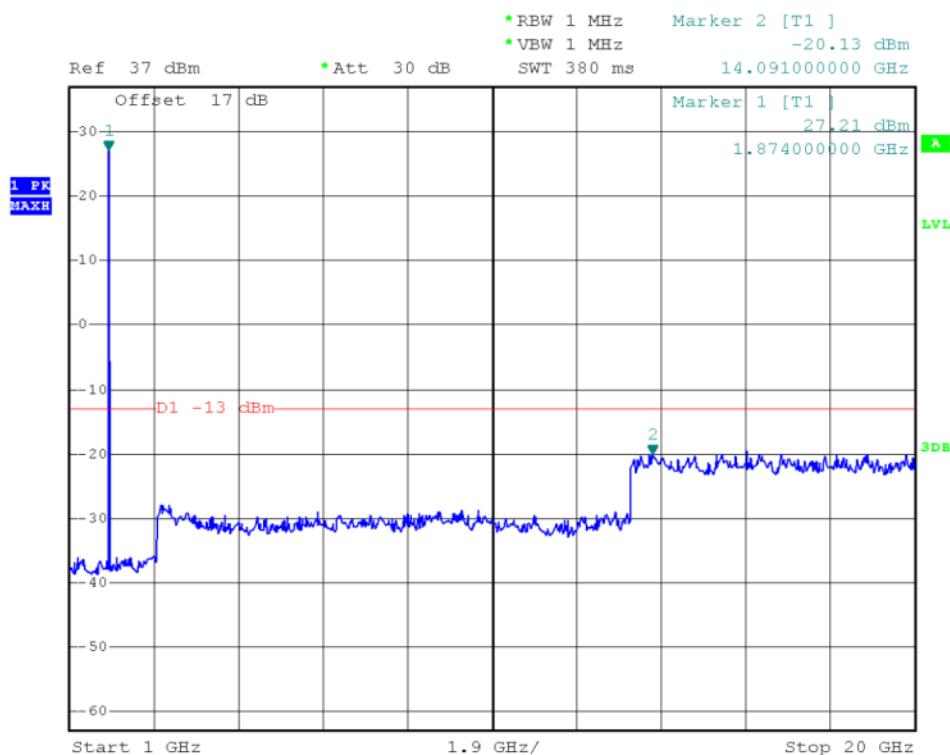
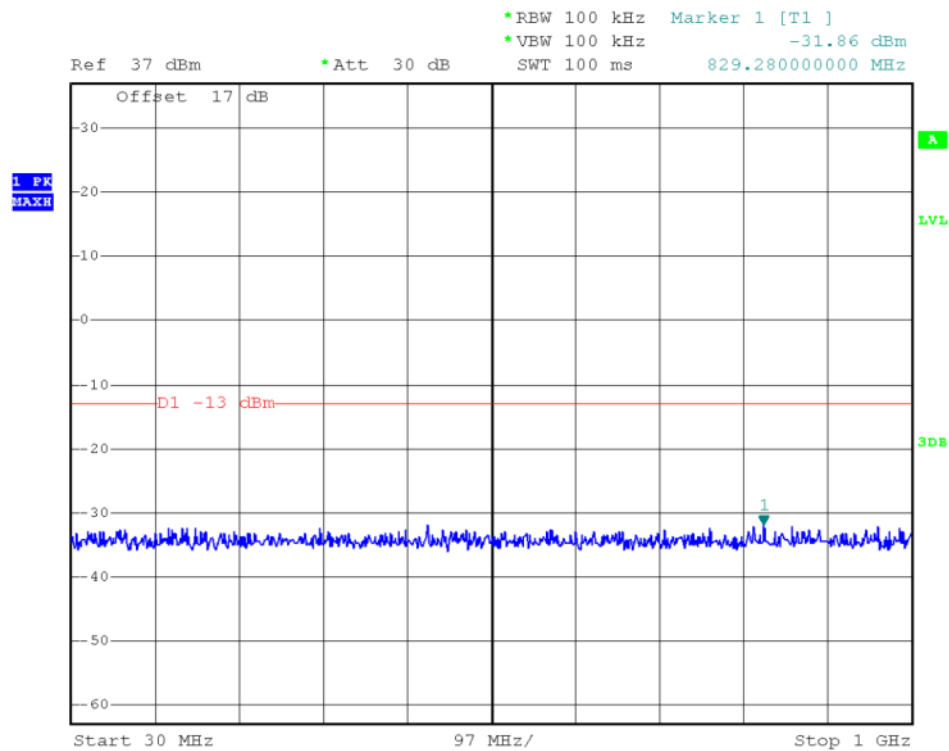


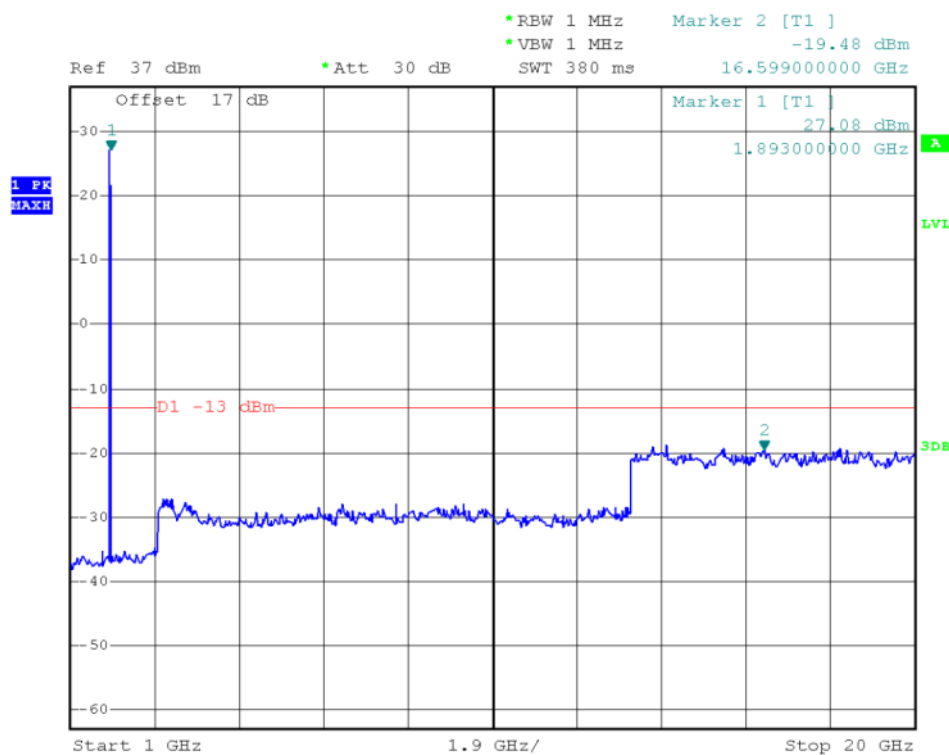
(Plot D2: EDGE 1900MHz Channel = 661, 30MHz to 1GHz)



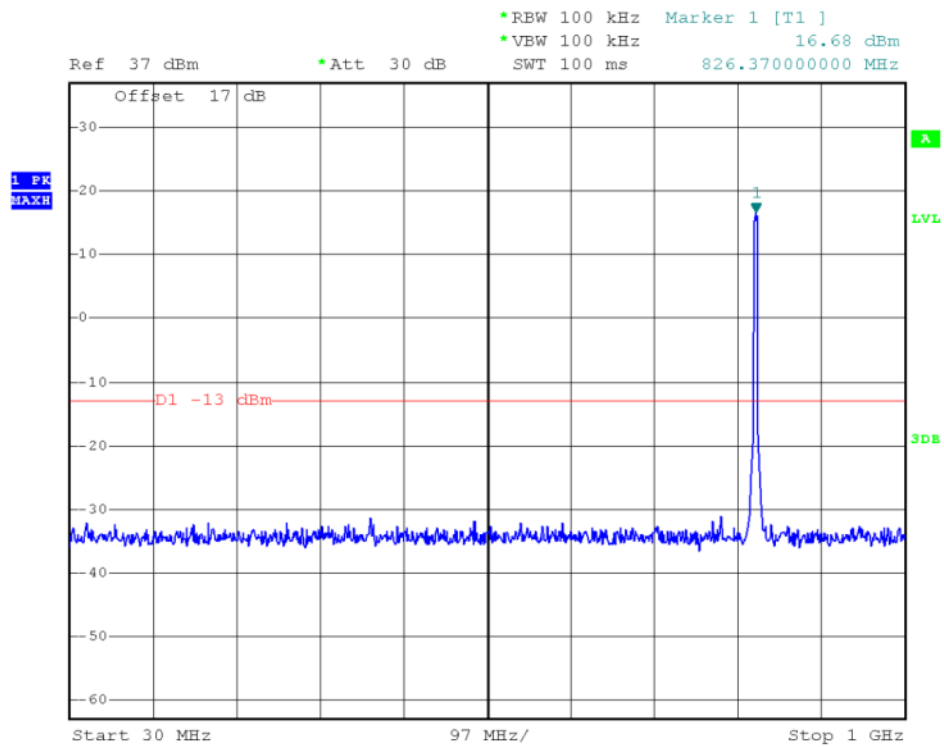
(Plot D2.1: EDGE 1900MHz Channel = 661, 1GHz to 20GHz)



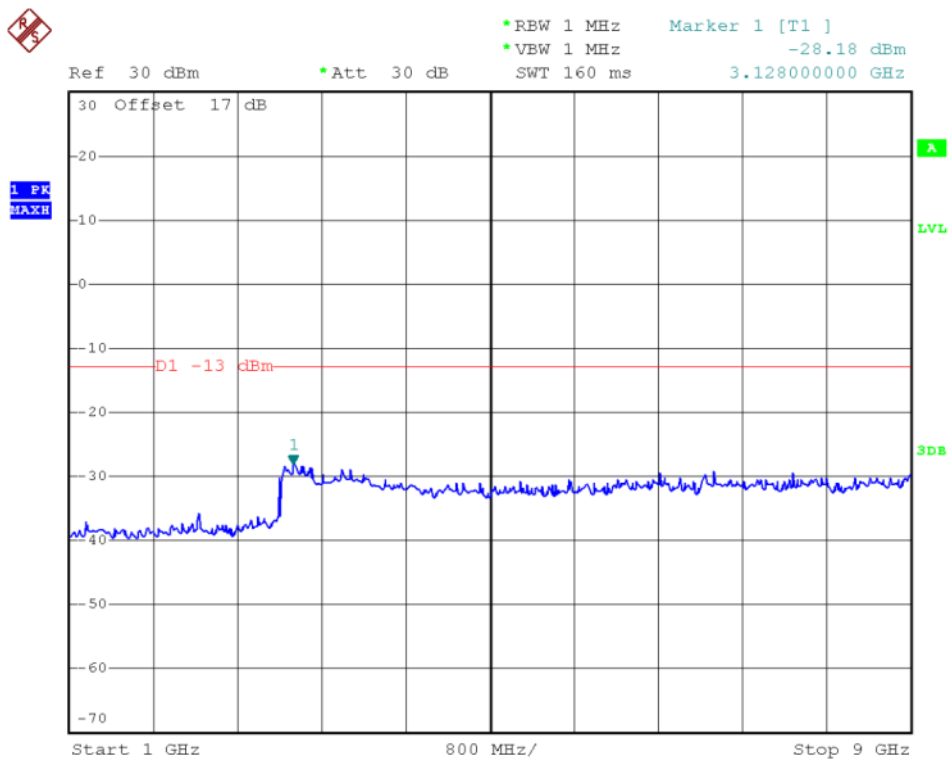
(Plot D3: EDGE 1900MHz Channel = 810, 30MHz to 1GHz)



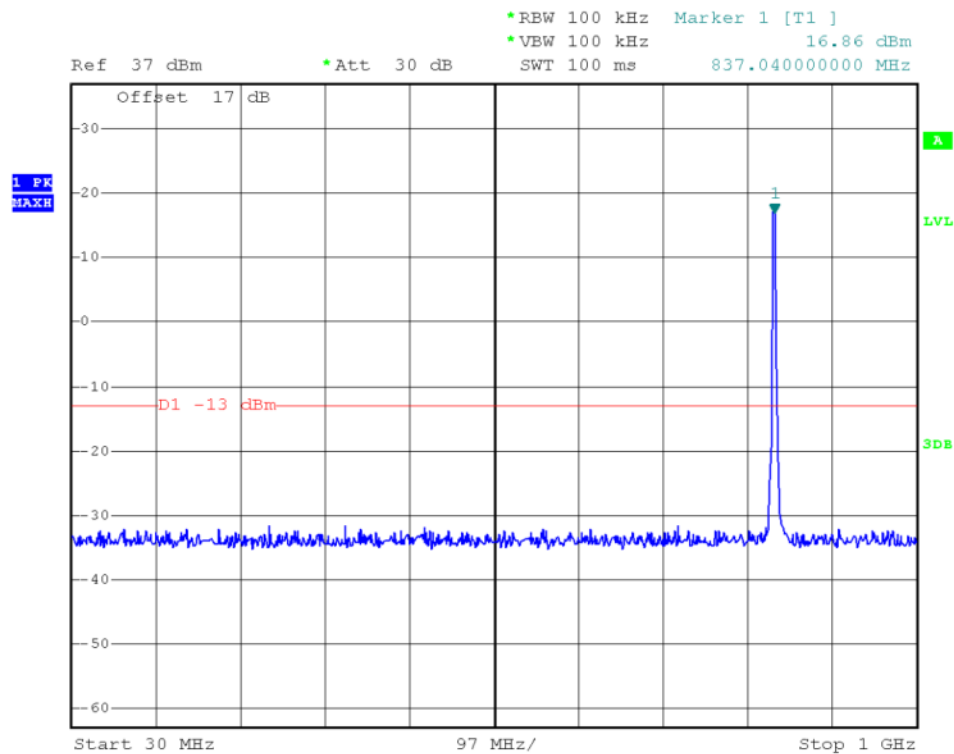
(Plot D3.1: EDGE 1900MHz Channel = 810, 1GHz to 20GHz)



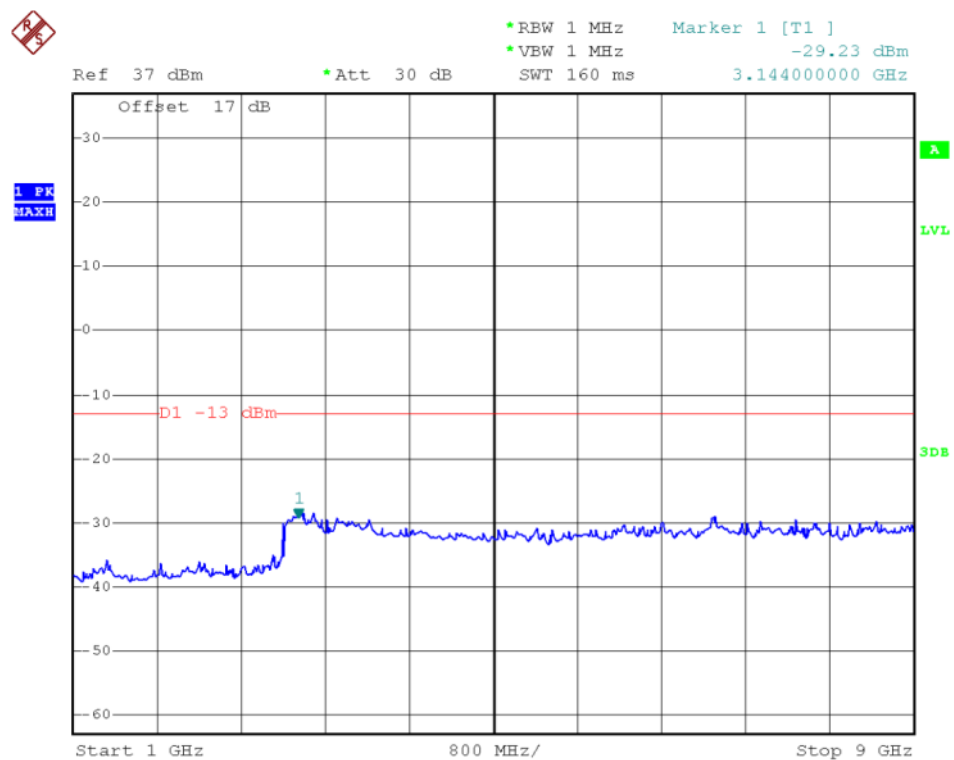
(Plot E1: WCDMA850MHz Channel = 4132, 30MHz to 1GHz)



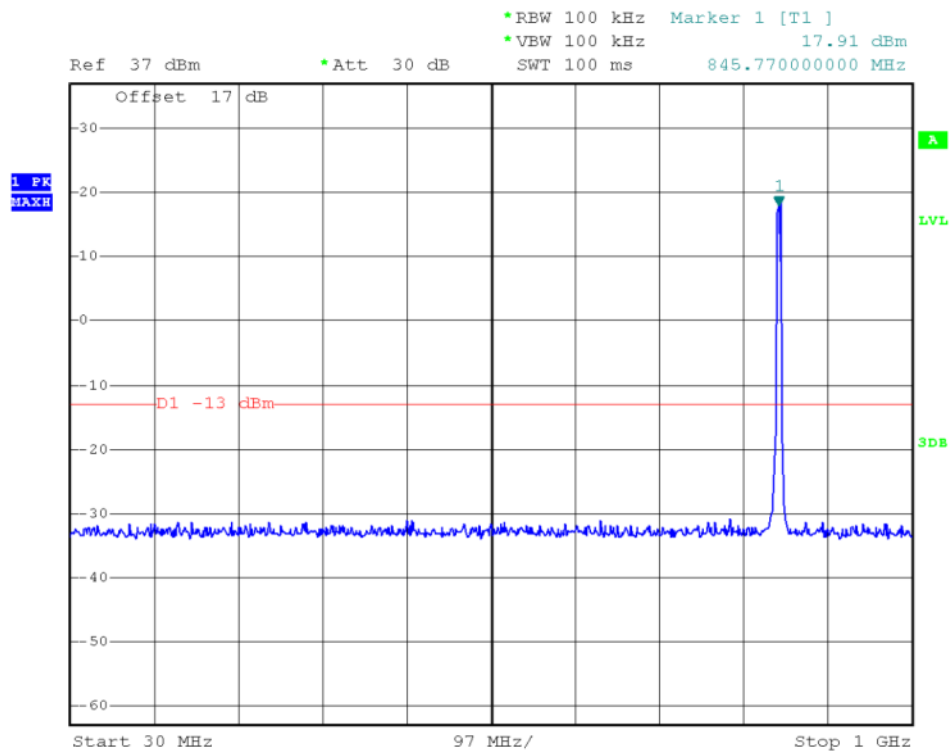
(Plot E1.1: WCDMA850MHz Channel = 4132, 1GHz to 9GHz)



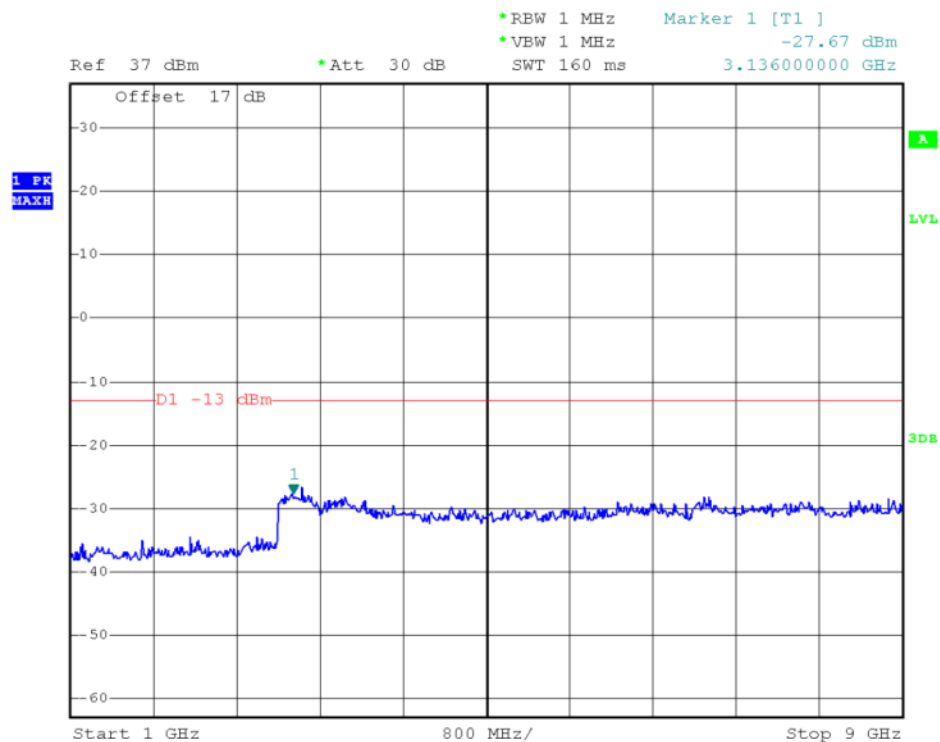
(Plot E2: WCDMA850MHz Channel = 4183, 30MHz to 1GHz)



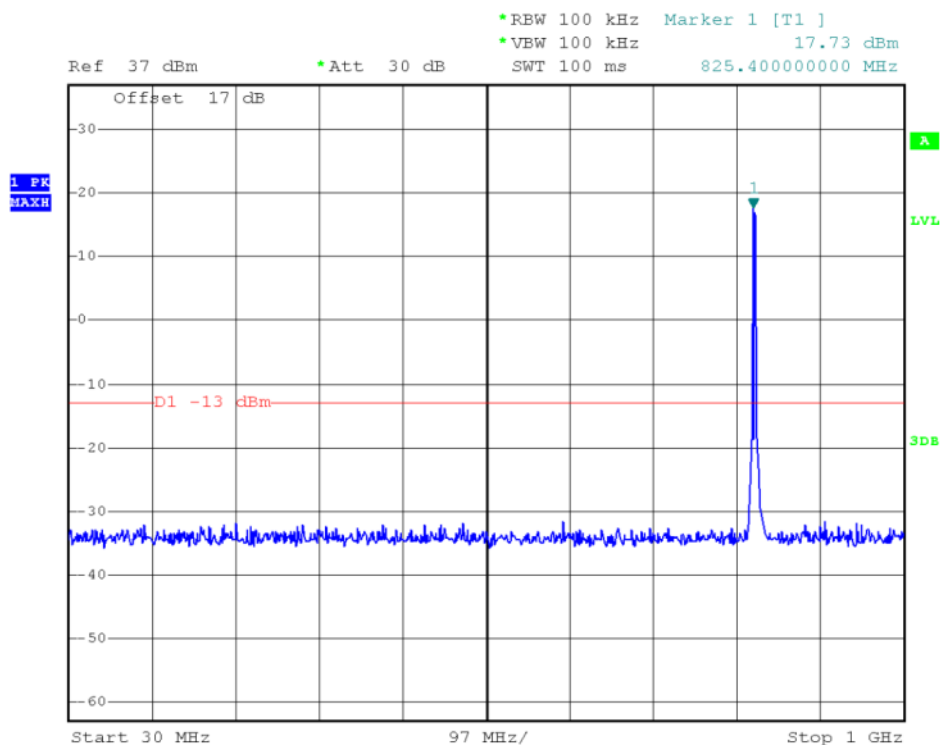
(Plot E2.1: WCDMA850MHz Channel = 4183, 1GHz to 9GHz)



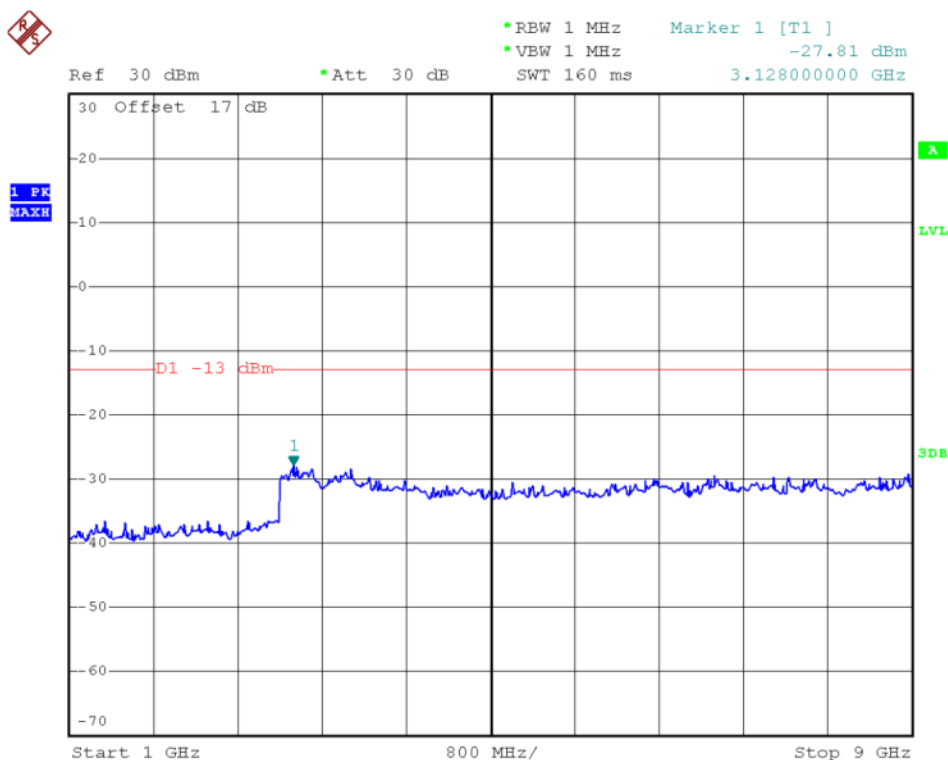
(Plot E3: WCDMA850MHz Channel = 4233, 30MHz to 1GHz)



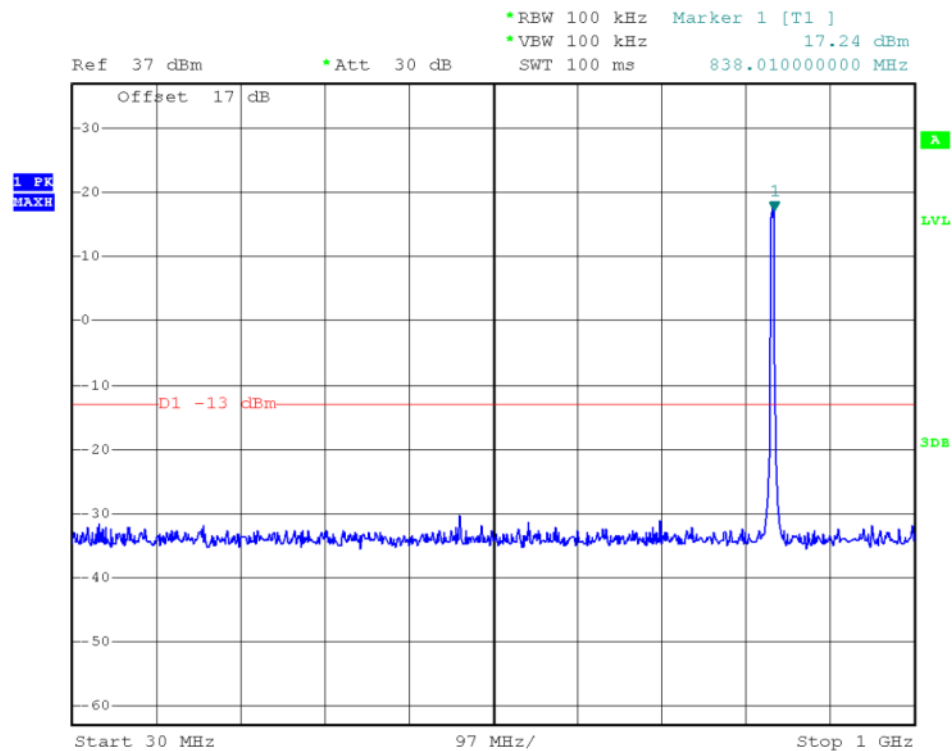
(Plot E3.1: WCDMA850MHz Channel = 4233, 1GHz to 9GHz)



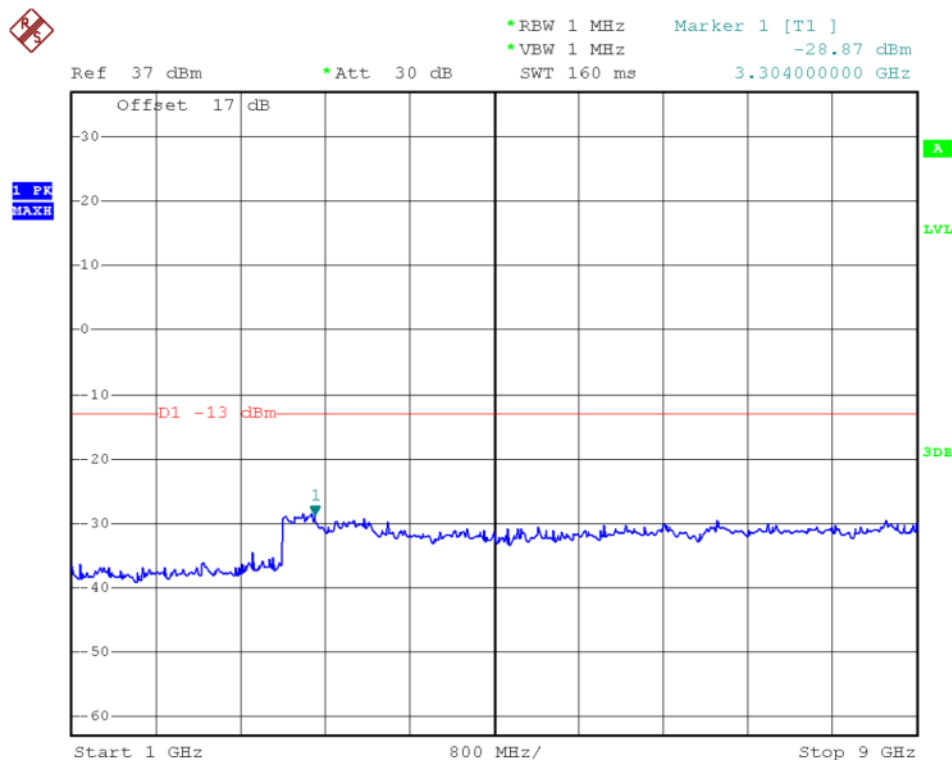
(Plot F1: HSDPA 850MHz Channel = 4132, 30MHz to 1GHz)



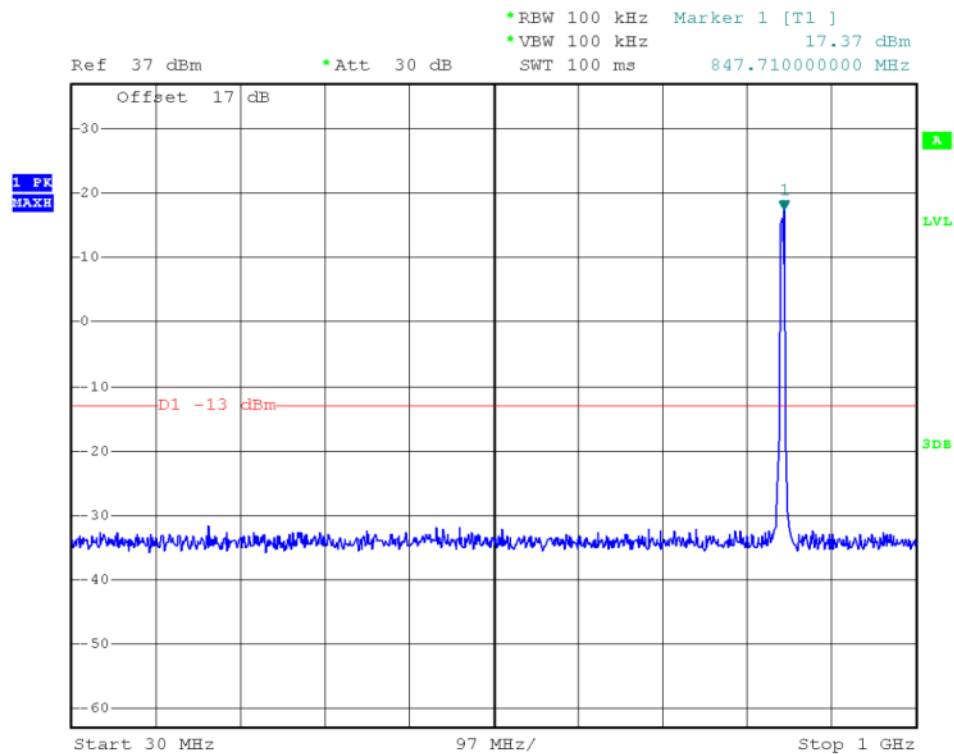
(Plot F1.1: HSDPA 850MHz Channel = 4132, 1GHz to 9GHz)



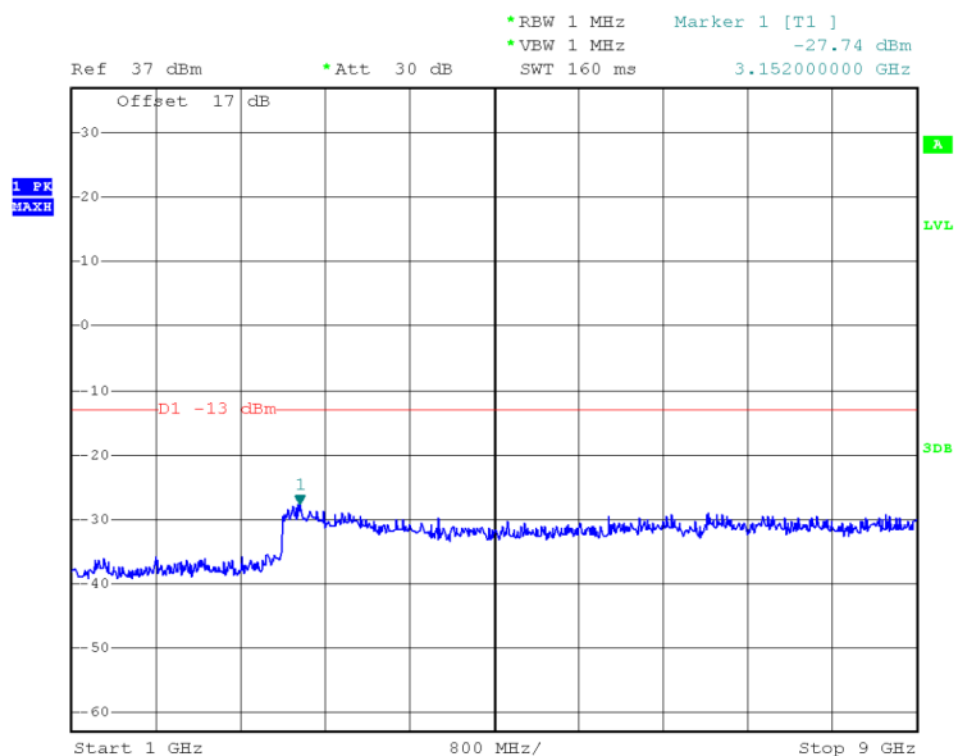
(Plot F2: HSDPA 850MHz Channel = 4183, 30MHz to 1GHz)



(Plot F2.1: HSDPA 850MHz Channel = 4183, 1GHz to 9GHz)



(Plot F3: HSDPA850MHz Channel = 4233, 30MHz to 1GHz)



(Plot F3.1: HSDPA850MHz Channel = 4233, 1GHz to 9GHz)

2.6 Band Edge

2.6.1 Requirement

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

2.6.2 Test Description

See section 2.1.2 of this report.

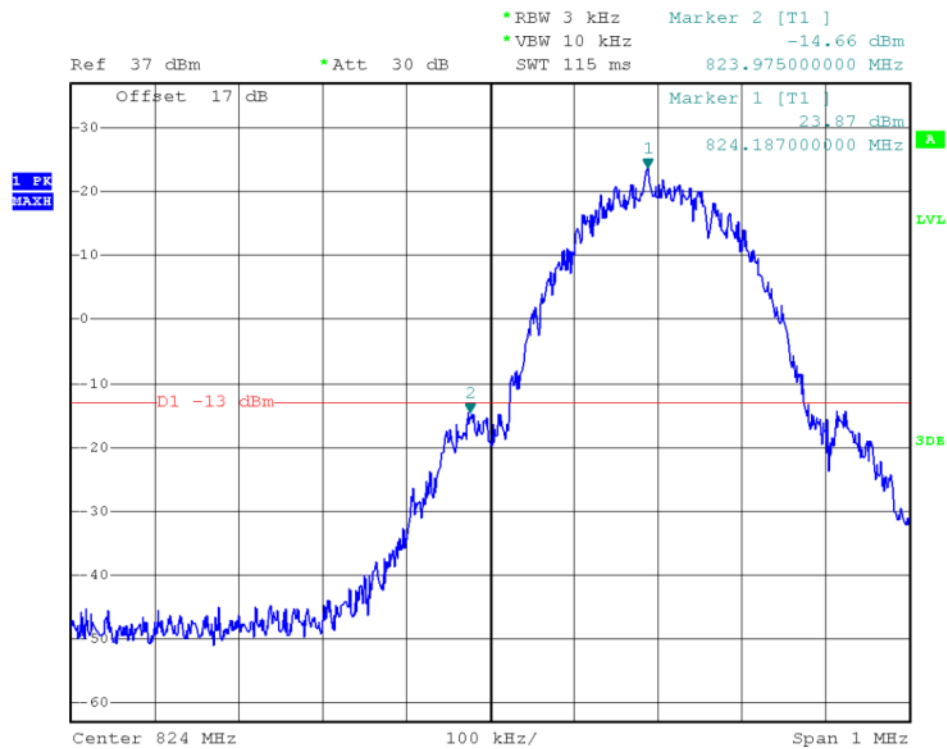
2.6.3 Test Result

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

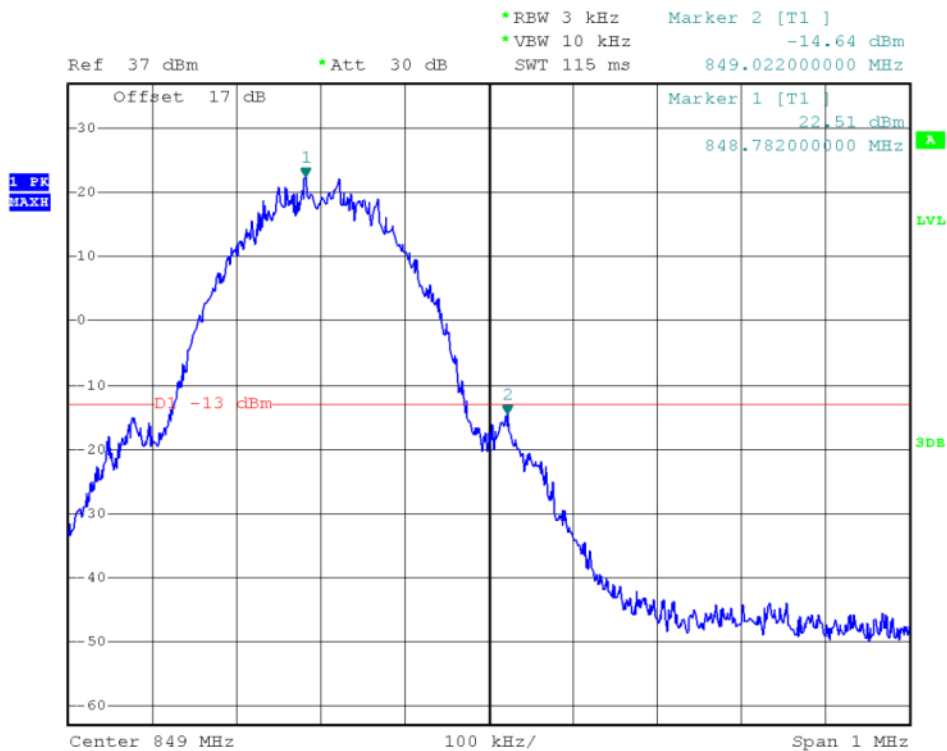
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Band Edge Emission (dBm)	Refer to Plot	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-14.66	Plat A	-13	PASS
	251	848.8	-14.64	Plot B		PASS
GSM 1900MHz	512	1850.2	-14.16	Plat C	-13	PASS
	810	1909.8	-15.26	Plot D		PASS
EDGE 850MHz	128	824.2	-15.56	Plat E	-13	PASS
	251	848.8	-15.46	Plot F		PASS
EDGE 1900MHz	512	1850.2	-18.10	Plat G	-13	PASS
	810	1909.8	-16.77	Plot H		PASS
WCDMA 850MHz	4132	826.4	-15.25	Plat I	-13	PASS
	4233	846.6	-16.30	Plot J		PASS
HSDPA 850MHz	4132	826.4	-15.53	Plat K	-13	PASS
	4233	846.6	-17.57	Plot L		PASS

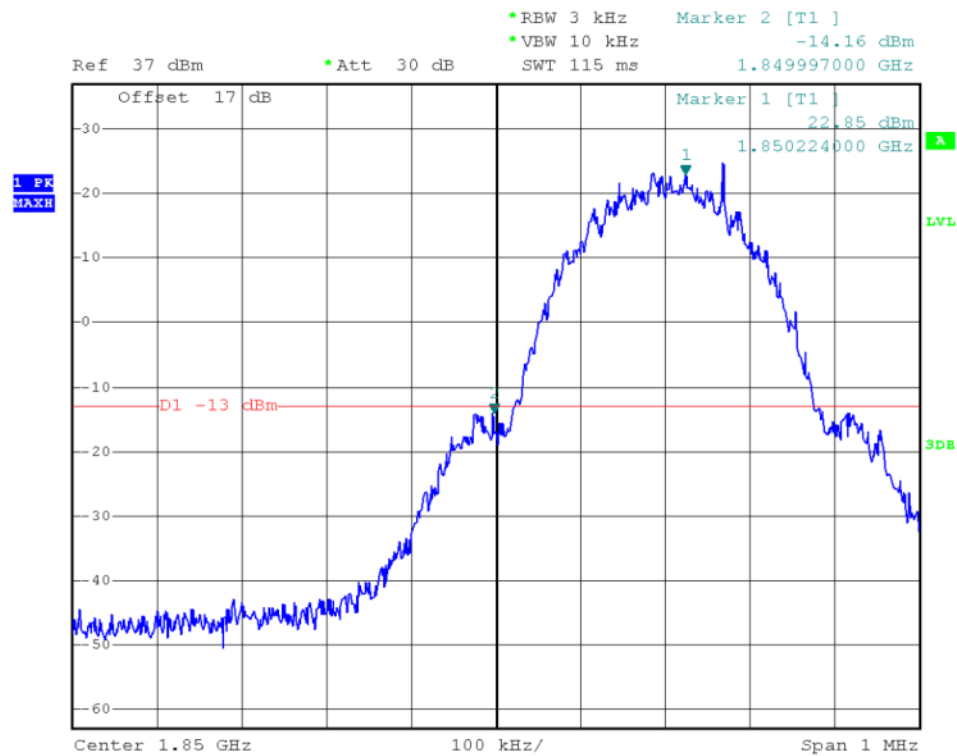
2. Test Plots:



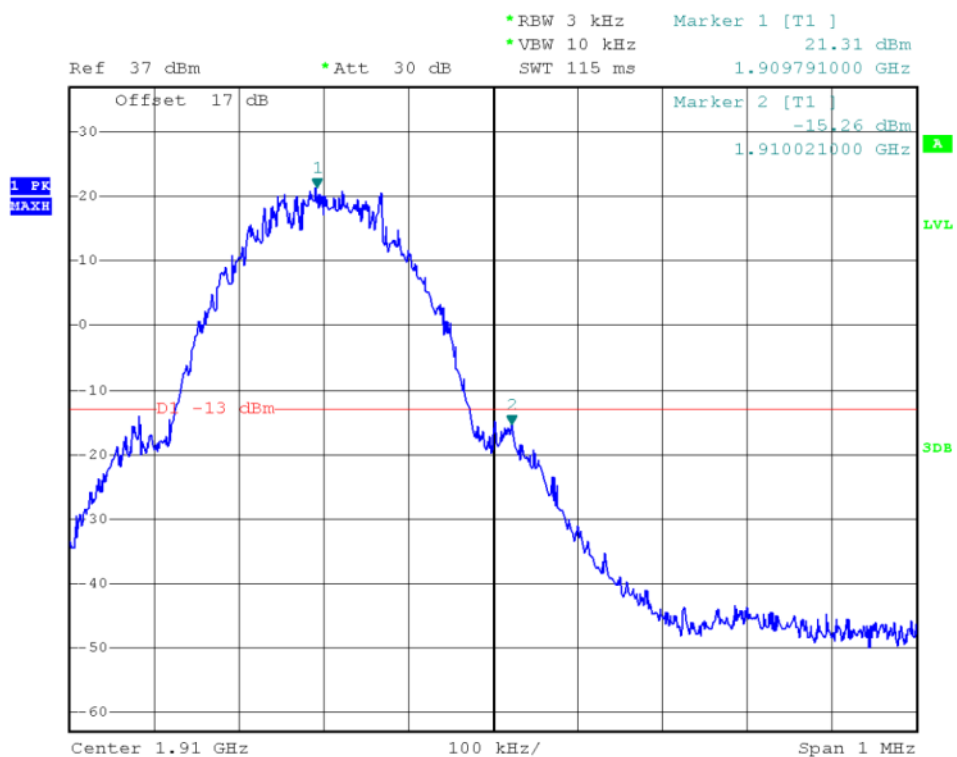
(Plot A: GSM 850 Channel = 128)



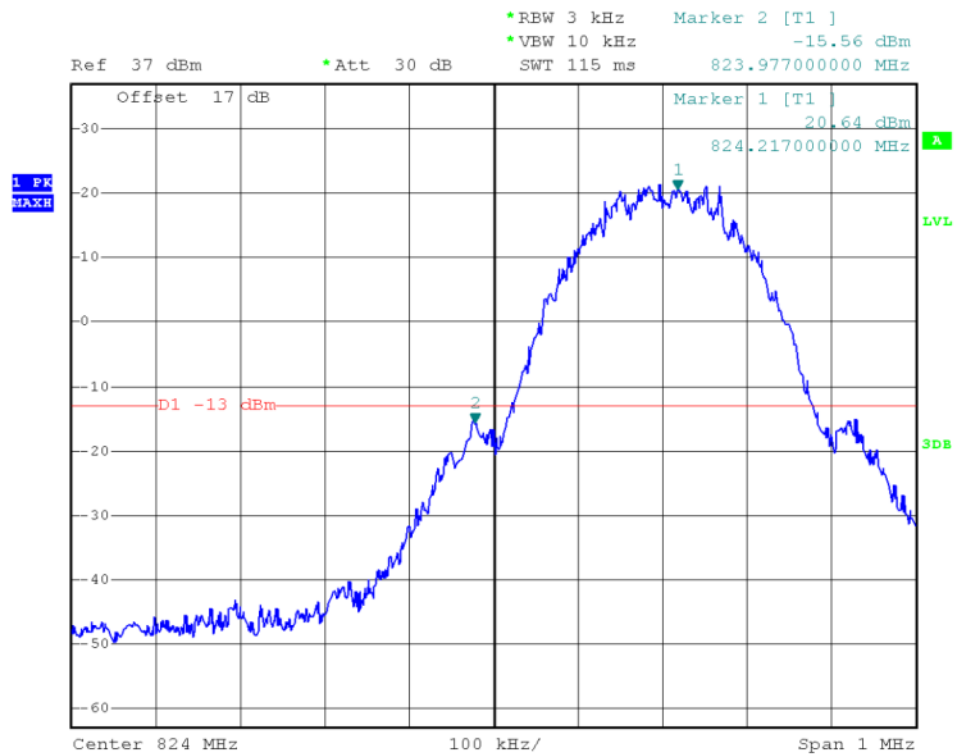
(Plot B: GSM 850 Channel = 251)



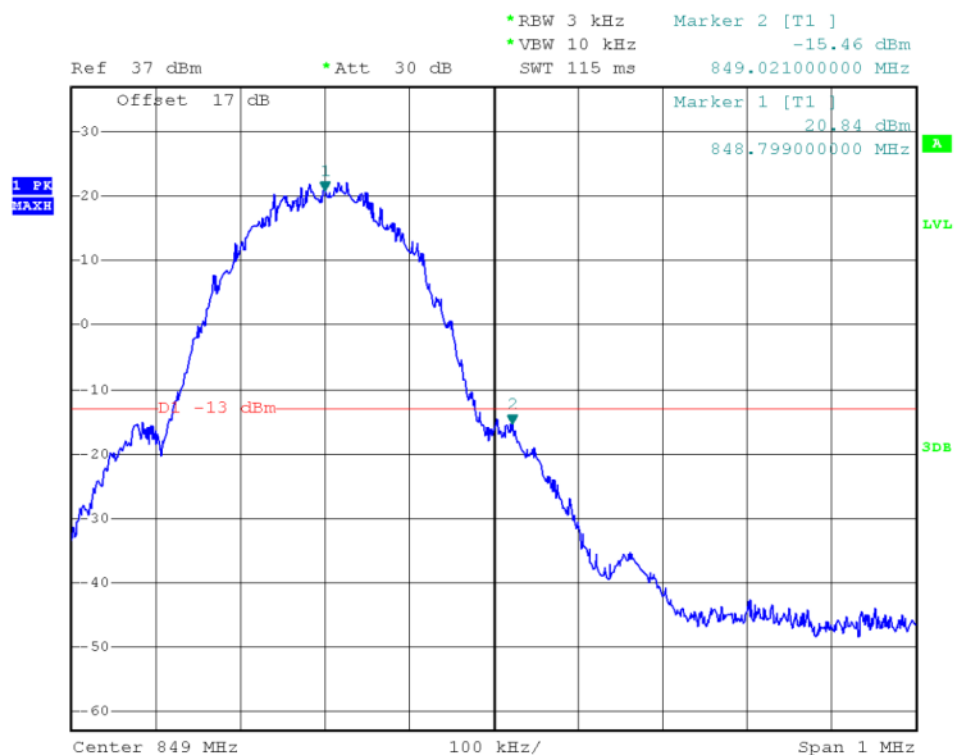
(Plot C: GSM 1900 Channel = 512)



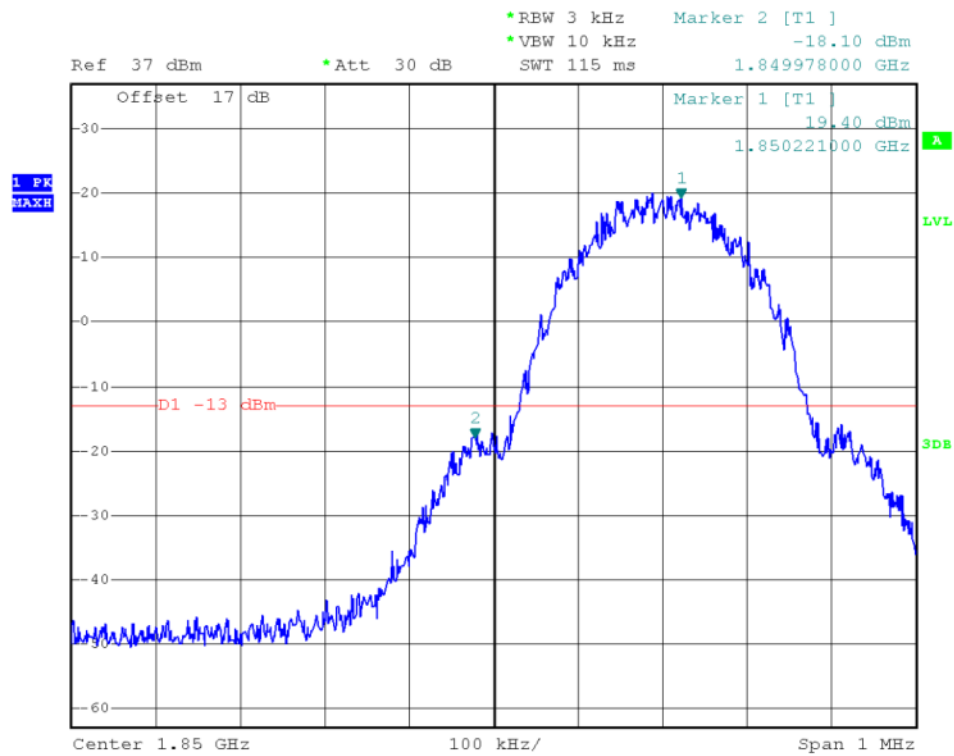
(Plot D: GSM 1900 Channel = 810)



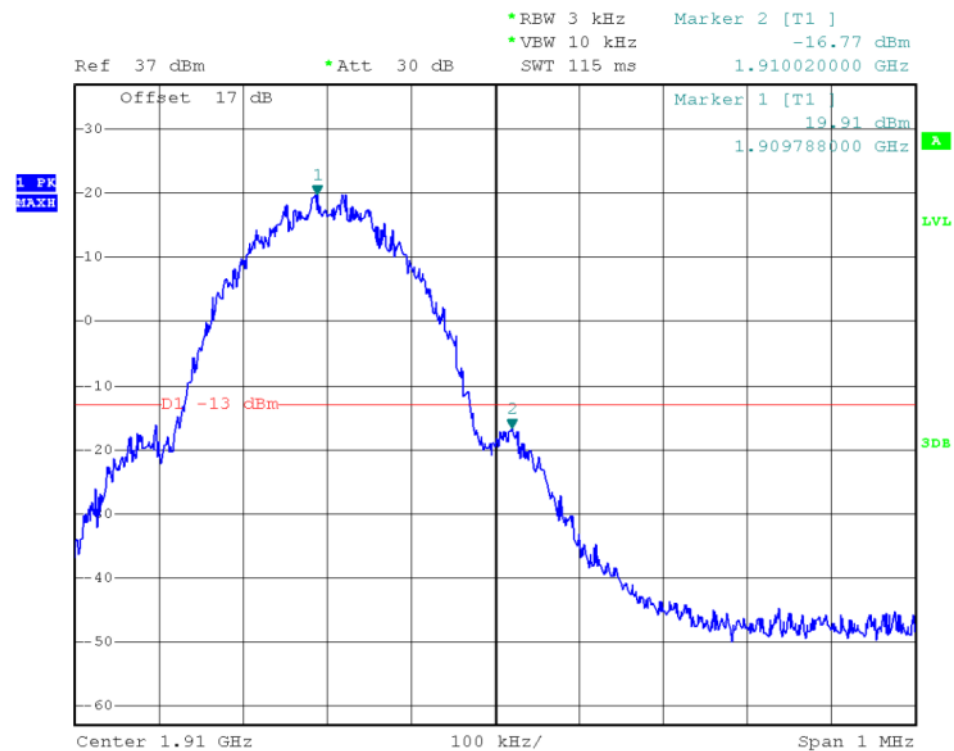
(Plot E: EDGE 850 Channel = 128)



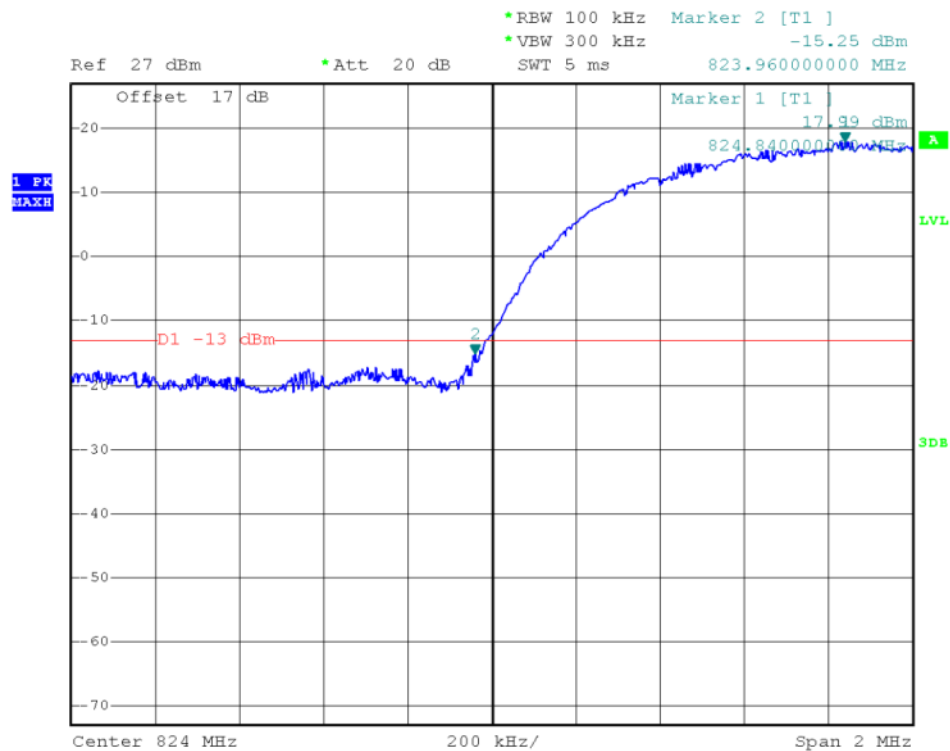
(Plot F: EDGE 850 Channel = 251)



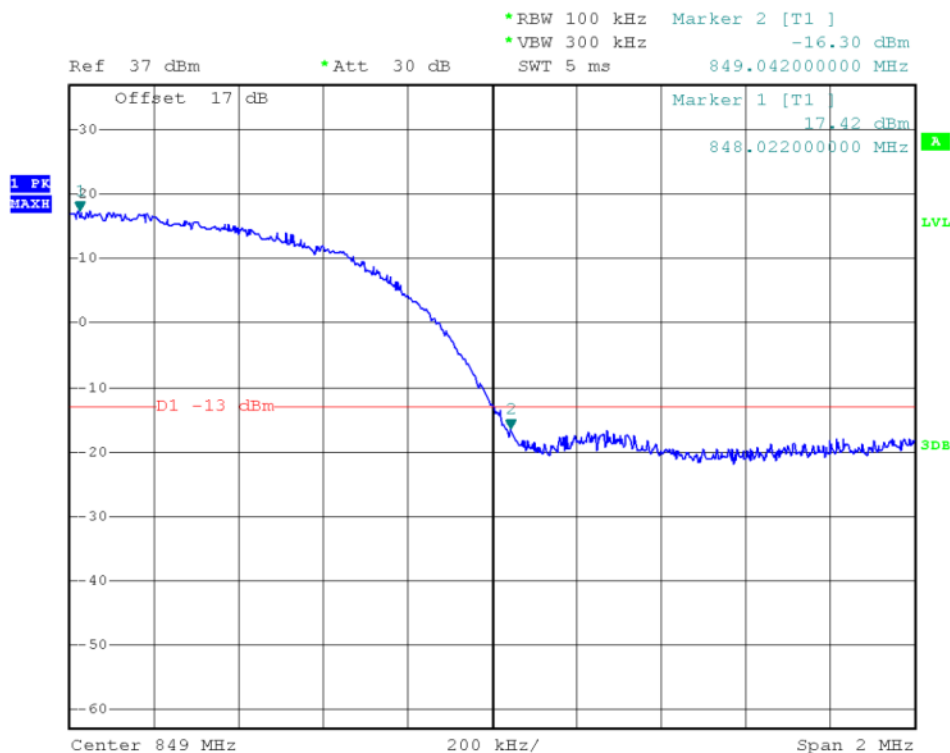
(Plot G: EDGE 1900 Channel = 512)



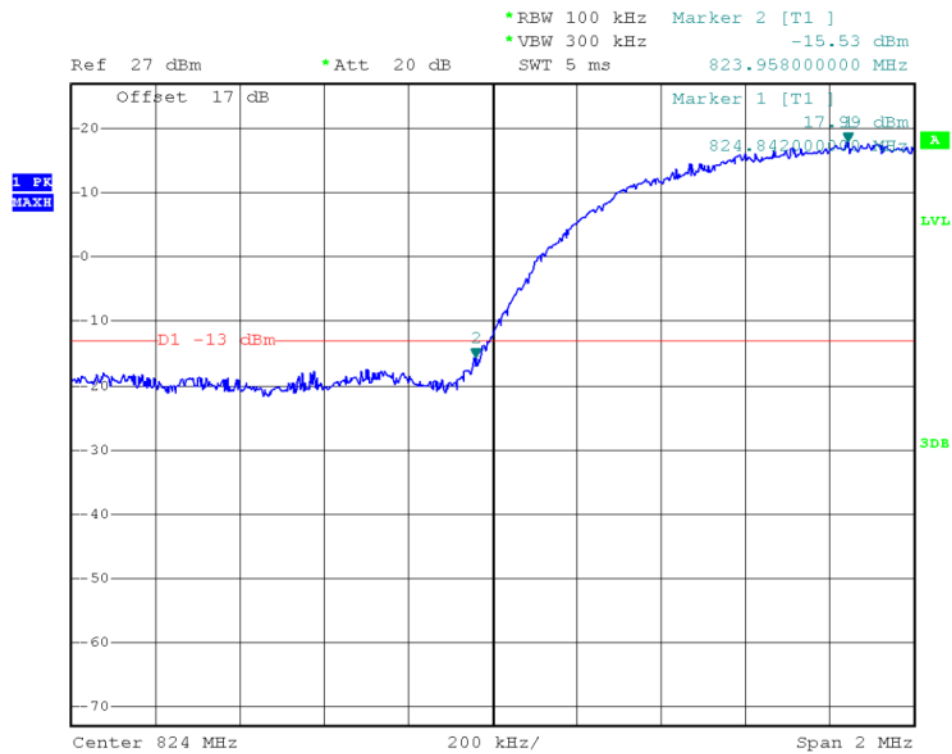
(Plot H: EDGE 1900 Channel = 810)



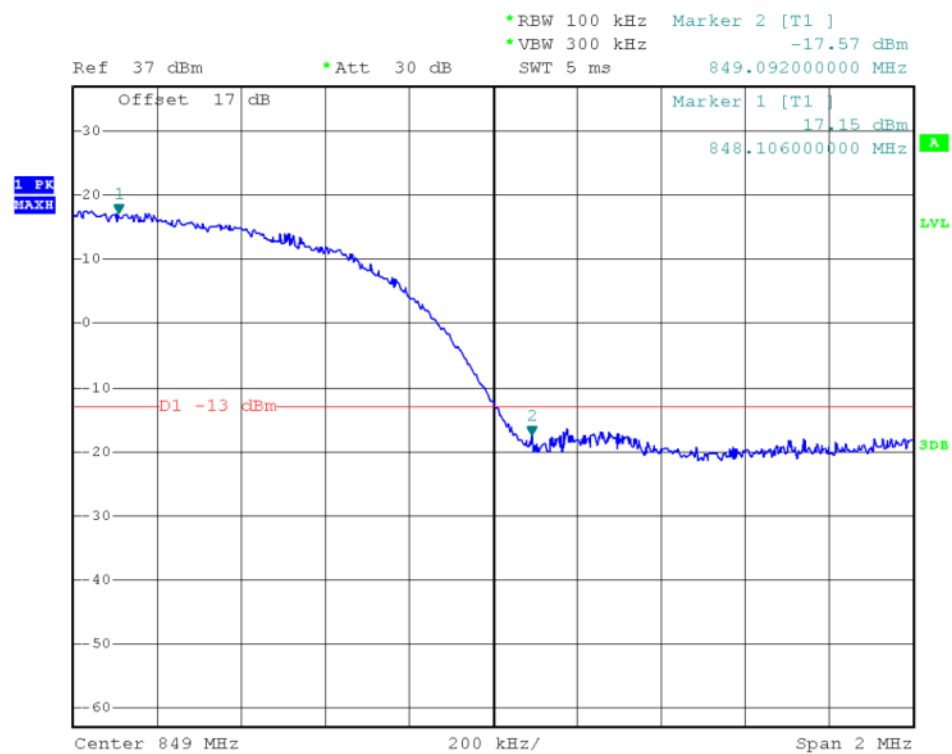
(Plot I: WCDMA 850 Channel = 4132)



(Plot J: WCDMA 850 Channel = 4233)



(Plot K: HSDPA 850 Channel = 4132)



(Plot L: HSDPA850 Channel = 4233)

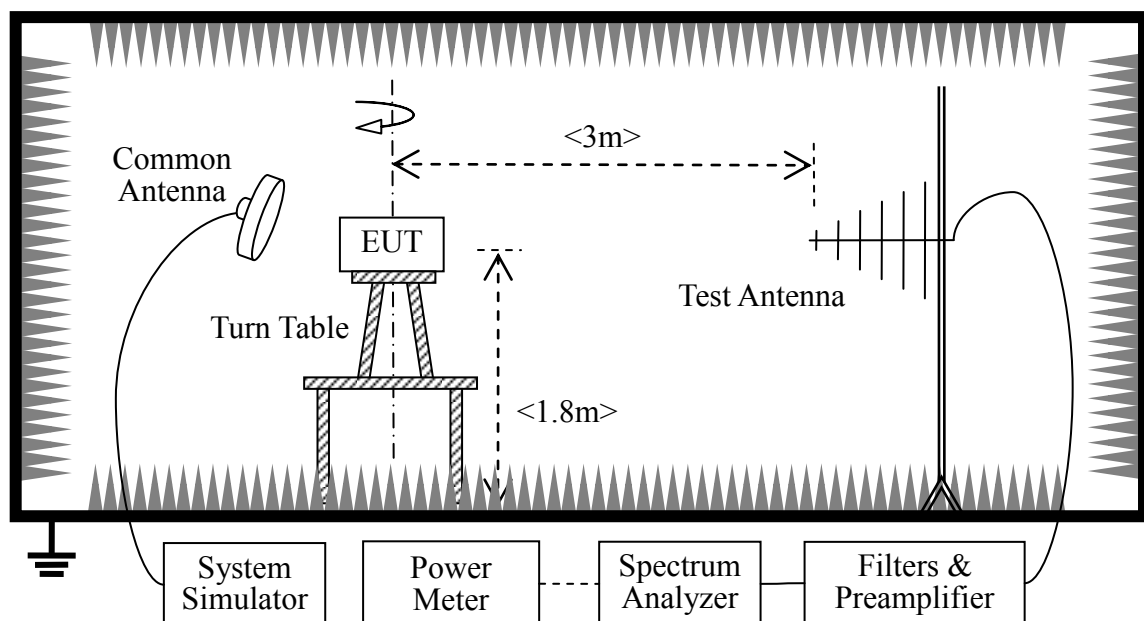
2.7 Transmitter Radiated Power (EIRP/ERP)

2.7.1 Requirement

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

2.7.2 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: GSM 850 32.79dBm, GSM 1900 30.45dBm, WCDMA 850 23.56dBm, Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

- Minimum RF power: GSM 850 3.1dBm, GSM 1900 0.3dBm, WCDMA 850 0.39dBm 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.Due Date
Spectrum Analyzer	Agilent	E7405A	US44210471	2014.06.10
Power Meter	Agilent	E4418B	GB43318055	2014.06.10
Full-Anechoic Chamber	Albatross~ Projects	12.8m*6.8m* 6.4m	A0412372	2015.01.14
Double ridge horn antenna	R&S	HF906	A0304225	2014.06.07
Ultra-wideband antenna	R&S	HL562	A0304224	2014.06.05
Loop antenna	R&S	HFH2-Z2	A0304226	2014.06.05

2.7.3 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:

$$A_{\text{SUBST}} = P_{\text{SUBST_TX}} - P_{\text{SUBST_RX}} - L_{\text{SUBST_CABLES}} + G_{\text{SUBST_TX_ANT}}$$

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

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

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ 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:

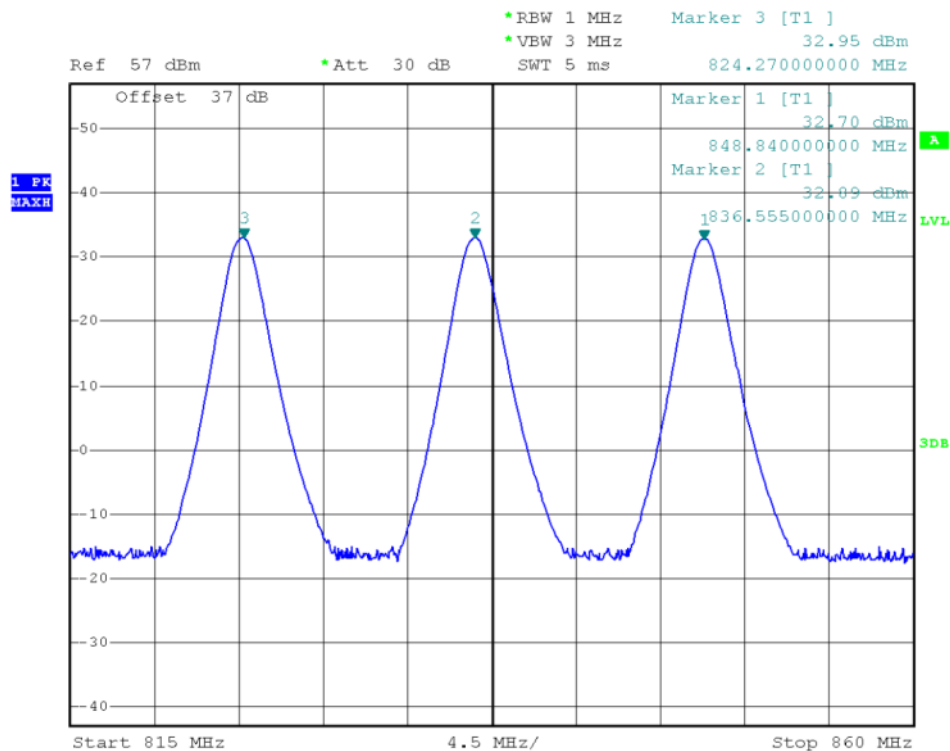
Band	Channel	Frequency (MHz)	polarizati ons	PCL	Measured ERP			Limit		Verdict
					dBm	W	Refer to Plot	dBm	W	
GSM 850MHz	128	824.20	vertical	5	32.95	1.972	Plot A	38.5	7	PASS
	190	836.60	vertical	5	32.09	1.618				PASS
	251	848.80	vertical	5	32.70	1.862				PASS
GPRS 850MHz	128	824.20	vertical	5	29.03	0.800	Plot B ^{Note 1}	38.5	7	PASS
	190	836.60	vertical	5	29.03	0.800				PASS
	251	848.80	vertical	5	28.83	0.764				PASS
EDGE 850MHz	128	824.20	vertical	5	28.91	0.778	Plot C ^{Note 1}	38.5	7	PASS
	190	836.60	vertical	5	28.76	0.752				PASS
	251	848.80	vertical	5	28.56	0.718				PASS
Note 1:	For the GPRS and EDGE model, all the slots were tested and just the worst data was record in this report.									

Band	Channel	Frequency (MHz)	polarizati ons	PCL	Measured EIRP			Limit		Verdict
					dBm	W	Refer to Plot	dB m	W	
GSM 1900MHz	512	1850.2	vertical	0	30.06	1.014	Plot D	33	2	PASS
	661	1880.0	vertical	0	30.21	1.050				PASS
	810	1909.8	vertical	0	29.93	0.984				PASS
GPRS 1900MHz	512	1850.2	vertical	0	28.97	0.789	Plot E ^{Note 1}	33	2	PASS
	661	1880.0	vertical	0	28.66	0.735				PASS
	810	1909.8	vertical	0	28.29	0.675				PASS
EDGE 1900MHz	512	1850.2	vertical	0	27.76	0.597	Plot F ^{Note 1}	33	2	PASS
	661	1880.0	vertical	0	27.2	0.525				PASS
	810	1909.8	vertical	0	27.02	0.504				PASS
Note 1:	For the GPRS and EDGE model, all the slots were tested and just the worst data was record in this report.									

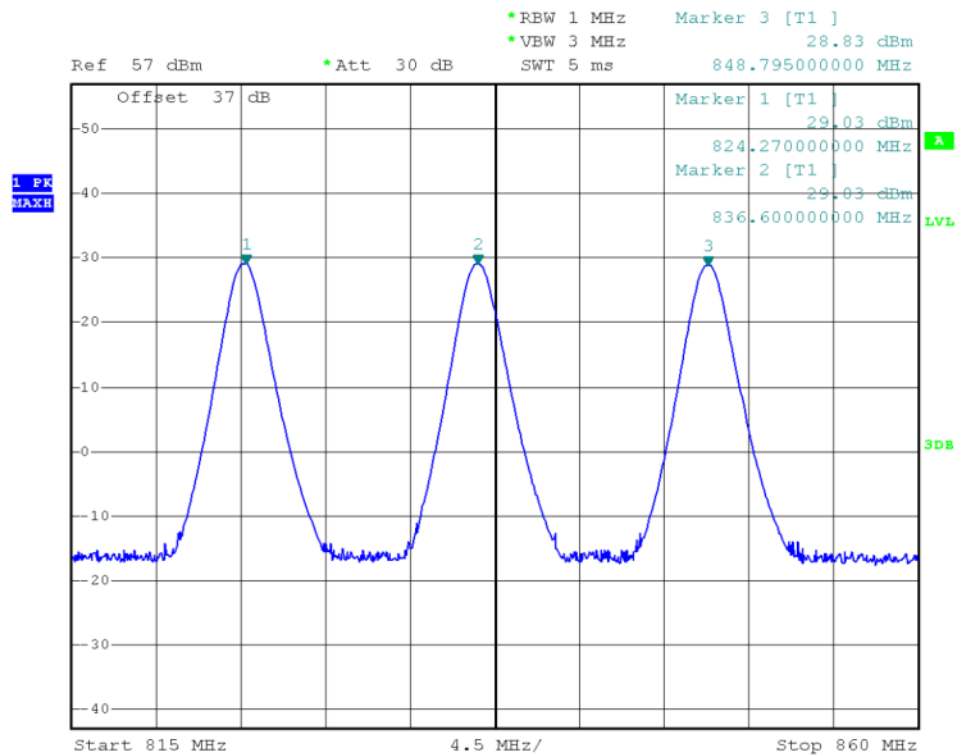
2. WCDMA Model Test Verdict:

Band	Channel	Frequency (MHz)	polarizations	Measured ERP			Limit		Verdict
				dBm	W	Refer to Plot	dBm	W	
WCDMA 850MHz	4132	826.4	vertical	23.27	0.212	Plot E	38.5	7	PASS
	4175	835	vertical	23.34	0.216				PASS
	4233	846.6	vertical	23.94	0.248				PASS
HSDPA 850MHz	4132	826.4	vertical	22.26	0.168	Plot F	38.5	7	PASS
	4175	835	vertical	22.78	0.190				PASS
	4233	846.6	vertical	22.31	0.170				PASS

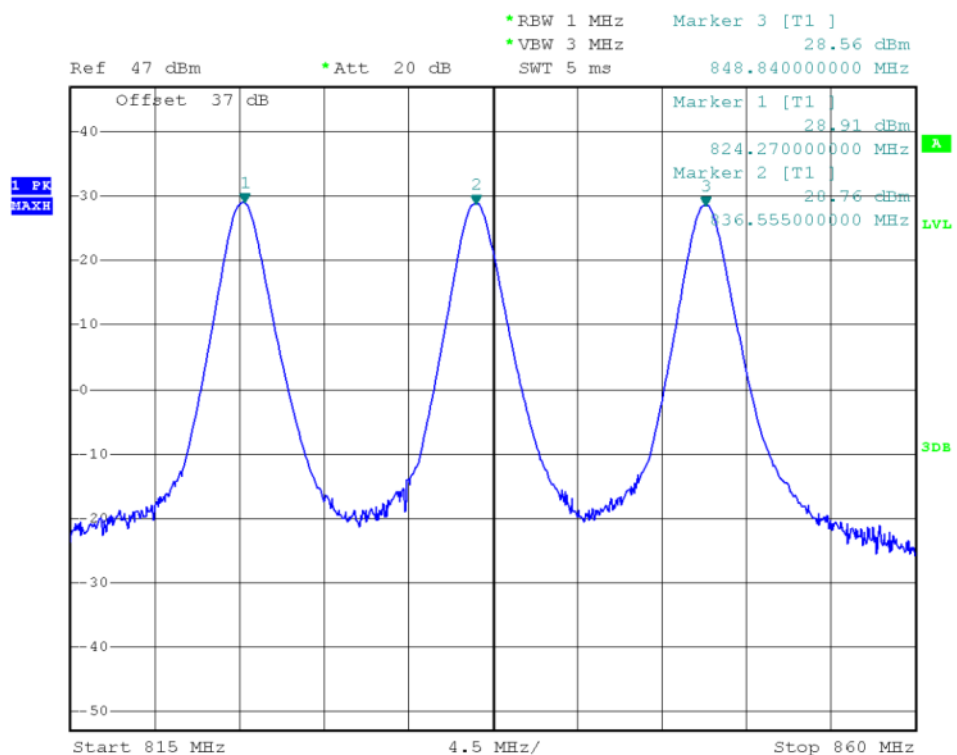
3. Test Plots:



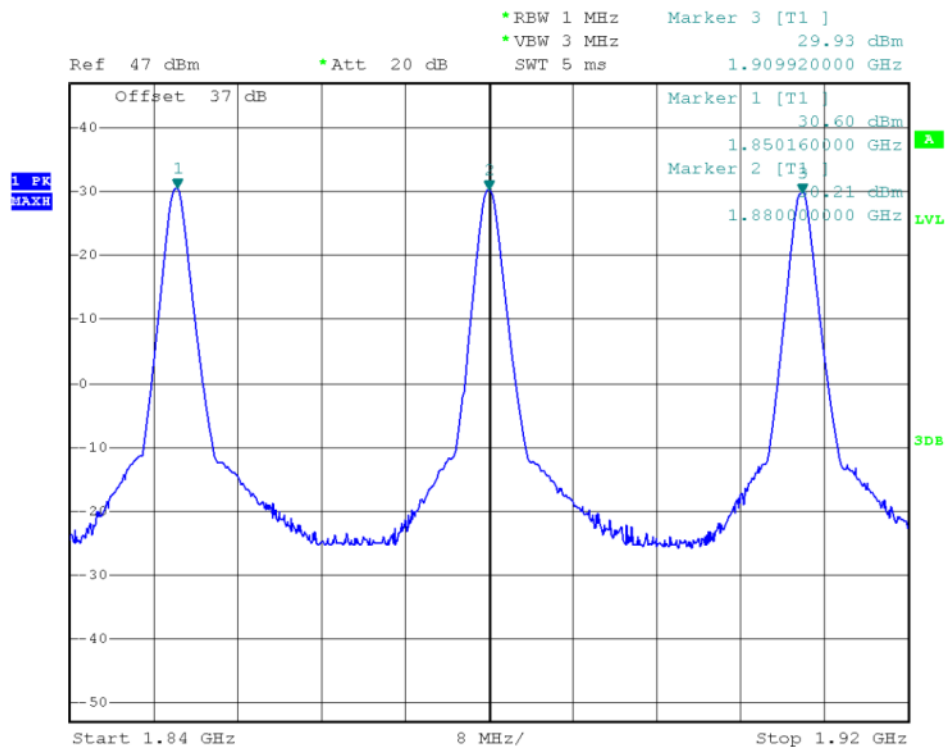
(Plot A: GSM 850MHz Channel = 128, 190, 251)



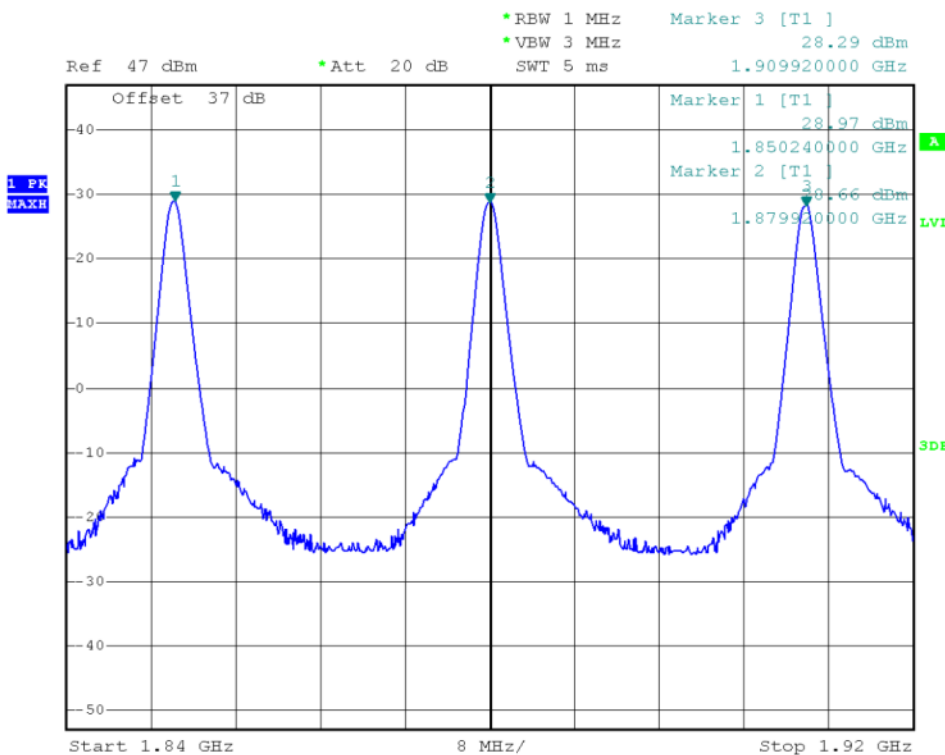
(Plot B: GPRS 850MHz Channel = 128, 190, 251)



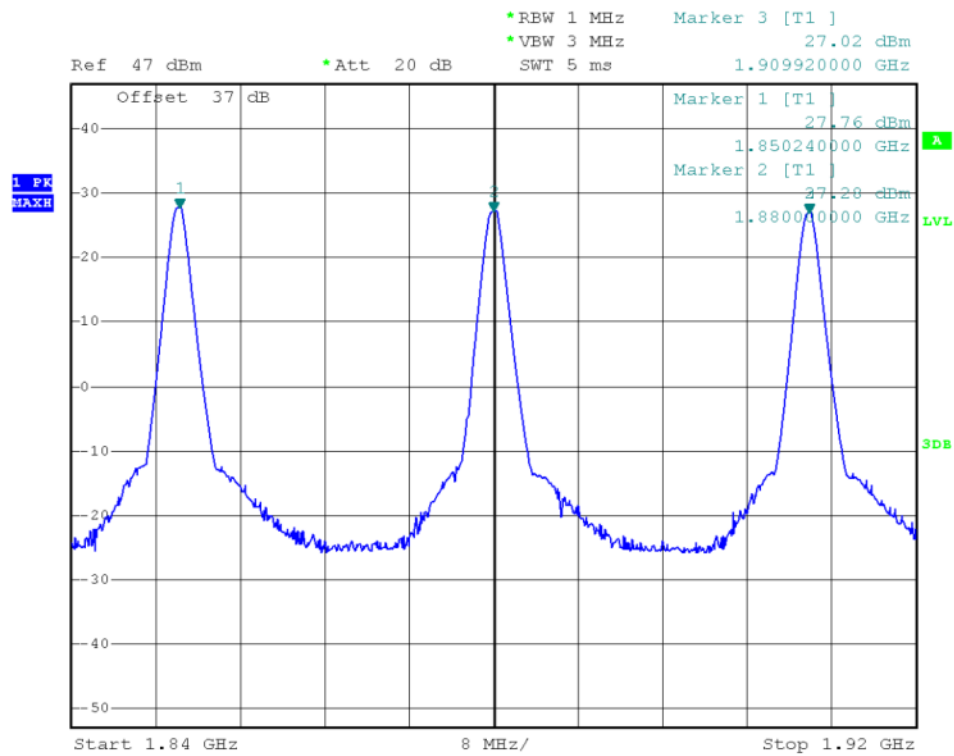
(Plot C: EDGE 850MHz Channel = 128, 190, 251)



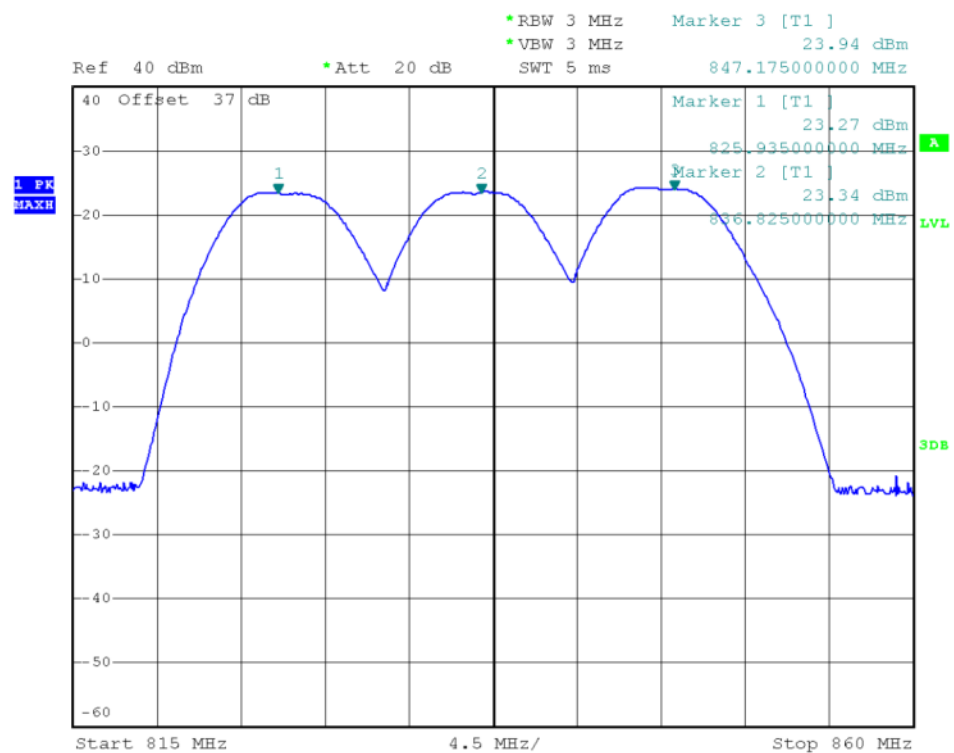
(Plot C: GSM1900MHz Channel = 512, 661, 810)



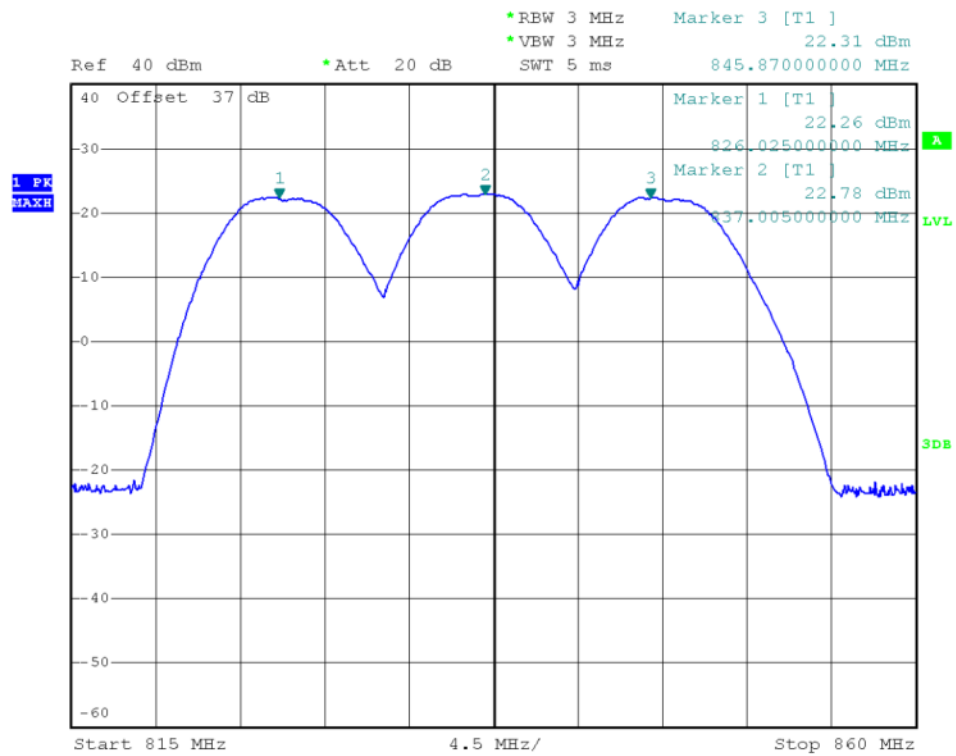
(Plot D: GPRS 1900MHz Channel = 512, 661, 810)



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



(Plot E: WCDMA 850 MHz Channel = 4132, 4175, 4233)



(Plot F: HSDPA 850 MHz Channel = 4132, 4175, 4233)

2.8 Radiated Out of Band Emissions

2.8.1 Requirement

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

2.8.2 Test Description

See section 2.7.2 of this report.

Equipment List:

Description	Manufacturer	Model	Serial No.	Cal.Due Date
Spectrum Analyzer	Agilent	E7405A	US44210471	2014.06.10
Power Meter	Agilent	E4418B	GB43318055	2014.06.10
Full-Anechoic Chamber	Albatross~ Projects	12.8m*6.8m* 6.4m	A0412372	2015.01.14
Double ridge horn antenna	R&S	HF906	A0304225	2014.06.07
Ultra-wideband antenna	R&S	HL562	A0304224	2014.06.05
Loop antenna	R&S	HFH2-Z2	A0304226	2014.06.05

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

2.8.3 Test Result

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

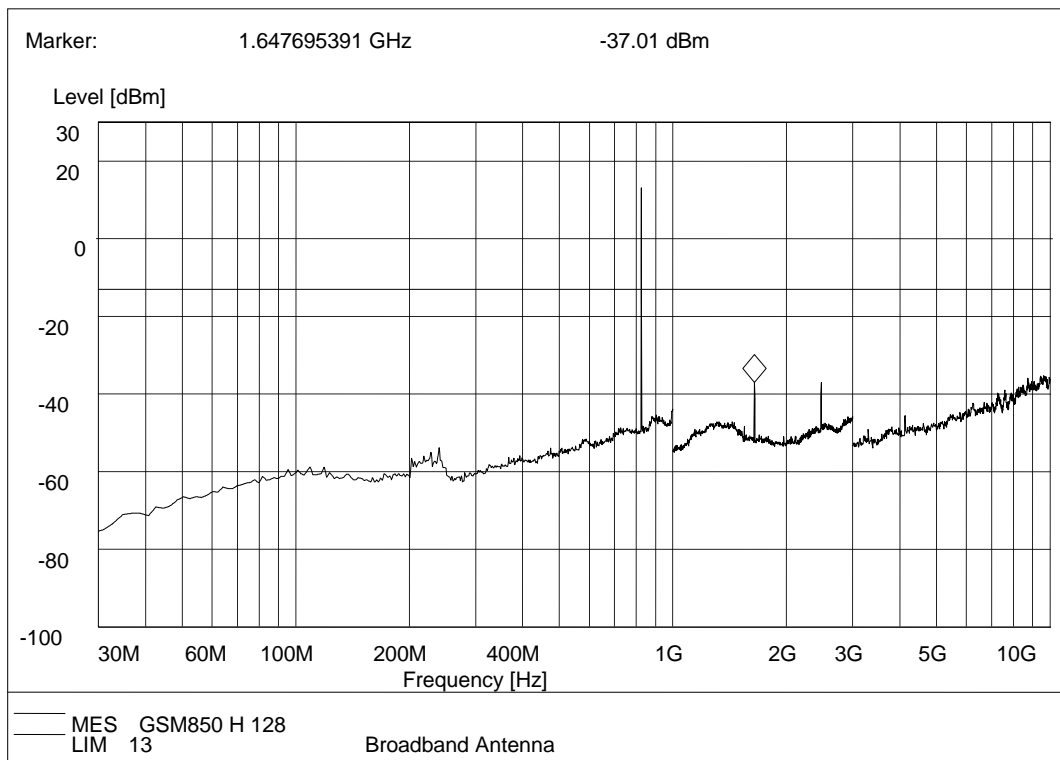
1. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
GSM 850MHz	128	824.2	< -25	< -25	Plot A.1/A.2	-13	PASS
	190	836.6	< -25	< -25	Plot A.3/A.4		PASS
	251	848.8	< -25	< -25	Plot A.5/A.6		PASS
GSM 1900MHz	512	1850.2	< -25	< -25	Plot B.1/B.2	-13	PASS
	661	1880.0	< -25	< -25	Plot B.3/B.4		PASS
	810	1909.8	< -25	< -25	Plot B.5/B.6		PASS
WCDMA 850MHz	4132	826.4	< -25	< -25	Plot C.1/C.2	-13	PASS
	4183	836.6	< -25	< -25	Plot C.3/C.4		PASS
	4233	846.6	< -25	< -25	Plot C.5/C.6		PASS
HSDPA 850MHz	4132	826.4	< -25	< -25	Plot D.1/D.2	-13	PASS
	4183	836.6	< -25	< -25	Plot D.3/D.4		PASS
	4233	846.6	< -25	< -25	Plot D.5/D.6		PASS
GPRS850	128	824.2	< -25	< -25	Plot E.1/E.2	-13	PASS
	190	836.6	< -25	< -25	Plot E.3/E.4		PASS
	251	848.8	< -25	< -25	Plot E.5/E.6		PASS
GPRS1900	512	1850.2	< -25	< -25	Plot F.1/F.2	-13	PASS
	661	1880	< -25	< -25	Plot F.3/F.4		PASS
	810	1909.8	< -25	< -25	Plot F.5/F.6		PASS
EDGE850	128	824.2	< -25	< -25	Plot G.1/G.2	-13	PASS
	190	836.6	< -25	< -25	Plot G.3/G.4		PASS
	251	848.8	< -25	< -25	Plot G.5/G.6		PASS
EDGE1900	512	1850.2	< -25	< -25	Plot H.1/H.2	-13	PASS
	661	1880	< -25	< -25	Plot H.3/H.4		PASS
	810	1909.8	< -25	< -25	Plot H.5/H.6		PASS

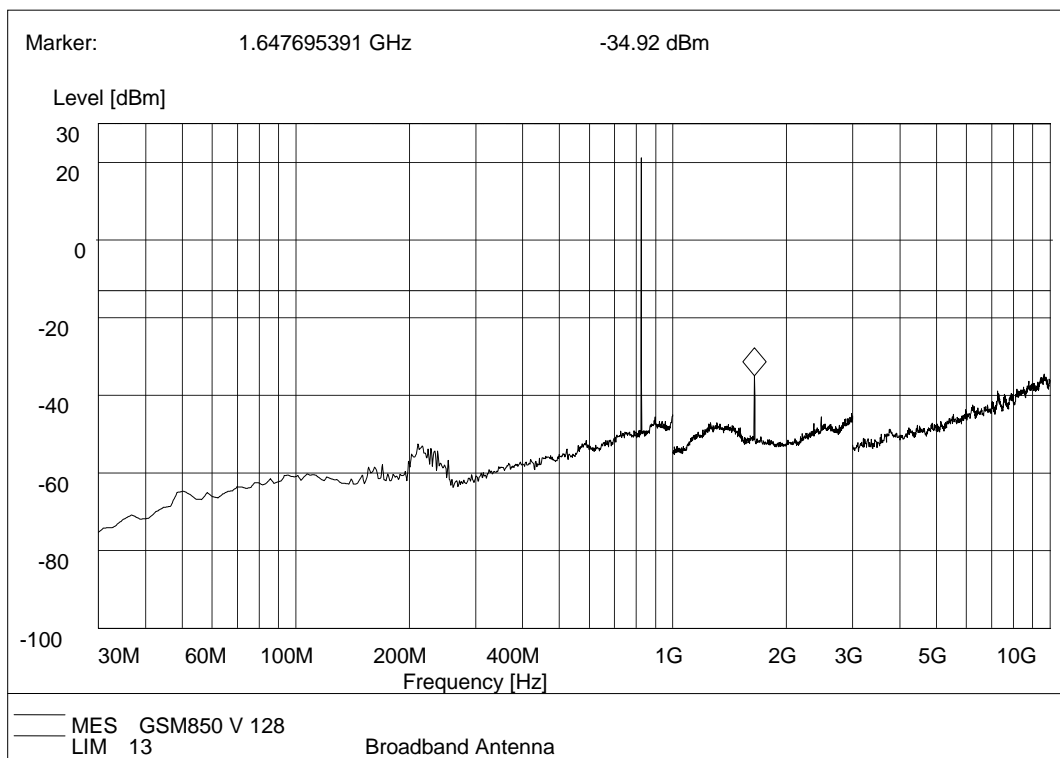
2. Test Plots for the Whole Measurement Frequency Range:

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

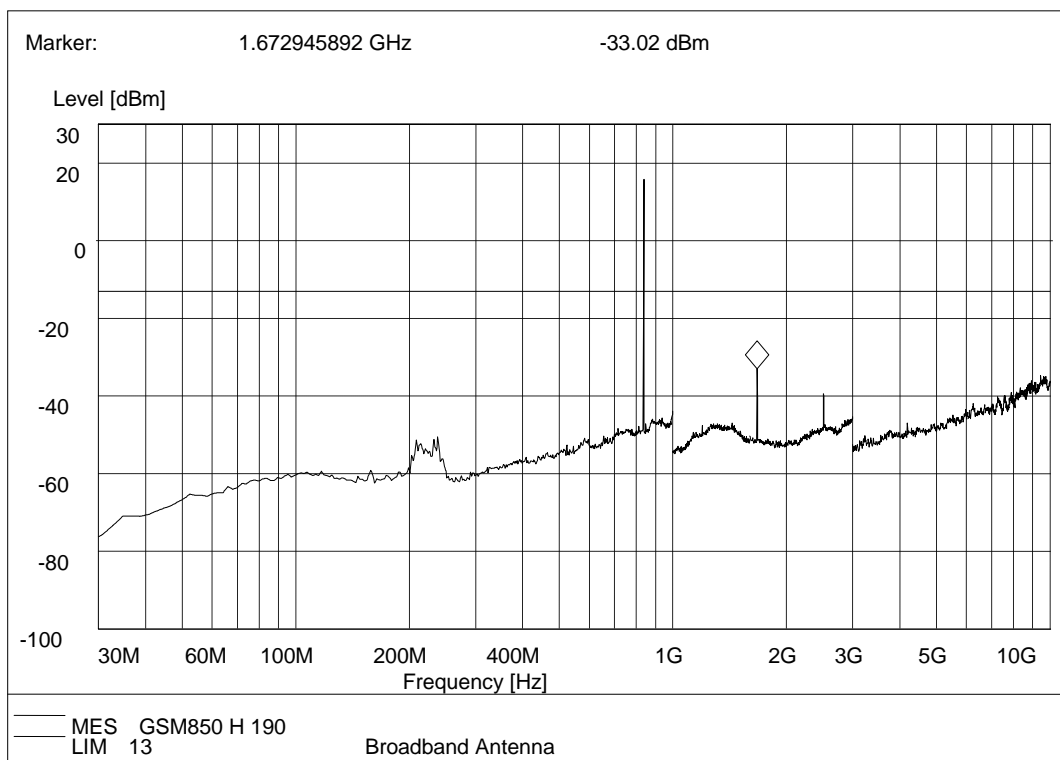
Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.



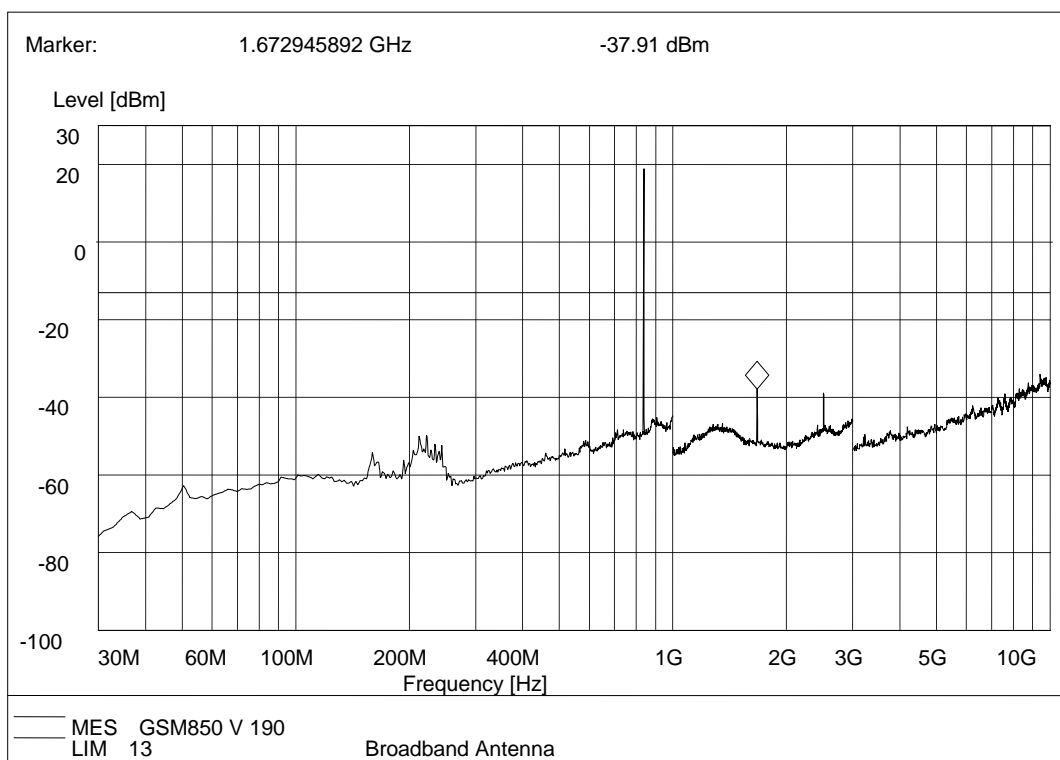
(Plot A.1: GSM 850MHz Channel = 128, Test Antenna Horizontal)



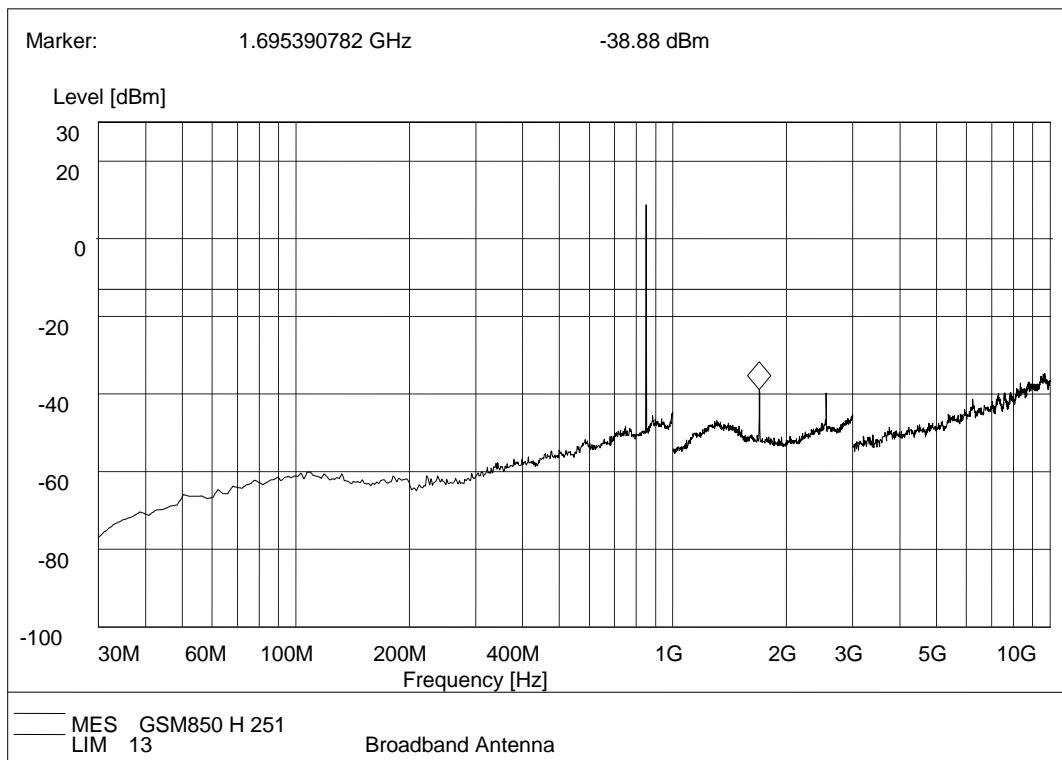
(Plot A.2: GSM 850MHz Channel = 128, Test Antenna Vertical)



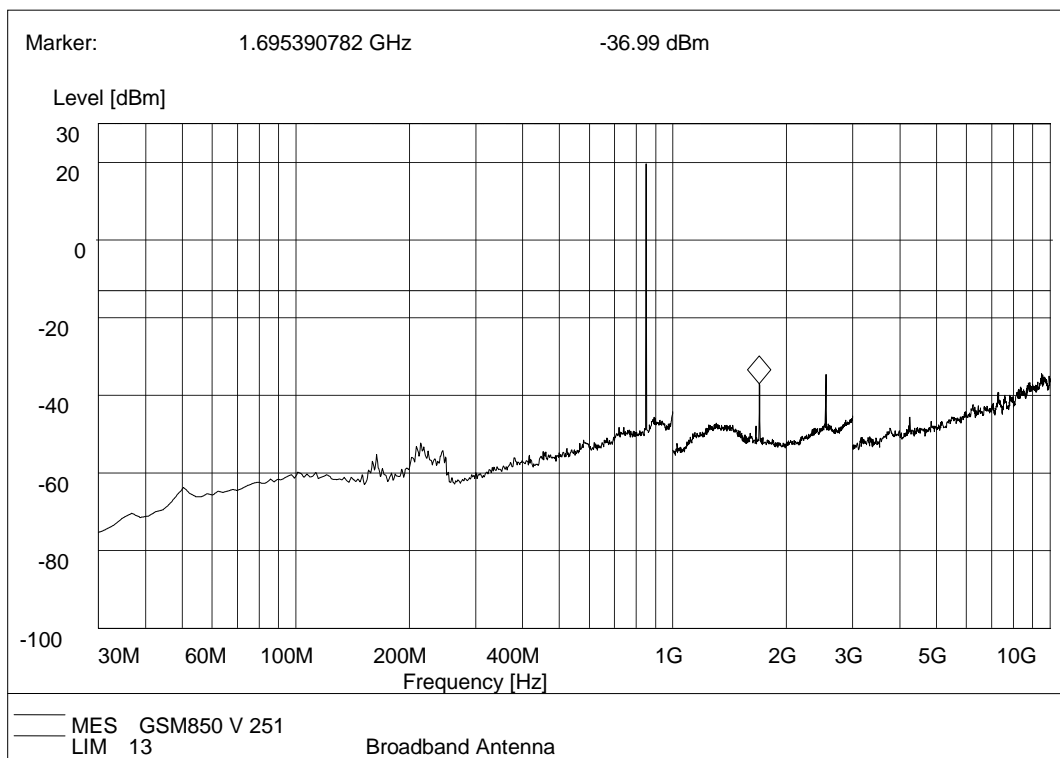
(Plot A.3: GSM 850MHz Channel = 190, Test Antenna Horizontal)



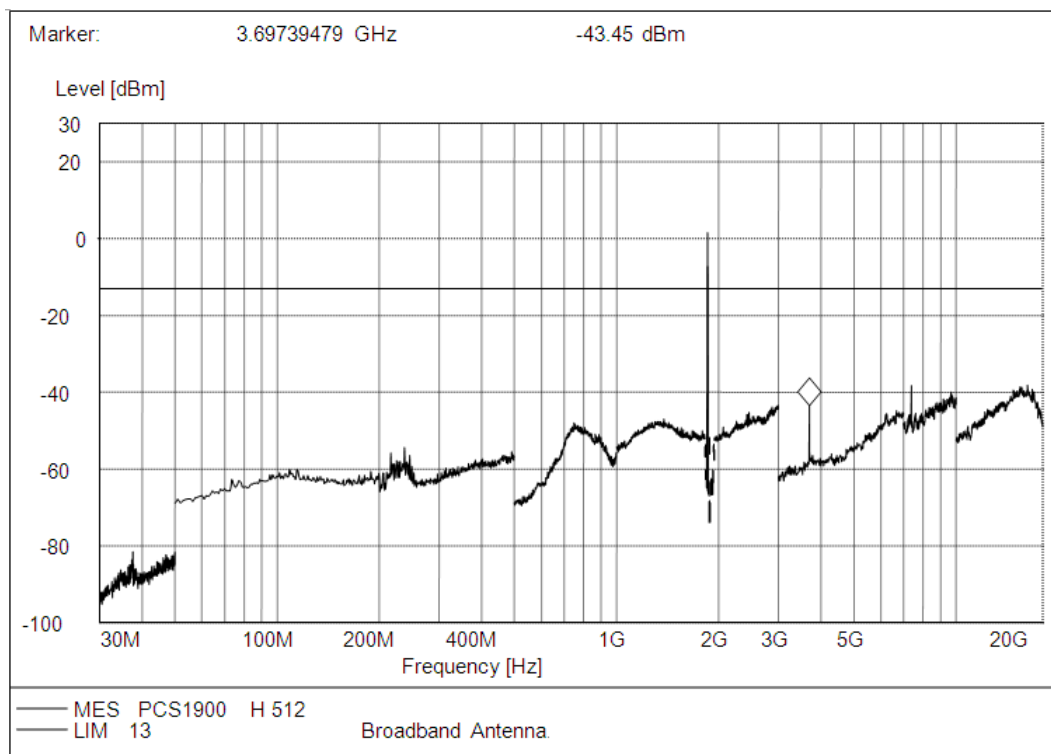
(Plot A.4: GSM 850MHz Channel = 190, Test Antenna Vertical)



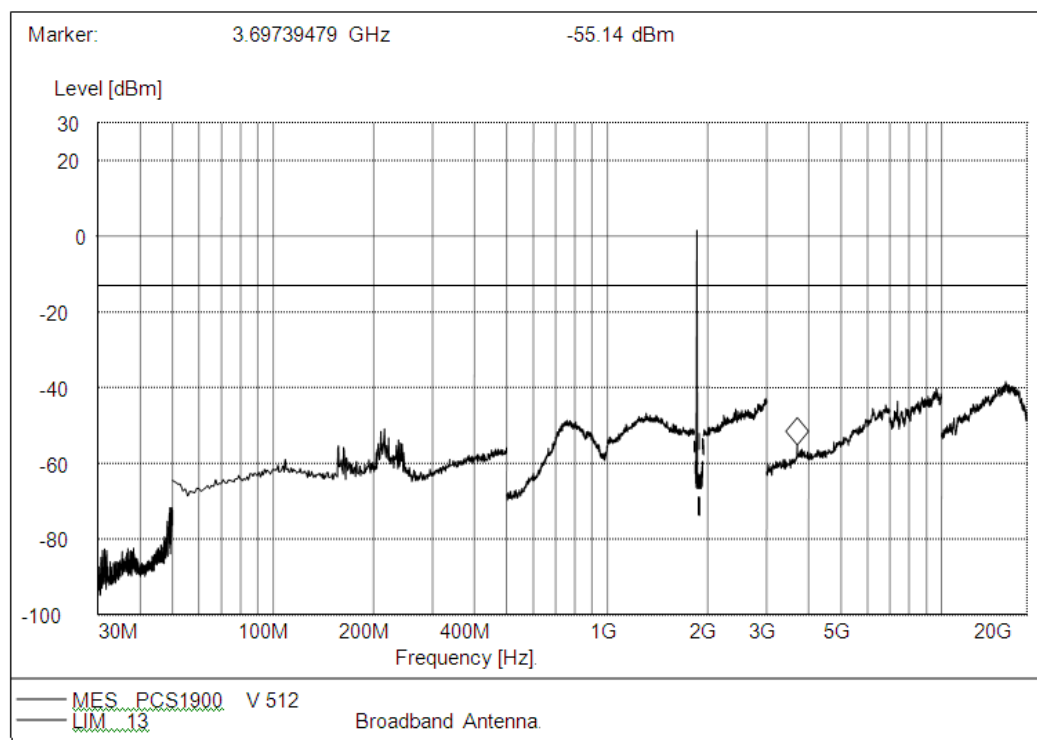
(Plot A.5: GSM 850MHz Channel = 251, Test Antenna Horizontal)



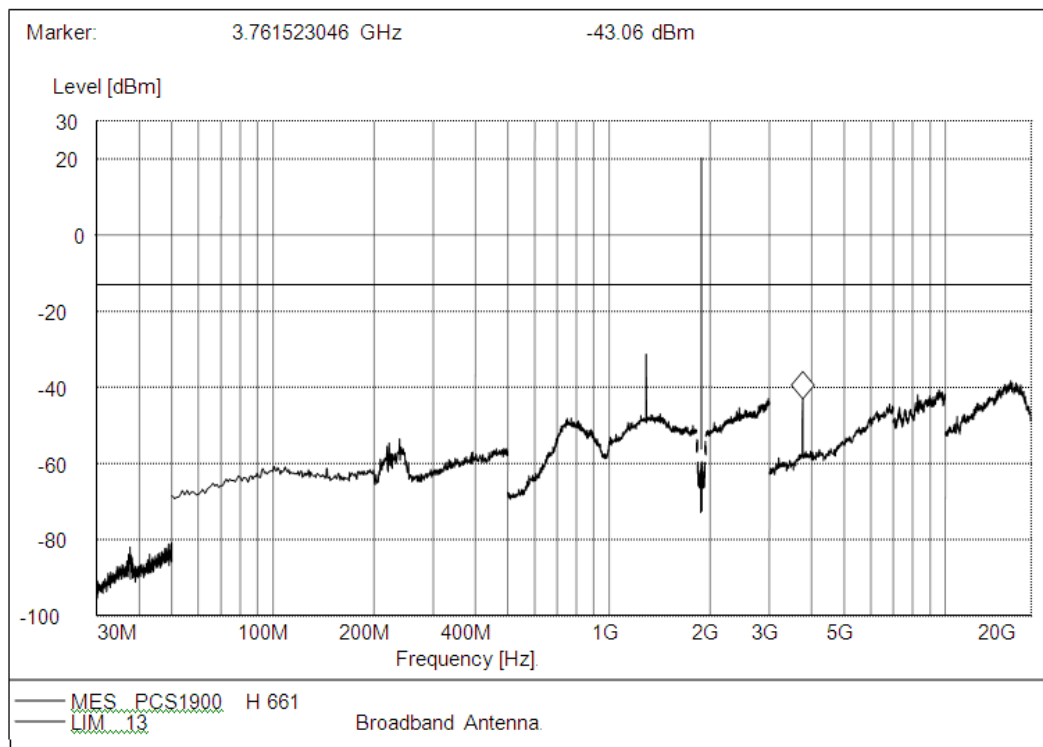
(Plot A.6: GSM 850MHz Channel = 251, Test Antenna Vertical)



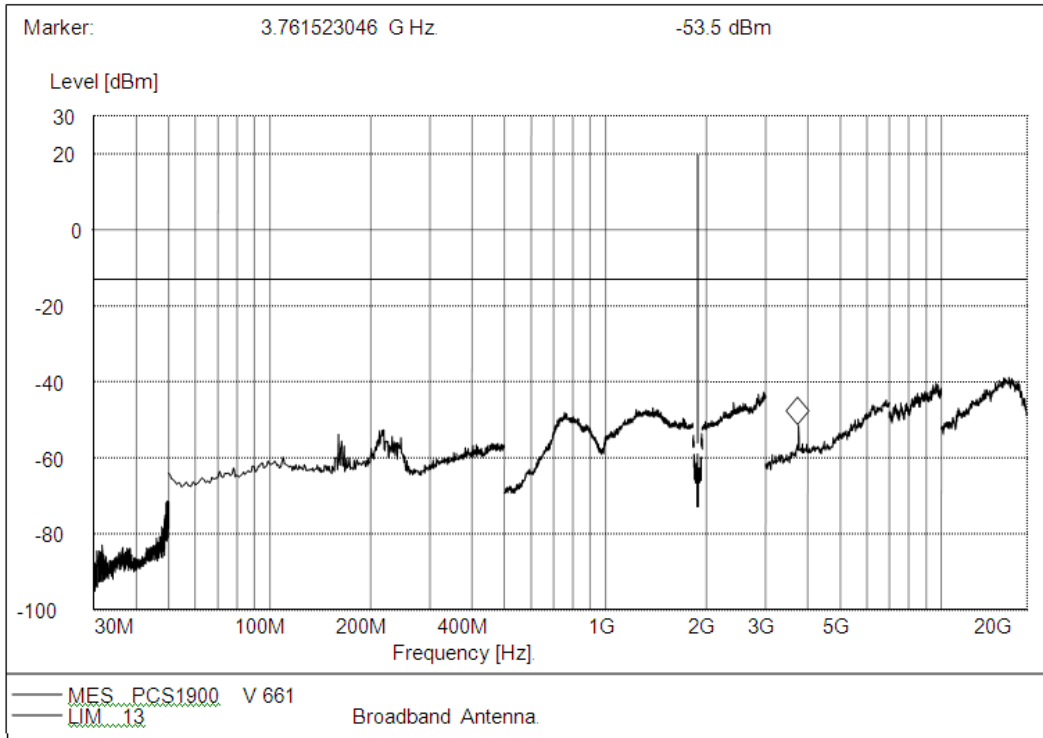
(Plot B.1: GSM 1900MHz Channel = 512, Test Antenna Horizontal)



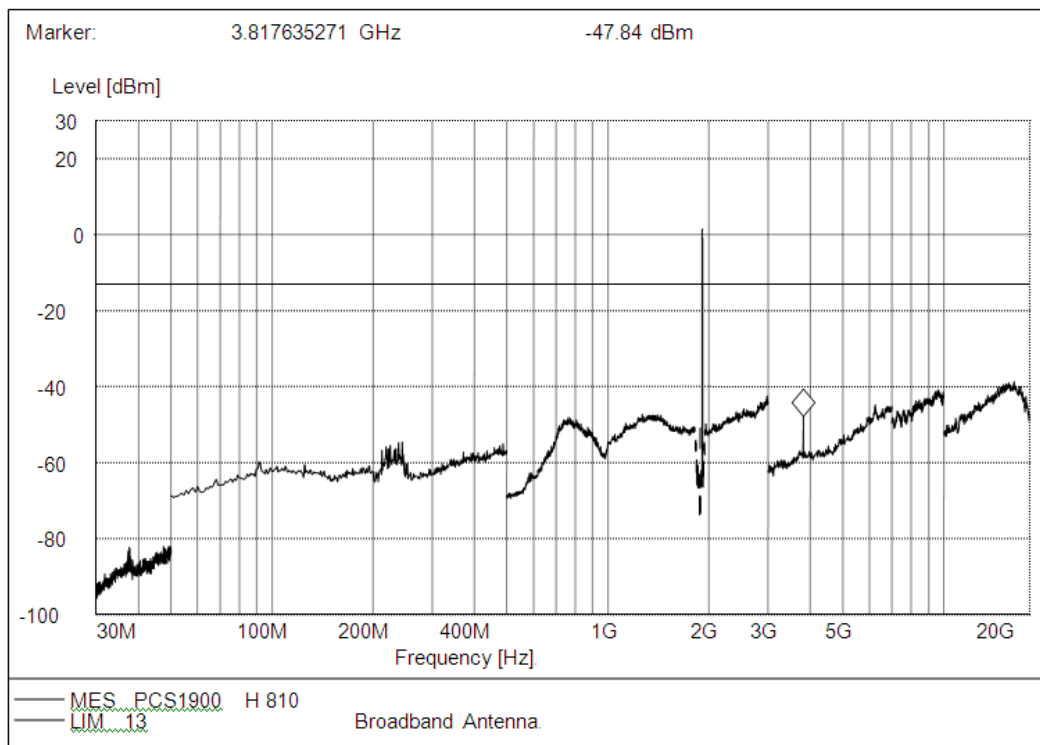
(Plot B.2: GSM 1900MHz Channel = 512, Test Antenna Vertical)



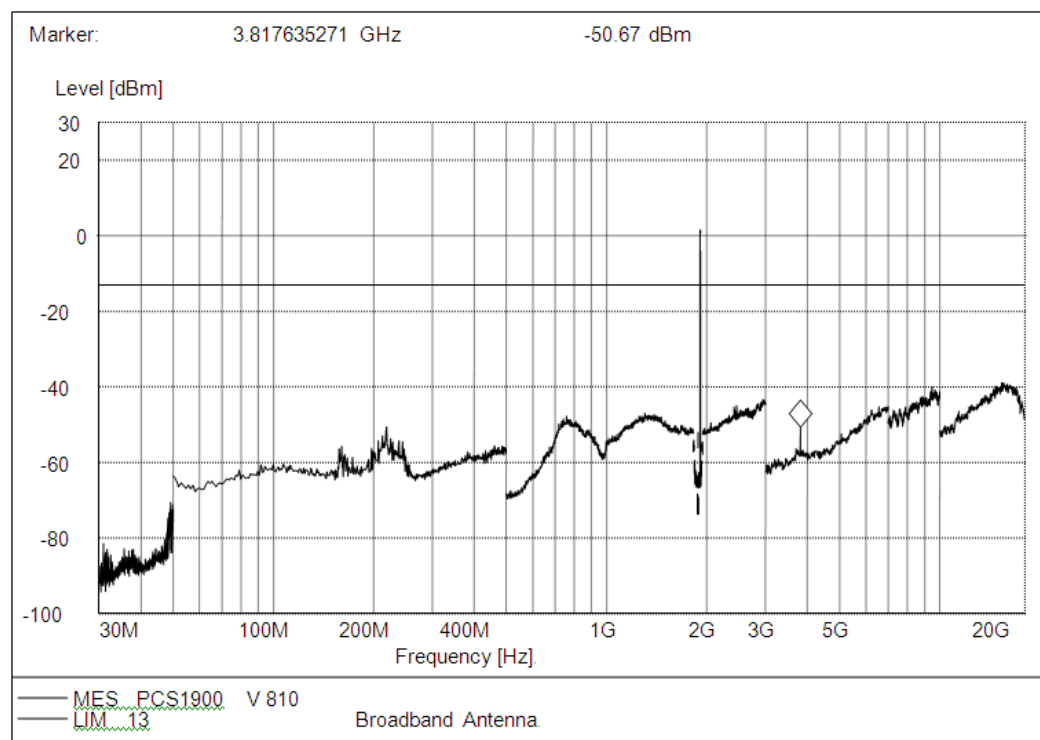
(Plot B.3: GSM 1900MHz Channel = 661, Test Antenna Horizontal)



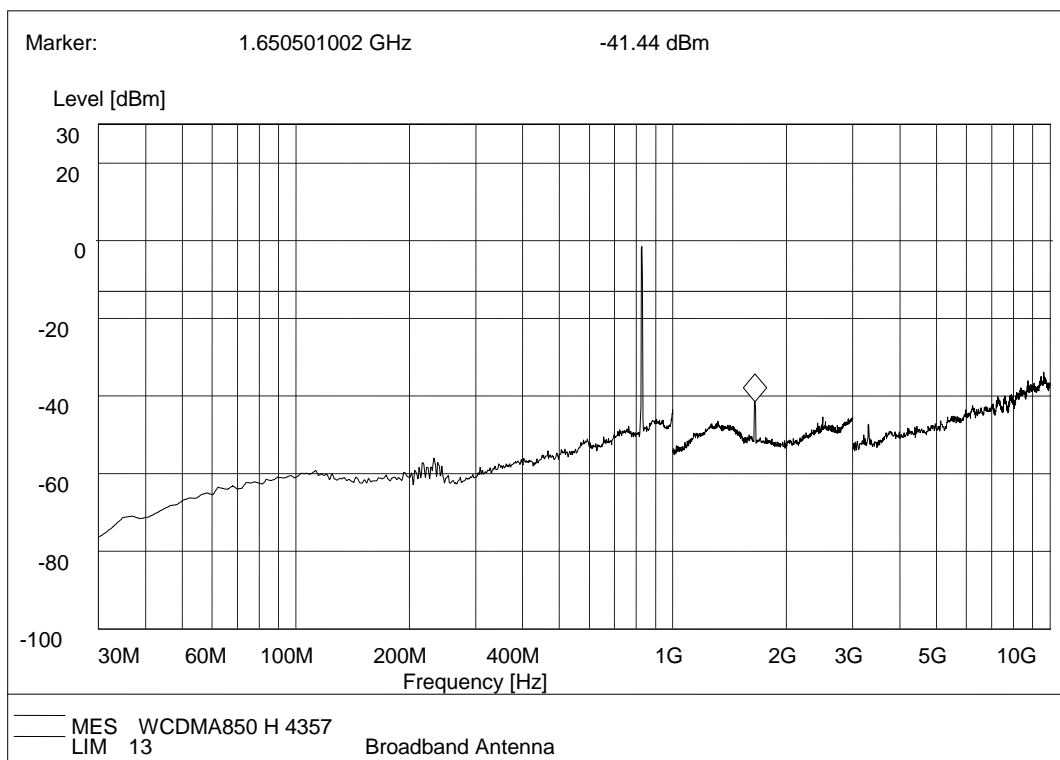
(Plot B.4: GSM 1900MHz Channel = 661, Test Antenna Vertical)



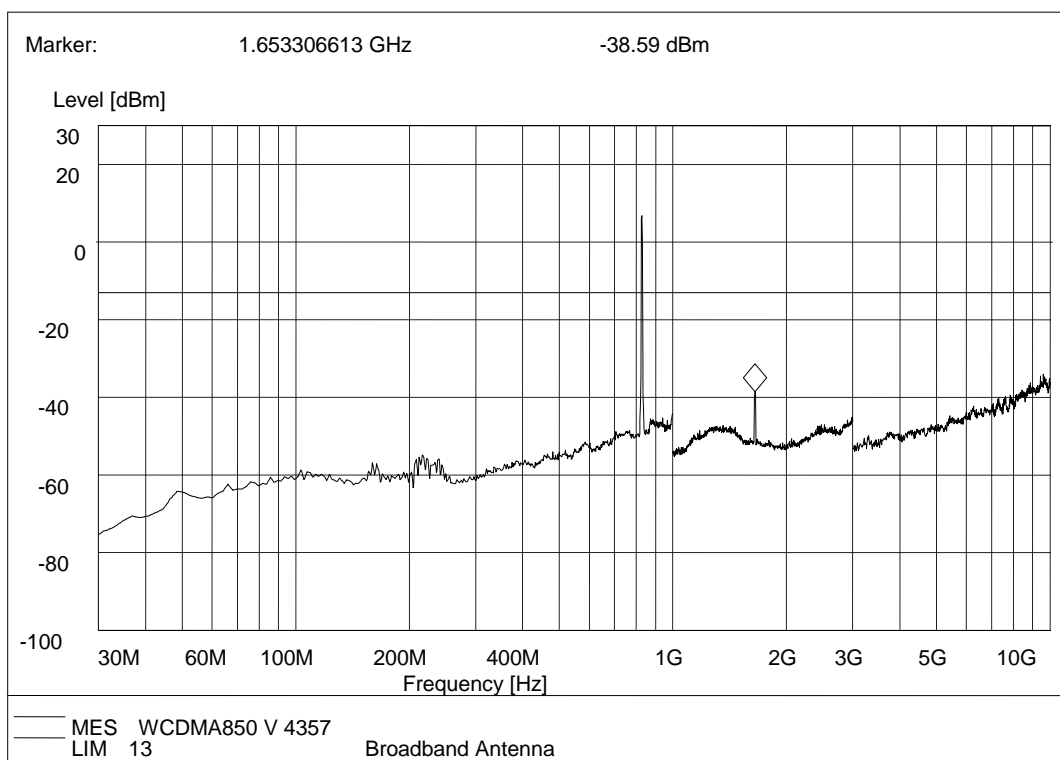
(Plot B.5: GSM 1900MHz Channel = 810, Test Antenna Horizontal)



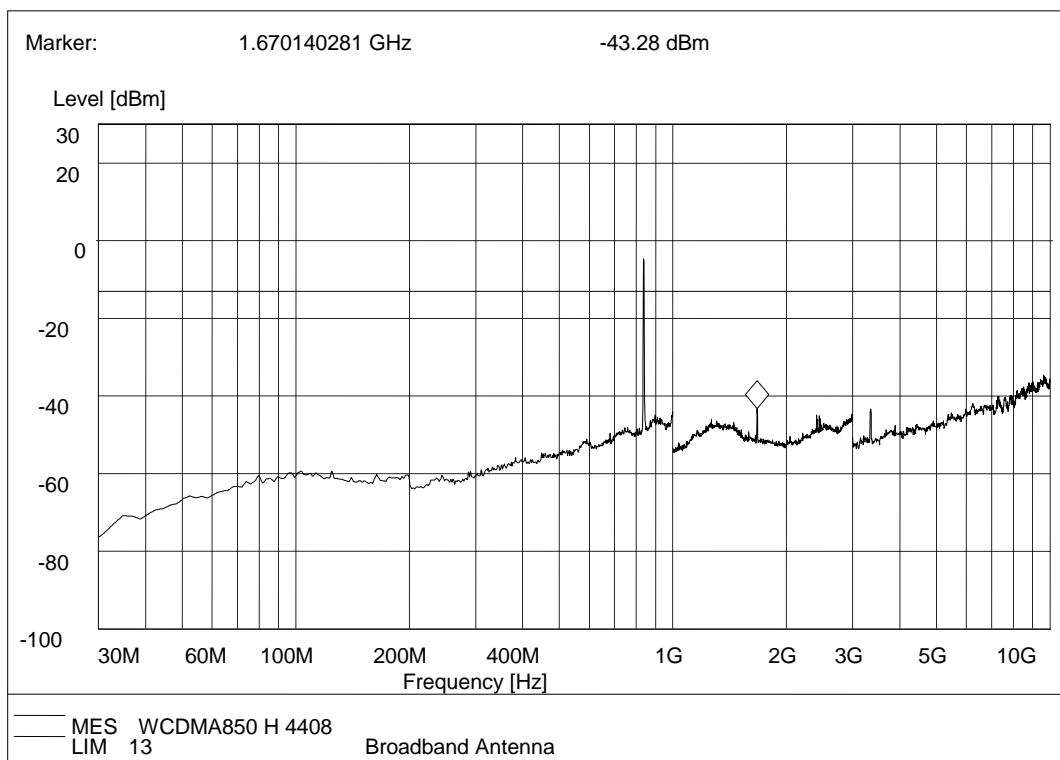
(Plot B.6: GSM 1900MHz Channel = 810, Test Antenna Vertical)



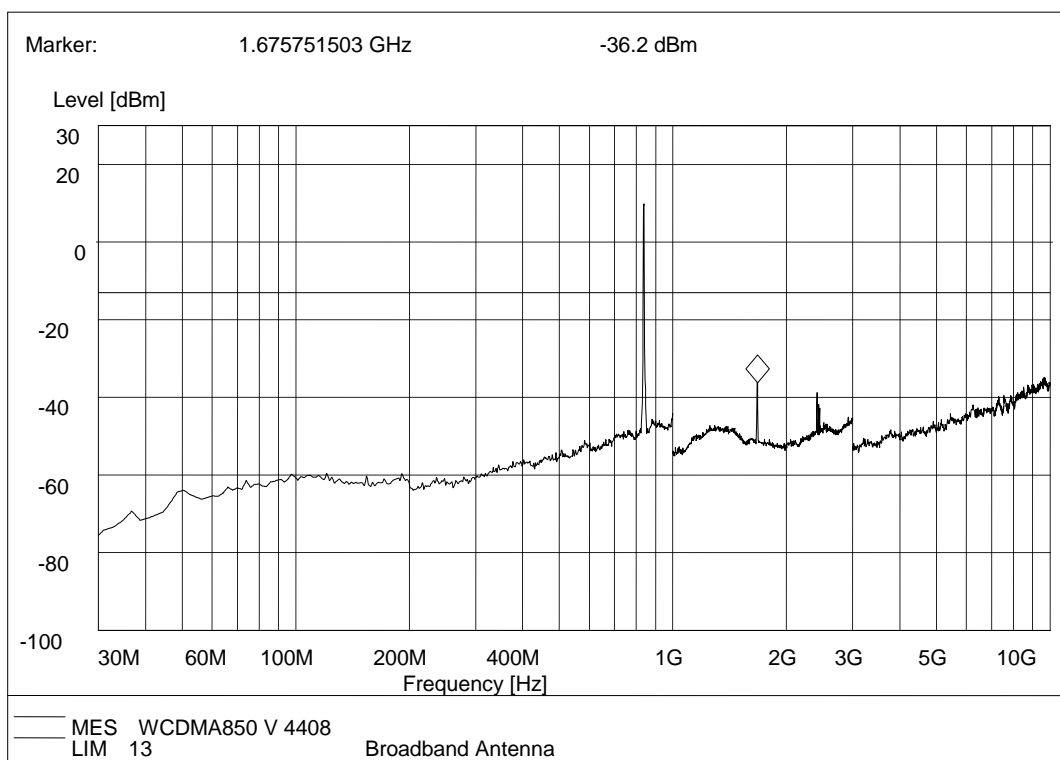
(Plot C.1: WCDMA 850MHz Channel = 4132, Test Antenna Horizontal)



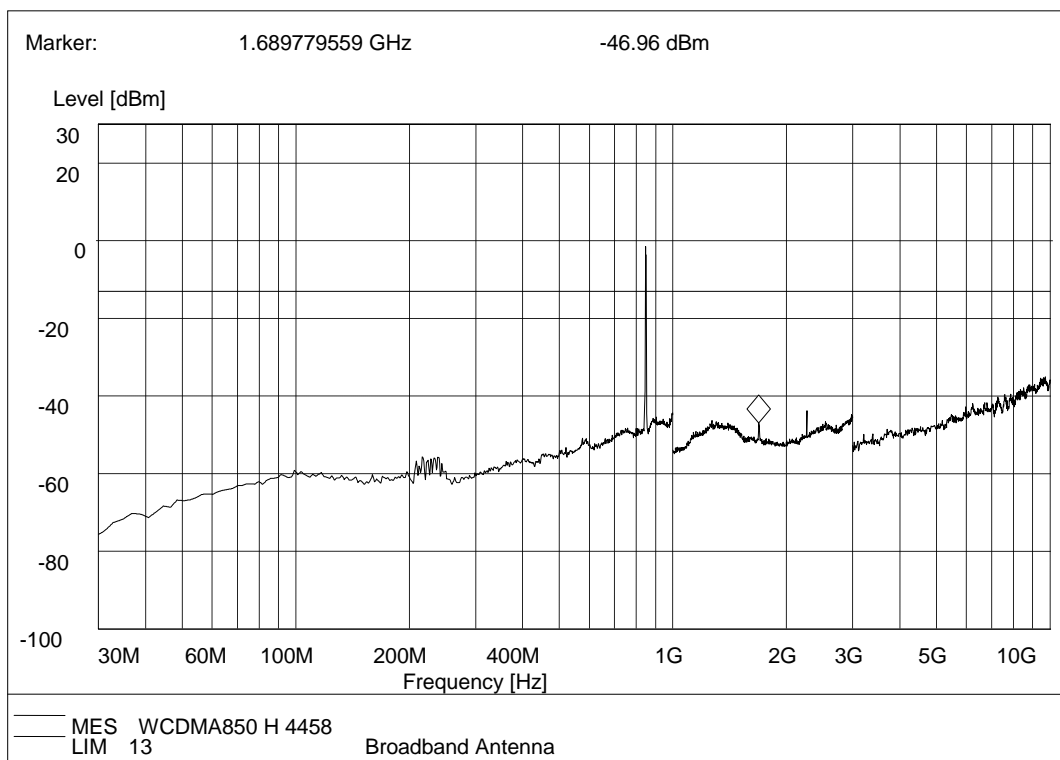
(Plot C.2: WCDMA 850MHz Channel = 4132, Test Antenna Vertical)



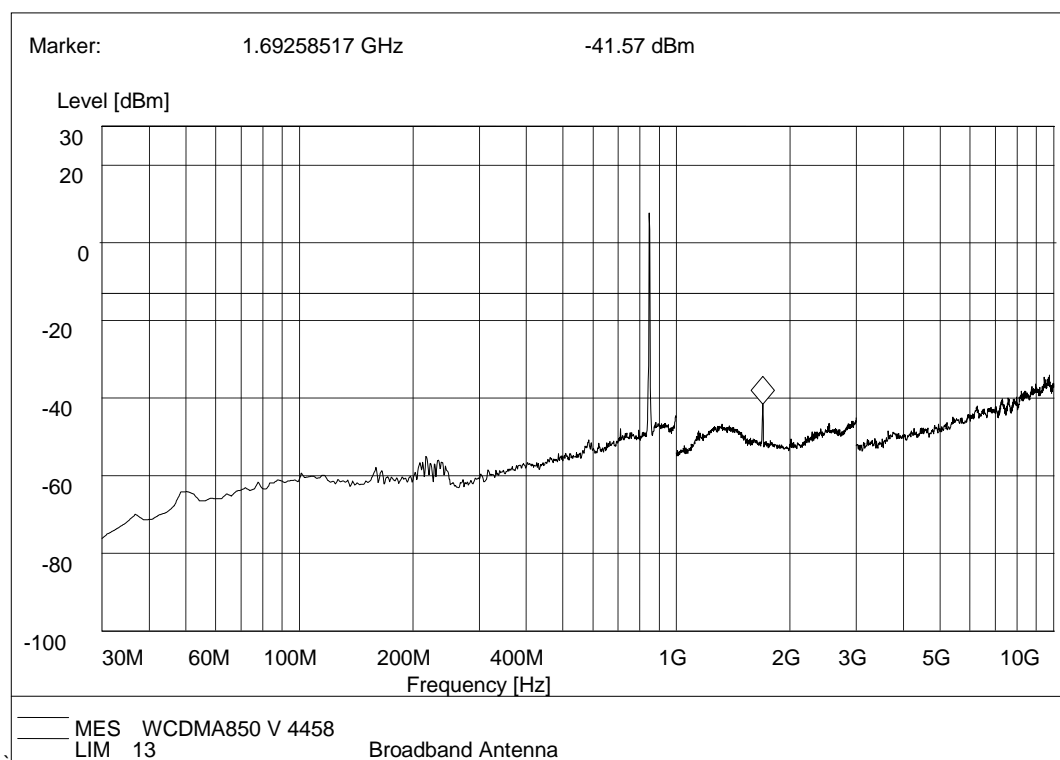
(Plot C.3: WCDMA 850MHz Channel = 4183, Test Antenna Horizontal)



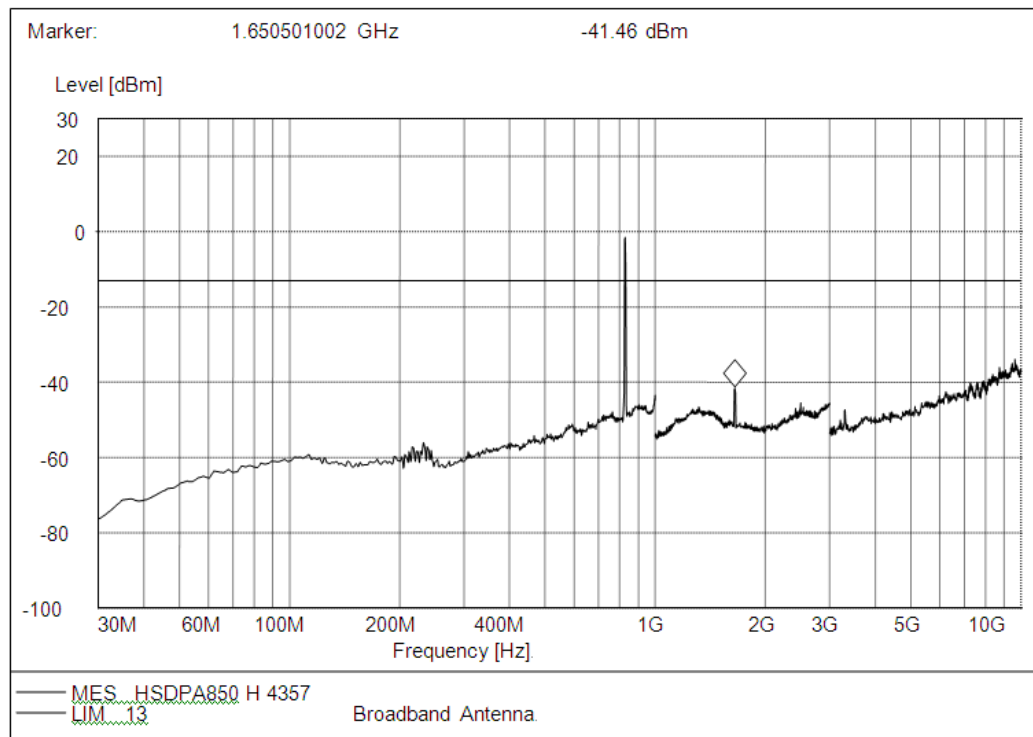
(Plot C.4: WCDMA 850MHz Channel = 4183, Test Antenna Vertical)



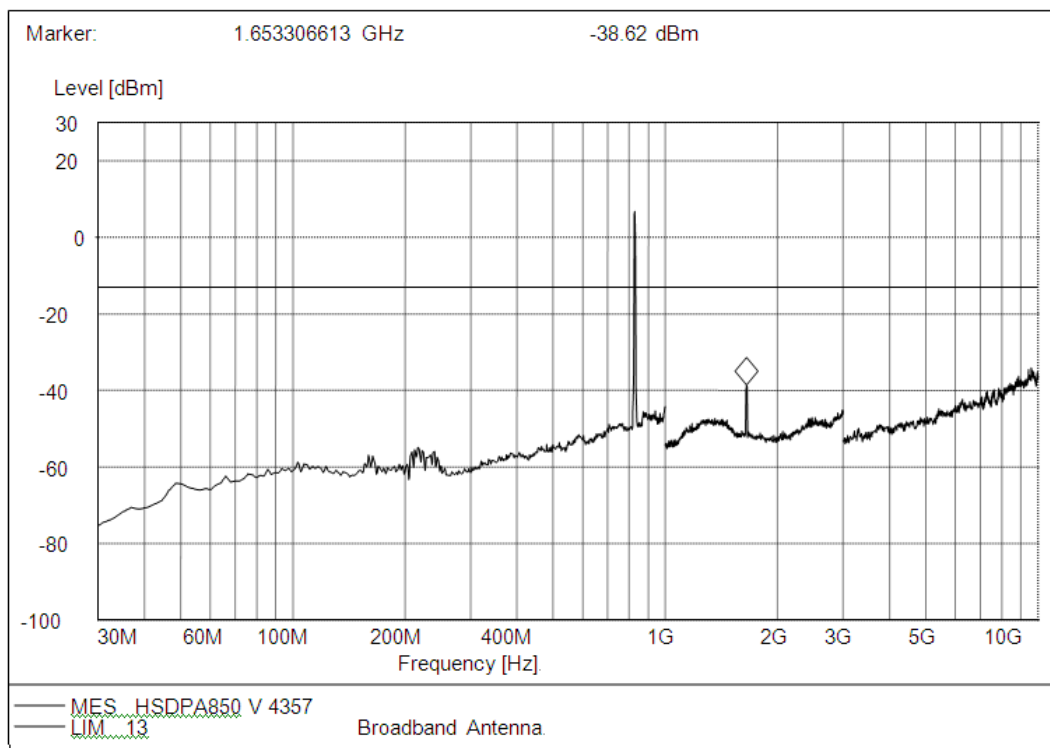
(Plot C.5: WCDMA 850MHz Channel = 4233, Test Antenna Horizontal)



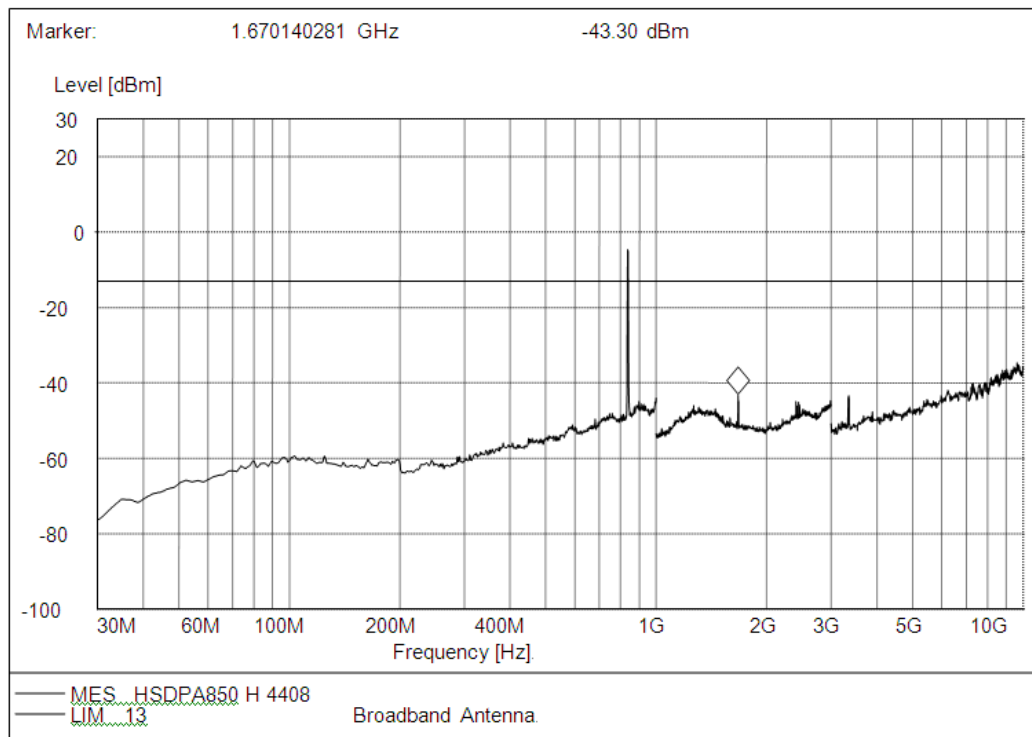
(Plot C.6: WCDMA 850MHz Channel = 4233, Test Antenna Vertical)



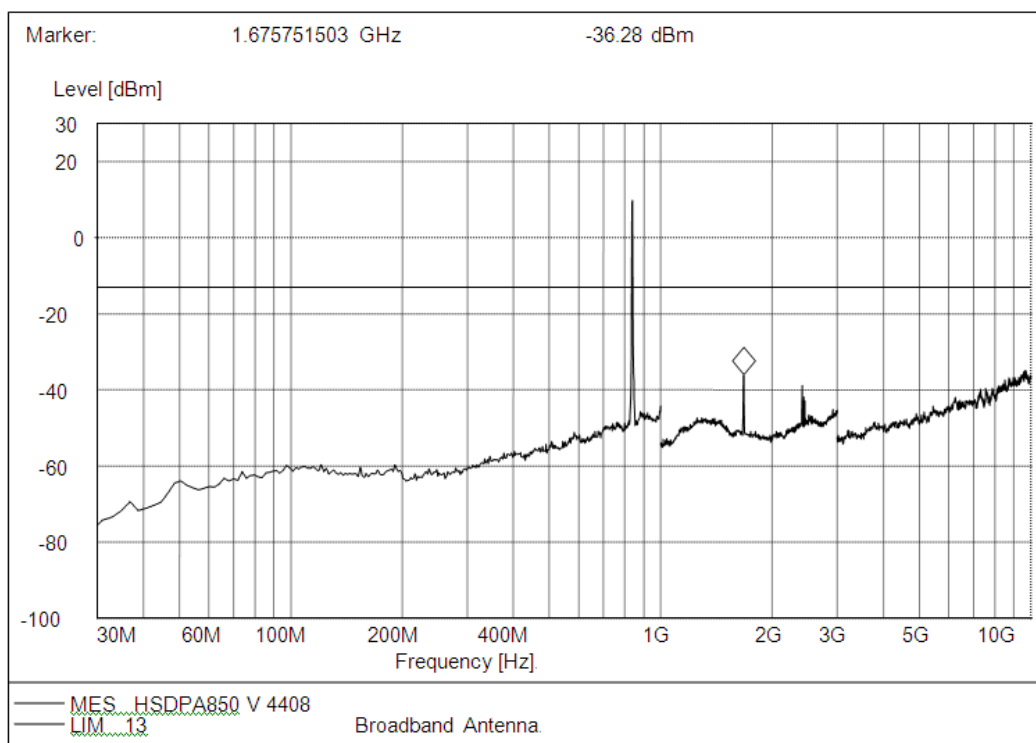
(Plot D.1: HSDPA 850MHz Channel = 4132, Test Antenna Horizontal)



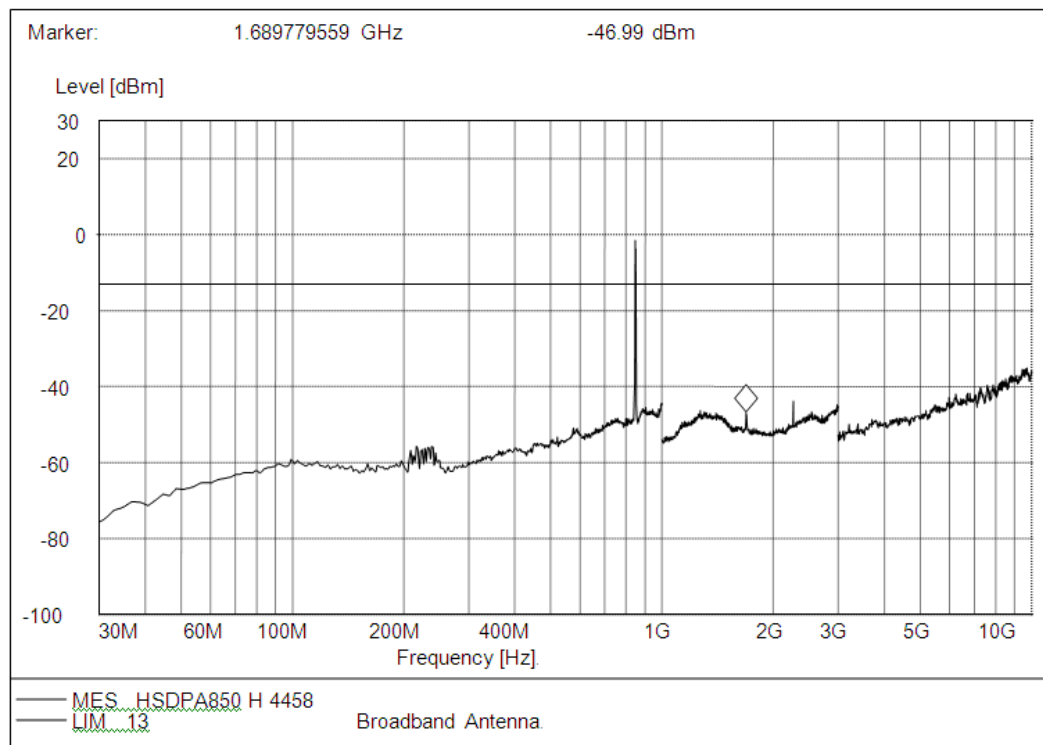
(Plot D.2: HSDPA 850MHz Channel = 4132, Test Antenna Vertical)



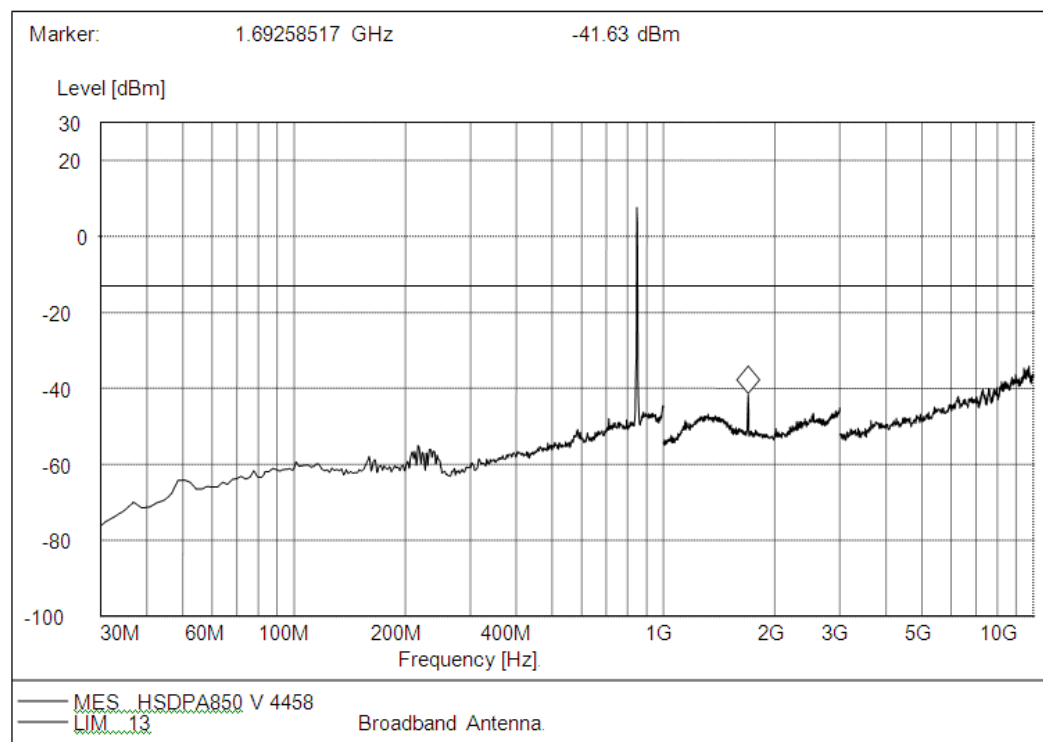
(Plot D.3: HSDPA 850MHz Channel = 4183, Test Antenna Horizontal)



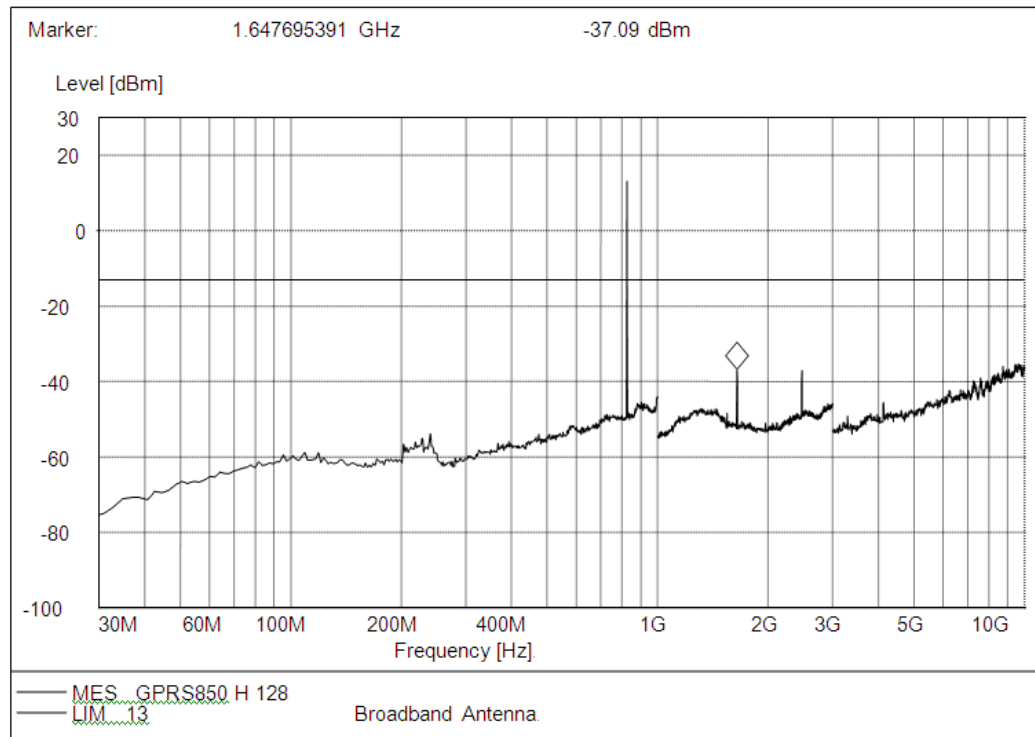
(Plot D.4: HSDPA 850MHz Channel = 4183, Test Antenna Vertical)



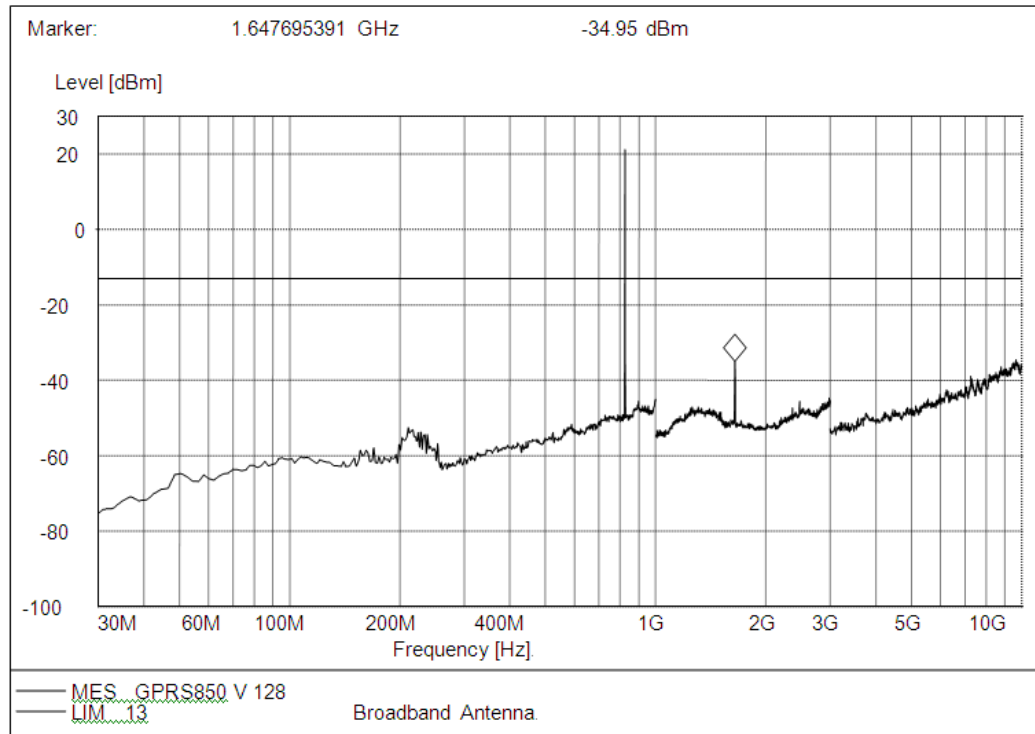
(Plot D.5: HSDPA 850MHz Channel = 4233, Test Antenna Horizontal)



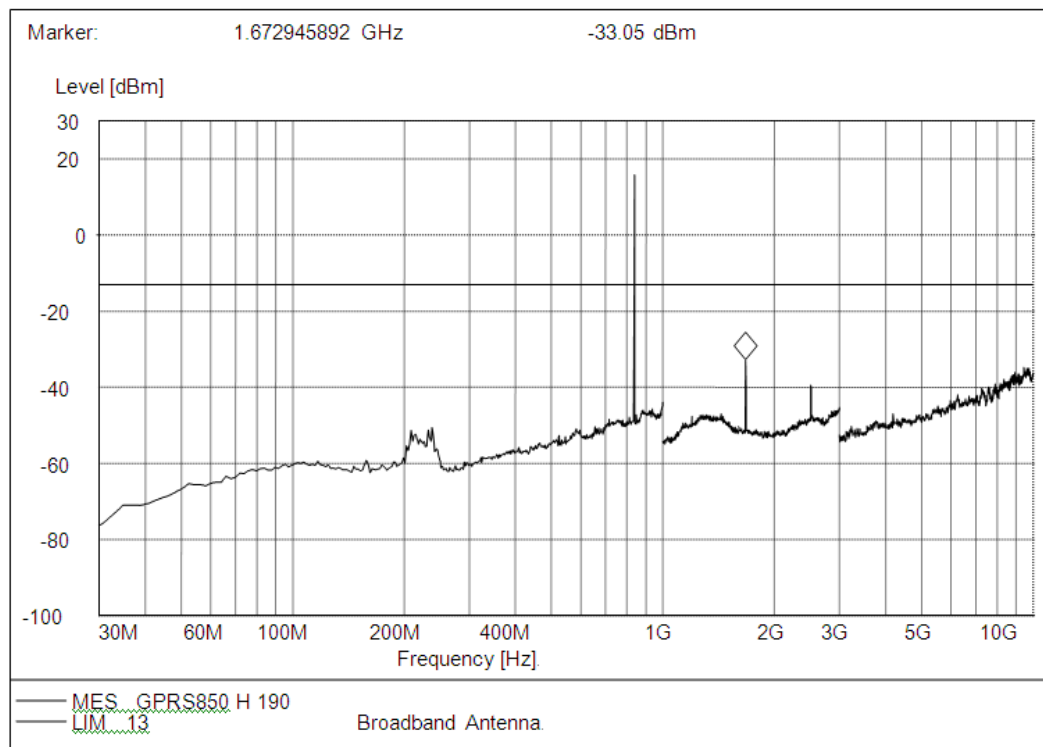
(Plot D.6: HSDPA 850MHz Channel = 4233, Test Antenna Vertical)



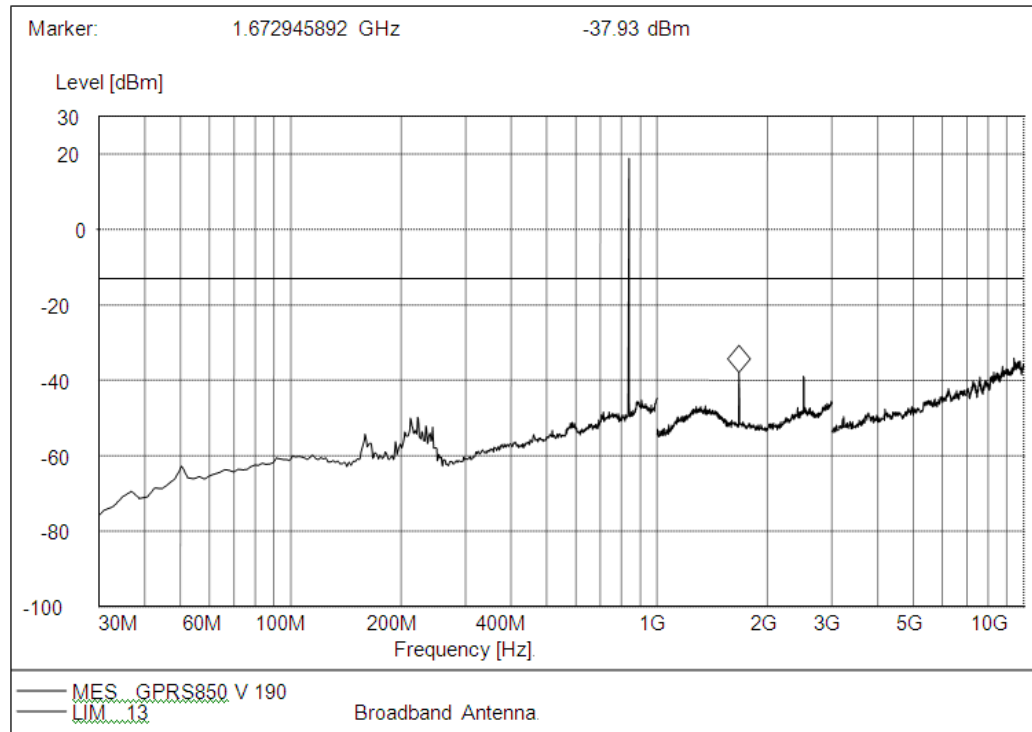
(Plot E.1: GPRS 850MHz Channel = 128, Test Antenna Horizontal)



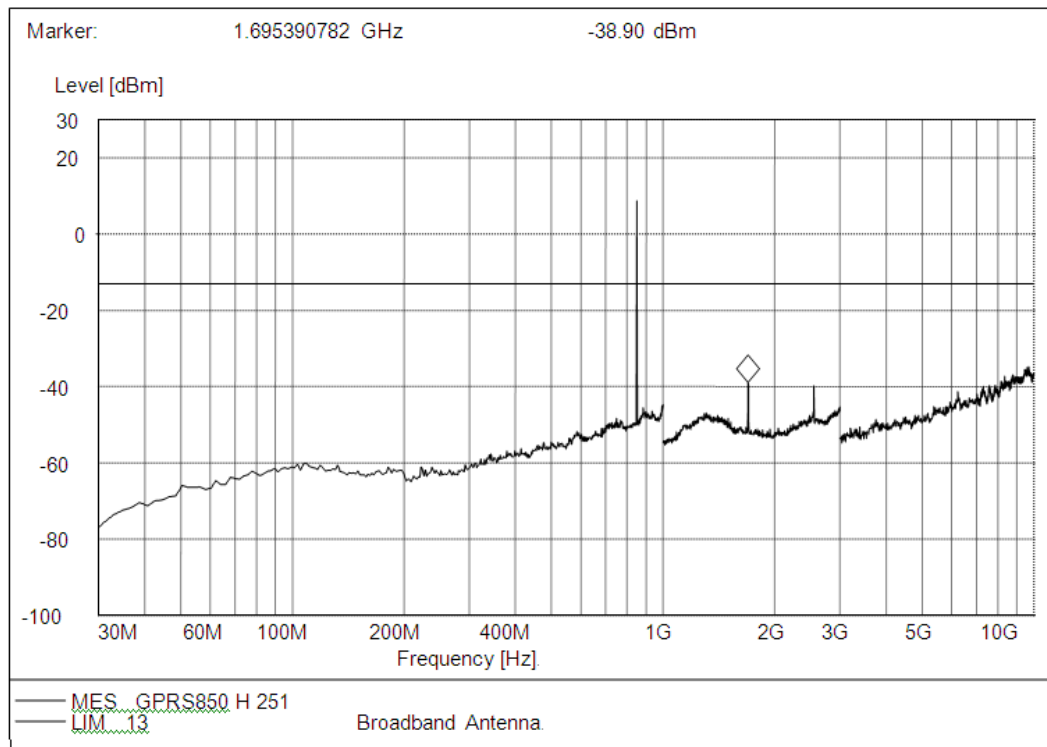
(Plot E.2: GPRS 850MHz Channel = 128, Test Antenna Vertical)



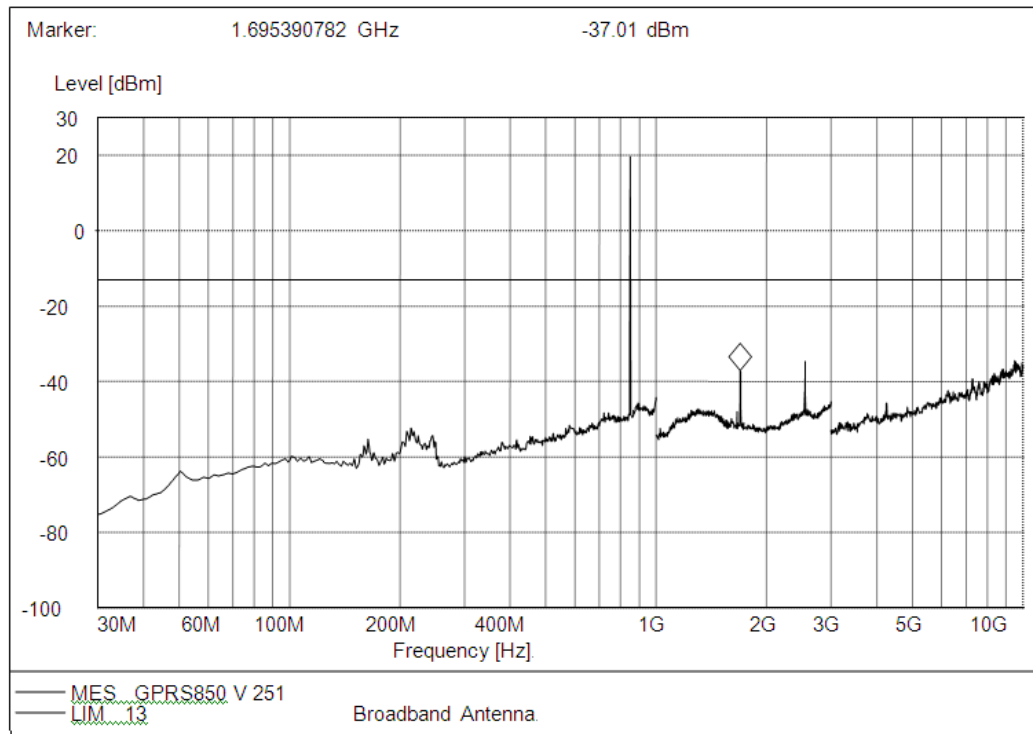
(Plot E.3: GPRS 850MHz Channel = 190, Test Antenna Horizontal)



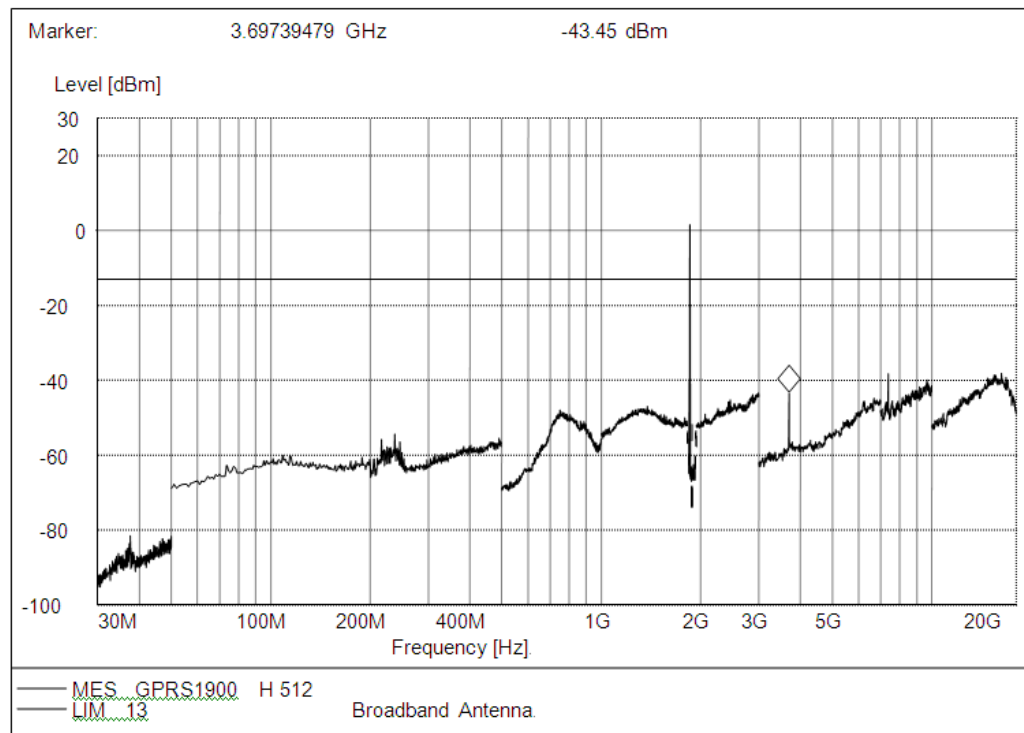
(Plot E.4: GPRS 850MHz Channel = 190, Test Antenna Vertical)



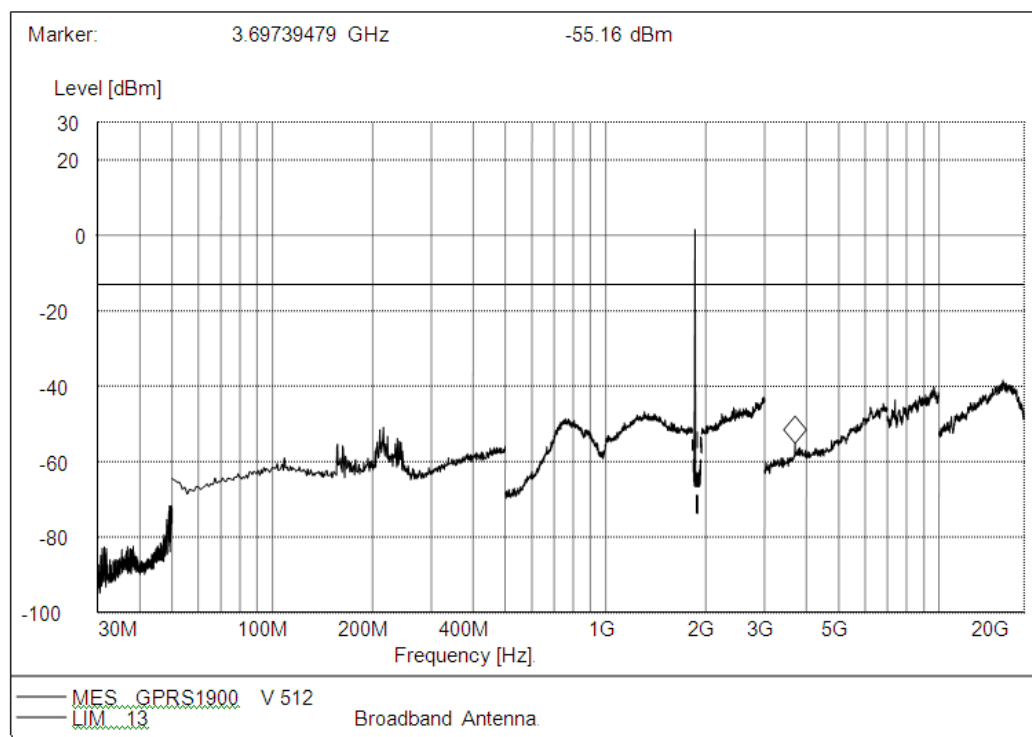
(Plot E.5: GPRS 850MHz Channel = 251, Test Antenna Horizontal)



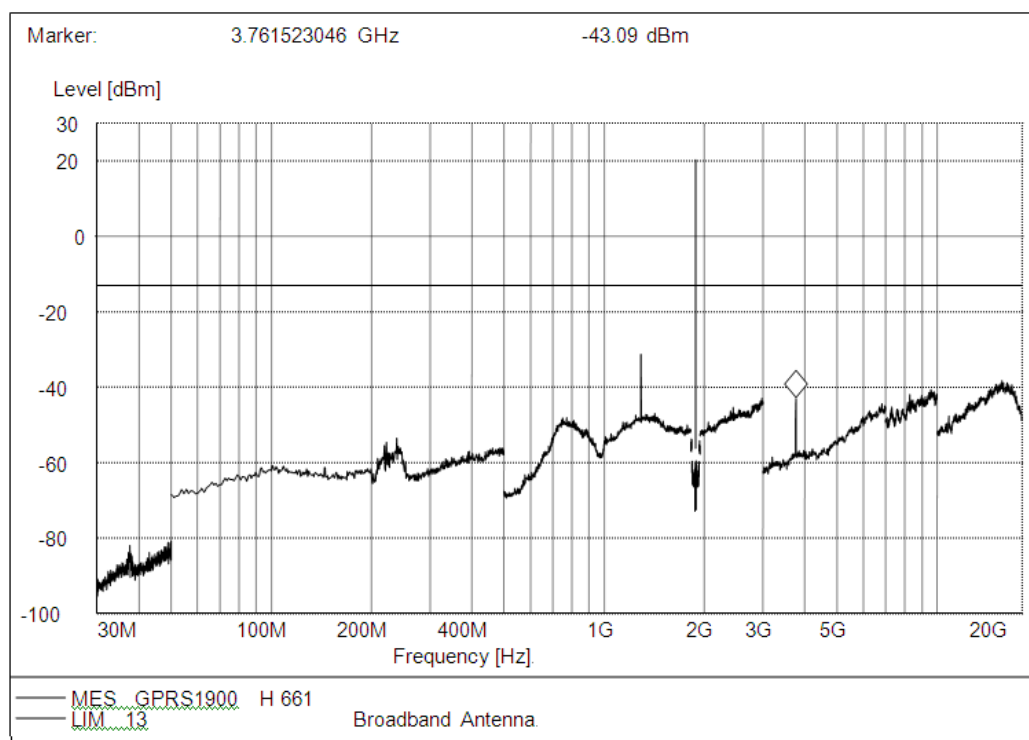
(Plot E.6: GPRS 850MHz Channel = 251, Test Antenna Vertical)



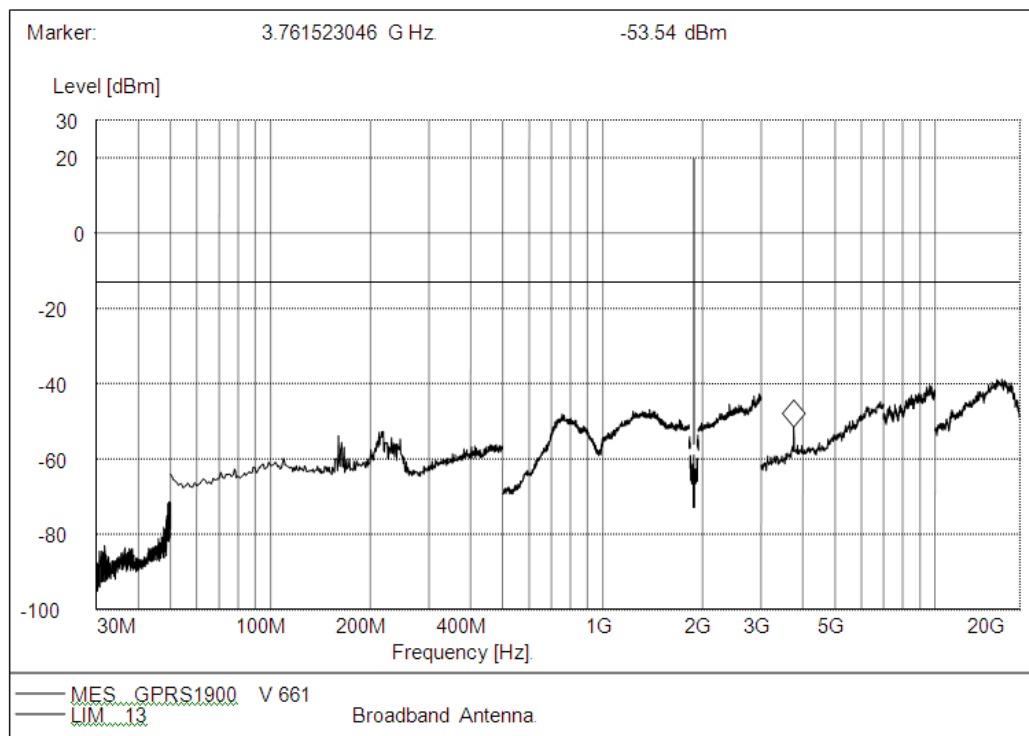
(Plot F.1: GPRS 1900MHz Channel = 512, Test Antenna Horizontal)



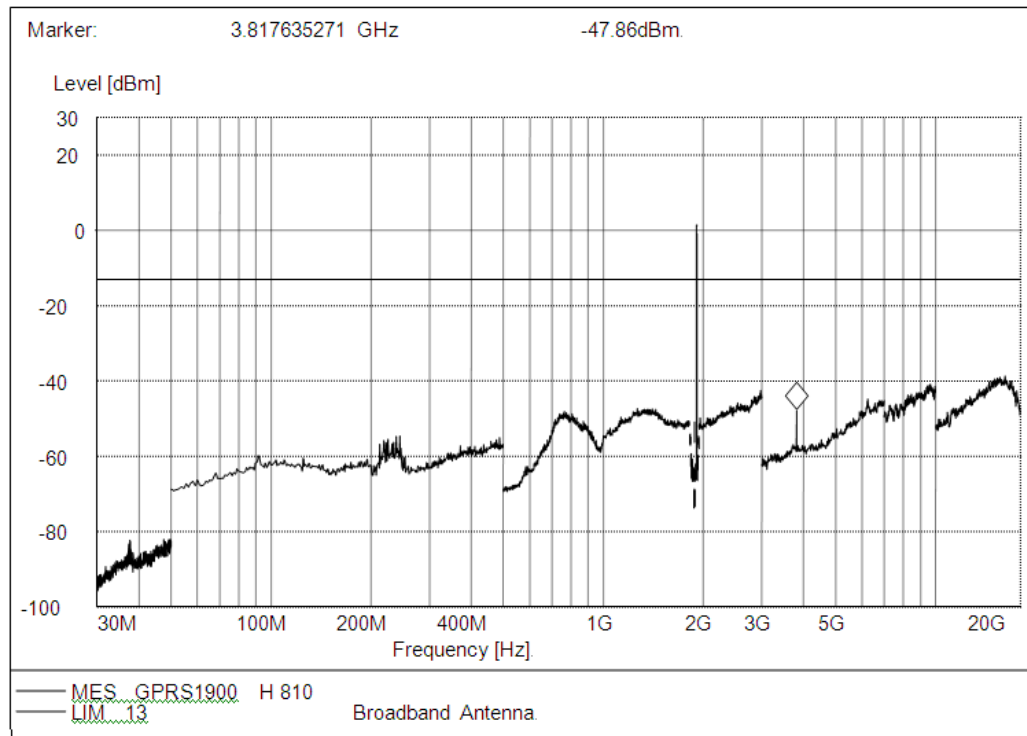
(Plot F.2: GPRS 1900MHz Channel = 512, Test Antenna Vertical)



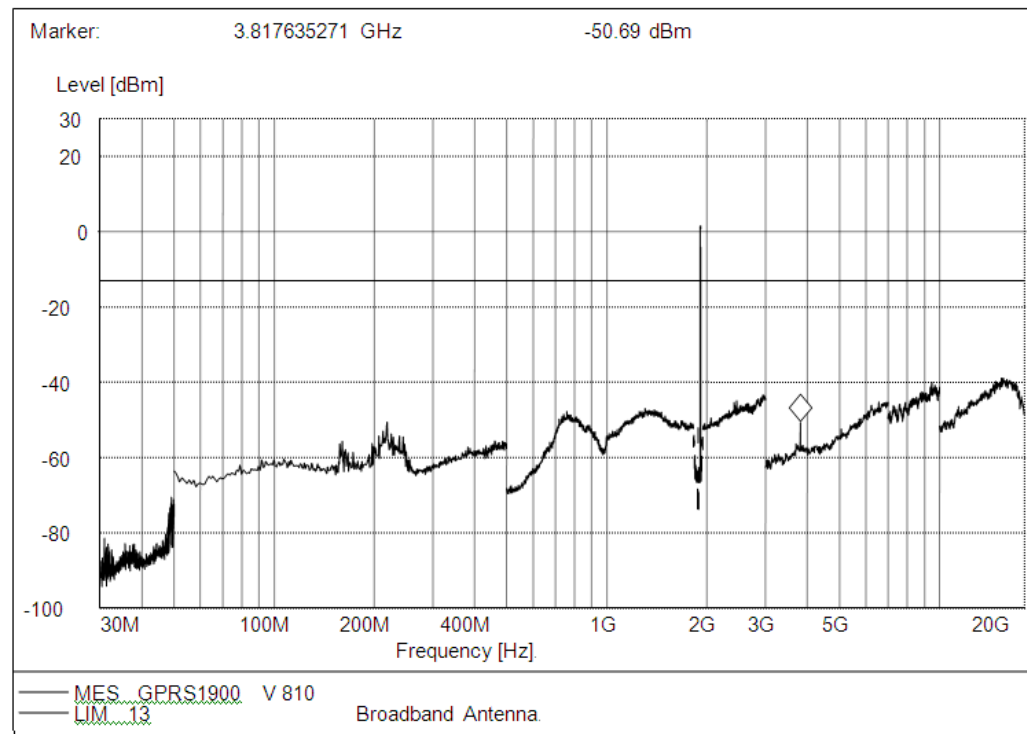
(Plot F.3: GPRS 1900MHz Channel = 661, Test Antenna Horizontal)



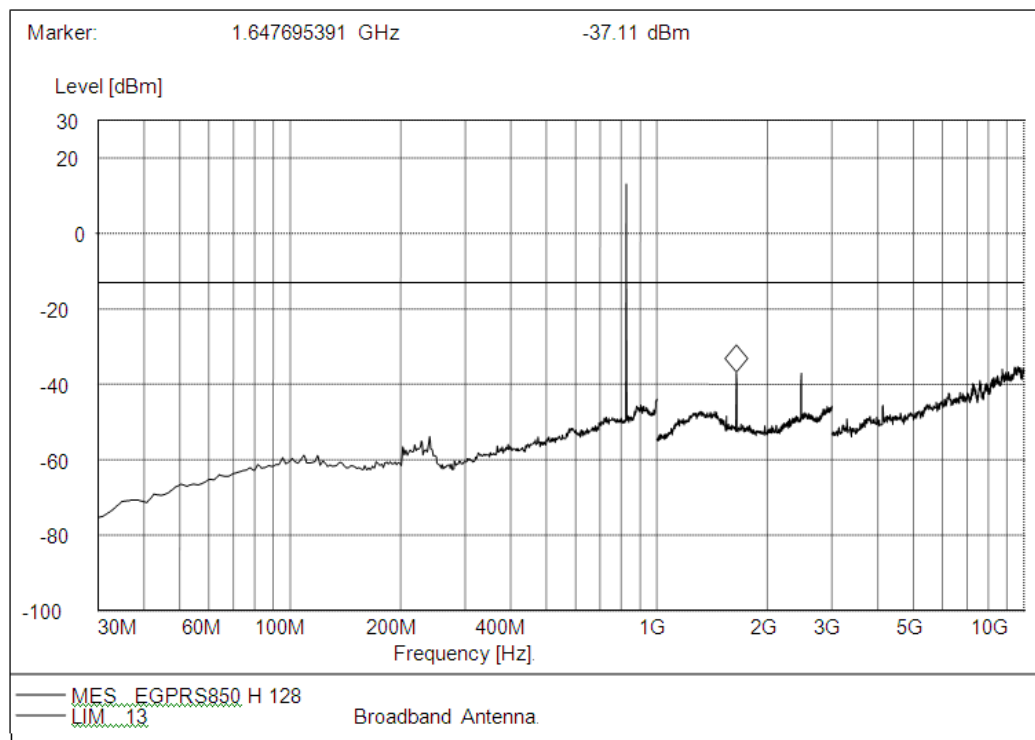
(Plot F.4: GPRS 1900MHz Channel = 661, Test Antenna Vertical)



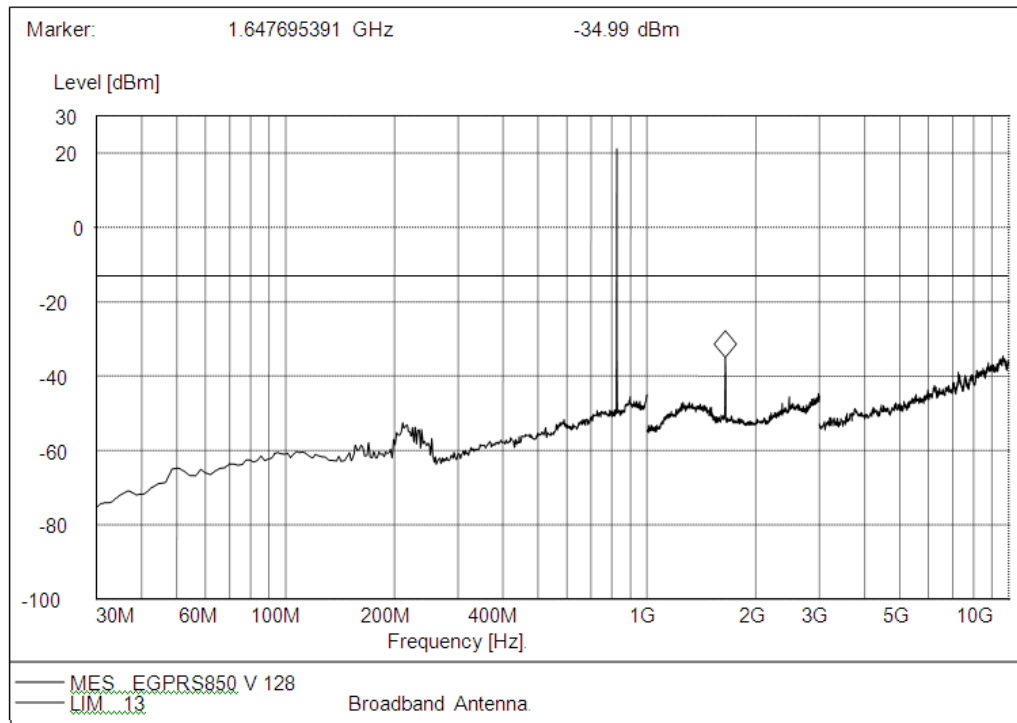
(Plot F.5: GPRS 1900MHz Channel = 810, Test Antenna Horizontal)



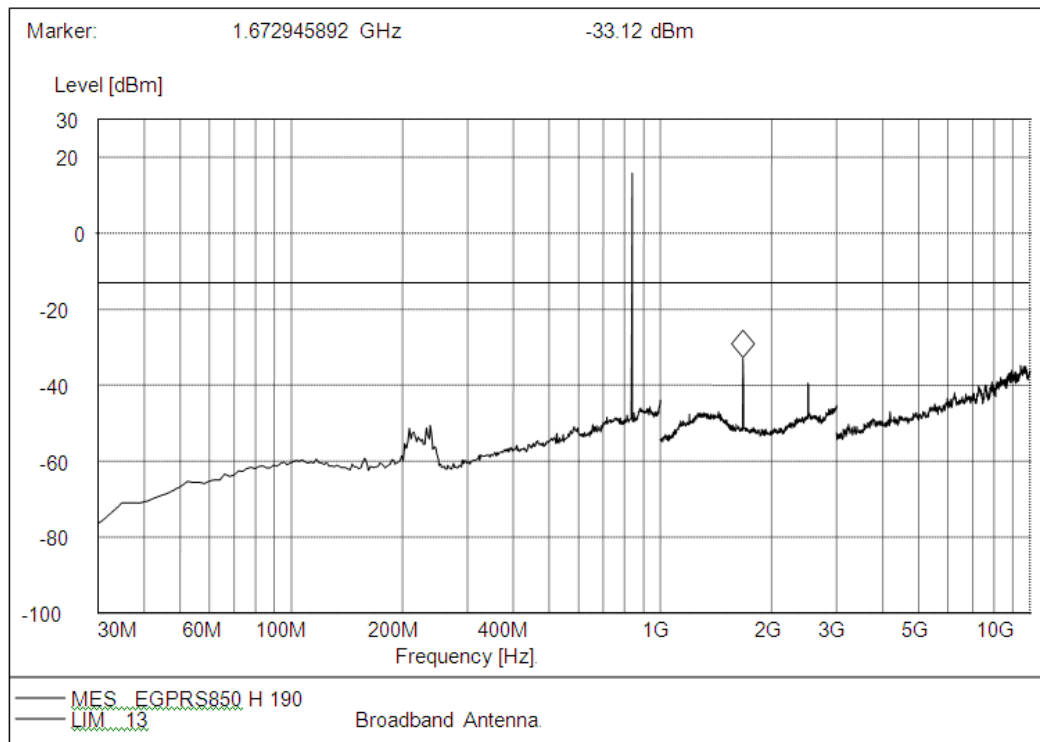
(Plot F.6: GPRS 1900MHz Channel = 810, Test Antenna Vertical)



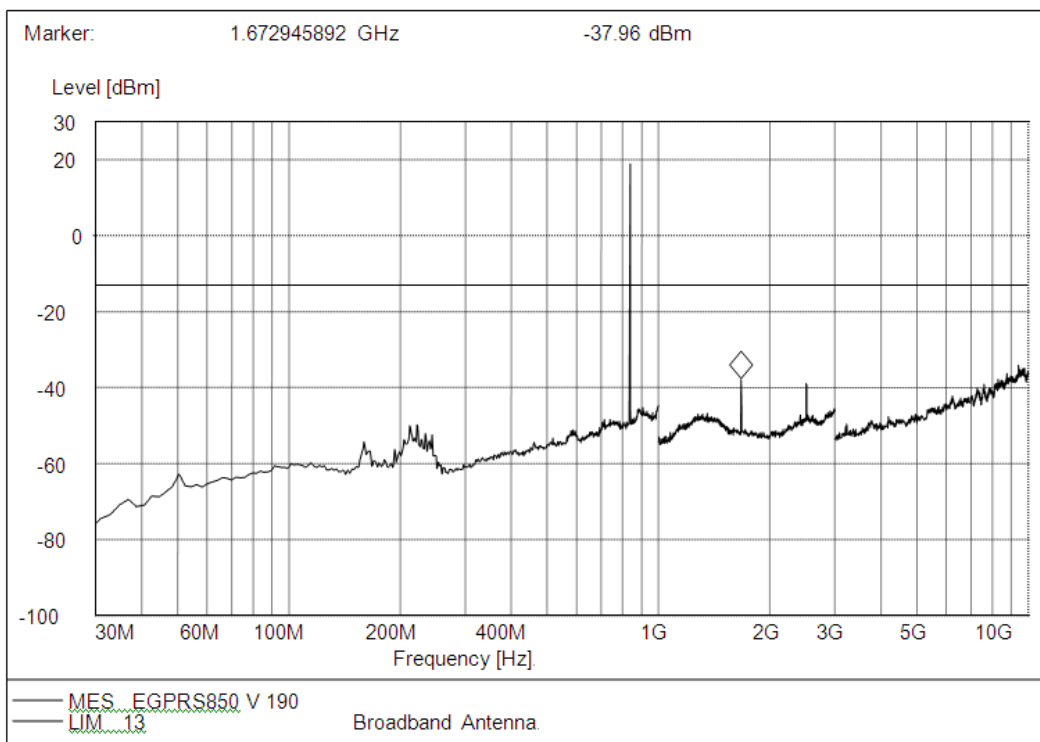
(Plot G.1: EDGE 850MHz Channel = 128, Test Antenna Horizontal)



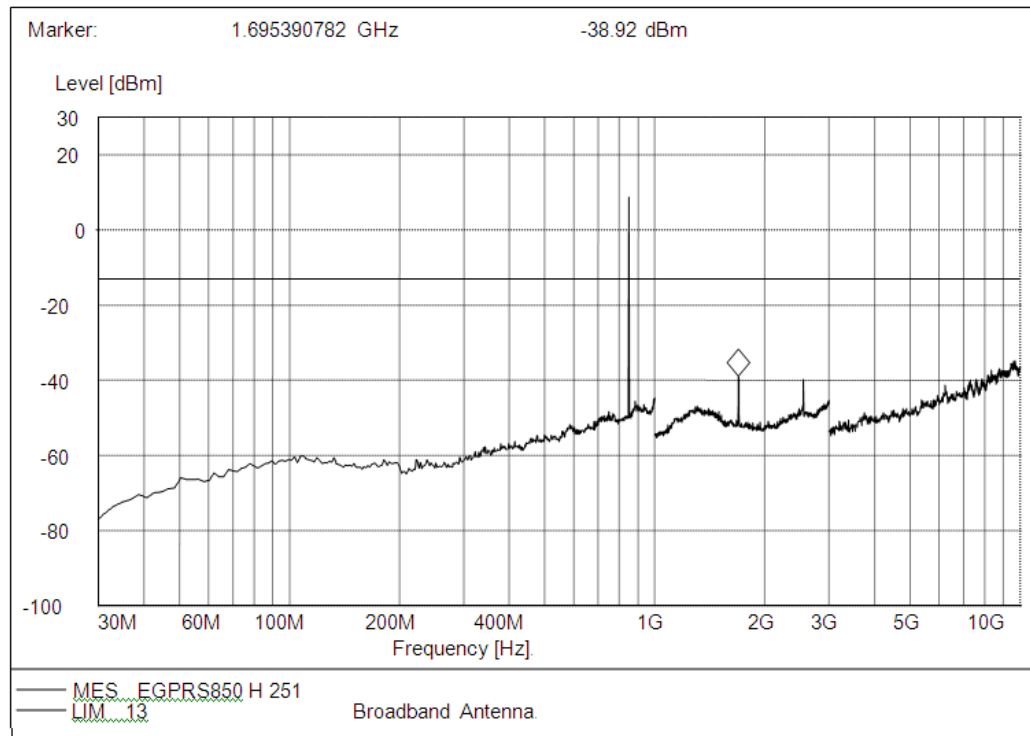
(Plot G.2: EDGE 850MHz Channel = 128, Test Antenna Vertical)



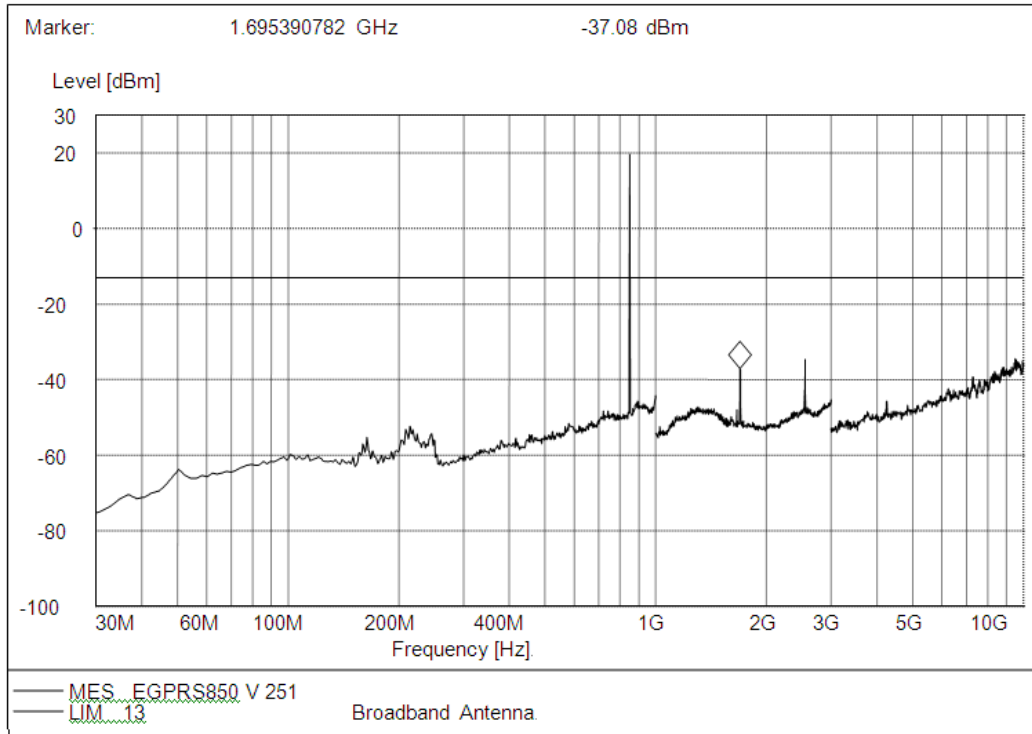
(Plot G.3: EDGE 850MHz Channel = 190, Test Antenna Horizontal)



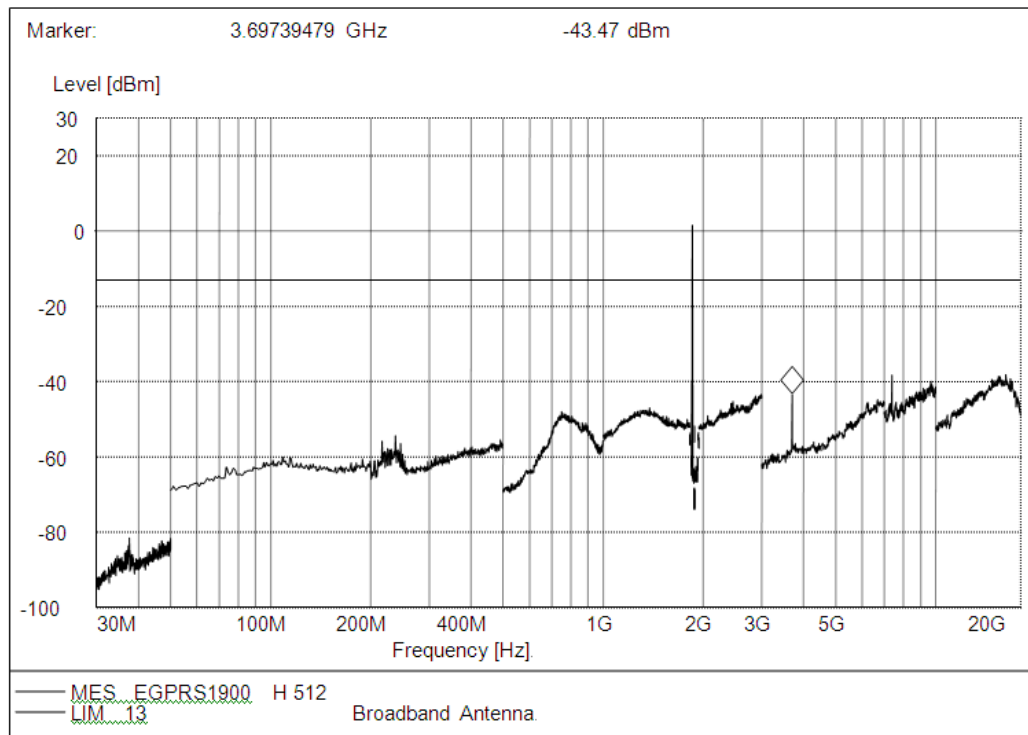
(Plot G.4: EDGE 850MHz Channel = 190, Test Antenna Vertical)



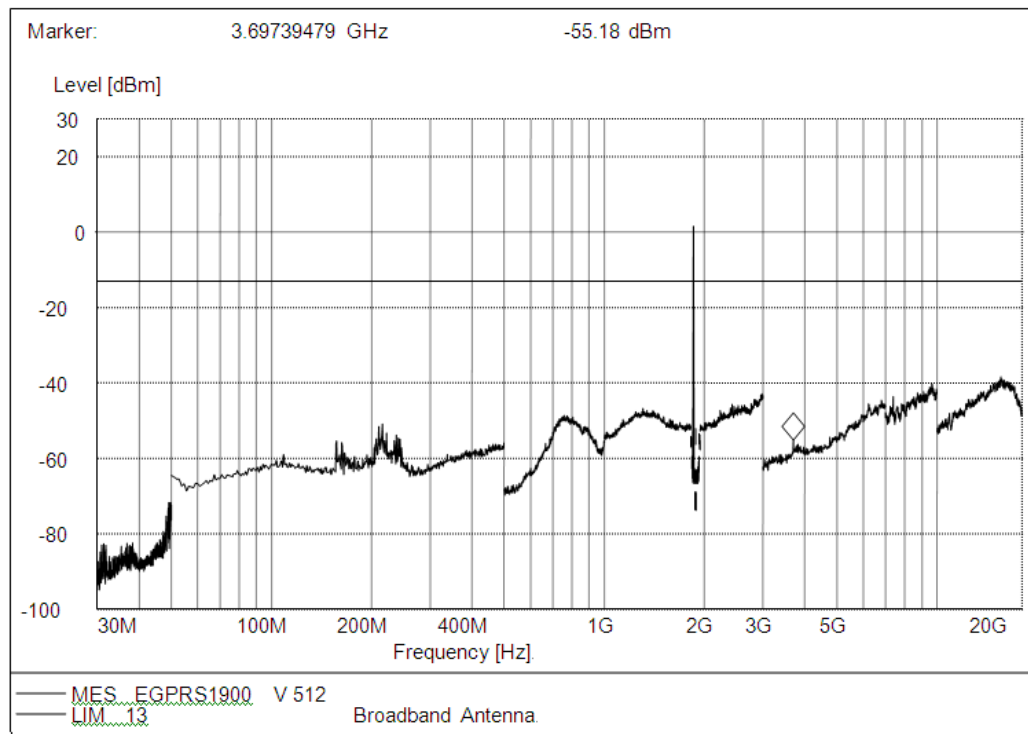
(Plot G.5: EDGE 850MHz Channel = 251, Test Antenna Horizontal)



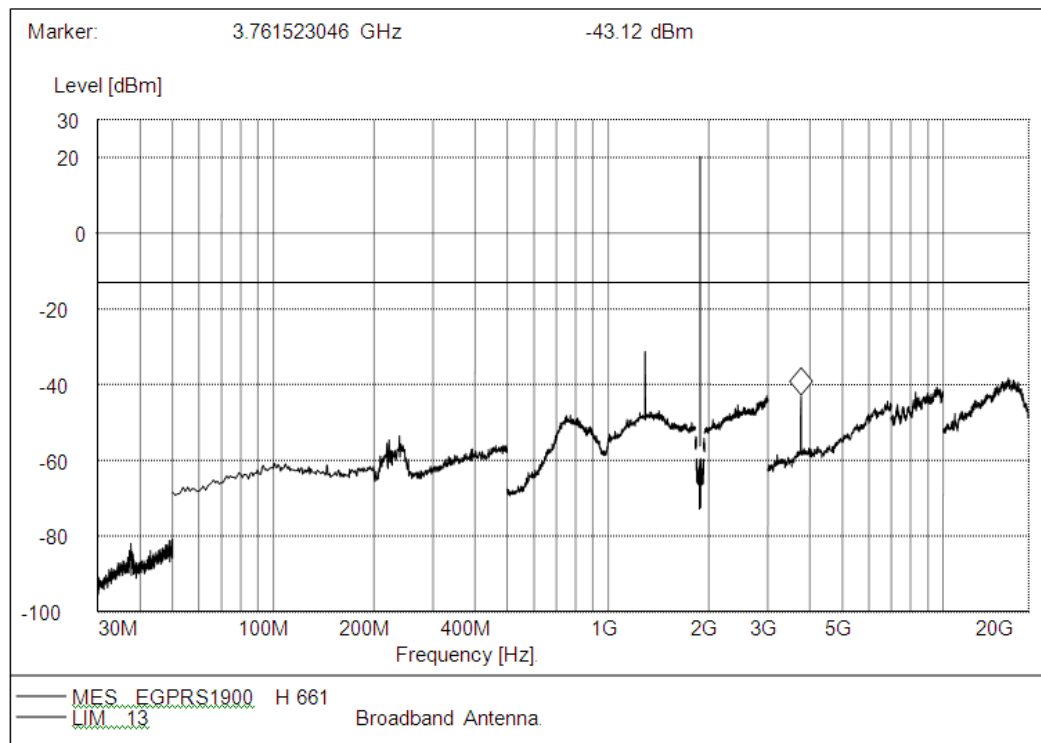
(Plot G.6: EDGE 850MHz Channel = 251, Test Antenna Vertical)



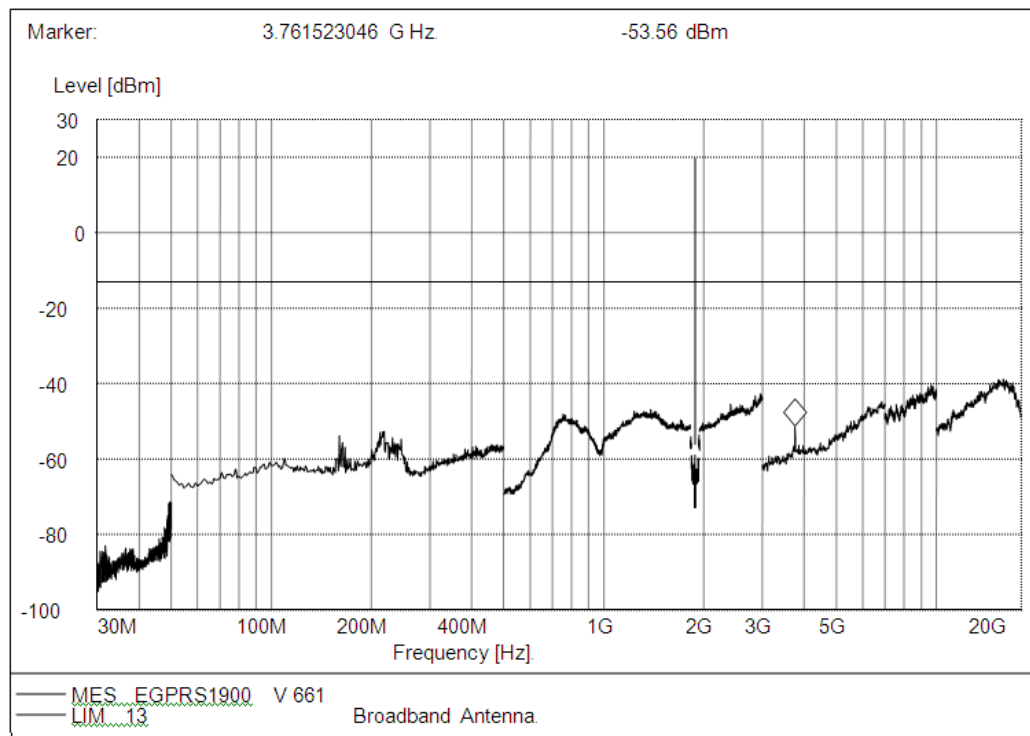
(Plot H.1: EDGE 1900MHz Channel = 512, Test Antenna Horizontal)



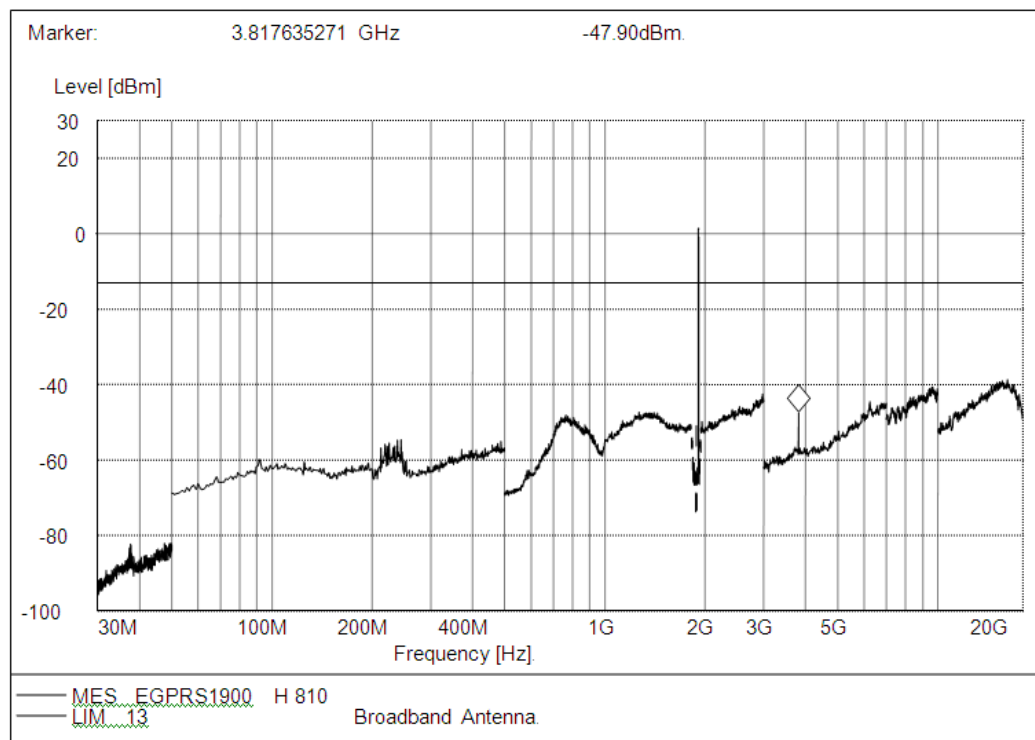
(Plot H.2: EDGE 1900MHz Channel = 512, Test Antenna Vertical)



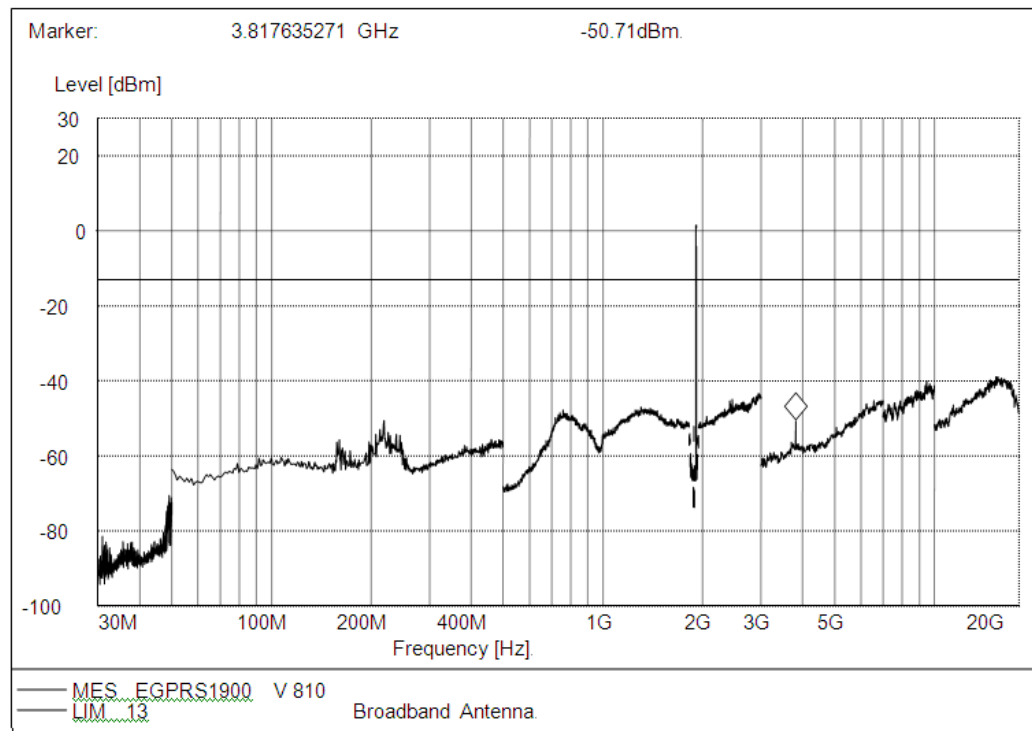
(Plot H.3: EDGE 1900MHz Channel = 661, Test Antenna Horizontal)



(Plot H.4: EDGE 1900MHz Channel = 661, Test Antenna Vertical)



(Plot H.5: EDGE 1900MHz Channel = 810, Test Antenna Horizontal)



(Plot H.6: EDGE 1900MHz Channel = 810, Test Antenna Vertical)

Annex A Accreditation Certificate

 
China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE
(Registration No. CNAS L1659)
CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. <u>Building 28/29, Shigudong, Xili Industrial Area, Xili Street,</u> <u>Nanshan District, Shenzhen, Guangdong, China</u>
<i>is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence of testing and calibration.</i>
<i>The scope of accreditation is detailed in the attached appendices bearing the same registration number as above. The appendices form an integral part of this certificate.</i>
Date of Issue: 2012-09-29 Date of Expiry: 2015-09-28 Date of Initial Accreditation: 1999-08-03 Date of Update: 2012-09-29

Signed on behalf of China National Accreditation Service for Conformity Assessment
<small>China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).</small>
No. CNAS AL 2 0005210

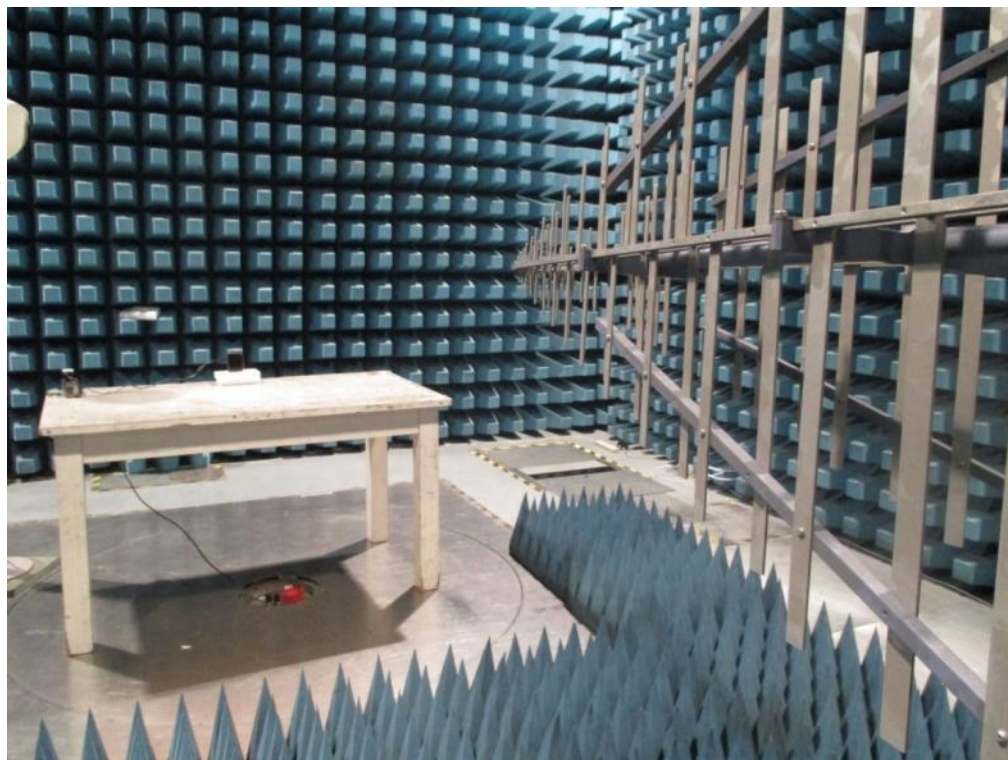
Annex B PHOTOGRAPHS OF THE EUT

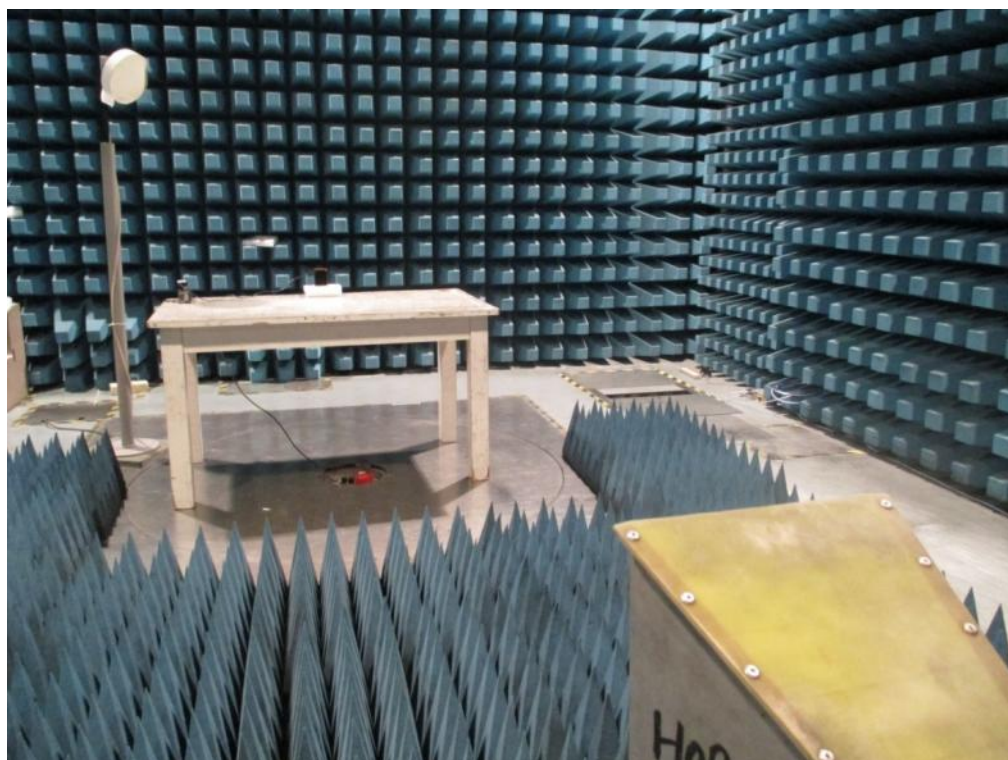
Annex C PHOTOGRAPHS OF THE TEST SETUP

1. Conducted Measurement Setup



2. Radiated Measurement Setup





** END OF REPORT **