



Shenzhen Certification Technology Service Co., Ltd.
2F, Building B, East Area of Nanchang Second Industrial
Zone, Gushu 2nd Road, Bao'an District, Shenzhen
518126, P.R. China

TEST REPORT

FCC ID: OHZ-FLAIR60

Applicant : ShenZhen GuoBang XingYe(GBD)Electronics Co., Ltd
Address : 5F, Building4, LianChuangTech-park, Lilang Road,Bujitown, Longgang
district, Shenzhen City, China

Equipment Under Test (EUT):

Name : Smart phone
Model : Flair6.0, M773G,M601(Q), C5(Q), M550, L5,
M693G, M785S, MR801, M903G, M103G

In Accordance with: FCC PART 2; FCC PART 22H; FCC PART 24E

Report No : CST-TCB140719043-3
Date of Test : July 25. 2013- August 05, 2014
Date of Issue : August 06, 2014

Test Result: **PASS**

In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

(Mark Zhu)

General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Certification Technology Service Co., Ltd. Or test done by Shenzhen Certification Technology Service Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Certification Technology Service Co., Ltd. Approvals in writing.

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1. General Information

1.1. Description of Device (EUT)

EUT	: Smart phone
Trade Name	: N/A
Model No.	: Flair6.0, M773G, M601(Q), C5(Q), M550, L5, M693G, M785S, MR801, M903G, M103G All model's the function, software and electric circuit are the
DIFF.	: same, only with a model named different. The test model: Flair6.0.
Power supply	: DC 3.7V Supply by battery DC 5V from adapter with AC 120V/60Hz adapter
Adapter	: Manufacturer: Shenzhen Dragon Technology Co., Ltd Model No.:HT-001-050200
Radio Technology	: Bluetooth 4.0, BT2.1+EDR IEEE 802.11b/g/n(HT20)/n(HT40) GSM/GPRS/EDGE 850/1900, WCDMA BAND II/V
GSM Power class	: GSM 850: Class 4 GSM 1900: Class 1
Operation frequency	: IEEE 802.11b: 2412MHz-2462MHz IEEE 802.11g: 2412MHz-2462MHz IEEE 802.11n HT20: 2412-2462MHz, IEEE 802.11n HT40:2422-2452MHz Bluetooth 4.0: 2402-2480MHz Bluetooth 2.1+EDR: 2402-2480MHz GSM 850: 824.2MHz—848.8MHz GSM 1900: 1850.2MHz—1909.8MHz WCDMA BAND II: 1852.4MHz—1907.6MHz WCDMA BAND V: 826.4MHz—846.6MHz
Modulation	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK), IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK), IEEE 802.11n :OFDM(64QAM, 16QAM, QPSK, BPSK), Bluetooth 4.0: GFSK, Bluetooth 2.1+EDR: GFSK, $\pi/4$ DQPSK, 8-DPSK GSM: GMSK, WCDMA: QPSK
Antenna Type	: PIFA Antenna, max gain 1 dBi for WIFI, PIFA Antenna, max gain 1 dBi for BT. PIFA Antenna, max gain 1.5 dBi for GSM PIFA Antenna, max gain 1.5 dBi for WCDMA

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Manufacturer : ShenZhen GuoBang XingYe(GBD)Electronics Co., Ltd
Address : 5F, Building4, LianChuangTech-park, Lilang Road,Bujitown,
Longgang district, Shenzhen City, China

Note: This report only test for GSM, for other radio test see other test report.

1.2. Test Lab information

Shenzhen Certification Technology Service Co., Ltd.
2F, Building B, East Area of Nanchang Second Industrial Zone,
Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China
FCC Registered No.:197647

2. Summary of test

2.1. Summary of test result

Description of Test Item	Standard	Results
Conducted Output power	FCC PART 2: 2.1046 FCC PART 22H: 22.913 (a) FCC PART 24E: 24.232 (c)	PASS
Radiated Output power(erp/eirp)	FCC PART 22H:22.913 (a) FCC PART 24E:24.232(c)	PASS
Occupied bandwidth	FCC PART 2: 2.1049 FCC PART 22H: 22.917 (b) FCC PART 24E: 24.238 (b)	PASS
Frequency stability	FCC PART 2: 2.1055 FCC PART 22H: 22.355 FCC PART 24E: 24.235	PASS
Conducted spurious emission (Antenna terminal)	FCC PART 2: 2.1051 FCC PART 22H: 22.917 FCC PART 24E: 24.238	PASS
Radiated spurious emissions	FCC PART 2: 2.1053 FCC PART 22H: 22.917 FCC PART 24E: 24.238	PASS
Band edge compliance	FCC PART 22H: 22.917 (b) FCC PART 24E: 24.238 (b)	PASS
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.4: 2003	PASS

2.2. Assistant equipment used for test

Description	:	Adapter
Manufacturer	:	Shenzhen Dragon Technology Co., Ltd
Model No.	:	HT-001-050200
Input	:	AC 110-240V 50/60Hz
Output	:	DC 5V/2A

2.3. Test mode

During all testing, EUT is in link mode with base station emulator at maximum power level in each test mode and channel as below:

Mode	Channel	Frequency (MHz)
GSM/GPRS/EDGE 850	128	824.2
	190	836.6
	251	848.8
GSM/GPRS/EDGE 1900	512	1850.2
	661	1880.0
	810	1909.8

2.4. Test Environment Conditions

Temperature range	21-25°C
Humidity range	40-75%
Pressure range	86-106kPa

2.5. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.54dB	Polarize: V
	4.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB	Polarize: H
	2.56dB	Polarize: V
Uncertainty for radio frequency	1×10 ⁻⁹	
Uncertainty for conducted RF Power	0.65dB	
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

2.6. Test Equipment

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	Nov. 16, 13	1 Year
Spectrum analyzer	Agilent	E4407B	MY49510055	Oct. 30, 13	1 Year
Receiver	R&S	ESCI	101165	Oct. 30, 13	1 Year
Receiver	R&S	ESCI	101202	Oct. 30, 13	1 Year
Bilog Antenna	SCHWARZBECK	VULB 9168	9168-438	Mar.11, 14	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	Mar.11, 14	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170 D(1432)	Mar.11, 14	1 Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	Mar.12, 14	1 Year
L.I.S.N.	SCHWARZBECK	NSLK8126	8126466	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	MY6562/4	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	309972/4	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	329112/4	Oct. 30, 13	1 Year
Power Meter	Anritsu	ML2487A	6K00001491	Oct. 30, 13	1 Year
Power sensor	Anritsu	ML2491A	32516	Oct. 30, 13	1 Year
Pre-amplifier	SCHWARZBECK	BBV9743	9743-019	Oct. 30, 13	1 Year
Pre-amplifier	Quietek	AP-180C	CHM-0602012	Oct. 30, 13	1 Year
Base station	Agilent	E5515C	GB44300243	Oct. 30, 13	1 Year
Temperature controller	Terchy	MHQ	120	Oct. 30, 13	1 Year
Power divider	Anritsu	K240C	020346	Oct. 30, 13	1 Year
Signal Generator	ROHDE&SCHWARZ	CMU200	116785	Oct. 30, 13	1 Year
Attenuator	Agilent	8491B	MY39262165	Oct. 30, 13	1 Year

X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54080020	2014.01.19	1Year
X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54110001	2014.01.19	1 Year
4 Ch. Simultaneous Sampling 14 Bits 2 MS/s	Agilent	U2531A	TW54063507	2014.01.19	1 Year

3. Conducted Output power

3.1. Block Diagram of Test Setup



3.2. Limit

Cellular Telephone 850MHz	PCS 1900MHz
38.5dBm (ERP)	33dBm (EIRP)

3.3. Test Procedure

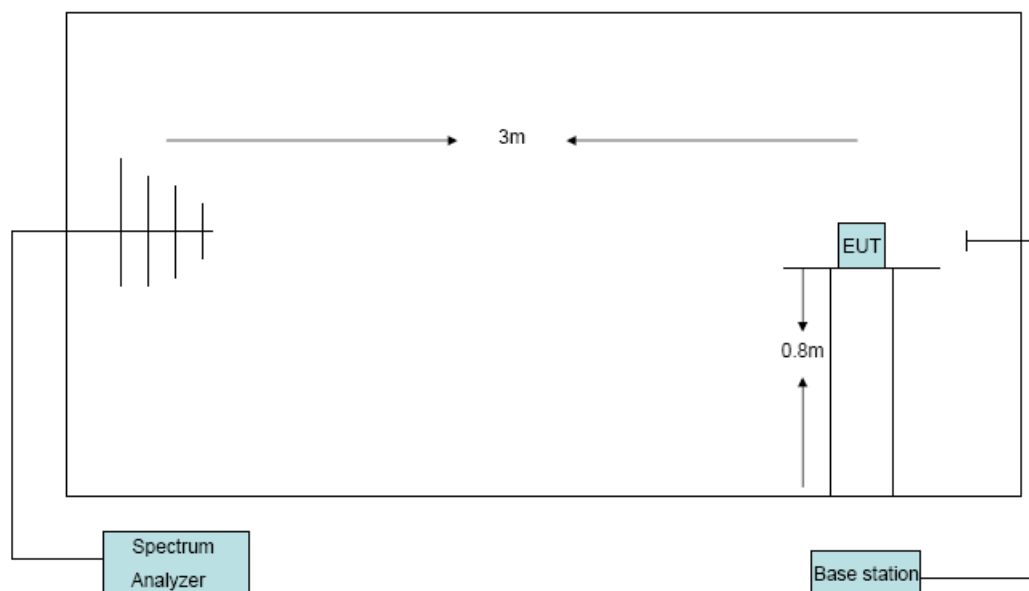
- (1) The EUT's RF output port was connected to base station.
- (2) A call is set up by the SS according to the generic call set up procedure
- (3) Set EUT at maximum power level through base station by power level command
- (4) Measure the maximum output power of EUT at each frequency band and mode by base station.

3.4. Test Result

Band		GSM850			PCS1900		
Channel		128	190	251	512	661	810
Frequency (MHz)		824.2	836.6	848.8	1850.2	1880	1909.8
Conducted power	GSM (GMSK 1 uplink)	32.46	32.40	32.52	27.98	28.04	28.18
	GPRS 8 (GMSK 1 uplink)	32.37	32.33	32.45	27.96	28.03	28.16
	GPRS 10 (GMSK 2 uplink)	31.37	31.35	32.52	27.00	27.10	27.31
	GPRS 11 (GMSK 3 uplink)	29.40	29.35	29.53	25.05	25.12	25.40
	GPRS 12 (GMSK 4 uplink)	28.11	28.05	28.29	23.84	23.93	24.24
	EDGE 8 (8PSK 1 uplink)	27.96	27.99	28.01	23.13	23.21	23.08
	EDGE 10 (8PSK 2 uplink)	26.40	26.45	26.54	21.38	21.48	21.47
	EDGE 11 (8PSK 3 uplink)	24.18	24.09	24.04	21.27	21.40	21.30
	EDGE 12 (8PSK 4 uplink)	22.66	22.79	22.70	21.30	21.37	21.27

4. ERP/EIRP

4.1. Block Diagram of Test Setup



4.2. Limit

Cellular Telephone 850MHz	PCS 1900MHz
38.5dBm (ERP)	33dBm (EIRP)

4.3. Test Procedure

1. The EUT was placed on a non-conductive rotating platform with 0.8 meter height in an anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RBW= 3MHz, VBW= 3MHz and peak detector settings.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. The highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (for frequency below 1GHz) or Horn antenna (for frequency above 1GHz) at same location with same polarize of receiver antenna and then a known power of each measure frequency from

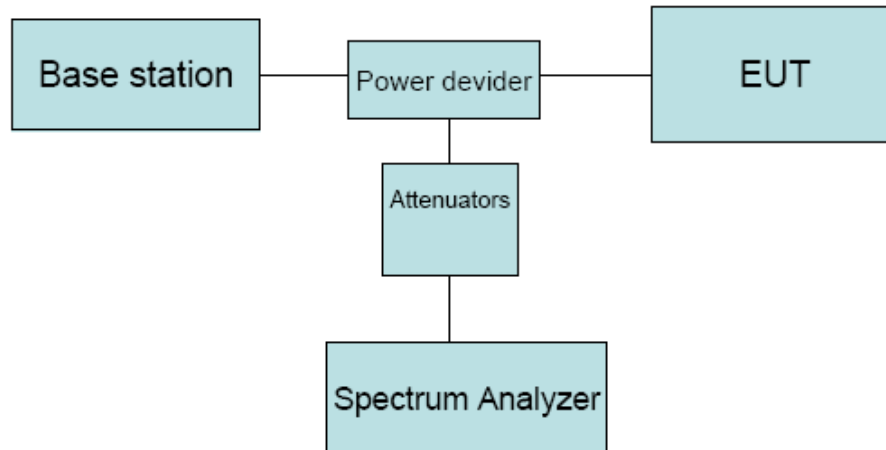
S.G. was applied into the dipole antenna or Horn antenna through a test cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - test Cable loss + Substitution antenna gain - Substitution antenna Loss (only for Dipole antenna) - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, $EIRP = LVL + \text{Correction factor}$ and $ERP = EIRP - 2.15$

4.4. Test Result

EUT: Smart phone M/N:Flair6.0					
Power: DC 5V from adapter					
Ambient Temperature:23℃			Relative Humidity: 60%		
Test date: 2014-08-01			Test site: RF site	Tested by: Simple Guan	
Conclusion: PASS					
Mode	Channel	LVL (dBm)	Correction factor(dB)	ERP (dBm)	EIRP (dBm)
GSM 850	128	4.21	30.42	32.48	/
	190	4.05	30.21	32.11	/
	251	4.75	30.05	32.65	/
EDGE 850 class 8	128	-1.23	30.42	27.04	
	190	-1.16	30.21	26.90	
	251	-1.52	30.05	26.38	
PCS 1900	512	-19.63	46.80	/	27.17
	661	-18.67	46.45	/	27.78
	810	-18.13	46.58	/	28.45
EDGE 1900 class 8	512	-25.58	46.80		21.22
	661	-27.87	46.45		18.58
	810	-27.63	46.58		18.95
ERP=LVL + Correction factor -2.15, EIRP=LVL+ Correction factor					
Both horizontally and vertically polarizations were measured, only worst case was reported.					

5. Occupied Bandwidth

5.1. Block Diagram of Test Setup



5.2. Limit

N/A

5.3. Test Procedure

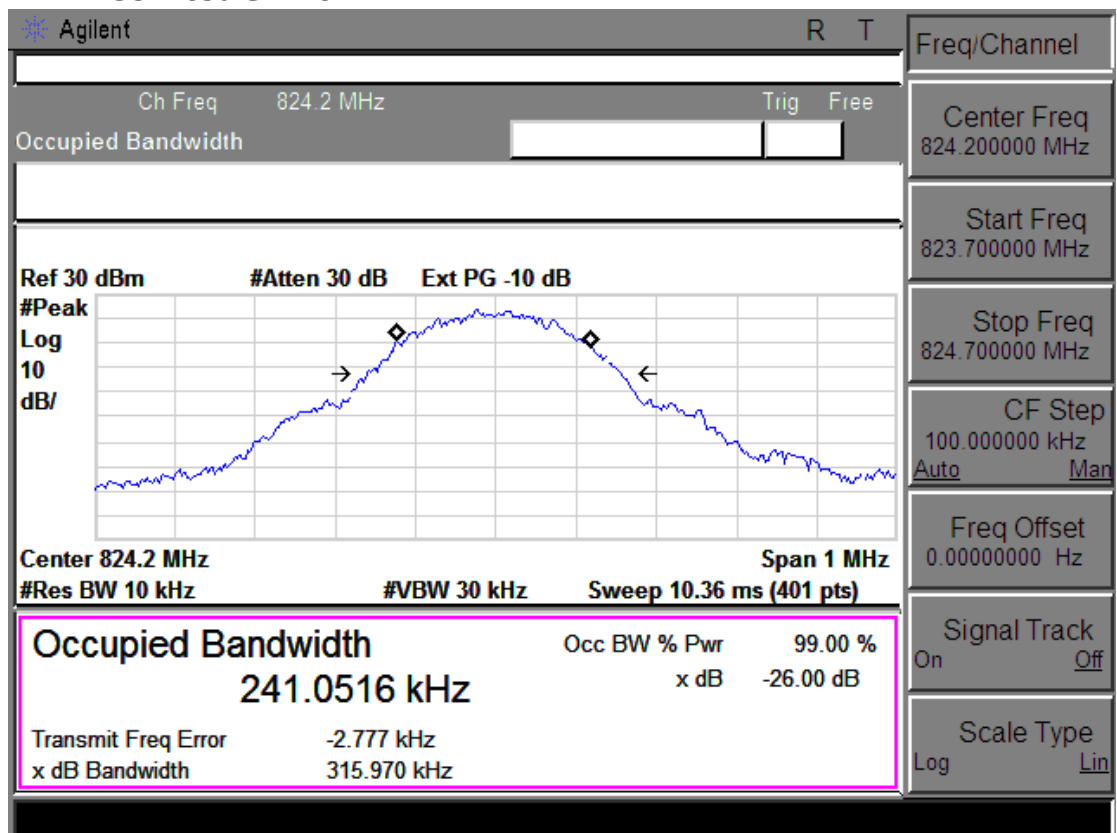
1. The EUT's RF output port was connected to Spectrum Analyzer and Base Station via power divider.
2. Spectrum analyzer's occupied bandwidth measure function was used to measure 99% bandwidth and -26dBc bandwidth.

5.4. Test Result

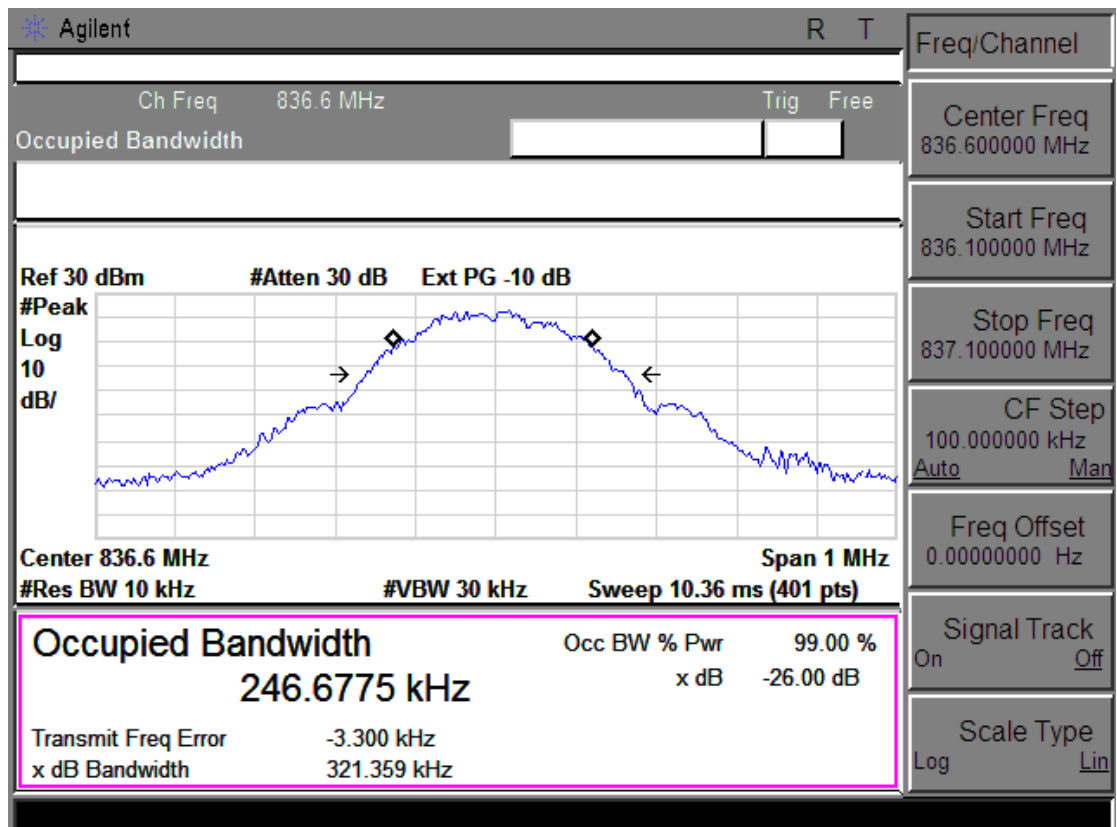
EUT: Smart phone M/N:Flair6.0			
Power: DC 5V from adapter			
Ambient Temperature:23℃		Relative Humidity: 60%	
Test date: 2014-08-01		Test site: RF site	Tested by: Simple Guan
Mode	Channel	99% bandwidth (KHz)	-26dBc bandwidth (KHz)
GSM 850	128	241.05	315.97
	190	246.68	321.36
	251	247.54	316.28
EDGE 850 class 8	128	249.97	322.12
	190	247.99	315.71
	251	239.44	316.93
PCS 1900	512	242.23	319.34
	661	239.60	317.49
	810	247.28	320.67
EDGE1900 class 8	512	240.75	318.75
	661	246.76	316.82
	810	253.82	319.30

5.5. Original test data

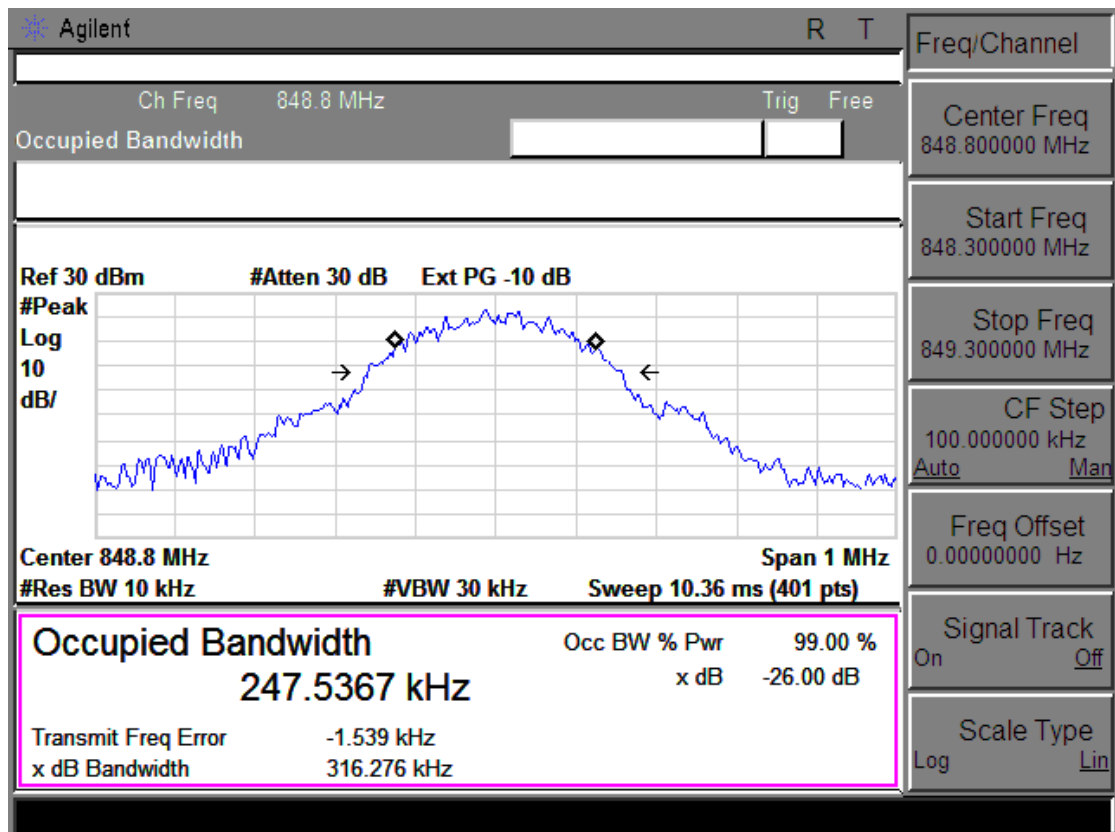
GSM 850 CH128



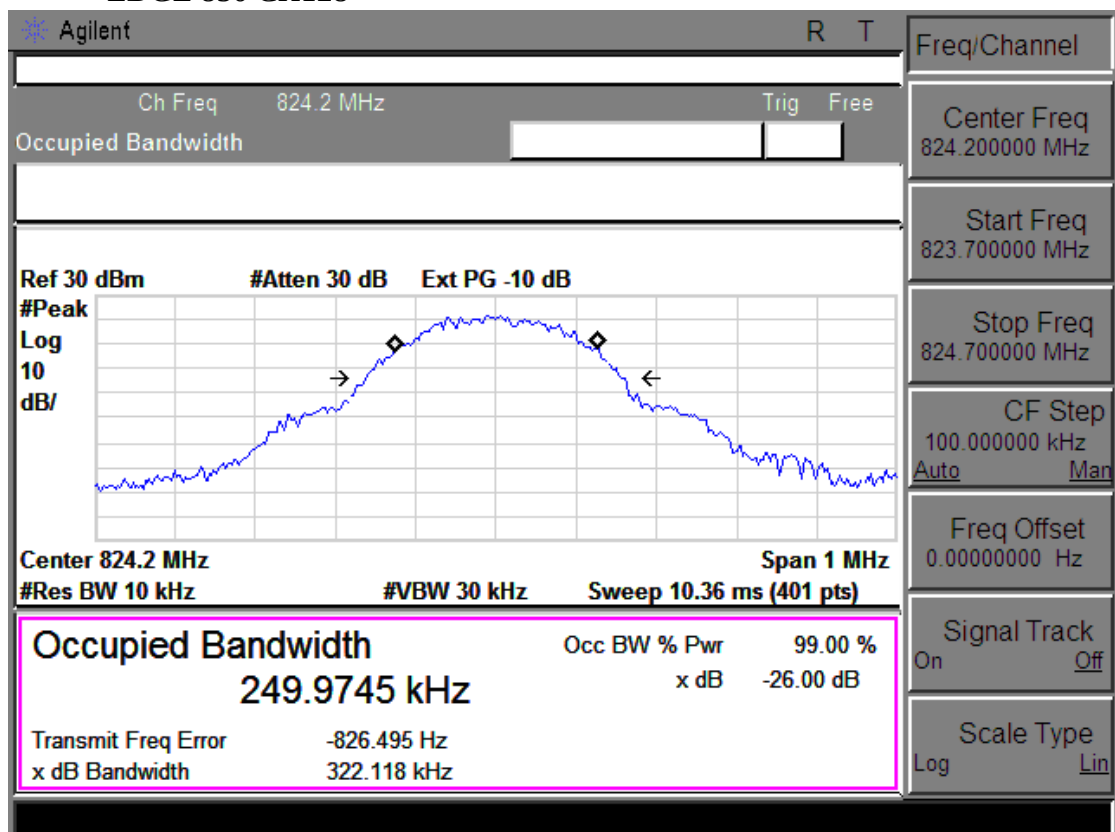
GSM 850 CH190



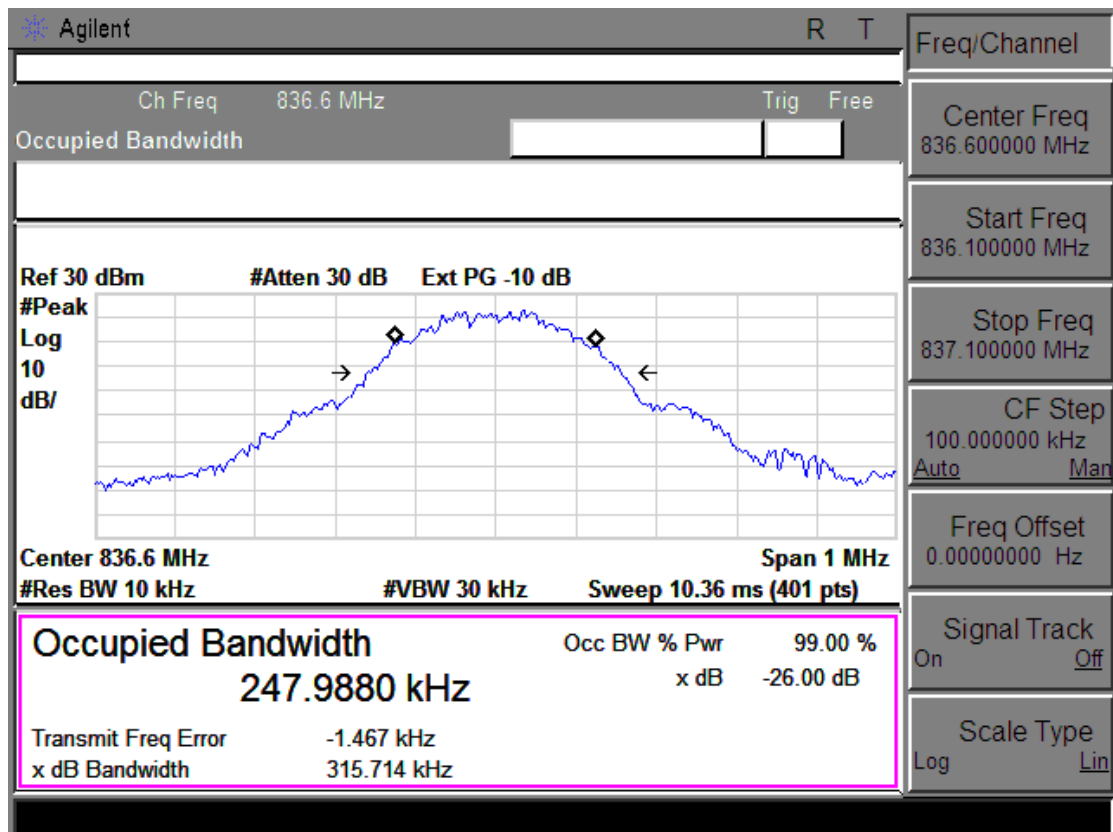
GSM 850 CH251



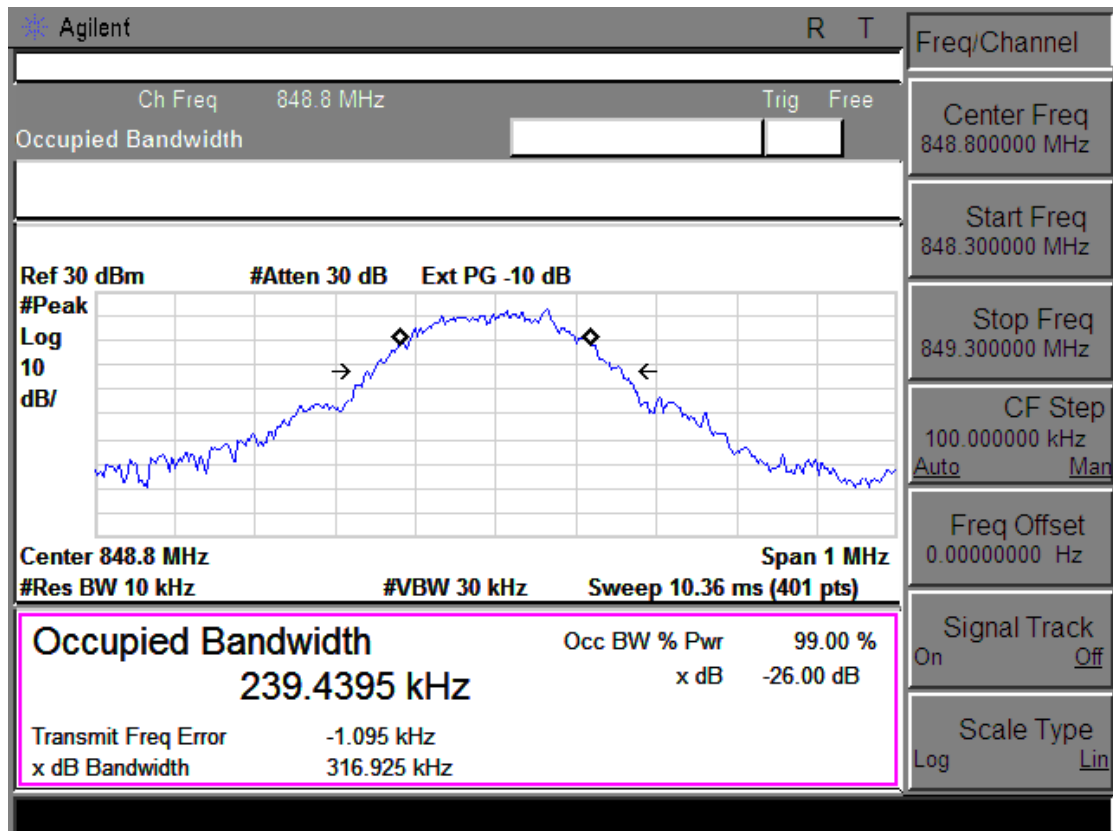
EDGE 850 CH128



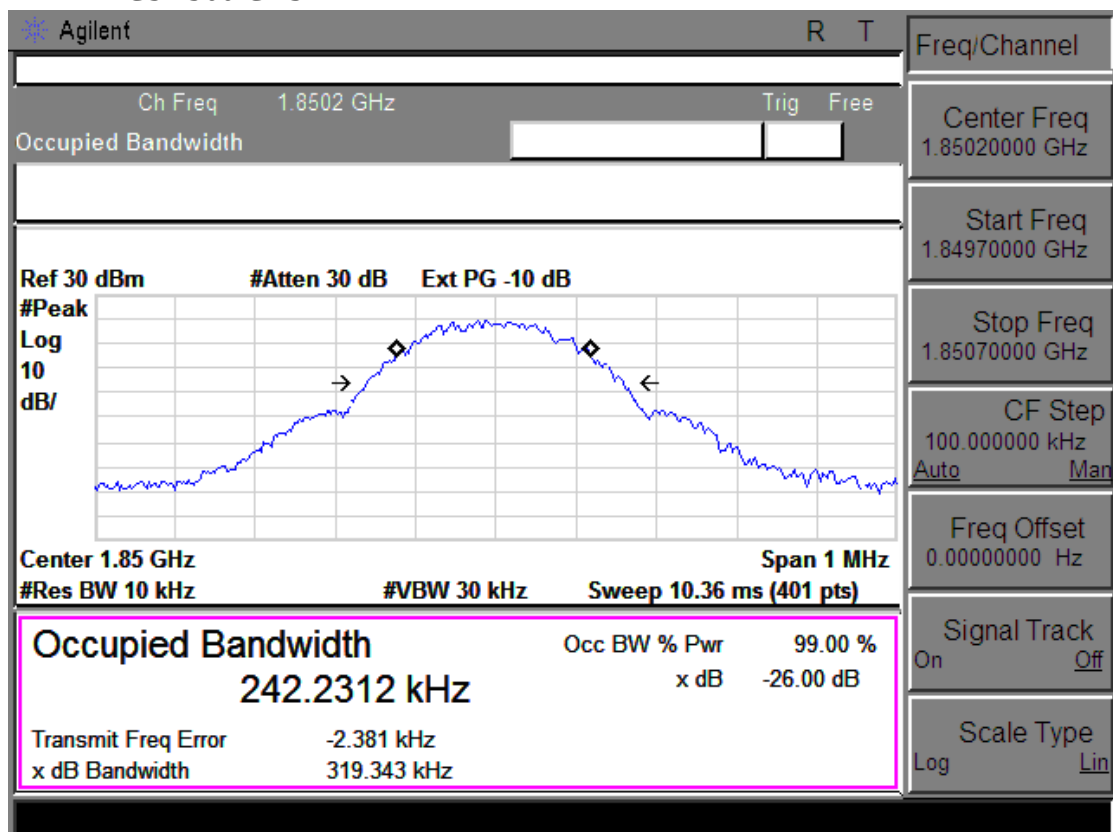
EDGE 850 CH190



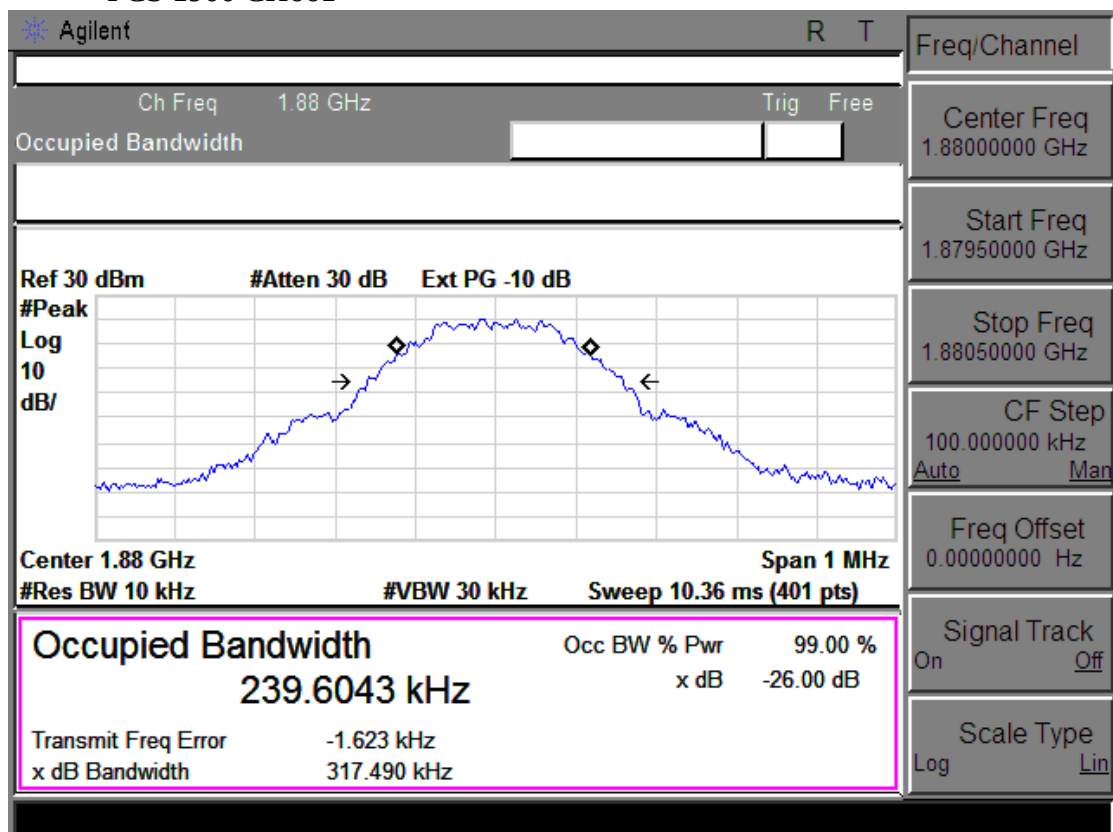
EDGE 850 CH251



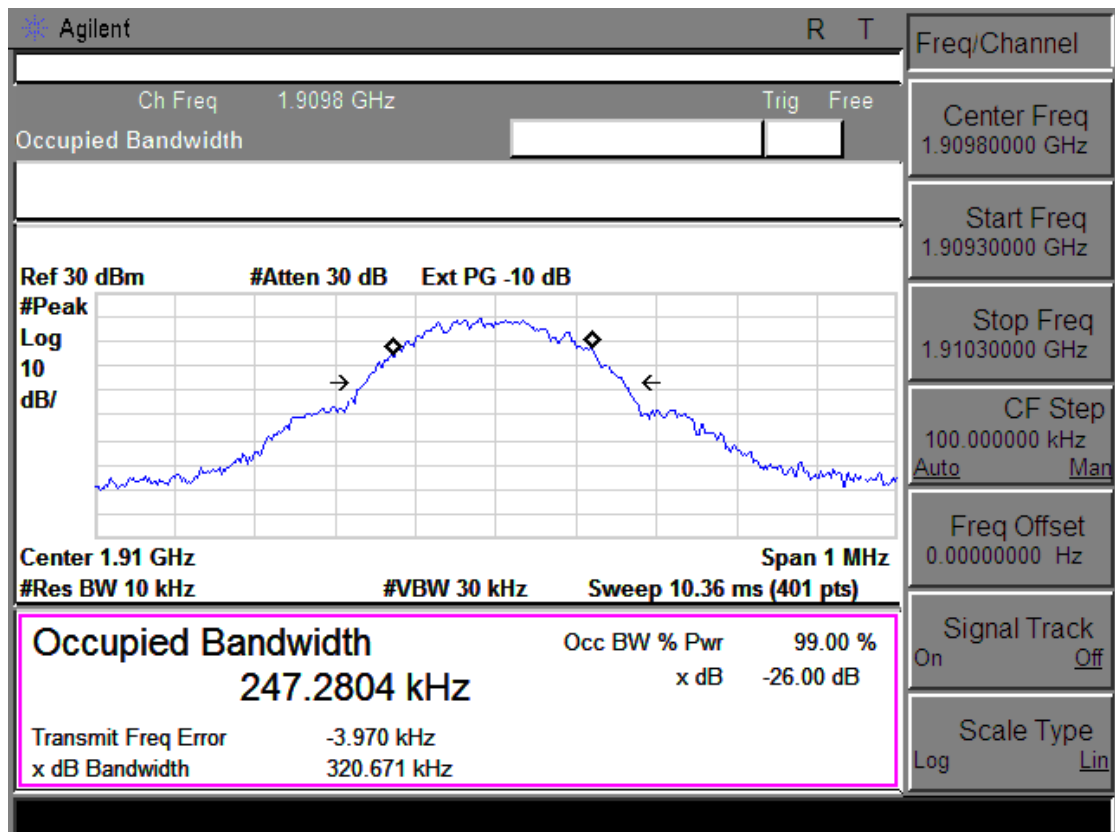
PCS 1900 CH512



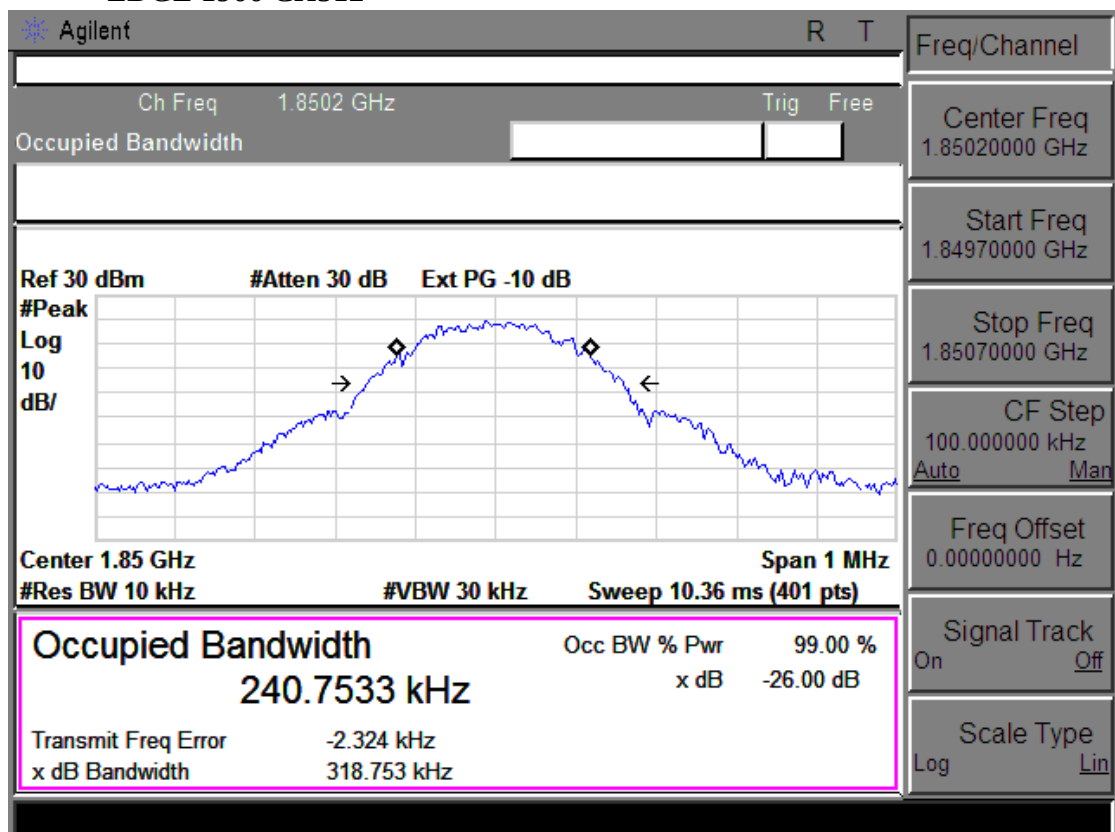
PCS 1900 CH661



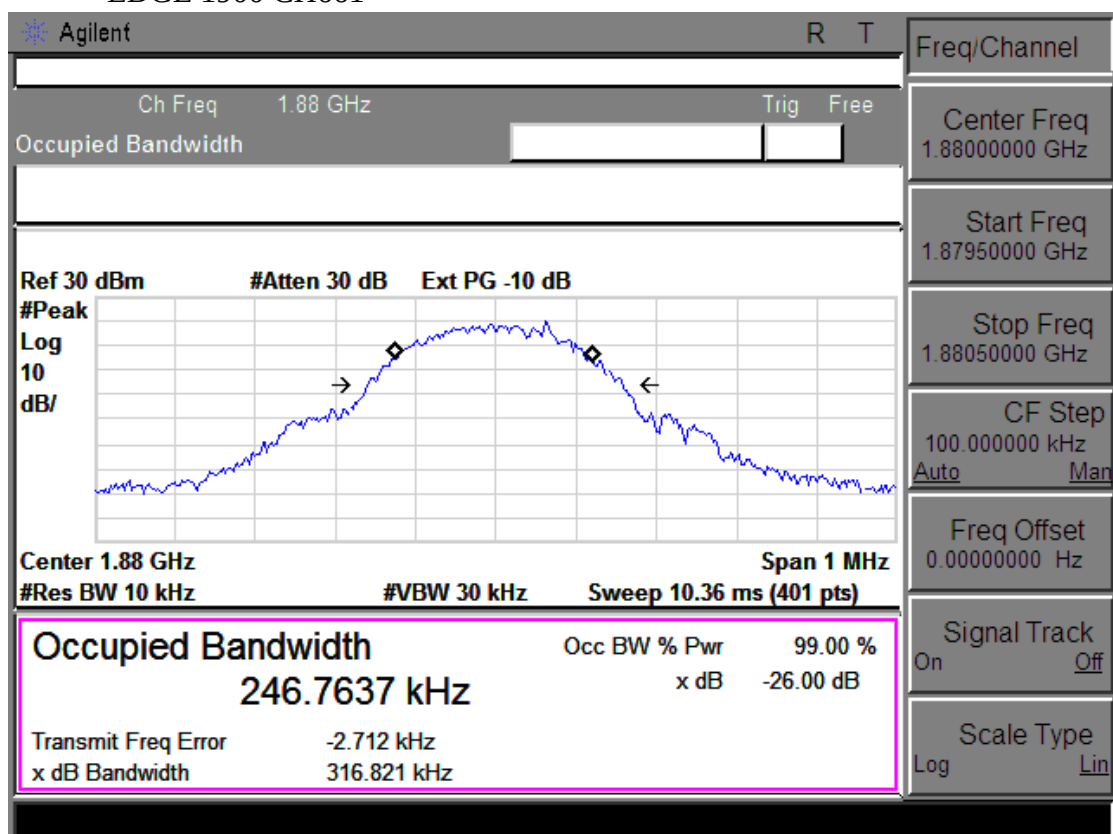
PCS 1900 CH810



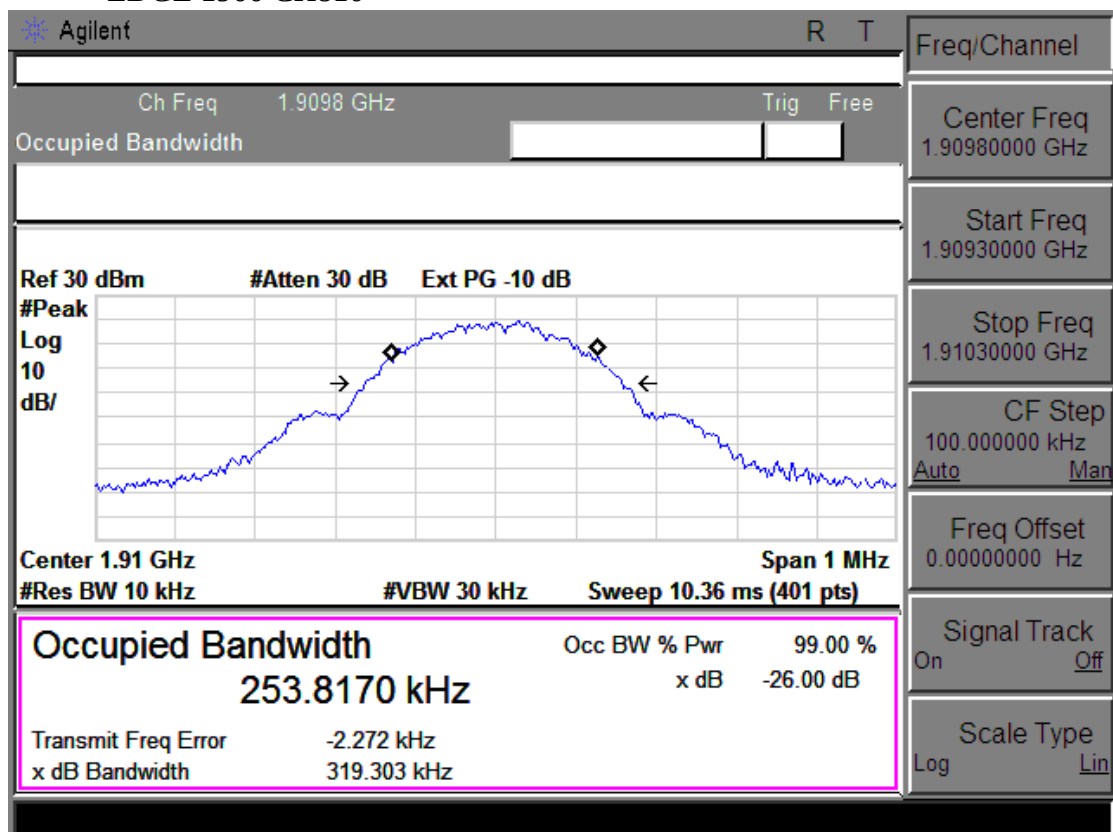
EDGE 1900 CH512



EDGE 1900 CH661



EDGE 1900 CH810



6. Frequency stability

6.1. Block Diagram of Test Setup



6.2. Limit

Cellular Telephone 850MHz	PCS 1900MHz
± 2.5 ppm	Must stay within the authorized frequency block

6.3. Test Procedure

Test Procedures for Temperature Variation:

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized for three hours. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power ON, the temperature was raised in 10°C step up to 50°C . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected with the base station.
2. The power supply voltage to the EUT was varied from DC 5V to 3.5V
3. The variation in frequency was measured for the worst case.

6.4. Test Result

EUT: Smart phone M/N:Flair6.0			
Power: DC 5V from adapter			
Ambient Temperature:23°C		Relative Humidity: 60%	
Test date: 2014-08-01		Test site: RF site	Tested by: Simple Guan
Conclusion: PASS			
Mode	Voltage (V)	Frequency error (Hz)	frequency error (ppm)
GSM 850 CH 190	5V	-16.43	-0.02
	4.5V	-16.35	-0.02
	4V	-18.59	-0.022
	3.5V	-21.74	-0.026
	3V	-15.93	-0.019
PCS 1900 CH 661	5V	-32.68	-0.017
	4.5V	-34.85	-0.019
	4V	-33.71	-0.018
	3.5V	-31.92	-0.017
	3V	-30.82	-0.016

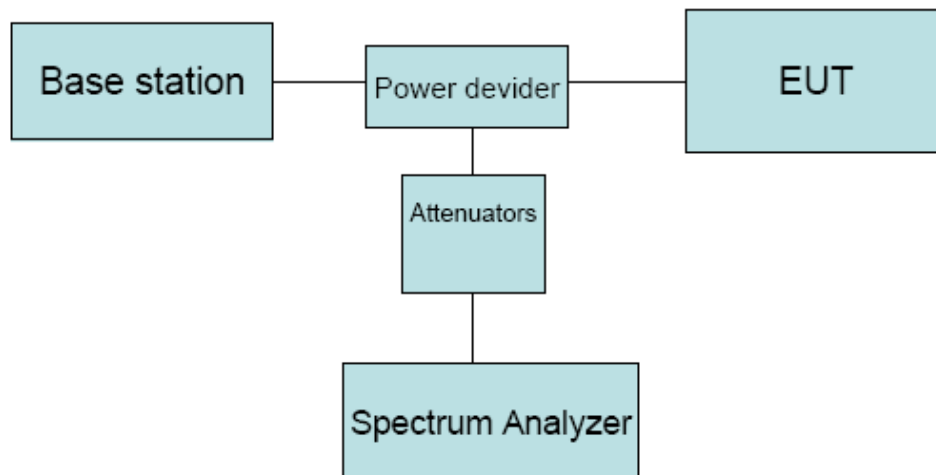
Mode	Temperature (°C)	Frequency error (Hz)	frequency error (ppm)
GSM 850 CH 190	-30	-26.52	0.032
	-20	-23.41	0.028
	-10	21.57	0.026
	0	-19.81	-0.024
	10	-15.46	-0.018
	20	-19.32	-0.023
	30	-22.87	-0.027
	40	-18.54	-0.022
	50	-21.39	-0.026
PCS 1900 CH 661	-30	66.21	0.035
	-20	59.28	0.032
	-10	63.36	0.034
	0	64.27	0.034
	10	69.38	0.037
	20	72.59	0.039
	30	71.48	0.038
	40	-54.53	-0.029
	50	-45.73	-0.024

EUT: Smart phone M/N:Flair6.0			
Power: DC 5V from adapter			
Ambient Temperature:23°C		Relative Humidity: 60%	
Test date: 2014-08-01		Test site: RF site	Tested by: Simple Guan
Conclusion: PASS			
Mode	Voltage (V)	Frequency error (Hz)	frequency error (ppm)
EDGE 850 class 8 CH 190	5V	-15.93	-0.019
	4.5V	-16.27	-0.019
	4V	-17.89	-0.021
	3.5V	-20.41	-0.024
	3V	-15.82	-0.019
EDGE 1900 class 8 CH 661	5V	-31.77	-0.017
	4.5V	-33.69	-0.018
	4V	-32.58	-0.017
	3.5V	-31.84	-0.017
	3V	-30.17	-0.016

Mode	Temperature (°C)	Frequency error (Hz)	frequency error (ppm)
EDGE 850 class 8 CH 190	-30	25.52	0.031
	-20	23.53	0.028
	-10	20.49	0.024
	0	-18.53	-0.022
	10	-15.21	-0.018
	20	-18.93	-0.023
	30	-21.62	-0.026
	40	-17.58	-0.021
	50	-20.75	-0.025
EDGE 1900 class 8 CH 661	-30	59.95	0.032
	-20	58.73	0.031
	-10	62.44	0.033
	0	63.18	0.034
	10	68.06	0.036
	20	71.83	0.038
	30	70.92	0.038
	40	-53.88	-0.029
	50	-44.75	-0.024

7. Conducted spurious emissions

7.1. Block Diagram of Test Setup



7.2. Limit

The mean power of emissions must be attenuated below the mean power of the un-modulated carrier (P) on any frequency outside the frequency band by at least $(43 + 10 \log P)$ dB, in this case, -13dBm.

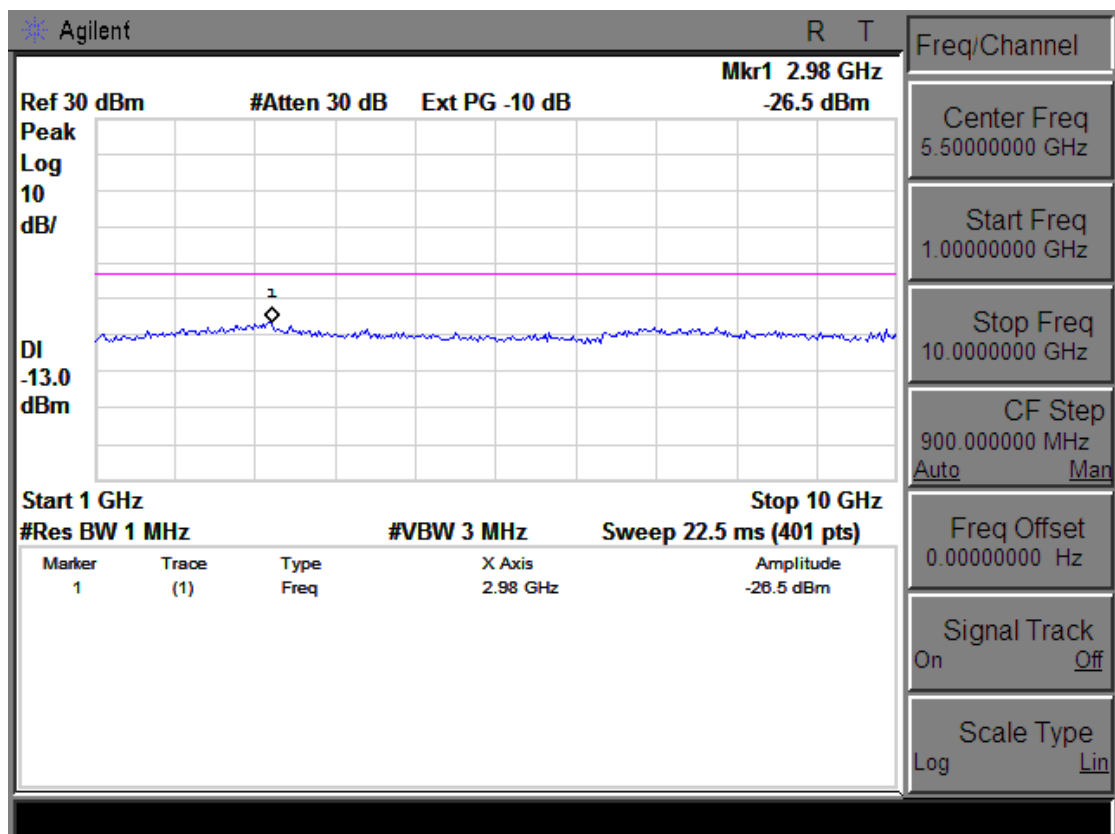
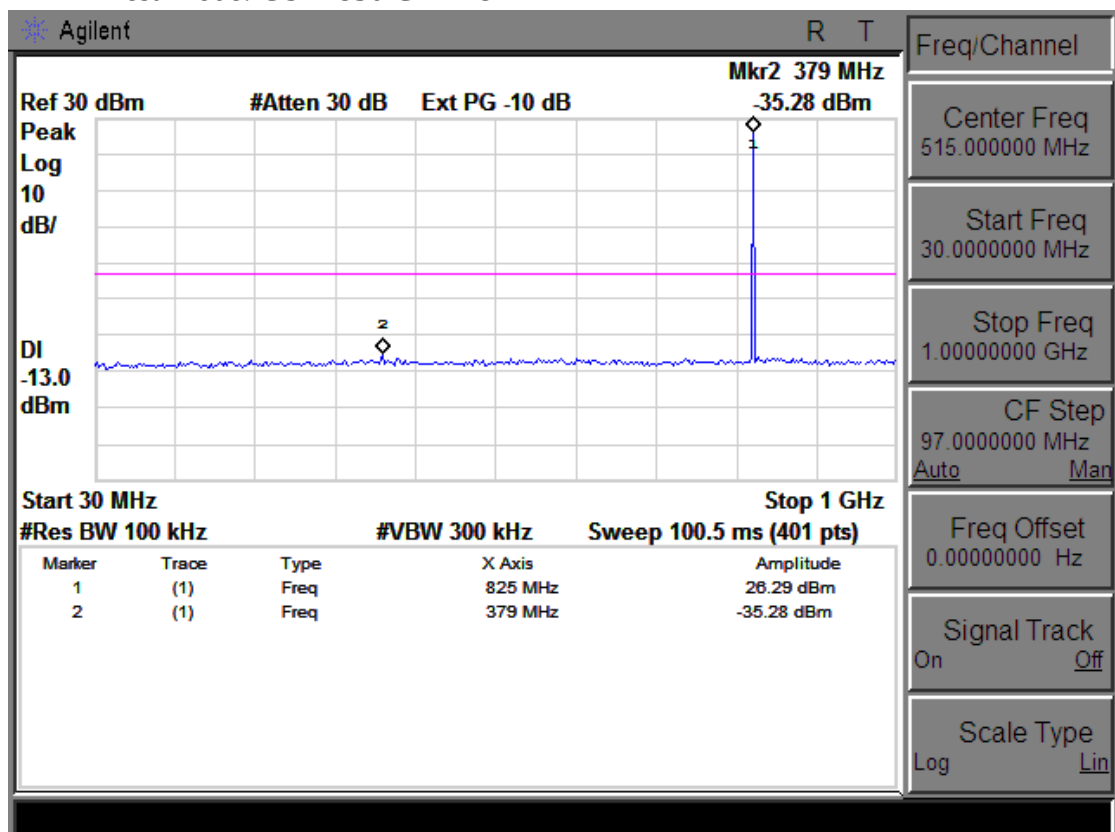
7.3. Test Procedure

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The low, middle and high channels of each band and mode's spurious emissions for 30MHz to 10th Harmonic were measured by Spectrum analyzer.

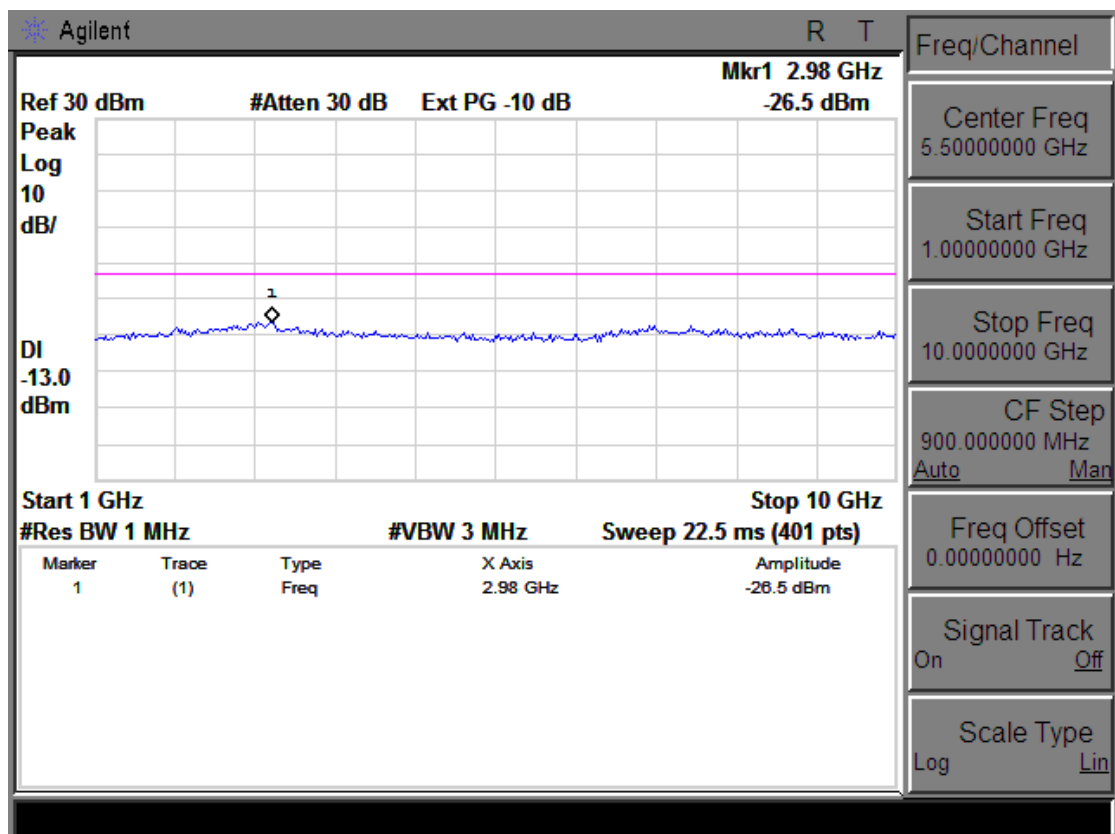
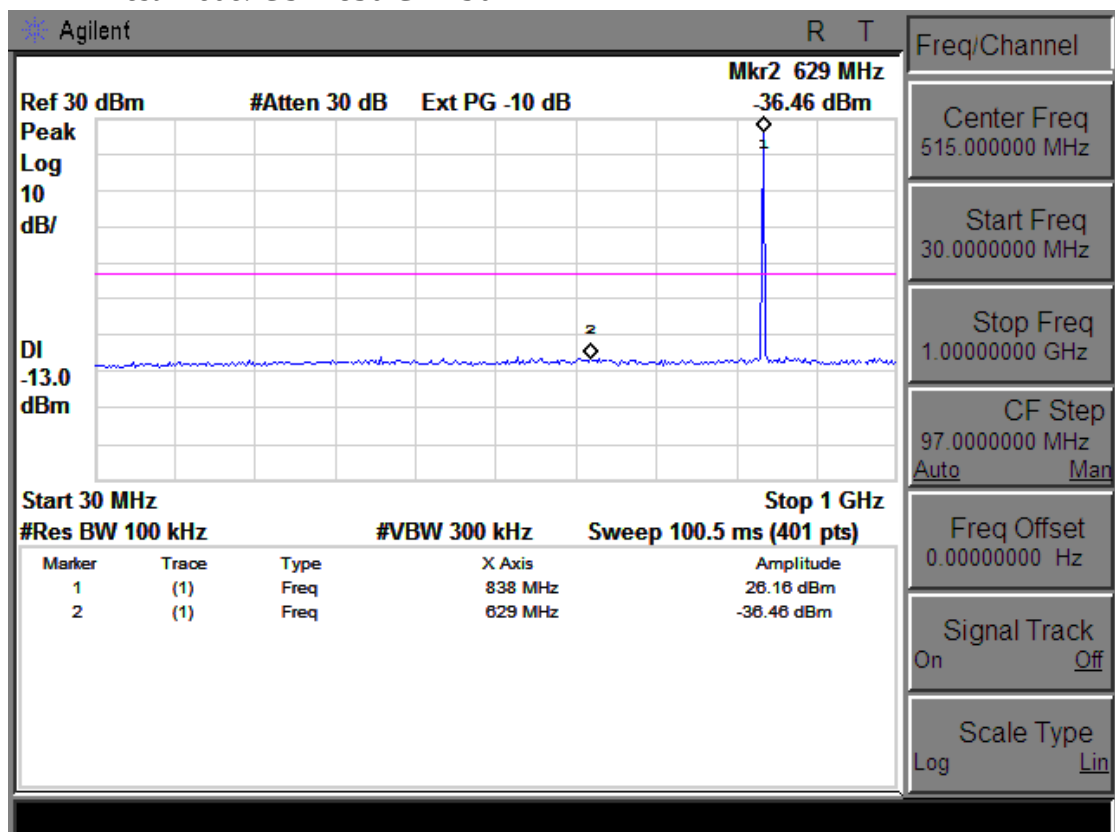
7.4. Test Result

PASS

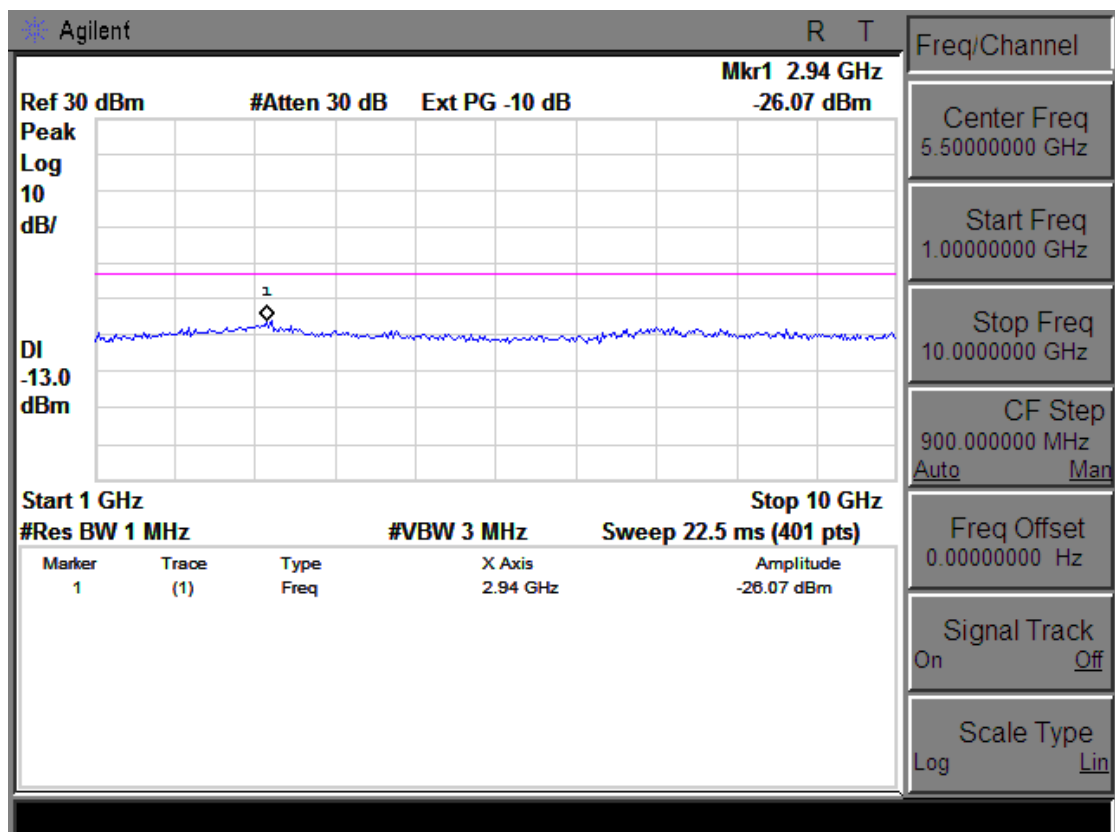
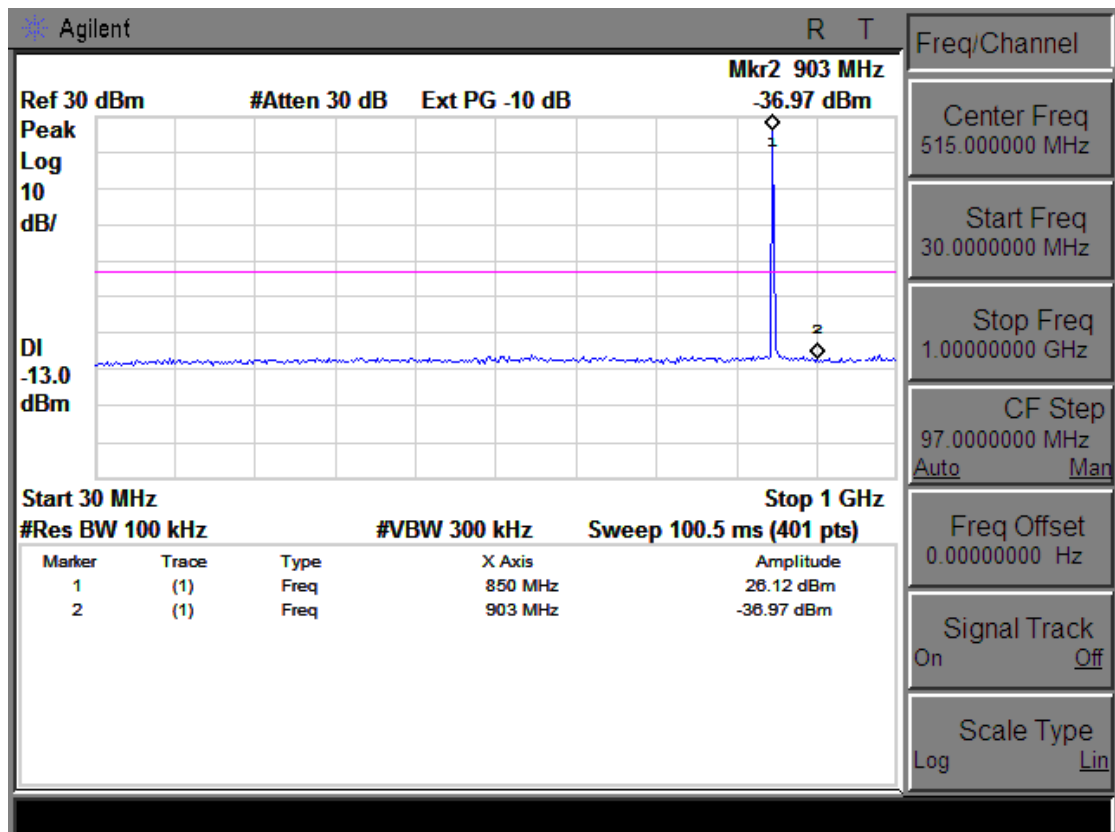
Test Mode: GSM 850 CH 128



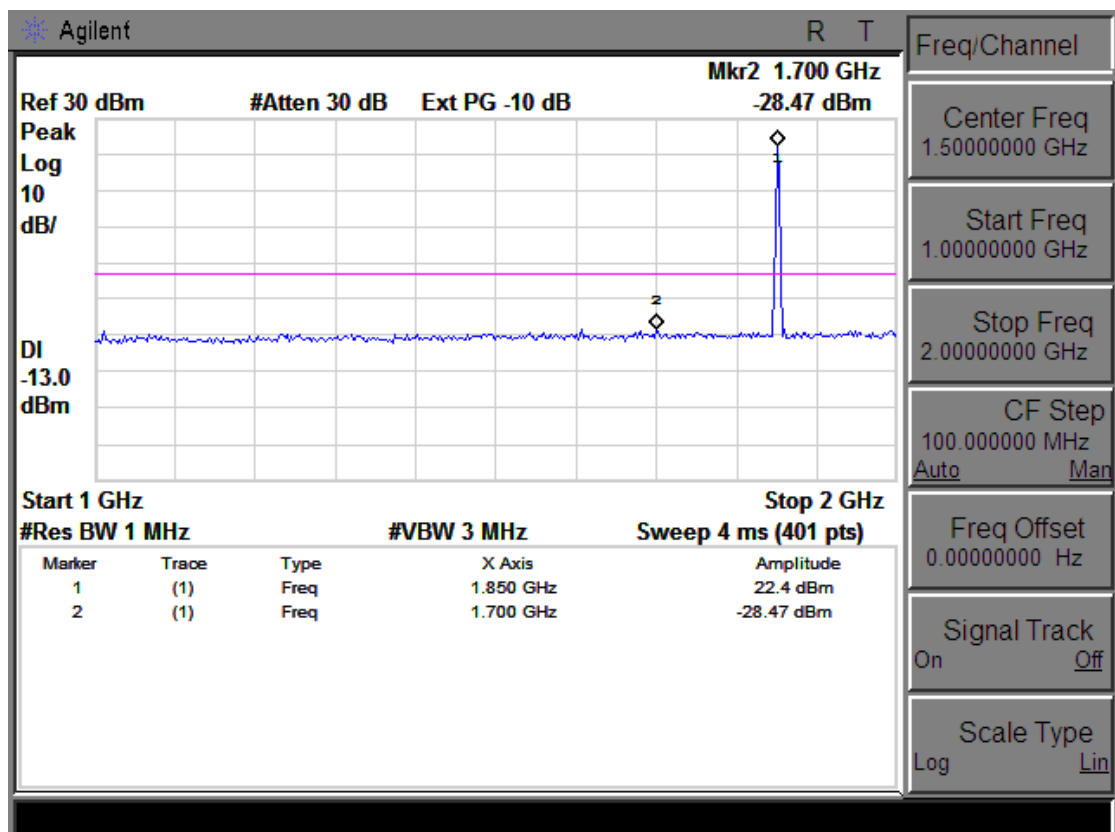
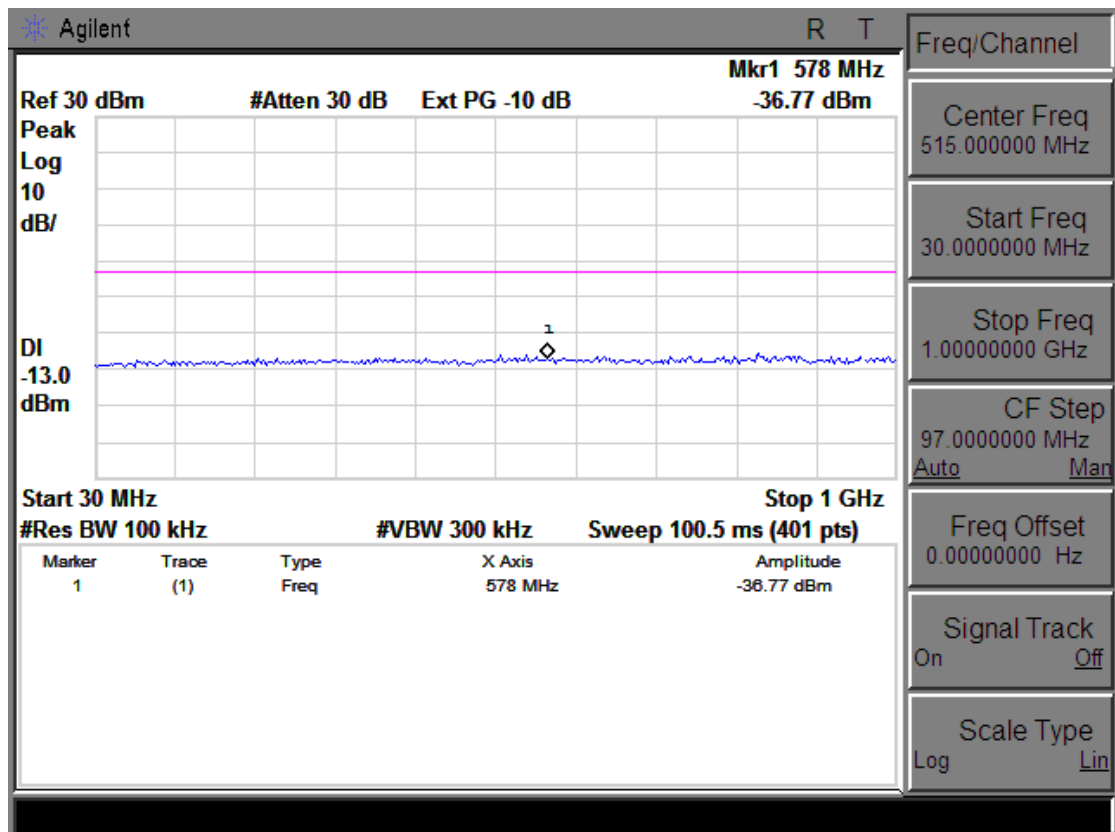
Test Mode: GSM 850 CH 190

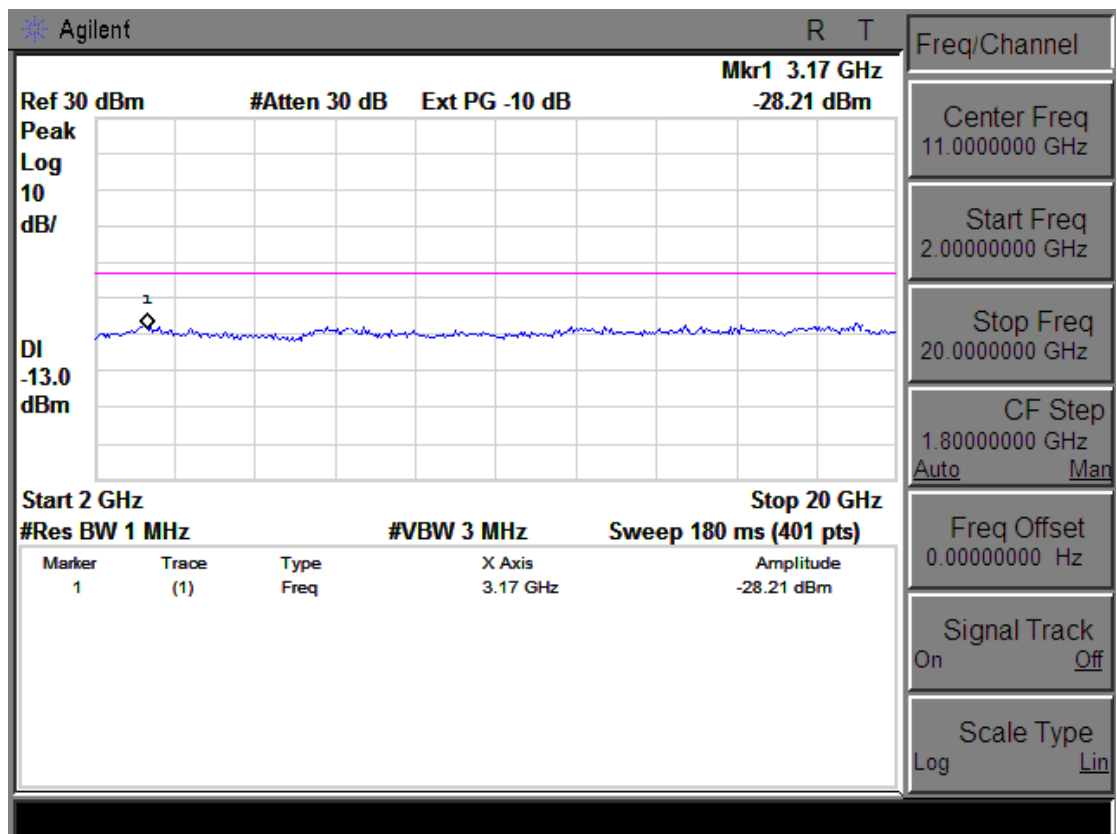


Test Mode: GSM 850 CH 251

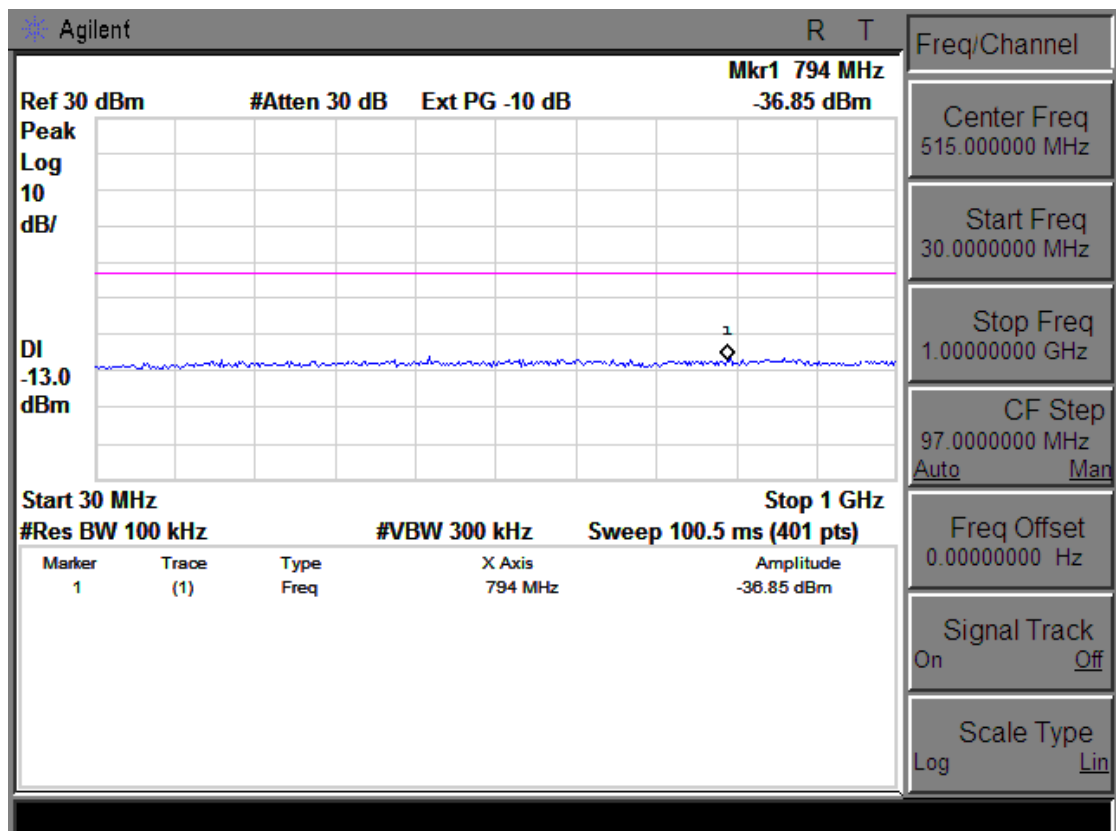


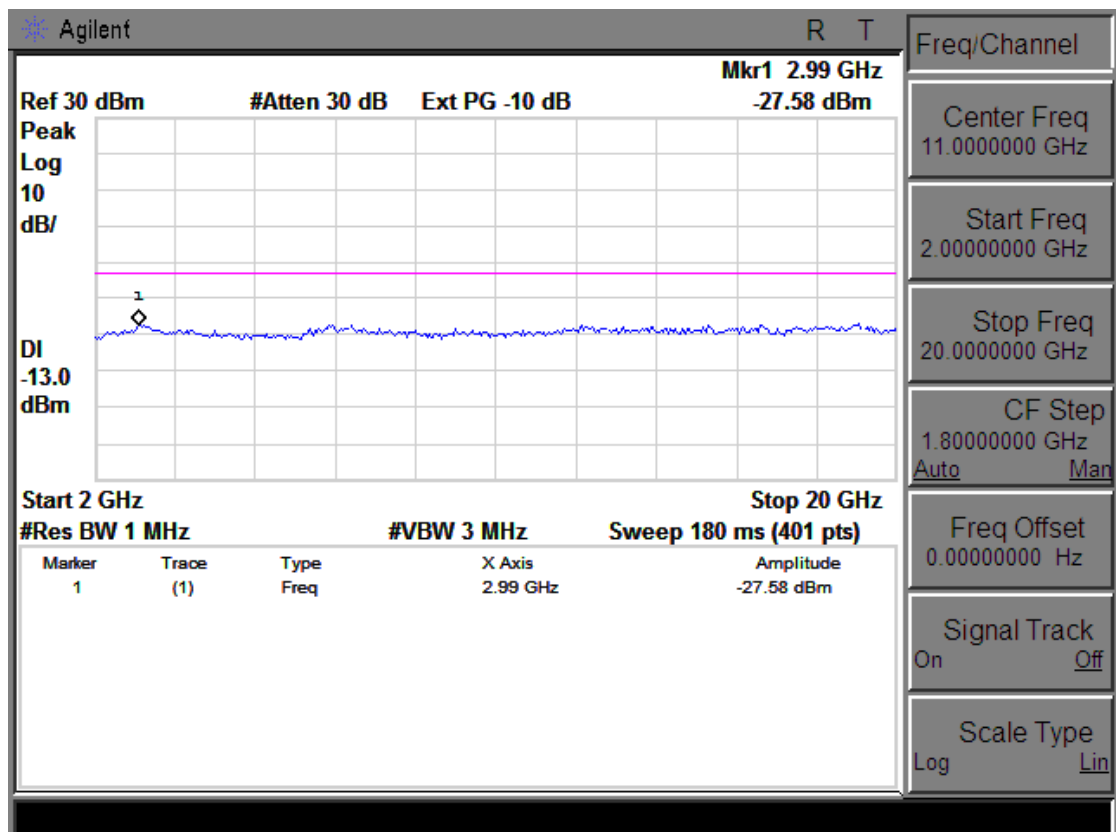
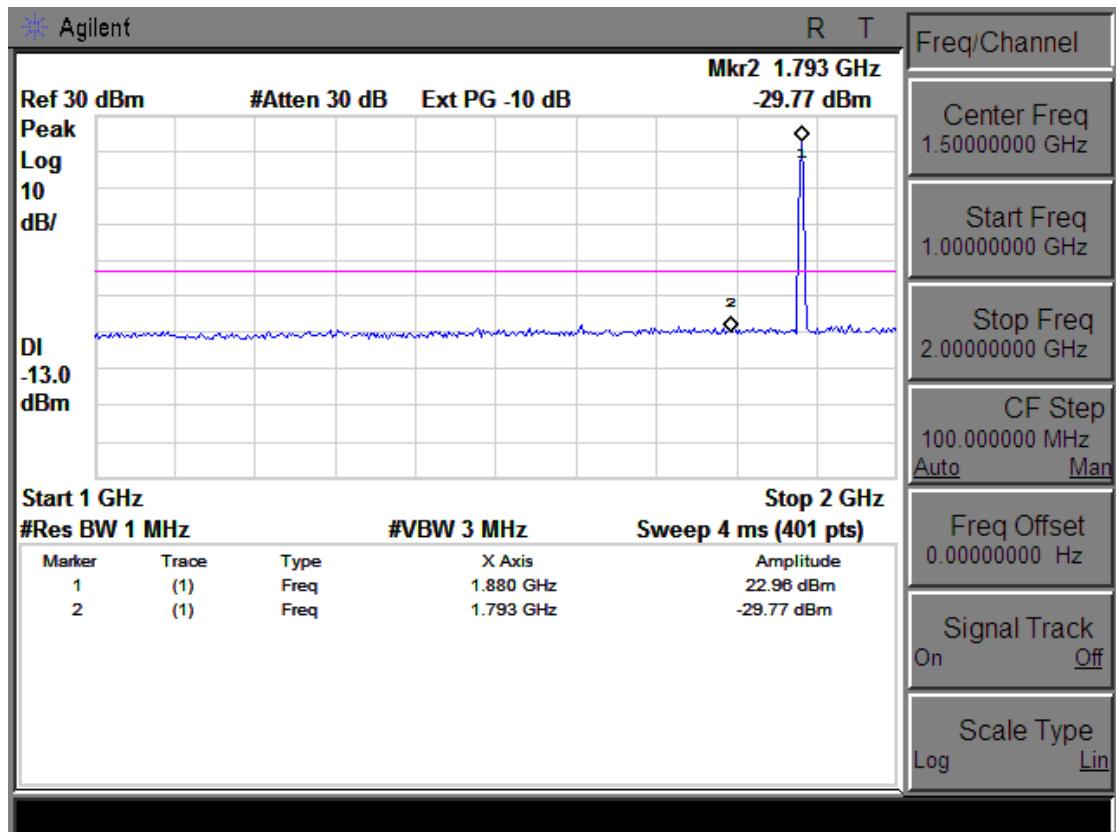
Test Mode: GSM 1900 CH 512



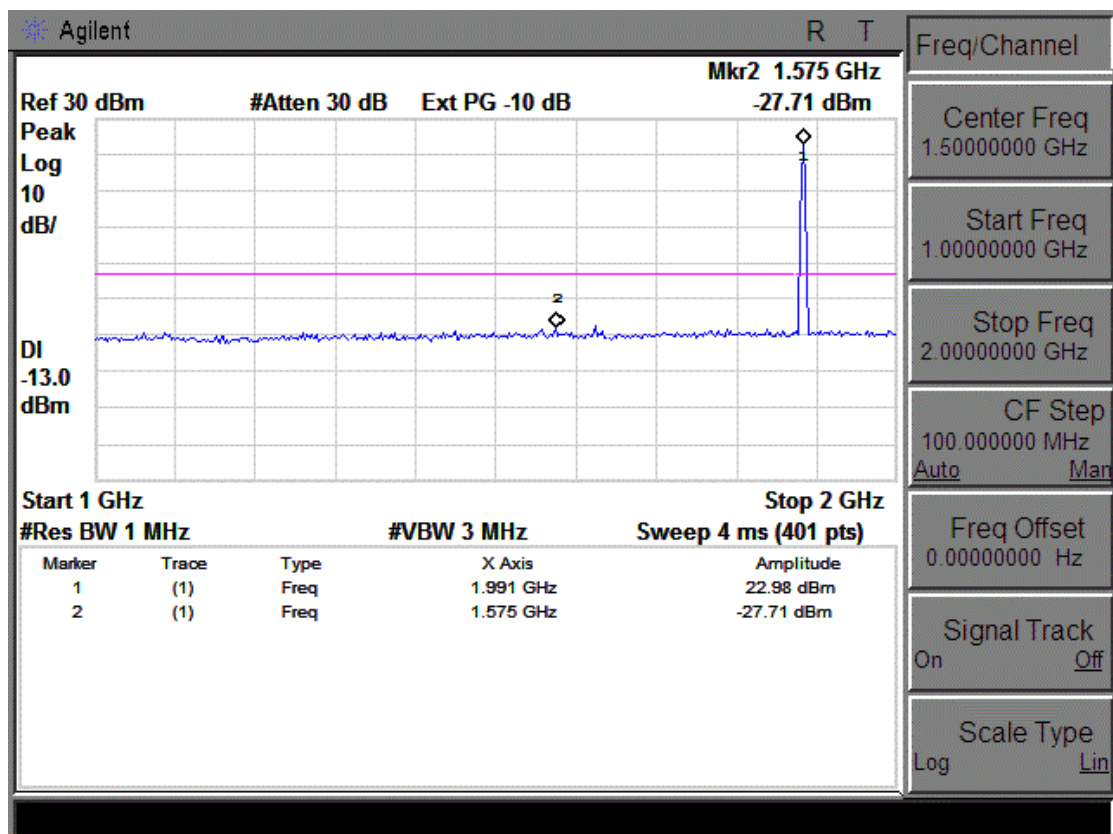
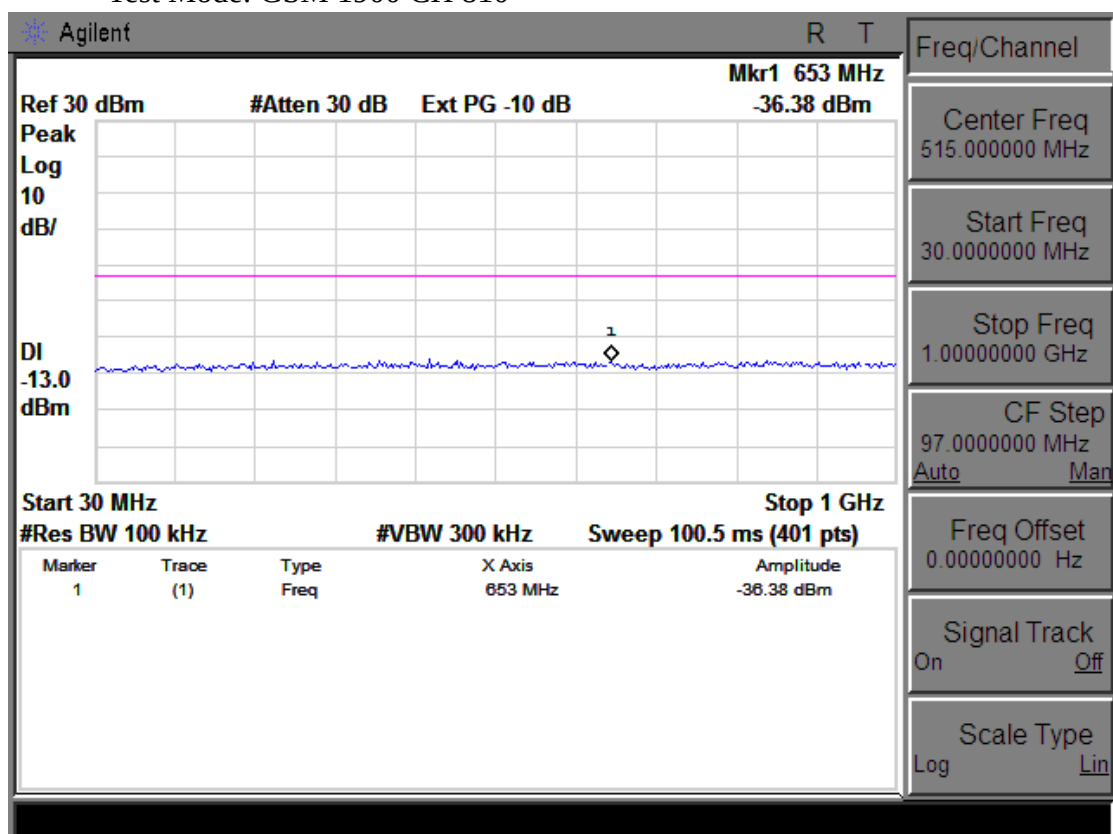


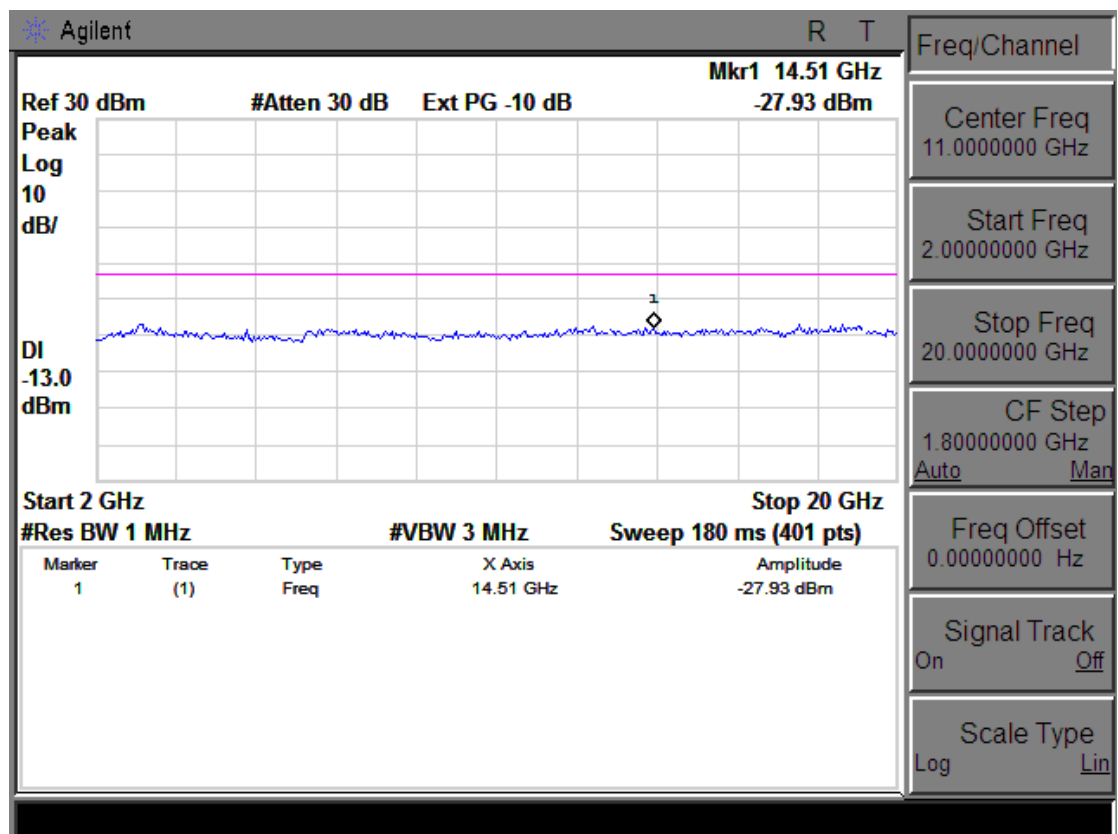
Test Mode: GSM 1900 CH 661





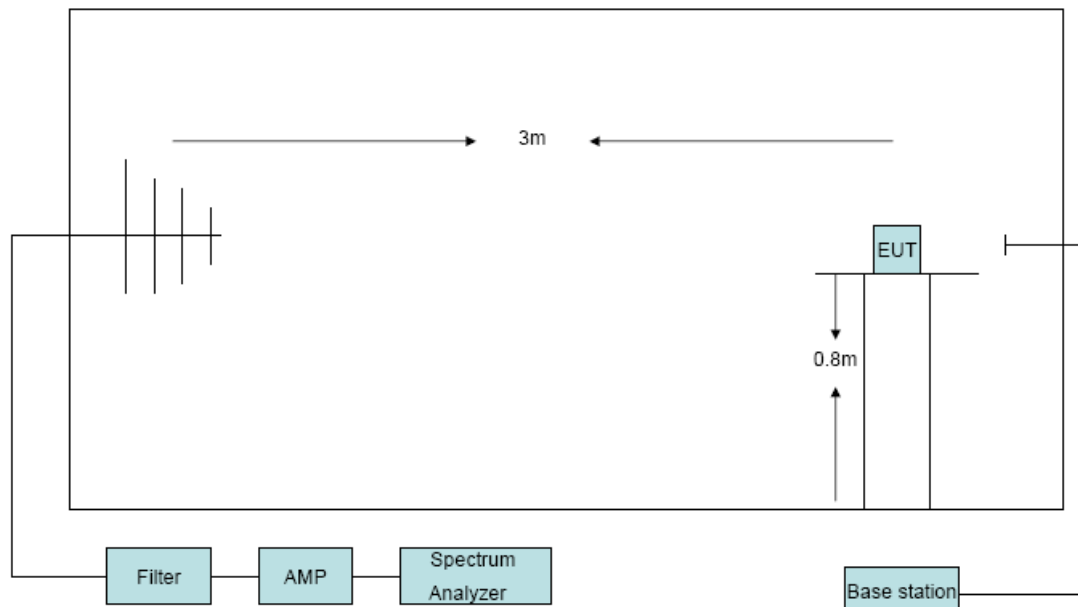
Test Mode: GSM 1900 CH 810





8. Radiated spurious emissions

8.1. Block Diagram of Test Setup



8.2. Limit

The mean power of emissions must be attenuated below the mean power of the un-modulated carrier (P) on any frequency outside the frequency band by at least $(43 + 10 \log P)$ dB, in this case, -13dBm.

8.3. Test Procedure

1. The EUT was placed on a non-conductive rotating platform with 0.8 meter height in an anechoic chamber. The radiated spurious emissions from 30MHz to 10th harmonious of fundamental frequency were measured at 3m with a test antenna and a spectrum analyzer with RBW= 1MHz, VBW= 1MHz, peak detector settings.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. All the spurious emissions (record as LVL) at 3m were measured by rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Final spurious emissions levels were measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (for frequency below 1GHz) or Horn antenna (for frequency above 1GHz) at same location with same polarize of receiver antenna and then a known power of each measure frequency from S.G. was

applied into the dipole antenna or Horn antenna through a test cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. – test Cable loss + Substitution antenna gain – Substitution antenna Loss (only for Dipole antenna) - Analyzer reading. Then final spurious emissions were calculated with the correction factor, EIRP= LVL + Correction factor and ERP = EIRP – 2.15

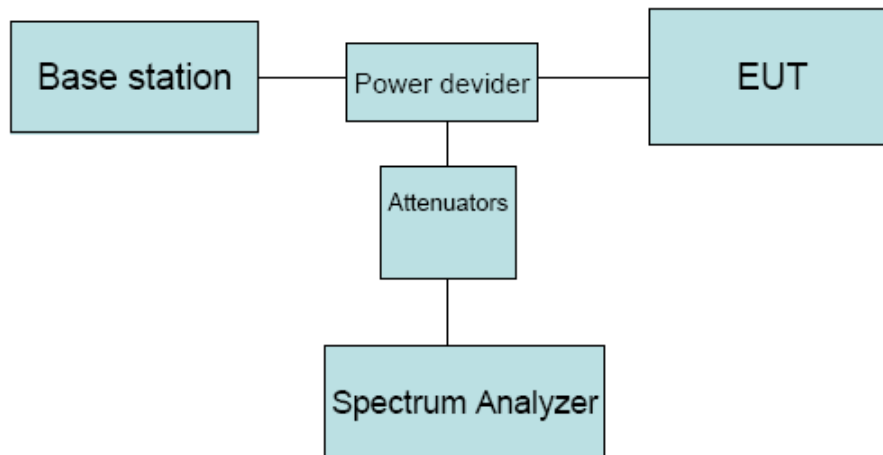
8.4. Test Result

EUT:Smart phone M/N:Flair6.0						
Power: DC 5V from adapter						
Test Date: 2014-08-01		Test site: RF Chamber		Tested by: Simple Guan		
Ambient Temperature: 24°C		Relative Humidity: 60%				
Conclusion: PASS						
Test result						
Test Mode: GSM 850 CH128						
Frequency (MHz)	Antenna polarization	LVL (dBm)	Correction factor(dB)	Result (ERP)(dBm)	Limit (dBm)	Margin (dB)
1648.4	H	-59.43	11.50	-50.08	-13.00	37.08
1648.4	V	-55.21	10.56	-46.8	-13.00	33.8
Test Mode: GSM 850 CH190						
1673.2	H	-59.76	10.94	-50.97	-13.00	37.97
1673.2	V	-53.18	10.90	-44.43	-13.00	31.43
Test mode: GSM 850 CH251						
1697.6	H	-58.94	11.67	-49.42	-13.00	36.42
1697.6	V	-54.27	11.13	-45.29	-13.00	32.29
EIRP= LVL + Correction factor, and ERP = EIRP – 2.15						

Test Mode: GSM 1900 CH512						
Frequency (MHz)	Antenna polarization	LVL (dBm)	Correction factor(dB)	Result (EIRP)(dBm)	Limit (dBm)	Margin (dB)
3700.4	H	-54.43	8.57	-45.86	-13.00	32.86
3700.4	V	-52.69	8.37	-44.32	-13.00	31.32
Test Mode: GSM 1900 CH661						
3760	H	-53.87	8.75	-45.12	-13.00	32.12
3760	V	-50.19	8.55	-41.64	-13.00	28.64
Test mode: GSM 1900 CH810						
3819.6	H	-57.72	8.94	-48.78	-13.00	35.78
3819.6	V	-53.68	8.72	-44.96	-13.00	31.96
Note: All the other emissions not recorded were too low to read, and deemed to comply with limit. EIRP= LVL + Correction factor, and ERP = EIRP – 2.15						

9. Band Edge Compliance

9.1. Block Diagram of Test Setup



9.2. Limit

The mean power of emissions must be attenuated below the mean power of the un-modulated carrier (P) on any frequency outside the frequency band by at least $(43 + 10 \log P)$ dB, in this case, -13dBm.

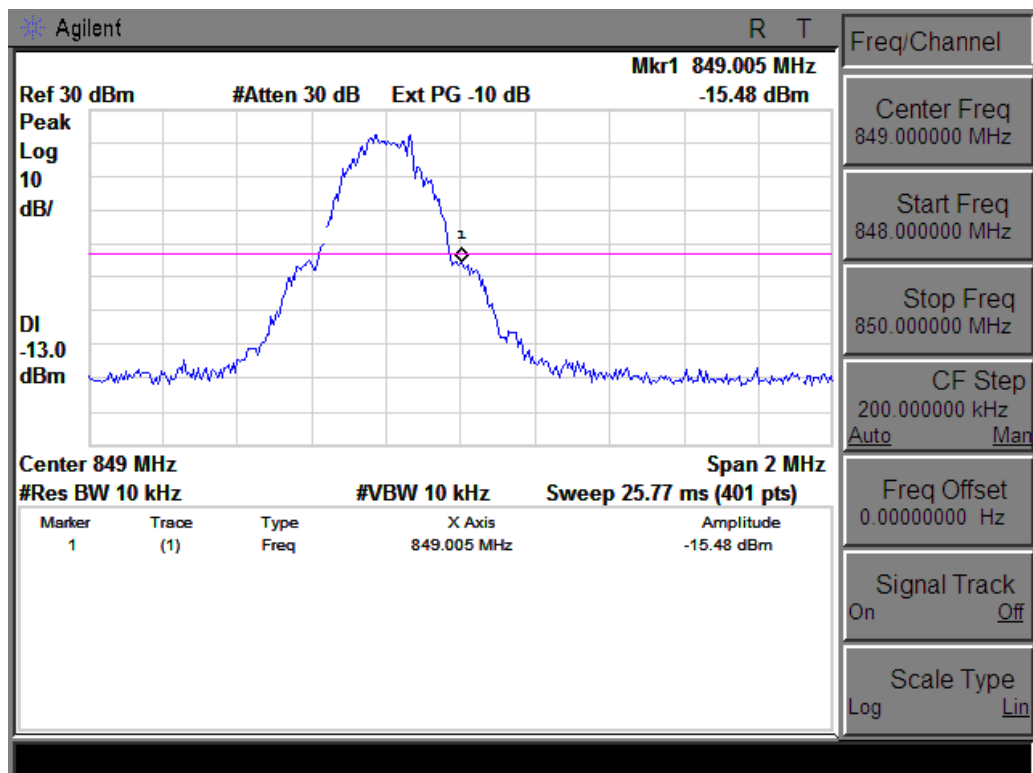
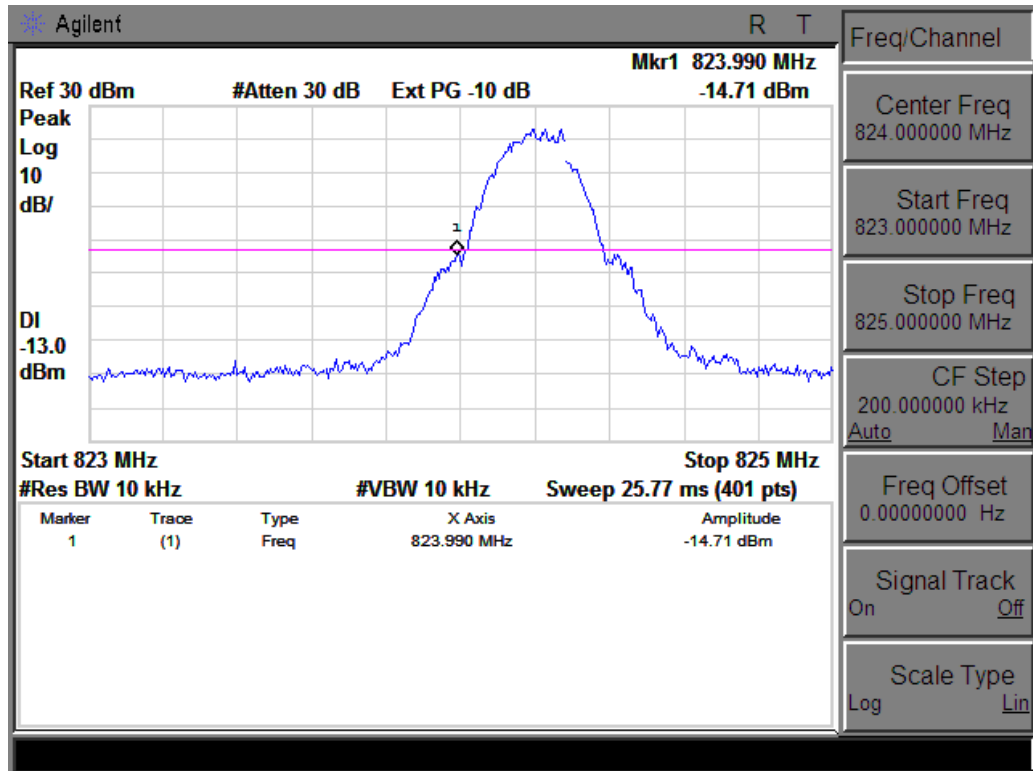
9.3. Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The band edges of low and high channels for the highest RF powers were measured.

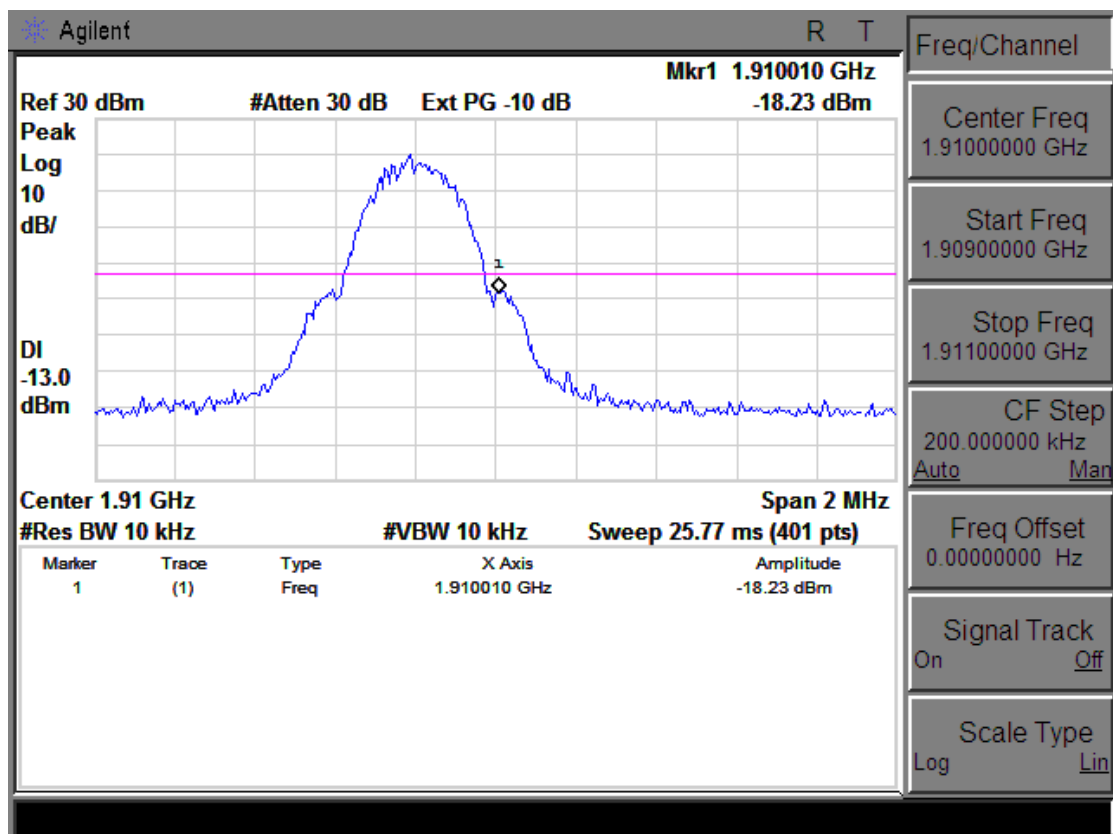
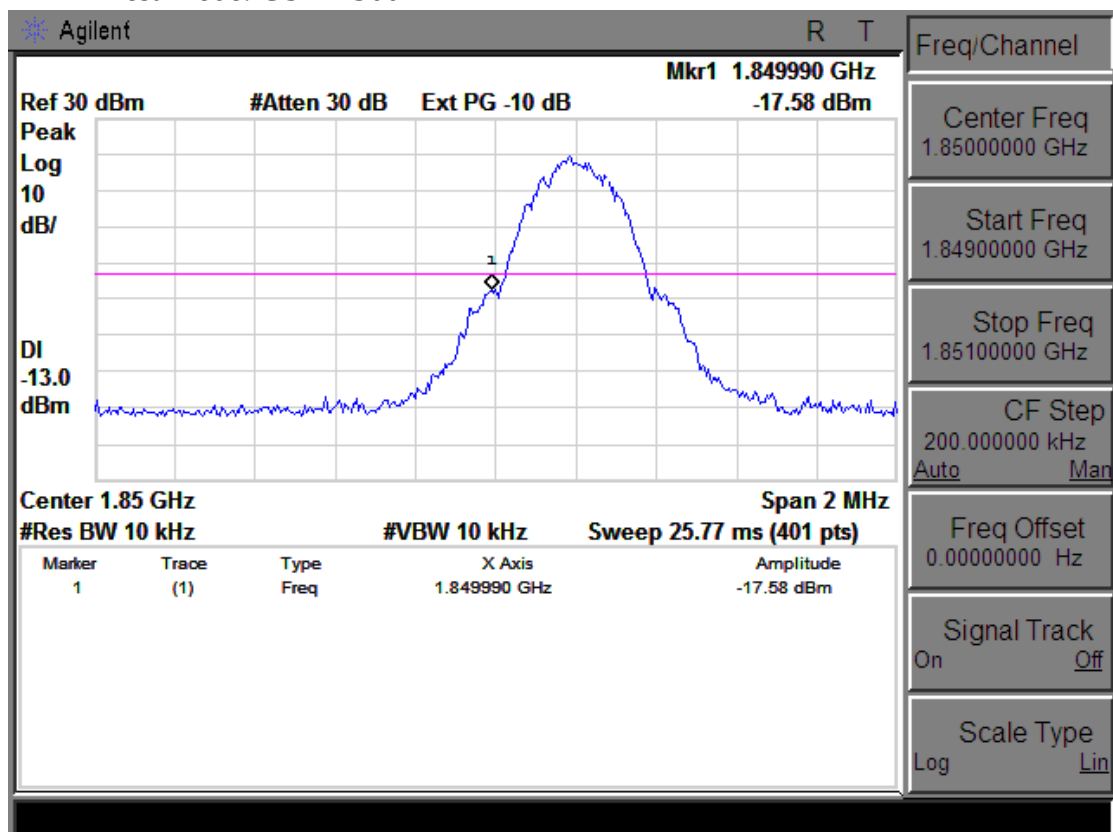
9.4. Test Result

PASS

Test Mode: GSM 850

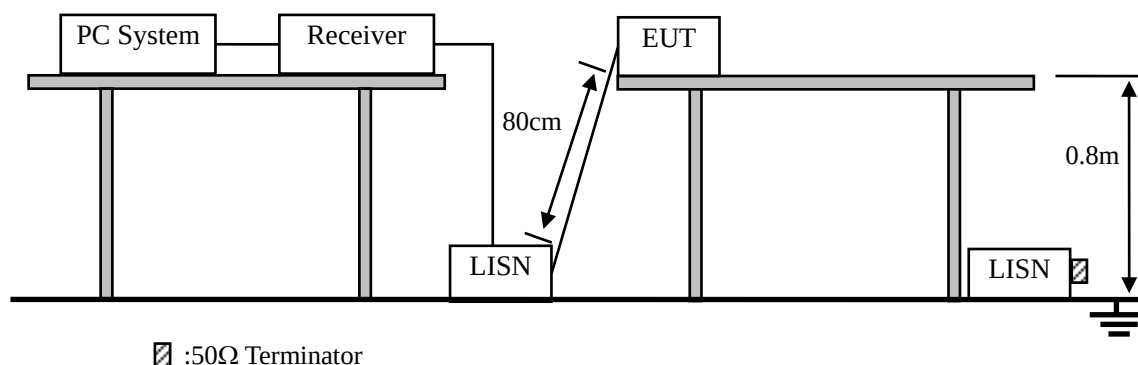


Test Mode: GSM 1900



10. Power line conducted emission

10.1. Block Diagram of Test Setup



10.2. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

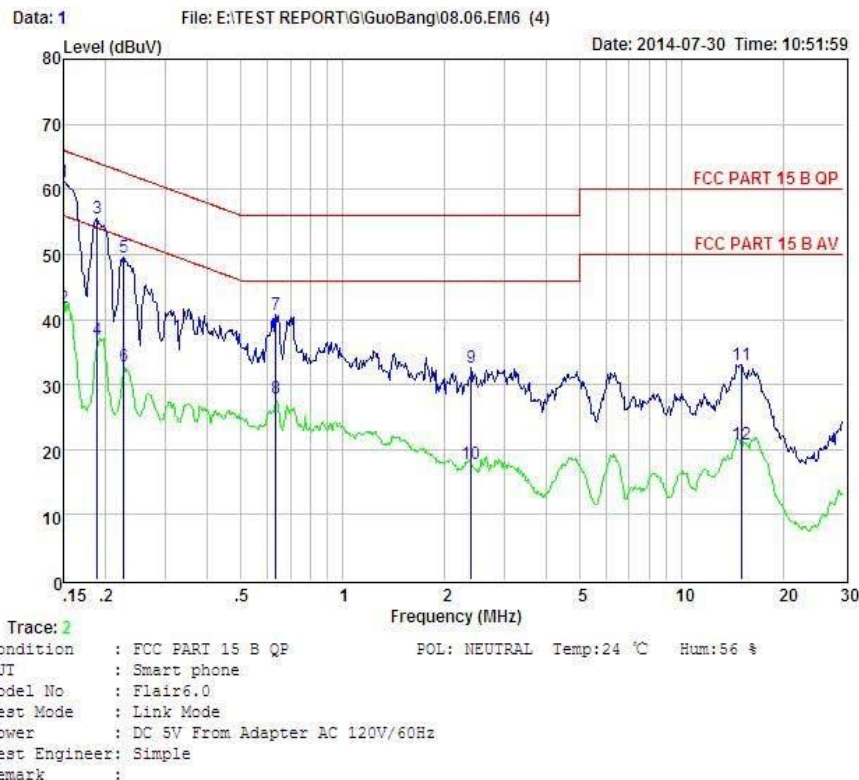
10.3. Test Procedure

- (1) The EUT was placed on a non-metallic table, 80cm above the ground plane.
- (2) Setup the EUT and simulator as shown in 10.1
- (3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N1), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4 2009 and ANSI C64.10:2009 on conducted Emission test.
- (4) The bandwidth of test receiver is set at 10 KHz.
- (5) The frequency range from 150 KHz to 30MHz is checked.

10.4. Test Result

PASS. (See below detailed test data)

Shenzhen Certification Technology Service Co., Ltd.
 2F, Building B, East Area of Nanchang Second Industrial Zone,
 Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China
 Tel: 4006786199 Fax: +86-755-26736857
 Website: <http://www.cessz.com> Email: Service@cessz.com



Item	Freq MHz	Read dBuV	LISN Factor dB	Preamplifier Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	0.150	51.35	0.03	-9.72	0.10	61.20	66.00	-4.80	QP
2	0.150	32.00	0.03	-9.72	0.10	41.85	56.00	-14.15	Average
3	0.188	45.64	0.03	-9.72	0.10	55.49	64.11	-8.62	QP
4	0.188	27.00	0.03	-9.72	0.10	36.85	54.11	-17.26	Average
5	0.226	39.68	0.03	-9.72	0.10	49.53	62.61	-13.08	QP
6	0.226	23.00	0.03	-9.72	0.10	32.85	52.61	-19.76	Average
7	0.634	30.88	0.03	-9.72	0.10	40.73	56.00	-15.27	QP
8	0.634	18.00	0.03	-9.72	0.10	27.85	46.00	-18.15	Average
9	2.396	22.75	0.06	-9.70	0.11	32.62	56.00	-23.38	QP
10	2.396	8.00	0.06	-9.70	0.11	17.87	46.00	-28.13	Average
11	14.986	23.12	0.24	-9.38	0.23	32.97	60.00	-27.03	QP
12	14.986	11.00	0.24	-9.38	0.23	20.85	50.00	-29.15	Average

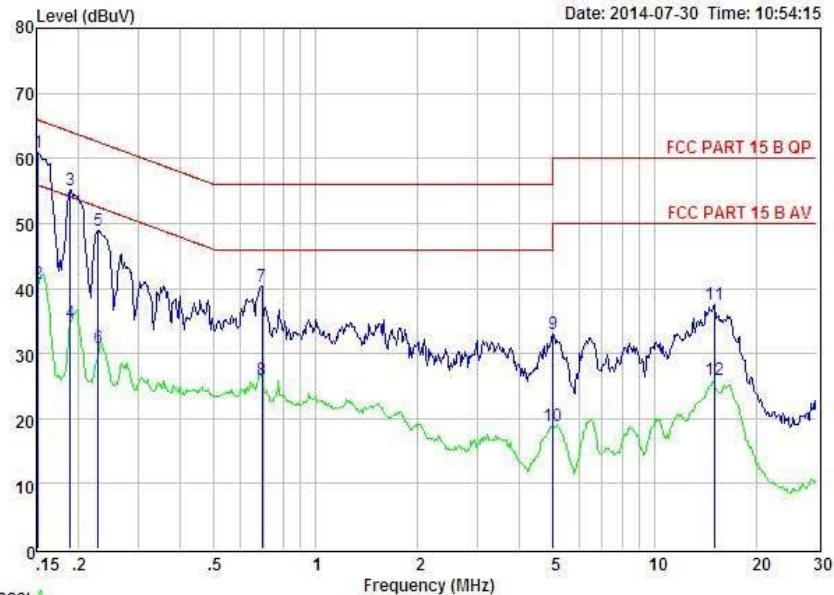
Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss



Shenzhen Certification Technology Service Co., Ltd.
2F, Building B, East Area of Nanchang Second Industrial Zone,
Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China
Tel: 4006786199 Fax: +86-755-26736857
Website: <http://www.cessz.com> Email: Service@cessz.com

Data: 3 File: E:\TEST REPORT\G\GuoBang\08.06.EM6 (4)

Date: 2014-07-30 Time: 10:54:15



Trace: 4

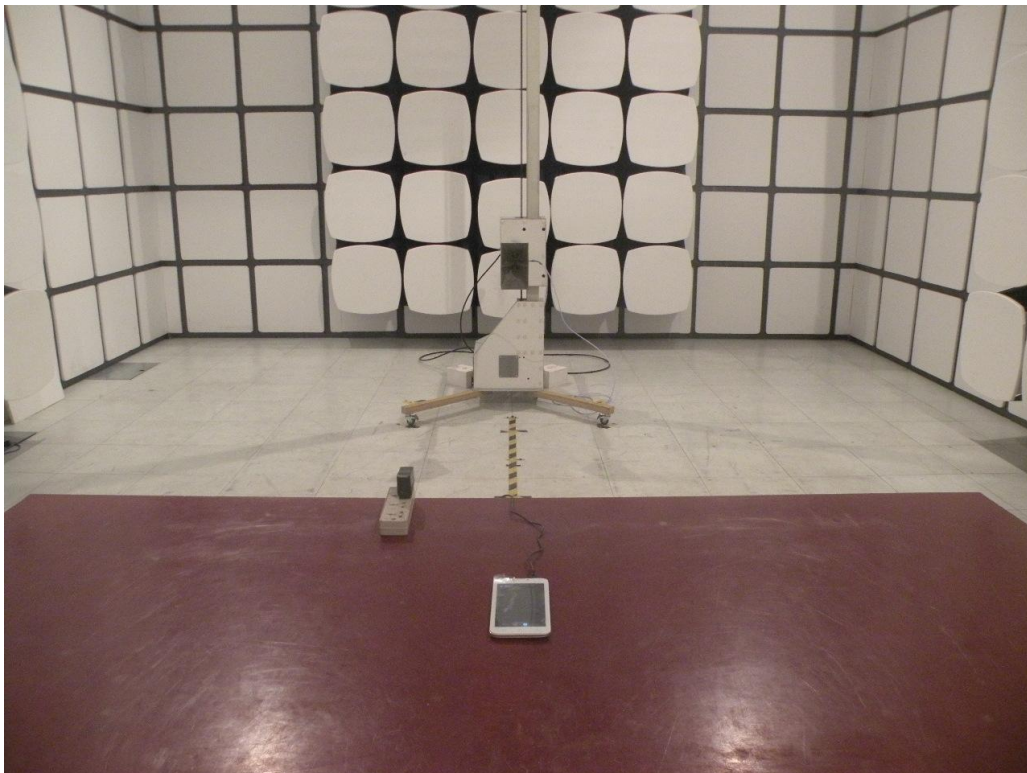
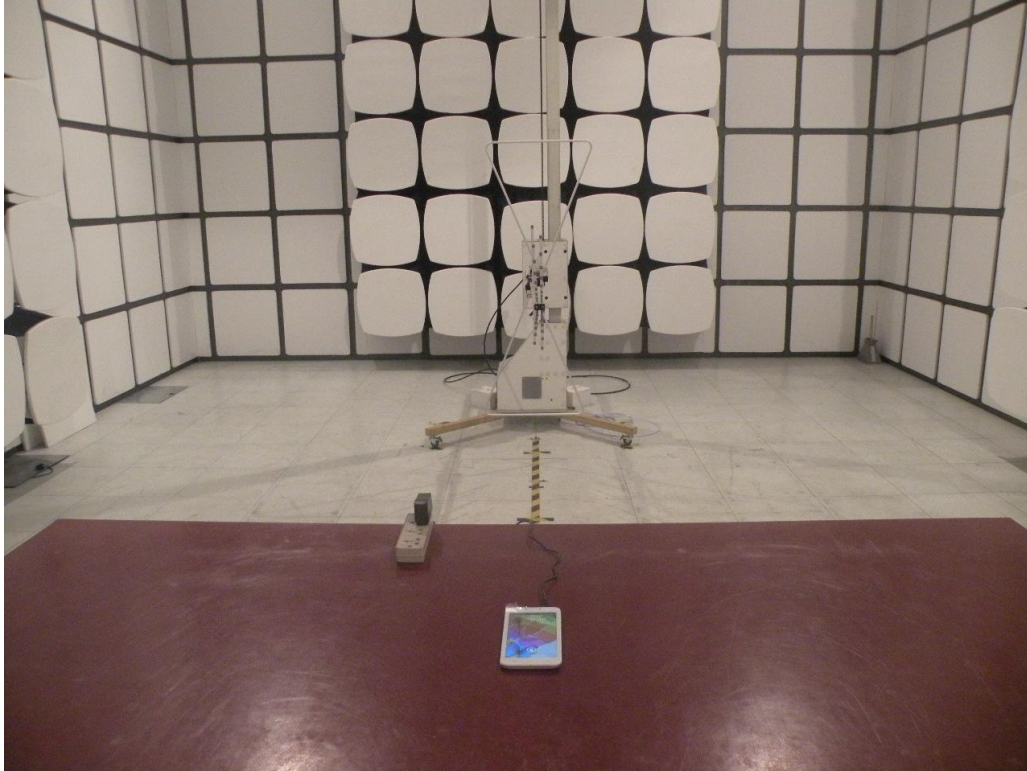
Condition : FCC PART 15 B QP POL: LINE Temp: 24 °C Hum: 56 %
EUT : Smart phone
Model No : Flair6.0
Test Mode : Link Mode
Power : DC 5V From Adapter AC 120V/60Hz
Test Engineer: Simple
Remark :

Item	Freq MHz	Read dBuV	LISN Factor dB	Preamplifier Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	0.152	51.00	0.03	-9.72	0.10	60.85	65.91	-5.06	QP
2	0.152	31.00	0.03	-9.72	0.10	40.85	55.91	-15.06	Average
3	0.188	45.30	0.03	-9.72	0.10	55.15	64.11	-8.96	QP
4	0.188	25.00	0.03	-9.72	0.10	34.85	54.11	-19.26	Average
5	0.228	39.15	0.03	-9.72	0.10	49.00	62.52	-13.52	QP
6	0.228	21.00	0.03	-9.72	0.10	30.85	52.52	-21.67	Average
7	0.694	30.47	0.04	-9.72	0.10	40.33	56.00	-15.67	QP
8	0.694	16.00	0.04	-9.72	0.10	25.86	46.00	-20.14	Average
9	5.005	23.05	0.10	-9.68	0.12	32.95	60.00	-27.05	QP
10	5.005	9.00	0.10	-9.68	0.12	18.90	50.00	-31.10	Average
11	14.986	27.61	0.24	-9.38	0.23	37.46	60.00	-22.54	QP
12	14.986	16.00	0.24	-9.38	0.23	25.85	50.00	-24.15	Average

Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss

11. Test setup photo

Photographs-Radiated Emission Test Setup in Chamber



Photographs-Conducted Emission Test Setup



12.Photos of EUT





-----END OF THE REPORT-----