

### FCC CFR47 PART 15 SUBPART C

BLUETOOTH LOW ENERGY C2PC CERTIFICATION TEST REPORT

### FOR

### CDMA WATCH + BLUETOOTH & DTS b/g

MODEL NUMBER: LG-VC200, LGVC200, VC200, LG-VC200B, LGVC200B, VC200B

FCC ID: ZNFVC200

REPORT NUMBER: 15I21554-E3V1

**ISSUE DATE: SEPTEMBER 28, 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 FAX: (510) 661-0888

NVLAP LAB CODE 200065-0

#### **Revision History**

Issue

Rev.	Date	Revisions	Revised By
V1	9/28/15	Initial Issue	

Page 2 of 31

# TABLE OF CONTENTS

1.	ATT	restation of test results	ļ
2.	TES	ST METHODOLOGY	3
3.	FAC	CILITIES AND ACCREDITATION	3
4.	CAI	LIBRATION AND UNCERTAINTY	5
4	1.1.	MEASURING INSTRUMENT CALIBRATION	5
4	1.2.	SAMPLE CALCULATION	5
4	4.3.	MEASUREMENT UNCERTAINTY	7
5.	EQ	UIPMENT UNDER TEST	3
5	5.1.	DESCRIPTION OF EUT	3
5	5.2.	MAXIMUM OUTPUT POWER	3
5	5.3.	DESCRIPTION OF AVAILABLE ANTENNAS	3
5	5.4.	WORST-CASE CONFIGURATION AND MODE	3
5	5.5.	DESCRIPTION OF TEST SETUP	J
6.	TES	ST AND MEASUREMENT EQUIPMENT11	ł
7.	SU	MMARY TABLE12	2
8.	RAI	DIATED TEST RESULTS13	3
8	3.1.	LIMITS AND PROCEDURE1	3
8	3.2.	TRANSMITTER ABOVE 1 GHz14	4
8	3.3.	WORST-CASE BELOW 1 GHz22	7
9.	SET	TUP PHOTOS	i

Page 3 of 31

# **1. ATTESTATION OF TEST RESULTS**

COMPANY NAME: EUT DESCRIPTION: MODEL: SERIAL NUMBER: DATE TESTED: LG ELECTRONICS MOBILECOMM U.S.A., INC. CDMA WATCH + BLUETOOTH & DTS b/g LG-VC200, LGVC200, VC200, LG-VC200B, LGVC200B, VC200B 22145, 22143 SEPTEMBER 10-16, 2015

### APPLICABLE STANDARDS STANDARD

CFR 47 Part 15 Subpart C

TEST RESULTS 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:

Tested By:

unguelo

VIEN TRAN CONSUMER TECHNOLOGY DIVISION WISE SENIOR ENGINEER UL VERIFICATION SERVICES INC

DAN CORONIA CONSUMER TECHNOLOGY DIVISION WISE PROJECT LEAD UL VERIFICATION SERVICES INC

KIYA KEDIDA CONSUMER TECHNOLOGY DIVISION WISE LAB ENGINEER UL VERIFICATION SERVICES INC

Page 5 of 31

# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, and KDB 558074 D01 v03r03, ANSI C63.10-2009 for FCC.

### Deviation from ANSI C63.10-2009:

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 <u>http://ts.nist.gov/standards/scopes/2000650.htm</u>.

# 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) 36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

Page 6 of 31

# 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%.

Page 7 of 31

# 5. EQUIPMENT UNDER TEST

# 5.1. DESCRIPTION OF EUT

The EUT is CDMA WATCH + Bluetooth, DTS b/g

# 5.2. MAXIMUM OUTPUT POWER

See original report for details.

# 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an LMA antenna, with a maximum gain of -0.14 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-02WD	DZ4800000582	N/A						

### I/O CABLES

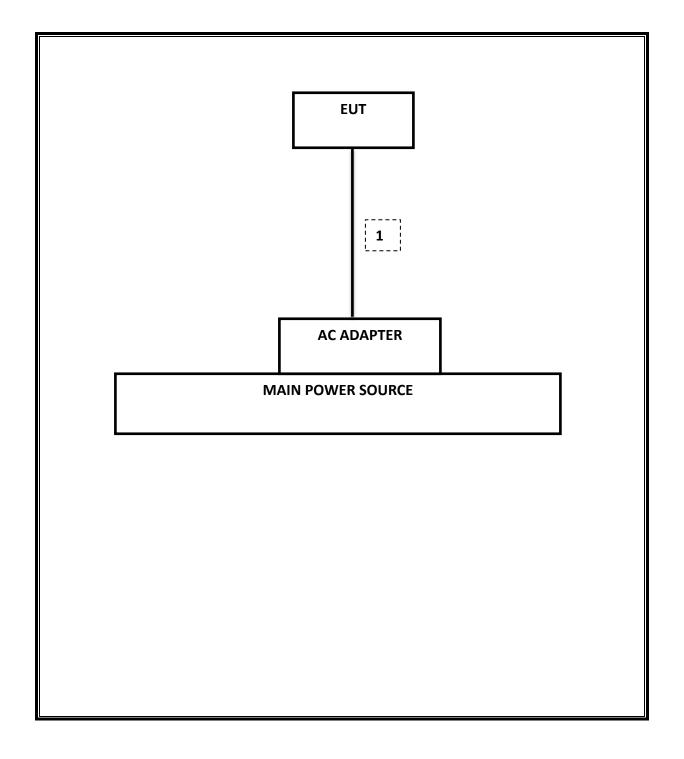
	I/O Cable List											
Cable No	Port		Connector Type	Cable Type	Cable Length (m)	Remarks						
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A						

### TEST SETUP

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

Page 9 of 31

### SETUP DIAGRAM FOR TESTS



Page 10 of 31

# 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							
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15							
Spectrum Analyzer,9KHz-40GHz	HP	8564E	C00986	04/01/16							
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15							
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15							
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/16							
Antenna, Horn,18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/15							
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/16							
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/16							
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							
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR							
Attenuator / Switch driver	HP	11713A	F00204	CNR							
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/16							
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/16							
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/16							
Radiated Software	UL	UL EMC	Ver 9.5, J	ul 22, 2014							
Conducted Software	UL	UL EMC	Ver 9.5, N	/lay 17 2012							
CLT Software	UL	UL RF	Ver 1.0, F	eb 2 2015							
Antenna Port Software	UL	UL RF	Ver 2.1.1.	1, Jan 20 2015							

Page 11 of 31

# 7. SUMMARY TABLE

C2PC Reason: Please see LG-VC200 FCC Class II change description 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	Raulated	Pass	44.28dBuV/m

Page 12 of 31

# 8. RADIATED TEST RESULTS

# 8.1. LIMITS AND PROCEDURE

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 =  $10 \log (1/0.62) = 2.09 dB$ 

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.

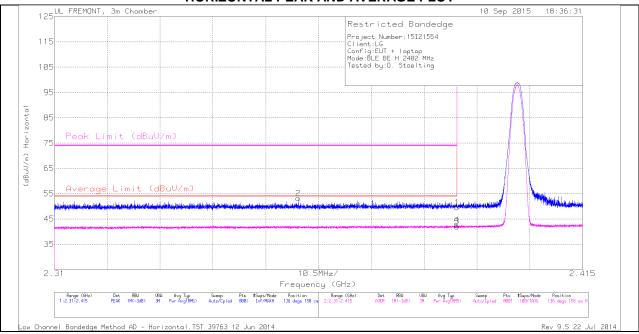
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

Page 13 of 31

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

REPORT NO: 15I21554-E3V1

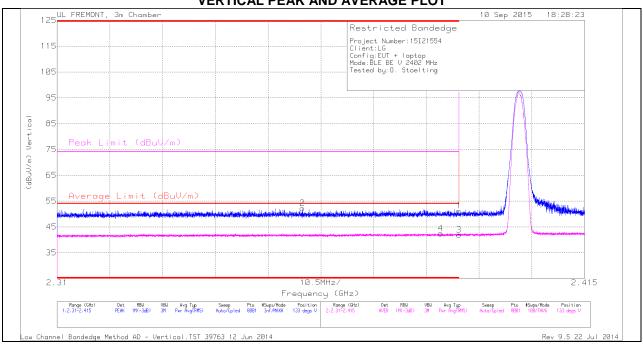


#### HORIZONTAL PEAK AND AVERAGE PLOT

HORIZONT	AL DATA
----------	---------

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt 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
2	2.358	43.7	PK	31.9	-22.4	0	53.2	-	-	74	-20.8	136	158	н
1	2.39	39.89	PK	32	-22.4	0	49.49	-	-	74	-24.51	136	158	н
3	2.39	30.35	RMS	32	-22.4	2.09	42.04	54	-11.96	-	-	136	158	н
4	2.39	30.89	RMS	32	-22.4	2.09	42.58	54	-11.42	-	-	136	158	Н

Page 14 of 31



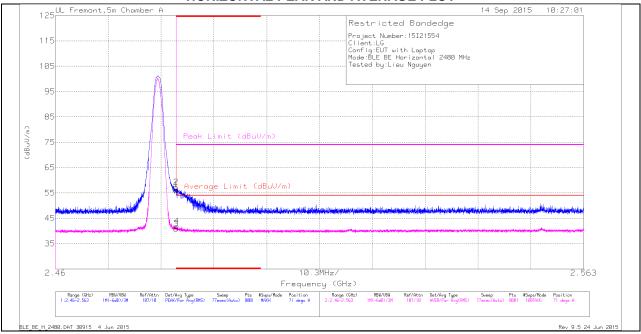
#### VERTICAL PEAK AND AVERAGE PLOT

#### VERTICAL DATA

Marker	Frequency	Meter	Det	AF T119	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)						
2	* 2.359	42.7	PK	31.9	-22.4	0	52.2	-	-	74	-21.8	133	142	V
4	* 2.386	30.77	RMS	32	-22.4	2.09	42.46	54	-11.54	-	-	133	142	V
1	* 2.39	41.64	PK	32	-22.4	0	51.24	-	-	74	-22.76	133	142	V
3	* 2.39	30.22	RMS	32	-22.4	2.09	41.91	54	-12.09	-	-	133	142	V

Page 15 of 31

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

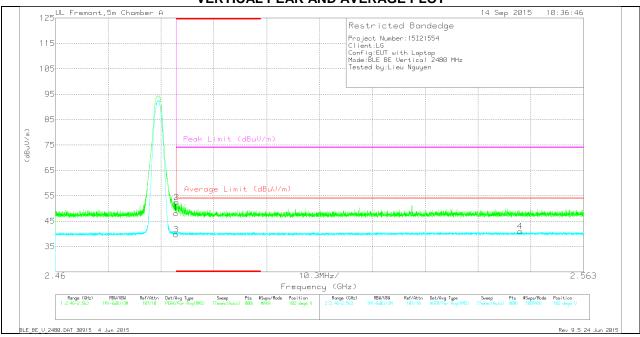


#### HORIZONTAL PEAK AND AVERAGE PLOT

#### 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)	
		(dBuV)					(dBuV/m)	(dBuV/m)						
1	* 2.484	48.62	Pk	32.1	-24.5	0	56.22	-	-	74	-17.78	71	154	н
2	* 2.484	49.61	Pk	32.1	-24.5	0	57.21	-	-	74	-16.79	71	154	н
3	* 2.484	31.15	RMS	32.1	-24.5	2.09	40.84	54	-13.16	-	-	71	154	Н
4	* 2.484	32.17	RMS	32.1	-24.5	2.09	41.86	54	-12.14	-	-	71	154	Н

Page 16 of 31



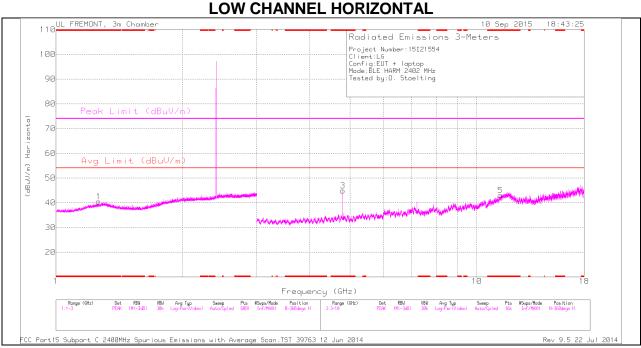
#### VERTICAL PEAK AND AVERAGE PLOT

#### 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	* 2.484	40.45	Pk	32.1	-24.5	0	48.05	-	-	74	-25.95	102	123	V
2	* 2.484	44.8	Pk	32.1	-24.5	0	52.4	-	-	74	-21.6	102	123	V
3	* 2.484	30.06	RMS	32.1	-24.5	2.09	39.75	54	-14.25	-	-	102	123	V
4	2.551	31.04	RMS	32.2	-24.4	2.09	40.93	54	-13.07	-	-	102	123	V

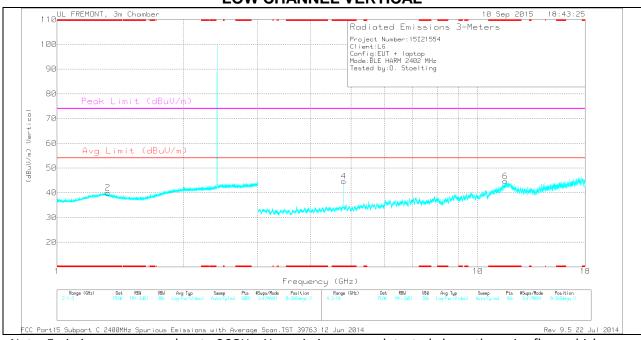
Page 17 of 31

#### HARMONICS AND SPURIOUS EMISSIONS



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Page 18 of 31



LOW CHANNEL VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### LOW CHANNEL DATA

TRACE MARKERS

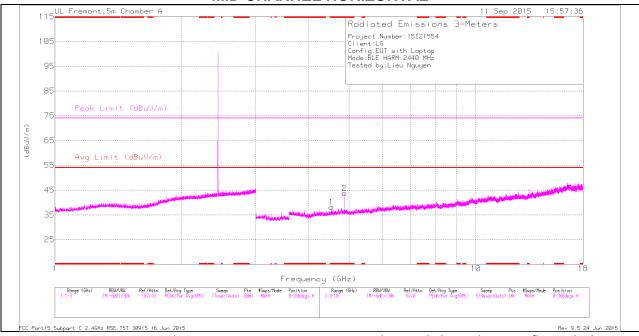
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.264	34.21	PK	29.5	-23.2	0	40.51	-	-	74	-33.49	0-360	100	н
2	* 1.322	33.53	PK	29.6	-23.1	0	40.03	-	-	74	-33.97	0-360	100	V
5	* 11.392	27.78	PK	38.2	-23	0	42.98	-	-	74	-31.02	0-360	200	н
6	* 11.62	28.24	PK	38.7	-22.3	0	44.64	-	-	74	-29.36	0-360	100	V
3	* 4.804	40.29	PK	34	-29.4	0	44.89	-	-	74	-29.11	0-360	200	Н
4	* 4.804	40.03	РК	34	-29.4	0	44.63	-	-	74	-29.37	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)				
* 1.262	42.32	PK2	29.5	-23.2	0	48.62	-	-	74	-25.38	2	100	н
* 1.264	31.07	MAv1	29.5	-23.2	2.09	39.46	54	-14.54	-	-	2	100	н
* 1.324	42.8	PK2	29.6	-23.1	0	49.3	-	-	74	-24.7	2	100	V
* 1.32	31.01	MAv1	29.6	-23.1	2.09	39.6	54	-14.4	-	-	2	100	V
* 4.803	45.37	PK2	34	-29.4	0	49.97	-	-	74	-24.03	220	277	н
* 4.804	37.44	MAv1	34	-29.4	2.09	44.13	54	-9.87	-	-	220	277	н
* 11.393	36.56	PK2	38.2	-23	0	51.76	-	-	74	-22.24	220	200	н
* 11.394	25.21	MAv1	38.2	-23	2.09	42.5	54	-11.5	-	-	220	200	н
* 4.803	45.03	PK2	34	-29.4	0	49.63	-	-	74	-24.37	236	106	V
* 4.804	36.97	MAv1	34	-29.4	2.09	43.66	54	-10.34	-	-	236	106	V
* 11.62	37.31	PK2	38.7	-22.3	0	53.71	-	-	74	-20.29	236	100	V
* 11.62	25.79	MAv1	38.7	-22.3	2.09	44.28	54	-9.72	-	-	236	100	V

Page 20 of 31



**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.

Page 21 of 31



### **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.

Page 22 of 31

### MID CHANNEL DATA

#### TRACE MARKERS

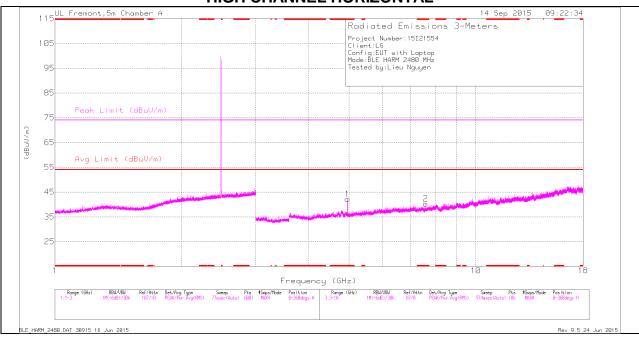
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 2.842	37.34	Pk	32.5	-24	0	45.84	-	-	74	-28.16	0-360	200	V
1	* 4.537	34.47	Pk	33.9	-30.3	0	38.07	-	-	74	-35.93	0-360	201	н
2	* 4.88	39.15	Pk	33.9	-29.3	0	43.75	-	-	74	-30.25	0-360	100	н
4	* 3.622	36.93	Pk	33.1	-32.1	0	37.93	-	-	74	-36.07	0-360	200	V
5	* 4.88	38.2	Pk	33.9	-29.3	0	42.8	-	-	74	-31.2	0-360	100	V
6	* 10.799	28.11	Pk	37.8	-21.6	0	44.31	-	-	74	-29.69	0-360	100	V

#### PK - Peak detector

#### RADIATED EMISSIONS

	Frequency	Meter	Det	AF T136	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)				
3	* 2.843	44	PK2	32.5	-24	0	52.5	-	-	74	-21.5	131	400	V
	* 2.841	31.88	MAv1	32.5	-24	2.09	42.47	54	-11.53	-	-	131	400	V
1	* 4.536	41.38	PK2	33.9	-30.3	0	44.98	-	-	74	-29.02	225	312	н
	* 4.539	29.18	MAv1	33.9	-30.2	2.09	34.97	54	-19.03	-	-	225	312	н
2	* 4.879	44.26	PK2	33.9	-29.3	0	48.86	-	-	74	-25.14	294	108	н
	* 4.88	36.06	MAv1	33.9	-29.3	2.09	42.75	54	-11.25	-	-	294	108	н
4	* 3.62	42.68	PK2	33.1	-32.1	0	43.68	-	-	74	-30.32	217	109	V
	* 3.623	30.62	MAv1	33.1	-32.1	2.09	33.71	54	-20.29	-	-	217	109	V
5	* 4.88	43.81	PK2	33.9	-29.3	0	48.41	-	-	74	-25.59	60	100	V
	* 4.88	34.69	MAv1	33.9	-29.3	2.09	41.38	54	-12.62	-	-	60	100	V
6	* 10.8	34.09	PK2	37.8	-21.6	0	50.29	-	-	74	-23.71	142	263	V
	* 10.799	22.53	MAv1	37.8	-21.6	2.09	40.82	54	-13.18	-	-	142	263	V

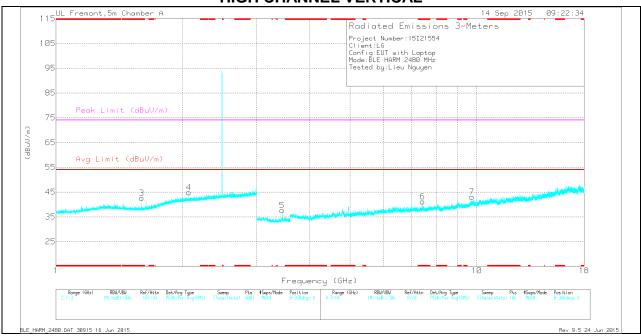
Page 23 of 31



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.

Page 24 of 31



### **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.

Page 25 of 31

### **HIGH CHANNEL DATA**

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 1.598	40.31	Pk	27.9	-25.6	0	42.61	-	-	74	-31.39	0-360	200	V
1	* 4.96	38.39	Pk	33.9	-30.1	0	42.19	-	-	74	-31.81	0-360	100	н
2	* 7.599	30.63	Pk	35.6	-25.9	0	40.33	-	-	74	-33.67	0-360	100	н
6	* 7.439	30.53	Pk	35.5	-24.9	0	41.13	-	-	74	-32.87	0-360	100	V
4	2.07	38.52	Pk	31.3	-25	0	44.82	-	-	-	-	0-360	100	V
5	3.45	36.37	Pk	33	-31.8	0	37.57	-	-	-	-	0-360	200	V
7	9.734	29.32	Pk	36.9	-23.1	0	43.12	-	-	-	-	0-360	200	V

PK - Peak detector

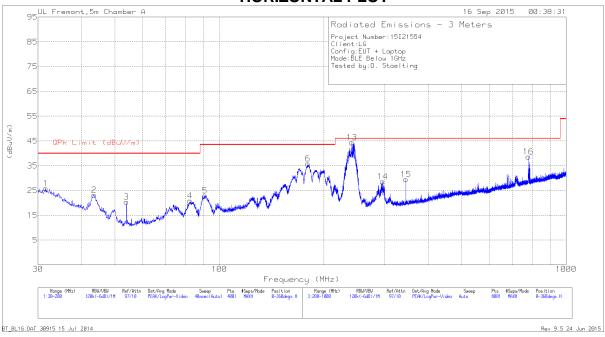
#### RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 1.598	44.55	PK2	27.9	-25.6	0	46.85	-	-	74	-27.15	0	362	V
	* 1.6	32.54	MAv1	27.9	-25.6	2.09	36.93	54	-17.07	-	-	0	362	V
1	* 4.959	44.04	PK2	33.9	-30.1	0	47.84	-	-	74	-26.16	314	102	н
	* 4.96	35.31	MAv1	33.9	-30.1	2.09	41.2	54	-12.8	-	-	314	102	Н
2	* 7.598	37	PK2	35.6	-25.9	0	46.7	-	-	74	-27.3	332	255	н
	* 7.6	25.14	MAv1	35.6	-25.9	2.09	36.93	54	-17.07	-	-	332	255	н
6	* 7.439	36.34	PK2	35.5	-24.9	0	46.94	-	-	74	-27.06	228	145	V
	* 7.44	24.48	MAv1	35.5	-24.9	2.09	37.17	54	-16.83	-	-	228	145	V
4	2.07	46.77	PK2	31.3	-25	0	53.07	-	-	-	-	205	174	V
5	3.45	44.44	PK2	33	-31.8	0	45.64	-	-	-	-	173	176	V
7	9.732	35.19	PK2	36.9	-23.1	0	48.99	-	-	-	-	343	175	V

Page 26 of 31

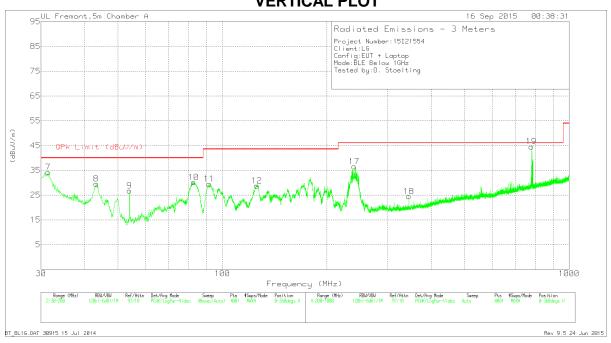
# 8.3. WORST-CASE BELOW 1 GHz

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



### HORIZONTAL PLOT

Page 27 of 31



### **VERTICAL PLOT**

Page 28 of 31

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
12	* 125.7525	38.72	Pk	17.9	-27.8	28.82	43.52	-14.7	0-360	101	V
13	* 241.1	55.44	Pk	15.5	-26.6	44.34	46.02	-1.68	0-360	101	Н
17	* 240	47.74	Pk	15.5	-26.7	36.54	46.02	-9.48	0-360	199	V
7	31.4875	38.9	Pk	24.1	-28.8	34.2	40	-5.8	0-360	101	V
1	31.5725	30.56	Pk	24.1	-28.8	25.86	40	-14.14	0-360	199	Н
8	43.26	42.85	Pk	15.4	-28.7	29.55	40	-10.45	0-360	101	V
2	43.5575	36.71	Pk	15.2	-28.7	23.21	40	-16.79	0-360	299	Н
3	54.0125	37.91	Pk	11	-28.5	20.41	40	-19.59	0-360	399	Н
9	54.0125	44.24	Pk	11	-28.5	26.74	40	-13.26	0-360	101	V
4	82.3175	37.85	Pk	11.3	-28.3	20.85	40	-19.15	0-360	299	н
10	82.7	47.19	Pk	11.3	-28.3	30.19	40	-9.81	0-360	101	V
5	90.945	39.26	Pk	11.9	-28.2	22.96	43.52	-20.56	0-360	199	н
11	91.4975	45.66	Pk	12	-28.1	29.56	43.52	-13.96	0-360	101	V
6	180.025	47.93	Pk	15.2	-27.3	35.83	43.52	-7.69	0-360	199	н
14	295.9	37.61	Pk	17.2	-26.2	28.61	46.02	-17.41	0-360	101	н
15	345	37.57	Pk	18.1	-26.1	29.57	46.02	-16.45	0-360	101	Н
18	345	32.43	Pk	18.1	-26.1	24.43	46.02	-21.59	0-360	101	V
16	778.4	38.36	Pk	25.1	-24.8	38.66	46.02	-7.36	0-360	101	Н
19	778.5	44.28	Pk	25.1	-24.8	44.58	46.02	-1.44	0-360	101	V

# BELOW 1 GHz TABLE

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

Pk - Peak detector

TRACE MARKERS

RADIATED EMISSIONS

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 241.1133	47.99	Qp	15.5	-26.6	36.89	46.02	-9.13	354	130	Н
778.5855	22.46	Qp	25.1	-24.8	22.76	46.02	-23.26	70	302	V

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

Qp - Quasi-Peak detector

Page 29 of 31

Page 30 of 31