

## 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

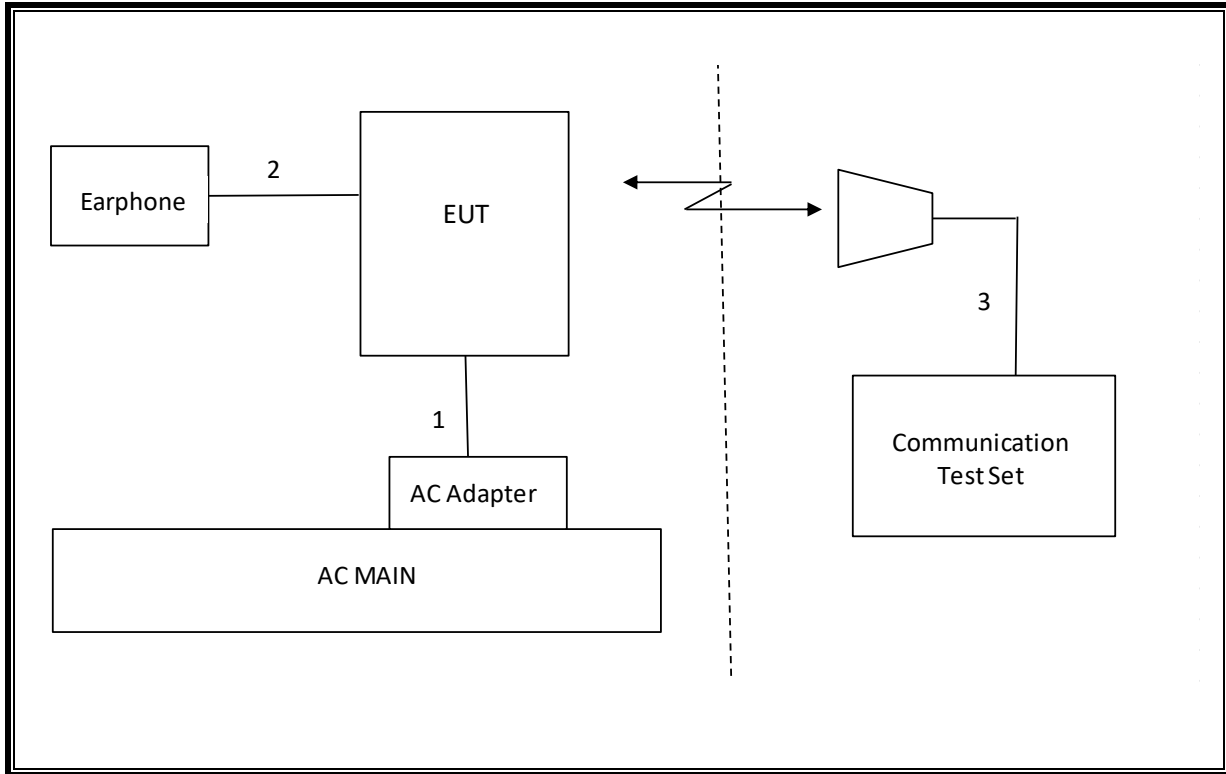
#### I/O CABLE

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

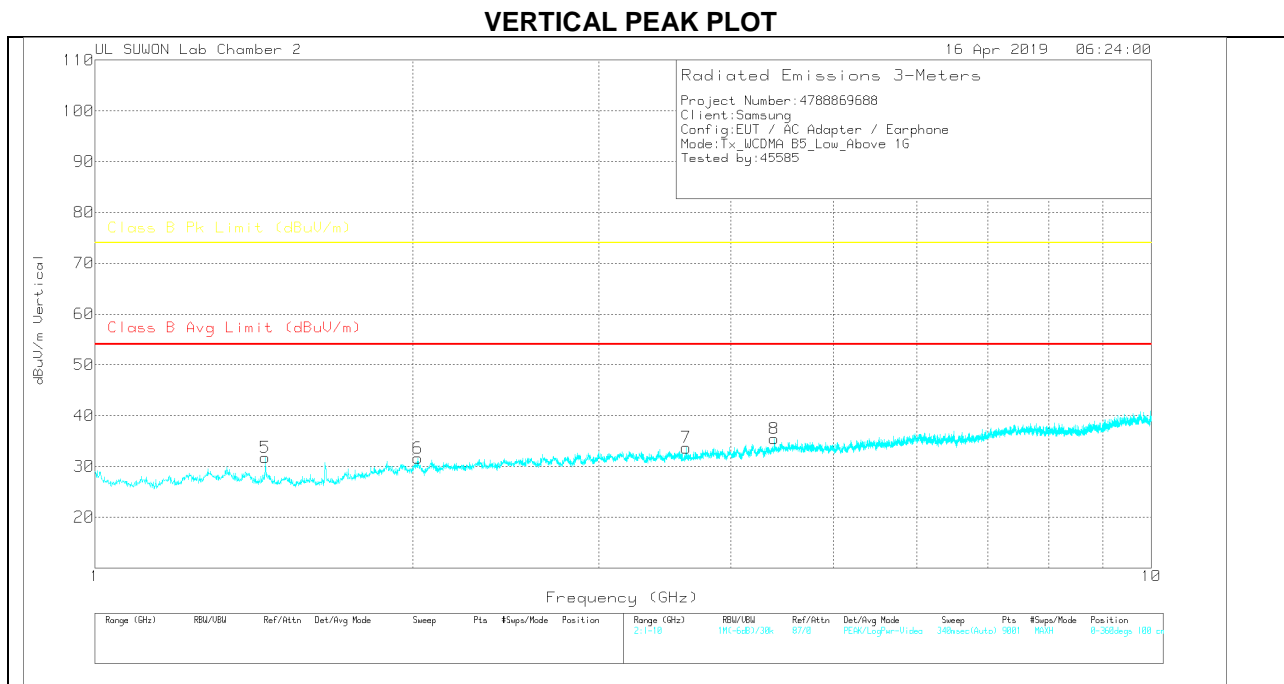
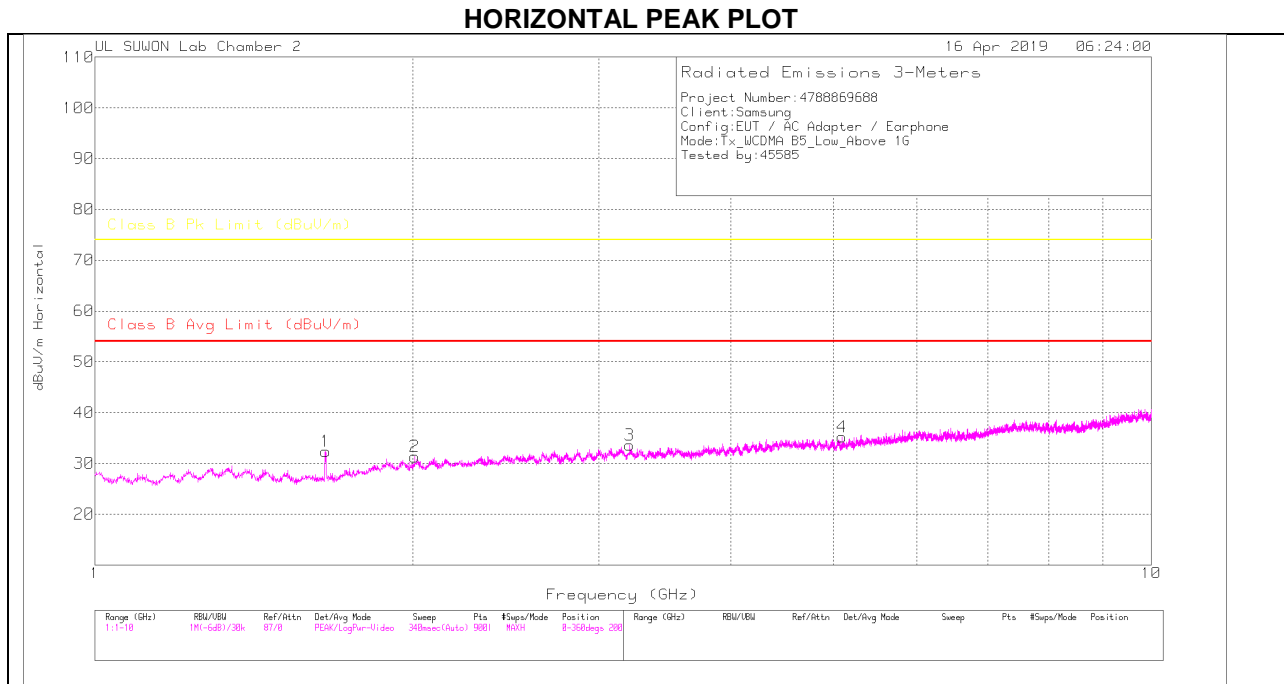
§15.109 (a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dB $\mu$ 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.

### 5.1. Above 1 GHz in the WCDMA Band 5

#### LOW CHANNEL(871.4MHz)



**DATA**

Trace Markers

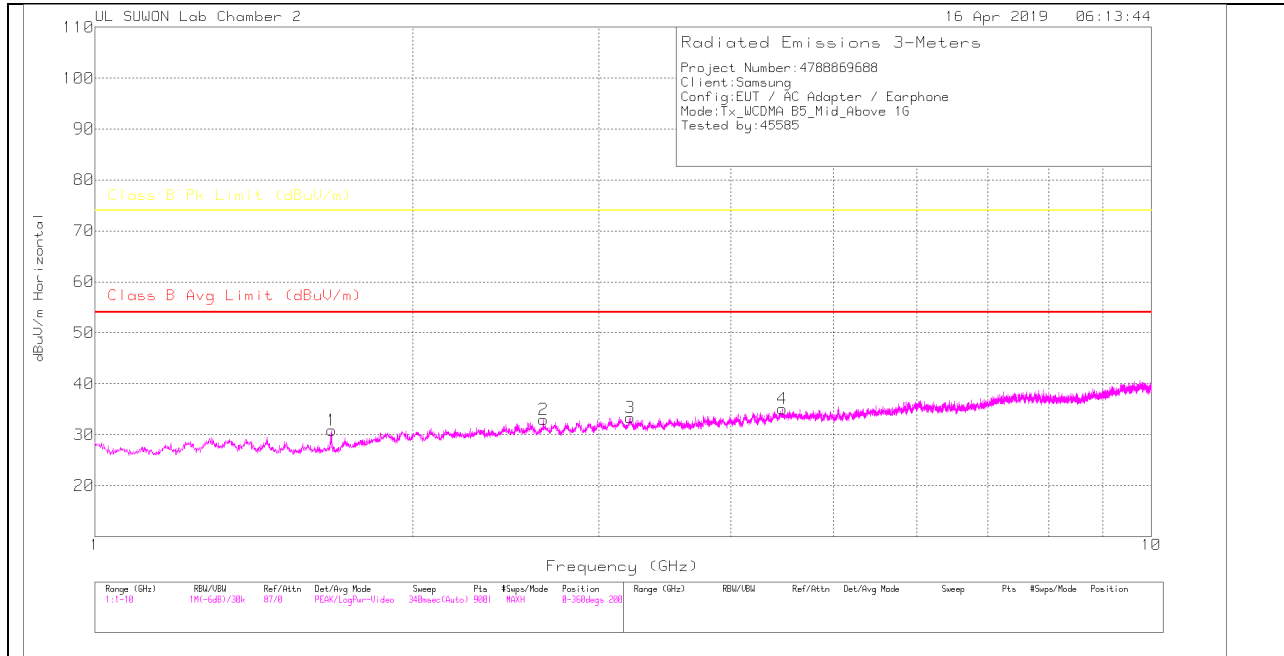
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.654	35.06	PK	28.3	-31.5	.5	32.36	-	-	74	-41.64	0-360	200	H
2	2.008	30.61	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

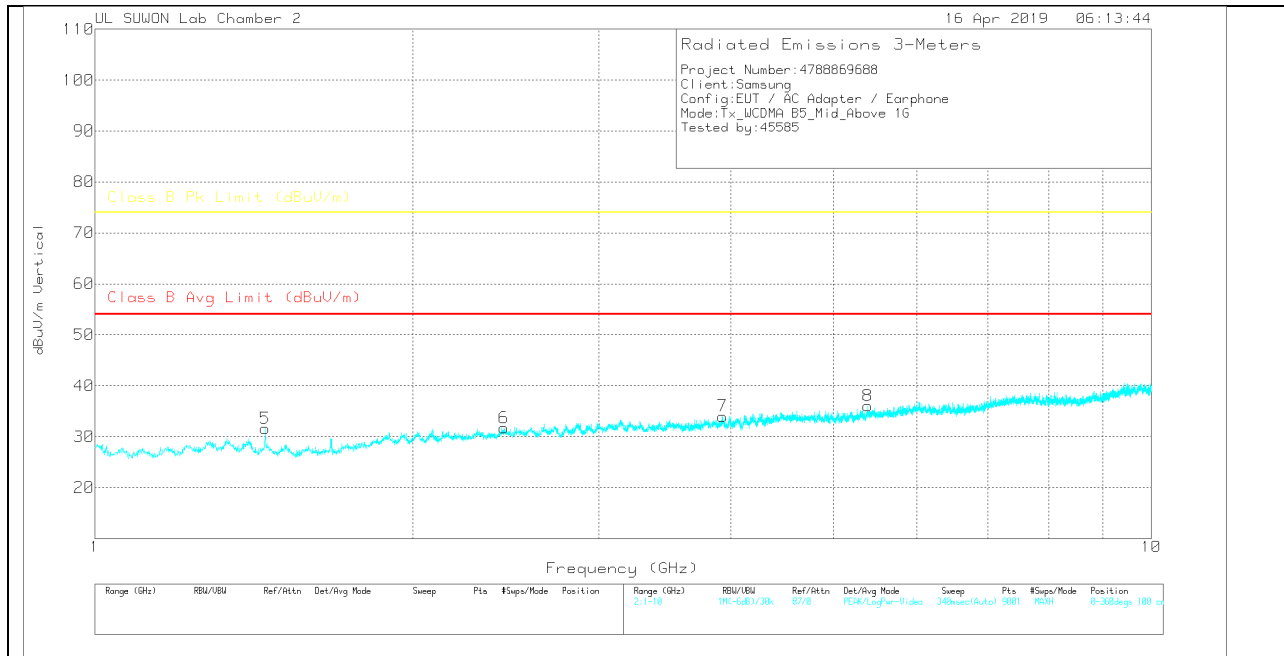
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**MID CHANNEL(881.6MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**





**DATA**

Trace Markers

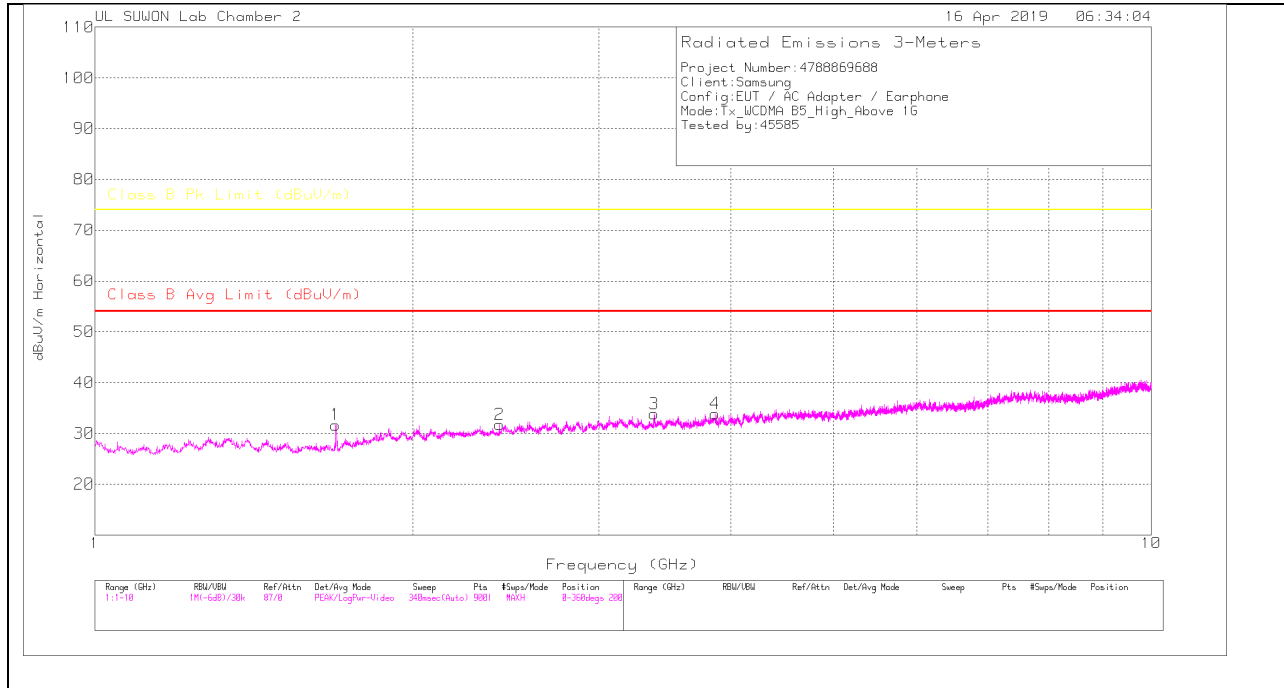
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.675	33.23	PK	28.5	-31.3	.5	30.93	-	-	74	-43.07	0-360	100	H
2	2.659	30.54	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

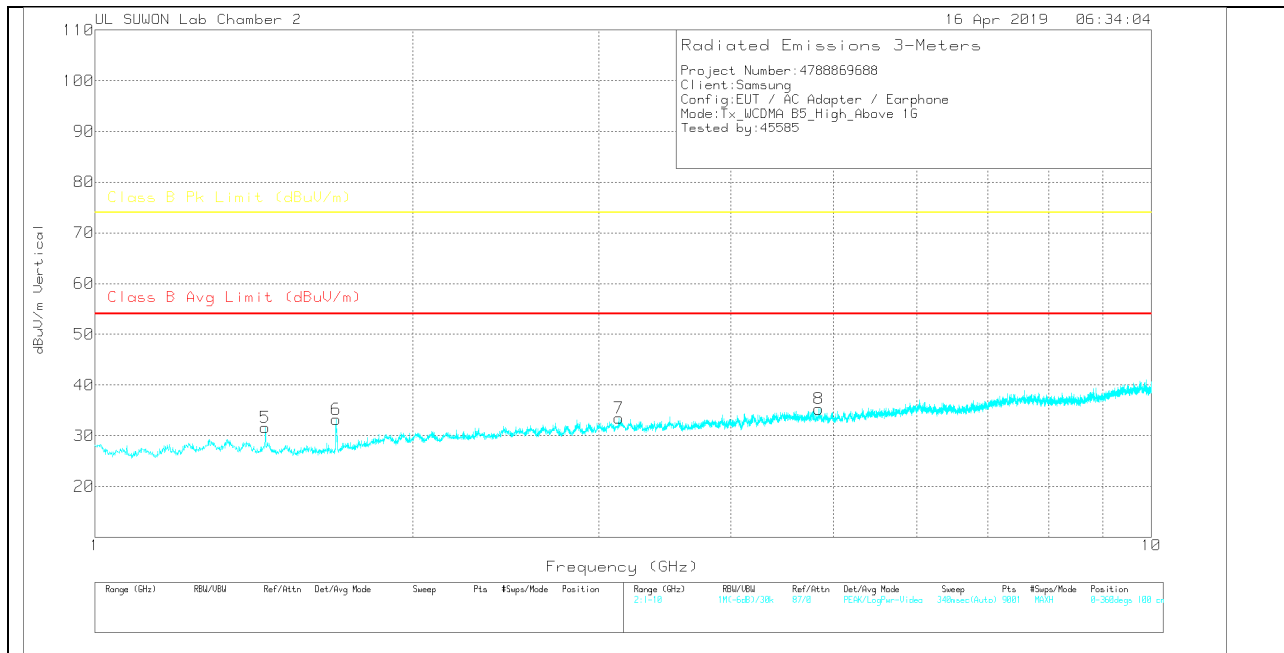
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**HIGH CHANNEL(891.6MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	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	1.69	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

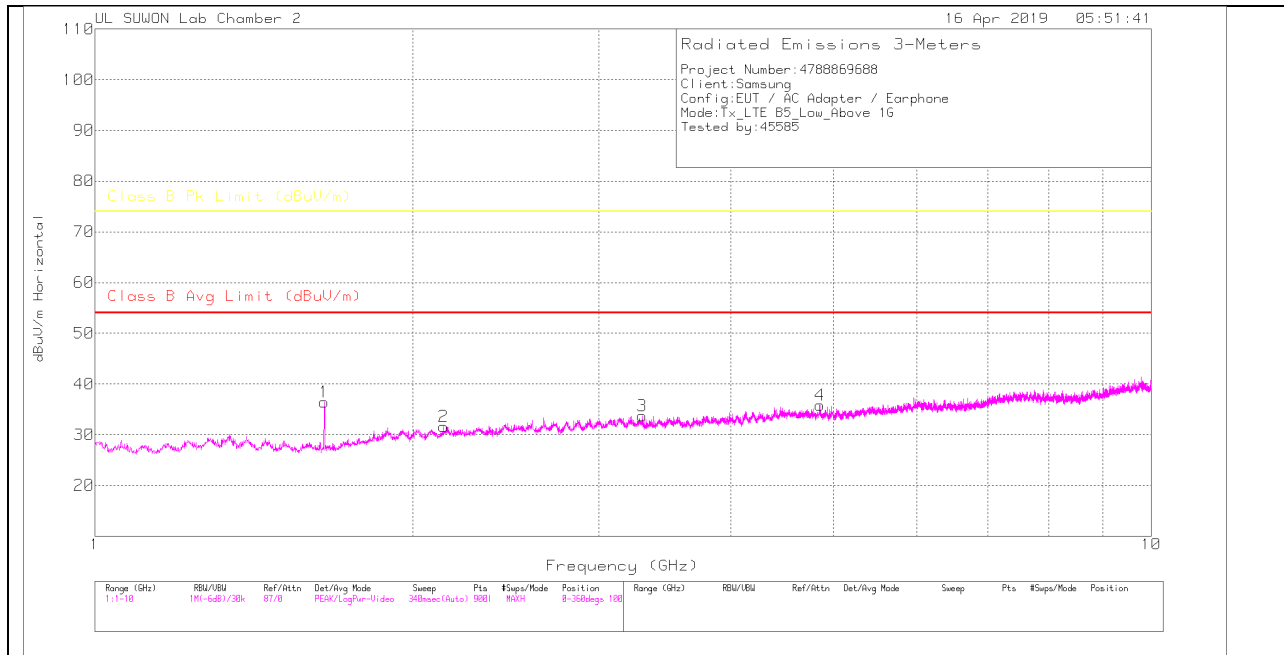
PK – Peak Detector

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

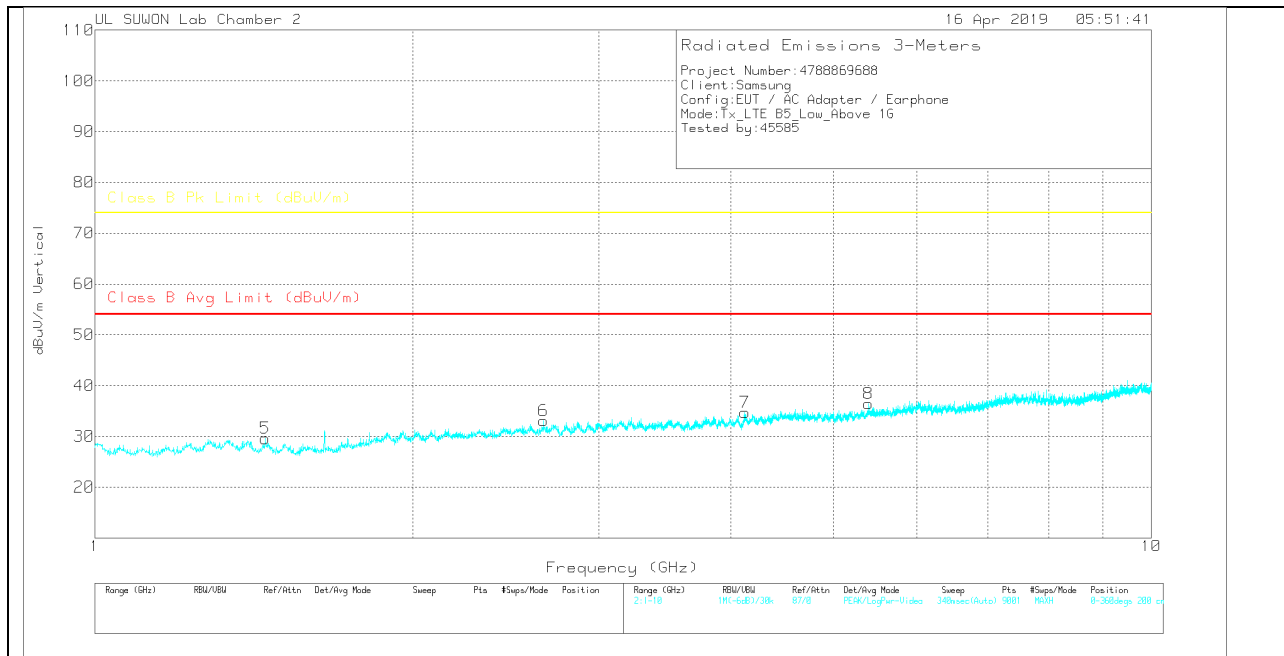
## 5.2. Above 1 GHz in the LTE Band 5

### LOW CHANNEL(870.5MHz)

#### HORIZONTAL PEAK PLOT



#### VERTICAL PEAK PLOT



**DATA**

Trace Markers

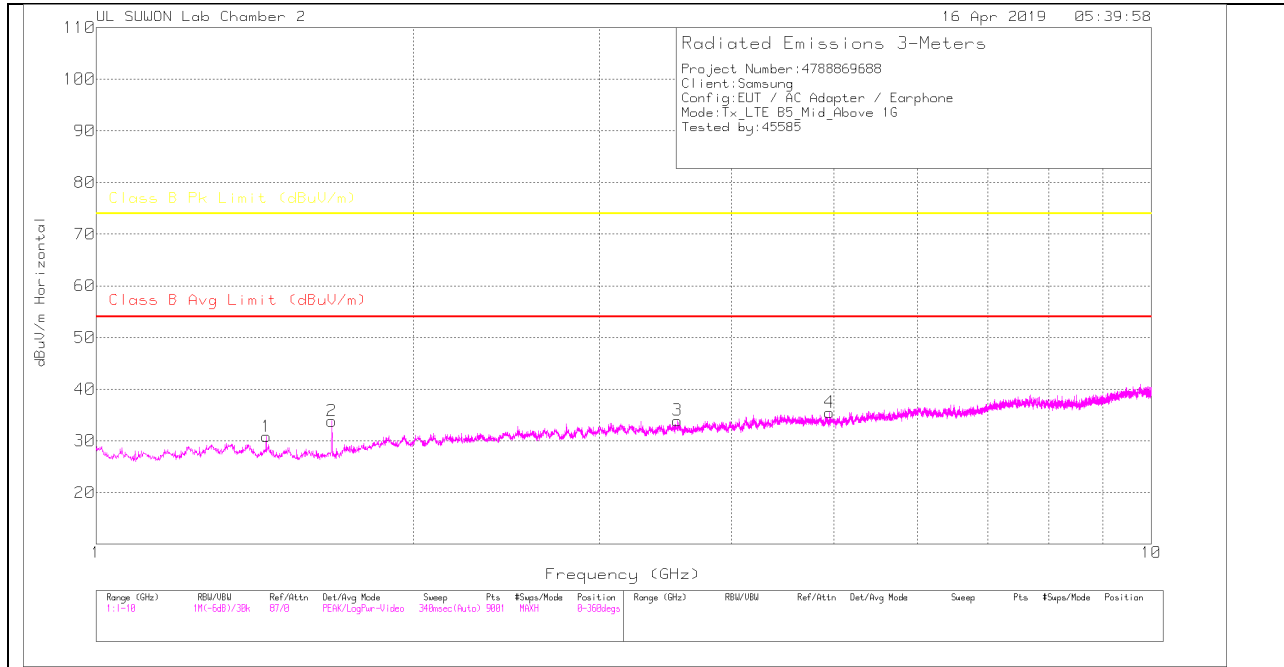
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.649	38.96	PK	28.3	-31.4	.6	36.46	-	-	74	-37.54	0-360	100	H
2	2.138	30.41	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

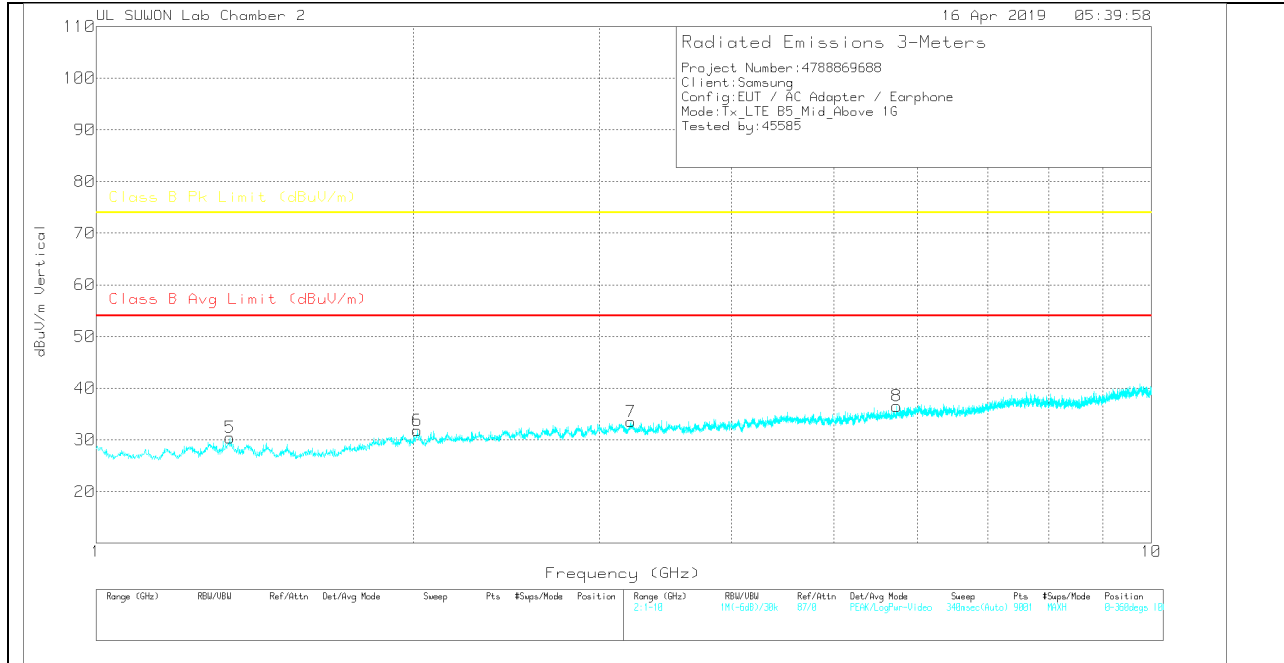
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**MID CHANNEL(881.5MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

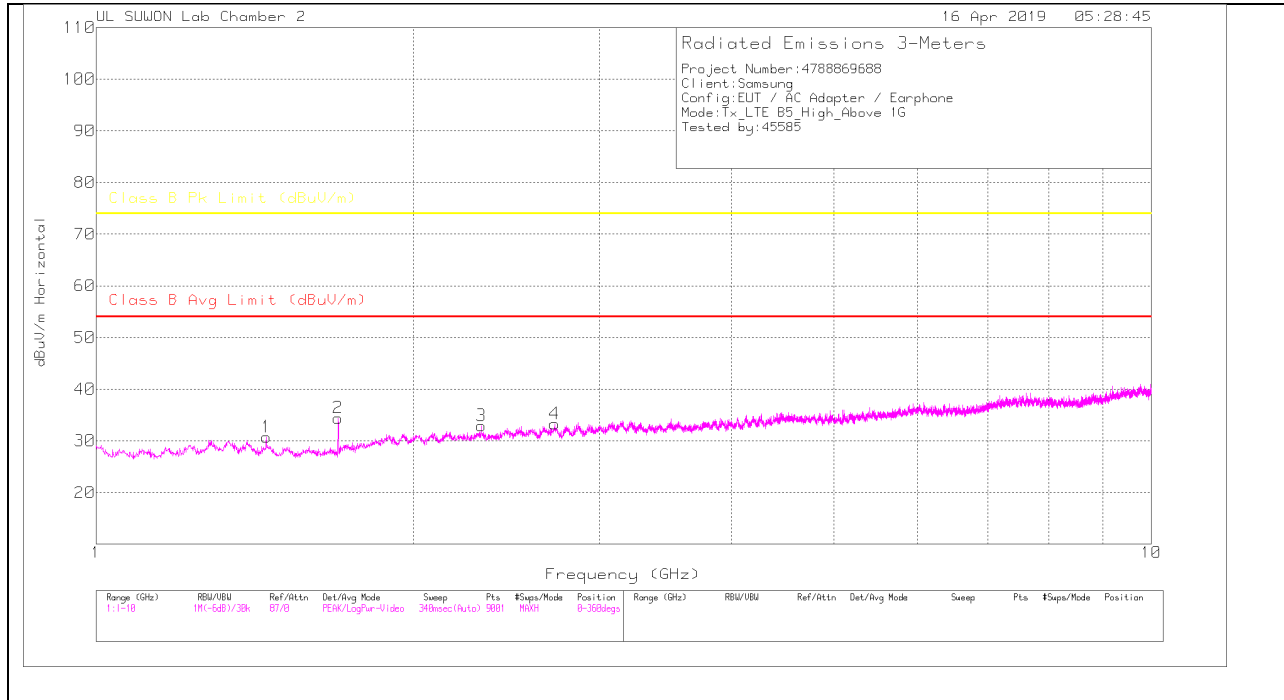
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPK)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.45	32.76	PK	29	-31.6	.7	30.86	-	-	74	-43.14	0-360	100	H
2	1.673	36.16	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

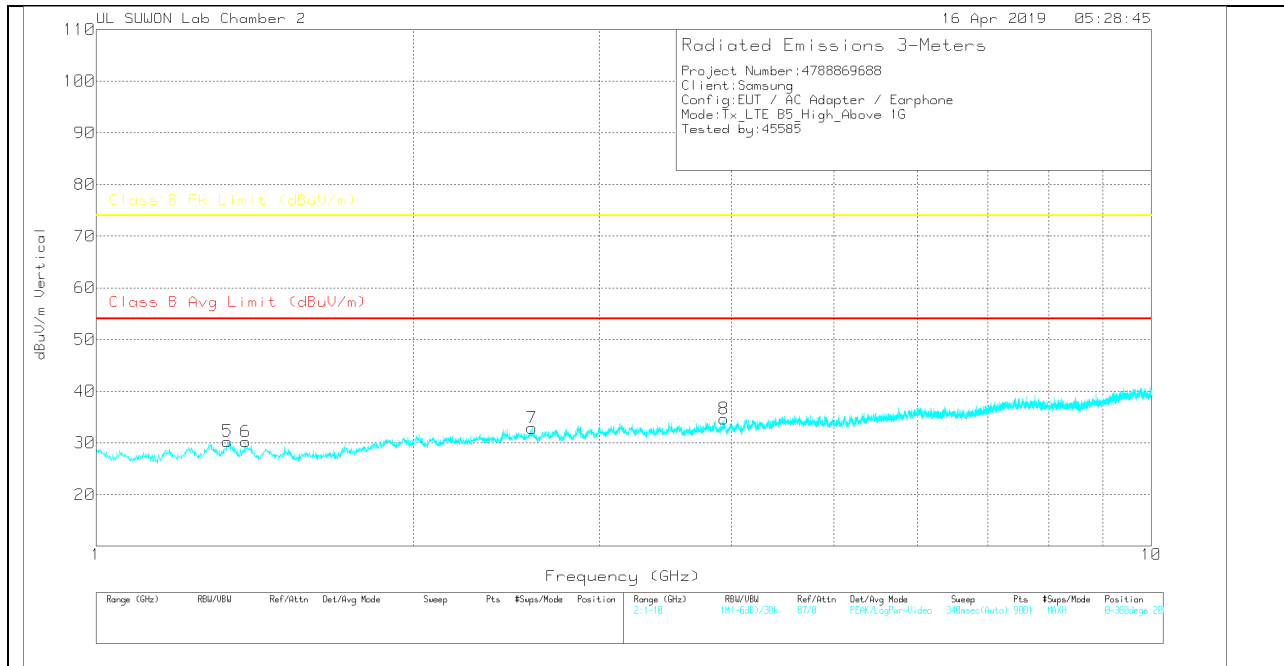
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**HIGH CHANNEL(892.5MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**





**DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	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	1.45	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

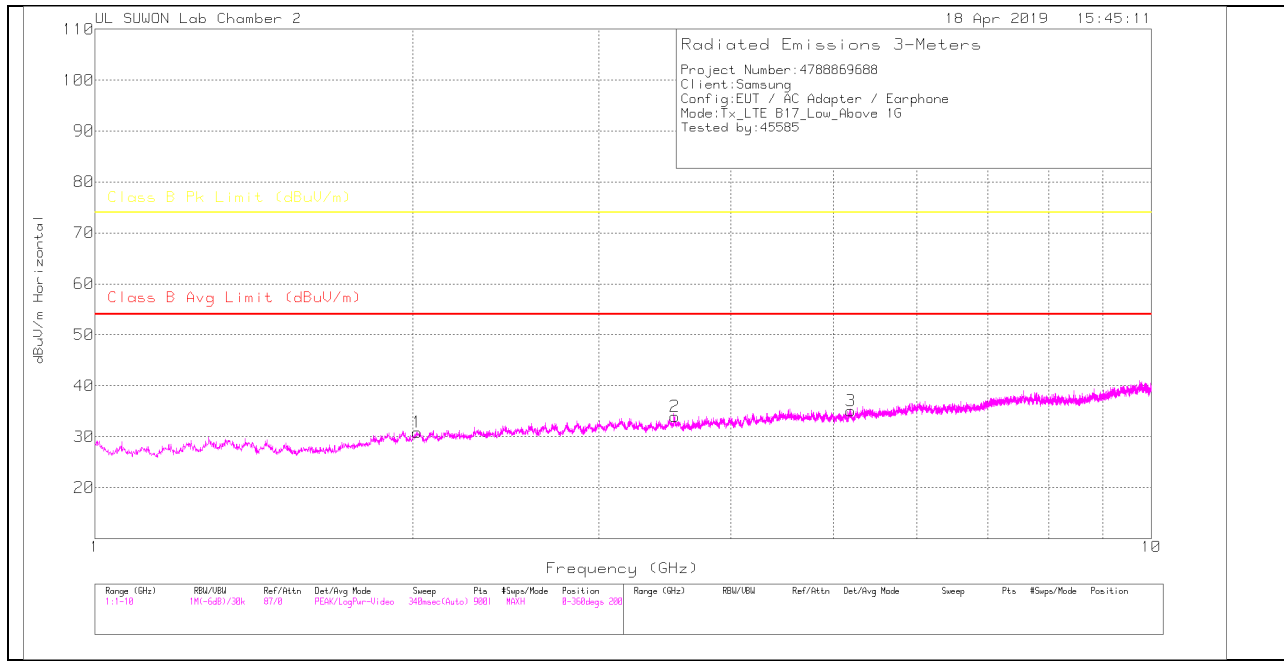
PK – Peak Detector

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

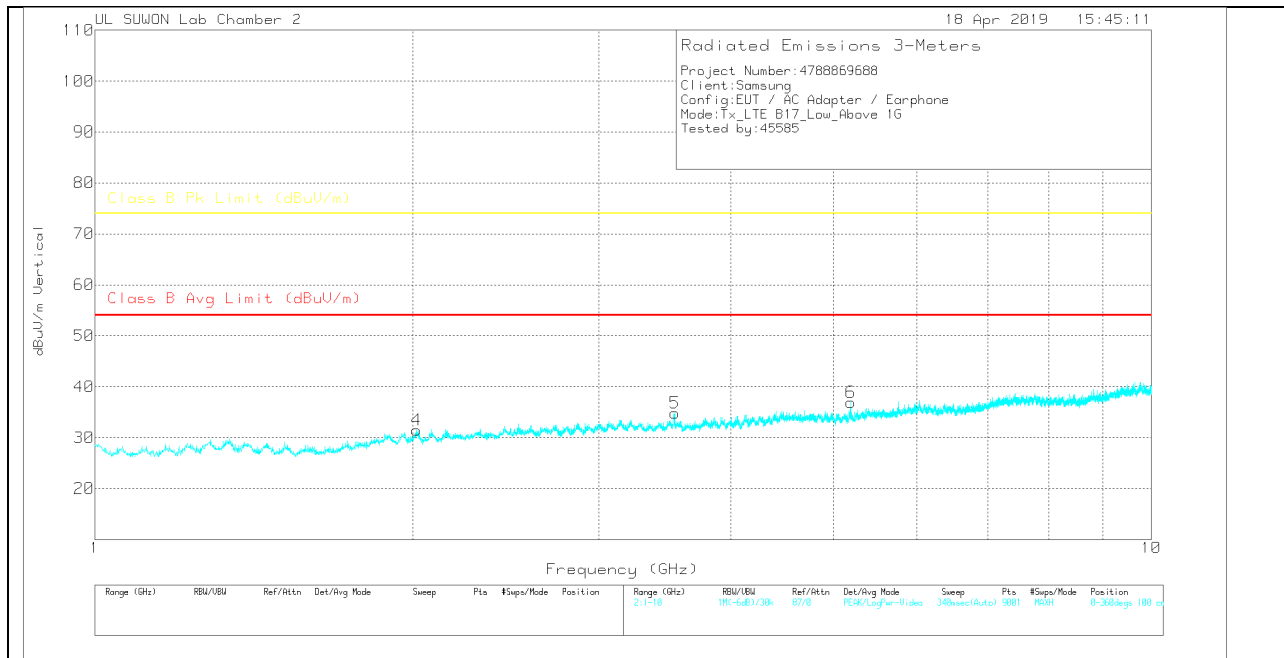
### 5.3. Above 1 GHz in the LTE Band 17

#### LOW CHANNEL(736.5MHz)

#### HORIZONTAL PEAK PLOT



#### VERTICAL PEAK PLOT



**DATA**

Trace Markers

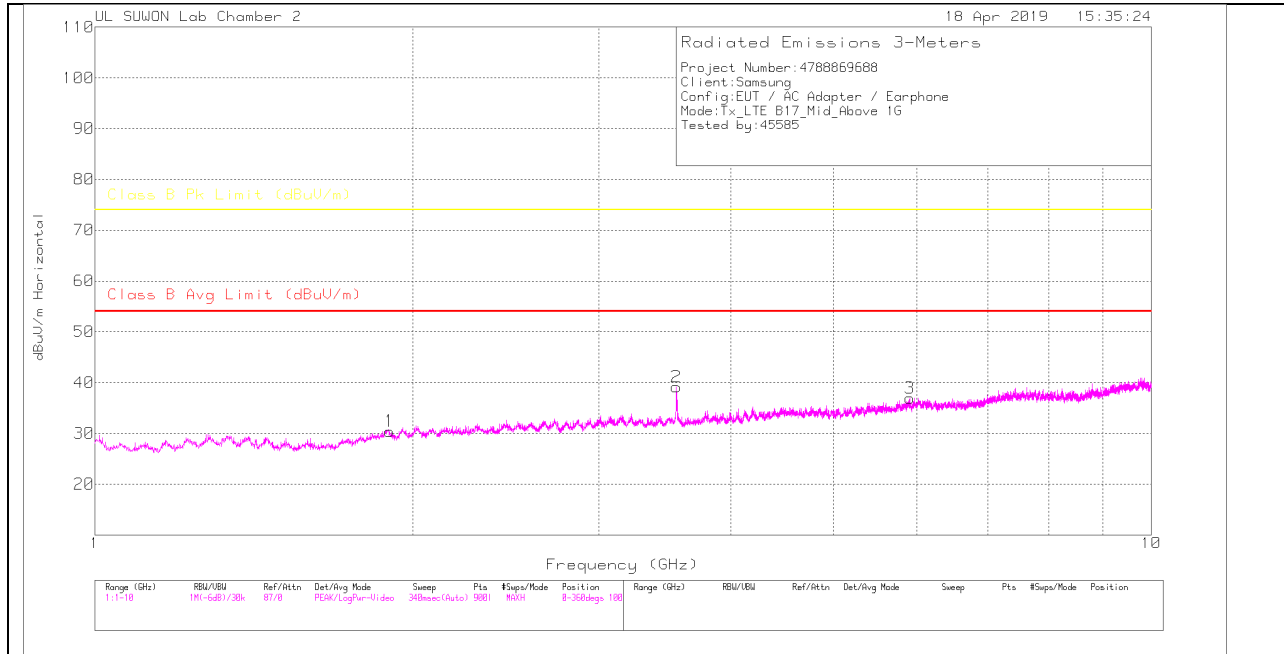
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSFR)Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.018	30.04	PK	31.2	-31	.6	30.84	-	-	74	-43.16	0-360	100	H
2	3.539	29.65	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

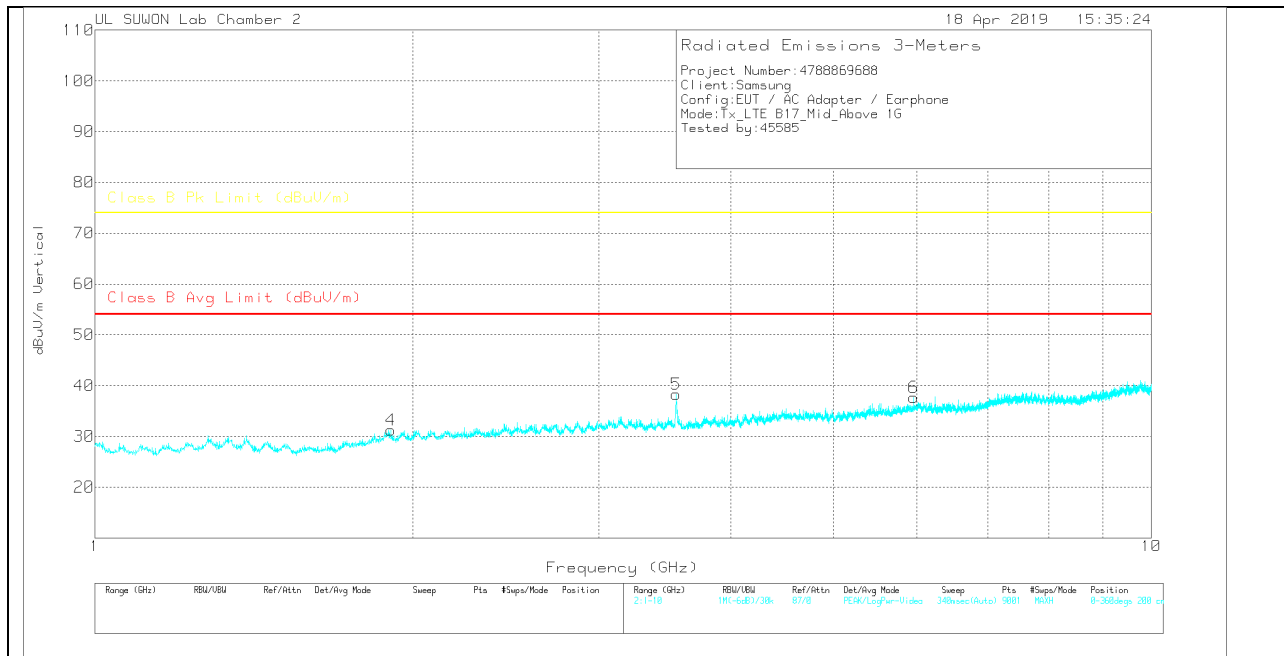
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**MID CHANNEL(740.0MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

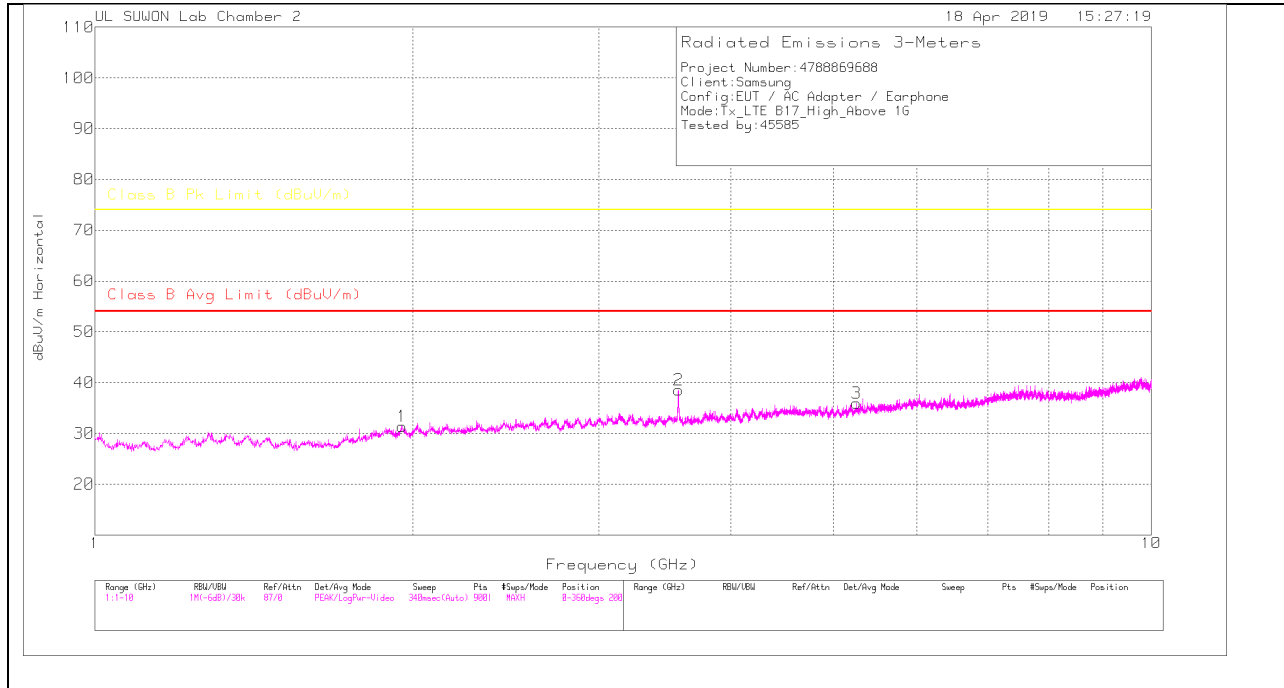
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	1-18GHz(dB)	1GHz_HPF	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Av(CSPP)/Margin (dB)	Class B PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.901	30.04	PK	30.8	-31.1	.7	30.44	-	-	74	-43.56	0-360	200	H
2	3.552	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

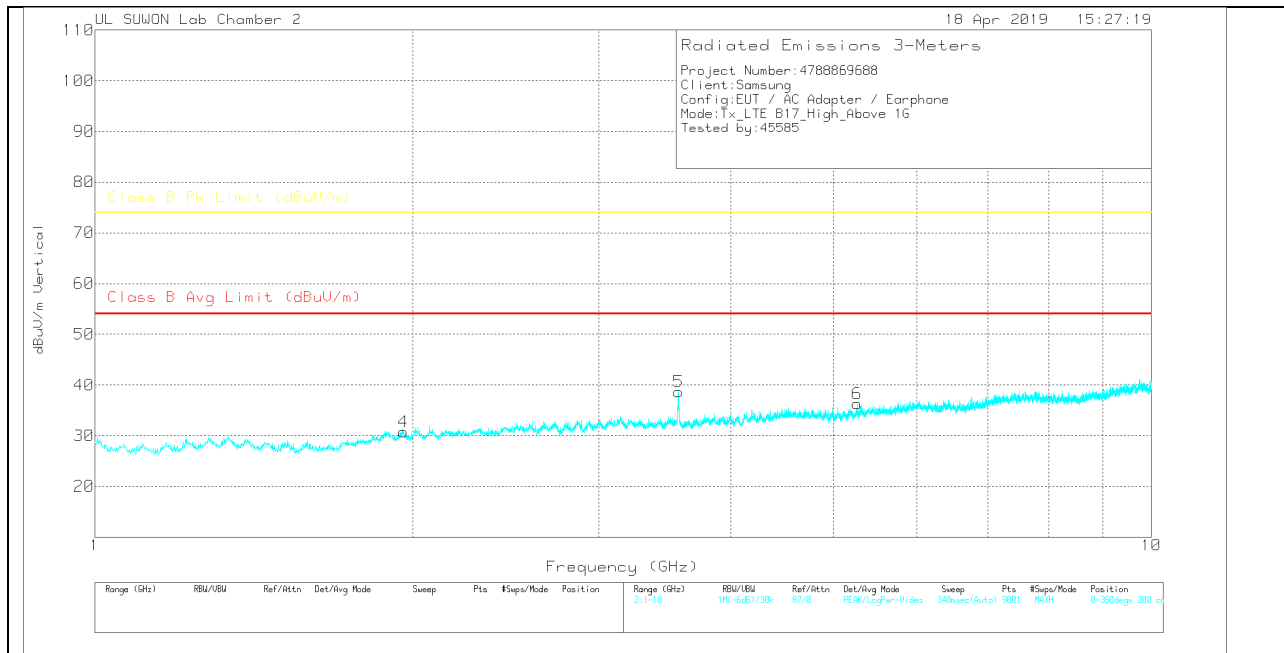
Note: Unwanted emissions on the harmonic frequency and marker pointed were generated from the call-simulator with the TX and RX signals.

**HIGH CHANNEL(743.5MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	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	1.954	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

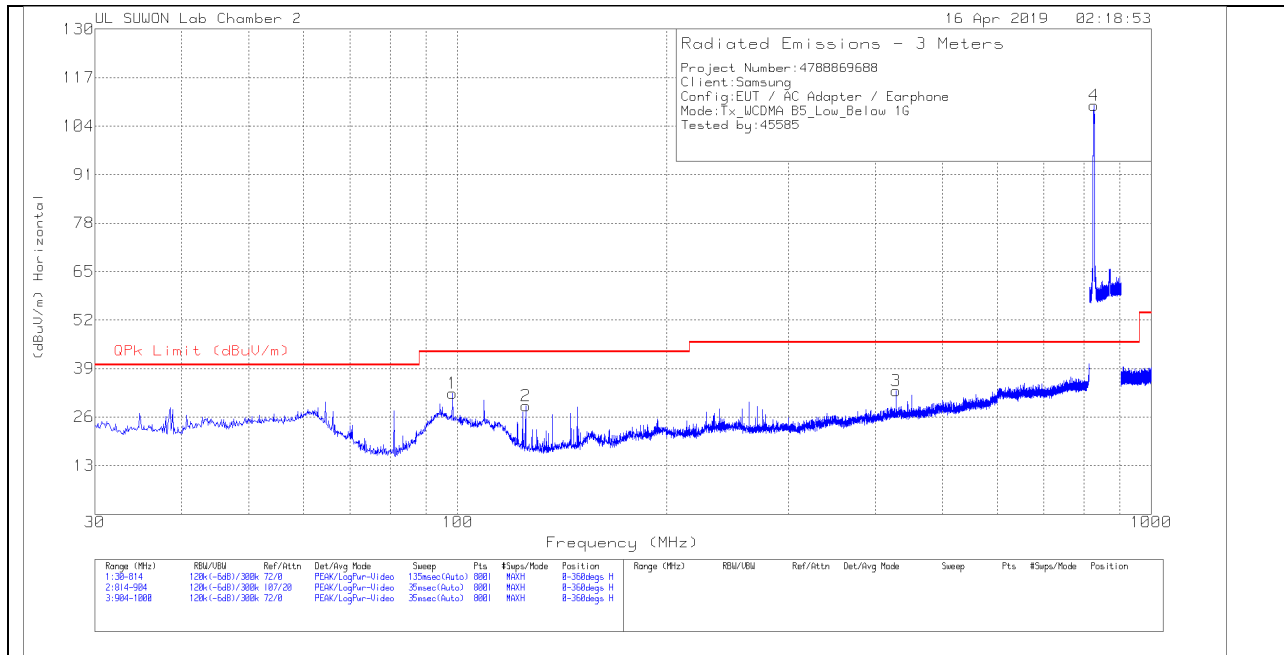
PK – Peak Detector

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

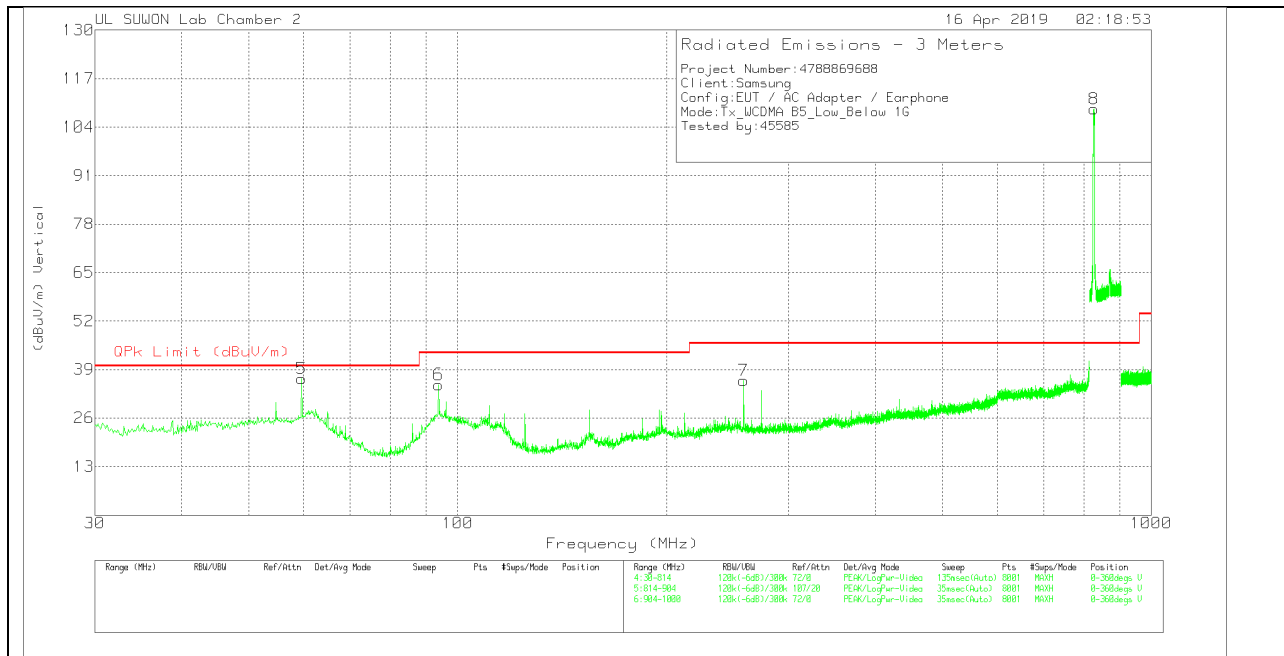
### 5.4. Below 1 GHz in the WCDMA Band 5

#### LOW CHANNEL(871.4MHz)

#### HORIZONTAL PEAK PLOT



#### VERTICAL PEAK PLOT





**DATA**

Trace Markers

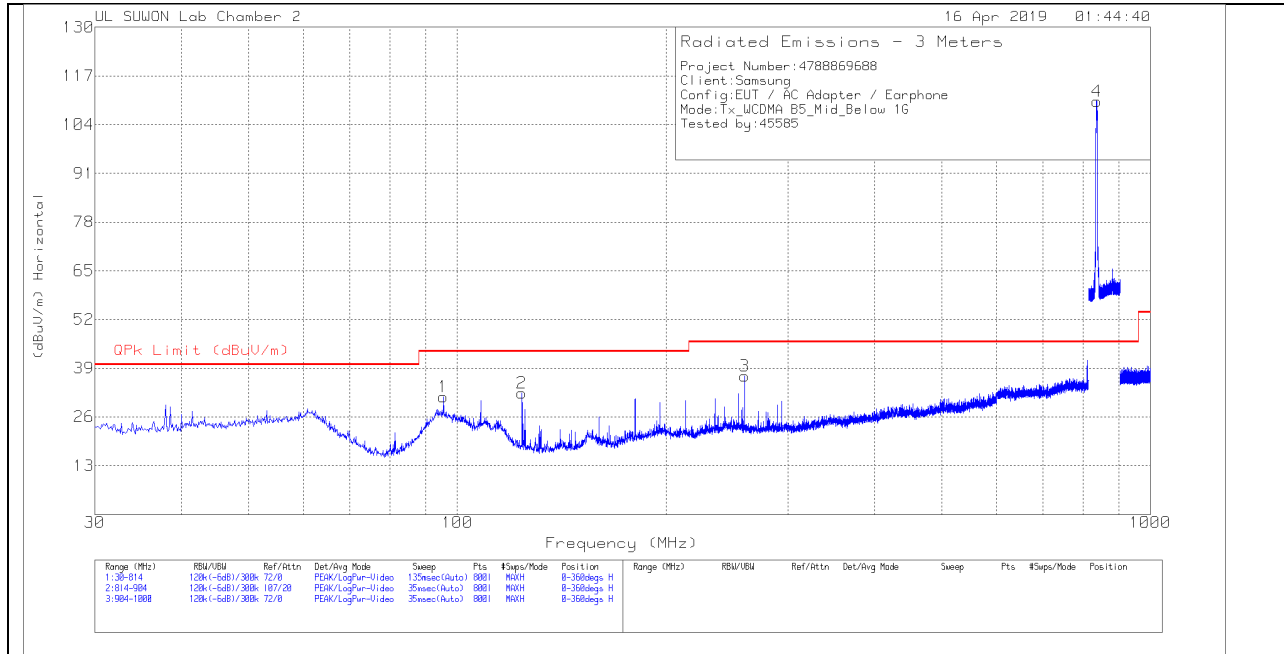
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	98.306	13.82	Pk	17.6	1	32.42	43.52	-11.1	0-360
2	125.354	13.14	Pk	14.6	1.2	28.94	43.52	-14.58	0-360
3	428.272	8.69	Pk	22.1	2.2	32.99	46.02	-13.03	0-360
4	826.9938	79.5	Pk	27	3.1	109.6	<b>46.02</b>	<b>63.58</b>	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	<b>46.02</b>	<b>62.79</b>	0-360

Pk - Peak detector

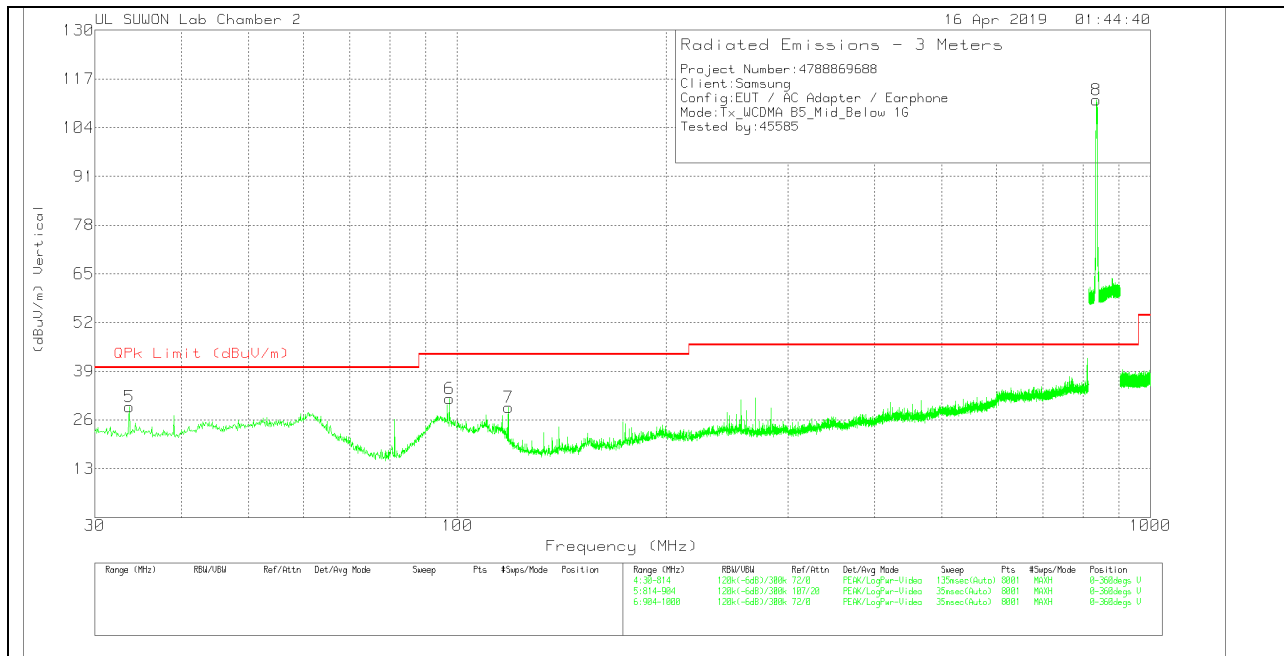
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

**MID CHANNEL(881.6MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

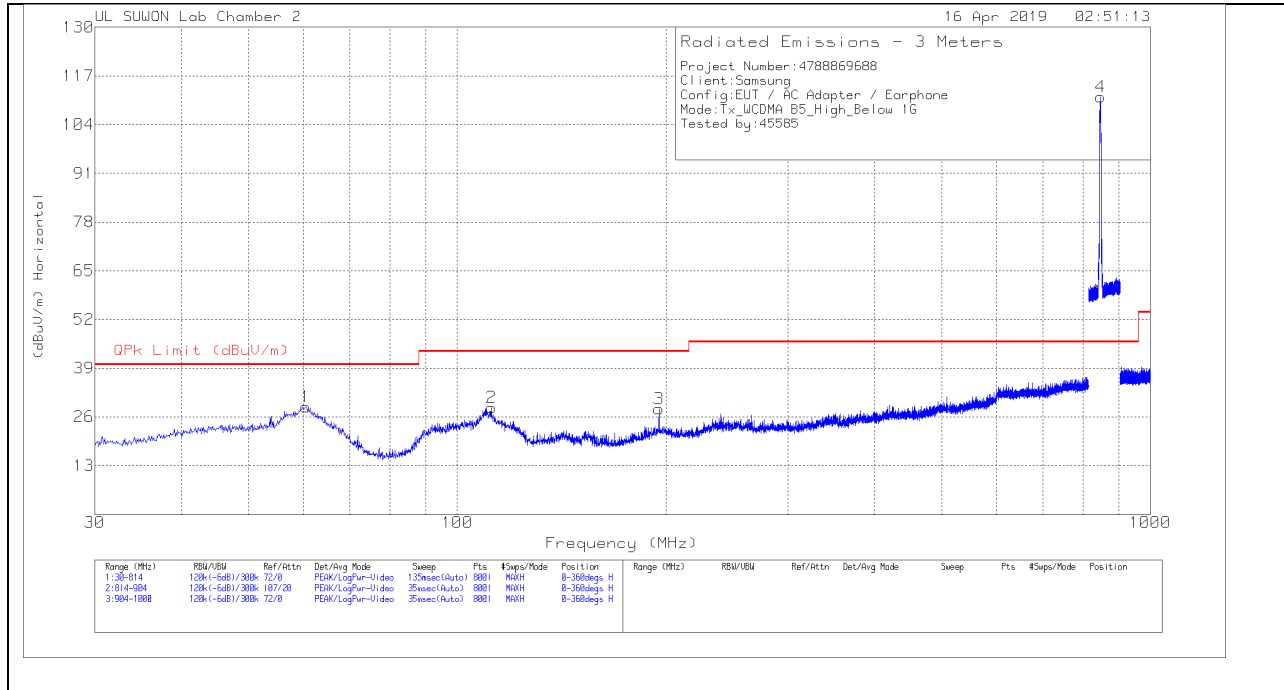
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	95.464	13.02	Pk	17.3	1.1	31.42	43.52	-12.1	0-360
2	123.982	16.39	Pk	14.7	1.2	32.29	43.52	-11.23	0-360
3	259.908	16.23	Pk	18.9	1.7	36.83	46.02	-9.19	0-360
4	836.5	79.94	Pk	27.1	3.1	110.14	<b>46.02</b>	<b>64.12</b>	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	<b>46.02</b>	<b>65.43</b>	0-360

Pk - Peak detector

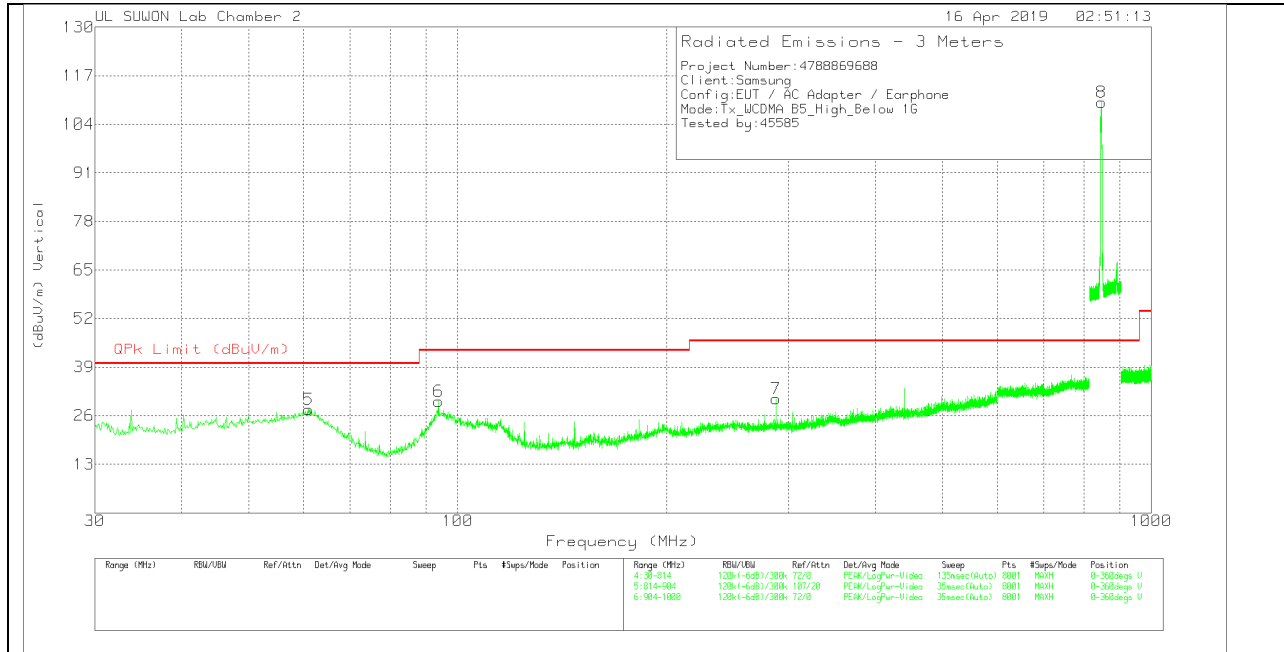
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

**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

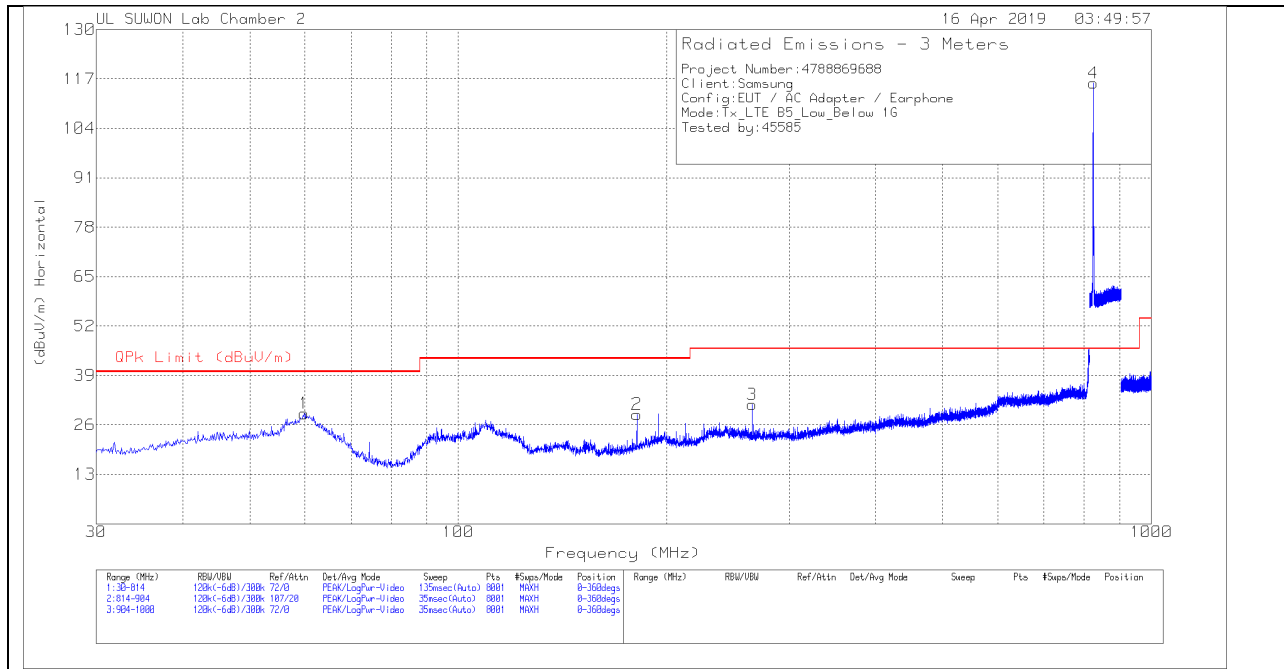
Pk - Peak detector

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

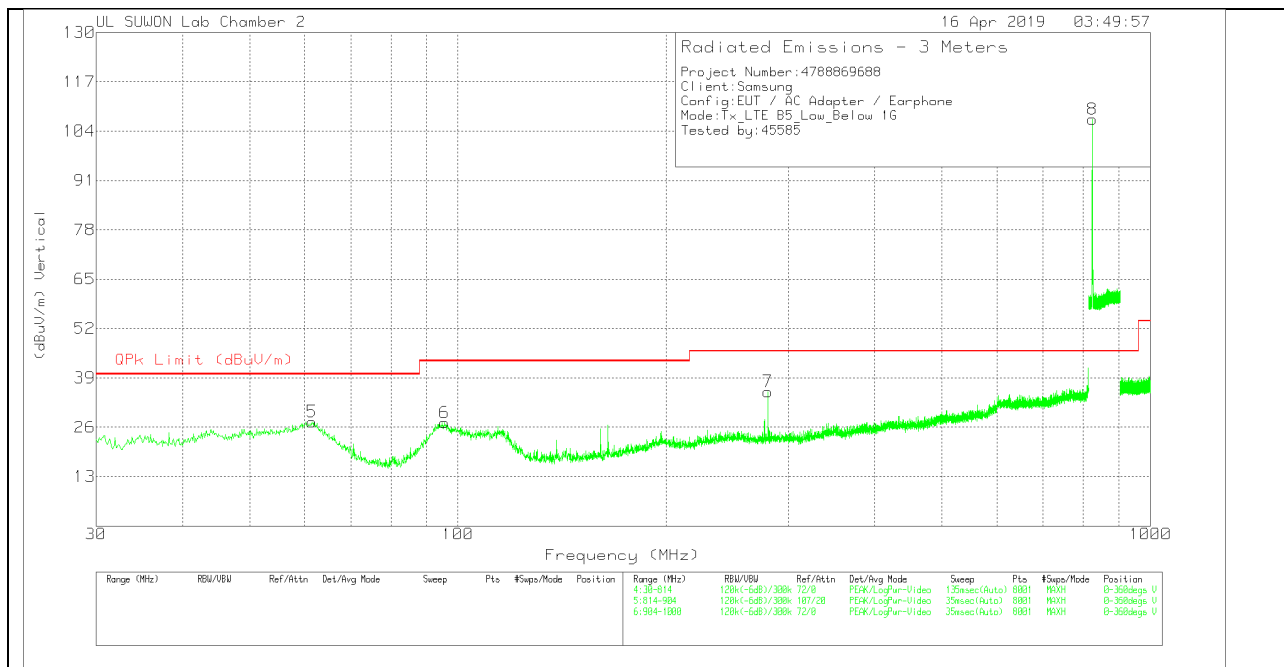
### 5.5. Below 1 GHz in the LTE Band 5

#### LOW CHANNEL(870.5MHz)

#### HORIZONTAL PEAK PLOT



#### VERTICAL PEAK PLOT



**DATA**

Trace Markers

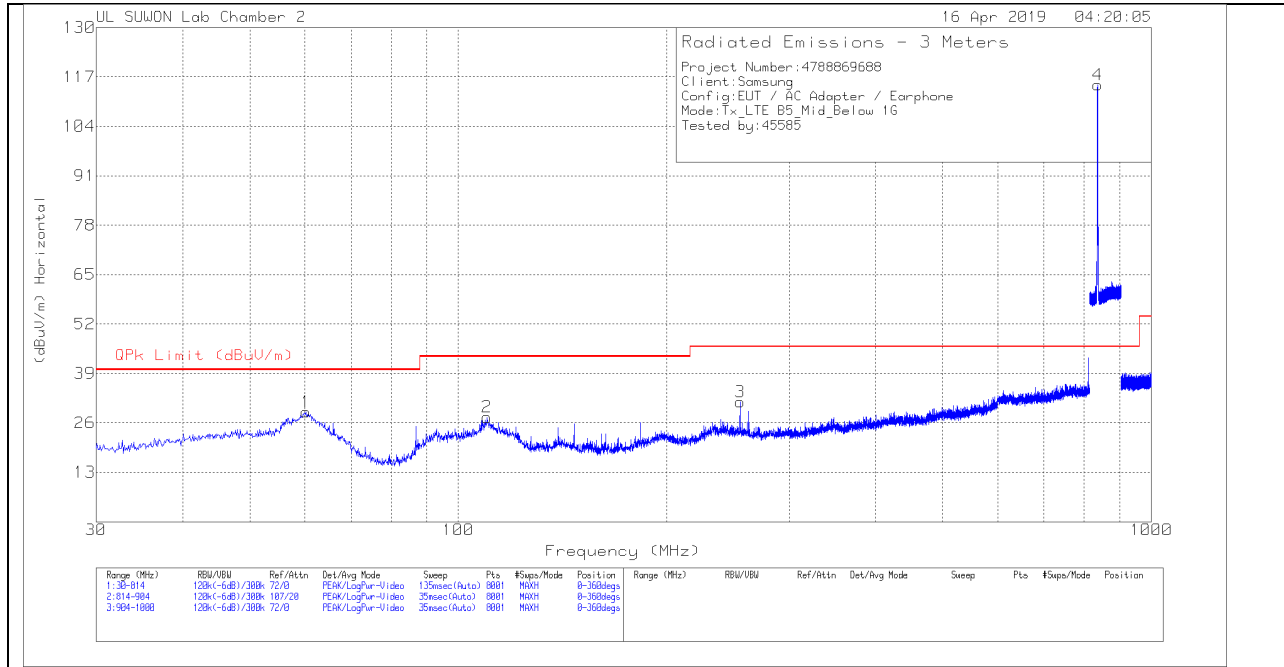
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	59.89	9.69	Pk	18.5	.8	28.99	40	-11.01	0-360	400	H
2	181.018	11.58	Pk	15.8	1.4	28.78	43.52	-14.74	0-360	200	H
3	265.396	10.92	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

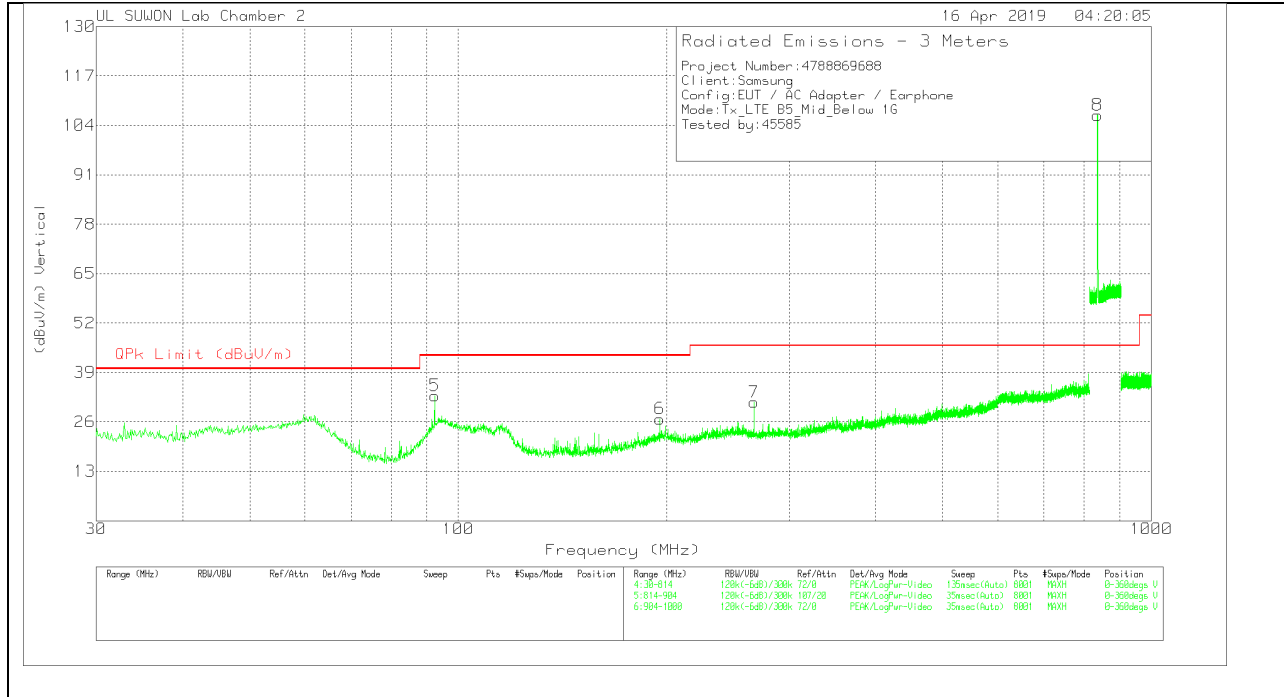
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

**MID CHANNEL(881.5MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**





**DATA**

Trace Markers

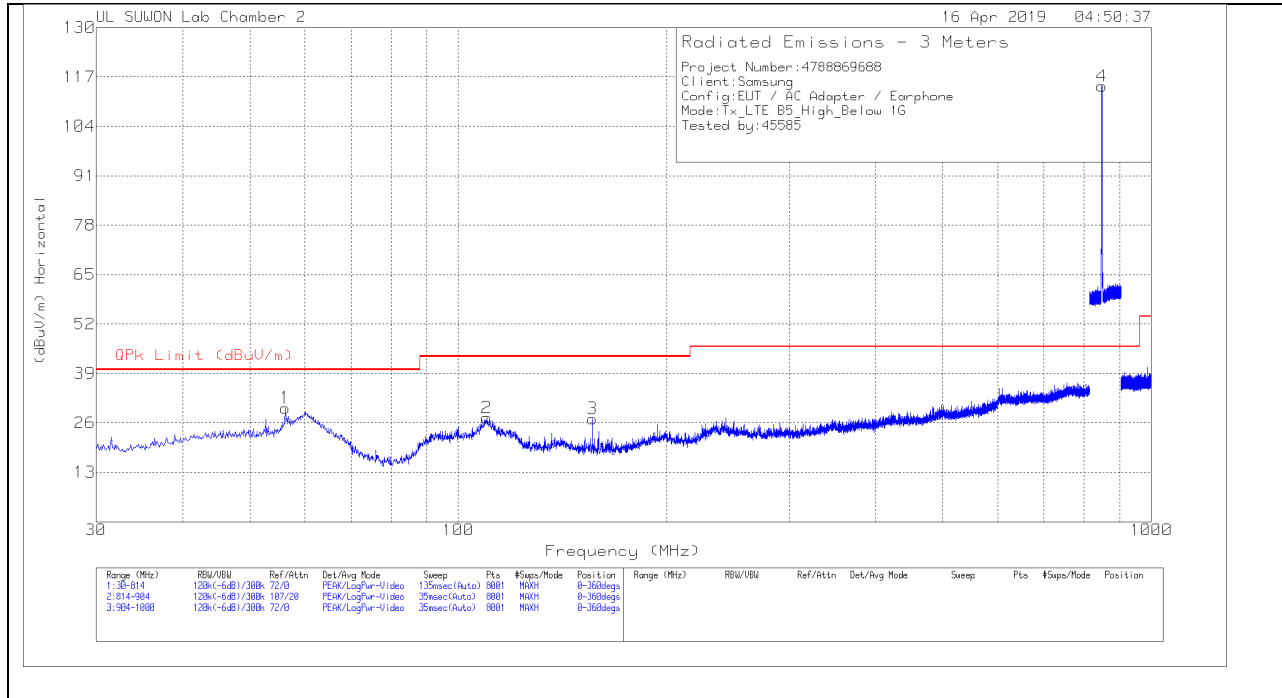
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	60.282	9.58	Pk	18.5	.8	28.88	40	-11.12	0-360	400	H
2	110.066	9.28	Pk	17.1	1.1	27.48	43.52	-16.04	0-360	300	H
3	255.106	10.63	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

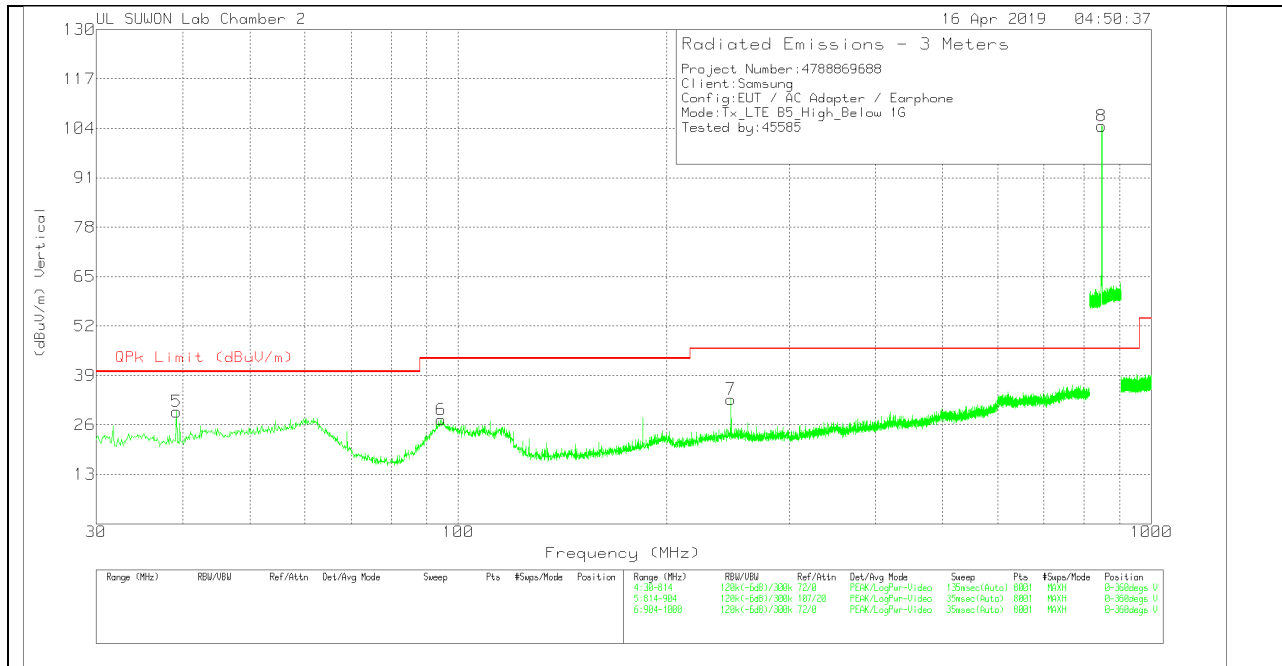
Note: Unwanted emissions captured from 824MHz to 849MHz and from 869MHz to 894MHz were the TX and RX signals generated from the call-simulator.

**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

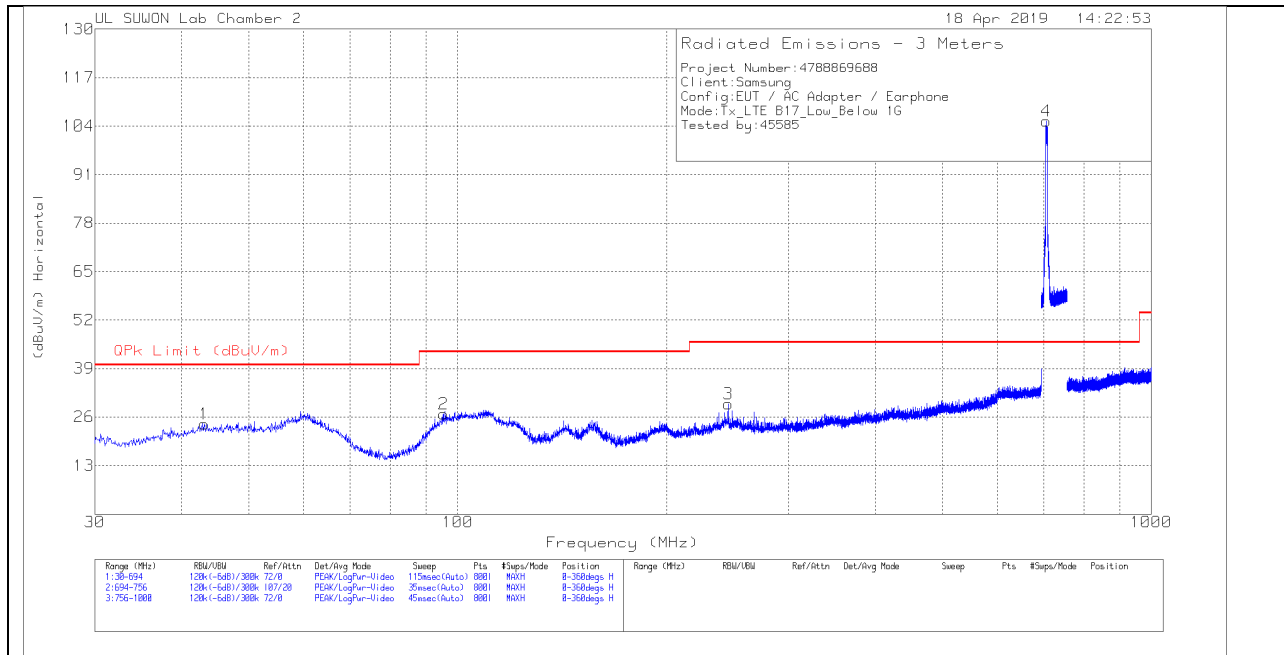
Pk - Peak detector

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

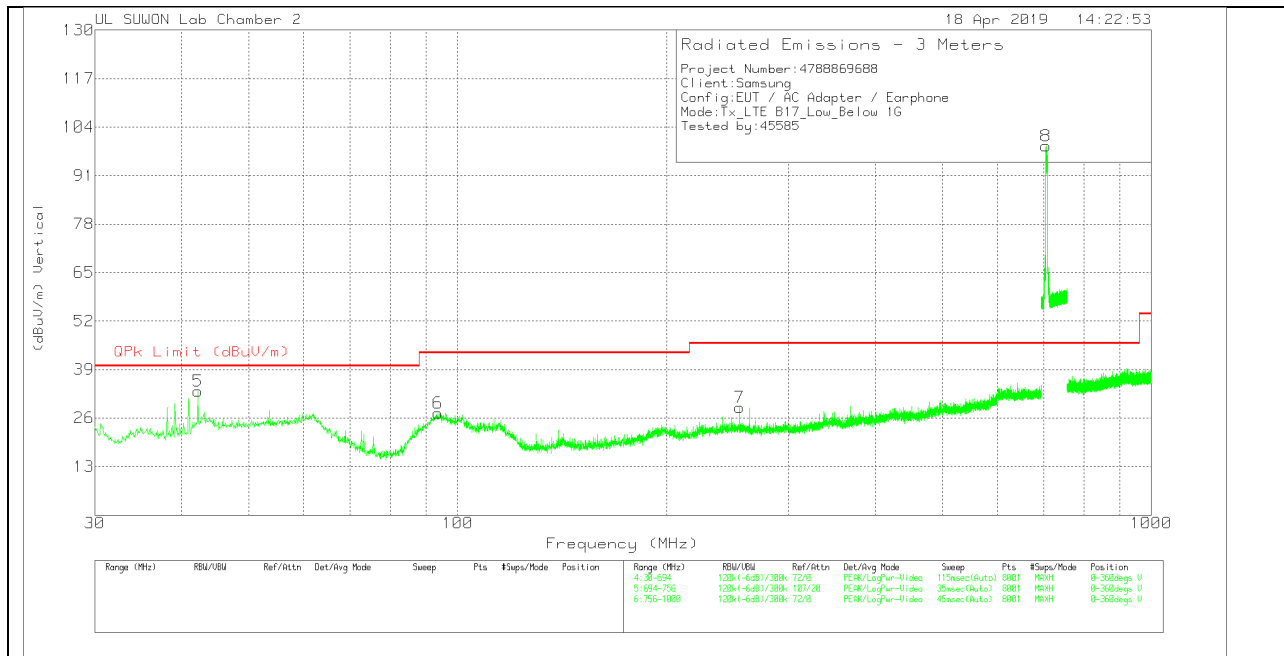
### 5.6. Below 1 GHz in the LTE Band 17

#### LOW CHANNEL(736.5MHz)

#### HORIZONTAL PEAK PLOT



#### VERTICAL PEAK PLOT



**DATA**

Trace Markers

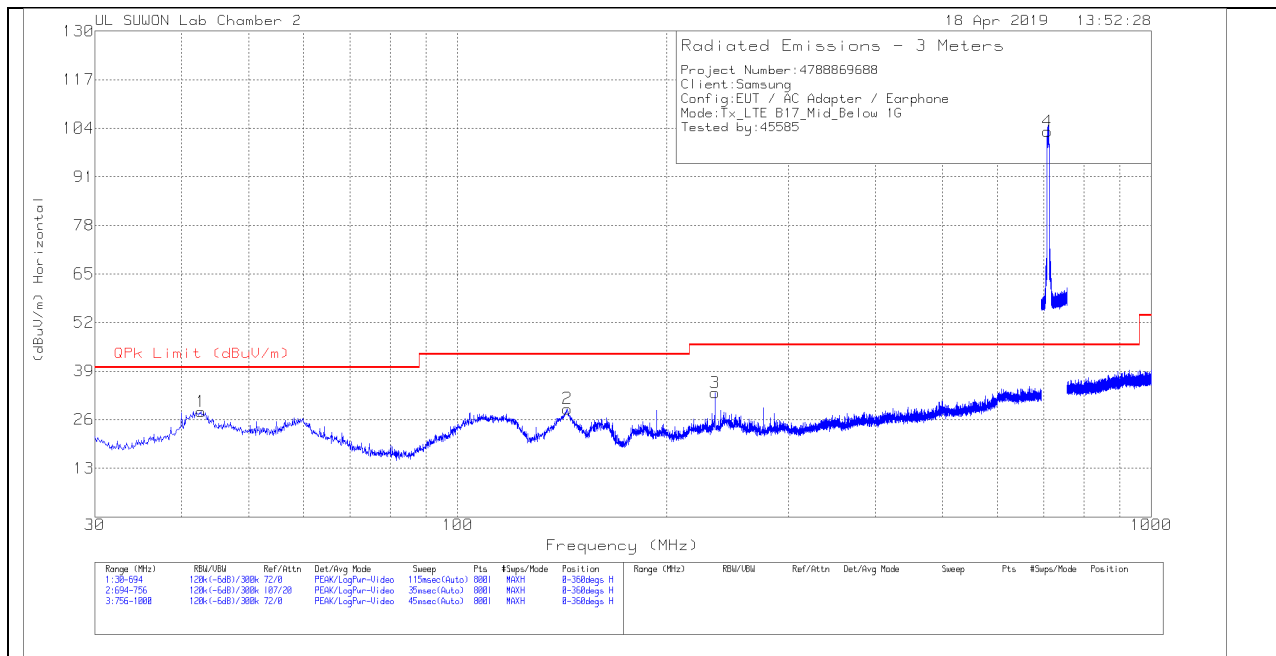
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	43.114	3.9	Pk	19.5	.7	24.1	40	-15.9	0-360	300	H
2	95.487	8.48	Pk	17.3	1.1	26.88	43.52	-16.64	0-360	200	H
3	245.385	9.04	Pk	18.8	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

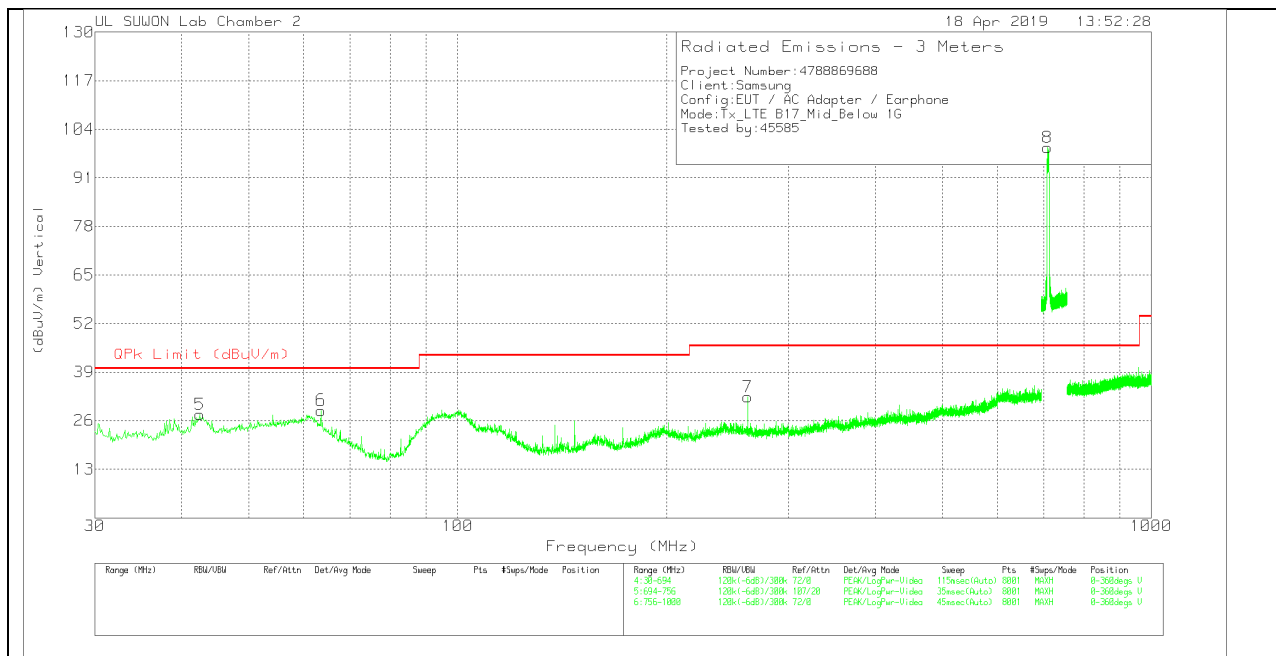
Note: Unwanted emissions captured from 704MHz to 716MHz and from 734MHz to 746MHz were the TX and RX signals generated from the call-simulator.

**MID CHANNEL(740.0MHz)**

**HORIZONTAL PEAK PLOT**



**VERTICAL PEAK PLOT**



**DATA**

Trace Markers

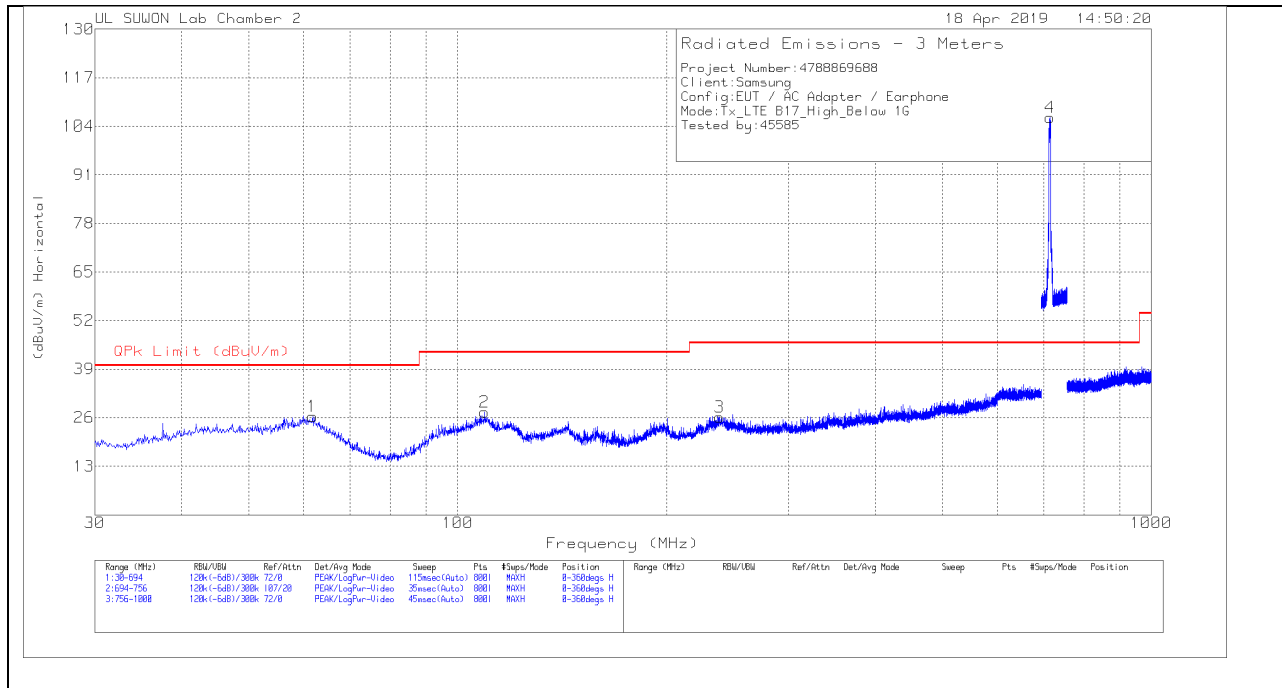
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Bypass_Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	42.699	8.03	Pk	19.4	.7	28.13	40	-11.87	0-360	300	H
2	144.042	13.52	Pk	14.1	1.3	28.92	43.52	-14.6	0-360	200	H
3	235.176	13.38	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

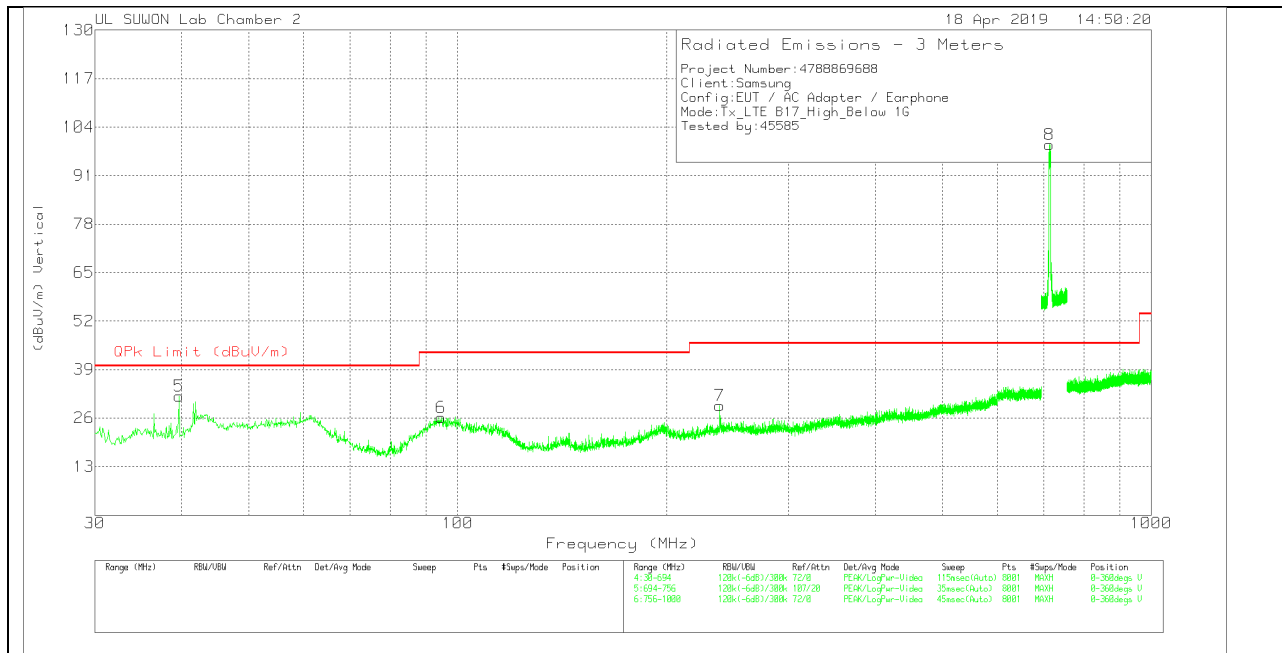
Note: Unwanted emissions captured from 704MHz to 716MHz and from 734MHz to 746MHz were the TX and RX signals generated from the call-simulator.

**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.