



FCC CFR47 PART 22H, 24E, AND 27L

CERTIFICATION TEST REPORT FOR

CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN (HT20) + NFC WITH WIRELESS BACK COVER

MODEL NUMBER: LG-VS930 FCC ID: ZNFVS930

REPORT NUMBER: 12U14331-1 ISSUE DATE: MAY 03, 2012

Prepared for

LG ELECTRONICS INC. 60-39 GASAN-DONG, GEUMCHEON-GU SEOUL, KOREA 153-801, SOUTH KOREA

Prepared by

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NVLAP LAB CODE 200065-0

Revision History

	lssue		
Rev.	Date	Revisions	Revised By
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EUT: (CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN	FCC: ZNFVS930
REPO	RT NO: 12U14331-1	DATE: MAY 03, 2012

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS INC. 60-39 GASAN-DONG, GEUMCHEON-GU SEOUL, KOREA 153-801, SOUTH KOREA
EUT DESCRIPTION:	CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN (HT20) WITH WIRELESS BACK COVER
MODEL:	LG-VS930
SERIAL NUMBER:	990000760004152
DATE TESTED:	MARCH 29-APRIL 18, 2012

APPLICABLE STANDARDS					
STANDARD TEST RESULTS					
FCC PART 22H, 24E, and 27L	Pass				

Compliance Certification Services (UL CCS) 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 CCS 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 CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS 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 CCS By:

Tested By:

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 2, FCC CFR 47 Part 22, FCC CFR Part 24 and FCC Part 27.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <u>http://www.ccsemc.com</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

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 1000 MHz	4.94 dB

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

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Cell Phone with GSM/CDMA/WCDMA/LTE+BT LE+802.11abgn (HT20) + NFC with Wireless Back Cover.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted and ERP / EIRP output powers as follows:

Frequency range	EUT	Modulation	Conducted		ERP	
(MHz)			dBm	mW	dBm	mW
	Standard Cover	CDMA2000 1xRTT CDMA2000 EVDO REV A	28.20	660.7	24.42	276.7
	Inductive Cover				24.85	305.5
824.7 – 848.31	Inductive Charger				21.92	155.6
024.7 - 040.31	Standard Cover		29.32	855.1	23.44	220.8
	Inductive Cover				24.26	266.7
	Inductive Charger				20.00	100.0

Part 22 Cellular Band

Frequency range	EUT	Modulation	Conducted		ERP	
(MHz)		Modulation	dBm	mW	dBm	mW
	Standard Cover	GPRS	32.56	1803.0	30.90	1230.3
	Inductive Cover				30.65	1161.4
824.2 - 848.8	Inductive Charger				29.52	895.4
024.2 - 040.0	Standard Cover	EGPRS	25.84	383.7	26.68	465.6
	Inductive Cover				26.70	467.7
	Inductive Charger				25.53	357.3

Part 24 PCS Band

Frequency range	EUT	Modulation	Conducted		ERP	
(MHz)			dBm	mW	dBm	mW
	Standard Cover	CDMA2000 1xRTT	27.65	582.1	29.66	924.7
	Inductive Cover				29.90	977.2
1951 05 1009 75	Inductive Charger				29.65	922.6
1851.25-1908.75	Standard Cover	CDMA2000 EVDO REV A	27.83	606.7	30.93	1238.8
	Inductive Cover				31.72	1485.9
	Inductive Charger				25.26	335.7

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Part 24 PCS Band

Frequency range	EUT	Modulation	Conducted		ERP	
(MHz)			dBm	mW	dBm	mW
	Standard Cover	GPRS	29.52	895.4	30.42	1101.5
	Inductive Cover				31.42	1386.8
1950 2 1000 9	Inductive Charger				27.26	532.1
1850.2-1909.8	Standard Cover	EGPRS	25.09	322.8	31.26	1336.6
	Inductive Cover				29.19	829.9
	Inductive Charger				29.58	907.8

Part 24 PCS Band

Frequency range	EUT Modu	Modulation	Conducted		ERP	
(MHz)		Modulation	dBm	mW	dBm	mW
	Standard Cover	UMTS, REL 99	26.06	403.6	26.52	448.7
	Inductive Cover				29.92	981.7
4050 4 4007 0	Inductive Charger				24.76	299.2
1852.4-1907.6	Standard Cover		26.71	468.8	27.31	538.3
	Inductive Cover	UMTS, HSDPA			29.63	918.3
	Inductive Charger				24.66	292.4

Part 27 LTE Band 13

Frequency range	Modulation	Cond	ucted		ERP	
(MHz)	Modulation	dBm	mW	dBm	dBm	mW
		28.33	680.8	Standard Cover	29.82	959.4
782	782 QPSK			Inductive Cover	29.12	816.6
				Inductive Charger	21.58	143.9
		28.54	714.5	Standard Cover	30.10	1023.3
782	16QAM			Inductive Cover	29.49	889.2
				Inductive Charger	22.27	168.7

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5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integral antenna for the 850MHz and 1900MHz bands with a maximum peak gain as follow:

BANDS	Peak Gain (dBi)
GSM, CELL, 850MHz	-0.76
GSM,PCS, 1900MHz	-0.18
UMTS, 850MHz	-5.51
UMTS, 1900MHZ	0.33
LTE, Band 13	-1.39

5.4. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent 8960, CMU200 and CMW500 Communication Test Set.

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel for RF radiated emissions below 1GHz and AC conducted emissions are determined as the channel with the AC Power Adapter Source

Based on the investigation results, the highest peak power and enhanced data rate is the worstcase scenario for all measurements.

Worst-case modes below:

- For Cellular and PCS band: 1xRTT (RC1 S055)
- For Cellular and PCS band: CDMA2000 1xEV-DO Revision A. (Rev. A)
- For Cellular and PCS band: GPRS and EGPRS
- For Cellular and PCS band: UMTS, REL 99 and HSDPA.
- LTE Band 13

For the fundamental investigation, since the EUT is a portable device that has three orientations; therefore X, Y and Z orientations and the worst among X, Y, and Z with AC/DC adapter and headset have been investigated. The worst case was found to be at Z-position with AC/DC adapter and headset for both Cell and PCS bands.

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5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT (RF CONDUCTED TEST)

PERIPHERAL SUPPORT EQUIPMENT LIST						
Description	Description Manufacturer Model Serial Number FCC ID					
AC Adapter	LG	MCS-01WT	TA 1Z0000522	DoC		

I/O CABLES (RF CONDUCTED TEST)

	I/O CABLE LIST							
Cable	Port	# of	Connector	Cable	Cable	Remarks		
No.		Identical	Туре	Туре	Length			
		Ports						
1	AC	2	US115VAC	Un-shielded	2m	NA		
2	DC	1	USB	Un-shielded	1m	NA		
3	EUT Antenna Port	1	Directional Coupler	Un-shielded	0.1m	NA		
4	Spectrum Analyzer	1	Directional Coupler	Un-shielded	none	NA		
5	RF In/Out	1	Communication Test Set	Un-shielded	1m	NA		

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REPORT NO: 12U14331-1 EUT: CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN SUPPORT EQUIPMENT (RF RADIATED TEST)

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description Manufacturer Model Serial Number FCC ID							
AC Adapter	LG	MCS-01WT	TA1Z0000522	DoC			
AC Adapter	LG	WCA-D01WT	TA120012180	DoC			
Headset	LG	NA	NA	NA			
Inductive Charger	LG	WCP-700	A1201WP000026	NA			

I/O CABLES (RF RADIATED TEST)

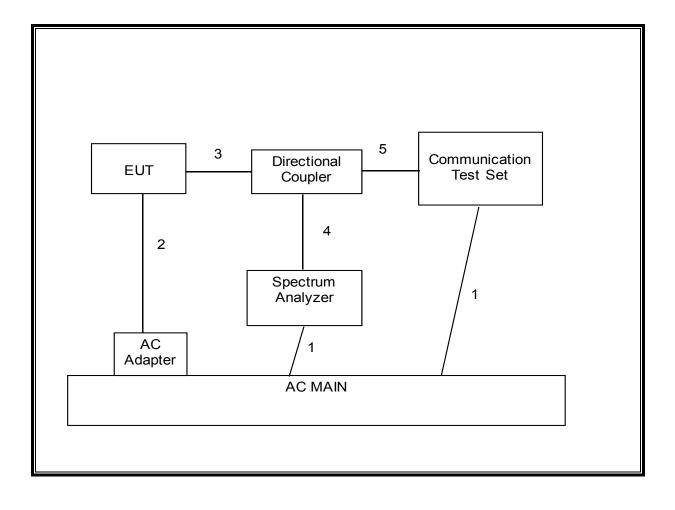
	I/O CABLE LIST							
Cable No.	Port	# of Identical	Connector Type	Cable Type	Cable Length	Remarks		
110.		Ports	Турс	Турс	Lengui			
1	AC	2	USB	Un-shielded	1m	NA		
2	DC	1	DC	Un-shielded	1.5m	For Inductive Charger		
3	Jack	1	Earphone	Un-shielded	1.5m	NA		
4	RF In/Out	1	Horn	Un-shielded	2m	NA		

TEST SETUP

The EUT is a stand-alone device. A link is established between the EUT and the communication test set

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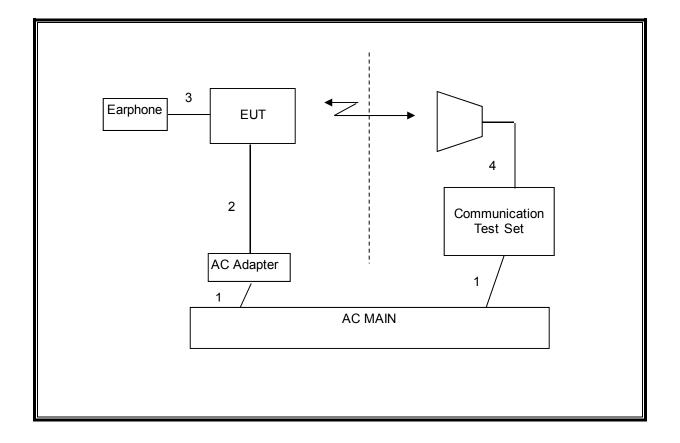
SETUP DIAGRAM FOR RF CONDUCTED TESTS



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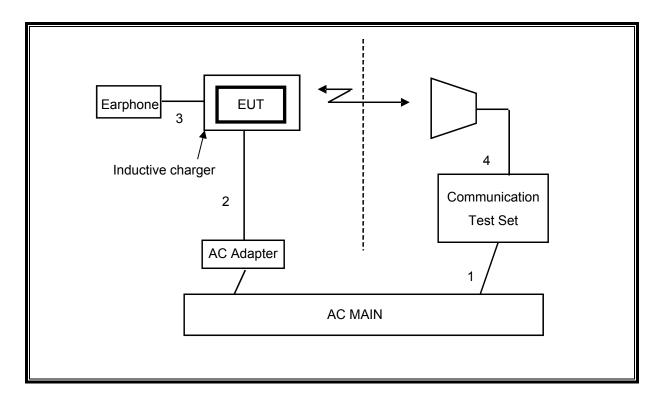
STANDARD/INDUCTIVE COVER SETUP DIAGRAM FOR RF RADIATED TESTS



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INDUCTIVE CHARGER SETUP DIAGRAM FOR RF RADIATED TESTS



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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			
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	07/12/12			
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	C01011	03/23/13			
Antenna, Horn, 18 GHz	EMCO	3115	C00945	10/06/12			
Antenna, Horn, 18 GHz	EMCO	3115	C00783	06/29/12			
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01176	08/04/12			
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	03/22/13			
Communications Test Set	Agilent / HP	E5515C	1000732	09/27/12			
Communication Test Set	R&S	CMU 200	C01131	06/24/12			
Wideband Communication Test Set	R&S	CMW 500	None	12/16/12			
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	11/11/12			
DC Power Supply	Lambda	LA-300	None	07/14/12			
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	04/20/12			
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	C00930	07/16/12			
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121C DB4	C00993	CNR			
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02686	CNR			
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02688	CNR			
Directional Coupler	RF-Lambda	RFDC5M06G15	None	CNR			

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7. RF POWER OUTPUT VERIFICATION

7.1. **RF POWER OUTPUT FOR 1xRTT**

TEST PROCEDURE

This procedure assumes the Agilest 8960 Test Set has the following applications installed and with valid license.

Application Rev, License

CDMA2000 Mobile Test B.13.08, L

- Call Setup > Shift & Preset
- Cell Info > Cell Parameters > System ID (SID) > 18
 - > Network ID (NID) > 65535
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > Please see following table or details
- FCH Service Option (SO) Setup > Please see following table or details
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
 - > R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Rvs Power Ctrl > Active bits
 o Rvs Power Ctrl > All Up bits (Maximum TxPout)

<u>RESULT</u>

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Radio		Conducted Output Power (dBm)				
Configuration	Service Option	Ch. 1013 / 824.7 MHz	Ch. 384 / 836.52 MHz	Ch. 777 / 848.31 MHz		
(RC)	(SO)	Peak	Peak	Peak		
RC1	2 (Loopback)	28.08	27.97	27.94		
KUT	55 (Loopback)	28.20	28.05	27.81		
RC2	9 (Loopback)	28.14	28.04	27.91		
NO2	55 (Loopback)	28.07	27.99	28.03		
	2 (Loopback)	27.81	27.67	27.62		
RC3	55 (Loopback)	27.79	27.67	27.49		
RC3	32 (+ F-SCH)	27.81	27.74	27.60		
	32 (+ SCH)	27.82	28.06	27.65		
	2 (Loopback)	27.83	27.69	27.63		
RC4	55 (Loopback)	27.79	27.82	27.48		
RC4	32 (+ F-SCH)	27.94	27.99	27.84		
	32 (+ SCH)	27.93	27.86	27.89		
RC5	9 (Loopback)	27.85	27.73	27.70		
KC0	55 (Loopback)	27.79	27.74	27.61		

CELL BAND:

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PCS BAND:

Radio		C	onducted Output Power (dBr	n)
Configuration	Service Option	Ch. 25 / 1851.25 MHz	Ch. 600 / 1880 MHz	Ch. 1175 / 1908.75 MHz
(RC)	(SO)	Peak	Peak	Peak
RC1	2 (Loopback)	27.30	27.47	27.03
KC1	55 (Loopback)	27.31	27.65	27.06
RC2	9 (Loopback)	27.31	27.57	26.97
R02	55 (Loopback)	27.26	27.56	27.14
	2 (Loopback)	27.00	27.26	26.80
RC3	55 (Loopback)	27.03	27.32	26.75
32 (+ F-SCH)		27.16	27.35	26.78
	32 (+ SCH)	27.08	27.44	26.96
	2 (Loopback)	27.08	27.34	26.82
RC4	55 (Loopback)	27.04	27.34	26.83
1104	32 (+ F-SCH)	27.21	27.57	27.10
	32 (+ SCH)	27.24	27.55	26.98
RC5	9 (Loopback)	27.10	27.30	26.83
1.05	55 (Loopback)	27.06	27.34	26.84

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7.2. RF POWER OUTPUT FOR CDMA2000 1xEV-DO Release 0 (Rel. 0)

TEST PROCEDURE

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

ApplicationRev, License1xEV-DO Terminal TestA.09.13

EVDO Release 0 - RTAP

- Call Setup > Shift & Preset
- Call Control:
 - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
 - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Parms:
 - Cell Power > -105.5 dBm/1.23 MHz
 - Cell Band > (Select US Cellular or US PCS)
 - Channel > (Enter channel number)
 - Application Config > Enhanced Test Application Protocol > RTAP
 - RTAP Rate > 153.6 kbps
 - Rvs Power Ctrl > Active bits
 - Protocol Rel > 0 (1xEV-DO)
- Press "Start Data Connection" when "Session Open" appear in "Active Cell"
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

EVDO Release 0 - FTAP

- Call Setup > Shift & Preset
- Call Control:
 - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
 - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Parms:
 - Cell Power > -105.5 dBm/1.23 MHz
 - Cell Band > (Select US Cellular or US PCS)
 - Channel > (Enter channel number)
 - Application Config > Enhanced Test Application Protocol > FTAP (default)
 - FTAP Rate > 307.2 kbps (2 Slot, QPSK)
 - Rvs Power Ctrl > Active bits
 - Protocol Rel > 0 (1xEV-DO)
- Press "Start Data Connection" when "Session Open" appear in "Active Cell"
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

<u>RESULTS</u>

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Cell Band

				Conducted power (dBm)
FTAP Rate	RTAP Rate	Channel	f (MHz)	Peak
307.2 kbps (2 slot, QPSK)	1536 8008	1013	824.70	29.23
		384	836.52	29.24
		777	848.31	28.97

PCS Band

				Conducted power (dBm)
FTAP Rate	RTAP Rate	Channel	f (MHz)	Peak
307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1851.25	27.50
		600	1880.00	27.89
		1175	1908.75	27.22

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7.3. RF POWER OUTPUT FOR CDMA2000 1xEV-DO Revision A (Rev. A)

TEST PROCEDURE

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

ApplicationRev, License1xEV-DO Terminal TestA.09.13

EVDO Release A – RETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > RETAP
- R-Data Pkt Size > 4096
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2
- > PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)
- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots
 > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

EVDO Release A - FETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > FETAP
- F-Traffic Format > 4 (1024, 2,128) Canonical (307.2k, QPSK)
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2
- > PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)
- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

RESULTS

Cell Band

	RETAP-Data Payload			Conducted power (dBm)
FETAP-Traffic Format	Size	Channel	f (MHz)	Peak
307.2k, QPSK/ ACK		1013	824.70	29.32
channel is transmitted at all the slots	4096	384	836.52	29.21
		777	848.31	28.97

PCS Band

				Conducted power (dBm)
FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f (MHz)	Peak
TETAI - Hamer offiat	0120	Onariner	1 (1011 12)	T Cak
307.2k, QPSK/ ACK		25	1851.25	27.62
channel is transmitted at all the slots	4096	600	1880.00	27.83
		1175	1908.75	27.36

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7.4. **RF POWER OUTPUT FOR GSM MODE**

TEST PROCEDURE

GPRS/EGPRS

Function:

Press Connection control to choose the different menus Press RESET > choose all to reset all settings Connection Press Signal Off to turn off the signal and change settings Network Support > GSM+GPRS or GSM+EGPRS Main Service > Packet Data Service selection > Test Mode A – Auto Slot Config. off Press Slot Config bottom on the right twice to select and change the number of MS Signal time slots and power setting > Slot configuration > Uplink/Gamma > 33 dBm for GPRS 850/900 > 27 dBm for EGPRS 850/900 > 30 dBm for GPRS1800/1900 > 26 dBm for EGPRS1800/1900 BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel Frequency Offset > + 0 Hz Mode > BCCH and TCH BCCH Level > -85 dBm (May need to adjust if link is not stable) choose desire test channel [Enter the same channel number for TCH BCCH Channel > channel (test channel) and BCCH channel] Channel Type > Off P0> 4 dB Unchanged (if already set under MS Signal) Slot Config > TCH > choose desired test channel Off Hopping >Main Timeslot > 3 (Default) Network Coding Scheme > CS4 (GPRS) and MCS9 (EGPRS) Bit Stream > 2E9-1PSR Bit Pattern AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input Press Signal On to turn on the signal and change settings Connection

Menu select > GSM Mobile Station > GSM 850/900/1800/1900

RESULTS

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GPRS for Cell and PCS Band

			1 time slot	2 time slots
Mode	Ch.	f (MHz)	Peak	Peak
	128	824.2	32.46	31.86
GPRS	190	836.6	32.56	32.14
	251	848.8	32.33	31.92
	512	1850.2	29.50	29.35
GPRS	661	1880	29.51	29.36
	810	1909.8	29.52	29.38

EGPRS for Cell and PCS Band

			1 time slot	2 time slots
Mode	Ch.	f (MHz)	Peak	Peak
	128	824.2	25.84	25.57
EGPRS	190	836.6	25.80	25.54
	251	848.8	25.81	25.55
	512	1850.2	25.09	24.90
EGPRS	661	1880	25.05	24.84
	810	1909.8	24.97	24.72

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COMPLIANCE CERTIFICATION SERVICES (UL CCS)

7.5. **RF POWER OUTPUT FOR UMTS REL99**

TEST PROCEDURE

The following summary of these settings are illustrated below:

	Mode	Rel99
	Subtest	-
	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	HSDPA FRC	Not Applicable
	HSUPA Test	Not Applicable
WCDMA General	Power Control Algorithm	Algorithm2
Settings	βc	Not Applicable
Settings	βd	Not Applicable
	βec	Not Applicable
	βc/βd	8/15
	βhs	Not Applicable
	βed	Not Applicable

RESULTS

			Conducted output power (dBm)	
Band	UL Ch	DL Ch	Frequency	Peak
	9262	9662	1852.4	26.06
UMTS 1900	9400	9800	1880.0	26.04
	9538	9938	1907.6	26.02

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7.6. RF POWER OUTPUT FOR UMTS Rel 6 HSDPA

TEST PROCEDURE

The following summary of these settings are illustrated below:

	Mode	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA
	Subtest	1	2	3	4
	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	HSUPA Test	Not Applicable			
WCDMA	Power Control Algorithm	Algorithm 2			
General	βc	2/15	12/15	15/15	15/15
Settings	βd	15/15	15/15	8/15	4/15
	βес	-	-	-	-
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	βed	Not Applicable			
	DACK	8			
	DNAK	8			
HSDPA	DCQI	8			
Specific	Ack-Nack repetition factor	3			
Settings	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs = β hs/ β c	30/15			

RESULT

Band	Subtest	UL Ch DL Ch Frequency -		Frequency	Conducted output power (dBm)
Dallu	Sublesi	UL CII	DL CII	Frequency	Peak
		9262	9662	1852.4	25.67
	1	9400	9800	1880.0	25.83
		9538	9938	1907.6	25.62
		9262	9662	1852.4	26.43
	2	9400	9800	1880.0	26.71
UMTS1900		9538	9938	1907.6	26.65
(Band II)		9262	9662	1852.4	26.04
	3	9400	9800	1880.0	26.17
		9538	9938	1907.6	26.02
		9262	9662	1852.4	26.13
	4	9400	9800	1880.0	26.21
		9538	9938	1907.6	26.09

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7.7. RF POWER OUTPUT UMTS Rel 6 HSPA (HSDPA & HSUPA)

TEST PROCEDURE

The following summary of these settings are illustrated below:

	Mode	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA			
	Subtest	1	2	3	4	5			
	Loopback Mode	Test Mode 1							
	Rel99 RMC	12.2kbps RMC							
	HSDPA FRC	H-Set1							
	HSUPA Test	HSUPA Loopb	HSUPA Loopback						
	Power Control Algorithm	Algorithm2							
WCDMA	βc	11/15	6/15	15/15	2/15	15/15			
General	βd	15/15	15/15	9/15	15/15	0			
Settings	βec	209/225	12/15	30/15	2/15	5/15			
	βc/βd	11/15	6/15	15/9	2/15	-			
	βhs	22/15	12/15	30/15	4/15	5/15			
				47/15					
	βed	1309/225	94/75	47/15	56/75	47/15			
	DACK	8		•	•				
	DNAK	8							
	DCQI	8							
HSDPA	Ack-Nack repetition factor	3							
Specific	CQI Feedback (Table 5.2B.4)	4ms							
Settings	CQI Repetition Factor (Table	petition Factor (Table							
	5.2B.4)	2							
	Ahs = β hs/ β c	30/15							
	D E-DPCCH	6	8	8	5	7			
	DHARQ	0	0	0	0	0			
	AG Index	20	12	15	17	12			
	ETFCI (from 34.121 Table								
	C.11.1.3)	75	67	92	71	67			
	Associated Max UL Data Rate								
	kbps	242.1	174.9	482.8	205.8	308.9			
HSUPA		E-TFCI 11	-		E-TFCI 11				
Specific		E-TFCI PO 4			E-TFCI PO 4				
Settings		E-TFCI 67			E-TFCI 67				
		E-TFCI PO 18			E-TFCI PO 18				
		E-TFCI 71			E-TFCI 71				
	Reference E_TFCIs	E-TFCI PO 23		E-TFCI 11	E-TFCI PO 23				
		E-TFCI 75		E-TFCI PO 4	E-TFCI 75				
		E-TFCI PO 26		E-TFCI 92	E-TFCI PO 26				
		E-TFCI 81		E-TFCI PO	E-TFCI 81				
		E-TFCI PO 27		18	E-TFCI PO 27				

RESULTS

Band	Subtest	UL Ch	DL Ch	Frequency	Conducted output power (dBm) Peak
		9262	9662	1852.4	26.08
	1	9400	9800	1880.0	26.13
		9538	9938	1907.6	26.21
		9262	9662	1852.4	26.34
	2	9400	9800	1880.0	26.30
		9538	9938	1907.6	26.05
UMTS1900		9262	9662	1852.4	26.38
(Band II)	3	9400	9800	1880.0	26.34
(Ballu II)		9538	9938	1907.6	26.28
		9262	9662	1852.4	26.34
	4	9400	9800	1880.0	26.39
		9538	9938	1907.6	26.32
		9262	9662	1852.4	26.49
	5	9400	9800	1880.0	26.69
		9538	9938	1907.6	26.60

LTE 10 MHz BAND 13								
RB			PEAK POWER	AVERAGE POWER				
CONFIGURATION	START RB OFFSET	MODE	(dBm)	(dBm)				
1	0		28.22	22.95				
1	49		28.22	22.62				
25	12		28.21	21.97				
50	0	QPSK	28.33	21.84				
1	0		27.80	21.52				
1	49		27.74	21.21				
25	12		28.54	20.97				
50	0	16QAM	28.22	20.84				

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8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049 IC: RSS-132, 4.5; RSS-133, 6.5

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

MODES TESTED

- 1xRTT RC1, S055
- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE BAND 13

RESULTS

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REPORT NO: 12U14331-1 EUT: CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
		1013	824.70	1.2758	1.415
	1xRTT	384	836.52	1.2731	1.431
Cellular		777	848.31	1.2959	1.406
Cellulai	CDMA2000	1013	824.70	1.2587	1.394
1xEV-DO Revision A (Rev. A)		384	836.52	1.2570	1.396
		777	848.31	1.2768	1.384

Band	Mode	Channel	f (MHz)	99% BW (KHz)	-26dB BW (KHz)
		128	824.20	252.5023	305.013
	GPRS	190	836.60	252.8357	273.010
Cellular		251	848.80	252.1423	274.912
Cellular		128	824.20	240.9775	286.310
	EGPRS	190	836.60	241.7238	300.699
		251	848.80	242.3674	313.612

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
	1xRTT	25	1851.25	1.2848	1.469
		600	1880.0	1.2948	1.404
PCS		1175	1908.75	1.2975	1.417
	CDMA2000 1xEV-DO Revision A (Rev. A)	25	1851.25	1.3018	1.544
		600	1880.0	1.2766	1.404
		1175	1908.75	1.2870	1.442

Band	Mode	Channel	f (MHz)	99% BW (KHz)	-26dB BW (KHz)
	GPRS	512	1850.2	252.8859	283.771
		661	1880.0	246.4025	259.481
PCS		810	1909.8	248.7150	287.400
FU3	EGPRS	512	1850.2	251.6579	309.920
		661	1880.0	246.9182	297.065
		810	1909.8	253.8933	289.691

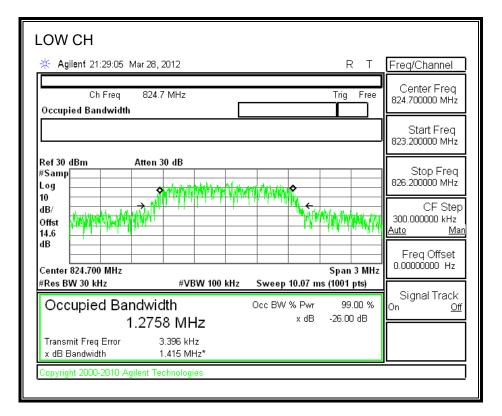
Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
PCS	UMTS, REL 99	9662	1852.4	4.2040	4.550
		9800	1880.0	4.1943	4.621
		9938	1907.6	4.2073	4.636
	UMTS, HSDPA	9662	1852.4	4.1939	4.568
		9800	1880.0	4.2074	4.561
		9938	1907.6	4.2260	4.593

Band	Mode	RB/RB SIZE	f (MHz)	99% BW (kHz)	-26dB BW (kHz)
	10 MHz BAND QPSK	1/0	782.0	268.2399	4618.00
		1/49		274.9714	4557.00
		25/12		4515.20	5573.00
LTE		50/0		8840.70	9426.00
LIC	10 MHz BAND 16QAM	1/0		277.3351	4604.00
		1/49		273.7828	4581.00
		25/12		4516.90	5008.00
		50/0		8860.70	9269.00

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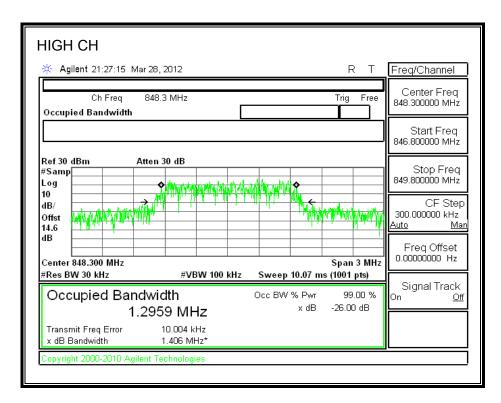
99% BANDWIDTH and 26dB

CDMA2000 1xRTT Mode (Cellular Band)

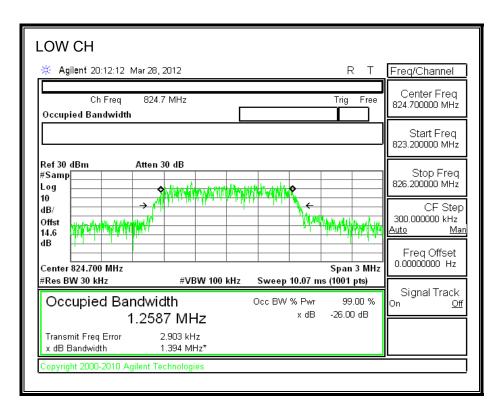


MID CH		F	RΤ	Freq/Channel
Ch Freq 836.52 MHz Occupied Bandwidth		Trig	Free	Center Freq 836.520000 MHz
Ref 30 dBmAtten 30 dB				Start Freq 835.020000 MHz
#Samp Log 10 dB/ Offst 14.6 dB			*****	Stop Freq 838.020000 MHz CF Step 300.000000 kHz <u>Auto Man</u>
Center 836.520 MHz #Res BW 30 kHz #VBW 100	Iz Sweep 1	Span 0.07 ms (1001	3 MHz pts)	Freq Offset 0.00000000 Hz Signal Track
Occupied Bandwidth 1.2731 MHz	Occ BW 9	% Pwr 99 xdB -26.0	00 % DdB	On <u>Off</u>
Transmit Freq Error -15.370 kHz x dB Bandwidth 1.431 MHz* Copyright 2000-2010 Agilent Technologies				
<u></u>				

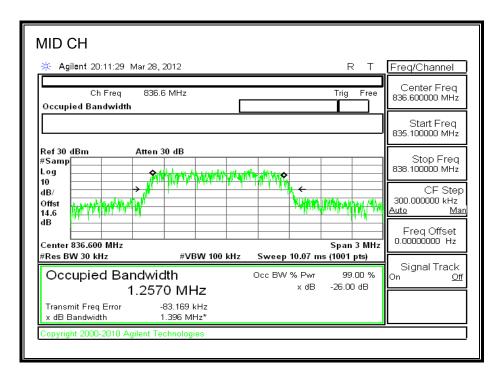
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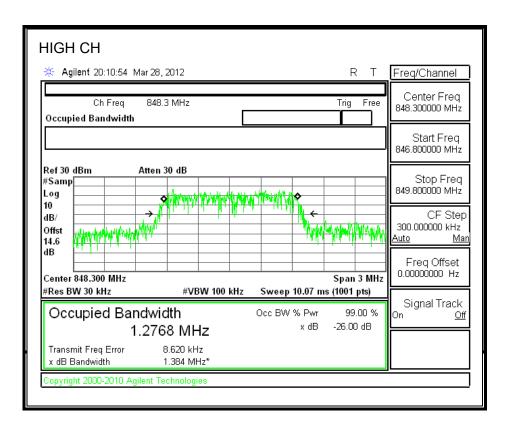


CDMA2000 1xEV-DO Rev. A, Cellular Band



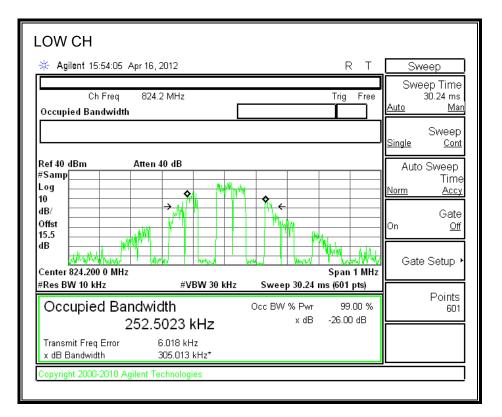
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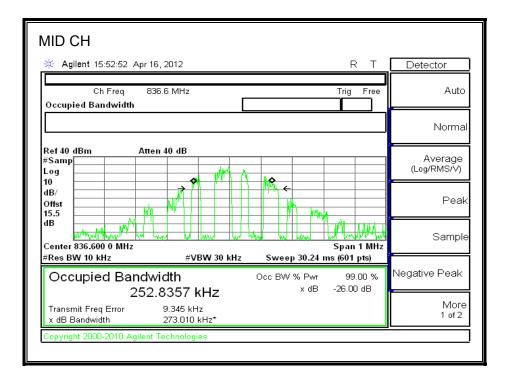




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GPRS Mode (Cellular Band)



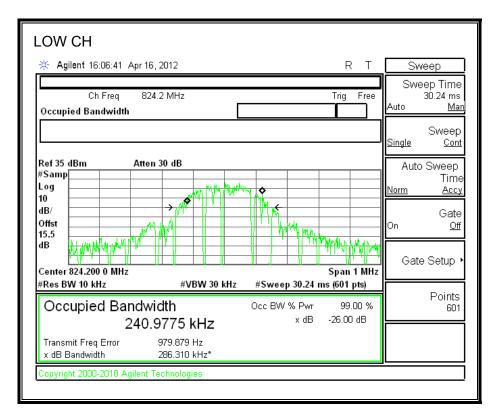


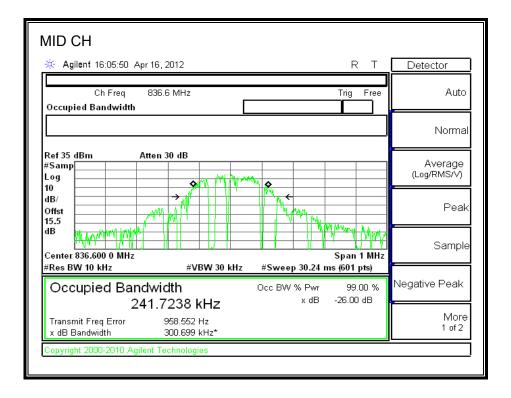
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HIGH CH	T Freq/Channel
Ch Freq 848.8 MHz Trig F Occupied Bandwidth	ree Center Freq 848.800000 MHz
	Start Freq 848.300000 MHz
Ref 40 dBm Atten 40 dB #Samp	
Occupied Bandwidth Occ BW % Pwr 99.00 252.1423 kHz × dB -26.00 dl	
Transmit Freq Error 4.345 kHz x dB Bandwidth 274.912 kHz* Copyright 2000-2010 Agilent Technologies	

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EGPRS Cellular Band





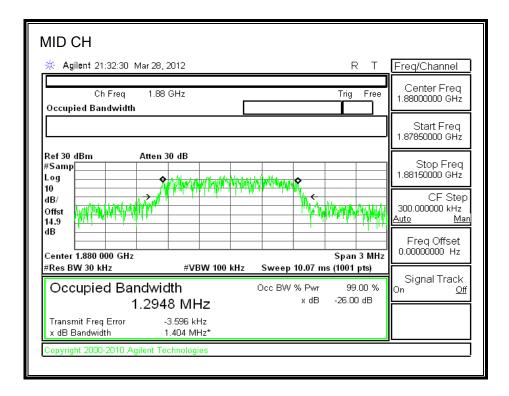
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HIGH CH <u>* Agilent 16:08:23 Apr 16</u>	2012		RТ	Sw	reep
Ch Freq 848 Occupied Bandwidth	.8 MHz		Trig Free	SW6 Auto	ep Time 30.24 ms <u>Man</u>
Ref 35 dBm Atten	30 dB			<u>Single</u>	Sweep <u>Cont</u>
#Peak Altern Alt	So ab	M¢		Auto <u>Norm</u>	Sweep Time <u>Accy</u>
dB/ Offst 15.5 dB				On Cate	Gate <u>Off</u> e Setup •
Center 848.800 0 MHz #Res BW 10 kHz	#VBW 30 kHz	#Sweep 30.24 i	Span 1 MHz ns (601 pts)		
Occupied Bandwi 242.3	dth 3674 kHz	Occ BW % Pwr x dB	99.00 % -26.00 dB		Points 601
Transmit Freq Error x dB Bandwidth	-7.413 kHz 313.612 kHz				

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CDMA2000 1xRTT Mode (PCS Band)

LOW CH	2012		RT	Freq/Channel
Ch Freq 1.85 Occupied Bandwidth	i125 GHz		Trig Free	Center Freq 1.85125000 GHz
	·]	Start Freq 1.84975000 GHz
dB/ Offst 14.9 dB Center 1.851 250 GHz			Span 3 MHz	Stop Freq 1.85275000 GHz CF Step 300.000000 kHz <u>Auto Man</u> Freq Offset 0.00000000 Hz
#Res BW 30 kHz Occupied Bandwi	#VBW 100 kHz	Sweep 10.07 m		Signal Track
-	48 MHz	x dB		On <u>Off</u>
· · ·	4.495 kHz 1.469 MHz*			
Copyright 2000-2010 Agilent Te	echnologies			

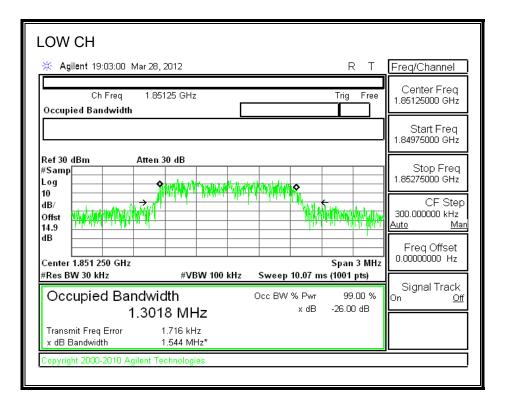


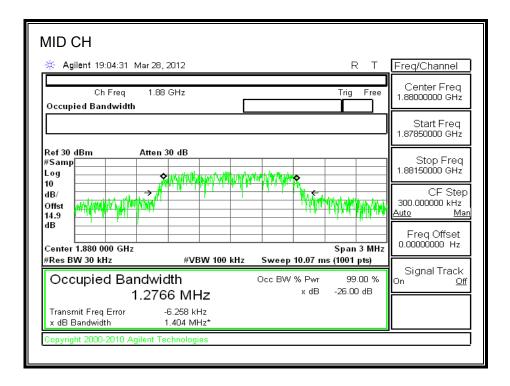
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☆ Agilent 21:33:39 Mar 28, 2012 R T	Freq/Channel
Ch Freq 1.90875 GHz Trig Free Occupied Bandwidth	Center Freq 1.90875000 GHz
	Start Freq 1.90725000 GHz
Ref 30 dBm Atten 30 dB #Samp Log 10 dB/	Stop Freq 1.91025000 GHz
Offst MAN AND A AN	Auto Man Freq Offset
Center 1.908 750 GHz Span 3 MH #Res BW 30 kHz #VBW 100 kHz Sweep 10.07 ms (1001 pts)	z 0.00000000 Hz
Occupied Bandwidth Occ BW % Pwr 99.00 % 1.2975 MHz × dB -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq Error-11.259 kHzx dB Bandwidth1.417 MHz*	
Copyright 2000-2010 Agilent Technologies	

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CDMA2000 1xEV-DO Rev. A Mode (PCS Band)



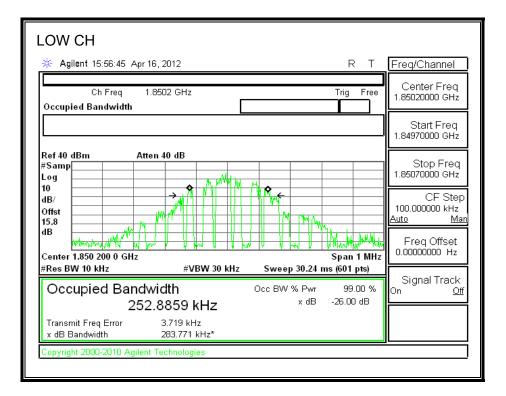


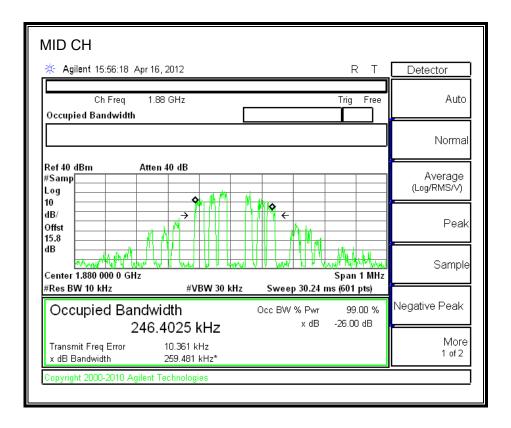
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HIGH CH	RT	Freq/Channel
Ch Freq 1.90875 GHz Occupied Bandwidth	Trig Free	Center Freq 1.90875000 GHz
		Start Freq 1.90725000 GHz
dB/ Offst		Stop Freq 1.91025000 GHz CF Step 300.000000 kHz <u>Auto Man</u>
dB Center 1.908 750 GHz #Res BW 30 kHz #VBW 100	Span 3 MHz kHz Sweep 10.07 ms (1001 pts)	Freq Offset 0.00000000 Hz
Occupied Bandwidth 1.2870 MHz	Occ BW % Pwr 99.00 % x dB -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq Error 4.062 kHz × dB Bandwidth 1.442 MHz*		
Copyright 2000-2010 Agilent Technologies]

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GPRS 1900 Mode (PCS Band)



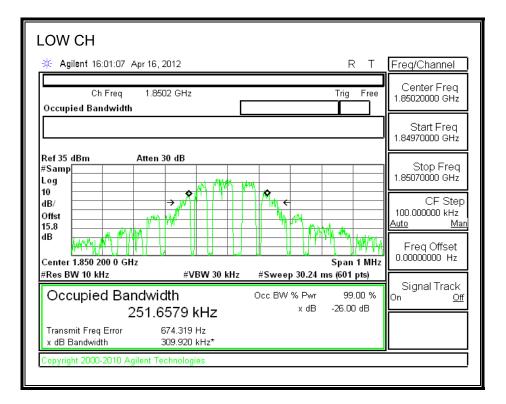


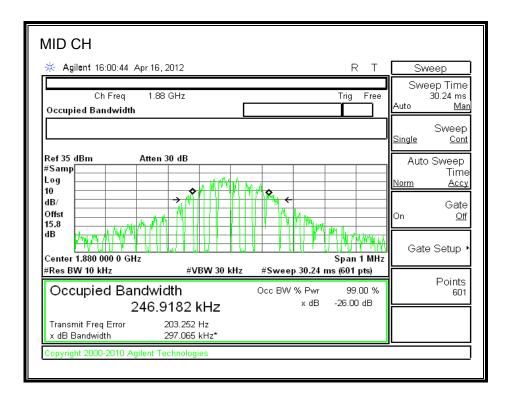
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HIGH CH	, 2012		R T	1	/eep
Ch Freq 1.9 Occupied Bandwidth	D98 GHz		Trig Free	Swe <u>Auto</u>	eep Time 30.24 ms <u>Man</u>
Ref 40 dBm Atten	40 dB			<u>Single</u> Auto	Sweep <u>Cont</u> Sweep
#Samp				Norm	Time <u>Accy</u>
dB/ Offst 15.8 dB				On Gate	Gate <u>Off</u> e Setup •
Center 1.909 800 0 GHz #Res BW 10 kHz	#VBW 30 kHz	Sweep 30.24	Span 1 MHz ms (601 pts)		Points
Occupied Bandwi 248.	dth 7150 kHz	Occ BW % Pwr x dB	99.00 % -26.00 dB		601
Transmit Freq Error x dB Bandwidth	2.648 kHz 287.400 kHz*				
Copyright 2000-2010 Agilent T	echnologies				

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EGPRS 1900 Mode (PCS Band)



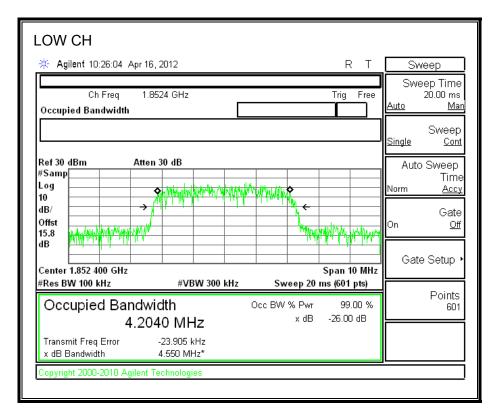


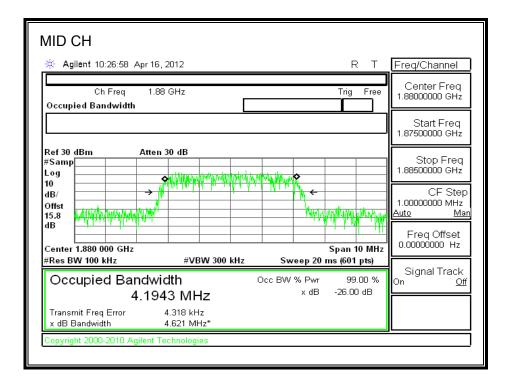
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HIGH CH	, 2012		RT	Sw	reep
Ch Freq 1.9 Occupied Bandwidth	098 GHz		Trig Free		ep Time 30.24 ms <u>Man</u>
Ref 35 dBm Atter #Samp	30 dB			<u>Single</u> Auto	Sweep <u>Cont</u> Sweep
Home Log Image: Constraint of the second se				<u>Norm</u> On Gate	Time <u>Accy</u> Gate <u>Off</u> Setup •
Center 1.909 800 0 GHz #Res BW 10 kHz	#VBW 30 kHz	Sweep 30.24	Span 1 MHz ms (601 pts)		Deinte
Occupied Bandw 253.	idth 8933 kHz	Occ BW % Pwr x dB	99.00 % -26.00 dB		Points 601
Transmit Freq Error x dB Bandwidth	-858.750 Hz 289.691 kHz*				
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WCDMA REL 99 Mode (PCS Band)



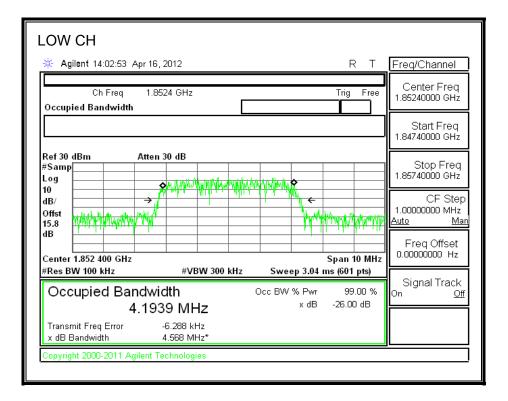


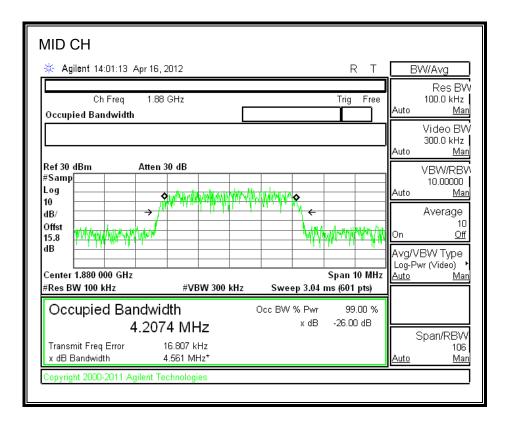
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HIGH CH				
🔆 Agilent 10:26:34 Apr 16,	2012		RT	Freq/Channel
Ch Freq 1.90 Occupied Bandwidth	176 GHz		Trig Free	Center Freq 1.90760000 GHz
				Start Freq 1.90260000 GHz
#Samp	30 dB			Stop Freq 1.91260000 GHz
10 dB/ Offst 15.8		η €		CF Step 1.0000000 MHz <u>Auto Man</u>
dB			Span 10 MHz	Freq Offset 0.00000000 Hz
#Res BW 100 kHz	#VBW 300 kHz	Sweep 20	ms (601 pts)	
Occupied Bandwi 4.207	dth ′3 MHz	Occ BW % Pwr x dB		Signal Track On <u>Off</u>
	10.815 kHz 4.636 MHz*			
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WCDMA HSDPA Mode (PCS Band)





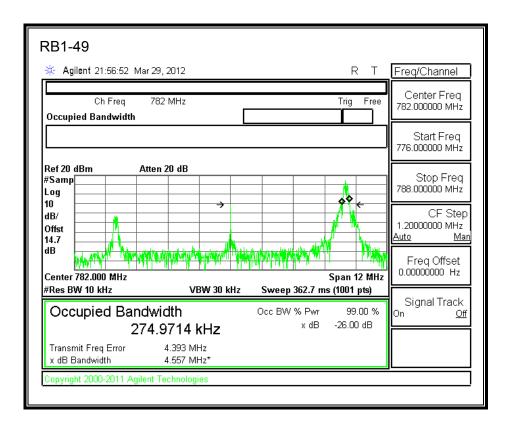
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HIGH CH * Agilent 14:02:26 Apr 16, 2012 R T	Measure
Ch Freq 1.9076 GHz Trig Free Occupied Bandwidth	Meas Off
Ref 30 dBm Atten 30 dB #Samp	Channel Power Occupied BW
10 dB/ Offst 15.8	ACP
dB Image: Constraint of the second seco	Multi Carrier Power
Occupied Bandwidth Occ BW % Pwr 99.00 % 4.2260 MHz x dB -26.00 dB	Power Stat CCDF More
Transmit Freq Error -12.149 kHz x dB Bandwidth 4.593 MHz* Copyright 2000-2011 Agilent Technologies	1 of 2

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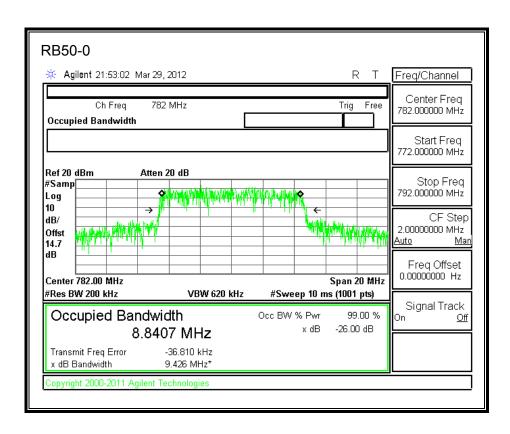
LTE QPSK Band 13

RB1-0		
🔆 Agilent 21:55:27 Mar 29, 2012	RT	Freq/Channel
Ch Freq 782 MHz Occupied Bandwidth	Trig Free	Center Freq 782.000000 MHz
		Start Freq 776.000000 MHz
Ref 20 dBm Atten 20 dB #Samp Log		Stop Freq 788.000000 MHz
10 → Y ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	-	CF Step 1.2000000 MHz <u>Auto Man</u>
Center 782.000 MHz #Res BW 10 kHz VBW 30 kHz	Span 12 MHz	Freq Offset 0.00000000 Hz
Occupied Bandwidth 268.2399 kHz	Осс BW % Pwr 99.00 % xdB -26.00 dB	Signal Track ^{On <u>Off</u>}
Transmit Freq Error -4.400 MHz x dB Bandwidth 4.618 MHz*		
Copyright 2000-2011 Agilent Technologies		



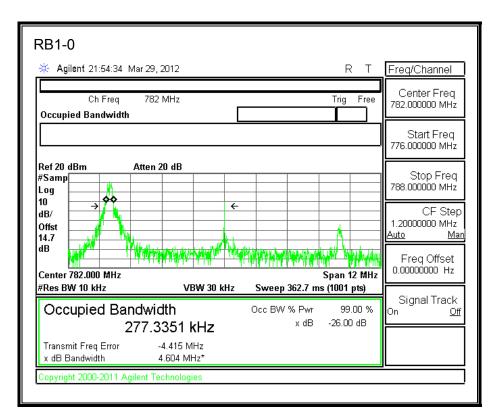
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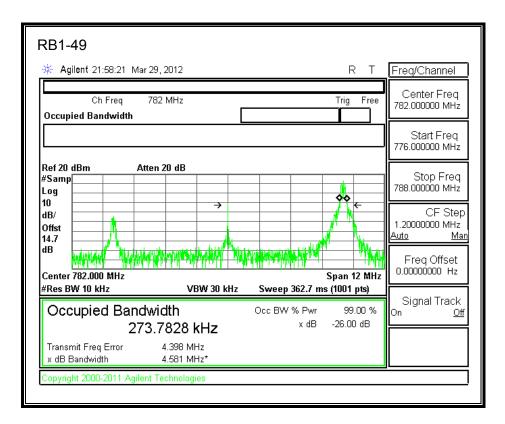
Occupied Bandwidth	Freq/Channel	R T		RB25 🔆 Agi
Ref 20 dBm Atten 20 dB #Samp #Samp Log #Samp 10 #Samp dB/ #Samp Construction #Samp Center 782.00 MHz YBW 430 kHz YBW 430 kHz #Sweep 10 ms (1001 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % 4.5152 MHz x dB -26.00 dB	Center Freq 782.000000 MHz	Trig Free		Occupi
#Samp Samp Log Image: Constraint of the second	Start Freq 777.000000 MHz			
Occupied Bandwidth Occ BW % Pwr 99.00 % 4.5152 MHz × dB -26.00 dB	Stop Freq 787.000000 MHz CF Step 1.00000000 MHz <u>Auto Man</u> Freq Offset 0.00000000 Hz	Span 10 MHz	782.00 MHz	#Samp Log 10 dB/ Offst 14.7 dB Center
	Signal Track ^{On <u>Off</u>}	Occ BW % Pwr 99.00 %	upied Bandwidth	
x dB Bandwidth 5.573 MHz*			nit Freq Error -108.611 kHz Bandwidth 5.573 MHz*	x dB B



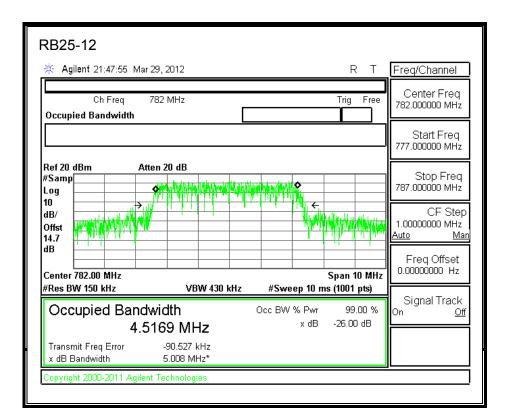
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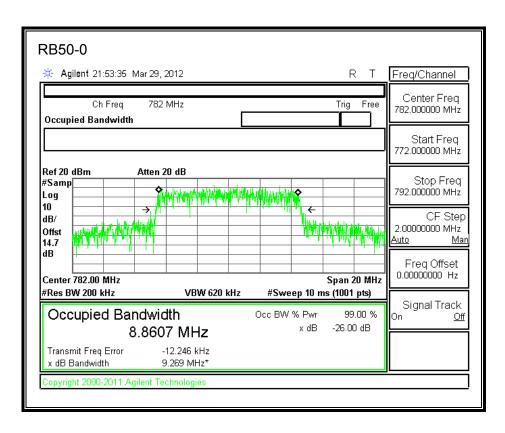
LTE 16QAM Band 13





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8.2. BAND EDGE

RULE PART(S)

FCC: §22.359, 24.238 and 27.53©

<u>LIMITS</u>

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

Compliance with the provisions of paragraphs above of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed; Correction Fcator = $10*\log(100/6.25\text{kHz}) = 12.04\text{dB}$, therefore the limit = -55 + 12 = -33dBm.

TEST PROCEDURE

The transmitter output was connected to an Agilent 8960 and CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

- Set the spectrum analyzer span to include the block edge frequency (824, 848, 1850, 1910MHz)
- Set a marker to point the corresponding band edge frequency in each test case.
- Set display line at -13 dBm
- Set resolution bandwidth to at least 1% of emission bandwidth.

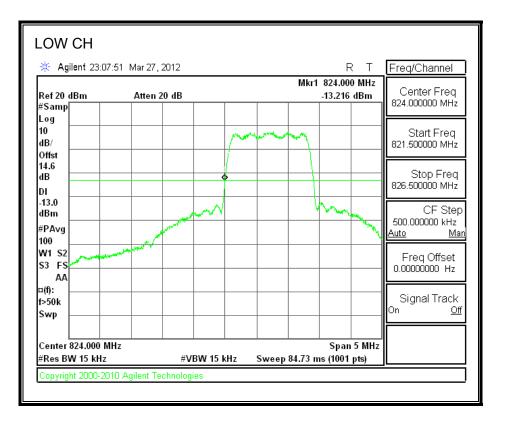
MODES TESTED

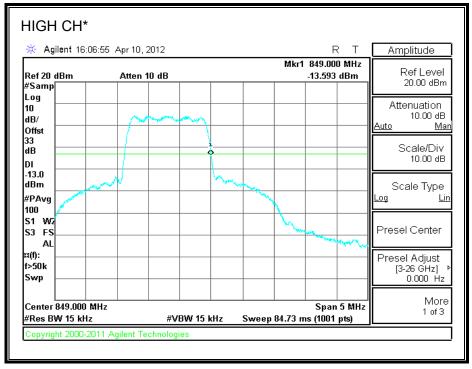
- 1xRTT RC1 SO55
- CDMA2000 1xEV-DO (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE Band 13

RESULTS

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CDMA2000 1xRTT mode (Cellular Band)

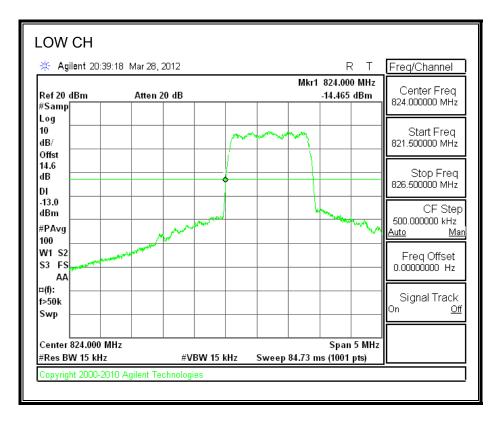


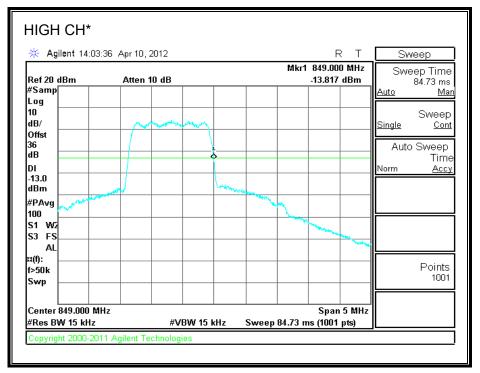


*Note: This particular test has made using radiated method with real substitution.

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CDMA2000 1xEV-DO Revision A (Rev. A) mode (Cellular Band)

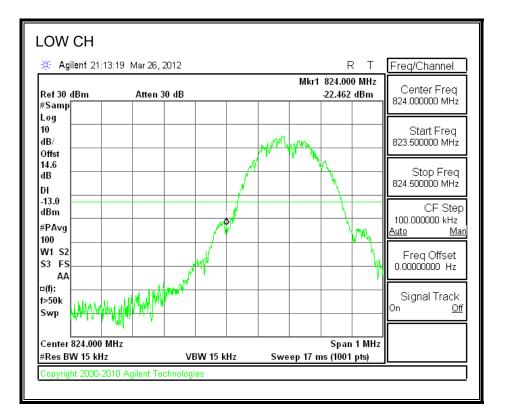


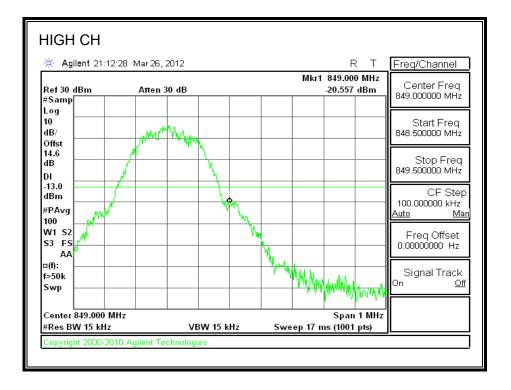


*Note: This particular test has made using radiated method with real substitution

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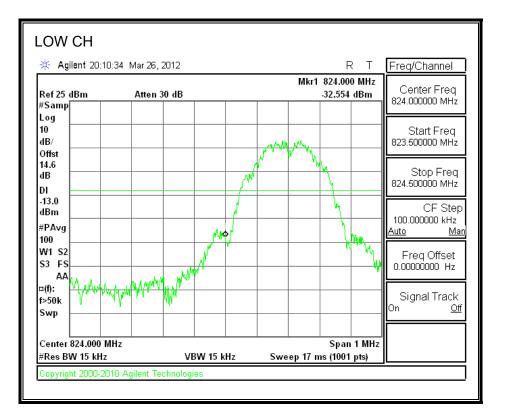
GPRS mode (Cellular Band)

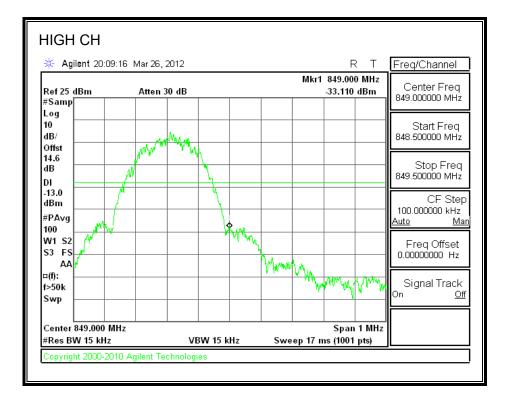




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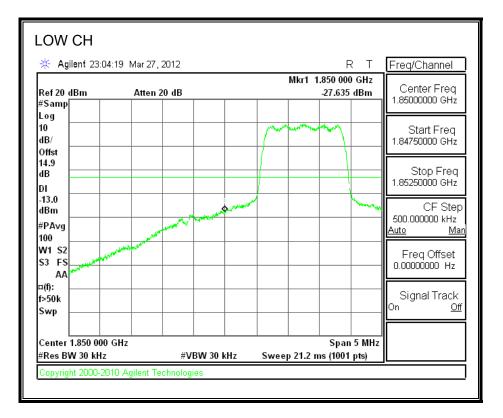
EGPRS mode (Cellular Band)

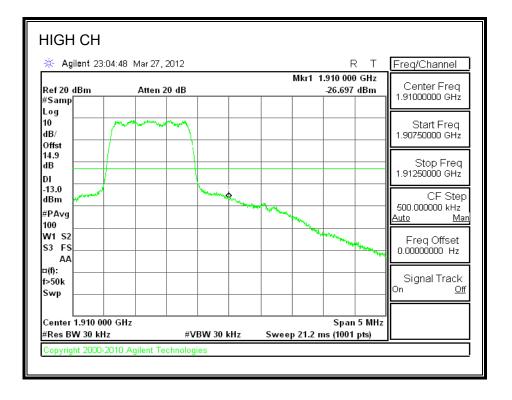




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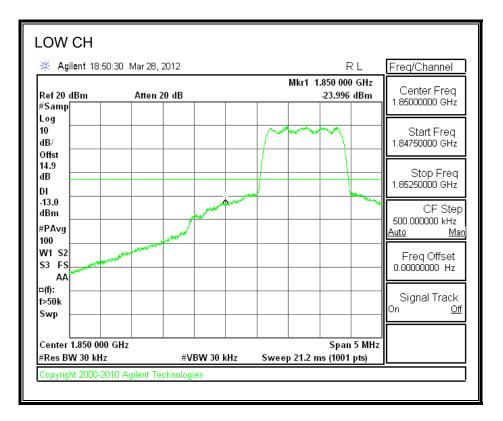
CDMA2000 1xRTT mode (PCS Band)

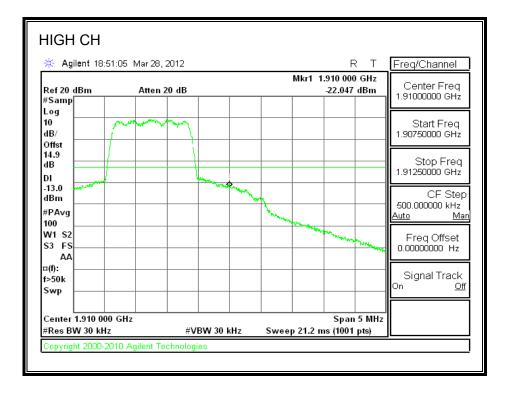




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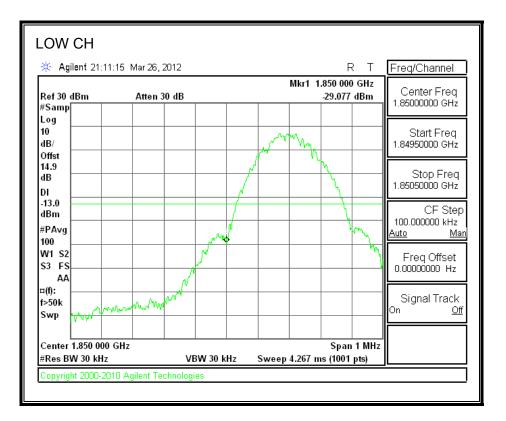
CDMA2000 1xEV-DO Revision A (Rev. A) mode (PCS Band)

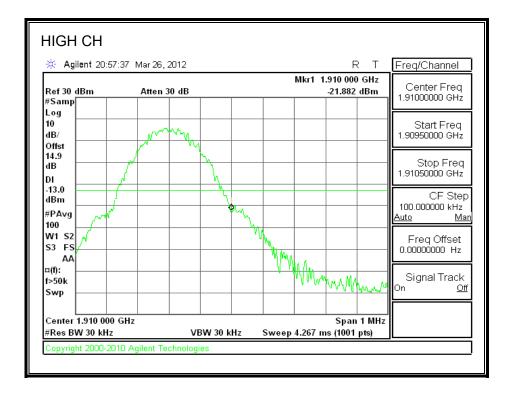




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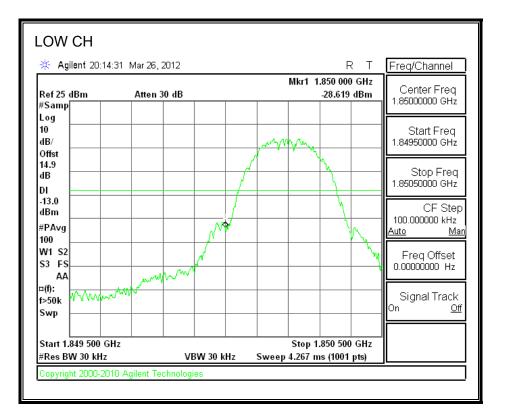
GPRS mode (PCS Band)

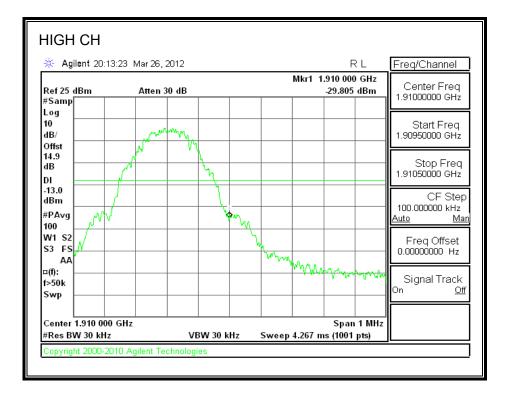




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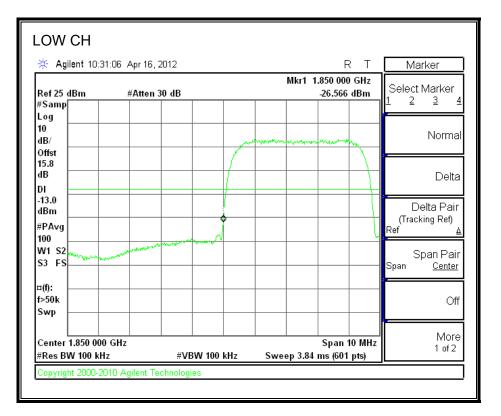
EGPRS mode (PCS Band)

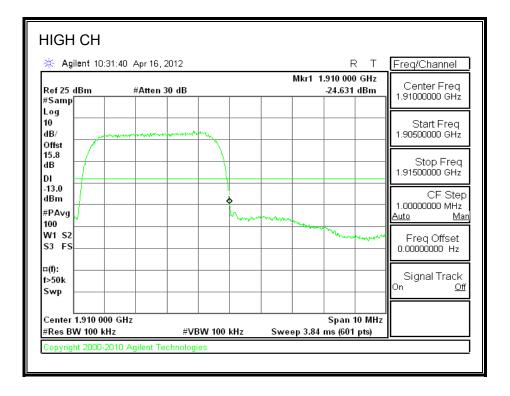




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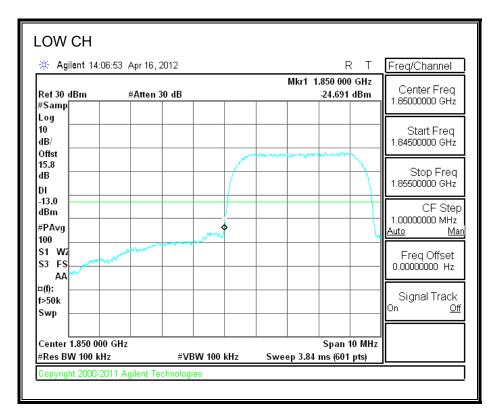
UMTS REL99 (PCS Band)

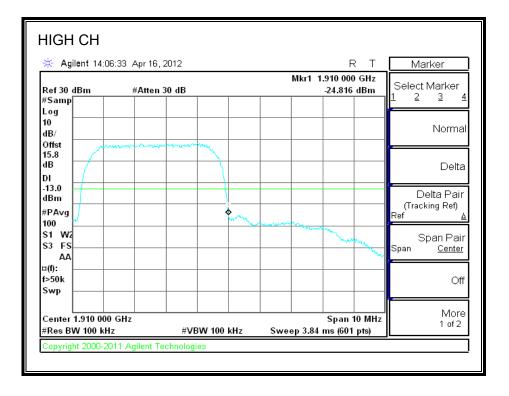




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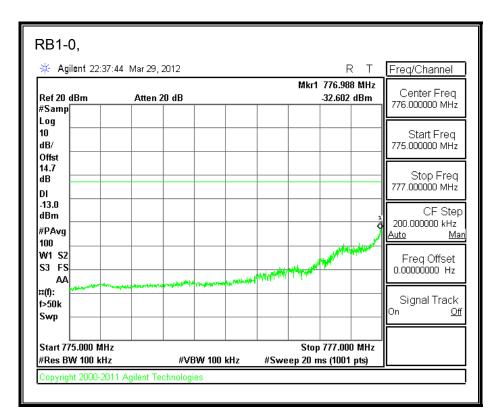
UMTS HSDPA (PCS Band)

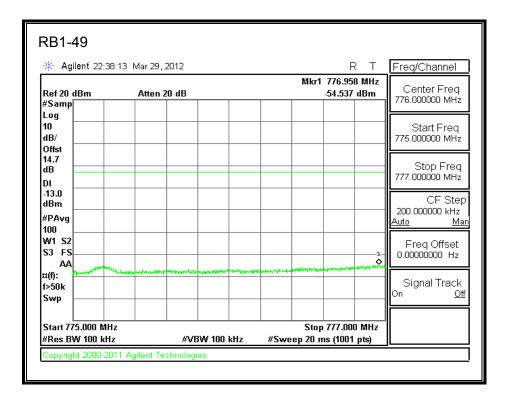




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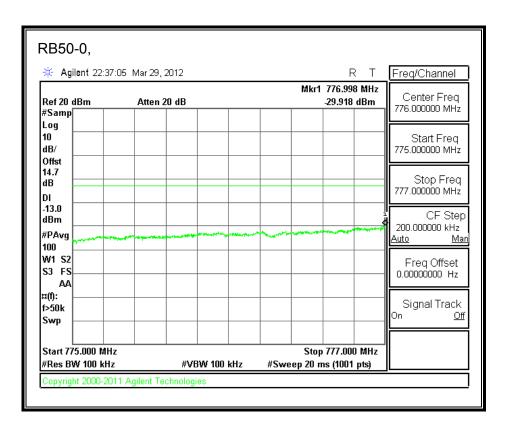
LTE QPSK 782MHz Band 13, 775 - 777MHz (10MHz Bandwidth)





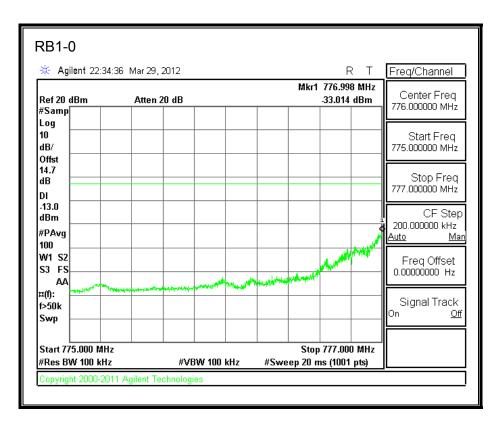
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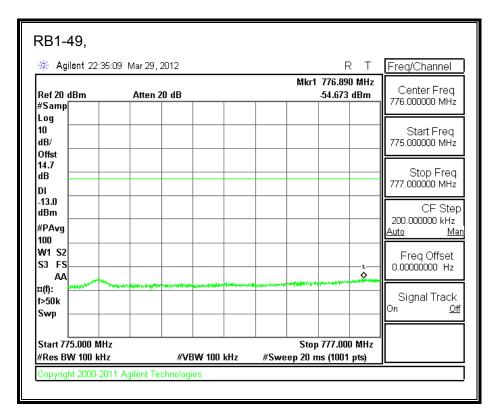
🔆 Agilent 22:38:4	8 Mar 29, 2012		F	<u>Σ</u>	Freq/Channel
Ref 20 dBm	Atten 20 dB		Mkr1 776.768 -34.719		Center Freq
#Samp Log 10 dB/					Start Freq
0ffst 14.7 dB					Stop Freq
DI					777.000000 MHz CF Step
#PAvg 100				***	200.000000 kHz <u>Auto Mar</u>
AA		·			Freq Offset 0.00000000 Hz
¤(f): f>50k Swp					Signal Track On <u>Off</u>
Start 775.000 MHz #Res BW 100 kHz	#VBW 1		Stop 777.000 weep 20 ms (1001		



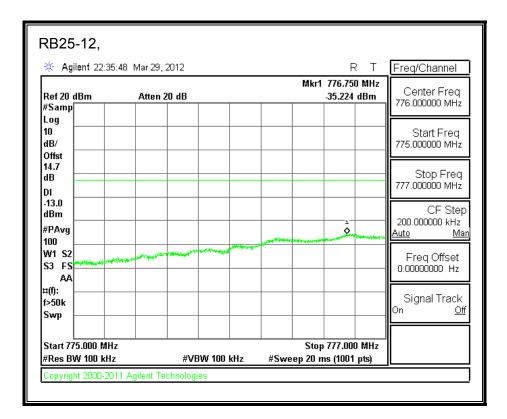
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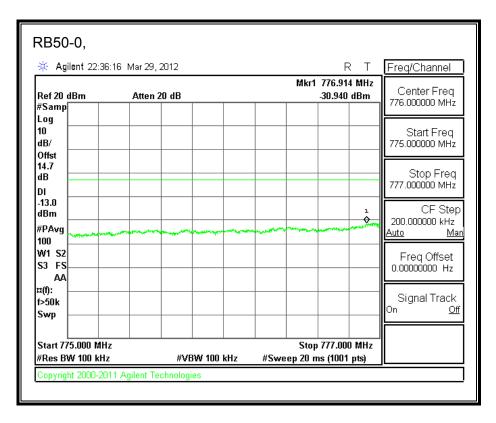
LTE 16QAM Band 13, 775 - 777MHz (10MHz Bandwidth)





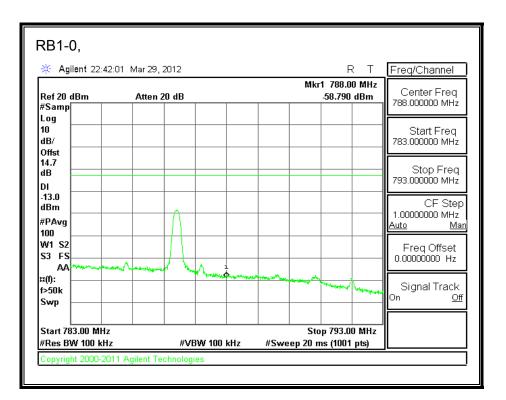
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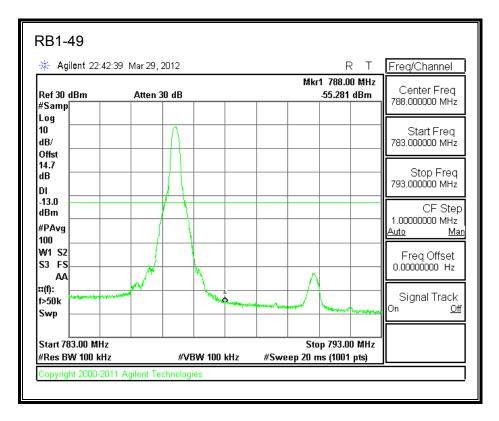




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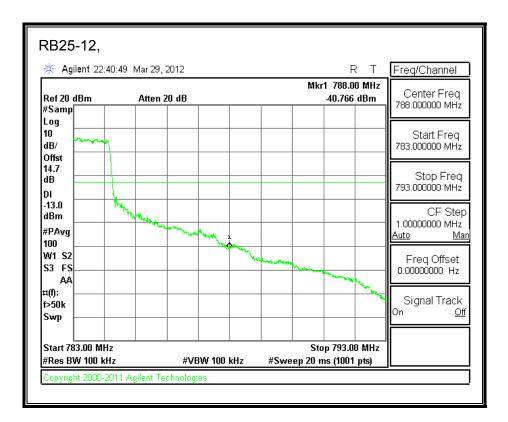
LTE QPSK 782MHz Band 13, 783 - 793MHz (10MHz Bandwidth)

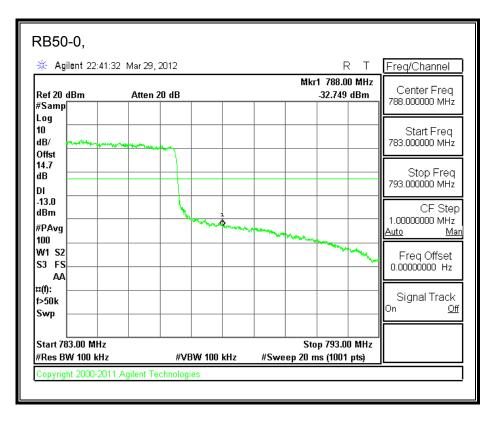




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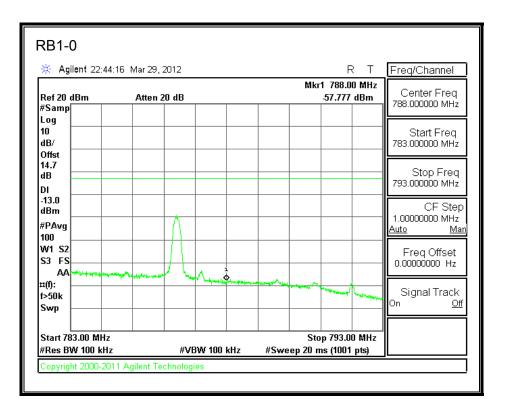
COMPLIANCE CERTIFICATION SERVICES (UL CCS)FORM NO: CCSUP4031B47173 BENICIA STREET, FREMONT, CA 94538, USATEL: (510) 771-1000FAX: (510) 661-0888This report shall not be reproduced except in full, without the written approval of UL.CCS.

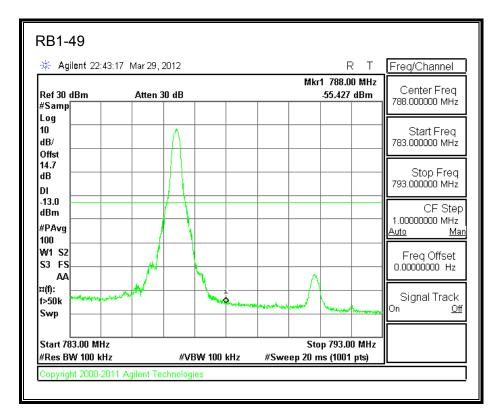




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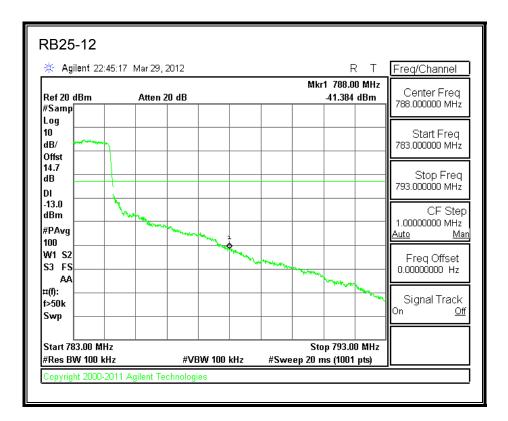
LTE 16QAM Band 13, 782MHz 783 - 793MHz (10MHz Bandwidth)

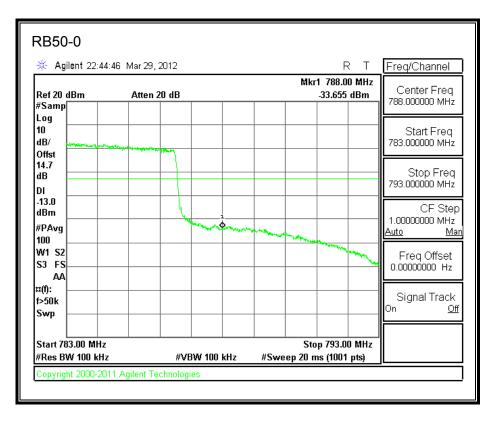




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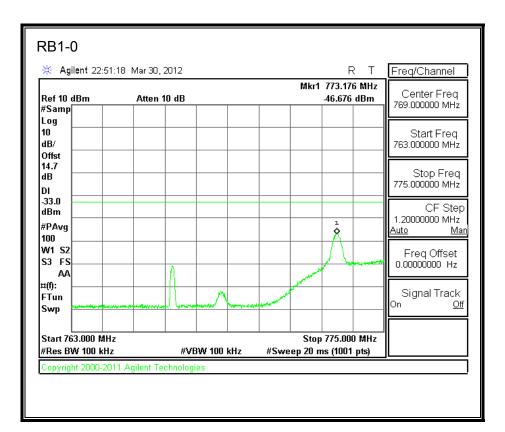
COMPLIANCE CERTIFICATION SERVICES (UL CCS)FORM NO: CCSUP4031B47173 BENICIA STREET, FREMONT, CA 94538, USATEL: (510) 771-1000FAX: (510) 661-0888This report shall not be reproduced except in full, without the written approval of UL.CCS.

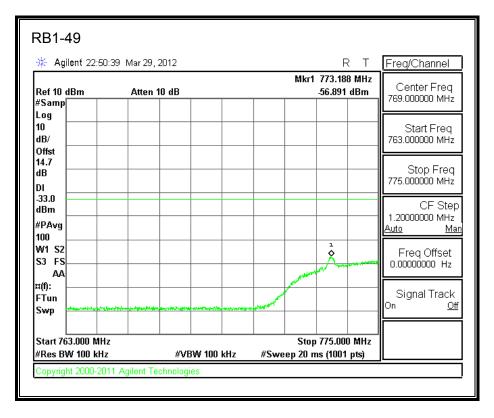




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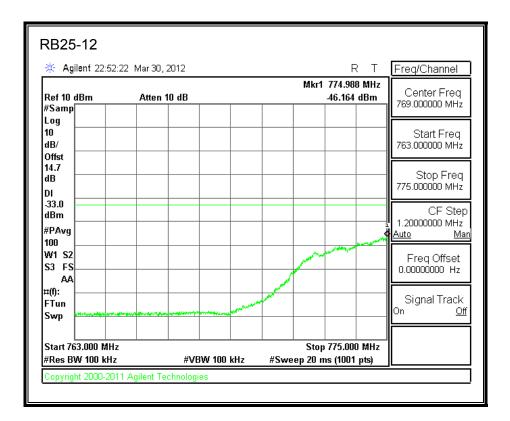
LTE QPSK 782MHz Band 13, 763 - 775MHz (10MHz Bandwidth)

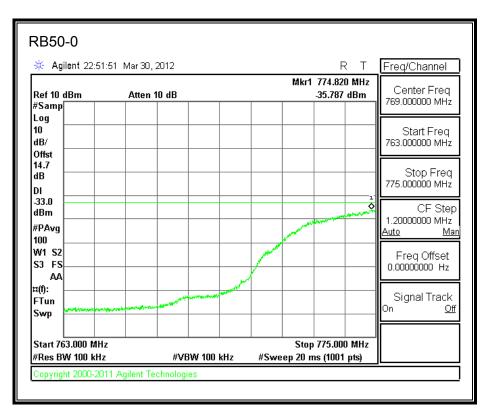




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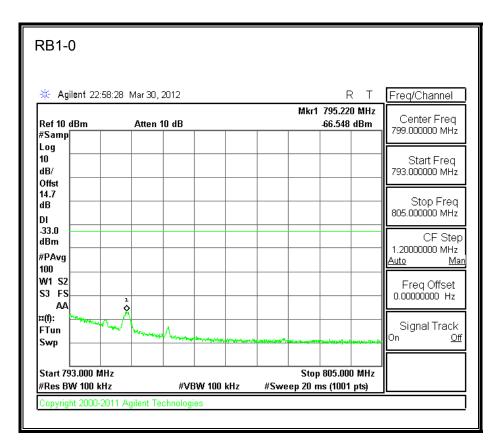
COMPLIANCE CERTIFICATION SERVICES (UL CCS)FORM NO: CCSUP4031B47173 BENICIA STREET, FREMONT, CA 94538, USATEL: (510) 771-1000FAX: (510) 661-0888This report shall not be reproduced except in full, without the written approval of UL.CCS.

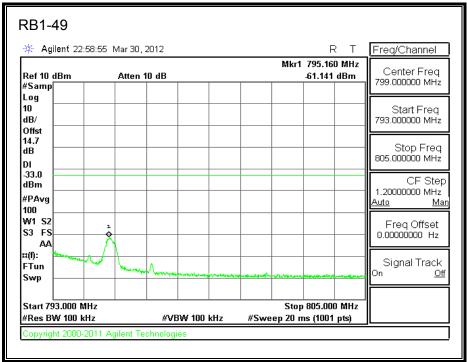




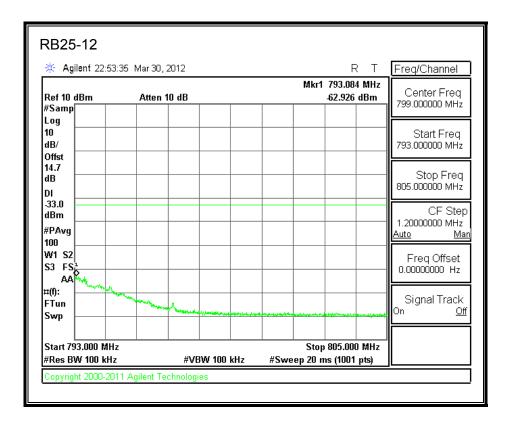
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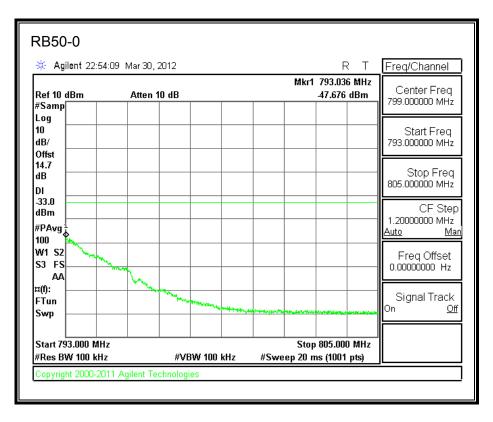
LTE QPSK Band 13, 793 - 805MHz (10MHz Bandwidth)





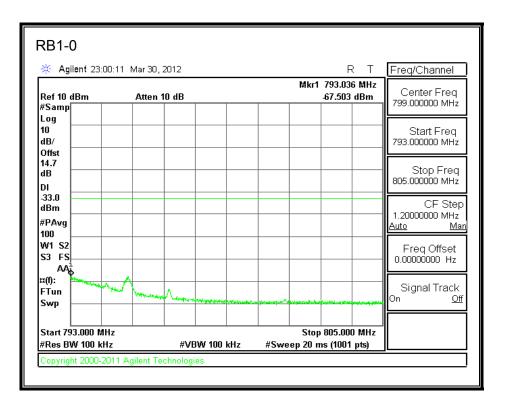
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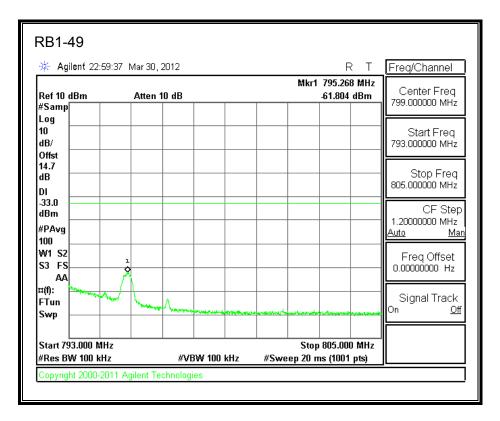




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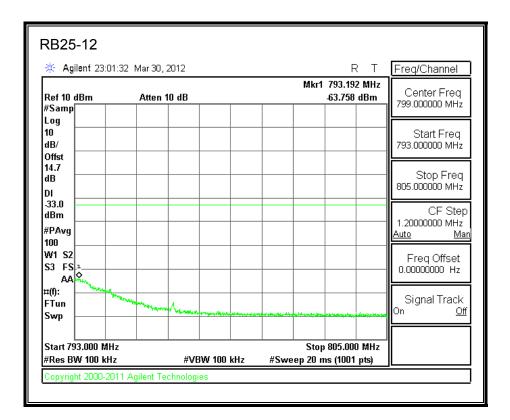
LTE 16QAM Band 13, 793 - 805MHz (10MHz Bandwidth)

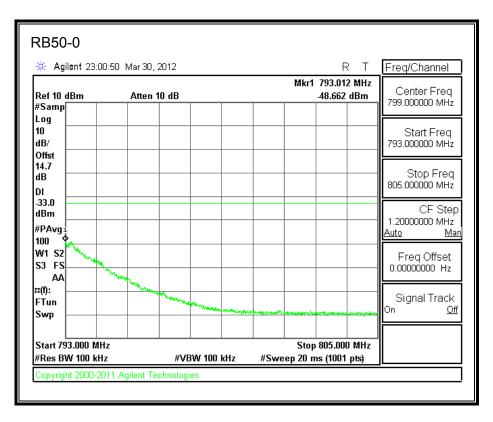




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8.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238 and §27.53

LIMITS

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

- Set display line at -13 dBm
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

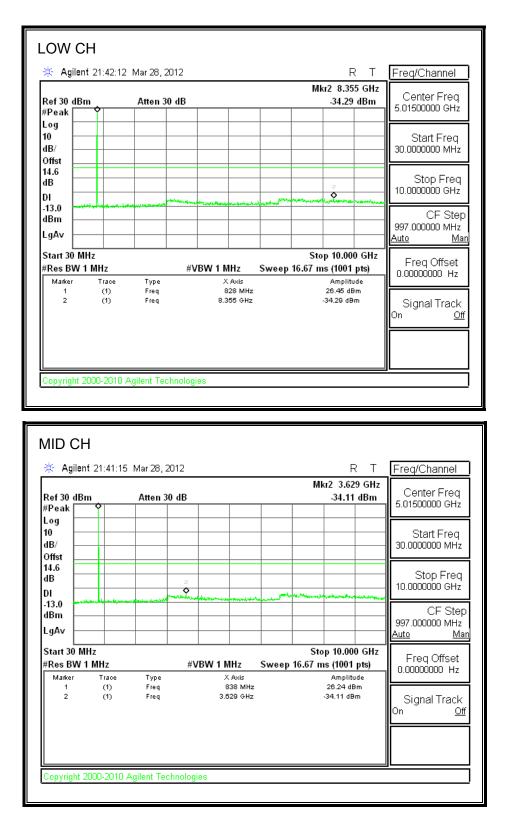
MODES TESTED

- 1xRTT RC2, SO9
- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE Band 13

RESULTS

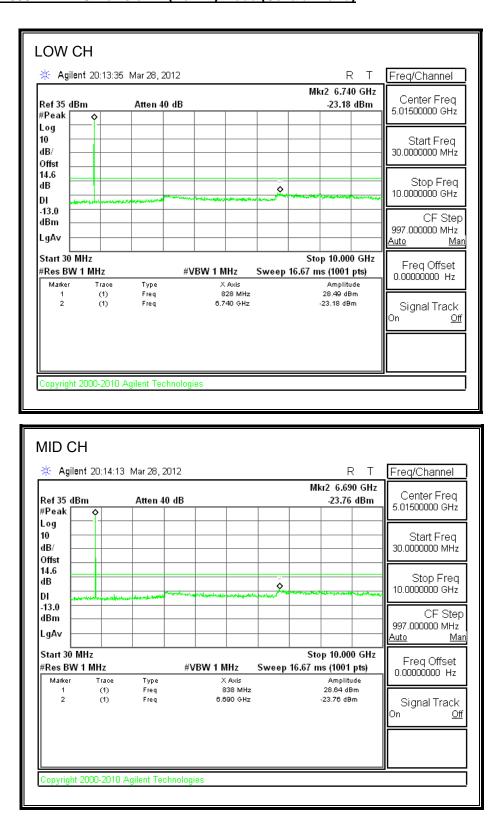
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1xRTT Mode (Cellular Band)



Ref 30 dBm		Atten 30	ar			Mk	ur2 9.43 -34.50		Center Freq
#Peak		Atten 30					-34.30		5.01500000 GHz
Log	-								
10 dB/									Start Freq
0ffst									30.0000000 MHz
14.6									Ctop Ero a
dB								2	Stop Freq 10.0000000 GHz
DI -13.0	L	an and the second second	······	ere market		ter way and	mondenadas	man	
dBm									CF Ste
LgAv									997.000000 MHz Auto M:
							40.00		
Start 30 MHz #Res BW 1 M	H7		#VBW	1 MHz	Sweep		p 10.00		Freq Offset
	Trace	Туре	#VDVV	X Axis	Sweep	10.07 11	Amplitu	• ·	0.00000000 Hz
1	(1)	Freq		848 MHz			26.43 dE		
2	(1)	Freq		9.432 GHz			-34.50 dB	'm	Signal Track
									On <u>O</u>
1									

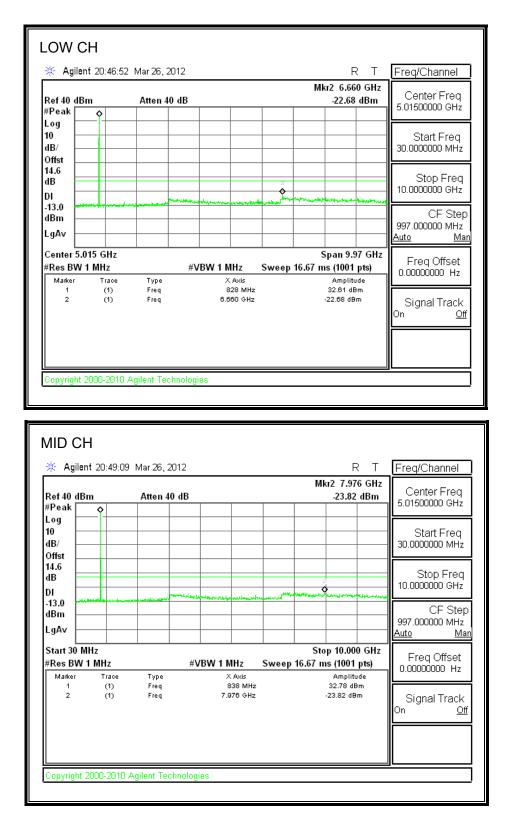
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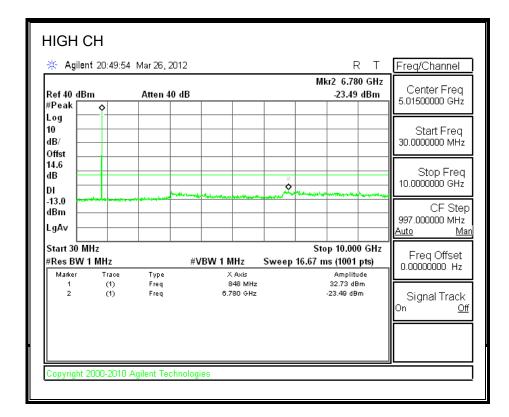


Ref 35 dBr	m	Atten 40	dB		М	1.02 kr2 7.02	79 GHz 5 dBm	Center Freq
#Peak	\$					-24.50		5.01500000 GHz
Log								
10 -								Start Freq
dB/								30.0000000 MHz
Offst								
dB					2			Stop Fred
	millionara		and the second second second second	المتحد المربية المراجع المراجع	\$	and the second states	and	10.0000000 GHz
-13.0	ala din manageri a							
dBm —								CF Ste 997.000000 MHz
LgAv –								Auto MH
						40.00		
Start 30 M #Res BW 1			41./D14/ 4 MI	- e		op 10.00		Freq Offset
#Res BW 1 Marker		T	#VBW 1 MI		ер 16.67 і	ns (1001 Amplit	• /	0.00000000 Hz
1 1	Trace (1)	Type Freg		oas 8 MHz		28.18 d		
2	(1)	Freq	7.07	9 GHz		-24.56 dB	9m	Signal Track
								0 n <u> </u>

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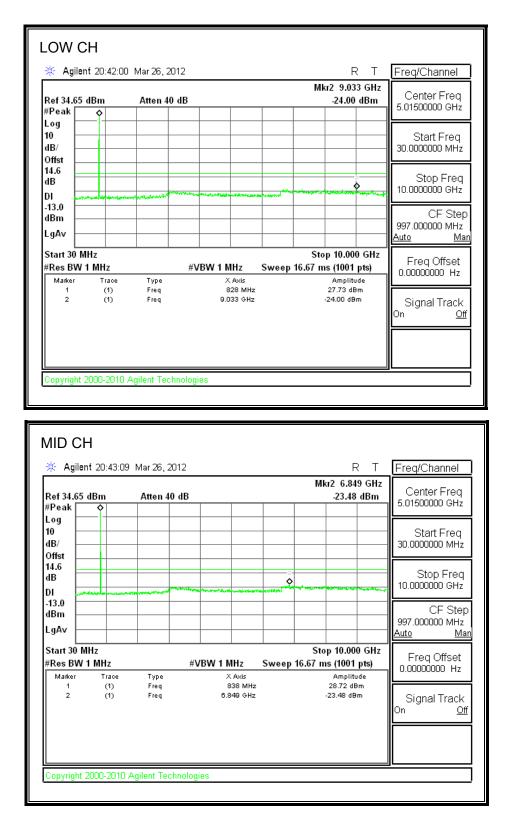
GPRS Mode (Cellular Band)





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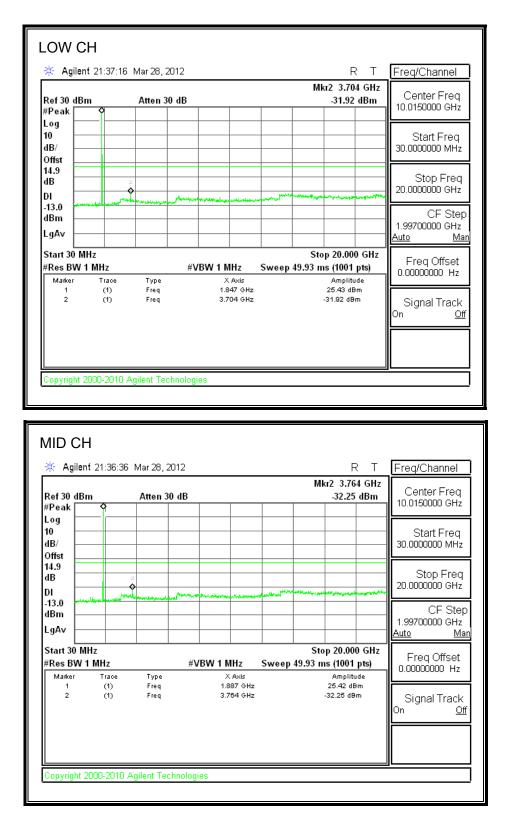
EGPRS Mode (Cellular Band)



Ref 34.65	dDm	Atten 40	JD.	Mkr2 7.986 G -23.30 dB	···· II Contor Eroa
#Peak	<u>ubm</u> ♦	Atten 40		-25.50 0D	5.01500000 GHz
Log					
10 -		+			Start Freq
dB/		+			
Offst					
dB		+		2	Stop Fred
	with a state of		Anti- Agender to all the line and a literature	and the second s	10.000000 GHz
.13.0					
dBm 📙					CF Ste
					997.000000 MHz Auto M
Ľ					
Start 30 M				Stop 10.000 G	
#Res BW			#VBW 1 MHz	Sweep 16.67 ms (1001 pts)	0.00000000 Hz
Marker 1	Trace (1)	Type Freq	X Axis 848 MHz	Amplitude 27.71 dBm	
2	ň	Freq	7.986 GHz	-23.30 dBm	Signal Track
					On O

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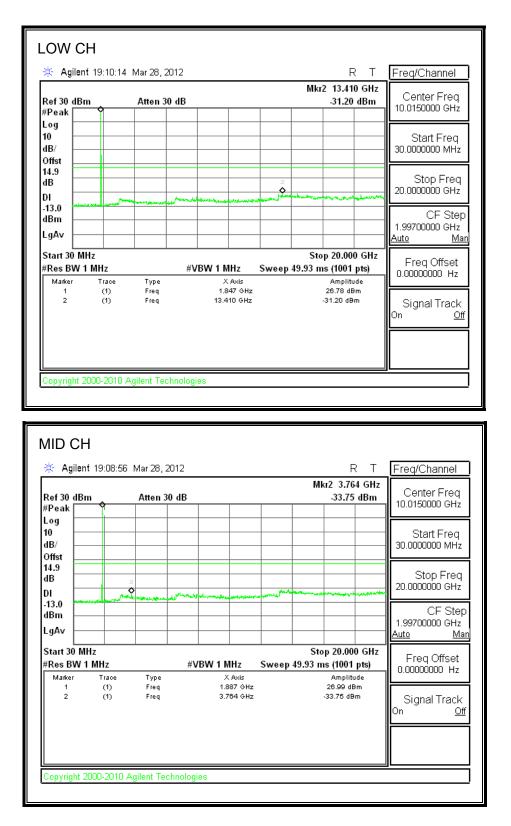
1xRTT Mode (PCS Band)



Ref 30 dBı		Atten 30	an				Mk	ur2 3.82	24 GHz 3 dBm	Center Freq
#Peak	<u>^</u>	Atten 30						-51.05		10.0150000 GHz
Log	i									
10 -										Start Freq
dB/ —										30.0000000 MHz
Offst										
14.9 dB										Stop Fred
										20.0000000 GHz
DI -13.0	and the second	ad marine	Martalia (ag-dapping		- white	A STREET WAR	817-a, 184, 28-194	- Angelander	
dBm										CF Ste
LgAv —										1.99700000 GHz
LYAV										<u>Auto M</u>
Start 30 M	Hz						Sto	p 20.00	0 GHz	Freq Offset
#Res BW 1	MHz		#VE	3W 1 N	IHz	Sweep	49.93 m	ıs (1001	pts)	0.00000000 Hz
Marker	Trace	Туре			Axis			Amplit		
1 2	(1) (1)	Freq Freq			07 GHz 24 GHz			25.23 di -31.83 de		Cignol Treat
										Signal Track
										<u> </u>
									I	

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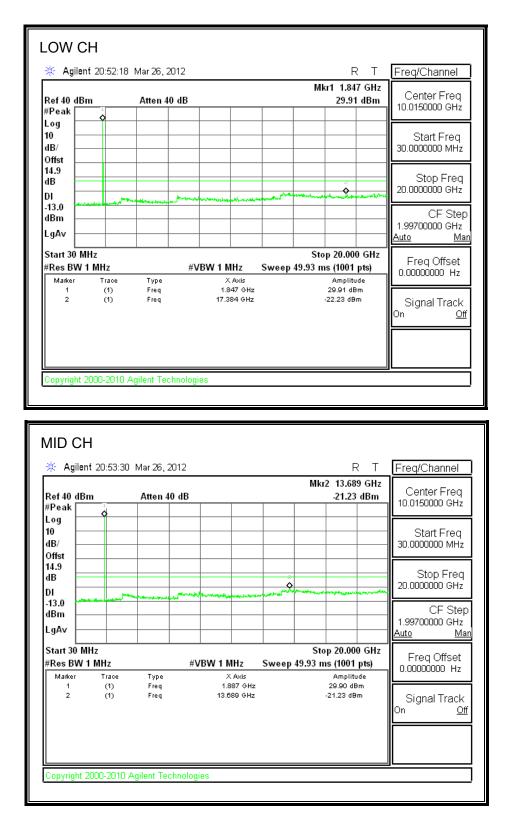
CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)



Ref 30 dBr	m	Atten 30	dB			3.824 GHz 7.58 dBm	Center Freq
#Peak	" •				-2		10.0150000 GHz
Log							
10 — dB/ —							Start Freq 30.000000 MHz
Offst							30.000000 MHz
14.9		2					Stop Freq
dB		◊		_			20.0000000 GHz
DI -13.0		-	Marine March Vard March	Kind of the low the state of th	- martin de la composition de	la the standard and	
dBm –							CF Ste
LgAv —							1.99700000 GHz Auto Mi
Start 30 M					Stop 2	0.000 GHz	
#Res BW 1			#VBW 1 MHz	Sweep	49.93 ms (1		Freq Offset
Marker	Trace	Туре	X Axis	0.000	,	nplitude	0.00000000 Hz
1	(1)	Freq	1.907 G			37 dBm	
2	(1)	Freq	3.824 G	Hz	-27.5	58 dBm	Signal Track
							On <u>O</u>

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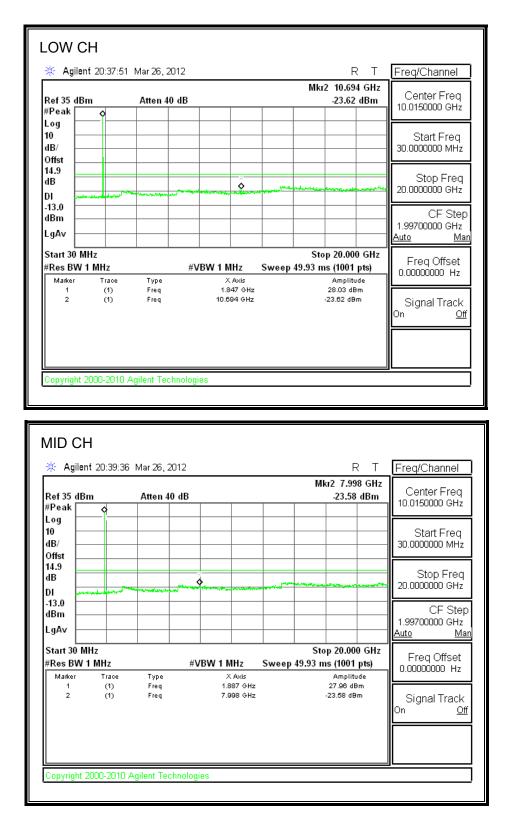
GPRS Mode (PCS Band)



						Mkr	2 18.46	2 GHz	
Ref 40 dB	m	Atten 40	dB				-22.45	dBm	Center Freq 10.0150000 GHz
#Peak	ð								10.0150000 0112
Log									
10									Start Freq
dB/ —									30.000000 MHz
Offst					-				
dB									Stop Fred
								\$	20.0000000 GHz
DI -13.0	- Martine	al a second s	for the stand and and and a stand and a		and a second second		la te de la companya	and some days	
dBm									CF Ste
									1.99700000 GHz
LgAv —									<u>Auto M</u>
Start 30 M	Hz					Sto	p 20.00	0 GHz	
#Res BW	1 MHz		#VBW	/ 1 MHz	Sweep	49.93 m			Freq Offset
Marker	Trace	Туре		X Axis			Amplit	• /	0.00000000 Hz
1	(1)	Freq		1.907 GHz			29.83 de		
2	(1)	Freq		18.462 GHz			-22.45 dB	'm	Signal Track
									On <u>C</u>

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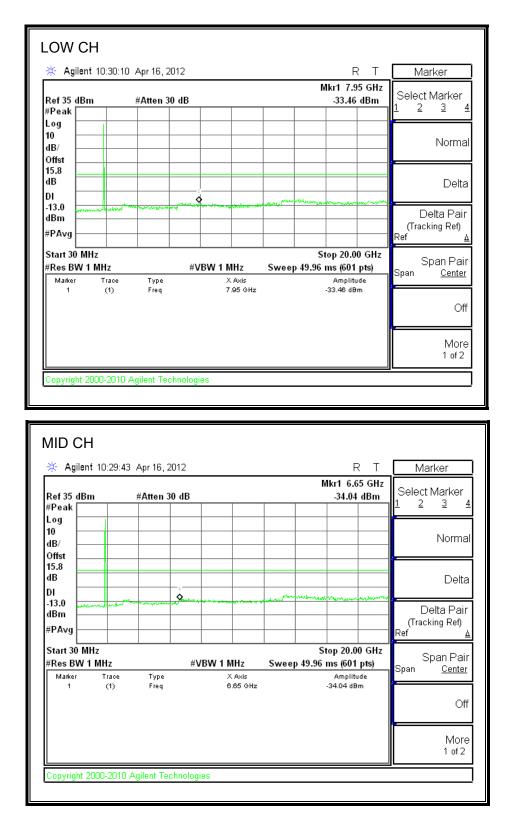
EGPRS Mode (PCS Band)



Ref 35 dB	m	Atten 40 d	IB			Mkr	2 17.54	4 GHz dBm	Center Freq
#Peak	<u></u>								10.0150000 GHz
Log	<u> </u>								
10									Start Freq
dB/ —									30.0000000 MHz
Offst									
dB							\$		Stop Fred
DI L	and the second second	mandurant	www.www.www.	- Wayselin			مأسيعتم	and set of the set	20.0000000 GHz
.13.0									
dBm —									CF Ste 1.99700000 GHz
LgAv –									Auto M
Start 30 M						64-	p 20.00		
#Res BW			#VBW 1 I	447	Sweep		•		Freq Offset
Marker	Trace	Туре		(Axis	Sweep	4 <i>3.35</i> m	Amplit	• •	0.00000000 Hz
1	(1)	Freq		907 GHz			27.17 dE		
2	(1)	Freq	17.6	544 GHz			21.75 dB	'm	Signal Track
									On <u> </u>

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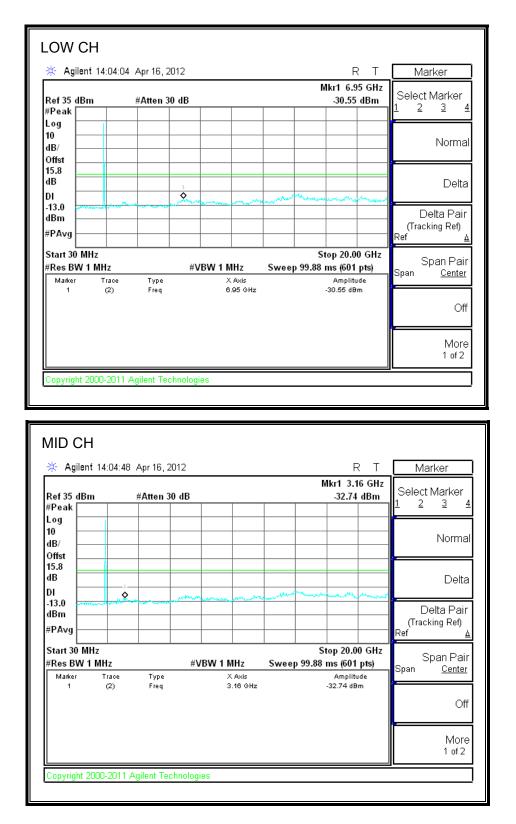
UMTS REL 99 (PCS Band)



🔆 Ayıldı	it 10:29:07	Apr 10, 20)1Z					RT	Marker
Ref 35 dBi	m	#Atten 30	dB				Mkr1 3. -31.8	82 GHz 8 dBm	Select Marker
#Peak									1 2 3
Log									
10 -		++					_		Norm
dB/							-		1 voini
Offst 15.8									
dB							_		Dalt
		1					_		Delt
-13.0		\$	- Harrison and a			whennes	manne	mound	
dBm	mand records		<u> </u>						Delta Pa
#PAvg —									(Tracking Ref)
#PAVg									Ref
Start 30 M	Hz						Stop 20.0	00 GHz	0
#Res BW ′	1 MHz		#VB	W 1 MHz	Swe	eep 49.9	6 ms (601	1 pts)	Span Pa Span <u>Cente</u>
Marker	Trace	Туре		X Axis	;		Amplit		opan <u>cente</u>
1	(1)	Freq		3.82 (→Hz		-31.88 di	Bm	
									0
									-
									Mor
								I	1 of 2

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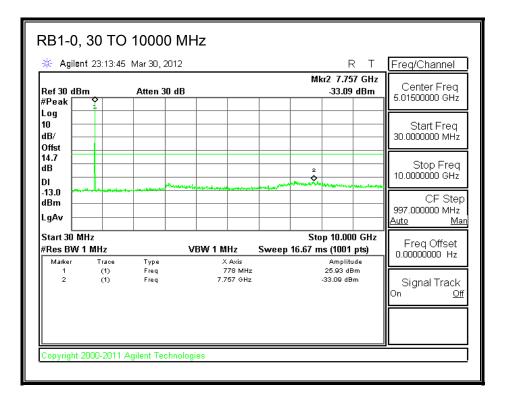
UMTS HSDPA (PCS Band)

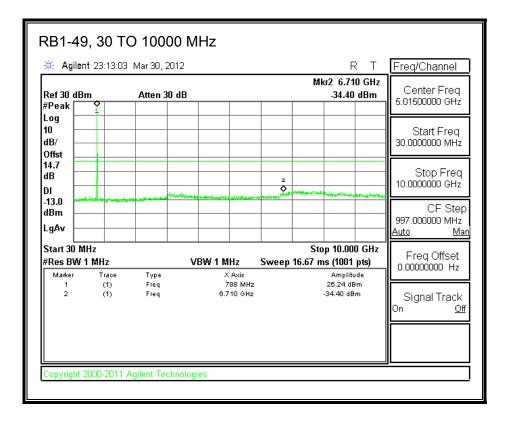


X Aylici	nt 14:04:22	Apr 16, 2	712						<u> २ т</u>	Marker
Ref 35 dB	m	#Atten 30	∂dB				N	4kr1 7.7 30.48	72 GHz 3 dBm	Select Marker
#Peak										1 2 3
Log										
10 -		+ +								Norm
dB/		+					<u> </u>			Nom
Offst										
15.8 dB		++								D1
			1							Del
DI			Jones La		much	more	and a surrought	and the	minun	
dBm										Delta Pa
#PAvg										(Tracking Ref)
#PAVg										Ref
Start 30 M	Hz						S	top 20.0	0 GHz	0
#Res BW [·]	1 MHz		#VE	3W 1 N	MHz	Swee	p 99.88	ms (601	pts)	Span Pa Span Centi
Marker	Trace	Туре			Axis			Amplit		Span <u>Cent</u> i
1	(2)	Freq		7	.72 GHz			-30.48 dE	9m	
										C
										_
										Mo
									I	1 of 3

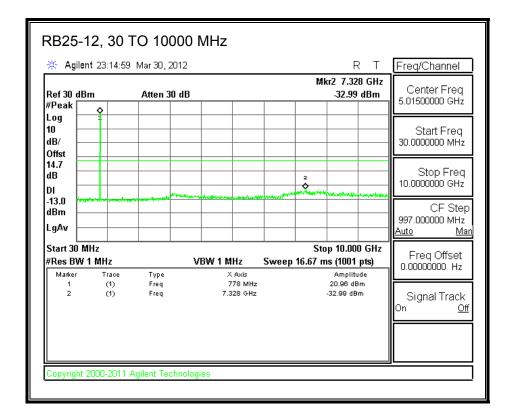
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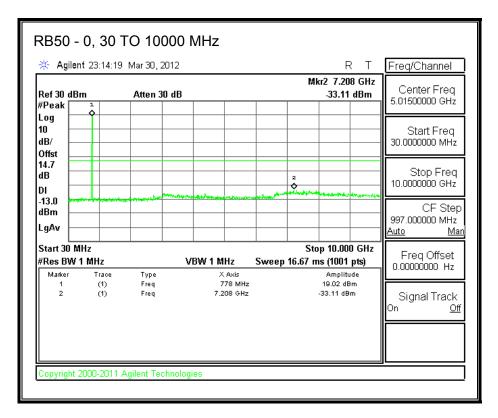
LTE QPSK Band 13





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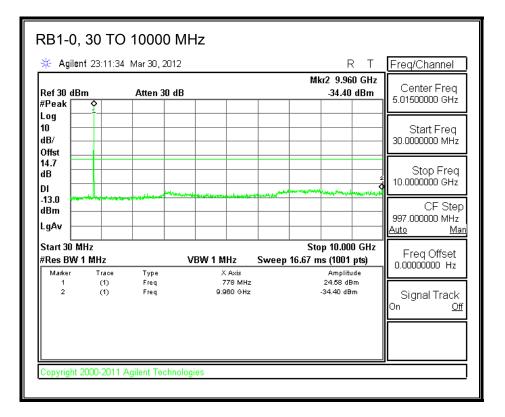


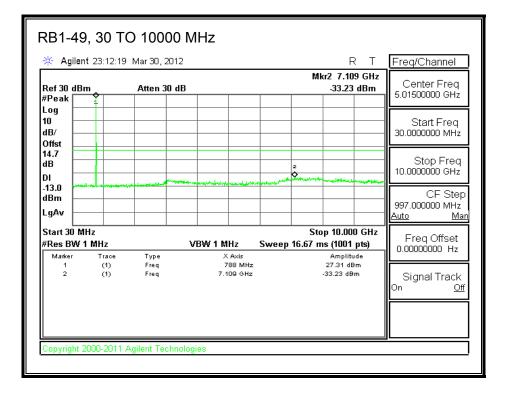


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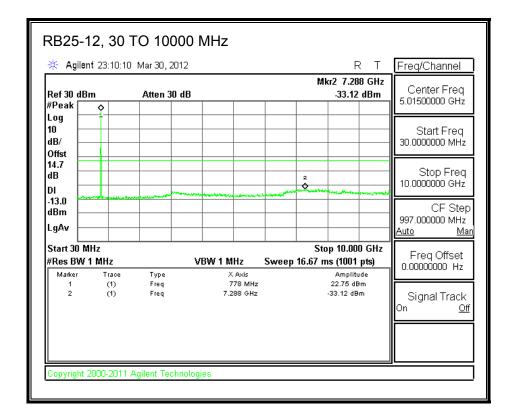
LTE 16QAM Band 13

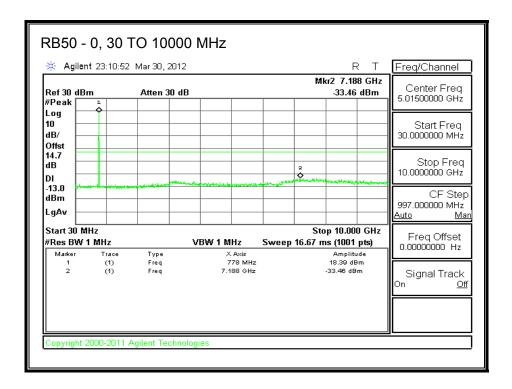




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8.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235 and §27C

LIMITS

- §22.355 The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.
- §24.235 The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.
- § 27.54 The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation

TEST PROCEDURE

Use Agilent 8960 with Frequency Error measurement capability.

- Temp. = −30° to +50°C
- Voltage = 3.80 Vdc (85% 115%)

Frequency Stability vs Temperature:

The EUT is place inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50°C is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

MODES TESTED

- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS, EGPRS
- UMTS, HSDPA
- LTE Band 13

<u>RESULTS</u>

See the following pages.

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CELL CDMA2000 1xRTT- MID CHANNEL

Refe	• •		el 836.519998MHz @ 2	
	Limit: to	stay +- 2.5 ppm =	2091.300	Hz
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.519998	0.000	2.5
3.80	40	836.519998	0.000	2.5
3.80	30	836.519998	0.000	2.5
3.80	20	836.519998	0	2.5
3.80	10	836.519999	-0.001	2.5
3.80	0	836.520000	-0.002	2.5
3.80	-10	836.520002	-0.005	2.5
3.80	-20	836.520004	-0.007	2.5
3.80	-30	836.520003	-0.006	2.5

Refe	rence Frequency: Co	ellular Mid Channe	Reference Frequency: Cellular Mid Channel 836.519998MHz @ 20°C									
	Limit: to	stay +- 2.5 ppm =	2091.300	Hz								
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse								
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)								
100%	20	836.519998	0	2.5								
85%	20	836.519997	0.001	2.5								
115%	20	836.519998	0.000	2.5								

PCS, CDMA2000 1xRTT - MID CHANNEL

Ref	erence Frequency: I	PCS Mid Channel 1	879.999998MHz @ 20	0°C
	n the authorized blo			Hz
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1879.999997	0.001	2.5
3.80	40	1879.999998	0.000	2.5
3.80	30	1879.999998	0.000	2.5
3.80	20	1879.999998	0	2.5
3.80	10	1880.000000	-0.001	2.5
3.80	0	1880.000001	-0.002	2.5
3.80	-10	1880.000002	-0.002	2.5
3.80	-20	1880.000002	-0.002	2.5
3.80	-30	1879.999999	-0.001	2.5
Ref	erence Frequency: I	PCS Mid Channel 1	879.999998MHz @ 20	0°C
Limit: within	n the authorized blo	ck or +- 2.5 ppm =	4700.000	Hz
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1879.999998	0	2.5
85%	20	1878.999997	531.915	2.5
115%	20	1879.999998	0.000	2.5

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CELL GSM – MID CHANNEL (GPRS)

Reference Frequency: Cellular Mid Channel 836.599993MHz @ 20°C				
Limit: to stay +- 2.5 ppm = 2091.500 Hz				
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.599994	-0.001	2.5
3.80	40	836.599963	0.036	2.5
3.80	30	836.599992	0.001	2.5
3.80	20	836.599993	0	2.5
3.80	10	836.600017	-0.029	2.5
3.80	0	836.600026	-0.039	2.5
3.80	-10	836.600032	-0.047	2.5
3.80	-20	836.600013	-0.024	2.5
3.80	-30	836.600026	-0.039	2.5

Reference Frequency: Cellular Mid Channel 836.599993MHz @ 20°C					
Limit: to stay +- 2.5 ppm = 2091.500 Hz					
Power Supply	Environment	Environment Frequency Deviation Measureed with Time Elapse			
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)	
100%	20	836.599993	0	2.5	
85%	20	836.600026	-0.039	2.5	
115%	20	836.599972	0.025	2.5	

PCS, GSM - MID CHANNEL (GPRS)

Reference Frequency: PCS Mid Channel 1880.000034MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz					
Power Supply	Environment Frequency Deviation Measureed with Time Elapse				
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)	
3.80	50	1880.000025	0.005	2.5	
3.80	40	1879.999996	0.020	2.5	
3.80	30	1879.999998	0.019	2.5	
3.80	20	1880.000034	0	2.5	
3.80	10	1880.000054	-0.011	2.5	
3.80	0	1880.000075	-0.022	2.5	
3.80	-10	1880.000084	-0.027	2.5	
3.80	-20	1880.000050	-0.009	2.5	
3.80	-30	1880.000067	-0.018	2.5	

Reference Frequency: PCS Mid Channel 1880.000034MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz					
Limit: within the authorized block or +- 2.5 ppm =4700.000HzPower SupplyEnvironmentFrequency Deviation Measureed with Time Elapse					
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)	
100%	20	1880.000034	0	2.5	
85%	20	1880.000051	-0.009	2.5	
115%	20	1880.000009	0.013	2.5	

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CELL GSM – MID CHANNEL (EGPRS)

Reference Frequency: Cellular Mid Channel 836.599997MHz @ 20°C				
Limit: to stay +- 2.5 ppm = 2091.500 Hz				
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.599998	-0.001	2.5
3.80	40	836.599970	0.032	2.5
3.80	30	836.599998	-0.001	2.5
3.80	20	836.599997	0	2.5
3.80	10	836.600023	-0.031	2.5
3.80	0	836.600033	-0.043	2.5
3.80	-10	836.600036	-0.047	2.5
3.80	-20	836.600018	-0.025	2.5
3.80	-30	836.600030	-0.039	2.5

Reference Frequency: Cellular Mid Channel 836.599997MHz @ 20°C					
Limit: to stay +- 2.5 ppm = 2091.500 Hz					
Power Supply	Environment Frequency Deviation Measureed with Time Elapse				
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)	
100%	20	836.599997	0	2.5	
85%	20	836.600031	-0.041	2.5	
115%	20	836.599978	0.023	2.5	

PCS, GSM - MID CHANNEL (EGPRS)

Reference Frequency: PCS Mid Channel 1880.000017MHz @ 20ºC					
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz					
Power Supply	Environment Frequency Deviation Measureed with Time Elapse				
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)	
3.80	50	1880.000002	0.008	2.5	
3.80	40	1880.000003	0.007	2.5	
3.80	30	1879.999967	0.027	2.5	
3.80	20	1880.000017	0	2.5	
3.80	10	1880.000089	-0.038	2.5	
3.80	0	1880.000100	-0.044	2.5	
3.80	-10	1880.000055	-0.020	2.5	
3.80	-20	1880.000030	-0.007	2.5	
3.80	-30	1880.000020	-0.002	2.5	
Ref	erence Frequency: I	PCS Mid Channel 1	880.000017MHz @ 2	0°C	
Limit: within	n the authorized blo	ck or +- 2.5 ppm =	4700.000	Hz	
Power Supply	Environment Frequency Deviation Measureed with Time Elapse			ith Time Elapse	
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)	
100.00%	20	1880.000017	0	2.5	
85.00%	20	1880.000040	-0.012	2.5	
115.00%	20	1880.000034	-0.009	2.5	

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PCS UMTS, REL 99 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1880.026242MHz @ 20ºC Limit: within the authorized block or +- 2.5 ppm = 4700.066 Hz						
Power Supply	Environment		viation Measureed wit	h Time Elapse		
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)		
3.80	50	1880.027688	-0.769	2.5		
3.80	40	1880.027141	-0.478	2.5		
3.80	30	1880.026542	-0.160	2.5		
3.80	20	1880.026242	0	2.5		
3.80	10	1880.026517	-0.146	2.5		
3.80	0	1880.027478	-0.657	2.5		
3.80	-10	1880.027070	-0.440	2.5		
3.80	-20	1880.027021	-0.414	2.5		
3.80	-30	1880.026922	-0.362	2.5		

Reference Frequency: PCS Mid Channel 1880.026242MHz @ 20°C						
Limit: within the authorized block or +- 2.5 ppm = 4700.066 Hz						
Power Supply	pply Environment Frequency Deviation Measureed with Time Elapse					
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)		
100%	20	1880.026242	0	2.5		
85%	20	1880.026339	-0.052	2.5		
115%	20	1880.026719	-0.254	2.5		

PCS UMTS, HSDPA - MID CHANNEL

Reference Frequency: PCS Mid Channel 1880.026233MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.066 Hz						
Power Supply	Environment		viation Measureed wit			
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)		
3.80	50	1880.027696	-0.778	2.5		
3.80	40	1880.027147	-0.486	2.5		
3.80	30	1880.026536	-0.161	2.5		
3.80	20	1880.026233	0	2.5		
3.80	10	1880.026525	-0.155	2.5		
3.80	0	1880.027482	-0.664	2.5		
3.80	-10	1880.027081	-0.451	2.5		
3.80	-20	1880.027028	-0.423	2.5		
3.80	-30	1880.026926	-0.369	2.5		

Reference Frequency: PCS Mid Channel 1880.026233MHz @ 20ºC							
Limit: withi	Limit: within the authorized block or +- 2.5 ppm = 4700.066 Hz						
Power Supply	Environment Frequency Deviation Measureed with Time Elapse						
(Vdc)	Temperature (*C)	(MHz)	Delta (ppm)	Limit (ppm)			
100%	20	1880.026233	0	2.5			
85%	20	1880.026345	-0.060	2.5			
115%	20	1880.026726	-0.262	2.5			

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LTE QPSK BAND 13 -782 MHZ

Reference Frequency: LTE Band 782.000008MHz @ 20°C Limit: to stay +- 2.5 ppm = 1955.000 Hz						
Power Supply	Environment	Frequency Deviation Measureed with Time Elapse				
(Vac)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)		
3.80	50	781.999996	0.015	2.5		
3.80	40	781.999995	0.017	2.5		
3.80	30	781.999996	0.015	2.5		
3.80	20	782.000008	0	2.5		
3.80	10	782.000004	0.005	2.5		
3.80	0	782.000005	0.004	2.5		
3.80	-10	782.000007	0.002	2.5		
3.80	-20	782.000012	-0.005	2.5		
3.80	-30	782.000010	-0.003	2.5		

Reference Frequency: Cellular Mid Channel782.000008Hz @ 20°C						
	Limit: to	stay +- 2.5 ppm =	1955.000	Hz		
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse		
(Vac)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)		
100%	20	782.000008	0	2.5		
85%	20	782.000003	0.006	2.5		
115%	20	781.999995	0.017	2.5		

LTE 16QAM BAND 13 -782 MHZ

Reference Frequency: LTE Band 782.000009MHz @ 20°C Limit: to stay +- 2.5 ppm = 1955.000 Hz						
Power Supply	Environment					
(Vac)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)		
3.80	50	782.000009	0.000	2.5		
3.80	40	782.000007	0.003	2.5		
3.80	30	782.000006	0.004	2.5		
3.80	20	782.000009	0	2.5		
3.80	10	782.000006	0.004	2.5		
3.80	0	782.000003	0.008	2.5		
3.80	-10	781.999996	0.017	2.5		
3.80	-20	781.999997	0.015	2.5		
3.80	-30	781.999995	0.018	2.5		

Reference Frequency: Cellular Mid Channel782.000009MHz @ 20°C						
Limit: to stay +- 2.5 ppm = 1955.000 Hz						
Power Supply	Environment	Frequency Dev	viation Measureed wi	th Time Elapse		
(Vac)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)		
100%	20	782.000009	0	2.5		
85%	20	782.000006	0.004	2.5		
115%	20	781.999997	0.015	2.5		

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9. RADIATED TEST RESULTS

9.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232 and 27

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50 (c)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

TEST PROCEDURE

ANSI / TIA / EIA 603C

MODES TESTED

- 1xRTT RC1, 55
- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE Band 13

RESULTS

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ERP CELL BANDS

Mode	EUT	Channel	f (MHz)	EF	RP
Widde	LOT	Channel	1 (IVII 12)	dBm	mW
	STANDARD	1013	824.70	23.67	232.81
	COVER	384	836.52	23.80	239.88
	COVER	777	848.31	24.42	276.69
CDMA2000	INDUCTIVE	1013	824.70	24.03	252.93
1xRTT	COVER	384	836.52	24.49	281.19
	COVER	777	848.31	24.85	305.49
	INDUCTIVE CHARGER	1013	824.70	21.92	155.60
		384	836.52	20.87	122.18
		777	848.31	21.31	135.21
	STANDARD	1013	824.70	23.07	202.77
	COVER	384	836.52	23.44	220.80
		777	848.31	22.11	162.55
CDMA2000	INDUCTIVE	1013	824.70	23.57	227.51
EVDO-REV A	COVER	384	836.52	24.26	266.69
	COVER	777	848.31	23.46	221.82
	INDUCTIVE	1013	824.70	20.00	100.00
	CHARGER	384	836.52	19.00	79.43
	GIANGEN	777	848.31	19.90	97.72

Mada	EUT	Channel	f (N/1 1-)	ERP		
Mode	EUT	Channel	f (MHz)	dBm	mW	
	STANDARD	128	824.20	29.97	993.12	
	COVER	190	836.60	30.90	1230.27	
	COVER	251	848.80	30.14	1032.76	
	INDUCTIVE	128	824.20	29.74	941.89	
GPRS	COVER	190	836.60	30.42	1101.54	
	COVER	251	848.80	30.65	1161.45	
	INDUCTIVE CHARGER	128	824.20	29.52	895.36	
		190	836.60	28.12	648.63	
		251	848.80	28.67	736.21	
	STANDARD	128	824.20	26.68	465.59	
	COVER	190	836.60	26.48	444.63	
	COVER	251	848.80	25.56	359.75	
	INDUCTIVE	128	824.20	26.44	440.55	
EGPRS	COVER	190	836.60	26.70	467.74	
	COVER	251	848.80	25.74	374.97	
	INDUCTIVE	128	824.20	25.53	357.27	
	CHARGER	190	836.60	23.96	248.89	
	UNARGER	251	848.80	24.50	281.84	

EIRP PCS BANDS

Mode	EUT	Channel	Channel f (MHz)		IRP
woue	EUT	Channel	1 (IVII 12)	dBm	mW
	STANDARD	25	1851.25	28.25	668.34
	COVER	600	1880.00	29.66	924.70
	COVER	1175	1908.75	28.87	770.90
CDMA2000	INDUCTIVE	25	1851.25	28.70	741.31
1xRTT	COVER	600	1880.00	29.90	977.24
	COVER	1175	1908.75	29.06	805.38
	INDUCTIVE CHARGER	25	1851.25	27.49	561.05
		600	1880.00	29.65	922.57
		1175	1908.75	28.19	659.17
	STANDARD	25	1851.25	30.92	1235.95
	COVER	600	1880.00	30.61	1150.80
	COVER	1175	1908.75	30.93	1238.80
CDMA2000	INDUCTIVE	25	1851.25	31.72	1485.94
EVDO-REV A	COVER	600	1880.00	31.51	1415.79
EVDO-REVA	COVER	1175	1908.75	30.83	1210.60
	INDUCTIVE	25	1851.25	24.38	274.16
		600	1880.00	25.13	325.84
	CHARGER	1175	1908.75	25.26	335.74

Mode	EUT	Channel	f (MHz)	E	IRP
Woue	LUI	Channel	1 (IVII 12)	dBm	mW
	STANDARD	512	1850.20	30.42	1101.54
	COVER	661	1880.00	29.61	914.11
	COVER	810	1909.80	28.43	696.63
	INDUCTIVE	512	1850.20	31.42	1386.76
GPRS	COVER	661	1880.00	30.41	1099.01
	COVER	810	1909.80	29.63	918.33
	INDUCTIVE	512	1850.20	26.68	465.59
	CHARGER	661	1880.00	26.63	460.26
		810	1909.80	27.26	532.11
	STANDARD	512	1850.20	30.45	1109.17
	COVER	661	1880.00	31.26	1336.60
	COVER	810	1909.80	30.72	1180.32
	INDUCTIVE	512	1850.20	28.43	696.63
EGPRS	COVER	661	1880.00	29.19	829.85
	COVER	810	1909.80	28.75	749.89
	INDUCTIVE	512	1850.20	29.55	901.57
	CHARGER	661	1880.00	29.58	907.82
	UNARGER	810	1909.80	30.06	1013.91

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Mode	EUT	Channel	f (MLI-)	EI	RP
woue	EUT	Channel	f (MHz)	dBm	mW
	STANDARD	9662	1852.40	26.52	448.75
	COVER	9800	1880.00	25.81	381.07
	COVER	9938	1907.60	25.63	365.59
	INDUCTIVE	9662	1852.40	29.92	981.75
UMTS, REL 99	COVER	9800	1880.00	28.75	749.89
	COVER	9938	1907.60	28.83	763.84
	INDUCTIVE	9662	1852.40	23.38	217.77
	CHARGER	9800	1880.00	23.93	247.17
	CHARGER	9938	1907.60	24.76	299.23
	STANDARD	9662	1852.40	27.22	527.23
	COVER	9800	1880.00	27.31	538.27
	COVER	9938	1907.60	27.23	528.45
	INDUCTIVE	9662	1852.40	29.42	874.98
UMTS, HSDPA	COVER	9800	1880.00	28.81	760.33
	COVER	9938	1907.60	29.63	918.33
	INDUCTIVE	9662	1852.40	24.38	274.16
	CHARGER	9800	1880.00	23.63	230.67
	CHARGER	9938	1907.60	24.66	292.42

LTE BAND 13 (ERP)

STANDARD COVER

			EF	RP
Mode	RB/RB SIZE	f (MHz)	dBm	mW
	1/0		28.58	721.11
10 MHZ BAND	1/49		28.43	696.63
QPSK	25/12		29.74	941.89
	50/0	782.0	29.82	959.40
	1/0	702.0	28.70	741.31
10 MHz BAND	1/49		28.58	721.11
16QAM	25/12		30.09	1020.94
	50/0		30.10	1023.29

INDUCTIVE COVER

			EF	RP
Mode	RB/RB SIZE	f (MHz)	dBm	mW
	1/0		27.88	613.76
10 MHZ BAND	1/49		27.19	523.60
QPSK	25/12		27.81	603.95
	50/0	782.0	29.12	816.58
	1/0	702.0	27.96	625.17
10 MHz BAND	1/49		27.27	533.33
16QAM	25/12		28.30	676.08
	50/0		29.49	889.20

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INDUCTIVE CHARGER

			EF	RP
Mode	RB/RB SIZE	f (MHz)	dBm	mW
	1/0		20.73	118.30
10 MHZ BAND	1/49		20.13	103.04
QPSK	25/12		21.04	127.06
	50/0	782.0	21.58	143.88
	1/0	702.0	20.89	122.74
10 MHz BAND	1/49		20.39	109.40
16QAM	25/12		21.71	148.25
	50/0		22.27	168.66

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EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	03/29/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (STANDARD COVDR) AND AC ADAPTER
Mode:	TX, 850 MHz BAND, CDMA 1xRTT MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
	(ubiii)	(100)	(ub)	(ubu)	(ubiii)	(ubiii)		
324.20	24.17	V	0.5	0.0	23.67	38.5	-14.8	
824.20	17.15	Н	0.5	0.0	16.65	38.5	-21.8	
836.60	24.30	V	0.5	0.0	23.80	38.5	-14.7	
836.60	16.62	Н	0.5	0.0	16.12	38.5	-22.3	
848.80	24.92	V	0.5	0.0	24.42	38.5	-14.0	
848.80	17.80	Н	0.5	0.0	17.30	38.5	-21.1	

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EUT (INDUCTIVE COVER)

ompany		LG ELECTRO	NICS					
roject #:		12U14331						
ate:		03/29/12						
est Eng		MENGISTU M						
onfigura lode:			VE COVDR) AN BAND, CDMA 1x	D AC ADAPTER				
	v Supol T130	and 3m Cha	mher N-type (Cable (Setup thi	s one for	testing E	UT)	
						-	,	
ubstitut	on: Dipole S/N	l: 00022117,	6ft SMA Cable	e (SN # 20894700)3) Wareh	ouse.		
ubstitut	on: Dipole S/N SG reading	l: 00022117, Ant. Pol.	6ft SMA Cable	e (SN # 20894700 Antenna Gain	03) Wareh ERP	ouse.	Margin	Notes
ubstitut	on: Dipole S/N	l: 00022117,	6ft SMA Cable	e (SN # 20894700)3) Wareh	ouse.		Notes
ubstitut f MHz	on: Dipole S/N SG reading (dBm)	l: 00022117, Ant. Pol. (H/V)	6ft SMA Cable Cable Loss (dB)	e (SN # 20894700 Antenna Gain (dBd)	03) Wareh ERP (dBm)	ouse. Limit (dBm)	Margin (dB)	Notes
ubstitut	on: Dipole S/N SG reading	l: 00022117, Ant. Pol.	6ft SMA Cable	e (SN # 20894700 Antenna Gain	03) Wareh ERP	ouse.	Margin	Notes
f MHz 824.20	on: Dipole S/N SG reading (dBm) 24.53	I: 00022117, Ant. Pol. (H/V) V	6ft SMA Cable Cable Loss (dB) 0.5	e (SN # 20894700 Antenna Gain (dBd) 0.0	03) Wareh ERP (dBm) 24.03	ouse. Limit (dBm) 38.5	Margin (dB)	Notes
f MHz 824.20	on: Dipole S/N SG reading (dBm) 24.53	I: 00022117, Ant. Pol. (H/V) V	6ft SMA Cable Cable Loss (dB) 0.5	e (SN # 20894700 Antenna Gain (dBd) 0.0	03) Wareh ERP (dBm) 24.03	ouse. Limit (dBm) 38.5	Margin (dB)	Notes
tubstitut f MHz 824.20 824.20	on: Dipole S/N SG reading (dBm) 24.53 17.68	I: 00022117, Ant. Pol. (H/V) V H	6ft SMA Cable Cable Loss (dB) 0.5 0.5	e (SN # 20894700 Antenna Gain (dBd) 0.0 0.0	03) Wareh ERP (dBm) 24.03 17.18	ouse. Limit (dBm) 38.5 38.5	Margin (dB) -14.4 -21.3	Notes
f MHz 824.20 824.20 836.60 836.60	on: Dipole S/N SG reading (dBm) 24.53 17.68 24.99 17.25	I: 00022117, Ant. Pol. (H/V) V H V H	6ft SMA Cable Cable Loss (dB) 0.5 0.5 0.5	e (SN # 20894700 Antenna Gain (dBd) 0.0 0.0 0.0 0.0	03) Wareh ERP (dBm) 24.03 17.18 24.49 16.75	ouse. Limit (dBm) 38.5 38.5 38.5 38.5	Margin (dB) -14.4 -21.3 -14.0 -21.7	Notes
ubstitut f MHz 824.20 824.20 836.60	on: Dipole S/N SG reading (dBm) 24.53 17.68 24.99	I: 00022117, Ant. Pol. (H/V) V H	6ft SMA Cable Cable Loss (dB) 0.5 0.5	e (SN # 20894700 Antenna Gain (dBd) 0.0 0.0 0.0	03) Wareh ERP (dBm) 24.03 17.18 24.49	ouse. Limit (dBm) 38.5 38.5 38.5 38.5	Margin (dB) -14.4 -21.3 -14.0	Notes

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 03/29/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIVE CHARGER) AND AC ADAPTER

 Mode:
 TX, 850 MHz BAND, CDMA 1xRTT MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
							10.1	
324.20	20.80	V	0.5	0.0	20.30	38.5	-18.1	
324.20	22.42	Н	0.5	0.0	21.92	38.5	-16.5	
36.60	21.37	V	0.5	0.0	20.87	38.5	-17.6	
36.60	20.99	Н	0.5	0.0	20.49	38.5	-18.0	
48.80	20.32	V	0.5	0.0	19.82	38.5	-18.6	
48.80	21.81	Н	0.5	0.0	21.31	38.5	-17.1	
3.17.11						ļ		
5.m.m								

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EVDO REV A (Cellular Band)

EUT (STANDARD COVER)

	High Frequency Substitution Measurement Compliance Certification Services Chamber B
Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/11/12
Test Engineer:	Chin Pang
Configuration:	EUT (Standard COVDR) AND AC ADAPTER
Mode:	TX, 850 MHz BAND, CDMA EVDO, Rev A
-	130, and 3m Chamber N-type Cable (Setup this one for testing EUT) e S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f			:	Antenna Gain		Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	23.57	V	0.5	0.0	23.07	38.5	-15.4	
324.20 324.20	18.20	H	0.5	0.0	17.70	38.5	-20.7	
336.60	23.94	V	0.5	0.0	23.44	38.5	-15.0	
836.60	17.60	Н	0.5	0.0	17.10	38.5	-21.4	
348.80	22.61	V	0.5	0.0	22.11	38.5	-16.3	
848.80	17.60	Н	0.5	0.0	17.10	38.5	-21.3	
	ļ			<u> </u>		<u>.</u>		
. 3.17.11	1							

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:LG ELECTRONICSProject #:12U14331Date:04/11/12Test Engineer:Chin PangConfiguration:EUT (INDUCTIVE COVDR) AND AC ADAPTERMode:TX, 850 MHz BAND, CDMA EVDO, Rev A

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	-			Antenna Gain		Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	24.07	V	0.5	0.0	23.57	38.5	-14.9	
824.20	21.80	Н	0.5	0.0	21.30	38.5	-17.1	
836.60	24.76	V	0.5	0.0	24.26	38.5	-14.2	
836.60	21.30	Н	0.5	0.0	20.80	38.5	-17.7	
848.80	23.96	V	0.5	0.0	23.46	38.5	-15.0	
848.80	21.85	Н	0.5	0.0	21.35	38.5	-17.1	

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 04/11/12

 Test Engineer:
 Chin Pang

 Configuration:
 EUT (On INDUCTIVE CHARGER) and Earphone

 Mode:
 TX, 850 MHz BAND, CDMA EVDO Rev A

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	18.47	V	0.5	0.0	17.97	38.5	-20.5	
324.20	20.50	Н	0.5	0.0	20.00	38.5	-18.4	
336.60	18.14	V	0.5	0.0	17.64	38.5	-20.8	
336.60	19.50	Н	0.5	0.0	19.00	38.5	-19.5	
348.80	16.81	V	0.5	0.0	16.31	38.5	-22.1	
348.80	20.40	Н	0.5	0.0	19.90	38.5	-18.5	

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GPRS (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/02/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (STANDARD COVER), HEADSET, AND AC ADAPTER
Mode:	TX, 850MHz BAND GPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
/Hz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
324.20	30.47	V	0.5	0.0	29.97	38.5	- 8. 5	
824.20	23.32	Н	0.5	0.0	22.82	38.5	-15.6	
836.60	31.40	V	0.5	0.0	30.90	38.5	-7.6	
836.60	22.53	Н	0.5	0.0	22.03	38.5	-16.4	
848.80	30.64	V	0.5	0.0	30.14	38.5	-8.3	
848.80	23.87	Н	0.5	0.0	23.37	38.5	-15.1	

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 04/02/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIVE COVER), HEADSET, AND AC ADAPTER

 Mode:
 TX, 850MHz BAND GPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	-			Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	30.24	v	0.5	0.0	29.74	38.5	-8.7	
824.20	24.62	Н	0.5	0.0	24.12	38.5	-14.3	
836.60	30.92	v	0.5	0.0	30.42	38.5	-8.0	
836.60	24.53	Н	0.5	0.0	24.03	38.5	-14.4	
848.80	31.15	V	0.5	0.0	30.65	38.5	-7.8	
848.80	24.52	Н	0.5	0.0	24.02	38.5	-14.4	

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:LG ELECTRONICSProject #:12U14331Date:04/02/12Test Engineer:MENGISTU MEKURIAConfiguration:EUT (INDUCTIVE CHARGER), HEADSET, AND AC ADAPTERMode:TX, 850MHz BAND GPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	25.13	V	0.5	0.0	24.63	38.5	-13.8	
824.20	30.02	H	0.5	0.0	29.52	38.5	-8.9	
836.60	25.21	V	0.5	0.0	24.71	38.5	-13.7	
836.60	28.62	Н	0.5	0.0	28.12	38.5	-10.3	
848.80	22.95	V	0.5	0.0	22.45	38.5	-16.0	
848.80	29.17	Н	0.5	0.0	28.67	38.5	-9.8	

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EGPRS (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/02/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (STANDARD COVER), HEADSET, AND AC ADAPTER
Mode:	TX, 850MHz BAND EGPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
324.20	27.18	V	0.5	0.0	26.68	38.5	-11.8	
324.20 324.20	21.62	Ĥ	0.5	0.0	21.12	38.5	-17.3	
836.60	26.98	V	0.5	0.0	26.48	38.5	-12.0	
836.60	20.38	Н	0.5	0.0	19.88	38.5	-18.6	
848.80	26.06	V	0.5	0.0	25.56	38.5	-12.9	
348.80	21.49	Н	0.5	0.0	20.99	38.5	-17.5	

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 04/02/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIV COVER), HEADSET, AND AC ADAPTER

 Mode:
 TX, 850MHz BAND EGPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	26.94	V	0.5	0.0	26.44	38.5	-12.0	
824.20	20.15	H	0.5	0.0	19.65	38.5	-18.8	
836.60	27.20	V	0.5	0.0	26.70	38.5	-11.8	
836.60	19.43	Н	0.5	0.0	18.93	38.5	-19.5	
848.80	26.24	V	0.5	0.0	25.74	38.5	-12.7	
848.80	19.51	Н	0.5	0.0	19.01	38.5	-19.4	

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 04/02/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIVE CHARGER), HEADSET, AND AC ADAPTER

 Mode:
 TX, 850MHz BAND EGPRS MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
21.67	V	0.5	0.0	21.17	38.5	-17.3	
26.03	H	0.5	0.0	25.53	38.5	-12.9	
21.64	V	0.5	0.0	21.14	38.5	-17.3	
24.46	Н	0.5	0.0	23.96	38.5	-14.5	
19.73	V	0.5	0.0	19.23	38.5	-19.2	
25.00	Н	0.5	0.0	24.50	38.5	-13.9	
			<u> </u>		L		
1							
	(dBm) 21.67 26.03 21.64 24.46 19.73	(dBm) (H/V) 21.67 V 26.03 H 21.64 V 24.46 H 19.73 V 25.00 H	(dBm) (H/V) (dB) 21.67 V 0.5 26.03 H 0.5 21.64 V 0.5 21.64 V 0.5 21.64 V 0.5 19.73 V 0.5 25.00 H 0.5	(dBm) (H/V) (dB) (dBd) 21.67 V 0.5 0.0 26.03 H 0.5 0.0 21.64 V 0.5 0.0 21.64 V 0.5 0.0 21.64 V 0.5 0.0 19.73 V 0.5 0.0 25.00 H 0.5 0.0	21.67 V 0.5 0.0 21.17 26.03 H 0.5 0.0 25.53 21.64 V 0.5 0.0 21.14 24.46 H 0.5 0.0 23.96 19.73 V 0.5 0.0 19.23 25.00 H 0.5 0.0 24.50	(dBm) (H/V) (dB) (dBd) (dBm) (dBm) 21.67 V 0.5 0.0 21.17 38.5 26.03 H 0.5 0.0 21.17 38.5 21.64 V 0.5 0.0 21.14 38.5 21.64 V 0.5 0.0 21.14 38.5 24.46 H 0.5 0.0 23.96 38.5 19.73 V 0.5 0.0 19.23 38.5 25.00 H 0.5 0.0 24.50 38.5	(dBm) (H/V) (dB) (dBd) (dBm) (dBm) (dBm) 21.67 V 0.5 0.0 21.17 38.5 .17.3 26.03 H 0.5 0.0 25.53 38.5 .12.9 21.64 V 0.5 0.0 21.14 38.5 .17.3 21.64 V 0.5 0.0 21.14 38.5 .17.3 24.46 H 0.5 0.0 23.96 38.5 .14.5 19.73 V 0.5 0.0 19.23 38.5 .19.2 25.00 H 0.5 0.0 24.50 38.5 .13.9

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1xRTT (PCS Band)

EUT (STANDARD COVER)

Company Project #		LG ELECTRON 12U14331	ICS					
Date:		03/29/12						
Test Eng		MENGISTU ME	KURIA					
Configura		EUT (STANDAF	D COVDR) AND A	C ADAPTER				
Node:		TX, 1900 MHz E	AND, CDMA 1xRT	T MODE				
	-	d Camber B S Substitution,		244639001) Wareho	use			
	-			244639001) Wareho Antenna Gain (dBi)	use EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Substitut f GHz	ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
f GHz .850	ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable	Antenna Gain	EIRP			Notes
Substitut f GHz 1.850 1.850	ion: Horn T217 SG reading (dBm) 16.3 20.6	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 24.02 28.25	(dBm) 33.0 33.0	(dB) -9.0 -4.8	Notes
Substitut f GHz 1.850	ion: Horn T217 SG reading (dBm) 16.3	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi) 8.62	EIRP (dBm) 24.02	(dBm) 33.0	(dB) -9.0	Notes
Substitut f GHz 1.850 1.880	ion: Horn T217 SG reading (dBm) 16.3 20.6 15.3	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 24.02 28.25 22.94	(dBm) 33.0 33.0 33.0	(dB) -9.0 -4.8 -10.1	Notes

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ompany: roject #:		LG ELECTRONI 12U14331	CS					
ate:		03/29/12						
lest Engi		MENGISTU MEI						
Configura			E COVER) AND A					
/ode:			AND, CDMA 1xRT					
	g: Horn T59, and ion: Horn T217			244639001) Warehou	lse			
Substituti	ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable (Cable Loss	Antenna Gain	EIRP	Limit (dBm)	Delta (dB)	Notes
Substituti	ion: Horn T217	Substitution,	4ft SMA Cable (Limit (dBm)	Delta (dB)	Notes
Substituti f GHz	ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable (Cable Loss	Antenna Gain	EIRP			Notes
f GHz .850	on: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable (Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Substituti f GHz 1.850 1.850	SG reading (dBm) 16.2 21.1	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable (Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 23.92 28.70	(dBm) 33.0 33.0	(dB) -9.1 -4.3	Notes
f GHz .850 .850	SG reading (dBm) 16.2	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable (Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 23.92	(dBm) 33.0	(dB) -9.1	Notes
f GHz	SG reading (dBm) 16.2 21.1 15.1	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable (Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 23.92 28.70 22.69	(dBm) 33.0 33.0 33.0	(dB) -9.1 -4.3 -10.3	Notes

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High Frequency Fundamental Measurement Compliance Certification Services Chamber B

Company: Project #: Date: Mode:

LG ELECTRONICS 12U14331 03/29/12
 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIVE CHARGER) AND AC ADAPTER
 TX, 1900 MHz BAND, CDMA 1xRTT MODE

Test Equipment:

Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	<u> </u>							
1.850	14.1	V	0.85	8.62	21.83	33.0	-11.2	
1.850	19.9	Н	0.85	8.47	27.49	33.0	-5.5	
			0.05					
1.880	14.1	V	0.85	8.46	21.68	33.0	-11.3	
1.880	22.1	Н	0.85	8.36	29.65	33.0	-3.4	
1.910	12.4	V	0.85	8.30	19.84	33.0	-13.2	
1.910	20.8	Н	0.85	8.25	28.19	33.0	-4.8	

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CDMA2000 1xEV-DO Revision A (PCS Band)

EUT (STANDARD COVER)

Company		LG ELECTRON	ICS					
Project #:		12U14331						
Date:		04/11/12						
Test Engi		Chin Pang						
Configura Mode:			RD COVDR) AND A BAND, CDMA EVD					
est Equ			SMA Cables					
Receivin	d: Horn 199. an	d Camper B :	SIVIA Caples					
	g: Horn T59, an ion: Horn T217			(244639001) Wareho	use			
				(244639001) Wareho Antenna Gain	use EIRP	Limit	Delta	Notes
Substitut	ion: Horn T217	Substitution,	4ft SMA Cable			Limit (dBm)	Delta (dB)	Notes
Substitut f GHz	ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable	Antenna Gain	EIRP			Notes
Substitut f GHz 1.850	ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable (Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Substituti f GHz 1.850 1.850	SG reading (dBm) 23.2 14.5	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 30.92 22.08	(dBm) 33.0 33.0	(dB) -2.1 -10.9	Notes
Substituti f GHz 1.850 1.880	ion: Horn T217 SG reading (dBm) 23.2	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi) 8.62	EIRP (dBm) 30.92	(dBm) 33.0	(dB) -2.1	Notes
Substitut f GHz 1.850	ion: Horn T217 SG reading (dBm) 23.2 14.5 23.0	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 30.92 22.08 30.61	(dBm) 33.0 33.0 33.0	(dB) -2.1 -10.9 -2.4	Notes

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High Frequency Fundamental Measurement Compliance Certification Services Chamber B LG ELECTRONICS Company: Project #: 12U14331 Date: 04/11/12 Test Engineer: Chin Pang Configuration: EUT (Inductive COVDR) AND AC ADAPTER Mode: TX, 1900 MHz BAND, CDMA EVDO Rev A Test Equipment: Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse f SG reading Ant. Pol. Cable Loss Antenna Gain EIRP Limit Delta Notes (dBm) (dBi) (dBm) (dBm) (dB) GHz (H/V) (dB) 1.850 24.0 V 0.85 8.62 31.72 33.0 -1.3 1.850 21.38 13.8 Н 0.85 8.47 33.0 -11.6 23.9 V 0.85 31.51 33.0 -1.5 1.880 8.46 1.880 15.6 Η 0.85 8.36 23.13 33.0 -9.9 0.85 8.30 33.0 -2.2 1.910 23.4 V 30.83 1.910 16.3 Н 0.85 8.25 23.66 33.0 -9.3 Rev. 3.17.11

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EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/11/12
Test Engineer:	Chin Pang
Configuration:	EUT (INDUCTIVE CHARGER) AND AC ADAPTER
Mode:	TX, 1900 MHz BAND, CDMA 1xRTT MODE

Test Equipment:

Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
1.850	14.0	V	0.85	8.62	21.72	33.0	-11.3	
1.850	16.8	Ĥ	0.85	8.47	24.38	33.0	-8.6	
1.880	12.7	V	0.85	8.46	20.31	33.0	-12.7	
1.880	17.6	Н	0.85	8.36	25.13	33.0	-7.9	
1.910	12.2	V	0.85	8.30	19.63	33.0	-13.4	
1.910	17.9	Н	0.85	8.25	25.26	33.0	-7.7	

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GPRS (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/14/12
Test Engineer:	Chin Pang
Configuration:	EUT (Standard Cover) with AC Adapter and Earphone
Mode:	TX, 1900 MHz BAND, GPRS

<u>Test Equipment:</u> Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	22.7	V	0.85	8.62	30.42	33.0	-2.6	
1.850	15.8	Н	0.85	8.47	23.38	33.0	-9.6	
1.880	22.0	V	0.85	8.46	29.61	33.0	-3.4	
1.880	15.8	H	0.85	8.36	23.33	33.0	-3.4 -9.7	
1.000	15.0	••	0.05	0.50	23.33	33.0	-5.1	
1.910	21.0	V	0.85	8.30	28.43	33.0	-4.6	
1.910	17.7	Н	0.85	8.25	25.06	33.0	-7.9	

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High Frequency Fundamental Measurement Compliance Certification Services Chamber B Company: LG ELECTRONICS Project #: 12U14331 Date: 04/14/12 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with AC Adapter and Earphone Mode: TX, 1900 MHz BAND, GPRS Test Equipment: Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse f SG reading Ant. Pol. Cable Loss Antenna Gain EIRP Limit Delta Notes GHz (dBm) (H/V) (dBm) (dBm) (dB) (dB) (dBi) 1.850 23.7 V 0.85 8.62 31.42 33.0 -1.6 1.850 13.2 Η 0.85 8.47 20.78 33.0 -12.2 1.880 22.8 V 0.85 8.46 30.41 33.0 -2.6 1.880 13.8 Η 0.85 8.36 21.33 33.0 -11.7 22.2 V 0.85 8.30 29.63 33.0 -3.4 1.910 1.910 14.4 Η 0.85 8.25 21.76 33.0 -11.2 Rev. 3.17.11

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EUT (ON INDUCTIVE CHARGER)

			•	ental Measuremen Services Chamber				
Company:		LG ELECTRON	ICS					
Project #:		12U14331						
Date:		04/11/12						
Test Engi	neer:	Chin Pang						
Configura			tive Charger) and E	arphone				
Mode:		TX, 1900 MHz E						
Receiving	: Horn T59, an on: Horn T217			(244639001) Wareho Antenna Gain	use EIRP	Limit	Delta	Notes
Receiving Substitutio	: Horn T59, an	Substitution,	4ft SMA Cable	. ,		Limit (dBm)	Delta (dB)	Notes
Substitutio	: Horn T59, an on: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable Cable Loss	Antenna Gain	EIRP			Notes
Receiving Substitutio f GHz 1.850	: Horn T59, an on: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Receiving Substitutio f GHz 1.850 1.850	: Horn T59, an on: Horn T217 SG reading (dBm) 18.2	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 25.92	(dBm) 33.0	(dB) -7.1	Notes
Receiving Substitution f GHz 1.850 1.850	: Horn T59, an on: Horn T217 SG reading (dBm) 18.2 19.1	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 25.92 26.68	(dBm) 33.0 33.0	(dB) -7.1 -6.3	Notes
Receiving Substitutio f GHz	: Horn T59, an on: Horn T217 SG reading (dBm) 18.2 19.1 17.0	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 25.92 26.68 24.61	(dBm) 33.0 33.0 33.0	(dB) -7.1 -6.3 -8.4	Notes

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EGPRS (PCS Band)

EUT (STANDARD COVER)

				ental Measuremen Services Chamber I				
Company	:	LG ELECTRON	lics					
Project #:		12U14331						
Date:		04/16/12						
Test Engi		MENGISTU ME						
Configura		•		apter and Earphone				
Mode:		TX, 1900 MHz B	BAND, EGPRS					
Substituti	g: Horn T59, an on: Horn T217 SG reading			244639001) Wareho Antenna Gain	use EIRP	Limit	Delta	Notes
Receiving Substituti	g: Horn T59, an ion: Horn T217	Substitution,	4ft SMA Cable			Limit (dBm)	Delta (dB)	Notes
Receiving Substituti f GHz 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm) 14.5	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 22.28	(dBm) 33.0	(dB) -10.7	Notes
Receiving Substituti f GHz 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Receiving Substituti f GHz 1.850 1.850	3: Horn T59, an on: Horn T217 SG reading (dBm) 14.5 22.8	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 22.28 30.45	(dBm) 33.0 33.0	(dB) -10.7 -2.6	Notes
Receiving Substituti f GHz 1.850 1.850 1.880	3: Horn T59, an ion: Horn T217 SG reading (dBm) 14.5 22.8 14.5	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 22.28 30.45 22.10	(dBm) 33.0 33.0 33.0 33.0	(dB) -10.7 -2.6 -10.9	Notes
Receiving Substituti f GHz 1.850 1.850 1.880	3: Horn T59, an on: Horn T217 SG reading (dBm) 14.5 22.8	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 22.28 30.45	(dBm) 33.0 33.0	(dB) -10.7 -2.6	Notes
Receiving Substituti f GHz 1.850	3: Horn T59, an ion: Horn T217 SG reading (dBm) 14.5 22.8 14.5	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 22.28 30.45 22.10	(dBm) 33.0 33.0 33.0 33.0	(dB) -10.7 -2.6 -10.9	Notes

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				ental Measuremen Services Chamber I				
Company	:	LG ELECTRONI	ICS					
Project #:		12U14331						
Date:		04/16/12						
Test Engi	ineer:	MENGISTU MEI	KURIA					
Configura	ation:	EUT (Indauctive	e Cover) with AC Ac	dapter and Earphone				
Mode:		TX, 1900 MHz B						
	i <u>pment:</u> g: Horn T59, an ion: Horn T217			(244639001) Wareho	use			
Substituti f	g: Horn T59, an ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable (Cable Loss	(244639001) Wareho Antenna Gain (dBi)	EIRP	Limit (dBm)	Delta (dB)	Notes
Substitut	g: Horn T59, an ion: Horn T217	Substitution,	4ft SMA Cable (·		(dBm)	(dB)	Notes
Substituti f GHz 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm) 15.0	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable (Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 22.78	(dBm) 33.0	(dB) -10.2	Notes
Substituti f GHz 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable (Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Substituti f GHz 1.850 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm) 15.0 20.8	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable (Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 22.78 28.43	(dBm) 33.0 33.0	(dB) -10.2 -4.6	Notes
Substituti f GHz 1.850 1.880	g: Horn T59, an ion: Horn T217 SG reading (dBm) 15.0	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable (Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 22.78	(dBm) 33.0	(dB) -10.2	Notes
Substituti f GHz 1.850	g: Horn T59, an ion: Horn T217 SG reading (dBm) 15.0 20.8 14.4	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable (Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 22.78 28.43 21.97	(dBm) 33.0 33.0 33.0	(dB) -10.2 -4.6 -11.0	Notes

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High Frequency Fundamental Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 04/16/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (On Inductive Charger) and Earphone

 Mode:
 TX, 1900 MHz BAND, EGPRS

Test Equipment:

Receiving: Horn T59, and Camber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
1.850	15.6	V	0.85	8.62	23.35	33.0	-9.7	
1.850	21.9	Н	0.85	8.47	29.55	33.0	-3.5	
1.880	14.2	V	0.85	8.46	21.81	33.0	-11.2	
1.880	22.1	Н	0.85	8.36	29.58	33.0	-3.4	
1.910	15.4	V	0.85	8.30	22.81	33.0	-10.2	
1.910	22.7	Н	0.85	8.25	30.06	33.0	-2.9	

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UMTS REL 99 (PCS Band)

EUT (STANDARD COVER)

			•	ental Measuremen Services Chamber				
Company	:	LG ELECTRON	ICS					
Project #	:	12U14331						
Date:		04/11/12						
Test Eng	ineer:	Chin Pang						
Configura	ation:	EUT (Standard	Cover) with AC Ada	pter and Earphone				
Mode:		TX, 1900 MHz E	AND, WCDMA Re	1 99				
Substitut f	g: Horn T59, an ion: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable	(244639001) Wareho Antenna Gain	EIRP	Limit	Delta	Notes
Receiving Substitut f GHz	g: Horn T59, an ion: Horn T217	Substitution, Ant. Pol. (H/V)	4ft SMA Cable	· ·	EIRP (dBm)	(dBm)	(dB)	Notes
Receiving Substitut f GHz 1.852	g: Horn T59, an ion: Horn T217 SG reading (dBm) 18.8	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 26.52	(dBm) 33.0	(dB) -6.5	Notes
Receiving Substitut f GHz	g: Horn T59, an ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Receivin Substitut f GHz 1.852 1.852	g: Horn T59, an ion: Horn T217 SG reading (dBm) 18.8	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 26.52	(dBm) 33.0	(dB) -6.5	Notes
Receiving Substitut f GHz 1.852 1.852 1.880	g: Horn T59, an ion: Horn T217 SG reading (dBm) 18.8 10.8	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 26.52 18.38	(dBm) 33.0 33.0	(dB) -6.5 -14.6	Notes
Receiving Substitut f GHz 1.852	g: Horn T59, an ion: Horn T217 SG reading (dBm) 18.8 10.8 18.2	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 26.52 18.38 25.81	(dBm) 33.0 33.0 33.0	(dB) -6.5 -14.6 -7.2	Notes

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EUT (INDUCTIVE COVER)

				ental Measuremen				
		Compliance	Certification S	Services Chamber	3			
company:	1	LG ELECTRON	ICS					
roject #:		12U14331						
Date:		04/11/12						
Test Engi	neer:	Chin Pang						
Configura	tion:	EUT (Inductive (Cover) with AC Ada	pter and Earphone				
/lode:		TX, 1900 MHz E	BAND, WCDMA Re	1 99				
eceiving ubstituti	g: Horn T59, an on: Horn T217	Substitution,	4ft SMA Cable	(244639001) Wareho		·	1	
Receiving	g: Horn T59, an			(244639001) Wareho Antenna Gain (dBi)	use EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Receiving Substituti f	g: Horn T59, an on: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable Cable Loss	Antenna Gain	EIRP			Notes
Receiving Substituti f GHz .852	g: Horn T59, an on: Horn T217 SG reading (dBm) 22.2	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 29.92	(dBm) 33.0	(dB) -3.1	Notes
Receiving Substituti f GHz .852	g: Horn T59, an on: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Receiving Substituti f GHz .852 .852	: Horn T59, an on: Horn T217 SG reading (dBm) 22.2 11.5	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 29.92 19.08	(dBm) 33.0 33.0	(dB) -3.1 -13.9	Notes
Receiving Substituti f GHz .852 .852 .852	g: Horn T59, an on: Horn T217 SG reading (dBm) 22.2	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 29.92	(dBm) 33.0	(dB) -3.1	Notes
Substituti f GHz 1.852 1.852 1.880 1.880	3: Horn T59, an on: Horn T217 SG reading (dBm) 22.2 11.5 21.1 10.3	Substitution, Ant. Pol. (H/V) V H V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46 8.36	EIRP (dBm) 29.92 19.08 28.75 17.83	(dBm) 33.0 33.0 33.0 33.0 33.0	(dB) 3.1 -13.9 4.3 -15.2	Note
Receiving Substituti f GHz .852 .852 .880	3: Horn T59, an on: Horn T217 SG reading (dBm) 22.2 11.5 21.1	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 29.92 19.08 28.75	(dBm) 33.0 33.0 33.0	(dB) -3.1 -13.9 -4.3	Notes

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EUT (ON INDUCTIVE CHARGER)

			-	ental Measuremen Services Chamber				
Company:		LG ELECTRON	ICS					
Project #:		12U14331						
Date:		04/11/12						
Test Engi	neer:	Chin Pang						
Configura	tion:	EUT (INDUCTIV	E CHARGER) and	Earphone				
Mode:		TX, 1900 MHz E	BAND, WCDMA Re	1 99				
	: Horn T59, an			244639001) Wareho Antenna Gain	use EIRP	Limit	Delta	Notes
Receiving Substituti	: Horn T59, an on: Horn T217	Substitution,	4ft SMA Cable	. ,		Limit (dBm)	Delta (dB)	Notes
Receiving Substituti f	g: Horn T59, an on: Horn T217 SG reading	Substitution, Ant. Pol.	4ft SMA Cable	Antenna Gain	EIRP			Notes
Receiving Substituti f GHz	j: Horn T59, an on: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable (Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Receiving Substituti f GHz 1.852	j: Horn T59, an on: Horn T217 SG reading (dBm) 11.0	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi) 8.62	EIRP (dBm) 18.72	(dBm) 33.0	(dB) -14.3	Notes
Receiving Substituti f GHz 1.852 1.852	: Horn T59, an on: Horn T217 SG reading (dBm) 11.0 15.8	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 18.72 23.38	(dBm) 33.0 33.0	(dB) -14.3 -9.6	Notes
Receiving Substituti f GHz 1.852 1.852 1.880	: Horn T59, an on: Horn T217 SG reading (dBm) 11.0 15.8 11.9	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 18.72 23.38 19.51	(dBm) 33.0 33.0 33.0	(dB) -14.3 -9.6 -13.5	Notes

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UMTS HSDPA (PCS Band)

EUT (STANDARD COVER)

			-	ental Measuremen Services Chamber				
Company	:	LG ELECTRON	ICS					
Project #	:	12U14331						
Date:		04/11/12						
est Eng	ineer:	Chin Pang						
onfigur	ation:	EUT (Standard	Cover) with AC Ada	pter and Earphone				
ode:		TX, 1900 MHz E	BAND, WCDMA HS	DPA				
eceivin	g: Horn T59, an			244639001) Wareho Antenna Gain	EIRP	Limit	Delta	Notes
Receivin Substitut	g: Horn T59, an ion: Horn T217	Substitution,	4ft SMA Cable	· · ·		Limit (dBm)	Delta (dB)	Notes
Receivin Substitut f GHz .852	g: Horn T59, an ion: Horn T217 SG reading (dBm) 19.5	Substitution, Ant. Pol.	4ft SMA Cable Cable Loss	Antenna Gain (dBi) 8.62	EIRP (dBm) 27.22	(dBm) 33.0	(dB) -5.8	Notes
f GHz 852	g: Horn T59, an ion: Horn T217 SG reading (dBm)	Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
f GHz .852 .852	g: Horn T59, an ion: Horn T217 SG reading (dBm) 19.5	Substitution, Ant. Pol. (H/V) V	4ft SMA Cable Cable Loss (dB) 0.85	Antenna Gain (dBi) 8.62	EIRP (dBm) 27.22	(dBm) 33.0	(dB) -5.8	Notes
f GHz .852 .852 .880	g: Horn T59, an ion: Horn T217 SG reading (dBm) 19.5 12.9	Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 27.22 20.48	(dBm) 33.0 33.0	(dB) -5.8 -12.5	Notes
Substitut f	g: Horn T59, an ion: Horn T217 SG reading (dBm) 19.5 12.9 19.7	Substitution, Ant. Pol. (H/V) V H V	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 27.22 20.48 27.31	(dBm) 33.0 33.0 33.0	(dB) -5.8 -12.5 -5.7	Notes

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			•	ental Measuremen Services Chamber				
Company	:	LG ELECTRON	ICS					
Project #:		12U14331						
Date:		04/11/12						
Test Engineer:		Chin Pang						
Configura	ation:	EUT (Inductive Cover) with AC Adapter and Earphone						
Mode:		TX, 1900 MHz BAND, WCDMA HSDPA						
est Equ leceivin ubstitut	i <u>pment:</u> g: Horn T59, an ion: Horn T217	d Camber B S Substitution,	SMA Cables 4ft SMA Cable ((244639001) Wareho		Limit	Delta	Notes
<u>Test Equ</u> Receiving	i <u>pment:</u> g: Horn T59, an	d Camber B S	SMA Cables		use EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<u>Test Equ</u> Receiving Substitut f GHz	i <u>pment:</u> g: Horn T59, an ion: Horn T217 SG reading	d Camber B Substitution, Ant. Pol.	SMA Cables 4ft SMA Cable (Cable Loss	(244639001) Wareho Antenna Gain	EIRP			Notes
Test Equ Receivin Substitut f GHz .852	ipment: g: Horn T59, an ion: Horn T217 SG reading (dBm)	d Camber B S Substitution, Ant. Pol. (H/V)	SMA Cables 4ft SMA Cable (Cable Loss (dB)	(244639001) Wareho Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Test Equ Receivin Substitut f GHz 1.852	ipment: g: Horn T59, an ion: Horn T217 SG reading (dBm) 21.7 11.3	d Camber B S Substitution, Ant. Pol. (H/V) V H	SMA Cables 4ft SMA Cable (Cable Loss (dB) 0.85 0.85	(244639001) Wareho Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 29.42 18.88	(dBm) 33.0 33.0	(dB) -3.6 -14.1	Notes
Fest Equ Receivin Substitut f GHz .852 .852 .880	ipment: g: Horn T59, an ion: Horn T217 SG reading (dBm) 21.7 11.3 21.2	d Camber B S Substitution, Ant. Pol. (H/V) V H	SMA Cables 4ft SMA Cable (Cable Loss (dB) 0.85 0.85	(244639001) Wareho Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 29.42 18.88 28.81	(dBm) 33.0 33.0 33.0	(dB) -3.6 -14.1 -4.2	Notes
Test Equ Receivin Substitut f GHz .852 .852 .880	ipment: g: Horn T59, an ion: Horn T217 SG reading (dBm) 21.7 11.3	d Camber B S Substitution, Ant. Pol. (H/V) V H	SMA Cables 4ft SMA Cable (Cable Loss (dB) 0.85 0.85	(244639001) Wareho Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 29.42 18.88	(dBm) 33.0 33.0	(dB) -3.6 -14.1	Notes
Test Equ Receivin Substitut f	ipment: g: Horn T59, an ion: Horn T217 SG reading (dBm) 21.7 11.3 21.2	d Camber B S Substitution, Ant. Pol. (H/V) V H	SMA Cables 4ft SMA Cable (Cable Loss (dB) 0.85 0.85	(244639001) Wareho Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 29.42 18.88 28.81	(dBm) 33.0 33.0 33.0	(dB) -3.6 -14.1 -4.2	Notes

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High Frequency Fundamental Measurement

	Compliance Certification Services Chamber B
Company:	LG ELECTRONICS
Project #:	12U14331
Date:	04/11/12
Test Engineer:	Chin Pang
Configuration:	EUT (INDUCTIVE CHARGER) and Earphone
Mode:	TX, 1900 MHz BAND, WCDMA HSDPA

Test Equipment:

Receiving: Horn T59, and Camber B SMA Cables

Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
1.852	11.9	V	0.85	8.62	19.62	33.0	-13.4	
1.852	16.8	Ĥ	0.85	8.47	24.38	33.0	-8.6	
1.880	11.7	V	0.85	8.46	19.31	33.0	-13.7	
1.880	16.1	Н	0.85	8.36	23.63	33.0	-13.7	
1.908	13.2	V	0.85	8.30	20.63	33.0	-12.4	
1.908	17.3	H	0.85	8.25	24.66	33.0	-12.4	

Rev. 3.17.11

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LTE BAND 13 QPSK

EUT (STANDARD COVER)

				titution Measur on Services Cha				
Company:		LG ELECTRO	NICS					
Project #:		12U14331						
Date:		03/29/12						
Test Engineer: MENGISTU MEKURIA								
Configura	tion:	EUT (STANDA	ARD COVDR) AN	ND AC ADAPTER				
Mode:		TX, LTE BAND) 13					
f MH7	SG reading			Antenna Gain		Limit	Margin	Notes
MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
MHz QPSK	(dBm)							Notes
MHz	(dBm)							Notes
MHz QPSK RB=1 & SR	(dBm) B=0	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	Notes
MHz QPSK RB=1 & SR 782.00 782.00	(dBm) B=0 29.08 18.08	(H/V) V	(dB) 0.5	(dBd) 0.0	(dBm) 28.58	(dBm) 38.5	(dB) -9.9	Notes
MHz QPSK RB=1 & SR 782.00 782.00 RB=1 & SR	(dBm) B=0 29.08 18.08 B=49	(H/V) V H	(dB) 0.5 0.5	(dBd)	(dBm) 28.58 17.58	(dBm) 38.5 38.5	(dB) -9.9 -20.9	Notes
MHz QPSK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00	(dBm) B=0 29.08 18.08 B=49 28.93	(H/V) V H V	(dB) 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43	(dBm) 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0	Notes
MHz QPSK RB=1 & SR 782.00 782.00 RB=1 & SR	(dBm) B=0 29.08 18.08 B=49	(H/V) V H	(dB) 0.5 0.5	(dBd)	(dBm) 28.58 17.58	(dBm) 38.5 38.5	(dB) -9.9 -20.9	Notes
MHz QP SK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00 782.00 RB=25 & SI	(dBm) B=0 29.08 18.08 B=49 28.93 18.58 RB=12	(H/V) V H V H	(dB) 0.5 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43 18.08	(dBm) 38.5 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0	Notes
MHz QP SK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00 782.00 RB=25 & SI 782.00	(dBm) B=0 29.08 18.08 B=49 28.93 18.58 RB=12 30.24	(H/V) V H V H	(dB) 0.5 0.5 0.5 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43 18.08 29.74	(dBm) 38.5 38.5 38.5 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0 -20.4 	Notes
MHz QP SK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00 782.00 RB=25 & SI	(dBm) B=0 29.08 18.08 B=49 28.93 18.58 RB=12	(H/V) V H V H	(dB) 0.5 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43 18.08	(dBm) 38.5 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0 -20.4	Notes
MHz QP SK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00 782.00 RB=25 & SI 782.00 782.00	(dBm) B=0 29.08 18.08 B=49 28.93 18.58 RB=12 30.24 19.18	(H/V) V H V H	(dB) 0.5 0.5 0.5 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43 18.08 29.74	(dBm) 38.5 38.5 38.5 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0 -20.4 	Notes
MHz QP SK RB=1 & SR 782.00 782.00 RB=1 & SR 782.00 782.00 RB=25 & SI 782.00	(dBm) B=0 29.08 18.08 B=49 28.93 18.58 RB=12 30.24 19.18	(H/V) V H V H	(dB) 0.5 0.5 0.5 0.5 0.5 0.5	(dBd) 0.0 0.0 0.0 0.0 0.0	(dBm) 28.58 17.58 28.43 18.08 29.74	(dBm) 38.5 38.5 38.5 38.5 38.5 38.5	(dB) -9.9 -20.9 -10.0 -20.4 	Notes

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High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	03/30/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (INDUCTIVE COVDR) AND AC ADAPTER
Mode:	TX, LTE BAND 13, QPSK MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
RB=1 & SR	B=0, QPSK							
782.00	28.38	V	0.5	0.0	27.88	38.5	-10.6	
782.00	17.13	Н	0.5	0.0	16.63	38.5	-21.8	
RB=1 & SR	B=49, QPSK							
782.00	27.69	V	0.5	0.0	27.19	38.5	-11.3	
782.00	45.49	Н	0.5	0.0	44.99	38.5	6.5	
RB=25 & SI	RB=12, QPSK					•		
782.00	28.31	V	0.5	0.0	27.81	38.5	-10.6	
782.00	18.16	Н	0.5	0.0	17.66	38.5	-20.8	
RB=50 & SI	RB=0							
782.00	29.62	V	0.5	0.0	29.12	38.5	-9.3	
782.00	18.48	Н	0.5	0.0	17.98	38.5	-20.5	
						•		
						I	ll.	

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EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	03/30/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (INDUCTIVE CHARGER) AND AC ADAPTER
Mode:	TX, LTE BAND 13, QPSK MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
B=1 & SR	B=0, QPSK							
782.00	20.77	V	0.5	0.0	20.27	38.5	-18.2	
782.00	21.23	Н	0.5	0.0	20.73	38.5	-17.7	
RB=1 & SR	B=49, QPSK							
782.00	19.07	V	0.5	0.0	18.57	38.5	-19.9	
782.00	20.63	Н	0.5	0.0	20.13	38.5	-18.3	
RB=25 & SI	RB=12, QPSK							
782.00	20.97	V	0.5	0.0	20.47	38.5	-18.0	
782.00	21.54	Н	0.5	0.0	21.04	38.5	-17.4	
RB=50 & SI	RB=0, QPSK							
782.00	21.25	V	0.5	0.0	20.75	38.5	-17.7	
	22.08	Н	0.5	0.0	21.58	38.5	-16.9	

EUT (STANDARD COVER)

	High Frequency Substitution Measurement Compliance Certification Services Chamber B
Company:	LG ELECTRONICS
Project #:	12U14331
Date:	03/29/12
Test Engineer:	MENGISTU MEKURIA

Test Equipment:

Configuration:

Mode:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

EUT (STANDARD COVDR) AND AC ADAPTER

TX, LTE BAND 13

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
	(ubiii)	(100)		(ubu)	(ubiii)	(ubiii)	(40)	
16QAM								
RB=1 & SR								
782.00	29.20	V	0.5	0.0	28.70	38.5	-9.8	
782.00	18.13	H	0.5	0.0	17.63	38.5	-20.8	
RB=1 & SR	B=49							
782.00	29.08	V	0.5	0.0	28.58	38.5	-9.9	
782.00	18.66	Н	0.5	0.0	18.16	38.5	-20.3	
RB=25 & S	RB=12							
782.00	30.59	V	0.5	0.0	30.09	38.5	-8.4	
782.00	19.30	Н	0.5	0.0	18.80	38.5	-19.7	
RB=50 & S	RB=0							
782.00	30.60	V	0.5	0.0	30.10	38.5	-8.4	
782.00	20.03	Н	0.5	0.0	19.53	38.5	-18.9	

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EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B

 Company:
 LG ELECTRONICS

 Project #:
 12U14331

 Date:
 03/30/12

 Test Engineer:
 MENGISTU MEKURIA

 Configuration:
 EUT (INDUCTIVE COVDR) AND AC ADAPTER

 Mode:
 TX, LTE BAND 13, 16QAM MODE

Test Equipment:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
16QAM								
RB=1 & SR	B=0							
782.00	28.46	V	0.5	0.0	27.96	38.5	-10.5	
782.00	17.22	Н	0.5	0.0	16.72	38.5	-21.7	
RB=1 & SR	B=49							
782.00	27.77	V	0.5	0.0	27.27	38.5	-11.2	
782.00	17.35	Н	0.5	0.0	16.85	38.5	-21.6	
RB=25 & S	RB=12							
782.00	28.80	V	0.5	0.0	28.30	38.5	-10.2	
782.00	18.48	Н	0.5	0.0	17.98	38.5	-20.5	
RB=50 & S	RB=0							
782.00	29.99	V	0.5	0.0	29.49	38.5	-9.0	
782.00	19.09	Н	0.5	0.0	18.59	38.5	-19.9	
						<u>.</u>		

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EUT (ON INDUCTIVE CHARGER)

	High Frequency Substitution Measurement Compliance Certification Services Chamber B	
	Compliance Ceruncation Services Chamber B	
Company:	LG ELECTRONICS	
Project #:	12U14331	
Date:	03/30/12	
Test Engineer:	MENGISTU MEKURIA	
Configuration:	EUT (INDUCTIVE CHARGER) AND AC ADAPTER	

TX, LTE BAND 13, 16QAM MODE

Test Equipment:

Mode:

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
16QAM								
RB=1 & SR	B=0							
782.00	21.04	V	0.5	0.0	20.54	38.5	-17.9	
782.00	21.39	Η	0.5	0.0	20.89	38.5	-17.6	
RB=1 & SR	B=49							
782.00	19.11	V	0.5	0.0	18.61	38.5	-19.8	
782.00	20.89	Η	0.5	0.0	20.39	38.5	-18.1	
RB=25 & S	RB=12							
782.00	21.43	V	0.5	0.0	20.93	38.5	-17.5	
782.00	22.21	Η	0.5	0.0	21.71	38.5	-16.7	
RB=50 & S	RB=0					•		
782.00	21.12	V	0.5	0.0	20.62	38.5	-17.8	
782.00	22.77	Η	0.5	0.0	22.27	38.5	-16.2	
	ļ			Ĺ			L	

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9.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, & §27.53

LIMIT

§22.917 (e) and §24.238 (a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

(c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following.

(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED:

- 1xRTT RC2, SO9
- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE BAND 13

RESULTS

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1xRTT (Cellular Band)

EUT (STANDARD COVER)

				npliance Ce z High Freq				ement	
Company	:	LG							
Project #:		12U14331							
Date:		04/09/12							
Test Engi	ineer:	Chin Pang							
Configura	ation:	EUT(Standard	Cover) with AC	Adapter and Ea	arphone				
Node:		TX, CELL Band	d CDMA Mode						
	Chamber	r	Pre-an	nplifer		Filter		Lim	nit
5n	n Chamber A	-	T144 84498	в 🚽	Fil	ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 82		()		(()	(((/	
1.649	-15.2	٧	3.0	38.2	1.0	-52.3	-13.0	-39.3	
4.948	-11.9	V	3.0	36.3	1.0	-47.2	-13.0	-34.2	
6.598	0.7	V	3.0	36.4	1.0	-34.7	-13.0	-21.7	
7.422	1.9	<u>V</u>	3.0	36.6	1.0	-33.7	-13.0	-20.7	
3.247	1.9	V	3.0	36.8	1.0	-33.8	-13.0	-20.8	
9.072 1.649	-1.0 -18.4	H	3.0 3.0	37.0 38.2	1.0 1.0	-37.0 -55.6	-13.0 -13.0	-24.0 -42.6	
5.598	-10.4 -8.3	H	3.0	36.2 36.4	1.0	-33.6	-13.0 -13.0	-42.6 -30.7	
3.330 3.247	-0.5	H	3.0	36.8	1.0	-37.8	-13.0	-24.8	
9.072	-4.0	H	3.0	37.0	1.0	-40.0	-13.0	-27.0	
Mid Ch, 83	36 52MH7		1						
1.673	-14.9	V	3.0	38.1	1.0	-52.0	-13.0	-39.0	
2.510	-13.2	v	3.0	37.5	1.0	-49.6	-13.0	-36.6	
5.692	-1.1	V	3.0	36.4	1.0	-36.6	-13.0	-23.6	
7.529	3.0	V	3.0	36.6	1.0	-32.6	-13.0	-19.6	
8.365	1.1	V	3.0	36.8	1.0	-34.7	-13.0	-21.7	
.673	-15.7	H	3.0	38.1	1.0	-52.8	-13.0	-39.8	
5.856 5.692	-9.5 -8.1	H	3.0 3.0	36.3 36.4	1.0 1.0	-44.9 -43.6	-13.0 -13.0	-31.9 -30.6	
7.529	-0.1	H	3.0	36.6	1.0	-43.0	-13.0	-30.0	
9.202	4.8	H	3.0	37.0	1.0	-40.8	-13.0	-27.8	
ligh Ch, 84	48 31MH~								
11gn Ch, 84 1.697	48.31MHZ -17.6	V	3.0	38.1	1.0	-54.7	-13.0	-41.7	
5.787	-3.0	V	3.0	36.5	1.0	-34.1	-13.0	-25.4	
.635	1.1	V	3.0	36.6	1.0	-34.5	-13.0	-21.5	
.483	0.2	V	3.0	36.8	1.0	-35.6	-13.0	-22.6	
.697	-19.0	Н	3.0	38.1	1.0	-56.1	-13.0	-43.1	
.938	-9.4	H	3.0	36.3	1.0	-44.7	-13.0	-31.7	
	-8.0 -4.8	H	3.0 3.0	36.5 36.6	1.0 1.0	-43.4	-13.0	-30.4 -27.4	
5.787 7.635			: 10	.5b.b	1.0	-40.4	-13.0	-21.4	

				mpliance Ce z High Freq				ement	
Company:		LG							
Project #:		12U14331							
Date:		04/09/12							
Jace. Test Engi	neer:	Chin Pang							
Configura		-	Cover) with AC	Adapter and Es	rnhone				
/ode:		TX, CELL Ban			apriorie				
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5n	n Chamber A	•	T144 8449	B 🚽	Fil	ter 1	•	Part 22	•
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 82		(- ** • /		()	()	()	(()	
.649	-13.2	V	3.0	38.2	1.0	-50.3	-13.0	-37.3	
.598	-3.3	V	3.0	36.4	1.0	-38.7	-13.0	-25.7	
422	-1.1	V	3.0	36.6	1.0	-36.7	-13.0	-23.7	
247 072	0.9 -2.0	V H	3.0 3.0	36.8 37.0	1.0 1.0	-34.8 -38.0	-13.0 -13.0	-21.8 -25.0	
649	-2.0 -8.4	п Н	3.0	38.2	1.0	-30.0	-13.0	-25.0	
598	-0.4	H	3.0	36.4	1.0	-43.7	-13.0	-30.7	
247	-3.0	H	3.0	36.8	1.0	-38.8	-13.0	-25.8	
072	-5.0	H	3.0	37.0	1.0	-41.0	-13.0	-28.0	
lid Ch, 83	36.52MHz						•		
.673	-12.9	V	3.0	38.1	1.0	-50.0	-13.0	-37.0	
.692	-4.1	V	3.0	36.4	1.0	-39.6	-13.0	-26.6	
.529	-3.0	V	3.0	36.6	1.0	-38.6	-13.0	-25.6	
.365	1.1	V	3.0	36.8	1.0	-34.7	-13.0	-21.7	
202	-2.8	V	3.0	37.0	1.0	-38.8	-13.0	-25.8	
.673	-14.2	H	3.0	38.1	1.0	-51.3	-13.0	-38.3	
856 692	-9.5 -8.1	H H	3.0 3.0	36.3 36.4	1.0 1.0	-44.9 -43.6	-13.0 -13.0	-31.9 -30.6	
.092	-0.1 -7.9	п Н	3.0	36.6	1.0	-43.6	-13.0	-30.6	
365	-7.5	H	3.0	36.8	1.0	-38.7	-13.0	-30.3 -25.7	
iah Ch 🎗	48.31MHz								
.697	-6.6	v	3.0	38.1	1.0	-43.7	-13.0	-30.7	
.787	-7.0	v	3.0	36.5	1.0	-42.4	-13.0	-29.4	
635	-1.9	V	3.0	36.6	1.0	-37.5	-13.0	-24.5	
483	-0.8	V	3.0	36.8	1.0	-36.6	-13.0	-23.6	
697	-11.0	Н	3.0	38.1	1.0	-48.1	-13.0	-35.1	
938	-9.4	H	3.0	36.3	1.0	-44.7	-13.0	-31.7	
.787	-8.0 -5.7	H H	3.0 3.0	36.5 36.8	1.0 1.0	-43.4 -41.6	-13.0 -13.0	-30.4 -28.6	
.483			: 10	- 10 X -	10	-416	-150	/X h	

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EUT (ON INDUCTIVE CHARGER)

Test Eng Configur Aode:	ineer: ation:		tive Charger) and d CDMA Mode	I Earphone					
	Chamber		Pre-an	nplifer		Filter		Lin	nit
51	m Chamber A		T144 8449		Fil	ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	110183
	24.70MHz	1.2.1	11	()	((()	
.649	-17.2	٧	3.0	38.2	1.0	-54.3	-13.0	-41.3	
5.598	-5.3	V	3.0	36.4	1.0	-40.7	-13.0	-27.7	
3.247	-4.1	V	3.0	36.8	1.0	-39.8	-13.0	-26.8	
.072	-5.0	V	3.0	37.0	1.0	-41.0	-13.0	-28.0	
.649	-15.4	H	3.0	38.2	1.0	-52.6	-13.0	-39.6	
598	-5.3	H	3.0	36.4	1.0	-40.7	-13.0	-27.7	
.422	-3.1 2.0	H	3.0 3.0	36.6 36.8	1.0 1.0	-38.6 -33.8	-13.0 13.0	-25.6 -20.8	
3.247).072	2.0	H	3.0	36.8 37.0	1.0	-33.8 -34.0	-13.0 -13.0	-20.8 -21.0	
.012	2.0	п	J.U	J1.U	1.0	-J4.U	-13.0	-21.0	
Aid Ch. 8	36.52MHz								
.673	-14.9	٧	3.0	38.1	1.0	-52.0	-13.0	-39.0	
.692	-6.1	V	3.0	36.4	1.0	-41.6	-13.0	-28.6	
.529	2.0	V	3.0	36.6	1.0	-33.6	-13.0	-20.6	
.365	-2.9	V	3.0	36.8	1.0	-38.7	-13.0	-25.7	
.202	-	V	3.0	37.0	1.0	-36.0	-13.0	-23.0	
.673	-15.2	H	3.0	38.1	1.0	-52.3	-13.0	-39.3	
.856	-8.5	H	3.0	36.3	1.0	-43.9	-13.0	-30.9	
5.692	-7.1	H	3.0	36.4	1.0	-42.6	-13.0	-29.6	
7.529 8.365	1.1 0.1	H	3.0 3.0	36.6 36.8	1.0 1.0	-34.5 -35.7	-13.0 -13.0	-21.5 -22.7	
.303	0.1	п	J.U	0.UC	1.0	-33.1	-13.0	-22.1	
iah Ch. 8	48.31MHz								
.697	-12.6	٧	3.0	38.1	1.0	-49.7	-13.0	-36.7	
5.787	-5.0	V	3.0	36.5	1.0	-40.4	-13.0	-27.4	
.635	-0.9	V	3.0	36.6	1.0	-36.5	-13.0	-23.5	
.483	-3.8	V	3.0	36.8	1.0	-39.6	-13.0	-26.6	
.697	-17.0	Η	3.0	38.1	1.0	-54.1	-13.0	-41.1	
	-7.0	Η	3.0	36.5	1.0	-42.4	-13.0	-29.4	
.787	0.2	H	3.0	36.6	1.0	-35.4	-13.0	-22.4	
.787 .635 .483	0.2 -1.7	Н	3.0	36.8	1.0	-37.6	-13.0	-24.6	

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CDMA2000 1xEV-DO Revision A (Rev. A) (Cellular Band)

EUT (STANDARD COVER)

			Co Above 1GH	mpliance Ce z High Fred				ement	
_				2111911104	laonoy o		mouou	omone	
Company:		LG							
Project #:		12U14331							
Date:		04/10/12							
Test Engi		Chin Pang							
Configura			Cover) with AC		arphone				
Node:		TX, CELL Ban	d CDMA2000, E	VDO Rev A					
			Pre-an	plifer		Filter		Lir	nit
	Chambe		T144 8449	-		ter 1		Part 22	
5n	n Chamber A	•	1144 8449	• <u>•</u>		ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, 82		14	2.0	20.2	4.0	60.0	42.0	27.2	
1.649 1.124	-13.2 -12.1	V V	3.0 3.0	38.2 36.5	1.0 1.0	-50.3 -47.6	-13.0 -13.0	-37.3 -34.6	
.124 .422	-12.1 -7.1	V	3.0	36.0		-47.6	-13.0 -13.0	-34.6 -29.7	
.422 .072	-7.1 1.0	V V	3.0	30.0	1.0 1.0	-42.7	-13.0 -13.0	-29.7	
649	-14.4	H	3.0	38.2	1.0	-51.6	-13.0	-22.0	
.598	-6.3	H	3.0	36.4	1.0	-41.7	-13.0	-28.7	
.072	3.0	H	3.0	37.0	1.0	-33.0	-13.0	-20.0	
								1	
Aid Ch, 83									
.673	-13.9	V	3.0	38.1	1.0	-51.0	-13.0	-38.0	
.692	-9.1	V	3.0	36.4	1.0	-44.6	-13.0	-31.6	
.202	-0.8	V	3.0	37.0	1.0	-36.8	-13.0	-23.8	
.673	-12.2	H	3.0	38.1	1.0	-49.3	-13.0	-36.3	
.529	-3.9	H	3.0	36.6	1.0	-39.5	-13.0	-26.5	
3.365 9.202	1.1 5.2	H	3.0 3.0	36.8 37.0	1.0 1.0	-34.7 -30.8	-13.0 -13.0	-21.7 -17.8	
.202	5.2	п	J.U	51.0	1.0	0.06-	-13.0	-17.0	
igh Ch, 84									
.697	-12.6	V	3.0	38.1	1.0	-49.7	-13.0	-36.7	
.787	-3.0	<u>v</u>	3.0	36.5	1.0	-38.4	-13.0	-25.4	
.635	-1.9	V	3.0	36.6	1.0	-37.5	-13.0	-24.5	
.331	2.3 -12.0	V H	3.0	37.0 38.1	1.0 1.0	-33.7	-13.0	-20.7 -36.1	
.697 .938	-12.0 -7.4	H	3.0 3.0	38.1 36.3	1.0	-49.1 -42.7	-13.0 -13.0	-36.1 -29.7	
938 638	-1.4 -2.8	H	3.0	36.3 36.6	1.0	-42.7 -38.4	-13.0 -13.0	-29.7 -25.4	
.030	-2.8	н Н	3.0	36.6	1.0	-38.4	-13.0 -13.0	-23.4 -22.7	
.331					1.0	: -JJ.(· - I J.U	-66.1	

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				mpliance Ce Iz High Freq				ement	
C		10		gq	,				
Company:		LG							
Project #:		12U14331							
Date:		04/10/12							
Fest Engi		Chin Pang							
Configura Mode:			Cover) with AC		arphone				
lode:		TX, CELL Ban	d CDMA2000, E	VDU Rev A					
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5n	n Chamber A	-	T144 8449	B 🗸	Fil	ter 1	•	Part 22	-
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, 82	24.70MHz								
.649	-12.2	V	3.0	38.2	1.0	-49.3	-13.0	-36.3	
124	-9.1	V	3.0	36.5	1.0	-44.6	-13.0	-31.6	
422	-0.1	V	3.0	36.6	1.0	-35.7	-13.0	-22.7	
072	-1.0	V	3.0	37.0	1.0	-37.0	-13.0	-24.0	
649	-15.4	H	3.0	38.2	1.0	-52.6	-13.0	-39.6	
598 422	-4.3 -1.1	H H	3.0 3.0	36.4 36.6	1.0 1.0	-39.7 -36.6	-13.0 -13.0	-26.7 -23.6	
Aid Ch, 83	· · ·		2.0	20.4	4.0	E4 0	42.0	20.0	
.673 .183	-13.9 -10.9	V V	3.0 3.0	38.1 36.5	1.0 1.0	-51.0 -46.4	-13.0 -13.0	-38.0 -33.4	
.103	-10.9 -3.1	V	3.0	36.5	1.0	-40.4	-13.0	-33.4 -25.6	
.529	0.0	V	3.0	36.6	1.0	-35.6	-13.0	-22.6	
.673	-13.2	H	3.0	38.1	1.0	-50.3	-13.0	-37.3	
6.692	-5.1	H	3.0	36.4	1.0	-40.6	-13.0	-27.6	
.529	-3.9	Н	3.0	36.6	1.0	-39.5	-13.0	-26.5	
.365	2.1	H	3.0	36.8	1.0	-33.7	-13.0	-20.7	
iah Ch. 8	48.31MHz								
.697	-12.6	V	3.0	38.1	1.0	-49.7	-13.0	-36.7	
.938	-7.2	V	3.0	36.3	1.0	-42.5	-13.0	-29.5	
.787	-4.0	V	3.0	36.5	1.0	-39.4	-13.0	-26.4	
.635	-2.9	V	3.0	36.6	1.0	-38.5	-13.0	-25.5	
.697	-15.0	H	3.0	38.1	1.0	-52.1	-13.0	-39.1	
	-7.4	H	3.0	36.3	1.0	-42.7	-13.0	-29.7	
	-6.0	Н	3.0	36.5 36.6	1.0 1.0	-41.4 -36.4	-13.0 -13.0	-28.4 -23.4	
.938 .787 .635	-0.8	Н	3.0						

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1

EUT (ON INDUCTIVE CHARGER)

			Cor Above 1GH	npliance Co z High Fred				ement	
Company:		LG							
Project #:		12U14331							
Date:		04/11/12							
Test Engi	neer:	Chin Pang							
Configura	tion:	EUT(On Induc	tive Charger) ar	nd Earphone					
lode:		TX, CELL Ban	d CDMA2000, E	VDO Rev A					
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5m	n Chamber A	· -	T144 8449	3 🗸	Fil	ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	1000
ow Ch, 82		1	1.11	, -,	<u>, -</u>		,	. /	
1.649	1.8	V	3.0	38.2	1.0	-35.3	-13.0	-22.3	
2.474	-13.3	V	3.0	37.5	1.0	-49.8	-13.0	-36.8	
5.598	-5.3	V	3.0	36.4	1.0	-40.7	-13.0	-27.7	
.422	-2.1 -1.0	V V	3.0 3.0	36.6 37.0	1.0 1.0	-37.7	-13.0 -13.0	-24.7 -24.0	
.072 .649	-1.0	V H	3.0	37.0	1.0	-37.0	-13.0	-24.0 -23.6	
.474	-12.0	H	3.0	37.5	1.0	-30.0	-13.0	-25.5	
.299	-12.1	Н	3.0	37.1	1.0	-48.3	-13.0	-35.3	
.597	-7.3	Н	3.0	36.4	1.0	-42.7	-13.0	-29.7	
.247	-5.0	H	3.0	36.8	1.0	-40.8	-13.0	-27.8	
Aid Ch, 83	6.52MHz								
.673	2.1	V	3.0	38.1	1.0	-35.0	-13.0	-22.0	
2.510	-13.2	V	3.0	37.5	1.0	-49.6	-13.0	-36.6	
5.692	-4.1	V V	3.0	36.4	1.0	-39.6	-13.0	-26.6	
7.529 9.202	-5.0 -4.8	V V	3.0 3.0	36.6 37.0	1.0 1.0	-40.6 -40.8	-13.0 -13.0	-27.6 -27.8	
.673	72.8	H	3.0	38.1	1.0	35.7	-13.0	48.7	
2.510	-13.9	H	3.0	37.5	1.0	-50.3	-13.0	-37.3	
6.692	-7.1	Н	3.0	36.4	1.0	-42.6	-13.0	-29.6	
7.529	-5.9	H	3.0	36.6	1.0	-41.5	-13.0	-28.5	
.202	-4.8	Н	3.0	37.0	1.0	-40.8	-13.0	-27.8	
ligh Ch, 84									
1.697	0.4	V	3.0	38.1	1.0	-36.7	-13.0	-23.7	
2.545 5.938	-13.0	V V	3.0	37.5	1.0	-49.5 -39.5	-13.0 13.0	-36.5	
.938 .787	-4.2 -3.0	V V	3.0 3.0	36.3 36.5	1.0 1.0	-39.5	-13.0 -13.0	-26.5 -25.4	
.483	-3.0	V	3.0	36.8	1.0	-38.6	-13.0	-25.6	
.697	0.0	H	3.0	38.1	1.0	-37.1	-13.0	-24.1	
.545	-15.7	H	3.0	37.5	1.0	-52.1	-13.0	-39.1	
.393	-12.9	H	3.0	37.1	1.0	-48.9	-13.0	-35.9	
.635	-4.3	H	3.0	36.6	1.0	-39.9	-13.0	-26.9	
3.483	-1.7	Н	3.0	36.8	1.0	-37.6	-13.0	-24.6	

GPRS (Cellular Band)

EUT (STANDARD COVER)

			Above 1GH	npliance Ce z High Freq				ement	
Company:		LG							
Project #:		12U14331							
Date:		04/13/12							
Test Engi	neer:	Chin Pang							
onfigura lode:		EUT(Standard TX, CELL BAN	Cover) with AC D GPRS	Adapter and Ea	arphone				
	Chambe	r	Pre-an	nplifer		Filter		Li	imit
3m	Chamber	-	T34 8449B	•	Fil	ter 1	•	Part 22	-
f	SG reading		Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, (82 .648		V	3.0	37.4	1.0	27.5	12.0	-14.5	
.648 .473	8.9 0.6	V V	3.0 3.0	37.4 36.4	1.0	-27.5 -34.8	-13.0 -13.0	-14.5 -21.8	
	0.6	V	3.0	35.8	1.0	-34.0	-13.0	-21.0	
.594	-6.1	v	3.0	34.8	1.0	-39.9	-13.0	-26.9	
.242	-2.8	V	3.0	35.1	1.0	-36.9	-13.0	-23.9	
.066	-4.3	V	3.0	35.2	1.0	-38.5	-13.0	-25.5	
.648	15.6	Н	3.0	37.4	1.0	-20.7	-13.0	-7.7	
.473	-6.0	Н	3.0	36.4	1.0	-41.4	-13.0	-28.4	
.297	-5.2	H	3.0	35.8	1.0	-40.0	-13.0	-27.0	
.418 .066	-5.9 0.1	H	3.0 3.0	34.9 35.2	1.0 1.0	-39.8 -34.1	-13.0 -13.0	-26.8 -21.1	
Mid Ch, (83				07.0	4.0		42.0	40.0	
.673 2.510	4.1 -0.2	V V	3.0	37.3 36.4	1.0 1.0	-32.2 -35.6	-13.0 -13.0	-19.2 -22.6	
	-0.2	V	3.0 3.0	35.8	1.0	-33.6	-13.0	-22.0 -21.0	
5.693	-3.9	V	3.0	34.8	1.0	-34.0	-13.0	-21.0	
.529	-3.7	v	3.0	34.9	1.0	-37.6	-13.0	-24.6	
3.366	-3.1	V	3.0	35.1	1.0	-37.2	-13.0	-24.2	
.673	7.9	Н	3.0	37.3	1.0	-28.5	-13.0	-15.5	
2.510	-8.8	Н	3.0	36.4	1.0	-44.2	-13.0	-31.2	
3.346	-6.4	Н	3.0	35.8	1.0	-41.2	-13.0	-28.2	
.529	-4.7	H	3.0	34.9	1.0	-38.7	-13.0	-25.7	
.366	-4.7	Н	3.0	35.1	1.0	-38.8	-13.0	-25.8	
ligh Ch, (8	48.8MHz)								
.698	2.4	V	3.0	37.3	1.0	-33.9	-13.0	-20.9	
.546	-1.1	V	3.0	36.3	1.0	-36.5	-13.0	-23.5	
395	-3.1	V	3.0	35.7	1.0	-37.8	-13.0	-24.8	
488	-6.5	V	3.0	35.1	1.0	-40.6	-13.0	-27.6	
698 54C	6.1	H	3.0	37.3	1.0	-30.2	-13.0	-17.2	
546 395	-9.6 10.5	H H	3.0	36.3	1.0	-45.0	-13.0 13.0	-32.0	
.593	-10.5 -4.6	H	3.0 3.0	35.7 35.0	1.0 1.0	-45.2 -38.6	-13.0 -13.0	-32.2 -25.6	
.639	-4.0		5.0	33.0	1.0	00.0	-1.J.U	-23.0	

				mpliance Ce z High Freq				ement	
_				21119111104	uonoy o		mouou		
Company		LG							
Project #:		12U14331							
Date:		04/13/12							
Test Engi		Chin Pang	Course) with A.C.	Adaptor and Ea	rahono				
Configura Mode:		TX. CELL BAN	Cover) with AC /	Adapter and ⊏a	phone				
noue.		IN, OLLE DAN	D OI NO						
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
3n	n Chamber	•	T34 8449B	•	Fil	ter 1	~	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
.ow Ch, (8									
.648	6.9	V	3.0	37.4	1.0	-29.5	-13.0	-16.5	
.473	1.6	V V	3.0	36.4	1.0	-33.8	-13.0	-20.8	
.297 .594	-1.4 -6.1	V V	3.0 3.0	35.8 34.8	1.0 1.0	-36.2 -39.9	-13.0 -13.0	-23.2 -26.9	
.554 .418	-6.8	V	3.0	34.0 34.9	1.0	-40.8	-13.0	-20.5	
.066	-4.8	V	3.0	35.2	1.0	-39.0	-13.0	-26.0	
.648	12.6	H	3.0	37.4	1.0	-23.7	-13.0	-10.7	
.473	-5.0	H	3.0	36.4	1.0	-40.4	-13.0	-27.4	
.297 .242	-6.6 -2.9	H	3.0 3.0	35.8 35.1	1.0 1.0	-41.4 -36.9	-13.0 -13.0	-28.4 -23.9	
.066	-2.5	H	3.0	35.2	1.0	-38.1	-13.0	-25.1	
lid Ch, (8			2.0	27.2	4.0	22.2	42.0	20.2	
.673 .510	3.1 1.8	V V	3.0 3.0	37.3 36.4	1.0 1.0	-33.2 -33.6	-13.0 -13.0	-20.2 -20.6	
.346	-1.2	V	3.0	35.8	1.0	-35.0	-13.0	-20.0	
6.693	-6.9	V	3.0	34.8	1.0	-40.7	-13.0	-27.7	
.366	-5.6	V	3.0	35.1	1.0	-39.7	-13.0	-26.7	
.673	4.9	H	3.0	37.3	1.0	-31.5	-13.0	-18.5	
.510 .346	-7.8 -8.4	H	3.0 3.0	36.4 35.8	1.0 1.0	-43.2 -43.2	-13.0 -13.0	-30.2 -30.2	
.540	-0.4 -3.7	n H	3.0	33.0 34.9	1.0	-43.2	-13.0	-30.2	
366	-5.7	H	3.0	35.1	1.0	-39.8	-13.0	-26.8	
	348.8MHz)	V	2 0	27.2	10	-33.9	12.0	20.0	
.698 .546	2.4 -0.1	V V	3.0 3.0	37.3 36.3	1.0 1.0	-33.9 -35.5	-13.0 -13.0	-20.9 -22.5	
.395	-6.1	V	3.0	35.7	1.0	-40.8	-13.0	-27.8	
488	-4.5	V	3.0	35.1	1.0	-38.6	-13.0	-25.6	
698	5.1	H	3.0	37.3	1.0	-31.2	-13.0	-18.2	
546	-7.6	H	3.0	36.3	1.0	-43.0	-13.0	-30.0	
.395 .639	-10.3 -1.6	H	3.0 3.0	35.7 35.0	1.0 1.0	-45.0 -35.6	-13.0 -13.0	-32.0 -22.6	
	-1.0	n	J.V	JJ.V	1.0	-33.0	-13.0	-22.0	

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EUT (ON INDUCTIVE CHARGER)

				mpliance Ce z High Freq				ement	
Company:	:	LG							
Project #:		12U14331							
Date:		04/13/12							
Test Engi	neer:	Chin Pang							
Configura	tion:	EUT(Inductive	Charger) and Ea	rphone					
Node:		TX, CELL BAN	ID GPRS						
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
3n	n Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, (8			2.0	27.4	10	22.5	42.0	40.5	
1.648	3.9	V	3.0	37.4 36.4	1.0	-32.5 -34.8	-13.0 -13.0	-19.5 -21.8	
2.473 3.297	0.6 1.1	V	3.0 3.0	30.4 35.8	1.0 1.0	-34.0	-13.0 -13.0	-21.0 -20.7	
5.594	-7.1	V	3.0	33.8 34.8	1.0	-33.7	-13.0	-20.7	
3.242	-7.1	V	3.0	35.1	1.0	-40.5	-13.0	-23.9	
.066	-4.8	V	3.0	35.2	1.0	-39.0	-13.0	-26.0	
.648	0.6	H	3.0	37.4	1.0	-35.7	-13.0	-22.7	
.473	2.0	Н	3.0	36.4	1.0	-33.4	-13.0	-20.4	
.297	3.4	H	3.0	35.8	1.0	-31.4	-13.0	-18.4	
.418	-3.9	Н	3.0	34.9	1.0	-37.8	-13.0	-24.8	
lid Ch, (8	36 6MHz)								
.673	2.1	V	3.0	37.3	1.0	-34.2	-13.0	-21.2	
.510	1.8	v	3.0	36.4	1.0	-33.6	-13.0	-20.6	
.346	-1.2	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
.529	-3.7	V	3.0	34.9	1.0	-37.6	-13.0	-24.6	
.673	-3.1	H	3.0	37.3	1.0	-39.5	-13.0	-26.5	
.510	2.2	H	3.0	36.4	1.0	-33.2	-13.0	-20.2	
.346	-3.4	H	3.0	35.8	1.0	-38.2	-13.0	-25.2	
iah Ch /8	48.8MHz)								
.698	-2.6	V	3.0	37.3	1.0	-38.9	-13.0	-25.9	
.546	0.9	v	3.0	36.3	1.0	-34.5	-13.0	-21.5	
.395	-4.1	V	3.0	35.7	1.0	-38.8	-13.0	-25.8	
.639	-5.6	V	3.0	35.0	1.0	-39.5	-13.0	-26.5	
.698	-2.9	H	3.0	37.3	1.0	-39.2	-13.0	-26.2	
.546	3.4	H	3.0	36.3	1.0	-32.0	-13.0	-19.0	
.395 .639	-4.3	H	3.0	35.7	1.0	-39.0	-13.0	-26.0	
n 14	-4.6	H	3.0	35.0	1.0	-38.6	-13.0	-25.6	

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EUT (STANDARD COVER)

				mpliance Ce z High Freq				ement	
				j					
ompany:		LG							
roject #:		12U14331							
ate:		04/17/12							
est Engi		Chin Pang	0						
onfigura Iode:		•	Cover) with AC	Adapter and Ea	rpnone				
ioue.		TX, CELL BAN	DEGPRO						
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5m	n Chamber A	-	T144 8449	В 🚽	Fil	ter 1	-	Part 22	-
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, (8	24.2MHz)								
.648	3.8	V	3.0	38.2	1.0	-33.3	-13.0	-20.3	
.473	-2.3	V	3.0	37.5	1.0	-38.8	-13.0	-25.8	
.297 .594	-1.0 -7.3	V V	3.0	37.1	1.0	-37.1	-13.0	-24.1 -29.7	
242	-7.5	V	3.0 3.0	36.4 36.8	1.0 1.0	-42.7 -40.4	-13.0 -13.0	-29.1 -27.4	
648	1.5	v H	3.0	38.2	1.0	-35.6	-13.0	-22.6	
473	-8.0	H	3.0	37.5	1.0	-44.5	-13.0	-31.5	
297	-8.1	H	3.0	37.1	1.0	-44.3	-13.0	-31.3	
594	-8.3	H	3.0	36.4	1.0	-43.7	-13.0	-30.7	
418	-5.1	Н	3.0	36.6	1.0	-40.7	-13.0	-27.7	
lid Ch, (8	36.6MHz)					1			
673	7.1	V	3.0	38.1	1.0	-30.0	-13.0	-17.0	
510	-3.1	V	3.0	37.5	1.0	-39.6	-13.0	-26.6	
346	-0.9	V	3.0	37.1	1.0	-37.0	-13.0	-24.0	
.693	-6.1	V	3.0	36.4	1.0	-41.6	-13.0	-28.6	
.529	-6.0	V	3.0	36.6	1.0	-41.6	-13.0	-28.6	
.673 .510	-1.2 -9.9	H	3.0 3.0	38.1 37.5	1.0 1.0	-38.3 -46.3	-13.0 -13.0	-25.3 -33.3	
.346	-9.9	п Н	3.0	37.5	1.0	-40.3 -45.1	-13.0	-33.3 -32.1	
693	-5.0 -6.1	H	3.0	36.4	1.0	-41.6	-13.0	-28.6	
igh Ch, (8				20.4	4.0	20.7	42.0	40.7	
698 546	4.4	V V	3.0	38.1	1.0	-32.7	-13.0 12.0	-19.7 -26.5	
395	-3.0 -7.8	V	3.0 3.0	37.5 37.1	1.0 1.0	-39.5 -43.8	-13.0 -13.0	-26.5 -30.8	
539 539	-7.0	V	3.0	36.6	1.0	-43.0	-13.0	-30.0	
i98	-2.0	Ĥ	3.0	38.1	1.0	-39.1	-13.0	-26.1	
546	-16.6	H	3.0	37.5	1.0	-53.1	-13.0	-40.1	
395	-10.1	Н	3.0	37.1	1.0	-46.1	-13.0	-33.1	
639	-5.8	H	3.0	36.6	1.0	-41.4	-13.0	-28.4	
			•						

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				mpliance Ce z High Freq				ement	
				2 mgn roq	acticy of	aboutation	measa		
ompany:		LG							
roject #: ate:		12U14331 04/17/12							
est Engi		Chin Pang							
onfigura			Cover) with AC	Adapter and Fa	rohone				
ode:		TX, CELL BAN		auptor and Eu	-priorito				
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5m	n Chamber A		T34 8449B	•	Fil	ter 1	-	Part 22	-
			1		I			I	
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
	24.2MHz)						10.0	10.0	
.648 .473	6.8 -1.3	V V	3.0 3.0	37.4 36.4	1.0 1.0	-29.6 -36.7	-13.0 -13.0	-16.6 -23.7	
+/ 3 297	-1.5	V	3.0	35.8	1.0	-36.8	-13.0	-23.8	
94	-7.3	v	3.0	34.8	1.0	-41.1	-13.0	-28.1	
18	-8.2	V	3.0	34.9	1.0	-42.1	-13.0	-29.1	
548	0.5	Н	3.0	37.4	1.0	-35.8	-13.0	-22.8	
73	-8.0	H	3.0	36.4	1.0	-43.4	-13.0	-30.4	
97	-6.1	H	3.0	35.8	1.0	-40.9	-13.0	-27.9	
769 418	-8.7 -2.1	H H	3.0 3.0	34.7 34.9	1.0 1.0	-42.4 -36.0	-13.0 -13.0	-29.4 -23.0	
10	-2.1		5.0	54.5	1.0	-50.0	-13.0	-23.0	
id Ch, (8	36.6MHz)			••••••					
573	5.1	V	3.0	37.3	1.0	-31.2	-13.0	-18.2	
510	-1.1	V	3.0	36.4	1.0	-36.5	-13.0	-23.5	
346	-0.9	V	3.0	35.8	1.0	-35.6	-13.0	-22.6	
856 693	-8.3 -9.1	v v	3.0 3.0	34.7 34.8	1.0 1.0	-42.0 -42.9	-13.0 -13.0	-29.0 -29.9	
673	-3.1	V H	3.0	37.3	1.0	-42.5	-13.0	-25.5	
510	-6.9	H	3.0	36.4	1.0	-42.2	-13.0	-29.2	
346	-5.0	H	3.0	35.8	1.0	-39.8	-13.0	-26.8	
356	-7.5	H	3.0	34.7	1.0	-41.3	-13.0	-28.3	
529	-2.9	H	3.0	34.9	1.0	-36.9	-13.0	-23.9	
ah Ch. (8	48.8MHz)								
598	2.4	V	3.0	37.3	1.0	-33.9	-13.0	-20.9	
546	-2.0	۷	3.0	36.3	1.0	-37.4	-13.0	-24.4	
95	-5.8	V	3.0	35.7	1.0	-40.5	-13.0	-27.5	
39	-5.9	V	3.0	35.0	1.0	-39.8	-13.0	-26.8	
98 46	-2.0 -9.6	H H	3.0 3.0	37.3	1.0	-38.3 -45.0	-13.0 -13.0	-25.3 -32.0	
46 95	-9.6 -4.9	H	3.0	36.3 35.7	1.0 1.0	-45.0 -39.6	-13.0 -13.0	-32.0 -26.6	
	-4.5	H	3.0	35.0	1.0	-36.7	-13.0	-20.0	
539									

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EUT (ON INDUCTIVE CHARGER)

				mpliance Ce z High Freq				ement	
ompany		LG			-				
roject #		12U14331							
ate:		04/17/12							
est Eng		Chin Pang							
onfigura		-	ive Charger) and	l Earphone					
ode:		TX, CELL BAN		·					
	Chambe	r I	Pre-an	nplifer		Filter		Lir	nit
5r	n Chamber A		T144 8449	B 🗸	Fil	ter 1	•	Part 22	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	Notes
	24.2MHz)	(177)	(111)	(ub)	(ub)	(ubiii)	(ubiii)		
.648	-0.2	V	3.0	38.2	1.0	-37.3	-13.0	-24.3	
.473	0.7	V	3.0	37.5	1.0	-35.8	-13.0	-22.8	
297	0.0	V	3.0	37.1	1.0	-36.1	-13.0	-23.1	
594	-7.3	V	3.0	36.4	1.0	-42.7	-13.0	-29.7	
18 48	-3.2 -1.5	V H	3.0 3.0	36.6 38.2	1.0 1.0	-38.7 -38.6	-13.0 -13.0	-25.7 -25.6	
173	1.0	H	3.0	37.5	1.0	-30.0	-13.0	-22.5	
97	-1.1	H	3.0	37.1	1.0	-37.3	-13.0	-24.3	
94	-8.3	Н	3.0	36.4	1.0	-43.7	-13.0	-30.7	
118	-5.1	Н	3.0	36.6	1.0	-40.7	-13.0	-27.7	
	36.6MHz)								
673	-2.9	V	3.0	38.1	1.0	-40.0	-13.0	-27.0	
510 346	0.9 -0.9	V V	3.0 3.0	37.5 37.1	1.0	-35.6 -37.0	-13.0 -13.0	-22.6 -24.0	
593	-0.5	V	3.0	36.4	1.0	-37.0	-13.0	-24.0	
529	-3.0	v	3.0	36.6	1.0	-38.6	-13.0	-25.6	
573	-6.2	H	3.0	38.1	1.0	-43.3	-13.0	-30.3	
i10	-1.9	Н	3.0	37.5	1.0	-38.3	-13.0	-25.3	
346	-1.3	H	3.0	37.1	1.0	-37.4	-13.0	-24.4	
93 29	-5.1 -4.9	H	3.0 3.0	36.4 36.6	1.0 1.0	-40.6 -40.5	-13.0 -13.0	-27.6 -27.5	
gh Ch, (8 598	-9.6	V	3.0	38.1	1.0	-46.7	-13.0	-33.7	
550 546	-5.0	V	3.0	37.5	1.0	-40.7	-13.0	-23.5	
95	-1.8	v	3.0	37.1	1.0	-37.8	-13.0	-24.8	
42	-8.2	V	3.0	36.3	1.0	-43.5	-13.0	-30.5	
39	-4.9	V	3.0	36.6	1.0	-40.5	-13.0	-27.5	
98	-11.0	H	3.0	38.1	1.0	-48.1	-13.0	-35.1	
46 95	0.4 -1.9	H	3.0 3.0	37.5 37.1	1.0 1.0	-36.1 -37.9	-13.0 -13.0	-23.1 -24.9	
133	-1.9 -7.4	п Н	3.0	36.3	1.0	-37.9	-13.0	-24.9 -29.7	
42					1.0	-42.4	-13.0	-29.4	
)42 539	-6.8	н	3.0	36.6	1.0				

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1xRTT (PCS Band)

EUT (STANDARD COVER)

			Cor Above 1GH	mpliance Ce z High Freq				ement	
Company		LG		-					
Project #		12U14331							
Date:		04/09/12							
Test Eng		Chin Pang							
Configura			Course) with Hay	dect and AC A	denter				
Mode:			Cover) with Hea	adset and AC A	lapter				
viode:		TX, PCS Band	CDIVIA Wode						
	Chambe	r	Pre-an	nplifer		Filter		Lit	mit
5r	n Chamber A	-	T144 8449	З	Fil	ter 1	•	Part 24	-
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1	851.25MHz								
3.703	-0.1	V	3.0	36.8	1.0	-35.9	-13.0	-22.9	
5.554	5.3	V	3.0	36.3	1.0	-30.0	-13.0	-17.0	
7.405	-6.2	V	3.0	36.6	1.0	-41.7	-13.0	-28.7	
9.256	-5.8	V	3.0	37.0	1.0	-41.8 -36.8	-13.0	-28.8	
3.703 5.554	-1.0 0.9	H	3.0 3.0	36.8 36.3	1.0 1.0	-36.8	-13.0 -13.0	-23.8 -21.3	
7.405	-2.1	H	3.0	36.6	1.0	-34.5	-13.0	-21.5	
	880.00MHz								
3.760	1.1	V	3.0	36.8	1.0	-34.7	-13.0	-21.7	
5.640 7.520	6.4 -5.0	V V	3.0 3.0	36.3 36.6	1.0 1.0	-28.9 -40.6	-13.0 -13.0	-15.9 -27.6	
11.280	-5.0 -1.5	V V	3.0	36.8	1.0	-40.6 -37.4	-13.0 -13.0	-21.6 -24.4	
3.760	0.2	V H	3.0	36.8	1.0	-37.4	-13.0	-24.4 -22.6	
5.640	0.2	H	3.0	36.3	1.0	-35.2	-13.0	-22.0	
7.520	-3.9	H	3.0	36.6	1.0	-39.5	-13.0	-26.5	
	908.75MHz								
3.818	3.2	V	3.0	36.7	1.0	-32.5	-13.0	-19.5	
5.726	4.5	V V	3.0	36.3	1.0	-30.8	-13.0	-17.8	
7.635 1.453	-3.9 -2.3	V	3.0 3.0	36.6 36.8	1.0 1.0	-39.5 -38.1	-13.0 -13.0	-26.5 -25.1	
1.455 8.818	- <u>-</u> 2.3 1.3	V H	3.0	36.7	1.0	-36.1	-13.0	-23.1 -21.4	
5.726	0.2	H	3.0	36.3	1.0	-34.4	-13.0	-21.4	
	-3.8	H	3.0	36.6	1.0	-39.4	-13.0	-26.4	
7.635			÷						

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Company Project # Date: Test Eng Configura Mode:	ineer: ation:	LG 12U14331 04/09/12 Chin Pang EUT (Inductive TX, PCS Band	Above 1GH Cover) with Hea CDMA Mode	-	-	ubstitutior	n Measur	ement	
	Chambe	r	Pre-an	nplifer		Filter		Lin	nit
5r	n Chamber A		T144 8449	•	Fil	ter 1	•	Part 24	•
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	851.25MHz								
3.703	1.9	V	3.0	36.8	1.0	-33.9	-13.0	-20.9	
.554	3.3	V	3.0	36.3	1.0	-32.0	-13.0	-19.0	
7.405	-5.2	V	3.0	36.6	1.0	-40.7	-13.0	-27.7	
11.107	-1.7	<u>v</u>	3.0	36.9	1.0	-37.6	-13.0	-24.6	
3.703 5.554	-3.0 -0.1	H	3.0 3.0	36.8 36.3	1.0 1.0	-38.8 -35.3	-13.0 -13.0	-25.8 -22.3	
7.405	-0.1	H	3.0	36.6	1.0	-33.3	-13.0 -13.0	-22.5	
			-10						
Mid Ch, 1	880.00MHz								
3.760	0.1	V	3.0	36.8	1.0	-35.7	-13.0	-22.7	
5.640	1.4	V	3.0	36.3	1.0	-33.9	-13.0	-20.9	
7.520	-4.0	V	3.0	36.6	1.0	-39.6	-13.0	-26.6	
3.760	-9.8	H	3.0	36.8	1.0	-45.6	-13.0	-32.6	
5.640	2.1 5.1	H	3.0	36.3 36.6	1.0 1.0	-33.2	-13.0 -13.0	-20.2 -17.5	
7.520	5.1	п	3.0	0.0C	1.0	-30.5	-13.0	-11.5	
ligh Ch. 1	908.75MHz								
3.818	5.2	V	3.0	36.7	1.0	-30.5	-13.0	-17.5	
5.726	4.5	V	3.0	36.3	1.0	-30.8	-13.0	-17.8	
7 095	-1.9	V	3.0	36.6	1.0	-37.5	-13.0	-24.5	
7.635	0.3	Н	3.0	36.7	1.0	-35.4	-13.0	-22.4	
3.818	2.2	Η	3.0	36.3	1.0	-32.1	-13.0	-19.1	
	3.2 -5.8	Н	3.0	36.6	1.0	-41.4	-13.0	-28.4	

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EUT (ON INDUCTIVE CHARGER)

			Cor Above 1GH	npliance Ce z High Freq				ement	
Company	:	LG							
Project #	:	12U14331							
Date:		04/09/12							
Test Eng	ineer:	Chin Pang							
Configura	ation:	EUT (On Induc	tive Charger) an	d Headset					
Mode:		TX, PCS Band	CDMA Mode						
	Chambe	r	Pre-an	nplifer		Filter		Lii	mit
5r	m Chamber A	-	T144 8449	в 🕌	Fil	ter 1	•	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
	851.25MHz						. 7		
3.703	-1.1	V	3.0	36.8	1.0	-36.9	-13.0	-23.9	
5.554	4.3	V	3.0	36.3	1.0	-31.0	-13.0	-18.0	
.405	-5.2	V	3.0	36.6	1.0	-40.7	-13.0	-27.7	
9.256	-3.8	V	3.0	37.0	1.0	-39.8	-13.0	-26.8	
3.703	5.0	H	3.0	36.8	1.0	-30.8	-13.0	-17.8	
5.554 7.405	3.9 -4.1	H	3.0 3.0	36.3 36.6	1.0 1.0	-31.3 -39.7	-13.0 -13.0	-18.3 -26.7	
.40J	-4.1	n	J.U	JU.U	1.0	-33.1	-13.0	-20.1	
Mid Ch, 1	880.00MHz								
3.760	1.1	V	3.0	36.8	1.0	-34.7	-13.0	-21.7	
5.640	3.4	V	3.0	36.3	1.0	-31.9	-13.0	-18.9	
7.520	-5.0	V	3.0	36.6	1.0	-40.6	-13.0	-27.6	
9.400	-4.6	V	3.0	37.0	1.0	-40.6	-13.0	-27.6	
3.760	3.2	H	3.0	36.8	1.0	-32.6	-13.0	-19.6	
5.640	3.1	H	3.0	36.3	1.0	-32.2 -39.5	-13.0	-19.2	
7.520	-3.9	Н	3.0	36.6	1.0	-39.0	-13.0	-26.5	
High Ch. 1	908.75MHz								
3.818	3.2	V	3.0	36.7	1.0	-32.5	-13.0	-19.5	
5.726	-2.5	V	3.0	36.3	1.0	-37.8	-13.0	-24.8	
7.635	-4.9	V	3.0	36.6	1.0	-40.5	-13.0	-27.5	
9.544	-5.4	V	3.0	37.1	1.0	-41.5	-13.0	-28.5	
3.818	5.3	H	3.0	36.7	1.0	-30.4	-13.0	-17.4	
	0.2 -0.8	H	3.0	36.3	1.0	-35.1	-13.0	-22.1	
5.726 7.635		н	3.0	36.6	1.0	-36.4	-13.0	-23.4	

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EUT (STANDARD COVER)

				mpliance Co z High Freq				ement	
Company		LG		-					
Project #:		12U14331							
Date:		04/09/12							
Test Eng	ineer:	Chin Pang							
Configura			Cover) with AC	Adapter and H	eadset				
Mode:		TX, PCS Band	CDMA2000, E\	/DO Rev A					
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5n	n Chamber A	-	T144 8449	B 🗸	Fil	ter 1	-	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
	851.25MHz	(<u> </u>	11	(()	/	
3.703	2.9	۷	3.0	36.8	1.0	-32.9	-13.0	-19.9	
5.554	1.3	V	3.0	36.3	1.0	-34.0	-13.0	-21.0	
.405	-4.2	V	3.0	36.6	1.0	-39.7	-13.0	-26.7	
).256	-0.8	V	3.0	37.0	1.0	-36.8	-13.0	-23.8	
1.107 3.703	0.3	V	3.0	36.9	1.0	-35.6	-13.0	-22.6	
5.705 5.554	0.0 1.9	H	3.0 3.0	36.8 36.3	1.0 1.0	-35.8 -33.3	-13.0 -13.0	-22.8 -20.3	
7.405	-4.1	H	3.0	36.6	1.0	-39.7	-13.0	-26.7	
9.256	-0.7	H	3.0	37.0	1.0	-36.8	-13.0	-23.8	
Mid Ch 1	880.00MHz								
3.760	3.1	V	3.0	36.8	1.0	-32.7	-13.0	-19.7	
5.640	-1.6	V	3.0	36.3	1.0	-36.9	-13.0	-23.9	
9.400	-3.6	V	3.0	37.0	1.0	-39.6	-13.0	-26.6	
9.400	-2.6	V	3.0	37.0	1.0	-38.6	-13.0	-25.6	
3.760	0.2	H	3.0	36.8	1.0	-35.6	-13.0	-22.6	
5.640 7.520	-0.9	H	3.0	36.3	1.0	-36.2	-13.0	-23.2	
	-5.9 -1.6	H	3.0 3.0	36.6 37.0	1.0 1.0	-41.5 -37.6	-13.0 -13.0	-28.5 -24.6	
9.400				20.7	4.0	20.5	42.0	47.6	
9.400 High Ch, 1	908.75MHz		2.0		1.0	-30.5	-13.0	-17.5 -24.8	
.400 ligh Ch, 1 .818	5.2	V	3.0	36.7	10	270			
9.400 High Ch, 1 3.818 5.726	5.2 -2.5	V	3.0	36.3	1.0	-37.8 36.1	-13.0 13.0		
9.400 High Ch, 1 9.818 9.726 1.453	5.2 -2.5 -0.3	V V	3.0 3.0	36.3 36.8	1.0	-36.1	-13.0	-23.1	
9.400	5.2 -2.5	V	3.0	36.3		··• ф ······			

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				mpliance Ce z High Freq				ement	
_			Above ron	Zinghineq	ucincy of	00000000	measur	ement	
Company:		LG							
Project #:		12U14331							
Date:		04/09/12							
est Engi		Chin Pang							
Configura			Cover) with AC		adset				
lode:		TX, PCS Band	CDMA2000, E\	/DO Rev A					
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
5n	n Chamber A		T144 8449	B v	Fil	ter 1	-	Part 24	•
4	00 mandimar	Ant Dal	Distance		F ilter			Dalta	
f GHz	SG reading		Distance	Preamp	Filter		Limit (dBm)	Delta	Notes
	(dBm) 351.25MHz	(H/V)	(m)	(dB)	(dB)	(dBm)	(ubili)	(dB)	
.703	9.9	V	3.0	36.8	1.0	-25.9	-13.0	-12.9	
.554	-0.7	v	3.0	36.3	1.0	-25.5	-13.0	-23.0	
405	-4.2	v	3.0	36.6	1.0	-39.7	-13.0	-26.7	
.108	4.3	V	3.0	36.9	1.0	-31.6	-13.0	-18.6	
703	1.0	Н	3.0	36.8	1.0	-34.8	-13.0	-21.8	
554	-0.1	Η	3.0	36.3	1.0	-35.3	-13.0	-22.3	
.405	1.9	H	3.0	36.6	1.0	-33.7	-13.0	-20.7	
1.108	6.9	H	3.0	36.9	1.0	-29.0	-13.0	-16.0	
lid Ch 19	380.00MHz								
.760	8.1	V	3.0	36.8	1.0	-27.7	-13.0	-14.7	
.640	4.4	v	3.0	36.3	1.0	-30.9	-13.0	-17.9	
.520	-7.0	V	3.0	36.6	1.0	-42.6	-13.0	-29.6	
1.280	1.5	V	3.0	36.8	1.0	-34.4	-13.0	-21.4	
.760	5.2	H	3.0	36.8	1.0	-30.6	-13.0	-17.6	
.640	1.1	H	3.0	36.3	1.0	-34.2	-13.0	-21.2	
.520	1.1	H	3.0	36.6	1.0	-34.5	-13.0	-21.5	
.280	3.8	Н	3.0	36.8	1.0	-32.0	-13.0	-19.0	
	908.75MHz	V	3.0	36.7	1.0	-21.5	-13.0	-8.5	
.818 .726	14.2 2.5	V V	3.0	36.7	1.0	-21.5	-13.0 -13.0	-8.0 -19.8	
.635	-0.9	V	3.0	36.6	1.0	-36.5	-13.0	-13.0	
	-0.5	v	3.0	37.1	1.0	-38.5	-13.0	-25.5	
544	4.7	v	3.0	36.8	1.0	-31.1	-13.0	-18.1	
		Η	3.0	36.7	1.0	-28.4	-13.0	-15.4	
.453 818	7.3				4 .	204	-13.0	22.4	
.544 1.453 .818 .726 1.453	7.3 -0.8 6.7	H	3.0 3.0	36.3 36.8	1.0 1.0	-36.1	-13.0	-23.1 -16.0	

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EUT (ON INDUCTIVE CHARGER)

Company: Project #: Date: Test Engin Configurat Mode:	eer:	LG 12U14331 04/09/12							
Test Engin Configurat	eer:	11/1/19/12							
Configurat		Chin Pang							
-	ion:		tive Charger) an	d Hoodcot					
			CDMA2000, EV						
	Chambe	r	Pre-an	nplifer		Filter		Lir	nit
5m	Chamber A	-	T144 8449I	В	Fil	ter 1	•	Part 24	-
f	SG reading		Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 185									
.703	-5.1	V	3.0	36.8	1.0	-40.9	-13.0	-27.9	
.554	-3.7	V	3.0	36.3	1.0	-39.0	-13.0	-26.0	
.405	-10.2	V	3.0	36.6	1.0	-45.7	-13.0	-32.7	
3.703 5.554	0.0 -0.1	H	3.0 3.0	36.8 36.3	1.0 1.0	-35.8 -35.3	-13.0 -13.0	-22.8 -22.3	
5.554 7.405	-0.1 -9.1	H	3.0 3.0	36.5	1.0	-30.3	-13.0 -13.0	-22.3 -31.7	
103	-7.1	11	5.0	30.0	1.0		-13.0	-91.1	
Mid Ch, 188	0.00MHz								
3.760	1.1	V	3.0	36.8	1.0	-34.7	-13.0	-21.7	
5.640	1.4	V	3.0	36.3	1.0	-33.9	-13.0	-20.9	
7.520	-8.0	V	3.0	36.6	1.0	-43.6	-13.0	-30.6	
3.760	2.2	H	3.0	36.8	1.0	-33.6	-13.0	-20.6	
5.640	-0.9	H	3.0	36.3	1.0	-36.2	-13.0	-23.2	
7.520	-6.9	Н	3.0	36.6	1.0	-42.5	-13.0	-29.5	
High Ch, 19	08.75MHz								
3.818	3.2	V	3.0	36.7	1.0	-32.5	-13.0	-19.5	
5.726	0.5	v	3.0	36.3	1.0	-34.8	-13.0	-21.8	
7.635	-7.9	v	3.0	36.6	1.0	-43.5	-13.0	-30.5	
3.818	3.3	H	3.0	36.7	1.0	-32.4	-13.0	-19.4	
5.726	-3.8	Η	3.0	36.3	1.0	-39.1	-13.0	-26.1	
7.635	-6.8	Н	3.0	36.6	1.0	-42.4	-13.0	-29.4	

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GPRS (PCS Band)

EUT (STANDARD COVER)

Company Project #: Date: Test Engi Configura Mode:	neer: ntion:	LG 12U14331 04/13/12 Chin Pang EUT (Standard TX, PCS BANI	Cover) with AC D, GPRS	Adapter and E	arphone				
	Chambe	r	Pre-an	nplifer		Filter		Lin	nit
3n	n Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	•
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1	850.2MHz)								
3.700	8.9	V	3.0	35.4	1.0	-25.5	-13.0	-12.5	
.551	12.2	V	3.0	34.7	1.0	-21.6	-13.0	-8.6	
.401	4.1	V	3.0	34.9	1.0	-29.8	-13.0	-16.8	
.700	4.7	H	3.0	35.4	1.0	-29.7	-13.0	-16.7	
5.551	6.7	H	3.0	34.7	1.0	-27.0	-13.0	-14.0	
.401	3.1	H	3.0	34.9	1.0	-30.8	-13.0	-17.8	
lid Ch (1	880.0MHz)								
8.760	9.1	V	3.0	35.3	1.0	-25.2	-13.0	-12.2	
5.640	12.3	V V	3.0	33.3 34.7	1.0	-25.2	-13.0	-12.2	
7.520	2.3	V V	3.0	34.9	1.0	-21.4	-13.0	-0.4 -18.6	
.760	6.8	H	3.0	35.3	1.0	-27.5	-13.0	-14.5	
5.640	10.9	H	3.0	34.7	1.0	-21.5	-13.0	-14.5	
7.520	2.3	H	3.0	34.9	1.0	-22.0	-13.0	-5.0	
	-10		-14						
ligh Ch, (1	909.8MHz)								
.820	14.3	V	3.0	35.3	1.0	-20.0	-13.0	-7.0	
5.729	12.5	V	3.0	34.7	1.0	-21.3	-13.0	-8.3	
.639	-1.6	V	3.0	35.0	1.0	-35.5	-13.0	-22.5	
	10.0	Η	3.0	35.3	1.0	-24.3	-13.0	-11.3	
.820	10.6	Η	3.0	34.7	1.0	-23.2	-13.0	-10.2	
.820 .729		Н	3.0	35.0	1.0	-35.6	-13.0	-22.6	

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			Cor Above 1GH	npliance Ce z High Freq				ement	
Company	:	LG		_					
Project #	:	12U14331							
Date:		04/13/12							
Test Eng	ineer:	Chin Pang							
Configur	ation:	EUT (Inductive	Cover) with AC	Adapter and Ea	arphone				
/lode:	Chambe	TX, PCS BANE), GPRS	nplifer		Filter		Lii	mit
31	n Chamber	-	T34 8449B	•	Fil	iter 1	•	Part 24	•
f	SG reading		Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
	1850.2MHz)						40.0	11.5	
.700 .551	9.9 13.2	V V	3.0 3.0	35.4 34.7	1.0 1.0	-24.5 -20.6	-13.0 -13.0	-11.5 -7.6	
.351	1.1	V	3.0	34.7 34.9	1.0	-20.0	-13.0	-7.0 -19.8	
.401 3.700	0.7	v H	3.0	35.4	1.0	-33.7	-13.0	-20.7	
5.551	8.7	H	3.0	34.7	1.0	-25.0	-13.0	-12.0	
.401	-0.9	Н	3.0	34.9	1.0	-34.8	-13.0	-21.8	
Aid Ch (1880.0MHz)								
3.760	11.1	V	3.0	35.3	1.0	-23.2	-13.0	-10.2	
5.640	16.3	V	3.0	34.7	1.0	-17.4	-13.0	-4.4	
7.520	0.3	V	3.0	34.9	1.0	-33.6	-13.0	-20.6	
3.760	10.8	Н	3.0	35.3	1.0	-23.5	-13.0	-10.5	
5.640	16.4	Н	3.0	34.7	1.0	-17.3	-13.0	-4.3	
.520	1.3	Н	3.0	34.9	1.0	-32.7	-13.0	-19.7	
ligh Ch. (1909.8MHz)		•						
3.820	12.3	V	3.0	35.3	1.0	-22.0	-13.0	-9.0	
.729	15.5	V	3.0	34.7	1.0	-18.3	-13.0	-5.3	
	-0.6	V	3.0	35.0	1.0	-34.5	-13.0	-21.5	
	6.0	Н	3.0	35.3	1.0	-28.3	-13.0	-15.3	
.820			3.0	34.7	1.0	-20.7	-13.0	-7.7	
.639 .820 .729 .639	13.1 -3.6	H	3.0	35.0	1.0	-37.6	-13.0	-24.6	

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EUT (ON INDUCTIVE CHARGER)

			Cor Above 1GH	npliance Co z High Free				ement	
Company: Project #: Date: Test Engi		LG 12U14331 04/13/12 Chin Pang							
Configura Node:			tive Charger) an), GPRS	d Earphone					
	Chambe	r	Pre-an	nplifer		Filter		Lin	nit
3m	n Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	-
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, (1	850.2MHz)								
700	9.9	V	3.0	35.4	1.0	-24.5	-13.0	-11.5	
.551	9.2	V	3.0	34.7	1.0	-24.6	-13.0	-11.6	
.401	-0.9	V	3.0	34.9	1.0	-34.8	-13.0	-21.8	
.700	10.7	H	3.0	35.4	1.0	-23.7	-13.0	-10.7	
.551	4.7	H	3.0	34.7	1.0	-29.0	-13.0	-16.0	
.401	-1.9	H	3.0	34.9	1.0	-35.8	-13.0	-22.8	
Mid Ch, (1	880.0MHz)								
3.760	13.1	V	3.0	35.3	1.0	-21.2	-13.0	-8.2	
5.640	14.3	V	3.0	34.7	1.0	-19.4	-13.0	-6.4	
7.520	-0.7	V	3.0	34.9	1.0	-34.6	-13.0	-21.6	
3.760	12.8	H	3.0	35.3	1.0	-21.5	-13.0	-8.5	
5.640	11.9	H	3.0	34.7	1.0	-21.8	-13.0	-8.8	
7.520	-0.7	H	3.0	34.9	1.0	-34.7	-13.0	-21.7	
P-L CL //	909.8MHz)								
High Ch. (1	7.3	V	3.0	35.3	1.0	-27.0	-13.0	-14.0	
	8.5	V	3.0	34.7	1.0	-25.3	-13.0	-12.3	
3.820	0.J		3.0	35.0	1.0	-37.5	-13.0	-24.5	
3.820 5.729	-3.6	V	5.0				42.0		
3.820 5.729 7.639		V H	3.0	35.3	1.0	-22.1	-13.0	-9.1	
11gh Ch, (1 3.820 5.729 7.639 3.820 5.729	-3.6				1.0 1.0	-22.1 -23.7	-13.0 -13.0	-9.1 -10.7	

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EGPRS (PCS Band)

EUT (STANDARD COVER)

			Cor Above 1GH	mpliance Ce z High Freq				ement	
Company: Project #: Date:		LG 12U14331 04/13/12							
Jale. Test Engi	neer	Chin Pang							
Configura			Cover) with AC						
lode:		TX, PCS BANE	,		arphone				
	Chambe	r	Pre-an	nplifer		Filter		Lii	mit
3n	n Chamber	-	T34 8449B	•	Fil	ter 1	•	Part 24	-
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
	850.2MHz)								
700	1.9 10.2	V V	3.0	35.4	1.0	-32.5	-13.0	-19.5	
551 401	10.2	V V	3.0 3.0	34.7 34.9	1.0 1.0	-23.6 -32.8	-13.0 -13.0	-10.6 -19.8	
700	-0.3	V H	3.0	35.4	1.0	-32.0	-13.0	-13.0	
551	1.7	H	3.0	34.7	1.0	-32.0	-13.0	-19.0	
401	1.1	H	3.0	34.9	1.0	-32.8	-13.0	-19.8	
lid Ch (1	880.0MHz)								
.760	5.1	V	3.0	35.3	1.0	-29.2	-13.0	-16.2	
.640	4.3	v	3.0	34.7	1.0	-29.4	-13.0	-16.4	
.520	0.3	V	3.0	34.9	1.0	-33.6	-13.0	-20.6	
.760	-0.2	Н	3.0	35.3	1.0	-34.5	-13.0	-21.5	
	-0.1	Н	3.0	34.7	1.0	-33.8	-13.0	-20.8	
	0.3	Н	3.0	34.9	1.0	-33.7	-13.0	-20.7	
.640 .520 iah Ch. (1	909.8MHz)								
.520	909.8MHz) 6.3	V	3.0	35.3	1.0	-28.0	-13.0	-15.0	
520 gh Ch, (1 820		V V	3.0 3.0	35.3 34.7	1.0 1.0	-28.0 -27.3	-13.0 -13.0	-15.0 -14.3	
520 gh Ch, (1 320 729	6.3						÷		
520 gh Ch, (1 320 729 539	6.3 6.5	V	3.0	34.7	1.0	-27.3	-13.0	-14.3	
.520 igh Ch, (1	6.3 6.5 -1.6	V V	3.0 3.0	34.7 35.0	1.0 1.0	-27.3 -35.5	-13.0 -13.0	-14.3 -22.5	

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			Cor Above 1GH	mpliance Ce z High Freq				ement	
Company	r:	LG							
Project #		12U14331							
Date:		04/13/12							
Test Eng		Chin Pang							
Configur			Cover) with AC	Adaptor and E	arabana				
/ode:		TX, PCS BANI			arphone				
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
31	n Chamber	-	T34 8449B	•	Fil	ter 1	•	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
ow Ch, ('	1850.2MHz)								
.700	4.9	V	3.0	35.4	1.0	-29.5	-13.0	-16.5	
551	12.2	V	3.0	34.7	1.0	-21.6	-13.0	-8.6	
.401	-1.9	V	3.0	34.9	1.0	-35.8	-13.0	-22.8	
.700	-3.3	H	3.0	35.4	1.0	-37.7	-13.0	-24.7	
5.551	0.7	H	3.0	34.7	1.0	-33.0	-13.0	-20.0	
7.401	-5.9	Н	3.0	34.9	1.0	-39.8	-13.0	-26.8	
lid Ch. (1880.0MHz)								
3.760	5.1	V	3.0	35.3	1.0	-29.2	-13.0	-16.2	
5.640	4.3	V	3.0	34.7	1.0	-29.4	-13.0	-16.4	
7.520	-0.7	V	3.0	34.9	1.0	-34.6	-13.0	-21.6	
3.760	-3.2	Н	3.0	35.3	1.0	-37.5	-13.0	-24.5	
5.640	-0.1	Н	3.0	34.7	1.0	-33.8	-13.0	-20.8	
.520	-1.7	Н	3.0	34.9	1.0	-35.7	-13.0	-22.7	
iah Ch. (1909.8MHz)								
.820	1909.0MHZ) 8.3	V	3.0	35.3	1.0	-26.0	-13.0	-13.0	
729	8.5	V	3.0	34.7	1.0	-20.0	-13.0	-13.0	
.639	-3.6	v	3.0	35.0	1.0	-23.5	-13.0	-24.5	
	0.0	Ĥ	3.0	35.3	1.0	-34.3	-13.0	-21.3	
320	7.1	H	3.0	34.7	1.0	-26.7	-13.0	-13.7	
					1.0	-39.6	-13.0	-26.6	
.820 5.729 7.639	-5.6	Н	3.0	35.0	1.0	-33.0	-13.0	-20.0	

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EUT (ON INDUCTIVE CHARGER)

			Co Above 1GH	mpliance Ce z High Freq				ement	
Company:		LG							
Project #:		12U14331							
Date:		04/13/12							
Test Engi	neer:	Chin Pang							
Configura	tion:	EUT (Inductive	Charger) and E	arphone					
/lode:		TX, PCS BAN	D, EGPRS						
	Chambe	r	Pre-ar	nplifer		Filter		Lir	mit
3m	Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
_ow Ch, (1	850.2MHz)								
.700	2.4	V	3.0	35.4	1.0	-32.0	-13.0	-19.0	
.551	9.2	V	3.0	34.7	1.0	-24.6	-13.0	-11.6	
.401	-3.9	V	3.0	34.9	1.0	-37.8	-13.0	-24.8	
.700	2.7	H	3.0	35.4	1.0	-31.7	-13.0	-18.7	
5.551	6.7	H	3.0	34.7	1.0	-27.0	-13.0	-14.0	
.401	-1.9	H	3.0	34.9	1.0	-35.8	-13.0	-22.8	
Mid Ch, (1	880.0MHz)								
3.760	7.1	V	3.0	35.3	1.0	-27.2	-13.0	-14.2	
5.640	4.3	V	3.0	34.7	1.0	-29.4	-13.0	-16.4	
7.520	-0.7	V	3.0	34.9	1.0	-34.6	-13.0	-21.6	
3.760	2.8	H	3.0	35.3	1.0	-31.5	-13.0	-18.5	
5.640	5.9	H	3.0	34.7	1.0	-27.8	-13.0	-14.8	
.520	-0.7	Н	3.0	34.9	1.0	-34.7	-13.0	-21.7	
.320									
	909.8MHz)				1.0	-29.0	-13.0	-16.0	
High Ch, (1	909.8MHz) 5.3	V	3.0	35.3	1.0				
High Ch, (1 3.820		V V	3.0 3.0	35.3 34.7	1.0	-24.3	-13.0	-11.3	
ligh Ch, (1 .820 .729	5.3	-				-24.3 -36.5	-13.0 -13.0	-11.3 -23.5	
High Ch, (1 3.820 5.729 7.639 3.820	5.3 9.5 -2.6 10.0	V V H	3.0 3.0 3.0	34.7 35.0 35.3	1.0 1.0 1.0	-36.5 -24.3	-13.0 -13.0	-23.5 -11.3	
High Ch, (1 3.820 5.729 7.639 3.820 5.729 5.729 7.639	5.3 9.5 -2.6	V V	3.0 3.0	34.7 35.0	1.0 1.0	-36.5	-13.0	-23.5	

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UMTS REL 99 (PCS Band)

EUT (STANDARD COVER)

			Col Above 1GH	mpliance Ce z High Freq				ement	
Company Project # Date: Test Eng Configur Mode:	: ineer: ation:		Cover) with AC . D WCDMA, Rel		arphone				
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
31	n Chamber	•	T34 8449B	•	Fi	lter 1	Ŧ	Part 24	-
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1		()	()	(7	(1	((,	(1	
3.704	-5.1	V	3.0	35.4	1.0	-39.5	-13.0	-26.5	
	-8.8	V	3.0	34.7	1.0	-42.6	-13.0	-29.6	
5.557					4 0	-41.7	-13.0	-28.7	
3.704	-7.3	H	3.0	35.4	1.0				
		H H	3.0 3.0	35.4 34.7	1.0	-41.7	-13.0	-30.0	
3.704 5.557	-7.3 -9.3								
3.704 5.557 Mid Ch, 1	-7.3 -9.3 880.0MHz		3.0	34.7	1.0	-43.0	-13.0		
3.704 5.557	-7.3 -9.3	Н						-30.0	
3.704 5.557 Mid Ch, 1 3.760	-7.3 -9.3 880.0MHz -2.9	H	3.0 3.0	34.7 35.3	1.0 1.0	-43.0 -37.2	-13.0 -13.0	-30.0 -24.2	
3.704 5.557 Mid Ch, 1 3.760 5.640	-7.3 -9.3 880.0MHz -2.9 -7.7	H V V	3.0 3.0 3.0	34.7 35.3 34.7	1.0 1.0 1.0	-43.0 -37.2 -41.4	-13.0 -13.0 -13.0	-30.0 -24.2 -28.4	
3.704 5.557 Mid Ch, 1 3.760 5.640 3.760 5.640	<u>-7.3</u> -9.3 880.0MHz -2.9 -7.7 -5.2 -10.1	H V V H	3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3	1.0 1.0 1.0 1.0	43.0 -37.2 -41.4 -39.5	-13.0 -13.0 -13.0 -13.0	-30.0 -24.2 -28.4 -26.5	
3.704 5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1	-7.3 -9.3 880.0MHz -2.9 -7.7 -5.2 -10.1 907.6MHz	H V V H H	3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3 34.7	1.0 1.0 1.0 1.0 1.0	43.0 37.2 41.4 39.5 43.8	-13.0 -13.0 -13.0 -13.0 -13.0	<u>-30.0</u> <u>-24.2</u> <u>-28.4</u> <u>-26.5</u> <u>-30.8</u>	
3.704 5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1 3.815	-7.3 -9.3 880.0MHz -2.9 -7.7 -5.2 -10.1 907.6MHz -2.7	H V V H H	3.0 3.0 3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3 34.7 35.3 35.3	1.0 1.0 1.0 1.0 1.0	43.0 	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0	-30.0 -24.2 -28.4 -26.5 -30.8 -24.0	
3.704 5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1 3.815 5.723	-7.3 -9.3 880.0MHz -2.9 -7.7 -5.2 -10.1 907.6MHz -2.7 -8.5	H V V H H V V	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3 34.7 35.3 34.7	1.0 1.0 1.0 1.0 1.0 1.0 1.0	43.0 37.2 41.4 39.5 43.8 37.0 42.3	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	-24.2 -28.4 -26.5 -30.8 -24.0 -29.3	
3.704 5.557 Mid Ch, 1 3.760 5.640 3.760	-7.3 -9.3 880.0MHz -2.9 -7.7 -5.2 -10.1 907.6MHz -2.7	H V V H H	3.0 3.0 3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3 34.7 35.3 35.3	1.0 1.0 1.0 1.0 1.0	43.0 	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0	-30.0 -24.2 -28.4 -26.5 -30.8 -24.0	

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				mpliance Ce z High Freq				ement	
Company	r:	LG							
Project #	:	12U14331							
Date:		04/13/12							
Test Eng	ineer:	Chin Pang							
Configur			Cover) with AC /	Adapter and Ea	rphone				
Mode:			D WCDMA, Rel						
			Pre-an	plifer		Filter		Lii	mit
	Chambe	r		•					m
31	m Chamber	-	T34 8449B	•	Fil	ter 1	•	Part 24	-
f	00 maadim m	Ant Dal	Distance	Draama	Filter	EIRP	Limit	Delta	Notes
GHz	SG reading (dBm)	Ant. Pol. (H/V)	(m)	Preamp (dB)	(dB)	(dBm)	(dBm)	(dB)	Notes
	852.4MHz	1		<u> </u>	11	((
3.704	1.9	V	3.0	35.4	1.0	-32.5	-13.0	-19.5	
5.557	-2.8	V	3.0	34.7	1.0	-36.6	-13.0	-23.6	
0 704	-6.3	Н	3.0	35.4	1.0	-40.7	-13.0	-27.7	
	-7.3	H	3.0	34.7	1.0	-41.0	-13.0	-28.0	
	-1.5								
5.557						•••••••••••••••••••••••••••••••••••••••	1		
3.704 5.557 Mid Ch, 1 3.760	880.0MHz	V	3.0	35.3	1.0	-31.7	-13.0	-18.7	
5.557 Mid Ch, 1 3.760		V V	3.0 3.0	35.3 34.7	1.0 1.0	-31.7 -39.4	-13.0 -13.0	-18.7 -26.4	
5.557	880.0MHz 2.6		÷						
5.557 Mid Ch, 1 3.760 5.640	880.0MHz 2.6 -5.7	V	3.0	34.7	1.0	-39.4	-13.0	-26.4	
5.557 Mid Ch, 1 3.760 5.640 3.760 5.640	880.0MHz 2.6 -5.7 -2.2 -7.1	V H	3.0 3.0	34.7 35.3	1.0 1.0	-39.4 -36.5	-13.0 -13.0	-26.4 -23.5	
5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1	880.0MHz 2.6 -5.7 -2.2 -7.1 907.6MHz	V H H	3.0 3.0 3.0	34.7 35.3 34.7	1.0 1.0 1.0	-39.4 -36.5 -40.8	-13.0 -13.0 -13.0	-26.4 -23.5 -27.8	
5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1 3.815	880.0MHz 2.6 -5.7 -2.2 -7.1 907.6MHz 7.3	V H H	3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3	1.0 1.0 1.0 1.0	-39.4 -36.5 -40.8 -27.0	-13.0 -13.0 -13.0 -13.0	-26.4 -23.5 -27.8 -14.0	
5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1 3.815 5.723	880.0MHz 2.6 -5.7 -2.2 -7.1 907.6MHz 7.3 -3.5	V H H V V	3.0 3.0 3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3 35.3 34.7	1.0 1.0 1.0 1.0	-39.4 -36.5 -40.8 -27.0 -37.3	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0	-26.4 -23.5 -27.8 -14.0 -24.3	
5.557 Mid Ch, 1 3.760 5.640 3.760 5.640 High Ch, 1	880.0MHz 2.6 -5.7 -2.2 -7.1 907.6MHz 7.3	V H H	3.0 3.0 3.0 3.0	34.7 35.3 34.7 35.3	1.0 1.0 1.0 1.0	-39.4 -36.5 -40.8 -27.0	-13.0 -13.0 -13.0 -13.0	-26.4 -23.5 -27.8 -14.0	

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EUT (ON INDUCTIVE CHARGER)

			Cor Above 1GH	npliance Ce z High Freq				ement	
Compan Project # Date: Test Eng Configur Mode:	ineer: ration:		Charger) and Ea D WCDMA, Rel	· · · · · · · · · · · · · · · · · · ·					
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
3	m Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	•
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1	852.4MHz								
3.704	1.9	V	3.0	35.4	1.0	-32.5	-13.0	-19.5	
5.557	-5.8	V	3.0	34.7	1.0	-39.6	-13.0	-26.6	
3.704	-1.3	H	3.0	35.4	1.0	-35.7	-13.0	-22.7	
5.557	-8.3	Н	3.0	34.7	1.0	-42.0	-13.0	-29.0	
Mid Ch 1	880.0MHz		¢						
3.760	2.1	V	3.0	35.3	1.0	-32.2	-13.0	-19.2	
5.640	-8.7	v	3.0	34.7	1.0	-42.4	-13.0	-29.4	
3.760	0.8	Ĥ	3.0	35.3	1.0	-33.5	-13.0	-20.5	
5.640	-9.1	H	3.0	34.7	1.0	-42.8	-13.0	-29.8	
	1907.6MHz		•						
3.815	3.3	V	3.0	35.3	1.0	-31.0	-13.0	-18.0	
5.723	-8.0	V	3.0	34.7	1.0	-31.0	-13.0	-10.0 -28.8	
	5.0	V H	3.0	35.3	1.0	-41.0	-13.0	-20.0	
3 815	-8.9	H	3.0	34.7	1.0	-23.5	-13.0	-10.5	
3.815 5.723									

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UMTS HSDPA (PCS Band)

EUT (STANDARD COVER)

			Cor Above 1GH	npliance Ce z High Freq				ement	
Compan Project : Date: Test Eng Configu Mode:	#: gineer: ration:		Cover) with AC . D WCDMA, HS		rphone				
	Chambe	r	Pre-an	nplifer		Filter		Li	mit
3	m Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	•
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,	1852.4MHz								
3.704	-6.1	V	3.0	35.4	1.0	-40.5	-13.0	-27.5	
5.557	-11.8	V	3.0	34.7	1.0	-45.6	-13.0	-32.6	
3.704	-9.3	H	3.0	35.4	1.0	-43.7	-13.0	-30.7	
5.557	-6.3	H	3.0	34.7	1.0	-40.0	-13.0	-27.0	
Mid Ch.	1880.0MHz								
3.760	-1.9	V	3.0	35.3	1.0	-36.2	-13.0	-23.2	
5.640	-12.7	V	3.0	34.7	1.0	-46.4	-13.0	-33.4	
3.040	-6.2	Н	3.0	35.3	1.0	-40.5	-13.0	-27.5	
3.760	-11.6	Н	3.0	34.7	1.0	-45.3	-13.0	-32.3	
			ļ						
3.760 5.640	1907 6MHz		3.0	35.3	1.0	-40.0	-13.0	-27.0	
3.760 5.640 High Ch,	1907.6MHz	V					-13.0	-21.0	
3.760 5.640 High Ch, 3.815	-5.7	V V			10	-44 5			
3.760 5.640 High Ch, 3.815 5.723	-5.7 -10.5	V	3.0	34.7	1.0	-44.3 -43.3		-30.3	
3.760 5.640	-5.7	-			1.0 1.0 1.0	-44.3 -43.3 -40.7	-13.0 -13.0	-30.3 -27.7	

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			Cor Above 1GH	npliance Ce z High Freq				ement	
Company	<i>r</i> :	LG							
Project #	£	12U14331							
Date:		04/13/12							
Test Eng	ineer:	Chin Pang							
- Configur	ation:	EUT(Inductive	Cover) with AC A	Adapter and Ea	rphone				
Mode:			ID WCDMA, HSI						
	Chambe	er	Pre-an	nplifer		Filter		Li	mit
3	m Chamber	•	T34 8449B	•	Fi	lter 1	•	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1	852.4MHz			. /	. /		. ,		
3.704	-3.1	V	3.0	35.4	1.0	-37.5	-13.0	-24.5	
5.557	-7.8	V	3.0	34.7	1.0	-41.6	-13.0	-28.6	
3.704	-6.3	H	3.0	35.4	1.0	-40.7	-13.0	-27.7	
5.557	-8.3	H	3.0	34.7	1.0	-42.0	-13.0	-29.0	
Mid Ch 1	880.0MHz								
3.760	1.1	V	3.0	35.3	1.0	-33.2	-13.0	-20.2	
5.640	-9.7	V	3.0	34.7	1.0	-43.4	-13.0	-30.4	
3.760	-3.2	Н	3.0	35.3	1.0	-37.5	-13.0	-24.5	
5.640	-9.1	H	3.0	34.7	1.0	-42.8	-13.0	-29.8	
	1907.6MHz 3.3	v	3.0	35.3	1.0	-31.0	-13.0	-18.0	
High Ch, 1	-7.5	V	3.0	33.3 34.7	1.0	-31.0	-13.0	-10.0	
3.815		H	3.0	35.3	1.0	-39.3	-13.0	-26.3	
3.815 5.723	-50		··•		1.0	-39.7	-13.0	-26.7	
High Ch, 1 3.815 5.723 3.815 5.723	-5.0 -5.9	Н	3.0	34.7					

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EUT (ON INDUCTIVE CHARGER)

			Co Above 1GH	mpliance Ce z High Freq				ement	
Company	<i>r</i> :	LG							
Project #	t i	12U14331							
Date:		04/13/12							
Test Eng		Chin Pang							
Configur			tive Charger) and						
Mode:		TX, PCS BAN	D WCDMA, HS						
	Chambe	r	Pre-ar	nplifer		Filter		Lin	nit
31	m Chamber	•	T34 8449B	•	Fil	ter 1	•	Part 24	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1				. ,	. ,	<u> </u>	. ,		
3.704	-0.1	V	3.0	35.4	1.0	-34.5	-13.0	-21.5	
5.557	-9.8	V	3.0	34.7	1.0	-43.6	-13.0	-30.6	
3.704	-5.3	Н	3.0	35.4	1.0	-39.7	-13.0	-26.7	
5.557	-10.3	H	3.0	34.7	1.0	-44.0	-13.0	-31.0	
Mid Ch, 1	880 0MH7								
3.760	2.1	V	3.0	35.3	1.0	-32.2	-13.0	-19.2	
5.640	-8.7	v	3.0	34.7	1.0	-42.4	-13.0	-29.4	
3.760	-5.2	H	3.0	35.3	1.0	-39.5	-13.0	-26.5	
5.640	-11.1	Н	3.0	34.7	1.0	-44.8	-13.0	-31.8	
High Ch. 1	1907.6MHz								
W		v	3.0	35.2	10	.31 0	_13.0	-18.0	
		-							
		÷							
	-11.9	H	3.0	34.7	1.0	-35.5	-13.0	-32.7	
Aigh Ch, 1 3.815 5.723 3.815 5.723	3.3 -11.5 -1.0	V V H H	3.0 3.0 3.0 3.0 3.0	35.3 34.7 35.3 34.7	1.0 1.0 1.0 1.0	-31.0 -45.3 -35.3 -45.7	-13.0 -13.0 -13.0 -13.0	-18.0 -32.3 -22.3 -32.7	

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LTE BAND 13 QPSK

EUT (STANDARD COVER)

				mpliance Ce Iz High Freq				ement	
Compa Projec		LG ELECTRO 12U14331	NICS						
Date:		03/30/12							
	ngineer:	MENGISTU M							
_			VE COVER) AN		R				
Mode:		TX, LTE BAND) 13, QPSK MO	DE					
	Chambe	r l	Pre-ar	nplifer		Filter		Lim	it
	5m Chamber B		T145 8449	-	Fil	ter 1	•	Part 27	•
			1		I			I	
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GH:	z (dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
₹B=1 &	SRB=0								
3.888	-14.6	V	3.0	35.3	1.0	-48.9	-13.0	-35.9	
3.919	-10.0	V	3.0	35.3	1.0	-44.2	-13.0	-31.2	
1.666	-10.8	V	3.0	35.3	1.0	-45.1	-13.0	-32.1	
3.888	-20.9	Η	3.0	35.3	1.0	-55.2	-13.0	-42.2	
3.995	-16.3	H	3.0	35.2	1.0	-50.5	-13.0	-37.5	
4.507	-14.1	H	3.0	35.3	1.0	-48.4	-13.0	-35.4	
1.692	-14.5	H	3.0	35.3	1.0	-48.8	-13.0	-35.8	
RB=1 & 2.359	SRB=49 -22.9	v	3.0	35.4	1.0	-57.3	-13.0	-44.3	
3.932	-22.5	V	3.0	35.3	1.0	-46.6	-13.0	-33.6	
4.718	-12.7	v	3.0	35.3	1.0	-47.0	-13.0	-34.0	
2.359	-20.6	H	3.0	35.4	1.0	-55.0	-13.0	-42.0	
3.146	-23.2	Н	3.0	35.6	1.0	-57.8	-13.0	-44.8	
3.932	-15.4	Н	3.0	35.3	1.0	-49.7	-13.0	-36.7	
1.718	-16.7	H	3.0	35.3	1.0	-51.0	-13.0	-38.0	
	& SRB=12								
2.346	-22.9	V	3.0	35.4	1.0	-57.3	-13.0	-44.3	
3.128 3.910	-23.0	V	3.0	35.6	1.0	-57.6	-13.0	-44.6	
4.692	-12.4 -12.7	V V	3.0 3.0	35.3 35.3	1.0	_46.7 _47.0	-13.0 -13.0	-33.7 -34.0	
2.346	-12.7 -20.6	V H	3.0	35.4	1.0	-47.0	-13.0	-34.0	
3.910	-20.0	H	3.0	35.3	1.0	-49.8	-13.0	-36.8	
4.692	-16.8	H	3.0	35.3	1.0	-51.0	-13.0	-38.0	
RB=50 (& SRB=0								
2.345	-14.3	V	3.0	35.4	1.0	-48.7	-13.0	-35.7	
3.128	-14.6	V	3.0	35.6	1.0	-49.2	-13.0	-36.2	
3.912	-17.0	V	3.0	35.3	1.0	-51.2	-13.0	-38.2	
4.694	-19.1	V	3.0	35.3	1.0	-53.4	-13.0	-40.4	
2.345	-23.8	H	3.0	35.4	1.0	-58.2	-13.0	-45.2	
	-19.2	H H	3.0 3.0	35.6	1.0	-53.8	-13.0	-40.8	
3.128 3.912	-15.7		: 3.0	35.3	1.0	50.0	-13.0	-37.0	

Note: No other emissions were detected above the system noise floor.

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			Cor Above 1GH	mpliance Ce z High Freq				ement	
Company: Project #: Date: Test Engi Configura Mode:	neer: tion:				R				
	Chambe	r	Pre-an	nplifer		Filter		Lii	mit
5m Chamber B →		T145 8449	З –	Fil	ter 1	-	Part 27	-	
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
RB=1 & SR		(1.1.1)		(/	11				
2.333	-24.6	V	3.0	35.4	1.0	-59.1	-13.0	-46.1	
.888	-11.9	V	3.0	35.3	1.0	-46.1	-13.0	-33.1	
.666	-17.2	V	3.0	35.3	1.0	-51.5	-13.0	-38.5	
.333	-23.8	Н	3.0	35.4	1.0	-58.3	-13.0	-45.3	
.888	-17.8	Н	3.0	35.3	1.0	-52.1	-13.0	-39.1	
.666	-18.1	Η	3.0	35.3	1.0	-52.4	-13.0	-39.4	
RB=1 & SR	B=49								
6.146	-22.1	V	3.0	35.6	1.0	-56.7	-13.0	-43.7	
3.932	-15.7	V	3.0	35.3	1.0	-50.0	-13.0	-37.0	
.718	-18.0	V	3.0	35.3	1.0	-52.3	-13.0	-39.3	
.146	-23.6	H	3.0	35.6	1.0	-58.2	-13.0	-45.2	
3.932	-19.2	H	3.0	35.3	1.0	-53.5	-13.0	-40.5	
.718	-17.8	Н	3.0	35.3	1.0	-52.1	-13.0	-39.1	
RB=25 & SH									
3.128	-22.1	V	3.0	35.6	1.0	-56.7	-13.0	-43.7	
3.910	-15.8	V	3.0	35.3	1.0	-50.0	-13.0	-37.0	
.692	-18.1	V	3.0	35.3	1.0	-52.4	-13.0	-39.4	
3.128	-23.6	H	3.0	35.6	1.0	-58.2	-13.0	-45.2	
.910 .692	-19.3 -17.9	H	3.0 3.0	35.3 35.3	1.0 1.0	-53.6 -52.1	-13.0 -13.0	-40.6 -39.1	
							•		
RB=50 & SI							45.5		
.128	-23.5	<u>v</u>	3.0	35.6	1.0	-58.1	-13.0	-45.1	
.912	-11.8	<u>V</u>	3.0	35.3	1.0	-46.1	-13.0	-33.1	
.694	-17.2	<u>v</u>	3.0	35.3	1.0	-51.4	-13.0	-38.4	
	-23.0	H	3.0	35.6	1.0	-57.6	-13.0	-44.6	
3.128		Н	3.0	35.3	1.0 1.0	-52.0	-13.0 -13.0	-39.0 -39.3	
3.128 3.912	-17.7	u	7 20			1/ 1			
3.128 3.912 4.694	-17.7 -18.0	Н	3.0	35.3	1.0	7 32.0	-10.0	-33.3	

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EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company:	LG ELECTRONICS
Project #:	12U14331
Date:	03/30/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT (INDUCTIVE CHARGER) AND AC ADAPTER
Mode:	TX, LTE BAND 13, QPSK MODE

	Chamber	Pre-amplifer		Filter		Limit	
5	im Chamber B 🚽	T145 8449B	•	Filter 1	-	Part 27	•

GHz (dBm) (H/V) (m) (dB) (dBm) (dBm) (dB) RB-1 & SRB-0	f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
2.33 18.6 V 3.0 35.4 1.0 53.0 13.0 40.0 1.10 22.3 V 3.0 35.6 1.0 56.9 13.0 43.9 1.888 16.7 V 3.0 35.3 1.0 52.5 13.0 38.0 1.666 18.2 V 3.0 35.3 1.0 52.5 13.0 43.1 2.333 21.7 H 3.0 35.4 1.0 55.1 13.0 44.6 3.10 23.0 H 3.0 35.3 1.0 53.5 13.0 44.6 3.888 19.2 H 3.0 35.3 1.0 53.5 13.0 44.6 3.888 19.2 H 3.0 35.4 1.0 57.1 13.0 44.6 3.259 24.0 V 3.0 35.3 1.0 57.6 13.0 44.6 3.932 20.6 V 3.0 35.3 1.0 54.4 13.0 41.4 3.932 25.9 H 3.0	GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
3.110 22.3 V 3.0 35.6 1.0 56.9 13.0 43.9 3.888 16.7 V 3.0 35.3 1.0 51.0 13.0 38.0 1.666 1.8.2 V 3.0 35.3 1.0 52.5 13.0 38.5 2.333 21.7 H 3.0 35.4 1.0 56.1 13.0 43.1 3.10 25.5 1.0 57.6 13.0 44.6 3.0 35.3 1.0 55.5 13.0 44.6 3.888 19.2 H 3.0 35.3 1.0 57.1 13.0 44.1 8.88 19.2 H 3.0 35.3 1.0 58.5 13.0 44.1 8.88 19.2 V 3.0 35.3 1.0 54.9 13.0 41.9 3.046 23.0 V 3.0 35.4 1.0 60.4 13.0 47.4 3.146 23.9	RB=1 & SRI	3=0								
3.888 -16.7 V 3.0 35.3 1.0 -51.0 -13.0 -38.0 4.666 -18.2 V 3.0 35.3 1.0 -52.5 -13.0 -33.5 2.333 21.7 H 3.0 35.4 1.0 -56.1 -13.0 -43.1 3.110 23.0 H 3.0 35.6 1.0 -57.6 -13.0 -44.6 3.888 -19.2 H 3.0 35.3 1.0 -57.6 -13.0 -40.5 4.666 -22.8 H 3.0 35.3 1.0 -57.6 -13.0 -44.1 RB=1 & SRB-49 - - - - - - - 2.359 24.0 V 3.0 35.3 1.0 -54.6 -13.0 44.6 3.932 20.6 V 3.0 35.3 1.0 -54.4 -13.0 41.4 2.359 25.9 H 3.0 35.3 1.0 -56.2 -13.0 45.4 3.932 21.9 H 3.0 <td>2.333</td> <td>-18.6</td> <td>V</td> <td>3.0</td> <td>35.4</td> <td>1.0</td> <td>-53.0</td> <td>-13.0</td> <td>-40.0</td> <td></td>	2.333	-18.6	V	3.0	35.4	1.0	-53.0	-13.0	-40.0	
4.666 .18.2 V 3.0 35.3 1.0 .52.5 .13.0 .39.5 2.333 .21.7 H 3.0 35.4 1.0 .56.1 13.0 .43.1 3.110 .23.0 H 3.0 35.6 1.0 .57.6 13.0 .44.6 3.888 .19.2 H 3.0 35.3 1.0 .53.5 .13.0 .40.5 4.666 .22.8 H 3.0 35.3 1.0 .57.1 .13.0 .44.1 RB=1 & SRB=49 2.359 .24.0 V 3.0 35.6 1.0 3.146 .23.0 V 3.0 35.3 1.0 <t< td=""><td>3.110</td><td>-22.3</td><td>V</td><td>3.0</td><td>35.6</td><td>1.0</td><td>-56.9</td><td>-13.0</td><td>-43.9</td><td></td></t<>	3.110	-22.3	V	3.0	35.6	1.0	-56.9	-13.0	-43.9	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3.888	-16.7	V	3.0	35.3	1.0	-51.0	-13.0	-38.0	
3.110 23.0 H 3.0 35.6 1.0 -57.6 43.0 44.6 3.888 19.2 H 3.0 35.3 1.0 -53.5 13.0 40.5 4.666 -22.8 H 3.0 35.3 1.0 -57.1 -13.0 44.1 RB=1 & SRB=49 - - - - - - - 2.359 -24.0 V 3.0 35.4 1.0 -58.5 -13.0 44.6 3.332 20.6 V 3.0 35.3 1.0 -54.9 -13.0 41.9 4.118 20.2 V 3.0 35.3 1.0 -54.4 -13.0 41.4 2.359 -25.9 H 3.0 35.6 1.0 -58.4 -13.0 45.4 3.932 -21.9 H 3.0 35.6 1.0 -58.4 -13.0 45.4 3.932 -21.9 H 3.0 35.3 1.0 -57.6 -13.0 44.6 4592 -17.9 V 3.0	4.666	-18.2	V	3.0	35.3	1.0	-52.5	-13.0	-39.5	
3.888 19.2 H 3.0 35.3 1.0 -53.5 -13.0 40.5 4.666 22.8 H 3.0 35.3 1.0 -57.1 -13.0 44.1 RB=1 & SRB=49	2.333	-21.7	Н	3.0	35.4	1.0	-56.1	-13.0	-43.1	
4.666 22.8 H 3.0 35.3 1.0 -57.1 -13.0 44.1 RB=1 & SRB=49	3.110	-23.0	Н	3.0	35.6	1.0	-57.6	-13.0	-44.6	
RB=1 & SRB=49 V 3.0 35.4 1.0 -58.5 -13.0 44.6 3.346 23.0 V 3.0 35.6 1.0 -57.6 13.0 44.6 3.932 20.6 V 3.0 35.3 1.0 -54.9 -13.0 44.6 3.932 20.6 V 3.0 35.3 1.0 -54.4 -13.0 41.4 2.359 25.9 H 3.0 35.6 1.0 -64.4 -13.0 47.4 3.146 23.8 H 3.0 35.6 1.0 -58.4 -13.0 45.4 3.332 21.9 H 3.0 35.6 1.0 -58.3 -13.0 44.6 3.332 21.9 H 3.0 35.5 1.0 -58.3 -13.0 46.5 3.128 23.7 V 3.0 35.3 1.0 -57.6 -13.0 44.6 4592 -17.9 V 3.0 35.3	3.888	-19.2	Н	3.0	35.3	1.0	-53.5	-13.0	-40.5	
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2.359 .24.0 V 3.0 35.4 1.0 .58.5 .13.0 45.5 3.146 .23.0 V 3.0 35.6 1.0 .57.6 .13.0 44.6 3.932 .20.6 V 3.0 35.3 1.0 .54.9 .13.0 41.9 3.1718 .20.2 V 3.0 35.3 1.0 .54.4 .13.0 41.4 2.359 .25.9 H 3.0 35.4 1.0 .60.4 .13.0 47.4 3.146 .23.8 H 3.0 35.3 1.0 .54.4 .13.0 .45.4 3.932 .21.9 H 3.0 35.6 1.0 .58.4 .13.0 .45.5 2.346 .25.1 V 3.0 35.6 1.0 .58.3 .13.0 .46.5 3.128 .23.7 V 3.0 35.3 1.0 .57.6 .13.0 .44.6 1.692 .17.9 V 3.0 35.3 1.0 .58.3 .13.0 .44.8 3.910 .22.5 </td <td></td>										
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2.359	-24.0		3.0	35.4	1.0	-58.5	-13.0	-45.5	
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2.359 -25.9 H 3.0 35.4 1.0 -60.4 -13.0 47.4 3.146 23.8 H 3.0 35.6 1.0 -58.4 -13.0 45.4 3.332 -21.9 H 3.0 35.6 1.0 -58.4 -13.0 43.2 $RB=25 \& SRB=12$ $RB=25 \& SRB=12$ $RB=25 \& SRB=12$ $A6.5$ $A6.5$ 2.346 -25.1 V 3.0 35.6 1.0 -58.3 -13.0 46.5 3.128 -23.7 V 3.0 35.6 1.0 -58.3 -13.0 44.6 4.692 -17.9 V 3.0 35.4 1.0 -57.6 -13.0 44.6 2.346 25.4 H 3.0 35.4 1.0 -57.3 13.0 44.3 3.128 -22.7 H 3.0 35.3 1.0 -56.8 13.0 43.8 4.692 -21.1 H 3.0 35.3 1.0 -56.4	3.932	-20.6	V	3.0	35.3	1.0	-54.9	-13.0	-41.9	
3.146 -23.8 H 3.0 35.6 1.0 -58.4 -13.0 45.4 3.932 -21.9 H 3.0 35.3 1.0 -56.2 -13.0 43.2 RB=25 & SRB=12	4.718	-20.2	V	3.0	35.3	1.0	-54.4	-13.0	-41.4	
3.932 21.9 H 3.0 35.3 1.0 -56.2 .13.0 .43.2 RB=25 & SRB=12	2.359	-25.9	Н	3.0	35.4	1.0	-60.4	-13.0	-47.4	
RB=25 & SRB=12 V 3.0 35.4 1.0 -59.5 -13.0 46.5 3.128 -23.7 V 3.0 35.6 1.0 -58.3 -13.0 45.3 3.910 -23.3 V 3.0 35.3 1.0 -57.6 -13.0 44.6 4.692 -17.9 V 3.0 35.3 1.0 -57.6 -13.0 44.6 2.346 -25.4 H 3.0 35.3 1.0 -57.3 -13.0 44.3 3.128 -22.7 H 3.0 35.4 1.0 -59.8 -13.0 44.3 3.910 -22.5 H 3.0 35.3 1.0 -56.8 -13.0 44.3 3.910 -22.5 H 3.0 35.3 1.0 -56.8 -13.0 43.8 4.692 -21.1 H 3.0 35.3 1.0 -55.4 -13.0 42.4 RB=50 & SRB=0	3.146	-23.8	Н	3.0	35.6	1.0	-58.4	-13.0	-45.4	
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4.692 -17.9 V 3.0 35.3 1.0 -52.2 -13.0 -39.2 2.346 -25.4 H 3.0 35.4 1.0 -59.8 -13.0 -46.8 3.128 -22.7 H 3.0 35.6 1.0 -57.3 -13.0 -46.8 3.128 -22.7 H 3.0 35.6 1.0 -57.3 -13.0 -44.3 3.910 -22.5 H 3.0 35.3 1.0 -56.8 -13.0 -43.8 4.692 -21.1 H 3.0 35.3 1.0 -55.4 -13.0 -42.4 RB=50 & SRB=0 2.346 -23.6 V 3.0 35.6 1.0 -56.2 -13.0 -45.0 3.128 -21.6 V 3.0 35.3 1.0 -52.1 -13.0 -39.1 3.912 -17.8 V 3.0 35.3 1.0 -52.7 -13.0 -39.7 2.346 -25.6 H 3.0 35.4 1.0 -60.1 -13.0 -47.1	3.128	-23.7	V	3.0	35.6	1.0	-58.3	-13.0	-45.3	
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3.910 -22.5 H 3.0 35.3 1.0 -56.8 -13.0 -43.8 4.692 -21.1 H 3.0 35.3 1.0 -55.4 -13.0 -42.4 RB=50 & SRB=0	2.346	-25.4	Н	3.0	35.4	1.0	-59.8	-13.0	-46.8	
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RB=50 & SRB=0	3.910	-22.5	Н	3.0	35.3	1.0	-56.8	-13.0	-43.8	
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2.346 -23.6 V 3.0 35.4 1.0 -58.0 -13.0 -45.0 3.128 -21.6 V 3.0 35.6 1.0 -56.2 -13.0 -43.2 3.912 -17.8 V 3.0 35.3 1.0 -52.1 -13.0 -39.1 4.694 -18.4 V 3.0 35.3 1.0 -52.7 -13.0 -39.7 2.346 -25.6 H 3.0 35.4 1.0 -60.1 -13.0 -47.1 3.128 -21.8 H 3.0 35.6 1.0 -56.4 -13.0 -43.4 3.912 -22.6 H 3.0 35.3 1.0 -56.8 -13.0 -43.8										
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2.346 -25.6 H 3.0 35.4 1.0 -60.1 -13.0 -47.1 3.128 -21.8 H 3.0 35.6 1.0 -56.4 -13.0 -43.4 3.912 -22.6 H 3.0 35.3 1.0 -56.8 -13.0 -43.8	3.912	-17.8	V	3.0	35.3	1.0	-52.1	-13.0	-39.1	
3.128 -21.8 H 3.0 35.6 1.0 -56.4 -13.0 -43.4 3.912 -22.6 H 3.0 35.3 1.0 -56.8 -13.0 -43.8	4.694	-18.4	V	3.0	35.3	1.0	-52.7	-13.0	-39.7	
3.912 <u>-22.6</u> H 3.0 35.3 1.0 -56.8 -13.0 43.8	2.346	-25.6	Н	3.0	35.4	1.0	-60.1	-13.0	-47.1	
3.912 <u>-22.6</u> H 3.0 35.3 1.0 -56.8 -13.0 43.8	3.128	-21.8	Н	3.0	35.6	1.0	-56.4	-13.0	-43.4	
				3.0			-56.8	-13.0	-43.8	
4.034 -20.2 11 3.0 33.3 1.0 -34.3 -13.0 -41.3	4.694	-20.2	Н	3.0	35.3	1.0	-54.5	-13.0	-41.5	

Note: No other emissions were detected above the system noise floor.

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EUT (STANDARD COVER)

				mpliance Ce z High Freq				ement	
Company: Project #: Date: Test Engi Configura Mode:	neer: tion:				R				
	Chambe	r	Pre-ar	nplifer		Filter		Lin	nit
5m	n Chamber B	-	T145 8449	B 🖵	Fil	ter 1	•	Part 27	-
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
RB=1 & SRI	B=0								
2.333	-19.3	V	3.0	35.4	1.0	-53.7	-13.0	-40.7	
3.110	-22.5	V	3.0	35.6	1.0	-57.1	-13.0	-44.1	
3.888 3.919	-18.2 -11.7	V	3.0 3.0	35.3 35.3	1.0 1.0	-52.5	-13.0 -13.0	-39.5 -33.0	
.666	-11.7	V	3.0	35.3	1.0	-46.9	-13.0	-33.9	
.555	-27.1	Ĥ	3.0	35.6	1.0	-61.7	-13.0	-48.7	
.333	-21.0	Н	3.0	35.4	1.0	-55.4	-13.0	-42.4	
3.110	-23.4	Н	3.0	35.6	1.0	-58.0	-13.0	-45.0	
.507	-14.2	Н	3.0	35.3	1.0	-48.5	-13.0	-35.5	
RB=1 & SRI	B=49								
2.359	-23.3	V	3.0	35.4	1.0	-57.7	-13.0	-44.7	
.146	-23.5	V	3.0	35.6	1.0	-58.1	-13.0	-45.1	
.932 .718	-11.8 -14.5	V V	3.0 3.0	35.3 35.3	1.0	-46.0	-13.0 -13.0	-33.0 -35.8	
.718 .573	-14.5	V H	3.0	35.5 35.6	1.0	-48.8 -63.2	-13.0 -13.0	-30.8	
.359	-20.0	H	3.0	35.4	1.0	-55.8	-13.0	-30.2	
.932	-16.9	H	3.0	35.3	1.0	-51.1	-13.0	-38.1	
.718	-14.5	Н	3.0	35.3	1.0	-48.8	-13.0	-35.8	
B=25 & SF	RB=12								
2.346	-24.8	V	3.0	35.4	1.0	-59.2	-13.0	-46.2	
3.128	-20.1	V	3.0	35.6	1.0	-54.7	-13.0	-41.7	
.910	-11.7	V	3.0	35.3	1.0	-46.0	-13.0	-33.0	
.692 .346	-12.6 -21.0	V H	3.0 3.0	35.3 35.4	1.0 1.0	-46.9 -55.5	-13.0 -13.0	-33.9 -42.5	
.128	-21.0	n H	3.0	35.6	1.0	-55.5	-13.0	-42.5	
3.910	-15.8	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
.692	Y	Н	3.0	35.3	1.0	-34.3	-13.0	-21.3	
RB=50 & SF	₹ B= 0								
2.346	-25.9	V	3.0	35.4	1.0	-60.3	-13.0	-47.3	
.128	-13.7	V	3.0	35.6	1.0	-48.3	-13.0	-35.3	
.915	-16.5	V	3.0	35.3	1.0	-50.8	-13.0	-37.8	
.695 .346	-17.6 -23.0	V H	3.0 3.0	35.3 35.4	1.0 1.0	-51.8 -57.5	-13.0 -13.0	-38.8 -44.5	
	-23.0	п Н	3.0	35.6	1.0	-57.5	-13.0	-44.5	
3.915	-15.2	H	3.0	35.3	1.0	-49.5	-13.0	-36.5	
	-14.9	H	3.0	35.3	1.0	-49.1	-13.0	-36.1	

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				mpliance Ce Iz High Freq				ement	
Company:		LG ELECTRO	NICS						
Project #:		12U14331							
Date:		03/30/12							
Fest Engir		MENGISTU M							
Configurat	tion:	EUT (INDUCTI	VE COVER) AN	ID AC ADAPTE	R				
/lode:		TX, LTE BAND	13, 16QAM M(DDE					
	Chambe	r	Pre-amplifer		Filter			Limit	
5m	Chamber B	•	T145 8449	B _	Fil	ter 1	•	Part 27	•
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
		(117)	(11)						
RB=1 & SRE		v	20	25.4	4.0	57.0	42.0	AA 6	
2.333	-23.2	V	3.0	35.4	1.0	-57.6	-13.0	-44.6	
3.110	-23.1	<u>v</u>	3.0	35.6	1.0	-57.7	-13.0	-44.7	
8.888	-15.4	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
1.666	-18.0	V	3.0	35.3	1.0	-52.3	-13.0	-39.3	
.333	-23.7	H	3.0	35.4	1.0	-58.1	-13.0	-45.1	
3.110	-22.9	H	3.0	35.6	1.0	-57.6	-13.0	-44.6	
3.888	-20.5	H	3.0	35.3	1.0	-54.8	-13.0	-41.8	
.666	-17.0	Н	3.0	35.3	1.0	-51.2	-13.0	-38.2	
D 1 2				ļ					
B=1 & SRE							40.0	15.0	
.359	-24.5	<u>V</u>	3.0	35.4	1.0	-58.9	-13.0	-45.9	
.146	-22.0	<u>V</u>	3.0	35.6	1.0	-56.6	-13.0	-43.6	
.932	-12.3	V	3.0	35.3	1.0	-46.5	-13.0	-33.5	
.718	-16.8	<u>v</u>	3.0	35.3	1.0		-13.0	-38.1	
.359	-25.4	H	3.0	35.4	1.0	-59.8	-13.0	-46.8	
3.146	-23.6	H	3.0	35.6	1.0	-58.2	-13.0	-45.2	
.932	-18.9	H	3.0	35.3	1.0	-53.2	-13.0	-40.2	
.718	-16.4	Н	3.0	35.3	1.0	-50.7	-13.0	-37.7	
D 05 0 00	D 10			ļ					
B=25 & SR		V	20	25.4	4.0	575	42.0	AA 5	
.346	-23.1	V	3.0	35.4	1.0	-57.5	-13.0	44.5	
.128	-21.1		3.0	35.6	1.0	-55.7	-13.0	42.7	
.910 .692	-11.8	V	3.0	35.3	1.0	-46.0	-13.0	-33.0	
	-16.9		3.0	35.3	1.0	-51.1	-13.0 13.0	-38.1	
.346	-24.1	H	3.0	35.4	1.0	-58.5	-13.0	-45.5	
.128	-21.6	H	3.0	35.6	1.0	-56.2	-13.0	-43.2	
.910 .692	-19.0 -14.9	H	3.0 3.0	35.3 35.3	1.0	-53.3 -49.2	-13.0 -13.0	-40.3 -36.2	
.032	-14.3	Π	J.U	23.2	1.0	-43.2	-13.0	-JU.Z	
RB=50 & SR					,			,	
.346	-23.1	V	3.0	35.4	1.0	-57.5	-13.0	-44.5	
.128	-21.1	V	3.0	35.6	1.0	-55.7	-13.0	-42.7	
.914	-11.8	V	3.0	35.3	1.0	-46.0	-13.0	-33.0	
.474	-14.9	V	3.0	35.4	1.0	-49.3	-13.0	-36.3	
.346	-24.5	Η	3.0	35.4	1.0	-58.9	-13.0	-45.9	
	-20.6	Η	3.0	35.6	1.0	-55.2	-13.0	-42.2	
	-18.9	Н	3.0	35.3	1.0	-53.2	-13.0	-40.2	
3.128 3.914	-10.5					-51.2	-13.0	-38.2	

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Compliance Certification Services Above 1GHz High Frequency Substitution Measurement LG ELECTRONICS Company: Project #: 12U14331 Date: 03/30/12 Test Engineer: MENGISTU MEKURIA Configuration: EUT (INDUCTIVE CHARGER) AND AC ADAPTER Mode: TX, LTE BAND 13, 16QAM MODE Limit Pre-amplifer Filter Chamber T145 8449B Filter 1 Part 27 • • 5m Chamber B • • Ant. Pol. Filter EIRP f SG reading Distance Limit Delta Notes Preamp (dB) (dBm) (dBm) (dB) GHz (dBm) (H/V) (m) (dB) RB=1 & SRB=0 2.333 41.7 20.2 V 3.0 35.4 1.0 -54.7 -13.0 3.110 22.7 V 3.0 35.6 1.0 -57.3 -13.0 44.3 3.888 20.2 V 3.0 35.3 1.0 -54.4 -13.0 -41.4 4.666 -18.5 v 3.0 35.3 1.0 -52.8 -13.0 -39.8 2.333 -19.5 Н 3.0 35.4 1.0 -53.9 -13.0 40.9 3.110 3.0 35.6 -57.3 -44.3 -22.7 н 1.0 -13.0 3.888 Η 3.0 35.3 1.0 -54.9 41.9 -20.6 -13.0 4.666 Η -54.0 -13.0 -41.0 -19.7 3.0 35.3 1.0 RB=1 & SRB=49 2.359 -23.6 V 3.0 35.4 1.0 -58.1 -13.0 -45.1 3.146 -24.0 V 3.0 35.6 1.0 -58.6 -13.0 45.6 3.932 -19.5 V 3.0 35.3 1.0 -53.8 -13.0 40.8 4.718 V -51.4 -17.1 3.0 35.3 1.0 -13.0 -38.4 Η 1.0 2.359 -19.0 3.0 35.4-53.5 -13.0 40.5 3.146 24.0 Η 3.0 35.6 1.0 -58.6 -13.0 45.6 3.932 -21.8 3.0 35.3 1.0 -56.0 -13.0 -43.0 Н 4.718 -19.8 Н 3.0 35.3 1.0 -54.1 -13.0 -41.1 RB=25 & SRB=12 2.346 V 3.0 35.4 58.7 13.0 45.7 .24.3 1.0 3.128 -23.5 V 3.0 35.6 1.0 -58.1 -13.0 -45.1 3.910 -23.3 3.0 35.3 1.0 -57.5 -13.0 -44.5 V 4.692 -18.5 V 3.0 35.3 1.0 -52.8 -13.0 -39.8 2.346 -24.5 Η 3.0 35.4 1.0 -58.9 -13.0 45.9 3.128 35.6 -56.8 22.2 Н 3.0 1.0 -13.0 43.8 3.910 22.3 Η 3.0 35.3 1.0 -56.6 -13.0 43.6 Η 4.692 3.0 35.3 1.0 -53.8 -13.0 -40.8 -19.5 RB=50 & SRB=0 V 3.0 35.4 -59.5 -13.0 -46.5 2.346 -25.1 1.0 3.128 -22.7 V 3.0 35.6 1.0 -57.3 -13.0 44.3 -54.9 3.910 35.3 20.6 V 3.0 1.0 -13.0 -41.9 4.692 -18.4 V 3.0 35.3 1.0 -52.7 -13.0 -39.7 2.346 -25.5 H 3.0 35.4 .60.0 47.0 1.0 -13.0 3.128 -23.3 Η 3.0 35.6 1.0 -57.9 -13.0 -44.9 3.910 -21.1 3.0 Η 35.3 1.0 -55.3 -13.0 42.3 4.692 -20.0 Η 3.0 35.3 1.0 -54.3 -13.0 -41.3 Rev 03 03 09

Note: No other emissions were detected above the system noise floor.

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