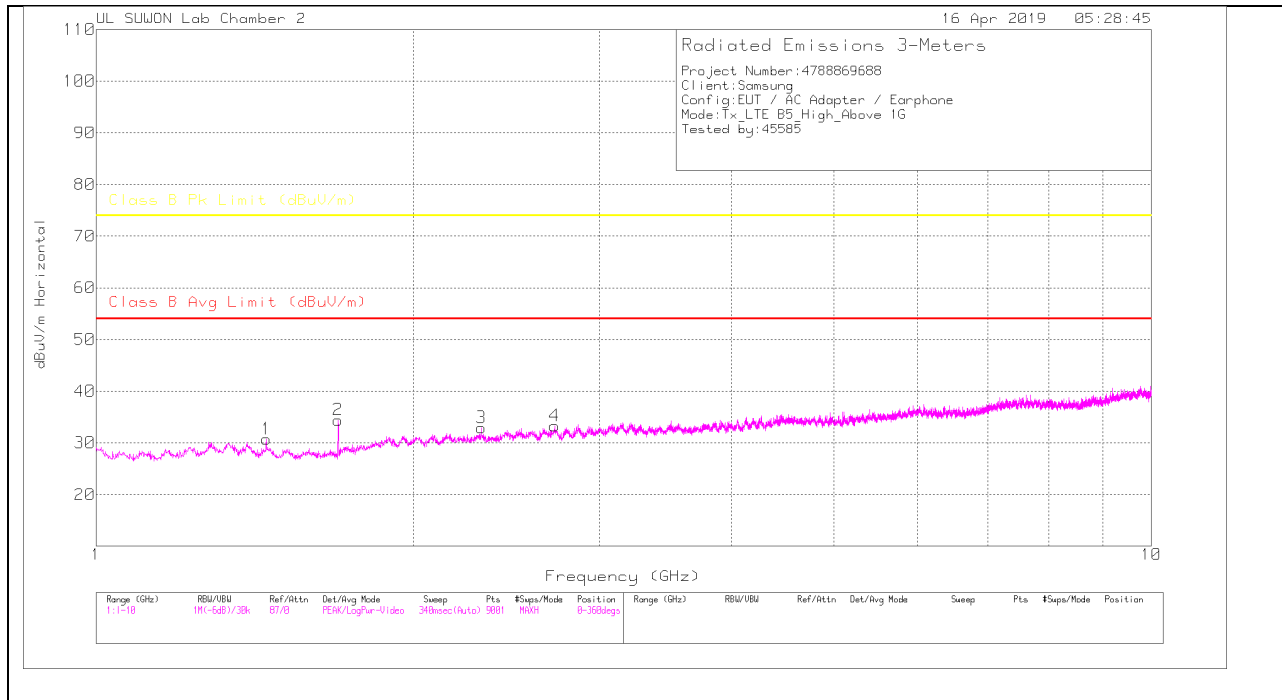
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	5117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.45	32.76	PK	29	-31.6	.7	30.86	-	-	74	-43.14	0-360	100	H
2	1.673	36.16	PK	28.5	-31.3	.5	33.86	-	-	74	-40.14	0-360	100	H
3	3.556	29.76	PK	32.7	-29.1	.6	33.96	-	-	74	-40.04	0-360	200	H
4	4.954	29.53	PK	34.1	-28.5	.4	35.53	-	-	74	-38.47	0-360	100	H
5	1.339	31.84	PK	29.7	-31.8	.7	30.44	-	-	74	-43.56	0-360	200	V
6	2.016	31.02	PK	31.2	-31	.6	31.82	-	-	74	-42.18	0-360	100	V
7	3.211	29.84	PK	32.9	-29.7	.5	33.54	-	-	74	-40.46	0-360	200	V
8	5.737	29.03	PK	34.7	-27.6	.4	36.53	-	-	74	-37.47	0-360	200	V

PK – Peak Detector

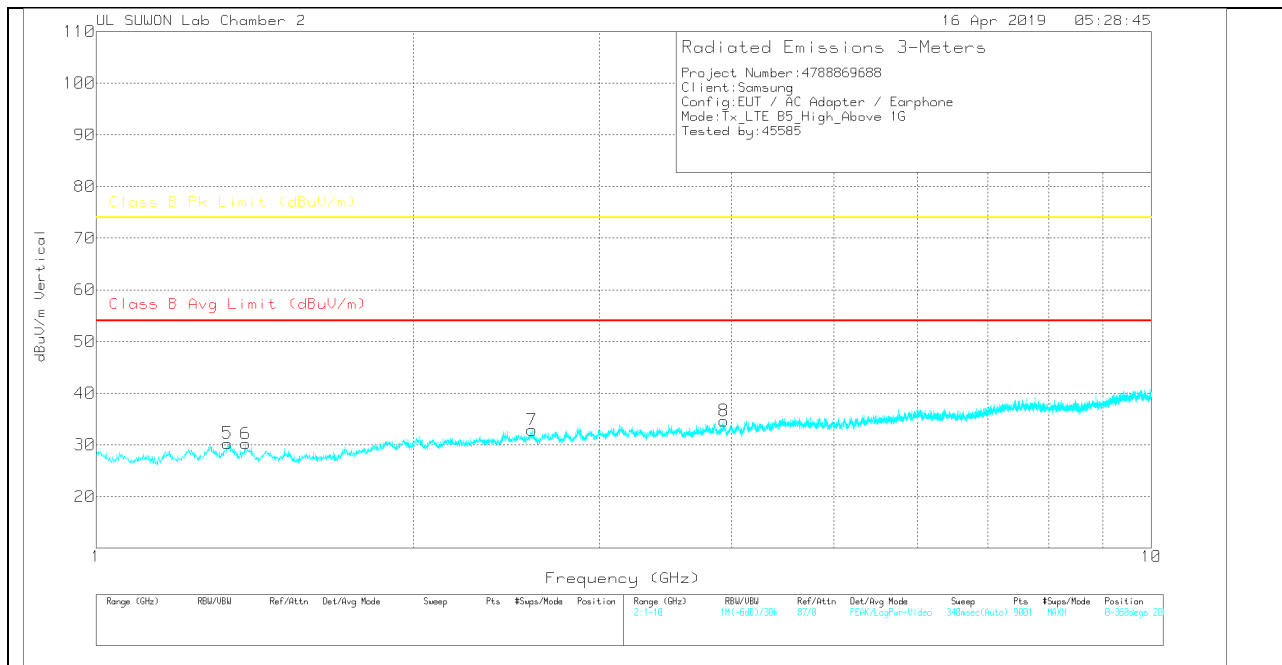
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(892.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	5117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.45	32.65	PK	29	-31.6	.7	30.75	-	-	74	-43.25	0-360	100	H
2	1.696	36.54	PK	28.6	-31.3	.6	34.44	-	-	74	-39.56	0-360	100	H
3	2.318	31.44	PK	31.5	-30.8	.8	32.94	-	-	74	-41.06	0-360	100	H
4	2.72	30.62	PK	32.1	-30.2	.8	33.32	-	-	74	-40.68	0-360	200	H
5	1.332	31.7	PK	29.7	-31.8	.7	30.3	-	-	74	-43.7	0-360	200	V
6	1.386	31.86	PK	29.5	-31.7	.6	30.26	-	-	74	-43.74	0-360	200	V
7	2.589	30.59	PK	32	-30.3	.6	32.89	-	-	74	-41.11	0-360	200	V
8	3.935	30.35	PK	33.4	-29.6	.5	34.65	-	-	74	-39.35	0-360	200	V

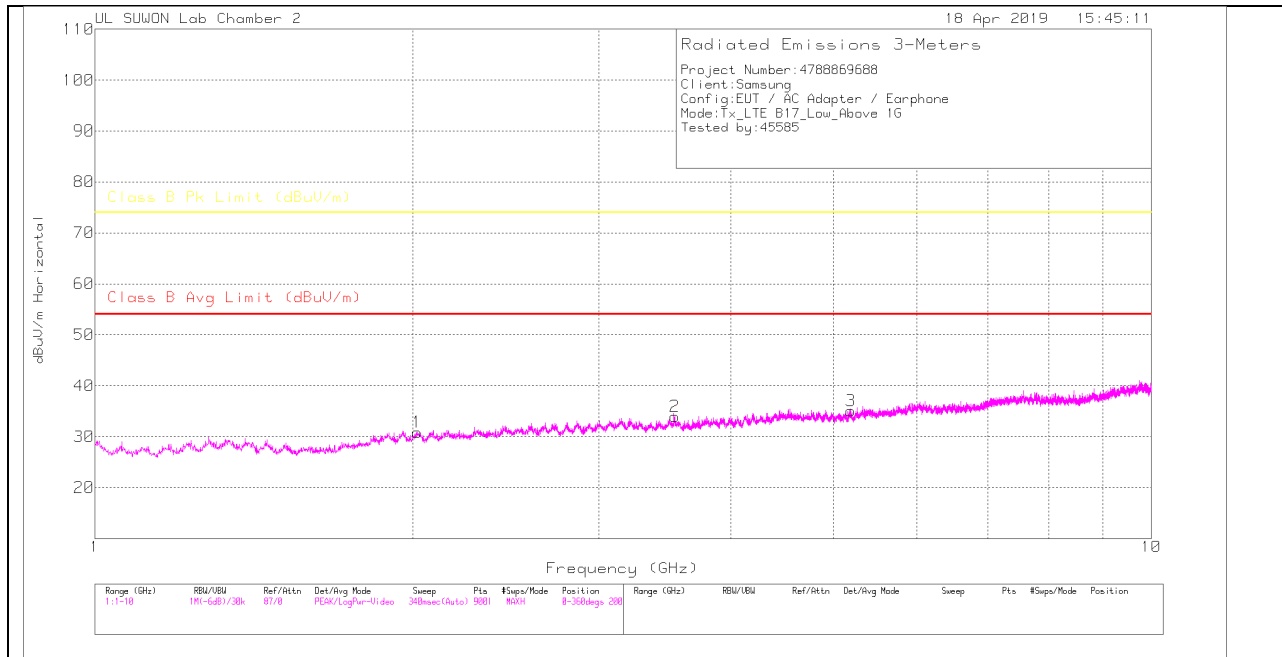
PK – Peak Detector

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

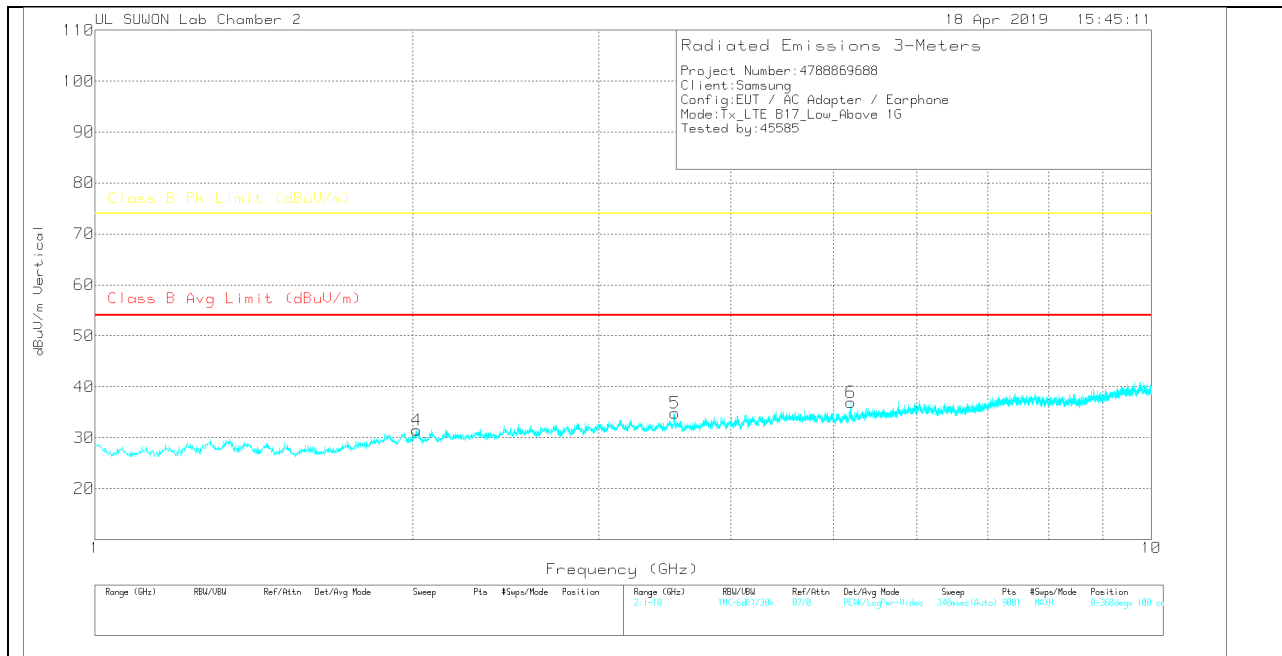
5.3. Above 1 GHz in the LTE Band 17

LOW CHANNEL(736.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

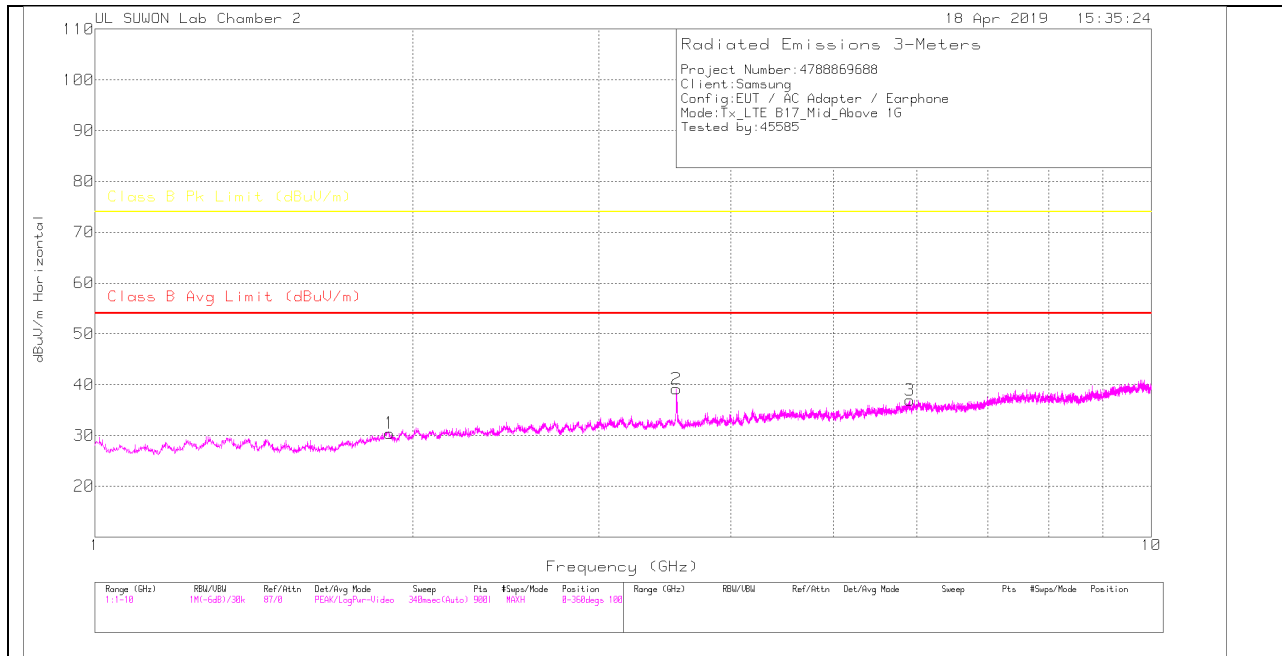
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.018	30.04	PK	31.2	-31	.6	30.84	-	-	74	-43.16	0-360	100	H
2	3.539	29.65	PK	32.7	-29	.6	33.95	-	-	74	-40.05	0-360	100	H
3	5.196	28.32	PK	34.3	-27.9	.4	35.12	-	-	74	-38.88	0-360	100	H
4	2.015	30.66	PK	31.2	-31	.6	31.46	-	-	74	-42.54	0-360	200	V
5	3.539	30.56	PK	32.7	-29	.6	34.86	-	-	74	-39.14	0-360	100	V
6	5.192	30.09	PK	34.3	-27.9	.4	36.89	-	-	74	-37.11	0-360	100	V

PK – Peak Detector

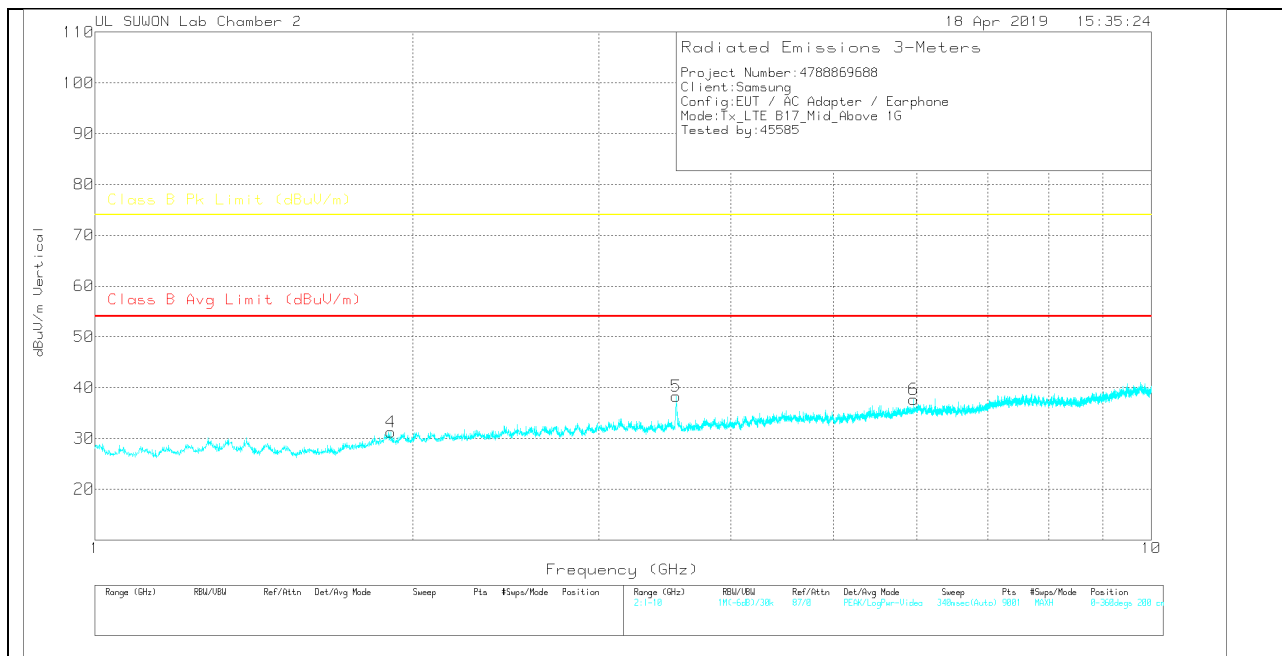
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

MID CHANNEL(740.0MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

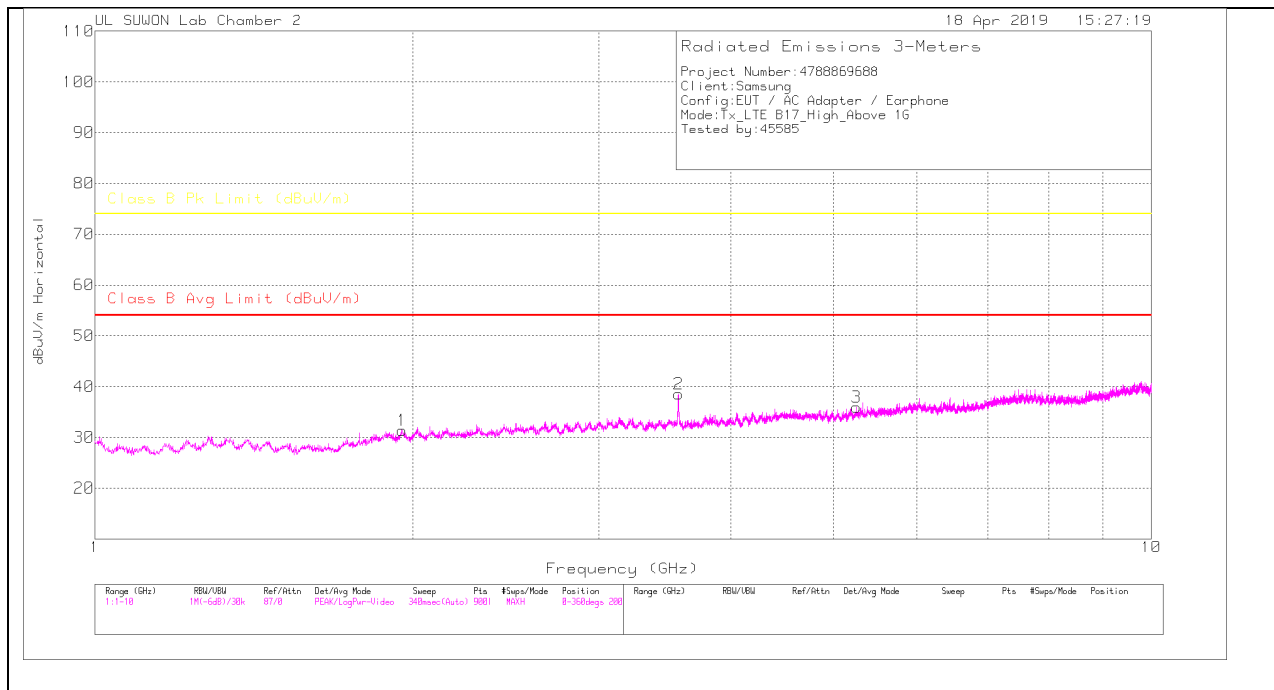
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	5117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.901	30.04	PK	30.8	-31.1	.7	30.44	-	-	74	-43.56	0-360	200	H
2	3.552	34.86	PK	32.7	-29	.6	39.16	-	-	74	-34.84	0-360	100	H
3	5.907	29.07	PK	34.9	-27.5	.5	36.97	-	-	74	-37.03	0-360	100	H
4	1.907	30.72	PK	30.9	-31	.6	31.22	-	-	74	-42.78	0-360	100	V
5	3.551	34.06	PK	32.7	-29.1	.6	38.26	-	-	74	-35.74	0-360	100	V
6	5.957	29.83	PK	35	-27.5	.4	37.73	-	-	74	-36.27	0-360	200	V

PK – Peak Detector

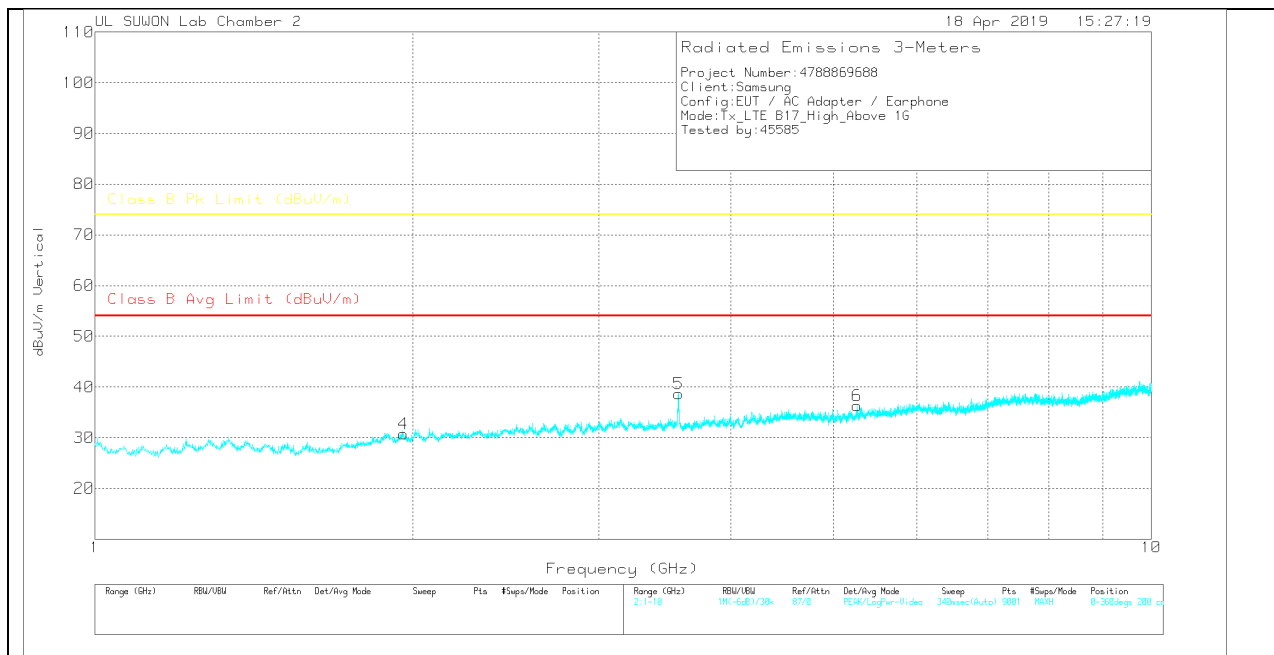
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

HIGH CHANNEL(743.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	5117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.954	30.82	PK	31.1	-31	.5	31.42	-	-	74	-42.58	0-360	100	H
2	3.567	34.49	PK	32.7	-29.1	.5	38.59	-	-	74	-35.41	0-360	100	H
3	5.257	29.48	PK	34.4	-28.3	.4	35.98	-	-	74	-38.02	0-360	200	H
4	1.958	30.22	PK	31.1	-31.1	.5	30.72	-	-	74	-43.28	0-360	200	V
5	3.568	34.61	PK	32.7	-29.1	.5	38.71	-	-	74	-35.29	0-360	100	V
6	5.264	29.85	PK	34.4	-28.3	.4	36.35	-	-	74	-37.65	0-360	200	V

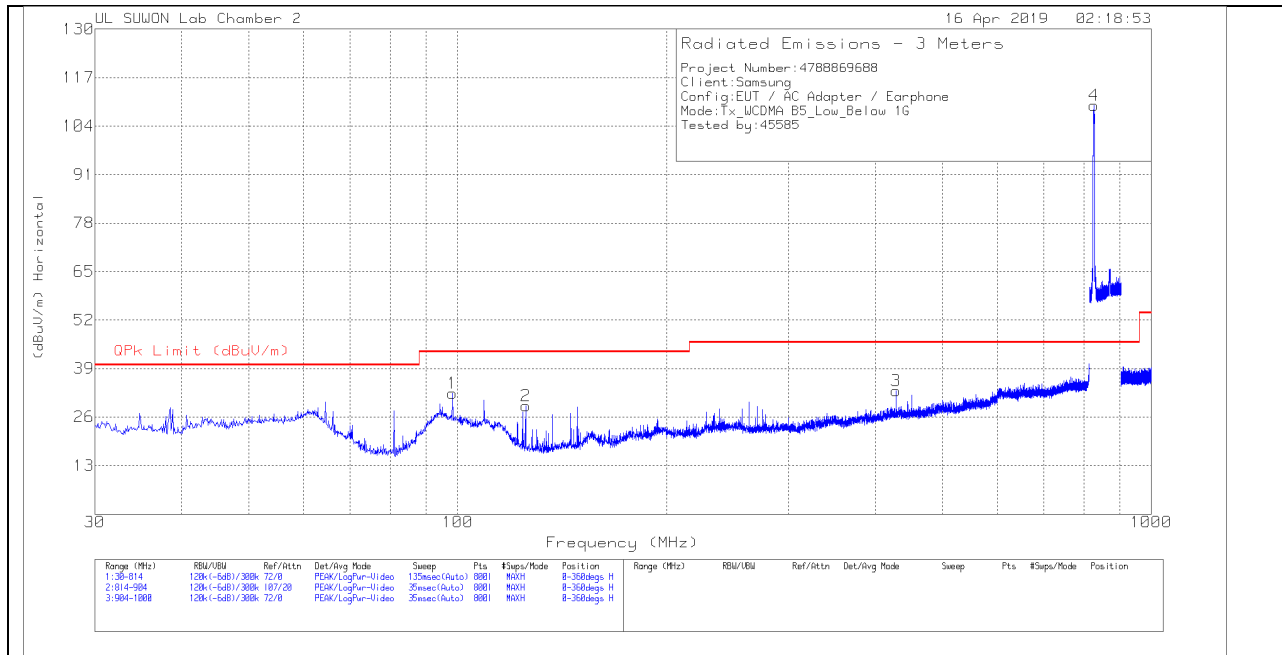
PK – Peak Detector

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

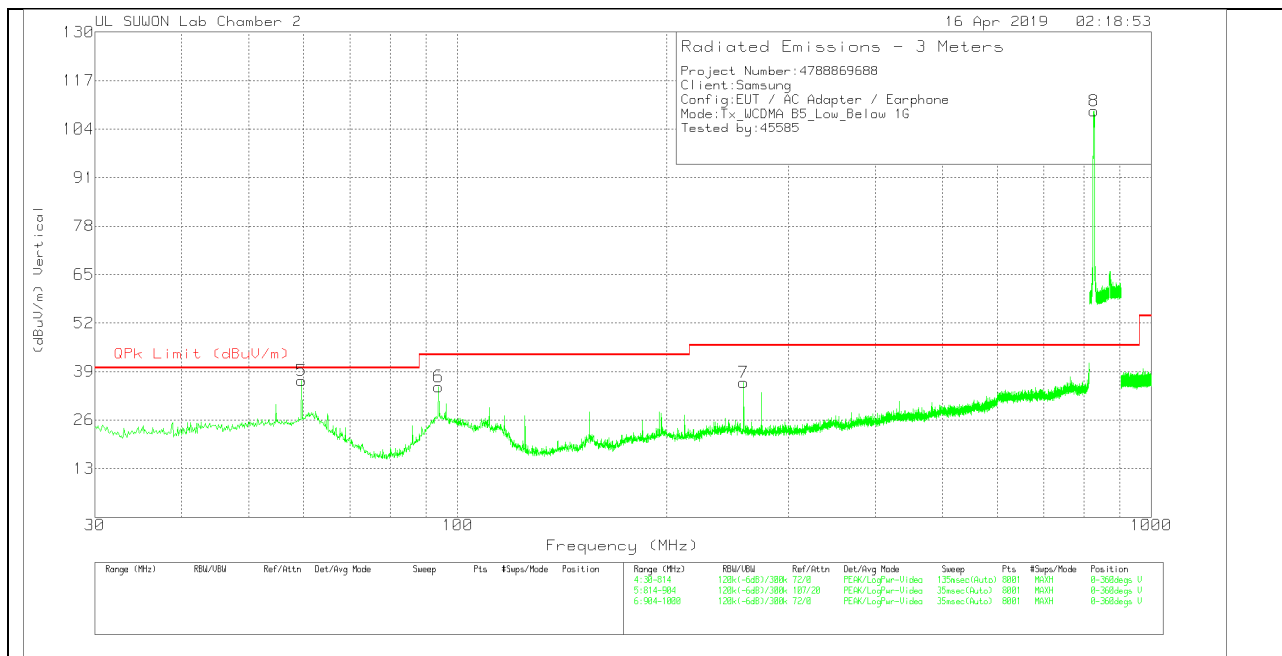
5.4. Below 1 GHz in the WCDMA Band 5

LOW CHANNEL(871.4MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

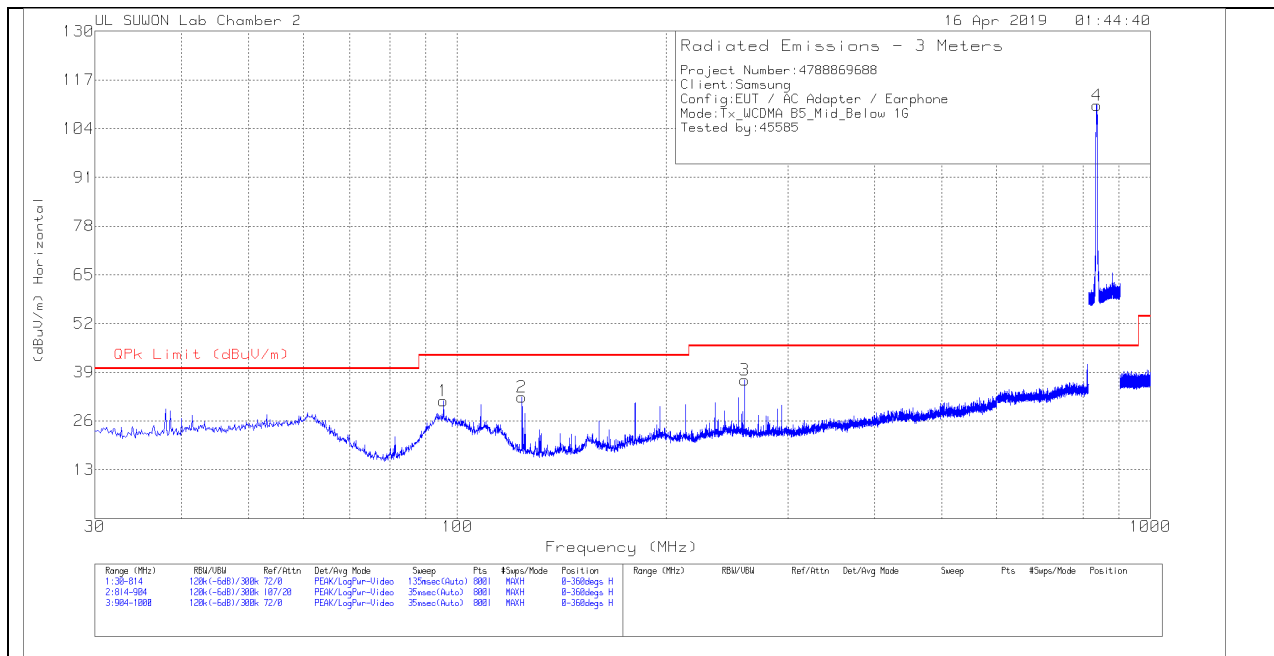
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	98.306	13.82	Pk	17.6	1	32.42	43.52	-11.1	0-360
2	125.354	13.14	Pk	14.6	1.2	28.94	43.52	-14.58	0-360
3	428.272	8.69	Pk	22.1	2.2	32.99	46.02	-13.03	0-360
4	826.9938	79.5	Pk	27	3.1	109.6	46.02	63.58	0-360
5	59.596	17.1	Pk	18.6	.8	36.5	40	-3.5	0-360
6	93.896	17.07	Pk	16.9	1	34.97	43.52	-8.55	0-360
7	258.438	15.33	Pk	19	1.7	36.03	46.02	-9.99	0-360
8	827.0838	78.71	Pk	27	3.1	108.81	46.02	62.79	0-360

Pk - Peak detector

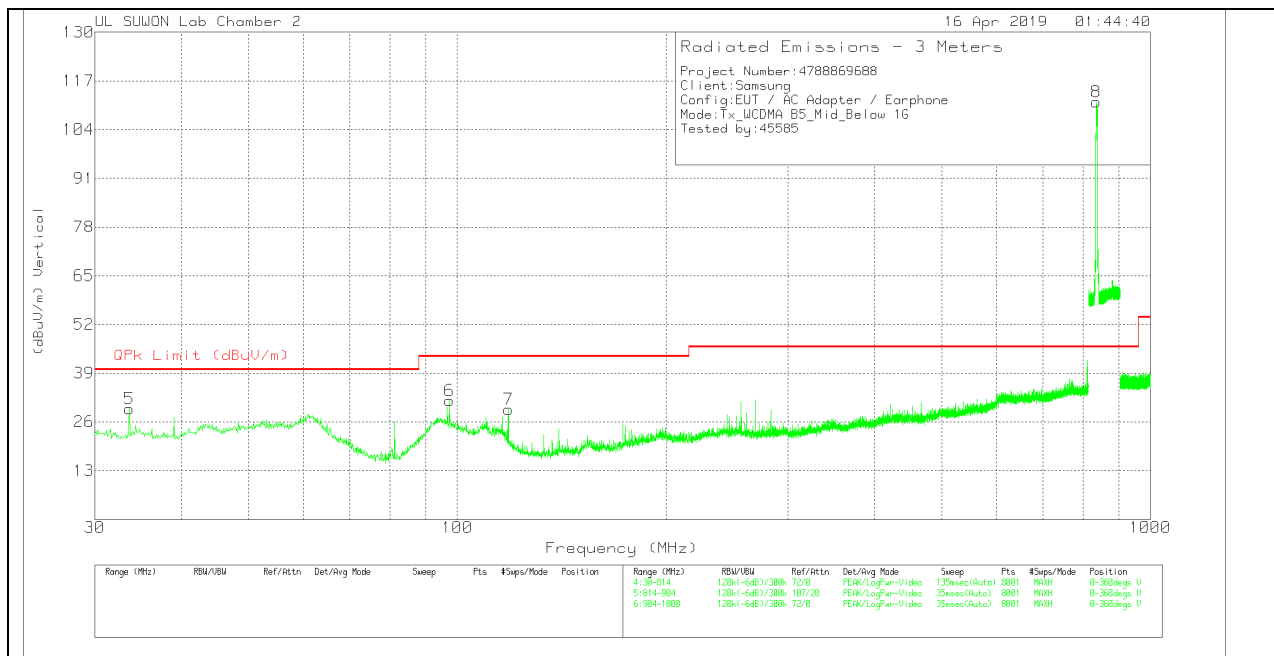
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(881.6MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

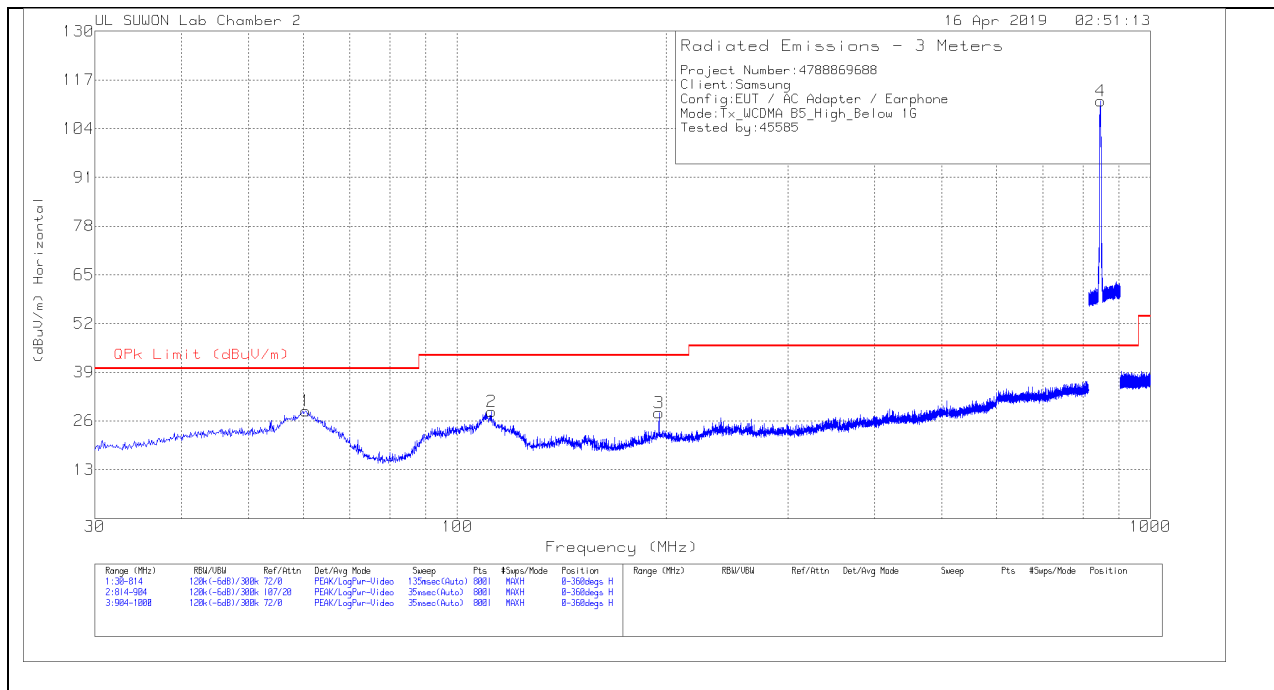
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	95.464	13.02	Pk	17.3	1.1	31.42	43.52	-12.1	0-360
2	123.982	16.39	Pk	14.7	1.2	32.29	43.52	-11.23	0-360
3	259.908	16.23	Pk	18.9	1.7	36.83	46.02	-9.19	0-360
4	836.5	79.94	Pk	27.1	3.1	110.14	46.02	64.12	0-360
5	33.626	13.05	Pk	15.9	.6	29.55	40	-10.45	0-360
6	97.424	13.13	Pk	17.5	1.1	31.73	43.52	-11.79	0-360
7	118.494	12.71	Pk	15.6	1.1	29.41	43.52	-14.11	0-360
8	835.6788	81.25	Pk	27.1	3.1	111.45	46.02	65.43	0-360

Pk - Peak detector

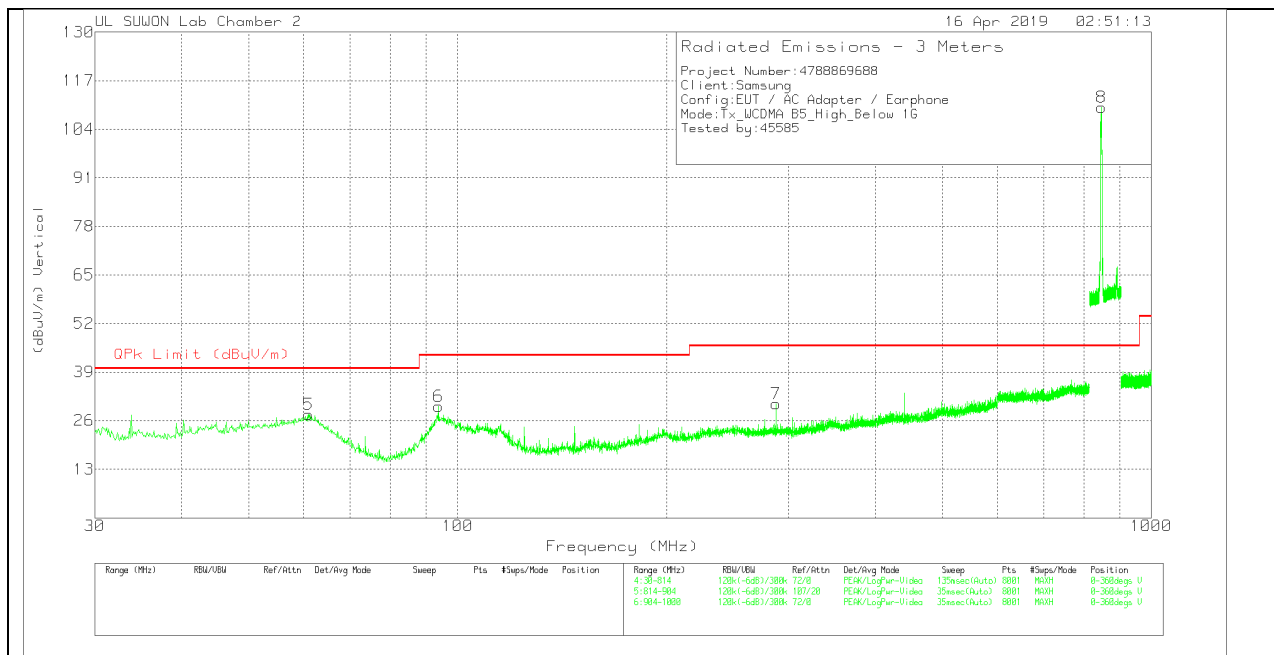
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

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	60.478	9.51	Pk	18.4	.8	28.71	40	-11.29	0-360	400	H
2	112.026	10.57	Pk	16.7	1.2	28.47	43.52	-15.05	0-360	300	H
3	195.424	8.59	Pk	18.1	1.5	28.19	43.52	-15.33	0-360	100	H
4	847.6263	80.87	Pk	27.3	3.2	111.37	46.02	65.35	0-360	100	H
5	60.968	8.59	Pk	18.3	.8	27.69	40	-12.31	0-360	100	V
6	93.798	11.91	Pk	16.9	1	29.81	43.52	-13.71	0-360	100	V
7	287.838	9.44	Pk	19.1	1.9	30.44	46.02	-15.58	0-360	100	V
8	847.21	79.38	Pk	27.3	3.2	109.88	46.02	63.86	0-360	100	V

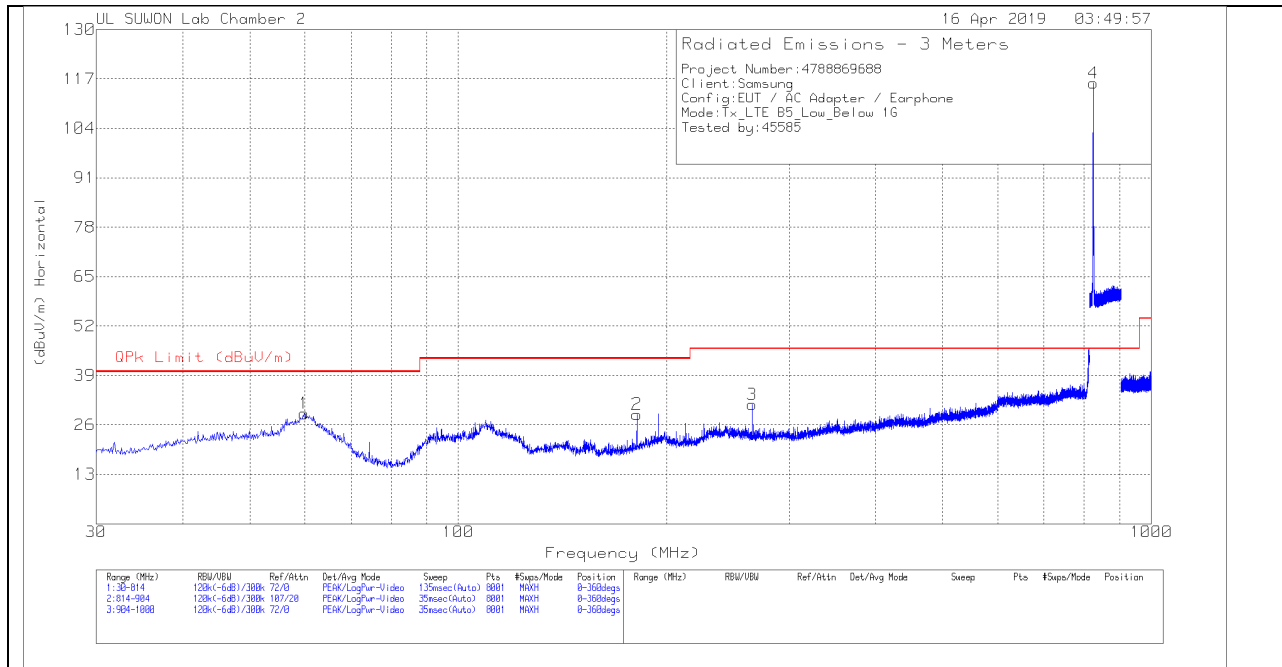
Pk - Peak detector

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

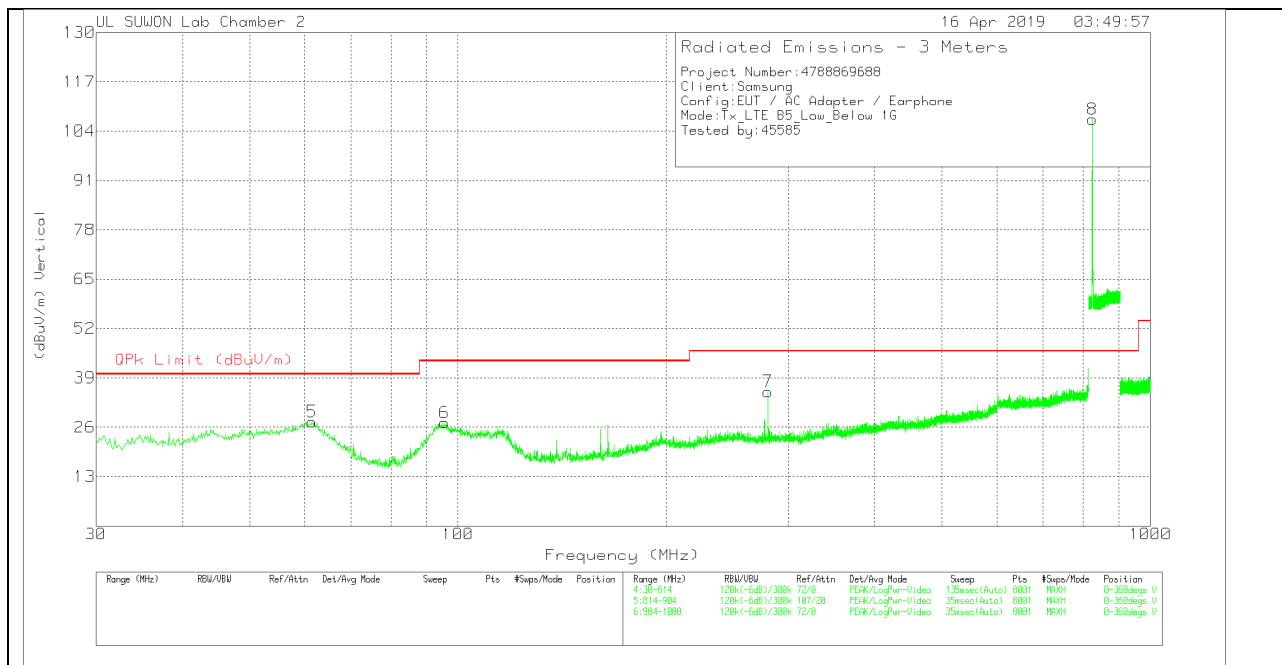
5.5. Below 1 GHz in the LTE Band 5

LOW CHANNEL(870.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

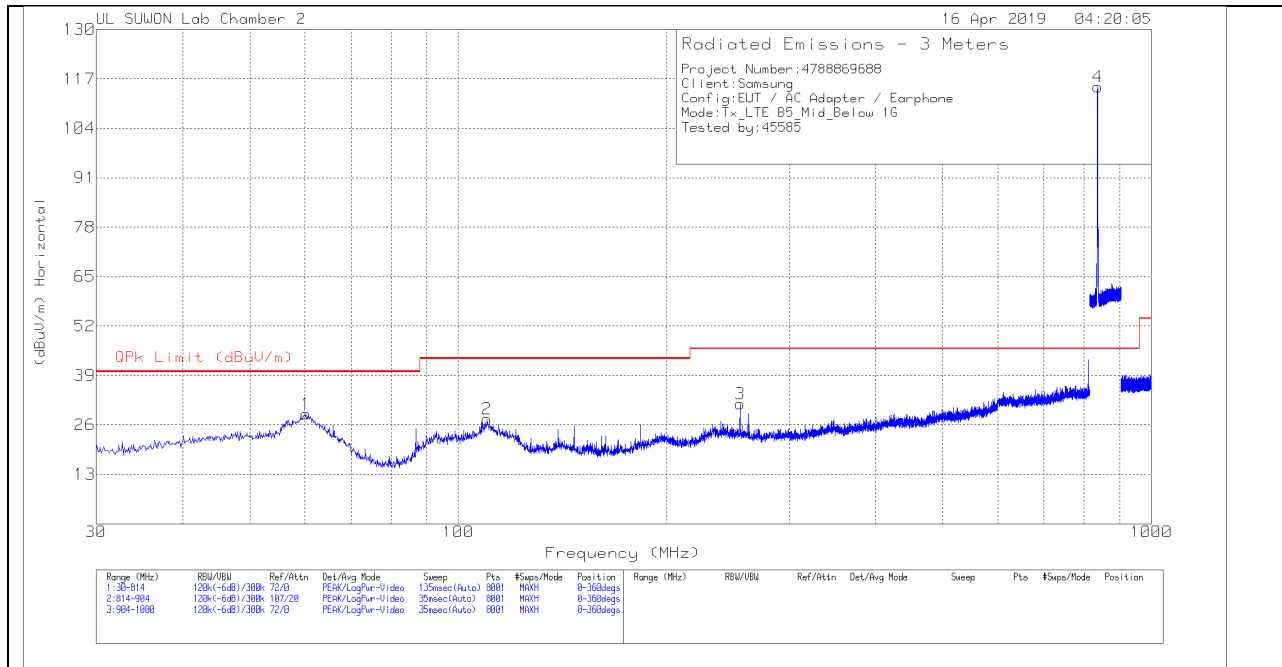
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	59.89	9.69	Pk	18.5	.8	28.99	40	-11.01	0-360	400	H
2	181.018	11.58	Pk	15.8	1.4	28.78	43.52	-14.74	0-360	200	H
3	265.396	10.92	Pk	18.6	1.8	31.32	46.02	-14.7	0-360	100	H
4	825.1713	85.9	Pk	26.9	3.1	115.9	46.02	69.88	0-360	100	H
5	61.556	8.51	Pk	18.1	.8	27.41	40	-12.59	0-360	100	V
6	95.66	8.94	Pk	17.3	1	27.24	43.52	-16.28	0-360	100	V
7	280.39	14.69	Pk	18.9	1.8	35.39	46.02	-10.63	0-360	100	V
8	825.1038	77.11	Pk	26.9	3.1	107.11	46.02	61.09	0-360	200	V

Pk - Peak detector

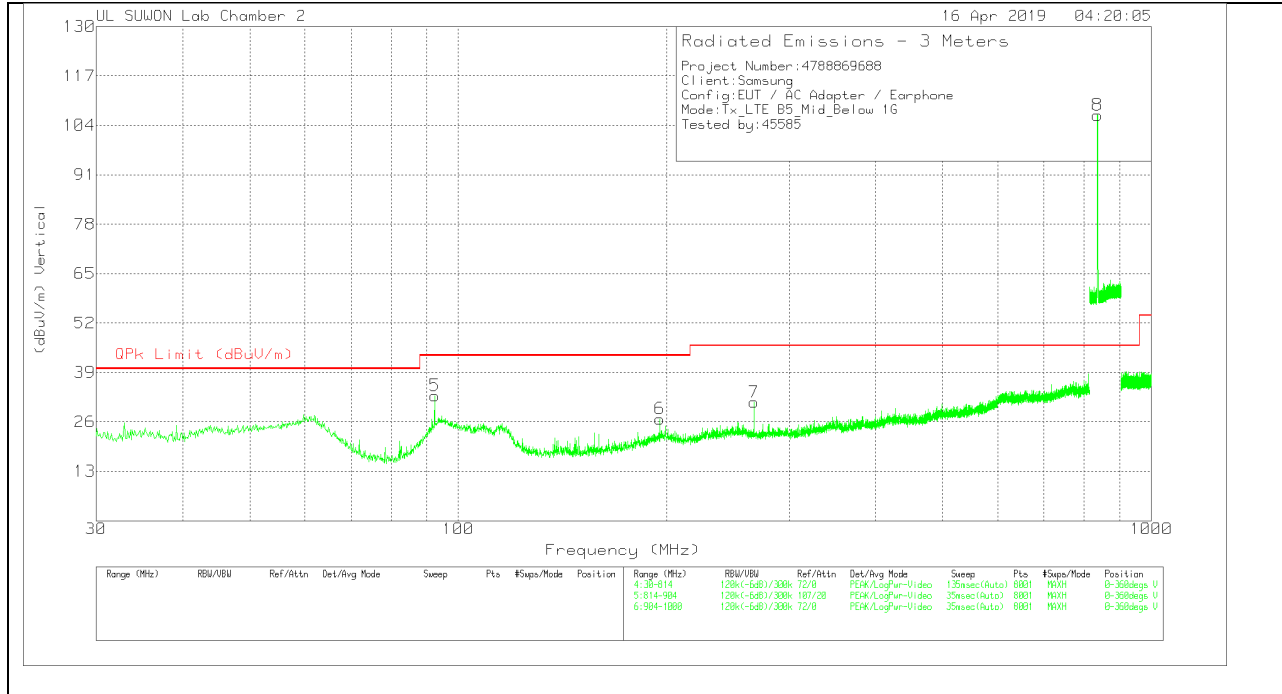
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(881.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

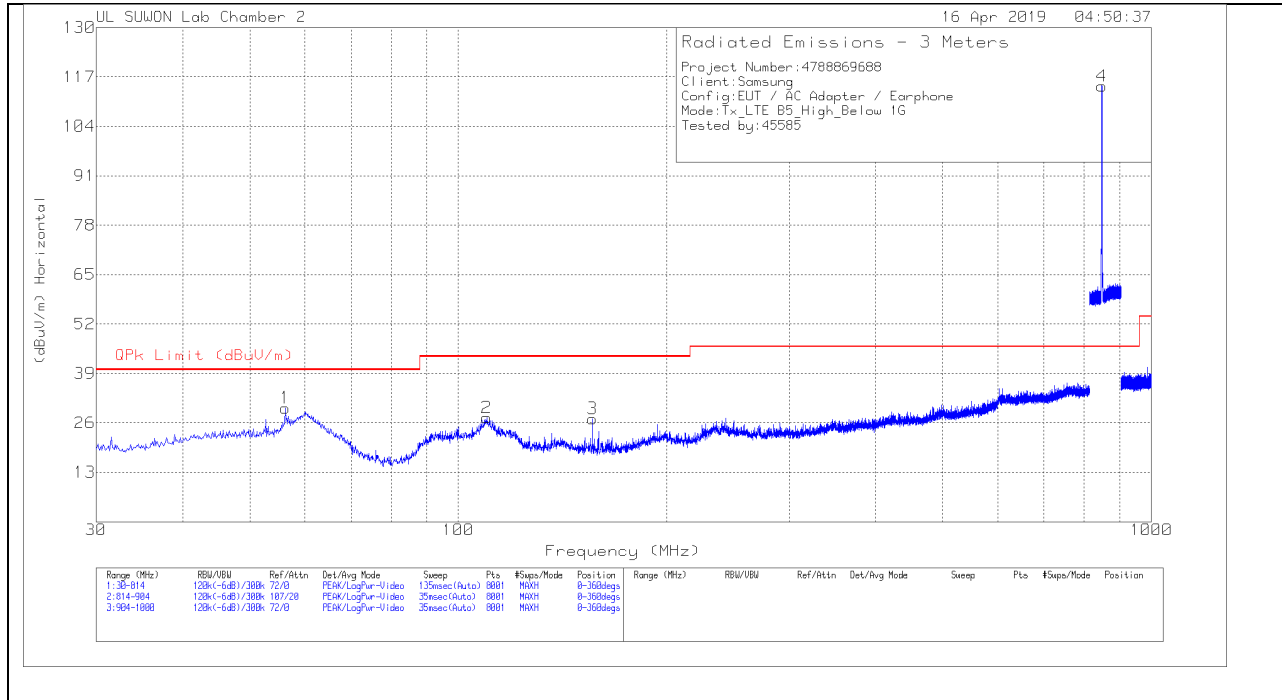
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	60.282	9.58	Pk	18.5	.8	28.88	40	-11.12	0-360	400	H
2	110.066	9.28	Pk	17.1	1.1	27.48	43.52	-16.04	0-360	300	H
3	255.106	10.63	Pk	19.2	1.7	31.53	46.02	-14.49	0-360	100	H
4	836.9725	84.71	Pk	27.1	3.1	114.91	46.02	68.89	0-360	100	H
5	92.426	15.4	Pk	16.5	1	32.9	43.52	-10.62	0-360	100	V
6	195.228	7.21	Pk	18.1	1.5	26.81	43.52	-16.71	0-360	300	V
7	267.062	10.76	Pk	18.6	1.8	31.16	46.02	-14.86	0-360	100	V
8	836.2863	76.5	Pk	27.1	3.1	106.7	46.02	60.68	0-360	200	V

Pk - Peak detector

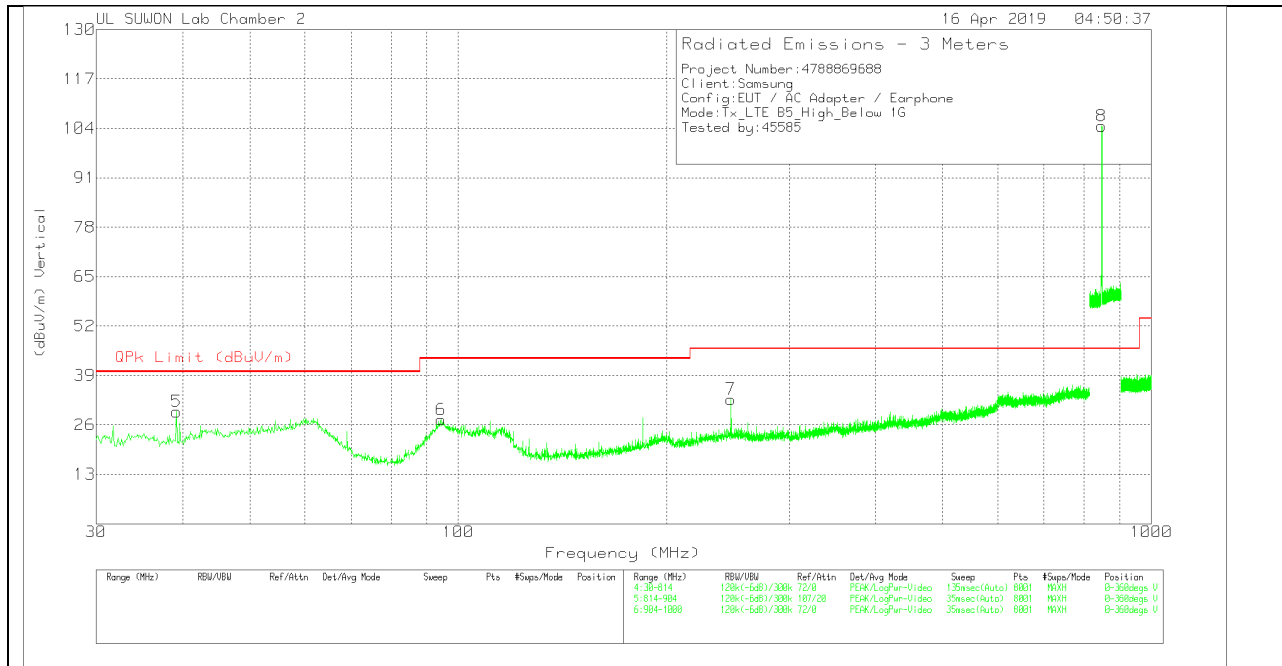
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

HIGH CHANNEL(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	56.264	10.01	Pk	19.1	.8	29.91	40	-10.09	0-360	300	H
2	109.87	9.19	Pk	17.1	1.1	27.39	43.52	-16.13	0-360	300	H
3	156.224	11.49	Pk	14.3	1.3	27.09	43.52	-16.43	0-360	100	H
4	848.7625	83.99	Pk	27.4	3.2	114.59	46.02	68.57	0-360	100	H
5	39.212	10.28	Pk	18.5	.7	29.48	40	-10.52	0-360	200	V
6	94.386	9.39	Pk	17	1	27.39	43.52	-16.13	0-360	100	V
7	247.462	12.12	Pk	18.9	1.7	32.72	46.02	-13.3	0-360	100	V
8	848.2788	74	Pk	27.4	3.2	104.6	46.02	58.58	0-360	100	V

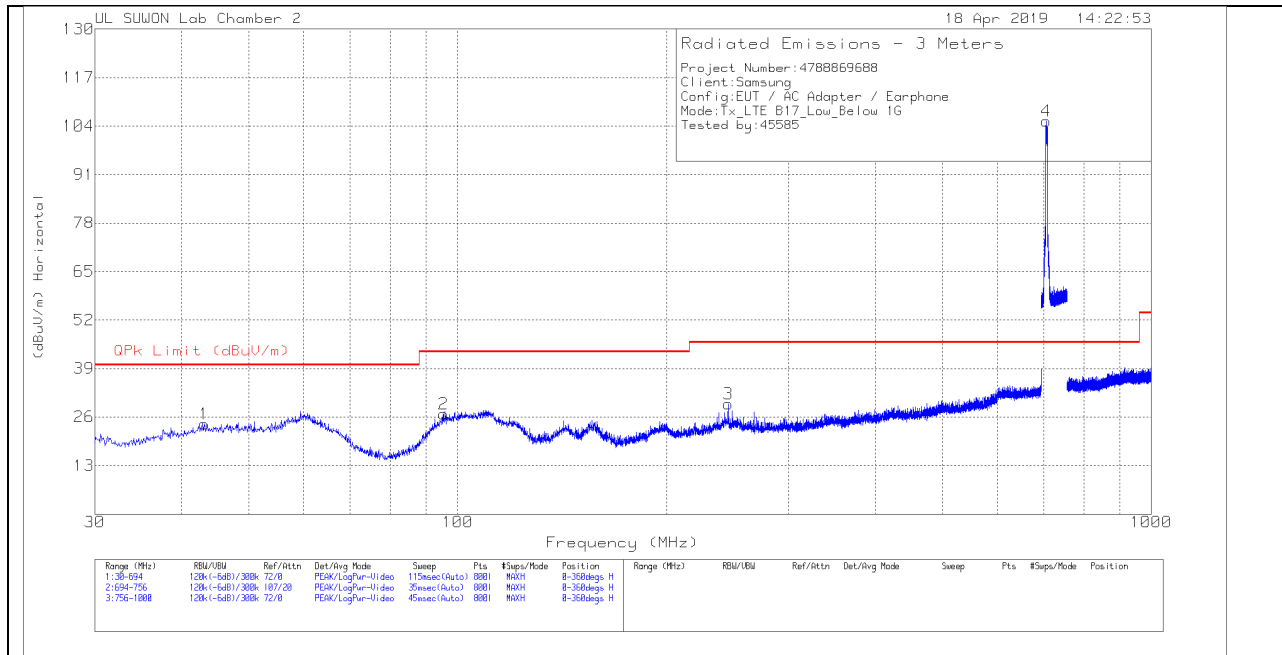
Pk - Peak detector

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

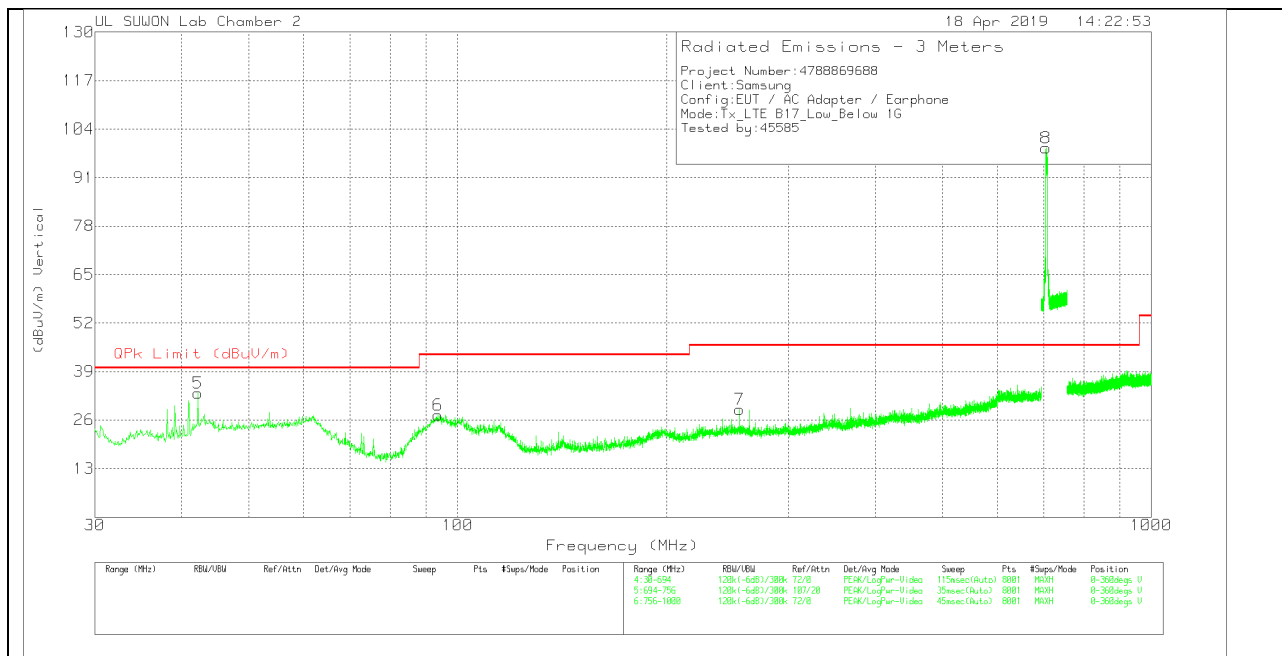
5.6. Below 1 GHz in the LTE Band 17

LOW CHANNEL(736.5MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

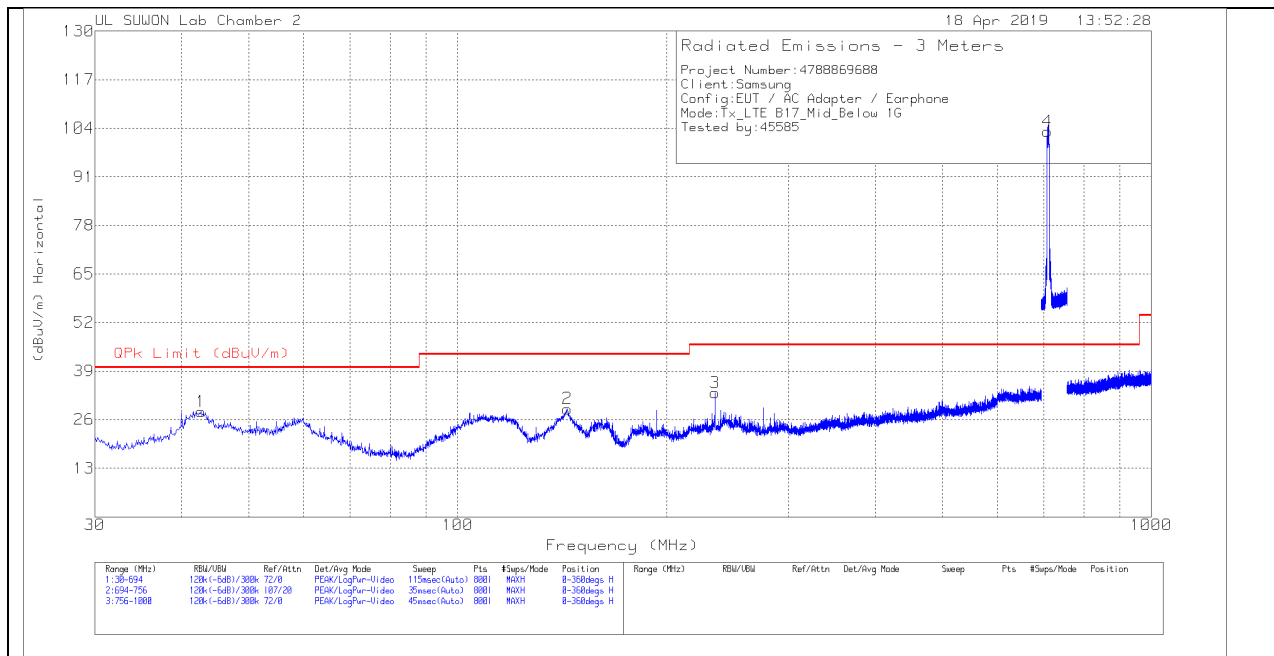
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	43.114	3.9	Pk	19.5	.7	24.1	40	-15.9	0-360	300	H
2	95.487	8.48	Pk	17.3	1.1	26.88	43.52	-16.64	0-360	200	H
3	245.385	9.04	Pk	18.8	1.7	29.54	46.02	-16.48	0-360	400	H
4	705.129	76.94	Pk	25.5	2.9	105.34	46.02	59.32	0-360	100	H
5	42.201	13.14	Pk	19.2	.8	33.14	40	-6.86	0-360	200	V
6	93.661	9.33	Pk	16.9	1.1	27.33	43.52	-16.19	0-360	100	V
7	255.096	7.93	Pk	19.2	1.7	28.83	46.02	-17.19	0-360	400	V
8	704.8888	70.57	Pk	25.5	2.9	98.97	46.02	52.95	0-360	100	V

Pk - Peak detector

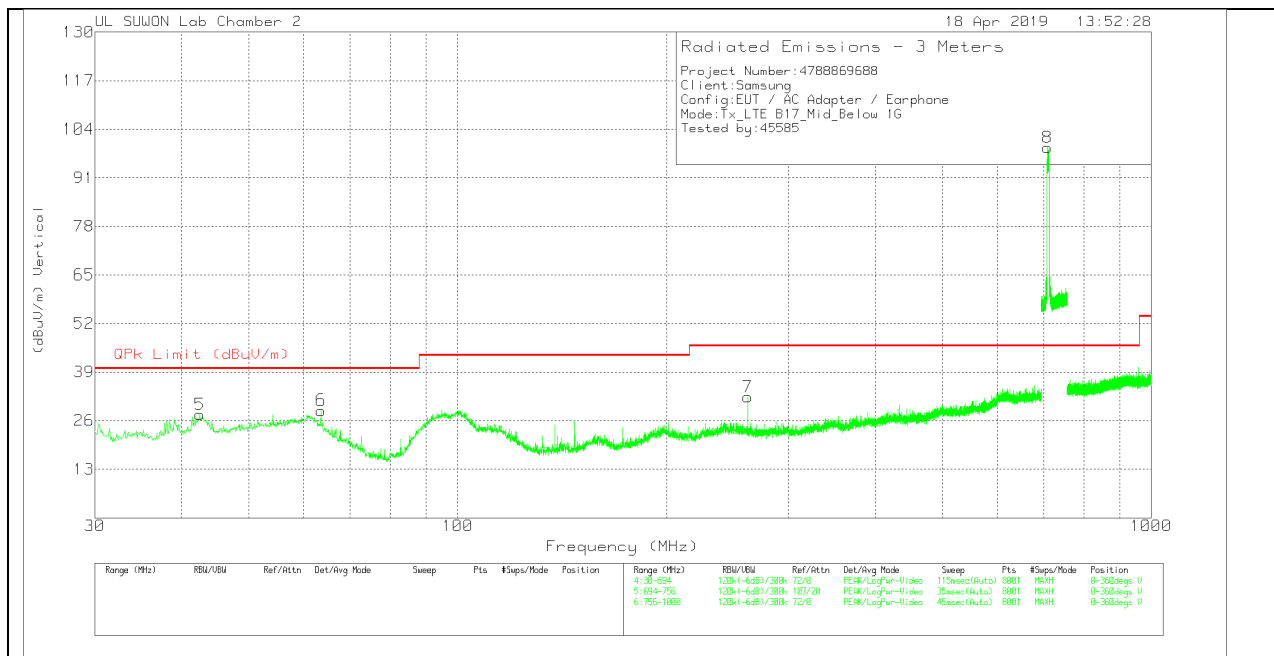
Note: Unwanted emissions captured from 704MHz to 716MHz and from 734MHz to 746MHz were the TX and RX signals generated from the call-simulator.

MID CHANNEL(740.0MHz)

HORIZONTAL PEAK PLOT



VERTICAL PEAK PLOT



DATA

Trace Markers

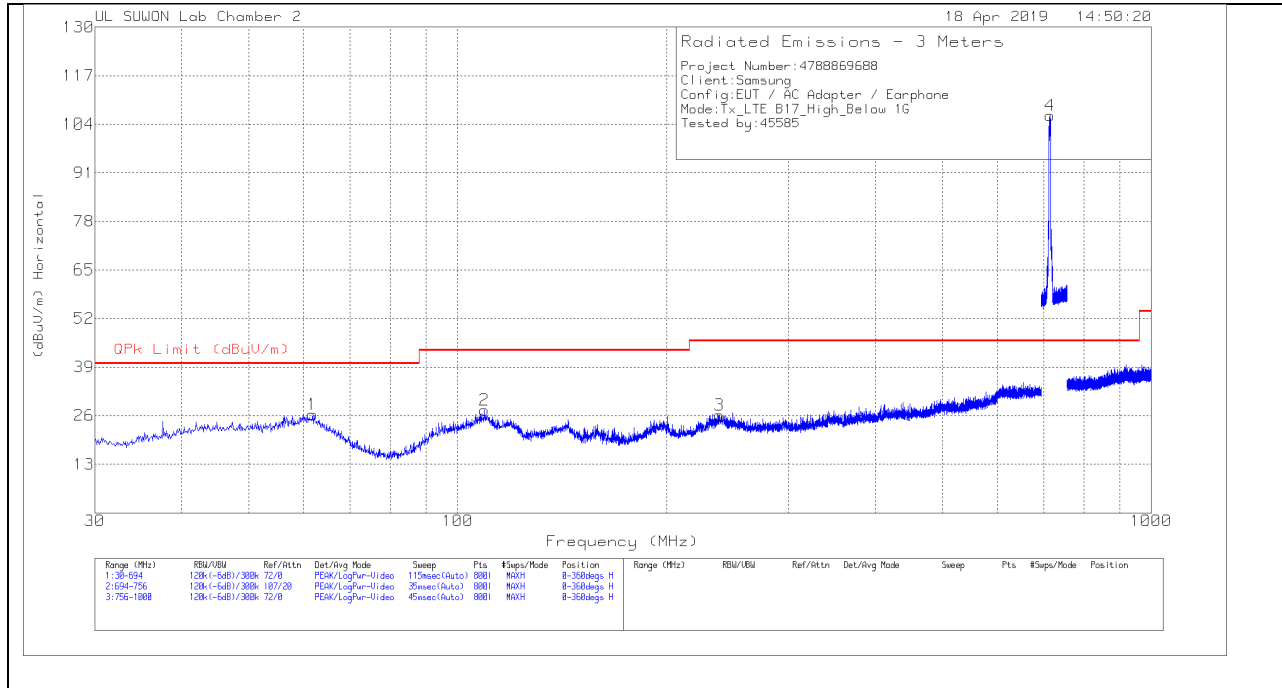
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	42.699	8.03	Pk	19.4	.7	28.13	40	-11.87	0-360	300	H
2	144.042	13.52	Pk	14.1	1.3	28.92	43.52	-14.6	0-360	200	H
3	235.176	13.38	Pk	18.2	1.6	33.18	46.02	-12.84	0-360	100	H
4	709.1823	74.78	Pk	25.5	2.9	103.18	46.02	57.16	0-360	100	H
5	42.45	7.72	Pk	19.3	.7	27.72	40	-12.28	0-360	100	V
6	63.532	10.15	Pk	17.7	.9	28.75	40	-11.25	0-360	100	V
7	261.985	12.04	Pk	18.7	1.7	32.44	46.02	-13.58	0-360	200	V
8	709.1513	70.73	Pk	25.5	2.9	99.13	46.02	53.11	0-360	100	V

Pk - Peak detector

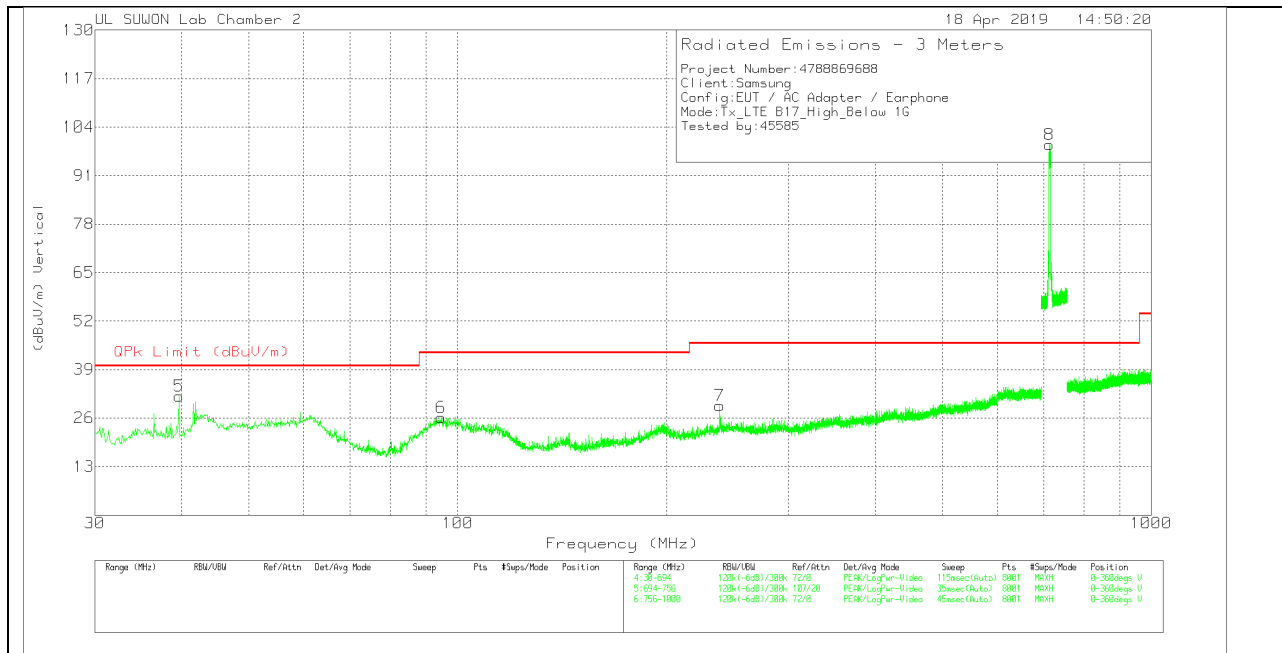
Note: Unwanted emissions captured from 704MHz to 716MHz and from 734MHz to 746MHz were the TX and RX signals generated from the call-simulator.

HIGH CHANNEL(743.5MHz)

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	61.789	7.45	Pk	18.1	.8	26.35	40	-13.65	0-360	400	H
2	109.348	9.18	Pk	17.2	1.1	27.48	43.52	-16.04	0-360	400	H
3	238.413	6.06	Pk	18.4	1.7	26.16	46.02	-19.86	0-360	100	H
4	714.801	77.82	Pk	25.6	2.9	106.32	46.02	60.3	0-360	100	H
5	39.628	12.61	Pk	18.6	.7	31.91	40	-8.09	0-360	100	V
6	94.74	7.96	Pk	17.1	1.1	26.16	43.52	-17.36	0-360	100	V
7	238.745	9.31	Pk	18.4	1.7	29.41	46.02	-16.61	0-360	300	V
8	713.1658	70.85	Pk	25.6	2.9	99.35	46.02	53.33	0-360	200	V

Pk - Peak detector

Note: Unwanted emissions captured from 704MHz to 716MHz and from 734MHz to 746MHz were the TX and RX signals generated from the call-simulator.