



**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 and VS930
FCC ID: ZNFVS930**

**REPORT NUMBER: 12U14331-6
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Prepared for

**LG ELECTRONICS MOBILECOMM U.S.A., INC.
1000 SYLVAN AVE.
ENGLEWOOD CLIFFS, NJ
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Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	06/11/12	Initial Issue	T. Chan

9.2. *FIELD STRENGTH OF SPURIOUS RADIATION* 153

10. SETUP PHOTOS **190**

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.
1000 SYLVAN AVE.
ENGLEWOOD CLIFFS, NJ
UNITED STATES 07632

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

MODEL: LG-VS930 and VS930

SERIAL NUMBER: 99000076007379

DATE TESTED: MAY 18 - JUNE 06, 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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ENGINEERING MANAGER
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EMC ENGINEER
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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 <http://www.ccsemc.com>.

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:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

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%.

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 (MHz)	EUT	Modulation	Conducted		ERP	
			dBm	mW	dBm	mW
824.7 – 848.31	Standard Cover	CDMA2000 1xRTT	28.20	660.7	24.30	269.2
	Inductive Cover				24.90	309.0
	Inductive Charger				21.90	154.9
	Standard Cover	CDMA2000 EVDO REV A	29.47	885.1	23.70	234.4
	Inductive Cover				24.10	257.0
	Inductive Charger				21.20	131.8

Part 22 Cellular Band

Frequency range (MHz)	EUT	Modulation	Conducted		ERP	
			dBm	mW	dBm	mW
824.2 – 848.8	Standard Cover	GPRS	32.76	1888.0	30.10	1023.3
	Inductive Cover				29.40	871.0
	Inductive Charger				28.40	691.8
	Standard Cover	EGPRS	28.98	790.7	28.20	660.7
	Inductive Cover				26.90	489.8
	Inductive Charger				25.60	363.1

Part 24 PCS Band

Frequency range (MHz)	EUT	Modulation	Conducted		ERP	
			dBm	mW	dBm	mW
1851.25-1908.75	Standard Cover	CDMA2000 1xRTT	28.27	671.4	28.81	760.3
	Inductive Cover				28.17	656.1
	Inductive Charger				27.36	544.5
	Standard Cover	CDMA2000 EVDO REV A	28.06	639.7	31.41	1383.6
	Inductive Cover				30.91	1233.1
	Inductive Charger				27.71	590.2

Part 24 PCS Band

Frequency range (MHz)	EUT	Modulation	Conducted		ERP	
			dBm	mW	dBm	mW
1850.2-1909.8	Standard Cover	GPRS	29.73	939.7	31.37	1370.9
	Inductive Cover				30.47	1114.3
	Inductive Charger				27.90	616.6
	Standard Cover	EGPRS	28.06	639.7	30.25	1059.3
	Inductive Cover				29.41	873.0
	Inductive Charger				27.56	570.2

Part 24 PCS Band

Frequency range (MHz)	EUT	Modulation	Conducted		ERP	
			dBm	mW	dBm	mW
1852.4-1907.6	Standard Cover	UMTS, REL 99	26.04	401.8	25.51	355.6
	Inductive Cover				27.11	514.0
	Inductive Charger				24.36	272.9
	Standard Cover	UMTS, HSDPA	26.85	484.2	28.81	760.3
	Inductive Cover				28.01	632.4
	Inductive Charger				27.00	501.2

Part 27 LTE Band 13

Frequency range (MHz)	Modulation	Conducted		ERP		
		dBm	mW	dBm	dBm	mW
782	QPSK	28.50	707.9	Standard Cover	25.15	327.3
				Inductive Cover	25.25	335.0
				Inductive Charger	24.36	272.9
782	16QAM	28.30	676.1	Standard Cover	25.85	384.6
				Inductive Cover	25.36	343.6
				Inductive Charger	24.53	283.8

5.1. DESCRIPTION OF CLASS II PERMISSIVE CHANGE

The change filed under this application is change antenna matching circuits to improve performance.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integral antenna for all 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

5.3. SOFTWARE AND FIRMWARE

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

5.4. 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 worst-case 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.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT (RF CONDUCTED TEST)

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

I/O CABLES (RF CONDUCTED TEST)

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
Vector Signal Generator	Agilent / HP	E4438C	None	06/09/12
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

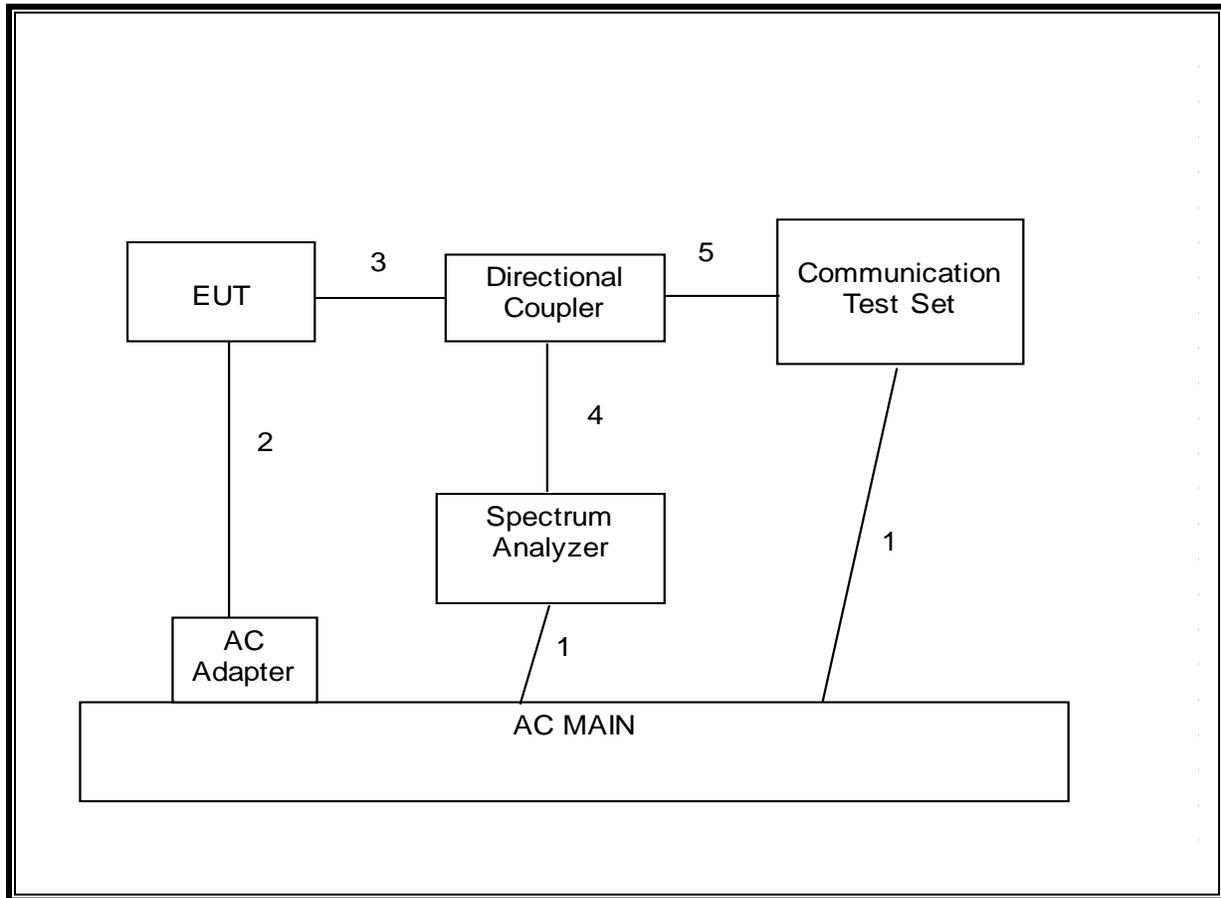
SUPPORT EQUIPMENT (RF RADIATED TEST)

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

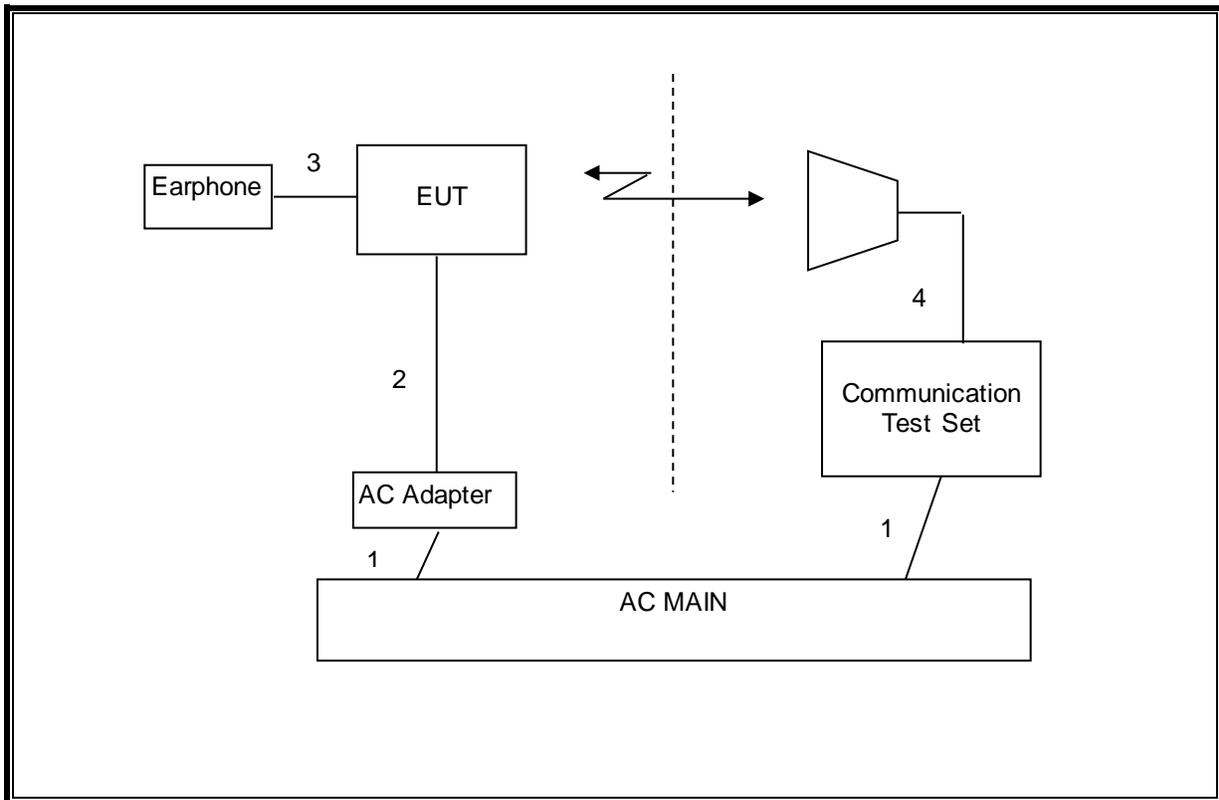
I/O CABLES (RF RADIATED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
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

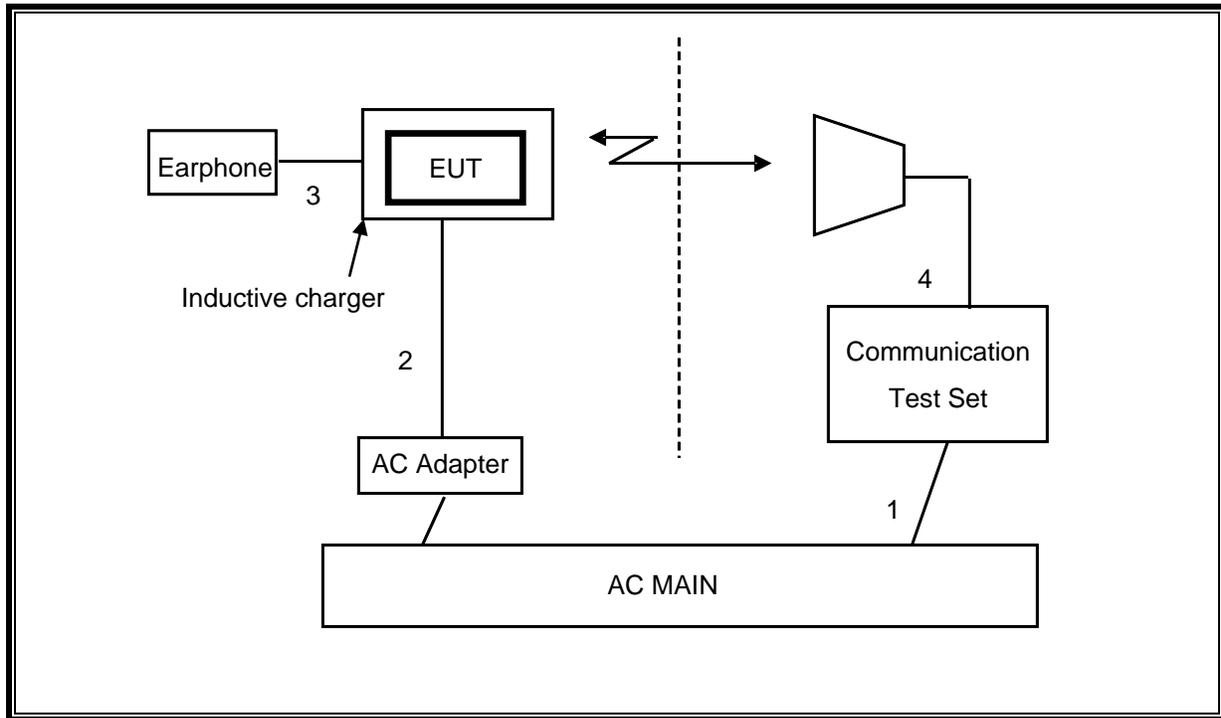
SETUP DIAGRAM FOR RF CONDUCTED TESTS



STANDARD/INDUCTIVE COVER SETUP DIAGRAM FOR RF RADIATED TESTS



INDUCTIVE CHARGER SETUP DIAGRAM FOR RF RADIATED TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, 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
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
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
Vector Signal Generator	Agilent / HP	E4438C	None	06/09/12
Temperature / Humidity Chamber	WATLOW Controls	SK-3102	None	CNR
Dual Channel Thermometer	Tektronix	DTM920	CCS-0048	05/21/13
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

7. RF POWER OUTPUT VERIFICATION

7.1. RF POWER OUTPUT FOR 1xRTT

TEST PROCEDURE

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

<u>Application</u>	<u>Rev, License</u>
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
 - Rvs Power Ctrl > All Up bits (Maximum TxPout)

RESULT

CELL BAND:

Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
		Ch. 1013 / 824.7 MHz		Ch. 384 / 836.52 MHz		Ch. 777 / 848.31 MHz	
			Peak		Peak		Peak
RC1	2 (Loopback)		28.20		28.18		28.12
	55 (Loopback)		28.12		28.10		28.06
RC2	9 (Loopback)		28.16		28.20		28.04
	55 (Loopback)		28.19		28.09		28.01
RC3	2 (Loopback)		27.98		28.11		27.96
	55 (Loopback)		28.09		28.00		27.85
	32 (+ F-SCH)		28.01		28.02		27.75
	32 (+ SCH)		27.96		28.09		24.84
RC4	2 (Loopback)		27.99		27.91		27.96
	55 (Loopback)		28.03		28.04		27.71
	32 (+ F-SCH)		27.93		28.01		27.71
	32 (+ SCH)		27.95		27.90		27.79
RC5	9 (Loopback)		27.99		28.00		27.83
	55 (Loopback)		27.96		27.97		27.83

PCS BAND:

Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
		Ch. 25 / 1851.25 MHz		Ch. 600 / 1880 MHz		Ch. 1175 / 1908.75 MHz	
			Peak		Peak		Peak
RC1	2 (Loopback)		27.75		28.20		27.13
	55 (Loopback)		27.71		28.25		27.04
RC2	9 (Loopback)		27.74		28.27		27.06
	55 (Loopback)		27.68		28.25		27.03
RC3	2 (Loopback)		27.48		27.99		26.88
	55 (Loopback)		27.43		27.92		26.79
	32 (+ F-SCH)		27.51		27.90		26.81
	32 (+ SCH)		27.49		28.00		27.25
RC4	2 (Loopback)		27.45		27.88		26.85
	55 (Loopback)		27.45		27.91		26.82
	32 (+ F-SCH)		27.50		27.86		26.82
	32 (+ SCH)		27.63		27.92		26.99
RC5	9 (Loopback)		27.46		27.93		26.79
	55 (Loopback)		27.49		27.94		26.81

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.

<u>Application</u>	<u>Rev, License</u>
1xEV-DO Terminal Test	A.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 Parm:
 - 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 Parm:
 - 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)

RESULTS

Cell Band

FTAP Rate	RTAP Rate	Channel	f (MHz)	Conducted power (dBm)	
				Peak	
307.2 kbps (2 slot, QPSK)	153.6 kbps	1013	824.70	29.29	
		384	836.52	29.18	
		777	848.31	29.05	

PCS Band

FTAP Rate	RTAP Rate	Channel	f (MHz)	Conducted power (dBm)	
				Peak	
307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1851.25	27.69	
		600	1880.00	28.02	
		1175	1908.75	26.82	

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.

<u>Application</u>	<u>Rev, License</u>
1xEV-DO Terminal Test	A.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

FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f (MHz)	Conducted power (dBm)	
				Peak	
307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	1013	824.70	29.47	
		384	836.52	29.50	
		777	848.31	29.42	

PCS Band

FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f (MHz)	Conducted power (dBm)	
				Peak	
307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1851.25	27.64	
		600	1880.00	28.06	
		1175	1908.75	26.81	

7.4. RF POWER OUTPUT FOR GSM MODE

TEST PROCEDURE

GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/900/1800/1900
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
MS Signal Press Slot Config bottom on the right twice to select and change the number of 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)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]
Channel Type > Off
P0> 4 dB
Slot Config > Unchanged (if already set under MS Signal)
TCH > choose desired test channel
Hopping > Off
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
Connection Press Signal On to turn on the signal and change settings

RESULTS

GPRS for Cell and PCS Band

Mode	Ch.	f (MHz)	1 time slots		2 time slots	
			Peak		Peak	
GPRS	128	824.2	32.59		32.29	
	190	836.6	32.76		32.42	
	251	848.8	32.66		32.39	
GPRS	512	1850.2	29.57		29.44	
	661	1880	29.49		29.37	
	810	1909.8	29.73		29.56	

EGPRS for Cell and PCS Band

Mode	Ch.	f (MHz)	1 time slots		2 time slots	
			Peak		Peak	
EGPRS	128	824.2	28.81		28.68	
	190	836.6	28.88		28.72	
	251	848.8	28.98		28.77	
EGPRS	512	1850.2	28.06		27.93	
	661	1880	27.98		27.82	
	810	1909.8	27.87		27.60	

7.5. RF POWER OUTPUT FOR UMTS REL99

TEST PROCEDURE

The following summary of these settings are illustrated below:

	Mode	Rel99
	Subtest	-
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	HSDPA FRC	Not Applicable
	HSUPA Test	Not Applicable
	Power Control Algorithm	Algorithm2
	β_c	Not Applicable
	β_d	Not Applicable
	β_{ec}	Not Applicable
	β_c/β_d	8/15
	β_{hs}	Not Applicable
	β_{ed}	Not Applicable

RESULTS

Band	UL Ch	DL Ch	Frequency	Conducted output power (dBm)	
				Peak	Average
UMTS 1900	9262	9662	1852.4	26.04	23.00
	9400	9800	1880.0	26.08	23.02
	9538	9938	1907.6	26.05	23.02

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
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	HSUPA Test	Not Applicable			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_{ec}	-	-	-	-
	β_c/β_d	2/15	12/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	β_{ed}	Not Applicable			
	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	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	Conducted output power (dBm)	
					Peak	
UMTS1900 (Band II)	1	9262	9662	1852.4	26.01	
		9400	9800	1880.0	26.24	
		9538	9938	1907.6	26.03	
	2	9262	9662	1852.4	26.34	
		9400	9800	1880.0	26.85	
		9538	9938	1907.6	26.68	
	3	9262	9662	1852.4	26.41	
		9400	9800	1880.0	26.88	
		9538	9938	1907.6	26.42	
	4	9262	9662	1852.4	26.83	
		9400	9800	1880.0	26.88	
		9538	9938	1907.6	26.69	

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
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30/15	4/15	5/15
HSDPA Specific Settings	β_{ed}	1309/225	94/75	47/15	56/75	47/15
	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
$A_{hs} = \beta_{hs}/\beta_c$	30/15					
HSUPA Specific Settings	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
	Reference E_TFCIs	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO 4 E-TFCI 92 E-TFCI PO 18		E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27

RESULTS

Band	Subtest	UL Ch	DL Ch	Frequency	Conducted output power (dBm)	
					Peak	
UMTS1900 (Band II)	1	9262	9662	1852.4	26.97	
		9400	9800	1880.0	26.91	
		9538	9938	1907.6	26.57	
	2	9262	9662	1852.4	26.56	
		9400	9800	1880.0	26.51	
		9538	9938	1907.6	26.70	
	3	9262	9662	1852.4	26.84	
		9400	9800	1880.0	26.81	
		9538	9938	1907.6	26.68	
	4	9262	9662	1852.4	26.54	
		9400	9800	1880.0	26.86	
		9538	9938	1907.6	26.74	
	5	9262	9662	1852.4	26.85	
		9400	9800	1880.0	26.26	
		9538	9938	1907.6	26.77	

7.8. RF POWER OUTPUT FOR LTE Band 13

10MHZ Bandwidth

LTE 10 MHz BAND 13				
RB CONFIGURATION	START RB OFFSET	MODE	PEAK POWER (dBm)	
1	0	QPSK	27.87	
1	49		27.80	
25	12		28.50	
50	0		28.03	
1	0	16QAM	28.10	
1	49		28.18	
25	12		28.30	
50	0		28.20	

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

RESULTS

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
Cellular	1xRTT	1013	824.70	1.2923	1.976
		384	836.52	1.2897	1.444
		777	848.31	1.2979	1.428
	CDMA2000 1xEV-DO Revision A (Rev. A)	1013	824.70	1.2772	1.395
		384	836.52	1.2840	1.422
		777	848.31	1.2784	1.409

Band	Mode	Channel	f (MHz)	99% BW (KHz)	-26dB BW (KHz)
Cellular	GPRS	128	824.20	243.3782	312.721
		190	836.60	260.5259	287.284
		251	848.80	249.3339	317.573
	EGPRS	128	824.20	245.2327	284.397
		190	836.60	247.3070	288.624
		251	848.80	253.5680	280.351

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
PCS	1xRTT	25	1851.25	1.2849	1.407
		600	1880.0	1.2774	1.400
		1175	1908.75	1.2829	1.388
	CDMA2000 1xEV-DO Revision A (Rev. A)	25	1851.25	1.2842	1.407
		600	1880.0	1.2741	1.386
		1175	1908.75	1.2795	2.006

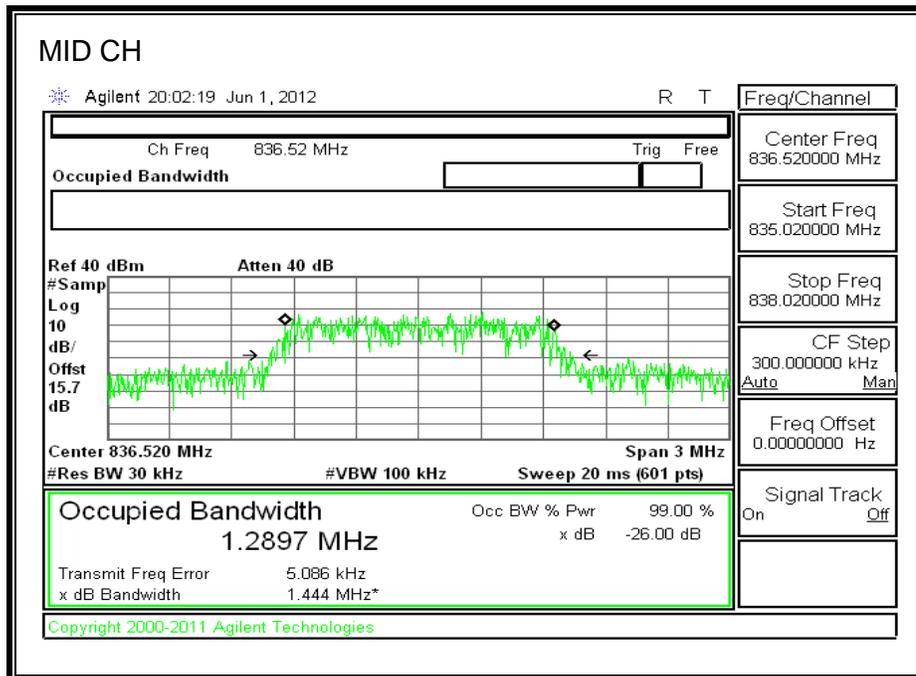
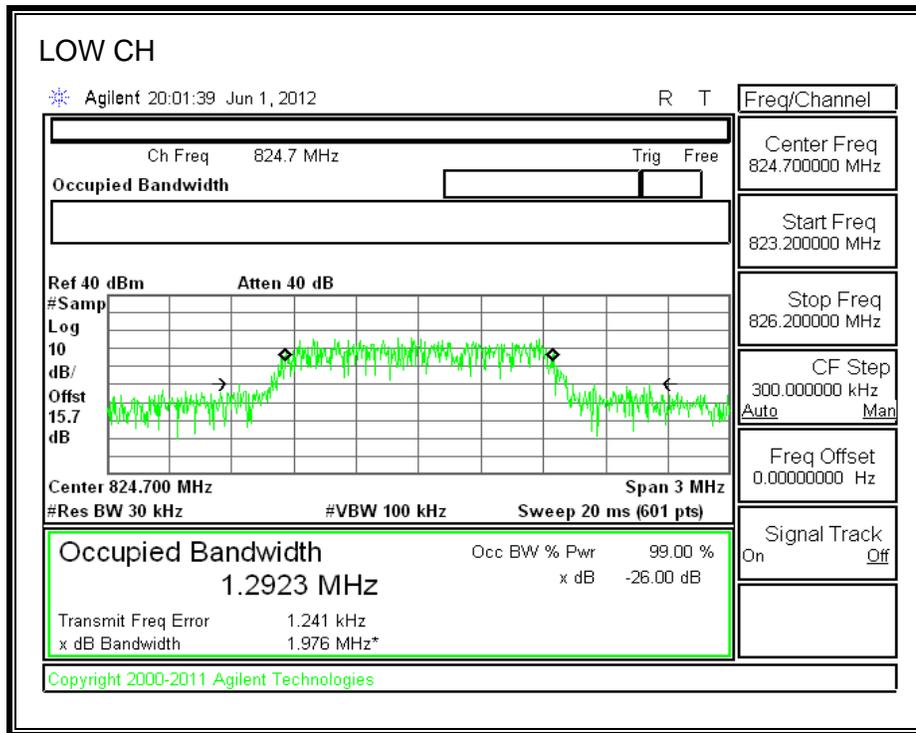
Band	Mode	Channel	f (MHz)	99% BW (KHz)	-26dB BW (KHz)
PCS	GPRS	512	1850.2	248.9019	310.391
		661	1880.0	254.8688	287.589
		810	1909.8	243.3522	306.466
	EGPRS	512	1850.2	254.0602	298.442
		661	1880.0	245.3836	258.261
		810	1909.8	244.4235	307.317

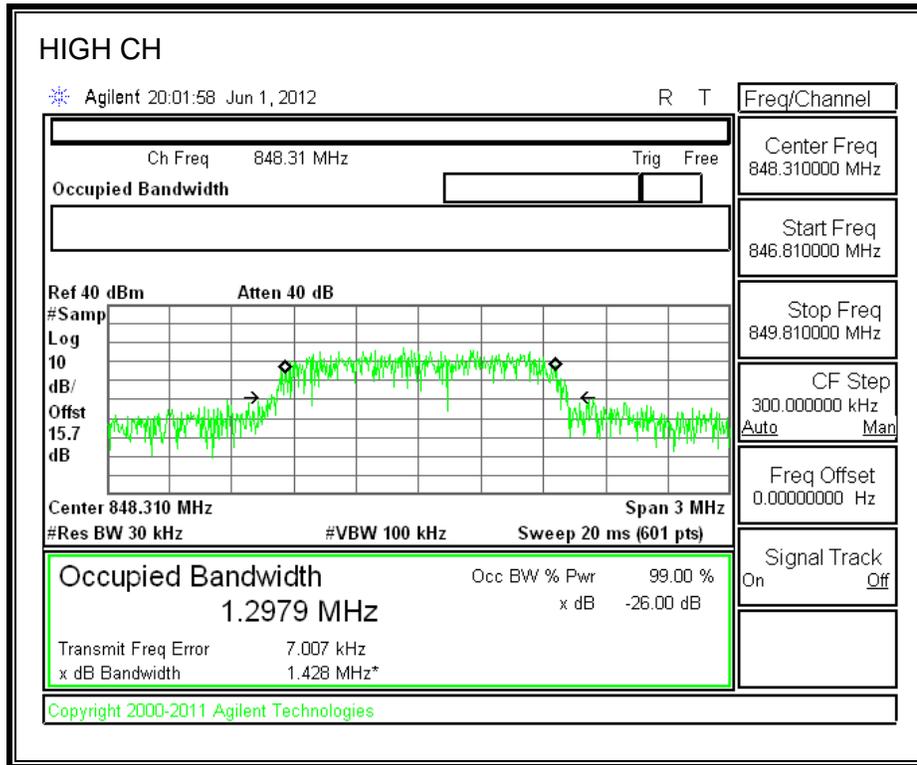
Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
PCS	UMTS, REL 99	9662	1852.4	4.2331	4.674
		9800	1880.0	4.2279	4.476
		9938	1907.6	4.2223	4.619
	UMTS, HSDPA	9662	1852.4	4.2243	4.634
		9800	1880.0	4.2310	4.595
		9938	1907.6	4.2040	4.615

Band	Mode	RB/RB SIZE	f (MHz)	99% BW (kHz)	-26dB BW (kHz)
LTE	10 MHz BAND QPSK	1/0	782.0	247.7385	260.458
		1/49		235.4654	334.521
		25/12		4490.30	5684.00
		50/0		8853.20	9293.00
	10 MHz BAND 16QAM	1/0		221.6361	344.473
		1/49		213.5696	267.752
		25/12		4471.10	4699.00
		50/0		8898.90	9337.00

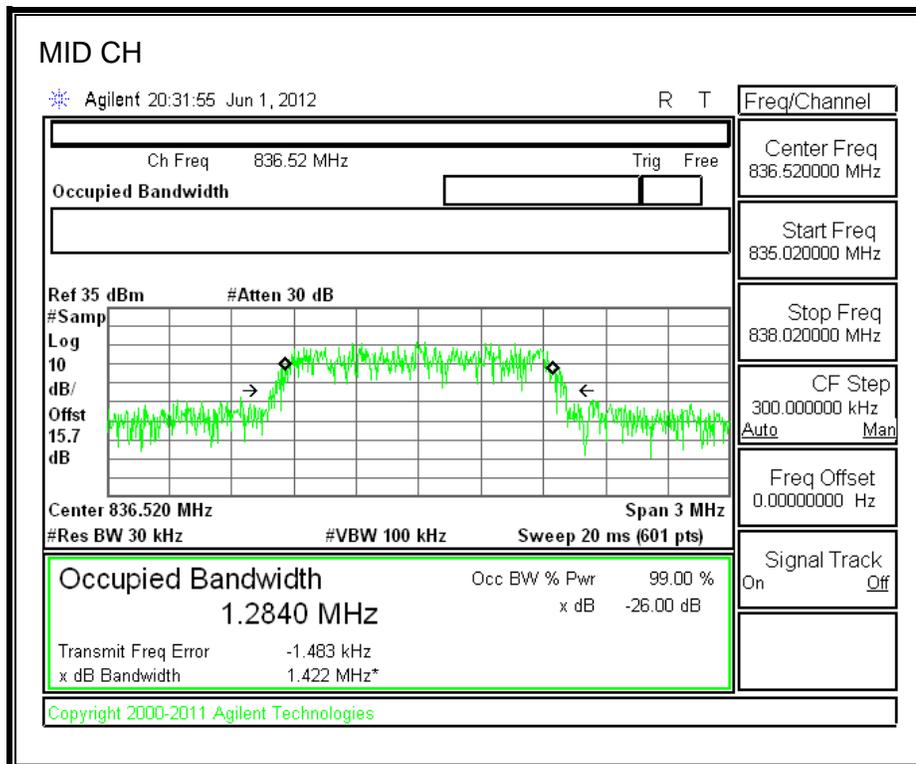
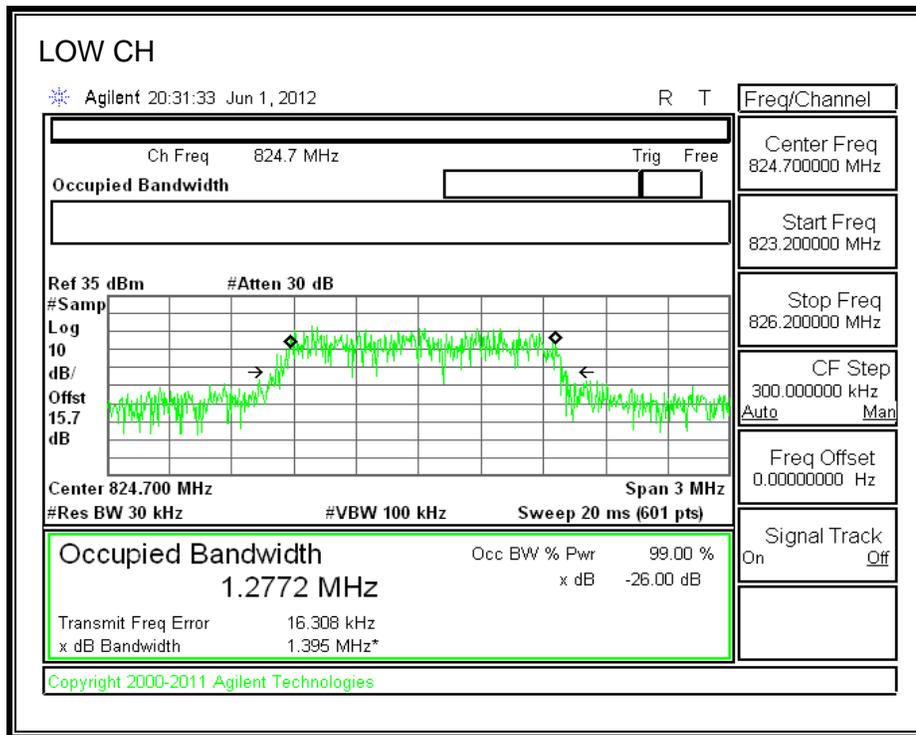
99% and 26dB Bandwidths

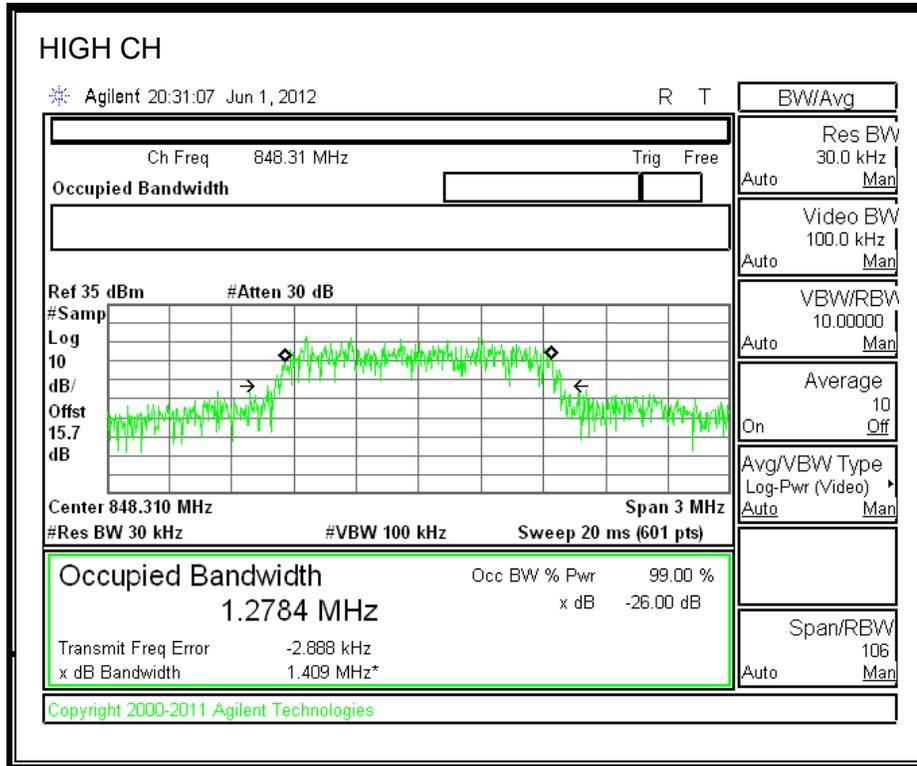
CDMA2000 1xRTT Mode (Cellular Band)



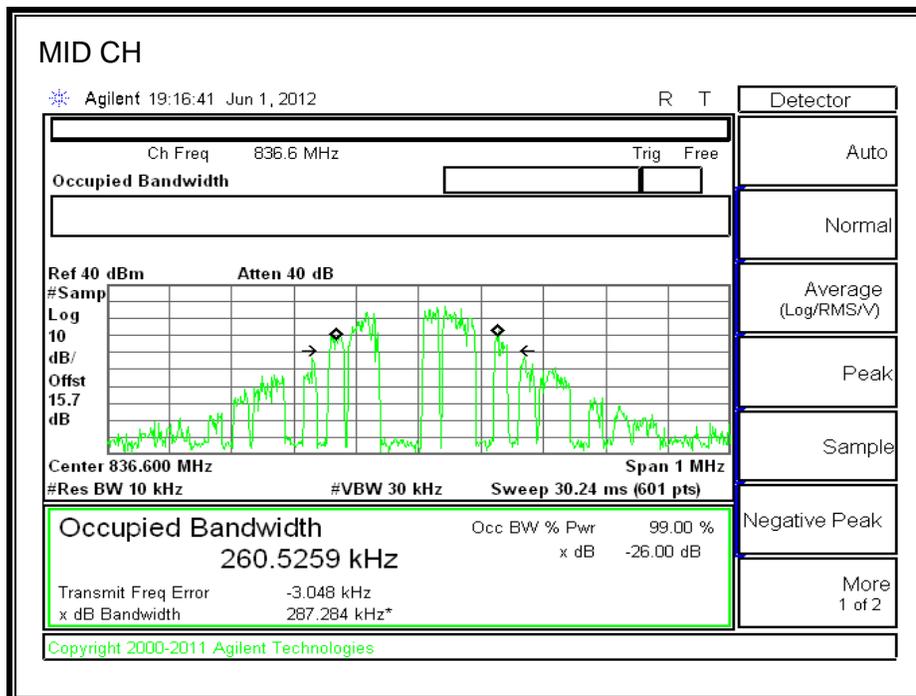
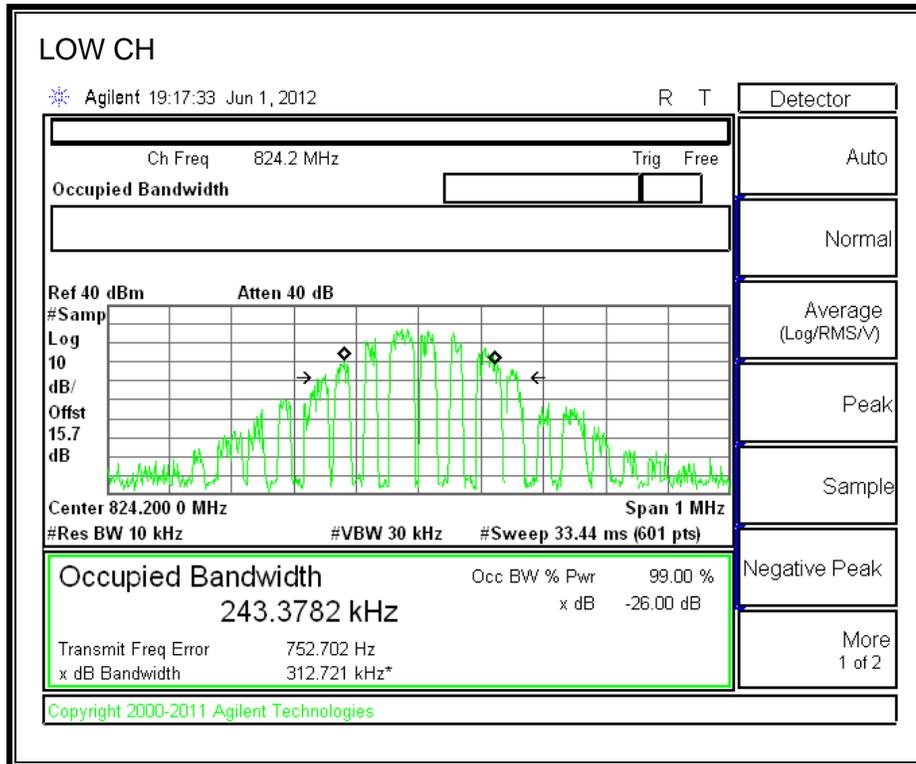


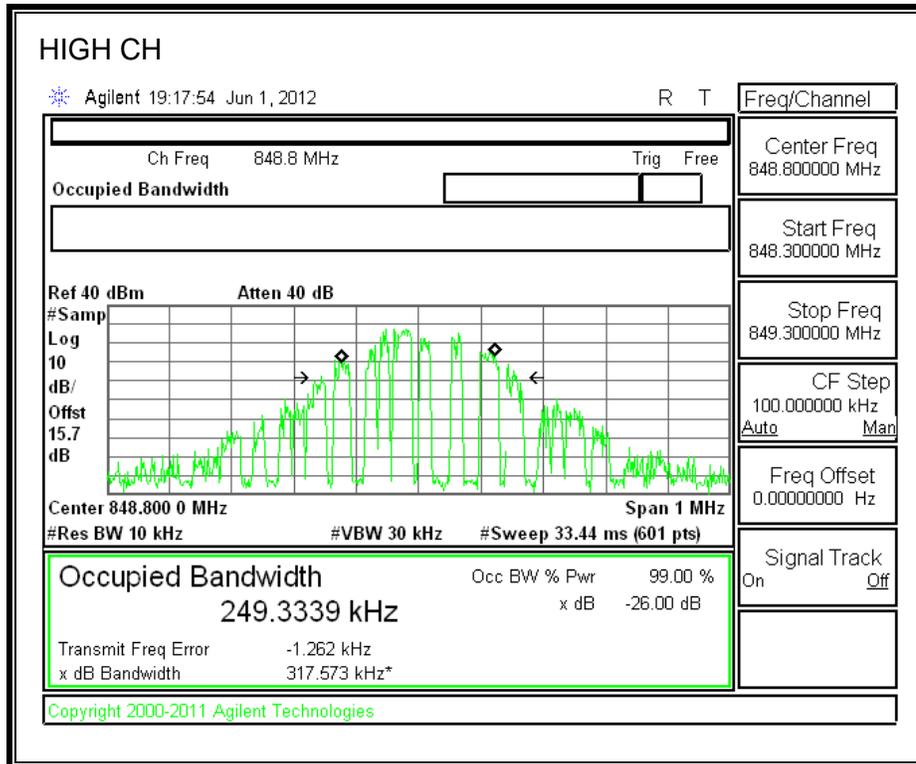
CDMA2000 1xEV-DO Rev. A, Cellular Band



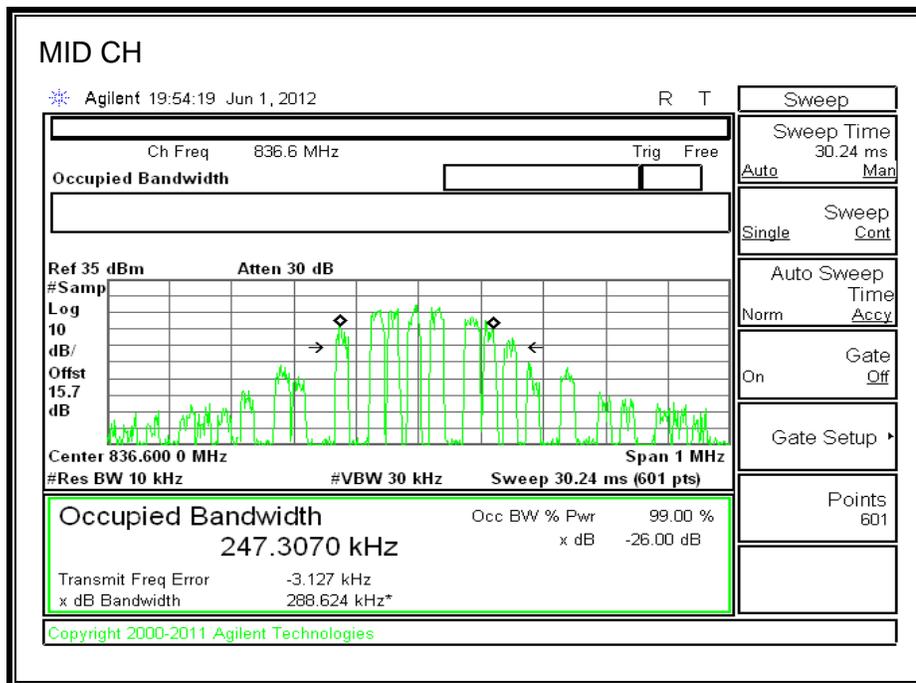
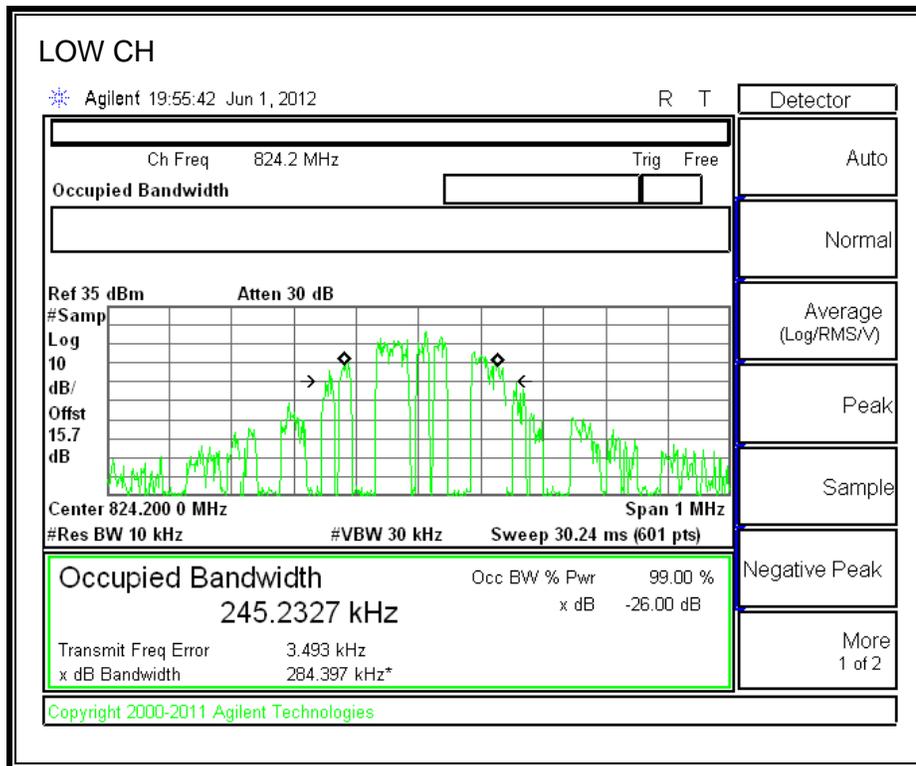


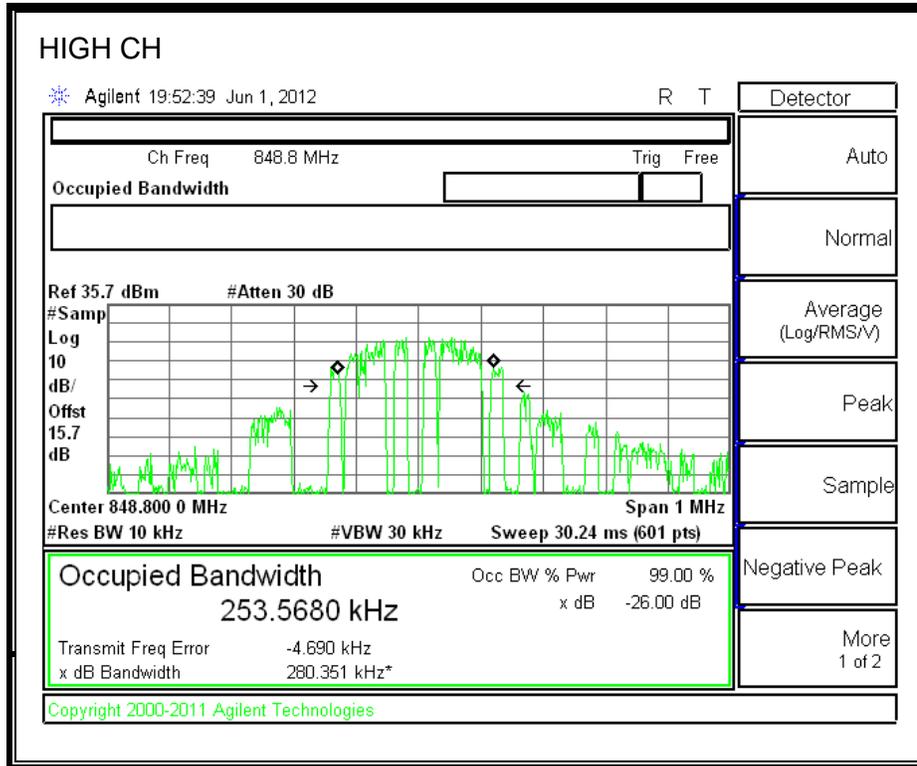
GPRS Mode (Cellular Band)



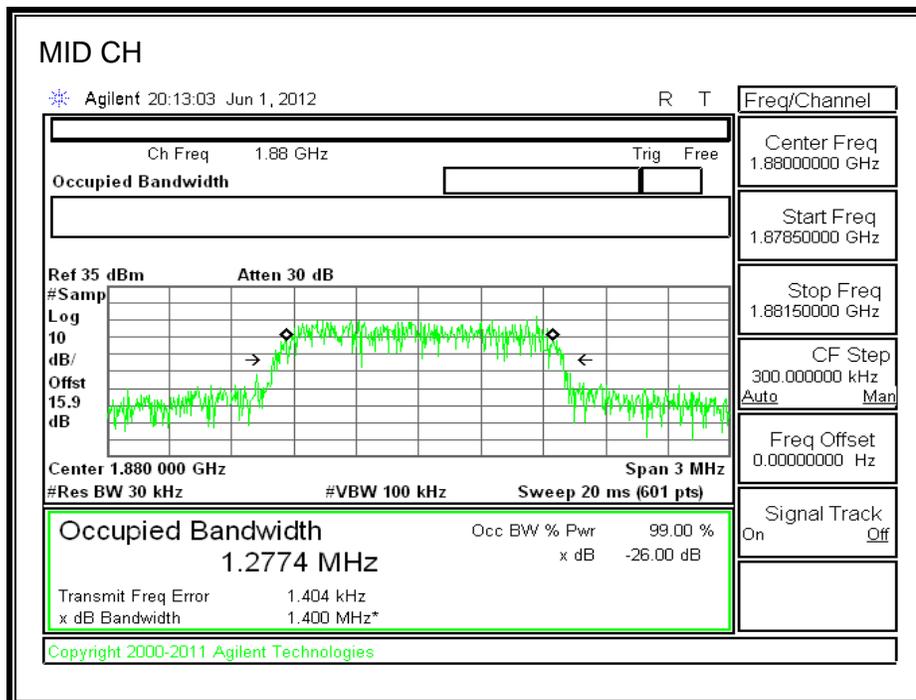
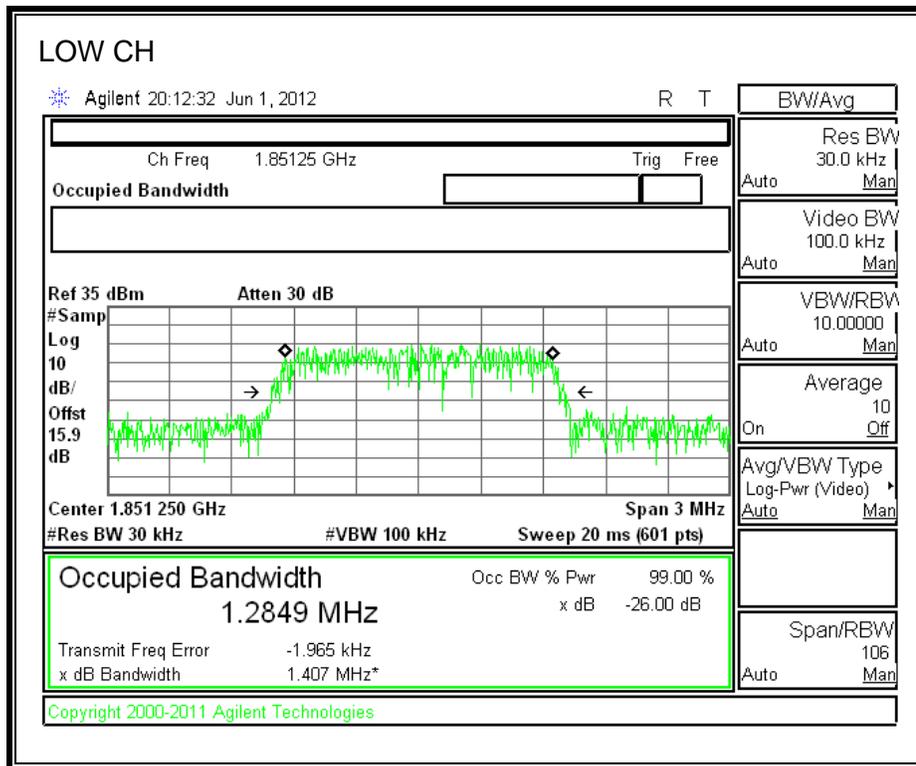


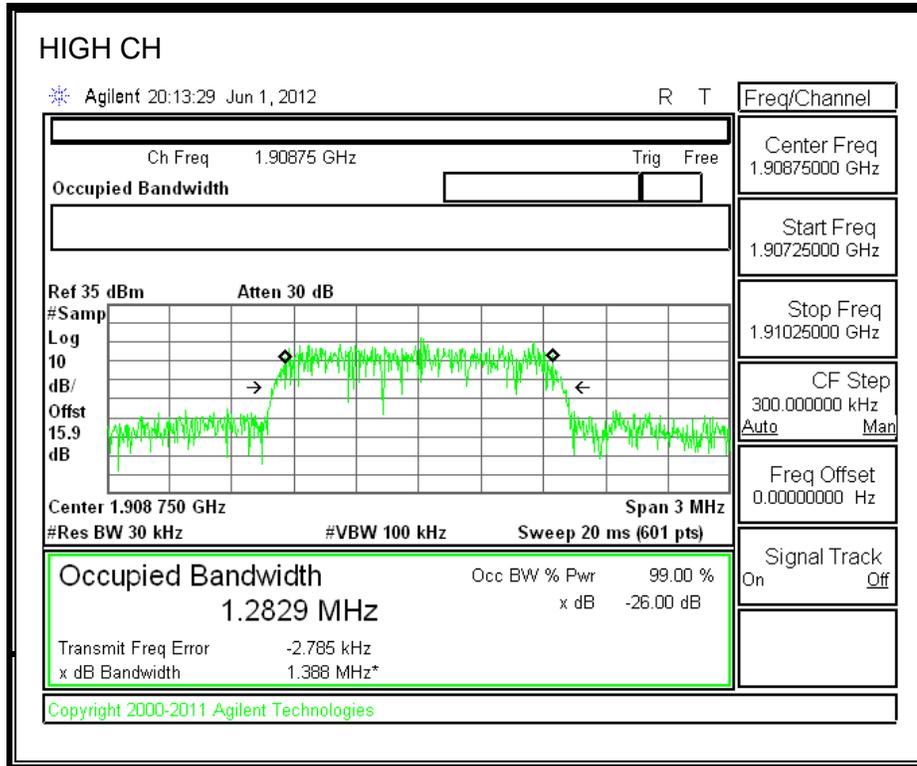
EGPRS Cellular Band



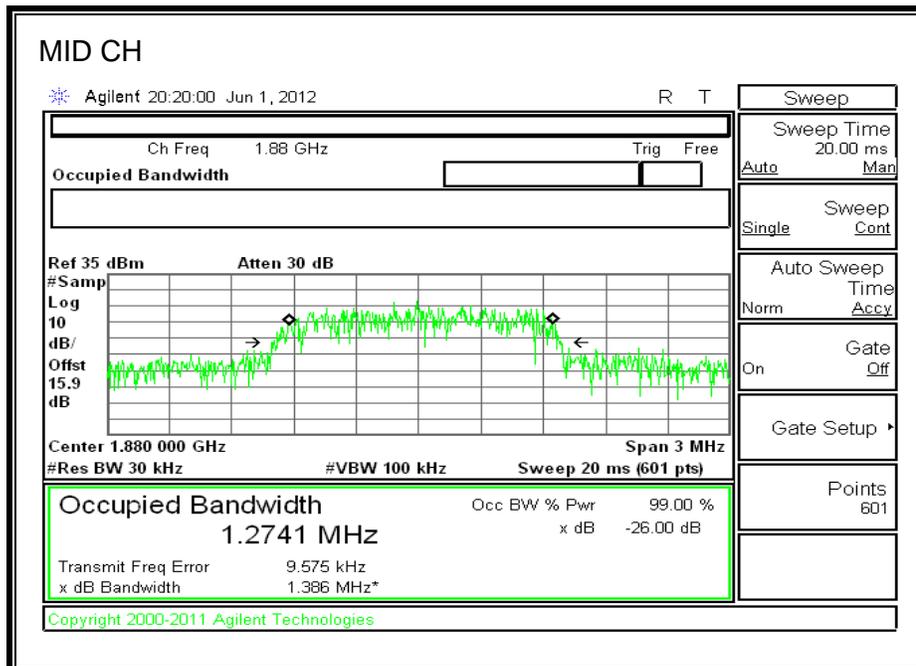
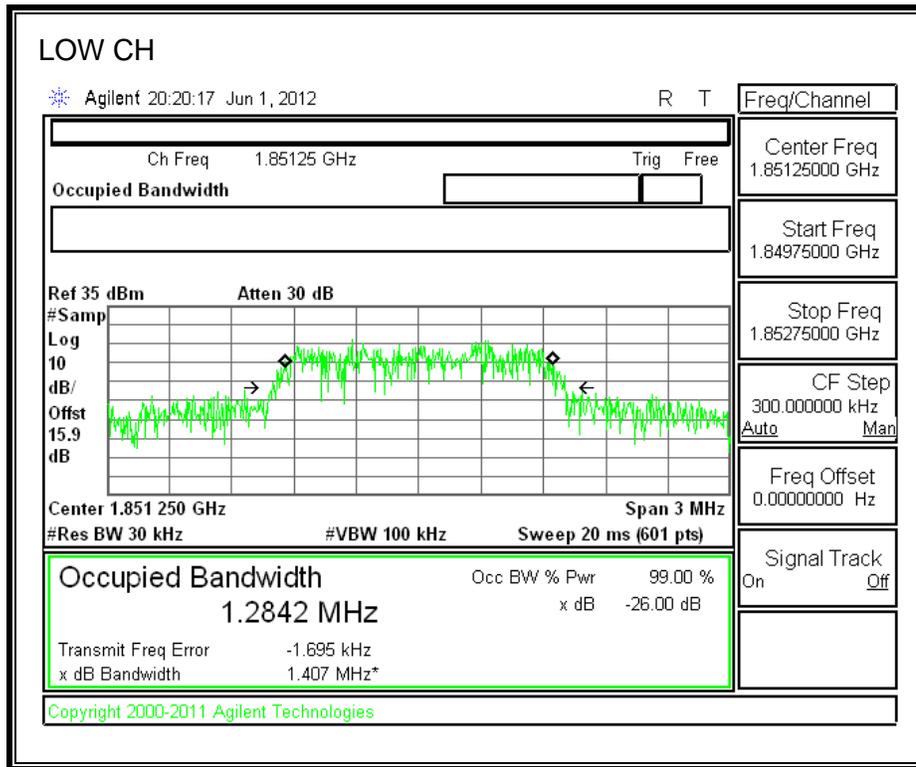


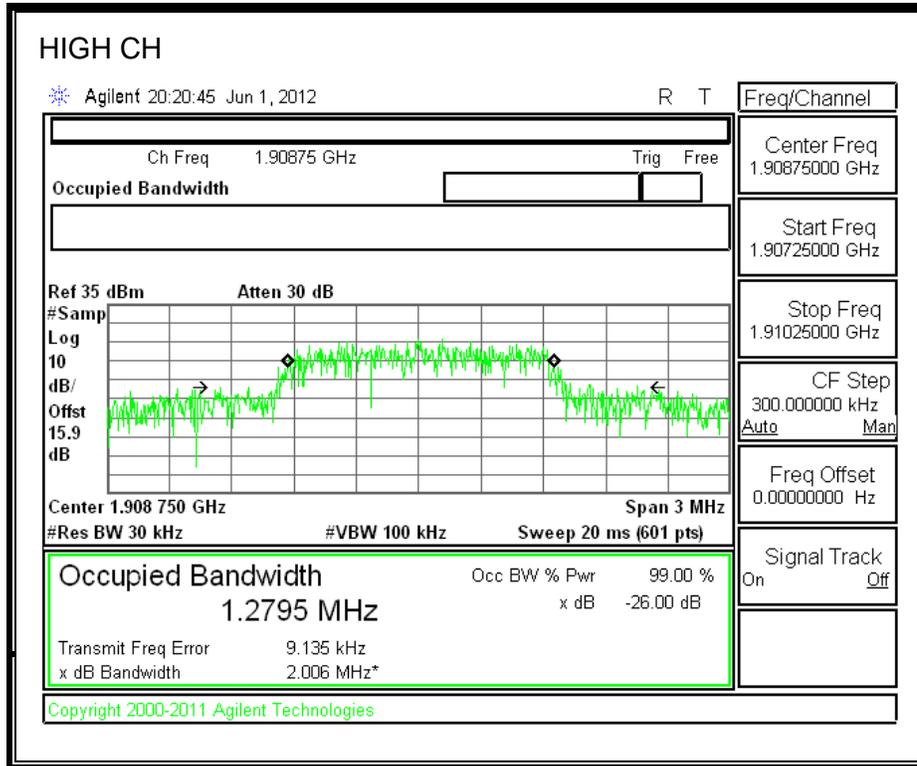
CDMA2000 1xRTT Mode (PCS Band)



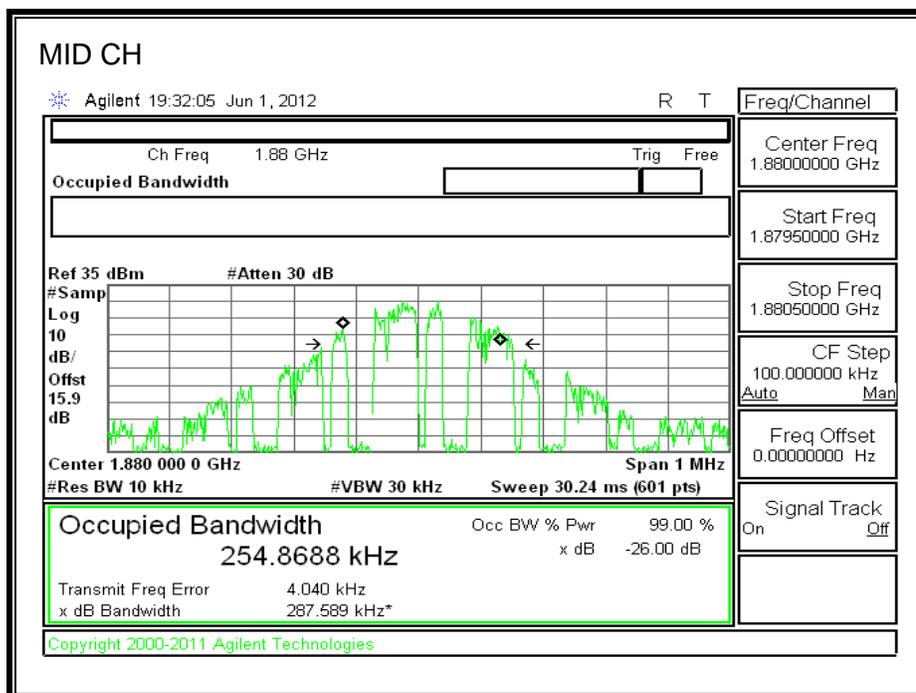
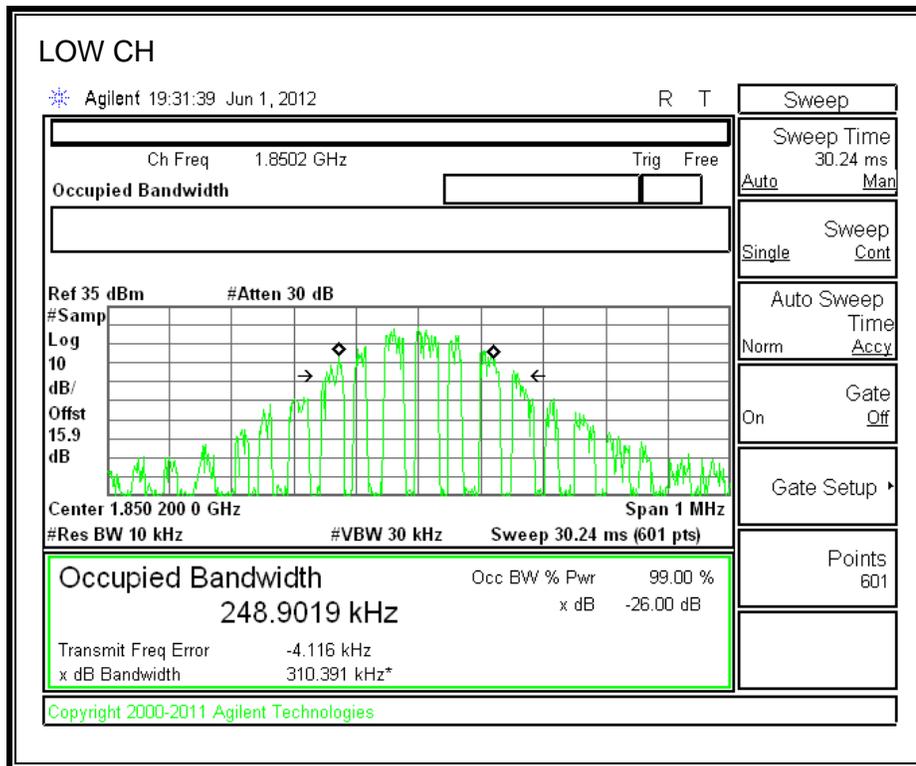


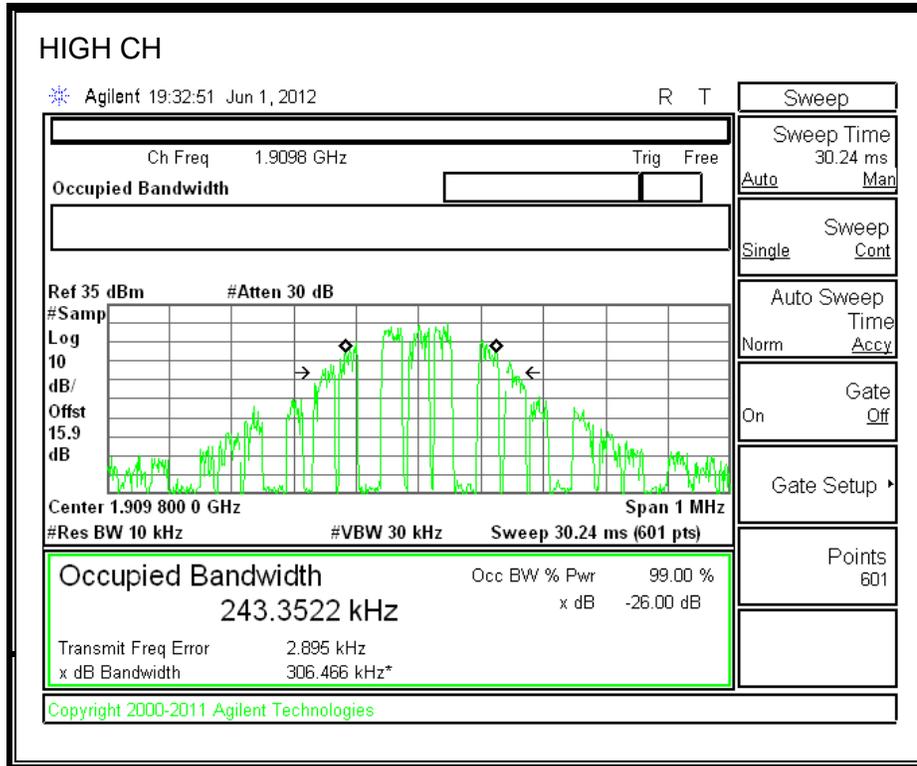
CDMA2000 1xEV-DO Rev. A Mode (PCS Band)



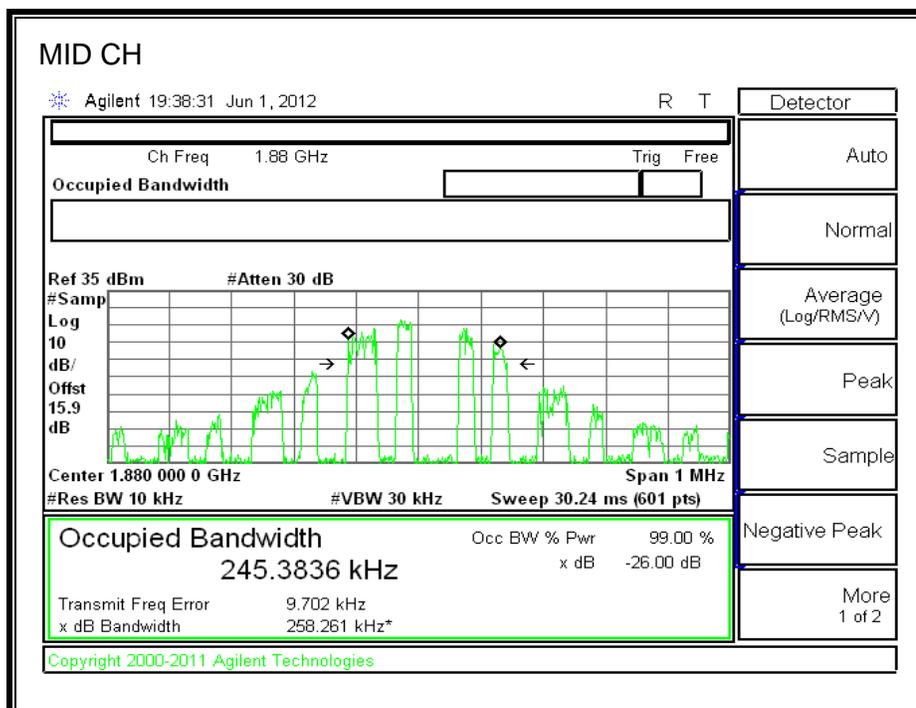
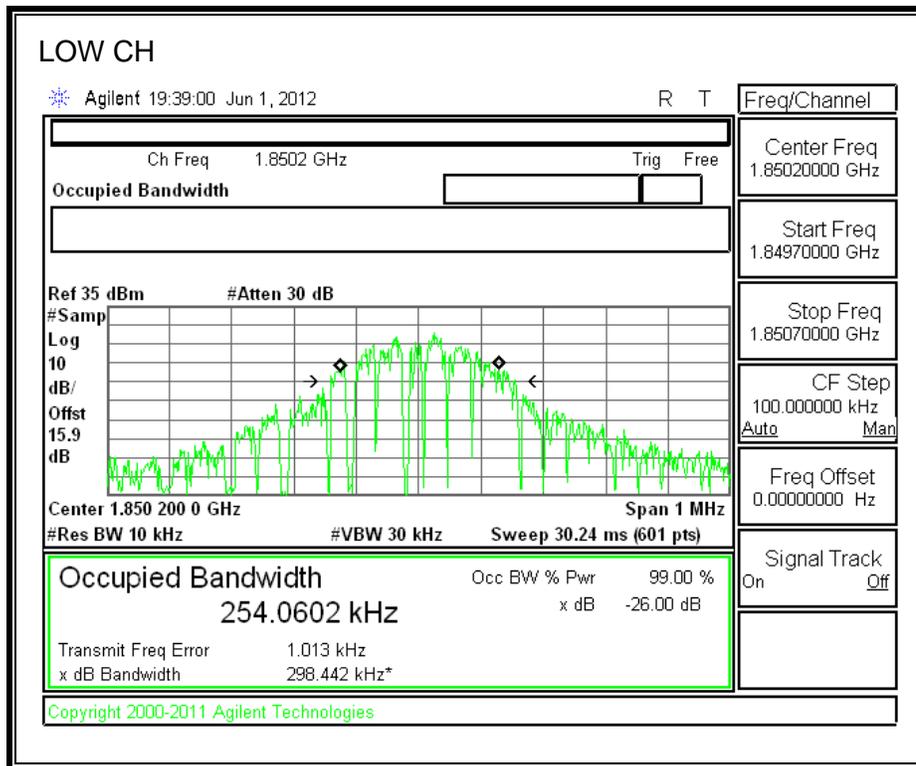


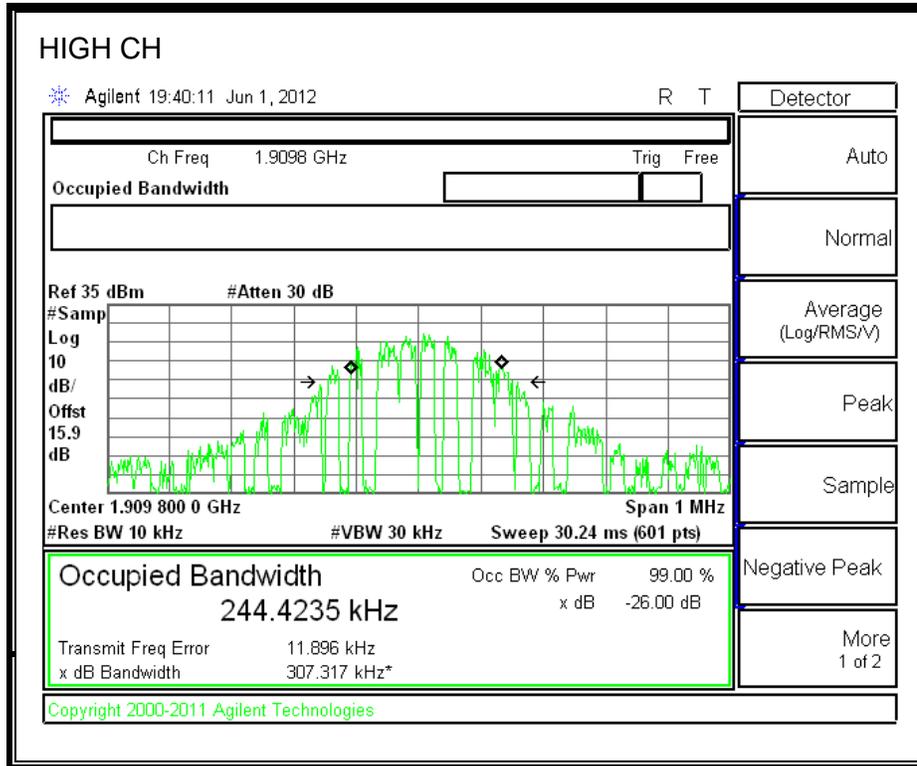
GPRS 1900 Mode (PCS Band)



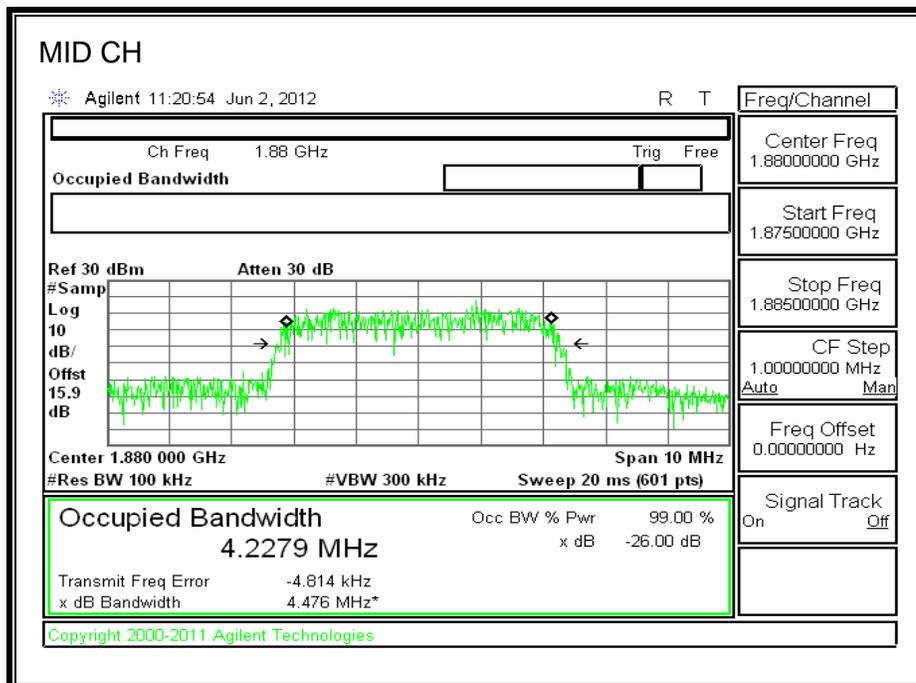
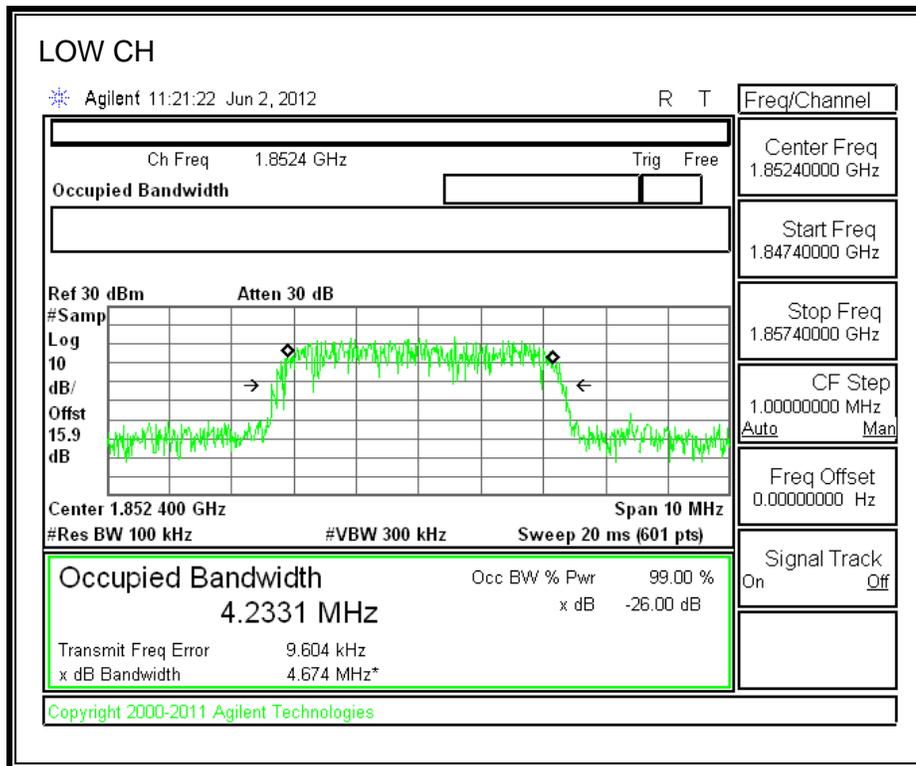


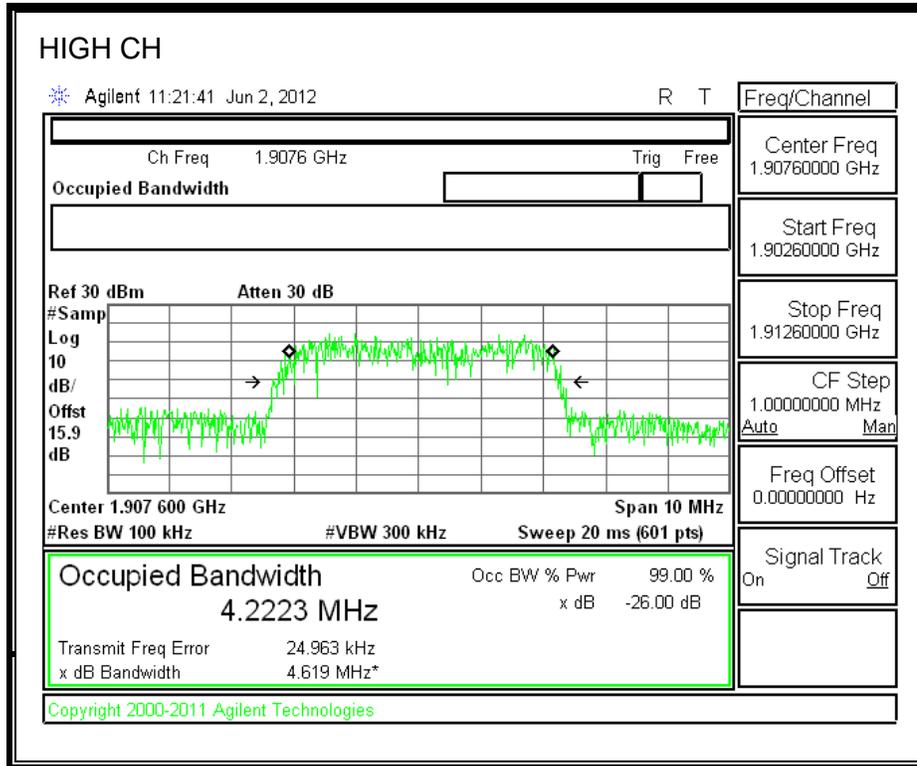
EGPRS 1900 Mode (PCS Band)



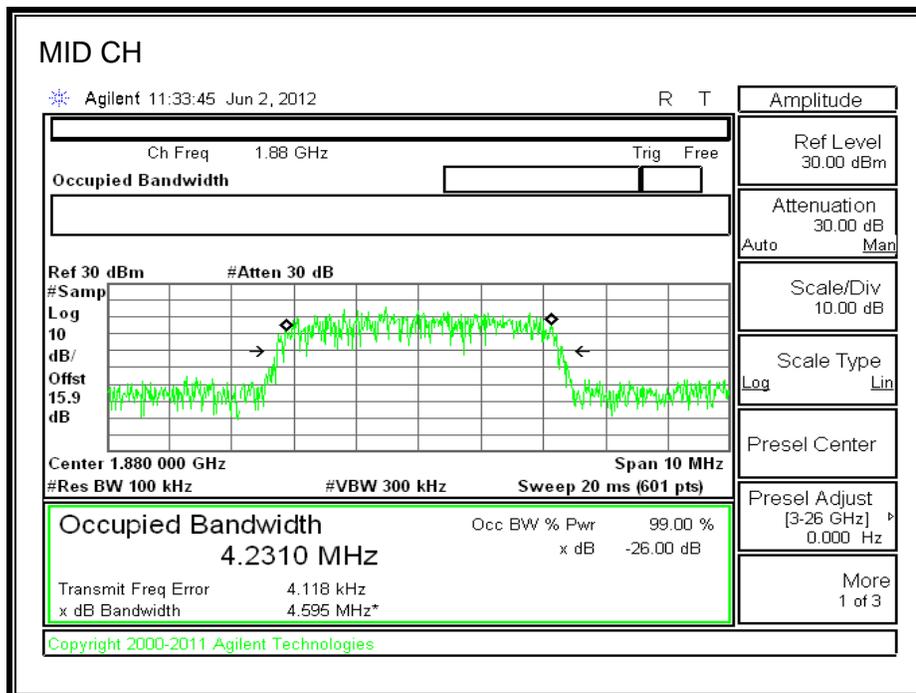
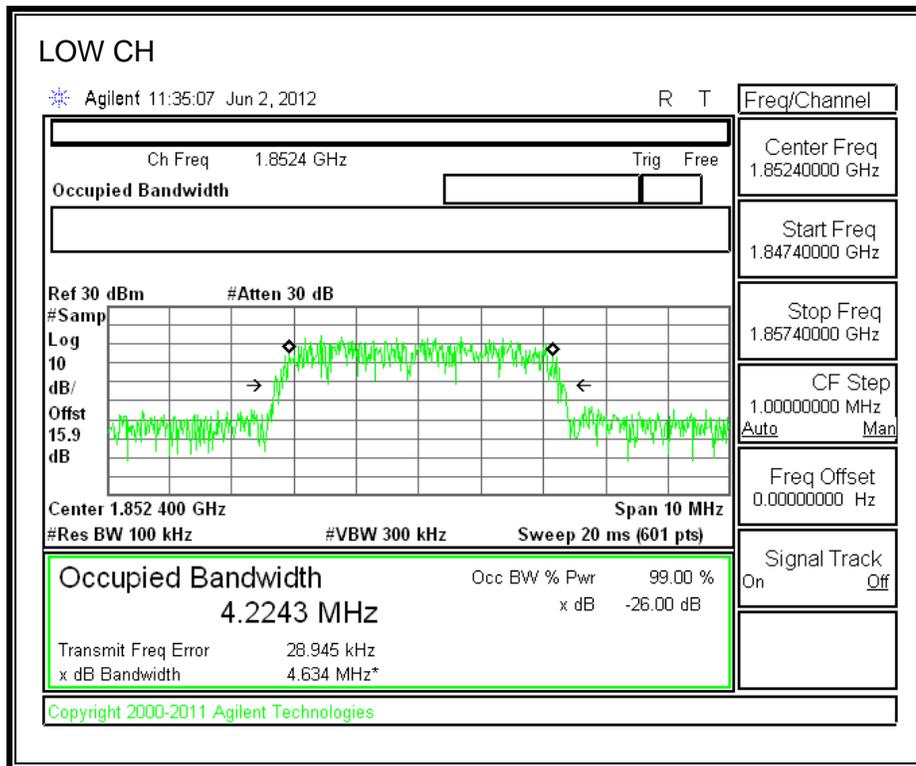


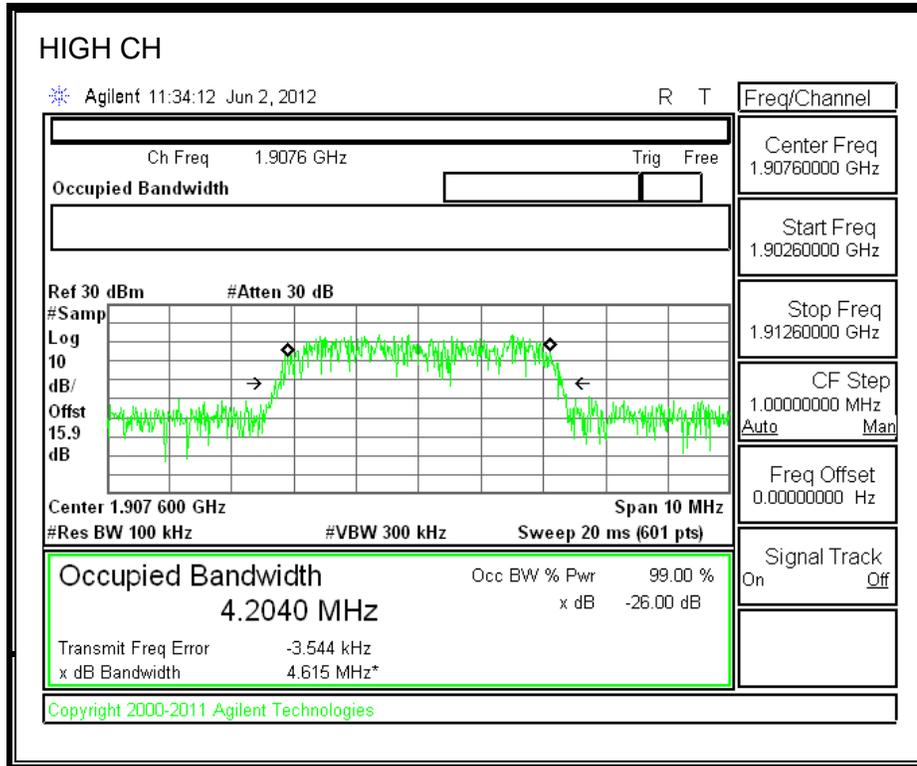
WCDMA REL 99 Mode (PCS Band)



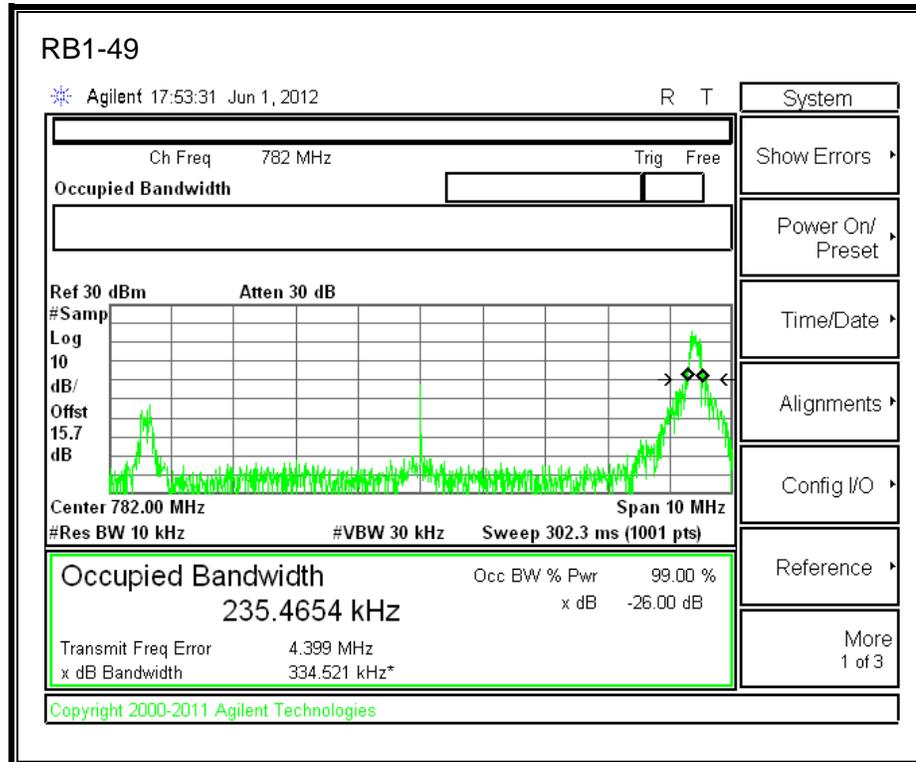
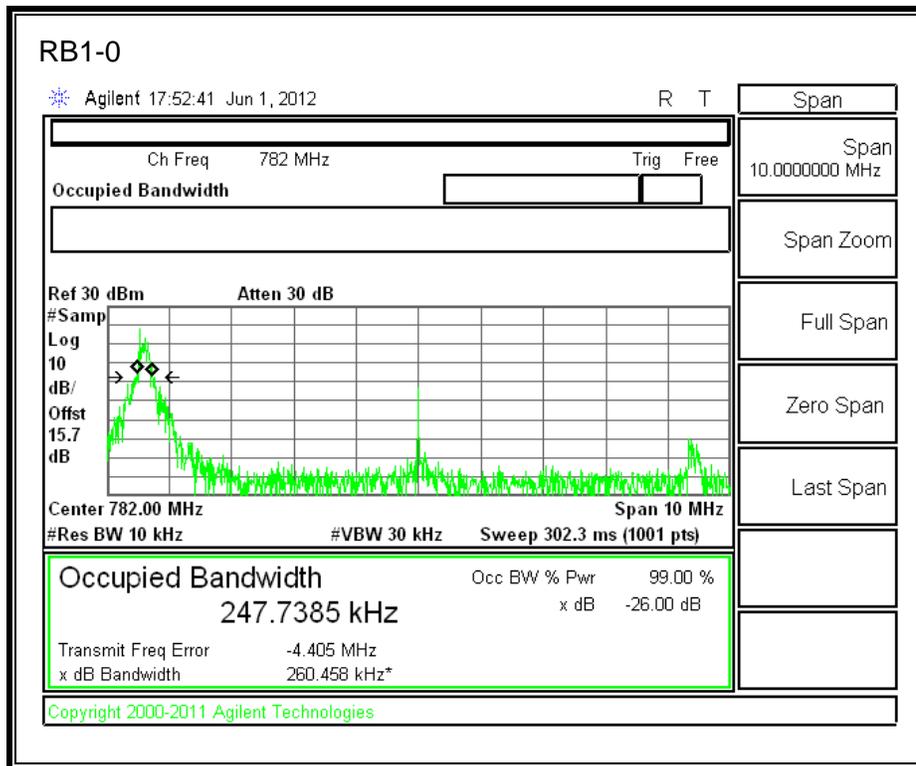


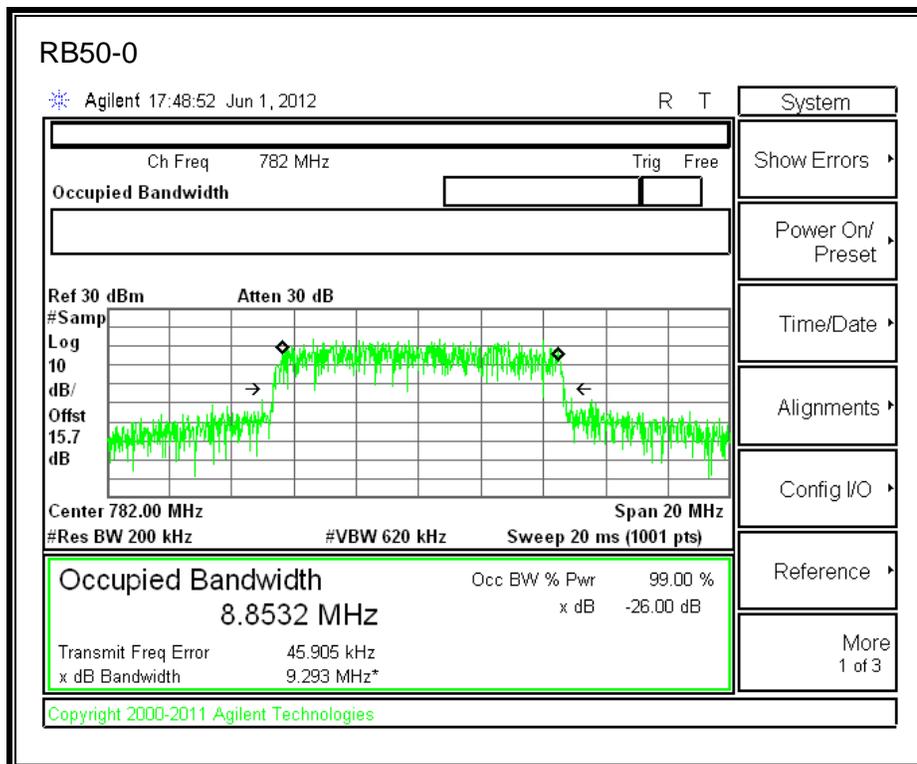
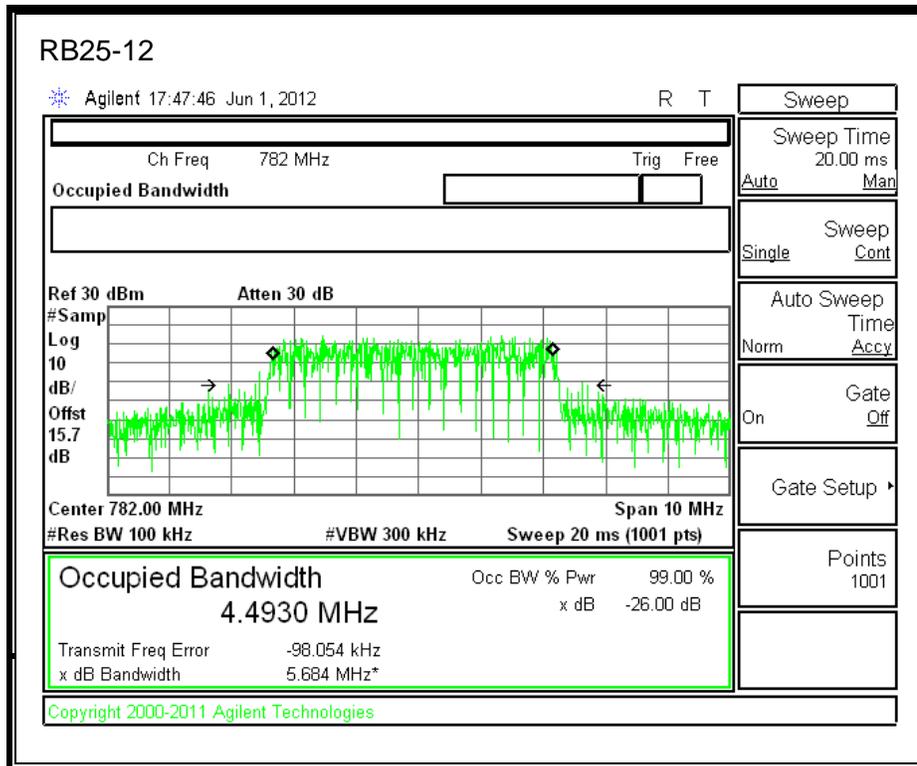
WCDMA HSDPA Mode (PCS Band)



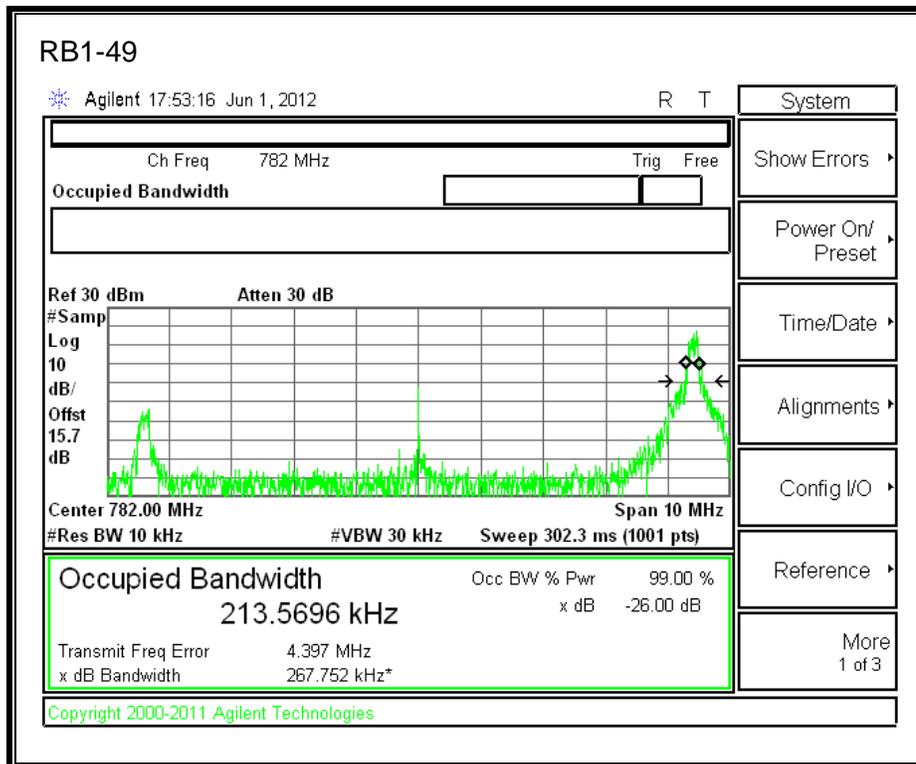
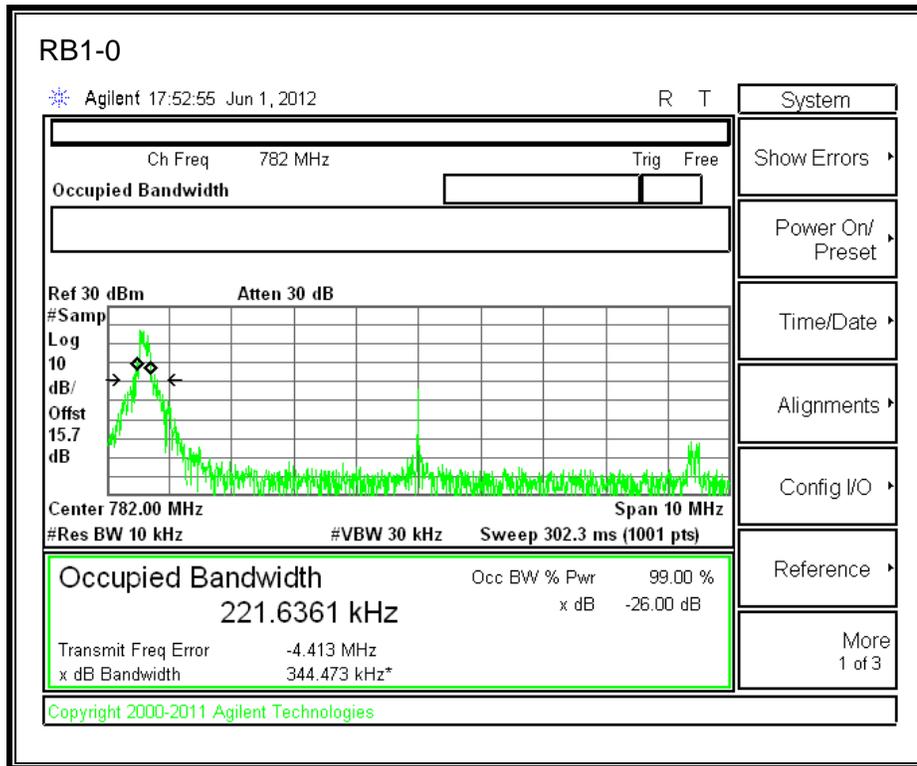


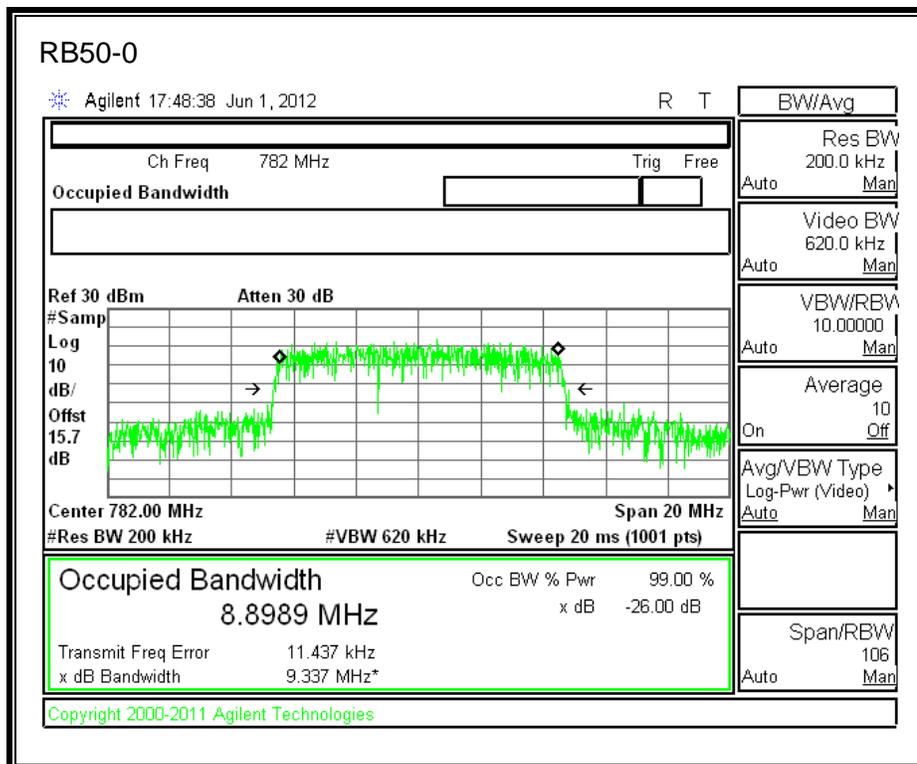
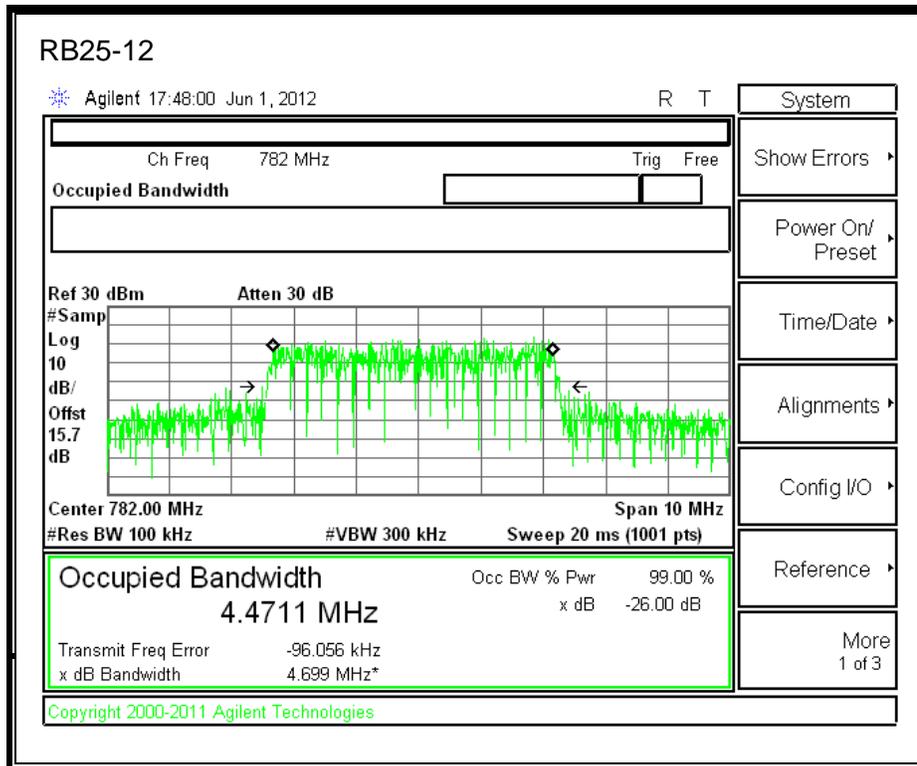
LTE QPSK Band 13





LTE 16QAM Band 13





8.2. BAND EDGE

RULE PART(S)

FCC: §22.359, 24.238 and 27.53c

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.

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 factor = $10 * \log(100/6.25\text{kHz}) = 12.04\text{dB}$, therefore the limit = $-55 + 12 = -33\text{dBm}$.

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:

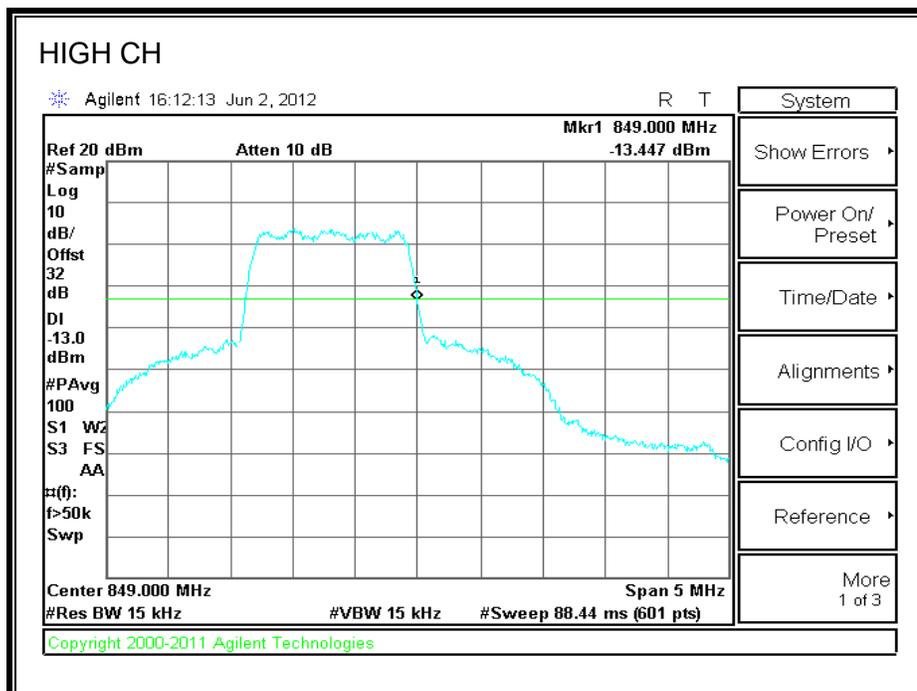
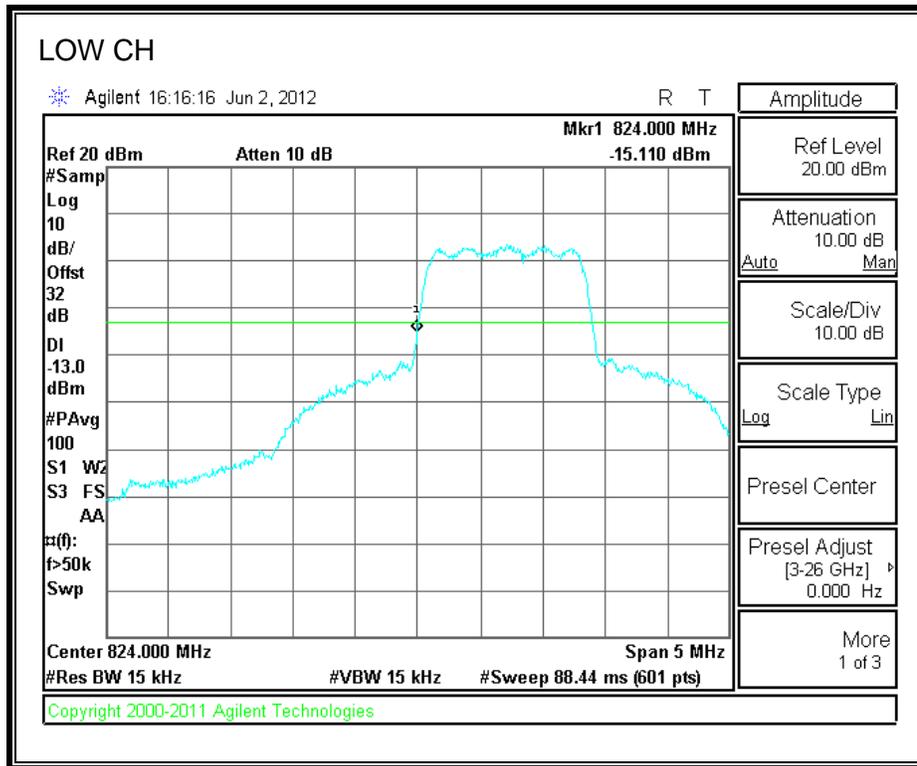
- Set the spectrum analyzer span to include the block edge frequency (824, 848, 1850, 1910MHz)
- Set a marker to point the corresponding band edge frequency in each test case.
- Set display line at -13 dBm
- Set resolution bandwidth to at least 1% of emission bandwidth.

MODES TESTED

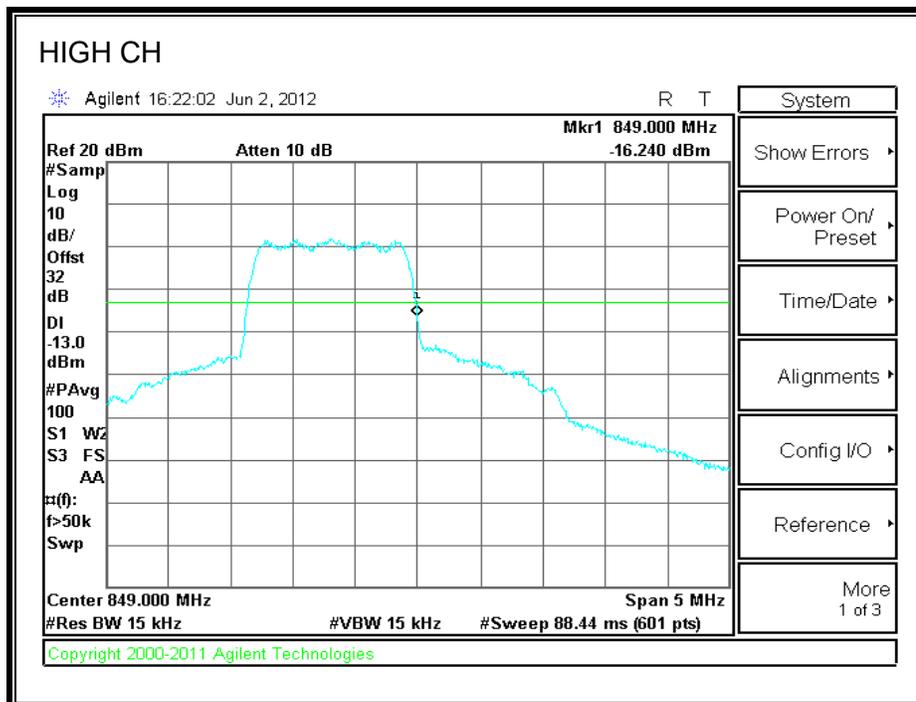
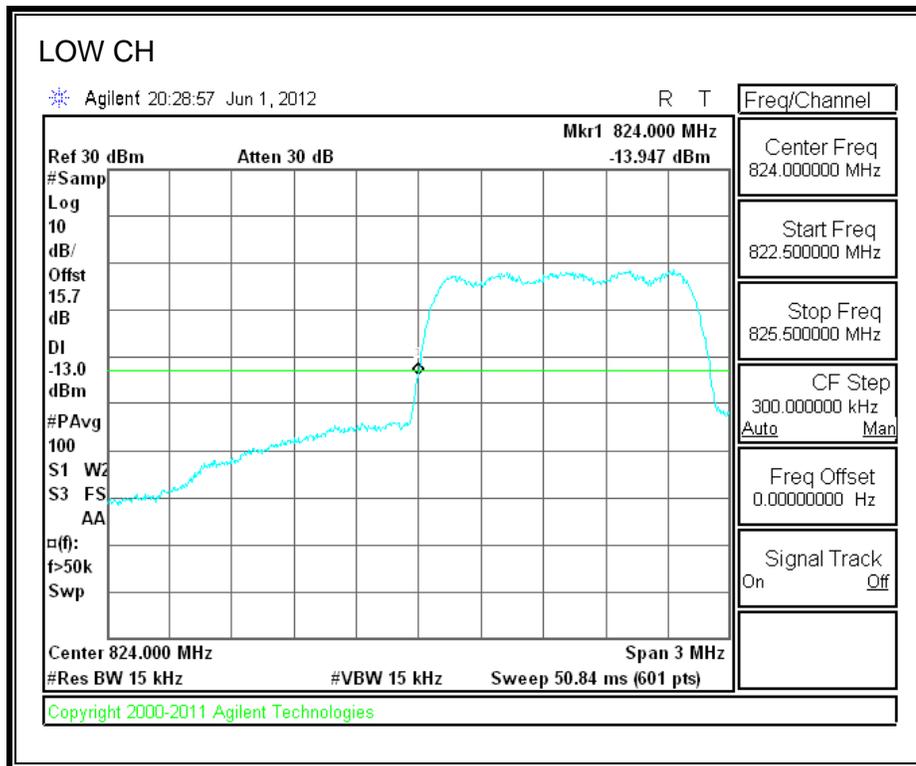
- 1xRTT – RC2, SO9
- CDMA2000 1xEV-DO (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE Band 13

RESULTS

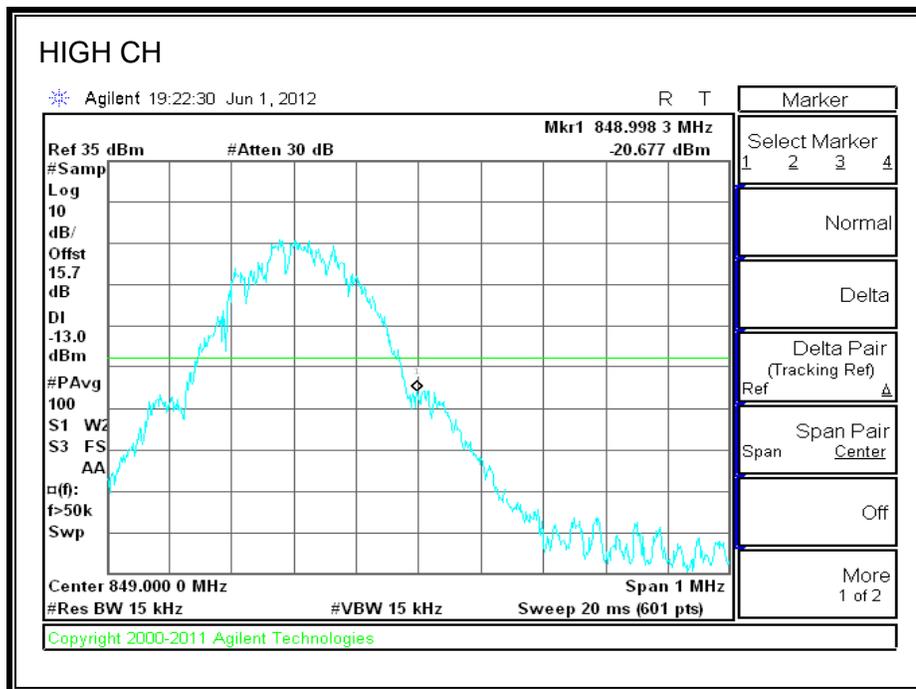
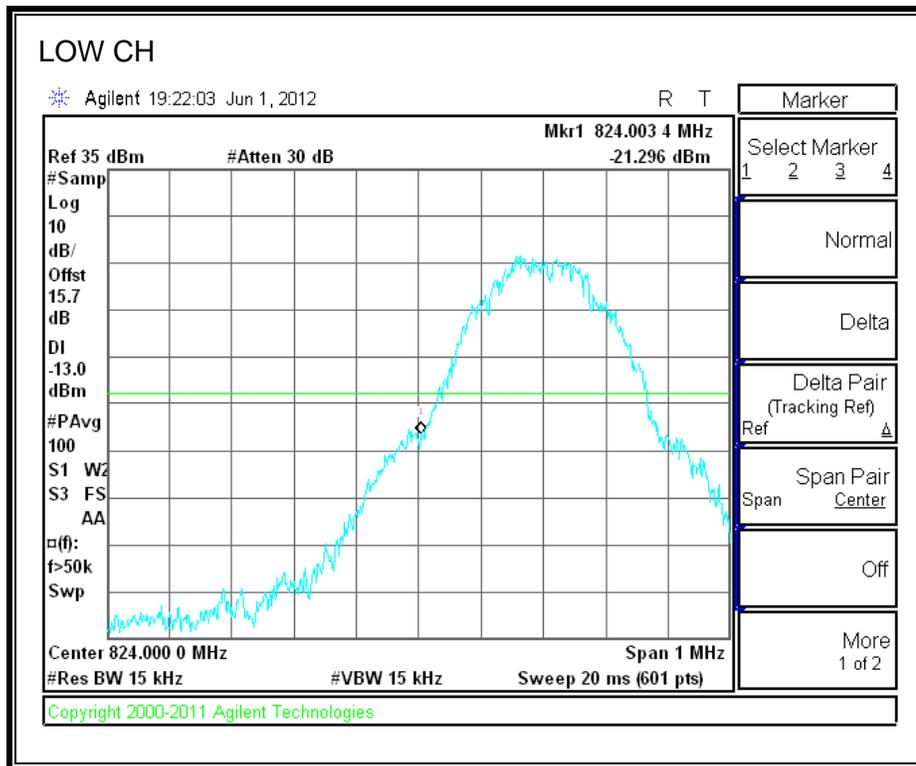
CDMA2000 1xRTT mode (Cellular Band)



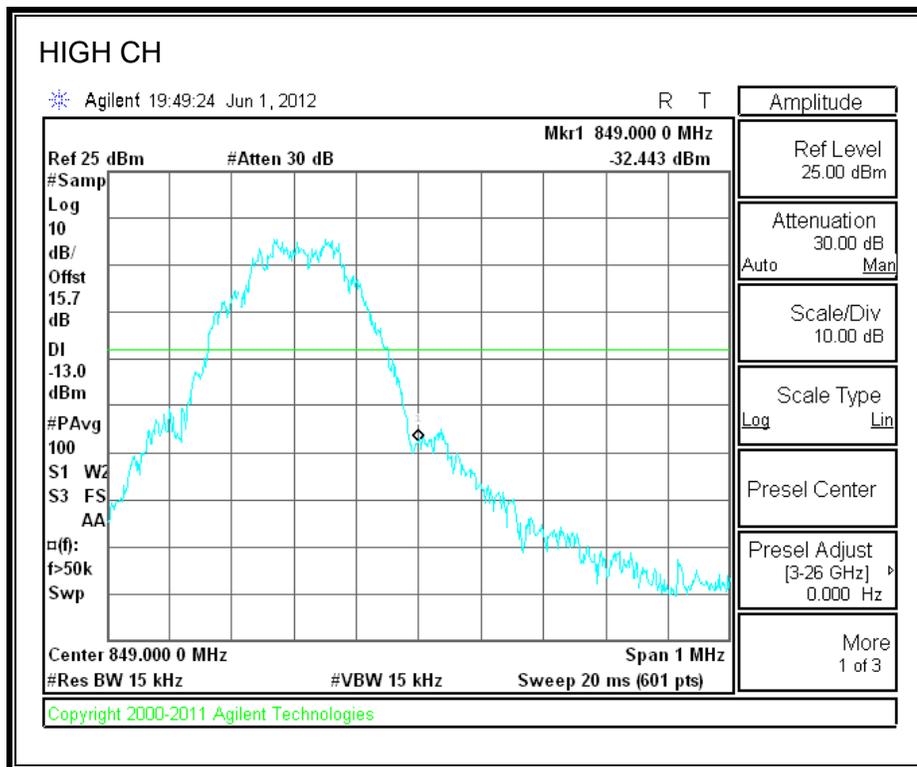
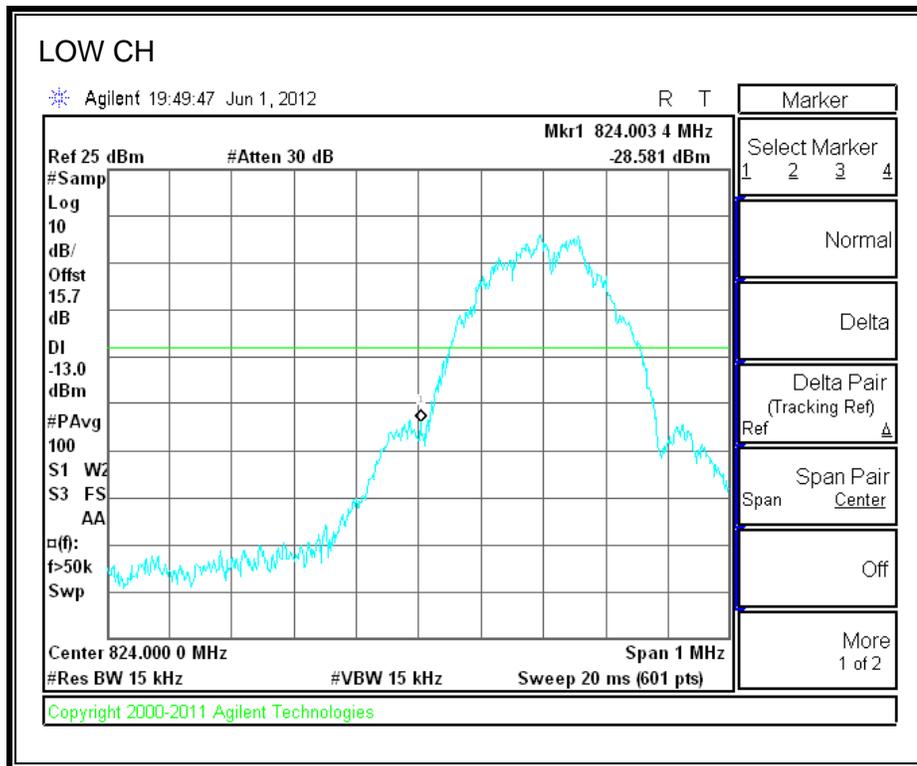
CDMA2000 1xEV-DO Revision A (Rev. A) mode (Cellular Band)



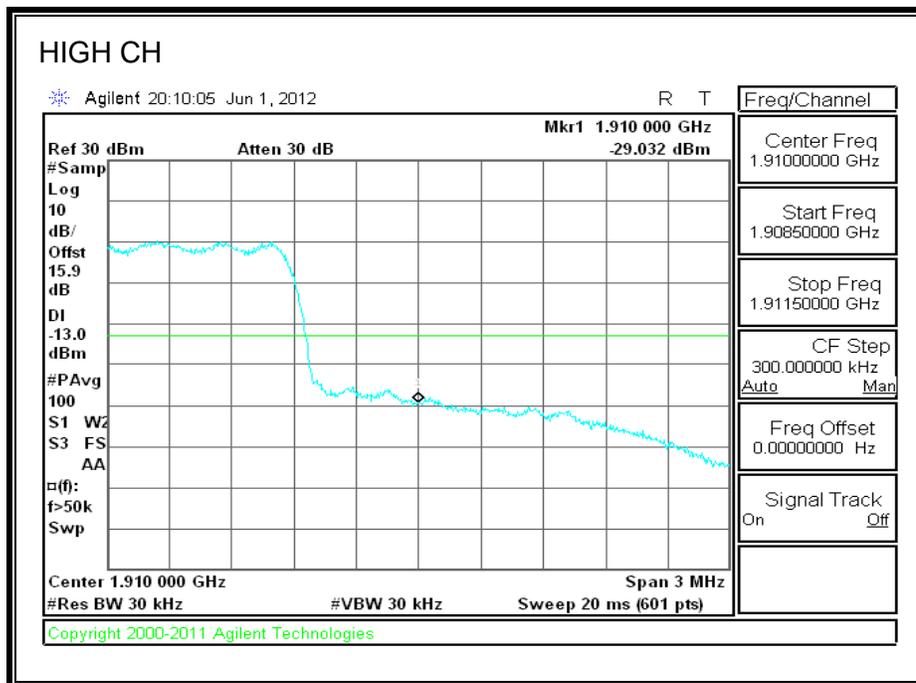
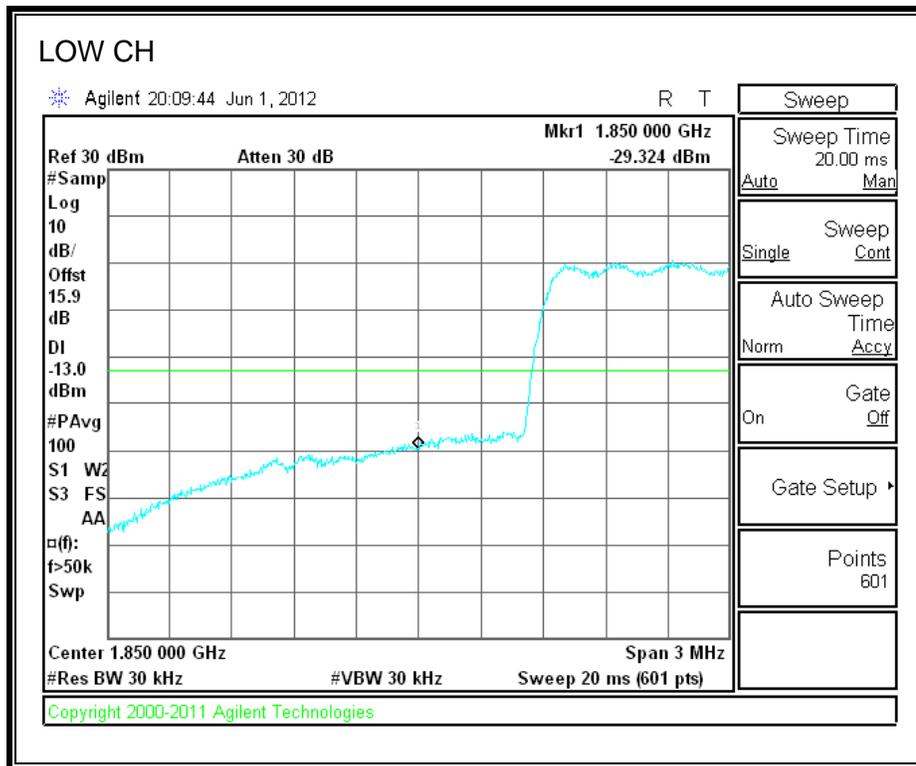
GPRS mode (Cellular Band)



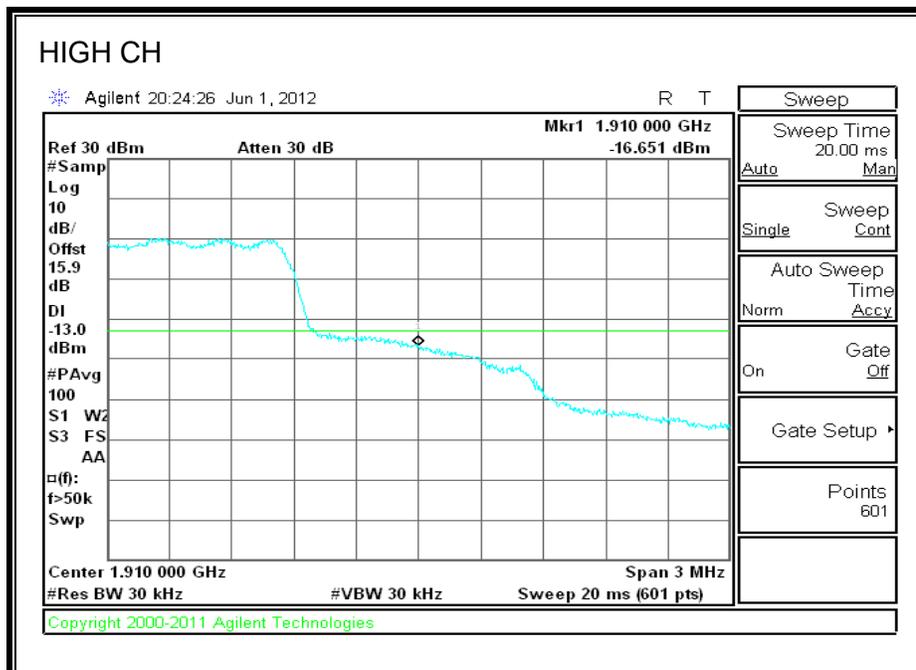
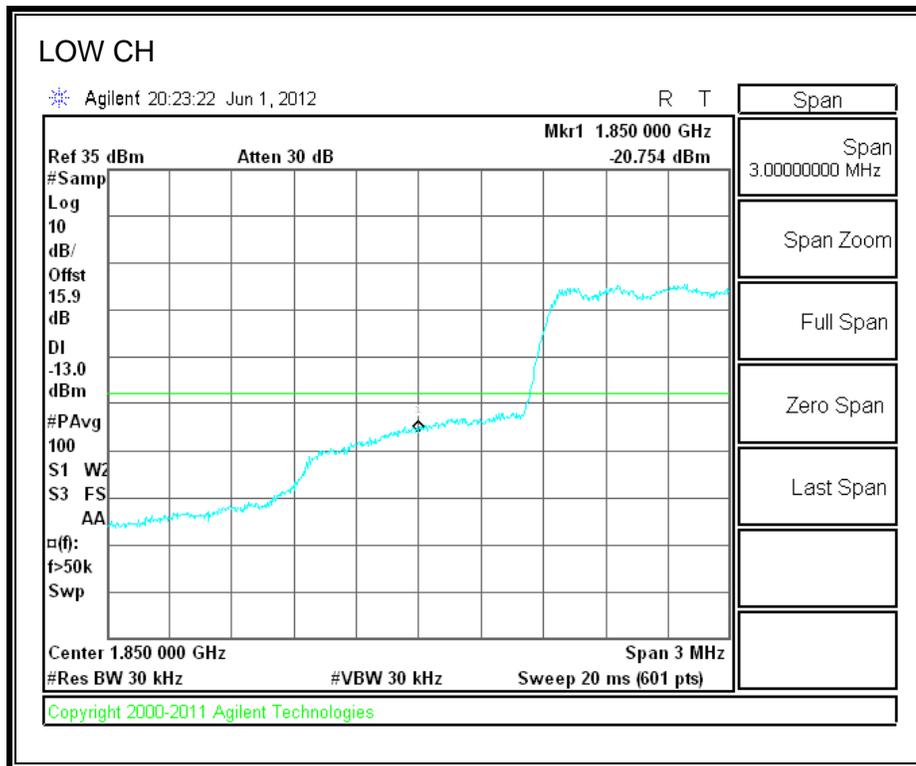
EGPRS mode (Cellular Band)



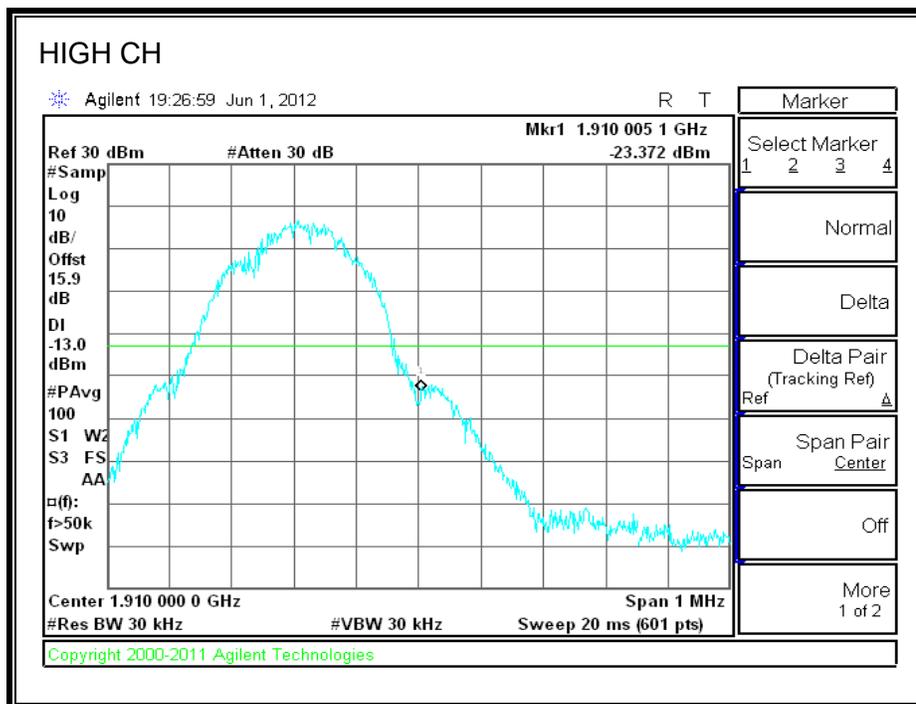
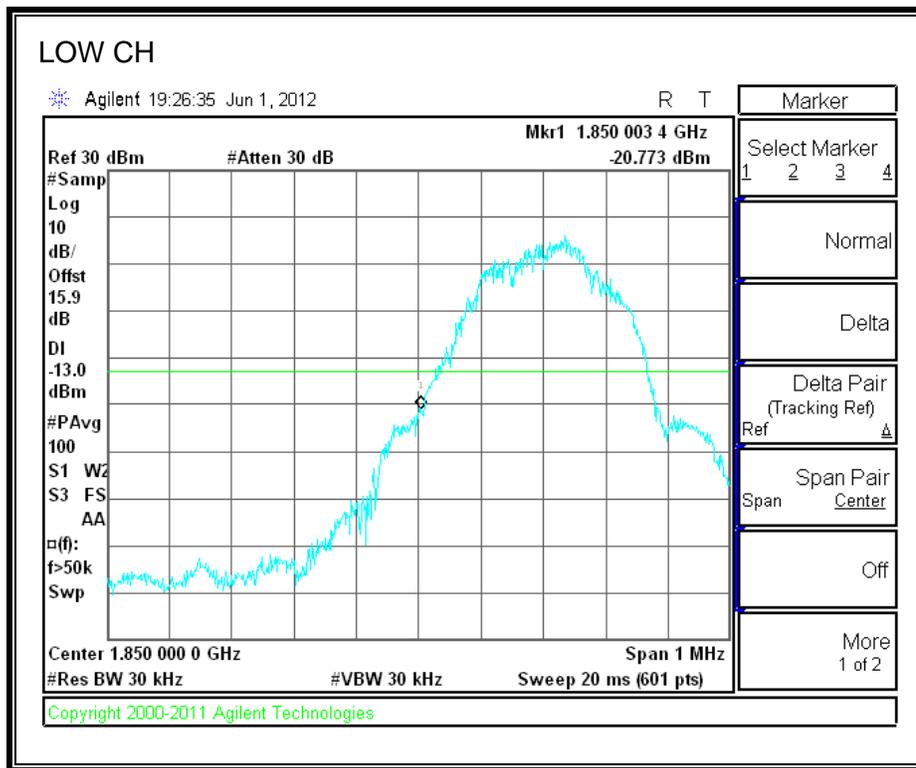
CDMA2000 1xRTT mode (PCS Band)



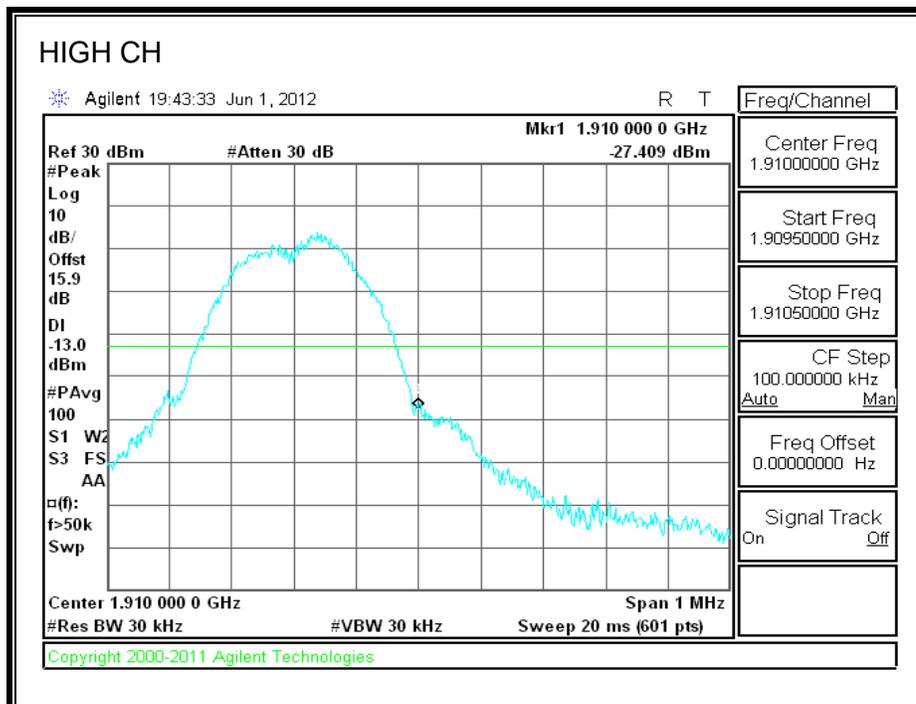
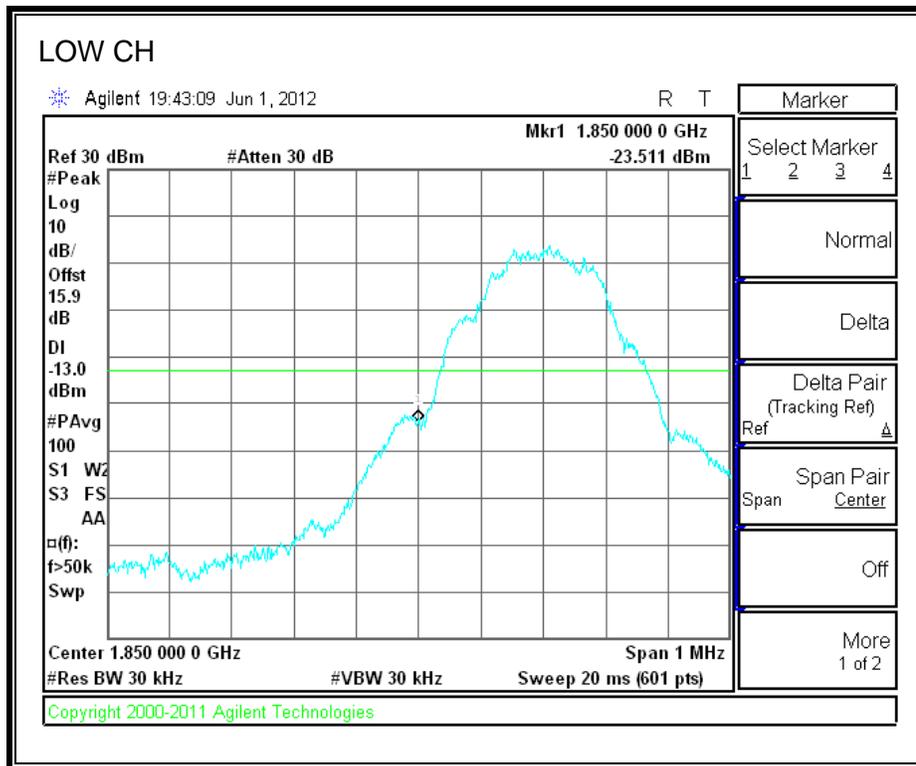
CDMA2000 1xEV-DO Revision A (Rev. A) mode (PCS Band)



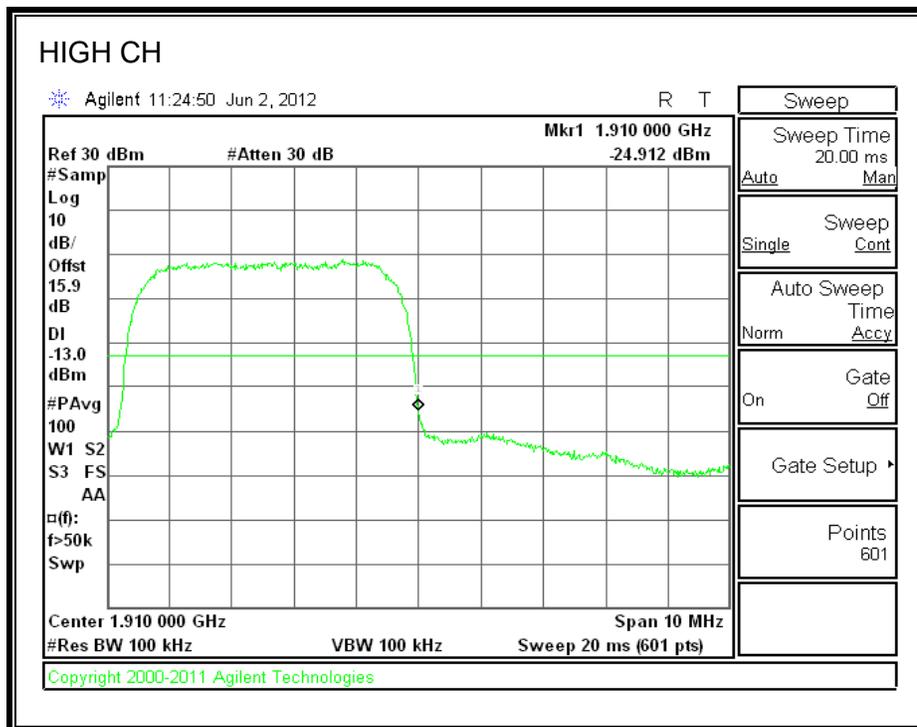
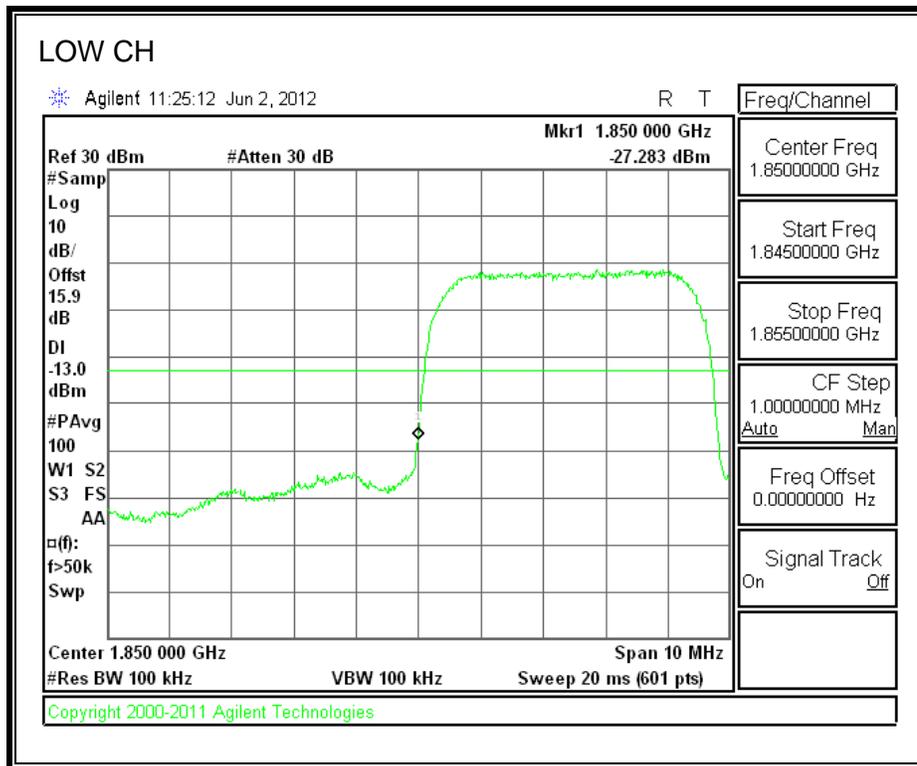
GPRS mode (PCS Band)



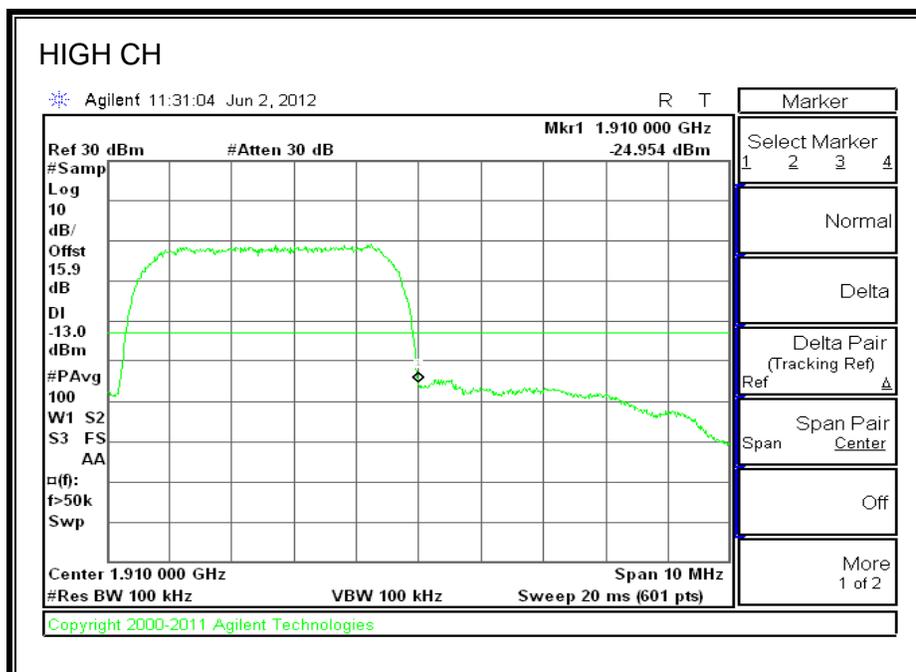
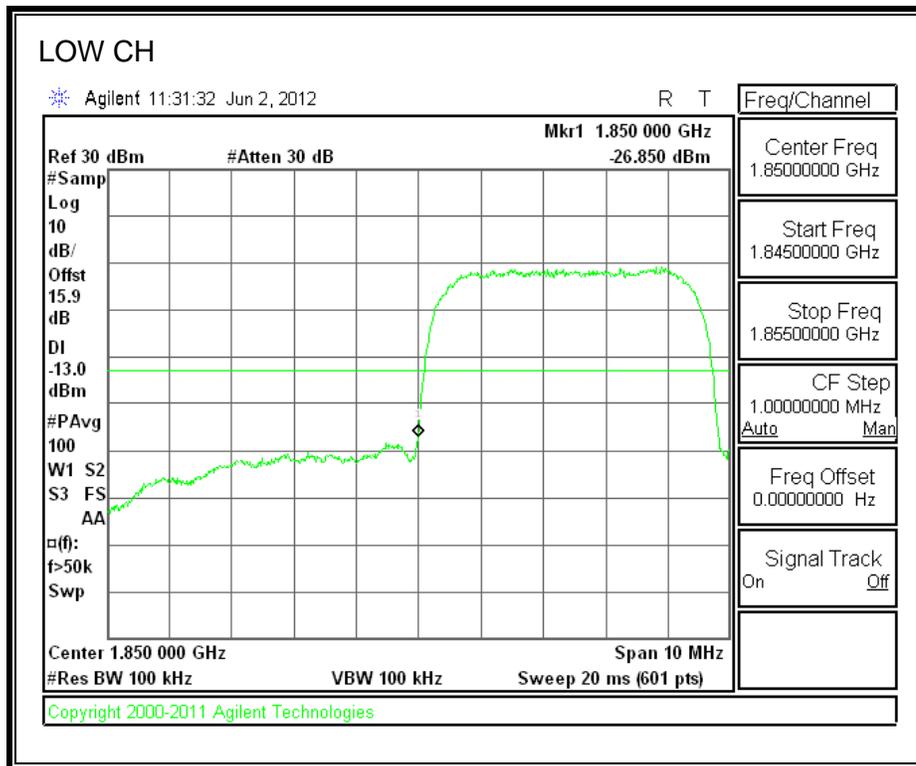
EGPRS mode (PCS Band)



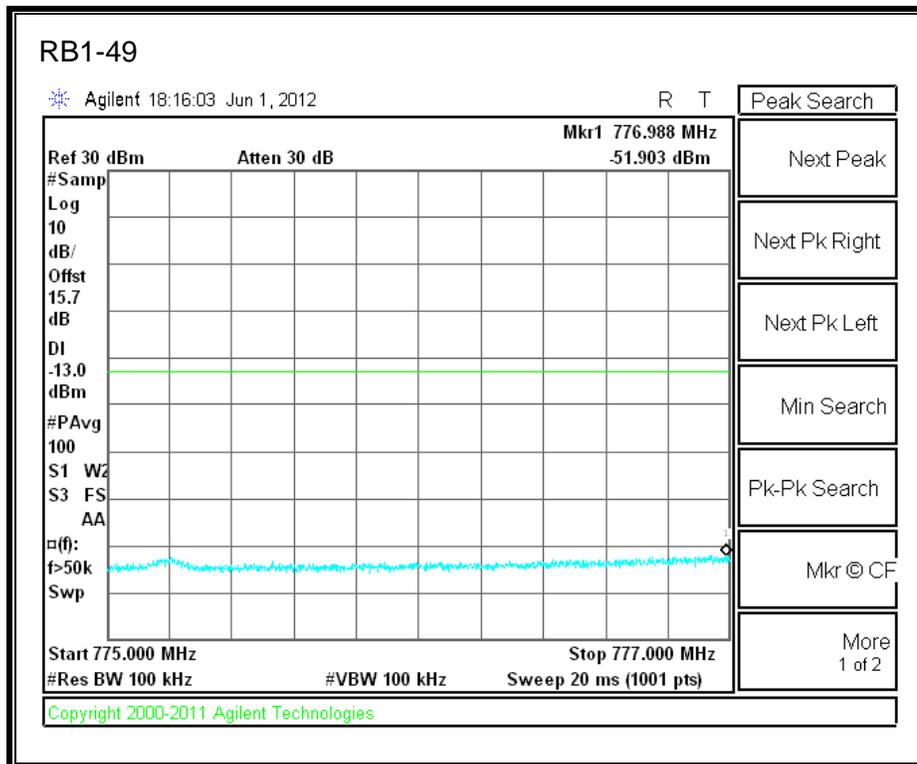
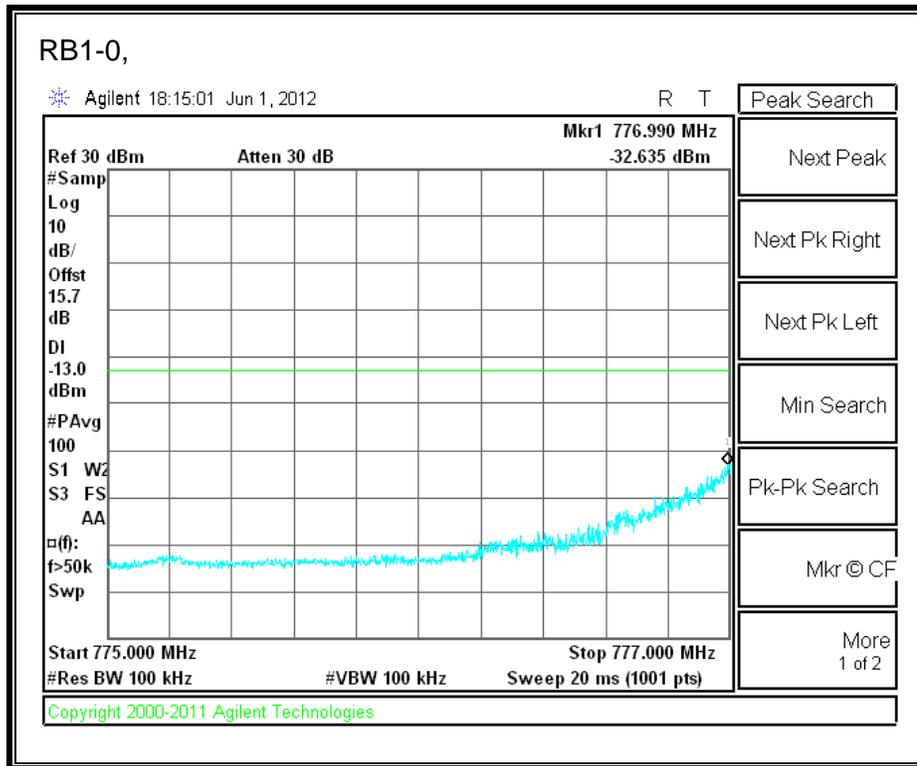
UMTS REL99 (PCS Band)

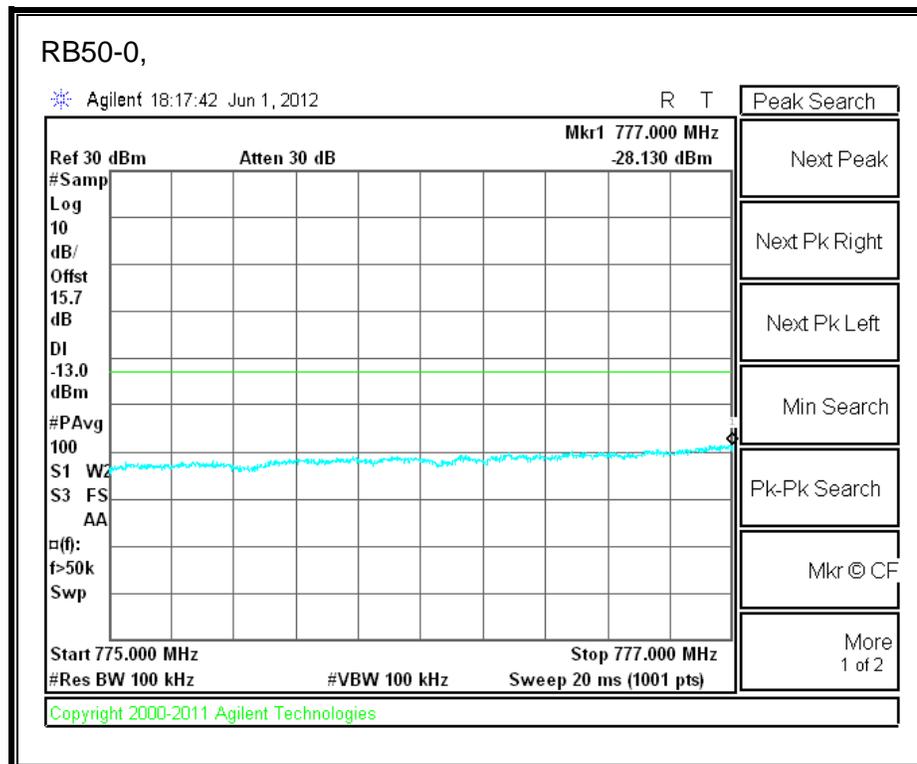
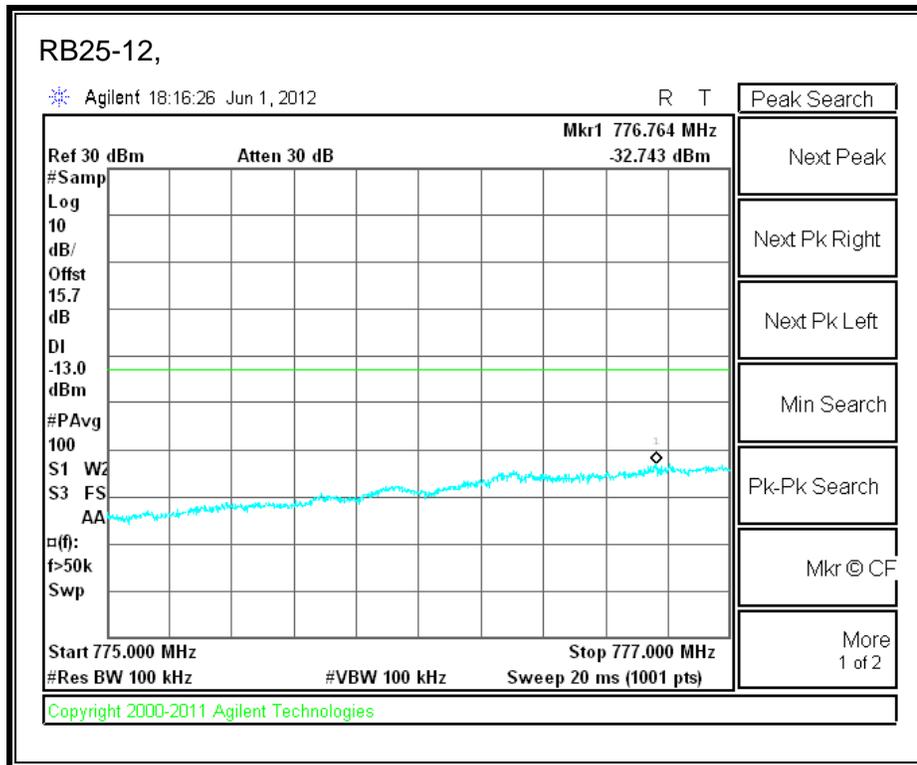


UMTS HSDPA (PCS Band)

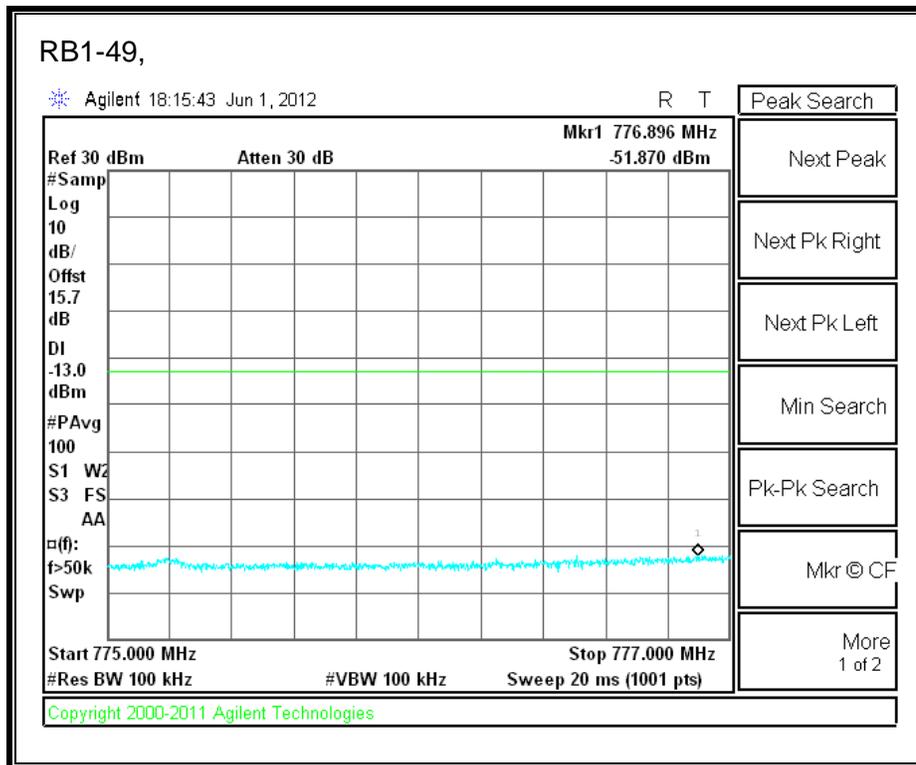
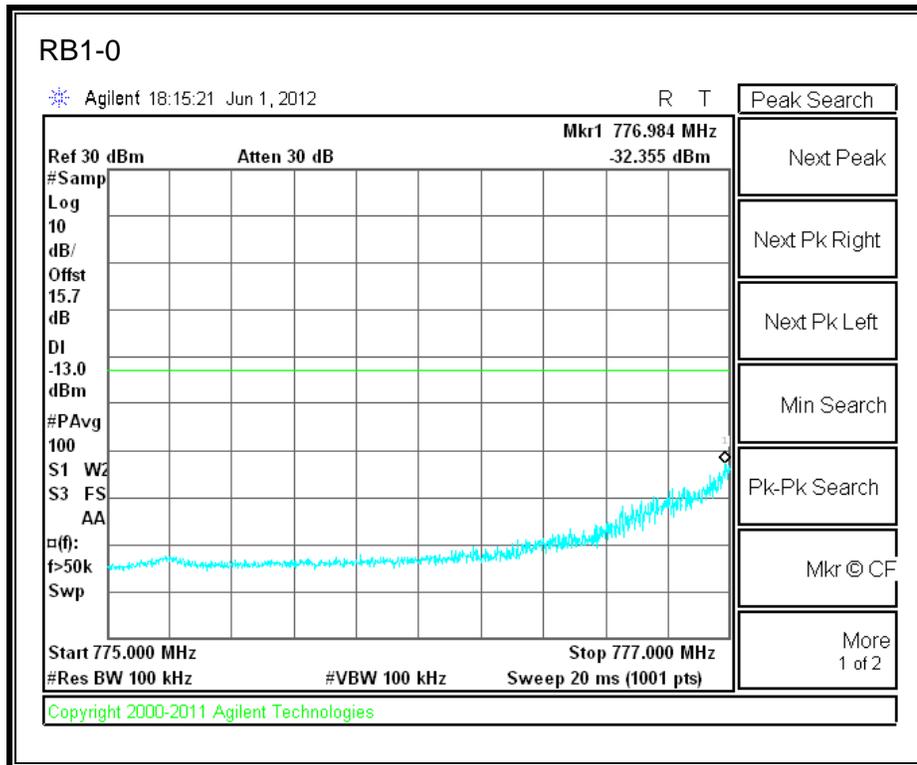


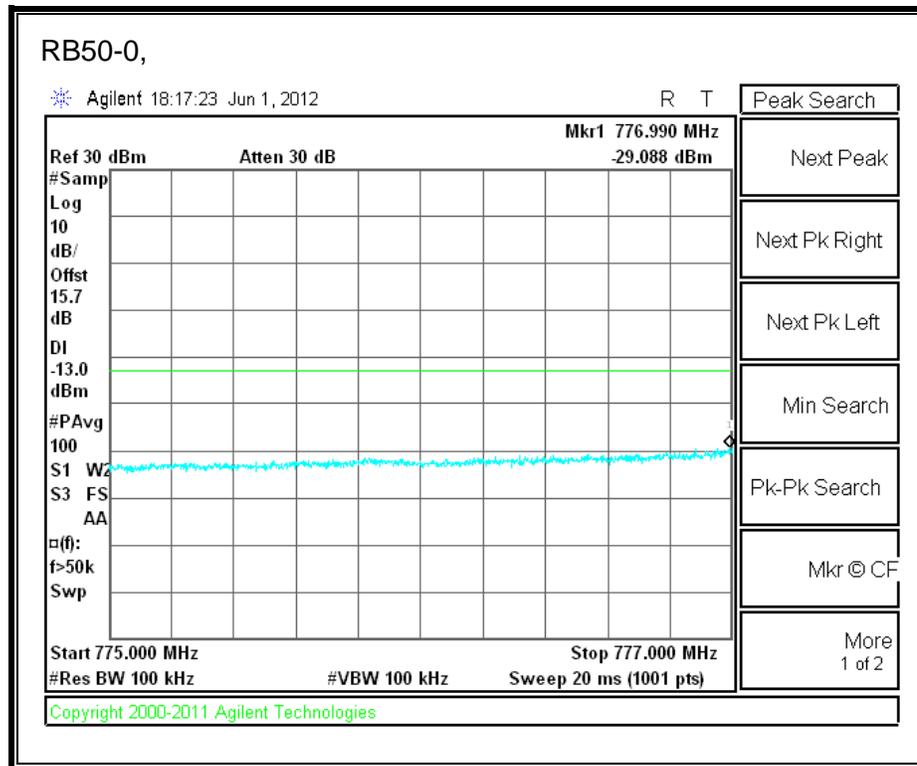
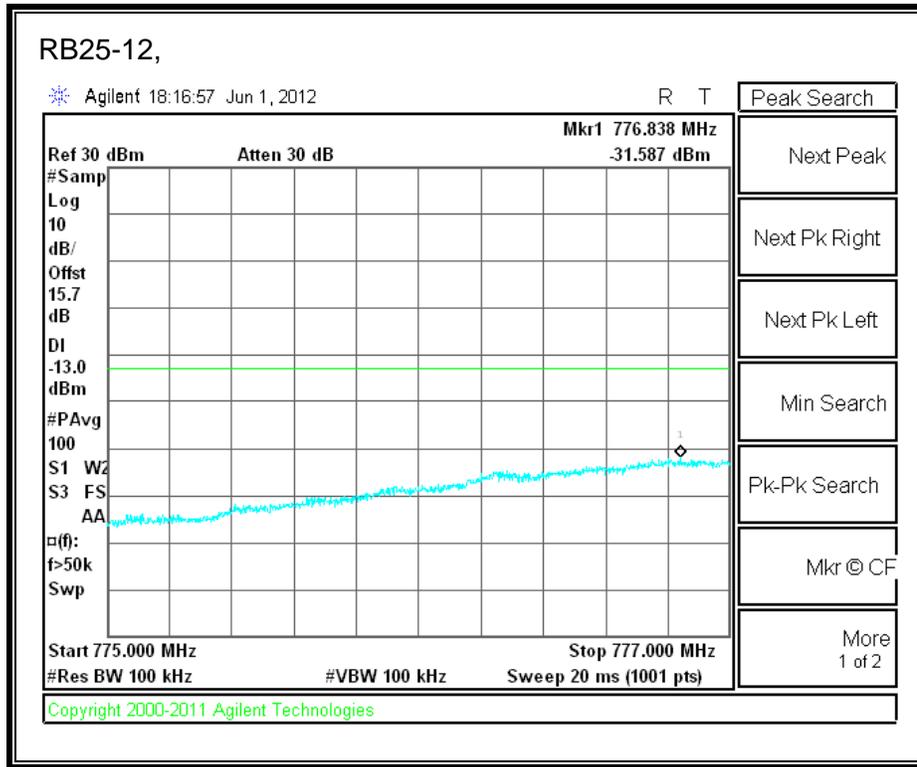
LTE QPSK 782MHz Band 13, 775 - 777MHz (10MHz Bandwidth)



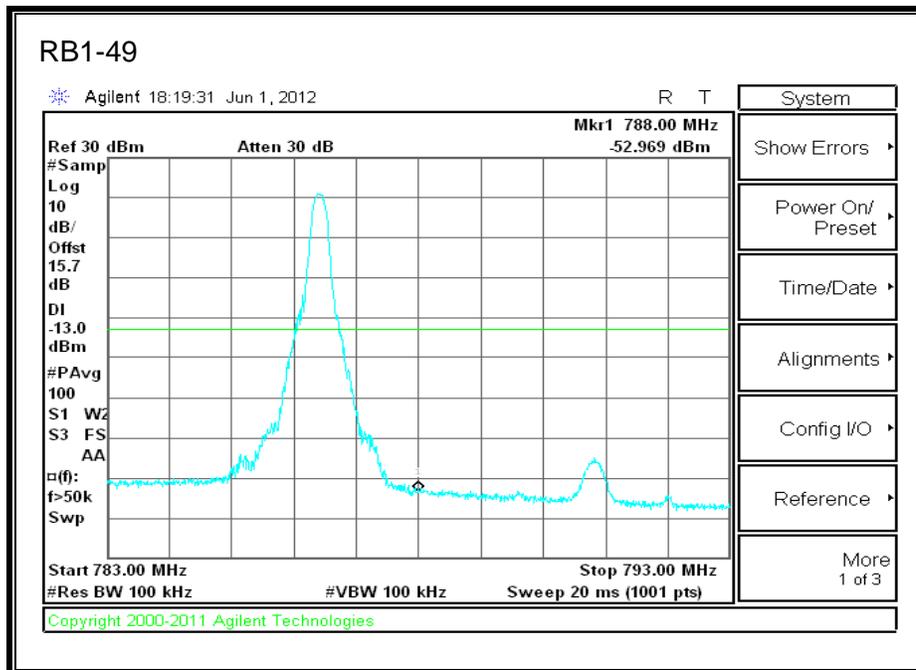
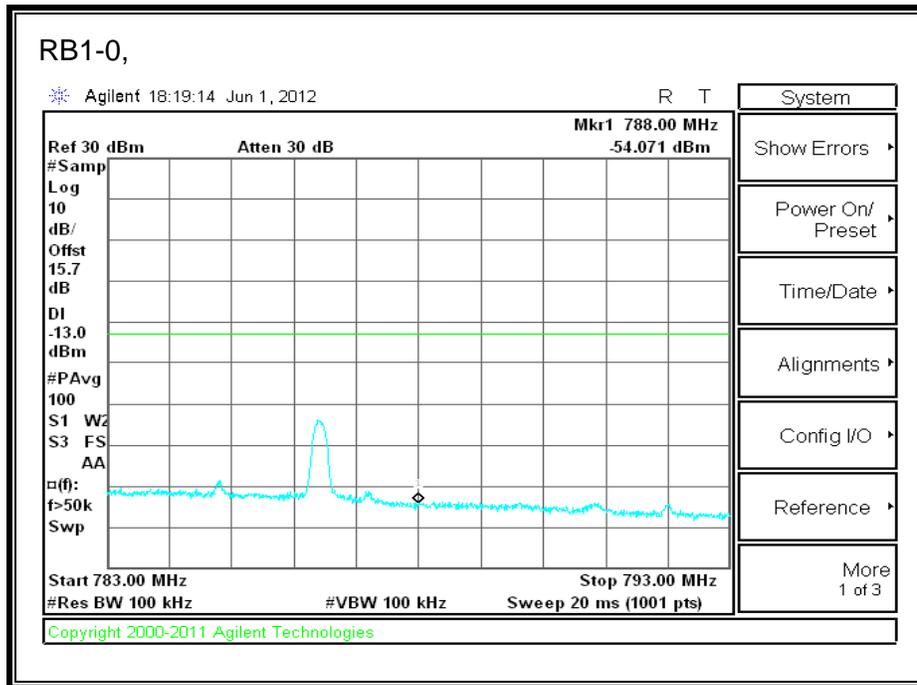


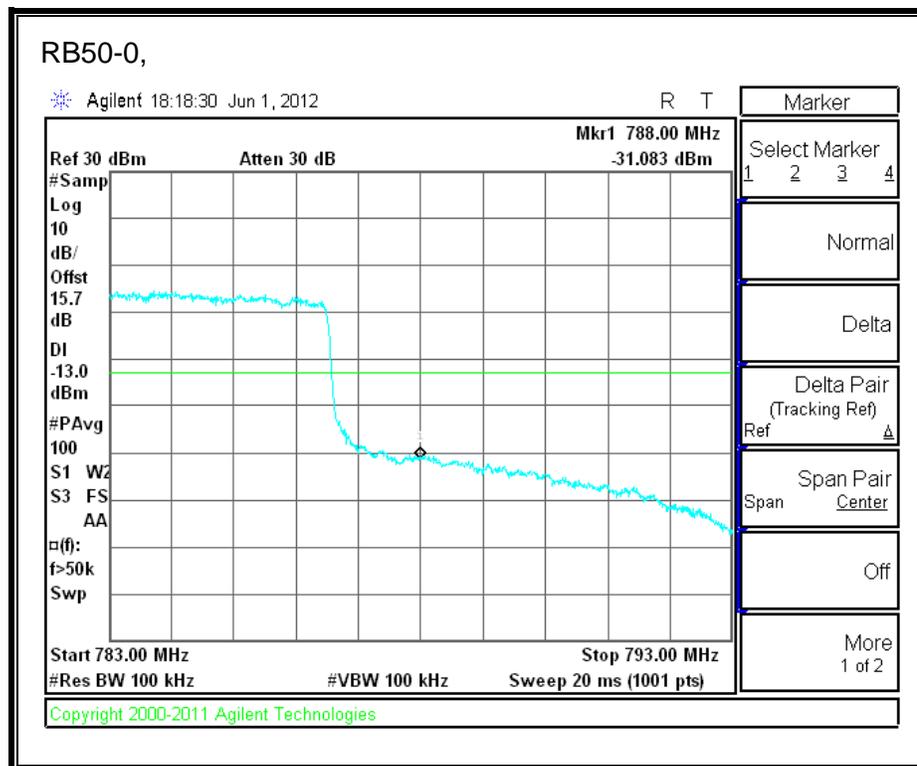
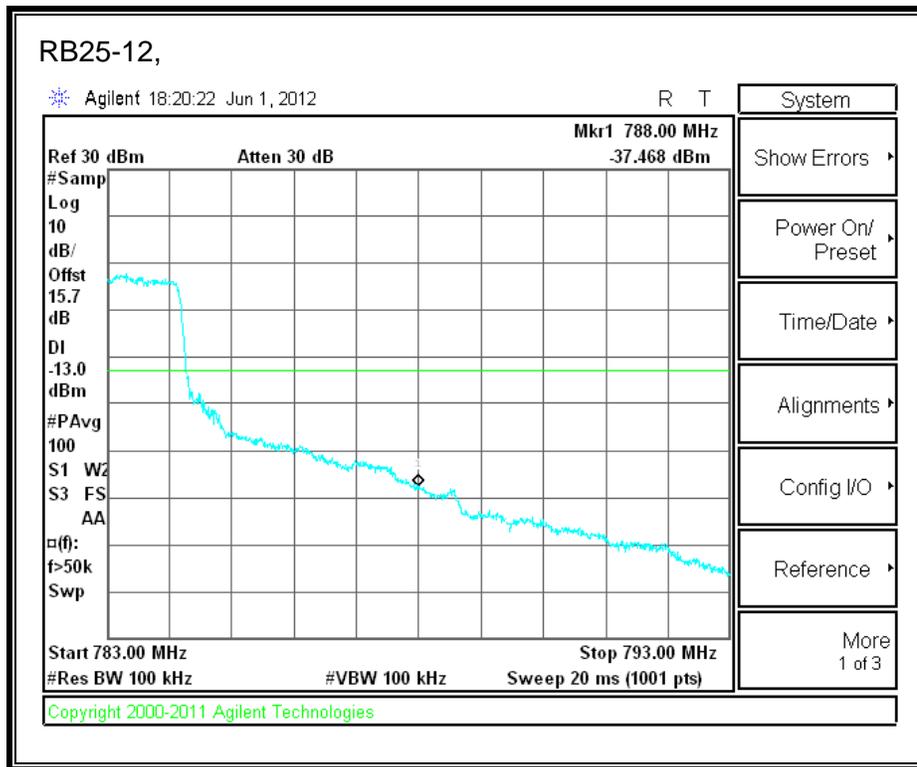
LTE 16QAM Band 13, 775 - 777MHz (10MHz Bandwidth)



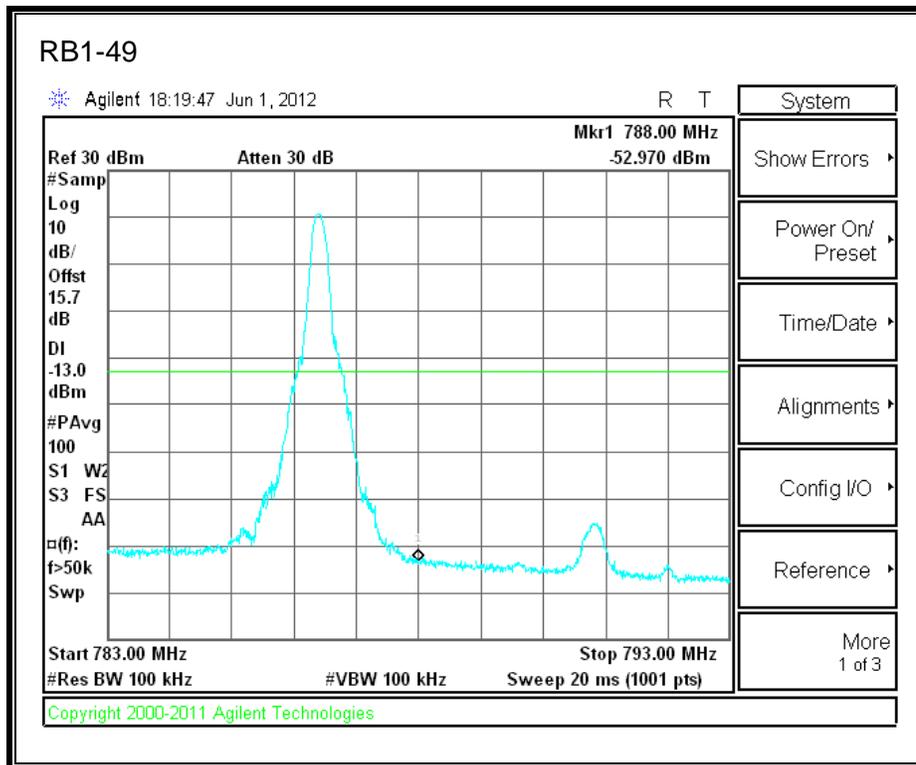
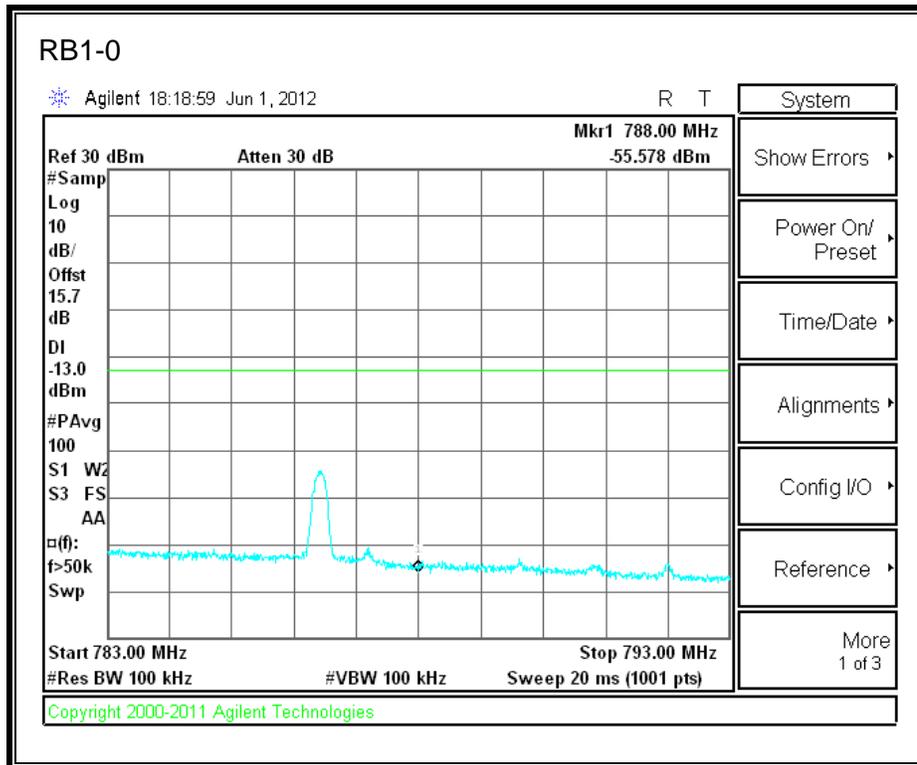


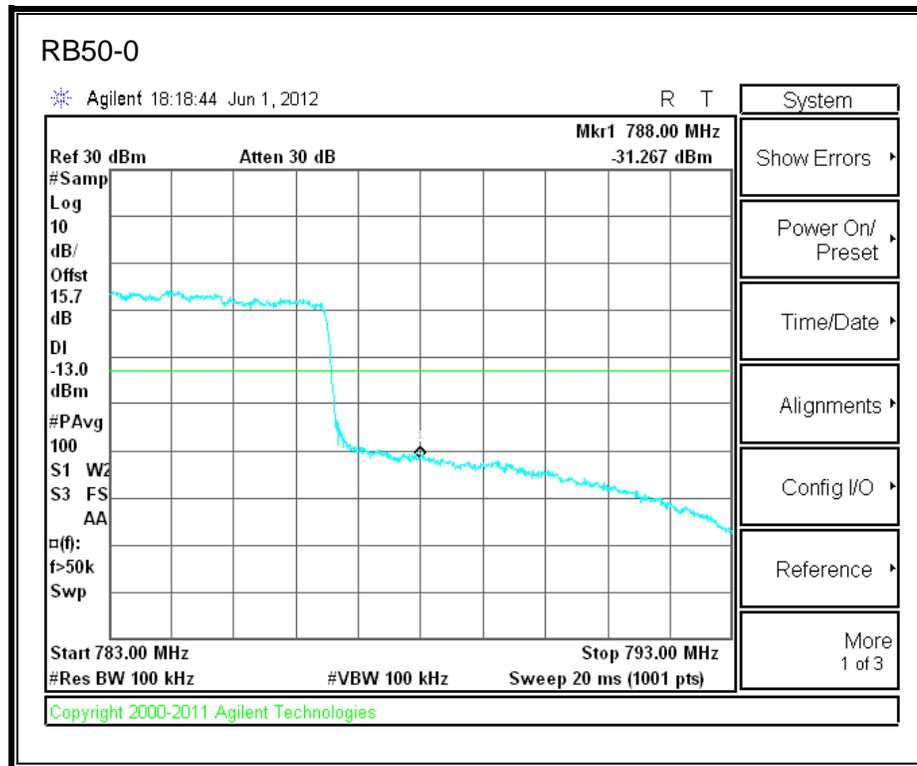
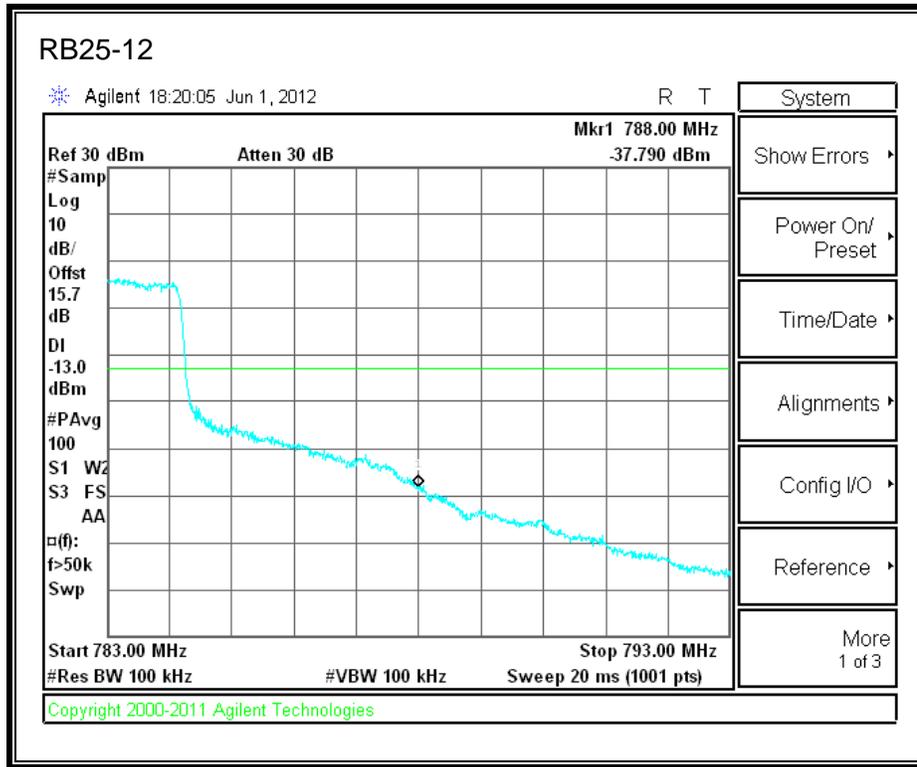
LTE QPSK 782MHz Band 13, 783 - 793MHz (10MHz Bandwidth)



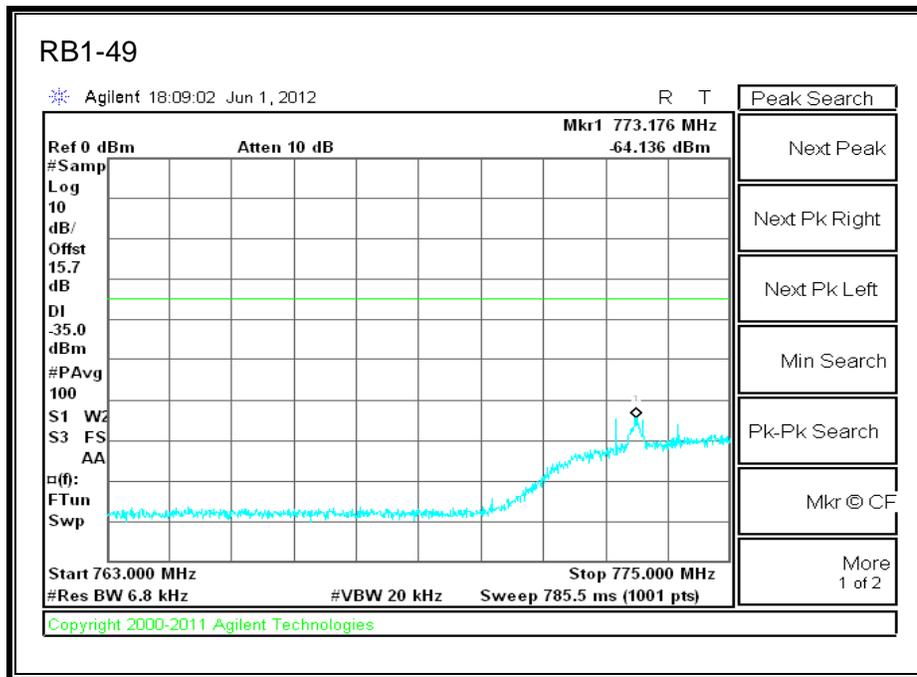
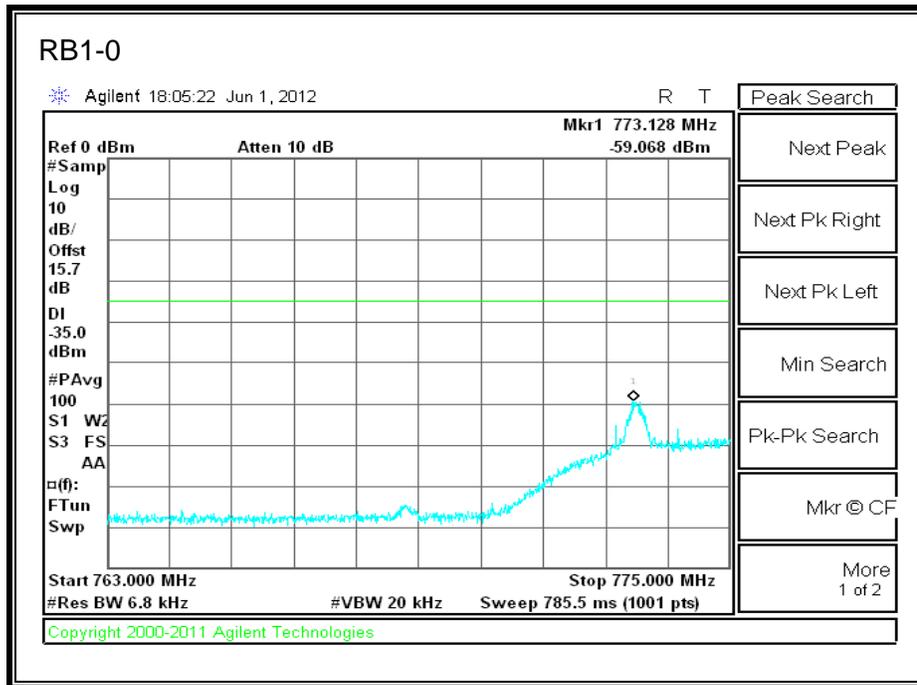


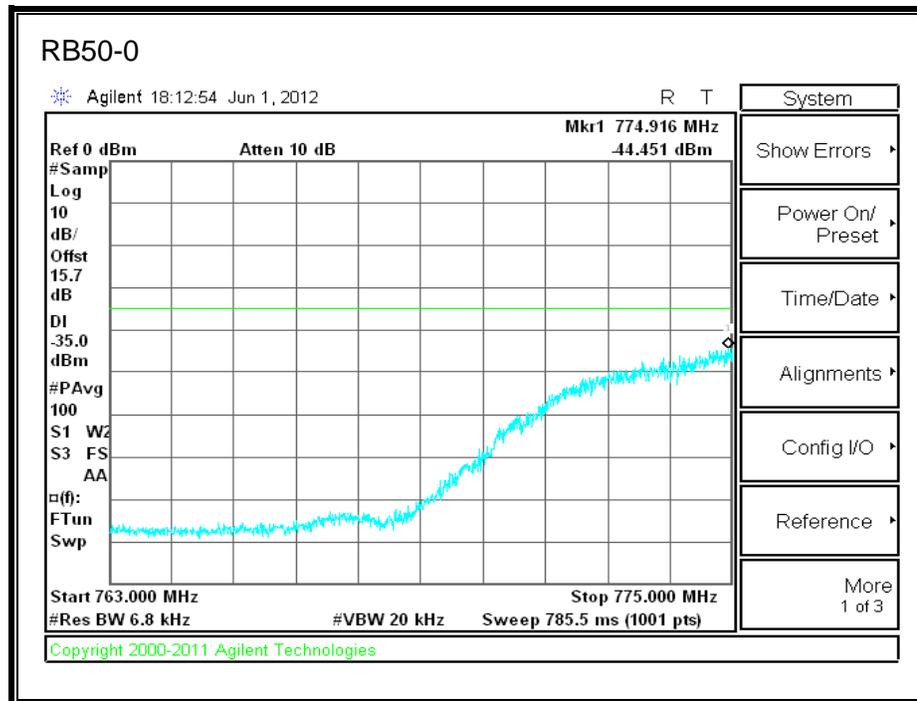
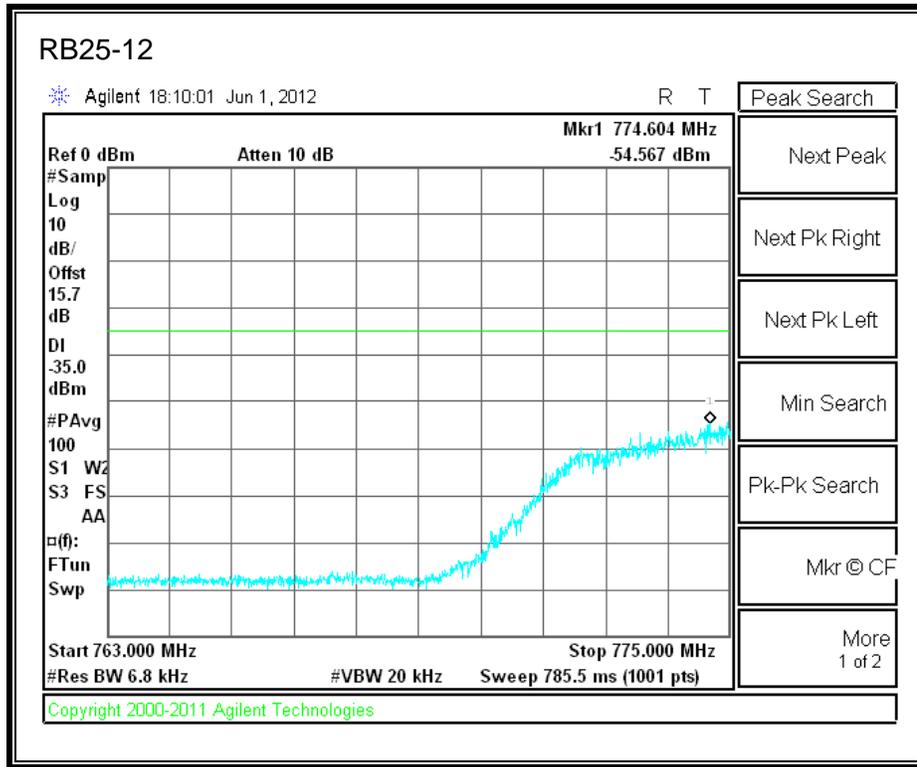
LTE 16QAM Band 13, 782MHz 783 - 793MHz (10MHz Bandwidth)



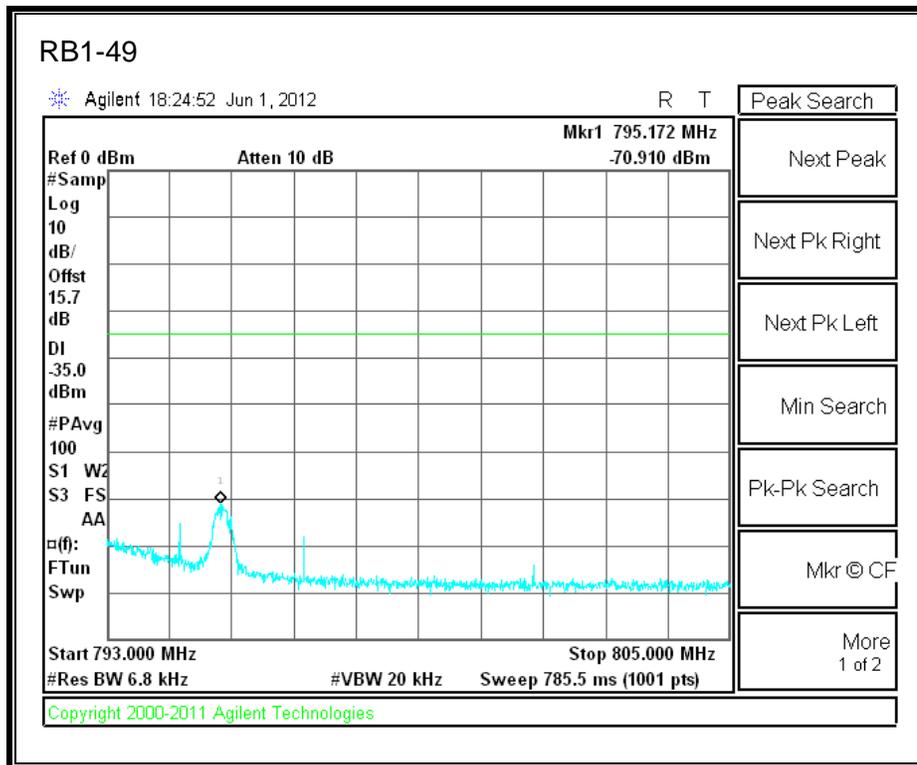
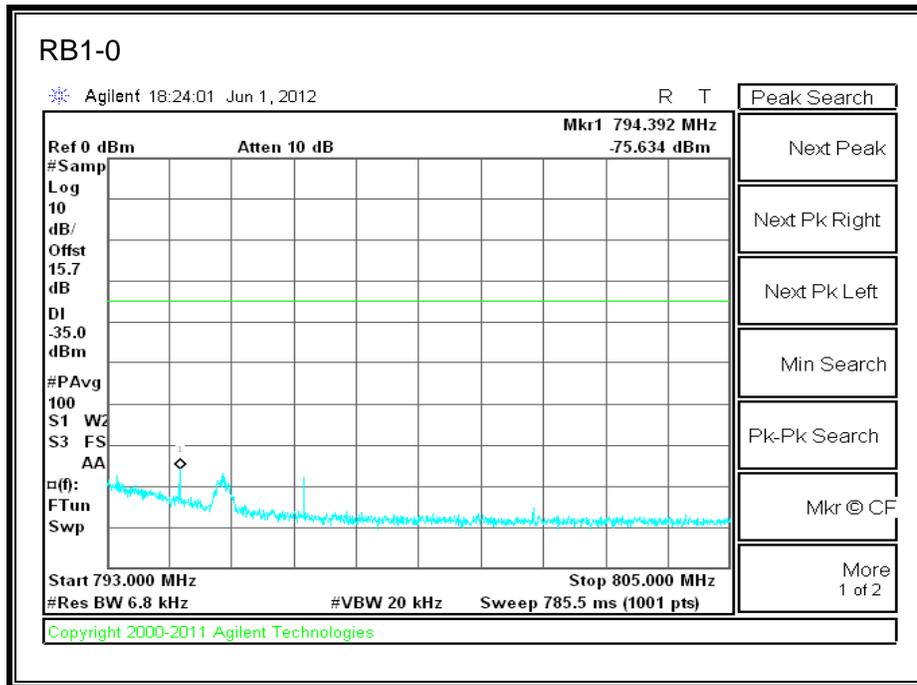


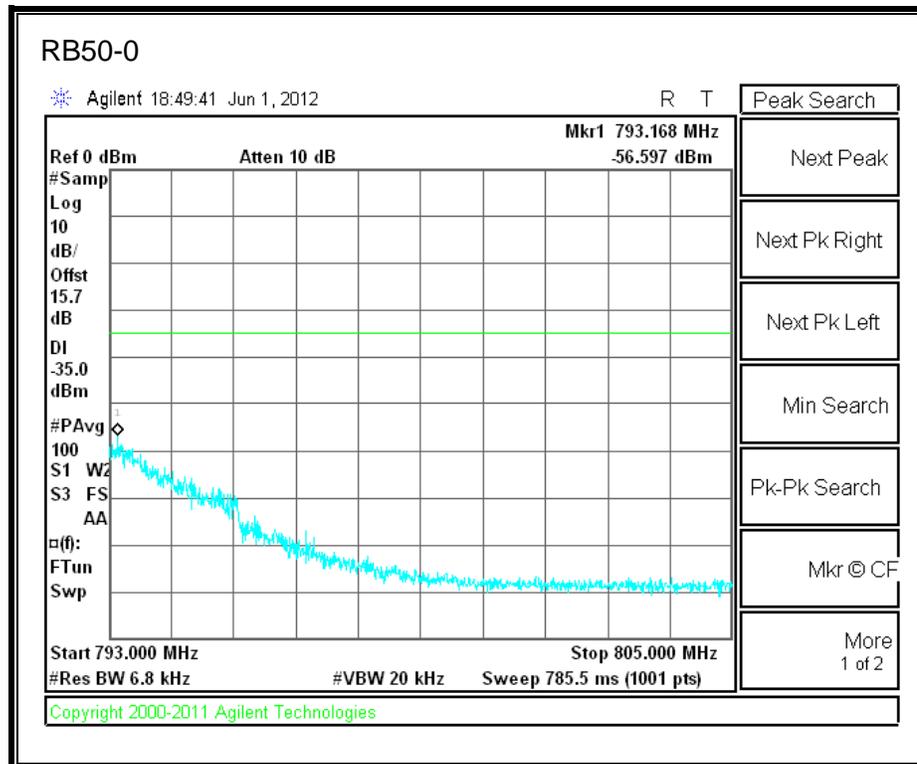
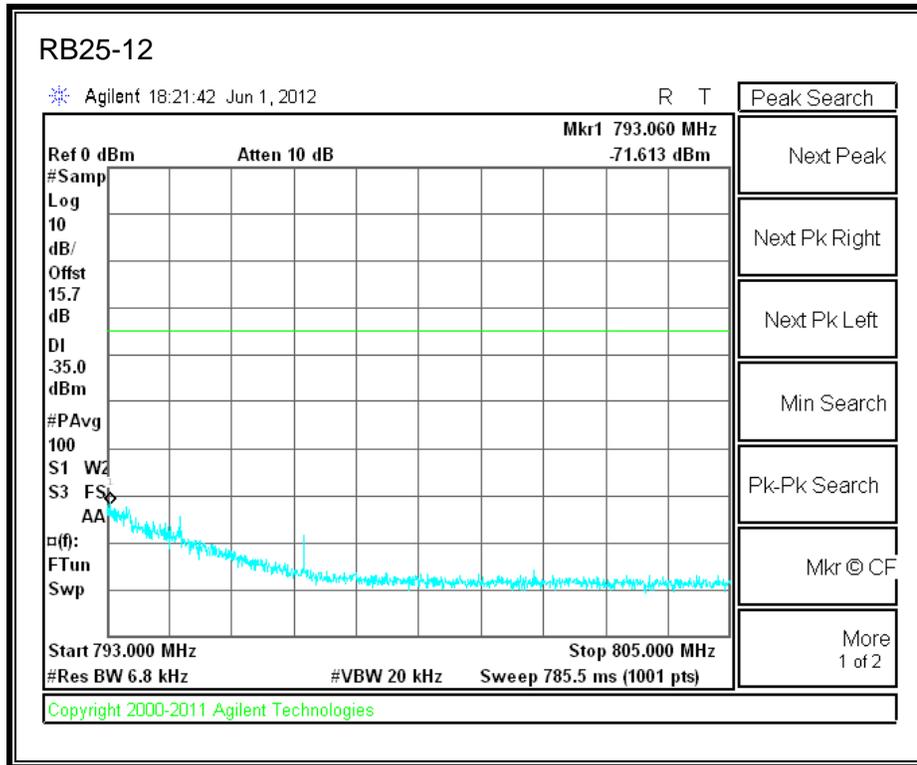
LTE QPSK 782MHz Band 13, 763 - 775MHz (10MHz Bandwidth)



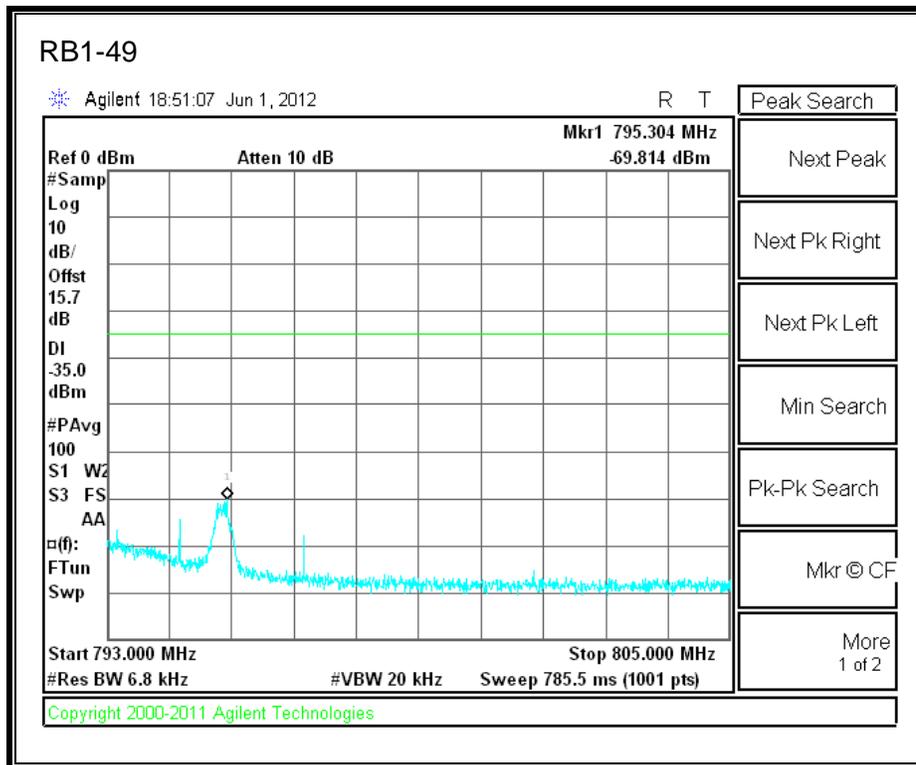
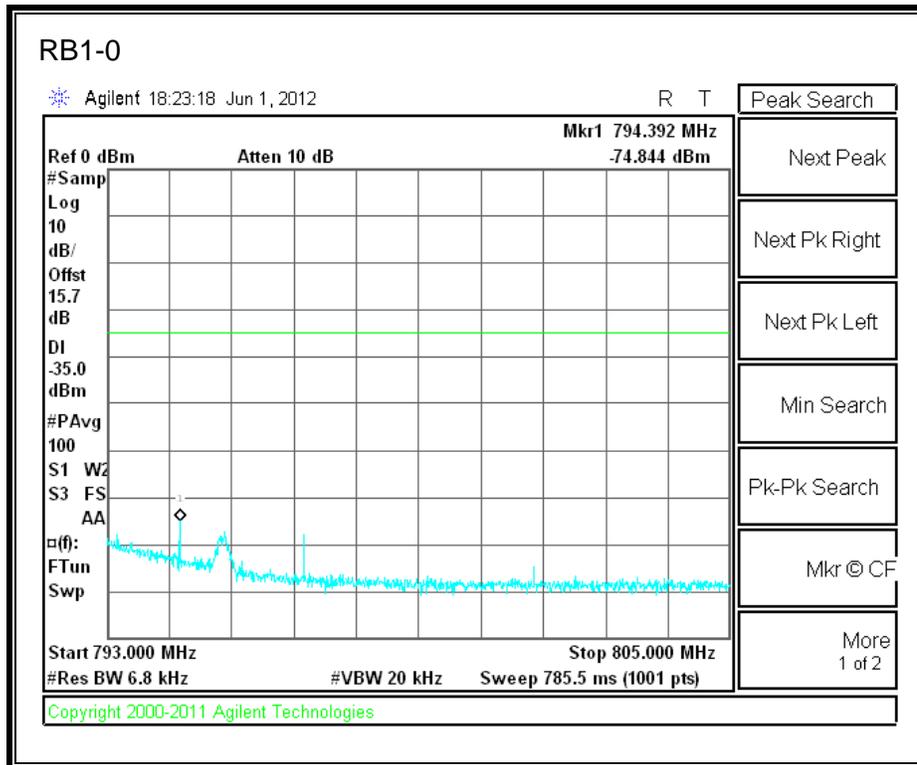


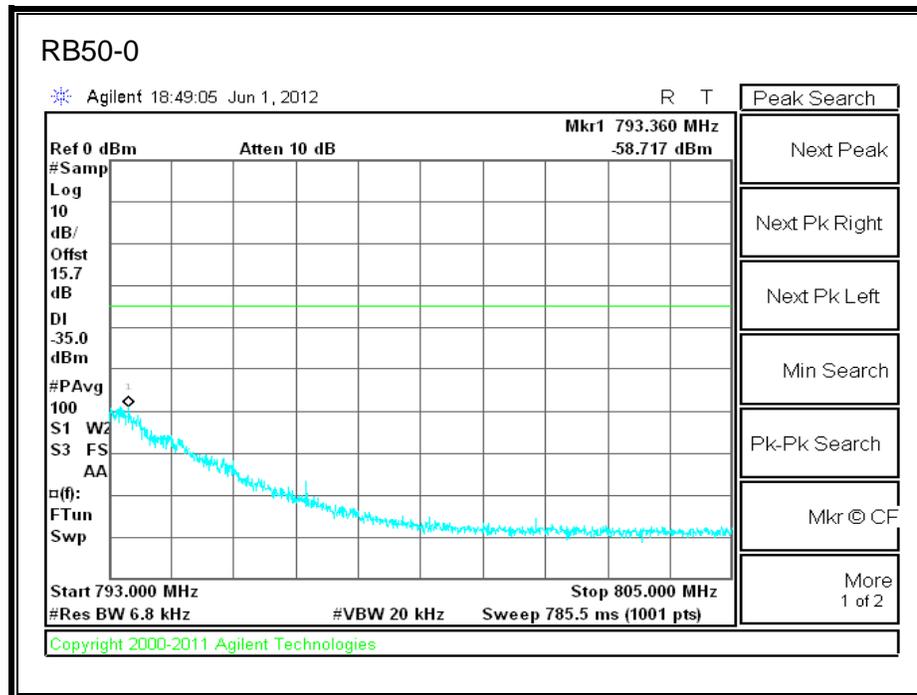
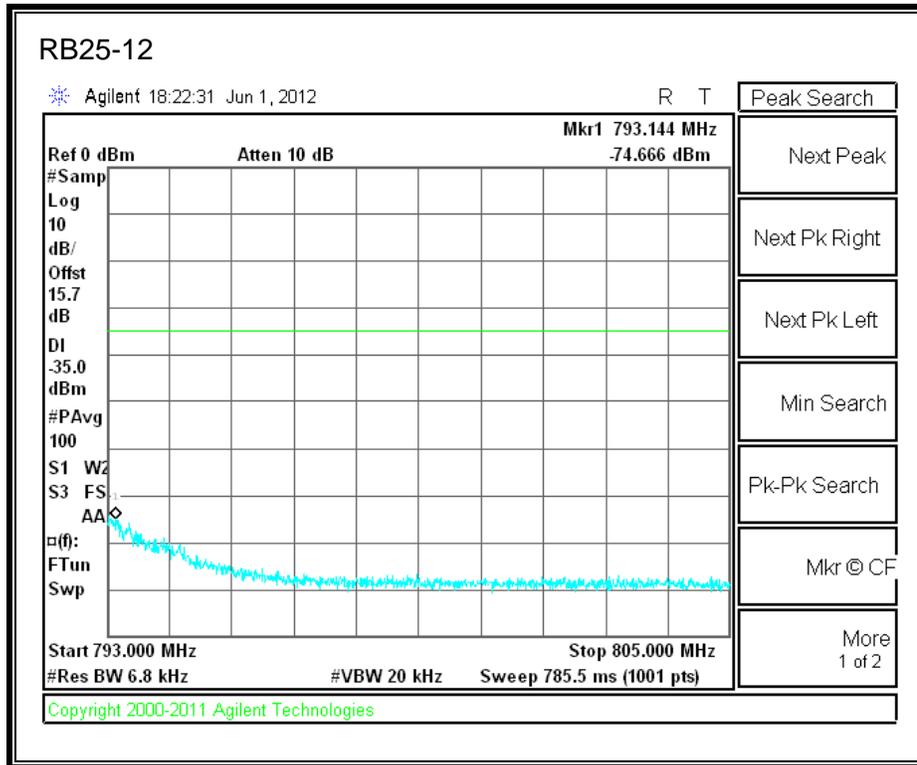
LTE QPSK Band 13, 793 - 805MHz (10MHz Bandwidth)





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





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:

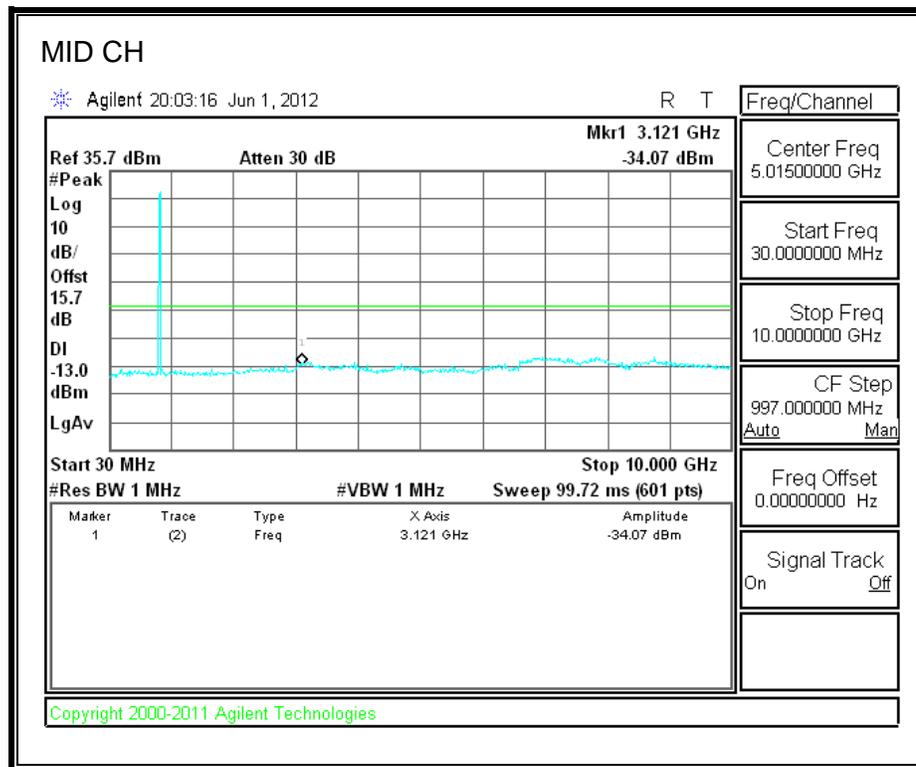
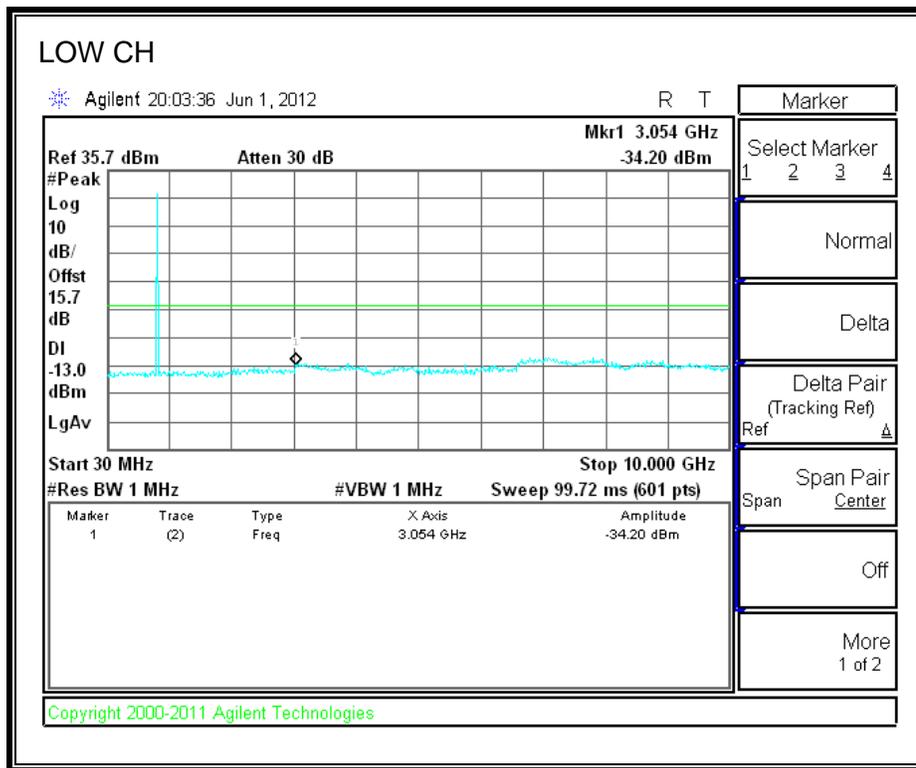
- Set display line at -13 dBm
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

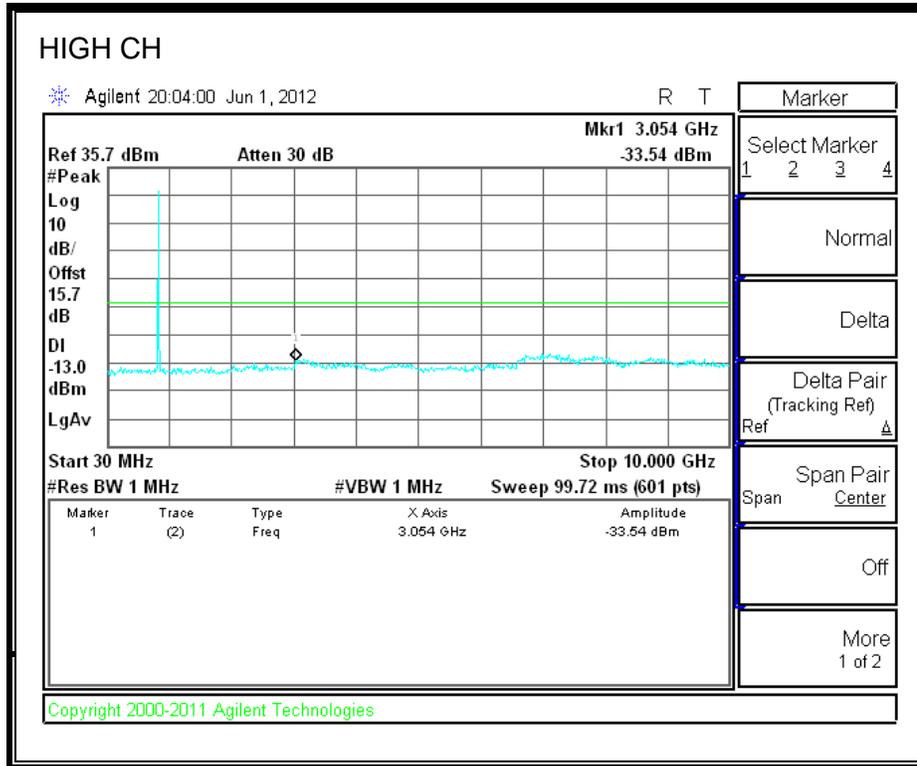
MODES TESTED

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

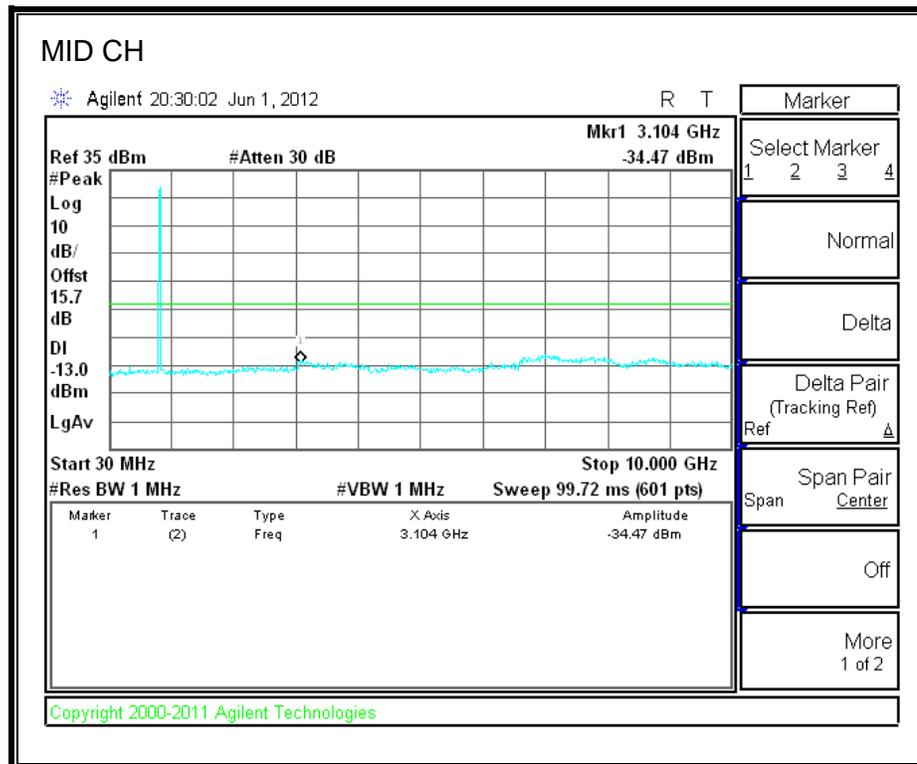
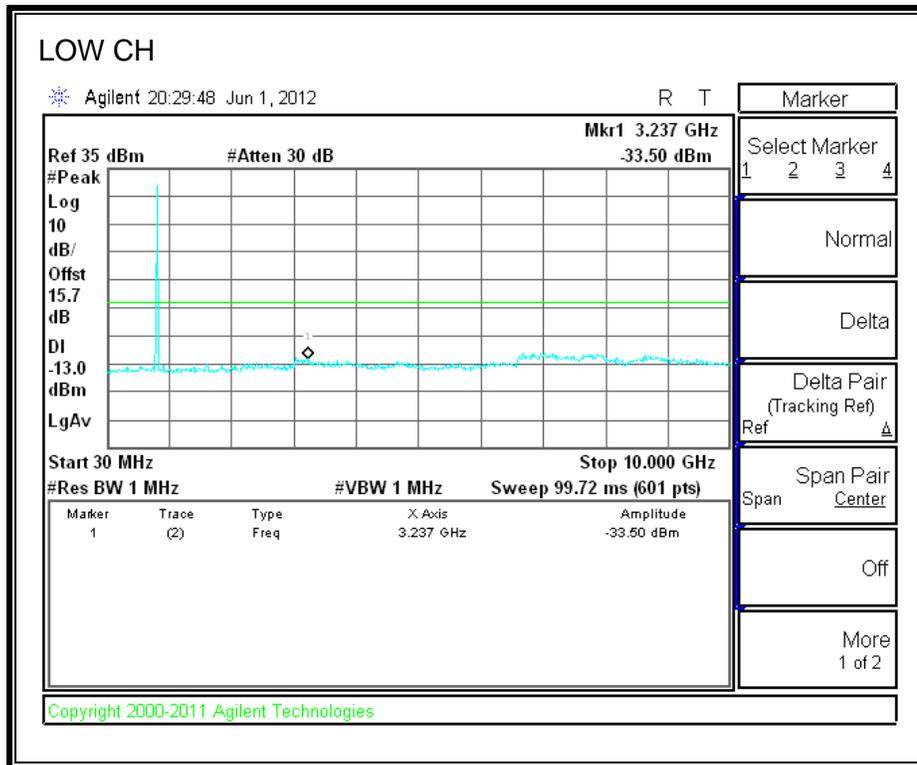
RESULTS

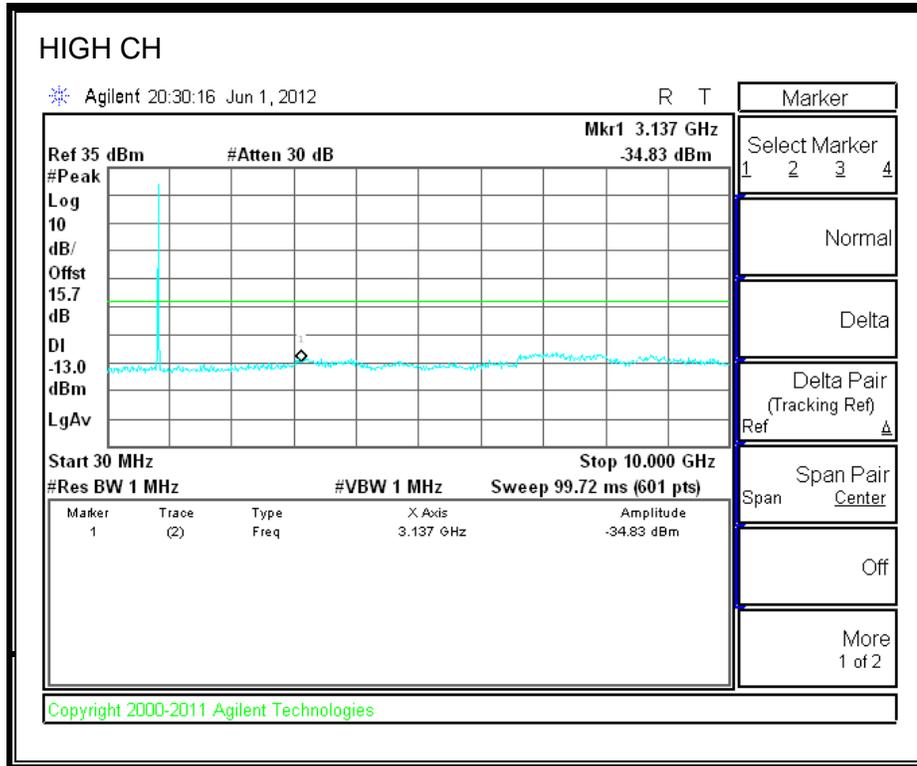
1xRTT Mode (Cellular Band)



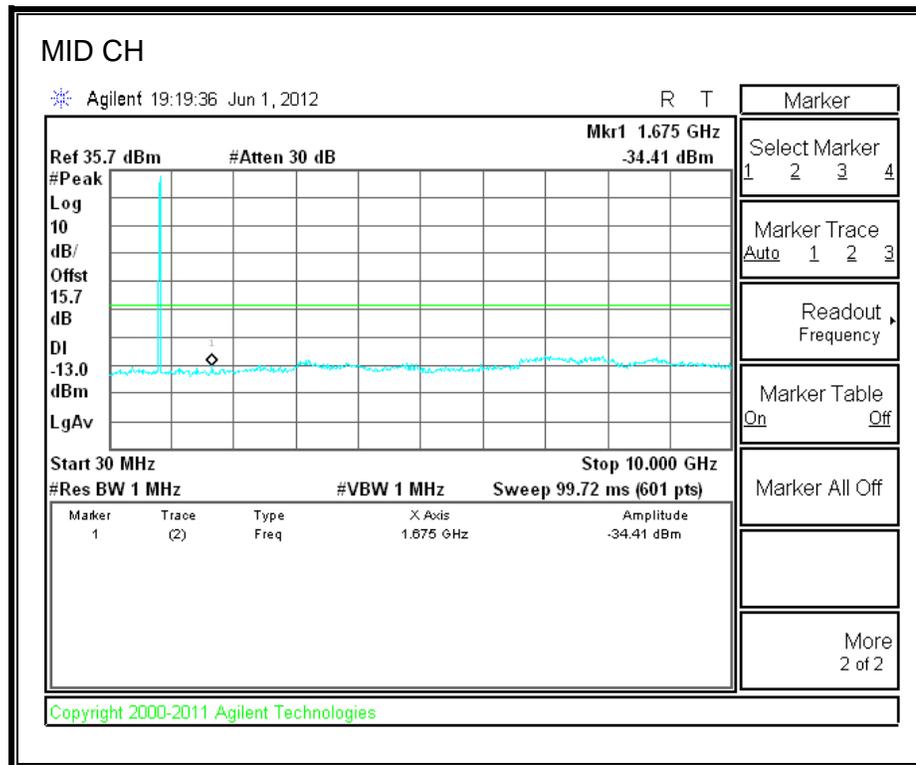
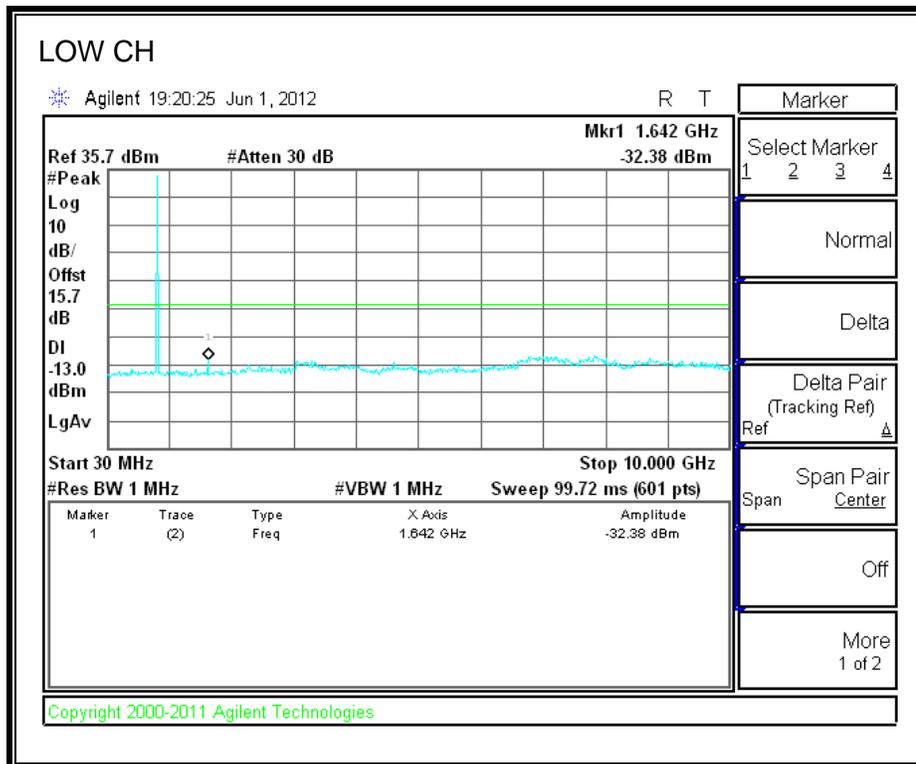


CDMA2000 1xEV-DO Revision A (Rev. A) Mode (Cellular Band)

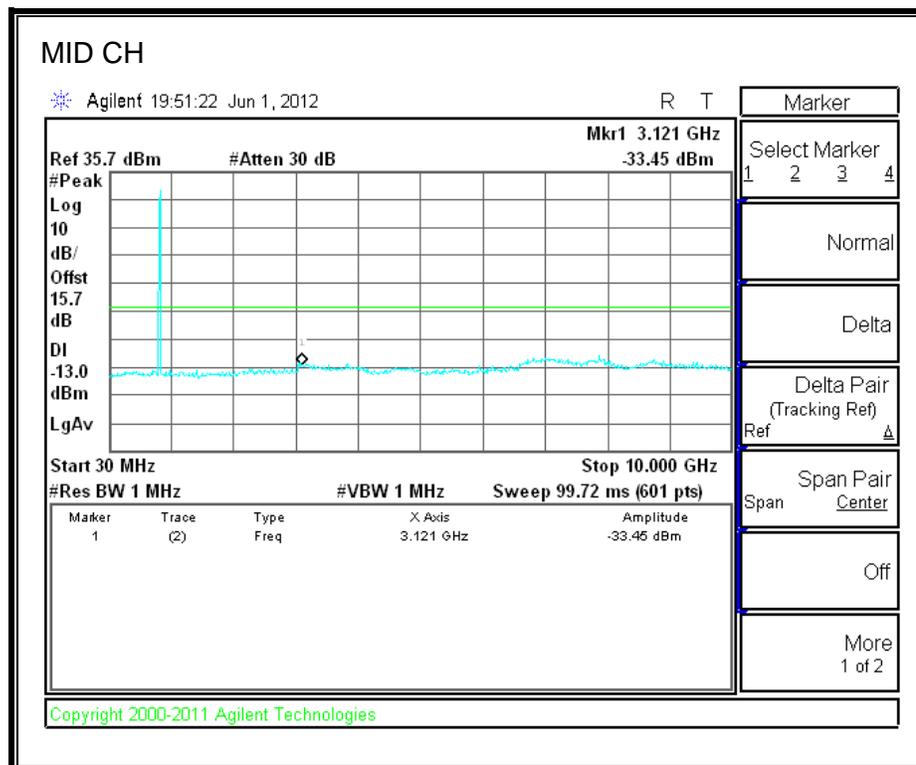
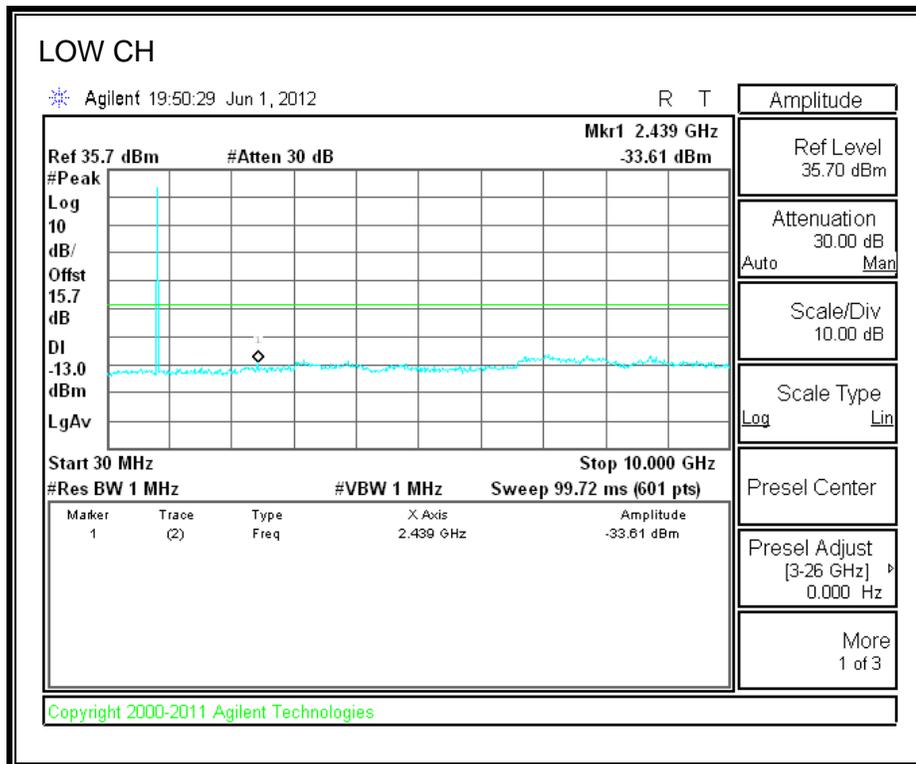


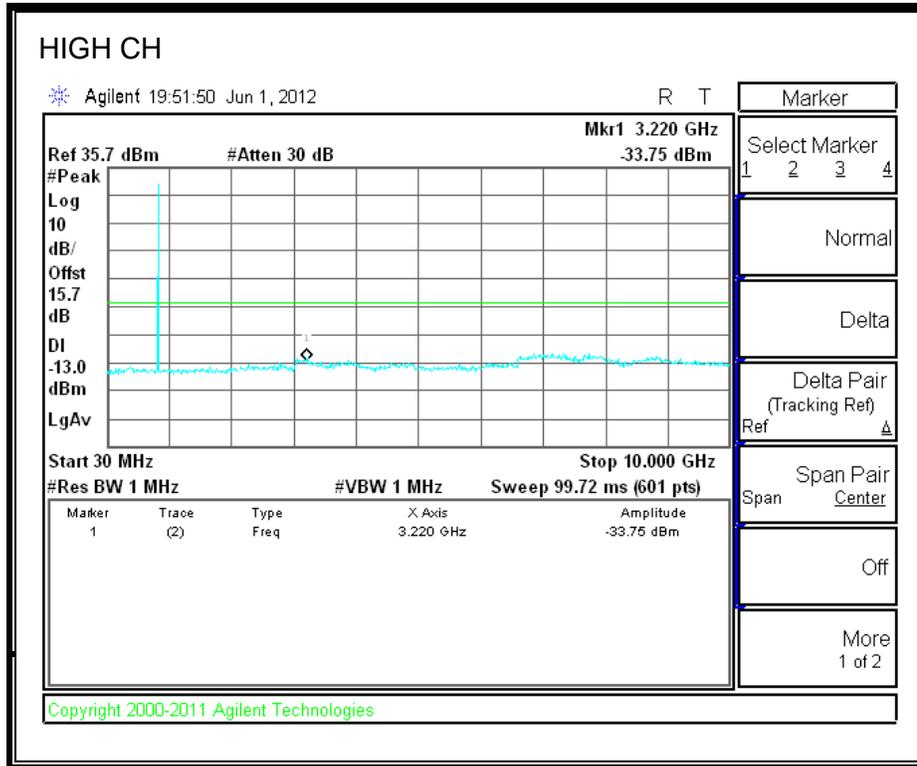


GPRS Mode (Cellular Band)

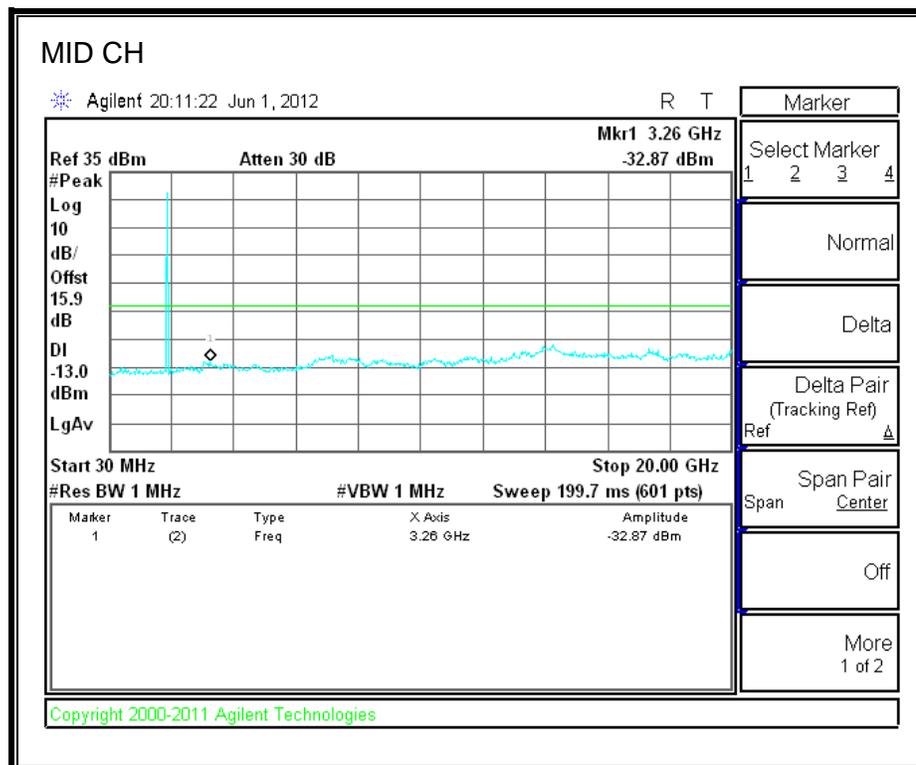
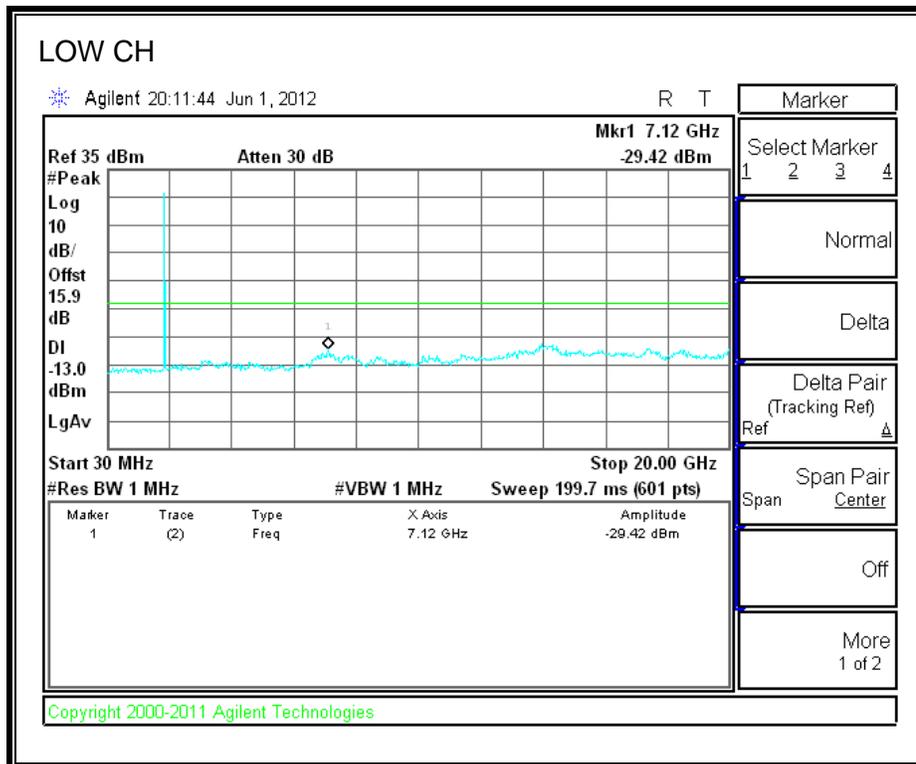


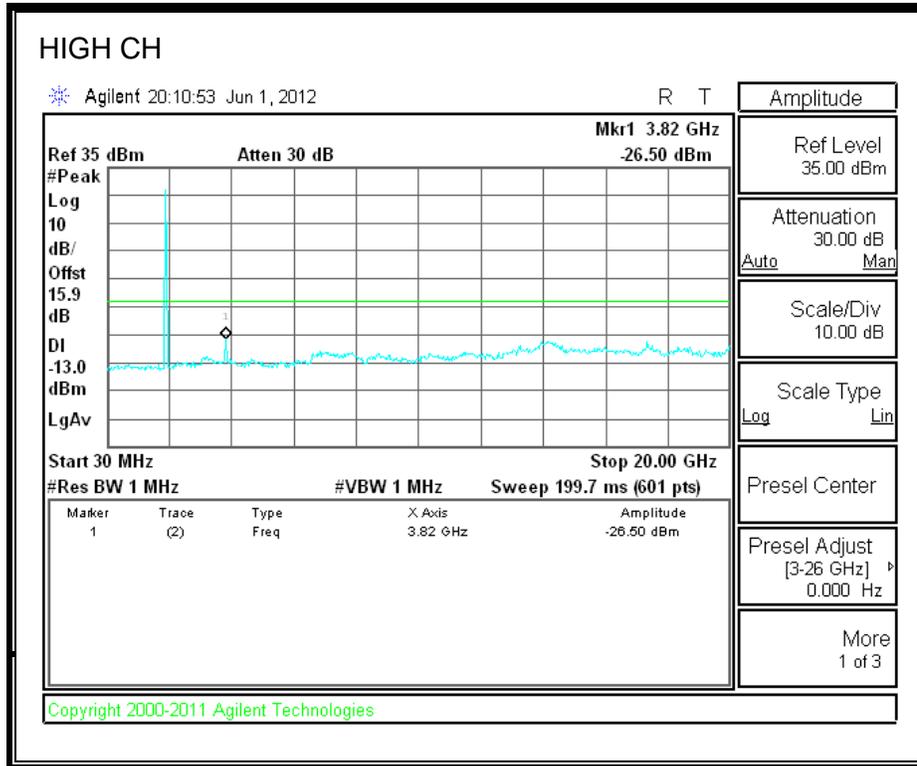
EGPRS Mode (Cellular Band)



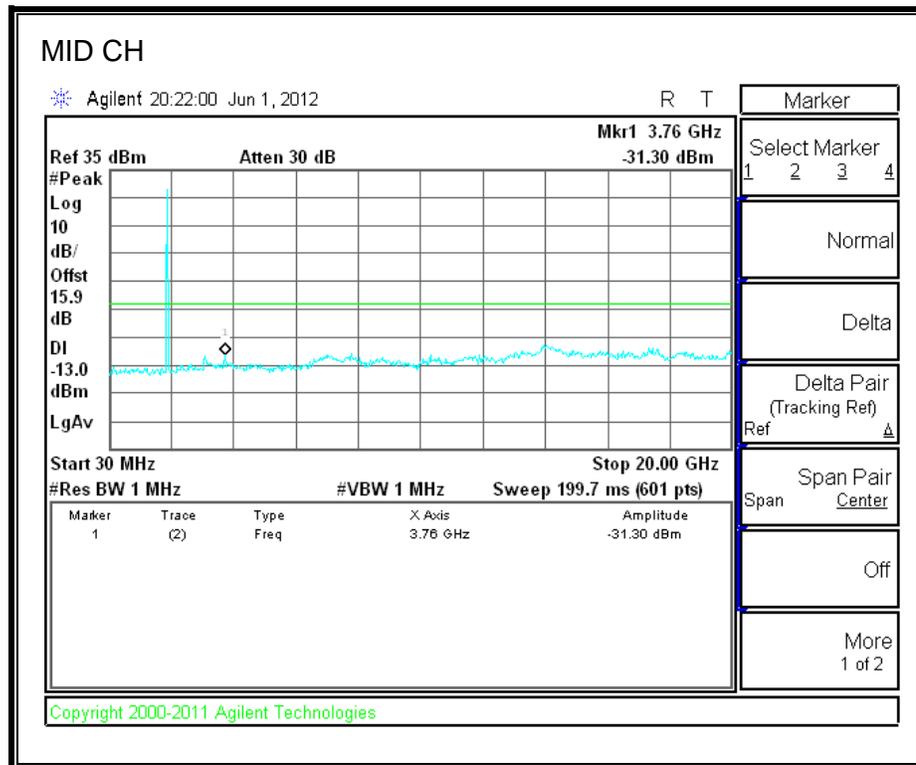
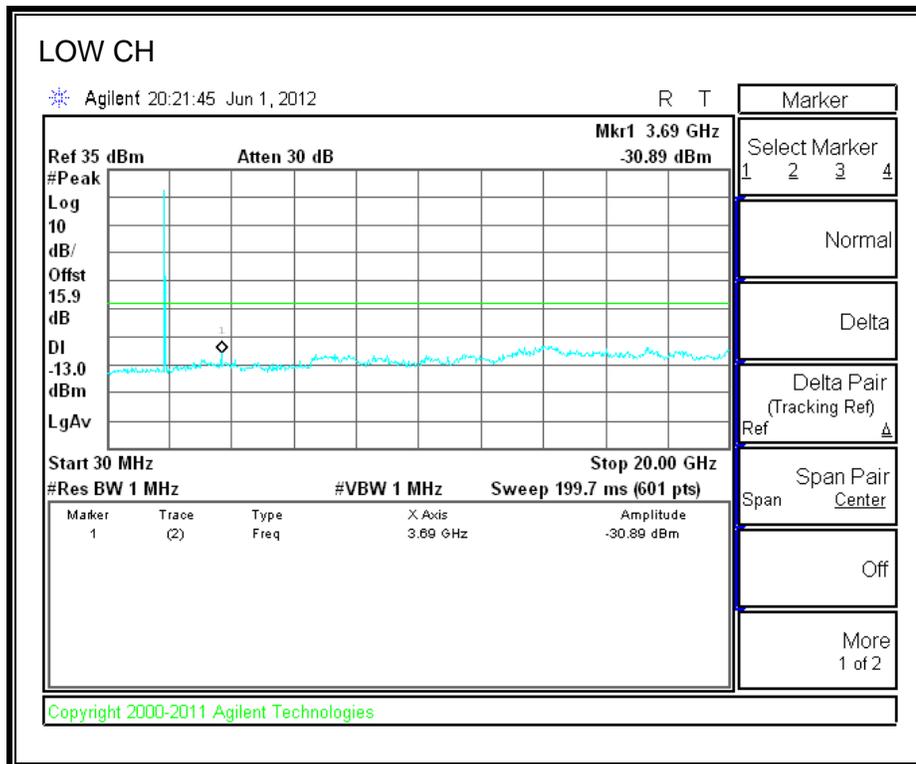


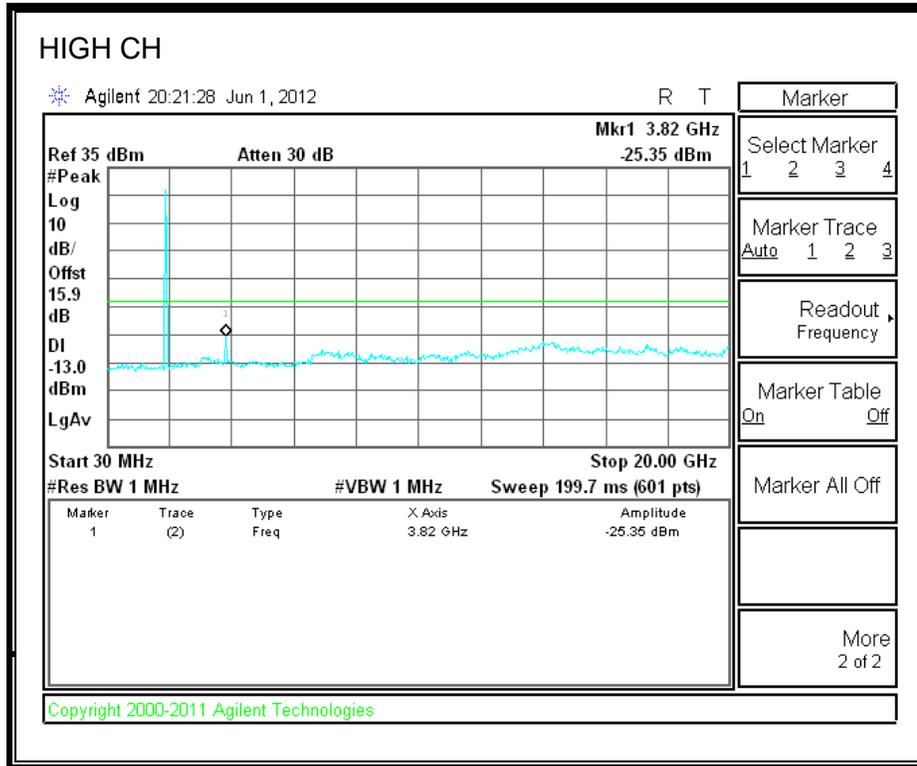
1xRTT Mode (PCS Band)



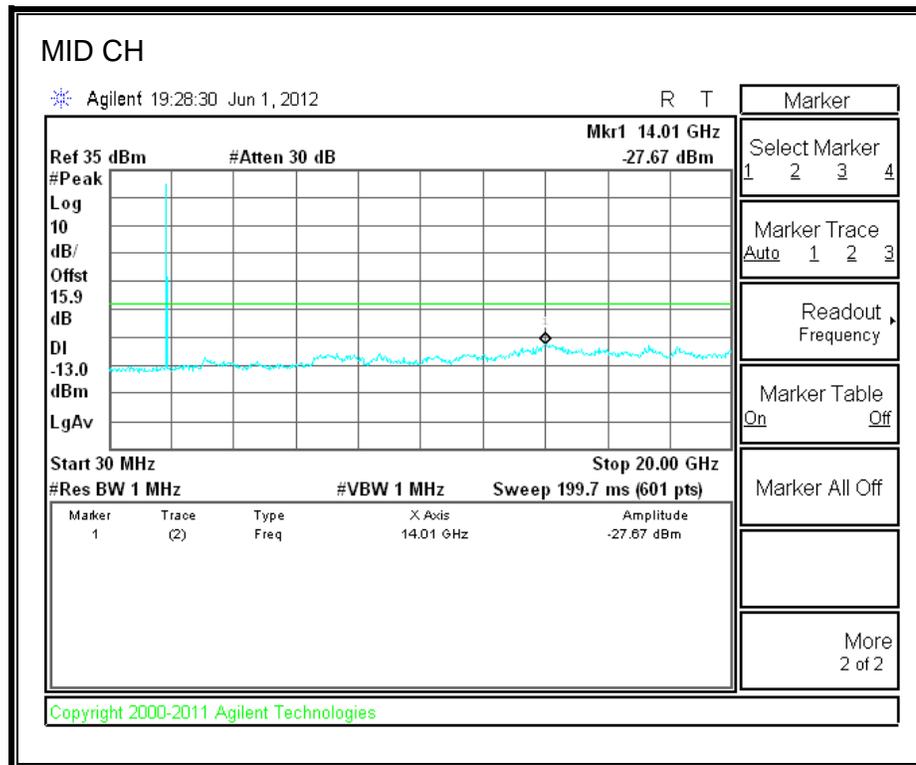
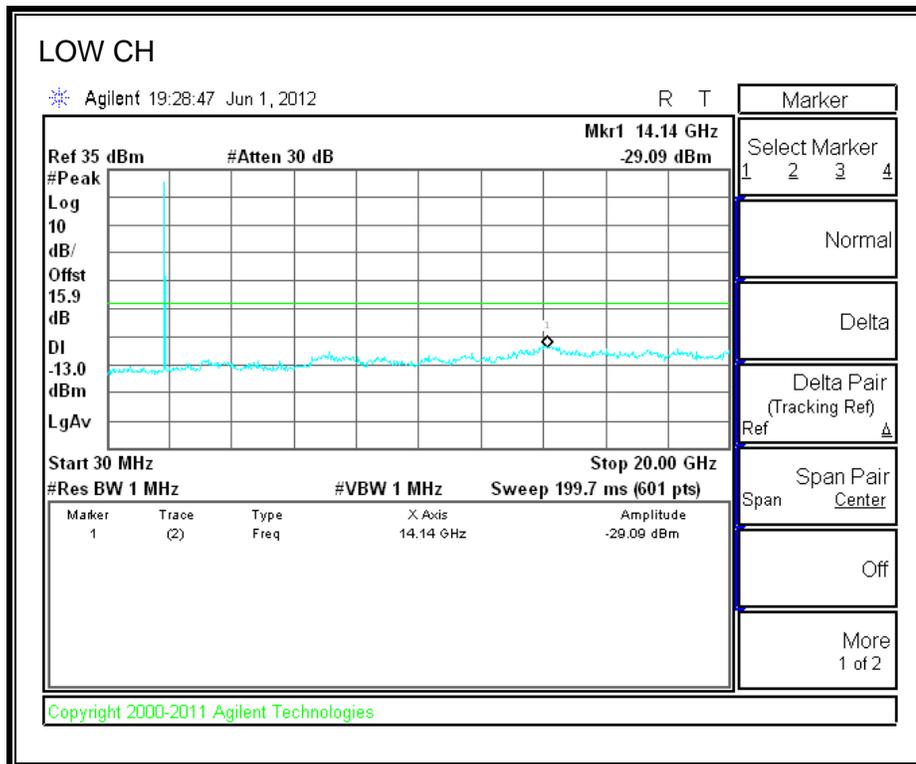


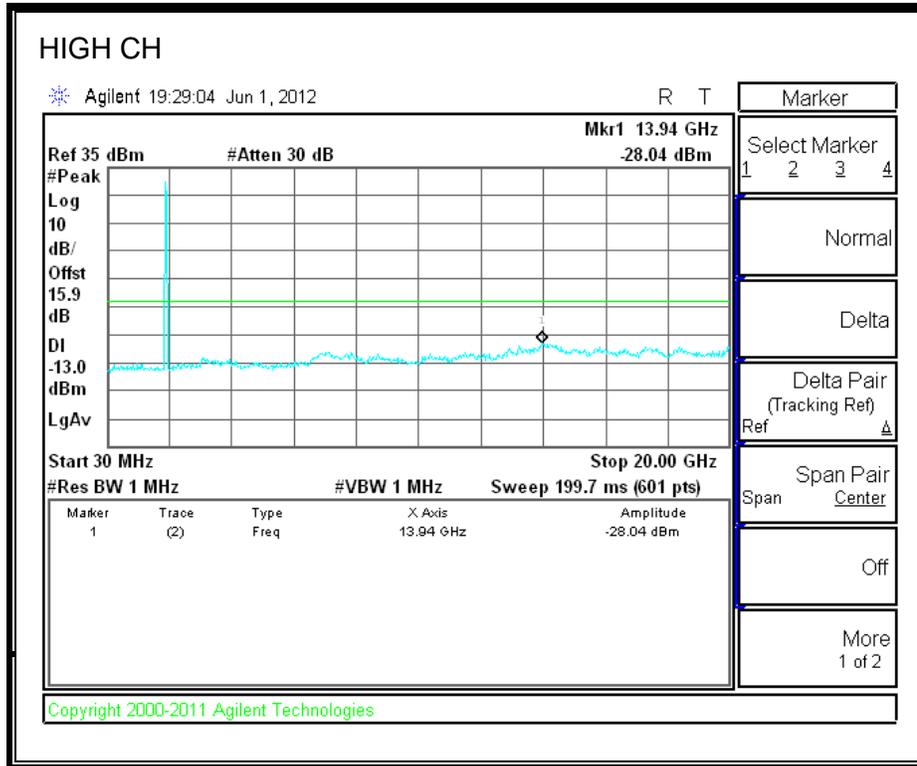
CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)



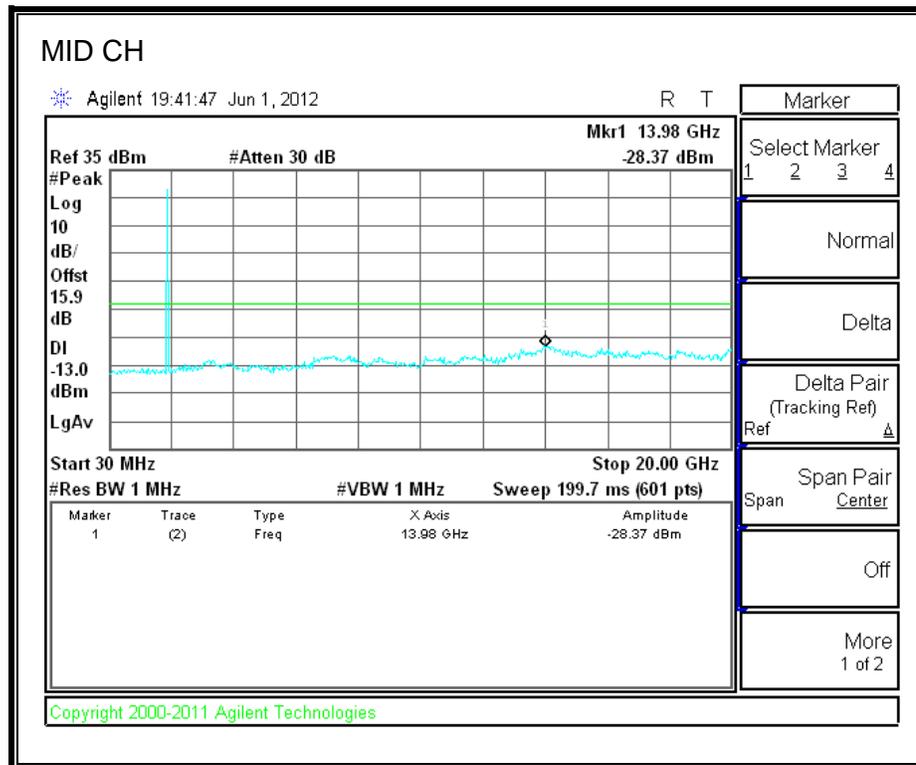
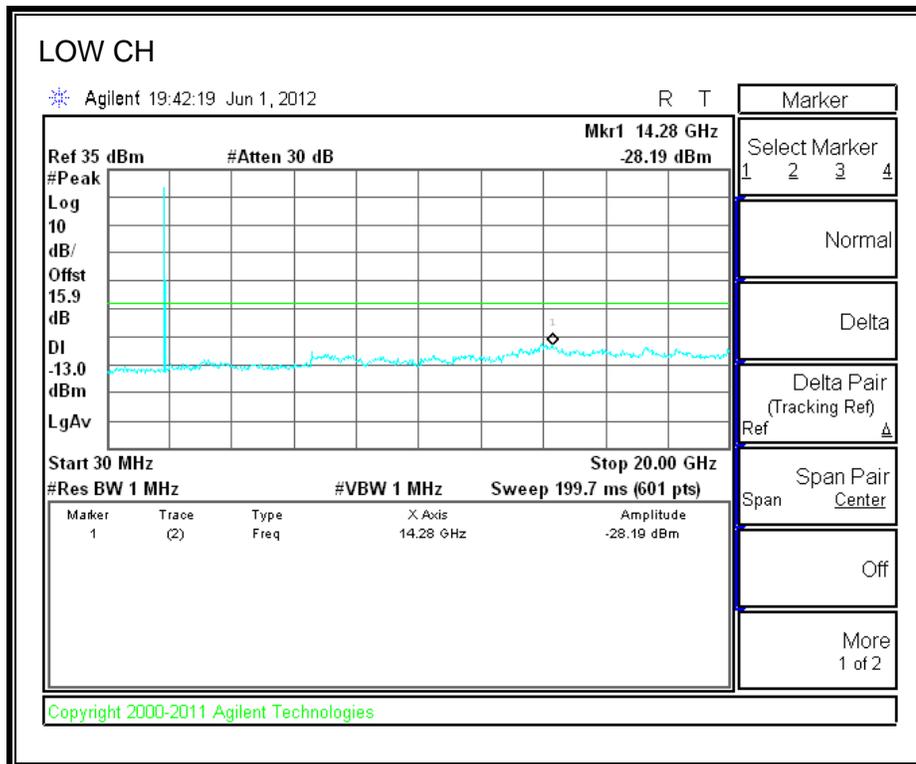


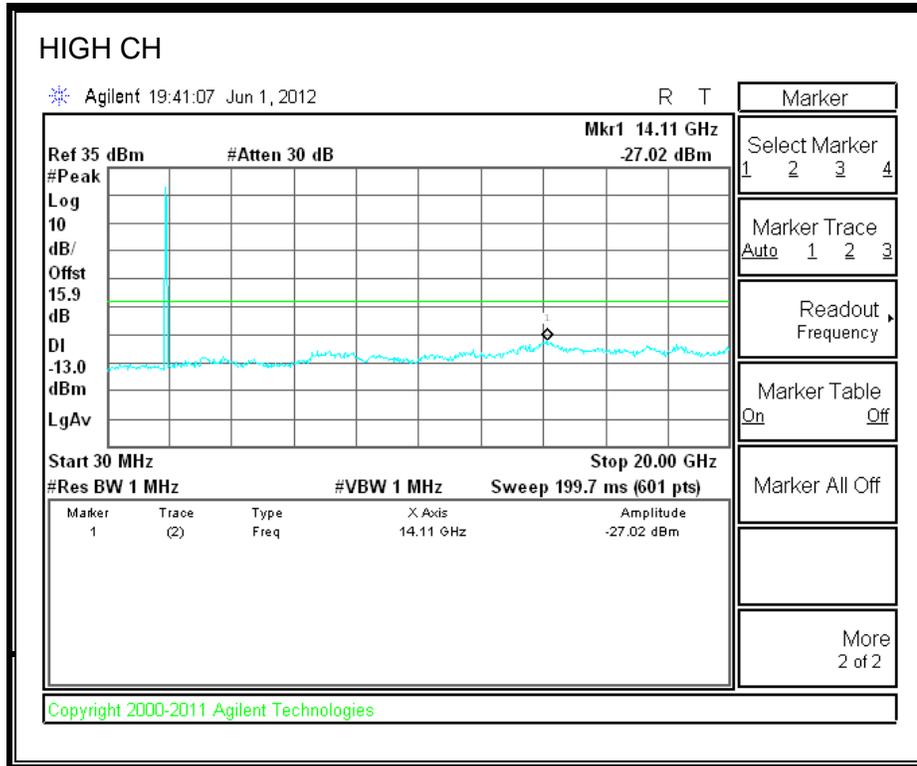
GPRS Mode (PCS Band)



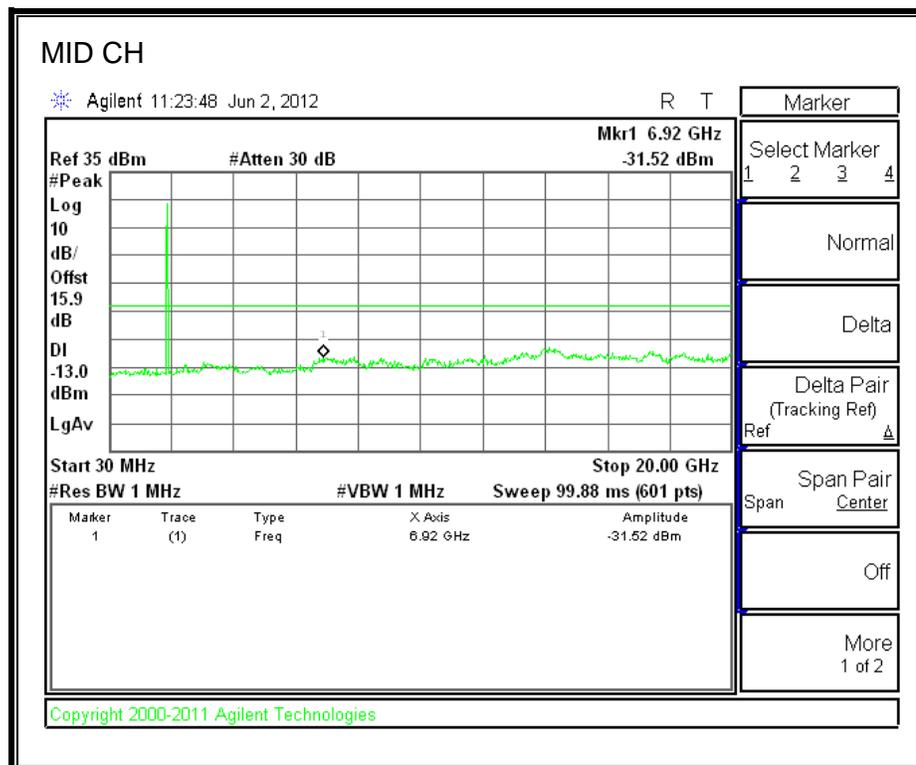
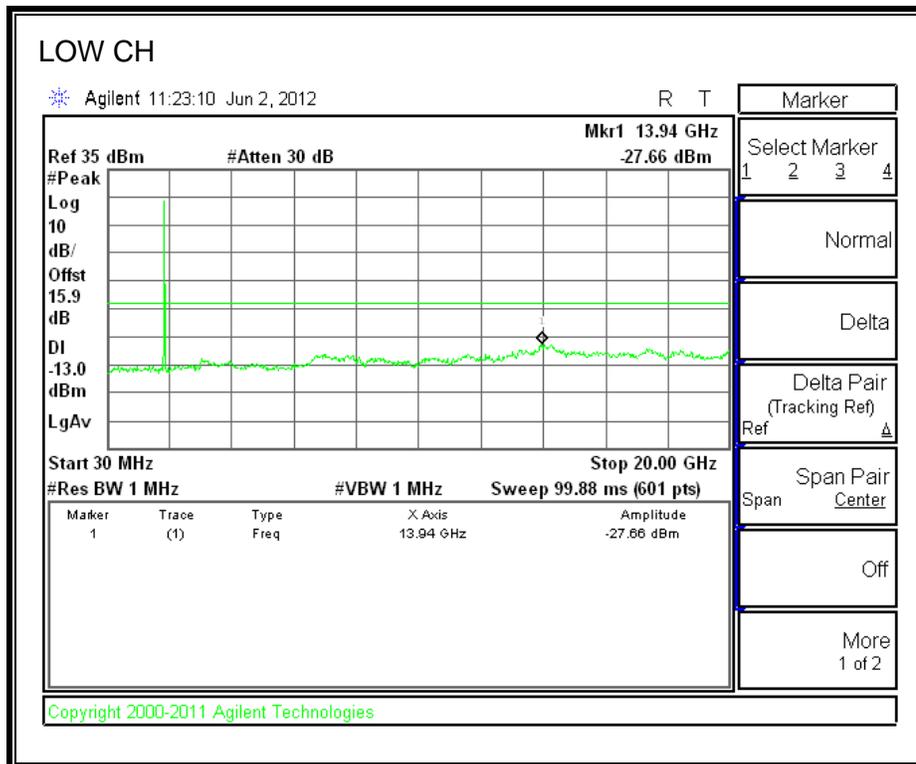


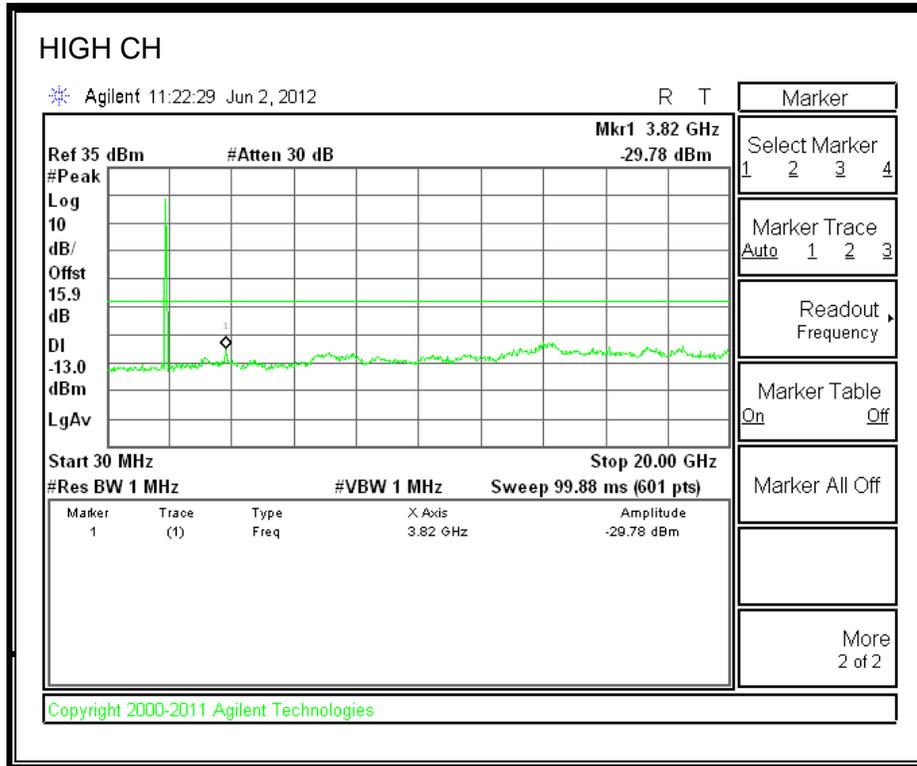
EGPRS Mode (PCS Band)



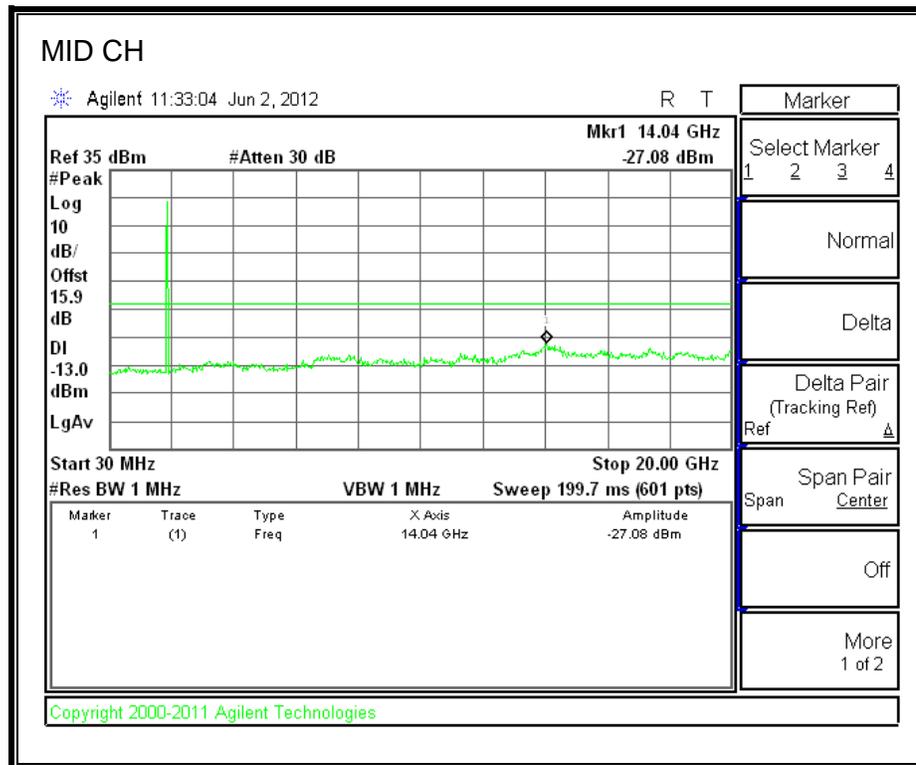
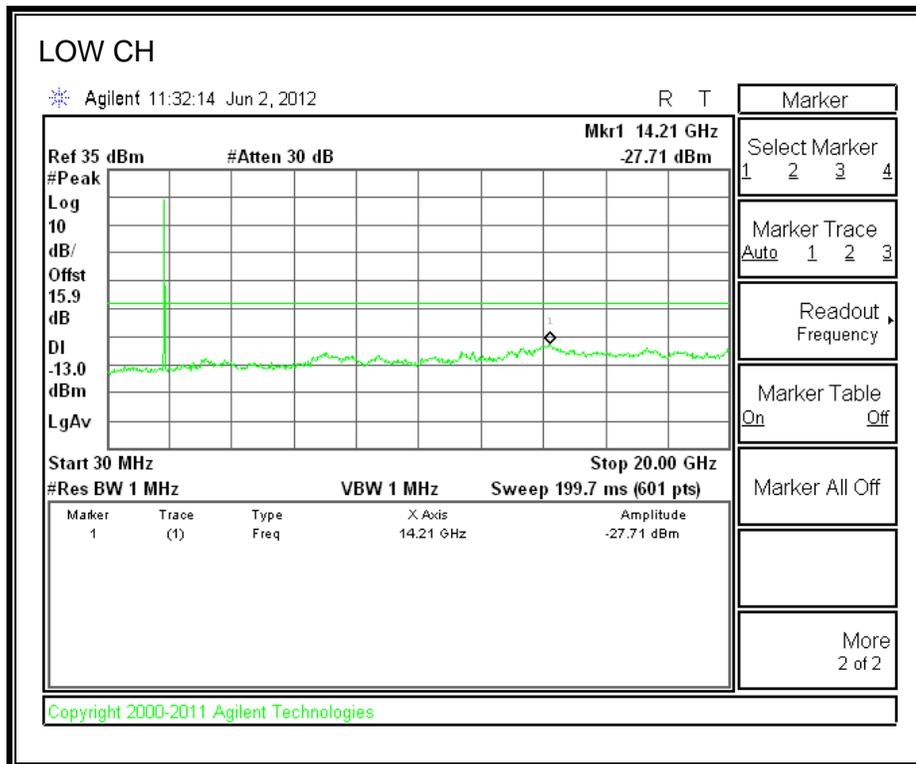


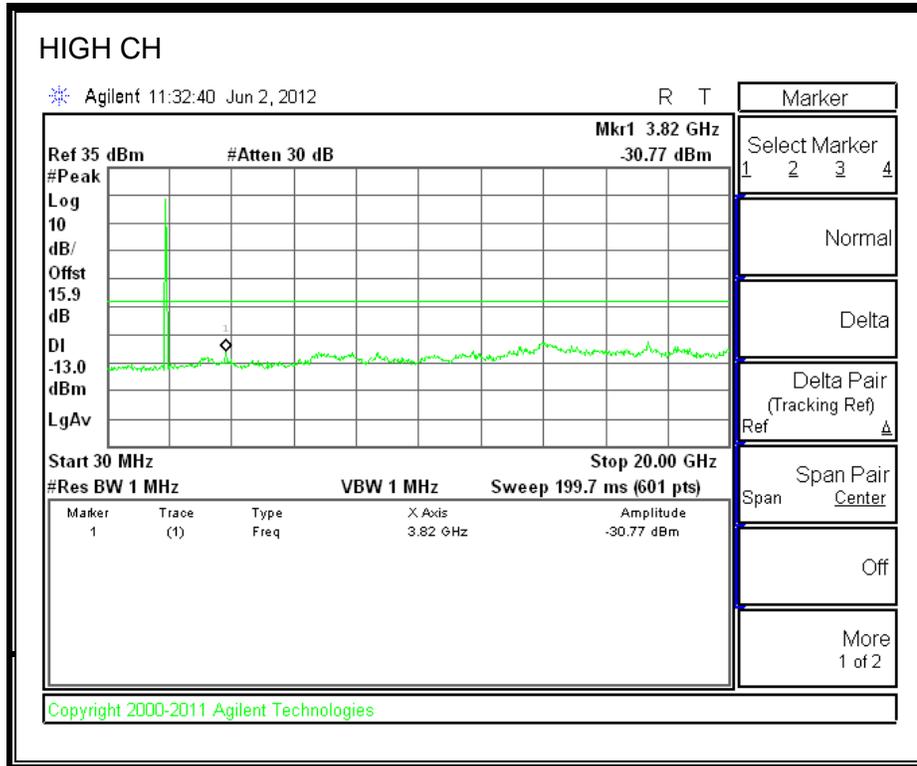
UMTS REL 99 (PCS Band)



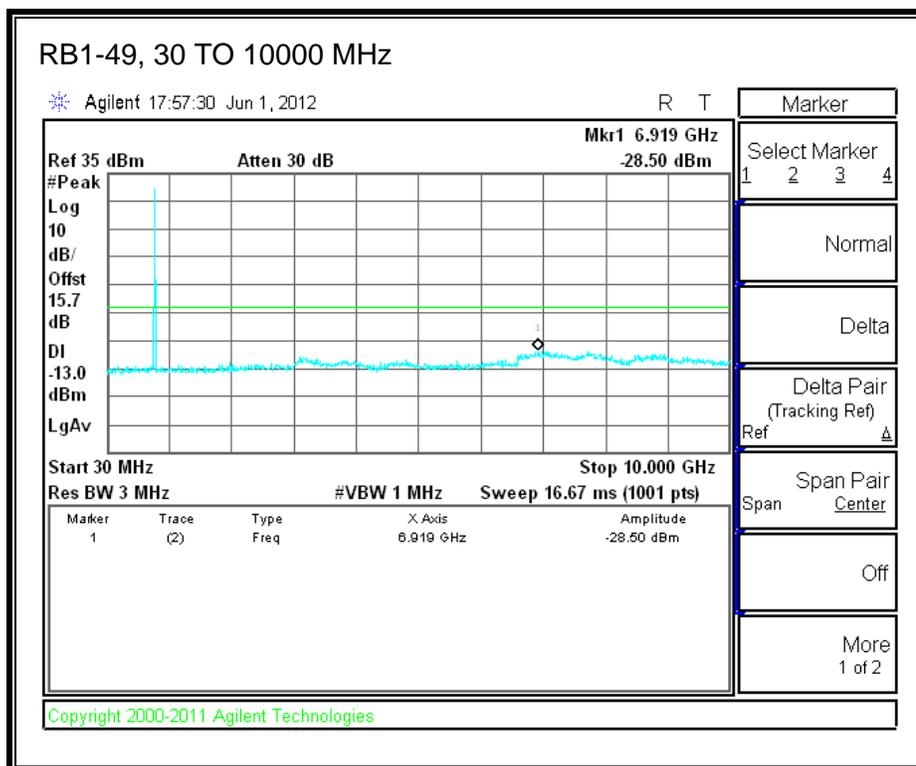
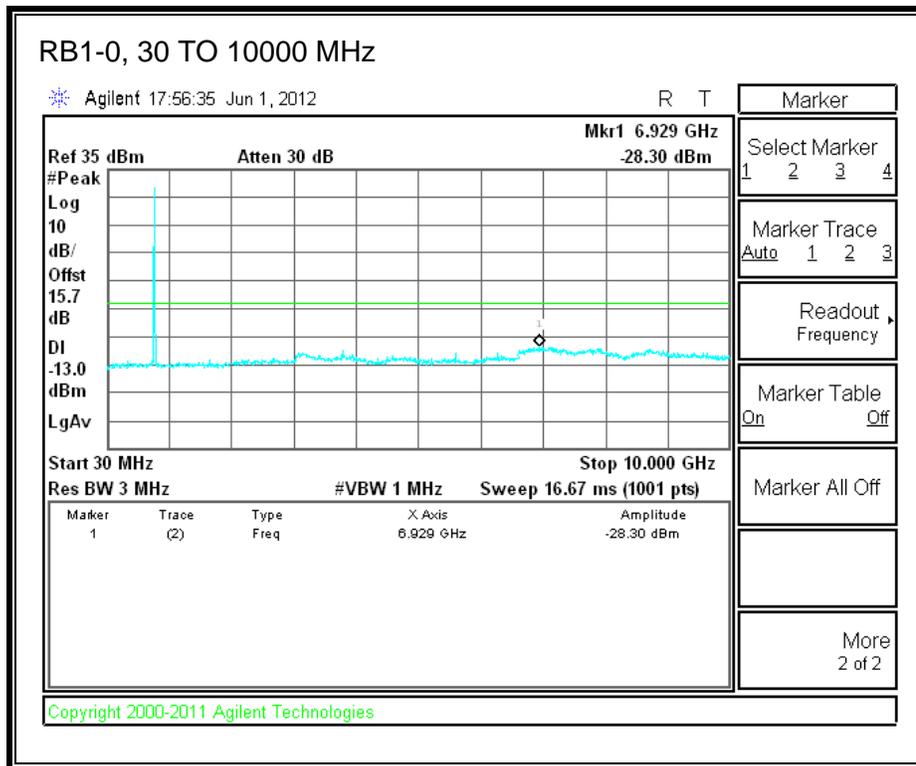


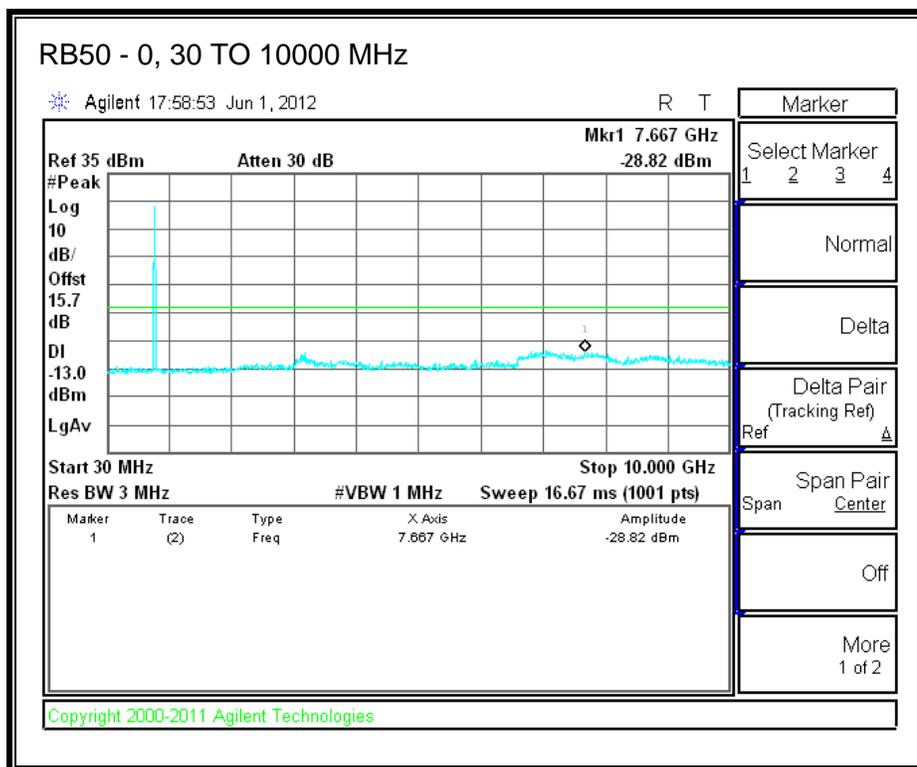
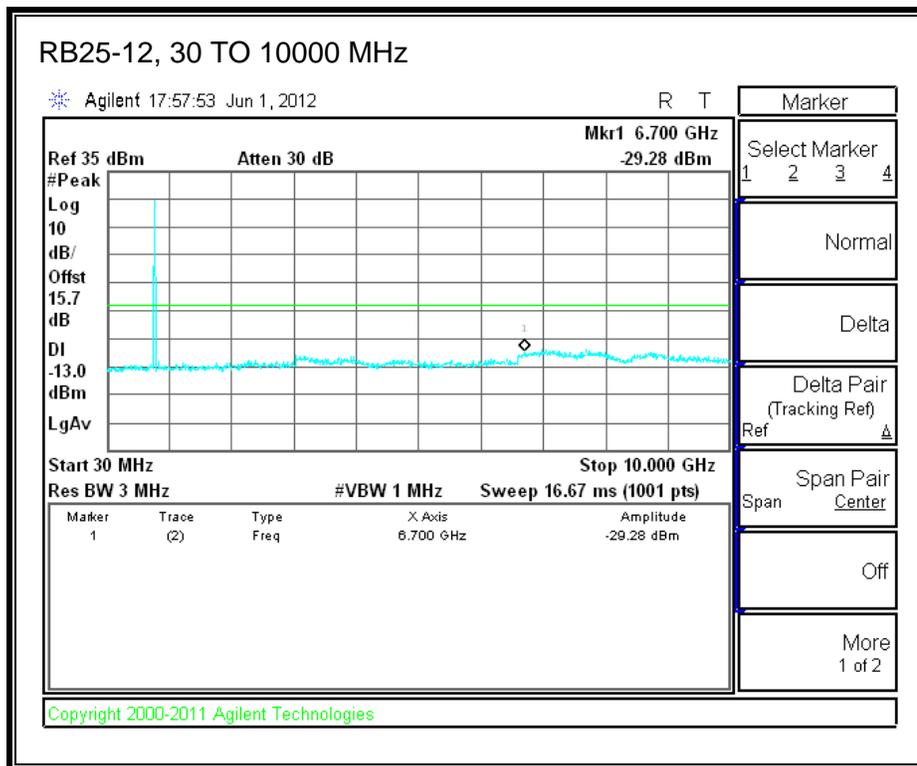
UMTS HSDPA (PCS Band)



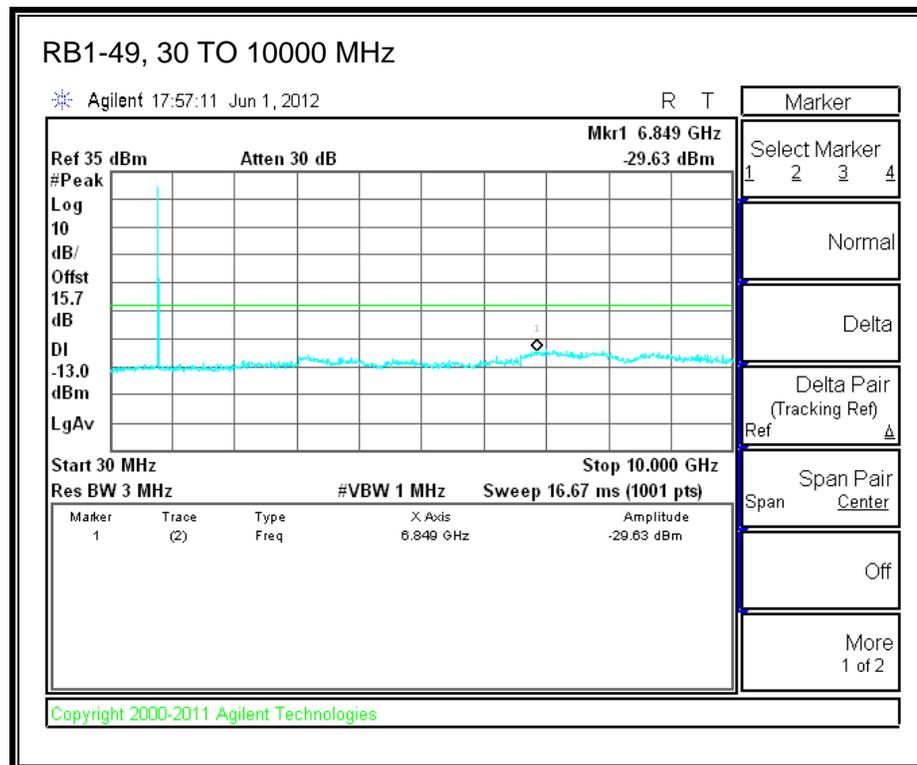
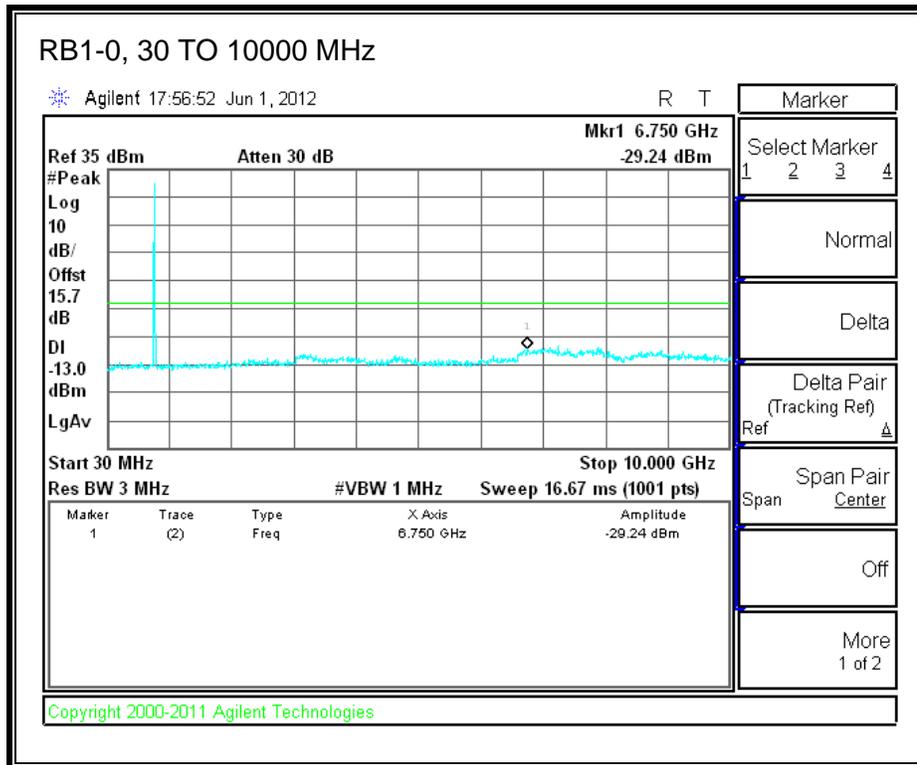


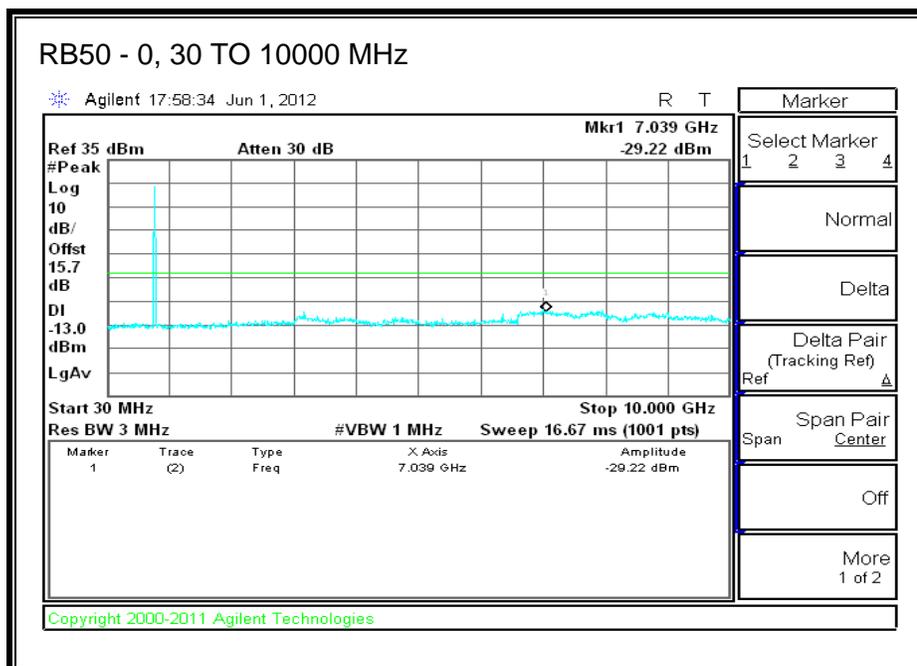
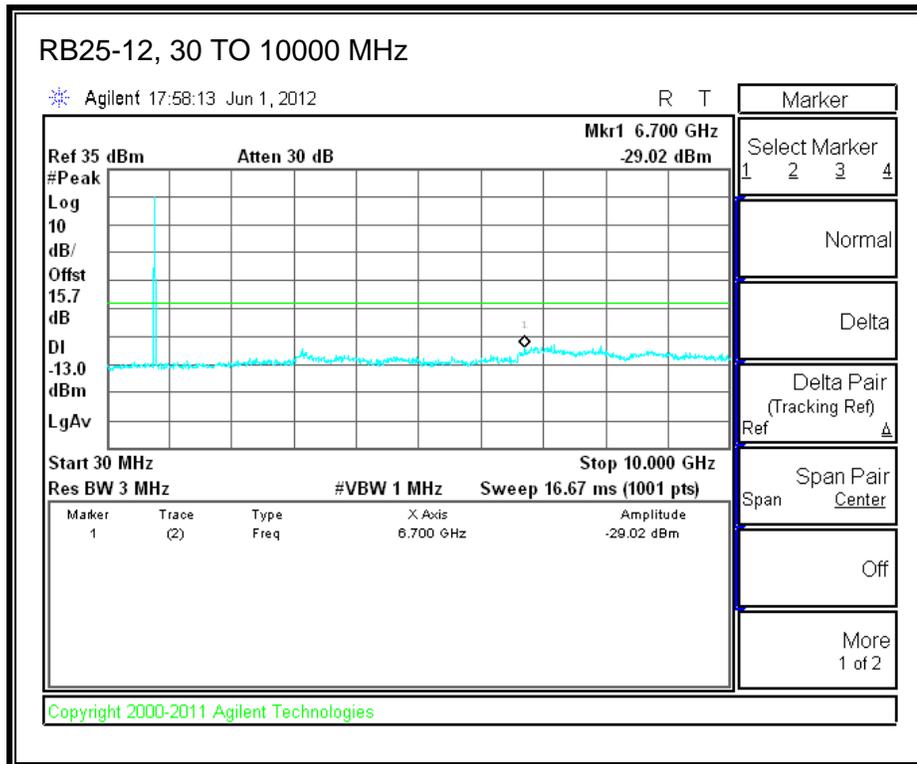
LTE QPSK Band 13





LTE 16QAM Band 13





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. = -20° to $+50^{\circ}$ C
- Voltage = 3.80 Vdc (85% - 115%)

Frequency Stability vs Temperature:

The EUT is placed 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 $+50^{\circ}$ 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

RESULTS

See the following pages.

CELL CDMA2000 1xRTT- MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.519995MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.519994	0.001	2.5
3.80	40	836.519991	0.005	2.5
3.80	30	836.519985	0.012	2.5
3.80	20	836.519995	0	2.5
3.80	10	836.519989	0.007	2.5
3.80	0	836.519992	0.004	2.5
3.80	-10	836.519990	0.006	2.5
3.80	-20	836.519998	-0.004	2.5
3.80	-30	836.519996	-0.001	2.5

Reference Frequency: Cellular Mid Channel 836.519995MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	836.519995	0	2.5
85%	20	836.519992	0.004	2.5
115%	20	836.519994	0.001	2.5

PCS, CDMA2000 1xRTT - MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999968MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1879.999973	-0.003	2.5
3.80	40	1879.999979	-0.006	2.5
3.80	30	1879.999986	-0.010	2.5
3.80	20	1879.999968	0	2.5
3.80	10	1879.999977	-0.005	2.5
3.80	0	1879.999974	-0.003	2.5
3.80	-10	1879.999920	0.026	2.5
3.80	-20	1879.999972	-0.002	2.5
3.80	-30	1879.999970	-0.001	2.5

Reference Frequency: PCS Mid Channel 1879.999968MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1879.999968	0	2.5
85%	20	1879.999974	-0.003	2.5
115%	20	1879.999970	-0.001	2.5

CELL GSM – MID CHANNEL (GPRS)

Reference Frequency: Cellular Mid Channel 836.600021MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.599975	0.055	2.5
3.80	40	836.599988	0.039	2.5
3.80	30	836.600010	0.013	2.5
3.80	20	836.600021	0	2.5
3.80	10	836.600024	-0.004	2.5
3.80	0	836.600028	-0.008	2.5
3.80	-10	836.600032	-0.013	2.5
3.80	-20	836.600045	-0.029	2.5
3.80	-30	836.600063	-0.050	2.5

Reference Frequency: Cellular Mid Channel 836.600021MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	836.600021	0	2.5
85%	20	836.600027	-0.007	2.5
115%	20	836.600035	-0.017	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 (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1880.000035	0.001	2.5
3.80	40	1880.000028	0.004	2.5
3.80	30	1880.000023	0.007	2.5
3.80	20	1880.000036	0	2.5
3.80	10	1880.000038	-0.001	2.5
3.80	0	1880.000033	0.002	2.5
3.80	-10	1880.000041	-0.003	2.5
3.80	-20	1880.000061	-0.013	2.5
3.80	-30	1880.000071	-0.019	2.5

Reference Frequency: PCS Mid Channel 1880.000034MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1880.000036	0	2.5
85%	20	1880.000048	-0.006	2.5
115%	20	1880.000050	-0.007	2.5

CELL GSM – MID CHANNEL (EGPRS)

Reference Frequency: Cellular Mid Channel 836.599993MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.599986	0.008	2.5
3.80	40	836.599976	0.020	2.5
3.80	30	836.599979	0.017	2.5
3.80	20	836.599993	0	2.5
3.80	10	836.600015	-0.026	2.5
3.80	0	836.600025	-0.038	2.5
3.80	-10	836.600028	-0.042	2.5
3.80	-20	836.600036	-0.051	2.5
3.80	-30	836.600043	-0.060	2.5

Reference Frequency: Cellular Mid Channel 836.599993MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	836.599993	0	2.5
85%	20	836.600015	-0.026	2.5
115%	20	836.600018	-0.030	2.5

PCS, GSM – MID CHANNEL (EGPRS)

Reference Frequency: PCS Mid Channel 1880.000026MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1880.000024	0.001	2.5
3.80	40	1880.000018	0.004	2.5
3.80	30	1880.000021	0.003	2.5
3.80	20	1880.000026	0	2.5
3.80	10	1880.000035	-0.005	2.5
3.80	0	1880.000037	-0.006	2.5
3.80	-10	1880.000045	-0.010	2.5
3.80	-20	1880.000063	-0.020	2.5
3.80	-30	1880.000068	-0.022	2.5

Reference Frequency: PCS Mid Channel 1880.000026MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100.0%	20	1880.000026	0	2.5
85.0%	20	1880.000038	-0.006	2.5
115.0%	20	1880.000033	-0.004	2.5

PCS UMTS, REL 99 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999974MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1880.000035	-0.032	2.5
3.80	40	1880.000020	-0.024	2.5
3.80	30	1879.999978	-0.002	2.5
3.80	20	1879.999974	0	2.5
3.80	10	1879.999977	-0.002	2.5
3.80	0	1879.999972	0.001	2.5
3.80	-10	1879.999976	-0.001	2.5
3.80	-20	1879.999951	0.012	2.5
3.80	-30	1879.999940	0.018	2.5

Reference Frequency: PCS Mid Channel 1879.999974MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1879.999974	0	2.5
85%	20	1879.999978	-0.002	2.5
115%	20	1879.999964	0.005	2.5

PCS UMTS, HSDPA – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999962MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1879.999980	-0.010	2.5
3.80	40	1879.999979	-0.009	2.5
3.80	30	1879.999980	-0.010	2.5
3.80	20	1879.999962	0	2.5
3.80	10	1879.999958	0.002	2.5
3.80	0	1879.999954	0.004	2.5
3.80	-10	1879.999951	0.006	2.5
3.80	-20	1879.999950	0.006	2.5
3.80	-30	1879.999949	0.007	2.5

Reference Frequency: PCS Mid Channel 1879.999962MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1879.999962	0	2.5
85%	20	1879.999969	-0.004	2.5
115%	20	1879.999972	-0.005	2.5

LTE QPSK BAND 13 @ 782 MHz

Reference Frequency: LTE Band 782.000006MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 1955.000 Hz				
Power Supply (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	782.000008	-0.003	2.5
3.80	40	782.000008	-0.003	2.5
3.80	30	782.000005	0.001	2.5
3.80	20	782.000006	0	2.5
3.80	10	782.000004	0.003	2.5
3.80	0	781.999998	0.010	2.5
3.80	-10	781.999997	0.012	2.5
3.80	-20	782.000009	-0.004	2.5
3.80	-30	782.000014	-0.010	2.5

Reference Frequency: Cellular Mid Channel 782.000006Hz @ 20°C				
Limit: to stay +/- 2.5 ppm = 1955.000 Hz				
Power Supply (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	782.000006	0	2.5
85%	20	782.000008	-0.003	2.5
115%	20	782.000003	0.004	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 (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	782.000014	-0.003	2.5
3.80	40	782.000007	0.006	2.5
3.80	30	782.000015	-0.004	2.5
3.80	20	782.000012	0	2.5
3.80	10	782.000008	0.005	2.5
3.80	0	782.000005	0.009	2.5
3.80	-10	781.999999	0.017	2.5
3.80	-20	781.999998	0.018	2.5
3.80	-30	781.999998	0.018	2.5

Reference Frequency: Cellular Mid Channel 782.000009MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 1955.000 Hz				
Power Supply (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	782.000012	0	2.5
85%	20	782.000014	-0.003	2.5
115%	20	782.000008	0.005	2.5

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 – RC2, S09
- CDMA2000 1xEV-DO Revision A (Rev. A)
- GPRS and EGPRS
- UMTS, REL 99 and HSDPA
- LTE Band 13

RESULTS

ERP CELL BANDS

Mode	EUT	Channel	f (MHz)	ERP	
				dBm	mW
CDMA2000 1xRTT	STANDARD COVER	1013	824.70	24.30	269.15
		384	836.52	23.80	239.88
		777	848.31	24.20	263.03
	INDUCTIVE COVER	1013	824.70	24.90	309.03
		384	836.52	24.70	295.12
		777	848.31	24.90	309.03
	INDUCTIVE CHARGER	1013	824.70	21.90	154.88
		384	836.52	21.60	144.54
		777	848.31	21.80	151.36
CDMA2000 EVDO-REV A	STANDARD COVER	1013	824.70	23.40	218.78
		384	836.52	23.70	234.42
		777	848.31	22.50	177.83
	INDUCTIVE COVER	1013	824.70	24.10	257.04
		384	836.52	23.40	218.78
		777	848.31	23.00	199.53
	INDUCTIVE CHARGER	1013	824.70	21.20	131.83
		384	836.52	19.50	89.13
		777	848.31	19.20	83.18

Mode	EUT	Channel	f (MHz)	ERP	
				dBm	mW
GPRS	STANDARD COVER	128	824.20	30.10	1023.29
		190	836.60	29.50	891.25
		251	848.80	29.74	941.89
	INDUCTIVE COVER	128	824.20	29.40	870.96
		190	836.60	29.30	851.14
		251	848.80	29.00	794.33
	INDUCTIVE CHARGER	128	824.20	28.40	691.83
		190	836.60	27.50	562.34
		251	848.80	27.00	501.19
EGPRS	STANDARD COVER	128	824.20	27.80	602.56
		190	836.60	26.70	467.74
		251	848.80	28.20	660.69
	INDUCTIVE COVER	128	824.20	26.90	489.78
		190	836.60	25.70	371.54
		251	848.80	25.90	389.05
	INDUCTIVE CHARGER	128	824.20	25.60	363.08
		190	836.60	24.30	269.15
		251	848.80	24.00	251.19

EIRP PCS BANDS

Mode	EUT	Channel	f (MHz)	EIRP	
				dBm	mW
CDMA2000 1xRTT	STANDARD COVER	25	1851.25	28.17	656.15
		600	1880.00	28.81	760.33
		1175	1908.75	27.25	530.88
	INDUCTIVE COVER	25	1851.25	28.17	656.15
		600	1880.00	27.91	618.02
		1175	1908.75	27.55	568.85
	INDUCTIVE CHARGER	25	1851.25	26.72	469.89
		600	1880.00	27.36	544.50
		1175	1908.75	26.90	489.78
CDMA2000 EVDO-REV A	STANDARD COVER	25	1851.25	30.77	1193.99
		600	1880.00	31.41	1383.57
		1175	1908.75	29.95	988.55
	INDUCTIVE COVER	25	1851.25	30.37	1088.93
		600	1880.00	30.91	1233.10
		1175	1908.75	28.25	668.34
	INDUCTIVE CHARGER	25	1851.25	26.97	497.74
		600	1880.00	27.71	590.20
		1175	1908.75	26.95	495.45

Mode	EUT	Channel	f (MHz)	EIRP	
				dBm	mW
GPRS	STANDARD COVER	512	1850.20	31.37	1370.88
		661	1880.00	31.31	1352.07
		810	1909.80	30.75	1188.50
	INDUCTIVE COVER	512	1850.20	30.47	1114.29
		661	1880.00	30.31	1073.99
		810	1909.80	29.55	901.57
	INDUCTIVE CHARGER	512	1850.20	27.82	605.34
		661	1880.00	27.86	610.94
		810	1909.80	27.90	616.60
EGPRS	STANDARD COVER	512	1850.20	29.77	948.42
		661	1880.00	30.11	1025.65
		810	1909.80	30.25	1059.25
	INDUCTIVE COVER	512	1850.20	29.27	845.28
		661	1880.00	29.41	872.97
		810	1909.80	28.35	683.91
	INDUCTIVE CHARGER	512	1850.20	27.32	539.51
		661	1880.00	27.56	570.16
		810	1909.80	27.50	562.34

Mode	EUT	Channel	f (MHz)	EIRP	
				dBm	mW
UMTS, REL 99	STANDARD COVER	9662	1852.40	24.97	314.05
		9800	1880.00	25.51	355.63
		9938	1907.60	25.45	350.75
	INDUCTIVE COVER	9662	1852.40	25.97	395.37
		9800	1880.00	27.11	514.04
		9938	1907.60	25.75	375.84
	INDUCTIVE CHARGER	9662	1852.40	23.92	246.60
		9800	1880.00	24.36	272.90
		9938	1907.60	23.90	245.47
UMTS, HSDPA	STANDARD COVER	9662	1852.40	28.66	734.51
		9800	1880.00	28.81	760.33
		9938	1907.60	28.35	683.91
	INDUCTIVE COVER	9662	1852.40	27.67	584.79
		9800	1880.00	28.01	632.41
		9938	1907.60	27.55	568.85
	INDUCTIVE CHARGER	9662	1852.40	25.72	373.25
		9800	1880.00	25.06	320.63
		9938	1907.60	27.00	501.19

LTE BAND 13 (ERP)

STANDARD COVER

Mode	RB/RB SIZE	f (MHz)	ERP	
			dBm	mW
10 MHz BAND QPSK	1/0	782.0	24.95	312.61
	1/49		23.85	242.66
	25/12		25.15	327.34
	50/0		24.45	278.61
10 MHz BAND 16QAM	1/0		25.05	319.89
	1/49		24.25	266.07
	25/12		25.85	384.59
	50/0		25.85	384.59

INDUCTIVE COVER

Mode	RB/RB SIZE	f (MHz)	ERP	
			dBm	mW
10 MHz BAND QPSK	1/0	782.0	24.85	305.49
	1/49		24.85	305.49
	25/12		25.25	334.97
	50/0		25.15	327.34
10 MHz BAND 16QAM	1/0		24.95	312.61
	1/49		25.36	343.56
	25/12		25.19	330.37
	50/0		24.86	306.20

INDUCTIVE CHARGER

Mode	RB/RB SIZE	f (MHz)	ERP	
			dBm	mW
10 MHz BAND QPSK	1/0	782.0	23.72	235.50
	1/49		22.85	192.75
	25/12		24.36	272.90
	50/0		23.75	237.14
10 MHz BAND 16QAM	1/0		23.76	237.68
	1/49		22.72	187.07
	25/12		24.11	257.63
	50/0		24.53	283.79

1xRTT (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG						
Project #:		12U14433						
Date:		05/15/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) and AC adapter						
Mode:		CDMA 1xRTT Cell						
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
Low Ch								
824.70	19.10	V	0.5	0.0	18.60	38.5	-19.8	
824.70	24.80	H	0.5	0.0	24.30	38.5	-14.1	
Mid Ch								
836.52	19.84	V	0.5	0.0	19.34	38.5	-19.1	
836.52	24.30	H	0.5	0.0	23.80	38.5	-14.7	
High Ch								
848.31	18.81	V	0.5	0.0	18.31	38.5	-20.1	
848.31	24.70	H	0.5	0.0	24.20	38.5	-14.2	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG						
Project #:		12U14433						
Date:		05/15/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Inductive Cover) and Ac adapter						
Mode:		CDMA 1xRTT Cell						
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
Low Ch								
824.70	19.10	V	0.5	0.0	18.60	38.5	-19.8	
824.70	25.40	H	0.5	0.0	24.90	38.5	-13.5	
Mid Ch								
836.52	19.64	V	0.5	0.0	19.14	38.5	-19.3	
836.52	25.20	H	0.5	0.0	24.70	38.5	-13.8	
High Ch								
848.31	19.11	V	0.5	0.0	18.61	38.5	-19.8	
848.31	25.40	H	0.5	0.0	24.90	38.5	-13.5	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

**High Frequency Substitution Measurement
 Compliance Certification Services Chamber B**

Company: LG ELECTRONICS
Project #: 12U14433
Date: 05/15/12
Test Engineer: Chin Pang
Configuration: EUT (on Inductive Chargeing Pad) and AC adapter
Mode: TX, CDMA 1xRTT mode, Cell

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
Low Ch								
824.70	14.90	V	0.5	0.0	14.40	38.5	-24.0	
824.70	22.40	H	0.5	0.0	21.90	38.5	-16.5	
Mid Ch								
836.52	16.64	V	0.5	0.0	16.14	38.5	-22.3	
836.52	22.10	H	0.5	0.0	21.60	38.5	-16.9	
High Ch								
848.31	17.61	V	0.5	0.0	17.11	38.5	-21.3	
848.31	22.30	H	0.5	0.0	21.80	38.5	-16.6	

Rev. 3.17.11

EVDO REV A (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) and AC Adapter						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	14.70	V	0.5	0.0	14.20	38.5	-24.2	
824.70	23.90	H	0.5	0.0	23.40	38.5	-15.0	
836.52	15.64	V	0.5	0.0	15.14	38.5	-23.3	
836.52	24.20	H	0.5	0.0	23.70	38.5	-14.7	
848.31	14.31	V	0.5	0.0	13.81	38.5	-24.6	
848.31	23.00	H	0.5	0.0	22.50	38.5	-15.9	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (INDUCTIVE COVDR) AND AC ADAPTER						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	14.90	V	0.5	0.0	14.40	38.5	-24.0	
824.70	24.60	H	0.5	0.0	24.10	38.5	-14.3	
836.52	15.64	V	0.5	0.0	15.14	38.5	-23.3	
836.52	23.90	H	0.5	0.0	23.40	38.5	-15.1	
848.31	15.01	V	0.5	0.0	14.51	38.5	-23.9	
848.31	23.50	H	0.5	0.0	23.00	38.5	-15.4	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:	LG ELECTRONICS							
Project #:	12U14433							
Date:	05/18/12							
Test Engineer:	Chin Pang							
Configuration:	EUT (Inductive Charger) and AC Adapter							
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.20	17.90	V	0.5	0.0	17.40	38.5	-21.0	
824.20	21.70	H	0.5	0.0	21.20	38.5	-17.2	
836.60	18.64	V	0.5	0.0	18.14	38.5	-20.3	
836.60	20.00	H	0.5	0.0	19.50	38.5	-19.0	
848.80	17.21	V	0.5	0.0	16.71	38.5	-21.7	
848.80	19.70	H	0.5	0.0	19.20	38.5	-19.2	
Rev. 3.17.11								

GPRS (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.20	24.60	V	0.5	0.0	24.10	38.5	-14.3	
824.20	30.60	H	0.5	0.0	30.10	38.5	-8.3	
836.60	24.94	V	0.5	0.0	24.44	38.5	-14.0	
836.60	30.00	H	0.5	0.0	29.50	38.5	-9.0	
848.80	24.61	V	0.5	0.0	24.11	38.5	-14.3	
848.80	30.24	H	0.5	0.0	29.74	38.5	-8.7	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.20	24.40	V	0.5	0.0	23.90	38.5	-14.5	
824.20	29.90	H	0.5	0.0	29.40	38.5	-9.0	
836.60	24.64	V	0.5	0.0	24.14	38.5	-14.3	
836.60	29.80	H	0.5	0.0	29.30	38.5	-9.2	
848.80	24.31	V	0.5	0.0	23.81	38.5	-14.6	
848.80	29.50	H	0.5	0.0	29.00	38.5	-9.4	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:	LG ELECTRONICS							
Project #:	12U14433							
Date:	05/25/12							
Test Engineer:	Chin Pang							
Configuration:	EUT (INDUCTIVE CHARGER), 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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.20	21.90	V	0.5	0.0	21.40	38.5	-17.0	
824.20	28.90	H	0.5	0.0	28.40	38.5	-10.0	
836.60	22.64	V	0.5	0.0	22.14	38.5	-16.3	
836.60	28.00	H	0.5	0.0	27.50	38.5	-11.0	
848.80	22.11	V	0.5	0.0	21.61	38.5	-16.8	
848.80	27.50	H	0.5	0.0	27.00	38.5	-11.4	
Rev. 3.17.11								

EGPRS (Cellular Band)

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
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
824.20	19.40	V	0.5	0.0	18.90	38.5	-19.5	
824.20	28.30	H	0.5	0.0	27.80	38.5	-10.6	
836.60	20.64	V	0.5	0.0	20.14	38.5	-18.3	
836.60	27.20	H	0.5	0.0	26.70	38.5	-11.8	
848.80	20.11	V	0.5	0.0	19.61	38.5	-18.8	
848.80	28.70	H	0.5	0.0	28.20	38.5	-10.2	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

**High Frequency Substitution Measurement
 Compliance Certification Services Chamber B**

Company: LG ELECTRONICS
Project #: 12U14433
Date: 05/26/12
Test Engineer: Chin Pang
Configuration: EUT (Inductive 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
824.20	19.20	V	0.5	0.0	18.70	38.5	-19.7	
824.20	27.40	H	0.5	0.0	26.90	38.5	-11.5	
836.60	20.44	V	0.5	0.0	19.94	38.5	-18.5	
836.60	26.20	H	0.5	0.0	25.70	38.5	-12.8	
848.80	19.81	V	0.5	0.0	19.31	38.5	-19.1	
848.80	26.40	H	0.5	0.0	25.90	38.5	-12.5	

Rev. 3.17.11

EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:	LG ELECTRONICS							
Project #:	12U14433							
Date:	05/25/12							
Test Engineer:	Chin Pang							
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.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.20	17.90	V	0.5	0.0	17.40	38.5	-21.0	
824.20	26.10	H	0.5	0.0	25.60	38.5	-12.8	
836.60	19.00	V	0.5	0.0	18.50	38.5	-19.9	
836.60	24.80	H	0.5	0.0	24.30	38.5	-14.1	
848.80	17.61	V	0.5	0.0	17.11	38.5	-21.3	
848.80	24.50	H	0.5	0.0	24.00	38.5	-14.4	
Rev. 3.17.11								

1xRTT (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin pang						
Configuration:		EUT (STANDARD COVDR) 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	20.40	V	0.85	8.62	28.17	33.0	-4.8	
1.851	15.10	H	0.85	8.47	22.72	33.0	-10.3	
1.880	21.200	V	0.85	8.46	28.81	33.0	-4.2	
1.880	16.150	H	0.85	8.36	23.66	33.0	-9.3	
1.909	19.80	V	0.85	8.30	27.25	33.0	-5.8	
1.909	14.50	H	0.85	8.25	21.90	33.0	-11.1	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin pang						
Configuration:		EUT (Inductive Cover) 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	20.40	V	0.85	8.62	28.17	33.0	-4.8	
1.851	15.10	H	0.85	8.47	22.72	33.0	-10.3	
1.880	20.300	V	0.85	8.46	27.91	33.0	-5.1	
1.880	15.850	H	0.85	8.36	23.36	33.0	-9.6	
1.909	20.10	V	0.85	8.30	27.55	33.0	-5.5	
1.909	15.00	H	0.85	8.25	22.40	33.0	-10.6	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/15/12						
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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	14.3	V	0.85	8.62	22.08	33.0	-10.9	
1.851	19.1	H	0.85	8.47	26.72	33.0	-6.3	
1.880	17.9	V	0.85	8.46	25.51	33.0	-7.5	
1.880	19.9	H	0.85	8.36	27.36	33.0	-5.6	
1.909	12.5	V	0.85	8.30	19.96	33.0	-13.0	
1.909	19.5	H	0.85	8.25	26.90	33.0	-6.1	
Rev. 3.17.11								

CDMA2000 1xEV-DO Revision A (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	23.0	V	0.85	8.62	30.77	33.0	-2.2	
1.851	14.8	H	0.85	8.47	22.42	33.0	-10.6	
1.880	23.8	V	0.85	8.46	31.41	33.0	-1.6	
1.880	15.2	H	0.85	8.36	22.66	33.0	-10.3	
1.909	22.5	V	0.85	8.30	29.95	33.0	-3.1	
1.909	15.0	H	0.85	8.25	22.40	33.0	-10.6	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Inductive Cover) and AC Adapter						
Mode:		TX, 1900 MHz BAND, CDMA EVDO Rev A Y worst case						
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
1.851	22.6	V	0.85	8.62	30.37	33.0	-2.6	
1.851	15.1	H	0.85	8.47	22.72	33.0	-10.3	
1.880	23.3	V	0.85	8.46	30.91	33.0	-2.1	
1.880	15.9	H	0.85	8.36	23.36	33.0	-9.6	
1.909	20.8	V	0.85	8.30	28.25	33.0	-4.8	
1.909	15.5	H	0.85	8.25	22.90	33.0	-10.1	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/18/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (INDUCTIVE CHARGER) 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	19.2	V	0.85	8.62	26.97	33.0	-6.0	
1.851	16.6	H	0.85	8.47	24.22	33.0	-8.8	
1.880	20.1	V	0.85	8.46	27.71	33.0	-5.3	
1.880	17.7	H	0.85	8.36	25.21	33.0	-7.8	
1.909	19.5	V	0.85	8.30	26.95	33.0	-6.1	
1.909	17.9	H	0.85	8.25	25.30	33.0	-7.7	
Rev. 3.17.11								

GPRS (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	23.6	V	0.85	8.62	31.37	33.0	-1.6	
1.850	16.1	H	0.85	8.47	23.72	33.0	-9.3	
1.880	23.7	V	0.85	8.46	31.31	33.0	-1.7	
1.880	16.1	H	0.85	8.36	23.56	33.0	-9.4	
1.910	23.3	V	0.85	8.30	30.75	33.0	-2.3	
1.910	17.0	H	0.85	8.25	24.40	33.0	-8.6	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
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 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	30.47	33.0	-2.5	
1.850	13.7	H	0.85	8.47	21.32	33.0	-11.7	
1.880	22.7	V	0.85	8.46	30.31	33.0	-2.7	
1.880	14.4	H	0.85	8.36	21.86	33.0	-11.1	
1.910	22.1	V	0.85	8.30	29.55	33.0	-3.5	
1.910	14.7	H	0.85	8.25	22.10	33.0	-10.9	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (On Inductive Charger) 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	13.7	V	0.85	8.62	21.47	33.0	-11.5	
1.850	20.2	H	0.85	8.47	27.82	33.0	-5.2	
1.880	14.5	V	0.85	8.46	22.11	33.0	-10.9	
1.880	20.4	H	0.85	8.36	27.86	33.0	-5.1	
1.910	14.3	V	0.85	8.30	21.75	33.0	-11.3	
1.910	20.5	H	0.85	8.25	27.90	33.0	-5.1	
Rev. 3.17.11								

EGPRS (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) with AC Adapter 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	22.0	V	0.85	8.62	29.77	33.0	-3.2	
1.850	14.1	H	0.85	8.47	21.72	33.0	-11.3	
1.880	22.5	V	0.85	8.46	30.11	33.0	-2.9	
1.880	14.3	H	0.85	8.36	21.76	33.0	-11.2	
1.910	22.8	V	0.85	8.30	30.25	33.0	-2.8	
1.910	14.5	H	0.85	8.25	21.90	33.0	-11.1	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Inductive Cover) with AC Adapter 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	21.5	V	0.85	8.62	29.27	33.0	-3.7	
1.850	14.8	H	0.85	8.47	22.42	33.0	-10.6	
1.880	21.8	V	0.85	8.46	29.41	33.0	-3.6	
1.880	14.8	H	0.85	8.36	22.26	33.0	-10.7	
1.910	20.9	V	0.85	8.30	28.35	33.0	-4.7	
1.910	14.2	H	0.85	8.25	21.60	33.0	-11.4	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	12.2	V	0.85	8.62	19.97	33.0	-13.0	
1.850	19.7	H	0.85	8.47	27.32	33.0	-5.7	
1.880	11.9	V	0.85	8.46	19.51	33.0	-13.5	
1.880	20.1	H	0.85	8.36	27.56	33.0	-5.4	
1.910	11.8	V	0.85	8.30	19.25	33.0	-13.8	
1.910	20.1	H	0.85	8.25	27.50	33.0	-5.5	
Rev. 3.17.11								

UMTS REL 99 (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) with AC Adapter and Earphone						
Mode:		TX, 1900 MHz BAND, WCDMA Rel 99						
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
1.852	17.2	V	0.85	8.62	24.97	33.0	-8.0	
1.852	13.4	H	0.85	8.47	21.02	33.0	-12.0	
1.880	17.9	V	0.85	8.46	25.51	33.0	-7.5	
1.880	13.9	H	0.85	8.36	21.36	33.0	-11.6	
1.908	18.0	V	0.85	8.30	25.45	33.0	-7.6	
1.908	14.7	H	0.85	8.25	22.10	33.0	-10.9	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Inductive Cover) with AC Adapter and Earphone						
Mode:		TX, 1900 MHz BAND, WCDMA Rel 99						
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
1.852	18.2	V	0.85	8.62	25.97	33.0	-7.0	
1.852	11.8	H	0.85	8.47	19.42	33.0	-13.6	
1.880	19.5	V	0.85	8.46	27.11	33.0	-5.9	
1.880	10.9	H	0.85	8.36	18.36	33.0	-14.6	
1.908	18.3	V	0.85	8.30	25.75	33.0	-7.3	
1.908	15.0	H	0.85	8.25	22.40	33.0	-10.6	
Rev. 3.17.11								

EUT (ON INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (INDUCTIVE CHARGER) and Earphone						
Mode:		TX, 1900 MHz BAND, WCDMA Rel 99						
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
1.852	14.0	V	0.85	8.62	21.77	33.0	-11.2	
1.852	16.3	H	0.85	8.47	23.92	33.0	-9.1	
1.880	14.5	V	0.85	8.46	22.11	33.0	-10.9	
1.880	16.9	H	0.85	8.36	24.36	33.0	-8.6	
1.908	15.3	V	0.85	8.30	22.75	33.0	-10.3	
1.908	16.5	H	0.85	8.25	23.90	33.0	-9.1	
Rev. 3.17.11								

UMTS HSDPA (PCS Band)

EUT (STANDARD COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) with AC Adapter and Earphone						
Mode:		TX, 1900 MHz BAND, WCDMA Rel 99						
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
1.852	20.9	V	0.85	8.62	28.66	33.0	-4.3	
1.852	15.1	H	0.85	8.47	22.72	33.0	-10.3	
1.880	21.2	V	0.85	8.46	28.81	33.0	-4.2	
1.880	15.6	H	0.85	8.36	23.06	33.0	-9.9	
1.908	20.9	V	0.85	8.30	28.35	33.0	-4.7	
1.908	15.7	H	0.85	8.25	23.10	33.0	-9.9	
Rev. 3.17.11								

EUT (INDUCTIVE COVER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Inductive Cover) with AC Adapter 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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.852	19.9	V	0.85	8.62	27.67	33.0	-5.3	
1.852	12.5	H	0.85	8.47	20.12	33.0	-12.9	
1.880	20.4	V	0.85	8.46	28.01	33.0	-5.0	
1.880	12.9	H	0.85	8.36	20.36	33.0	-12.6	
1.908	20.1	V	0.85	8.30	27.55	33.0	-5.5	
1.908	13.2	H	0.85	8.25	20.60	33.0	-12.4	
Rev. 3.17.11								

EUT (INDUCTIVE CHARGER)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/26/12						
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 GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.852	14.7	V	0.85	8.62	22.47	33.0	-10.5	
1.852	18.1	H	0.85	8.47	25.72	33.0	-7.3	
1.880	15.1	V	0.85	8.46	22.71	33.0	-10.3	
1.880	17.6	H	0.85	8.36	25.06	33.0	-7.9	
1.908	15.0	V	0.85	8.30	22.45	33.0	-10.6	
1.908	19.6	H	0.85	8.25	27.00	33.0	-6.0	
Rev. 3.17.11								

LTE BAND 13 QPSK

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:	LG ELECTRONICS							
Project #:	12U14433							
Date:	05/22/12							
Test Engineer:	Chin Pang							
Configuration:	EUT (Standard Cover) 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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
RB=1 & SRB=0, QPSK								
782.00	18.92	V	0.5	0.0	18.42	34.8	-16.4	
782.00	25.45	H	0.5	0.0	24.95	34.8	-9.9	
RB=1 & SRB=49, QPSK								
782.00	20.32	V	0.5	0.0	19.82	34.8	-15.0	
782.00	24.35	H	0.5	0.0	23.85	34.8	-11.0	
RB=25 & SRB=12, QPSK								
782.00	20.82	V	0.5	0.0	20.32	34.8	-14.5	
782.00	25.65	H	0.5	0.0	25.15	34.8	-9.7	
RB=50 & SRB=0								
782.00	20.02	V	0.5	0.0	19.52	34.8	-15.3	
782.00	24.95	H	0.5	0.0	24.45	34.8	-10.4	
Rev. 3.17.11								

LTE BAND 13 16QAM

EUT (STANDARD COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/22/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (Standard Cover) 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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
16QAM								
RB=1 & SRB=0								
782.00	19.72	V	0.5	0.0	19.22	34.8	-15.6	
782.00	25.55	H	0.5	0.0	25.05	34.8	-9.8	
RB=1 & SRB=49								
782.00	20.42	V	0.5	0.0	19.92	34.8	-14.9	
782.00	24.75	H	0.5	0.0	24.25	34.8	-10.6	
RB=25 & SRB=12								
782.00	20.62	V	0.5	0.0	20.12	34.8	-14.7	
782.00	26.35	H	0.5	0.0	25.85	34.8	-9.0	
RB=50 & SRB=0								
782.00	20.22	V	0.5	0.0	19.72	34.8	-15.1	
782.00	26.35	H	0.5	0.0	25.85	38.5	-12.6	
Rev. 3.17.11								

LTE BAND 13 QPSK

EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/22/12						
Test Engineer:		Chin Pang						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
RB=1 & SRB=0, QPSK								
782.00	19.02	V	0.5	0.0	18.52	34.8	-16.3	
782.00	25.35	H	0.5	0.0	24.85	34.8	-10.0	
RB=1 & SRB=49, QPSK								
782.00	20.32	V	0.5	0.0	19.82	34.8	-15.0	
782.00	25.35	H	0.5	0.0	24.85	34.8	-10.0	
RB=25 & SRB=12, QPSK								
782.00	21.42	V	0.5	0.0	20.92	34.8	-13.9	
782.00	25.75	H	0.5	0.0	25.25	34.8	-9.5	
RB=50 & SRB=0								
782.00	20.42	V	0.5	0.0	19.92	34.8	-14.9	
782.00	25.65	H	0.5	0.0	25.15	34.8	-9.7	
Rev. 3.17.11								

LTE BAND 13 16QAM

EUT (INDUCTIVE COVER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/22/12						
Test Engineer:		Chin Pang						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
16QAM								
RB=1 & SRB=0								
782.00	19.12	V	0.5	0.0	18.62	34.8	-16.2	
782.00	25.45	H	0.5	0.0	24.95	34.8	-9.9	
RB=1 & SRB=49								
782.00	20.42	V	0.5	0.0	19.92	34.8	-14.9	
782.00	25.86	H	0.5	0.0	25.36	34.8	-9.4	
RB=25 & SRB=12								
782.00	21.37	V	0.5	0.0	20.87	34.8	-13.9	
782.00	25.69	H	0.5	0.0	25.19	34.8	-9.6	
RB=50 & SRB=0								
782.00	20.32	V	0.5	0.0	19.82	34.8	-15.0	
782.00	25.36	H	0.5	0.0	24.86	38.5	-13.6	
Rev. 3.17.11								

LTE BAND 13 QPSK

EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/22/12						
Test Engineer:		Chin Pang						
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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
RB=1 & SRB=0, QPSK								
782.00	21.52	V	0.5	0.0	21.02	34.8	-13.8	
782.00	24.22	H	0.5	0.0	23.72	34.8	-11.1	
RB=1 & SRB=49, QPSK								
782.00	20.17	V	0.5	0.0	19.67	34.8	-15.1	
782.00	23.35	H	0.5	0.0	22.85	34.8	-12.0	
RB=25 & SRB=12, QPSK								
782.00	22.12	V	0.5	0.0	21.62	34.8	-13.2	
782.00	24.86	H	0.5	0.0	24.36	34.8	-10.4	
RB=50 & SRB=0, QPSK								
782.00	21.12	V	0.5	0.0	20.62	34.8	-14.2	
782.00	24.25	H	0.5	0.0	23.75	34.8	-11.1	
Rev. 3.17.11								

LTE BAND 13 16QAM

EUT (ON INDUCTIVE CHARGER)

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
Company:		LG ELECTRONICS						
Project #:		12U14433						
Date:		05/22/12						
Test Engineer:		Chin Pang						
Configuration:		EUT (INDUCTIVE CHARGER) 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 MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
16QAM								
RB=1 & SRB=0								
782.00	21.98	V	0.5	0.0	21.48	34.8	-13.3	
782.00	24.26	H	0.5	0.0	23.76	34.8	-11.0	
RB=1 & SRB=49								
782.00	20.15	V	0.5	0.0	19.65	34.8	-15.2	
782.00	23.22	H	0.5	0.0	22.72	34.8	-12.1	
RB=25 & SRB=12								
782.00	21.92	V	0.5	0.0	21.42	34.8	-13.4	
782.00	24.61	H	0.5	0.0	24.11	34.8	-10.7	
RB=50 & SRB=0								
782.00	21.44	V	0.5	0.0	20.94	34.8	-13.9	
782.00	25.03	H	0.5	0.0	24.53	34.8	-10.3	
Rev. 3.17.11								

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

1xRTT (Cellular Band)

EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Standard Cover) with AC Adapter and Earphone							
Mode:		TX, CELL Band CDMA 1xRTT Mode							
Chamber		Pre-amplifer			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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, 824.70MHz									
1.649	-11.2	V	3.0	35.5	1.0	-45.8	-13.0	-32.8	
6.598	-4.6	V	3.0	35.6	1.0	-39.3	-13.0	-26.3	
8.247	2.3	V	3.0	35.6	1.0	-32.3	-13.0	-19.3	
1.649	-4.8	H	3.0	35.5	1.0	-39.3	-13.0	-26.3	
6.598	-6.2	H	3.0	35.6	1.0	-40.8	-13.0	-27.8	
8.247	-3.1	H	3.0	35.6	1.0	-37.7	-13.0	-24.7	
Mid Ch, 836.52MHz									
1.673	-12.9	V	3.0	35.5	1.0	-47.4	-13.0	-34.4	
7.529	-2.5	V	3.0	35.7	1.0	-37.2	-13.0	-24.2	
8.365	-2.5	V	3.0	35.6	1.0	-37.2	-13.0	-24.2	
2.510	-0.1	H	3.0	35.4	1.0	-34.5	-13.0	-21.5	
7.529	-3.9	H	3.0	35.7	1.0	-38.6	-13.0	-25.6	
8.365	-3.9	H	3.0	35.6	1.0	-38.6	-13.0	-25.6	
High Ch, 848.31MHz									
1.697	-6.6	V	3.0	35.5	1.0	-41.1	-13.0	-28.1	
5.938	-5.4	V	3.0	35.5	1.0	-39.9	-13.0	-26.9	
8.483	2.6	V	3.0	35.6	1.0	-32.0	-13.0	-19.0	
1.697	-0.3	H	3.0	35.5	1.0	-34.8	-13.0	-21.8	
8.483	-5.8	H	3.0	35.6	1.0	-40.4	-13.0	-27.4	
9.331	-0.9	H	3.0	35.6	1.0	-35.4	-13.0	-22.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, CELL Band CDMA Mode							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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, 824.70MHz									
1.649	-14.2	V	3.0	35.5	1.0	-48.7	-13.0	-35.7	
6.598	-2.6	V	3.0	35.6	1.0	-37.3	-13.0	-24.3	
8.247	0.3	V	3.0	35.6	1.0	-34.3	-13.0	-21.3	
1.649	-14.8	H	3.0	35.5	1.0	-49.3	-13.0	-36.3	
6.598	-6.2	H	3.0	35.6	1.0	-40.8	-13.0	-27.8	
9.072	-1.1	H	3.0	35.6	1.0	-35.7	-13.0	-22.7	
Mid Ch, 836.52MHz									
1.673	-11.9	V	3.0	35.5	1.0	-46.4	-13.0	-33.4	
3.392	-7.6	V	3.0	35.5	1.0	-42.1	-13.0	-29.1	
7.529	-2.5	V	3.0	35.7	1.0	-37.2	-13.0	-24.2	
8.365	2.5	V	3.0	35.6	1.0	-32.2	-13.0	-19.2	
1.673	-13.5	H	3.0	35.5	1.0	-48.1	-13.0	-35.1	
6.692	-4.0	H	3.0	35.7	1.0	-38.7	-13.0	-25.7	
8.365	-3.9	H	3.0	35.6	1.0	-38.6	-13.0	-25.6	
High Ch, 848.31MHz									
1.697	-10.6	V	3.0	35.5	1.0	-45.1	-13.0	-32.1	
5.938	-8.4	V	3.0	35.5	1.0	-42.9	-13.0	-29.9	
8.483	2.6	V	3.0	35.6	1.0	-32.0	-13.0	-19.0	
1.697	-2.3	H	3.0	35.5	1.0	-36.8	-13.0	-23.8	
7.635	-4.8	H	3.0	35.7	1.0	-39.5	-13.0	-26.5	
8.483	-3.8	H	3.0	35.6	1.0	-38.4	-13.0	-25.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(On Inductive Charger) and Earphone							
Mode:		TX, CELL Band CDMA Mode							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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, 824.70MHz									
1.649	-13.2	V	3.0	35.5	1.0	-47.7	-13.0	-34.7	
6.598	-2.6	V	3.0	35.6	1.0	-37.3	-13.0	-24.3	
8.247	-1.7	V	3.0	35.6	1.0	-36.3	-13.0	-23.3	
1.649	-15.8	H	3.0	35.5	1.0	-50.3	-13.0	-37.3	
6.598	-3.2	H	3.0	35.6	1.0	-37.8	-13.0	-24.8	
8.247	0.9	H	3.0	35.6	1.0	-33.7	-13.0	-20.7	
Mid Ch, 836.52MHz									
1.673	-10.9	V	3.0	35.5	1.0	-45.4	-13.0	-32.4	
6.692	-2.5	V	3.0	35.7	1.0	-37.2	-13.0	-24.2	
7.529	3.5	V	3.0	35.7	1.0	-31.2	-13.0	-18.2	
8.365	-3.5	V	3.0	35.6	1.0	-38.2	-13.0	-25.2	
5.856	-4.5	H	3.0	35.5	1.0	-38.9	-13.0	-25.9	
6.692	-4.0	H	3.0	35.7	1.0	-38.7	-13.0	-25.7	
7.529	3.1	H	3.0	35.7	1.0	-31.6	-13.0	-18.6	
8.365	1.1	H	3.0	35.6	1.0	-33.6	-13.0	-20.6	
High Ch, 848.31MHz									
6.787	-3.4	V	3.0	35.7	1.0	-38.1	-13.0	-25.1	
7.635	-0.4	V	3.0	35.7	1.0	-35.1	-13.0	-22.1	
8.483	-1.4	V	3.0	35.6	1.0	-36.0	-13.0	-23.0	
6.787	-3.9	H	3.0	35.7	1.0	-38.5	-13.0	-25.5	
7.635	1.2	H	3.0	35.7	1.0	-33.5	-13.0	-20.5	
8.483	0.2	H	3.0	35.6	1.0	-34.4	-13.0	-21.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

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

EUT (STANDARD COVER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14433
Date: 05/18/12
Test Engineer: Chin Pang
Configuration: EUT(Standard Cover) with AC Adapter and Earphone
Mode: TX, CELL Band CDMA2000, EVDO Rev A

Chamber	Pre-amplifier	Filter	Limit
5m Chamber B	T145 8449B	Filter 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, 824.70MHz									
1.649	-15.2	V	3.0	35.5	1.0	-49.7	-13.0	-36.7	
6.598	-5.6	V	3.0	35.6	1.0	-40.3	-13.0	-27.3	
8.247	2.3	V	3.0	35.6	1.0	-32.3	-13.0	-19.3	
1.649	-17.8	H	3.0	35.5	1.0	-52.3	-13.0	-39.3	
6.598	-3.2	H	3.0	35.6	1.0	-37.8	-13.0	-24.8	
8.247	-0.1	H	3.0	35.6	1.0	-34.7	-13.0	-21.7	
Mid Ch, 836.52MHz									
1.673	-15.0	V	3.0	35.5	1.0	-49.5	-13.0	-36.5	
6.692	-4.5	V	3.0	35.7	1.0	-39.2	-13.0	-26.2	
8.365	-1.5	V	3.0	35.6	1.0	-36.2	-13.0	-23.2	
1.673	-18.5	H	3.0	35.5	1.0	-53.1	-13.0	-40.1	
6.692	-4.0	H	3.0	35.7	1.0	-38.7	-13.0	-25.7	
8.365	2.1	H	3.0	35.6	1.0	-32.6	-13.0	-19.6	
High Ch, 848.31MHz									
1.697	-12.6	V	3.0	35.5	1.0	-47.1	-13.0	-34.1	
6.787	-3.4	V	3.0	35.7	1.0	-38.1	-13.0	-25.1	
3.393	-12.6	V	3.0	35.5	1.0	-47.1	-13.0	-34.1	
1.697	-14.3	H	3.0	35.5	1.0	-48.8	-13.0	-35.8	
6.787	-5.9	H	3.0	35.7	1.0	-40.5	-13.0	-27.5	
3.393	-8.7	H	3.0	35.5	1.0	-43.2	-13.0	-30.2	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EUT (INDUCTIVE COVER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14433
Date: 05/18/12
Test Engineer: Chin Pang
Configuration: EUT(Inductive Cover) with AC Adapter and Earphone
Mode: TX, CELL Band CDMA2000, EVDO Rev A

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

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, 824.70MHz									
1.649	-15.2	V	3.0	35.5	1.0	-49.7	-13.0	-36.7	
6.598	-5.6	V	3.0	35.6	1.0	-40.3	-13.0	-27.3	
8.247	-1.7	V	3.0	35.6	1.0	-36.3	-13.0	-23.3	
1.649	-17.8	H	3.0	35.5	1.0	-52.3	-13.0	-39.3	
6.598	-4.2	H	3.0	35.6	1.0	-38.8	-13.0	-25.8	
8.247	-1.1	H	3.0	35.6	1.0	-35.7	-13.0	-22.7	
Mid Ch, 836.52MHz									
1.673	-14.4	V	3.0	35.5	1.0	-48.9	-13.0	-35.9	
7.529	-5.5	V	3.0	35.7	1.0	-40.2	-13.0	-27.2	
8.365	-1.5	V	3.0	35.6	1.0	-36.2	-13.0	-23.2	
1.673	-16.5	H	3.0	35.5	1.0	-51.1	-13.0	-38.1	
7.529	-4.9	H	3.0	35.7	1.0	-39.6	-13.0	-26.6	
8.365	3.1	H	3.0	35.6	1.0	-31.6	-13.0	-18.6	
High Ch, 848.31MHz									
1.697	-14.6	V	3.0	35.5	1.0	-49.1	-13.0	-36.1	
5.938	-9.4	V	3.0	35.5	1.0	-43.9	-13.0	-30.9	
8.483	-2.4	V	3.0	35.6	1.0	-37.0	-13.0	-24.0	
1.697	-18.3	H	3.0	35.5	1.0	-52.8	-13.0	-39.8	
7.635	-5.8	H	3.0	35.7	1.0	-40.5	-13.0	-27.5	
8.483	1.2	H	3.0	35.6	1.0	-33.4	-13.0	-20.4	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14331							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(On Inductive Charger) and Earphone							
Mode:		TX, CELL Band CDMA2000, EVDO Rev A							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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, 824.70MHz									
1.649	-0.2	V	3.0	35.5	1.0	-34.7	-13.0	-21.7	
2.474	-11.3	V	3.0	35.4	1.0	-45.7	-13.0	-32.7	
3.299	-13.9	V	3.0	35.5	1.0	-48.4	-13.0	-35.4	
1.649	9.7	H	3.0	35.5	1.0	-24.8	-13.0	-11.8	
2.474	-5.2	H	3.0	35.4	1.0	-39.6	-13.0	-26.6	
3.299	-12.0	H	3.0	35.5	1.0	-46.6	-13.0	-33.6	
Mid Ch, 836.52MHz									
1.673	1.1	V	3.0	35.5	1.0	-33.4	-13.0	-20.4	
2.510	-13.2	V	3.0	35.4	1.0	-47.6	-13.0	-34.6	
3.346	-10.7	V	3.0	35.5	1.0	-45.3	-13.0	-32.3	
1.673	9.5	H	3.0	35.5	1.0	-25.1	-13.0	-12.1	
2.510	-10.1	H	3.0	35.4	1.0	-44.5	-13.0	-31.5	
3.346	-12.9	H	3.0	35.5	1.0	-47.4	-13.0	-34.4	
High Ch, 848.31MHz									
1.697	3.4	V	3.0	35.5	1.0	-31.1	-13.0	-18.1	
2.545	-11.0	V	3.0	35.4	1.0	-45.5	-13.0	-32.5	
3.393	-10.6	V	3.0	35.5	1.0	-45.1	-13.0	-32.1	
1.697	8.7	H	3.0	35.5	1.0	-25.8	-13.0	-12.8	
2.545	-12.9	H	3.0	35.4	1.0	-47.3	-13.0	-34.3	
3.393	-13.7	H	3.0	35.5	1.0	-48.2	-13.0	-35.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

GPRS (Cellular Band)

EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/29/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Standard Cover) with AC Adapter and Earphone							
Mode:		TX, CELL BAND GPRS							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	1.8	V	3.0	35.5	1.0	-32.8	-13.0	-19.8	
2.473	-0.3	V	3.0	35.4	1.0	-34.7	-13.0	-21.7	
3.297	0.1	V	3.0	35.5	1.0	-34.4	-13.0	-21.4	
4.946	-8.8	V	3.0	35.3	1.0	-43.1	-13.0	-30.1	
1.648	-2.8	H	3.0	35.5	1.0	-37.3	-13.0	-24.3	
2.473	-8.2	H	3.0	35.4	1.0	-42.6	-13.0	-29.6	
3.297	-3.1	H	3.0	35.5	1.0	-37.6	-13.0	-24.6	
Mid Ch, (836.6MHz)									
1.673	2.1	V	3.0	35.5	1.0	-32.4	-13.0	-19.4	
2.510	-3.2	V	3.0	35.4	1.0	-37.6	-13.0	-24.6	
3.346	1.3	V	3.0	35.5	1.0	-33.3	-13.0	-20.3	
7.529	-4.5	V	3.0	35.7	1.0	-39.2	-13.0	-26.2	
1.673	-2.5	H	3.0	35.5	1.0	-37.1	-13.0	-24.1	
2.510	-10.1	H	3.0	35.4	1.0	-44.5	-13.0	-31.5	
3.346	4.9	H	3.0	35.5	1.0	-39.4	-13.0	-26.4	
4.182	-12.2	H	3.0	35.2	1.0	-46.4	-13.0	-33.4	
High Ch, (848.8MHz)									
1.698	0.4	V	3.0	35.5	1.0	-34.1	-13.0	-21.1	
2.546	-3.0	V	3.0	35.4	1.0	-37.5	-13.0	-24.5	
3.395	-0.6	V	3.0	35.5	1.0	-35.1	-13.0	-22.1	
4.244	-10.5	V	3.0	35.2	1.0	-44.8	-13.0	-31.8	
1.698	-7.3	H	3.0	35.5	1.0	-41.8	-13.0	-28.8	
2.546	-9.9	H	3.0	35.4	1.0	-44.3	-13.0	-31.3	
3.395	-8.7	H	3.0	35.5	1.0	-43.2	-13.0	-30.2	
4.244	-11.0	H	3.0	35.2	1.0	-45.3	-13.0	-32.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/29/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, CELL BAND GPRS							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	3.8	V	3.0	35.5	1.0	-30.8	-13.0	-17.8	
2.473	-1.3	V	3.0	35.4	1.0	-35.7	-13.0	-22.7	
3.297	1.1	V	3.0	35.5	1.0	-33.4	-13.0	-20.4	
1.648	-2.8	H	3.0	35.5	1.0	-37.3	-13.0	-24.3	
2.473	-8.2	H	3.0	35.4	1.0	-42.6	-13.0	-29.6	
3.297	-6.1	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7.418	-4.0	H	3.0	35.7	1.0	-38.7	-13.0	-25.7	
Mid Ch, (836.6MHz)									
1.673	2.1	V	3.0	35.5	1.0	-32.4	-13.0	-19.4	
2.510	-0.2	V	3.0	35.4	1.0	-34.6	-13.0	-21.6	
3.346	0.3	V	3.0	35.5	1.0	-34.3	-13.0	-21.3	
4.183	-8.7	V	3.0	35.2	1.0	-42.9	-13.0	-29.9	
1.673	-0.5	H	3.0	35.5	1.0	-35.1	-13.0	-22.1	
2.510	-10.1	H	3.0	35.4	1.0	-44.5	-13.0	-31.5	
3.346	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7.529	-4.4	H	3.0	35.7	1.0	-39.1	-13.0	-26.1	
High Ch, (848.8MHz)									
1.698	2.4	V	3.0	35.5	1.0	-32.1	-13.0	-19.1	
2.546	1.0	V	3.0	35.4	1.0	-33.5	-13.0	-20.5	
3.395	-2.6	V	3.0	35.5	1.0	-37.1	-13.0	-24.1	
1.698	-2.3	H	3.0	35.5	1.0	-36.8	-13.0	-23.8	
2.546	-9.9	H	3.0	35.4	1.0	-44.3	-13.0	-31.3	
3.395	-7.7	H	3.0	35.5	1.0	-42.2	-13.0	-29.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/29/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Charger) and Earphone							
Mode:		TX, CELL BAND GPRS							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	1.8	V	3.0	35.5	1.0	-32.8	-13.0	-19.8	
2.473	-3.3	V	3.0	35.4	1.0	-37.7	-13.0	-24.7	
3.297	0.1	V	3.0	35.5	1.0	-34.4	-13.0	-21.4	
1.648	3.2	H	3.0	35.5	1.0	-31.3	-13.0	-18.3	
2.473	-0.2	H	3.0	35.4	1.0	-34.6	-13.0	-21.6	
3.297	-3.1	H	3.0	35.5	1.0	-37.6	-13.0	-24.6	
Mid Ch, (836.6MHz)									
1.673	1.1	V	3.0	35.5	1.0	-33.4	-13.0	-20.4	
2.510	-0.2	V	3.0	35.4	1.0	-34.6	-13.0	-21.6	
3.346	-1.7	V	3.0	35.5	1.0	-36.3	-13.0	-23.3	
1.673	0.5	H	3.0	35.5	1.0	-34.1	-13.0	-21.1	
2.510	-0.1	H	3.0	35.4	1.0	-34.5	-13.0	-21.5	
3.346	-5.9	H	3.0	35.5	1.0	-40.4	-13.0	-27.4	
High Ch, (848.8MHz)									
1.698	-3.6	V	3.0	35.5	1.0	-38.1	-13.0	-25.1	
2.546	2.0	V	3.0	35.4	1.0	-32.5	-13.0	-19.5	
3.395	-1.6	V	3.0	35.5	1.0	-36.1	-13.0	-23.1	
4.244	-9.5	V	3.0	35.2	1.0	-43.8	-13.0	-30.8	
1.698	-1.3	H	3.0	35.5	1.0	-35.8	-13.0	-22.8	
2.546	1.1	H	3.0	35.4	1.0	-33.3	-13.0	-20.3	
3.395	-4.7	H	3.0	35.5	1.0	-39.2	-13.0	-26.2	
4.244	-11.5	H	3.0	35.2	1.0	-45.8	-13.0	-32.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EGPRS (Cellular Band)

EUT (STANDARD COVER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14331
Date: 04/17/12
Test Engineer: Chin Pang
Configuration: EUT(Standard Cover) with AC Adapter and Earphone
Mode: TX, CELL BAND EGPRS

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	-7.1	V	3.0	37.4	1.0	-43.5	-13.0	-30.5	
2.473	-6.4	V	3.0	36.4	1.0	-41.8	-13.0	-28.8	
3.297	-16.4	V	3.0	35.8	1.0	-51.2	-13.0	-38.2	
1.648	-8.4	H	3.0	37.4	1.0	-44.7	-13.0	-31.7	
2.473	-7.0	H	3.0	36.4	1.0	-42.4	-13.0	-29.4	
3.297	-14.6	H	3.0	35.8	1.0	-49.4	-13.0	-36.4	
Mid Ch, (836.6MHz)									
1.673	-5.9	V	3.0	37.3	1.0	-42.2	-13.0	-29.2	
2.510	-10.2	V	3.0	36.4	1.0	-45.6	-13.0	-32.6	
3.346	-14.2	V	3.0	35.8	1.0	-49.0	-13.0	-36.0	
1.673	-9.1	H	3.0	37.3	1.0	-45.5	-13.0	-32.5	
2.510	-9.8	H	3.0	36.4	1.0	-45.2	-13.0	-32.2	
3.346	-14.4	H	3.0	35.8	1.0	-49.2	-13.0	-36.2	
High Ch, (848.8MHz)									
1.698	-7.6	V	3.0	37.3	1.0	-43.9	-13.0	-30.9	
2.546	-12.1	V	3.0	36.3	1.0	-47.5	-13.0	-34.5	
3.395	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8	
1.698	-5.9	H	3.0	37.3	1.0	-42.2	-13.0	-29.2	
2.546	-7.6	H	3.0	36.3	1.0	-43.0	-13.0	-30.0	
3.395	-11.3	H	3.0	35.7	1.0	-46.0	-13.0	-33.0	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, CELL BAND GPRS							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	-7.1	V	3.0	37.4	1.0	-43.5	-13.0	-30.5	
2.473	-4.4	V	3.0	36.4	1.0	-39.8	-13.0	-26.8	
3.297	-15.4	V	3.0	35.8	1.0	-50.2	-13.0	-37.2	
1.648	-7.4	H	3.0	37.4	1.0	-43.7	-13.0	-30.7	
2.473	-6.0	H	3.0	36.4	1.0	-41.4	-13.0	-28.4	
3.297	-16.6	H	3.0	35.8	1.0	-51.4	-13.0	-38.4	
Mid Ch, (836.6MHz)									
1.673	-6.9	V	3.0	37.3	1.0	-43.2	-13.0	-30.2	
2.510	-8.2	V	3.0	36.4	1.0	-43.6	-13.0	-30.6	
3.346	-16.2	V	3.0	35.8	1.0	-51.0	-13.0	-38.0	
1.673	-7.1	H	3.0	37.3	1.0	-43.5	-13.0	-30.5	
2.510	-9.8	H	3.0	36.4	1.0	-45.2	-13.0	-32.2	
3.346	-14.4	H	3.0	35.8	1.0	-49.2	-13.0	-36.2	
High Ch, (848.8MHz)									
1.698	-5.6	V	3.0	37.3	1.0	-41.9	-13.0	-28.9	
2.546	-12.1	V	3.0	36.3	1.0	-47.5	-13.0	-34.5	
3.395	-15.1	V	3.0	35.7	1.0	-49.8	-13.0	-36.8	
1.698	-9.9	H	3.0	37.3	1.0	-46.2	-13.0	-33.2	
2.546	-7.6	H	3.0	36.3	1.0	-43.0	-13.0	-30.0	
3.395	-11.3	H	3.0	35.7	1.0	-46.0	-13.0	-33.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Charger) and Earphone							
Mode:		TX, CELL BAND GPRS							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	-9.1	V	3.0	37.4	1.0	-45.5	-13.0	-32.5	
2.473	-6.4	V	3.0	36.4	1.0	-41.8	-13.0	-28.8	
3.297	-16.4	V	3.0	35.8	1.0	-51.2	-13.0	-38.2	
1.648	-3.4	H	3.0	37.4	1.0	-39.7	-13.0	-26.7	
2.473	-3.0	H	3.0	36.4	1.0	-38.4	-13.0	-25.4	
3.297	-16.6	H	3.0	35.8	1.0	-51.4	-13.0	-38.4	
Mid Ch, (836.6MHz)									
1.673	-8.9	V	3.0	37.3	1.0	-45.2	-13.0	-32.2	
2.510	-6.2	V	3.0	36.4	1.0	-41.6	-13.0	-28.6	
3.346	-16.2	V	3.0	35.8	1.0	-51.0	-13.0	-38.0	
1.673	-8.1	H	3.0	37.3	1.0	-44.5	-13.0	-31.5	
2.510	-6.8	H	3.0	36.4	1.0	-42.2	-13.0	-29.2	
3.346	-15.4	H	3.0	35.8	1.0	-50.2	-13.0	-37.2	
High Ch, (848.8MHz)									
1.698	-6.6	V	3.0	37.3	1.0	-42.9	-13.0	-29.9	
2.546	-3.1	V	3.0	36.3	1.0	-38.5	-13.0	-25.5	
3.395	-15.1	V	3.0	35.7	1.0	-49.8	-13.0	-36.8	
1.698	-6.9	H	3.0	37.3	1.0	-43.2	-13.0	-30.2	
2.546	-6.6	H	3.0	36.3	1.0	-42.0	-13.0	-29.0	
3.395	-17.3	H	3.0	35.7	1.0	-52.0	-13.0	-39.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

1xRTT (PCS Band)

EUT (STANDARD COVER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Standard Cover) with Headset and AC Adapter							
Mode:		TX, PCS Band CDMA Mode							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 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, 1851.25MHz									
3.703	-7.1	V	3.0	35.4	1.0	-41.5	-13.0	-28.5	
5.554	-5.8	V	3.0	34.7	1.0	-39.6	-13.0	-26.6	
11.107	-6.8	V	3.0	34.8	1.0	-40.6	-13.0	-27.6	
3.703	-11.3	H	3.0	35.4	1.0	-45.7	-13.0	-32.7	
5.554	-7.3	H	3.0	34.7	1.0	-41.0	-13.0	-28.0	
11.107	-4.8	H	3.0	34.8	1.0	-38.6	-13.0	-25.6	
Mid Ch, 1880.00MHz									
3.760	-4.9	V	3.0	35.3	1.0	-39.2	-13.0	-26.2	
5.640	-6.7	V	3.0	34.7	1.0	-40.4	-13.0	-27.4	
11.280	-6.6	V	3.0	34.7	1.0	-40.4	-13.0	-27.4	
3.760	-3.2	H	3.0	35.3	1.0	-37.5	-13.0	-24.5	
5.640	-6.1	H	3.0	34.7	1.0	-39.8	-13.0	-26.8	
11.280	-2.8	H	3.0	34.7	1.0	-36.5	-13.0	-23.5	
High Ch, 1908.75MHz									
3.818	-7.7	V	3.0	35.3	1.0	-42.0	-13.0	-29.0	
5.726	-8.5	V	3.0	34.7	1.0	-42.3	-13.0	-29.3	
7.635	-7.6	V	3.0	34.9	1.0	-41.5	-13.0	-28.5	
11.453	-6.5	V	3.0	34.6	1.0	-40.1	-13.0	-27.1	
3.818	-7.0	H	3.0	35.3	1.0	-41.3	-13.0	-28.3	
5.726	-7.9	H	3.0	34.7	1.0	-41.7	-13.0	-28.7	
7.635	-4.6	H	3.0	34.9	1.0	-38.6	-13.0	-25.6	
11.453	-5.8	H	3.0	34.6	1.0	-39.5	-13.0	-26.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Cover) with Headset and AC Adapter							
Mode:		TX, PCS Band CDMA Mode							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 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, 1851.25MHz									
3.703	-14.1	V	3.0	35.4	1.0	-48.5	-13.0	-35.5	
5.554	1.2	V	3.0	34.7	1.0	-32.6	-13.0	-19.6	
11.107	-5.8	V	3.0	34.8	1.0	-39.6	-13.0	-26.6	
3.703	-15.3	H	3.0	35.4	1.0	-49.7	-13.0	-36.7	
5.554	-2.3	H	3.0	34.7	1.0	-36.0	-13.0	-23.0	
11.107	-3.8	H	3.0	34.8	1.0	-37.6	-13.0	-24.6	
Mid Ch, 1880.00MHz									
3.760	-7.9	V	3.0	35.3	1.0	-42.2	-13.0	-29.2	
5.640	-2.7	V	3.0	34.7	1.0	-36.4	-13.0	-23.4	
11.280	-5.6	V	3.0	34.7	1.0	-39.4	-13.0	-26.4	
3.760	-13.2	H	3.0	35.3	1.0	-47.5	-13.0	-34.5	
5.640	-6.1	H	3.0	34.7	1.0	-39.8	-13.0	-26.8	
11.280	-3.8	H	3.0	34.7	1.0	-37.5	-13.0	-24.5	
High Ch, 1908.75MHz									
3.818	-8.7	V	3.0	35.3	1.0	-43.0	-13.0	-30.0	
5.726	-5.5	V	3.0	34.7	1.0	-39.3	-13.0	-26.3	
11.452	-5.5	V	3.0	34.6	1.0	-39.1	-13.0	-26.1	
3.818	-9.0	H	3.0	35.3	1.0	-43.3	-13.0	-30.3	
5.726	-7.9	H	3.0	34.7	1.0	-41.7	-13.0	-28.7	
11.452	-3.8	H	3.0	34.6	1.0	-37.5	-13.0	-24.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (On Inductive Charger) and Headset							
Mode:		TX, PCS Band CDMA Mode							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 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, 1851.25MHz									
3.703	-15.1	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
5.554	-0.8	V	3.0	34.7	1.0	-34.6	-13.0	-21.6	
7.405	-7.9	V	3.0	34.9	1.0	-41.8	-13.0	-28.8	
9.256	-3.5	V	3.0	35.2	1.0	-37.8	-13.0	-24.8	
3.703	-16.3	H	3.0	35.4	1.0	-50.7	-13.0	-37.7	
5.554	-9.3	H	3.0	34.7	1.0	-43.0	-13.0	-30.0	
11.107	-5.8	H	3.0	34.8	1.0	-39.6	-13.0	-26.6	
Mid Ch, 1880.00MHz									
3.760	-12.9	V	3.0	35.3	1.0	-47.2	-13.0	-34.2	
5.640	-9.7	V	3.0	34.7	1.0	-43.4	-13.0	-30.4	
7.520	-7.7	V	3.0	34.9	1.0	-41.6	-13.0	-28.6	
3.760	-15.2	H	3.0	35.3	1.0	-49.5	-13.0	-36.5	
5.640	-8.1	H	3.0	34.7	1.0	-41.8	-13.0	-28.8	
11.280	-4.8	H	3.0	34.7	1.0	-38.5	-13.0	-25.5	
High Ch, 1908.75MHz									
3.818	-7.7	V	3.0	35.3	1.0	-42.0	-13.0	-29.0	
5.726	-6.5	V	3.0	34.7	1.0	-40.3	-13.0	-27.3	
7.635	-7.6	V	3.0	34.9	1.0	-41.5	-13.0	-28.5	
11.453	-4.5	V	3.0	34.6	1.0	-38.1	-13.0	-25.1	
3.818	-13.0	H	3.0	35.3	1.0	-47.3	-13.0	-34.3	
5.726	-7.9	H	3.0	34.7	1.0	-41.7	-13.0	-28.7	
11.452	-5.8	H	3.0	34.6	1.0	-39.5	-13.0	-26.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

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

EUT (STANDARD COVER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
 Project #: 12U14433
 Date: 05/18/12
 Test Engineer: Chin Pang
 Configuration: EUT (Standard Cover) with AC Adapter and Headset
 Mode: TX, PCS Band CDMA2000, EVDO Rev A

Chamber
5m Chamber B

Pre-amplifier
T145 8449B

Filter
Filter 1

Limit
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, 1851.25MHz									
3.703	5.1	V	3.0	35.4	1.0	-29.2	-13.0	-16.2	
5.554	-3.8	V	3.0	35.4	1.0	-38.2	-13.0	-25.2	
9.256	1.6	V	3.0	35.6	1.0	-33.0	-13.0	-20.0	
3.703	2.3	H	3.0	35.4	1.0	-32.0	-13.0	-19.0	
5.554	1.0	H	3.0	35.4	1.0	-33.4	-13.0	-20.4	
9.256	0.1	H	3.0	35.6	1.0	-34.5	-13.0	-21.5	
Mid Ch, 1880.00MHz									
3.760	7.3	V	3.0	35.3	1.0	-27.1	-13.0	-14.1	
5.640	-3.7	V	3.0	35.4	1.0	-38.1	-13.0	-25.1	
9.400	-6.3	V	3.0	35.6	1.0	-40.8	-13.0	-27.8	
9.400	-4.3	V	3.0	35.6	1.0	-38.8	-13.0	-25.8	
3.760	1.0	H	3.0	35.3	1.0	-33.3	-13.0	-20.3	
5.640	0.2	H	3.0	35.4	1.0	-34.3	-13.0	-21.3	
7.520	-6.9	H	3.0	35.7	1.0	-41.6	-13.0	-28.6	
9.400	-3.8	H	3.0	35.6	1.0	-38.3	-13.0	-25.3	
High Ch, 1908.75MHz									
3.818	10.4	V	3.0	35.3	1.0	-23.9	-13.0	-10.9	
5.726	-5.6	V	3.0	35.4	1.0	-40.1	-13.0	-27.1	
7.635	-8.4	V	3.0	35.7	1.0	-43.1	-13.0	-30.1	
3.818	5.7	H	3.0	35.3	1.0	-28.6	-13.0	-15.6	
5.726	-1.7	H	3.0	35.4	1.0	-36.1	-13.0	-23.1	
7.635	-6.8	H	3.0	35.7	1.0	-41.5	-13.0	-28.5	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EUT (INDUCTIVE COVER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Cover) with AC Adapter and Headset							
Mode:		TX, PCS Band CDMA2000, EVDO Rev A							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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, 1851.25MHz									
3.703	9.1	V	3.0	35.4	1.0	-25.2	-13.0	-12.2	
5.554	-3.8	V	3.0	35.4	1.0	-38.2	-13.0	-25.2	
9.256	-0.4	V	3.0	35.6	1.0	-35.0	-13.0	-22.0	
3.703	5.3	H	3.0	35.4	1.0	-29.0	-13.0	-16.0	
5.554	2.0	H	3.0	35.4	1.0	-32.4	-13.0	-19.4	
9.256	-1.9	H	3.0	35.6	1.0	-36.5	-13.0	-23.5	
Mid Ch, 1880.00MHz									
3.760	12.3	V	3.0	35.3	1.0	-22.1	-13.0	-9.1	
5.640	-0.7	V	3.0	35.4	1.0	-35.1	-13.0	-22.1	
9.400	-6.3	V	3.0	35.6	1.0	-40.8	-13.0	-27.8	
3.760	4.5	H	3.0	35.3	1.0	-29.8	-13.0	-16.8	
5.640	-0.8	H	3.0	35.4	1.0	-35.3	-13.0	-22.3	
9.400	-2.8	H	3.0	35.6	1.0	-37.3	-13.0	-24.3	
High Ch, 1908.75MHz									
3.818	13.4	V	3.0	35.3	1.0	-20.9	-13.0	-7.9	
5.726	-8.6	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
11.453	-1.7	V	3.0	34.6	1.0	-35.3	-13.0	-22.3	
3.818	5.7	H	3.0	35.3	1.0	-28.6	-13.0	-15.6	
5.726	-1.7	H	3.0	35.4	1.0	-36.1	-13.0	-23.1	
11.453	2.1	H	3.0	34.6	1.0	-31.5	-13.0	-18.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/18/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (On Inductive Charger) and Headset							
Mode:		TX, PCS Band CDMA2000, EVDO Rev A							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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, 1851.25MHz									
3.703	3.1	V	3.0	35.4	1.0	-31.2	-13.0	-18.2	
5.554	-9.8	V	3.0	35.4	1.0	-44.2	-13.0	-31.2	
7.405	-8.7	V	3.0	35.7	1.0	-43.4	-13.0	-30.4	
3.703	-4.7	H	3.0	35.4	1.0	-39.0	-13.0	-26.0	
5.554	-11.0	H	3.0	35.4	1.0	-45.4	-13.0	-32.4	
7.405	-9.0	H	3.0	35.7	1.0	-43.7	-13.0	-30.7	
Mid Ch, 1880.00MHz									
3.760	8.3	V	3.0	35.3	1.0	-26.1	-13.0	-13.1	
5.640	-7.7	V	3.0	35.4	1.0	-42.1	-13.0	-29.1	
7.520	-8.6	V	3.0	35.7	1.0	-43.3	-13.0	-30.3	
3.760	0.5	H	3.0	35.3	1.0	-33.8	-13.0	-20.8	
5.640	-5.8	H	3.0	35.4	1.0	-40.3	-13.0	-27.3	
7.520	-7.9	H	3.0	35.7	1.0	-42.6	-13.0	-29.6	
High Ch, 1908.75MHz									
3.818	9.4	V	3.0	35.3	1.0	-24.9	-13.0	-11.9	
5.726	-10.6	V	3.0	35.4	1.0	-45.1	-13.0	-32.1	
11.453	-3.7	V	3.0	34.6	1.0	-37.3	-13.0	-24.3	
3.818	0.7	H	3.0	35.3	1.0	-33.6	-13.0	-20.6	
5.726	-7.7	H	3.0	35.4	1.0	-42.1	-13.0	-29.1	
11.453	-3.9	H	3.0	34.6	1.0	-37.5	-13.0	-24.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

GPRS (PCS Band)

EUT (STANDARD COVER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Standard Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND, GPRS							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 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, (1850.2MHz)									
3.700	-5.1	V	3.0	35.4	1.0	-39.5	-13.0	-26.5	
5.551	7.2	V	3.0	34.7	1.0	-26.6	-13.0	-13.6	
7.401	-2.9	V	3.0	34.9	1.0	-36.8	-13.0	-23.8	
3.700	1.7	H	3.0	35.4	1.0	-32.7	-13.0	-19.7	
5.551	13.7	H	3.0	34.7	1.0	-20.0	-13.0	-7.0	
7.401	1.1	H	3.0	34.9	1.0	-32.8	-13.0	-19.8	
Mid Ch, (1880.0MHz)									
3.760	-0.9	V	3.0	35.3	1.0	-35.2	-13.0	-22.2	
5.640	7.3	V	3.0	34.7	1.0	-26.4	-13.0	-13.4	
7.520	0.3	V	3.0	34.9	1.0	-33.6	-13.0	-20.6	
3.760	6.3	H	3.0	35.3	1.0	-28.0	-13.0	-15.0	
5.640	12.9	H	3.0	34.7	1.0	-20.8	-13.0	-7.8	
7.520	2.1	H	3.0	34.9	1.0	-31.9	-13.0	-18.9	
High Ch, (1909.8MHz)									
3.820	0.3	V	3.0	35.3	1.0	-34.0	-13.0	-21.0	
5.729	5.5	V	3.0	34.7	1.0	-28.3	-13.0	-15.3	
7.639	-2.6	V	3.0	35.0	1.0	-36.5	-13.0	-23.5	
3.820	8.0	H	3.0	35.3	1.0	-26.3	-13.0	-13.3	
5.729	10.1	H	3.0	34.7	1.0	-23.7	-13.0	-10.7	
7.639	2.4	H	3.0	35.0	1.0	-31.6	-13.0	-18.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND, GPRS							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 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, (1850.2MHz)									
3.700	-10.1	V	3.0	35.4	1.0	-44.5	-13.0	-31.5	
5.551	11.2	V	3.0	34.7	1.0	-22.6	-13.0	-9.6	
7.401	2.1	V	3.0	34.9	1.0	-31.8	-13.0	-18.8	
3.700	1.7	H	3.0	35.4	1.0	-32.7	-13.0	-19.7	
5.551	9.7	H	3.0	34.7	1.0	-24.0	-13.0	-11.0	
7.401	0.1	H	3.0	34.9	1.0	-33.8	-13.0	-20.8	
Mid Ch, (1880.0MHz)									
3.760	-4.9	V	3.0	35.3	1.0	-39.2	-13.0	-26.2	
5.640	7.3	V	3.0	34.7	1.0	-26.4	-13.0	-13.4	
7.520	-2.7	V	3.0	34.9	1.0	-36.6	-13.0	-23.6	
3.760	5.8	H	3.0	35.3	1.0	-28.5	-13.0	-15.5	
5.640	8.9	H	3.0	34.7	1.0	-24.8	-13.0	-11.8	
7.520	3.3	H	3.0	34.9	1.0	-30.7	-13.0	-17.7	
High Ch, (1909.8MHz)									
3.820	12.3	V	3.0	35.3	1.0	-22.0	-13.0	-9.0	
5.729	15.5	V	3.0	34.7	1.0	-18.3	-13.0	-5.3	
7.639	-0.6	V	3.0	35.0	1.0	-34.5	-13.0	-21.5	
3.820	10.0	H	3.0	35.3	1.0	-24.3	-13.0	-11.3	
5.729	7.1	H	3.0	34.7	1.0	-26.7	-13.0	-13.7	
7.639	-3.6	H	3.0	35.0	1.0	-37.6	-13.0	-24.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (On Inductive Charger) and Earphone							
Mode:		TX, PCS BAND, GPRS							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 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, (1850.2MHz)									
3.700	-3.1	V	3.0	35.4	1.0	-37.5	-13.0	-24.5	
5.551	7.2	V	3.0	34.7	1.0	-26.6	-13.0	-13.6	
7.401	-2.9	V	3.0	34.9	1.0	-36.8	-13.0	-23.8	
3.700	-6.3	H	3.0	35.4	1.0	-40.7	-13.0	-27.7	
5.551	1.7	H	3.0	34.7	1.0	-32.0	-13.0	-19.0	
7.401	-6.9	H	3.0	34.9	1.0	-40.8	-13.0	-27.8	
Mid Ch, (1880.0MHz)									
3.760	0.1	V	3.0	35.3	1.0	-34.2	-13.0	-21.2	
5.640	6.3	V	3.0	34.7	1.0	-27.4	-13.0	-14.4	
7.520	-2.7	V	3.0	34.9	1.0	-36.6	-13.0	-23.6	
3.760	-2.2	H	3.0	35.3	1.0	-36.5	-13.0	-23.5	
5.640	1.9	H	3.0	34.7	1.0	-31.8	-13.0	-18.8	
7.520	-9.7	H	3.0	34.9	1.0	-43.7	-13.0	-30.7	
High Ch, (1909.8MHz)									
3.820	7.3	V	3.0	35.3	1.0	-27.0	-13.0	-14.0	
5.729	8.5	V	3.0	34.7	1.0	-25.3	-13.0	-12.3	
7.639	-3.6	V	3.0	35.0	1.0	-37.5	-13.0	-24.5	
3.820	0.0	H	3.0	35.3	1.0	-34.3	-13.0	-21.3	
5.729	-1.9	H	3.0	34.7	1.0	-35.7	-13.0	-22.7	
7.639	-7.6	H	3.0	35.0	1.0	-41.6	-13.0	-28.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EGPRS (PCS Band)

EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Standard Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND, EGPRS							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 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, (1850.2MHz)									
3.700	-7.1	V	3.0	35.4	1.0	-41.5	-13.0	-28.5	
5.551	4.2	V	3.0	34.7	1.0	-29.6	-13.0	-16.6	
7.401	-6.9	V	3.0	34.9	1.0	-40.8	-13.0	-27.8	
3.700	-0.3	H	3.0	35.4	1.0	-34.7	-13.0	-21.7	
5.551	7.7	H	3.0	34.7	1.0	-26.0	-13.0	-13.0	
7.401	-1.9	H	3.0	34.9	1.0	-35.8	-13.0	-22.8	
Mid Ch, (1880.0MHz)									
3.760	-4.9	V	3.0	35.3	1.0	-39.2	-13.0	-26.2	
5.640	6.3	V	3.0	34.7	1.0	-27.4	-13.0	-14.4	
7.520	-3.7	V	3.0	34.9	1.0	-37.6	-13.0	-24.6	
3.760	1.8	H	3.0	35.3	1.0	-32.5	-13.0	-19.5	
5.640	7.9	H	3.0	34.7	1.0	-25.8	-13.0	-12.8	
7.520	-4.7	H	3.0	34.9	1.0	-38.7	-13.0	-25.7	
High Ch, (1909.8MHz)									
3.820	-7.7	V	3.0	35.3	1.0	-42.0	-13.0	-29.0	
5.729	4.5	V	3.0	34.7	1.0	-29.3	-13.0	-16.3	
7.639	-2.6	V	3.0	35.0	1.0	-36.5	-13.0	-23.5	
3.820	2.0	H	3.0	35.3	1.0	-32.3	-13.0	-19.3	
5.729	6.1	H	3.0	34.7	1.0	-27.7	-13.0	-14.7	
7.639	-3.6	H	3.0	35.0	1.0	-37.6	-13.0	-24.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		06/02/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND, EGPRS							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 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, (1850.2MHz)									
3.700	-7.1	V	3.0	35.4	1.0	-41.5	-13.0	-28.5	
5.551	6.2	V	3.0	34.7	1.0	-27.6	-13.0	-14.6	
7.401	-5.9	V	3.0	34.9	1.0	-39.8	-13.0	-26.8	
3.700	-5.3	H	3.0	35.4	1.0	-39.7	-13.0	-26.7	
5.551	7.7	H	3.0	34.7	1.0	-26.0	-13.0	-13.0	
7.401	3.1	H	3.0	34.9	1.0	-30.8	-13.0	-17.8	
Mid Ch, (1880.0MHz)									
3.760	-6.9	V	3.0	35.3	1.0	-41.2	-13.0	-28.2	
5.640	2.3	V	3.0	34.7	1.0	-31.4	-13.0	-18.4	
7.520	-1.7	V	3.0	34.9	1.0	-35.6	-13.0	-22.6	
3.760	6.8	H	3.0	35.3	1.0	-27.5	-13.0	-14.5	
5.640	9.9	H	3.0	34.7	1.0	-23.8	-13.0	-10.8	
7.520	3.3	H	3.0	34.9	1.0	-30.7	-13.0	-17.7	
High Ch, (1909.8MHz)									
3.820	-4.7	V	3.0	35.3	1.0	-39.0	-13.0	-26.0	
5.729	3.5	V	3.0	34.7	1.0	-30.3	-13.0	-17.3	
7.639	-4.6	V	3.0	35.0	1.0	-38.5	-13.0	-25.5	
3.820	2.0	H	3.0	35.3	1.0	-32.3	-13.0	-19.3	
5.729	6.1	H	3.0	34.7	1.0	-27.7	-13.0	-14.7	
7.639	1.4	H	3.0	35.0	1.0	-32.6	-13.0	-19.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
 Project #: 12U14433
 Date: 06/02/12
 Test Engineer: Chin Pang
 Configuration: EUT (Inductive Charger) and Earphone
 Mode: TX, PCS BAND, EGPRS

Chamber

Pre-amplifier

Filter

Limit

3m Chamber

T34 8449B

Filter 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, (1850.2MHz)									
3.700	1.9	V	3.0	35.4	1.0	-32.5	-13.0	-19.5	
5.551	-0.8	V	3.0	34.7	1.0	-34.6	-13.0	-21.6	
7.401	-6.9	V	3.0	34.9	1.0	-40.8	-13.0	-27.8	
3.700	-5.3	H	3.0	35.4	1.0	-39.7	-13.0	-26.7	
5.551	-5.3	H	3.0	34.7	1.0	-39.0	-13.0	-26.0	
7.401	-6.9	H	3.0	34.9	1.0	-40.8	-13.0	-27.8	
Mid Ch, (1880.0MHz)									
3.760	3.1	V	3.0	35.3	1.0	-31.2	-13.0	-18.2	
5.640	1.3	V	3.0	34.7	1.0	-32.4	-13.0	-19.4	
7.520	-3.7	V	3.0	34.9	1.0	-37.6	-13.0	-24.6	
3.760	-2.2	H	3.0	35.3	1.0	-36.5	-13.0	-23.5	
5.640	-8.1	H	3.0	34.7	1.0	-41.8	-13.0	-28.8	
7.520	-6.7	H	3.0	34.9	1.0	-40.7	-13.0	-27.7	
High Ch, (1909.8MHz)									
3.820	3.3	V	3.0	35.3	1.0	-31.0	-13.0	-18.0	
5.729	1.5	V	3.0	34.7	1.0	-32.3	-13.0	-19.3	
7.639	-7.6	V	3.0	35.0	1.0	-41.5	-13.0	-28.5	
3.820	-3.0	H	3.0	35.3	1.0	-37.3	-13.0	-24.3	
5.729	-2.9	H	3.0	34.7	1.0	-36.7	-13.0	-23.7	
7.639	-6.6	H	3.0	35.0	1.0	-40.6	-13.0	-27.6	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

UMTS REL 99 (PCS Band)
EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/26/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Standard Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND WCDMA, Rel 99							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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	0.1	V	3.0	35.4	1.0	-34.2	-13.0	-21.2	
5.557	-9.8	V	3.0	35.4	1.0	-44.2	-13.0	-31.2	
3.704	-1.7	H	3.0	35.4	1.0	-36.0	-13.0	-23.0	
5.557	-7.0	H	3.0	35.4	1.0	-41.4	-13.0	-28.4	
Mid Ch, 1880.0MHz									
3.760	3.3	V	3.0	35.3	1.0	-31.1	-13.0	-18.1	
5.640	-8.7	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
3.760	-3.5	H	3.0	35.3	1.0	-37.8	-13.0	-24.8	
5.640	-8.8	H	3.0	35.4	1.0	-43.3	-13.0	-30.3	
High Ch, 1907.6MHz									
3.815	6.4	V	3.0	35.3	1.0	-27.9	-13.0	-14.9	
5.723	-8.6	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
3.815	-1.3	H	3.0	35.3	1.0	-35.6	-13.0	-22.6	
5.723	-4.7	H	3.0	35.4	1.0	-39.1	-13.0	-26.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14331							
Date:		04/13/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Inductive Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND WCDMA, Rel 99							
Chamber		Pre-amplifer			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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	-0.9	V	3.0	35.4	1.0	-35.2	-13.0	-22.2	
5.557	-5.8	V	3.0	35.4	1.0	-40.2	-13.0	-27.2	
3.704	-4.7	H	3.0	35.4	1.0	-39.0	-13.0	-26.0	
5.557	-2.0	H	3.0	35.4	1.0	-36.4	-13.0	-23.4	
Mid Ch, 1880.0MHz									
3.760	4.3	V	3.0	35.3	1.0	-30.1	-13.0	-17.1	
5.640	-7.7	V	3.0	35.4	1.0	-42.1	-13.0	-29.1	
3.760	-0.5	H	3.0	35.3	1.0	-34.8	-13.0	-21.8	
5.640	-5.8	H	3.0	35.4	1.0	-40.3	-13.0	-27.3	
High Ch, 1907.6MHz									
3.815	5.4	V	3.0	35.3	1.0	-28.9	-13.0	-15.9	
5.723	-7.6	V	3.0	35.4	1.0	-42.1	-13.0	-29.1	
3.815	-1.3	H	3.0	35.3	1.0	-35.6	-13.0	-22.6	
5.723	-7.7	H	3.0	35.4	1.0	-42.1	-13.0	-29.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14433
Date: 05/26/12
Test Engineer: Chin Pang
Configuration: EUT(Inductive Charger) and Earphone
Mode: TX, PCS BAND WCDMA, Rel 99

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

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	-0.9	V	3.0	35.4	1.0	-35.2	-13.0	-22.2	
5.557	-7.8	V	3.0	35.4	1.0	-42.2	-13.0	-29.2	
3.704	-2.7	H	3.0	35.4	1.0	-37.0	-13.0	-24.0	
5.557	-10.0	H	3.0	35.4	1.0	-44.4	-13.0	-31.4	
Mid Ch, 1880.0MHz									
3.760	-2.7	V	3.0	35.3	1.0	-37.1	-13.0	-24.1	
5.640	-10.7	V	3.0	35.4	1.0	-45.1	-13.0	-32.1	
3.760	-6.5	H	3.0	35.3	1.0	-40.8	-13.0	-27.8	
5.640	-9.8	H	3.0	35.4	1.0	-44.3	-13.0	-31.3	
High Ch, 1907.6MHz									
3.815	0.4	V	3.0	35.3	1.0	-33.9	-13.0	-20.9	
5.723	-8.6	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
3.815	-4.3	H	3.0	35.3	1.0	-38.6	-13.0	-25.6	
5.723	-9.7	H	3.0	35.4	1.0	-44.1	-13.0	-31.1	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

UMTS HSDPA (PCS Band)

EUT (STANDARD COVER)

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		12U14433							
Date:		05/26/12							
Test Engineer:		Chin Pang							
Configuration:		EUT(Standard Cover) with AC Adapter and Earphone							
Mode:		TX, PCS BAND WCDMA, HSDPA							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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	0.1	V	3.0	35.4	1.0	-34.2	-13.0	-21.2	
5.557	-9.8	V	3.0	35.4	1.0	-44.2	-13.0	-31.2	
3.704	-4.7	H	3.0	35.4	1.0	-39.0	-13.0	-26.0	
5.557	-7.0	H	3.0	35.4	1.0	-41.4	-13.0	-28.4	
Mid Ch, 1880.0MHz									
3.760	2.8	V	3.0	35.3	1.0	-31.6	-13.0	-18.6	
5.640	-8.3	V	3.0	35.4	1.0	-42.7	-13.0	-29.7	
3.760	-3.5	H	3.0	35.3	1.0	-37.8	-13.0	-24.8	
5.640	-6.8	H	3.0	35.4	1.0	-41.3	-13.0	-28.3	
High Ch, 1907.6MHz									
3.815	-5.6	V	3.0	35.3	1.0	-39.9	-13.0	-26.9	
5.723	-10.6	V	3.0	35.4	1.0	-45.1	-13.0	-32.1	
3.815	-8.3	H	3.0	35.3	1.0	-42.6	-13.0	-29.6	
5.723	-6.7	H	3.0	35.4	1.0	-41.1	-13.0	-28.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14433
Date: 05/26/12
Test Engineer: Chin Pang
Configuration: EUT(Inductive Cover) with AC Adapter and Earphone
Mode: TX, PCS BAND WCDMA, HSDPA

Chamber
 3m Chamber

Pre-amplifier
 T34 8449B

Filter
 Filter 1

Limit
 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	-0.1	V	3.0	35.4	1.0	-34.5	-13.0	-21.5	
5.557	-6.8	V	3.0	34.7	1.0	-40.6	-13.0	-27.6	
3.704	-8.3	H	3.0	35.4	1.0	-42.7	-13.0	-29.7	
5.557	-4.3	H	3.0	34.7	1.0	-38.0	-13.0	-25.0	
Mid Ch, 1880.0MHz									
3.760	2.1	V	3.0	35.3	1.0	-32.2	-13.0	-19.2	
5.640	-7.7	V	3.0	34.7	1.0	-41.4	-13.0	-28.4	
3.760	-0.2	H	3.0	35.3	1.0	-34.5	-13.0	-21.5	
5.640	-4.1	H	3.0	34.7	1.0	-37.8	-13.0	-24.8	
High Ch, 1907.6MHz									
3.815	5.3	V	3.0	35.3	1.0	-29.0	-13.0	-16.0	
5.723	-8.5	V	3.0	34.7	1.0	-42.3	-13.0	-29.3	
3.815	2.0	H	3.0	35.3	1.0	-32.3	-13.0	-19.3	
5.723	-4.9	H	3.0	34.7	1.0	-38.7	-13.0	-25.7	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: LG
Project #: 12U14433
Date: 05/26/12
Test Engineer: Chin Pang
Configuration: EUT(On Inductive Charger) and Earphone
Mode: TX, PCS BAND WCDMA, HSDPA

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

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	0.1	V	3.0	35.4	1.0	-34.2	-13.0	-21.2	
5.557	-10.8	V	3.0	35.4	1.0	-45.2	-13.0	-32.2	
3.704	-4.7	H	3.0	35.4	1.0	-39.0	-13.0	-26.0	
5.557	-12.0	H	3.0	35.4	1.0	-46.4	-13.0	-33.4	
Mid Ch, 1880.0MHz									
3.760	2.3	V	3.0	35.3	1.0	-32.1	-13.0	-19.1	
5.640	-8.7	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
3.760	-4.5	H	3.0	35.3	1.0	-38.8	-13.0	-25.8	
5.640	-10.8	H	3.0	35.4	1.0	-45.3	-13.0	-32.3	
High Ch, 1907.6MHz									
3.815	2.4	V	3.0	35.3	1.0	-31.9	-13.0	-18.9	
5.723	-10.6	V	3.0	35.4	1.0	-45.1	-13.0	-32.1	
3.815	-1.3	H	3.0	35.3	1.0	-35.6	-13.0	-22.6	
5.723	-9.7	H	3.0	35.4	1.0	-44.1	-13.0	-31.1	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

LTE BAND 13 QPSK

EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company:		LG ELECTRONICS								
Project #:		12U14433								
Date:		05/22/12								
Test Engineer:		Chin Pang								
Configuration:		EUT (INDUCTIVE COVER) AND AC ADAPTER								
Mode:		TX, LTE BAND 13, QPSK MODE								
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber B		T145 8449B			Filter 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 & SRB=0										
1.556	-7.5	V	3.0	35.6	1.0	-42.1	-13.0	-29.1		
2.333	-16.7	V	3.0	35.4	1.0	-51.1	-13.0	-38.1		
3.111	-16.3	V	3.0	35.6	1.0	-50.9	-13.0	-37.9		
1.556	-9.7	H	3.0	35.6	1.0	-44.3	-13.0	-31.3		
2.333	-17.0	H	3.0	35.4	1.0	-51.5	-13.0	-38.5		
3.111	-16.7	H	3.0	35.6	1.0	-51.3	-13.0	-38.3		
RB=1 & SRB=49										
1.572	-12.2	V	3.0	35.6	1.0	-46.8	-13.0	-33.8		
2.359	-17.7	V	3.0	35.4	1.0	-52.1	-13.0	-39.1		
3.145	-16.2	V	3.0	35.6	1.0	-50.8	-13.0	-37.8		
1.572	-12.5	H	3.0	35.6	1.0	-47.1	-13.0	-34.1		
2.359	-18.1	H	3.0	35.4	1.0	-52.5	-13.0	-39.5		
3.145	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2		
RB=25 & SRB=12										
1.568	-19.3	V	3.0	35.6	1.0	-53.9	-13.0	-40.9		
2.355	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1		
3.141	-16.2	V	3.0	35.6	1.0	-50.8	-13.0	-37.8		
1.568	-19.5	H	3.0	35.6	1.0	-54.1	-13.0	-41.1		
2.355	-17.1	H	3.0	35.4	1.0	-51.5	-13.0	-38.5		
3.141	-15.6	H	3.0	35.6	1.0	-50.2	-13.0	-37.2		
RB=50 & SRB=0										
1.564	-20.0	V	3.0	35.6	1.0	-54.6	-13.0	-41.6		
2.346	-15.7	V	3.0	35.4	1.0	-50.1	-13.0	-37.1		
3.127	-14.3	V	3.0	35.6	1.0	-48.9	-13.0	-35.9		
1.564	-20.6	H	3.0	35.6	1.0	-55.2	-13.0	-42.2		
2.346	-18.1	H	3.0	35.4	1.0	-52.5	-13.0	-39.5		
3.127	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2		
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG ELECTRONICS							
Project #:		12U14433							
Date:		05/26/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (INDUCTIVE COVER) AND AC ADAPTER							
Mode:		TX, LTE BAND 13, QPSK MODE							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 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 & SRB=0									
2.333	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.888	-9.4	V	3.0	35.3	1.0	-43.7	-13.0	-30.7	
2.333	-20.0	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
3.888	-15.0	H	3.0	35.3	1.0	-49.3	-13.0	-36.3	
RB=1 & SRB=49									
3.146	-18.2	V	3.0	35.6	1.0	-52.8	-13.0	-39.8	
3.932	-14.3	V	3.0	35.3	1.0	-48.6	-13.0	-35.6	
3.146	-19.6	H	3.0	35.6	1.0	-54.2	-13.0	-41.2	
3.932	-15.9	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
RB=25 & SRB=12									
3.128	-18.3	V	3.0	35.6	1.0	-52.9	-13.0	-39.9	
3.910	-14.4	V	3.0	35.3	1.0	-48.6	-13.0	-35.6	
3.128	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
3.910	-15.0	H	3.0	35.3	1.0	-49.2	-13.0	-36.2	
RB=50 & SRB=0									
3.128	-18.3	V	3.0	35.6	1.0	-52.9	-13.0	-39.9	
3.912	-9.4	V	3.0	35.3	1.0	-43.6	-13.0	-30.6	
3.128	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2	
3.912	-15.0	H	3.0	35.3	1.0	-49.2	-13.0	-36.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (ON INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG ELECTRONICS							
Project #:		12U14433							
Date:		03/30/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (INDUCTIVE CHARGER) AND AC ADAPTER							
Mode:		TX, LTE BAND 13, QPSK MODE							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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 & SRB=0									
2.333	-15.7	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.110	-16.3	V	3.0	35.6	1.0	-50.9	-13.0	-37.9	
3.888	-14.4	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
2.333	-18.0	H	3.0	35.4	1.0	-52.5	-13.0	-39.5	
3.110	-16.7	H	3.0	35.6	1.0	-51.3	-13.0	-38.3	
3.888	-16.0	H	3.0	35.3	1.0	-50.3	-13.0	-37.3	
RB=1 & SRB=49									
2.359	-16.7	V	3.0	35.4	1.0	-51.1	-13.0	-38.1	
3.146	-16.2	V	3.0	35.6	1.0	-50.8	-13.0	-37.8	
3.932	-15.3	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
2.359	-19.1	H	3.0	35.4	1.0	-53.5	-13.0	-40.5	
3.146	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
3.932	-16.9	H	3.0	35.3	1.0	-51.1	-13.0	-38.1	
RB=25 & SRB=12									
2.346	-17.7	V	3.0	35.4	1.0	-52.1	-13.0	-39.1	
3.128	-16.3	V	3.0	35.6	1.0	-50.9	-13.0	-37.9	
3.910	-15.4	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
2.346	-19.1	H	3.0	35.4	1.0	-53.5	-13.0	-40.5	
3.128	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2	
3.910	-14.0	H	3.0	35.3	1.0	-48.2	-13.0	-35.2	
RB=50 & SRB=0									
2.346	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.128	-17.3	V	3.0	35.6	1.0	-51.9	-13.0	-38.9	
3.910	-14.4	V	3.0	35.3	1.0	-48.6	-13.0	-35.6	
2.346	-19.1	H	3.0	35.4	1.0	-53.5	-13.0	-40.5	
3.128	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2	
3.910	-15.0	H	3.0	35.3	1.0	-49.2	-13.0	-36.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

LTE BAND 13 16QAM

EUT (STANDARD COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG ELECTRONICS							
Project #:		12U14433							
Date:		03/30/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Standard Cover) AND AC ADAPTER							
Mode:		TX, LTE BAND 13, 16QAM MODE							
Chamber		Pre-amplifer		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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 & SRB=0									
1.556	-6.5	V	3.0	35.6	1.0	-41.1	-13.0	-28.1	
2.333	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
3.111	-15.3	V	3.0	35.6	1.0	-49.9	-13.0	-36.9	
1.556	-8.7	H	3.0	35.6	1.0	-43.3	-13.0	-30.3	
2.333	-17.0	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
3.111	-14.7	H	3.0	35.6	1.0	-49.3	-13.0	-36.3	
RB=1 & SRB=49									
1.572	-10.2	V	3.0	35.6	1.0	-44.8	-13.0	-31.8	
2.359	-15.7	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.145	-13.2	V	3.0	35.6	1.0	-47.8	-13.0	-34.8	
1.572	-11.5	H	3.0	35.6	1.0	-46.1	-13.0	-33.1	
2.359	-17.1	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
3.145	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2	
RB=25 & SRB=12									
1.568	-14.3	V	3.0	35.6	1.0	-48.9	-13.0	-35.9	
2.355	-17.7	V	3.0	35.4	1.0	-52.1	-13.0	-39.1	
3.141	-14.2	V	3.0	35.6	1.0	-48.8	-13.0	-35.8	
1.568	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
2.355	-16.1	H	3.0	35.4	1.0	-50.5	-13.0	-37.5	
3.141	-14.9	H	3.0	35.6	1.0	-49.5	-13.0	-36.5	
RB=50 & SRB=0									
1.564	-18.6	V	3.0	35.6	1.0	-53.2	-13.0	-40.2	
2.346	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
3.127	-14.6	V	3.0	35.6	1.0	-49.2	-13.0	-36.2	
1.564	-19.2	H	3.0	35.6	1.0	-53.8	-13.0	-40.8	
2.346	-17.9	H	3.0	35.4	1.0	-52.3	-13.0	-39.3	
3.127	-16.6	H	3.0	35.6	1.0	-51.2	-13.0	-38.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE COVER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG ELECTRONICS							
Project #:		12U14433							
Date:		05/26/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Cover) and AC Adapter							
Mode:		TX, LTE BAND 13, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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 & SRB=0									
2.333	-19.7	V	3.0	35.4	1.0	-54.1	-13.0	-41.1	
3.110	-18.3	V	3.0	35.6	1.0	-52.9	-13.0	-39.9	
3.888	-14.4	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
2.333	-20.0	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
3.110	-18.7	H	3.0	35.6	1.0	-53.3	-13.0	-40.3	
3.888	-16.0	H	3.0	35.3	1.0	-50.3	-13.0	-37.3	
RB=1 & SRB=49									
2.359	-19.7	V	3.0	35.4	1.0	-54.1	-13.0	-41.1	
3.146	-18.2	V	3.0	35.6	1.0	-52.8	-13.0	-39.8	
3.932	-11.3	V	3.0	35.3	1.0	-45.6	-13.0	-32.6	
2.359	-22.1	H	3.0	35.4	1.0	-56.5	-13.0	-43.5	
3.146	-19.6	H	3.0	35.6	1.0	-54.2	-13.0	-41.2	
3.932	-15.9	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
RB=25 & SRB=12									
2.346	-20.7	V	3.0	35.4	1.0	-55.1	-13.0	-42.1	
3.128	-17.3	V	3.0	35.6	1.0	-51.9	-13.0	-38.9	
3.910	-10.4	V	3.0	35.3	1.0	-44.6	-13.0	-31.6	
2.346	-21.1	H	3.0	35.4	1.0	-55.5	-13.0	-42.5	
3.128	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
3.910	-14.0	H	3.0	35.3	1.0	-48.2	-13.0	-35.2	
RB=50 & SRB=0									
2.346	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.128	-17.3	V	3.0	35.6	1.0	-51.9	-13.0	-38.9	
3.914	-10.4	V	3.0	35.3	1.0	-44.6	-13.0	-31.6	
2.346	-20.1	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
3.128	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
3.914	-14.9	H	3.0	35.3	1.0	-49.2	-13.0	-36.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EUT (INDUCTIVE CHARGER)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG ELECTRONICS							
Project #:		12U14433							
Date:		05/26/12							
Test Engineer:		Chin Pang							
Configuration:		EUT (Inductive Charger) and AC Adapter							
Mode:		TX, LTE BAND 13, 16QAM MODE							
Chamber		Pre-amplifier		Filter		Limit			
5m Chamber B		T145 8449B		Filter 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 & SRB=0									
2.333	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.110	-17.3	V	3.0	35.6	1.0	-51.9	-13.0	-38.9	
3.888	-15.4	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
2.333	-17.0	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
3.110	-16.7	H	3.0	35.6	1.0	-51.3	-13.0	-38.3	
3.888	-14.0	H	3.0	35.3	1.0	-48.3	-13.0	-35.3	
RB=1 & SRB=49									
2.359	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.146	-18.2	V	3.0	35.6	1.0	-52.8	-13.0	-39.8	
3.932	-14.3	V	3.0	35.3	1.0	-48.6	-13.0	-35.6	
2.359	-16.1	H	3.0	35.4	1.0	-50.5	-13.0	-37.5	
3.146	-14.6	H	3.0	35.6	1.0	-49.2	-13.0	-36.2	
3.932	-13.9	H	3.0	35.3	1.0	-48.1	-13.0	-35.1	
RB=25 & SRB=12									
2.346	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
3.128	-17.3	V	3.0	35.6	1.0	-51.9	-13.0	-38.9	
3.910	-16.4	V	3.0	35.3	1.0	-50.6	-13.0	-37.6	
2.346	-20.1	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
3.128	-17.6	H	3.0	35.6	1.0	-52.2	-13.0	-39.2	
3.910	-16.0	H	3.0	35.3	1.0	-50.2	-13.0	-37.2	
RB=50 & SRB=0									
2.346	-19.7	V	3.0	35.4	1.0	-54.1	-13.0	-41.1	
3.128	-16.3	V	3.0	35.6	1.0	-50.9	-13.0	-37.9	
3.910	-14.4	V	3.0	35.3	1.0	-48.6	-13.0	-35.6	
2.346	-21.1	H	3.0	35.4	1.0	-55.5	-13.0	-42.5	
3.128	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
3.910	-14.0	H	3.0	35.3	1.0	-48.2	-13.0	-35.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									