



Shenzhen Huatongwei International Inspection Co., Ltd.

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FCC REPORT

Report Reference No. : **TRE1609005901** **R/C.....** : 94669

FCC ID : **2AJZPF07**

Applicant's name : **Mason America, Inc.**

Address : 300 Park Street , Suite 380,Birmingham, Michigan 48009, United States

Manufacturer : Foneric Technology Co.,Ltd

Address : 4/5F,Fuxing Buliding,No.6 Binglang Road Futian Free Trade Zone,Shenzhen,PR.China

Test item description : **F07 By Mason**

Trade Mark : Mason

Model/Type reference : Mason F07

Listed Model(s) : -

Standard : **FCC Part 22: PUBLIC MOBILE SERVICES**
FCC Part 24: PERSONAL COMMUNICATIONS SERVICES

Date of receipt of test sample : Sept.13 ,2016

Date of testing : Sept.14 ,2016 ~ Oct.10, 2016

Date of issue : Oct.10, 2016

Result : **Pass**

Compiled by

(position+printed name+signature) : File administrators Becky Liang

Supervised by

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(position+printed name+signature) : Manager Hans Hu

Testing Laboratory Name : **Shenzhen Huatongwei International Inspection Co., Ltd.**

Address : 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

<u>1.</u>	<u>TEST STANDARDS AND TEST DESCRIPTION</u>	<u>3</u>
1.1.	Test Standards	3
1.2.	Test Description	3
<u>2.</u>	<u>SUMMARY</u>	<u>4</u>
2.1.	Client Information	4
2.2.	Product Description	4
2.3.	EUT operation mode	5
2.4.	EUT configuration	5
2.5.	Modifications	5
<u>3.</u>	<u>TEST ENVIRONMENT</u>	<u>6</u>
3.1.	Address of the test laboratory	6
3.2.	Test Facility	6
3.3.	Environmental conditions	7
3.4.	Statement of the measurement uncertainty	7
3.5.	Equipments Used during the Test	8
<u>4.</u>	<u>TEST CONDITIONS AND RESULTS</u>	<u>9</u>
4.1.	Conducted Output Power	9
4.2.	Occupied Bandwidth	11
4.3.	Out of band emission at antenna terminals	18
4.4.	Band Edge compliance	21
4.5.	Radiated Power Measurement	26
4.6.	Radiated Spurious Emission	29
4.7.	Frequency stability V.S. Temperature measurement	35
4.8.	Frequency stability V.S. Voltage measurement	37
4.9.	Peak-Average Ratio	39
<u>5.</u>	<u>TEST SETUP PHOTOS OF THE EUT</u>	<u>40</u>
<u>6.</u>	<u>EXTERNAL AND INTERNAL PHOTOS OF THE EUT</u>	<u>41</u>

1. **TEST STANDARDS AND TEST DESCRIPTION**

1.1. **Test Standards**

The tests were performed according to following standards:

[FCC Part 22](#): PRIVATE LAND MOBILE RADIO SERVICES.

[FCC Part 24](#): PUBLIC MOBILE SERVICES

[TIA/EIA 603 D June 2010](#): Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

[47 CFR FCC Part 15 Subpart B](#): - Unintentional Radiators

[FCC Part 2](#): FREQUENCY ALLOCATION AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

[971168 D01 Power Meas License Digital Systems v02r02](#): provides a methodology for fully characterizing the fundamental power of wideband (> 1 MHz) digitally modulated RF signals acceptable to the FCC for demonstrating compliance for licensed transmitters.

1.2. **Test Description**

Test Item	Section in CFR 47	Result
RF Output Power	Part 2.1046 Part 22.913 (a)(2) Part 24.232 (c)	Pass
Modulation Characteristics	Part 2.1047	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917 Part 24.238	Pass
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 22.917 (a) Part 24.238 (a)	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 22.917 (a) Part 24.238 (a)	Pass
Out of band emission, Band Edge	Part 22.917 (a) Part 24.238 (a)	Pass
Frequency stability vs. temperature	Part 2.1055(a)(1)(b)	Pass
Frequency stability vs. voltage	Part 2.1055(d)(1)(2)	Pass
Peak-Average Ratio	Part 24.232 (d)	Pass

Remark: The measurement uncertainty is not included in the test result.

2. SUMMARY

2.1. Client Information

Applicant:	Mason America, Inc.
Address:	300 Park Street , Suite 380,Birmingham, Michigan 48009, United States
Manufacturer:	Foneric Technology Co.,Ltd
Address:	4/5F,Fuxing Buliding,No.6 Binglang Road Futian Free Trade Zone,Shenzhen,PR.China

2.2. Product Description

Name of EUT	F07 By Mason
Trade Mark:	Mason
Model No.:	Mason F07
Listed Model(s):	-
IMEI:	865006020015344
Power supply:	DC 3.8V From internal battery
Adapter information:	Model: HJ-0501500-EU Input:AC 100-240V 50/60Hz 0.2A Output: 5Vd.c., 1500mA
2G:	
Support Network:	GSM, GPRS, EGPRS
Support Band:	GSM850, DCS1900
Modulation:	GSM/GPRS: GMSK EGPRS:GMSK/8PSK
Transmit Frequency:	GSM850: 824.20MHz-848.80MHz PCS1900: 1850.20MHz-1909.80MHz
Receive Frequency:	GSM850: 869.20MHz-893.80MHz PCS1900: 1930.20MHz-1989.80MHz
GPRS Class:	12
EGPRS Class:	12
Antenna type:	Intergal Antenna
Antenna gain:	GSM850:-1.04dBi PCS1900:0.13dBi
Hardware version:	V1.0.3-8011E
Software version:	V2.0.8.0
3G:	
Operation Band:	FDD Band II and FDD Band V
Power Class:	Power Class 3
Modulation Type:	QPSK/16QAM/HSUPA/HSDPA
DC-HSUPA Release Version:	Not Supported
Antenna type:	Intergal Antenna
Antenna gain:	Band II: 0.13dBi, Band V: -1.04dBi

Test Frequency:

GSM 850		PCS1900	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
128	824.20	512	1850.20
190	836.60	661	1880.00
251	848.80	810	1909.80

FDD Band II		FDD Band V	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
9262	1852.4	4132	826.40
9400	1880.0	4183	836.60
9538	1907.6	4233	846.60

2.3. EUT operation mode

1. The EUT has been tested under typical operating condition. The Applicant provides software to control the EUT for staying in continuous transmitting and receiving mode for testing.

2.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

	Length (m) :	
	Shield :	
	Manufacturer :	
	Model No. :	

2.5. Modifications

No modifications were implemented to meet testing criteria.

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd.

Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Phone: 86-755-26748019 Fax: 86-755-26748089

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: February 28, 2015. Valid time is until February 27, 2018.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until December 31, 2016.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 317478, Renewal date Jul. 18, 2014, valid time is until Jul. 18, 2017.

IC-Registration No.: 5377A&5377B

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Dec. 31, 2013, valid time is until Dec. 31, 2016.

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B on Dec.03, 2014, valid time is until Dec.03, 2017.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

3.3. Environmental conditions

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

Normal Temperature/Tnor:	15~35°C
Relative Humidity	30~60 %
Air Pressure	950-1050 hPa

3.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 2" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Frequency stability	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth	-----	(1)
Emission Mask	-----	(1)
Modulation Characteristic	-----	(1)
Transmitter Frequency Behavior	-----	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

3.5. Equipments Used during the Test

Output Power(Conducted) & Occupied Bandwidth & Emission Bandwidth & Band Edge Compliance & Conducted Spurious Emission

No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2015/11/2
2	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2015/11/2
3	Splitter	Mini-Circuit	ZAPD-4	400059	2015/11/2

Frequency Stability

No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2015/11/2
2	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2015/11/2
3	Climate Chamber	ESPEC	EL-10KA	05107008	2015/11/2
4	Splitter	Mini-Circuit	ZAPD-4	400059	2015/11/2

Output Power (Radiated) & Radiated Spurious Emission

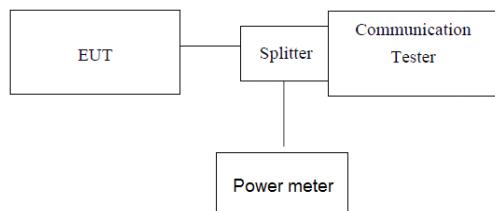
No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2015/11/2
2	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2015/11/2
3	HORN ANTENNA	ShwarzBeck	9120D	1012	2015/11/2
4	HORN ANTENNA	ShwarzBeck	9120D	1011	2015/11/2
5	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2015/11/2
6	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	539	2015/11/2
7	TURNTABLE	MATURO	TT2.0	----	N/A
8	ANTENNA MAST	MATURO	TAM-4.0-P	----	N/A
9	EMI Test Software	Audix	E3	N/A	N/A
10	EMI Test Receiver	Rohde&Schwarz	ESIB 26	100009	2015/11/2
11	RF Test Panel	Rohde&Schwarz	TS / RSP	335015/ 0017	2015/11/2
12	High pass filter	Compliance Direction systems	BSU-6	34202	2015/11/2
13	Splitter	Mini-Circuit	ZAPD-4	400059	2015/11/2
14	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2015/11/2
15	Horn Antenna	SCHWARZBECK	BBHA9170	25842	2015/11/2
16	Preamplifier	ShwarzBeck	BBV 9718	BBV 9718	2015/11/2
17	Broadband Preamplifier	ShwarzBeck	BBV743	9743-0079	2015/11/2
18	Signal Generator	Rohde&Schwarz	SMF100A	101932	2015/11/2
19	Amplifier	Compliance Direction systems	PAP1-4060	120	2015/11/2
20	TURNTABLE	ETS	2088	2149	2015/11/2
21	ANTENNA MAST	ETS	2075	2346	2015/11/2
22	HORN ANTENNA	Rohde&Schwarz	HF906	100068	2015/11/2
23	HORN ANTENNA	Rohde&Schwarz	HF906	100039	2015/11/2

The calibration interval was one year.

4. **TEST CONDITIONS AND RESULTS**

4.1. Conducted Output Power

TEST CONFIGURATION



Note: Measurement setup for testing on Antenna connector

TEST PROCEDURE

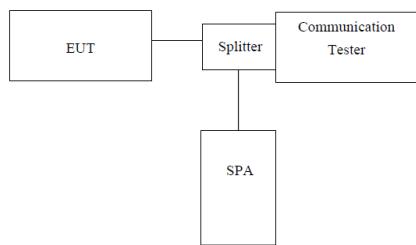
1. The transmitter output port was connected to base station.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator, the path loss was compensated to the results for each measurement.
3. Set EUT at maximum power through base station.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure the maximum burst average power.

TEST RESULTS

EUT Mode	Channel	Frequency (MHz)	Power (dBm)
GSM 850 (GMSK)	128	824.20	32.91
	190	836.60	33.15
	251	848.80	33.28
GPRS850 (GMSK,1Slot)	128	824.20	32.98
	190	836.60	33.19
	251	848.80	33.31
EGPRS850 (8PSK,1Slot)	128	824.20	27.43
	190	836.60	27.59
	251	848.80	27.54
PCS1900 (GMSK)	512	1850.20	30.52
	661	1880.00	30.41
	810	1909.80	30.44
GPRS1900 (GMSK,1Slot)	512	1850.20	30.56
	661	1880.00	30.51
	810	1909.80	30.48
EGPRS1900 (8PSK,1Slot)	512	1850.20	26.92
	661	1880.00	26.99
	810	1909.80	27.07
WCDMA Band II	9262	1852.40	23.95
	9400	1880.00	23.91
	9538	1907.60	23.96
WCDMA Band V	4132	826.40	23.21
	4183	836.60	23.24
	4233	846.60	23.11

4.2. Occupy Bandwidth

TEST CONFIGURATION



Note: Measurement setup for testing on Antenna connector

TEST PROCEDURE

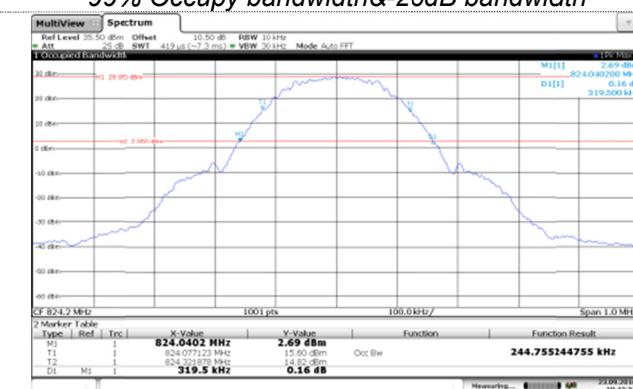
1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer
2. RBW was set to about 1% of emission BW, VBW= 3 times RBW.
3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST RESULTS

EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (KHz)	-26dB bandwidth (KHz)
GSM 850 (GMSK)	128	824.20	244.76	319.50
	190	836.60	242.76	319.80
	251	848.80	243.76	320.60
GPRS850 (GMSK,1Slot)	128	824.20	244.76	320.50
	190	836.60	244.76	321.40
	251	848.80	243.76	320.40
EGPRS850 (8PSK,1Slot)	128	824.20	244.76	286.20
	190	836.60	244.60	288.80
	251	848.80	244.76	289.30
PCS1900 (GMSK)	512	1850.20	244.76	318.90
	661	1880.00	245.76	321.50
	810	1909.80	244.76	318.90
GPRS1900 (GMSK,1Slot)	512	1850.20	244.76	325.00
	661	1880.00	244.76	319.50
	810	1909.80	245.75	318.90
EGPRS1900 (8PSK,1Slot)	512	1850.20	244.76	318.90
	661	1880.00	245.75	316.60
	810	1909.80	246.75	319.90
WCDMA Band II	9262	1852.4	4165.88	4761.25
	9400	1880.0	4155.81	4749.36
	9538	1907.6	4165.84	4768.49
WCDMA Band V	4132	826.4	4125.96	4723.14
	4183	836.6	4135.92	4729.46
	4233	846.6	4135.94	4705.67

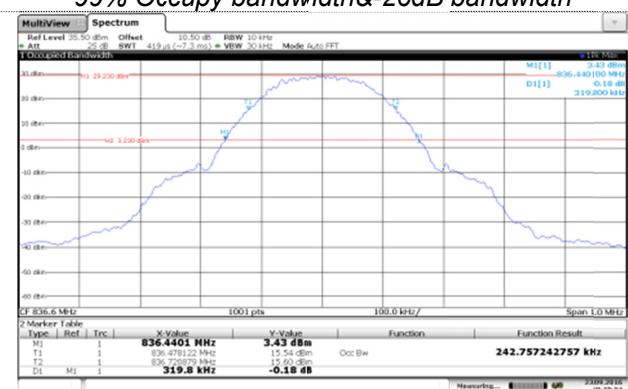
GSM850 For GMSK Modulation

99% Occupy bandwidth&-26dB bandwidth



Channel 128

99% Occupy bandwidth&-26dB bandwidth



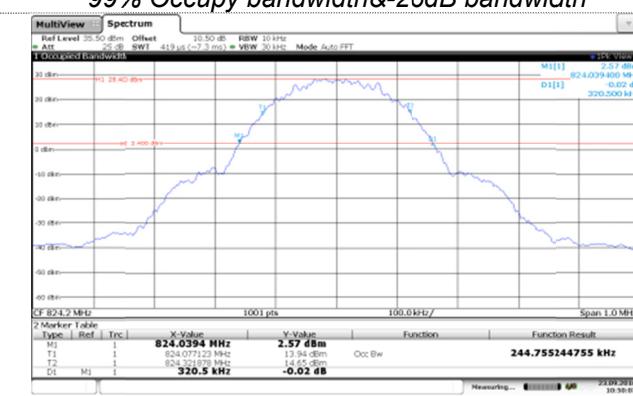
Channel 190



Channel 251

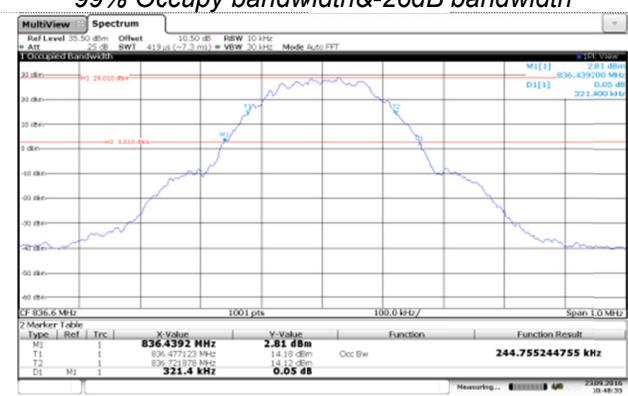
GPRS850 For GMSK Modulation

99% Occupy bandwidth&-26dB bandwidth



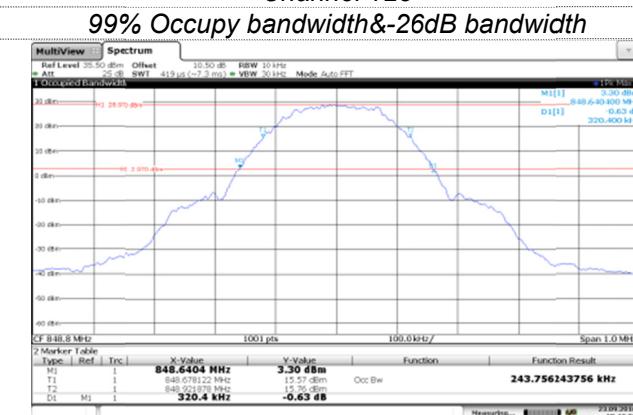
99% Occupy bandwidth&-26dB bandwidth

99% Occupy bandwidth&-26dB bandwidth

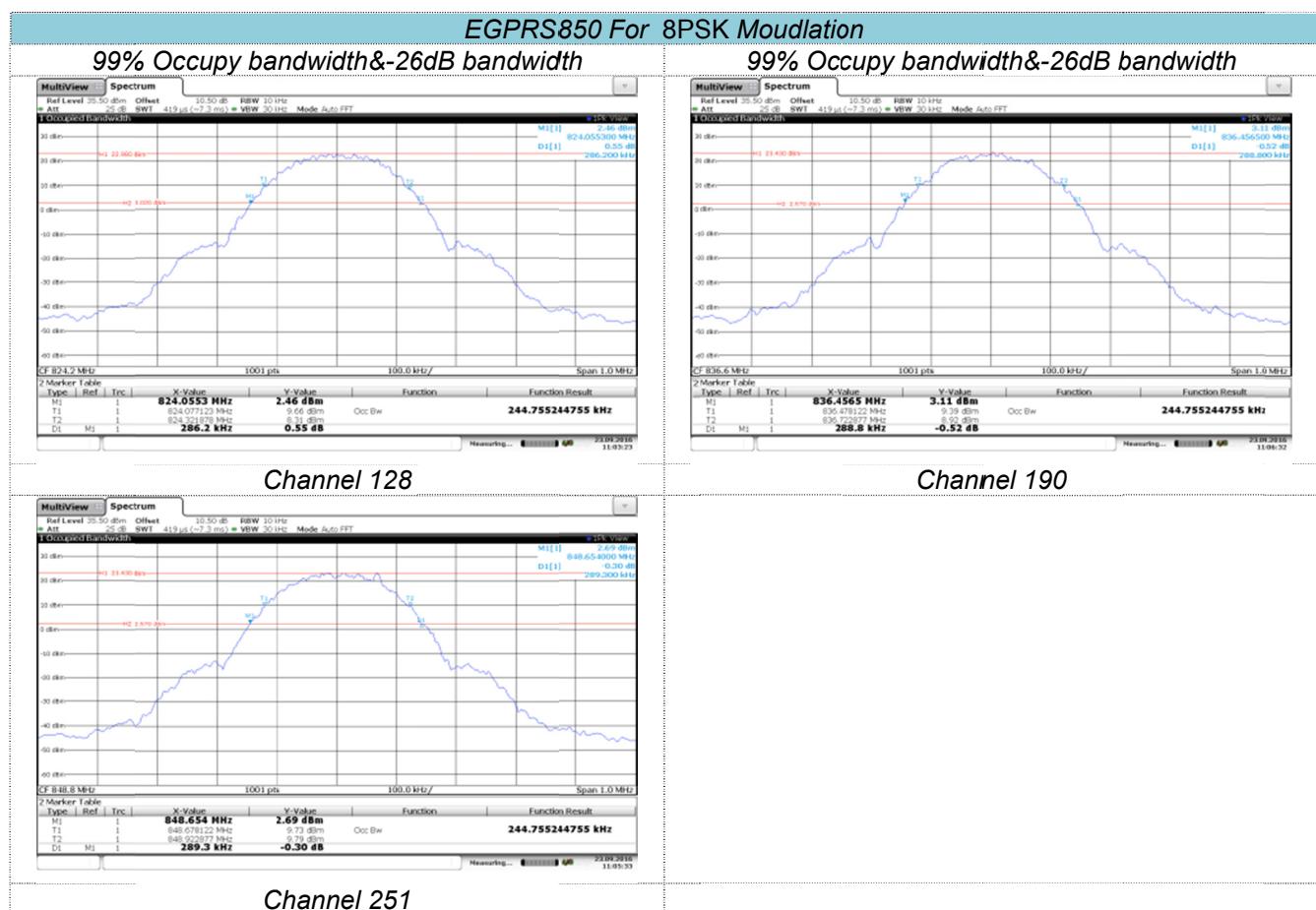


Channel 190

99% Occupy bandwidth&-26dB bandwidth

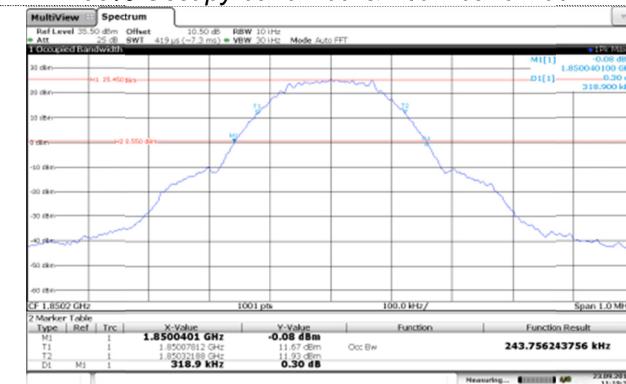


Channel 251



PCS1900 For GMSK Modulation

99% Occupy bandwidth&-26dB bandwidth

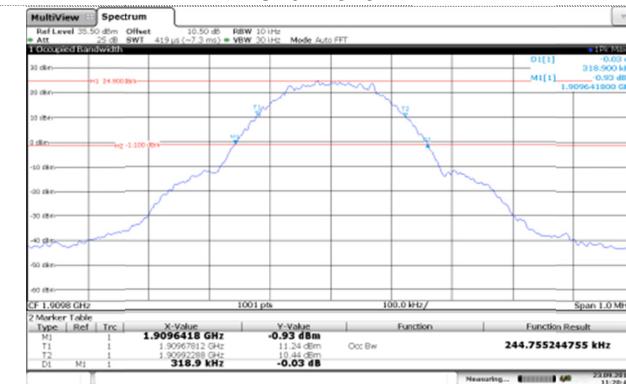


Channel 512

99% Occupy bandwidth&-26dB bandwidth



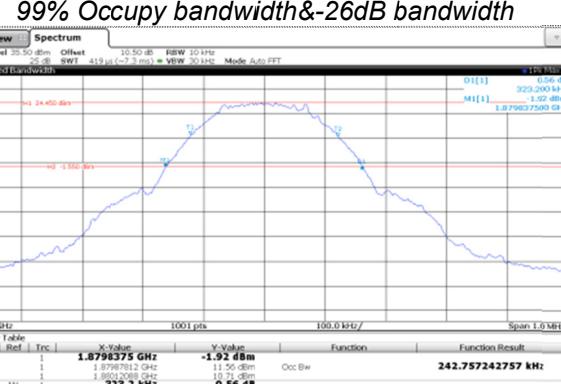
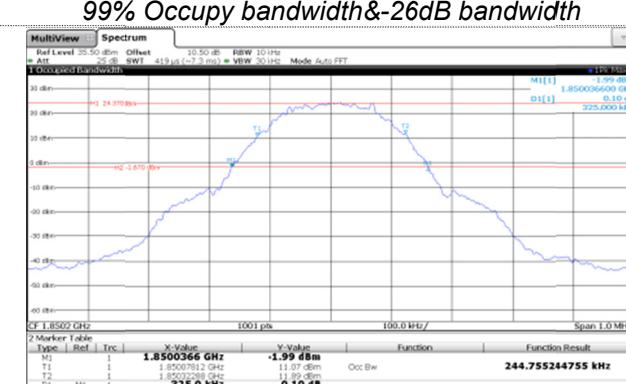
Channel 661



Channel 810

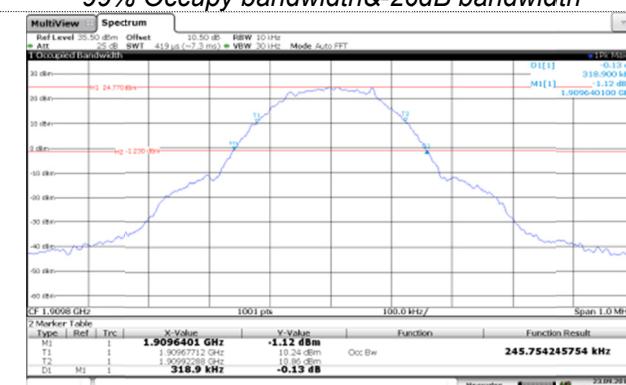
GPRS1900 For GMSK Modulation

99% Occupy bandwidth&-26dB bandwidth



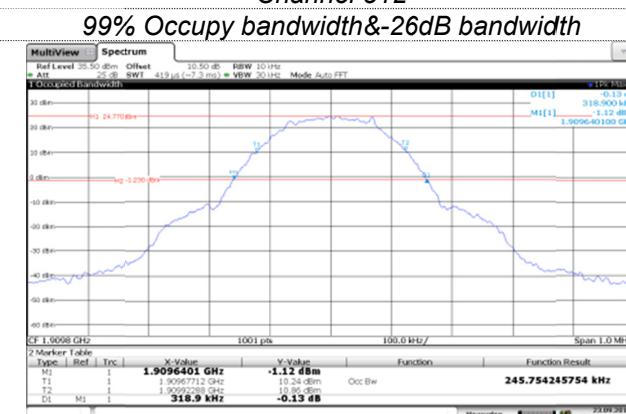
Channel 512

99% Occupy bandwidth&-26dB bandwidth



Channel 661

99% Occupy bandwidth&-26dB bandwidth



Channel 810