

FCC TEST REPORT

for

Shenzhen KTC Technology Co., Ltd.

8" PAD

Model Number: 800P***(* can be A-Z or 0-9 or blank to denote various customer demand)

FCC ID: ROU00003

Prepared for : Shenzhen KTC Technology Co., Ltd.
Address : Northern Wuhe Road, Gangtou, Buji, Longgang,
Shenzhen, China

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Report No. : 13KWE07786F
Date of Test : Jul. 10~ 17, 2013
Date of Report : Jul. 22, 2013

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Keyway Testing Technology Co., Ltd.

Applicant:	SHENZHEN KTC TECHNOLOGY OO.,LTD		
Address:	Northern Wuhe Road, Gangtou, Buji,Longgang,Shenzhen, China		
Manufacturer:	SHENZHEN KTC TECHNOLOGY OO.,LTD		
Address:	Northern Wuhe Road, Gangtou, Buji,Longgang,Shenzhen, China		
E.U.T:	8" PAD		
Model Number:	800P***(* can be A-Z or 0-9 or blank to denote various customer demand)		
Trade Name:	-----	Serial No.:	-----
Date of Receipt:	Jul. 3, 2013	Date of Test:	Jul. 10~ 17, 2013
Test Specification:	FCC CFR Title 47 Part 2: 2012 FCC CFR Title 47 Part22 Subpart H: 2012 FCC CFR Title 47 Part24 Subpart E: 2012		
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied. Issue Date: Jul. 22, 2013		
Tested by:	Reviewed by:	Approved by:	
 	 	 	
	Andy Gao / Engineer	Jade Yang/ Supervisor	Chris Du / Manager
Other Aspects:	None.		
<i>Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested</i>			
<i>This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Keyway Testing Technology Co., Ltd.</i>			

1.TEST SUMMARY

Test Items	Test Requirement	Result
Conducted Emission at the Mains Terminals	15.207	PASS
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Passed* (Please refer to SAR Report)
Conducted RF Output Power	2.1046	PASS
Peak to average ratio	24.232(d) ,	PASS
99% & -26 dB Occupied Bandwidth	2.1049, 22.917 24.238,	PASS
Frequency Stability	2.1055, 22.355 24.235,	PASS
Conducted Out of Band Emissions	2.1051,2.1057 22.917, 24.238	PASS
Band Edge	2.1051,2.1057 22.917, 24.238	PASS
Transmitter Radiated Power (EIPR/ERP)	22.913, 24.232	PASS
Radiated Out of Band Emissions	2.1053,2.1057 22.917, 24.238	PASS

2.GENERAL PRODUCT INFORMATION

2.1. Product Function

Refer to Technical Construction Form and User Manual.

2.2. Description of Device (EUT)

Product Name:	8" PAD
Model No.:	800P***(* can be A-Z or 0-9 or blank to denote various customer demand)
Operation Frequency:	Bluetooth:2402~2480MHz WIFI:2412MHz~2462MHz (802.11b/802.11g/802.11n(H20)) 2422MHz~2452MHz (802.11n(H40)) 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 00kHz); Rx: 871.4 - 891.6MHz (at intervals of 200kHz)
Channel numbers:	Bluetooth:79 Channels WIFI:13 Channel for 802.11b/g/n(HT20), 7 Channel for 802.11n(HT40)
Channel separation:	Bluetooth:1M WIFI:5M
Modulation technology:	Bluetooth: FHSS(GFSK 1Mbps),Pi/4DQPSK(EDR 2Mbps), 8-DQPSK(EDR 3Mbps) WIFI: Direct Sequence Spread Spectrum (DSSS) Orthogonal Frequency Division Multiplexing(OFDM) GSM/GPRS Mode with GMSK Modulation WCDMA Mode with QPSK Modulation HSDPA Mode with QPSK Modulation HSUPA Mode with QPSK Modulation
Antenna Type:	Integral(BT &WIFI) PIFA Antenna (GSM&WCDMA)
Antenna gain:	3.4dBi (BT &WIFI) -2.42dBi (GSM&WCDMA)
Power supply:	DC 5V from adapter
Multislot Class	12
EGPRS Class	12

Adapter	
Description	: Switching Adapter
M/N	: ASSA1b-050200
System Input Voltage	: AC 100-240V/50-60Hz 0.45A
Output	: 5V 2000mA

2.3. Difference between Model Numbers

Note: 800P*** (800P*** (800: express screen size is 8 inches; "P": express Pad; * can be any alphanumeric represent different customer code or the sales area, not affect the product performance)

2.4. Independent Operation Modes

The basic operation modes are:

- 1: The transmitter (Tx) frequency arrangement of the Cellular 850MHz band used by the EUT can be represented with the formula $F(n)=824.2+0.2*(n-128)$, $128 \leq n \leq 251$; 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).
- 2: The transmitter (Tx) frequency arrangement of the PCS 1900MHz band used by the EUT can be represented with the formula $F(n)=1850.2+0.2*(n-512)$, $512 \leq n \leq 810$; 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).
- 3: The transmitter (Tx) frequency arrangement of the WCDMA 850MHz band used by the EUT can be represented with the formula $F(n)=826.4+0.2*(n-4132)$, $4132 \leq n \leq 4233$; 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).

3. TEST SITES

3.1. Test Facilities

Lab Qualifications : 944 Shielded Room built by ETS-Lindgren, USA
Date of completion: March 28, 2011

966 Chamber built by ETS-Lindgren, USA
Date of completion: March 28, 2011

Certificated by TUV Rheinland, Germany.
Registration No.: UA 50207153
Date of registration: July 13, 2011

Certificated by UL, USA
Registration No.: 100567-237
Date of registration: September 1, 2011

Certificated by Intertek
Registration No.: 2011-RTL-L1-31
Date of registration: October 11, 2011

Certificated by Industry Canada
Registration No.: 9868A
Date of registration: December 8, 2011

Certificated by FCC, USA
Registration No.: 370994
Date of registration: February 21, 2012

Certificated by CNAS China
Registration No.: CNAS L5783
Date of registration: August 8, 2012

Name of Firm : Keyway Testing Technology Co., Ltd.

Site Location : Baishun Industrial Zone, Zhangmutou Town,
Dongguan, Guangdong, China

3.2. List of Test and Measurement Instruments

3.2.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	May 9,13	May 9,14
Artificial Mains Network	Rohde&Schwarz	ENV216	101315	May 9,13	May 9,14
Artificial Mains Network (AUX)	Rohde&Schwarz	ENV216	101314	May 9,13	May 9,14
RF Cable	FUJIKURA	3D-2W	944 Cable	May 9,13	May 9,14

3.2.2. For radiated emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	May 9,13	May 9,14
System Simulator	Agilent	E5515C	GB43130245	May 9,13	May 9,14
Power Splitter	Weinschel	1506A	NW425	May 9,13	May 9,14
Bilog Antenna	ETS-LINDGREEN	3142D	135452	May 20,13	May 20,14
Spectrum Analyzer	Agilent	E4411B	MY4511304	May 9,13	May 9,14
3m Semi-anechoic Chamber	ETS-LINDGREEN	966	KW01	May 9,13	May 9,14
Signal Amplifier	SONOMA	310	187016	May 9,13	May 9,14
Signal Amplifier	Agilent	8449B	3008A00251	May 9,13	May 9,14
RF Cable	IMRO	IMRO-400	966 Cable 1#	N/A	N/A
MULTI-DEVICE Controller	ETS-LINDGREEN	2090	126913	N/A	N/A
Horn Antenna	DAZE	ZN30701	11003	May. 11,13	May. 11,14
Horn Antenna	SCHWARZBECK	BBHA9170	9170-068	May. 11,13	May. 11,14
Spectrum Analyzer	Agilent	8593E	3911A04271	May. 9,13	May. 9,14
Spectrum Analyzer	Agilent	E4408B	MY44211125	May. 9,13	May. 9,14
Signal Amplifier	DAZE	ZN3380C	11001	May. 9,13	May. 9,14
High Pass filter	Micro	HPM50111	324216	May. 9,13	May. 9,14
Filter	COM-MW	ZBSF-C836.5-25-X	KW032	May. 9,13	May. 9,14
Filter	COM-MW	ZBSF-C1747.5-75-X2	KW035	May. 9,13	May. 9,14
Filter	COM-MW	ZBSF-C1880-60-X2	KW037	May. 9,13	May. 9,14
Power Meter	R&S	NRVS	101824	May. 9,13	May. 9,14
Peak and Avg Power Sensor	Rohde&Schwarz	URV5-Z7	100655	May. 9,13	May. 9,14
DC Power Supply	LongWei	PS-305D	010964729	May 9,13	May 9,14
Constant temperature and humidity box	GF	GTH-800-40-1P	MAA9906-005	May 9,13	May 9,14

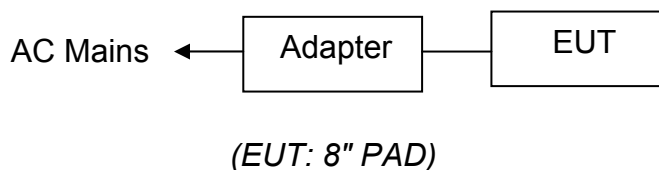
4. TEST SET-UP AND OPERATION MODES

4.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

4.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators



4.3. Test Operation Mode and Test Software

None.

4.4. Special Accessories and Auxiliary Equipment

None.

4.5. Countermeasures to Achieve EMC Compliance

None.

5. EMISSION TEST RESULTS

5.1. Conducted Emission at the Mains Terminals Test

5.1.1. Limit 15.207 limits

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

5.1.2. Test Setup

The EUT was put on a wooden table which was 0.8 m high above the ground and connected to the AC mains through the Artificial Mains Network (AMN). Where the mains cable supplied by the manufacture was longer than 0.8 m, the excess was folded back and forth parallel to the cable at the centre so as to form a bundle no longer than 0.4 m.

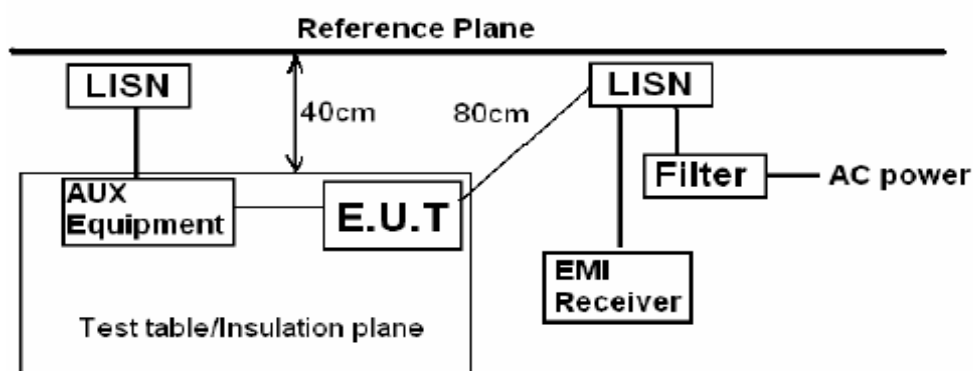
The EUT was kept 0.4 m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during the conducted emission test.

The frequency range from 150 kHz to 30 MHz was investigated.

The bandwidth of the test receiver was set at 9 kHz.

Pretest for all mode, The test data of the worst case condition(s) was reported on the following page.

Measurement Uncertainty: ± 2.6 dB.



Remark:
E.U.T: Equipment Under Test
LISN: Line Impedance Stabilization Network
Test table height=0.8m

5.1.3. Test Mode

Set EUT in TX mode.

Test Data

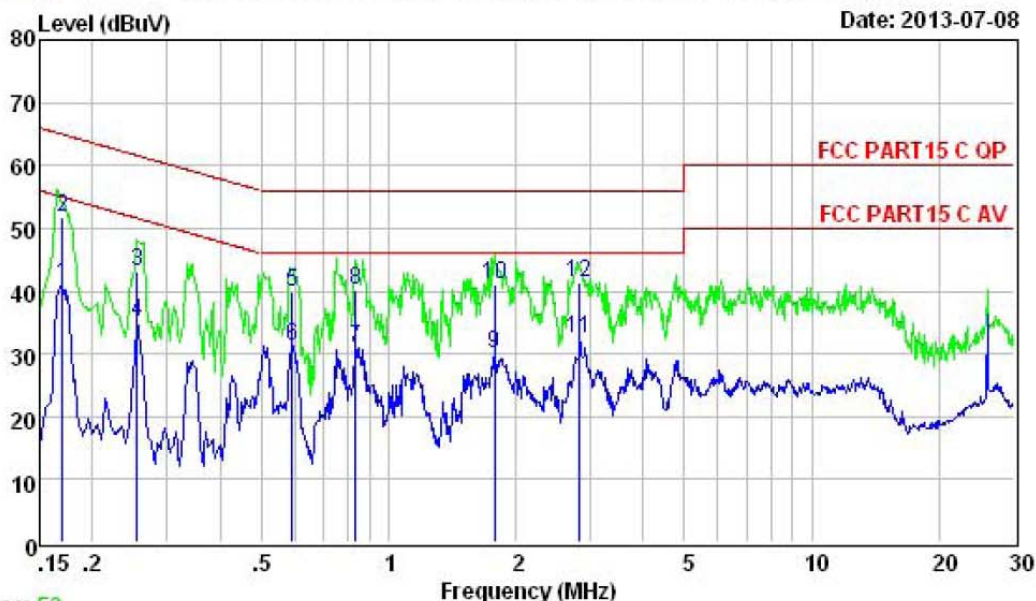


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Data: 54

File: F:\944 Data\conduction\13Report\13KW060701SS-PAD.EM6 (80)

Date: 2013-07-08



Trace: 53

Site : 944 Shielded Room
 Condition : FCC PART15 C QP LINE
 EUT : 8" PAD
 POWER : DC 5V from adapter input AC 120V/60Hz
 M/N : 800P11B
 Test Engineer: Andy
 Comment : Temp:24.9'; Humi:56%; Press:101.52kPa
 Test Mode : TX mode (GSM)

	Freq	Level	Limit	Over	Remark
	MHz	dBuV	Line	Limit	dB
1	0.169	41.17	54.99	-13.82	Average
2	0.169	51.70	64.99	-13.29	QP
3	0.255	43.10	61.59	-18.49	QP
4	0.255	35.15	51.58	-16.43	Average
5	0.593	39.80	56.00	-16.20	QP
6	0.593	31.35	46.00	-14.65	Average
7	0.838	30.93	46.00	-15.07	Average
8	0.838	40.20	56.00	-15.80	QP
9	1.779	29.95	46.00	-16.05	Average
10	1.779	40.90	56.00	-15.10	QP
11	2.816	32.42	46.00	-13.58	Average
12	2.816	41.30	56.00	-14.70	QP



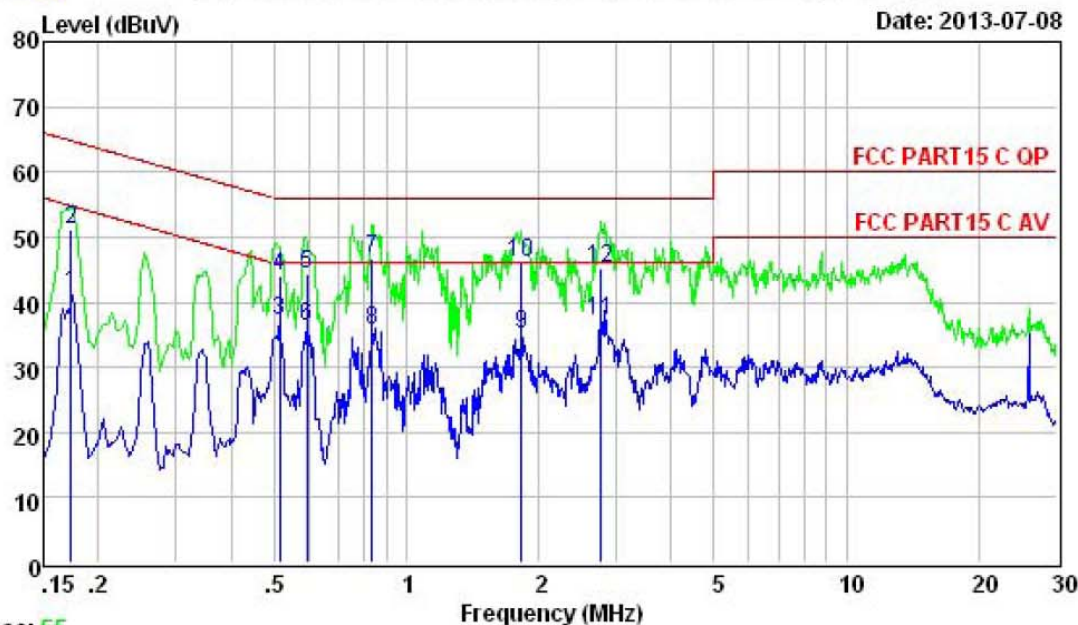
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Data: 56

File: F:\944 Data\conduction\13Report\13KW060701SS-PAD.EM6 (80)

Date: 2013-07-08



Trace: 55

Site : 944 Shielded Room
Condition : FCC PART15 C QP NEUTRAL
EUT : 8" PAD
POWER : DC 5V from adapter input AC 120V/60Hz
M/N : 800P11B
Test Engineer: Andy
Comment : Temp:24.9'; Humi:56%; Press:101.52kPa
Test Mode : TX mode (GSM)

			Limit	Over	
	Freq	Level	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	
1	0.173	41.48	54.81	-13.33	Average
2	0.173	51.30	64.81	-13.51	QP
3	0.516	37.10	46.00	-8.90	Average
4	0.516	43.90	56.00	-12.10	QP
5	0.594	44.30	56.00	-11.70	QP
6	0.595	36.16	46.00	-9.84	Average
7	0.834	46.70	56.00	-9.30	QP
8	0.835	35.83	46.00	-10.17	Average
9	1.829	35.00	46.00	-11.00	Average
10	1.829	46.20	56.00	-9.80	QP
11	2.750	37.12	46.00	-8.88	Average
12	2.750	45.30	56.00	-10.70	QP



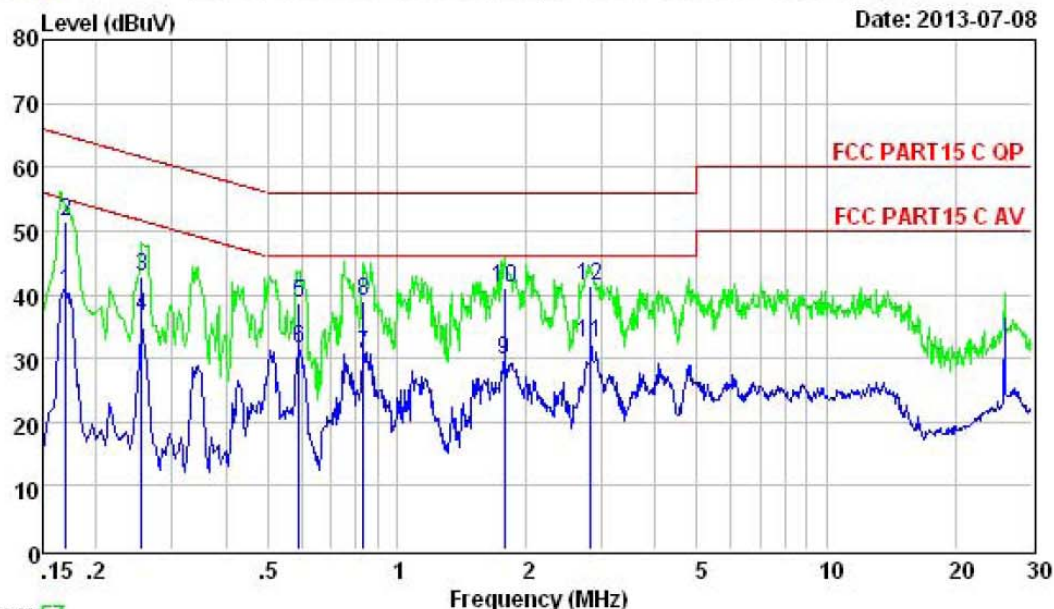
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Data: 58

File: F:\944 Data\conduction\13Report\13KW060701SS-PAD.EM6 (80)

Date: 2013-07-08



Trace: 57

Site : 944 Shielded Room
Condition : FCC PART15 C QP LINE
EUT : 8" PAD
POWER : DC 5V from adapter input AC 120V/60Hz
M/N : 800P11B
Test Engineer: Andy
Comment : Temp:24.9'; Humi:56%; Press:101.52kPa
Test Mode : TX mode(WCDMA)

	Freq	Level	Limit	Over	
	MHz	dBuV	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	
1	0.169	40.30	54.99	-14.69	Average
2	0.169	51.40	64.99	-13.59	QP
3	0.255	42.70	61.59	-18.89	QP
4	0.255	36.50	51.58	-15.08	Average
5	0.593	38.70	56.00	-17.30	QP
6	0.593	31.50	46.00	-14.50	Average
7	0.838	30.60	46.00	-15.40	Average
8	0.838	38.90	56.00	-17.10	QP
9	1.779	29.70	46.00	-16.30	Average
10	1.779	40.90	56.00	-15.10	QP
11	2.816	32.42	46.00	-13.58	Average
12	2.816	41.30	56.00	-14.70	QP



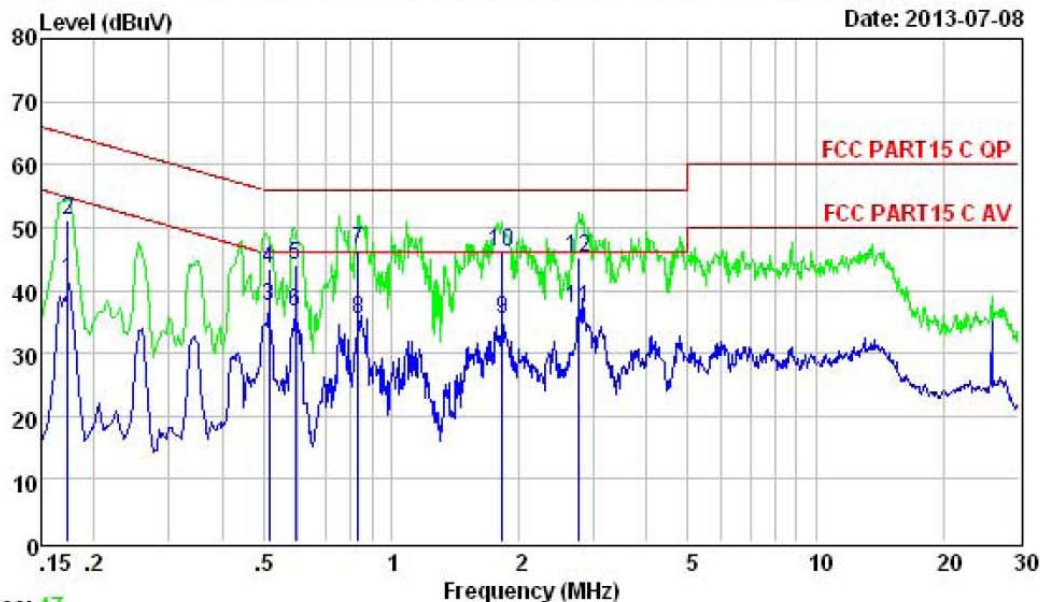
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Data: 60

File: F:\944 Data\conduction\13Report\13KW060701SS-PAD.EM6 (80)

Date: 2013-07-08



Trace: 47

Site : 944 Shielded Room
Condition : FCC PART15 C QP NEUTRAL
EUT : 8" PAD
POWER : DC 5V from adapter input AC 120V/60Hz
M/N : 800P11B
Test Engineer: Andy
Comment : Temp:24.9'; Humi:56%; Press:101.52kPa
Test Mode : TX mode(WCDMA)

			Limit	Over	
	Freq	Level	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	
1	0.173	41.52	54.81	-13.29	Average
2	0.173	51.10	64.81	-13.71	QP
3	0.516	37.50	46.00	-8.50	Average
4	0.516	43.40	56.00	-12.60	QP
5	0.594	44.10	56.00	-11.90	QP
6	0.595	36.50	46.00	-9.50	Average
7	0.834	46.30	56.00	-9.70	QP
8	0.835	35.30	46.00	-10.70	Average
9	1.829	35.30	46.00	-10.70	Average
10	1.829	46.20	56.00	-9.80	QP
11	2.750	37.30	46.00	-8.70	Average
12	2.750	45.10	56.00	-10.90	QP

5.2. Conducted RF Output Power

5.2.1. Limit

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).

5.2.2. Test Setup

The EUT, which is powered by the adapter, 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.

5.2.3. Test Result

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

Note: Measurement Uncertainty: ± 2.6 dB.

1. GSM Mode

Band	Channel	Frequency (MHz)	Measured Output Power dBm
GSM 850MHz	128	824.2	32.57
	190	836.6	32.16
	251	848.8	32.08
GSM 1900MHz	512	1850.2	29.68
	661	1880.0	29.45
	810	1909.8	29.32
GPRS 850MHz	128	824.2	32.42
	190	836.6	32.13
	251	848.8	32.06
GPRS 1900MHz	512	1850.2	29.44
	661	1880.0	29.37
	810	1909.8	29.41
EGPRS 850MHz	128	824.2	27.45
	190	836.6	27.32
	251	848.8	27.37
EGPRS 1900MHz	512	1850.2	25.76
	661	1880.0	25.62
	810	1909.8	25.55

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

2. WCDMA Mode

Item	band	WCDMA 850		
	ARFCN	4132	4175	4233
	subtest	dBm		
WCDMA	non	22.54	22.42	22.65
HSDPA	1	22.45	22.32	22.53
	2	22.43	22.31	22.19
	3	22.48	22.33	22.17
	4	22.18	22.09	22.18
HSUPA	1	22.60	22.56	22.31
	2	22.37	22.53	22.35
	3	22.41	22.61	22.55
	4	22.51	22.33	22.52

5.3. Peak to Average Ratio

5.3.1. Limit

According to FCC section 2.1049 and FCC 24.232(d), the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

5.3.2. Test Setup

The EUT, which is powered by the adapter, 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.

A. For GSM/EGPRS operating mode:

1. Set RBW=1MHz, VBW=1MHz, peak detector in spectrum analyzer.
2. Set EUT in maximum output power, and triggered the burst signal.
3. Measured respectively the peak level and mean level, and the deviation was recorded as Peak to Average ratio.

B. For UMTS operating mode:

1. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
2. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1%.

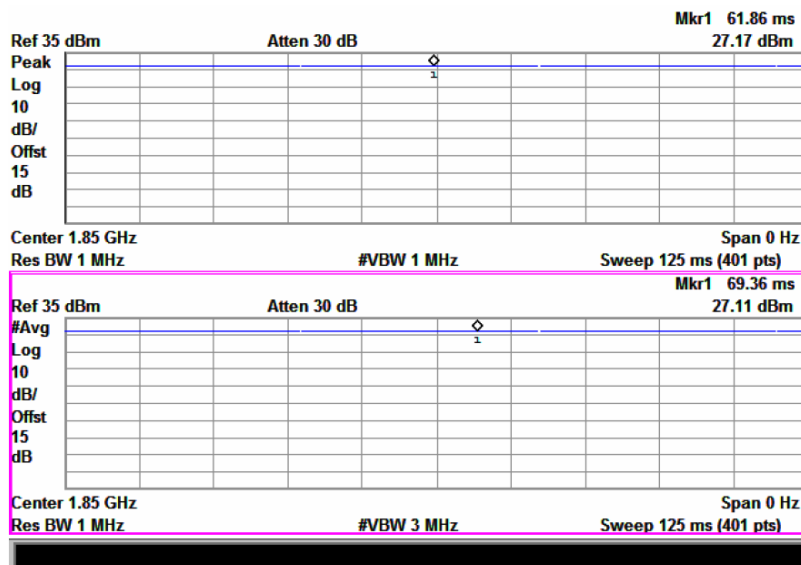
5.3.3. Test Result

Band	Channel	Frequency (MHz)	Measured Output Power dBm	Limit	Result
GSM 1900MHz	512	1850.2	0.07	13	PASS
	661	1880.0	0.04		PASS
	810	1909.8	0.04		PASS
EGPRS 1900MHz	512	1850.2	0.06	13	PASS
	661	1880.0	0.05		PASS
	810	1909.8	0.06		PASS
WCDMA 850MHz	4132	826.4	3.13	13	PASS
	4182	836.4	3.08		PASS
	4233	846.6	3.01		PASS

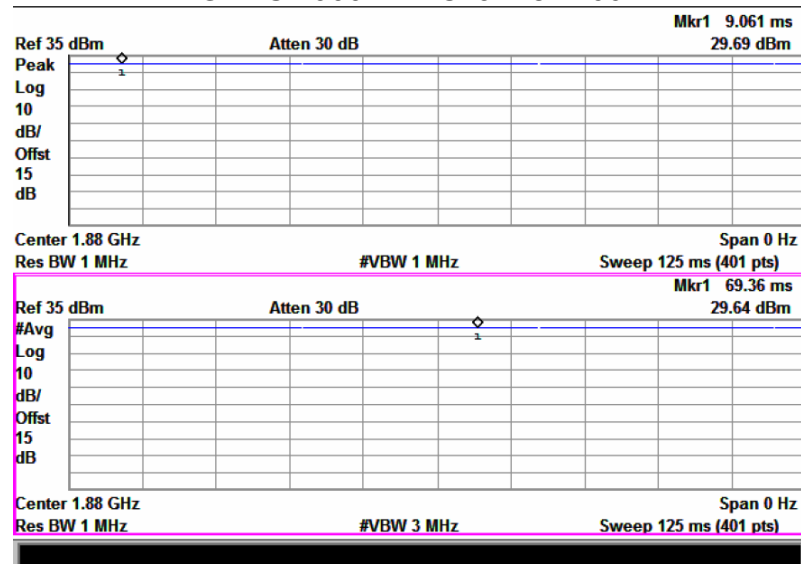
Note: Measurement Uncertainty: ± 2.6 dB at a level of confidence of 95%.

Test plot as follows:

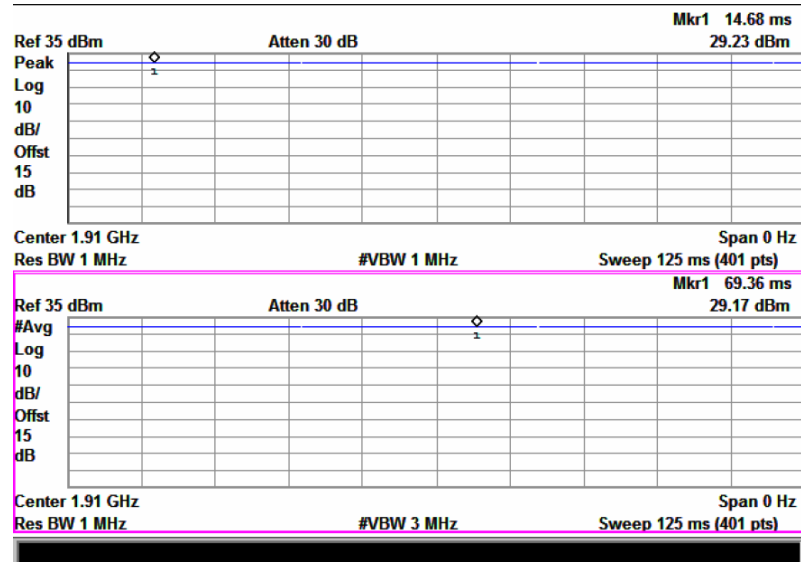
EGPRS 1900MHz Channel = 512



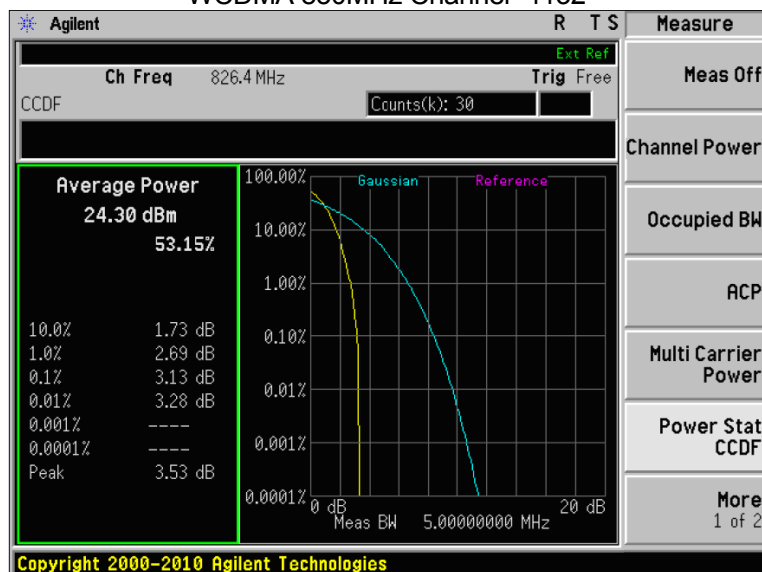
EGPRS 1900MHz Channel = 661



EGPRS 1900MHz Channel = 810



WCDMA 850MHz Channel=4132



WCDMA 850MHz Channel=4175



WCDMA 850MHz Channel=4233



5.4. 99% & -26 dB Occupied Bandwidth

5.4.1. Limit

According to FCC section 2.1049 and FCC 22.917 & 24.238 and 27.53(g), 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,

5.4.2. Test Setup

The EUT, which is powered by the adapter, 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.

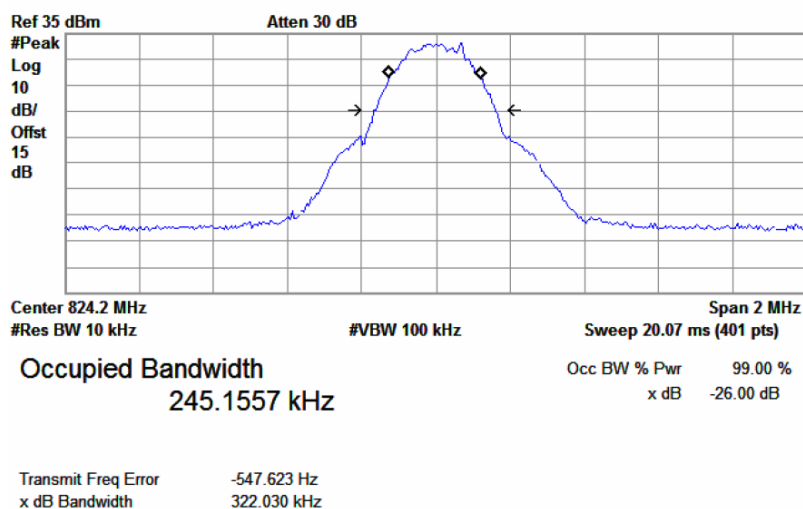
5.4.3. Test Result

Band	Channel	Frequency (MHz)	26dB bandwidth	99% occupied bandwidth
GSM 850MHz	128	824.2	322.030 kHz	245.1557 kHz
	190	836.6	320.371 kHz	243.2869 kHz
	251	848.8	322.705 kHz	241.6208 kHz
GSM 1900MHz	512	1850.2	312.803 kHz	244.6847 kHz
	661	1880.0	315.881 kHz	245.3094 kHz
	810	1909.8	320.064 kHz	244.4599 kHz
EDGE 850MHz	128	824.2	316.293 kHz	247.5679 kHz
	190	836.6	316.551 kHz	244.2915 kHz
	251	848.8	321.768 kHz	246.9843 kHz
EDGE 1900MHz	512	1850.2	321.488 kHz	245.5149 kHz
	661	1880.0	320.132 kHz	247.3285 kHz
	810	1909.8	322.577 kHz	247.5883 kHz
WCDMA 850MHz	4132	826.4	4.706 MHz	4.1682 MHz
	4182	836.4	4.721 MHz	4.1860 MHz
	4233	846.6	7.705 MHz	4.1487 MHz
HSDPA 850MHz	4132	826.4	4.709 MHz	4.1640 MHz
	4182	836.4	4.710 MHz	4.1779 MHz
	4233	846.6	4.730 MHz	4.1478 MHz
HSUPA 850MHz	4132	826.4	4.705 MHz	4.1682 MHz
	4182	836.4	4.733 MHz	4.1753 MHz
	4233	846.6	4.701 MHz	4.1635 MHz

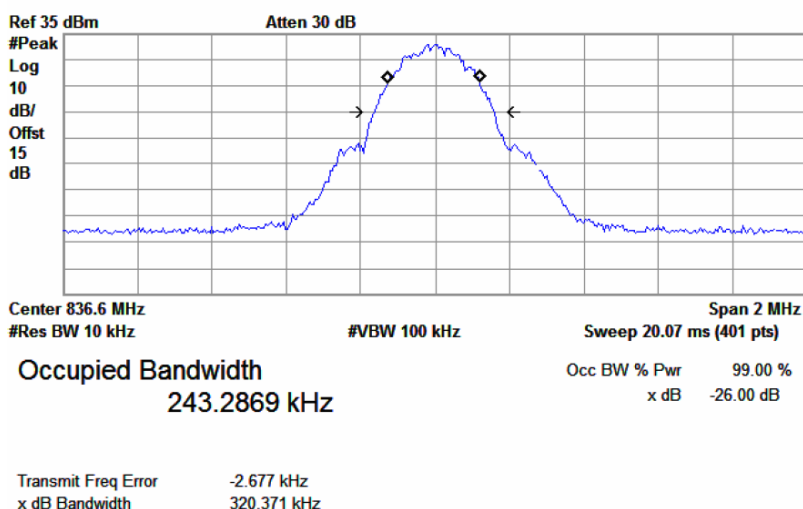
Note: Measurement Uncertainty: ± 20 Hz.

Test plot as follows:

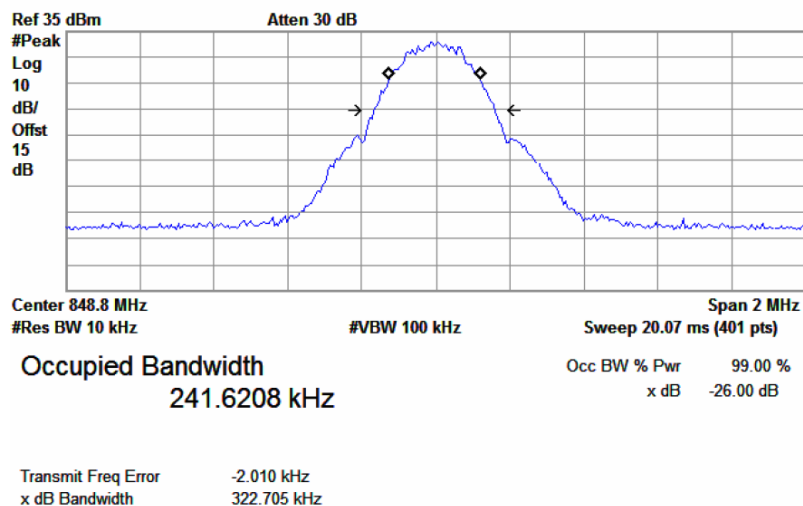
GSM 850MHz Channel = 128



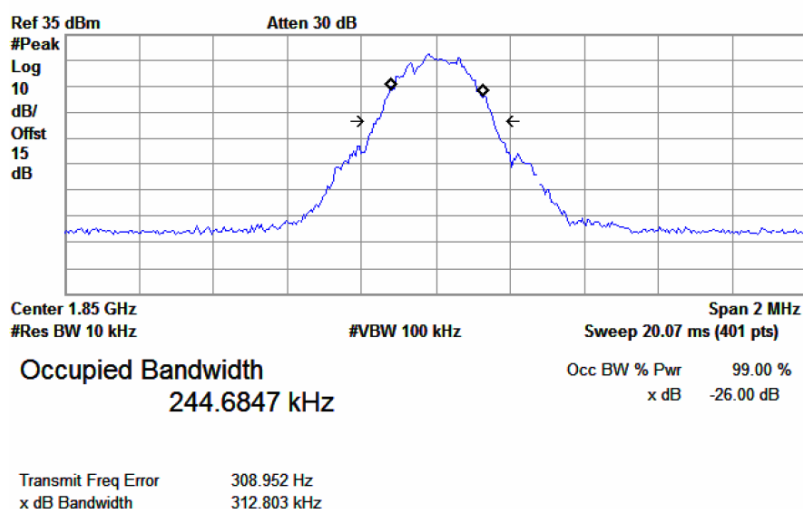
GSM 850MHz Channel = 190



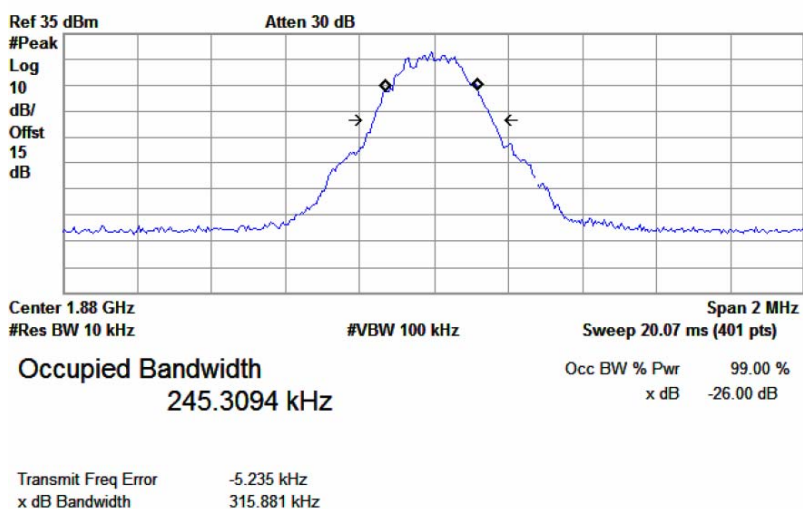
GSM 850MHz Channel = 251



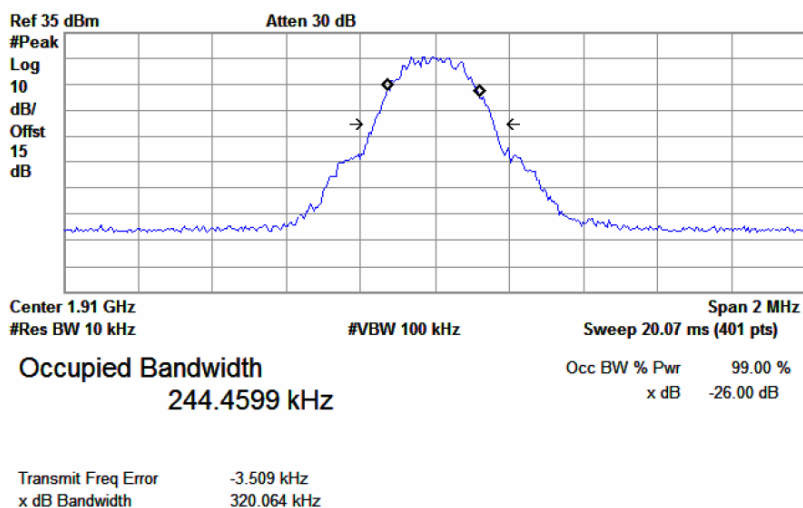
GSM 1900MHz Channel = 512



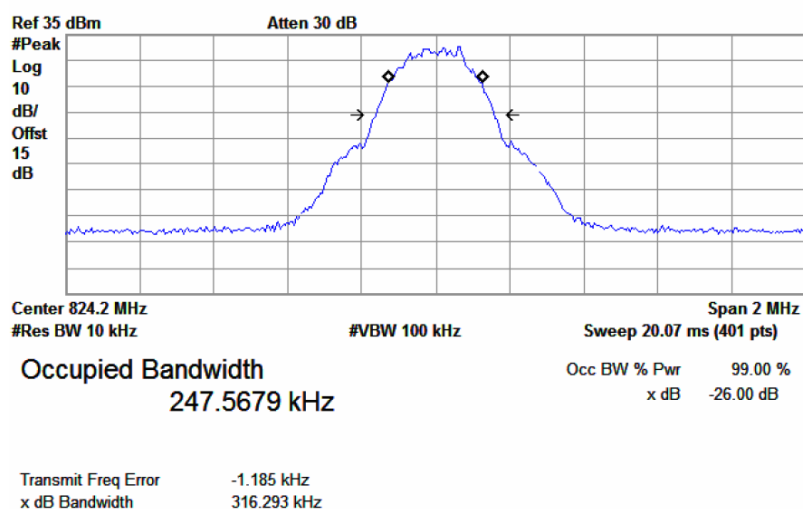
GSM 1900MHz Channel = 661



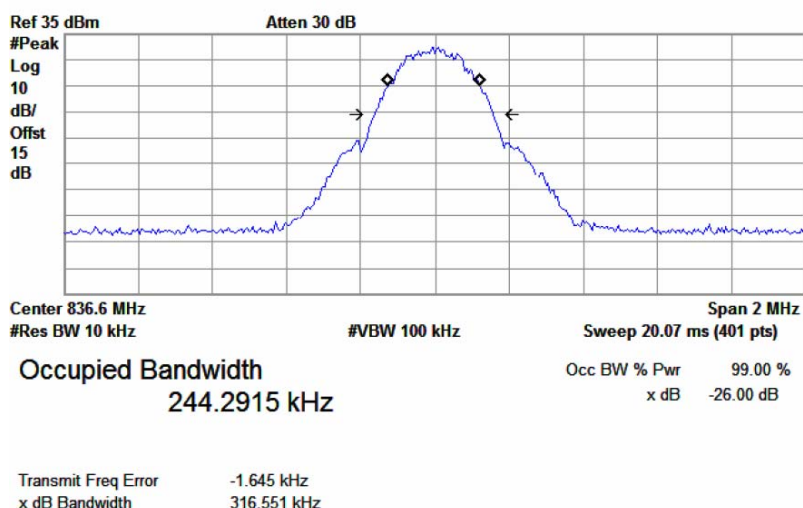
GSM 1900MHz Channel = 810



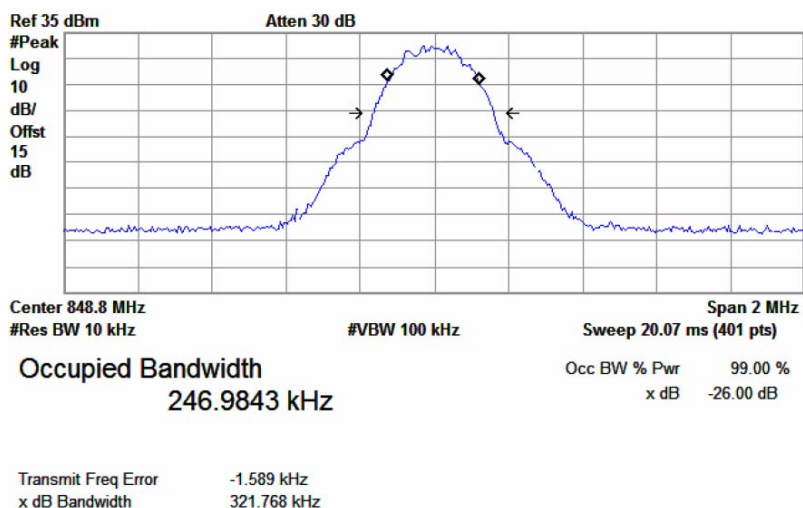
EGPRS 850MHz Channel = 128



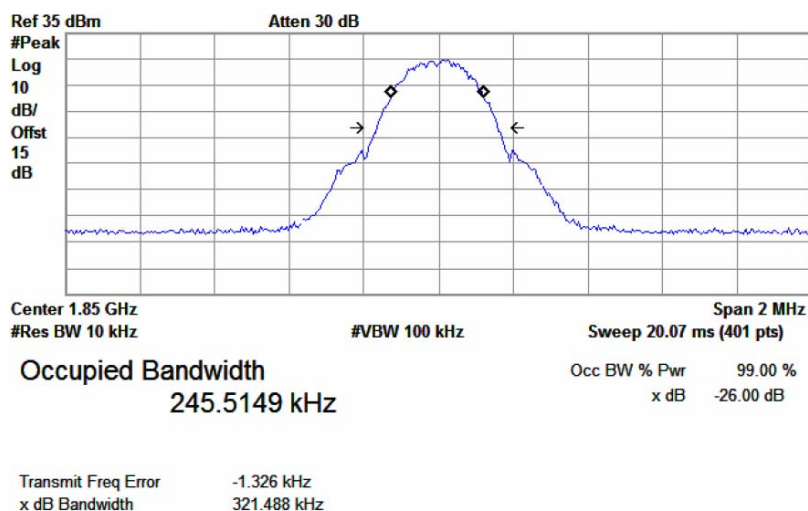
EGPRS 850MHz Channel = 190



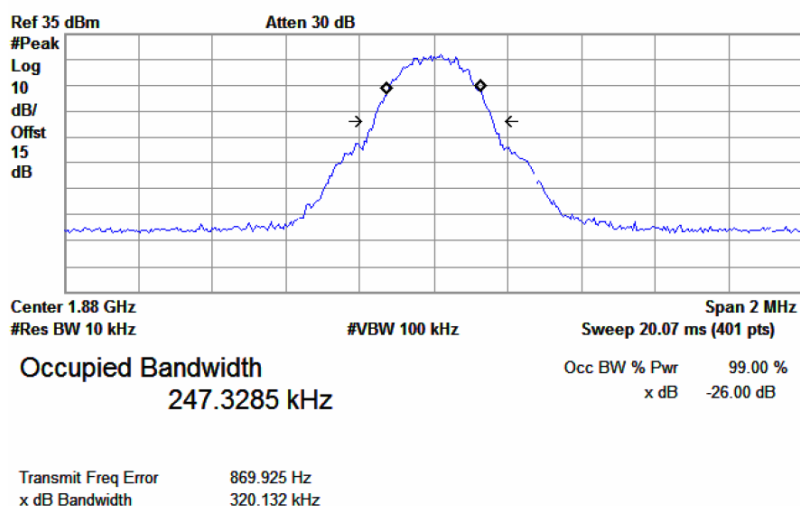
EGPRS 850MHz Channel = 251



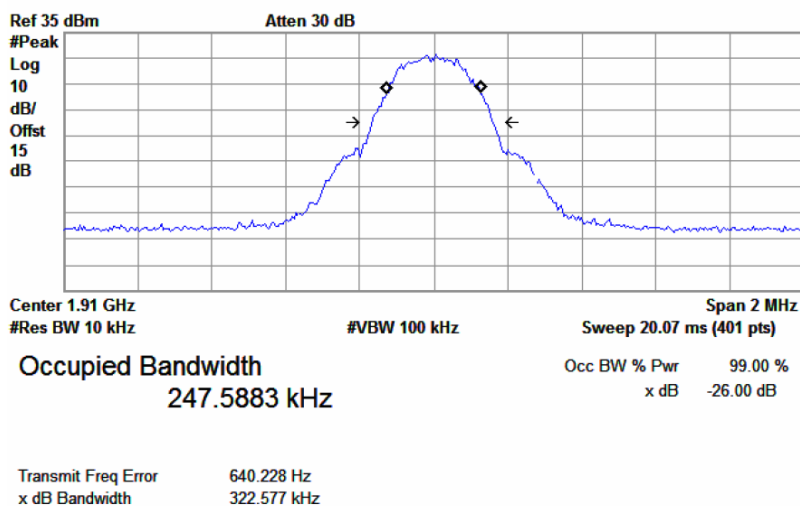
EGPRS 1900MHz Channel = 512



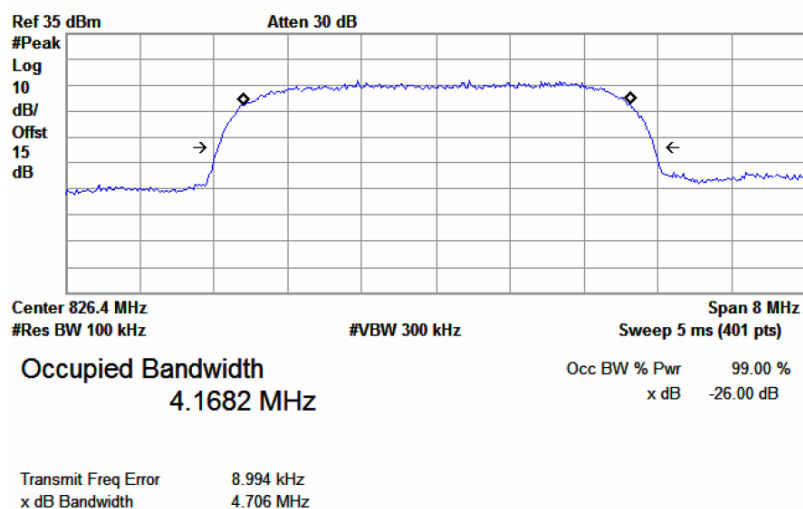
EGPRS 1900MHz Channel = 661



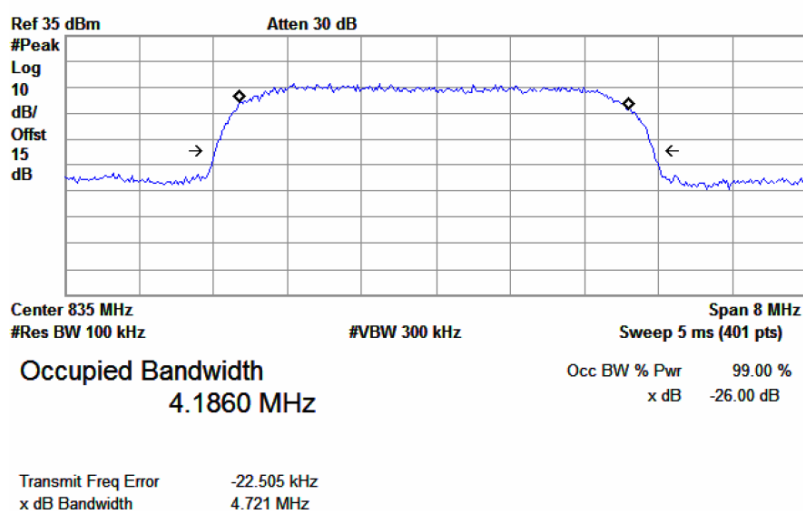
EGPRS 1900MHz Channel = 810



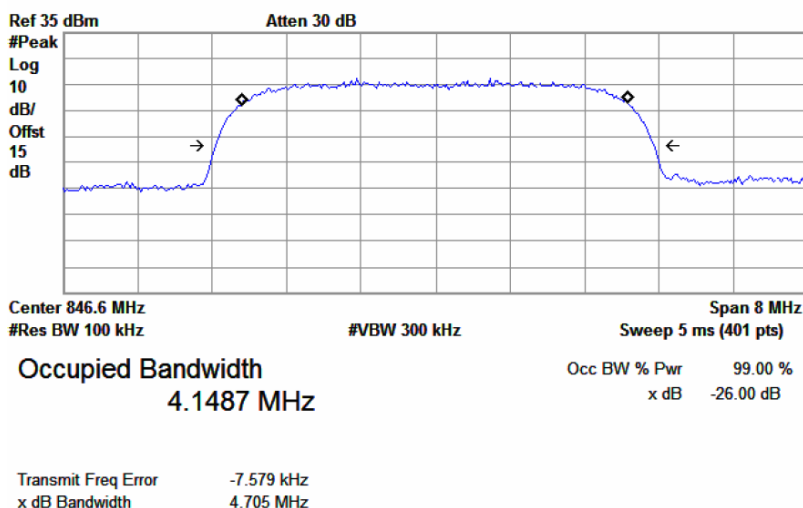
WCDMA 850MHz Channel = 4132



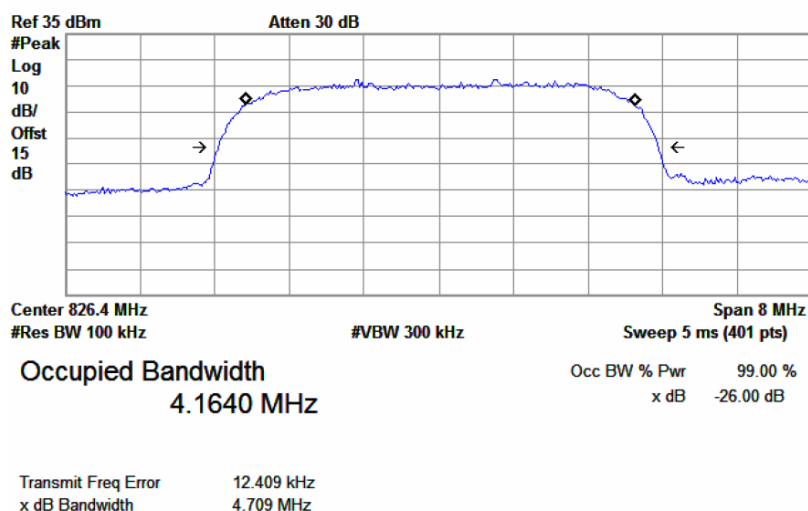
WCDMA 850MHz Channel = 4175



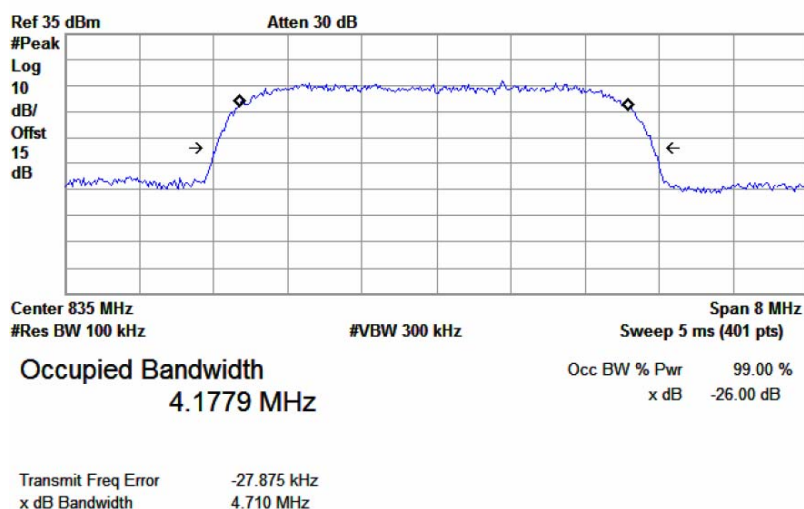
WCDMA 850MHz Channel = 4233



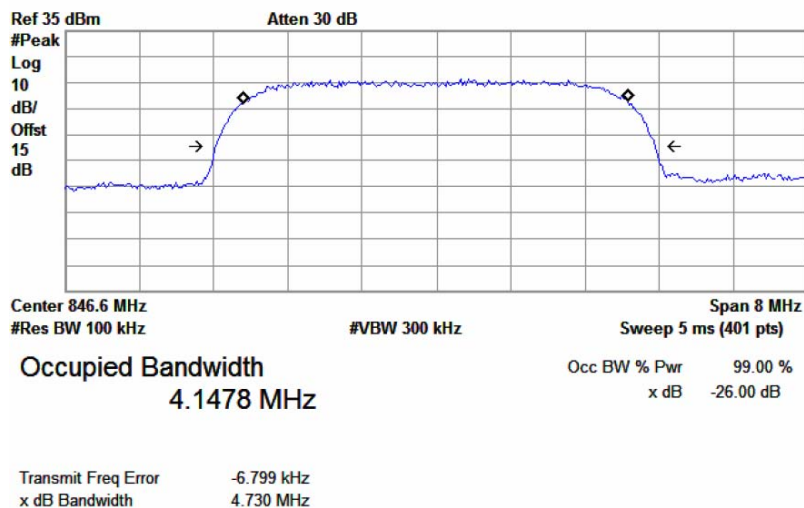
HSDPA 850MHz Channel = 4132



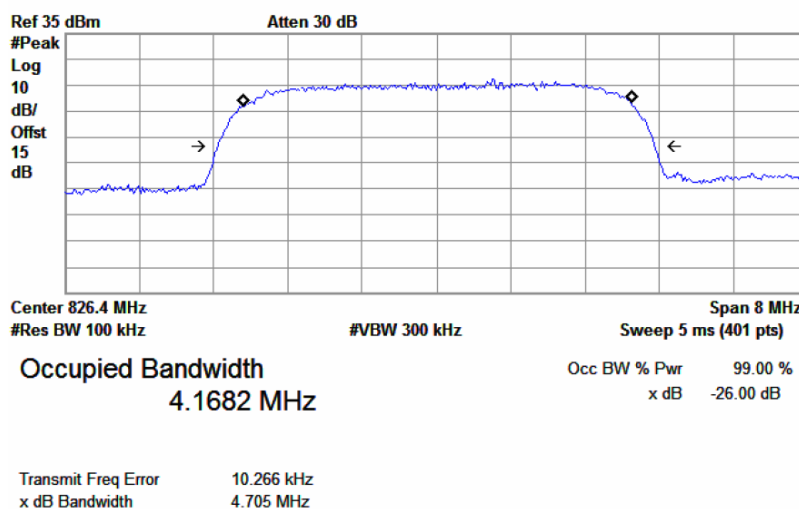
HSDPA 850MHz Channel = 4175



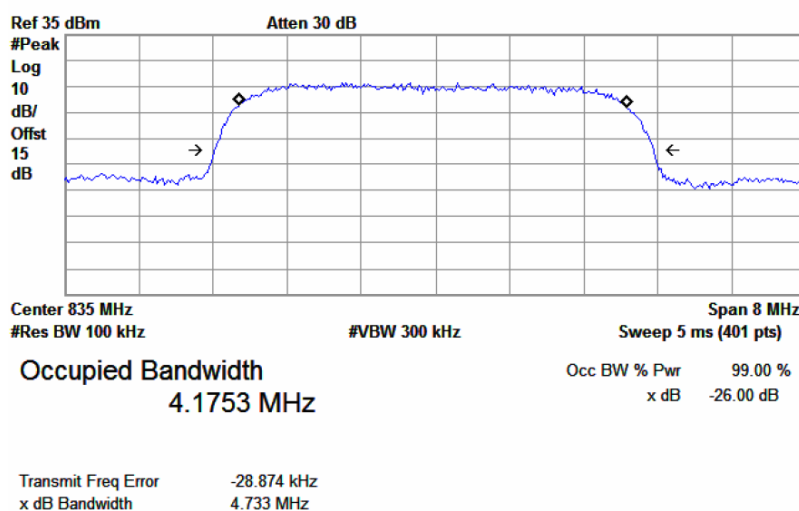
HSDPA 850MHz Channel = 4233



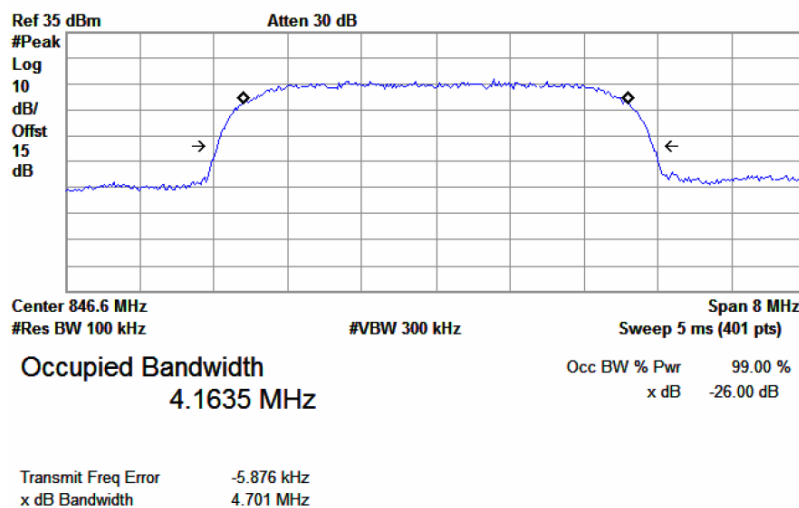
HSUPA 850MHz Channel = 4132



HSUPA 850MHz Channel = 4175



HSUPA 850MHz Channel = 4233



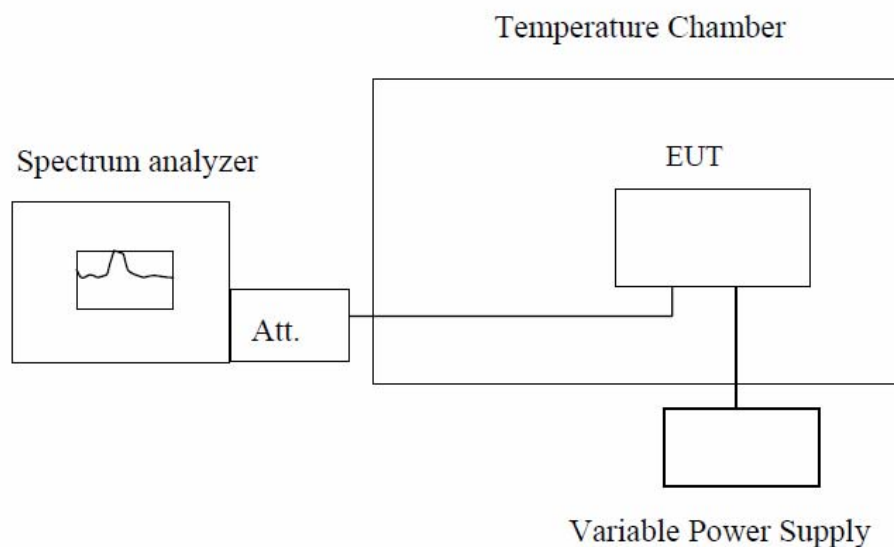
5.5. Frequency Stability

5.5.1. Limit

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

- (a) The temperature is varied from -30°C to $+50^{\circ}\text{C}$ 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.

5.5.2. Test Setup



Note : Measurement setup for testing on Antenna connector

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

5.5.3. Test Result

The nominal, highest and lowest extreme voltages are separately 3.7VDC, 4.2VDC and 3.6VDC which are specified by the applicant; the normal temperature here used is 25°C . The frequency deviation limit of 850MHz band is $\pm 2.5\text{ppm}$, and 1900MHz is $\pm 1\text{ppm}$

Test Conditions			Frequency Deviation		Result
Band	Power(Vdc)	Temperature(°C)	Frequency Error(Hz)	Limit	
GSM 850 Middle channel=190	3.7	-30	-19.11	±2.5	PASS
	3.7	-20	11.39		
	3.7	-10	-17.56		
	3.7	0	32.11		
	3.7	10	-24.03		
	3.7	20	-16.19		
	3.7	30	18.33		
	3.7	40	17.61		
	3.7	55	21.27		
	4.2	25	28.91		
	3.6	25	36.23		
GSM 1900 Middle channel=661	3.7	-30	21.62	±1	PASS
	3.7	-20	27.13		
	3.7	-10	-21.28		
	3.7	0	-13.16		
	3.7	10	-18.38		
	3.7	20	-21.61		
	3.7	30	-15.52		
	3.7	40	-7.68		
	3.7	55	-33.27		
	4.2	25	-28.82		
	3.6	25	-15.32		
EGPRS 850 Middle channel=190	3.7	-30	-18.56	±2.5	PASS
	3.7	-20	-13.47		
	3.7	-10	12.18		
	3.7	0	-14.06		
	3.7	10	18.79		
	3.7	20	22.39		
	3.7	30	37.27		
	3.7	40	2.37		
	3.7	55	-11.52		
	4.2	25	-5.41		
	3.6	25	12.65		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation		Result
Band	Power(Vdc)	Temperature(°C)	Frequency Error(Hz)	Limit	
EGPRS 1900 Middle channel=661	3.7	-30	57.26	±1	PASS
	3.7	-20	28.79		
	3.7	-10	3.28		
	3.7	0	27.29		
	3.7	10	-4.29		
	3.7	20	10.89		
	3.7	30	9.50		
	3.7	40	43.76		
	3.7	55	60.11		
	4.2	25	53.02		
	3.6	25	47.73		
WCDMA 850 Middle Channel=4175	3.7	-30	13.82	±2.5	PASS
	3.7	-20	-0.59		
	3.7	-10	21.45		
	3.7	0	12.42		
	3.7	10	3.31		
	3.7	20	-12.52		
	3.7	30	30.61		
	3.7	40	13.45		
	3.7	55	-12.52		
	4.2	25	30.62		
	3.6	25	-18.05		
HSDPA 850 Middle Channel=4175	3.7	-30	-24.37	±2.5	PASS
	3.7	-20	-13.96		
	3.7	-10	35.23		
	3.7	0	-8.31		
	3.7	10	-13.95		
	3.7	20	-24.37		
	3.7	30	12.88		
	3.7	40	-14.75		
	3.7	55	23.37		
	4.2	25	7.93		
	3.6	25	-31.21		
HSUPA 850 Middle Channel=4175	3.7	-30	11.51	±2.5	PASS
	3.7	-20	-12.31		
	3.7	-10	-11.79		
	3.7	0	-0.44		
	3.7	10	0.01		
	3.7	20	-6.64		
	3.7	30	24.25		
	3.7	40	9.63		
	3.7	55	23.76		
	4.2	25	-4.57		
	3.6	25	5.25		

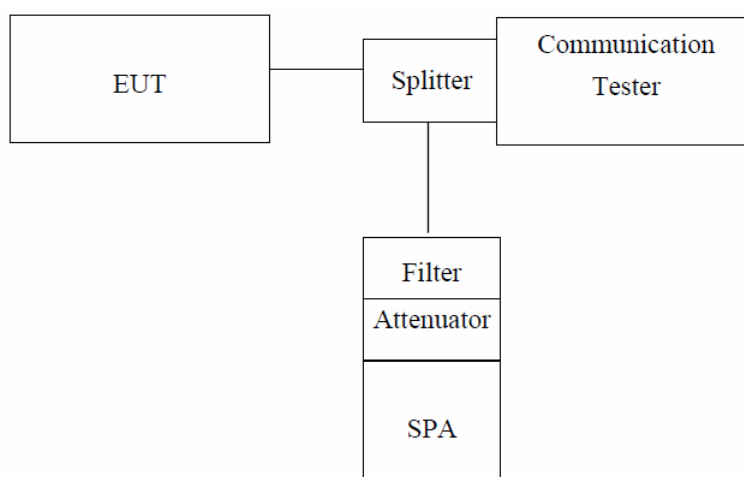
Note: Measurement Uncertainty: ±20Hz.

5.6. Conducted Out of Band Emissions

5.6.1. Limit

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

5.6.2. Test Setup



Note: Measurement setup for testing on Antenna connector

5.6.3. Measurement Procedure

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 100KHz, Start=30MHz, Stop= 10th harmonic.

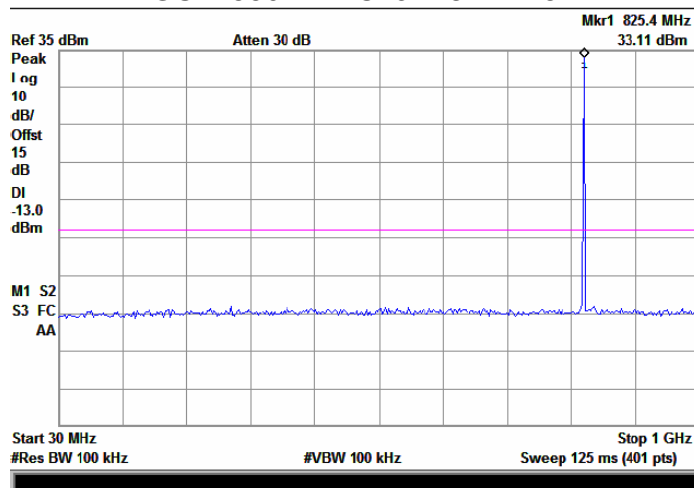
Limit = -13dBm

5.6.4. Test Result

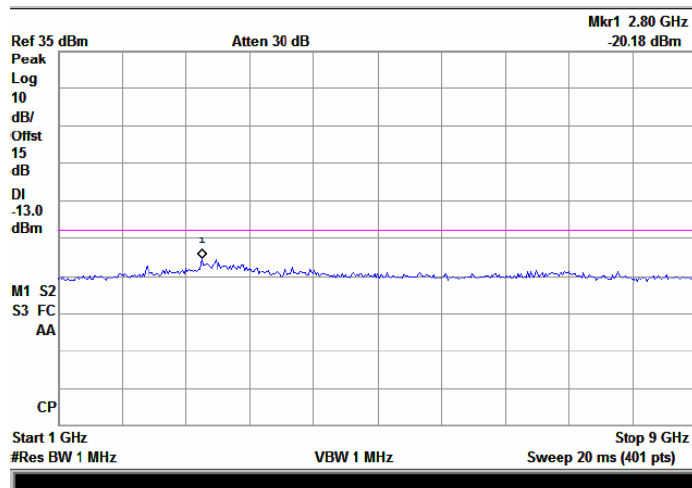
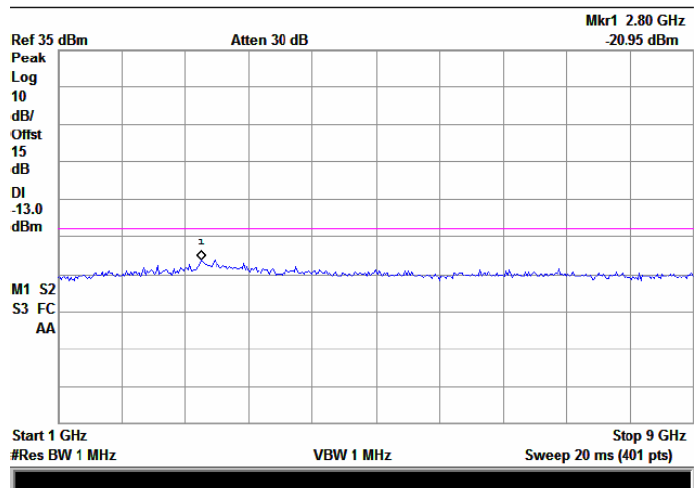
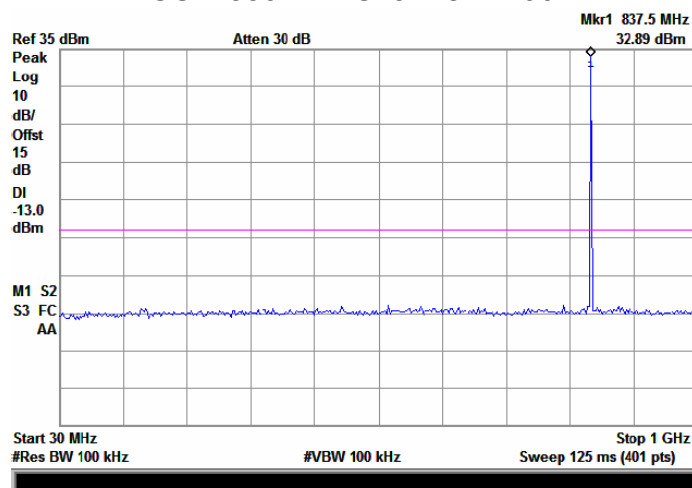
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

Test plot as follows:

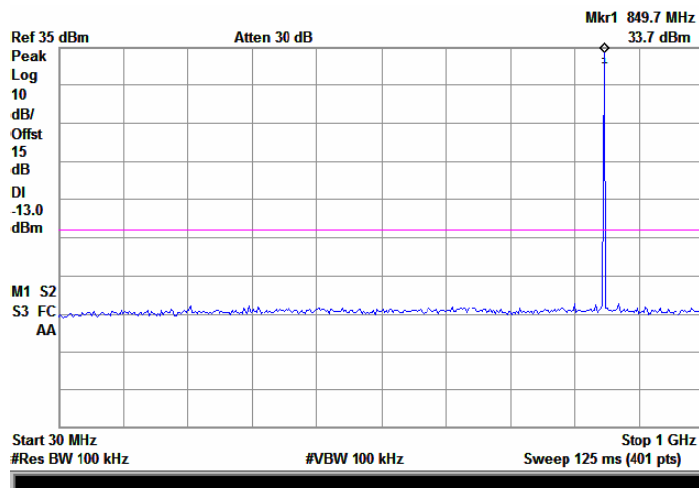
GSM 850MHz Channel = 128



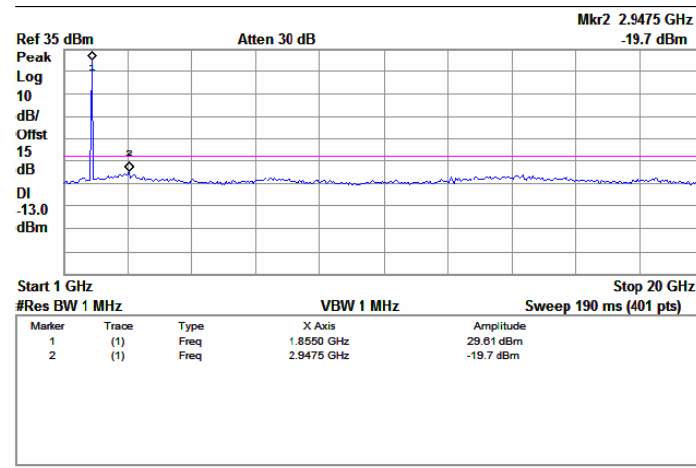
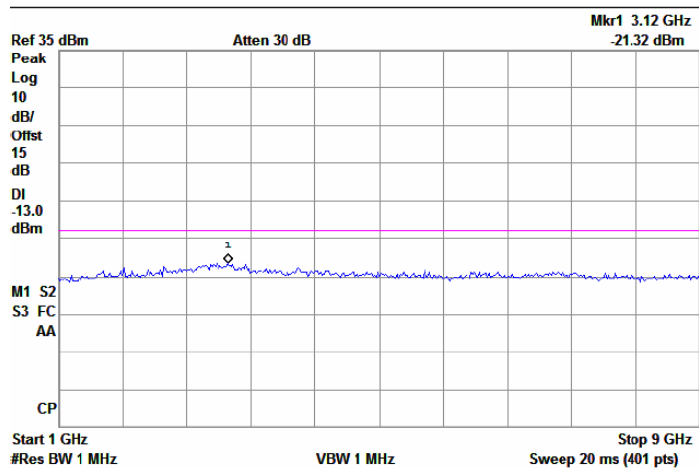
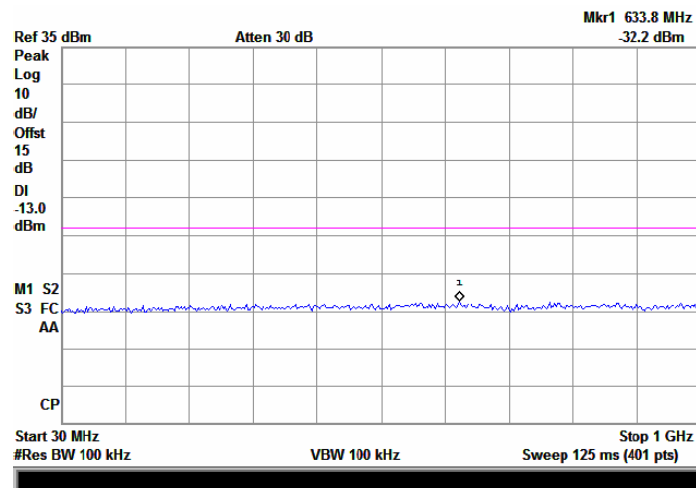
GSM 850MHz Channel = 190



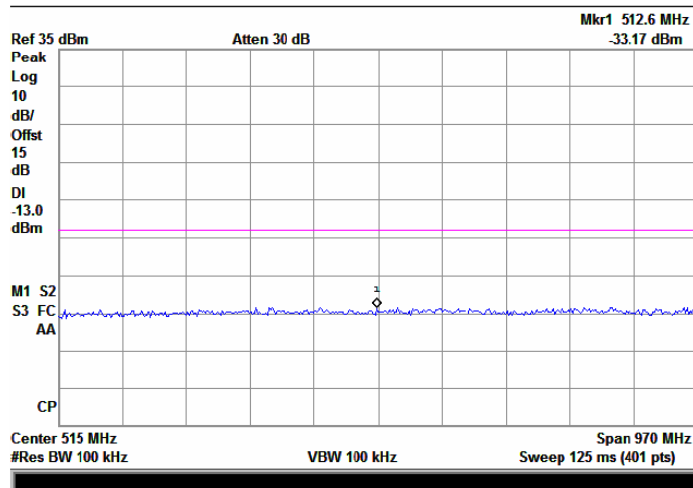
GSM 850MHz Channel = 251



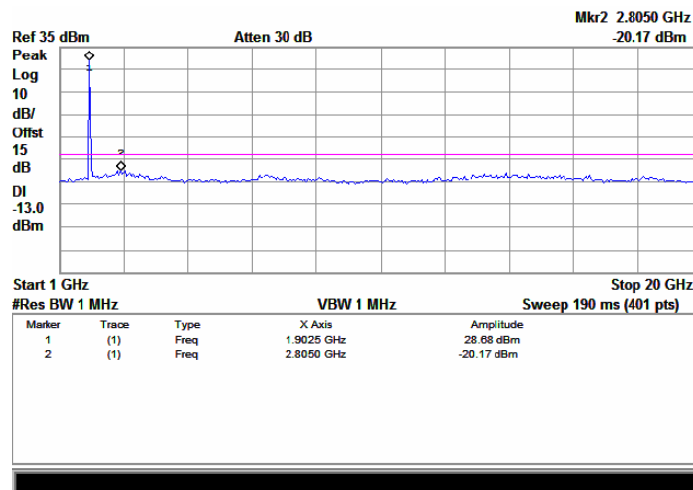
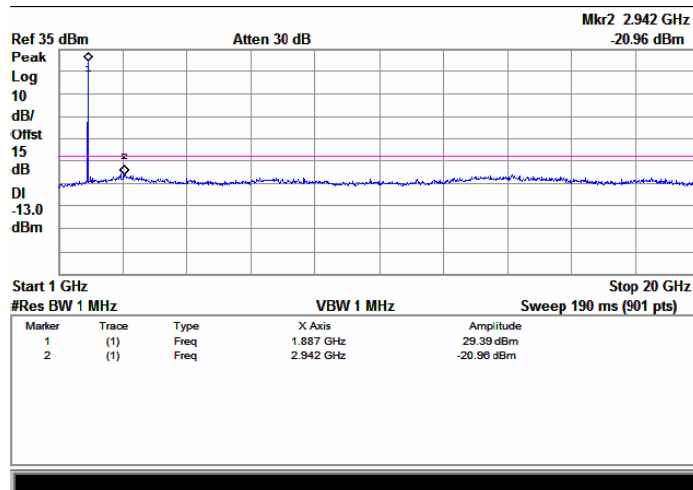
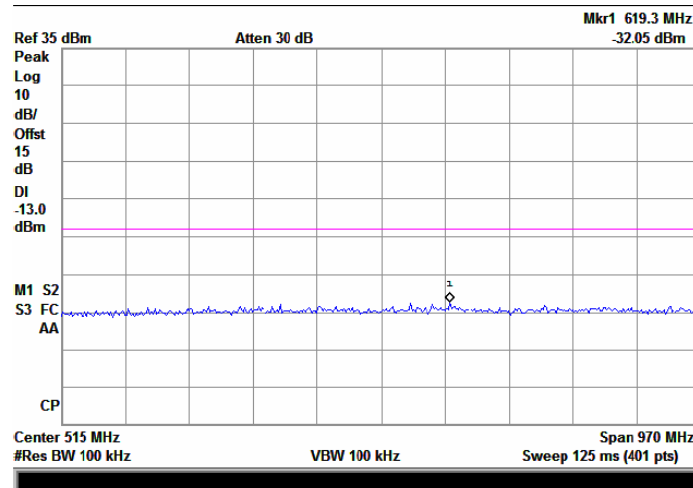
GSM 1900MHz Channel = 512



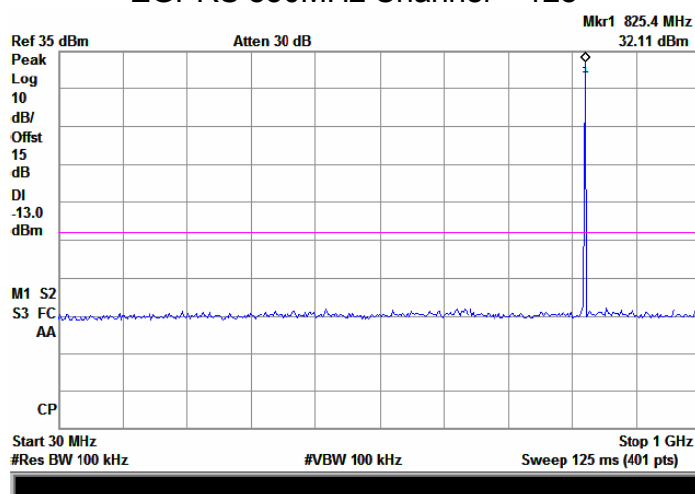
GSM 1900MHz Channel = 661



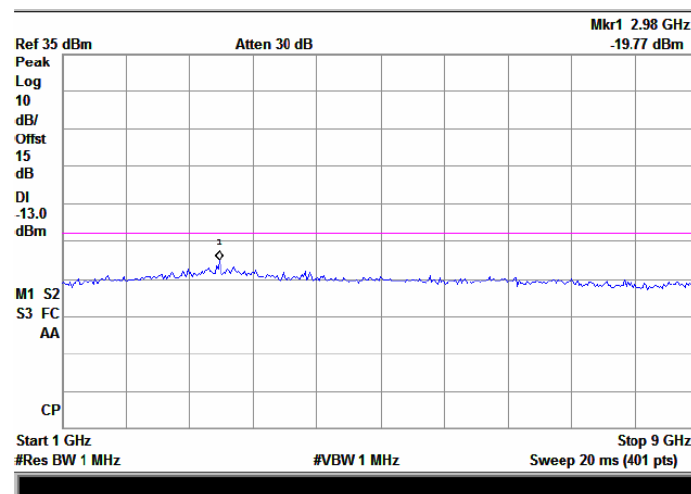
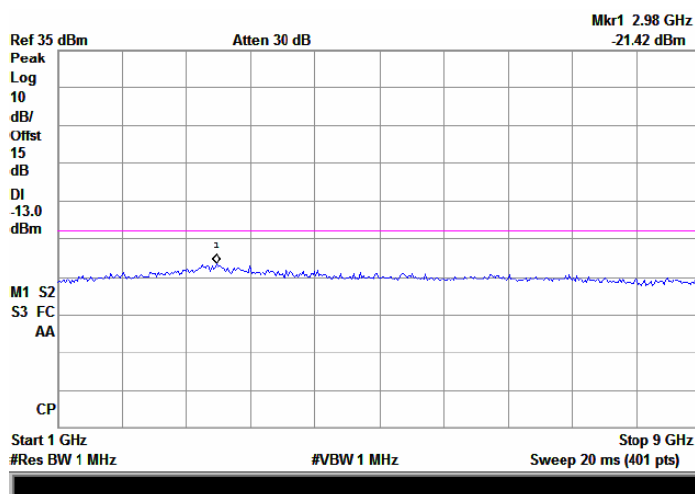
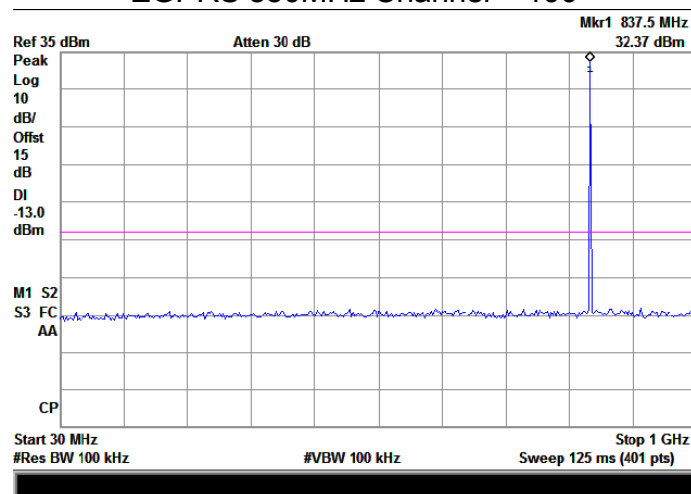
GSM 1900MHz Channel = 810



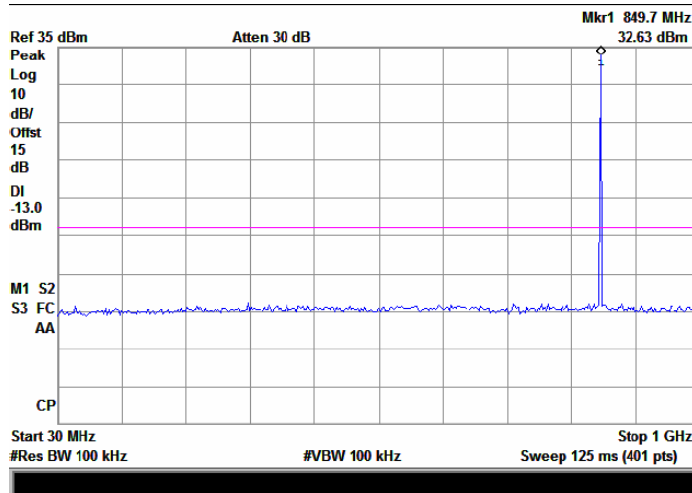
EGPRS 850MHz Channel = 128



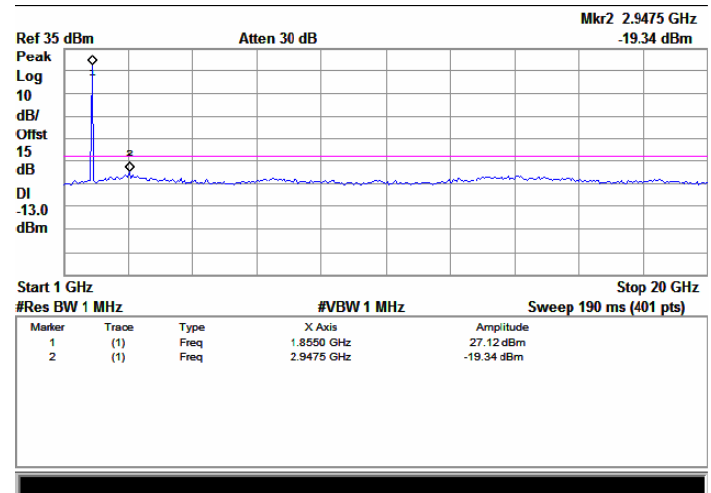
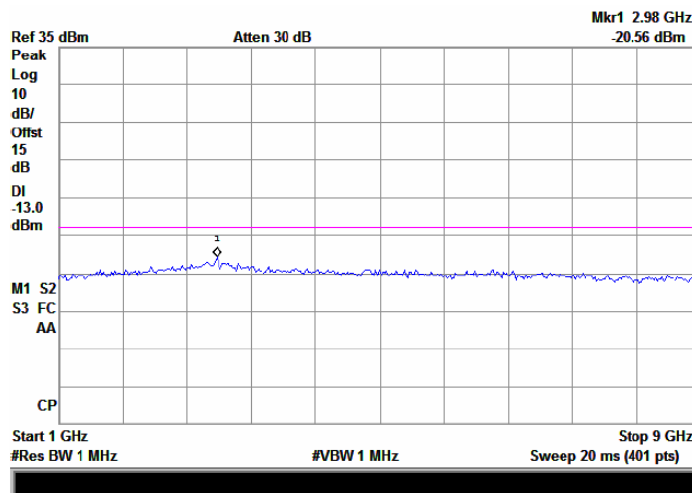
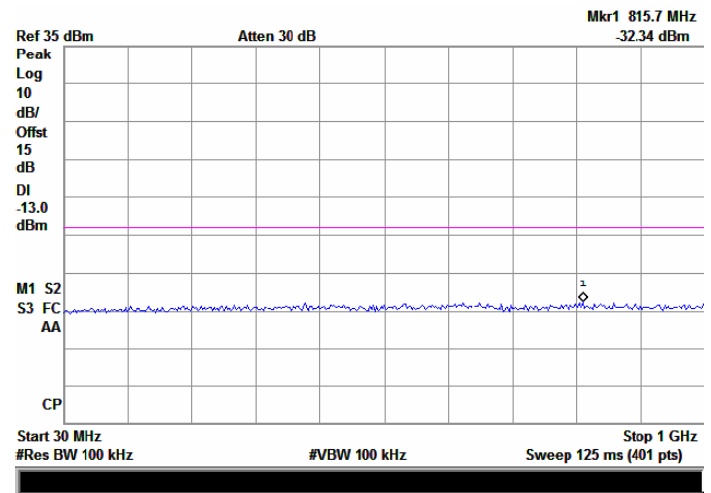
EGPRS 850MHz Channel = 190



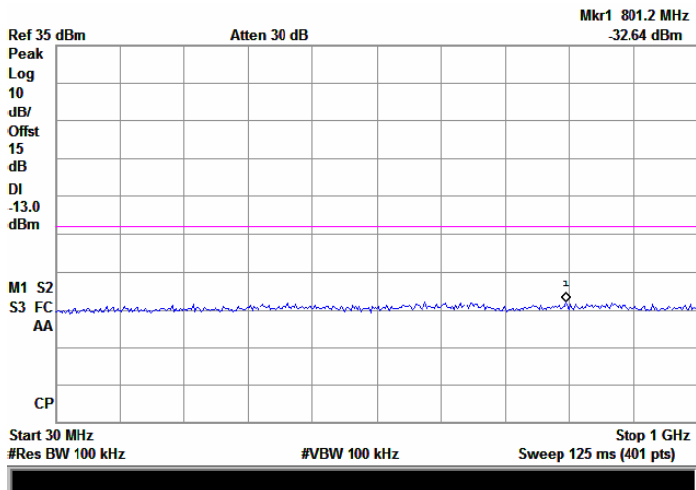
EGPRS 850MHz Channel = 251



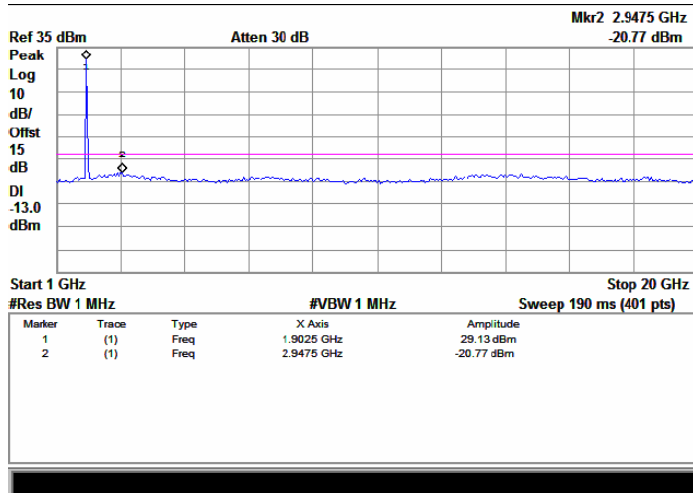
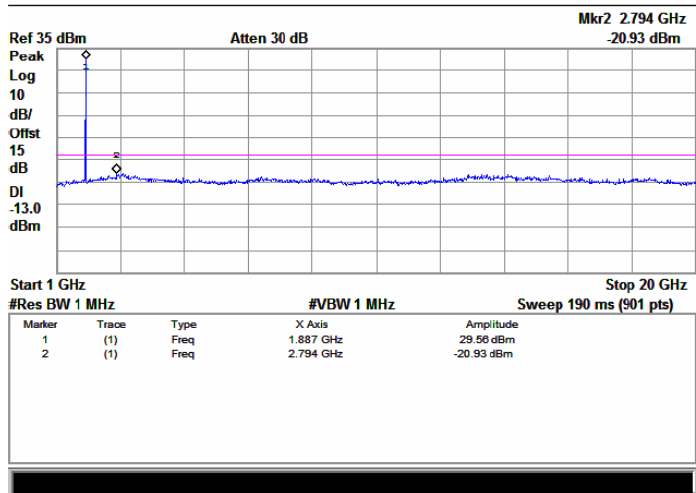
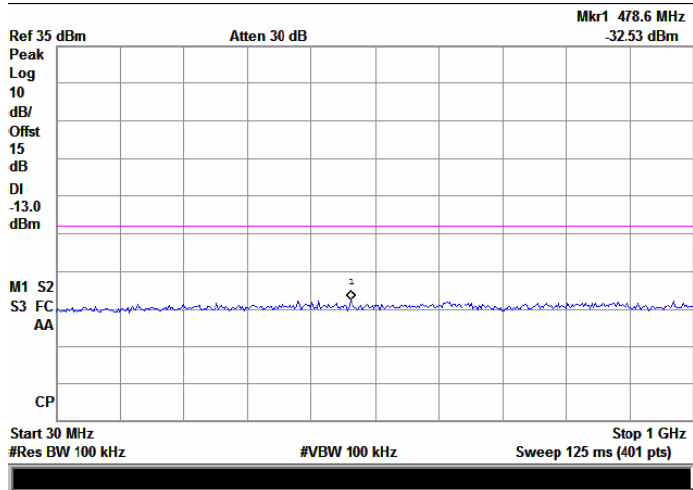
EGPRS 1900MHz Channel = 512



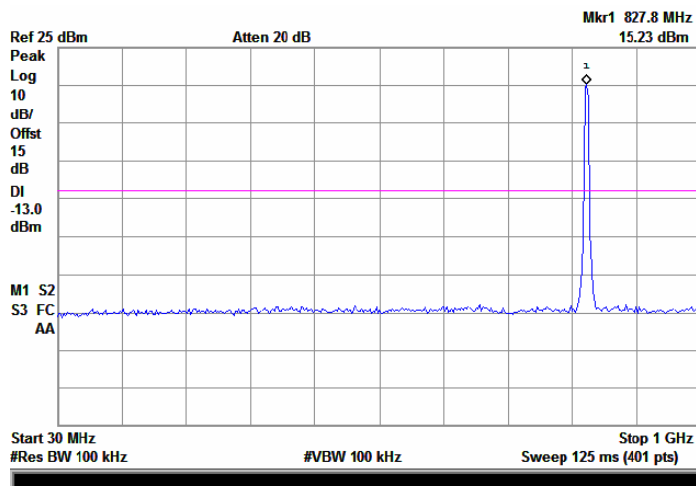
EGPRS 1900MHz Channel = 661



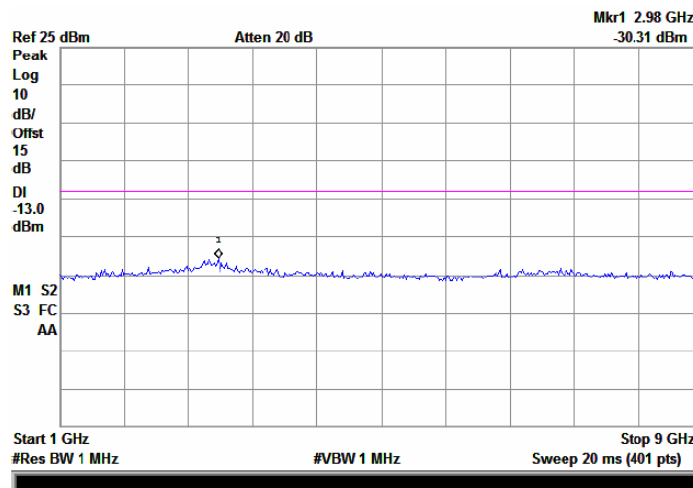
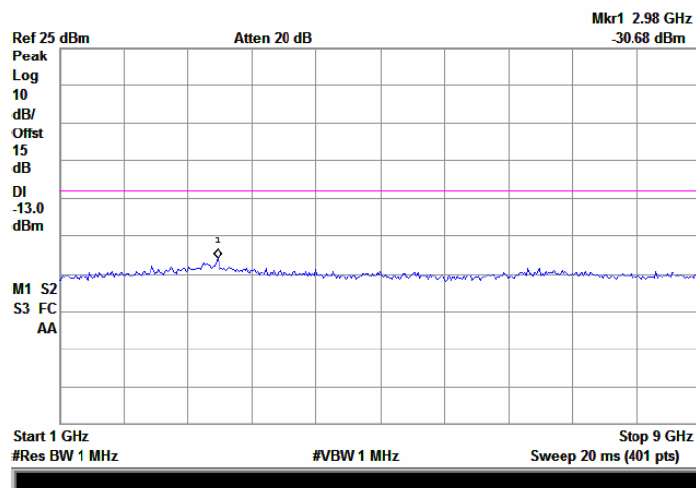
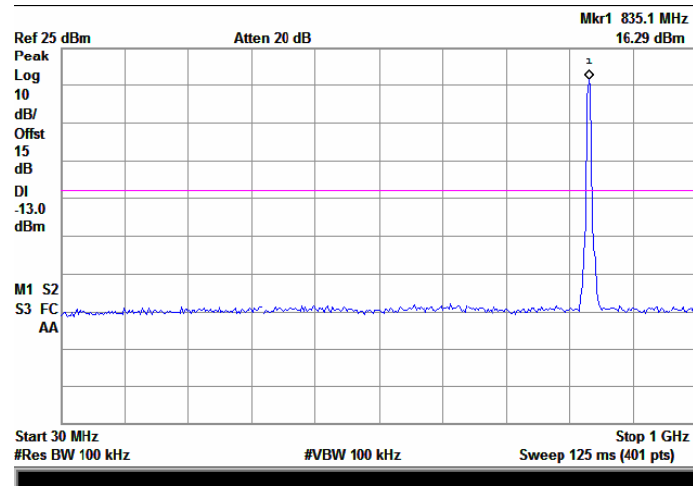
EGPRS 1900MHz Channel = 810



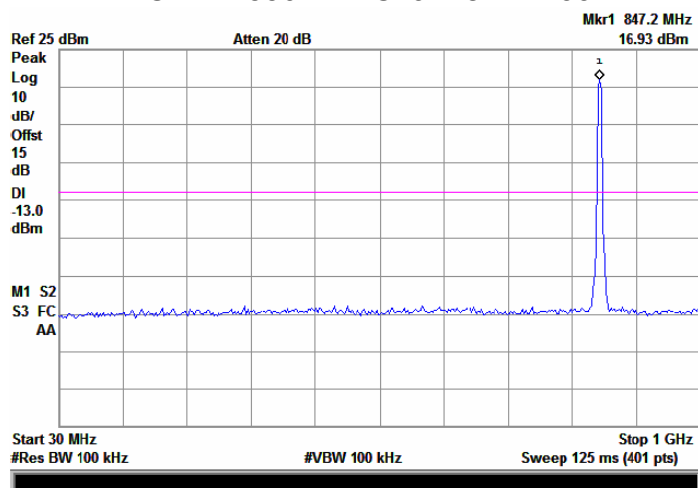
WCDMA 850MHz Channel = 4132



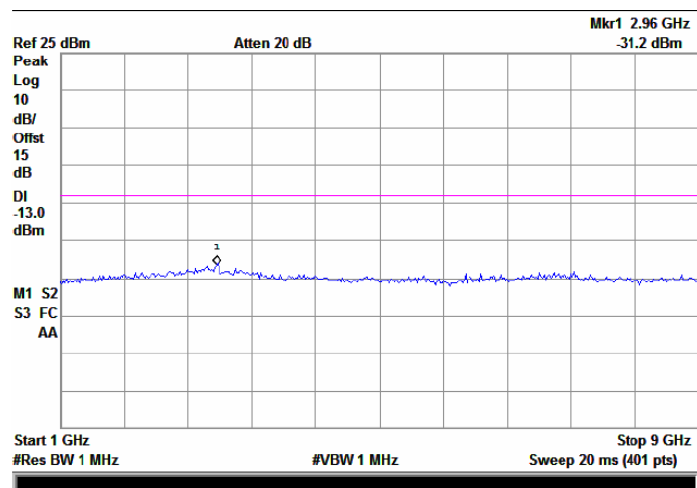
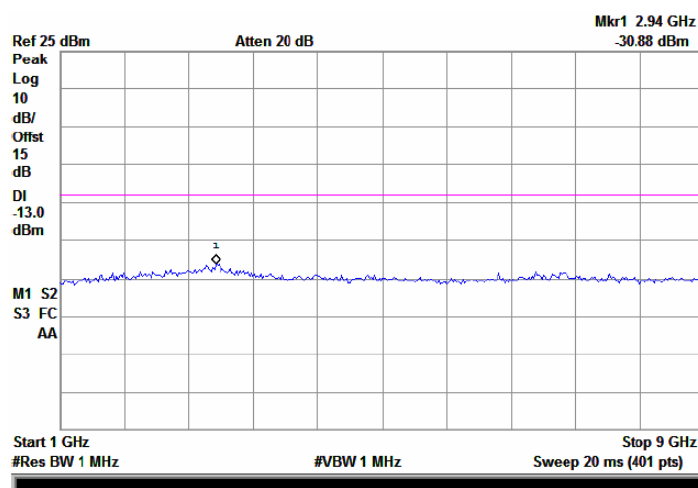
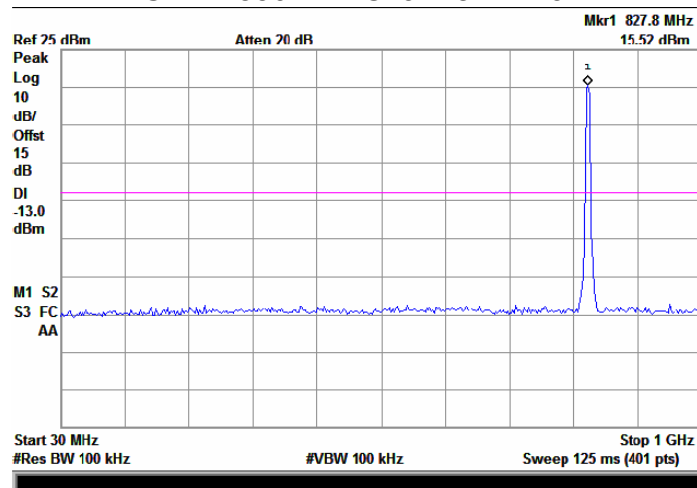
WCDMA 850MHz Channel = 4175



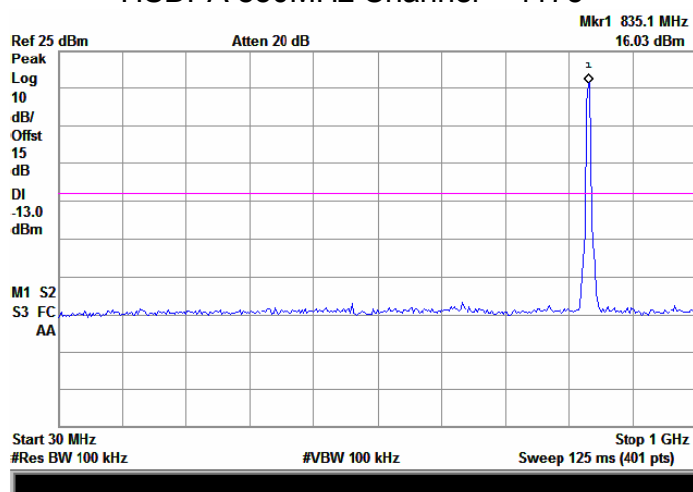
WCDMA 850MHz Channel = 4233



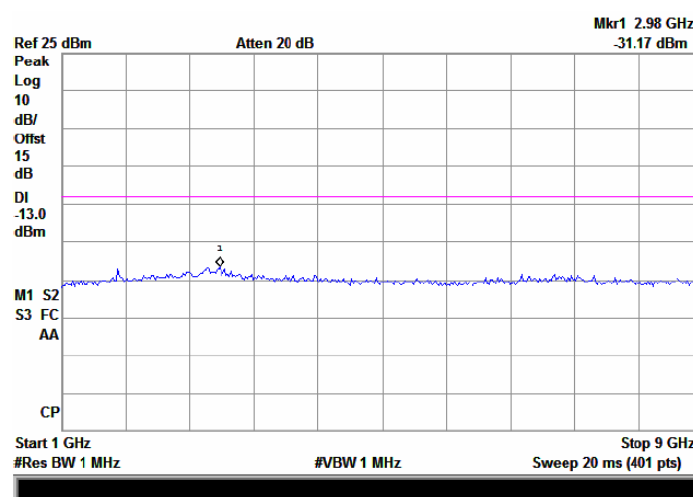
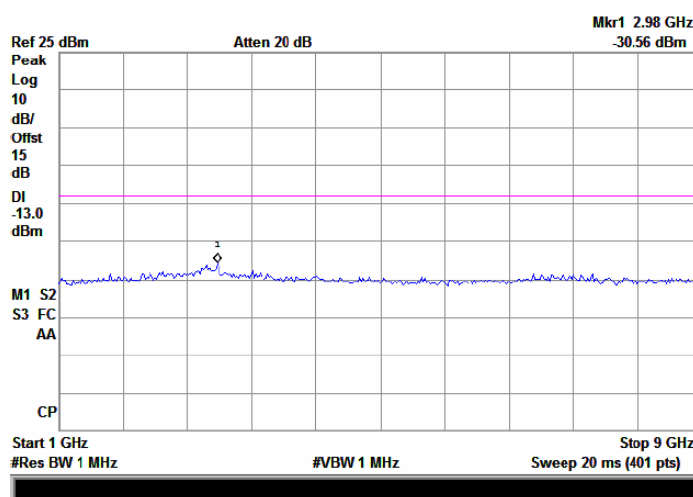
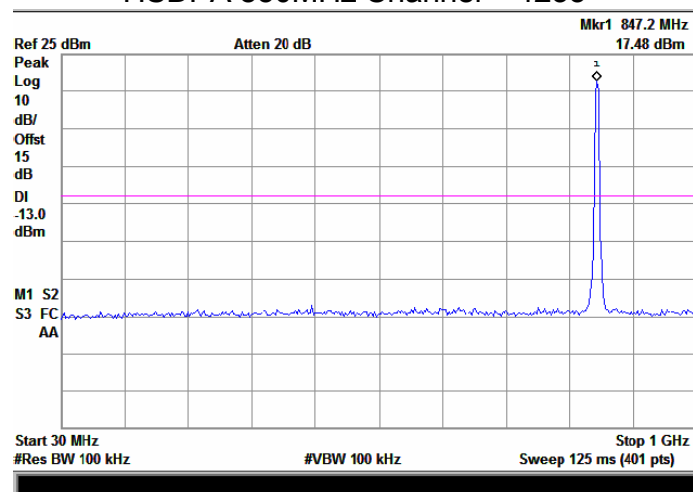
HSDPA 850MHz Channel = 4132



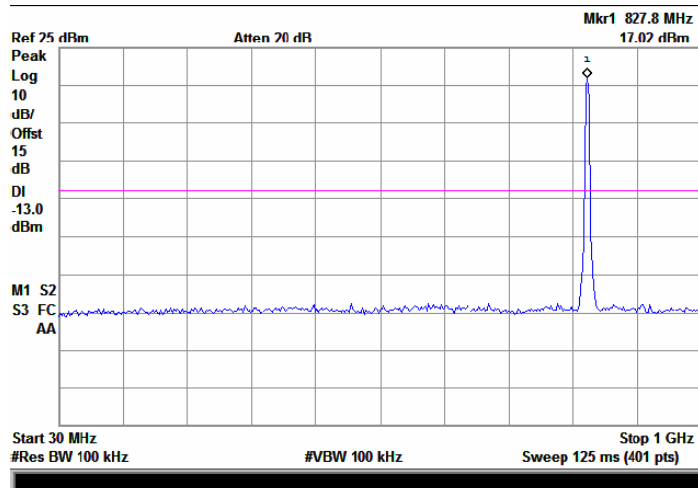
HSDPA 850MHz Channel = 4175



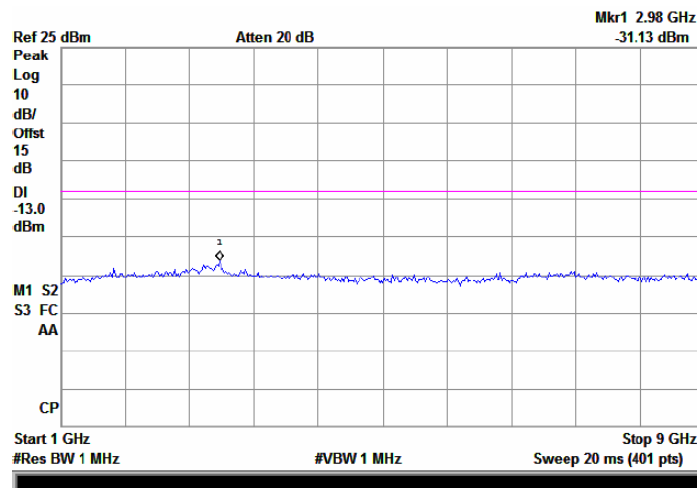
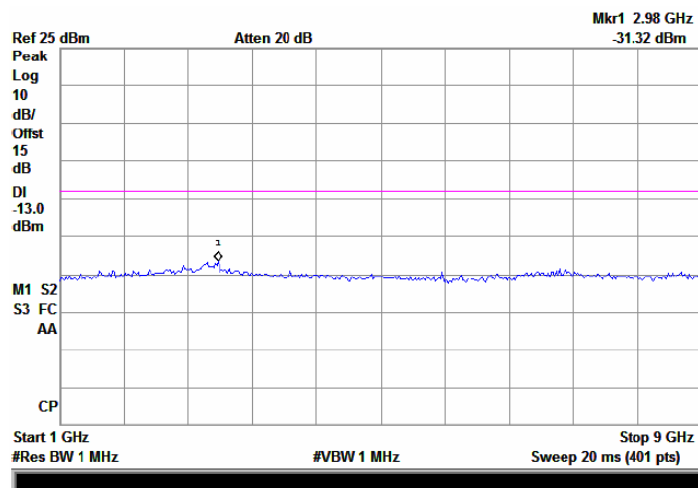
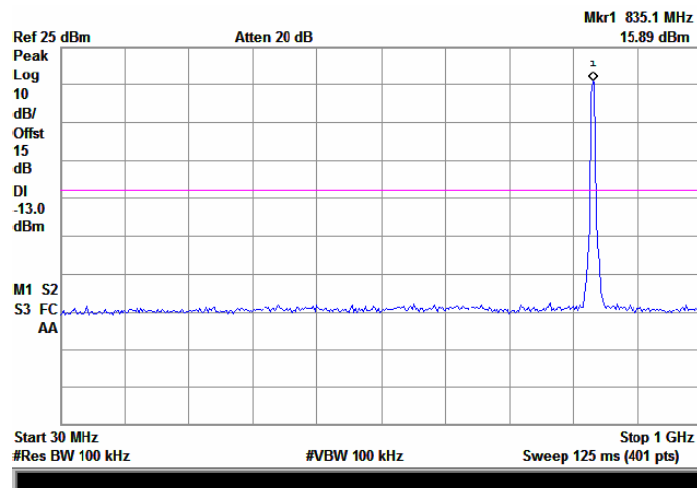
HSDPA 850MHz Channel = 4233



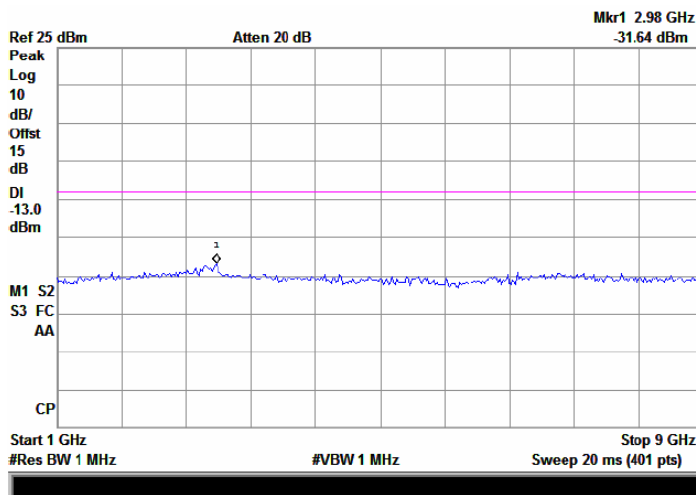
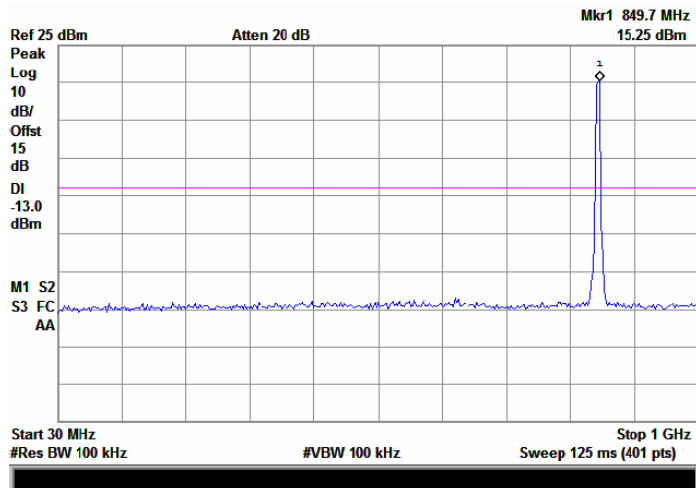
HSUPA 850MHz Channel = 4132



HSDPA 850MHz Channel = 4175



HSUPA 850MHz Channel = 4233

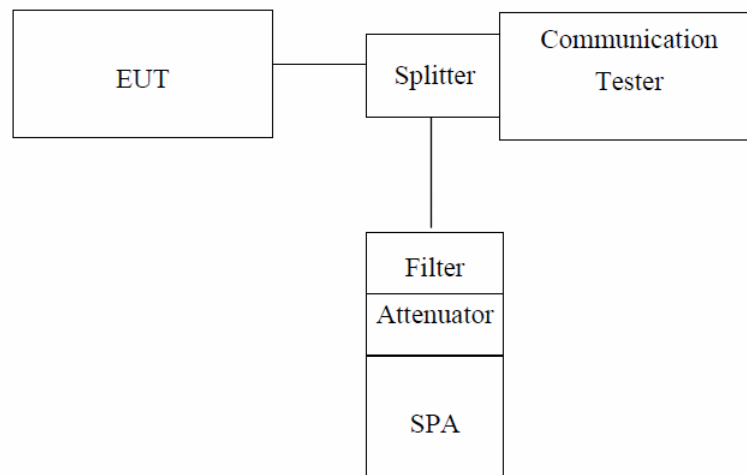


5.7. Conducted Out of Band Emissions

5.7.1. Limit

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

5.7.2. Test Setup



Note: Measurement setup for testing on Antenna connector

5.7.3. Measurement Procedure

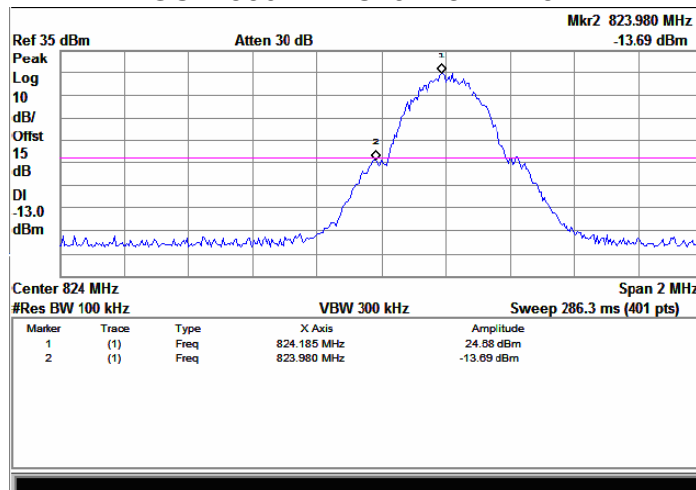
The EUT, which is powered by the adapter, is coupled to the Spectrum Analyzer and the System Simulator with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the System Simulator 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 System Simulator.

5.7.4. Test Result

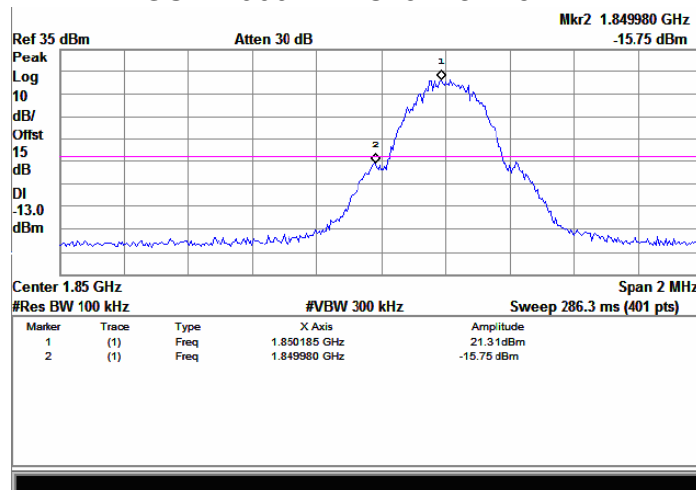
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

Test plot as follows:

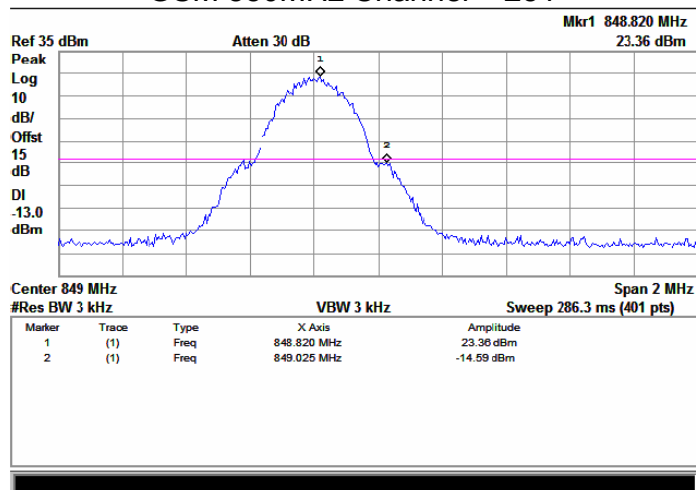
GSM 850MHz Channel = 128



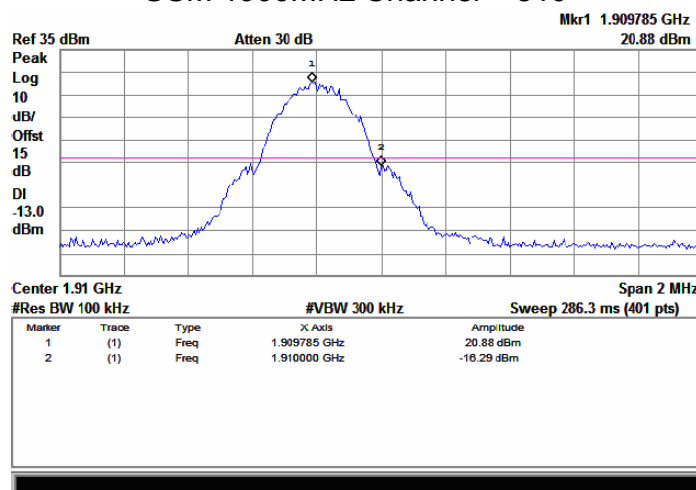
GSM 1900MHz Channel = 512



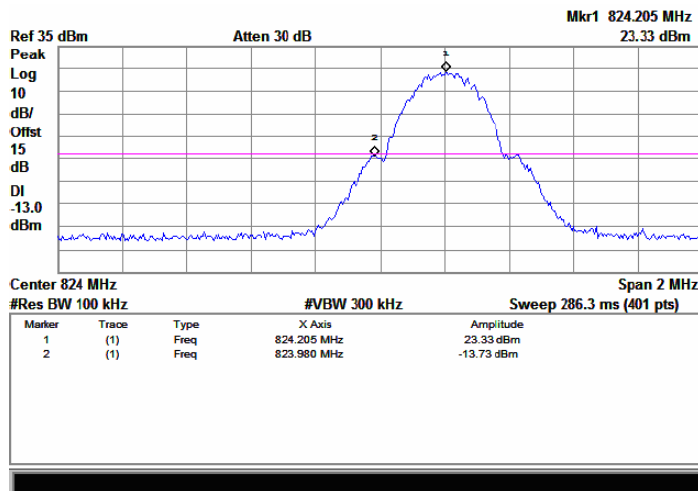
GSM 850MHz Channel = 251



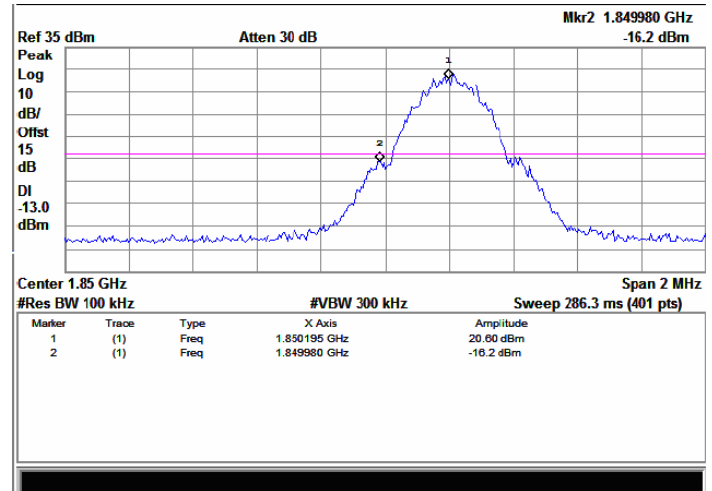
GSM 1900MHz Channel = 810



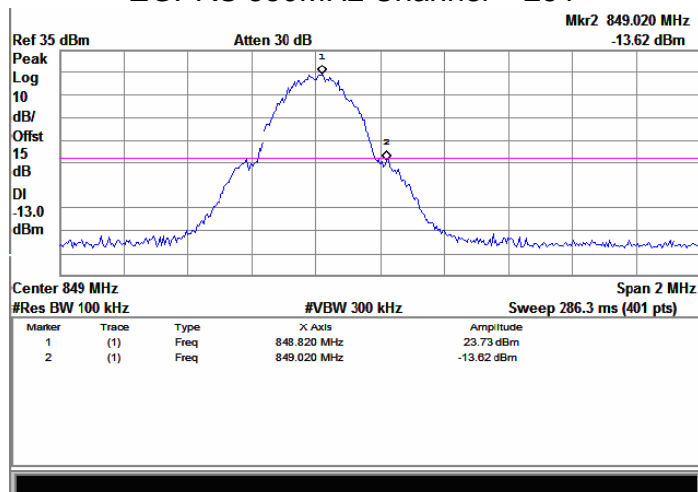
EGPRS 850MHz Channel = 128



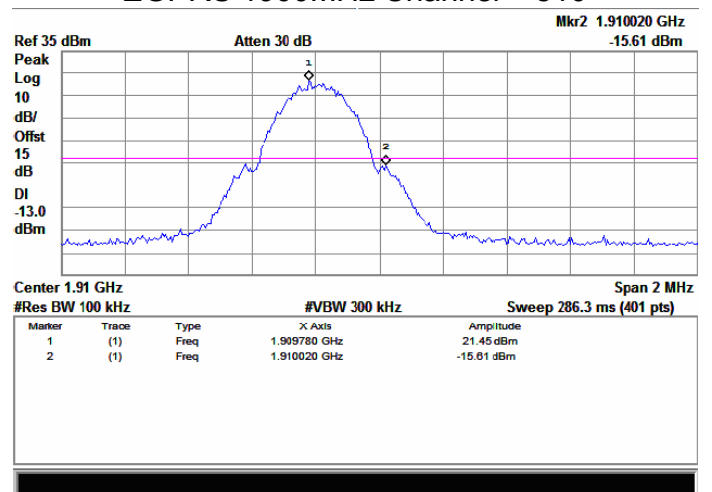
EGPRS 1900MHz Channel = 512



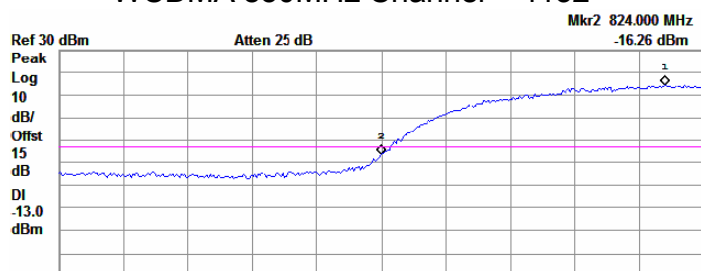
EGPRS 850MHz Channel = 251



EGPRS 1900MHz Channel = 810



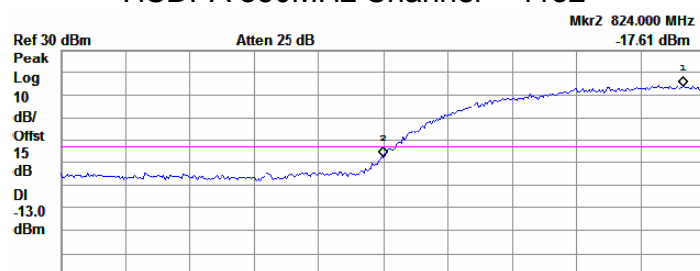
WCDMA 850MHz Channel = 4132



Center 824 MHz Span 2 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5 ms (401 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)		824.880 MHz	14.28 dBm
2	(1)	Freq	824.000 MHz	-16.26 dBm

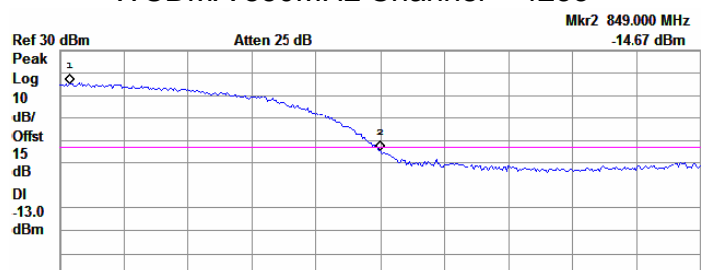
HSDPA 850MHz Channel = 4132



Center 824 MHz Span 2 MHz
#Res BW 100 kHz #VBW 100 kHz Sweep 5 ms (401 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)		824.930 MHz	13.57 dBm
2	(1)	Freq	824.000 MHz	-17.61 dBm

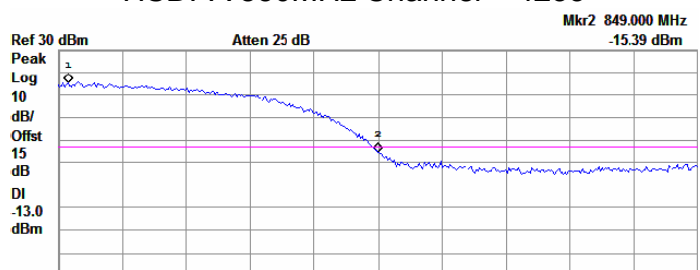
WCDMA 850MHz Channel = 4233



Center 849 MHz Span 2 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5 ms (401 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)		848.030 MHz	15.1 dBm
2	(1)	Freq	849.000 MHz	-14.67 dBm

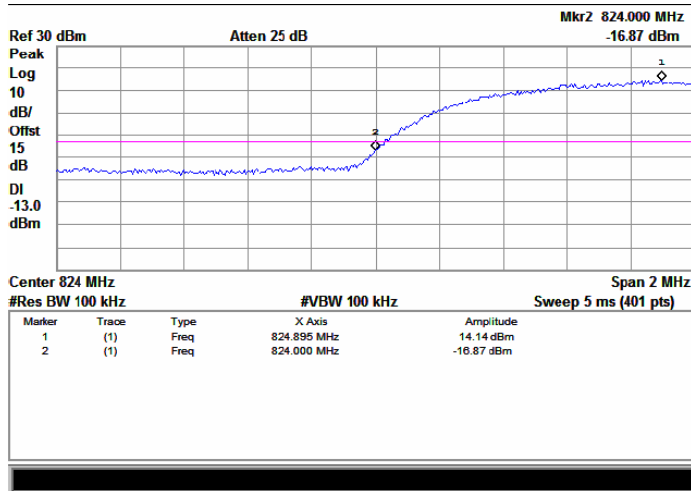
HSDPA 850MHz Channel = 4233



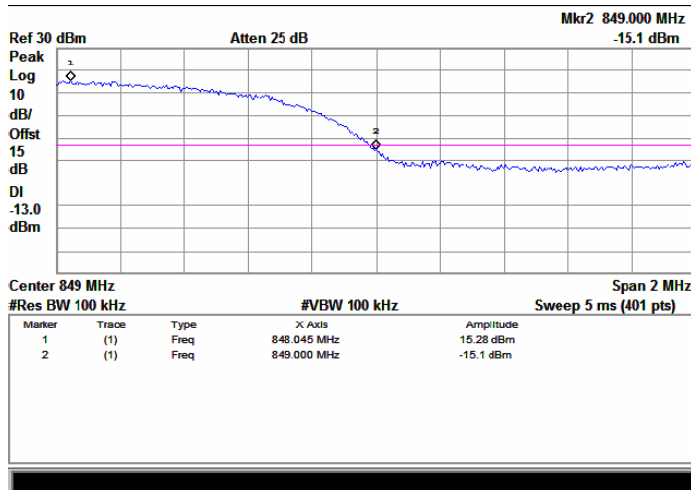
Center 849 MHz Span 2 MHz
#Res BW 100 kHz #VBW 100 kHz Sweep 5 ms (401 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)		848.030 MHz	14.97 dBm
2	(1)	Freq	849.000 MHz	-15.39 dBm

HSUPA 850MHz Channel = 4132



HSUPA 850MHz Channel = 4233

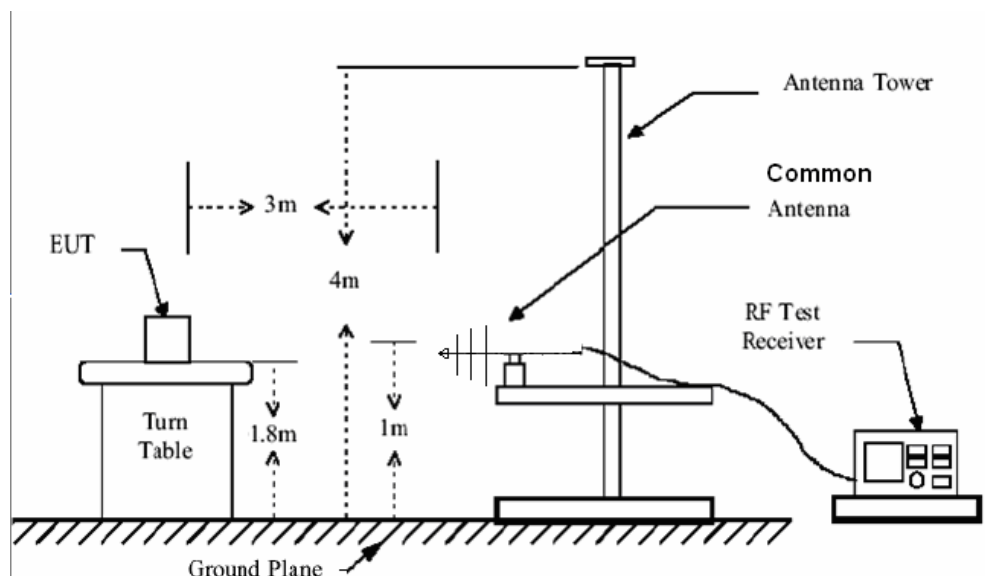


5.8. Transmitter Radiated Power (EIRP/ERP)

5.8.1. Limit

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.

5.8.2. Test Setup



5.8.3. Measurement Procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. all test in Full-Anechoic Chamber.

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

$$\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}$$

$$\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$$

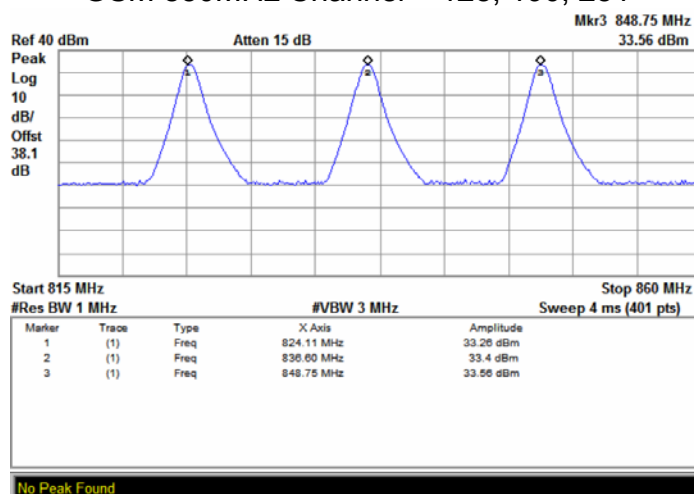
5.8.4. Test Result

Band	CH	Frequency(MHz)	ERP(dBm)	Limit (dBm)	Result
GSM 850	128	824.2	33.26	38.5	PASS
	190	836.6	33.40		
	251	848.8	33.56		
GPRS 850	128	824.2	33.11		
	190	836.6	33.21		
	251	848.8	33.18		
EGPRS 850	128	824.2	33.15		
	190	836.6	33.18		
	251	848.8	33.44		

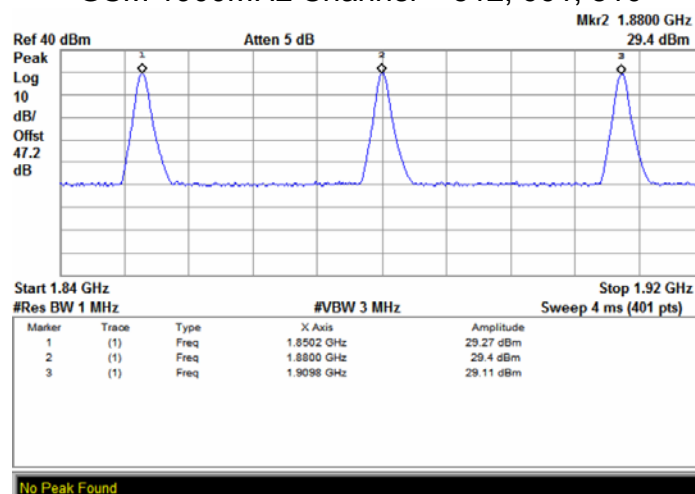
Band	CH	Frequency(MHz)	EIRP(dBm)	Limit (dBm)	Result
GSM 1900	512	1852.4	29.27	38.5	PASS
	661	1880.0	29.40		
	810	1907.6	29.11		
GPRS 1900	512	1852.4	27.05		
	661	1880.0	28.73		
	810	1907.6	28.24		
EGPRS 1900	512	1852.4	27.68		
	661	1880.0	28.67		
	810	1907.6	28.58		

Band	CH	Frequency(MHz)	ERP(dBm)	Limit (dBm)	Result
WCDMA 850	4132	826.4	26.34	38.5	PASS
	4175	835.0	27.07		
	4233	846.6	27.18		
HSDPA 850	4132	826.4	26.31		
	4175	835.0	27.12		
	4233	846.6	27.08		
HSUPA 850	4132	826.4	26.38		
	4175	835.0	27.20		
	4233	846.6	27.03		

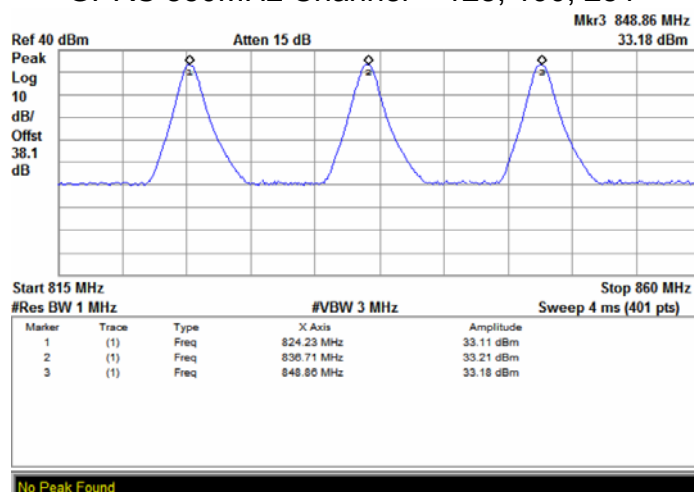
GSM 850MHz Channel = 128, 190, 251



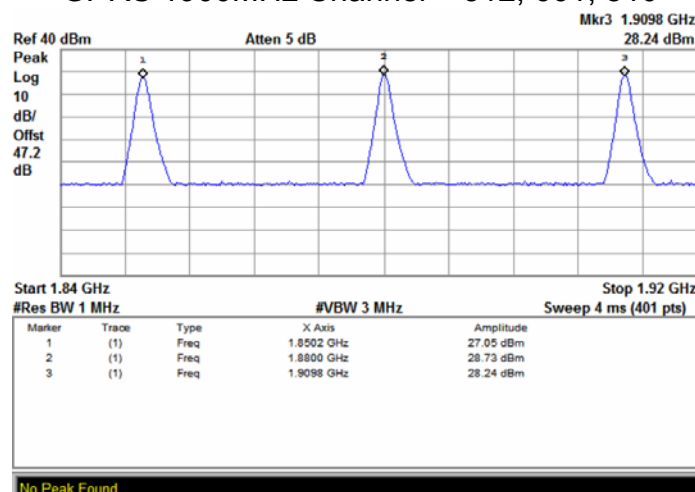
GSM 1900MHz Channel = 512, 661, 810



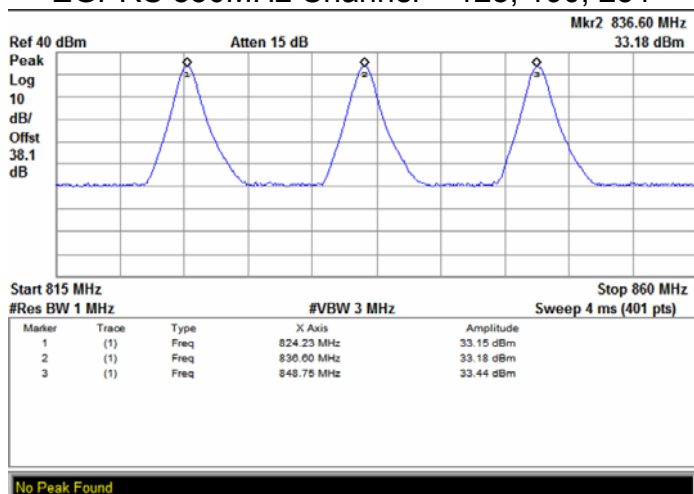
GPRS 850MHz Channel = 128, 190, 251



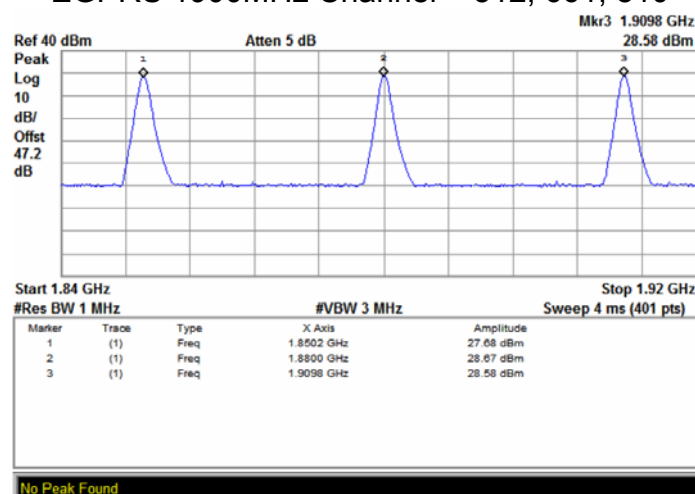
GPRS 1900MHz Channel = 512, 661, 810



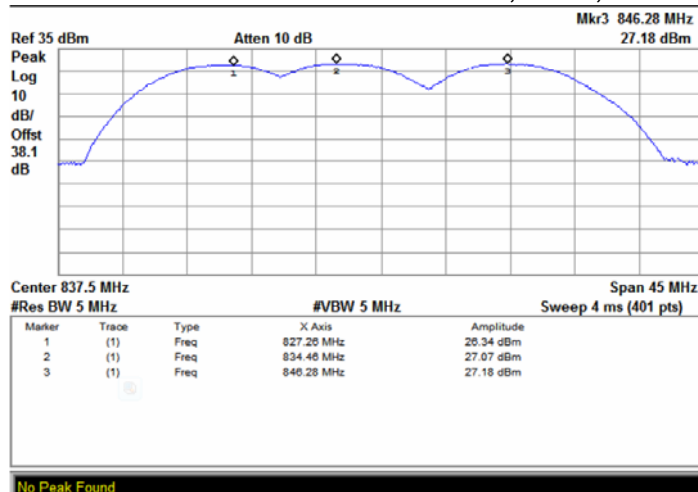
EGPRS 850MHz Channel = 128, 190, 251



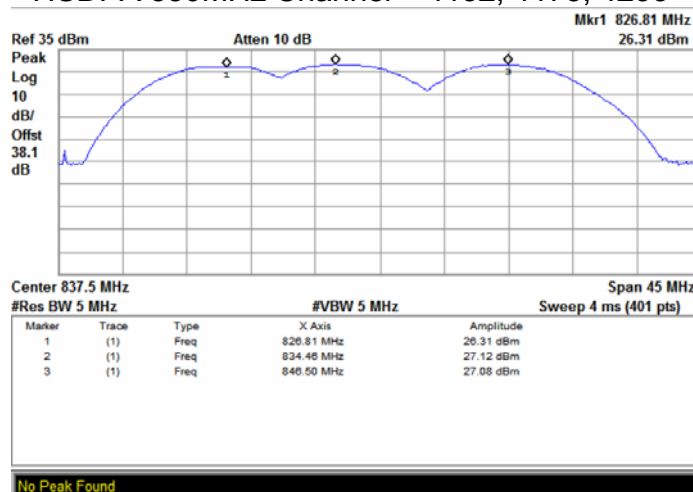
EGPRS 1900MHz Channel = 512, 661, 810



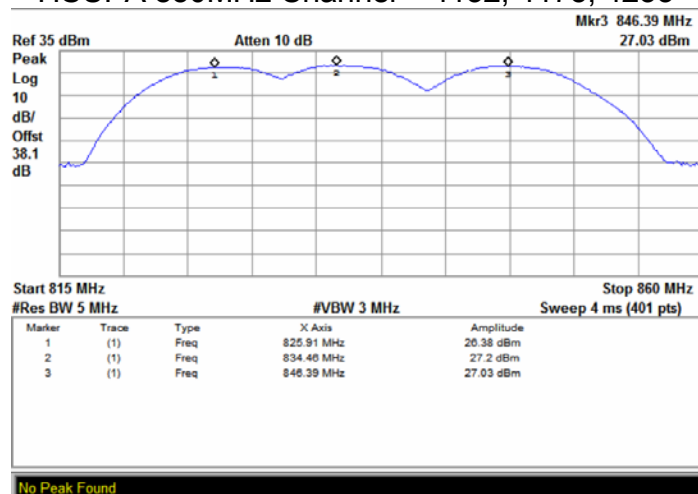
WCDMA 850MHz Channel = 4132, 4175, 4233



HSDPA 850MHz Channel = 4132, 4175, 4233



HSUPA 850MHz Channel = 4132, 4175, 4233



5.9. Radiated Out of Band Emissions

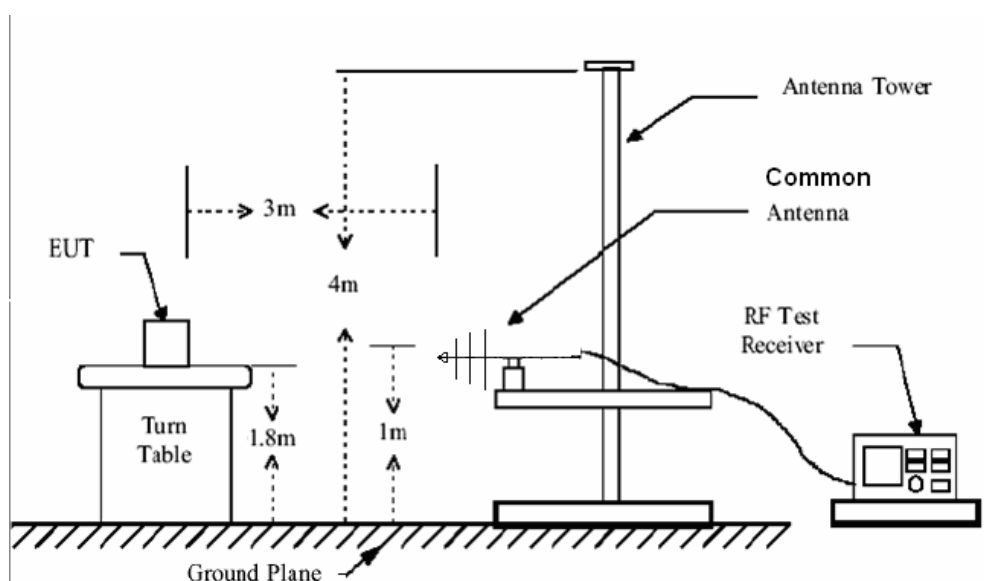
5.9.1. Limit

According to FCC section 22.917(a) and section 24.238(a), 27.53(g) 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 $43 + 10 \cdot \log(P)$ dB. This calculated to be -13dBm.

The spurious emission with frequency band 1900 according to FCC section 2.1057.

5.9.2. Test Setup



5.9.3. Measurement Procedure

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

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency

(low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

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

$$\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dBi)} - \text{Cable Loss (dB)}$$

Note: Measurement Uncertainty: ± 3.6 dB.

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 850 channel=128	77.24	Vertical	-73.25	-13	PASS
	1648.40	Vertical	-23.53		
	2472.60	Vertical	-32.54		
	3296.80	Vertical	-39.28		
	4121.00	Vertical	-45.45		
	4945.20	Vertical	-37.34		
	79.03	Horizontal	-74.25		
	2472.60	Horizontal	-25.62		
	3296.80	Horizontal	-31.21		
	4121.00	Horizontal	-42.42		
	4945.20	Horizontal	-47.34		
	5769.40	Horizontal	-39.26		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 850 channel=190	77.52	Vertical	-73.97	-13	PASS
	1673.20	Vertical	-23.30		
	2509.80	Vertical	-26.84		
	3346.40	Vertical	-38.46		
	4183.00	Vertical	-40.35		
	5019.60	Vertical	-38.86		
	78.14	Horizontal	-74.05		
	1673.20	Horizontal	-22.29		
	2509.80	Horizontal	-28.43		
	3346.40	Horizontal	-41.66		
	4183.00	Horizontal	-43.74		
	5019.60	Horizontal	-38.59		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 850 channel=251	75.26	Vertical	-73.09	-13	PASS
	1697.60	Vertical	-21.36		
	2546.40	Vertical	-24.37		
	3395.20	Vertical	-31.93		
	4244.00	Vertical	-38.37		
	5092.80	Vertical	-43.64		
	77.41	Horizontal	-74.56		
	1697.60	Horizontal	-20.87		
	2546.40	Horizontal	-26.55		
	3395.20	Horizontal	-34.69		
	4244.00	Horizontal	-40.04		
	5092.80	Horizontal	-45.67		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 1900 channel=512	72.26	Vertical	-72.23	-13	PASS
	3700.40	Vertical	-41.60		
	5550.60	Vertical	-41.31		
	7400.80	Vertical	-34.77		
	9251.00	Vertical	-38.74		
	11101.20	Vertical	-37.40		
	74.57	Horizontal	-72.51		
	3700.40	Horizontal	-43.45		
	5550.60	Horizontal	-42.28		
	7400.80	Horizontal	-36.48		
	9251.00	Horizontal	-41.30		
	11101.20	Horizontal	-39.52		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 1900 channel=661	75.06	Vertical	-70.46	-13	PASS
	3760.00	Vertical	-42.56		
	5640.00	Vertical	-42.37		
	7520.00	Vertical	-37.05		
	9400.00	Vertical	-37.24		
	11280.00	Vertical	-38.35		
	77.11	Horizontal	-72.64		
	3760.00	Horizontal	-41.29		
	5640.00	Horizontal	-41.69		
	7520.00	Horizontal	-33.82		
	9400.00	Horizontal	-37.12		
	11280.00	Horizontal	-36.58		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
GSM 1900 channel=810	74.86	Vertical	-71.31	-13	PASS
	3819.60	Vertical	-42.30		
	5729.40	Vertical	-36.41		
	7639.20	Vertical	-32.95		
	9549.00	Vertical	-38.62		
	11458.80	Vertical	-38.60		
	77.44	Horizontal	-71.66		
	3819.60	Horizontal	-40.26		
	5729.40	Horizontal	-35.33		
	7639.20	Horizontal	-31.71		
	9549.00	Horizontal	-36.47		
	11458.80	Horizontal	-36.65		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 850 channel=128	77.12	Vertical	-73.28	-13	PASS
	1648.40	Vertical	-23.34		
	2472.60	Vertical	-24.26		
	3296.80	Vertical	-31.34		
	4121.00	Vertical	-38.23		
	4945.20	Vertical	-43.15		
	78.43	Horizontal	-74.06		
	2472.60	Horizontal	-20.72		
	3296.80	Horizontal	-26.46		
	4121.00	Horizontal	-34.26		
	4945.20	Horizontal	-40.45		
	5769.40	Horizontal	-45.61		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 850 channel=190	75.26	Vertical	-73.26	-13	PASS
	1673.20	Vertical	-22.43		
	2509.80	Vertical	-24.26		
	3346.40	Vertical	-31.22		
	4183.00	Vertical	-38.06		
	5019.60	Vertical	-43.37		
	71.43	Horizontal	-74.97		
	1673.20	Horizontal	-20.29		
	2509.80	Horizontal	-26.45		
	3346.40	Horizontal	-34.34		
	4183.00	Horizontal	-40.64		
	5019.60	Horizontal	-45.21		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 850 channel=251	77.13	Vertical	-73.28	-13	PASS
	1697.60	Vertical	-21.75		
	2546.40	Vertical	-26.86		
	3395.20	Vertical	-31.58		
	4244.00	Vertical	-38.78		
	5092.80	Vertical	-43.95		
	78.02	Horizontal	-74.38		
	1697.60	Horizontal	-20.62		
	2546.40	Horizontal	-26.28		
	3395.20	Horizontal	-34.34		
	4244.00	Horizontal	-40.59		
	5092.80	Horizontal	-45.42		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 1900 channel=512	73.38	Vertical	-72.45	-13	PASS
	3700.40	Vertical	-41.24		
	5550.60	Vertical	-37.52		
	7400.80	Vertical	-33.12		
	9251.00	Vertical	-37.25		
	11101.20	Vertical	-37.42		
	74.42	Horizontal	-71.26		
	3700.40	Horizontal	-41.45		
	5550.60	Horizontal	-36.53		
	7400.80	Horizontal	-32.57		
	9251.00	Horizontal	-36.59		
	11101.20	Horizontal	-37.12		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 1900 channel=661	74.15	Vertical	-70.68	-13	PASS
	3760.00	Vertical	-43.15		
	5640.00	Vertical	-38.87		
	7520.00	Vertical	-33.68		
	9400.00	Vertical	-37.59		
	11280.00	Vertical	-36.68		
	76.53	Horizontal	-72.85		
	3760.00	Horizontal	-41.46		
	5640.00	Horizontal	-36.76		
	7520.00	Horizontal	-33.53		
	9400.00	Horizontal	-35.59		
	11280.00	Horizontal	-37.81		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
EGPRS 1900 channel=810	77.19	Vertical	-71.58	-13	PASS
	3819.60	Vertical	-43.68		
	5729.40	Vertical	-36.75		
	7639.20	Vertical	-33.26		
	9549.00	Vertical	-37.58		
	11458.80	Vertical	-37.59		
	74.26	Horizontal	-71.56		
	3819.60	Horizontal	-41.45		
	5729.40	Horizontal	-36.26		
	7639.20	Horizontal	-32.43		
	9549.00	Horizontal	-35.85		
	11458.80	Horizontal	-37.19		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
WCDMA 850 channel=4132	74.33	Vertical	-72.87	-13	PASS
	1652.8	Vertical	-23.15		
	2479.2	Vertical	-23.87		
	3305.6	Vertical	-33.26		
	4132.0	Vertical	-39.15		
	4958.4	Vertical	-43.28		
	76.91	Horizontal	-74.41		
	1652.8	Horizontal	-22.43		
	2479.2	Horizontal	-27.28		
	3305.6	Horizontal	-35.16		
	4132.0	Horizontal	-41.75		
	4958.4	Horizontal	-46.84		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
WCDMA 850 channel=4175	76.59	Vertical	-72.59	-13	PASS
	1672.8	Vertical	-22.12		
	2509.2	Vertical	-25.13		
	3345.6	Vertical	-32.74		
	4182.0	Vertical	-37.14		
	5018.4	Vertical	-45.21		
	74.76	Horizontal	-75.26		
	1672.8	Horizontal	-22.75		
	2509.2	Horizontal	-26.59		
	3345.6	Horizontal	-33.12		
	4182.0	Horizontal	-41.48		
	5018.4	Horizontal	-46.59		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
WCDMA 850 channel=4233	76.59	Vertical	-72.13	-13	PASS
	1693.2	Vertical	-21.45		
	2539.8	Vertical	-28.78		
	3386.4	Vertical	-31.25		
	4233.0	Vertical	-37.45		
	5079.6	Vertical	-42.59		
	74.48	Horizontal	-72.48		
	1693.2	Horizontal	-22.75		
	2539.8	Horizontal	-27.85		
	3386.4	Horizontal	-34.18		
	4233.0	Horizontal	-40.75		
	5079.6	Horizontal	-45.67		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSDPA 850 channel=4132	78.11	Vertical	-72.45	-13	PASS
	1652.8	Vertical	-21.76		
	2479.2	Vertical	-26.59		
	3305.6	Vertical	-32.59		
	4132.0	Vertical	-39.74		
	4958.4	Vertical	-43.58		
	76.16	Horizontal	-74.36		
	1652.8	Horizontal	-22.49		
	2479.2	Horizontal	-27.76		
	3305.6	Horizontal	-35.59		
	4132.0	Horizontal	-41.76		
	4958.4	Horizontal	-46.58		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSDPA 850 channel=4175	77.24	Vertical	-75.12	-13	PASS
	1672.8	Vertical	-21.45		
	2509.2	Vertical	-28.57		
	3345.6	Vertical	-32.42		
	4182.0	Vertical	-37.59		
	5018.4	Vertical	-43.58		
	76.43	Horizontal	-75.12		
	1672.8	Horizontal	-21.44		
	2509.2	Horizontal	-27.46		
	3345.6	Horizontal	-36.52		
	4182.0	Horizontal	-41.42		
	5018.4	Horizontal	-46.76		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSDPA 850 channel=4233	75.16	Vertical	-72.45	-13	PASS
	1693.2	Vertical	-23.76		
	2539.8	Vertical	-25.46		
	3386.4	Vertical	-32.59		
	4233.0	Vertical	-37.58		
	5079.6	Vertical	-44.69		
	74.29	Horizontal	-75.63		
	1693.2	Horizontal	-22.46		
	2539.8	Horizontal	-27.23		
	3386.4	Horizontal	-33.89		
	4233.0	Horizontal	-41.48		
	5079.6	Horizontal	-46.59		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSUPA 850 channel=4132	75.90	Vertical	-72.75	-13	PASS
	1652.8	Vertical	-24.15		
	2479.2	Vertical	-28.71		
	3305.6	Vertical	-32.59		
	4132.0	Vertical	-36.96		
	4958.4	Vertical	-43.78		
	76.18	Horizontal	-74.26		
	1652.8	Horizontal	-23.28		
	2479.2	Horizontal	-24.19		
	3305.6	Horizontal	-33.68		
	4132.0	Horizontal	-41.76		
	4958.4	Horizontal	-46.19		

Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSUPA 850 channel=4175	74.75	Vertical	-75.06	-13	PASS
	1672.8	Vertical	-23.62		
	2509.2	Vertical	-28.19		
	3345.6	Vertical	-33.25		
	4182.0	Vertical	-37.67		
	5018.4	Vertical	-44.53		
	75.81	Horizontal	-75.29		
	1672.8	Horizontal	-22.37		
	2509.2	Horizontal	-28.19		
	3345.6	Horizontal	-35.12		
	4182.0	Horizontal	-41.72		
	5018.4	Horizontal	-46.82		

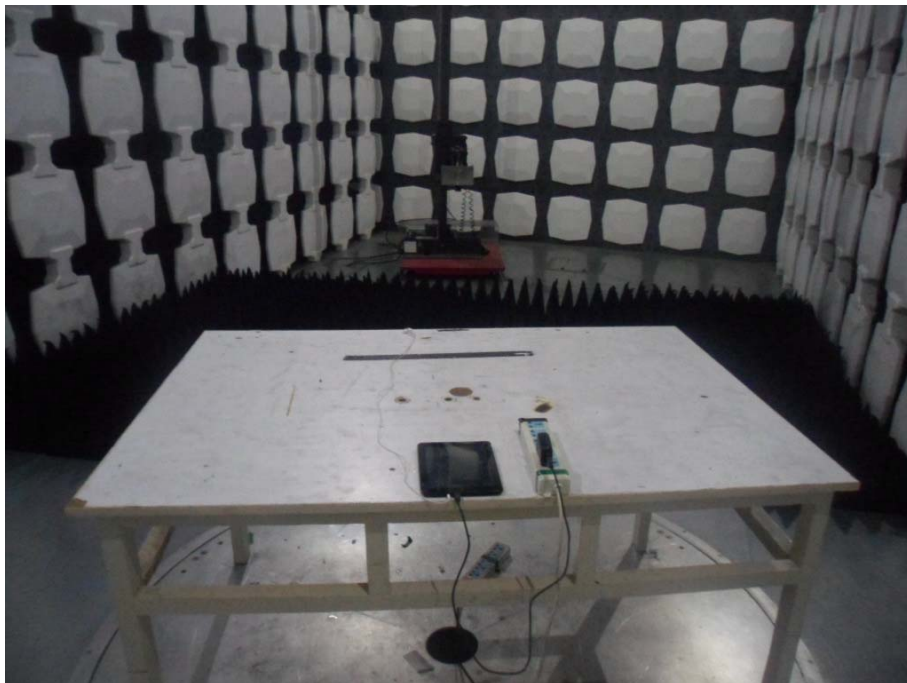
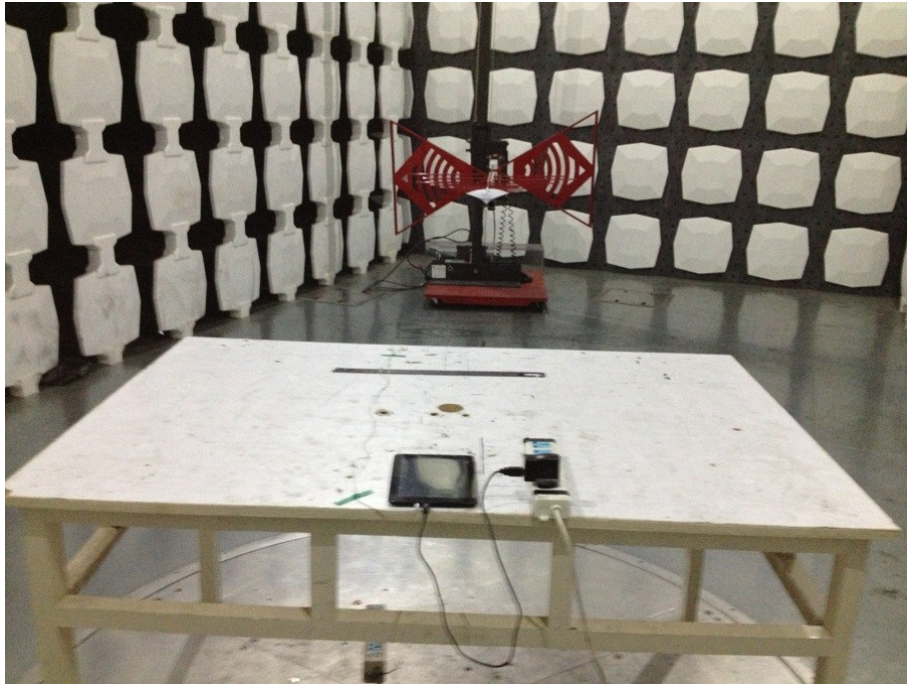
Band	Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
		Polarization	Level(dBm)		
HSUPA 850 channel=4233	77.12	Vertical	-75.06	-13	PASS
	1693.2	Vertical	-23.95		
	2539.8	Vertical	-25.76		
	3386.4	Vertical	-33.94		
	4233.0	Vertical	-37.85		
	5079.6	Vertical	-44.59		
	76.12	Horizontal	-75.86		
	1693.2	Horizontal	-23.69		
	2539.8	Horizontal	-27.18		
	3386.4	Horizontal	-36.29		
	4233.0	Horizontal	-41.78		
	5079.6	Horizontal	-46.19		

6. PHOTOGRAPHS OF TEST SET-UP

6.1. Set-up for Conducted Emission Test



6.2. Set-up for Radiated Emission Test



7. PHOTOGRAPHS OF THE EUT

Figure 1
General Appearance of the EUT

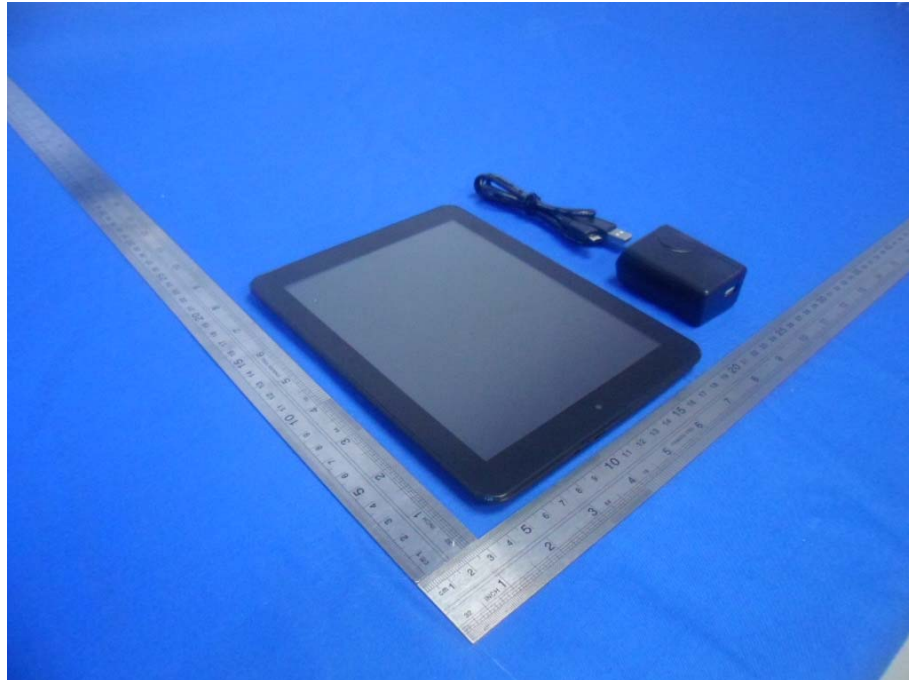


Figure 2
General Appearance of the EUT



Figure 3
General Appearance of the EUT



Figure 4
General Appearance of the EUT



Figure 5
General Appearance of the Adapter



Figure 6
General Appearance of the PCB



Figure 7
General Appearance of the PCB

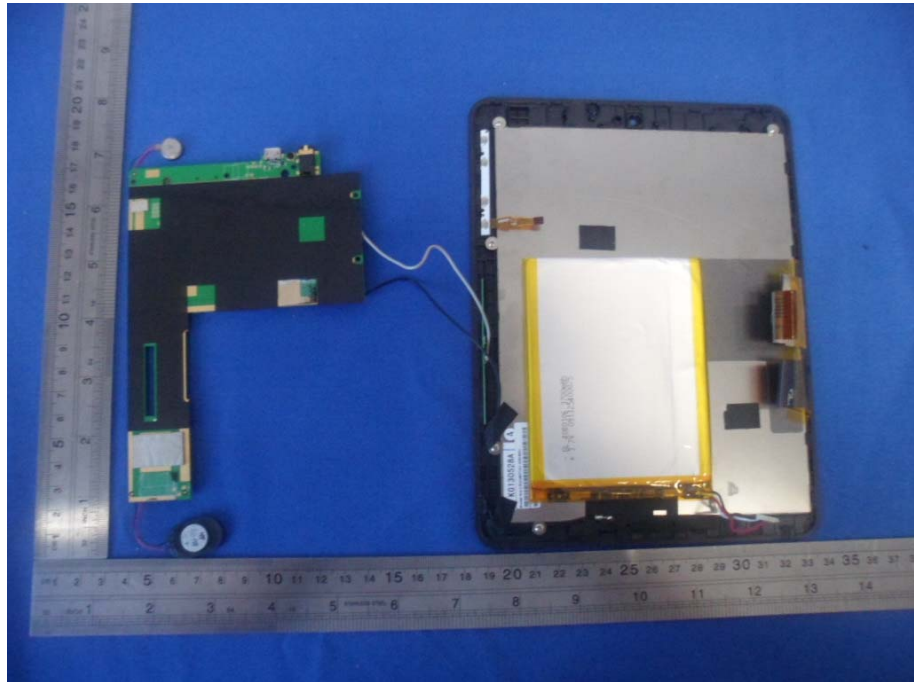


Figure 8
General Appearance of the PCB

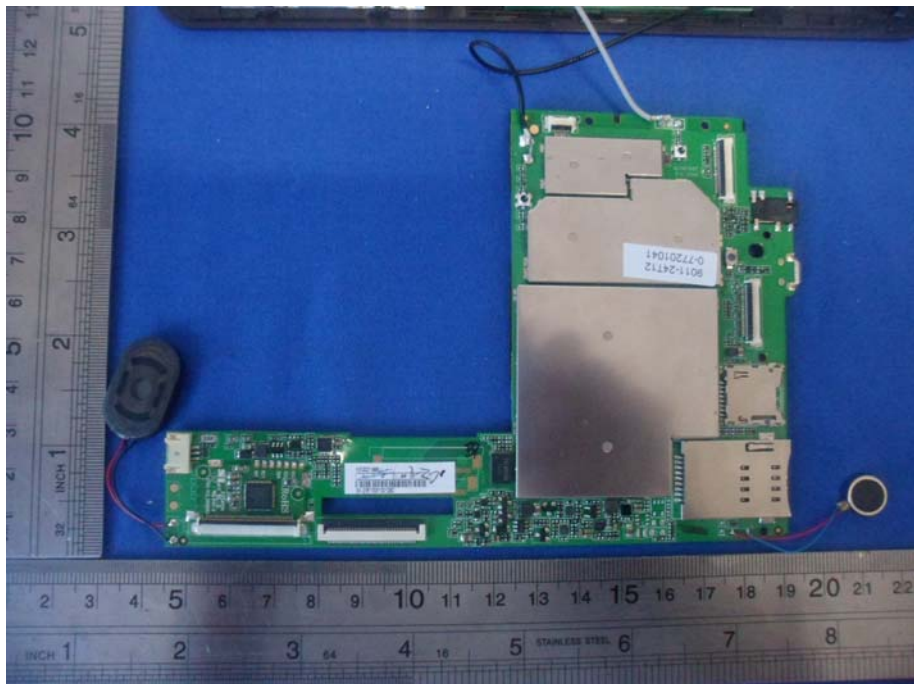


Figure 9
General Appearance of the PCB



END.