

## FCC CFR47 PART 15 SUBPART C

# BLUETOOTH LOW ENERGY C2PC CERTIFICATION TEST REPORT

**FOR** 

GSM/WCDMA/LTE PHABLET + BLUETOOTH, DTS/UNII a/b/g/n and NFC

**MODEL NUMBER: LG-H740, LGH740, H740** 

FCC ID: ZNFH740

**REPORT NUMBER: 15I21442-E3V1** 

**ISSUE DATE: AUGUST 31, 2015** 

Prepared for
LG ELECTRONICS MOBILECOMM U.S.A., INC
1000 SYLVAN AVENUE
ENGLEWOOD CLIFFS,
NEW JERSEY, 07632, U.S.A

Prepared by
UL VERIFICATION SERVICES INC.
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000



## **Revision History**

	Issue		
Rev.	Date	Revisions	Revised By
	8/31/15	Initial Issue	

## **TABLE OF CONTENTS**

1.	ATI	TESTATION OF TEST RESULTS	. 4
2.	TES	ST METHODOLOGY	. 5
3.	FAC	CILITIES AND ACCREDITATION	. 5
4.	CAI	LIBRATION AND UNCERTAINTY	. 5
	4.1.	MEASURING INSTRUMENT CALIBRATION	. 5
	4.2.	SAMPLE CALCULATION	. 5
	4.3.	MEASUREMENT UNCERTAINTY	. 6
5.	EQI	UIPMENT UNDER TEST	. 7
,	5.1.	DESCRIPTION OF EUT	. 7
,	5.2.	MAXIMUM OUTPUT POWER	. 7
,	5.3.	DESCRIPTION OF AVAILABLE ANTENNAS	. 7
,	5.4.	WORST-CASE CONFIGURATION AND MODE	. 8
,	5.5.	DESCRIPTION OF TEST SETUP	. 9
6.	TES	ST AND MEASUREMENT EQUIPMENT	11
7.	SU	MMARY TABLE	12
8.	ON	TIME, DUTY CYCLE AND MEASUREMENT METHODS	13
	8.1.	ON TIME AND DUTY CYCLE RESULTS	14
9.	RAI	DIATED TEST RESULT	15
	9.1.	LIMITS AND PROCEDURE	15
	9.2.	TRANSMITTER ABOVE 1 GHz	16
	9.3.	WORST-CASE BELOW 1 GHz	29
40	•	ETUD BHOTOS	24

## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** LG ELECTRONICS MOBILECOMM U.S.A., INC.

**EUT DESCRIPTION:** GSM/WCDMA/LTE PHABLET + BLUETOOTH, DTS/UNII a/b/g/n and NFC

MODEL: LG-H740, LGH740, H740
SERIAL NUMBER: 506CYBD000413 (RADIATED)

**DATE TESTED:** AUGUST 8-9, 2015

#### **APPLICABLE STANDARDS**

STANDARD TEST RESULTS

CFR 47 Part 15 Subpart C Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For

UL Verification Services Inc. By:

DAN CORONIA

CONSUMER TECHNOLOGY DIVISION

WISE PROJECT LEAD

**UL VERIFICATION SERVICES INC** 

Tested By:

JEFFREY WU

CONSUMER TECHNOLOGY DIVISION

WISE LAB ENGINEER

**UL VERIFICATION SERVICES INC** 

Page 4 of 32

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009 for FCC and ANSI C63.10-2013 for IC, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-247 Issue 1.

#### ANSI C63.10-2009 Deviation

Radiated spurious emission above 1GHz was performed with the EUT elevated at 1.5m instead of 0.8m. 1.5m is the required height in ANSI C63.10:2013 as referenced by RSS GEN issue 4.

#### 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
Chamber A(IC: 2324B-1)	Chamber D(IC: 2324B-4)
Chamber B(IC: 2324B-2)	Chamber E(IC: 2324B-5)
Chamber C(IC: 2324B-3)	Chamber F(IC: 2324B-6)
	Chamber G(IC: 2324B-7)
	Chamber H(IC: 2324B-8)

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/2000650.htm.

### 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

#### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)  $= 26.9 \, dB = 28.9 \, dBuV/m$ 

Page 5 of 32

# 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 18000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

## 5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE PHABLET + BLUETOOTH, DTS/UNII a/b/g/n and NFC

# 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

See original report for details.

## 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -2.0 dBi.

## 5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y, Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

## 5.5. DESCRIPTION OF TEST SETUP

## **SUPPORT EQUIPMENT**

Support Equipment List											
Description Manufacturer Model Serial Number FCC ID											
AC Adapter	LG	MCS-N04WS	SA560000030	N/A							
Earphone LG N/A N/A N/A											

#### **I/O CABLES**

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

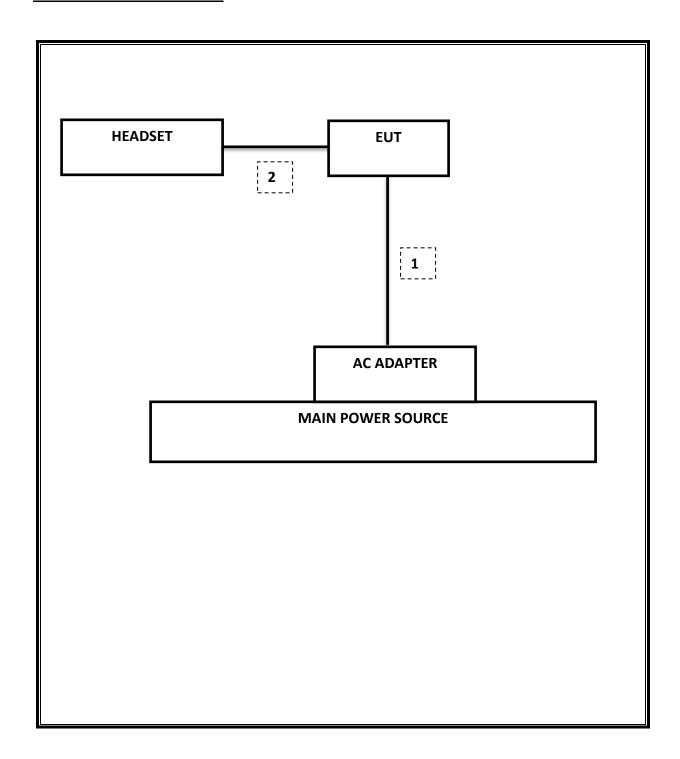
## **TEST SETUP**

The EUT is continuously communicating to the Bluetooth tester during the tests.

EUT was set in the Hidden menu mode to enable BLE communications.

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

## **SETUP DIAGRAM FOR TESTS**



47173 BENICIA STREET, FREMONT, CA 94538, USA

# **6. 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	Asset	Cal Due							
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/16							
Antenna, Horn, 18GHz	EMCO	3115	T119	01/15/16							
Antenna, Horn, 18GHz	EMCO	3115	T136	03/03/16							
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/15							
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/16							
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16							
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	T404	06/29/16							
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15							
CBT Bluetooth Tester	R & S	CBT	T258	06/30/16							
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15							
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15							
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/16							
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR							
Radiated Software	UL	UL EMC	Ver 9.5, Jul	y 22, 2014							
Conducted Software	UL	UL EMC	Ver 9.5, Ma	ay 17 2012							
CLT Software	UL	UL RF	Ver 1.0, Feb 2 2015								
Antenna Port Software	UL	UL RF	Ver 2.1.1.1, Jan 20 2015								

# 7. SUMMARY TABLE

C2PC reason: Please see LG-H740 change note for details.

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-247 5.2.1	Occupied Band width (6dB)	>500KHz		Pass	See Original
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc	Conducted	Pass	See Original
15.247	RSS-247 5.4.4	TX conducted output power	<30dBm	Conducted	Pass	See Original
15.247	RSS-247 5.2.2	PSD	<8dBm		Pass	See Original
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	See Original
15.205, 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m	Naulateu	Pass	43.29 dBuV/m

# 8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

## **LIMITS**

None; for reporting purposes only.

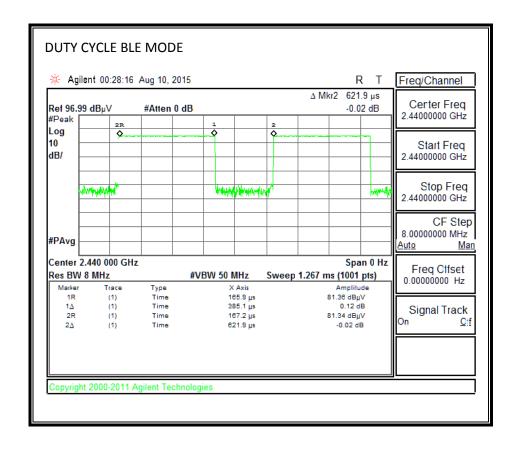
## **PROCEDURE**

KDB 558074 Zero-Span Spectrum Analyzer Method.

## 8.1. ON TIME AND DUTY CYCLE RESULTS

Mode	<b>ON Time</b>	Period	<b>Duty Cycle</b>	Duty	Duty Cycle	1/B
	В х				<b>Correction Factor</b>	Minimum VBW
		, ,	/I: \	(0/)	(.15)	(1)
	(msec)	(msec)	(linear)	(%)	(dB)	(kHz)

## 8.2. DUTY CYCLE PLOT



## 9. RADIATED TEST RESULT

## 9.1. LIMITS AND PROCEDURE

#### **LIMITS**

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

#### **TEST PROCEDURE**

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor =  $10 \log (1/x)$ . For this sample: DCF =  $10 \log (1/0.619)$ =2.08 dB (Spectrum Analyzer round it up to 2.1 dB)

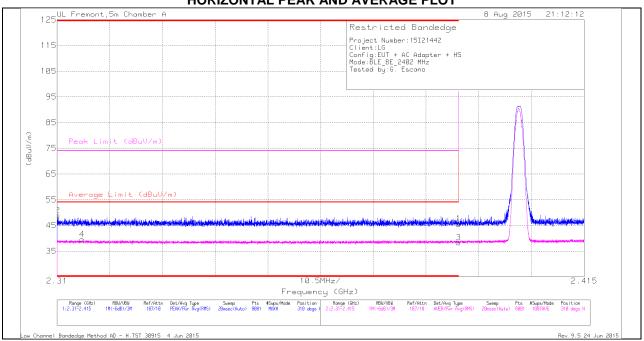
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

# 9.2. TRANSMITTER ABOVE 1 GHz RESTRICTED BANDEDGE (LOW CHANNEL)

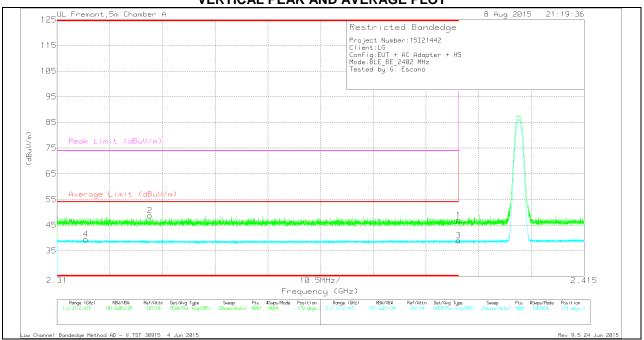
#### HORIZONTAL PEAK AND AVERAGE PLOT



#### **HORIZONTAL DATA**

	Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	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	* 2.39	38.23	Pk	32	-24.6	0	45.63	ì	-	74	-28.37	310	101	Н
	2	* 2.31	41.63	Pk	31.9	-24.7	0	48.83	-	-	74	-25.17	310	101	Н
ı	3	* 2.39	28.91	RMS	32	-24.6	2.08	38.39	54	-15.61	-	-	310	101	Н
	4	* 2.315	30.31	RMS	31.9	-24.7	2.08	39.59	54	-14.41	-	-	310	101	Н

## **VERTICAL PEAK AND AVERAGE PLOT**

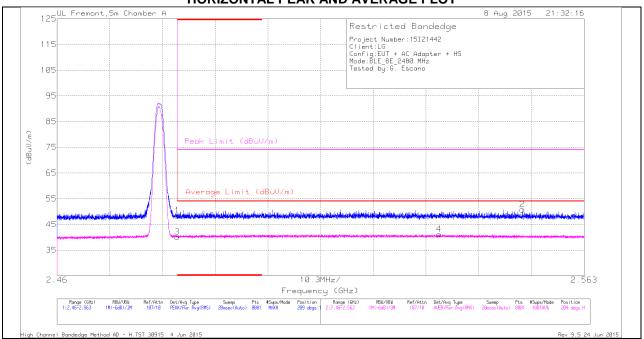


#### **VERTICAL DATA**

Marker	Frequency (GHz)	Meter Reading	Det	AF T136 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading	Average Limit	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
		(dBuV)					(dBuV/m)	(dBuV/m)						
1	* 2.39	39.47	Pk	32	-24.6	0	46.87	-	-	74	-27.13	179	373	V
2	* 2.329	41.5	Pk	31.9	-24.7	0	48.7	-	-	74	-25.3	179	373	V
3	* 2.39	29.53	RMS	32	-24.6	2.08	39.01	54	-14.99	-	-	179	373	V
4	* 2.316	30.16	RMS	31.9	-24.7	2.08	39.44	54	-14.56	-	-	179	373	V

# **AUTHORIZED BANDEDGE (HIGH CHANNEL)**

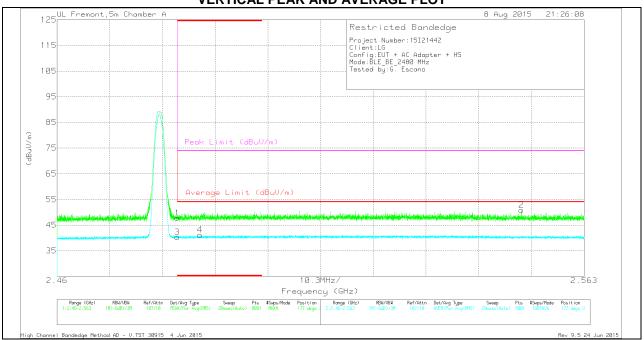
#### HORIZONTAL PEAK AND AVERAGE PLOT



#### **HORIZONTAL DATA**

	Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
		(GHz)	Reading		(dB/m)	r/Pad (dB)		Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
_ L			(dBuV)					(dBuV/m)	(dBuV/m)						
	1	* 2.484	40.85	Pk	32.1	-24.5	0	48.45	-	-	74	-25.55	209	100	Н
	3	* 2.484	30.48	RMS	32.1	-24.5	2.08	40.16	54	-13.84	į	-	209	100	Н
	4	2.535	31.47	RMS	32.1	-24.4	2.08	41.25	54	-12.75	-	-	209	100	Н
	2	2.551	42.97	Pk	32.2	-24.4	0	50.77	-	-	74	-23.23	209	100	Н

## **VERTICAL PEAK AND AVERAGE PLOT**

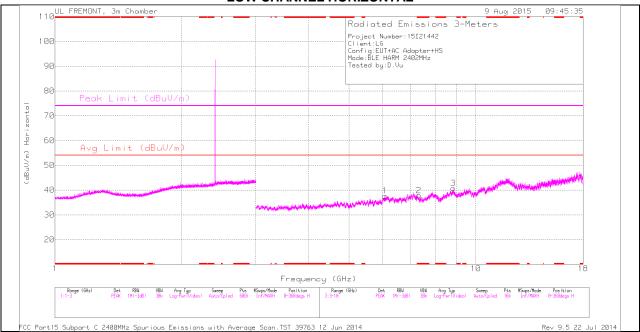


#### **VERTICAL DATA**

Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	r/Pad (dB)		Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)	(dBuV/m)						
1	* 2.484	40.16	Pk	32.1	-24.5	0	47.76	-	-	74	-26.24	177	356	V
3	* 2.484	30.64	RMS	32.1	-24.5	2.08	40.32	54	-13.68	-	-	177	356	V
4	* 2.488	31.56	RMS	32.1	-24.5	2.08	41.24	54	-12.76	-	-	177	356	V
2	2.551	43.04	Pk	32.2	-24.4	0	50.84	-	-	74	-23.16	177	356	V

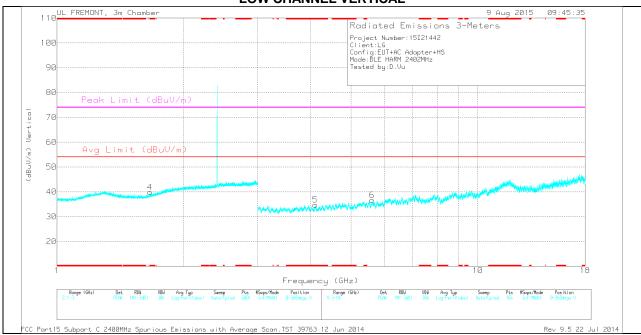
#### **HARMONICS AND SPURIOUS EMISSIONS**

#### LOW CHANNEL HORIZONTAL



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 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

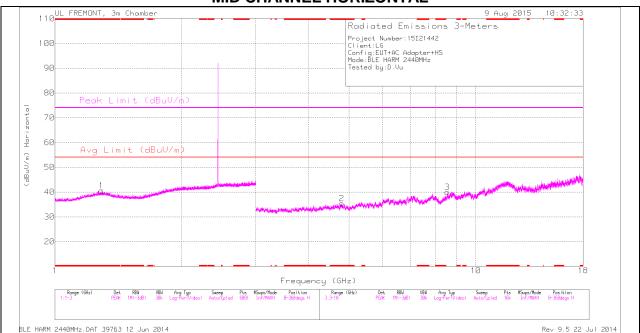
Marker	Frequency (GHz)	Meter Reading	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	(GHZ)	(dBuV)		(ub/iii)	/Pau (ub)		(dBuV/m)	(ubuv/iii)	(ub)	(ubuv/iii)	(ub)	(Degs)	(CIII)	
4	* 1.662	33.89	PK	28.6	-22.7	0	39.79	-	-	74	-34.21	0-360	200	V
2	* 7.328	29.54	PK	35.6	-27.3	0	37.84	-	-	74	-36.16	0-360	200	Н
5	* 4.11	31.84	PK	33.3	-30.4	0	34.74	-	-	74	-39.26	0-360	200	V
6	5.611	30.47	PK	34.6	-28.4	0	36.67	-	-	-	-	0-360	100	V
1	6.08	30.74	PK	35.2	-28.2	0	37.74	-	-	-	-	0-360	200	Н
3	8.847	29.77	PK	35.9	-24.9	0	40.77	-	-	-	-	0-360	100	Н

PK - Peak detector

#### RADIATED EMISSIONS

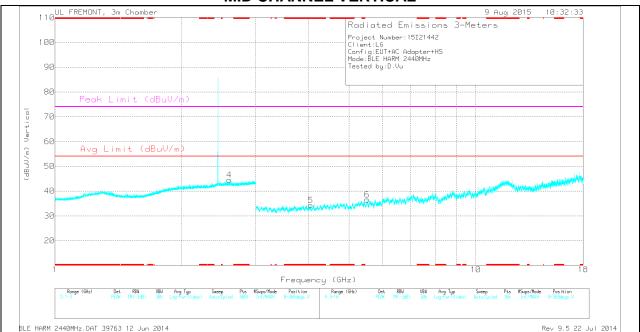
Frequency	Meter	Det	AF T119	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
(GHz)	Reading		(dB/m)	Fltr/Pad	(dB)	Reading	(dBuV/m)	(dB)	Limit	(dB)	(Degs)	(cm)	
	(dBuV)			(dB)		(dBuV/m)			(dBuV/m)				
* 1.662	42.43	PK2	28.6	-22.7	0	48.33	-	-	74	-25.67	0	200	V
* 1.664	30.98	MAv1	28.6	-22.7	2.08	38.96	54	-15.04	-	-	0	200	V
* 7.328	38.11	PK2	35.6	-27.3	0	46.41	-	-	74	-27.59	0	200	Н
* 7.33	27	MAv1	35.6	-27.3	2.08	37.38	54	-16.62	-	-	0	200	Н
* 4.108	41.46	PK2	33.3	-30.5	0	44.26	-	-	74	-29.74	0	200	V
* 4.112	29.64	MAv1	33.3	-30.4	2.08	34.62	54	-19.38	-	-	0	200	V
5.609	28.57	MAv1	34.6	-28.4	2.08	37.0	-	-	-	-	0	100	V
5.611	39.78	PK2	34.6	-28.4	0	45.98	-	-	-	-	0	100	V
6.079	39.09	PK2	35.2	-28.2	0	46.09	-	-	-	-	0	200	Н
6.079	27.56	MAv1	35.2	-28.2	2.08	36.79	-	-	-	-	0	200	Н
8.847	38.3	PK2	35.9	-24.9	0	49.3	-	-	-	-	0	100	Н
8.848	26.19	MAv1	35.9	-24.9	2.08	39.42	-	-	-	-	0	100	Н

## MID CHANNEL HORIZONTAL



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 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

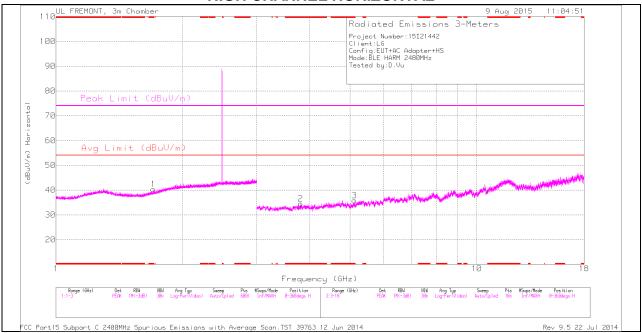
Marker	Frequency	Meter	Det	AF T119	Amp/Cbl/Fltr	DC Corr (dB)	Corrected	Avg Limit	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	/Pad (dB)		Reading	(dBuV/m)	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)							
1	* 1.289	33.89	PK	29.8	-23.1	0	40.59	-	-	74	-33.41	0-360	100	Н
2	* 4.803	30.78	PK	34	-29.4	0	35.38	-	-	74	-38.62	0-360	100	Н
5	* 4.055	31.39	PK	33.3	-30.4	0	34.29	-	-	74	-39.71	0-360	200	V
4	2.597	34.11	PK	32.4	-22	0	44.51	-	-	-	-	0-360	100	V
6	5.518	31.65	PK	34.6	-29.7	0	36.55	-	-	-	-	0-360	100	V
3	8.566	30.21	PK	35.8	-26.1	0	39.91	-	-	-	-	0-360	100	Н

PK - Peak detector

#### RADIATED EMISSIONS

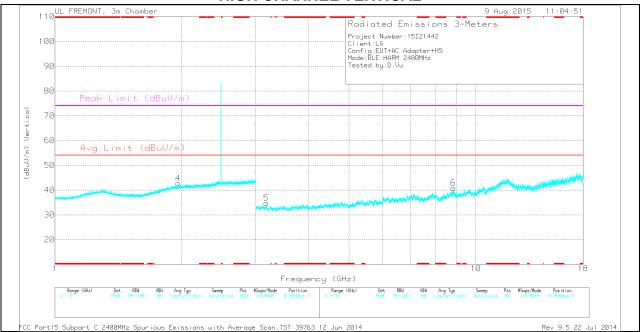
Frequenc	Meter	Det	AF T119	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
У	Reading		(dB/m)	Fltr/Pad	(dB)	Reading	(dBuV/m)	(dB)	Limit	(dB)	(Degs)	(cm)	
(GHz)	(dBuV)			(dB)		(dBuV/m)			(dBuV/m)				
* 1.287	42.8	PK2	29.8	-23.1	0	49.5	-	-	74	-24.5	0	100	Н
* 1.288	31.2	MAv1	29.8	-23.1	2.08	39.98	54	-14.02	-	-	0	100	Н
* 4.053	41.7	PK2	33.3	-30.5	0	44.5	-	-	74	-29.5	0	200	V
* 4.053	29.46	MAv1	33.3	-30.5	2.08	34.34	54	-19.66	-	-	0	200	V
2.596	42.48	PK2	32.4	-22	0	52.88	-	-	-	-	0	100	V
2.596	30.91	MAv1	32.4	-22.1	2.08	43.29	54	-10.71	-	-	0	100	V
5.518	28.98	MAv1	34.6	-29.7	2.08	35.96	54	-18.04	-	-	0	100	V
5.519	40.79	PK2	34.6	-29.7	0	45.69	-	-	-	-	0	100	V
5.528	28.8	MAv1	34.6	-29.4	2.08	36.08	54	-17.92	-	-	0	200	Н
5.529	40.57	PK2	34.6	-29.3	0	45.87	-	-	-	-	0	200	Н
8.566	38.49	PK2	35.8	-26.1	0	48.19	-	-	-	-	0	100	Н
8.567	26.68	MAv1	35.8	-26.1	2.08	38.46	54	-15.54	-	-	0	100	Н

## **HIGH CHANNEL HORIZONTAL**



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 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	Meter	Det	AF T119	Amp/Cbl/Fltr	DC Corr (dB)	Corrected	Avg Limit	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	/Pad (dB)		Reading	(dBuV/m)	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)							
1	* 1.703	34.18	PK	29	-22.8	0	40.38	-	-	74	-33.62	0-360	200	Н
2	* 3.817	31.86	PK	33.1	-30.5	0	34.46	-		74	-39.54	0-360	200	Н
3	* 5.124	31.22	PK	34.2	-29.6	0	35.82	-	-	74	-38.18	0-360	200	Н
4	1.961	34.02	PK	31.3	-22.6	0	42.72	-	-	-	-	0-360	100	V
5	3.181	32.44	PK	32.6	-30.3	0	34.74	-	-	-	-	0-360	100	V
6	8.851	29.9	PK	35.9	-25	0	40.8	-	-	-	-	0-360	100	V

PK - Peak detector

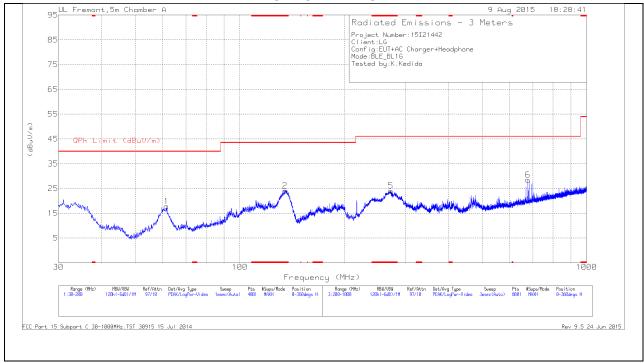
#### RADIATED EMISSIONS

Frequenc	Meter	Det	AF T119	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
У	Reading		(dB/m)	Fltr/Pad	(dB)	Reading	(dBuV/m)	(dB)	Limit	(dB)	(Degs)	(cm)	
(GHz)	(dBuV)			(dB)		(dBuV/m)			(dBuV/m)				
* 1.703	42.74	PK2	29	-22.7	0	49.04	-	-	74	-24.96	0	200	Н
* 1.702	30.93	MAv1	29	-22.8	2.08	39.21	54	-14.79	-	-	0	200	Н
* 3.815	40.7	PK2	33.1	-30.5	0	43.3	-	-	74	-30.7	0	200	Н
* 3.817	29.12	MAv1	33.1	-30.5	2.08	33.8	54	-20.2	-	-	0	200	Н
* 5.125	39.8	PK2	34.2	-29.6	0	44.4	-	-	74	-29.6	0	200	Н
* 5.123	28.26	MAv1	34.1	-29.6	2.08	34.84	54	-19.16	-	-	0	200	Н
1.96	42.48	PK2	31.3	-22.6	0	51.18	-	-	-	-	0	100	V
1.962	30.89	MAv1	31.4	-22.6	2.08	41.77	-	-	-	-	0	100	V
3.179	29.43	MAv1	32.6	-30.3	2.08	33.81	-	-	-	-	0	100	V
3.18	40.43	PK2	32.6	-30.3	0	42.73	-	-	-	-	0	100	V
8.852	37.94	PK2	35.9	-25.1	0	48.74	-	-	-	-	0	100	V
8.853	26.11	MAv1	35.9	-25.1	2.08	38.99	-	-	-	-	0	100	V

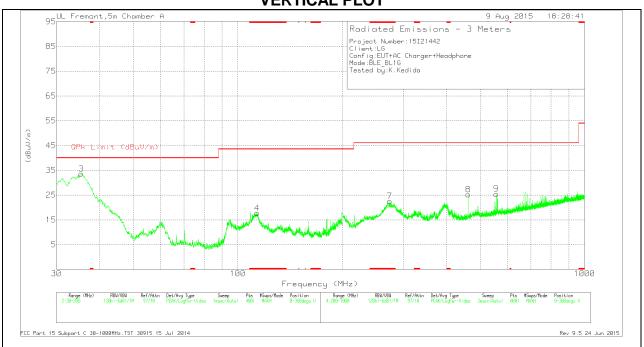
## 9.3. WORST-CASE BELOW 1 GHz

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

#### HORIZONTAL PLOT



## **VERTICAL PLOT**



#### **BELOW 1 GHz TABLE**

Marker	Frequency	Meter	Det	AF T130	Amp/Cbl	Corrected	QPk Limit	Margin	Azimuth	Height	Polarity
	(MHz)	Reading		(dB/m)	(dB/m)	Reading	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)				(dBuV/m)					
2	* 134.89	40.42	Pk	14	-30.3	24.12	43.52	-19.4	0-360	399	Н
4	* 113.725	34.98	Pk	13.1	-30.4	17.68	43.52	-25.84	0-360	101	V
5	* 272.3	40.52	Pk	13.1	-29.5	24.12	46.02	-21.9	0-360	101	Н
7	* 274.5	38.8	Pk	13.2	-29.5	22.5	46.02	-23.52	0-360	299	V
3	35.3975	47.29	Pk	17.5	-31.2	33.59	40	-6.41	0-360	101	V
1	61.45	41	Pk	7.7	-30.9	17.8	40	-22.2	0-360	399	Н
8	461.9	37.05	Pk	17	-28.8	25.25	46.02	-20.77	0-360	101	V
9	556.3	35.61	Pk	18.4	-28.6	25.41	46.02	-20.61	0-360	101	V
6	676.3	36.98	Pk	19.8	-28.2	28.58	46.02	-17.44	0-360	199	Н

PK - Peak detector