

FCC CFR47 PART 15 SUBPART C INDUSTRY CANADA RSS-210 ISSUE 8

C2PC CERTIFICATION TEST REPORT

FOR

SMART WATCH with 2.4 DTS b/g/n + BT and BLE

MODEL NUMBER: LG-W110, W110, LGW110

FCC ID: ZNFW110 IC: 2703C-W110

REPORT NUMBER: 14U18512-E3

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Prepared for

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1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: SMART WATCH with 2.4 DTS b/g/n + BT and BLE

MODEL: LG-W110, W110, LGW110

SERIAL NUMBER: 1E8PK

DATE TESTED: AUGUST 28-29, 2014

APPLICABLE STANDARDS

STANDARD TEST RESULTS

CFR 47 Part 15 Subpart C Pass

INDUSTRY CANADA RSS-210 Issue 8 Annex 8 Pass

INDUSTRY CANADA RSS-GEN Issue 3 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.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.4-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

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 D
	☐ Chamber E
☐ Chamber C	☐ Chamber F
	☐ Chamber G
	☐ Chamber H

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

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 SMART WATCH with 2.4 DTS + BT and BLE.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Please refer to project 14U18426 for details.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a metal antenna, with a maximum gain of -1.9 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, and Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps 802.11g mode: 6 Mbps 802.11n HT20mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List											
Description	Manufacturer	Model	Serial Number	FCC ID							
AC Adapter	LG	MCS-02WR	DB390078751	N/A							
Cradle	LG	SDT-330	N/A	N/A							

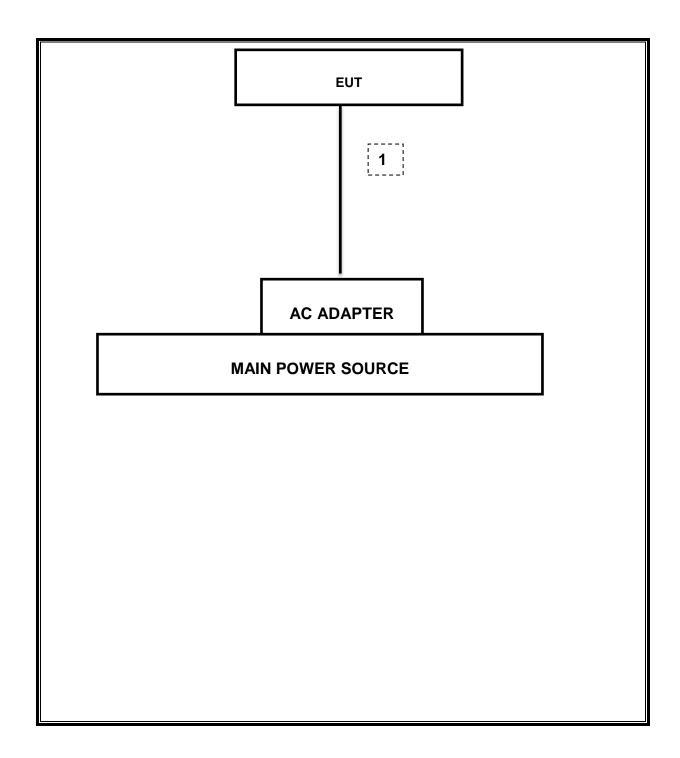
I/O CABLES

	I/O Cable List												
Cable	Port	# of identical	Connector	Cable Type	Cable	Remarks							
No		ports	Туре		Length (m)								
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 a stand-alone unit during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

To	Test Equipment List											
Description	Manufacturer	Model	Asset	Cal Due								
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/14								
Spectrum Analyzer,9KHz-40GHz	HP	8564E	C00986	04/01/15								
EMI Test Receiver, 9 kHz-7 GHz	R&S	ESCI 7	1000741	08/14/15								
EMI Test Receiver, 30 MHz	R&S	ESHS 20	N02396	08/15/15								
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14								
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14								
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/15								
Antenna, Horn,18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/14								
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/15								
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/15								
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/15								
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/15								
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/15								
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR								
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/15								
Attenuator / Switch driver	HP	11713A	F00204	CNR								
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/15								
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/15								
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/15								

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r02: Measurement Procedure AVGPM-G is used for power and AVGPSD-3 is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-210 A8.2(a)	Occupied Band width (6dB)	>500KHz		Pass	see original
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission -20dBc Conducted		Pass	see original	
15.247	RSS-210 A8.4	TX conducted output power			Pass	see original
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	see original
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10		Pass	see original
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m	Radiated	Pass	46.38dBuV/m

9. ANTENNA PORT TEST RESULTS

9.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r02: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW $>= 3 \times RBW$, peak detector and max hold.

RESULTS

9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

9.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v03r02: Measurement Procedure AVGPM-G is used for power.

RESULTS

9.4. **PSD**

LIMITS

FCC §15.247

IC RSS-210 A8.2

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

9.5. **OUT-OF-BAND EMISSIONS**

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the inband reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

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. The antenna to EUT distance is 3 meters.

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; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= $10\log (1/x)$ For this sample B mode = 0dB (duty cycle > 98%); G mode = 0.21dB; N mode = 0.24dB.

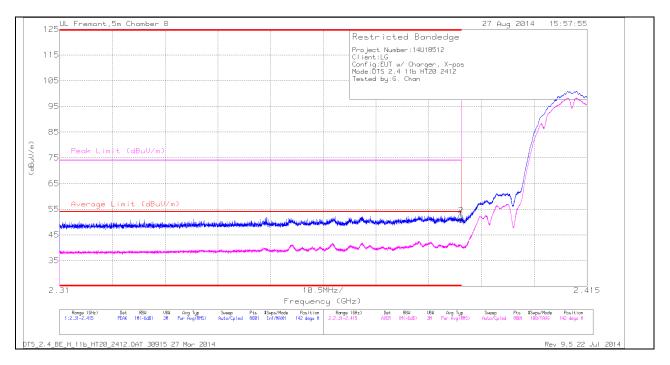
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading	Det	AF T345 (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	41.5	PK	32.1	-22.7	0	50.9	-	-	74	-23.1	142	104	Н
2	* 2.39	43.09	PK	32.1	-22.7	0	52.49	-	-	74	-21.51	142	104	Н
3	* 2.39	30.97	RMS	32.1	-22.7	.05	40.42	54	-13.58	-	-	142	104	Н
4	* 2.382	33.19	RMS	32	-22.7	.05	42.54	54	-11.46	-	-	142	104	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency	Meter	Det	AF T345	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	* 2.39	41.8	PK	32.1	-22.7	0	51.2	-	-	74	-22.8	81	330	V
2	* 2.385	48.95	PK	32.1	-22.7	0	58.35	-	-	74	-15.65	81	330	V
3	* 2.39	31.7	RMS	32.1	-22.7	.05	41.15	54	-12.85	-	-	81	330	V
4	* 2.384	43.07	RMS	32.1	-22.7	.05	52.52	54	-1.48	-	-	81	330	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

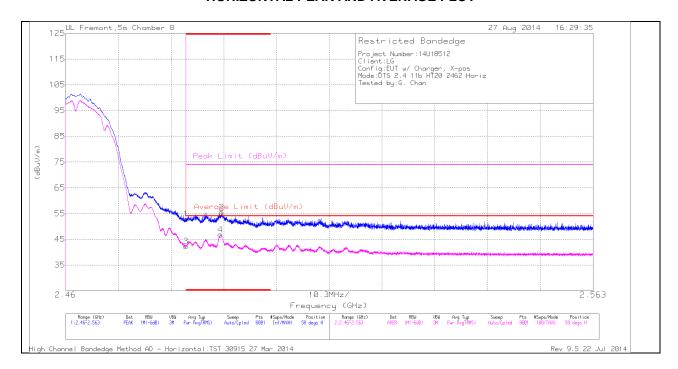
RMS - RMS detection

DATE: SEPTEMBER 01, 2014

IC: 2703C-W110

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



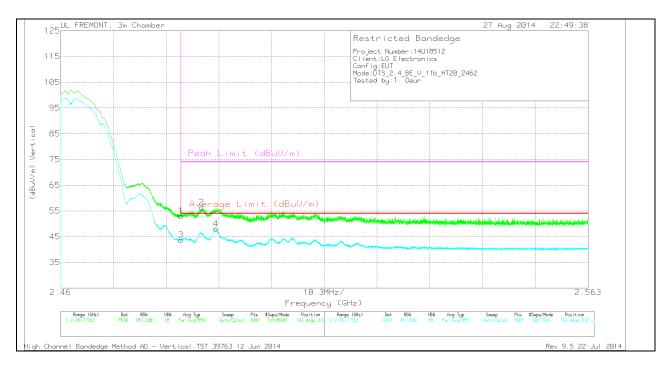
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.06	PK	32.4	-22.6	0	52.86	-	-	74	-21.14	58	332	Н
2	* 2.49	45.57	PK	32.4	-22.6	0	55.37	-	-	74	-18.63	58	332	Н
3	* 2.484	32.41	RMS	32.4	-22.6	.05	42.26	54	-11.74	-	-	58	332	Н
4	* 2.49	36.91	RMS	32.4	-22.6	.05	46.76	54	-7.24	-	-	58	332	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency	Meter	Det	AF T119	Amp/Cbl/	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)			(dB)	(dBuV/m)	(dBuV/m)						
1	2.484	43.64	PK	32.3	-22.8	53.14	-	-	74	-20.86	142	237	V
3	2.484	34.29	RMS	32.3	-22.8	43.79	54	-10.21	-	-	142	237	V
2	2.488	46.84	PK	32.3	-22.8	56.34	-	-	74	-17.66	142	237	V
4	2.49	38.6	RMS	32.3	-22.8	48.1	54	-5.9	-	-	142	237	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

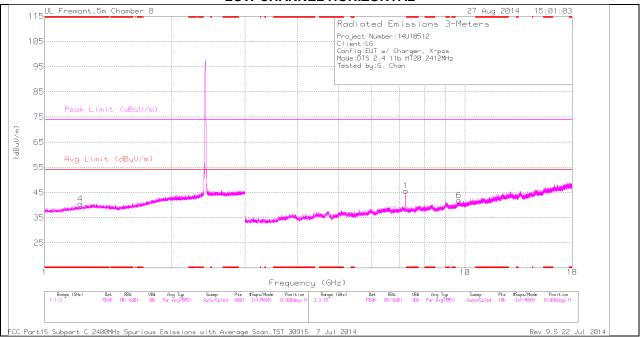
PK - Peak detector

RMS - RMS detection

IC: 2703C-W110

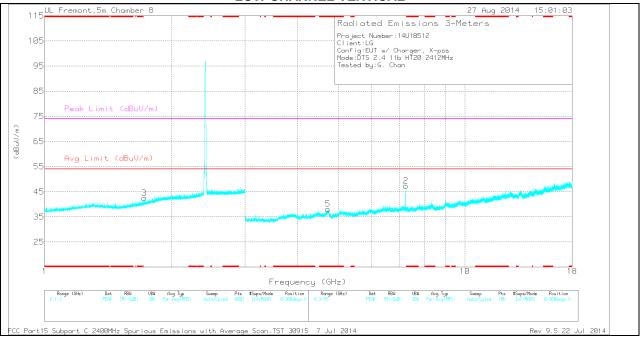
HARMONICS AND SPURIOUS EMISSIONS

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
4	* 1.216	36.59	PK	28.3	-24.4	0	40.49	-	-	74	-33.51	0-360	101	Н
5	* 4.726	33.2	PK	34.2	-29.3	0	38.1	-	-	74	-35.9	0-360	200	V
3	1.726	36.7	PK	29.3	-23.5	0	42.5	-	-	-	-	0-360	101	V
1	7.236	37.9	PK	35.6	-27.9	0	45.6	-	-	-	-	0-360	101	Н
2	7.236	39.66	PK	35.6	-27.9	0	47.36	-	-	-	-	0-360	200	V
6	9.677	29.26	PK	36.8	-24.2	0	41.86	-	-	-	-	0-360	200	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

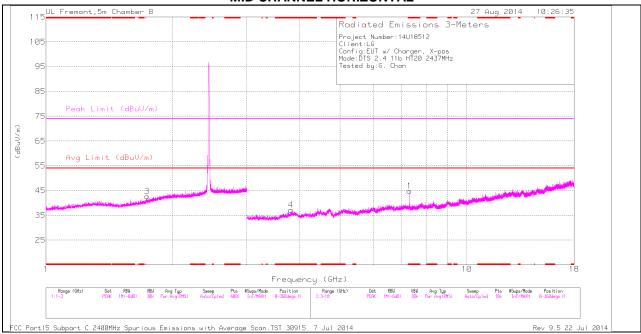
Frequency	Meter	Det	AF T345	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
(GHz)	Reading (dBuV)		(dB/m)	Fltr/Pad (dB)	(dB)	Reading (dBuV/m)	(dBuV/m)	(dB)	Limit (dBuV/m)	(dB)	(Degs)	(cm)	
	(ubuv)			(ub)		(ubu v/iii)			(ubu v/iii)				
7.235	38.98	PK2	35.6	-27.8	0	46.78	-	-	-	-	203	334	V
7.236	39.02	PK2	35.6	-27.8	0	46.82	-	-	-	-	30	254	Н
7.238	27.46	MAv1	35.6	-27.9	0	35.16	-	-	-	-	30	254	Н
7.238	27.49	MAv1	35.6	-27.9	0	35.19	-	-	-	-	203	334	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

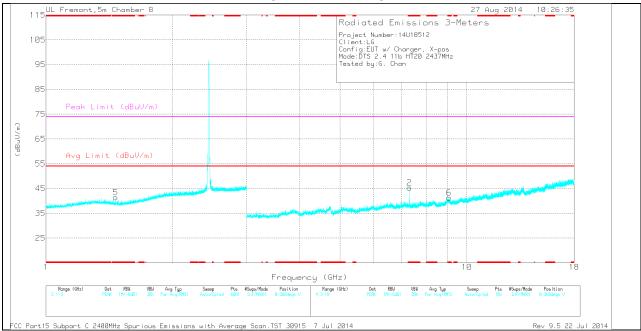
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to $\overline{26\text{GHz}}$; 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

Marker	Frequency (GHz)	Meter Reading	Det	AF T345 (dB/m)	Amp/Cbl/Fitr /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
		(dBuV)					(dBuV/m)							
5	* 1.465	37.38	PK	28.1	-24.1	0	41.38	-	-	74	-32.62	0-360	101	V
1	* 7.311	37.69	PK	35.6	-28.4	0	44.89	-	-	74	-29.11	0-360	199	Н
4	* 3.821	34.09	PK	33.7	-30.6	0	37.19	-	-	74	-36.81	0-360	199	Н
2	* 7.311	38.11	PK	35.6	-28.4	0	45.31	-	-	74	-28.69	0-360	199	V
6	* 9.07	29.46	PK	36.3	-24.5	0	41.26	-	-	74	-32.74	0-360	199	V
3	1.739	36.71	PK	29.5	-23.5	0	42.71	-	-	-	-	0-360	200	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

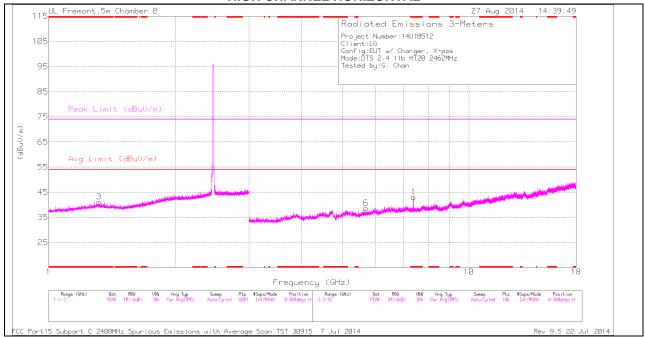
Frequency	Meter	Det	AF T345	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
(GHz)	Reading		(dB/m)	Fltr/Pad	(dB)	Reading	(dBuV/m)	(dB)	Limit	(dB)	(Degs)	(cm)	
	(dBuV)			(dB)		(dBuV/m)			(dBuV/m)				
* 7.312	44.94	PK2	35.6	-28.4	0	52.14	-	-	74	-21.86	349	173	Н
* 7.312	37.44	MAv1	35.6	-28.4	0	44.64	54	-9.36	-	-	349	173	Н
* 7.311	39.08	PK2	35.6	-28.4	0	46.28	-	-	74	-27.72	160	169	V
* 7.313	27.62	MAv1	35.6	-28.4	0	34.82	54	-19.18	-	-	160	169	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

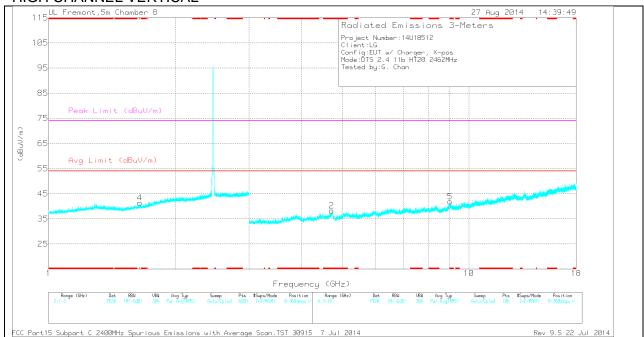
MAv1 - KDB558074 Option 1 Maximum RMS Average

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.318	36.71	PK	28.8	-24.3	0	41.21	-	-	74	-32.79	0-360	199	н
1	* 7.387	35.25	PK	35.6	-27.8	0	43.05	-	-	74	-30.95	0-360	101	Н
2	* 4.717	33.58	PK	34.2	-29.5	0	38.28	-	-	74	-35.72	0-360	199	V
5	* 9.024	30.21	PK	36.2	-24.5	0	41.91	-	-	74	-32.09	0-360	199	V
4	1.649	36.18	PK	28.8	-23.6	0	41.38	-	-	-	-	0-360	101	V
6	5.69	33.82	PK	34.5	-29.6	0	38.72	-	-	-	-	0-360	199	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

Frequency	Meter	Det	AF T345	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)				
* 7.387	38.35	PK2	35.6	-27.8	0	46.15	-	-	74	-27.85	298	292	Н
* 7.389	27.05	MAv1	35.6	-27.7	0	34.95	54	-19.05	-	-	298	292	Н

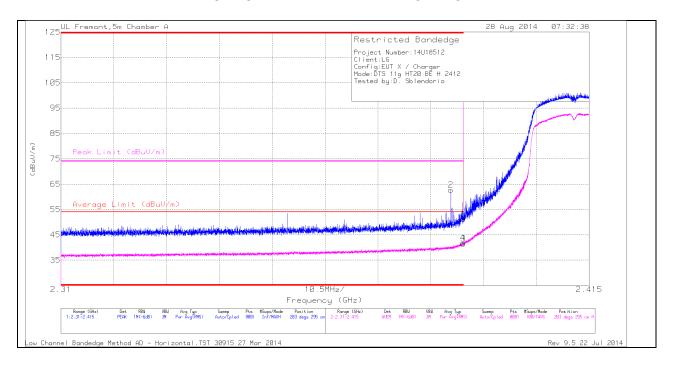
^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



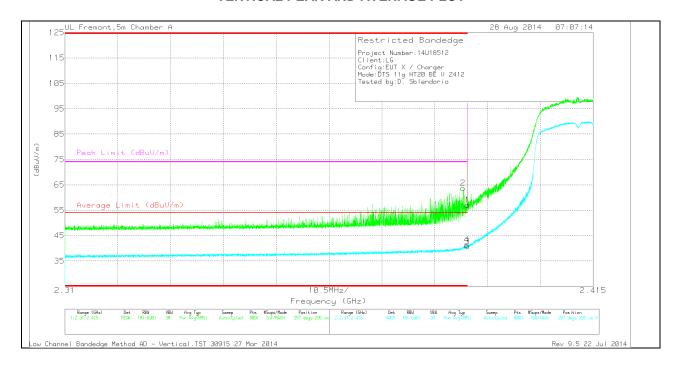
Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	r/Pad (dB)		Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)	(dBuV/m)						
2	* 2.388	54.49	PK	32.2	-24	0	62.69	-	-	74	-11.31	203	295	Н
1	* 2.39	43.06	PK	32.2	-24.1	0	51.16	-	-	74	-22.84	203	295	Н
3	* 2.39	33.37	RMS	32.2	-24.1	.22	41.69	54	-12.31	-	-	203	295	Н
4	* 2.39	33.66	RMS	32.2	-24.1	.22	41.98	54	-12.02	-	-	203	295	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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	* 2.389	55.62	PK	32.2	-24.1	0	63.72	1-1	-	74	-10.28	297	295	٧
1	* 2.39	48.92	PK	32.2	-24.1	0	57.02	-	-	74	-16.98	297	295	V
3	* 2.39	32.46	RMS	32.2	-24.1	.22	40.78	54	-13.22	-	-	297	295	V
4	* 2.39	33.09	RMS	32.2	-24.1	.22	41.41	54	-12.59	-	-	297	295	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

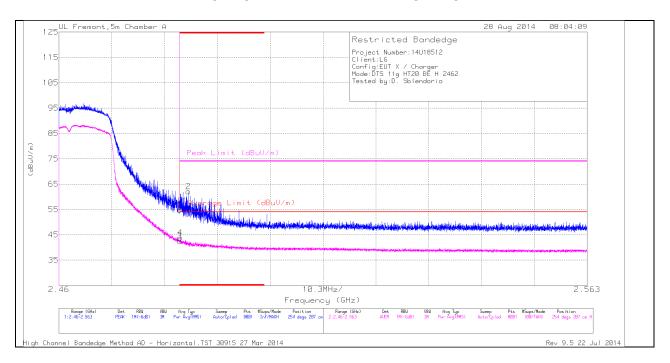
RMS - RMS detection

DATE: SEPTEMBER 01, 2014

IC: 2703C-W110

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



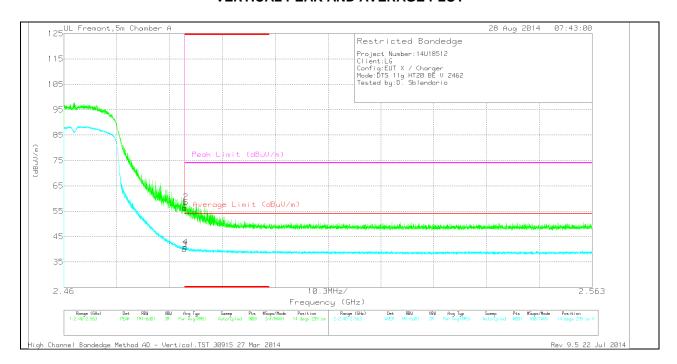
Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	r/Pad (dB)		Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)	(dBuV/m)						
1	* 2.484	46.41	PK	32.7	-24.2	0	54.91	-	-	74	-19.09	254	207	Н
2	* 2.485	53.44	PK	32.7	-24.1	0	62.04	-	-	74	-11.96	254	207	Н
3	* 2.484	33.86	RMS	32.7	-24.2	.22	42.58	54	-11.42	-	-	254	207	Н
4	* 2.484	35.09	RMS	32.7	-24.2	.22	43.81	54	-10.19	-	-	254	207	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading (dBuV)		(dB/m)	r/Pad (dB)		Reading (dBuV/m)	Limit (dBuV/m)	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
1	* 2.484	47.8	PK	32.7	-24.2	0	56.3	-	-	74	-17.7	14	299	V
2	* 2.484	50.02	PK	32.7	-24.1	0	58.62	-	-	74	-15.38	14	299	V
3	* 2.484	31.27	RMS	32.7	-24.2	.22	39.99	54	-14.01	-	-	14	299	V
4	* 2.484	32.18	RMS	32.7	-24.2	.22	40.9	54	-13.1	-	-	14	299	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

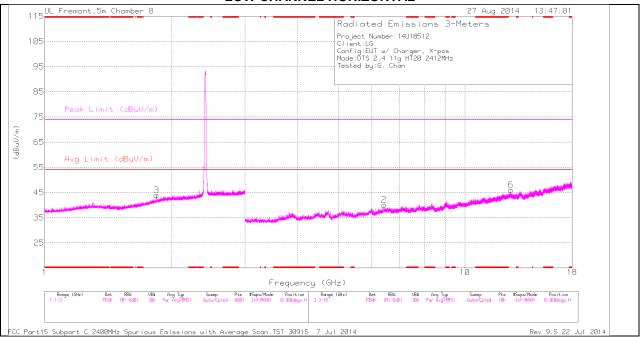
RMS - RMS detection

DATE: SEPTEMBER 01, 2014

IC: 2703C-W110

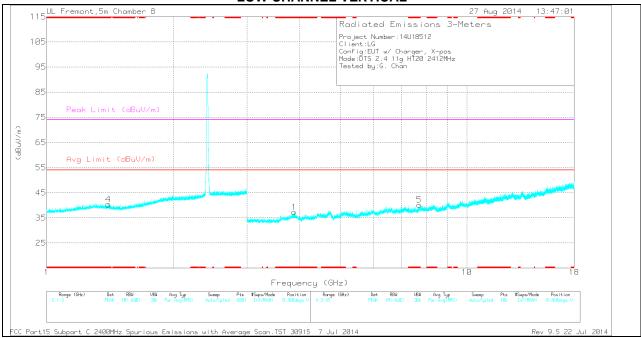
HARMONICS AND SPURIOUS EMISSIONS

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



LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
4	* 1.403	36.06	PK	28.5	-24.2	0	40.36	-	-	74	-33.64	0-360	101	V
1	* 3.881	33.86	PK	33.8	-30.4	0	37.26	-	-	74	-36.74	0-360	200	V
5	* 7.698	31.19	PK	35.7	-26.7	0	40.19	-	-	74	-33.81	0-360	101	V
3	1.847	36.88	PK	30.6	-23.5	0	43.98	-	-	-	-	0-360	200	Н
2	6.423	33.69	PK	35.6	-29.2	0	40.09	-	-	-	-	0-360	200	Н
6	12.86	28.07	PK	39.2	-21.2	0	46.07	-	-	-	-	0-360	101	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

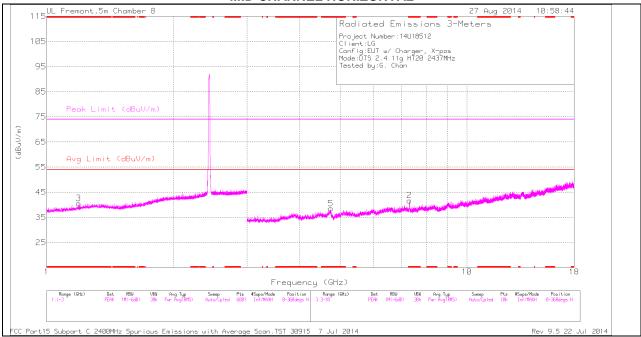
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 3.882	41.65	PK2	33.8	-30.4	0	45.05	-	-	74	-28.95	54	142	V
* 3.883	29.89	MAv1	33.8	-30.4	.21	33.5	54	-20.5	-	-	54	142	V
6.423	29.01	MAv1	35.6	-29.2	.21	35.62	-	-	-	-	245	232	Н
6.424	40.32	PK2	35.6	-29.2	0	46.72	-	-	-	-	245	232	Н
12.86	33.9	PK2	39.2	-21.2	0	51.9	-	-	-	-	248	107	Н
12.862	23.17	MAv1	39.2	-21.2	.21	41.38	-	-	-	-	248	107	Н

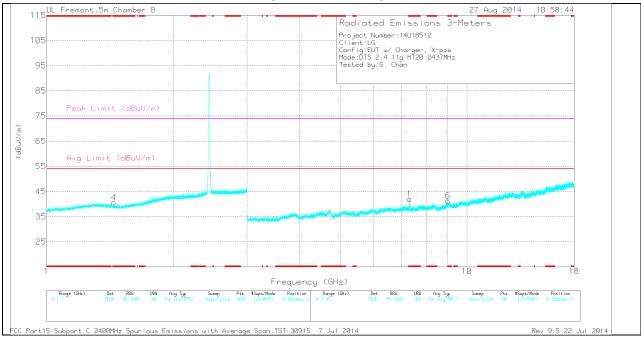
^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



REPORT NO: 14U18512-E3 DATE: SEPTEMBER 01, 2014 IC: 2703C-W110 FCC ID: ZNFW110

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.192	36.88	PK	28.1	-24.4	0	40.58	-	-	74	-33.42	0-360	199	Н
4	* 1.446	36.54	PK	28.2	-24.1	0	40.64	-	-	74	-33.36	0-360	199	V
2	* 7.306	34.51	PK	35.6	-28.4	0	41.71	-	-	74	-32.29	0-360	101	Н
5	* 4.746	33.5	PK	34.2	-29.2	0	38.5	-	-	74	-35.5	0-360	101	Н
1	* 7.306	34.8	PK	35.6	-28.4	0	42	-	-	74	-32	0-360	200	V
6	* 9.007	29.55	PK	36.2	-24.4	0	41.35	-	-	74	-32.65	0-360	101	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

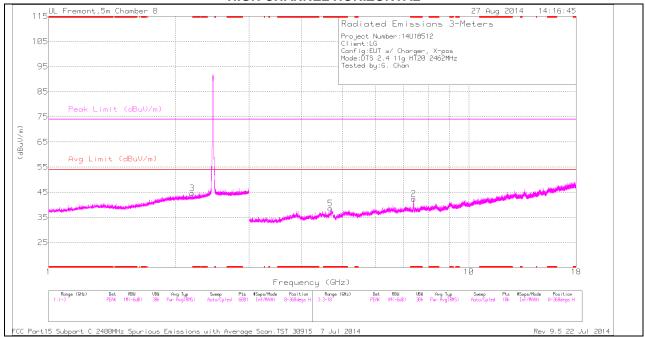
Radiated Emissions

Frequency (GHz)	Meter Reading	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad	DC Corr (dB)	Corrected Reading	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
(0112)	(dBuV)		(45/111)	(dB)	(45)	(dBuV/m)	(abav/iii)	(05)	(dBuV/m)	(45)	(DCg3)	(cm)	
* 7.306	42.66	PK2	35.6	-28.4	0	49.86	-	-	74	-24.14	360	152	Н
* 7.307	29.2	MAv1	35.6	-28.4	.21	36.61	54	-17.39	-	-	360	152	Н
* 7.306	46.38	PK2	35.6	-28.4	0	53.58	-	-	74	-20.42	164	185	V
* 7.308	31.85	MAv1	35.6	-28.4	.21	39.26	54	-14.74	-	-	164	185	V

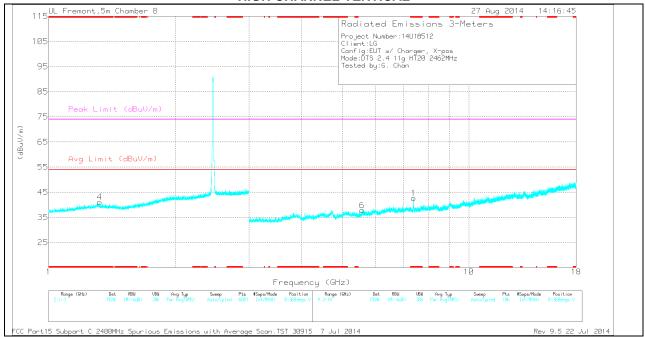
^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



HIGH CHANNEL DATA

Marker	Frequency	Meter	Det	AF T345	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)							
4	* 1.324	36.57	PK	28.8	-24.3	0	41.07	-	-	74	-32.93	0-360	200	V
2	* 7.388	34.58	PK	35.6	-27.8	0	42.38	-	-	74	-31.62	0-360	200	Н
5	* 4.687	34.55	PK	34.2	-30.2	0	38.55	-	-	74	-35.45	0-360	101	Н
1	* 7.389	34.85	PK	35.6	-27.8	0	42.65	-	-	74	-31.35	0-360	200	V
3	2.198	36.25	PK	31.3	-23	0	44.55	-	-	-	-	0-360	200	Н
6	5.572	33.29	PK	34.5	-30	0	37.79	-	-	-	-	0-360	101	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

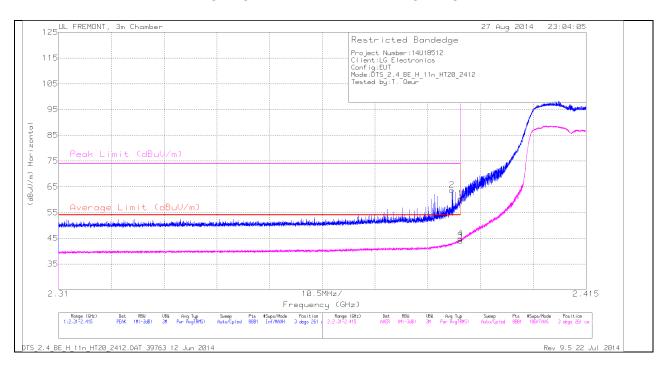
Frequency (GHz)	Meter Reading	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad	DC Corr (dB)	Corrected Reading	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
(3.1.5)	(dBuV)		(,,	(dB)	(/	(dBuV/m)	(====,,	\ <i>\</i>	(dBuV/m)	(/	(= -8-7	(,	
* 7.389	45.73	PK2	35.6	-27.8	0	53.53	-	-	74	-20.47	335	264	Н
* 7.387	30.74	MAv1	35.6	-27.8	.21	38.75	54	-15.25	-	-	335	264	Н
* 7.389	46.42	PK2	35.6	-27.7	0	54.32	-	-	74	-19.68	269	215	V
* 7.387	31.81	MAv1	35.6	-27.8	.21	39.82	54	-14.18	-	-	269	215	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND 10.2.3. **RESTRICTED BANDEDGE (LOW CHANNEL)**

HORIZONTAL PEAK AND AVERAGE PLOT



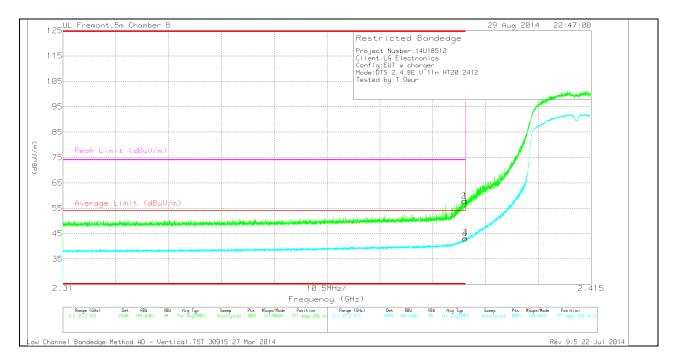
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.388	54.69	PK	32.1	-23.1	0	63.69	-	-	74	-10.31	3	261	Н
1	2.39	51.41	PK	32.1	-23.1	0	60.41	-	-	74	-13.59	3	261	Н
3	2.39	34.8	RMS	32.1	-23.1	.21	44.01	54	-9.99	-	-	3	261	Н
4	2.39	35.64	RMS	32.1	-23.1	.21	44.85	54	-9.15	-	-	3	261	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Frequency (GHz)	Meter Reading	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad	DC Corr (dB)	Corrected Reading	Average Limit	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2 39		PK	32.1		0		(ubuV/m)	_	74	-16 14	271	266	V
					0		_	_		_			V
					.21		54	-10.92	-	-			V
* 2.39	33.63	RMS	32.1		.21	42.82	54	-11.18	-	-	271	266	V
	* 2.39 * 2.39 * 2.39	(GHz) Reading (dBuV) * 2.39 48.46 * 2.39 48.49 * 2.39 33.89	(GHz) Reading (dBuV) * 2.39 48.46 PK * 2.39 48.49 PK * 2.39 33.89 RMS	(GHz) Reading (dB/m) * 2.39 48.46 PK 32.1 * 2.39 48.49 PK 32.1 * 2.39 33.89 RMS 32.1	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) * 2.39 48.46 PK 32.1 -22.7 * 2.39 48.49 PK 32.1 -22.7 * 2.39 33.89 RMS 32.1 -22.7	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) * 2.39 48.46 PK 32.1 -22.7 0 * 2.39 48.49 PK 32.1 -22.7 0 * 2.39 33.89 RMS 32.1 -22.7 .21	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) * 2.39 48.46 PK 32.1 -22.7 0 57.86 * 2.39 48.49 PK 32.1 -22.7 0 57.89 * 2.39 33.89 RMS 32.1 -22.7 .21 43.08	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dBuV/m) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - * 2.39 48.49 PK 32.1 -22.7 0 57.89 - * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dBuV/m) (dB) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - - * 2.39 48.49 PK 32.1 -22.7 0 57.89 - - * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54 -10.92	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dBuV/m) (dB) (dBuV/m) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - - 74 * 2.39 48.49 PK 32.1 -22.7 0 57.89 - - 74 * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54 -10.92 -	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dBuV/m) (dB) (dBuV/m) (dB) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - - 74 -16.14 * 2.39 48.49 PK 32.1 -22.7 0 57.89 - - 74 -16.11 * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54 -10.92 - -	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dBuV/m) (dB) (dBuV/m) (dB) (Degs) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - - 74 -16.14 271 * 2.39 48.49 PK 32.1 -22.7 0 57.89 - - 74 -16.11 271 * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54 -10.92 - - .271	(GHz) Reading (dBuV) (dB/m) Fltr/Pad (dB) (dB) Reading (dBuV/m) Limit (dB) (dBuV/m) (dB) (dB) (dBuV/m) (dB) (dB) (Degs) (cm) * 2.39 48.46 PK 32.1 -22.7 0 57.86 - - 74 -16.14 271 266 * 2.39 48.49 PK 32.1 -22.7 0 57.89 - - 74 -16.11 271 266 * 2.39 33.89 RMS 32.1 -22.7 .21 43.08 54 -10.92 - - 271 266

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

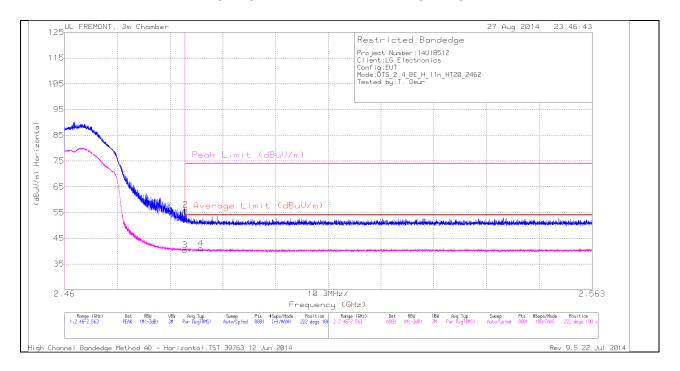
DATE: SEPTEMBER 01, 2014

IC: 2703C-W110

REPORT NO: 14U18512-E3 DATE: SEPTEMBER 01, 2014 IC: 2703C-W110 FCC ID: ZNFW110

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



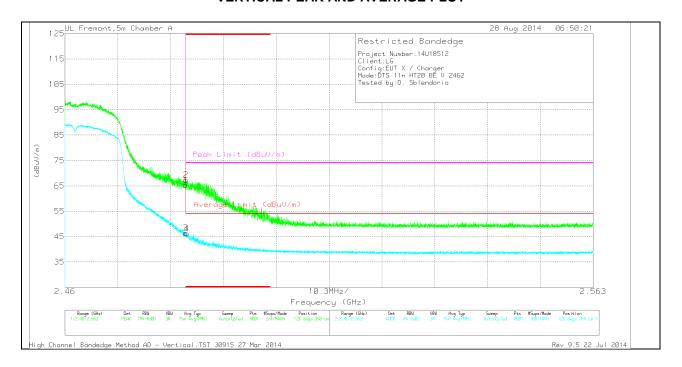
	Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	1	2.484	43.49	PK	32.3	-22.8	0	52.99	-	-	74	-21.01	222	100	Н
Ī	2	2.484	46.49	PK	32.3	-22.8	0	55.99	-	-	74	-18.01	222	100	Н
Ī	3	2.484	30.94	RMS	32.3	-22.8	.25	40.44	54	-13.56	-	-	222	100	Н
	4	2.487	31.54	RMS	32.3	-22.8	.25	41.04	54	-12.96	-	-	222	100	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency	Meter	Det	AF T136	Amp/Cbl/Flt	DC Corr (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading (dBuV)		(dB/m)	r/Pad (dB)		Reading (dBuV/m)	Limit (dBuV/m)	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
1	* 2.484	56.82	PK	32.7	-24.2	0	65.32	-	-	74	-8.68	125	358	V
2	* 2.484	58.84	PK	32.7	-24.2	0	67.34	-	-	74	-6.66	125	358	V
3	* 2.484	37.63	RMS	32.7	-24.2	.25	46.38	54	-7.62	-	-	125	358	V
4	* 2.484	37.33	RMS	32.7	-24.1	.25	46.18	54	-7.82	-	-	125	358	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

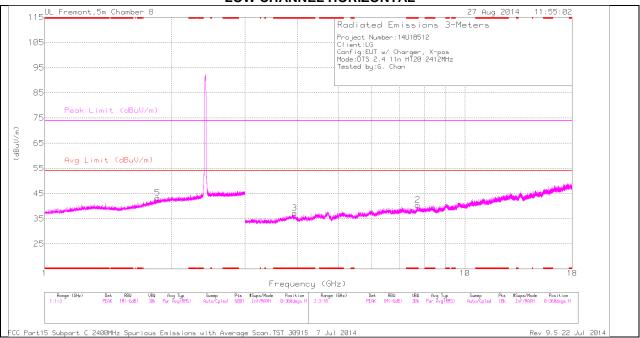
RMS - RMS detection

DATE: SEPTEMBER 01, 2014

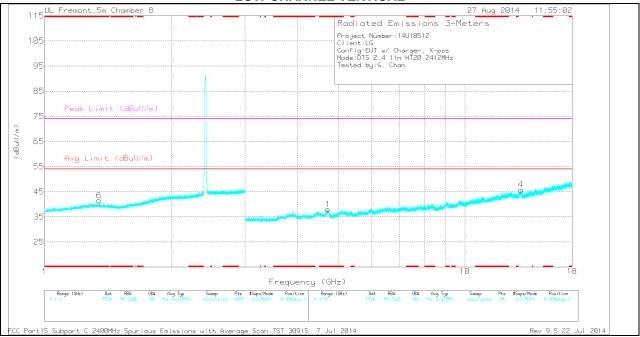
IC: 2703C-W110

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



LOW CHANNEL DATA

Marker	Frequency	Meter	Det	AF T345	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)							
6	* 1.348	37.12	PK	28.7	-24.3	0	41.52	-	-	74	-32.48	0-360	101	V
2	* 7.724	31.44	PK	35.7	-26.7	0	40.44	-	-	74	-33.56	0-360	101	Н
3	* 3.935	34.06	PK	33.7	-30.5	0	37.26	-	-	74	-36.74	0-360	101	Н
1	* 4.722	33.14	PK	34.2	-29.3	0	38.04	-	-	74	-35.96	0-360	101	V
5	1.857	36.12	PK	30.7	-23.5	0	43.32	-	-	-	-	0-360	101	Н
4	13.586	27.52	PK	38.8	-20.5	0	45.82	-	-	-	-	0-360	200	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

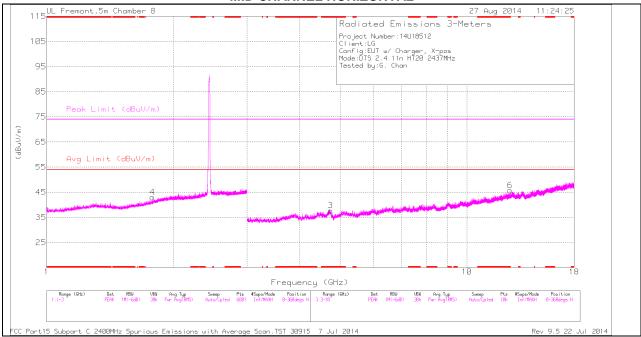
Radiated Emissions

Frequency	Meter	Det	AF T345	Amp/Cbl/	DC Corr	Corrected	Avg Limit	Margin	Peak	PK Margin	Azimuth	Height	Polarity
(GHz)	Reading (dBuV)		(dB/m)	Fltr/Pad (dB)	(dB)	Reading (dBuV/m)	(dBuV/m)	(dB)	Limit (dBuV/m)	(dB)	(Degs)	(cm)	
* 7.725	37.64	PK2	35.7	-26.7	0	46.64	-	-	74	-27.36	360	380	Н
* 7.724	26.78	MAv1	35.7	-26.7	.22	36	54	-18	-	-	360	380	Н
* 4.723	41.45	PK2	34.2	-29.3	0	46.35	-	-	74	-27.65	22	194	V
* 4.724	29.66	MAv1	34.2	-29.3	.22	34.78	54	-19.22	-	-	22	194	V

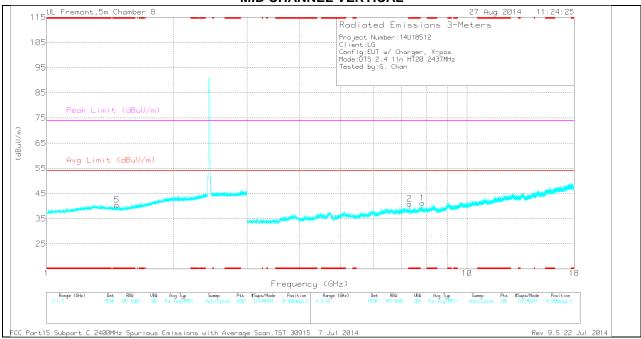
^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



REPORT NO: 14U18512-E3 DATE: SEPTEMBER 01, 2014 IC: 2703C-W110 FCC ID: ZNFW110

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
5	* 1.469	36.26	PK	28.1	-24	0	40.36	-	-	74	-33.64	0-360	199	V
3	* 4.744	32.72	PK	34.2	-29.2	0	37.72	-	-	74	-36.28	0-360	101	Н
6	* 12.668	28.32	PK	39.2	-21.8	0	45.72	-	-	74	-28.28	0-360	199	Н
2	* 7.307	33.73	PK	35.6	-28.4	0	40.93	-	-	74	-33.07	0-360	199	V
4	1.786	36.48	PK	30	-23.5	0	42.98	-	-	-	-	0-360	101	Н
1	7.841	31.76	PK	35.7	-26.2	0	41.26	-	-	-	-	0-360	199	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

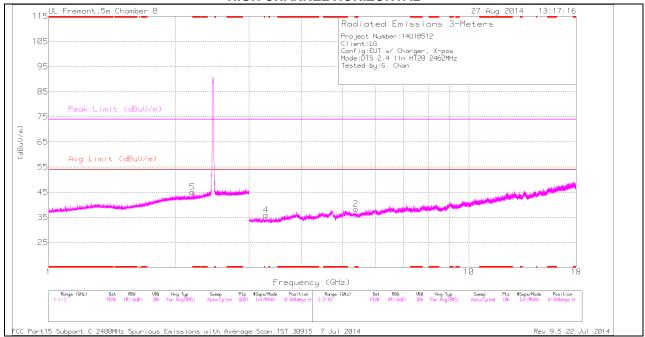
Radiated Emissions

Frequency	Meter	Det	AF T345	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)				
* 4.743	40.85	PK2	34.2	-29.2	0	45.85	-	-	74	-28.15	262	120	Н
* 4.743	29.37	MAv1	34.2	-29.2	.22	34.59	54	-19.41	-	-	262	120	Н
* 7.309	46.52	PK2	35.6	-28.4	0	53.72	-	-	74	-20.28	164	265	V
* 7.309	30.47	MAv1	35.6	-28.4	.22	37.89	54	-16.11	-	-	164	265	V
7.843	37.76	PK2	35.7	-26.2	0	47.26	-	-	-	-	233	352	V
7.843	26.51	MAv1	35.7	-26.2	.22	36.23	-	-	-	-	233	352	V

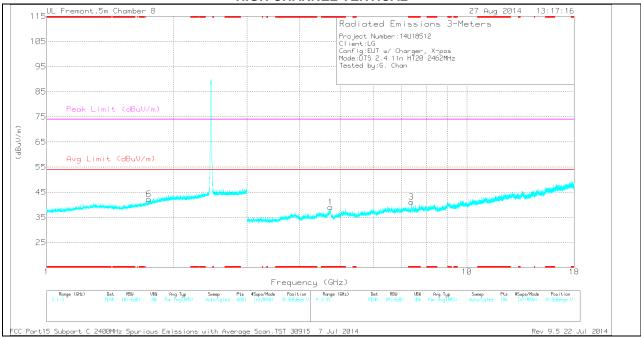
^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

HIGH CHANNEL HORIZONTAL



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.

FAX: (510) 661-0888

HIGH CHANNEL DATA

Marker	Frequency	Meter	Det	AF T345	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)							
2	* 5.385	33.21	PK	34.5	-29.4	0	38.31	-	-	74	-35.69	0-360	101	Н
1	* 4.737	34.04	PK	34.2	-29.2	0	39.04	-	-	74	-34.96	0-360	200	V
3	* 7.381	33.4	PK	35.6	-27.9	0	41.1	-	-	74	-32.9	0-360	101	V
6	1.752	36.15	PK	29.6	-23.5	0	42.25	-	-	-	-	0-360	101	V
5	2.198	36.76	PK	31.3	-23	0	45.06	-	-	-	-	0-360	199	Н
4	3.293	34.44	PK	32.8	-31.2	0	36.04	-	-	-	-	0-360	200	Н

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

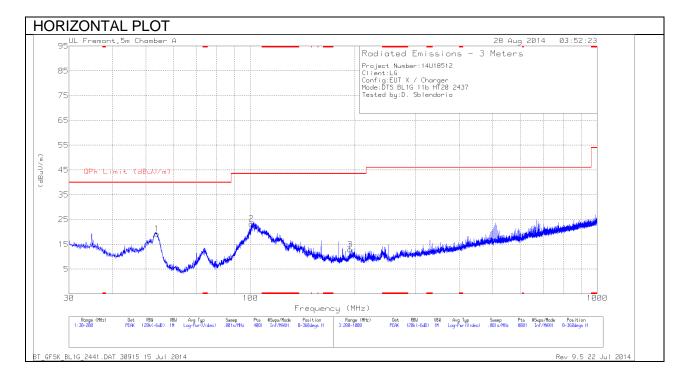
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CbI/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.387	39.06	PK2	34.5	-29.4	0	44.16	-	-	74	-29.84	191	337	Н
* 5.385	27.98	MAv1	34.5	-29.4	.22	33.3	54	-20.7	-	-	191	337	Н
* 4.737	41.34	PK2	34.2	-29.2	0	46.34	-	-	74	-27.66	165	238	V
* 4.739	29.51	MAv1	34.2	-29.2	.22	34.73	54	-19.27	-	-	165	238	V
* 7.383	43.95	PK2	35.6	-27.8	0	51.75	-	-	74	-22.25	166	182	V
* 7.383	29.64	MAv1	35.6	-27.8	.22	37.66	54	-16.34	-	-	166	182	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

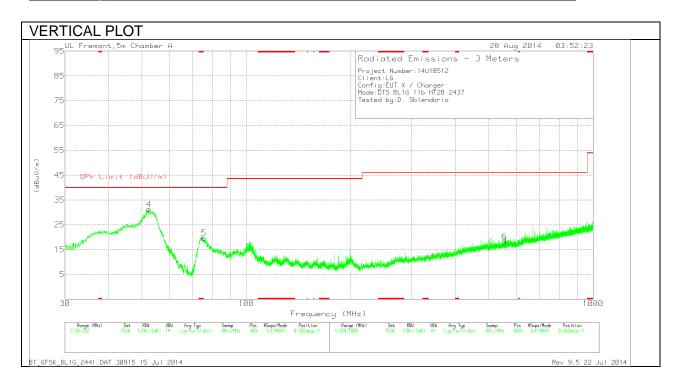
PK2 - KDB558074 Method: Maximum Peak

10.3. WORST-CASE BELOW 1 GHz

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



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



REPORT NO: 14U18512-E3 DATE: SEPTEMBER 01, 2014 IC: 2703C-W110 FCC ID: ZNFW110

Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T477 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	52.44	54.6	PK	7.4	-30.7	31.3	40	-8.7	0-360	101	V
							-	_		_	•
1	53.8	43.01	PK	7.2	-30.9	19.31	40	-20.69	0-360	400	Н
5	75.3475	42.4	PK	8.1	-30.9	19.6	40	-20.4	0-360	101	V
2	100.6775	43.27	PK	10.5	-30.4	23.37	43.52	-20.15	0-360	300	Н
3	193.795	31.21	PK	11.7	-30	12.91	43.52	-30.61	0-360	101	Н
6	554.8	28.3	PK	18.3	-28.4	18.2	46.02	-27.82	0-360	300	V

^{* -} indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)					
	Quasi-peak	Average				
0.15-0.5	66 to 56 *	56 to 46 *				
0.5-5	56	46				
5-30	60	50				

Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4 2009.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

Please refer to project 14U18426 for details.