



# TEST REPORT

**APPLICANT** : iTrax, Inc.  
**PRODUCT NAME** : GPS Asset Tracker  
**MODEL NAME** : SVR4  
**BRAND NAME** : N/A  
**FCC ID** : 2AH3LSVR4  
**STANDARD(S)** : 47 CFR Part 22 Subpart H  
: 47 CFR Part 24 Subpart E  
**TEST DATE** : 2018-08-20 to 2018-08-23  
**ISSUE DATE** : 2018-08-27

Tested by: Gao Mingzhou  
Gao Mingzhou (Test Engineer)  
Approved by: Peng Huarui  
Peng Huarui ( Supervisor )

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# DIRECTORY

- 1. Technical Information ..... 4
  - 1.1. Applicant and Manufacturer Information ..... 4
  - 1.2. Equipment Under Test (EUT) Description ..... 4
  - 1.3. Test Standards and Results ..... 6
  - 1.4. Environmental Conditions ..... 6
- 2. 47 CFR Part 2, Part 22H & 24E Requirements ..... 7
  - 2.1. Conducted RF Output Power ..... 7
  - 2.2. Peak to Average Ratio ..... 10
  - 2.3. 99% Occupied Bandwidth ..... 20
  - 2.4. Frequency Stability ..... 32
  - 2.5. Conducted Out of Band Emissions ..... 36
  - 2.6. Band Edge ..... 43
  - 2.7. Transmitter Radiated Power (EIRP/ERP) ..... 47
  - 2.8. Radiated Out of Band Emissions ..... 54
- Annex A Test Uncertainty ..... 75
- Annex B Testing Laboratory Information ..... 76



REPORT No .: SZ18080125W01

<b>Change History</b>		
<b>Issue</b>	<b>Date</b>	<b>Reason for change</b>
1.0	2018-08-27	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	iTrax, Inc.
<b>Applicant Address:</b>	963 Topsy Lane, Suite 306 - 359, Carson City, Nevada, 89705, United States
<b>Manufacturer:</b>	Shenzhen Concox Information Technology Co., Ltd
<b>Manufacturer Address:</b>	Floor 4th, Building B, Gaoxingqi Industrial Park, Liuxian 1st Road, District 67, Bao'an, Shenzhen, China

## 1.2. Equipment Under Test (EUT) Description

<b>Product Name:</b>	GPS Asset Tracker
<b>Serial No:</b>	(N/A, marked #1 by test site)
<b>Hardware Version:</b>	NFC109-V3.0
<b>Software Version:</b>	GT720S_20_S1A1_D23_R0_V06_WM_20180515_0928
<b>Modulation Type:</b>	GPRS Mode with GMSK Modulation EDGE Mode with 8PSK Modulation WCDMA Mode with QPSK Modulation
<b>Operating Frequency Range:</b>	GSM 850MHz: Tx: 824.20 - 848.80MHz (at intervals of 200kHz); Rx: 869.20 - 893.80MHz (at intervals of 200kHz) GSM 1900MHz: Tx: 1850.20 - 1909.80MHz (at intervals of 200kHz); Rx: 1930.20 - 1989.80MHz (at intervals of 200kHz) WCDMA 850MHz Tx: 826.4 - 846.6MHz (at intervals of 200kHz); Rx: 871.4 - 891.6MHz (at intervals of 200kHz) WCDMA 1900MHz Tx: 1852.4 - 1907.6MHz (at intervals of 200kHz); Rx: 1932.4 - 1987.6MHz (at intervals of 200kHz)
<b>Multi-slot Class:</b>	GPRS: Multislot Class12; EGPRS: Multislot Class12
<b>Emission Designators:</b>	GPRS 850:261KGXW, GPRS 1900:251KGXW EGPRS850:250KG7W, EGPRS1900:248KG7W, WCDMA 850:4M10F9W , WCDMA1900:4M11F9W



<b>Antenna Type:</b>	Monopole Antenna	
<b>Antenna Gain:</b>	GSM850	-2.5 dBi
	GSM1900	-2.5 dBi
	WCDMA850	-2.5 dBi
	WCDMA1900	-2.5 dBi
<b>Operating voltage:</b>	Normal(NV):	3.60 V

*Note 1:* The transmitter (Tx) frequency arrangement of the Cellular 850MHz band used by the EUT can be represented with the formula  $F(n)=824.2+0.2*(n-128)$ ,  $128 \leq n \leq 251$ ; 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).

*Note 2:* The transmitter (Tx) frequency arrangement of the PCS 1900MHz band used by the EUT can be represented with the formula  $F(n)=1850.2+0.2*(n-512)$ ,  $512 \leq n \leq 810$ ; 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).

*Note 3:* The transmitter (Tx) frequency arrangement of the WCDMA 850MHz band used by the EUT can be represented with the formula  $F(n)=826.4+0.2*(n-4132)$ ,  $4132 \leq n \leq 4233$ ; 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).

*Note 4:* The transmitter (Tx) frequency arrangement of the WCDMA 1900MHz band used by the EUT can be represented with the formula  $F(n)=1852.4+0.2*(n-9262)$ ,  $9262 \leq n \leq 9538$ ; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 9262 (1852.4MHz), 9400 (1880MHz) and 9538 (1907.6MHz).

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



### 1.3. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22, Part 24 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2 (10-1-12 Edition)	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22 (10-1-12 Edition)	Public Mobile Services
3	47 CFR Part 24 (10-1-12 Edition)	Personal Communications Services

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result
1	2.1046	Conducted RF Output Power	Aug 20, 2018	Gao Mingzhou	PASS
2	24.232(d)	Peak - Average Radio	Aug 20, 2018	Gao Mingzhou	PASS
3	2.1049	99% Occupied Bandwidth	Aug 20, 2018	Gao Mingzhou	PASS
4	2.1055,22.355, 24.235	Frequency Stability	Aug 20, 2018	Gao Mingzhou	PASS
5	2.1051, 22.917(a), 24.238(a)	Conducted Out of Band Emissions	Aug 20, 2018	Gao Mingzhou	PASS
6	2.1051, 22.917(a), 24.238(a)	Band Edge	Aug 20, 2018	Gao Mingzhou	PASS
7	22.913(a), 24.232(a)	Transmitter Radiated Power (EIPR/ERP)	Aug 22, 2018	Wang Dalong	PASS
8	2.1051, 22.917(a), 24.238(a)	Radiated Out of Band Emissions	Aug 21&22, 2018	Wang Dalong	PASS

**Note:** The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017) and ANSI/TIA-603-E-2016.

### 1.4. Environmental Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

## 2. 47 CFR Part 2, Part 22H & 24E Requirements

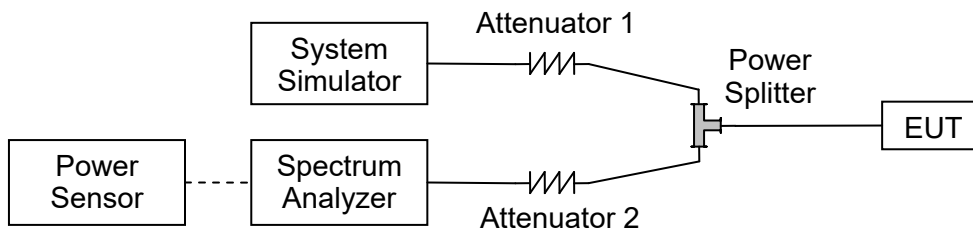
### 2.1. Conducted RF Output Power

#### 2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

#### 2.1.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.



### 2.1.3. Test Results

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

#### GSM Test Verdict:

GSM850 TX Channel	Average Power (dBm)			Verdict
	128	190	251	
Frequency (MHz)	824.2	836.6	848.8	
GPRS 1 Tx slot	32.54	32.60	32.76	PASS
GPRS 2 Tx slots	30.45	30.55	30.76	PASS
GPRS 3 Tx slots	28.56	28.68	28.91	PASS
GPRS 4 Tx slots	26.53	26.56	26.78	PASS
EDGE 1 Tx slot	32.55	32.60	32.77	PASS
EDGE 2 Tx slots	30.42	30.51	30.71	PASS
EDGE 3 Tx slots	28.53	28.64	28.74	PASS
EDGE 4 Tx slots	26.54	26.62	26.80	PASS

GSM1900 TX Channel	Average Power (dBm)			Verdict
	512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	
GPRS 1 Tx slot	28.47	28.39	28.96	PASS
GPRS 2 Tx slots	27.78	27.71	27.54	PASS
GPRS 3 Tx slots	26.02	25.94	25.91	PASS
GPRS 4 Tx slots	23.94	23.97	23.93	PASS
EDGE 1 Tx slot	30.03	29.95	30.44	PASS
EDGE 2 Tx slots	27.69	27.63	27.45	PASS
EDGE 3 Tx slots	26.01	25.92	25.75	PASS
EDGE 4 Tx slots	24.04	23.91	23.67	PASS





**WCDMA Test Verdict:**

WCDMA 850		Average Power (dBm)			Verdict
TX Channel		4132	4175	4233	
Frequency (MHz)		826.4	835.0	846.6	
3GPP Rel 99	RMC 2.2Kbps	25.60	23.62	24.59	PASS

WCDMA 1900		Average Power (dBm)			Verdict
TX Channel		9262	9400	9538	
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	RMC 2.2Kbps	23.18	23.34	23.05	PASS

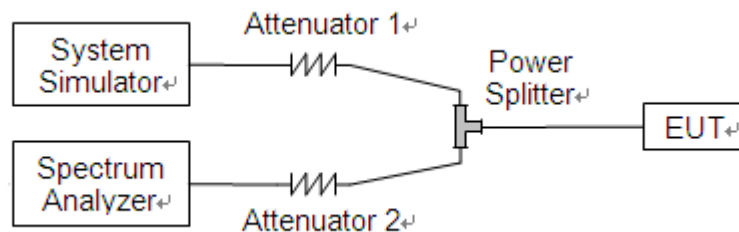
## 2.2. Peak to Average Ratio

### 2.2.1. Requirement

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

### 2.2.2. Test Description

Test Setup:



The EUT 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 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

### 2.2.3. Test procedure

1. For GSM/EGPRS operating mode:

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

2. For UMTS operating mode:

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



**2.2.4. Test Result**

The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

**A. Test Verdict:**

Band	Channel	Frequency (MHz)	Peak to Average radio		Limit	Verdict
			dB	Refer to Plot	dB	
GPRS 1900MHz	512	1850.2	0.006	Plot A1 to A3	13	PASS
	661	1880.0	0.004			PASS
	810	1909.8	0.004			PASS
EGPRS 1900MHz	512	1850.2	0.002	Plot B1 to B3	13	PASS
	661	1880.0	0.003			PASS
	810	1909.8	0.010			PASS
WCDMA 1900MHz	9262	1852.4	4.03	Plot C1 to C3	13	PASS
	9400	1880.0	3.82			PASS
	9538	1907.6	3.40			PASS



B. Test Plots:



(Plot A1, GSM 1900 MHz, Channel = 512)



(Plot A2, GSM 1900 MHz, Channel = 661)



(Plot A3, GSM 1900MHz, Channel = 810)



(Plot B1, EGPRS 1900 MHz, Channel = 512)

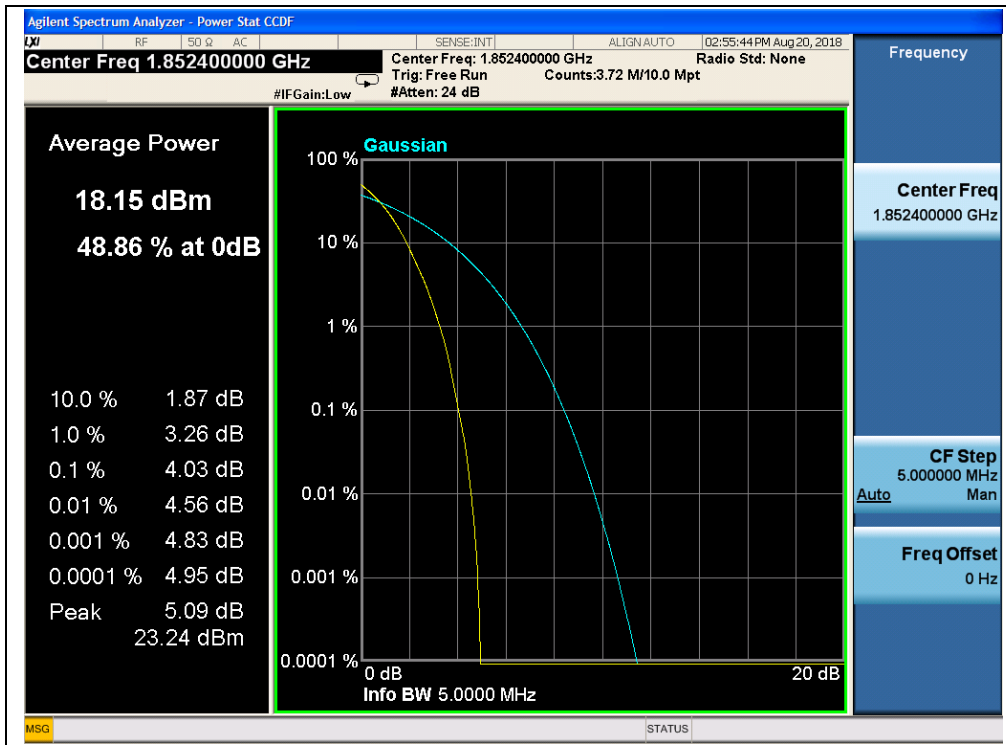


(Plot B2, EGPRS 1900 MHz, Channel = 661)





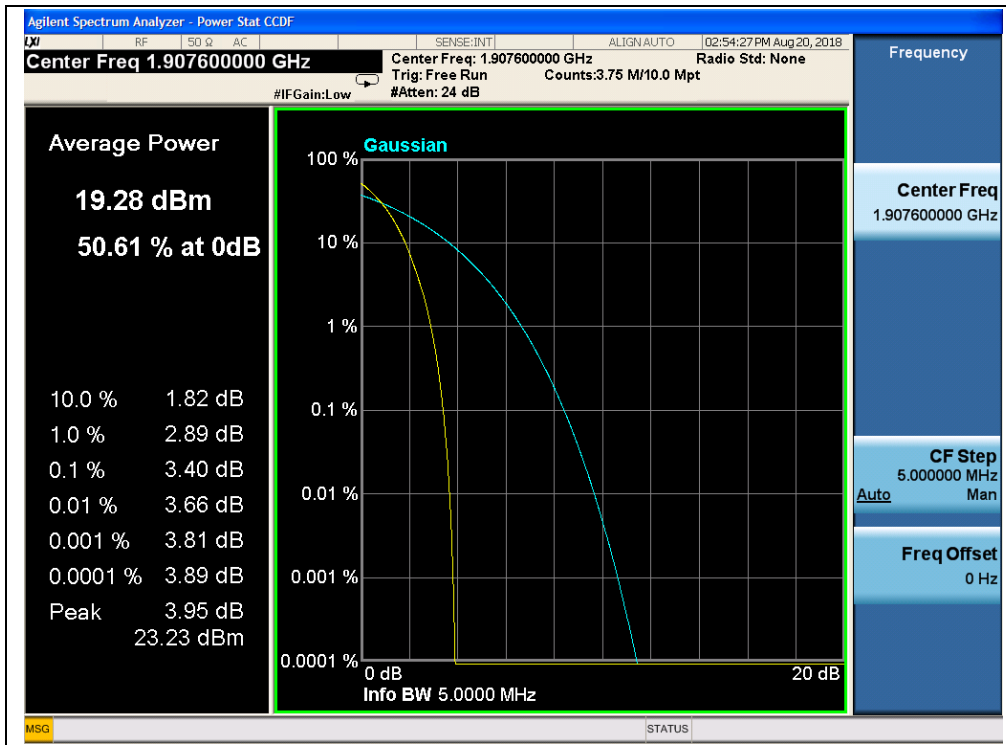
(Plot B3, EGPRS 1900MHz, Channel = 810)



(Plot C1, WCDMA 1900MHz, Channel = 9262)



(Plot C2, WCDMA 1900MHz, Channel = 9400)



(Plot C3, WCDMA 1900MHz, Channel = 9538)

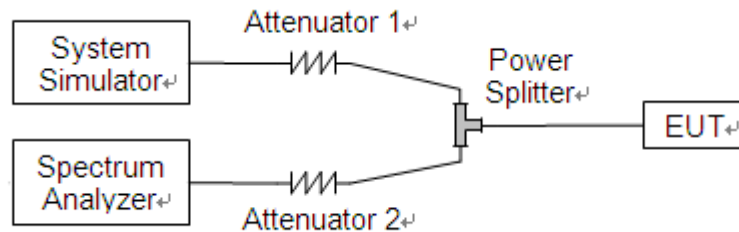
## 2.3.99% Occupied Bandwidth

### 2.3.1. Requirement

According to FCC section 2.1049 and FCC § 22.917 & 24.238, 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 per cent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

### 2.3.2. Test Description

Test Setup:



The EUT 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 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.



### 2.3.3. Test Result

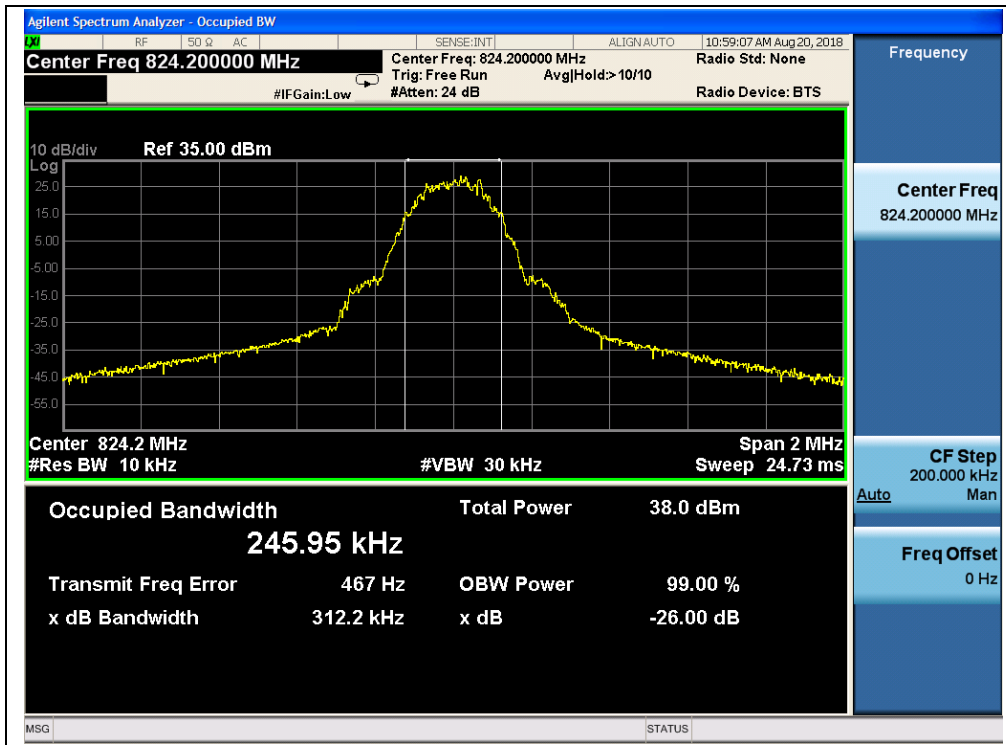
The lowest, middle and highest channels are selected to perform testing to record the 99% occupied bandwidth.

#### GSM Test Verdict:

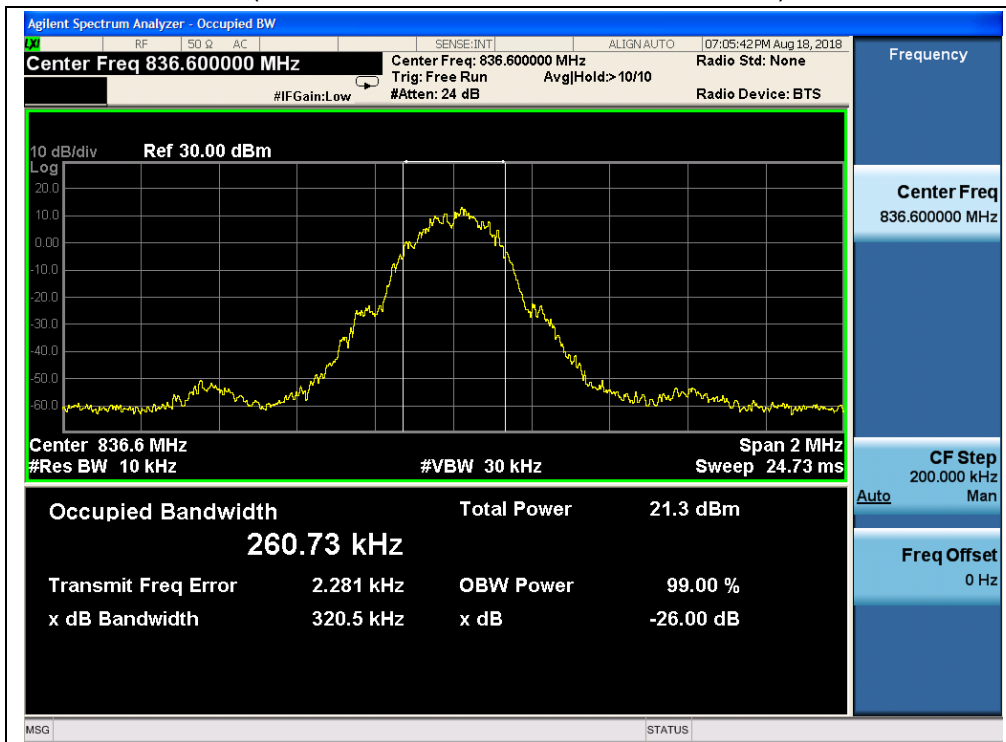
Band	Channel	Frequency (MHz)	26dB bandwidth (kHz)	99% Occupied Bandwidth (kHz)	Refer to Plot
GPRS 850MHz	128	824.2	312.2	245.95	Plot A1 to A3
	190	836.6	320.5	260.73	
	251	848.8	315.7	242.12	
GPRS 1900MHz	512	1850.2	311.9	243.85	Plot B1 to B3
	661	1880.0	317.3	251.25	
	810	1909.8	321.2	244.17	
EGPRS 850MHz	128	824.2	318.8	247.17	Plot C1 to C3
	190	836.6	320.4	249.90	
	251	848.8	317.7	246.37	
EGPRS 1900MHz	512	1850.2	319.3	243.32	Plot D1 to D3
	661	1880.0	316.9	248.14	
	810	1909.8	317.9	242.66	



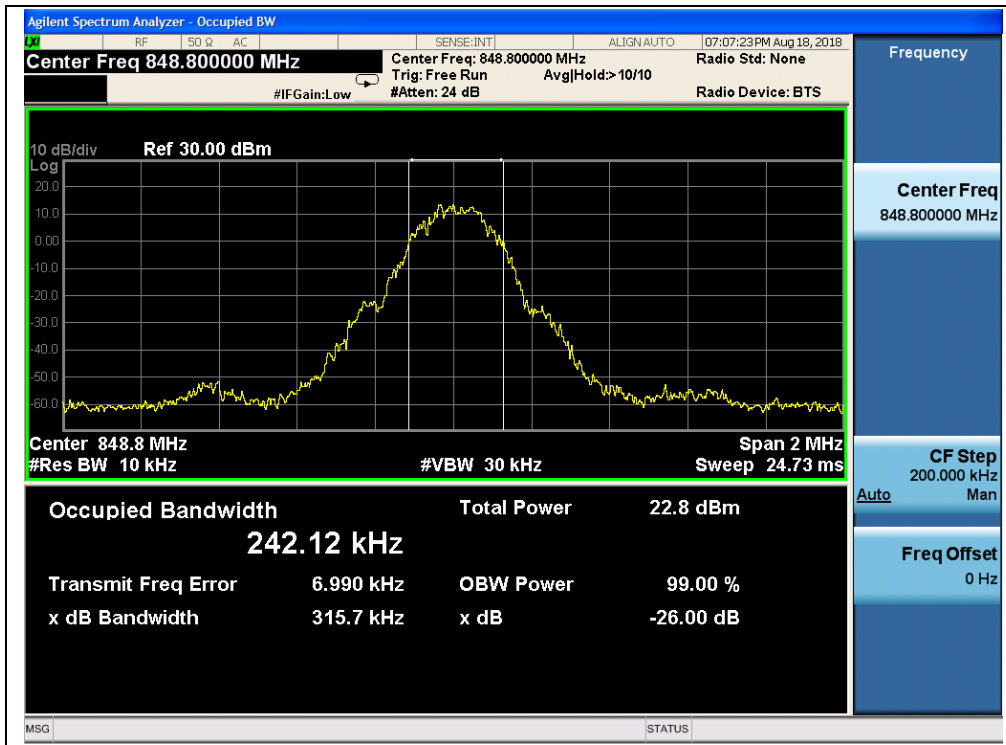
Test Plots:



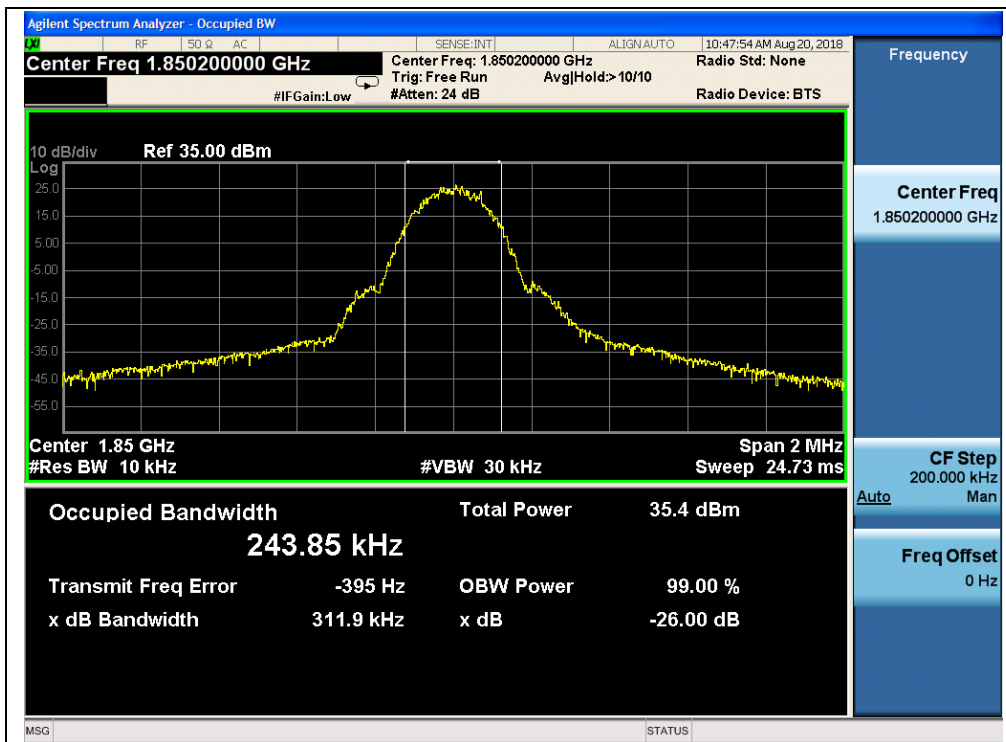
(Plot A1, GPRS 850MHz, Channel = 128)



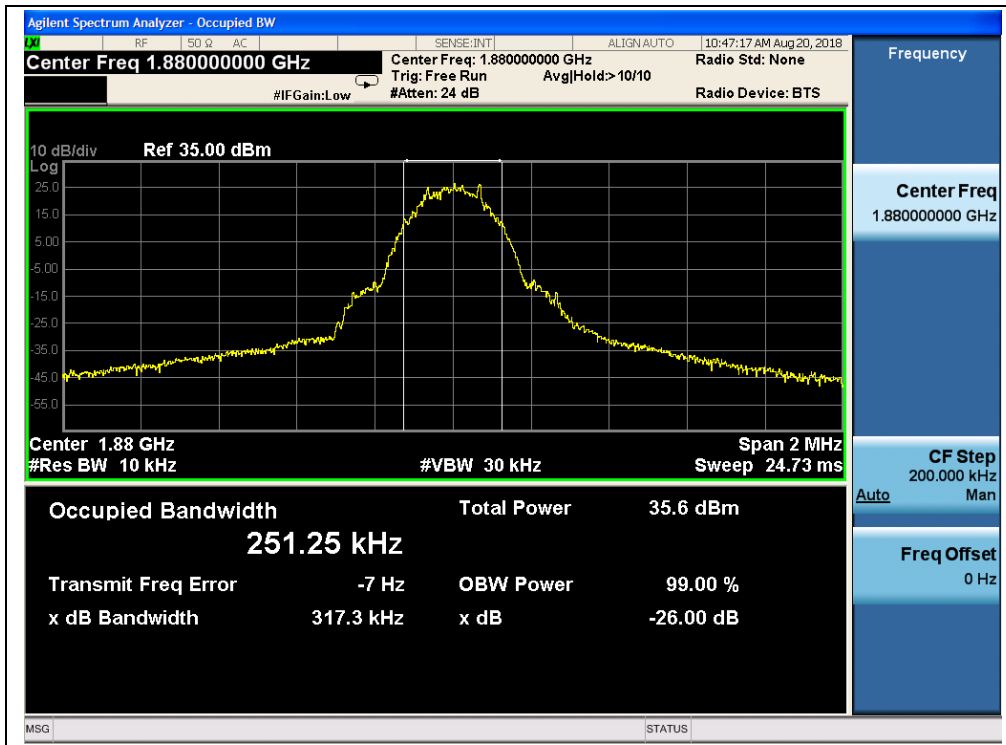
(Plot A2, GPRS 850MHz, Channel = 190)



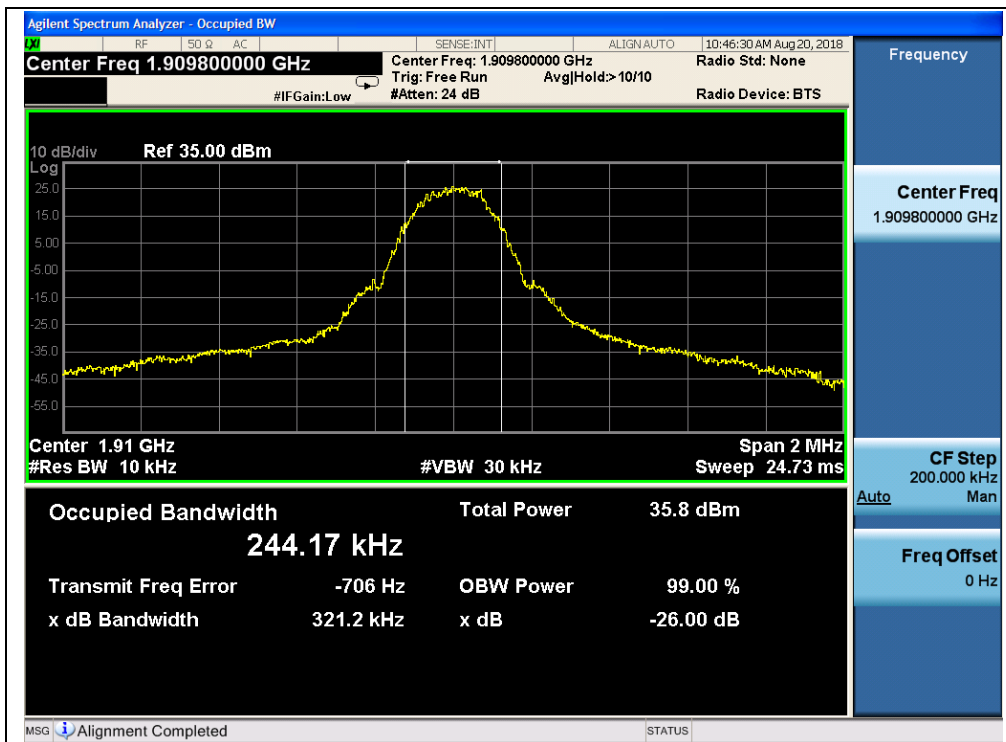
(Plot A3, GPRS 850MHz, Channel = 251)



(Plot B1, GPRS1900MHz, Channel = 512)

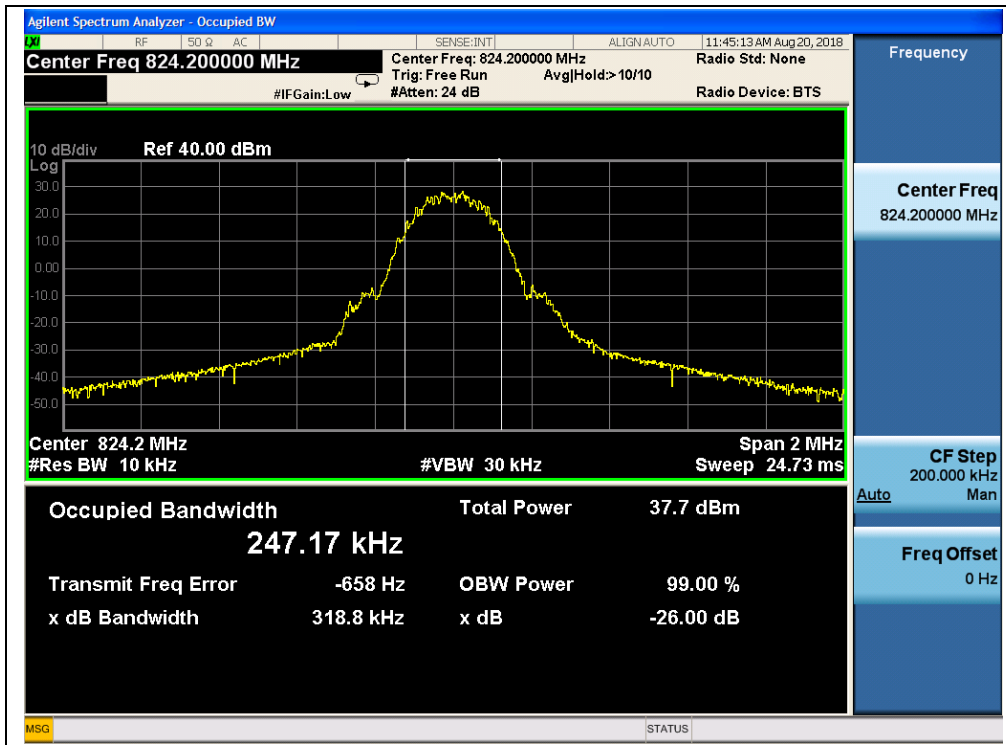


(Plot B2, GPRS1900MHz, Channel = 661)

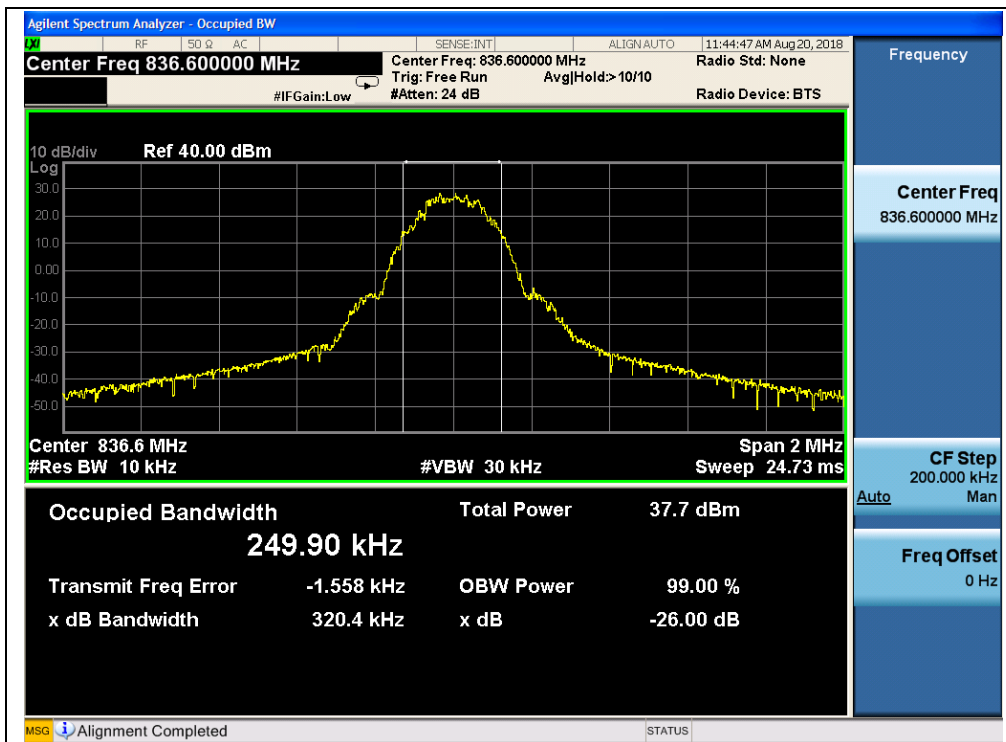


(Plot B3, GPRS 1900MHz, Channel = 810)

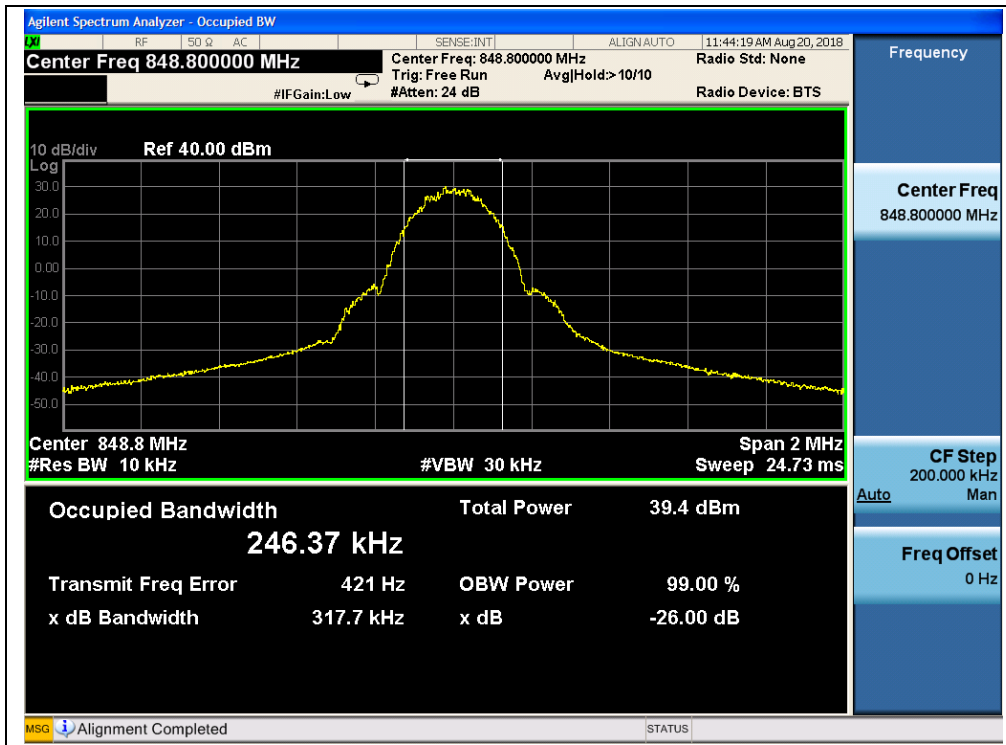




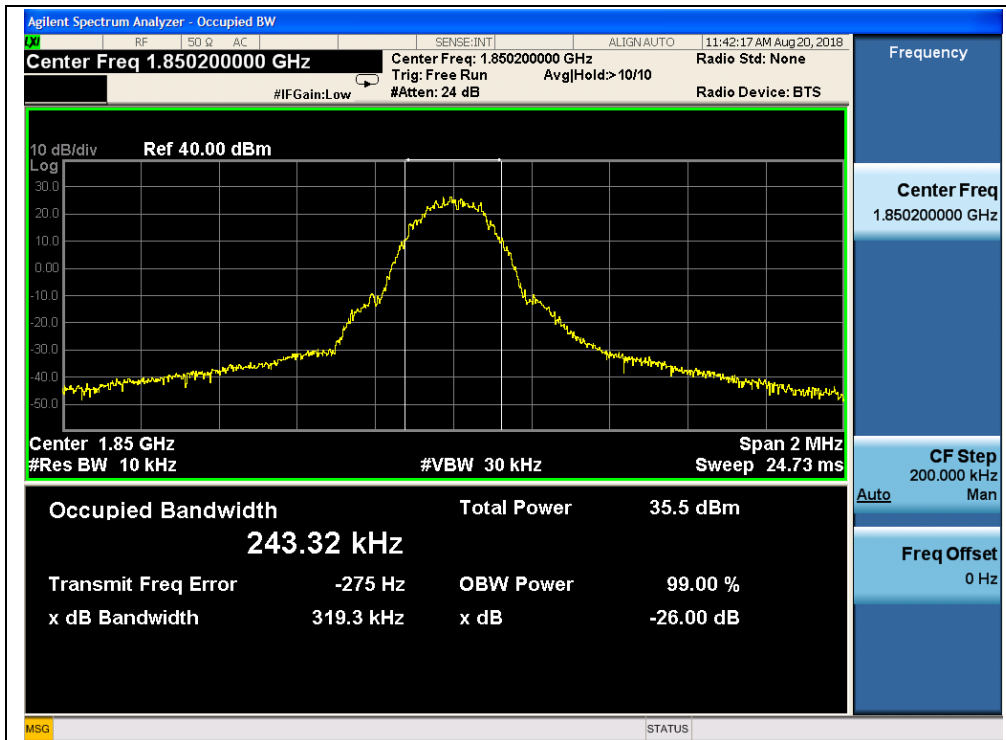
(Plot C1, EGPRS 850MHz, Channel = 128)



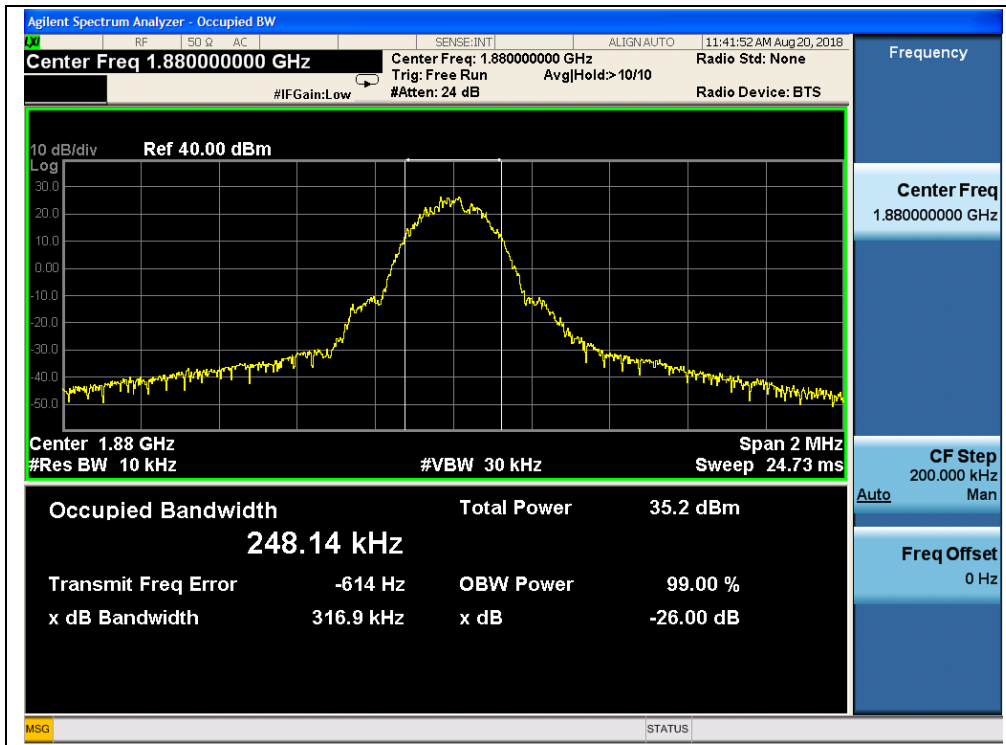
(Plot C2, EGPRS 850MHz, Channel = 190)



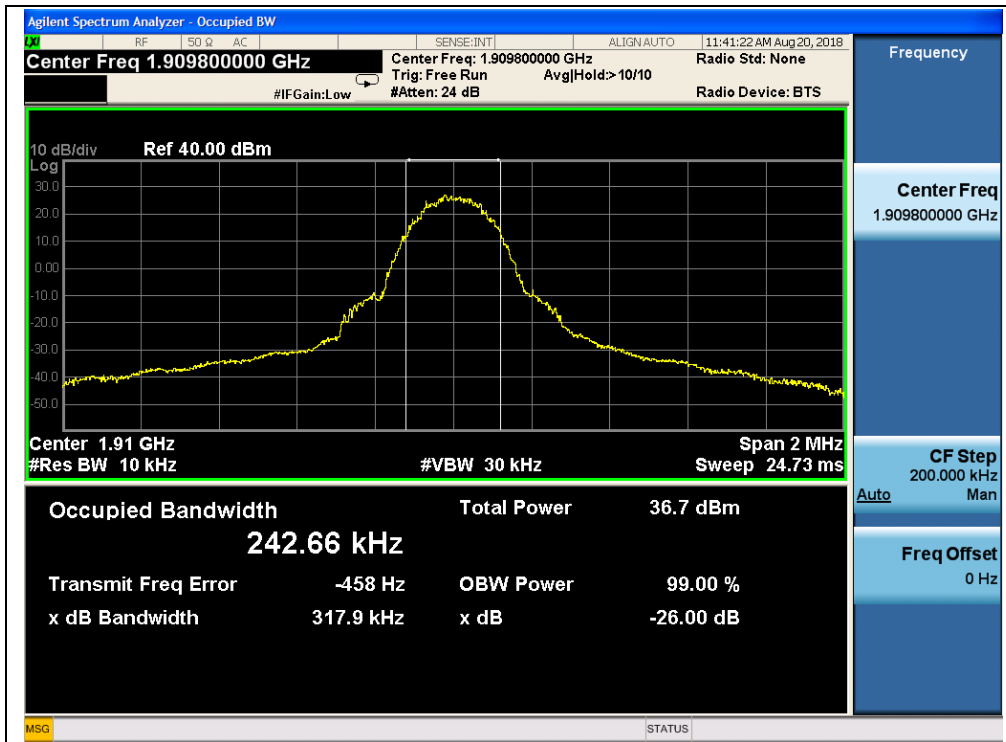
(Plot C3, EGPRS 850MHz, Channel = 251)



(Plot D1, EGPRS1900MHz, Channel = 512)



(Plot D2, EGPRS1900MHz, Channel = 661)



(Plot D3, EGPRS 1900MHz, Channel = 810)



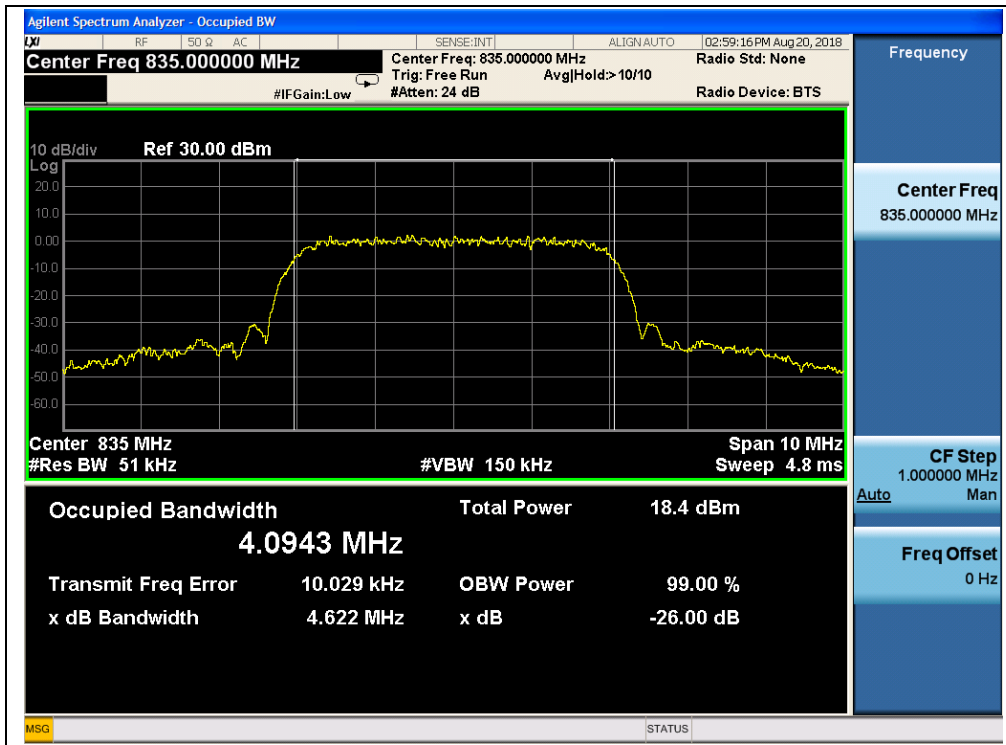
**WCDMA Test Verdict:**

Band	Channel	Frequency (MHz)	26dB bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Refer to Plot
WCDMA 850MHz	4132	826.4	4.623	4.0956	Plot G1 to G3
	4175	835.0	4.622	4.0943	
	4233	846.6	4.631	4.0878	
WCDMA 1900MHz	9262	1852.4	4.633	4.1121	Plot I1 to I3
	9400	1880.0	4.633	4.0965	
	9538	1907.6	4.629	4.0796	

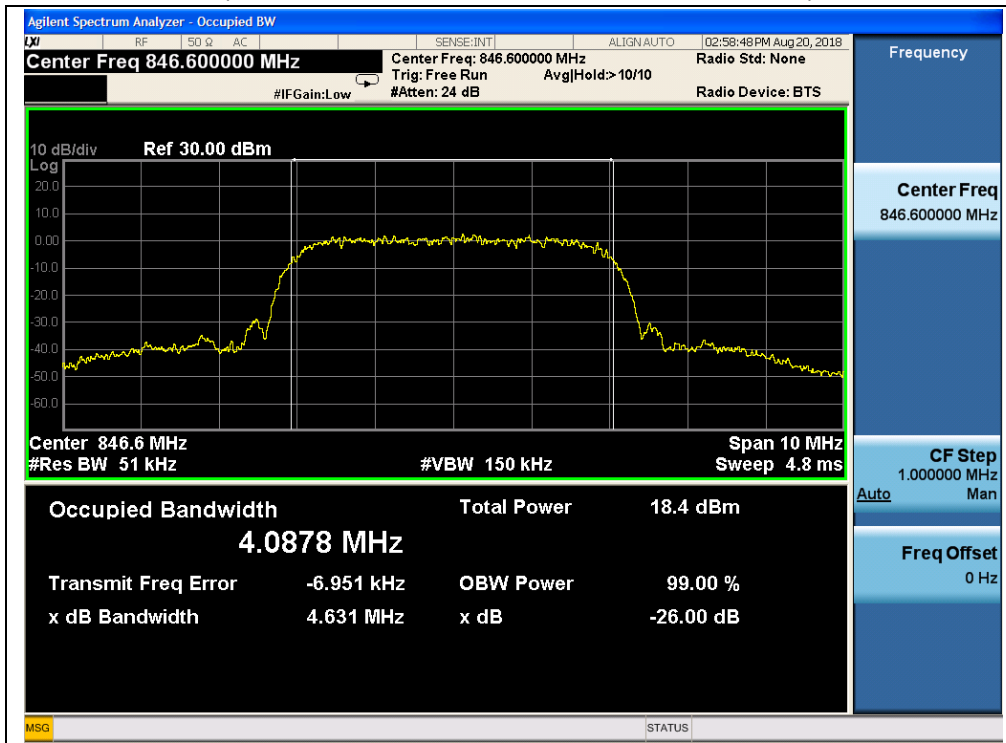
**Test Plots:**



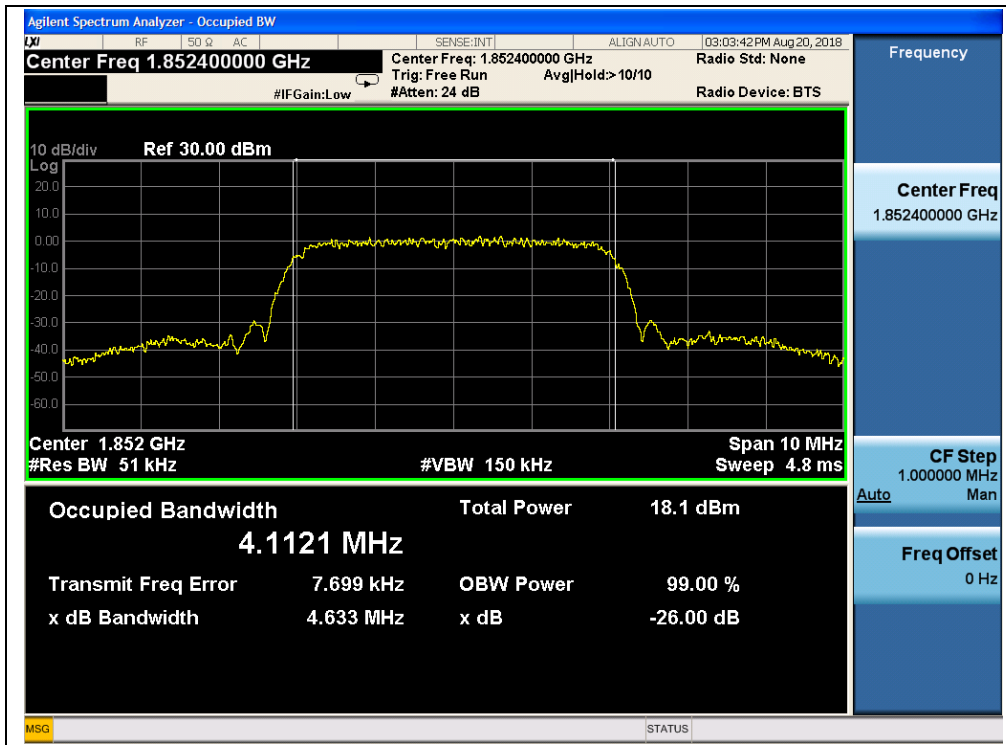
(Plot G1, WCDMA 850MHz, Channel = 4132)



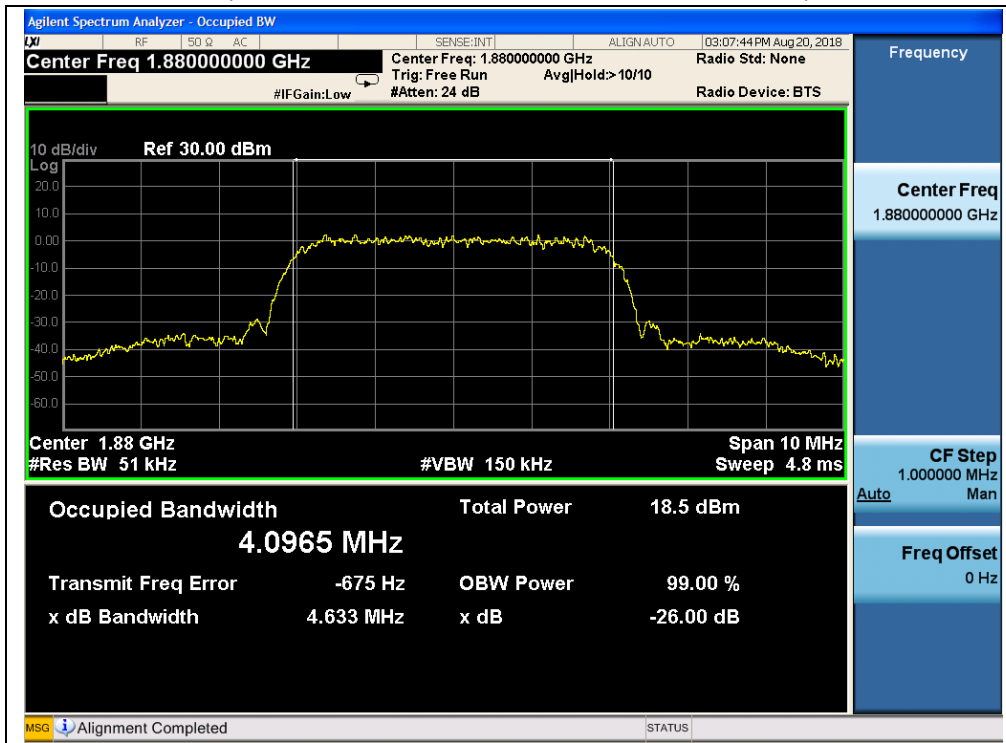
(Plot G2, WCDMA 850 MHz, Channel = 4175)



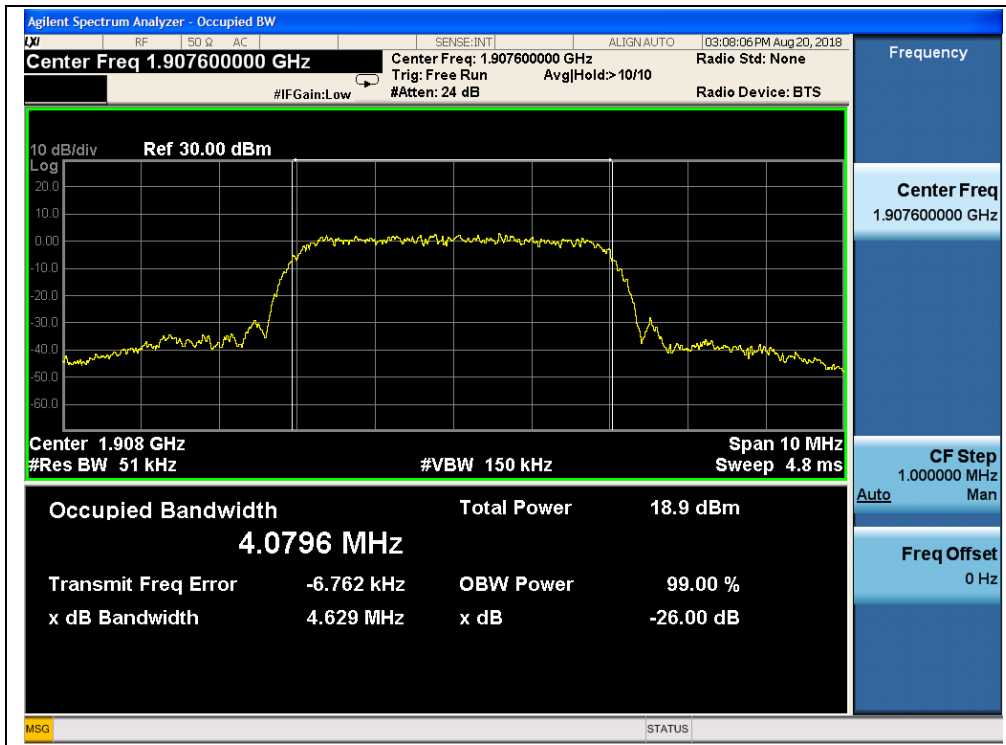
(Plot G3, WCDMA 850MHz, Channel = 4233)



(Plot I1, WCDMA 1900MHz, Channel = 9262)



(Plot I2, WCDMA 1900 MHz, Channel = 9400)



(Plot I3, WCDMA1900MHz, Channel = 9538)

## 2.4. Frequency Stability

### 2.4.1. Requirement

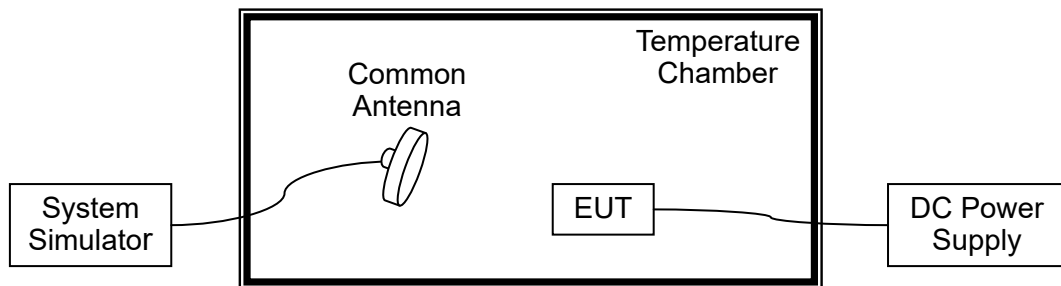
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

### 2.4.2. Test Description

Test Setup:



The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS via a Common Antenna.





**2.4.3. Test Result**

The nominal, highest and lowest extreme voltages are separately 3.60V, 4.14V and 3.06V, the nominal voltage 3.60V which is specified by the applicant; the normal temperature here used is 25°C.

<b>GPRS 850MHz, Channel 190, Frequency 836.6MHz</b>					
<b>Limit =±2.5ppm</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Fre. Dev. (Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.60	+20(Ref)	24.05	1.14	PASS
100		-30	26.94	1.28	
100		-20	2.35	0.11	
100		-10	-4.93	-0.24	
100		0	15.94	0.76	
100		+10	31.66	1.51	
100		+20	18.87	0.90	
100		+30	14.58	0.69	
100		+40	-22.52	-1.08	
100		+50	-9.85	-0.47	
115	4.14	+20	10.97	0.52	
85	3.06	+20	22.15	1.06	

<b>GPRS 1900MHz, Channel 661, Frequency 1880.0MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Fre. Dev. (Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.60	+20(Ref)	32.54	1.73	PASS
100		-30	32.86	1.90	
100		-20	41.42	2.20	
100		-10	24.51	1.30	
100		0	7.82	0.42	
100		+10	5.03	0.26	
100		+20	8.45	0.44	
100		+30	7.05	0.38	
100		+40	-4.42	-0.24	
100		+50	23.43	1.24	
115	4.14	+20	6.65	0.35	
85	3.06	+20	30.52	1.62	



EGPRS 850MHz, Channel 190, Frequency 836.6MHz					
Limit =±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.60	+20(Ref)	4.26	0.20	PASS
100		-30	7.52	0.36	
100		-20	6.42	0.31	
100		-10	6.48	0.31	
100		0	10.62	0.51	
100		+10	3.65	0.17	
100		+20	9.94	0.48	
100		+30	-2.35	-0.11	
100		+40	-0.26	-0.01	
100		+50	11.42	0.55	
115	4.14	+20	13.64	0.65	
85	3.06	+20	14.06	0.67	

EGPRS 1900MHz, Channel 661, Frequency 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.60	+20(Ref)	7.43	0.39	PASS
100		-30	17.21	0.92	
100		-20	-19.15	-1.02	
100		-10	-17.76	-0.94	
100		0	31.42	1.67	
100		+10	-12.15	-0.65	
100		+20	-17.73	-0.94	
100		+30	10.62	0.56	
100		+40	17.73	0.94	
100		+50	-28.15	-1.49	
115	4.14	+20	7.25	0.39	
85	3.06	+20	17.31	0.92	



<b>WCDMA 850MHz, Channel 4400, Frequency 835.0MHz</b>					
<b>Limit =<math>\pm</math>2.5ppm</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Fre. Dev. (Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.60	+20(Ref)	-15.02	-0.72	PASS
100		-30	18.04	0.86	
100		-20	21.07	1.01	
100		-10	-3.43	-0.16	
100		0	-6.35	-0.30	
100		+10	4.79	0.23	
100		+20	5.88	0.28	
100		+30	4.05	0.19	
100		+40	-2.06	-0.09	
100		+50	-13.07	-0.63	
115	4.14	+20	-20.24	-0.97	
85	3.06	+20	-5.22	-0.25	

<b>WCDMA 1900MHz, Channel 9800, Frequency 1880.0MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Fre. Dev. (Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.60	+20(Ref)	8.74	0.46	PASS
100		-30	13.67	0.73	
100		-20	-20.95	-1.11	
100		-10	-13.24	-0.70	
100		0	8.58	0.46	
100		+10	7.35	0.39	
100		+20	9.46	0.50	
100		+30	12.85	0.68	
100		+40	18.58	0.99	
100		+50	-4.76	-0.25	
115	4.14	+20	9.53	0.51	
85	3.06	+20	13.45	0.72	

## 2.5. Conducted Out of Band Emissions

### 2.5.1. Requirement

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.

### 2.5.2. Test Description

Test Setup:



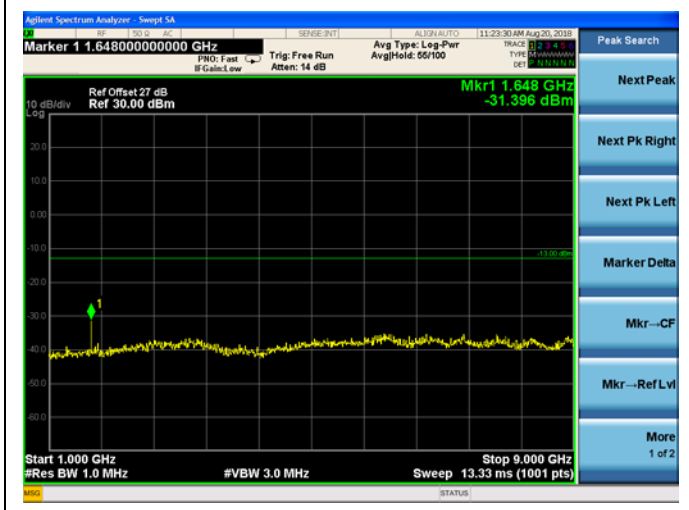
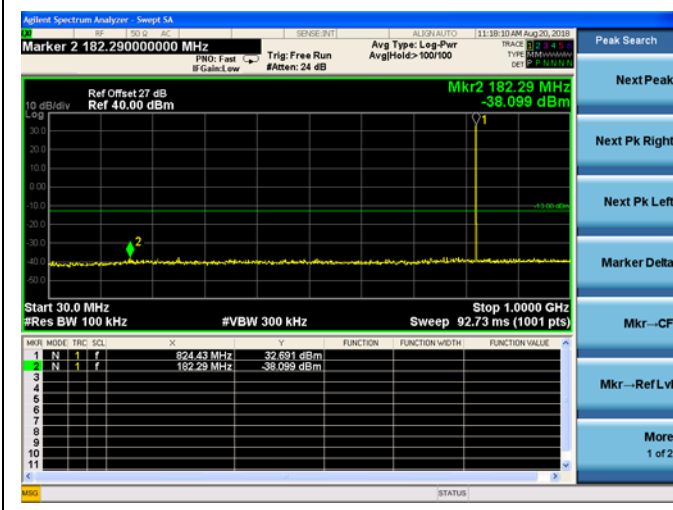
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

### 2.5.3. Test Result

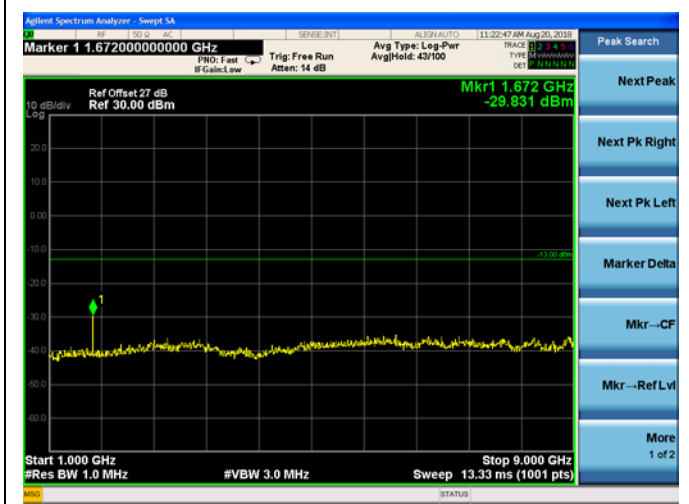
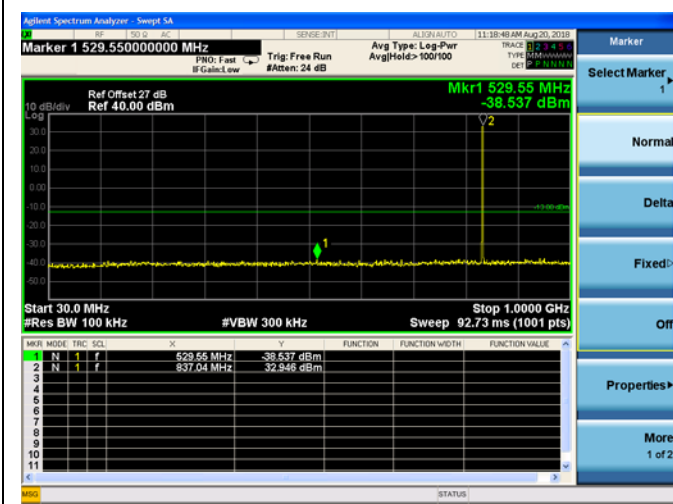
The measurement frequency range is from 30MHz to the 10<sup>th</sup> harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.



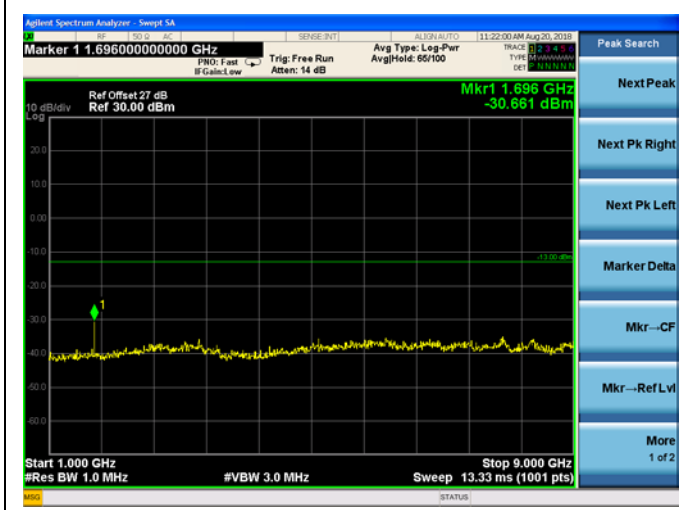
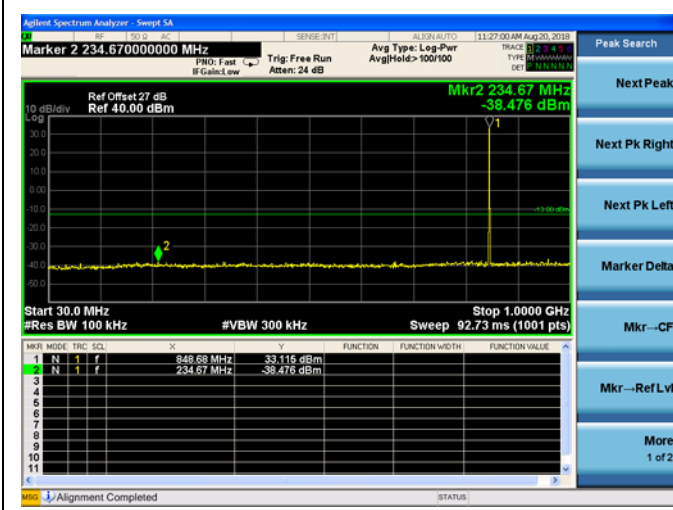
**GPRS 850MHz CH128 824.2MHz**



**GPRS 850MHz CH190 836.6MHz**

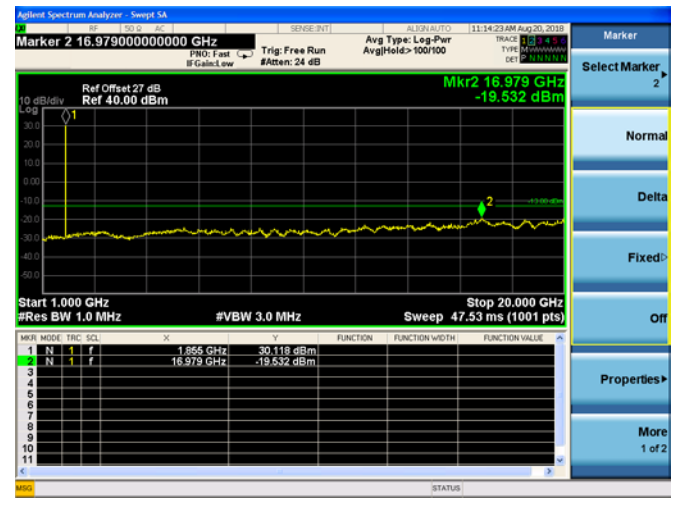
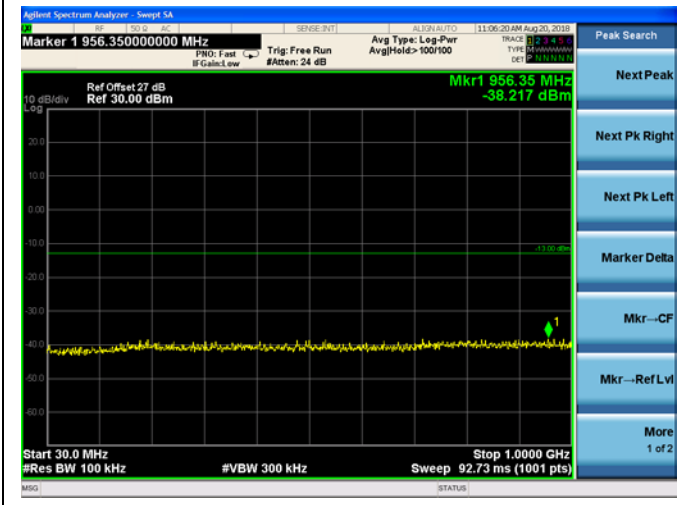


**GPRS 850MHz CH251 848.8MHz**

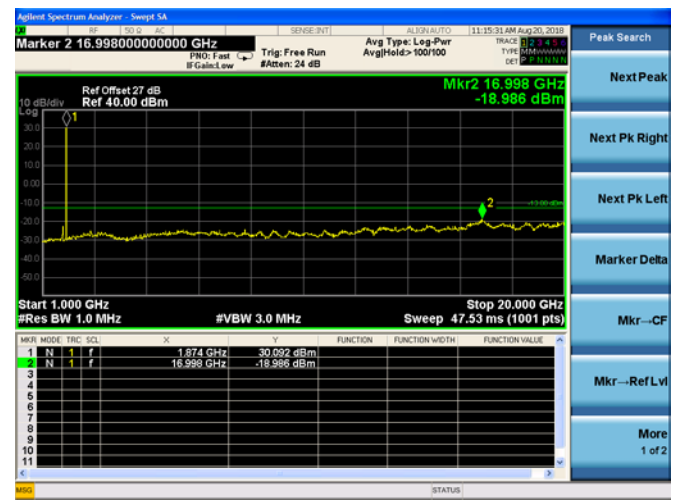
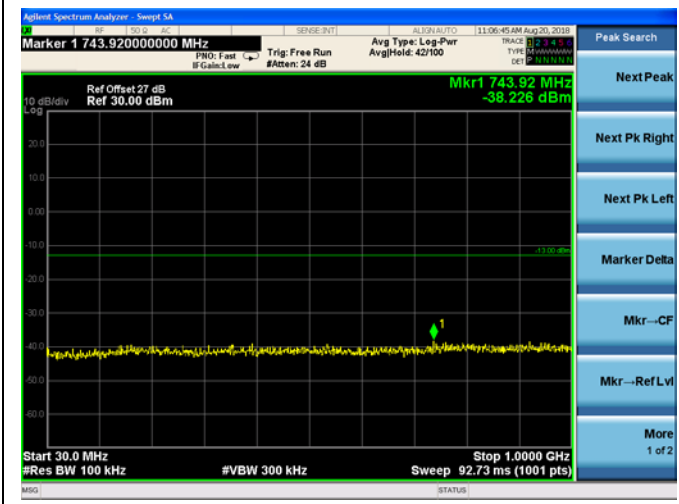




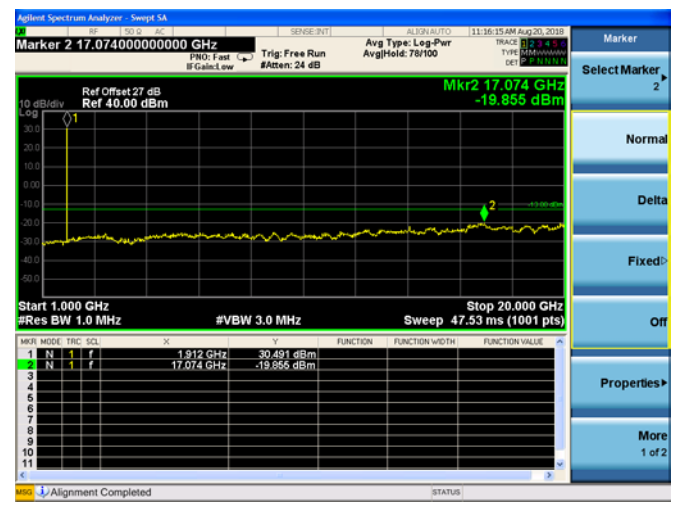
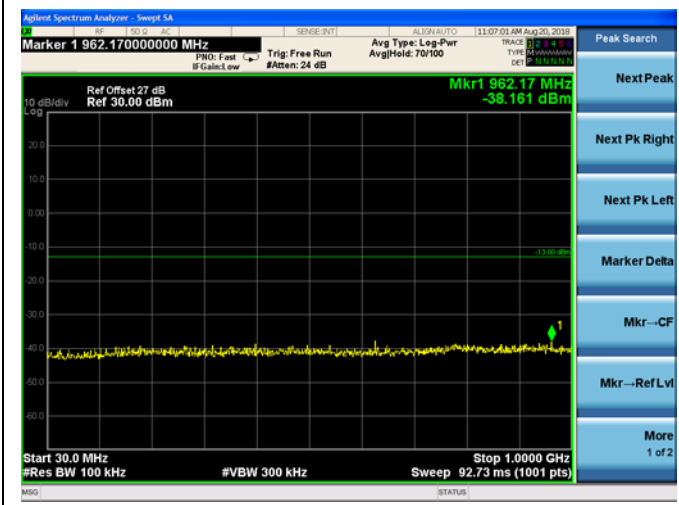
**GPRS 1900MHz CH521 1850.2MHz**



**GPRS 1900MHz CH661 1880.0MHz**

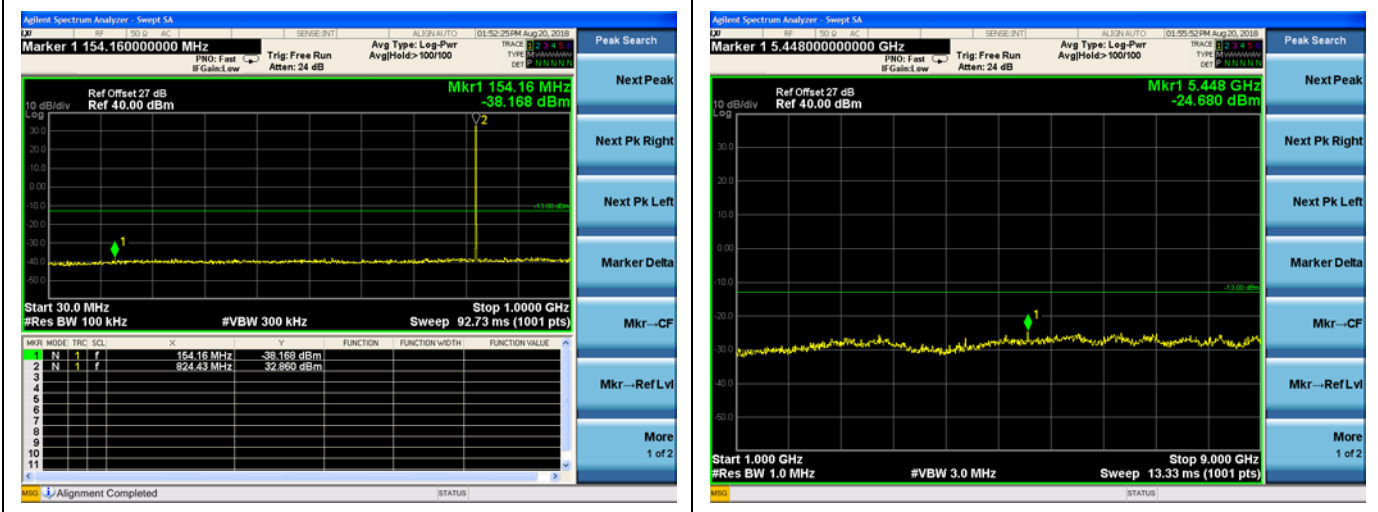


**GPRS 1900MHz CH810 1909.8MHz**





**EGPRS 850MHz CH128 824.2MHz**



**EGPRS 850MHz CH190 836.6MHz**

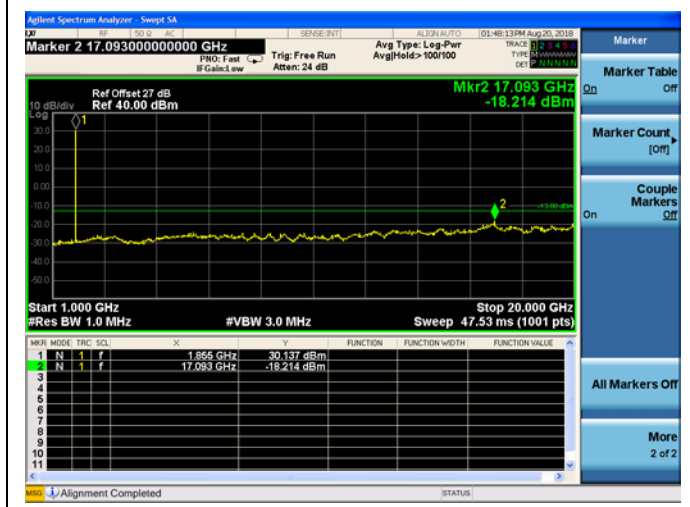
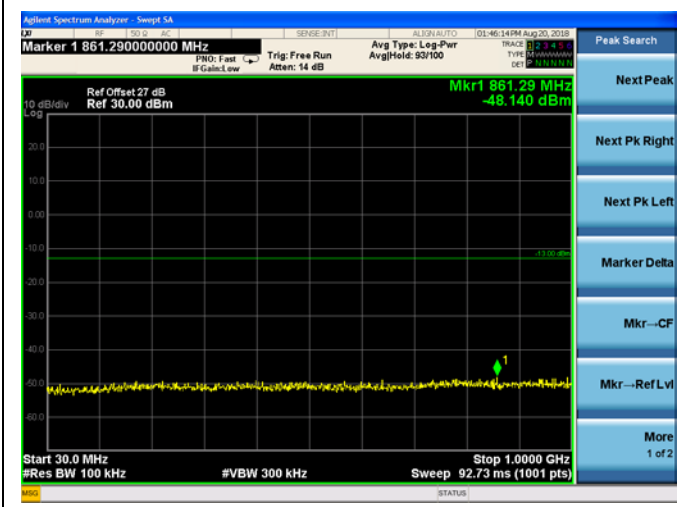


**EGPRS 850MHz CH251 848.8MHz**

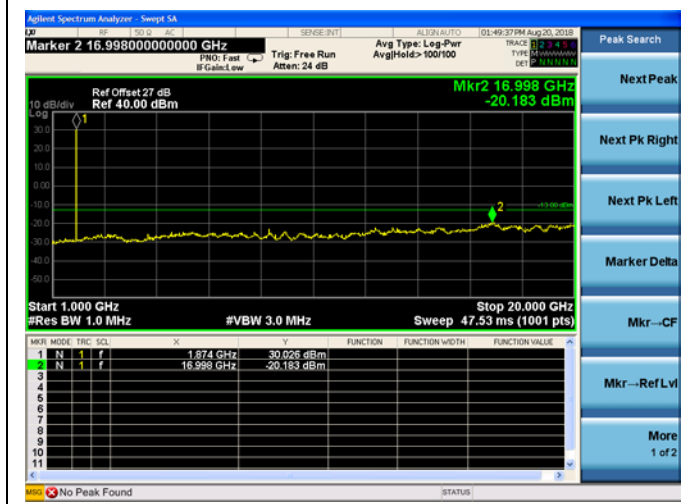
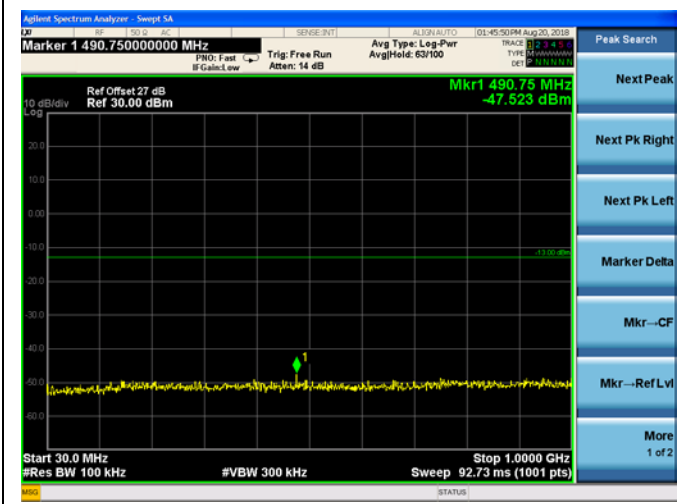




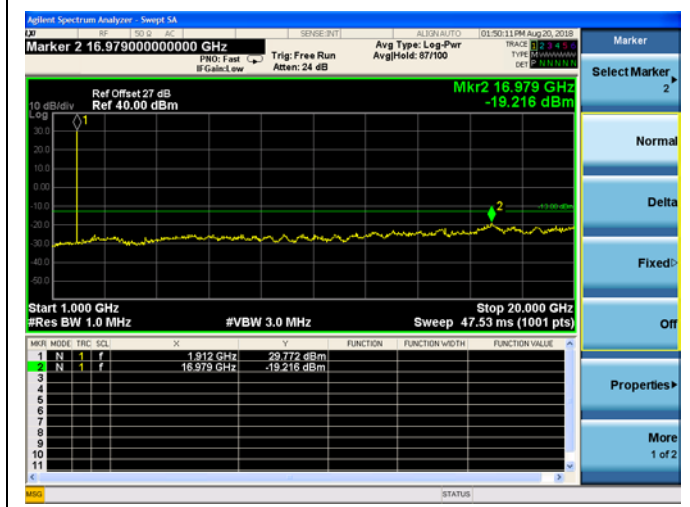
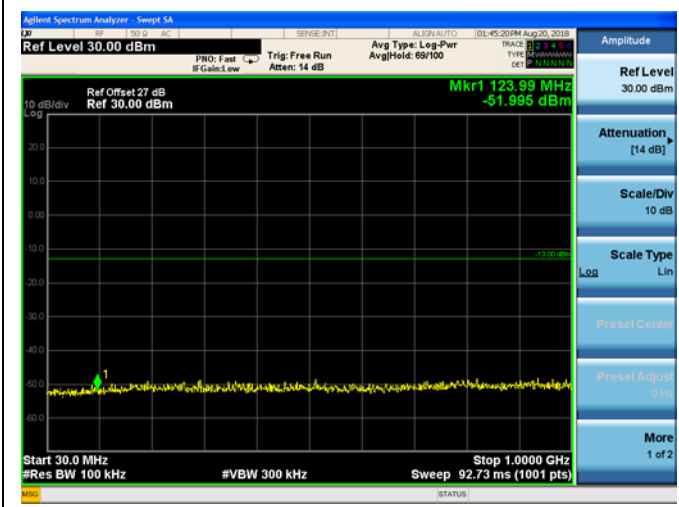
EGPRS 1900MHz CH521 1850.2MHz



EGPRS 1900MHz CH661 1880.0MHz



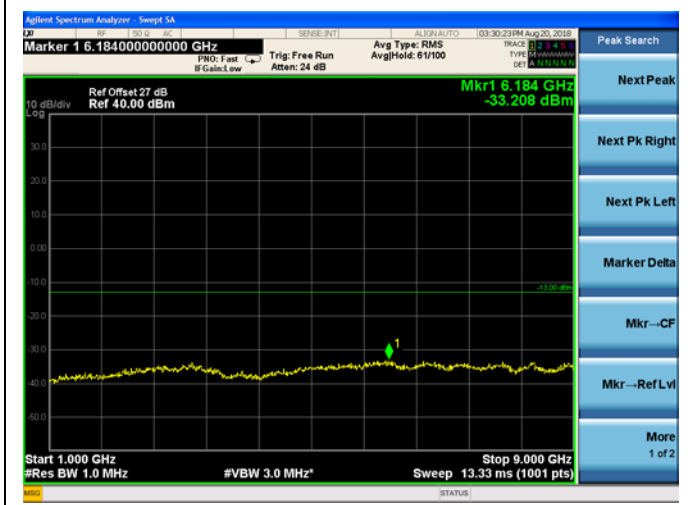
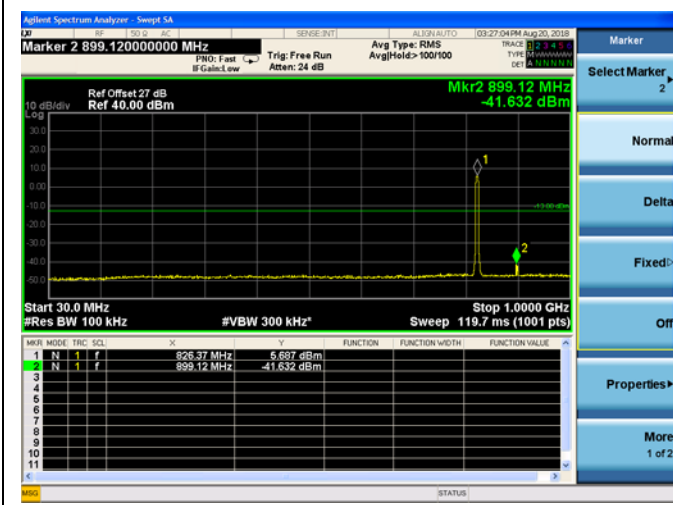
EGPRS 1900MHz CH810 1909.8MHz



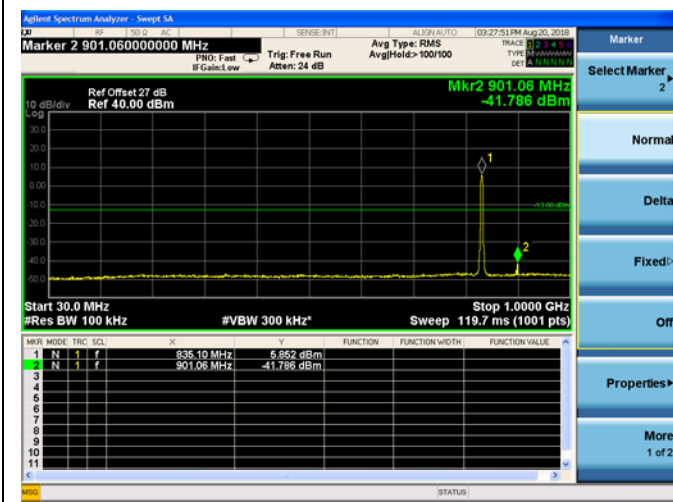




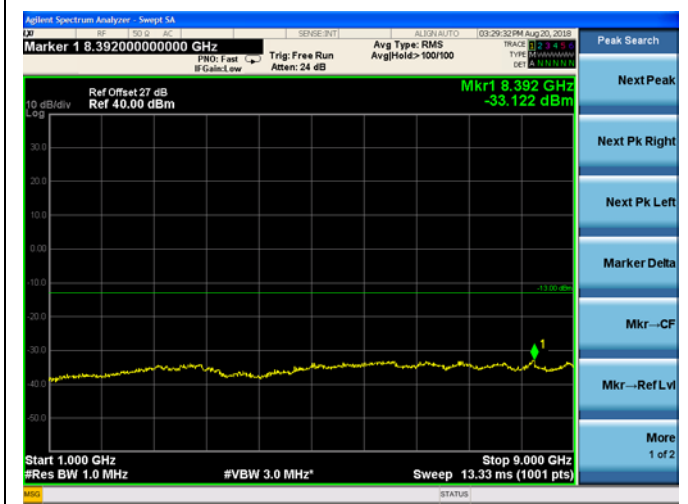
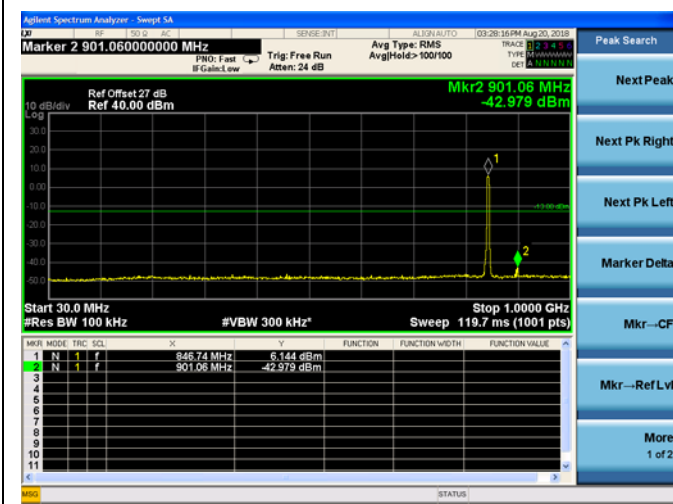
WCDMA 850MHz CH4132 826.4MHz



WCDMA 850MHz CH4175 835.0MHz

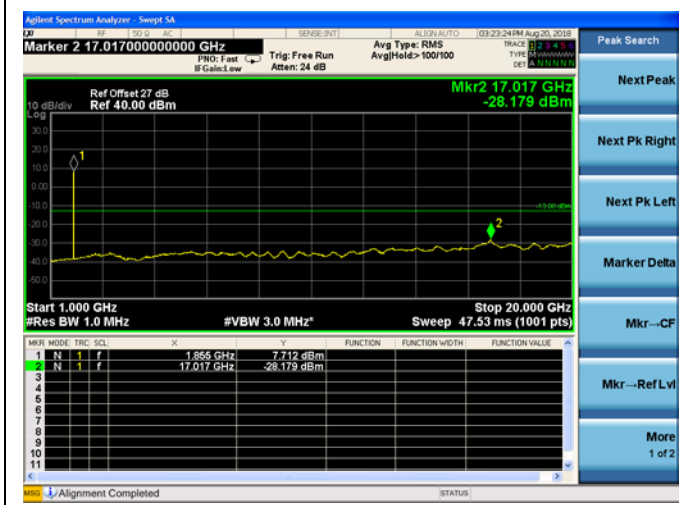
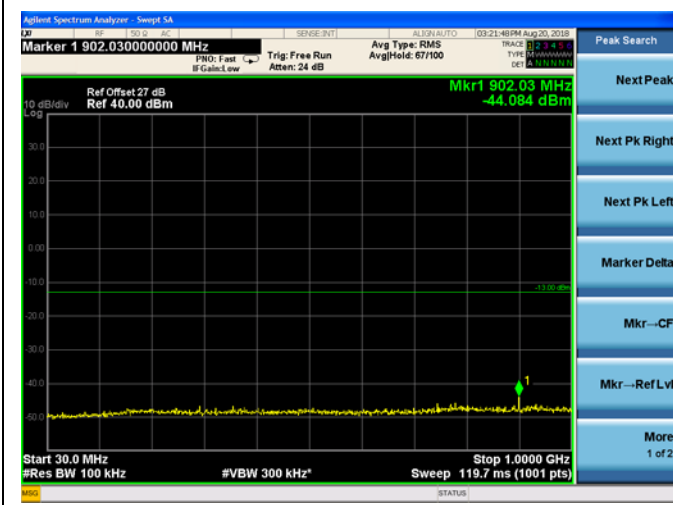


WCDMA 850MHz CH4233 846.6MHz

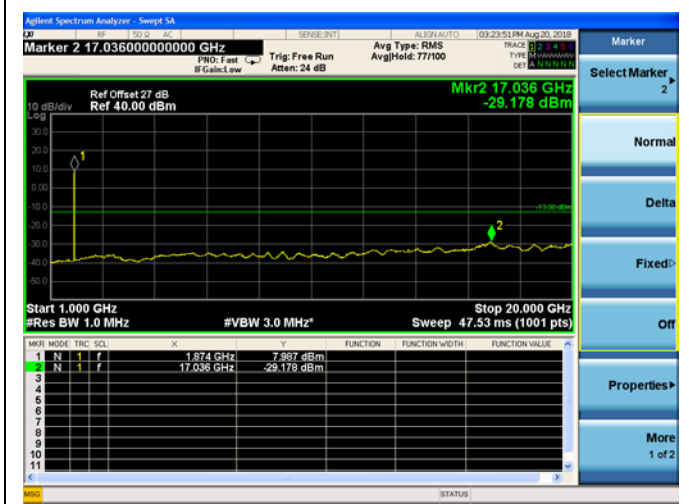
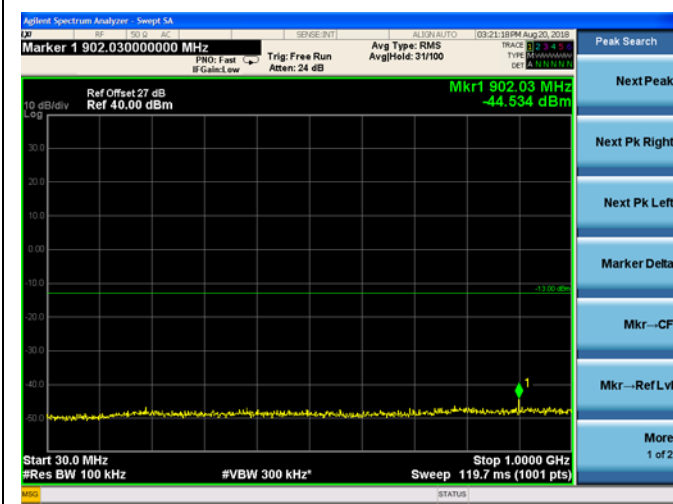




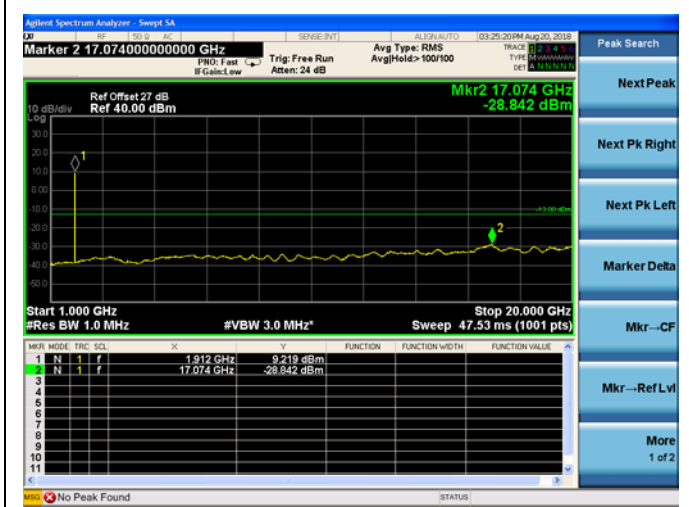
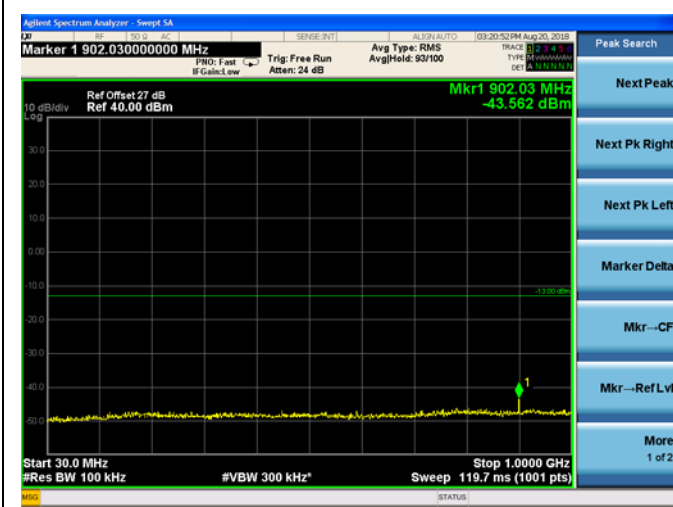
WCDMA 1900MHz CH9262 1852.4MHz



WCDMA 1900MHz CH9400 1880.0MHz



WCDMA 1900MHz CH9538 1907.6MHz



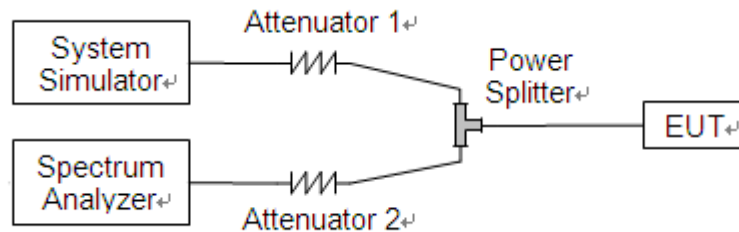
## 2.6. Band Edge

### 2.6.1. Requirement

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

### 2.6.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

### 2.6.3. Test Result

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

