Report No.: SZ12120080W01

TESTING
CNAS L3572

FCC TEST REPORT

Issued to

GUANGDONG OPPO
MOBILE TELECOMMUNICATIONS CORP.,LTD

For

WCDMA Digital Mobile Phone

Model Name:	OPPO X909
Trade Name:	OPPO
Brand Name:	OPPO
FCC ID :	R9C-X909
Standard:	47 CFR Part 22 Subpart H 47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart L,
Test date:	2012-12-31 to 2013-1-16
Issue date:	2013-1-17

by

Shenzhen Morlab Communications Technology Co., Ltd.

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Change History		
Issue	Date	Reason for change
1.0	Jan 17, 2013	First edition

1. GENERAL INFORMATION

1.1 EUT Description

EUT Type ..... :	WCDMA Digital Mobile Phone
Serial No. ..... :	(n.a, marked #1 by test site)
Hardware Version ..... :	OPPO
Software Version ..... :	OPPO
Applicant ..... :	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD NO.18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG, CHINA
Manufacturer ..... :	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD NO.18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG, 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) WCDMA 1700MHz Tx: 1712.4 - 1752.6MHz (at intervals of 200kHz); Rx: 2112.4 - 2152.6MHz (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 ..... :	GSM850:252KGXW, GSM1900:248KGXW, EGPRS850:248KG7W, EGPRS1900:245KG7W, WCDMA850:4M18F9W, WCDMA1900:4M17F9W,

HSDPA850:4M19F9W, HSDPA1900:4M17F9W,
HSUPA850:4M16F9W, HSUPA1900:4M18F9W,
WCDMA1700:4M17F9W,HSDPA1700:4M17F9W,HSUPA1700:
4M18F9W
GPRS850:249KGXW,GPRS1900: 1900:249KGXW

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 1700MHz band used by the EUT can be represented with the formula F(n)=1712.4+0.2*(n-1312), 1312<=n<=1513; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 1312 (1712.4MHz), 1412 (1732.4MHz) and 1513 (1752.6MHz).

Note 5: 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 6: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22\24 and Part 27 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
3	47 CFR Part 27 (10-1-09 Edition)	Personal Communications Services
4	47 CFR Part 27 (10-1-09 Edition)	Miscellaneous Wireless 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	2.1049,27.53	99% Occupied Bandwidth	PASS
3	2.1055,22.355 24.235,27.54	Frequency Stability	PASS
4	2.1051,2.1057 22.917,24.238 27.53	Conducted Out of Band Emissions	PASS
5	2.1051,2.1057 22.917,24.238 27.53	Band Edge	PASS
6	22.913,24.232 27.50(d)(4)	Transmitter Radiated Power (EIPR/ERP)	PASS
7	2.1053,2.1057 22.917,24.238 27.53	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 FL.1, Building A, FeiYang Science Park, No.8 LongChang Road,Block 67, BaoAn District, ShenZhen, GuangDong Province,P. R. China 518101 The test site is constructed in conformance with the requirements of ANSI C63.7 2009, ANSI C63.4 2009 and CISPR Publication 22; the FCC registration number is 695796.

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 27L REQUIREMENTS

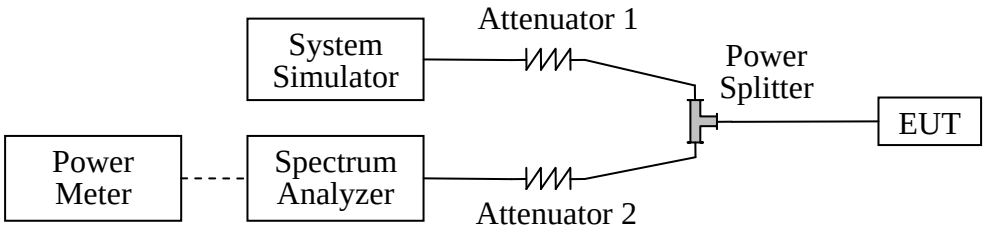
2.1 Conducted RF Output Power

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	Cal. Due
System Simulator	Agilent	E5515C	GB43130131	2012.05	2013.05
Spectrum Analyzer	Agilent	E7405A	US44210471	2012.05	2013.05
Power Meter	Agilent	E4418B	GB43318055	2012.05	2013.05
Power Sensor	Agilent	8482A	MY41091706	2012.05	2013.05
Power Splitter	Weinschel	1506A	NW521	2012.05	2013.05
Attenuator 1	Resnet	20dB	(n.a.)	2012.05	2013.05
Attenuator 2	Resnet	3dB	(n.a.)	2012.05	2013.05

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	33.71	Plot A1 to A3	35	PASS
	190	836.6	33.94			PASS
	251	848.8	34.08			PASS
GSM 1900MHz	512	1850.2	29.61	Plot B1 to B3	32	PASS
	661	1880.0	30.19			PASS
	810	1909.8	29.74			PASS
GPRS 850MHz	128	824.2	30.88	Plot C1 to C3[Note 1]	35	PASS
	190	836.6	31.26			PASS
	251	848.8	31.56			PASS
GPRS 1900MHz	512	1850.2	27.24	Plot D1 to D3[Note 1]	32	PASS
	661	1880.0	27.68			PASS
	810	1909.8	27.9			PASS
EGPRS 850MHz	128	824.2	31.02	Plot E1 to E3[Note 1]	35	PASS
	190	836.6	31.52			PASS
	251	848.8	31.78			PASS
EGPRS 1900MHz	512	1850.2	27.29	Plot F1 to F3[Note 1]	32	PASS
	661	1880.0	27.72			PASS
	810	1909.8	27.94			PASS

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

GPRS Mode Conducted peak output power

Band	Channel	Frequency (MHz)	Output Power(dBm)			
			Slot 1	Slot 2	Slot 3	Slot 4
GSM 850	128	824.2	30.88	29.07	28.32	27.25
	190	836.6	31.26	29.34	28.40	27.28
	251	848.8	31.56	29.44	27.94	27.21
PCS 1900	512	1850.2	27.24	26.58	25.26	24.23
	661	1880.0	27.68	26.38	25.20	24.22
	810	1909.8	27.90	26.40	25.25	24.17

EDGE Mode Conducted peak output power

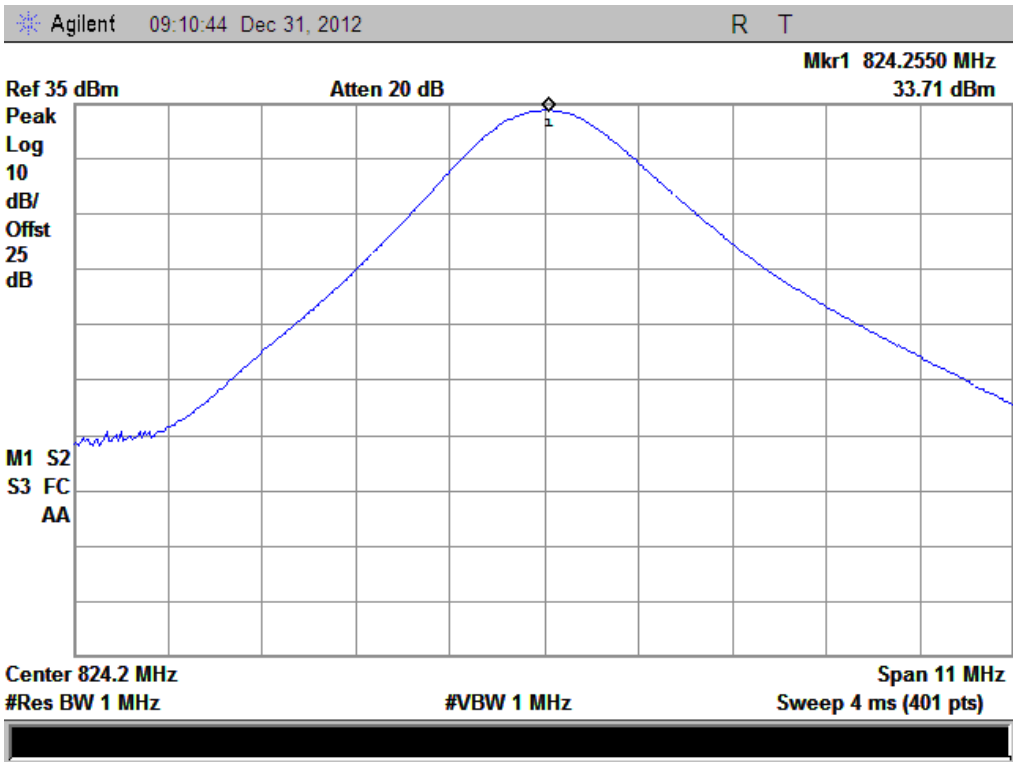
Band	Channel	Frequency (MHz)	Output Power(dBm)			
			Slot 1	Slot 2	Slot 3	Slot 4
GSM 850	128	824.2	31.02	29.63	28.05	27.05
	190	836.6	31.52	29.88	28.10	27.13
	251	848.8	31.78	29.66	28.13	27.04
PCS 1900	512	1850.2	27.29	26.08	25.33	24.16
	661	1880.0	27.72	26.08	25.25	24.12
	810	1909.8	27.94	26.10	25.26	24.17

2. WCDMA Model Test Verdict:

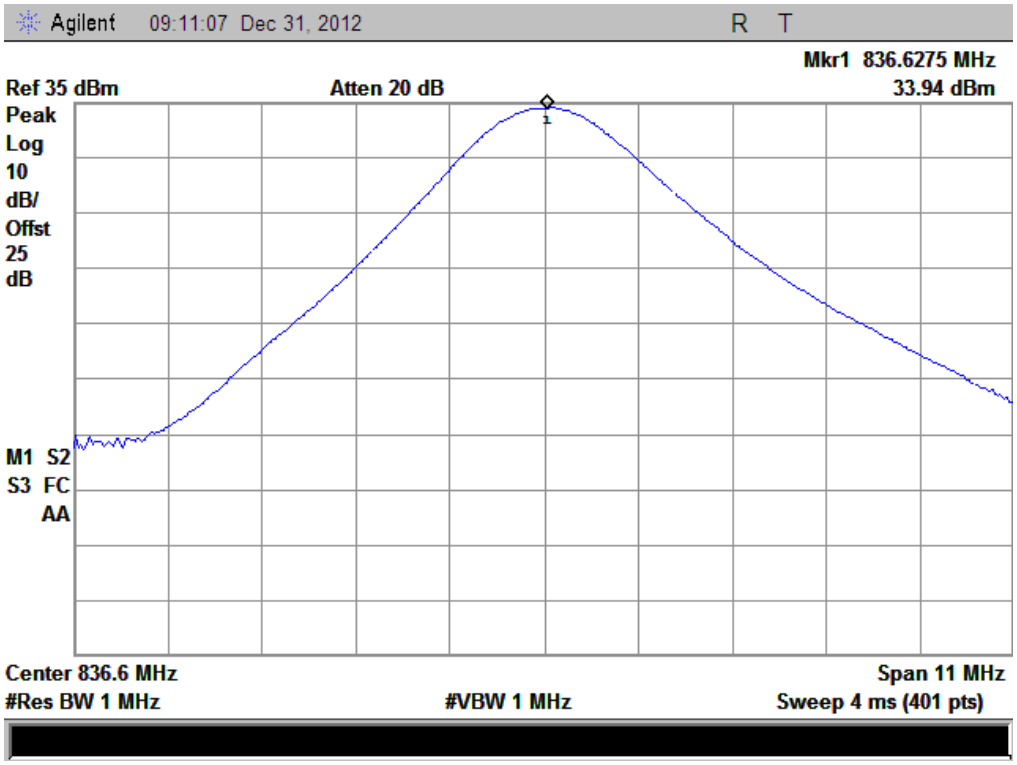
Item	band	WCDMA 850			WCDMA 1900		
	ARFCN	4132	4175	4233	9262	9400	9538
	subtest	dBm			dBm		
5.2(WCDMA)	non	22.57	22.62	22.59	22.61	22.77	22.63
HSDPA	1	22.33	22.53	22.48	22.52	22.69	22.59
	2	22.35	22.51	22.49	22.89	22.59	22.57
	3	21.83	22.05	21.92	22.33	22.11	22.08
	4	21.85	22.03	21.98	22.37	22.07	22.06
HSUPA	1	22.35	22.51	22.47	22.47	22.65	22.56
	2	20.37	20.56	20.49	20.59	20.57	20.55
	3	21.36	21.56	21.59	21.55	21.56	21.55
	4	20.29	20.55	20.45	20.52	20.56	20.55
	5	22.33	22.49	22.45	22.45	22.61	22.55

Item	band	WCDMA 1700		
	ARFCN	1312	1412	1513
	subtest	dBm		
5.2(WCDMA)	non	23.09	22.75	22.71
HSDPA	1	22.32	22.39	22.45
	2	22.31	22.41	22.43
	3	21.81	21.89	21.91
	4	21.79	21.91	21.89
HSUPA	1	22.31	22.37	22.43
	2	20.33	20.51	20.42
	3	21.29	21.36	21.39
	4	20.29	20.35	20.35
	5	22.31	22.29	22.42

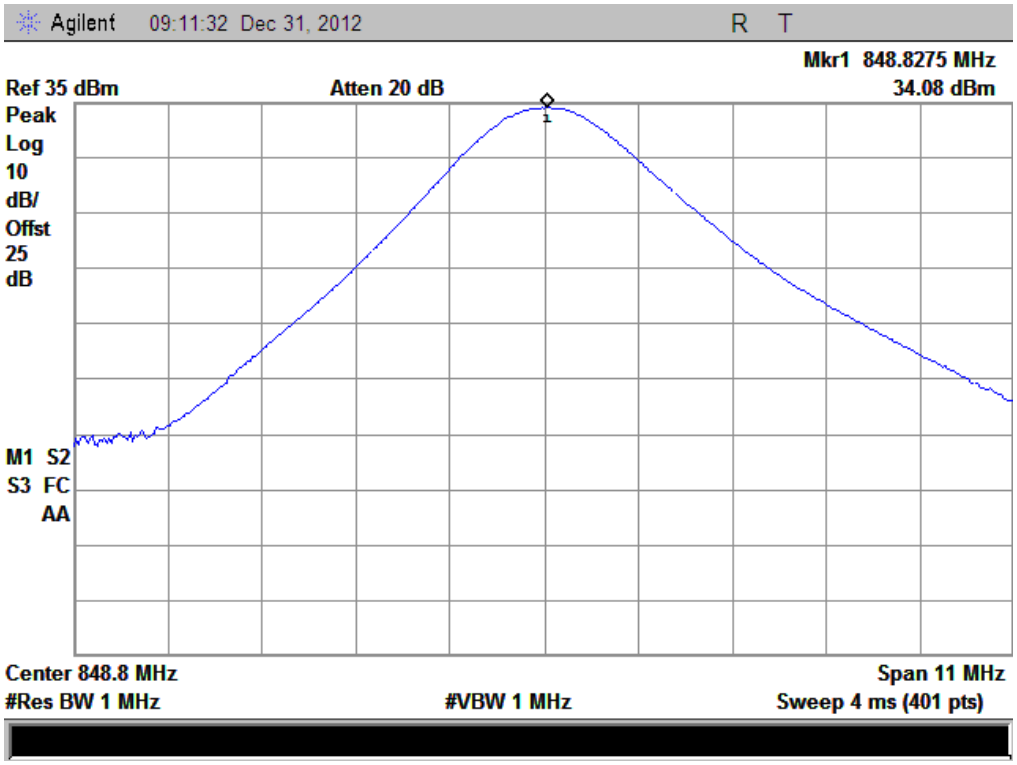
3. GSM Model Test Plots:



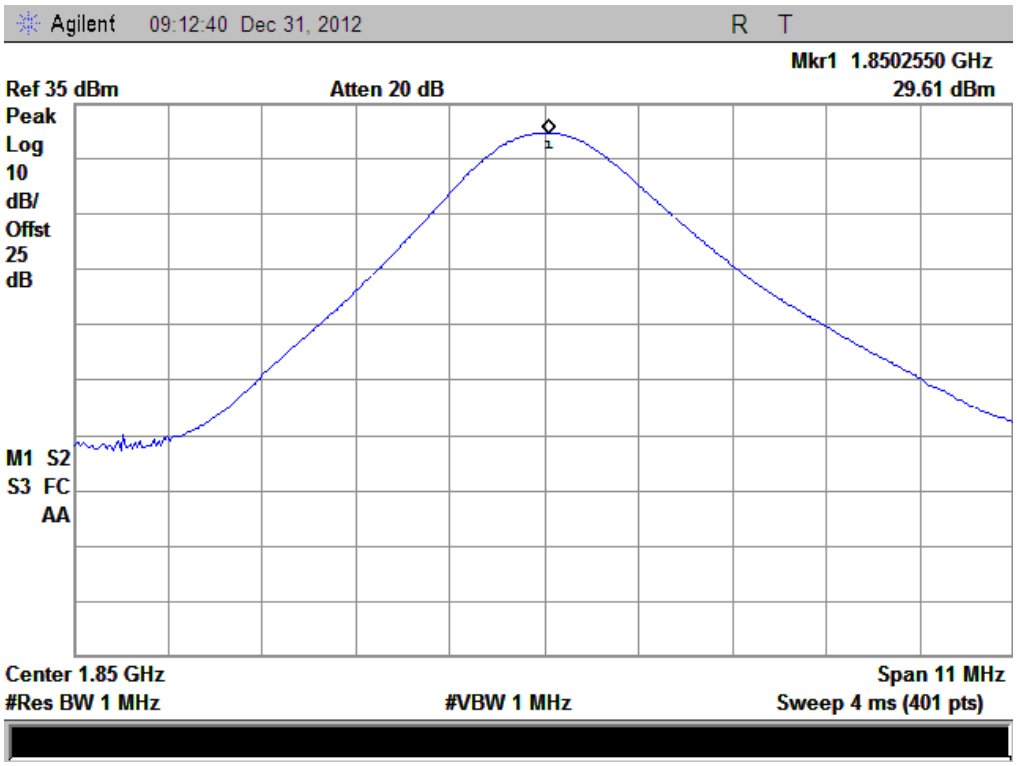
(Plot A1: GSM 850MHz Channel = 128)



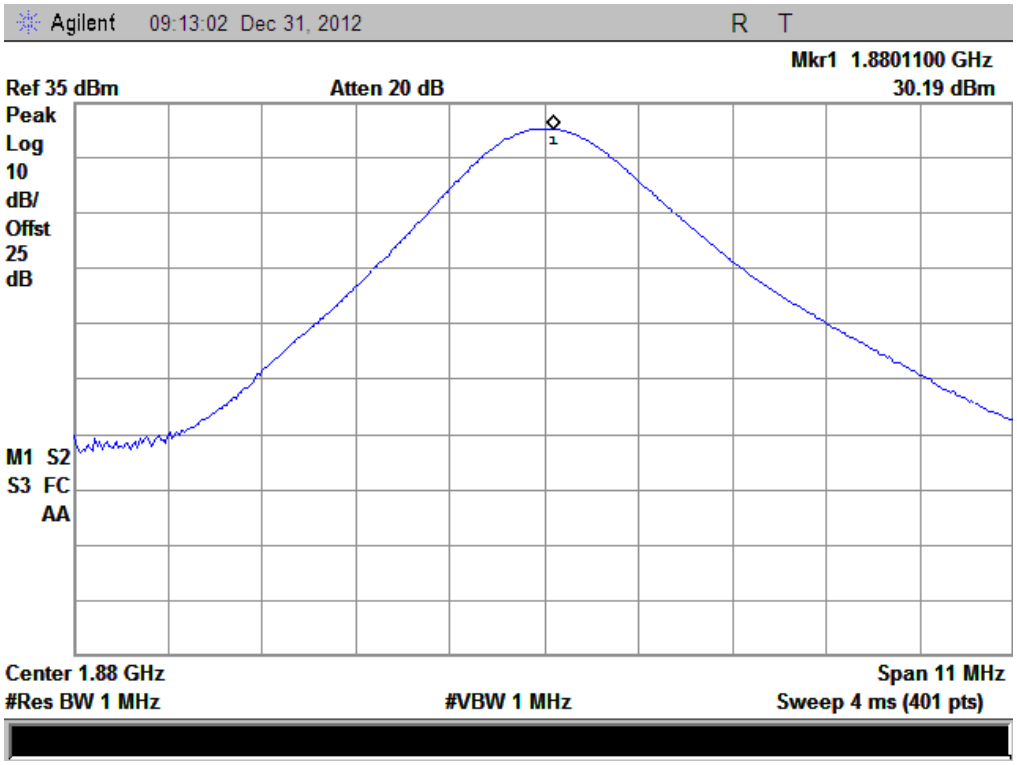
(Plot A2: GSM 850MHz Channel = 190)



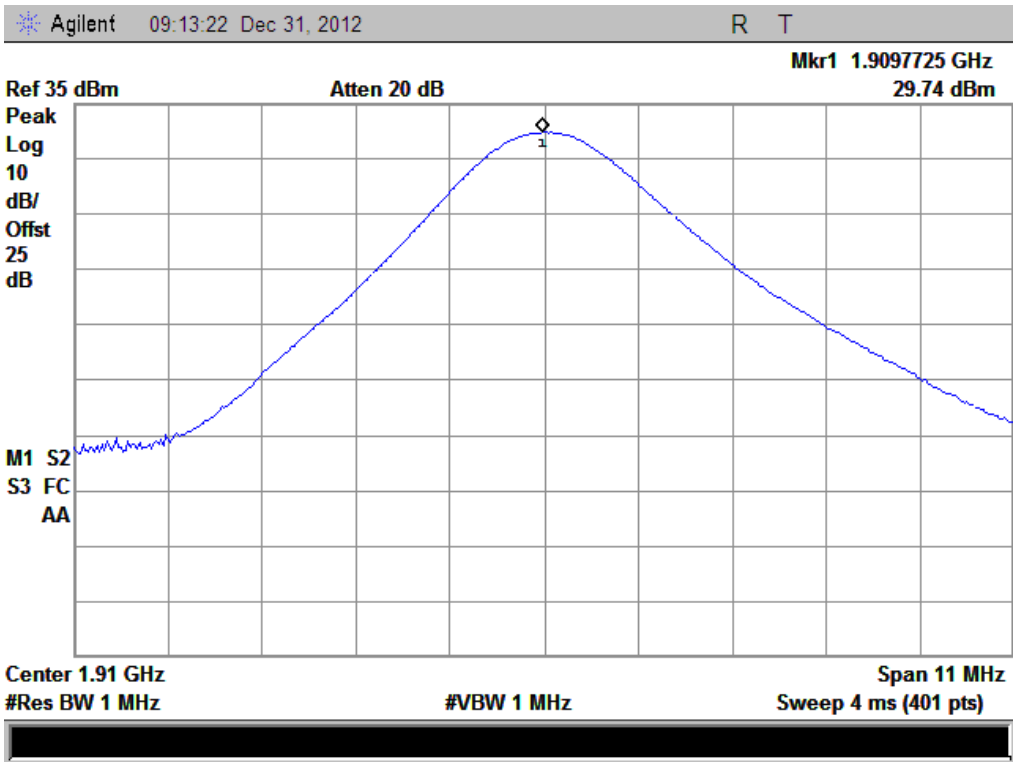
(Plot A3: GSM 850MHz Channel = 251)



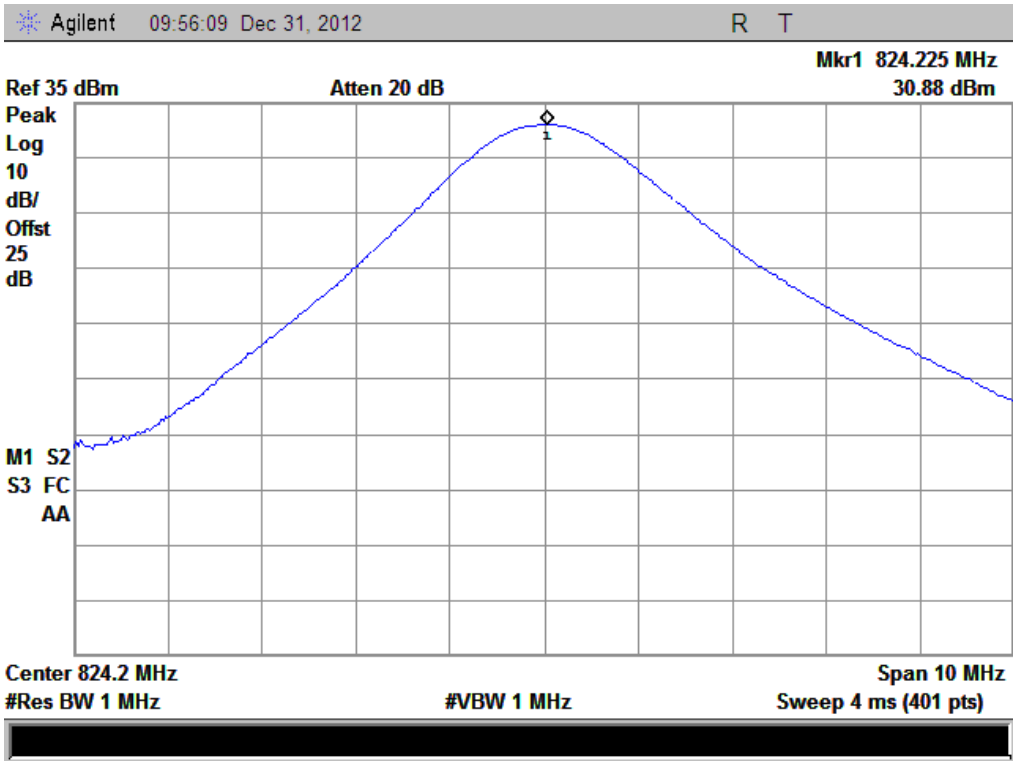
(Plot B1: GSM 1900MHz Channel = 512)



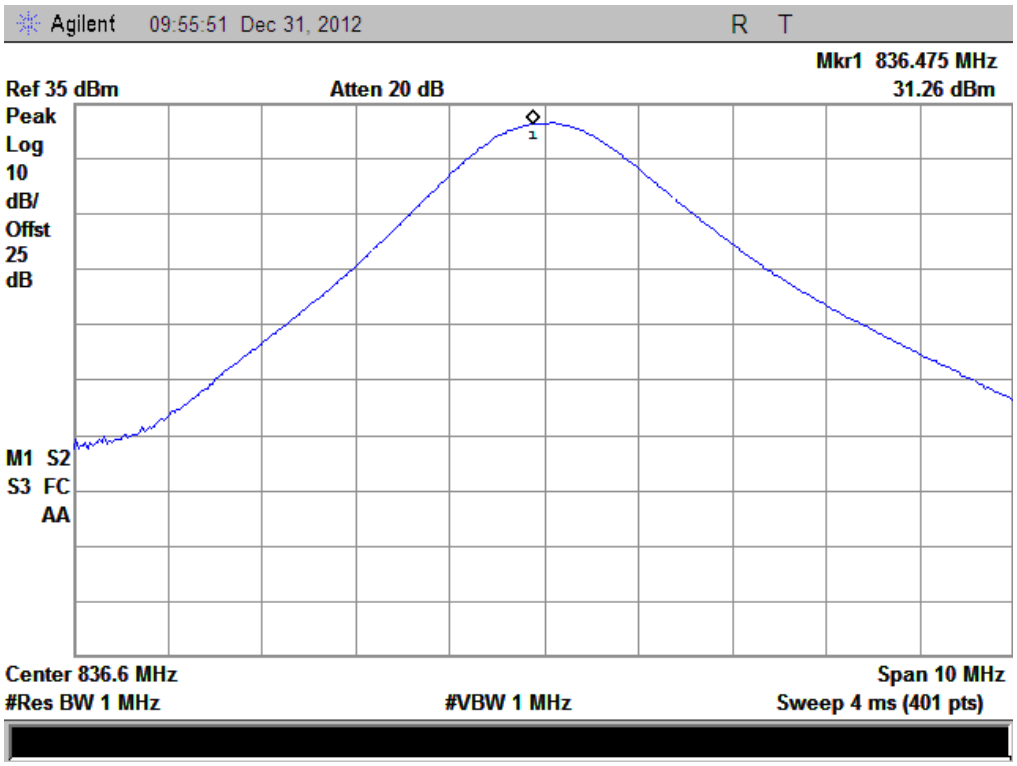
(Plot B2: GSM 1900MHz Channel = 661)



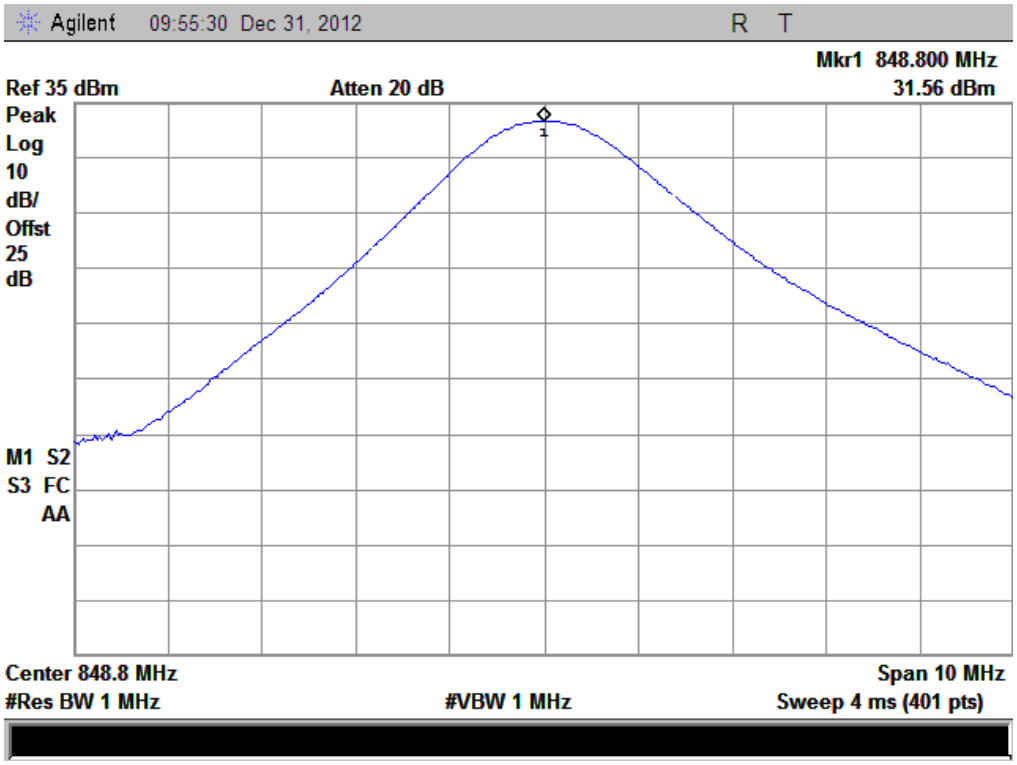
(Plot B3: GSM 1900MHz Channel = 810)



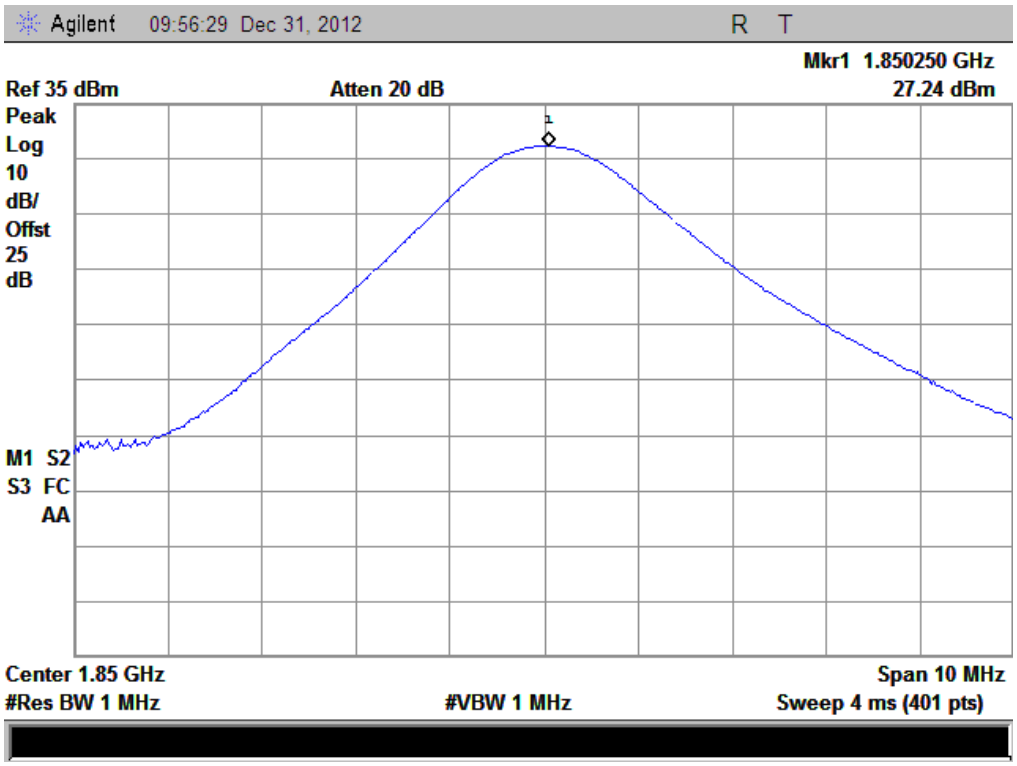
(Plot C1: GPRS 850MHz Channel = 128)



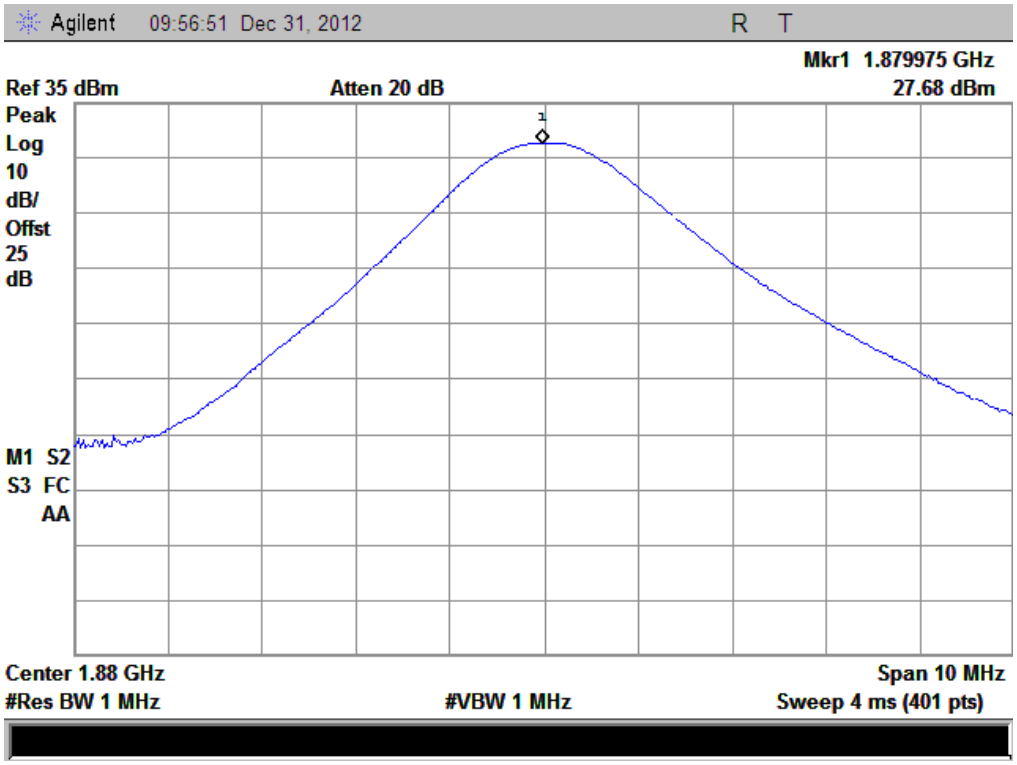
(Plot C2: GPRS 850MHz Channel = 190)



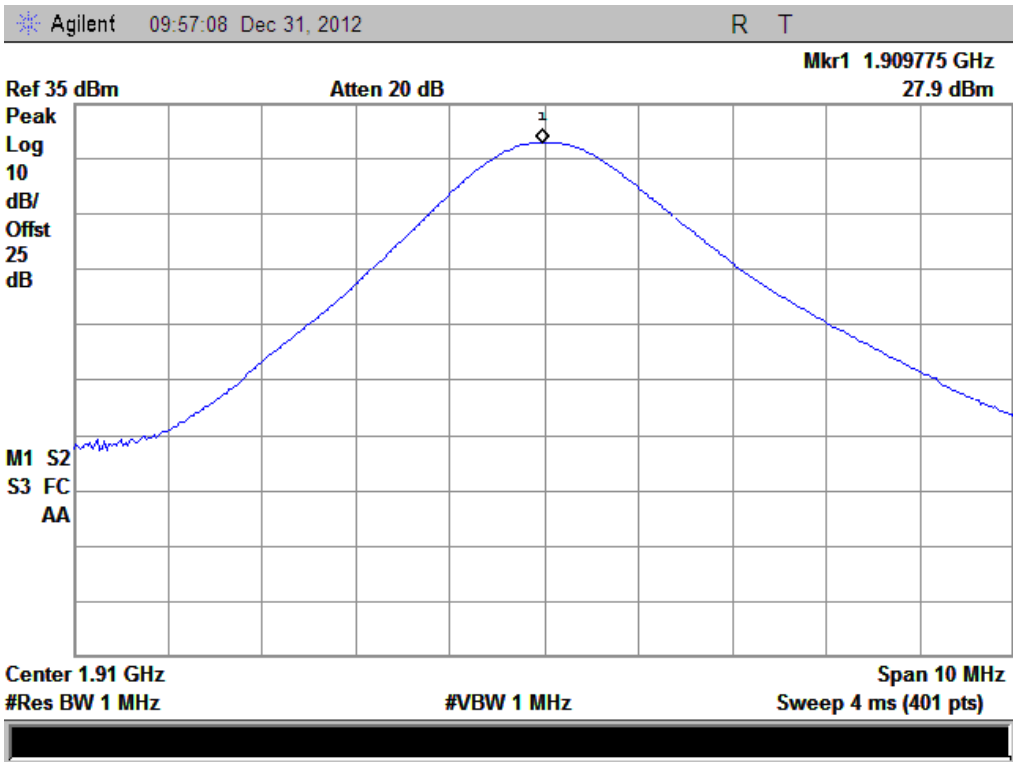
(Plot C3: GPRS 850MHz Channel = 251)



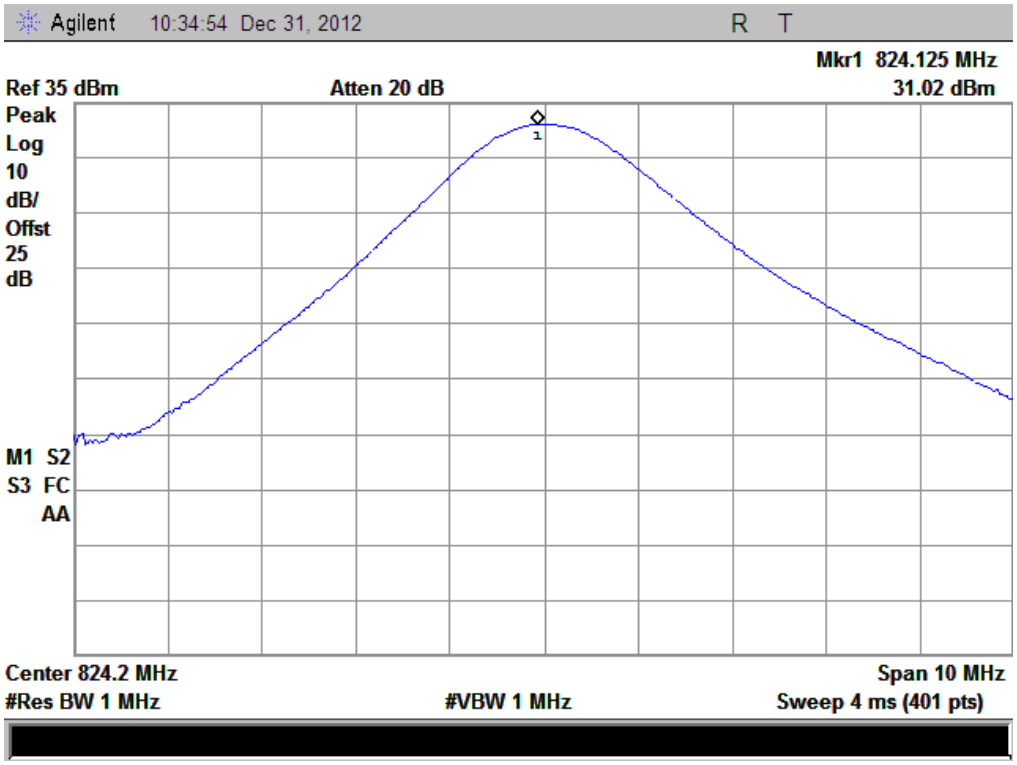
(Plot D1: GPRS 1900MHz Channel = 512)



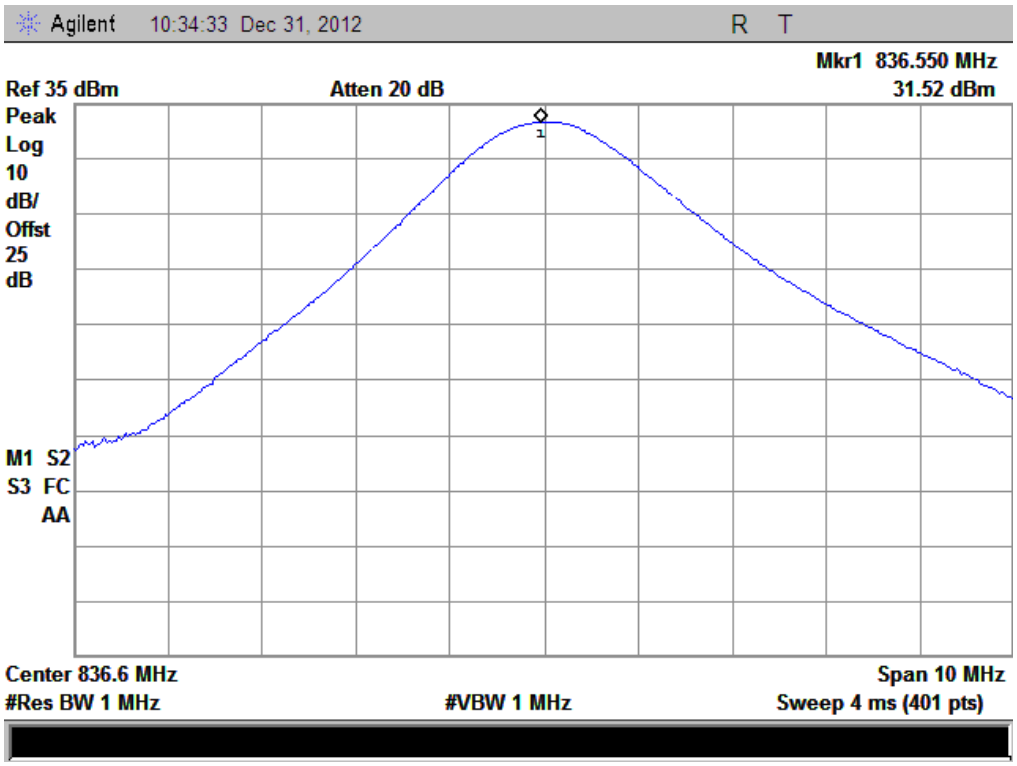
(Plot D2: GPRS 1900MHz Channel = 661)



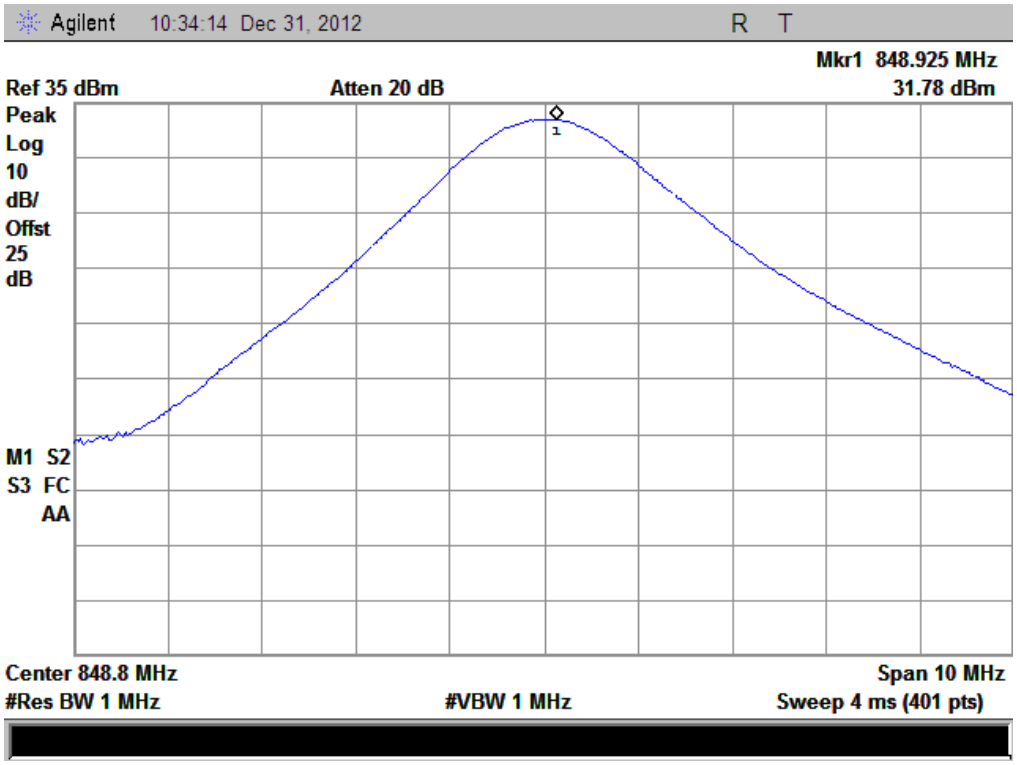
(Plot D3: GPRS 1900Hz Channel = 810)



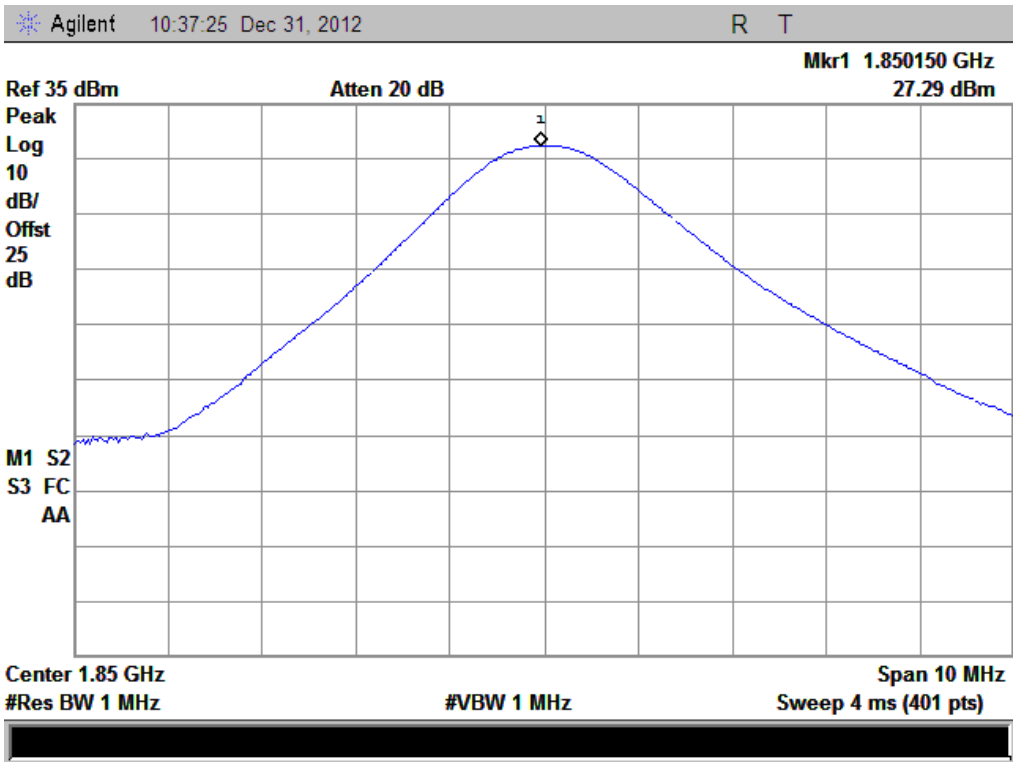
(Plot E 1: EGPRS 850MHz Channel = 128)



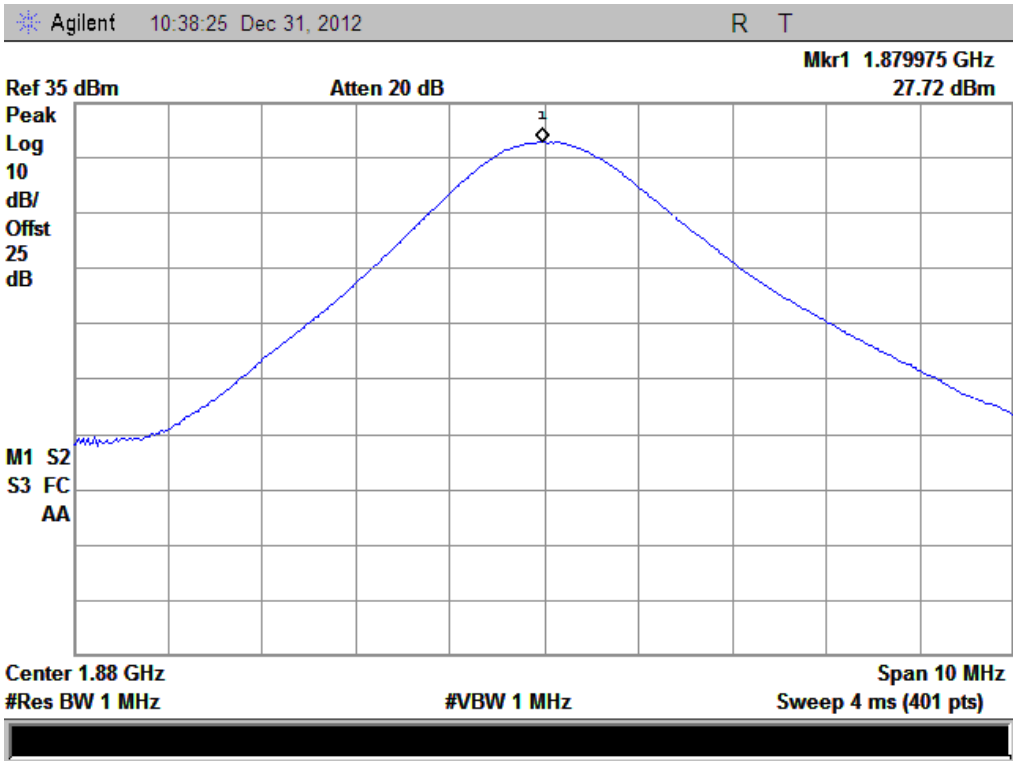
(Plot E 2: EGPRS 850MHz Channel = 190)



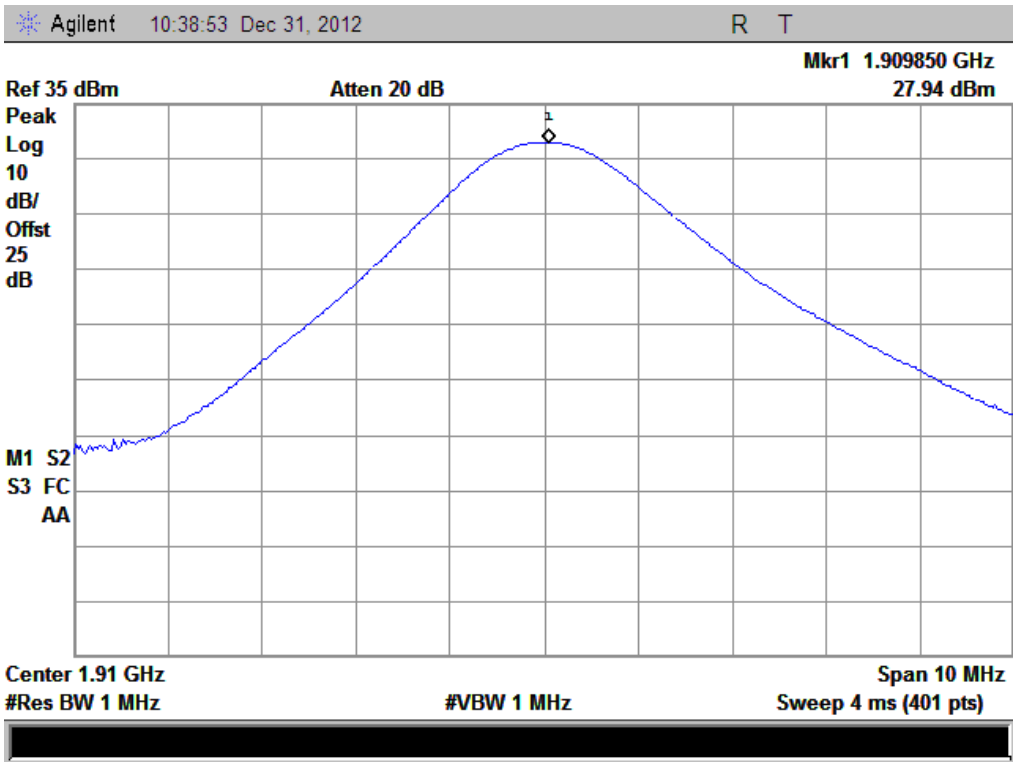
(Plot E 3: EGPRS 850MHz Channel = 251)



(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

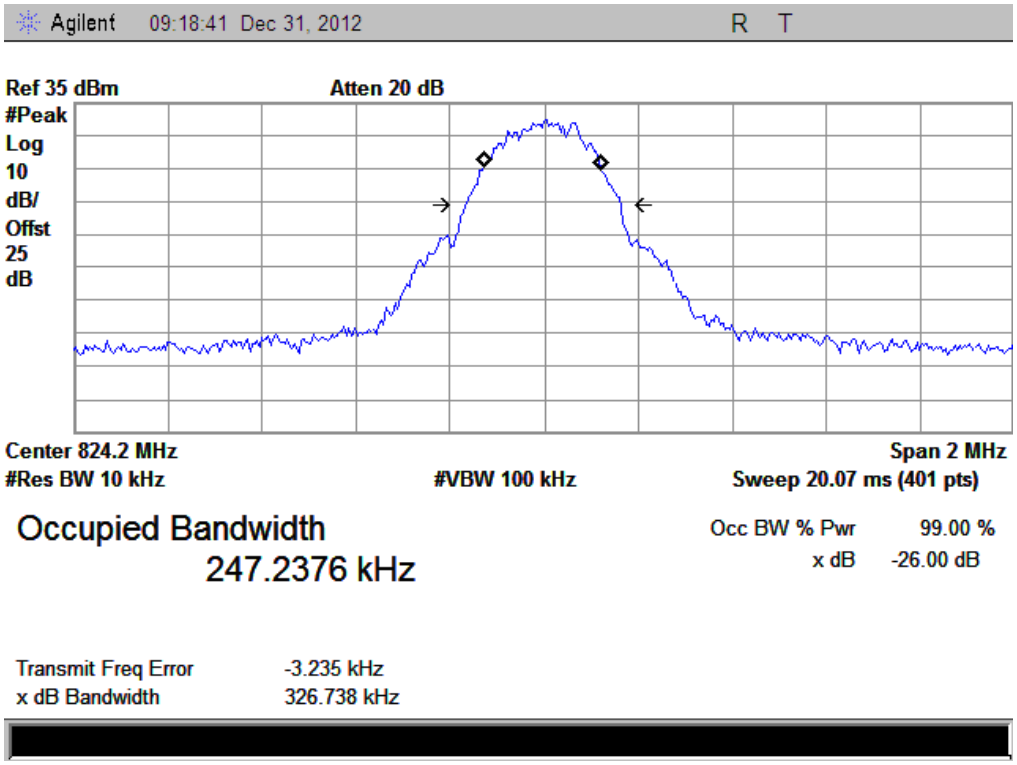
Here the lowest, middle and highest channels are selected to perform testing to verify the 99% occupied bandwidth.

1. Test Verdict:

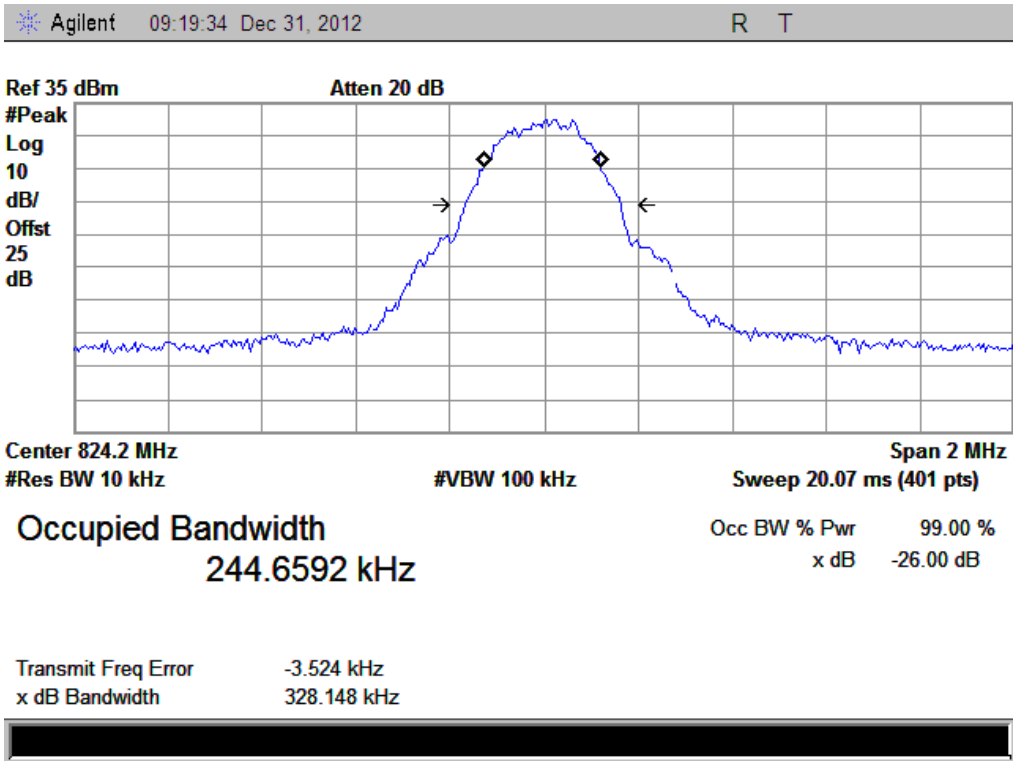
Band	Channel	Frequency (MHz)	26dB bandwidth	99% Occupied Bandwidth	Refer to Plot
GSM 850MHz	128	824.2	326.738kHz	247.2376kHz	Plot A
	190	836.6	328.148kHz	244.6592kHz	Plot B
	251	848.8	322.847kHz	252.0262kHz	Plot C
GSM 1900MHz	512	1850.2	311.339kHz	248.4985kHz	Plot D
	661	1880.0	315.206kHz	245.1971kHz	Plot E
	810	1909.8	311.450kHz	244.4805kHz	Plot F
EDGE 850MHz	128	824.2	320.006kHz	247.1920kHz	Plot G
	190	836.6	326.504kHz	247.6492kHz	Plot H
	251	848.8	323.744kHz	245.0781kHz	Plot I
EDGE 1900MHz	512	1850.2	318.925kHz	245.4986kHz	Plot J
	661	1880.0	320.414kHz	243.5450kHz	Plot K
	810	1909.8	313.162kHz	244.9870kHz	Plot L
WCDMA850MHz	4175	835	4.702MHz	4.1768MHz	Plot M
WCDMA1900MHz	9400	1880	4.699MHz	4.1651MHz	Plot N
HSDPA 850MHz	4175	835	4.707MHz	4.1866MHz	Plot O
HSDPA 1900MHz	9400	1880	4.709MHz	4.1746MHz	Plot P
HSUPA 850MHz	4175	835	4.688MHz	4.1642MHz	Plot Q
HSUPA 1900MHz	9400	1880	4.700MHz	4.1758MHz	Plot R
WCDMA1700MHz	1412	1880	4.710MHz	4.1734MHz	Plot T
HSDPA 1700MHz	1412	1880	4.718MHz	4.1744MHz	Plot U
HSUPA 1700MHz	1412	1880	4.730MHz	4.1770MHz	Plot V
GPRS 850MHz	128	824.2	316.304KHz	246.4016KHz	Plot W
	190	836.6	325.272KHz	245.9659KHz	Plot X
	251	848.8	323.506KHz	249.1315KHz	Plot Y

Band	Channel	Frequency (MHz)	26dB bandwidth	99% Occupied Bandwidth	Refer to Plot
GPRS 1900MHz	512	1850.2	316.189KHz	240.1771KHz	Plot Z
	661	1880.0	312.833KHz	249.1503KHz	Plot A1
	810	1909.8	322.452KHz	245.1028KHz	Plot A2

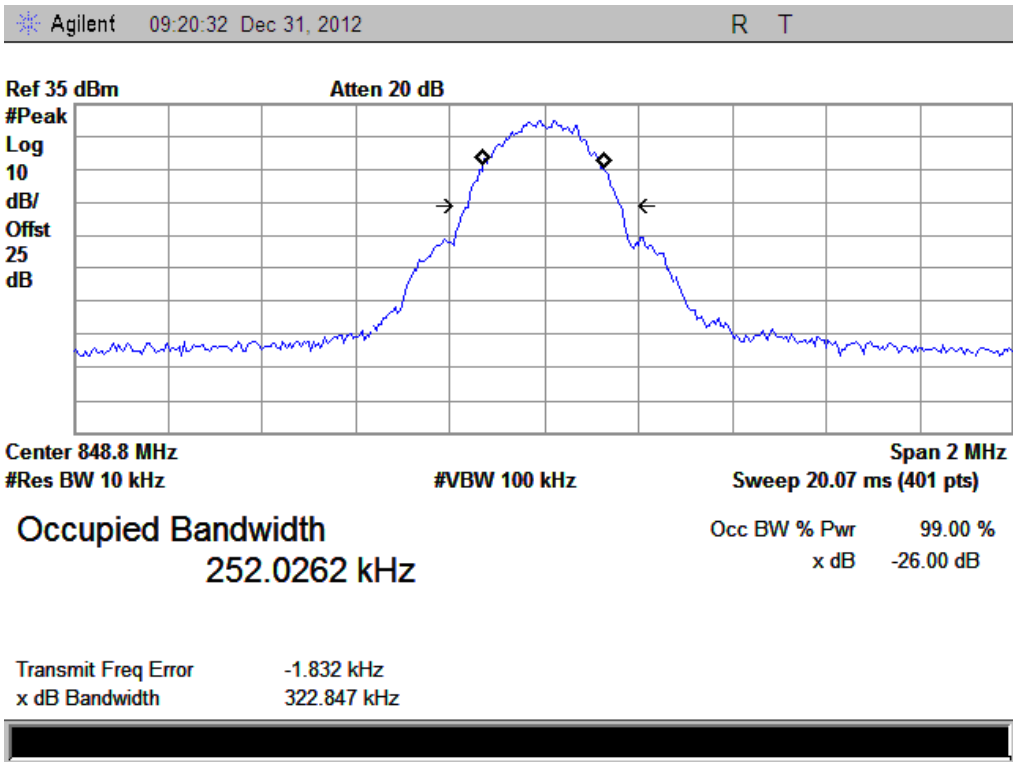
2. Test Plots:



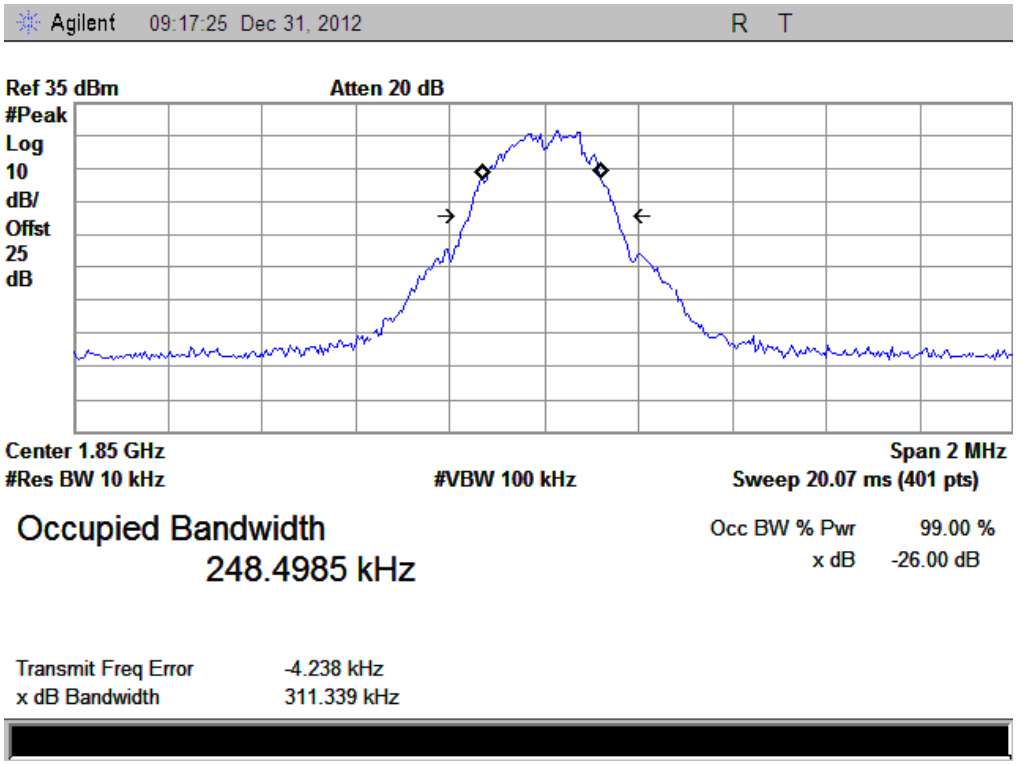
(Plot A: GSM 850MHz Channel = 128)



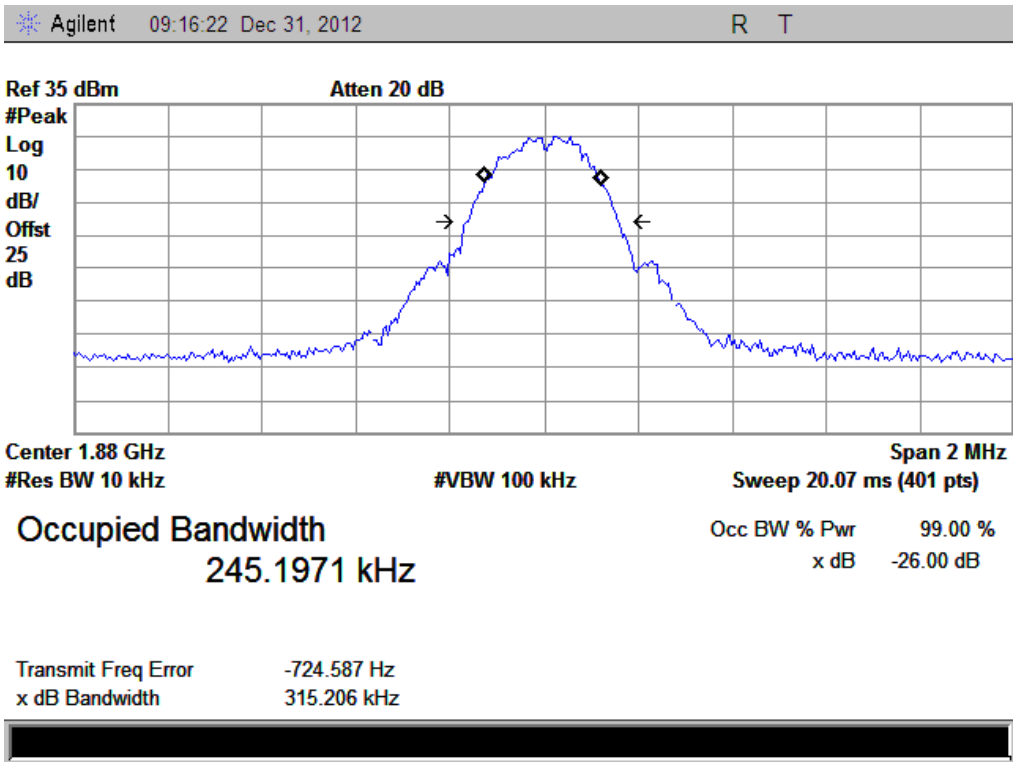
(Plot B: GSM 850MHz Channel = 190)



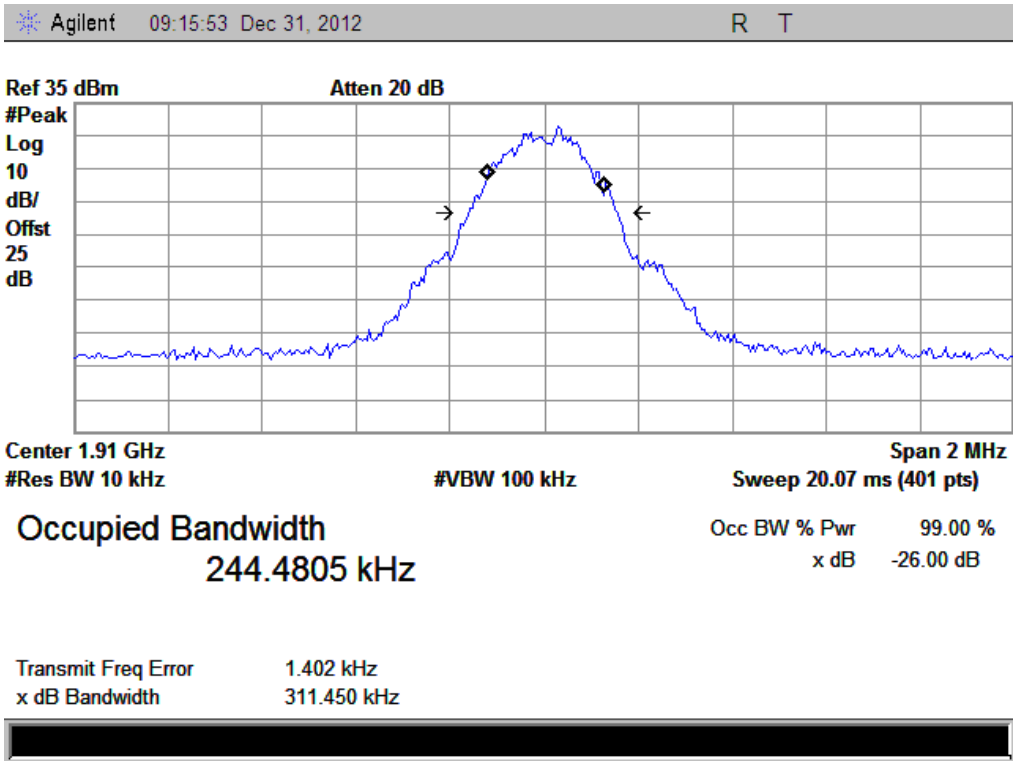
(Plot C: GSM 850MHz Channel = 251)



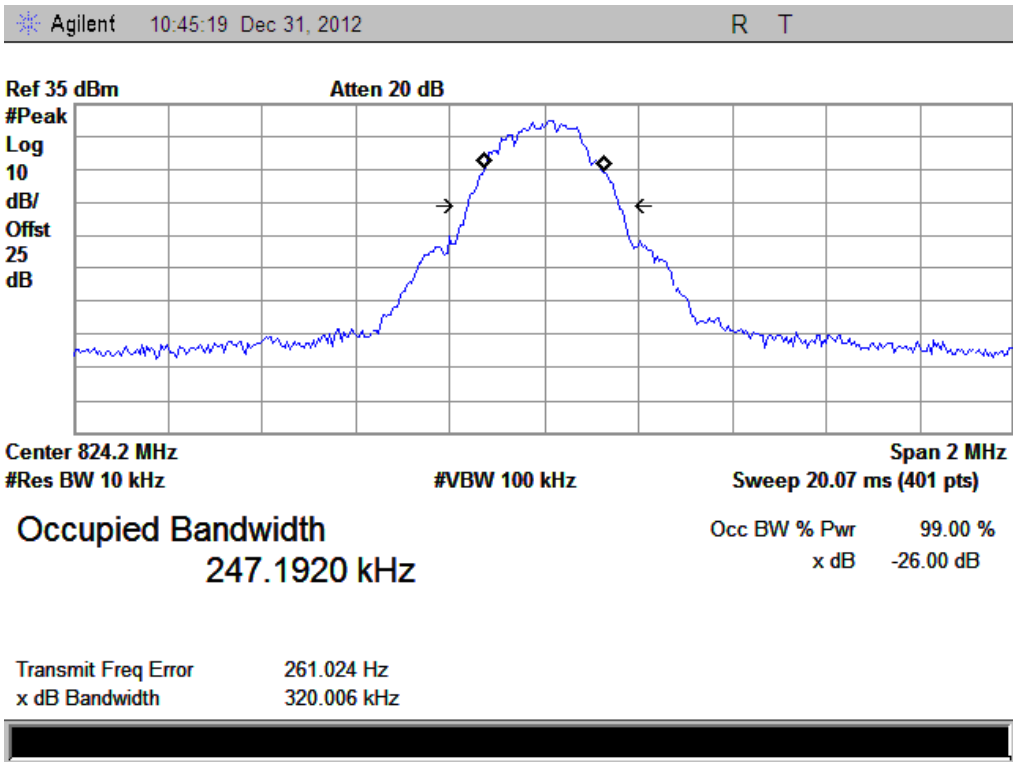
(Plot D: GSM 1900MHz Channel = 512)



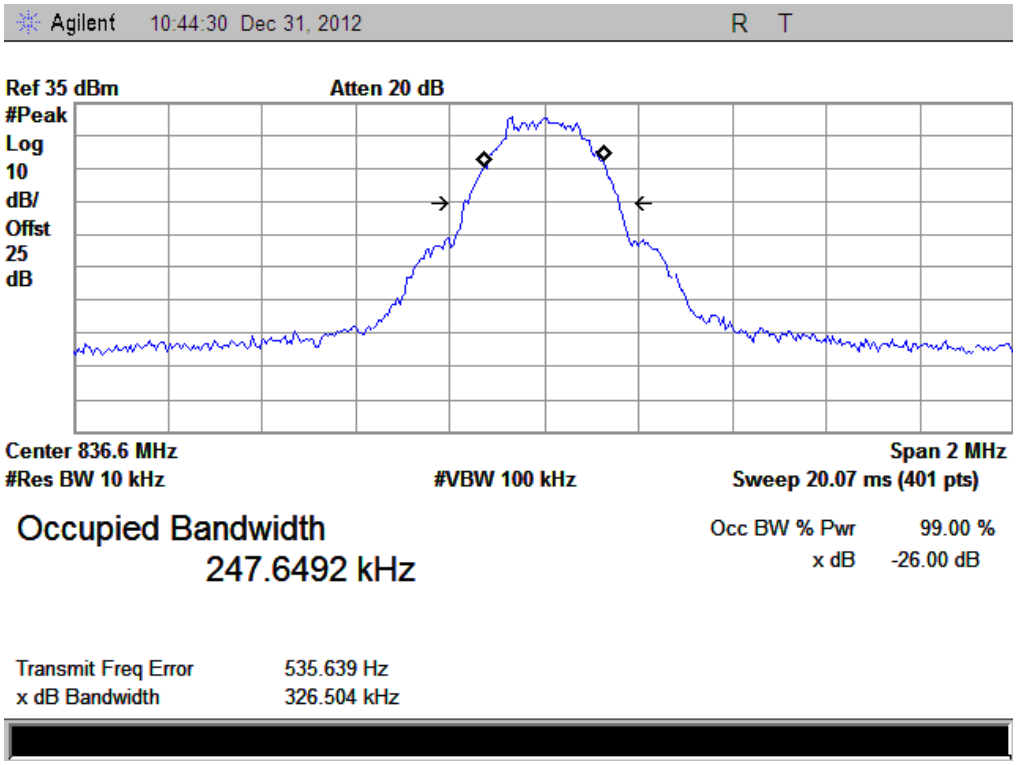
(Plot E: GSM 1900MHz Channel = 661)



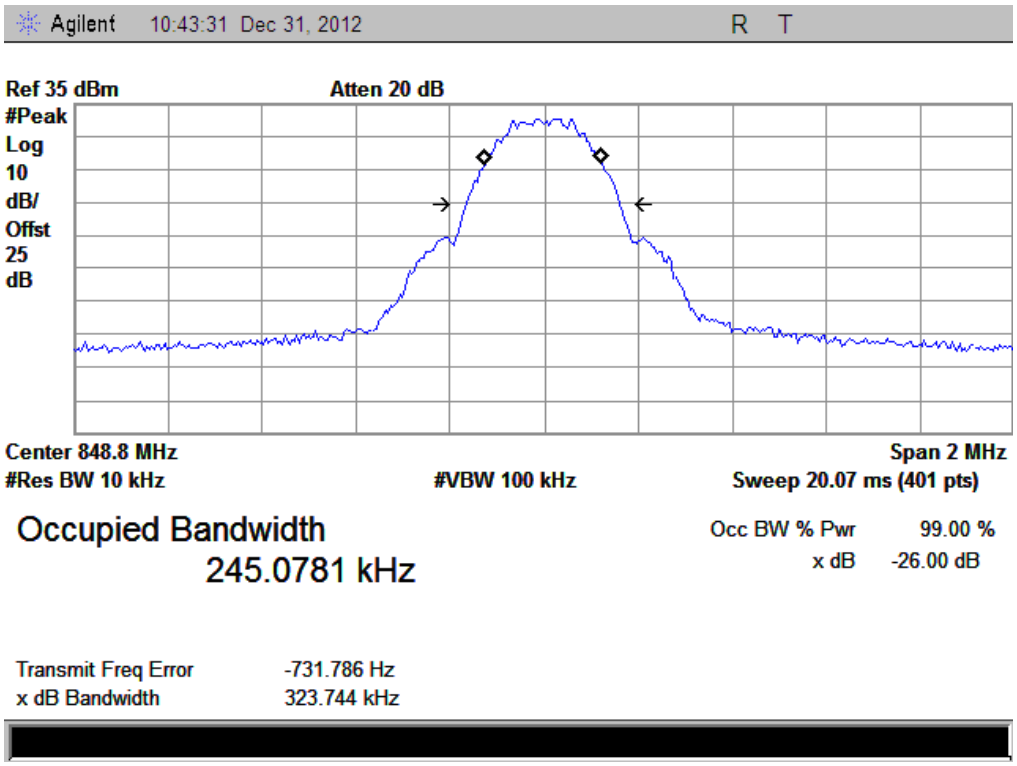
(Plot F: GSM 1900MHz Channel = 810)



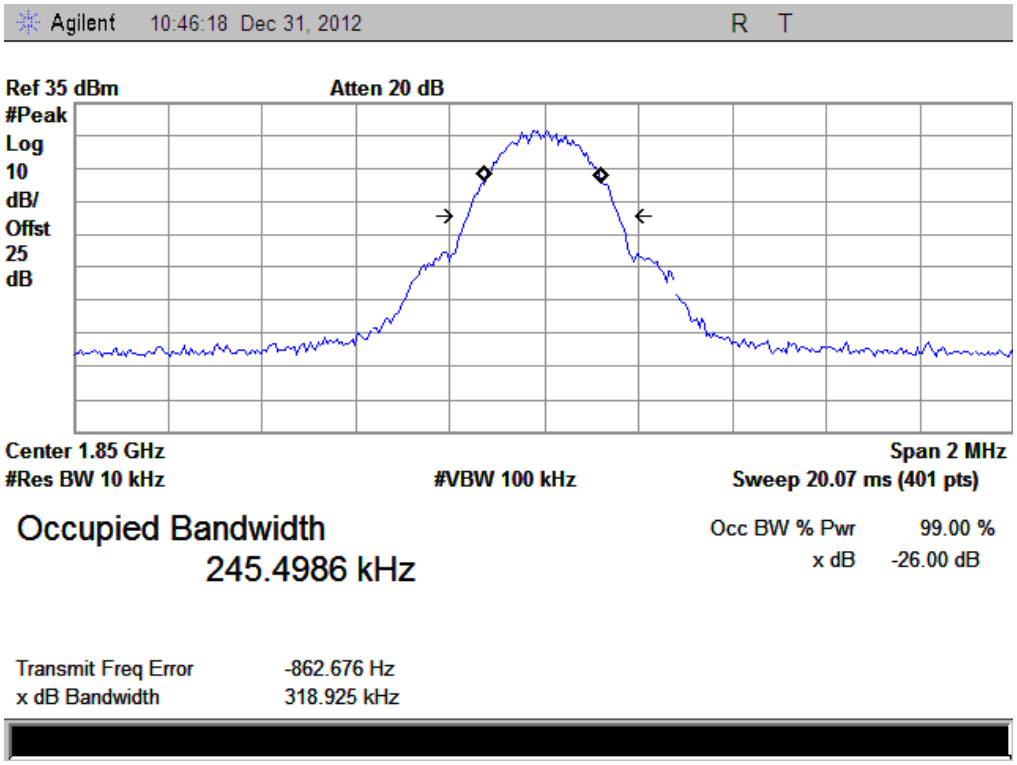
(Plot G: EDGE 850MHz Channel = 128)



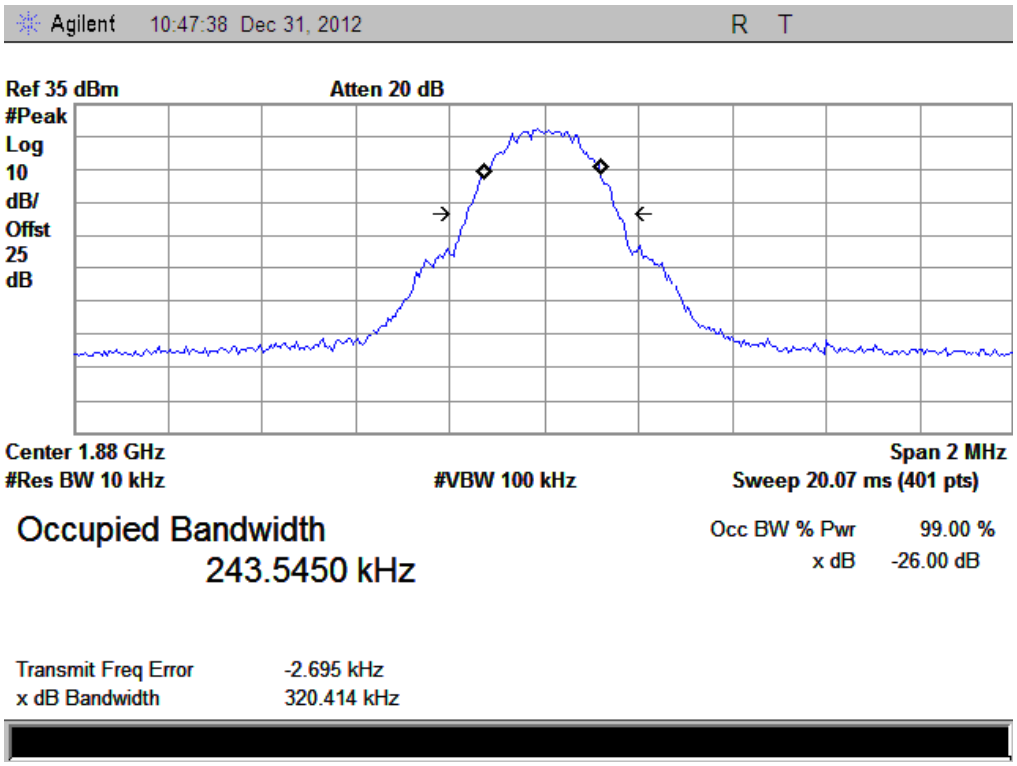
(Plot H: EDGE 850MHz Channel = 190)



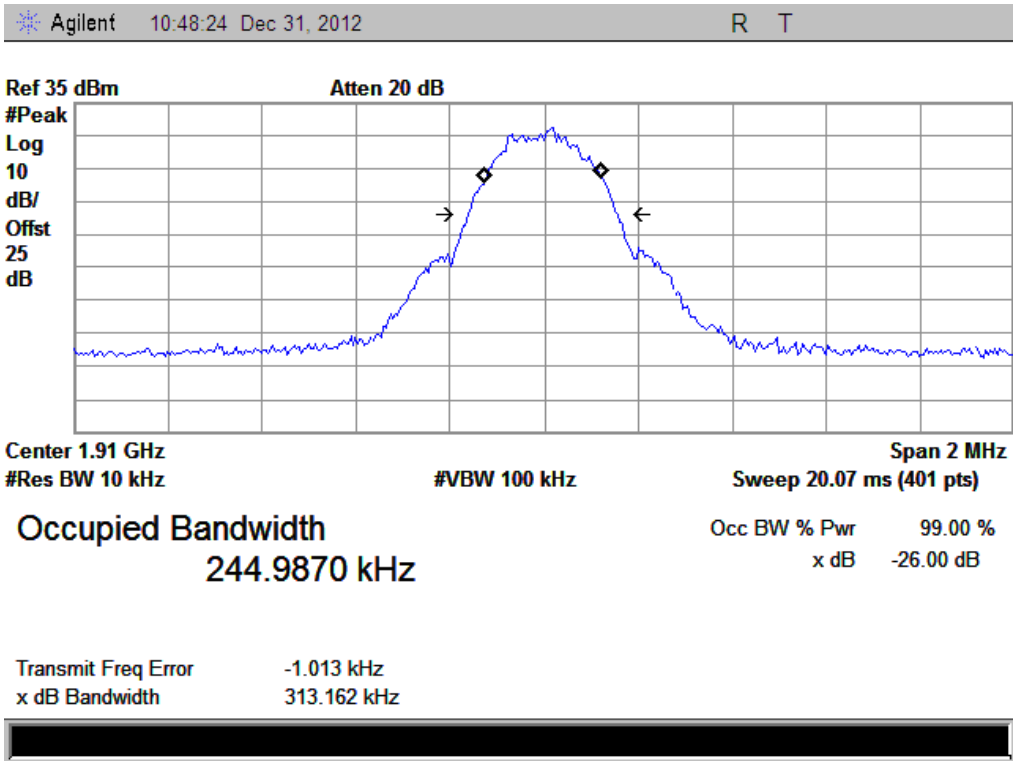
(Plot I: EDGE 850MHz Channel = 251)



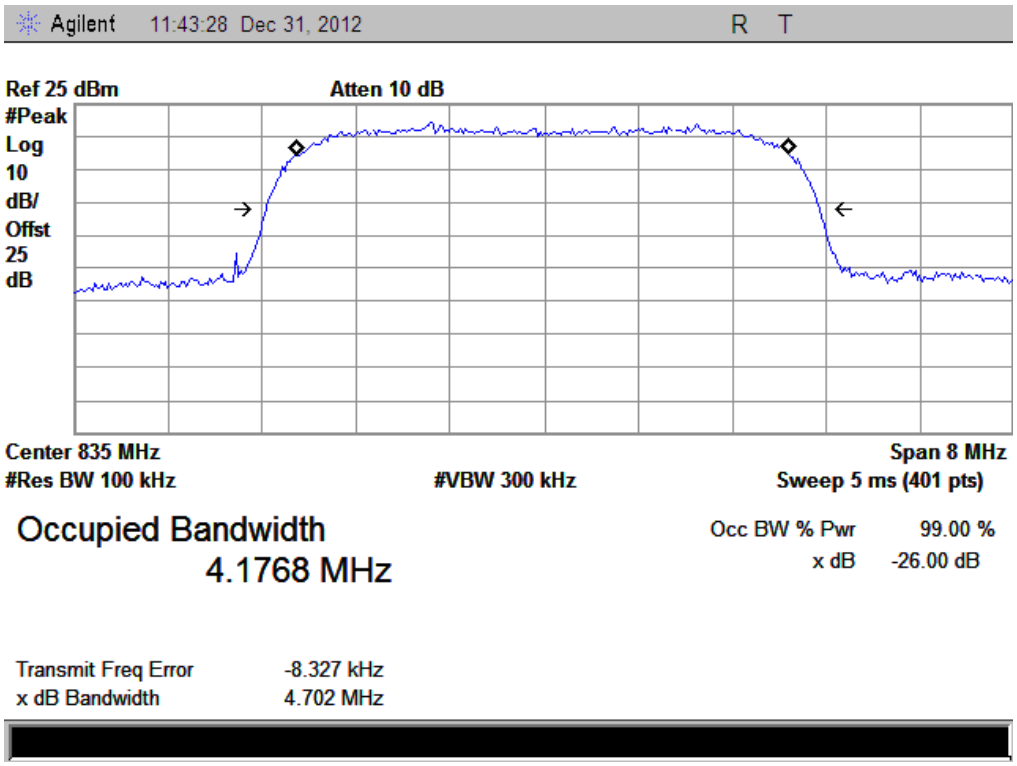
(Plot J: EDGE 1900MHz Channel = 512)



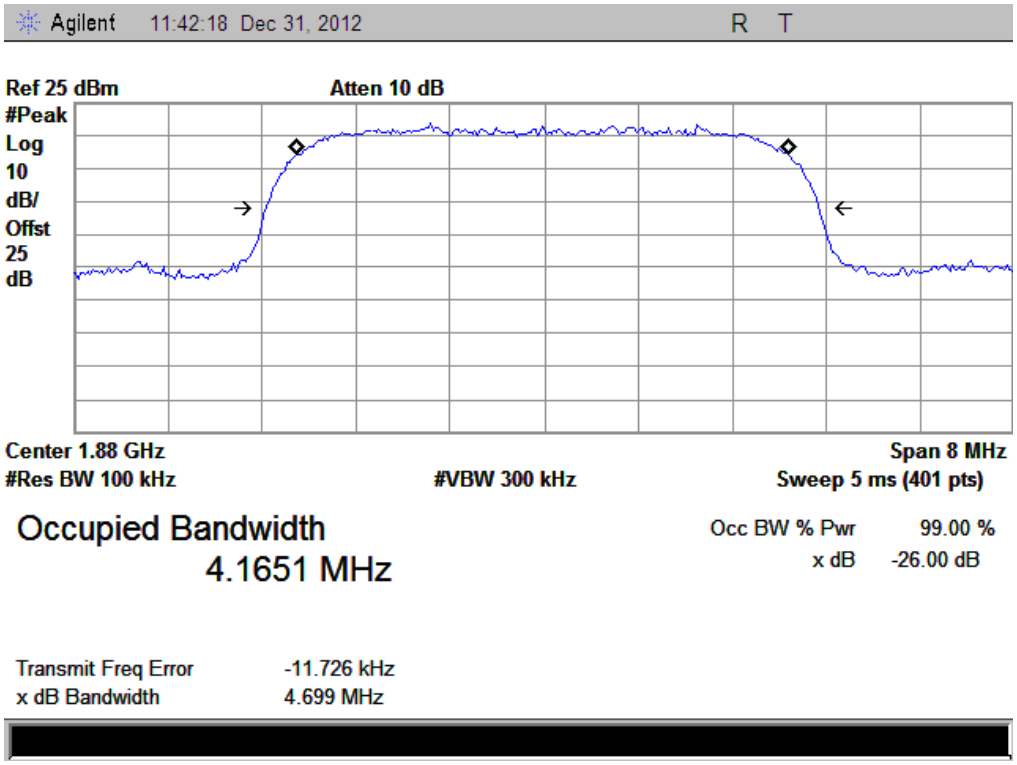
(Plot K: EDGE 1900MHz Channel = 661)



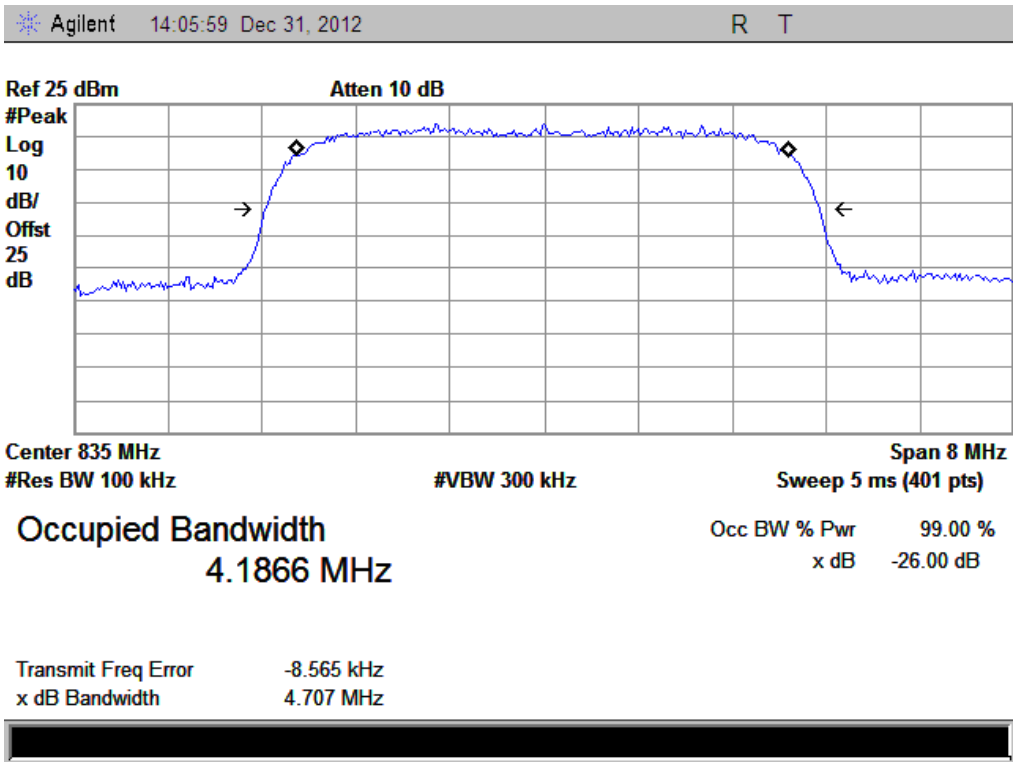
(Plot L: EDGE 1900MHz Channel = 810)



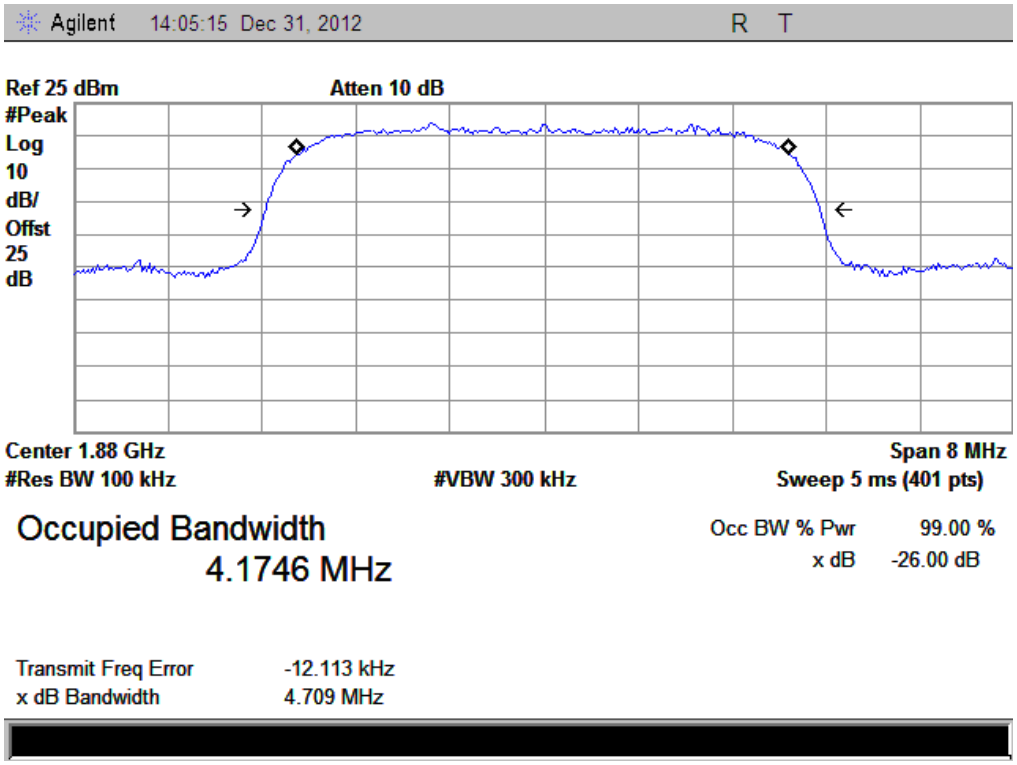
(Plot M: WCDMA 850MHz Channel = 4175)



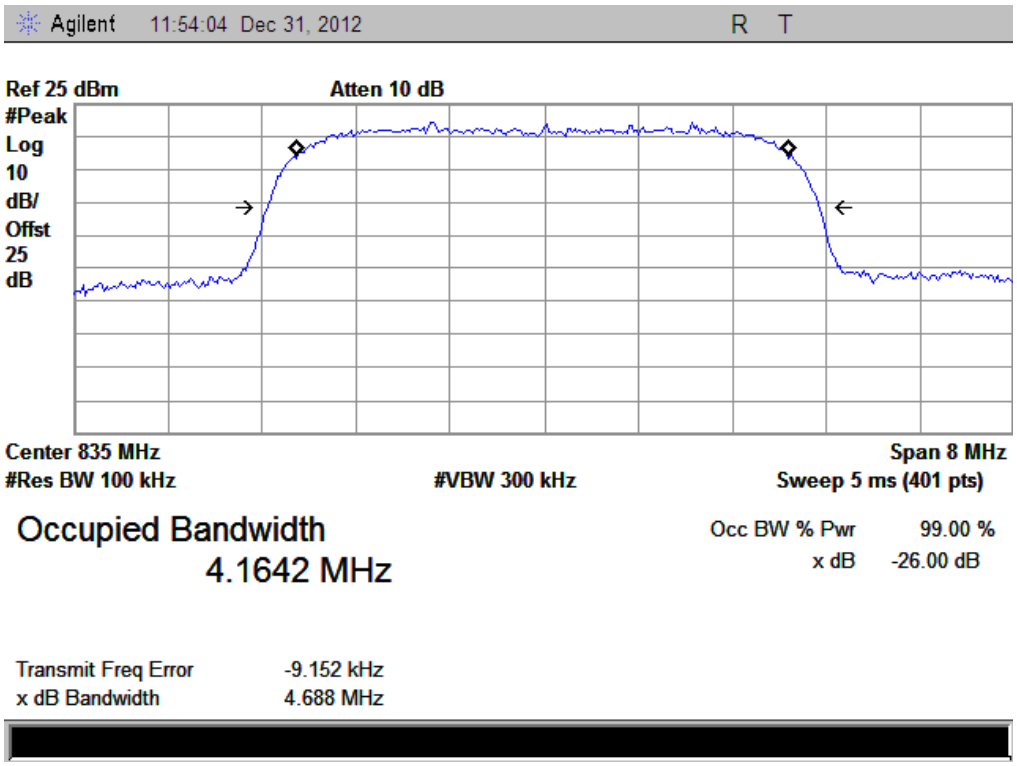
(Plot N: WCDMA 1900MHz Channel = 9400)



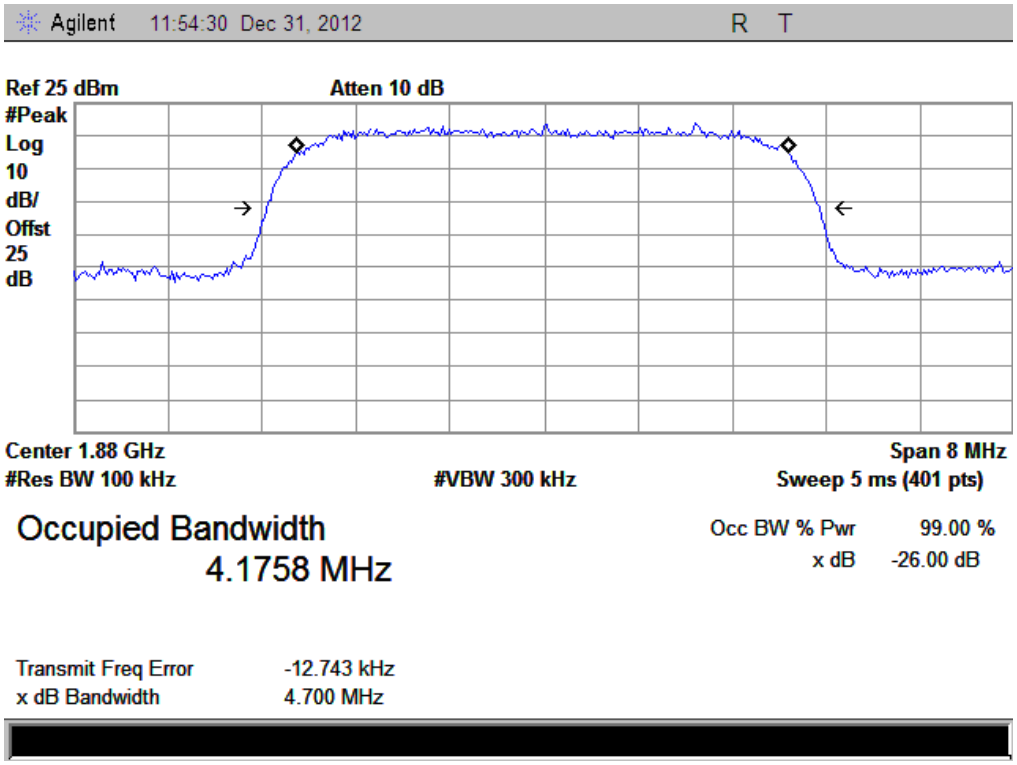
(Plot O: HSDPA 850MHz Channel = 4175)



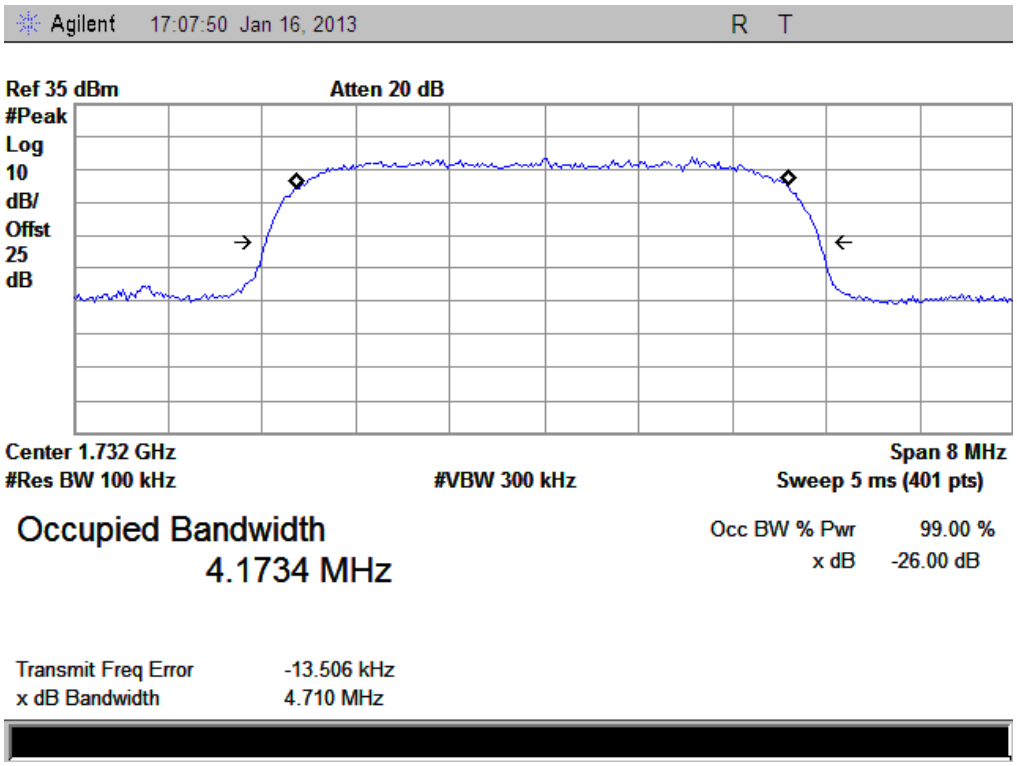
(Plot P: HSDPA1900MHz Channel = 9400)



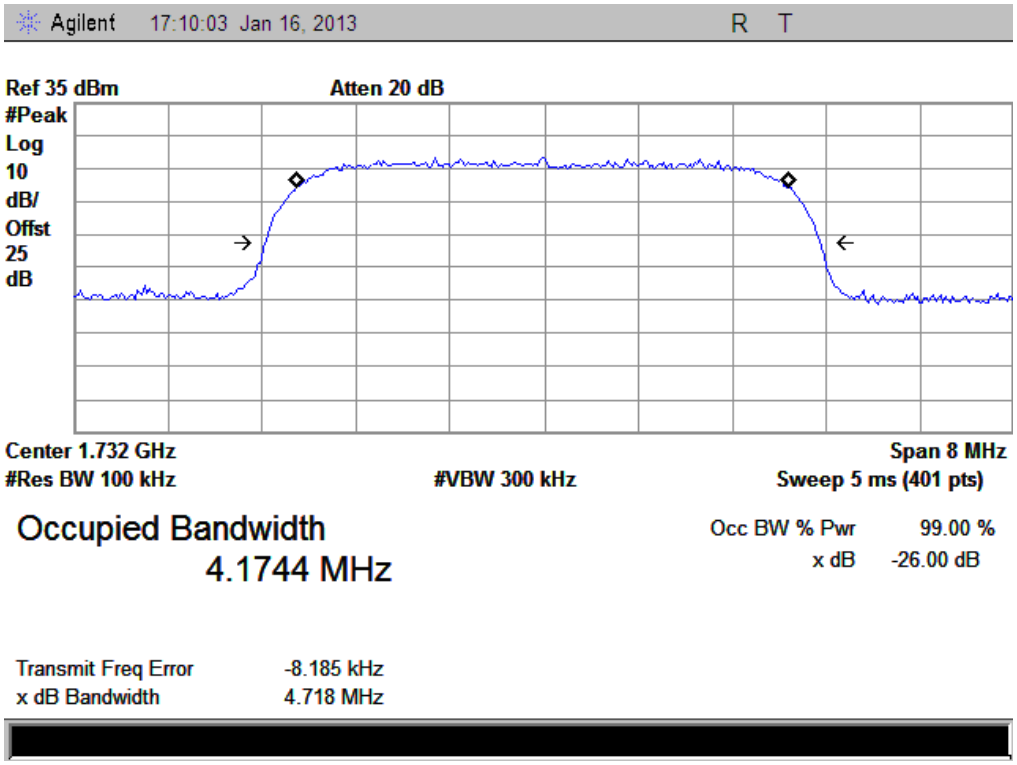
(Plot Q: HSUPA 850MHz Channel = 4175)



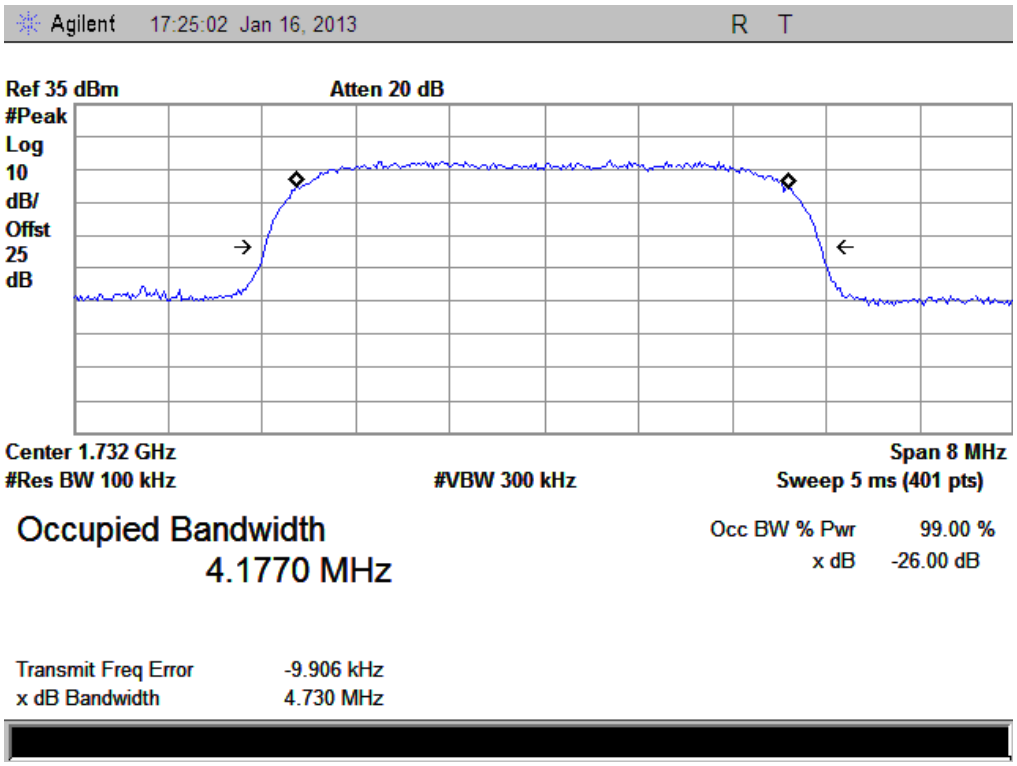
(Plot R: HSUPA1900MHz Channel = 9400)



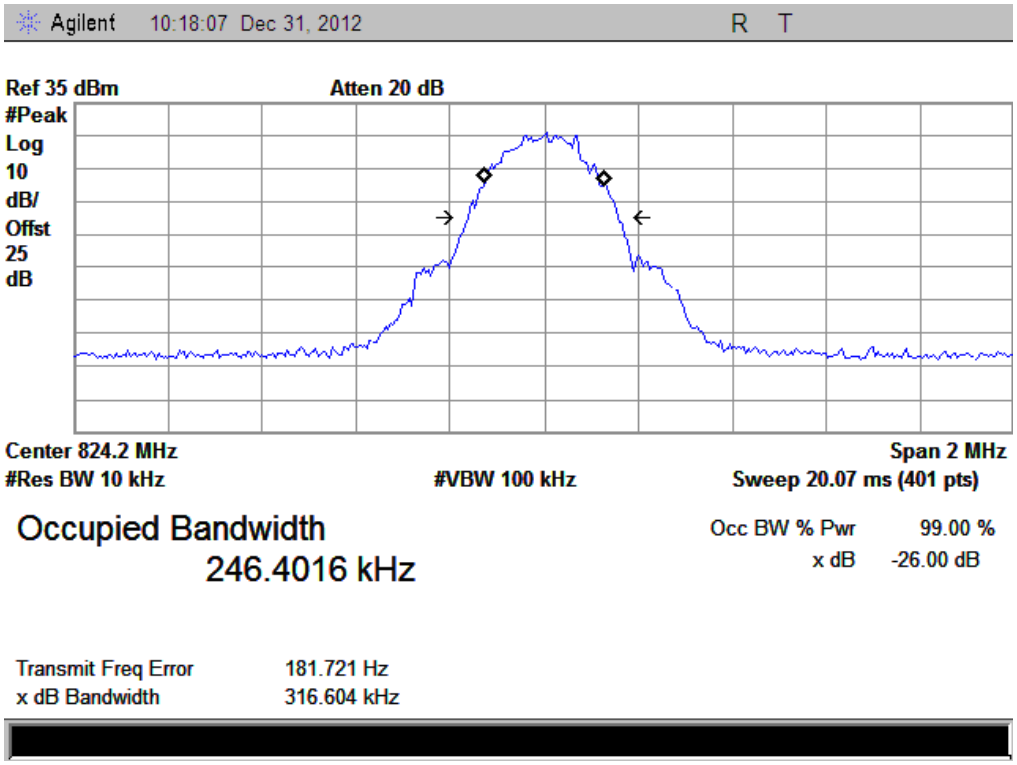
(Plot T: WCDMA1700MHz Channel = 1412)



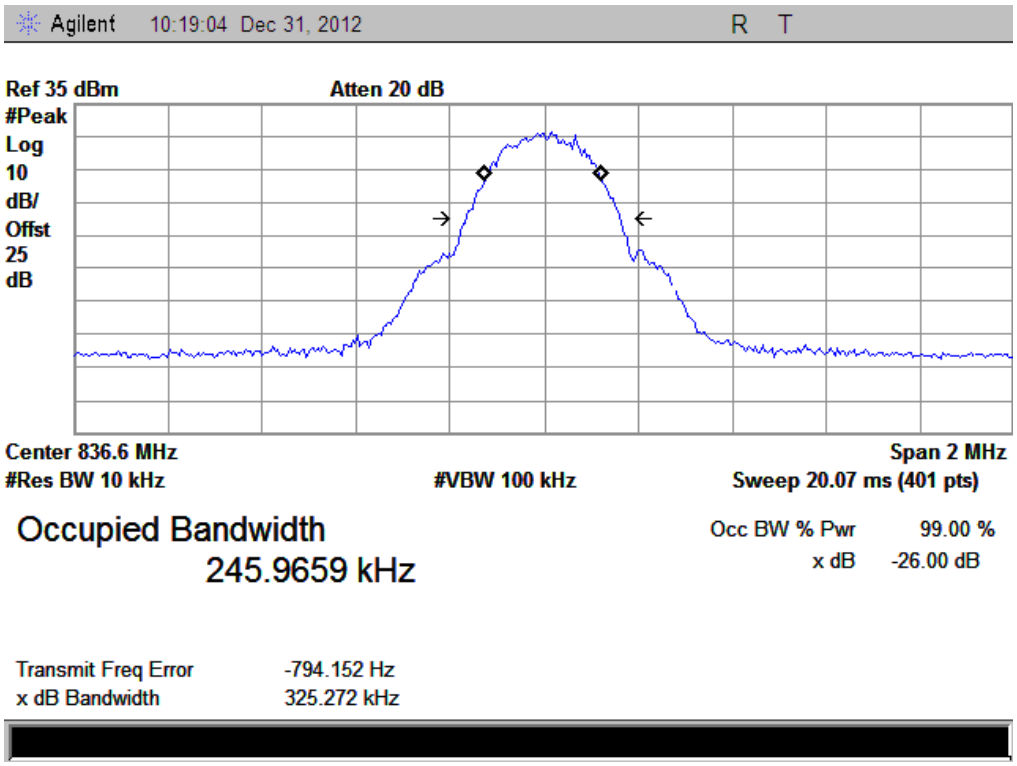
(Plot U: HSDPA1700MHz Channel = 1412)



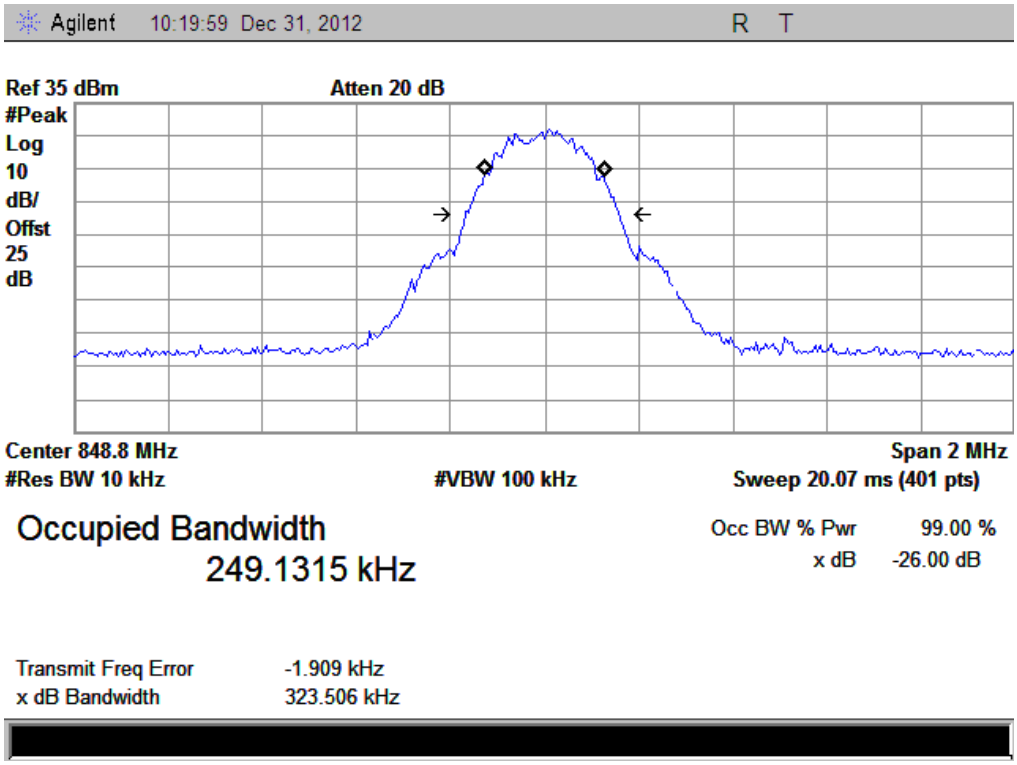
(Plot V: HSUPA1700MHz Channel = 1412)



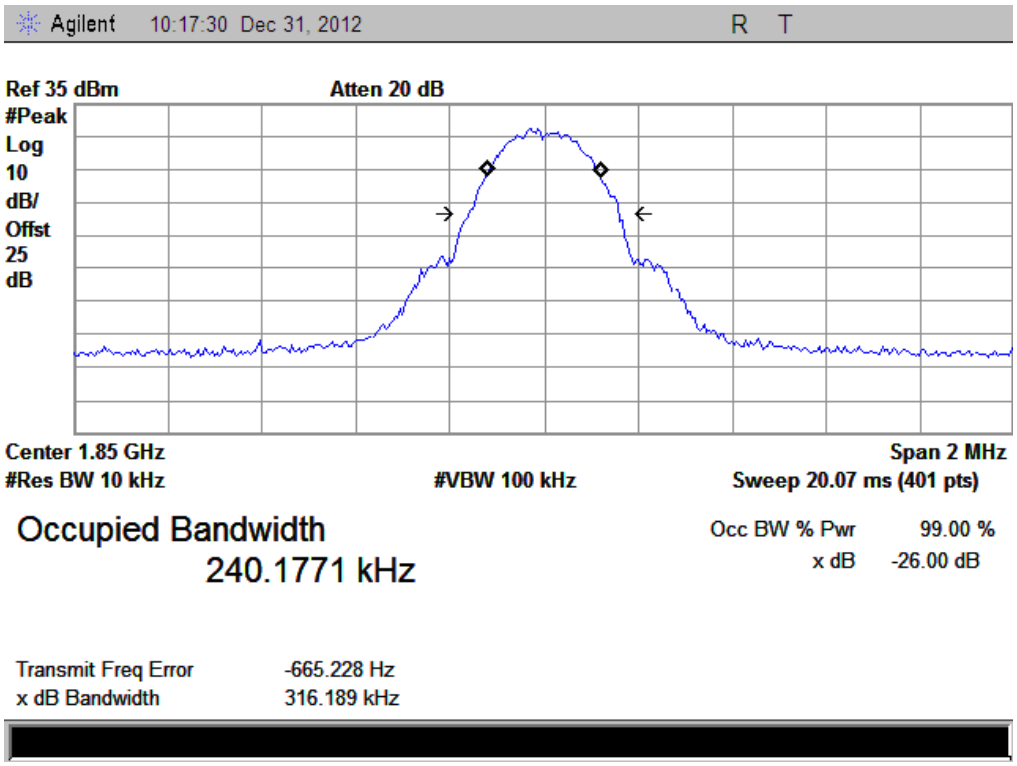
(Plot W: GPRS 850MHz Channel = 128)



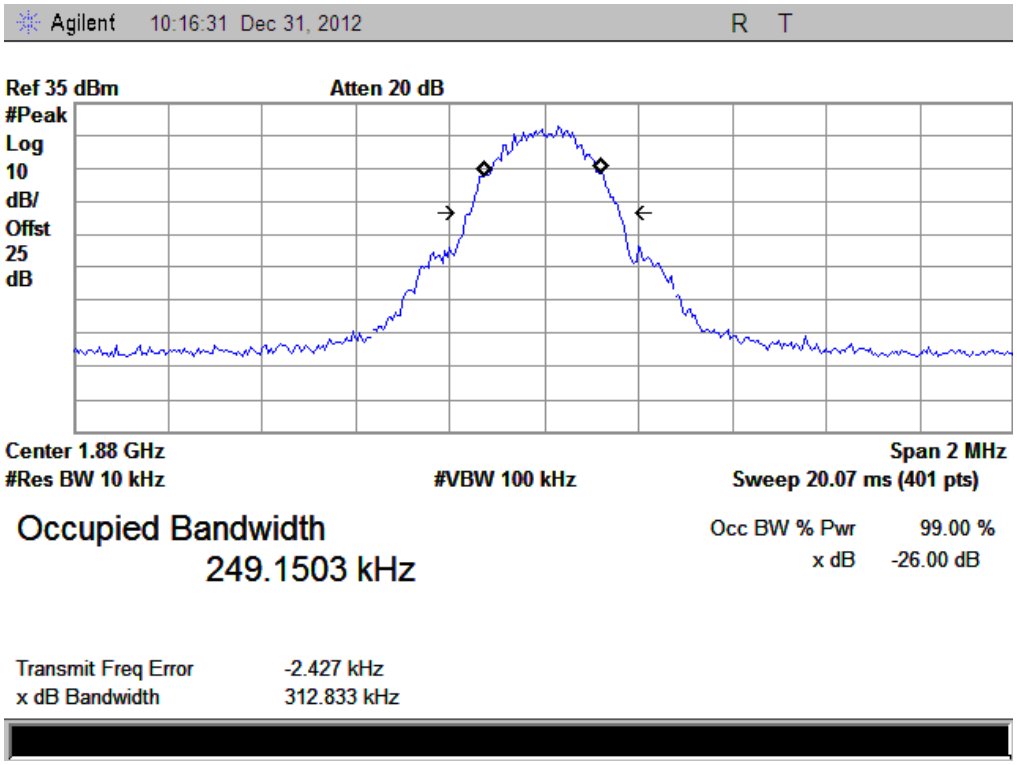
(Plot X: GPRS 850MHz Channel = 190)



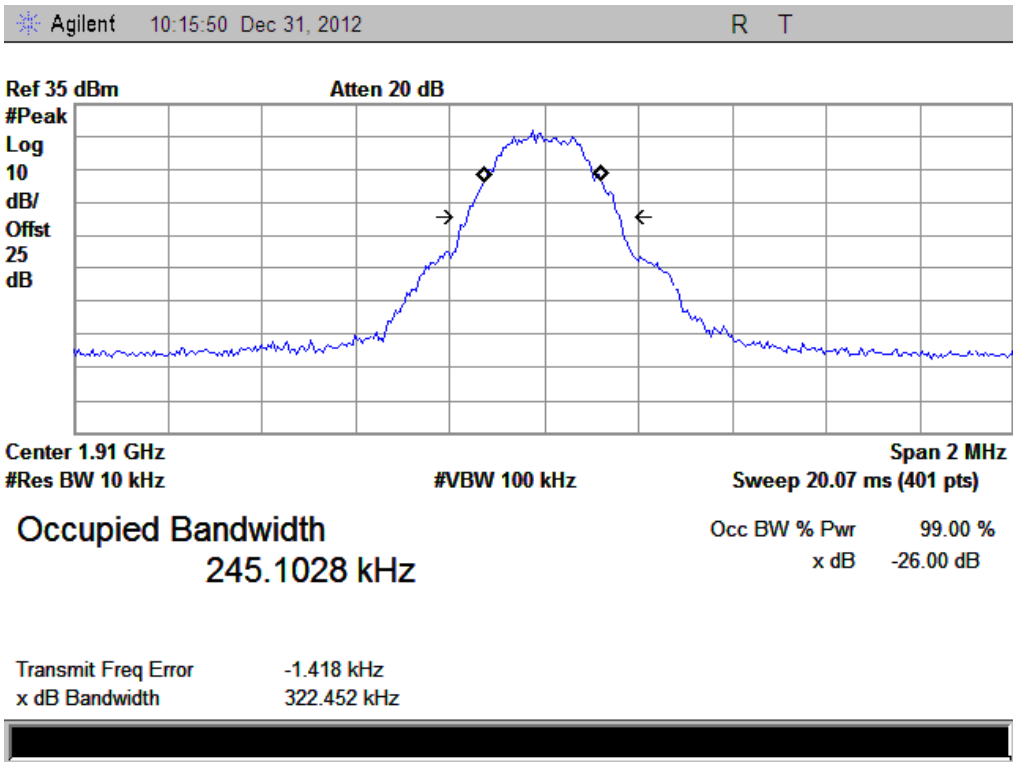
(Plot Y: GPRS 850MHz Channel = 251)



(Plot Z: GPRS 1900MHz Channel = 512)



(Plot A1: GPRS 1900MHz Channel = 661)



(Plot A2: GPRS 1900MHz Channel = 810)

2.3 Frequency Stability

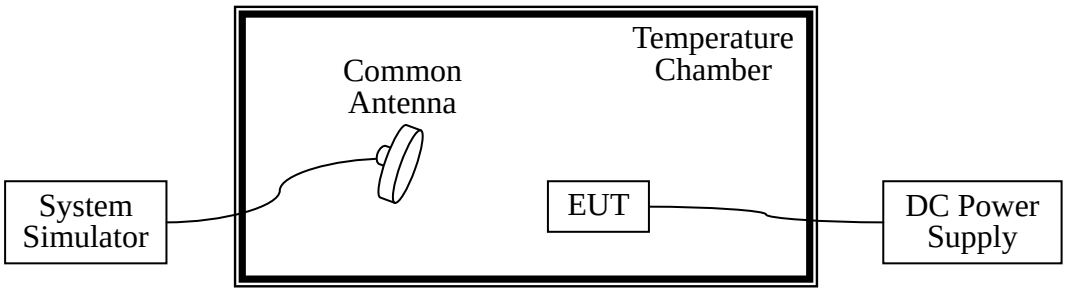
2.3.1 Requirement

According to FCC section 22.355 and FCC section 24.235\ FCC section 27.54, 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	Cal. Due
System Simulator	Agilent	E5515C	GB43130131	2012.05	2013.05
DC Power Supply	Good Will	GPS-3030DD	EF920938	2012.05	2013.05
Temperature Chamber	YinHe Experimental Equip.	HL4003T	(n.a.)	2012.05	2013.05

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 and AWS1700 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	19.75	±2060.5	-29.36	±2091.5	25.15	±2122	PASS
	-20	-13.12		-2.15		28.31		
	-10	17.28		40.06		-12.90		
	0	-23.03		1.99		12.66		
	+10	-13.02		-19.86		5.05		
	+20	-10.39		-2.32		3.02		
	+30	27.75		23.12		-13.01		
	+40	5.31		-2.15		0.51		
	+50	-22.19		35.31		-12.90		
4.2	+25	23.74		29.35		23.11		
3.6	+25	27.19		-27.15		-34.03		

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	-17.39	±1850.2	38.28	±1880.0	29.22	±1909.8	PASS
	-20	-3.10		-2.15		19.31		
	-10	38.28		35.06		-17.92		
	0	-2.15		1.99		17.36		
	+10	40.06		-19.86		5.05		
	+20	1.99		-2.32		3.02		
	+30	-19.86		23.12		-13.01		
	+40	39.56		11.33		0.51		
	+50	46.60		-17.55		21.45		
4.2	+25	26.05		38.10		-15.09		
3.6	+25	12.32		-21.07		-22.16		

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	23.12	±2091.5	8.51	±2122	PASS
	-20	38.28		11.33		-12.90		
	-10	-2.15		-17.55		12.66		
	0	40.06		38.10		5.05		
	+10	1.99		-22.06		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	2.47	±1909.8	PASS
	-20	0.62		7.23		-11.76		
	-10	1.65		-24.78		-12.21		
	0	2.47		-1.26		13.33		
	+10	-10.76		-18.68		5.33		
	+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	16.21	±2066	12.81	±2087.5	-9.81	±2116.5	PASS
	-20	-27.02		-20.59		-23.82		
	-10	-13.47		20.25		26.39		
	0	15.07		19.45		30.98		
	+10	31.08		17.32		-2.65		
	+20	31.02		-19.32		18.30		
	+30	-7.98		31.22		-12.57		
	+40	26.21		13.45		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	27.46	±2066	-24.37	±2087.5	15.81	±2116.5	PASS
	-20	-8.56		-13.96		14.41		
	-10	20.65		35.23		21.57		
	0	12.88		-8.31		-24.37		
	+10	-14.75		-13.95		-13.96		
	+20	8.78		-24.37		35.23		
	+30	-1.49		12.88		-8.31		
	+40	17.14		-14.75		-13.95		
	+50	-23.61		23.37		26.37		
4.2	+25	32.03		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	11.87	±1852.4	-3.01	±1880	2.61	±1907.6	PASS
	-20	-16.65		21.71		-8.38		
	-10	20.12		14.37		-13.02		
	0	-3.01		-11.21		-8.51		
	+10	21.71		10.60		5.64		
	+20	20.12		-4.81		-3.85		
	+30	-15.01		34.31		9.57		
	+40	22.71		8.36		27.54		
	+50	16.32		-25.88		-12.52		
4.2	+25	-11.28		29.43		-2.83		
3.6	+25	10.33		-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	13.82	±2066	13.5	±2087.5	13.55	±2116.5	PASS
	-20	-15.25		-15.31		7.43		
	-10	-11.79		-11.79		7.00		
	0	-0.44		-0.44		-7.32		
	+10	0.01		0.01		-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	1.71		-4.57		29.11		
3.6	+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		
3.6	+25	22.58		-1.83		-15.78		

11. WCDMA 1700MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1312 (1712.4MHz)		Channel = 1412 (1732.4MHz)		Channel = 1513 (1752.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	2.01	±4281	13.17	±4331	-19.71	±4381.5	PASS
	-20	-4.75		-11.52		-20.81		
	-10	16.38		20.45		27.33		
	0	-1.76		15.42		31.92		
	+10	23.52		11.22		-23.35		
	+20	13.79		-13.52		17.35		
	+30	-7.08		31.61		-19.37		
	+40	20.13		12.45		24.63		
	+50	-14.71		-11.62		17.56		
4.2	+25	-6.18		31.62		21.11		
3.6	+25	18.66		-18.08		-19.73		

12. HSDPA 1700MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1312 (1712.4MHz)		Channel = 1412 (1732.4MHz)		Channel = 1513 (1752.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	17.29	±4281	11.87	±4331	-9.81	±4381.5	PASS
	-20	-7.32		-0.59		-23.82		
	-10	-3.40		21.45		26.39		
	0	16.47		13.45		30.98		
	+10	30.18		1.31		-2.65		
	+20	32.07		-12.52		18.30		
	+30	-7.98		30.62		-12.57		
	+40	26.21		13.45		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		

13. HSUPA 1700MHz Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1312 (1712.4MHz)		Channel = 1412 (1732.4MHz)		Channel = 1513 (1752.6MHz)		
		Hz	Limit	Hz	Limit	Hz	Limit	
3.7	-30	18.11	±4281	13.87	±4331	-31.71	±4381.5	PASS
	-20	-27.31		-16.59		-27.82		
	-10	-12.41		23.41		27.32		
	0	11.42		12.45		31.38		
	+10	31.13		17.35		-21.35		
	+20	31.02		-13.42		18.36		
	+30	-12.91		33.12		-15.59		
	+40	22.22		13.55		21.92		
	+50	15.13		-16.72		19.36		
4.2	+25	-36.07		33.52		21.18		
3.6	+25	18.55		-19.08		-17.71		

2.4 Conducted Out of Band Emissions

2.4.1 Requirement

According to FCC section 22.917(a) and FCC section 24.238(a), FCC section 27.53 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.

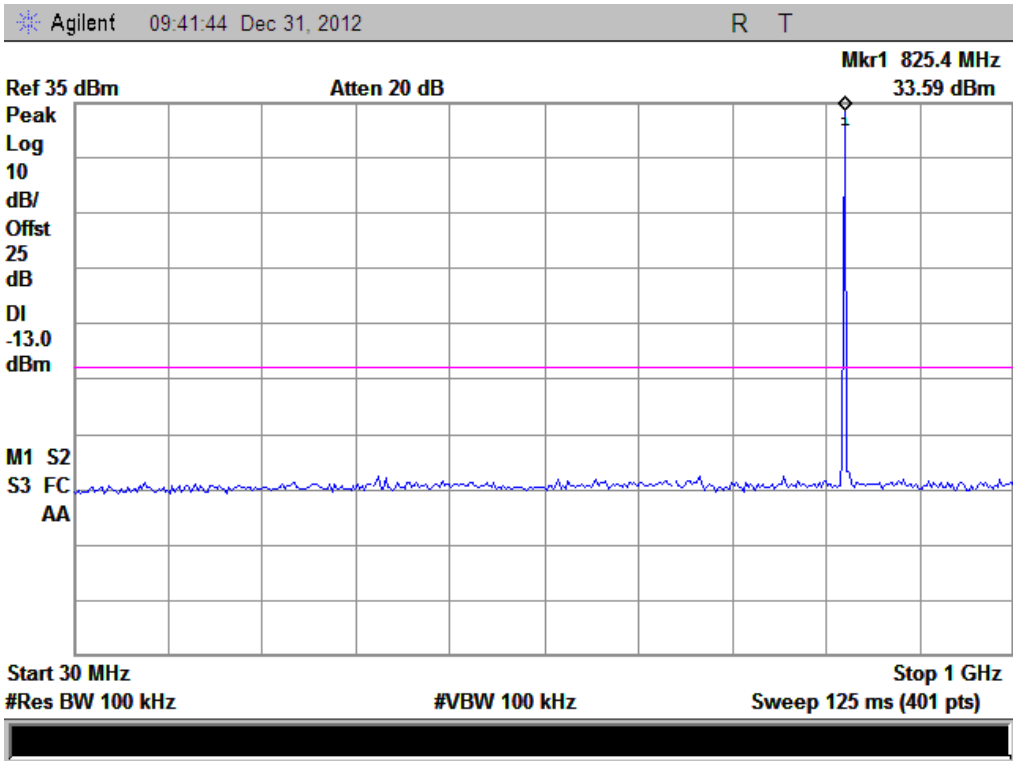
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-23.08	Plot A1toA1.1	-13	PASS
	190	836.6	-22.59	Plot A2toA2.1		PASS
	251	848.8	-22.4	Plot A3toA3.1		PASS
GSM 1900MHz	512	1850.2	-21.9	Plot B1toB1.1	-13	PASS
	661	1880.0	-21.62	Plot B2toB2.1		PASS
	810	1909.8	-21.24	Plot B3toB3.1		PASS
EDGE 850MHz	128	824.2	-22.58	Plot C1toC1.1	-13	PASS
	190	836.6	-22.23	Plot C2toC2.1		PASS
	251	848.8	-22.48	Plot C3toC3.1		PASS
EDGE 1900MHz	512	1850.2	-21.48	Plot D1toD1.1	-13	PASS
	661	1880.0	-22.63	Plot D2toD2.1		PASS
	810	1909.8	-22.38	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	-24.33	Plot F2toF2.1		PASS
	9538	1907.6	< -25	Plot F3toF3.1		PASS
HSDPA	4132	826.4	< -25	Plot G1toG1.1	-13	PASS

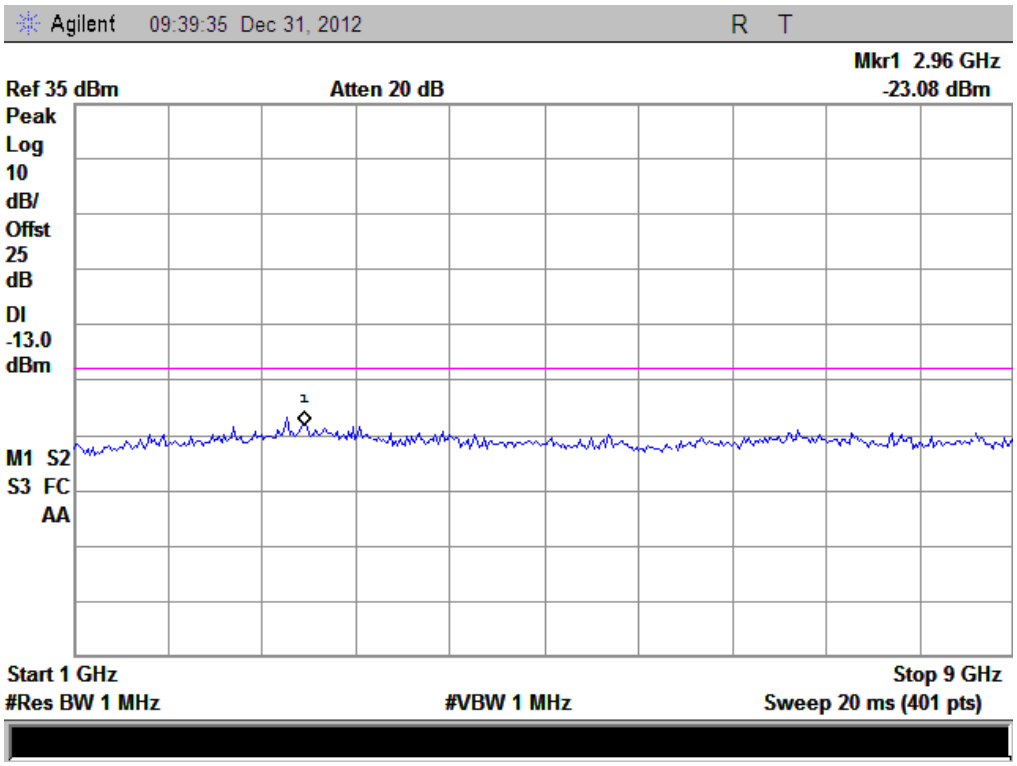
Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
850MHz	4175	835	< -25	Plot G2toG2.1		PASS
	4233	846.6	< -25	Plot G3toG3.1		PASS
HSDPA 1900MHz	9262	1852.4	< -25	Plot H1toH1.1	-13	PASS
	9400	1880	< -25	Plot H2toH2.1		PASS
	9538	1907.6	< -25	Plot H3toH3.1		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
WCDMA 1700MHz	1312	1712.4	< -25	Plot K1toK1.1	-13	PASS
	1412	1732.4	< -25	Plot K2toK2.1		PASS
	1513	1752.6	< -25	Plot K3toK3.1		PASS
HSDPA 1700MHz	1312	1712.4	< -25	Plot L1toL1.1	-13	PASS
	1412	1732.4	< -25	Plot L2toL2.1		PASS
	1513	1752.6	< -25	Plot L3toL3.1		PASS
HSUPA 1700MHz	1312	1712.4	< -25	Plot M1toM1.1	-13	PASS
	1412	1732.4	< -25	Plot M2toM2.1		PASS
	1513	1752.6	< -25	Plot M3toM3.1		PASS

2. Test Plots for the Whole Measurement Frequency Range:

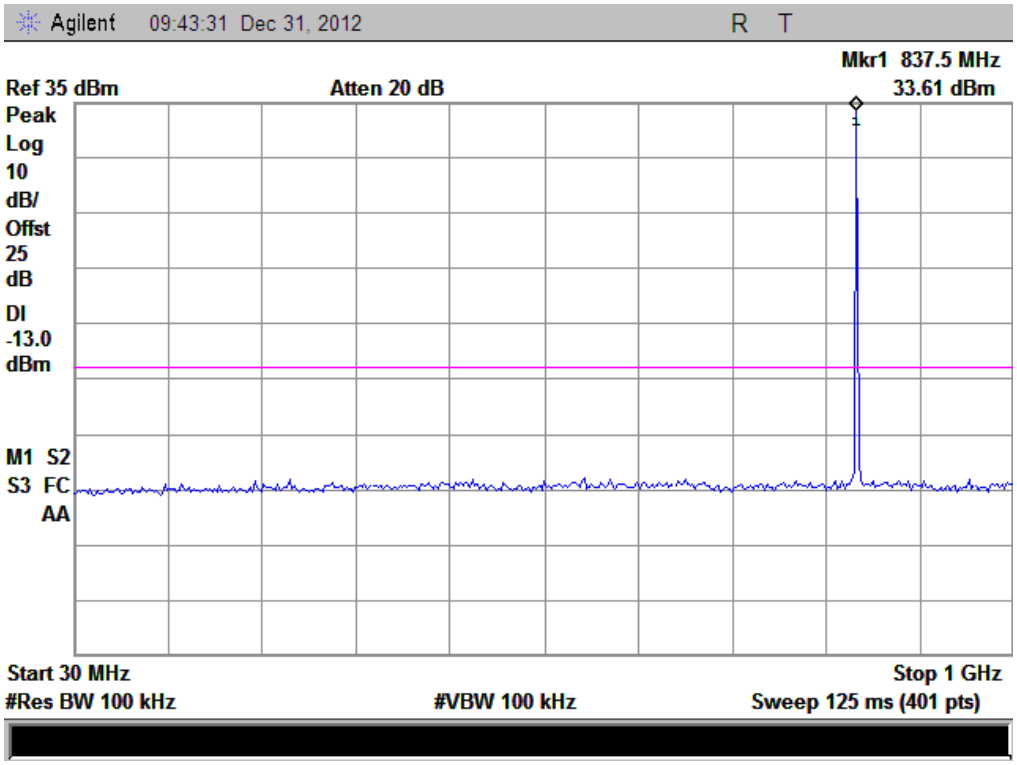
Note: the power of the EUT transmitting frequency should be ignored.



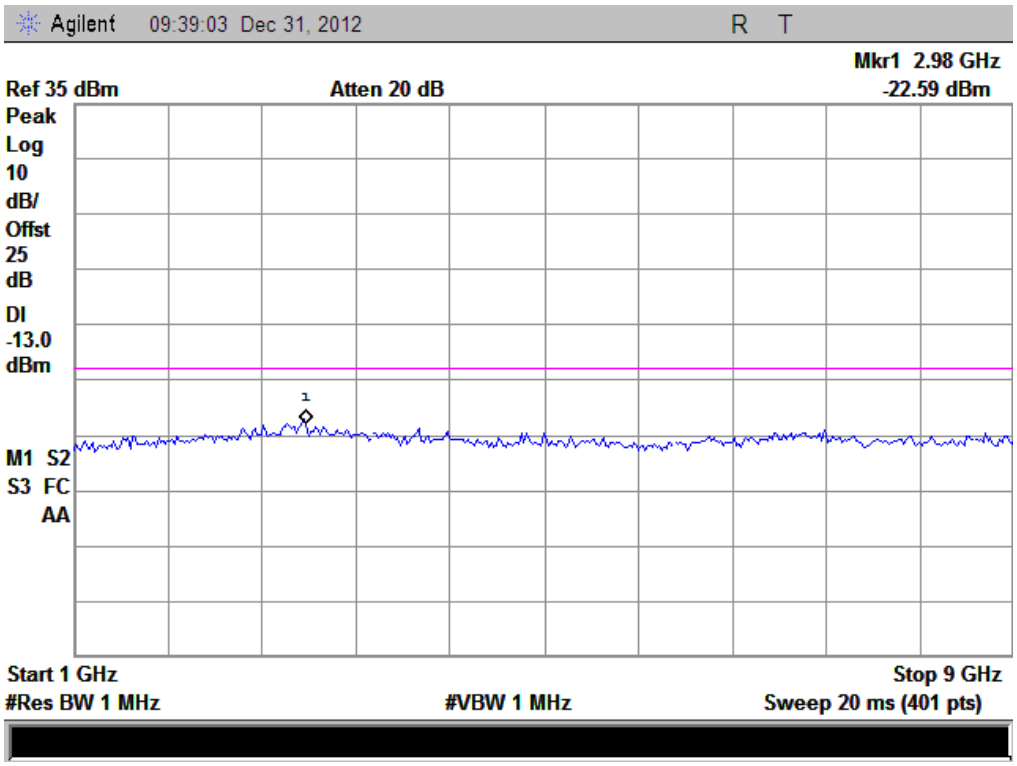
(Plot A1: GSM 850MHz Channel = 128, 30MHz to 1GHz)



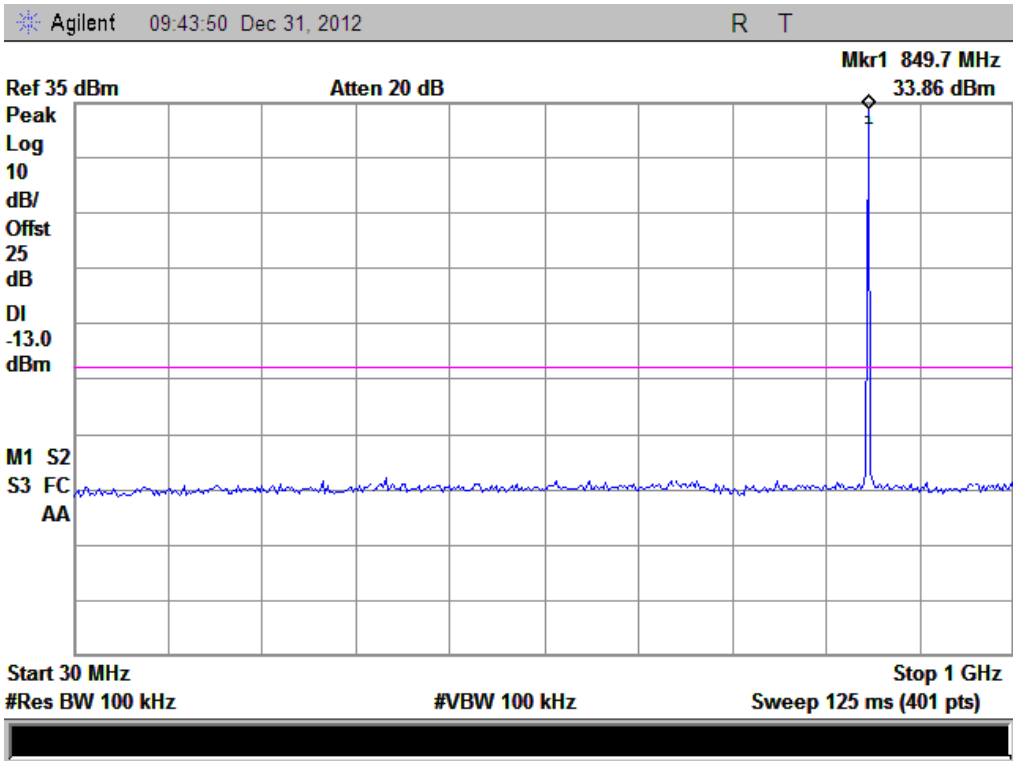
(Plot A1.1: GSM 850MHz Channel = 128, 1GHz to 9GHz)



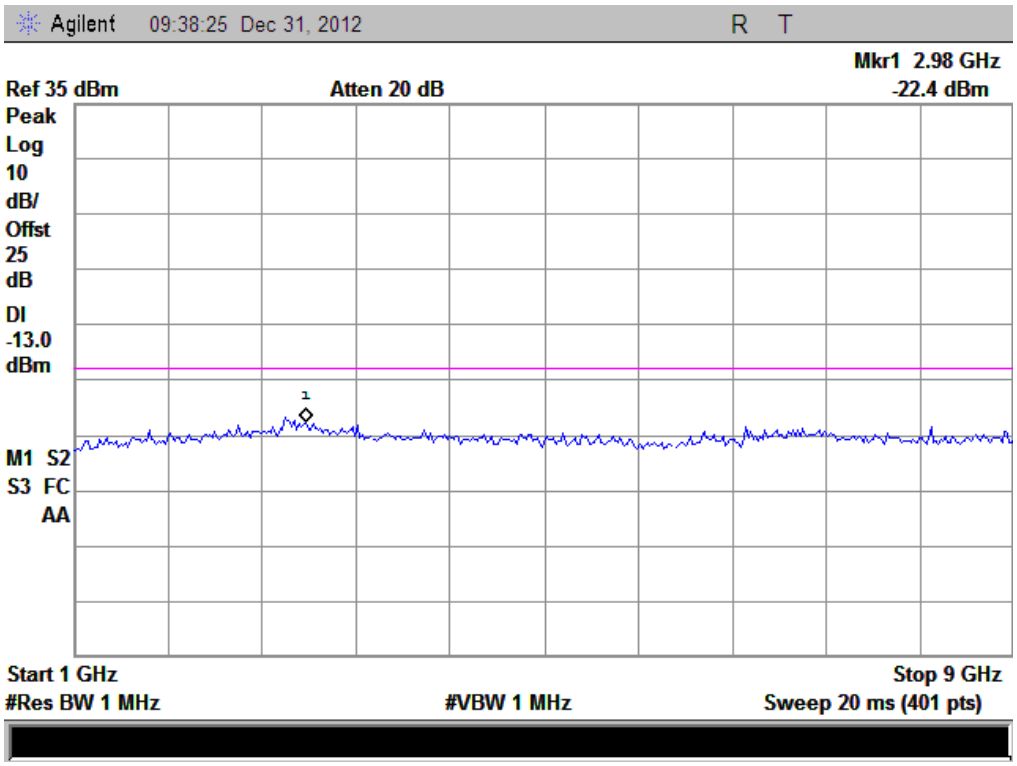
(Plot A2: GSM 850MHz Channel = 190, 30MHz to 1GHz)



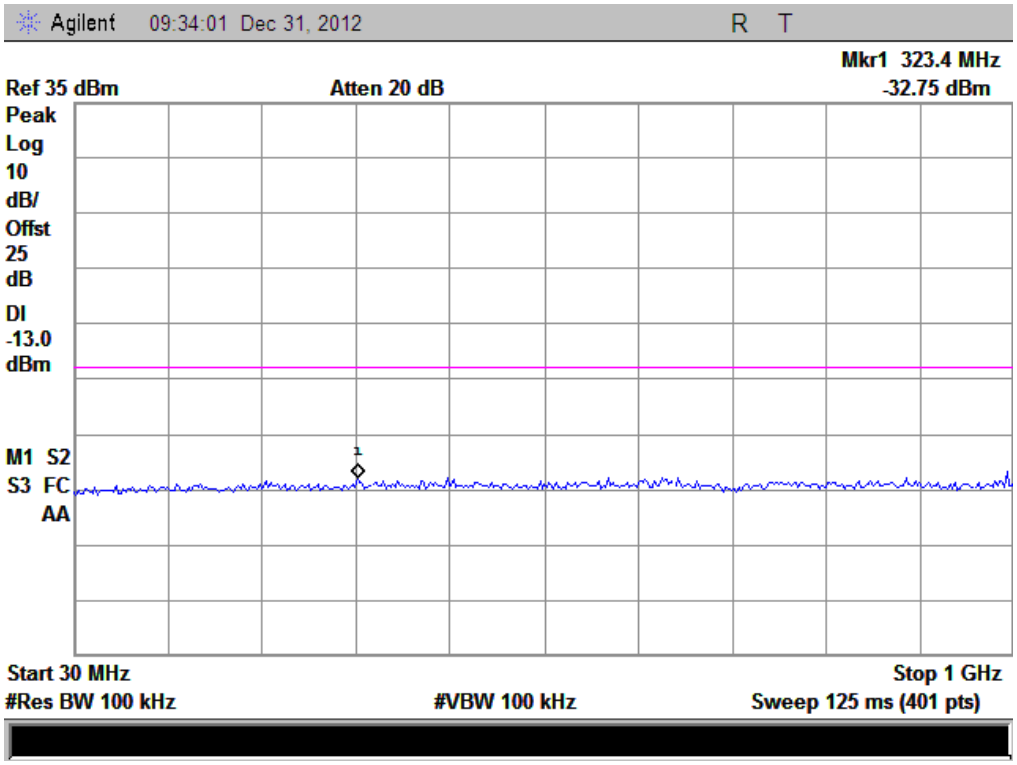
(Plot A2.1: GSM 850MHz Channel = 190, 1GHz to 9GHz)



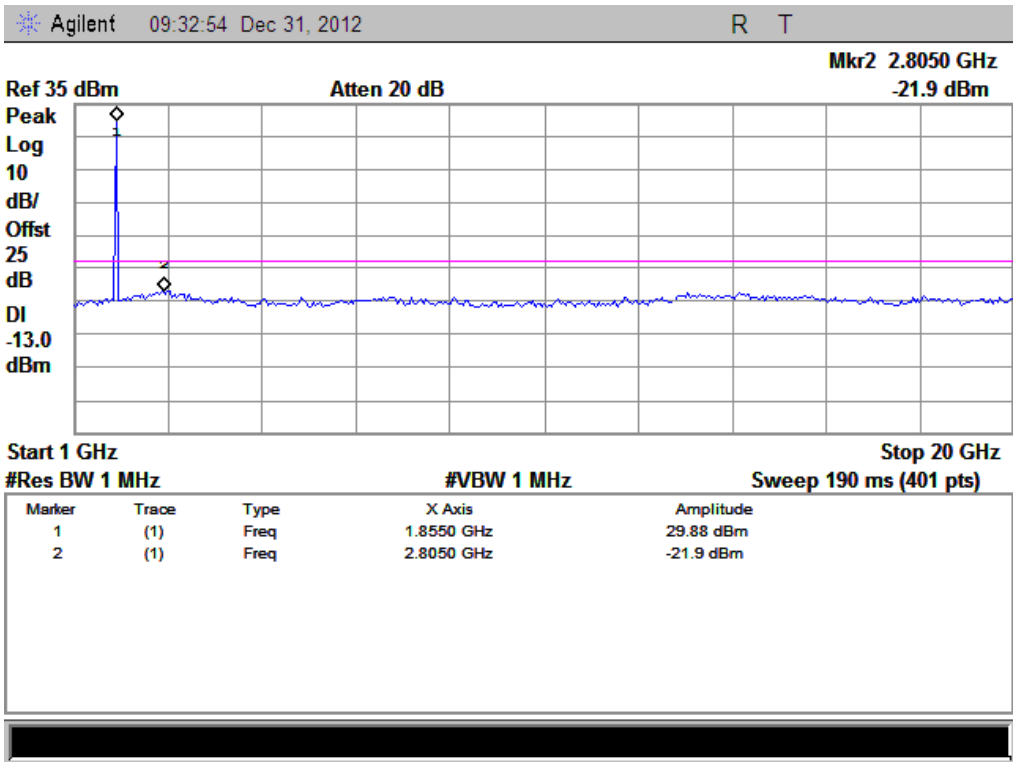
(Plot A3: GSM 850MHz Channel = 251, 30MHz to 1GHz)



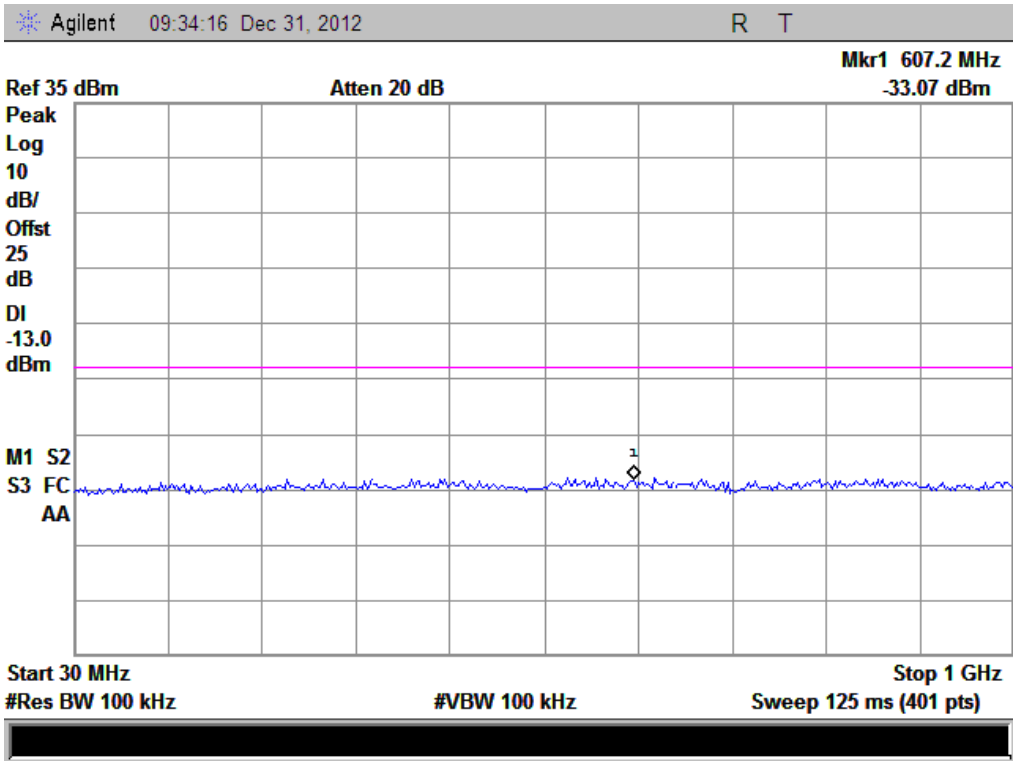
(Plot A3.1: GSM 850MHz Channel = 251, 1GHz to 9GHz)



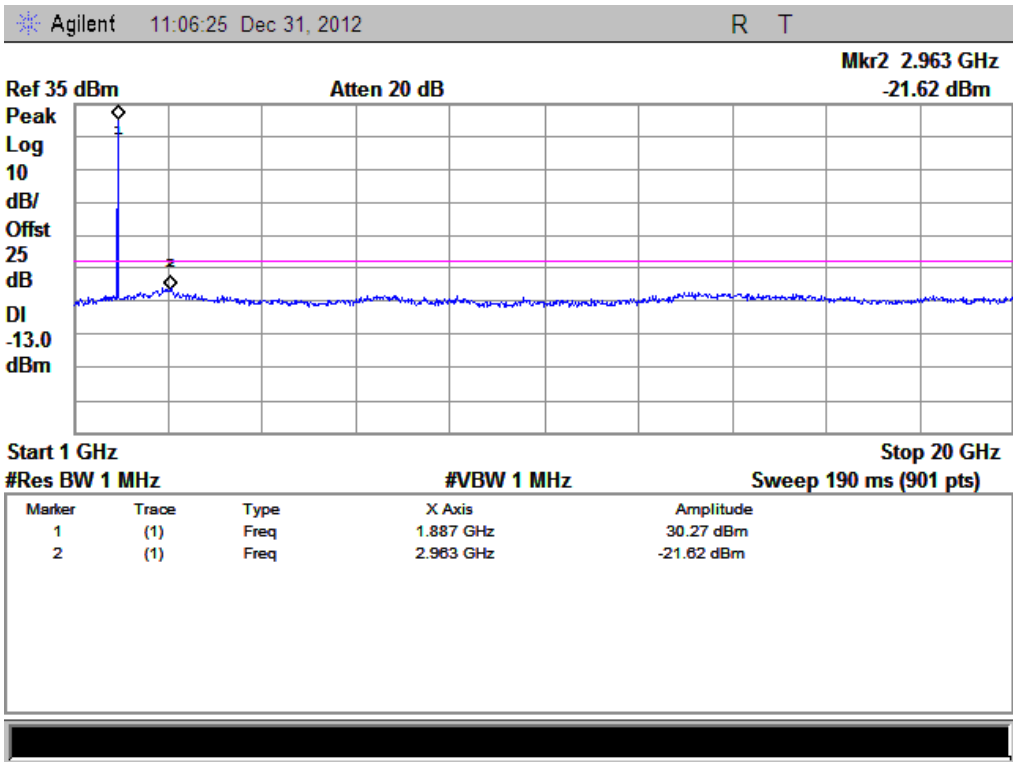
(Plot B1: GSM 1900MHz Channel = 512, 30MHz to 1GHz)



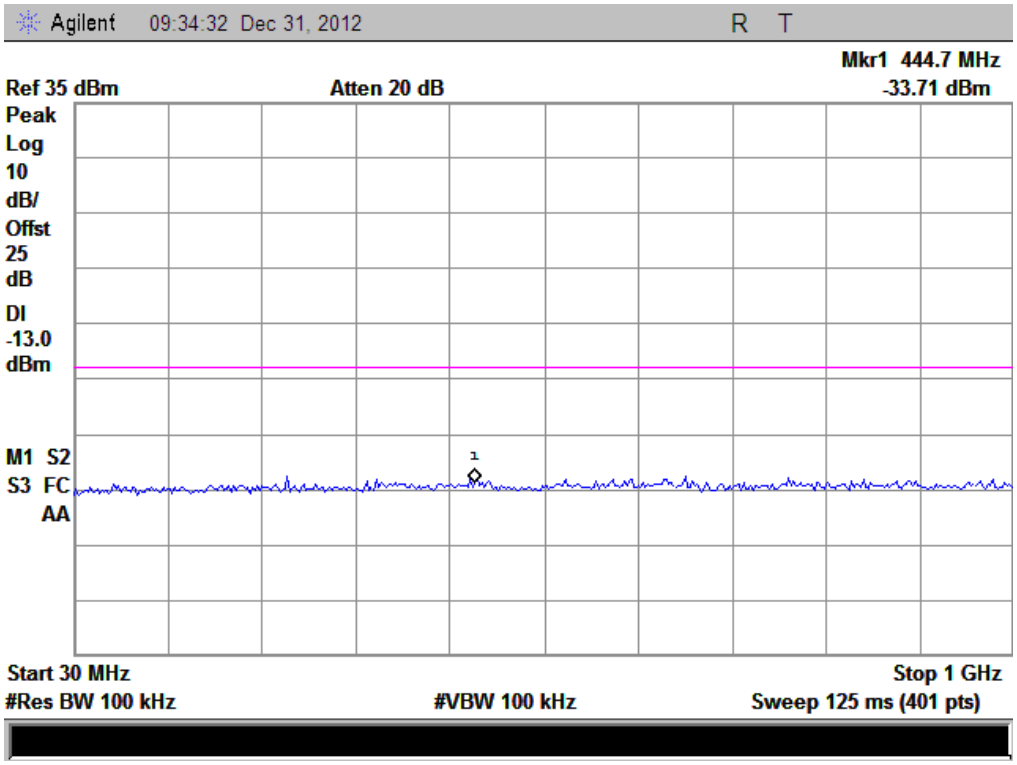
(Plot B1.1: GSM 1900MHz Channel = 512, 1GHz to 20GHz)



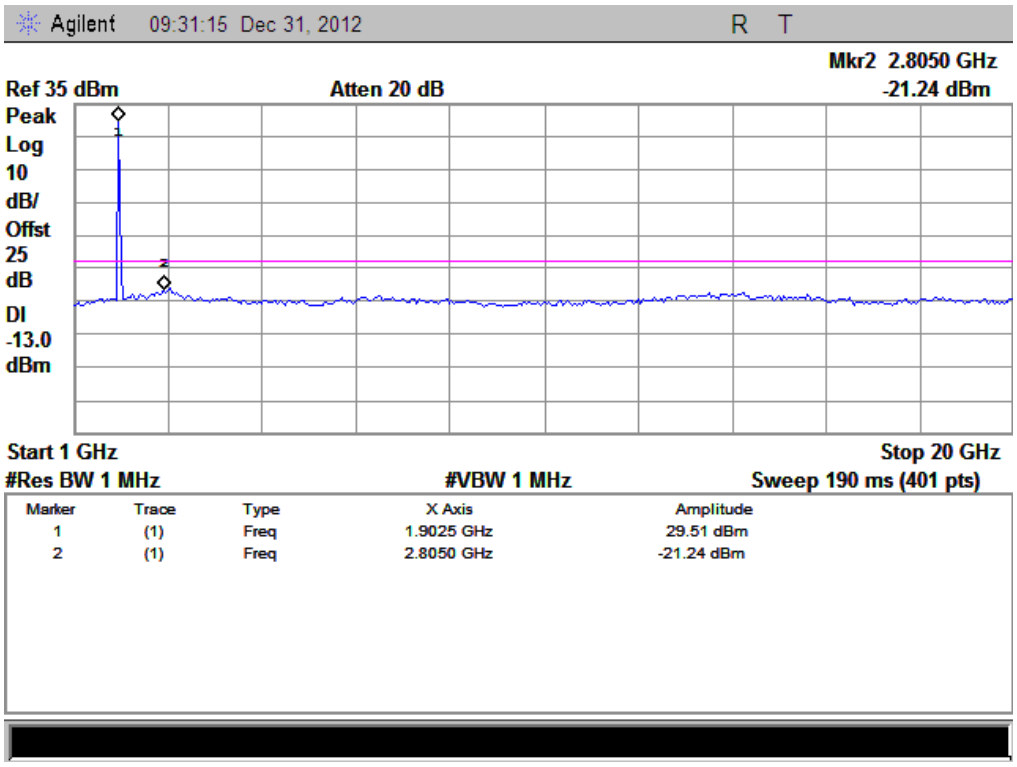
(Plot B2: GSM 1900MHz Channel = 661, 30MHz to 1GHz)



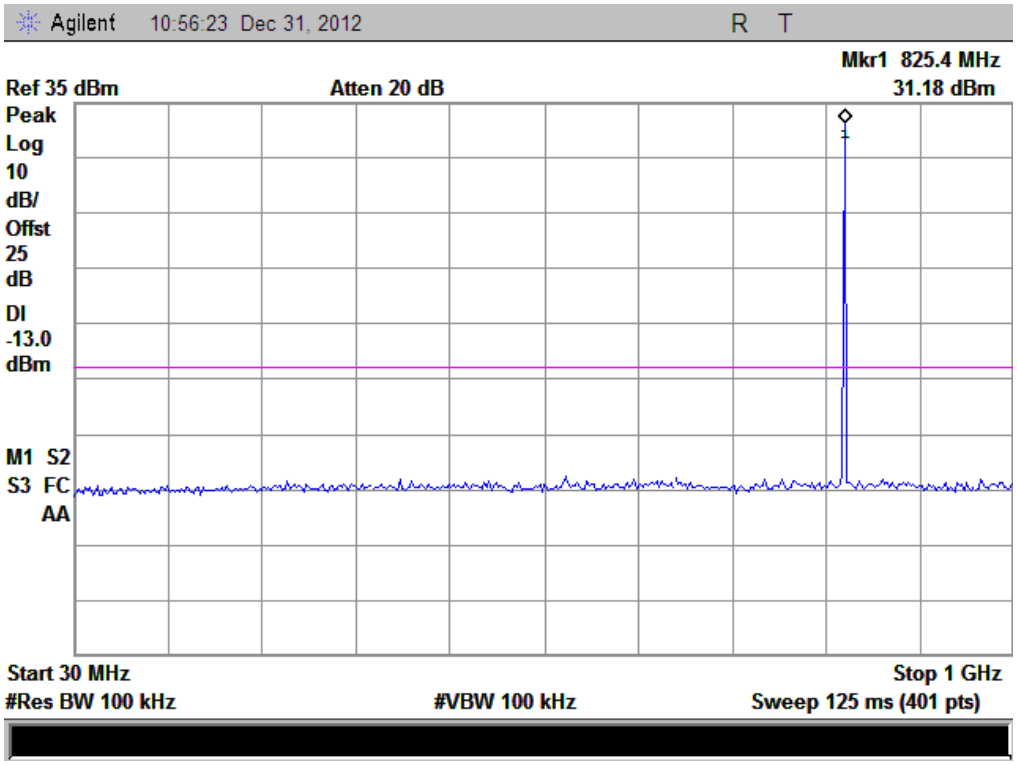
(Plot B2.1: GSM 1900MHz Channel = 661, 1GHz to 20GHz)



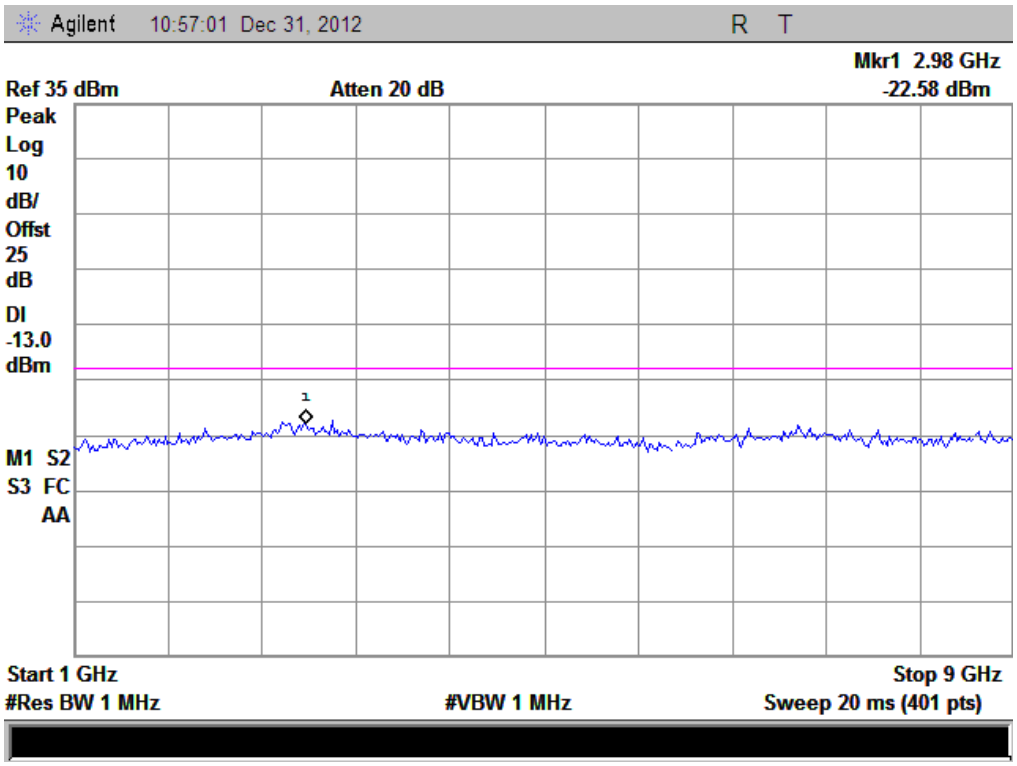
(Plot B3: GSM 1900MHz Channel = 810, 30MHz to 1GHz)



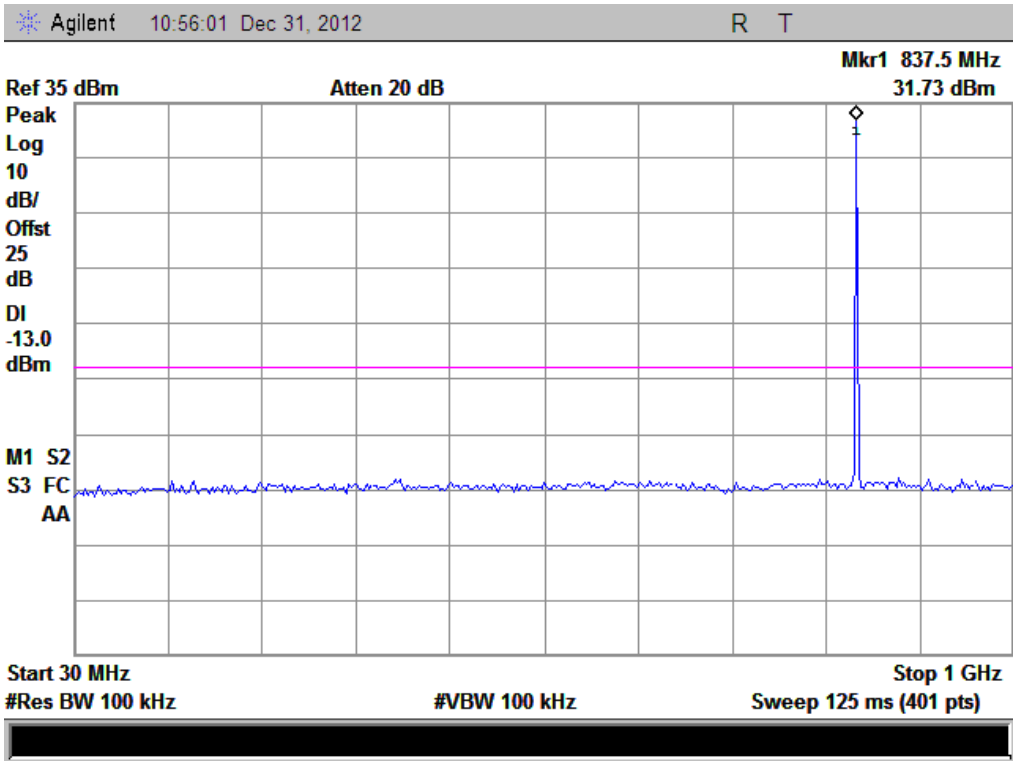
(Plot B3.1: GSM 1900MHz Channel = 810, 1GHz to 20GHz)



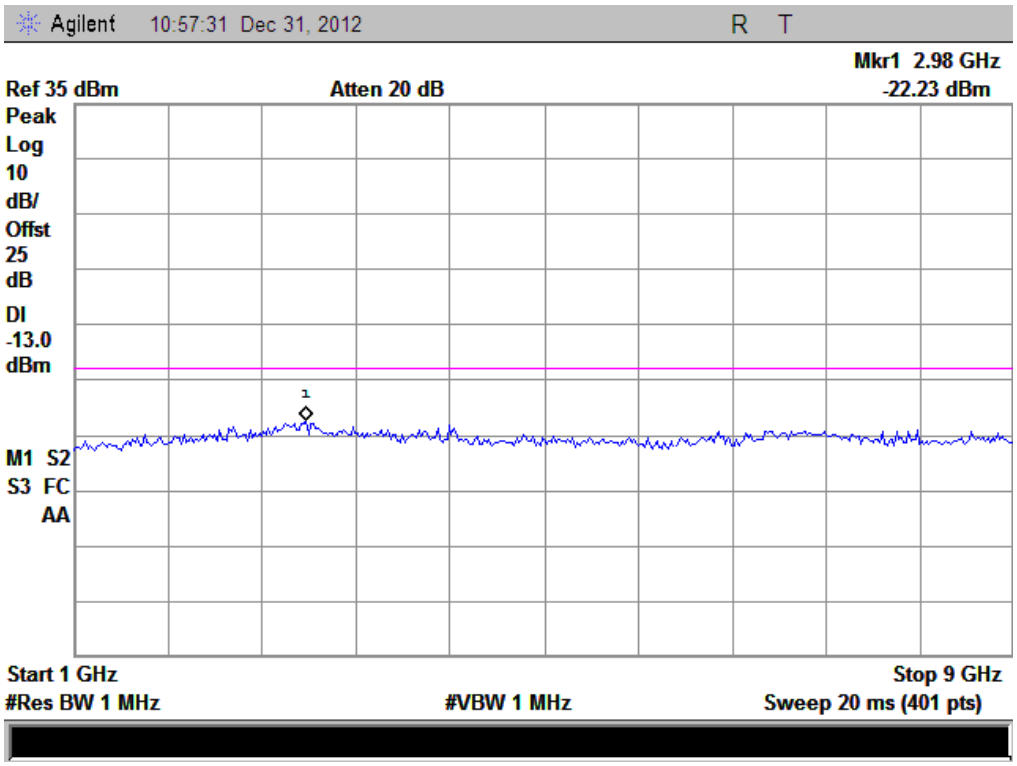
(Plot C1: EDGE 850MHz Channel = 128, 30MHz to 1GHz)



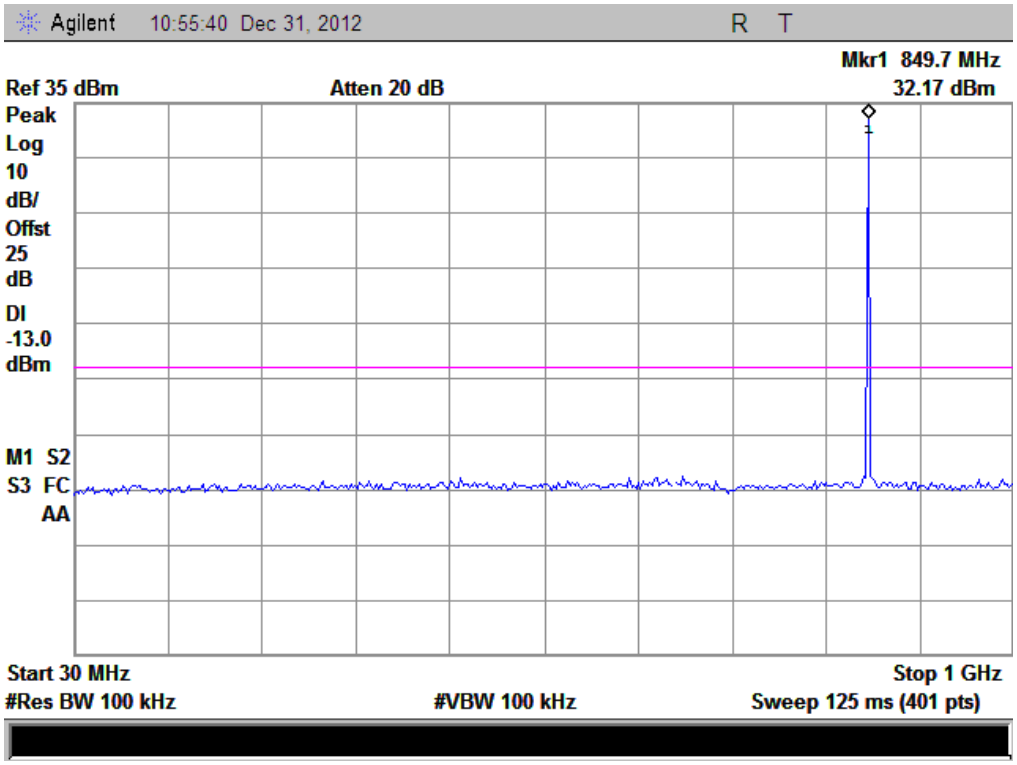
(Plot C1.1: EDGE 850MHz Channel = 128, 1GHz to 9GHz)



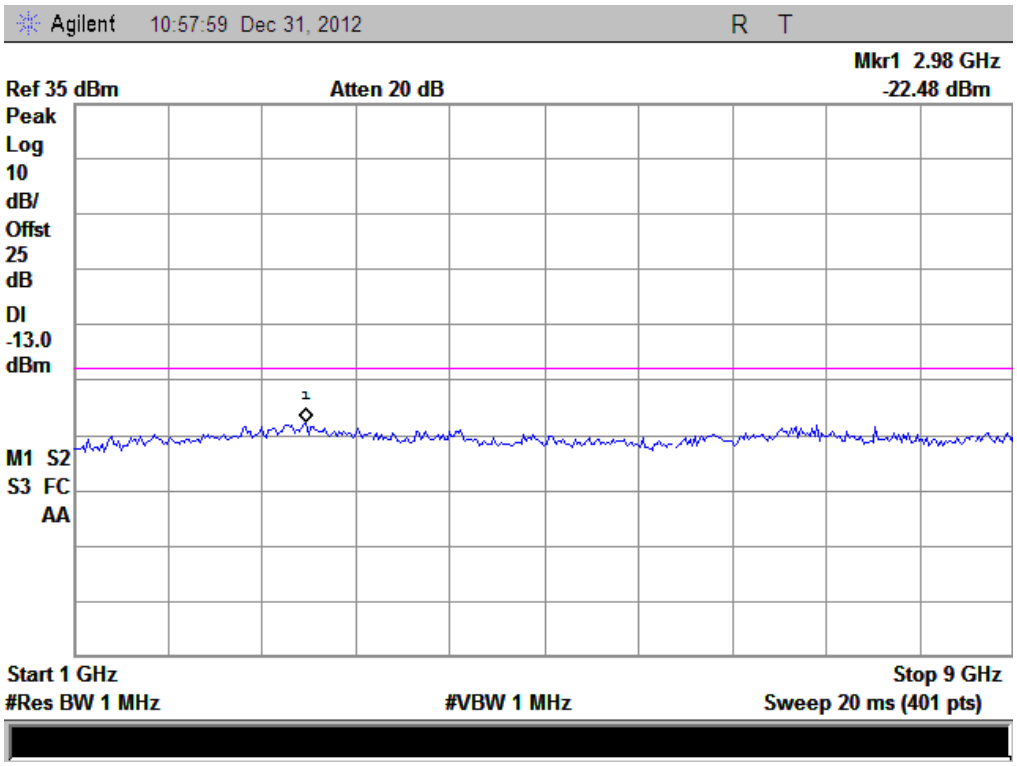
(Plot C2: EDGE 850MHz Channel = 190, 30MHz to 1GHz)



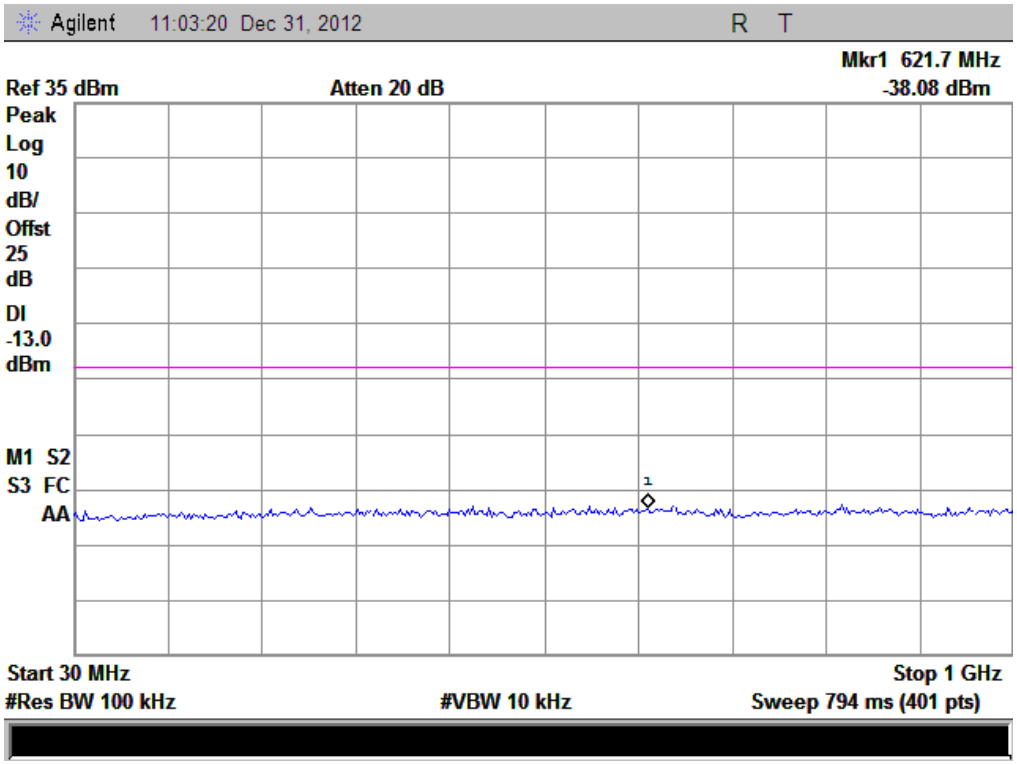
(Plot C2.1: EDGE 850MHz Channel = 190, 1GHz to 9GHz)



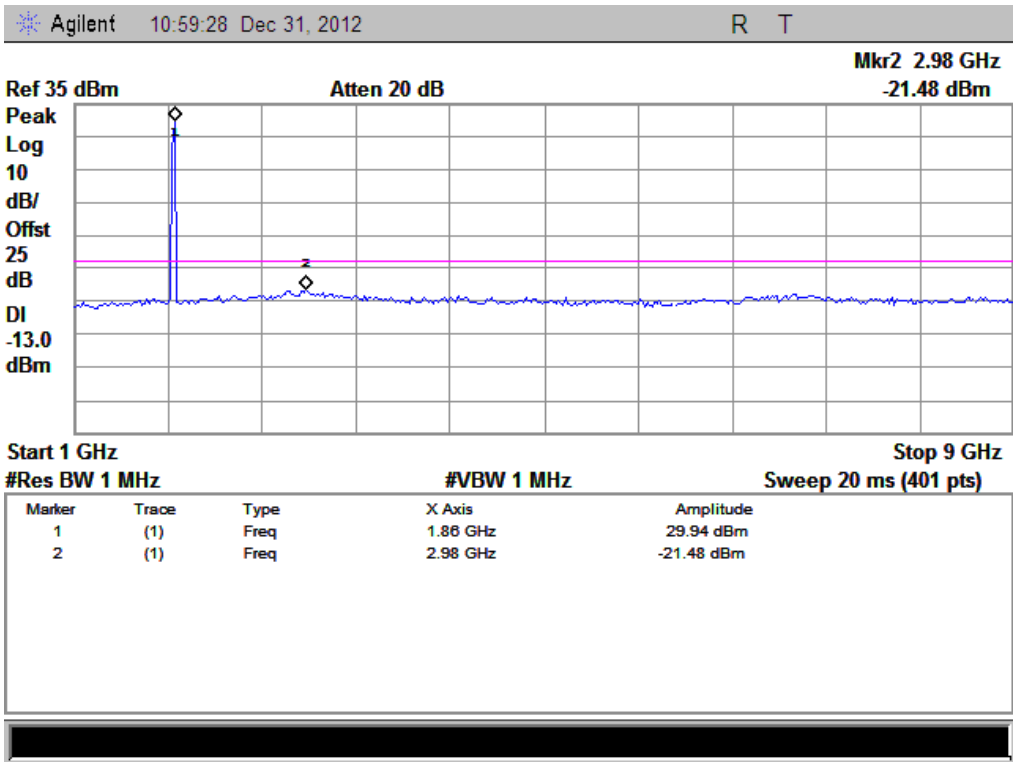
(Plot C3: EDGE 850MHz Channel = 251, 30MHz to 1GHz)



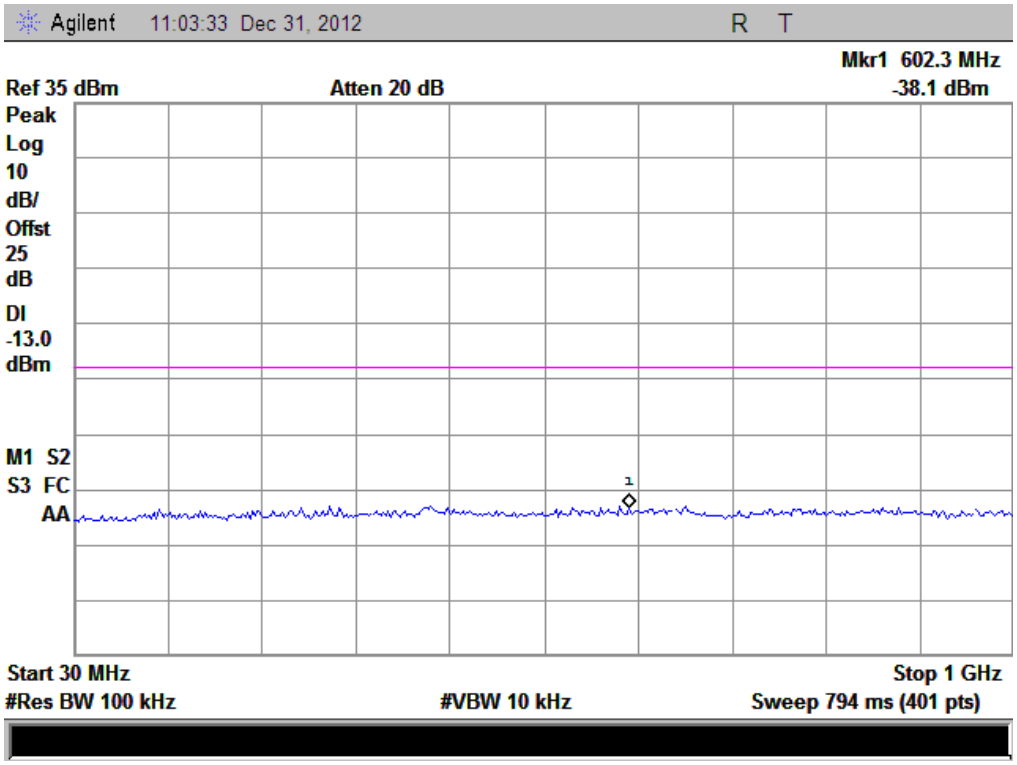
(Plot C3.1: EDGE 850MHz Channel = 251, 1GHz to 9GHz)



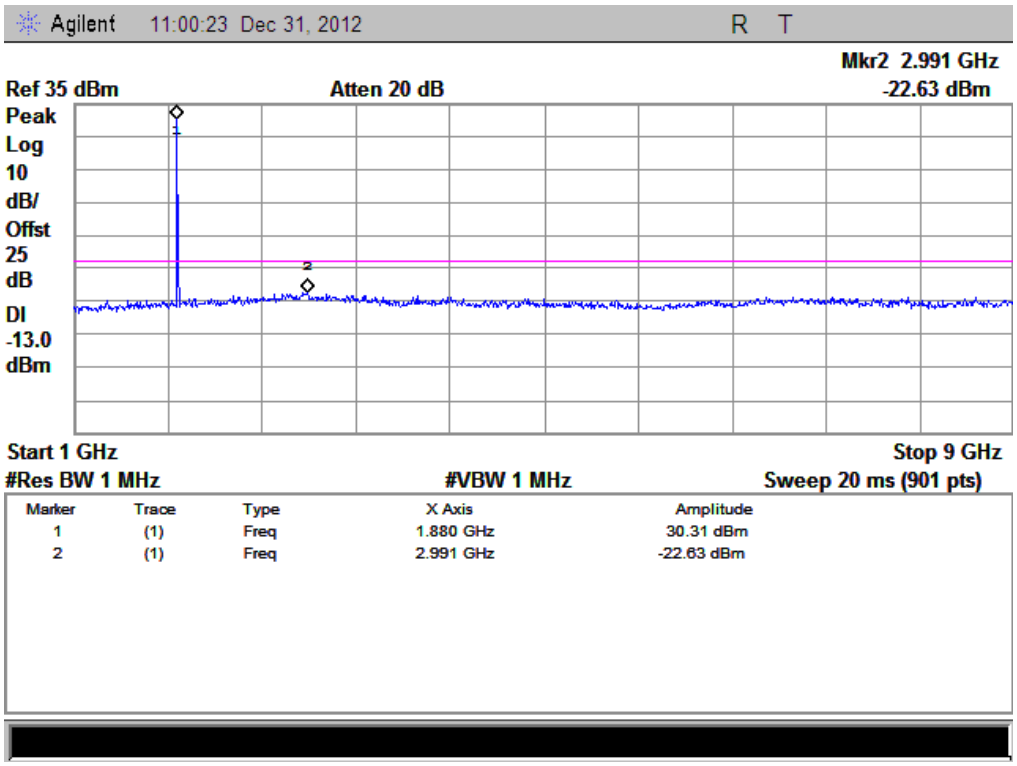
(Plot D1: EDGE 1900MHz Channel = 512, 30MHz to 1GHz)



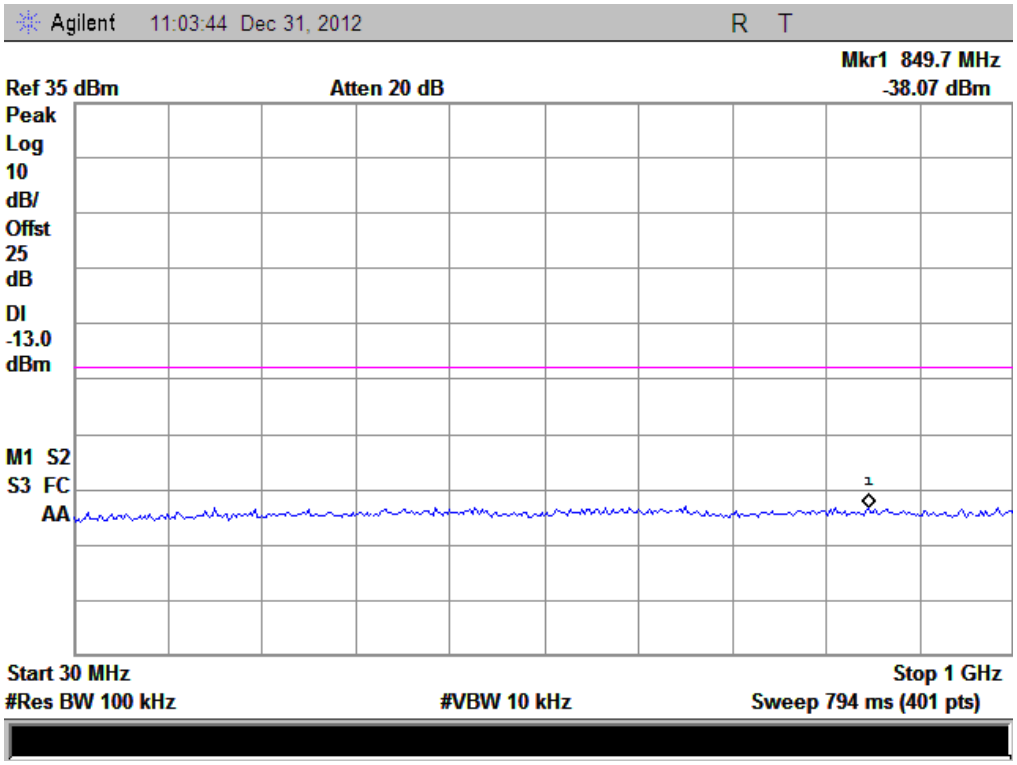
(Plot D1.1: EDGE 1900MHz Channel = 512, 1GHz to 20GHz)



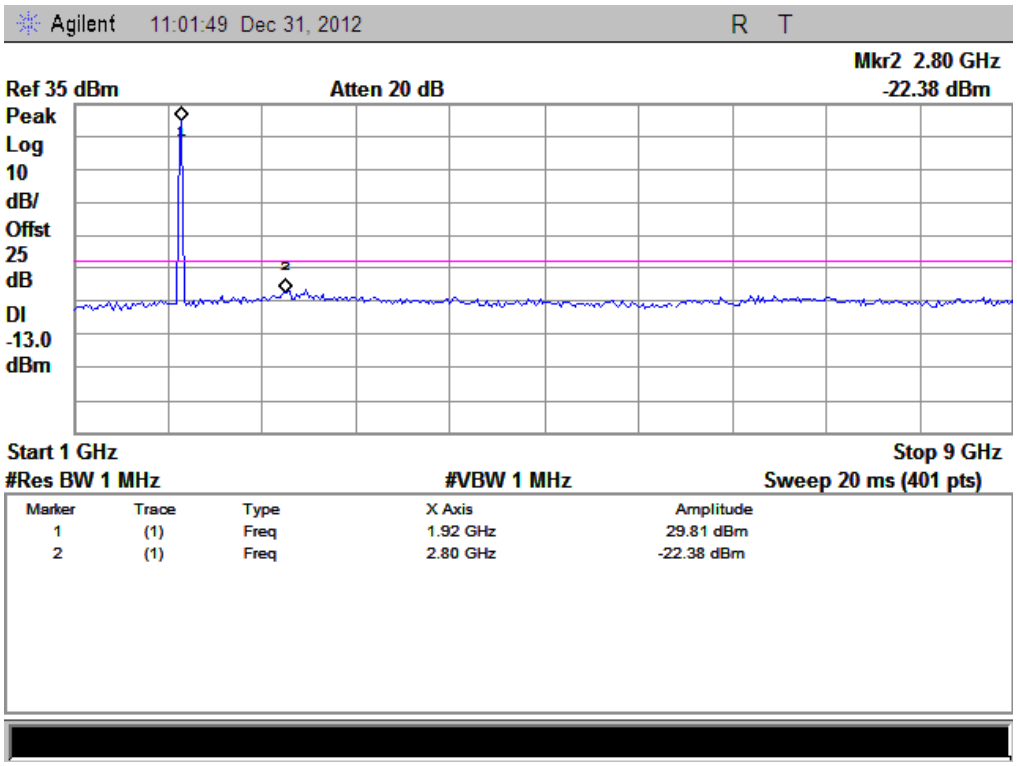
(Plot D2: EDGE 1900MHz Channel = 661, 30MHz to 1GHz)



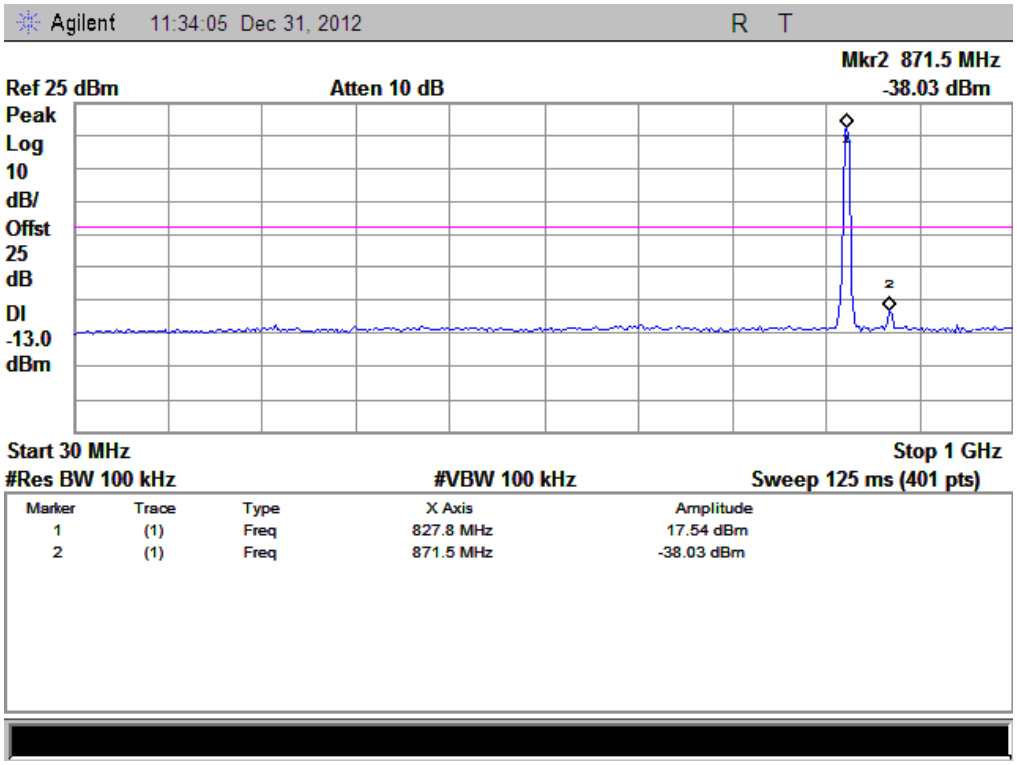
(Plot D2.1: EDGE 1900MHz Channel = 661,1GHz to 20GHz)



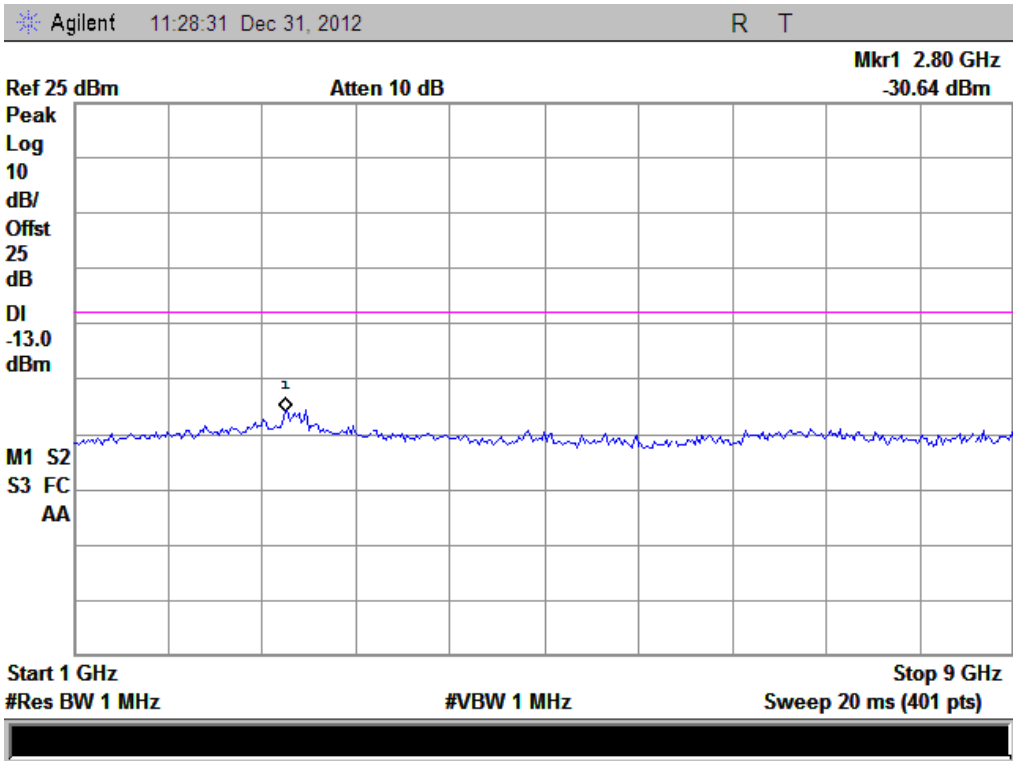
(Plot D3: EDGE 1900MHz Channel = 810, 30MHz to 1GHz)



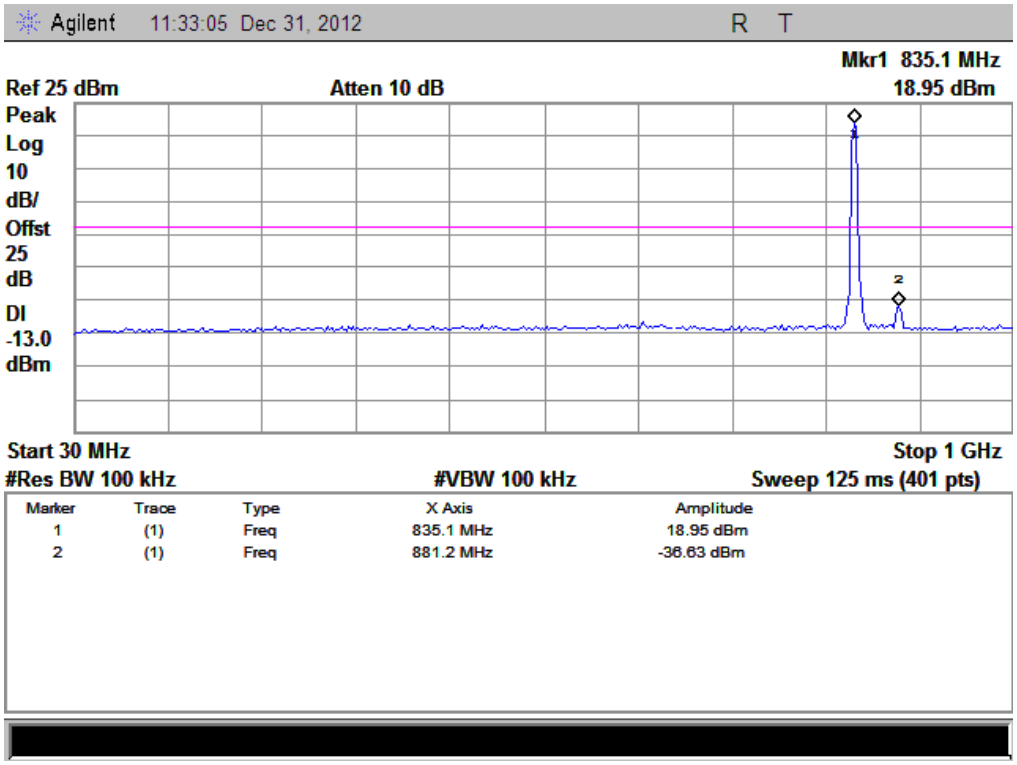
(Plot D3.1: EDGE 1900MHz Channel = 810, 1GHz to 20GHz)



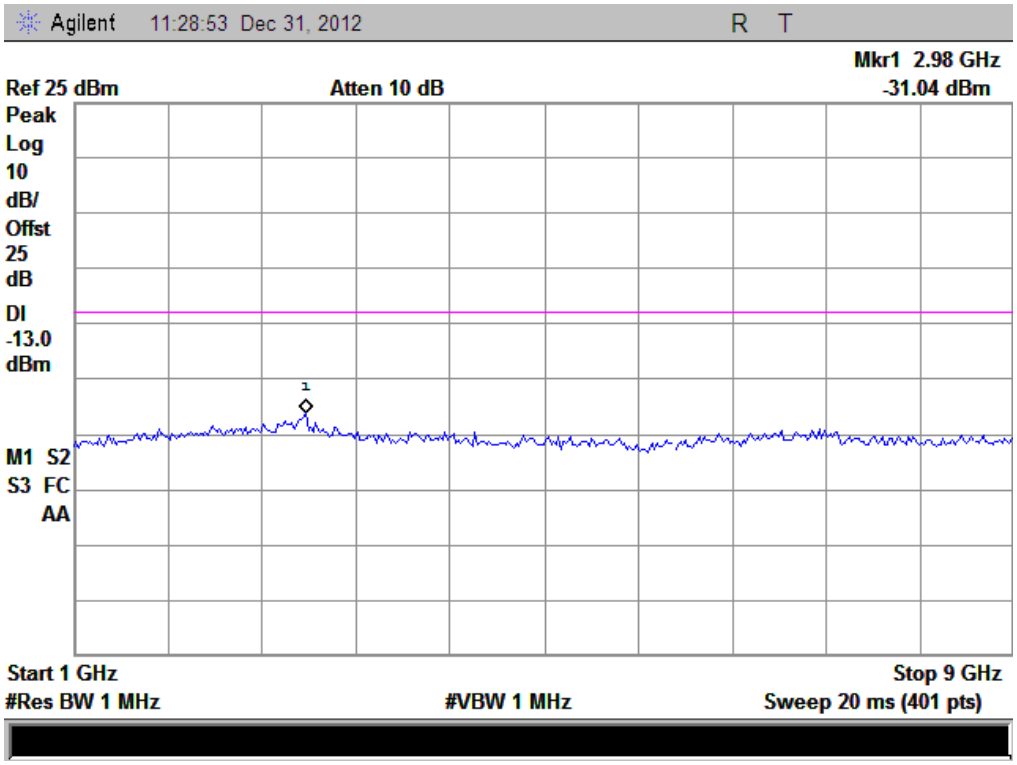
(Plot E1: WCDMA850MHz Channel = 4132, 30MHz to 1GHz)



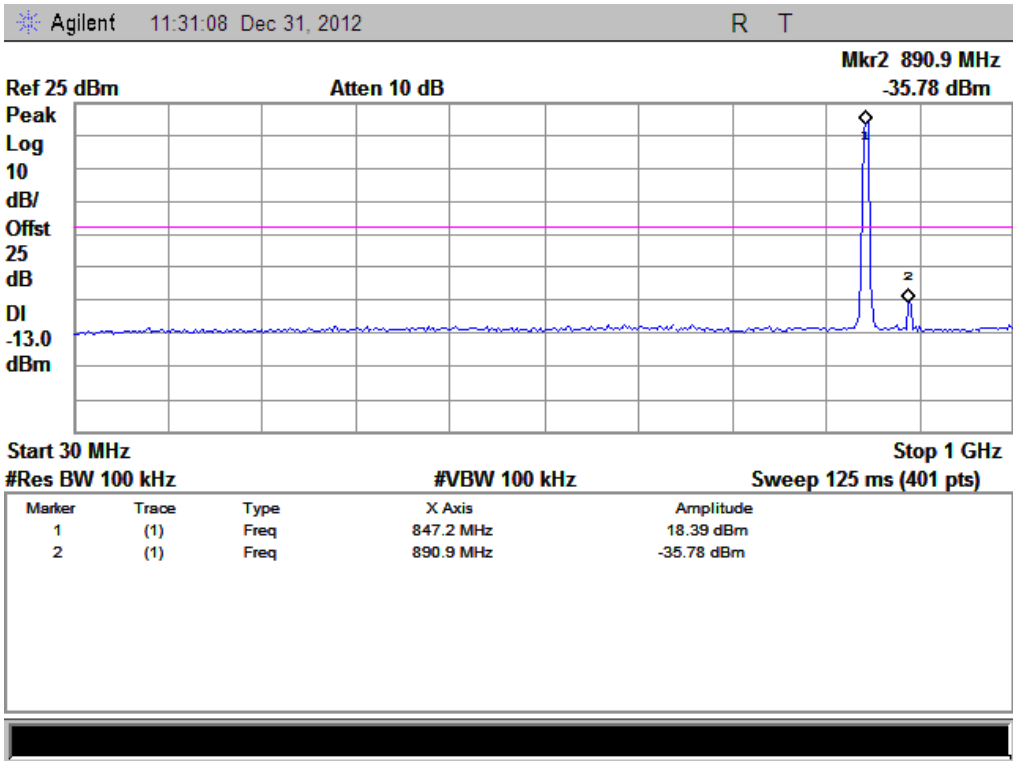
(Plot E1.1: WCDMA850MHz Channel = 4132, 1GHz to 9GHz)



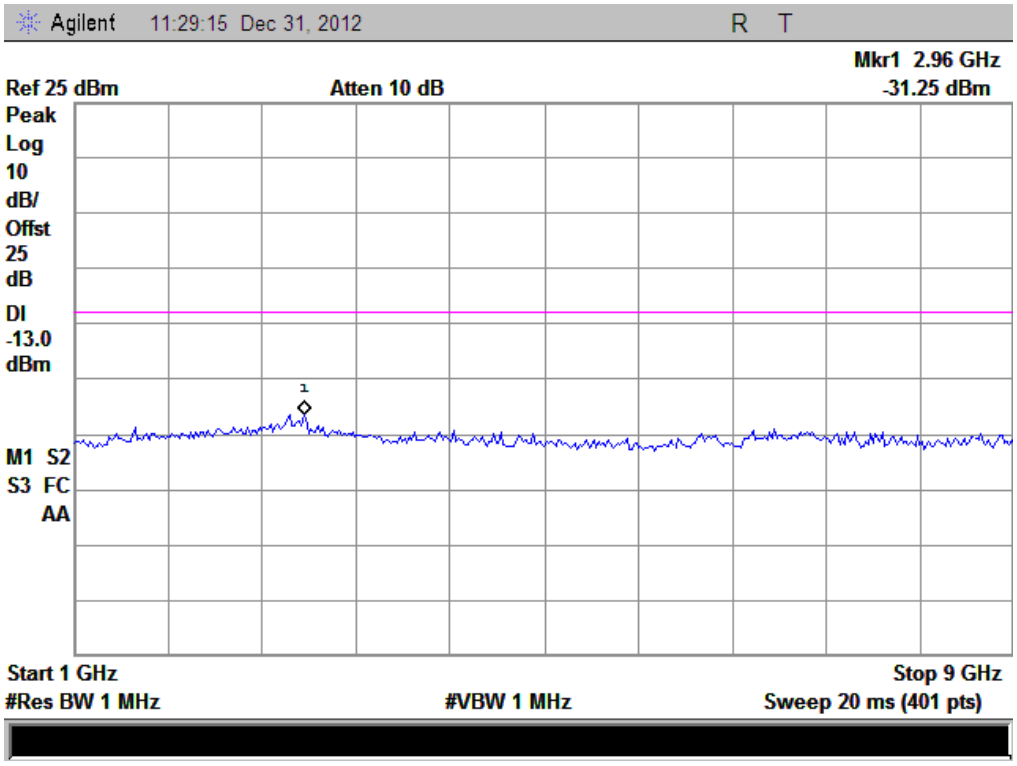
(Plot E2: WCDMA850MHz Channel = 4175, 30MHz to 1GHz)



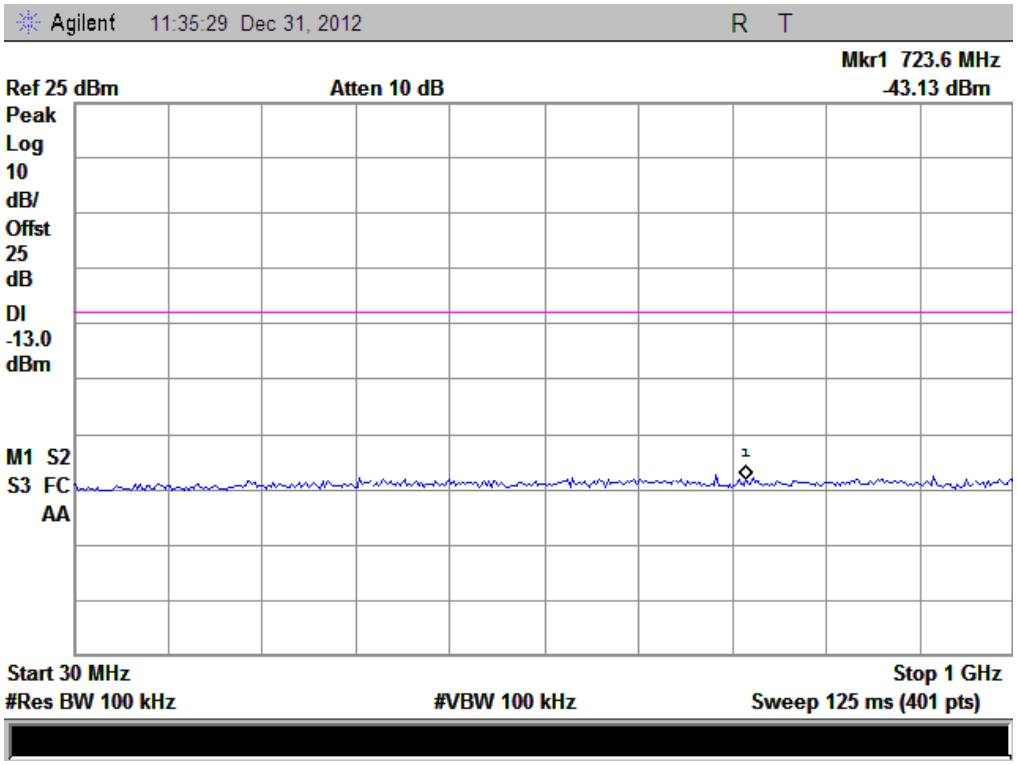
(Plot E2.1: WCDMA850MHz Channel = 4175, 1GHz to 9GHz)



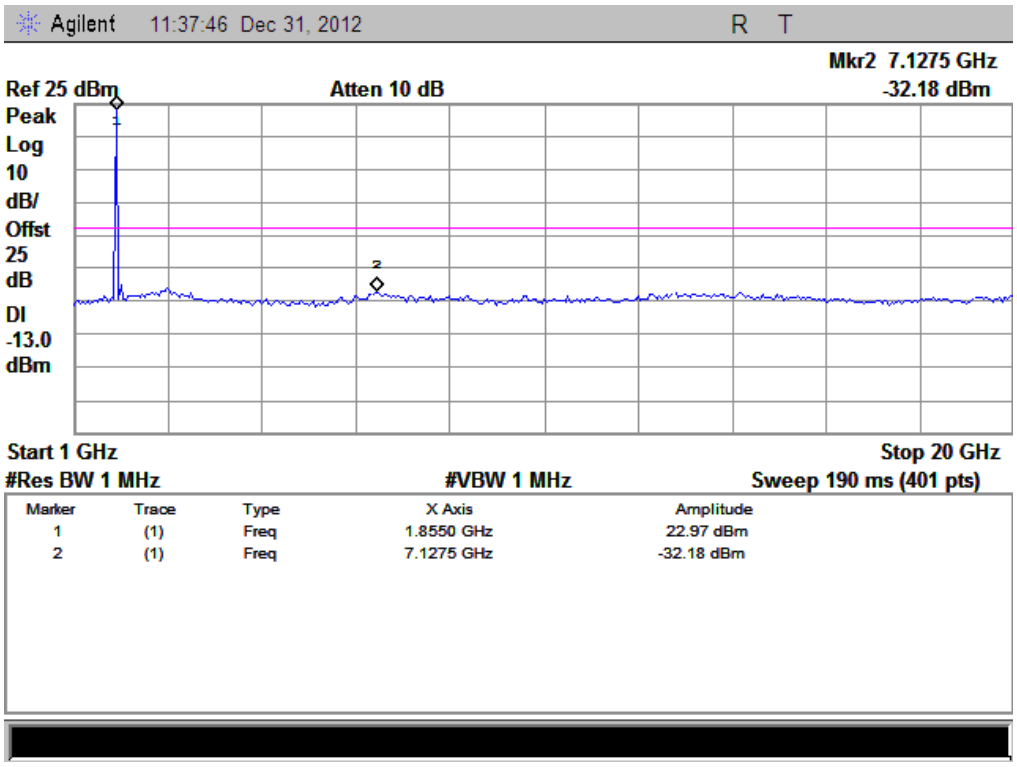
(Plot E3: WCDMA850MHz Channel = 4233, 30MHz to 1GHz)



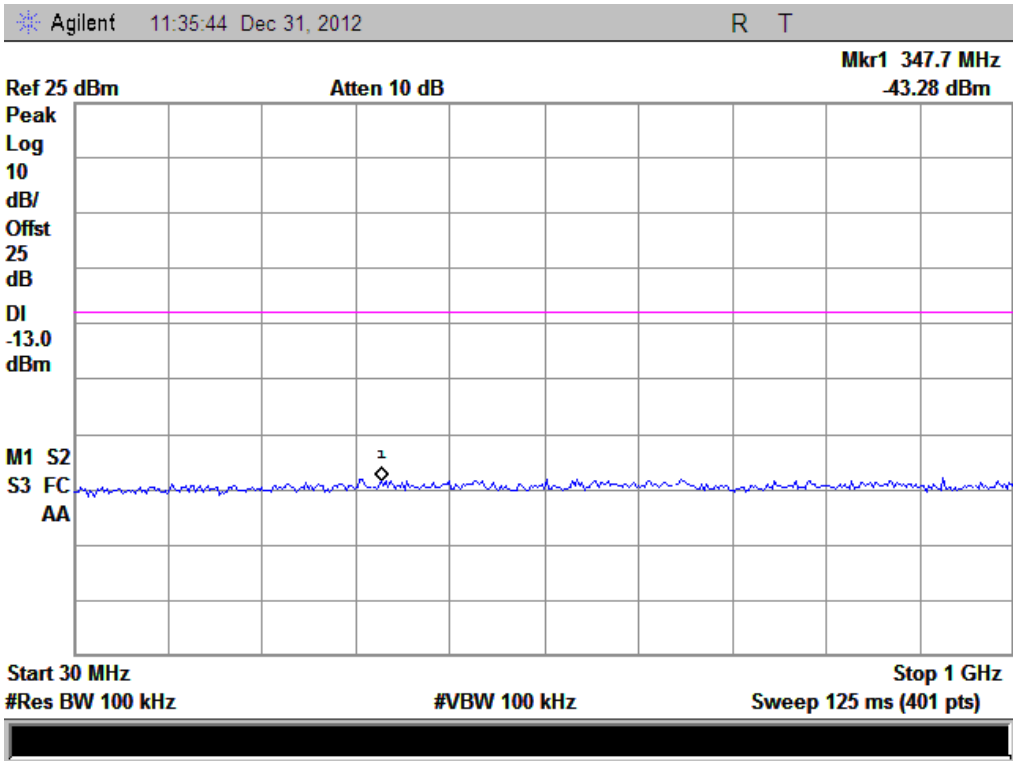
(Plot E3.1: WCDMA850MHz Channel = 4233, 1GHz to 9GHz)



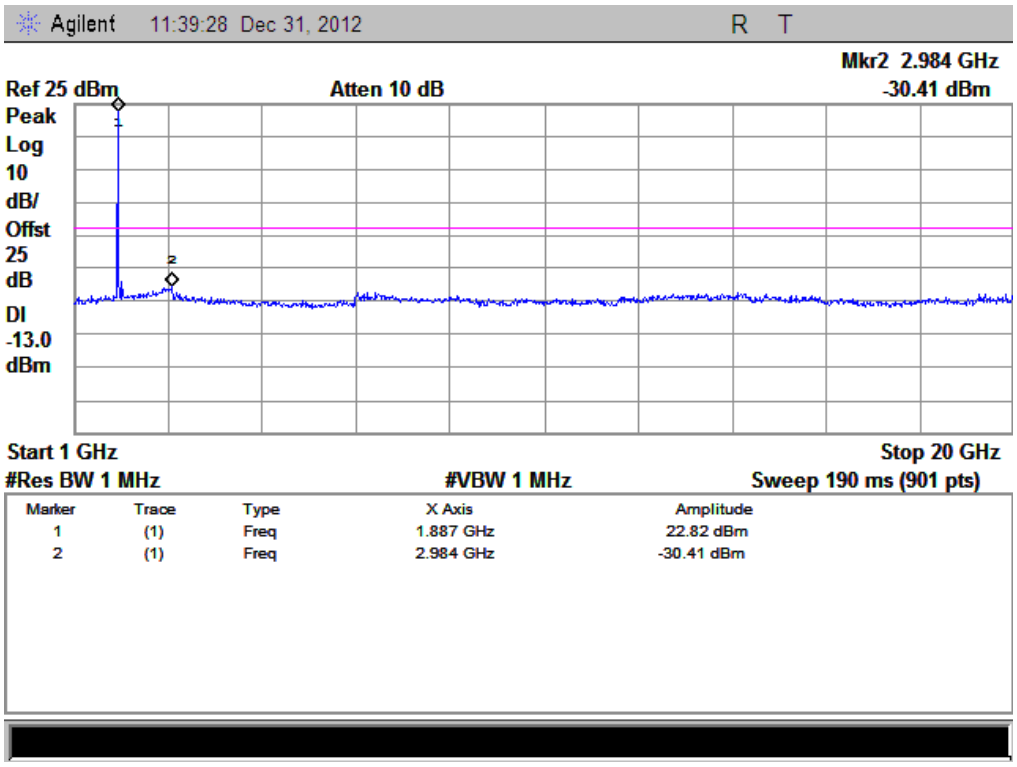
(Plot F1: WCDMA1900MHz Channel = 9262, 30MHz to 1GHz)



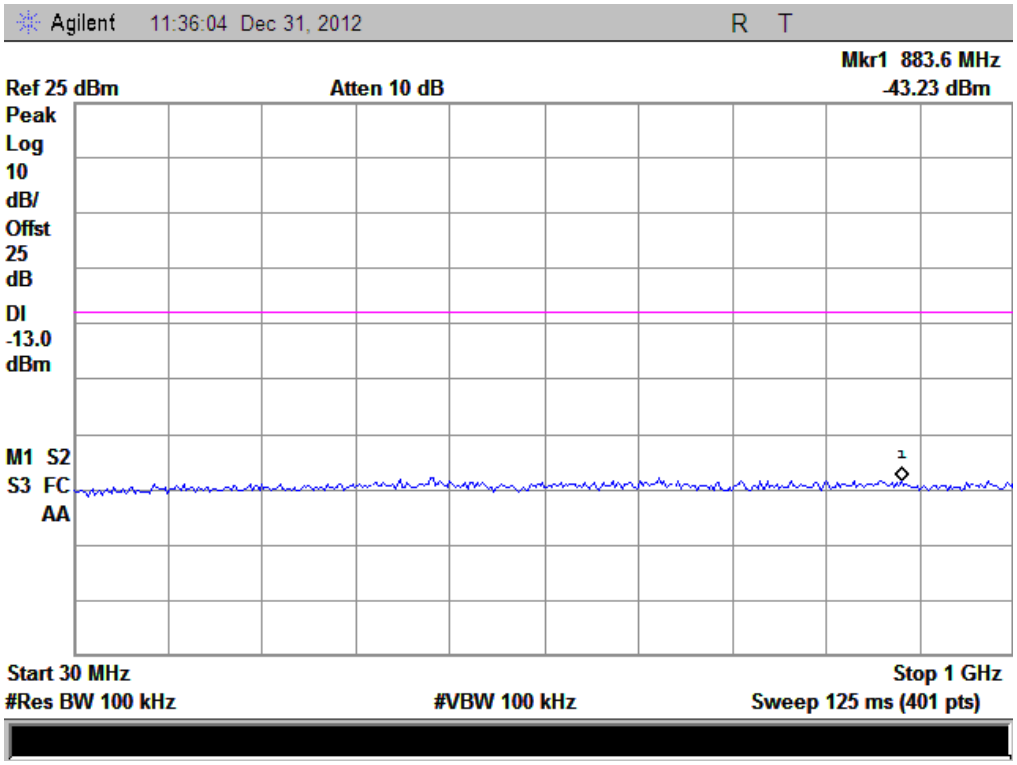
(Plot F1.1: WCDMA1900MHz Channel = 9262, 1GHz to 20GHz)



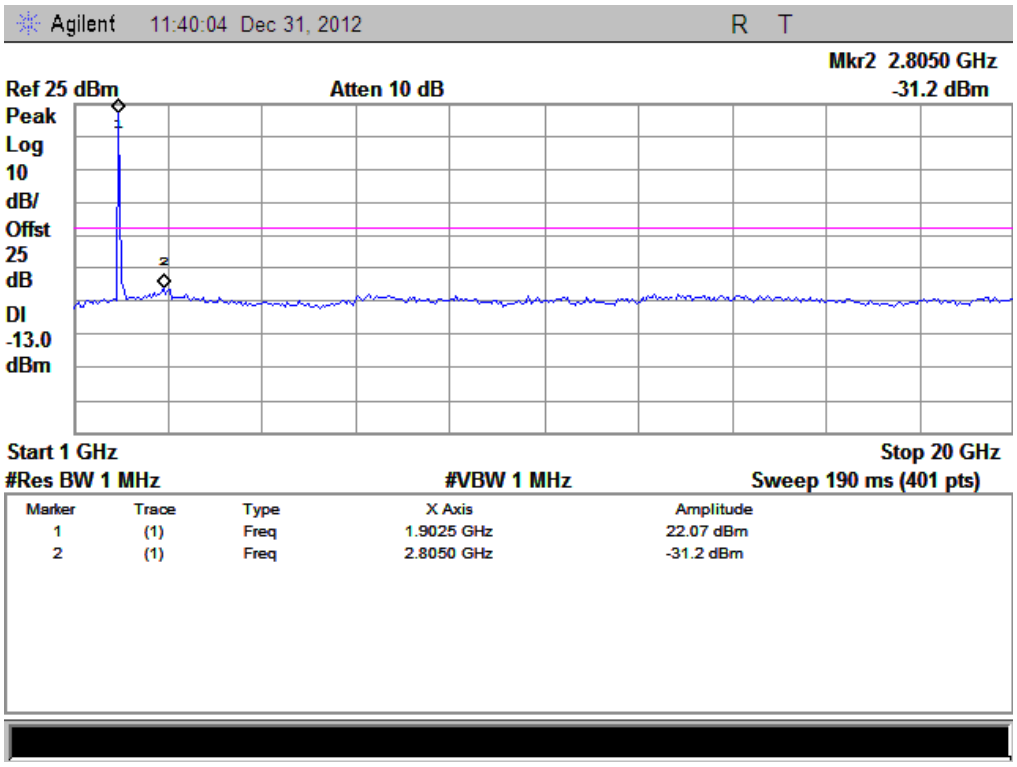
(Plot F2: WCDMA1900MHz Channel = 9400, 30MHz to 1GHz)



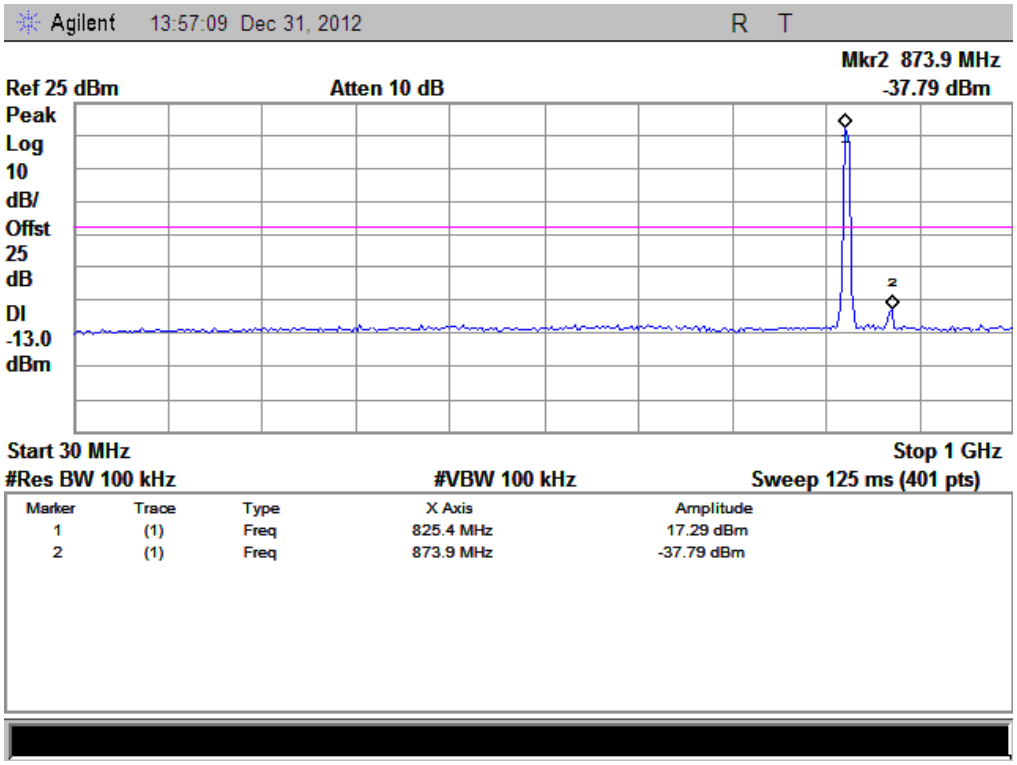
(Plot F2.1: WCDMA1900MHz Channel = 9400, 1GHz to 20GHz)



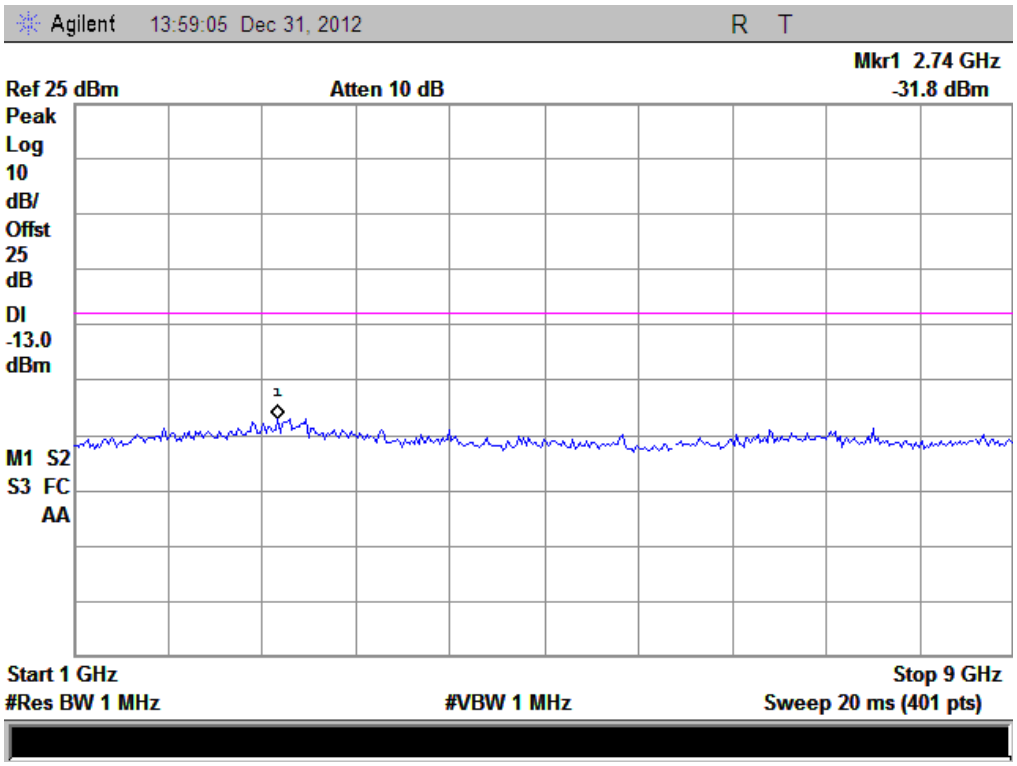
(Plot F3: WCDMA1900MHz Channel = 9538, 30MHz to 1GHz)



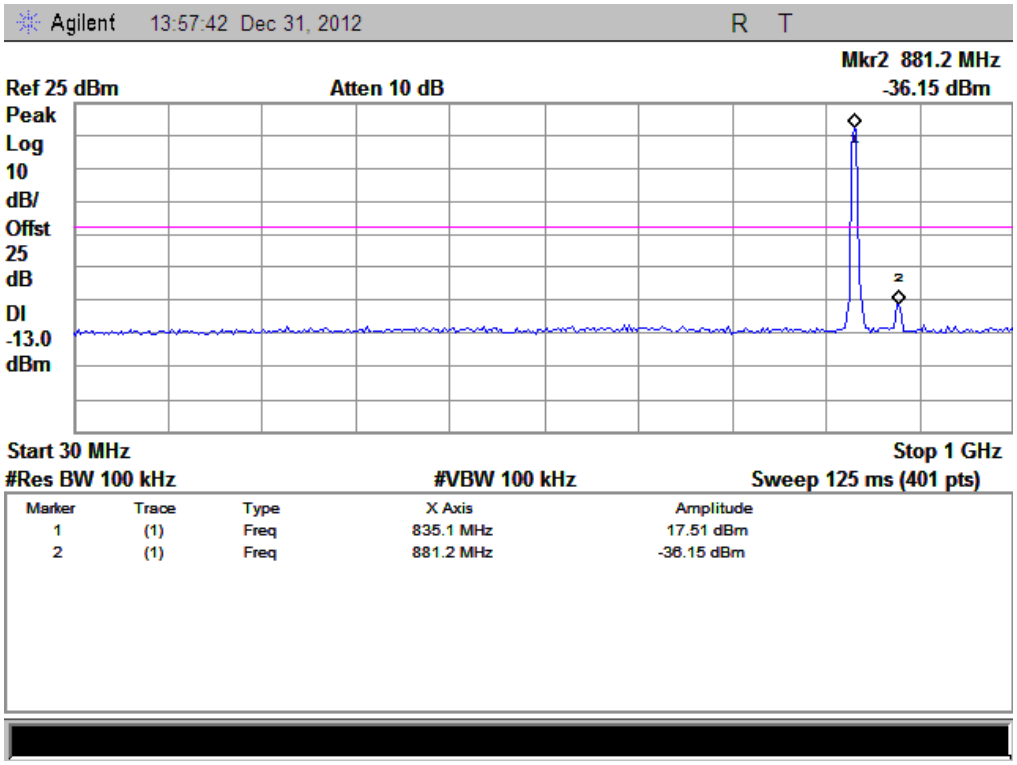
(Plot F3.1: WCDMA1900MHz Channel = 9538 1GHz to 20GHz)



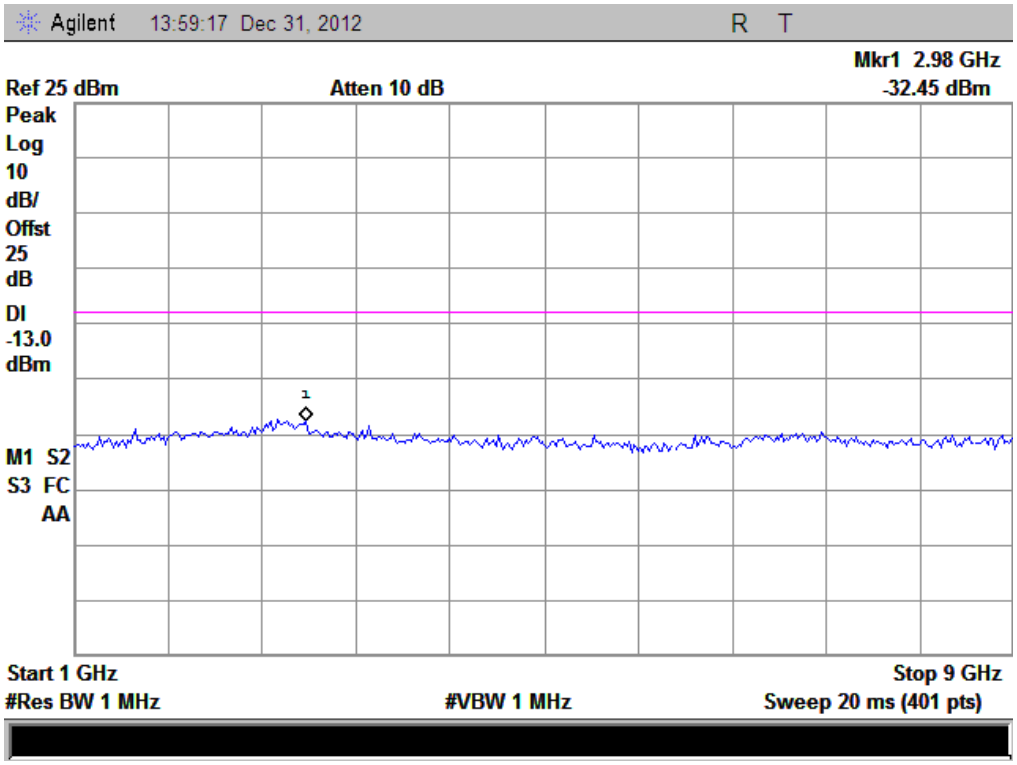
(Plot G1: HSDPA 850MHz Channel = 4132, 30MHz to 1GHz)



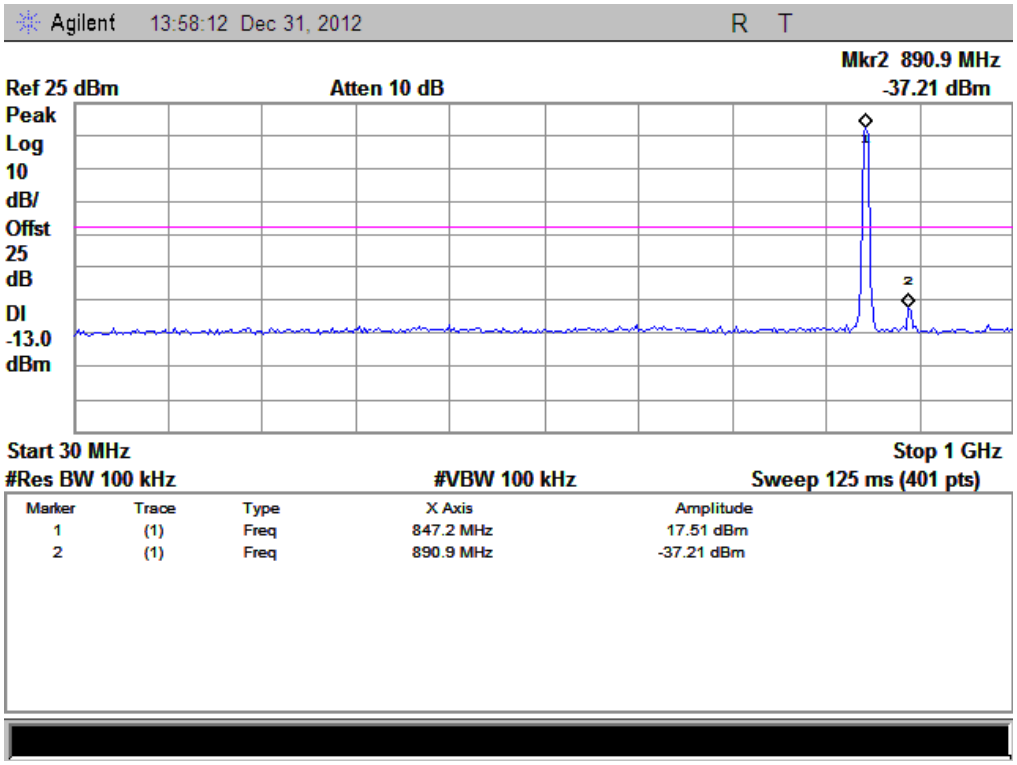
(Plot G1.1: HSDPA 850MHz Channel = 4132, 1GHz to 9GHz)



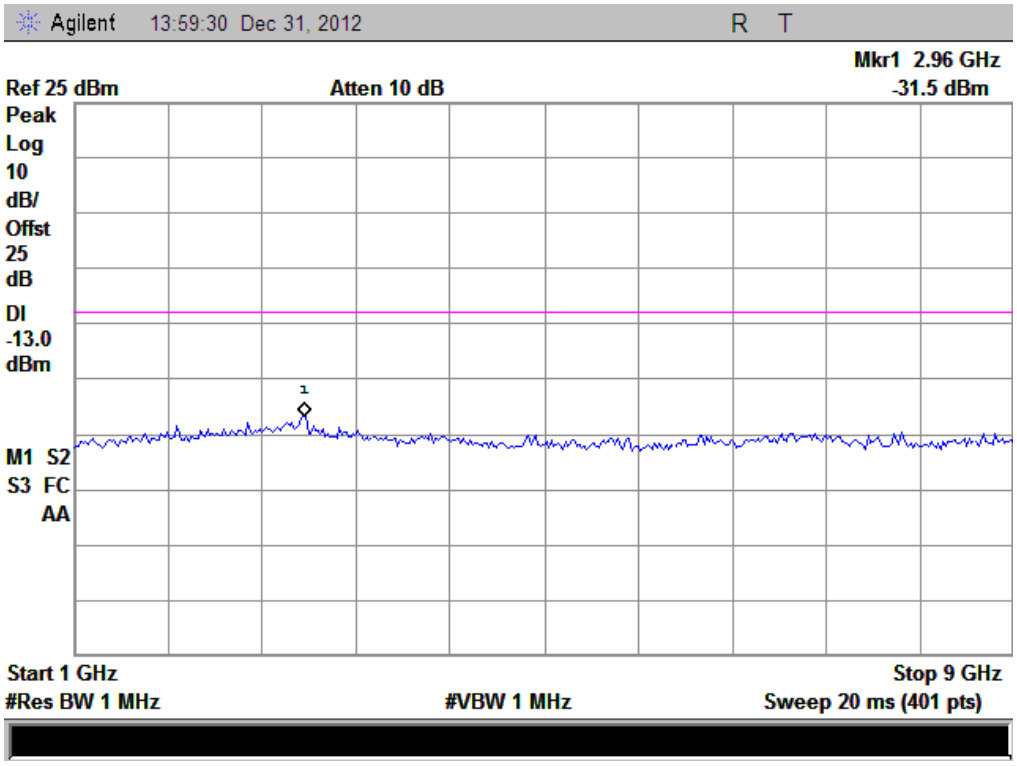
(Plot G2: HSDPA 850MHz Channel = 4175, 30MHz to 1GHz)



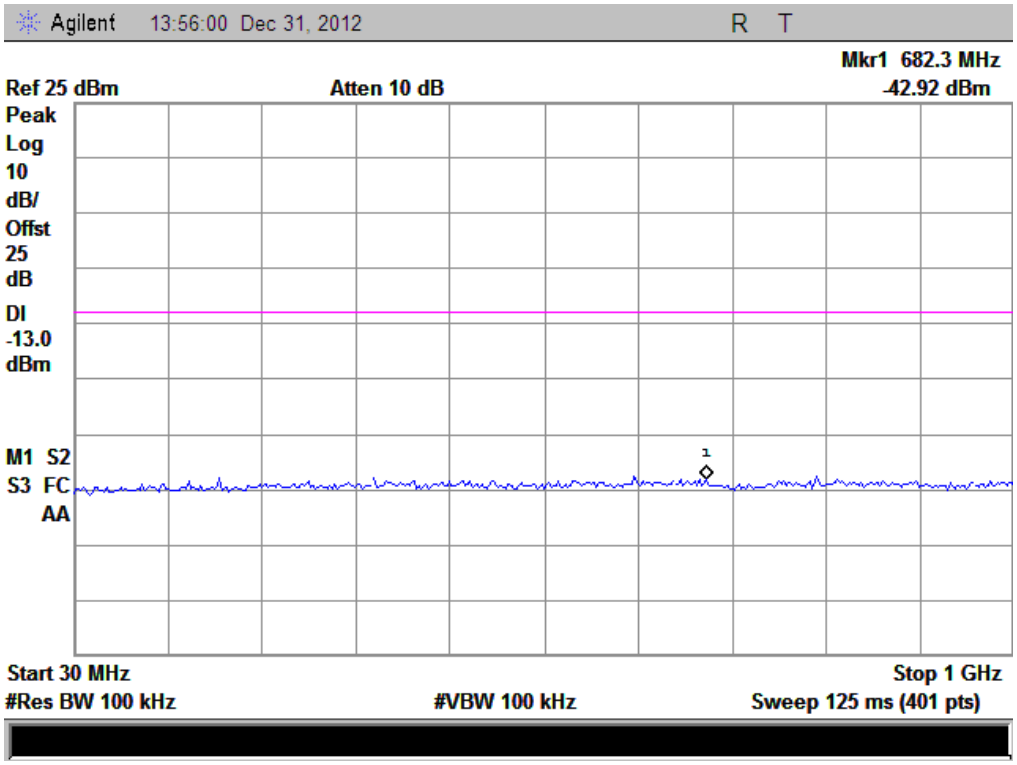
(Plot G2.1: HSDPA 850MHz Channel = 4175, 1GHz to 9GHz)



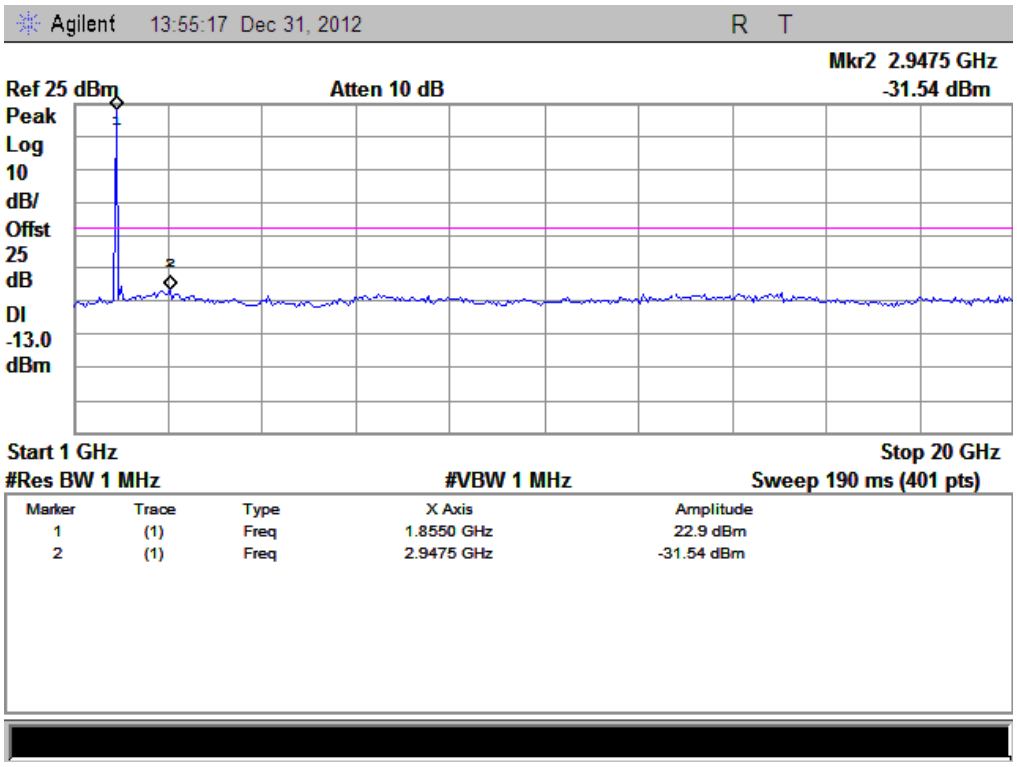
(Plot G3: HSDPA850MHz Channel = 4233, 30MHz to 1GHz)



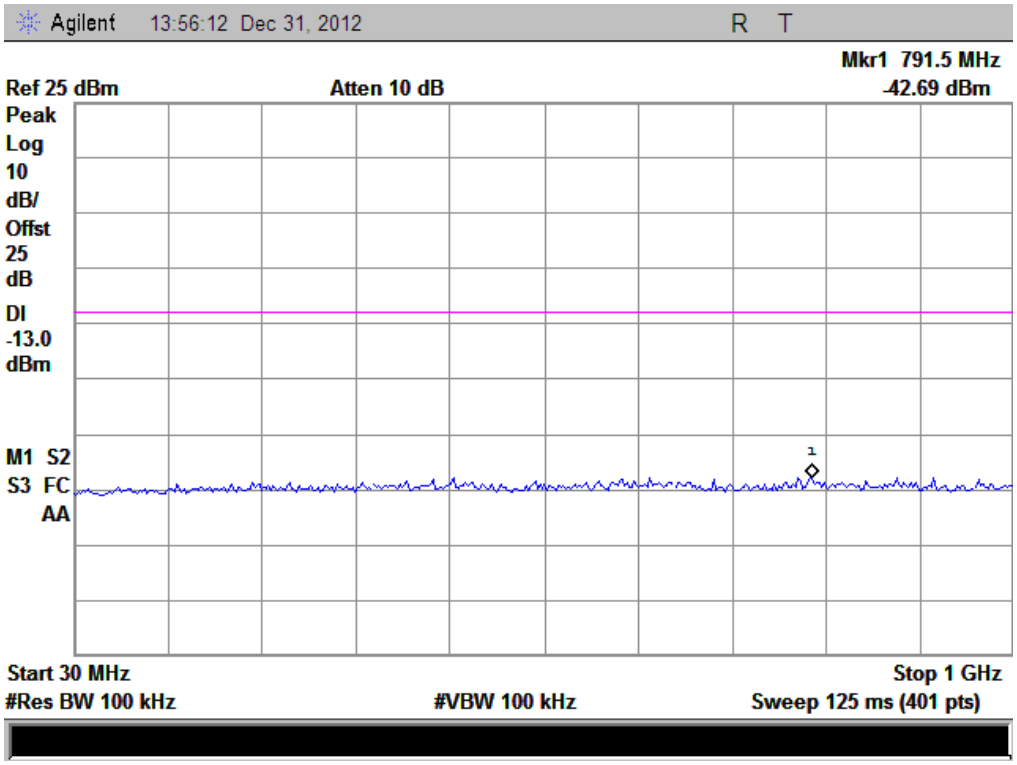
(Plot G3.1: HSDPA850MHz Channel = 4233, 1GHz to 9GHz)



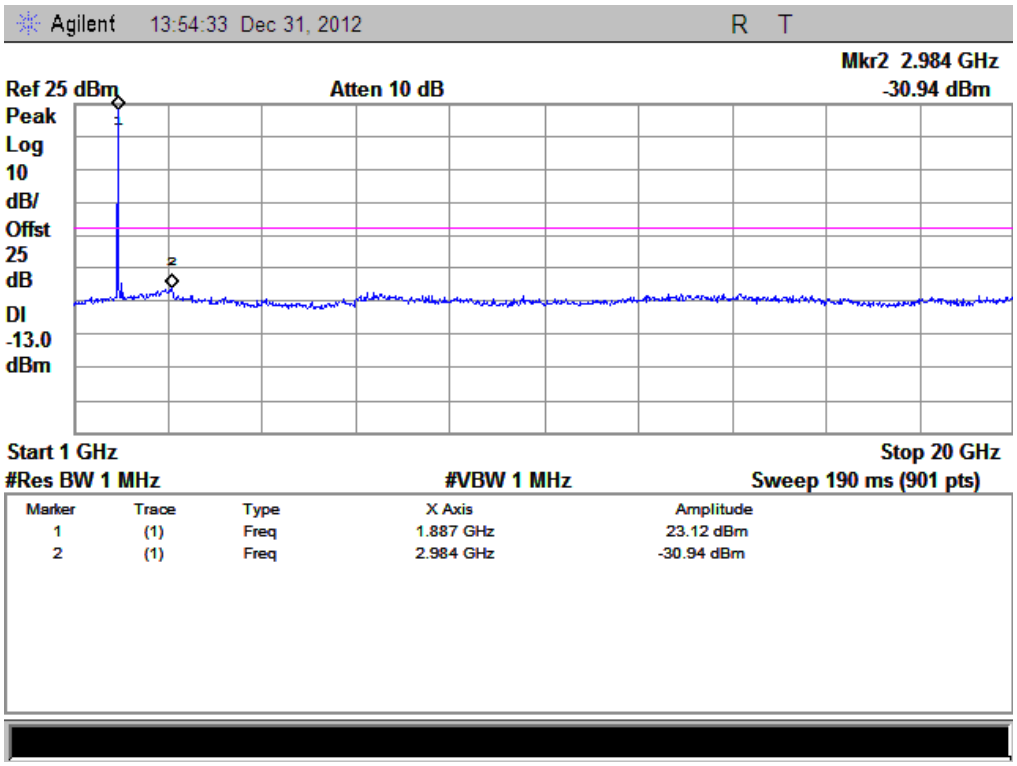
(Plot H1: HSDPA1900MHz Channel = 9262, 30MHz to 1GHz)



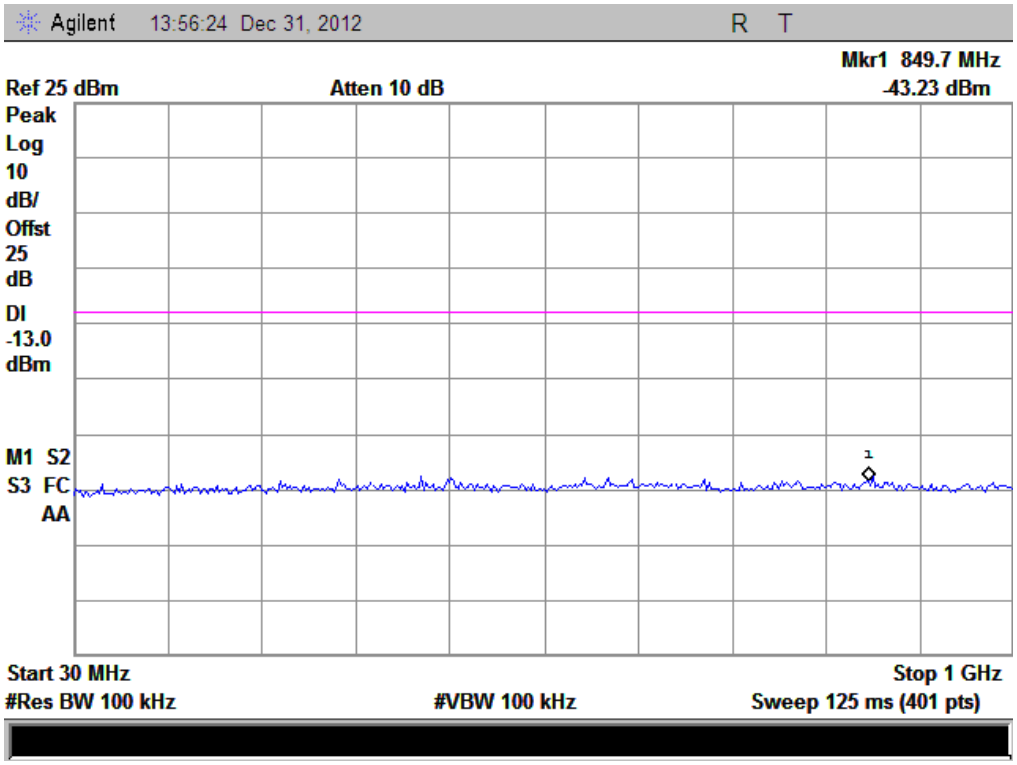
(Plot H1.1: HSDPA1900MHz Channel = 9262, 1GHz to 20GHz)



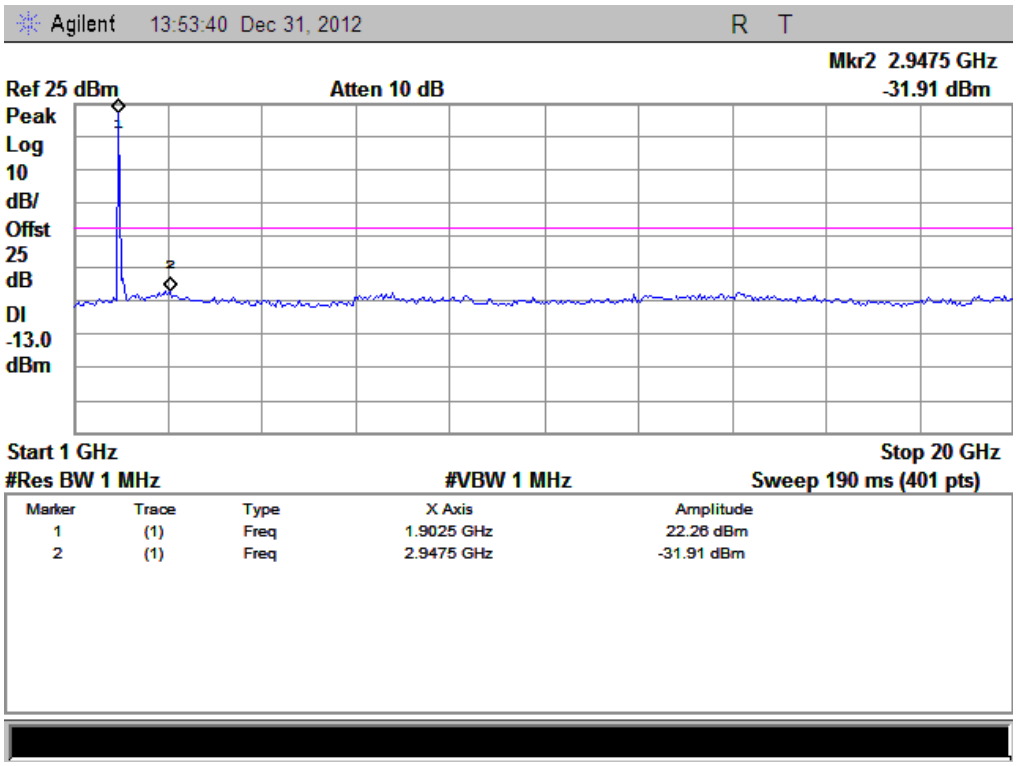
(Plot H2: HSDPA1900MHz Channel = 9400, 30MHz to 1GHz)



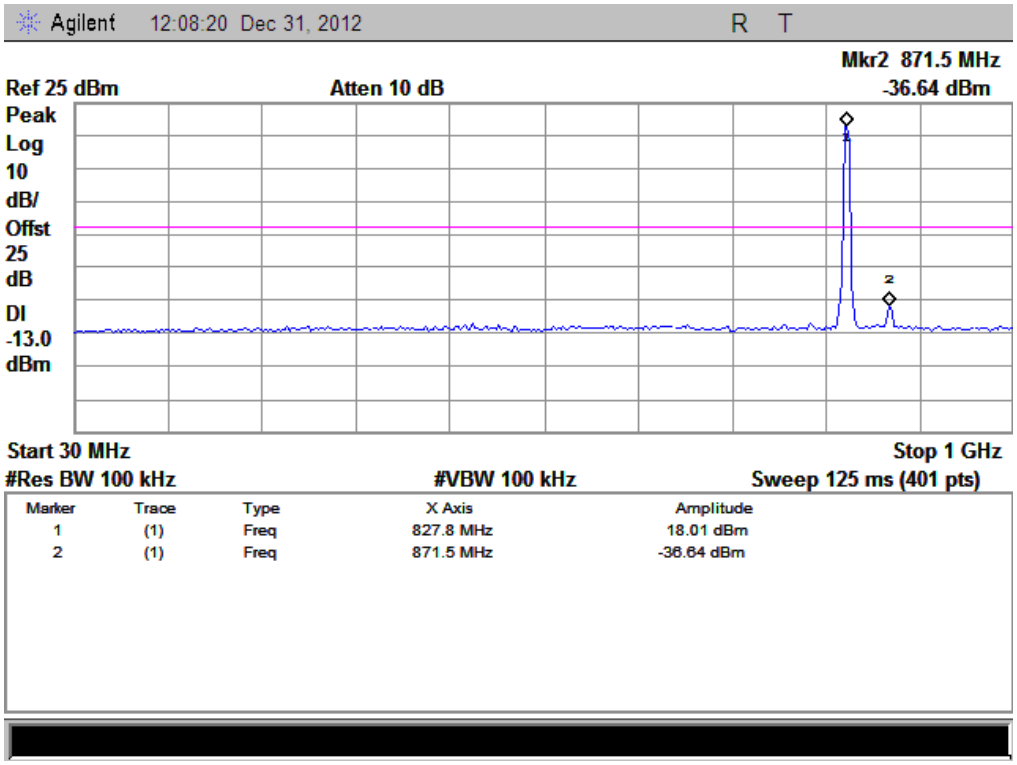
(Plot H2.1: HSDPA1900MHz Channel = 9400, 1GHz to 20GHz)



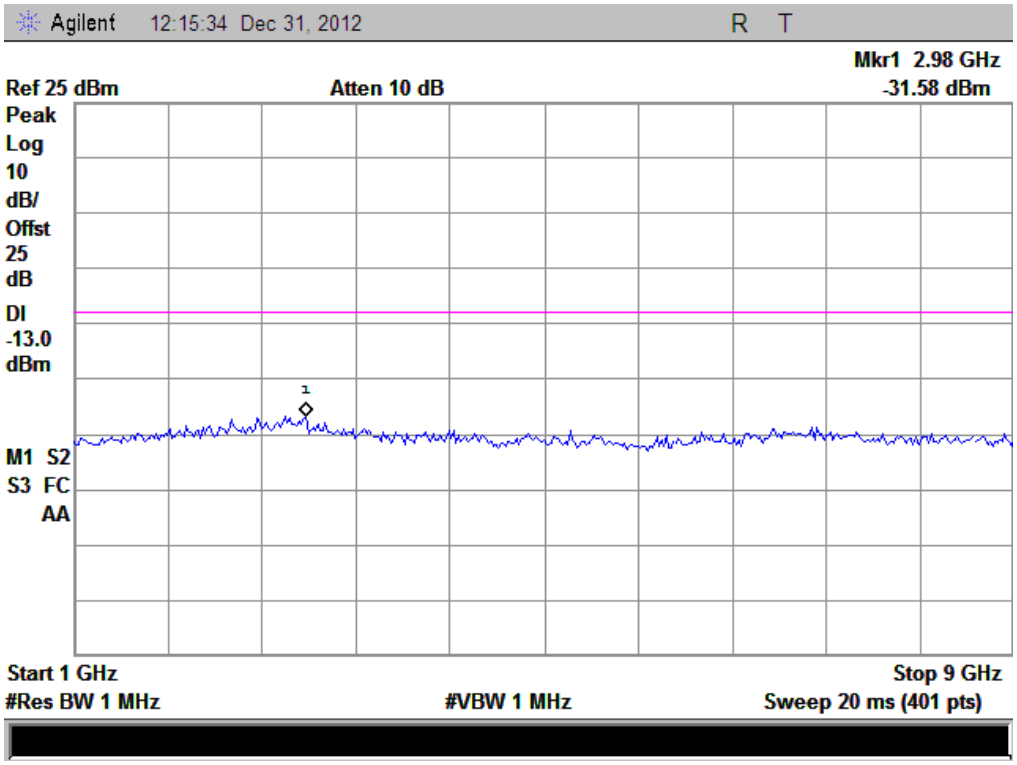
(Plot H3: HSDPA1900MHz Channel = 9538, 30MHz to 1GHz)



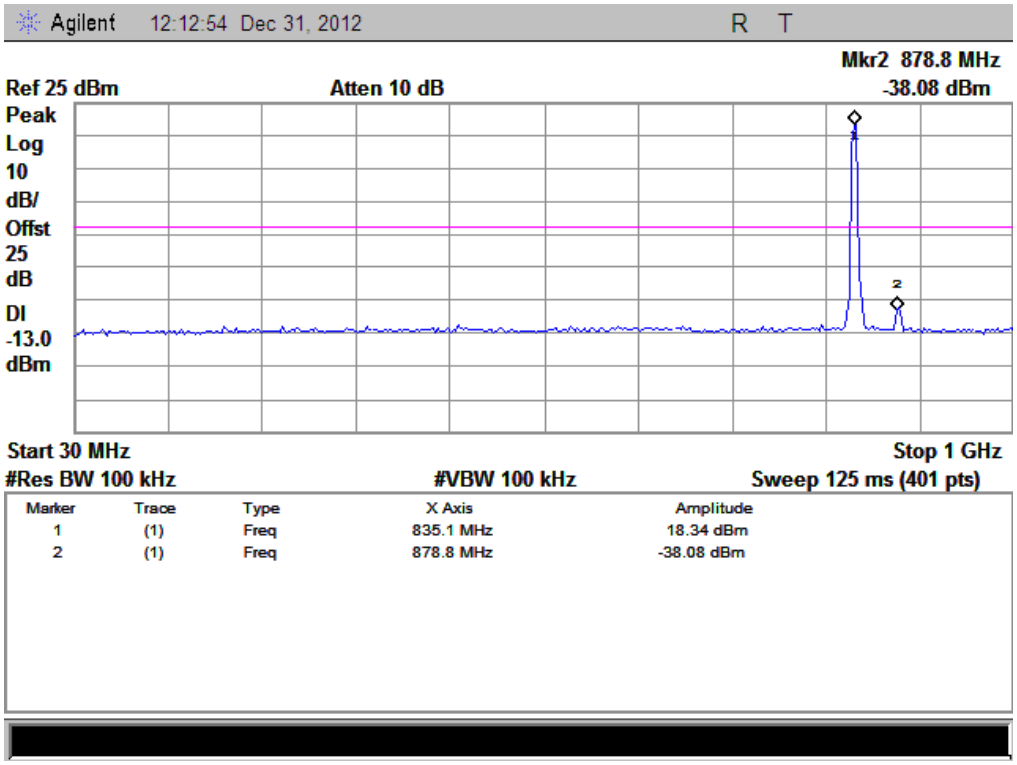
(Plot H3.1: HSDPA1900MHz Channel = 9538 1GHz to 20GHz)



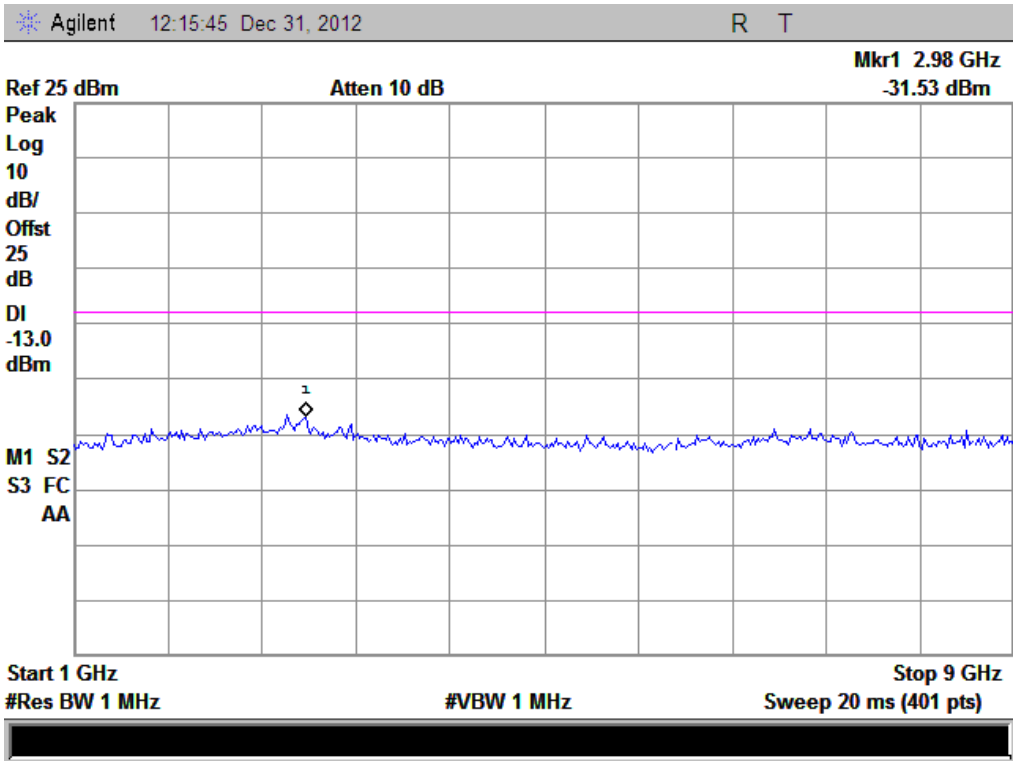
(Plot I 1: HSUPA 850MHz Channel = 4132, 30MHz to 1GHz)



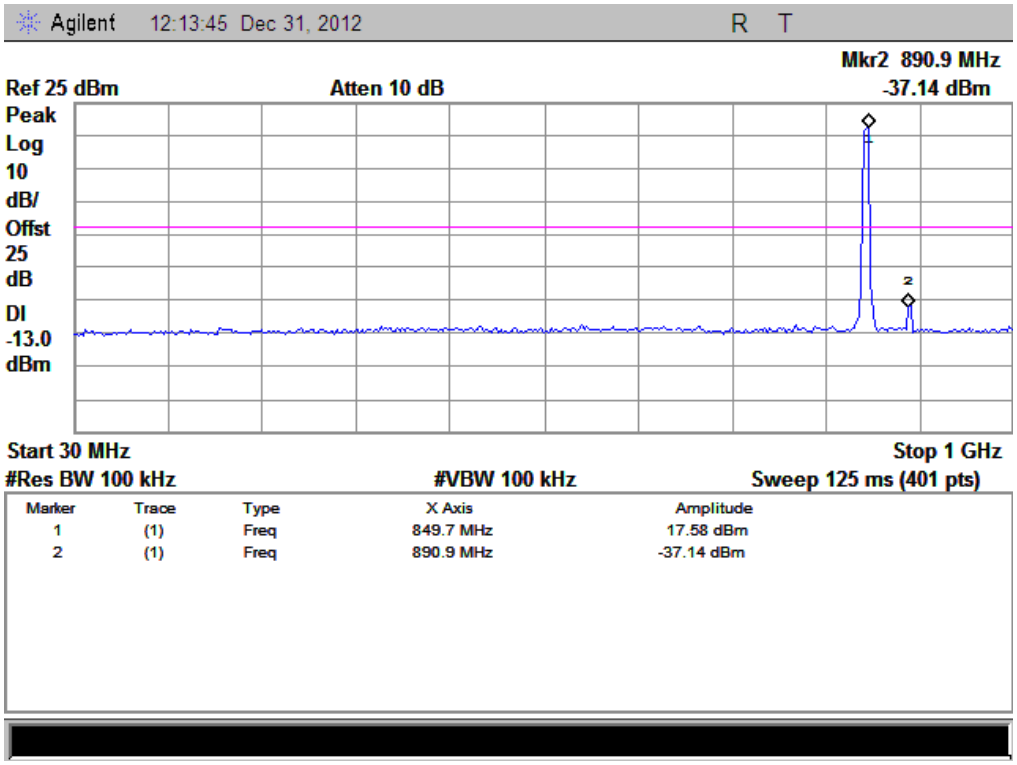
(Plot I1.1: HSUPA 850MHz Channel = 4132, 1GHz to 9GHz)



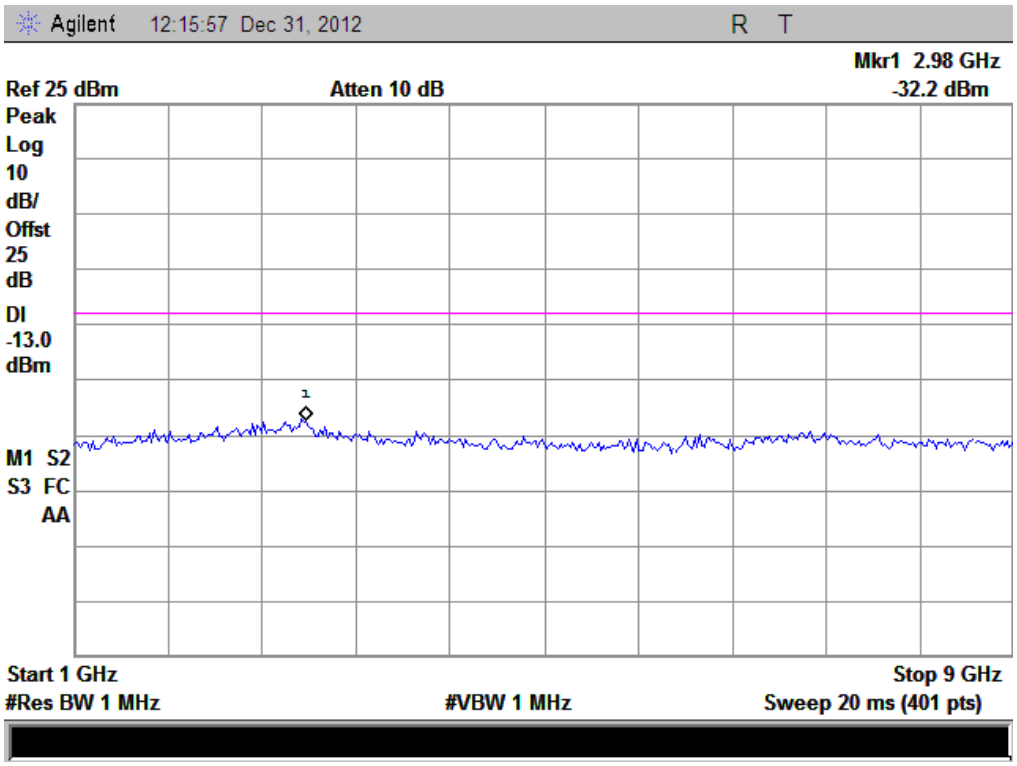
(Plot I 2: HSUPA 850MHz Channel = 4175, 30MHz to 1GHz)



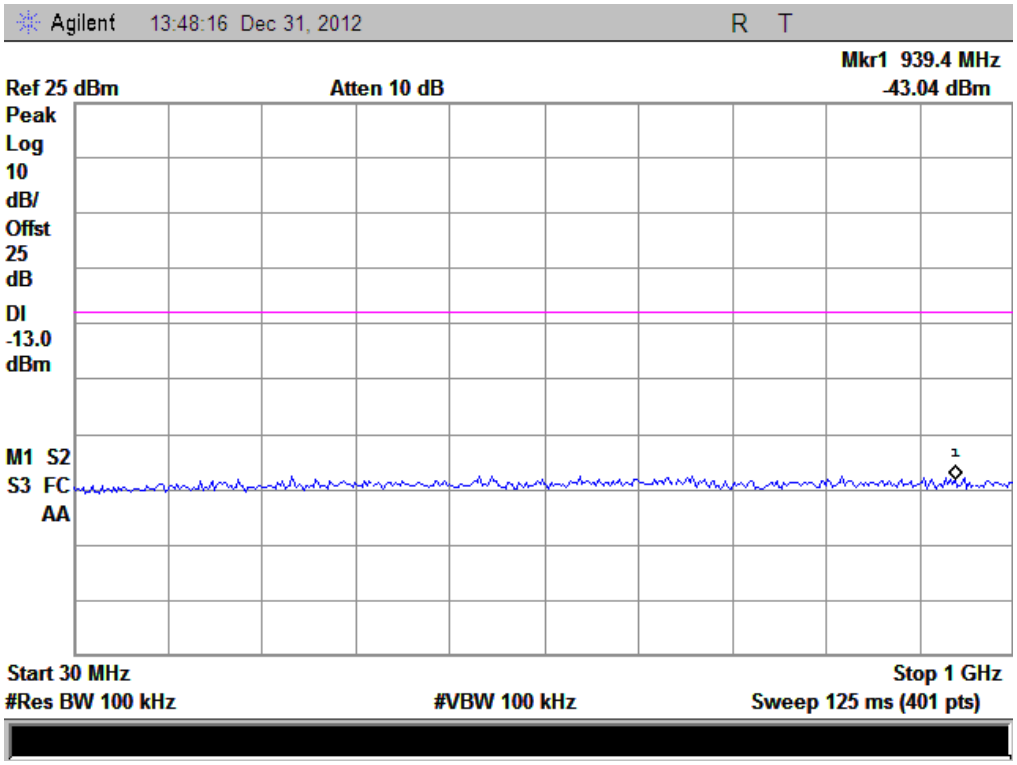
(Plot I2.1: HSUPA 850MHz Channel = 4175, 1GHz to 9GHz)



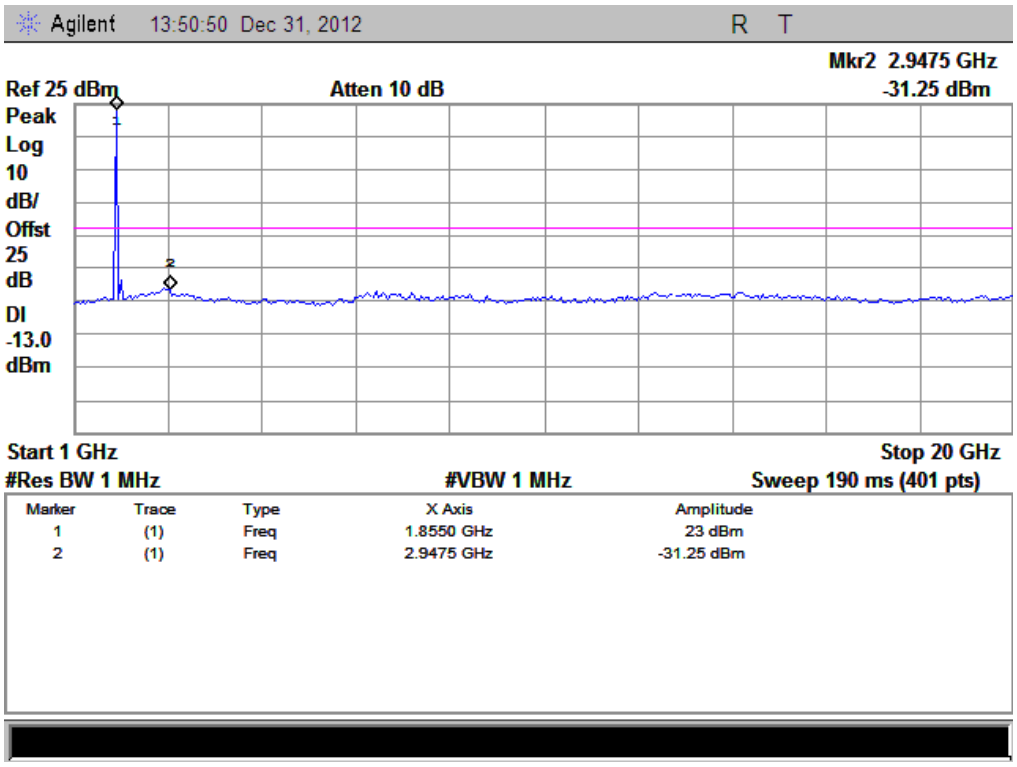
(Plot I 3: HSUPA850MHz Channel = 4233, 30MHz to 1GHz)



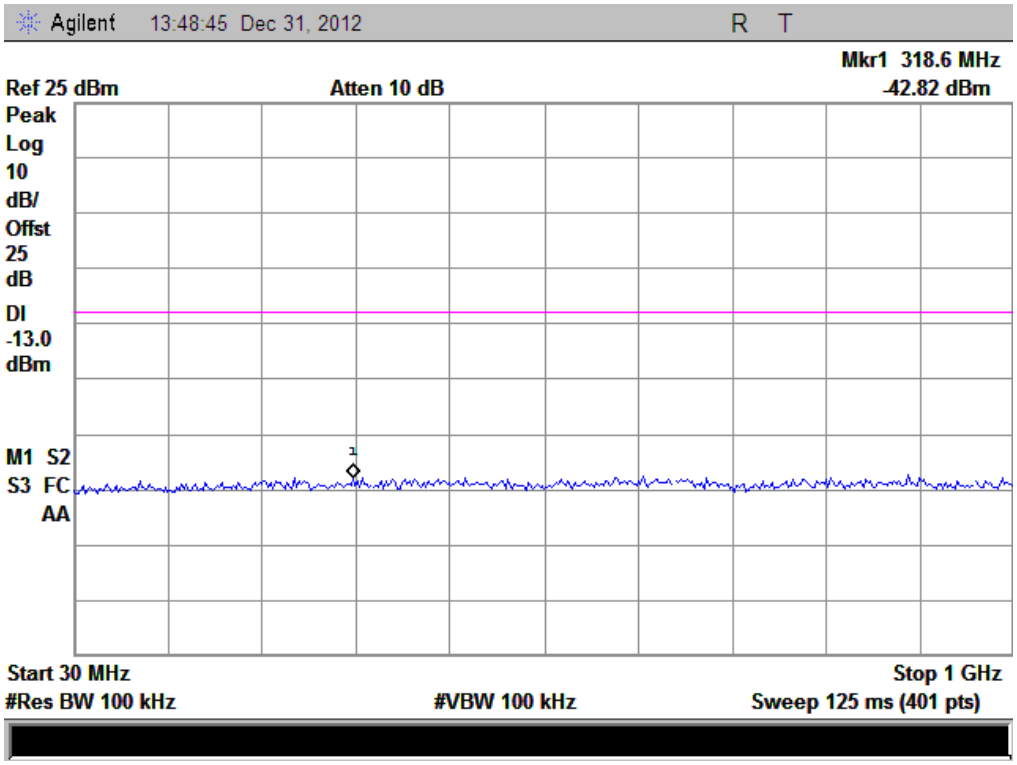
(Plot I3.1: HSUPA850MHz Channel = 4233, 1GHz to 9GHz)



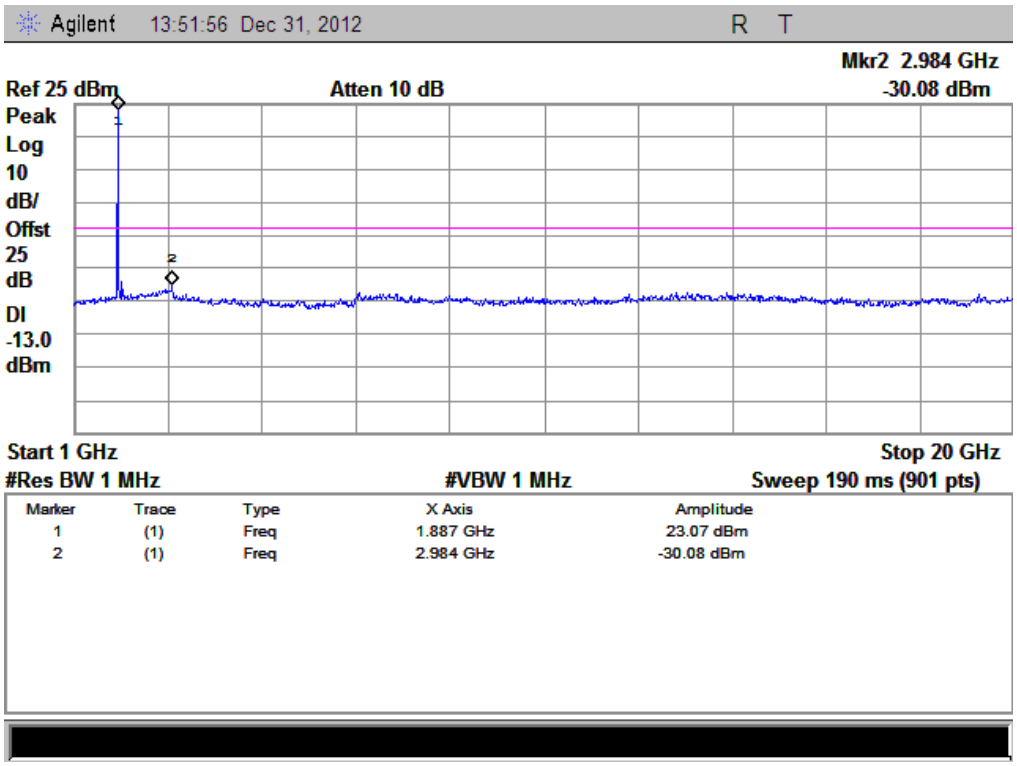
(Plot J 1: HSUPA1900MHz Channel = 9262, 30MHz to 1GHz)



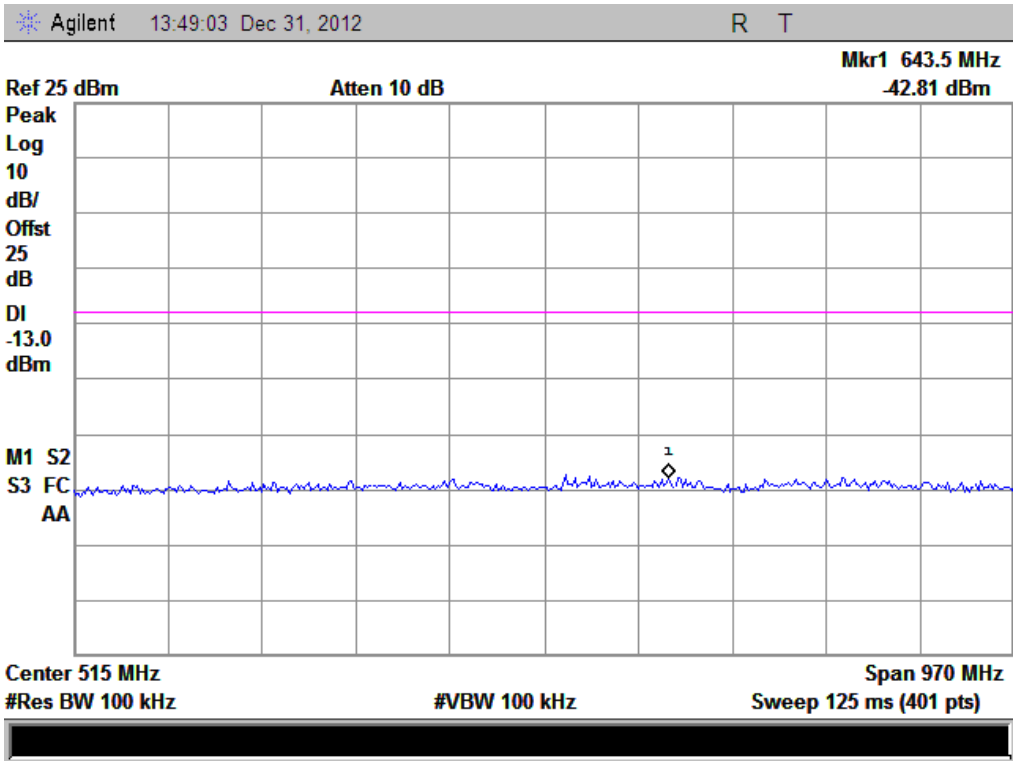
(Plot J1.1: HSUPA1900MHz Channel = 9262, 1GHz to 20GHz)



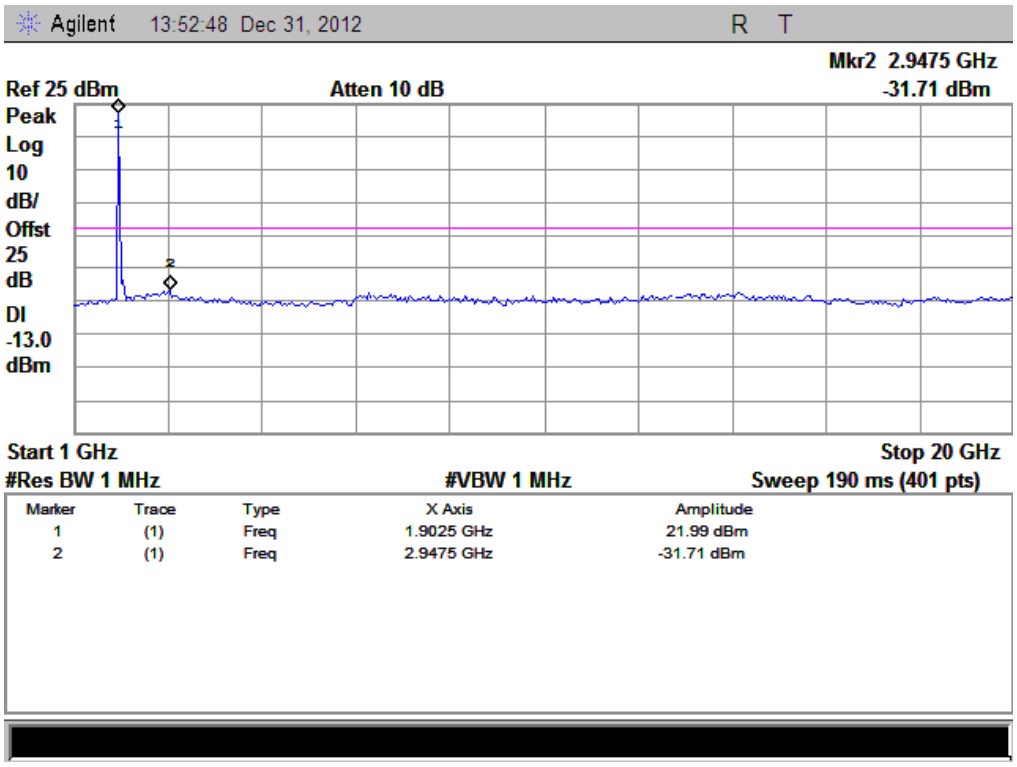
(Plot J 2: HSUPA1900MHz Channel = 9400, 30MHz to 1GHz)



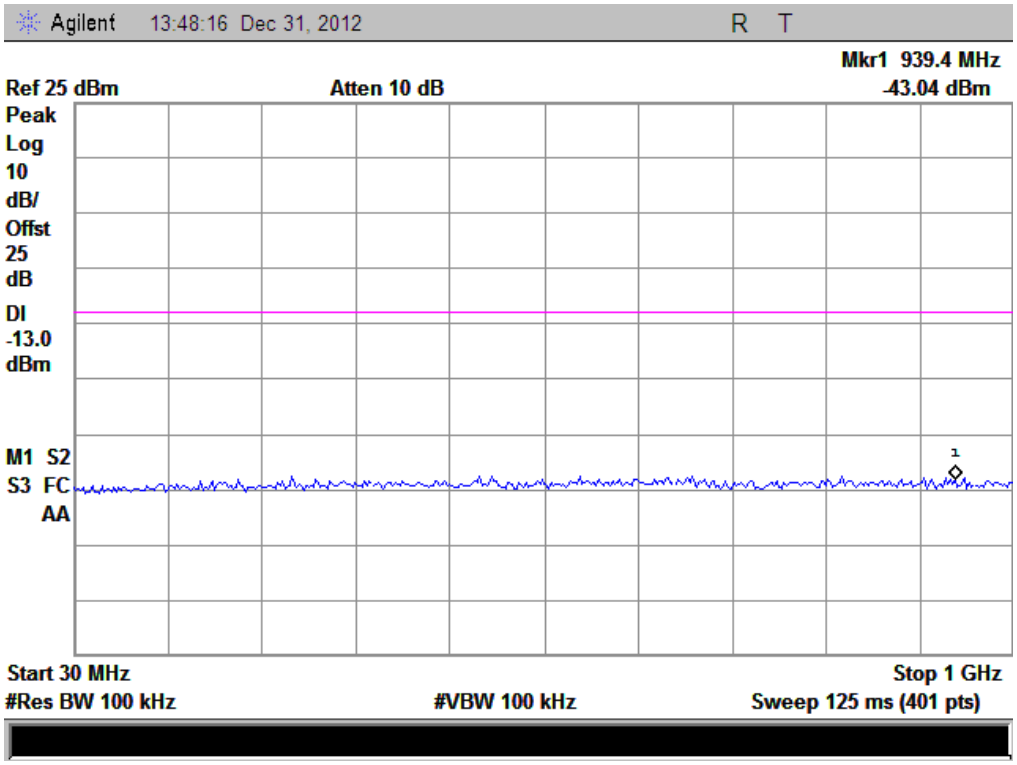
(Plot J2.1: HSUPA1900MHz Channel = 9400, 1GHz to 20GHz)



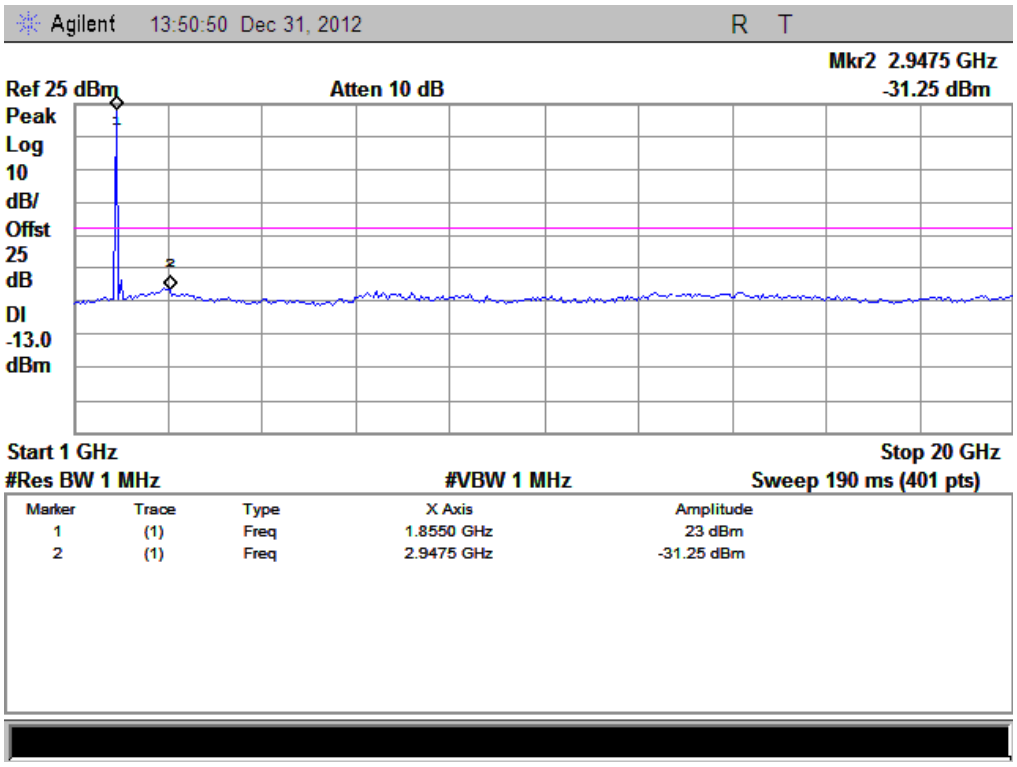
(Plot J 3: HSUPA1900MHz Channel = 9538, 30MHz to 1GHz)



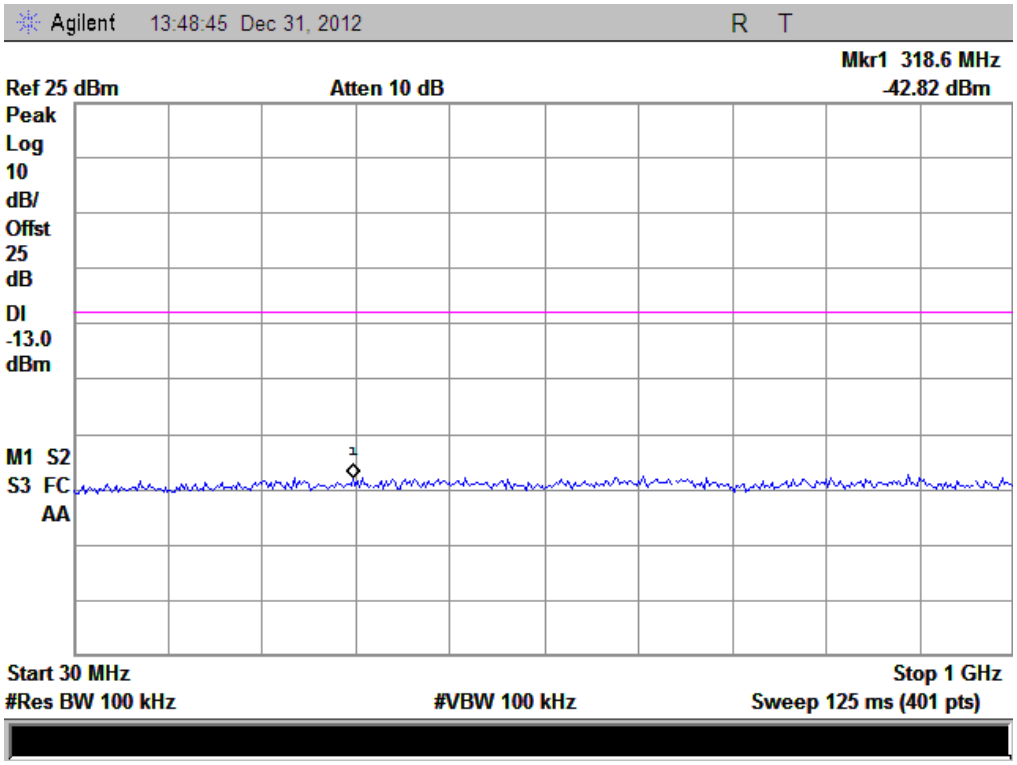
(Plot J3.1: HSUPA1900MHz Channel = 9538 1GHz to 20GHz)



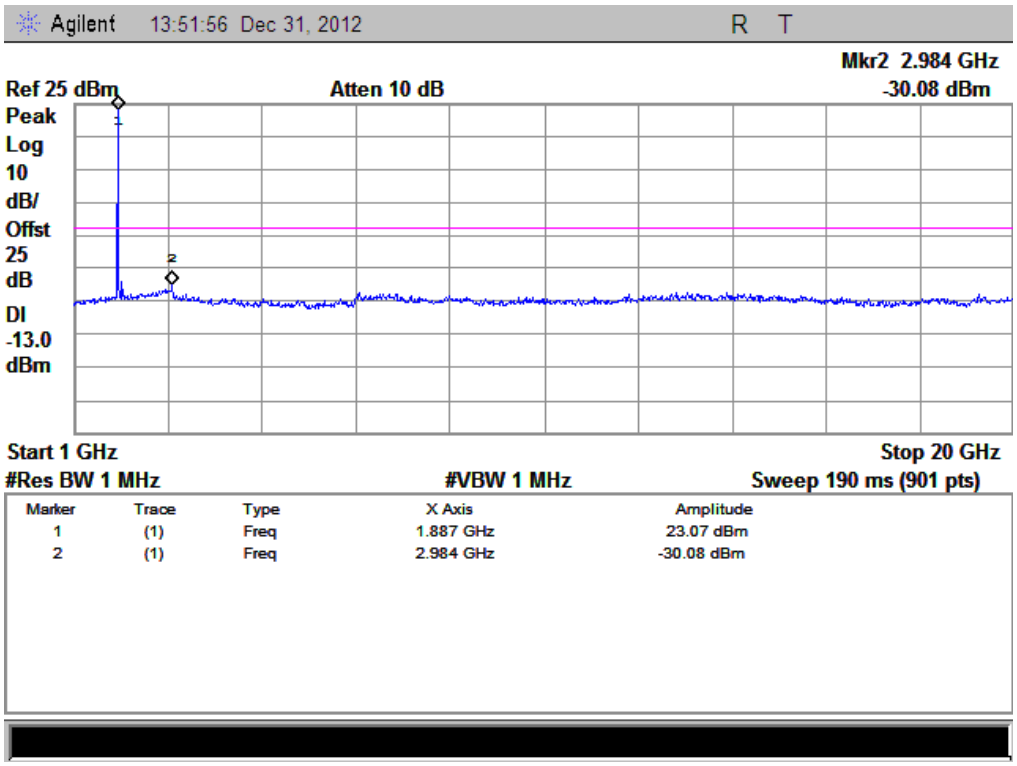
(Plot K 1: WCDMA1700MHz Channel = 1312, 30MHz to 1GHz)



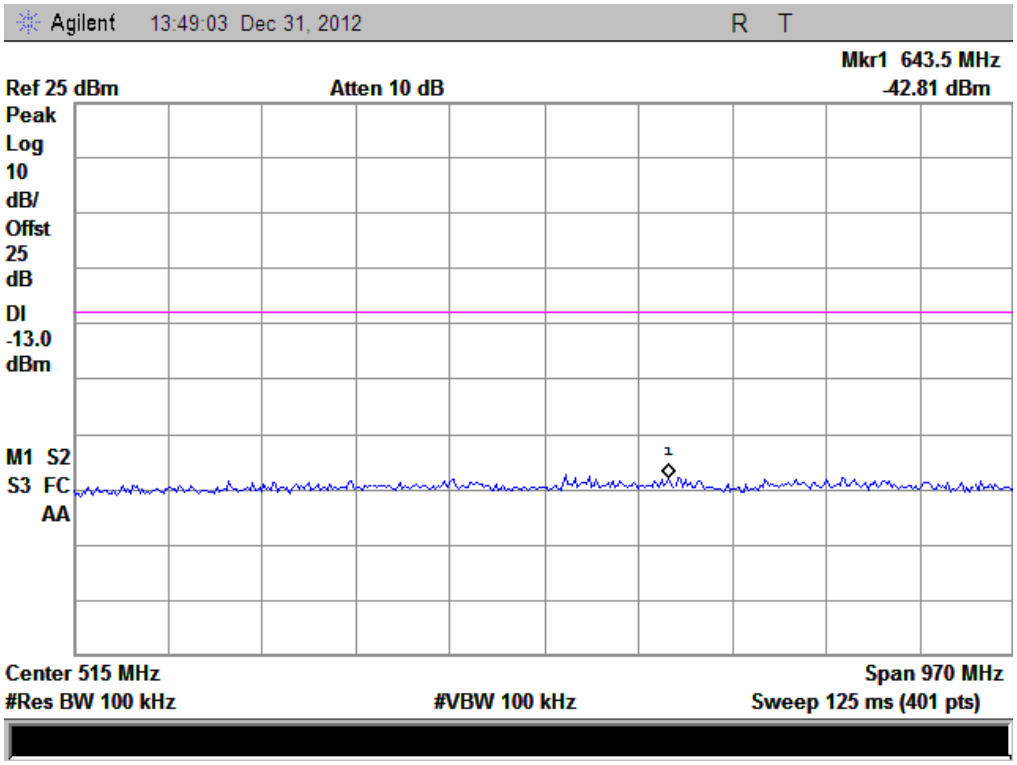
(Plot K1.1: WCDMA1700MHz Channel = 1312, 1GHz to 20GHz)



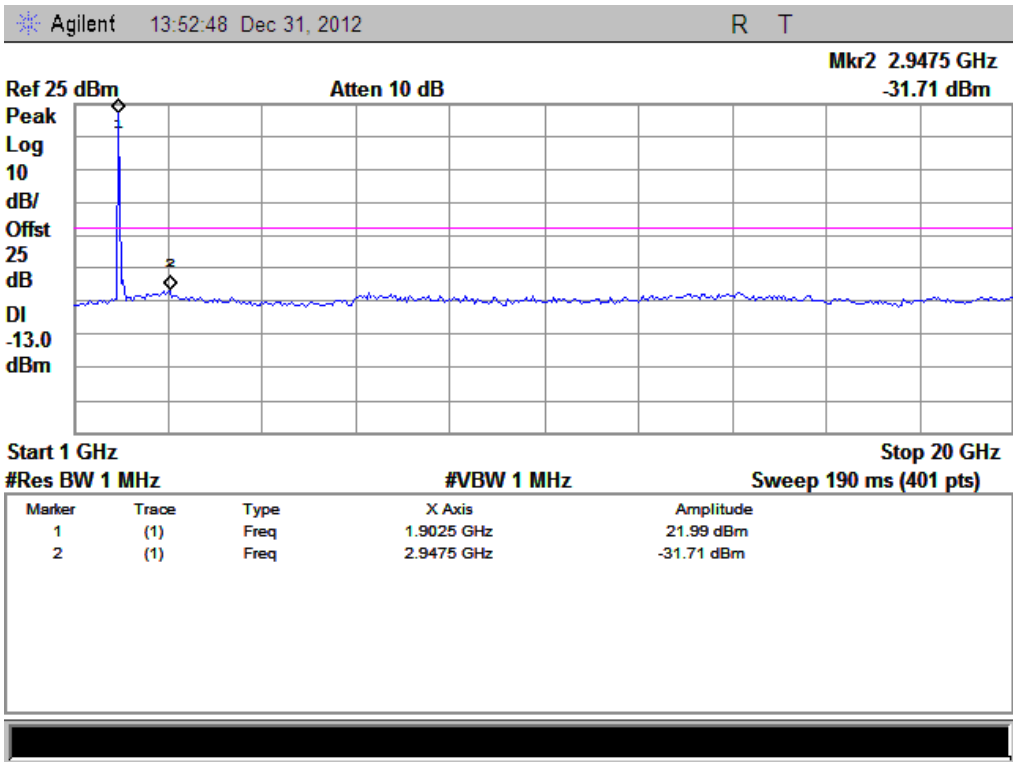
(Plot K 2: WCDMA 1700MHz Channel = 1412, 30MHz to 1GHz)



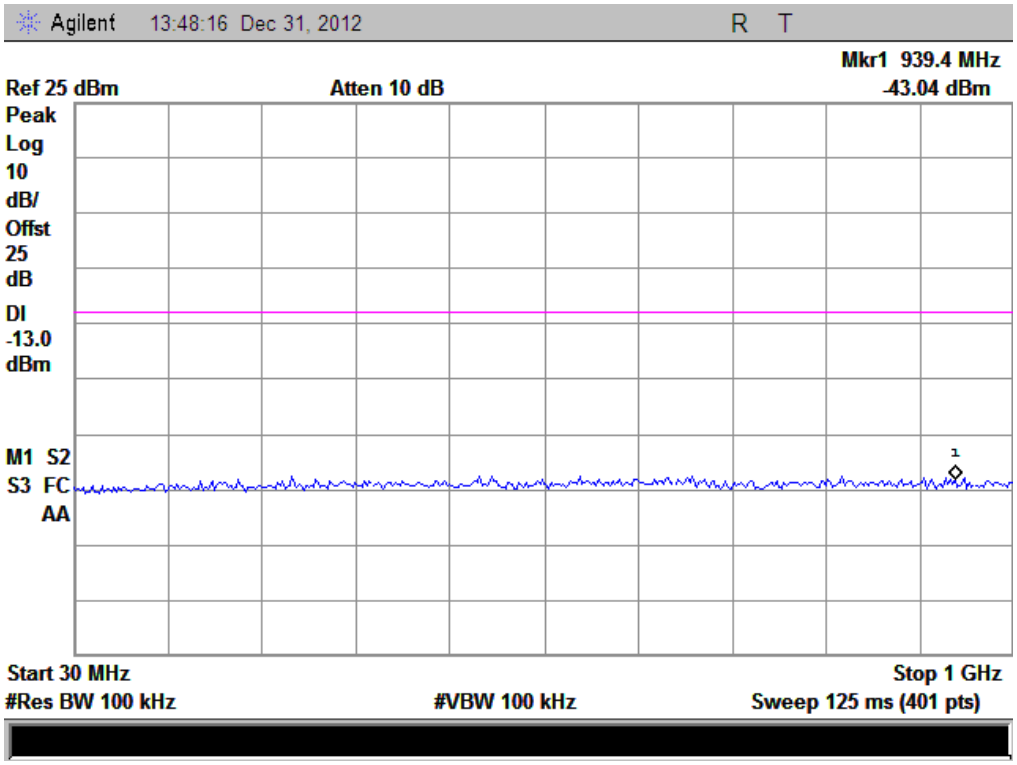
(Plot K2.1: HSUPA1700MHz Channel = 1412, 1GHz to 20GHz)



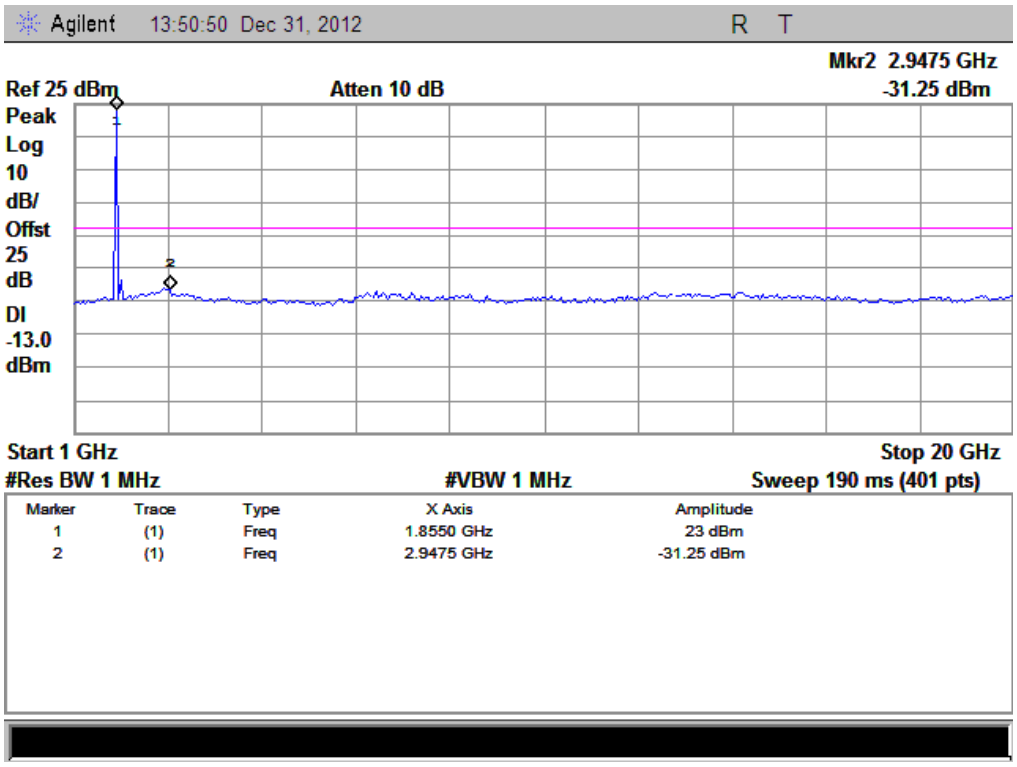
(Plot K 3: WCDMA1700MHz Channel = 1513, 30MHz to 1GHz)



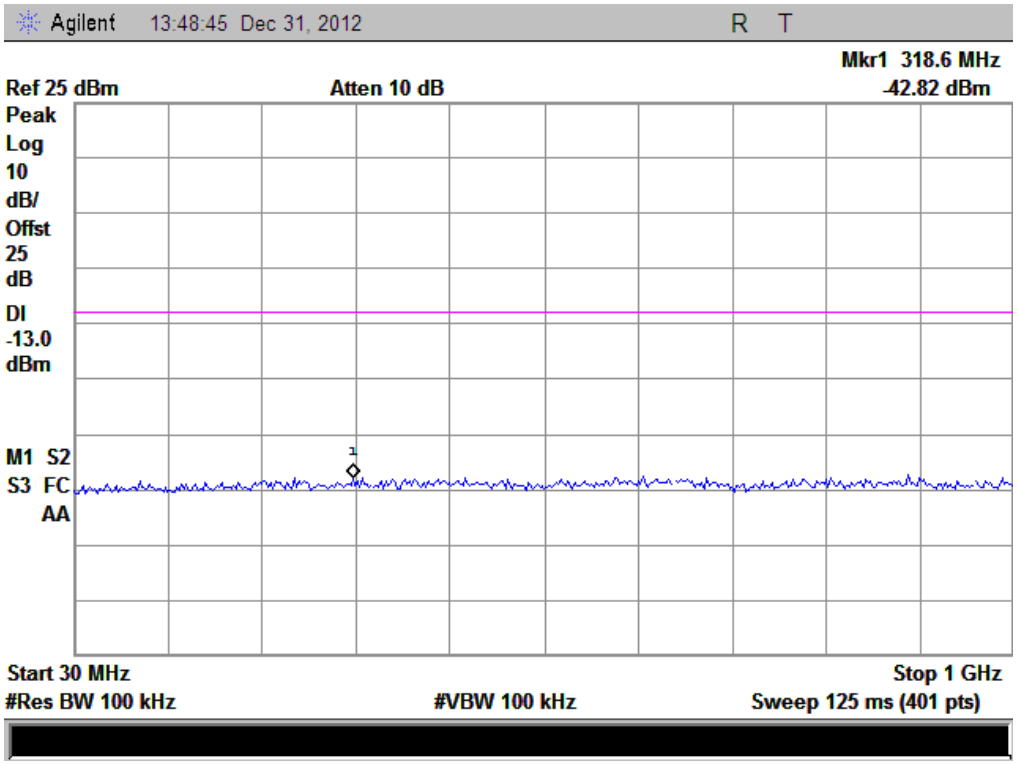
(Plot K3.1: WCDMA1700MHz Channel = 1513 1GHz to 20GHz)



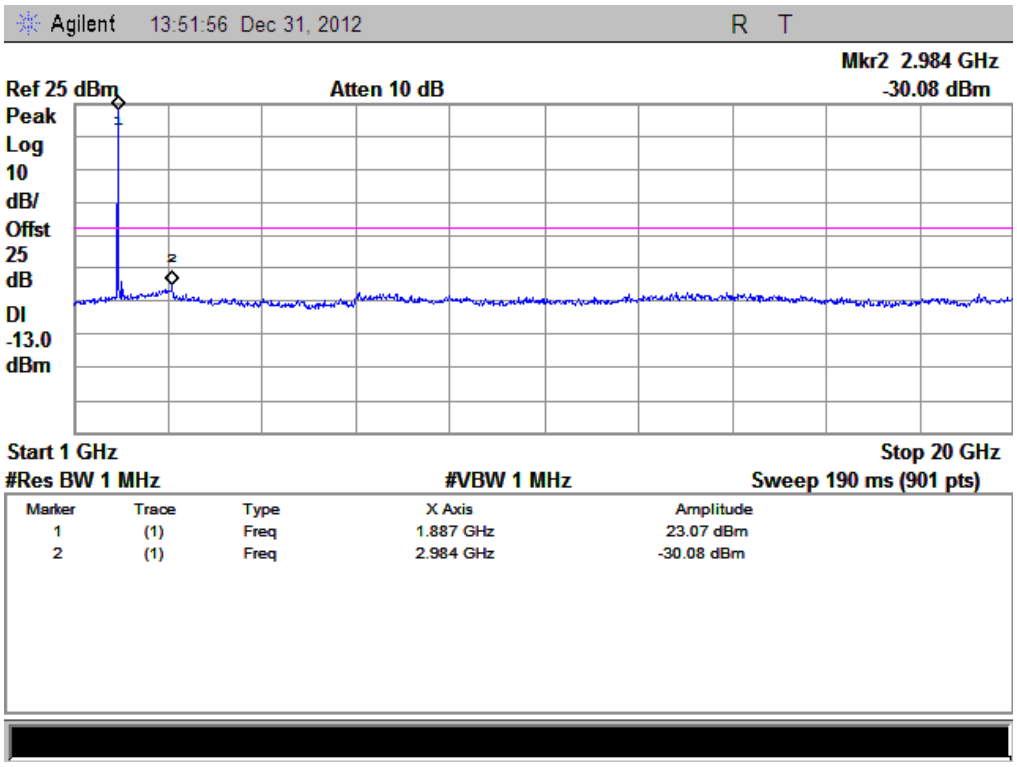
(Plot L 1: HSDPA1700MHz Channel = 1312, 30MHz to 1GHz)



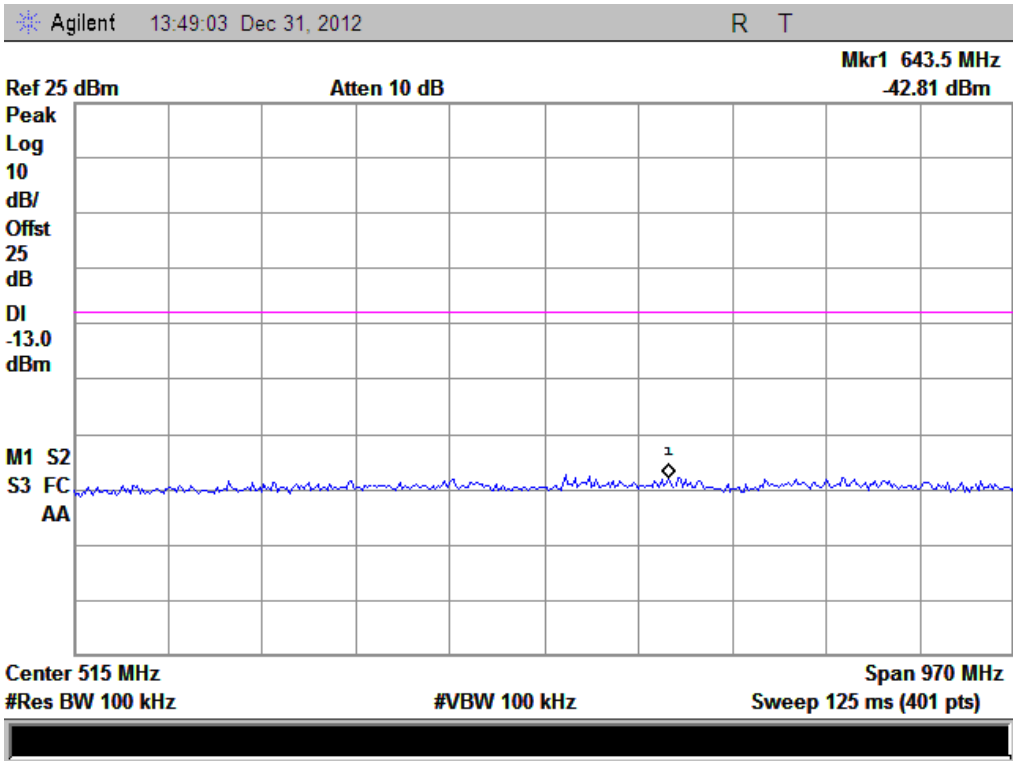
(Plot L1.1: HSDPA1700MHz Channel = 1312, 1GHz to 20GHz)



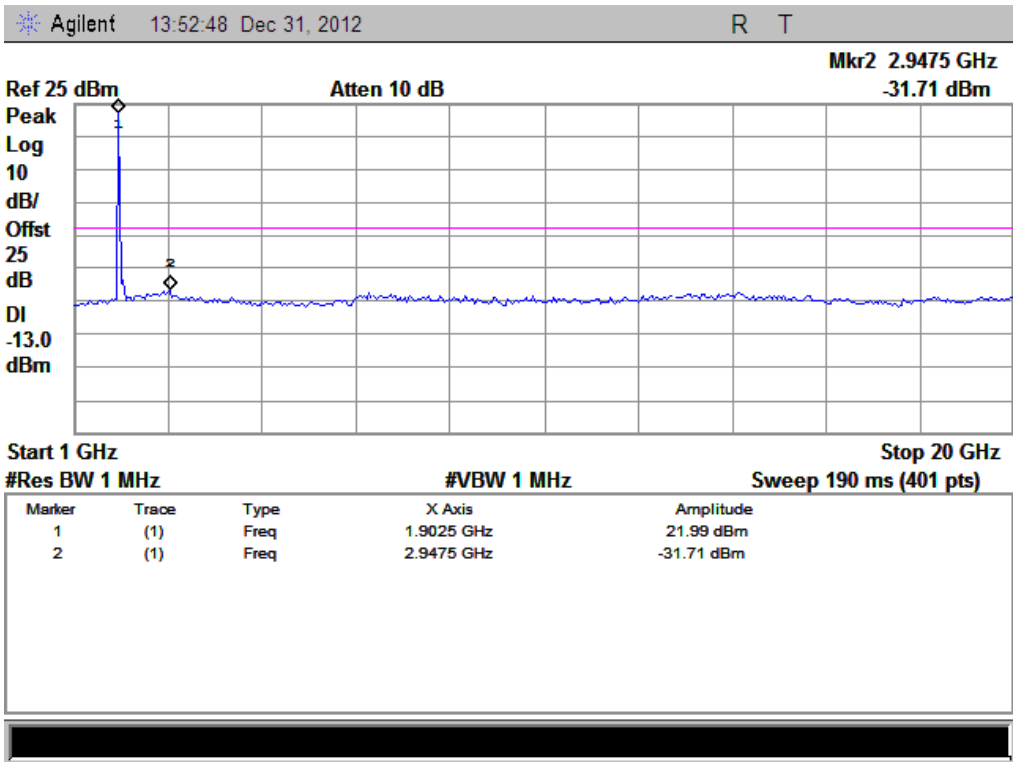
(Plot L 2: HSDPA1700MHz Channel = 1412, 30MHz to 1GHz)



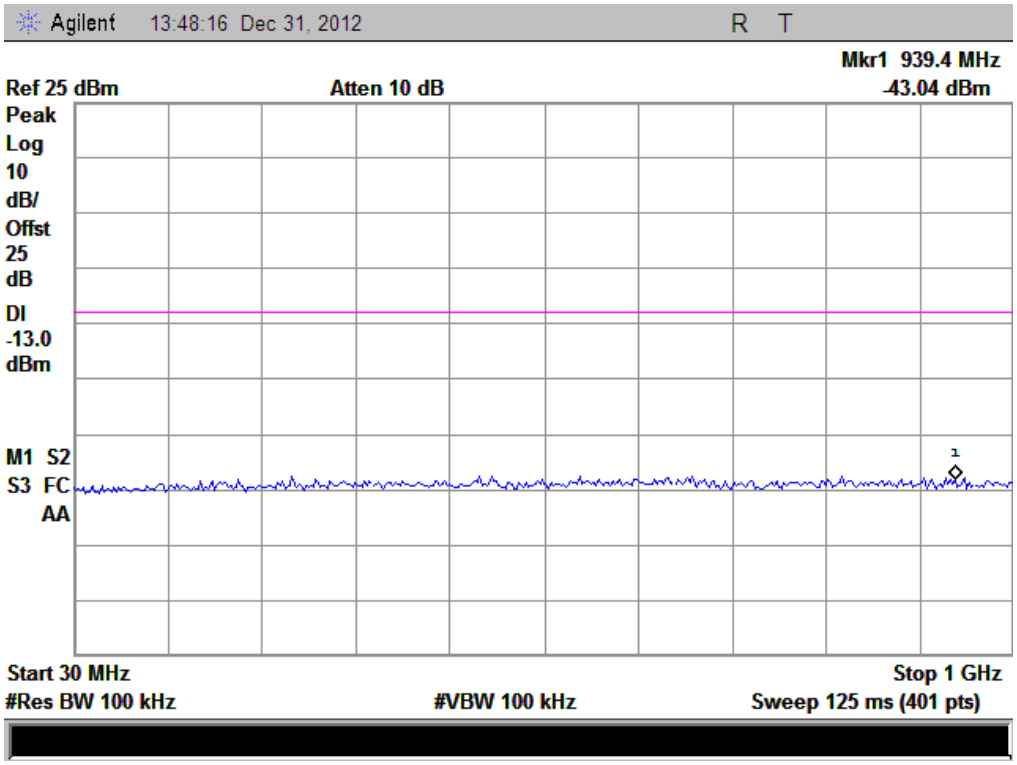
(Plot L2.1: HSDPA1700MHz Channel = 1412, 1GHz to 20GHz)



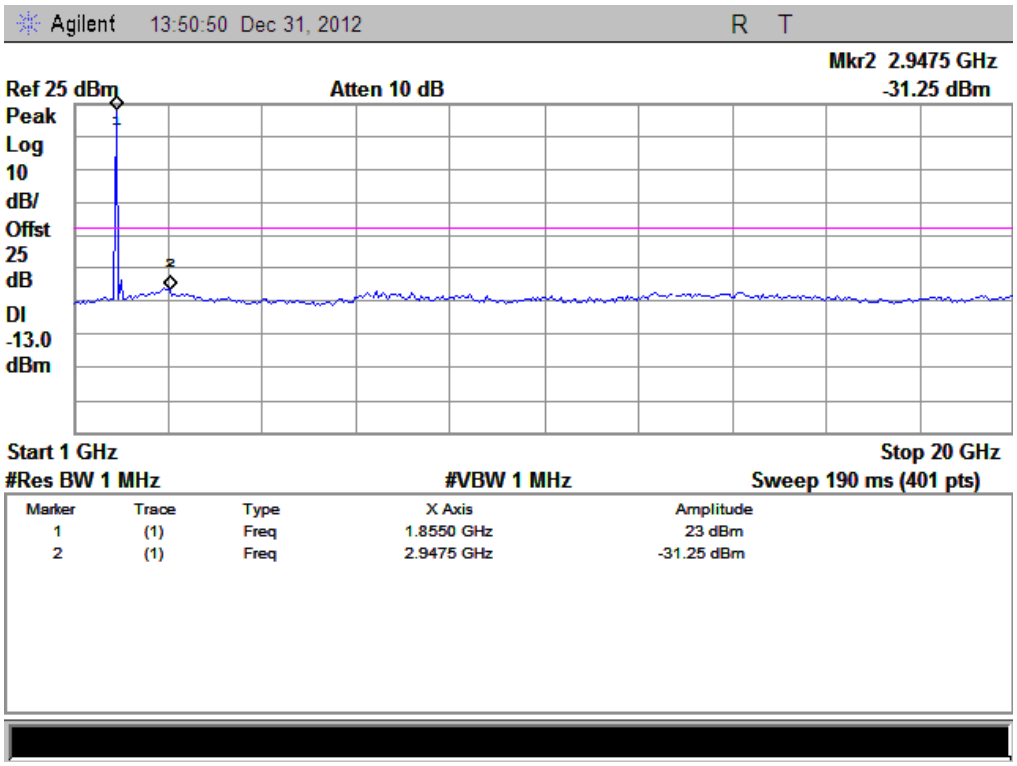
(Plot L 3: HSDPA1700MHz Channel = 1513, 30MHz to 1GHz)



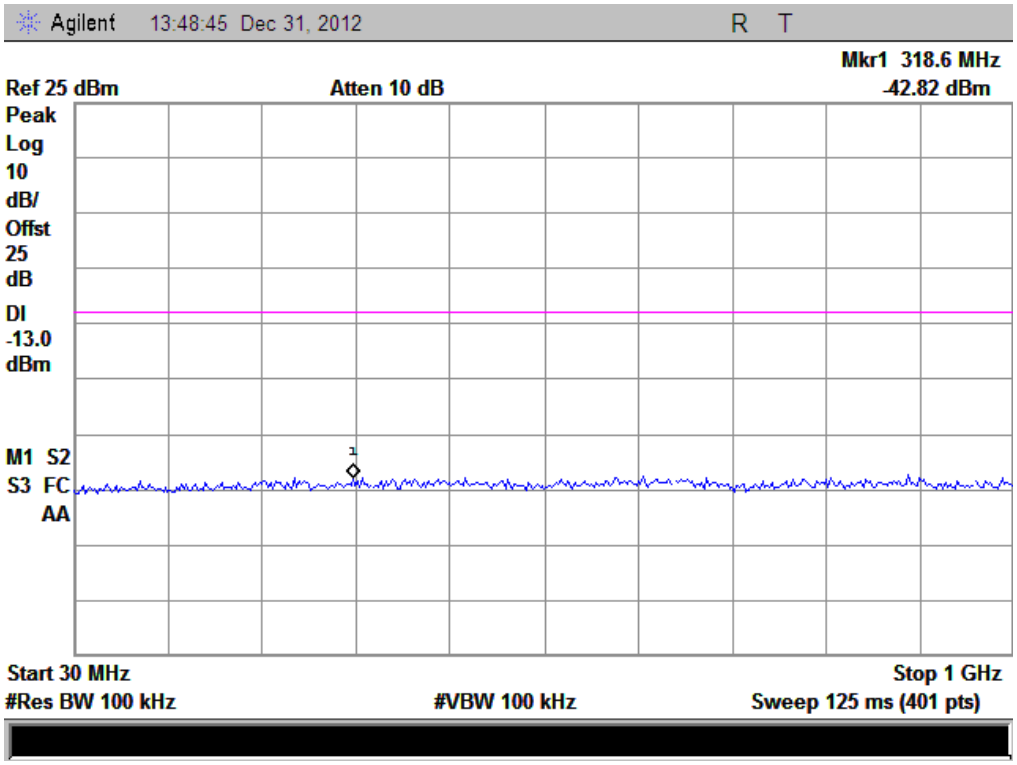
(Plot L3.1: HSDPA1700MHz Channel = 1513 1GHz to 20GHz)



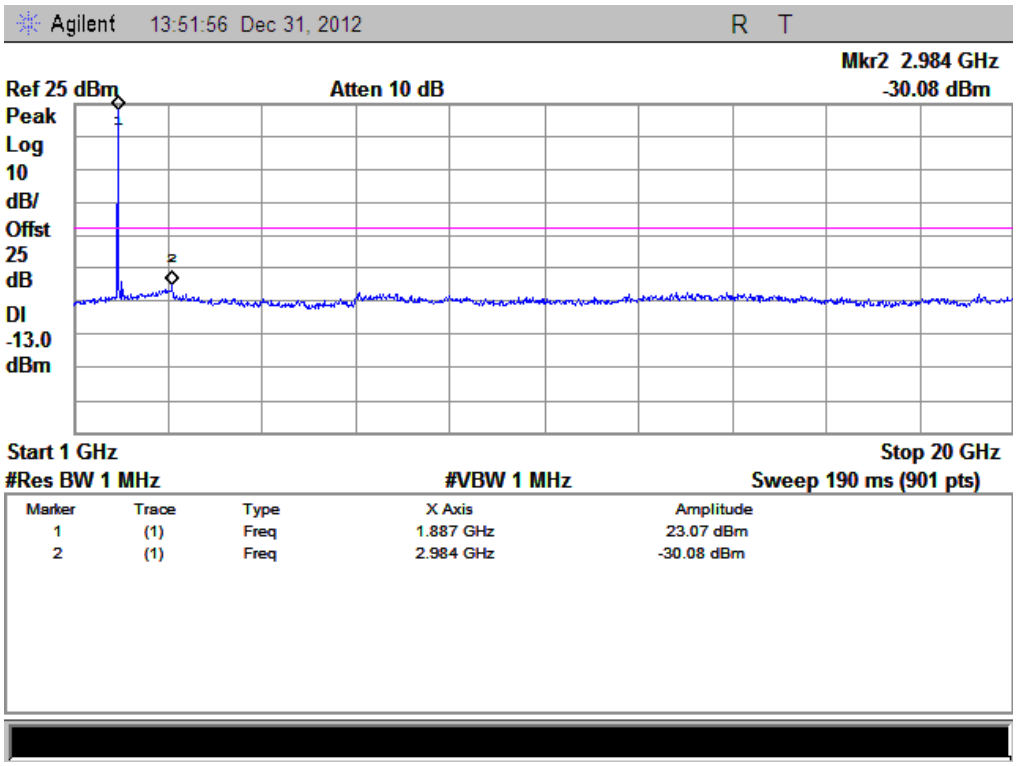
(Plot M 1: HSUPA1700MHz Channel = 1312, 30MHz to 1GHz)



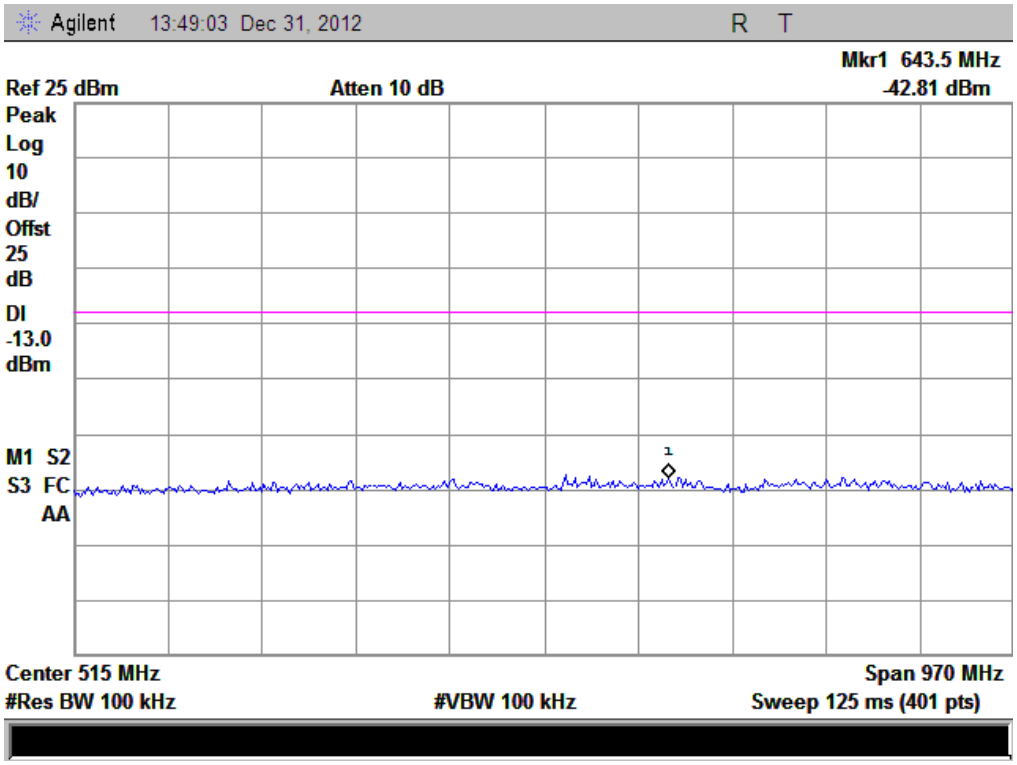
(Plot M1.1: HSUPA1700MHz Channel = 1312, 1GHz to 20GHz)



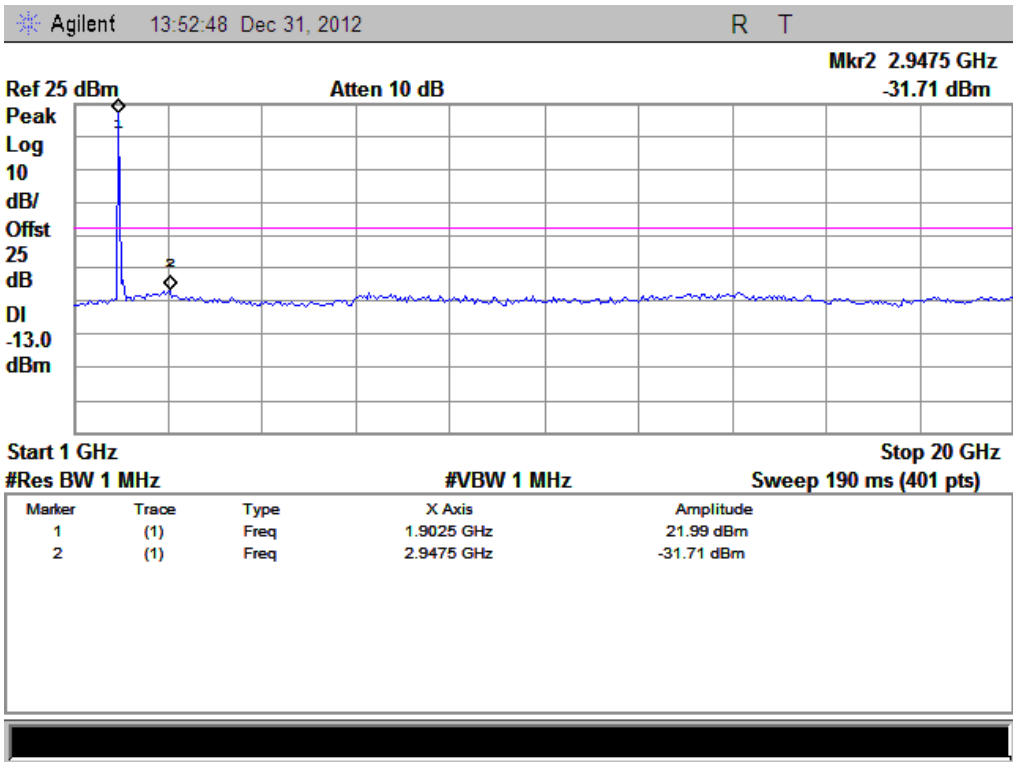
(Plot M 2: HSUPA1700MHz Channel = 1412, 30MHz to 1GHz)



(Plot M2.1: HSUPA1700MHz Channel = 1412, 1GHz to 20GHz)



(Plot M 3: HSUPA1700MHz Channel = 1513, 30MHz to 1GHz)



(Plot M3.1: HSUPA1700MHz Channel = 1513 1GHz to 20GHz)

2.5 Band Edge

2.5.1 Requirement

According to FCC section 22.917(b) and FCC section 24.238(b), FCC section 27.53, 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.

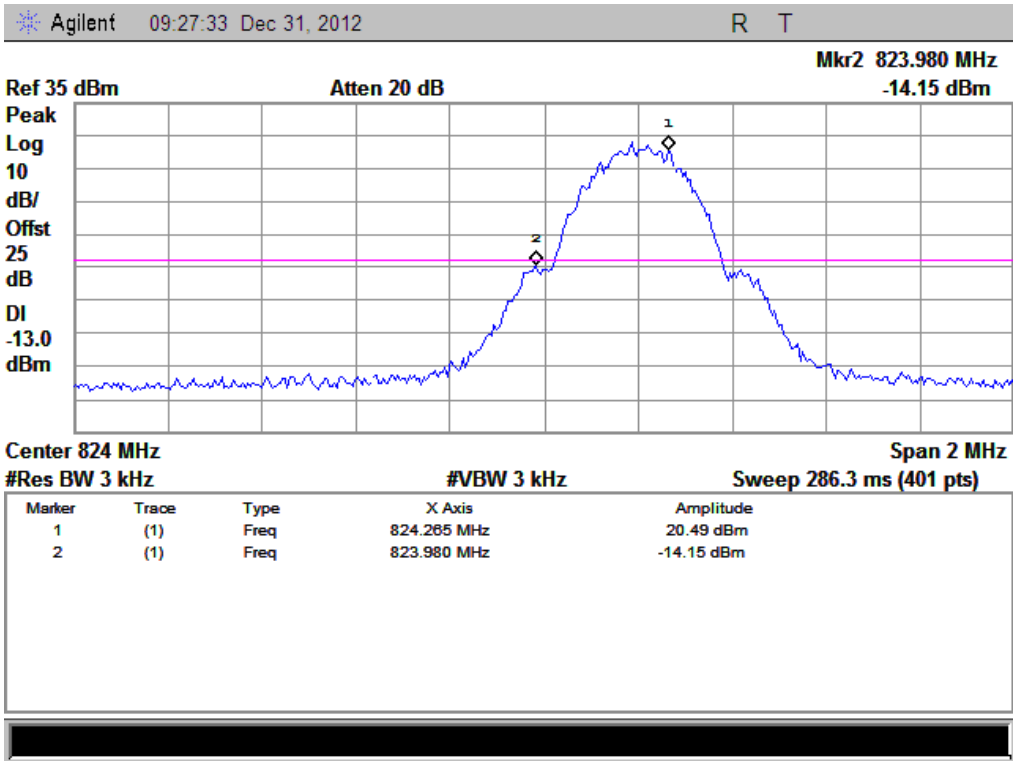
2.5.3 Test Result

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

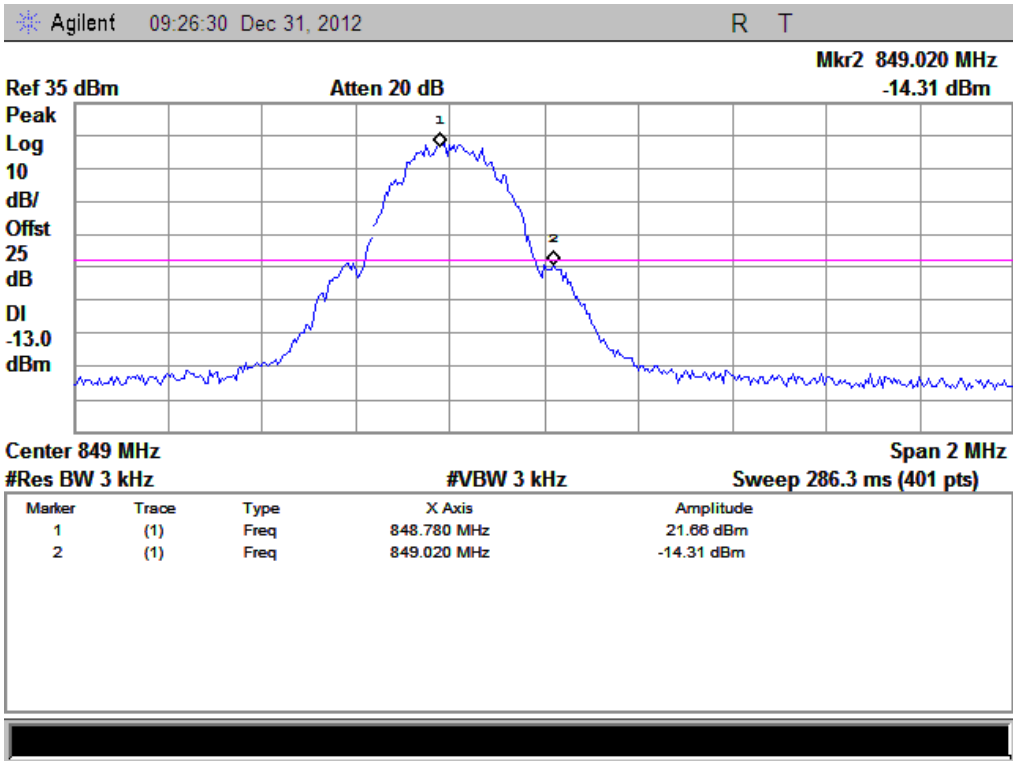
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Band Edge Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-14.15	Plat A	-13	PASS
	251	848.8	-14.31	Plot B		PASS
GSM 1900MHz	512	1850.2	-16.98	Plat C	-13	PASS
	810	1909.8	-17.08	Plot D		PASS
EDGE 850MHz	128	824.2	-15.64	Plat E	-13	PASS
	251	848.8	-13.92	Plot F		PASS
EDGE 1900MHz	512	1850.2	-15.93	Plat G	-13	PASS
	810	1909.8	-15.92	Plot H		PASS
WCDMA 850MHz	4132	826.4	-15.73	Plat I	-13	PASS
	4233	846.6	-15.67	Plot J		PASS
WCDMA 1900MHz	9262	1852.4	-15.17	Plat K	-13	PASS
	9538	1907.6	-16.82	Plot L		PASS
HSDPA 850MHz	4132	826.4	-15.46	Plat M	-13	PASS
	4233	846.6	-14.33	Plot N		PASS
HSDPA 1900MHz	9262	1852.4	-15.59	Plat O	-13	PASS
	9538	1907.6	-15.12	Plot P		PASS
HSUPA 850MHz	4132	826.4	-15.37	Plat Q	-13	PASS
	4233	846.6	-14.27	Plot R		PASS
HSUPA 1900MHz	9262	1852.4	-16.3	Plat S	-13	PASS
	9538	1907.6	-16.66	Plot T		PASS
WCDMA 1700MHz	1312	1712.4	-15.24	Plot U	-13	PASS
	1513	1752.6	-14.26	Plot V		PASS
HSDPA 1700MHz	1312	1712.4	-15.4	Plot W	-13	PASS
	1513	1752.6	-14.41	Plot X		PASS
HSUPA 1700MHz	1312	1712.4	-15.67	Plot Y	-13	PASS
	1513	1752.6	-14.65	Plot Z		PASS
GPRS 850MHz	128	824.2	-15.49	Plat A1	-13	PASS
	251	848.8	-13.81	Plot A2		PASS
GPRS 1900MHz	512	1850.2	-15.35	Plat A3	-13	PASS
	810	1909.8	-14.96	Plot A4		PASS

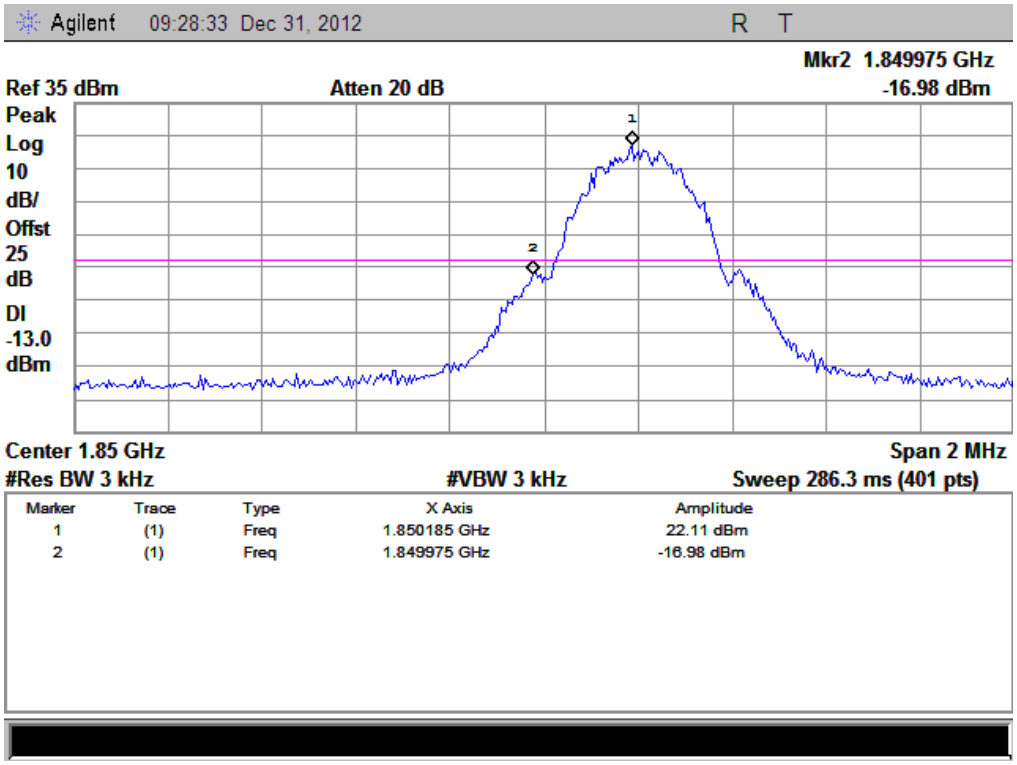
2. Test Plots:



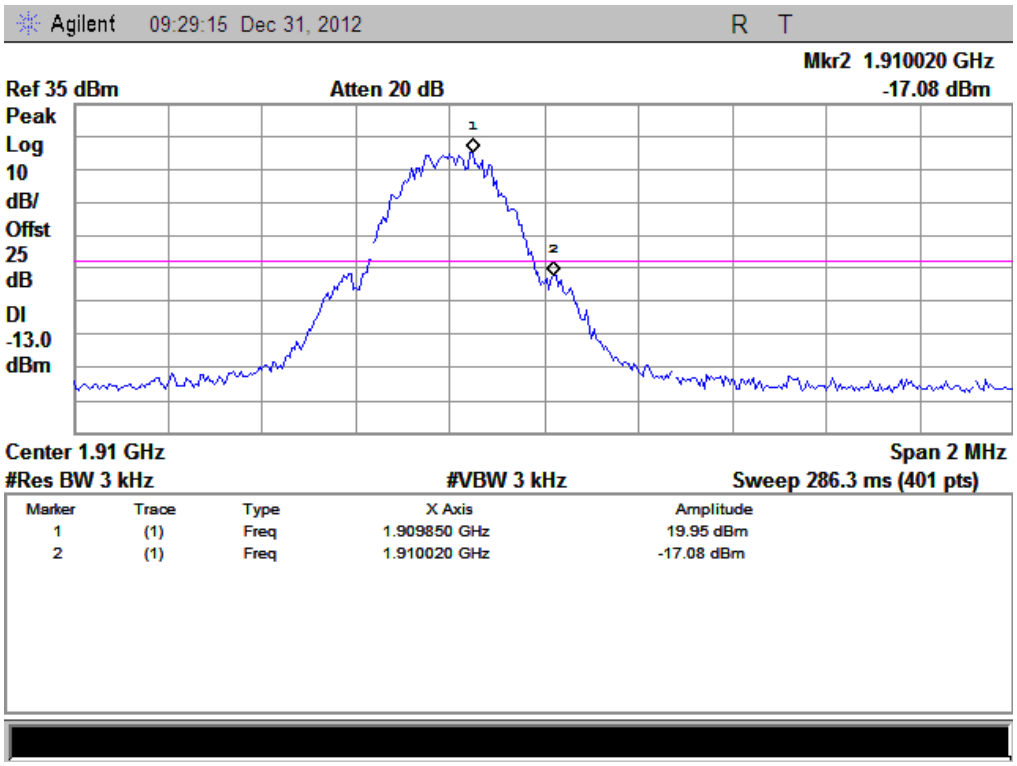
(Plot A: GSM 850 Channel = 128)



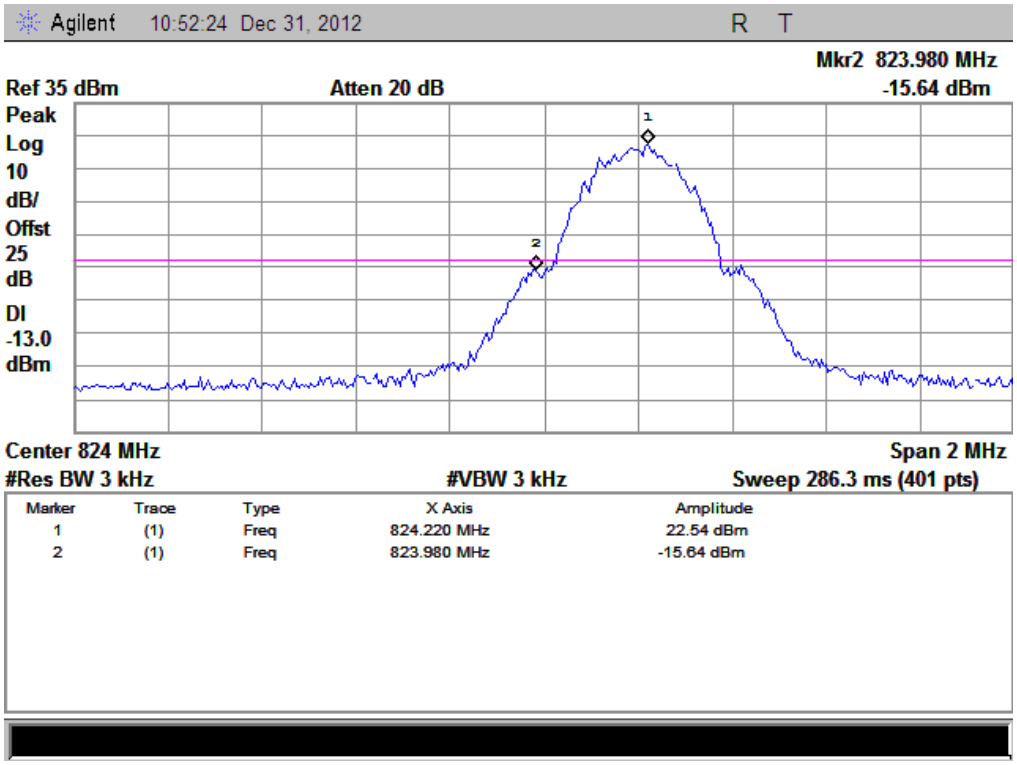
(Plot B: GSM 850 Channel = 251)



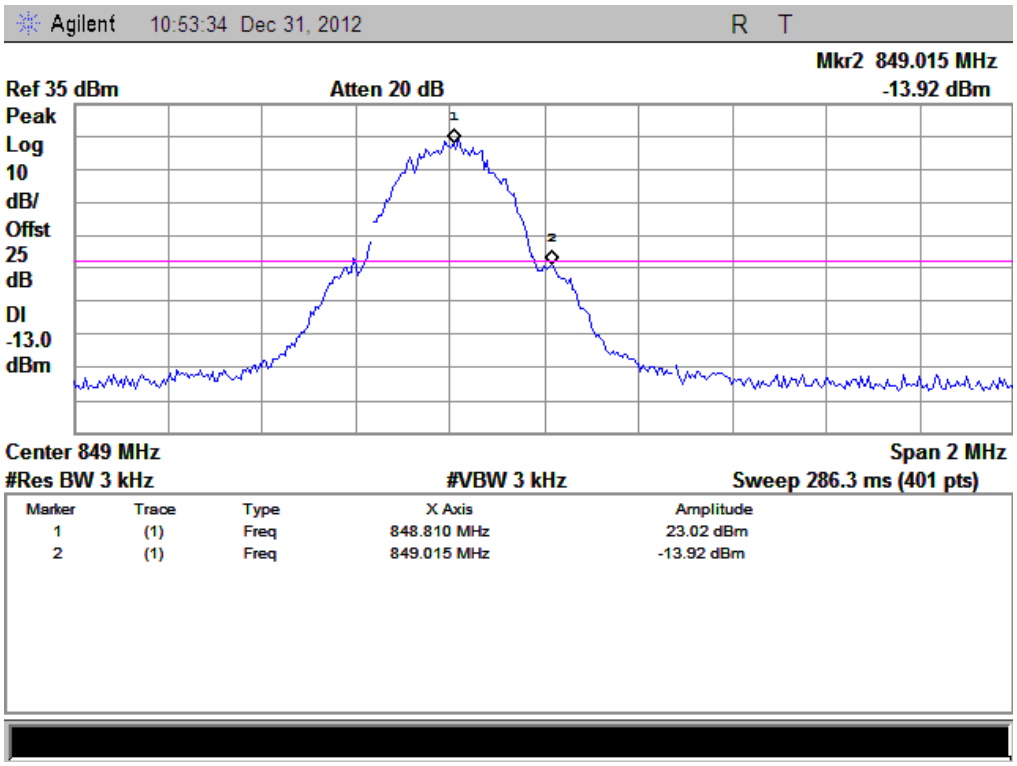
(Plot C: GSM 1900 Channel = 512)



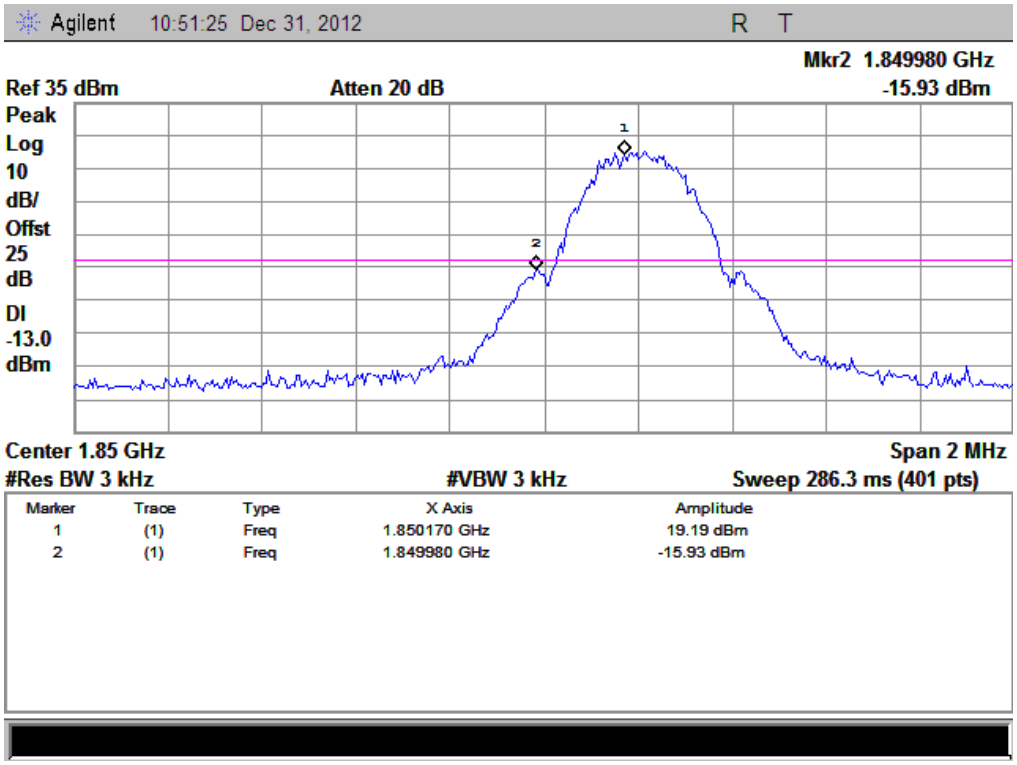
(Plot D: GSM 1900 Channel = 810)



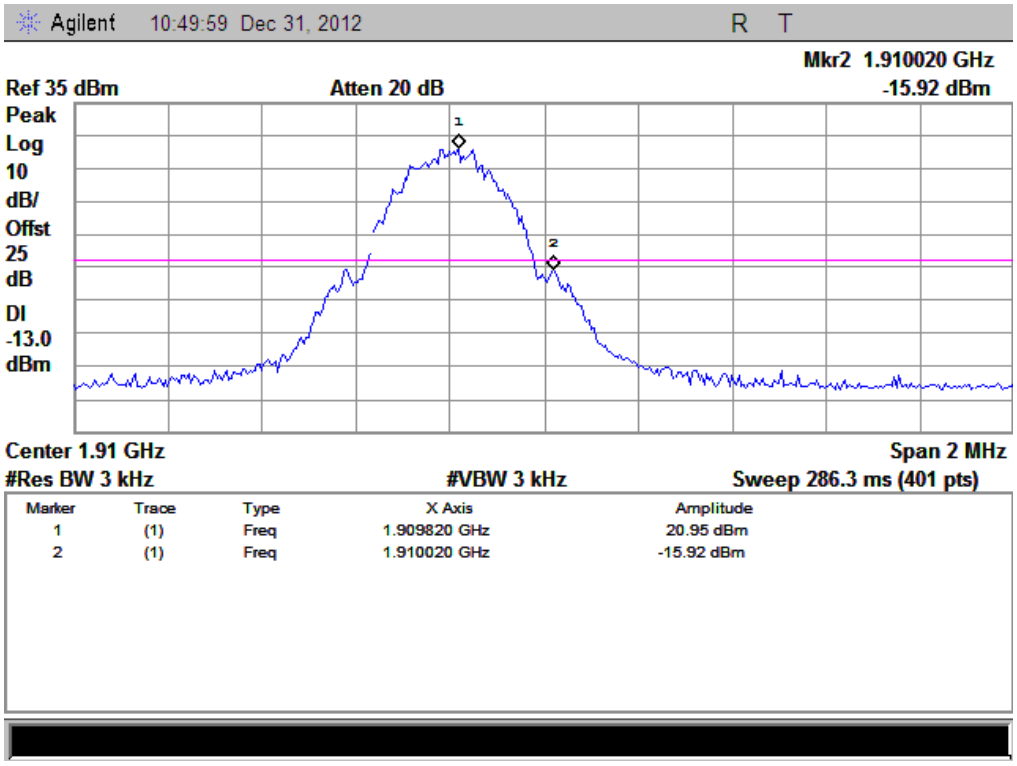
(Plot E: EDGE 850 Channel = 128)



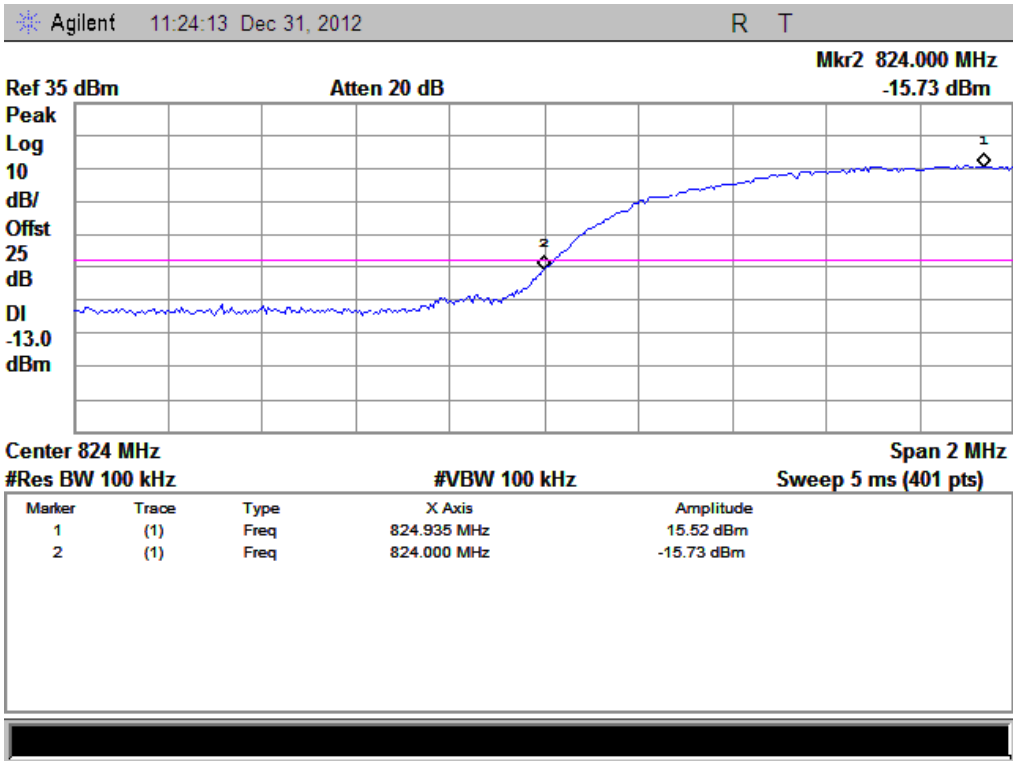
(Plot F: EDGE 850 Channel = 251)



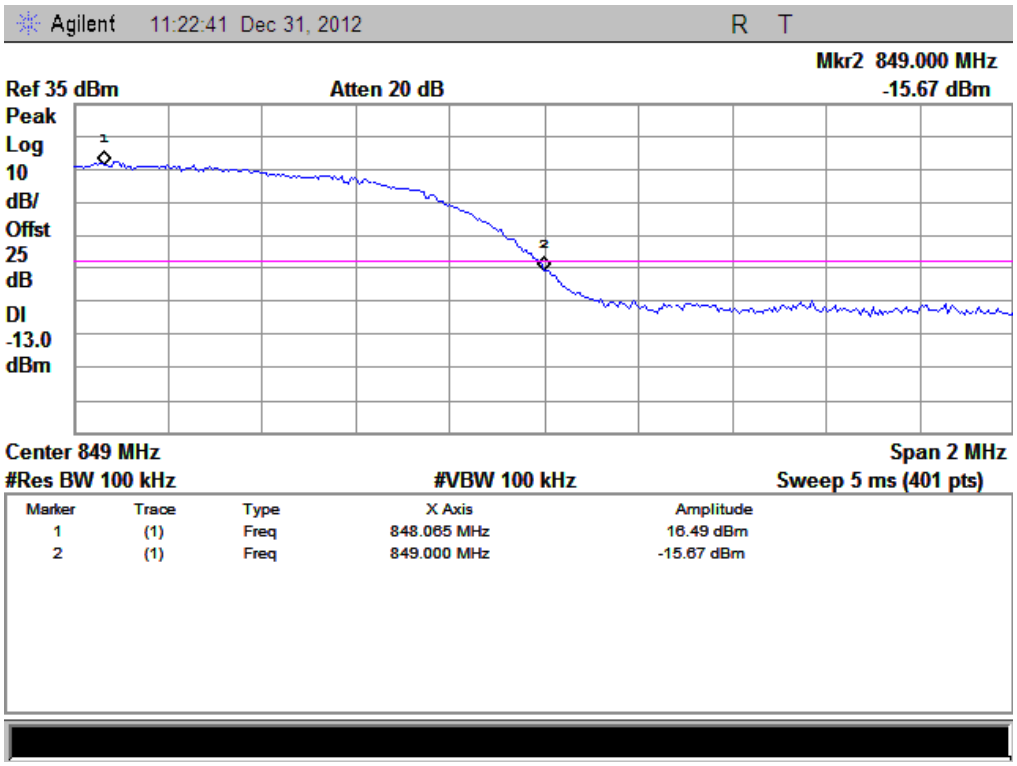
(Plot G: EDGE 1900 Channel = 512)



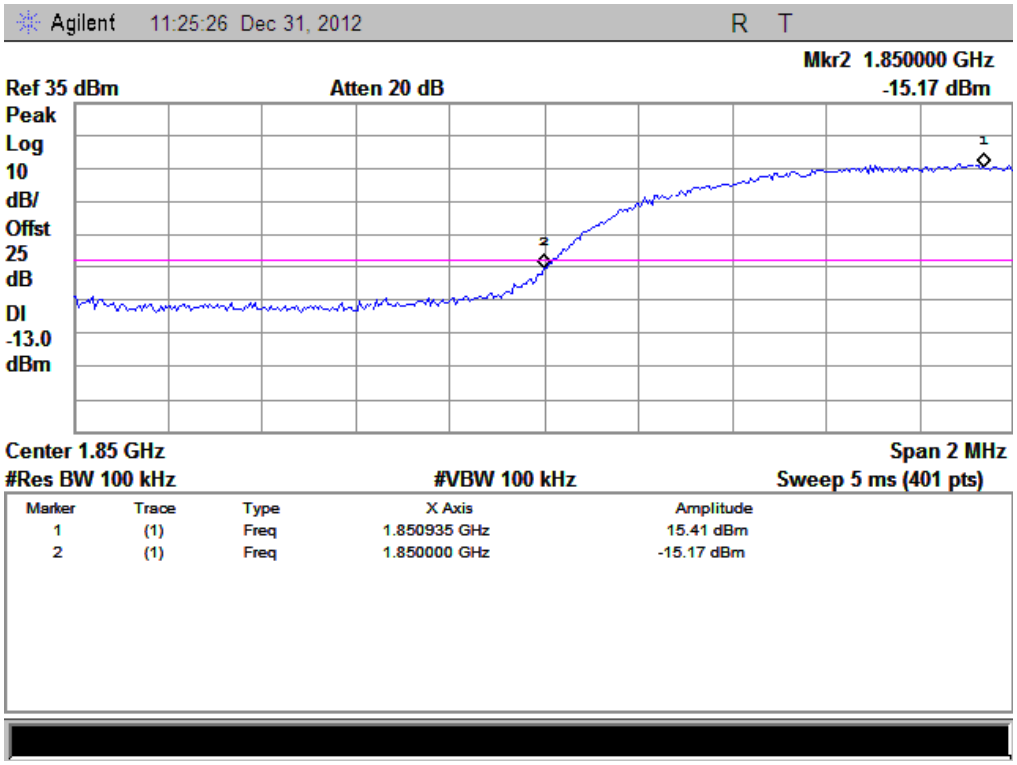
(Plot H: EDGE 1900 Channel = 810)



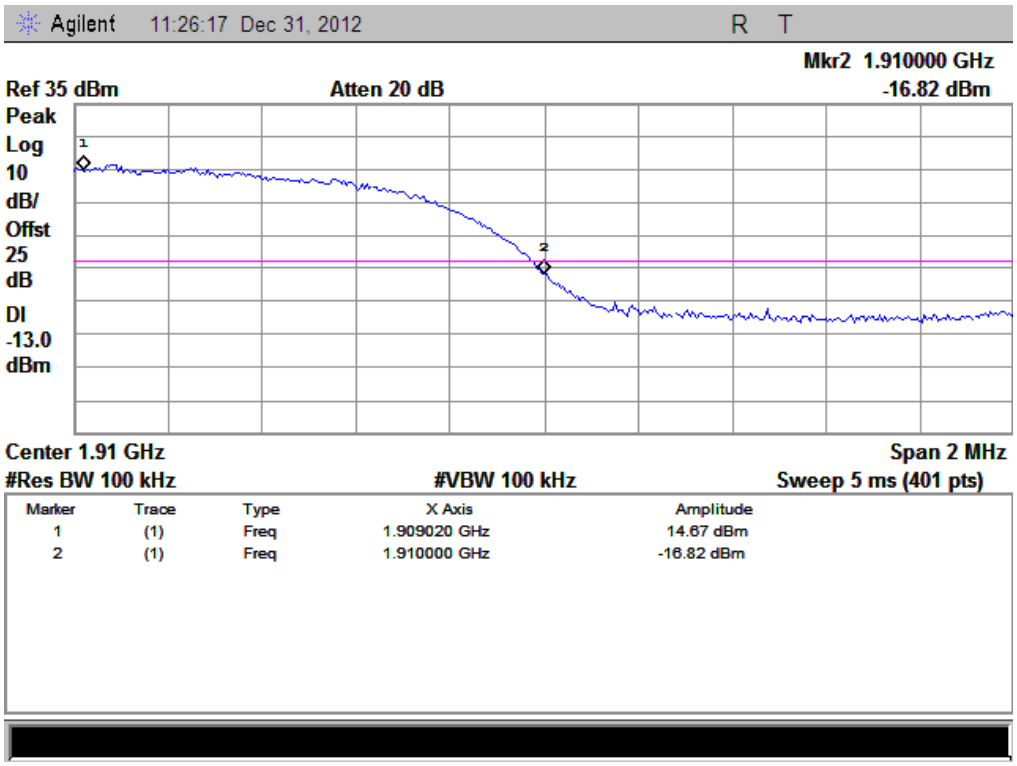
(Plot I: WCDMA 850 Channel = 4132)



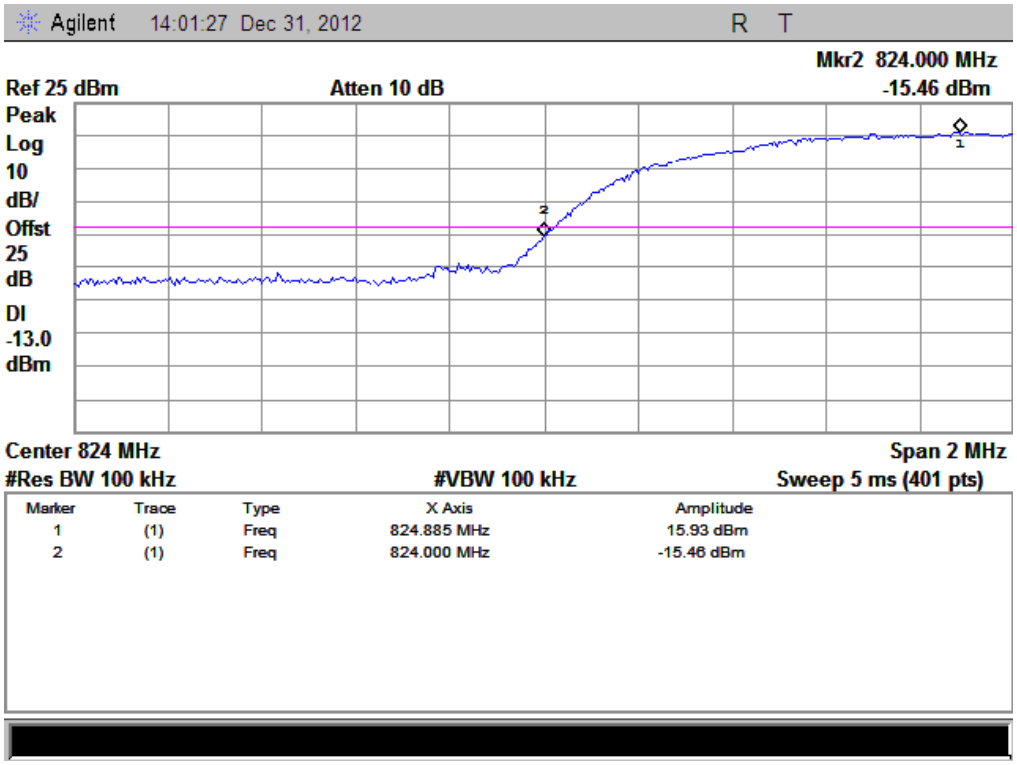
(Plot J: WCDMA 850 Channel = 4233)



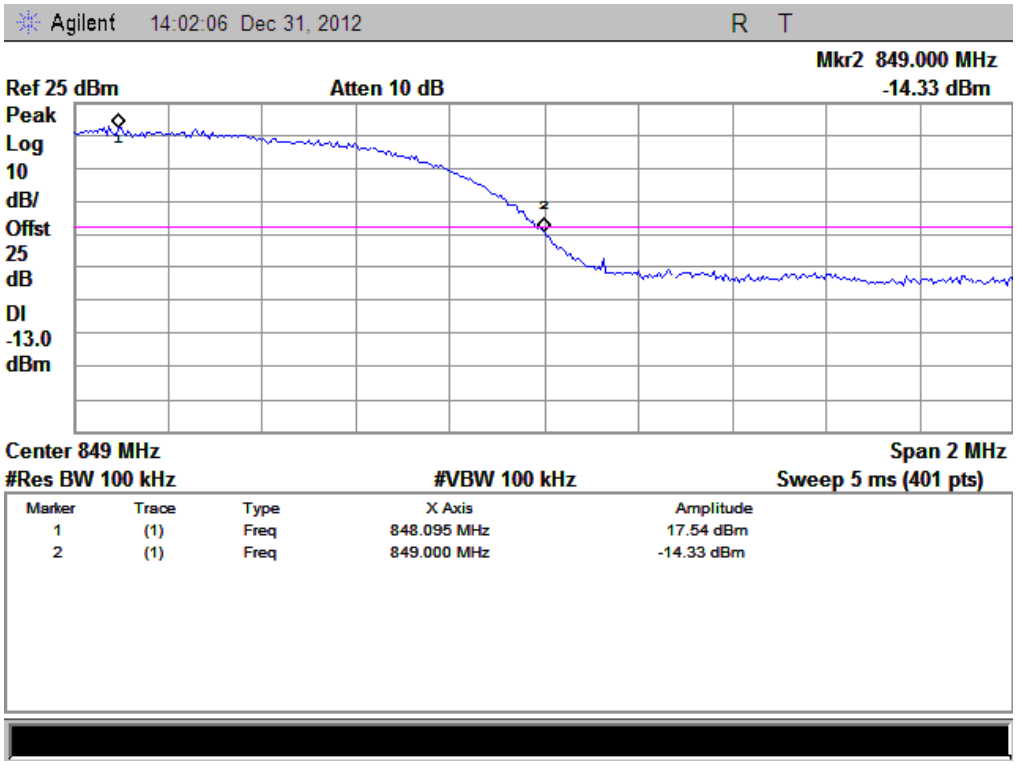
(Plot K: WCDMA 1900 Channel = 9262)



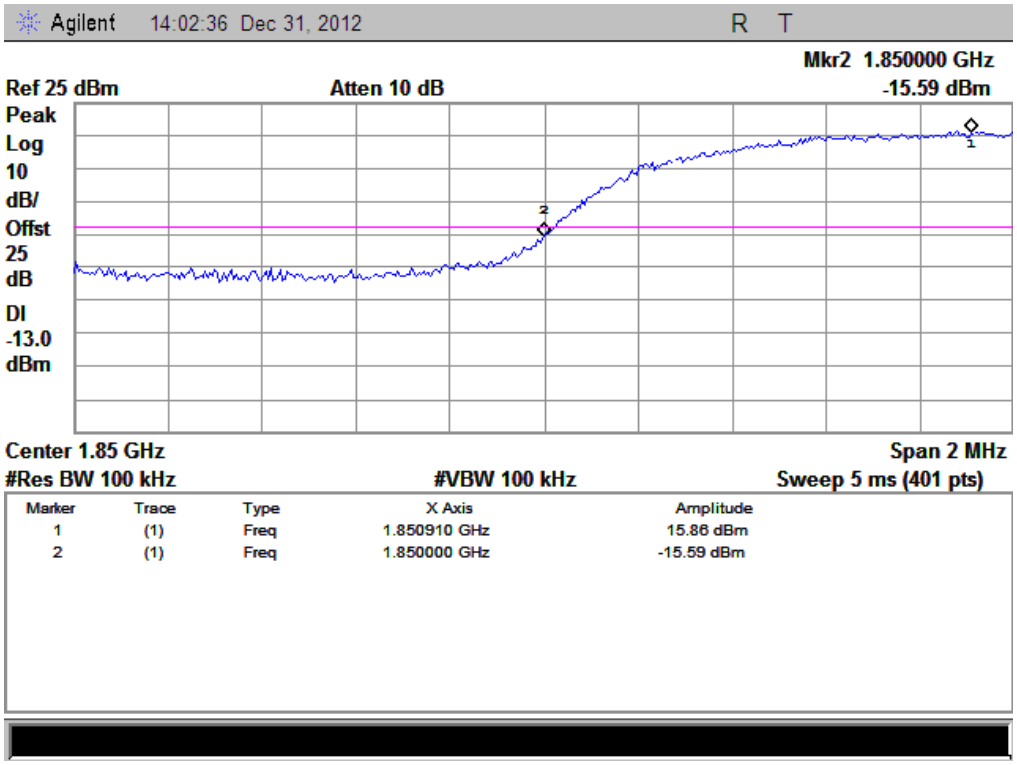
(Plot L: WCDMA 1900 Channel = 9538)



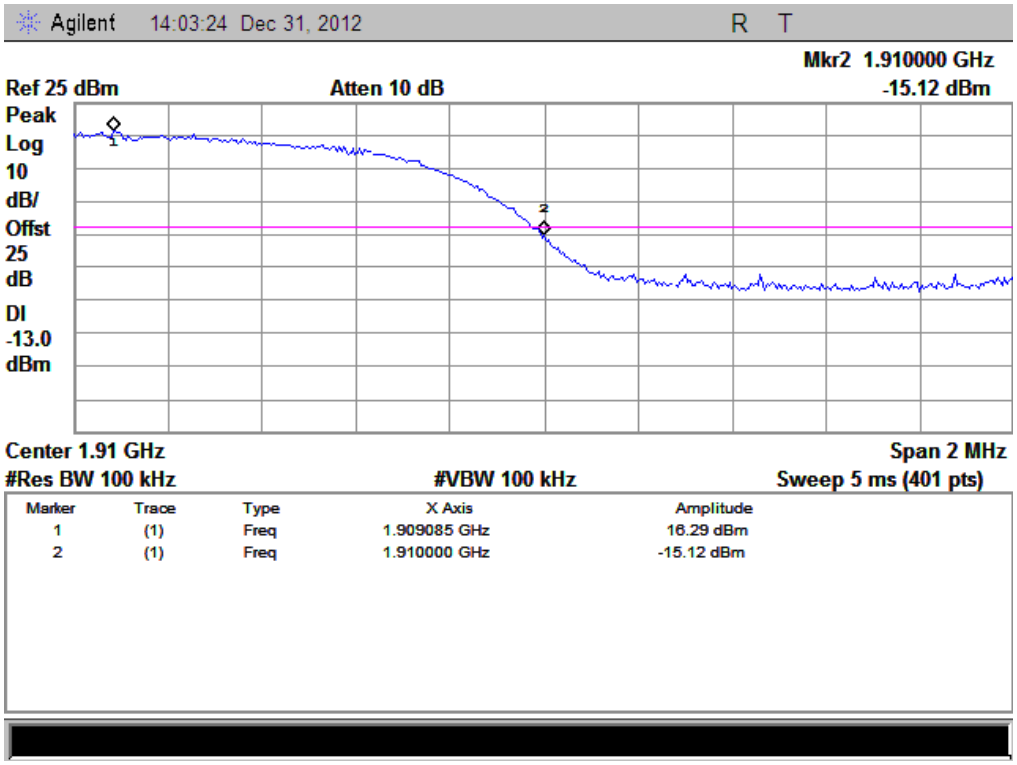
(Plot M: HSDPA 850 Channel = 4132)



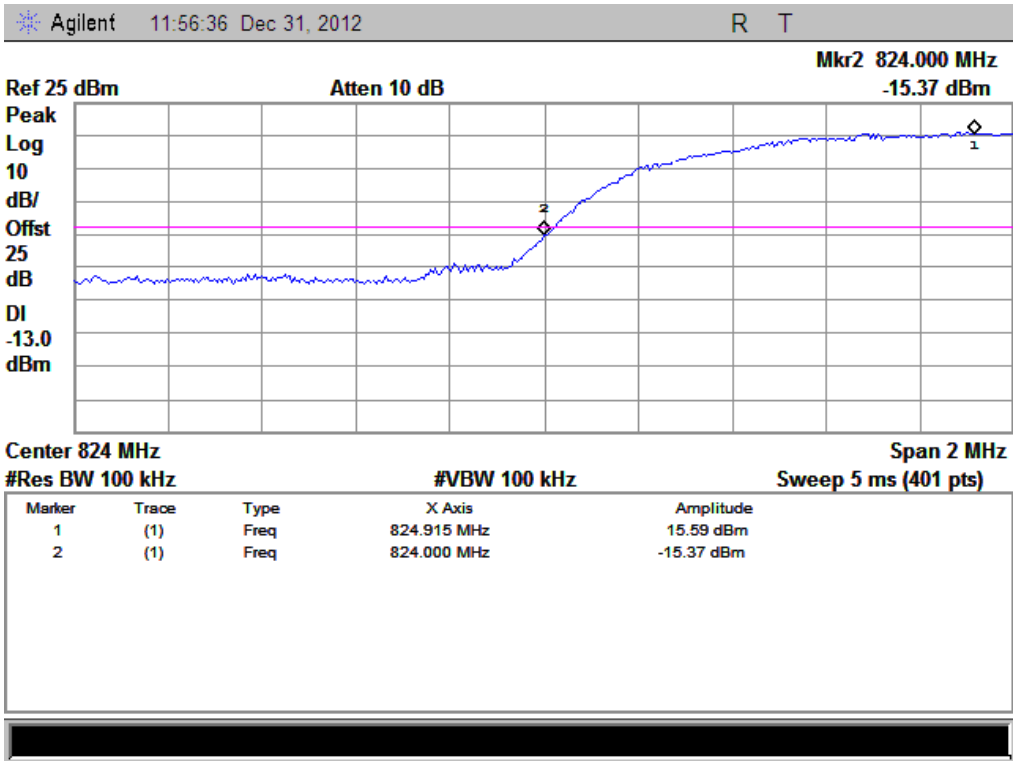
(Plot N: HSDPA850 Channel = 4233)



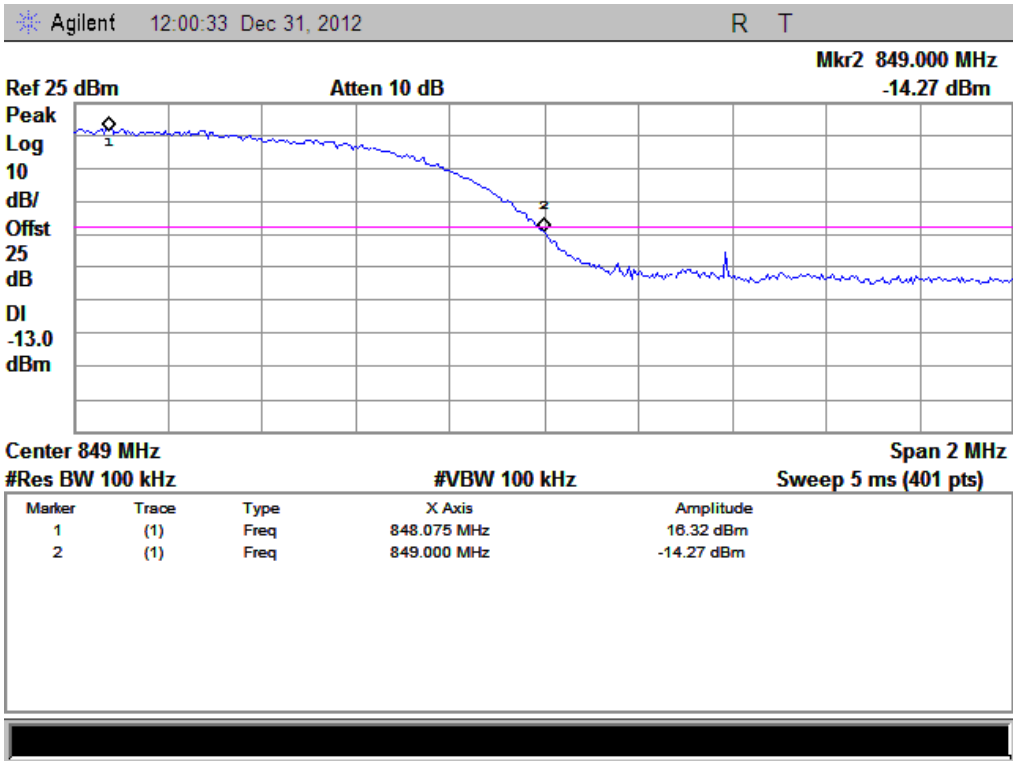
(Plot O: HSDPA 1900 Channel = 9262)



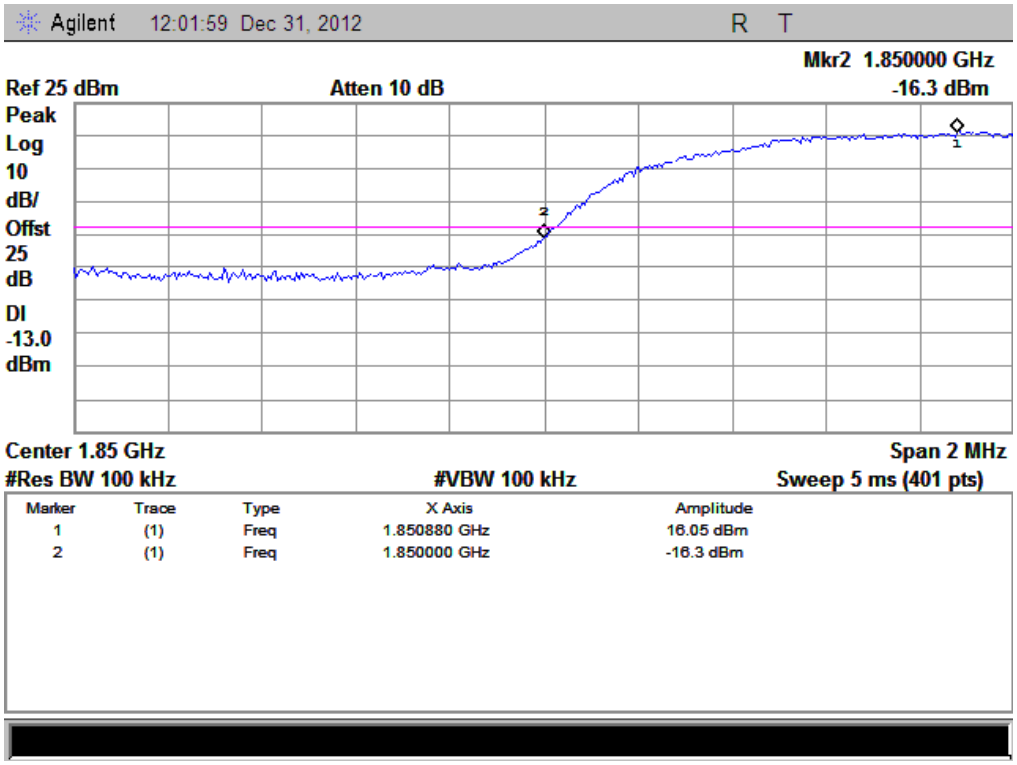
(Plot P: HSDPA 1900 Channel = 9538)



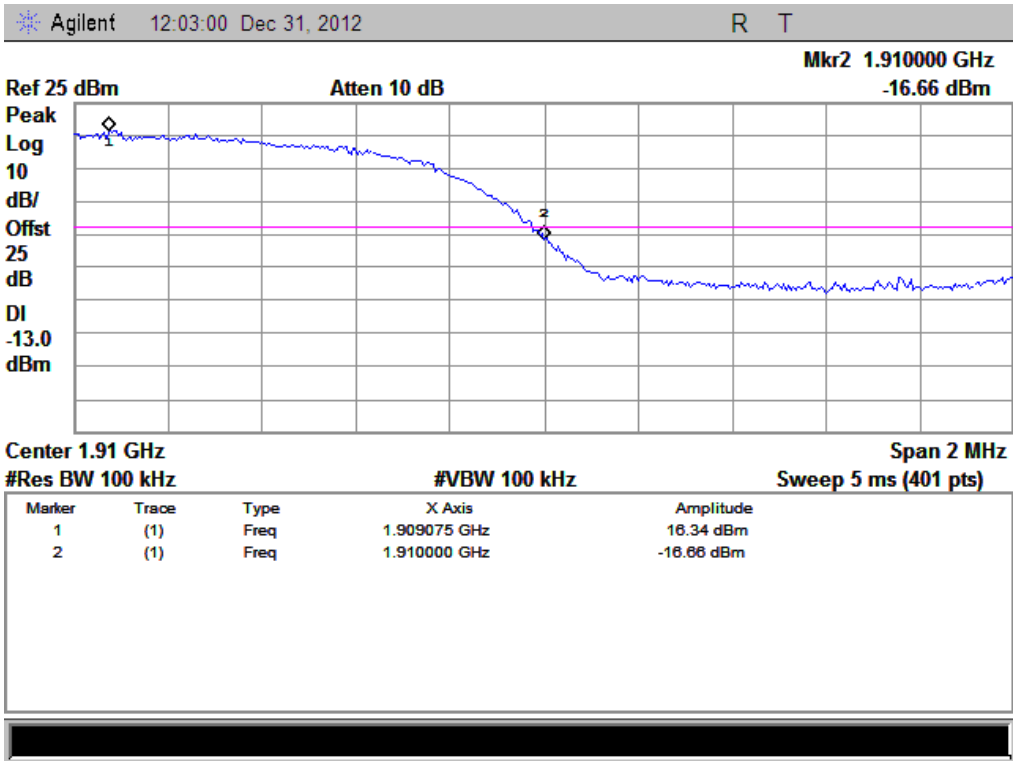
(Plot Q: HSUPA 850 Channel = 4132)



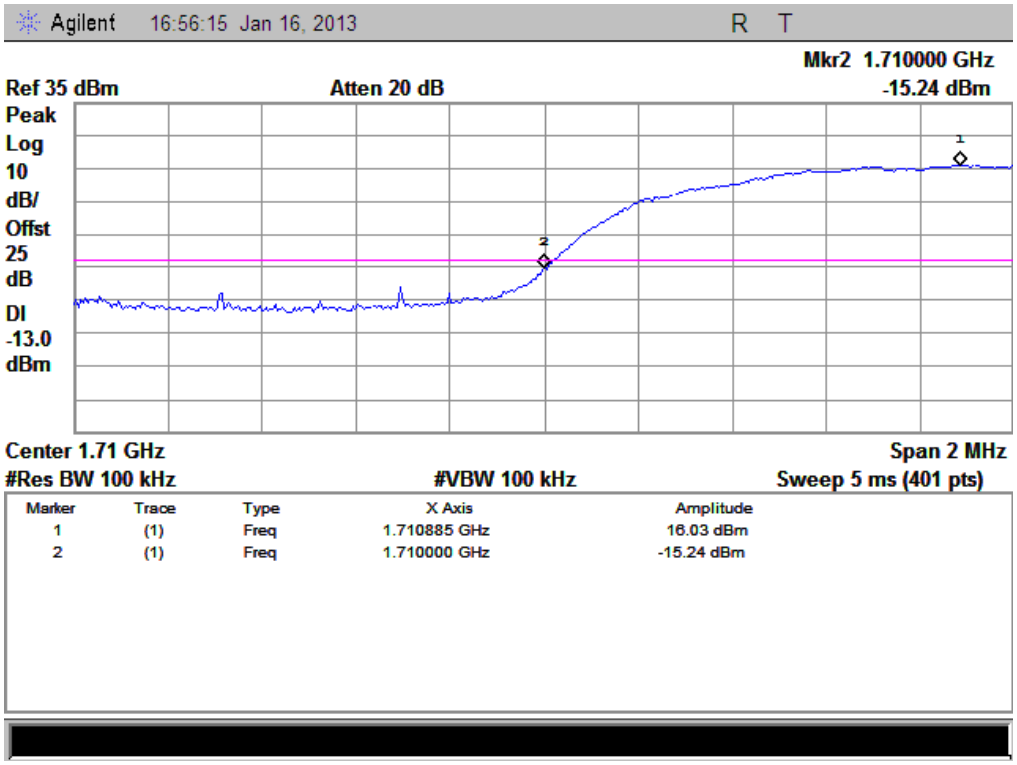
(Plot R: HSUPA850 Channel = 4233)



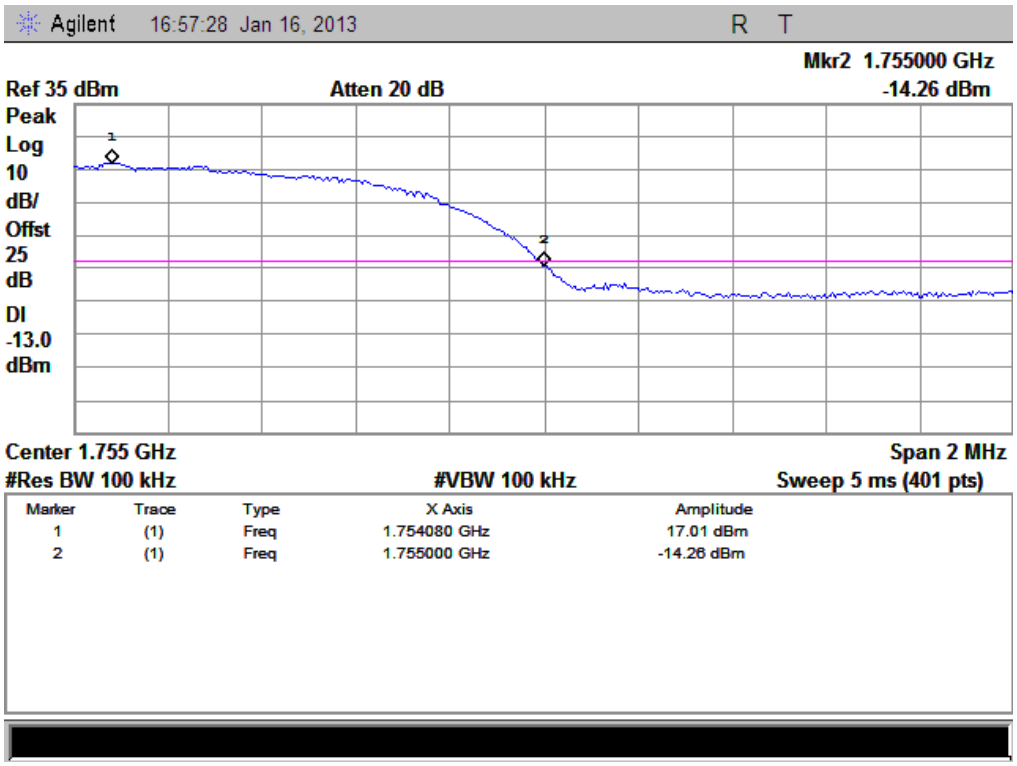
(Plot S: HSUPA 1900 Channel = 9262)



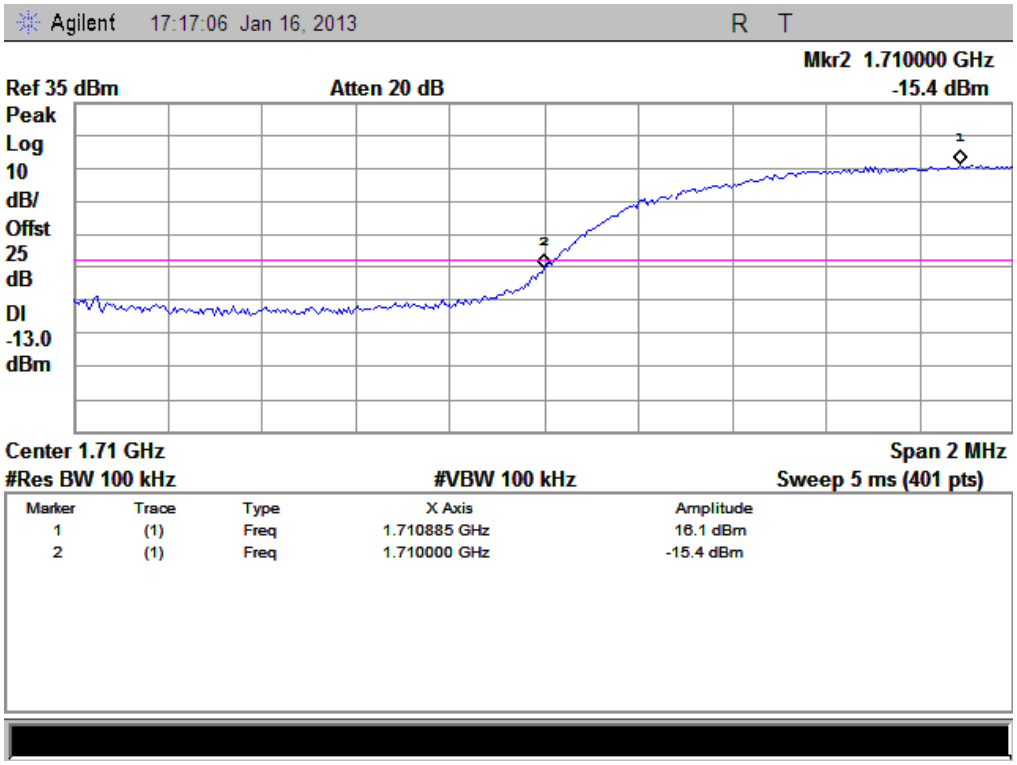
(Plot T: HSUPA 1900 Channel = 9538)



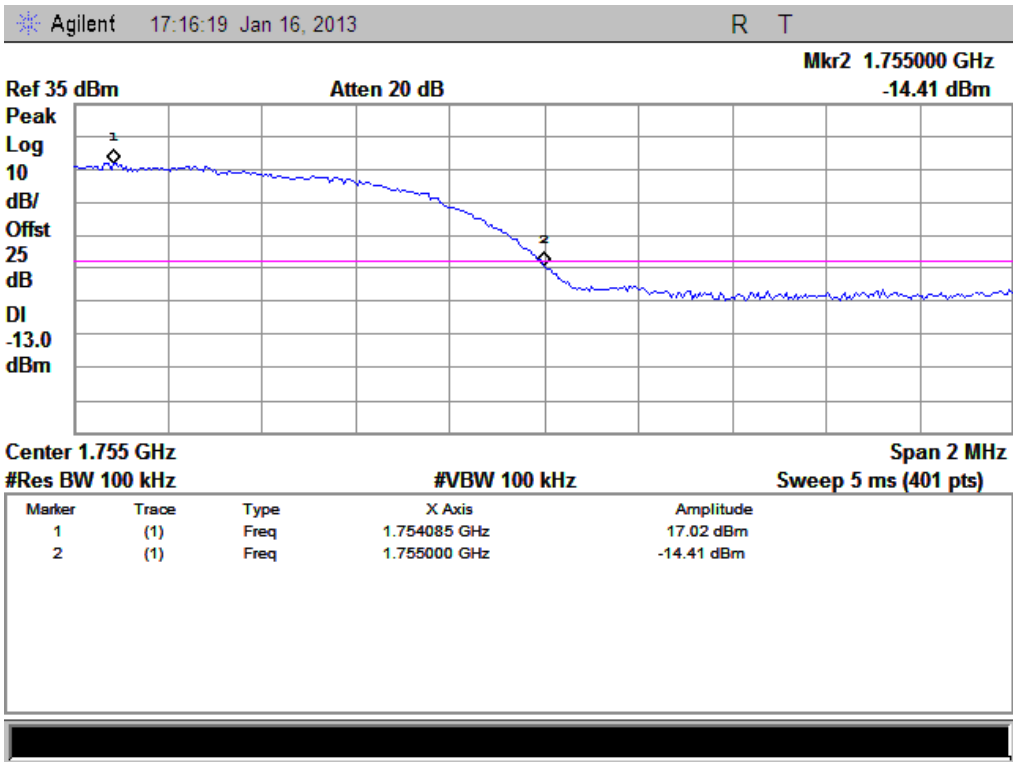
(Plot U: WCDMA 1700 Channel = 1312)



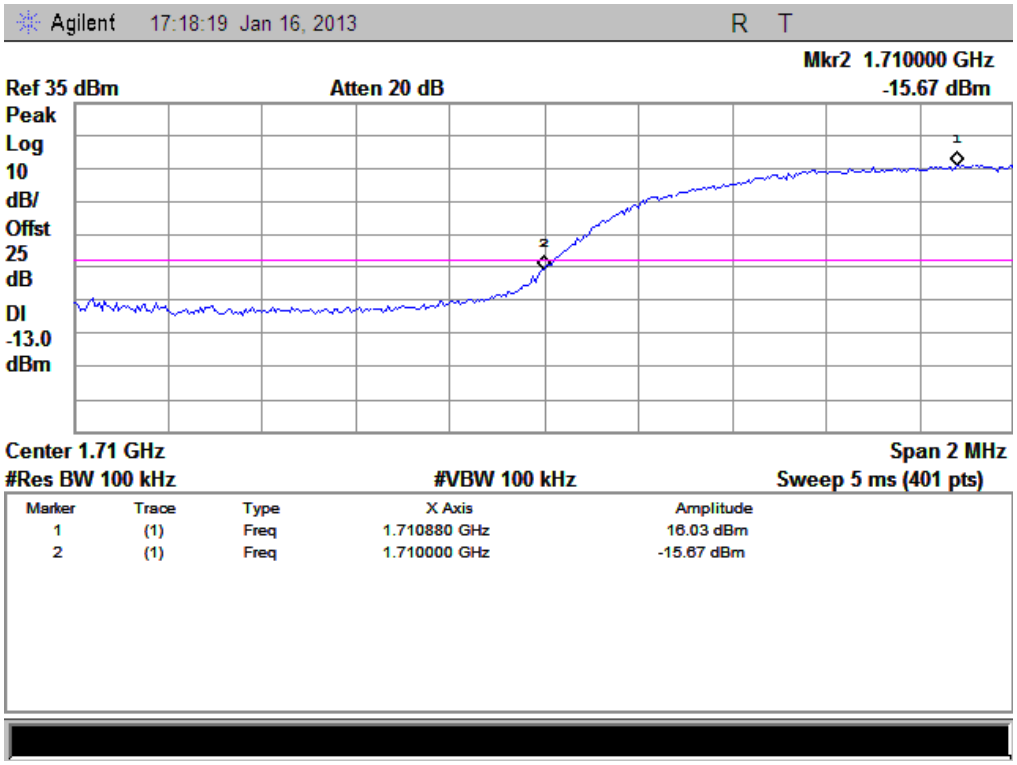
(Plot V: WCDMA 1700 Channel = 1513)



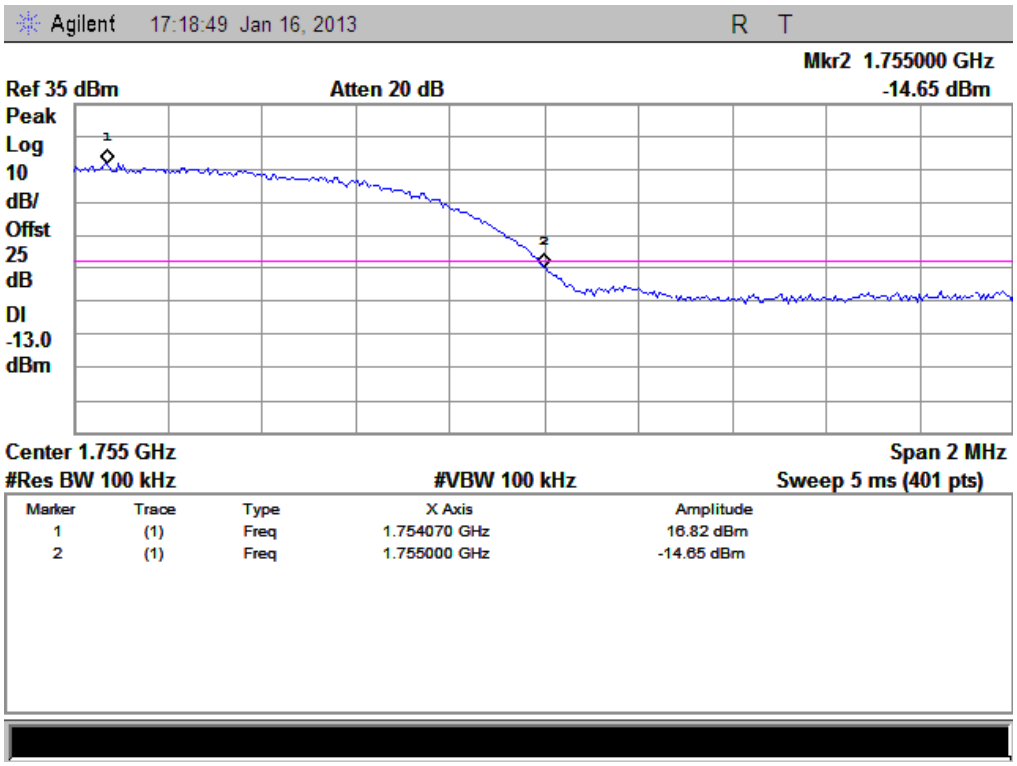
(Plot W: HSDPA 1700 Channel = 1312)



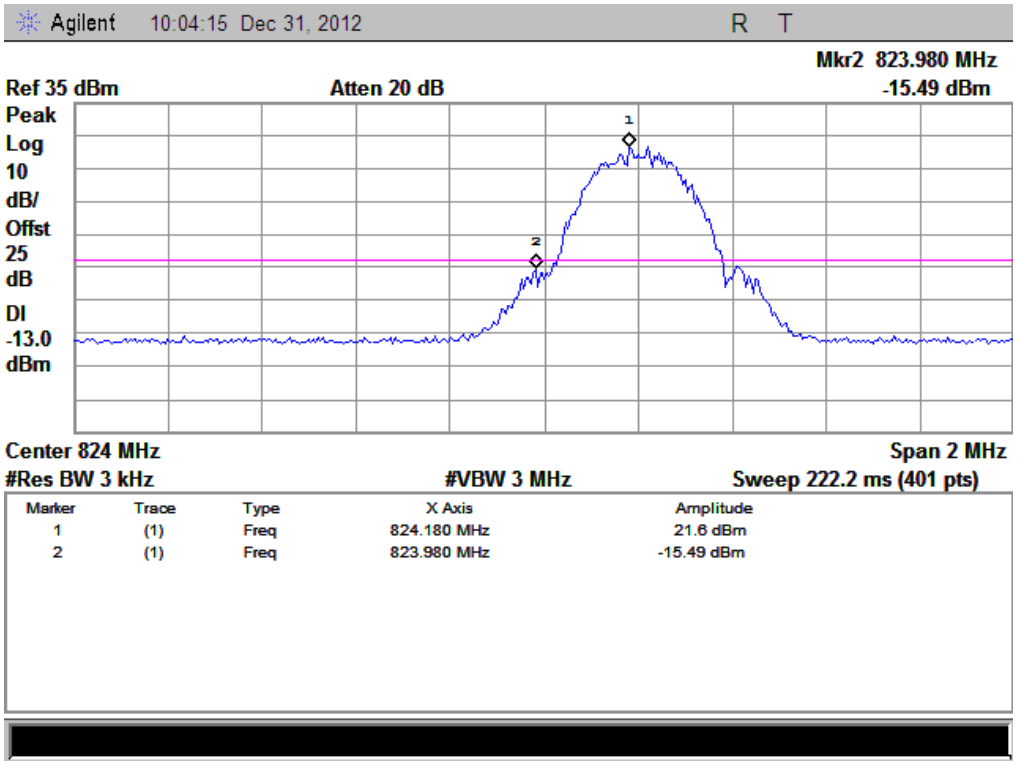
(Plot X: HSDPA 1700 Channel = 1513)



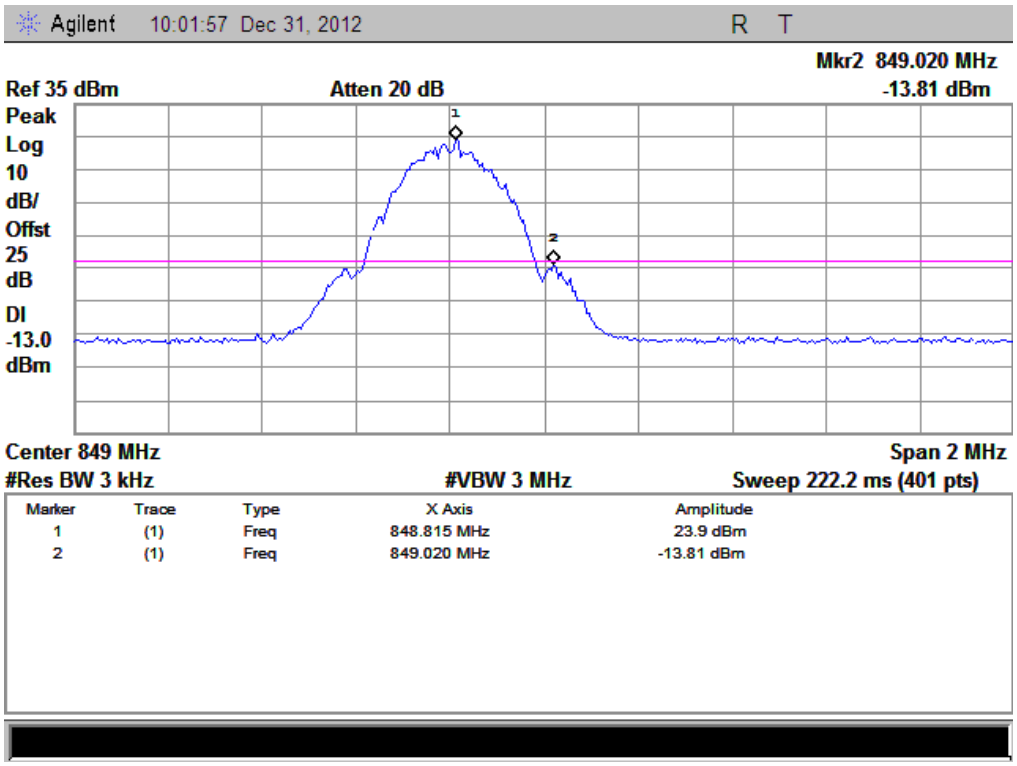
(Plot Y: HSUPA 1700 Channel = 1312)



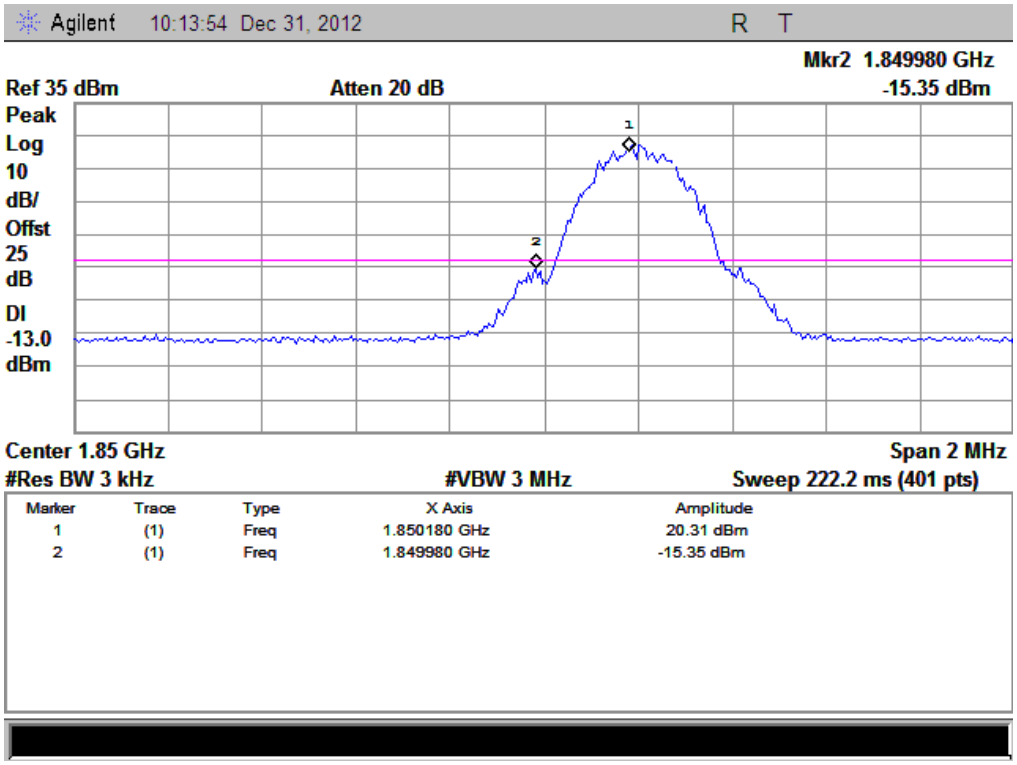
(Plot Z: HSUPA 1700 Channel = 1513)



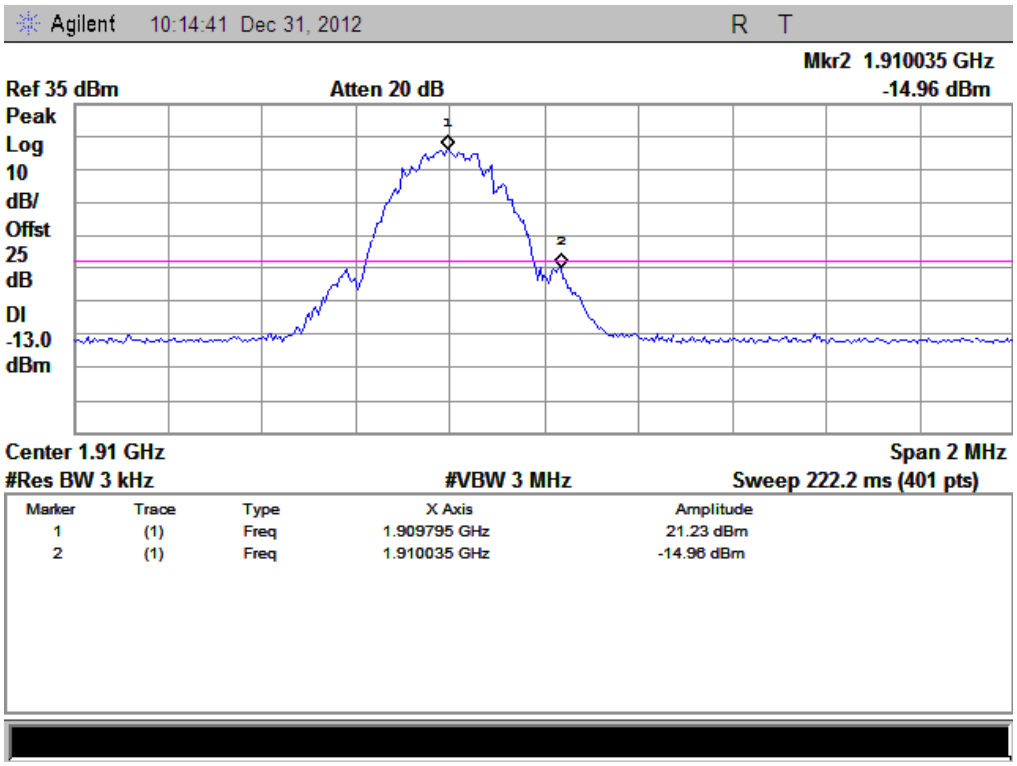
(Plot A1: GPRS 850 Channel = 128)



(Plot A2: GPRS 850 Channel = 251)



(Plot A 3: GPRS 1900 Channel = 512)



(Plot A4: GPRS 1900 Channel = 810)

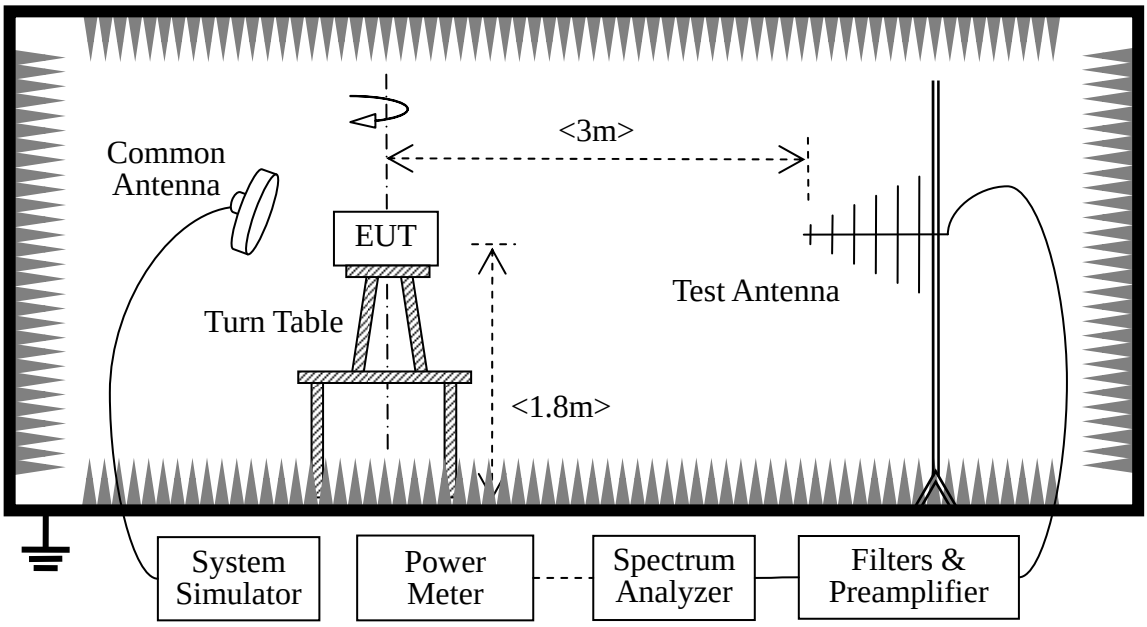
2.6 Transmitter Radiated Power (EIRP/ERP)

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， FCC section 27.50(d)(4) AWS mobile station is limited to 1 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 34.08dBm, GSM 1900 30.19dBm, WCDMA 850 22.62dBm, WCDMA 1900 22.77dBm, WCDMA 1700 23.09dBm Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

- Minimum RF power: GSM850 3.1dBm, GSM 1900 0.3dBm，WCDMA 850 2.09dBm, WCDMA 1900 0.5dBm,WCDMA1700 0.5dBm.

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	Cal. Due
System Simulator	Agilent	E5515C	GB43130131	2012.05	2013.05
Spectrum Analyzer	Agilent	E7405A	US44210471	2012.05	2013.05
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05	2013.05
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2012.05	2013.05
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2012.05	2013.05
Substitution Antenna	Schwarzbeck	BBHA 9120C	9120C-384	2012.05	2013.05
Pre-AMPs	lucix	S10M100L3802	S020180L3203	2012.05	2013.05
Notch Filter	COM-MW	ZBSF-C836.5-25-X	NA	2012.05	2013.05
Notch Filter	COM-MW	ZBSF-C1747.5-75-X2	NA	2012.05	2013.05
Notch Filter	COM-MW	ZBSF-C1880-60-X2	NA	2012.05	2013.05

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	26.42	0.439	Plot A	38.5	7	PASS
	190	836.60	5	27.07	0.509				PASS
	251	848.80	5	27.17	0.521				PASS
GPRS 850MHz	128	824.20	5	26.88	0.488	Plot B Note 1	38.5	7	PASS
	190	836.60	5	26.88	0.488				PASS
	251	848.80	5	27.25	0.531				PASS
EGPRS 850MHz	128	824.20	5	26.45	0.442	Plot C Note 1	38.5	7	PASS
	190	836.60	5	26.24	0.421				PASS
	251	848.80	5	26.67	0.465				PASS

Band	Channel	Frequency (MHz)	PCL	Measured EIRP			Limit		Verdict
				dBm	W	Refer to Plot	dBm	W	
GSM 1900MHz	512	1850.2	0	27.16	0.520	Plot D	33	2	PASS
	661	1880.0	0	26.96	0.497				PASS
	810	1909.8	0	27.27	0.534				PASS
GPRS 1900MHz	512	1850.2	0	26.14	0.412	Plot E Note 1	33	2	PASS
	661	1880.0	0	25.8	0.380				PASS
	810	1909.8	0	26.99	0.500				PASS
EGPRS 1900MHz	512	1850.2	0	25.84	0.384	Plot F Note 1	33	2	PASS
	661	1880.0	0	25.04	0.319				PASS
	810	1909.8	0	26.85	0.484				PASS

2. WCDMA Model Test Verdict:

Band	Channel	Frequency (MHz)	Measured ERP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA 850MHz	4132	826.4	21.73	0.149	38.5	7	PASS
	4175	835	21.81	0.152			PASS
	4233	846.6	21.82	0.152			PASS
HSDPA 850MHz	4132	826.4	21.79	0.151	38.5	7	PASS
	4175	835	21.72	0.149			PASS
	4233	846.6	21.62	0.145			PASS
HSUPA 850MHz	4132	826.4	21.75	0.150	38.5	7	PASS
	4175	835	21.63	0.146			PASS
	4233	846.6	21.77	0.150			PASS

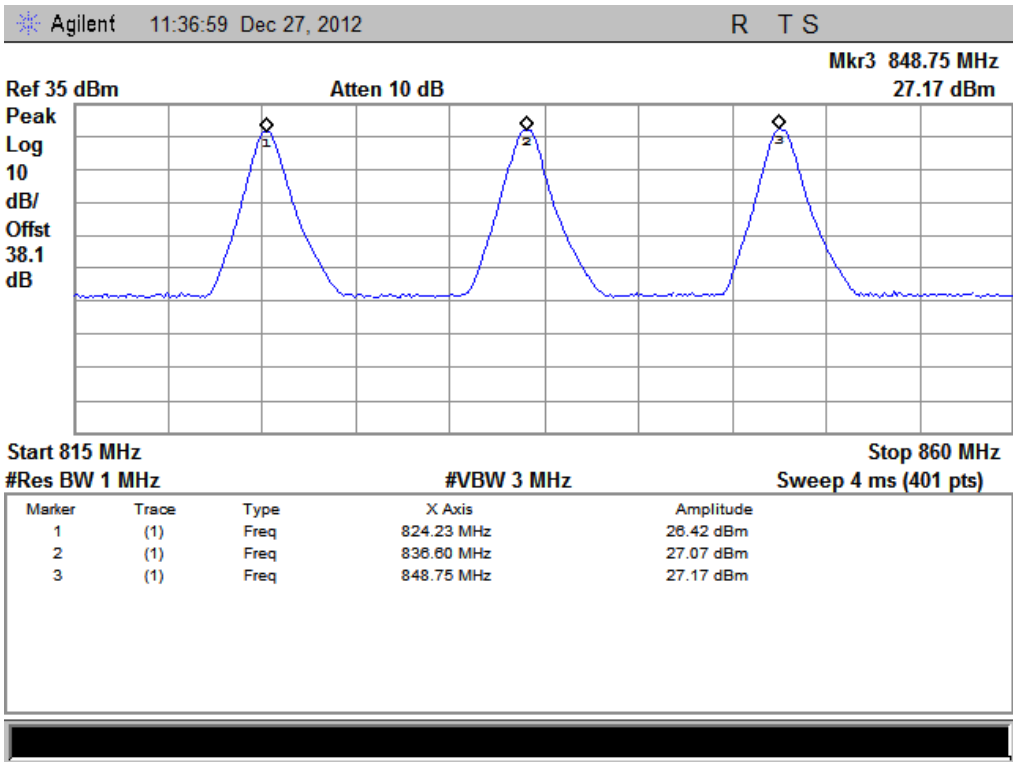
Band	Channel	Frequency (MHz)	Measured EIRP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA1900MHz	9262	1852.4	21.79	0.151	33	2	PASS
	9400	1880	21.82	0.152			PASS
	9538	1907.6	21.81	0.152			PASS
HSDPA 1900MHz	9262	1852.4	21.77	0.150	33	2	PASS
	9400	1880	21.74	0.149			PASS
	9538	1907.6	21.67	0.147			PASS
HSUPA 1900MHz	9262	1852.4	21.77	0.150	33	2	PASS
	9400	1880	21.71	0.148			PASS
	9538	1907.6	21.82	0.152			PASS

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

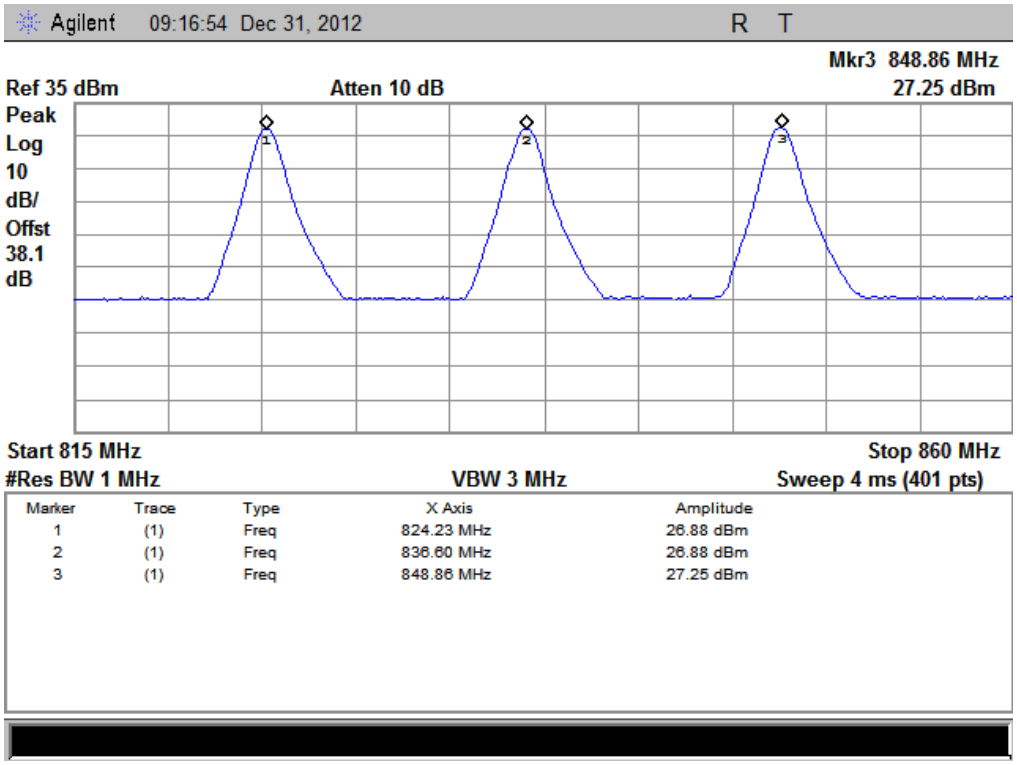
Band	Channel	Frequency (MHz)	Measured EIRP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA 1700MHz	1213	1712.4	22.87	0.194	30	1	PASS
	1412	1732.4	22.63	0.183			PASS
	1513	1752.6	22.63	0.183			PASS
HSDPA 1700MHz	1213	1712.4	22.27	0.169	30	1	PASS
	1412	1732.4	22.33	0.171			PASS
	1513	1752.6	22.41	0.174			PASS
HSUPA 1700MHz	1213	1712.4	22.29	0.169	30	1	PASS
	1412	1732.4	22.32	0.171			PASS
	1513	1752.6	22.41	0.174			PASS

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

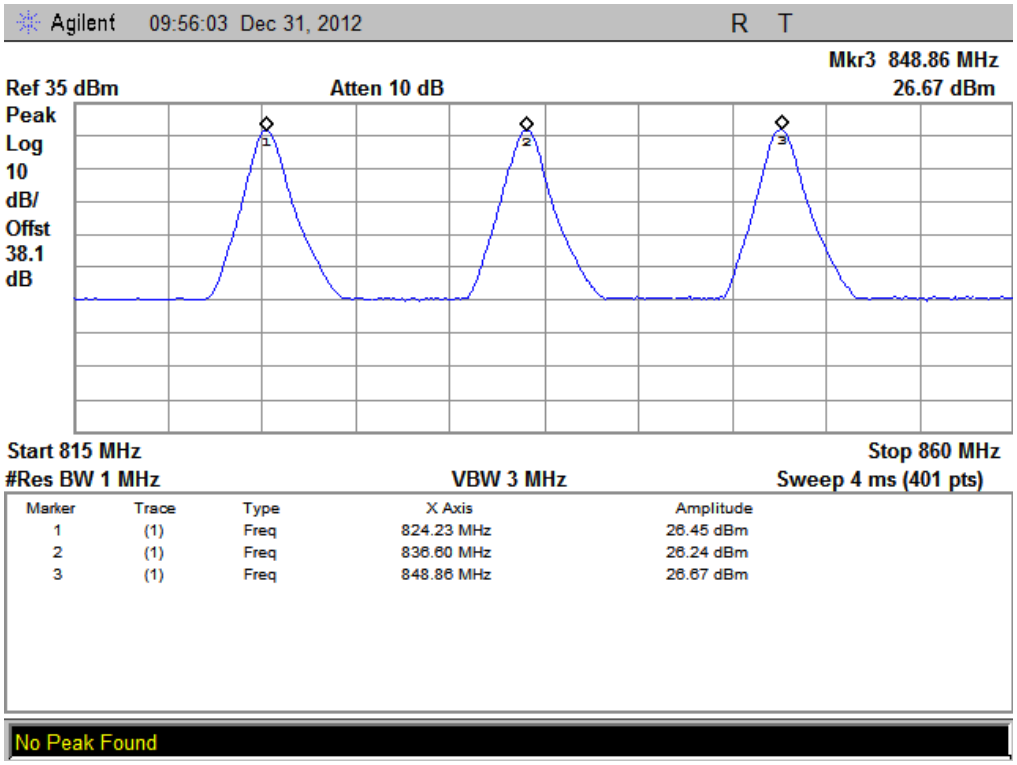
3. Test Plots:



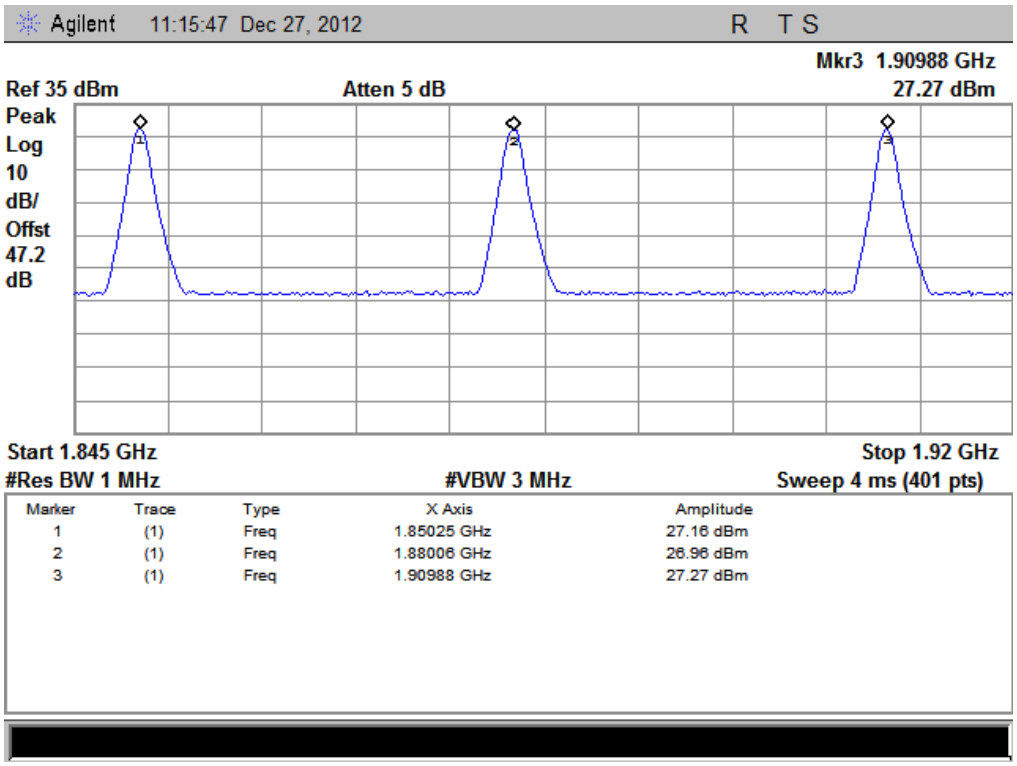
(Plot A: GSM 850MHz Channel = 128, 190, 251)



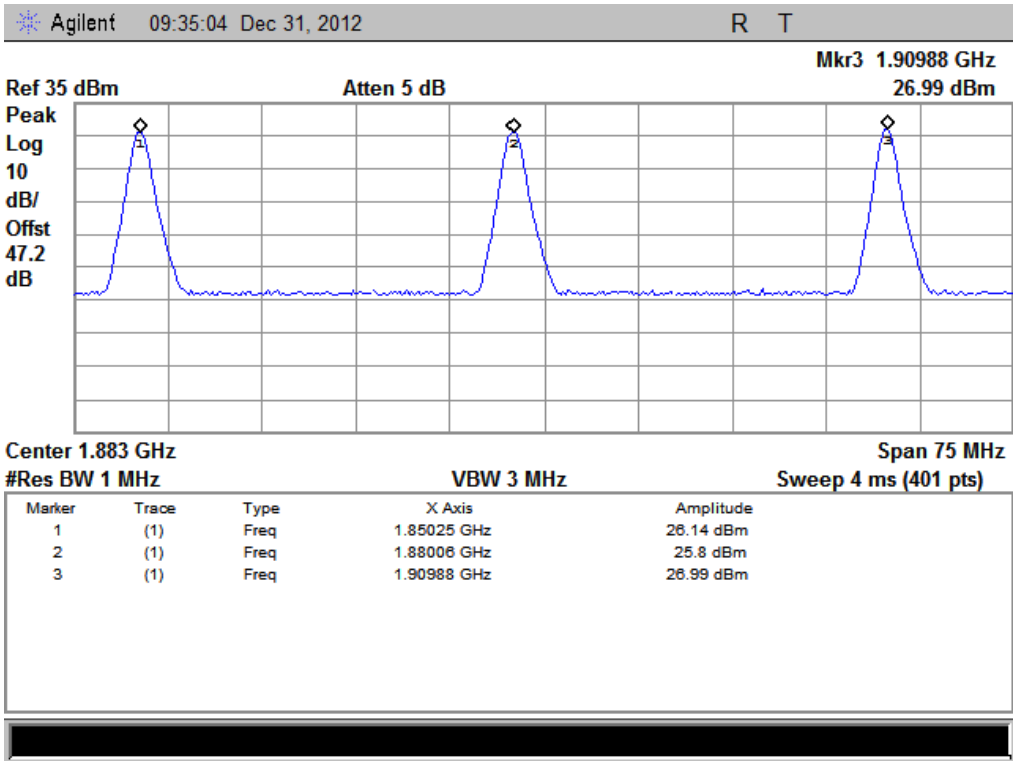
(Plot B: GPRS 850MHz Channel = 128, 190, 251)



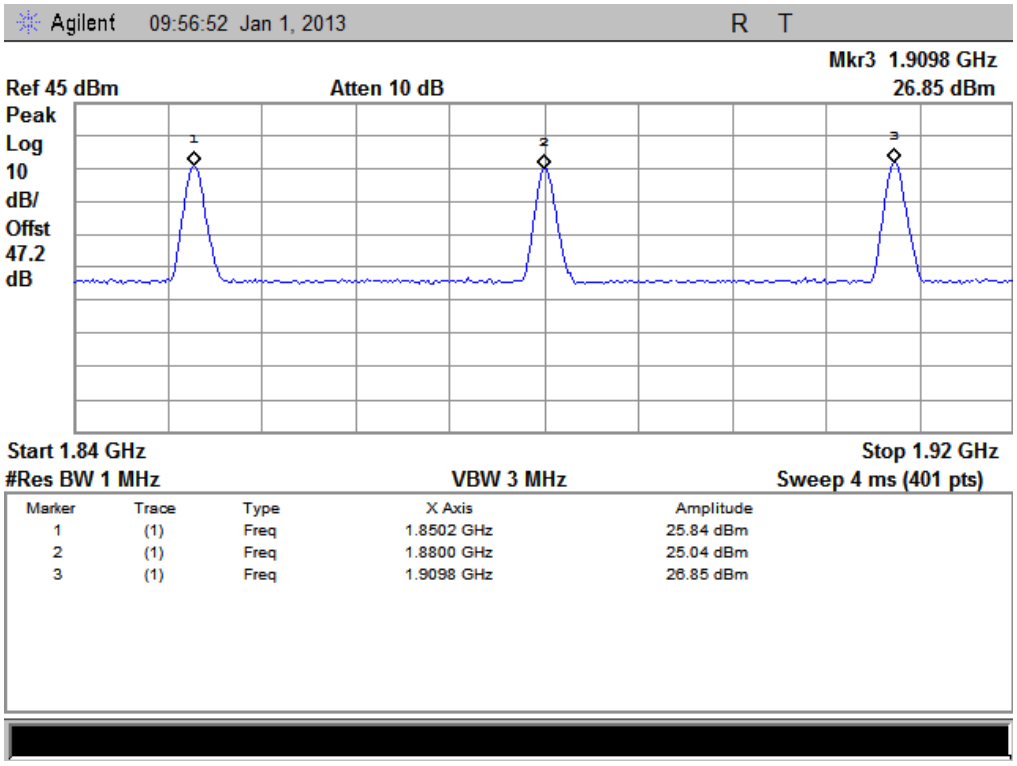
(Plot C: EDGE 850MHz Channel = 128, 190, 251)



(Plot D: GSM1900MHz 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), FCC section 27.53, 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:

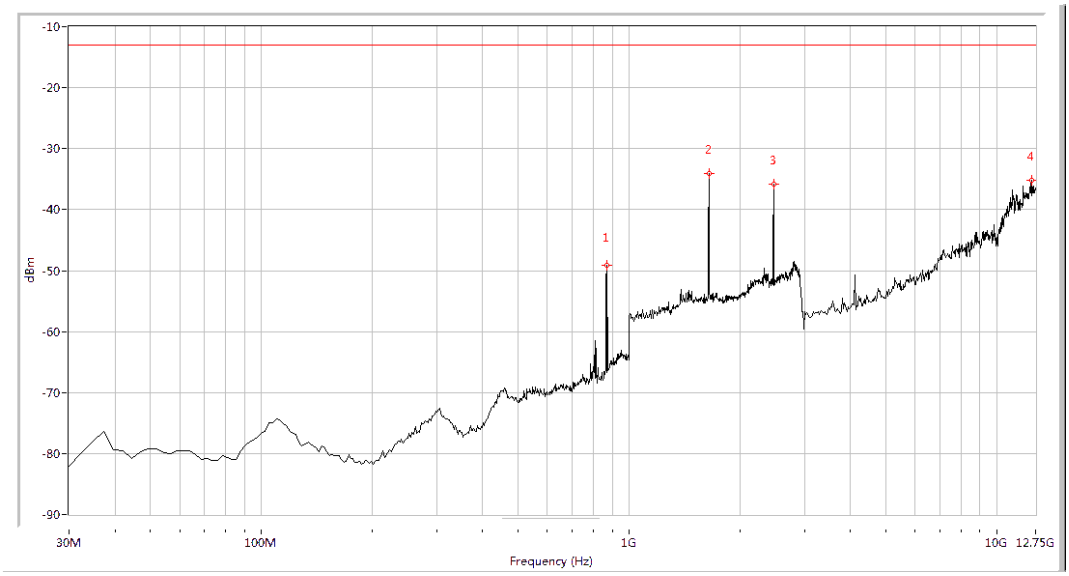
Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
GSM 850MHz	128	824.2	< -25	< -25	Plot A.1/A.2	-13	PASS
	190	836.6	< -25	< -25	Plot A.3/A.4		PASS
	251	848.8	< -25	< -25	Plot A.5/A.6		PASS
GSM 1900MHz	512	1850.2	< -25	-21.43	Plot B.1/B.2	-13	PASS
	661	1880.0	< -25	-17.47	Plot B.3/B.4		PASS
	810	1909.8	< -25	-15.30	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 850MHz	4132	826.4	< -25	< -25	Plot E.1/E.2	-13	PASS
	4175	835	< -25	< -25	Plot E.3/E.4		PASS

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
	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
WCDMA 1700MHz	1213	1712.4	< -25	< -25	Plot K.1/K.2	-13	PASS
	1412	1732.4	< -25	< -25	Plot K.3/K.4		PASS
	1513	1752.6	< -25	< -25	Plot K.5/K.6		PASS
HSDPA 1700MHz	1213	1712.4	< -25	< -25	Plot L.1/L.2	-13	PASS
	1412	1732.4	< -25	< -25	Plot L.3/L.4		PASS
	1513	1752.6	< -25	< -25	Plot L.5/L.6		PASS
HSUPA 1700MHz	1213	1712.4	< -25	< -25	Plot M.1/M.2	-13	PASS
	1412	1732.4	< -25	< -25	Plot M.3/M.4		PASS
	1513	1752.6	< -25	< -25	Plot M.5/M.6		PASS

2. Test Plots for the Whole Measurement Frequency Range:

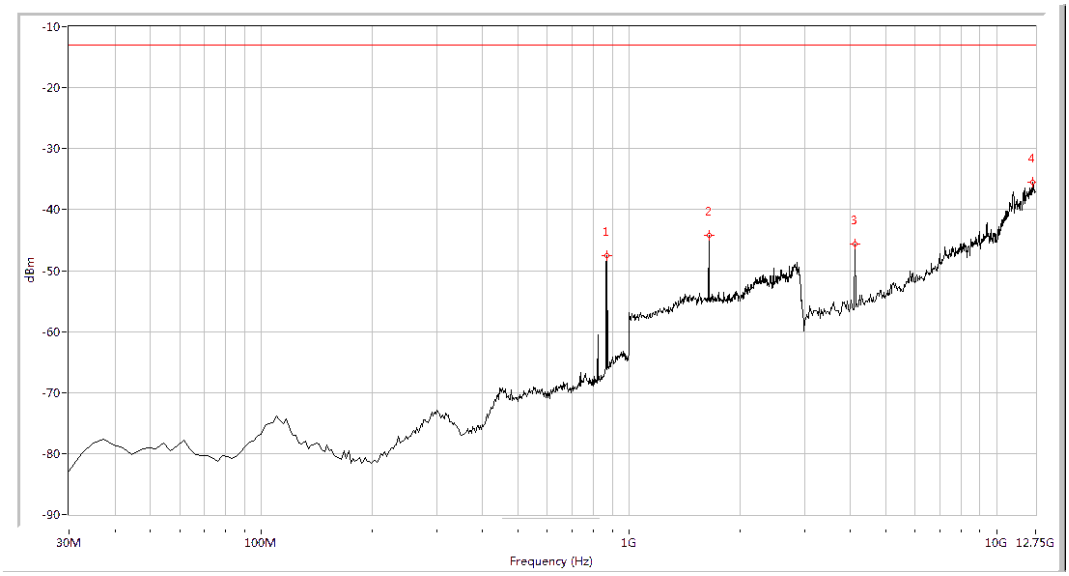
Note1: the power of the EUT transmitting frequency should be ignored.

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.



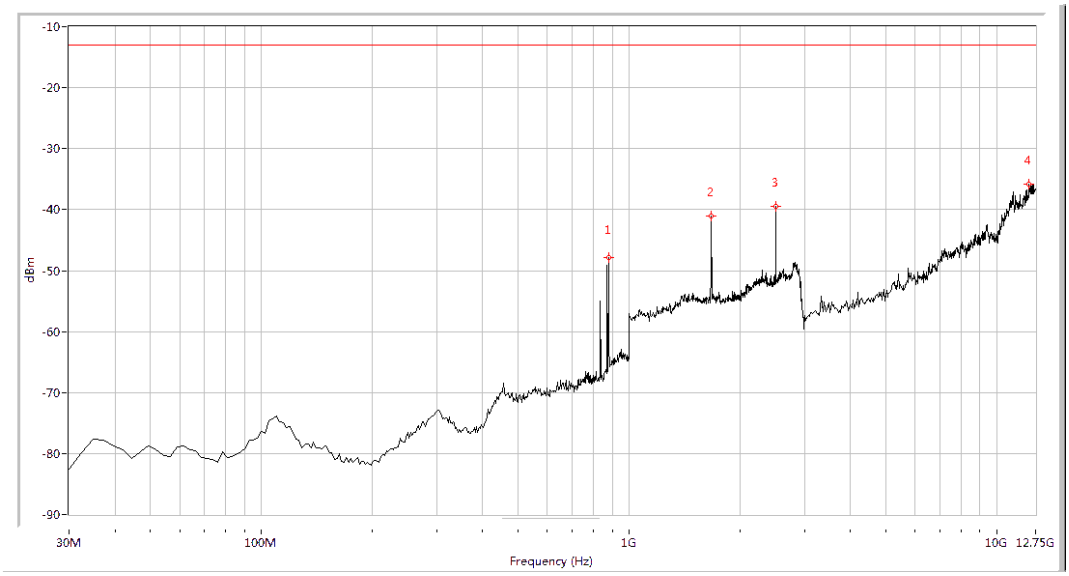
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-49.11	-13.0	36.1	240.9	Horizontal	PASS
1648.379	-34.09	-13.0	21.1	360.0	Horizontal	PASS
2471.322	-35.88	-13.0	22.9	45.8	Horizontal	PASS
12482.544	-35.19	-13.0	22.2	141.9	Horizontal	PASS

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



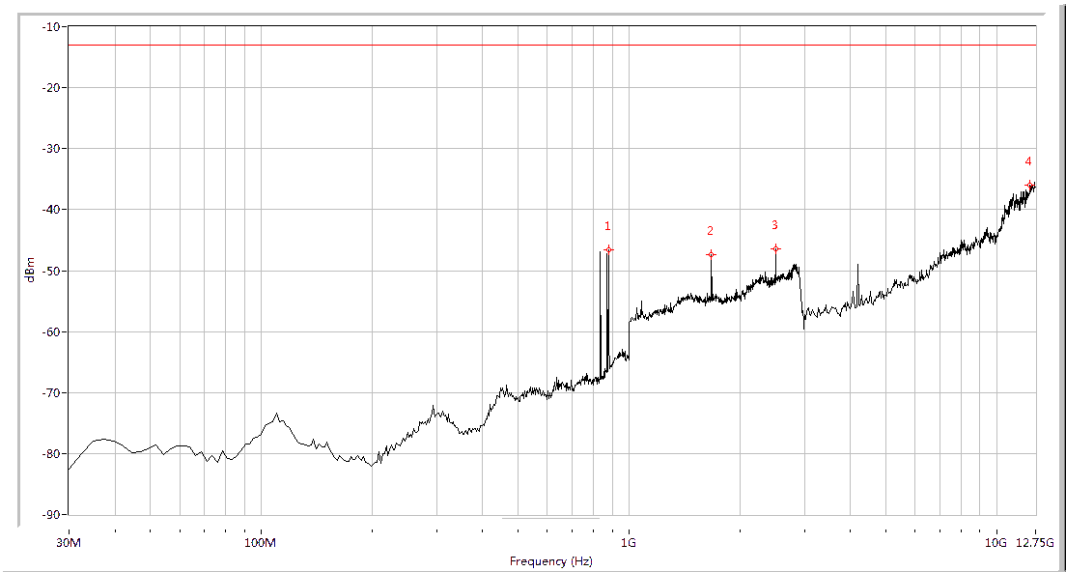
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-47.51	-13.0	34.5	193.1	Vertical	PASS
1648.379	-44.23	-13.0	31.2	79.8	Vertical	PASS
4118.454	-45.70	-13.0	32.7	203.1	Vertical	PASS
12555.486	-35.48	-13.0	22.5	19.1	Vertical	PASS

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



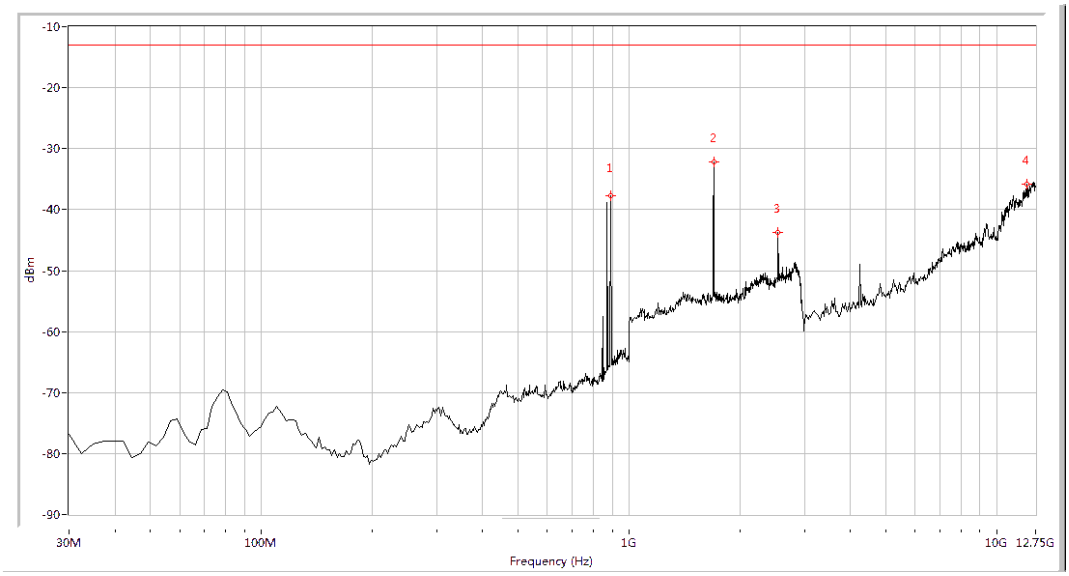
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-47.85	-13.0	34.9	123.6	Horizontal	PASS
1673.317	-41.01	-13.0	28.0	360.0	Horizontal	PASS
2506.234	-39.49	-13.0	26.5	34.4	Horizontal	PASS
12239.401	-35.84	-13.0	22.8	178.2	Horizontal	PASS

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



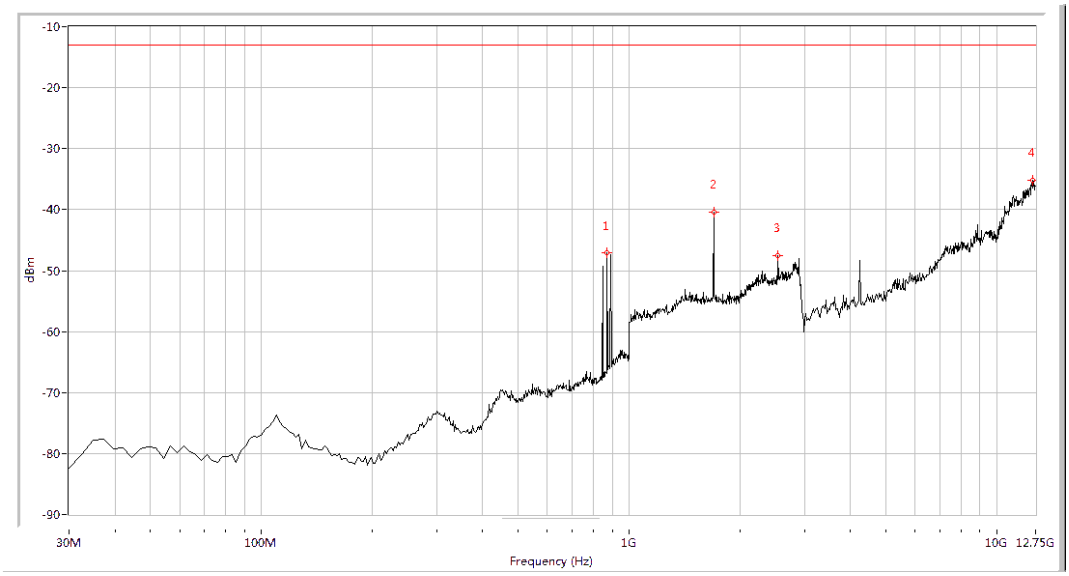
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-46.52	-13.0	33.5	21.8	Vertical	PASS
1673.317	-47.44	-13.0	34.4	276.8	Vertical	PASS
2506.234	-46.51	-13.0	33.5	53.3	Vertical	PASS
12312.344	-36.03	-13.0	23.0	339.8	Vertical	PASS

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



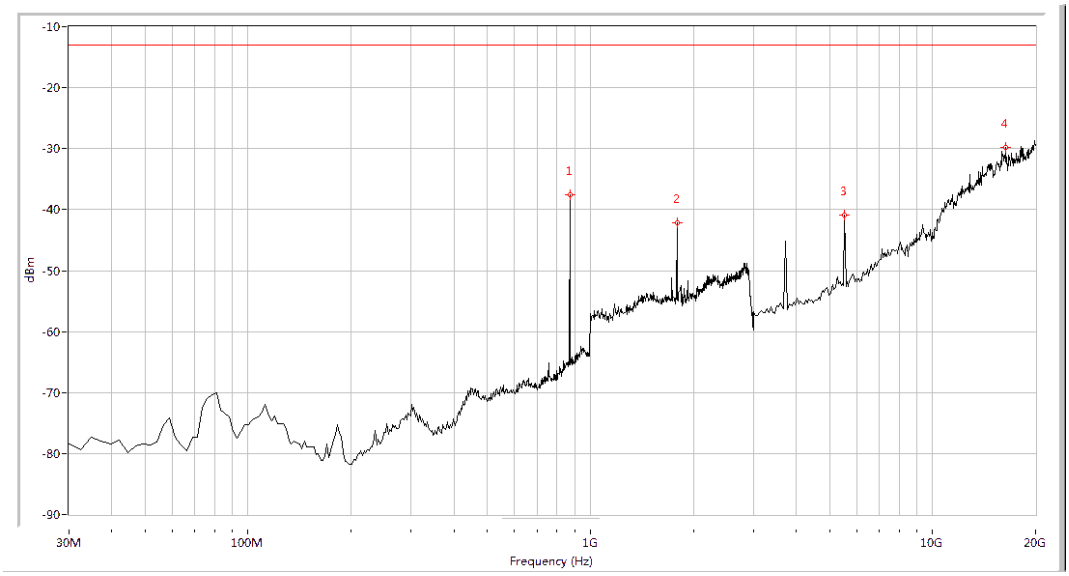
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
891.147	-37.70	-13.0	24.7	130.4	Horizontal	PASS
1698.254	-32.15	-13.0	19.2	39.5	Horizontal	PASS
2541.147	-43.68	-13.0	30.7	268.9	Horizontal	PASS
12044.888	-35.87	-13.0	22.9	3.6	Horizontal	PASS

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



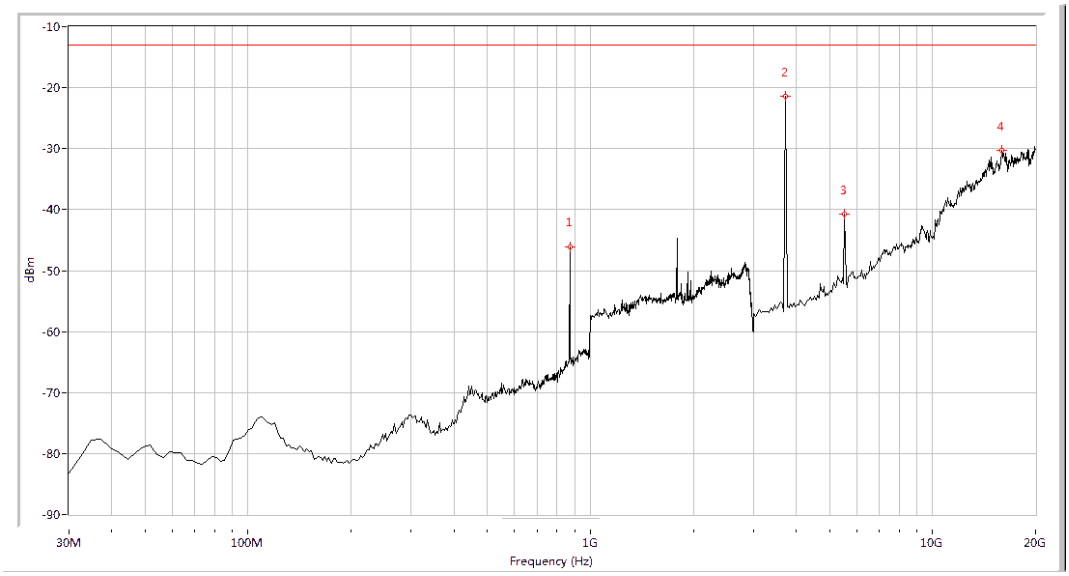
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-47.08	-13.0	34.1	109.8	Vertical	PASS
1698.254	-40.44	-13.0	27.4	59.4	Vertical	PASS
2541.147	-47.55	-13.0	34.5	77.6	Vertical	PASS
12531.172	-35.17	-13.0	22.2	354.5	Vertical	PASS

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



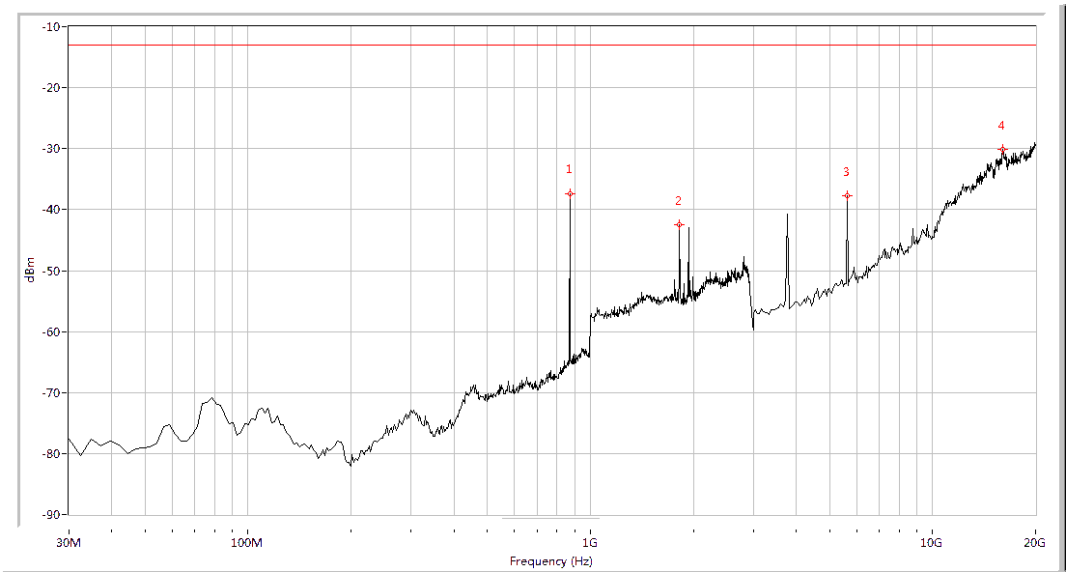
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.63	-13.0	24.6	126.1	Horizontal	PASS
1793.017	-42.19	-13.0	29.2	54.9	Horizontal	PASS
5543.641	-40.82	-13.0	27.8	170.1	Horizontal	PASS
16354.115	-29.81	-13.0	16.8	40.6	Horizontal	PASS

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



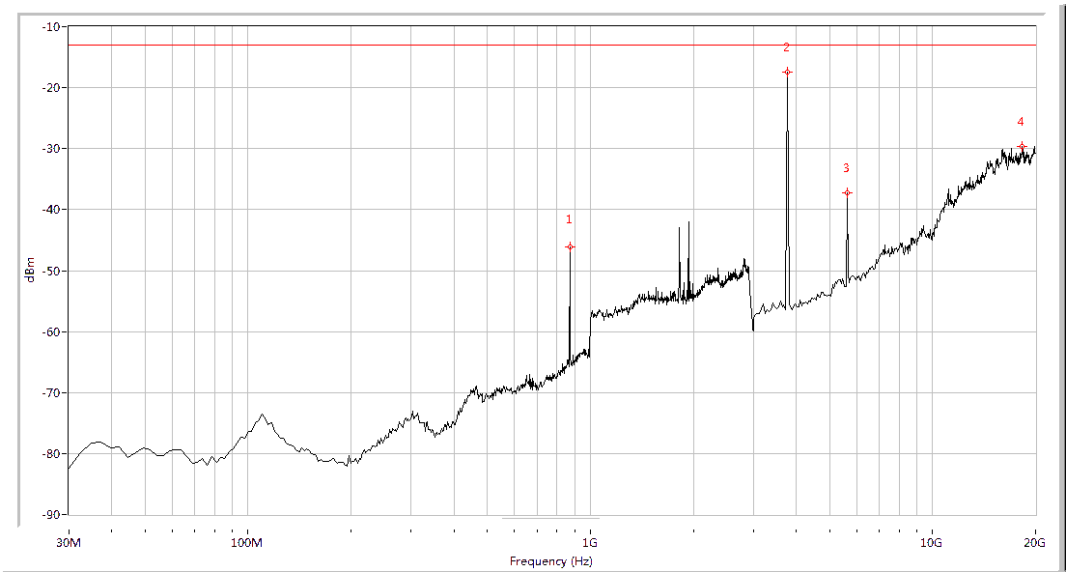
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-46.18	-13.0	33.2	190.5	Vertical	PASS
3720.698	-21.43	-13.0	8.4	358.9	Vertical	PASS
5543.641	-40.71	-13.0	27.7	39.9	Vertical	PASS
15972.569	-30.27	-13.0	17.3	147.4	Vertical	PASS

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



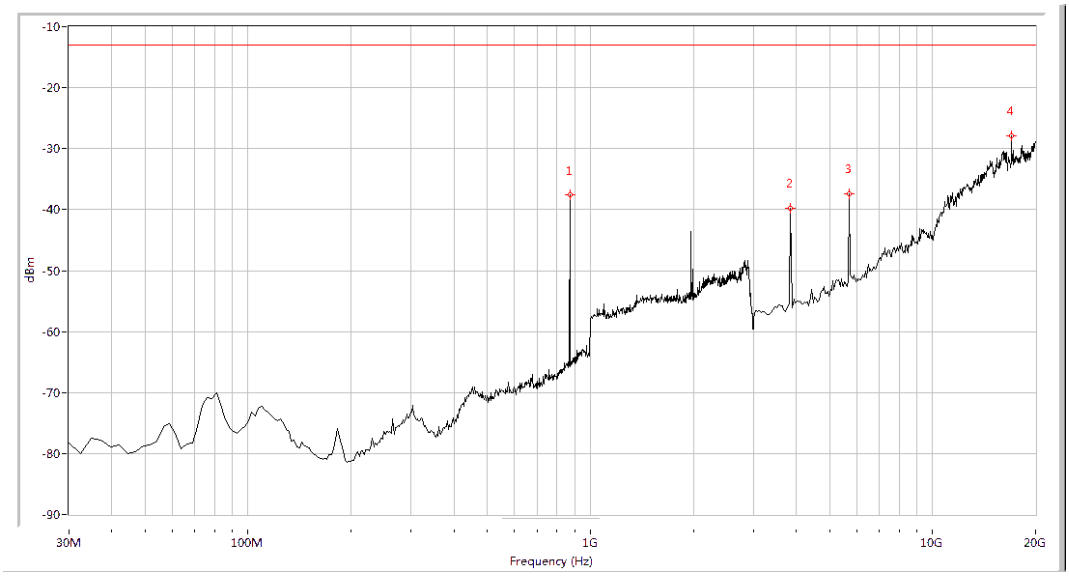
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.42	-13.0	24.4	304.9	Horizontal	PASS
1822.943	-42.52	-13.0	29.5	40.6	Horizontal	PASS
5628.429	-37.76	-13.0	24.8	26.9	Horizontal	PASS
16014.963	-30.07	-13.0	17.1	101.4	Horizontal	PASS

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



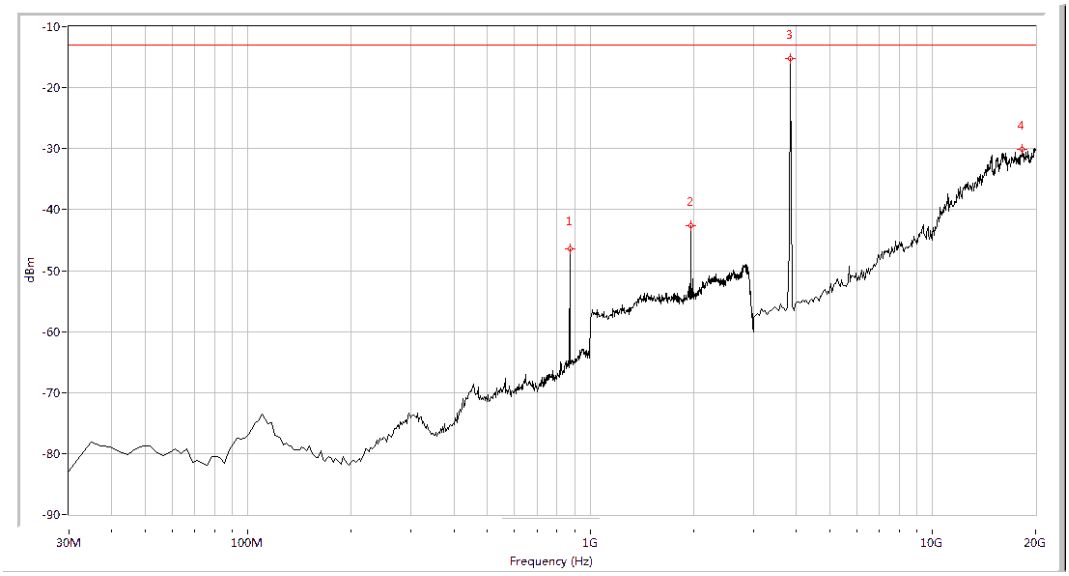
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-46.06	-13.0	33.1	290.4	Vertical	PASS
3763.092	-17.47	-13.0	4.5	13.6	Vertical	PASS
5628.429	-37.29	-13.0	24.3	38.1	Vertical	PASS
18304.239	-29.69	-13.0	16.7	-0.0	Vertical	PASS

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



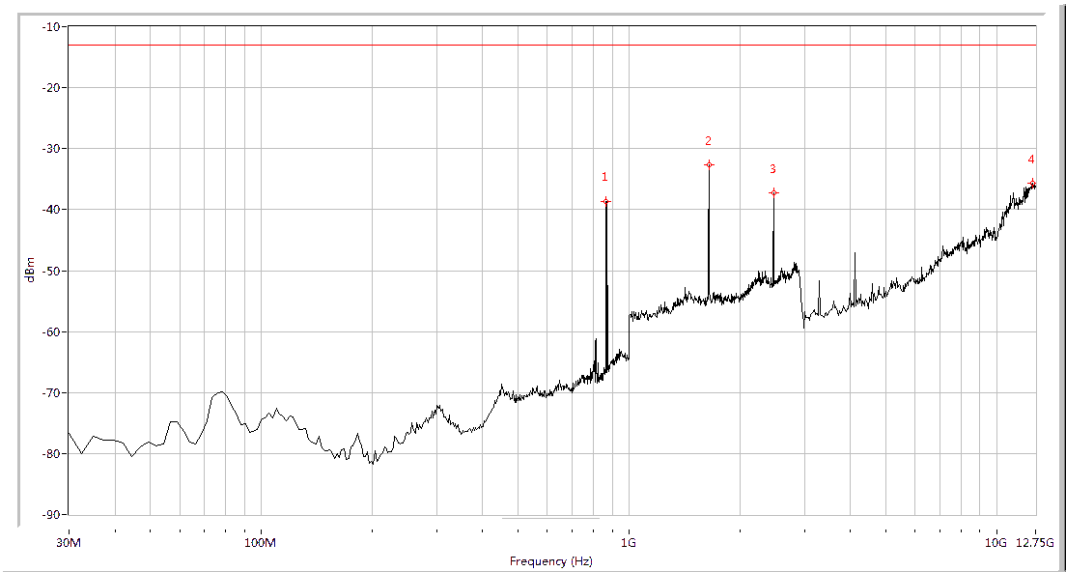
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.59	-13.0	24.6	123.5	Horizontal	PASS
3847.880	-39.85	-13.0	26.9	274.2	Horizontal	PASS
5713.217	-37.38	-13.0	24.4	360.0	Horizontal	PASS
16990.025	-27.95	-13.0	15.0	68.5	Horizontal	PASS

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



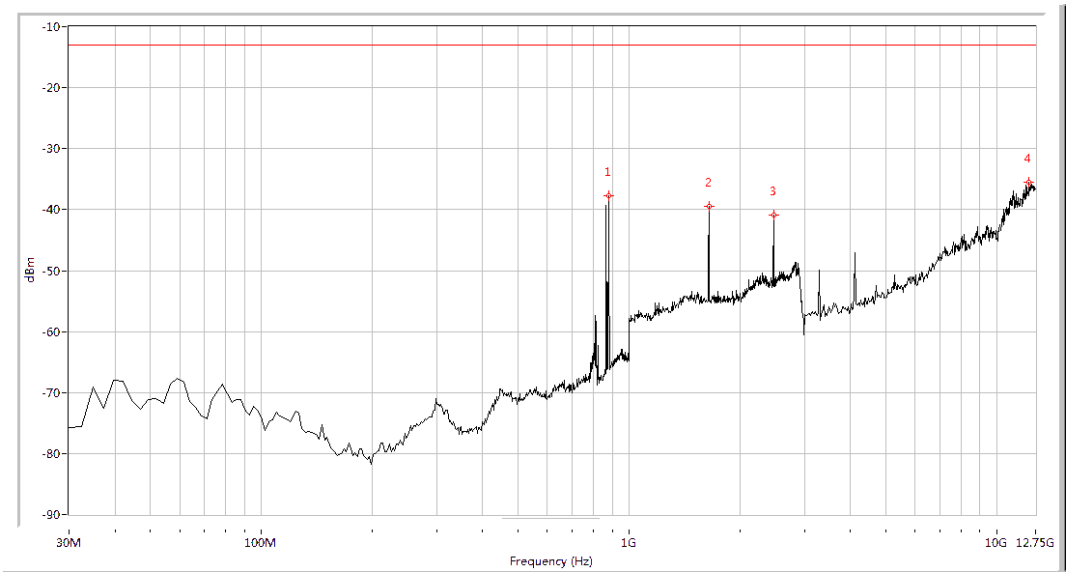
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-46.41	-13.0	33.4	176.5	Vertical	PASS
1967.581	-42.56	-13.0	29.6	130.2	Vertical	PASS
3847.880	-15.30	-13.0	2.3	5.9	Vertical	PASS
18304.239	-30.07	-13.0	17.1	117.0	Vertical	PASS

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



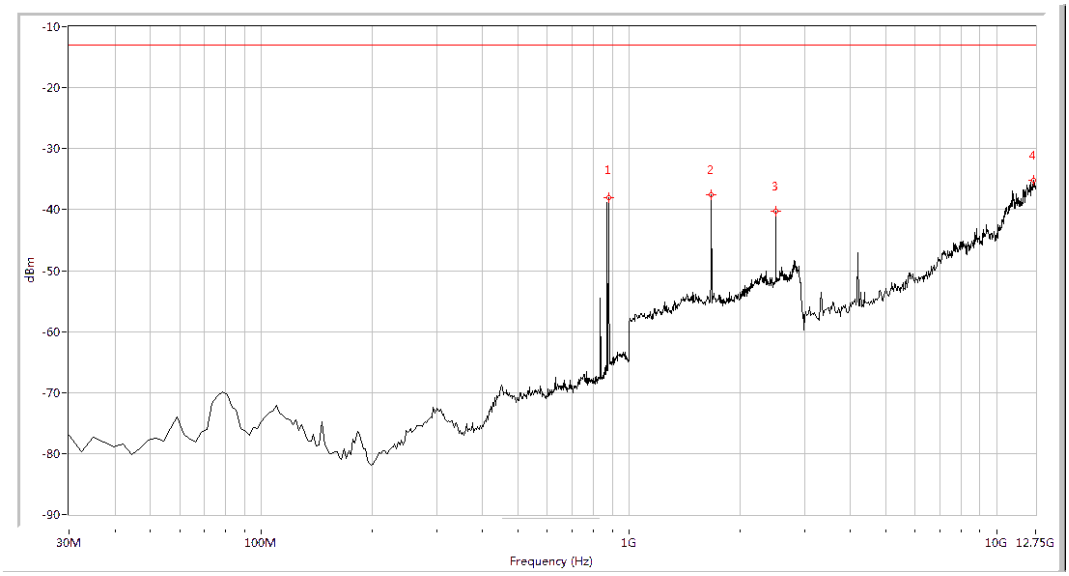
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
866.958	-38.73	-13.0	25.7	316.4	Horizontal	PASS
1648.379	-32.69	-13.0	19.7	13.9	Horizontal	PASS
2471.322	-37.27	-13.0	24.3	266.8	Horizontal	PASS
12531.172	-35.63	-13.0	22.6	14.3	Horizontal	PASS

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



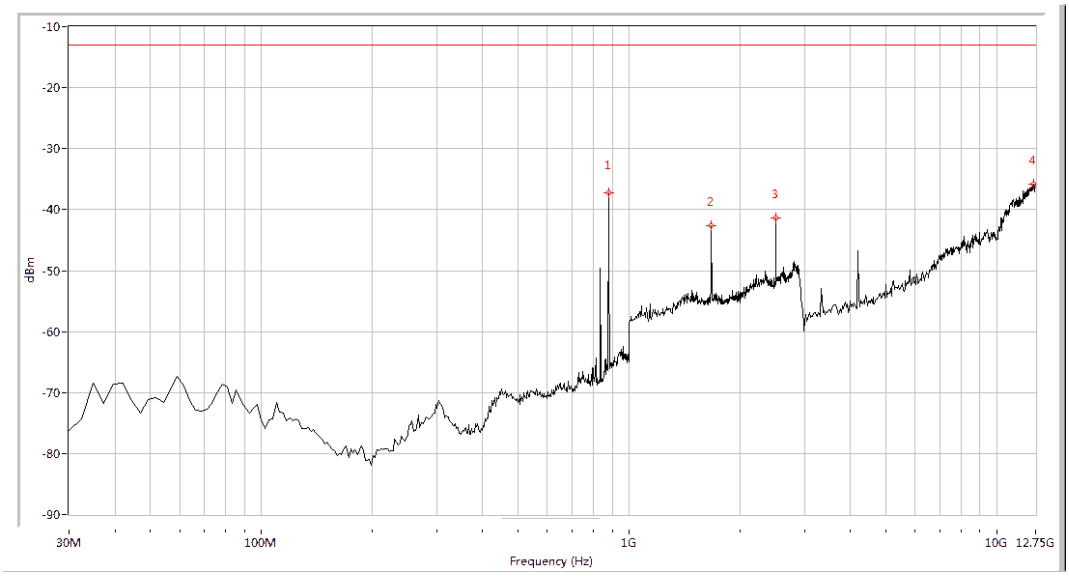
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-37.67	-13.0	24.7	309.1	Vertical	PASS
1648.379	-39.40	-13.0	26.4	140.0	Vertical	PASS
2471.322	-40.82	-13.0	27.8	206.6	Vertical	PASS
12239.401	-35.52	-13.0	22.5	20.9	Vertical	PASS

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



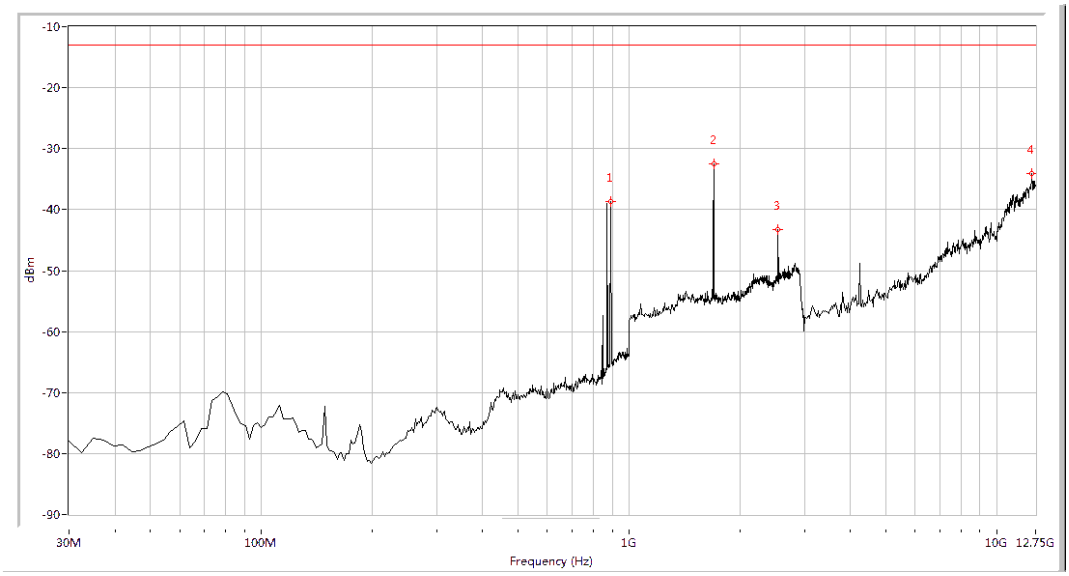
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-38.01	-13.0	25.0	120.2	Horizontal	PASS
1673.317	-37.62	-13.0	24.6	21.8	Horizontal	PASS
2506.234	-40.21	-13.0	27.2	66.4	Horizontal	PASS
12628.429	-35.12	-13.0	22.1	314.0	Horizontal	PASS

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



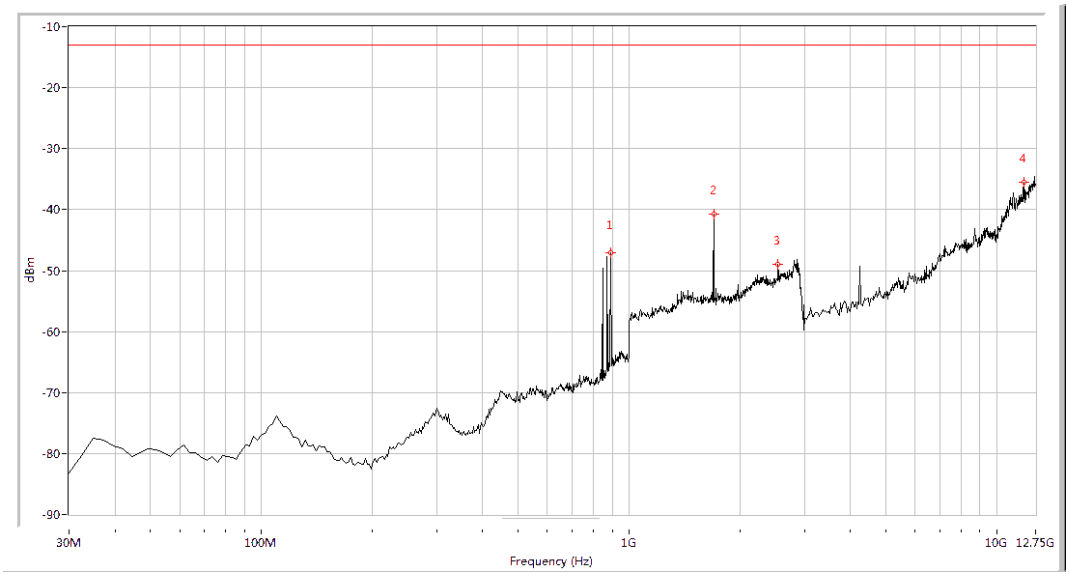
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-37.22	-13.0	24.2	252.1	Vertical	PASS
1673.317	-42.67	-13.0	29.7	58.5	Vertical	PASS
2506.234	-41.36	-13.0	28.4	215.0	Vertical	PASS
12604.115	-35.84	-13.0	22.8	354.9	Vertical	PASS

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



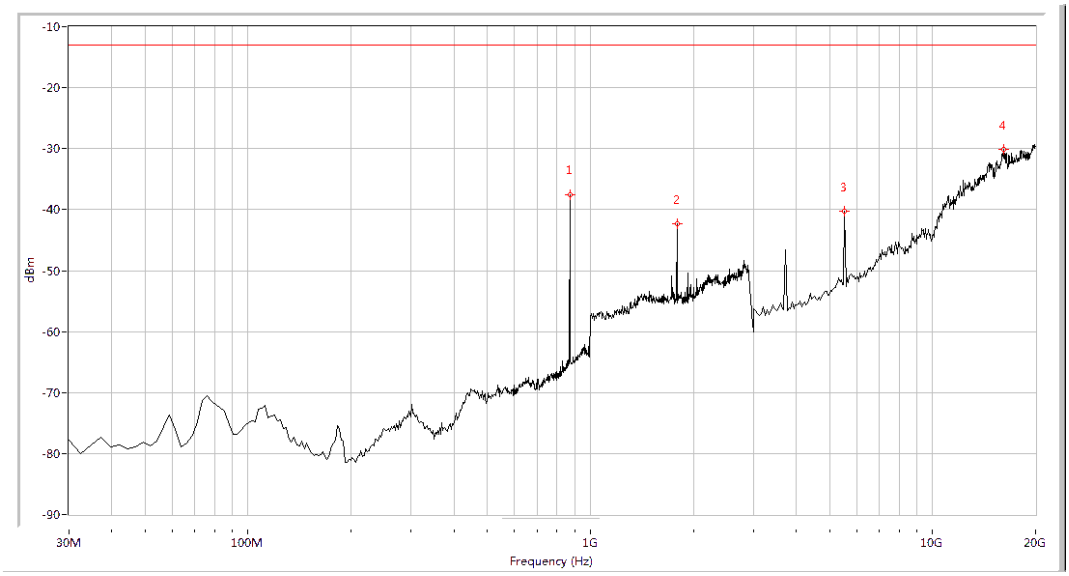
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
891.147	-38.62	-13.0	25.6	115.0	Horizontal	PASS
1698.254	-32.46	-13.0	19.5	40.8	Horizontal	PASS
2541.147	-43.23	-13.0	30.2	283.7	Horizontal	PASS
12482.544	-34.14	-13.0	21.1	297.3	Horizontal	PASS

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



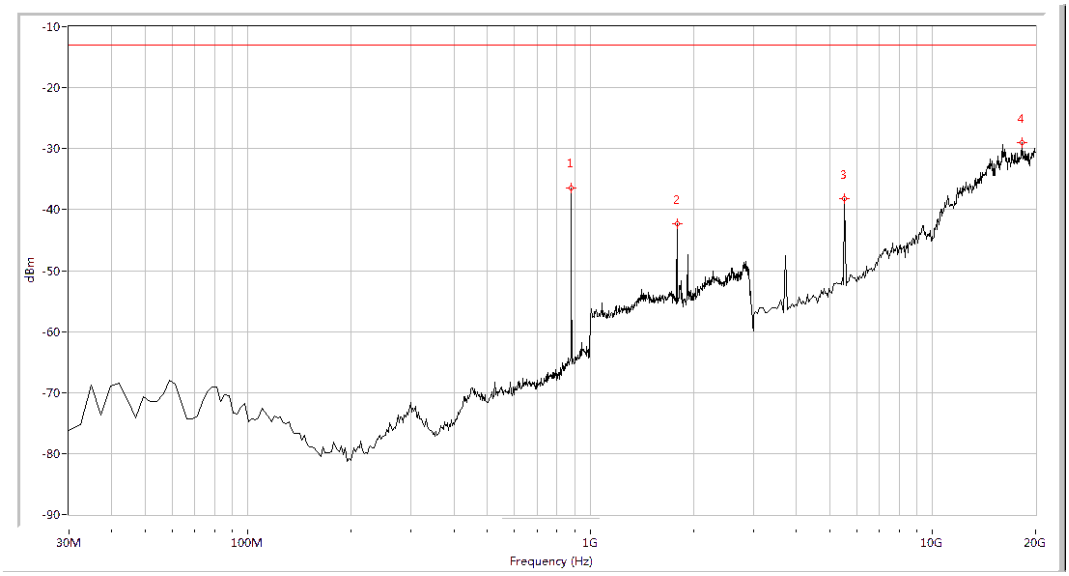
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
891.147	-47.11	-13.0	34.1	-0.0	Vertical	PASS
1698.254	-40.72	-13.0	27.7	59.3	Vertical	PASS
2541.147	-48.96	-13.0	36.0	84.9	Vertical	PASS
11826.060	-35.53	-13.0	22.5	116.5	Vertical	PASS

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



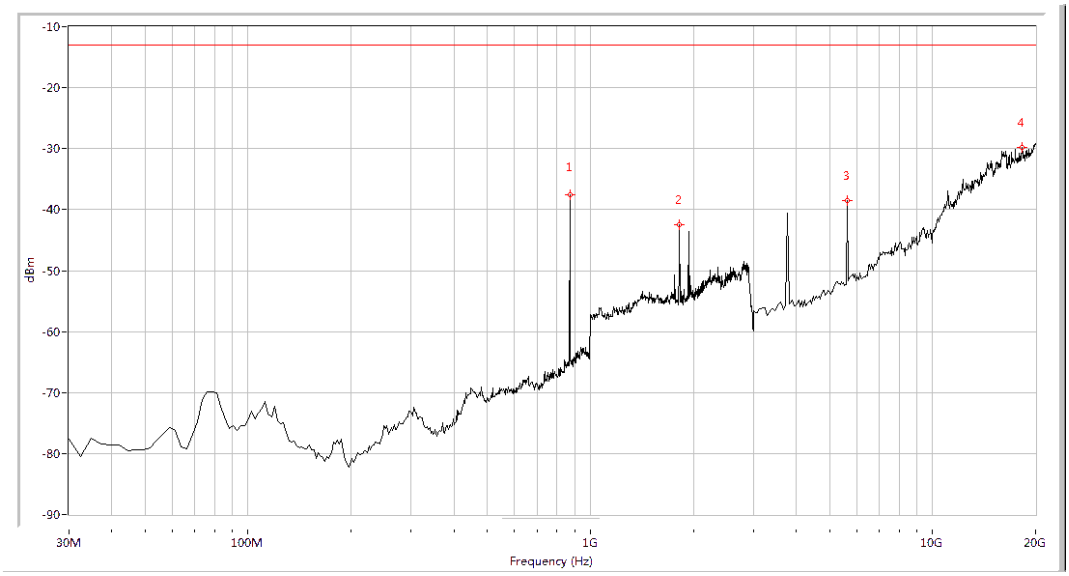
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.53	-13.0	24.5	317.7	Horizontal	PASS
1793.017	-42.27	-13.0	29.3	44.0	Horizontal	PASS
5543.641	-40.25	-13.0	27.3	245.3	Horizontal	PASS
16099.751	-30.04	-13.0	17.0	153.4	Horizontal	PASS

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



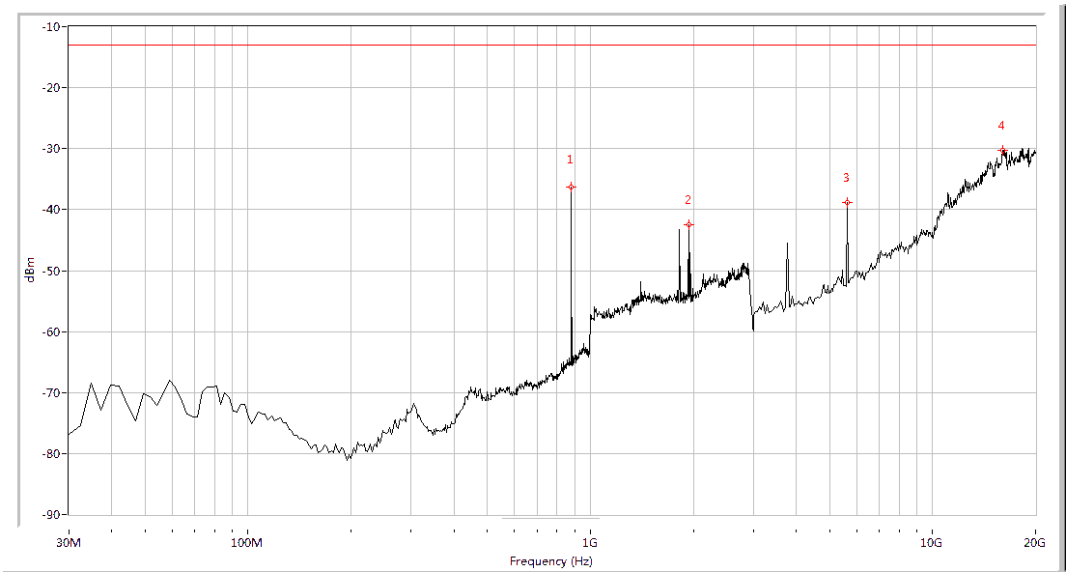
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-36.48	-13.0	23.5	339.3	Vertical	PASS
1793.017	-42.40	-13.0	29.4	99.1	Vertical	PASS
5543.641	-38.23	-13.0	25.2	67.0	Vertical	PASS
18219.451	-28.99	-13.0	16.0	58.5	Vertical	PASS

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



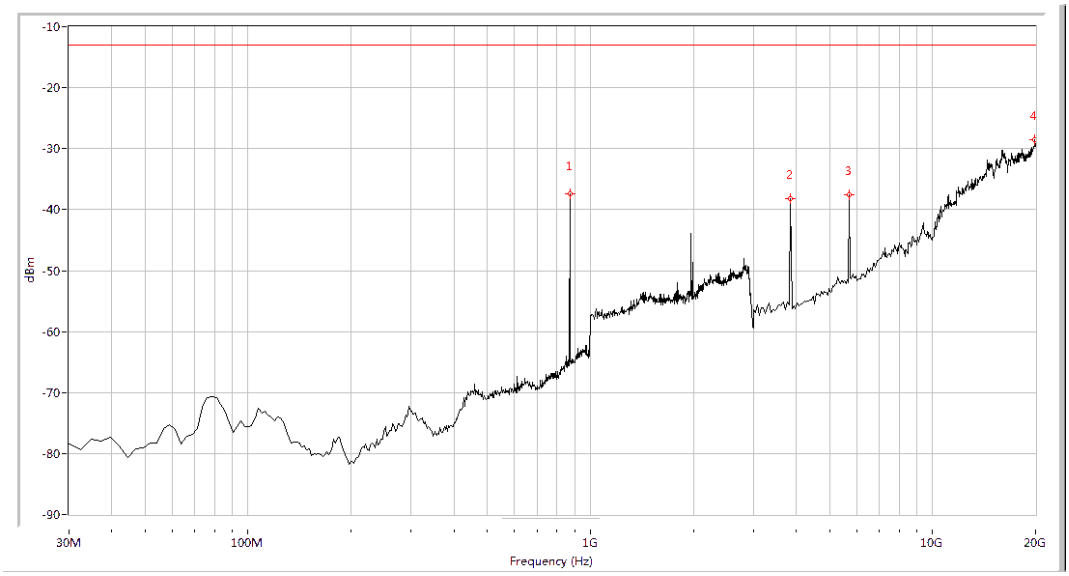
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.53	-13.0	24.5	316.0	Horizontal	PASS
1822.943	-42.46	-13.0	29.5	12.3	Horizontal	PASS
5628.429	-38.56	-13.0	25.6	236.8	Horizontal	PASS
18304.239	-29.80	-13.0	16.8	188.1	Horizontal	PASS

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



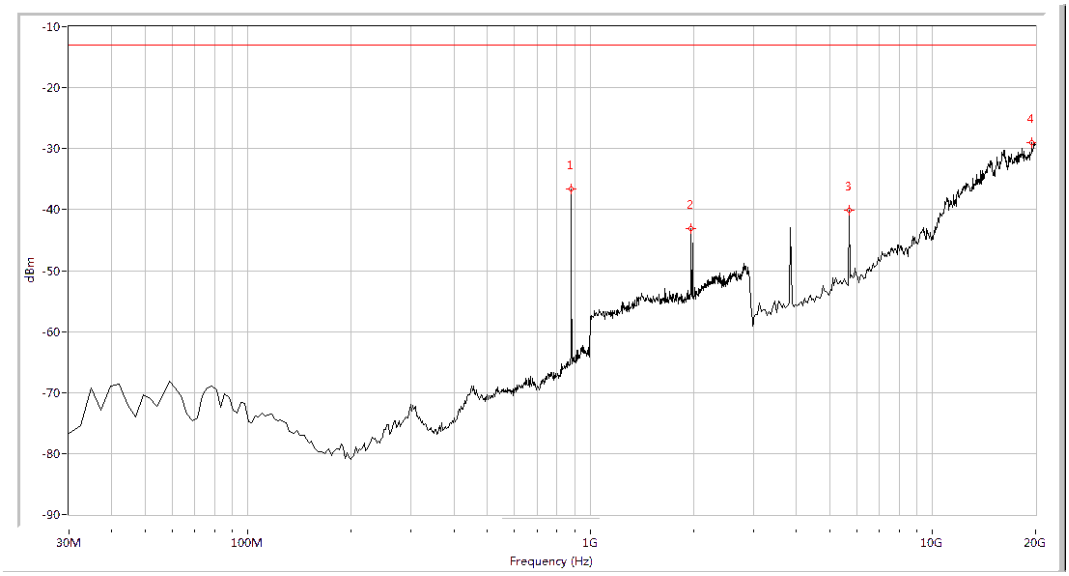
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-36.36	-13.0	23.4	54.1	Vertical	PASS
1937.656	-42.51	-13.0	29.5	80.7	Vertical	PASS
5628.429	-38.88	-13.0	25.9	28.1	Vertical	PASS
16057.357	-30.29	-13.0	17.3	172.8	Vertical	PASS

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



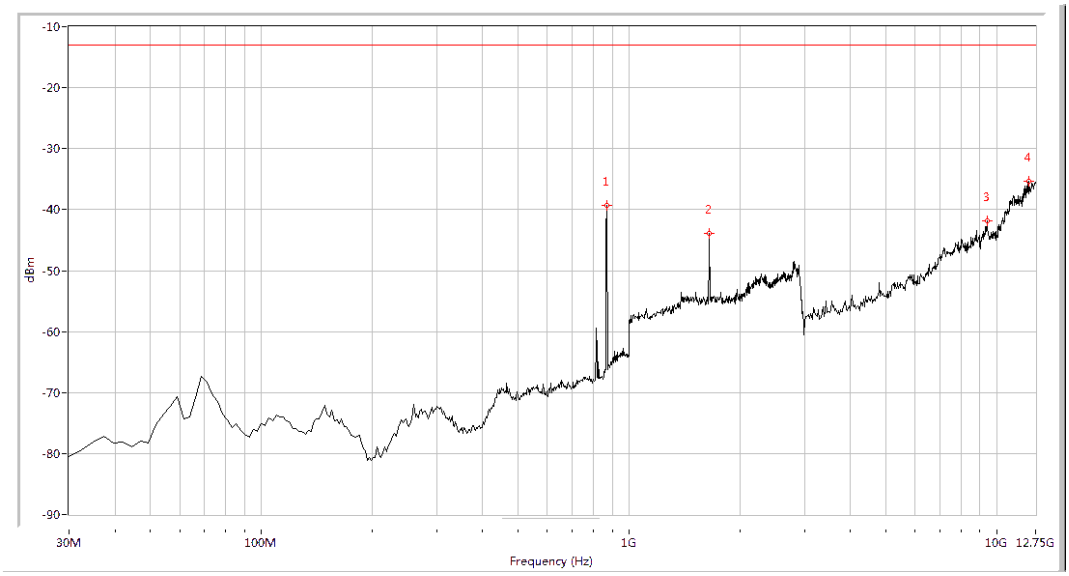
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-37.43	-13.0	24.4	310.4	Horizontal	PASS
3847.880	-38.25	-13.0	25.2	268.0	Horizontal	PASS
5713.217	-37.49	-13.0	24.5	21.0	Horizontal	PASS
19915.212	-28.57	-13.0	15.6	86.8	Horizontal	PASS

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



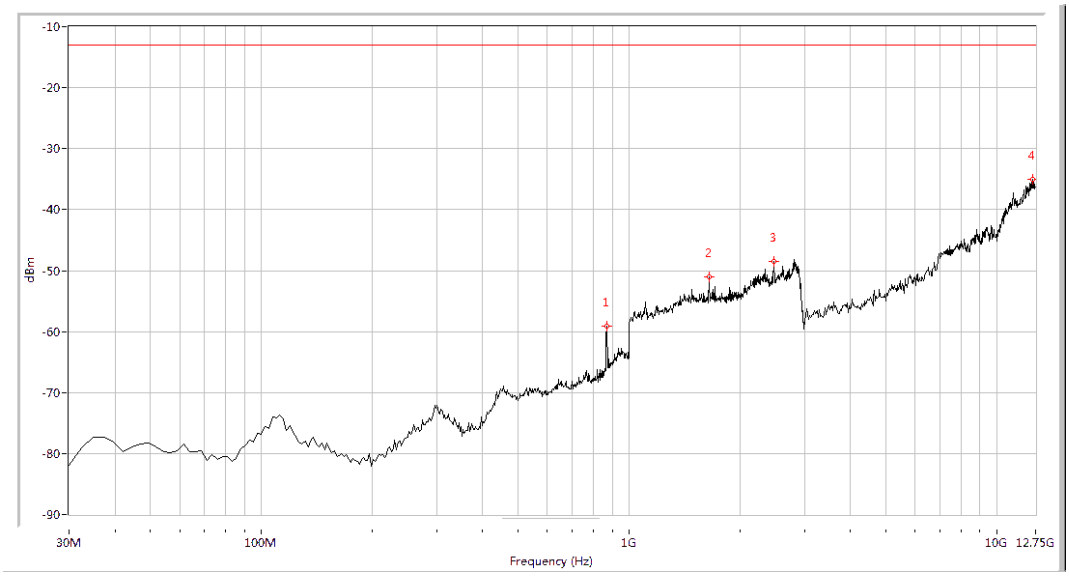
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-36.56	-13.0	23.6	255.7	Vertical	PASS
1967.581	-43.15	-13.0	30.1	65.5	Vertical	PASS
5713.217	-40.12	-13.0	27.1	76.4	Vertical	PASS
19491.272	-29.00	-13.0	16.0	117.0	Vertical	PASS

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



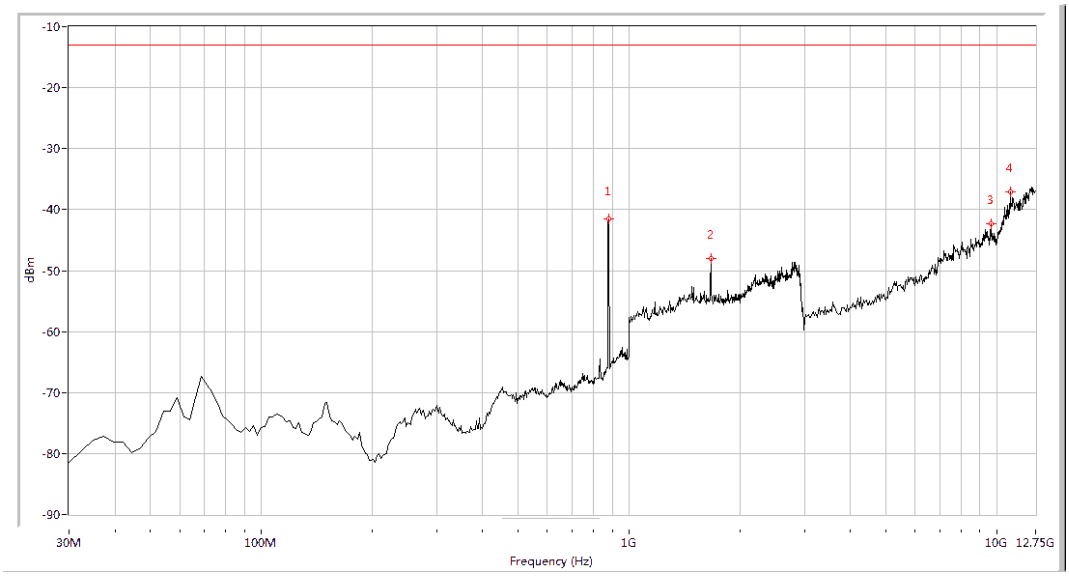
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
869.377	-39.37	-13.0	26.4	138.5	Horizontal	PASS
1653.367	-43.94	-13.0	30.9	19.9	Horizontal	PASS
9418.953	-41.89	-13.0	28.9	144.0	Horizontal	PASS
12215.087	-35.34	-13.0	22.3	23.9	Horizontal	PASS

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



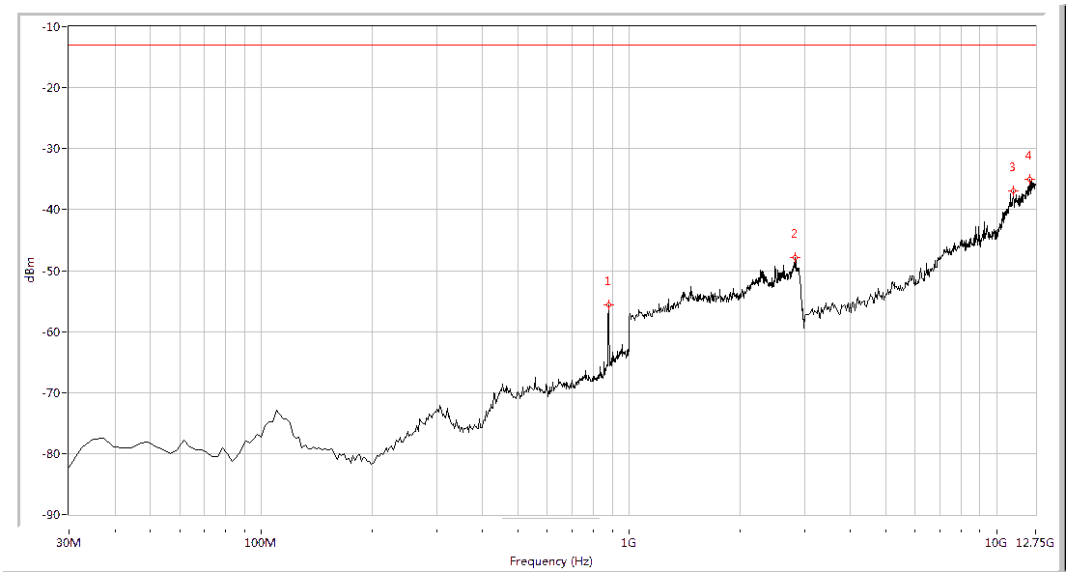
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
869.377	-59.09	-13.0	46.1	131.5	Vertical	PASS
1648.379	-51.08	-13.0	38.1	267.1	Vertical	PASS
2471.322	-48.42	-13.0	35.4	193.5	Vertical	PASS
12555.486	-35.04	-13.0	22.0	72.0	Vertical	PASS

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



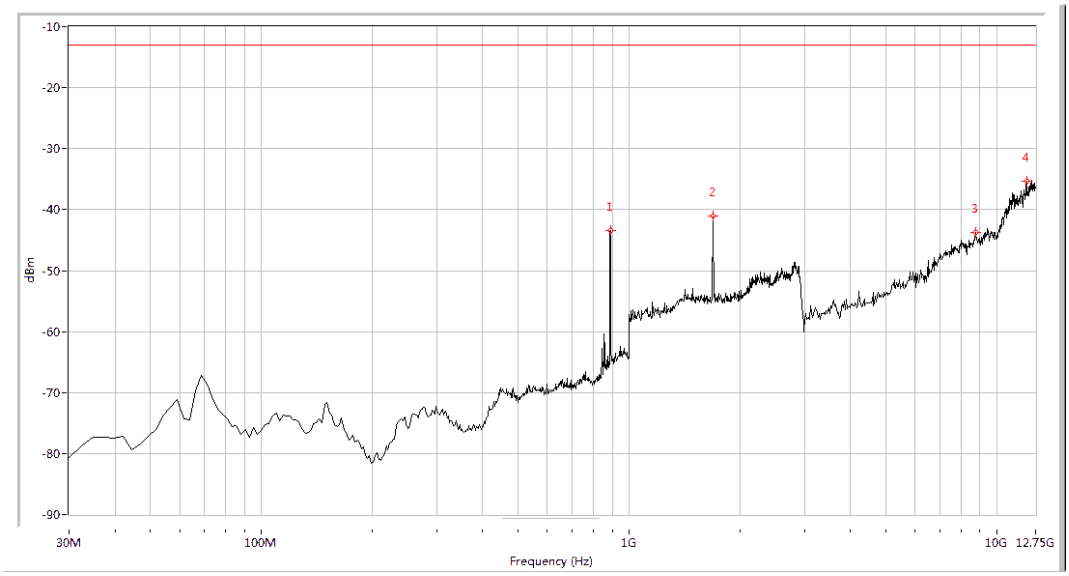
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-41.49	-13.0	28.5	76.7	Horizontal	PASS
1668.329	-48.05	-13.0	35.0	0.7	Horizontal	PASS
9637.781	-42.29	-13.0	29.3	276.3	Horizontal	PASS
10902.120	-37.03	-13.0	24.0	61.1	Horizontal	PASS

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



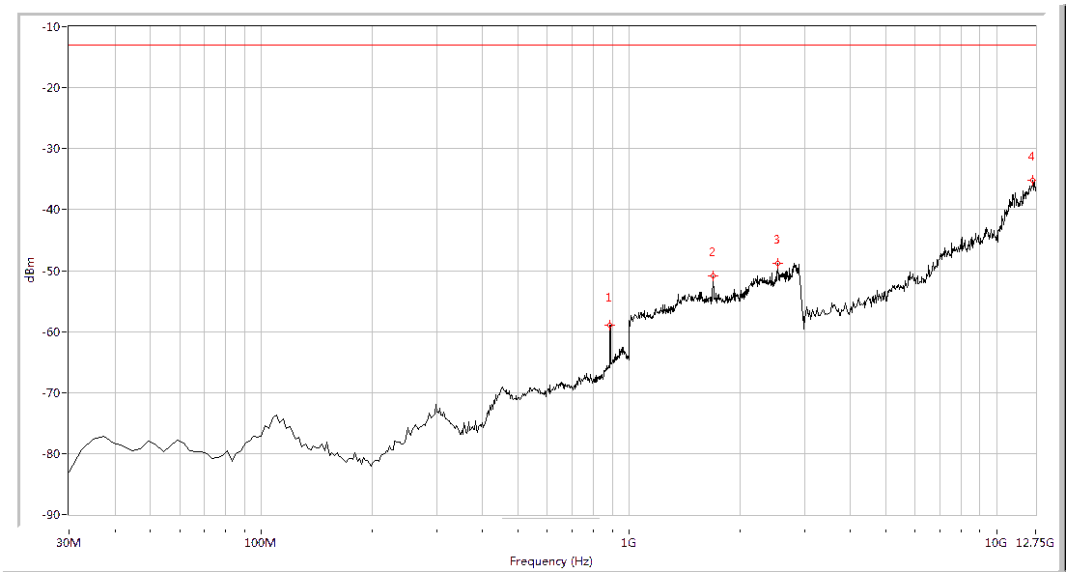
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-55.67	-13.0	42.7	128.0	Vertical	PASS
2830.424	-47.82	-13.0	34.8	330.6	Vertical	PASS
11120.948	-36.96	-13.0	24.0	68.1	Vertical	PASS
12288.030	-35.10	-13.0	22.1	294.3	Vertical	PASS

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



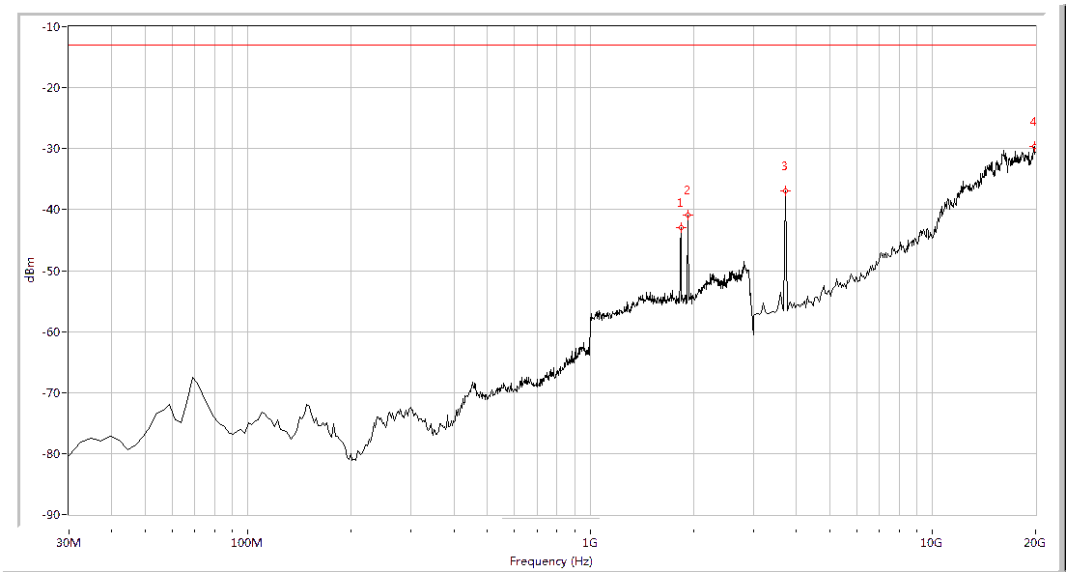
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
891.147	-43.37	-13.0	30.4	0.2	Horizontal	PASS
1688.279	-40.99	-13.0	28.0	40.2	Horizontal	PASS
8762.469	-43.73	-13.0	30.7	62.6	Horizontal	PASS
12044.888	-35.40	-13.0	22.4	211.8	Horizontal	PASS

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



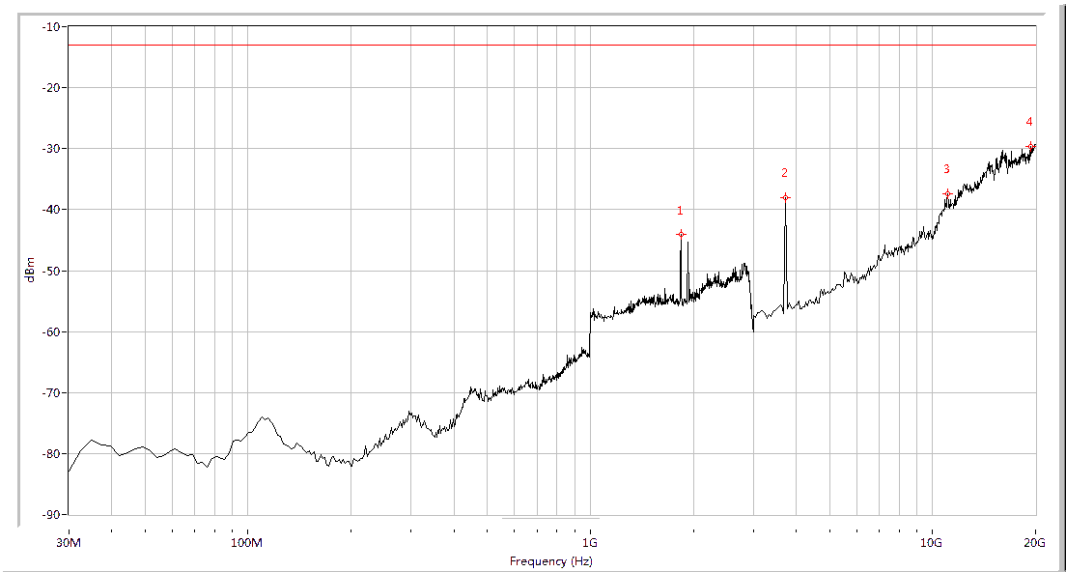
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
888.728	-59.02	-13.0	46.0	181.7	Vertical	PASS
1688.279	-50.89	-13.0	37.9	263.7	Vertical	PASS
2536.160	-48.76	-13.0	35.8	39.1	Vertical	PASS
12531.172	-35.21	-13.0	22.2	181.7	Vertical	PASS

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



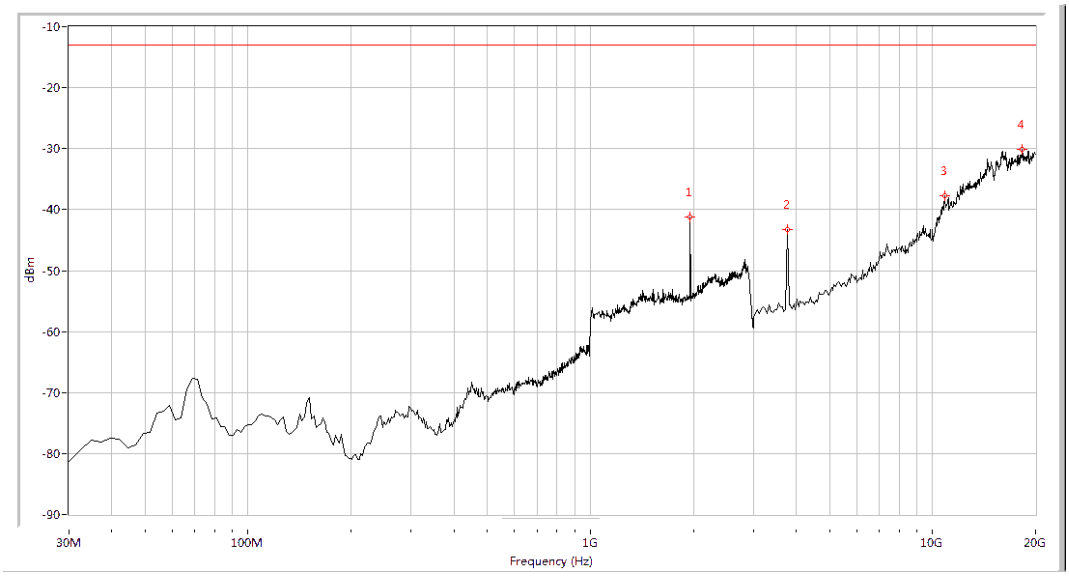
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1837.905	-42.92	-13.0	29.9	-0.0	Horizontal	PASS
1927.681	-40.94	-13.0	27.9	242.8	Horizontal	PASS
3720.698	-36.86	-13.0	23.9	48.4	Horizontal	PASS
19830.424	-29.57	-13.0	16.6	360.0	Horizontal	PASS

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



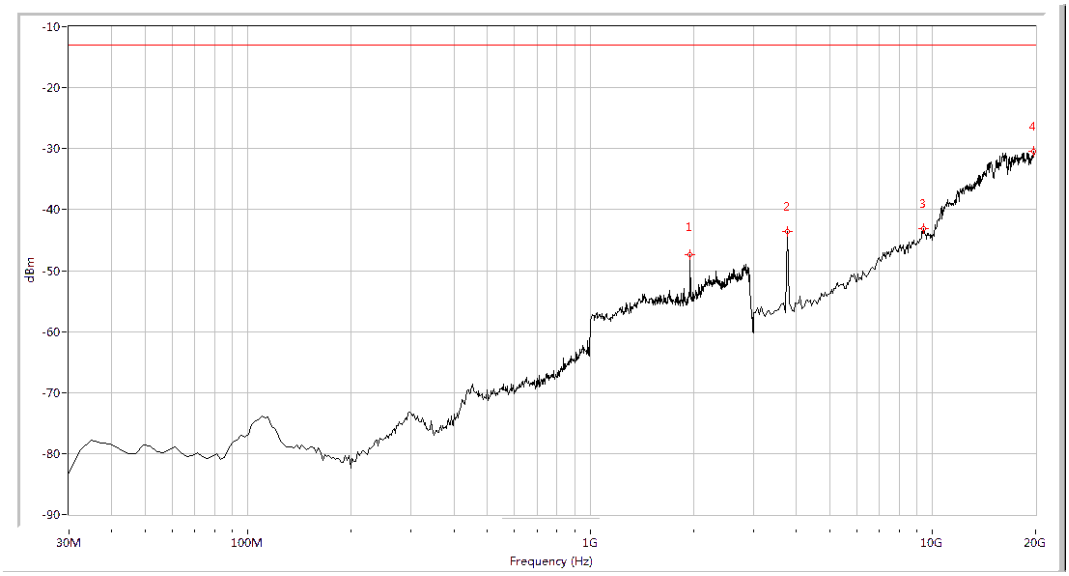
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1837.905	-44.04	-13.0	31.0	115.0	Vertical	PASS
3720.698	-38.09	-13.0	25.1	229.4	Vertical	PASS
11054.863	-37.39	-13.0	24.4	6.1	Vertical	PASS
19321.696	-29.66	-13.0	16.7	272.5	Vertical	PASS

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



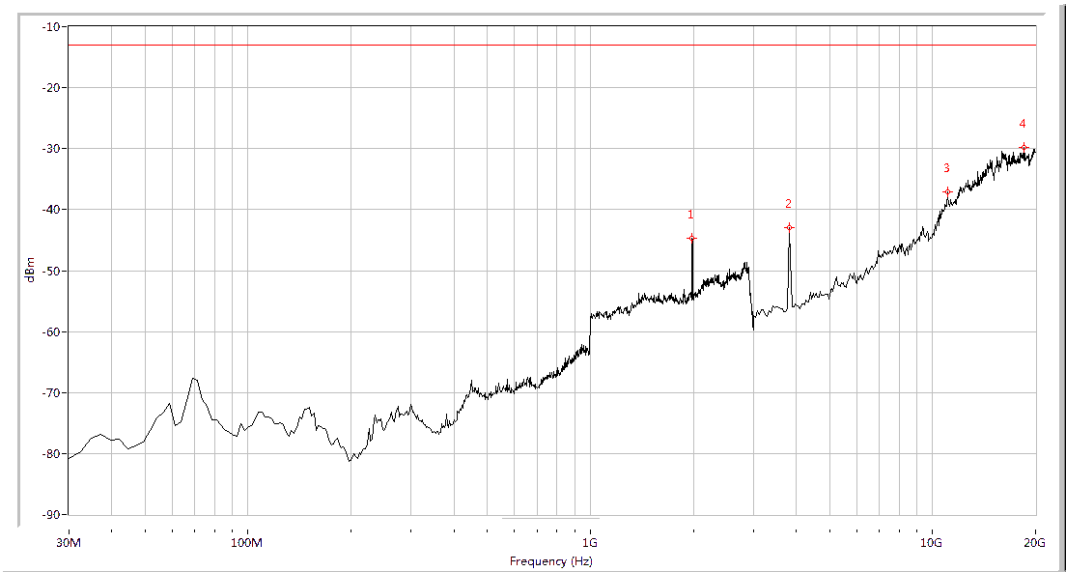
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-41.25	-13.0	28.2	276.0	Horizontal	PASS
3763.092	-43.19	-13.0	30.2	61.6	Horizontal	PASS
10842.893	-37.76	-13.0	24.8	356.3	Horizontal	PASS
18304.239	-30.17	-13.0	17.2	342.8	Horizontal	PASS

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



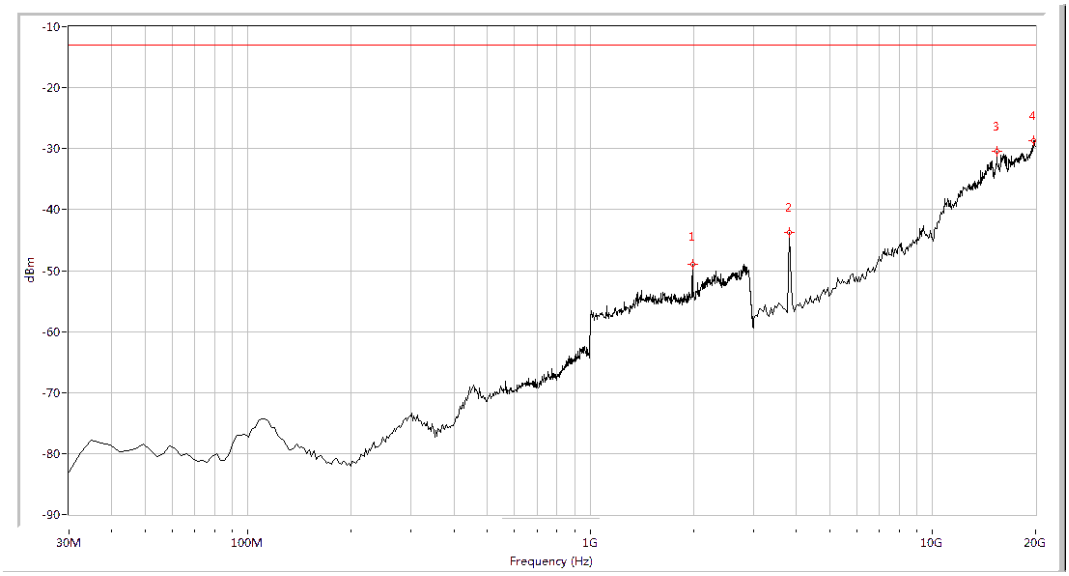
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-47.36	-13.0	34.4	246.2	Vertical	PASS
3763.092	-43.62	-13.0	30.6	216.5	Vertical	PASS
9401.496	-43.13	-13.0	30.1	54.1	Vertical	PASS
19788.030	-30.51	-13.0	17.5	360.0	Vertical	PASS

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



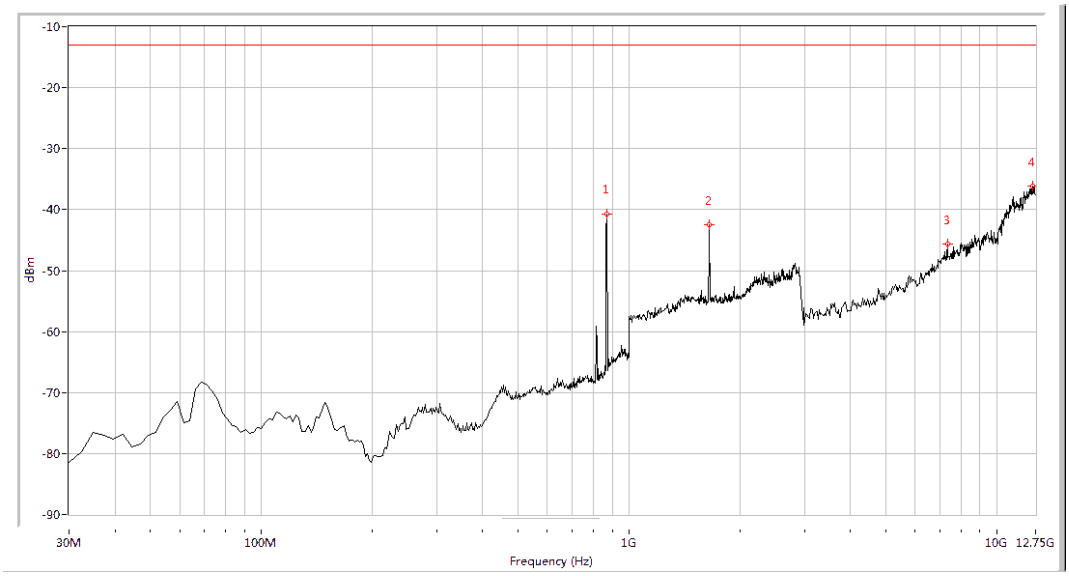
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1982.544	-44.67	-13.0	31.7	312.8	Horizontal	PASS
3805.486	-43.00	-13.0	30.0	59.3	Horizontal	PASS
11054.863	-37.04	-13.0	24.0	133.7	Horizontal	PASS
18473.815	-29.83	-13.0	16.8	332.8	Horizontal	PASS

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



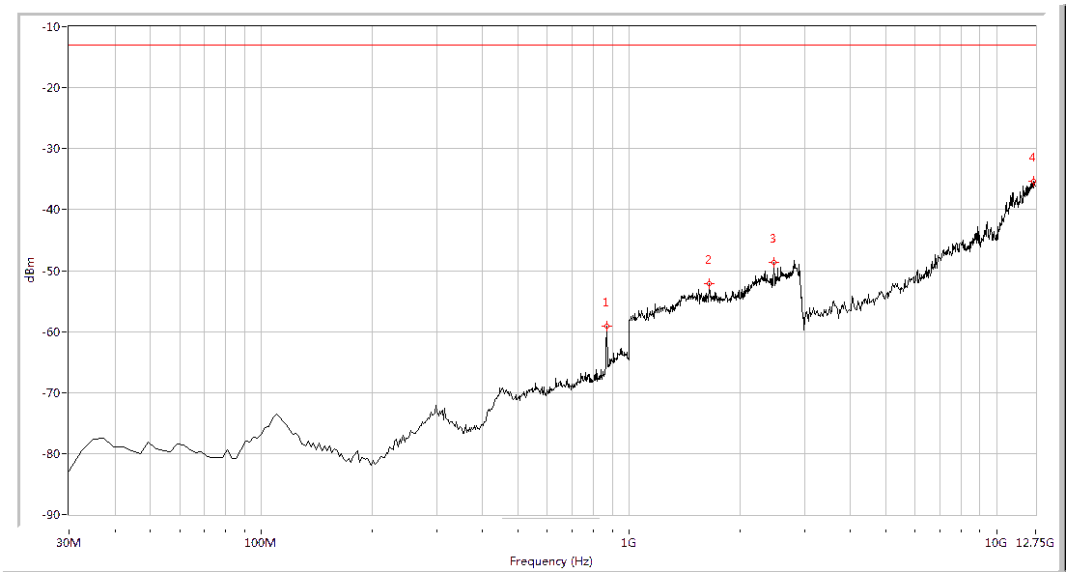
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1987.531	-49.02	-13.0	36.0	51.9	Vertical	PASS
3805.486	-43.78	-13.0	30.8	234.6	Vertical	PASS
15421.446	-30.41	-13.0	17.4	360.0	Vertical	PASS
19703.242	-28.63	-13.0	15.6	349.9	Vertical	PASS

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



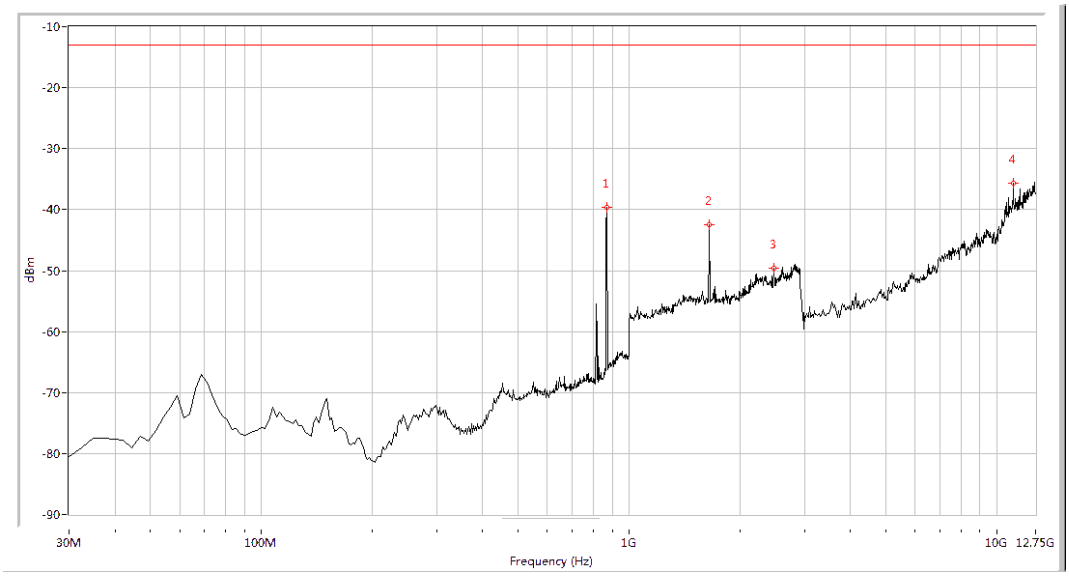
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
869.377	-40.74	-13.0	27.7	21.4	Horizontal	PASS
1653.367	-42.47	-13.0	29.5	51.7	Horizontal	PASS
7352.244	-45.65	-13.0	32.7	359.3	Horizontal	PASS
12531.172	-36.19	-13.0	23.2	10.8	Horizontal	PASS

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



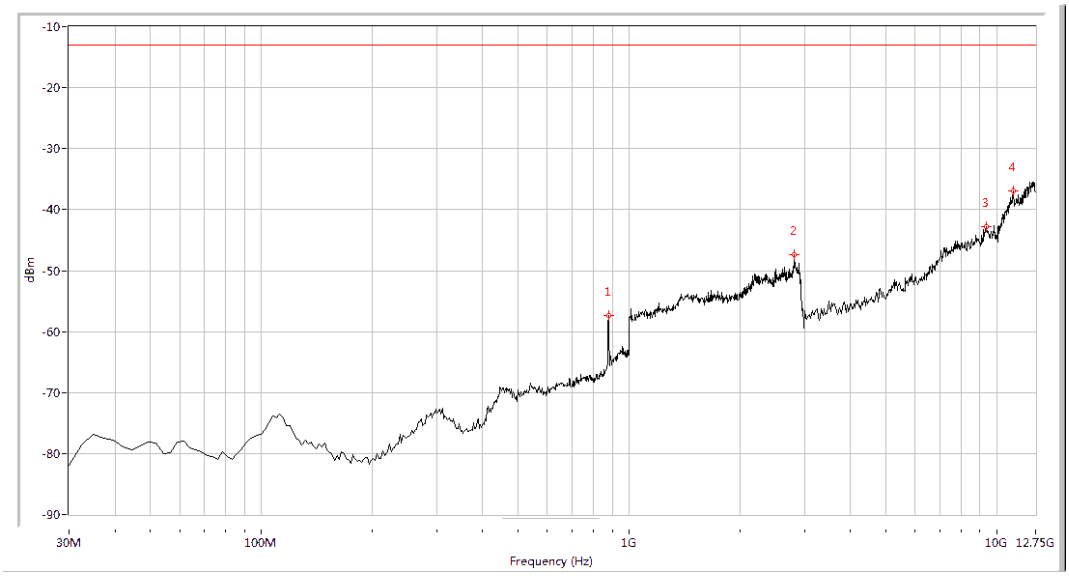
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-59.18	-13.0	46.2	249.4	Vertical	PASS
1653.367	-52.13	-13.0	39.1	70.8	Vertical	PASS
2481.297	-48.66	-13.0	35.7	243.4	Vertical	PASS
12579.800	-35.43	-13.0	22.4	249.0	Vertical	PASS

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



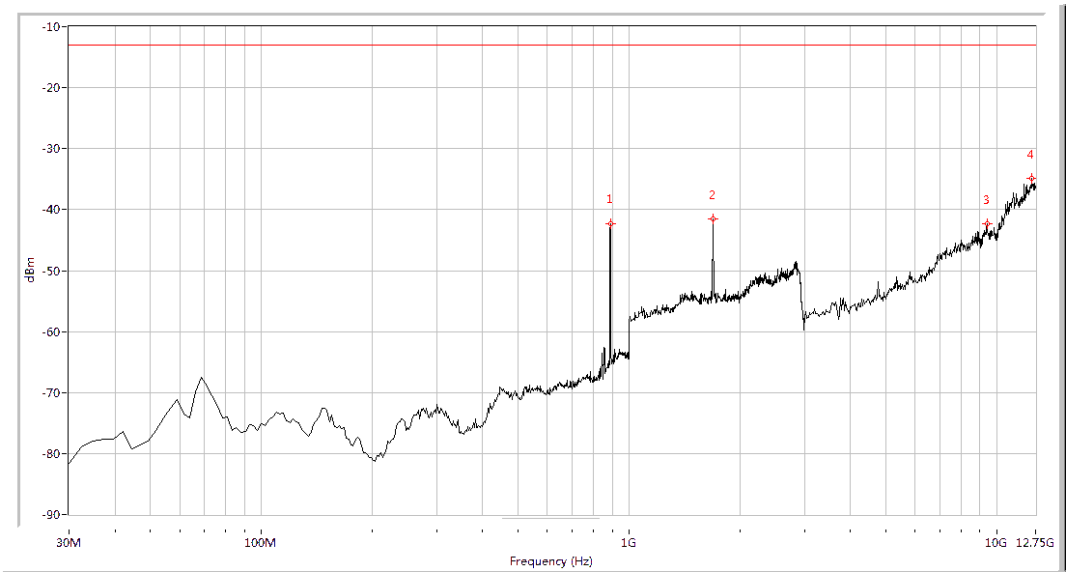
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
869.377	-39.62	-13.0	26.6	316.8	Horizontal	PASS
1653.367	-42.54	-13.0	29.5	37.6	Horizontal	PASS
2476.309	-49.57	-13.0	36.6	345.1	Horizontal	PASS
11096.633	-35.70	-13.0	22.7	88.4	Horizontal	PASS

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



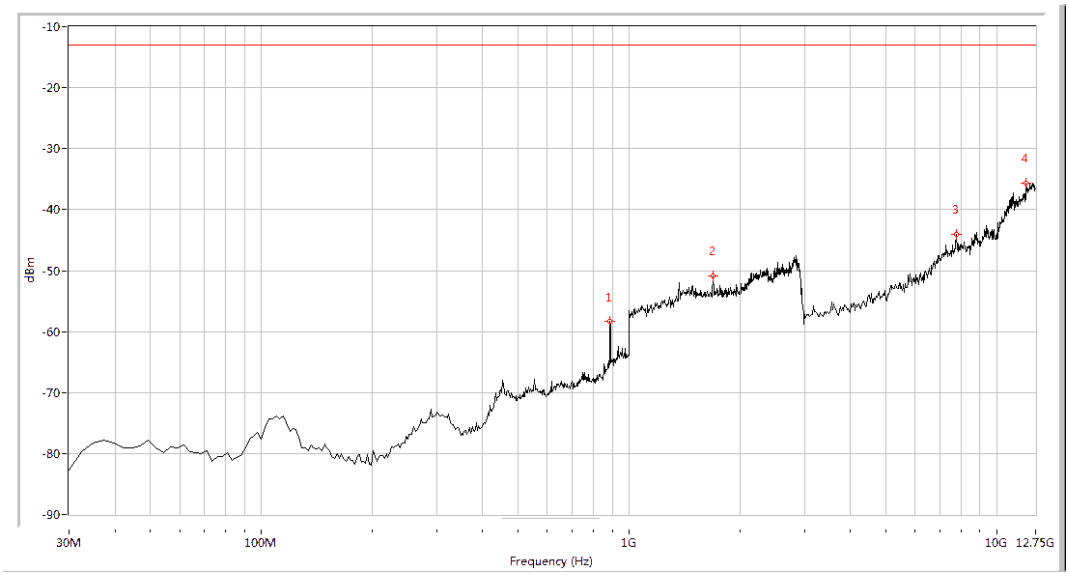
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-57.35	-13.0	44.4	317.5	Vertical	PASS
2815.461	-47.44	-13.0	34.4	22.8	Vertical	PASS
9394.638	-42.84	-13.0	29.8	355.8	Vertical	PASS
11072.319	-36.91	-13.0	23.9	274.0	Vertical	PASS

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



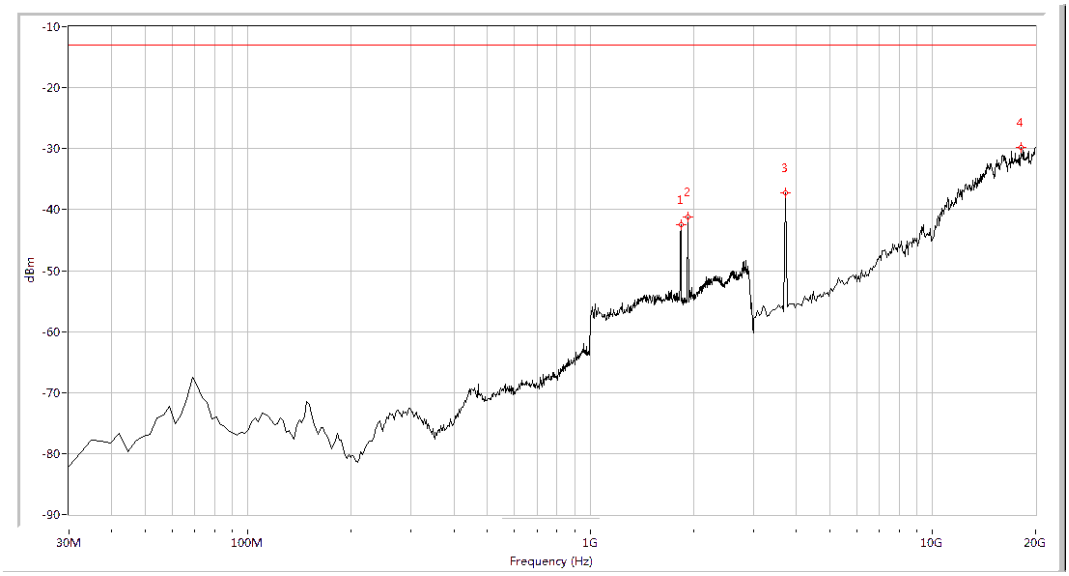
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
891.147	-42.33	-13.0	29.3	153.1	Horizontal	PASS
1688.279	-41.59	-13.0	28.6	83.4	Horizontal	PASS
9418.953	-42.34	-13.0	29.3	22.6	Horizontal	PASS
12458.229	-34.94	-13.0	21.9	269.9	Horizontal	PASS

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



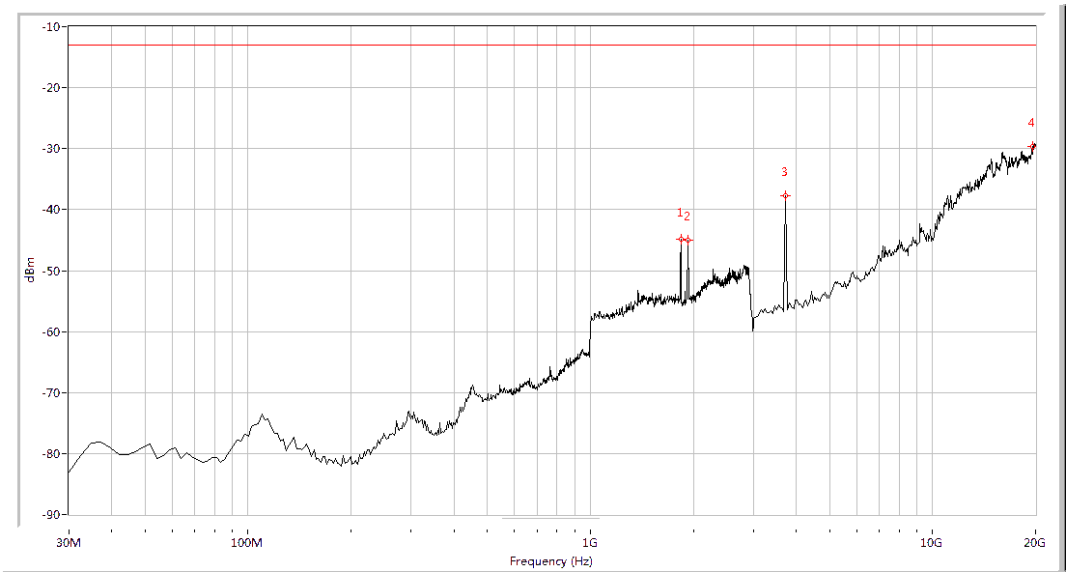
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
888.728	-58.25	-13.0	45.2	358.9	Vertical	PASS
1693.267	-50.89	-13.0	37.9	67.5	Vertical	PASS
7765.586	-44.10	-13.0	31.1	14.6	Vertical	PASS
12020.574	-35.62	-13.0	22.6	334.7	Vertical	PASS

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



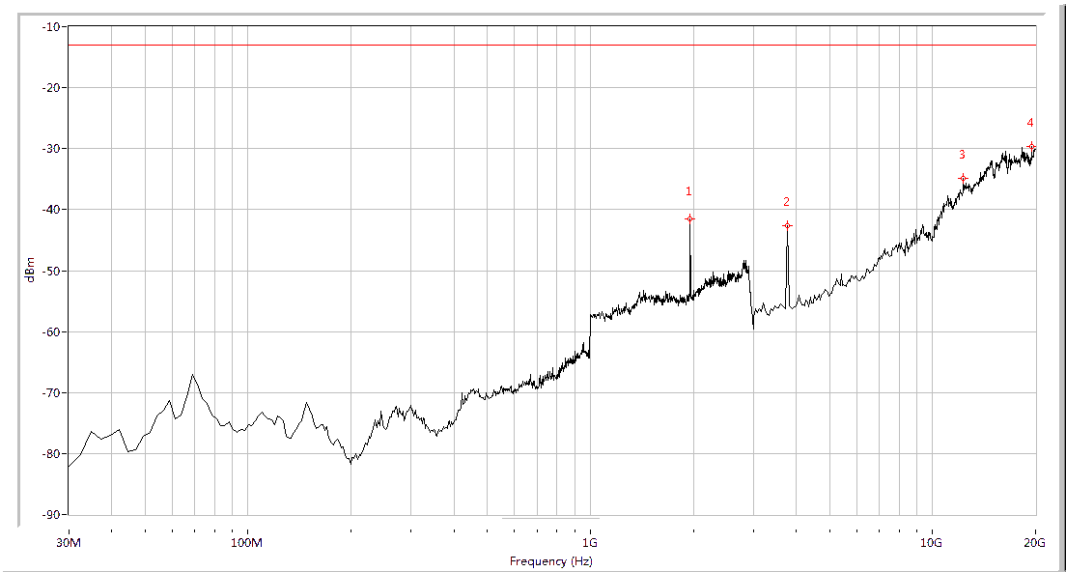
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1837.905	-42.42	-13.0	29.4	32.1	Horizontal	PASS
1927.681	-41.26	-13.0	28.3	145.4	Horizontal	PASS
3720.698	-37.22	-13.0	24.2	55.7	Horizontal	PASS
18134.663	-29.76	-13.0	16.8	22.9	Horizontal	PASS

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



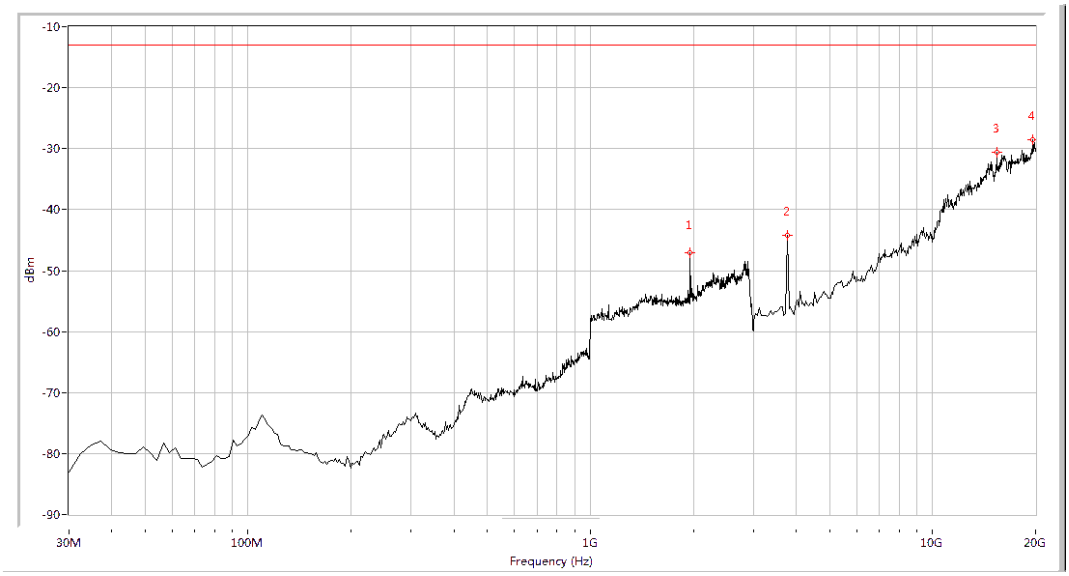
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1837.905	-44.91	-13.0	31.9	119.7	Vertical	PASS
1927.681	-44.98	-13.0	32.0	239.0	Vertical	PASS
3720.698	-37.68	-13.0	24.7	237.7	Vertical	PASS
19576.060	-29.70	-13.0	16.7	4.0	Vertical	PASS

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



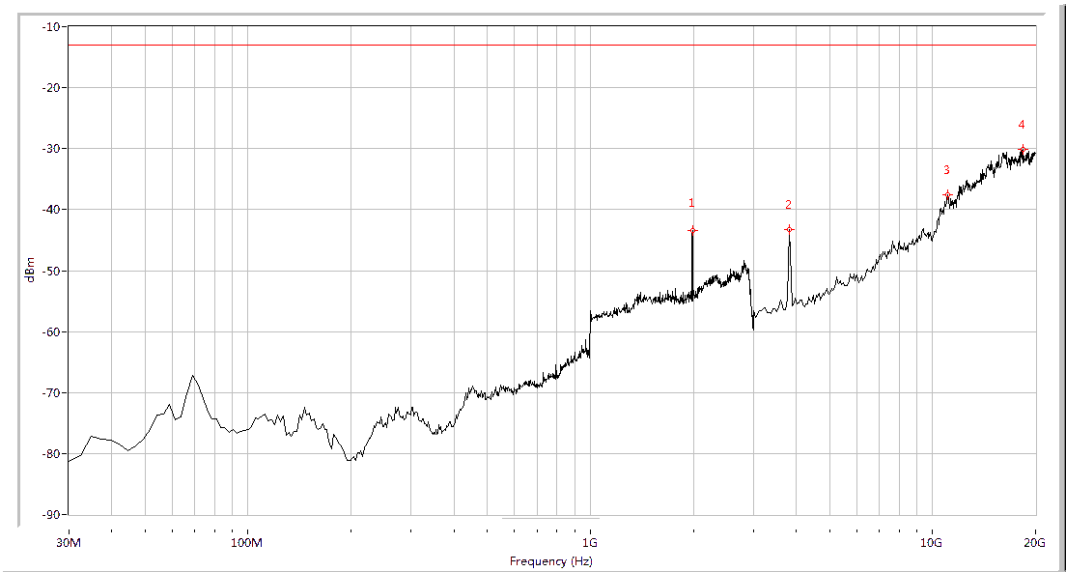
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-41.48	-13.0	28.5	319.9	Horizontal	PASS
3763.092	-42.60	-13.0	29.6	42.6	Horizontal	PASS
12326.683	-34.89	-13.0	21.9	356.0	Horizontal	PASS
19491.272	-29.71	-13.0	16.7	99.1	Horizontal	PASS

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



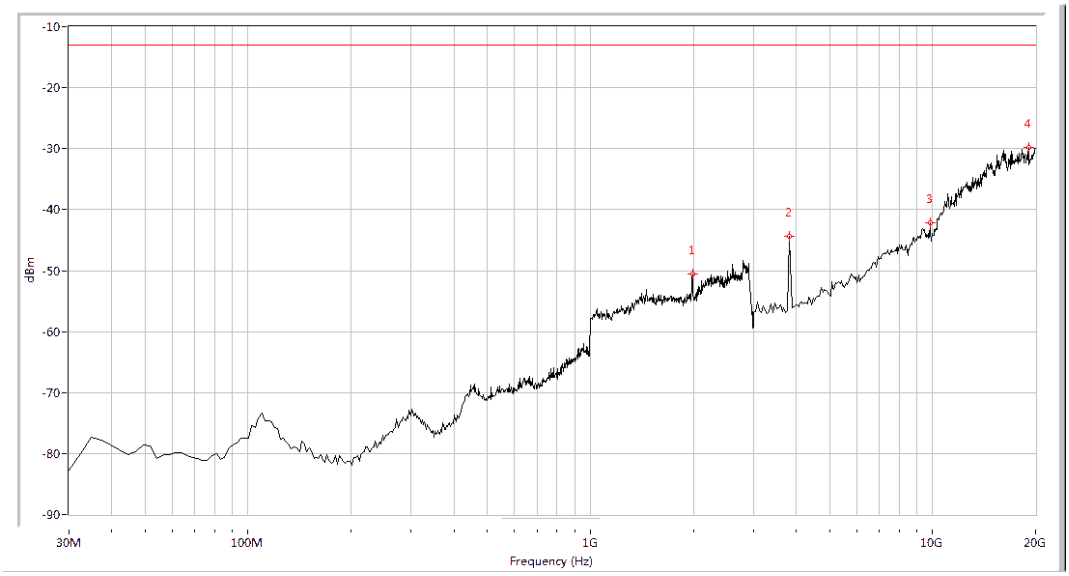
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-47.01	-13.0	34.0	205.9	Vertical	PASS
3763.092	-44.28	-13.0	31.3	235.8	Vertical	PASS
15421.446	-30.61	-13.0	17.6	262.2	Vertical	PASS
19618.454	-28.48	-13.0	15.5	150.3	Vertical	PASS

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



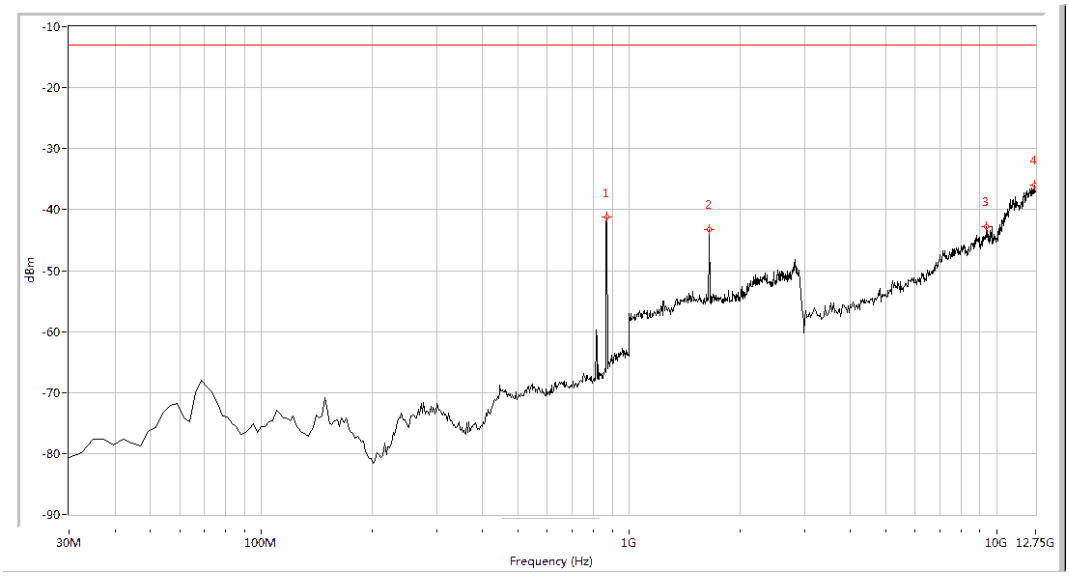
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1987.531	-43.46	-13.0	30.5	25.7	Horizontal	PASS
3805.486	-43.28	-13.0	30.3	50.8	Horizontal	PASS
11054.863	-37.60	-13.0	24.6	309.0	Horizontal	PASS
18346.633	-30.16	-13.0	17.2	50.8	Horizontal	PASS

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



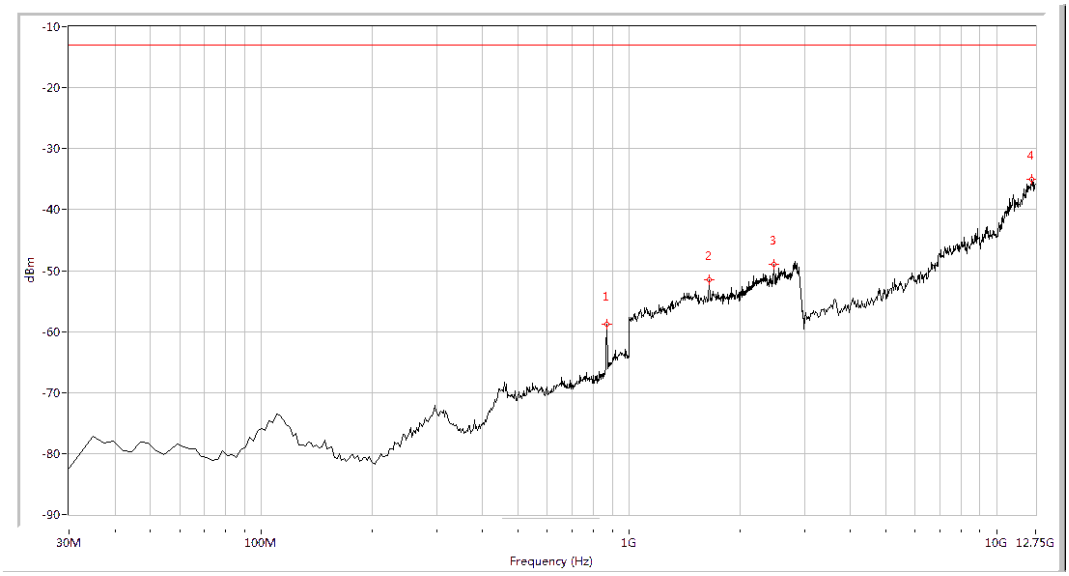
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1987.531	-50.58	-13.0	37.6	141.6	Vertical	PASS
3805.486	-44.34	-13.0	31.3	244.1	Vertical	PASS
9825.436	-42.18	-13.0	29.2	360.0	Vertical	PASS
19067.332	-29.80	-13.0	16.8	291.3	Vertical	PASS

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



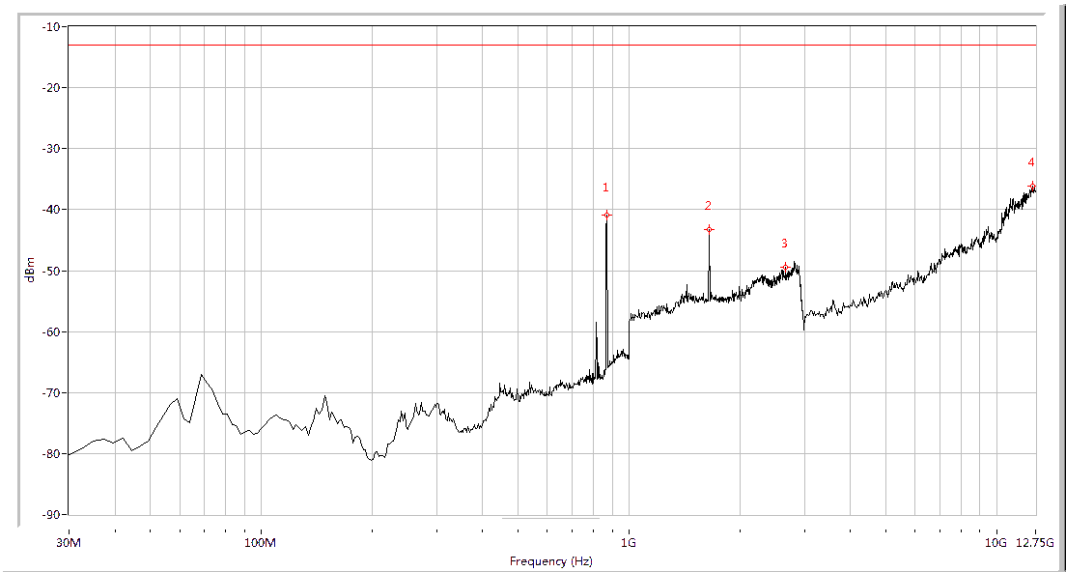
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
869.377	-41.24	-13.0	28.2	137.2	Horizontal	PASS
1653.367	-43.31	-13.0	30.3	35.2	Horizontal	PASS
9370.324	-42.82	-13.0	29.8	92.7	Horizontal	PASS
12652.743	-35.95	-13.0	22.9	250.4	Horizontal	PASS

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



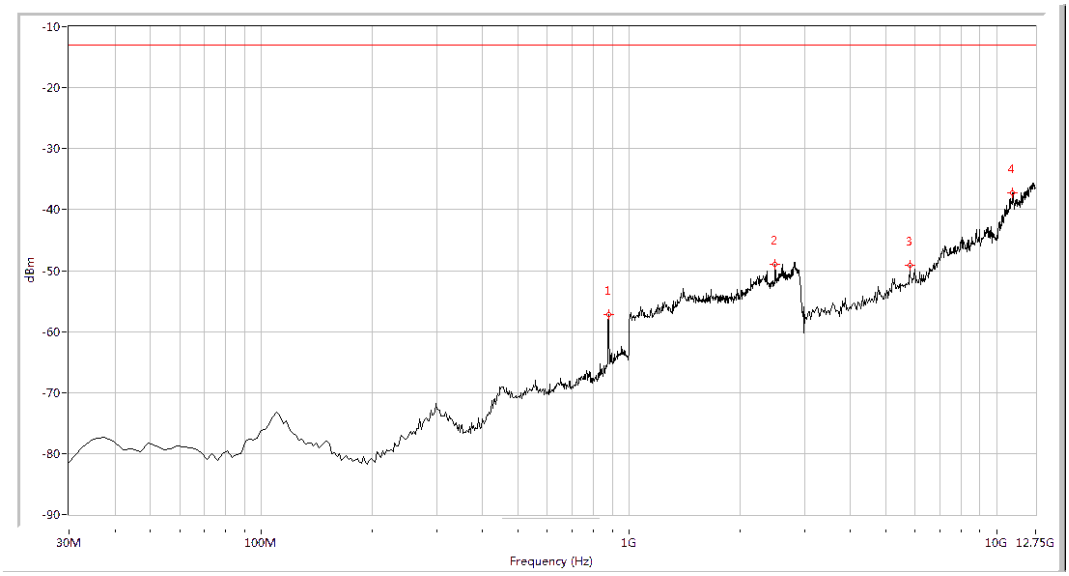
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-58.78	-13.0	45.8	129.9	Vertical	PASS
1648.379	-51.57	-13.0	38.6	254.3	Vertical	PASS
2471.322	-49.00	-13.0	36.0	44.6	Vertical	PASS
12458.229	-35.06	-13.0	22.1	128.8	Vertical	PASS

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



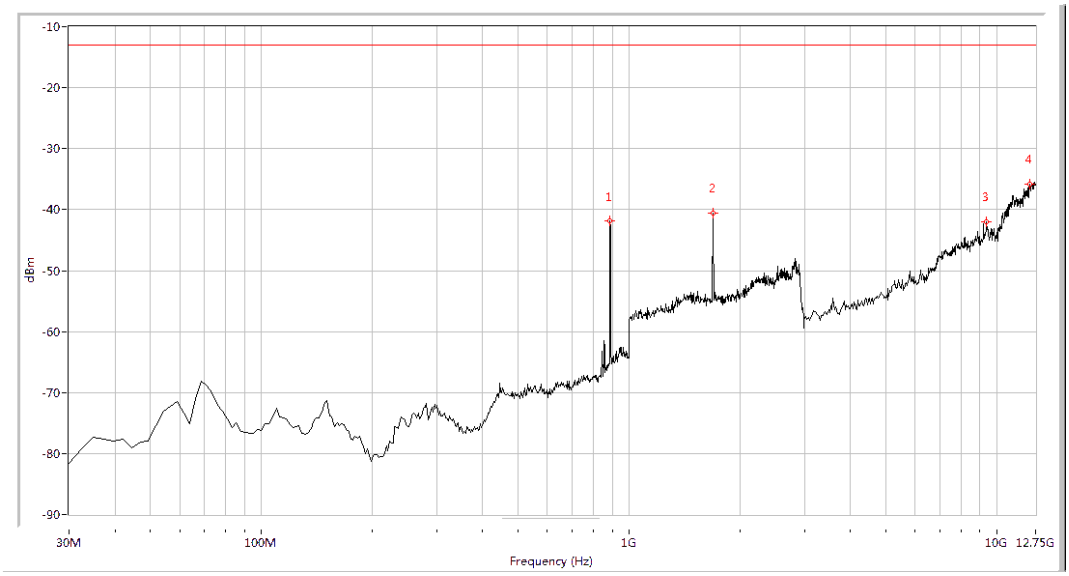
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
871.796	-40.93	-13.0	27.9	138.8	Horizontal	PASS
1653.367	-43.32	-13.0	30.3	51.1	Horizontal	PASS
2665.835	-49.45	-13.0	36.5	230.4	Horizontal	PASS
12506.858	-36.17	-13.0	23.2	4.3	Horizontal	PASS

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



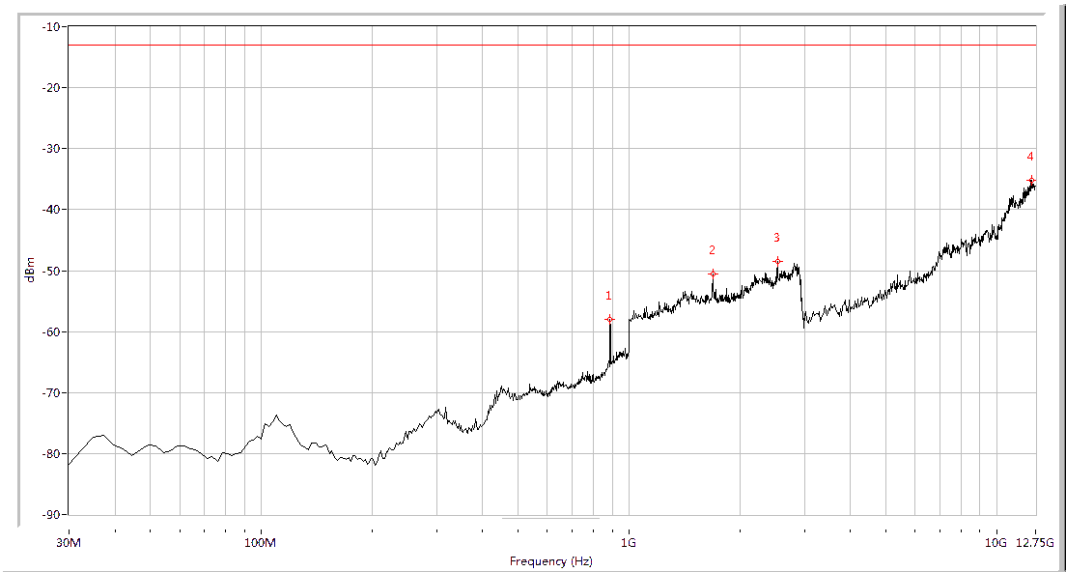
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
879.052	-57.17	-13.0	44.2	167.0	Vertical	PASS
2496.259	-48.96	-13.0	36.0	7.8	Vertical	PASS
5796.135	-49.12	-13.0	36.1	142.1	Vertical	PASS
11048.005	-37.23	-13.0	24.2	21.3	Vertical	PASS

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



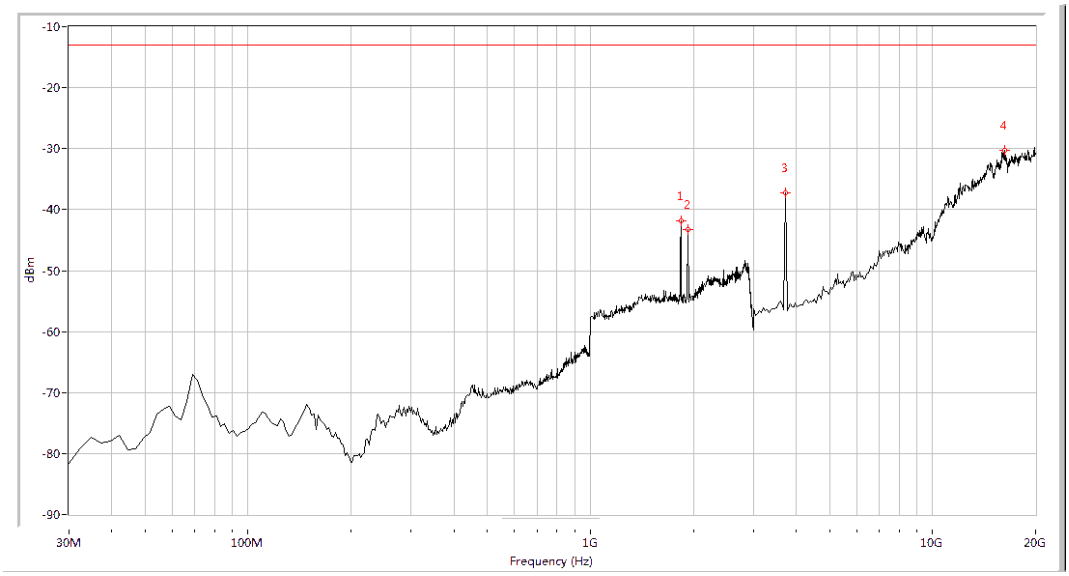
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
888.728	-41.85	-13.0	28.9	135.1	Horizontal	PASS
1688.279	-40.50	-13.0	27.5	28.8	Horizontal	PASS
9394.638	-42.04	-13.0	29.0	235.1	Horizontal	PASS
12263.716	-35.81	-13.0	22.8	64.0	Horizontal	PASS

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



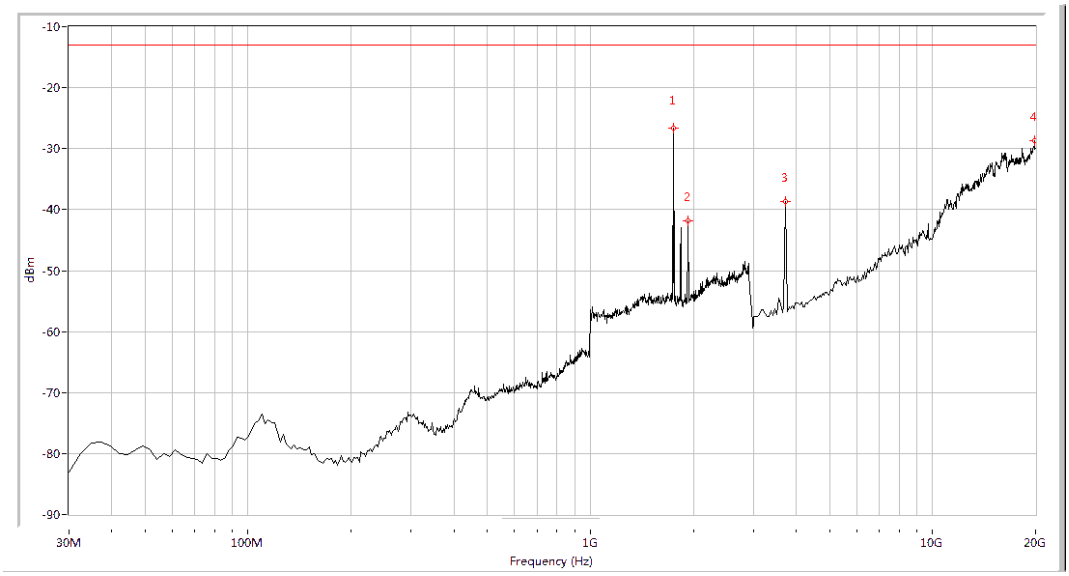
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
888.728	-58.02	-13.0	45.0	216.2	Vertical	PASS
1688.279	-50.55	-13.0	37.6	84.7	Vertical	PASS
2531.172	-48.57	-13.0	35.6	41.5	Vertical	PASS
12482.544	-35.19	-13.0	22.2	209.9	Vertical	PASS

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



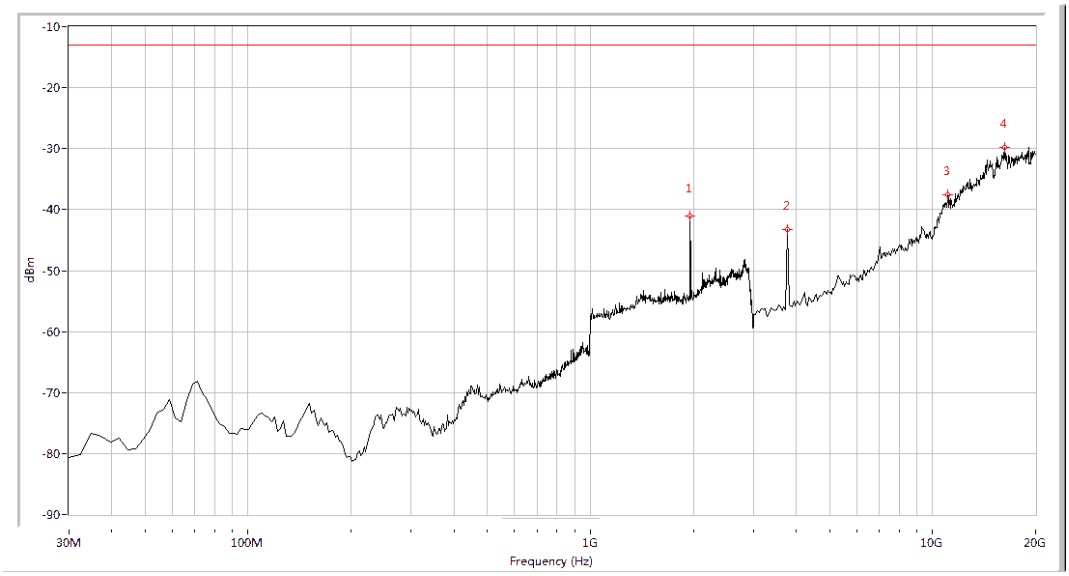
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1837.905	-41.89	-13.0	28.9	37.4	Horizontal	PASS
1927.681	-43.31	-13.0	30.3	143.1	Horizontal	PASS
3720.698	-37.27	-13.0	24.3	50.7	Horizontal	PASS
16269.327	-30.21	-13.0	17.2	337.8	Horizontal	PASS

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



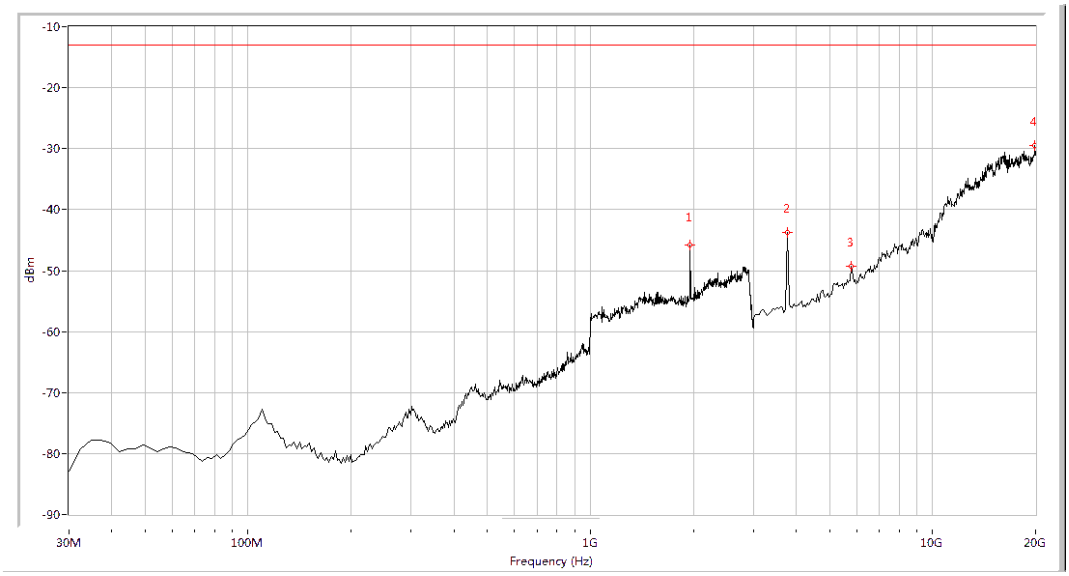
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1753.117	-26.59	-13.0	13.6	43.6	Vertical	PASS
1932.668	-41.77	-13.0	28.8	244.8	Vertical	PASS
3720.698	-38.66	-13.0	25.7	236.4	Vertical	PASS
19872.818	-28.64	-13.0	15.6	24.4	Vertical	PASS

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



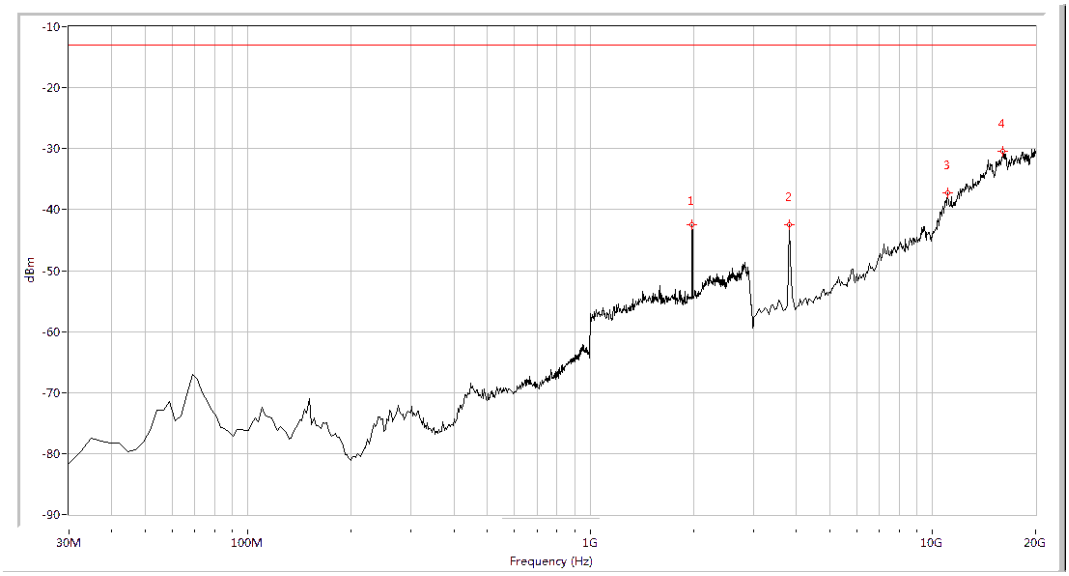
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-41.02	-13.0	28.0	313.8	Horizontal	PASS
3763.092	-43.34	-13.0	30.3	47.7	Horizontal	PASS
11097.257	-37.56	-13.0	24.6	23.1	Horizontal	PASS
16226.933	-29.82	-13.0	16.8	81.1	Horizontal	PASS

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



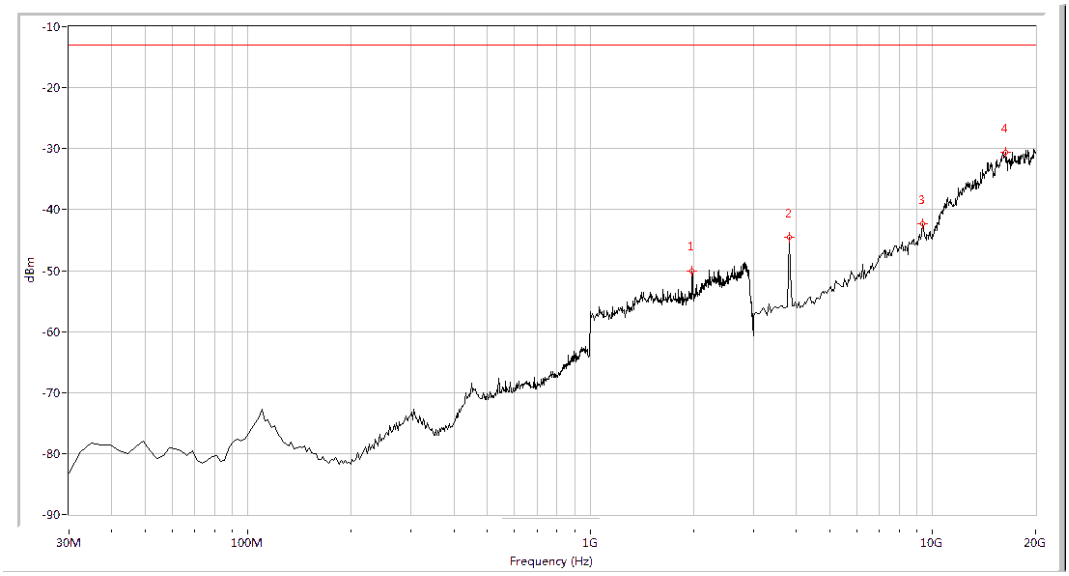
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1957.606	-45.75	-13.0	32.8	202.8	Vertical	PASS
3763.092	-43.77	-13.0	30.8	233.1	Vertical	PASS
5798.005	-49.28	-13.0	36.3	251.0	Vertical	PASS
19915.212	-29.49	-13.0	16.5	224.2	Vertical	PASS

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



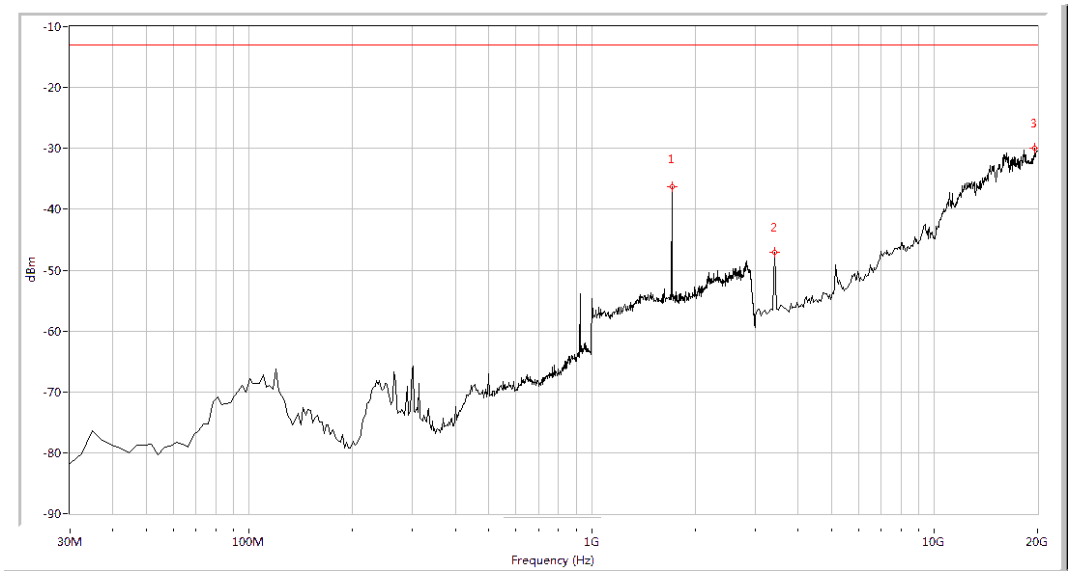
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1982.544	-42.46	-13.0	29.5	313.8	Horizontal	PASS
3805.486	-42.42	-13.0	29.4	48.8	Horizontal	PASS
11054.863	-37.26	-13.0	24.3	98.2	Horizontal	PASS
16057.357	-30.44	-13.0	17.4	3.7	Horizontal	PASS

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



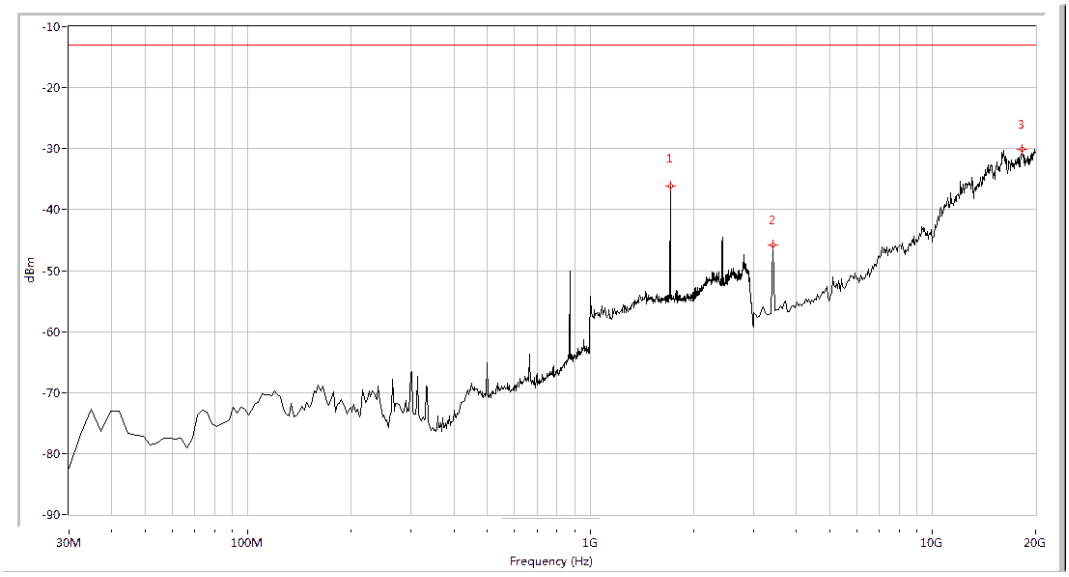
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1982.544	-50.04	-13.0	37.0	238.8	Vertical	PASS
3805.486	-44.58	-13.0	31.6	230.5	Vertical	PASS
9359.102	-42.38	-13.0	29.4	307.1	Vertical	PASS
16396.509	-30.62	-13.0	17.6	333.9	Vertical	PASS

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



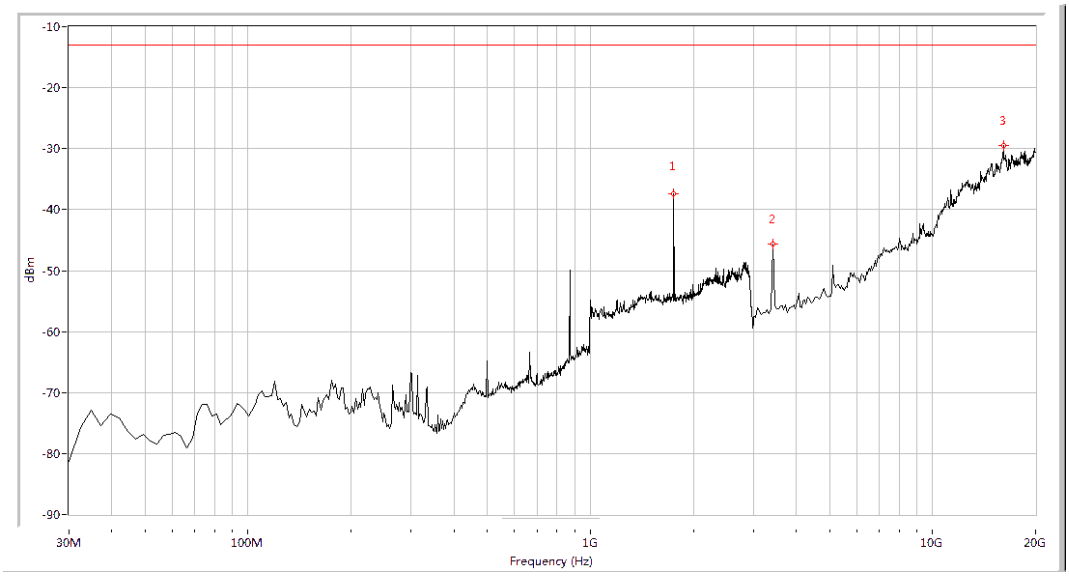
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-36.30	-13.0	23.3	0.0	Horizontal	PASS
3423.940	-47.12	-13.0	34.1	0.0	Horizontal	PASS
19660.848	-30.02	-13.0	17.0	0.0	Horizontal	PASS

(Plot K.1: WCDMA 1700MHz Channel = 1312, Test Antenna Horizontal)



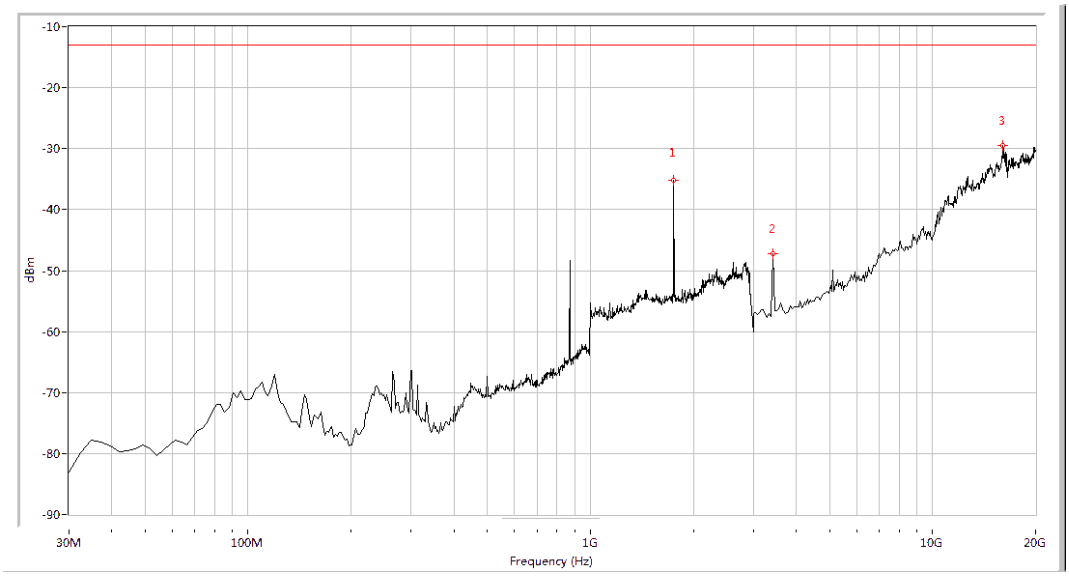
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-36.21	-13.0	23.2	0.0	Vertical	PASS
3423.940	-45.75	-13.0	32.7	0.0	Vertical	PASS
18304.239	-30.19	-13.0	17.2	0.0	Vertical	PASS

(Plot K.2: WCDMA 1700MHz Channel = 1312, Test Antenna Vertical)



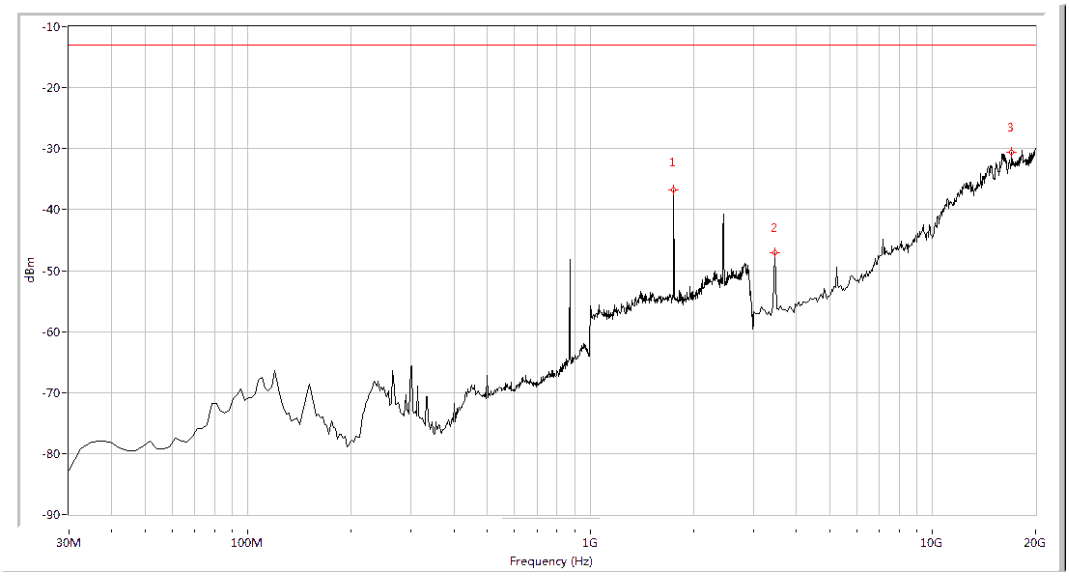
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1733.117	-37.44	-13.0	24.4	0.0	Horizontal	PASS
3463.940	-45.65	-13.0	32.6	0.0	Horizontal	PASS
16099.751	-29.52	-13.0	16.5	0.0	Horizontal	PASS

(Plot K.3: WCDMA 1700MHz Channel = 1412, Test Antenna Horizontal)



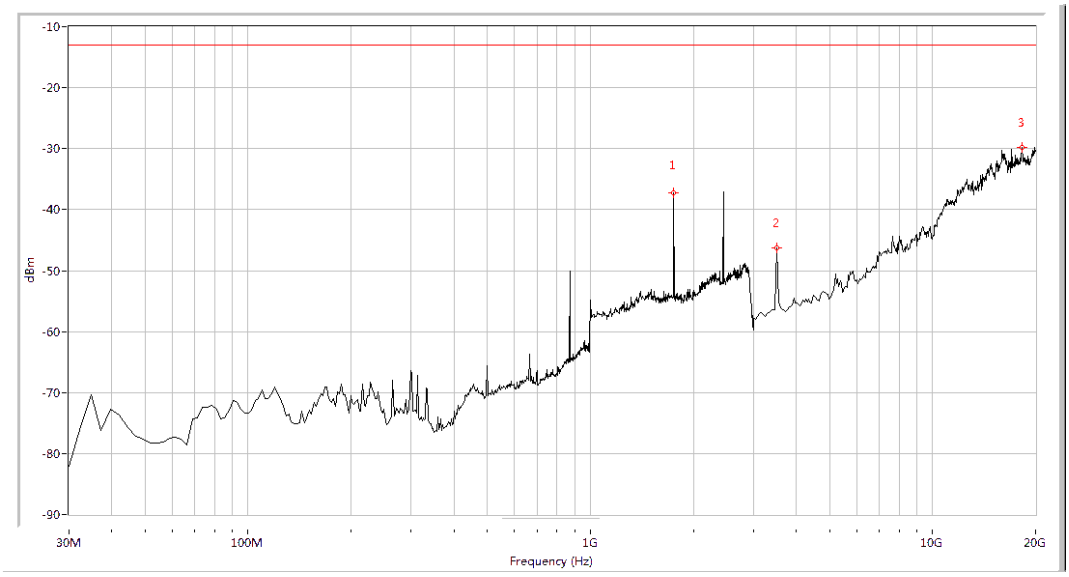
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1733.117	-35.18	-13.0	22.2	0.0	Vertical	PASS
3463.940	-47.29	-13.0	34.3	0.0	Vertical	PASS
16057.357	-29.49	-13.0	16.5	0.0	Vertical	PASS

(Plot K.4: WCDMA 1700MHz Channel = 1412, Test Antenna Vertical)



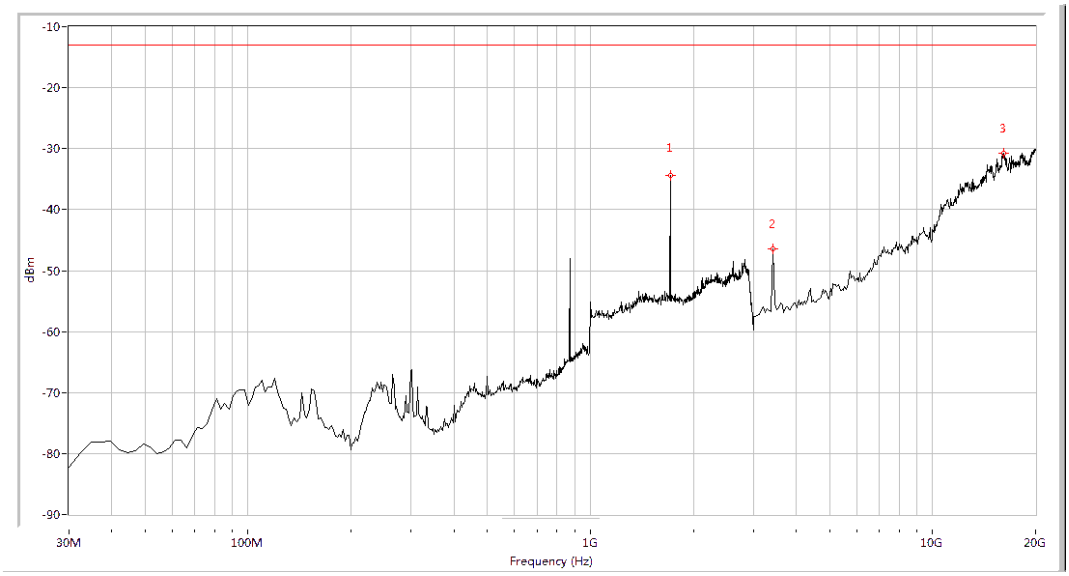
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1753.117	-36.72	-13.0	23.7	0.0	Horizontal	PASS
3466.334	-47.05	-13.0	34.1	0.0	Horizontal	PASS
17032.419	-30.56	-13.0	17.6	0.0	Horizontal	PASS

(Plot K.5: WCDMA 1700MHz Channel = 1513, Test Antenna Horizontal)



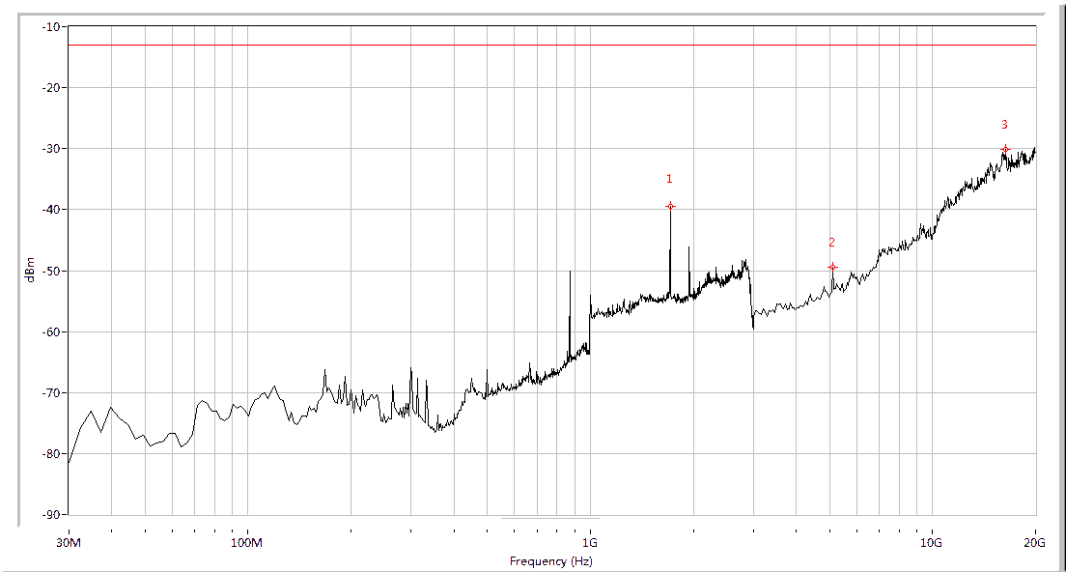
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1753.117	-37.30	-13.0	24.3	0.0	Vertical	PASS
3508.728	-46.29	-13.0	33.3	0.0	Vertical	PASS
18219.451	-29.88	-13.0	16.9	0.0	Vertical	PASS

(Plot K.6: WCDMA 1700MHz Channel = 1513, Test Antenna Vertical)



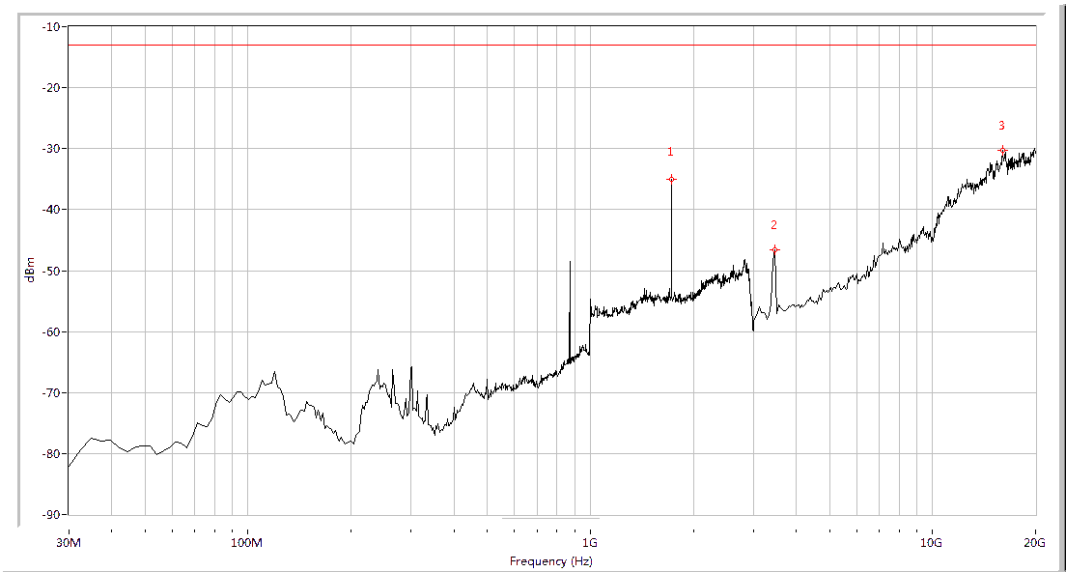
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-34.43	-13.0	21.4	0.0	Horizontal	PASS
3423.940	-46.45	-13.0	33.5	0.0	Horizontal	PASS
16099.751	-30.75	-13.0	17.8	0.0	Horizontal	PASS

(Plot L.1: HSDPA 1700MHz Channel = 1312, Test Antenna Horizontal)



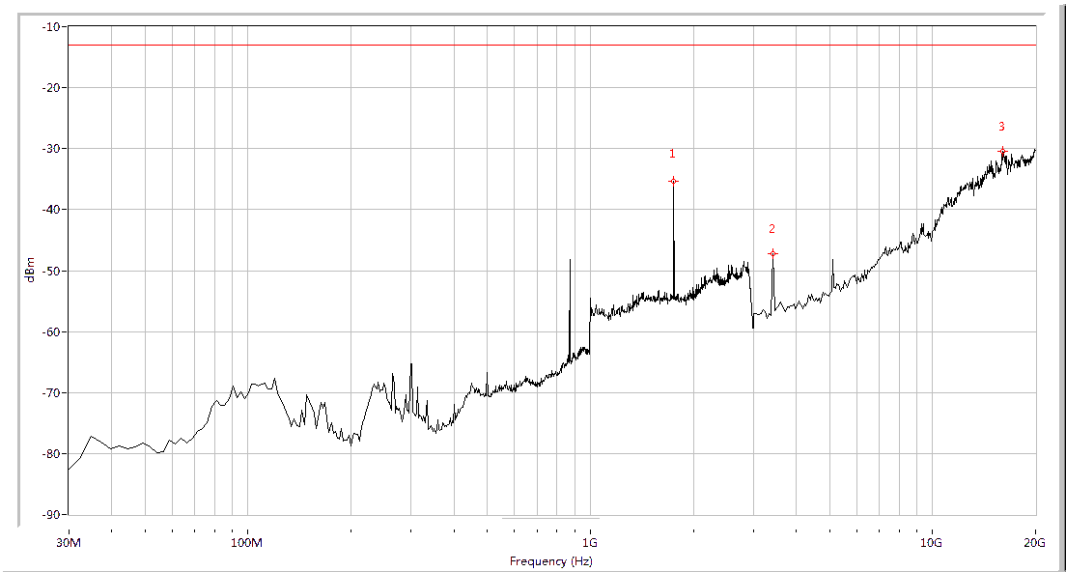
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-39.45	-13.0	26.4	0.0	Vertical	PASS
5119.701	-49.42	-13.0	36.4	0.0	Vertical	PASS
16396.509	-30.17	-13.0	17.2	0.0	Vertical	PASS

(Plot L.2: HSDPA 1700MHz Channel = 1312, Test Antenna Vertical)



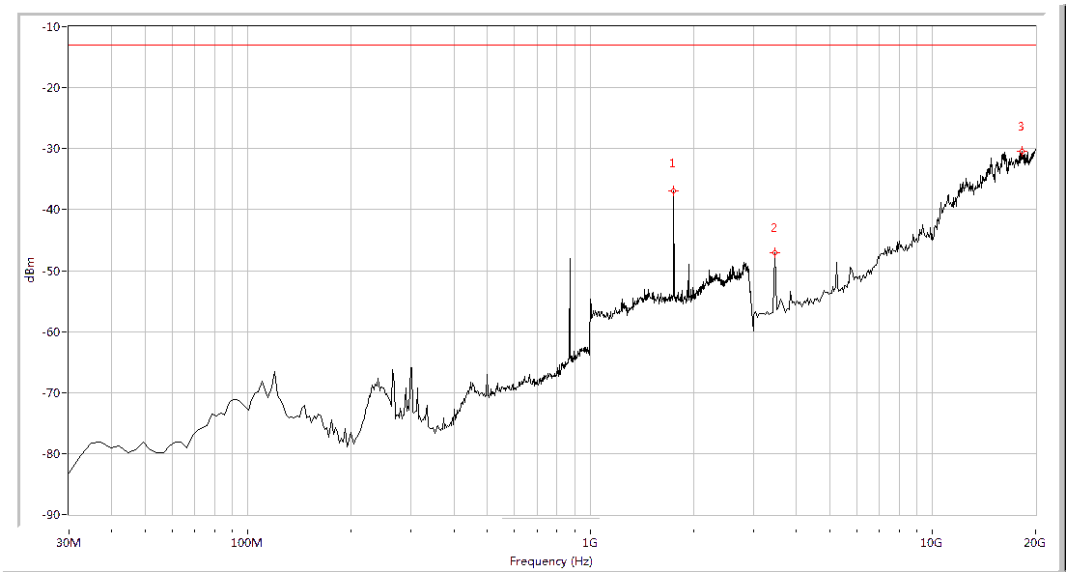
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1728.180	-35.08	-13.0	22.1	0.0	Horizontal	PASS
3466.334	-46.56	-13.0	33.6	0.0	Horizontal	PASS
16014.963	-30.26	-13.0	17.3	0.0	Horizontal	PASS

(Plot L.3: HSDPA 1700MHz Channel = 1412, Test Antenna Horizontal)



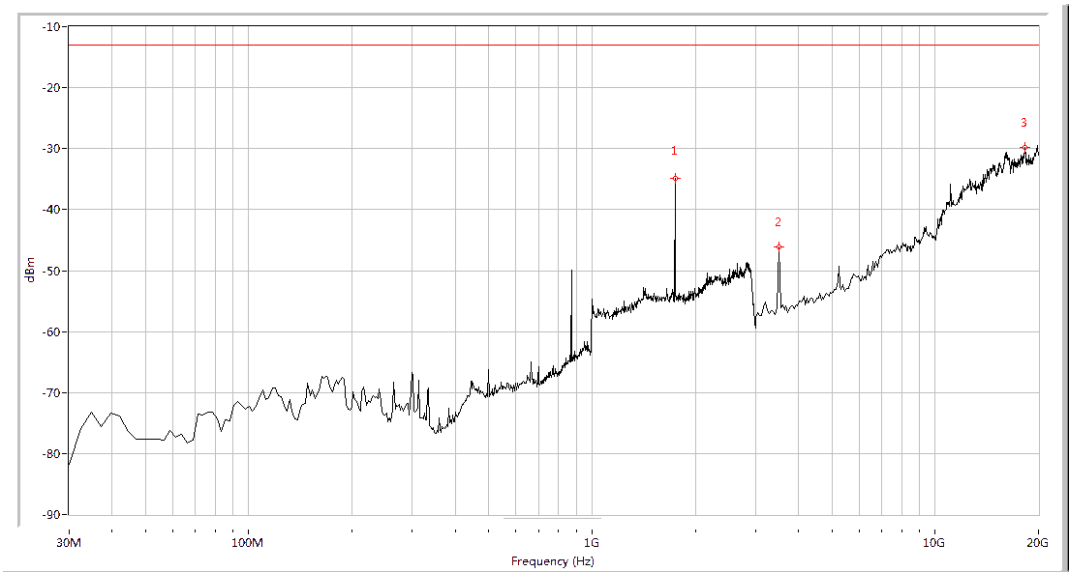
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1733.117	-35.34	-13.0	22.3	0.0	Vertical	PASS
3463.940	-47.26	-13.0	34.3	0.0	Vertical	PASS
16014.963	-30.47	-13.0	17.5	0.0	Vertical	PASS

(Plot L.4: HSDPA 1700MHz Channel = 1412, Test Antenna Vertical)



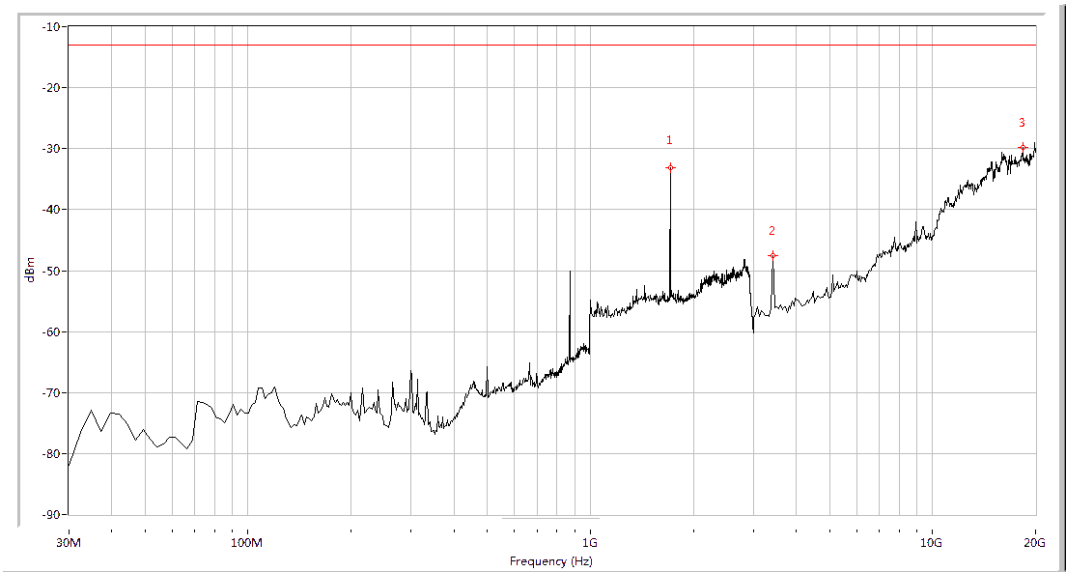
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1753.117	-36.96	-13.0	24.0	0.0	Horizontal	PASS
3466.334	-47.02	-13.0	34.0	0.0	Horizontal	PASS
18219.451	-30.42	-13.0	17.4	0.0	Horizontal	PASS

(Plot L.5: HSDPA 1700MHz Channel = 1513, Test Antenna Horizontal)



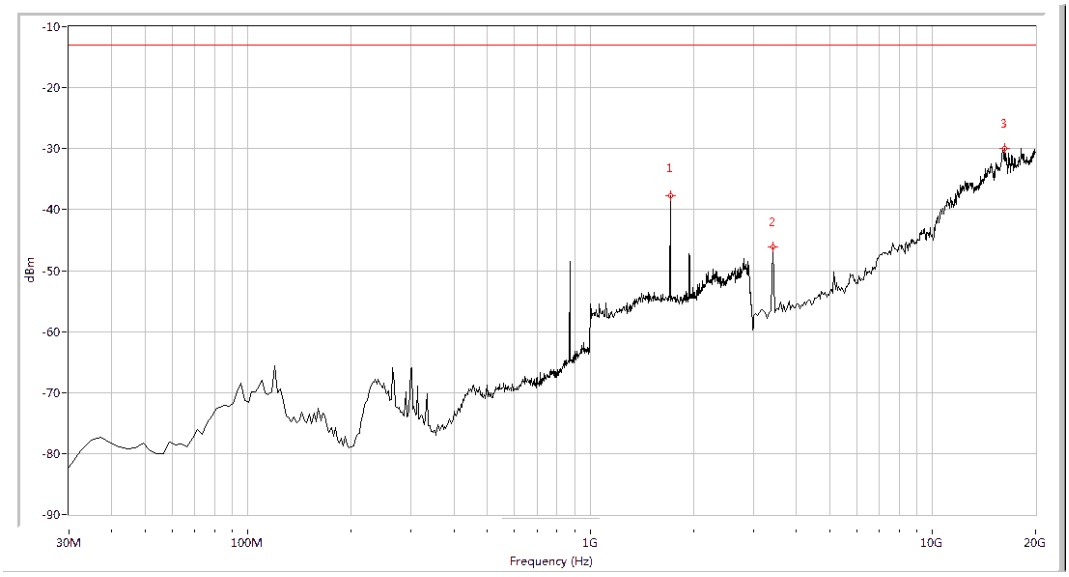
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1748.130	-34.83	-13.0	21.8	0.0	Vertical	PASS
3508.728	-46.14	-13.0	33.1	0.0	Vertical	PASS
18304.239	-29.88	-13.0	16.9	0.0	Vertical	PASS

(Plot L.6: HSDPA 1700MHz Channel = 1513, Test Antenna Vertical)



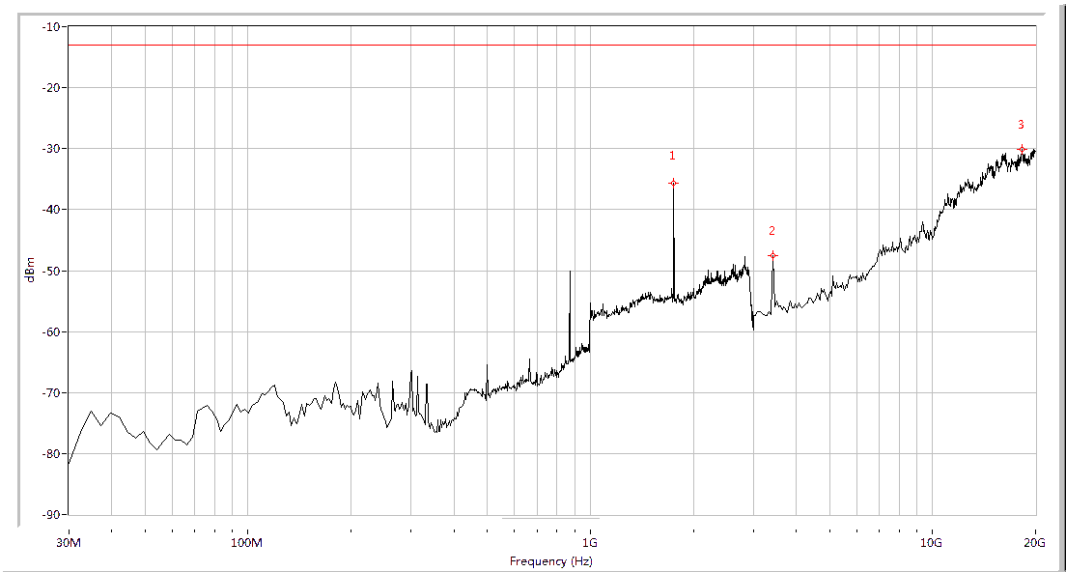
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-33.12	-13.0	20.1	0.0	Horizontal	PASS
3423.940	-47.60	-13.0	34.6	0.0	Horizontal	PASS
18389.027	-29.82	-13.0	16.8	0.0	Horizontal	PASS

(Plot M.1: HSUPA 1700MHz Channel = 1312, Test Antenna Horizontal)



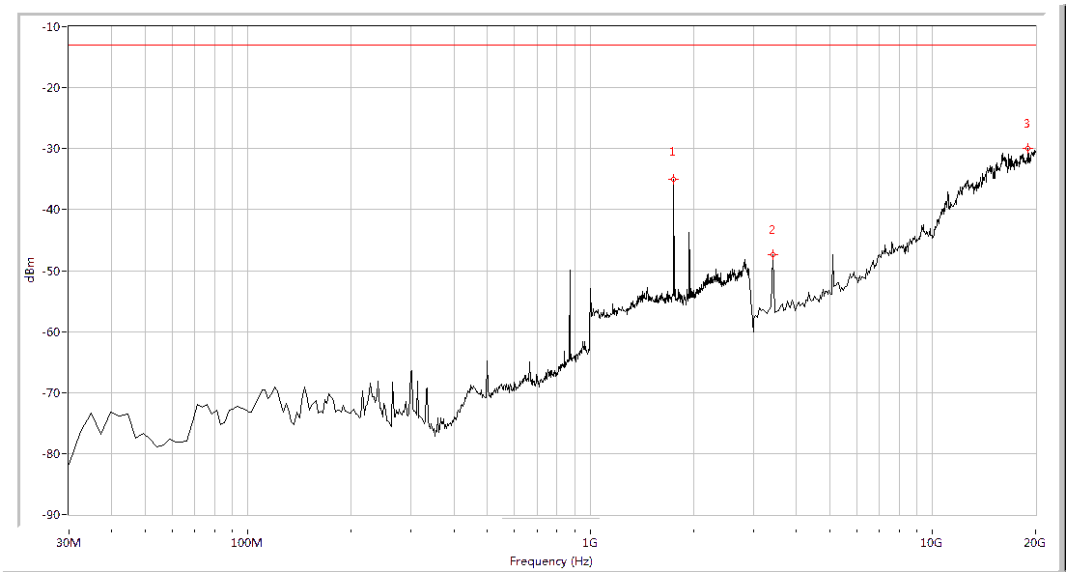
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1713.217	-37.66	-13.0	24.7	0.0	Vertical	PASS
3423.940	-46.16	-13.0	33.2	0.0	Vertical	PASS
16226.933	-29.88	-13.0	16.9	0.0	Vertical	PASS

(Plot M.2: HSUPA 1700MHz Channel = 1312, Test Antenna Vertical)



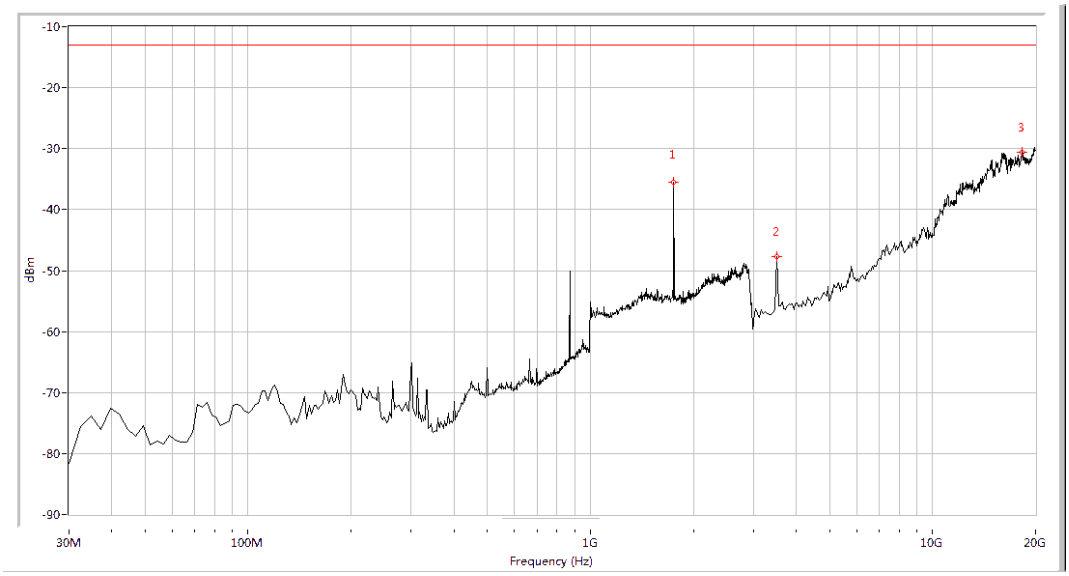
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1733.117	-35.70	-13.0	22.7	0.0	Horizontal	PASS
3463.940	-47.51	-13.0	34.5	0.0	Horizontal	PASS
18304.239	-30.10	-13.0	17.1	0.0	Horizontal	PASS

(Plot M.3: HSUPA 1700MHz Channel = 1412, Test Antenna Horizontal)



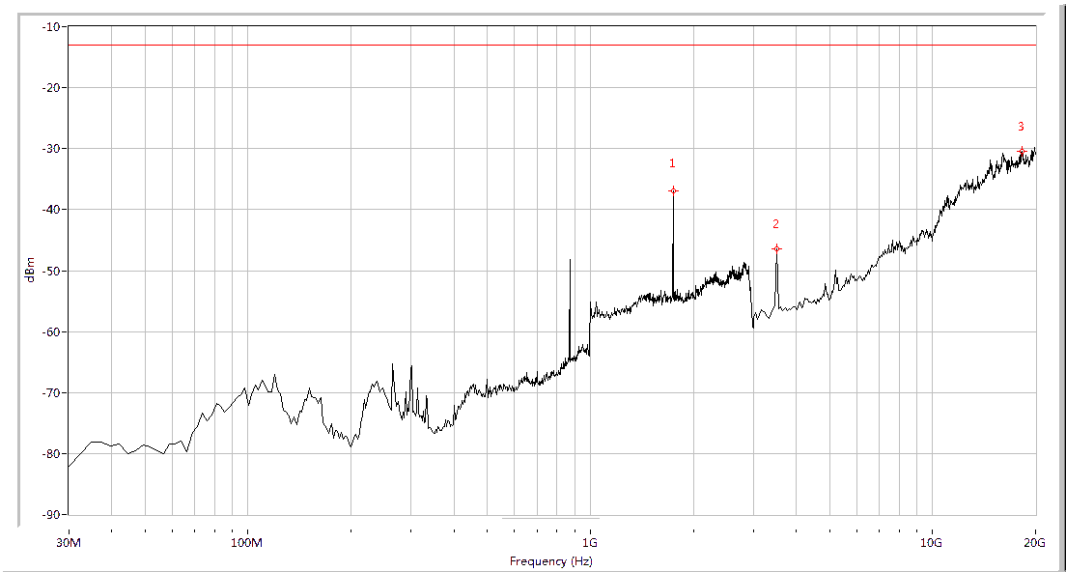
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1733.117	-34.97	-13.0	22.0	0.0	Vertical	PASS
3463.940	-47.32	-13.0	34.3	0.0	Vertical	PASS
19024.938	-29.98	-13.0	17.0	0.0	Vertical	PASS

(Plot M.4: HSUPA 1700MHz Channel = 1412, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1753.117	-35.58	-13.0	22.6	0.0	Horizontal	PASS
3508.728	-47.69	-13.0	34.7	0.0	Horizontal	PASS
18219.451	-30.57	-13.0	17.6	0.0	Horizontal	PASS

(Plot M.5: HSUPA 1700MHz Channel = 1513, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
1748.130	-36.87	-13.0	23.9	0.0	Vertical	PASS
3508.728	-46.44	-13.0	33.4	0.0	Vertical	PASS
18304.239	-30.42	-13.0	17.4	0.0	Vertical	PASS

(Plot M.6: HSUPA 1700MHz Channel = 1513, Test Antenna Vertical)

** END OF REPORT **