FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E
&
INDUSTRY CANADA RSS-131

TEST REPORT

For

Air-Lock WK-9900 Network Stabilizer Module Booster

Trade Name: Airgoon

Model: Air-Lock WK 9900

Issued to

Airgoon LTD.
2207 Concord Pike, Suite 700, Wilmington, DELAWARE, United States, 19803

Issued by

Compliance Certification Services Inc.
No.11, Wu-Gong 6th Rd., Wugu Industrial Park,
New Taipei City 248, Taiwan (R.O.C.)
http://www.ccsrf.com
service@ccsrf.com
Issued Date: April 20, 2012

Testing Laboratory
1309

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		April 20, 2012		Initial Issue	ALL	Gina Lo

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1. TEST RESULT CERTIFICATION

Applicant:	Airgoon LTD. 2207 Concord Pike, Suite 700, Wilmington, DELAWARE, United States, 19803
Manufacturer:	Airgoon LTD. 2207 Concord Pike, Suite 700, Wilmington, DELAWARE, United States, 19803
Equipment Under Test:	Air-Lock WK-9900 Network Stabilizer Module Booster
Trade Name:	Airgoon
Model Number:	Air-Lock WK 9900
Date of Test:	October 28, 2011 ~ April 12, 2012

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E & IC RSS-131 Issue 2: July 2003	No non-compliance noted

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Jason Lin

Jason Lin
Section Manager
Compliance Certification Services Inc.

Reviewed by:

Gina Lo

Gina Lo
Section Manager
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product		Air-Lock WK-9900 Network Stabilizer Module Booster			
Trade Name		Airgoon			
Model Number		Air-Lock WK 9900			
Model Discrepancy		N/A			
Received Date		October 21, 2011			
Power Supply		DC 5V			
Mode	**WCDMA**	**Band**	**UL Frequency (MHz)**	**DL Frequency (MHz)**	**Modulation**
		Band II	1852.4 ~ 1907.6	1932.4 ~ 1987.6	QPSK
		Band V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK
Mode	**AMPS**		824 – 849MHz	869 – 894MHz	FSK
			1850 – 1910MHz	1930 – 1990MHz	FSK
Mode	**CDMA**		824 – 849MHz	869 – 894MHz	QPSK
			1850 – 1910MHz	1930 – 1990MHz	QPSK
Mode	**TDMA**		824 – 849MHz	869 – 894MHz	π/4 DQPSK
			1850 – 1910MHz	1930 – 1990MHz	π/4 DQPSK

Max. RF Output power Mode: WCDMA	Uplink	WCDMA Band II: 28.53 dBm / 0.7129 W WCDMA Band V: 29.58 dBm / 0.9078 W
	Downlink	WCDMA Band II: 15.33 dBm / 0.0341 W WCDMA Band V: 13.06 dBm / 0.0202 W
Max. RF Output power Mode: AMPS	Uplink	824 – 849MHz: -6.81 dBm / 0.0002 W 1850 – 1910MHz: -10.23 dBm / 0.0001 W
	Downlink	869 – 894MHz: 25.03 dBm / 0.3184 W 1930 – 1990MHz: 23.26 dBm / 0.2118 W
Max. RF Output power Mode: CDMA	Uplink	824 – 849MHz: 1.22 dBm / 0.0013 W 1850 – 1910MHz: -1.16 dBm / 0.0008 W
	Downlink	869 – 894MHz: 31.88 dBm / 1.5417 W 1930 – 1990MHz: 14.90 dBm / 0.0309 W
Max. RF Output power Mode: TDMA	Uplink	824 – 849MHz: -4.17 dBm / 0.0004 W 1850 – 1910MHz: -4.58 dBm / 0.0003 W
	Downlink	869 – 894MHz: 28.89 dBm / 0.7745 W 1930 – 1990MHz: 27.91 dBm / 0.6180 W
Emission Designator Mode: WCDMA	Uplink	WCDMA Band II: 4M17F9W WCDMA Band V: 4M14F9W
	Downlink	WCDMA Band II: 4M19F9W WCDMA Band V: 4M16F9W
Emission Designator Mode: AMPS	Uplink	824 – 849MHz: 13k3F9W 1850 – 1910MHz: 243kF9W
	Downlink	869 – 894MHz: 13k4F9W 1930 – 1990MHz: 243kF9W
Emission Designator Mode: CDMA	Uplink	824 – 849MHz: 1M26F9W 1850 – 1910MHz: 1M26F9W
	Downlink	869 – 894MHz: 1M26F9W 1930 – 1990MHz: 1M26F9W
Emission Designator Mode: TDMA	Uplink	824 – 849MHz: 247kF9W 1850 – 1910MHz: 247kF9W
	Downlink	869 – 894MHz: 247kF9W 1930 – 1990MHz: 247kF9W
Antenna Specification	1. Multi-Band Omni-Directional Marine Outdoor Antenna Gain: 12dBi 2. Multi-Band Omni-Directional Marine Outdoor Antenna. Gain: 15dBi	

Remark: *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*

3. TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.4: 2003, TIA/EIA-603-C: 2004 and FCC CFR 47, Part 2 and Part 22 Subpart H & Part 24 Subpart E.

The tests documented in this report were performed in accordance with IC RSS-132, SPSR503, RSS-133, SPSR510 and ANSI C63.4 and TIA/EIA-603-C.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003.

3.4 DESCRIPTION OF TEST MODES

All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: WCDMA Band II Uplink
Mode 2: WCDMA Band II Downlink
Mode 3: WCDMA Band V Uplink
Mode 4: WCDMA Band V Downlink
Mode 5: AMPS / 824 – 849MHz Uplink
Mode 6: AMPS / 869 – 894MHz Downlink
Mode 7: AMPS / 1850 – 1910MHz Uplink
Mode 8: AMPS / 1930 – 1990MHz Downlink
Mode 9: CDMA / 824 – 849MHz Uplink
Mode 10: CDMA / 869 – 894MHz Downlink
Mode 11: CDMA / 1850 – 1910MHz Uplink
Mode 12: CDMA / 1930 – 1990MHz Downlink
Mode 13: TDMA / 824 – 849MHz Uplink
Mode 14: TDMA / 869 – 894MHz Downlink
Mode 15: TDMA / 1850 – 1910MHz Uplink
Mode 16: TDMA / 1930 – 1990MHz Downlink

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

4. INSTRUMENT CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

4.2MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: *Each piece of equipment is scheduled for calibration once a year and Loop Antenna is scheduled for calibration once three years.*

3M Semi Anechoic Chamber				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	US42510268	11/15/2012
EMI Test Receiver	R&S	ESCI	100064	03/01/2013
Pre-Amplifier	Mini-Circults	ZFL-1000LN	SF350700823	01/13/2013
Pre-Amplifier	MITEQ	AFS44-00102650-42-10P-44	1415367	11/20/2012
Bilog Antenna	Sunol Sciences	JB3	A030105	10/03/2012
Horn Antenna	EMCO	3117	00055165	01/11/2013
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Site NSA	CCS	N/A	N/A	12/23/2012
Loop Antenna	EMCO	6502	8905/2356	06/10/2013
Test S/W	EZ-EMC (CCS-3A1RE)			

4.3MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	N/A
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

***Remark**: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.*

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

☐ No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☒ No.11, Wu-Gong 6th Rd., Wugu Industrial Park, New Taipei City 248, Taiwan (R.O.C.)
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

☐ No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841, TAIWAN, R.O.C.
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4: 2003 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5.3 LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 0824-01 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, IC 2324G-1 for 3M Semi Anechoic Chamber A, 2324G-2 for 3M Semi Anechoic Chamber B.

5.4 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12,2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method –47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	TAF Testing Laboratory 1309
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	Canada IC 2324G-1 IC 2324G-2

** No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.*

6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
1.	Universal Radio Communication Tester (Remote)	R&S	CMU200	101245	N/A	N/A	Unshielded, 1.8m
2.	Spectrum Analyzer (Remote)	Agilent	E4446A	MY43360131	N/A	N/A	N/A

Remark:

1. *All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
2. *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

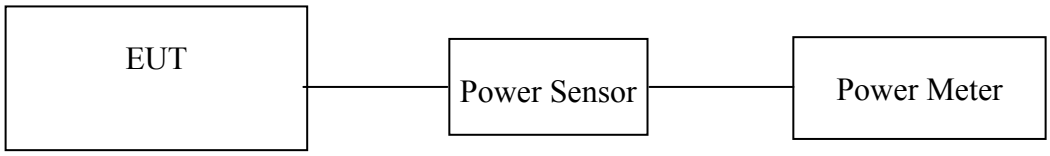
7. FCC PART 22 & 24 REQUIREMENTS & INDUSTRY CANADA RSS-131

7.1 RF OUTPUT POWER TEST

LIMIT

N/A

Test Configuration



TEST PROCEDURE

The measurement is made according to ANSI/TIA-603-C-2004 as follows:
1. The transmitter output was connected to power meter and base station through power divider.
2. Set base station for EUT at GSM 850: PCL=5 and PCS 1900: PCL=0.
3. Set base station for EUT at WCDMA Band V and WCDMA Band II, power level was set to maximum.
4. Select lowest, middle, and highest channels for each band.

TEST RESULTS

No non-compliance noted.

Test Data

Bands	Data Mode	Channel	Peak Power	
			(dBm)	(W)
WCDMA Band II	Uplink	Low	26.75	0.4732
		Mid	**28.53**	**0.7129**
		High	26.97	0.4977
	Downlink	Low	**15.33**	**0.0341**
		Mid	13.71	0.0235
		High	13.62	0.0230
WCDMA Band V	Uplink	Low	28.31	0.6776
		Mid	**29.58**	**0.9078**
		High	26.97	0.4977
	Downlink	Low	12.61	0.0182
		Mid	12.42	0.0175
		High	**13.06**	**0.0202**

Mode: AMPS

Frequency Range	Data Mode	Channel	Peak Power	
			(dBm)	(W)
824 – 849MHz	Uplink	Low	-8.85	0.0001
		Mid	**-6.81**	**0.0002**
		High	-7.78	0.0002
869 – 894MHz	Downlink	Low	**25.03**	**0.3184**
		Mid	23.07	0.2028
		High	24.06	0.2547
1850 – 1910MHz	Uplink	Low	**-10.23**	**0.0001**
		Mid	-10.23	0.0001
		High	-10.25	0.0001
1930 – 1990MHz	Downlink	Low	22.67	0.1849
		Mid	**23.26**	**0.2118**
		High	21.76	0.1500

Mode: CDMA

Frequency Range	Data Mode	Channel	Peak Power	
			(dBm)	(W)
824 – 849MHz	Uplink	Low	**1.22**	**0.0013**
		Mid	0.25	0.0011
		High	-1.71	0.0007
869 – 894MHz	Downlink	Low	**31.88**	**1.5417**
		Mid	31.84	1.5276
		High	31.14	1.3002
1850 – 1910MHz	Uplink	Low	-1.17	0.0008
		Mid	-1.18	0.0008
		High	**-1.16**	**0.0008**
1930 – 1990MHz	Downlink	Low	14.17	0.0261
		Mid	**14.90**	**0.0309**
		High	12.29	0.0169

Mode: TDMA

Frequency Range	Data Mode	Channel	Peak Power	
			(dBm)	(W)
824 – 849MHz	Uplink	Low	-4.20	0.0004
		Mid	-4.22	0.0004
		High	**-4.17**	**0.0004**
869 – 894MHz	Downlink	Low	**28.89**	**0.7745**
		Mid	28.86	0.7691
		High	28.80	0.7586
1850 – 1910MHz	Uplink	Low	-4.60	0.0003
		Mid	-4.61	0.0003
		High	**-4.58**	**0.0003**
1930 – 1990MHz	Downlink	Low	26.94	0.4943
		Mid	**27.91**	**0.6180**
		High	24.69	0.2944

7.2 OCCUPIED BANDWIDTH / BAND EDGE TEST

LIMIT

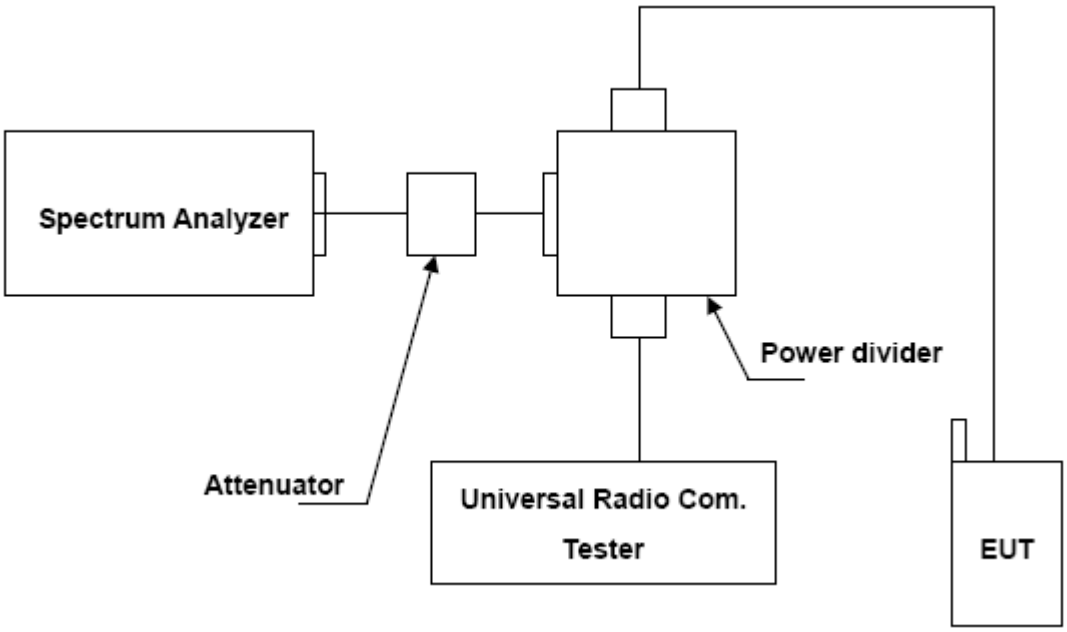
The Occupied Bandwidth Limit:

N/A.

The Band Edge Limit:

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 + 10log(P) dB.

Test Configuration



TEST PROCEDURE

The measurement is made according to FCC rules part 22 and 24:
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The occupied bandwidth of middle channel for the highest and lowest RF powers was measured.
3. The Modulation Characteristics setting: RB=51 kHz; VB=160 kHz.
4. The band edge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.
5. The band edge setting: RB=100 kHz; VB=100 kHz for WCDMA Band V and WCDMA Band II.

TEST RESULTS

No non-compliance noted.

Test Data

Band	Data Mode	Channel	99% Bandwidth (MHz)
WCDMA Band II	Uplink	Low	4.1798
		Mid	4.1493
		High	4.1332
	Downlink	Low	4.1920
		Mid	4.1945
		High	4.1941

Band	Data Mode	Channel	99% Bandwidth (MHz)
WCDMA Band V	Uplink	Low	4.1408
		Mid	4.1357
		High	4.0935
	Downlink	Low	4.1660
		Mid	4.1487
		High	4.1592

Mode: AMPS

Frequency Range	Data Mode	Channel	99% Bandwidth (kHz)
824 – 849MHz	Uplink	Low	13.3637
		Mid	13.1690
		High	12.7169
869 – 894MHz	Downlink	Low	12.9733
		Mid	13.2165
		High	13.4263
1850 – 1910MHz	Uplink	Low	243.7695
		Mid	243.5705
		High	243.6394
1930 – 1990MHz	Downlink	Low	243.7346
		Mid	242.9877
		High	243.4735

Mode: CDMA

Frequency Range	Data Mode	Channel	99% Bandwidth (MHz)
824 – 849MHz	Uplink	Low	1.2675
		Mid	1.2677
		High	1.2679
869 – 894MHz	Downlink	Low	1.2679
		Mid	1.2680
		High	1.2675
1850 – 1910MHz	Uplink	Low	1.2679
		Mid	1.2680
		High	1.2680
1930 – 1990MHz	Downlink	Low	1.2673
		Mid	1.2677
		High	1.2676

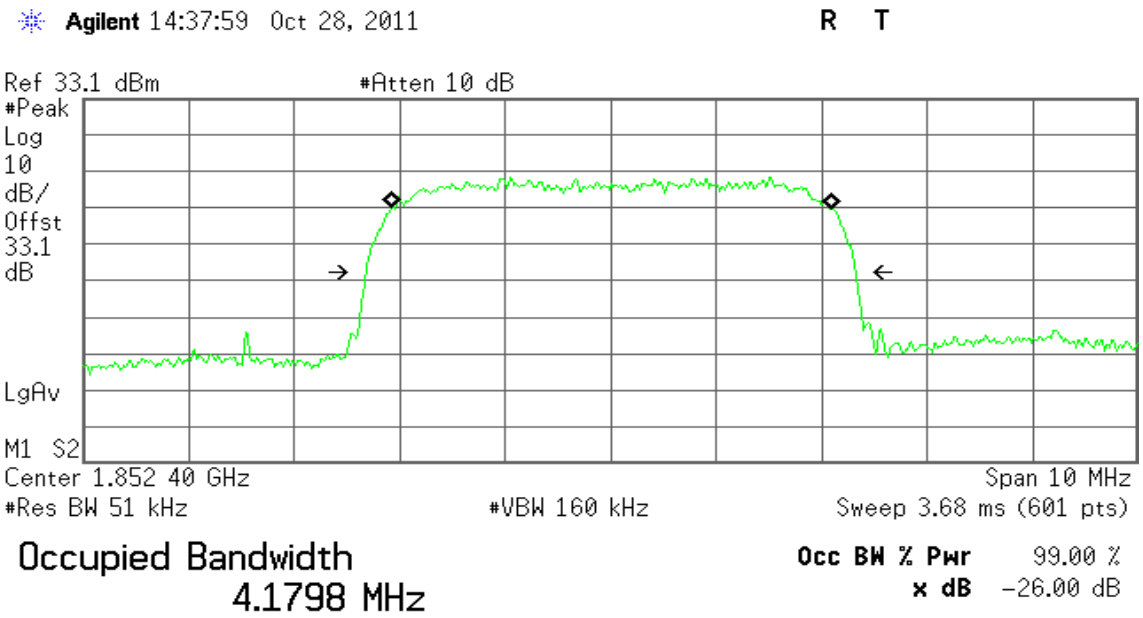
Mode: TDMA

Frequency Range	Data Mode	Channel	99% Bandwidth (kHz)
824 – 849MHz	Uplink	Low	247.5345
		Mid	247.5266
		High	247.2430
869 – 894MHz	Downlink	Low	247.7797
		Mid	247.5010
		High	247.5016
1850 – 1910MHz	Uplink	Low	247.4126
		Mid	247.4027
		High	247.5442
1930 – 1990MHz	Downlink	Low	247.3882
		Mid	247.4245
		High	247.5701

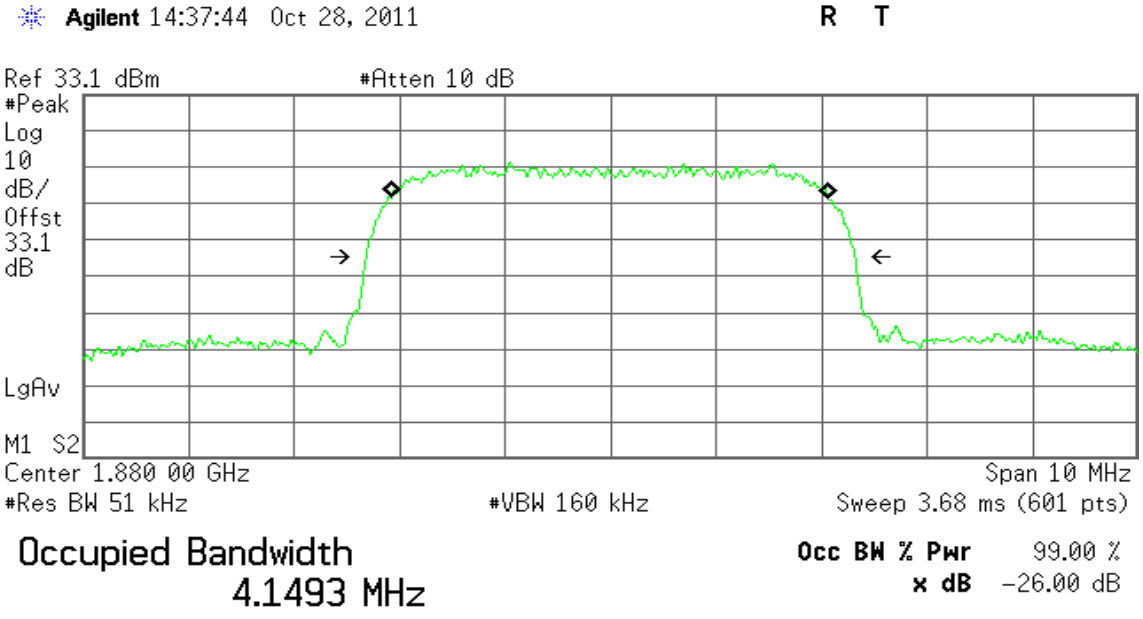
Test Plot

Mode 1: WCDMA Band II Uplink

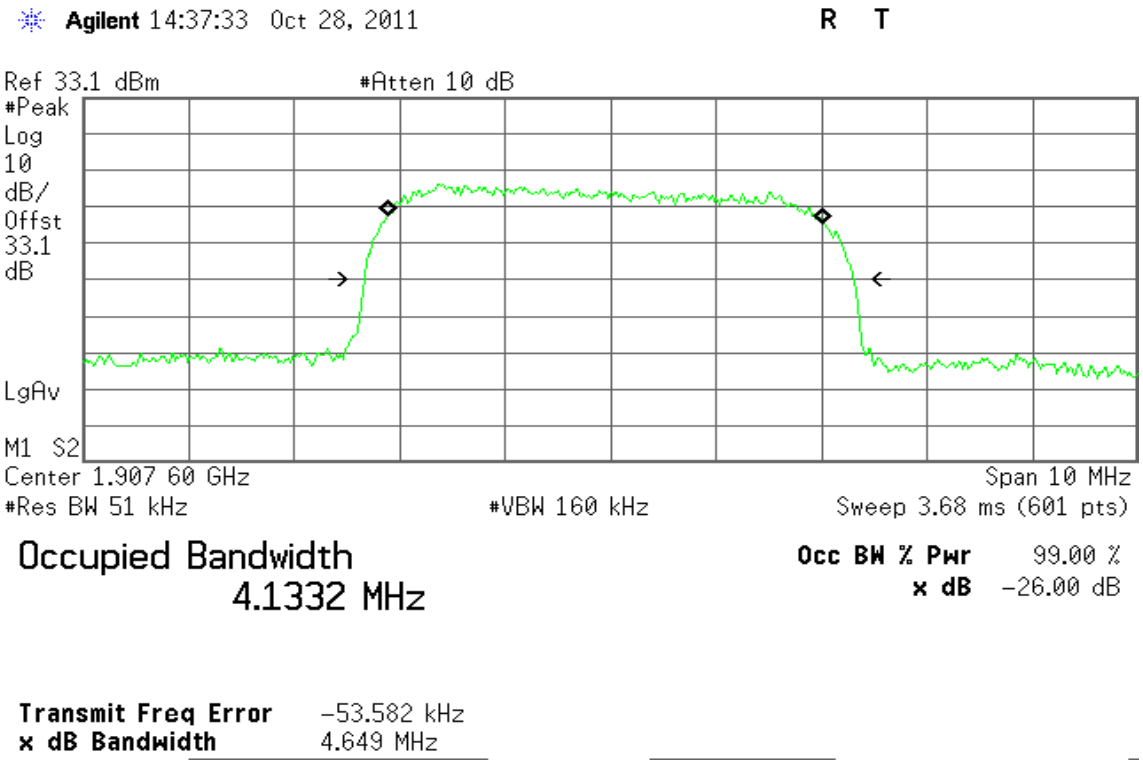
CH Low



CH Mid

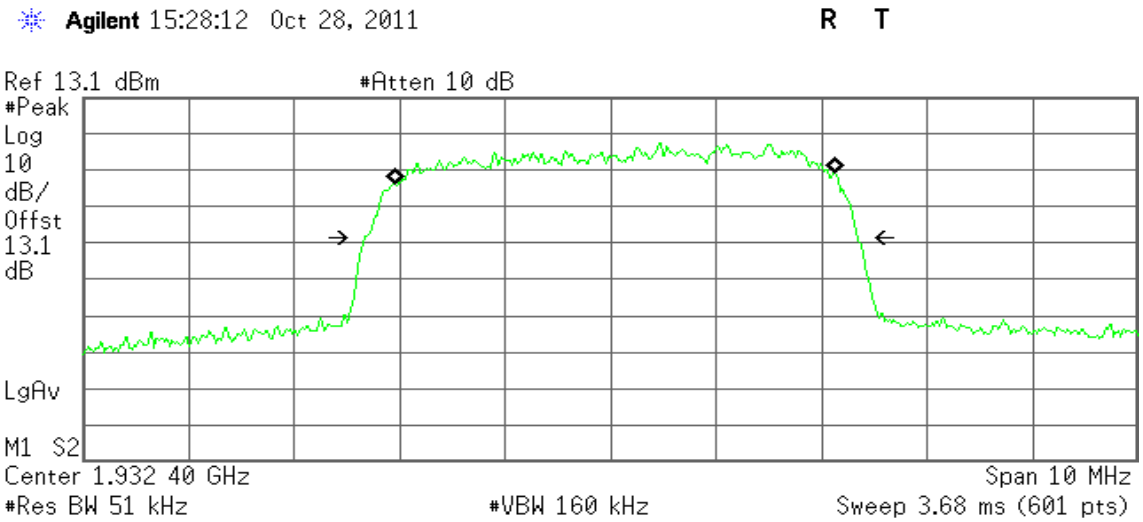


CH High


Agilent 14:37:33 Oct 28, 2011
R T
Ref 33.1 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
33.1
dB
LgAv
M1 S2
Center 1.907 60 GHz
Span 10 MHz
#Res BW 51 kHz
#VBW 160 kHz
Sweep 3.68 ms (601 pts)
Occupied Bandwidth
4.1332 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -53.582 kHz
x dB Bandwidth 4.649 MHz

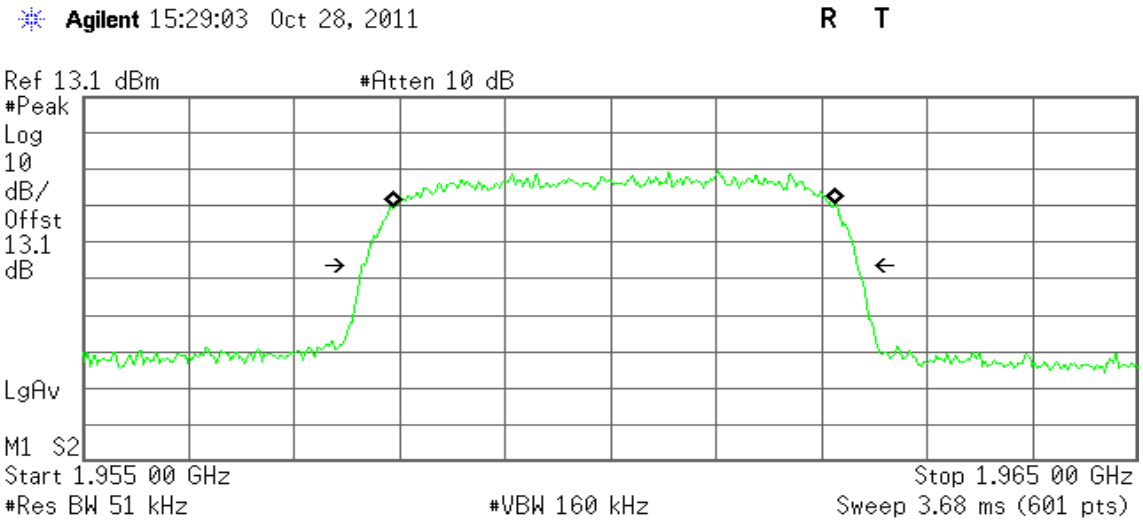
Mode 2: WCDMA Band II Downlink

CH Low



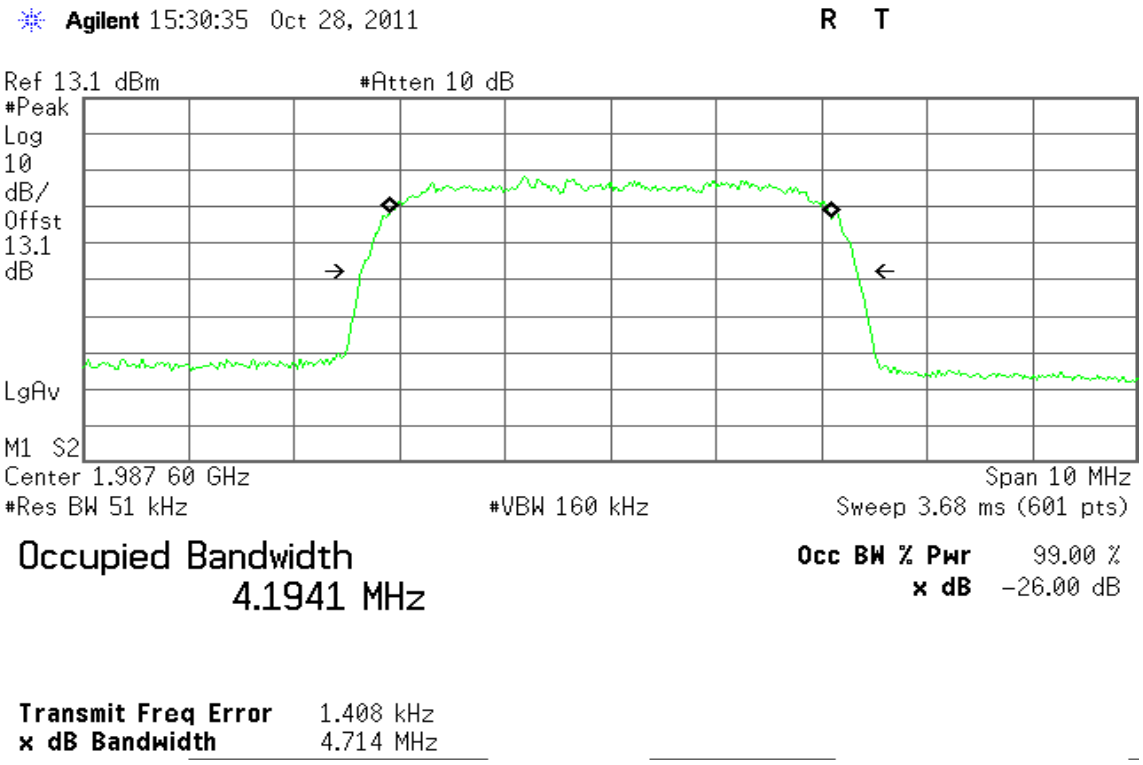
Transmit Freq Error 42.588 kHz
x dB Bandwidth 4.682 MHz

CH Mid



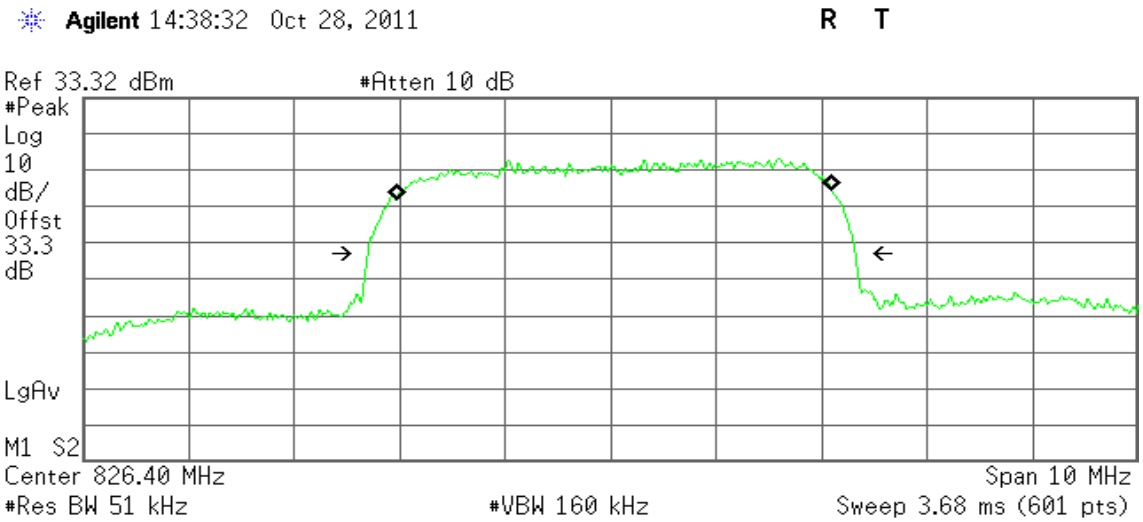
Transmit Freq Error 29.365 kHz
x dB Bandwidth 4.712 MHz

CH High


Agilent 15:30:35 Oct 28, 2011
R T
Ref 13.1 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
13.1
dB
LgAv
M1 S2
Center 1.987 60 GHz
Span 10 MHz
#Res BW 51 kHz
#VBW 160 kHz
Sweep 3.68 ms (601 pts)
Occupied Bandwidth
4.1941 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 1.408 kHz
x dB Bandwidth 4.714 MHz

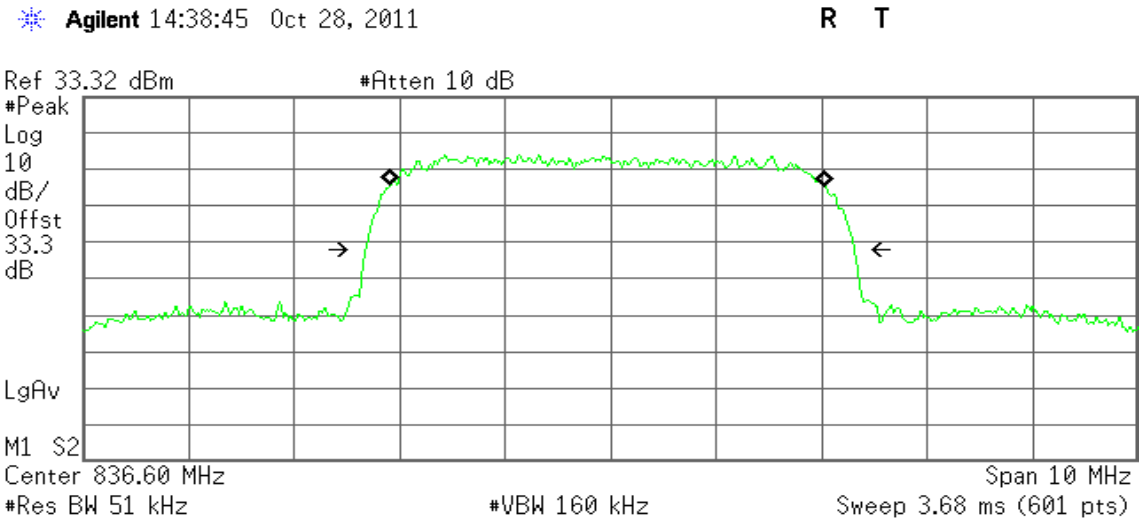
Mode 3: WCDMA Band V Uplink

CH Low



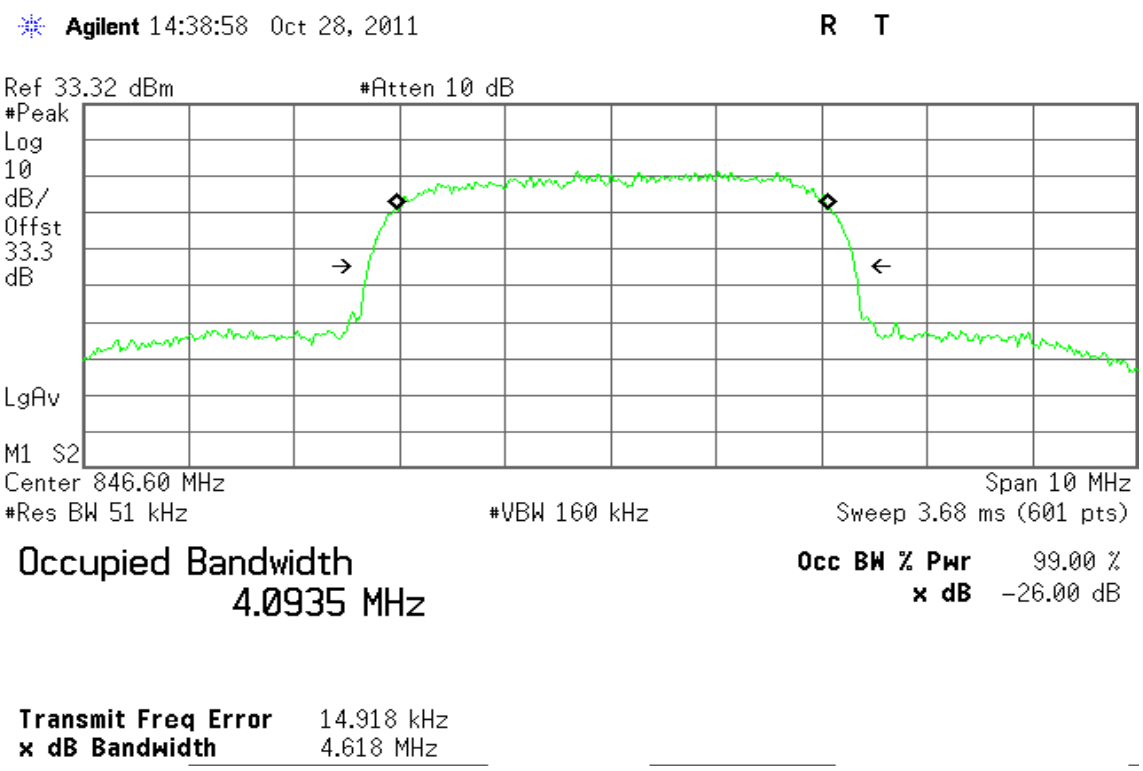
Transmit Freq Error	31.469 kHz
x dB Bandwidth	4.635 MHz

CH Mid



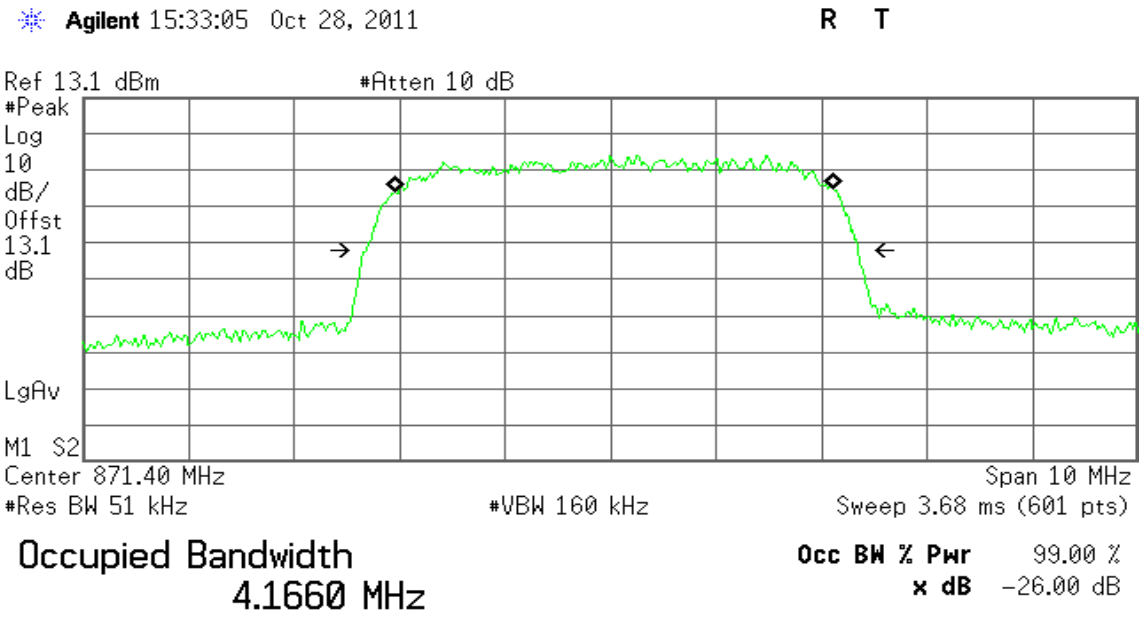
Transmit Freq Error	-26.379 kHz
x dB Bandwidth	4.643 MHz

CH High

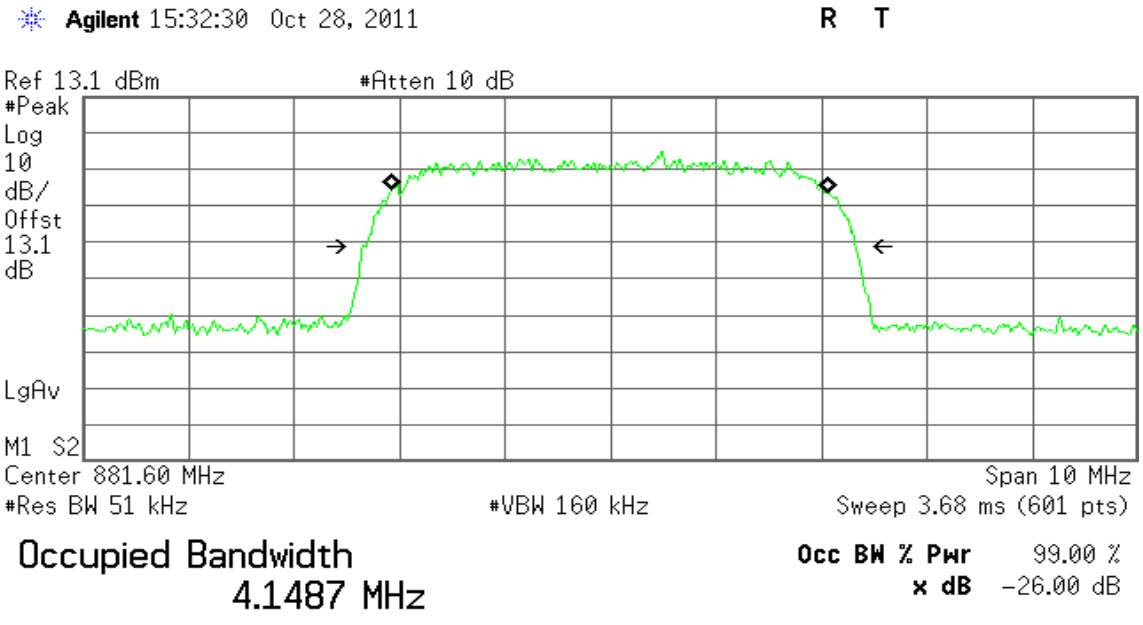

Agilent 14:38:58 Oct 28, 2011
R T
Ref 33.32 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
33.3
dB
LgAv
M1 S2
Center 846.60 MHz
Span 10 MHz
#Res BW 51 kHz
#VBW 160 kHz
Sweep 3.68 ms (601 pts)
Occupied Bandwidth
4.0935 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 14.918 kHz
x dB Bandwidth 4.618 MHz

Mode 4: WCDMA Band V Downlink

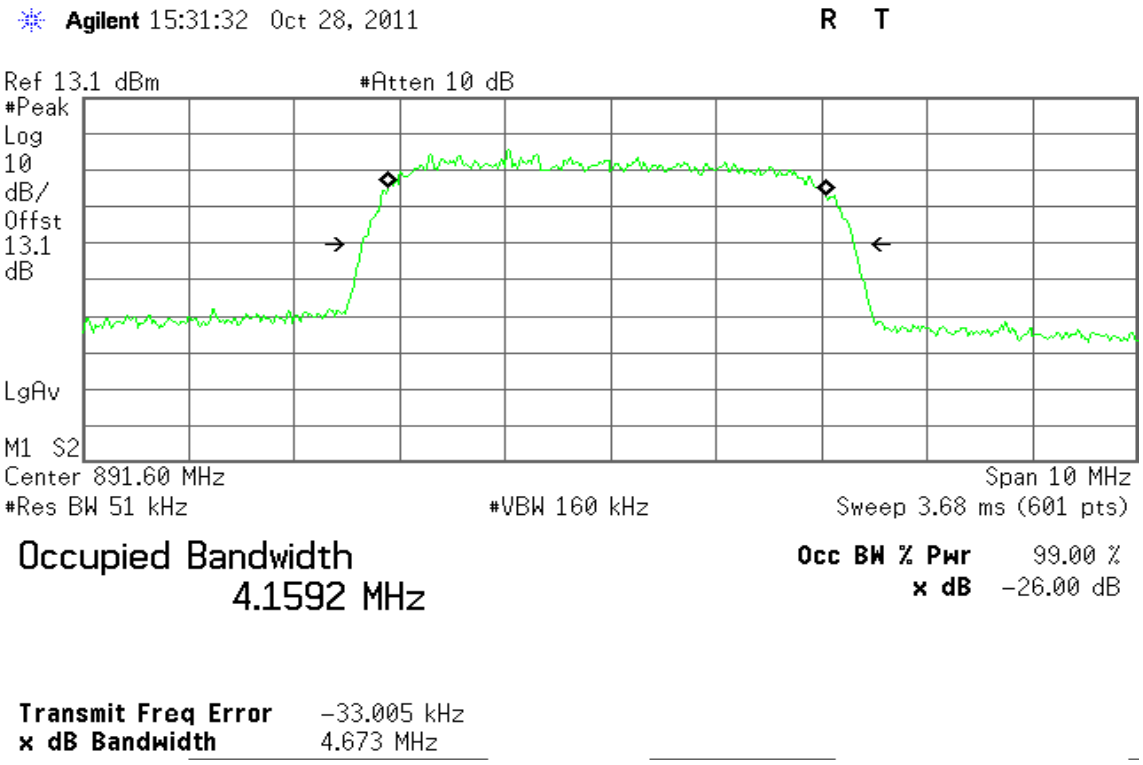
CH Low



CH Mid

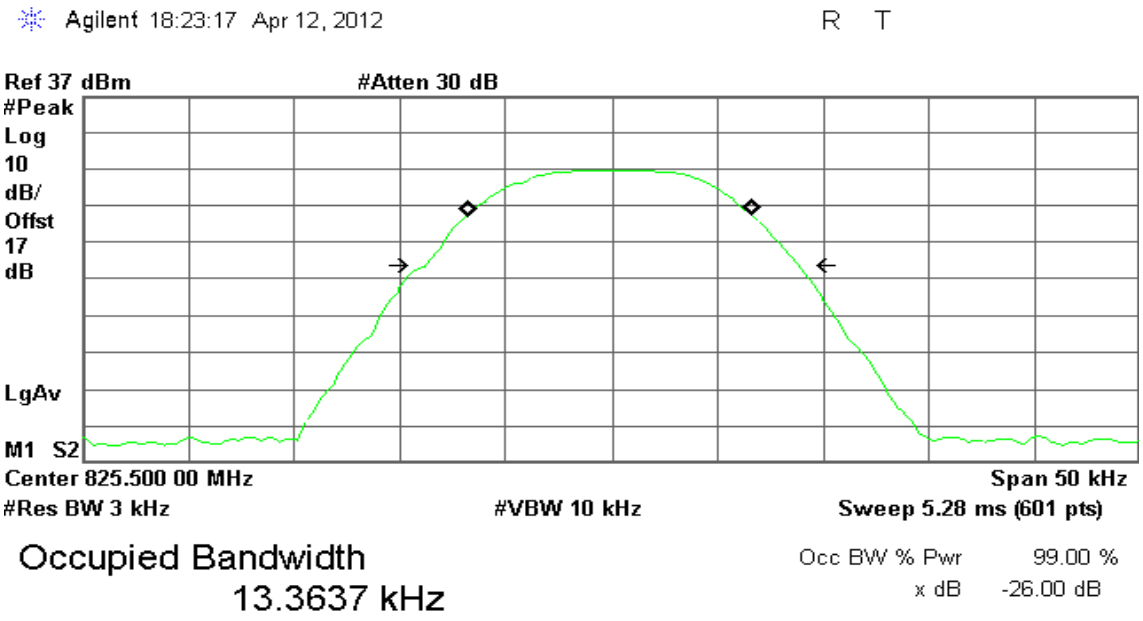


CH High


Agilent 15:31:32 Oct 28, 2011
R T
Ref 13.1 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
13.1
dB
LgAv
M1 S2
Center 891.60 MHz
Span 10 MHz
#Res BW 51 kHz
#VBW 160 kHz
Sweep 3.68 ms (601 pts)
Occupied Bandwidth
4.1592 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -33.005 kHz
x dB Bandwidth 4.673 MHz

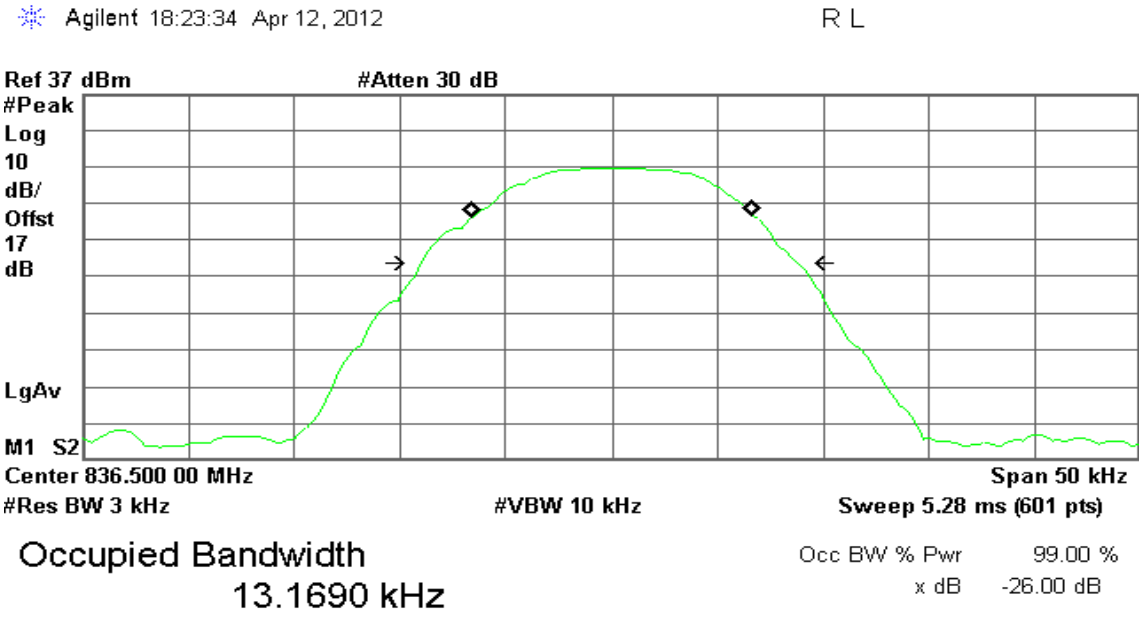
Mode 5: AMPS / 824 – 849MHz Uplink

CH Low



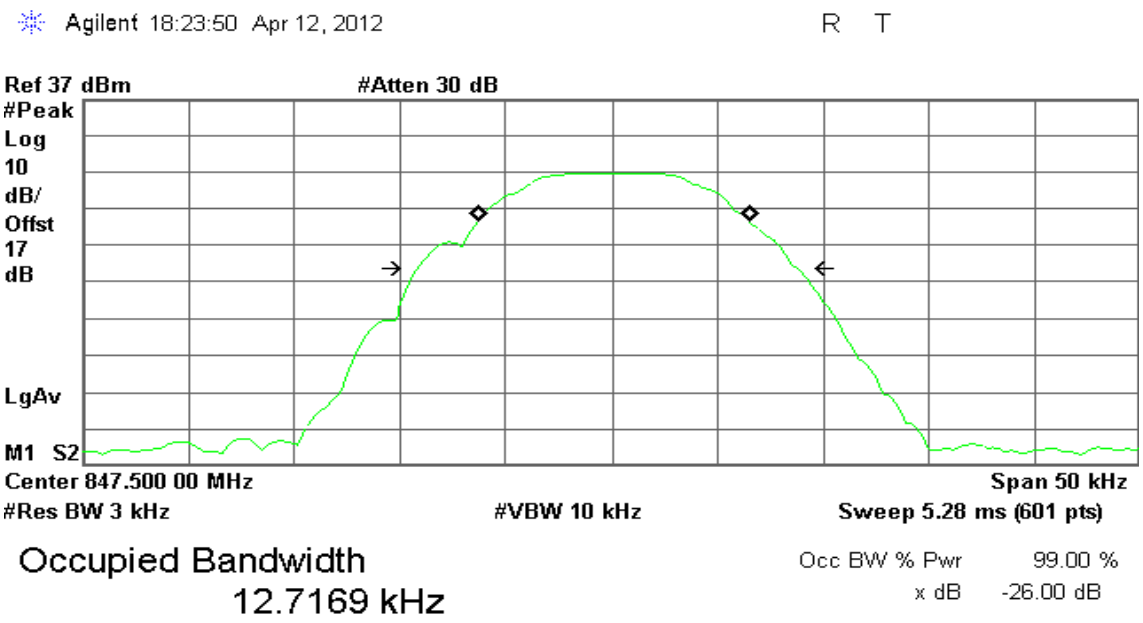
Transmit Freq Error	-65.435 Hz
x dB Bandwidth	17.559 kHz

CH Mid



Transmit Freq Error	-2.763 Hz
x dB Bandwidth	17.747 kHz

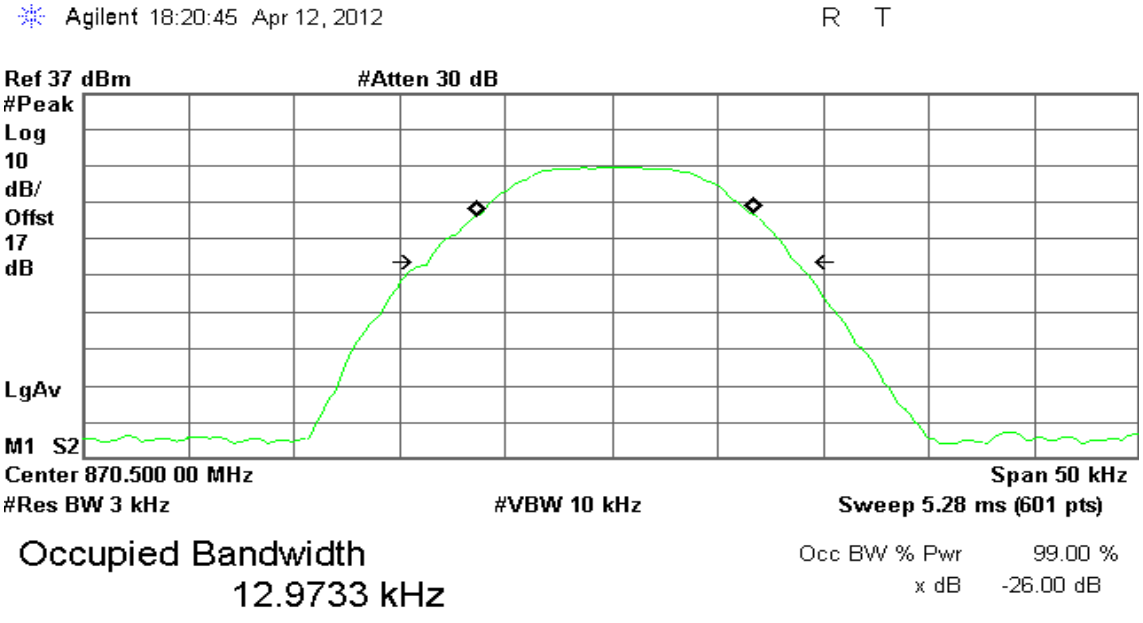
CH High



Transmit Freq Error	127.667 Hz
x dB Bandwidth	17.885 kHz

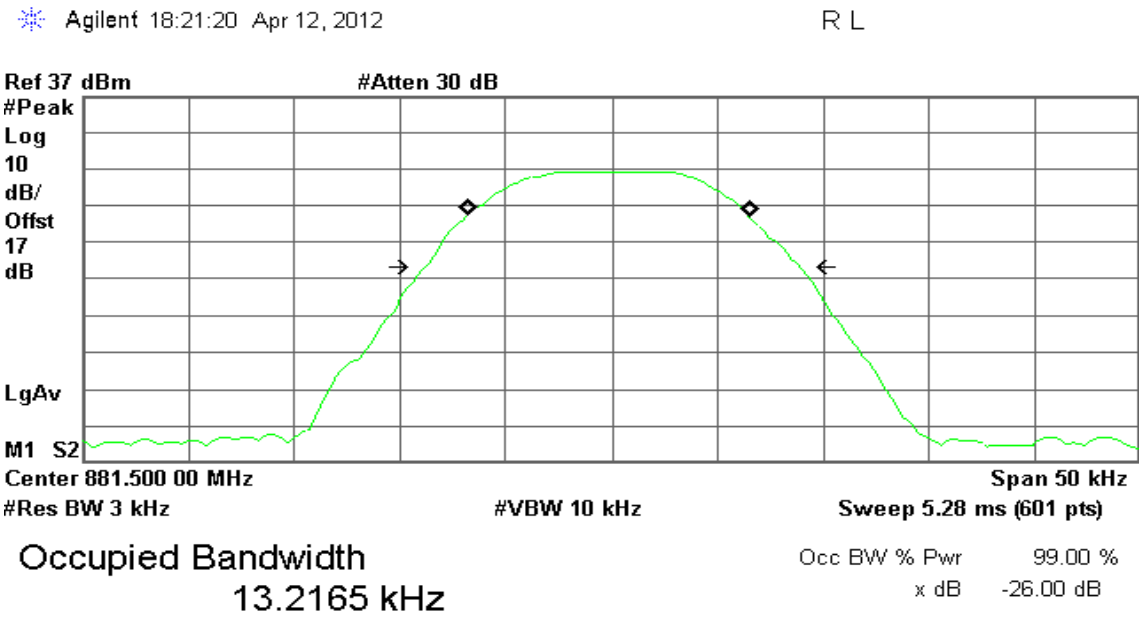
Mode 6: AMPS / 869 – 894MHz Downlink

CH Low



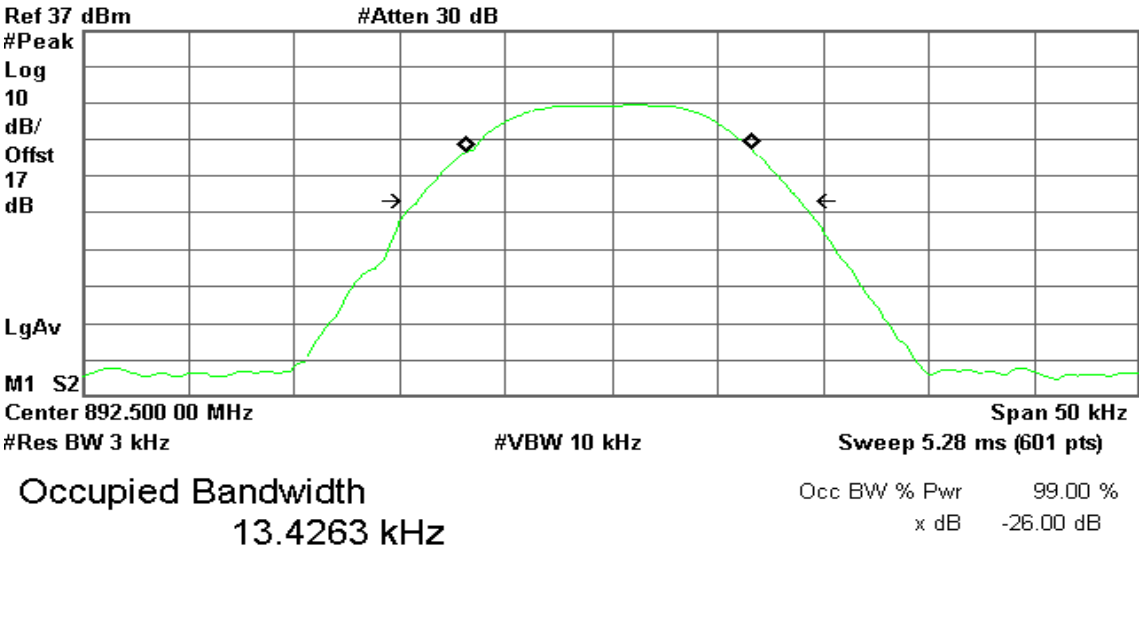
Transmit Freq Error	151.947 Hz
x dB Bandwidth	17.341 kHz

CH Mid



Transmit Freq Error	-144.310 Hz
x dB Bandwidth	17.612 kHz

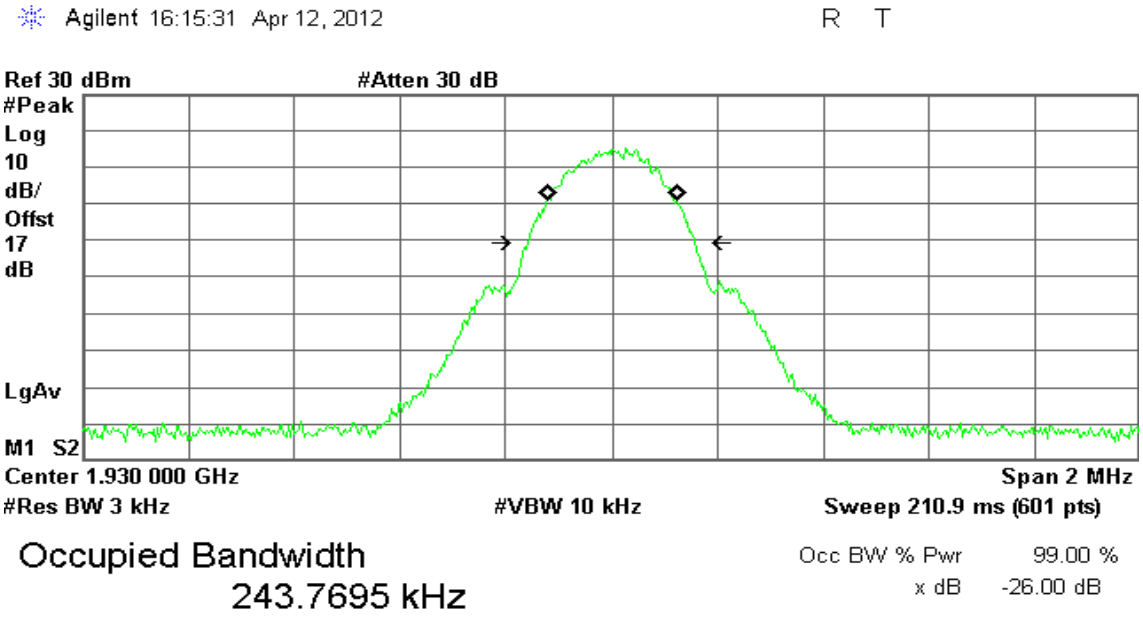
CH High



Transmit Freq Error	-108.993 Hz
x dB Bandwidth	17.912 kHz

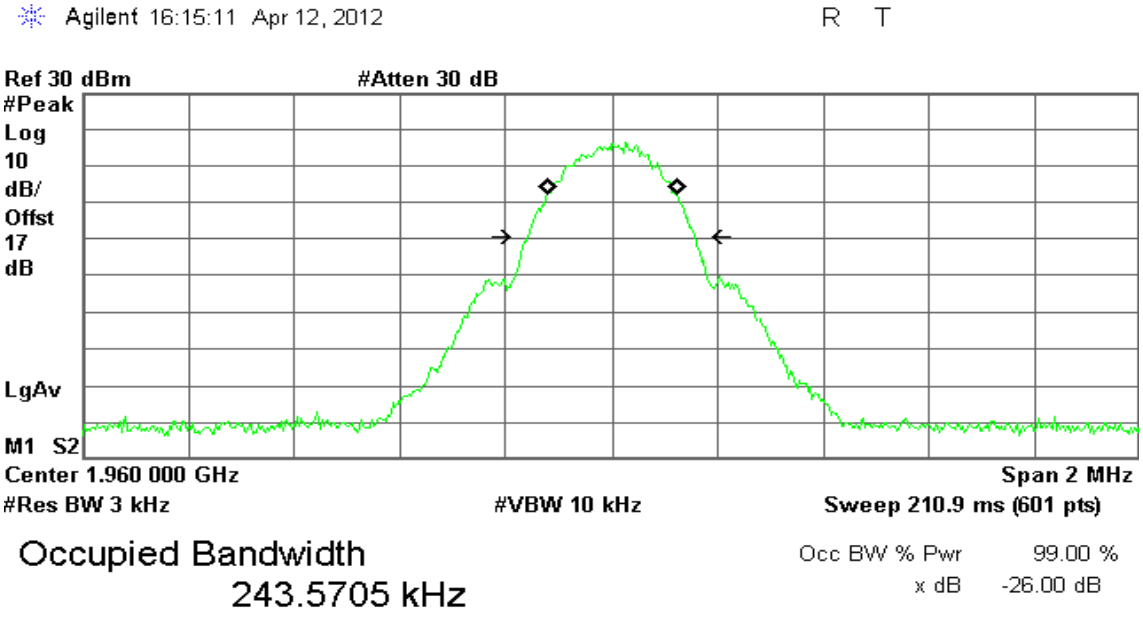
Mode 7: AMPS / 1850 – 1910MHz Uplink

CH Low



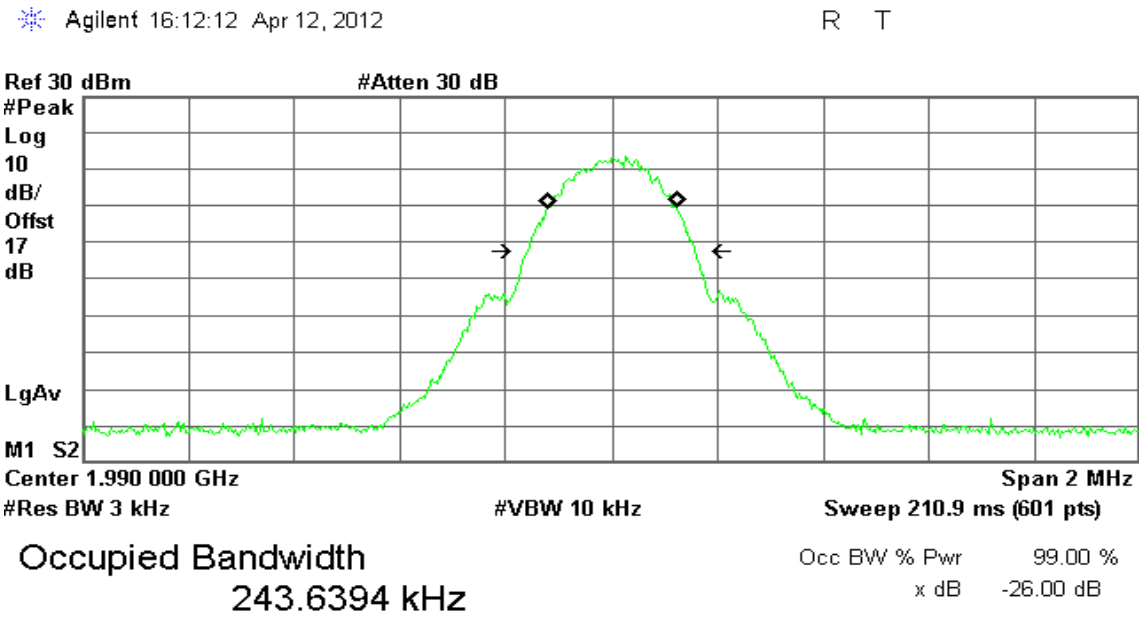
Transmit Freq Error	1.151 kHz
x dB Bandwidth	314.751 kHz

CH Mid



Transmit Freq Error	852.601 Hz
x dB Bandwidth	316.087 kHz

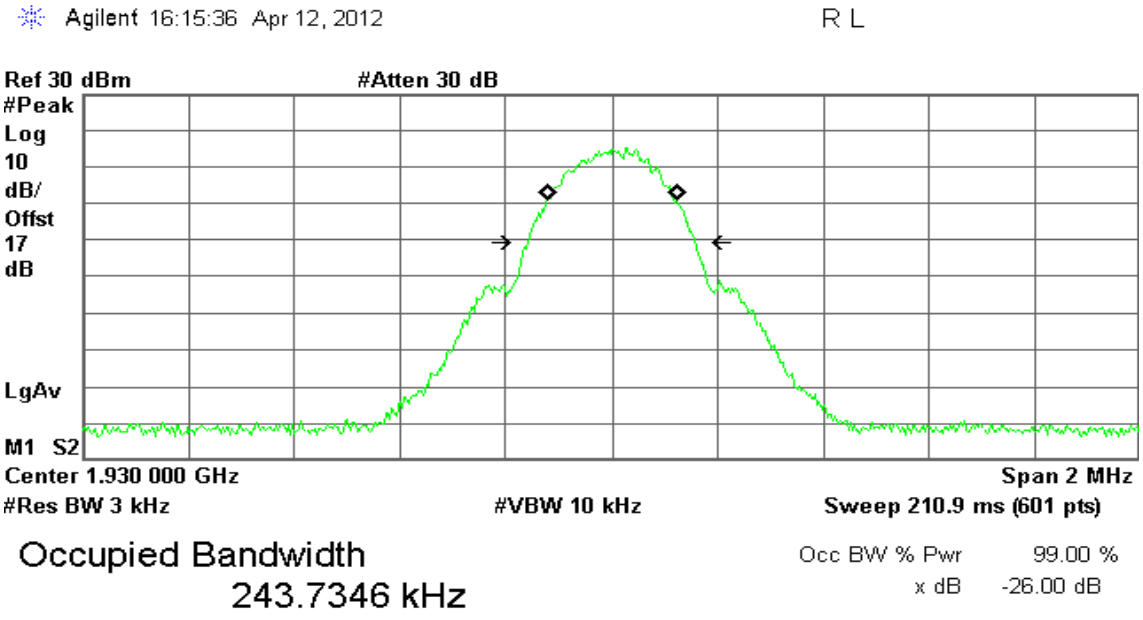
CH High



Transmit Freq Error	886.144 Hz
x dB Bandwidth	316.526 kHz

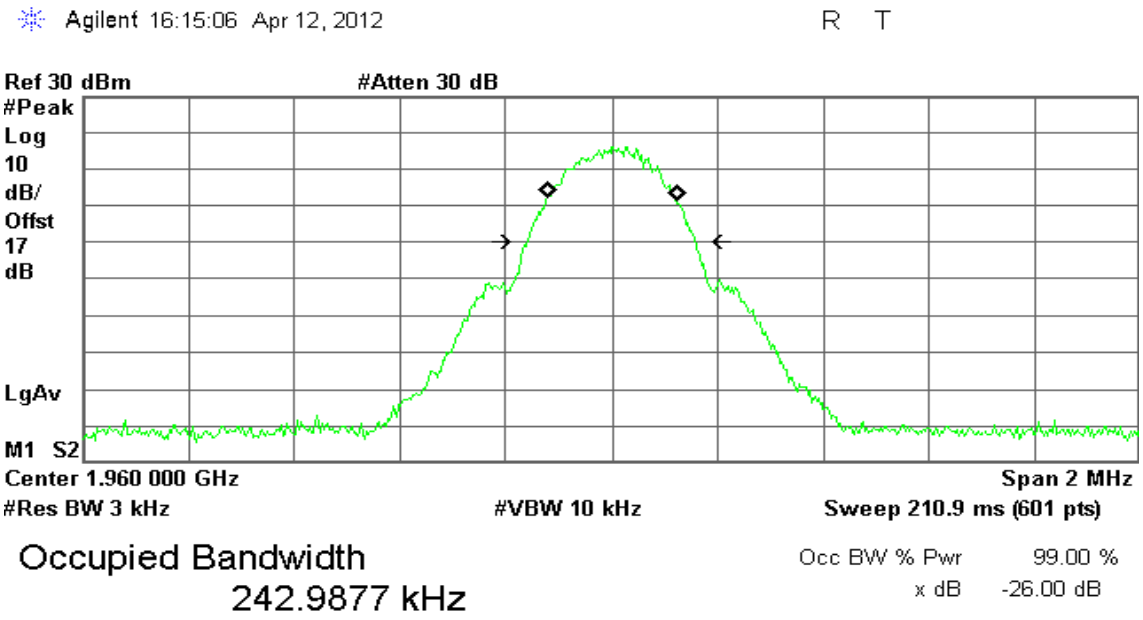
Mode 8: AMPS / 1930 – 1990MHz Downlink

CH Low



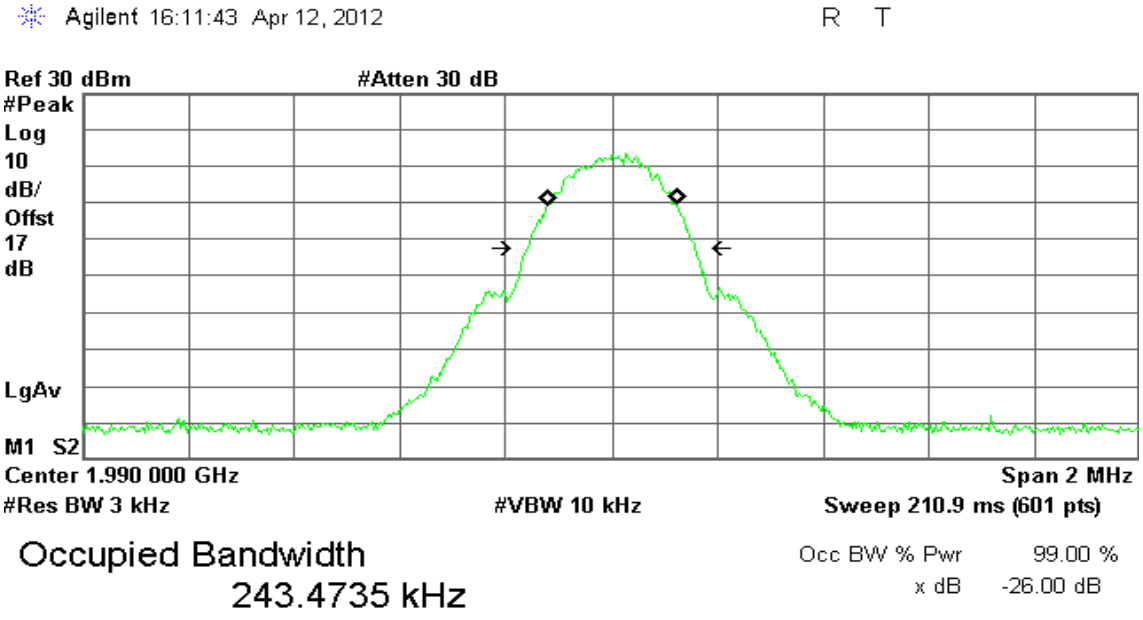
Transmit Freq Error	1.178 kHz
x dB Bandwidth	314.806 kHz

CH Mid



Transmit Freq Error	298.742 Hz
x dB Bandwidth	316.606 kHz

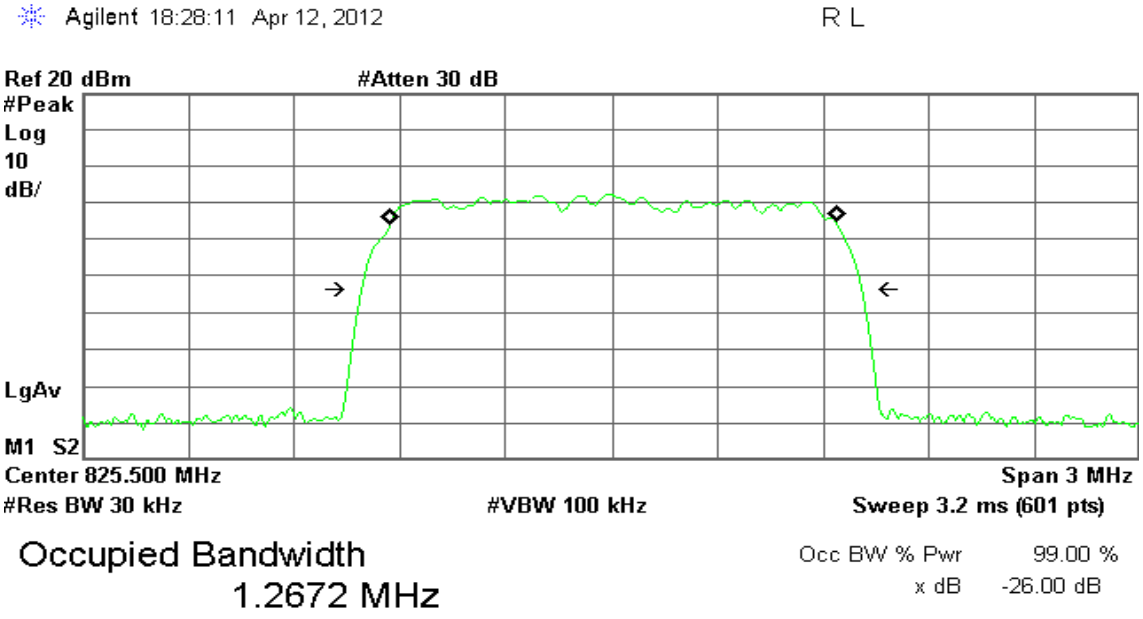
CH High



Transmit Freq Error	919.339 Hz
x dB Bandwidth	316.561 kHz

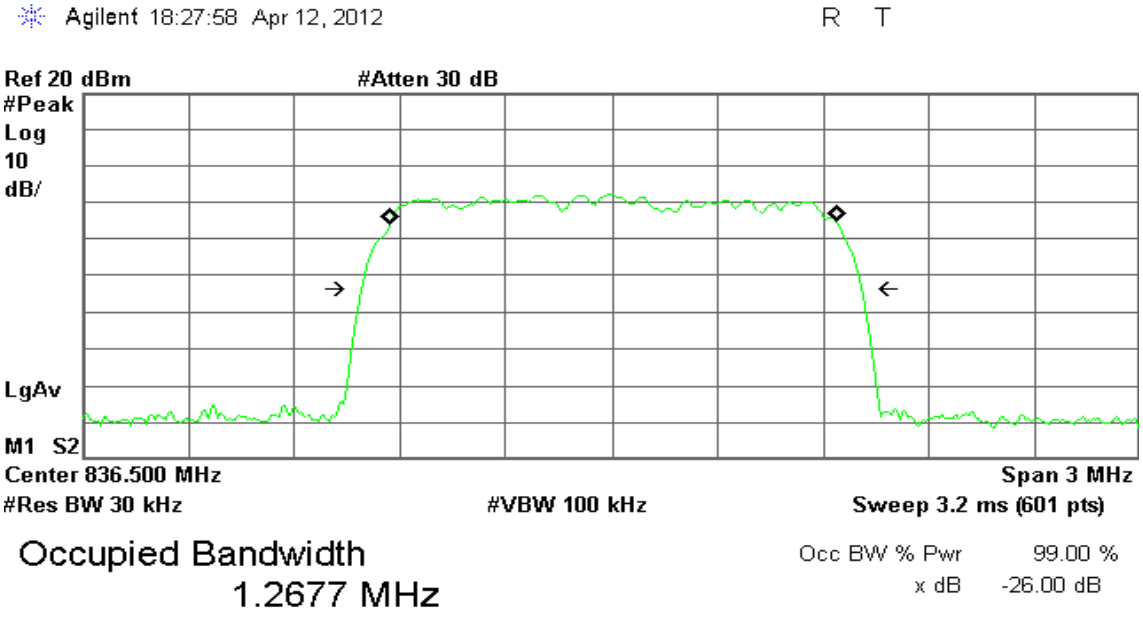
Mode 9: CDMA / 824 – 849MHz Uplink

CH Low



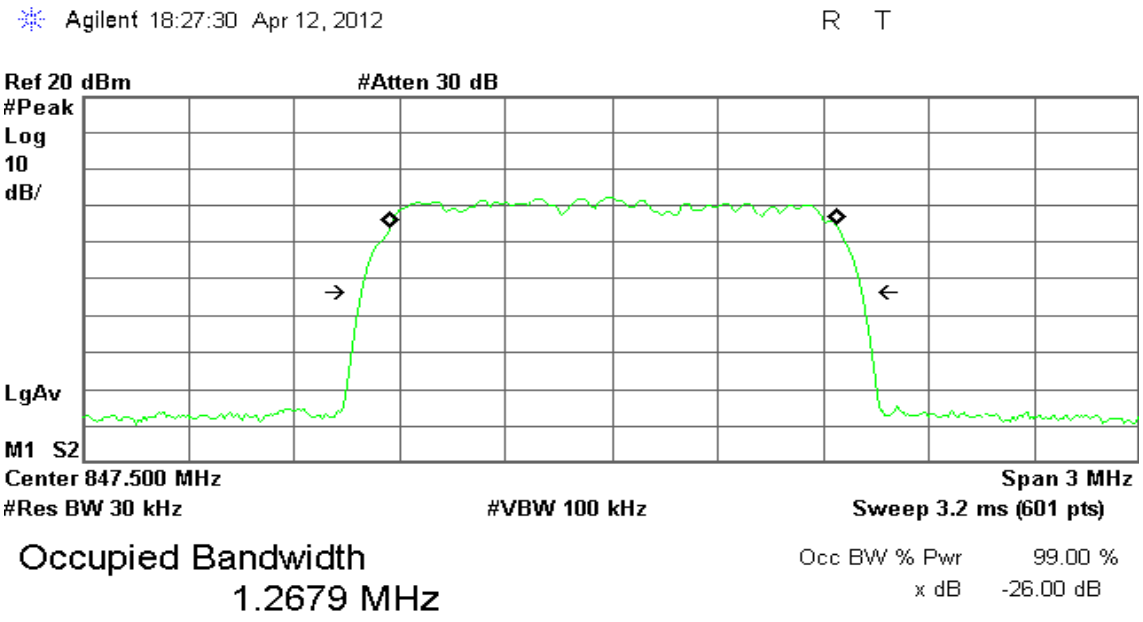
Transmit Freq Error	5.524 kHz
x dB Bandwidth	1.420 MHz

CH Mid



Transmit Freq Error	5.512 kHz
x dB Bandwidth	1.420 MHz

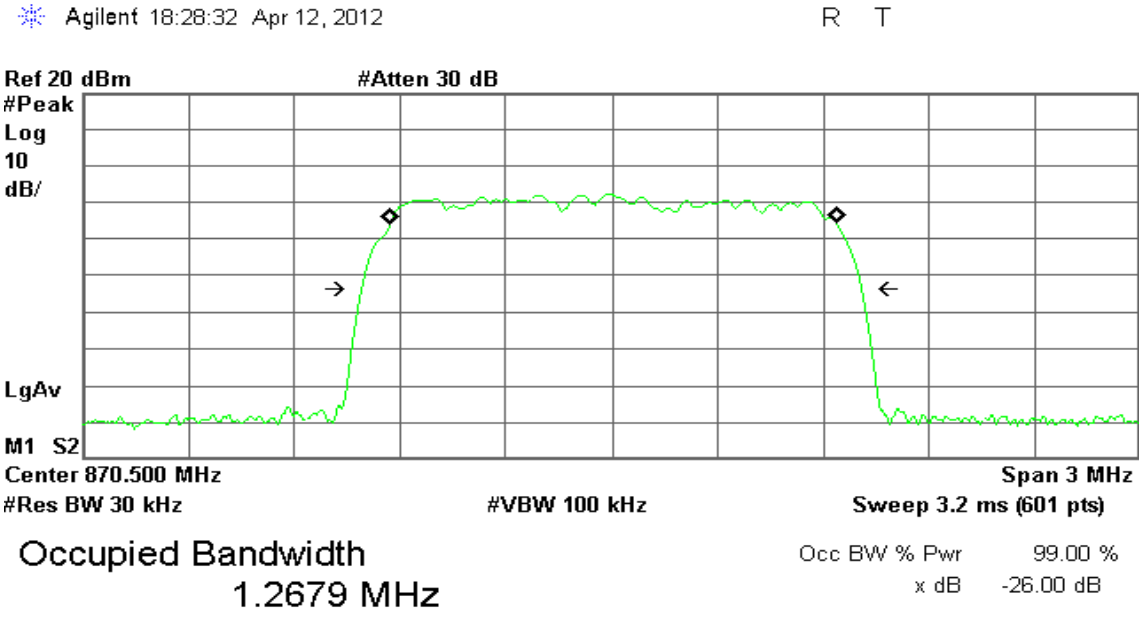
CH High



Transmit Freq Error	5.466 kHz
x dB Bandwidth	1.420 MHz

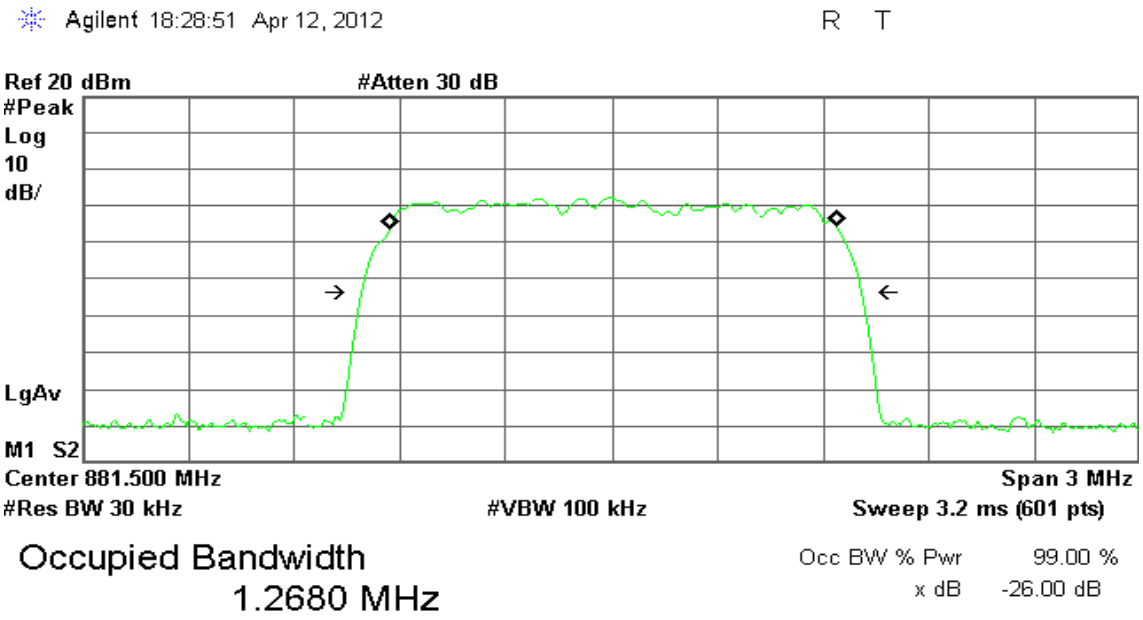
Mode 10: CDMA / 869 – 894MHz Downlink

CH Low



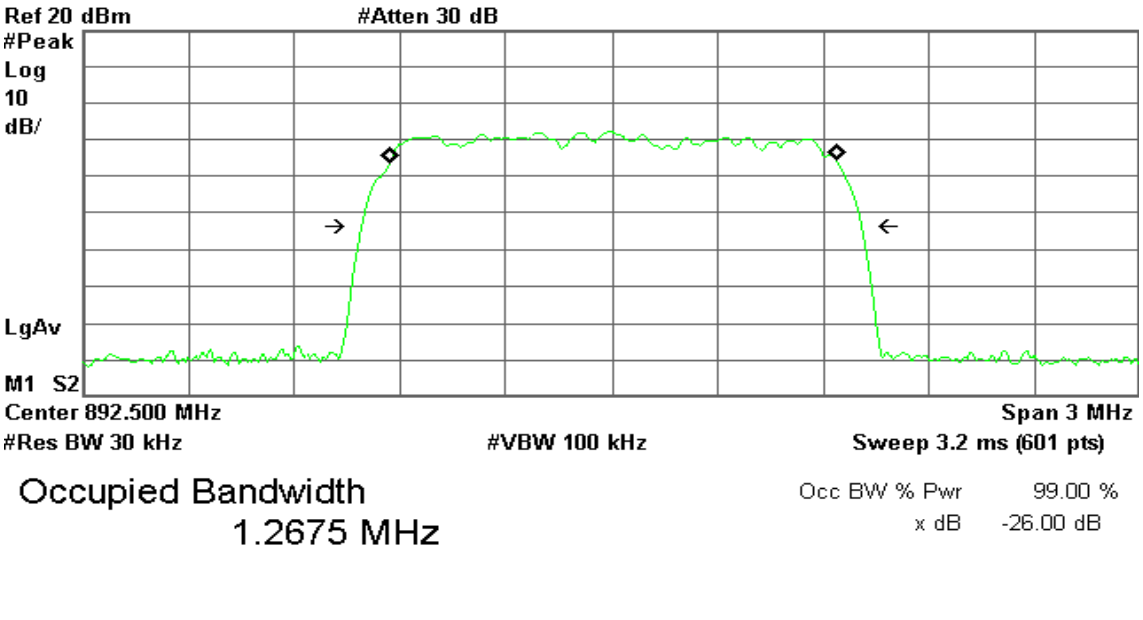
Transmit Freq Error	5.440 kHz
x dB Bandwidth	1.420 MHz

CH Mid



Transmit Freq Error	5.481 kHz
x dB Bandwidth	1.419 MHz

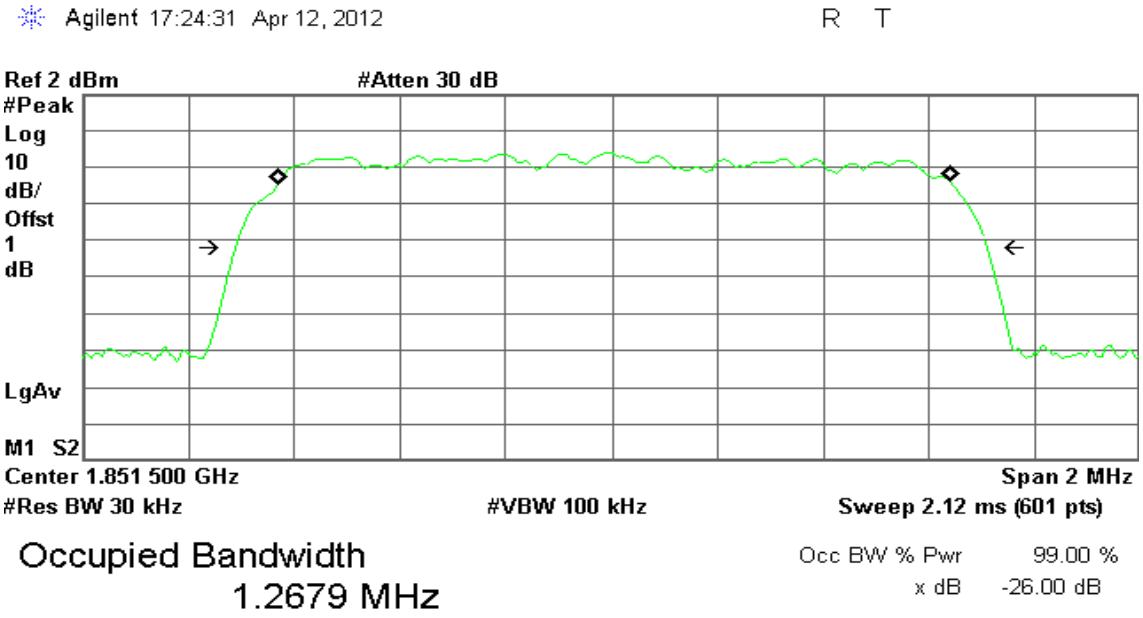
CH High



Transmit Freq Error	5.566 kHz
x dB Bandwidth	1.420 MHz

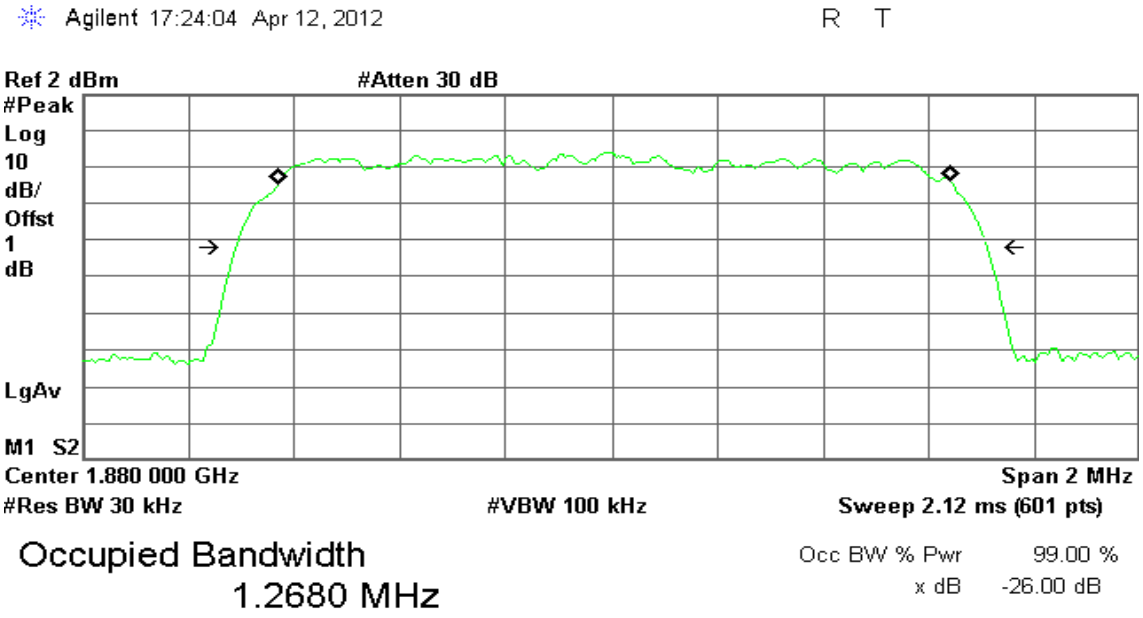
Mode 11: CDMA / 1850 – 1910MHz Uplink

CH Low



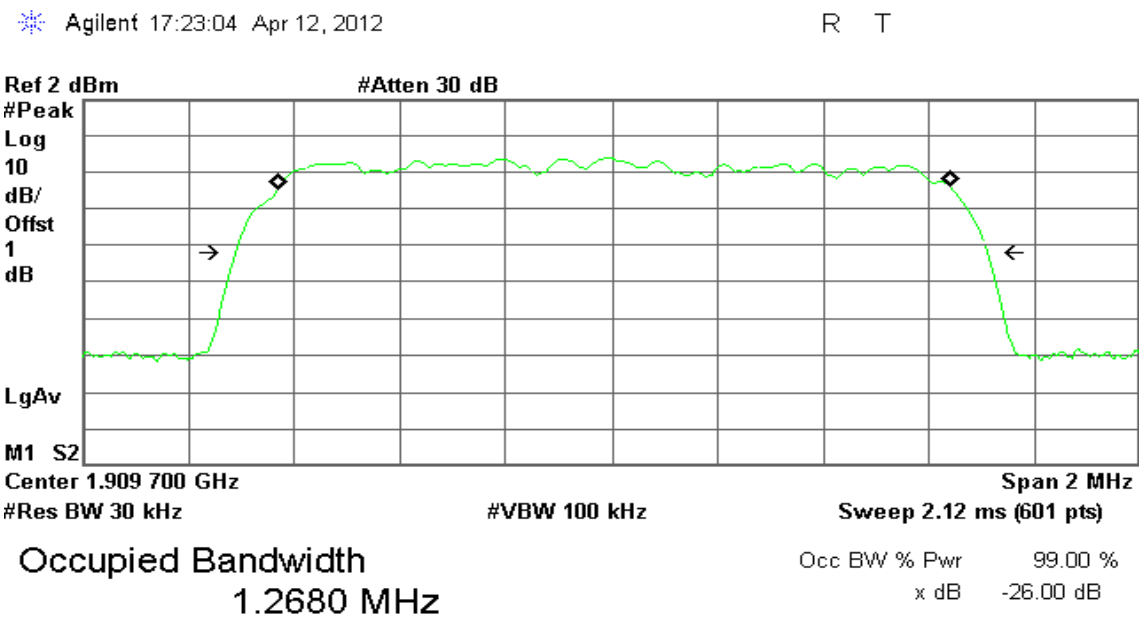
Transmit Freq Error	4.991 kHz
x dB Bandwidth	1.420 MHz

CH Mid



Transmit Freq Error	5.017 kHz
x dB Bandwidth	1.420 MHz

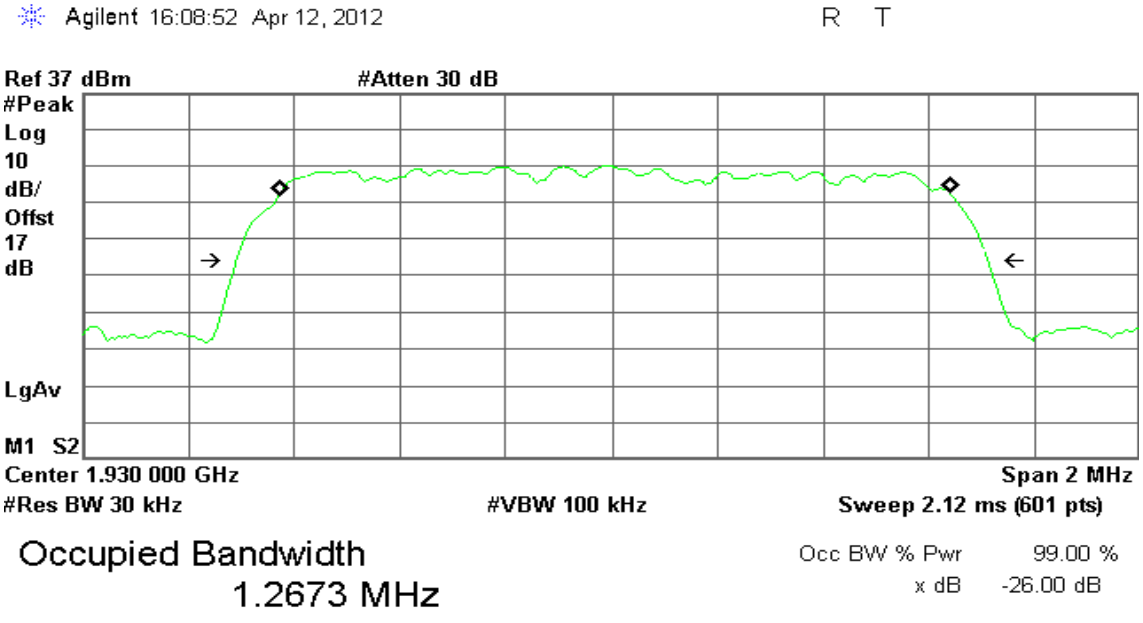
CH High



Transmit Freq Error	5.143 kHz
x dB Bandwidth	1.420 MHz

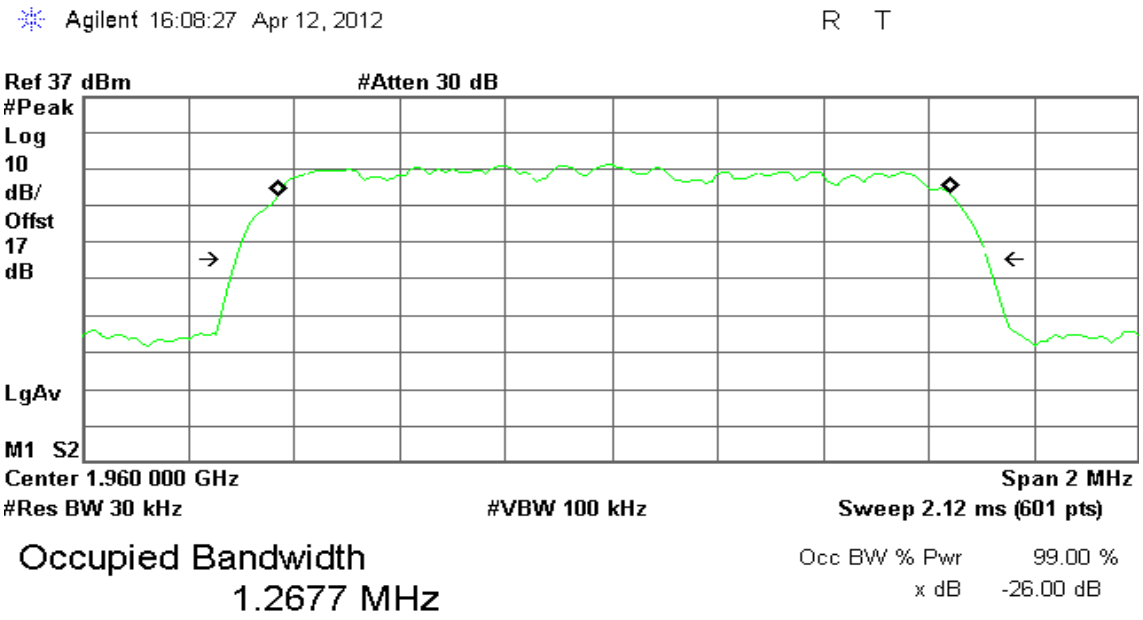
Mode 12: CDMA / 1930 – 1990MHz Downlink

CH Low



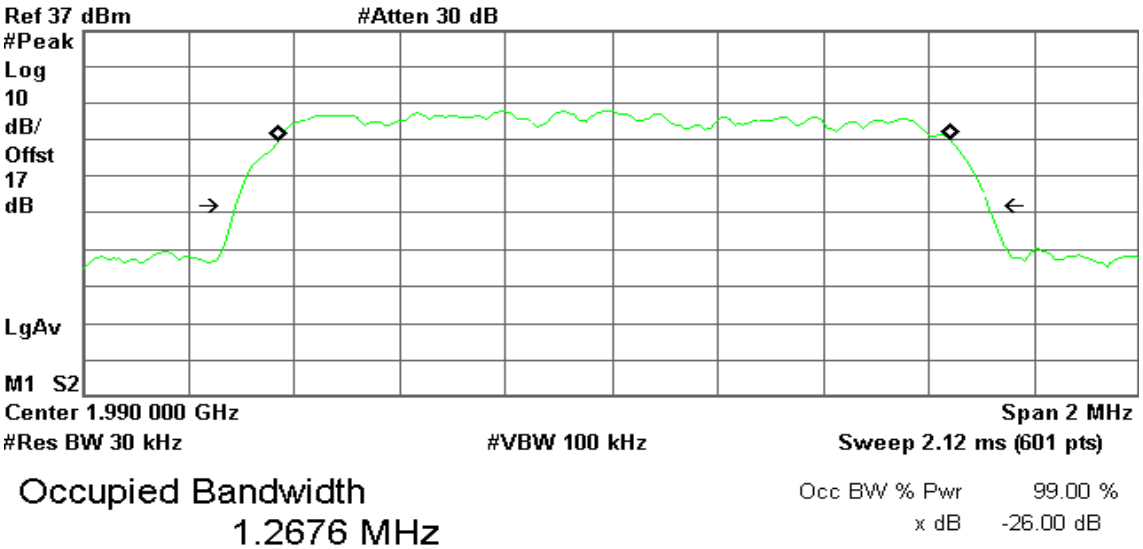
Transmit Freq Error	6.452 kHz
x dB Bandwidth	1.419 MHz

CH Mid



Transmit Freq Error	4.693 kHz
x dB Bandwidth	1.419 MHz

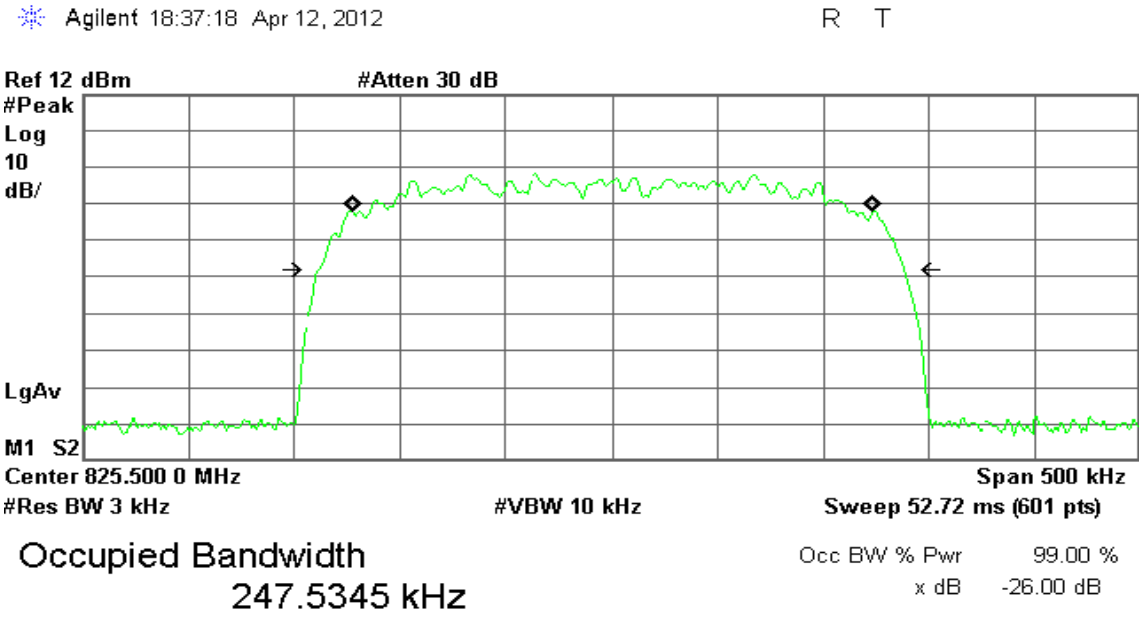
CH High



Transmit Freq Error	4.615 kHz
x dB Bandwidth	1.420 MHz

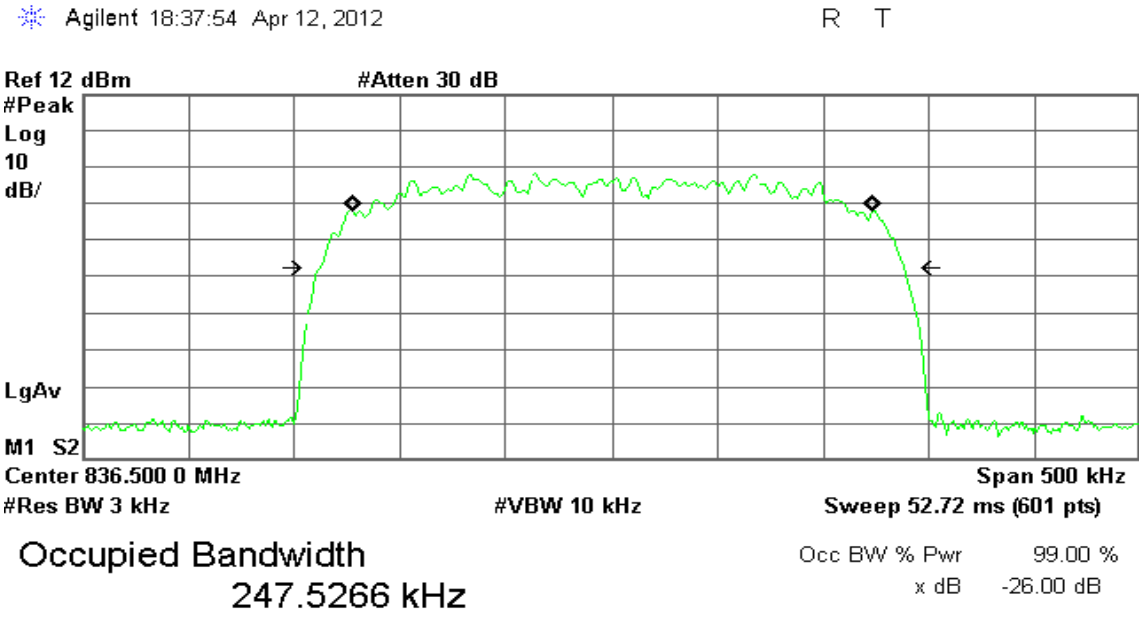
Mode 13: TDMA / 824 – 849MHz Uplink

CH Low



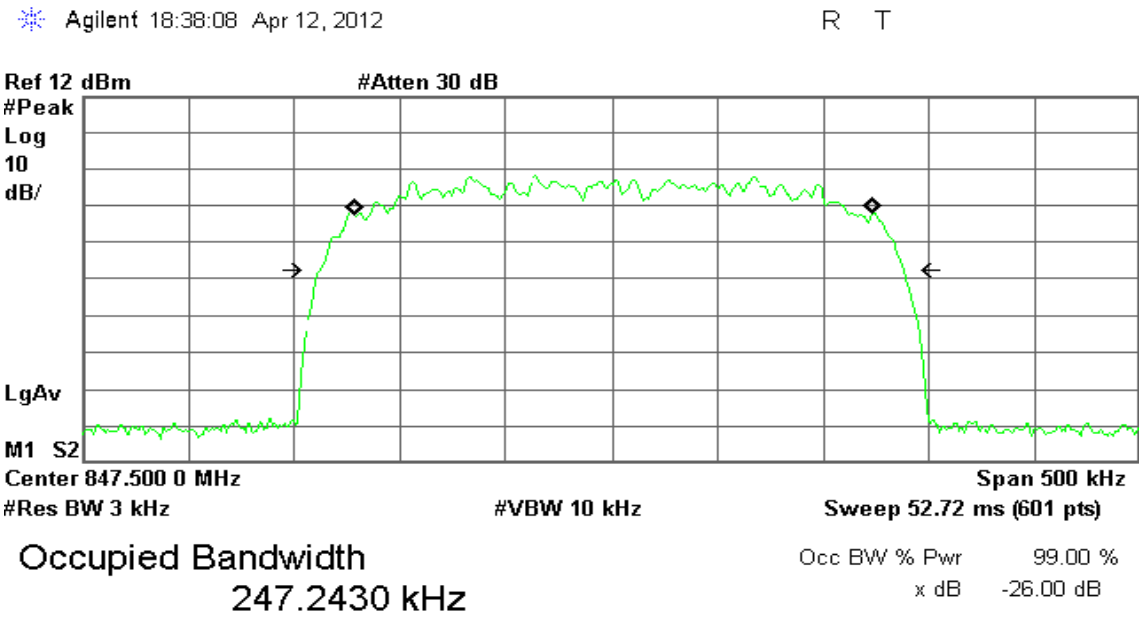
Transmit Freq Error	679.725 Hz
x dB Bandwidth	278.173 kHz

CH Mid



Transmit Freq Error	631.385 Hz
x dB Bandwidth	278.139 kHz

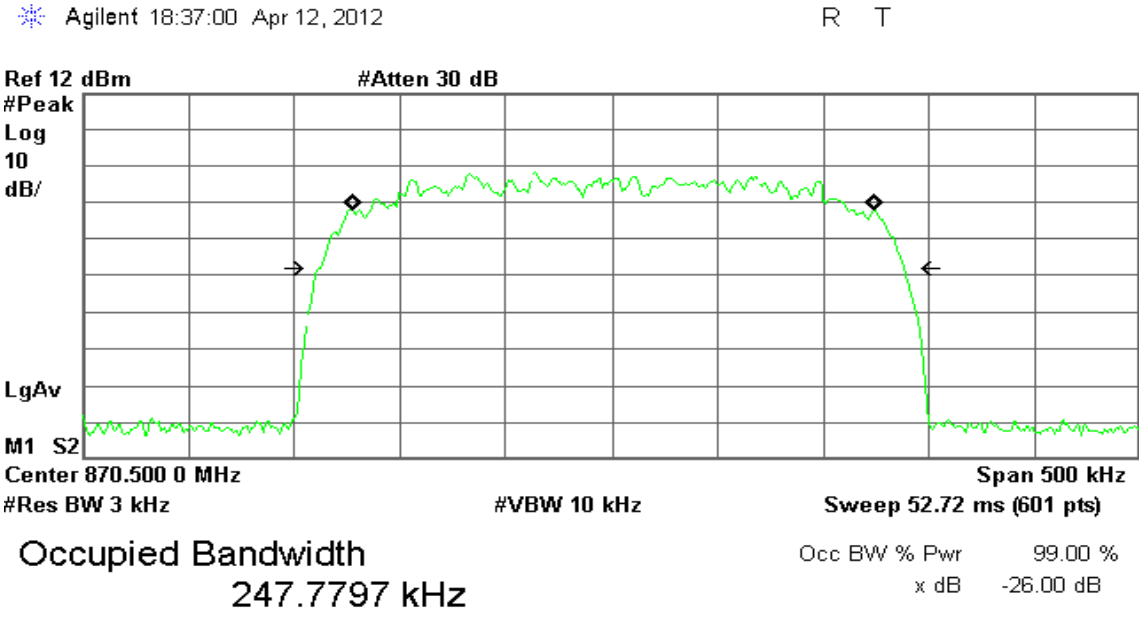
CH High



Transmit Freq Error	869.843 Hz
x dB Bandwidth	278.437 kHz

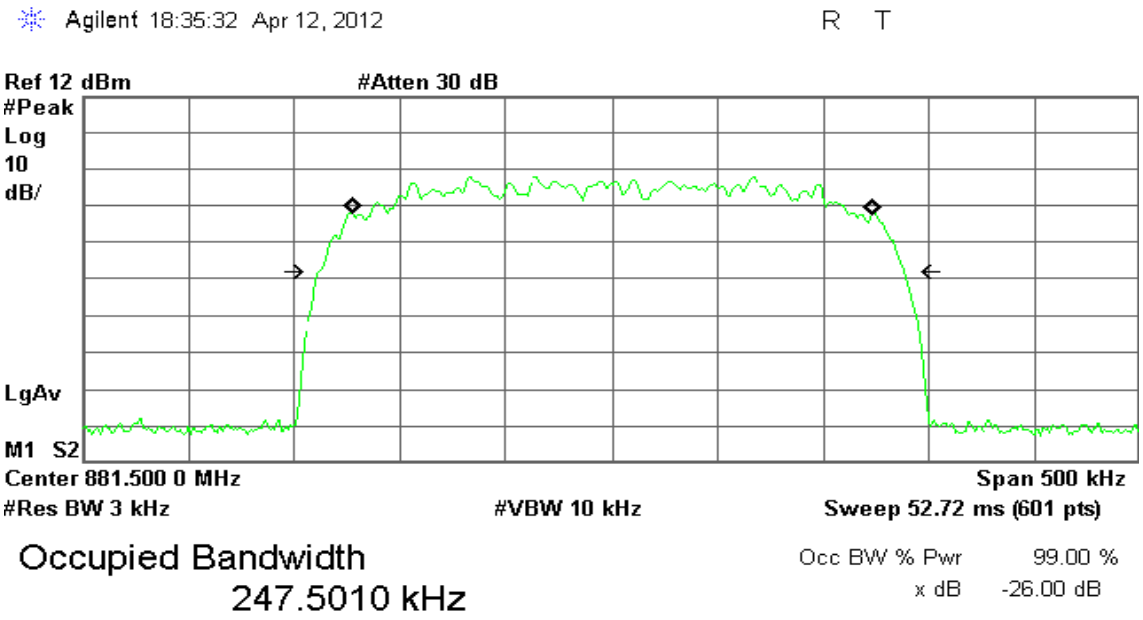
Mode 14: TDMA / 869 – 894MHz Downlink

CH Low



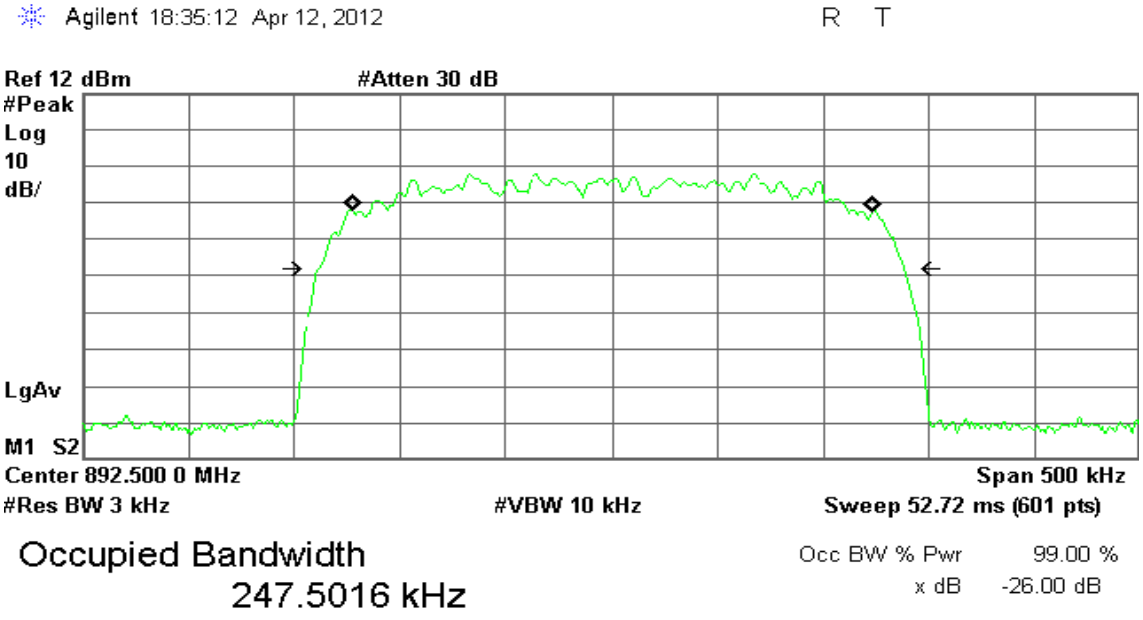
Transmit Freq Error	672.530 Hz
x dB Bandwidth	277.506 kHz

CH Mid



Transmit Freq Error	714.272 Hz
x dB Bandwidth	278.320 kHz

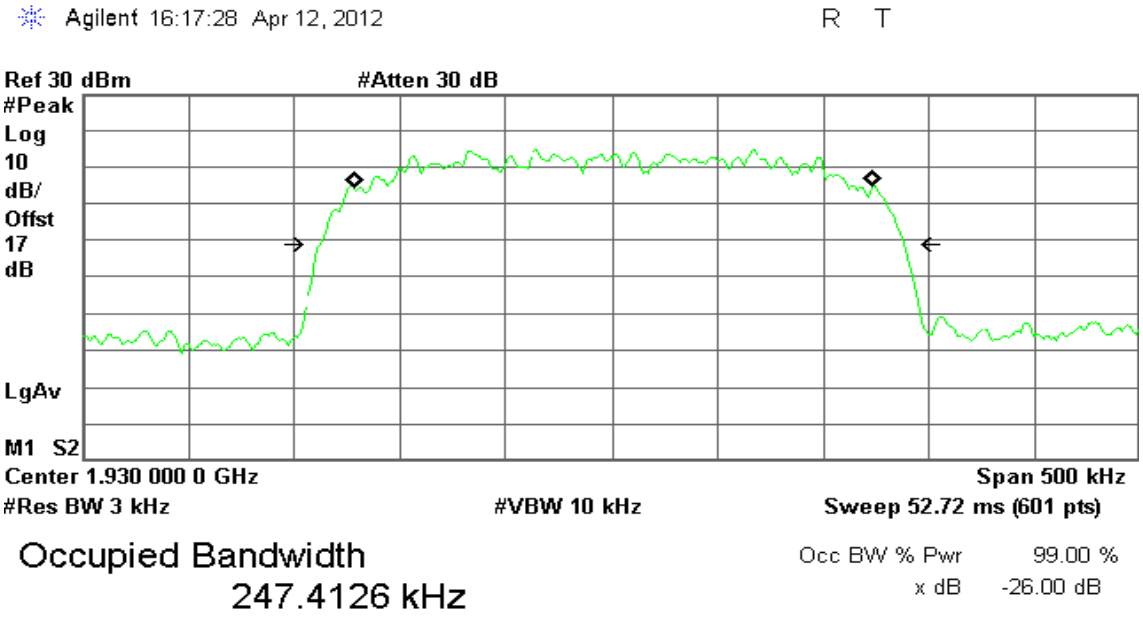
CH High



Transmit Freq Error	668.988 Hz
x dB Bandwidth	278.300 kHz

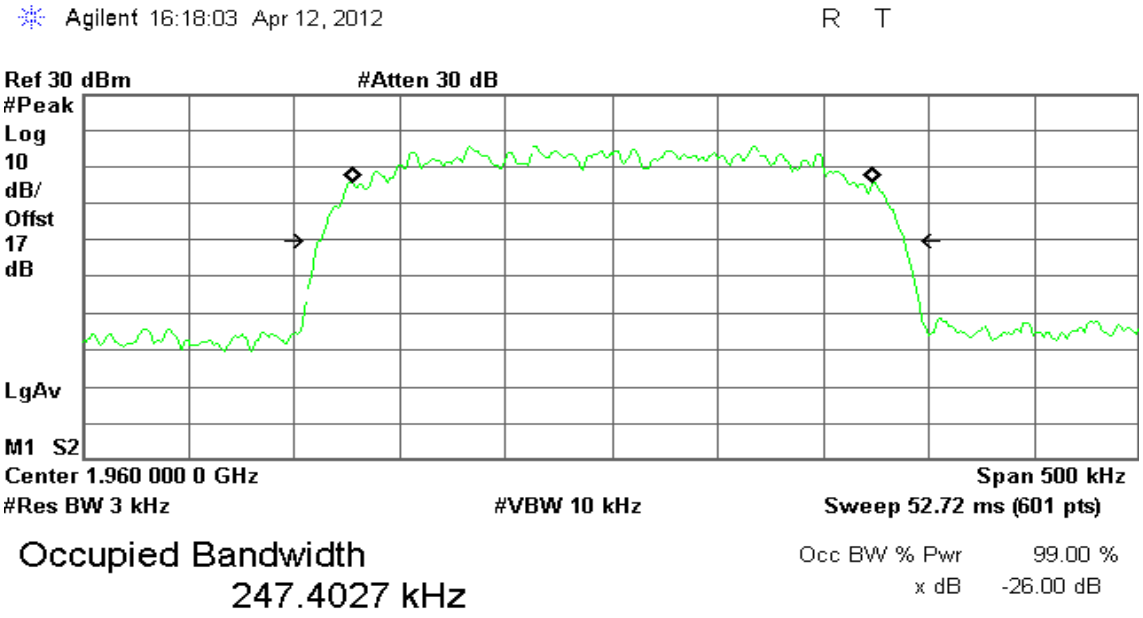
Mode 15: TDMA / 1850 – 1910MHz Uplink

CH Low



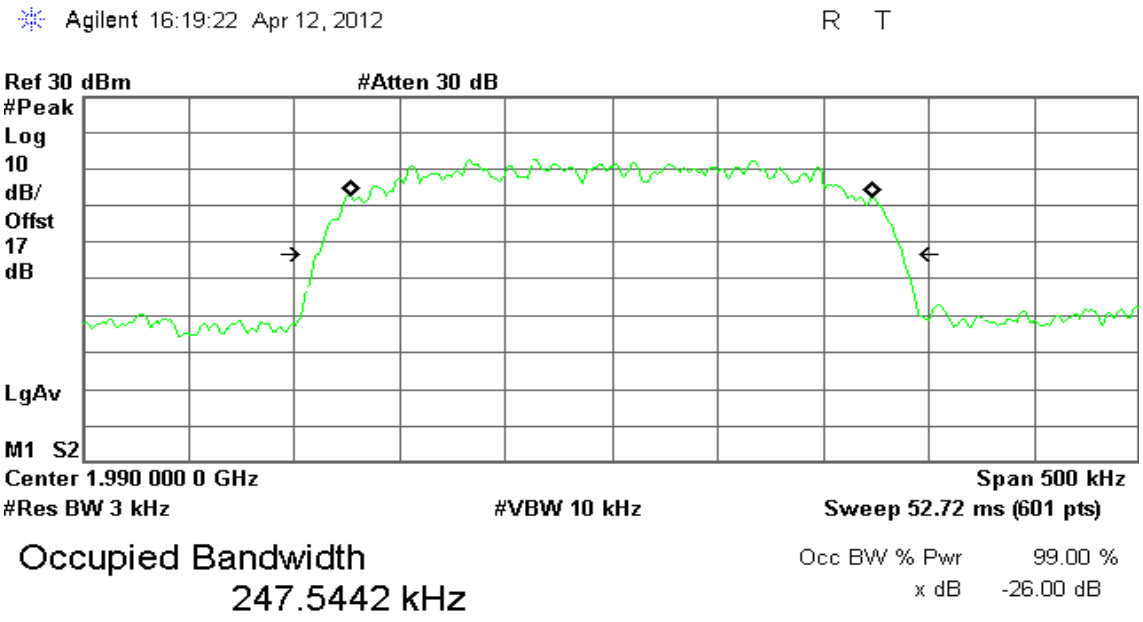
Transmit Freq Error	833.930 Hz
x dB Bandwidth	277.983 kHz

CH Mid



Transmit Freq Error	735.277 Hz
x dB Bandwidth	277.887 kHz

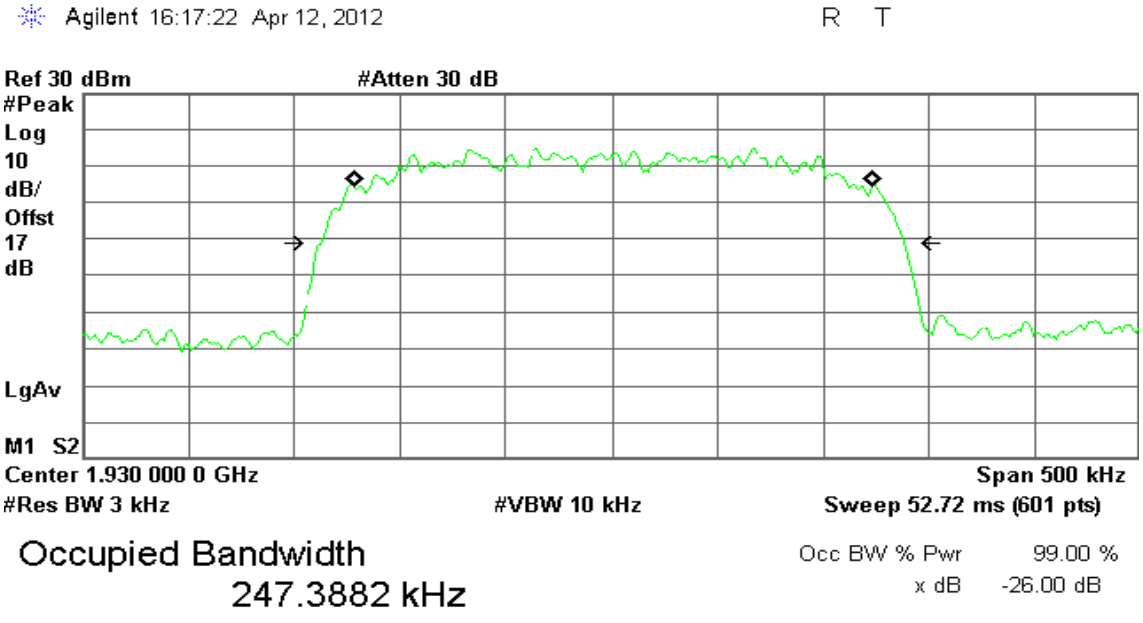
CH High



Transmit Freq Error	-57.008 Hz
x dB Bandwidth	278.454 kHz

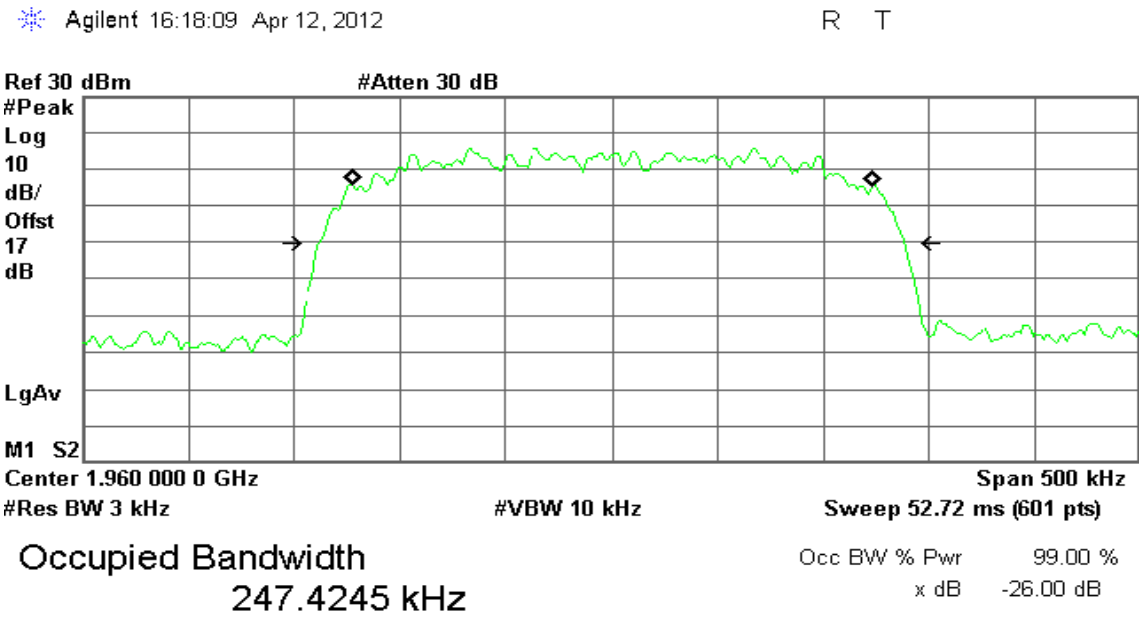
Mode 16: TDMA / 1930 – 1990MHz Downlink

CH Low



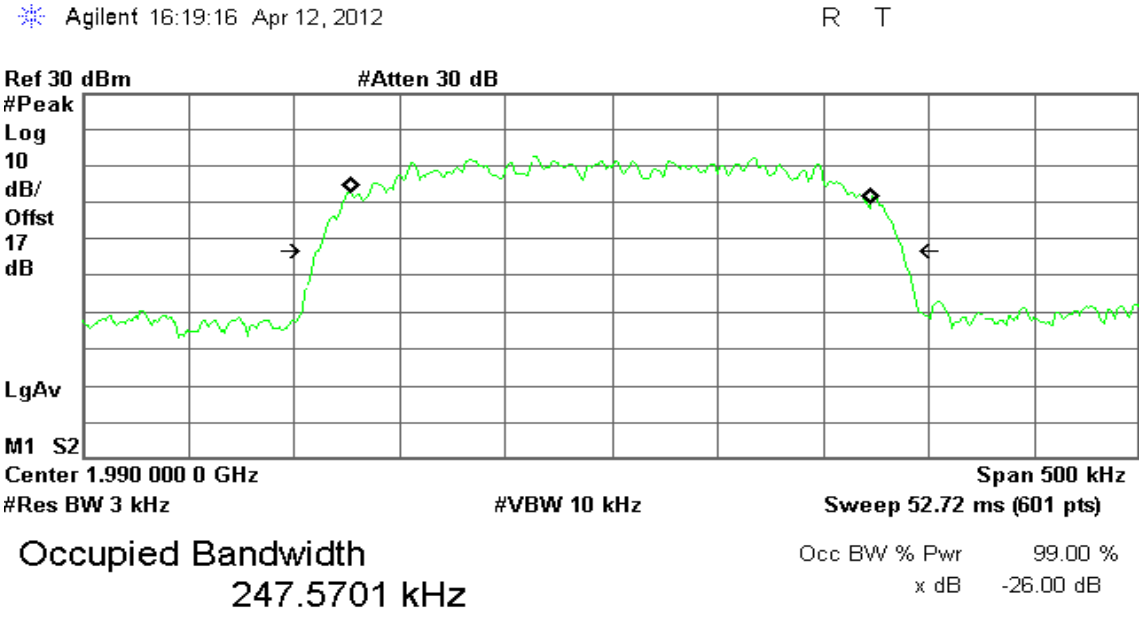
Transmit Freq Error	810.968 Hz
x dB Bandwidth	277.876 kHz

CH Mid



Transmit Freq Error	700.056 Hz
x dB Bandwidth	278.240 kHz

CH High

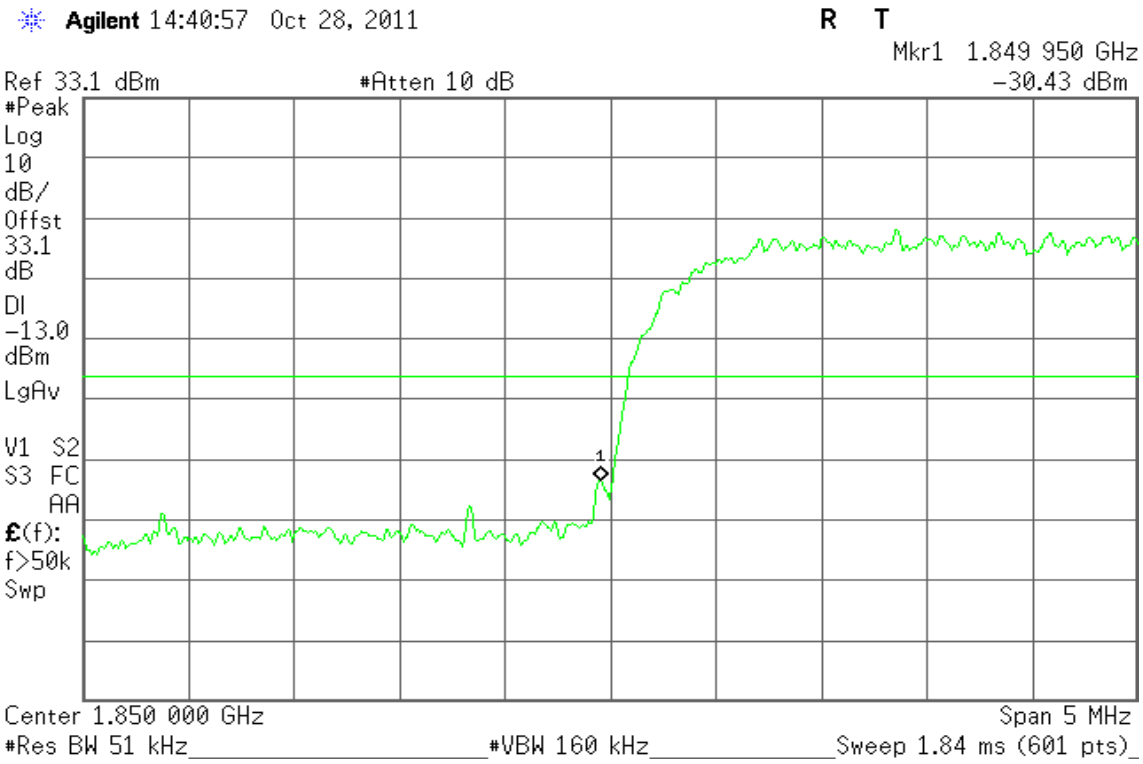


Transmit Freq Error	-200.896 Hz
x dB Bandwidth	278.445 kHz

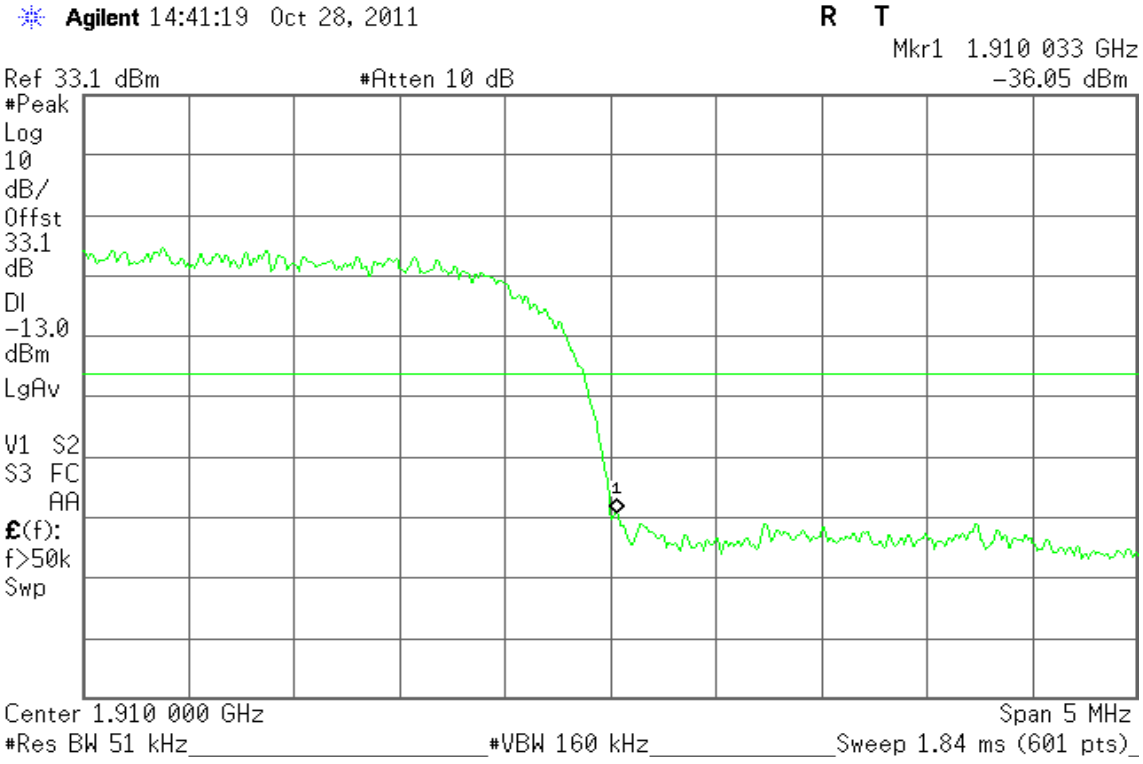
Band Edge

Mode 1: WCDMA Band II Uplink

CH Low

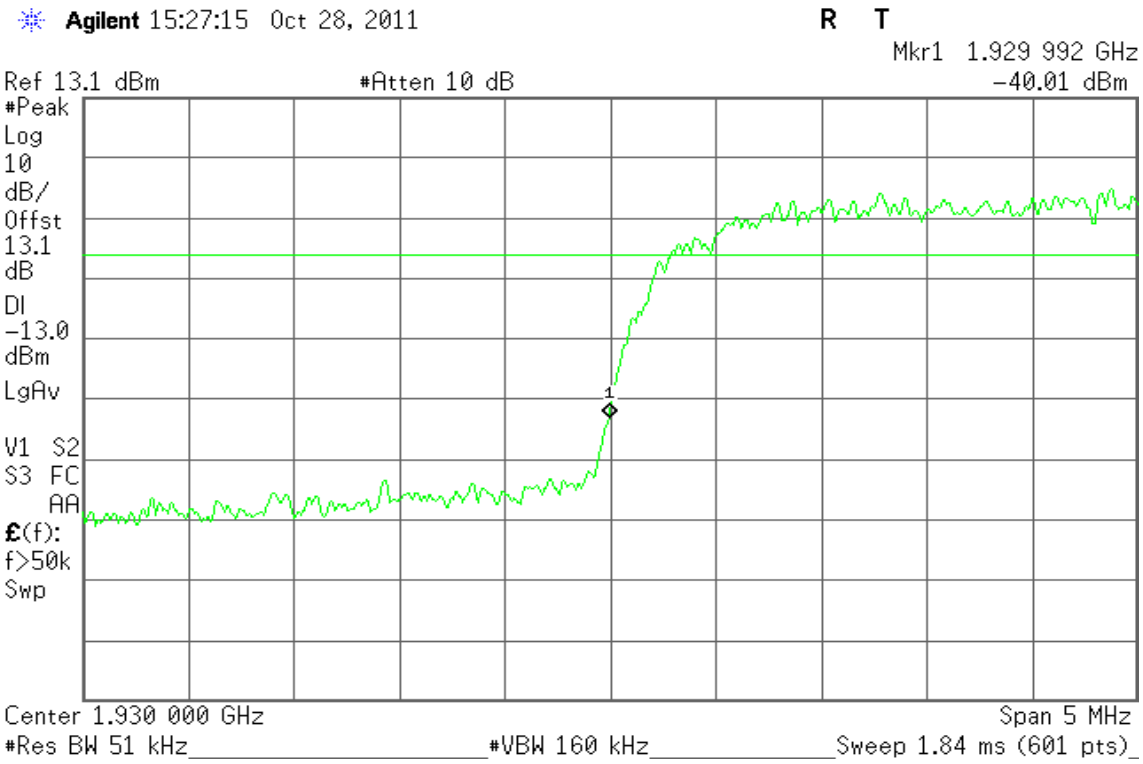


CH High

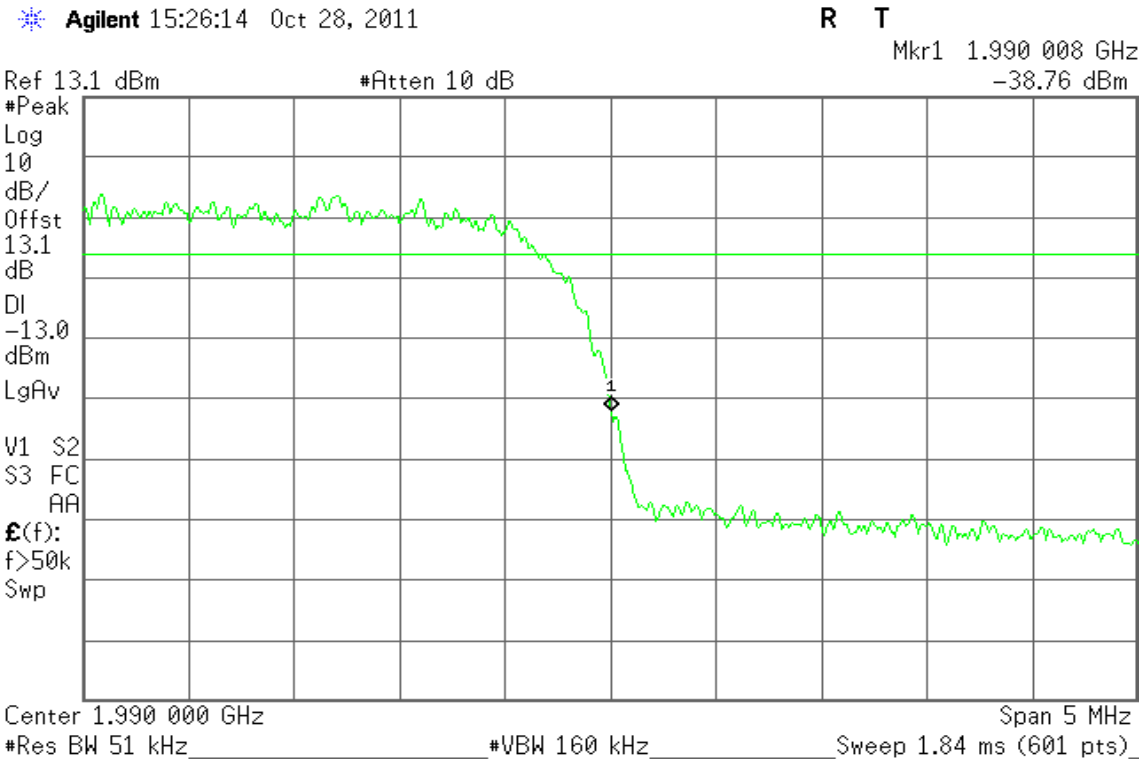


Mode 2: WCDMA Band II Downlink

CH Low

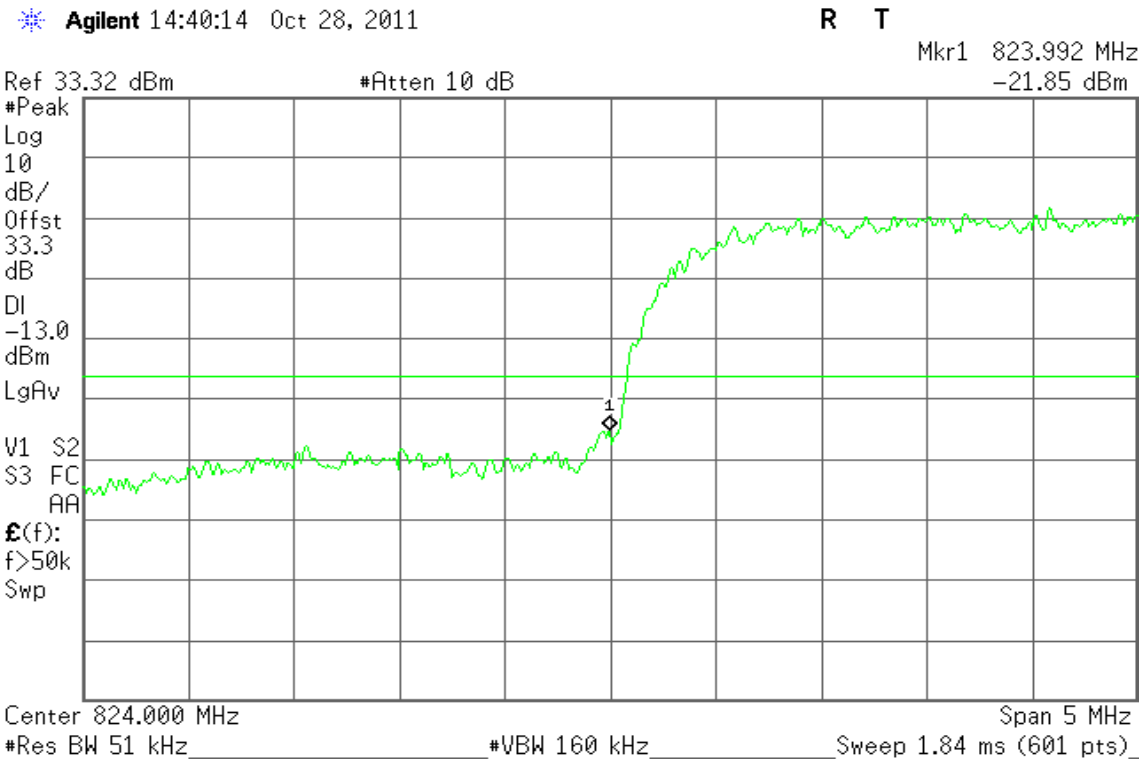


CH High

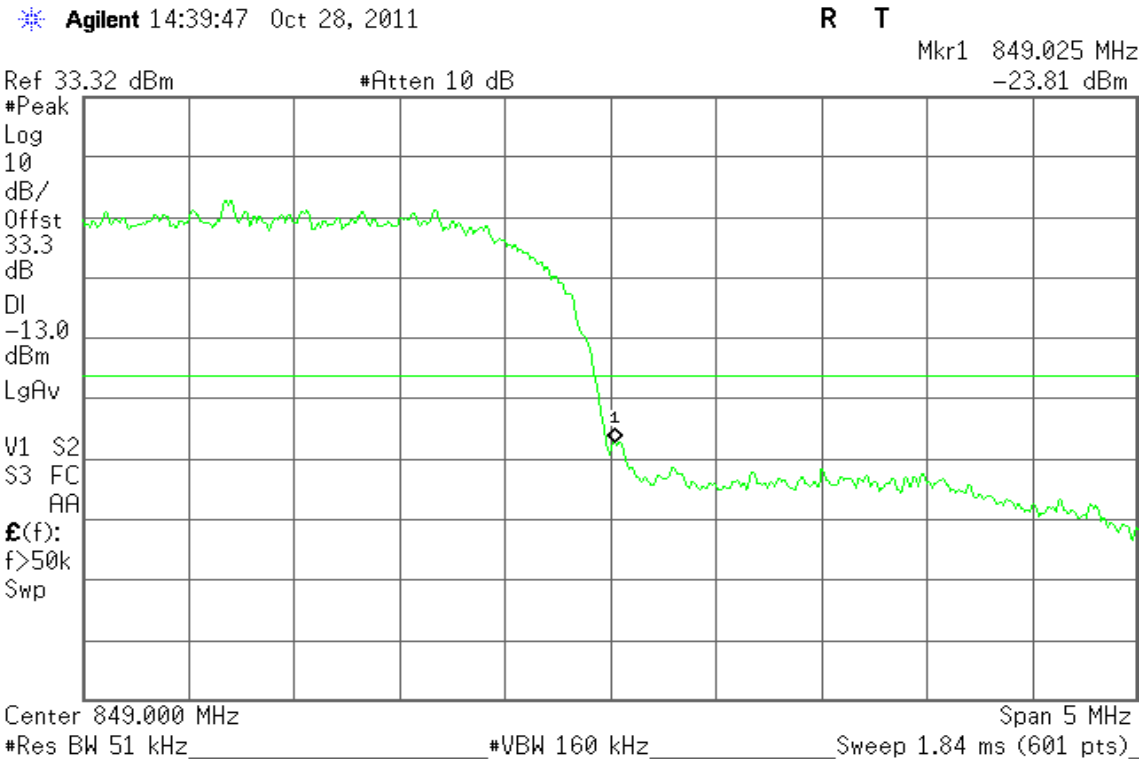


Mode 3: WCDMA Band V Uplink

CH Low

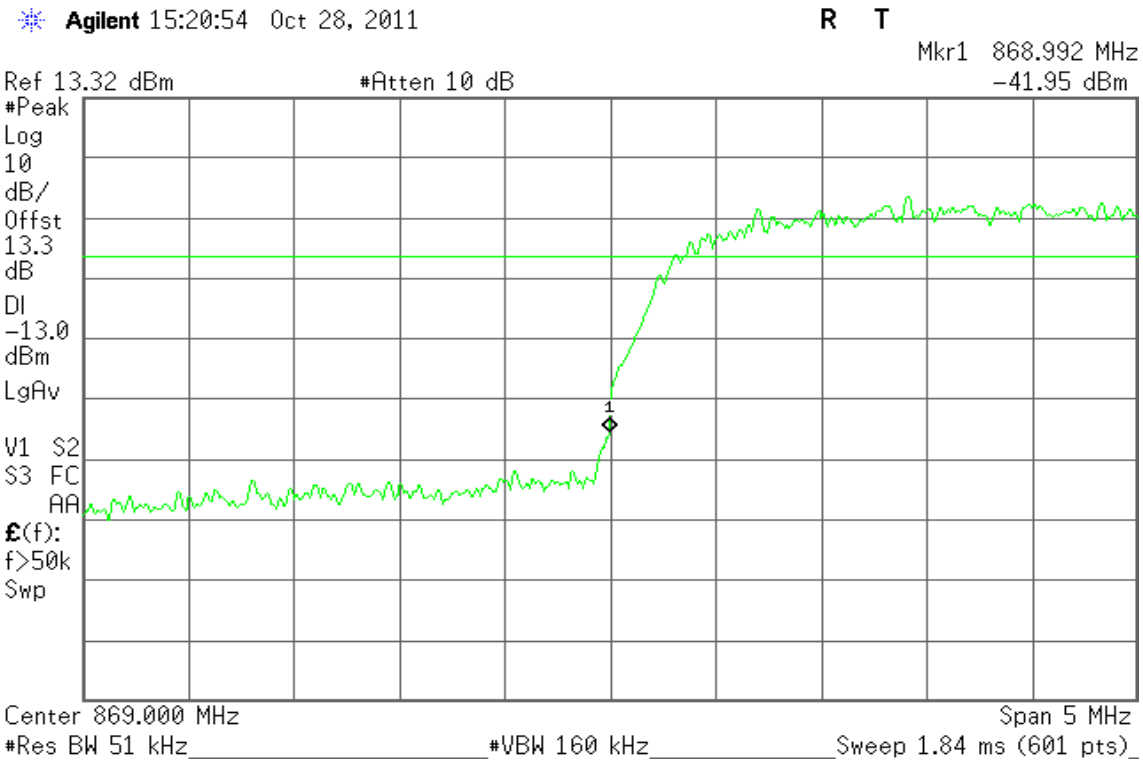


CH High

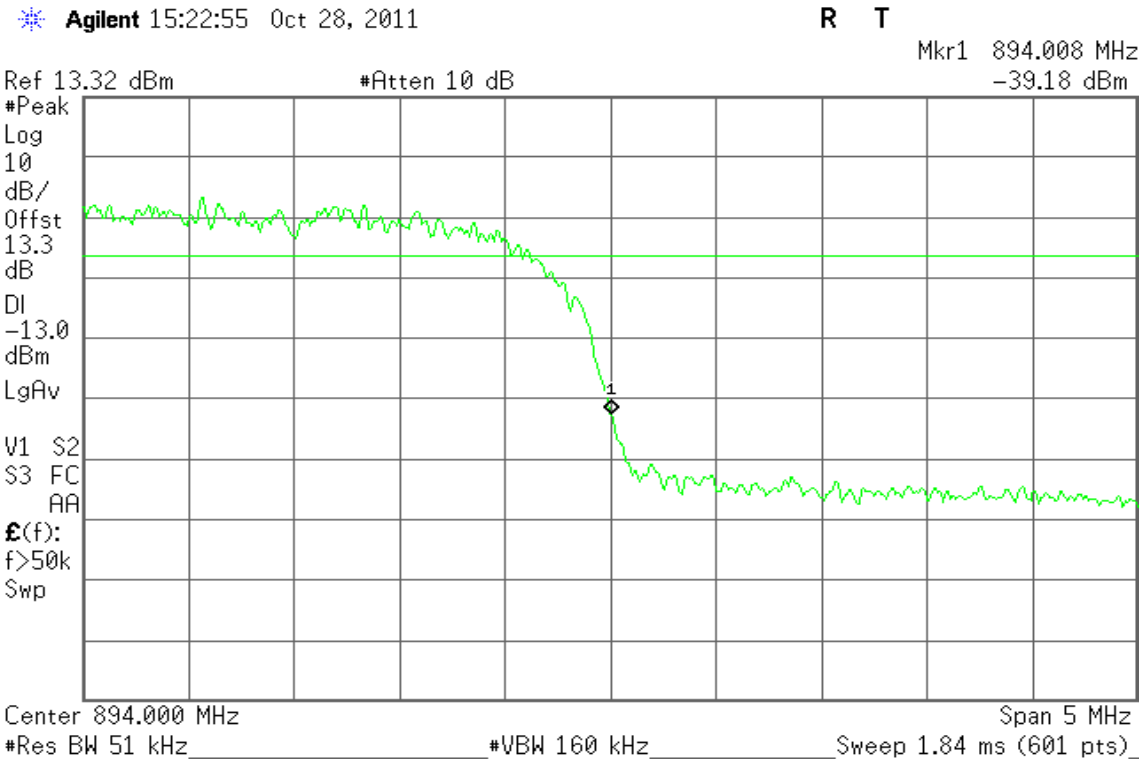


Mode 4: WCDMA Band V Downlink

CH Low

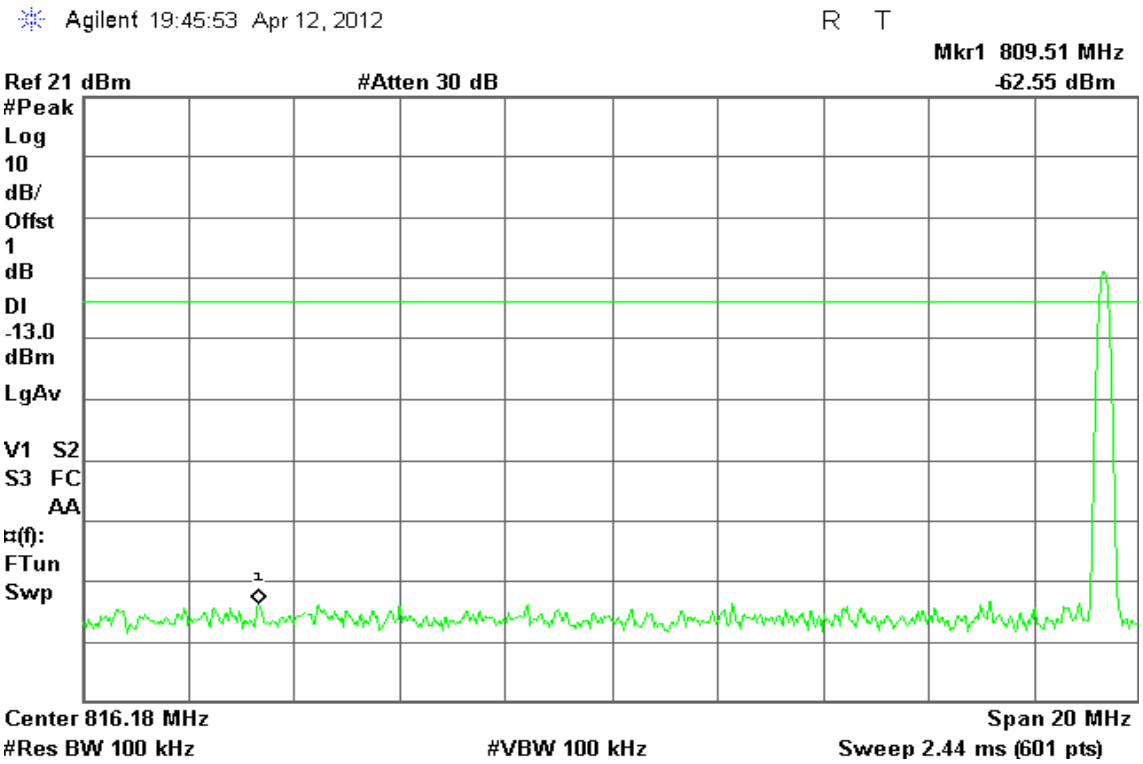


CH High

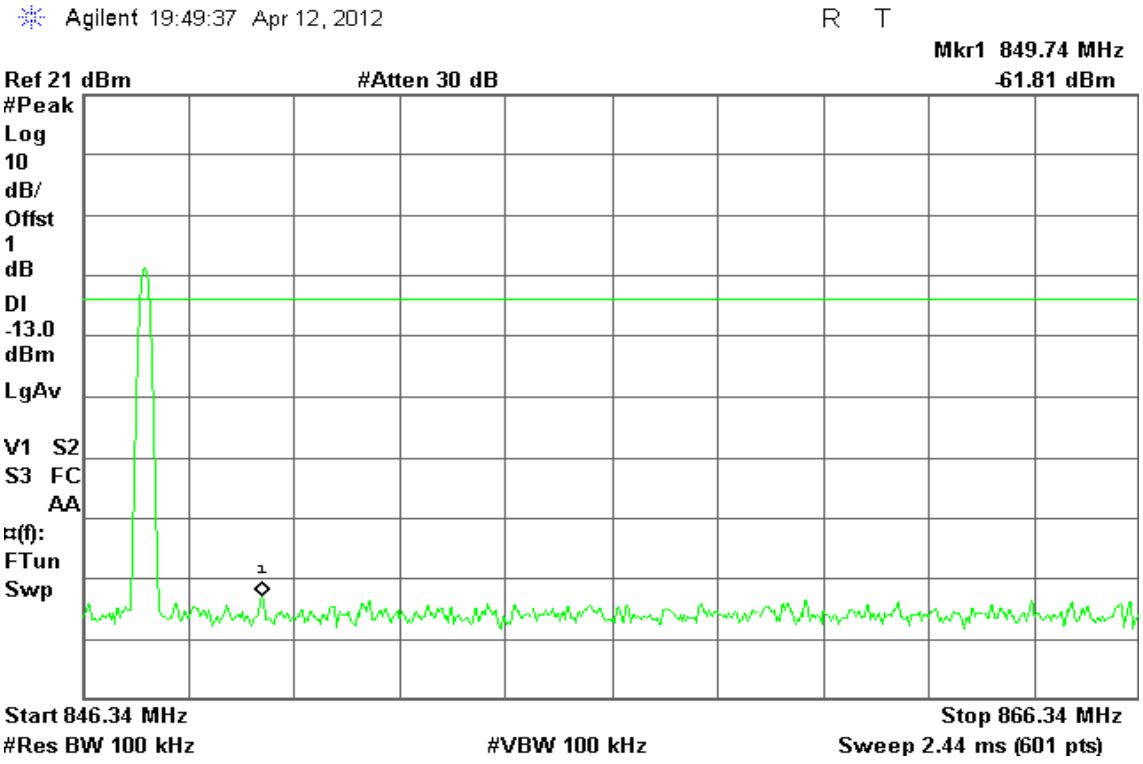


Mode 5: AMPS / 824 – 849MHz Uplink

CH Low

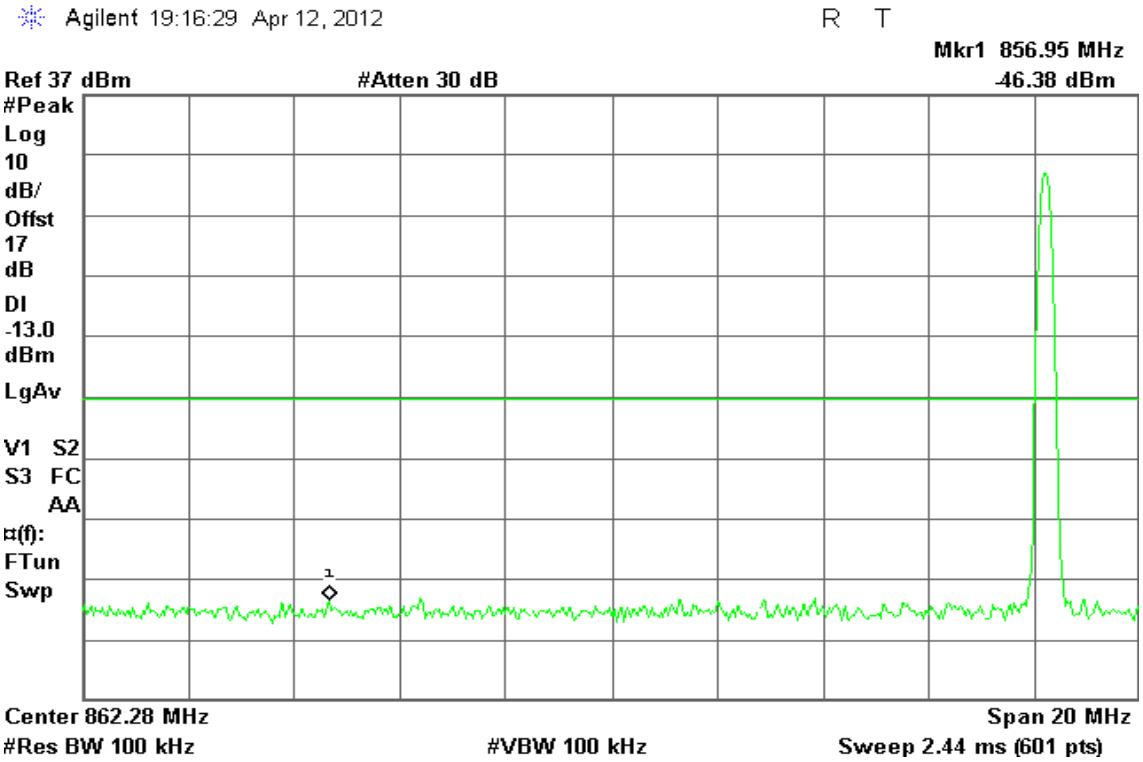


CH High

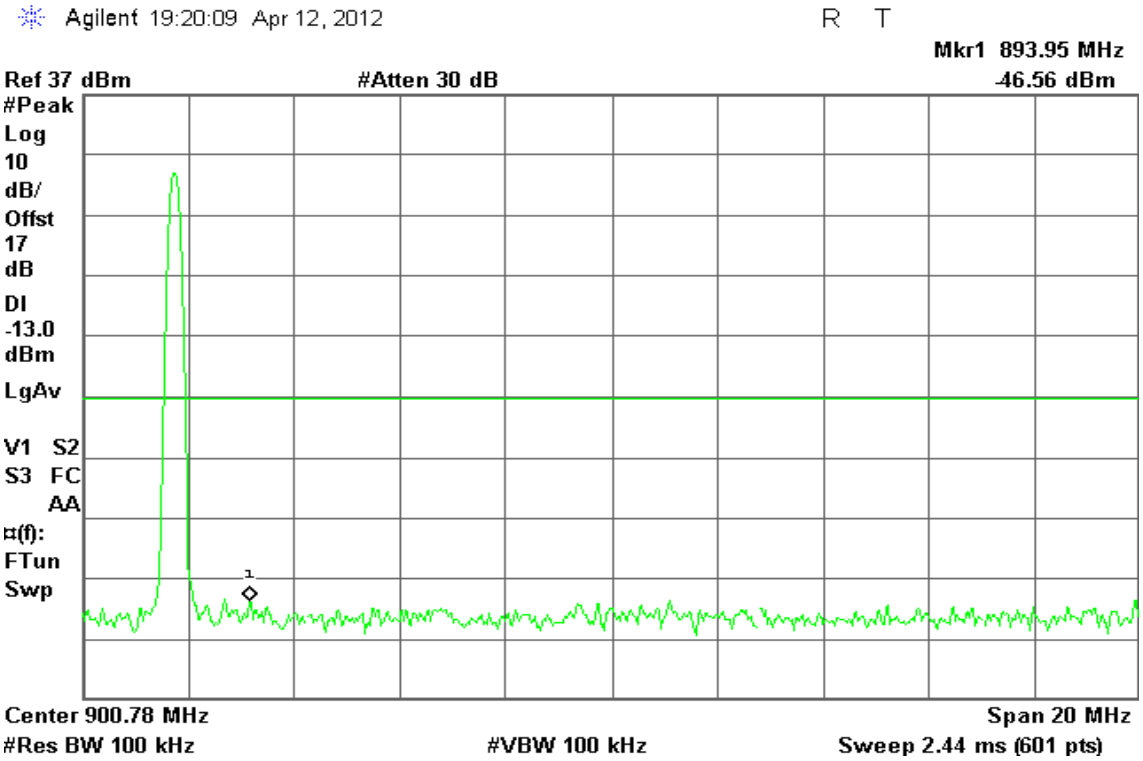


Mode 6: AMPS / 869 – 894MHz Downlink

CH Low

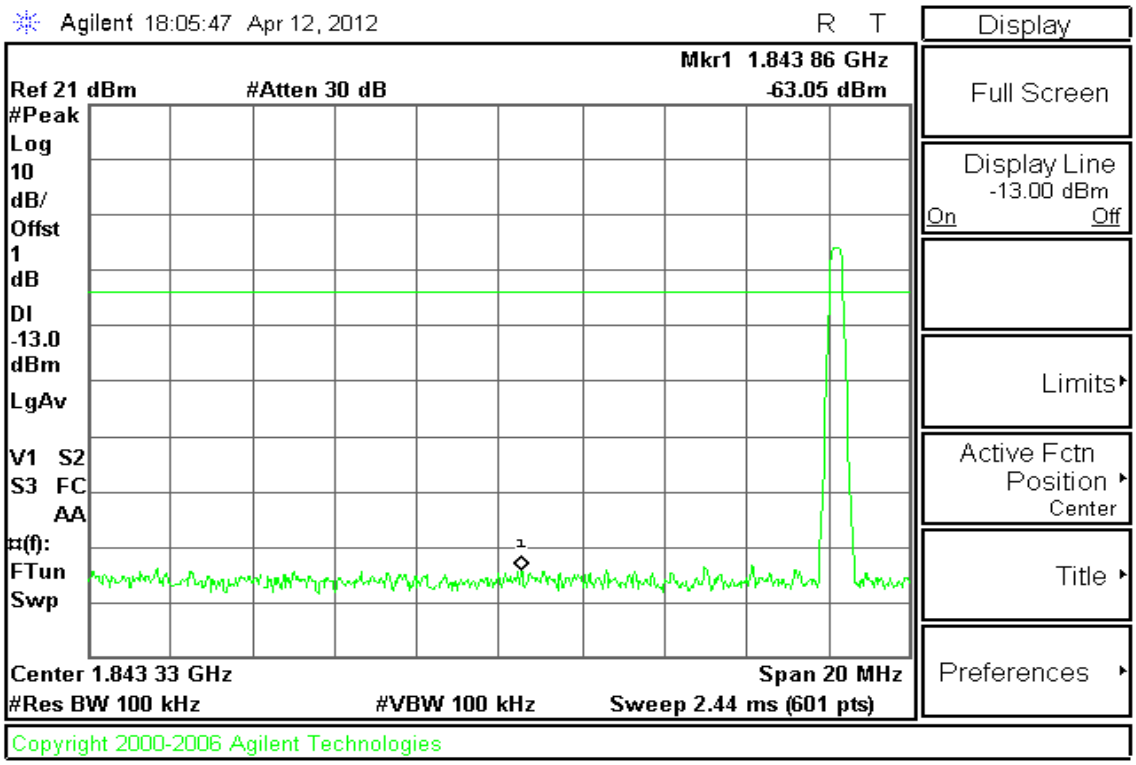


CH High

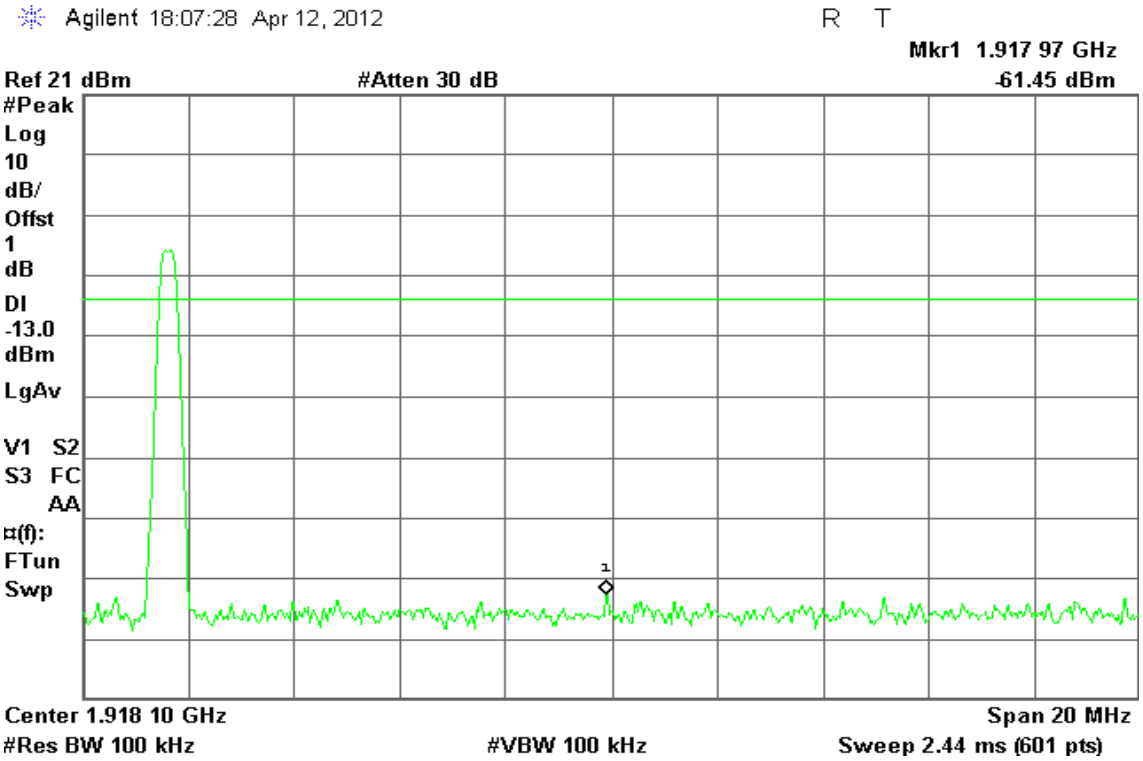


Mode 7: AMPS / 1850 – 1910MHz Uplink

CH Low

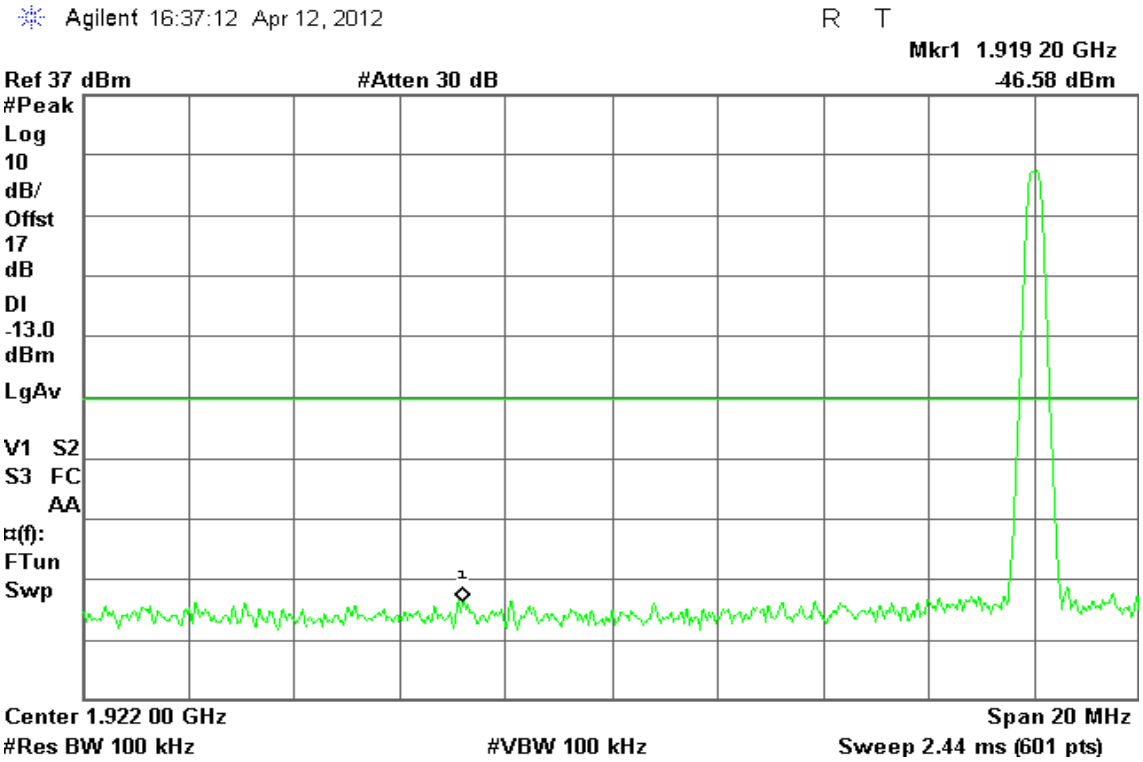


CH High

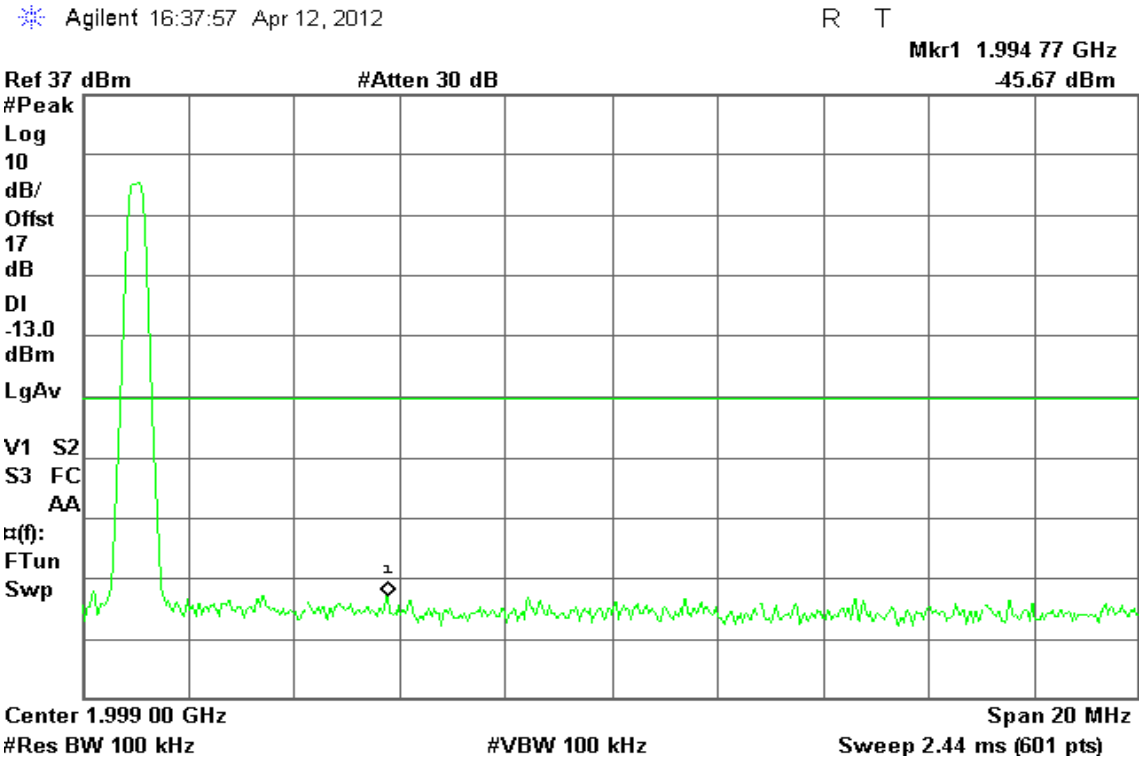


Mode 8: AMPS / 1930 – 1990MHz Downlink

CH Low

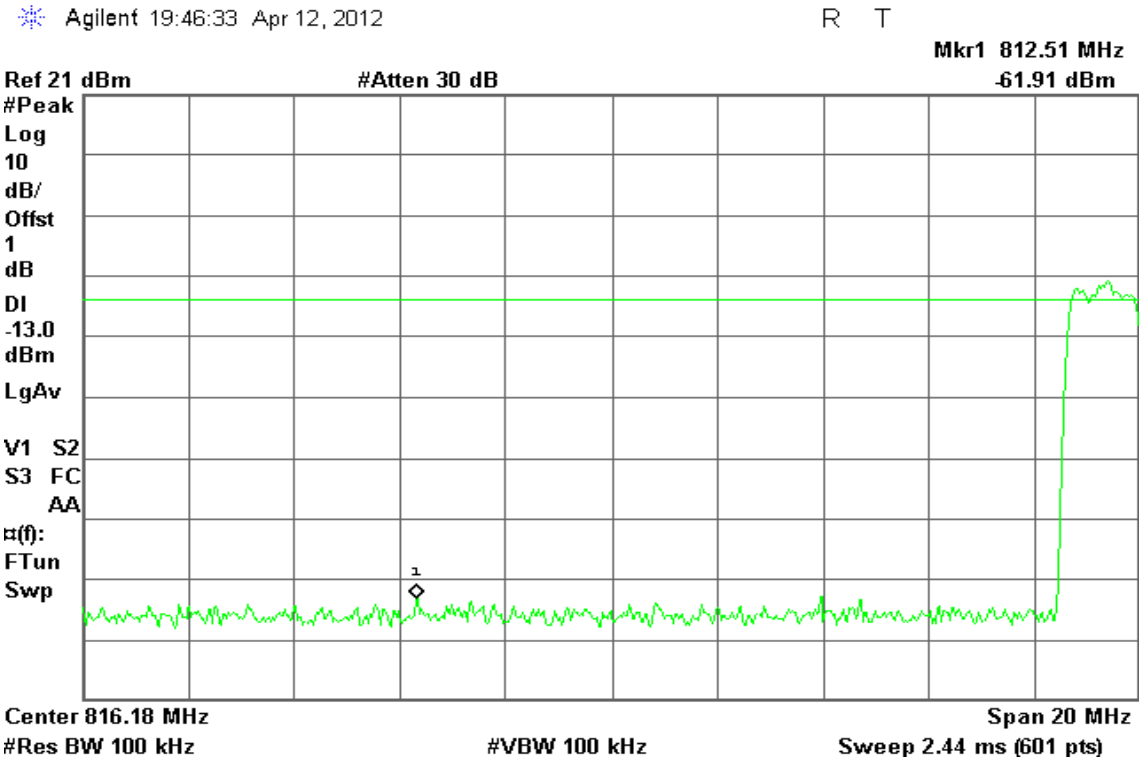


CH High

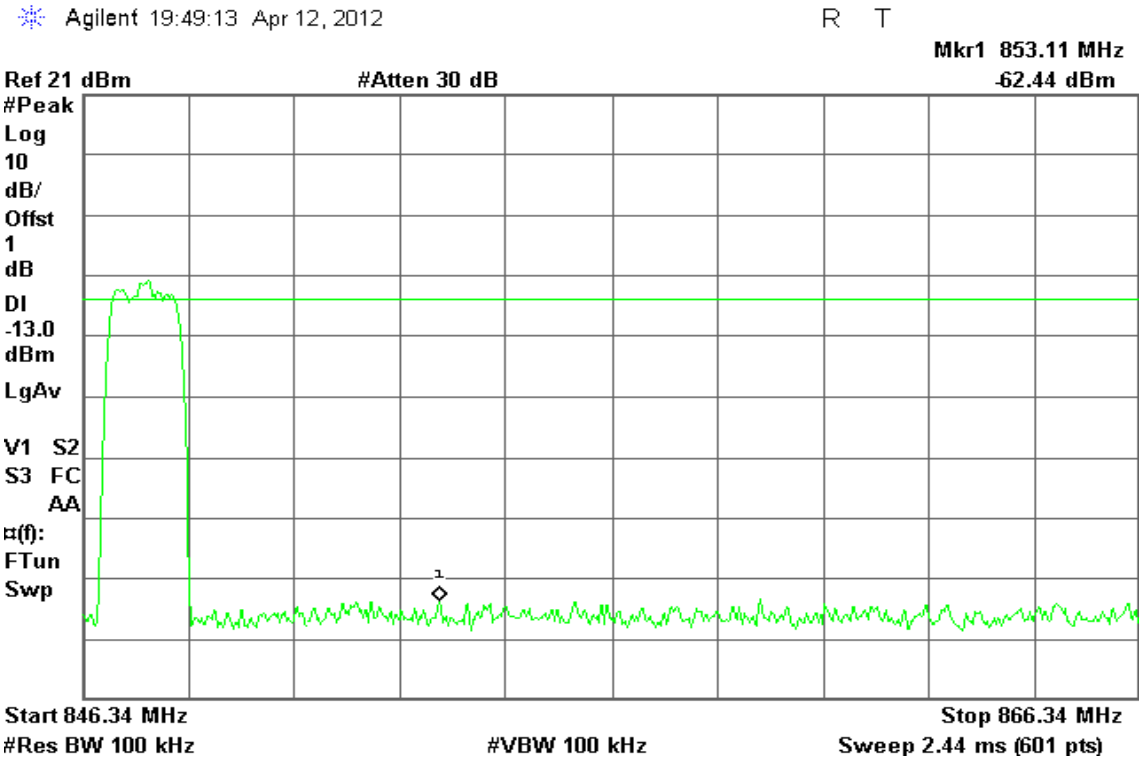


Mode 9: CDMA / 824 – 849MHz Uplink

CH Low

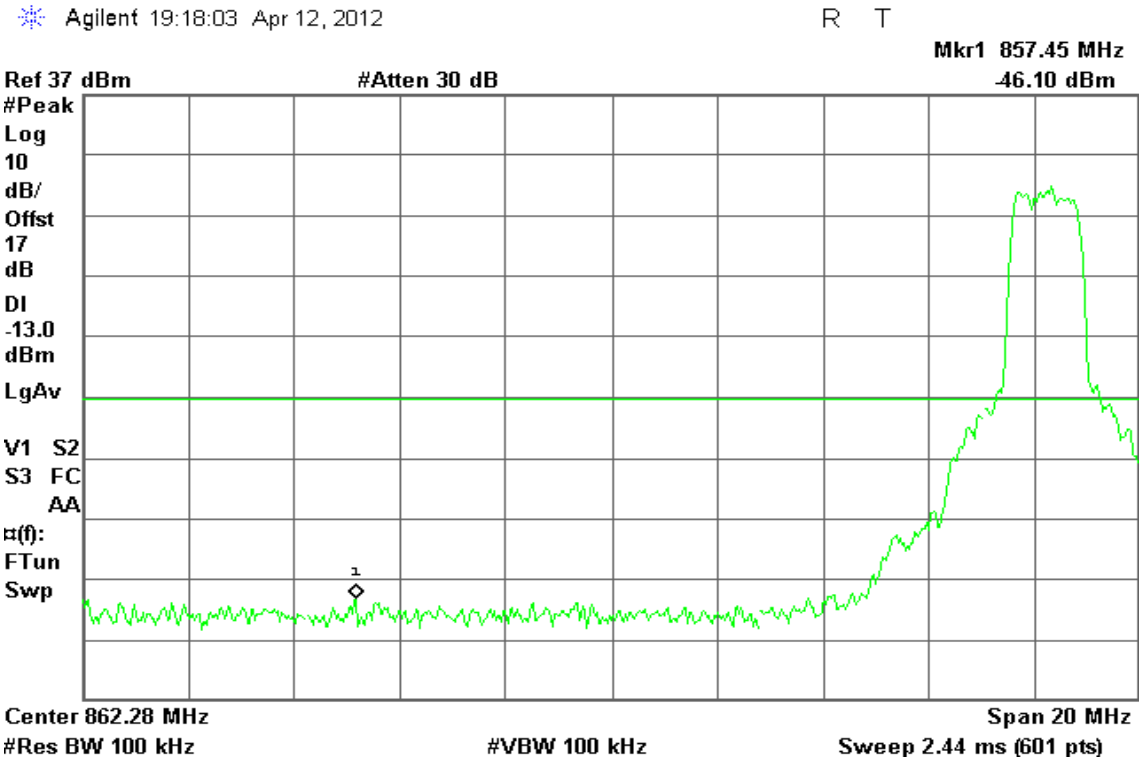


CH High

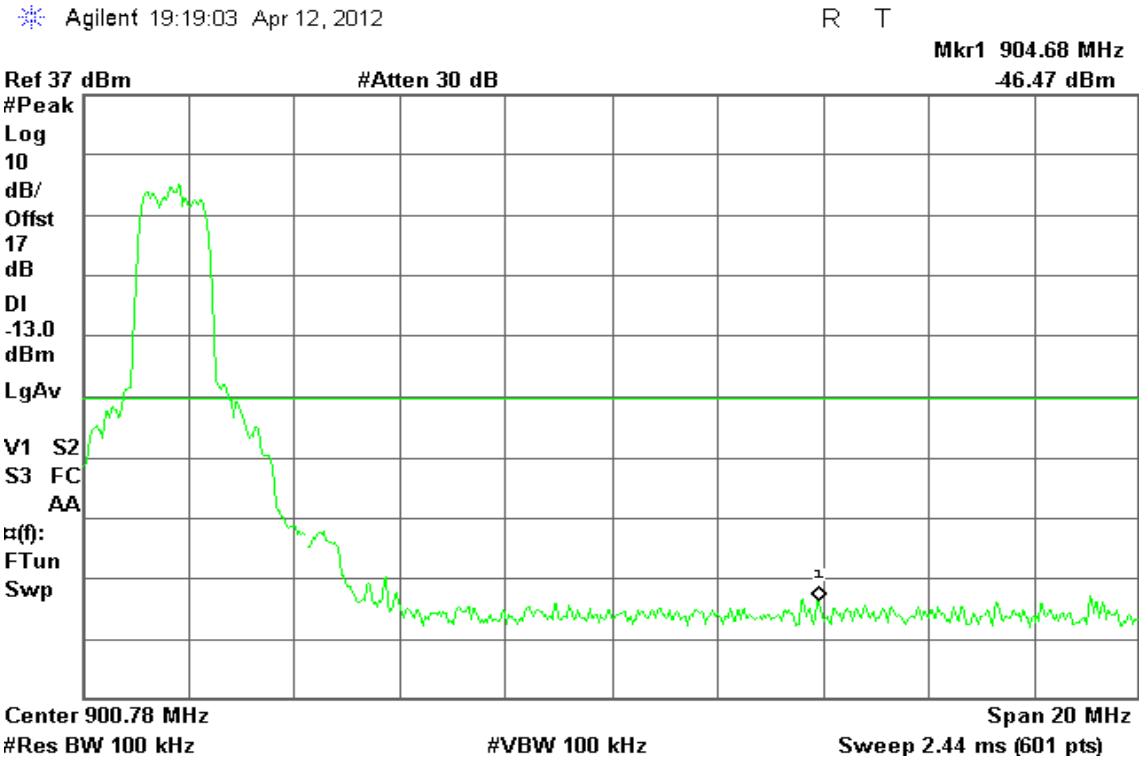


Mode 10: CDMA / 869 – 894MHz Downlink

CH Low

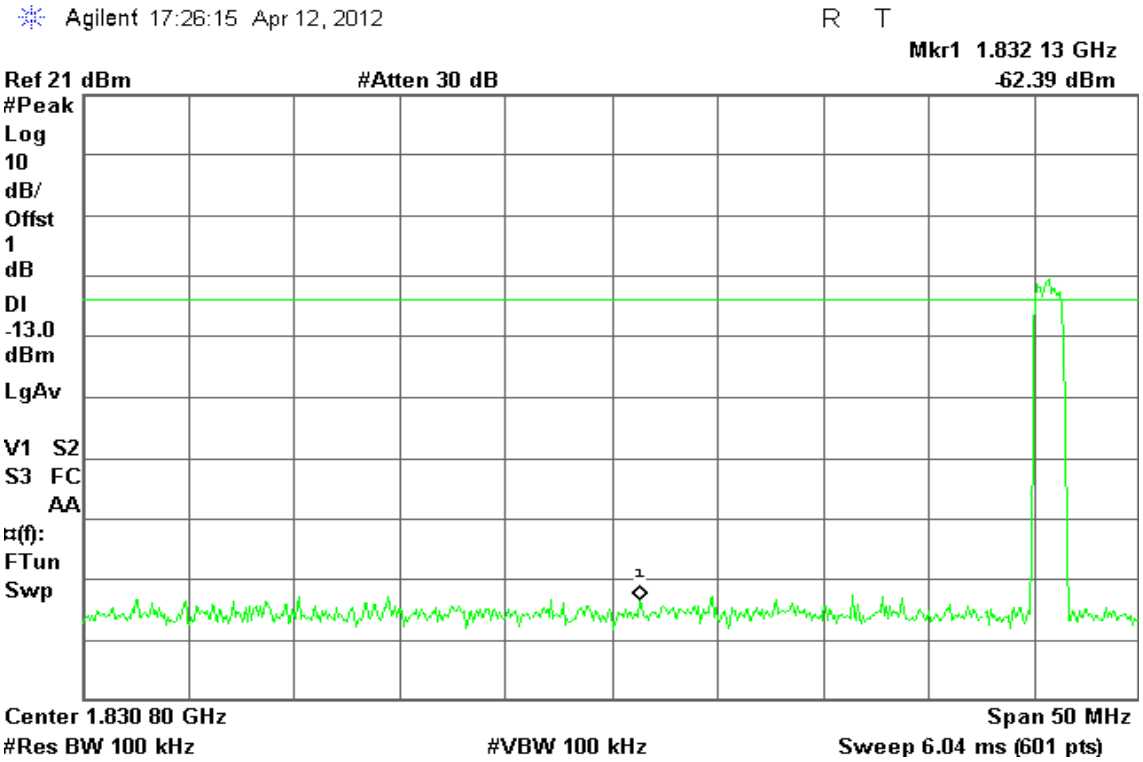


CH High

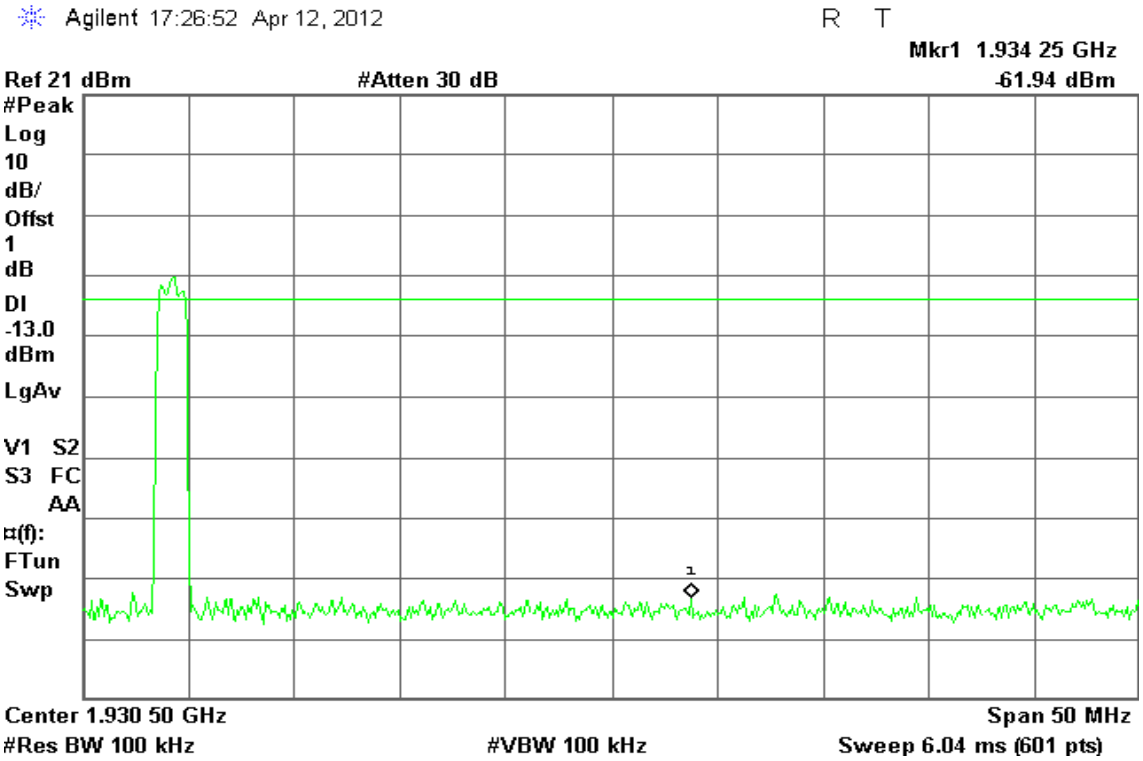


Mode 11: CDMA / 1850 – 1910MHz Uplink

CH Low

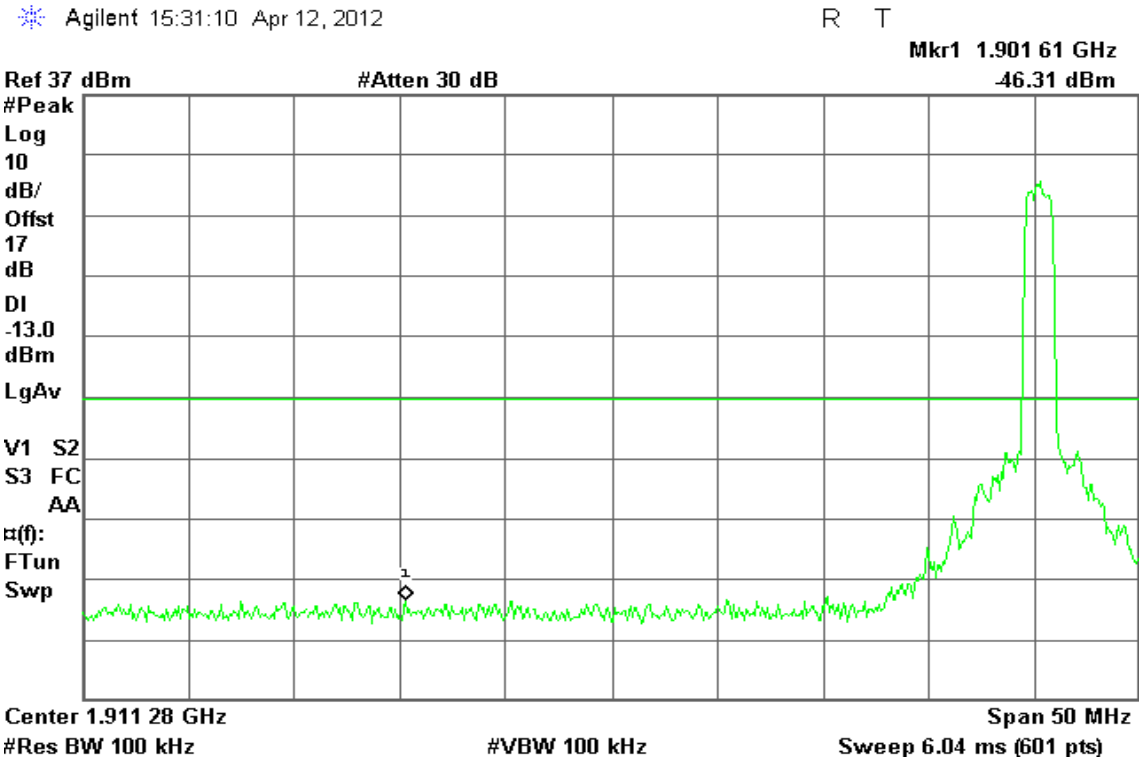


CH High

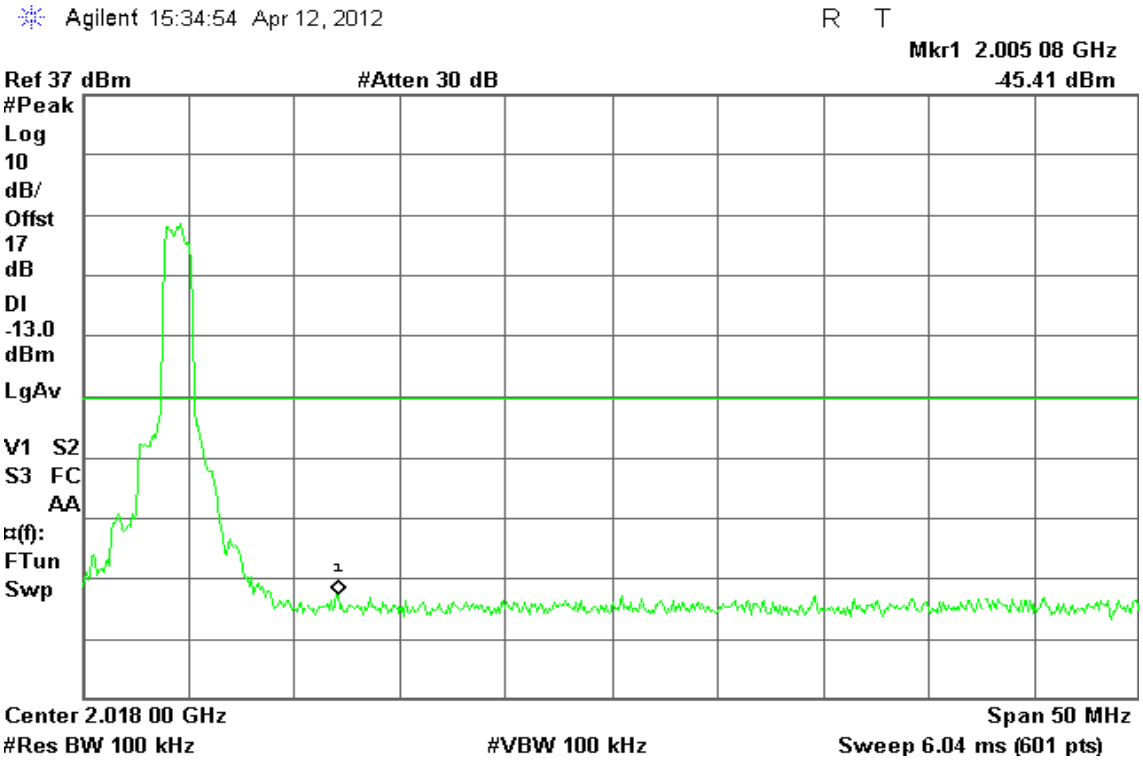


Mode 12: CDMA / 1930 – 1990MHz Downlink

CH Low

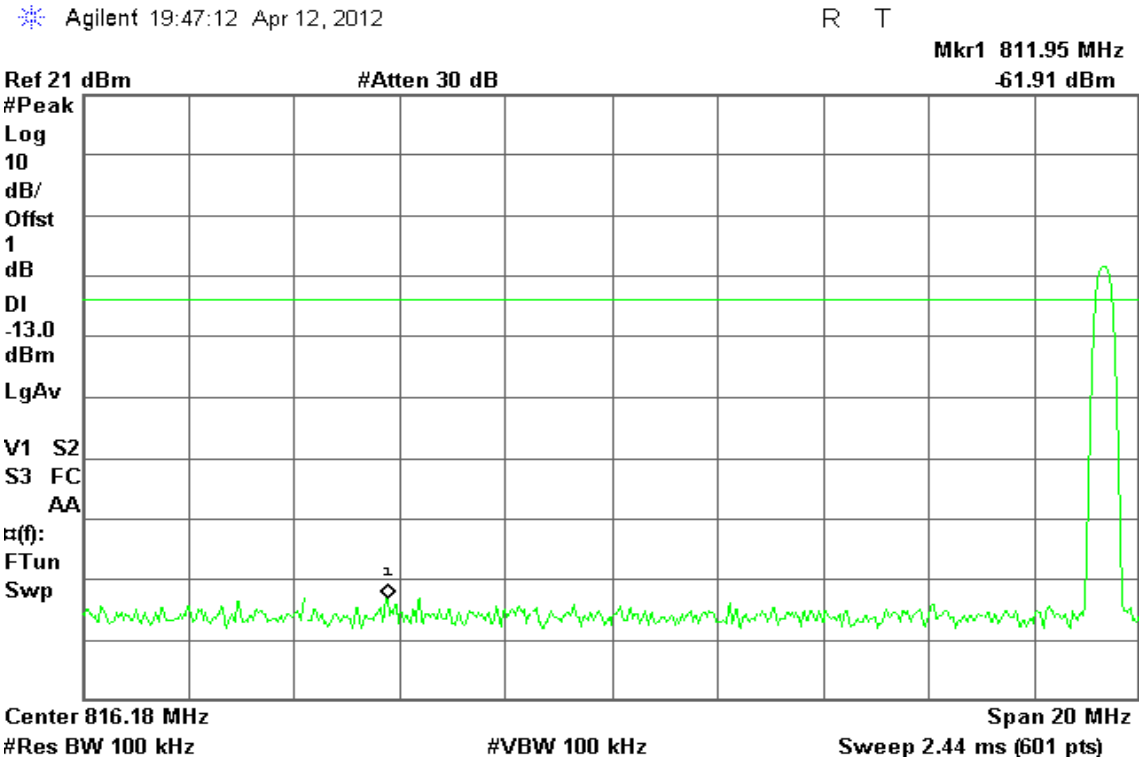


CH High

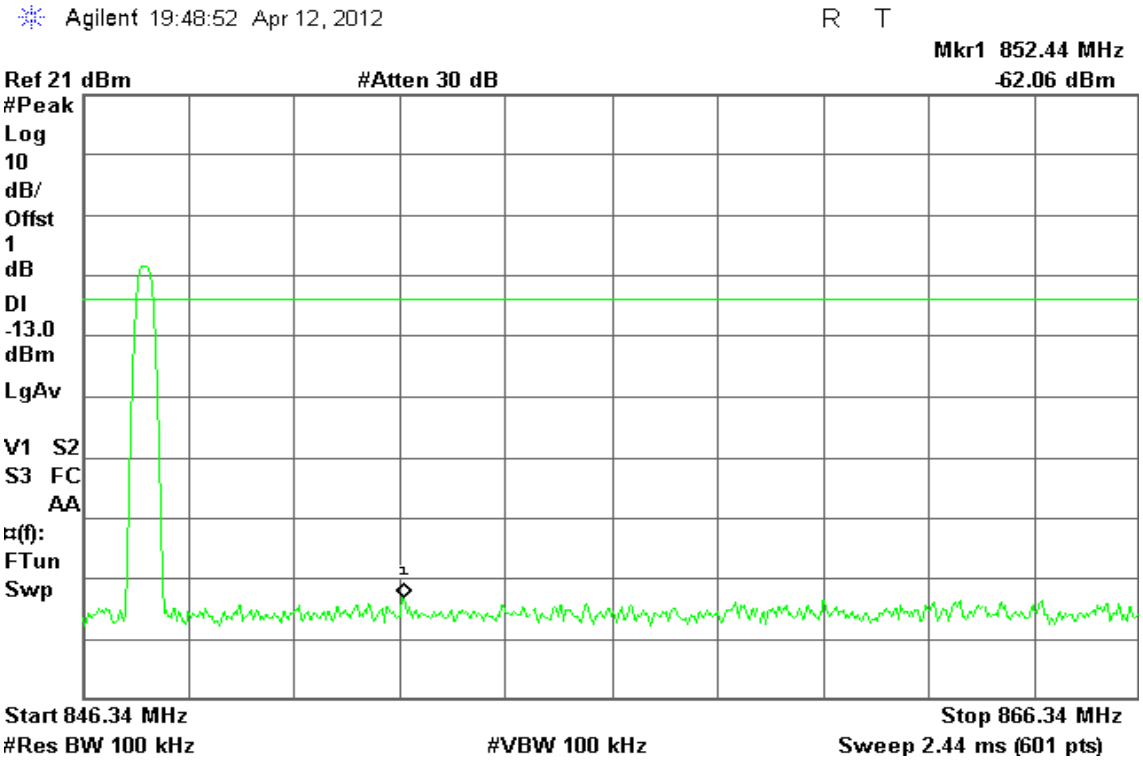


Mode 13: TDMA / 824 – 849MHz Uplink

CH Low

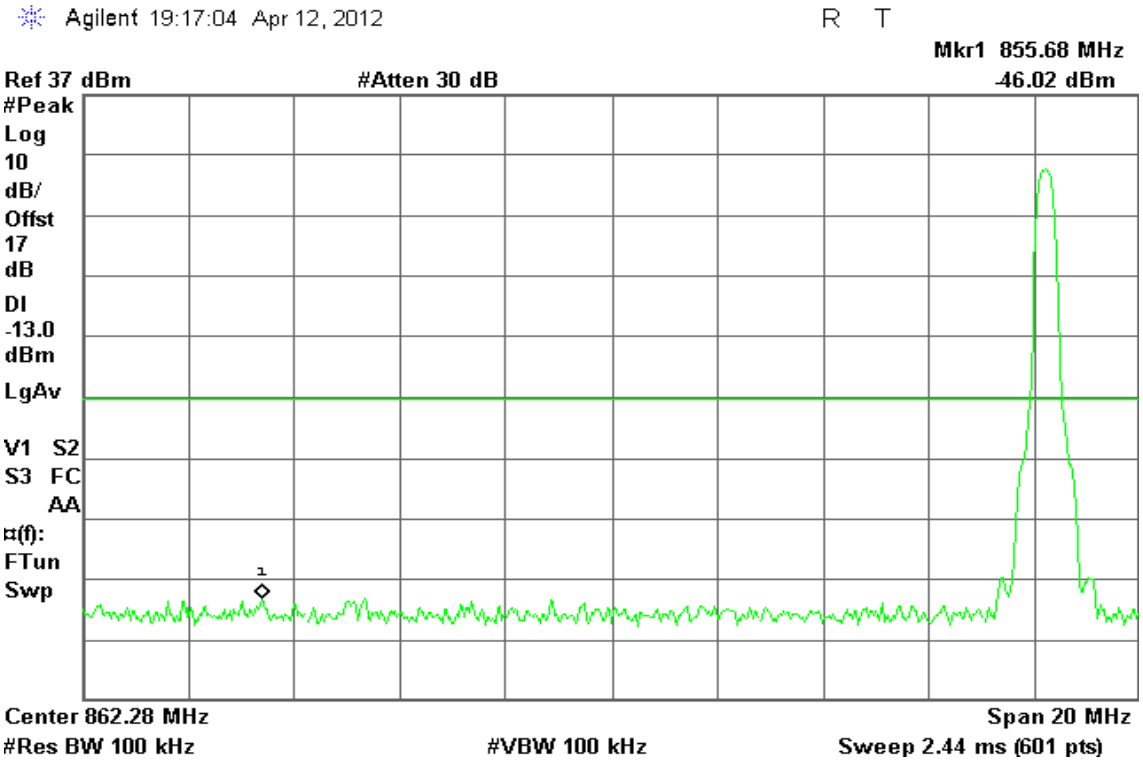


CH High

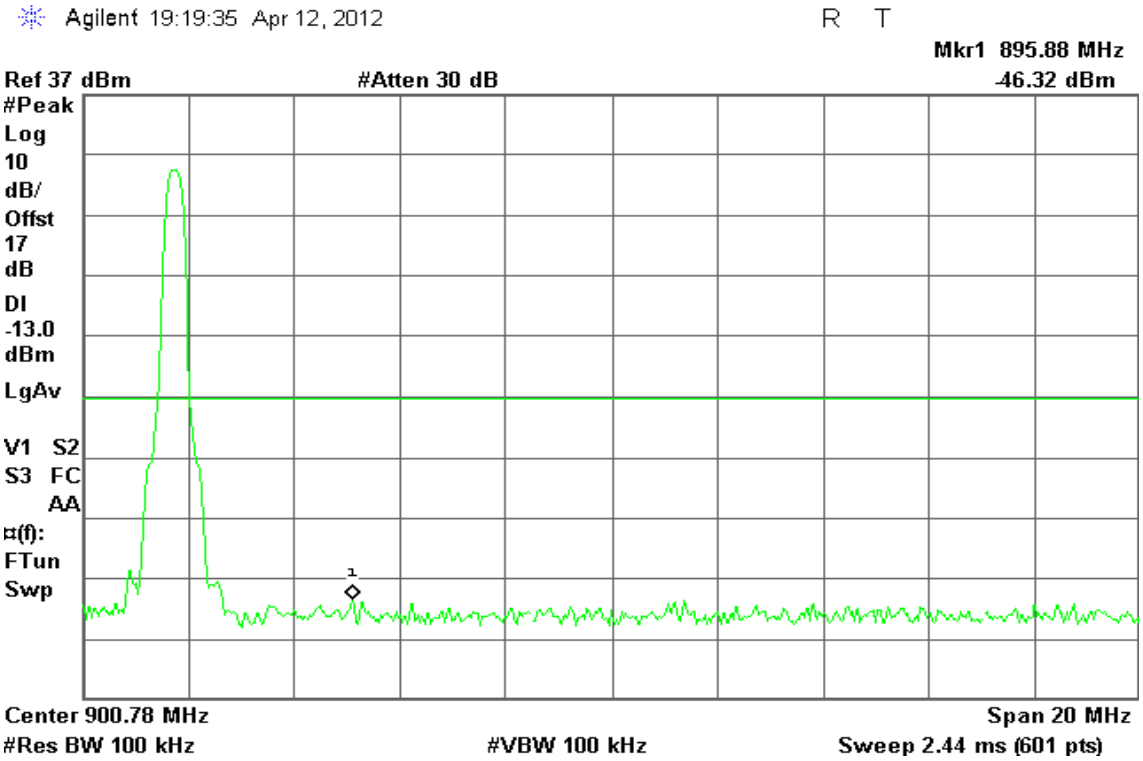


Mode 14: TDMA / 869 – 894MHz Downlink

CH Low

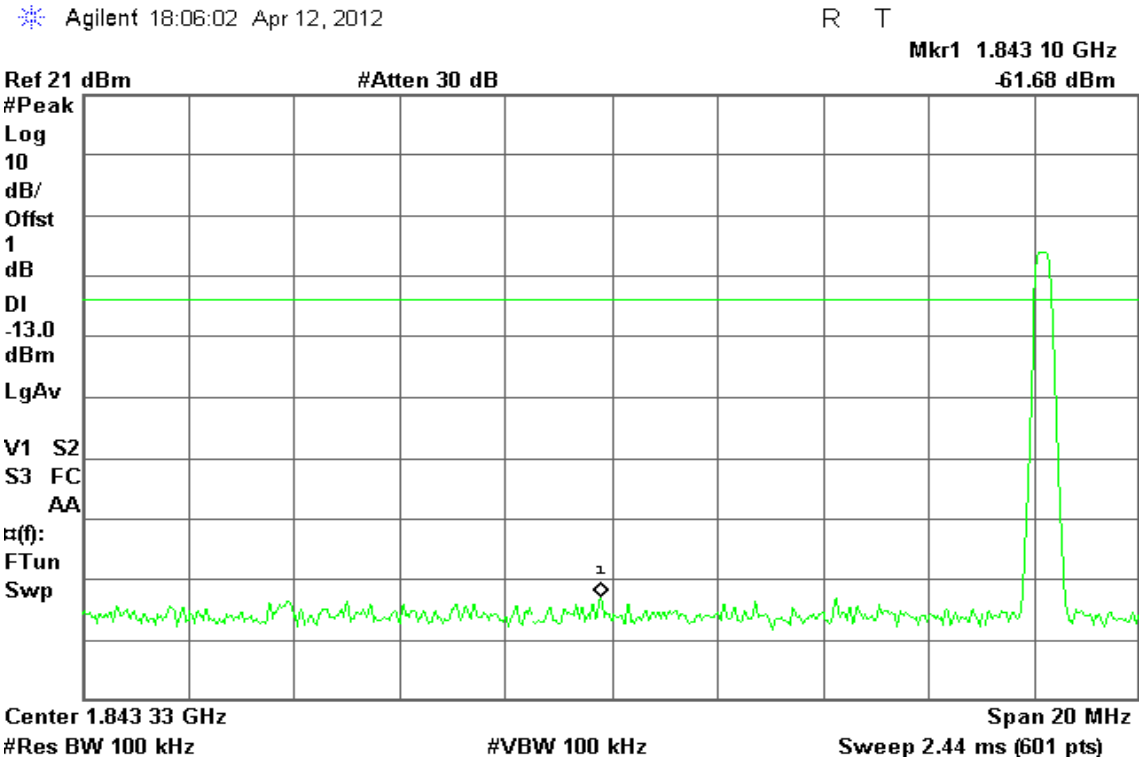


CH High

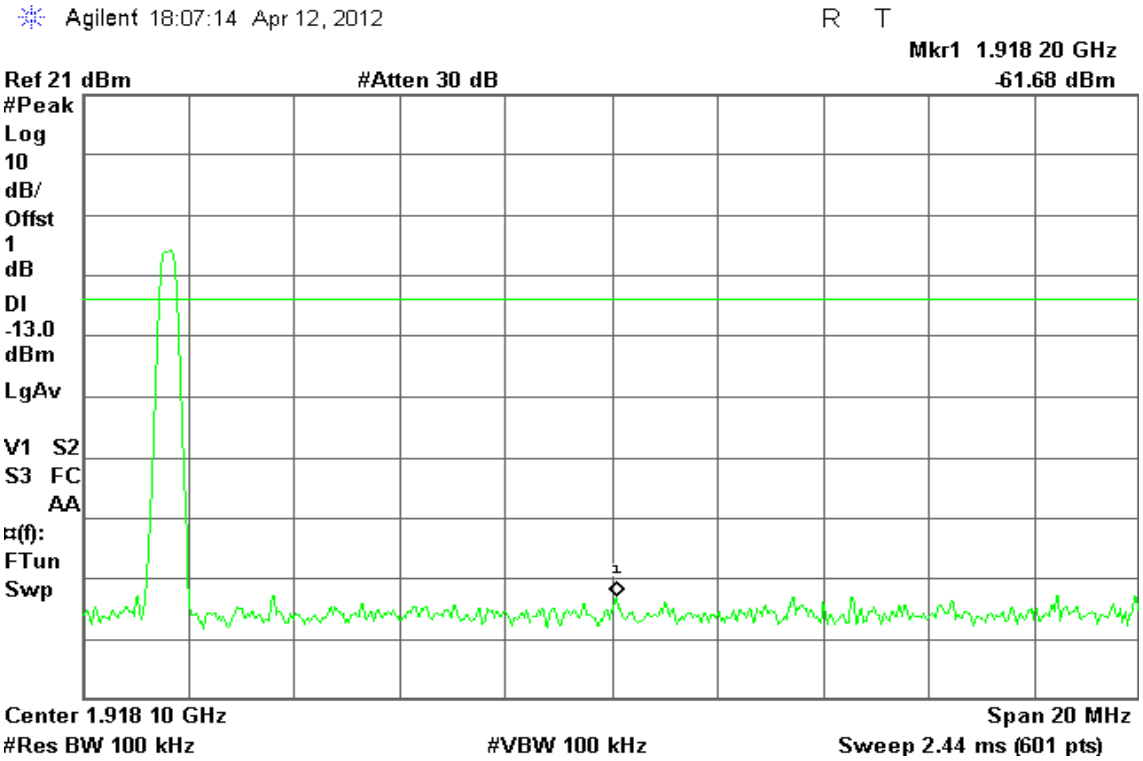


Mode 15: TDMA / 1850 – 1910MHz Uplink

CH Low

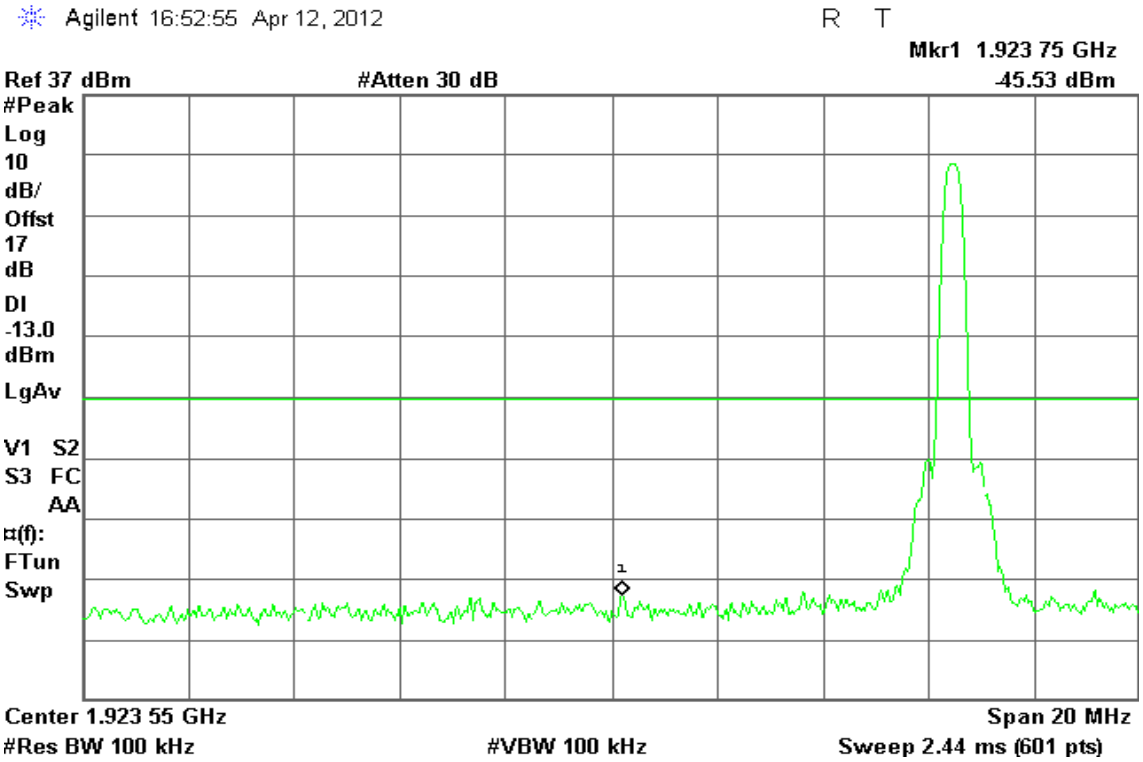


CH High

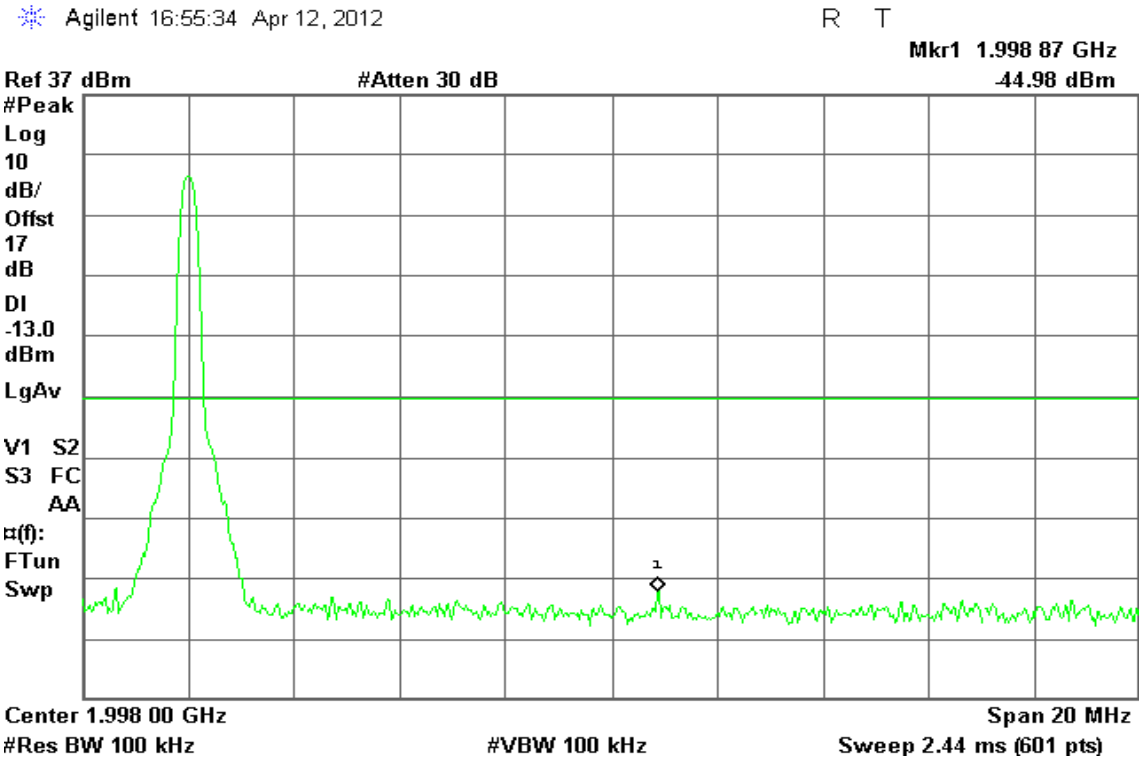


Mode 16: TDMA / 1930 – 1990MHz Downlink

CH Low

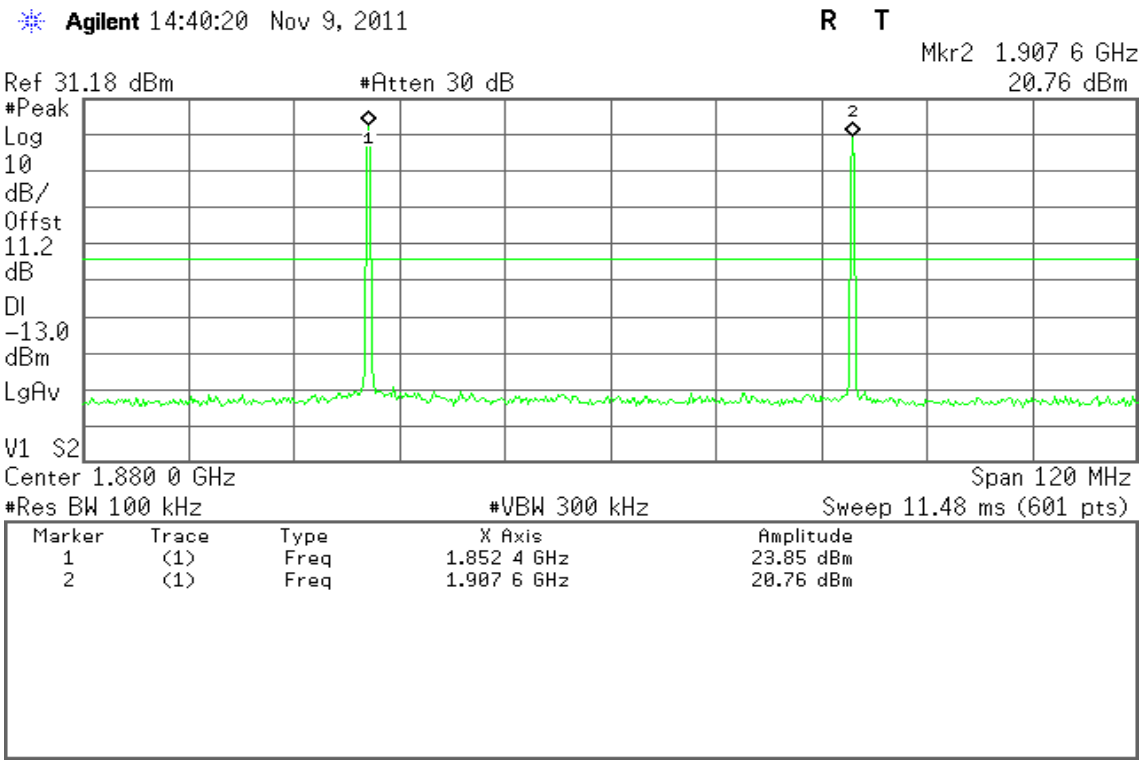


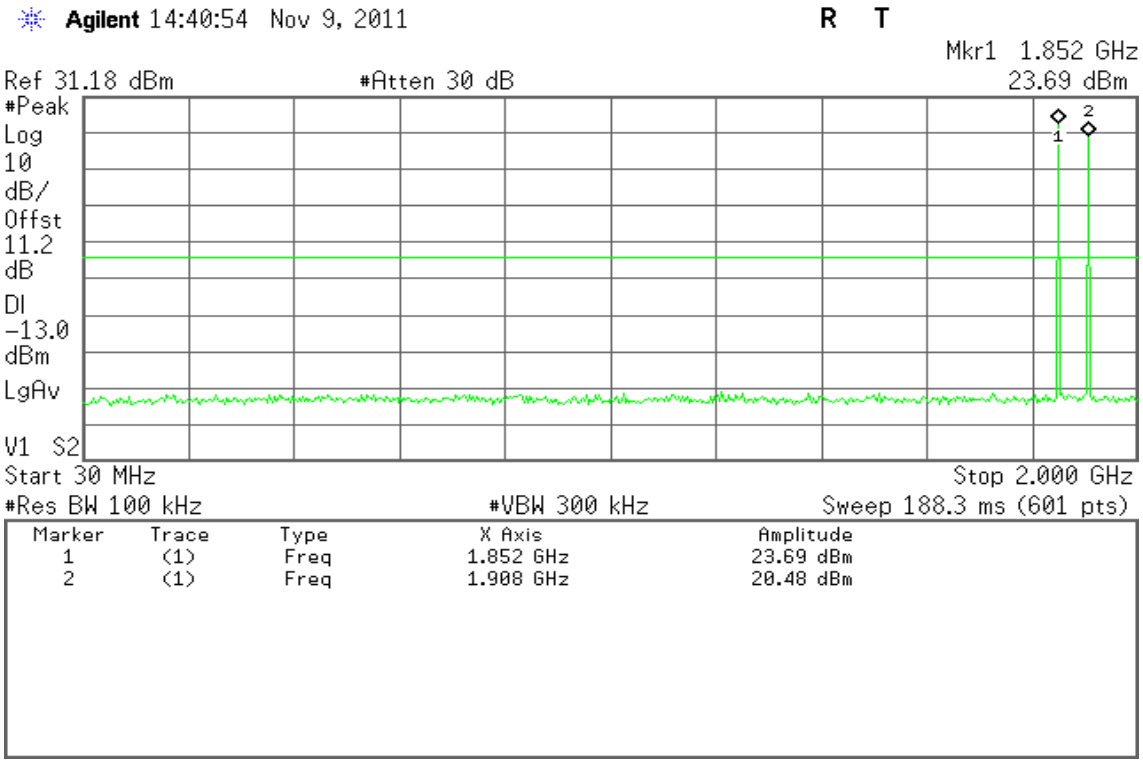
CH High

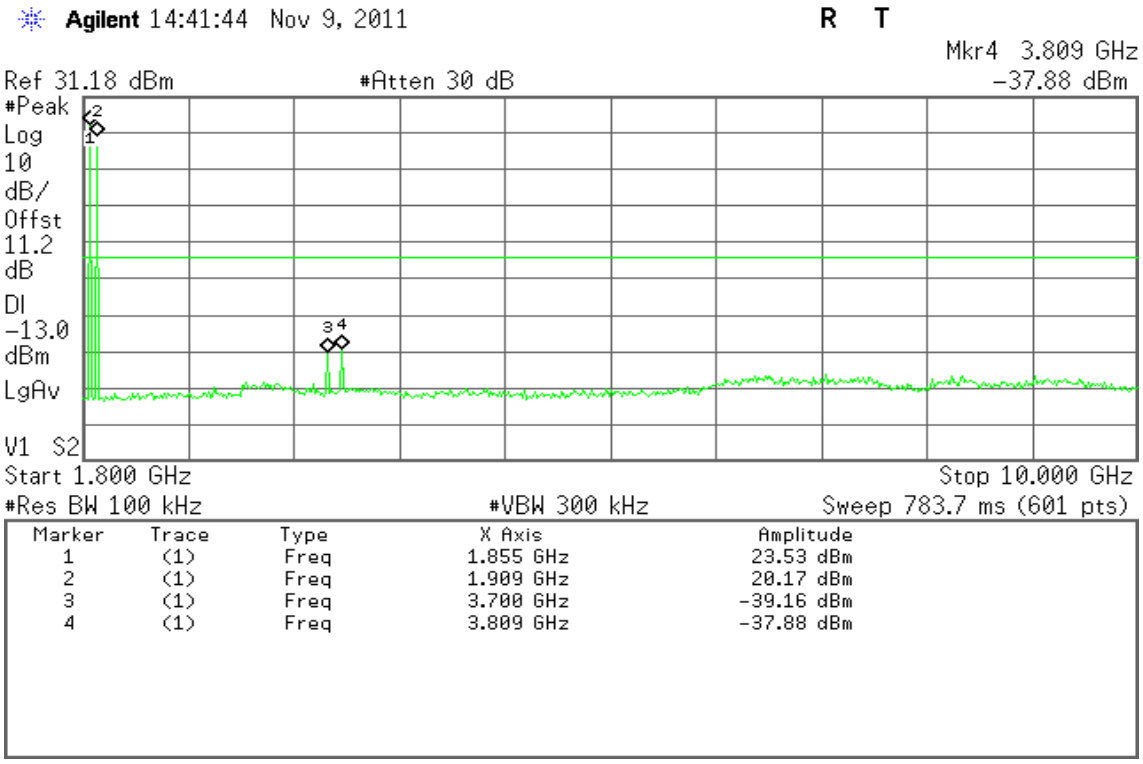


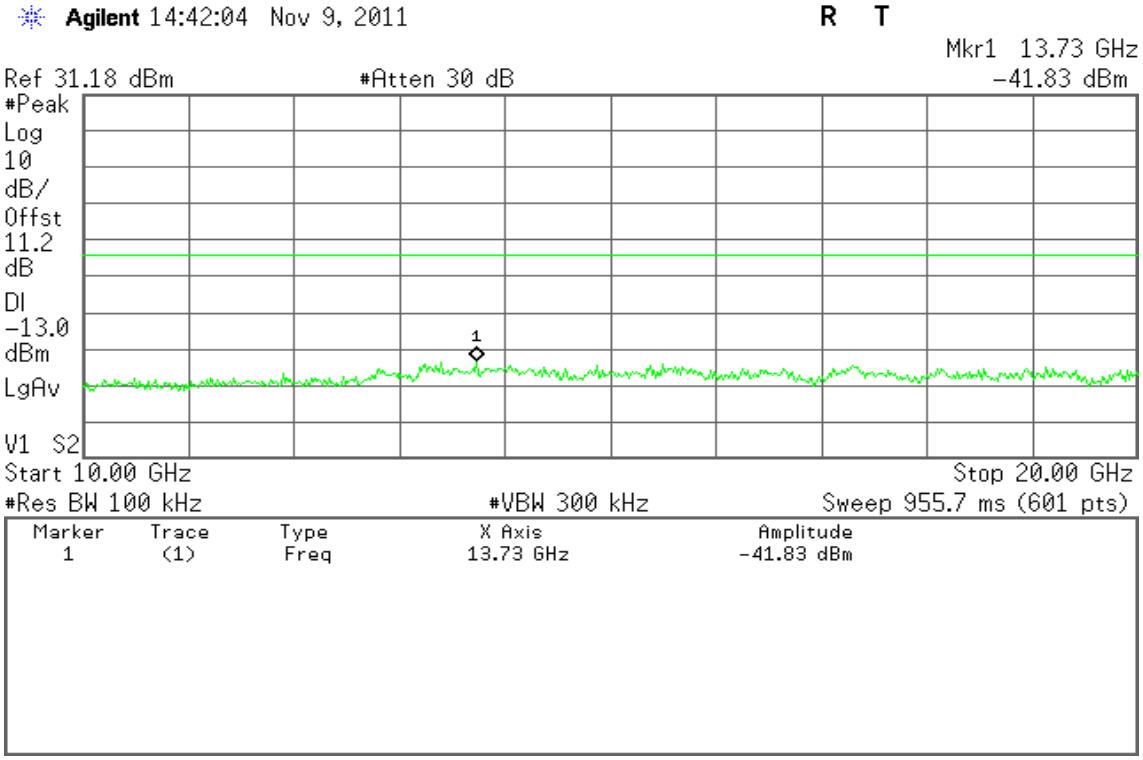
Inter-Modulation

Mode 1: WCDMA Band II Uplink

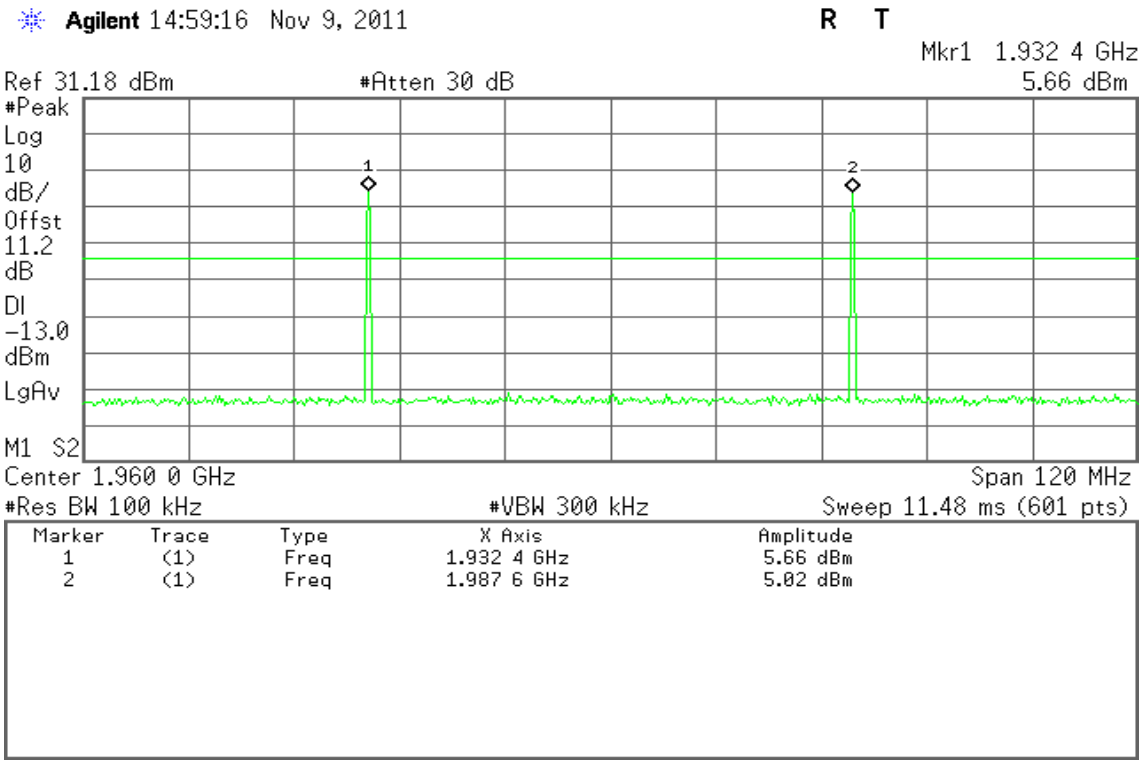


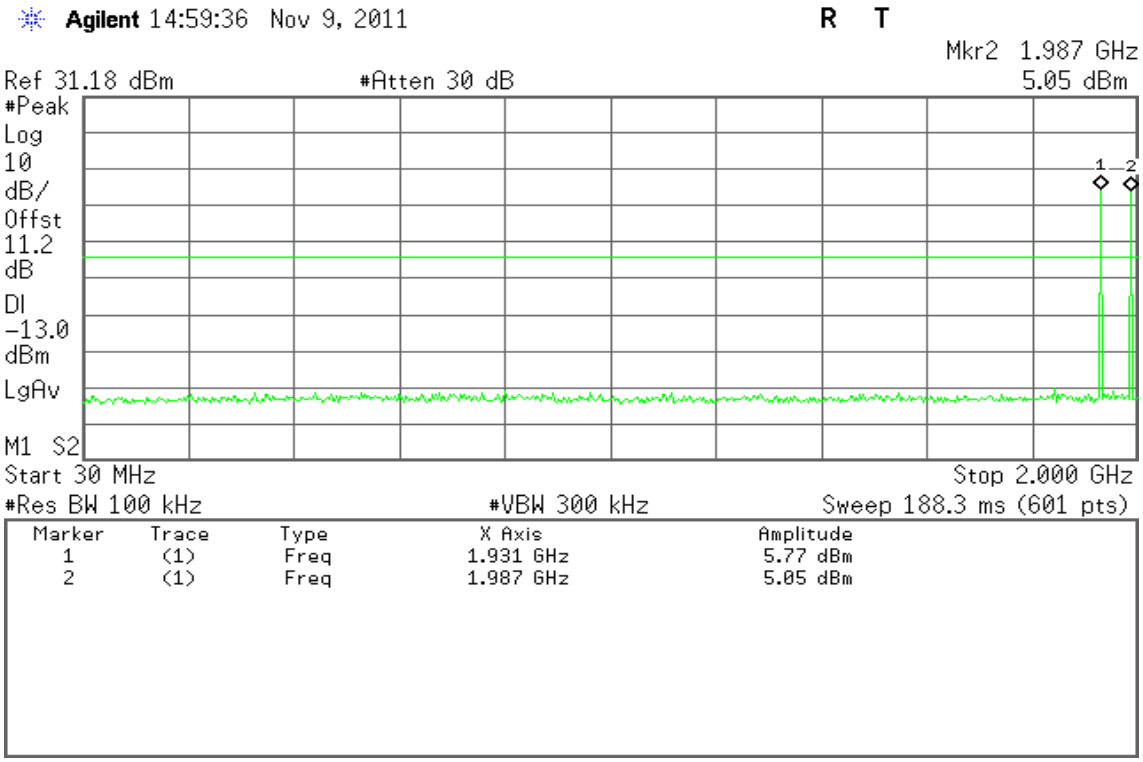


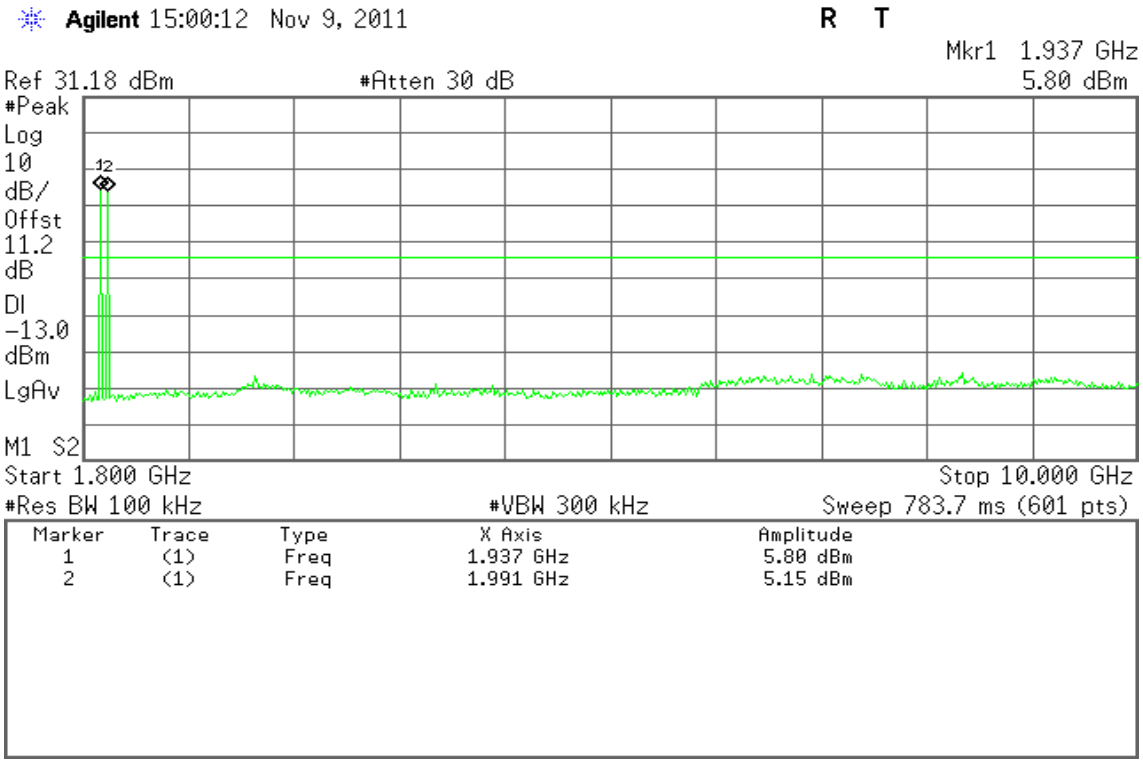

Agilent 14:41:44 Nov 9, 2011
R T
Mkr4 3.809 GHz
Ref 31.18 dBm
#Atten 30 dB
-37.88 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.855 GHz 23.53 dBm
2 (1) Freq 1.909 GHz 20.17 dBm
3 (1) Freq 3.700 GHz -39.16 dBm
4 (1) Freq 3.809 GHz -37.88 dBm

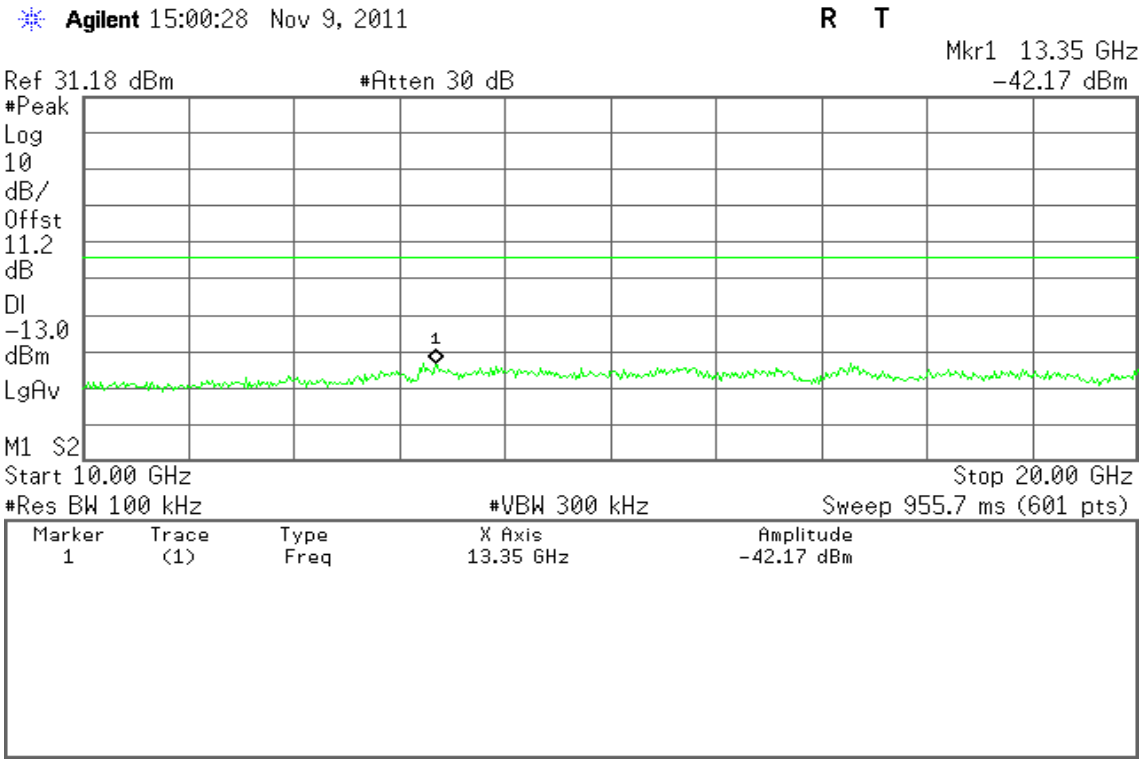

Agilent 14:42:04 Nov 9, 2011
R T
Mkr1 13.73 GHz
Ref 31.18 dBm
#Atten 30 dB
-41.83 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 13.73 GHz -41.83 dBm

Mode 2: WCDMA Band II Downlink

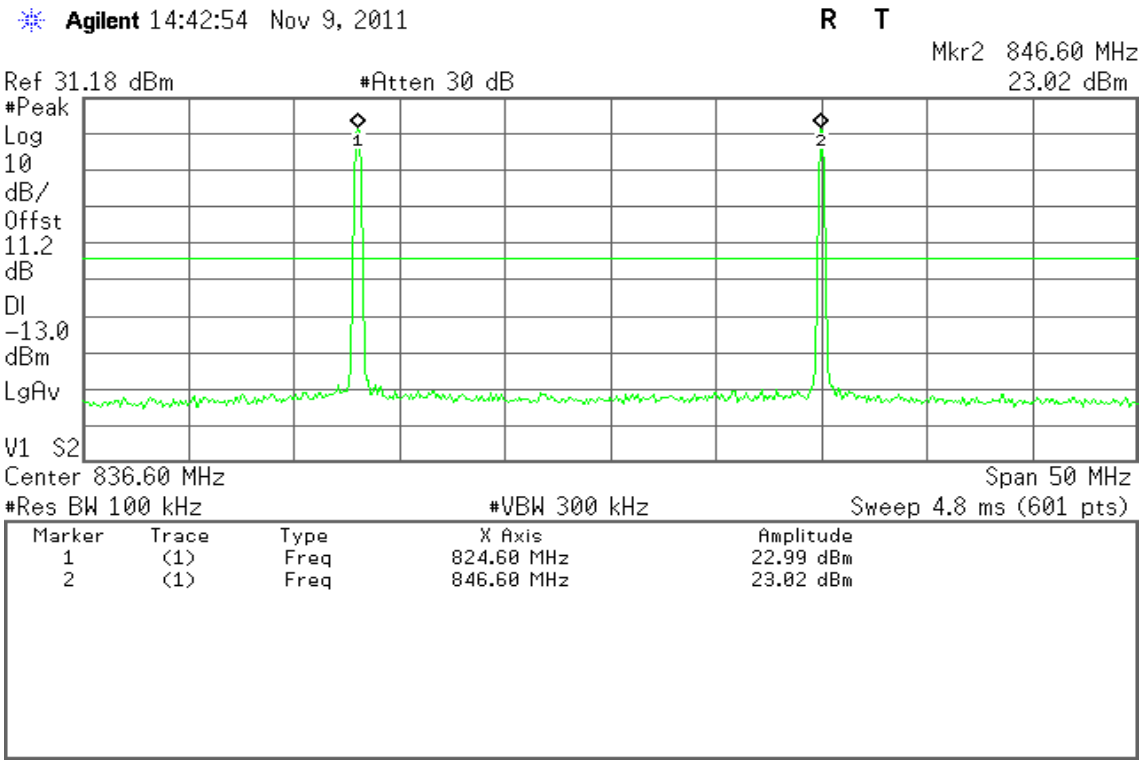


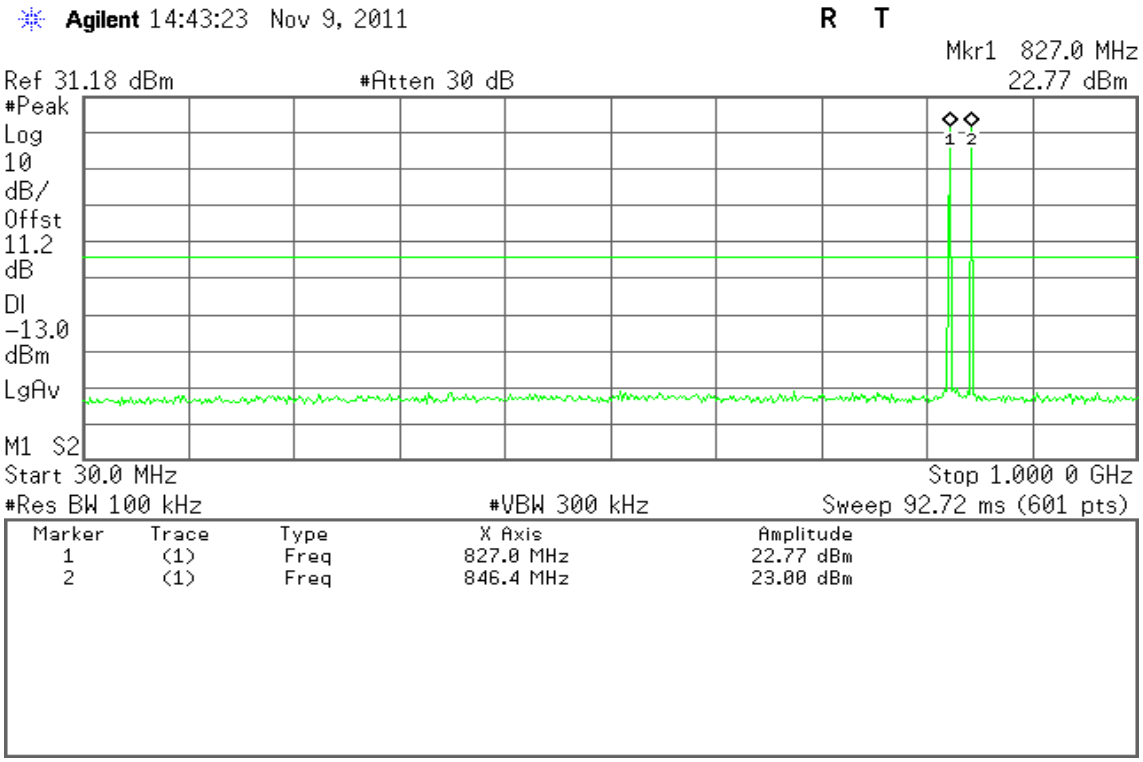


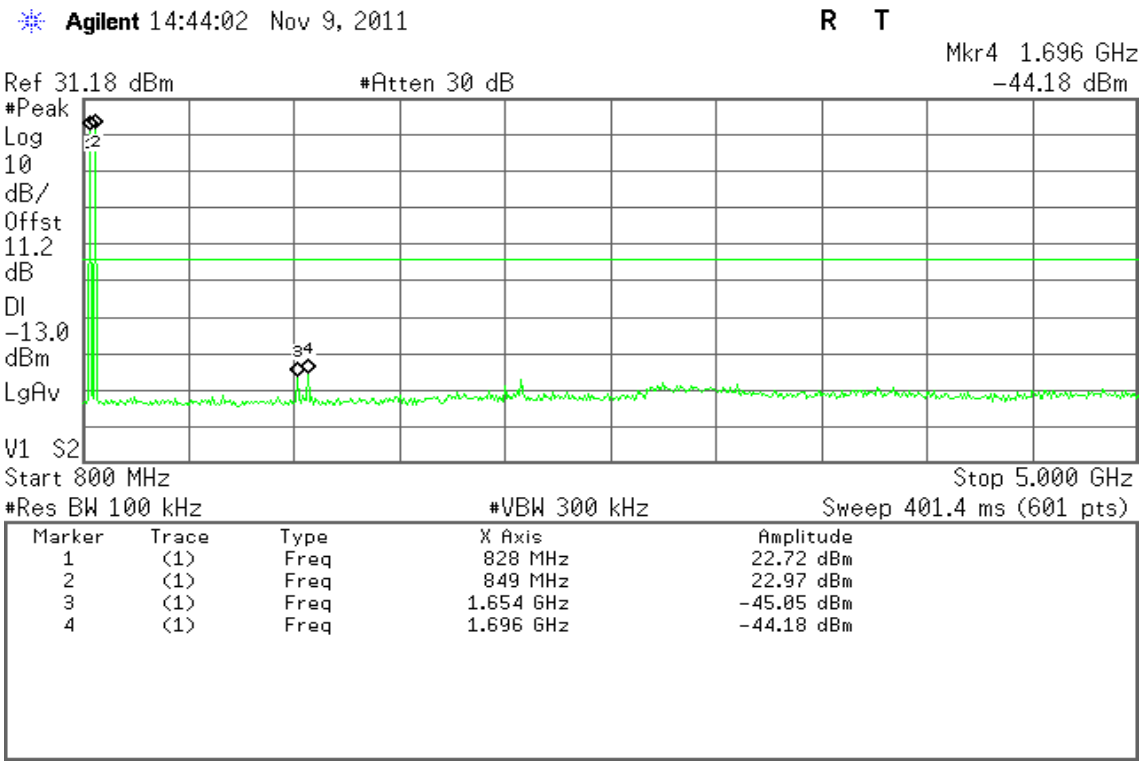

Agilent 15:00:12 Nov 9, 2011
R T
Mkr1 1.937 GHz
Ref 31.18 dBm
#Atten 30 dB
5.80 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.937 GHz 5.80 dBm
2 (1) Freq 1.991 GHz 5.15 dBm

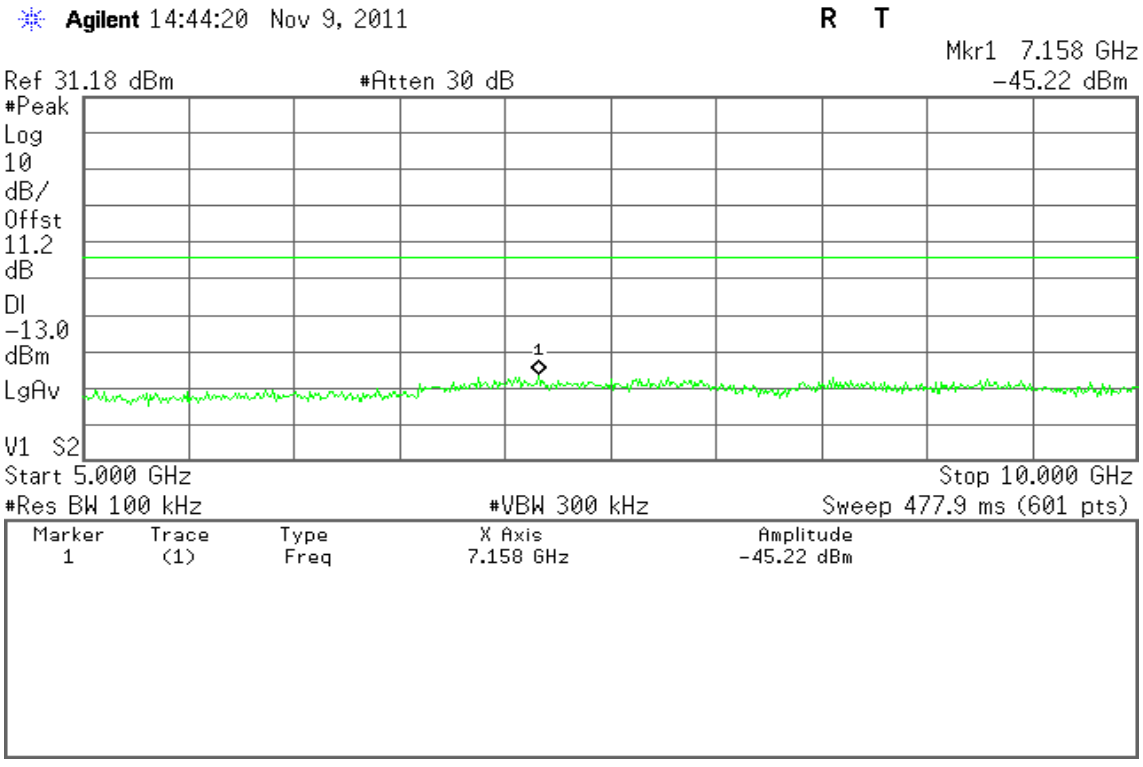

Agilent 15:00:28 Nov 9, 2011
R T
Mkr1 13.35 GHz
Ref 31.18 dBm
#Atten 30 dB
-42.17 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 13.35 GHz -42.17 dBm

Mode 3: WCDMA Band V Uplink

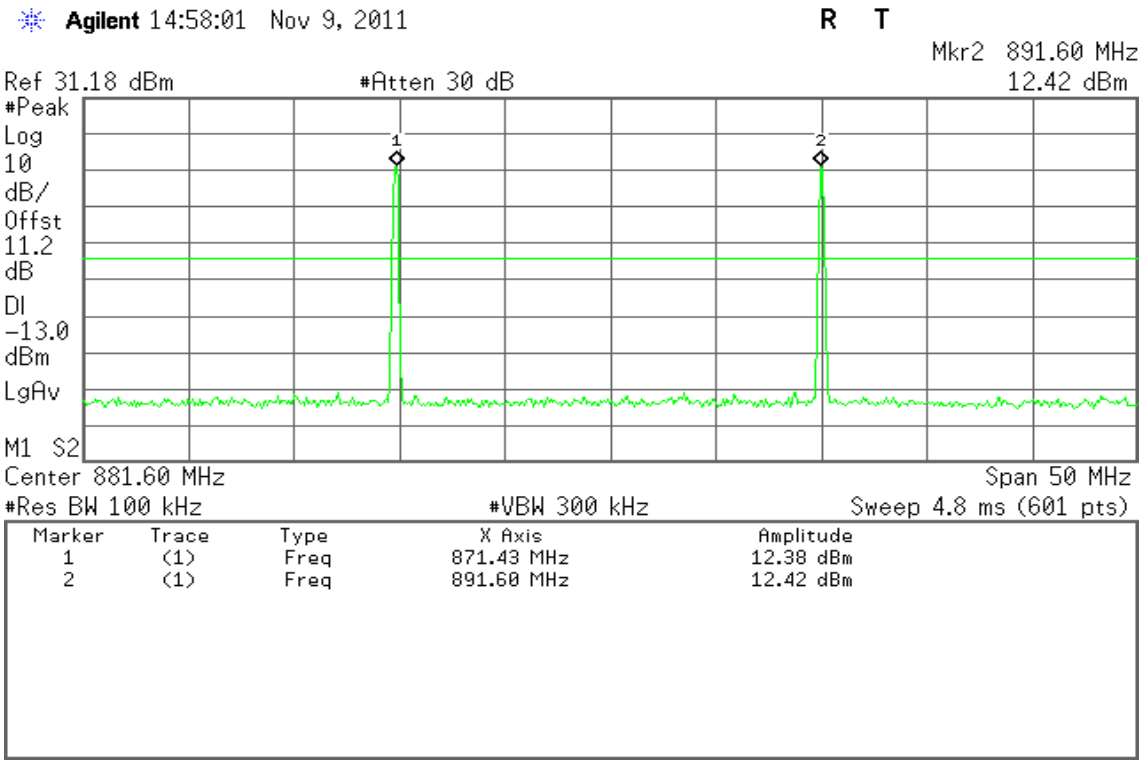


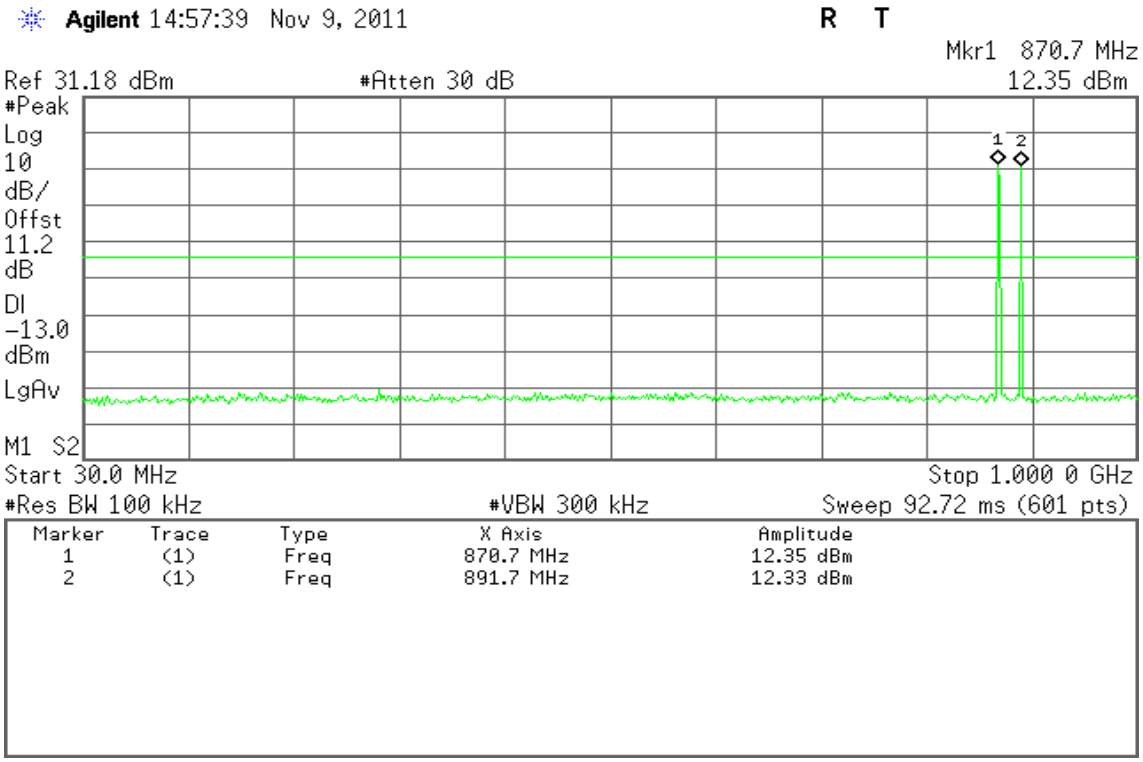


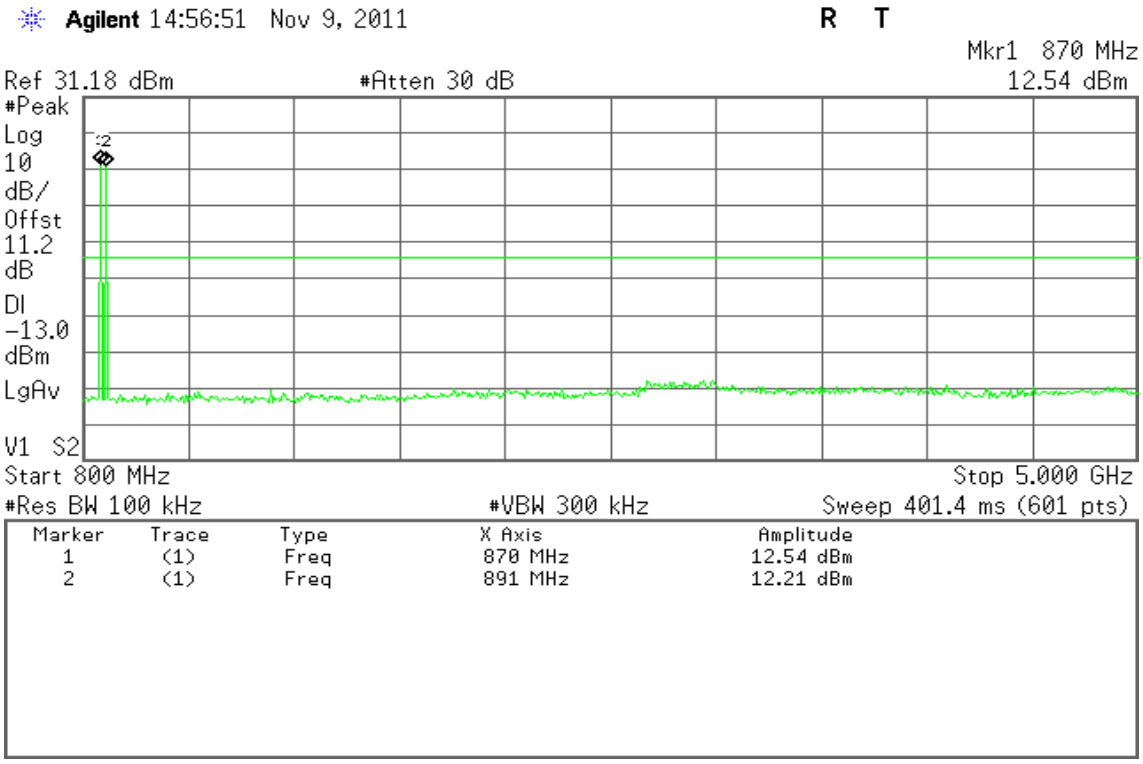

Agilent 14:44:02 Nov 9, 2011
R T
Mkr4 1.696 GHz
Ref 31.18 dBm
#Atten 30 dB
-44.18 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 828 MHz 22.72 dBm
2 (1) Freq 849 MHz 22.97 dBm
3 (1) Freq 1.654 GHz -45.05 dBm
4 (1) Freq 1.696 GHz -44.18 dBm

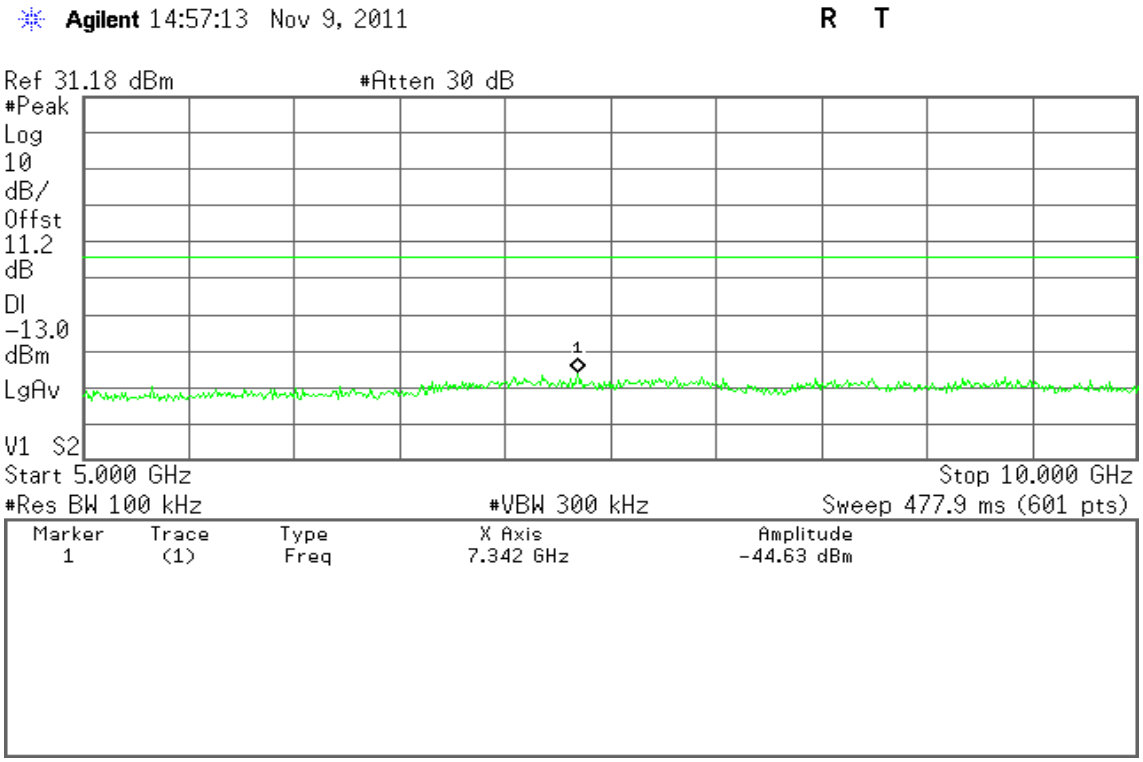

Agilent 14:44:20 Nov 9, 2011
R T
Mkr1 7.158 GHz
Ref 31.18 dBm
#Atten 30 dB
-45.22 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 7.158 GHz -45.22 dBm

Mode 4: WCDMA Band V Downlink

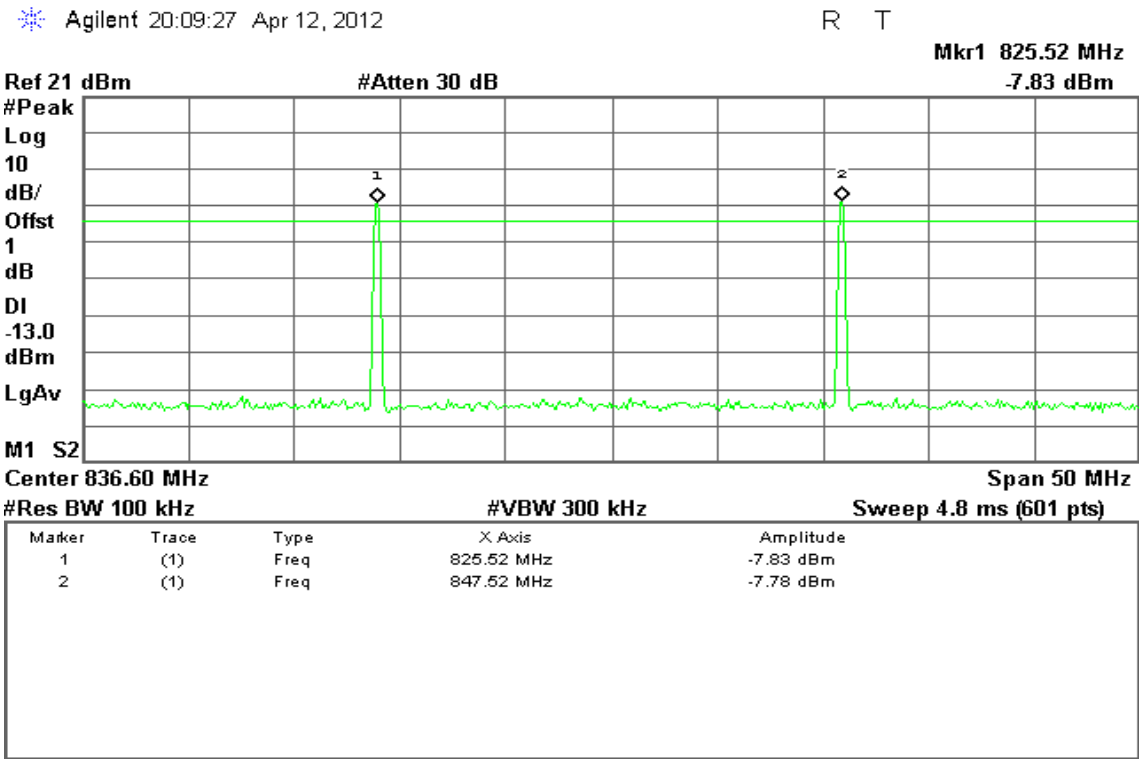


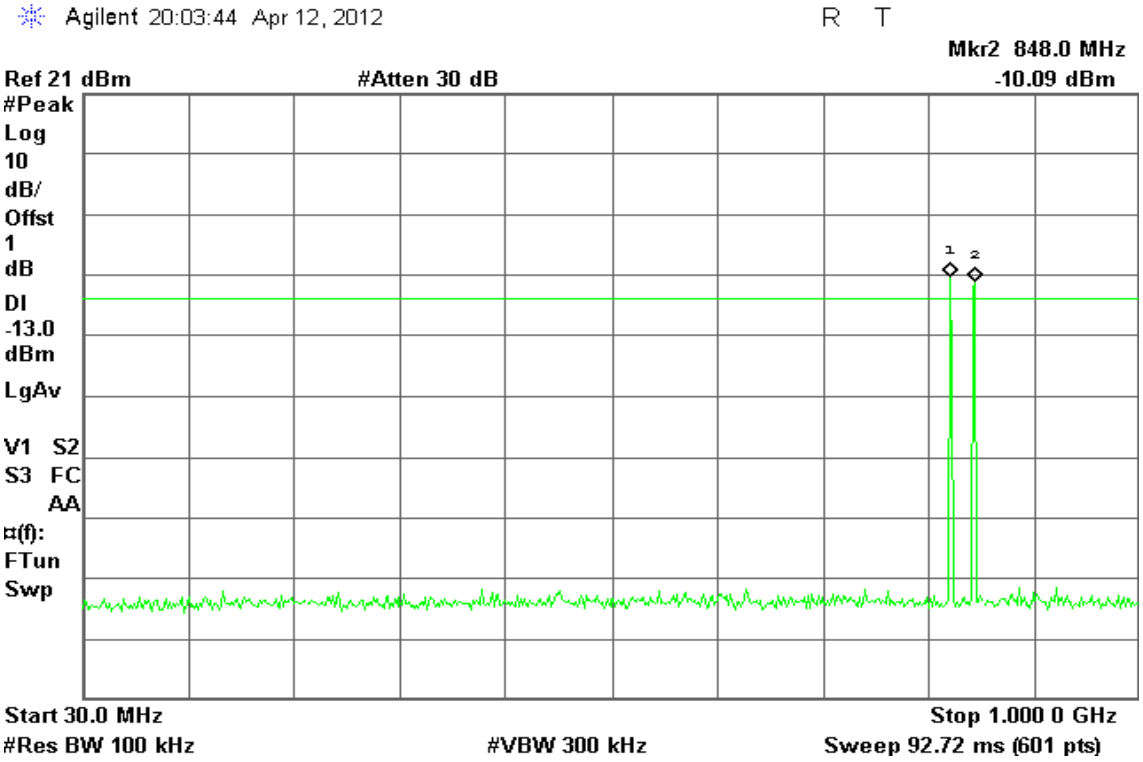


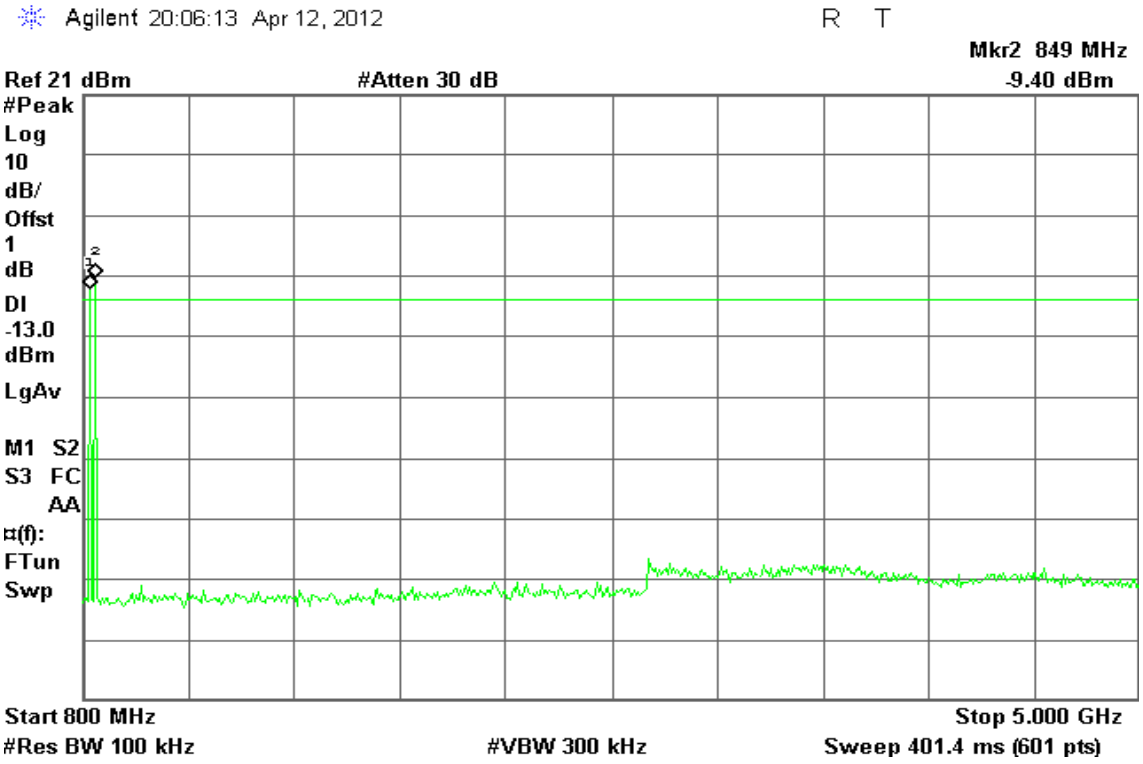

Agilent 14:56:51 Nov 9, 2011
R T
Mkr1 870 MHz
Ref 31.18 dBm
#Atten 30 dB
12.54 dBm
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 870 MHz 12.54 dBm
2 (1) Freq 891 MHz 12.21 dBm

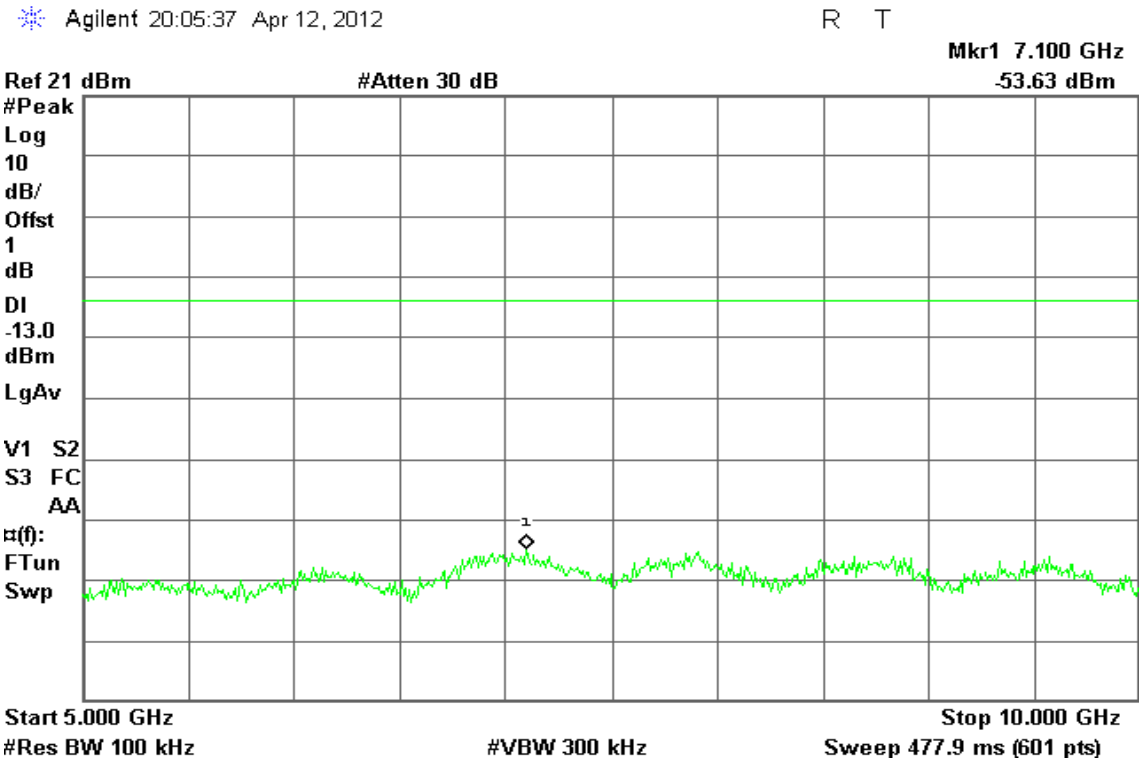

Agilent 14:57:13 Nov 9, 2011
R T
Ref 31.18 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
11.2
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 7.342 GHz -44.63 dBm

Mode 5: AMPS / 824 – 849MHz Uplink

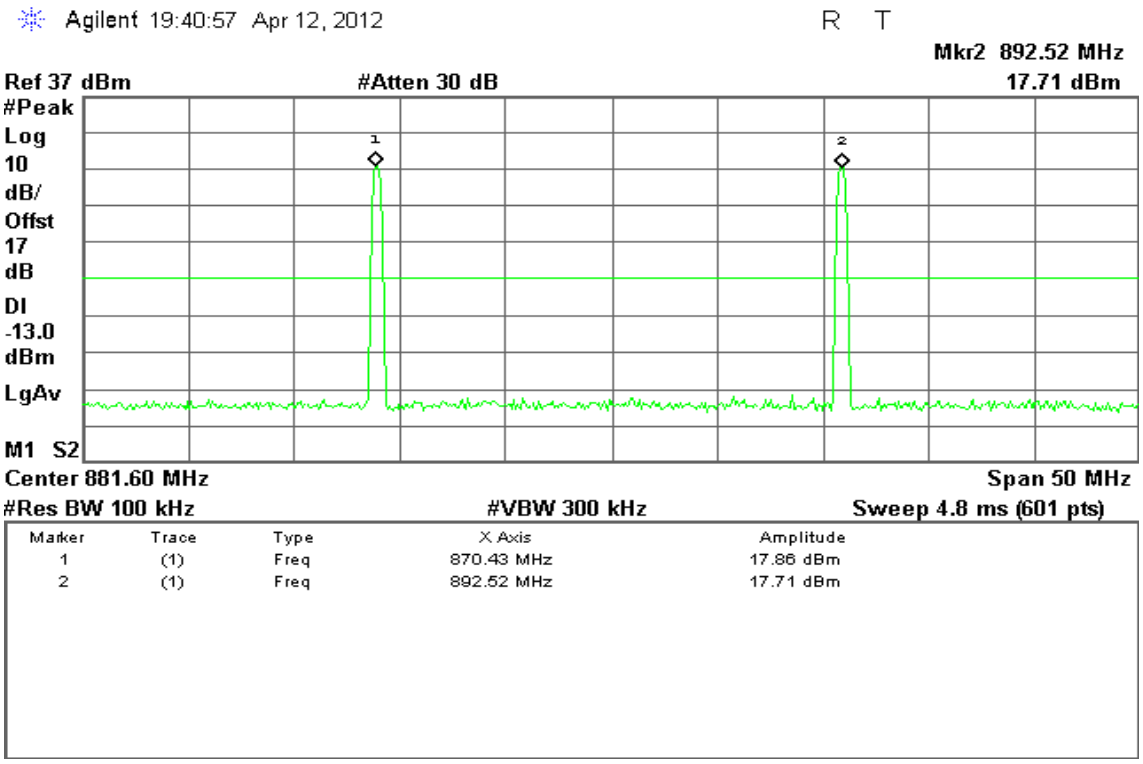


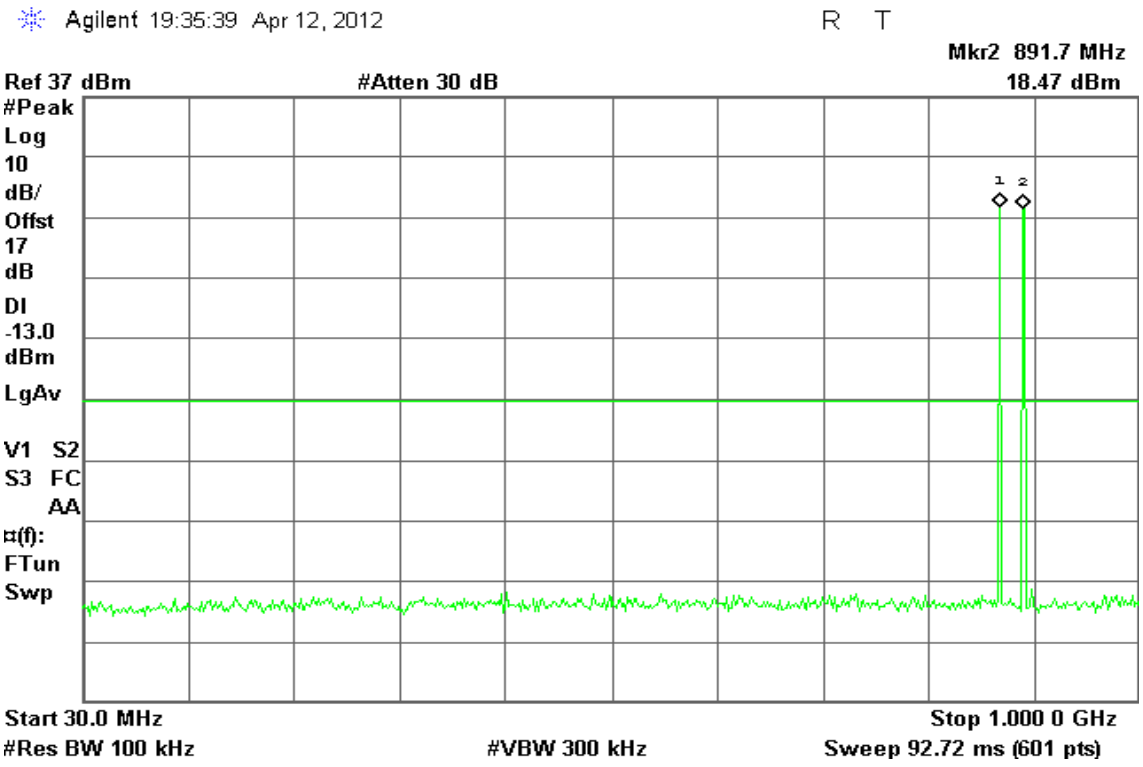


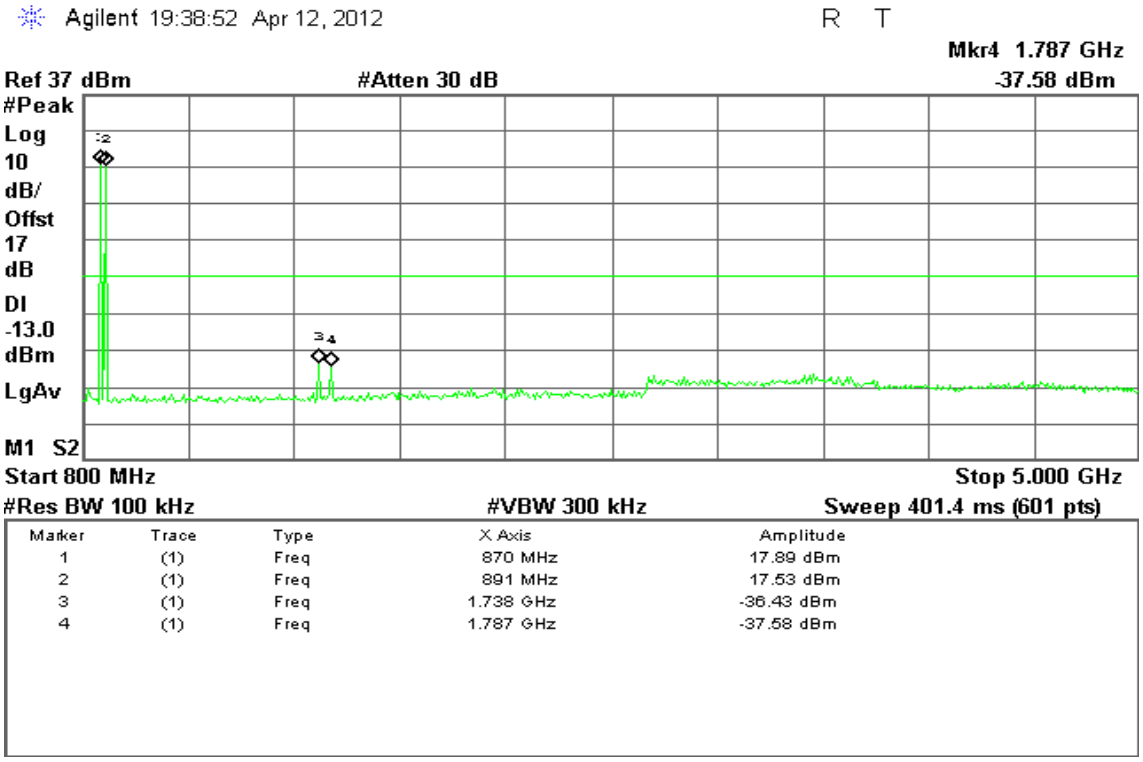

Agilent 20:06:13 Apr 12, 2012
R T
Mkr2 849 MHz
-9.40 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)

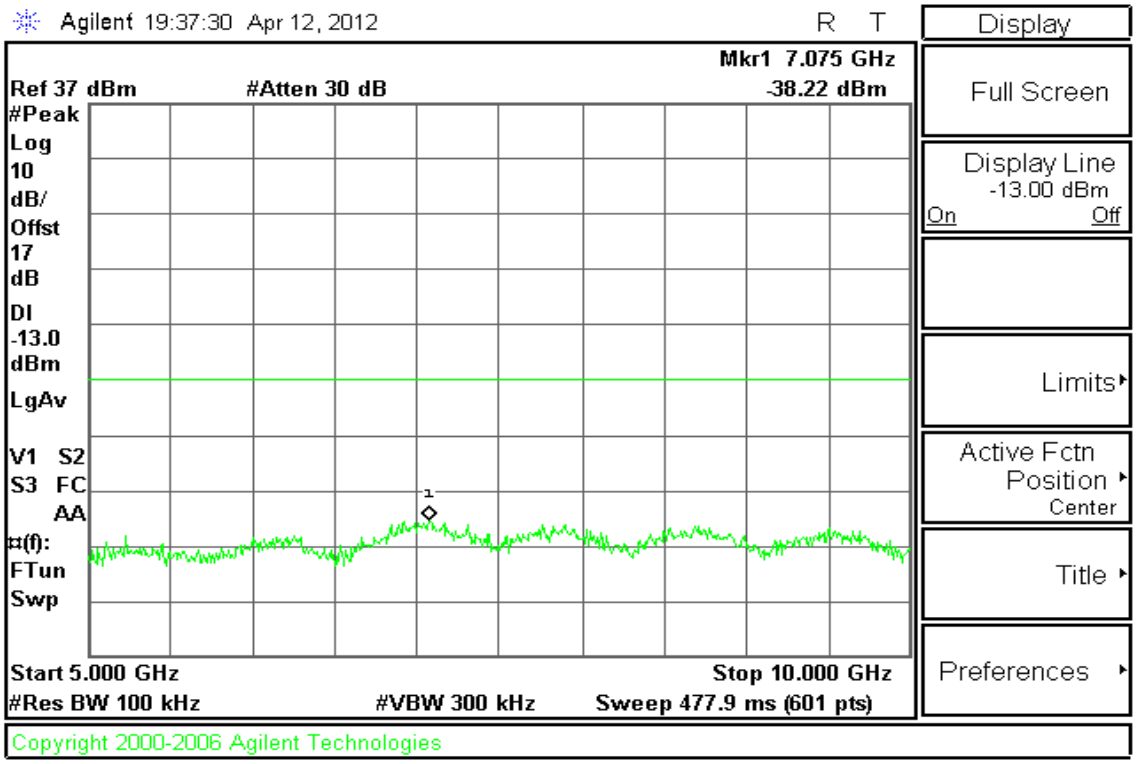

Agilent 20:05:37 Apr 12, 2012
R T
Mkr1 7.100 GHz
-53.63 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)

Mode 6: AMPS / 869 – 894MHz Downlink

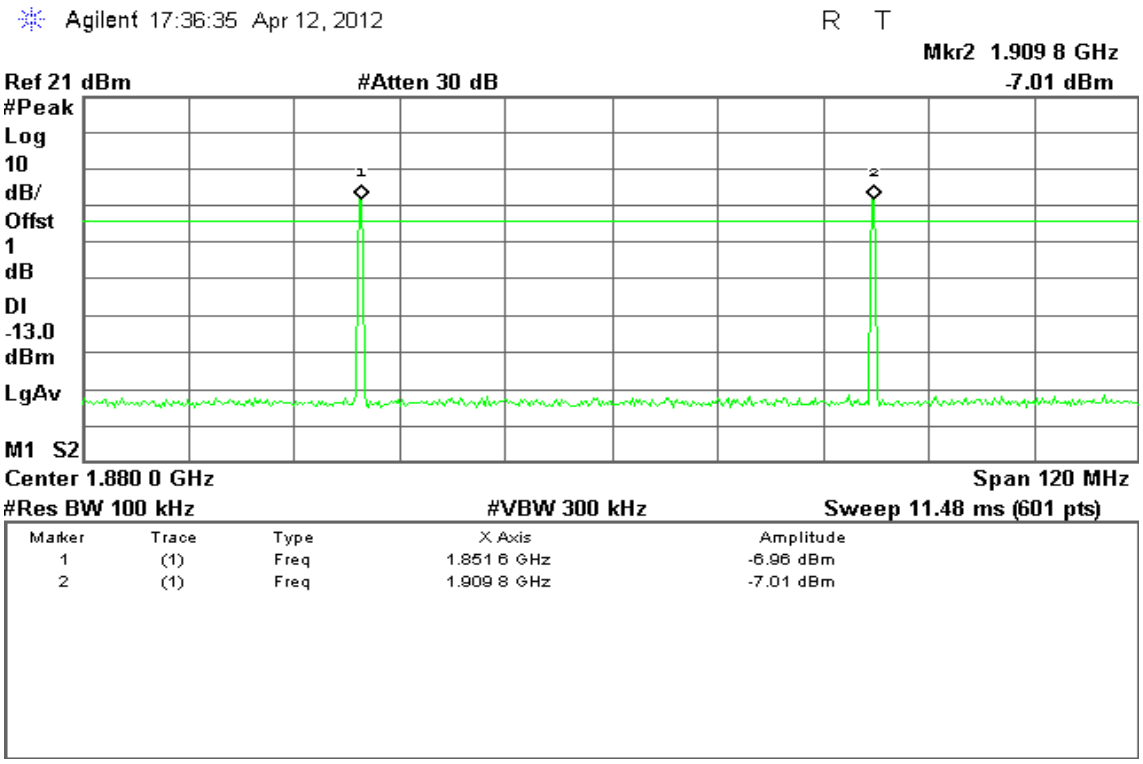


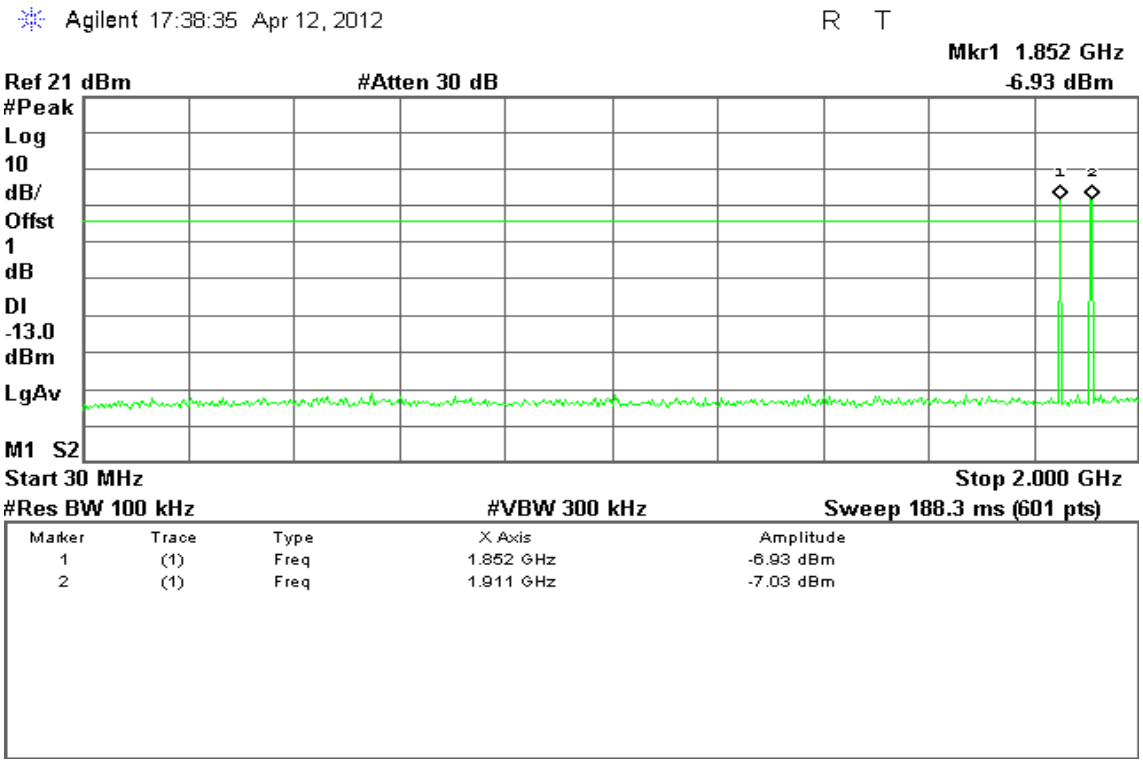


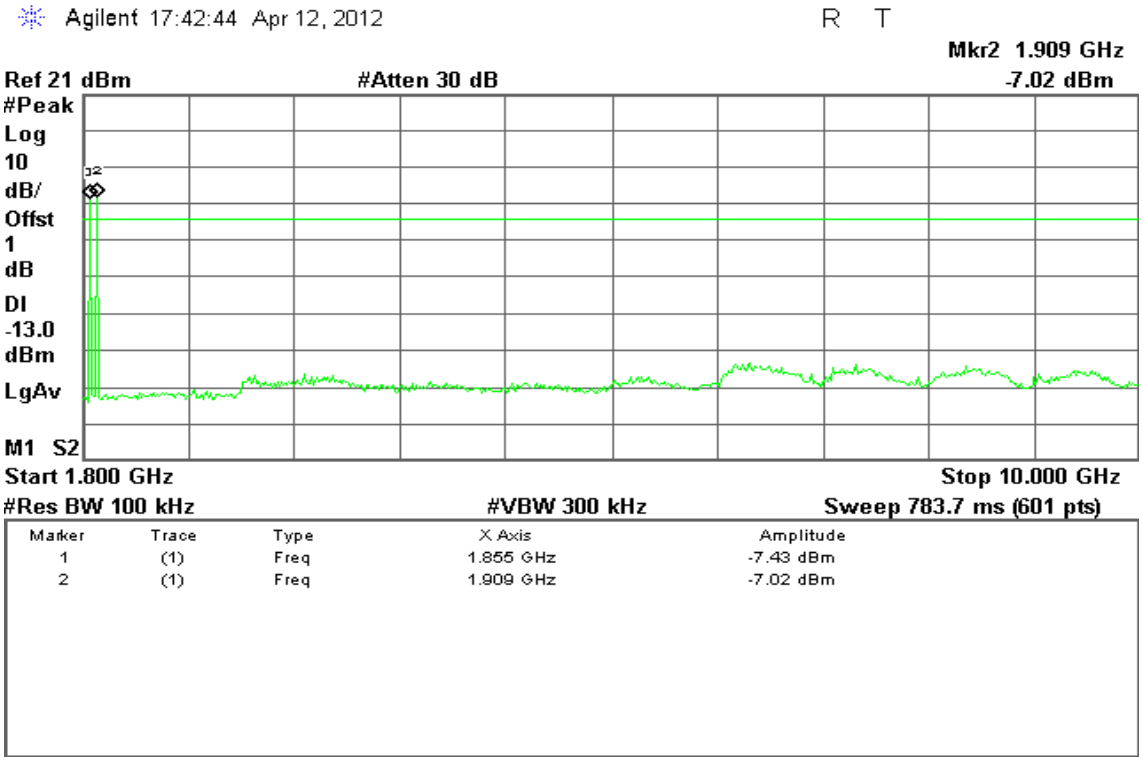

Agilent 19:38:52 Apr 12, 2012
R T
Mkr4 1.787 GHz
Ref 37 dBm
#Atten 30 dB
-37.58 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 870 MHz 17.89 dBm
2 (1) Freq 891 MHz 17.53 dBm
3 (1) Freq 1.738 GHz -36.43 dBm
4 (1) Freq 1.787 GHz -37.58 dBm

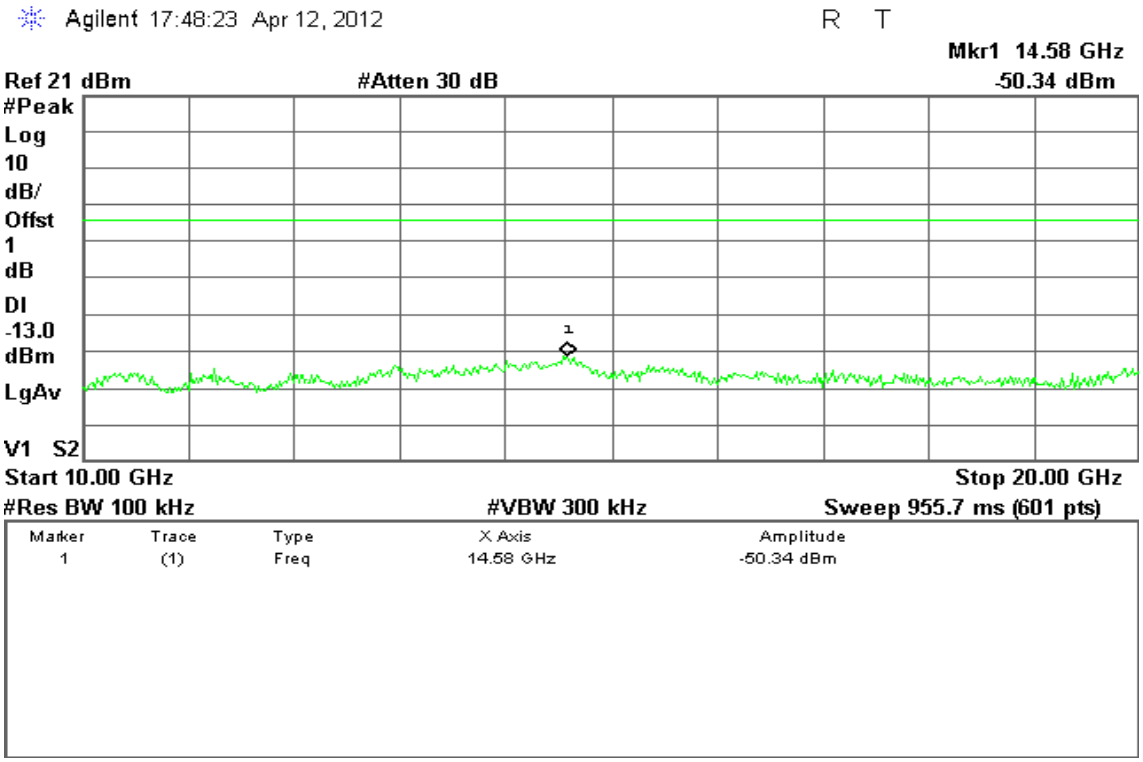

Agilent 19:37:30 Apr 12, 2012
R T
Mkr1 7.075 GHz
Ref 37 dBm
#Atten 30 dB
-38.22 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)
Display
Full Screen
Display Line
-13.00 dBm
On Off
Limits
Active Fctn
Position
Center
Title
Preferences
Copyright 2000-2006 Agilent Technologies

Mode 7: AMPS / 1850 – 1910MHz Uplink

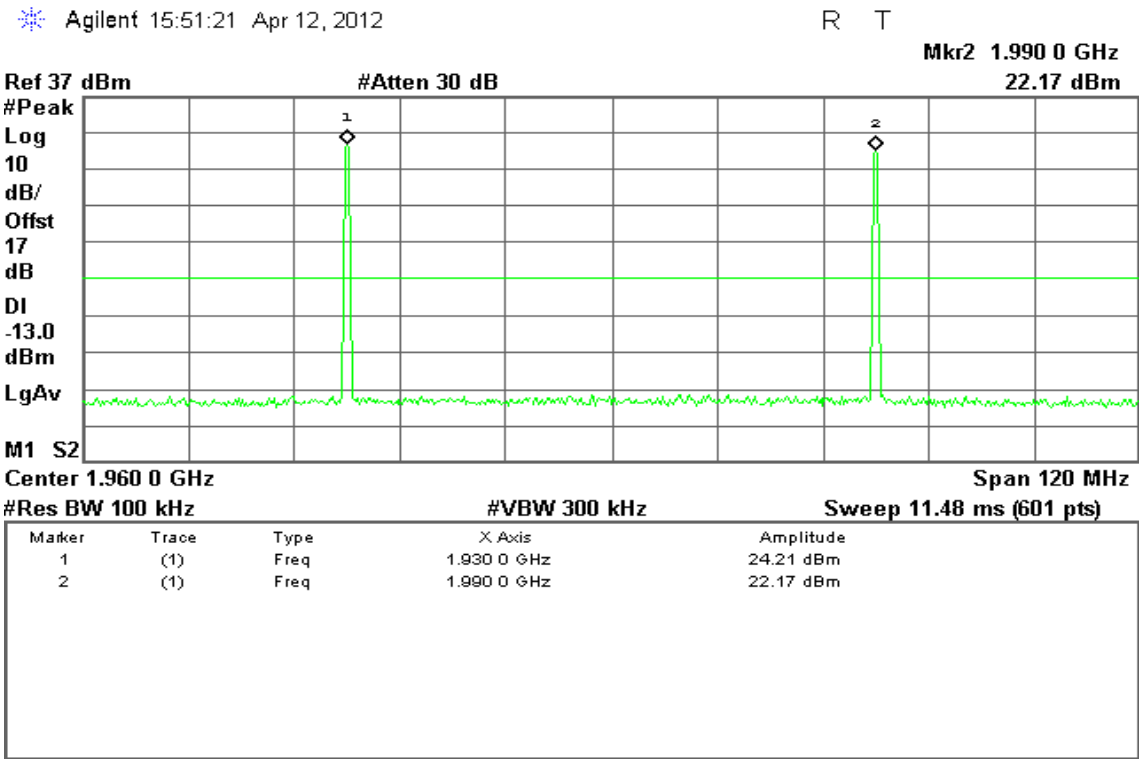


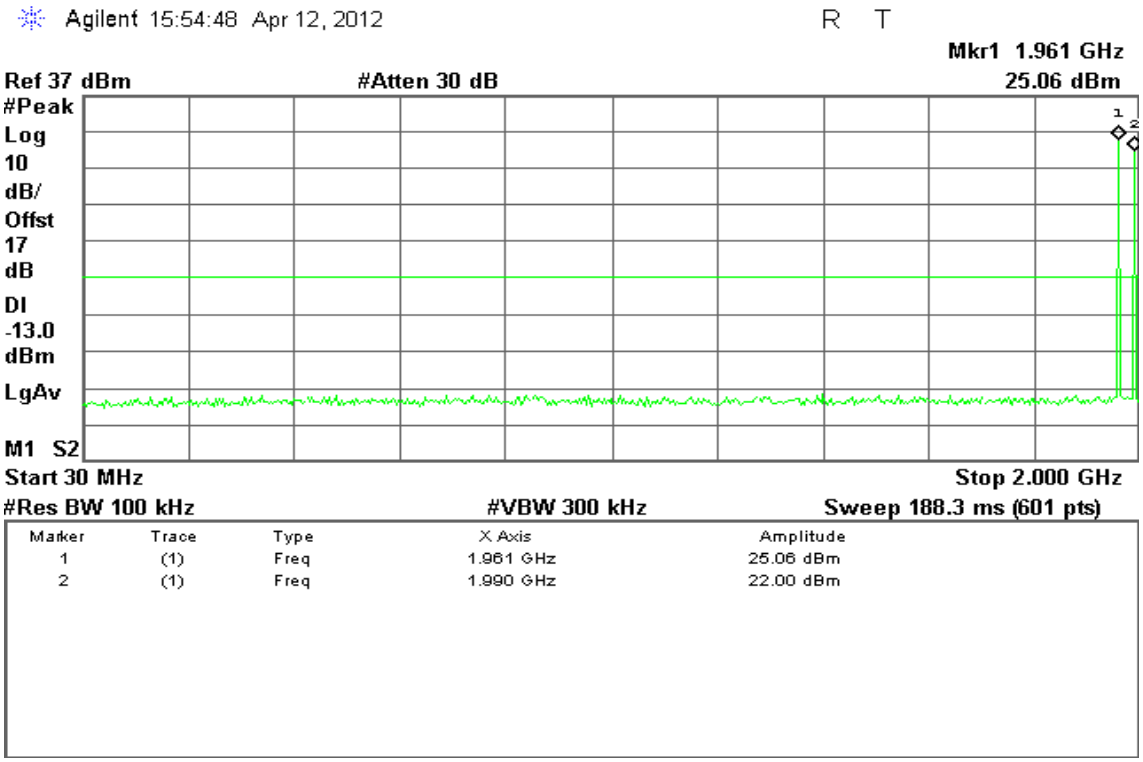


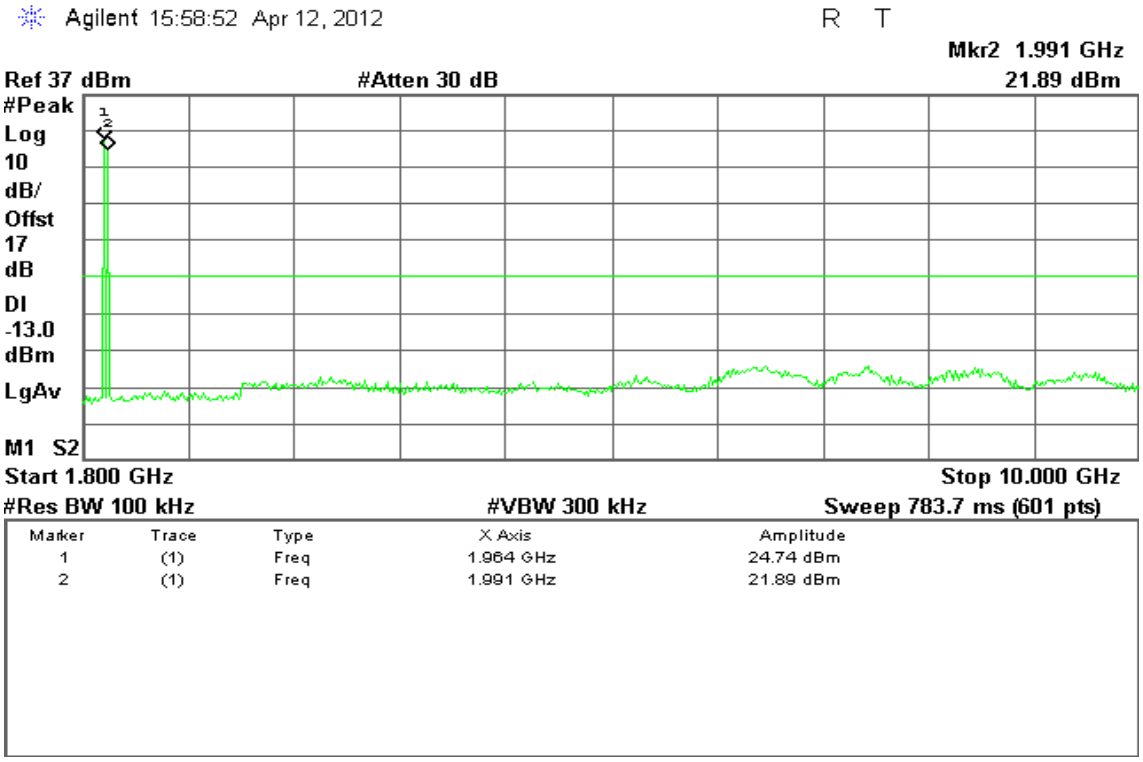

Agilent 17:42:44 Apr 12, 2012
R T
Mkr2 1.909 GHz
Ref 21 dBm
#Atten 30 dB
-7.02 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.855 GHz -7.43 dBm
2 (1) Freq 1.909 GHz -7.02 dBm

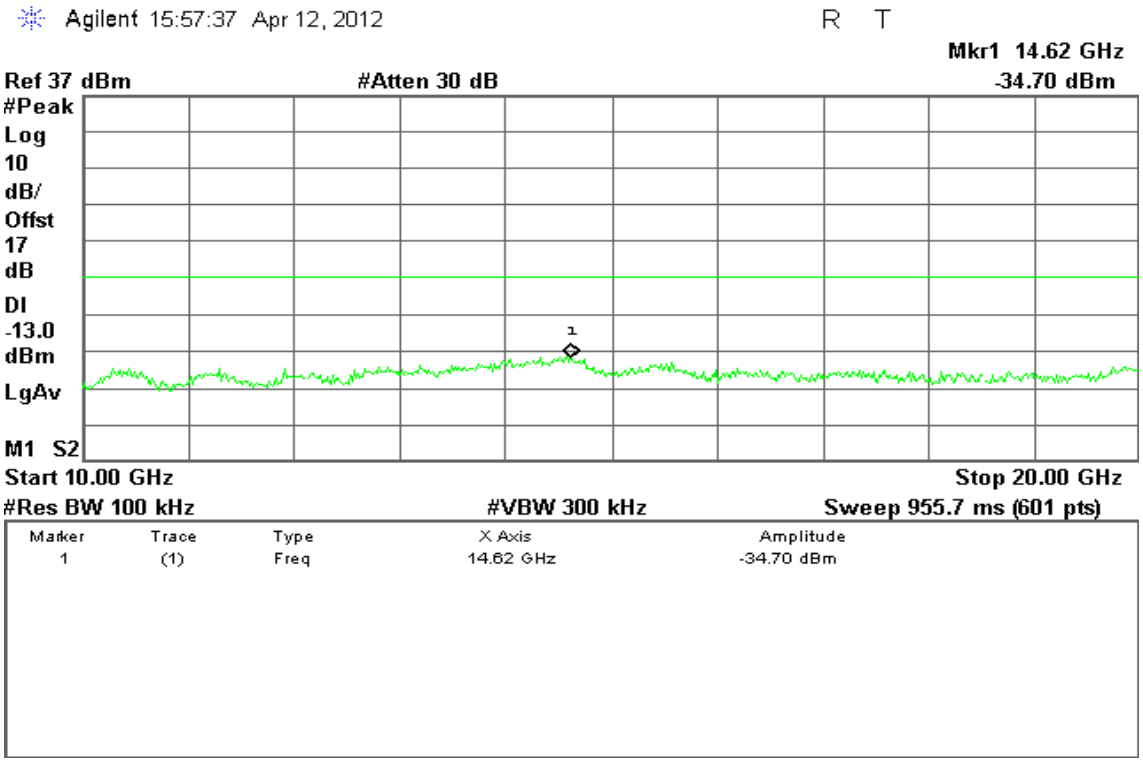

Agilent 17:48:23 Apr 12, 2012
R T
Mkr1 14.58 GHz
Ref 21 dBm
#Atten 30 dB
-50.34 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.58 GHz -50.34 dBm

Mode 8: AMPS / 1930 – 1990MHz Downlink

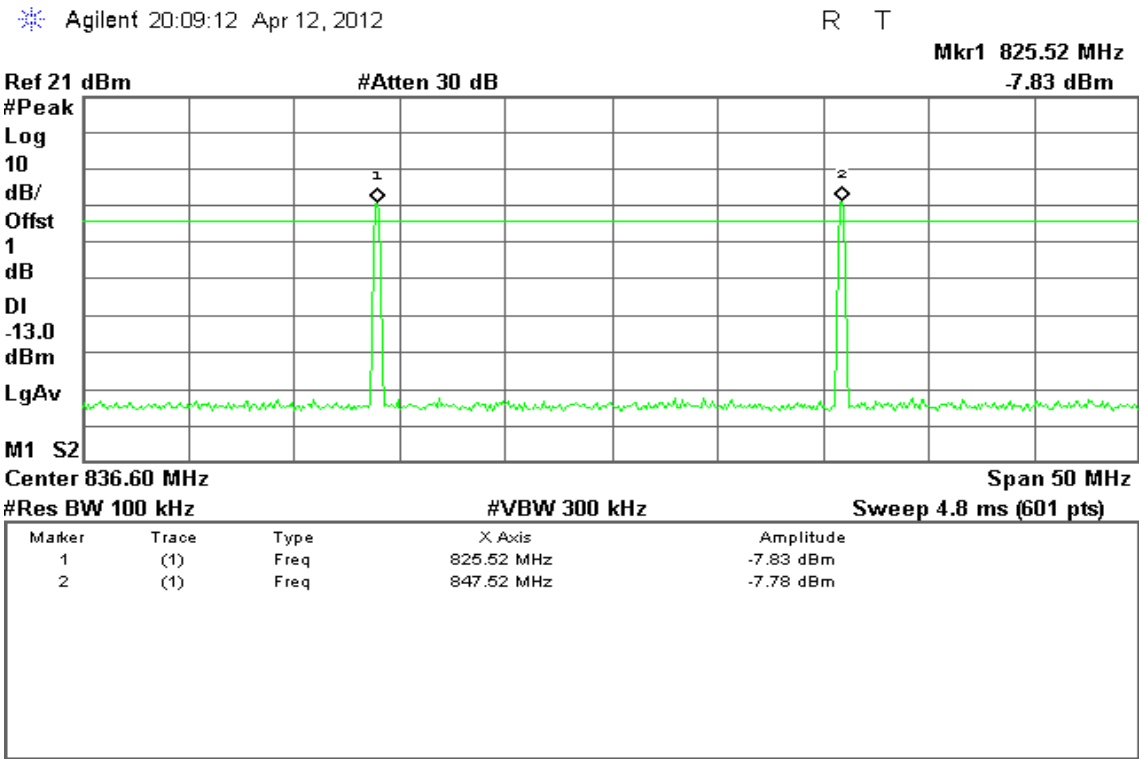


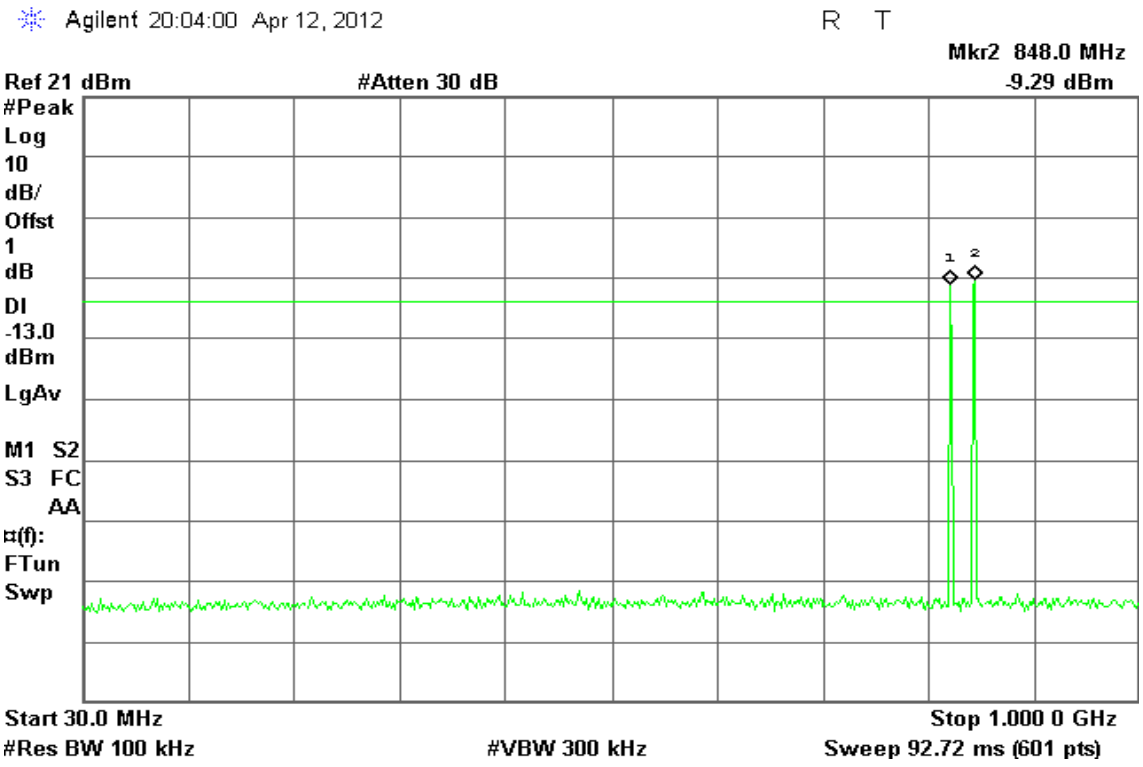


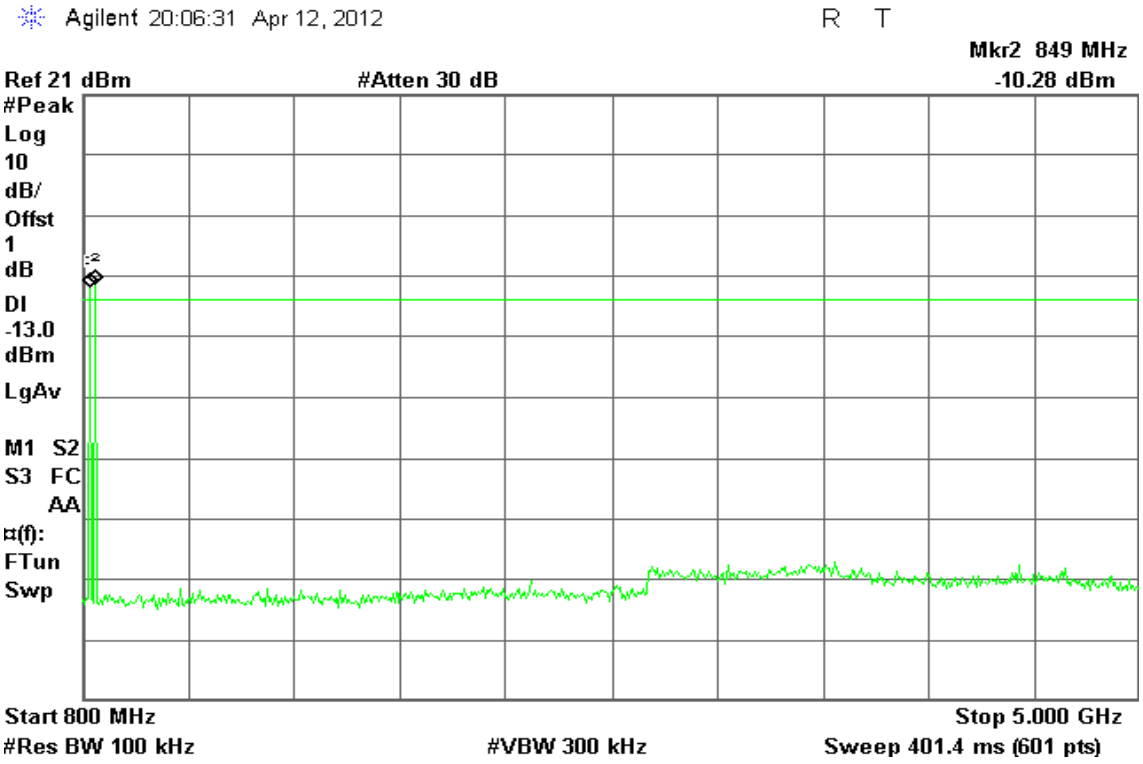

Agilent 15:58:52 Apr 12, 2012
R T
Mkr2 1.991 GHz
21.89 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.964 GHz 24.74 dBm
2 (1) Freq 1.991 GHz 21.89 dBm

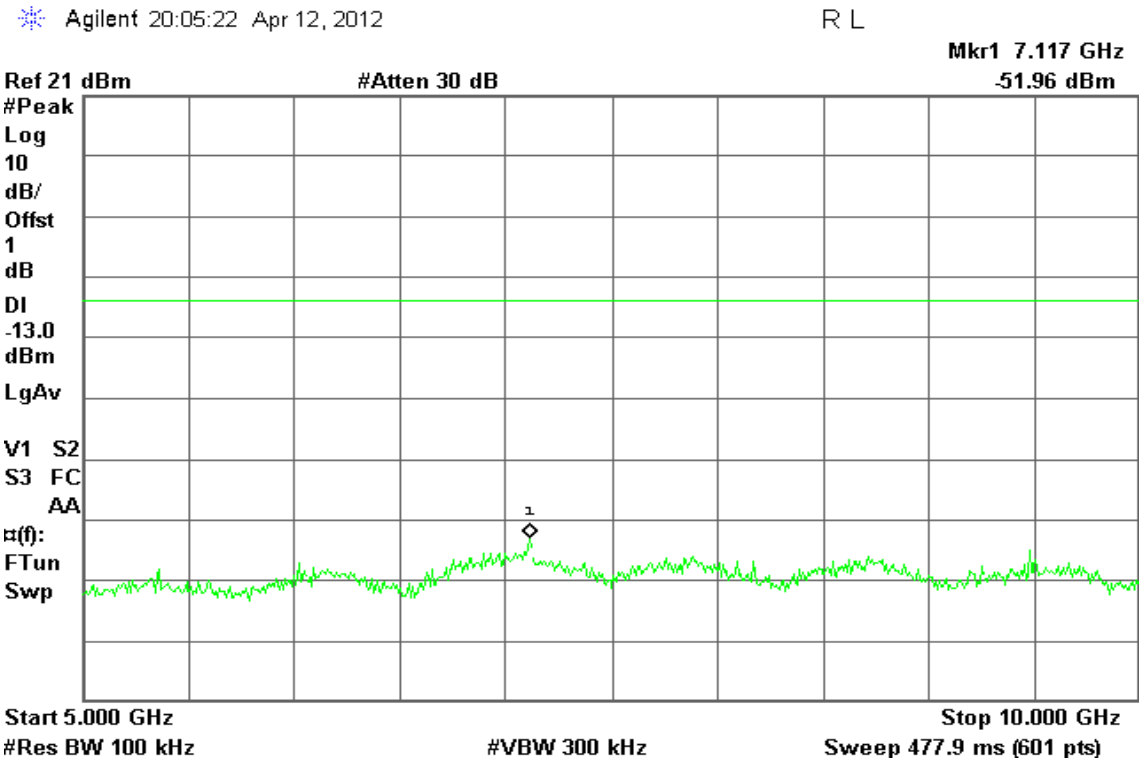

Agilent 15:57:37 Apr 12, 2012
R T
Mkr1 14.62 GHz
-34.70 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.62 GHz -34.70 dBm

Mode 9: CDMA / 824 – 849MHz Uplink

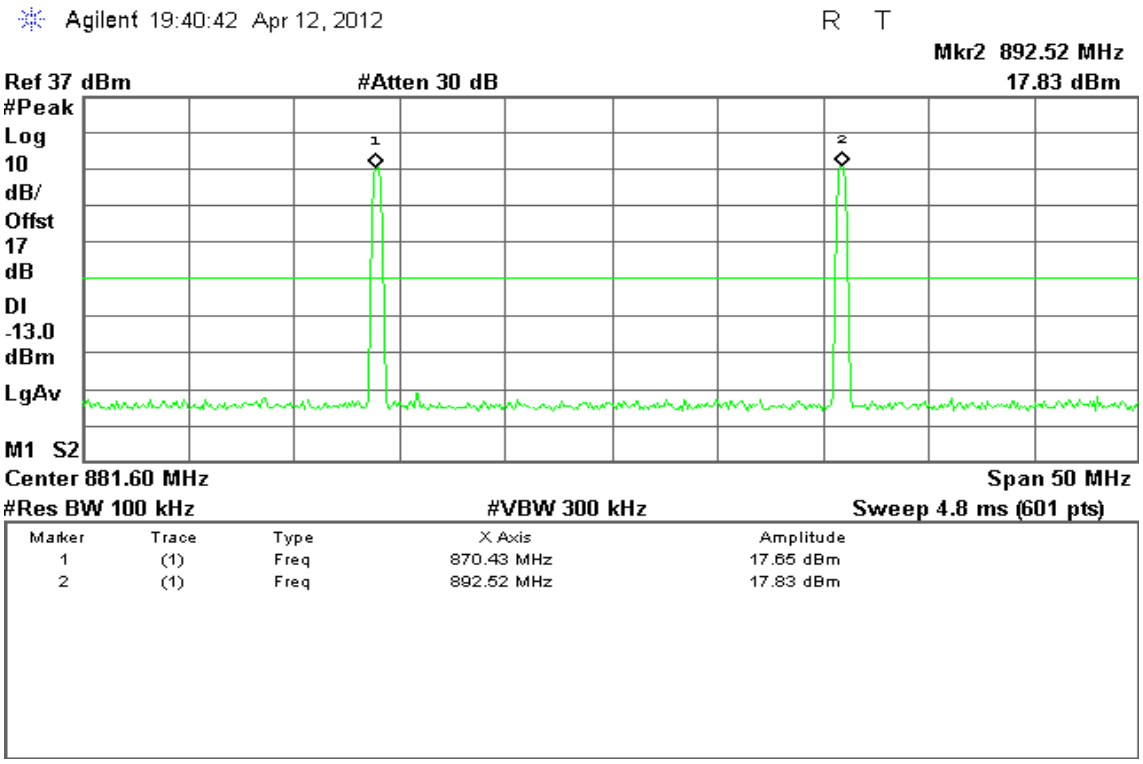


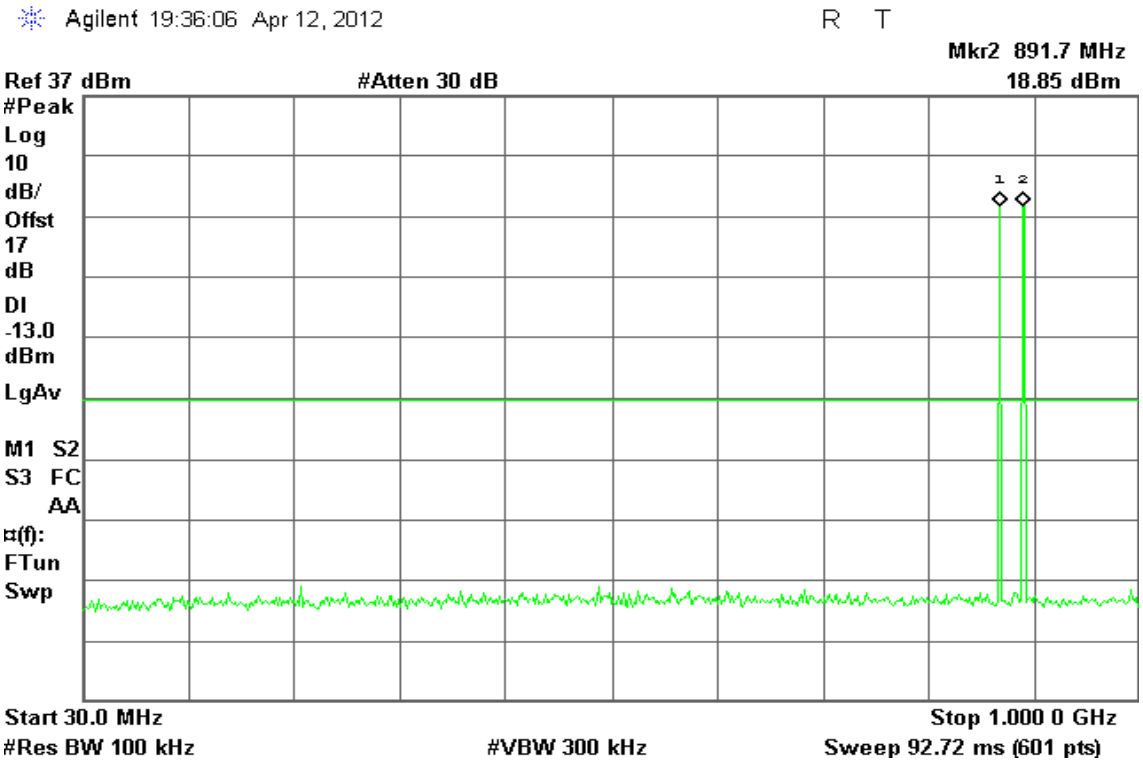


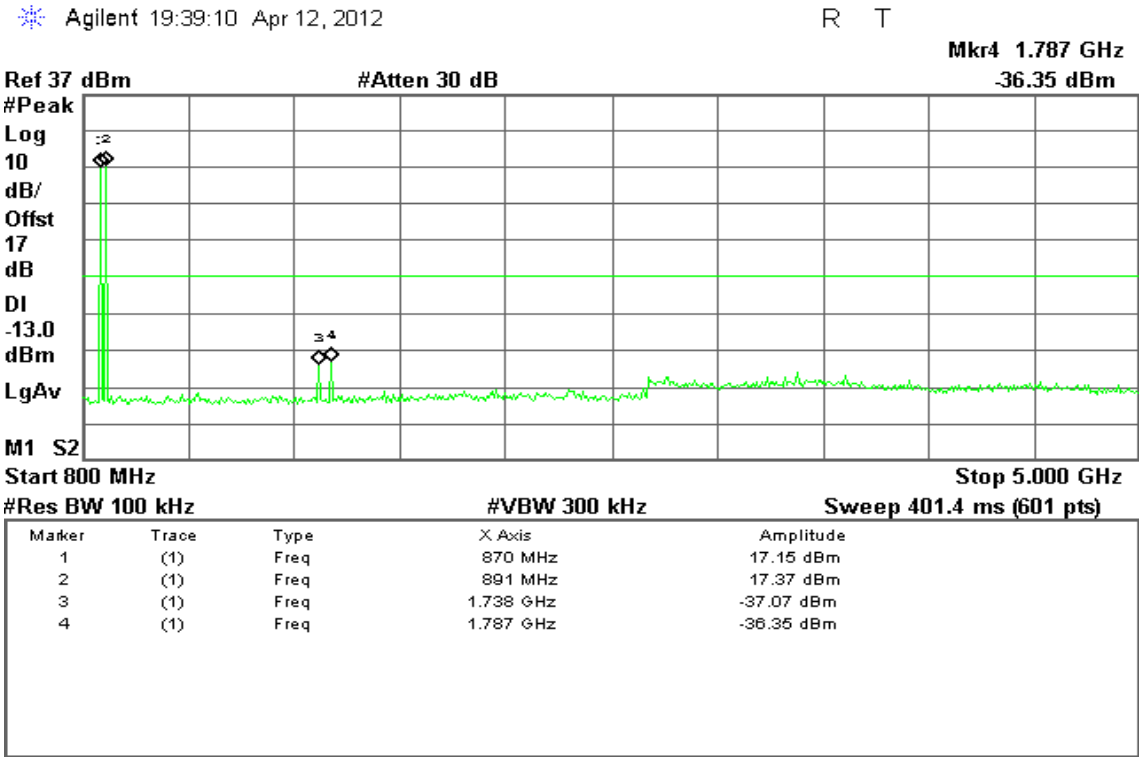

Agilent 20:06:31 Apr 12, 2012
R T
Mkr2 849 MHz
-10.28 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)

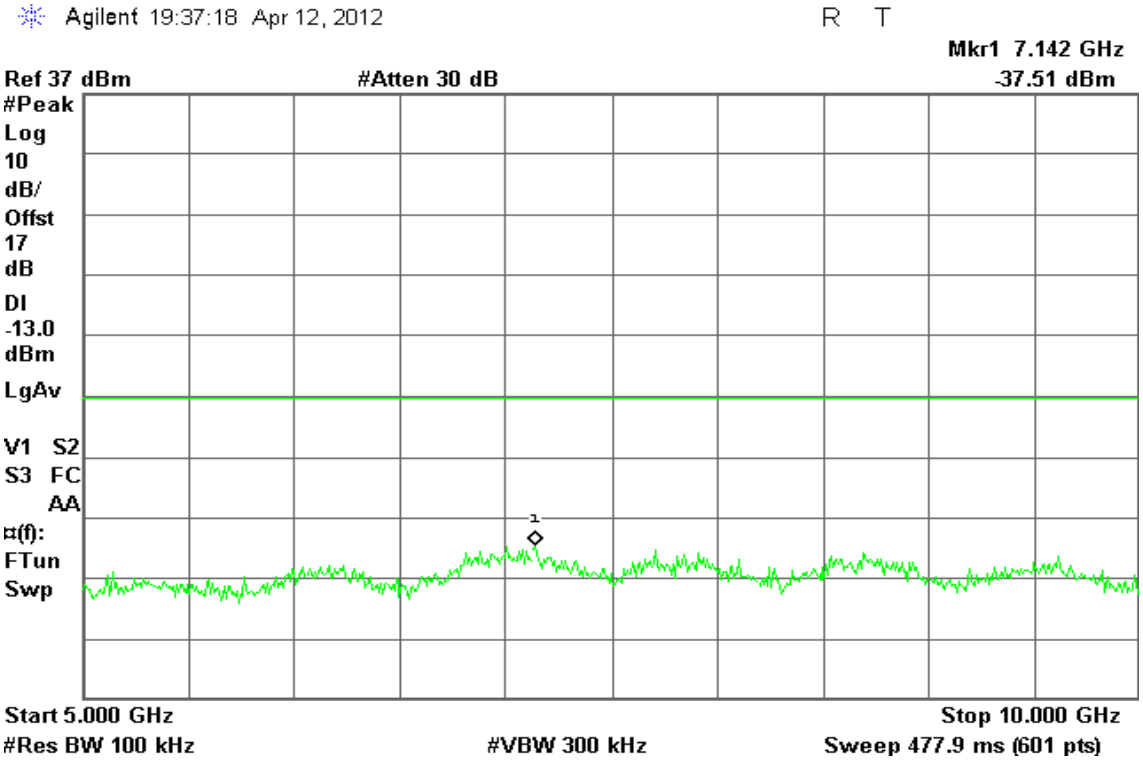

Agilent 20:05:22 Apr 12, 2012
R L
Mkr1 7.117 GHz
-51.96 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)

Mode 10: CDMA / 869 – 894MHz Downlink

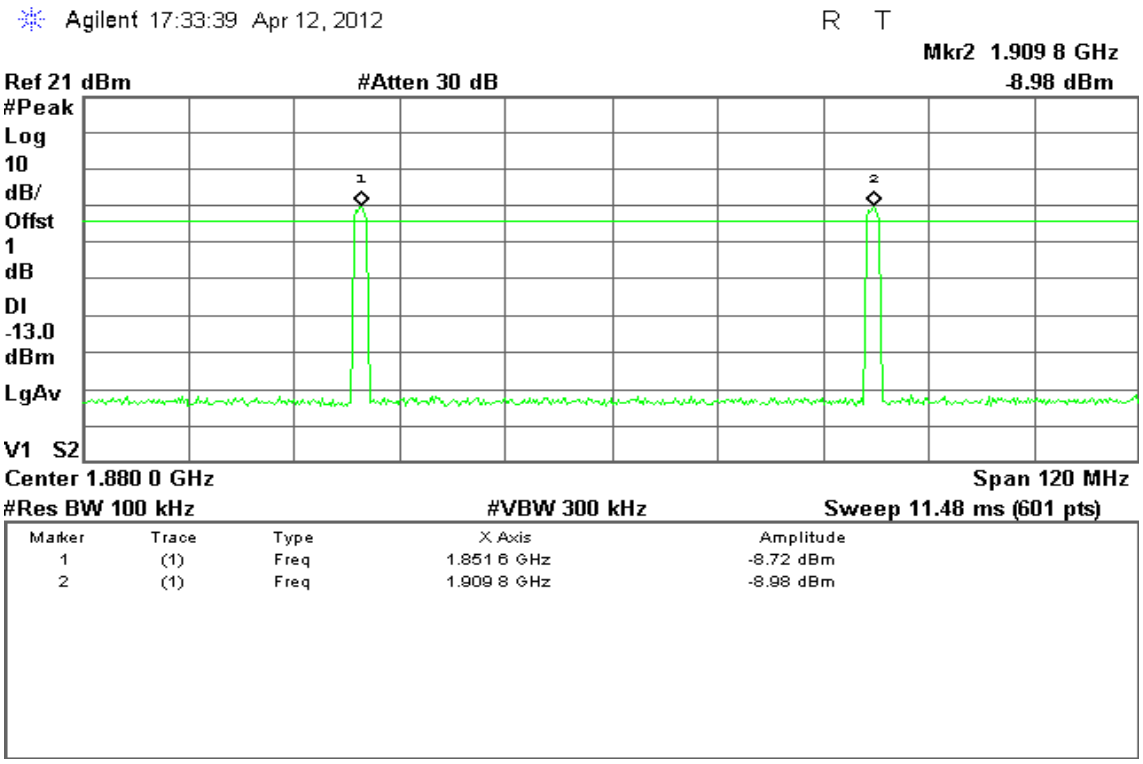


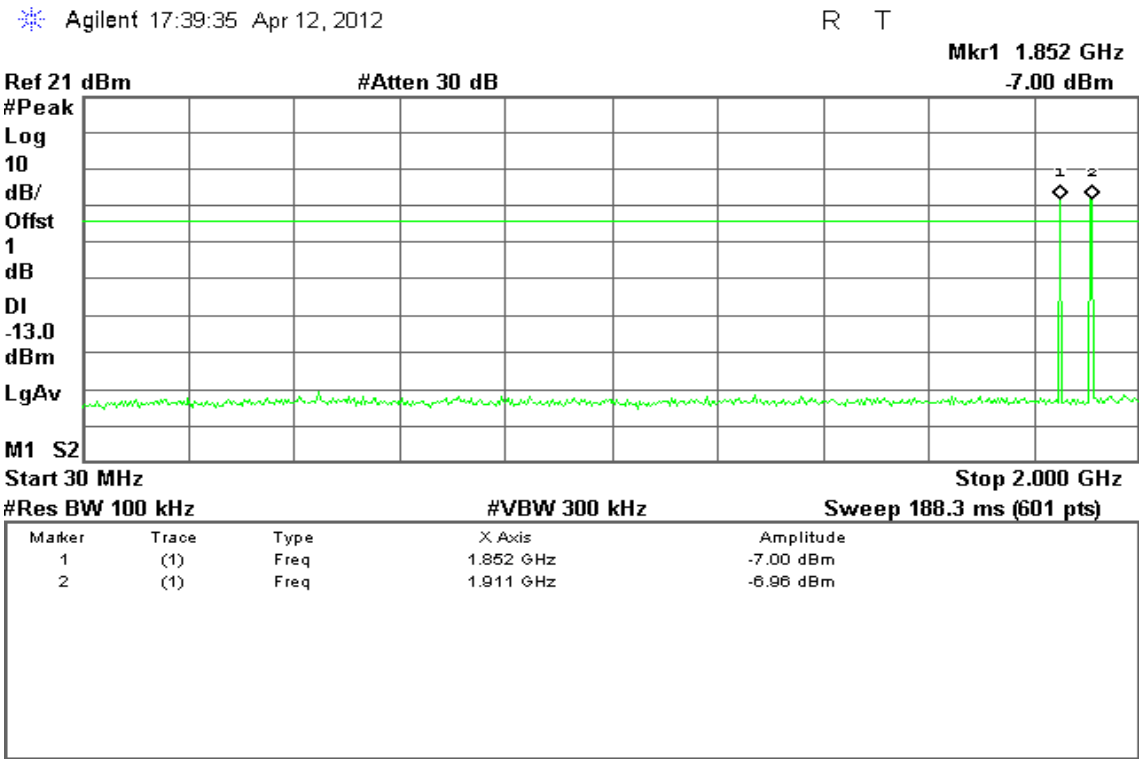


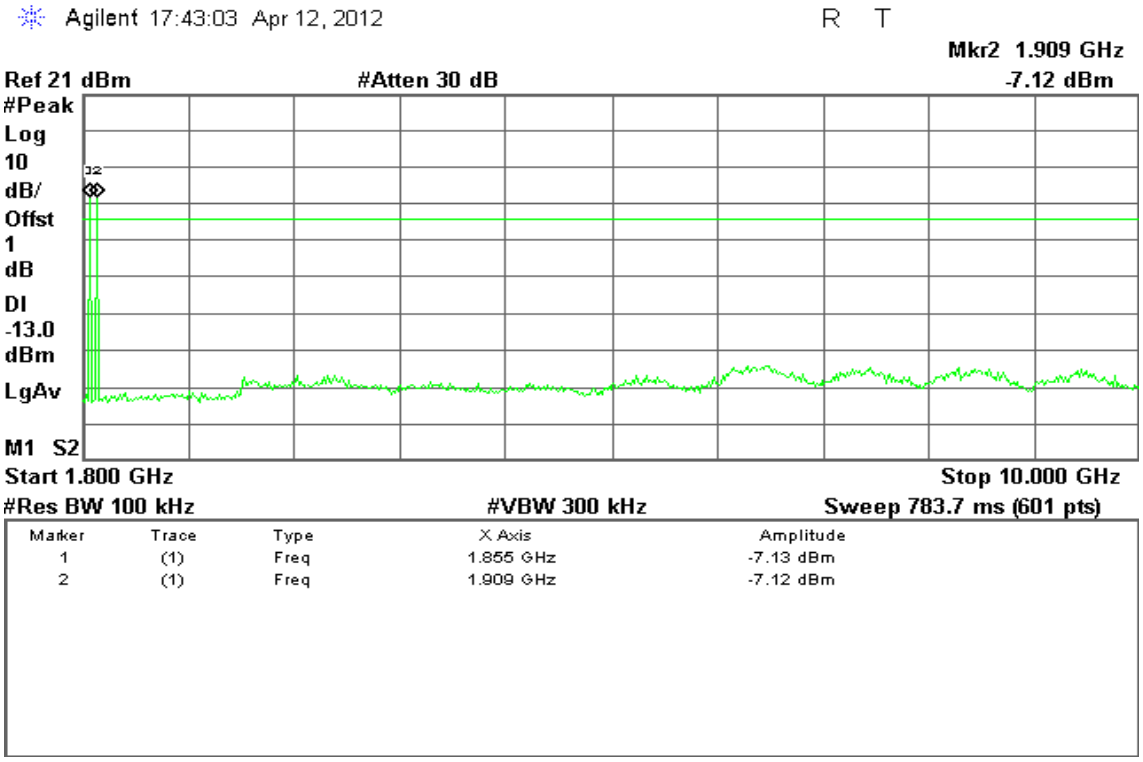

Agilent 19:39:10 Apr 12, 2012
R T
Mkr4 1.787 GHz
Ref 37 dBm
#Atten 30 dB
-36.35 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 870 MHz 17.15 dBm
2 (1) Freq 891 MHz 17.37 dBm
3 (1) Freq 1.738 GHz -37.07 dBm
4 (1) Freq 1.787 GHz -36.35 dBm

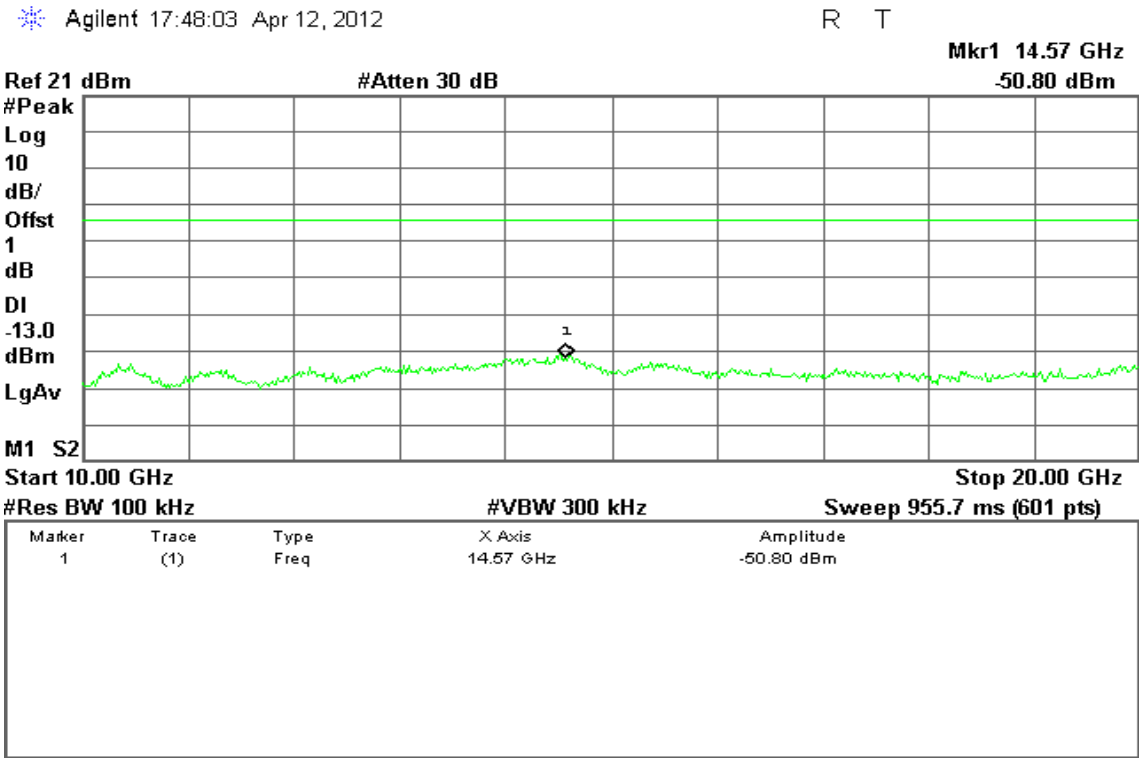

Agilent 19:37:18 Apr 12, 2012
R T
Mkr1 7.142 GHz
Ref 37 dBm
#Atten 30 dB
-37.51 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)

Mode 11: CDMA / 1850 – 1910MHz Uplink

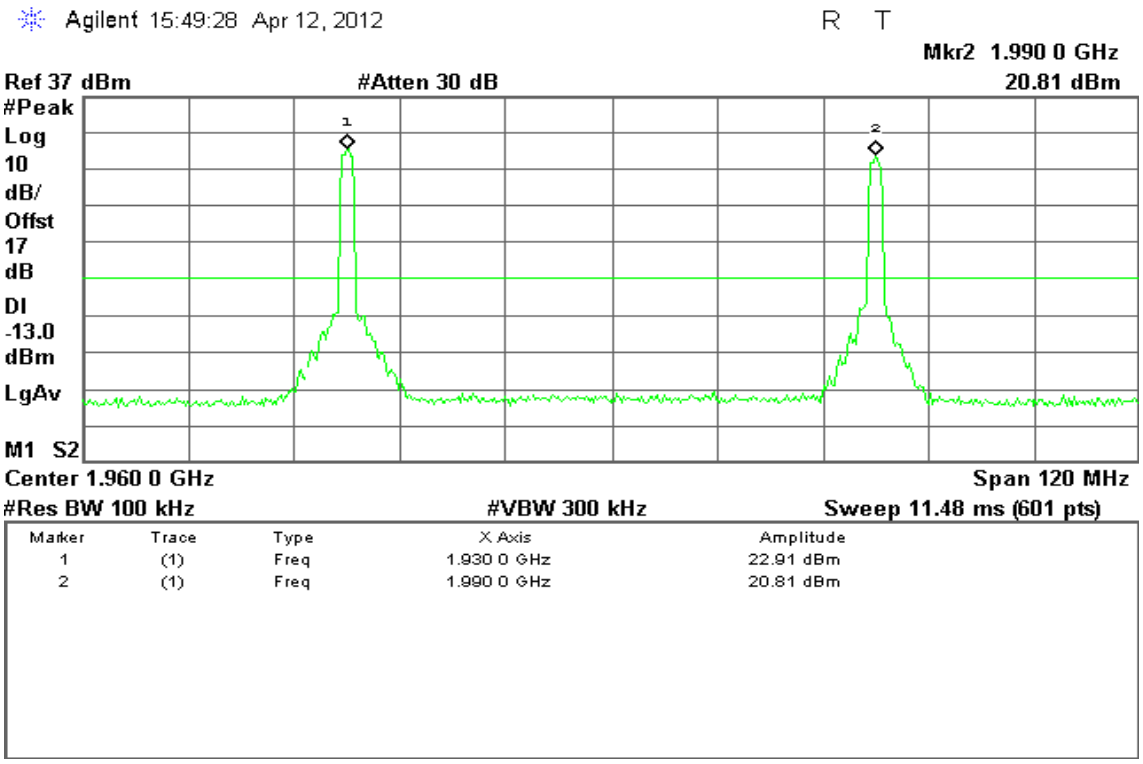


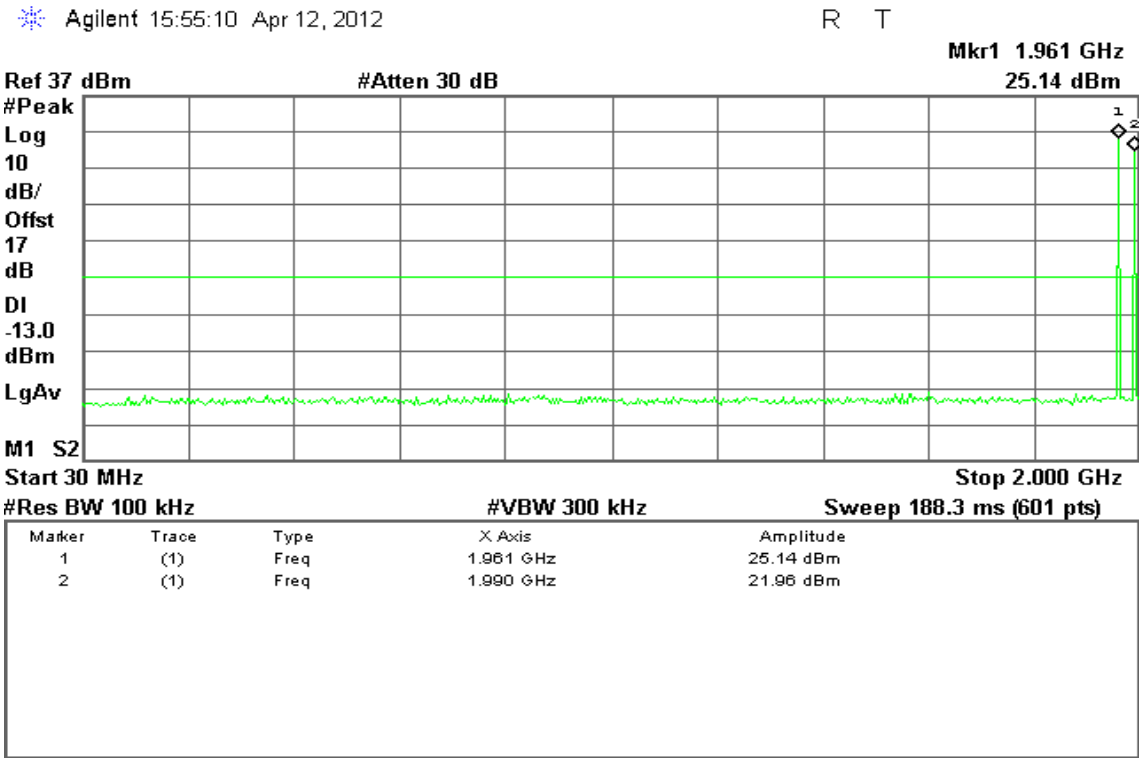


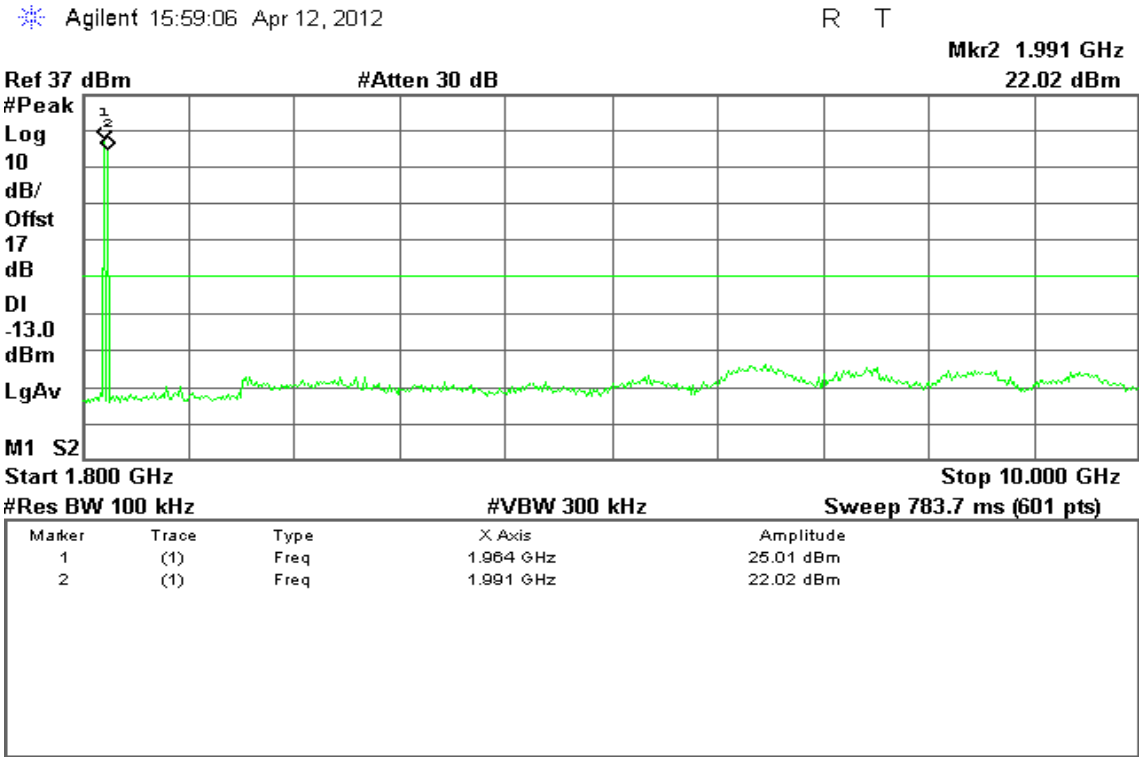

Agilent 17:43:03 Apr 12, 2012
R T
Mkr2 1.909 GHz
Ref 21 dBm
#Atten 30 dB
-7.12 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.855 GHz -7.13 dBm
2 (1) Freq 1.909 GHz -7.12 dBm

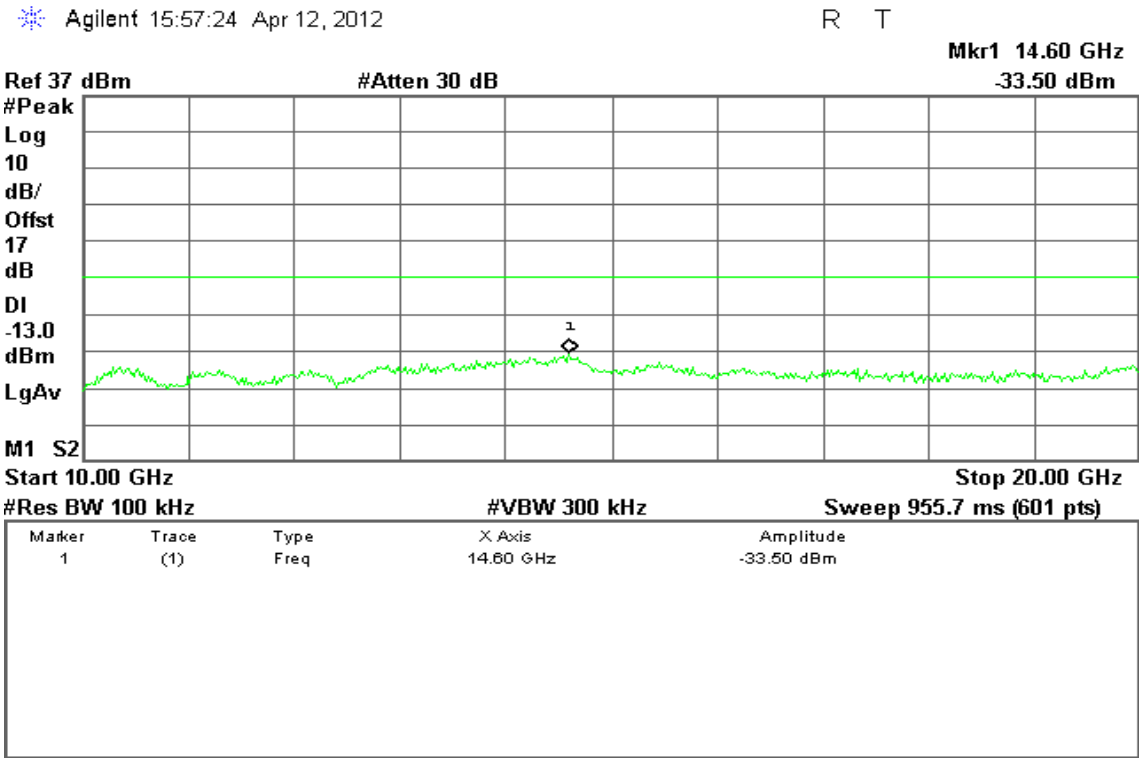

Agilent 17:48:03 Apr 12, 2012
R T
Mkr1 14.57 GHz
Ref 21 dBm
#Atten 30 dB
-50.80 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.57 GHz -50.80 dBm

Mode 12: CDMA / 1930 – 1990MHz Downlink

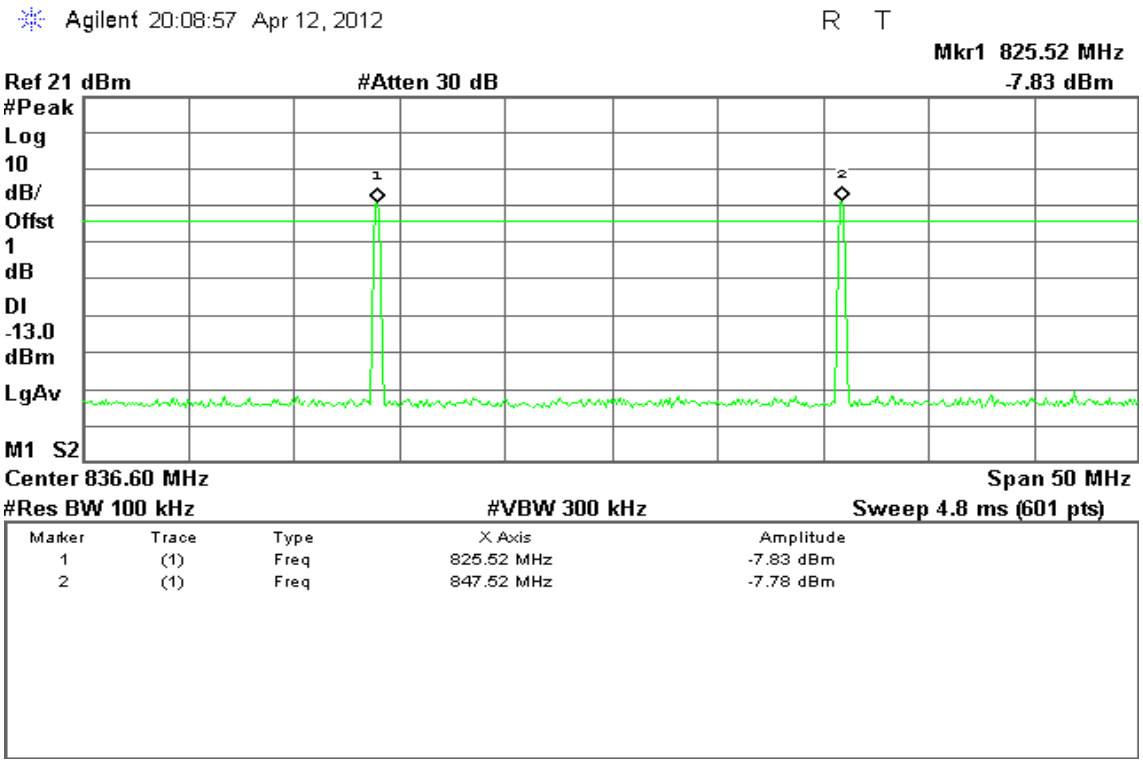


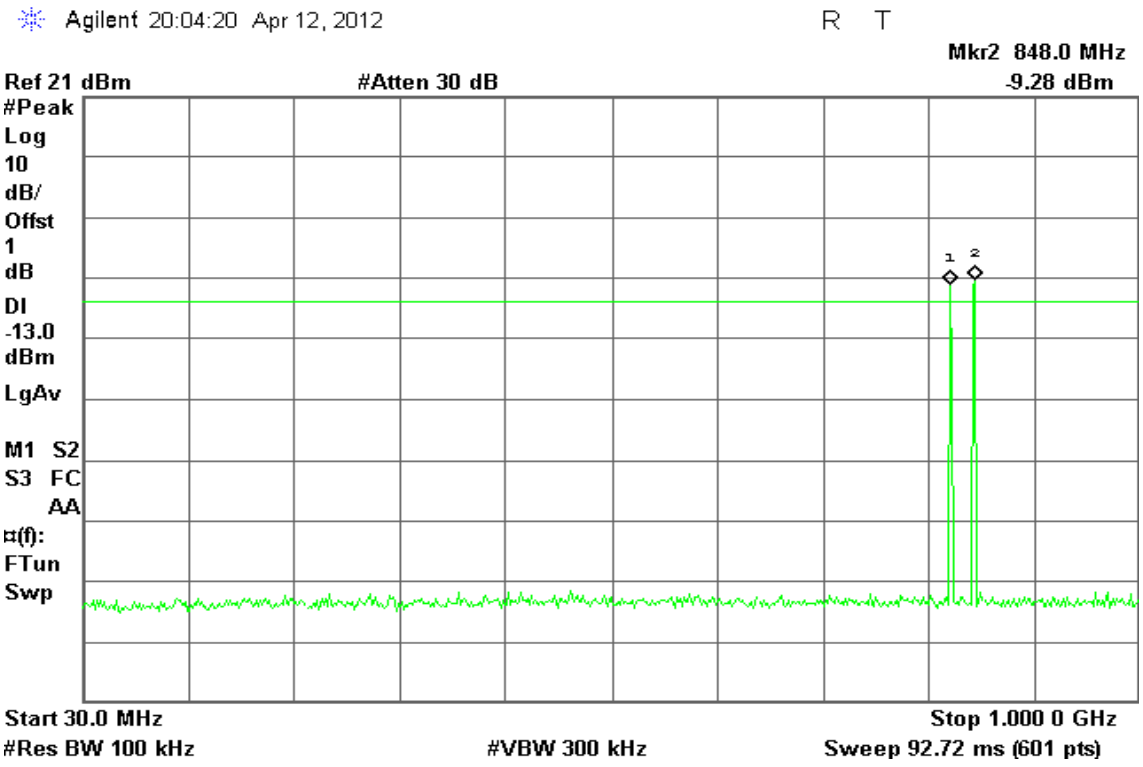


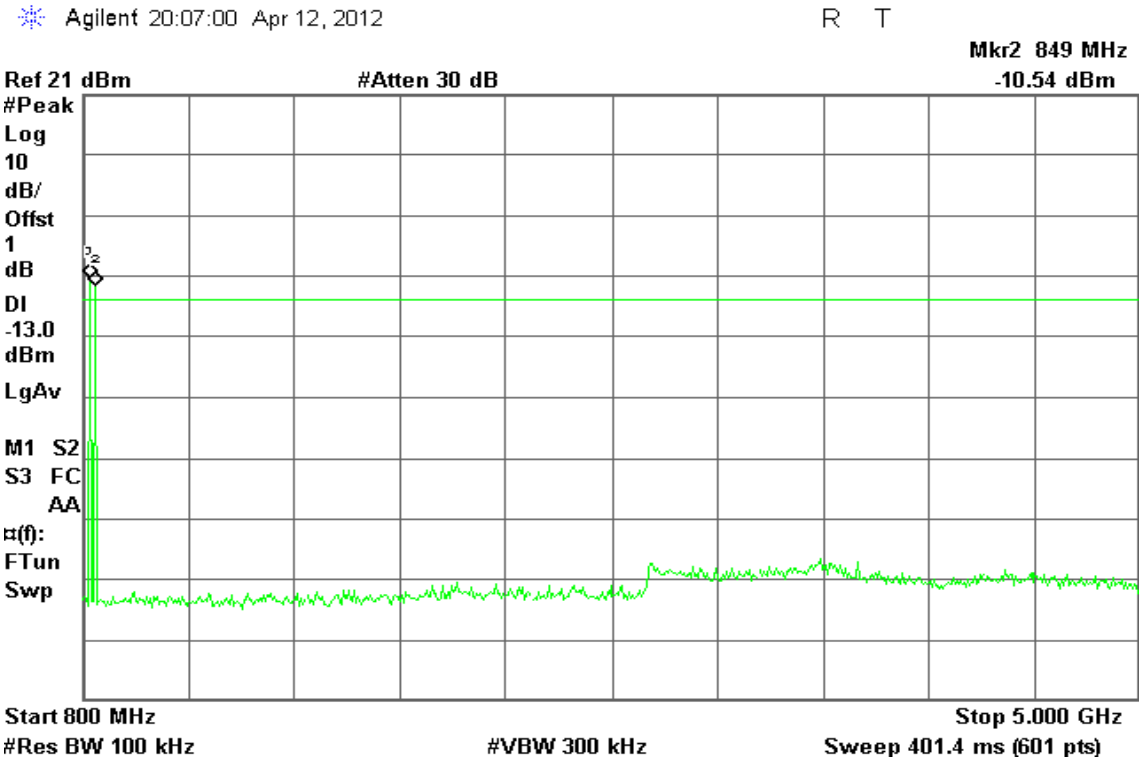

Agilent 15:59:06 Apr 12, 2012
R T
Mkr2 1.991 GHz
Ref 37 dBm
#Atten 30 dB
22.02 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.964 GHz 25.01 dBm
2 (1) Freq 1.991 GHz 22.02 dBm

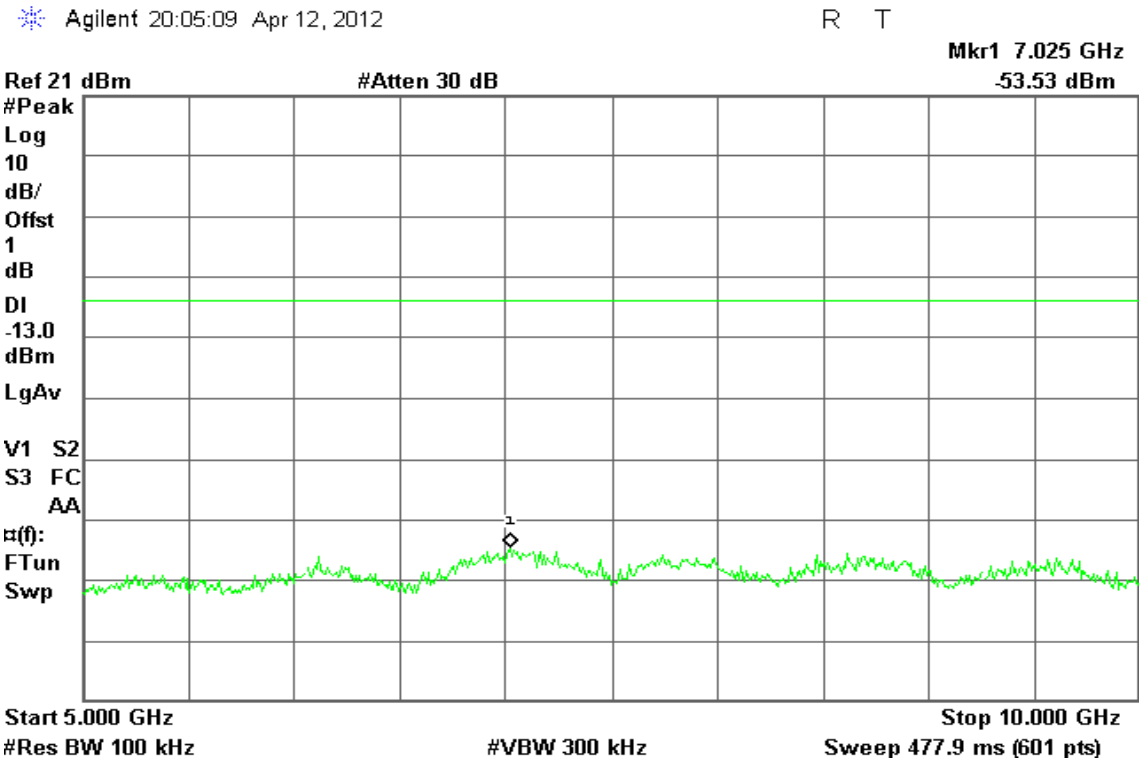

Agilent 15:57:24 Apr 12, 2012
R T
Mkr1 14.60 GHz
Ref 37 dBm
#Atten 30 dB
-33.50 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.60 GHz -33.50 dBm

Mode 13: TDMA / 824 – 849MHz Uplink

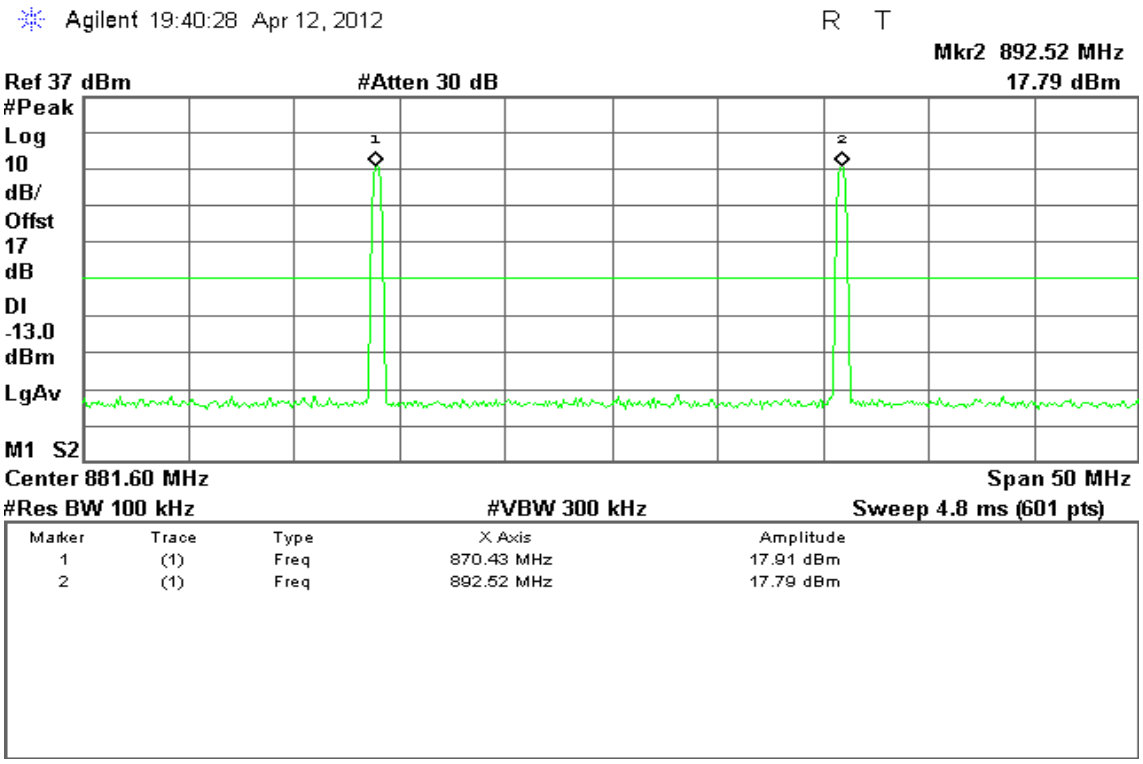


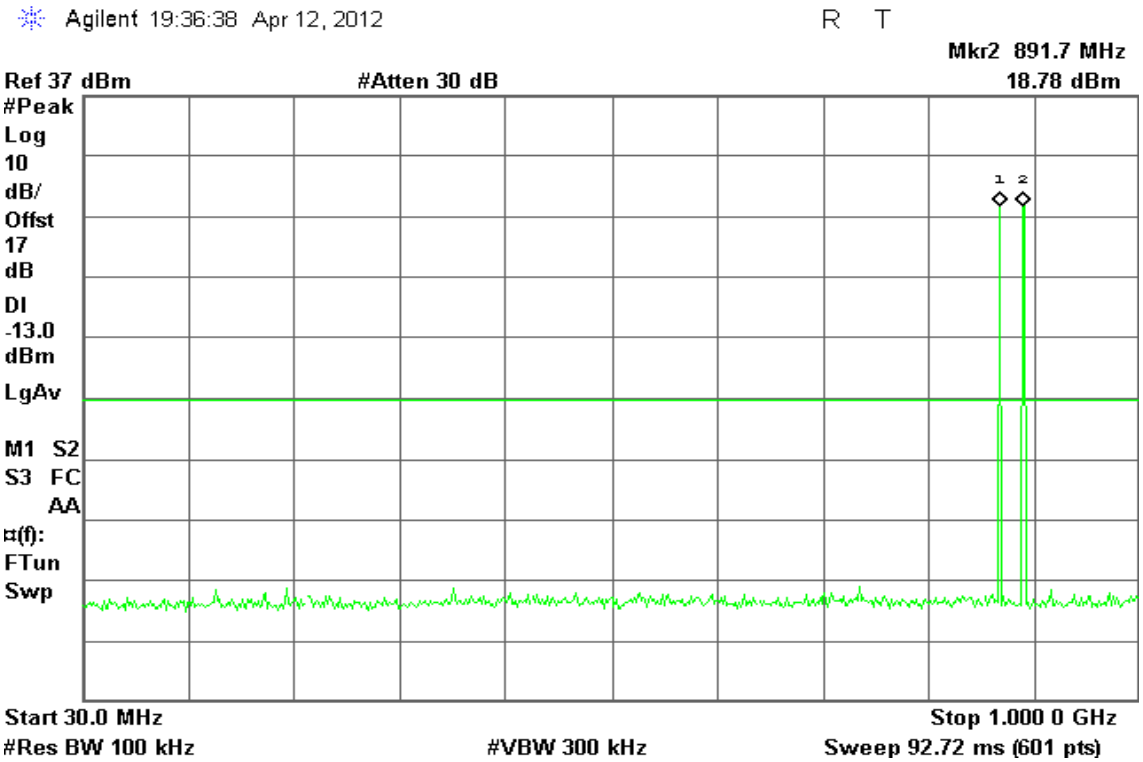


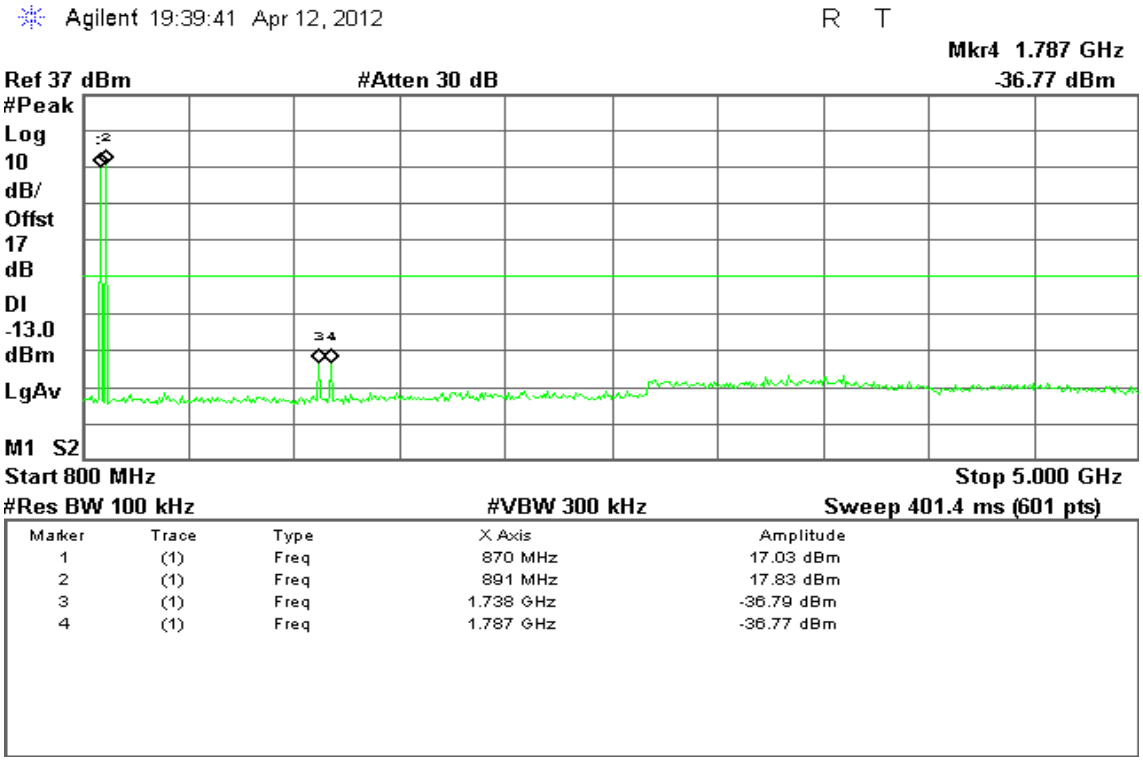

Agilent 20:07:00 Apr 12, 2012
R T
Mkr2 849 MHz
-10.54 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)

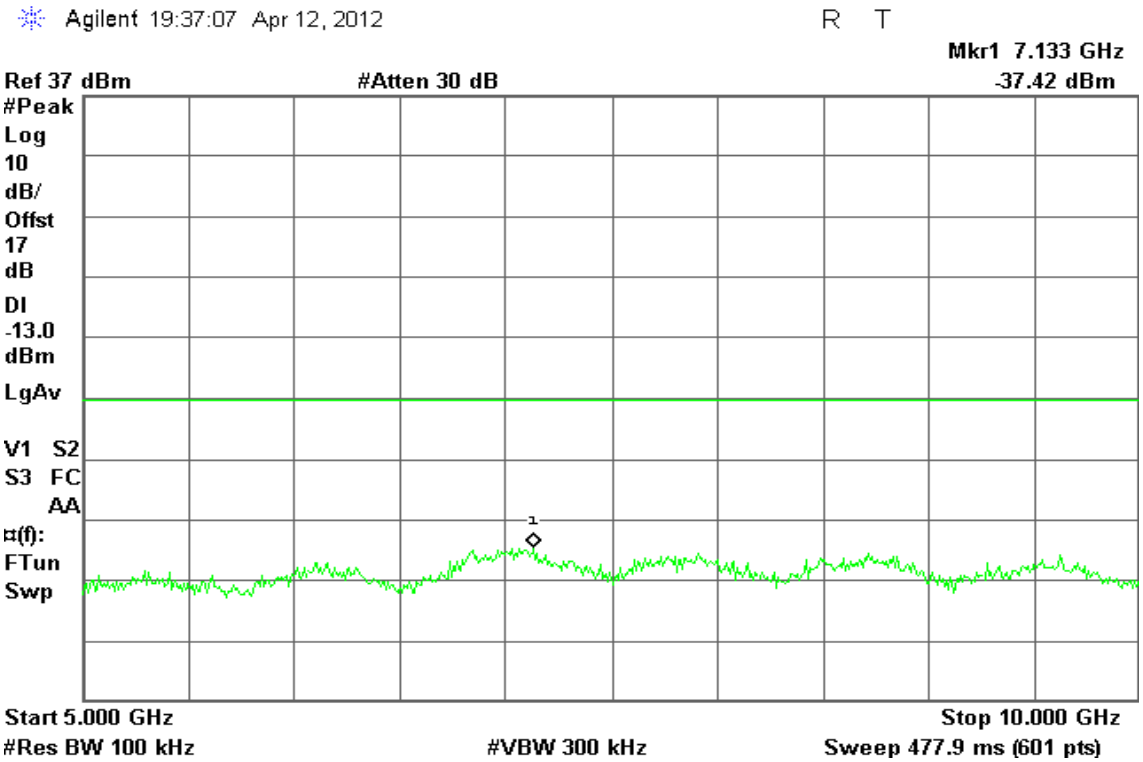

Agilent 20:05:09 Apr 12, 2012
R T
Mkr1 7.025 GHz
-53.53 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)

Mode 14: TDMA / 869 – 894MHz Downlink

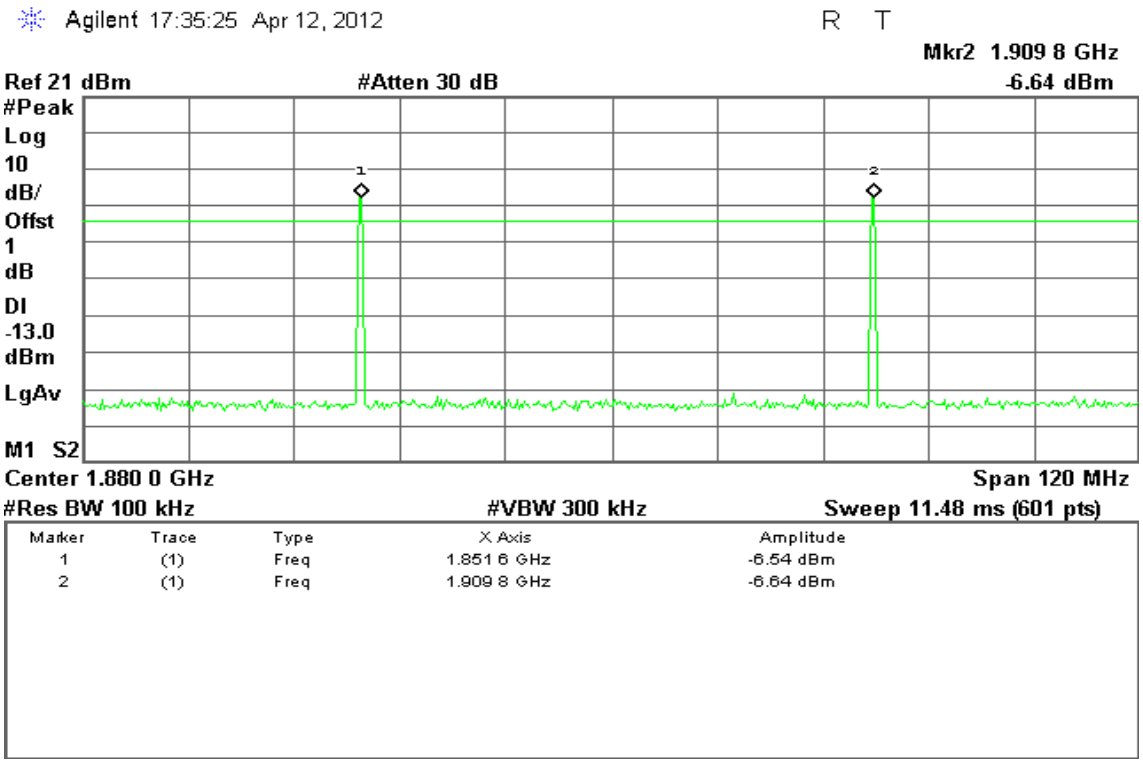


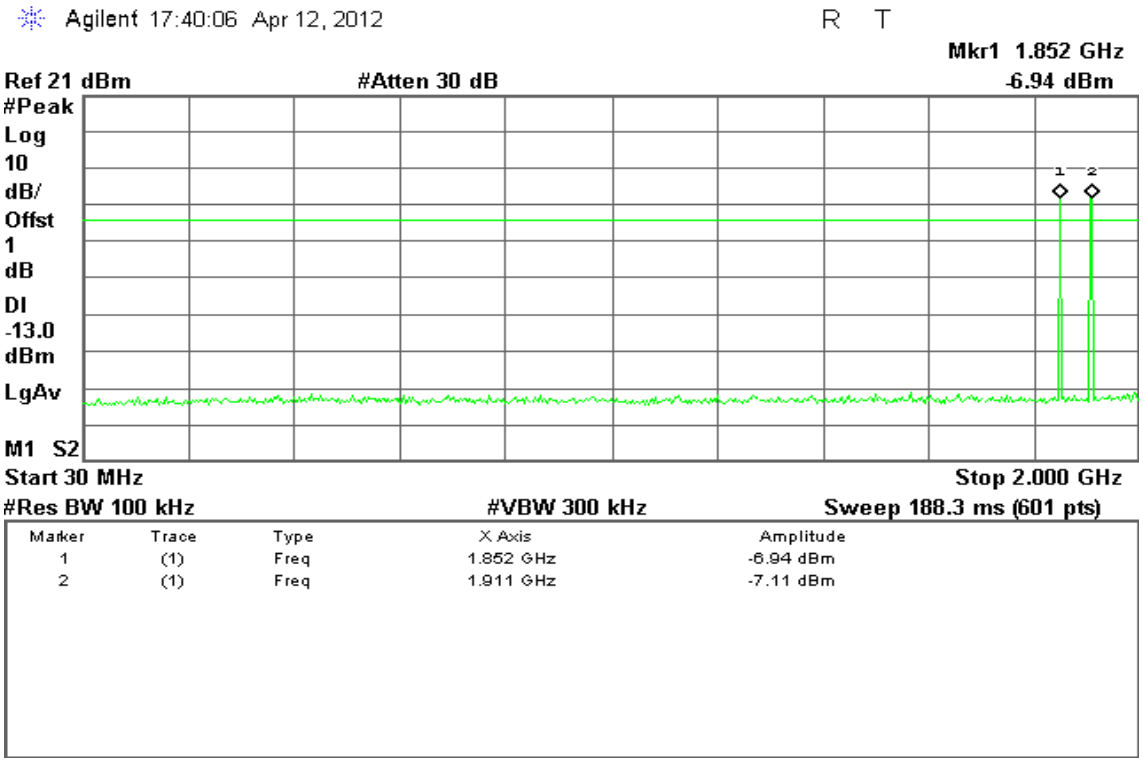


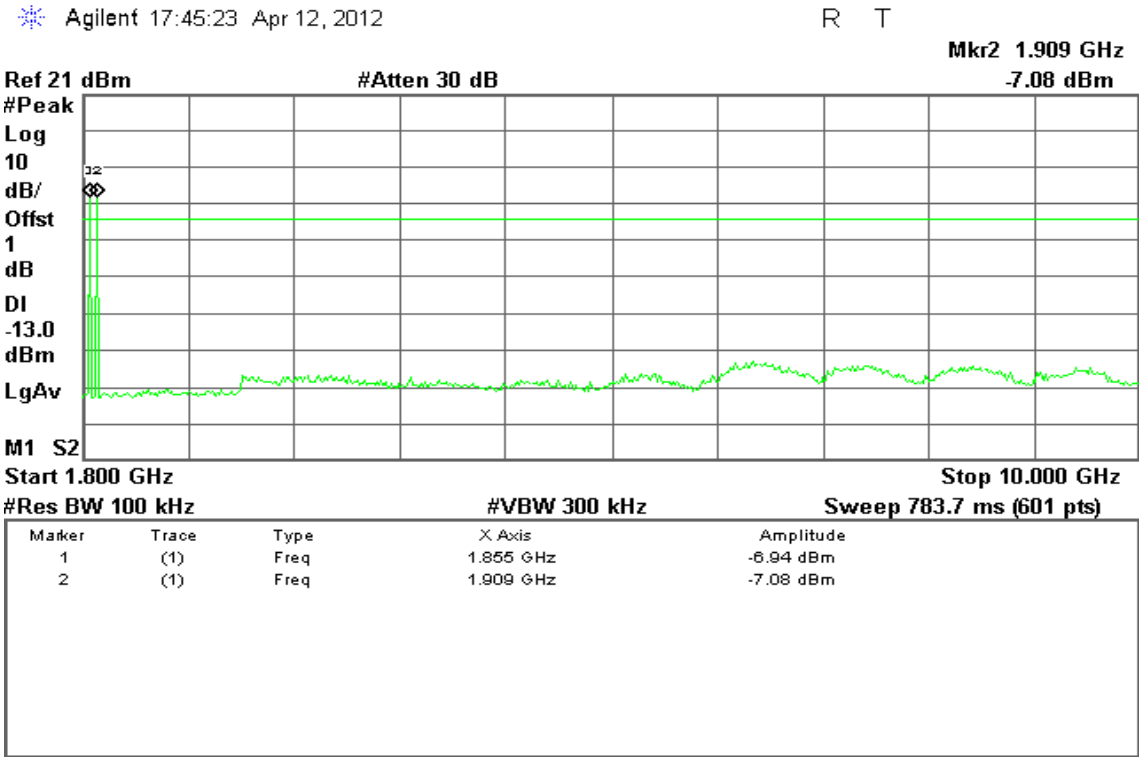

Agilent 19:39:41 Apr 12, 2012
R T
Mkr4 1.787 GHz
Ref 37 dBm
#Atten 30 dB
-36.77 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 800 MHz
Stop 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 401.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 870 MHz 17.03 dBm
2 (1) Freq 891 MHz 17.83 dBm
3 (1) Freq 1.738 GHz -36.79 dBm
4 (1) Freq 1.787 GHz -36.77 dBm

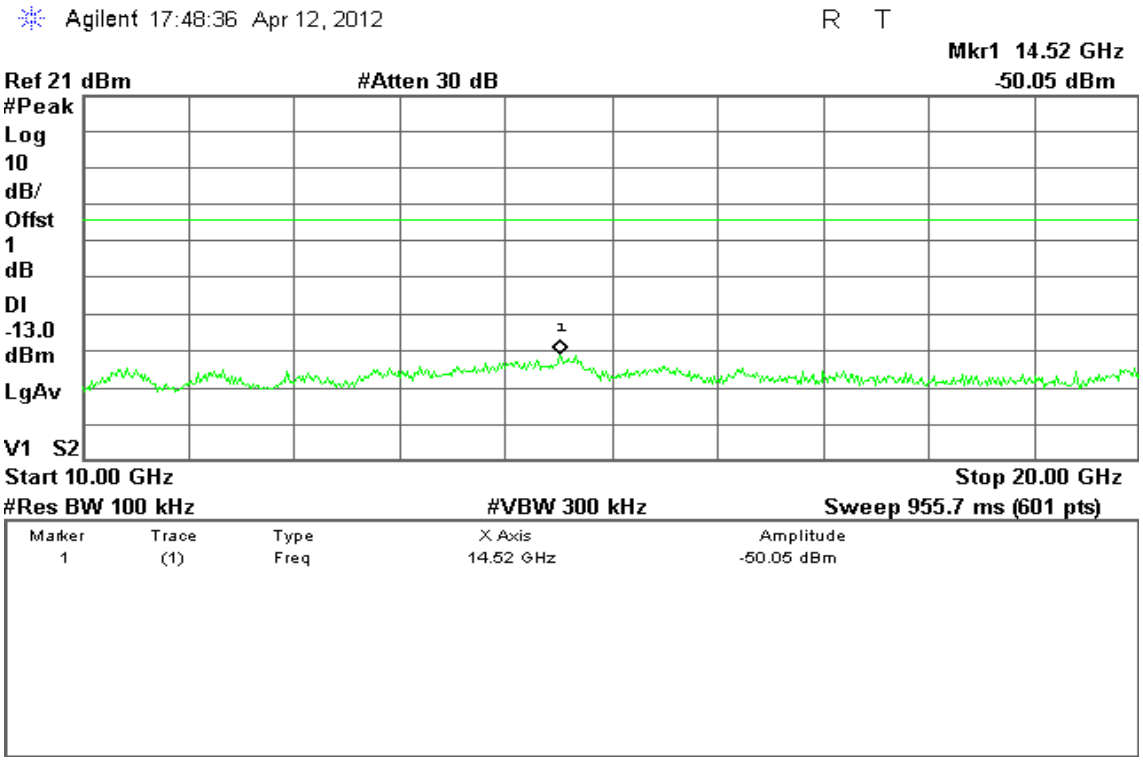

Agilent 19:37:07 Apr 12, 2012
R T
Mkr1 7.133 GHz
Ref 37 dBm
#Atten 30 dB
-37.42 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 5.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 477.9 ms (601 pts)

Mode 15: TDMA / 1850 – 1910MHz Uplink

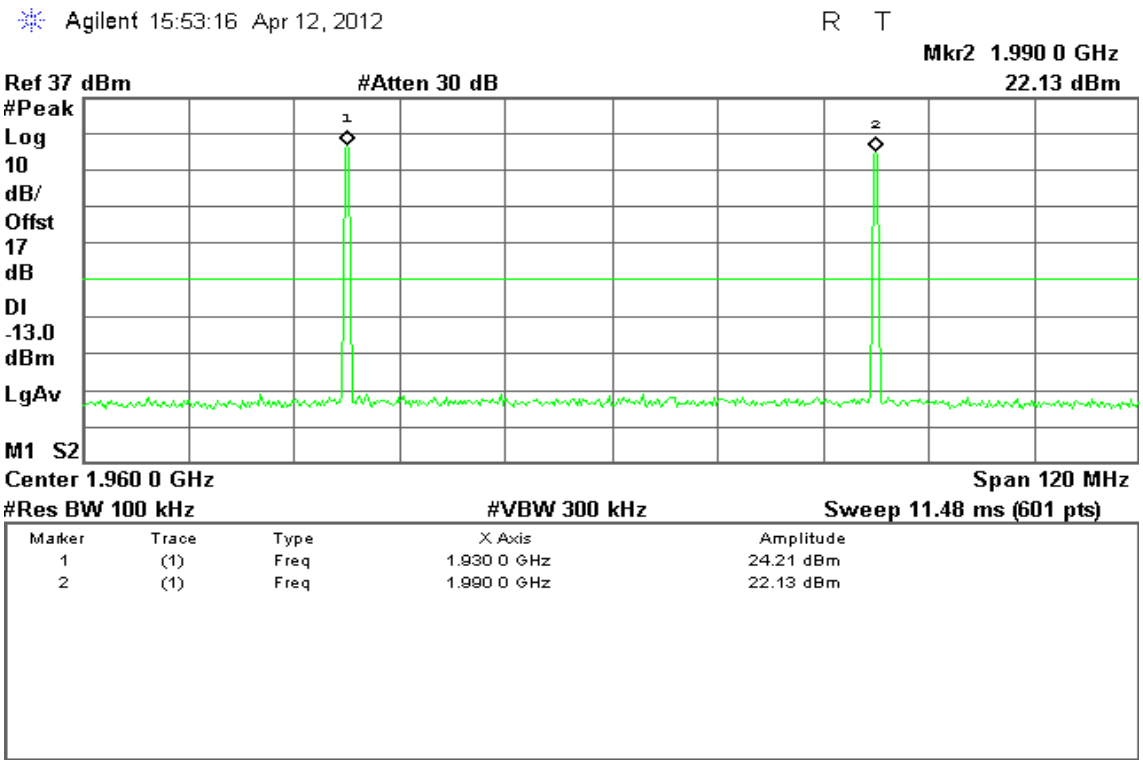


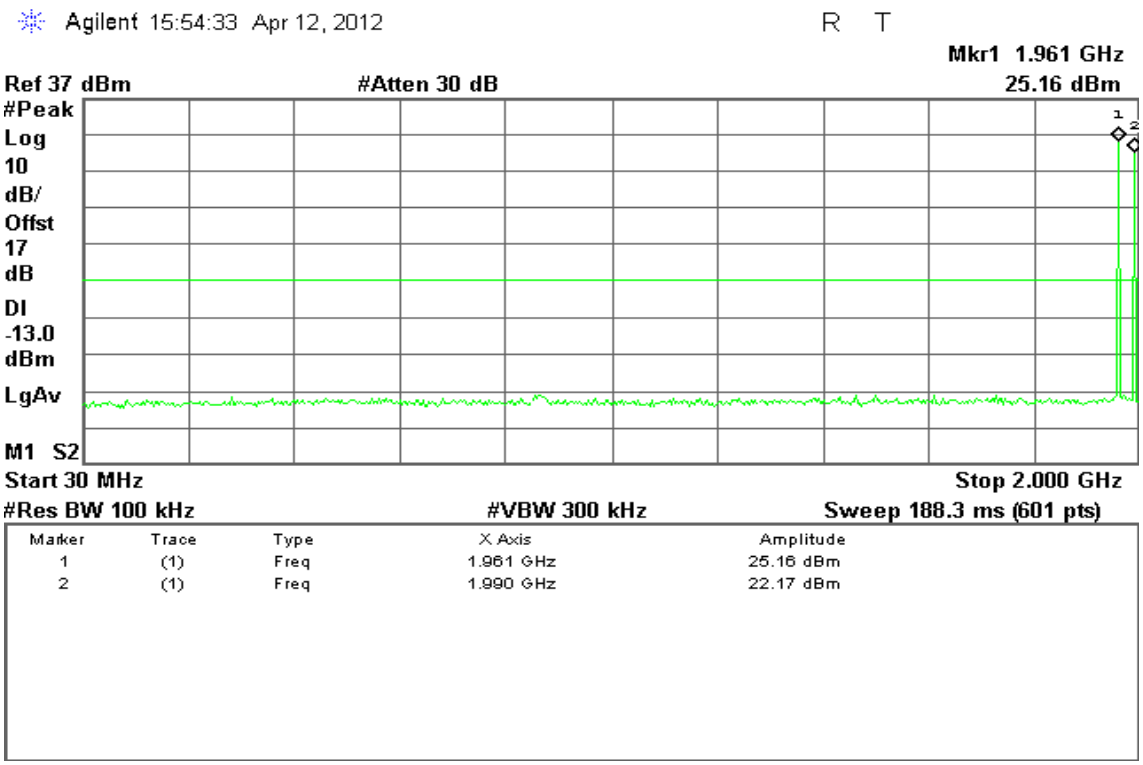


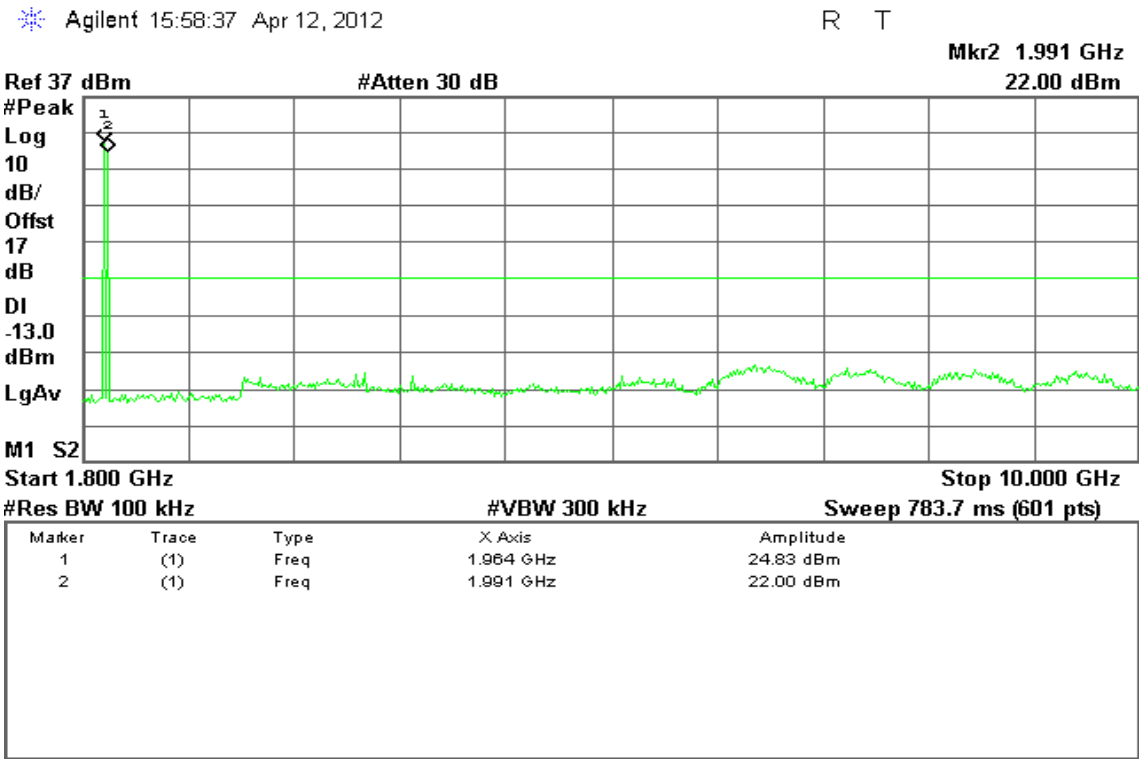

Agilent 17:45:23 Apr 12, 2012
R T
Mkr2 1.909 GHz
Ref 21 dBm
#Atten 30 dB
-7.08 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.855 GHz -6.94 dBm
2 (1) Freq 1.909 GHz -7.08 dBm

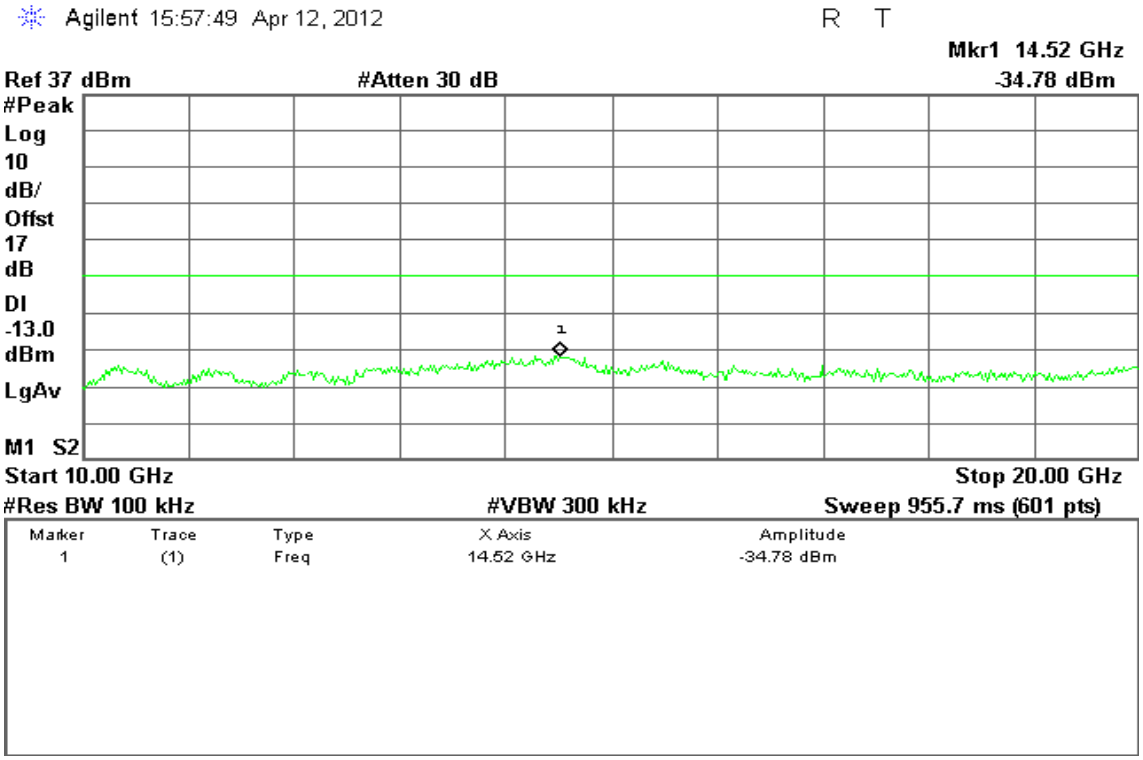

Agilent 17:48:36 Apr 12, 2012
R T
Mkr1 14.52 GHz
Ref 21 dBm
#Atten 30 dB
-50.05 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.52 GHz -50.05 dBm

Mode 16: TDMA / 1930 – 1990MHz Downlink






Agilent 15:58:37 Apr 12, 2012
R T
Mkr2 1.991 GHz
Ref 37 dBm
#Atten 30 dB
22.00 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 1.800 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 783.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.964 GHz 24.83 dBm
2 (1) Freq 1.991 GHz 22.00 dBm


Agilent 15:57:49 Apr 12, 2012
R T
Mkr1 14.52 GHz
Ref 37 dBm
#Atten 30 dB
-34.78 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
M1 S2
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 955.7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 14.52 GHz -34.78 dBm

7.3 CONDUCTED SPURIOUS EMISSIONS TEST

LIMIT

According to FCC §2.1051

RSS131 §Cl4.4

TEST PROCEDURE

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at RB=1MHz, VB=1MHz.

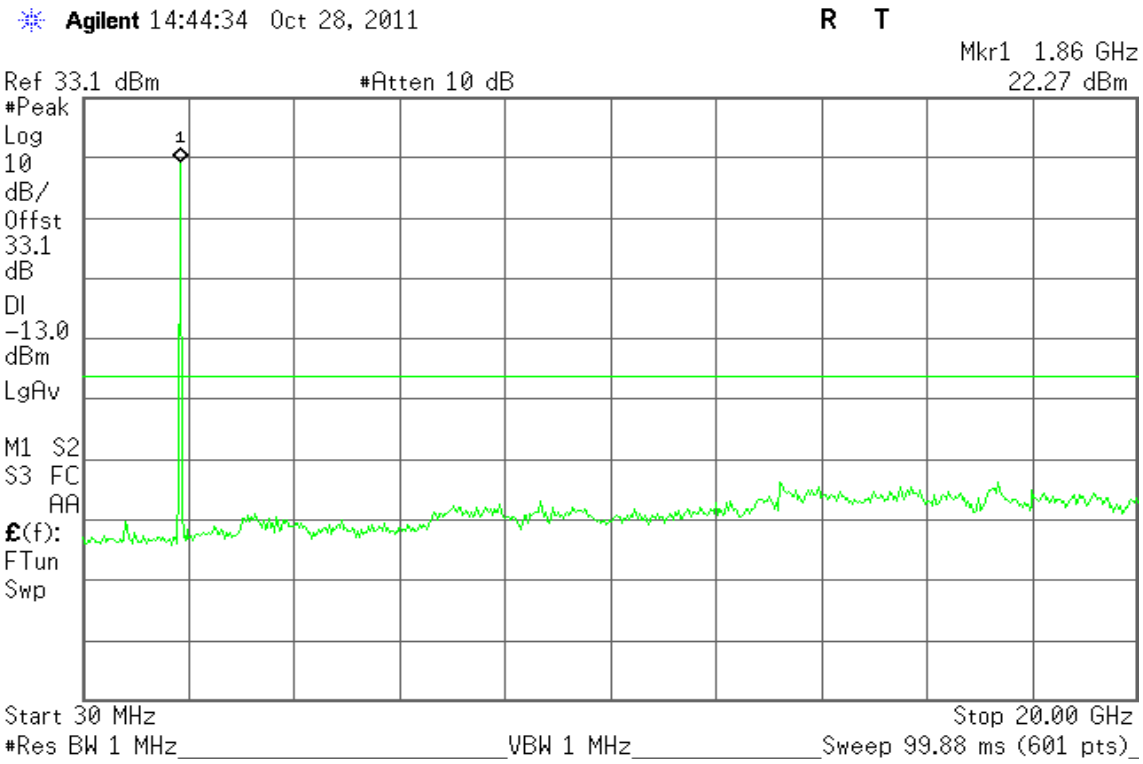
TEST RESULTS

No non-compliance noted.

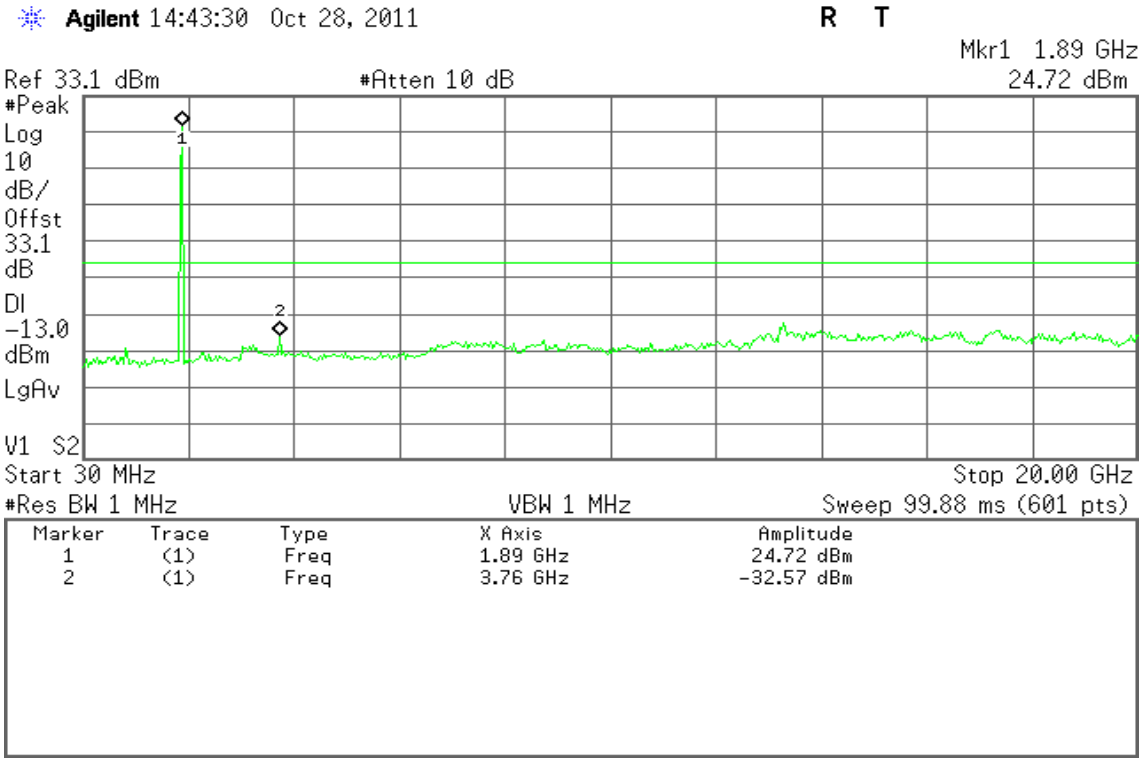
Test Plot

Mode 1: WCDMA Band II Uplink

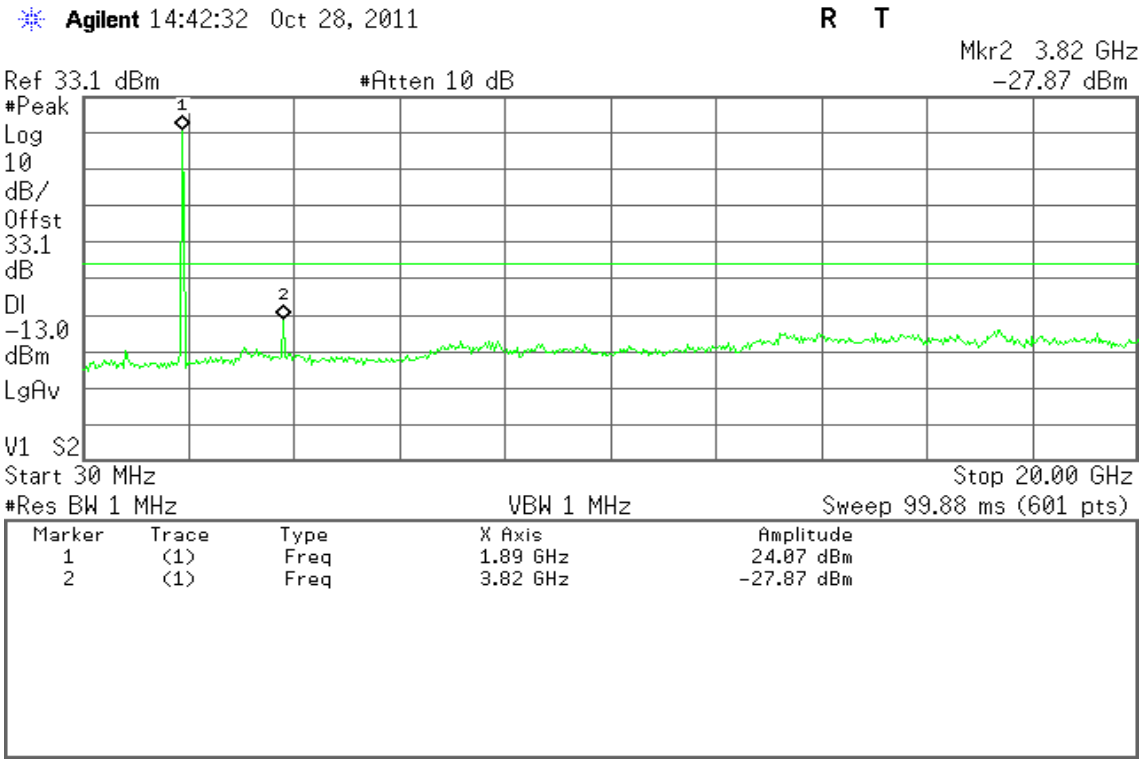
CH Low



CH Mid

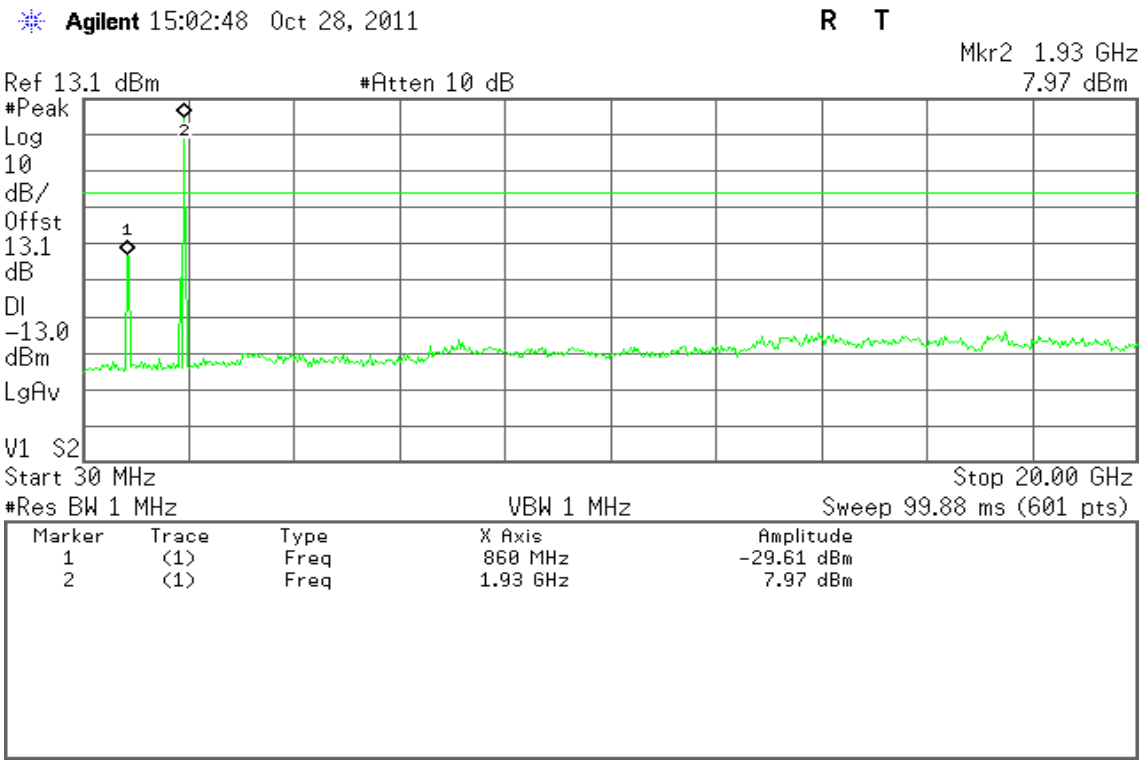


CH High

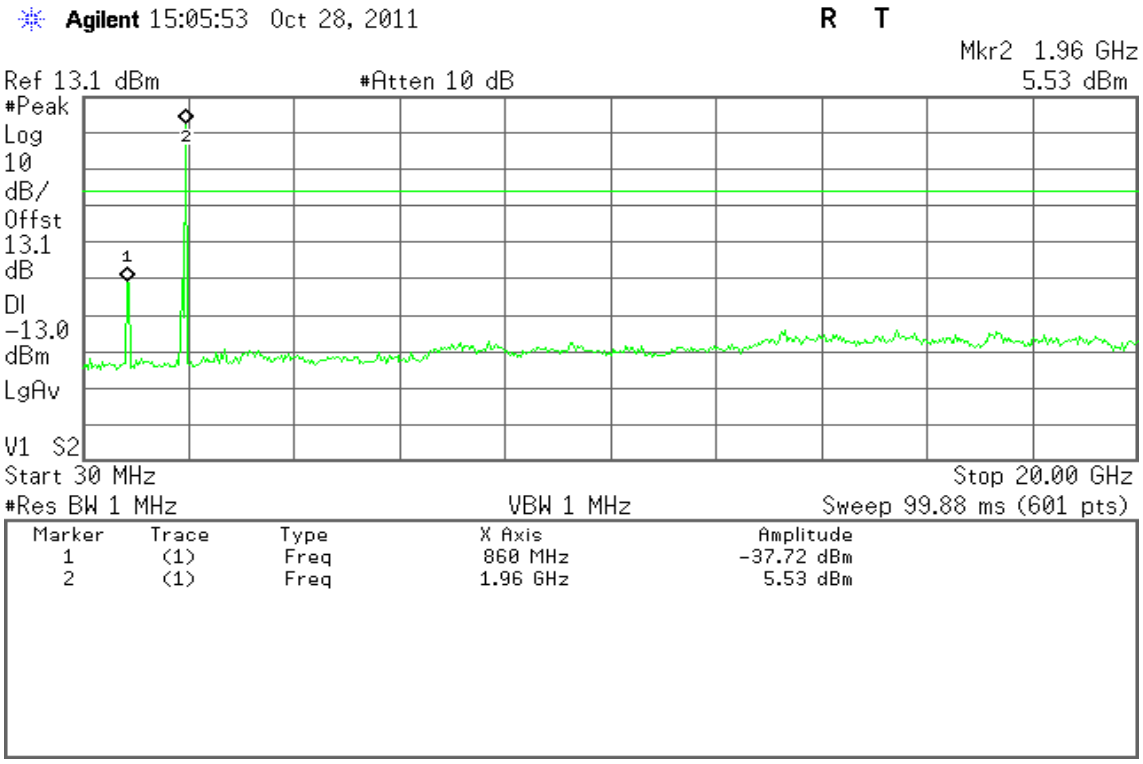

Agilent 14:42:32 Oct 28, 2011
R T
Mkr2 3.82 GHz
Ref 33.1 dBm
#Atten 10 dB
-27.87 dBm
#Peak
Log
10
dB/
Offst
33.1
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 30 MHz
Stop 20.00 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 99.88 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 1.89 GHz 24.07 dBm
2 (1) Freq 3.82 GHz -27.87 dBm

Mode 2: WCDMA Band II Downlink

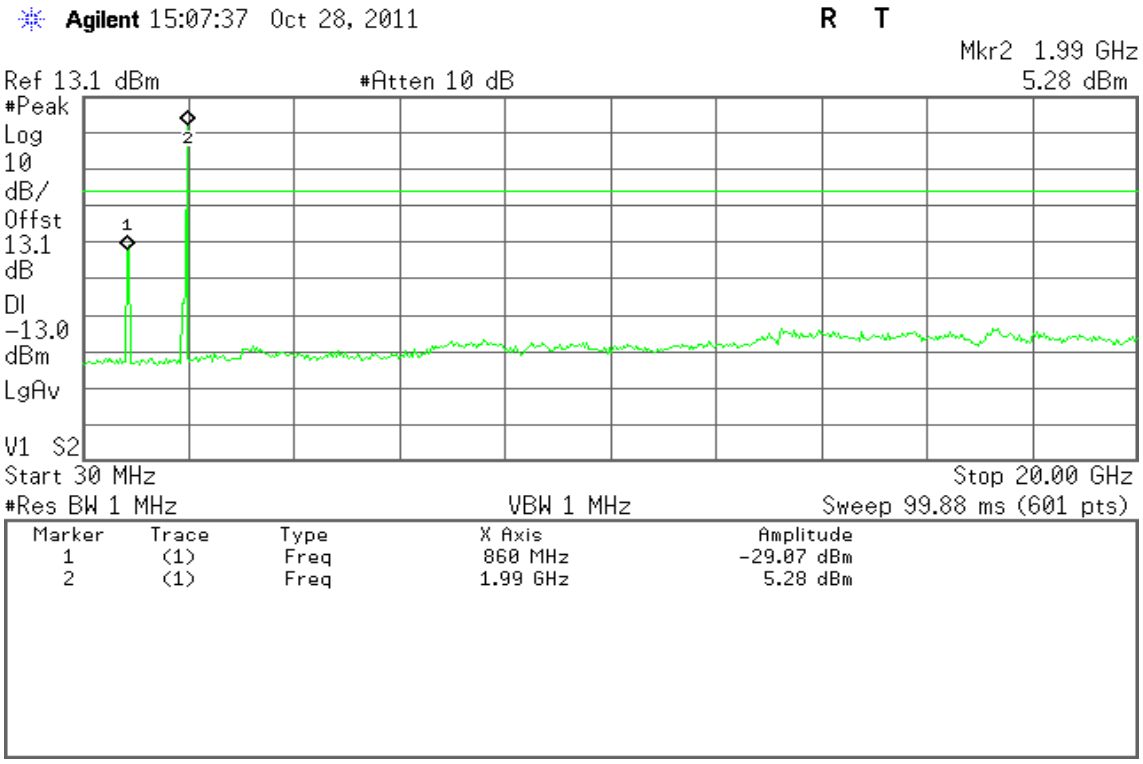
CH Low



CH Mid

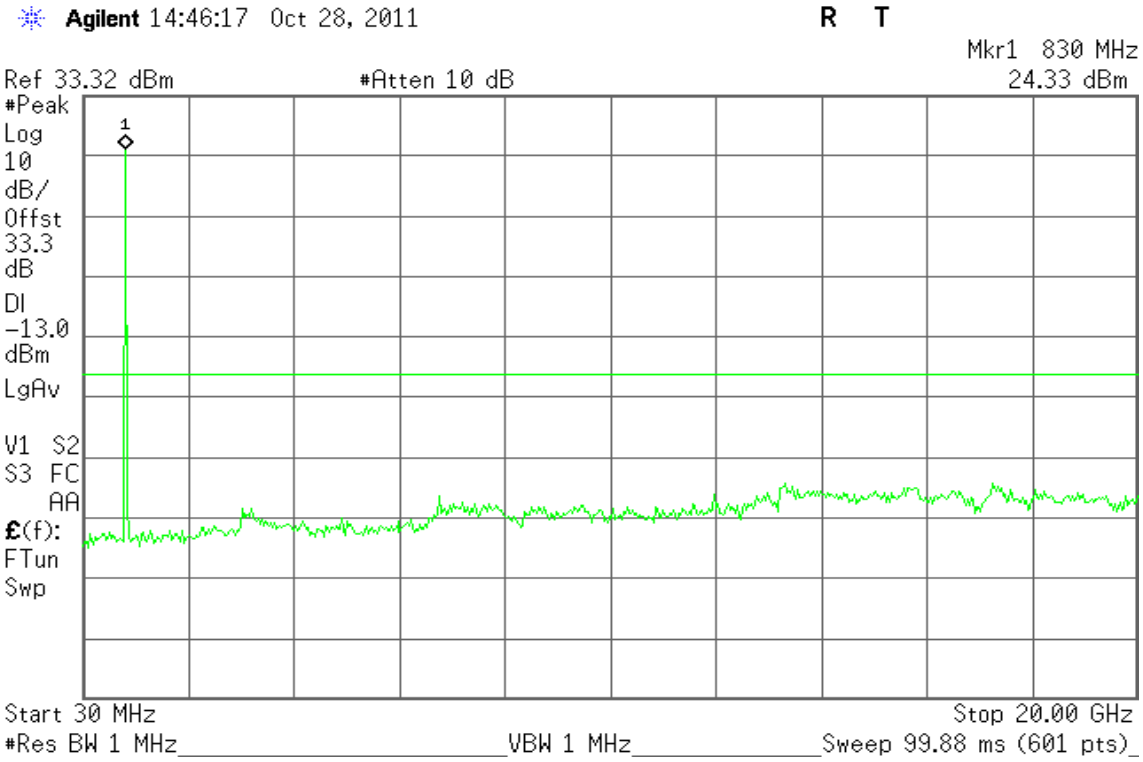


CH High

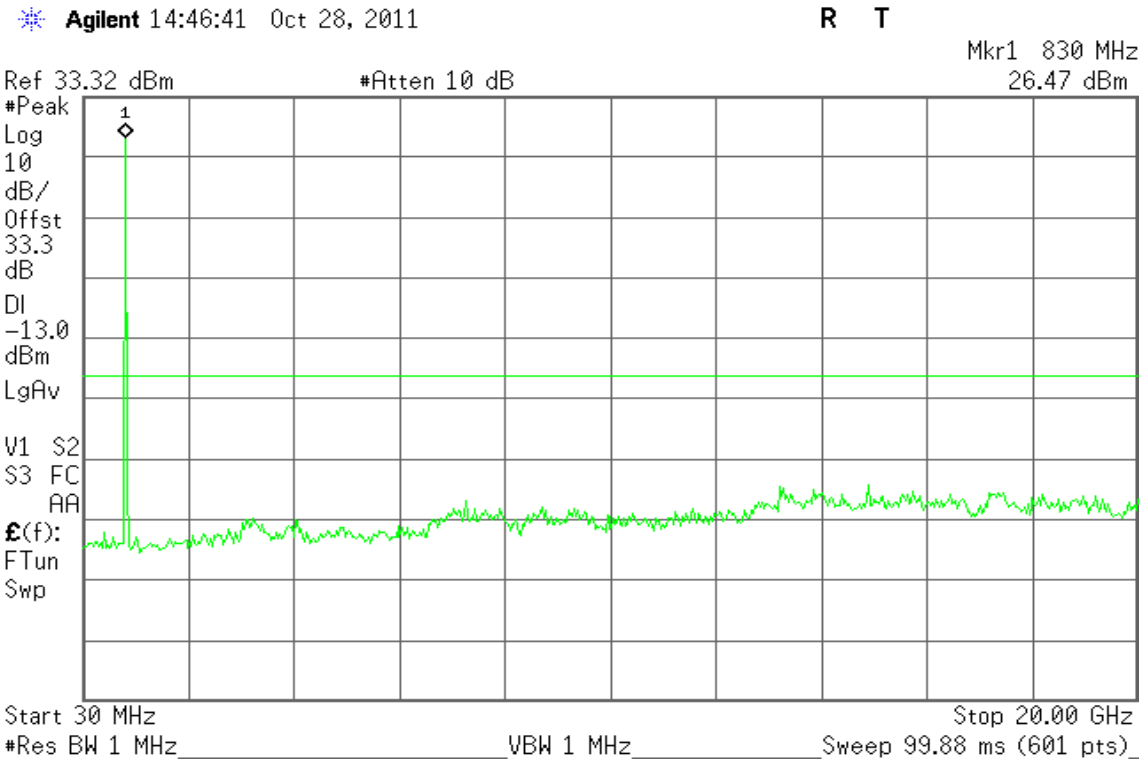

Agilent 15:07:37 Oct 28, 2011
R T
Mkr2 1.99 GHz
Ref 13.1 dBm
#Atten 10 dB
5.28 dBm
#Peak
Log
10
dB/
Offst
13.1
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 30 MHz
Stop 20.00 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 99.88 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 860 MHz -29.07 dBm
2 (1) Freq 1.99 GHz 5.28 dBm

Mode 3: WCDMA Band V Uplink

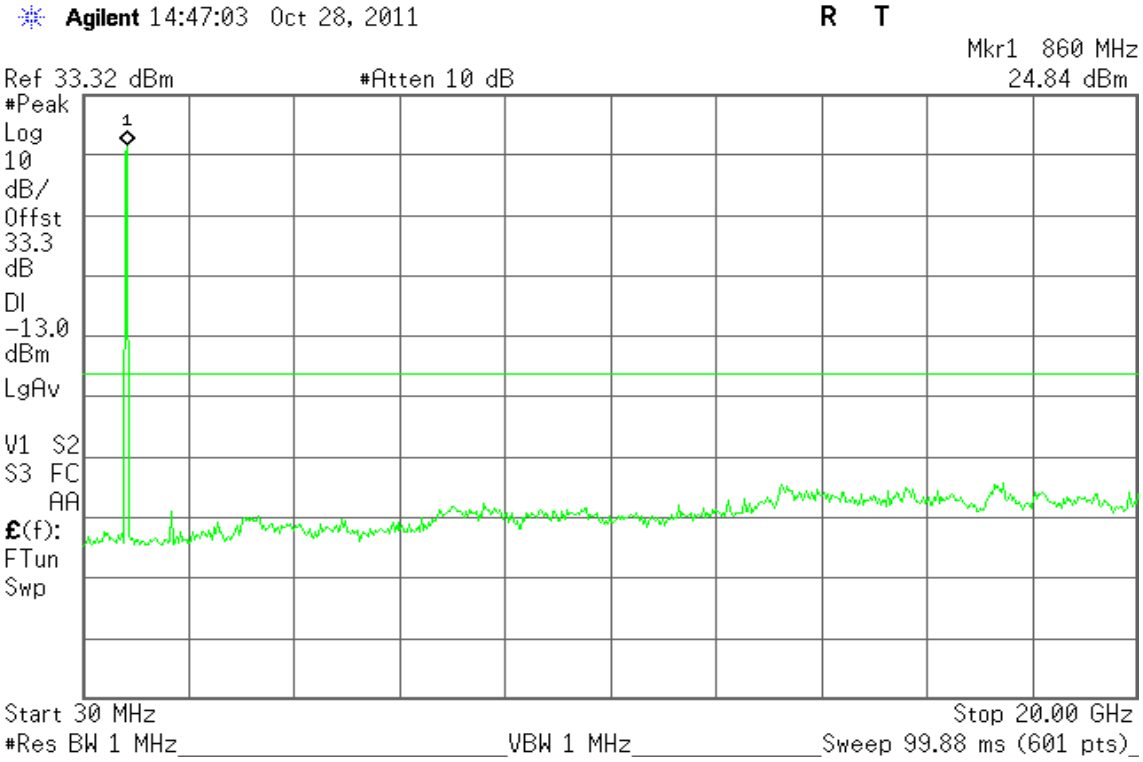
CH Low



CH Mid

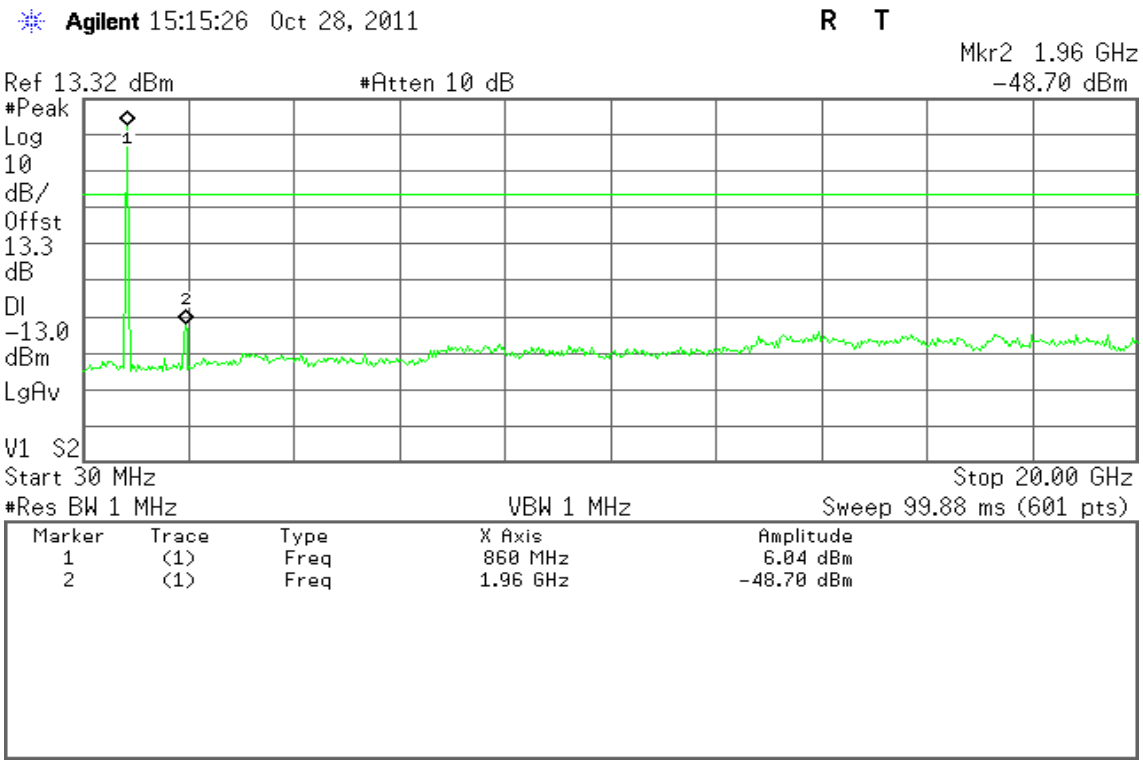


CH High

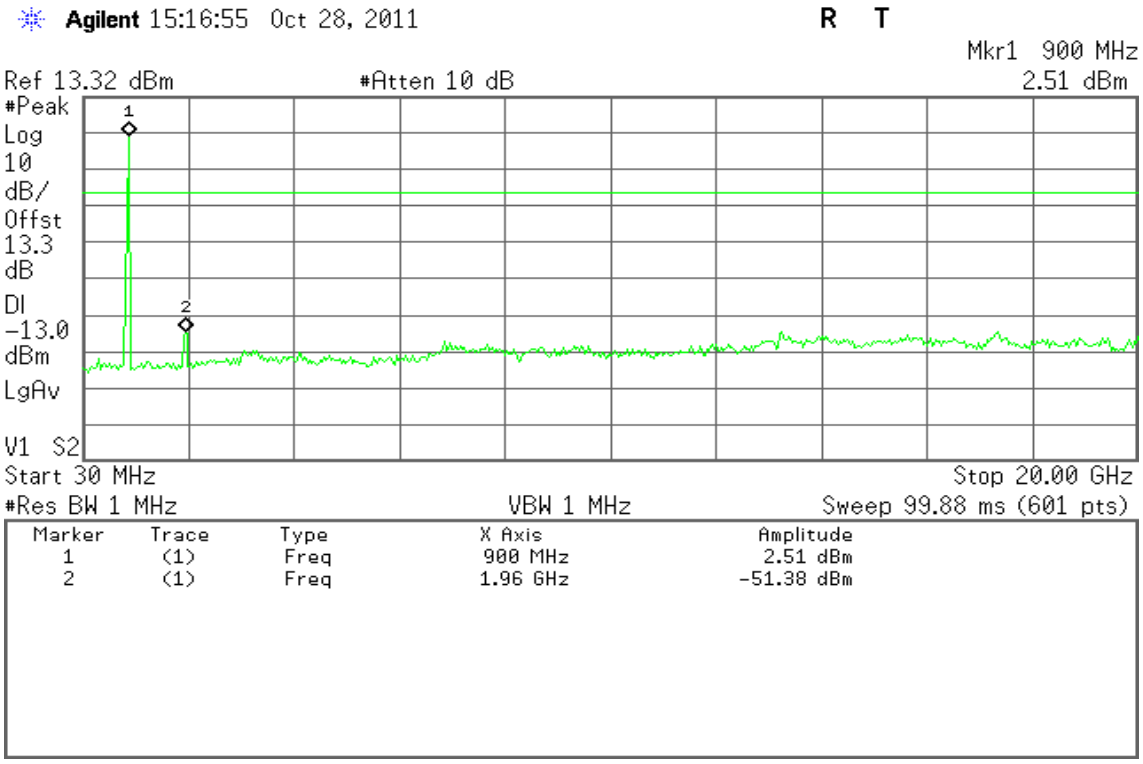

Agilent 14:47:03 Oct 28, 2011
R T
Mkr1 860 MHz
Ref 33.32 dBm
#Atten 10 dB
24.84 dBm
#Peak
Log
10
dB/
Offst
33.3
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
£(f):
FTun
Swp
Start 30 MHz
Stop 20.00 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 99.88 ms (601 pts)

Mode 4: WCDMA Band V Downlink

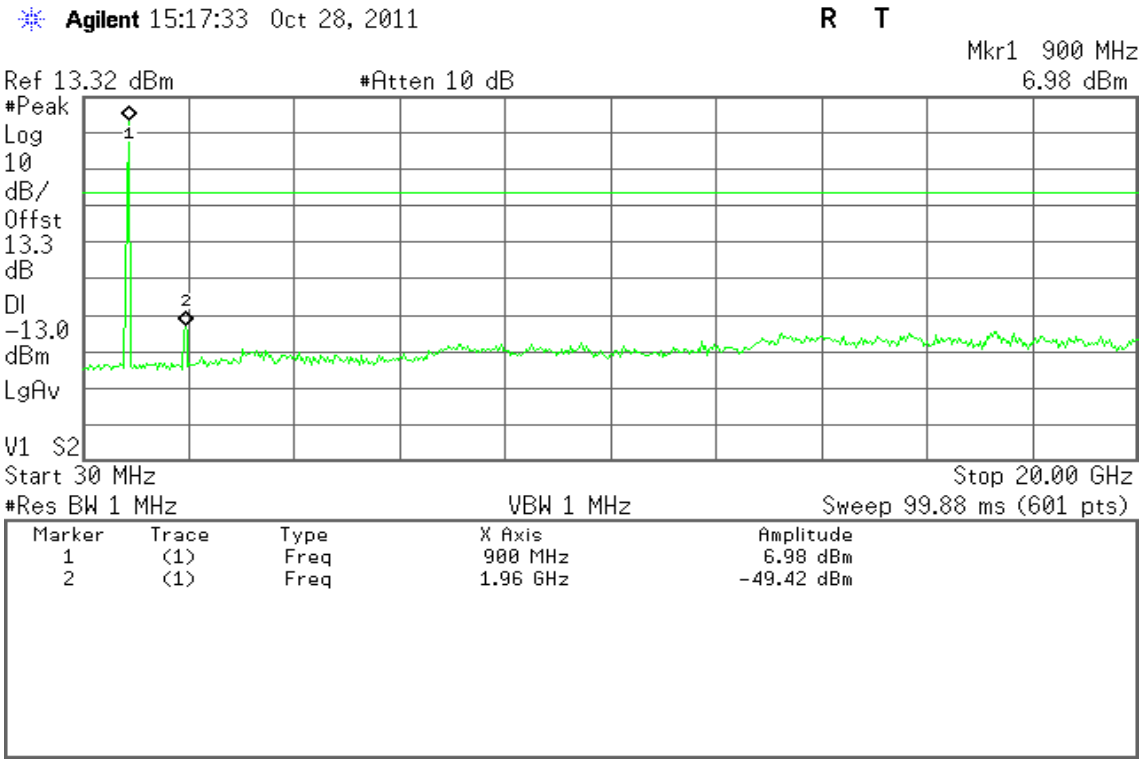
CH Low



CH Mid

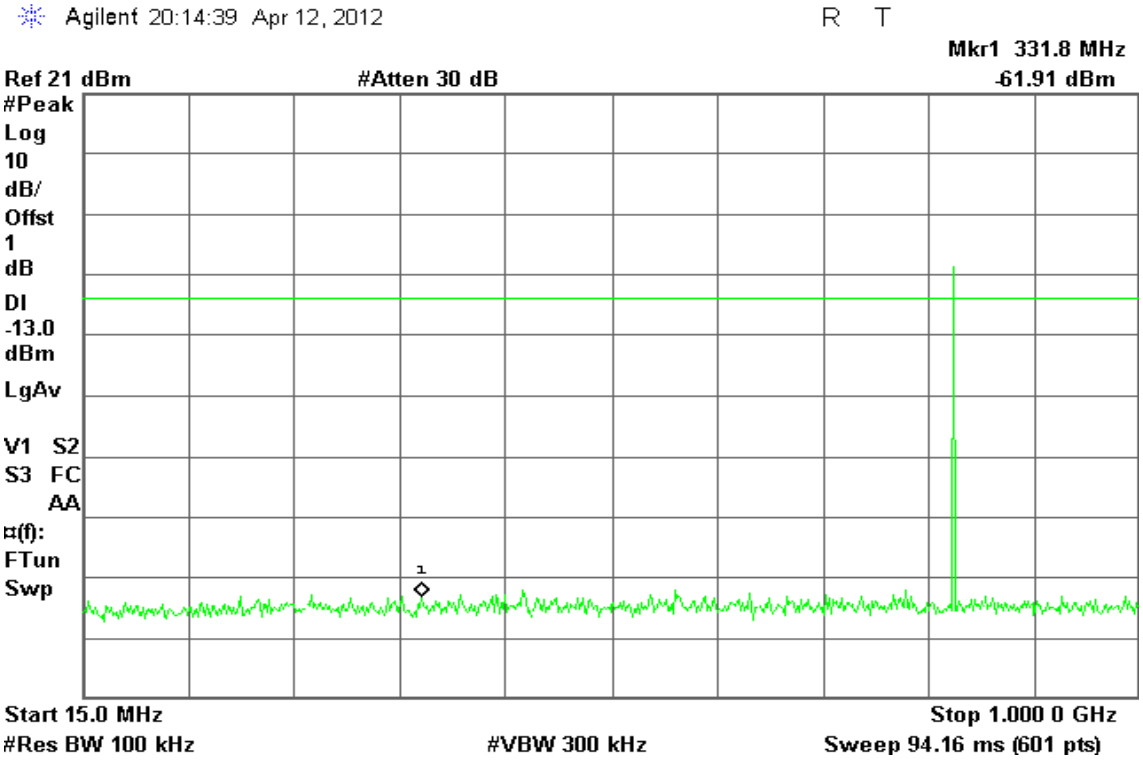


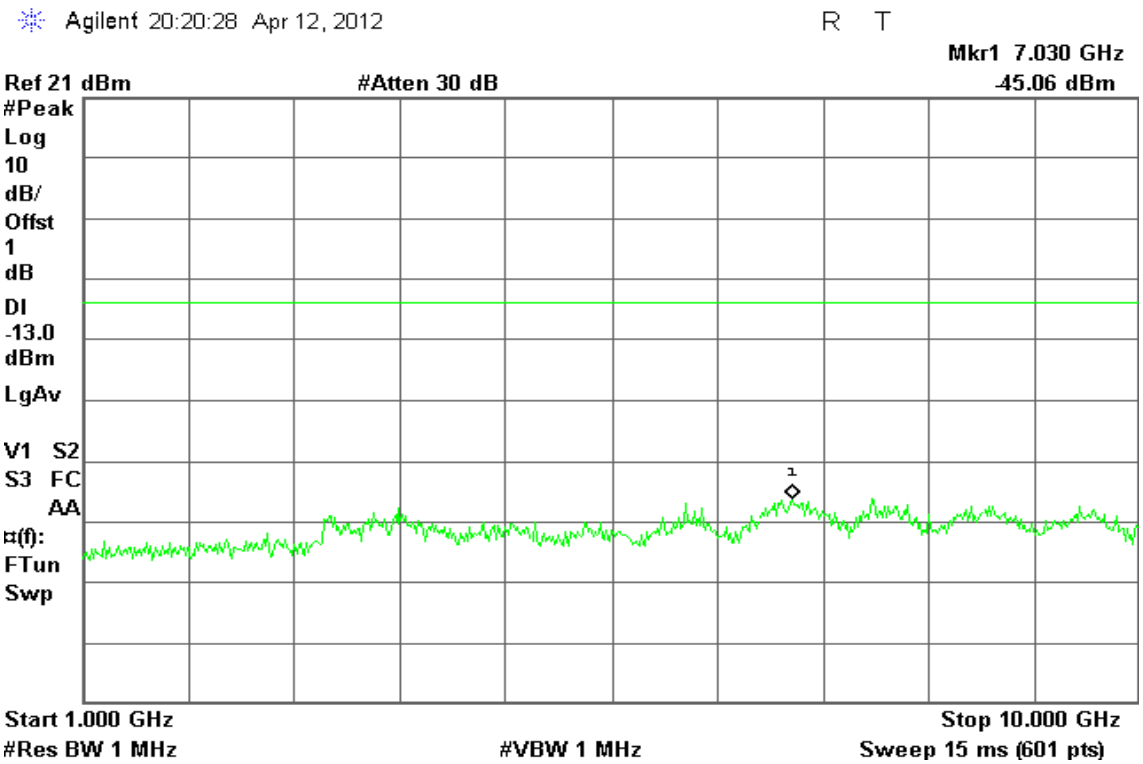
CH High


Agilent 15:17:33 Oct 28, 2011
R T
Mkr1 900 MHz
Ref 13.32 dBm
#Atten 10 dB
6.98 dBm
#Peak
Log
10
dB/
Offst
13.3
dB
Dl
-13.0
dBm
LgAv
V1 S2
Start 30 MHz
Stop 20.00 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 99.88 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 900 MHz 6.98 dBm
2 (1) Freq 1.96 GHz -49.42 dBm

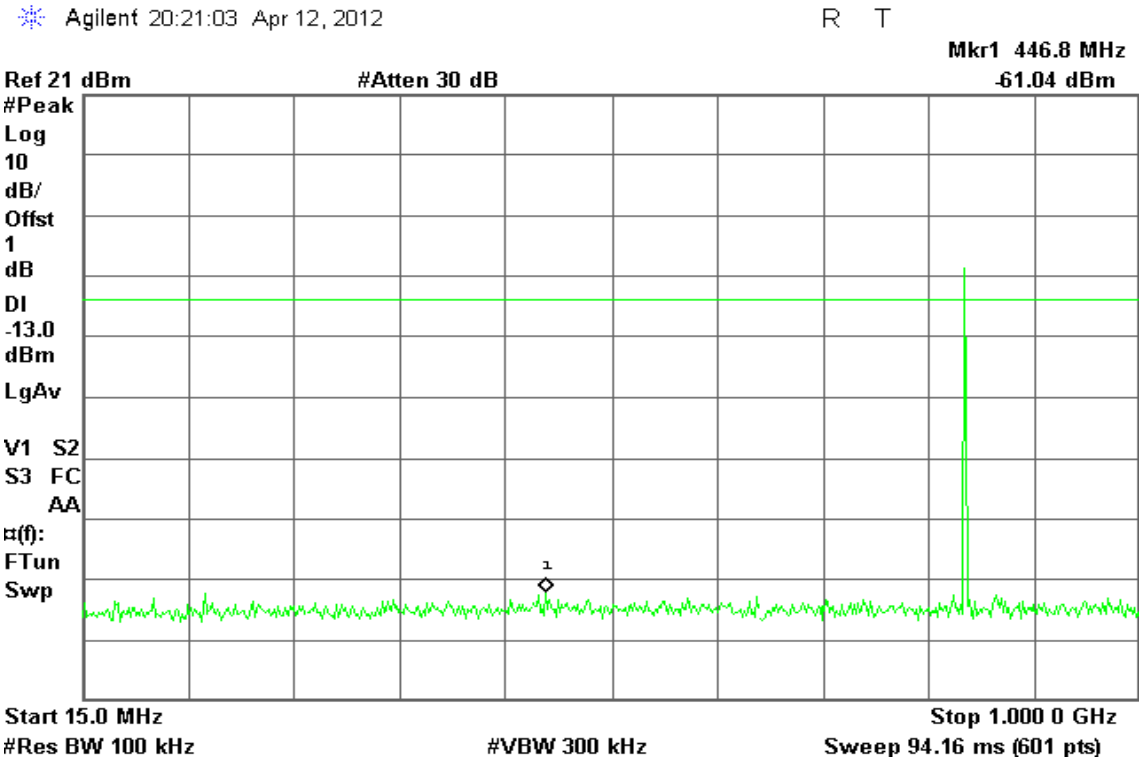
Mode 5: AMPS / 824 – 849MHz Uplink

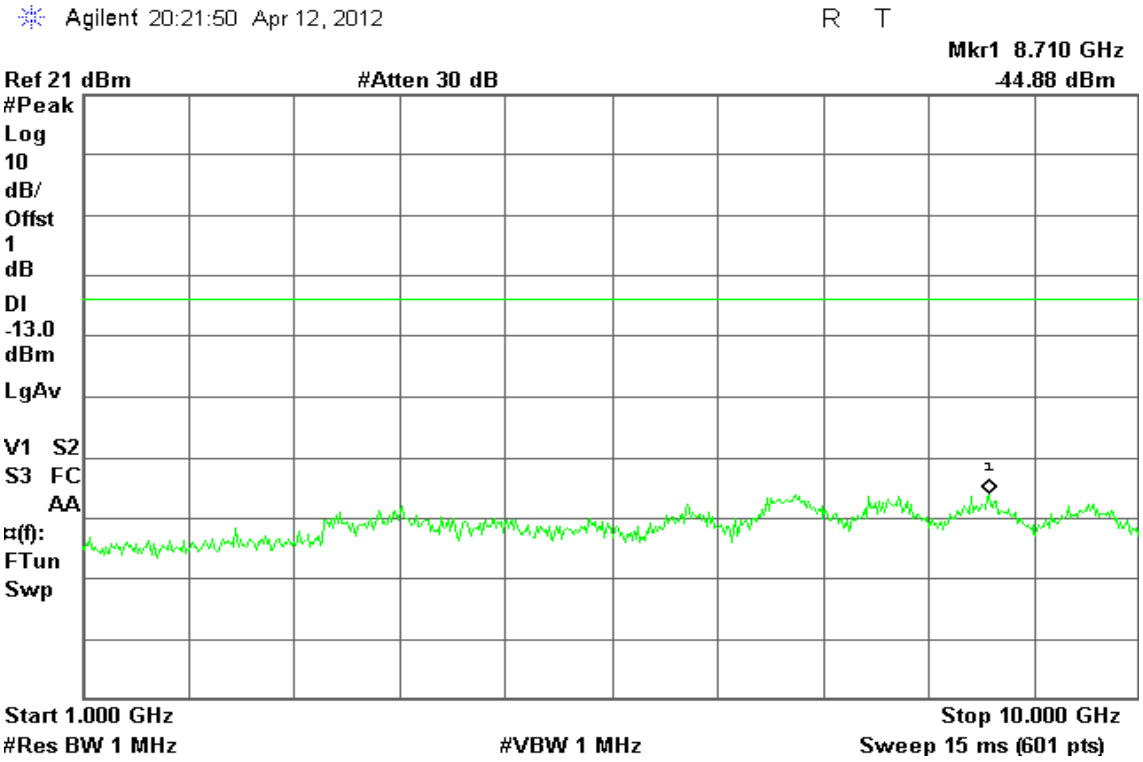
CH Low



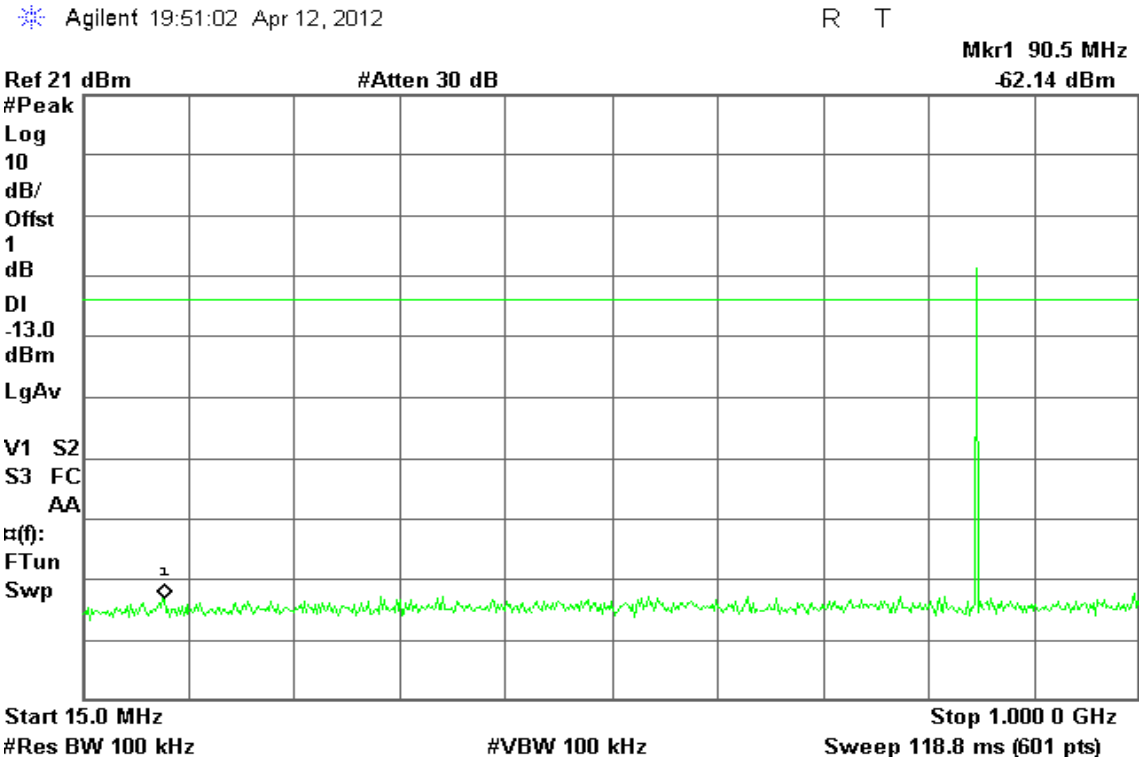


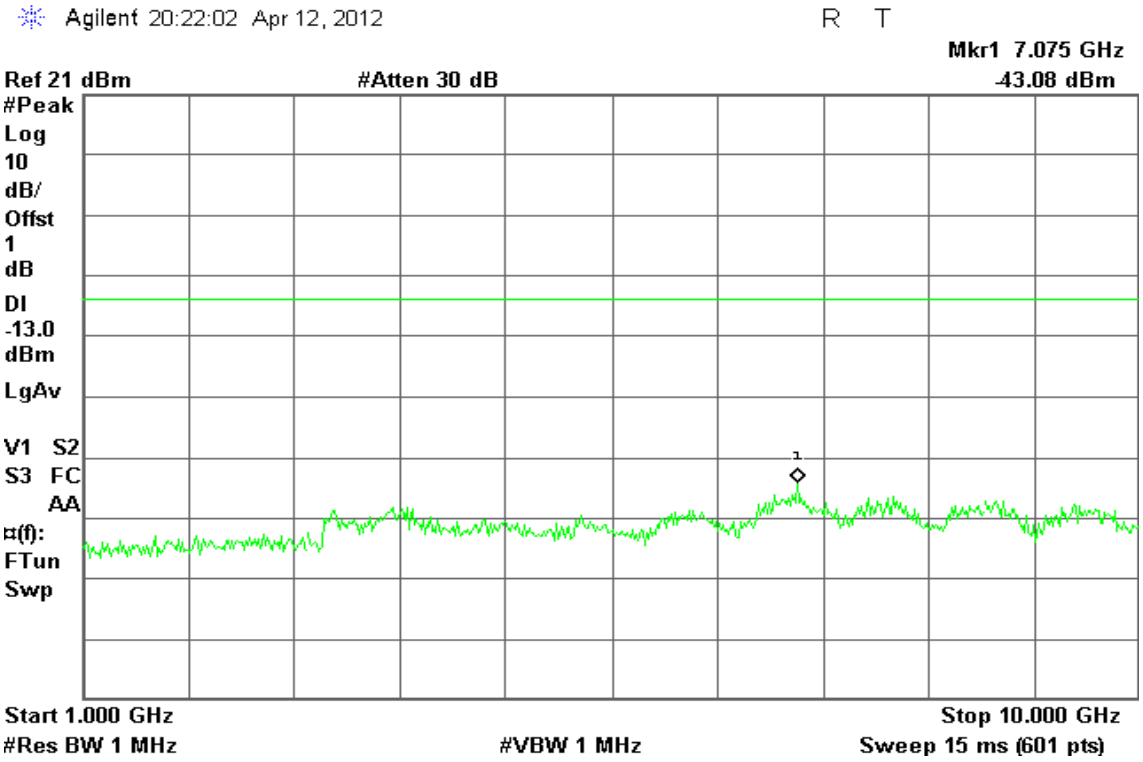
CH Mid


Agilent 20:21:03 Apr 12, 2012
R T
Mkr1 446.8 MHz
Ref 21 dBm
#Atten 30 dB
-61.04 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.000 0 GHz
Sweep 94.16 ms (601 pts)


Agilent 20:21:50 Apr 12, 2012
R T
Mkr1 8.710 GHz
Ref 21 dBm
#Atten 30 dB
-44.88 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

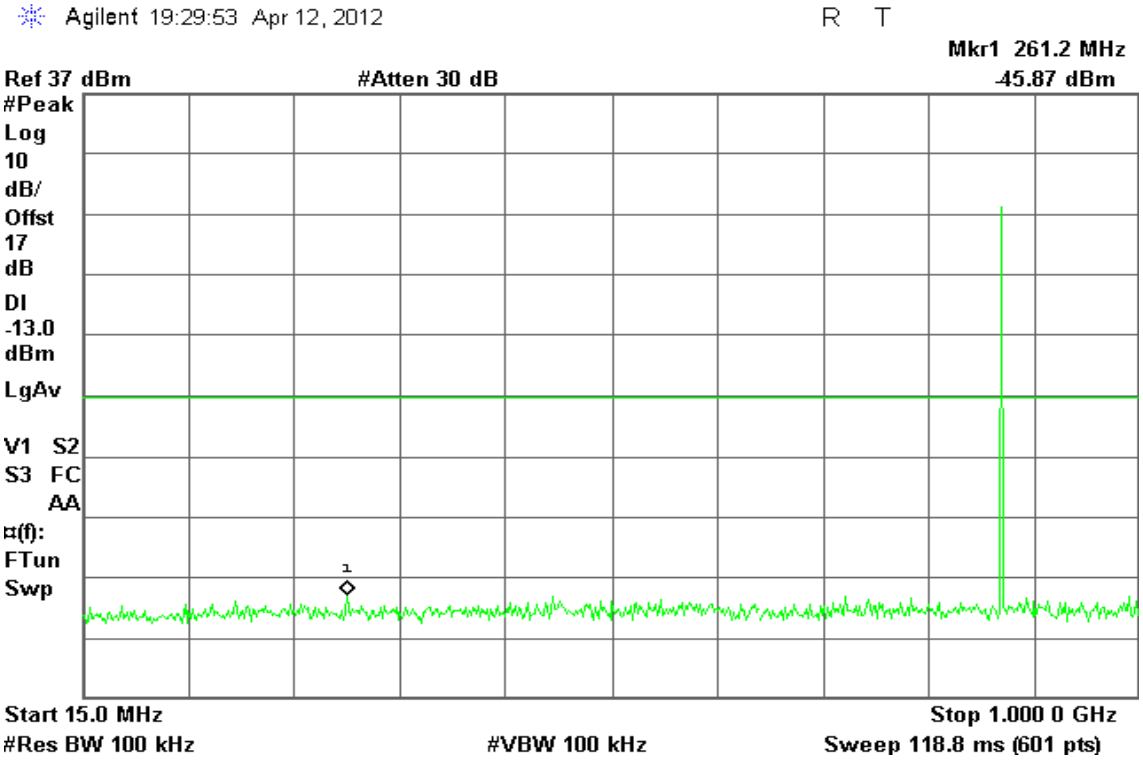
CH High

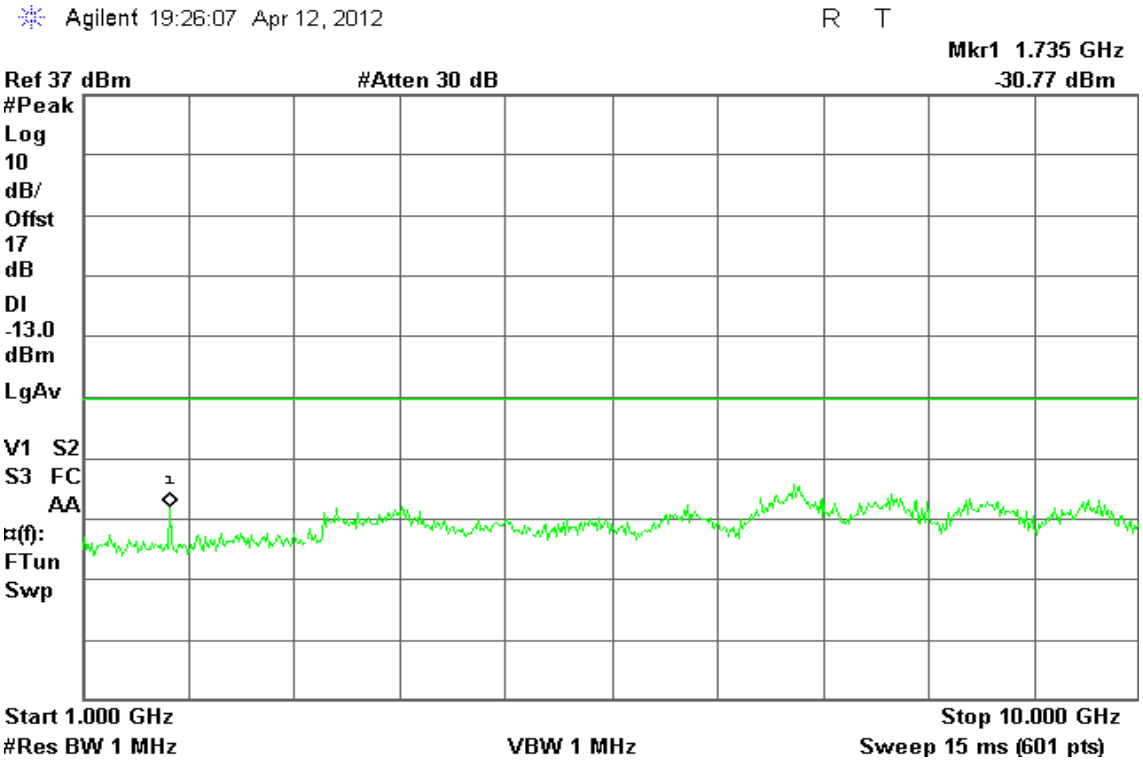

Agilent 19:51:02 Apr 12, 2012
R T
Mkr1 90.5 MHz
Ref 21 dBm
#Atten 30 dB
-62.14 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 20:22:02 Apr 12, 2012
R T
Mkr1 7.075 GHz
Ref 21 dBm
#Atten 30 dB
-43.08 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 15 ms (601 pts)

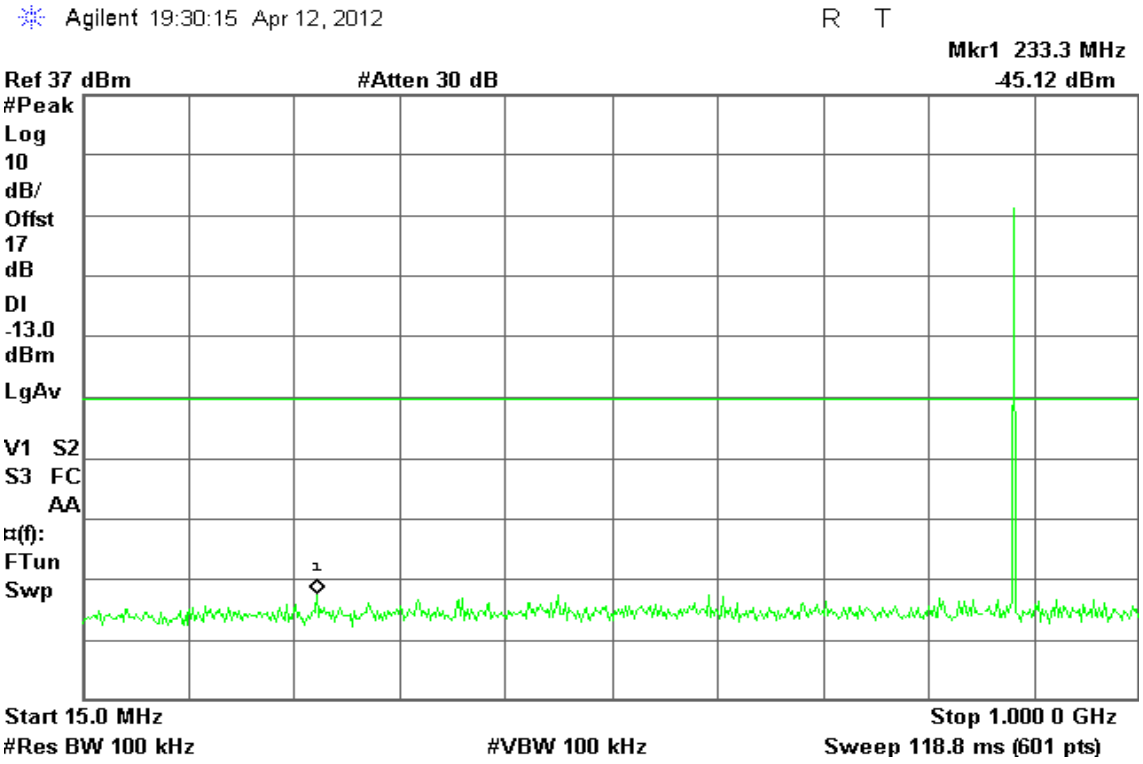
Mode 6: AMPS / 869 – 894MHz Downlink

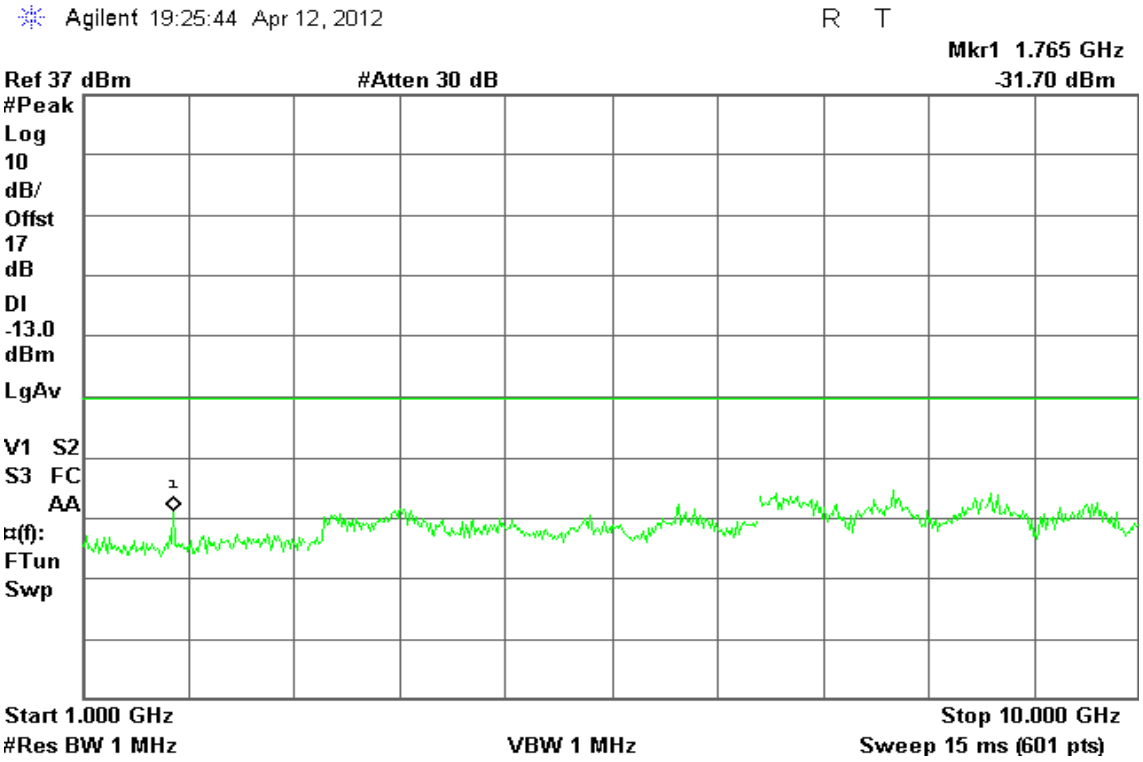
CH Low



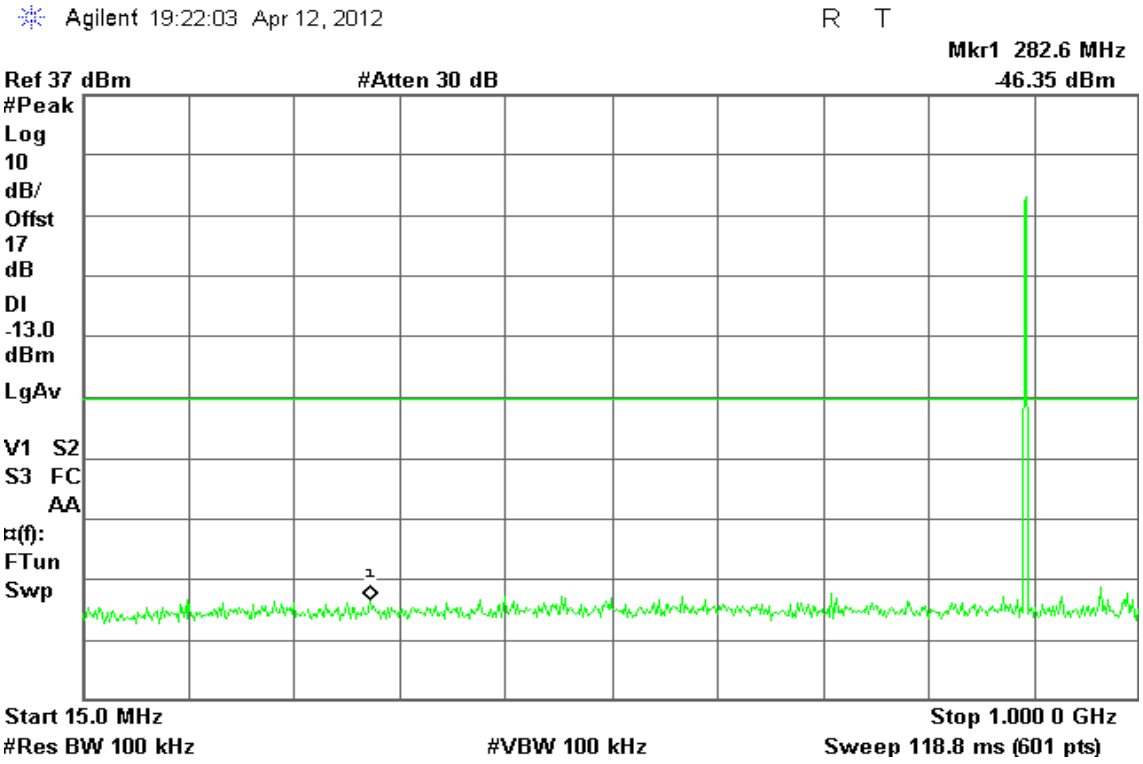


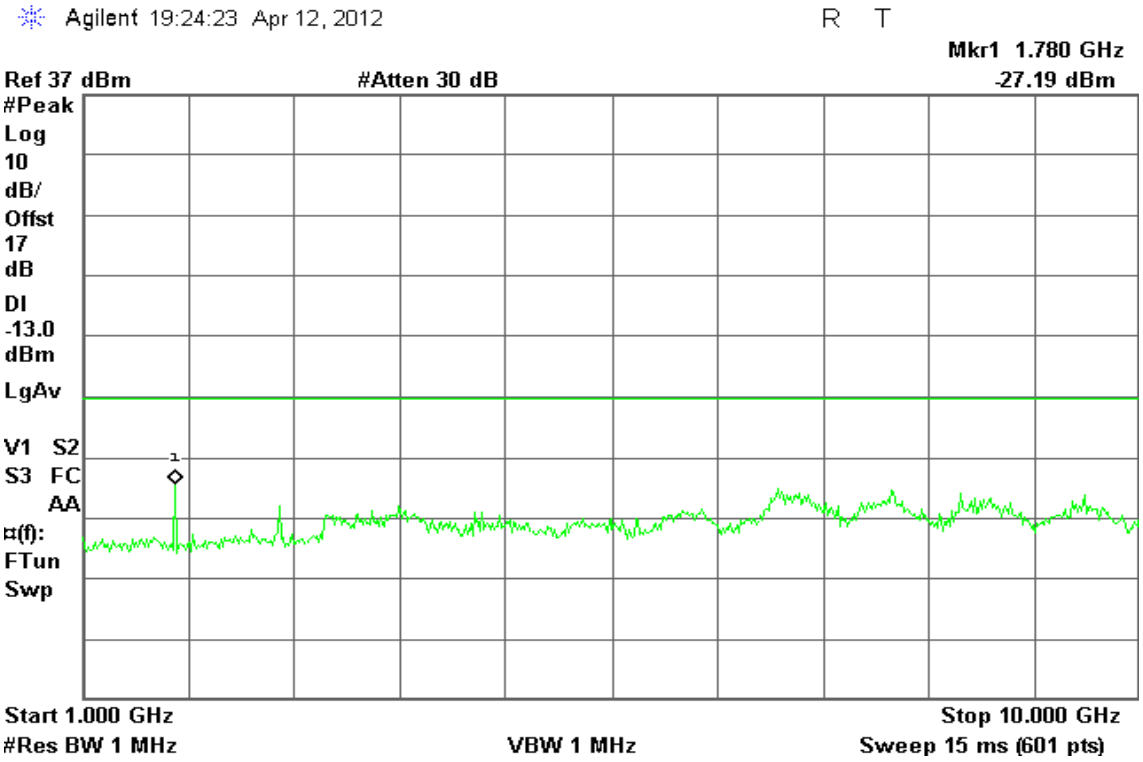
CH Mid


Agilent 19:30:15 Apr 12, 2012
R T
Mkr1 233.3 MHz
Ref 37 dBm
#Atten 30 dB
-45.12 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 1.000 0 GHz
Sweep 118.8 ms (601 pts)


Agilent 19:25:44 Apr 12, 2012
R T
Mkr1 1.765 GHz
Ref 37 dBm
#Atten 30 dB
-31.70 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

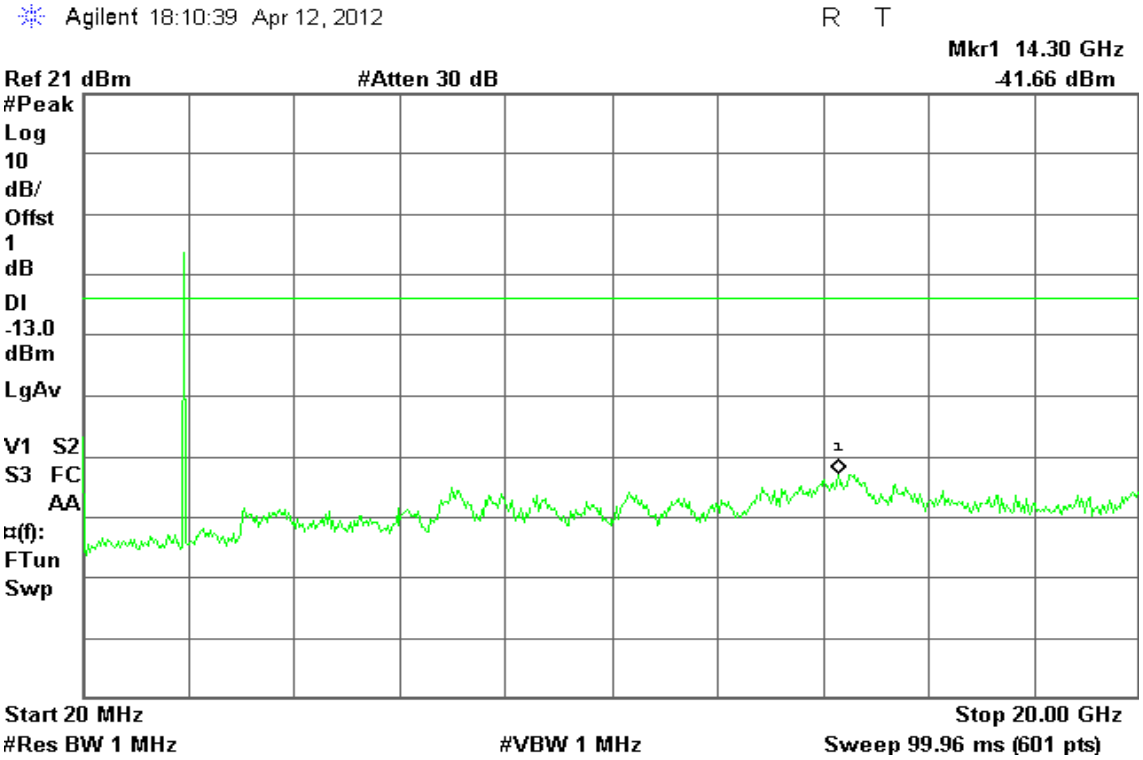
CH High


Agilent 19:22:03 Apr 12, 2012
R T
Mkr1 282.6 MHz
Ref 37 dBm
#Atten 30 dB
-46.35 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 1.000 0 GHz
Sweep 118.8 ms (601 pts)

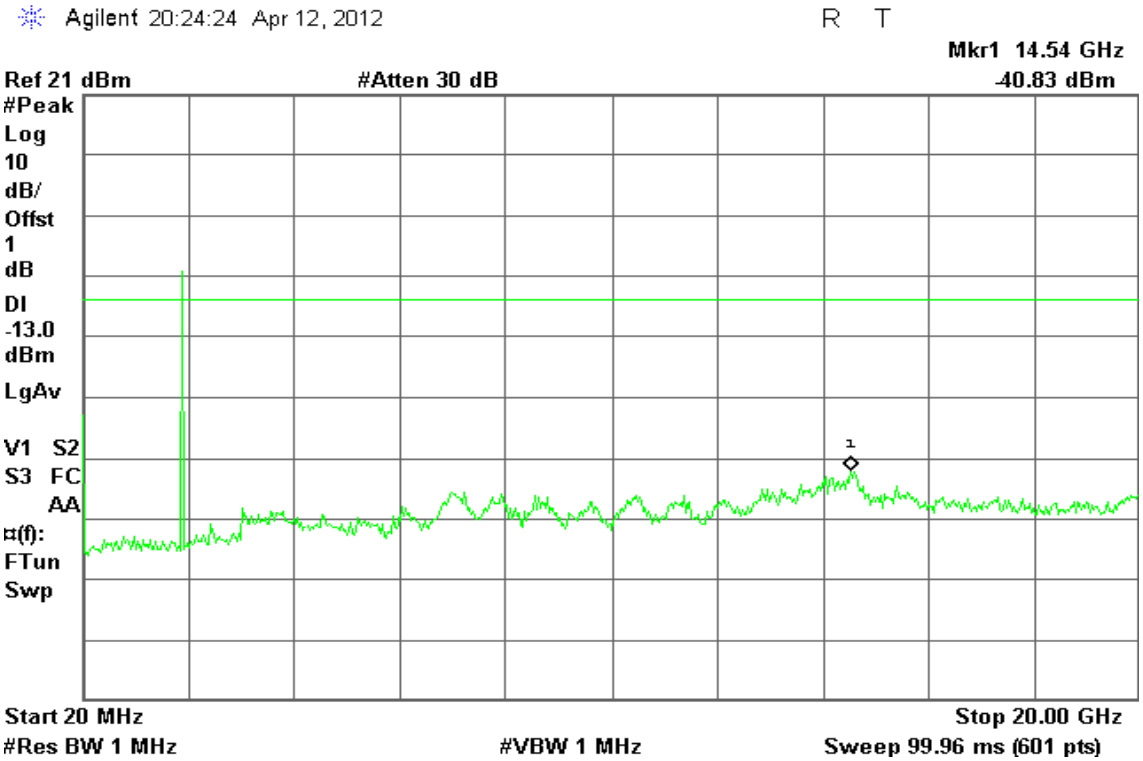

Agilent 19:24:23 Apr 12, 2012
R T
Mkr1 1.780 GHz
Ref 37 dBm
#Atten 30 dB
-27.19 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

Mode 7: AMPS / 1850 – 1910MHz Uplink

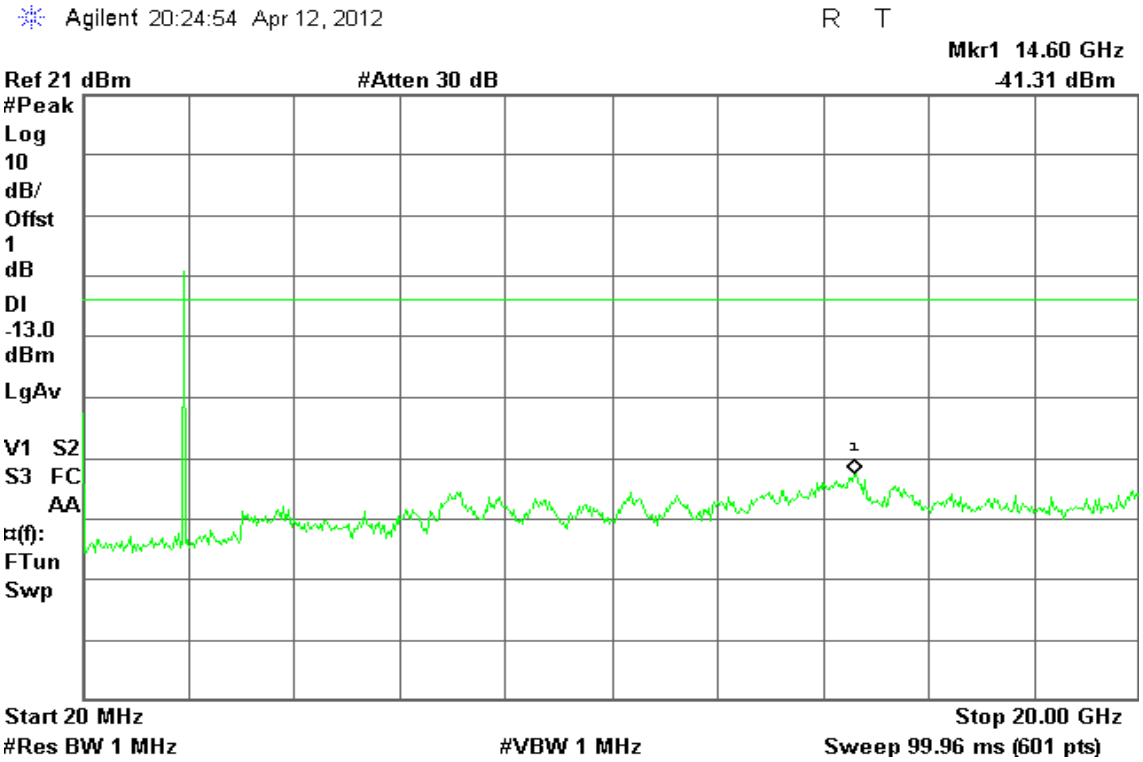
CH Low



CH Mid

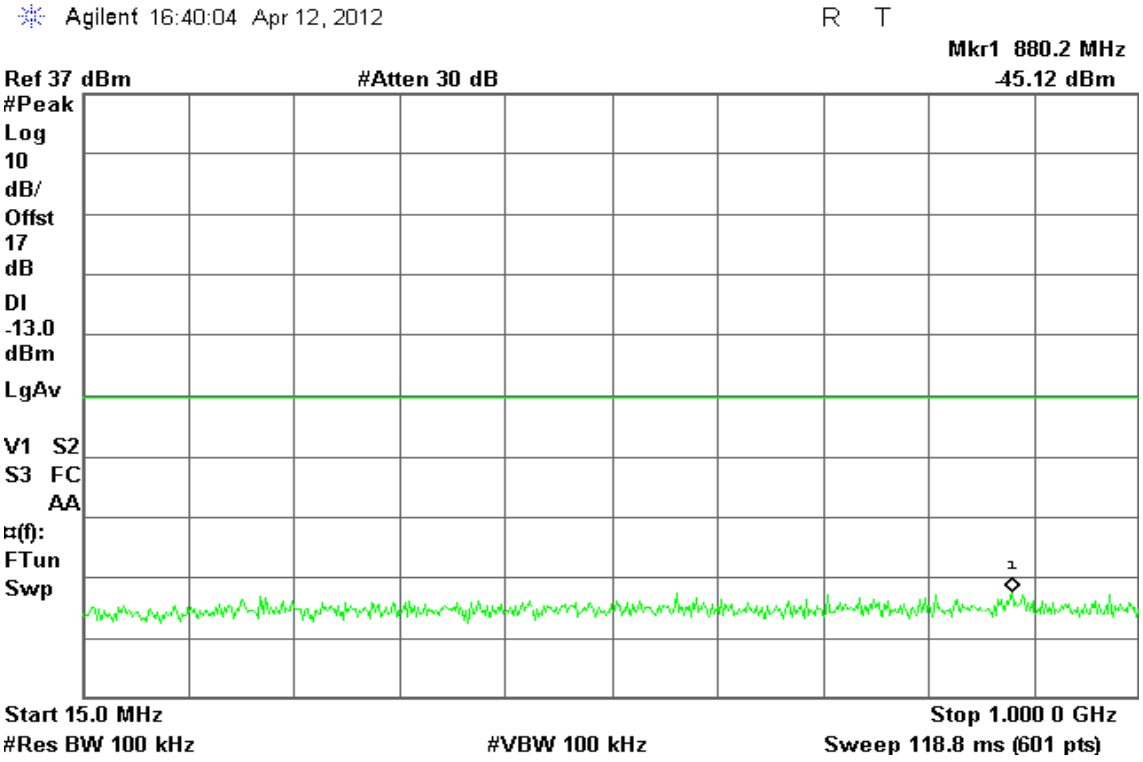


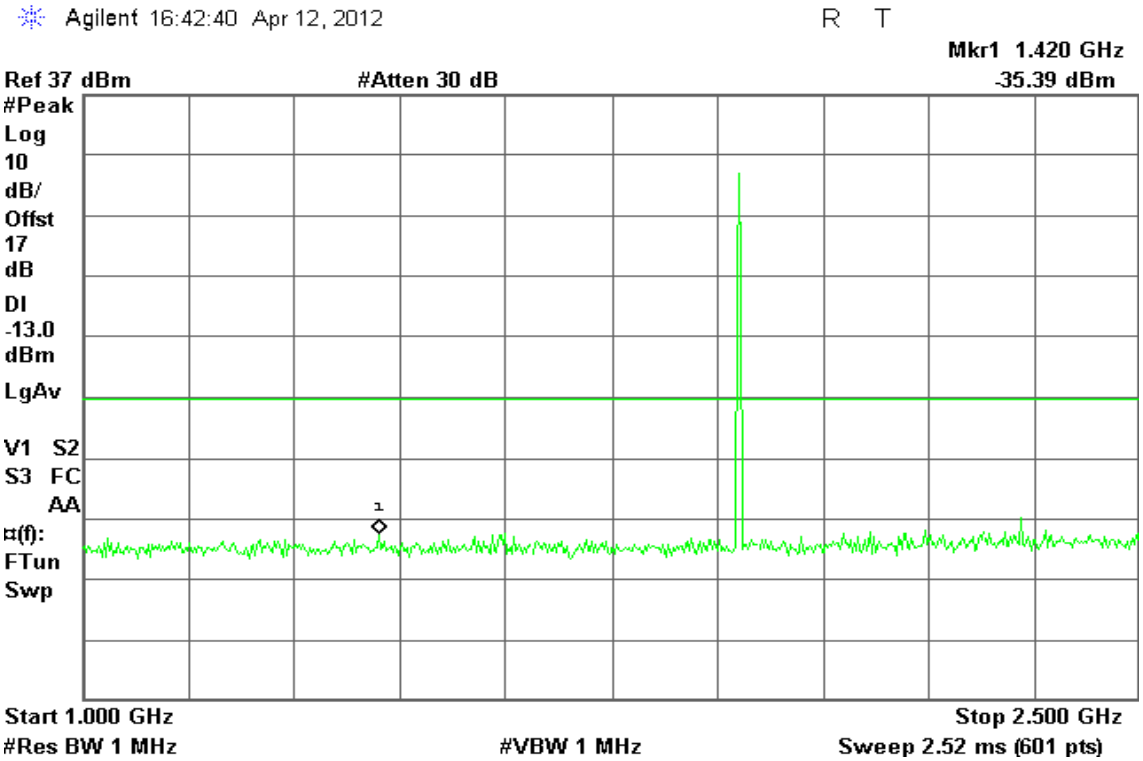
CH High

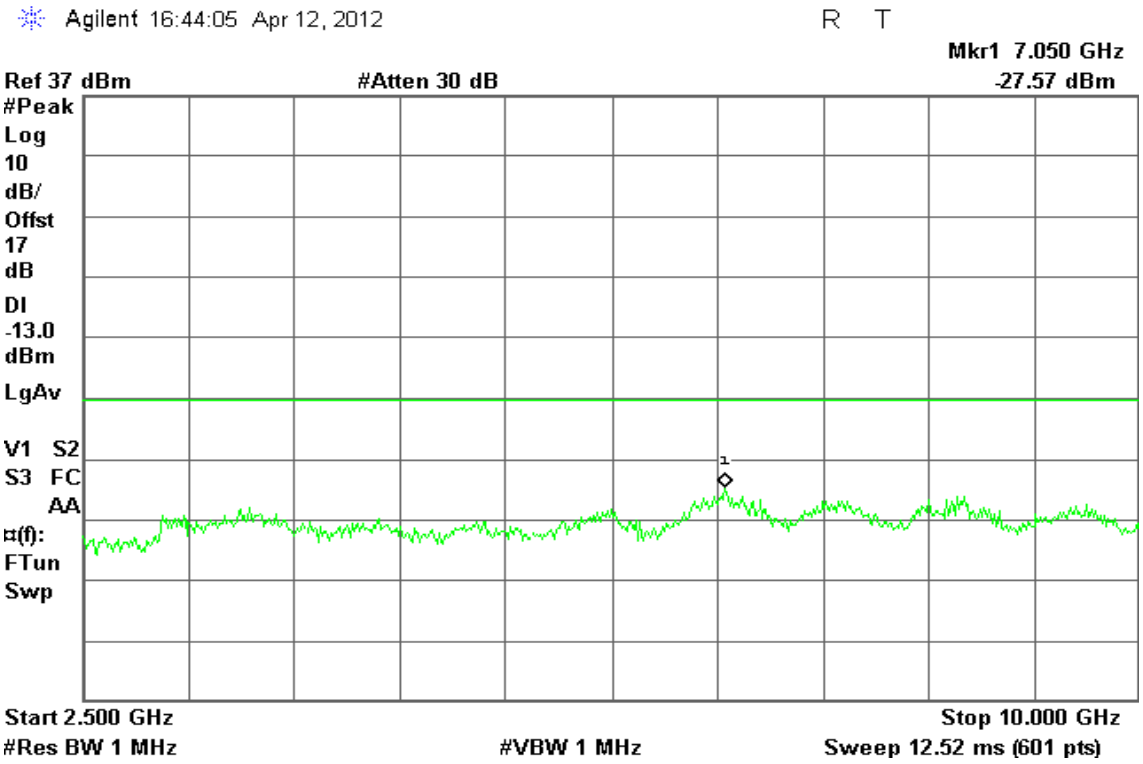

Agilent 20:24:54 Apr 12, 2012
R T
Mkr1 14.60 GHz
-41.31 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 20 MHz
Stop 20.00 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 99.96 ms (601 pts)

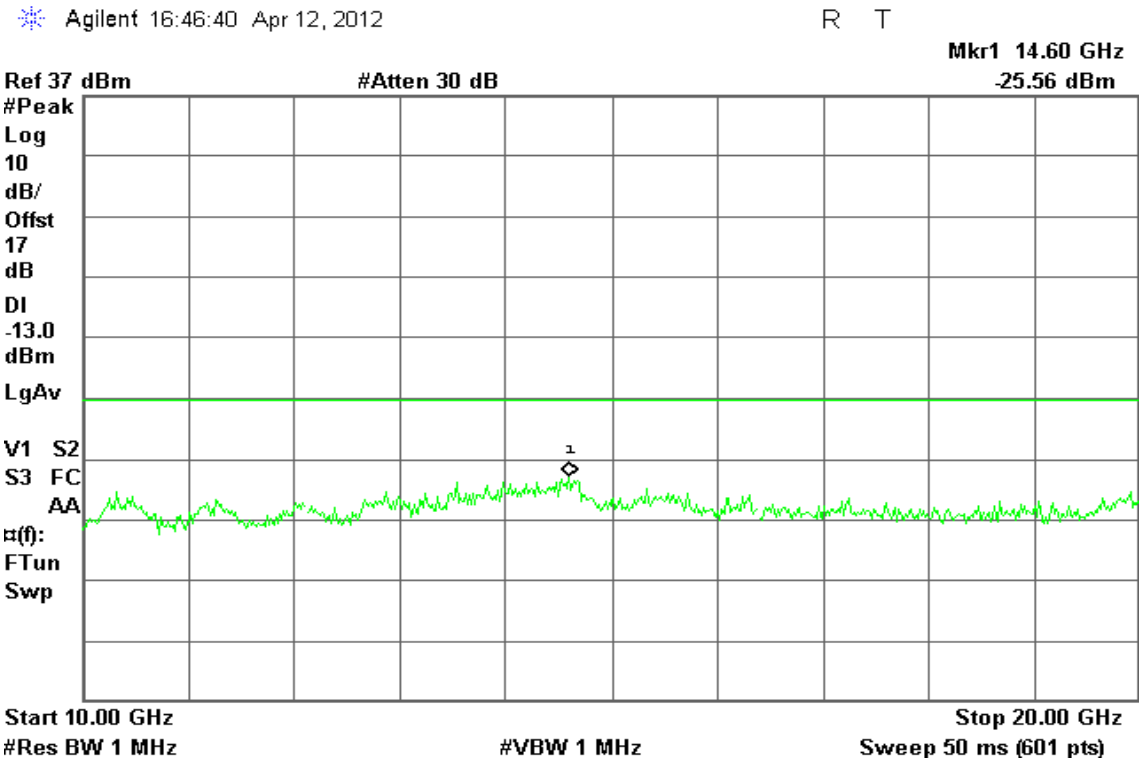
Mode 8: AMPS / 1930 – 1990MHz Downlink

CH Low

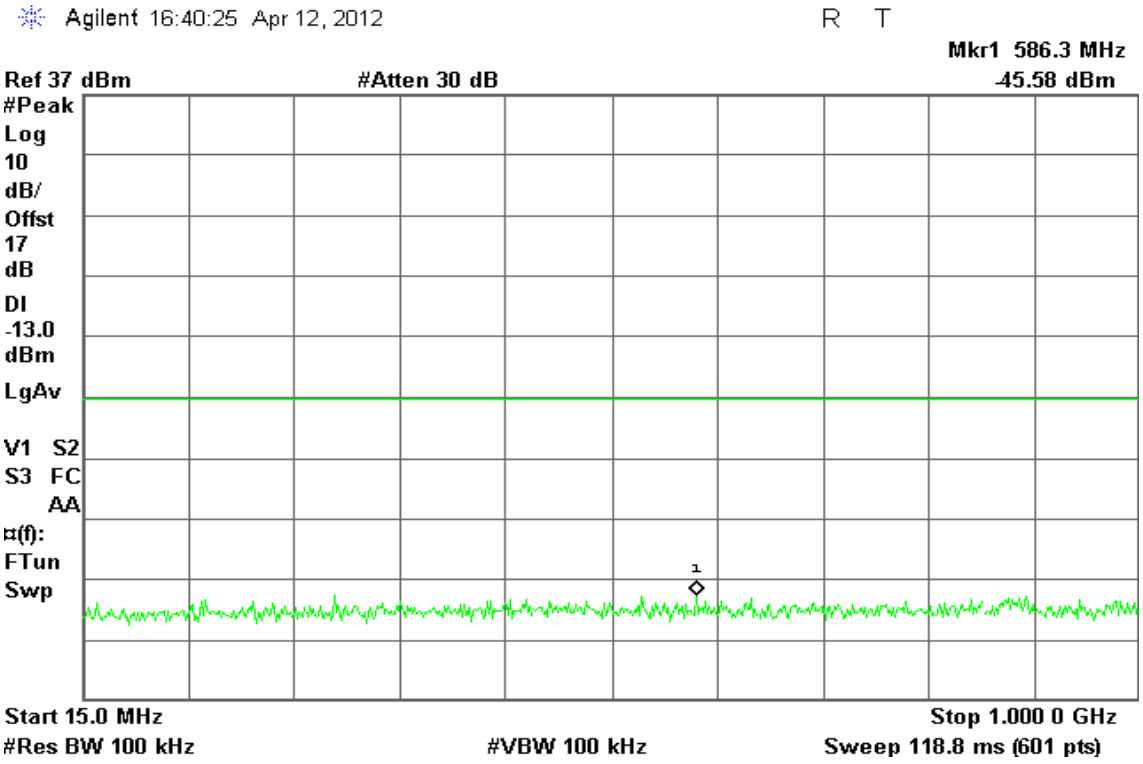


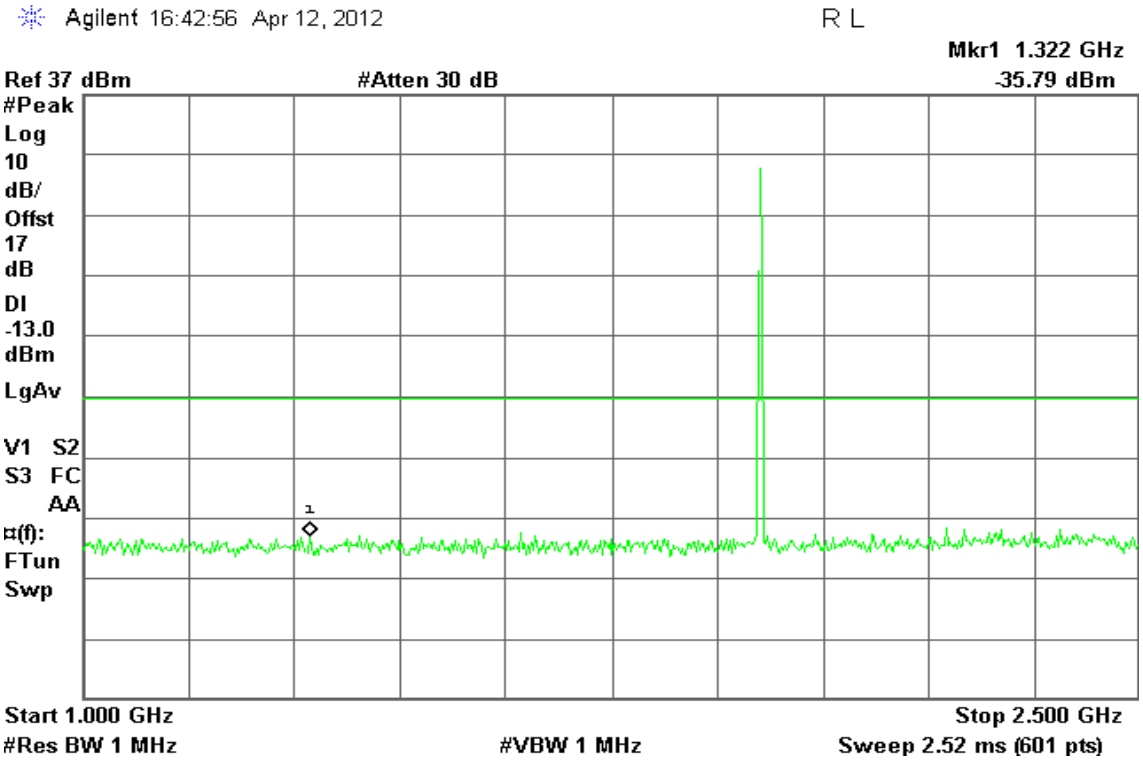


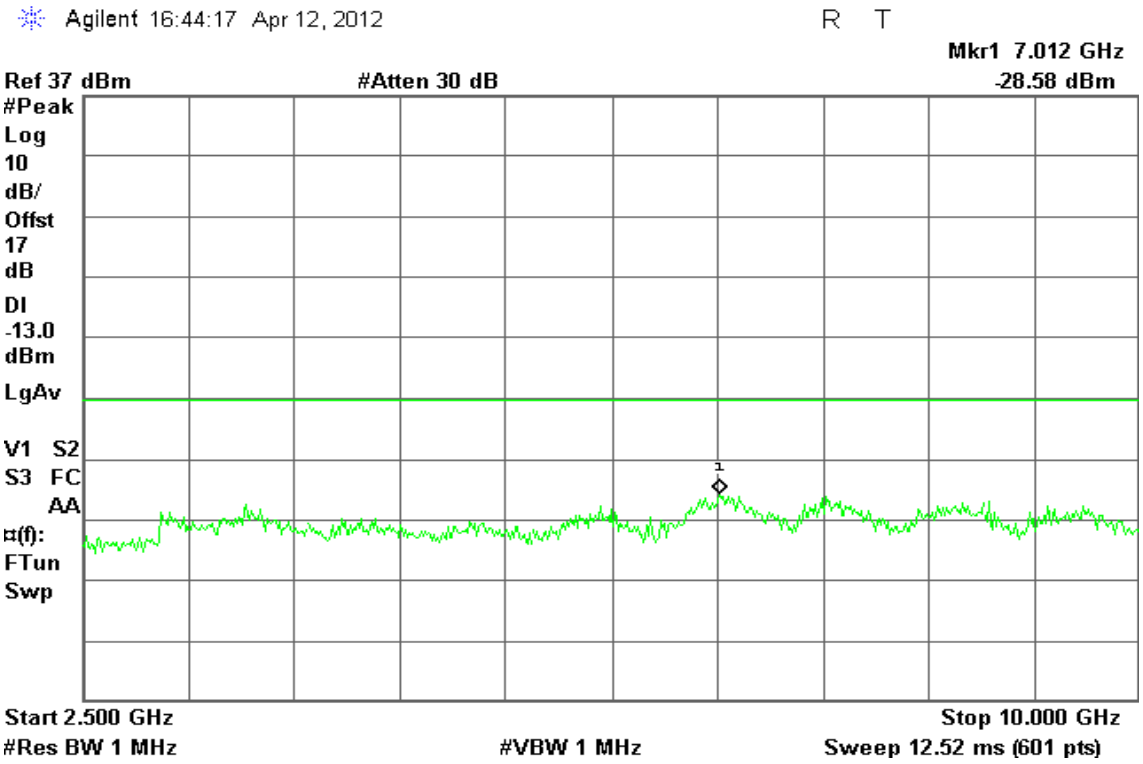

Agilent 16:44:05 Apr 12, 2012
R T
Mkr1 7.050 GHz
Ref 37 dBm
#Atten 30 dB
-27.57 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 12.52 ms (601 pts)

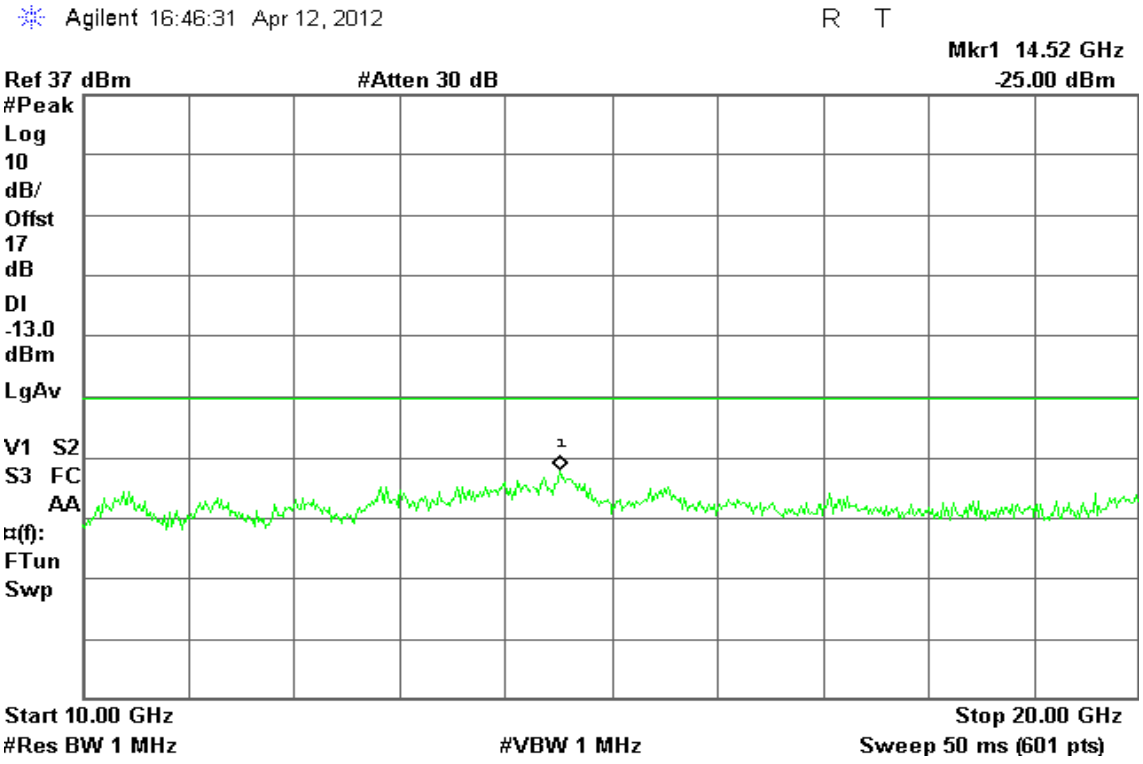

Agilent 16:46:40 Apr 12, 2012
R T
Mkr1 14.60 GHz
Ref 37 dBm
#Atten 30 dB
-25.56 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 50 ms (601 pts)

CH Mid

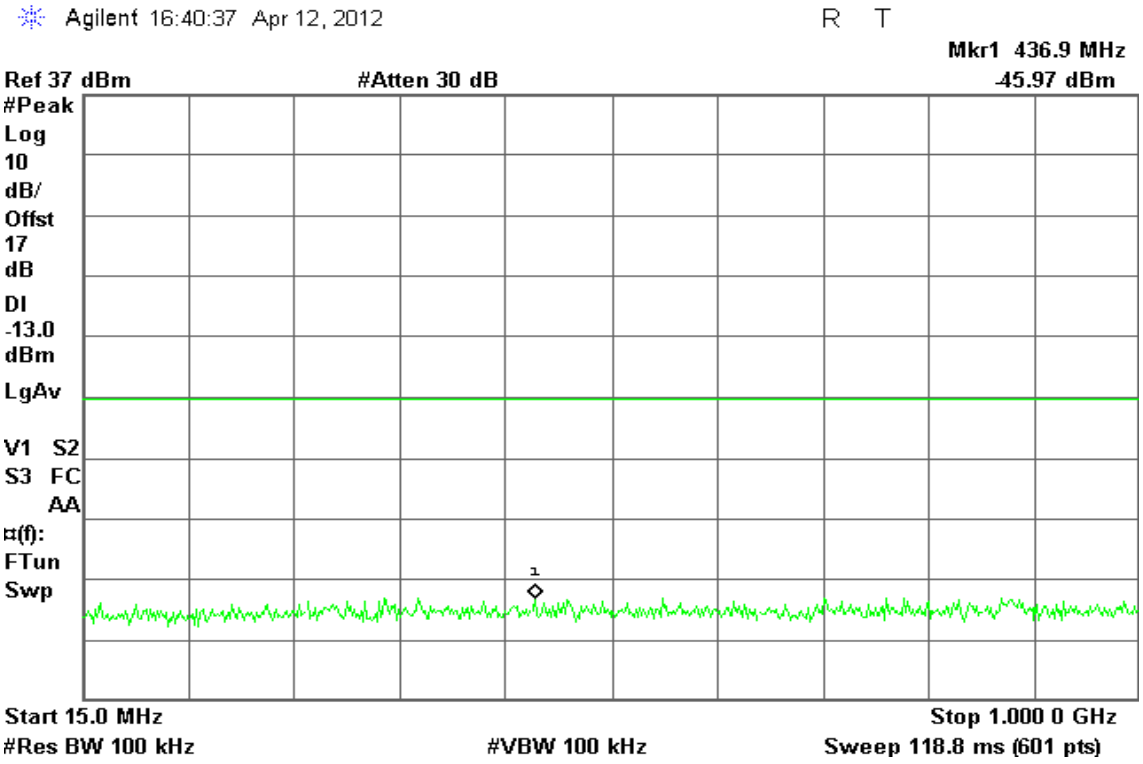

Agilent 16:40:25 Apr 12, 2012
R T
Mkr1 586.3 MHz
Ref 37 dBm
#Atten 30 dB
-45.58 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 1.000 0 GHz
Sweep 118.8 ms (601 pts)

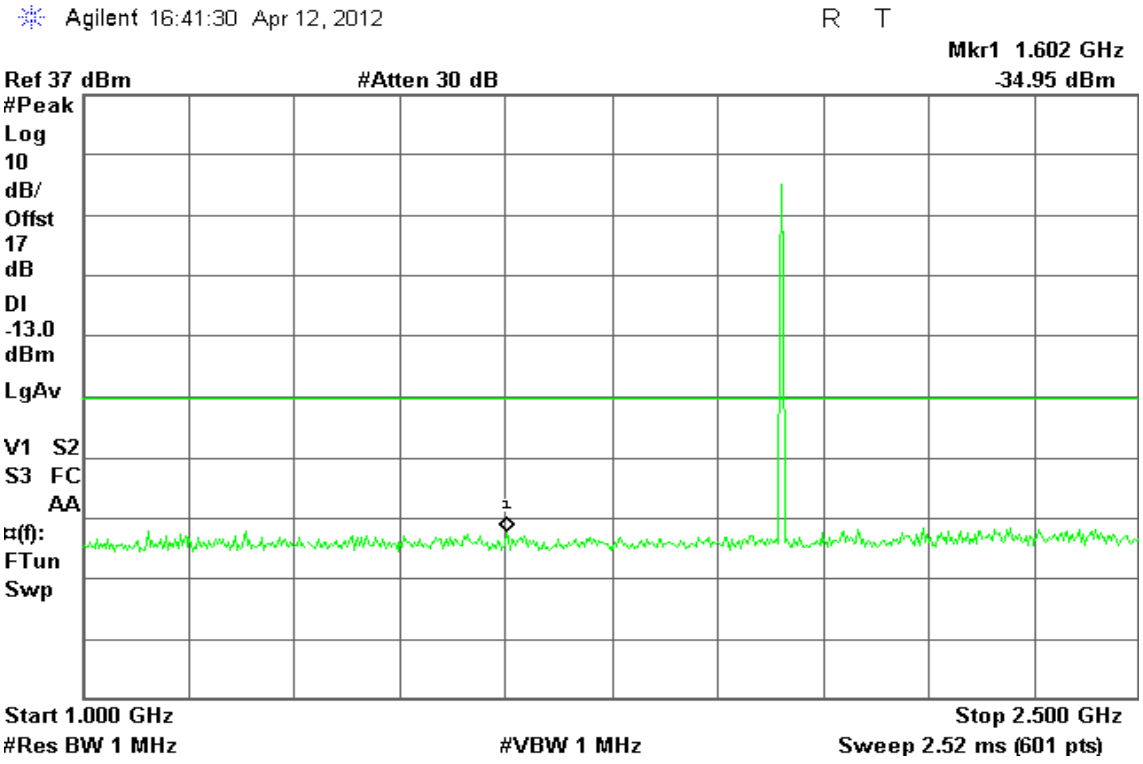

Agilent 16:42:56 Apr 12, 2012
R L
Mkr1 1.322 GHz
Ref 37 dBm
#Atten 30 dB
-35.79 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 2.500 GHz
Sweep 2.52 ms (601 pts)

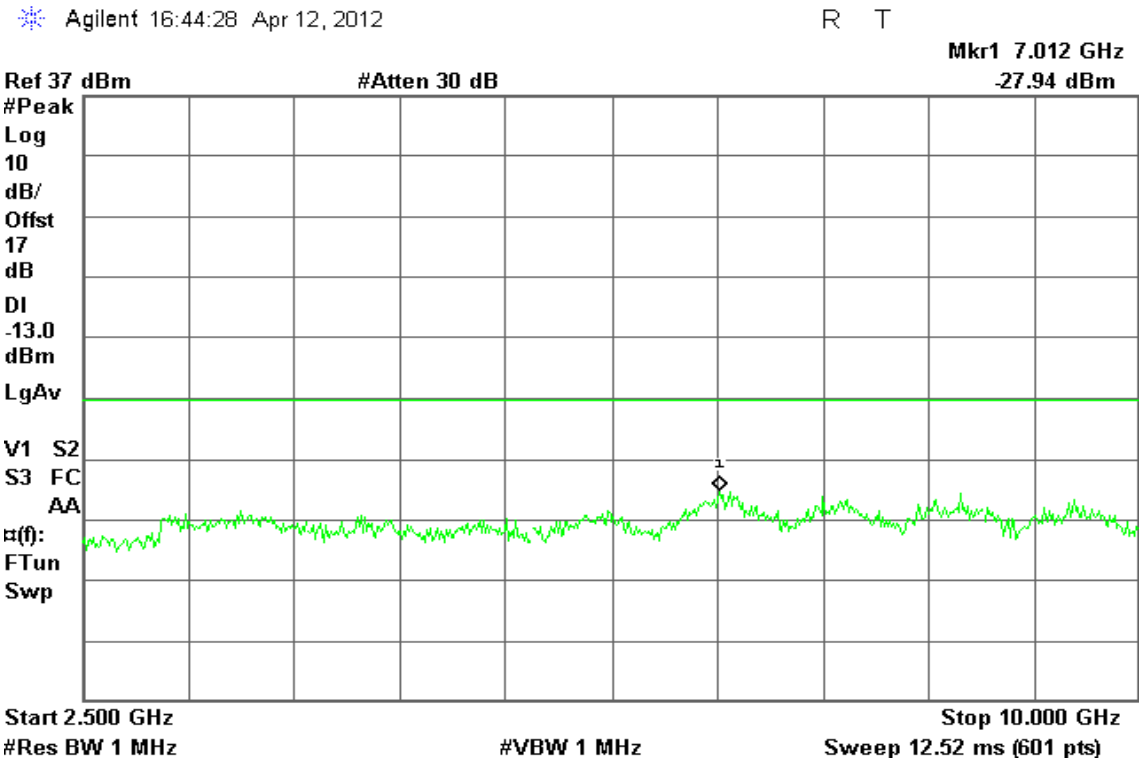

Agilent 16:44:17 Apr 12, 2012
R T
Mkr1 7.012 GHz
Ref 37 dBm
#Atten 30 dB
-28.58 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 12.52 ms (601 pts)

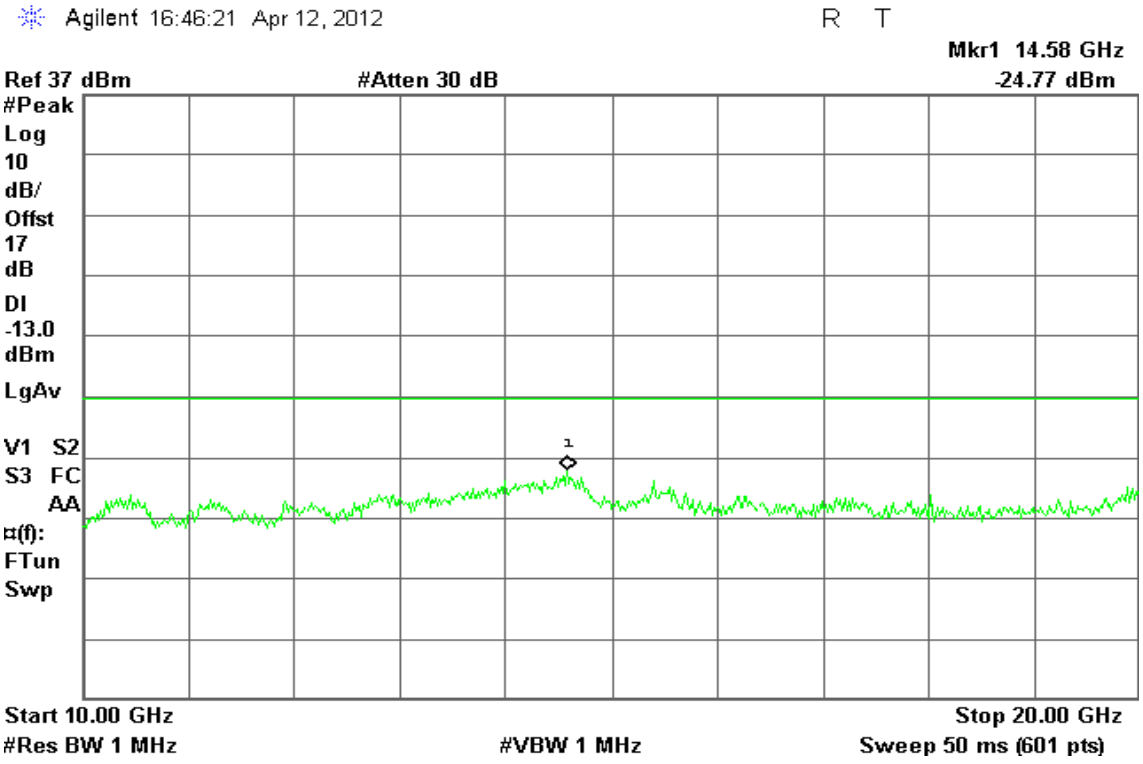

Agilent 16:46:31 Apr 12, 2012
R T
Mkr1 14.52 GHz
Ref 37 dBm
#Atten 30 dB
-25.00 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 50 ms (601 pts)

CH High


Agilent 16:40:37 Apr 12, 2012
R T
Mkr1 436.9 MHz
Ref 37 dBm
#Atten 30 dB
-45.97 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)

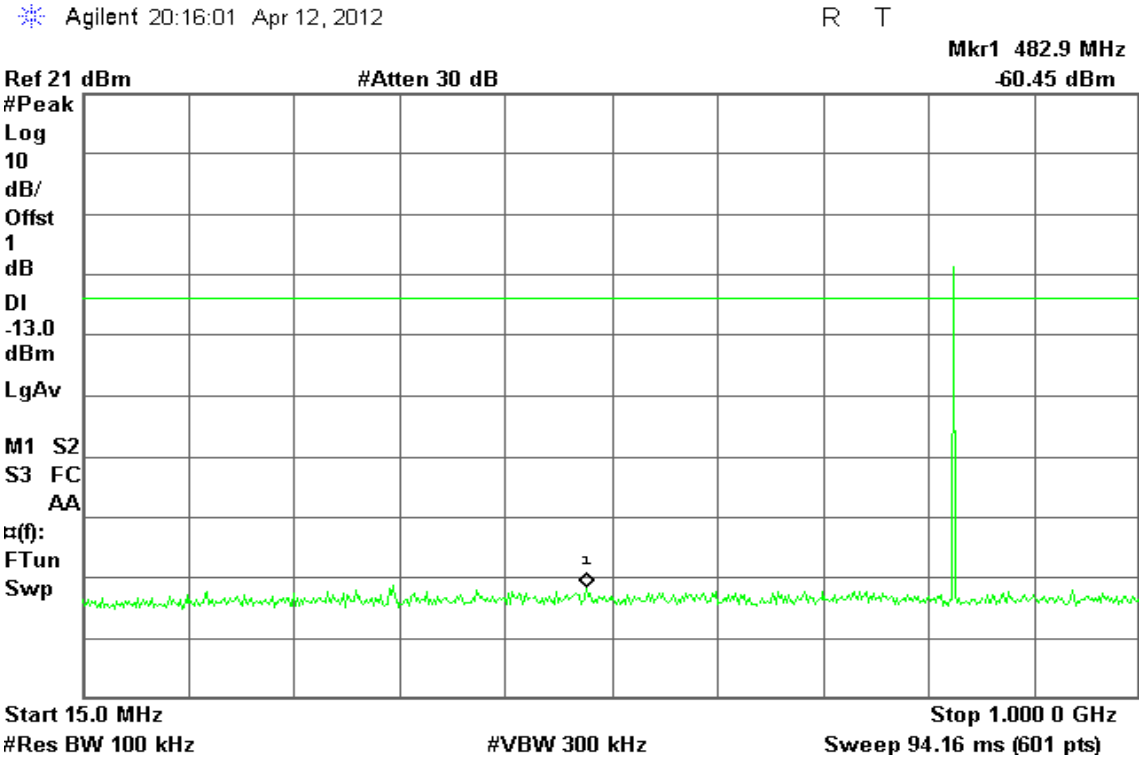

Agilent 16:41:30 Apr 12, 2012
R T
Mkr1 1.602 GHz
Ref 37 dBm
#Atten 30 dB
-34.95 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 2.500 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 2.52 ms (601 pts)

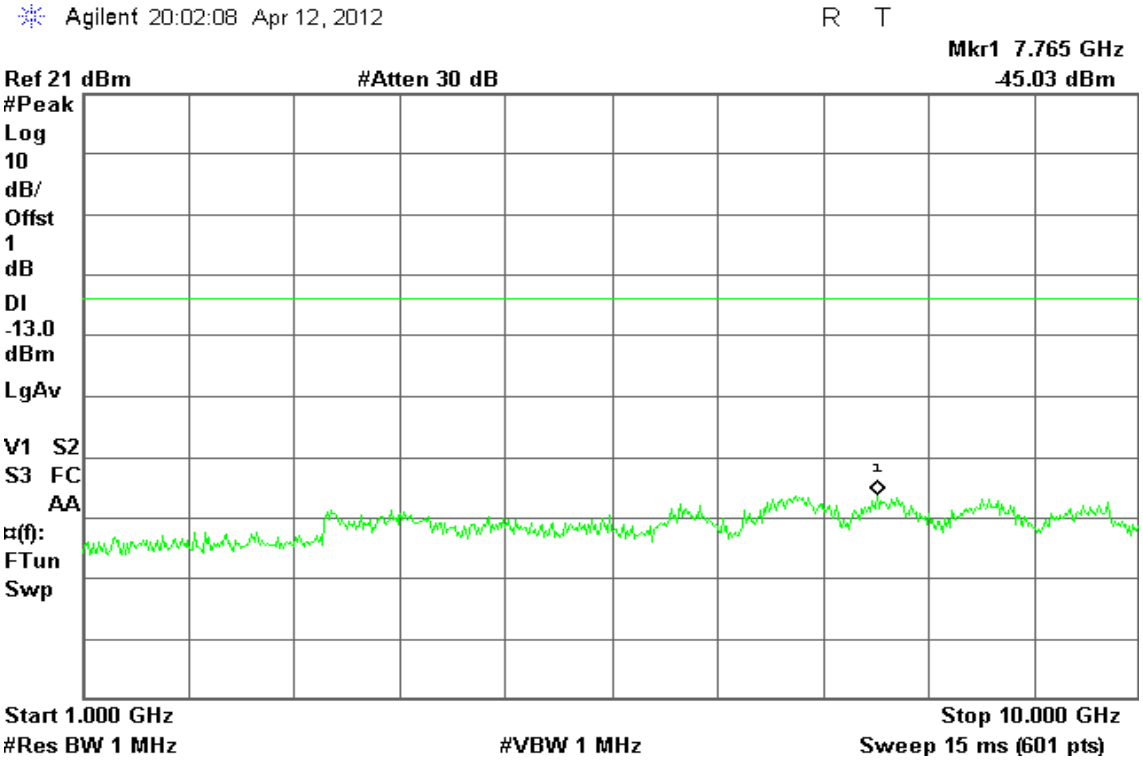

Agilent 16:44:28 Apr 12, 2012
R T
Mkr1 7.012 GHz
Ref 37 dBm
#Atten 30 dB
-27.94 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 12.52 ms (601 pts)


Agilent 16:46:21 Apr 12, 2012
R T
Mkr1 14.58 GHz
Ref 37 dBm
#Atten 30 dB
-24.77 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 10.00 GHz
Stop 20.00 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 50 ms (601 pts)

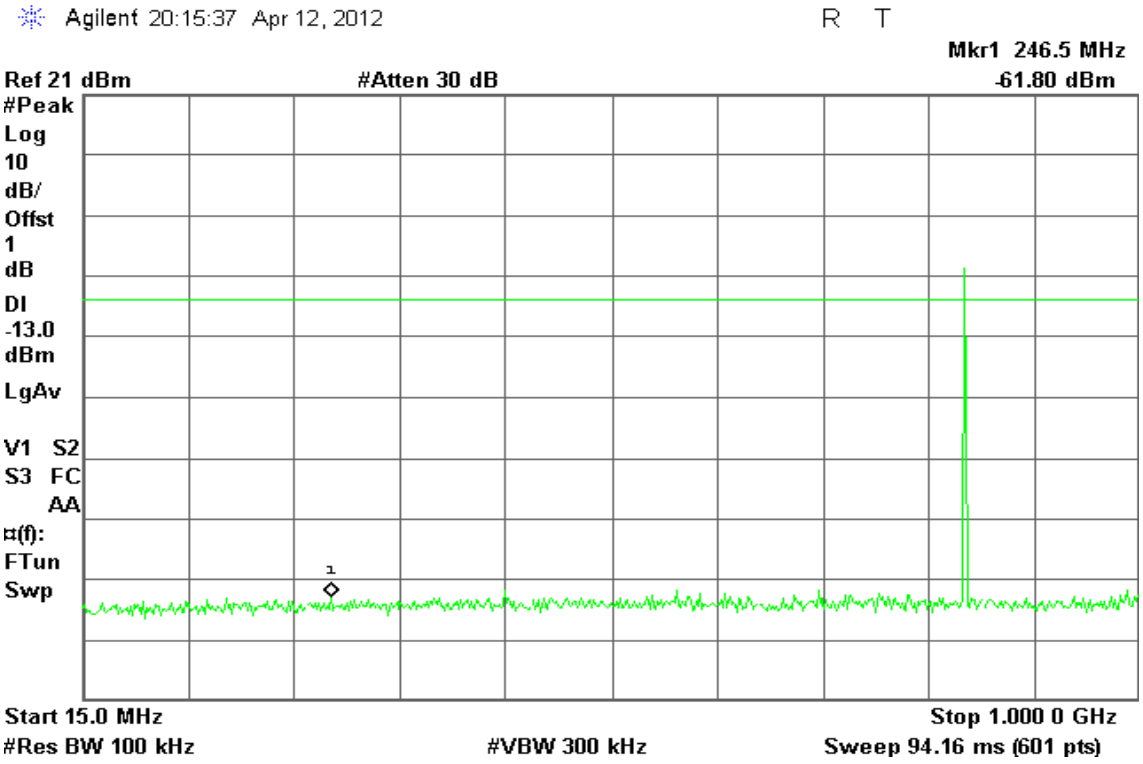
Mode 9: CDMA / 824 – 849MHz Uplink

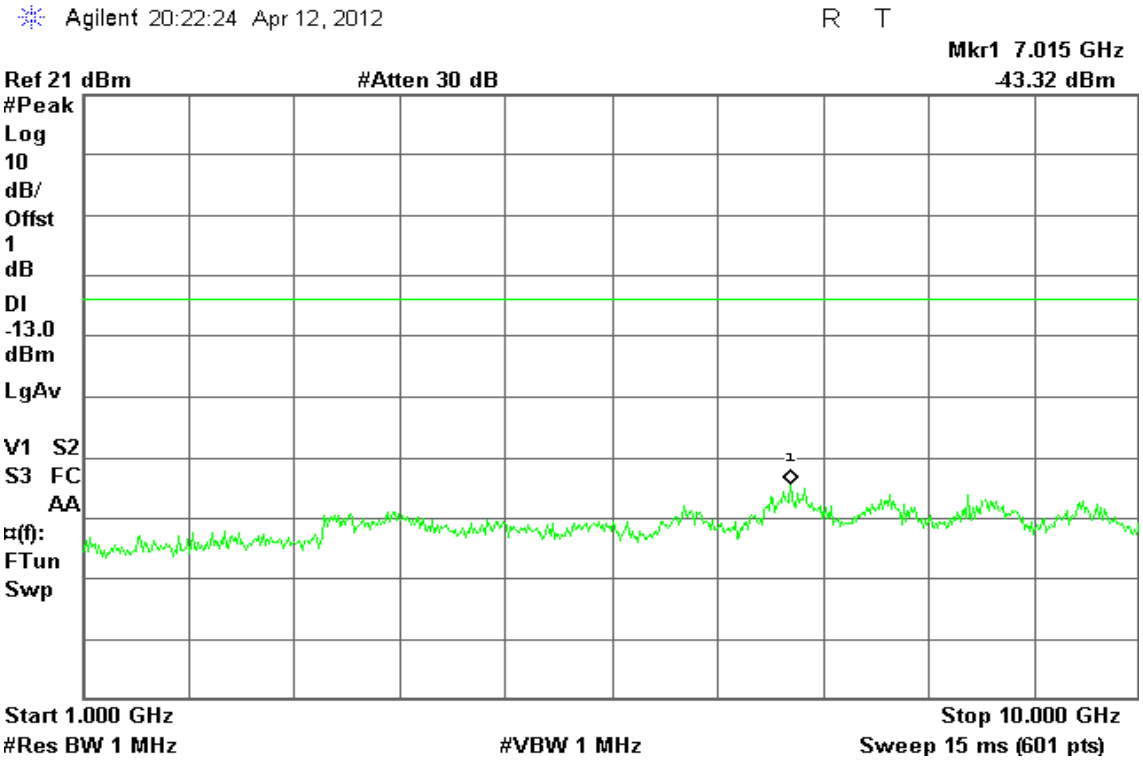
CH Low



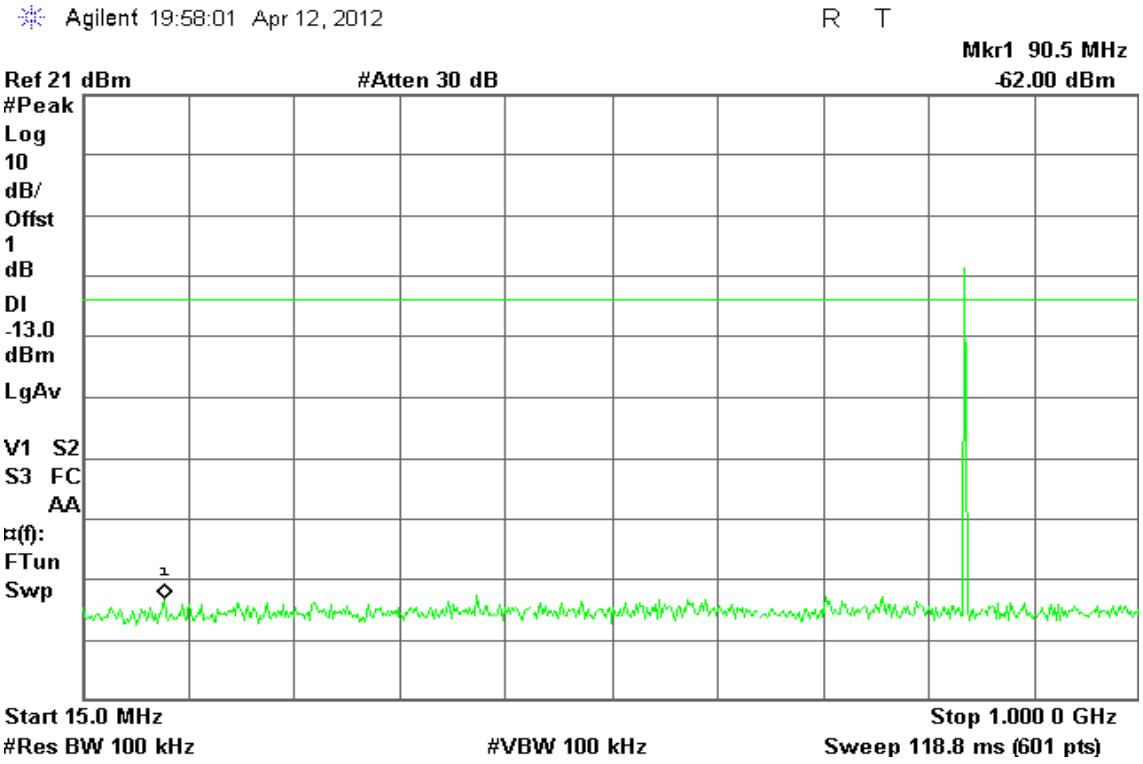


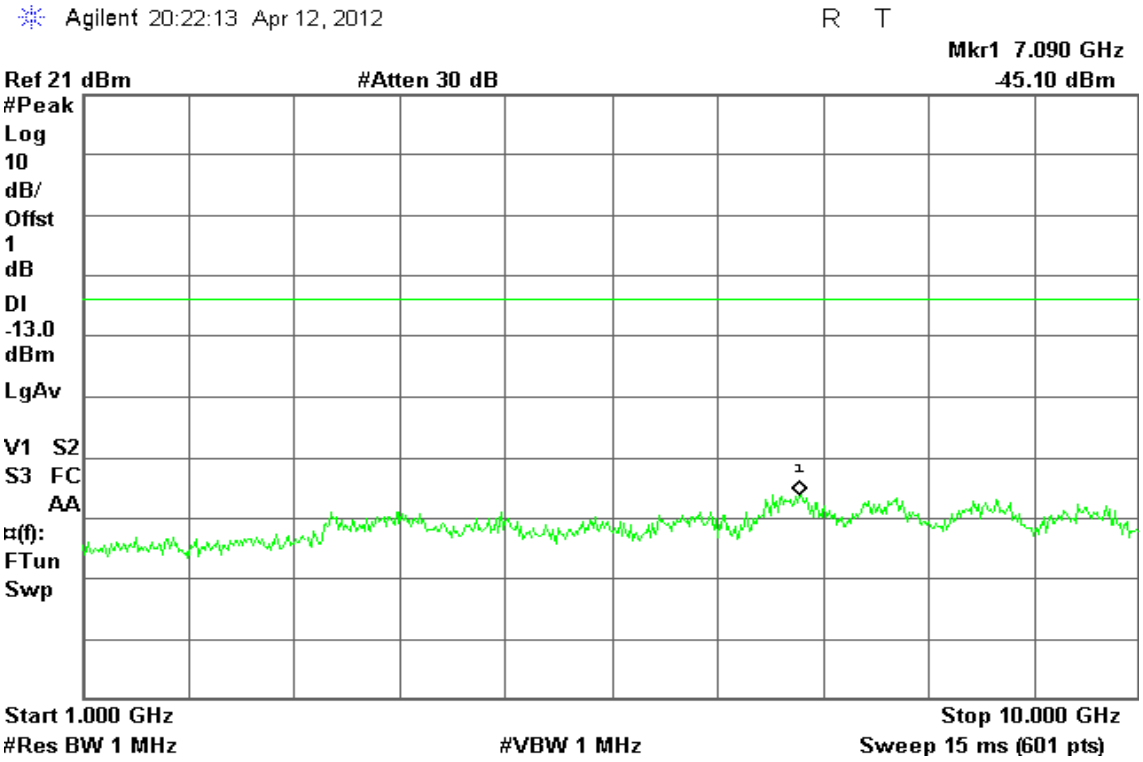
CH Mid


Agilent 20:15:37 Apr 12, 2012
R T
Mkr1 246.5 MHz
Ref 21 dBm
#Atten 30 dB
-61.80 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 94.16 ms (601 pts)


Agilent 20:22:24 Apr 12, 2012
R T
Mkr1 7.015 GHz
Ref 21 dBm
#Atten 30 dB
-43.32 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 15 ms (601 pts)

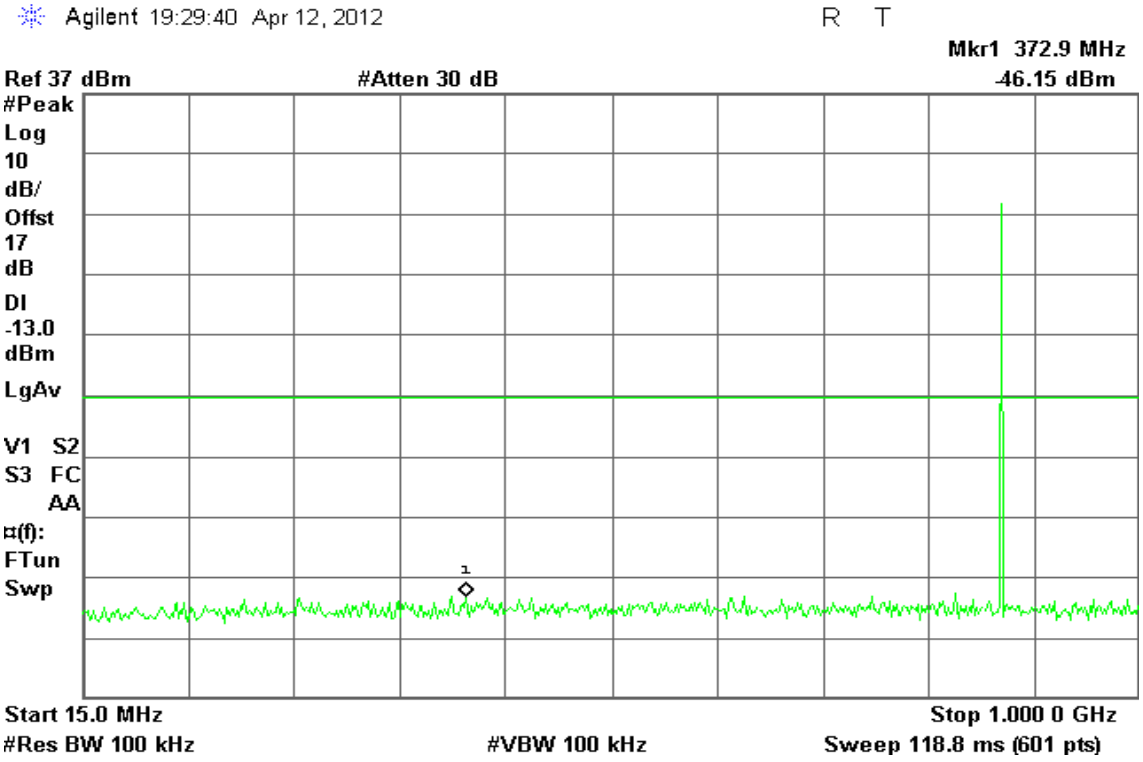
CH High

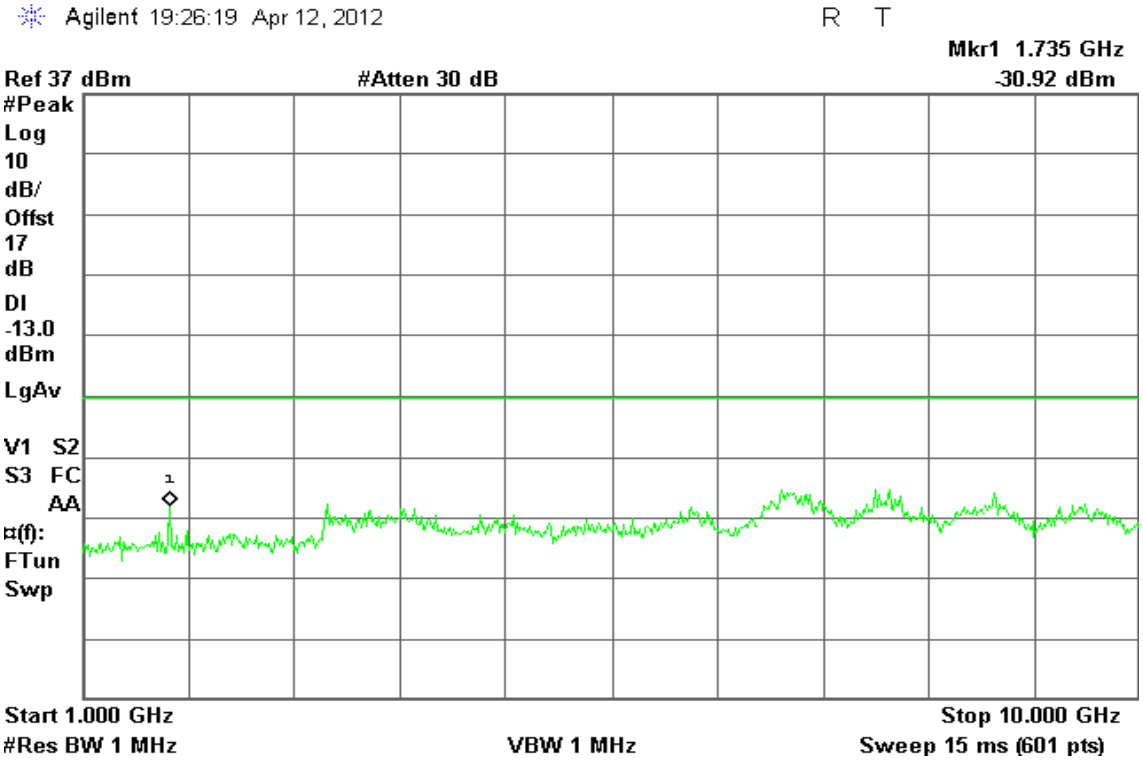

Agilent 19:58:01 Apr 12, 2012
R T
Mkr1 90.5 MHz
Ref 21 dBm
#Atten 30 dB
-62.00 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
1
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 20:22:13 Apr 12, 2012
R T
Mkr1 7.090 GHz
Ref 21 dBm
#Atten 30 dB
-45.10 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
1
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 15 ms (601 pts)

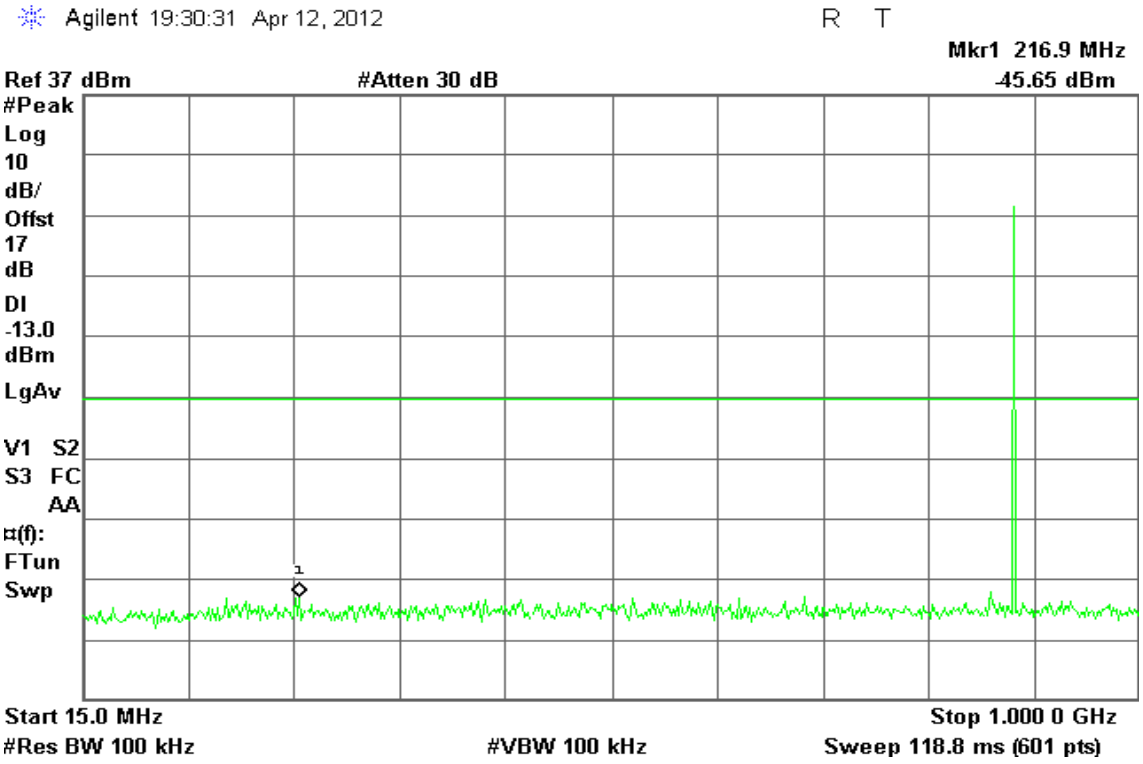
Mode 10: CDMA / 869 – 894MHz Downlink

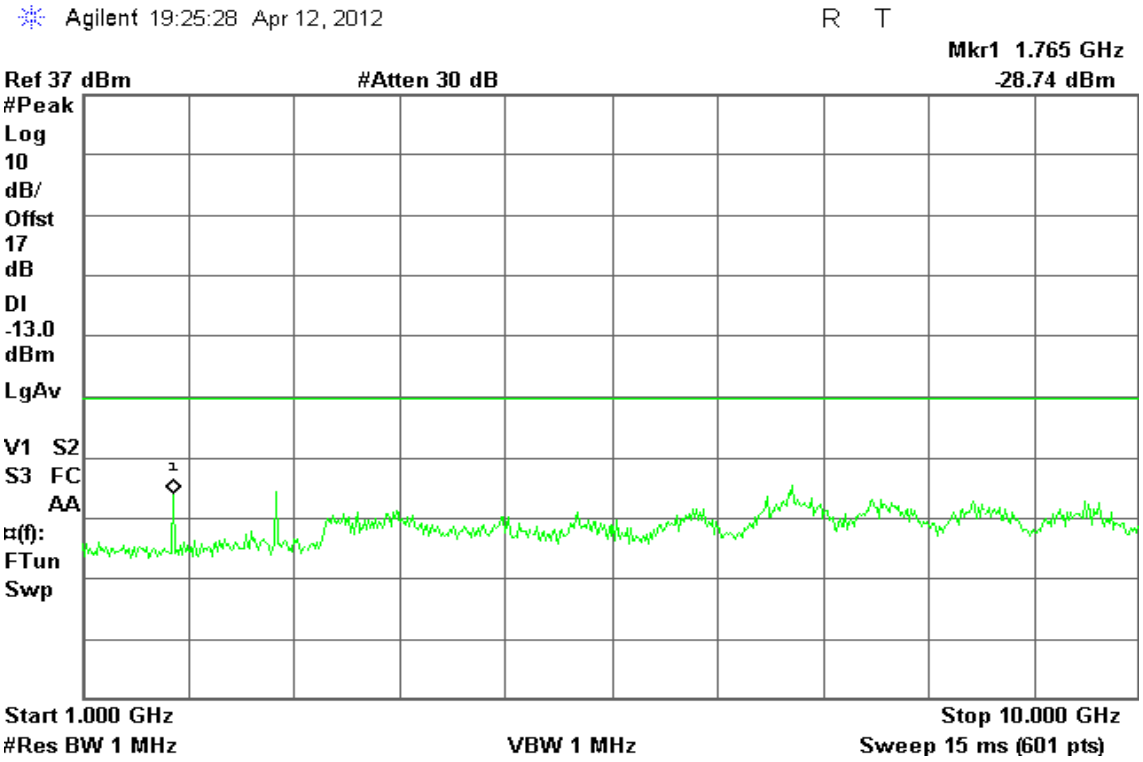
CH Low



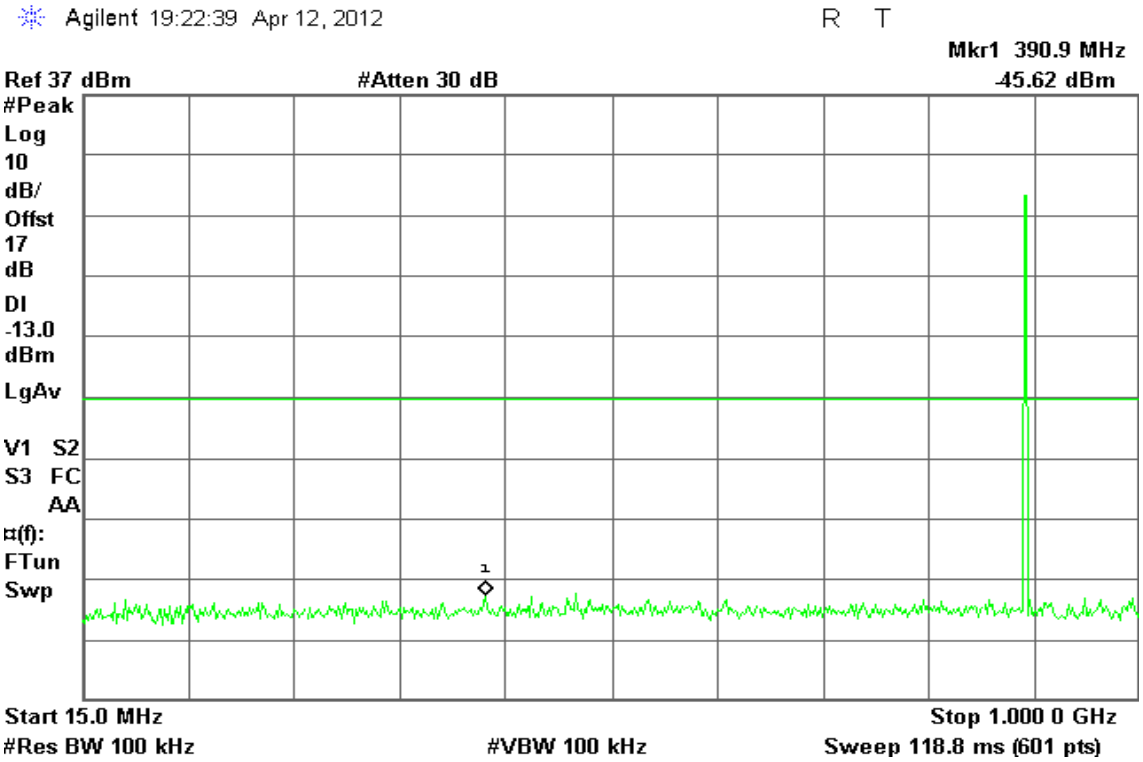


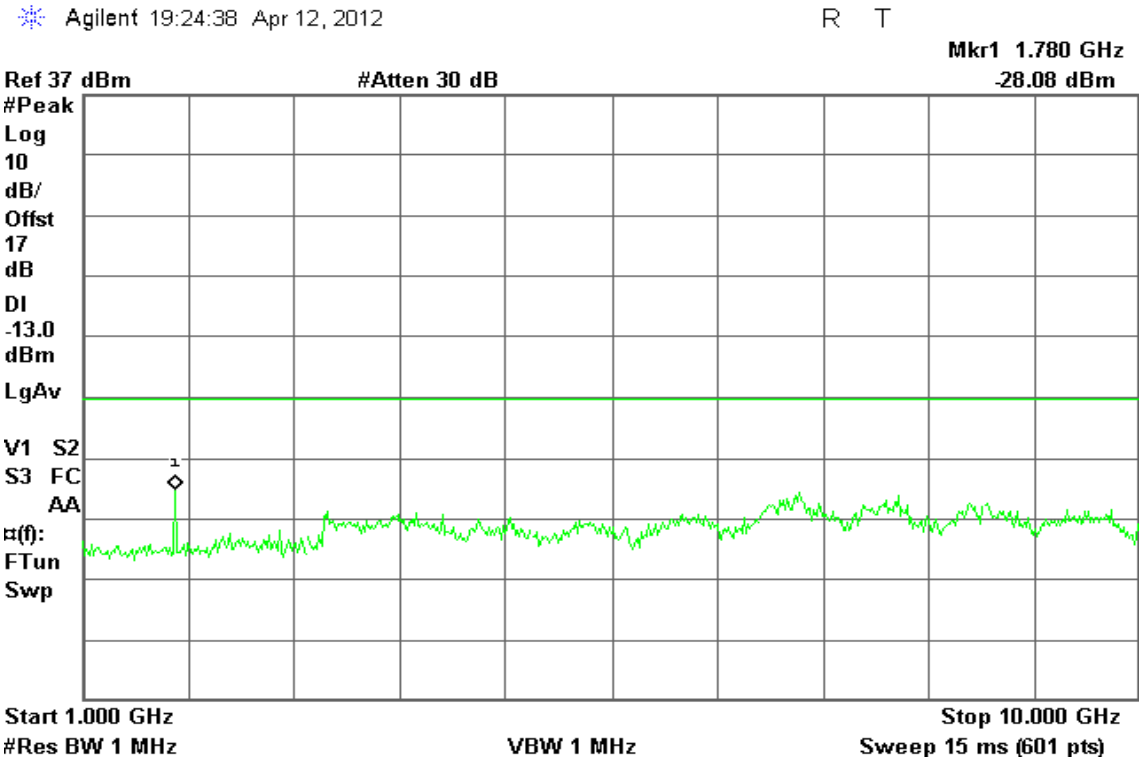
CH Mid


Agilent 19:30:31 Apr 12, 2012
R T
Mkr1 216.9 MHz
Ref 37 dBm
#Atten 30 dB
-45.65 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 19:25:28 Apr 12, 2012
R T
Mkr1 1.765 GHz
Ref 37 dBm
#Atten 30 dB
-28.74 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 15 ms (601 pts)

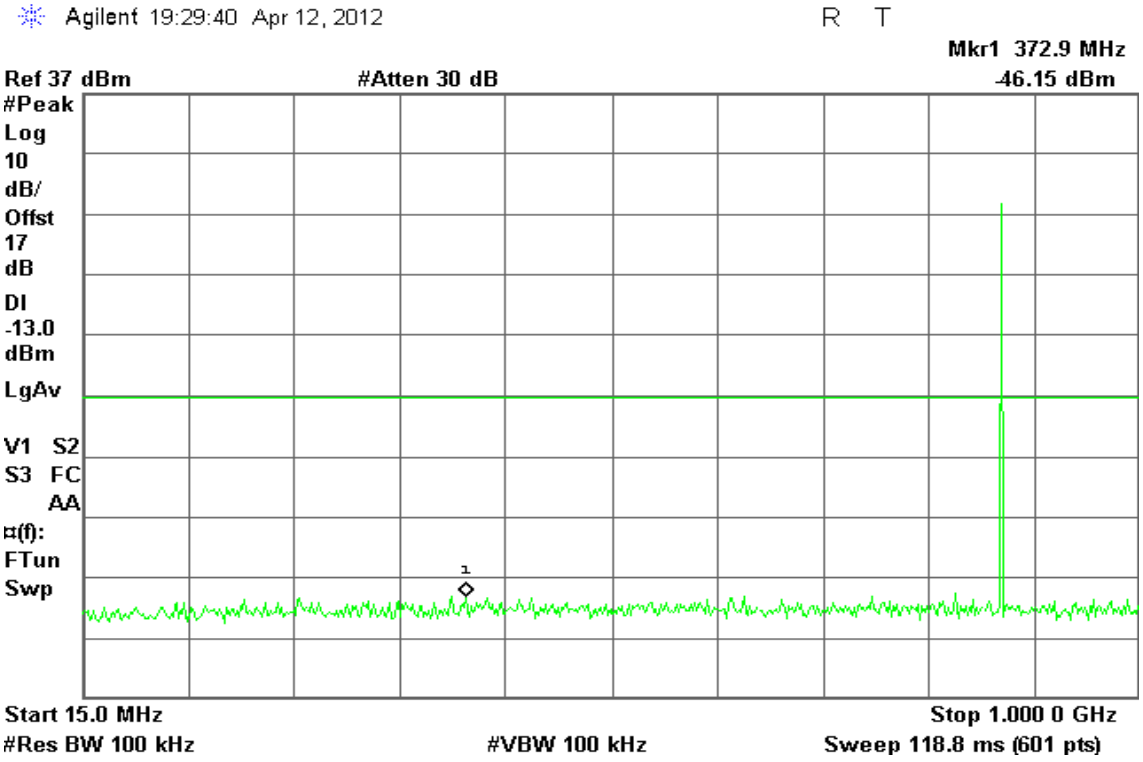
CH High

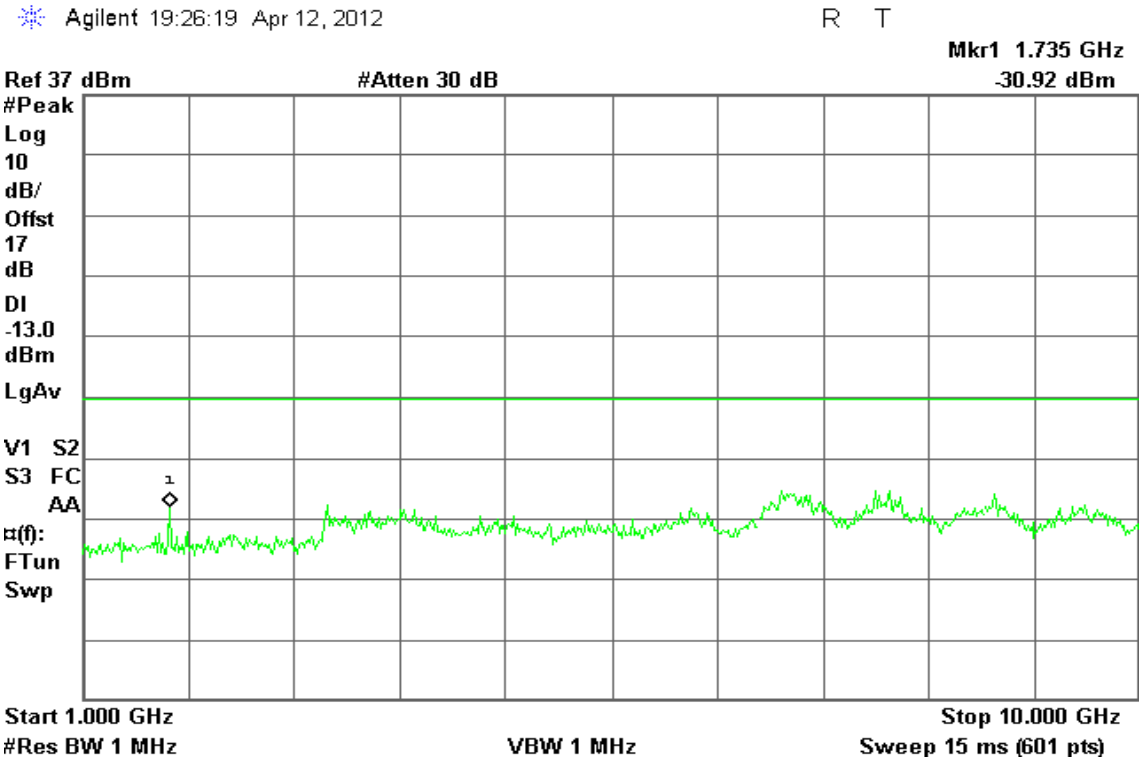

Agilent 19:22:39 Apr 12, 2012
R T
Mkr1 390.9 MHz
Ref 37 dBm
#Atten 30 dB
-45.62 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 1.000 0 GHz
Sweep 118.8 ms (601 pts)


Agilent 19:24:38 Apr 12, 2012
R T
Mkr1 1.780 GHz
Ref 37 dBm
#Atten 30 dB
-28.08 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

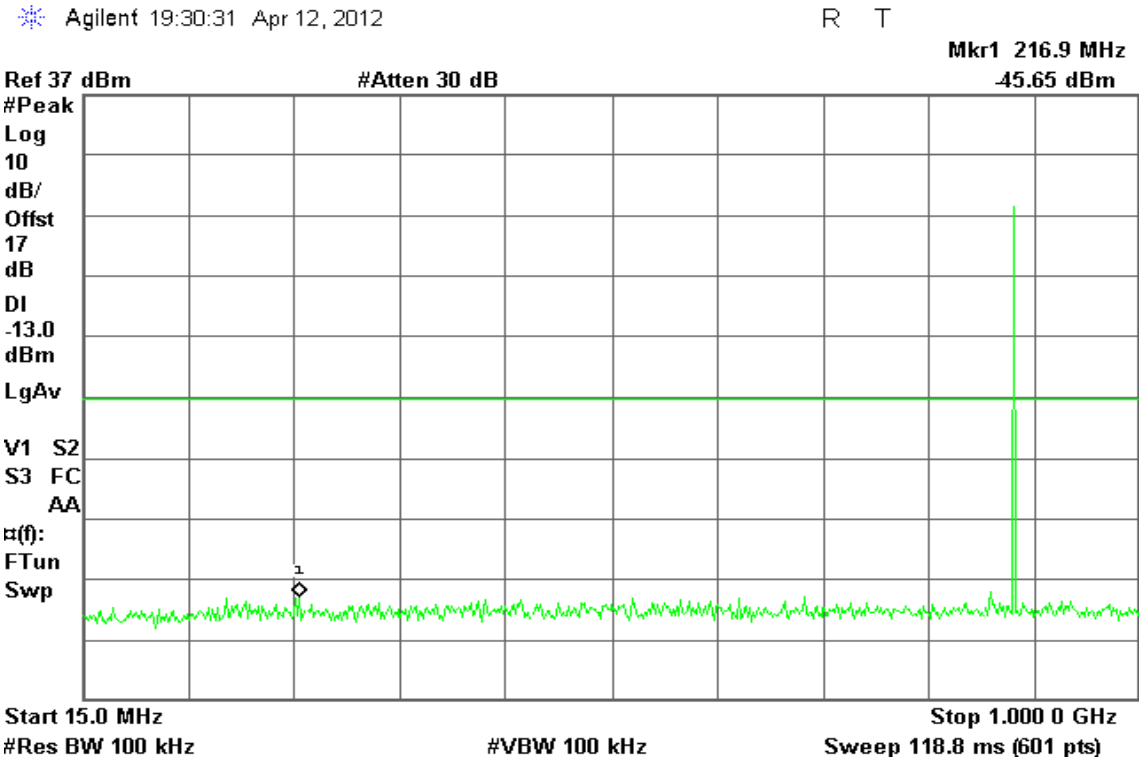
Mode 11: CDMA / 1850 – 1910MHz Uplink

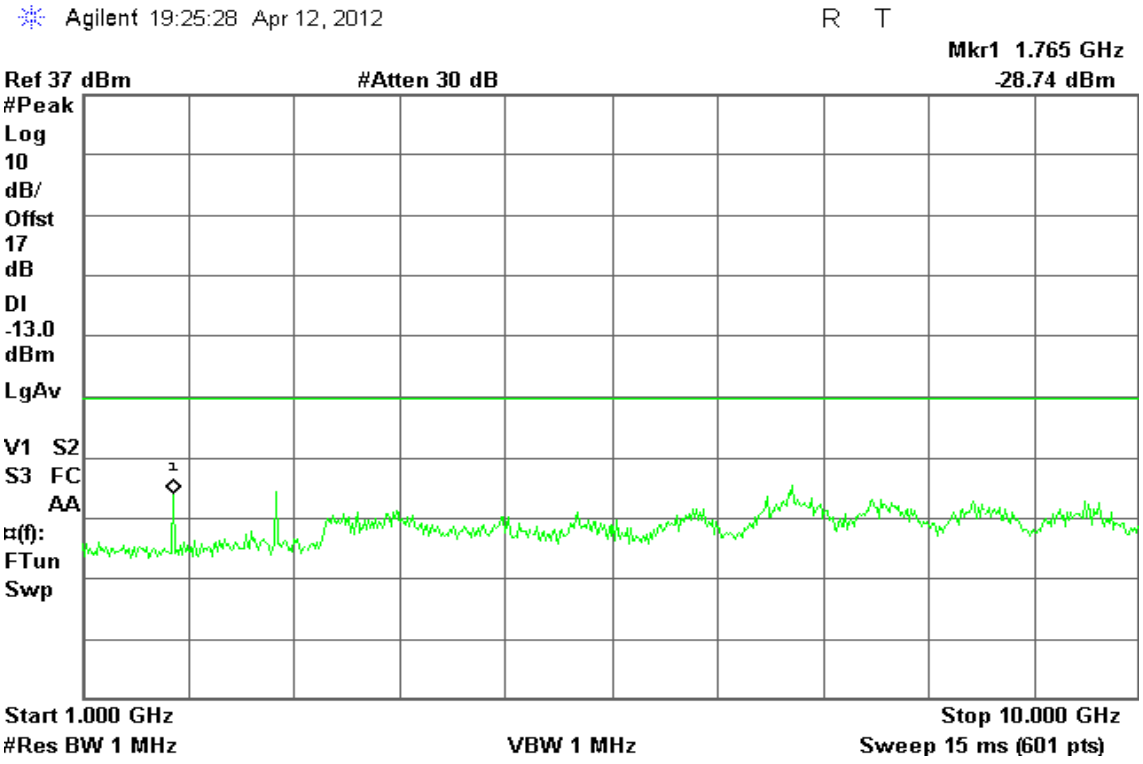
CH Low



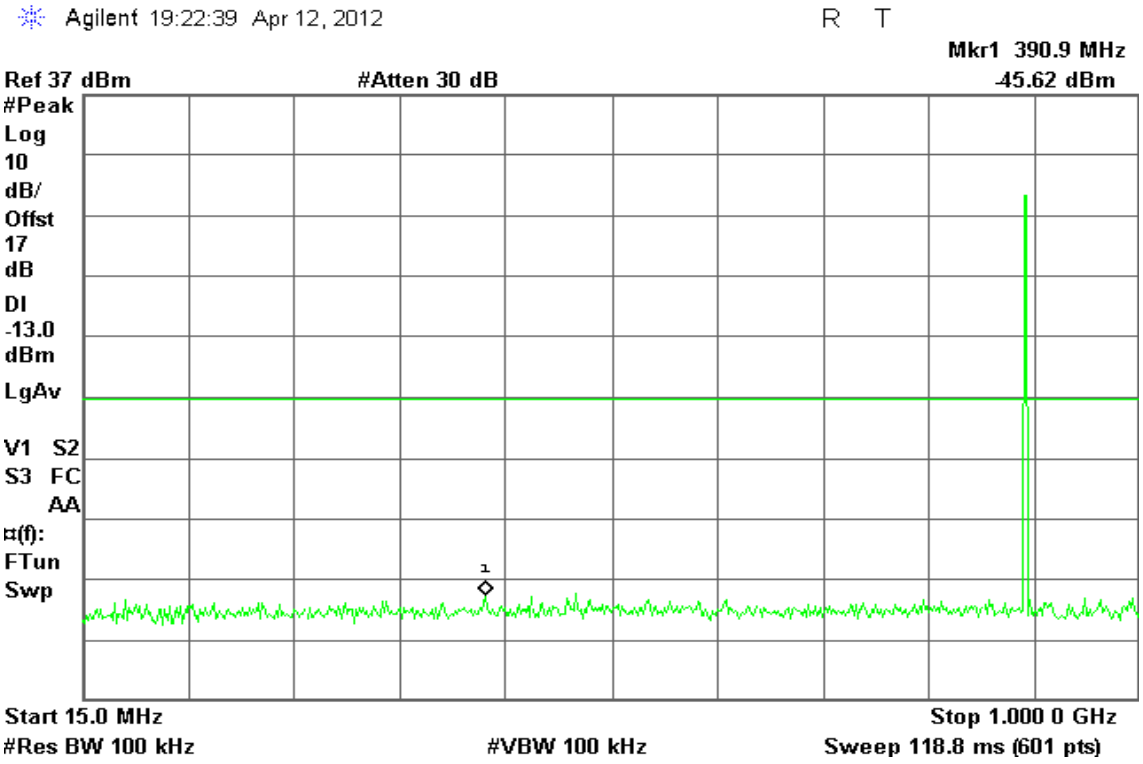


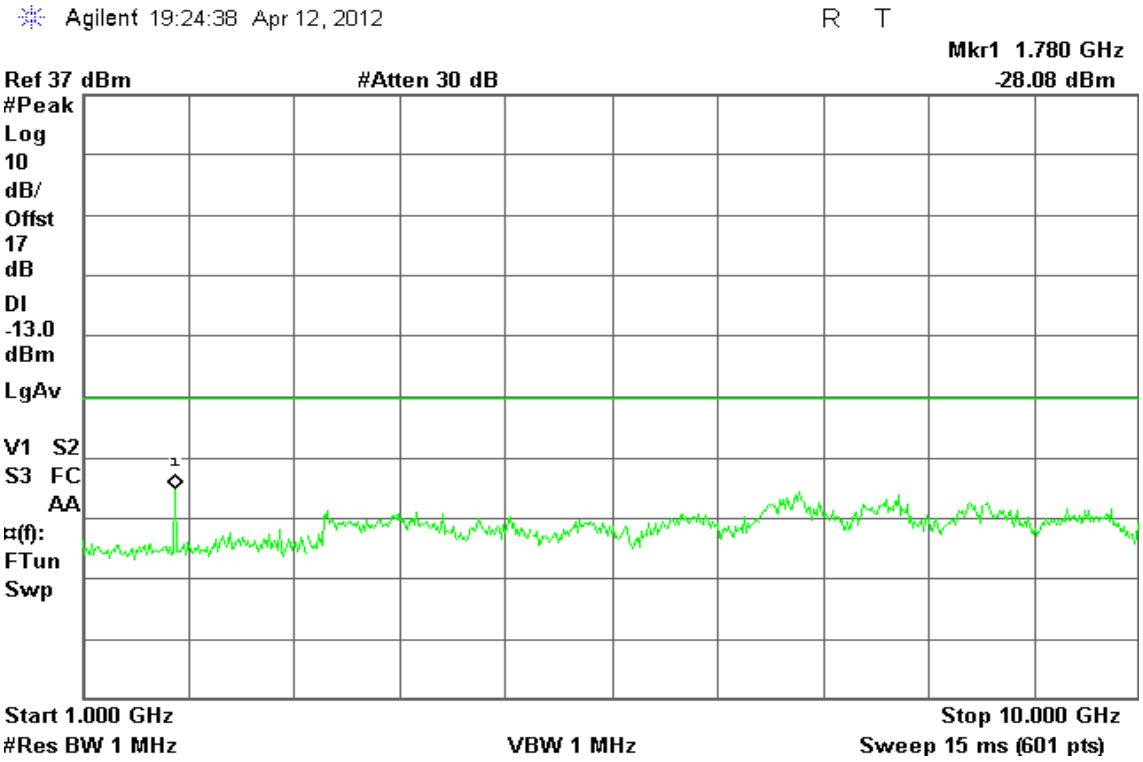
CH Mid


Agilent 19:30:31 Apr 12, 2012
R T
Mkr1 216.9 MHz
Ref 37 dBm
#Atten 30 dB
-45.65 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 19:25:28 Apr 12, 2012
R T
Mkr1 1.765 GHz
Ref 37 dBm
#Atten 30 dB
-28.74 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 15 ms (601 pts)

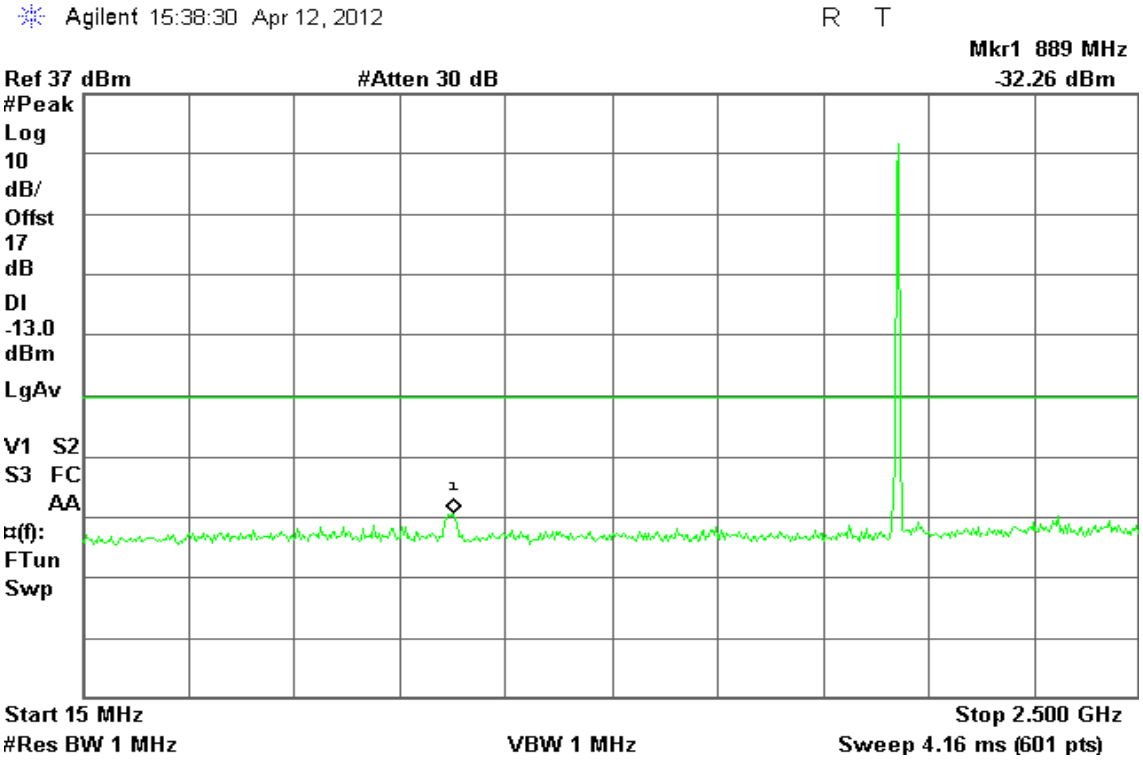
CH High

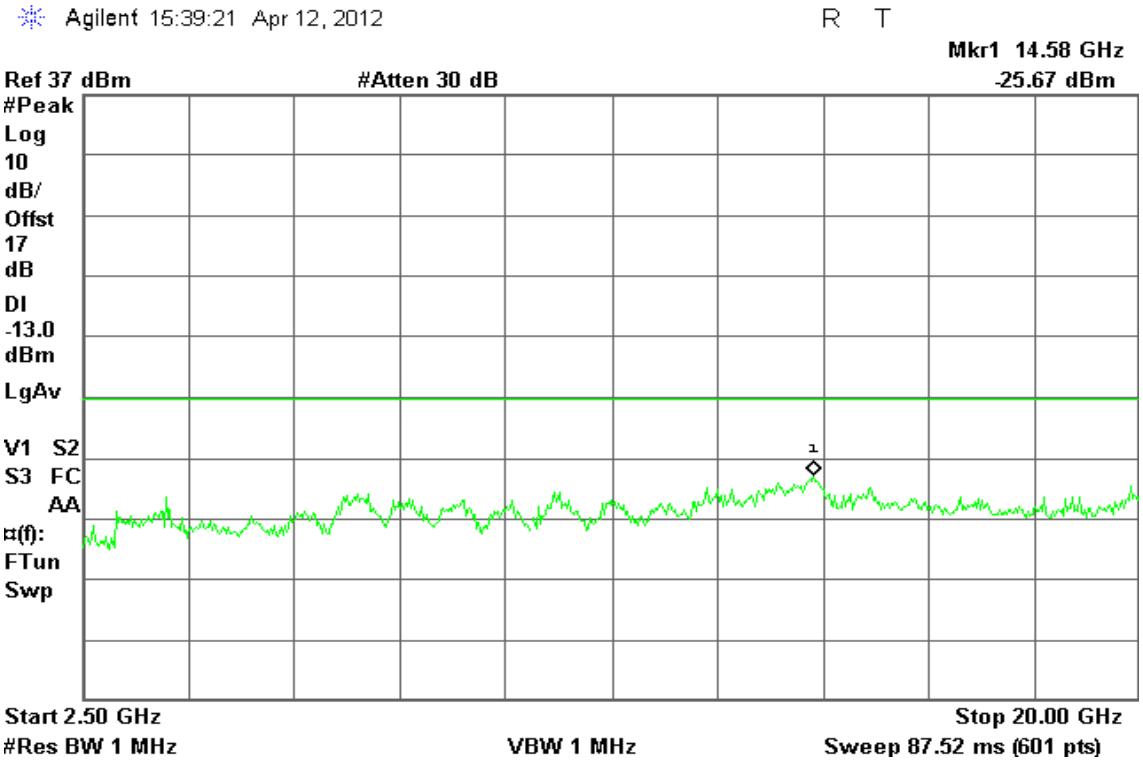

Agilent 19:22:39 Apr 12, 2012
R T
Mkr1 390.9 MHz
Ref 37 dBm
#Atten 30 dB
-45.62 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 19:24:38 Apr 12, 2012
R T
Mkr1 1.780 GHz
Ref 37 dBm
#Atten 30 dB
-28.08 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 15 ms (601 pts)

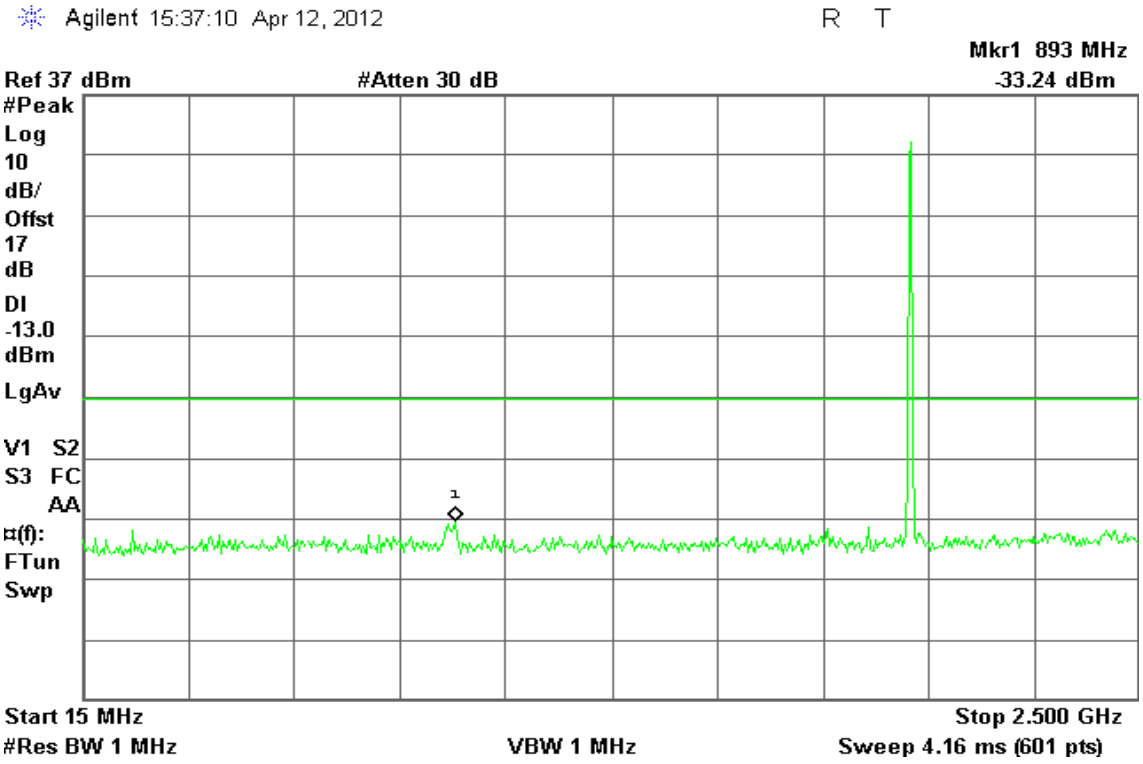
Mode 12: CDMA / 1930 – 1990MHz Downlink

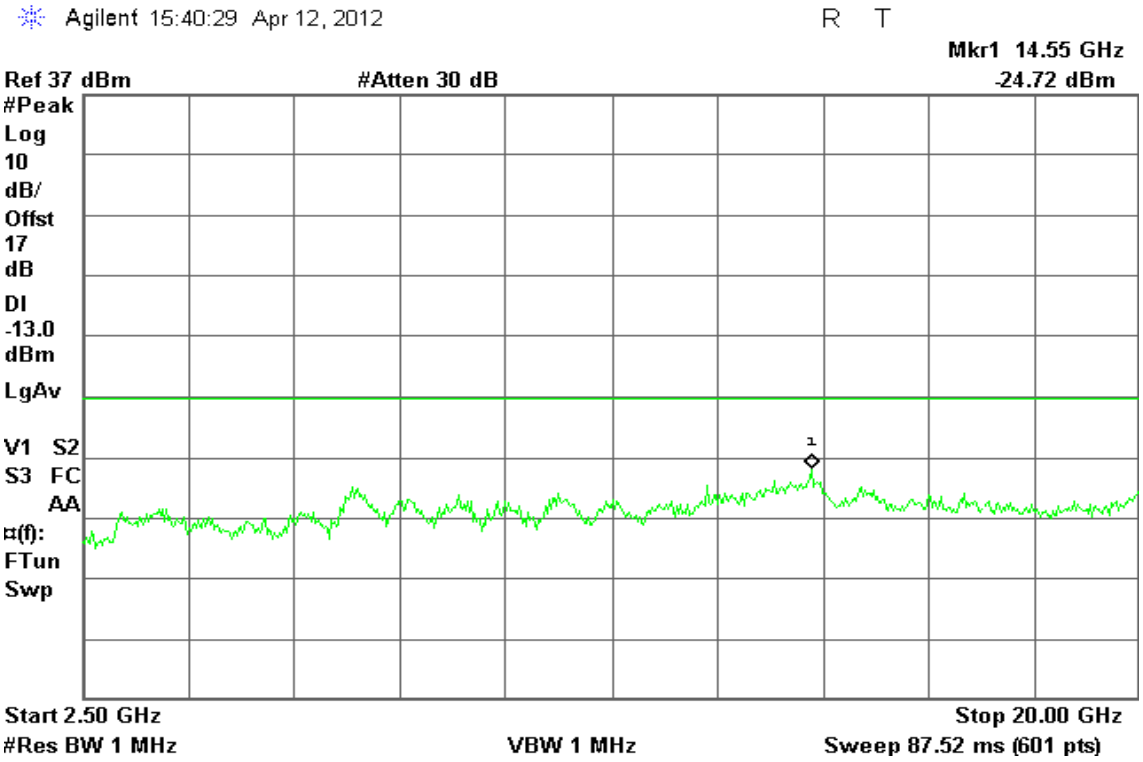
CH Low



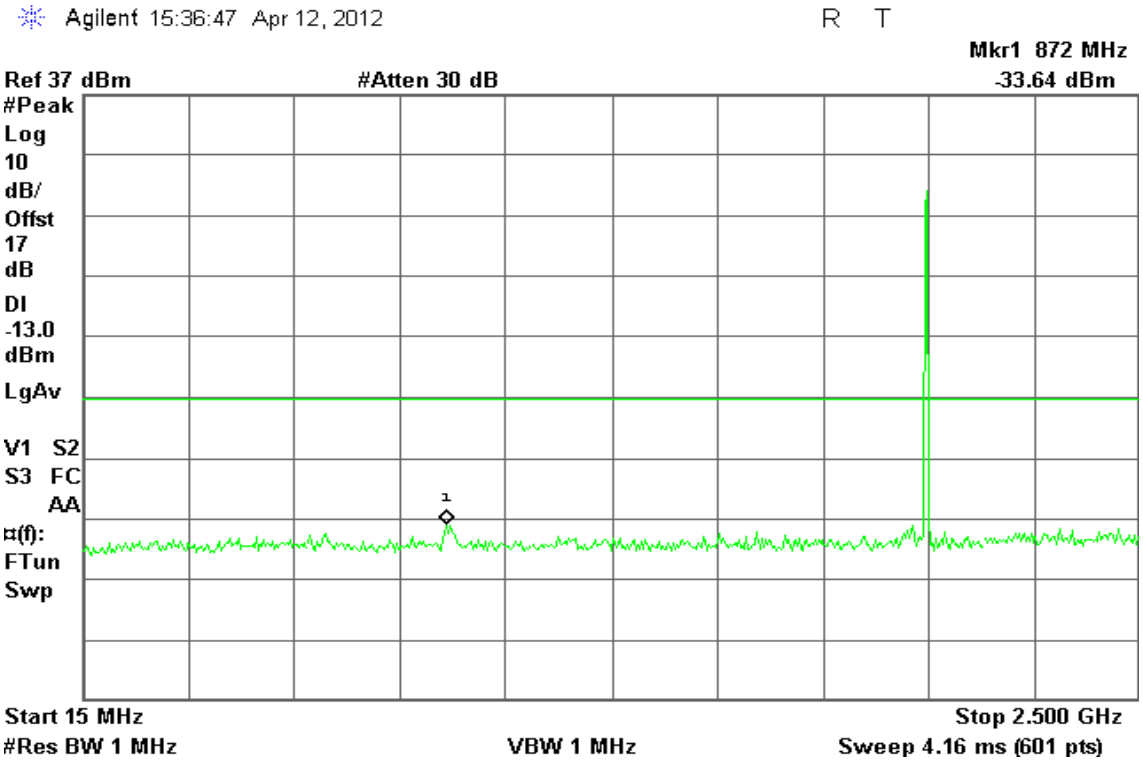


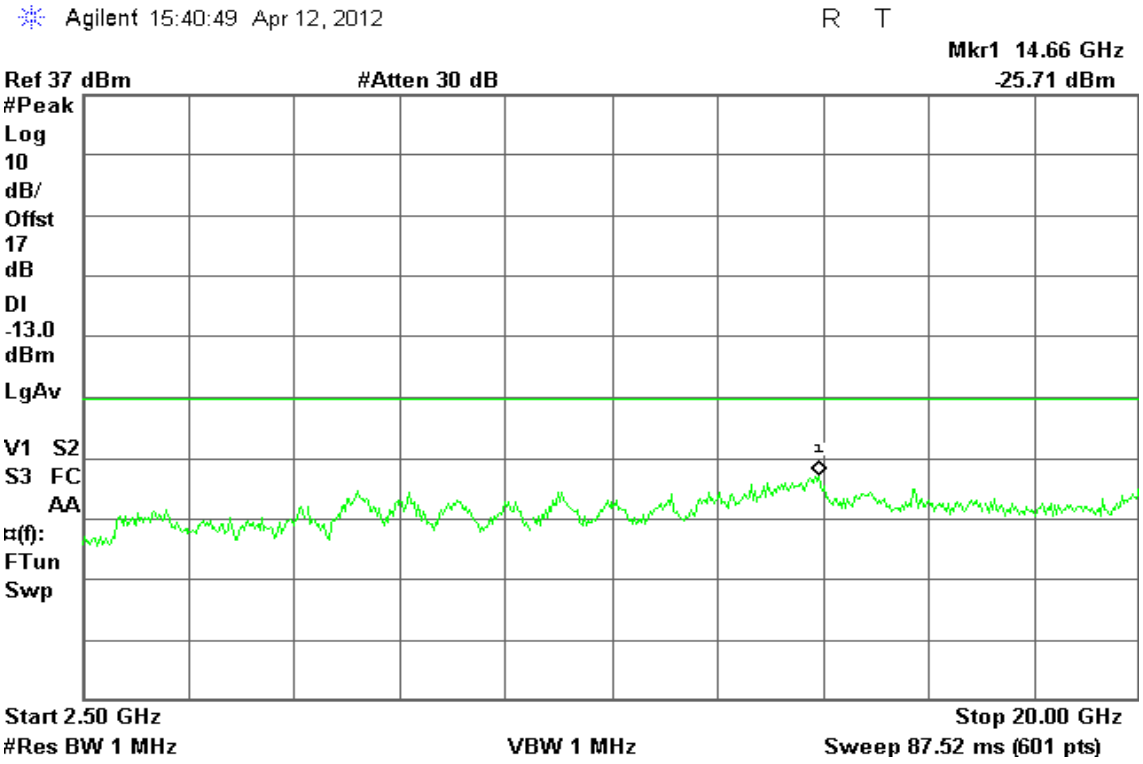
CH Mid


Agilent 15:37:10 Apr 12, 2012
R T
Mkr1 893 MHz
-33.24 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15 MHz
#Res BW 1 MHz
VBW 1 MHz
Stop 2.500 GHz
Sweep 4.16 ms (601 pts)


Agilent 15:40:29 Apr 12, 2012
R T
Mkr1 14.55 GHz
-24.72 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.50 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 20.00 GHz
Sweep 87.52 ms (601 pts)

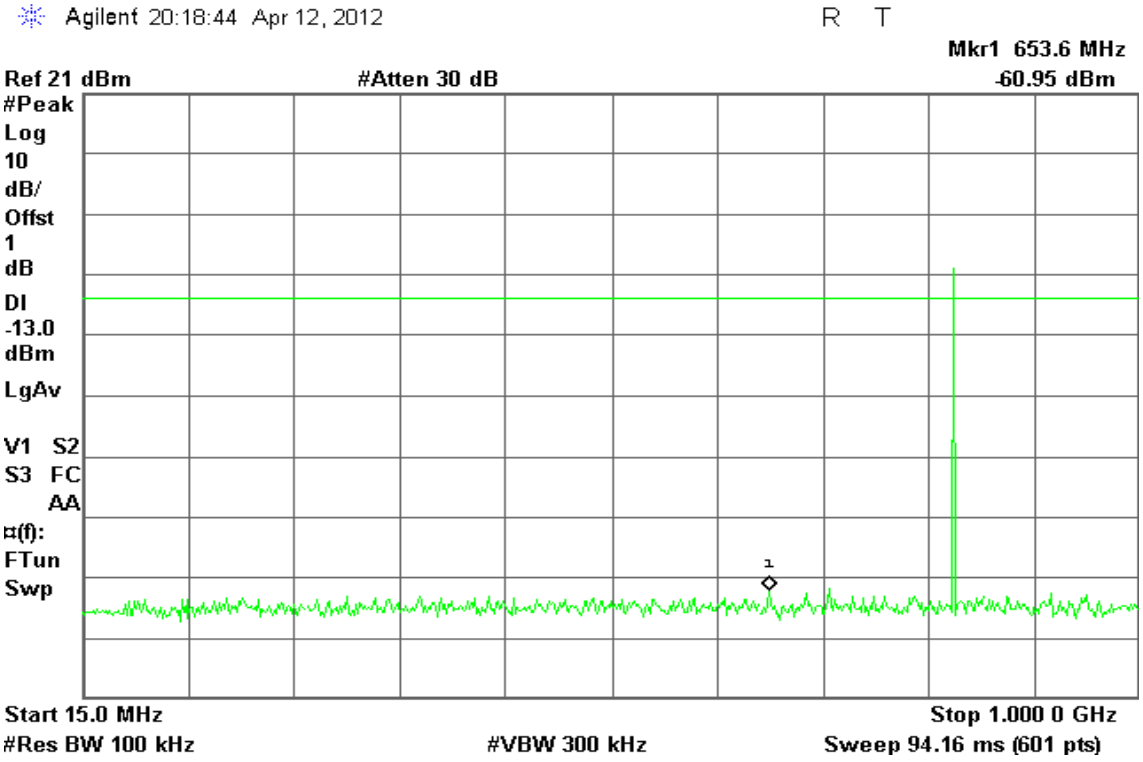
CH High

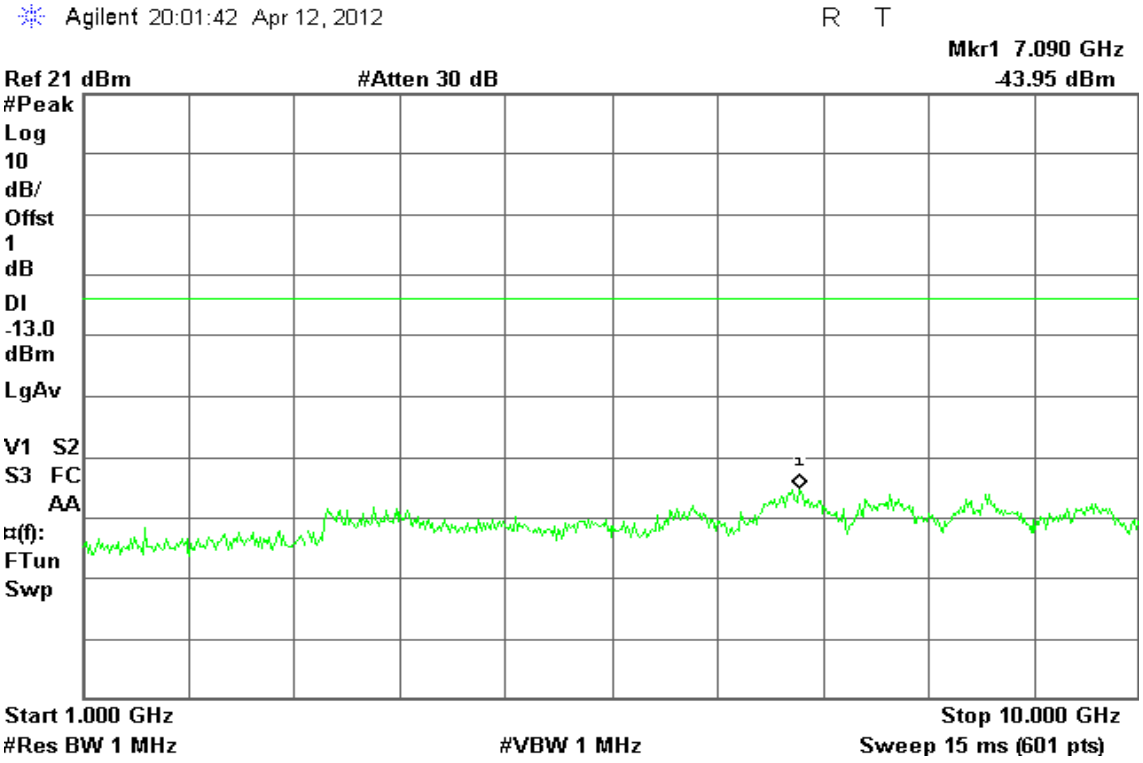

Agilent 15:36:47 Apr 12, 2012
R T
Mkr1 872 MHz
-33.64 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15 MHz
#Res BW 1 MHz
VBW 1 MHz
Stop 2.500 GHz
Sweep 4.16 ms (601 pts)


Agilent 15:40:49 Apr 12, 2012
R T
Mkr1 14.66 GHz
-25.71 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.50 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 20.00 GHz
Sweep 87.52 ms (601 pts)

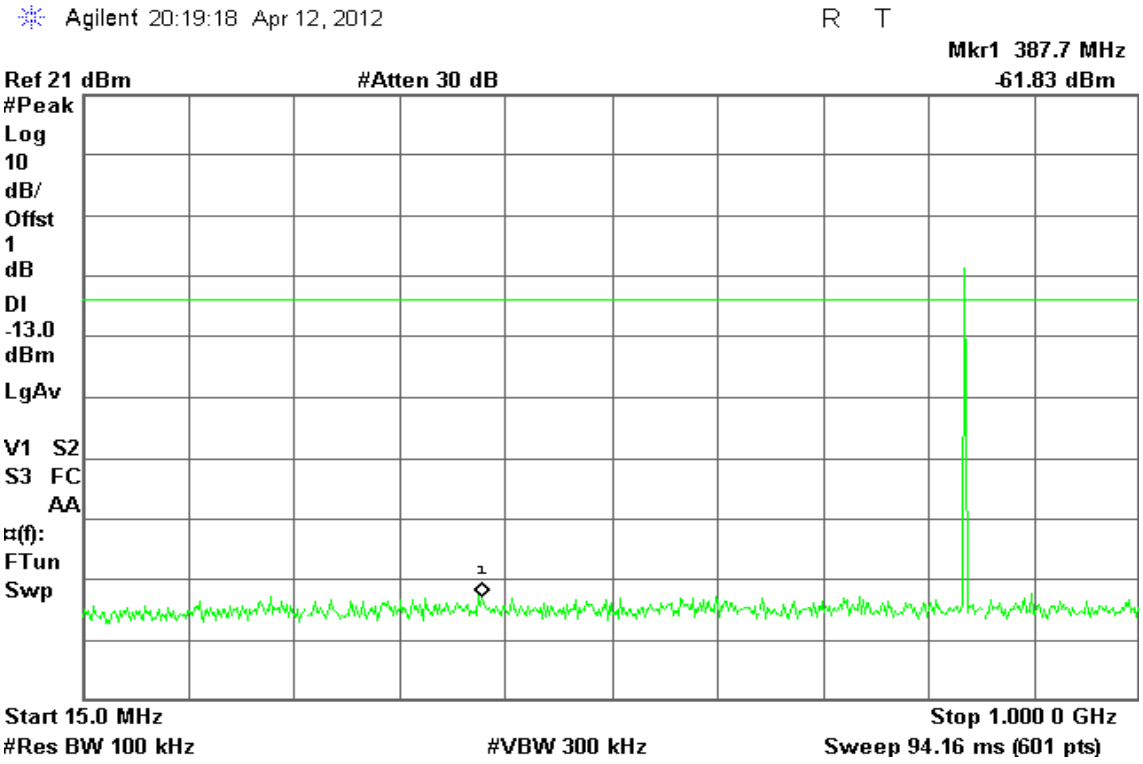
Mode 13: TDMA / 824 – 849MHz Uplink

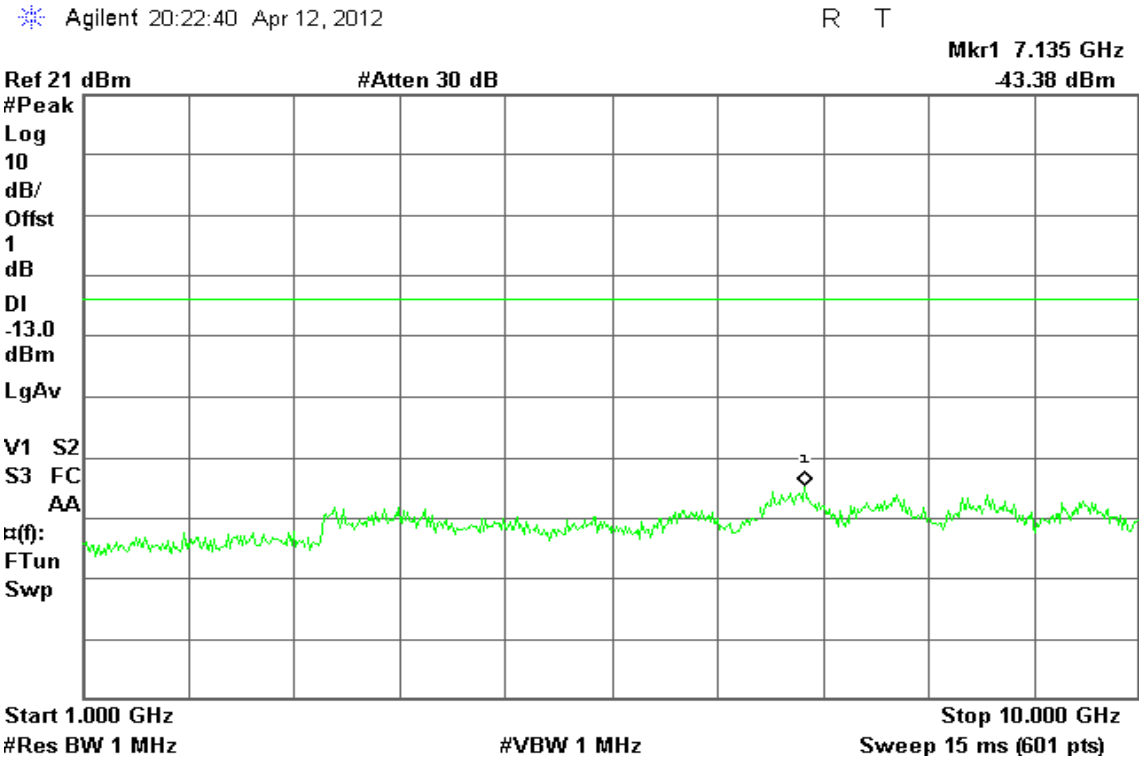
CH Low



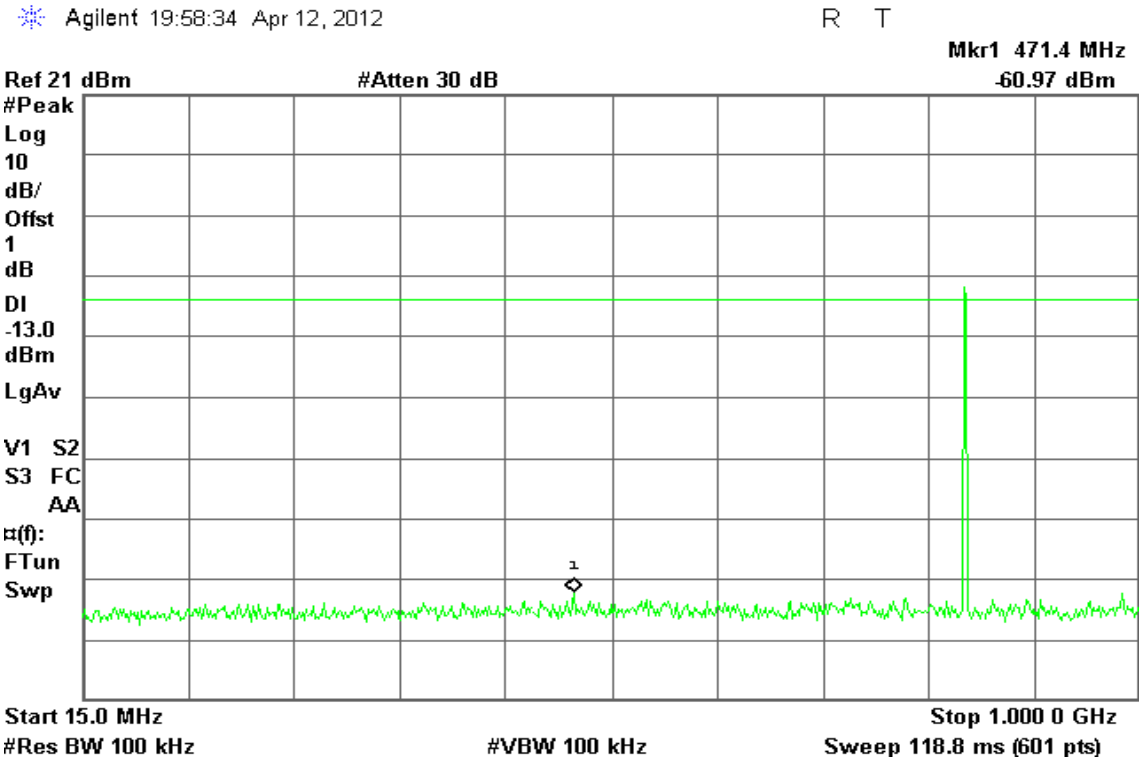


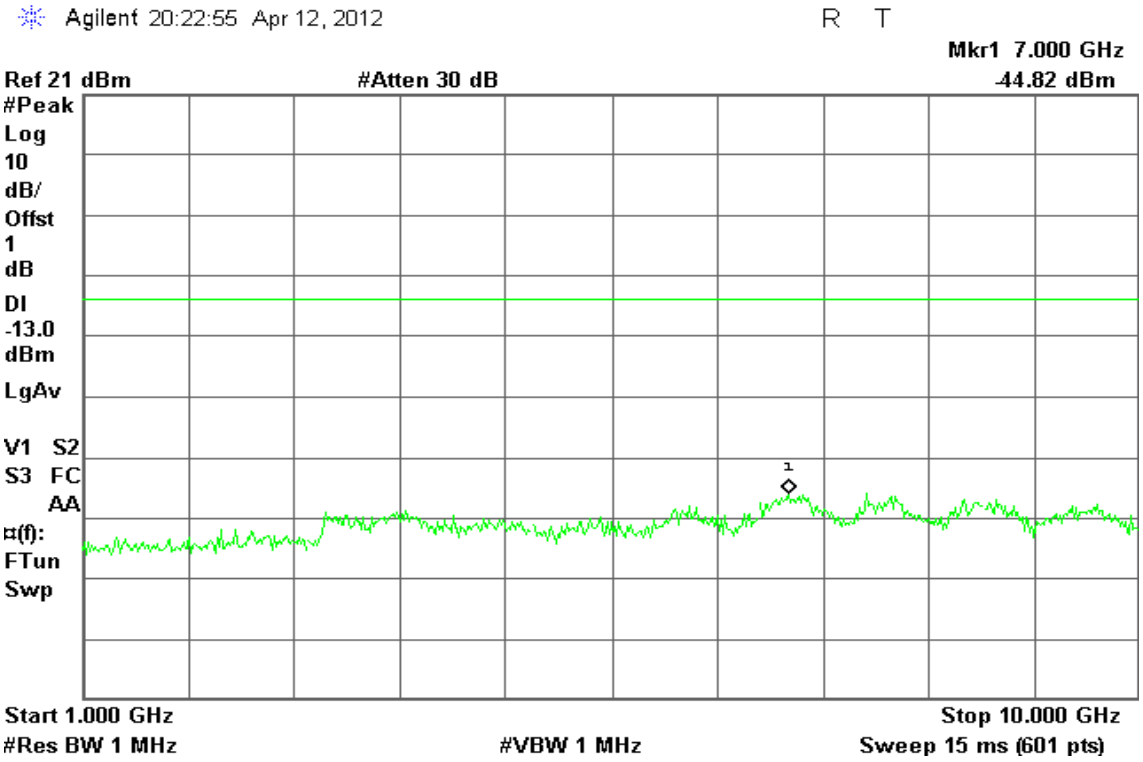
CH Mid


Agilent 20:19:18 Apr 12, 2012
R T
Mkr1 387.7 MHz
Ref 21 dBm
#Atten 30 dB
-61.83 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.000 0 GHz
Sweep 94.16 ms (601 pts)


Agilent 20:22:40 Apr 12, 2012
R T
Mkr1 7.135 GHz
Ref 21 dBm
#Atten 30 dB
-43.38 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

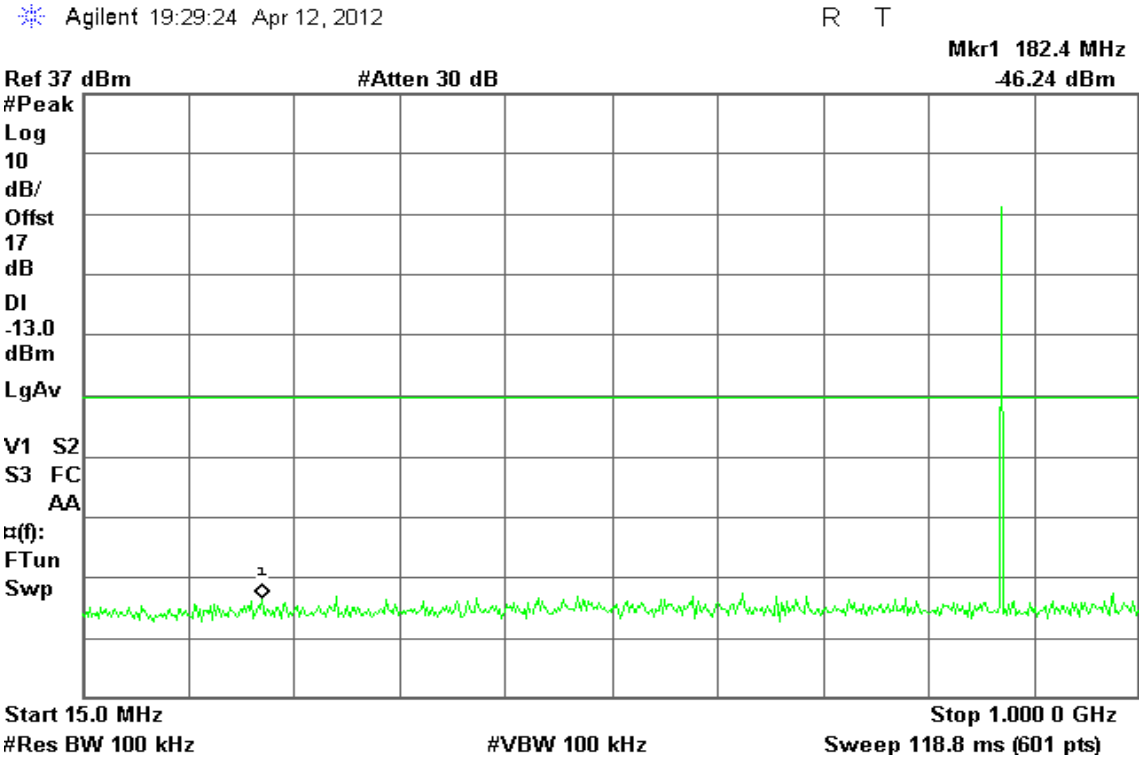
CH High

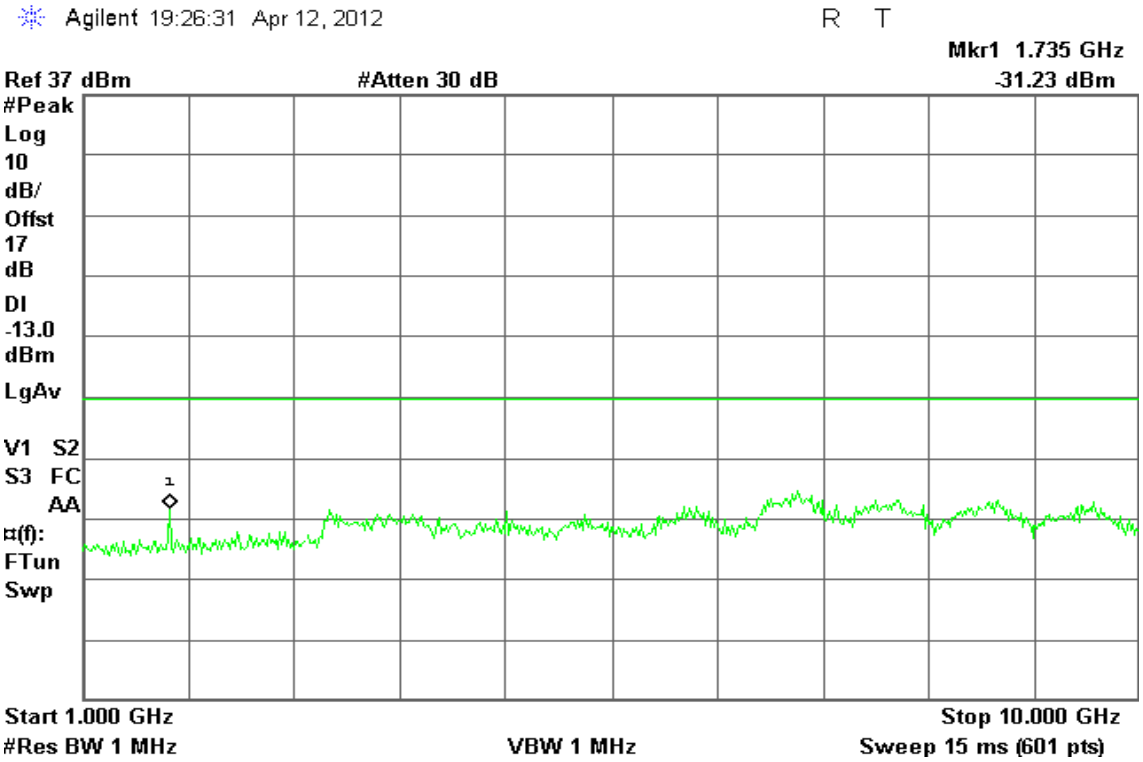

Agilent 19:58:34 Apr 12, 2012
R T
Mkr1 471.4 MHz
Ref 21 dBm
#Atten 30 dB
-60.97 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 20:22:55 Apr 12, 2012
R T
Mkr1 7.000 GHz
Ref 21 dBm
#Atten 30 dB
-44.82 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 15 ms (601 pts)

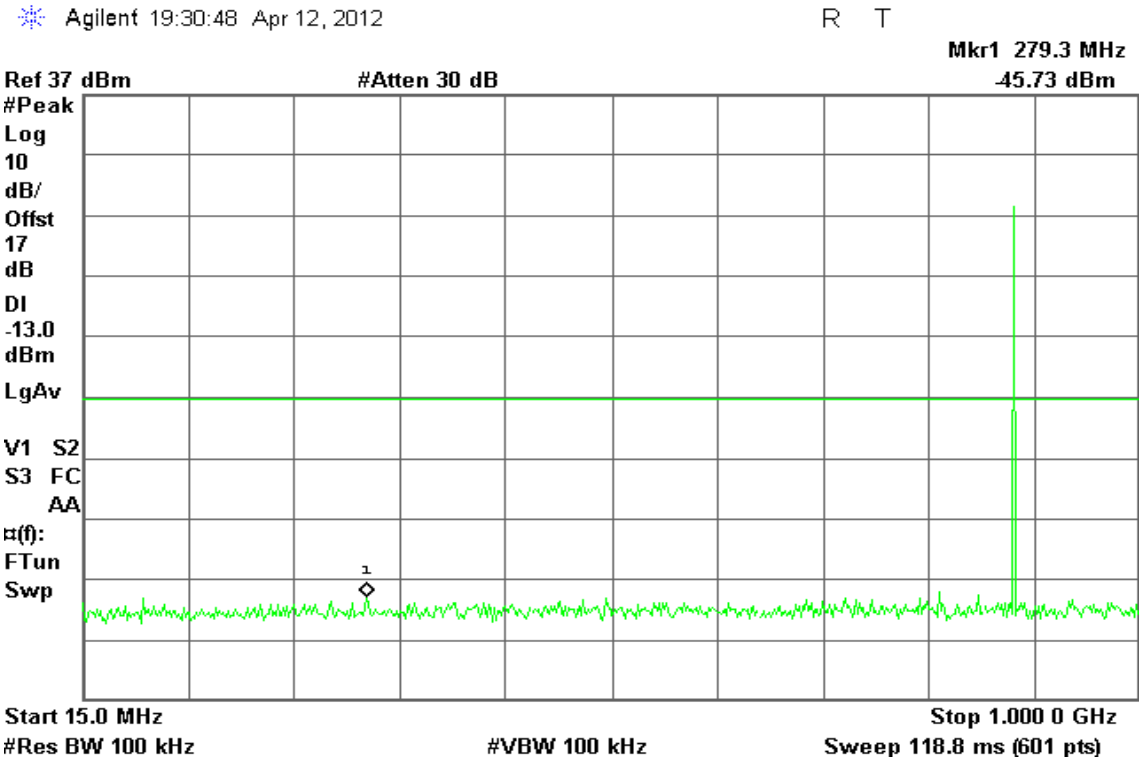
Mode 14: TDMA / 869 – 894MHz Downlink

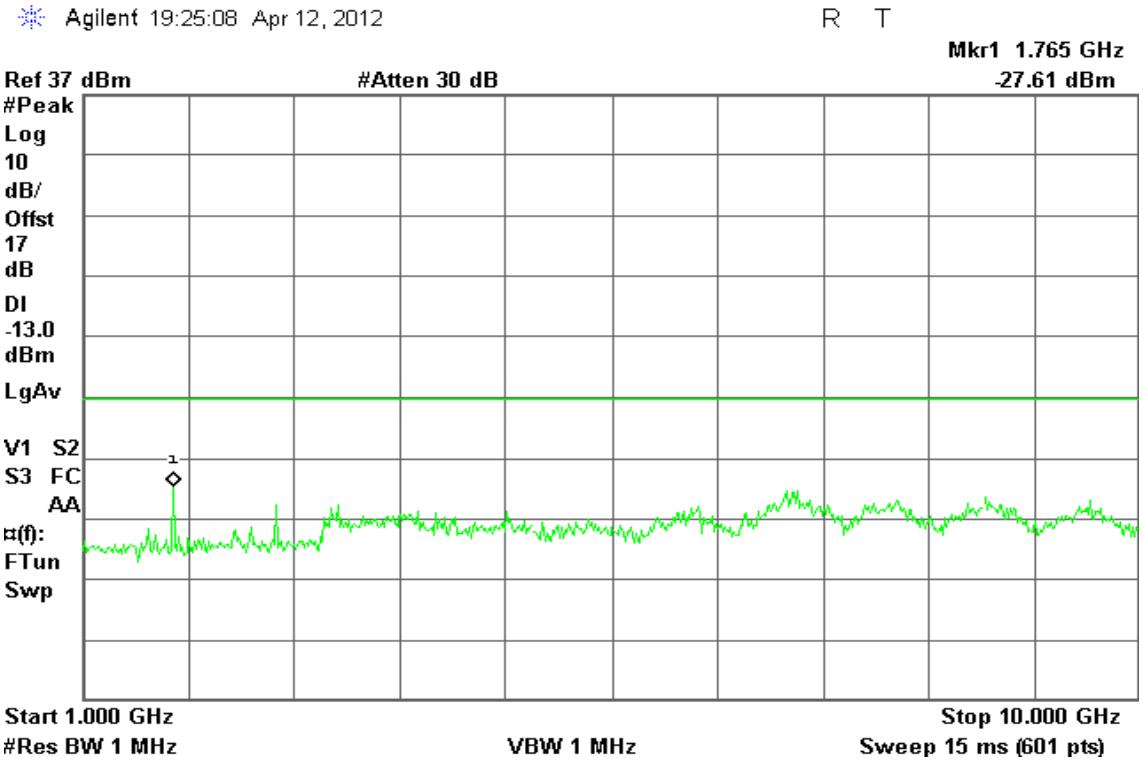
CH Low



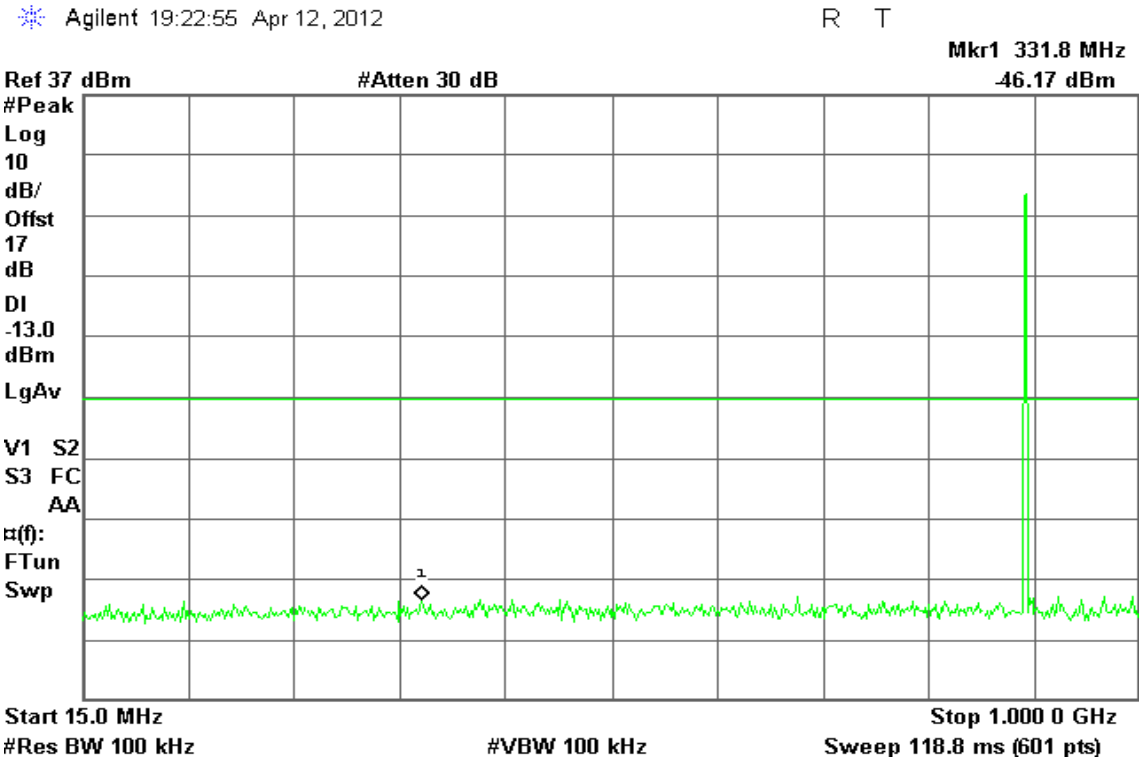


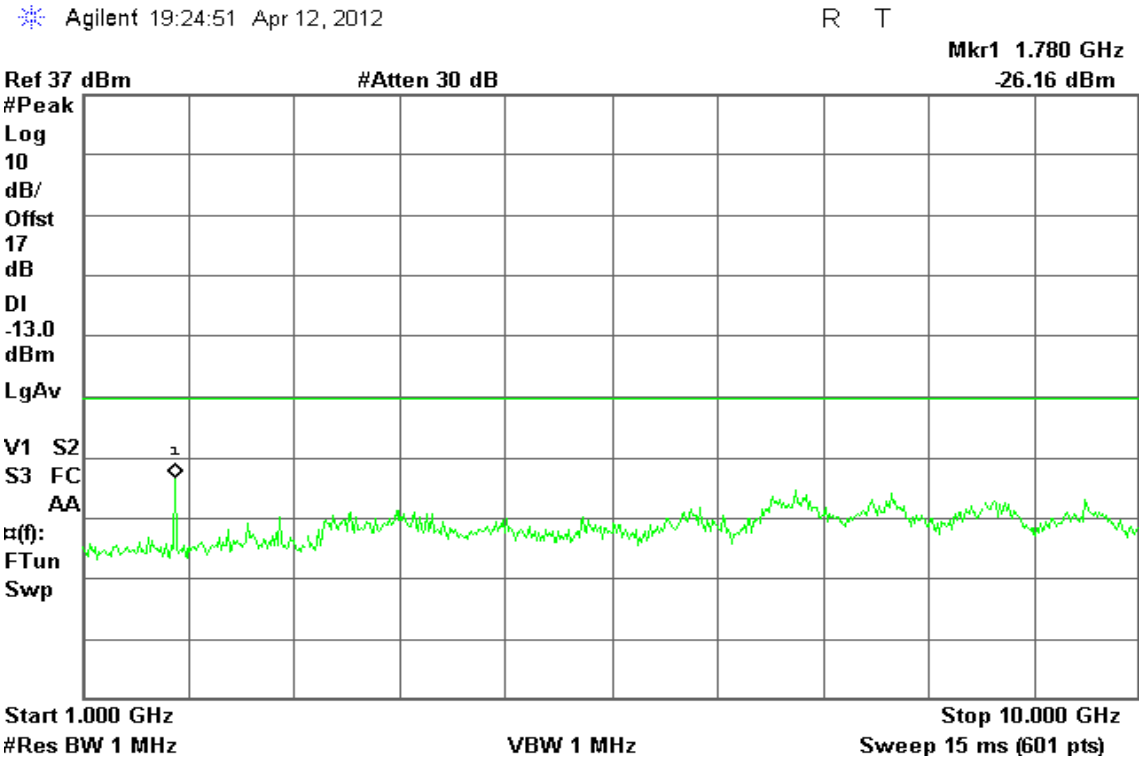
CH Mid


Agilent 19:30:48 Apr 12, 2012
R T
Mkr1 279.3 MHz
Ref 37 dBm
#Atten 30 dB
-45.73 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 118.8 ms (601 pts)


Agilent 19:25:08 Apr 12, 2012
R T
Mkr1 1.765 GHz
Ref 37 dBm
#Atten 30 dB
-27.61 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 15 ms (601 pts)

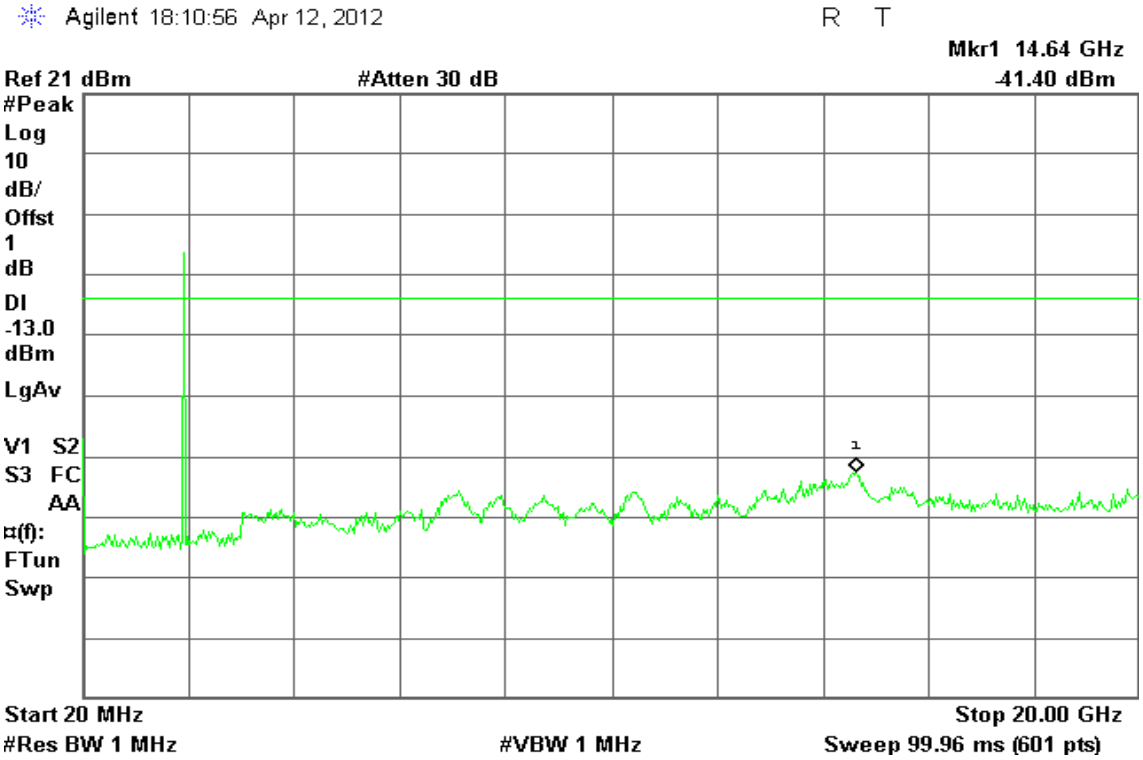
CH High


Agilent 19:22:55 Apr 12, 2012
R T
Mkr1 331.8 MHz
Ref 37 dBm
#Atten 30 dB
-46.17 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15.0 MHz
#Res BW 100 kHz
#VBW 100 kHz
Stop 1.000 0 GHz
Sweep 118.8 ms (601 pts)

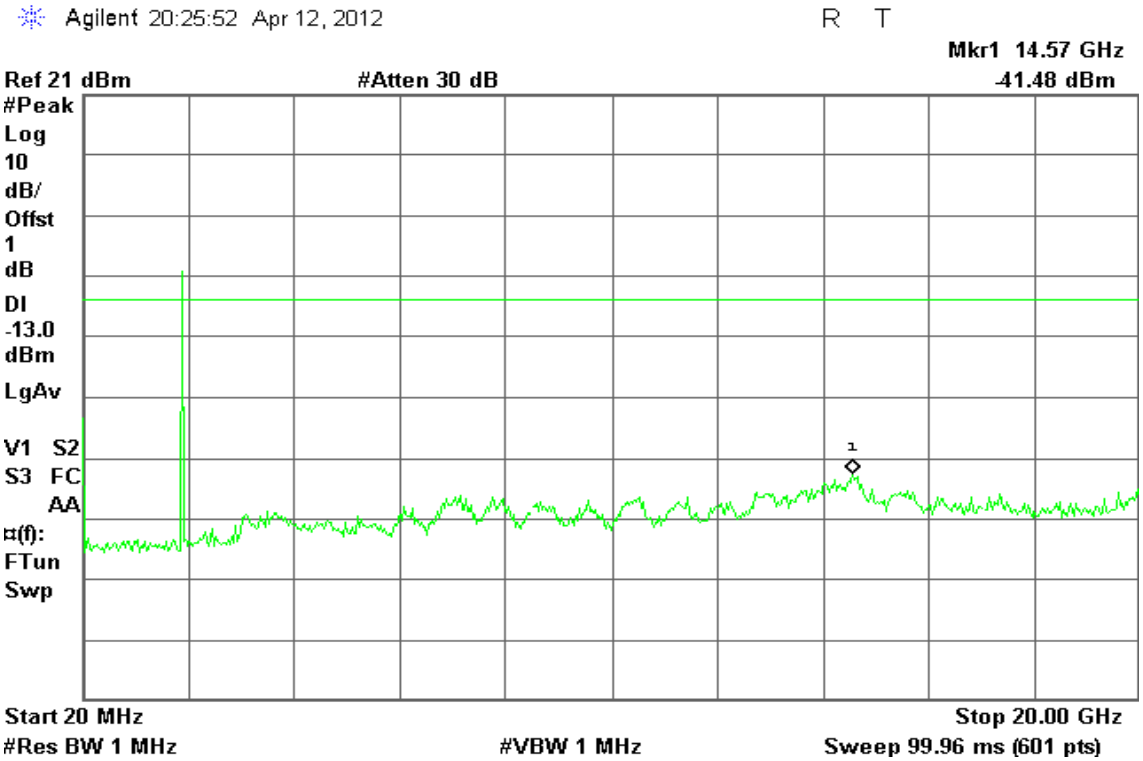

Agilent 19:24:51 Apr 12, 2012
R T
Mkr1 1.780 GHz
Ref 37 dBm
#Atten 30 dB
-26.16 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 1.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10.000 GHz
Sweep 15 ms (601 pts)

Mode 15: TDMA / 1850 – 1910MHz Uplink

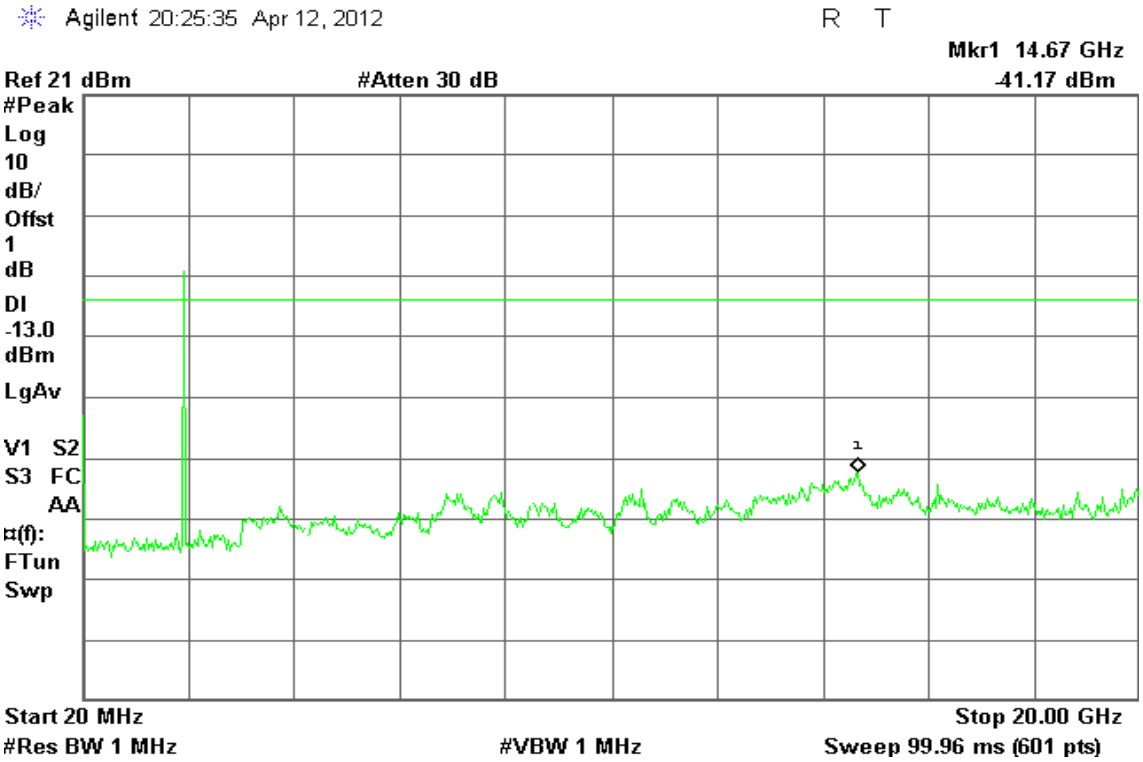
CH Low



CH Mid

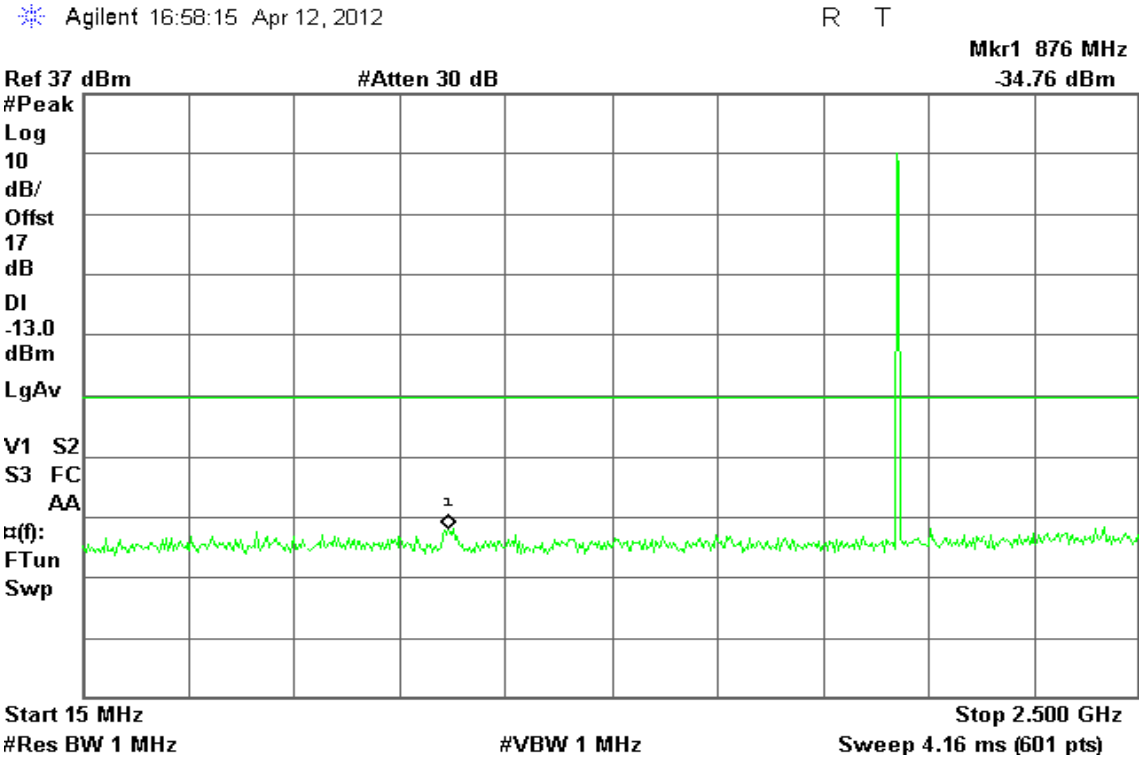


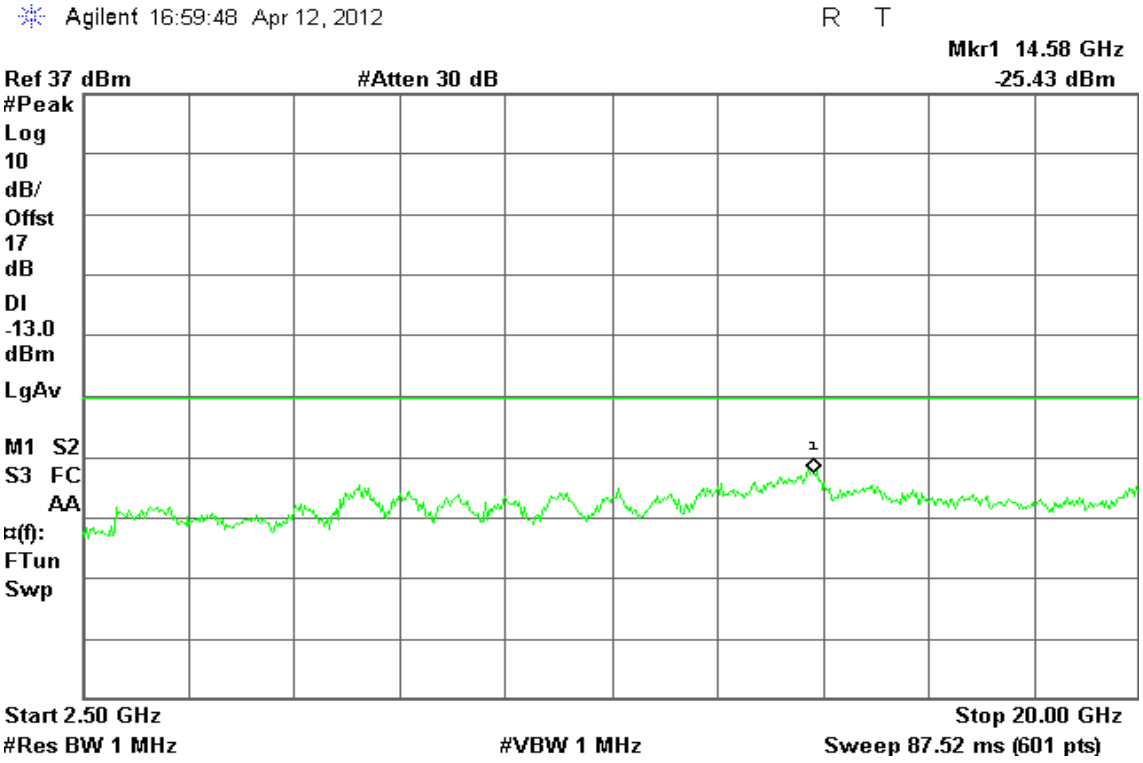
CH High


Agilent 20:25:35 Apr 12, 2012
R T
Mkr1 14.67 GHz
-41.17 dBm
Ref 21 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 20 MHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 20.00 GHz
Sweep 99.96 ms (601 pts)

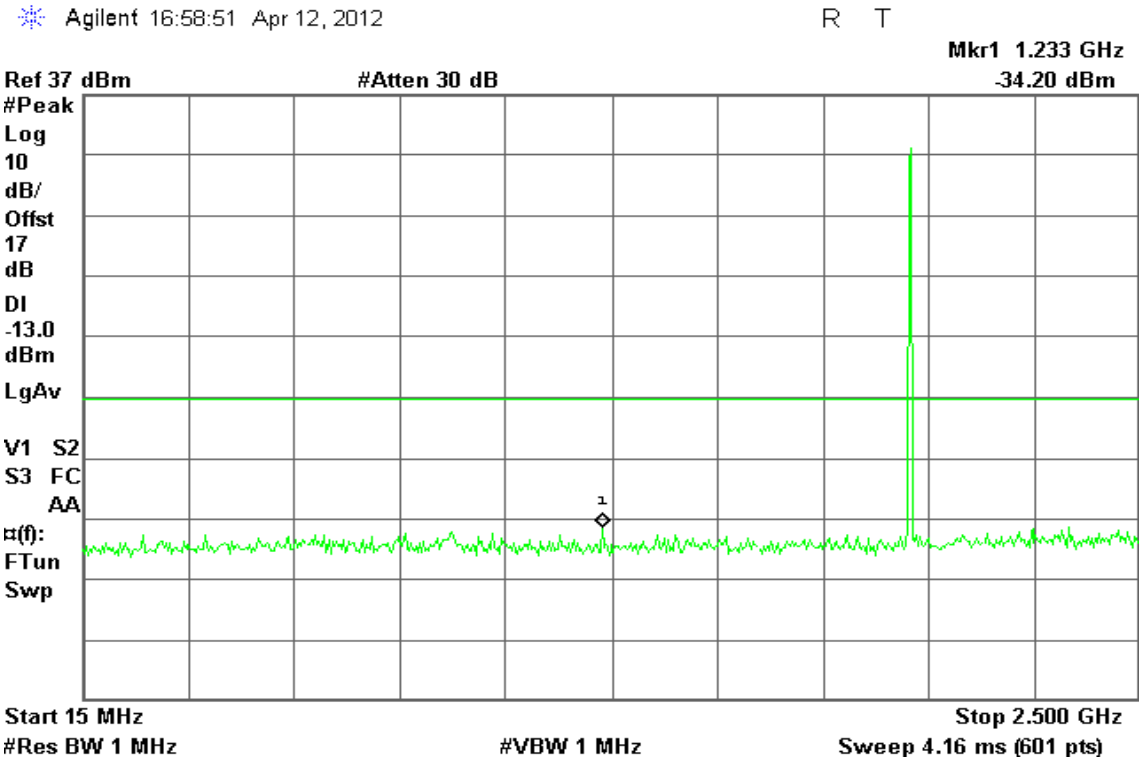
Mode 16: TDMA / 1930 – 1990MHz Downlink

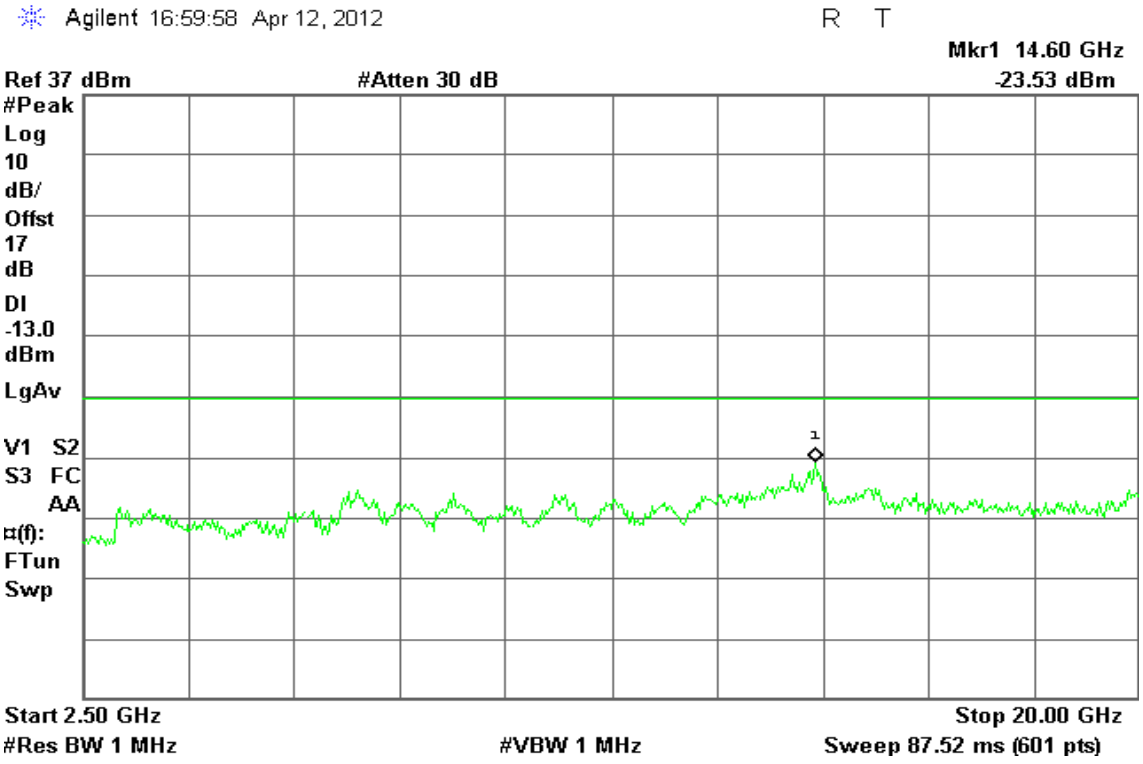
CH Low



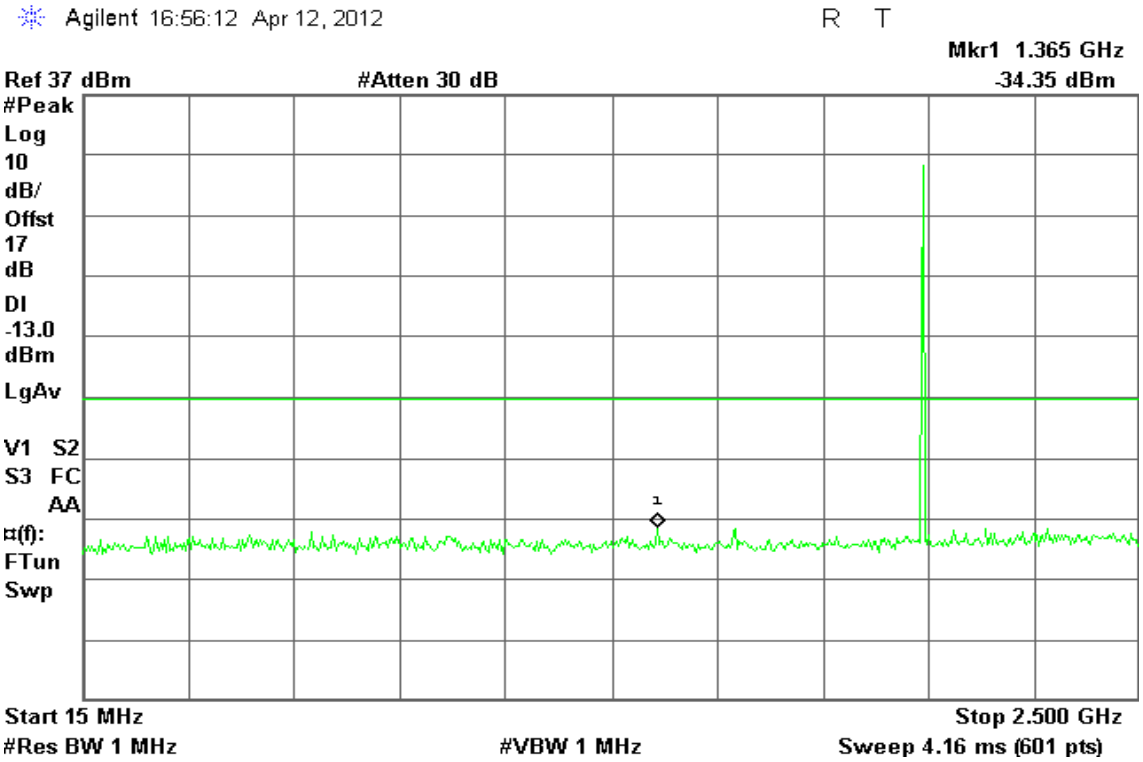


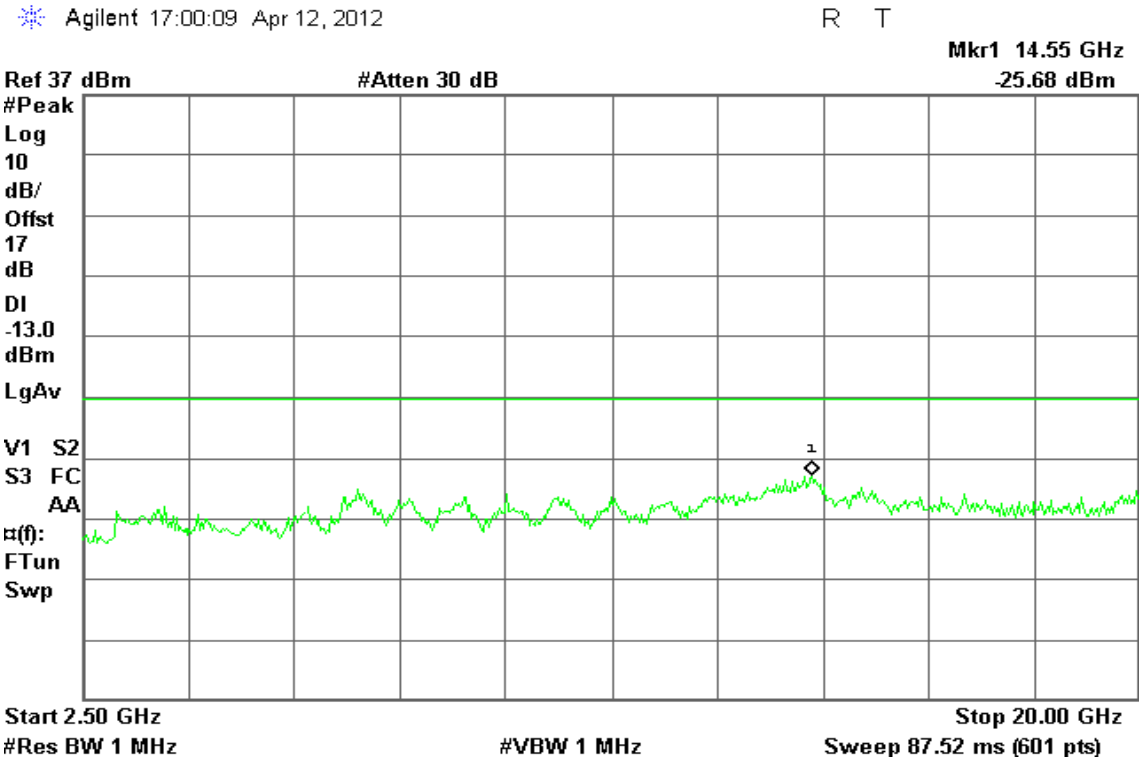
CH Mid


Agilent 16:58:51 Apr 12, 2012
R T
Mkr1 1.233 GHz
-34.20 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15 MHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 2.500 GHz
Sweep 4.16 ms (601 pts)


Agilent 16:59:58 Apr 12, 2012
R T
Mkr1 14.60 GHz
-23.53 dBm
Ref 37 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.50 GHz
#Res BW 1 MHz
#VBW 1 MHz
Stop 20.00 GHz
Sweep 87.52 ms (601 pts)

CH High


Agilent 16:56:12 Apr 12, 2012
R T
Mkr1 1.365 GHz
Ref 37 dBm
#Atten 30 dB
-34.35 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 15 MHz
Stop 2.500 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 4.16 ms (601 pts)


Agilent 17:00:09 Apr 12, 2012
R T
Mkr1 14.55 GHz
Ref 37 dBm
#Atten 30 dB
-25.68 dBm
#Peak
Log
10
dB/
Offst
17
dB
Dl
-13.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Swp
Start 2.50 GHz
Stop 20.00 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 87.52 ms (601 pts)

7.4 FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

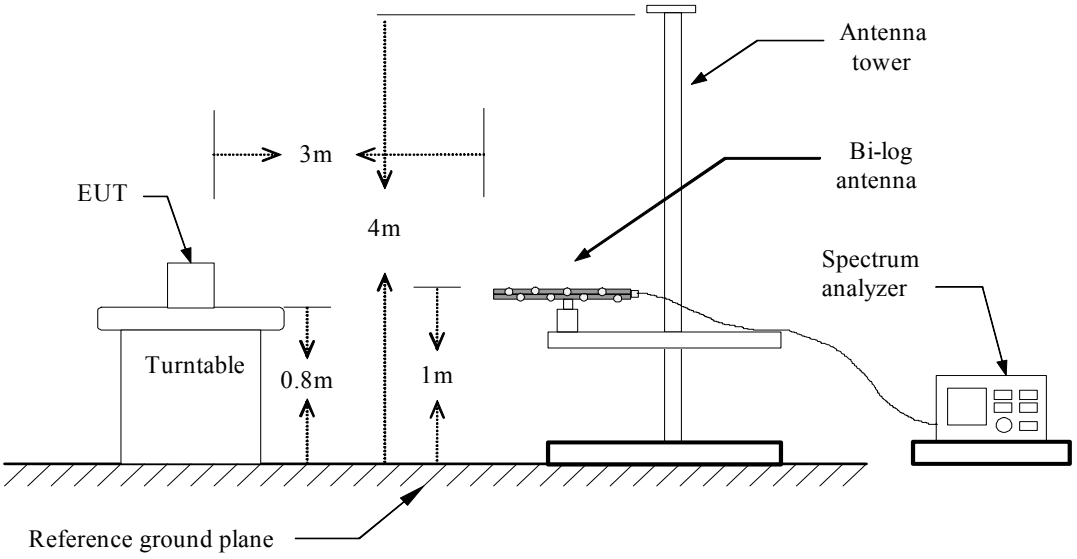
According to FCC §2.1053. RSS-132 (4.5.2), RSS-131 Cl 4.4.

DEFINITION:

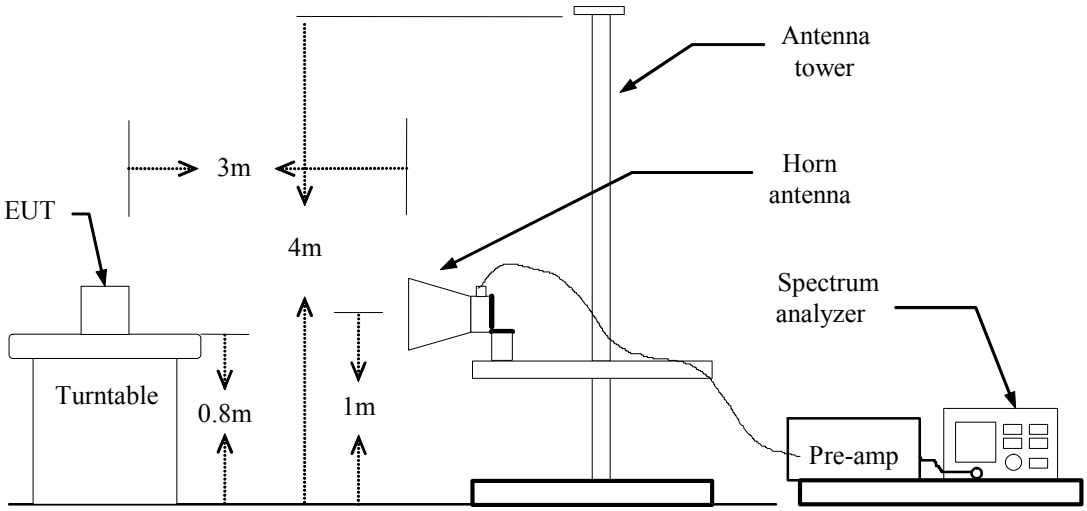
Emissions from the equipment when connected into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

Test Configuration

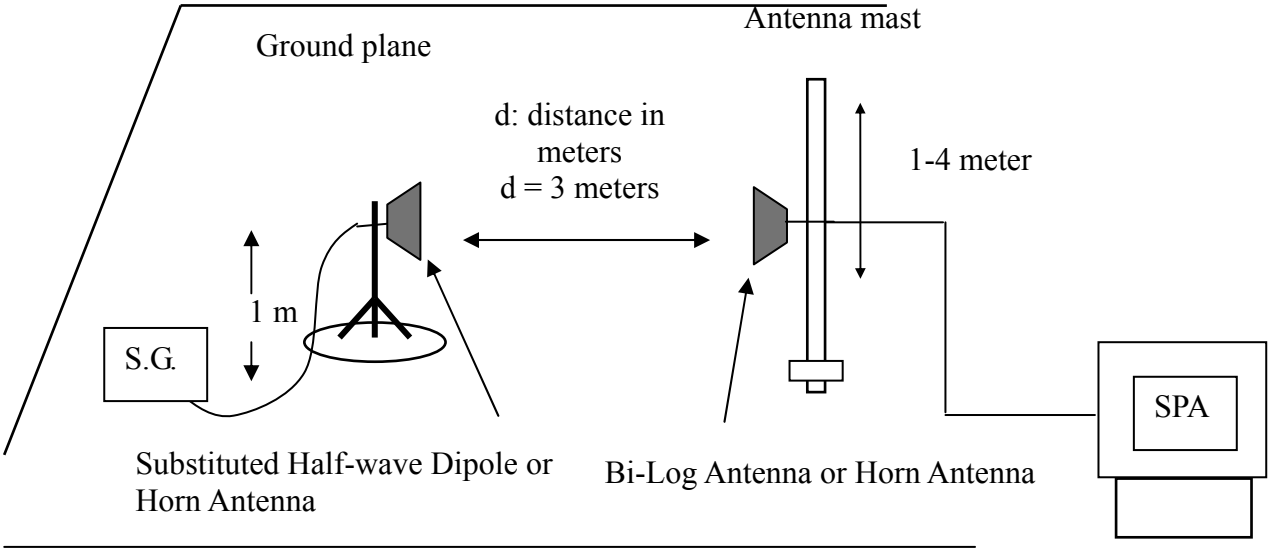
Below 1 GHz



Above 1 GHz



Substituted Method Test Set-up



TEST PROCEDURE

The EUT was placed on a non-conductive, the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable (dB)
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

TEST RESULTS

No non-compliance noted.

Test Data

Below 1GHz

Operation Mode: Mode 1: WCDMA Band II Uplink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.28	0.91	-2.02	-72.21	-13.00	-59.21	V
119.7250	-70.3	1.27	-2.09	-73.66	-13.00	-60.66	V
163.3750	-77.24	1.51	1.77	-76.98	-13.00	-63.98	V
267.6500	-82.03	1.96	5.22	-78.77	-13.00	-65.77	V
401.0250	-82.01	2.4	5.98	-78.43	-13.00	-65.43	V
531.9750	-81.14	2.76	6.07	-77.83	-13.00	-64.83	V
51.8250	-62.4	0.82	-4.37	-67.59	-13.00	-54.59	H
117.3000	-64.36	1.26	-1.99	-67.61	-13.00	-54.61	H
156.1000	-72.22	1.46	1.15	-72.53	-13.00	-59.53	H
267.6500	-76.61	1.96	5.22	-73.35	-13.00	-60.35	H
401.0250	-69.53	2.4	5.98	-65.95	-13.00	-52.95	H
531.9750	-74.79	2.76	6.07	-71.48	-13.00	-58.48	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 1: WCDMA Band II Uplink / CH Mid **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.2	0.91	-2.02	-72.13	-13.00	-59.13	V
119.7250	-69.9	1.27	-2.09	-73.26	-13.00	-60.26	V
267.6500	-82.08	1.96	5.22	-78.82	-13.00	-65.82	V
367.0750	-83.58	2.29	5.77	-80.10	-13.00	-67.10	V
531.9750	-82.17	2.76	6.07	-78.86	-13.00	-65.86	V
852.0750	-80.36	3.41	6.4	-77.37	-13.00	-64.37	V
51.8250	-62.52	0.82	-4.37	-67.71	-13.00	-54.71	H
122.1500	-65.03	1.29	-1.93	-68.25	-13.00	-55.25	H
156.1000	-72.94	1.46	1.15	-73.25	-13.00	-60.25	H
267.6500	-77.28	1.96	5.22	-74.02	-13.00	-61.02	H
401.0250	-70.03	2.4	5.98	-66.45	-13.00	-53.45	H
531.9750	-75.57	2.76	6.07	-72.26	-13.00	-59.26	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 1: WCDMA Band II Uplink / CH High **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-68.79	0.91	-2.02	-71.72	-13.00	-58.72	V
119.7250	-69.42	1.27	-2.09	-72.78	-13.00	-59.78	V
224.0000	-81.61	1.78	5.35	-78.04	-13.00	-65.04	V
267.6500	-82.04	1.96	5.22	-78.78	-13.00	-65.78	V
401.0250	-82.58	2.4	5.98	-79.00	-13.00	-66.00	V
531.9750	-82.01	2.76	6.07	-78.70	-13.00	-65.70	V
51.8250	-61.25	0.82	-4.37	-66.44	-13.00	-53.44	H
153.6750	-72	1.45	0.98	-72.47	-13.00	-59.47	H
267.6500	-78.17	1.96	5.22	-74.91	-13.00	-61.91	H
398.6000	-70.4	2.38	5.98	-66.80	-13.00	-53.80	H
531.9750	-75.86	2.76	6.07	-72.55	-13.00	-59.55	H
665.3500	-74.26	3.06	6.3	-71.02	-13.00	-58.02	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.57	0.91	-2.02	-72.50	-13.00	-59.50	V
122.1500	-70.88	1.29	-1.93	-74.10	-13.00	-61.10	V
243.4000	-73.51	1.82	5.43	-69.90	-13.00	-56.90	V
401.0250	-80.58	2.4	5.98	-77.00	-13.00	-64.00	V
531.9750	-81.78	2.76	6.07	-78.47	-13.00	-65.47	V
694.4500	-82.4	3.12	6.45	-79.07	-13.00	-66.07	V
51.8250	-62.64	0.82	-4.37	-67.83	-13.00	-54.83	H
119.7250	-64.18	1.27	-2.09	-67.54	-13.00	-54.54	H
156.1000	-73.06	1.46	1.15	-73.37	-13.00	-60.37	H
267.6500	-77.23	1.96	5.22	-73.97	-13.00	-60.97	H
401.0250	-69.73	2.4	5.98	-66.15	-13.00	-53.15	H
531.9750	-76.16	2.76	6.07	-72.85	-13.00	-59.85	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.79	0.91	-2.02	-72.72	-13.00	-59.72	V
122.1500	-71.64	1.29	-1.93	-74.86	-13.00	-61.86	V
267.6500	-82.19	1.96	5.22	-78.93	-13.00	-65.93	V
398.6000	-81.11	2.38	5.98	-77.51	-13.00	-64.51	V
531.9750	-82.37	2.76	6.07	-79.06	-13.00	-66.06	V
645.9500	-83.26	3.02	6.21	-80.07	-13.00	-67.07	V
51.8250	-63.3	0.82	-4.37	-68.49	-13.00	-55.49	H
119.7250	-64.7	1.27	-2.09	-68.06	-13.00	-55.06	H
267.6500	-78.44	1.96	5.22	-75.18	-13.00	-62.18	H
401.0250	-75.66	2.4	5.98	-72.08	-13.00	-59.08	H
531.9750	-76.29	2.76	6.07	-72.98	-13.00	-59.98	H
665.3500	-76.32	3.06	6.3	-73.08	-13.00	-60.08	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH High **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.98	0.91	-2.02	-72.91	-13.00	-59.91	V
119.7250	-71.58	1.27	-2.09	-74.94	-13.00	-61.94	V
308.8750	-84.26	2.13	5.78	-80.61	-13.00	-67.61	V
401.0250	-82.31	2.4	5.98	-78.73	-13.00	-65.73	V
531.9750	-81.78	2.76	6.07	-78.47	-13.00	-65.47	V
725.9750	-81.72	3.17	6.44	-78.45	-13.00	-65.45	V
51.8250	-62.65	0.82	-4.37	-67.84	-13.00	-54.84	H
117.3000	-64.02	1.26	-1.99	-67.27	-13.00	-54.27	H
153.6750	-72.63	1.45	0.98	-73.10	-13.00	-60.10	H
267.6500	-79.05	1.96	5.22	-75.79	-13.00	-62.79	H
398.6000	-71.53	2.38	5.98	-67.93	-13.00	-54.93	H
531.9750	-76.15	2.76	6.07	-72.84	-13.00	-59.84	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.04	0.91	-2.02	-71.97	-13.00	-58.97	V
119.7250	-71.15	1.27	-2.09	-74.51	-13.00	-61.51	V
148.8250	-79.82	1.42	0.58	-80.66	-13.00	-67.66	V
267.6500	-82.08	1.96	5.22	-78.82	-13.00	-65.82	V
401.0250	-80.19	2.4	5.98	-76.61	-13.00	-63.61	V
531.9750	-80.53	2.76	6.07	-77.22	-13.00	-64.22	V
51.8250	-62.76	0.82	-4.37	-67.95	-13.00	-54.95	H
117.3000	-64.13	1.26	-1.99	-67.38	-13.00	-54.38	H
158.5250	-73.27	1.48	1.33	-73.42	-13.00	-60.42	H
267.6500	-77.81	1.96	5.22	-74.55	-13.00	-61.55	H
401.0250	-69.84	2.4	5.98	-66.26	-13.00	-53.26	H
531.9750	-75.78	2.76	6.07	-72.47	-13.00	-59.47	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.21	0.91	-2.02	-72.14	-13.00	-59.14	V
119.7250	-70.4	1.27	-2.09	-73.76	-13.00	-60.76	V
158.5250	-74.06	1.48	1.33	-74.21	-13.00	-61.21	V
267.6500	-82.6	1.96	5.22	-79.34	-13.00	-66.34	V
401.0250	-74.01	2.4	5.98	-70.43	-13.00	-57.43	V
531.9750	-81.84	2.76	6.07	-78.53	-13.00	-65.53	V
51.8250	-63.12	0.82	-4.37	-68.31	-13.00	-55.31	H
114.8750	-64.88	1.24	-1.9	-68.02	-13.00	-55.02	H
160.9500	-72.71	1.49	1.5	-72.70	-13.00	-59.70	H
267.6500	-78.02	1.96	5.22	-74.76	-13.00	-61.76	H
401.0250	-73.81	2.4	5.98	-70.23	-13.00	-57.23	H
531.9750	-75.52	2.76	6.07	-72.21	-13.00	-59.21	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH High **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-69.99	0.91	-2.02	-72.92	-13.00	-59.92	V
119.7250	-70.71	1.27	-2.09	-74.07	-13.00	-61.07	V
277.3500	-83.18	2	5.25	-79.93	-13.00	-66.93	V
401.0250	-78.23	2.4	5.98	-74.65	-13.00	-61.65	V
531.9750	-80.41	2.76	6.07	-77.10	-13.00	-64.10	V
723.5500	-82.23	3.17	6.47	-78.93	-13.00	-65.93	V
51.8250	-62.57	0.82	-4.37	-67.76	-13.00	-54.76	H
114.8750	-64.04	1.24	-1.9	-67.18	-13.00	-54.18	H
160.9500	-73.5	1.49	1.5	-73.49	-13.00	-60.49	H
267.6500	-78.86	1.96	5.22	-75.60	-13.00	-62.60	H
401.0250	-67.71	2.4	5.98	-64.13	-13.00	-51.13	H
531.9750	-75.65	2.76	6.07	-72.34	-13.00	-59.34	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH Low **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-68.27	0.91	-2.02	-71.20	-13.00	-58.20	V
119.7250	-70.44	1.27	-2.09	-73.80	-13.00	-60.80	V
267.6500	-82.09	1.96	5.22	-78.83	-13.00	-65.83	V
401.0250	-82.62	2.4	5.98	-79.04	-13.00	-66.04	V
531.9750	-80.36	2.76	6.07	-77.05	-13.00	-64.05	V
718.7000	-82.26	3.16	6.46	-78.96	-13.00	-65.96	V
51.8250	-61.01	0.82	-4.37	-66.20	-13.00	-53.20	H
114.8750	-61.88	1.24	-1.9	-65.02	-13.00	-52.02	H
160.9500	-71.12	1.49	1.5	-71.11	-13.00	-58.11	H
267.6500	-76.07	1.96	5.22	-72.81	-13.00	-59.81	H
398.6000	-74.46	2.38	5.98	-70.86	-13.00	-57.86	H
531.9750	-73.65	2.76	6.07	-70.34	-13.00	-57.34	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-68.72	0.91	-2.02	-71.65	-13.00	-58.65	V
119.7250	-70.07	1.27	-2.09	-73.43	-13.00	-60.43	V
267.6500	-82.22	1.96	5.22	-78.96	-13.00	-65.96	V
401.0250	-80.99	2.4	5.98	-77.41	-13.00	-64.41	V
531.9750	-80.68	2.76	6.07	-77.37	-13.00	-64.37	V
672.6250	-81.73	3.07	6.35	-78.45	-13.00	-65.45	V
51.8250	-62.72	0.82	-4.37	-67.91	-13.00	-54.91	H
117.3000	-63.52	1.26	-1.99	-66.77	-13.00	-53.77	H
160.9500	-73.1	1.49	1.5	-73.09	-13.00	-60.09	H
267.6500	-76.59	1.96	5.22	-73.33	-13.00	-60.33	H
401.0250	-70.43	2.4	5.98	-66.85	-13.00	-53.85	H
531.9750	-75.49	2.76	6.07	-72.18	-13.00	-59.18	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH High **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
63.9500	-70.06	0.91	-2.02	-72.99	-13.00	-59.99	V
119.7250	-72.34	1.27	-2.09	-75.70	-13.00	-62.70	V
267.6500	-82.15	1.96	5.22	-78.89	-13.00	-65.89	V
354.9500	-84.14	2.25	5.75	-80.64	-13.00	-67.64	V
531.9750	-81.89	2.76	6.07	-78.58	-13.00	-65.58	V
636.2500	-82.48	3	6.16	-79.32	-13.00	-66.32	V
51.8250	-62.85	0.82	-4.37	-68.04	-13.00	-55.04	H
114.8750	-63.7	1.24	-1.9	-66.84	-13.00	-53.84	H
187.6250	-76.05	1.62	3.9	-73.77	-13.00	-60.77	H
267.6500	-78.65	1.96	5.22	-75.39	-13.00	-62.39	H
398.6000	-70.79	2.38	5.98	-67.19	-13.00	-54.19	H
531.9750	-75.79	2.76	6.07	-72.48	-13.00	-59.48	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Above 1GHz

Operation Mode: Mode 1: WCDMA Band II Uplink / CH Low **Test Date:** November 5, 2011

Temperature: 25°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
5935.000	-53.13	10.55	10.89	-52.79	-13.00	-39.79	V
N/A							
5147.500	-54.16	9.5	10.66	-53.00	-13.00	-40.00	H
6985.000	-47.63	11.54	11.88	-47.29	-13.00	-34.29	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 1: WCDMA Band II Uplink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3905.000	-55.59	8.39	9.31	-54.67	-13.00	-41.67	V
4797.500	-54.7	9.32	10.28	-53.74	-13.00	-40.74	V
N/A							
4780.000	-54.16	9.28	10.25	-53.19	-13.00	-40.19	H
6005.000	-51.73	10.82	10.9	-51.65	-13.00	-38.65	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 1: WCDMA Band II Uplink / CH High **Test Date:** November 5, 2011

Temperature: 25°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3887.500	-55.83	8.37	9.29	-54.91	-13.00	-41.91	V
N/A							
4762.500	-54.92	9.25	10.22	-53.95	-13.00	-40.95	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
5077.500	-55.38	9.44	10.63	-54.19	-13.00	-41.19	V
N/A							
5462.500	-53.72	9.89	10.79	-52.82	-13.00	-39.82	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH Mid **Test Date:** November 5, 2011

Temperature: 25°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3152.500	-57.69	7.22	7.86	-57.05	-13.00	-44.05	V
5480.000	-54.85	9.92	10.79	-53.98	-13.00	-40.98	V
N/A							
4657.500	-54.33	9.13	10.05	-53.41	-13.00	-40.41	H
6372.500	-50.55	11.09	11.2	-50.44	-13.00	-37.44	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 2: WCDMA Band II Downlink / CH High **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4307.500	-55.69	8.6	9.65	-54.64	-13.00	-41.64	V
N/A							
3905.000	-54.67	8.39	9.31	-53.75	-13.00	-40.75	H
5655.000	-53.22	10.17	10.83	-52.56	-13.00	-39.56	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1665.000	-56.31	5.06	6	-55.37	-13.00	-42.37	V
4797.500	-54.62	9.32	10.28	-53.66	-13.00	-40.66	V
6320.000	-51.3	10.84	11.16	-50.98	-13.00	-37.98	V
N/A							
1665.000	-58.8	5.06	6	-57.86	-13.00	-44.86	H
2487.500	-51.34	6.33	6.08	-51.59	-13.00	-38.59	H
5235.000	-54.28	9.59	10.69	-53.18	-13.00	-40.18	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1682.500	-50.72	5.09	5.97	-49.84	-13.00	-36.84	V
2522.500	-54.35	6.38	6.16	-54.57	-13.00	-41.57	V
5707.500	-53.03	10.18	10.84	-52.37	-13.00	-39.37	V
N/A							
1682.500	-55.32	5.09	5.97	-54.44	-13.00	-41.44	H
6425.000	-49.49	11.18	11.24	-49.43	-13.00	-36.43	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 3: WCDMA Band V Uplink / CH High **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1700.000	-48.9	5.11	5.94	-48.07	-13.00	-35.07	V
4517.500	-54.75	8.95	9.83	-53.87	-13.00	-40.87	V
N/A							
1700.000	-52.66	5.11	5.94	-51.83	-13.00	-38.83	H
2802.500	-56.18	6.82	6.89	-56.11	-13.00	-43.11	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH Low **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1665.000	-57.07	5.06	6	-56.13	-13.00	-43.13	V
5935.000	-52.68	10.55	10.89	-52.34	-13.00	-39.34	V
N/A							
1665.000	-59.31	5.06	6	-58.37	-13.00	-45.37	H
2487.500	-55.89	6.33	6.08	-56.14	-13.00	-43.14	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH Mid **Test Date:** November 5, 2011

Temperature: 26°C **Tested by:** Edward Lin

Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1682.500	-52.61	5.09	5.97	-51.73	-13.00	-38.73	V
5112.500	-55.53	9.46	10.64	-54.35	-13.00	-41.35	V
N/A							
1682.500	-54.41	5.09	5.97	-53.53	-13.00	-40.53	H
3677.500	-56.66	8.18	9.08	-55.76	-13.00	-42.76	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: Mode 4: WCDMA Band V Downlink / CH High **Test Date:** November 5, 2011
Temperature: 26°C **Tested by:** Edward Lin
Humidity: 45 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1700.000	-46.74	5.11	5.94	-45.91	-13.00	-32.91	V
1980.000	-55.93	5.67	5.44	-56.16	-13.00	-43.16	V
2540.000	-54.86	6.41	6.2	-55.07	-13.00	-42.07	V
N/A							
1700.000	-49.63	5.11	5.94	-48.80	-13.00	-35.80	H
2540.000	-52.87	6.41	6.2	-53.08	-13.00	-40.08	H
4815.000	-52.23	9.31	10.3	-51.24	-13.00	-38.24	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

7.5 MEASUREMENT OF FREQUENCY STABILITY

LIMIT

According to RSS-131.

The EUT is a power amplifier and contains no circuitry for generating or stabilizing the RF signal. The driver will be responsible for this task.

7.6 FREQUENCY SPECTRUM TO BE INVESTIGATED

LIMIT

According to FCC §2.1057
The Frequency was searched from the lowest radio frequency generated in the equipment through the 10th harmonic of the carrier frequency.