Report No.: SZ12030017W01

TESTING
CNAS L3572

FCC TEST REPORT

Issued to

Qingdao Haier Telecom Co.Ltd.

For

Mobile Phone

Model Name:	HW-N72W
Trade Name:	Haier
Brand Name:	Haier
FCC ID :	SG71203HW-N72W
Standard:	47 CFR Part 22 Subpart H
	47 CFR Part 24 Subpart E
Test date:	2012-3-13 to 2012-4-7
Issue date:	2012-4-9

by

Shenzhen Morlab Communications Technology Co., Ltd.

Tested by Peng Huarui	*Approved by* Wei Yanqun	*Reviewed by* Wu Xuewen
Date 2012.4.9	*Date* 2012.4.9	*Date* 2012.04.09

CTIA Authorized Test Lab LAB CODE 20081223-00 IEEE 1725 OTA

OFTA 電訊管理局

BQTF

FCC Reg. No. 741109

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Change History		
Issue	Date	Reason for change
1.0	April 9, 2012	First edition

1. GENERAL INFORMATION

1.1 EUT Description

EUT Type ..... :	Mobile Phone
Serial No. ..... :	(n.a, marked #1 by test site)
Hardware Version ..... :	SP
Software Version ..... :	N72W_P0.00.40_S040_120308
Applicant ..... :	Qingdao Haier Telecom Co.Ltd. No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Manufacturer ..... :	Qingdao Haier Telecom Co.Ltd. No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Frequency Range ..... :	GSM 850MHz: Tx: 824.20 - 848.80MHz (at intervals of 200kHz); Rx: 869.20 - 893.80MHz (at intervals of 200kHz) GSM 1900MHz: Tx: 1850.20 - 1909.80MHz (at intervals of 200kHz); Rx: 1930.20 - 1989.80MHz (at intervals of 200kHz) WCDMA 850MHz Tx: 826.4 - 846.6MHz (at intervals of 200kHz); Rx: 871.4 - 891.6MHz (at intervals of 200kHz) WCDMA 1900MHz Tx: 1852.4 - 1907.6MHz (at intervals of 200kHz); Rx: 1932.4 - 1987.6MHz (at intervals of 200kHz)
Modulation Type..... :	GPRS/GSM Mode with GMSK Modulation EDGE Mode with 8PSK Modulation WCDMA Mode with QPSK Modulation HSDPA Mode with QPSK Modulation HSUPA Mode with QPSK Modulation
Multislot Class..... :	GPRS: Multislot Class12,EGPRS: Multislot Class12
Antenna Type..... :	PIFA Antenna
Emission Designators ..... :	GSM:254KGXW, EGPRS:250KG7W, WCDMA:4M17F9W

Note 1: The transmitter (Tx) frequency arrangement of the Cellular 850MHz band used by the EUT can be represented with the formula F(n)=824.2+0.2*(n-128), 128<=n<=251; the lowest, middle, highest channel numbers (ARFCHs) used and tested in this report are separately 128 (824.2MHz), 190 (836.6MHz) and 251 (848.8MHz).

Note 2: The transmitter (Tx) frequency arrangement of the PCS 1900MHz band used by the EUT can be represented with the formula F(n)=1850.2+0.2*(n-512), 512<=n<=810; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately

512 (1850.2MHz), 661 (1880.0MHz) and 810 (1909.8MHz).

Note 3: The transmitter (Tx) frequency arrangement of the WCDMA 850MHz band used by the EUT can be represented with the formula F(n)=826.4+0.2*(n-4132), 4132<=n<=4233; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 4132 (826.4MHz), 4175(835MHz) and 4233 (846.6MHz).

Note 4: The transmitter (Tx) frequency arrangement of the WCDMA 1900MHz band used by the EUT can be represented with the formula F(n)=1852.4+0.2*(n-9262), 9262<=n<=9538; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 9262 (1852.4MHz), 9400 (1880MHz) and 9538 (1907.6MHz).

Note 5: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

Note 6: They are two SIM slot. One is 2G SIM slot; another is 3G SIM slot in mobile phone. They are same in software and hardware and use the same RF module. We tested both slots and 3G SIM slot test results is the most worst.

1.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22 and Part 24 for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2 (10-1-09 Edition)	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22 (10-1-09 Edition)	Public Mobile Services
3	47 CFR Part 24 (10-1-09 Edition)	Personal Communications Services

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	2.1046	Conducted RF Output Power	PASS
2	2.1049	20dB Occupied Bandwidth	PASS
3	2.1055 22.355 24.235	Frequency Stability	PASS
4	2.1051 2.1057 22.917 24.238	Conducted Out of Band Emissions	PASS
5	2.1051 2.1057 22.917 24.238	Band Edge	PASS
6	22.913 24.232	Transmitter Radiated Power (EIPR/ERP)	PASS
7	2.1053 2.1057 22.917 24.238	Radiated Out of Band Emissions	PASS

NOTE：Measurement method according to TIA/EIA 603.D-2010

1.3 Facilities and Accreditations

1.3.1 Facilities

Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L3572.

All measurement facilities used to collect the measurement data are located at 3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22; the FCC registration number is 741109.

1.3.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

2. 47 CFR PART 2, PART 22H & 24E REQUIREMENTS

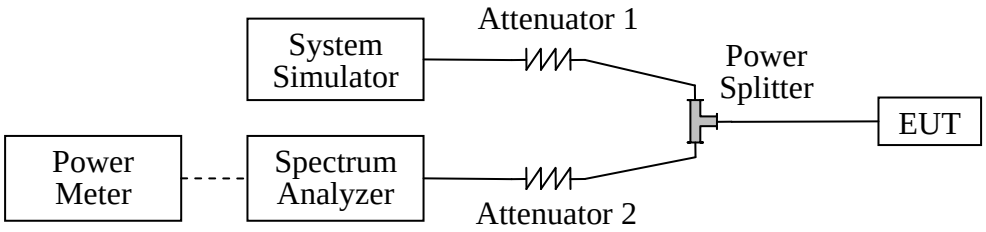
2.1 Conducted RF Output Power

2.1.1 Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

2.1.2 Test Description

1. Test Setup:



The EUT, which is powered by the Battery, is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

The Power Meter was just used for the Conducted RF Output Power test of WCDMA Model.

2. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date
System Simulator	Agilent	E5515C	GB43130131	2011.05
Spectrum Analyzer	Agilent	E7405A	US44210471	2011.05
Power Meter	Agilent	E4418B	GB43318055	2011.05
Power Splitter	Weinschel	1506A	NW521	(n.a.)
Attenuator 1	Resnet	20dB	(n.a.)	(n.a.)
Attenuator 2	Resnet	3dB	(n.a.)	(n.a.)

2.1.3 Test Results

Here the lowest, middle and highest channels are selected to perform testing to verify the conducted RF output power of the EUT.

1. GSM Model Test Verdict:

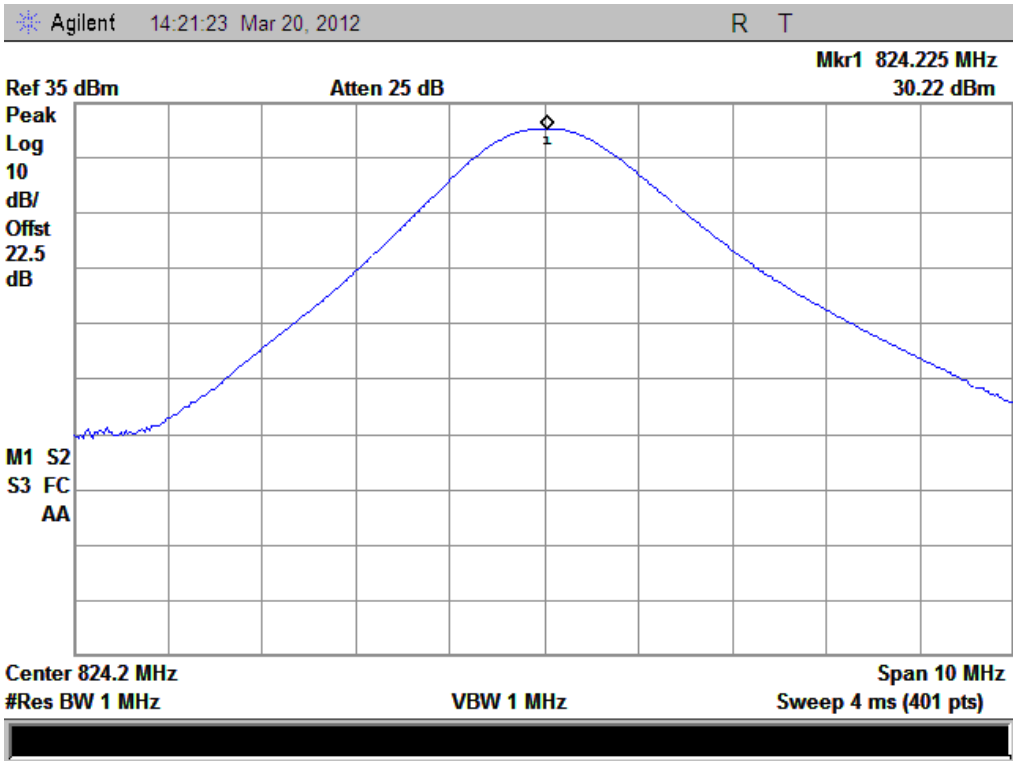
Band	Channel	Frequency (MHz)	Measured Output Power		Limit	Verdict
			dBm	Refer to Plot	dBm	
GSM 850MHz	128	824.2	30.22	Plot A1 to A3	35	PASS
	190	836.6	29.77			PASS
	251	848.8	29.56			PASS
GSM 1900MHz	512	1850.2	26.82	Plot B1 to B3	32	PASS
	661	1880.0	26.47			PASS
	810	1909.8	25.59			PASS
GPRS 850MHz	128	824.2	30.05	Plot C1 to C3 Note 1	35	PASS
	190	836.6	29.76			PASS
	251	848.8	29.48			PASS
GPRS 1900MHz	512	1850.2	26.75	Plot D1 to D3 Note 1	32	PASS
	661	1880.0	26.25			PASS
	810	1909.8	25.35			PASS
EGPRS 850MHz	128	824.2	29.49	Plot E1 to E3 Note 1	35	PASS
	190	836.6	29.74			PASS
	251	848.8	29.20			PASS
EGPRS 1900MHz	512	1850.2	26.45	Plot F1 to F3 Note 1	32	PASS
	661	1880.0	25.02			PASS
	810	1909.8	24.19			PASS

Note 1: For the GPRS and EGPRS model, all the slots were tested and just the worst data was record in this report.

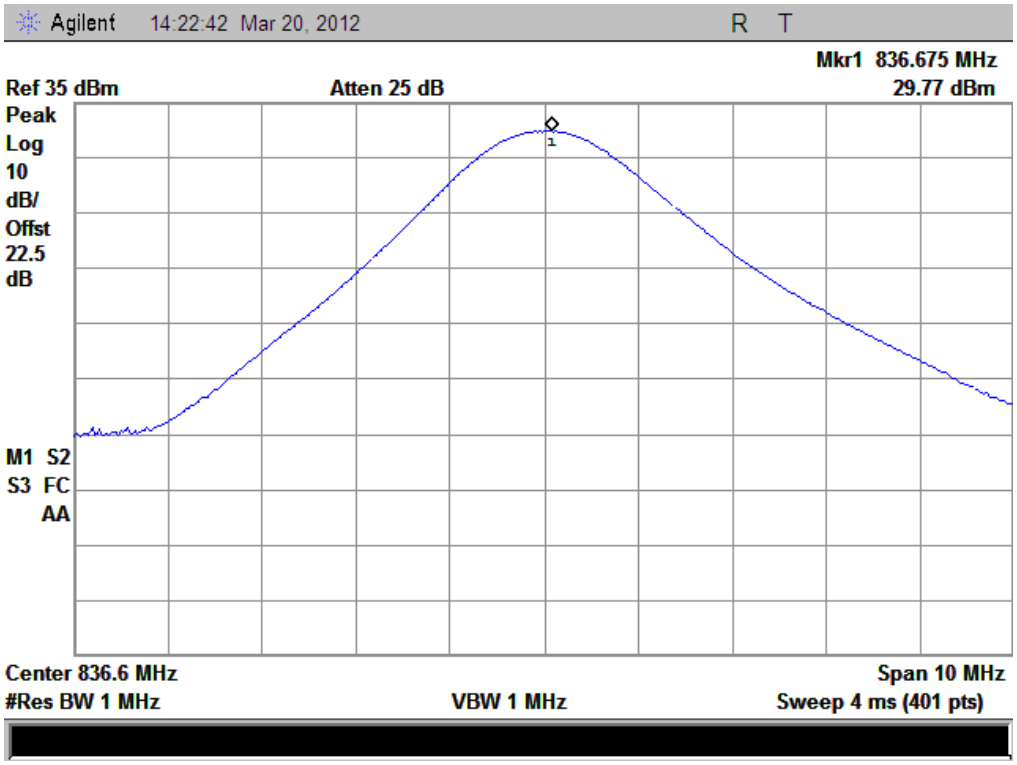
2. WCDMA Model Test Verdict:

Item	band	WCDMA 850			WCDMA 1900		
	ARFCN	4132	4175	4233	9262	9400	9538
	subtest	dBm			dBm		
5.2(WCDMA)	non	22.52	22.69	22.59	23.28	22.38	22.34
HSDPA	1	22.18	22.24	22.52	22.69	22.25	22.18
	2	22.17	22.25	22.46	22.55	22.21	22.17
	3	21.66	21.71	22.05	22.11	21.73	21.65
	4	21.69	21.72	21.98	22.09	21.73	21.71
HSUPA	1	22.17	22.45	22.32	22.66	21.21	21.17
	2	20.15	20.57	20.33	20.65	19.77	19.49
	3	21.25	21.47	21.31	21.55	20.29	20.29
	4	20.16	20.51	20.29	20.58	19.22	19.21
	5	22.16	22.42	22.29	22.65	21.19	21.15

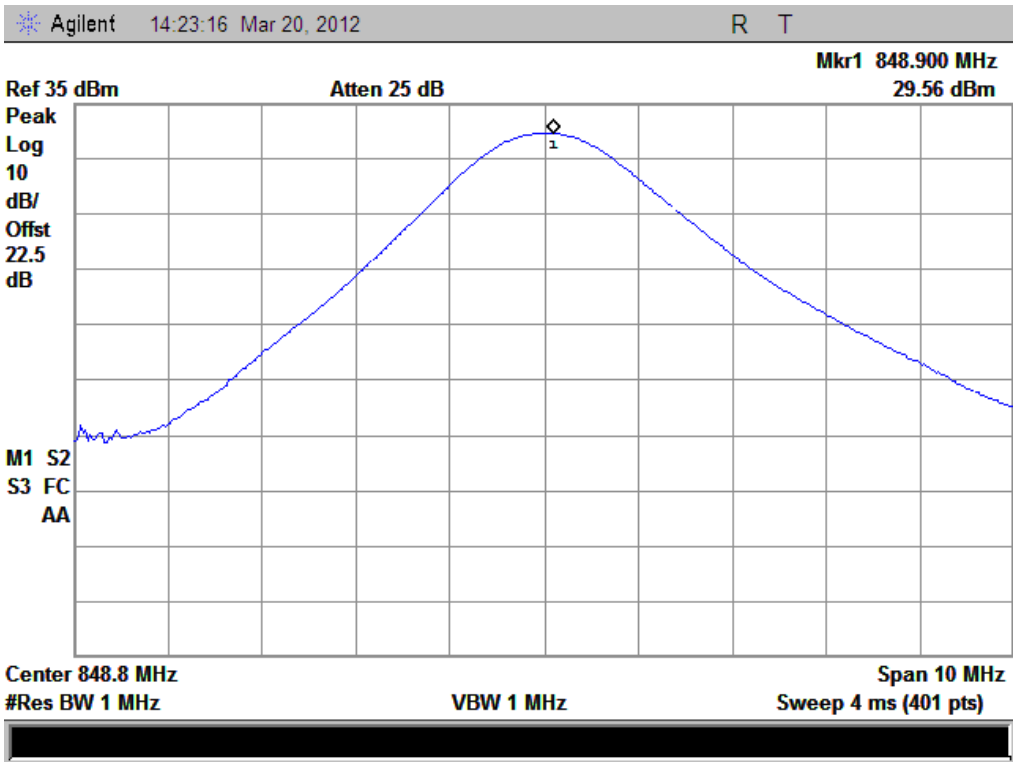
3. GSM Model Test Plots:



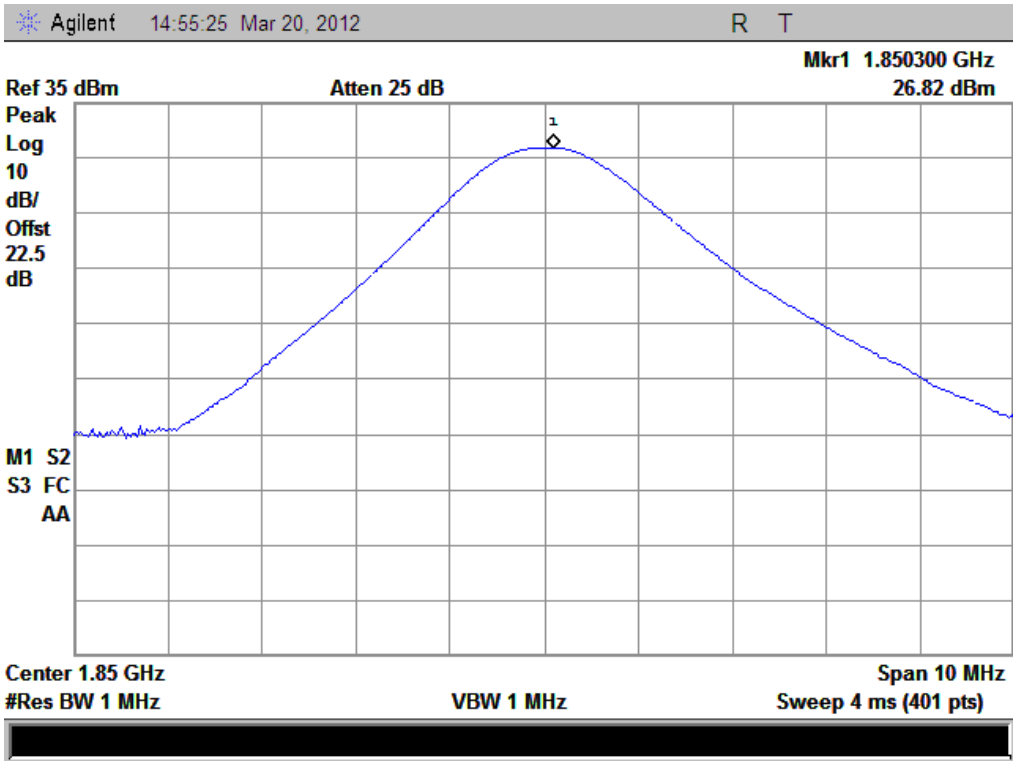
(Plot A1: GSM 850MHz Channel = 128)



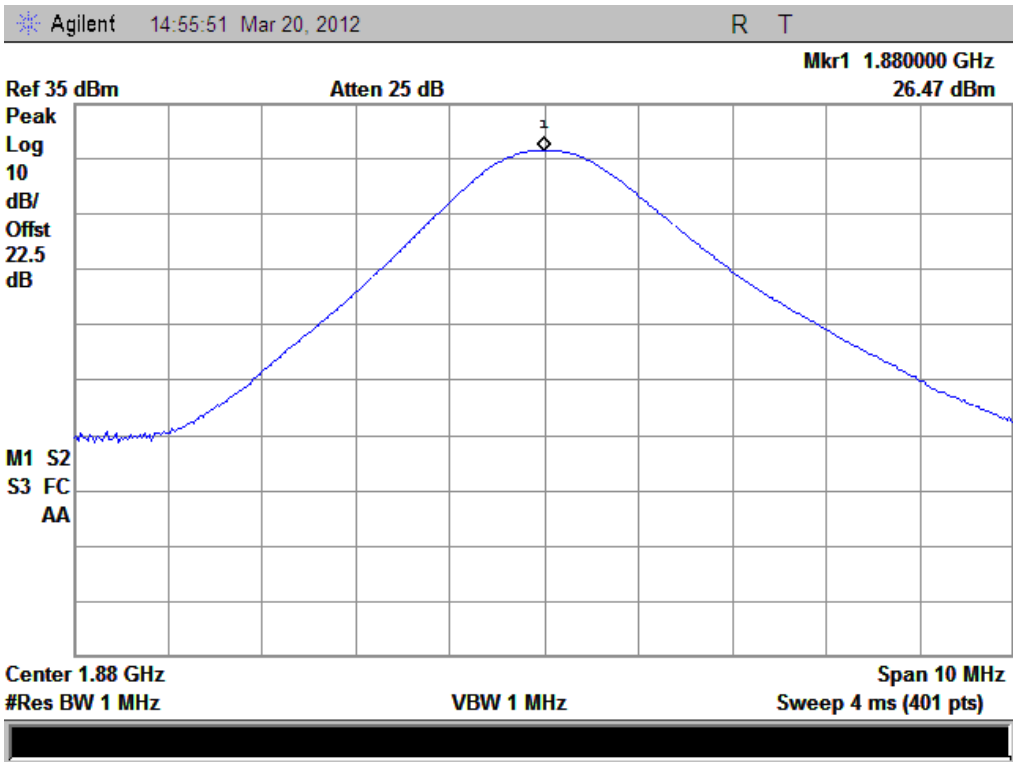
(Plot A2: GSM 850MHz Channel = 190)



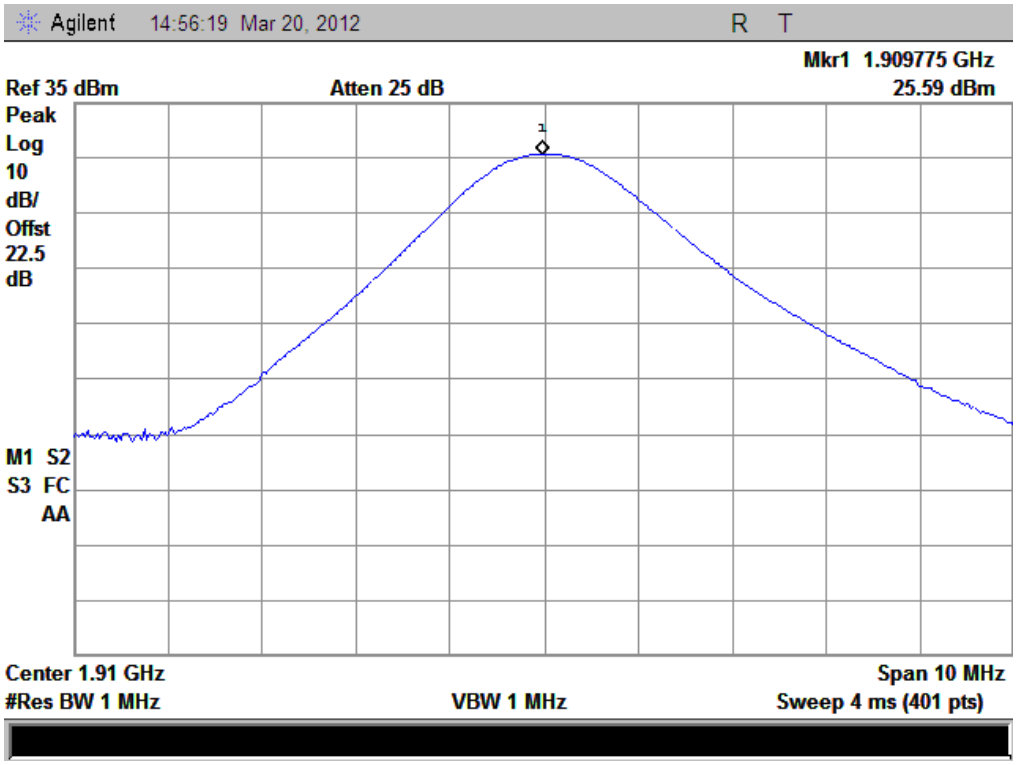
(Plot A3: GSM 850MHz Channel = 251)



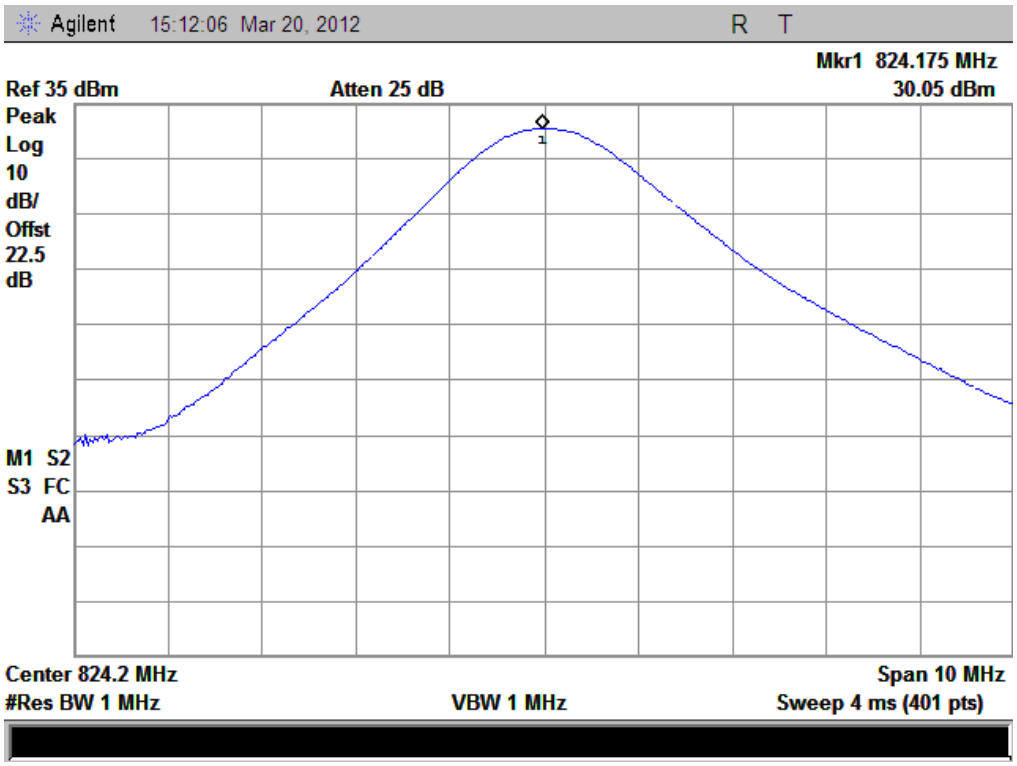
(Plot B1: GSM 1900MHz Channel = 512)



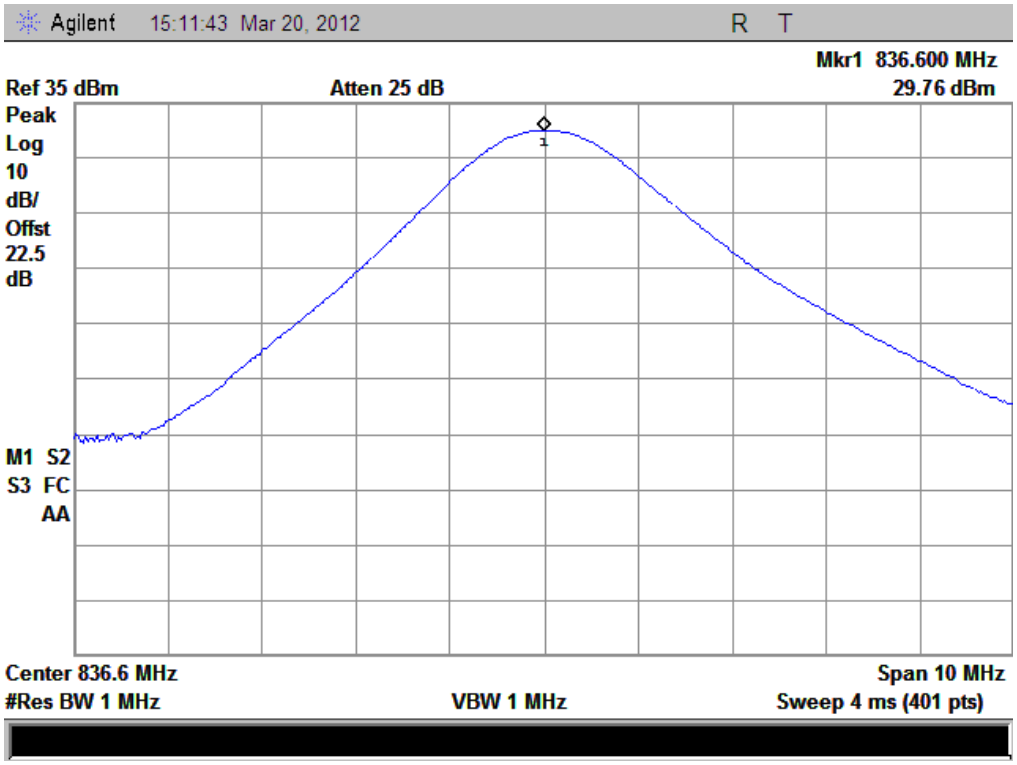
(Plot B2: GSM 1900MHz Channel = 661)



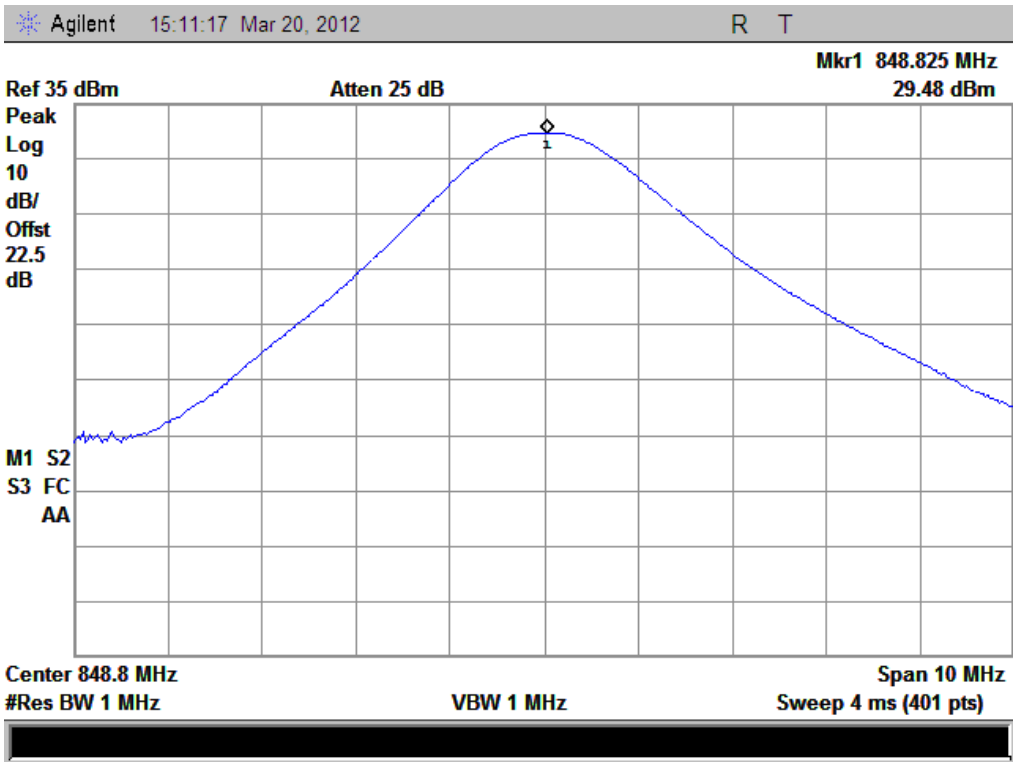
(Plot B3: GSM 1900MHz Channel = 810)



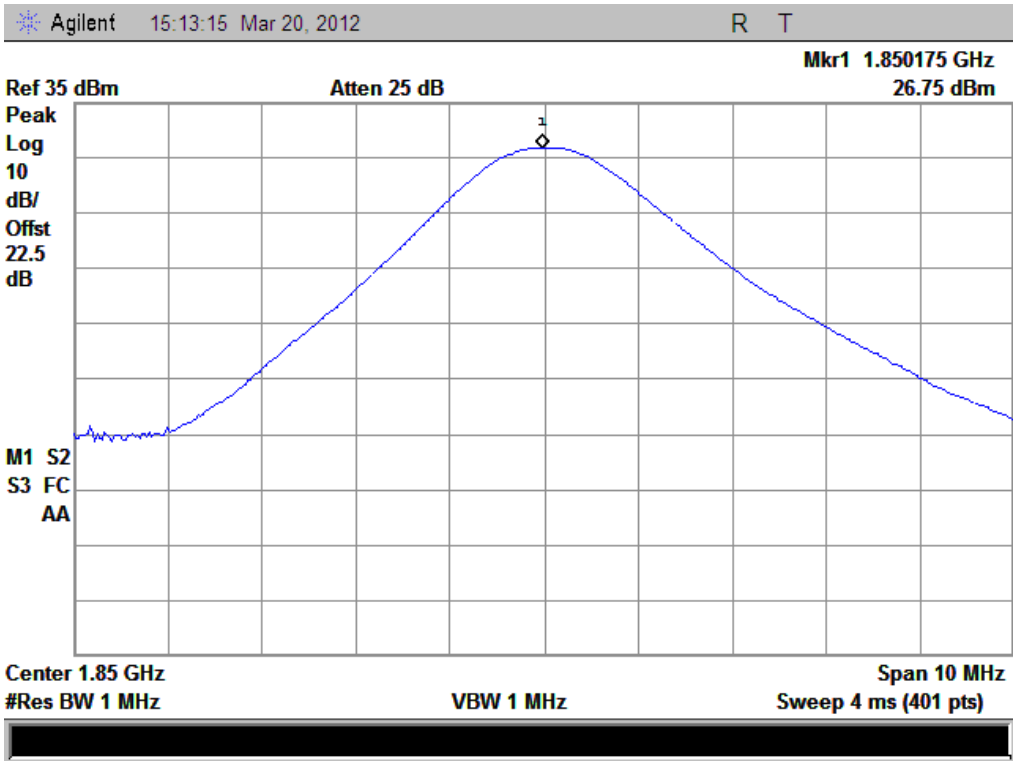
(Plot C1: GPRS 850MHz Channel = 128)



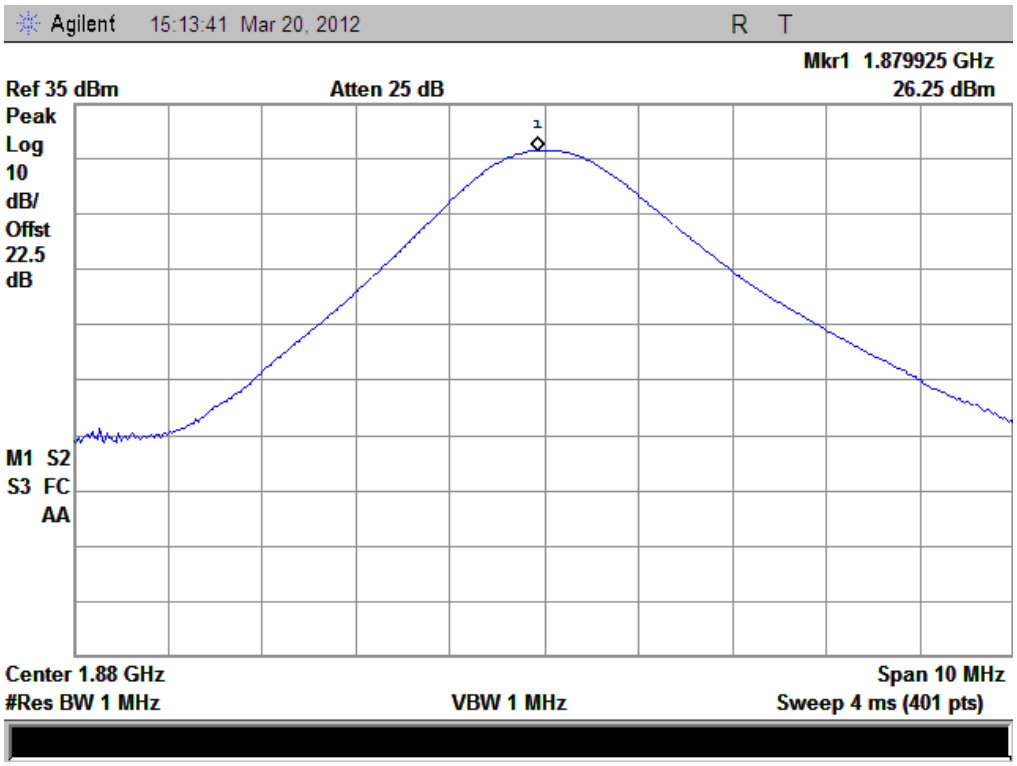
(Plot C2: GPRS 850MHz Channel = 190)



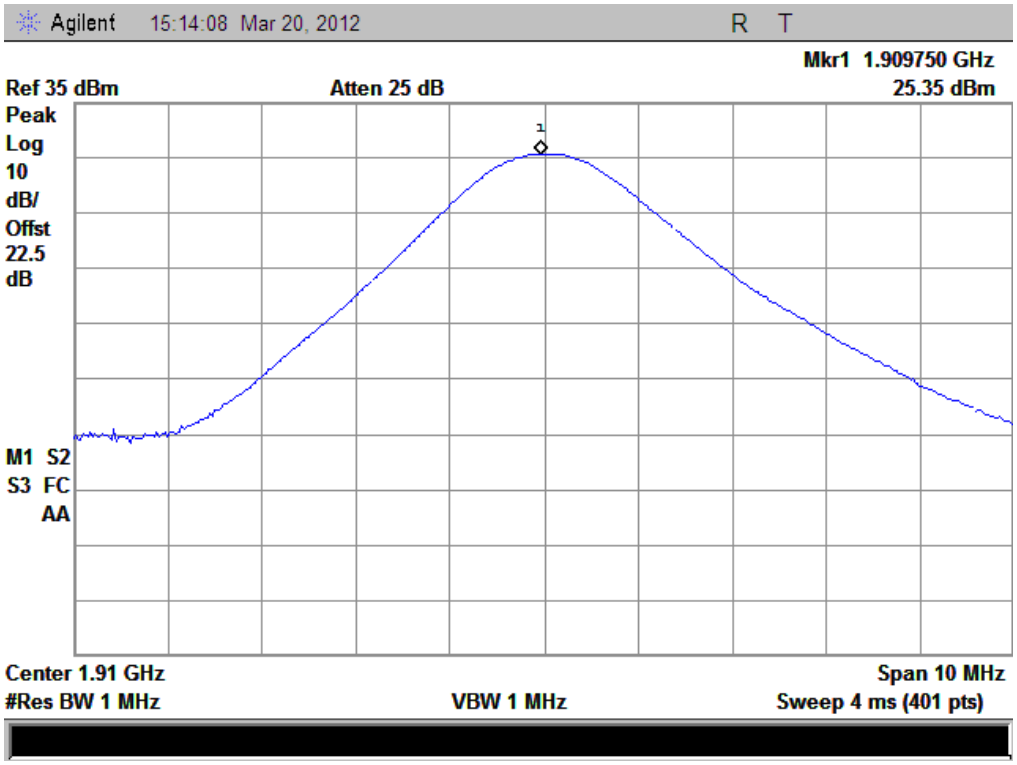
(Plot C3: GPRS 850MHz Channel = 251)



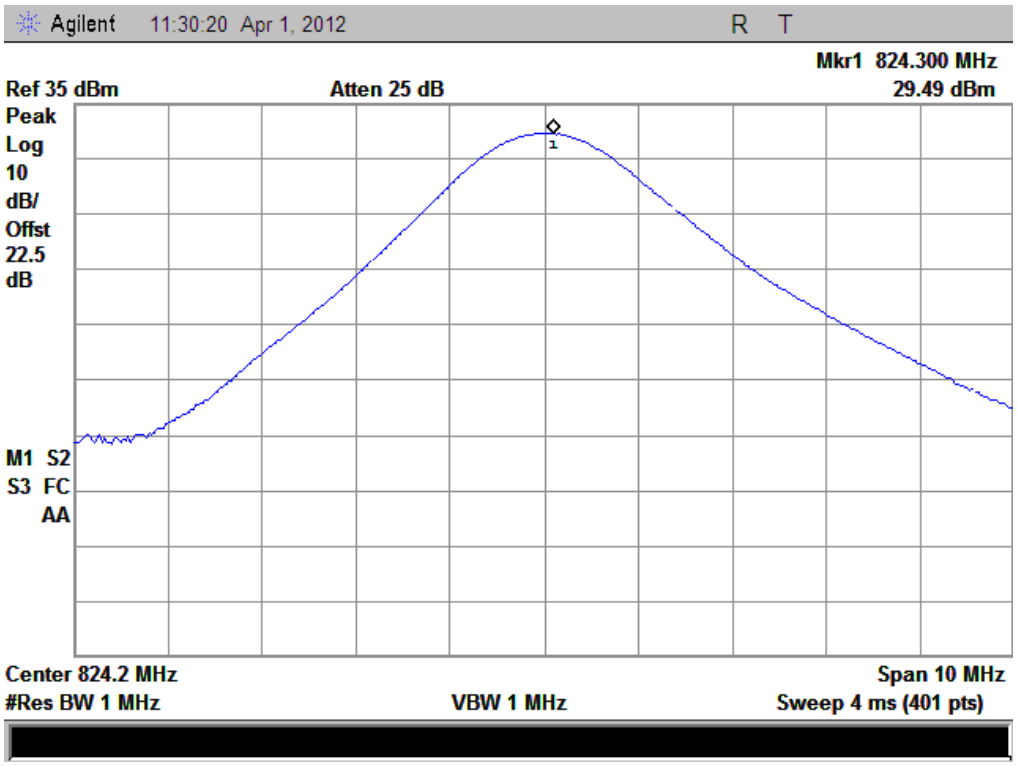
(Plot D1: GPRS 1900MHz Channel = 512)



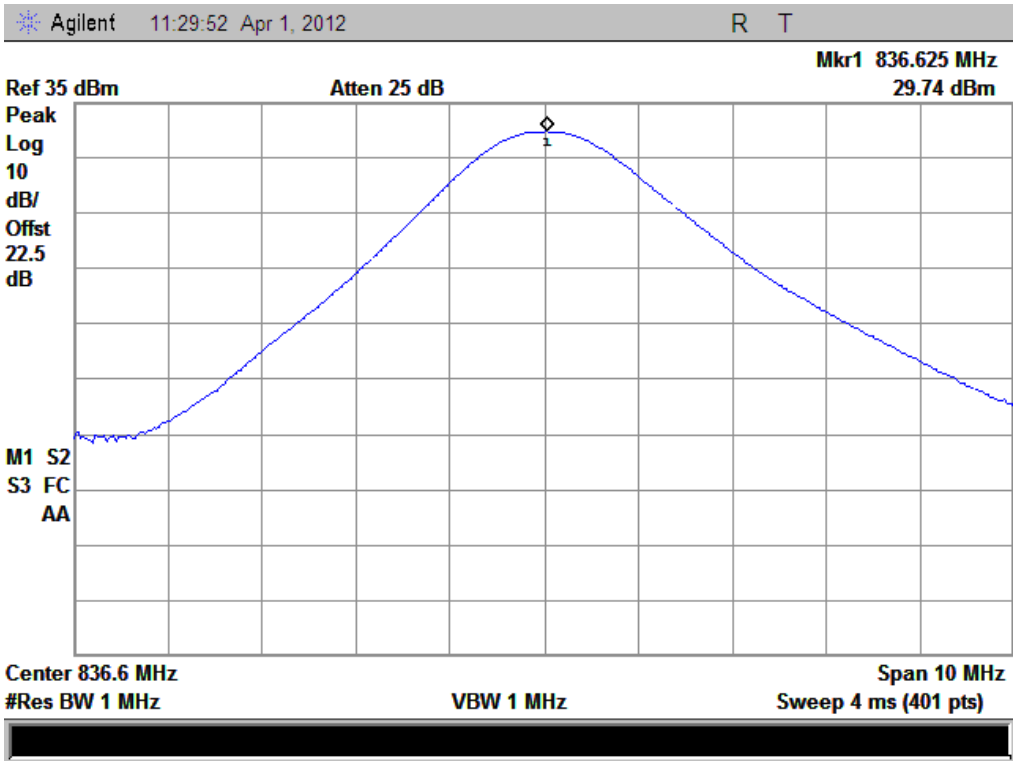
(Plot D2: GPRS 1900MHz Channel = 661)



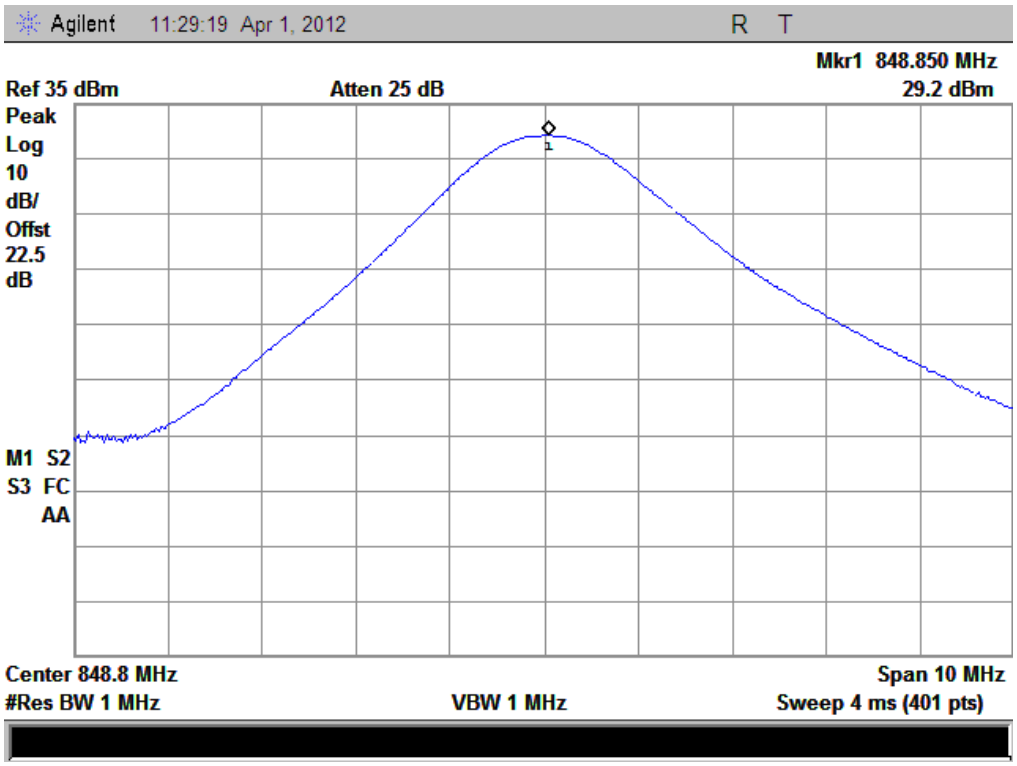
(Plot D3: GPRS 1900Hz Channel = 810)



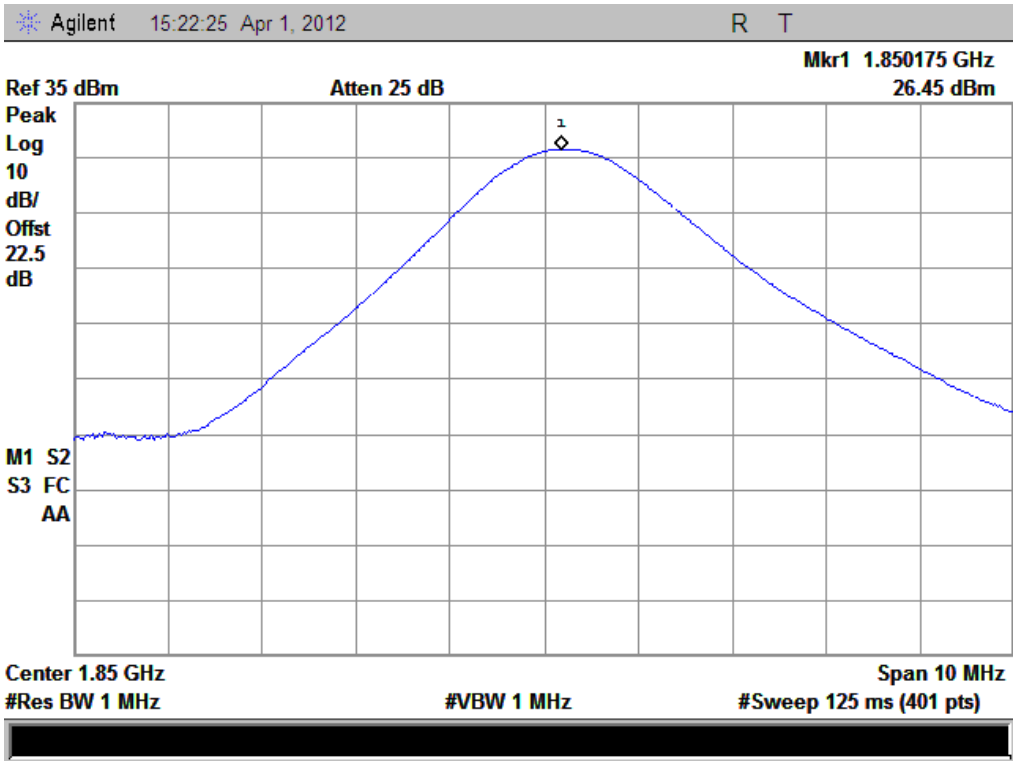
(Plot E 1: EGPRS 850MHz Channel = 128)



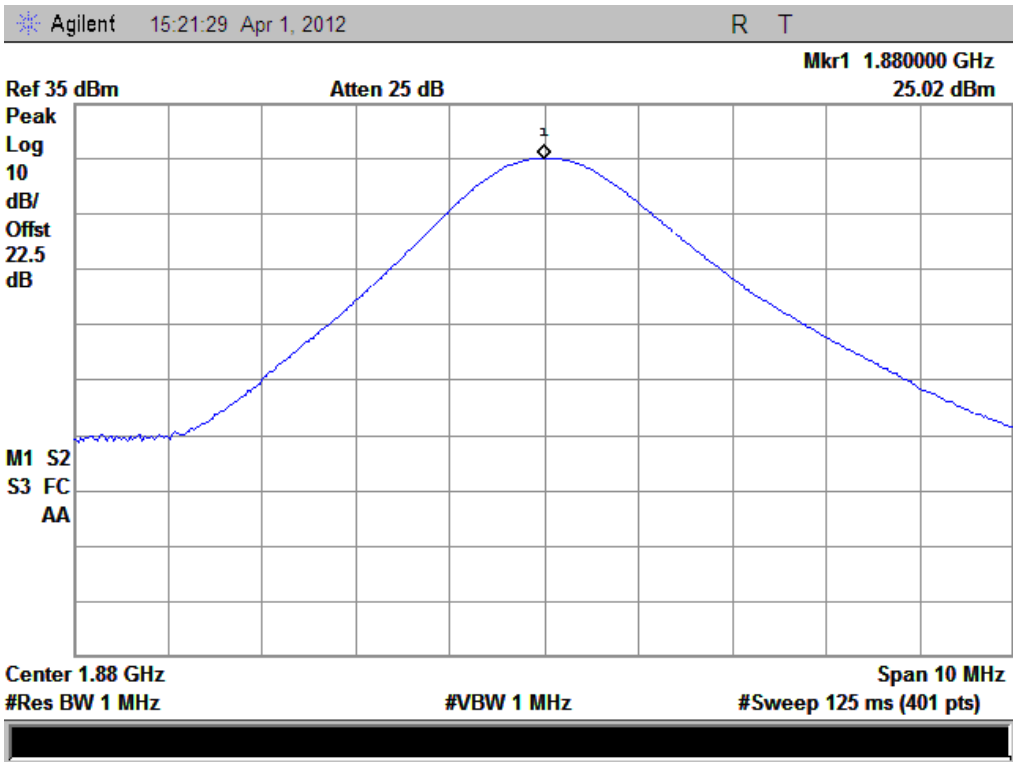
(Plot E 2: EGPRS 850MHz Channel = 190)



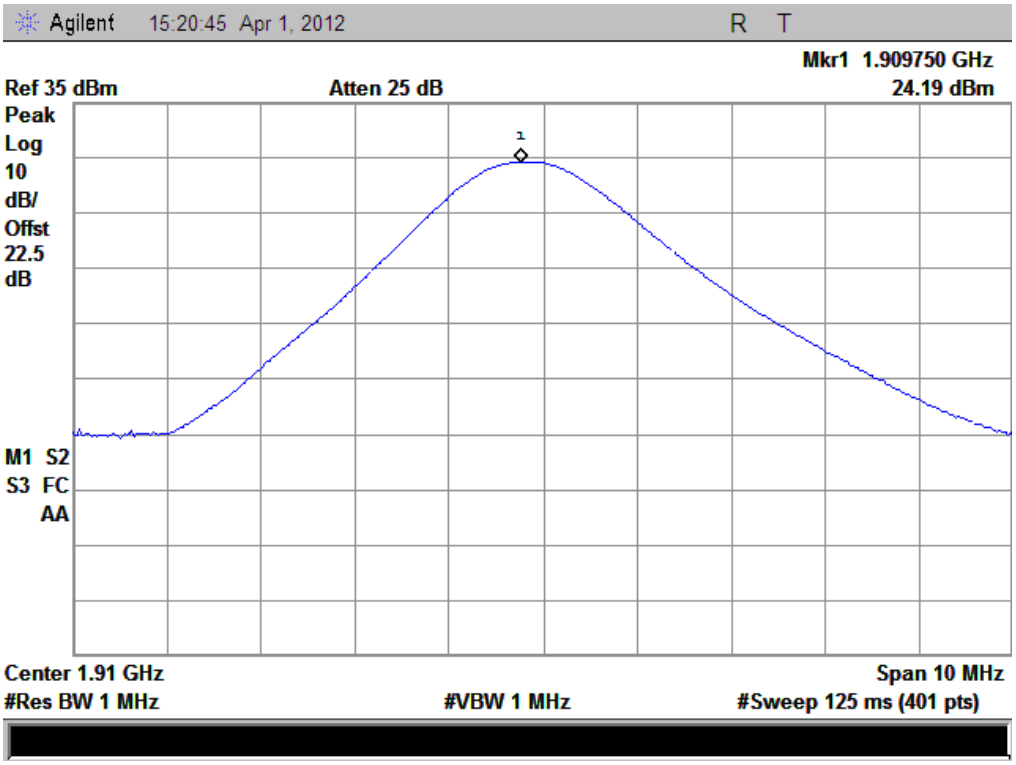
(Plot E 3: EGPRS 850MHz Channel = 251)



(Plot F 1: EGPRS 1900MHz Channel = 512)



(Plot F 2: EGPRS 1900MHz Channel = 661)



(Plot F 3: EGPRS 1900MHz Channel = 810)

2.2 99% Occupied Bandwidth

2.2.1 Definition

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Occupied bandwidth is also known as the 99% emission bandwidth,

2.2.2 Test Description

See section 2.1.2 of this report.

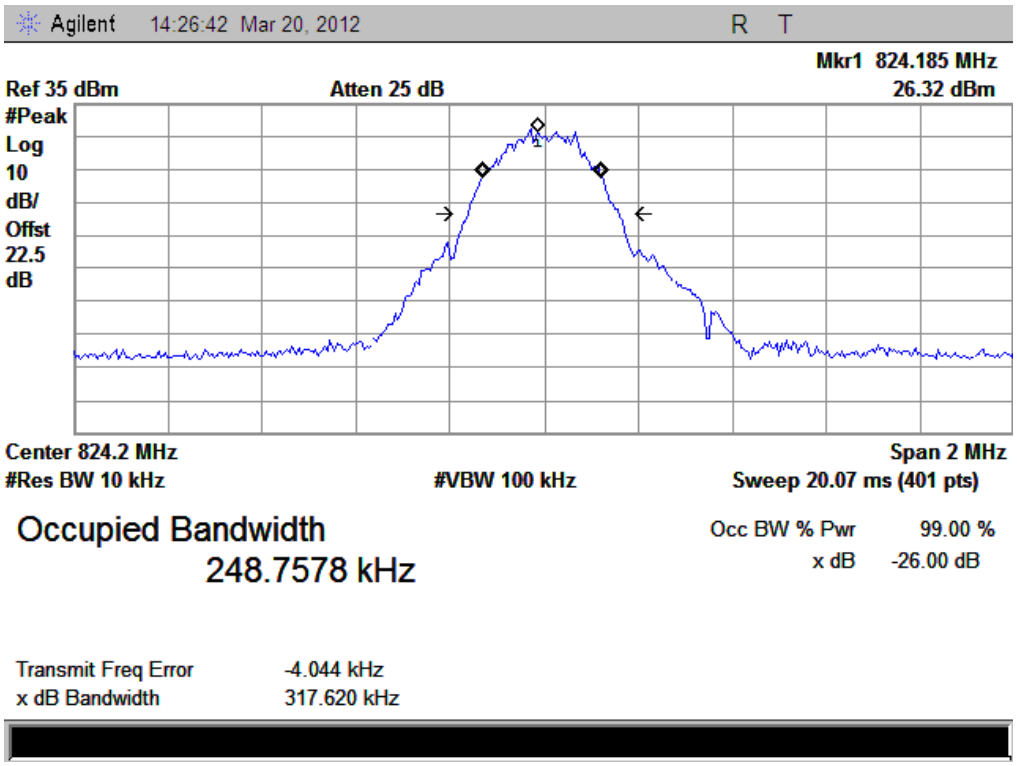
2.2.3 Test Verdict

Here the lowest, middle and highest channels are selected to perform testing to verify the 99% occupied bandwidth.

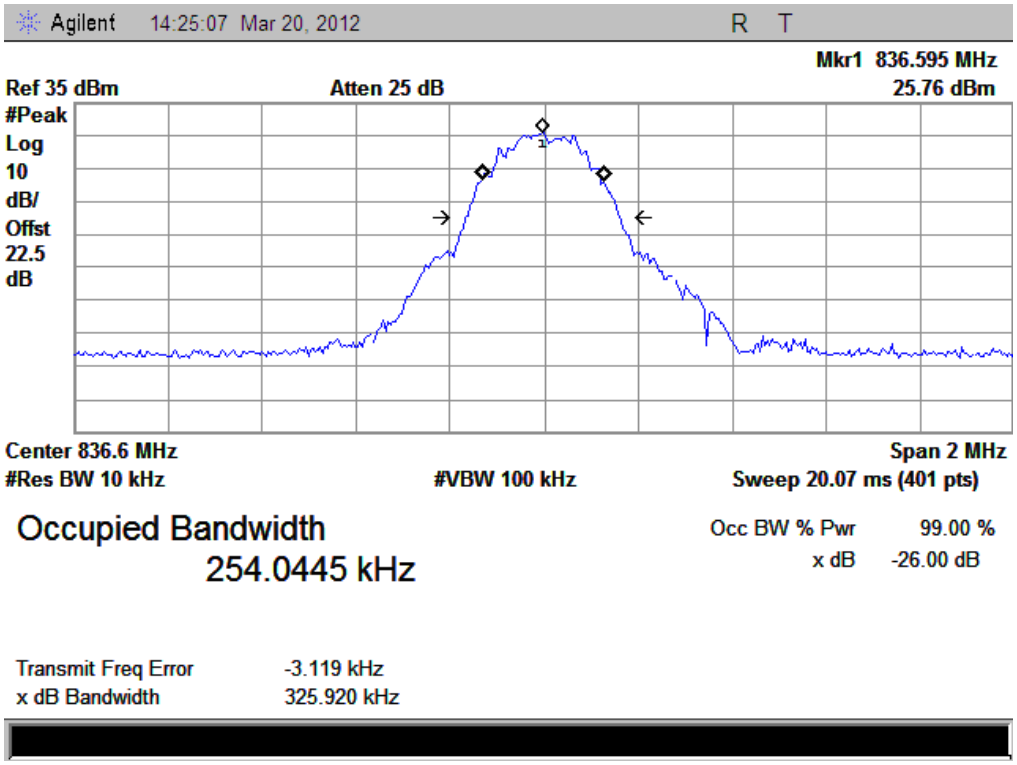
1. Test Verdict:

Band	Channel	Frequency (MHz)	99% Occupied Bandwidth	Refer to Plot
GSM 850MHz	128	824.2	248.7578 kHz	Plot A
	190	836.6	254.0445 kHz	Plot B
	251	848.8	252.1615 kHz	Plot C
GSM 1900MHz	512	1850.2	249.9458 kHz	Plot D
	661	1880.0	250.2503 kHz	Plot E
	810	1909.8	244.4851 kHz	Plot F
EDGE 850MHz	128	824.2	250.4255 kHz	Plot G
	190	836.6	246.2018 kHz	Plot H
	251	848.8	246.1214 kHz	Plot I
EDGE 1900MHz	512	1850.2	249.8268 kHz	Plot J
	661	1880.0	244.9745 kHz	Plot K
	810	1909.8	245.9532 kHz	Plot L
WCDMA 850MHz	4175	835	4.1618 MHz	Plot M
WCDMA 1900MHz	9400	1880	4.1634 MHz	Plot N
HSDPA 850MHz	4175	835	4.1692 MHz	Plot O
HSDPA 1900MHz	9400	1880	4.1692 MHz	Plot P
HSUPA 850MHz	4175	835	4.1451 MHz	Plot Q
HSUPA 1900MHz	9400	1880	4.1663 MHz	Plot R

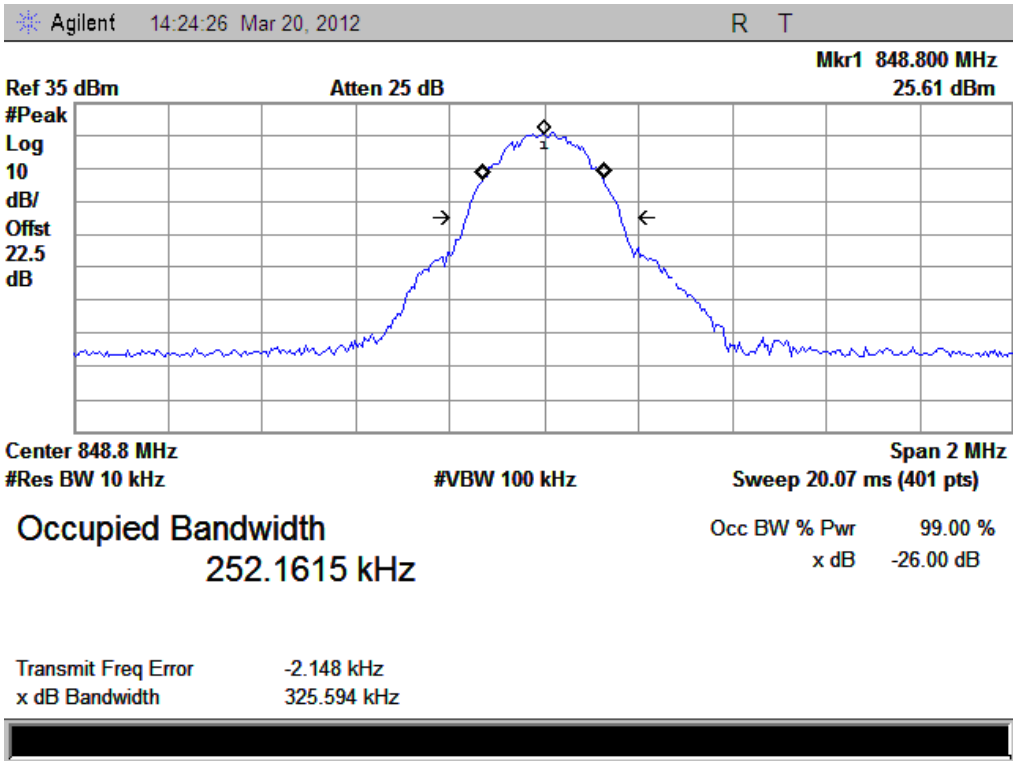
2. Test Plots:



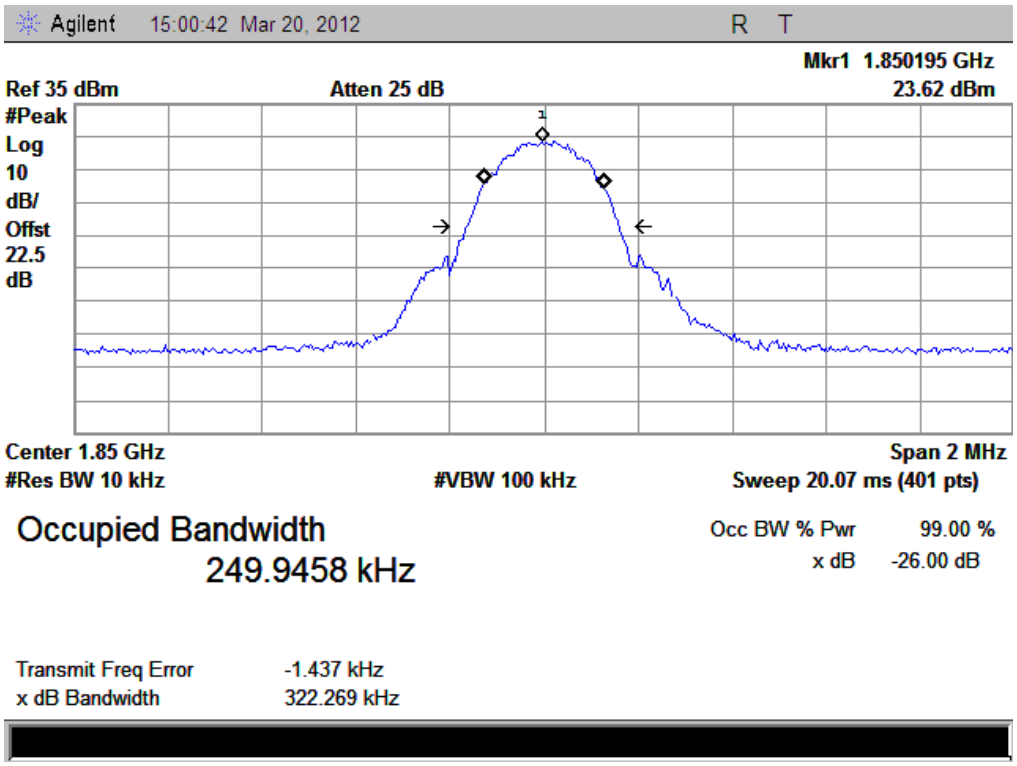
(Plot A: GSM 850MHz Channel = 128)



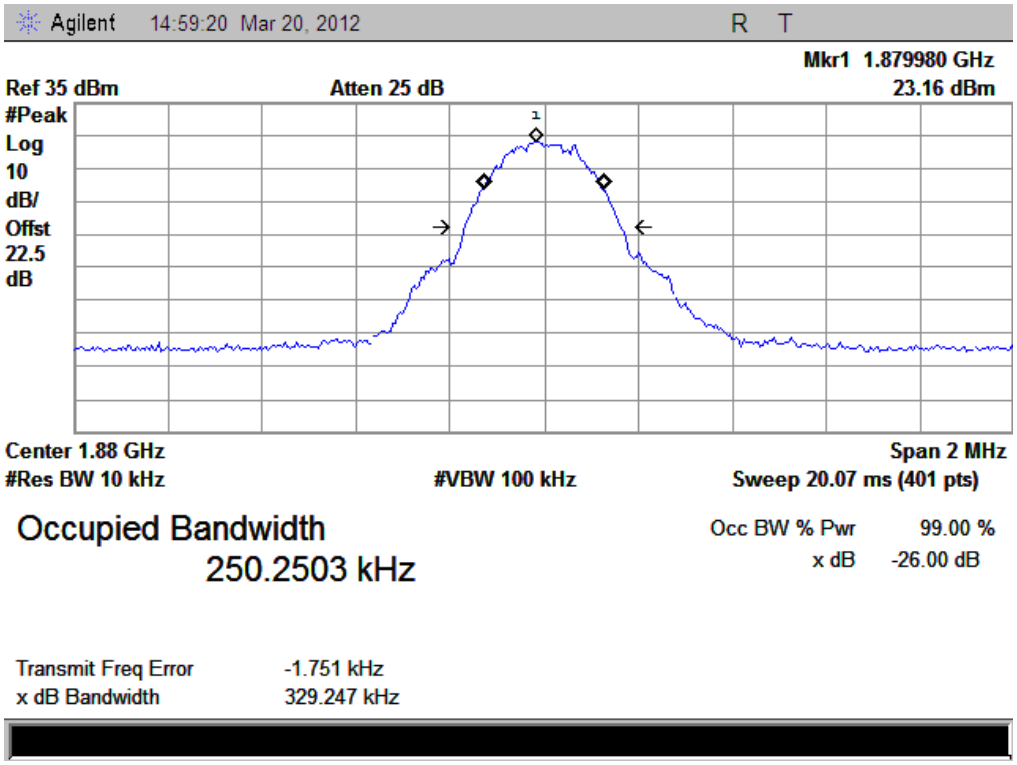
(Plot B: GSM 850MHz Channel = 190)



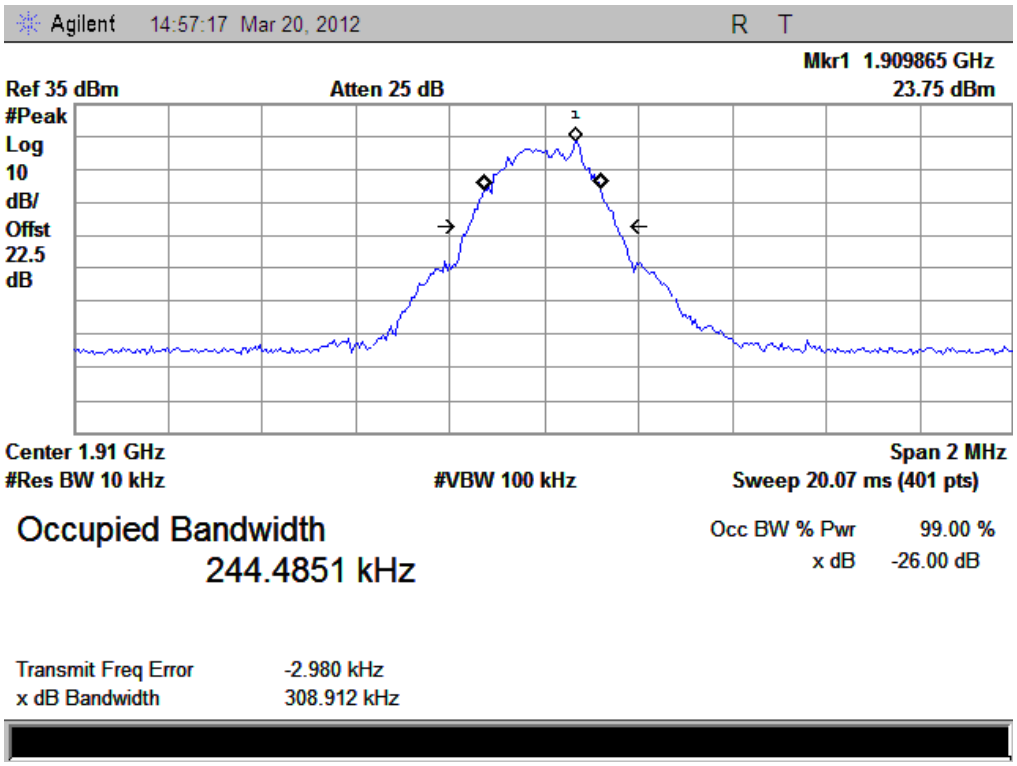
(Plot C: GSM 850MHz Channel = 251)



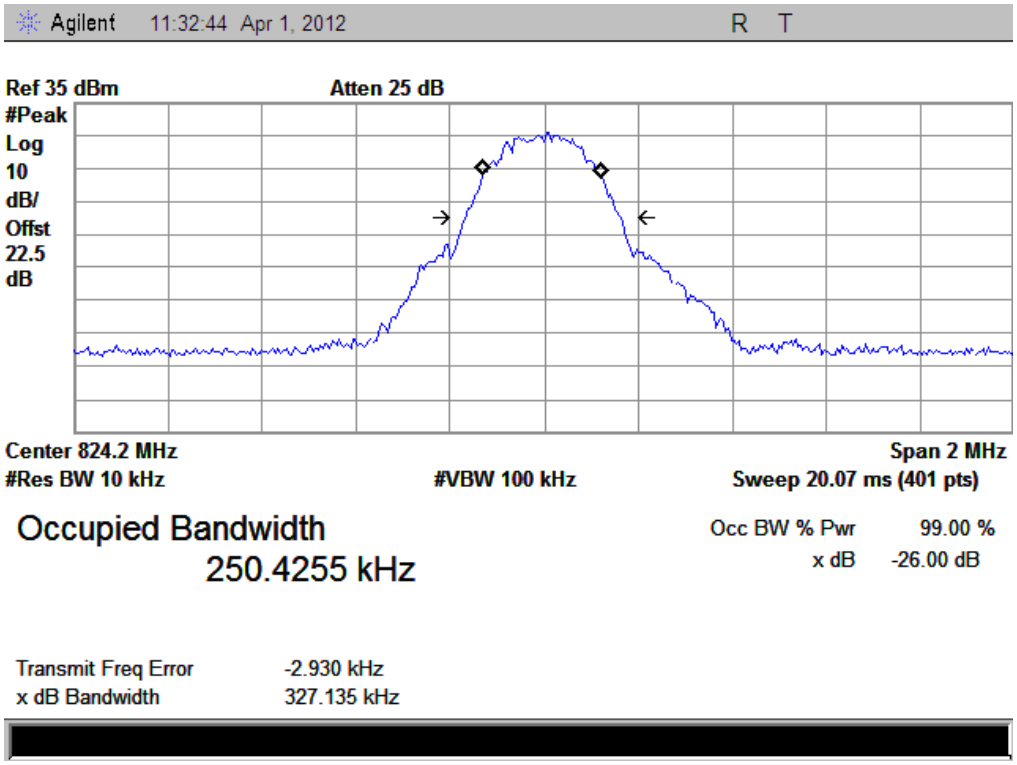
(Plot D: GSM 1900MHz Channel = 512)



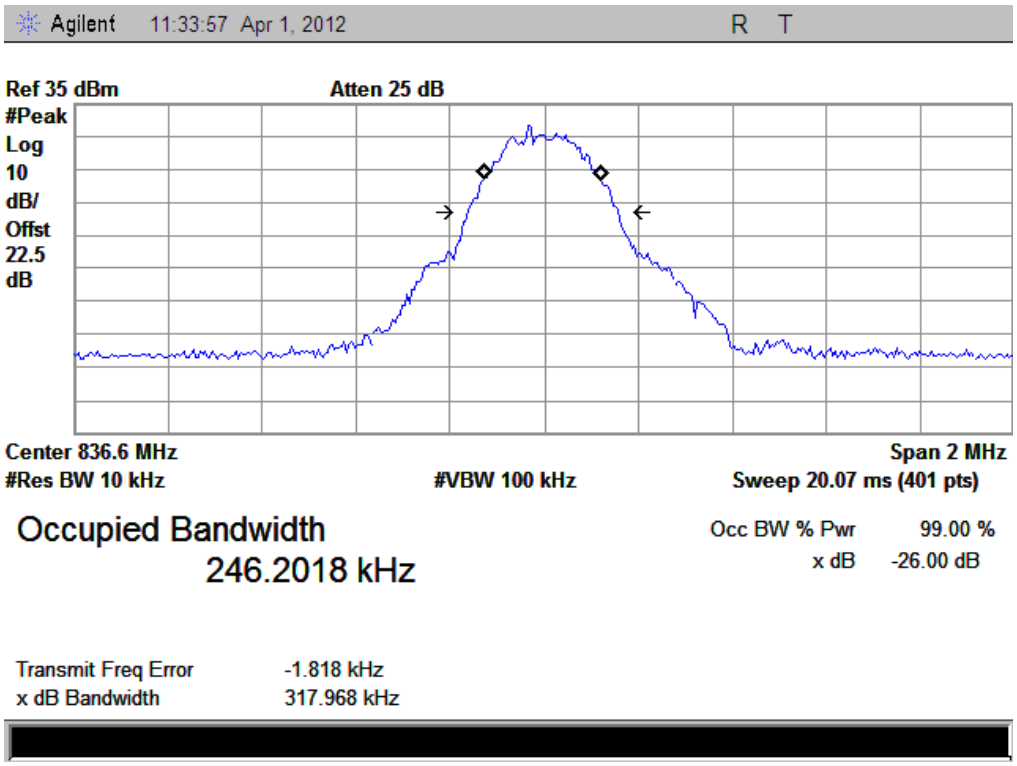
(Plot E: GSM 1900MHz Channel = 661)



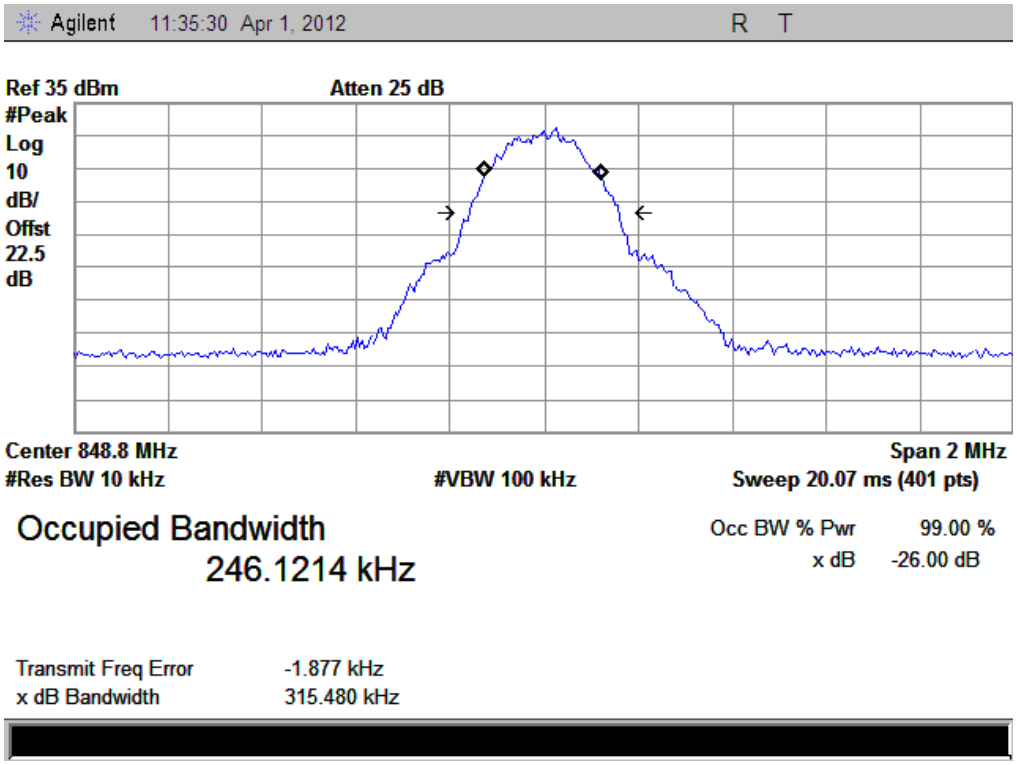
(Plot F: GSM 1900MHz Channel = 810)



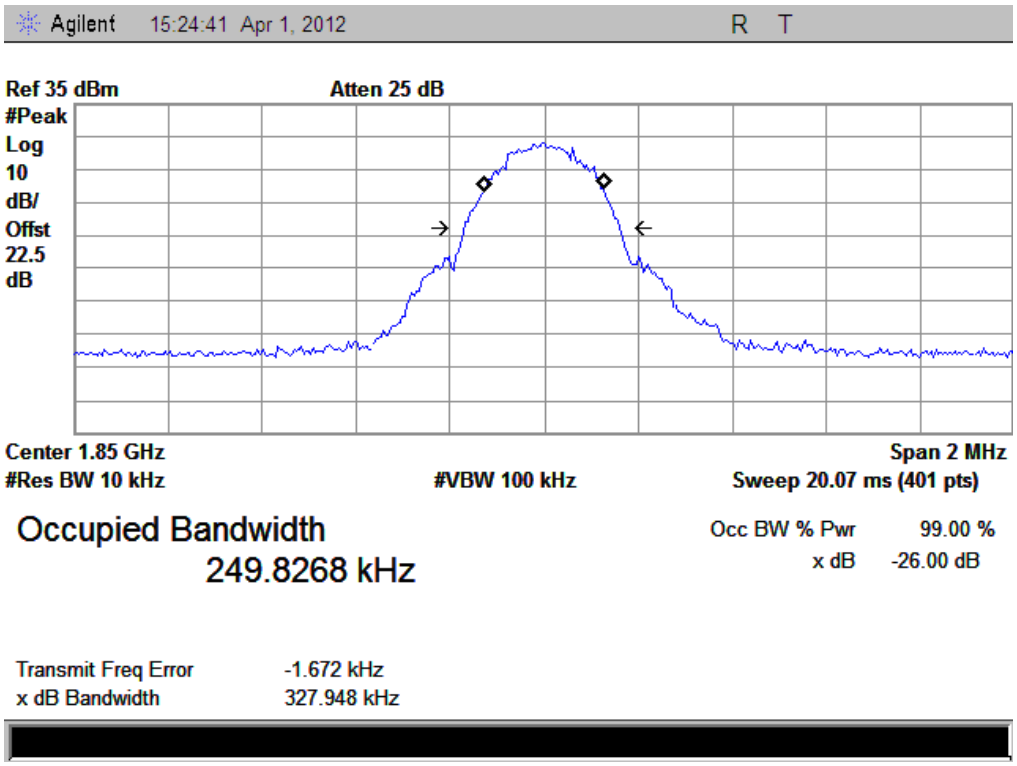
(Plot G: EDGE 850MHz Channel = 128)



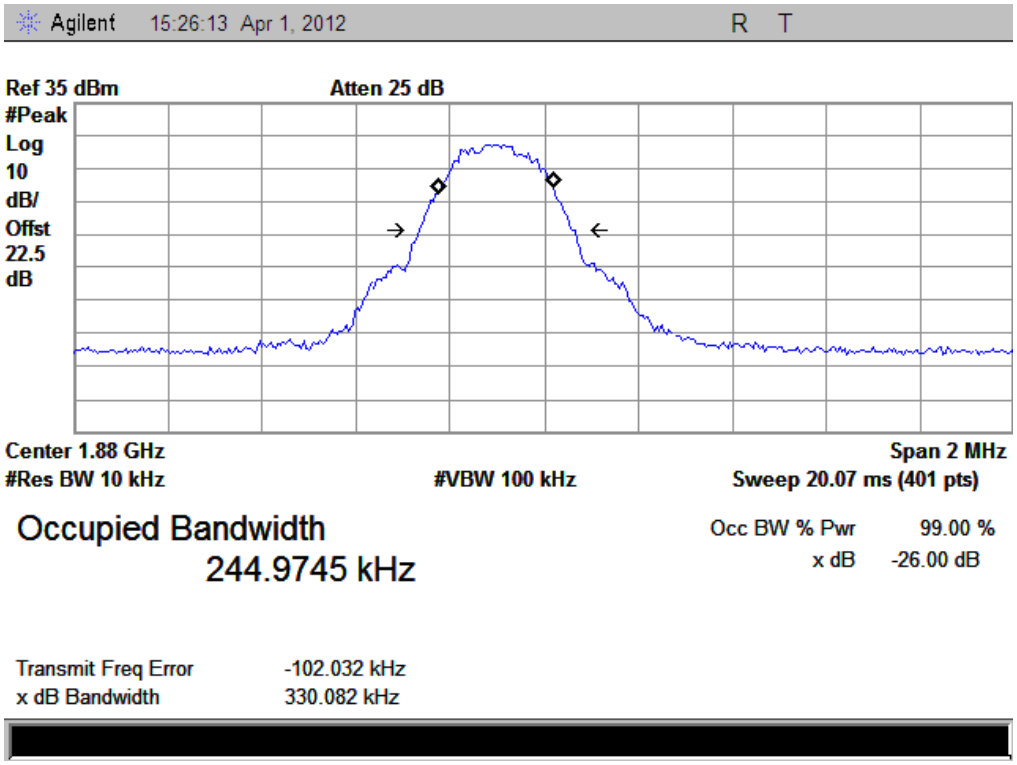
(Plot H: EDGE 850MHz Channel = 190)



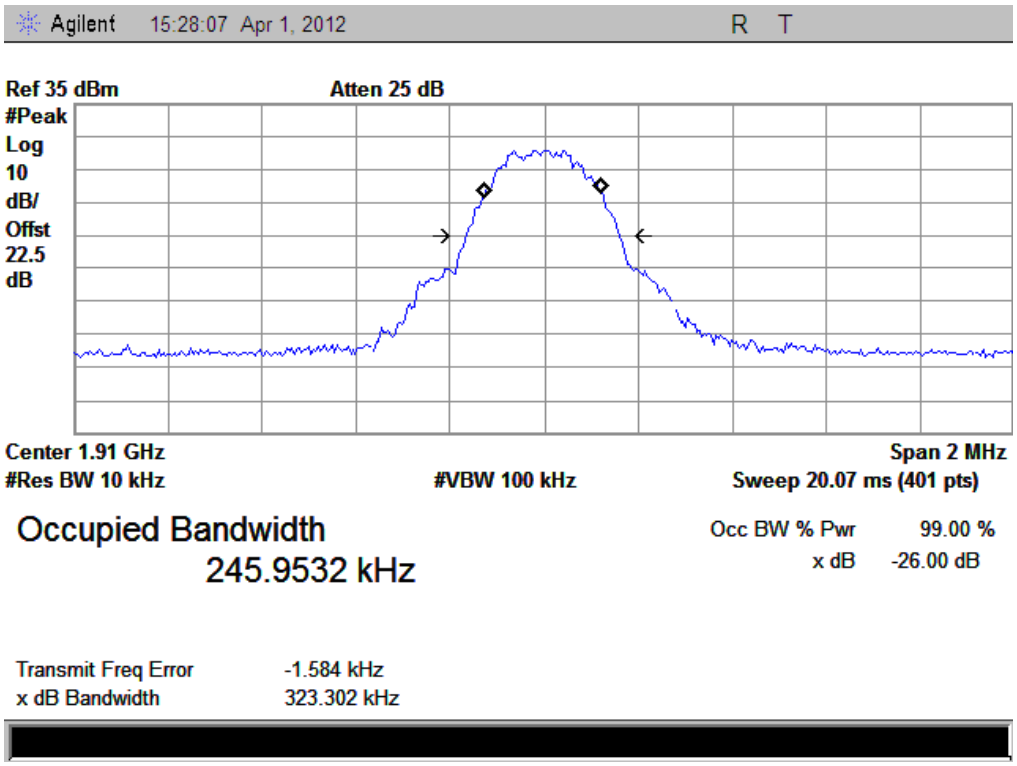
(Plot I: EDGE 850MHz Channel = 251)



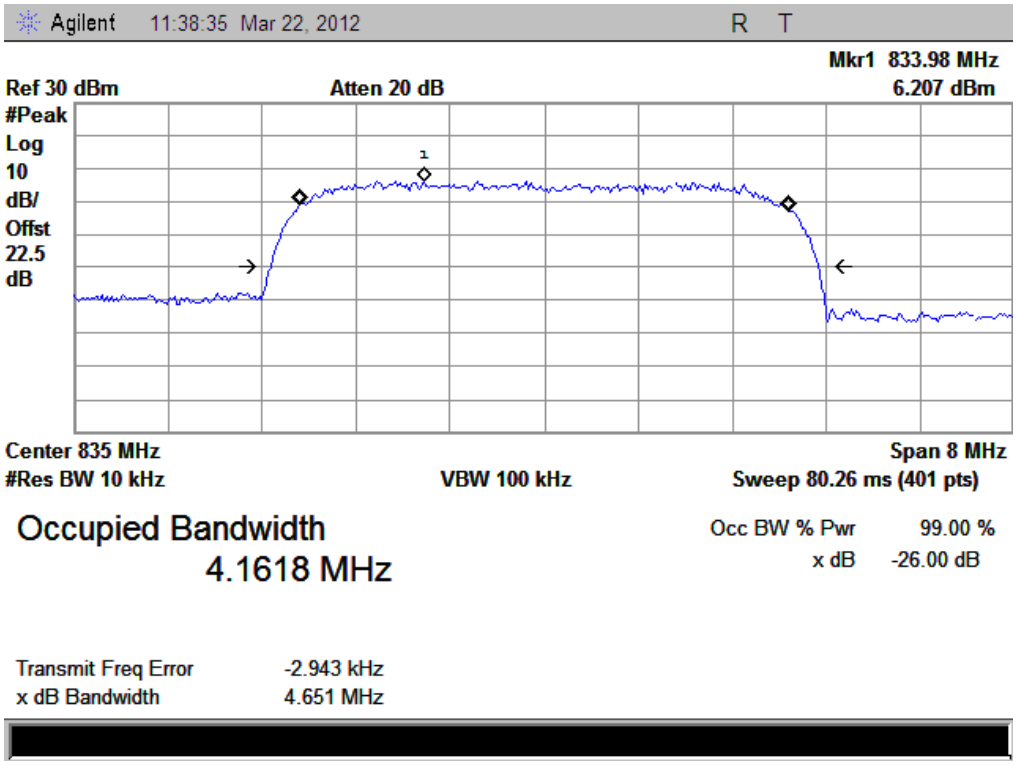
(Plot J: EDGE 1900MHz Channel = 512)



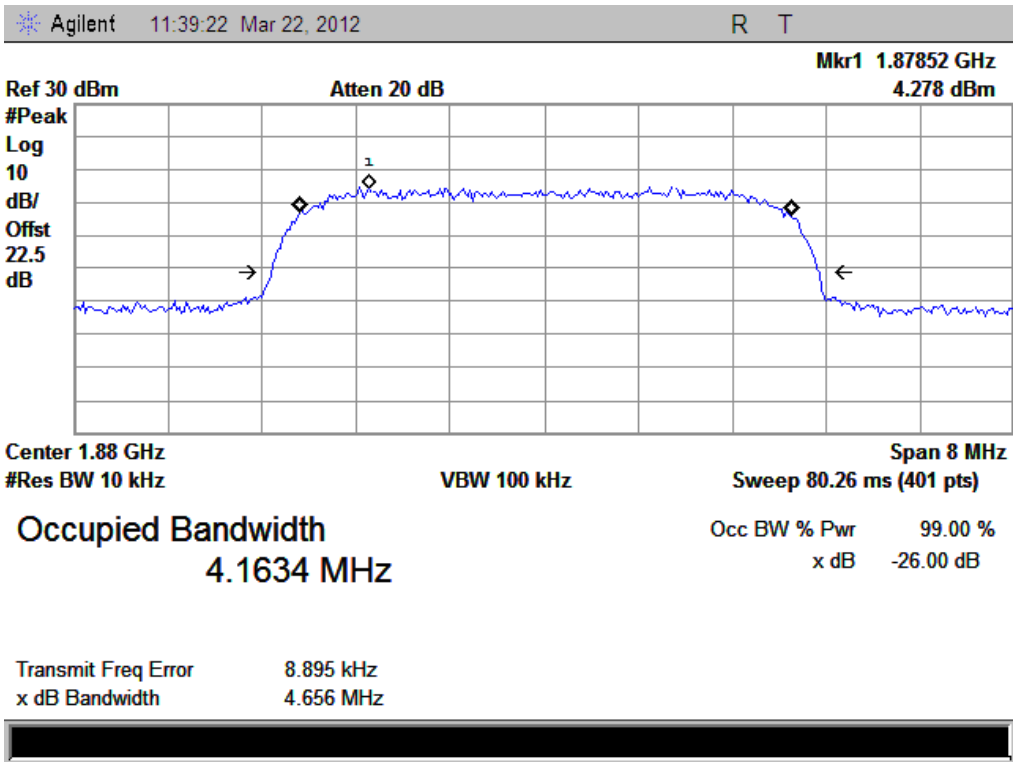
(Plot K: EDGE 1900MHz Channel = 661)



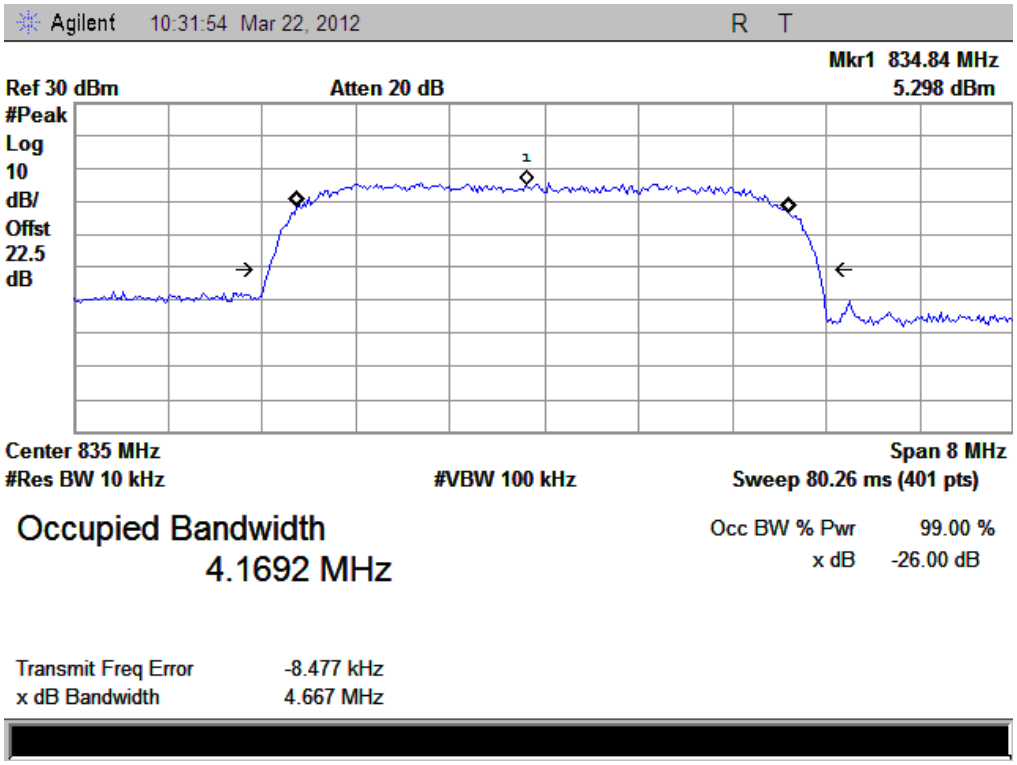
(Plot L: EDGE 1900MHz Channel = 810)



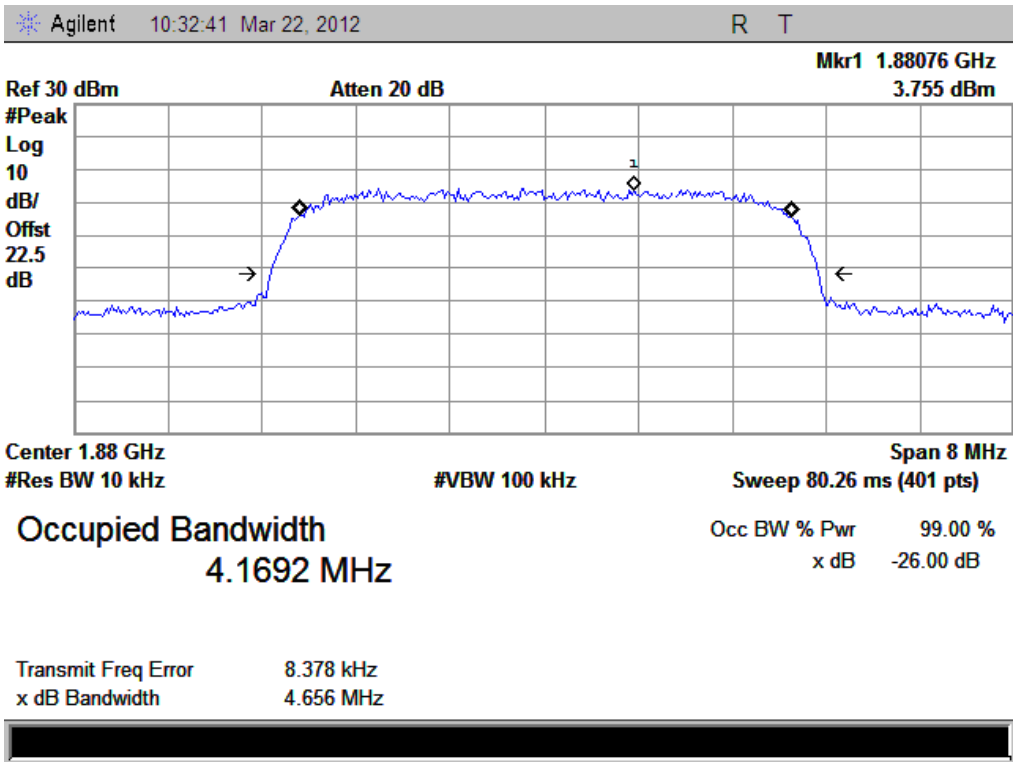
(Plot M: WCDMA 850MHz Channel = 4175)



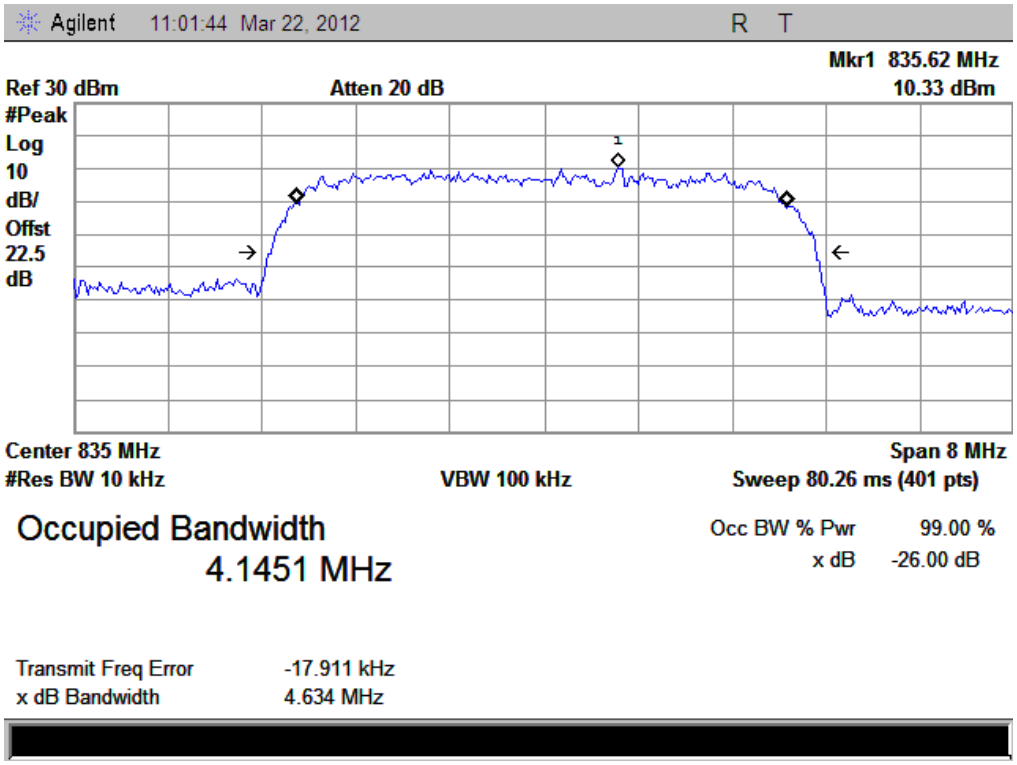
(Plot N: WCDMA 1900MHz Channel = 9400)



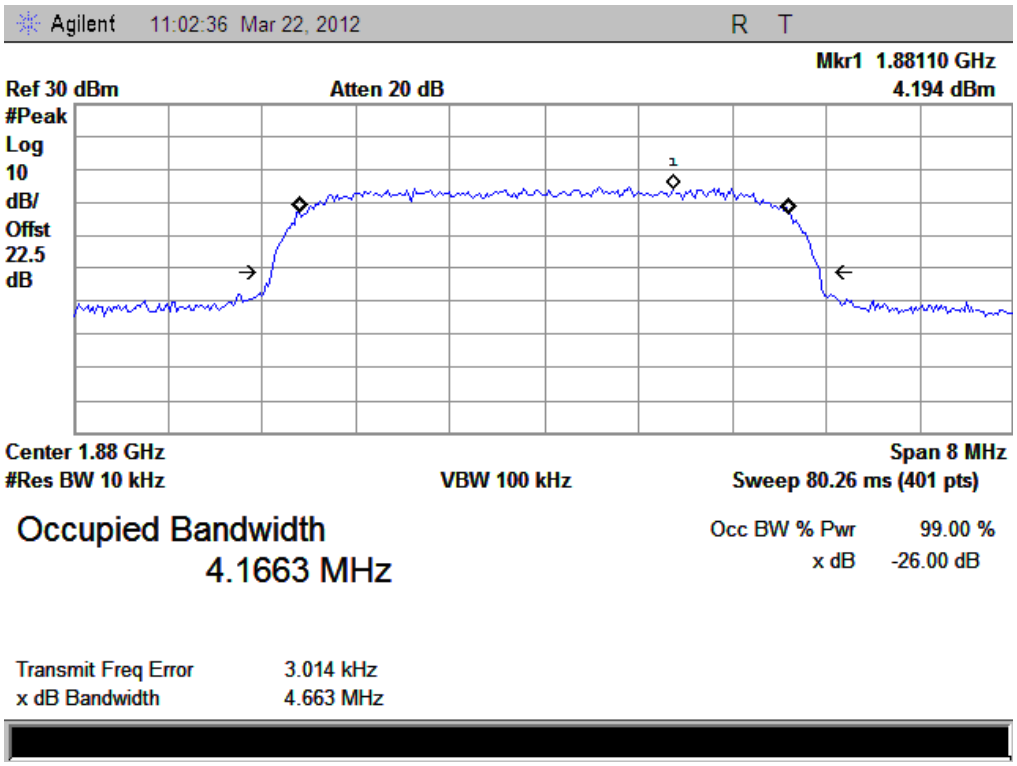
(Plot O: HSDPA 850MHz Channel = 4175)



(Plot P: HSDPA1900MHz Channel = 9400)



(Plot Q: HSUPA 850MHz Channel = 4175)



(Plot R: HSUPA1900MHz Channel = 9400)

2.3 Frequency Stability

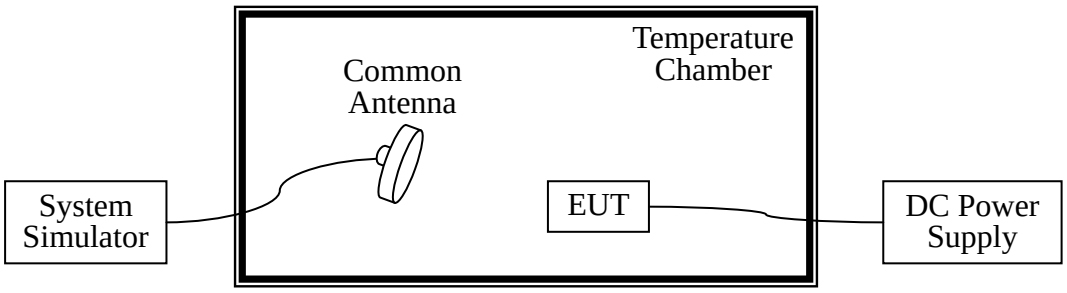
2.3.1 Requirement

According to FCC section 22.355 and FCC section 24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.
(b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

2.3.2 Test Description

1. Test Setup:



The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS via a Common Antenna.

2. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date
System Simulator	Agilent	E5515C	GB43130131	2011.05
DC Power Supply	Good Will	GPS-3030DD	EF920938	2011.05
Temperature Chamber	YinHe Experimental Equip.	HL4003T	(n.a.)	2011.05

2.3.3 Test Verdict

The nominal, highest and lowest extreme voltages are separately 3.7VDC, 4.2VDC and 3.6VDC, which are specified by the applicant; the normal temperature here used is 25°C. The frequency

deviation limit of 850MHz band is ±2.5ppm, and 1900MHz is ±1ppm

1. GSM 850MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 128 (824.2MHz)		Channel = 190 (836.6MHz)		Channel = 251 (848.8MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	9.78	±2060.5	-5.66	±2091.5	5.05	±2122	PASS
	-20	-11.17		19.70		7.49		
	-10	23.28		-10.06		0.19		
	0	-3.03		21.06		34.30		
	+10	-3.03		13.07		45.99		
	+20	-10.39		-12.76		-16.51		
	+30	27.75		-2.05		19.46		
	+40	5.31		-3.77		-6.80		
	+50	-22.19		5.39		7.58		
4.2	+25	23.74		19.65		23.11		
3.6	+25	23.29		-20.70		-14.93		

2. GSM 1900MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 512 (1850.2MHz)		Channel = 661 (1880.0MHz)		Channel = 810 (1909.8MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	23.12	±1850.2	21.02	±1880.0	25.47	±1909.8	PASS
	-20	11.33		41.08		37.73		
	-10	-17.55		20.65		-5.51		
	0	-21.75		-3.32		22.29		
	+10	-18.76		42.75		41.22		
	+20	32.54		-2.32		-8.03		
	+30	-18.89		23.12		-11.01		
	+40	44.49		11.33		0.52		
	+50	40.72		-17.55		25.40		
4.2	+25	16.15		38.10		-6.06		
3.6	+25	32.34		-22.06		-21.86		

3. EDGE 850MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 128 (824.2MHz)		Channel = 190 (836.6MHz)		Channel = 251 (848.8MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	-3.10	±2060.5	-2.80	±2091.5	9.49	±2122	PASS
	-20	38.28		-14.67		-12.90		
	-10	-2.15		0.84		12.66		
	0	40.06		9.35		5.05		
	+10	1.99		-10.10		3.02		
	+20	-19.86		-16.11		10.76		
	+30	39.56		17.76		-16.51		
	+40	46.60		15.64		-2.10		
	+50	39.98		3.67		-12.99		
4.2	+25	-15.71		13.95		-7.53		
3.6	+25	-17.70		6.23		6.78		

4. EDGE 1900MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 512 (1850.2MHz)		Channel = 661 (1880.0MHz)		Channel = 810 (1909.8MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	-13.77	±1850.2	23.62	±1880.0	24.03	±1909.8	PASS
	-20	0.62		7.23		-6.98		
	-10	1.65		-24.78		4.55		
	0	2.47		-1.26		-0.20		
	+10	-10.76		-18.68		26.30		
	+20	-2.11		-21.61		35.26		
	+30	13.33		14.58		-26.78		
	+40	5.33		-0.68		19.54		
	+50	-2.56		36.87		-16.67		
4.2	+25	17.60		3.88		26.79		
3.6	+25	-8.09		13.12		19.93		

5. WCDMA 850MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 4123 (826.4MHz)		Channel = 4175 (835MHz)		Channel = 4233 (846.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	27.16	±826.4	-13.39	±835	-9.81	±846.6	PASS
	-20	-17.02		-4.75		-23.82		
	-10	10.82		18.85		26.39		
	0	13.98		5.05		30.98		
	+10	-2.66		19.62		-2.65		
	+20	32.07		30.40		18.30		
	+30	-7.98		13.45		-12.57		
	+40	26.21		1.31		28.93		
	+50	11.10		-12.52		19.66		
4.2	+25	-6.18		30.62		22.19		
3.6	+25	18.66		-18.00		-18.70		

6. WCDMA 1900MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 9262 (1852.4MHz)		Channel = 9400 (1880.0MHz)		Channel = 9538 (1907.6MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	17.29	±1852.4	18.25	±1880.0	-8.99	±1907.6	PASS
	-20	-7.32		2.49		23.60		
	-10	-3.40		-10.71		14.81		
	0	16.47		-7.77		-3.07		
	+10	30.18		21.97		17.42		
	+20	-2.62		11.87		-10.39		
	+30	22.31		-0.59		17.47		
	+40	0.32		21.45		27.84		
	+50	-13.55		-5.71		-2.53		
4.2	+25	23.21		14.58		20.95		
3.6	+25	22.00		26.37		-23.22		

7. HSDPA 850MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 4123 (826.4MHz)		Channel = 4175 (835MHz)		Channel = 4233 (846.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	8.78	±826.4	21.77	±835	-3.87	±846.6	PASS
	-20	-1.49		-1.93		14.41		
	-10	17.14		18.67		21.57		
	0	-23.61		27.46		-24.37		
	+10	32.03		-8.56		-13.96		
	+20	23.83		20.65		35.23		
	+30	13.31		12.88		-8.31		
	+40	-14.01		-14.75		-13.95		
	+50	34.55		23.37		26.37		
4.2	+25	-3.57		7.93		7.90		
3.6	+25	17.51		-31.21		1.78		

8. HSDPA 1900MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 9262 (1852.4MHz)		Channel = 9400 (1880.0MHz)		Channel = 9538 (1907.6MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	1.80	±1852.4	15.66	±1880	2.61	±1907.6	PASS
	-20	-17.26		1.75		-8.38		
	-10	12.78		-7.00		-13.02		
	0	11.87		21.02		-8.51		
	+10	-16.65		26.48		5.64		
	+20	20.12		-4.81		-3.85		
	+30	-3.01		34.31		9.57		
	+40	21.71		8.36		27.54		
	+50	14.37		-25.88		-12.52		
4.2	+25	-11.21		29.43		-2.83		
3.6	+25	10.60		-2.27		14.42		

9. HSUPA 850MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 4123 (826.4MHz)		Channel = 4175 (835MHz)		Channel = 4233 (846.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	-20.54	±826.4	-9.75	±835	23.99	±846.6	PASS
	-20	8.22		18.54		7.43		
	-10	0.00		32.04		7.00		
	0	-13.77		22.67		-7.32		
	+10	-0.10		15.41		-4.91		
	+20	13.82		-6.64		21.35		
	+30	-15.25		24.25		-5.94		
	+40	-11.79		9.63		13.78		
	+50	-0.44		23.76		28.45		
4.2	+25	0.01		-4.57		29.11		
3.4	+25	1.54		5.25		-7.70		

10. HSUPA 1900MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 9262 (1852.4MHz)		Channel = 9400 (1880.0MHz)		Channel = 9538 (1907.6MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.7	-30	14.55	±1852.4	30.18	±1880	-12.97	±1907.6	PASS
	-20	7.15		19.36		12.35		
	-10	8.69		-5.91		29.57		
	0	2.01		7.29		-6.20		
	+10	-4.75		-4.52		-12.61		
	+20	16.38		31.70		-13.09		
	+30	-1.76		33.66		-0.38		
	+40	23.52		1.15		-11.85		
	+50	13.79		-7.94		-5.91		
4.2	+25	-7.08		6.81		25.48		
3.4	+25	22.58		-1.83		-15.78		

2.4 Conducted Out of Band Emissions

2.4.1 Requirement

According to FCC section 22.917(a) and FCC section 24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

2.4.2 Test Description

See section 2.1.2 of this report.

2.4.3 Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

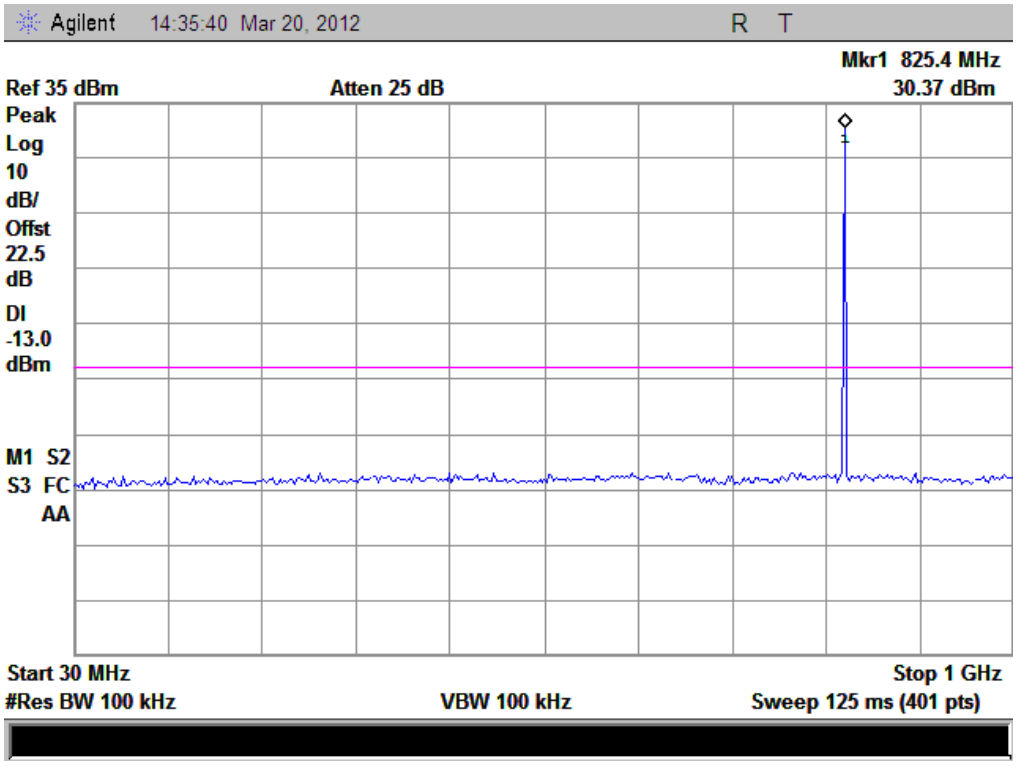
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-19.78	Plot A1toA1.1	-13	PASS
	190	836.6	-20.32	Plot A2toA2.1		PASS
	251	848.8	-19.84	Plot A3toA3.1		PASS
GSM 1900MHz	512	1850.2	< -25	Plot B1toB1.1	-13	PASS
	661	1880.0	< -25	Plot B2toB2.1		PASS
	810	1909.8	< -25	Plot B3toB3.1		PASS
EDGE 850MHz	128	824.2	-19.78	Plot C1toC1.1	-13	PASS
	190	836.6	-20.33	Plot C2toC2.1		PASS
	251	848.8	-20.09	Plot C3toC3.1		PASS
EDGE 1900MHz	512	1850.2	-20.57	Plot D1toD1.1	-13	PASS
	661	1880.0	-20.56	Plot D2toD2.1		PASS
	810	1909.8	-20.52	Plot D3toD3.1		PASS
WCDMA 850MHz	4132	826.4	< -25	Plot E1toE1.1	-13	PASS
	4175	835	< -25	Plot E2toE2.1		PASS
	4233	846.6	< -25	Plot E3toE3.1		PASS
WCDMA 1900MHz	9262	1852.4	< -25	Plot F1toF1.1	-13	PASS
	9400	1880	< -25	Plot F2toF2.1		PASS
	9538	1907.6	< -25	Plot F3toF3.1		PASS
HSDPA	4132	826.4	< -25	Plot G1toG1.1	-13	PASS

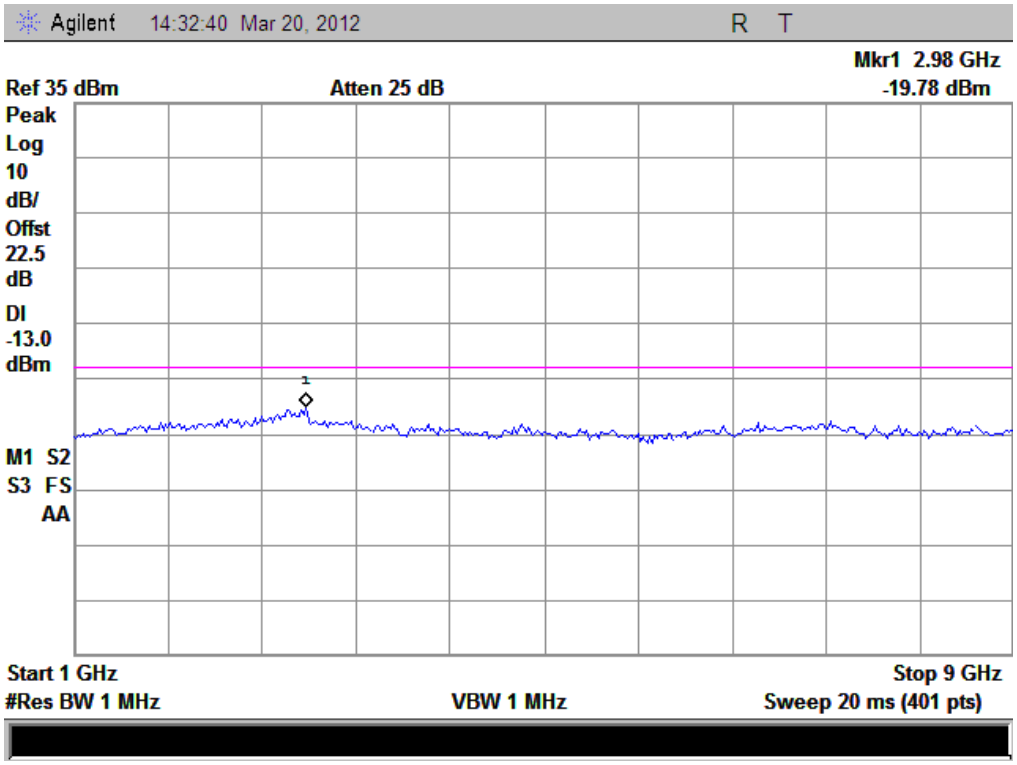
Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
850MHz	4175	835	< -25	Plot G2toG2.1		PASS
	4233	846.6	< -25	Plot G3toG3.1		PASS
HSDPA 1900MHz	9262	1852.4	< -25	Plot H1toH1.1	-13	PASS
	9400	1880	< -25	Plot H2toH2.1		PASS
	9538	1907.6	< -25	Plot H3toH3.1		PASS
HSUPA 850MHz	4132	826.4	< -25	Plot I1toI1.1	-13	PASS
	4175	835	< -25	Plot I2toI2.1		PASS
	4233	846.6	< -25	Plot I3toI3.1		PASS
HSUPA 1900MHz	9262	1852.4	< -25	Plot J1toJ1.1	-13	PASS
	9400	1880	< -25	Plot J2toJ2.1		PASS
	9538	1907.6	< -25	Plot J3toJ3.1		PASS

2. Test Plots for the Whole Measurement Frequency Range:

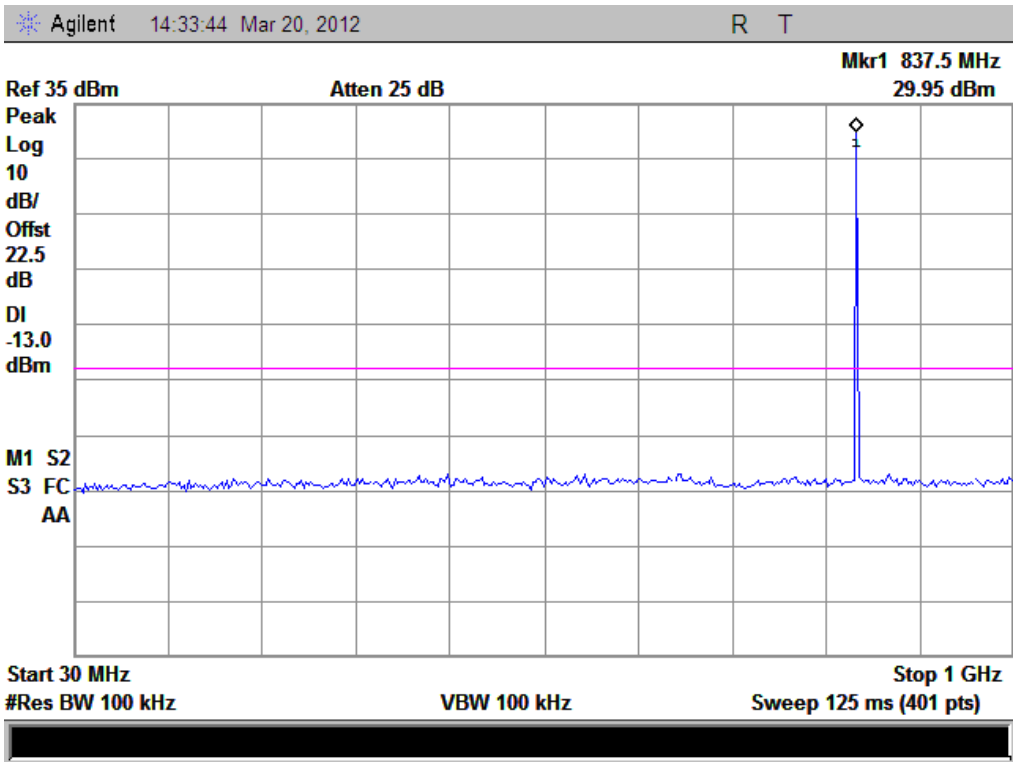
Note: the power of the EUT transmitting frequency should be ignored.



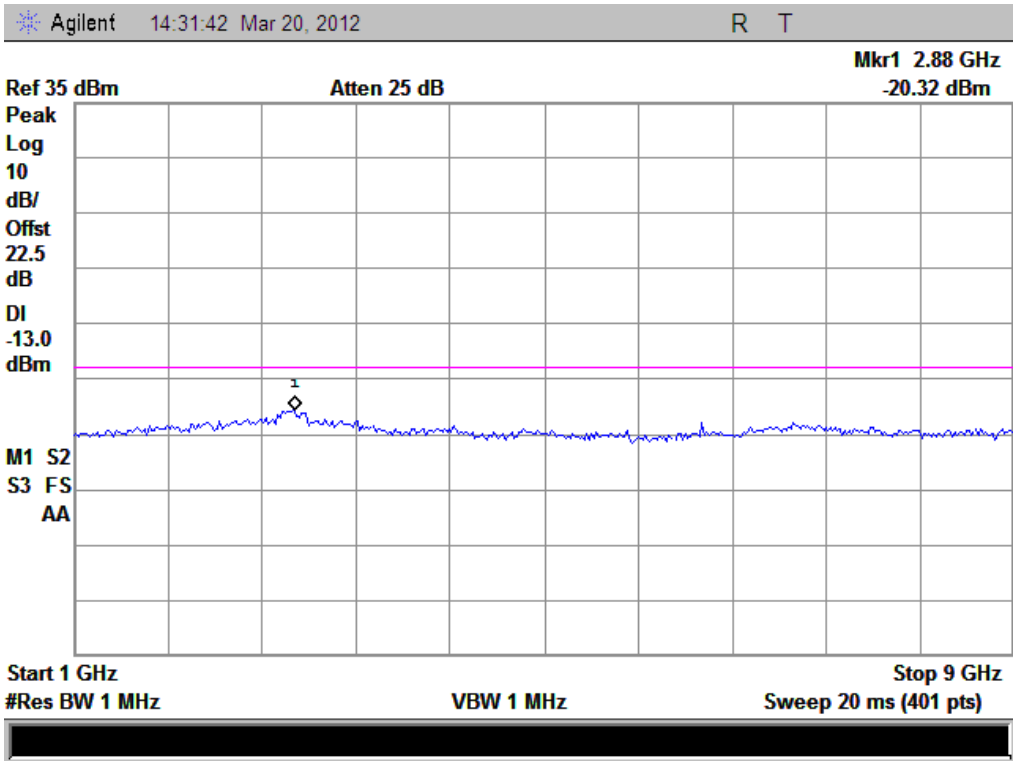
(Plot A1: GSM 850MHz Channel = 128, 30MHz to 1GHz)



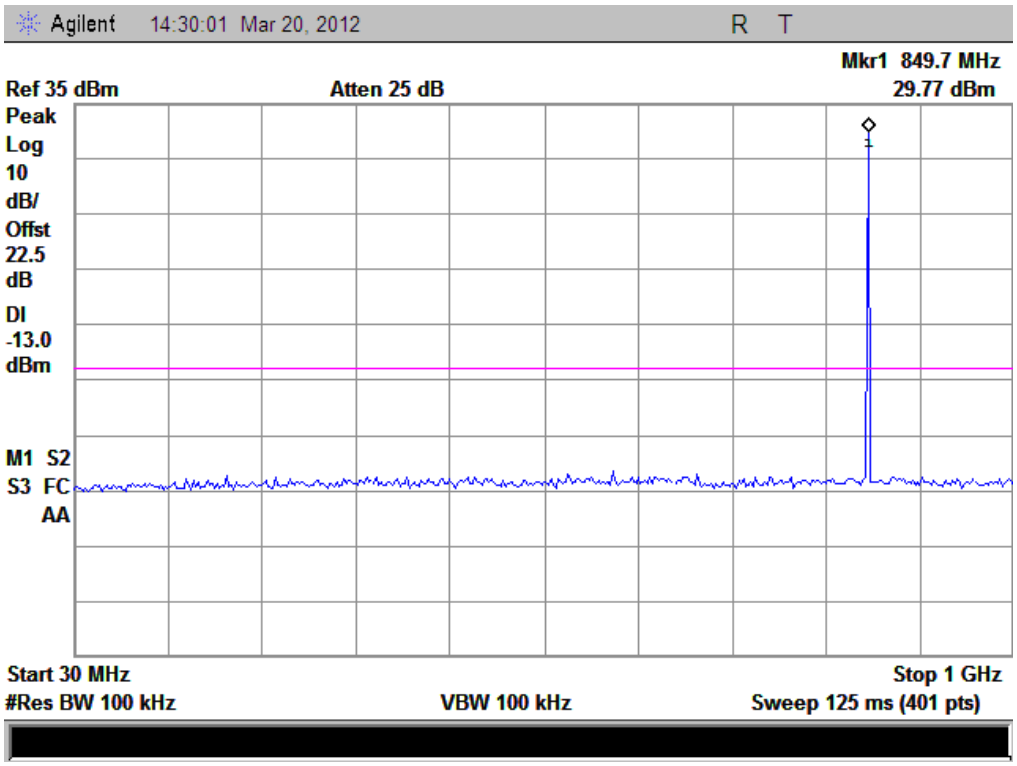
(Plot A1.1: GSM 850MHz Channel = 128, 1GHz to 9GHz)



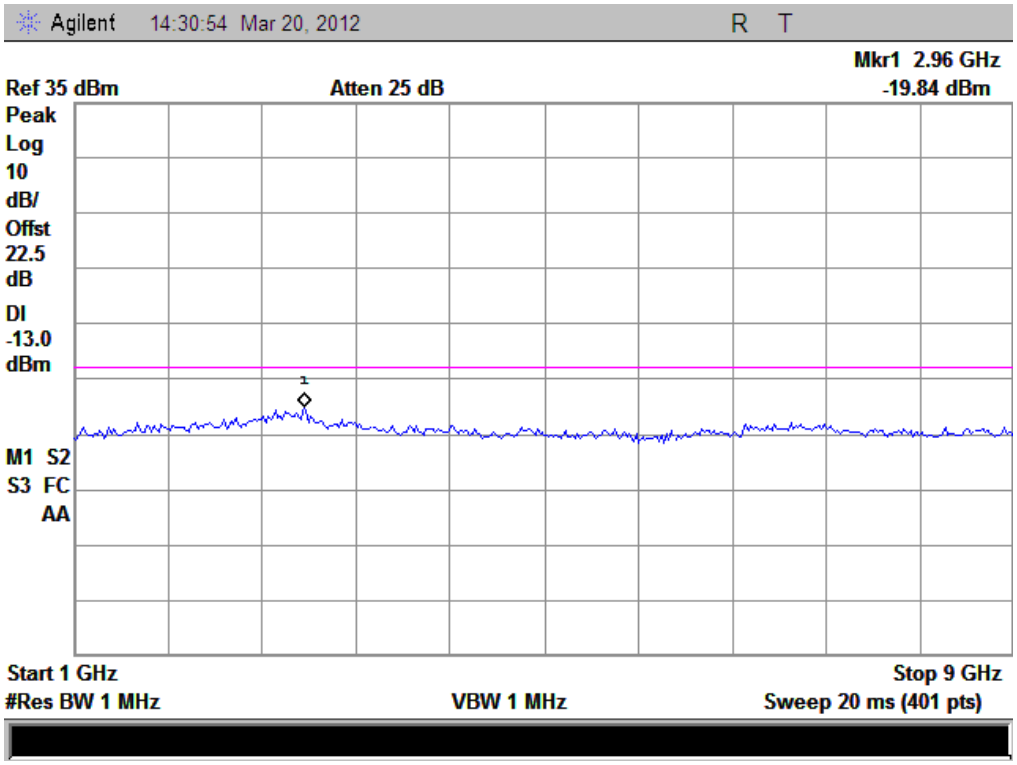
(Plot A2: GSM 850MHz Channel = 190, 30MHz to 1GHz)



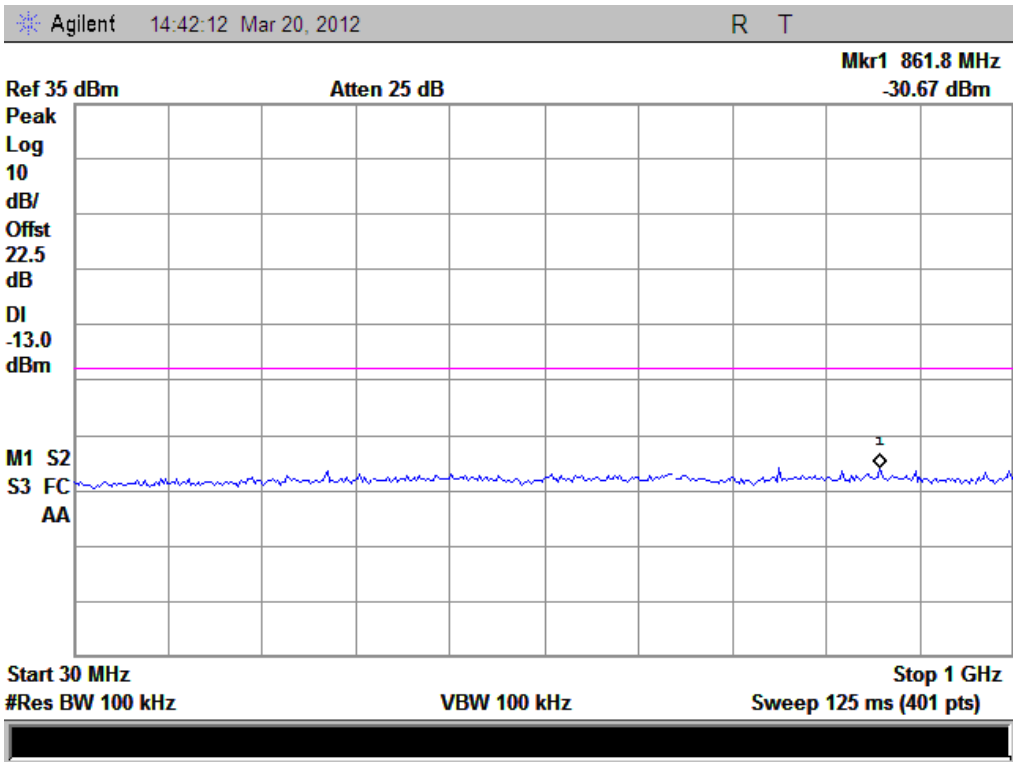
(Plot A2.1: GSM 850MHz Channel = 190, 1GHz to 9GHz)



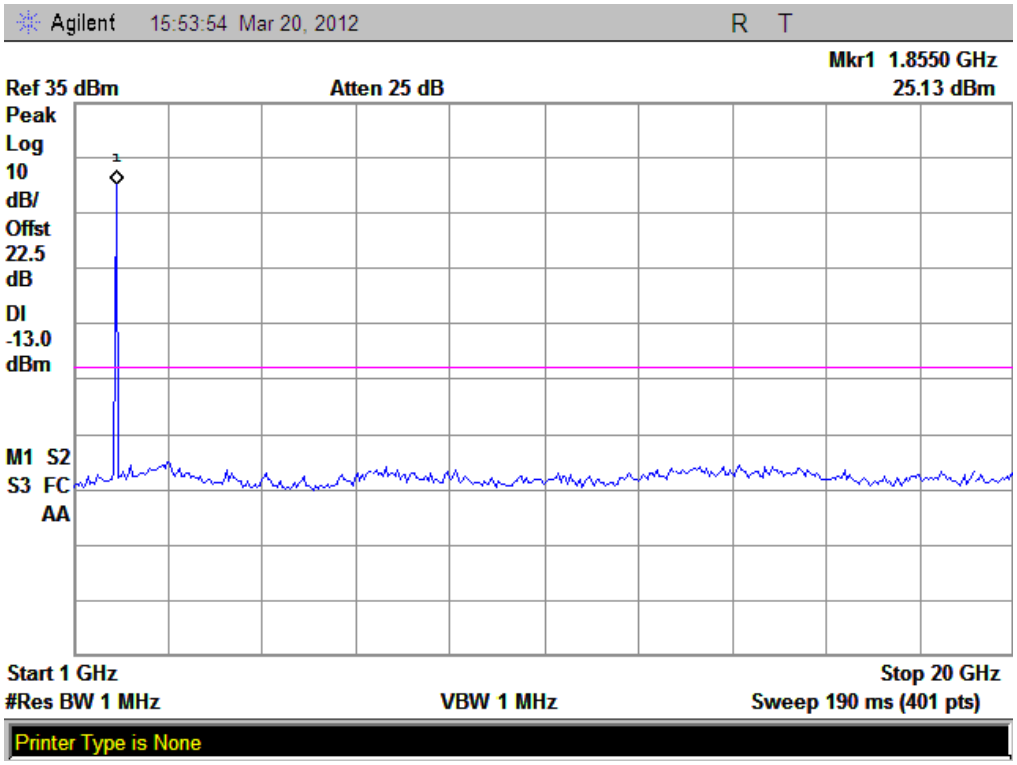
(Plot A3: GSM 850MHz Channel = 251, 30MHz to 1GHz)



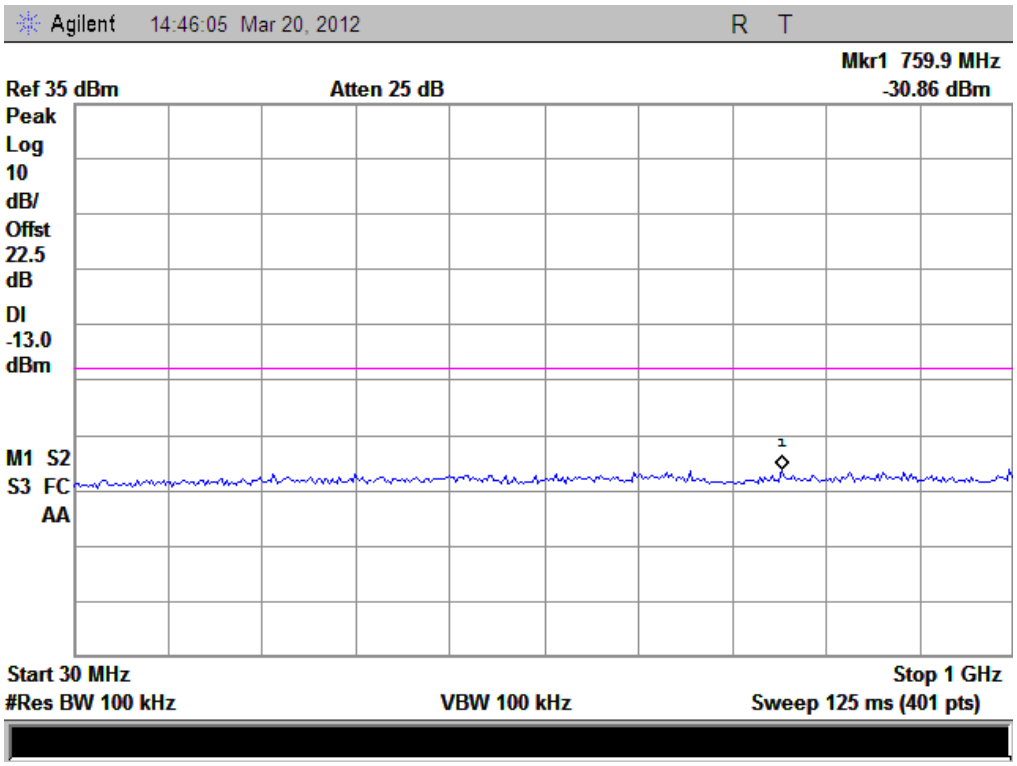
(Plot A3.1: GSM 850MHz Channel = 251, 1GHz to 9GHz)



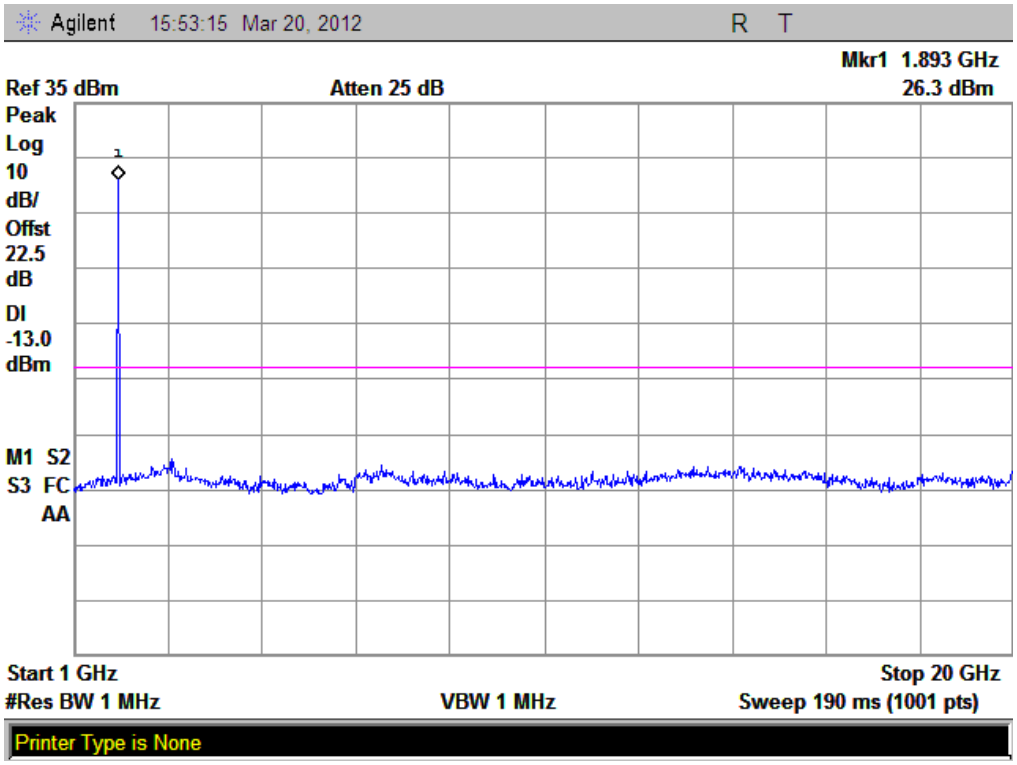
(Plot B1: GSM 1900MHz Channel = 512, 30MHz to 1GHz)



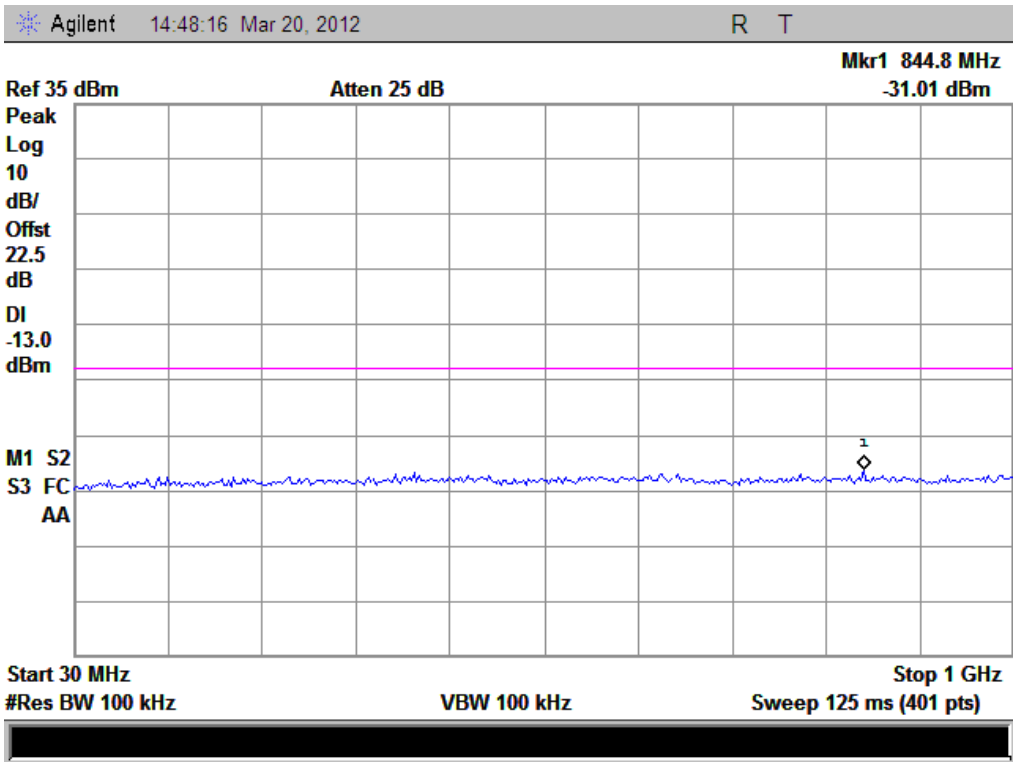
(Plot B1.1: GSM 1900MHz Channel = 512, 1GHz to 20GHz)



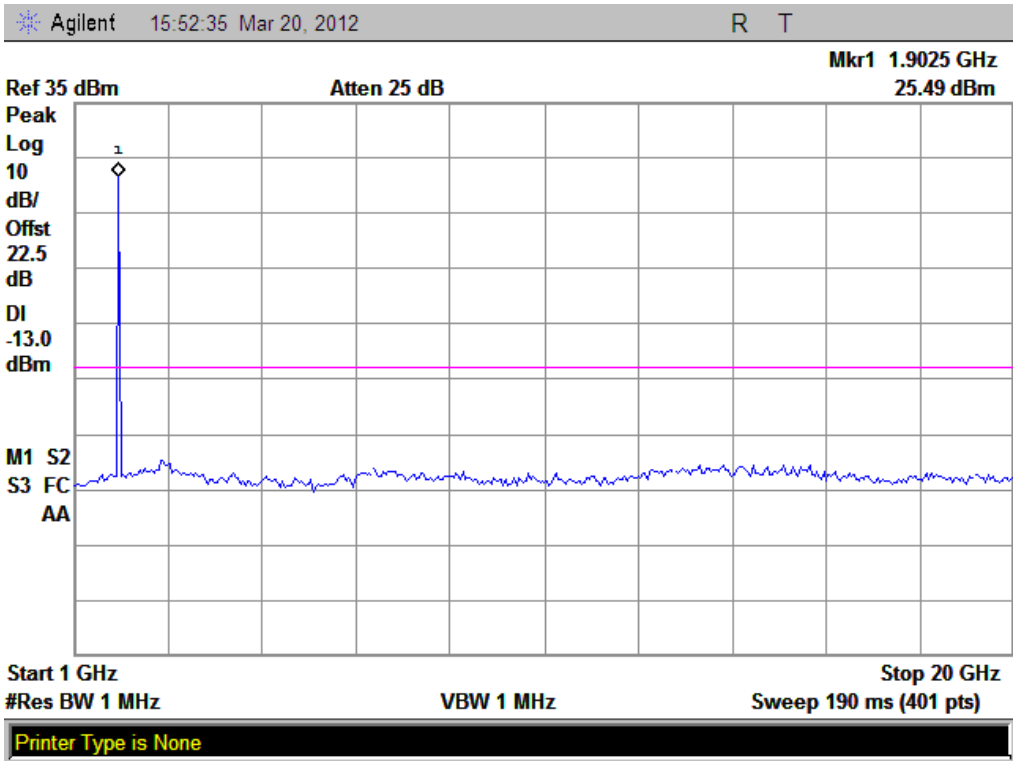
(Plot B2: GSM 1900MHz Channel = 661, 30MHz to 1GHz)



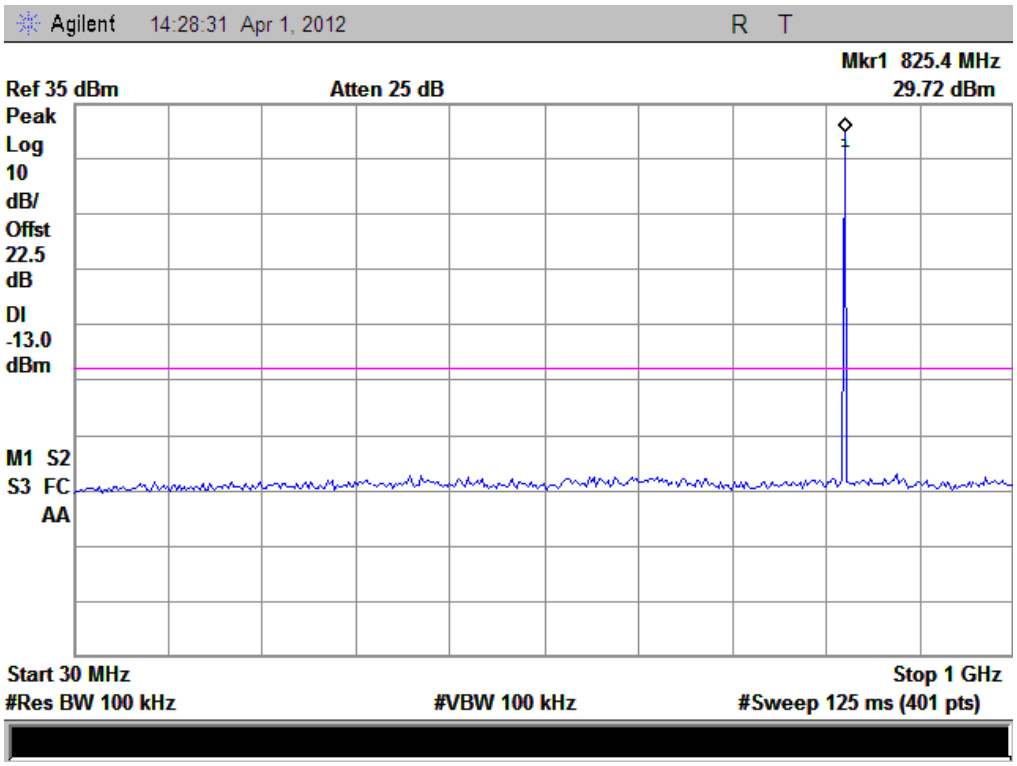
(Plot B2.1: GSM 1900MHz Channel = 661, 1GHz to 20GHz)



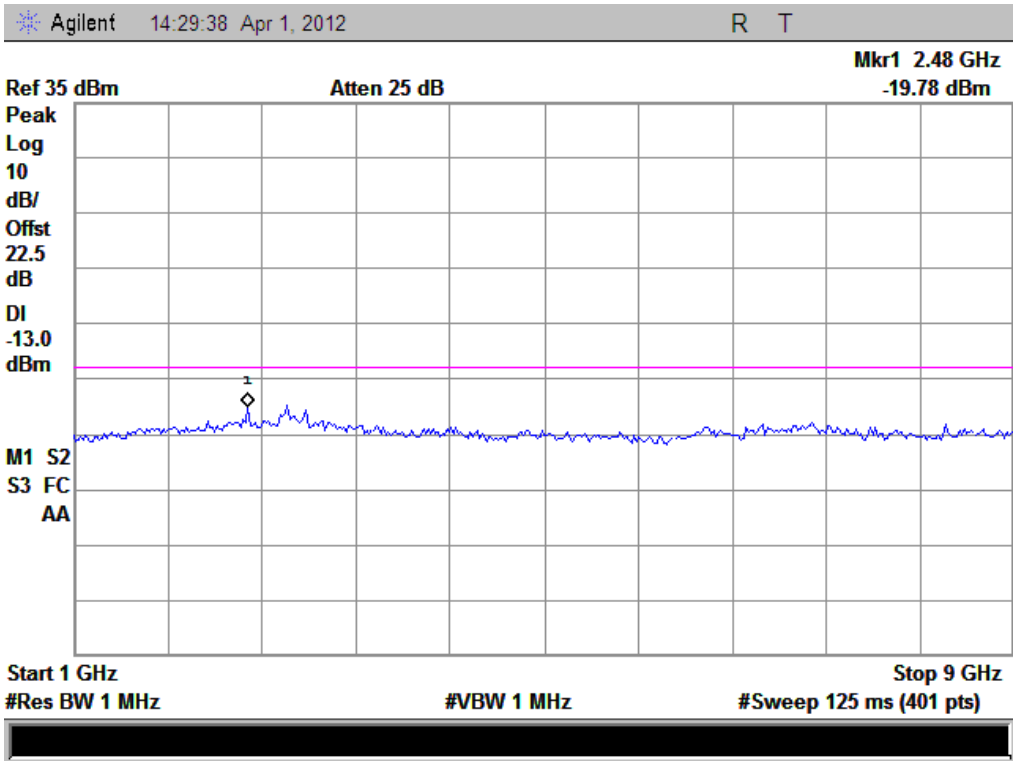
(Plot B3: GSM 1900MHz Channel = 810, 30MHz to 1GHz)



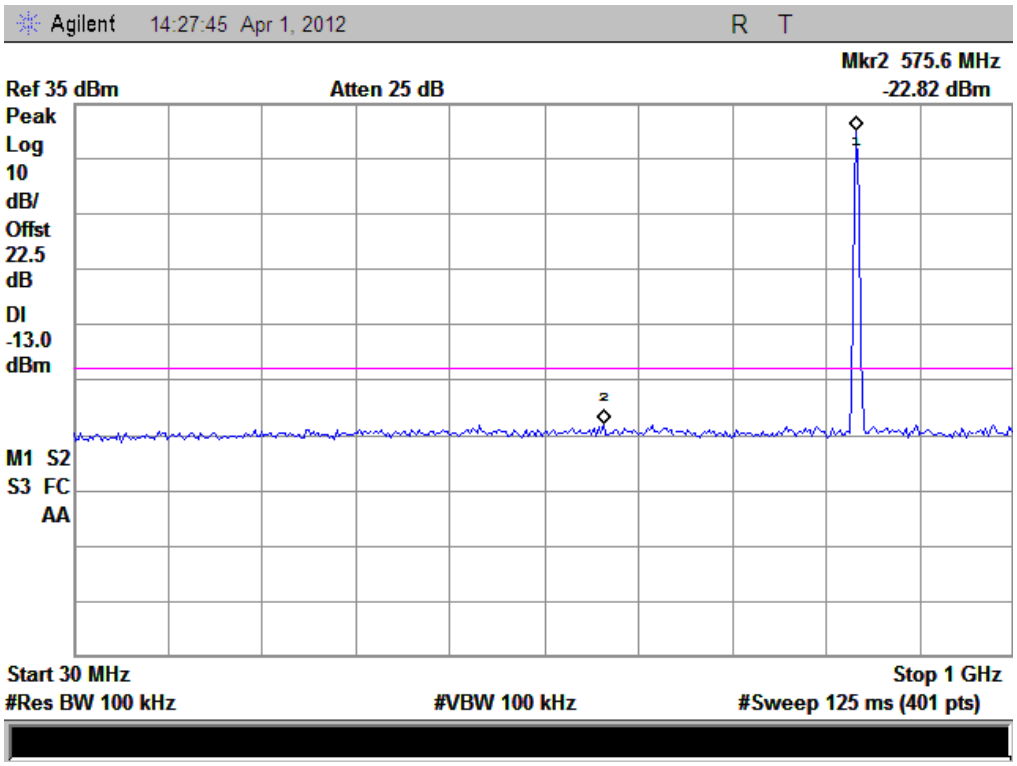
(Plot B3.1: GSM 1900MHz Channel = 810, 1GHz to 20GHz)



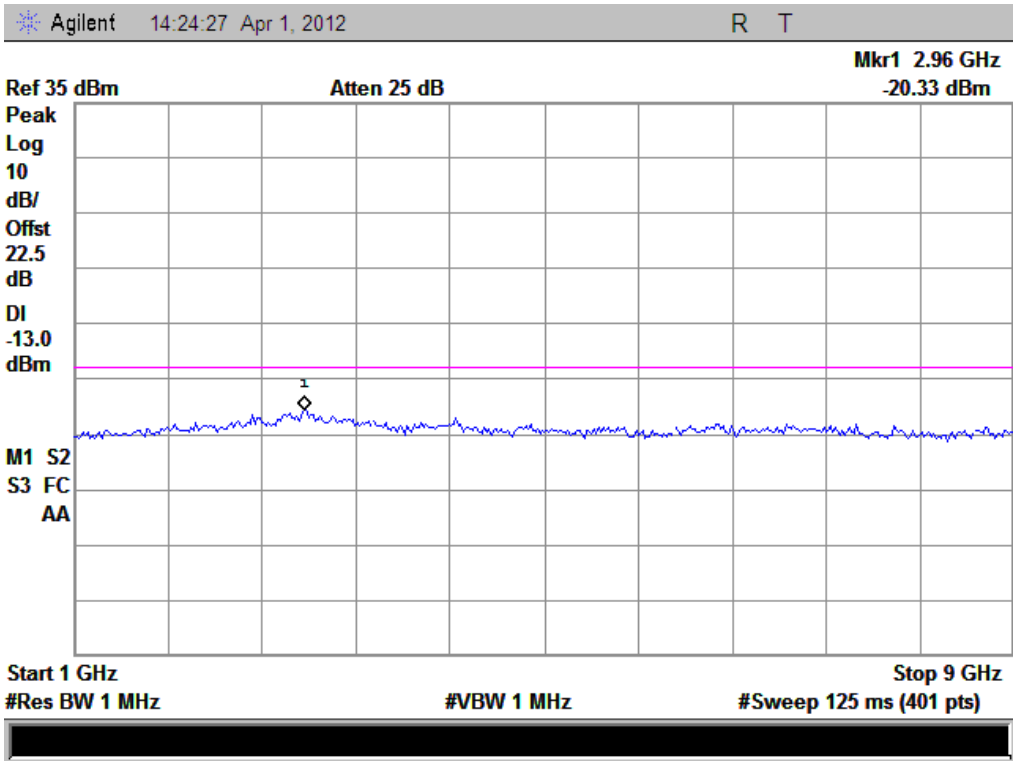
(Plot C1: EDGE 850MHz Channel = 128, 30MHz to 1GHz)



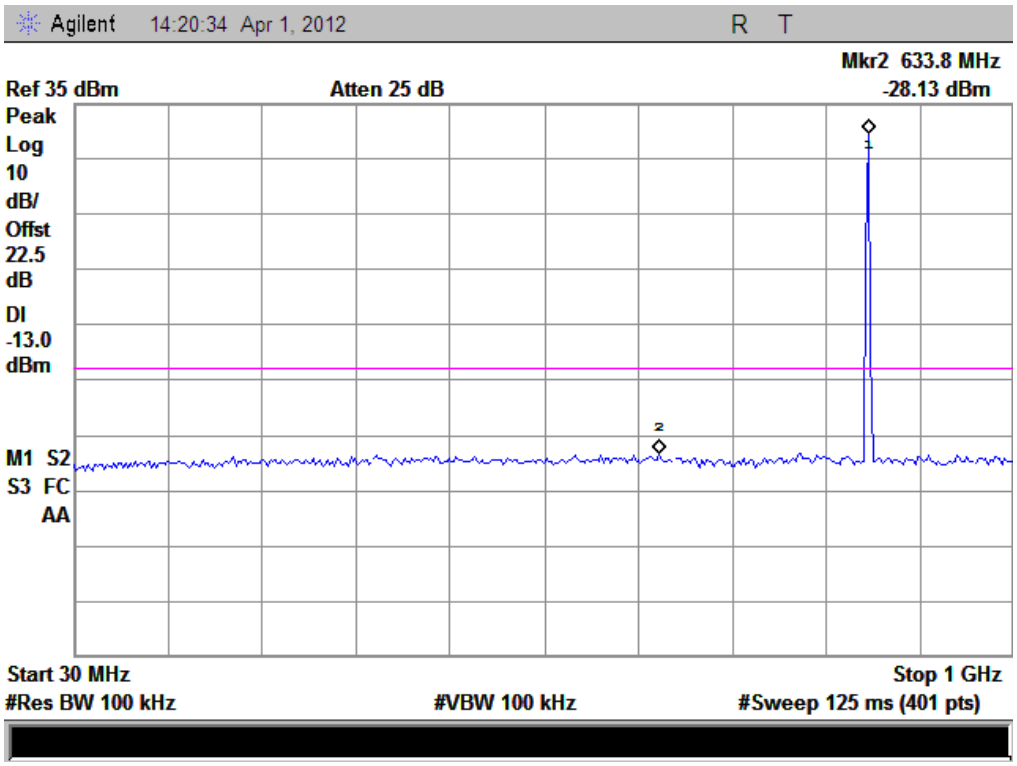
(Plot C1.1: EDGE 850MHz Channel = 128, 1GHz to 9GHz)



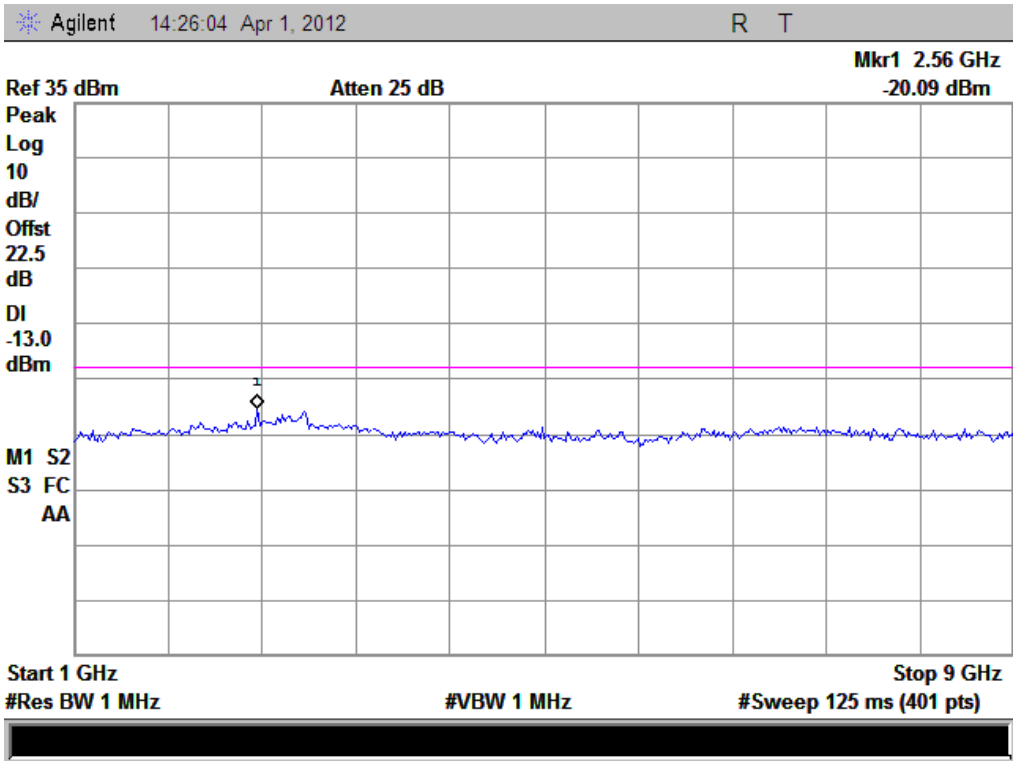
(Plot C2: EDGE 850MHz Channel = 190, 30MHz to 1GHz)



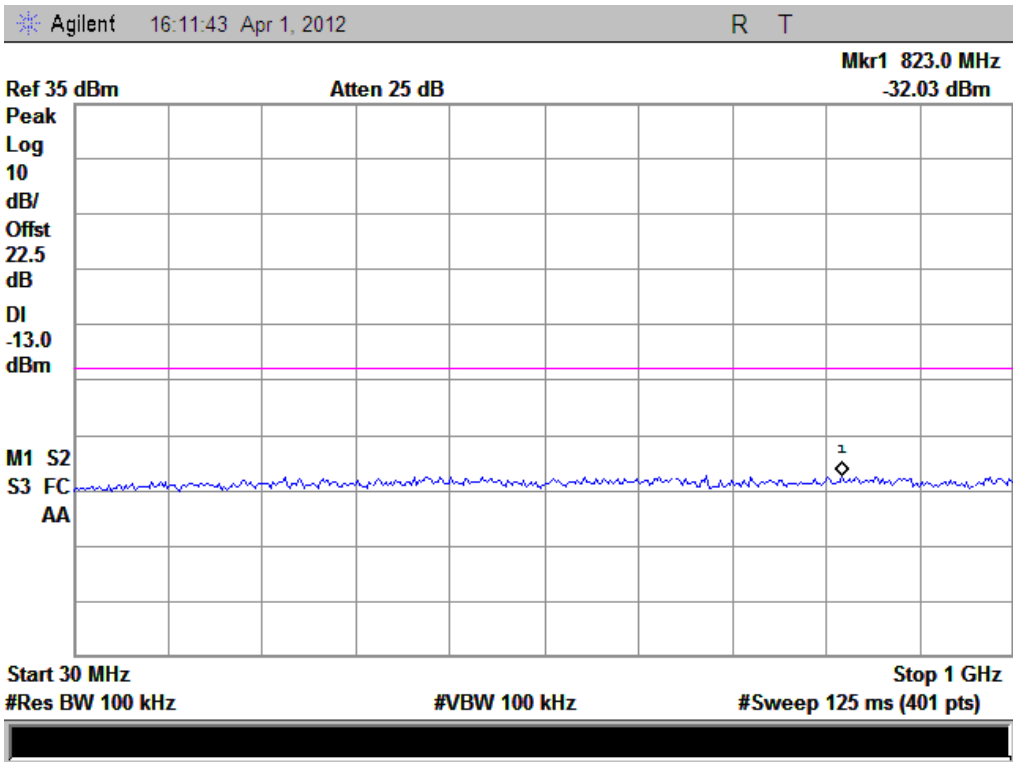
(Plot C2.1: EDGE 850MHz Channel = 190, 1GHz to 9GHz)



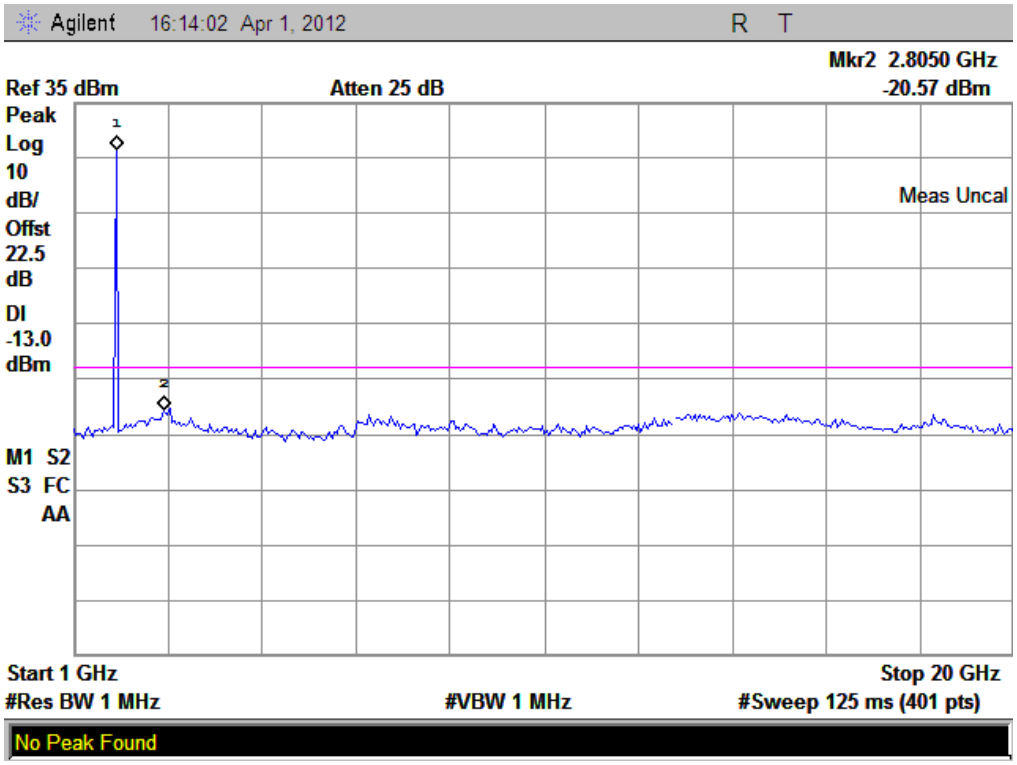
(Plot C3: EDGE 850MHz Channel = 251, 30MHz to 1GHz)



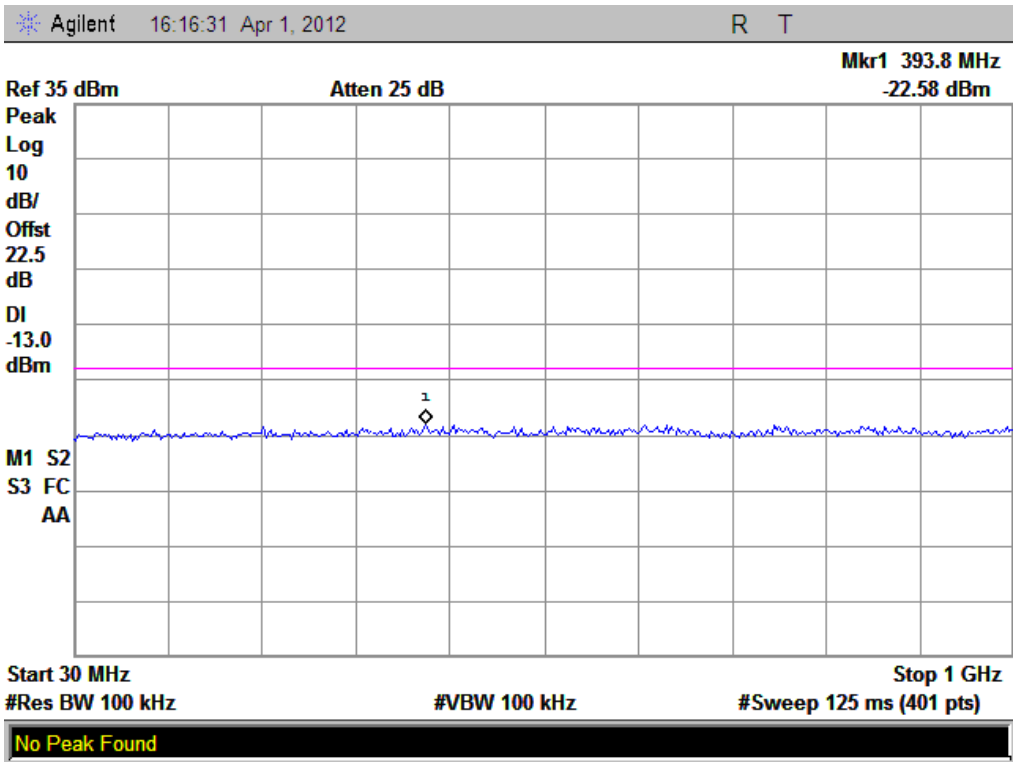
(Plot C3.1: EDGE 850MHz Channel = 251, 1GHz to 9GHz)



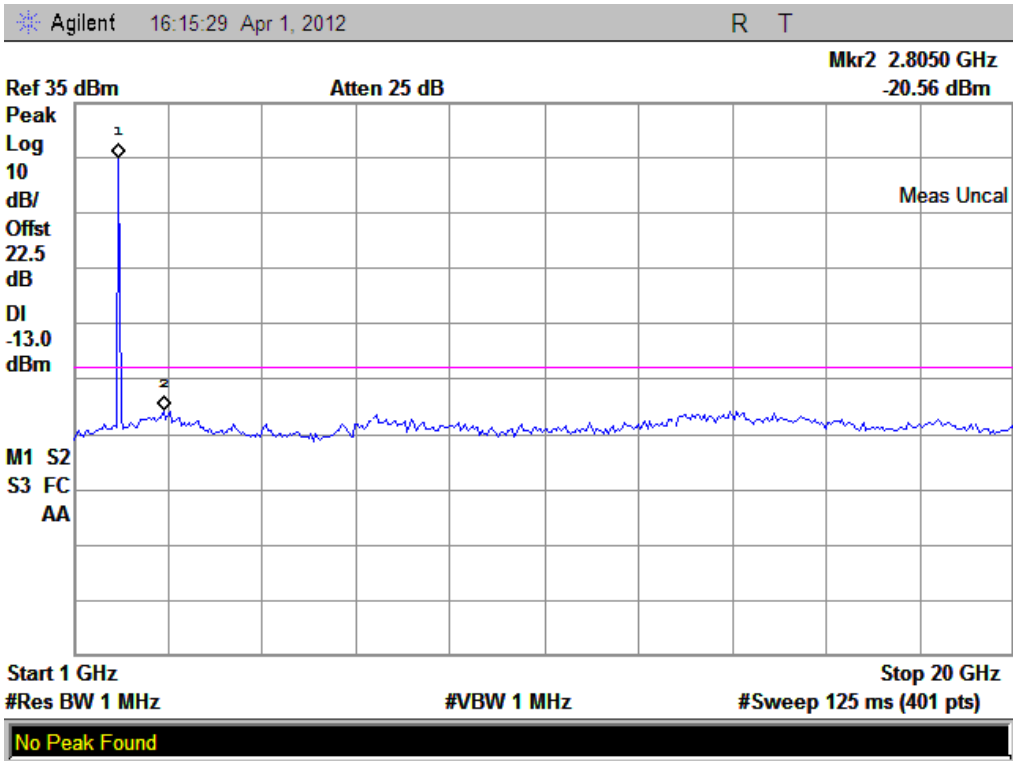
(Plot D1: EDGE 1900MHz Channel = 512, 30MHz to 1GHz)



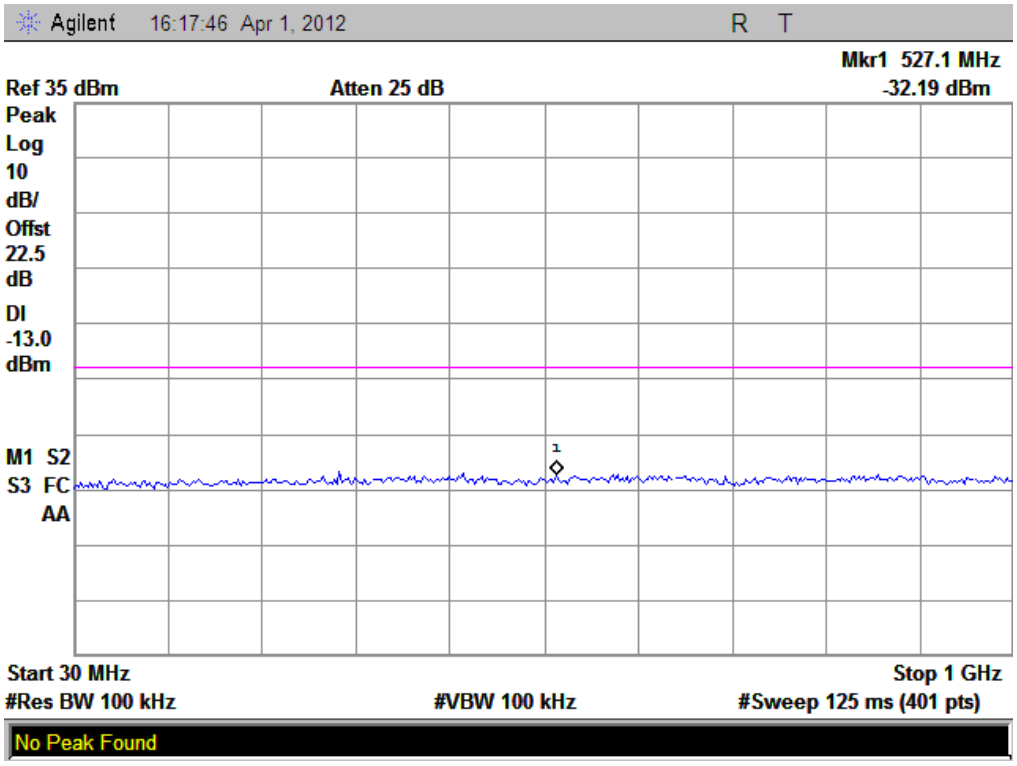
(Plot D1.1: EDGE 850MHz Channel = 512, 1GHz to 20GHz)



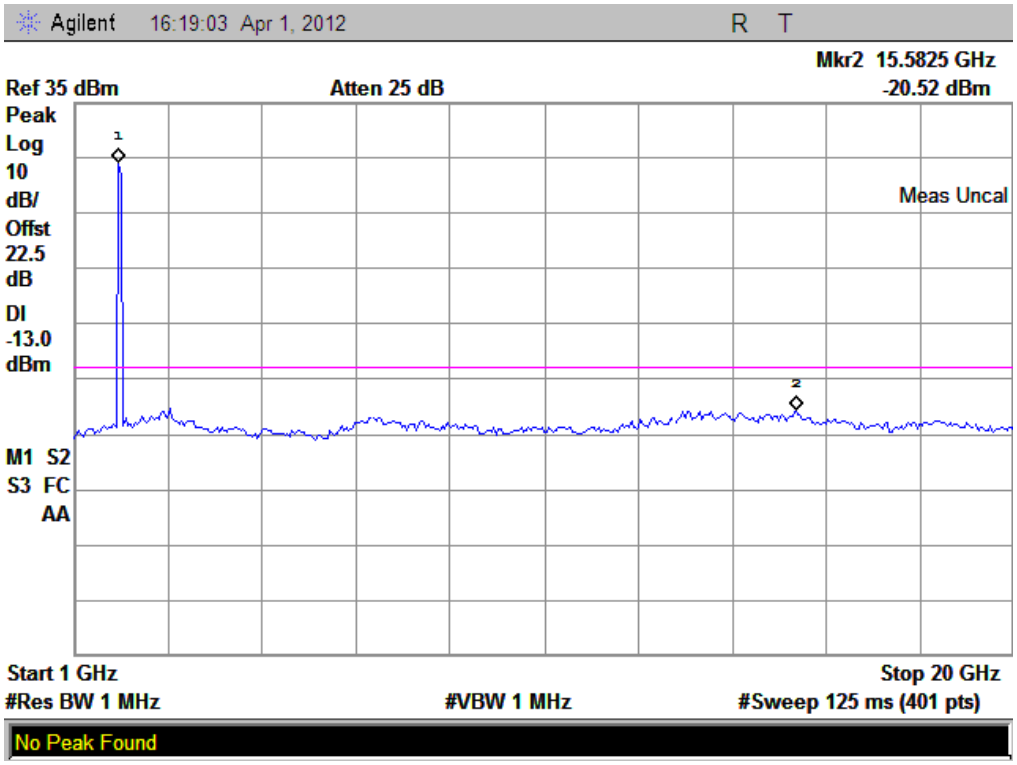
(Plot D2: EDGE 1900MHz Channel = 661, 30MHz to 1GHz)



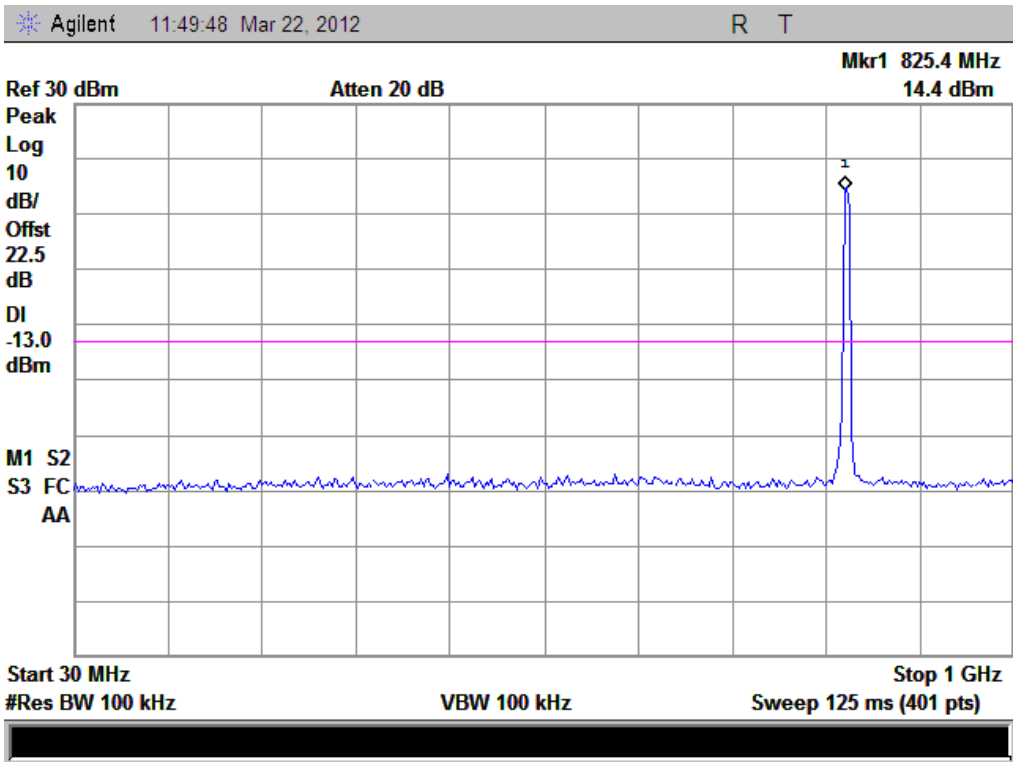
(Plot D2.1: EDGE 1900MHz Channel = 661,1GHz to 20GHz)



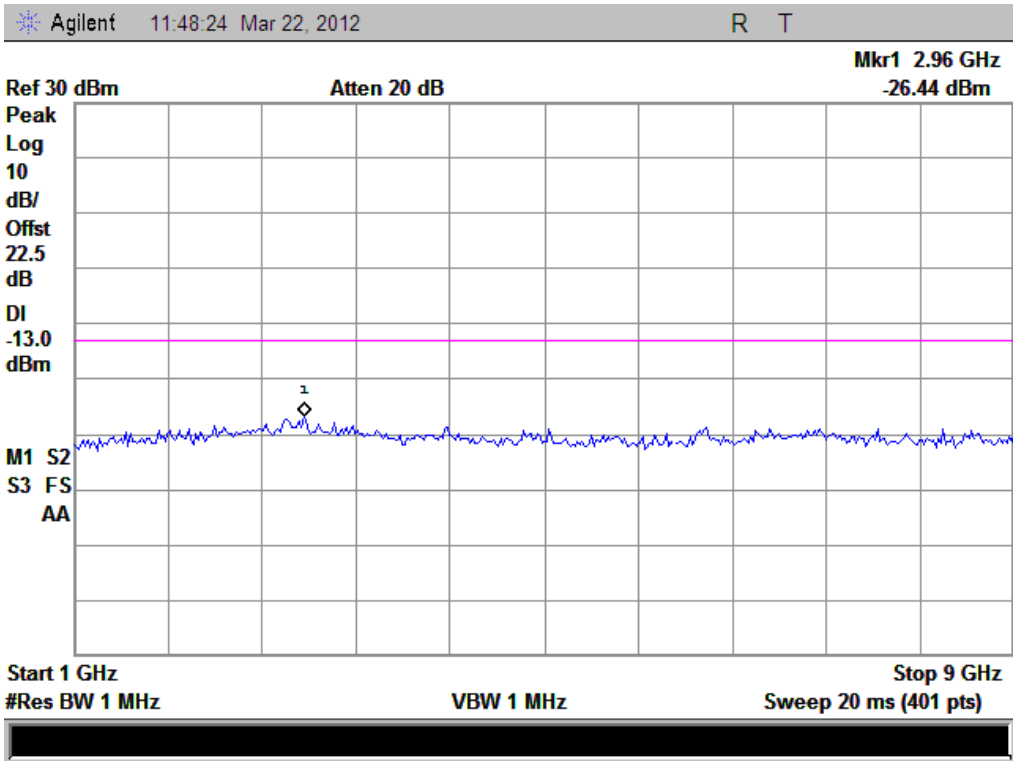
(Plot D3: EDGE 1900MHz Channel = 810, 30MHz to 1GHz)



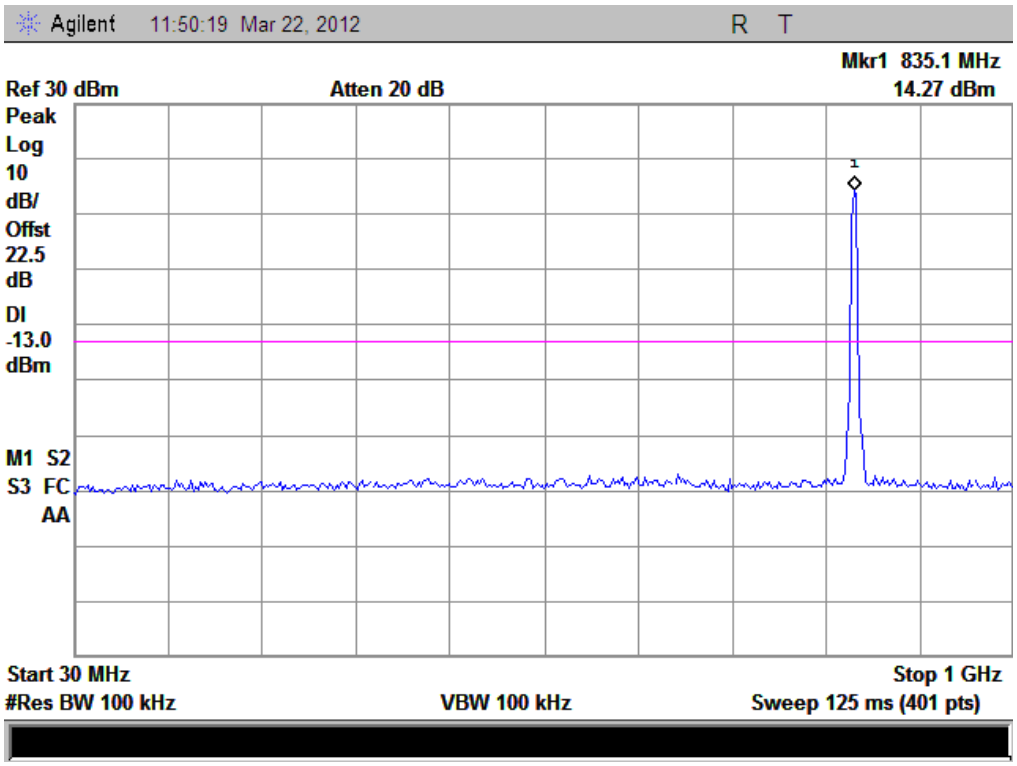
(Plot D3.1: EDGE 1900MHz Channel = 810, 1GHz to 20GHz)



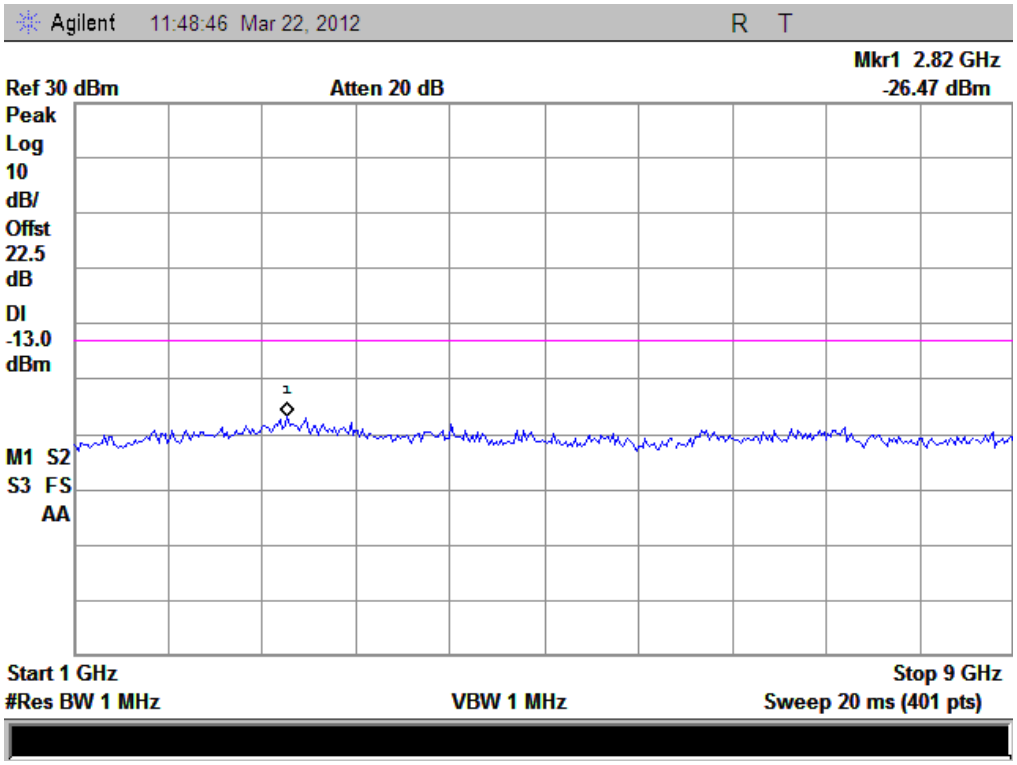
(Plot E1: WCDMA850MHz Channel = 4132, 30MHz to 1GHz)



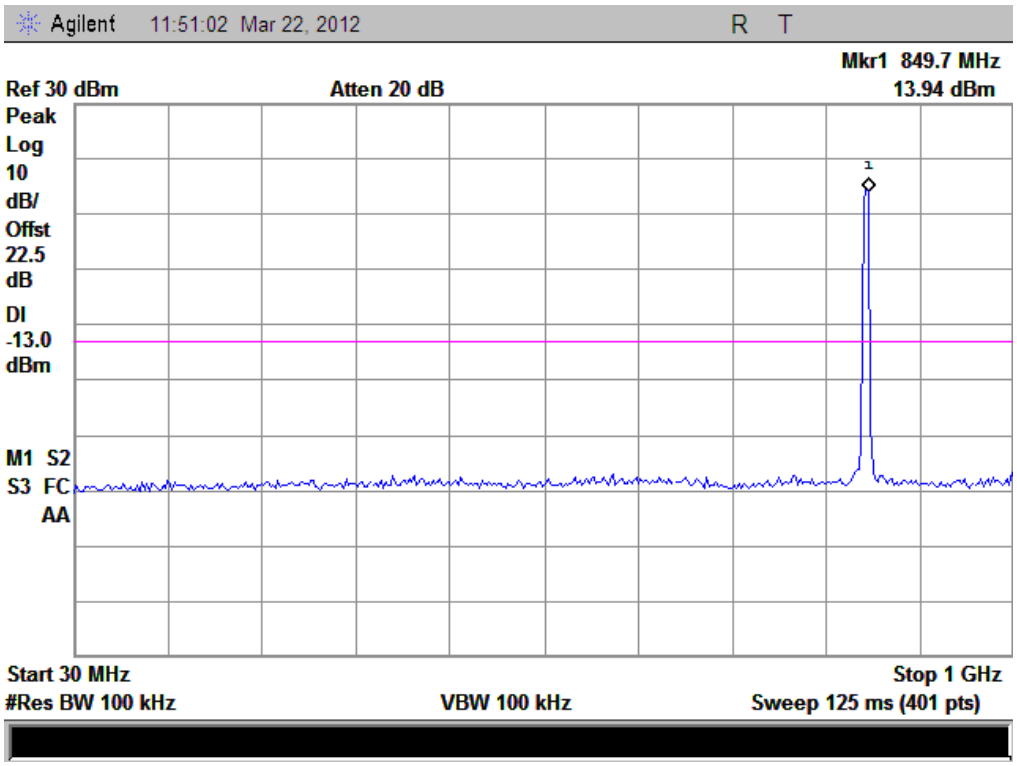
(Plot E1.1: WCDMA850MHz Channel = 4132, 1GHz to 9GHz)



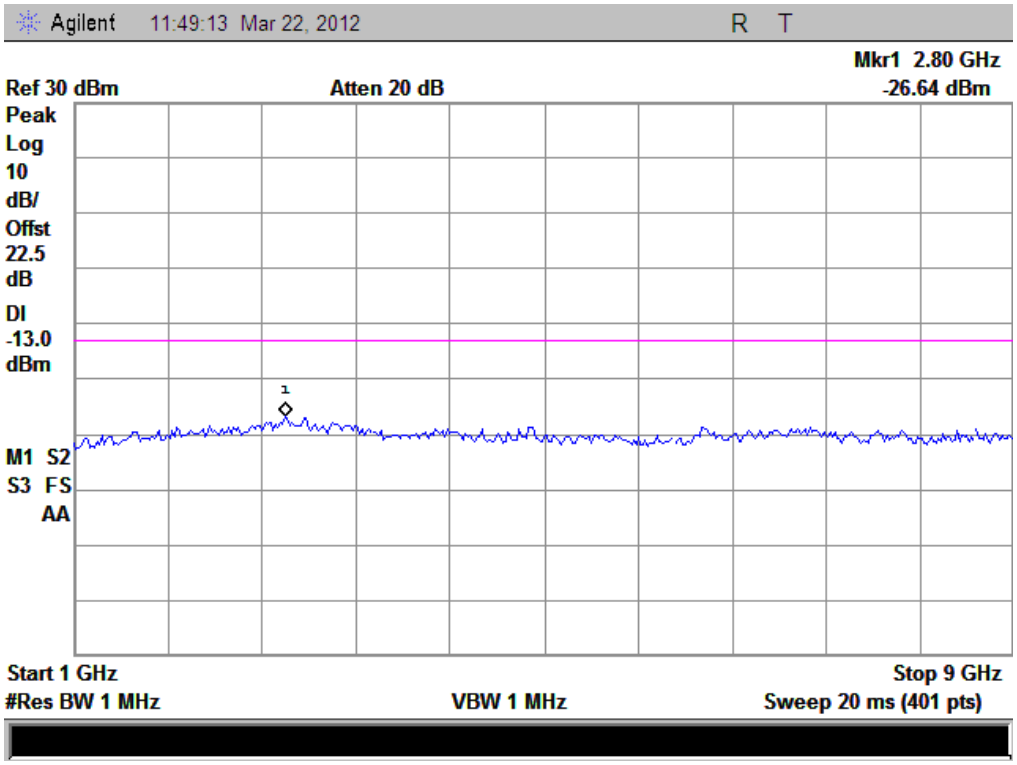
(Plot E2: WCDMA850MHz Channel = 4175, 30MHz to 1GHz)



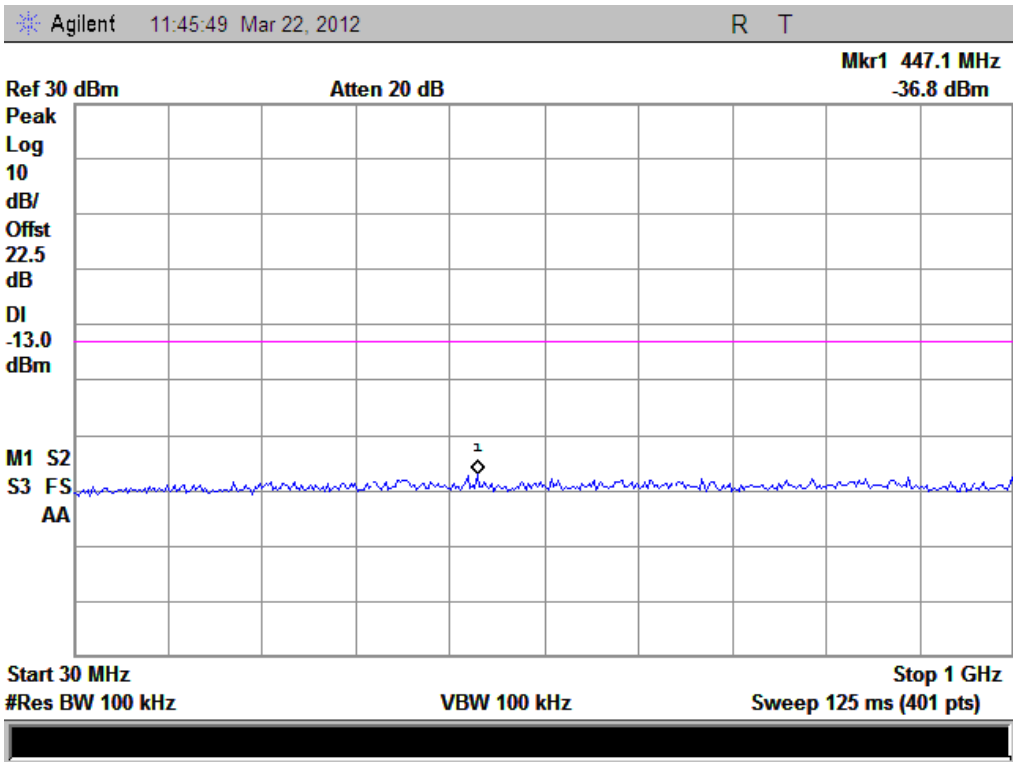
(Plot E2.1: WCDMA850MHz Channel = 4175, 1GHz to 9GHz)



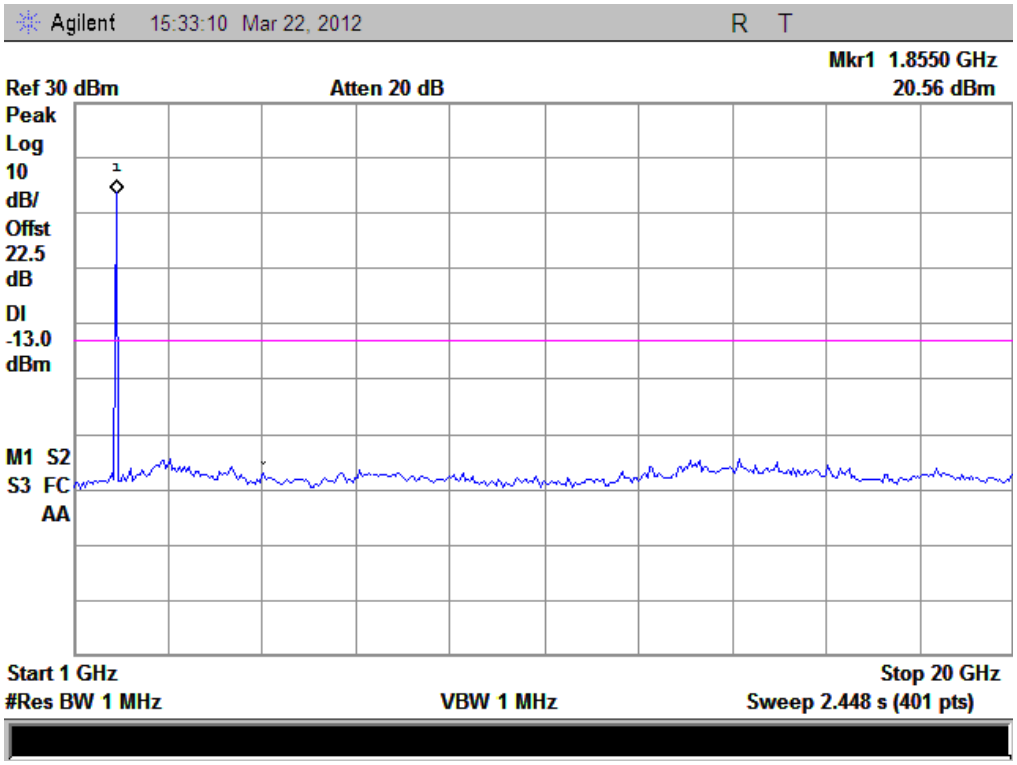
(Plot E3: WCDMA850MHz Channel = 4233, 30MHz to 1GHz)



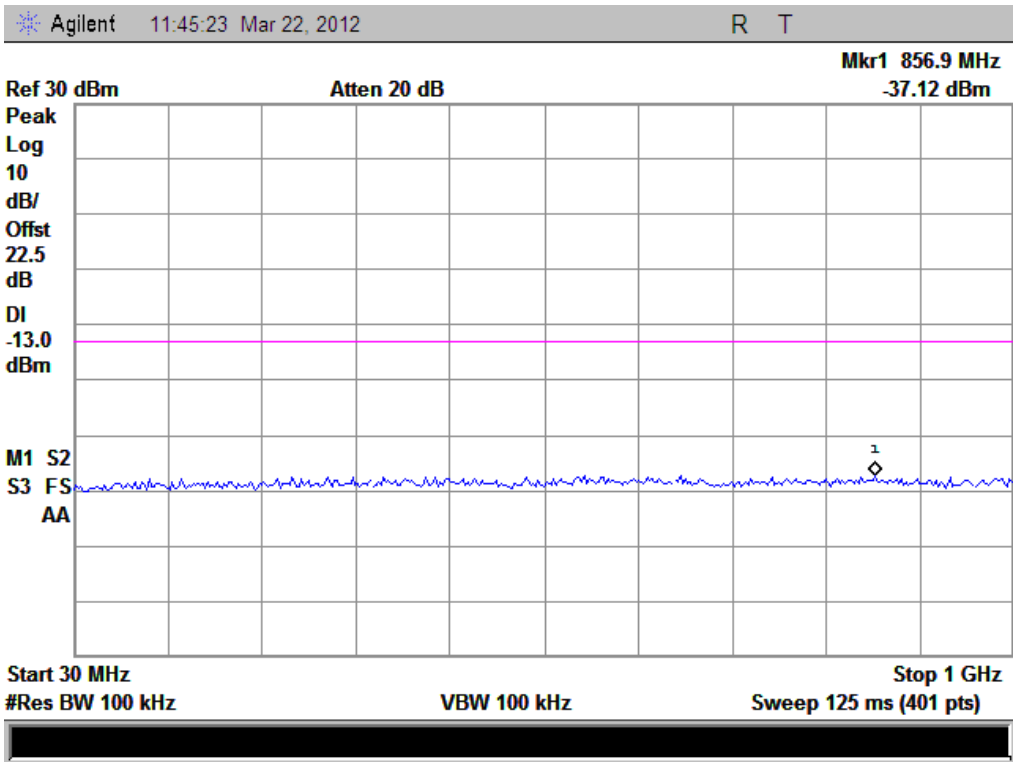
(Plot E3.1: WCDMA850MHz Channel = 4233, 1GHz to 9GHz)



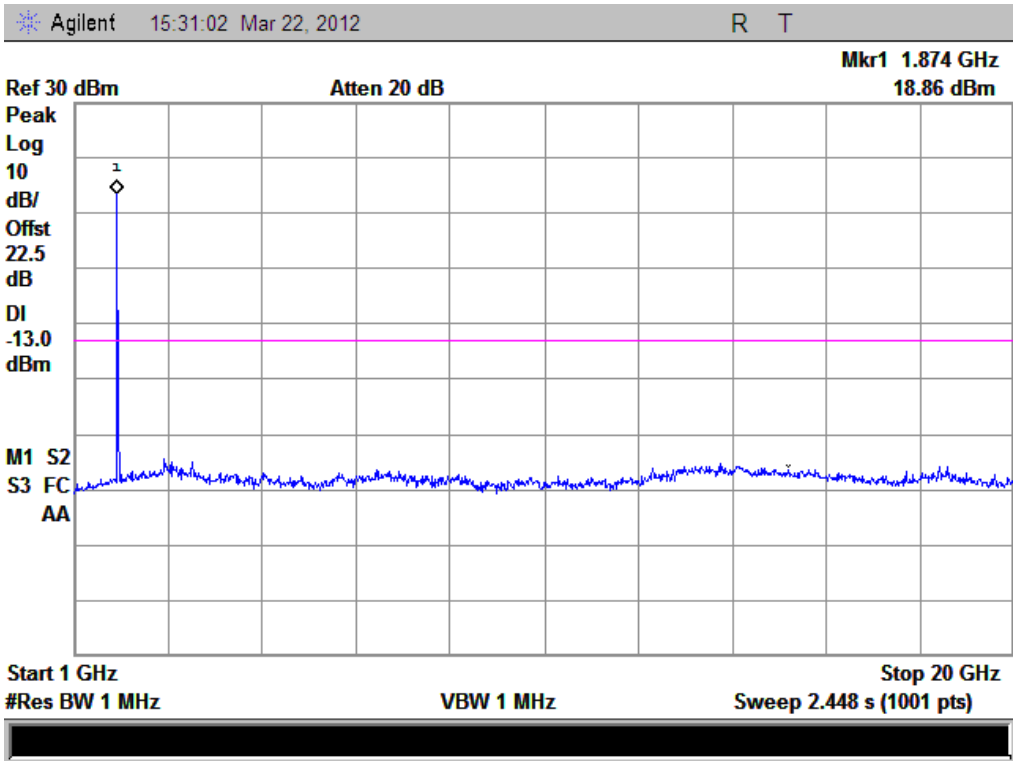
(Plot F1: WCDMA1900MHz Channel = 9262, 30MHz to 1GHz)



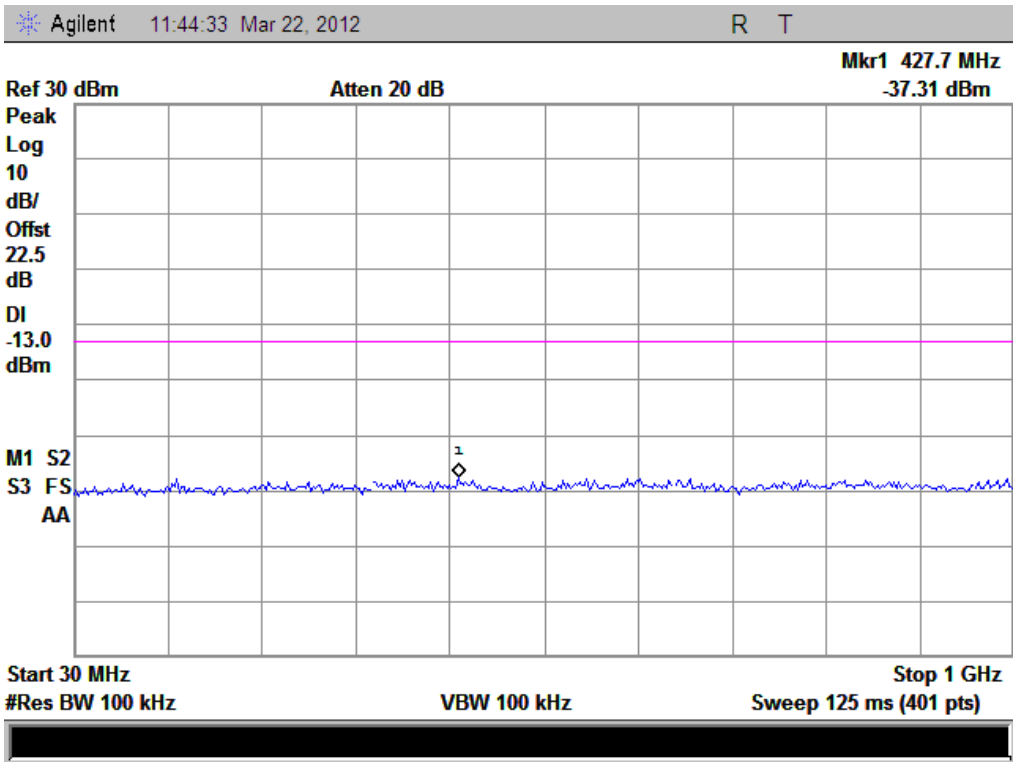
(Plot F1.1: WCDMA1900MHz Channel = 9262, 1GHz to 20GHz)



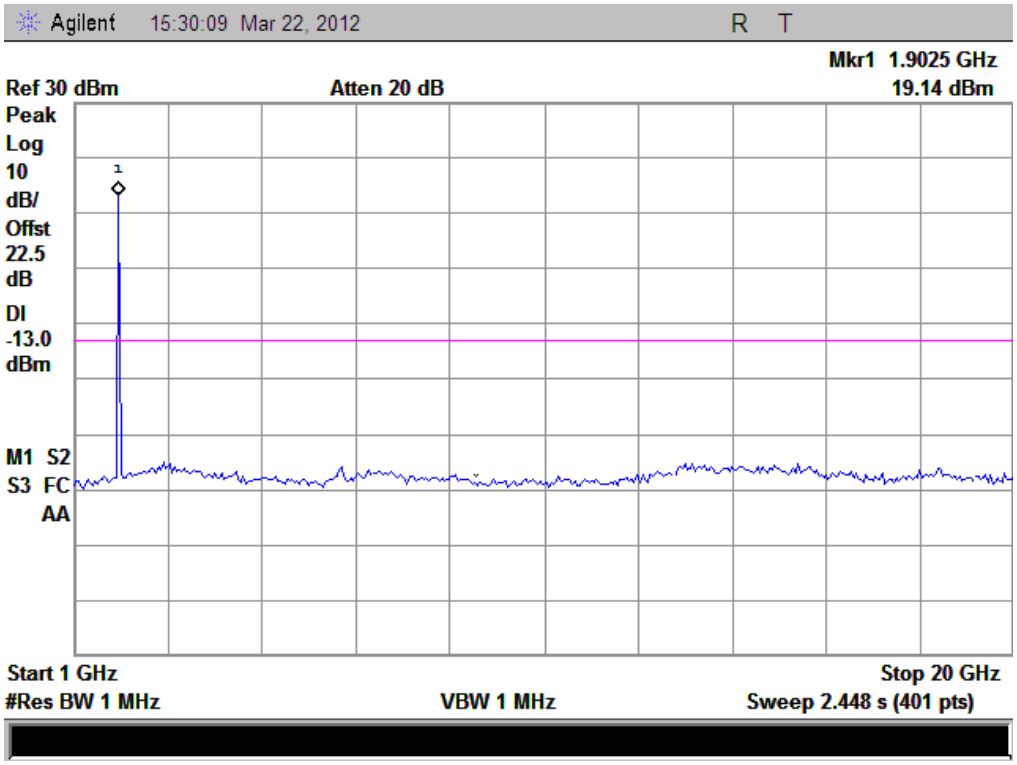
(Plot F2: WCDMA1900MHz Channel = 9400, 30MHz to 1GHz)



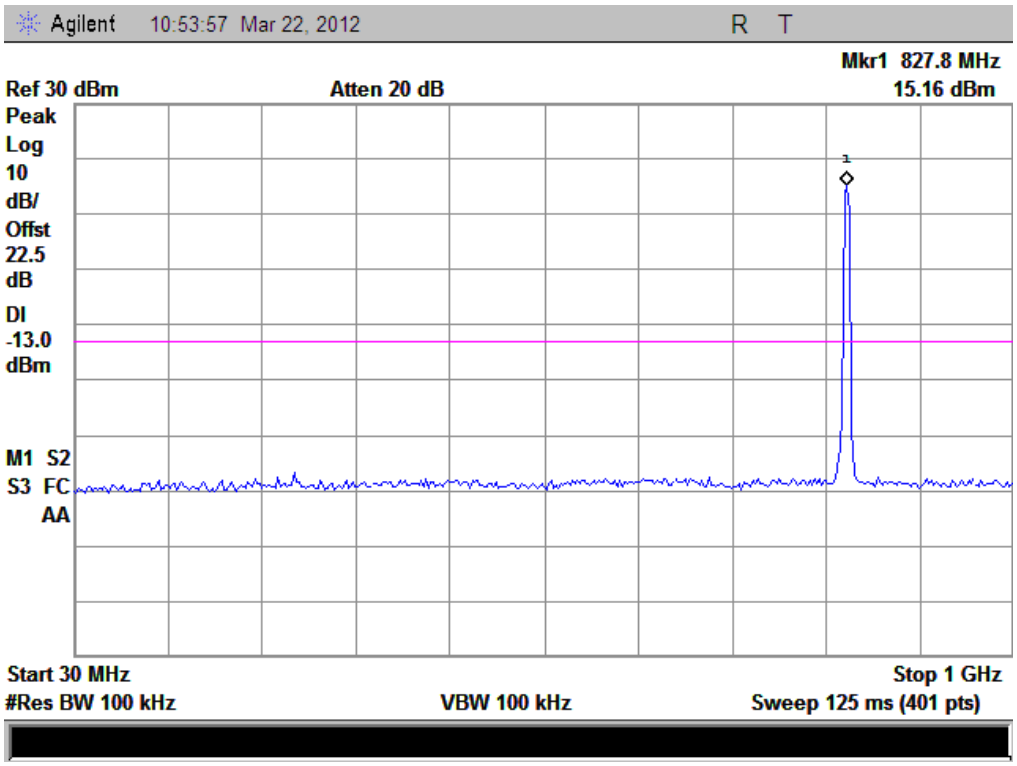
(Plot F2.1: WCDMA1900MHz Channel = 9400, 1GHz to 20GHz)



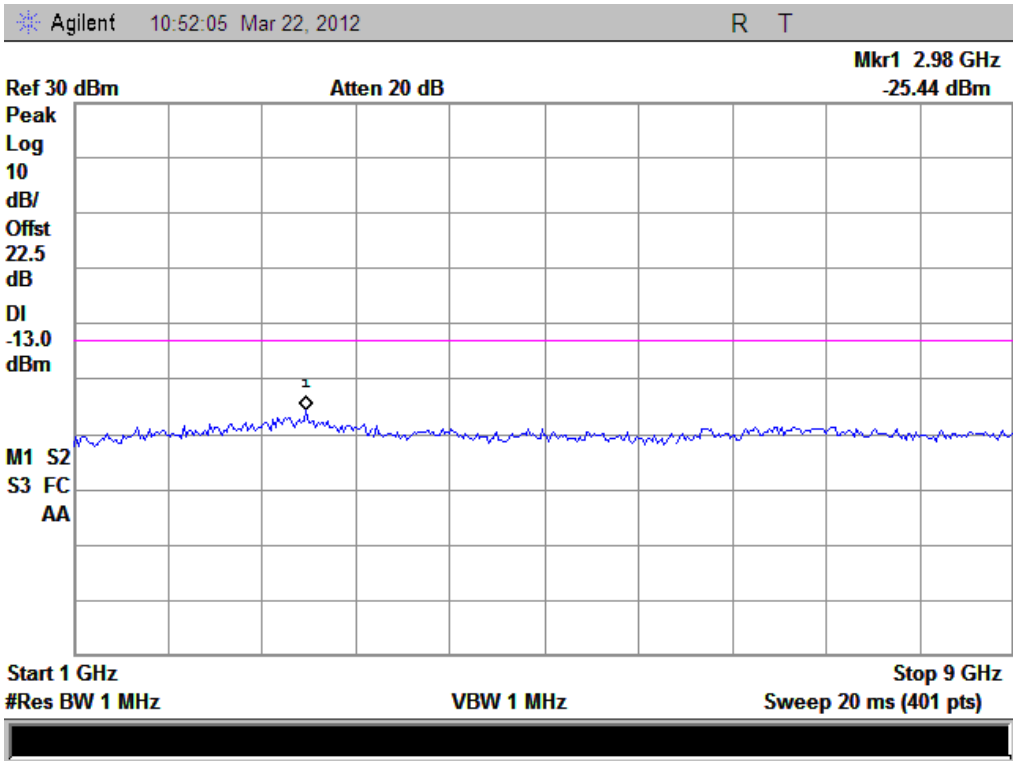
(Plot F3: WCDMA1900MHz Channel = 9538, 30MHz to 1GHz)



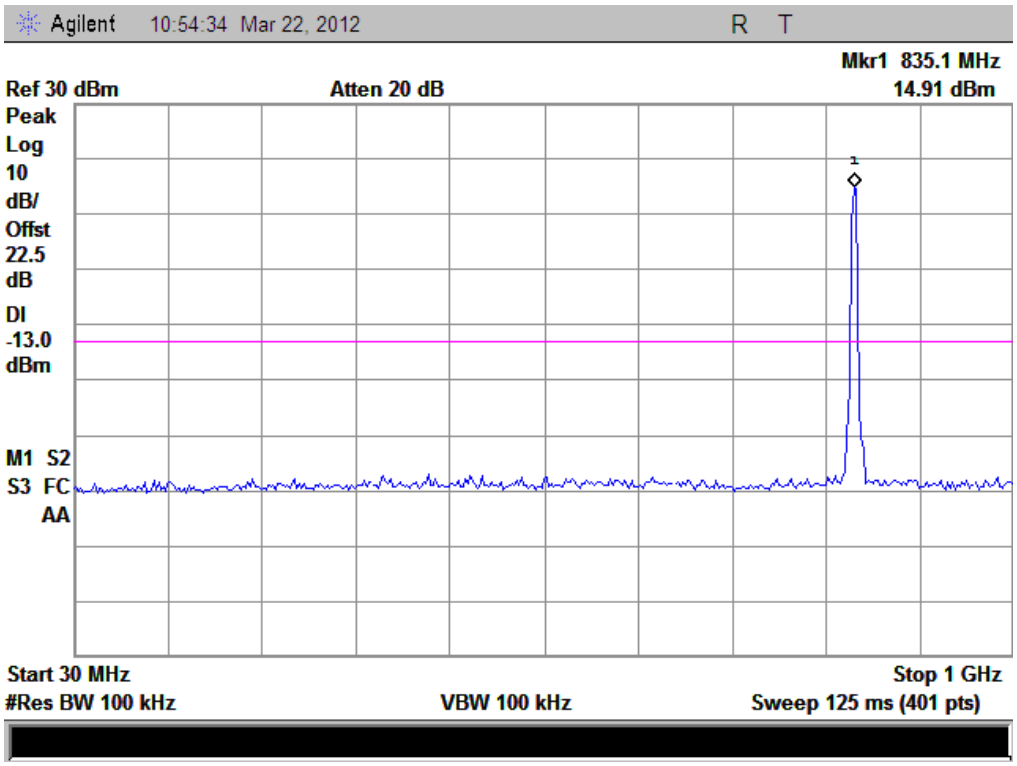
(Plot F3.1: WCDMA1900MHz Channel = 9538 1GHz to 20GHz)



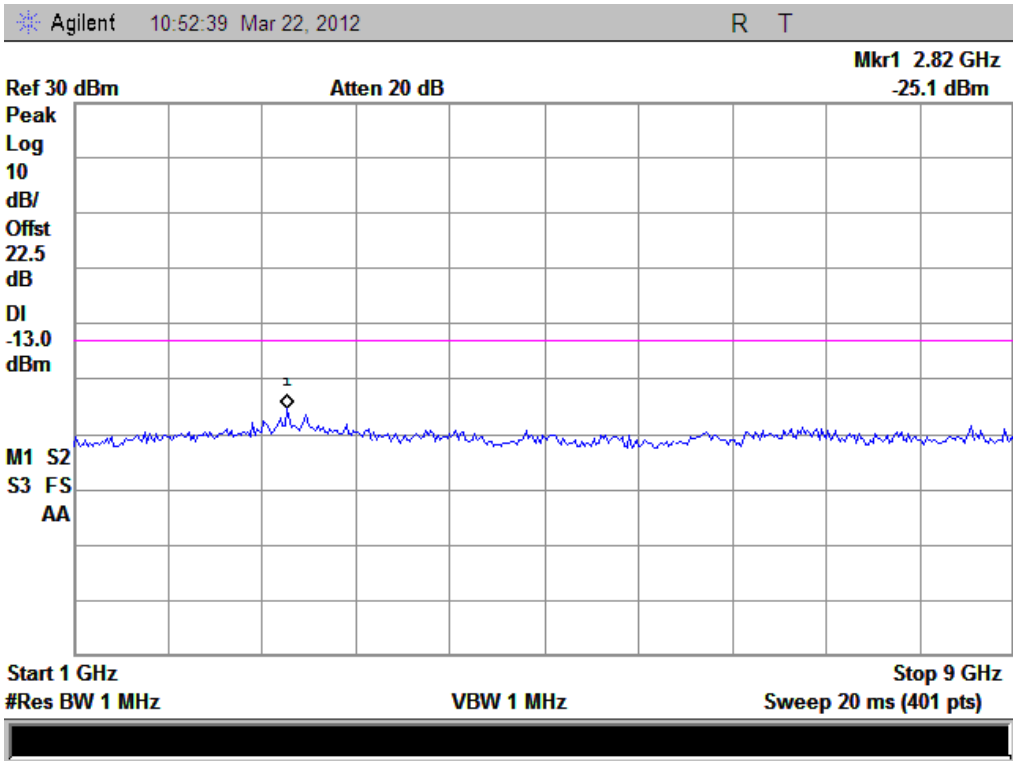
(Plot G1: HSDPA 850MHz Channel = 4132, 30MHz to 1GHz)



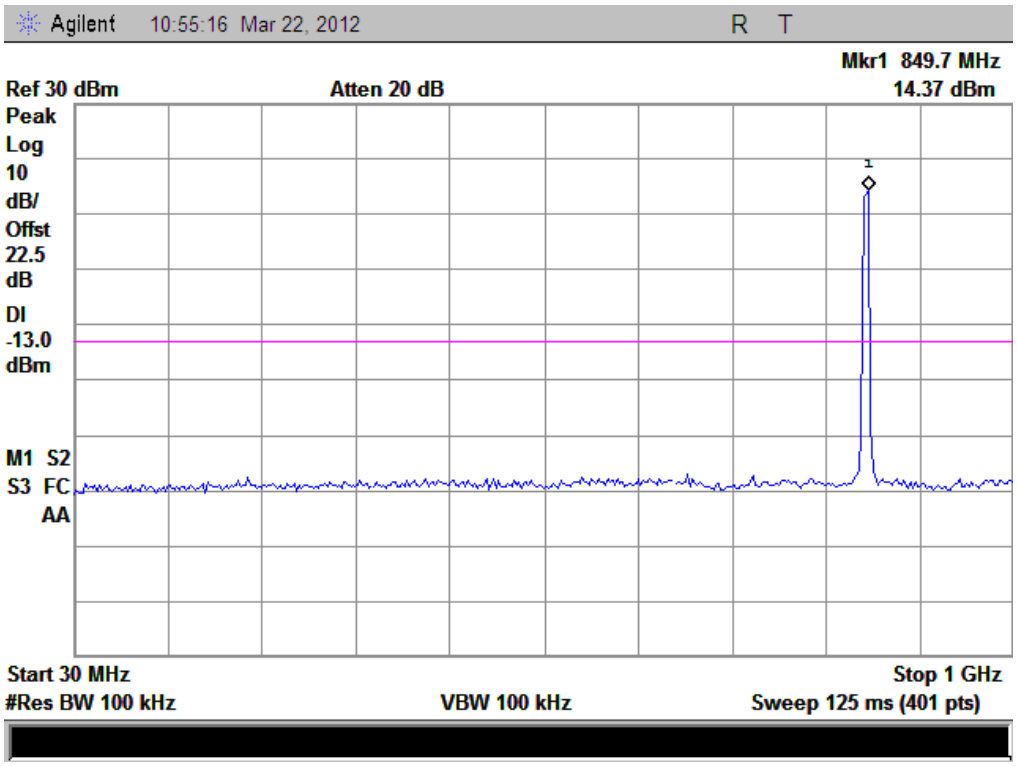
(Plot G1.1: HSDPA 850MHz Channel = 4132, 1GHz to 9GHz)



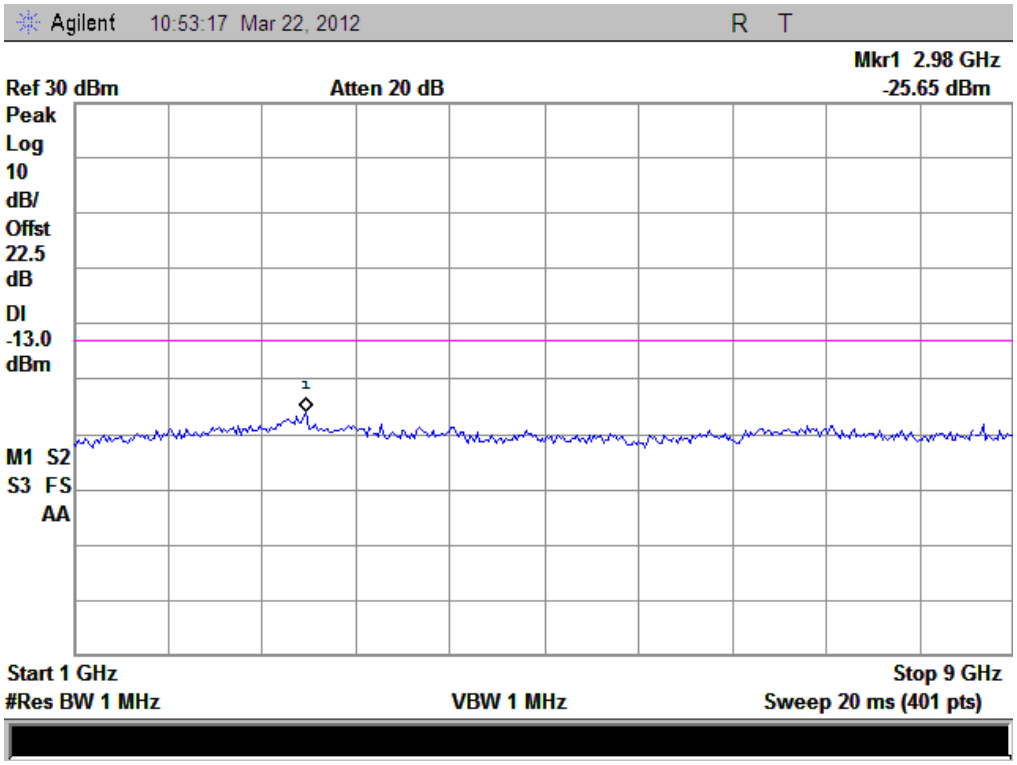
(Plot G2: HSDPA 850MHz Channel = 4175, 30MHz to 1GHz)



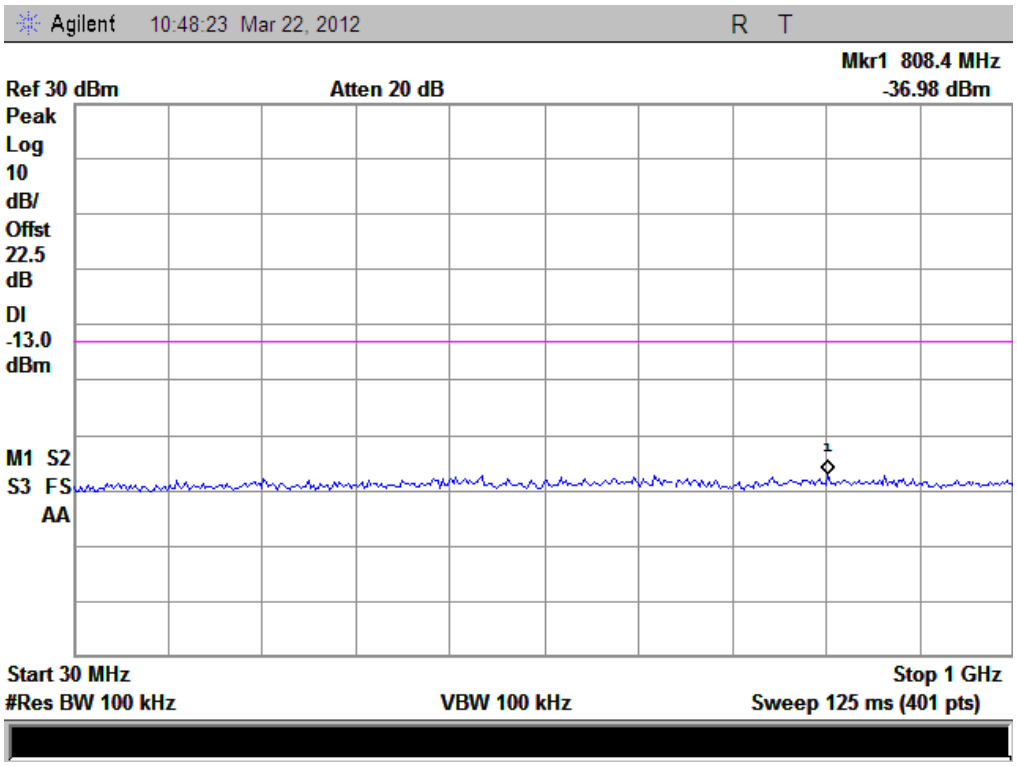
(Plot G2.1: HSDPA 850MHz Channel = 4175, 1GHz to 9GHz)



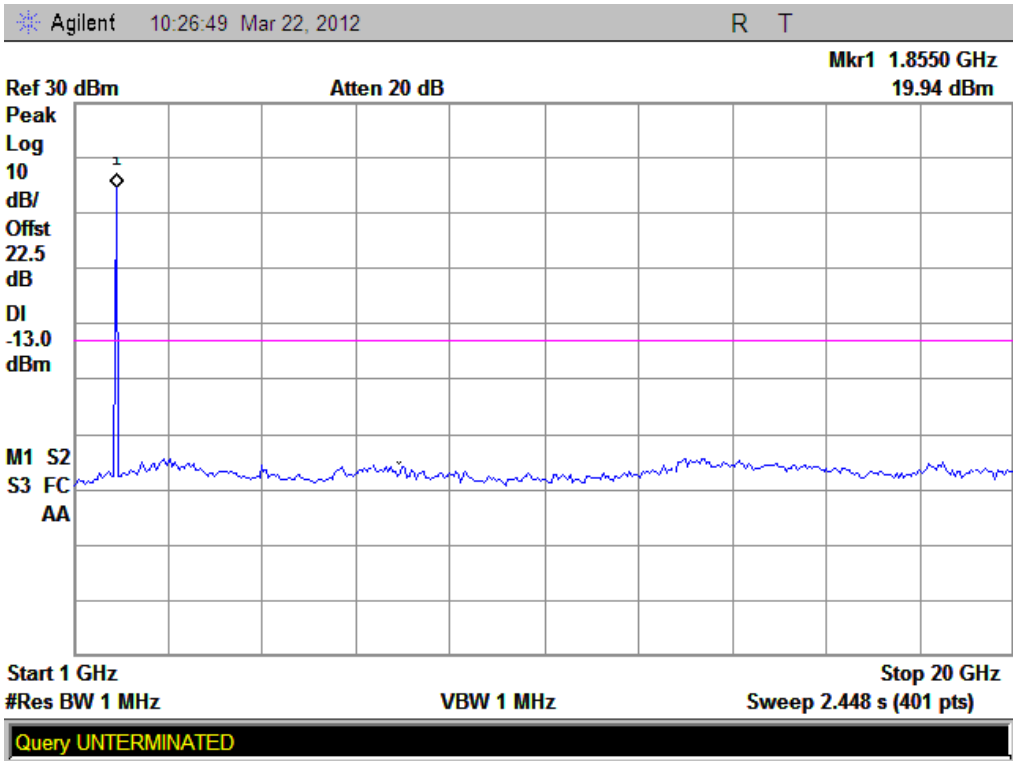
(Plot G3: HSDPA850MHz Channel = 4233, 30MHz to 1GHz)



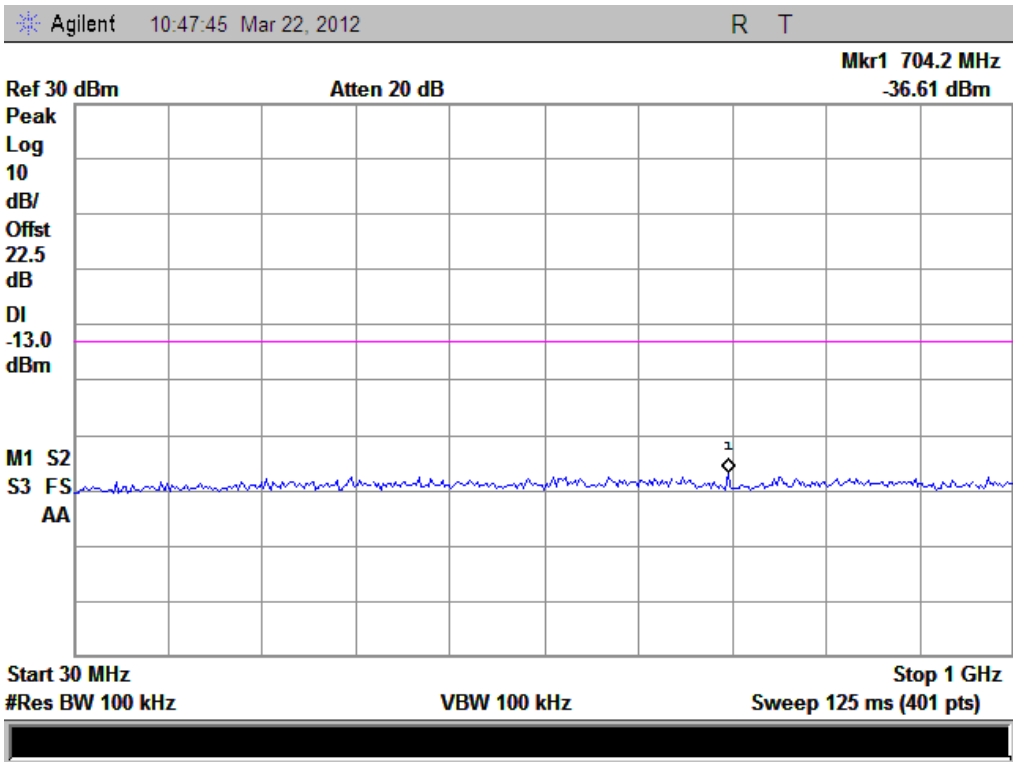
(Plot G3.1: HSDPA850MHz Channel = 4233, 1GHz to 9GHz)



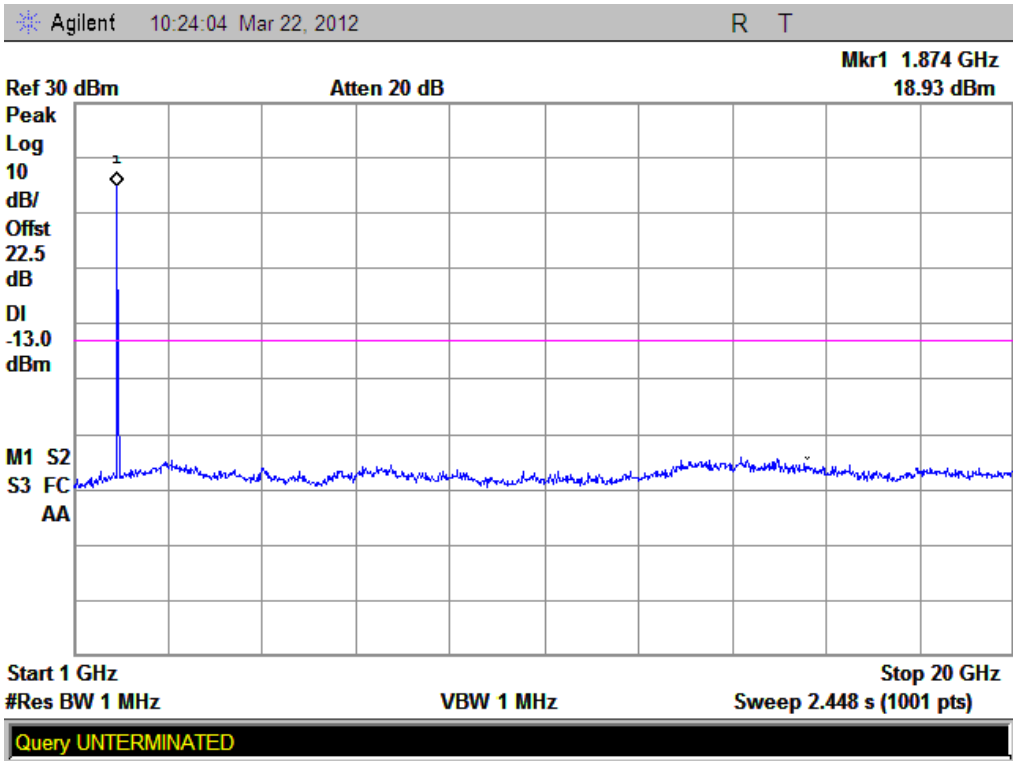
(Plot H1: HSDPA1900MHz Channel = 9262, 30MHz to 1GHz)



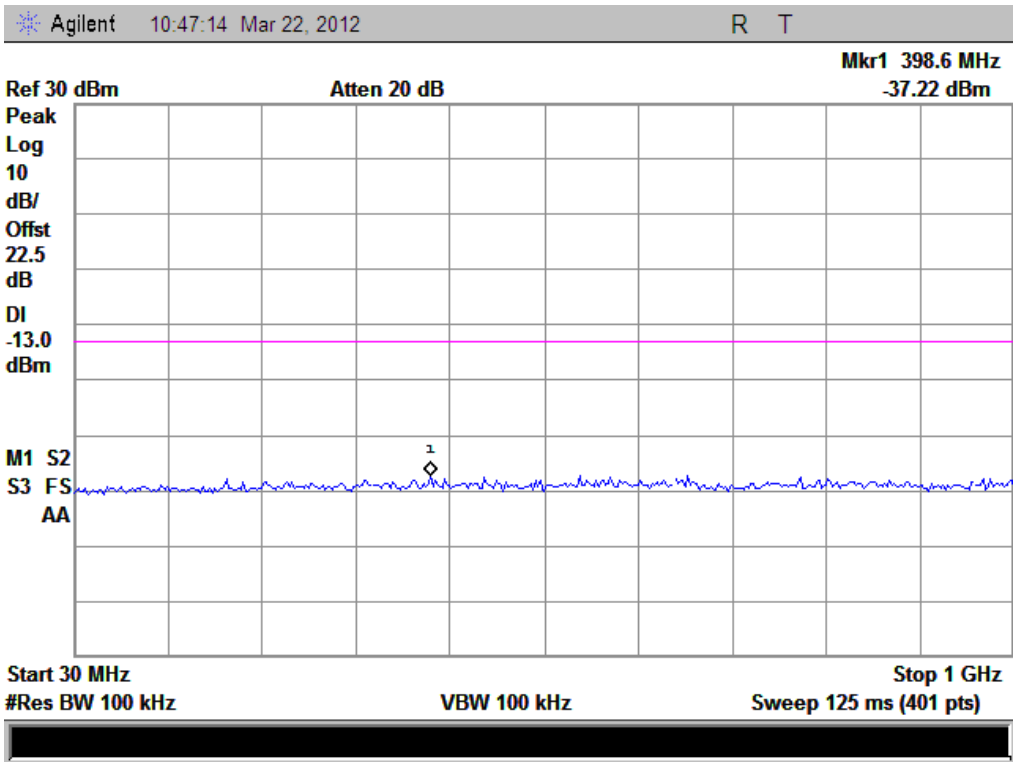
(Plot H1.1: HSDPA1900MHz Channel = 9262, 1GHz to 20GHz)



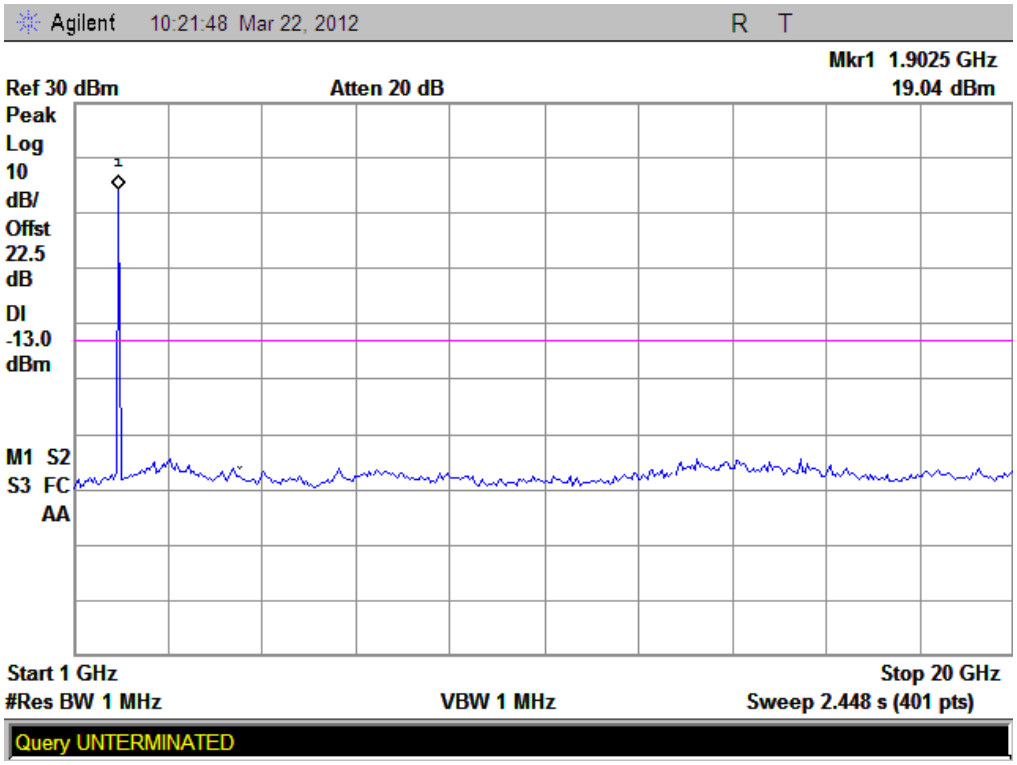
(Plot H2: HSDPA1900MHz Channel = 9400, 30MHz to 1GHz)



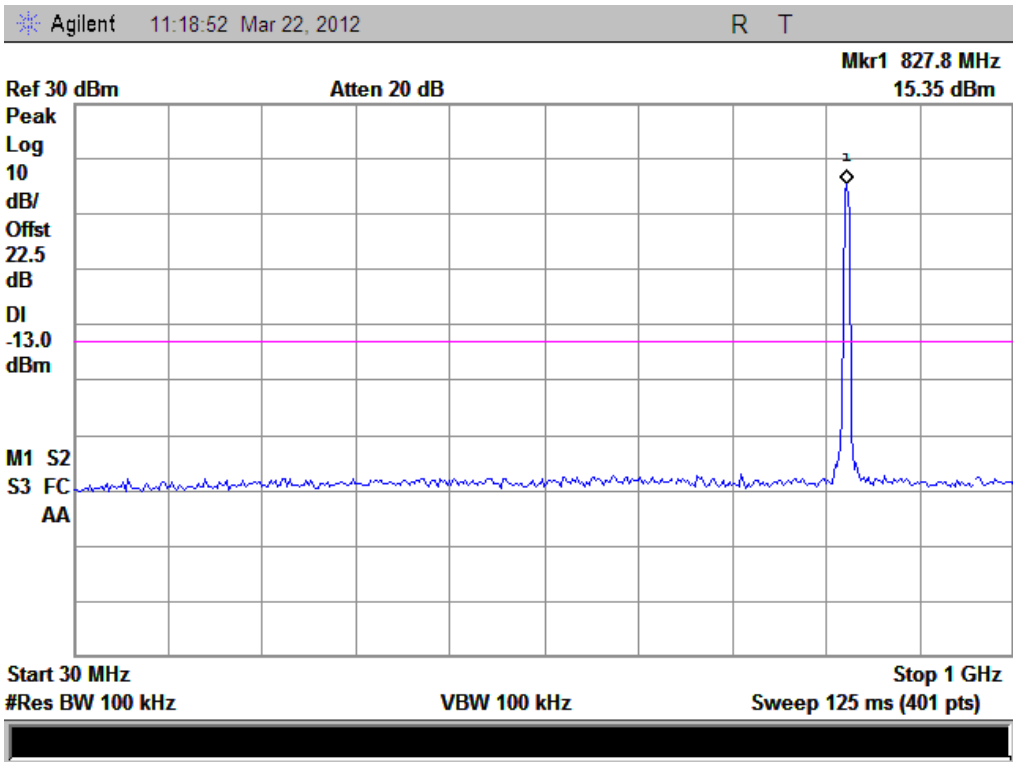
(Plot H2.1: HSDPA1900MHz Channel = 9400, 1GHz to 20GHz)



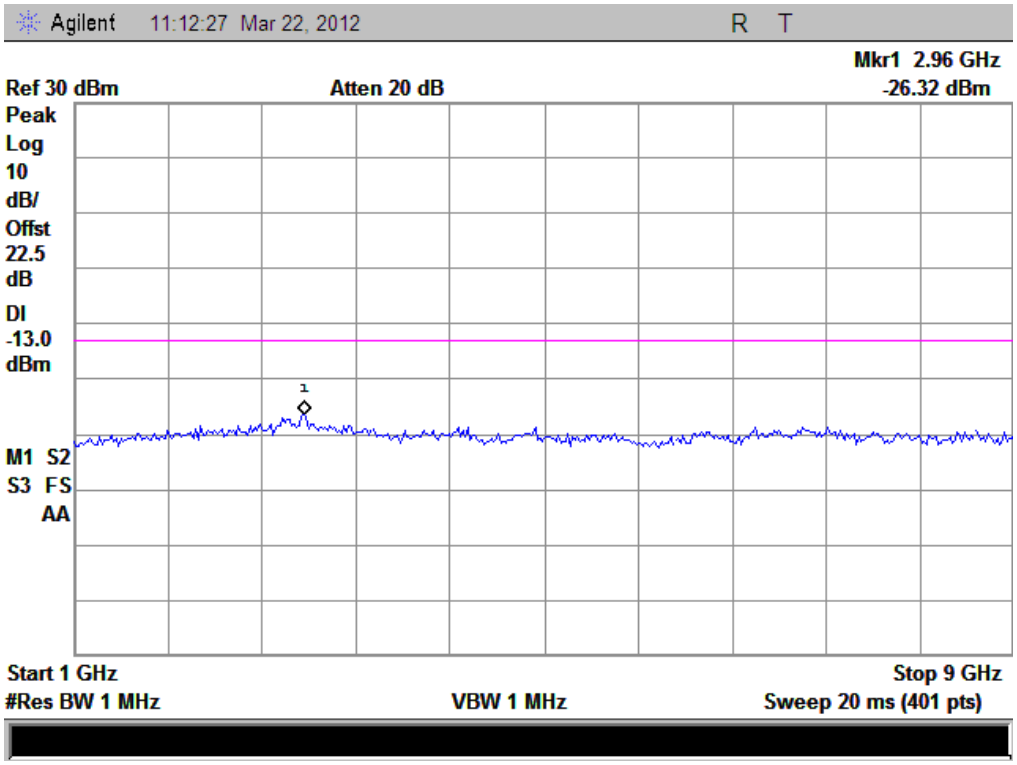
(Plot H3: HSDPA1900MHz Channel = 9538, 30MHz to 1GHz)



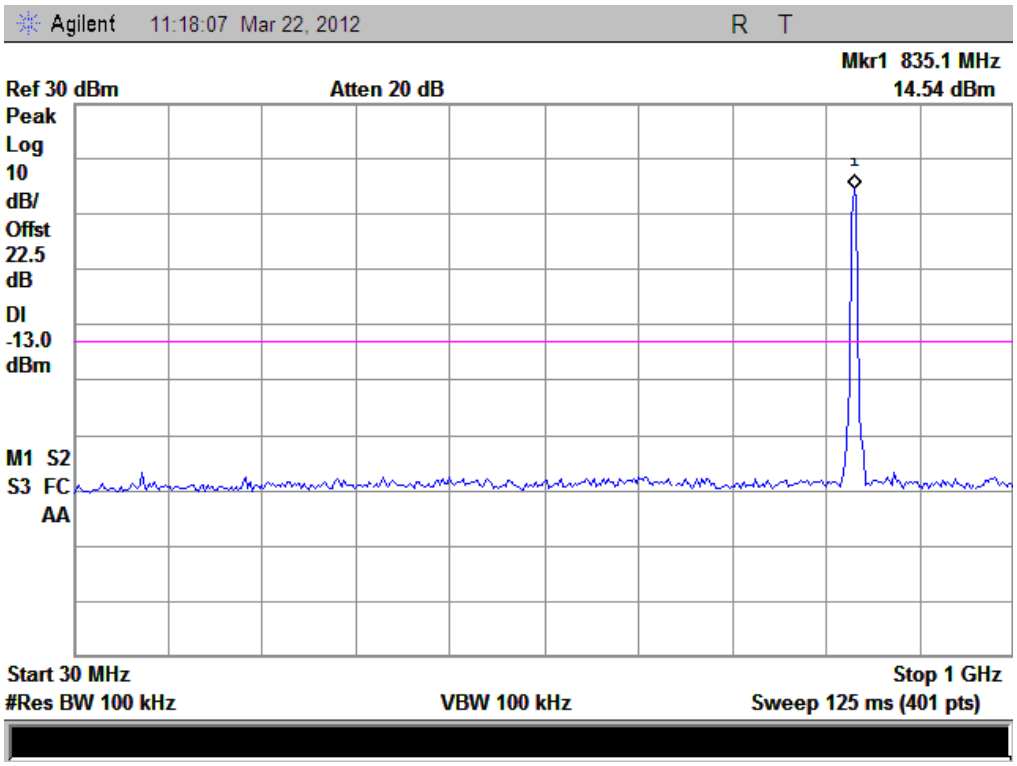
(Plot H3.1: HSDPA1900MHz Channel = 9538 1GHz to 20GHz)



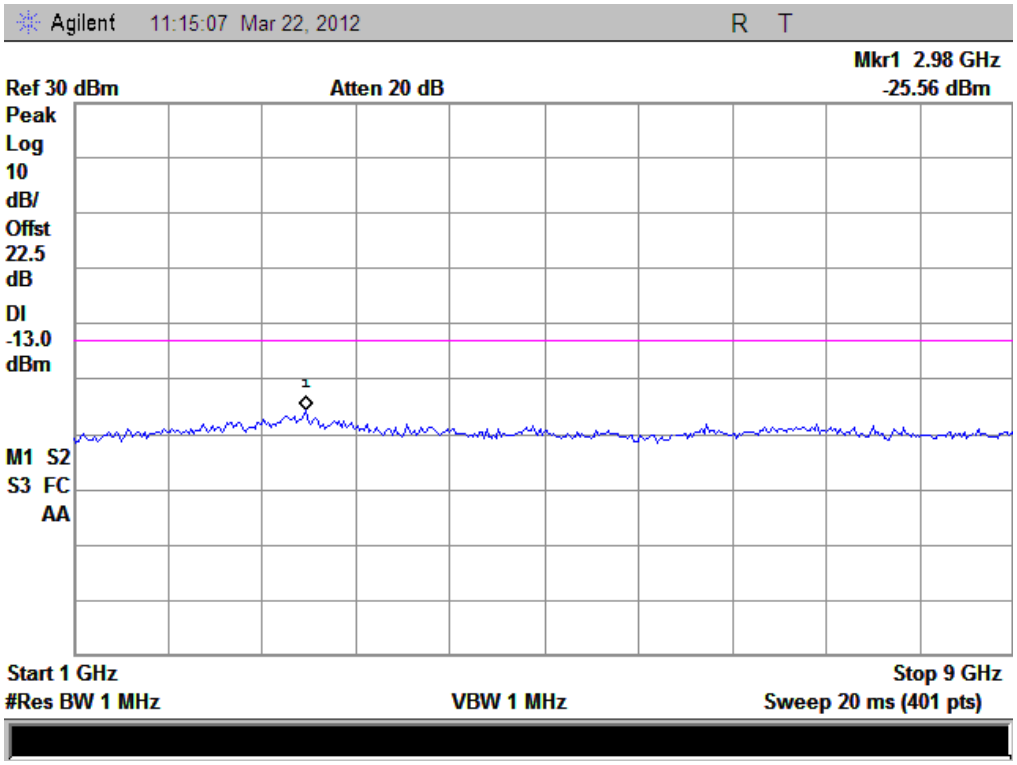
(Plot I 1: HSUPA 850MHz Channel = 4132, 30MHz to 1GHz)



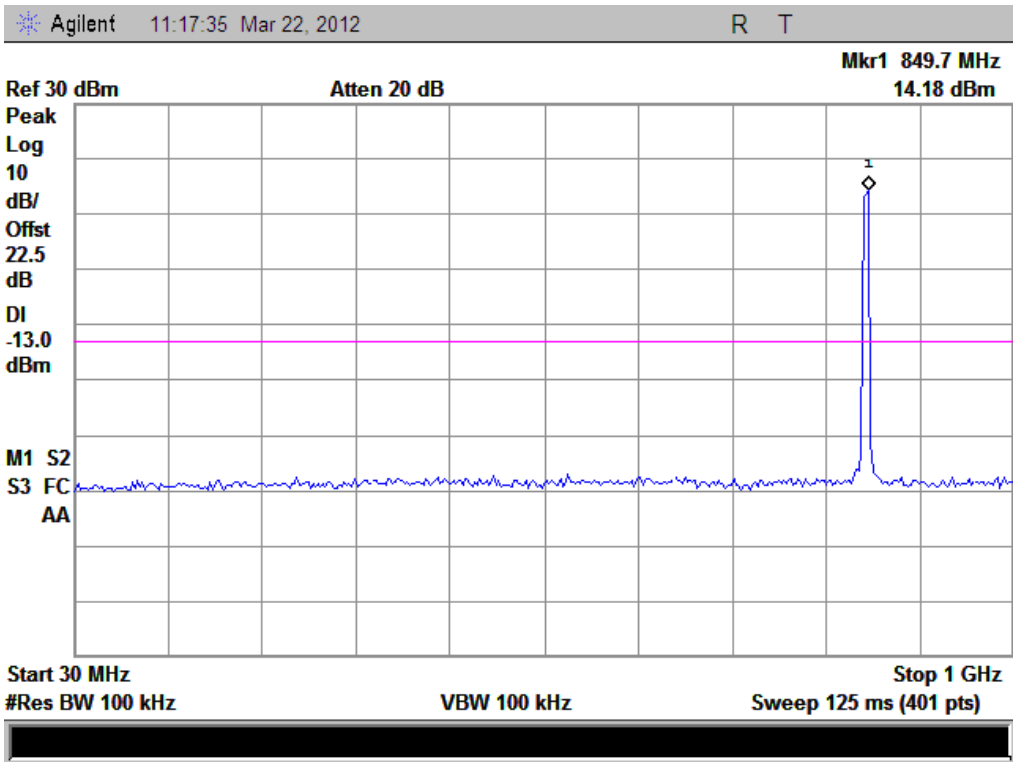
(Plot I1.1: HSUPA 850MHz Channel = 4132, 1GHz to 9GHz)



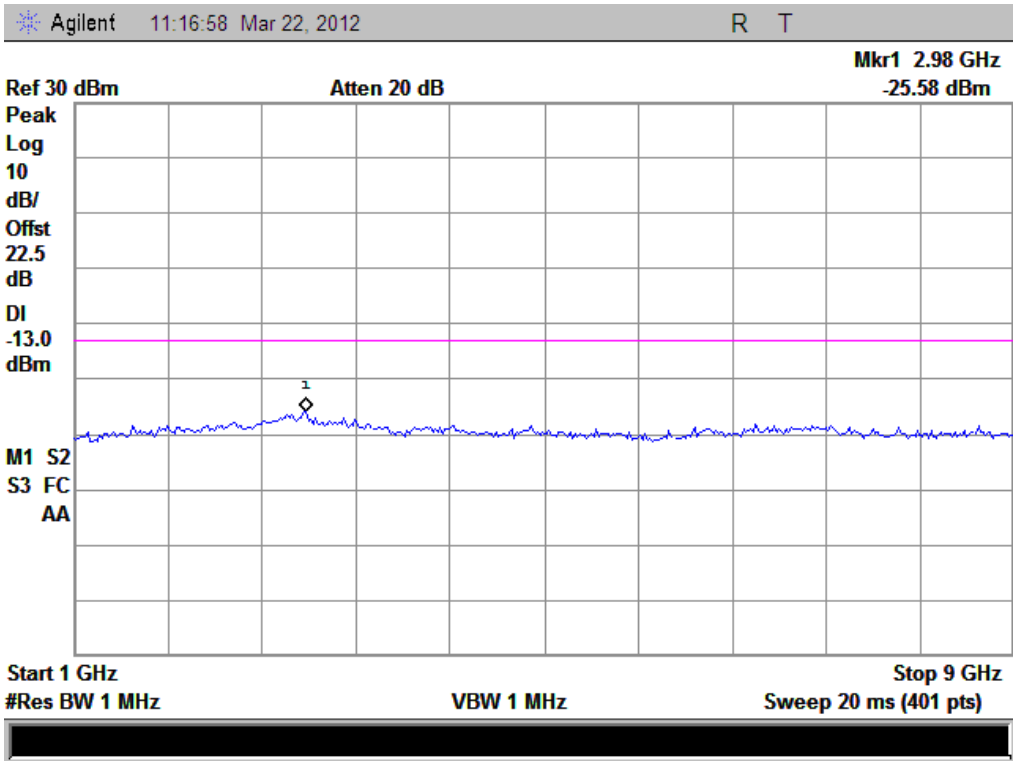
(Plot I 2: HSUPA 850MHz Channel = 4175, 30MHz to 1GHz)



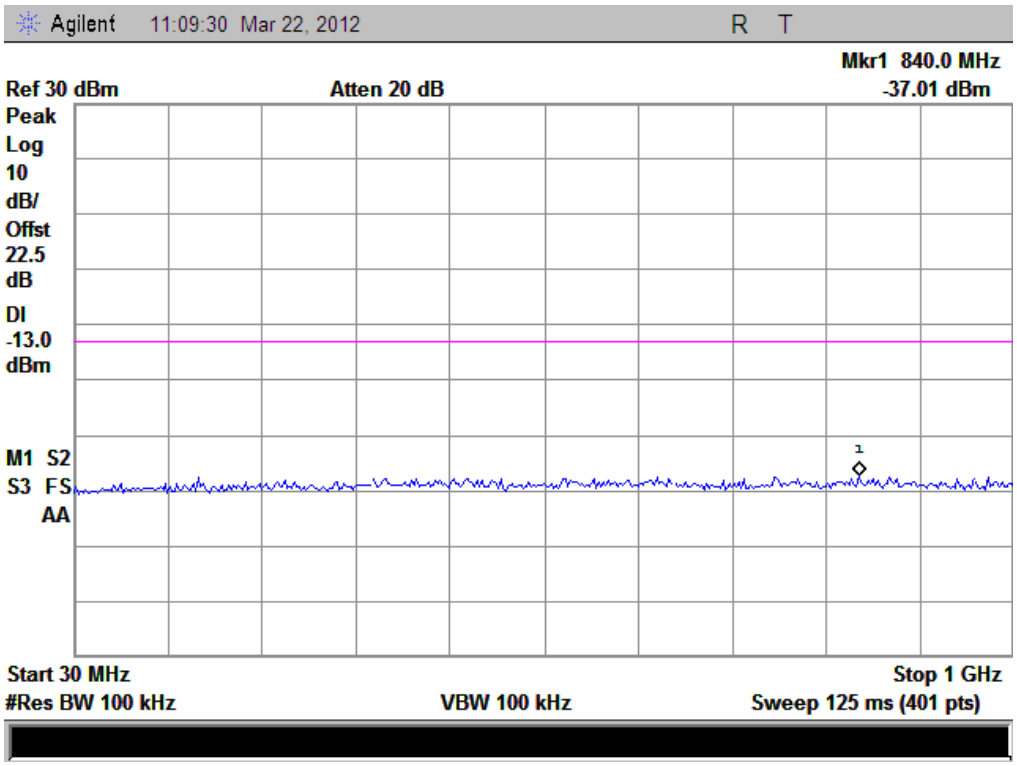
(Plot I2.1: HSUPA 850MHz Channel = 4175, 1GHz to 9GHz)



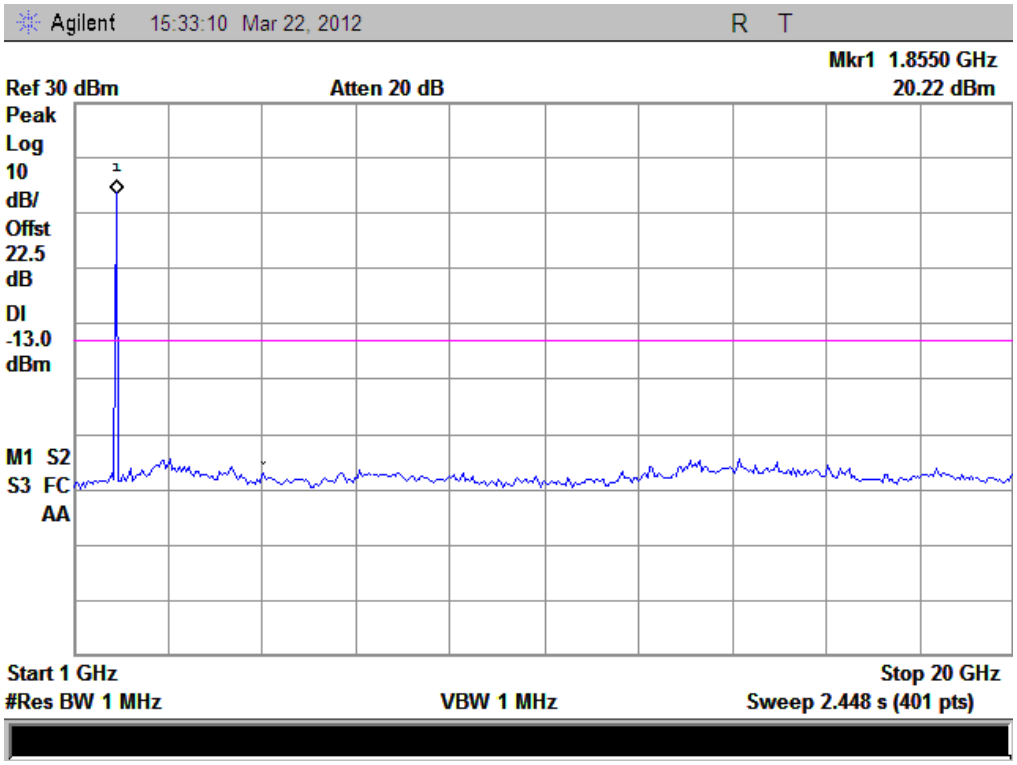
(Plot I 3: HSUPA850MHz Channel = 4233, 30MHz to 1GHz)



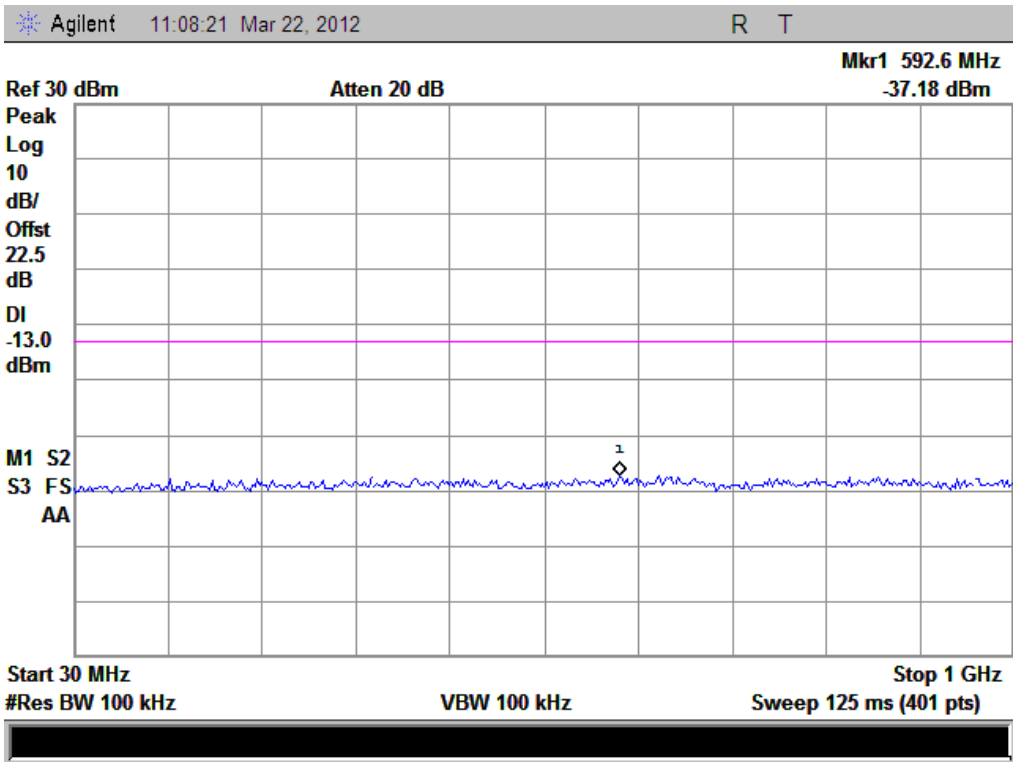
(Plot I3.1: HSUPA850MHz Channel = 4233, 1GHz to 9GHz)



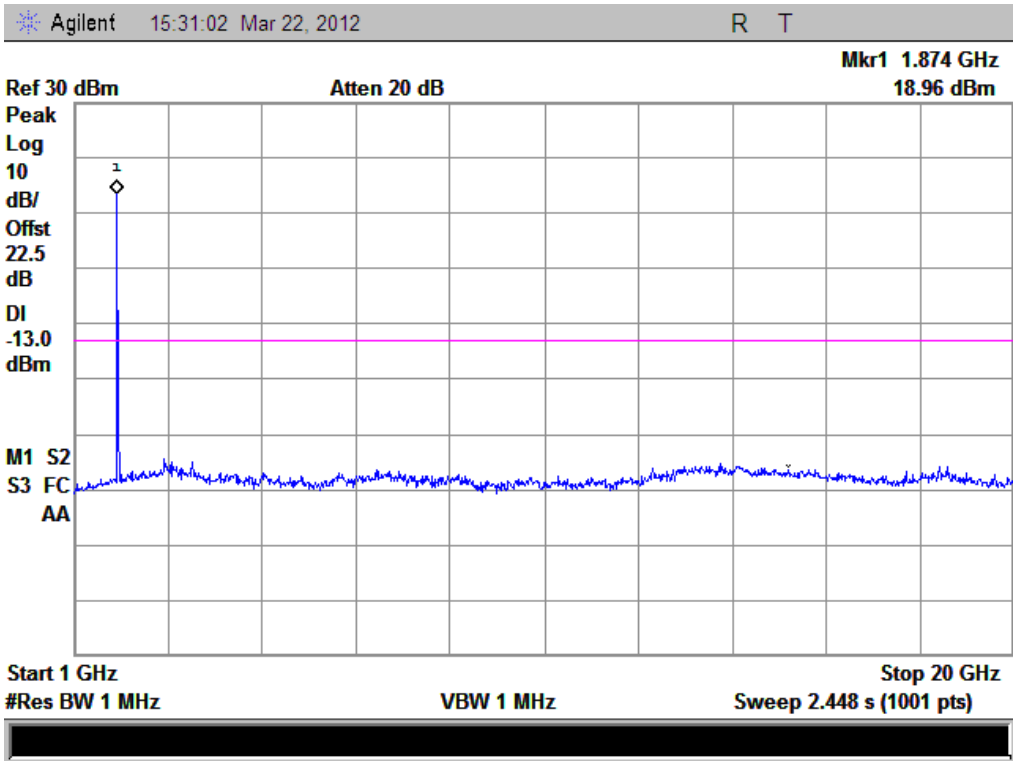
(Plot J 1: HSUPA1900MHz Channel = 9262, 30MHz to 1GHz)



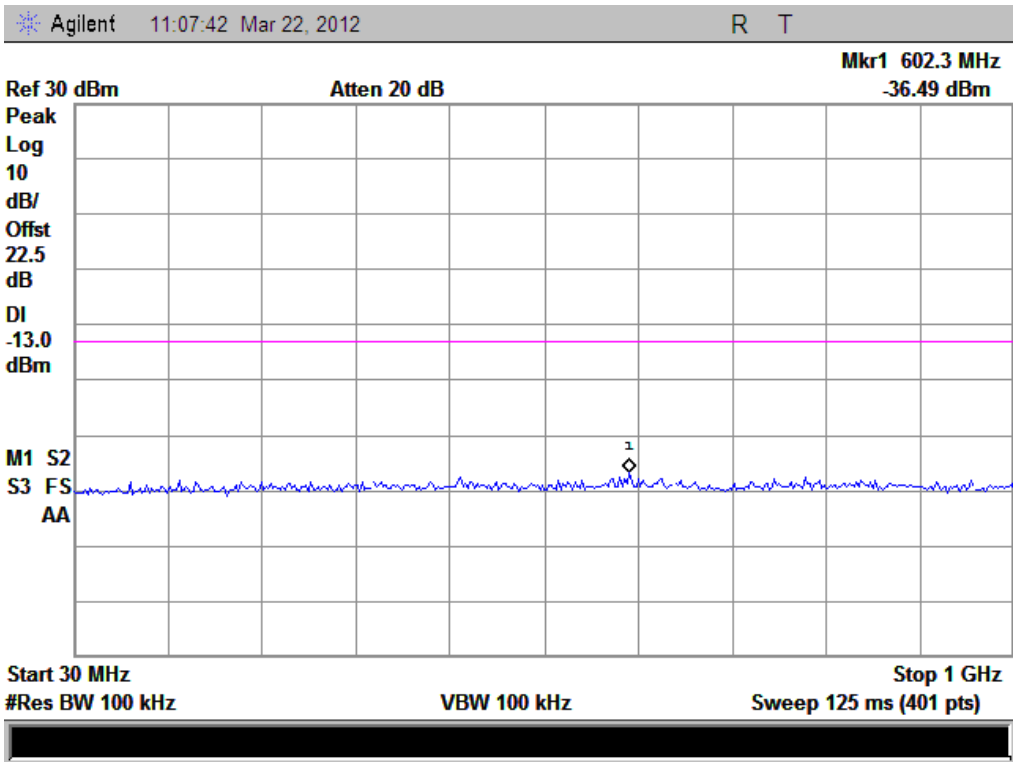
(Plot J1.1: HSUPA1900MHz Channel = 9262, 1GHz to 20GHz)



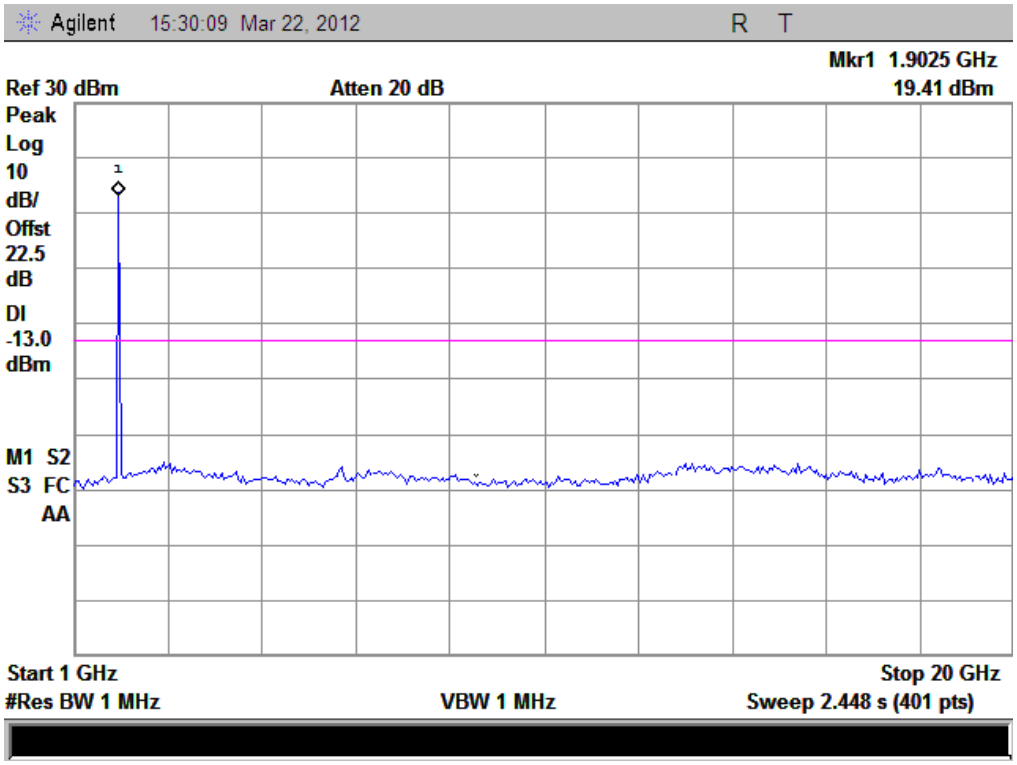
(Plot J 2: HSUPA1900MHz Channel = 9400, 30MHz to 1GHz)



(Plot J2.1: HSUPA1900MHz Channel = 9400, 1GHz to 20GHz)



(Plot J 3: HSUPA1900MHz Channel = 9538, 30MHz to 1GHz)



(Plot J3.1: HSUPA1900MHz Channel = 9538 1GHz to 20GHz)

2.5 Band Edge

2.5.1 Requirement

According to FCC section 22.917(b) and FCC section 24.238(b), in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth (26dB emission bandwidth) of the fundamental emission of the transmitter may be employed.

2.5.2 Test Description

See section 2.1.2 of this report.

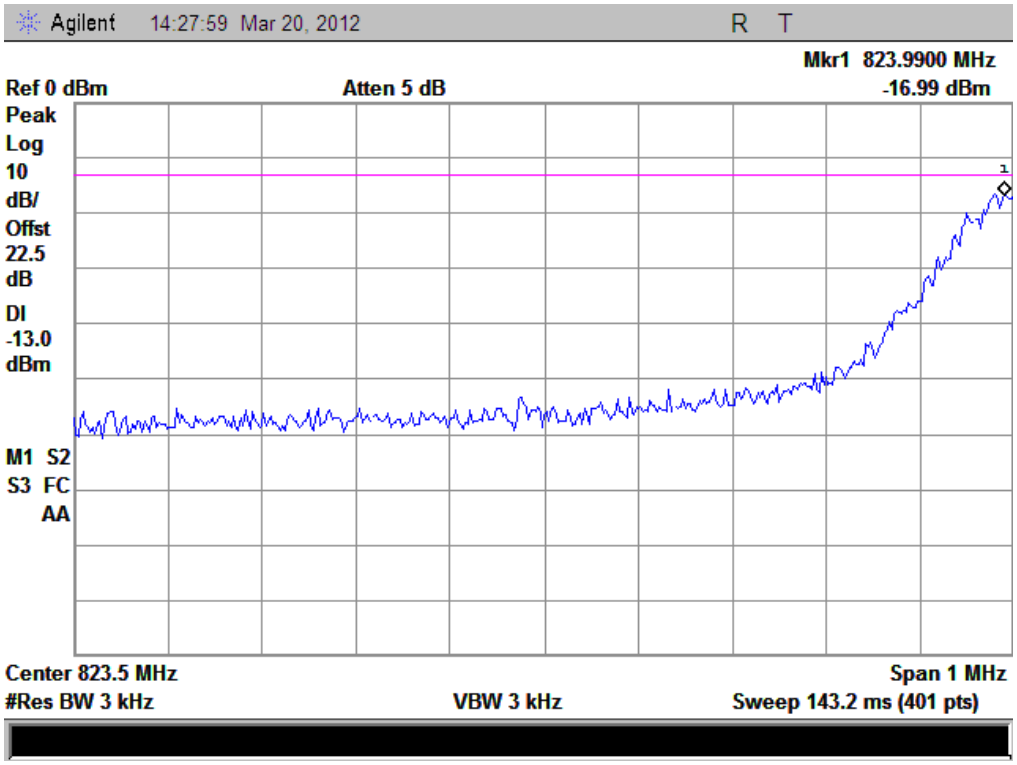
2.5.3 Test Result

The lowest and highest channels are tested to verify the band edge emissions.

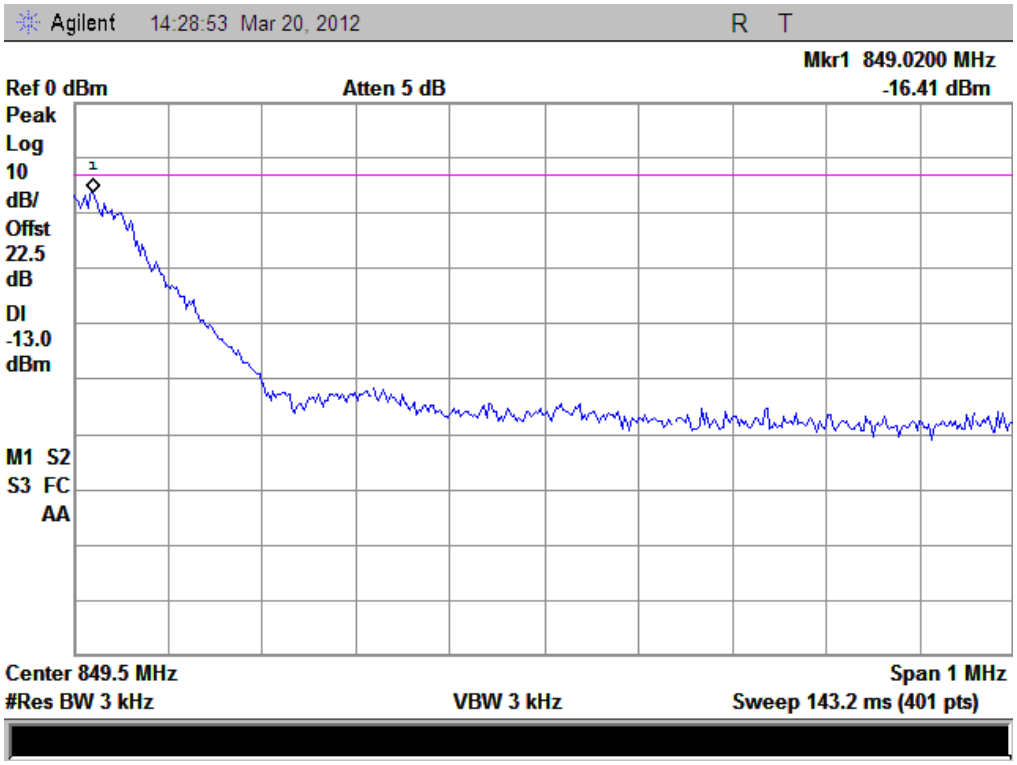
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Band Edge Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-16.99	Plat A	-13	PASS
	251	848.8	-16.41	Plot B		PASS
GSM 1900MHz	512	1850.2	-17.90	Plat C	-13	PASS
	810	1909.8	-20.56	Plot D		PASS
EDGE 850MHz	128	824.2	-15.07	Plat E	-13	PASS
	251	848.8	-15.06	Plot F		PASS
EDGE 1900MHz	512	1850.2	-19.73	Plat G	-13	PASS
	810	1909.8	-19.44	Plot H		PASS
WCDMA 850MHz	4132	826.4	-29.77	Plat I	-13	PASS
	4233	846.6	-30.29	Plot J		PASS
WCDMA 1900MHz	9262	1852.4	-25.33	Plat K	-13	PASS
	9538	1907.6	-22.21	Plot L		PASS
HSDPA 850MHz	4132	826.4	-28.98	Plat M	-13	PASS
	4233	846.6	-30.21	Plot N		PASS
HSDPA 1900MHz	9262	1852.4	-25.44	Plat O	-13	PASS
	9538	1907.6	-23.41	Plot P		PASS
HSUPA 850MHz	4132	826.4	-29.32	Plat Q	-13	PASS
	4233	846.6	-30.51	Plot R		PASS
HSUPA 1900MHz	9262	1852.4	-25.43	Plat S	-13	PASS
	9538	1907.6	-22.78	Plot T		PASS

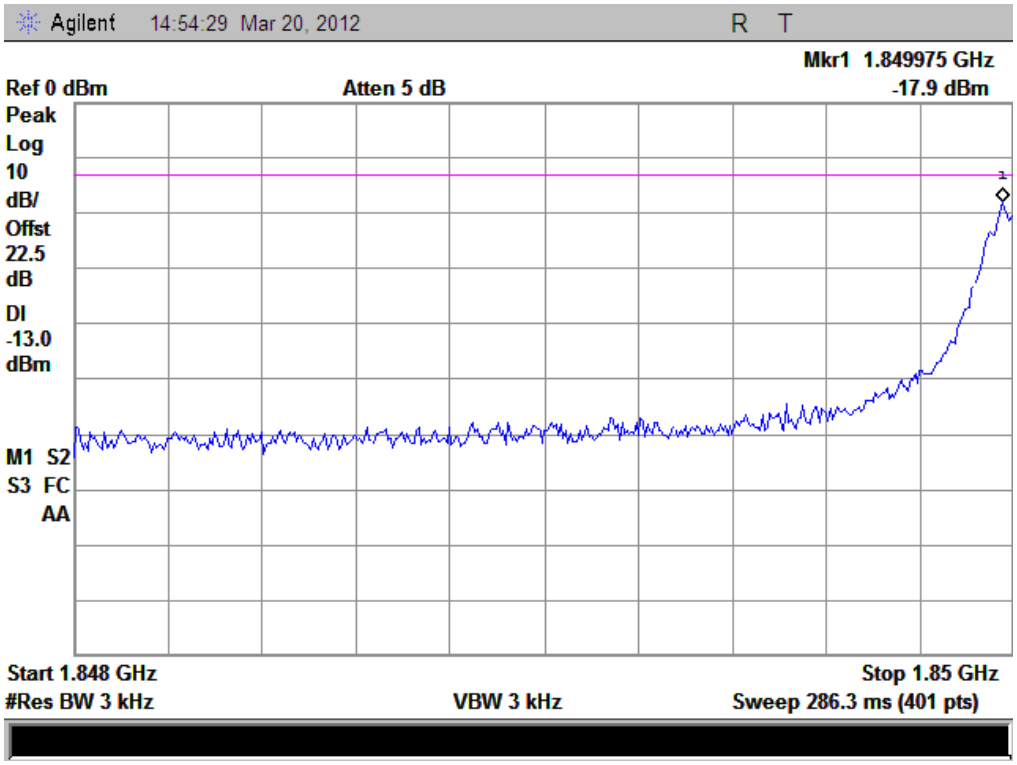
2. Test Plots:



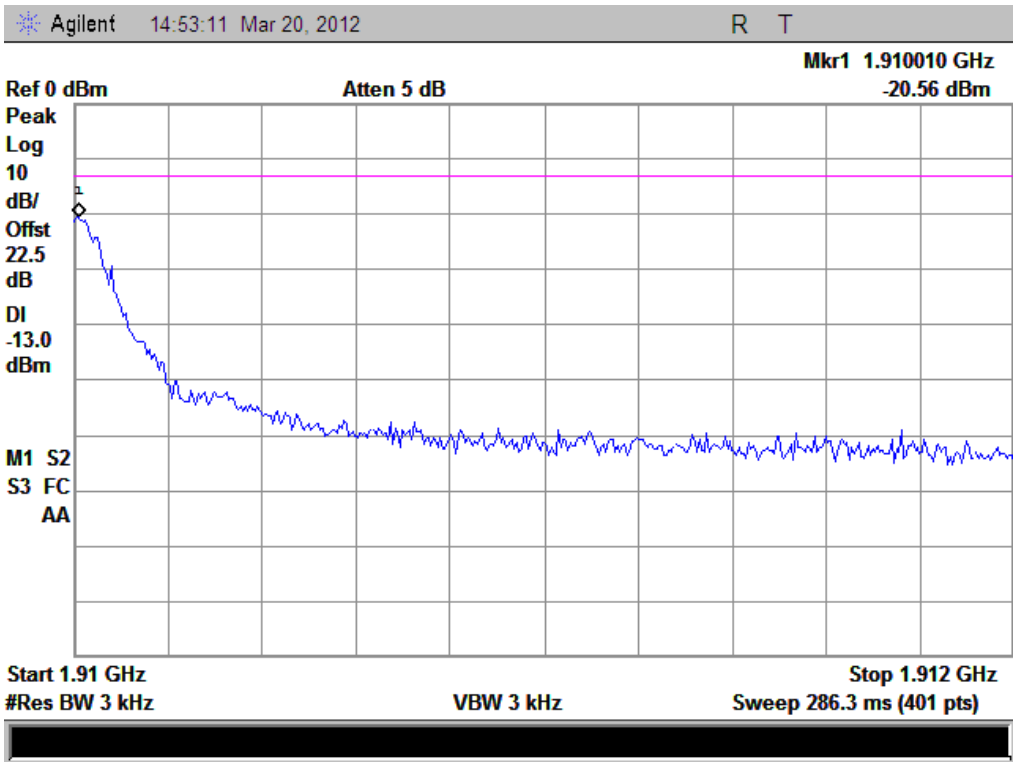
(Plot A: GSM 850 Channel = 128)



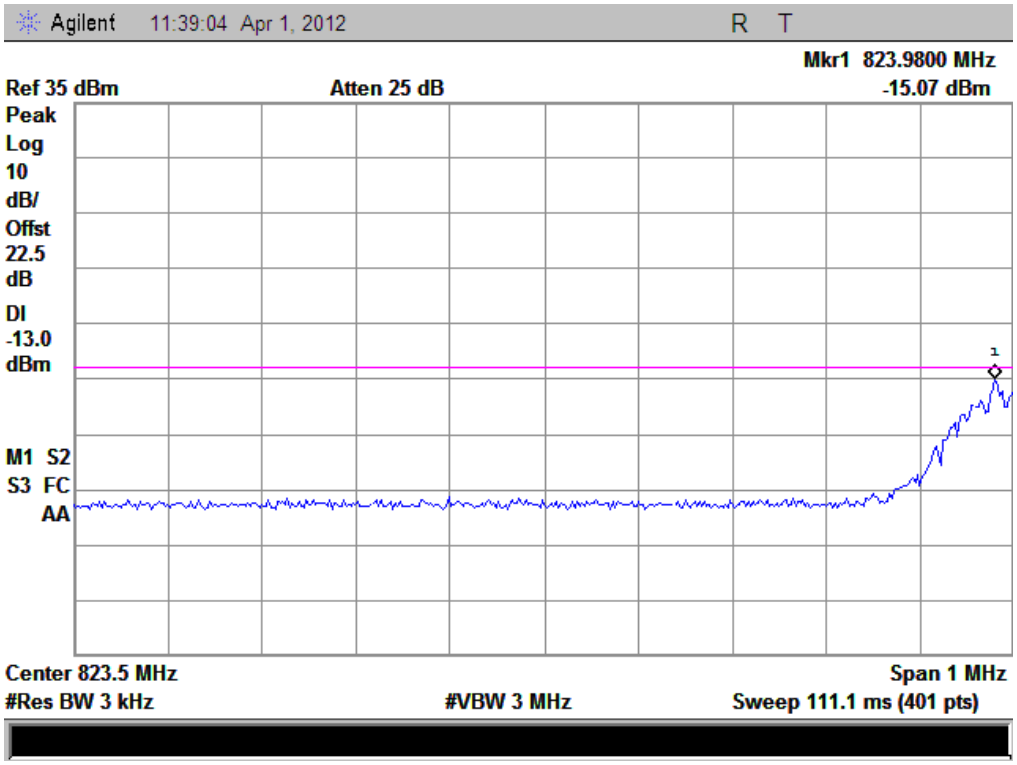
(Plot B: GSM 850 Channel = 251)



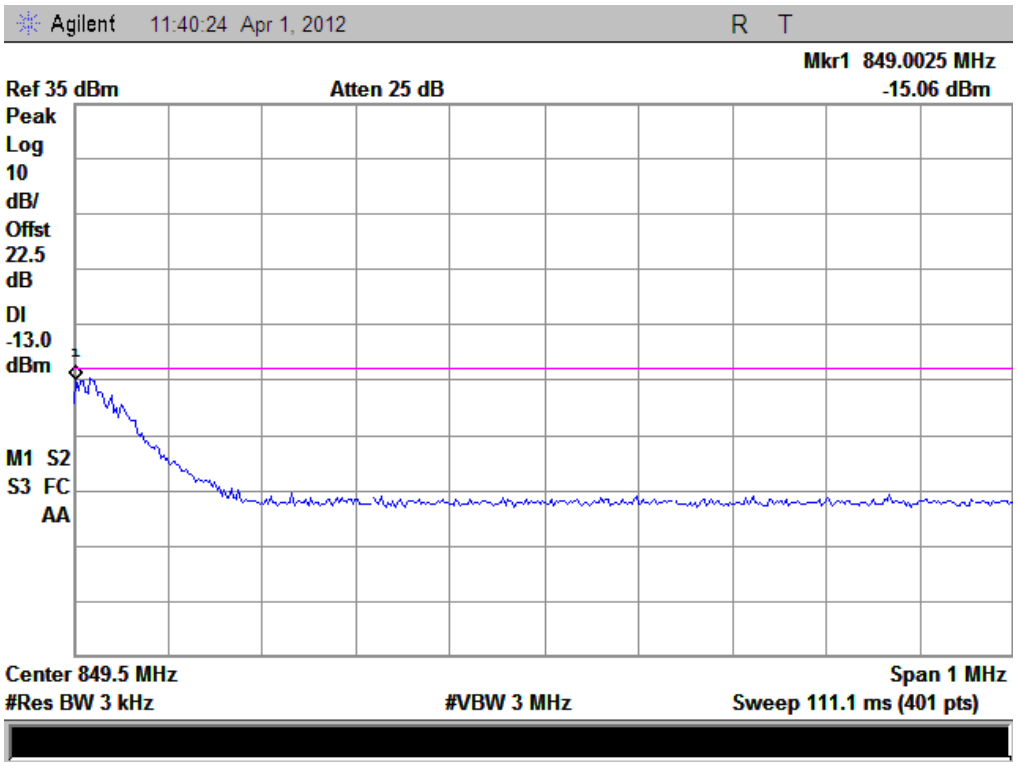
(Plot C: GSM 1900 Channel = 512)



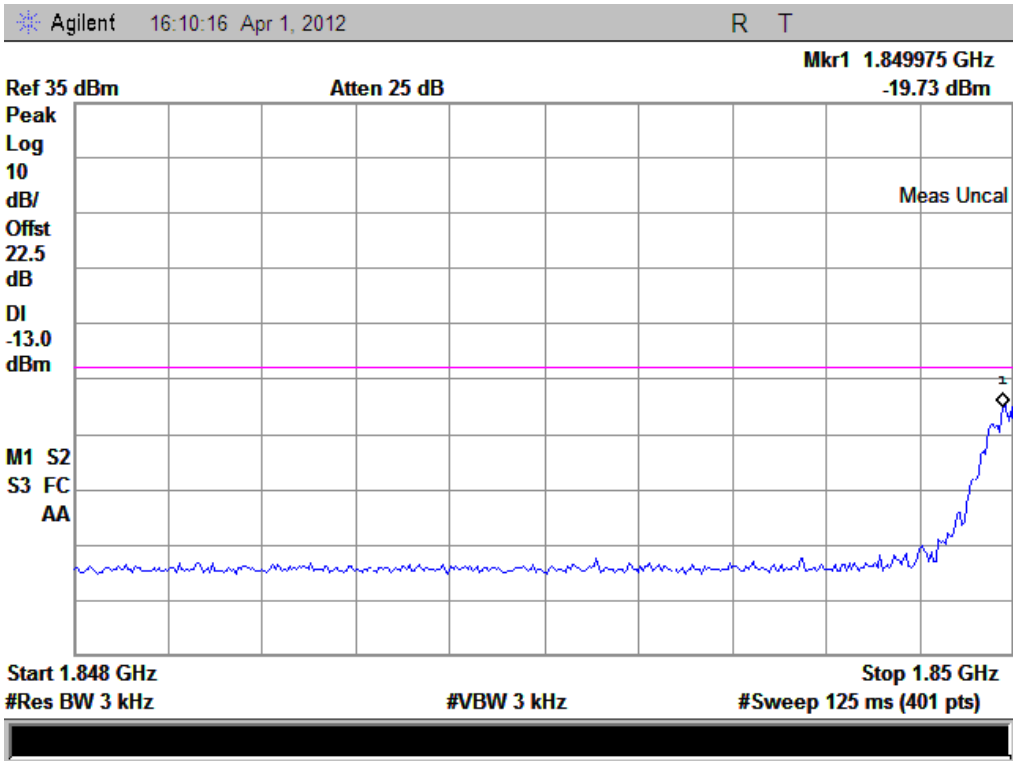
(Plot D: GSM 1900 Channel = 810)



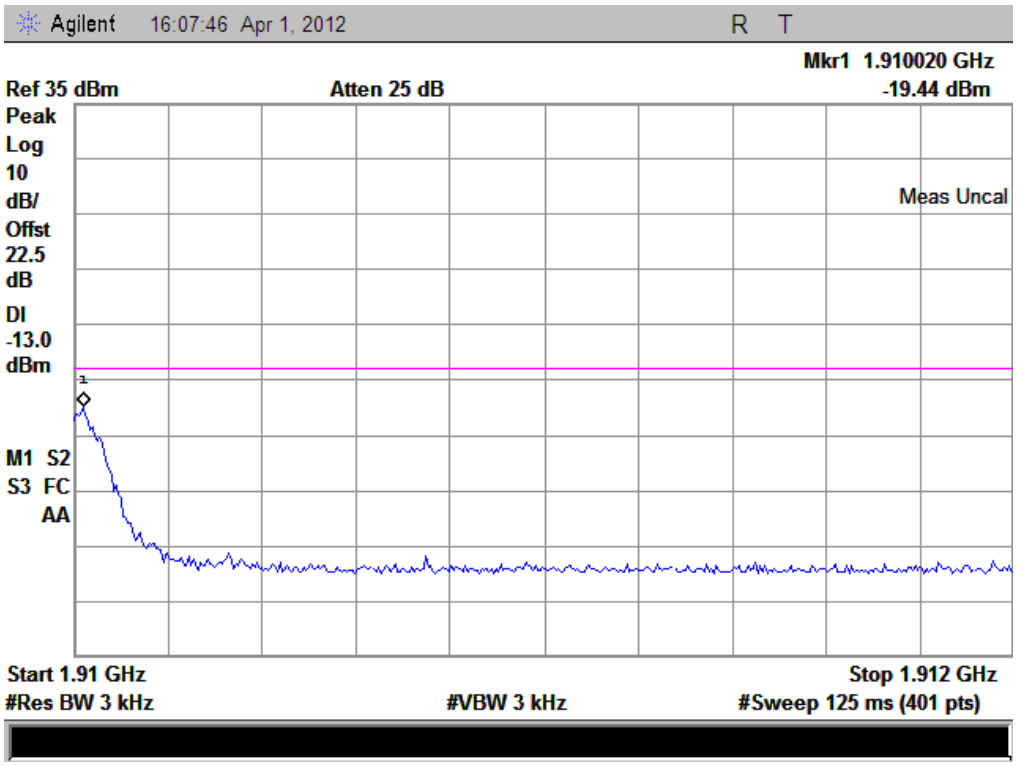
(Plot E: EDGE 850 Channel = 128)



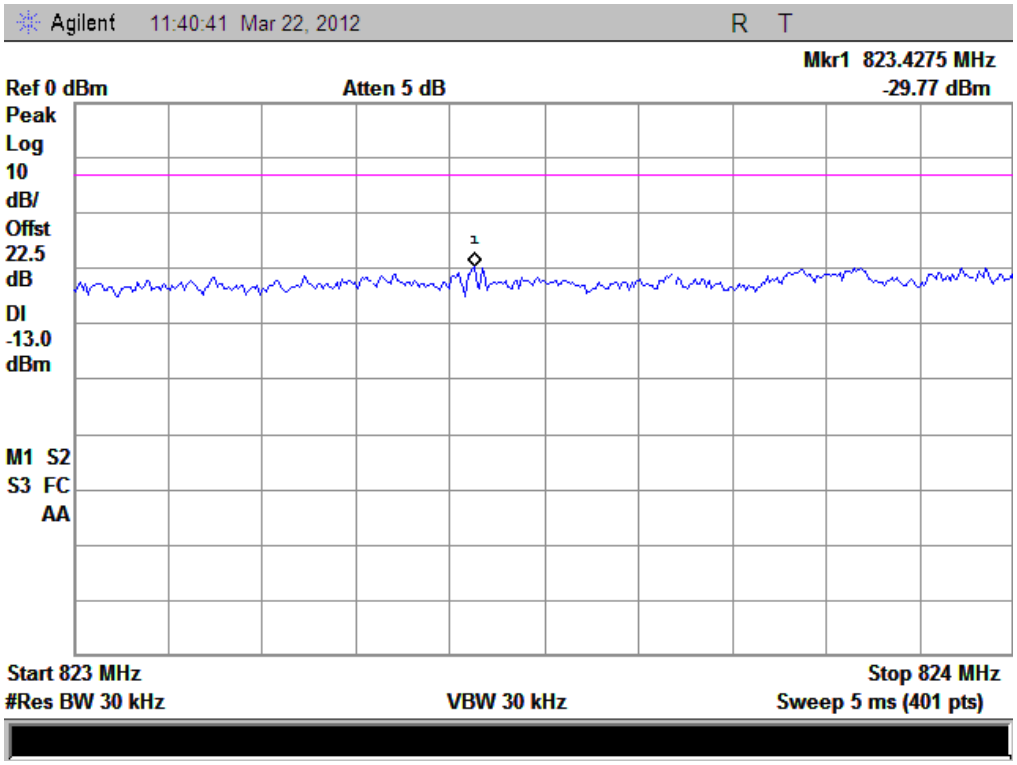
(Plot F: EDGE 850 Channel = 251)



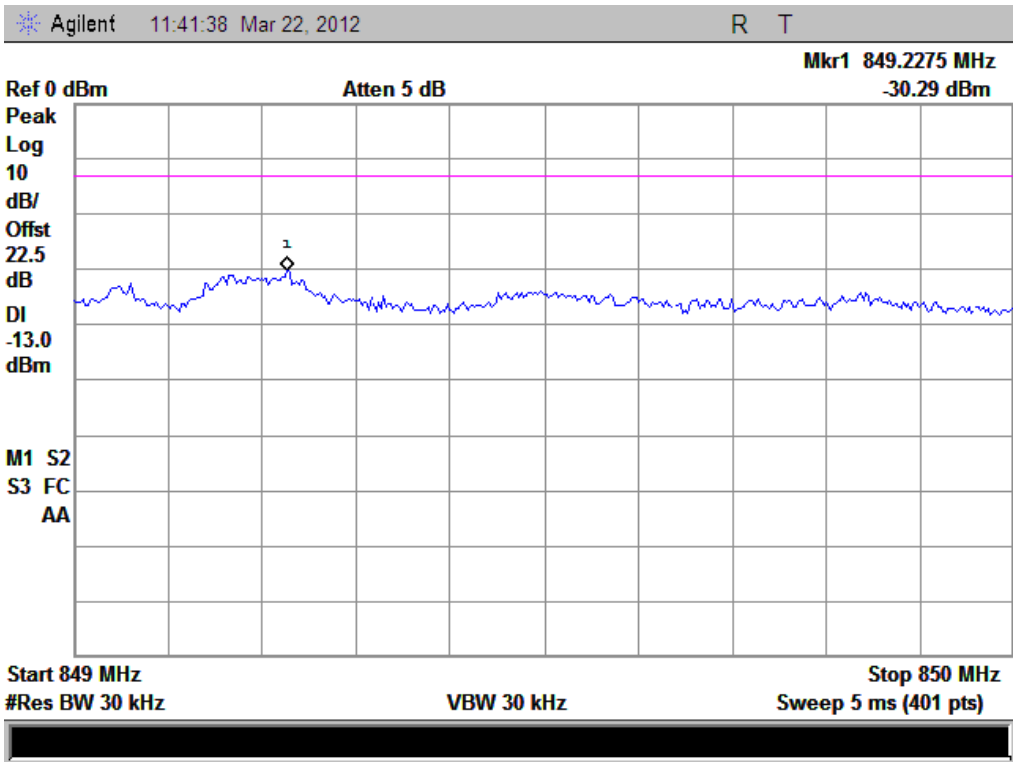
(Plot G: EDGE 1900 Channel = 512)



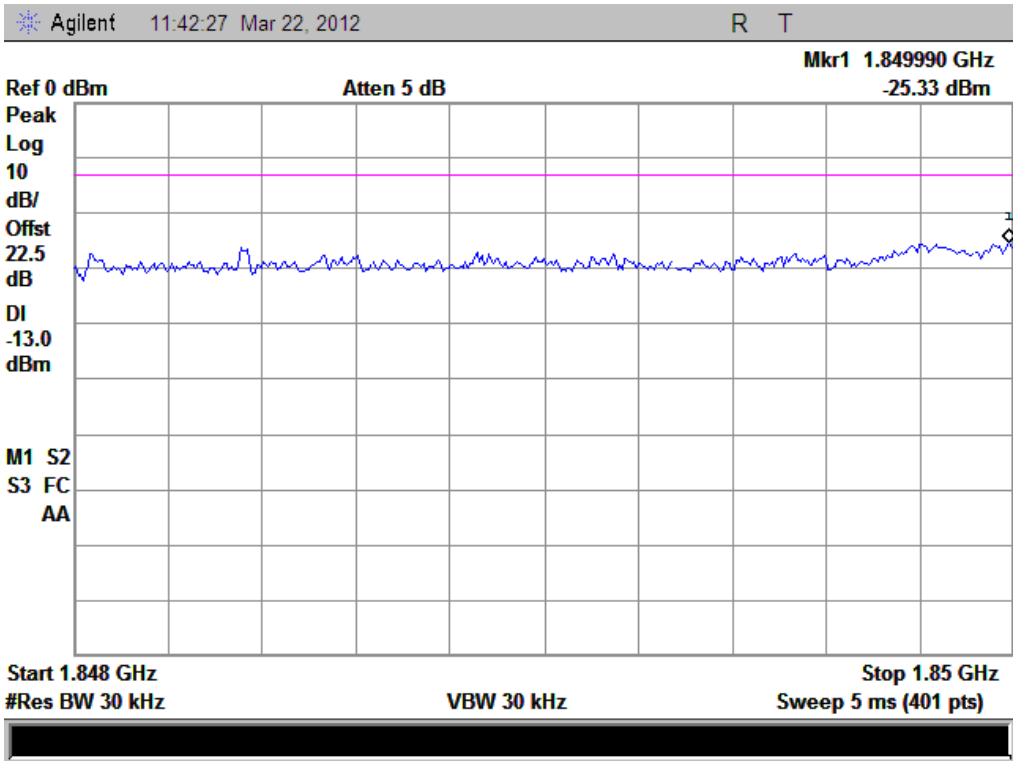
(Plot H: EDGE 1900 Channel = 810)



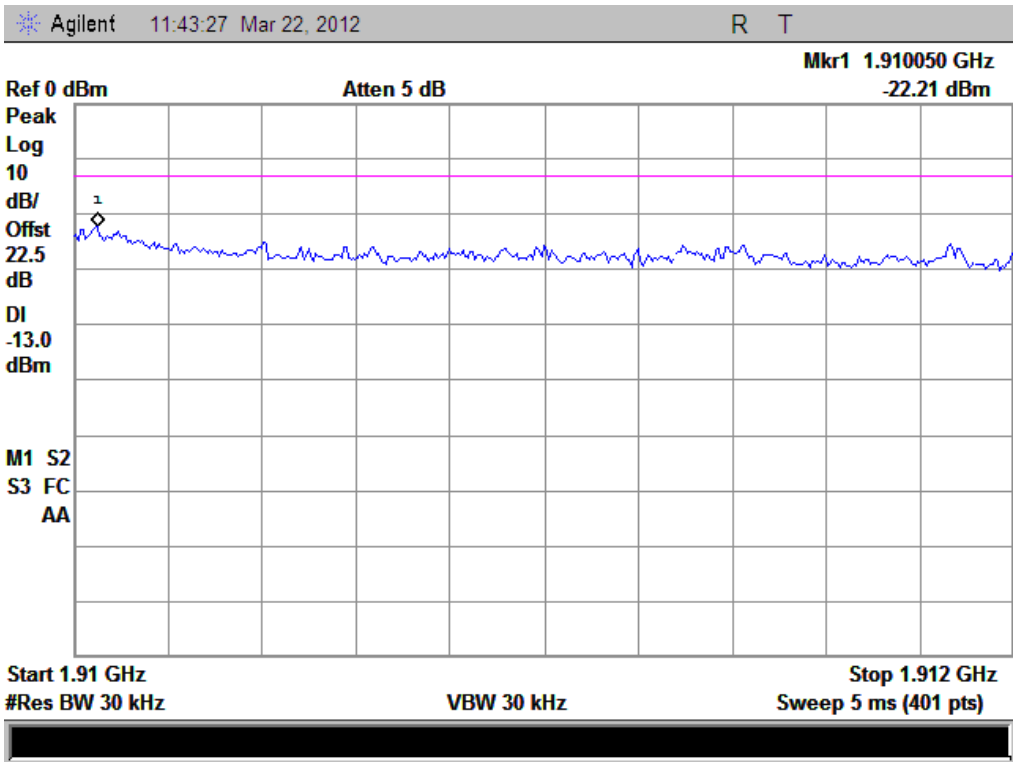
(Plot I: WCDMA 850 Channel = 4132)



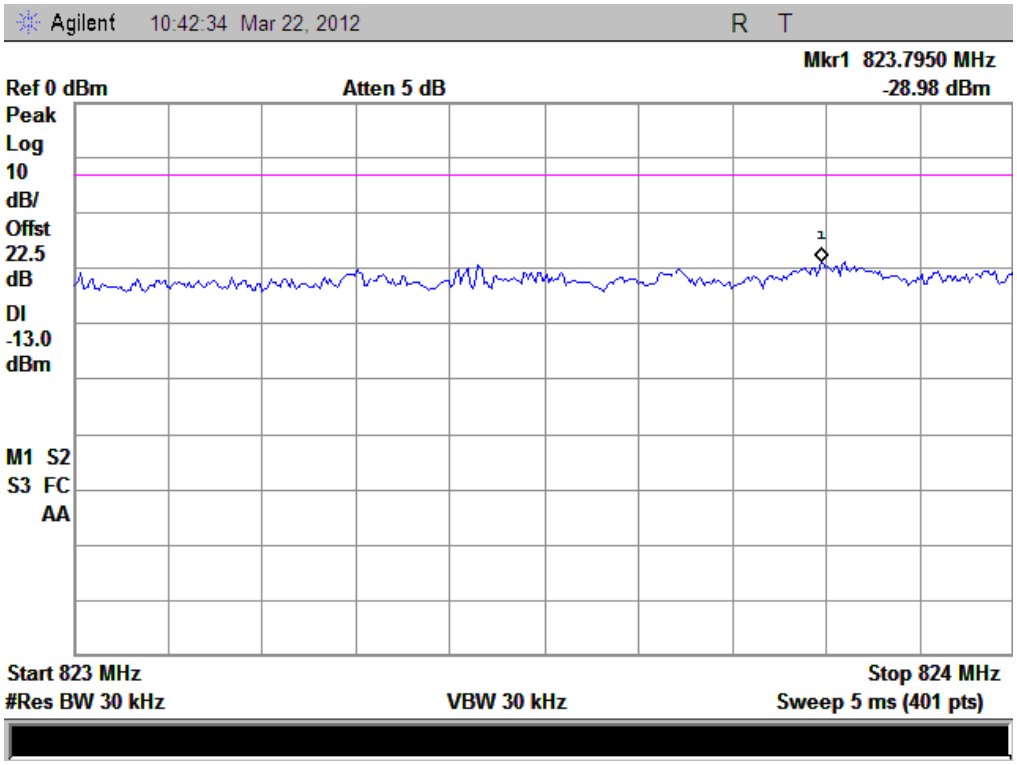
(Plot J: WCDMA 850 Channel = 4233)



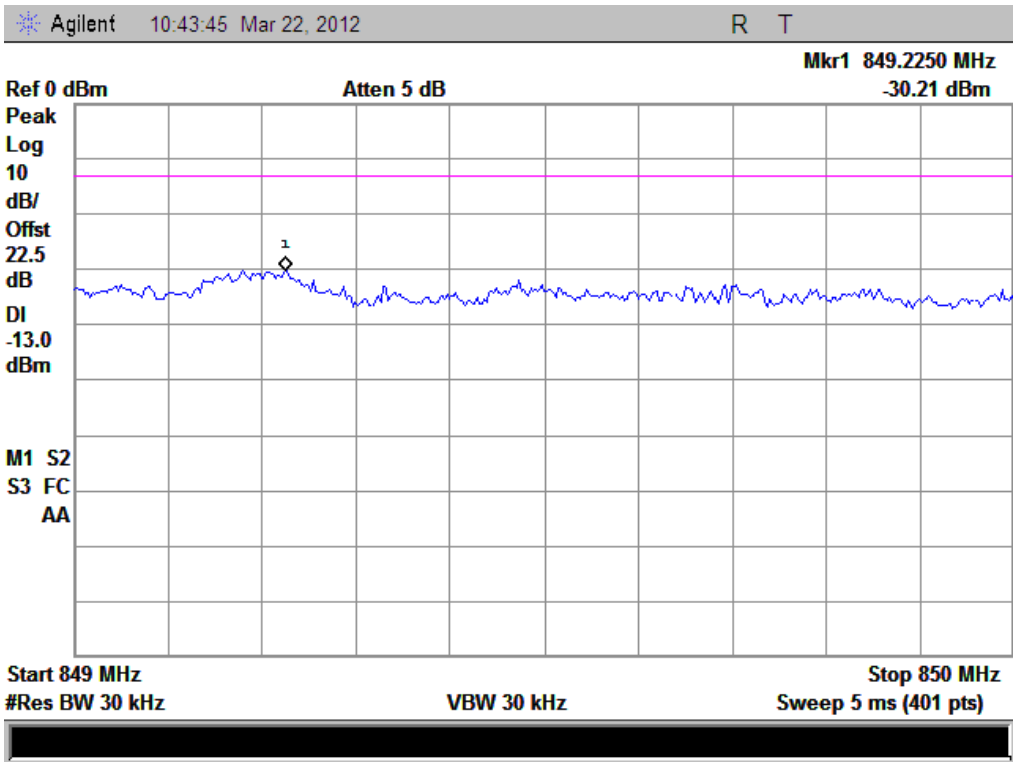
(Plot K: WCDMA 1900 Channel = 9262)



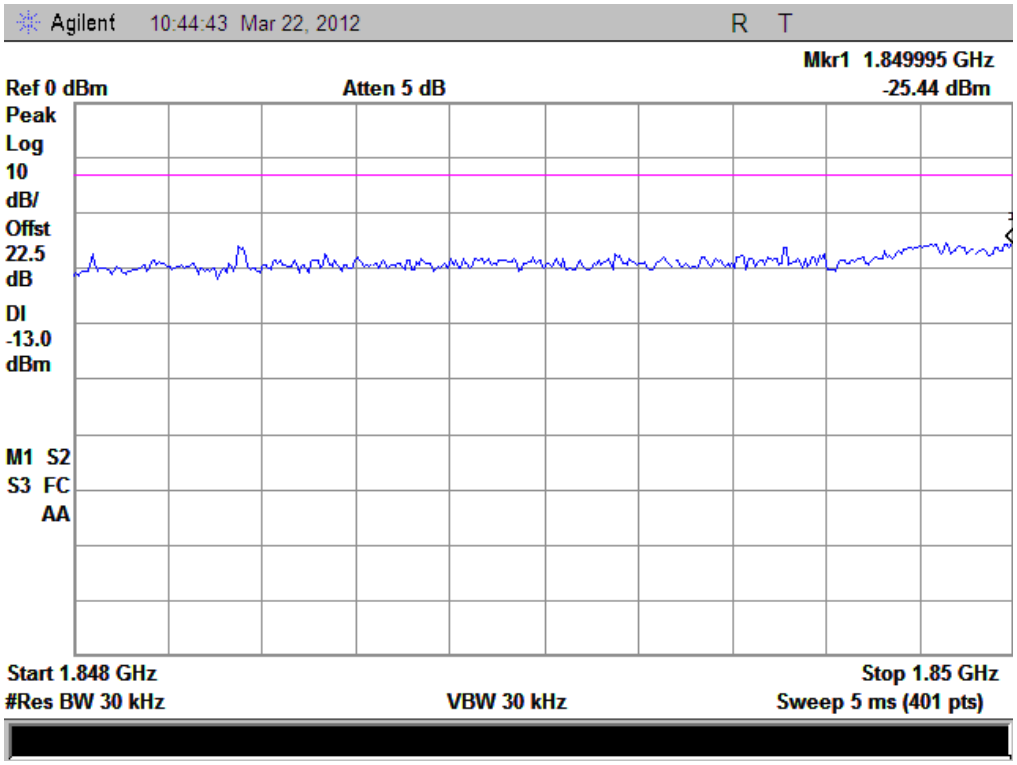
(Plot L: WCDMA 1900 Channel = 9538)



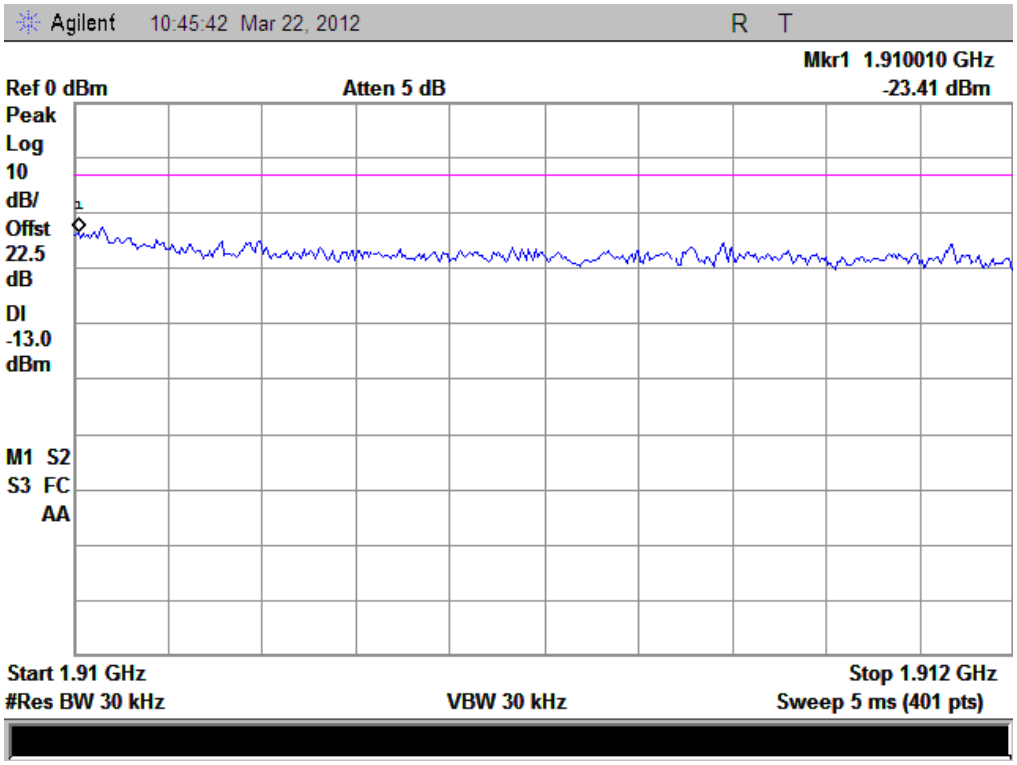
(Plot M: HSDPA 850 Channel = 4132)



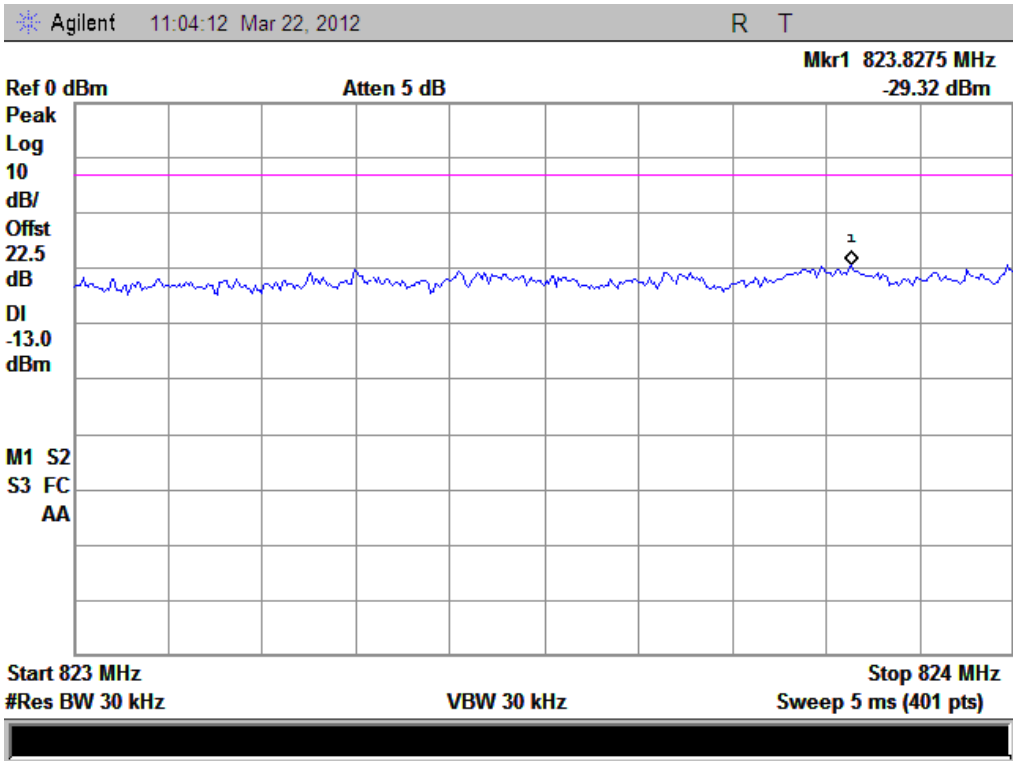
(Plot N: HSDPA850 Channel = 4233)



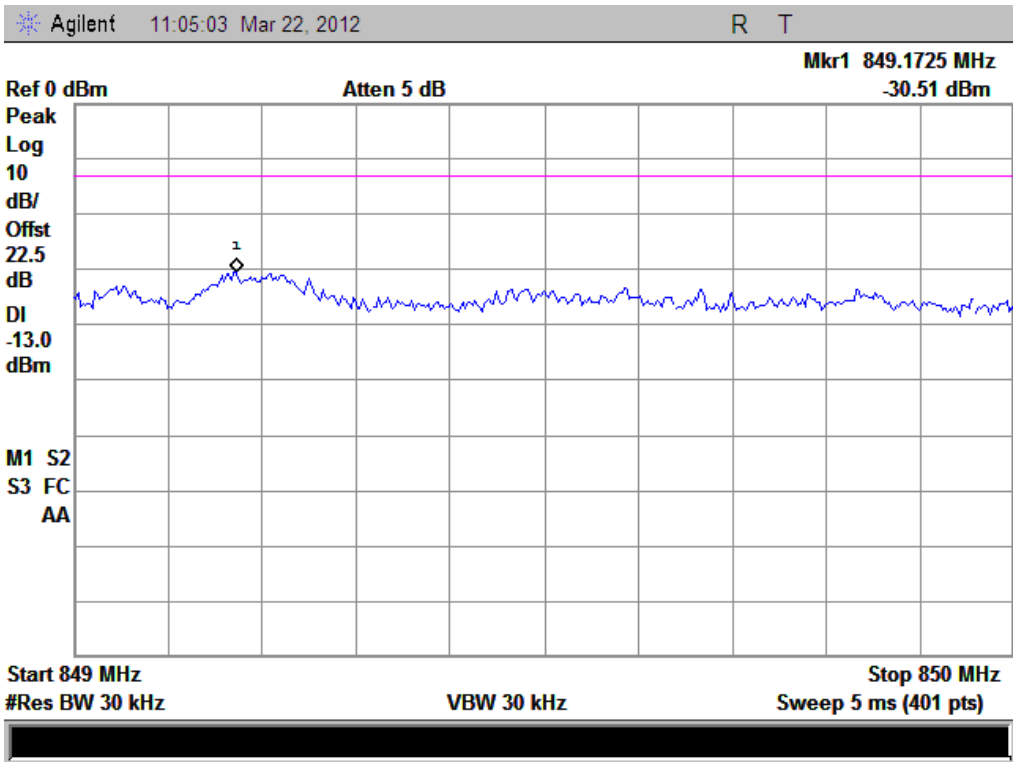
(Plot O: HSDPA 1900 Channel = 9262)



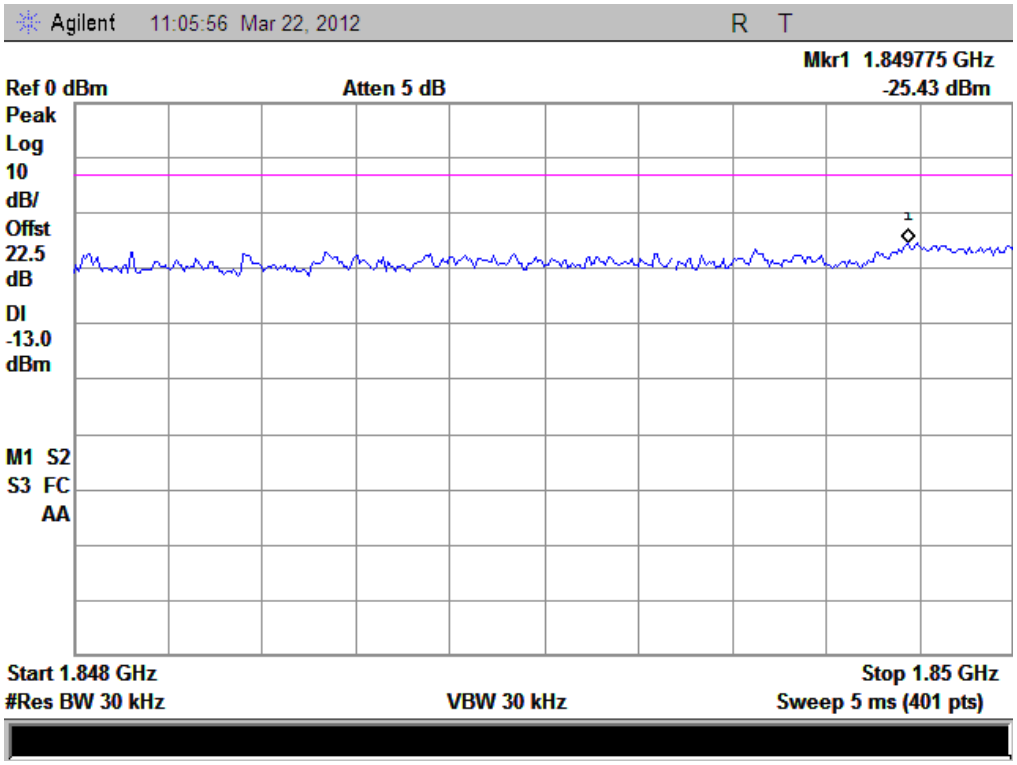
(Plot P: HSDPA 1900 Channel = 9538)



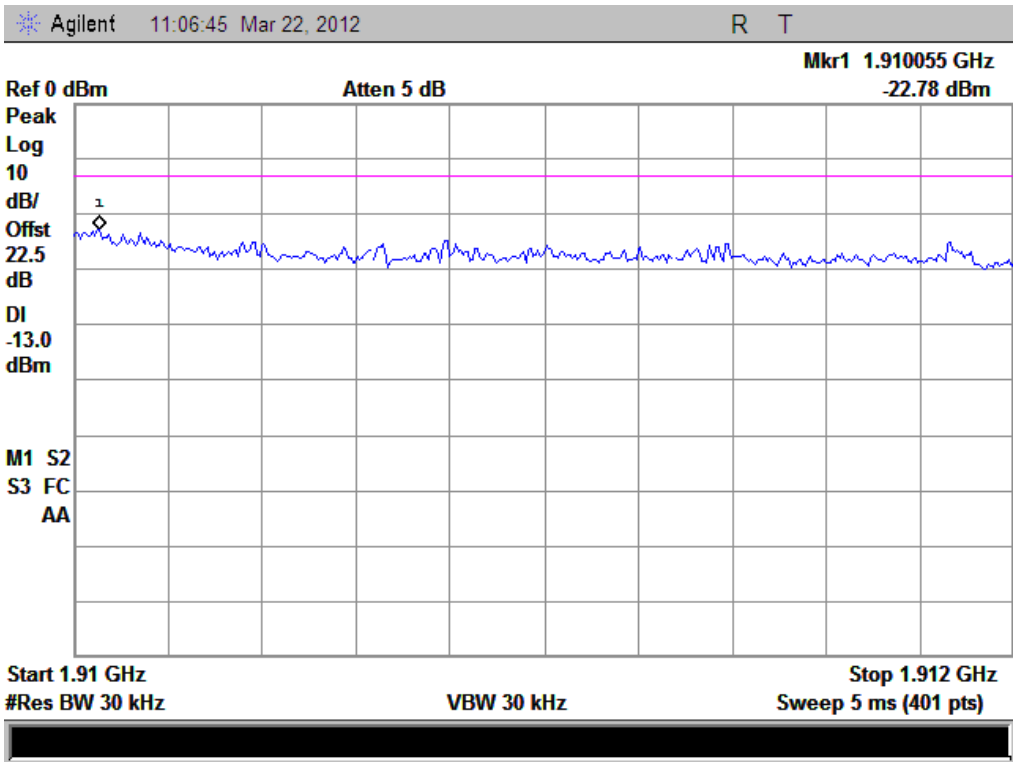
(Plot Q: HSUPA 850 Channel = 4132)



(Plot R: HSUPA850 Channel = 4233)



(Plot S: HSUPA 1900 Channel = 9262)



(Plot T: HSUPA 1900 Channel = 9538)

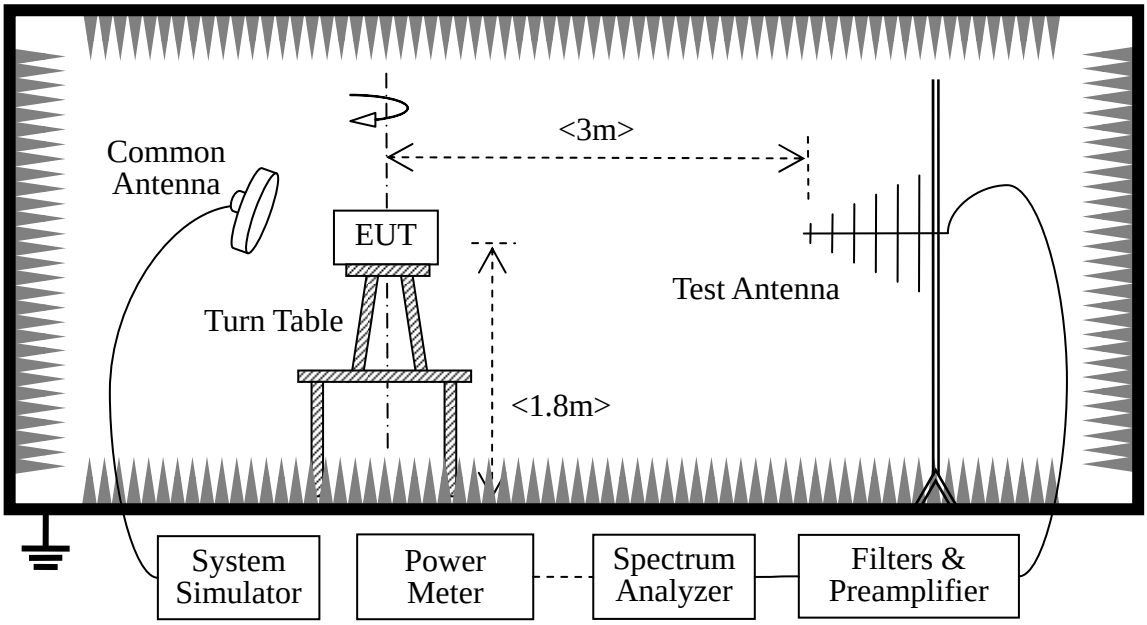
2.6 Transmitter Radiated Power (EIRP/ERP)

2.6.1 Requirement

According to FCC section 22.913, the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7Watts, and FCC section 24.232, the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

2.6.2 Test Description

1. Test Setup:



The EUT, which is powered by the Battery charged with the AC Adapter, is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded.

- GSM Maximum RF output power: GSM850 30.22dBm, GSM 1900 26.82dBm, WCDMA 850 22.69, WCDMA 1900 23.28, Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

- Minimum RF power: GSM850 3.0dBm, GSM 1900 0.2dBm，WCDMA 850 2.16dBm, WCDMA

1900 0.1dBm.

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) or a Horn one (used for above 3GHz), and it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

2. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date
System Simulator	Agilent	E5515C	GB43130131	2011.05
Spectrum Analyzer	Agilent	E7405A	US44210471	2011.05
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2011.05
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2011.05
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2011.05

2.6.3 Test Result

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$A_{SUBST} = P_{SUBST\_TX} - P_{SUBST\_RX} - L_{SUBST\_CABLES} + G_{SUBST\_TX\_ANT}$

$A_{TOT} = L_{CABLES} + A_{SUBST}$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST\_TX\_ANT}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

During the test, the data of A_{TOT} was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of A_{TOT}.

1. GSM Model Test Verdict:

Band	Channel	Frequency (MHz)	PCL	Measured ERP			Limit		Verdict
				dBm	W	Refer to Plot	dBm	W	
GSM 850MHz	128	824.20	5	31.50	1.412538	Plot A	38.5	7	PASS
	190	836.60	5	31.89	1.545254				PASS
	251	848.80	5	32	1.584893				PASS
GPRS 850MHz	128	824.20	5	26.13	0.410204	Plot B Note 1	38.5	7	PASS
	190	836.60	5	28.48	0.704693				PASS
	251	848.80	5	28.75	0.749894				PASS
EGPRS 850MHz	128	824.20	5	31.06	1.276439	Plot C Note 1	38.5	7	PASS
	190	836.60	5	31.34	1.361445				PASS
	251	848.80	5	32.18	1.651962				PASS

Band	Channel	Frequency (MHz)	PCL	Measured EIRP			Limit		Verdict
				dBm	W	Refer to Plot	dBm	W	
GSM 1900MHz	512	1850.2	0	29	0.794328	Plot D	33	2	PASS
	661	1880.0	0	27.85	0.609537				PASS
	810	1909.8	0	27.44	0.554626				PASS
GPRS 1900MHz	512	1850.2	0	27.4	0.549541	Plot E Note 1	33	2	PASS
	661	1880.0	0	27.18	0.522396				PASS
	810	1909.8	0	27.04	0.505825				PASS
EGPRS 1900MHz	512	1850.2	0	28.45	0.699842	Plot F Note 1	33	2	PASS
	661	1880.0	0	27.56	0.570164				PASS
	810	1909.8	0	27.06	0.508159				PASS

Note 1: For the GPRS and EGPRS model, all the slots were tested and just the worst data was record in this report.

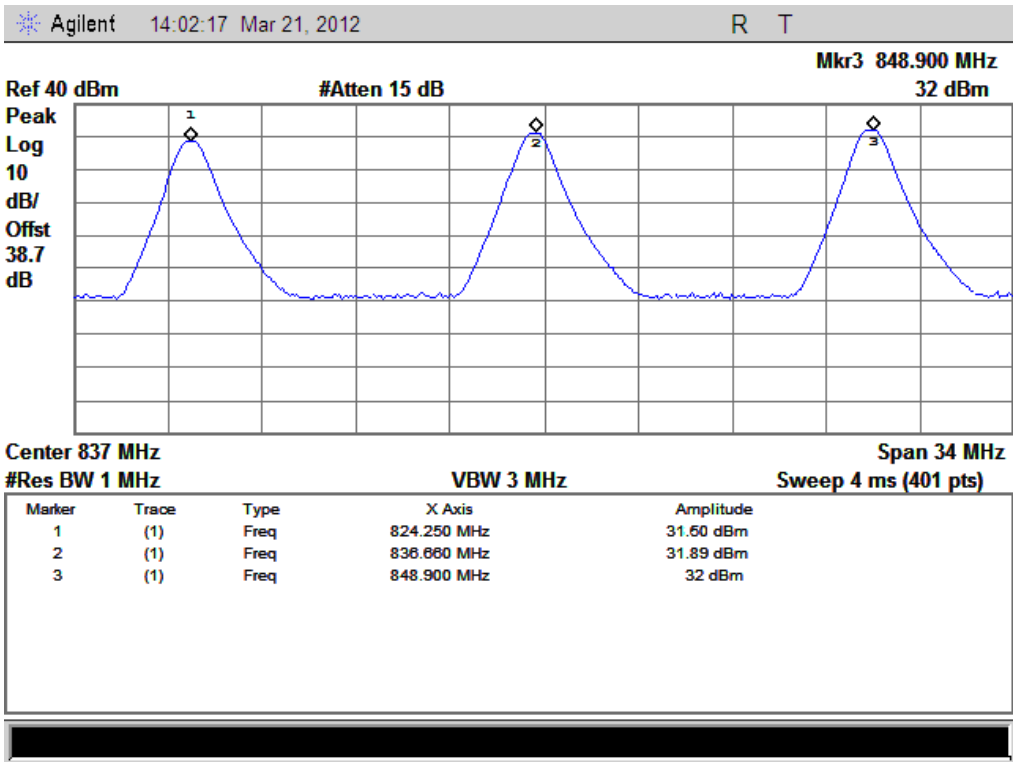
2. WCDMA Model Test Verdict:

Band	Channel	Frequency (MHz)	Measured ERP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA 850MHz	4132	826.4	23.07	0.202768	38.5	7	PASS
	4175	835	23.29	0.213304			PASS
	4233	846.6	24.09	0.256448			PASS
HSDPA 850MHz	4132	826.4	23.11	0.204644	38.5	7	PASS
	4175	835	23.05	0.201837			PASS
	4233	846.6	23.23	0.210378			PASS
HSUPA 850MHz	4132	826.4	23.31	0.214289	38.5	7	PASS
	4175	835	23.27	0.212324			PASS
	4233	846.6	23.32	0.214783			PASS

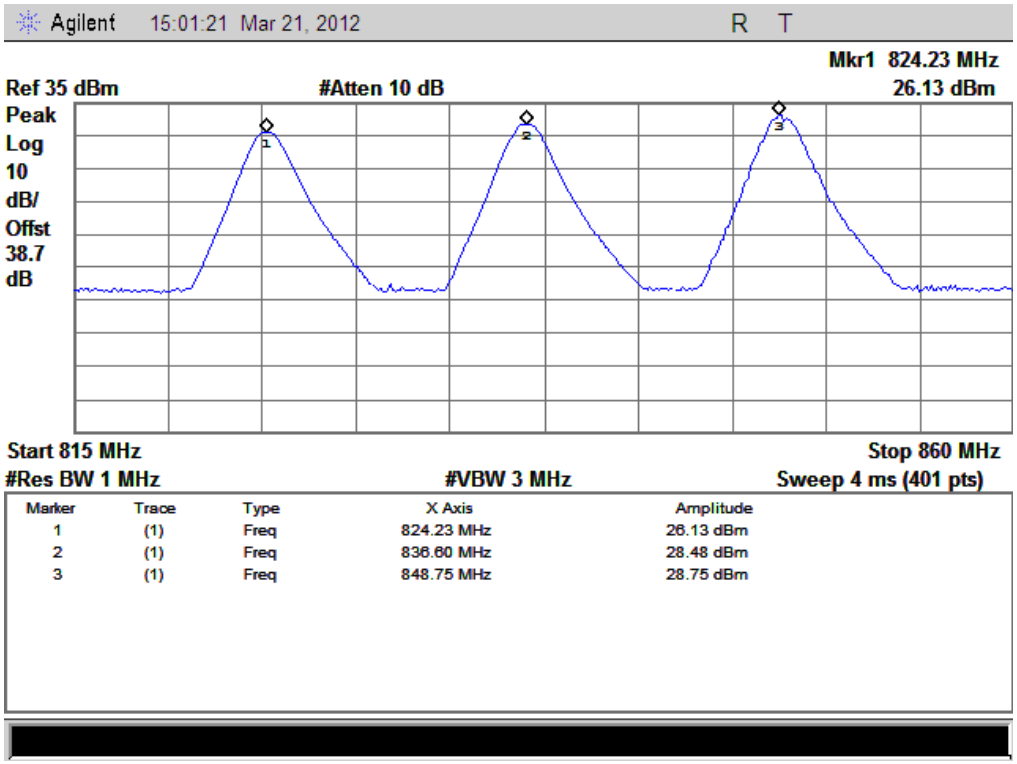
Band	Channel	Frequency (MHz)	Measured EIRP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA 1900MHz	9262	1852.4	25.33	0.341193	33	2	PASS
	9400	1880	25.65	0.367282			PASS
	9538	1907.6	23.72	0.235505			PASS
HSDPA 1900MHz	9262	1852.4	24.25	0.266073	33	2	PASS
	9400	1880	23.67	0.232809			PASS
	9538	1907.6	23.66	0.232274			PASS
HSUPA 1900MHz	9262	1852.4	23.17	0.207491	33	2	PASS
	9400	1880	23.09	0.203704			PASS
	9538	1907.6	23.51	0.224388			PASS

Note2: For the WCDMA and HSDPA test band, the measured output power was calculated by the reading of the Power Meter.

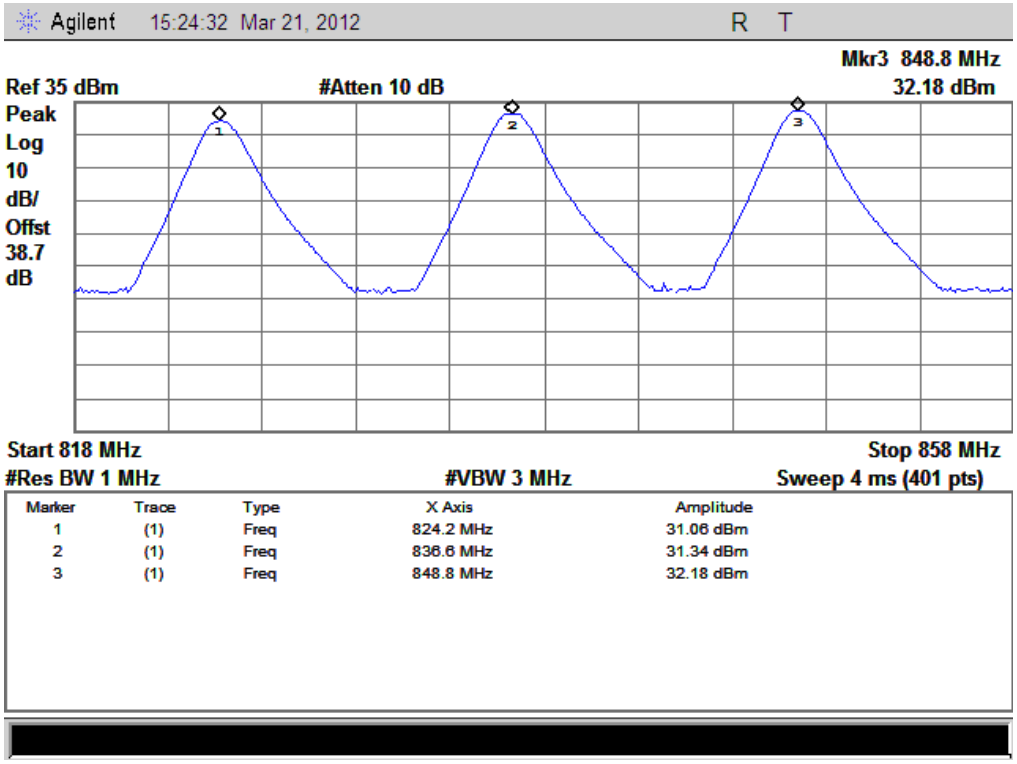
3. Test Plots:



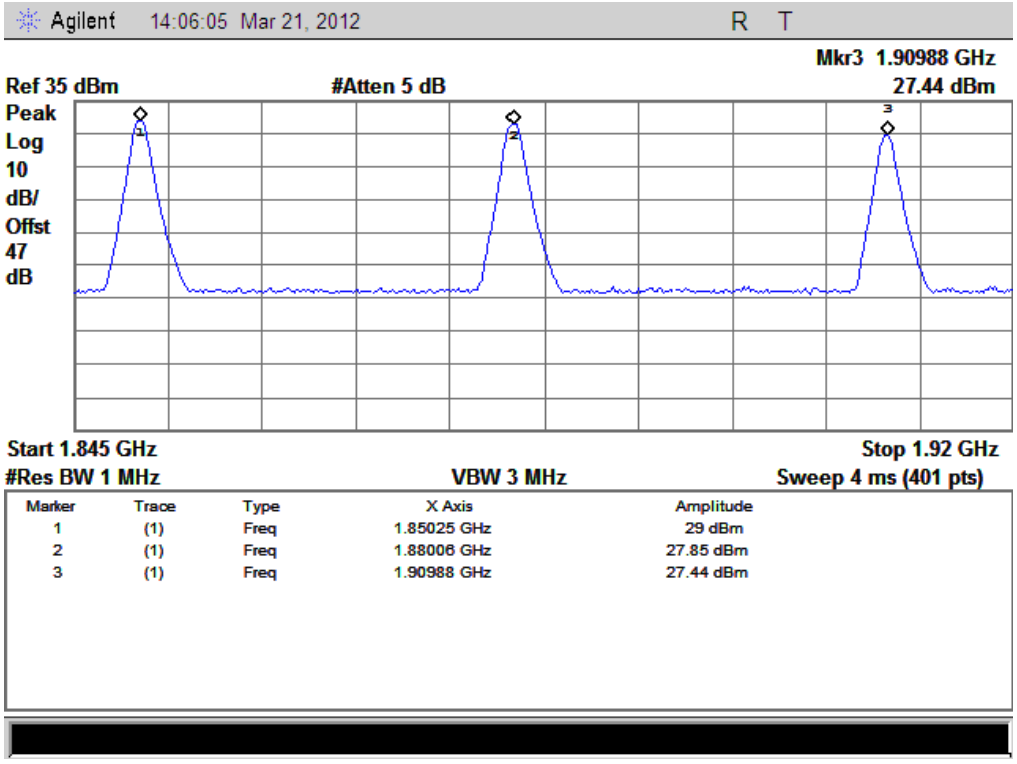
(Plot A: GSM 850MHz Channel = 128, 190, 251)



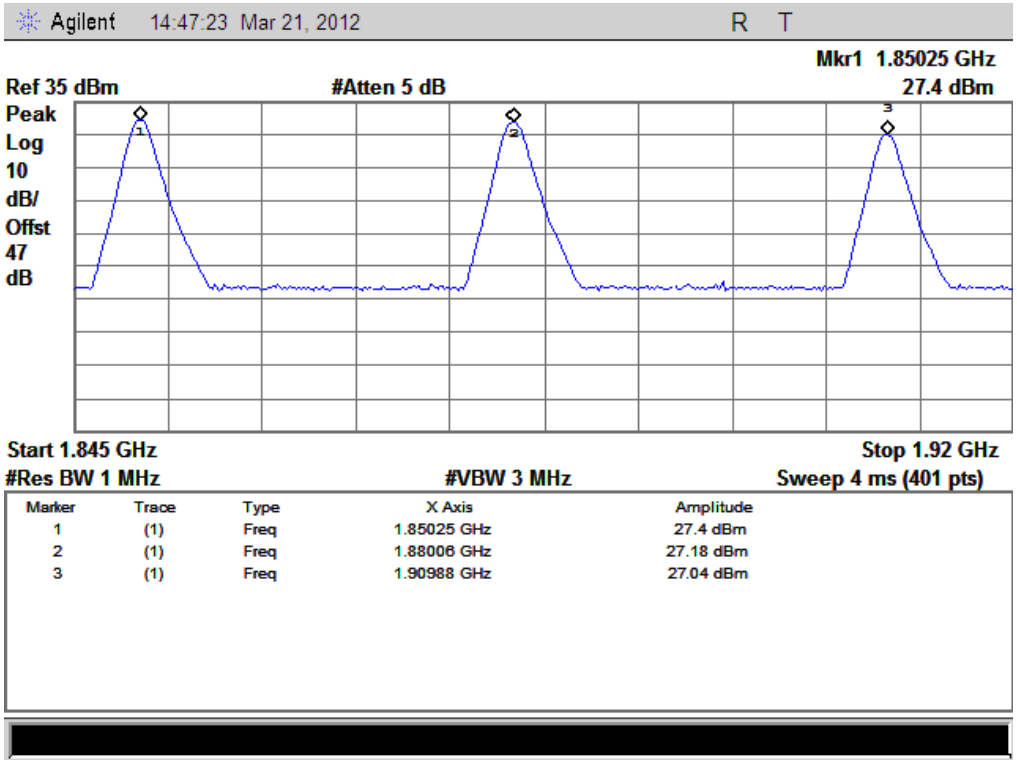
(Plot B: GPRS 850MHz Channel = 128, 190, 251)



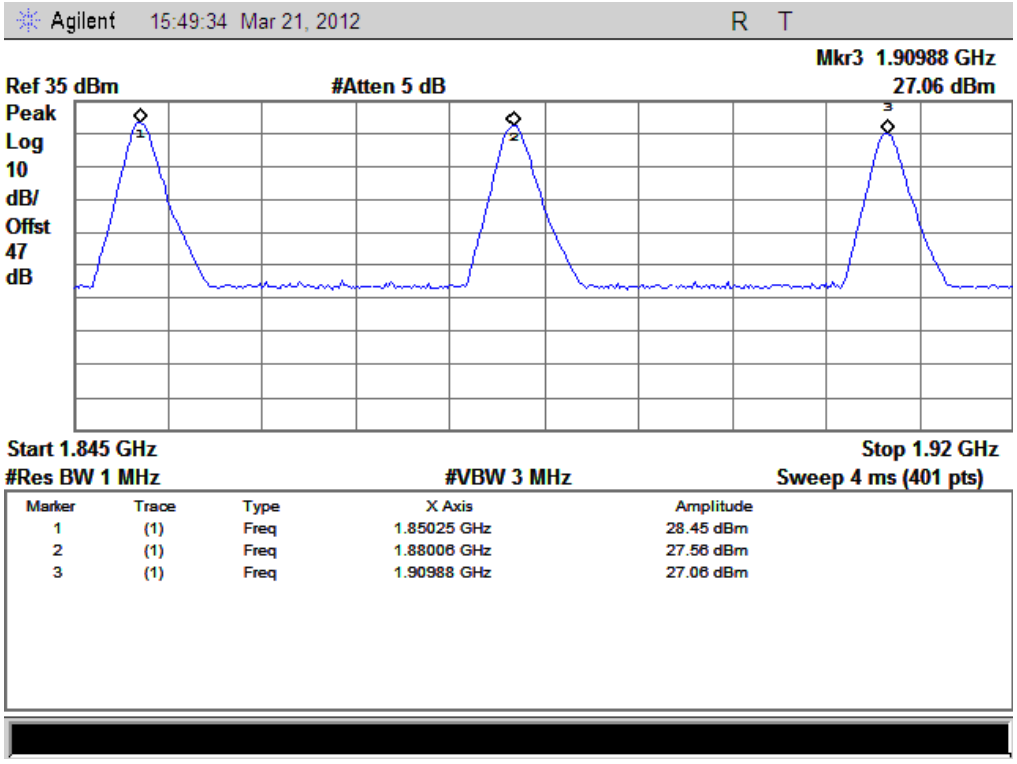
(Plot C: EDGE 850MHz Channel = 128, 190, 251)



(Plot D: GSM 1900MHz Channel = 512, 661, 810)



(Plot E: GPRS 1900MHz Channel = 512, 661, 810)



(Plot F: EDGE 1900MHz Channel = 512, 661, 810)

2.7 Radiated Out of Band Emissions

2.7.1 Requirement

According to FCC section 22.917(a) and section 24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

2.7.2 Test Description

See section 2.6.2 of this report.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.7.3 Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions.

1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
GSM 850MHz	128	824.2	< -25	< -25	Plot A.1/A.2	-13	PASS
	190	836.6	< -25	< -25	Plot A.3/A.4		PASS
	251	848.8	< -25	< -25	Plot A.5/A.6		PASS
GSM 1900MHz	512	1850.2	< -25	< -25	Plot B.1/B.2	-13	PASS
	661	1880.0	< -25	< -25	Plot B.3/B.4		PASS
	810	1909.8	< -25	< -25	Plot B.5/B.6		PASS
EDGE 850MHz	128	824.2	< -25	< -25	Plot C.1/C.2	-13	PASS
	190	836.6	< -25	< -25	Plot C.3/C.4		PASS
	251	848.8	< -25	< -25	Plot C.5/C.6		PASS
EDGE 1900MHz	512	1850.2	< -25	< -25	Plot D.1/D.2	-13	PASS
	661	1880.0	< -25	< -25	Plot D.3/D.4		PASS
	810	1909.8	< -25	< -25	Plot D.5/D.6		PASS
WCDMA	4132	826.4	< -25	< -25	Plot E.1/E.2	-13	PASS

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
850MHz	4175	835	< -25	< -25	Plot E.3/E.4		PASS
	4233	846.6	< -25	< -25	Plot E.5/E.6		PASS
WCDMA 1900MHz	9262	1852.4	< -25	< -25	Plot F.1/F.2	-13	PASS
	9400	1880	< -25	< -25	Plot F.3/F.4		PASS
	9538	1907.6	< -25	< -25	Plot F.5/F.6		PASS
HSDPA 850MHz	4132	826.4	< -25	< -25	Plot G.1/G.2	-13	PASS
	4175	835	< -25	< -25	Plot G.3/G.4		PASS
	4233	846.6	< -25	< -25	Plot G.5/G.6		PASS
HSDPA 1900MHz	9262	1852.4	< -25	< -25	Plot H.1/H.2	-13	PASS
	9400	1880	< -25	< -25	Plot H.3/H.4		PASS
	9538	1907.6	< -25	< -25	Plot H.5/H.6		PASS
HSUPA 850MHz	4132	826.4	< -25	< -25	Plot I.1/I.2	-13	PASS
	4175	835	< -25	< -25	Plot I.3/I.4		PASS
	4233	846.6	< -25	< -25	Plot I.5/I.6		PASS
HSUPA 1900MHz	9262	1852.4	< -25	< -25	Plot J.1/J.2	-13	PASS
	9400	1880	< -25	< -25	Plot J.3/J.4		PASS
	9538	1907.6	< -25	< -25	Plot J.5/J.6		PASS

2. Test Plots for the Whole Measurement Frequency Range:

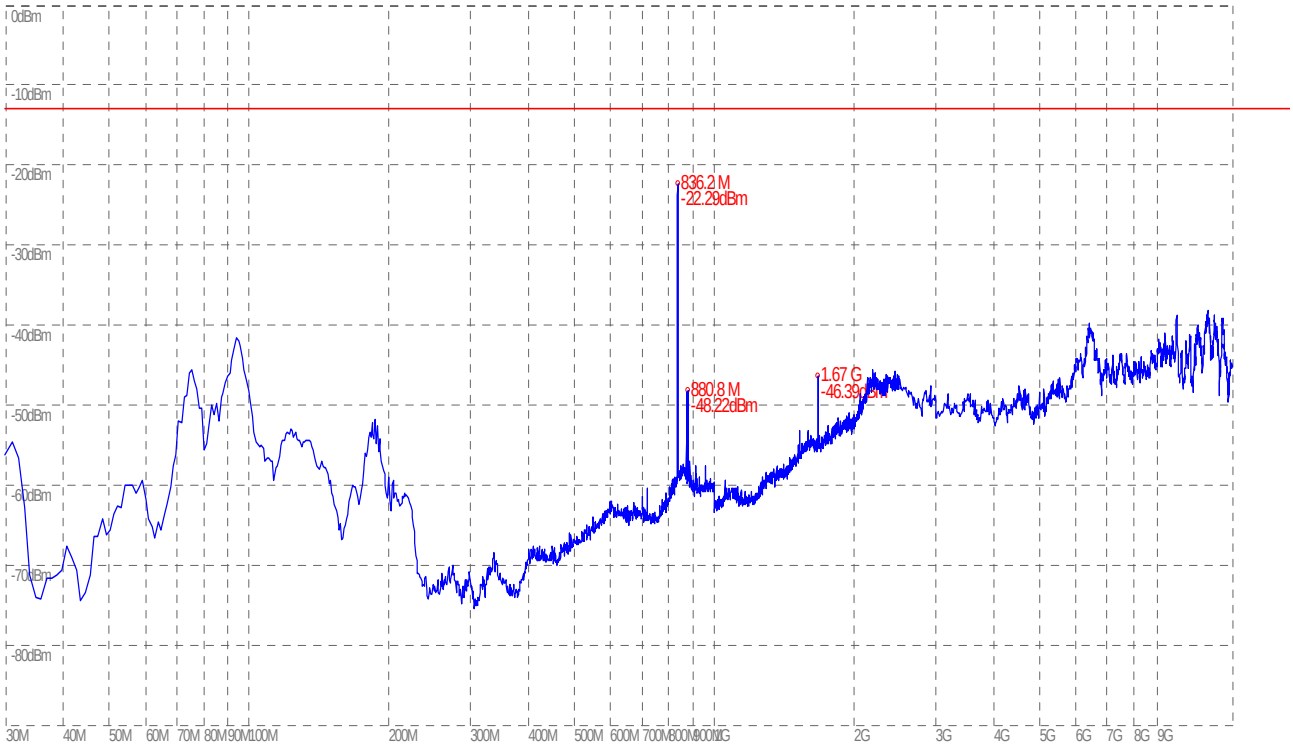
Note1: the power of the EUT transmitting frequency should be ignored.

Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

(Plot A.1: GSM 850MHz Channel = 128, Test Antenna Horizontal)

(Plot A.2: GSM 850MHz Channel = 128, Test Antenna Vertical)

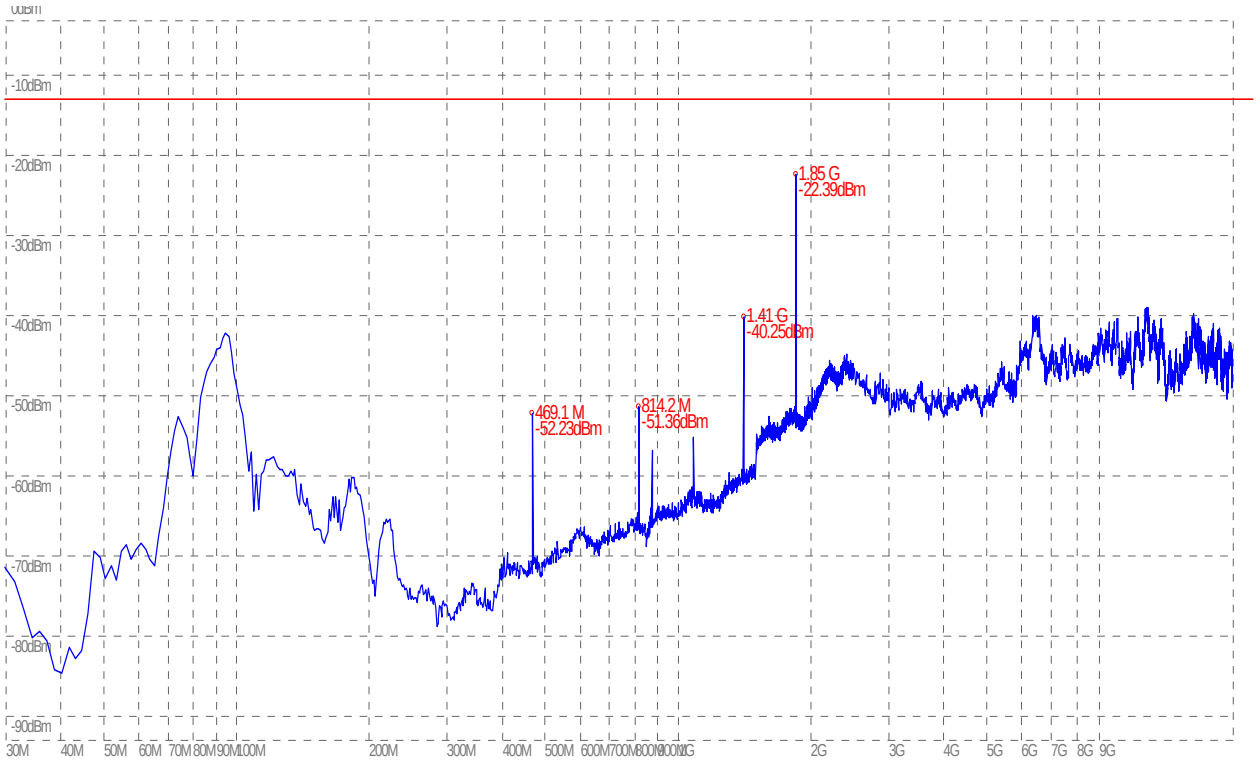
(Plot A.3: GSM 850MHz Channel = 190, Test Antenna Horizontal)



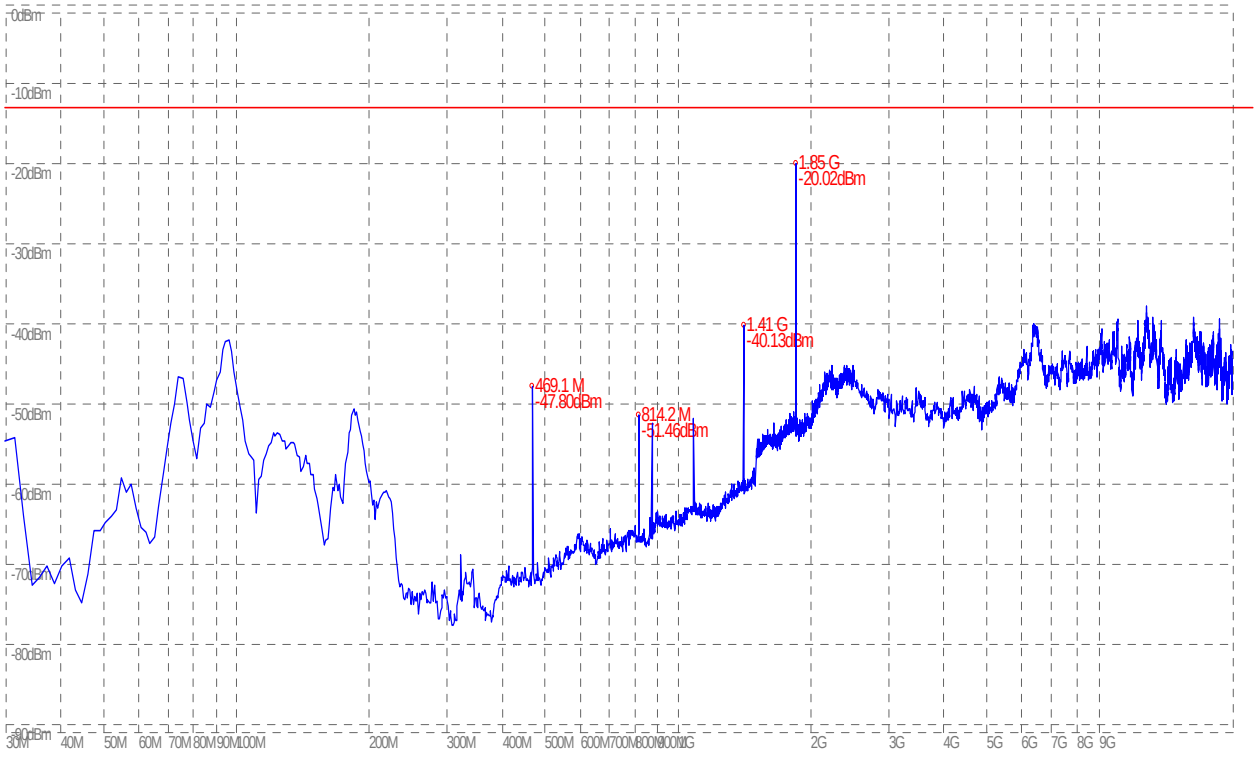
(Plot A.4: GSM 850MHz Channel = 190, Test Antenna Vertical)

(Plot A.5: GSM 850MHz Channel = 251, Test Antenna Horizontal)

(Plot A.6: GSM 850MHz Channel = 251, Test Antenna Vertical)

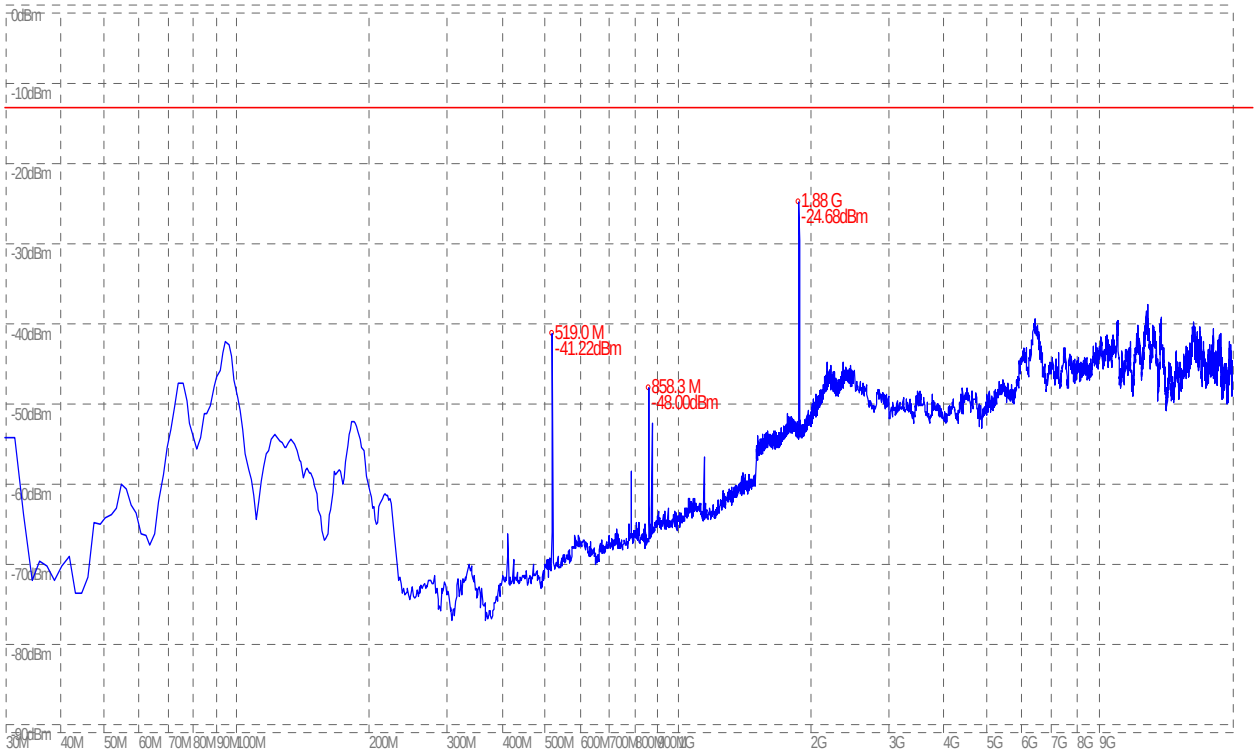


(Plot B.1: GSM 1900MHz Channel = 512, Test Antenna Horizontal)



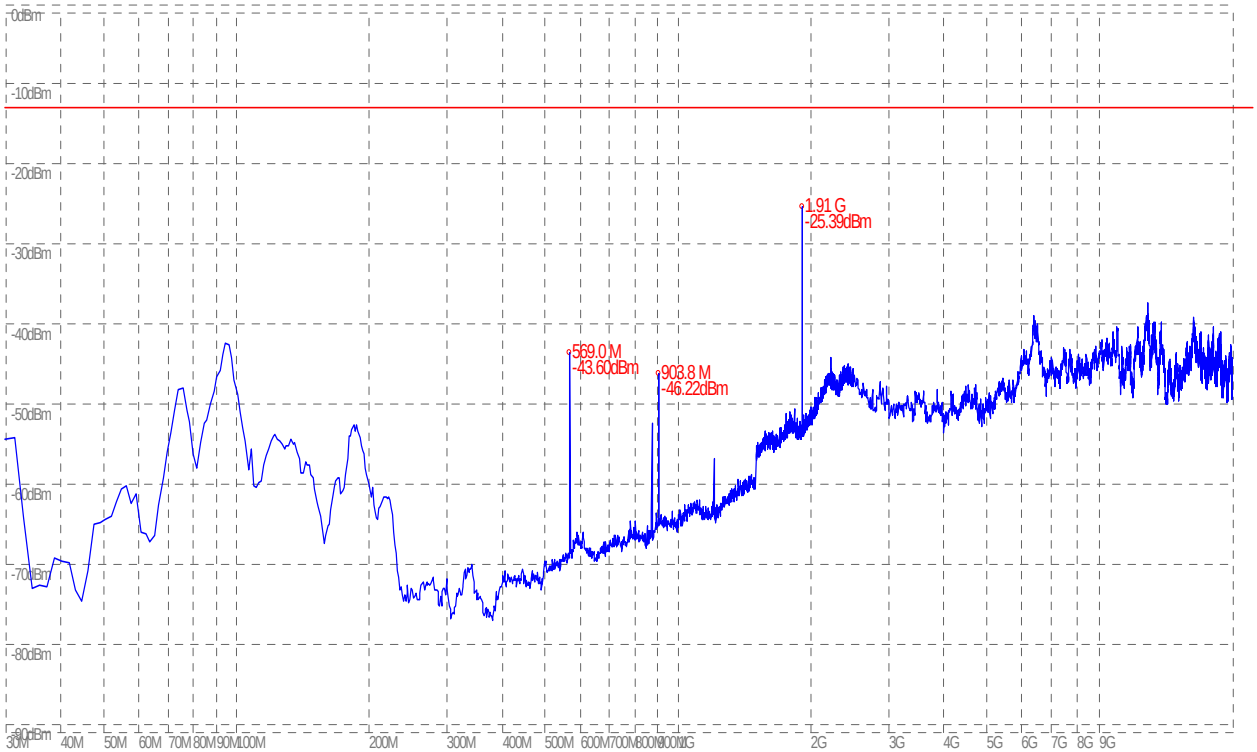
(Plot B.2: GSM 1900MHz Channel = 512, Test Antenna Vertical)

(Plot B.3: GSM 1900MHz Channel = 661, Test Antenna Horizontal)



(Plot B.4: GSM 1900MHz Channel = 661, Test Antenna Vertical)

(Plot B.5: GSM 1900MHz Channel = 810, Test Antenna Horizontal)



(PlotB.6: GSM 1900MHz Channel = 810, Test Antenna Vertical)

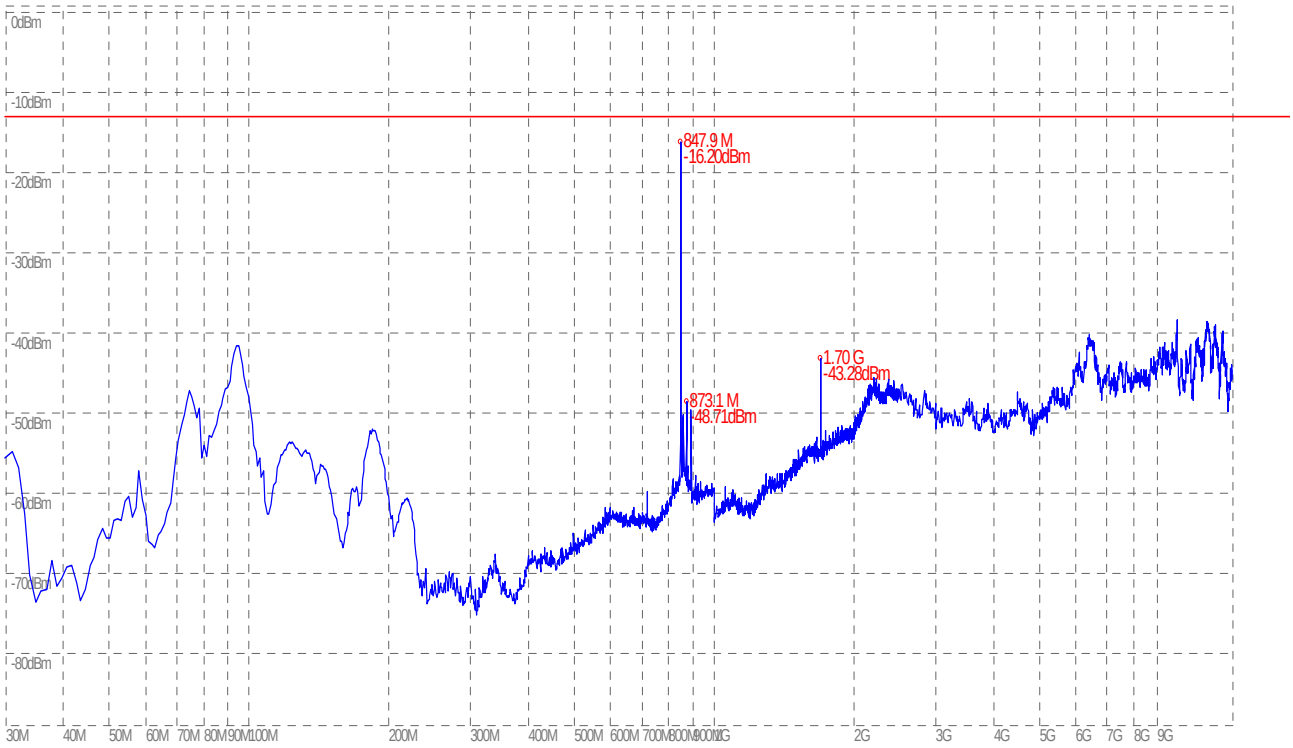
(Plot C.1: EGPRS 850MHz Channel = 128, Test Antenna Horizontal)

(Plot C.2: EGPRS 850MHz Channel = 128, Test Antenna Vertical)

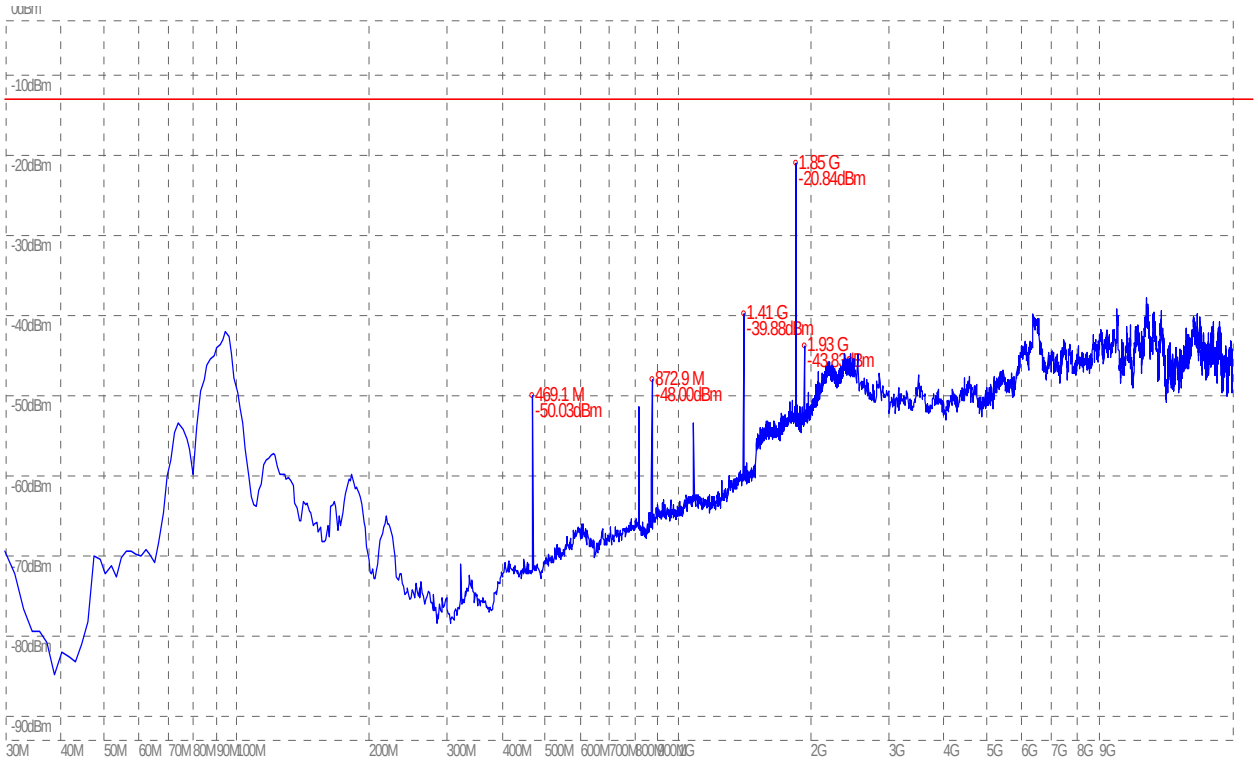
(Plot C.3: EGPRS 850MHz Channel = 190, Test Antenna Horizontal)

(Plot C.4: EGPRS 850MHz Channel = 190, Test Antenna Vertical)

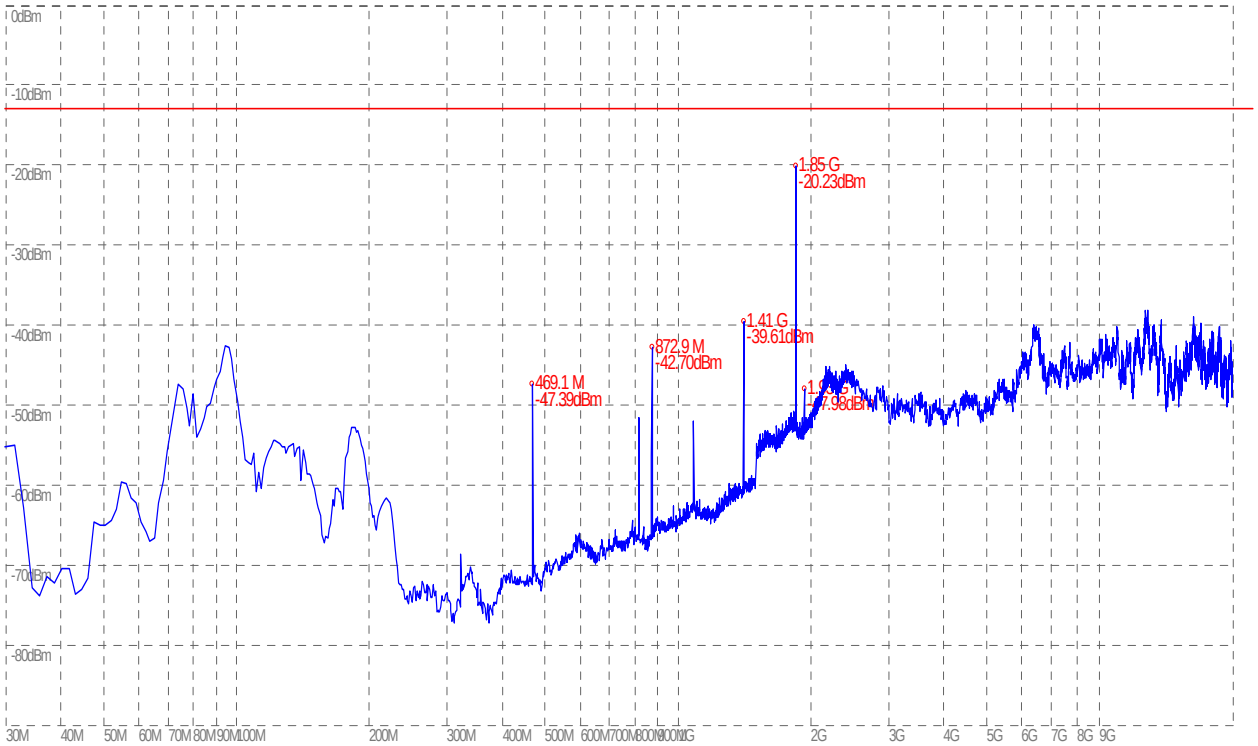
(Plot C.5: EGPRS 850MHz Channel = 251, Test Antenna Horizontal)



(Plot C.6: EGPRS 850MHz Channel = 251, Test Antenna Vertical)

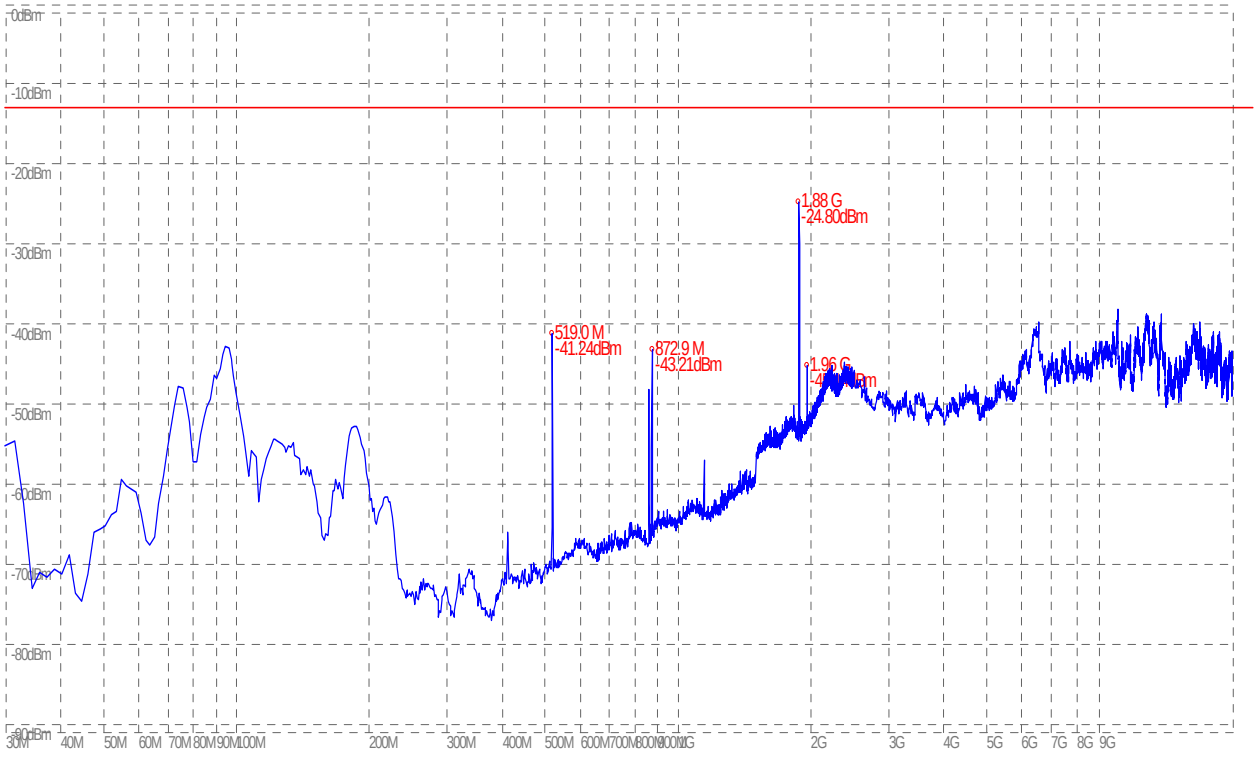


(Plot D.1: EGPRS 1900MHz Channel = 512, Test Antenna Horizontal)



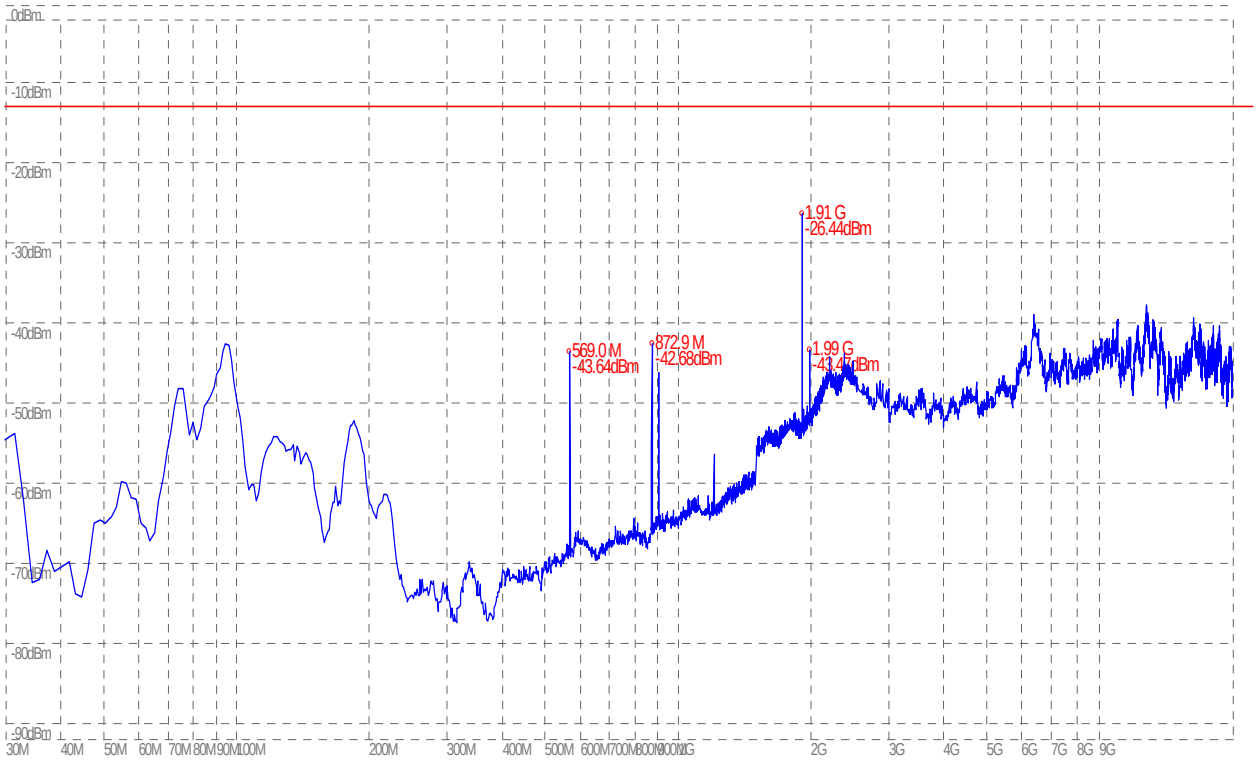
(Plot D.2: EGPRS 1900MHz Channel = 512, Test Antenna Vertical)

(Plot D.3: EGPRS 1900MHz Channel = 661, Test Antenna Horizontal)

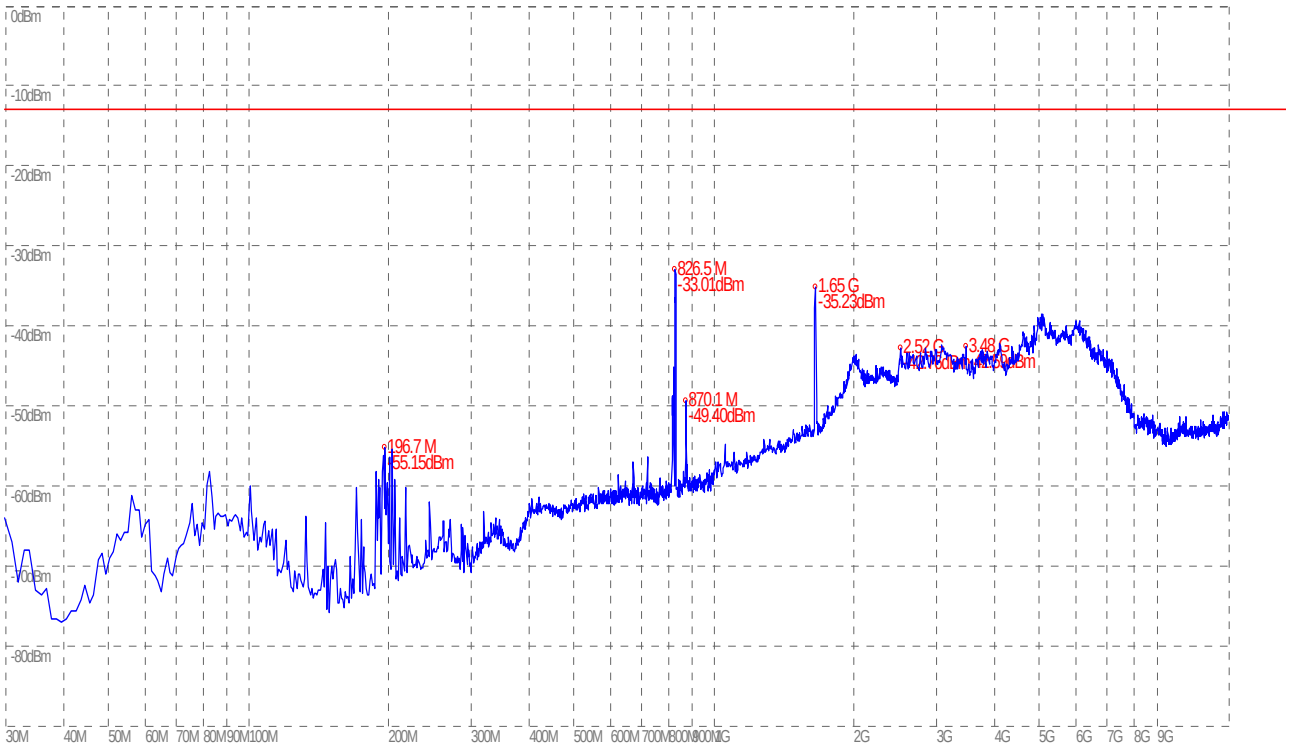


(Plot D.4: EGPRS 1900MHz Channel = 661, Test Antenna Vertical)

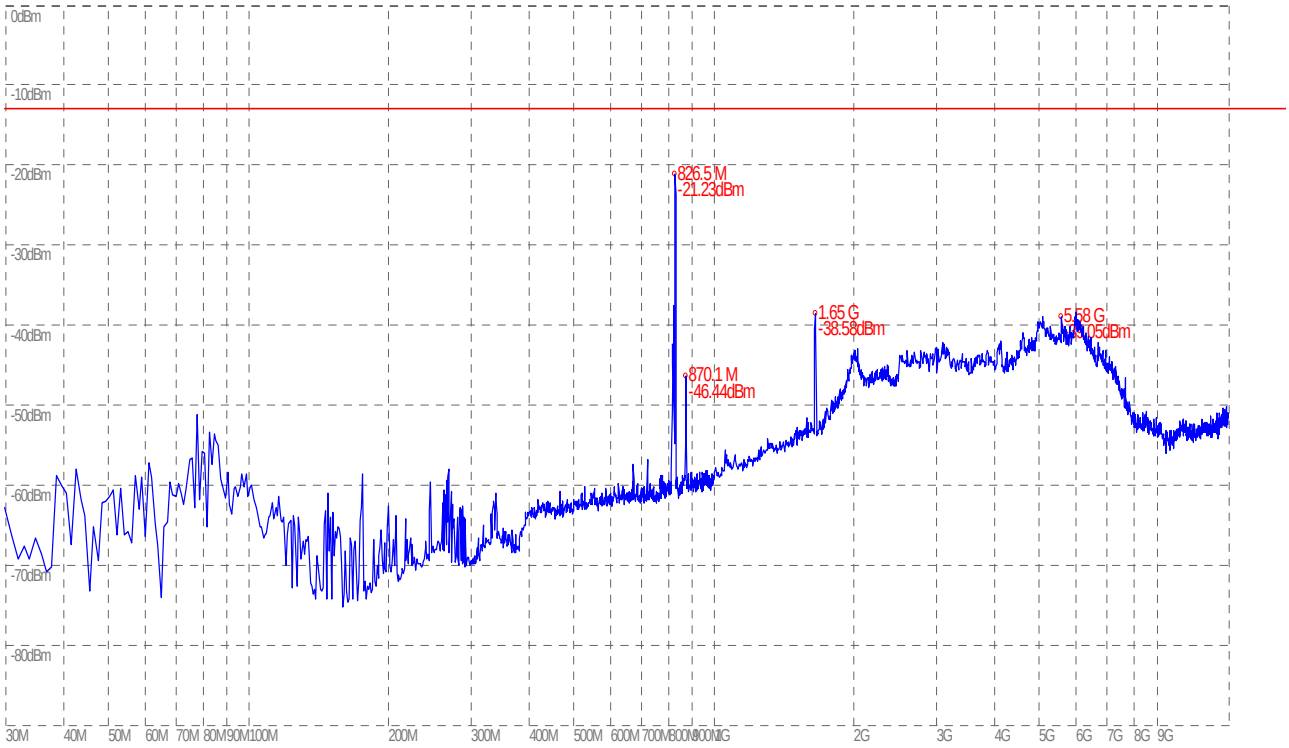
(Plot D.5: EGPRS 1900MHz Channel = 810, Test Antenna Horizontal)



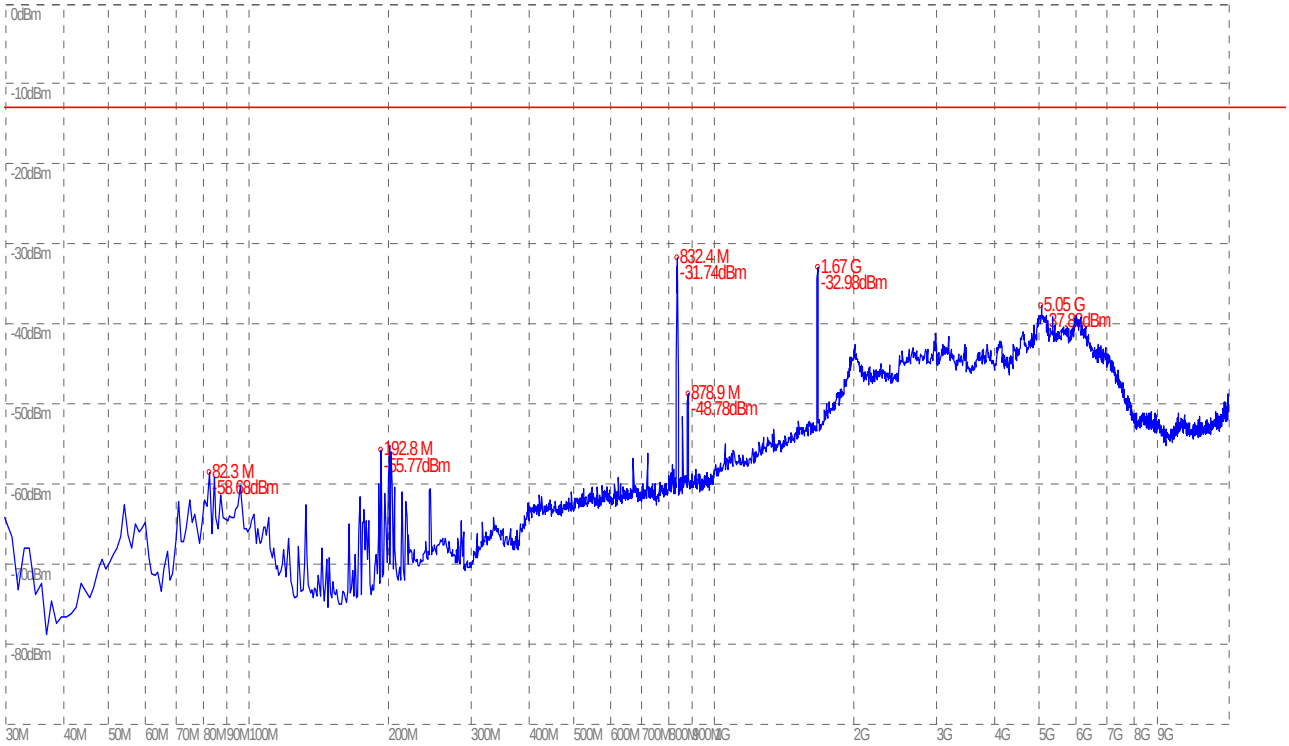
(Plot D.6: EGPRS 1900MHz Channel = 810, Test Antenna Vertical)



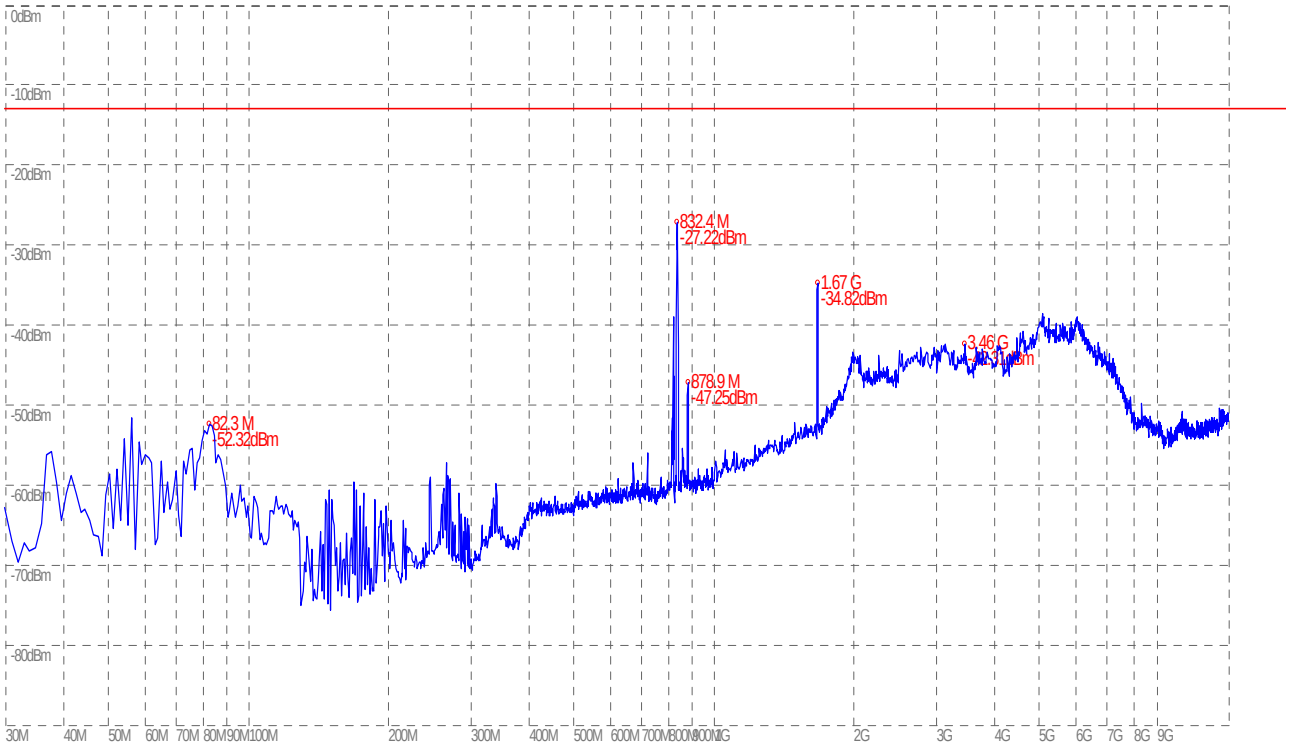
(Plot E.1: WCDMA 850MHz Channel = 4132, Test Antenna Horizontal)



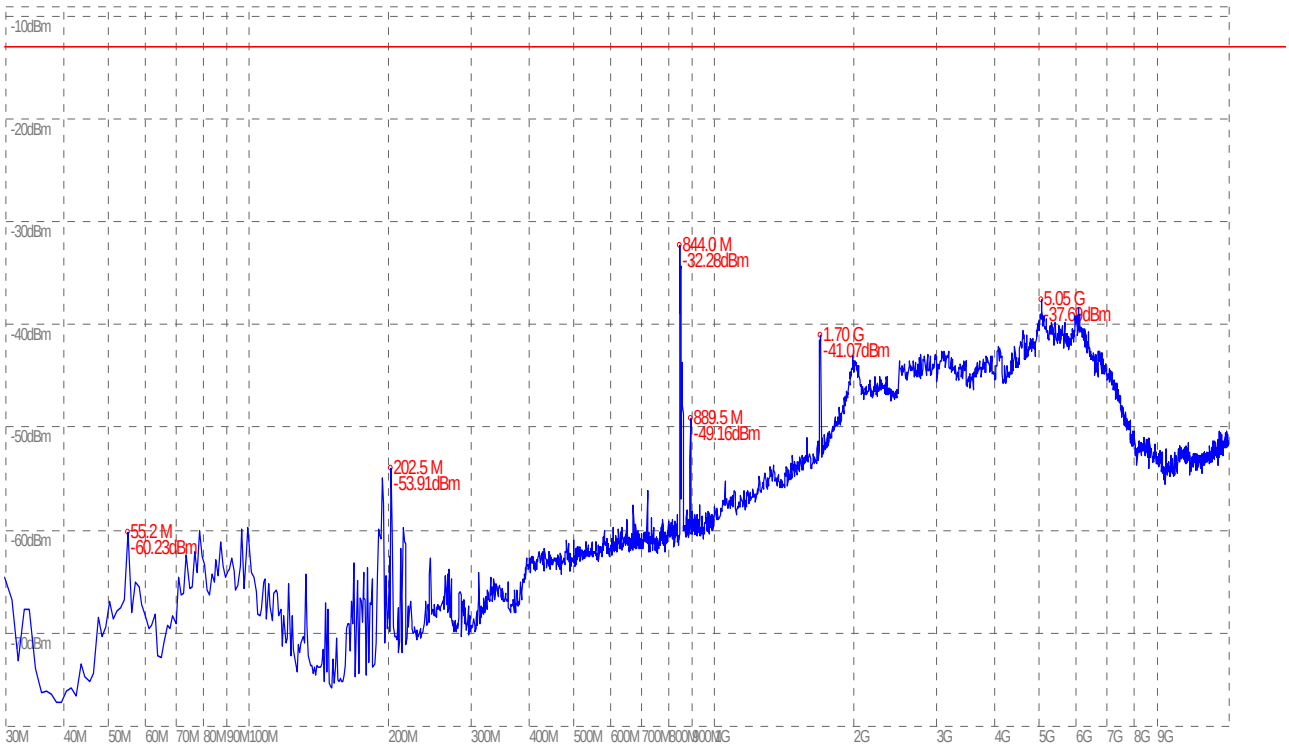
(Plot E.2: WCDMA 850MHz Channel = 4132, Test Antenna Vertical)



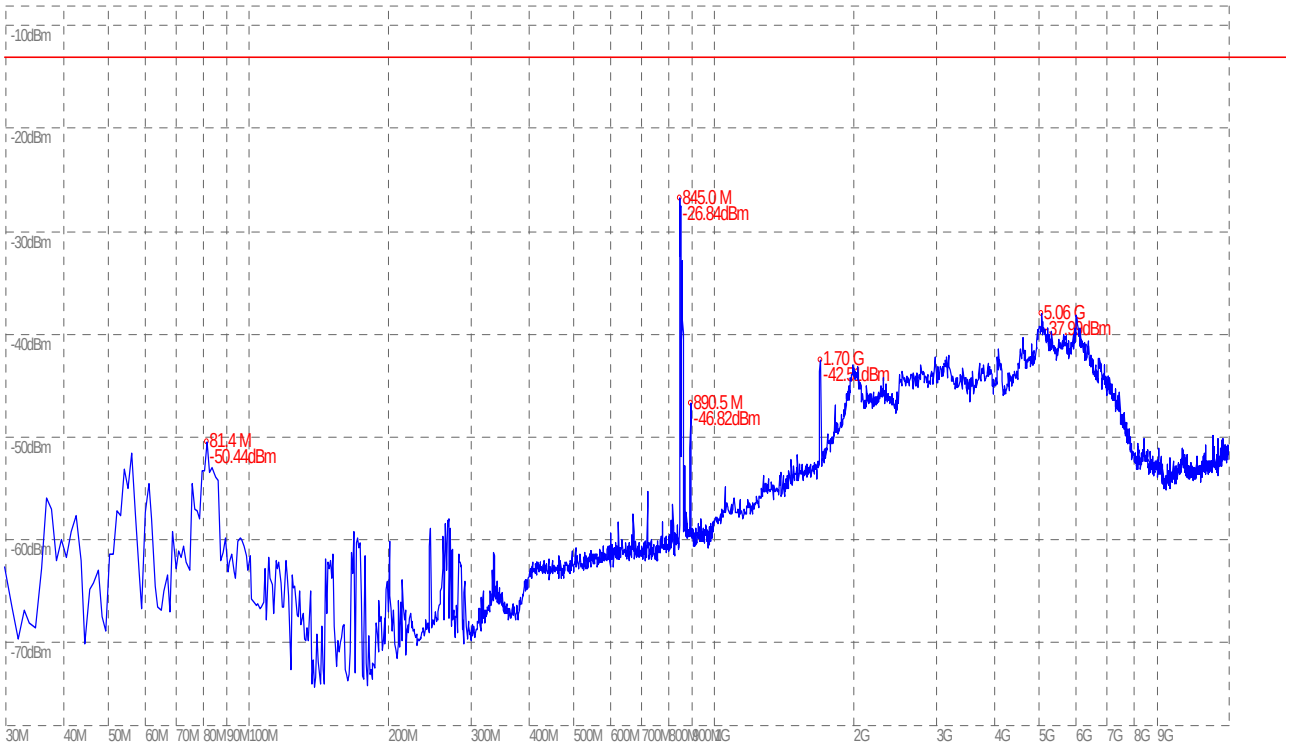
(Plot E.3: WCDMA 850MHz Channel = 4175, Test Antenna Horizontal)



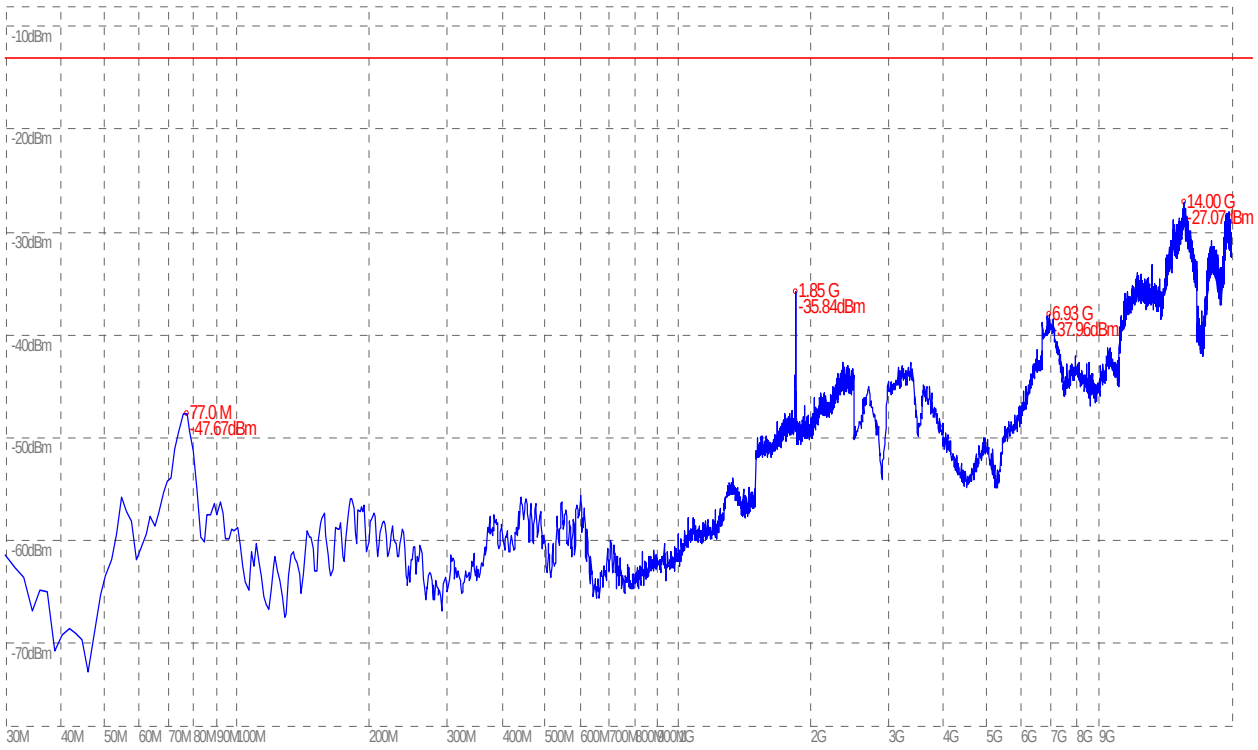
(Plot E.4: WCDMA 850MHz Channel = 4175, Test Antenna Vertical)



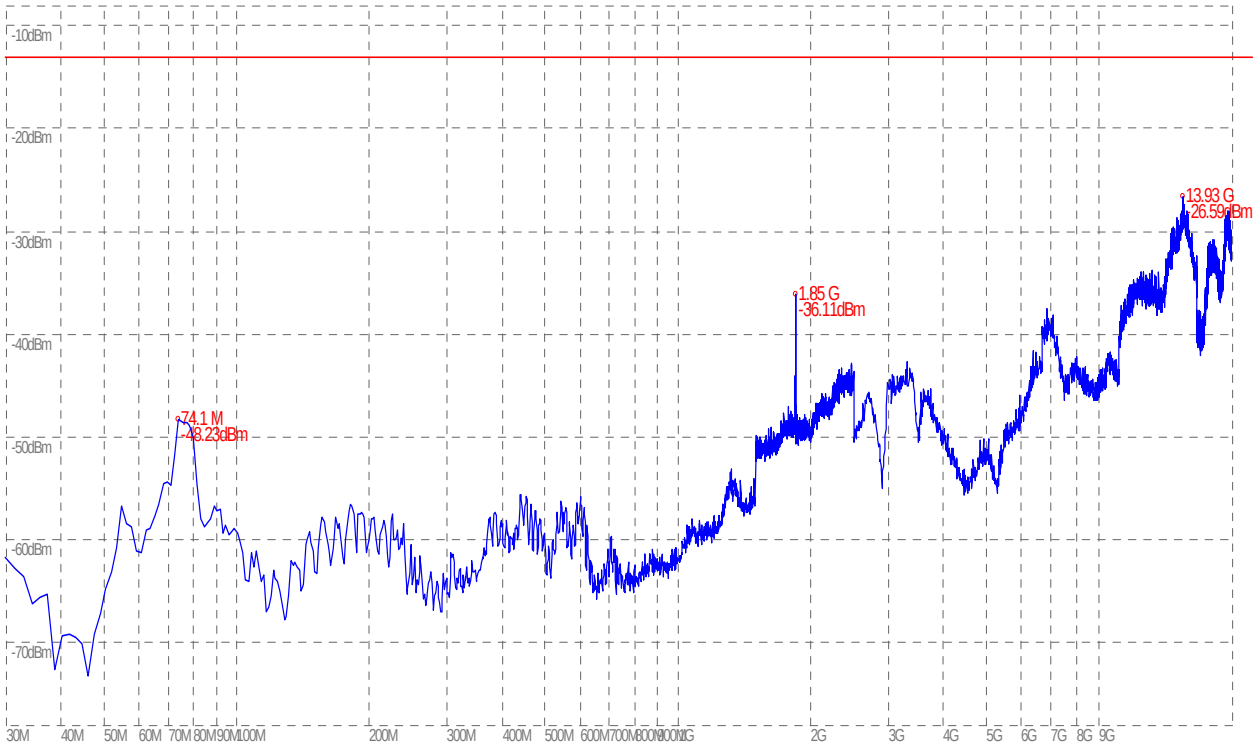
(Plot E.5: WCDMA 850MHz Channel = 4233, Test Antenna Horizontal)



(Plot E.6: WCDMA 850MHz Channel = 4233, Test Antenna Vertical)

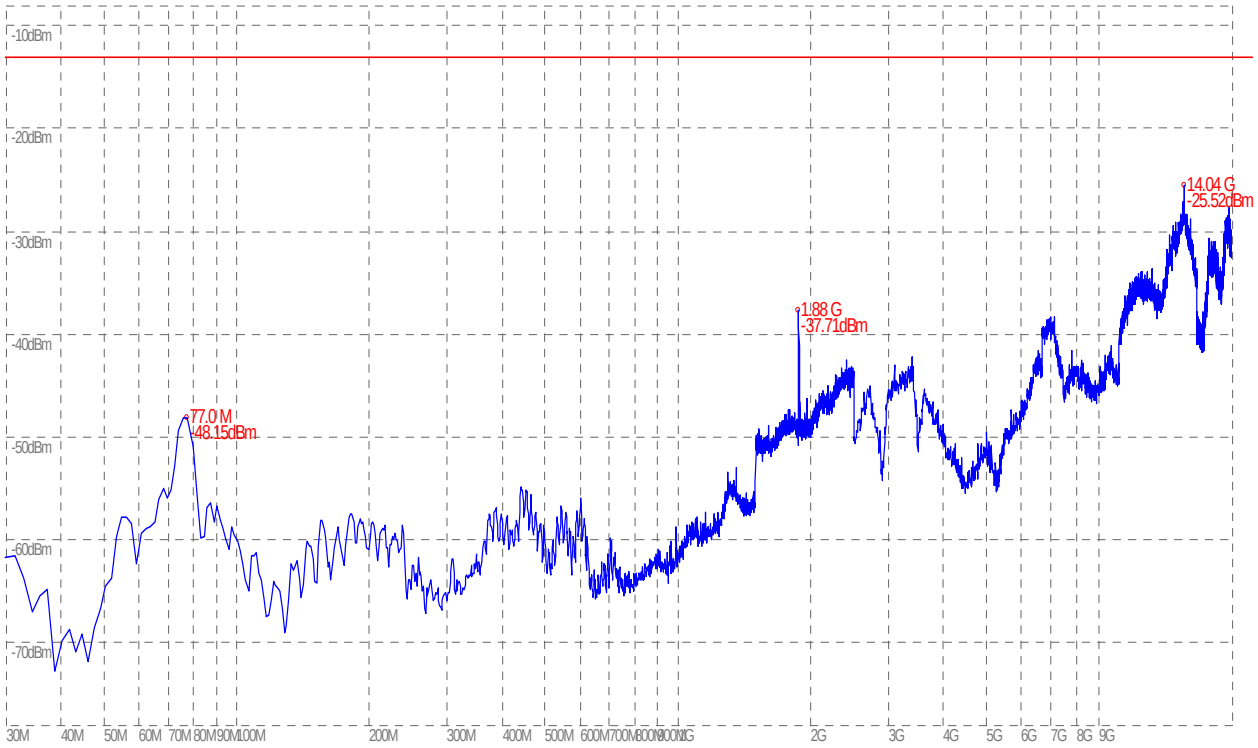


(Plot F.1: WCDMA 1900MHz Channel = 9262, Test Antenna Horizontal)

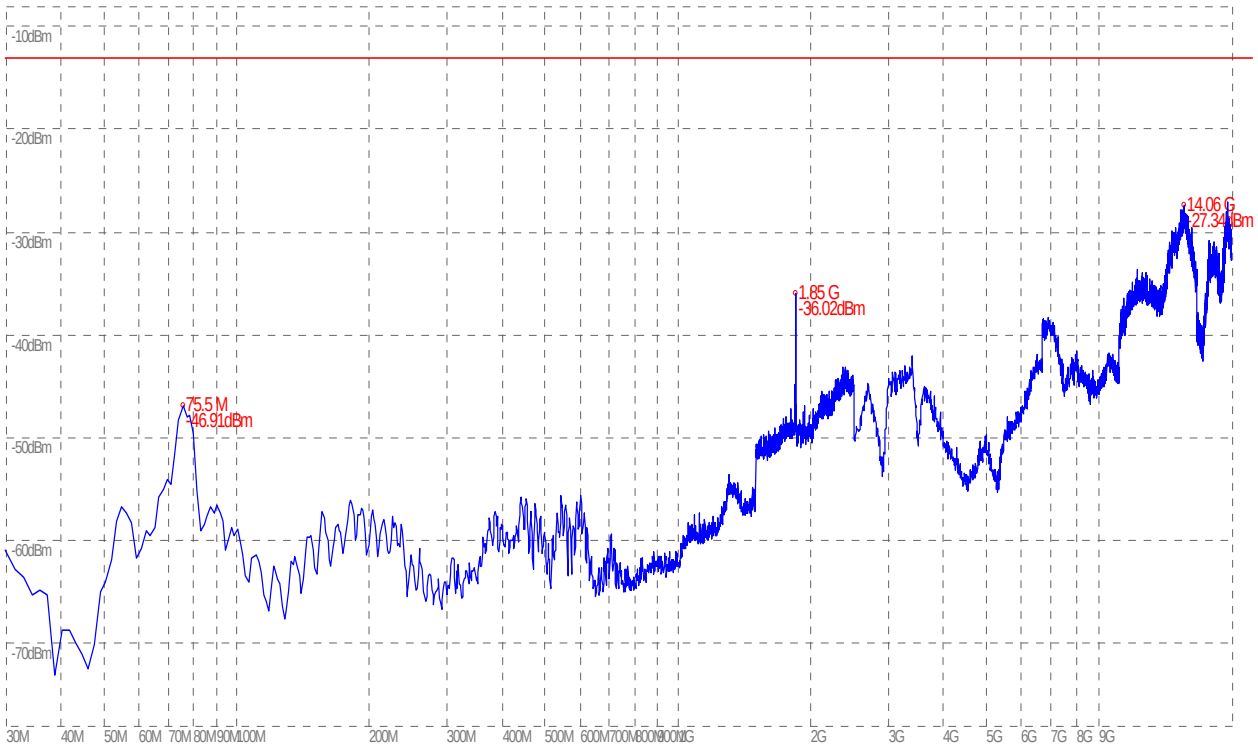


(Plot F.2: WCDMA 1900MHz Channel = 9262, Test Antenna Vertical)

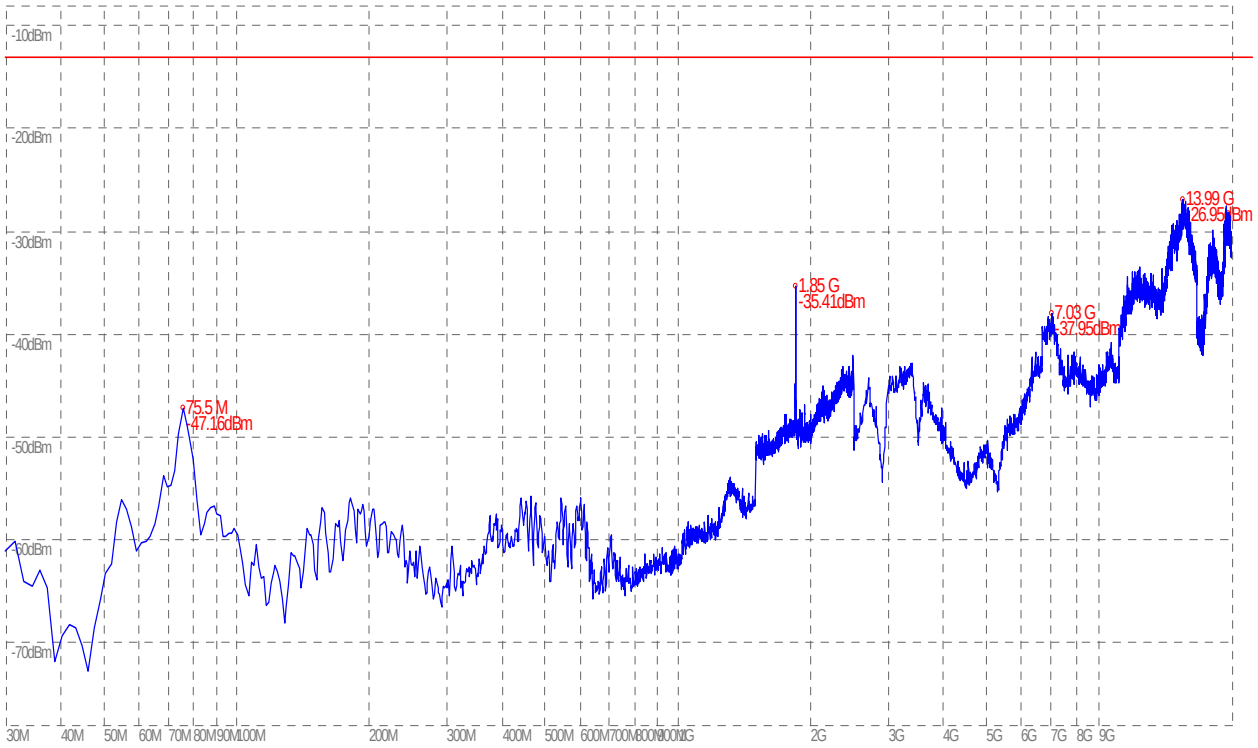
(Plot F.3: WCDMA 1900MHz Channel = 9400, Test Antenna Horizontal)



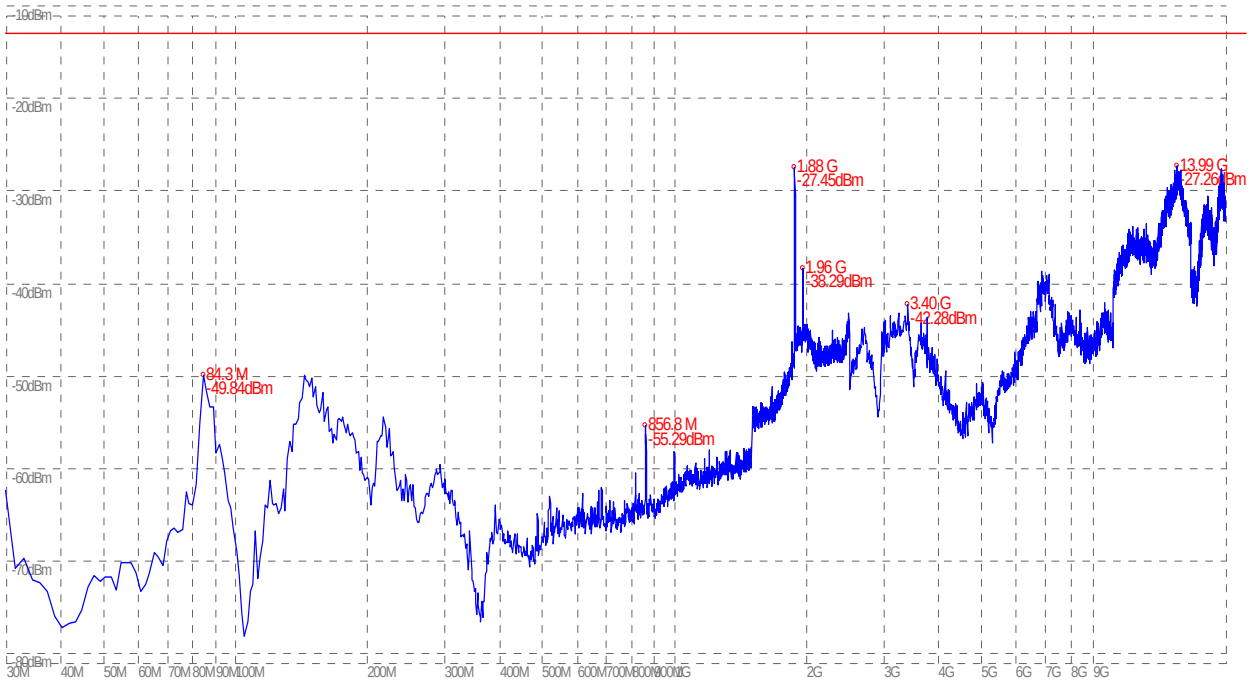
(Plot F.4: WCDMA 1900MHz Channel = 9400, Test Antenna Vertical)



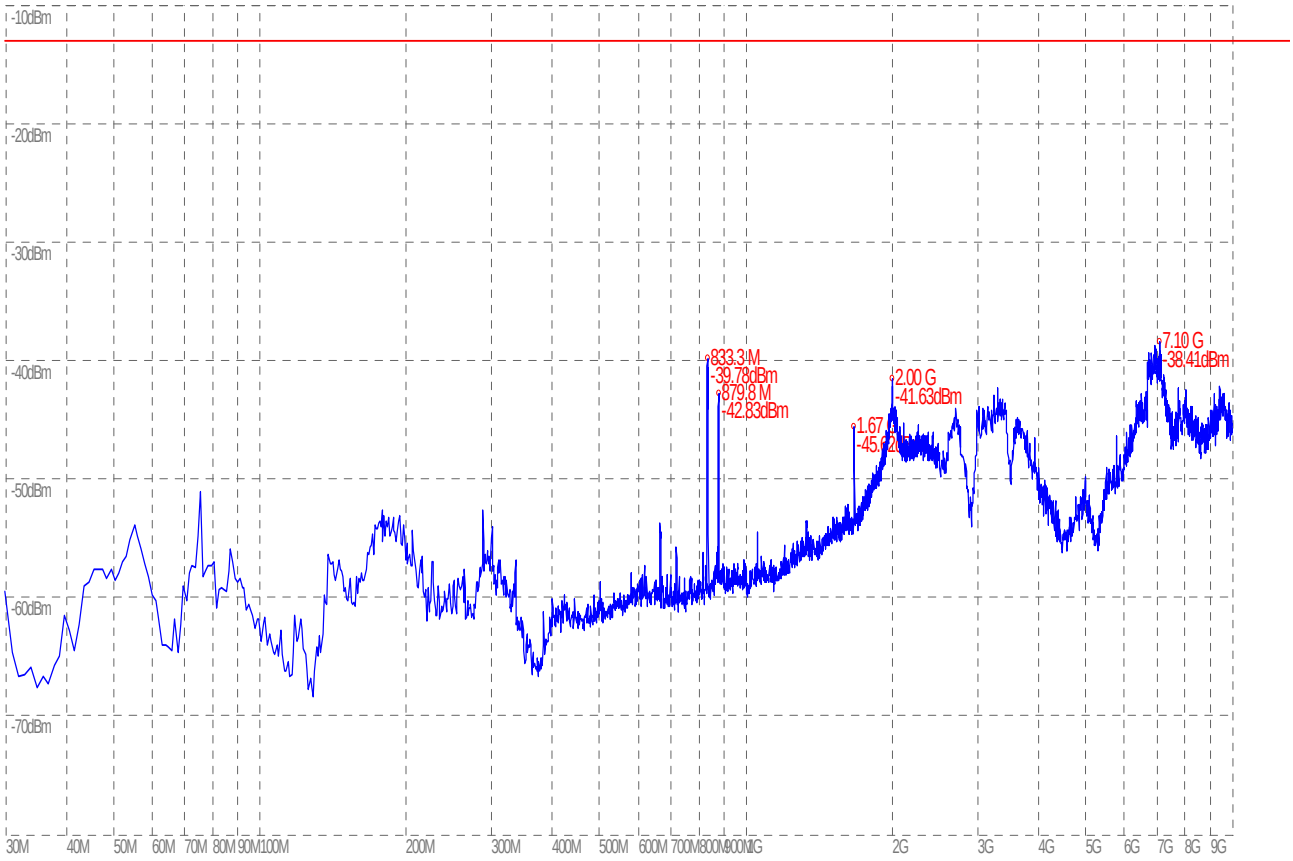
(Plot F.5: WCDMA 1900MHz Channel = 9538, Test Antenna Horizontal)



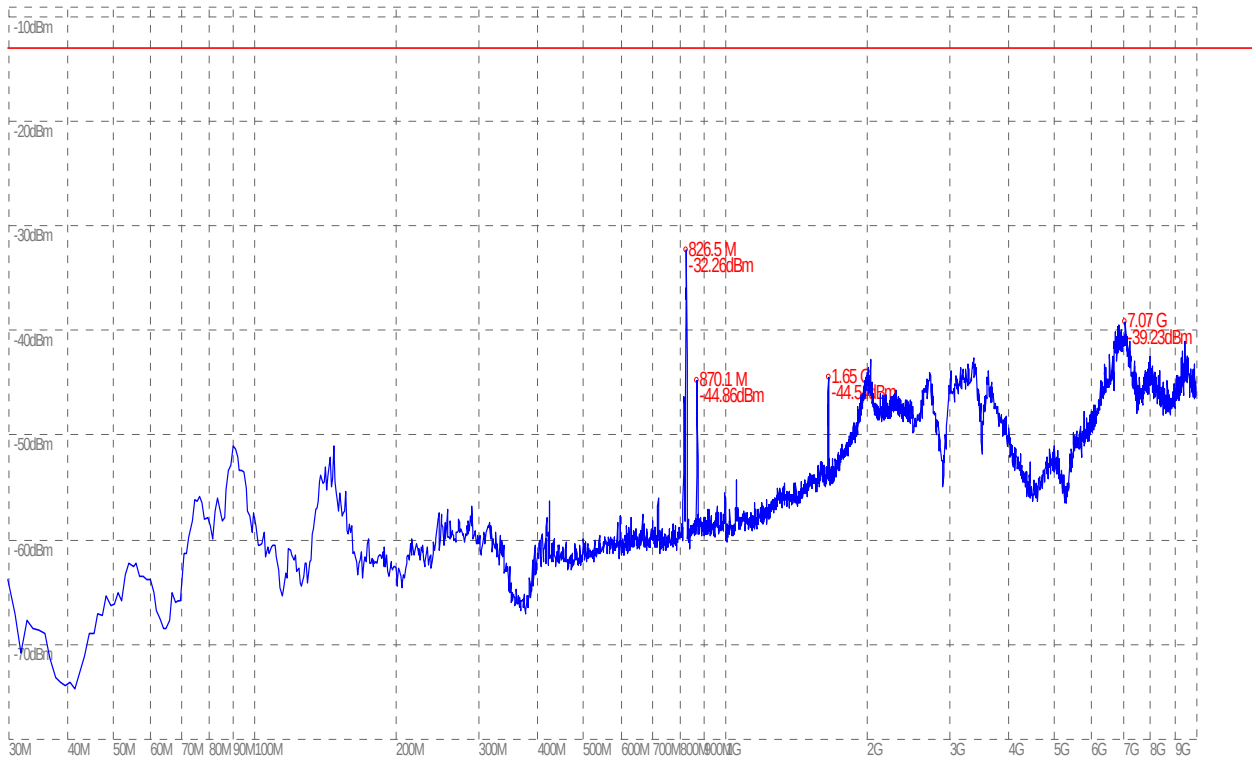
(Plot F.6: WCDMA 1900MHz Channel = 9538, Test Antenna Vertical)



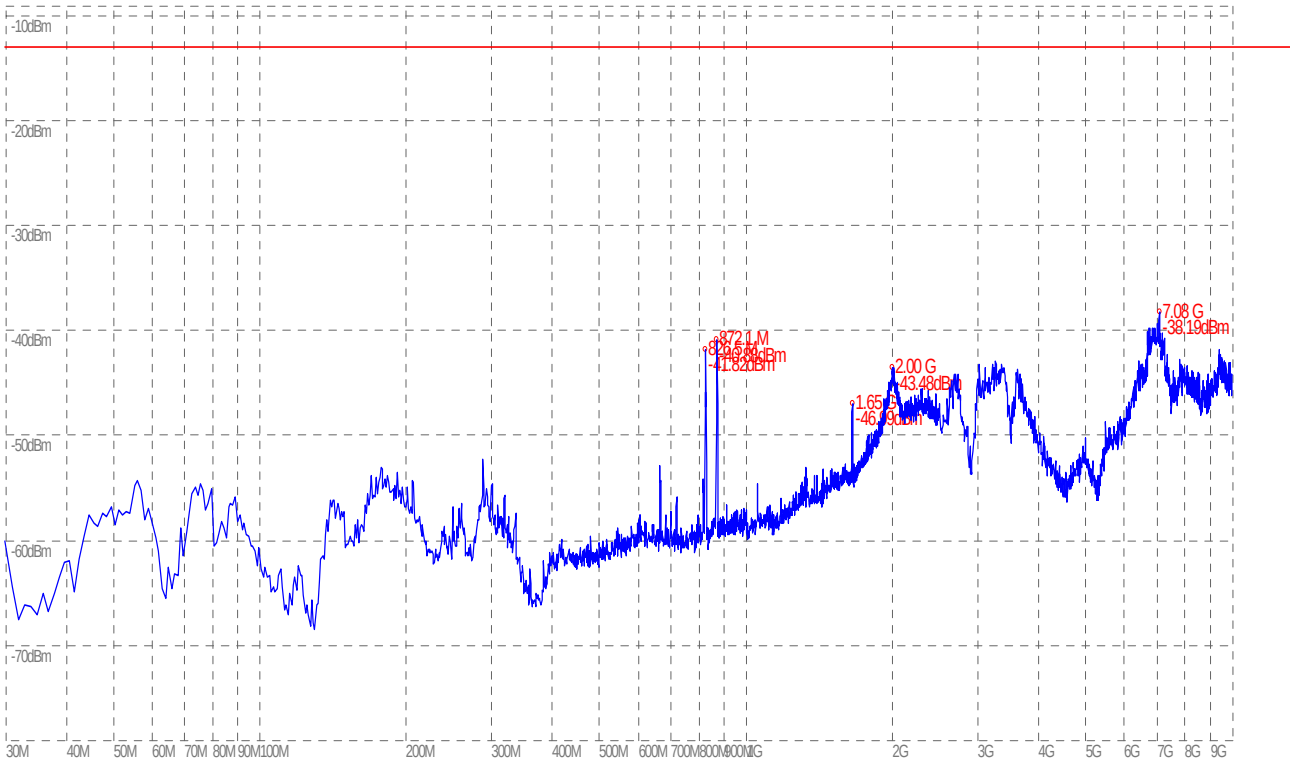
(Plot G.1: HSDPA 850MHz Channel = 4132, Test Antenna Horizontal)



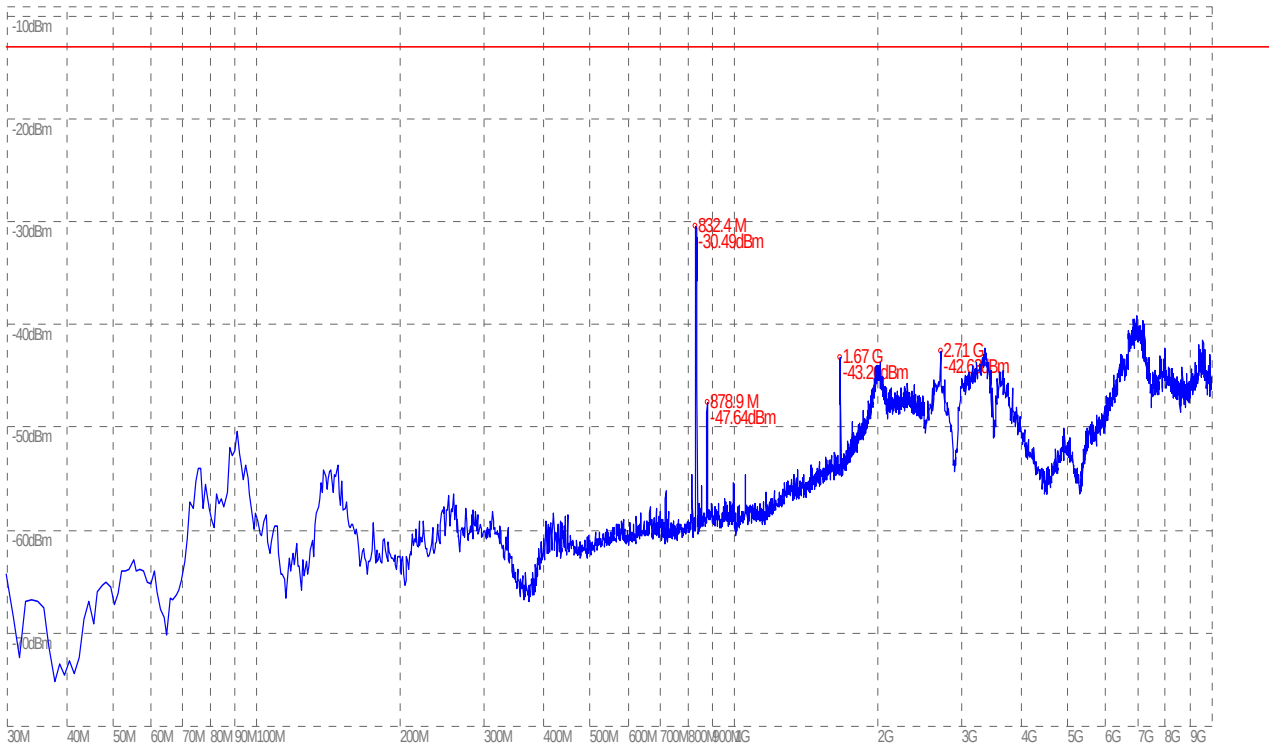
(Plot G.2: HSDPA 850MHz Channel = 4132, Test Antenna Vertical)



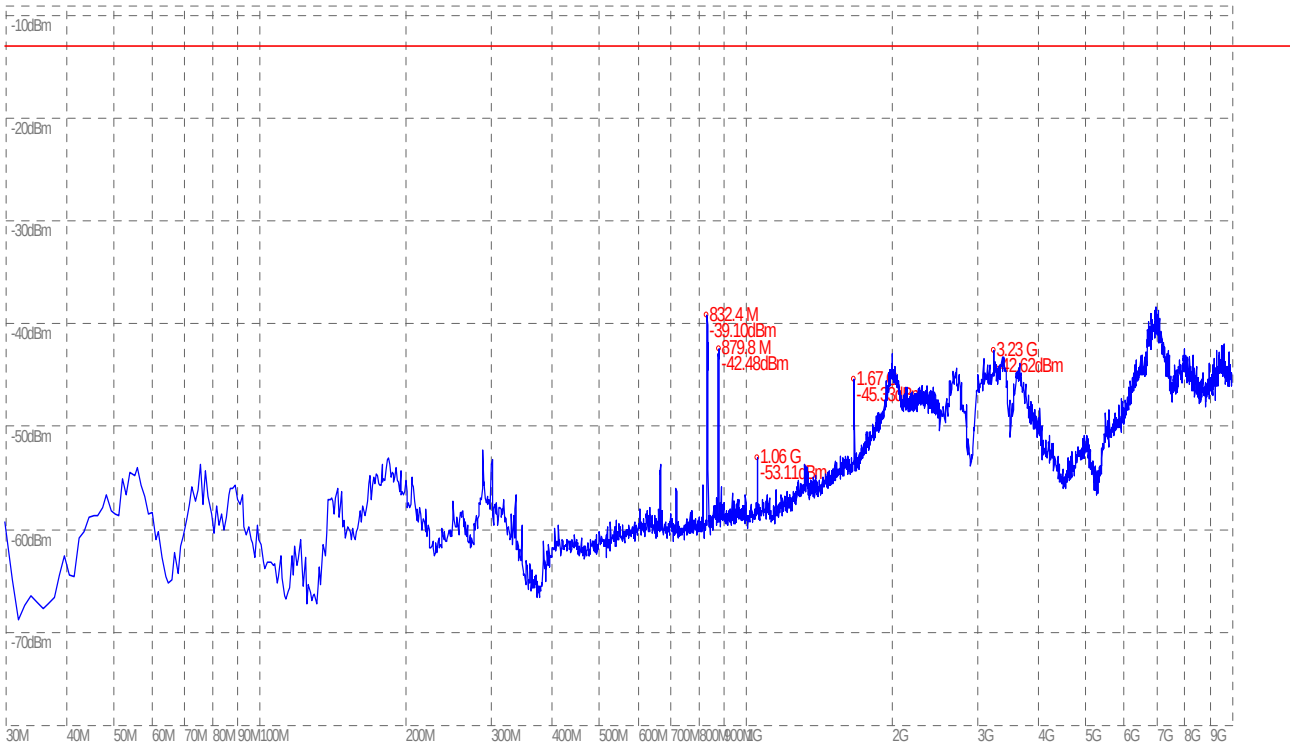
(Plot G.3: HSDPA 850MHz Channel = 4175, Test Antenna Horizontal)



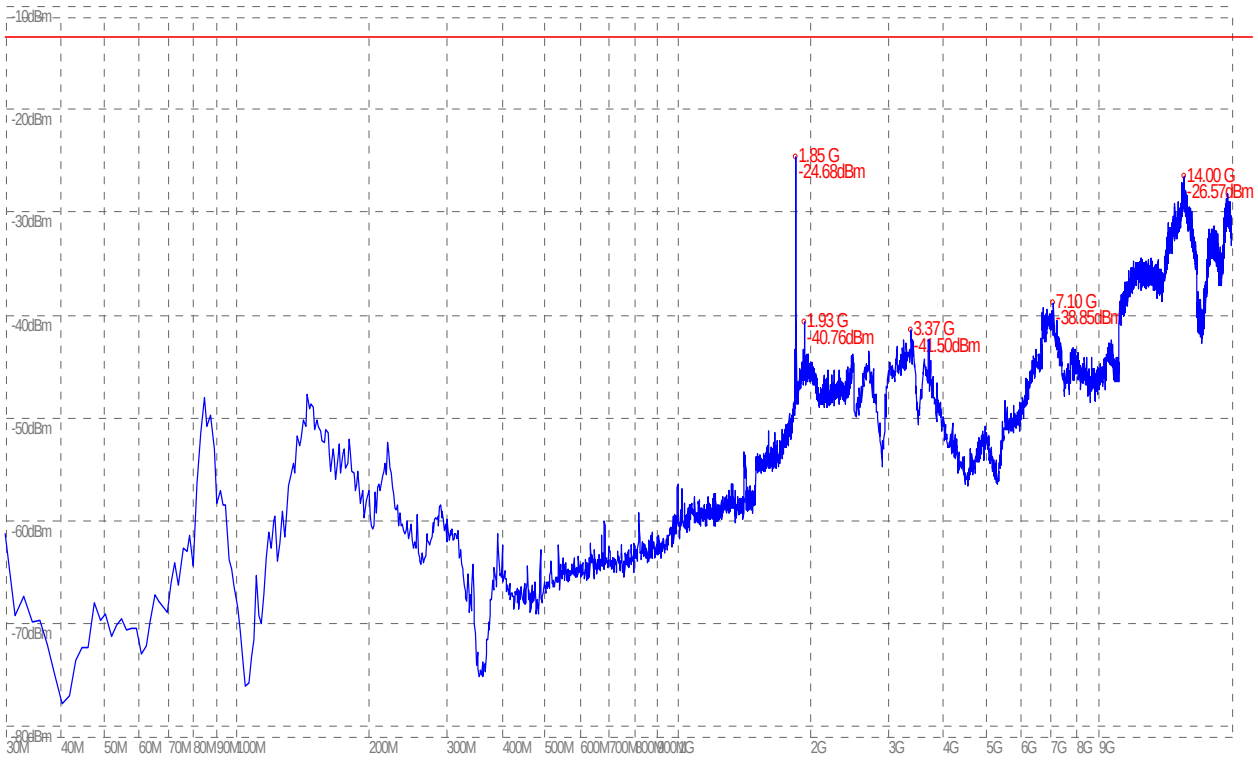
(Plot G.4: HSDPA 850MHz Channel = 4175, Test Antenna Vertical)



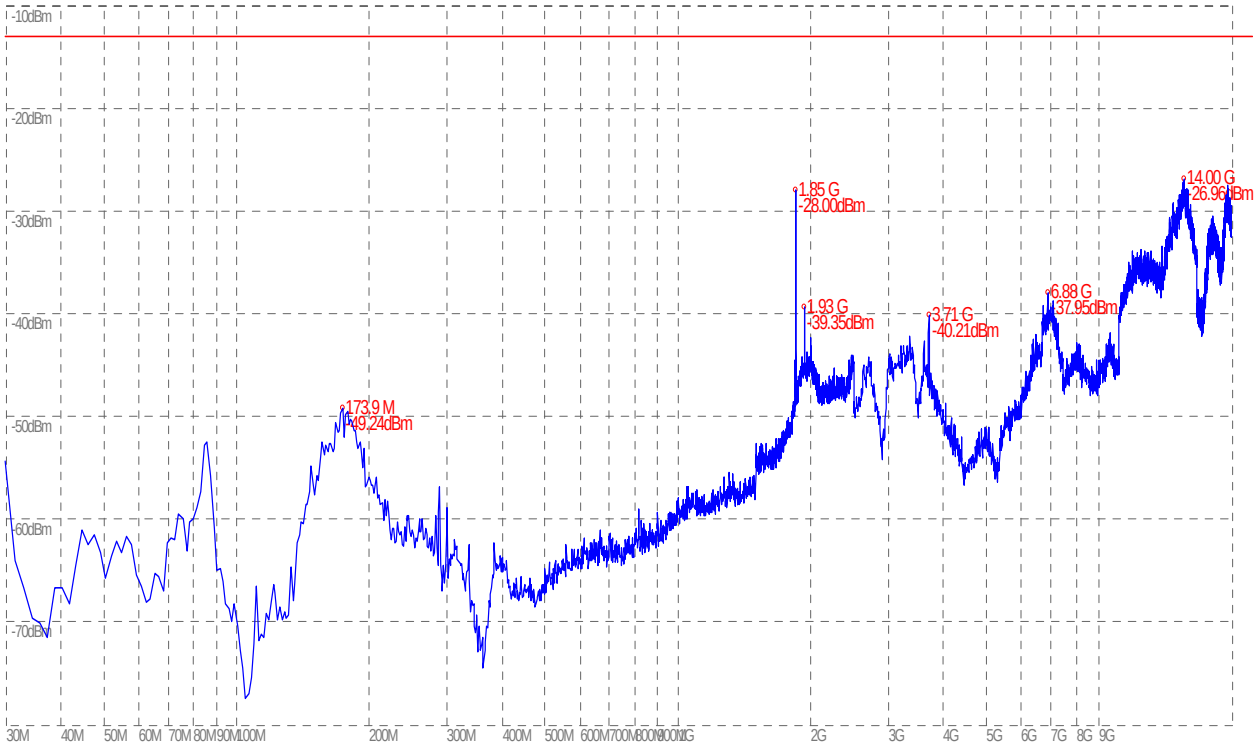
(Plot G.5: HSDPA 850MHz Channel = 4233, Test Antenna Horizontal)



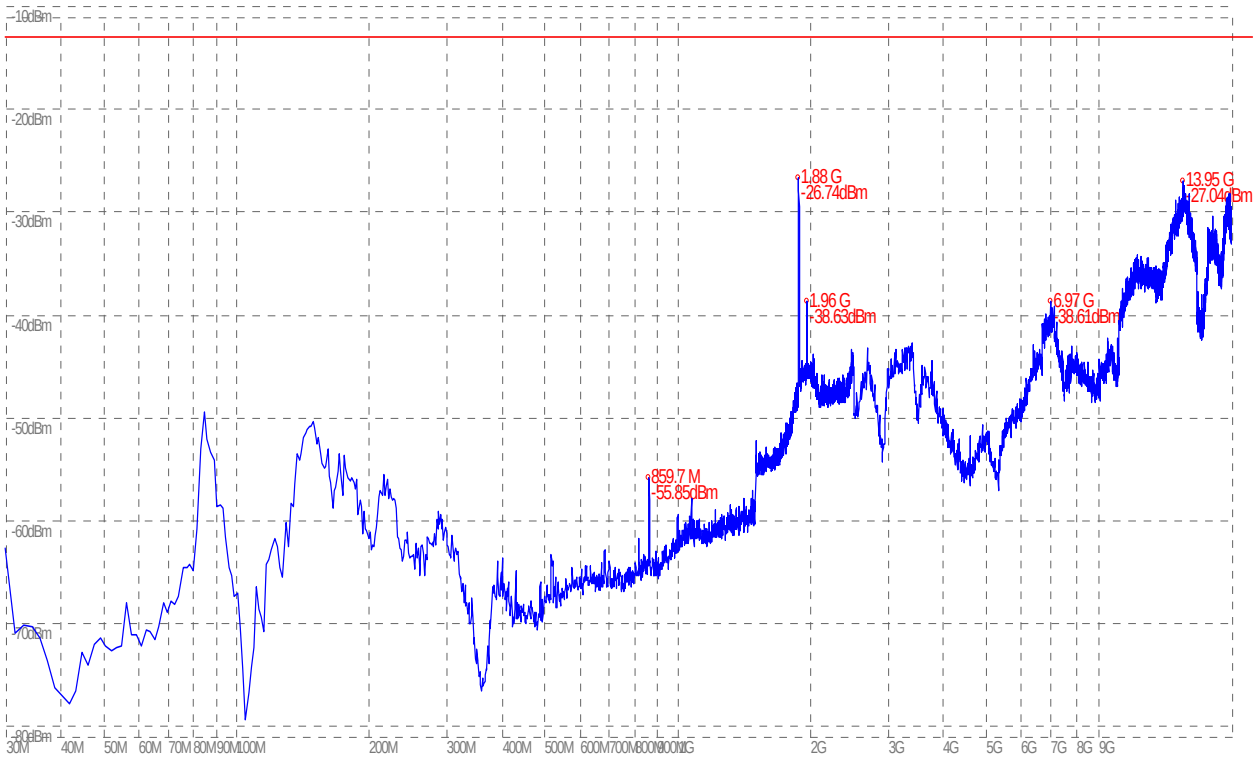
(Plot G.6: HSDPA 850MHz Channel = 4233, Test Antenna Vertical)



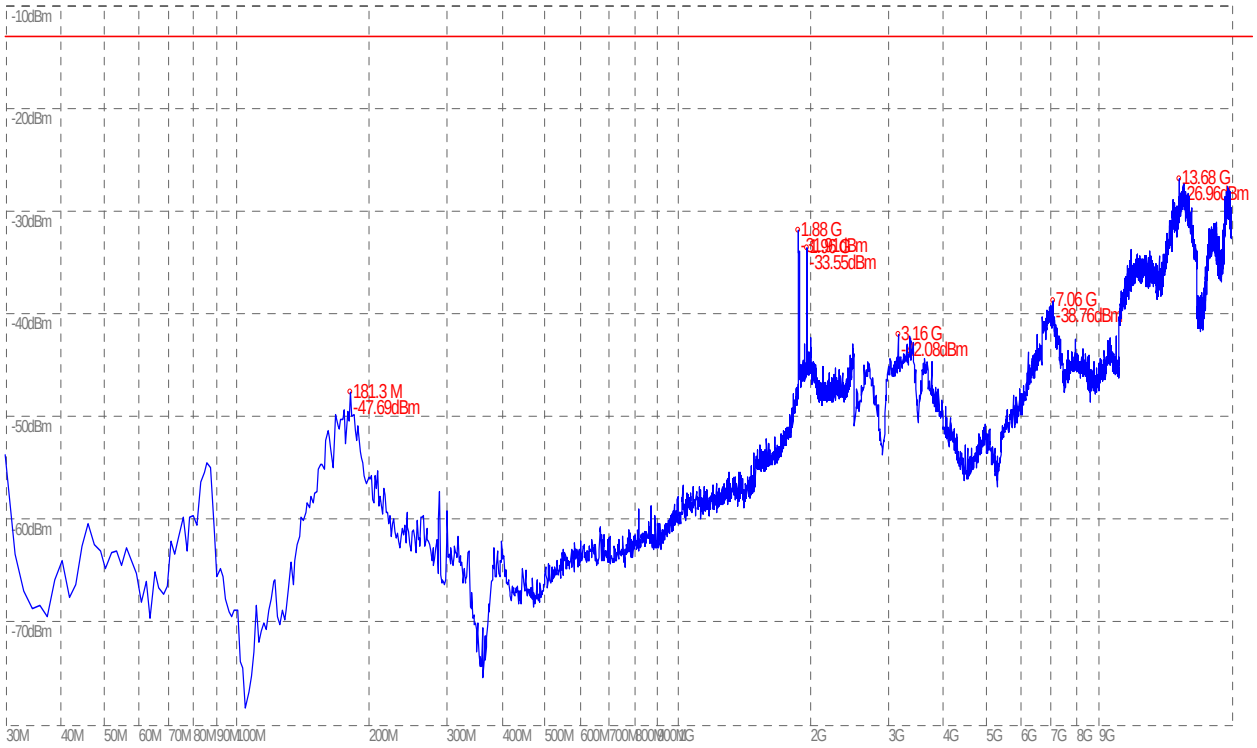
(Plot H.1: HSDPA 1900 MHz Channel = 9262, Test Antenna Horizontal)



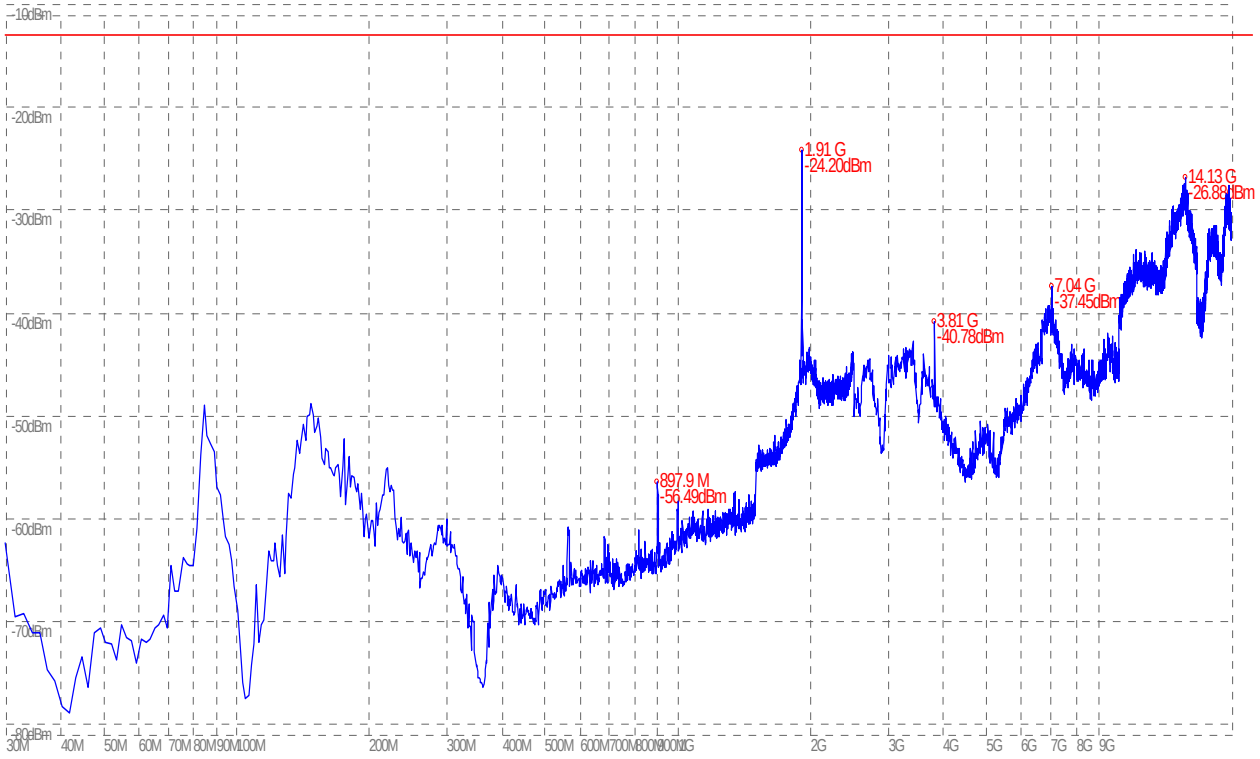
(Plot H.2: HSDPA 1900 MHz Channel = 9262, Test Antenna Vertical)



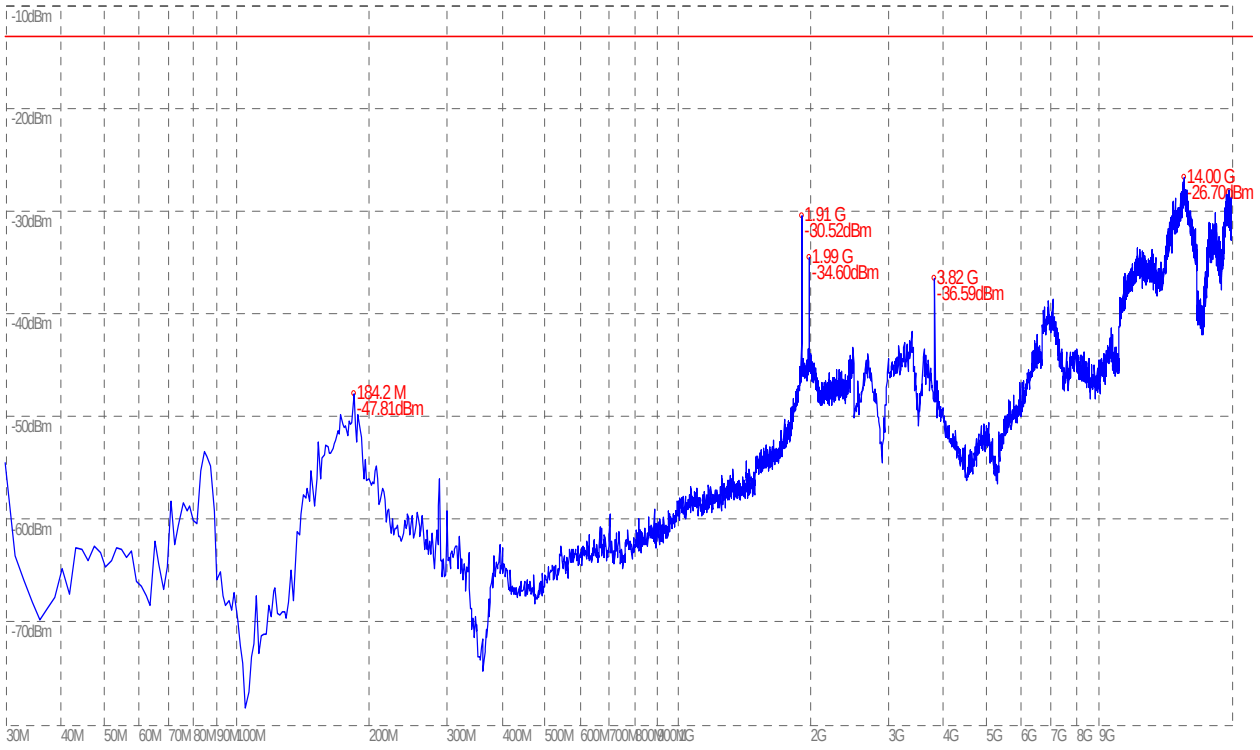
(Plot H.3: HSDPA 1900 MHz Channel = 9400, Test Antenna Horizontal)



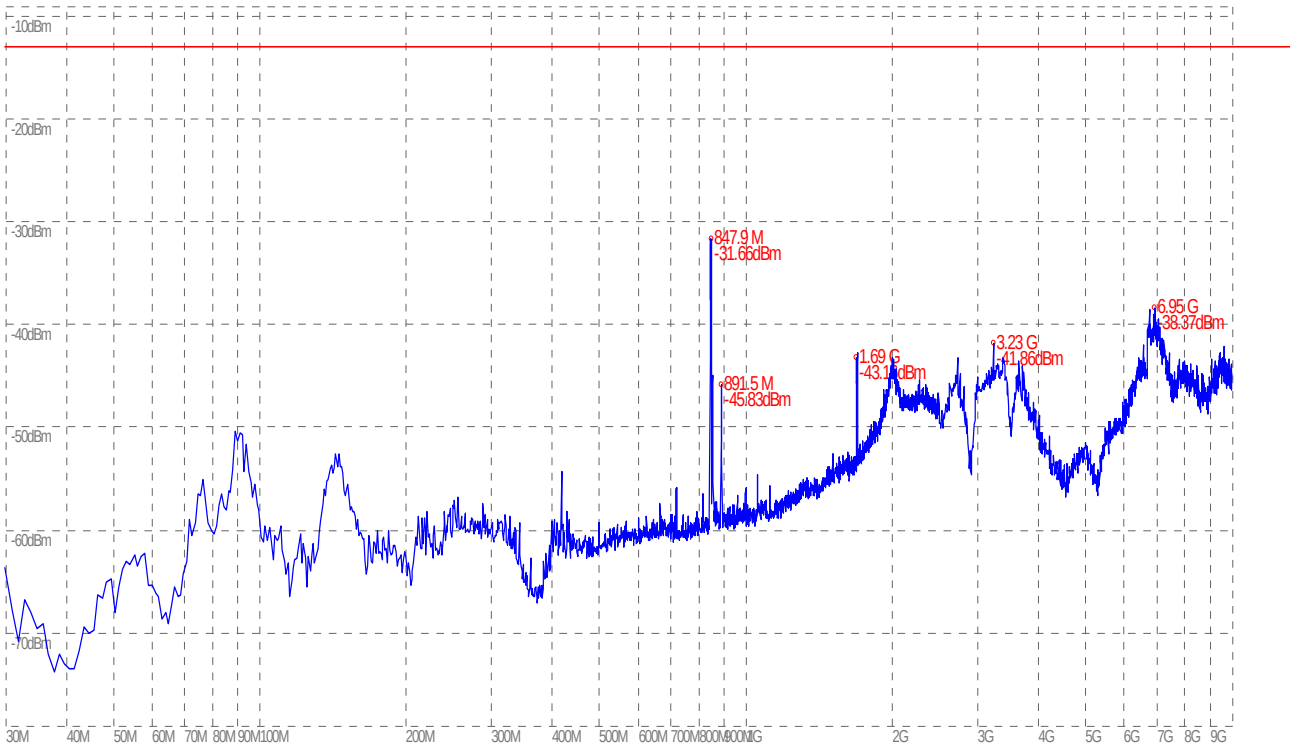
(Plot H.4: HSDPA 1900 MHz Channel = 9400, Test Antenna Vertical)



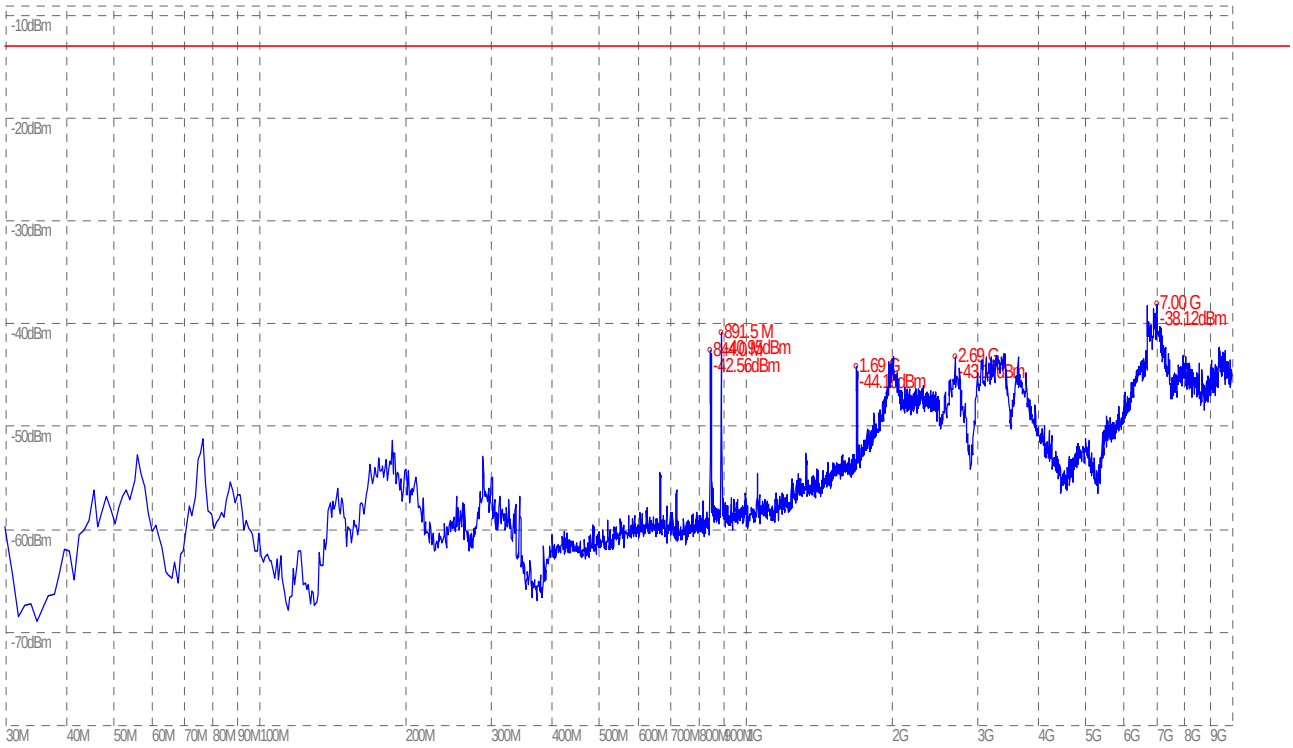
(Plot H.5: HSDPA 1900 MHz Channel = 9538, Test Antenna Horizontal)



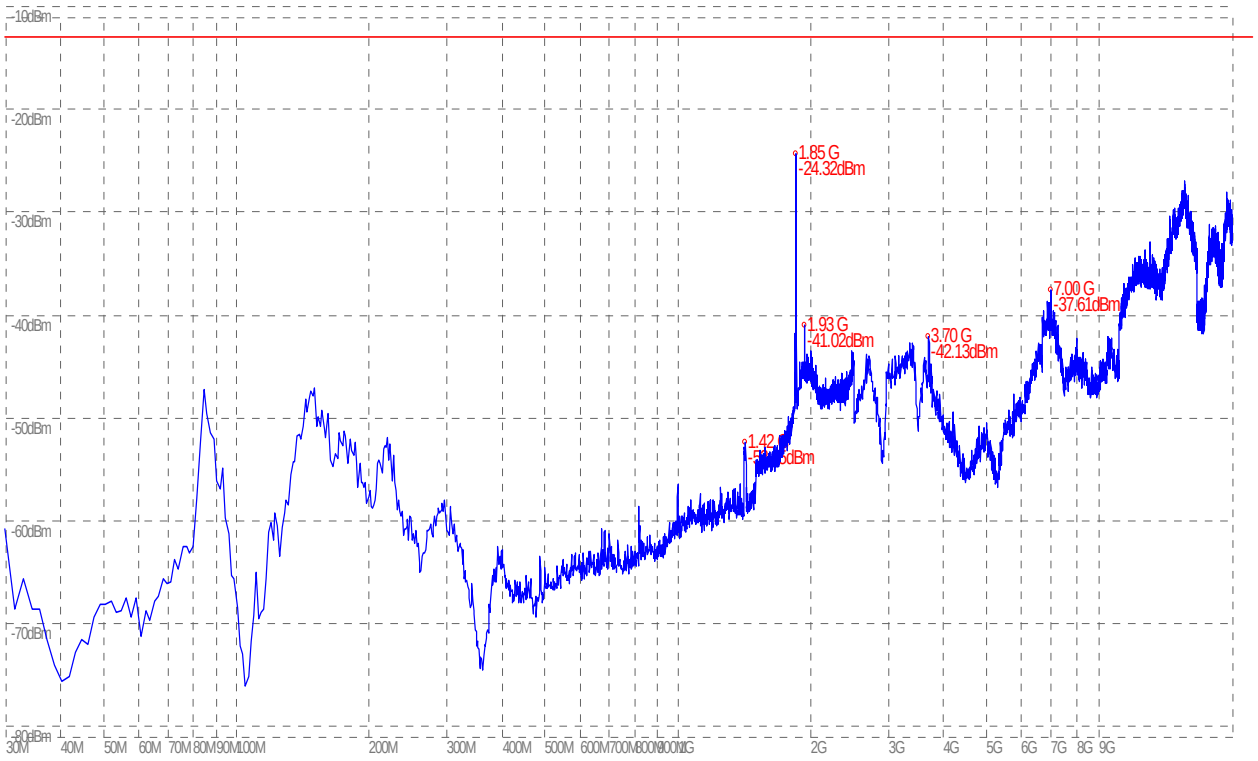
(Plot H.6: HSDPA 1900 MHz Channel = 9538, Test Antenna Vertical)



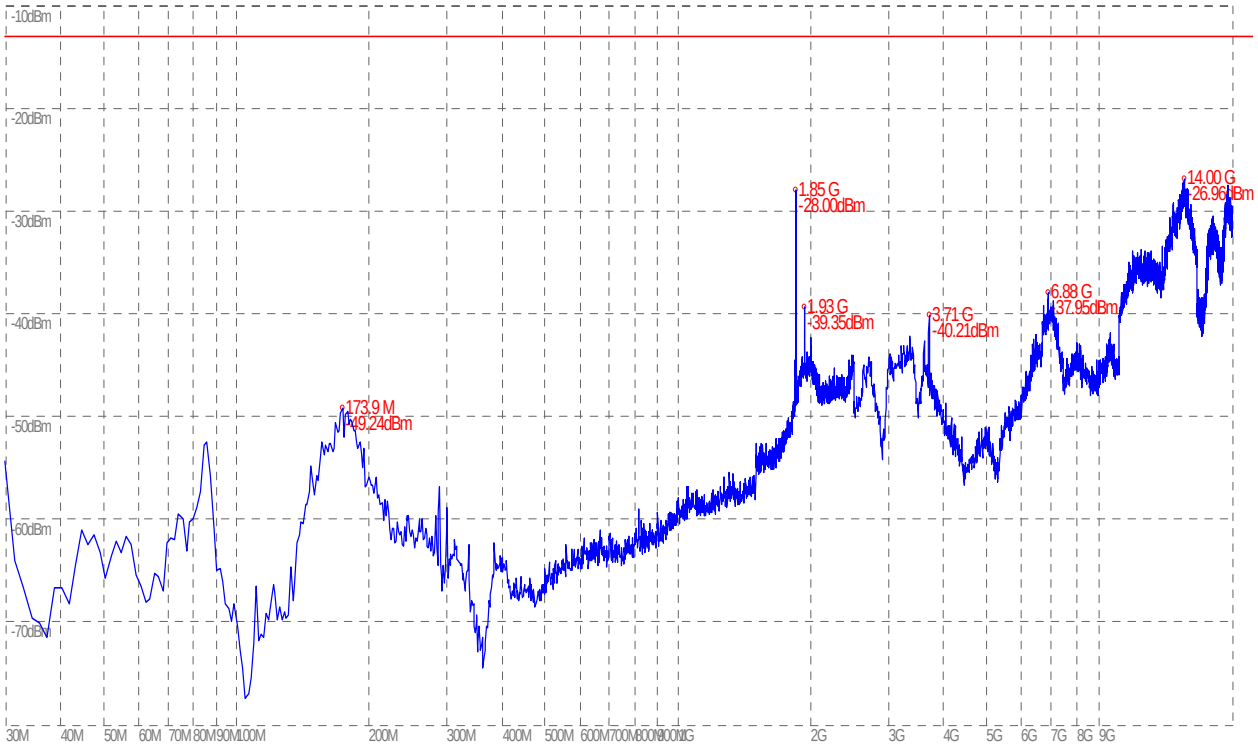
(Plot I.1: HSUPA 850MHz Channel = 4132, Test Antenna Horizontal)



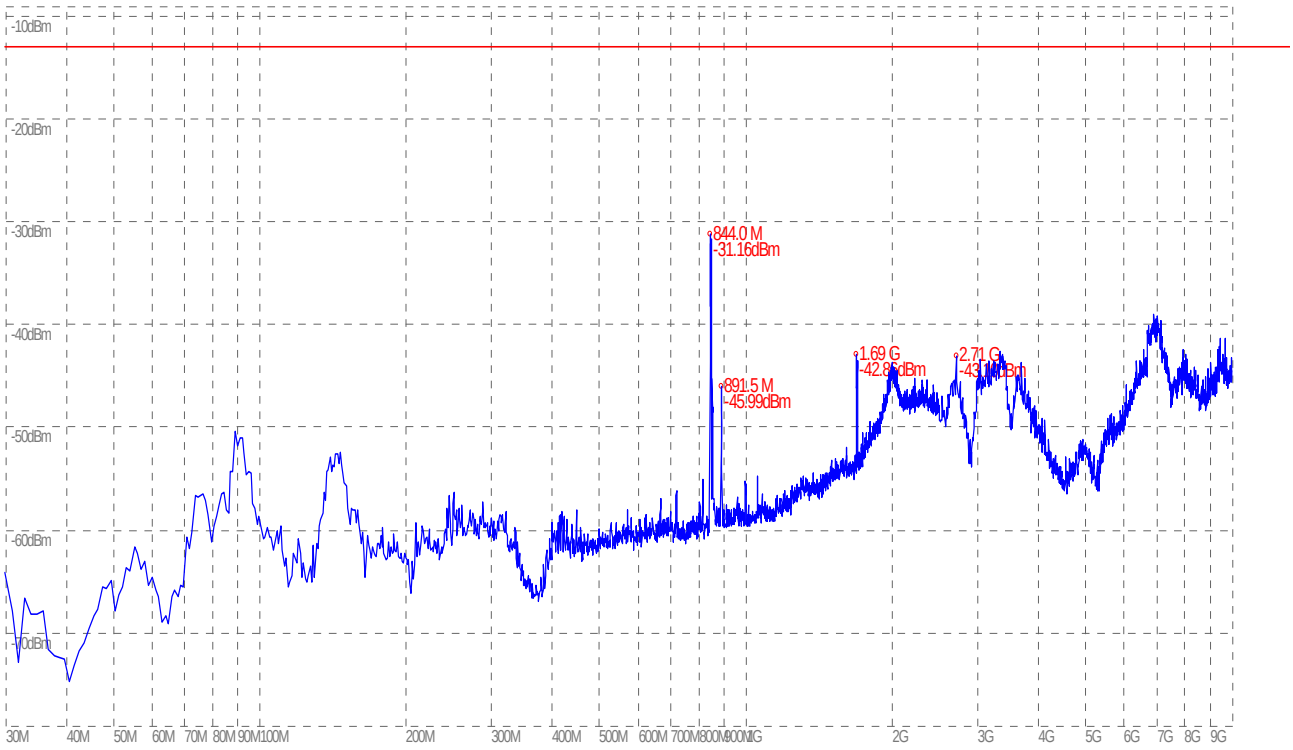
(Plot I.2: HSUPA 850 MHz Channel = 4132, Test Antenna Vertical)



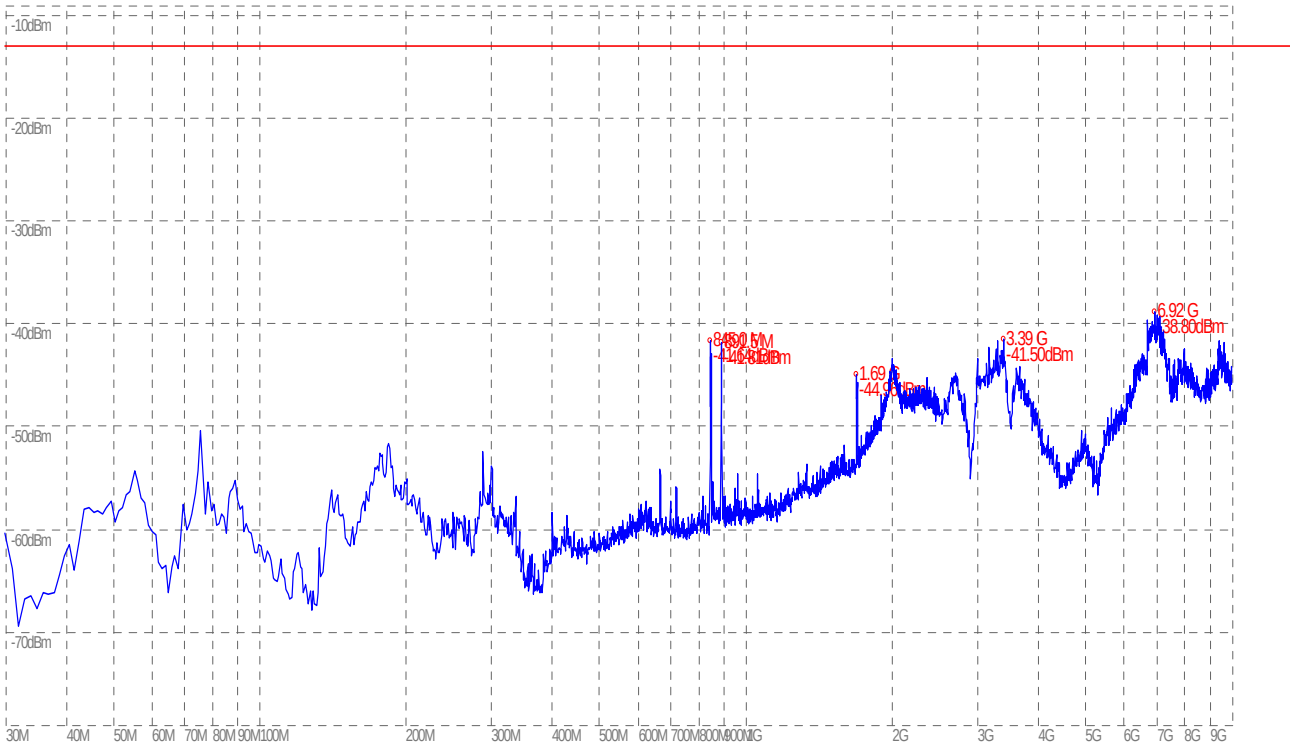
(Plot I.3: HSUPA 850MHz Channel = 4175, Test Antenna Horizontal)



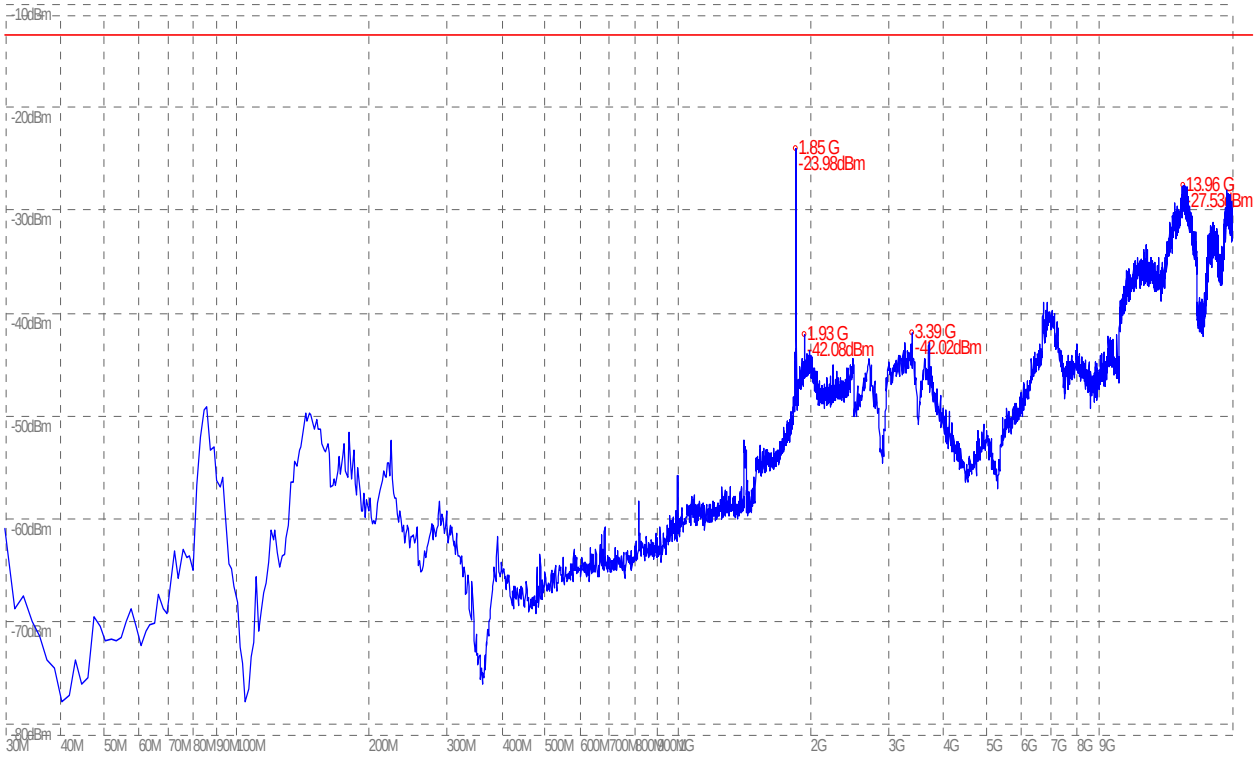
(Plot I.4: HSUPA 850MHz Channel = 4175, Test Antenna Vertical)



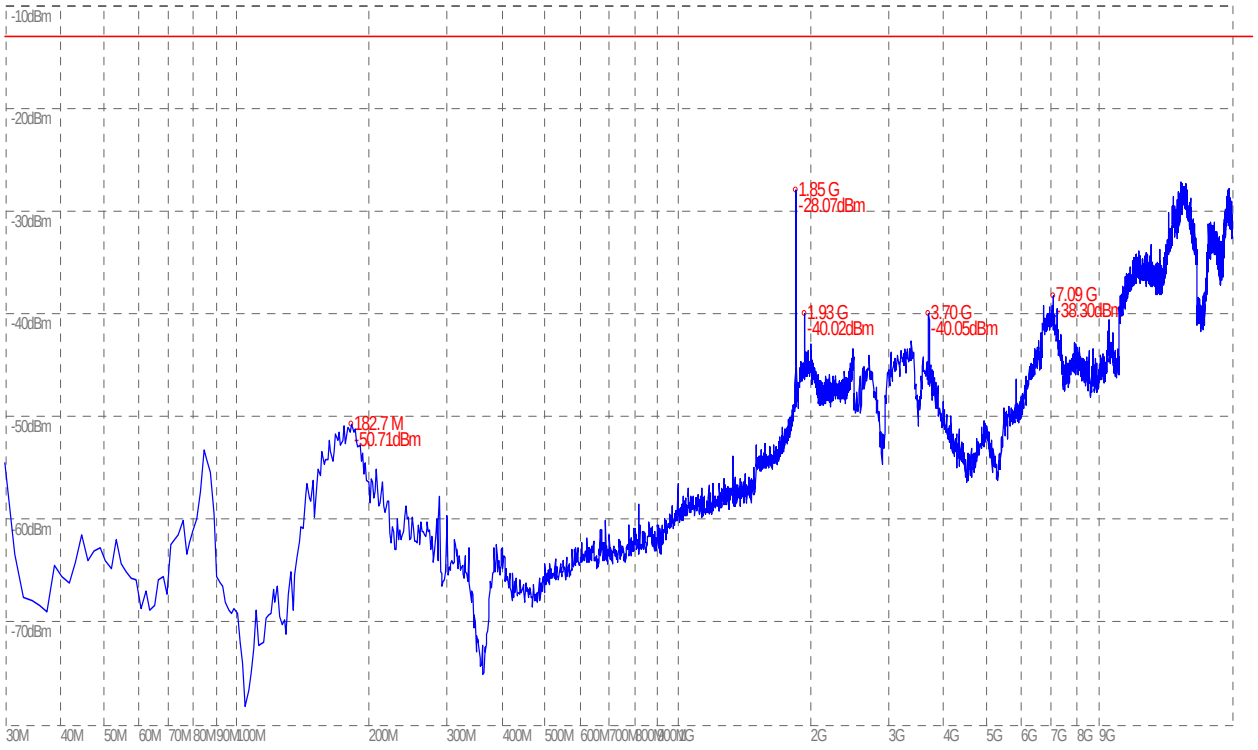
(Plot I.5: HSUPA 850MHz Channel = 4233, Test Antenna Horizontal)



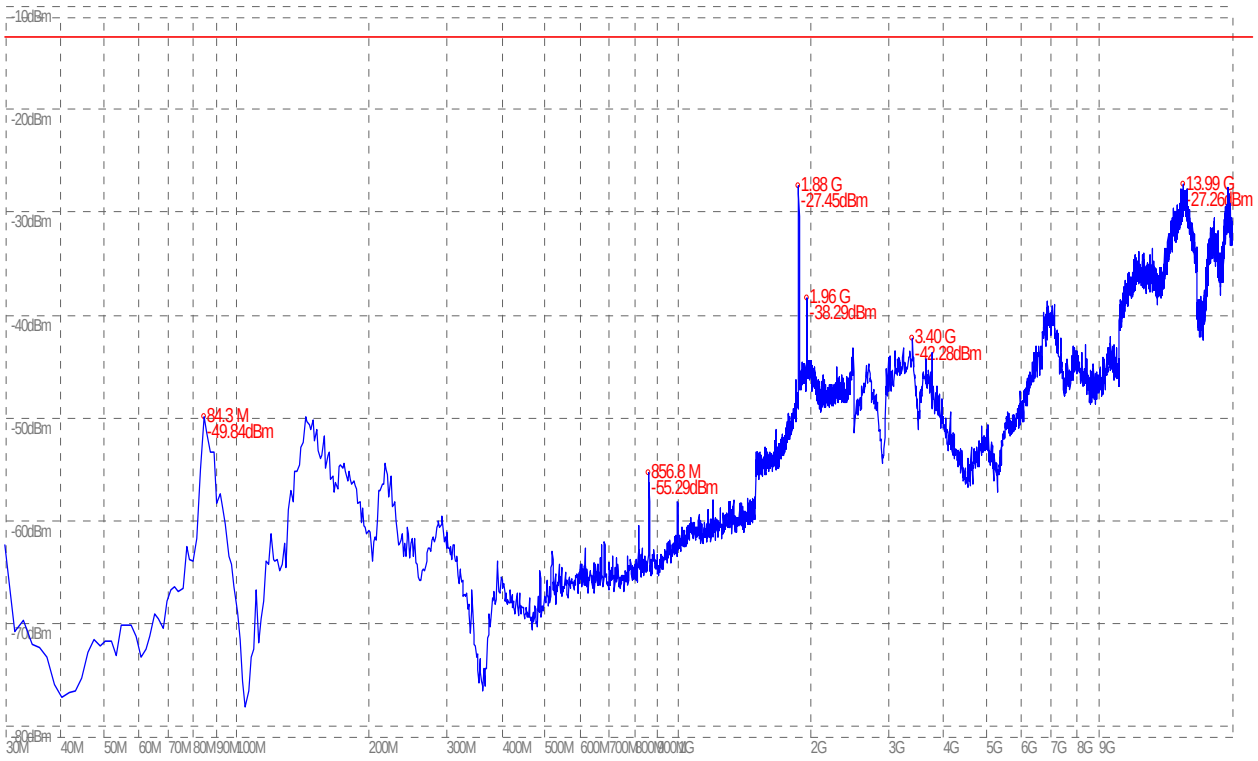
(Plot I.6: HSUPA 850MHz Channel = 4233, Test Antenna Vertical)



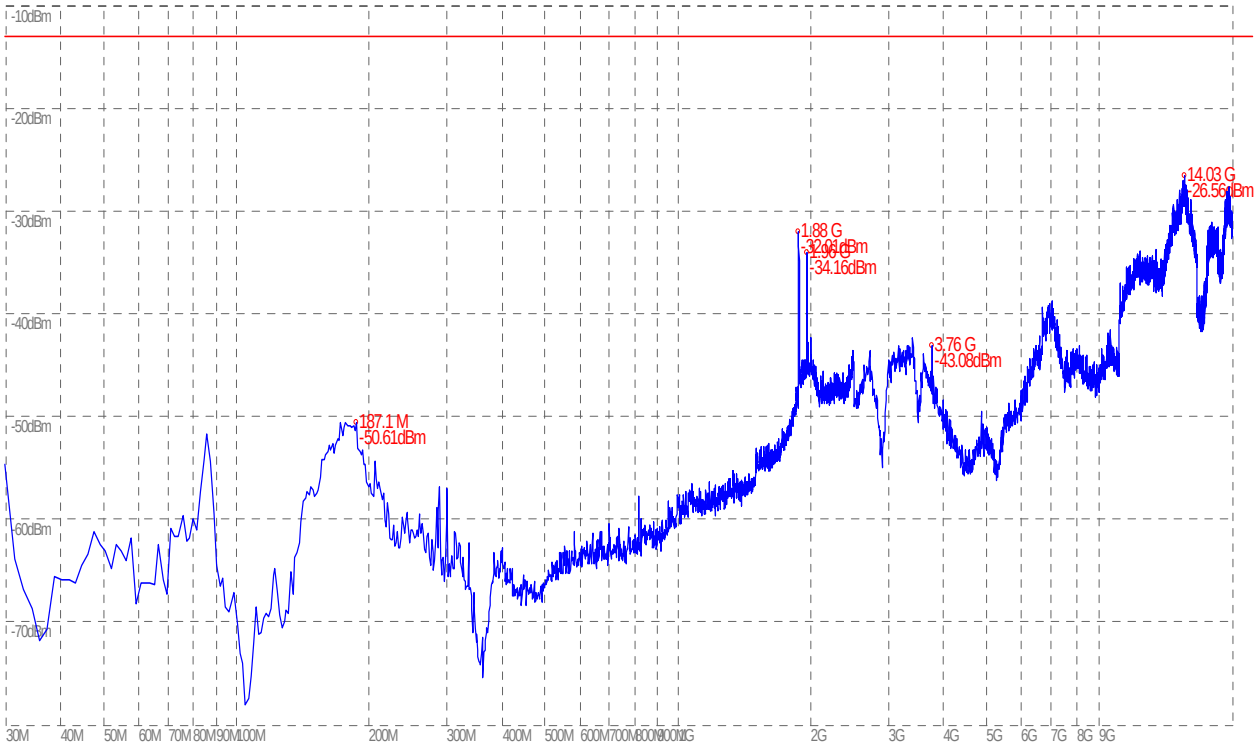
(Plot J.1: HSUPA 1900 MHz Channel = 9262, Test Antenna Horizontal)



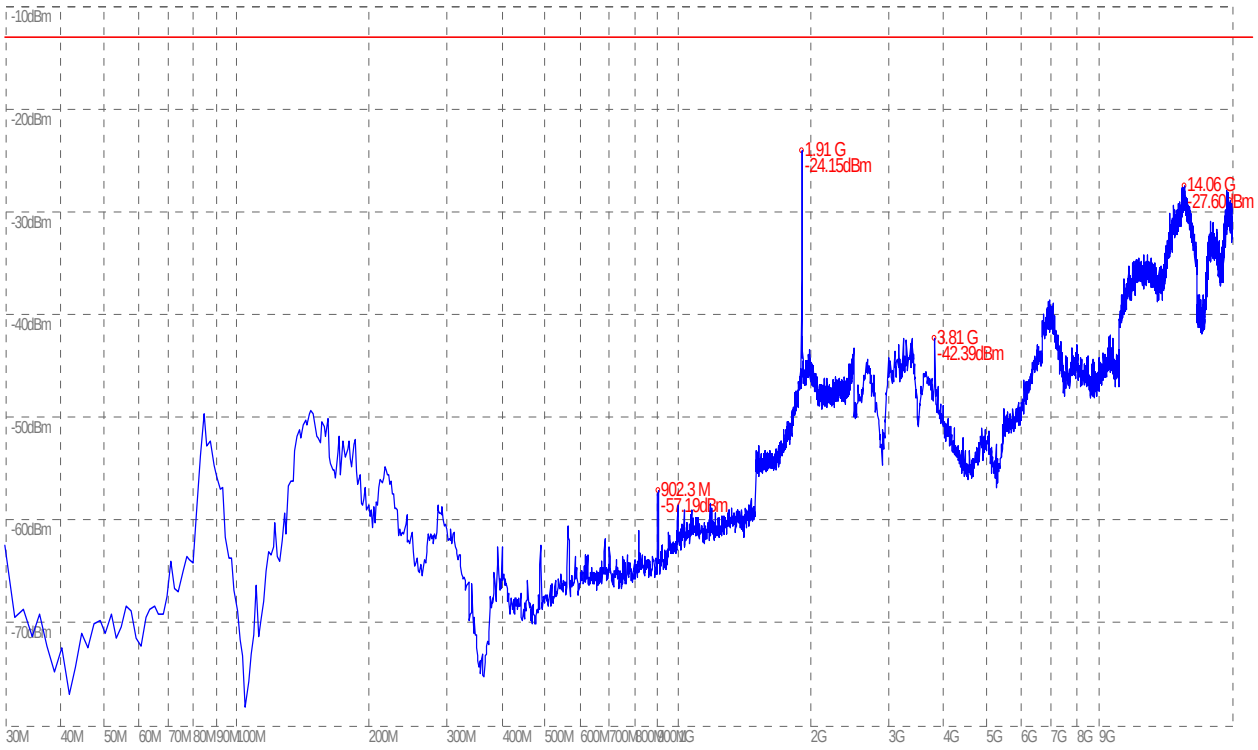
(Plot J.2: HSUPA 1900 MHz Channel = 9262, Test Antenna Vertical)



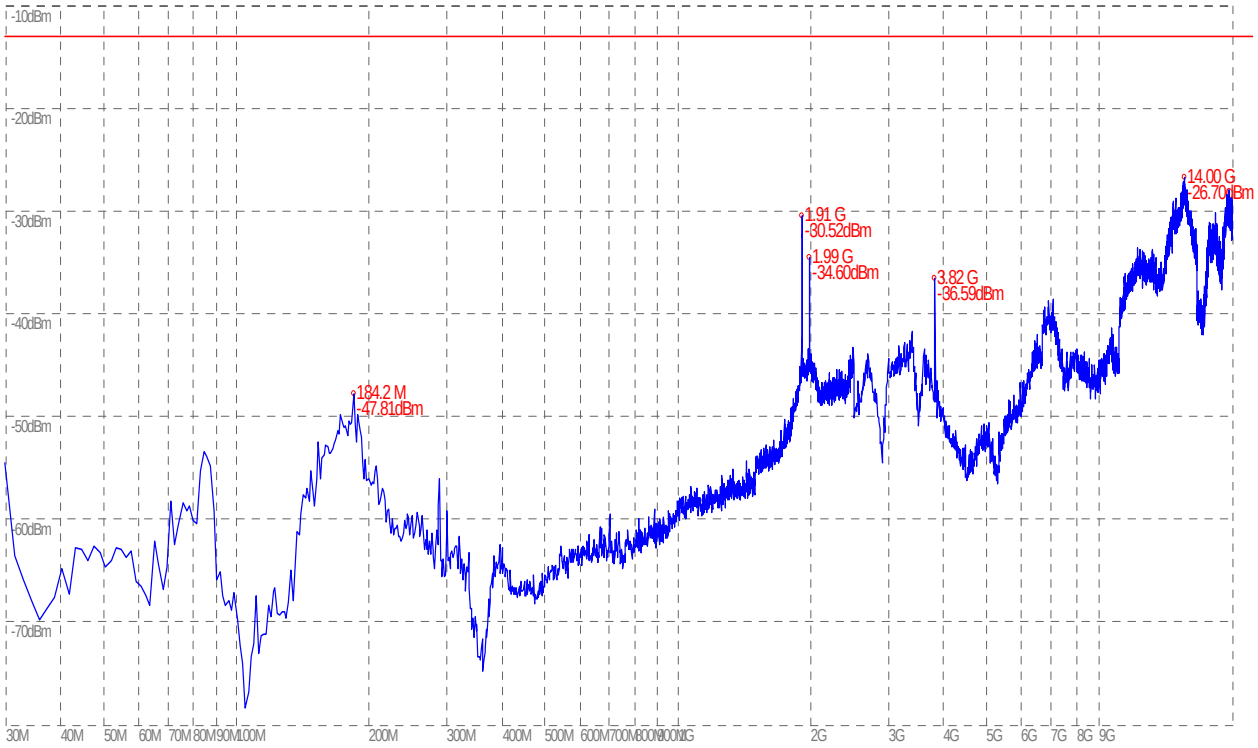
(Plot J.3: HSUPA 1900 MHz Channel = 9400, Test Antenna Horizontal)



(Plot J.4: HSUPA 1900 MHz Channel = 9400, Test Antenna Vertical)



(Plot J.5: HSUPA 1900 MHz Channel = 9538, Test Antenna Horizontal)



(Plot J.6: HSUPA 1900 MHz Channel = 9538, Test Antenna Vertical)

** END OF REPORT **