



REPORT No.: SZ24120064W05

TEST REPORT

APPLICANT : Power Idea Technology
(Shenzhen) Co., Ltd.

PRODUCT NAME : POC RADIO

MODEL NAME : PFL01G

**MARKETING
NAME** : RG190

BRAND NAME : RugGear

FCC ID : ZLE-PFL01G

STANDARD(S) : 47 CFR Part 2
47 CFR Part 22 Subpart H
47 CFR Part 24 Subpart E
47 CFR Part 27 Subpart L

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Change History		
Version	Date	Reason for change
1.0	2025-01-22	First edition





1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Power Idea Technology (Shenzhen) Co., Ltd.
Applicant Address:	4th Floor, A Section, Languang Science&technology, Xinxi RD, Hi-Tech Industrial Park North, Nanshan, ShenZhen, China
Manufacturer:	Power Idea Technology (Shenzhen) Co., Ltd.
Manufacturer Address:	4th Floor, A Section, Languang Science&technology, Xinxi RD, Hi-Tech Industrial Park North, Nanshan, ShenZhen, China

1.2. Equipment Under Test (EUT) Description

Product Name:	POC RADIO	
Sample No.:	3#, 9#	
Hardware Version:	V1.0	
Software Version:	RG190_00.00_1_20240910	
Modulation Type:	GSM/GPRS Mode with GMSK Modulation EDGE Mode with 8PSK Modulation WCDMA Mode with QPSK Modulation HSDPA Mode with QPSK Modulation HSUPA Mode with QPSK Modulation	
Operating Frequency Range:	GSM 850MHz	Tx: 824MHz-849MHz
		Rx: 869MHz-894MHz
	GSM 1900MHz	Tx: 1850MHz-1910MHz
		Rx: 1930MHz-1990MHz
	WCDMA Band V	Tx: 824MHz-849MHz
		Rx: 869MHz-894MHz
	WCDMA Band IV	Tx: 1710MHz-1755MHz
		Rx: 2110MHz-2155MHz
	WCDMA Band II	Tx: 1850MHz-1910MHz
		Rx: 1930MHz-1990MHz
Antenna Type:	External Antenna	
Antenna Gain:	GSM 850:	0.20dBi
	GSM1900:	0.50dBi



Antenna Gain:	WCDMA Band V:	0.20dBi
	WCDMA Band IV:	0.50dBi
	WCDMA Band II:	0.50dBi
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	BL3000P
	Serial No.:	N/A
	Capacity:	3000mAh
	Rated Voltage:	3.8V
	Charge Limit:	4.35V
	Manufacturer:	FPR Connectivity Technology (Dongguan) Inc.

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), 189 (836.4MHz) 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 Band V 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), 4182(836.4MHz) and 4233 (846.6MHz).

Note 4: The transmitter (Tx) frequency arrangement of the WCDMA IV band used by the EUT can be represented with the formula $F(n)=1712.4+0.2*(n-1312)$, $1312 \leq n \leq 1513$; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 1312 (1712.4MHz), 1413 (1732.6MHz) and 1513 (1752.6MHz).

Note 5: The transmitter (Tx) frequency arrangement of the WCDMA Band II 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 6: All test modes and data rates were considered and evaluated respectively by performing full test. Test modes are chosen to be reported as the worst case below:

GSM mode and EDGE mode for GSM 850;

GSM mode and EDGE mode for GSM 1900;

WCDMA mode for WCDMA band V;

WCDMA mode for WCDMA band IV;





WCDMA mode for WCDMA band II;

Note 7: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

Test Mode	Maximum E.R.P./E.I.R.P. (W)	Emission Designator
GSM850(GSM)	1.002	246KGXW
GSM850(EDGE)	0.313	245KG7W
GSM1900(GSM)	0.962	246KGXW
GSM1900(EDGE)	0.373	247KG7W
WCDMA Band V	0.134	4M19F9W
WCDMA Band IV	0.243	4M18F9W
WCDMA Band II	0.229	4M19F9W





1.4. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22, Part 24 and Part 27 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
4	47 CFR Part 27 (10-1-12 Edition)	Miscellaneous Wireless Communications Services

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

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination/ Remark
1	2.1046	Conducted RF Output Power	Jan. 08, 2024	Yu Xiaoming	PASS	No deviation
2	24.232(d)	Peak -Average Ratio	Dec. 29, 2024	Gan Jing	PASS	No deviation
3	2.1049	Occupied Bandwidth	Dec. 29, 2024	Gan Jing	PASS	No deviation
4	2.1055, 22.355, 24.235, 27.54	Frequency Stability	Jan. 08, 2024	Gan Jing	PASS	No deviation
5	2.1051, 22.917(a), 24.238(a), 27.53(h)	Conducted Out of Band Emissions	Dec. 29, 2024	Gan Jing	PASS	No deviation
6	2.1051, 22.917(a), 24.238(a), 27.53(h)	Band Edge	Dec. 29, 2024	Gan Jing	PASS	No deviation
7	22.913(a), 24.232(c), 27.50(d)	Transmitter Radiated Power (E.I.P.R./E.R.P.)	Jan. 08, 2024	Gan Jing	PASS	No deviation
8	2.1051, 22.917(a),	Radiated Out of Band Emissions	Dec. 30, 2024	Gao Jianrou	PASS	No deviation





	24.238(a), 27.53(h)					
Note 1: The tests were performed according to the method of measurements prescribed in KDB 971168 D01 v03r01 and ANSI/TIA-603-E-2016. Note 2: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table. Note 3: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.						

1.5. 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&27L Requirements

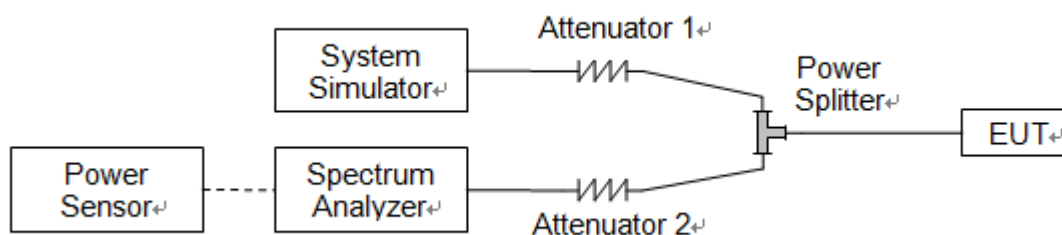
2.1. Conducted RF Output Power

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**

GSM850	Average Power (dBm)		
TX Channel	128	189	251
Frequency (MHz)	824.2	836.4	848.8
GSM 1 Tx slot	31.61	31.63	31.66
GPRS 1 Tx slot	31.58	31.60	31.62
GPRS 2 Tx slots	30.66	30.68	30.63
GPRS 3 Tx slots	29.22	29.30	29.27
GPRS 4 Tx slots	28.11	28.19	28.15
EDGE 1 Tx slot	26.58	26.61	26.51
EDGE 2 Tx slots	25.40	25.42	25.37
EDGE 3 Tx slots	23.55	23.59	23.51
EDGE 4 Tx slots	22.47	22.53	22.46

GSM1900	Average Power (dBm)		
TX Channel	512	661	810
Frequency (MHz)	1850.2	1880	1909.8
GSM 1 Tx slot	29.61	29.63	29.58
GPRS 1 Tx slot	29.55	29.61	29.57
GPRS 2 Tx slots	28.55	28.60	28.58
GPRS 3 Tx slots	26.22	26.28	26.25
GPRS 4 Tx slots	25.29	25.32	25.30
EDGE 1 Tx slot	25.47	25.52	25.49
EDGE 2 Tx slots	24.51	24.57	24.56
EDGE 3 Tx slots	22.70	22.73	22.66
EDGE 4 Tx slots	21.65	21.64	21.59





WCDMA Band V	Average Power (dBm)		
TX Channel	4132	4182	4233
Frequency (MHz)	826.4	836.4	846.6
RMC 12.2Kbps	23.19	23.22	23.20
HSDPA Subtest-1	22.08	22.12	22.16
HSDPA Subtest-2	22.09	22.10	22.10
HSDPA Subtest-3	21.62	21.59	21.63
HSDPA Subtest-4	21.57	21.58	21.61
HSUPA Subtest-1	21.54	21.58	21.62
HSUPA Subtest-2	22.07	22.12	22.15
HSUPA Subtest-3	21.01	21.06	21.17
HSUPA Subtest-4	22.06	22.11	22.18
HSUPA Subtest-5	21.01	21.06	21.13

WCDMA Band IV	Average Power (dBm)		
TX Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2Kbps	23.29	23.36	23.33
HSDPA Subtest-1	22.72	22.64	22.49
HSDPA Subtest-2	22.75	22.68	22.48
HSDPA Subtest-3	22.27	22.22	22.03
HSDPA Subtest-4	22.26	22.16	21.98
HSUPA Subtest-1	22.17	22.10	21.95
HSUPA Subtest-2	22.71	22.30	22.47
HSUPA Subtest-3	21.75	21.64	21.46
HSUPA Subtest-4	22.70	22.62	22.47
HSUPA Subtest-5	21.72	21.63	21.44





WCDMA Band II	Average Power (dBm)		
TX Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
RMC 12.2Kbps	23.05	23.09	23.02
HSDPA Subtest-1	22.13	22.27	22.45
HSDPA Subtest-2	22.15	22.25	22.43
HSDPA Subtest-3	21.65	21.76	21.95
HSDPA Subtest-4	21.63	21.87	21.90
HSUPA Subtest-1	21.62	21.76	21.90
HSUPA Subtest-2	22.14	22.26	22.42
HSUPA Subtest-3	21.14	21.27	21.44
HSUPA Subtest-4	22.14	22.27	22.43
HSUPA Subtest-5	21.13	21.24	21.43



2.2. Peak to Average Ratio

2.2.1. Requirement

According to FCC 24.232(d) and 27.50(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 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.

2.2.3. Test procedure

1. For GSM/EDGE operating mode:
 - a. Set RBW=1MHz, VBW=3MHz, peak detector in spectrum analyzer.
 - b. Set EUT in maximum output power, and triggered the bust 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%.



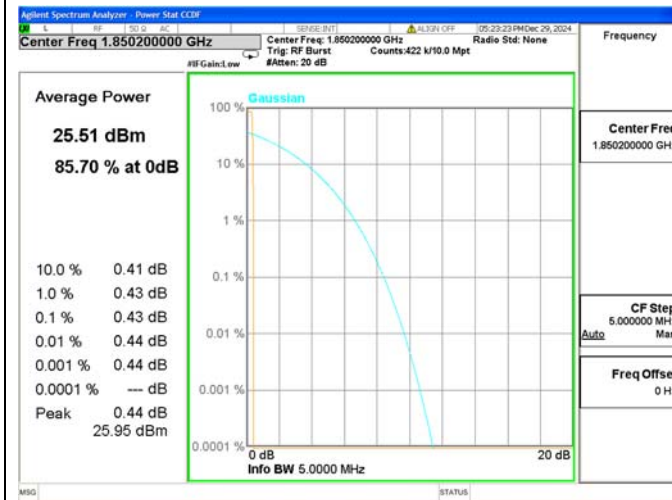
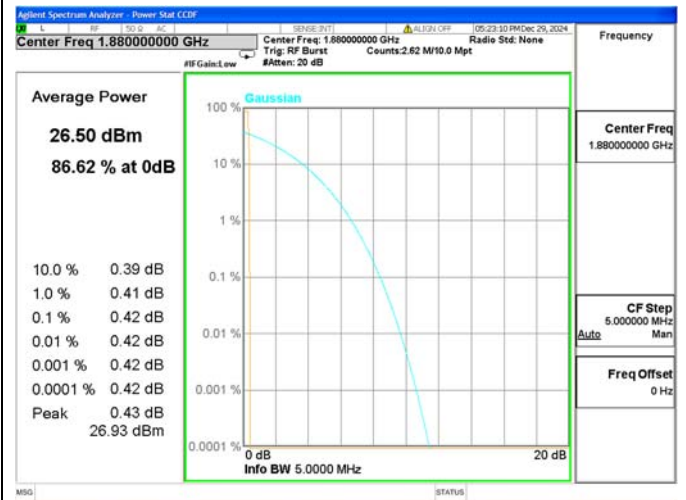
**2.2.4.Test Result****A. Test Verdict:**

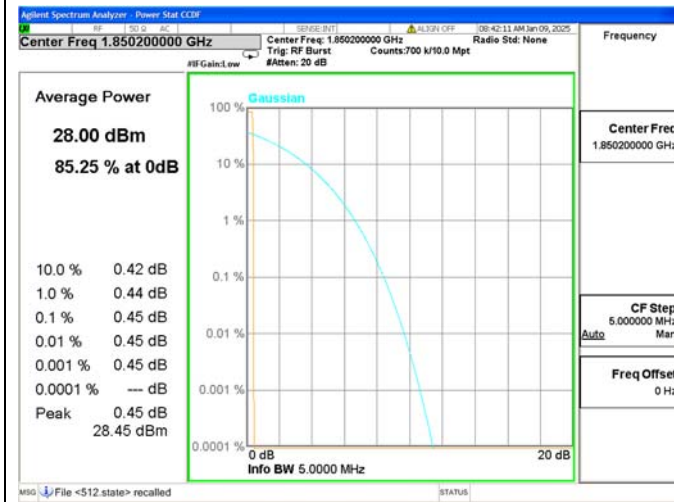
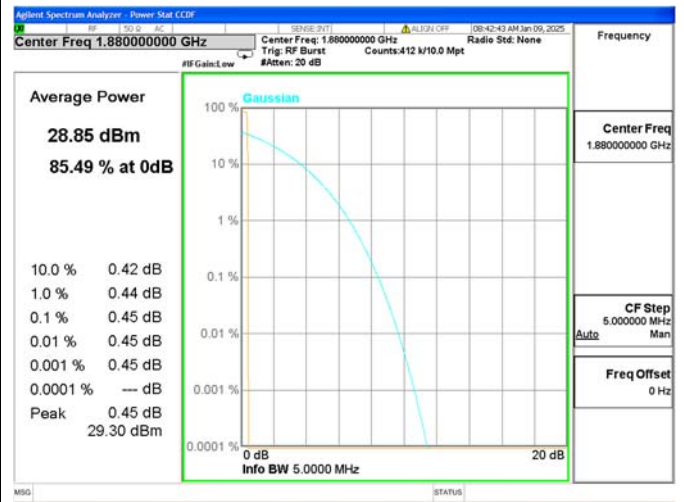
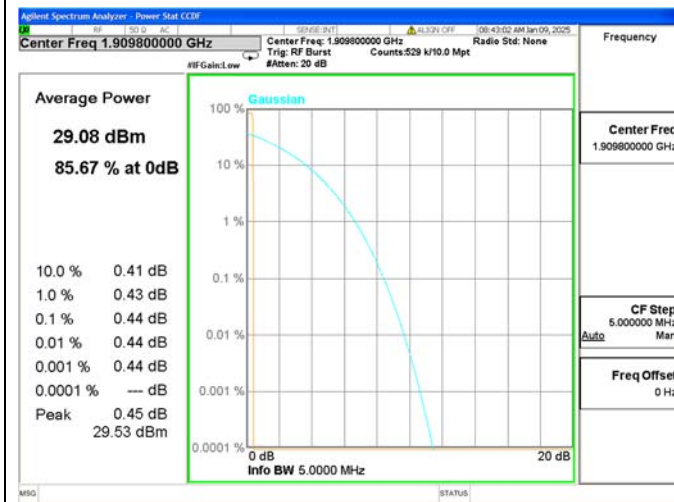
GSM1900					
Mode	Channel	Frequency (MHz)	Peak to Average ratio (dB)	Limit (dB)	Verdict
GSM	512	1850.2	0.43	13	PASS
	661	1880.0	0.42		PASS
	810	1909.8	0.42		PASS
EDGE	512	1850.2	0.45		PASS
	661	1880.0	0.45		PASS
	810	1909.8	0.44		PASS

WCDMA Band IV					
Mode	Channel	Frequency (MHz)	Peak to Average ratio (dB)	Limit (dB)	Verdict
WCDMA	1312	1712.4	3.12	13	PASS
	1413	1732.6	3.14		PASS
	1513	1752.6	2.93		PASS

WCDMA Band II					
Mode	Channel	Frequency (MHz)	Peak to Average ratio (dB)	Limit (dB)	Verdict
WCDMA	9262	1852.4	2.98	13	PASS
	9400	1880.0	2.92		PASS
	9538	1907.6	2.69		PASS

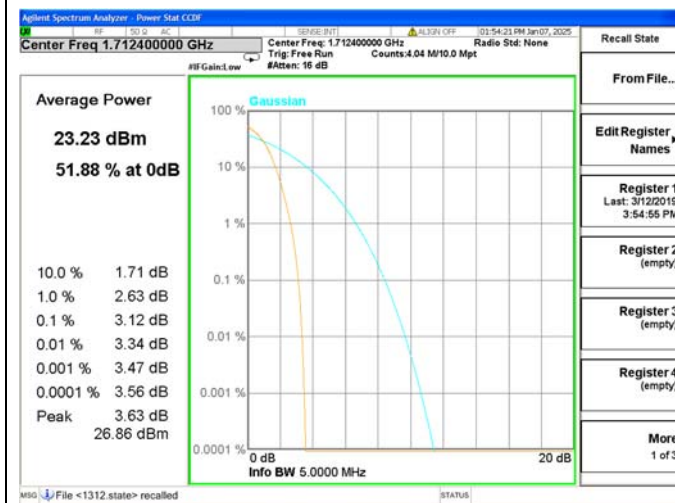


**GSM1900(GSM), CH512, 1850.2MHz****GSM1900(GSM), CH661, 1880.0MHz****GSM1900(GSM), CH810, 1909.8MHz**

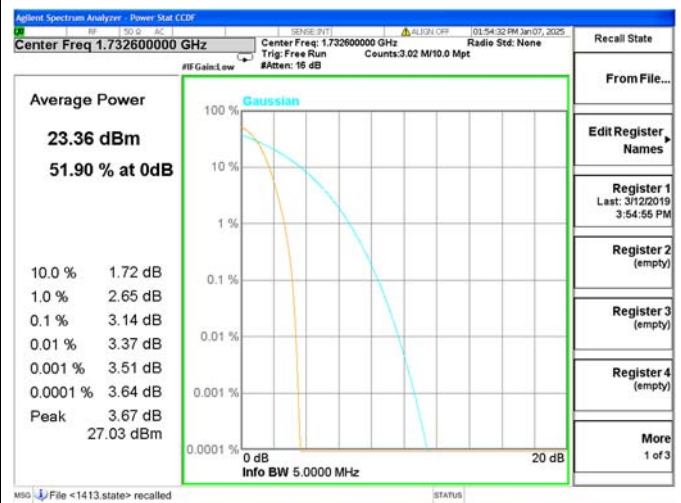
**GSM1900(EDGE), CH512, 1850.2MHz****GSM1900(EDGE), CH661, 1880.0MHz****GSM1900(EDGE), CH810, 1909.8MHz**



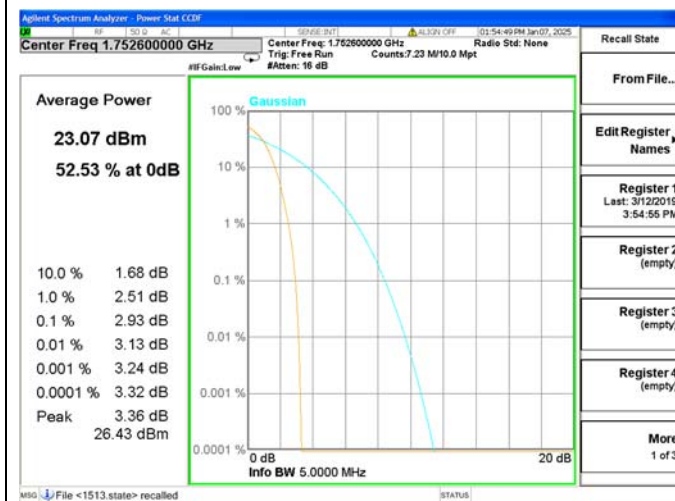
WCDMA Band IV, CH1312, 1712.4MHz

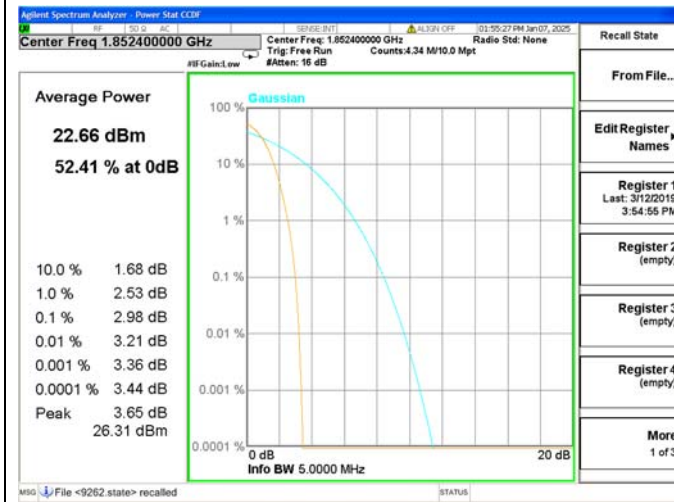
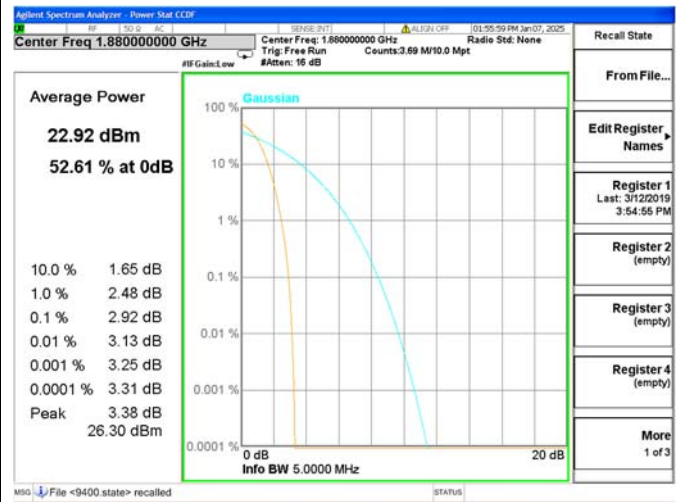
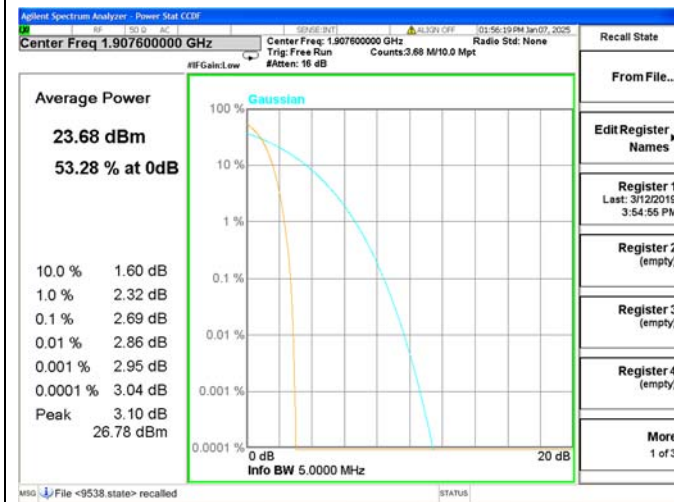


WCDMA Band IV, CH1413, 1732.6MHz



WCDMA Band IV, CH1513, 1752.6MHz



**WCDMA Band II, CH9262, 1852.4MHz****WCDMA Band II, CH9400, 1880.0MHz****WCDMA Band II, CH9538, 1907.6MHz**

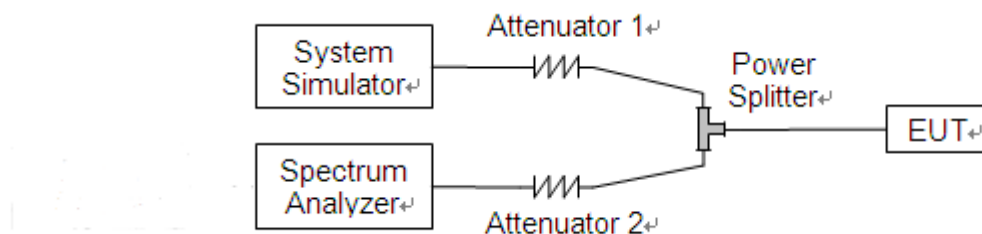
2.3. Occupied Bandwidth

2.3.1. Requirement

According to FCC section 2.1049, 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.

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 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.



2.3.3.Test Result

GSM850				
Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)
GSM	128	824.2	243.25	317.50
	189	836.4	246.49	316.70
	251	848.8	239.55	316.20
EDGE	128	824.2	244.86	310.50
	189	836.4	244.52	314.10
	251	848.8	242.14	304.80

GSM1900				
Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)
GSM	512	1850.2	244.65	317.20
	661	1880.0	242.79	310.20
	810	1909.8	245.64	317.70
EDGE	512	1850.2	246.64	325.00
	661	1880.0	246.65	313.50
	810	1909.8	243.20	308.70

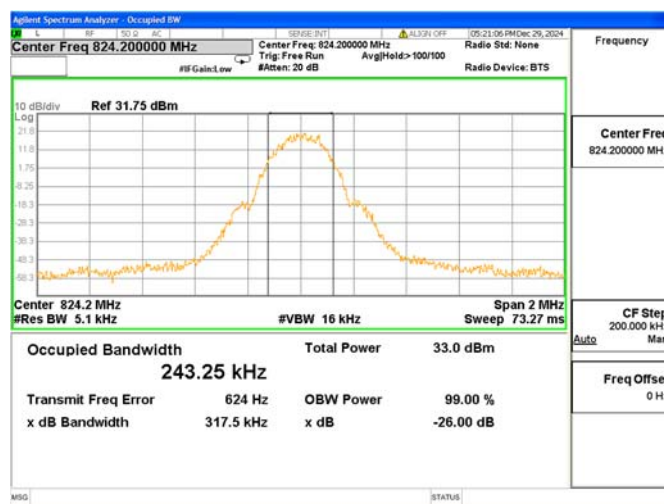
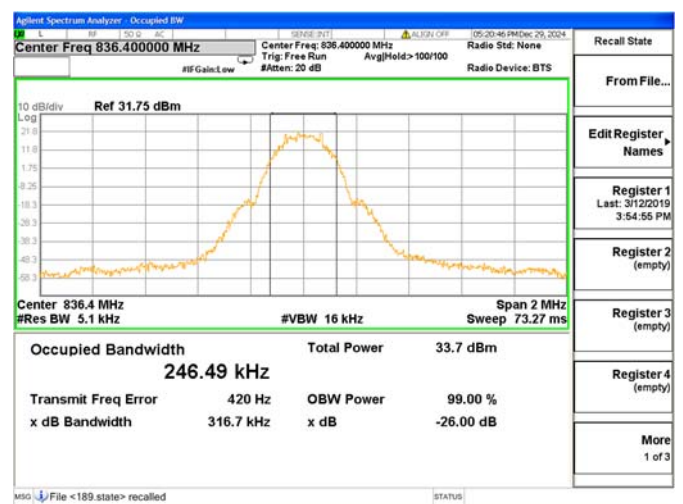
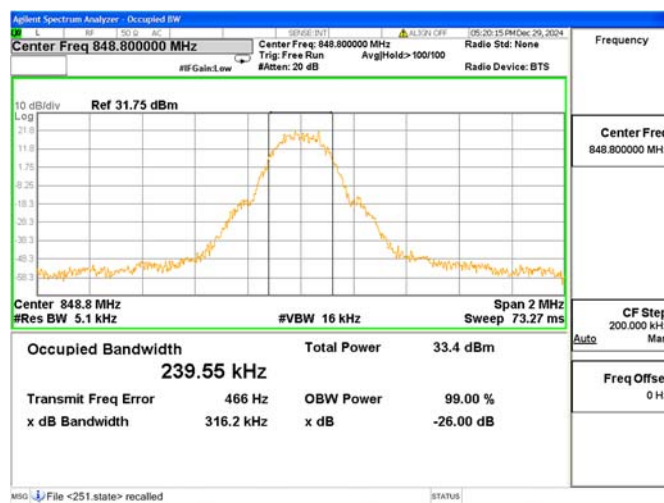
WCDMA Band V				
Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
WCDMA	4132	826.4	4.19	4.87
	4182	836.4	4.17	4.72
	4233	846.6	4.17	4.73

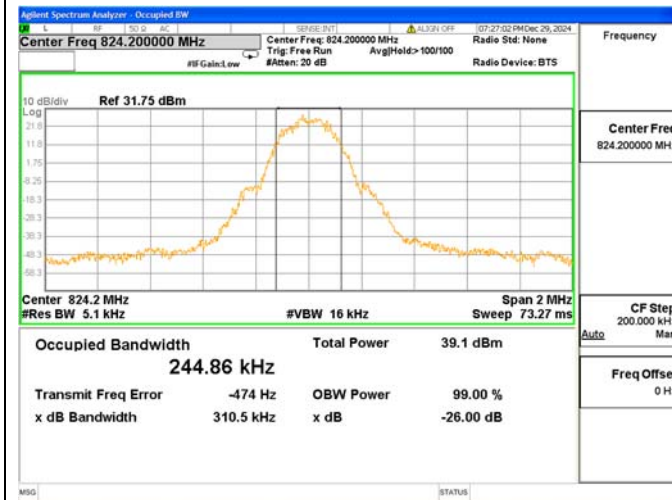
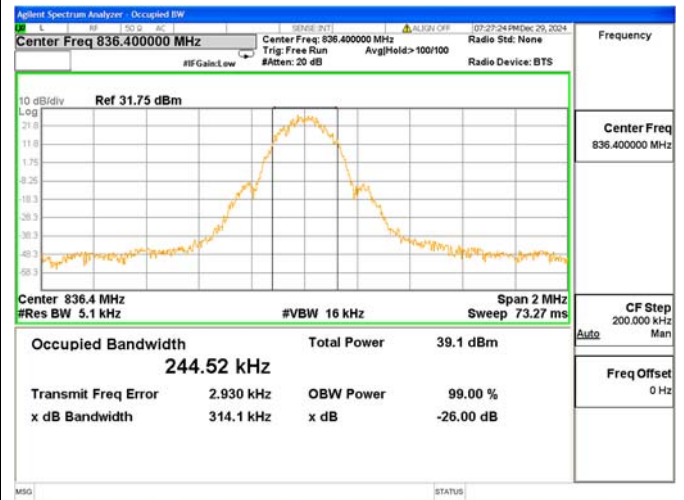
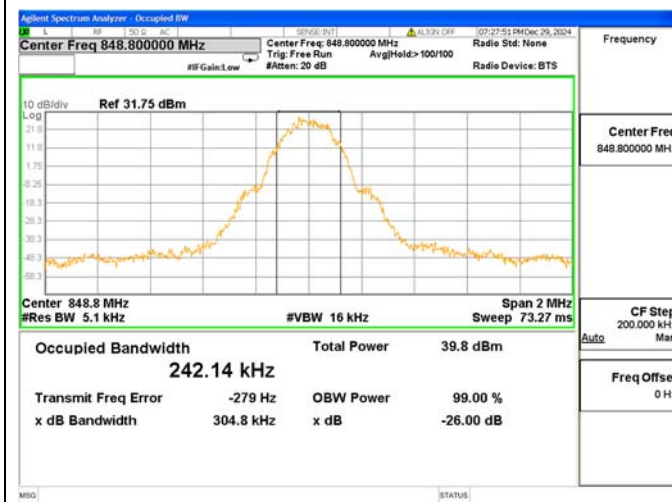
WCDMA Band IV				
Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
WCDMA	1312	1712.4	4.17	4.72
	1413	1732.6	4.18	4.72
	1513	1752.6	4.18	4.73

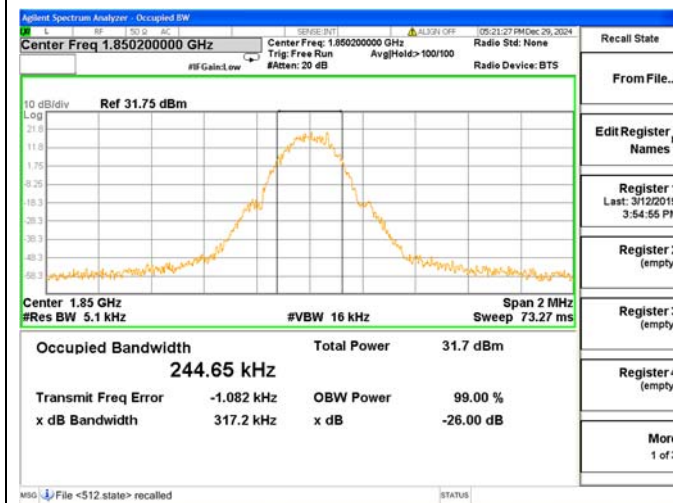
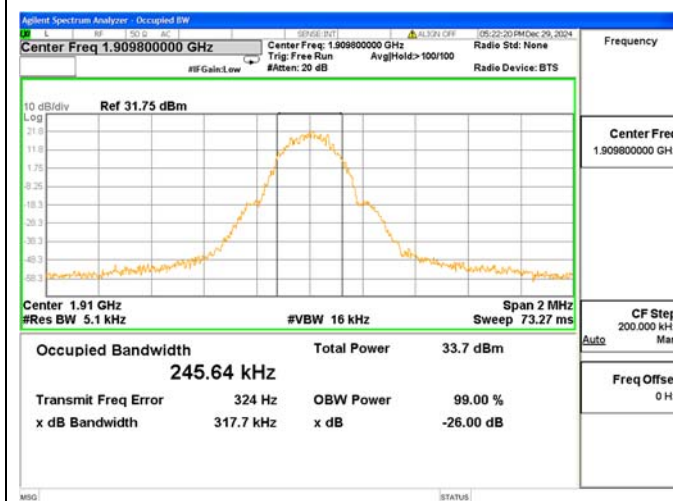


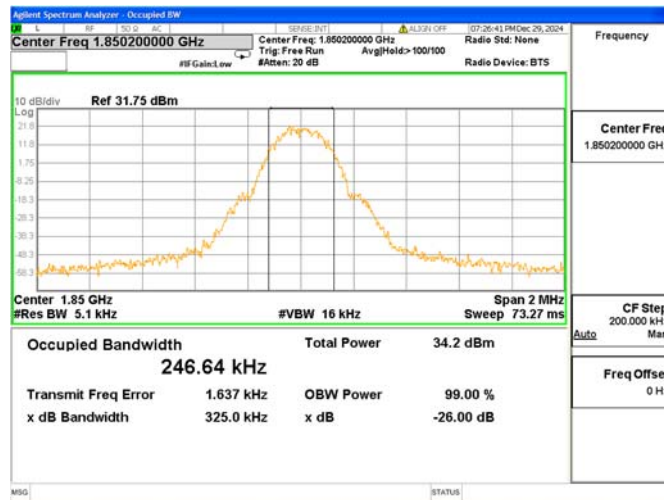
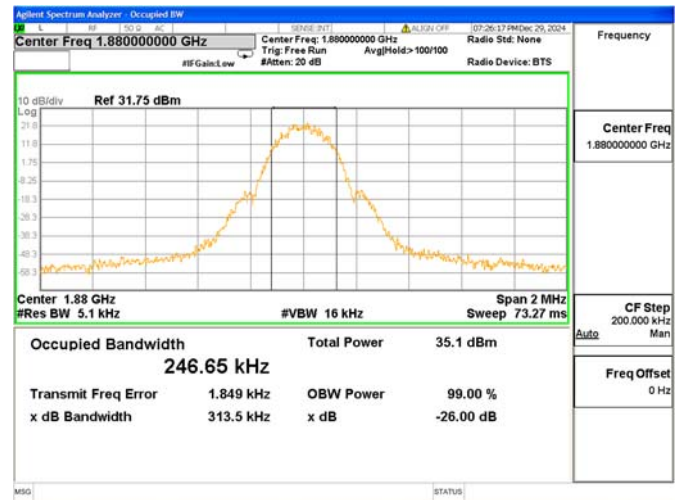
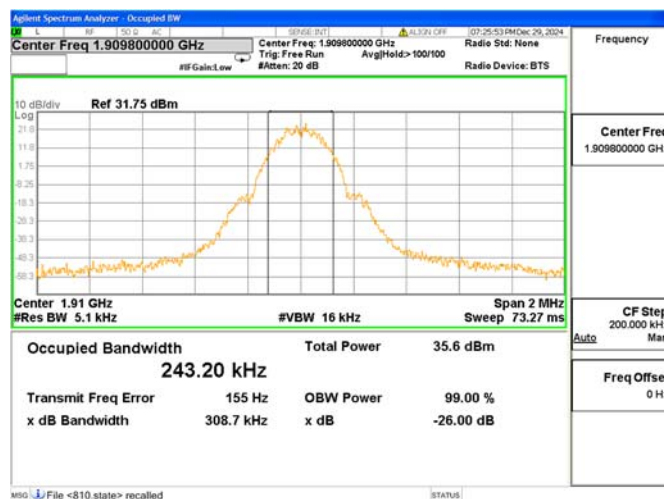


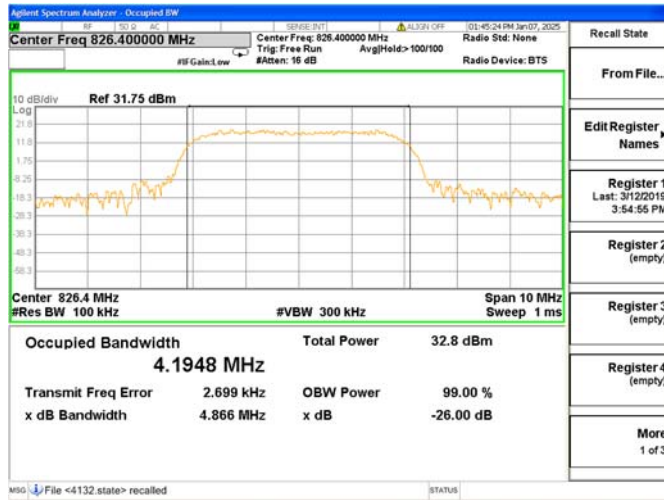
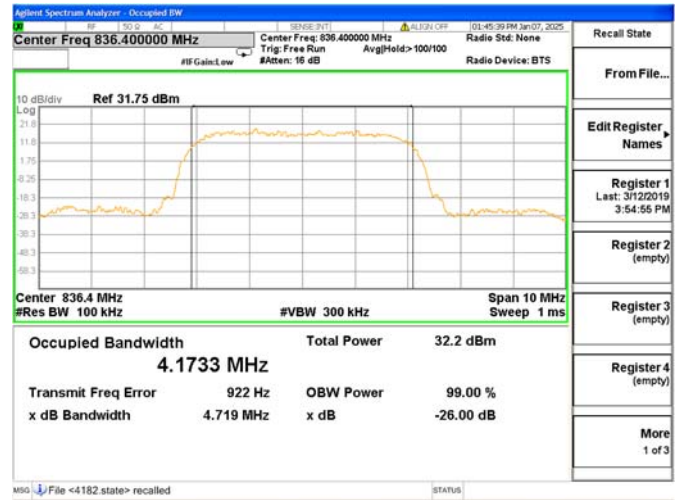
WCDMA Band II				
Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
WCDMA	9262	1852.4	4.19	4.72
	9400	1880.0	4.19	4.75
	9538	1907.6	4.18	4.73

GSM850(GSM), CH128, 824.2MHz**GSM850(GSM), CH189, 836.4MHz****GSM850(GSM), CH251, 848.8MHz**

**GSM850(EDGE), CH128, 824.2MHz****GSM850(EDGE), CH189, 836.4MHz****GSM850(EDGE), CH251, 848.8MHz**

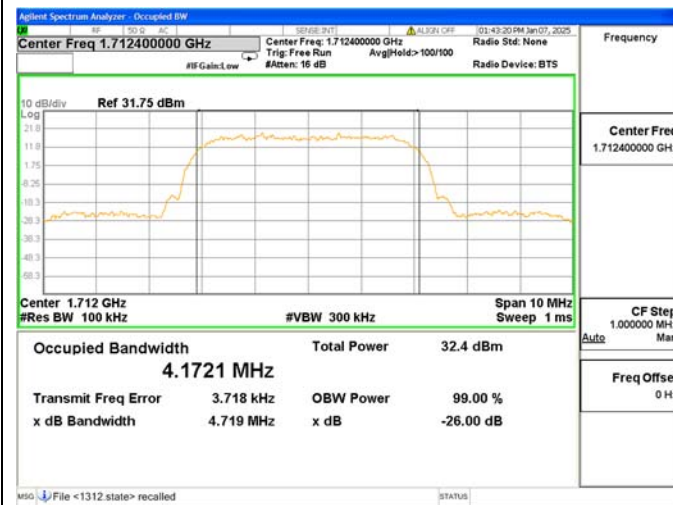
**GSM1900(GSM), CH512, 1850.2MHz****GSM1900(GSM), CH661, 1880.0MHz****GSM1900(GSM), CH810, 1909.8MHz**

**GSM1900(EDGE), CH512, 1850.2MHz****GSM1900(EDGE), CH661, 1880.0MHz****GSM1900(EDGE), CH810, 1909.8MHz**

**WCDMA Band V, CH4132, 826.4MHz****WCDMA Band V, CH4182, 836.4MHz****WCDMA Band V, CH4233, 846.6MHz**



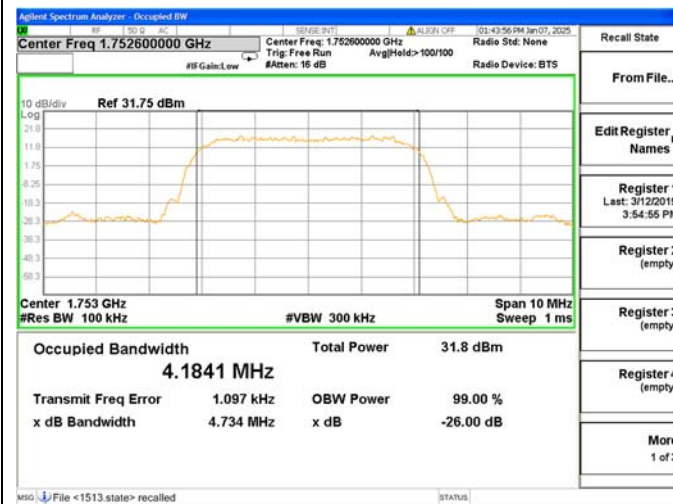
WCDMA Band IV, CH1312, 1712.4MHz

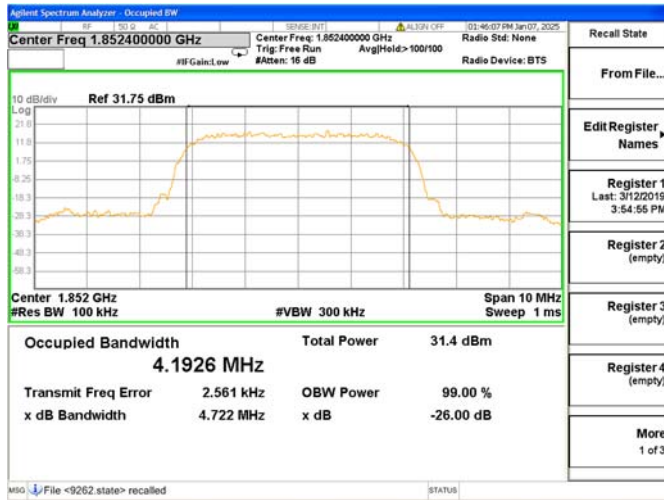
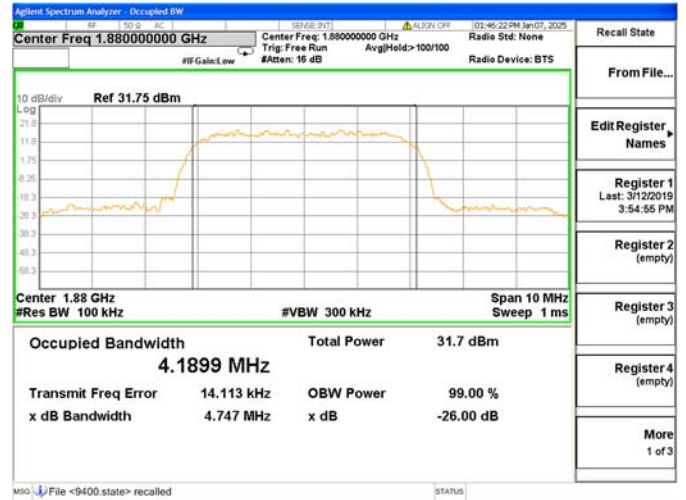
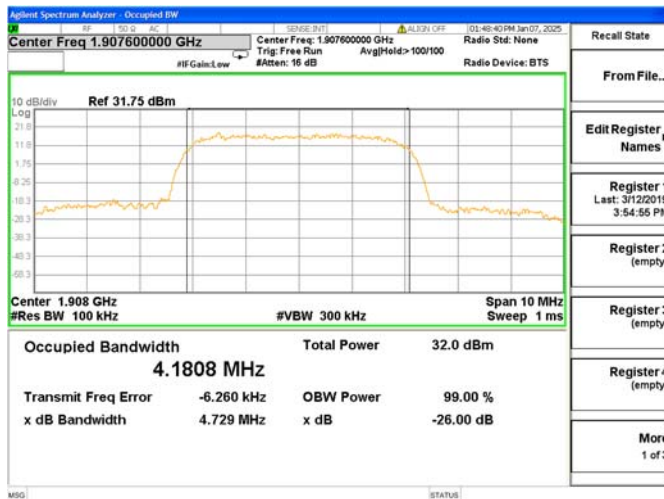


WCDMA Band IV, CH1413, 1732.6MHz



WCDMA Band IV, CH1513, 1752.6MHz



**WCDMA Band II, CH9262, 1852.4MHz****WCDMA Band II, CH9400, 1880.0MHz****WCDMA Band II, CH9538, 1907.6MHz**

2.4. Frequency Stability

2.4.1. Requirement

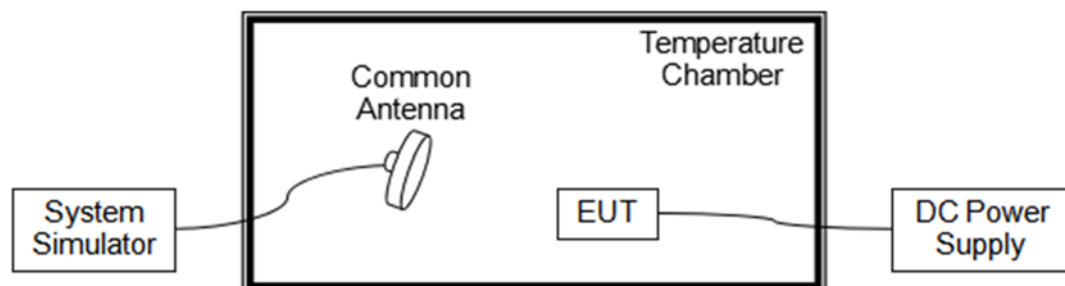
According to FCC section 22.355, 24.235 and 27.54 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (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.

Note: The operating temperature of EUT is from -10°C to 50°C , which are specified by the applicant.

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 3.80V, 4.35V and 3.60V, which are specified by the applicant; the normal temperature here used is 20°C.

GSM850(GSM), CH189, 836.4MHz					
Limit =±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	8	0.010	PASS
Normal		-10	-15	-0.018	
Normal		0	17	0.020	
Normal		+10	17	0.020	
Normal		+20	18	0.022	
Normal		+30	-21	-0.025	
Normal		+40	-13	-0.016	
Normal		+50	-11	-0.013	
High	4.35	+20	17	0.020	
BATT.ENDPOINT	3.60	+20	-8	-0.010	

GSM850(EDGE), CH189, 836.4MHz					
Limit =±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	13	0.016	PASS
Normal		-10	15	0.018	
Normal		0	15	0.018	
Normal		+10	3	0.004	
Normal		+20	20	0.024	
Normal		+30	8	0.010	
Normal		+40	20	0.024	
Normal		+50	-9	-0.011	
High	4.35	+20	19	0.023	
BATT.ENDPOINT	3.60	+20	16	0.019	





GSM1900(GSM), CH661, 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	13	0.007	PASS
Normal		-10	18	0.010	
Normal		0	17	0.009	
Normal		+10	16	0.009	
Normal		+20	19	0.010	
Normal		+30	16	0.009	
Normal		+40	-10	-0.005	
Normal		+50	20	0.011	
High	4.35	+20	-20	-0.011	
BATT.ENDPOINT	3.60	+20	-14	-0.007	

GSM1900(EDGE), CH661, 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	17	0.020	PASS
Normal		-10	15	0.018	
Normal		0	-19	-0.023	
Normal		+10	-17	-0.020	
Normal		+20	23	0.027	
Normal		+30	-11	-0.013	
Normal		+40	16	0.019	
Normal		+50	4	0.005	
High	4.35	+20	20	0.024	
BATT.ENDPOINT	3.60	+20	-9	-0.011	





WCDMA Band V, CH4182, 836.4MHz					
Limit = $\pm$ 2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	18	0.010	PASS
Normal		-10	17	0.009	
Normal		0	19	0.010	
Normal		+10	-17	-0.009	
Normal		+20	5	0.003	
Normal		+30	13	0.007	
Normal		+40	-17	-0.009	
Normal		+50	15	0.008	
High	4.35	+20	-20	-0.011	
BATT.ENDPOINT	3.60	+20	-15	-0.008	

WCDMA Band IV, CH1413, 1732.6MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	13	0.008	PASS
Normal		-10	19	0.011	
Normal		0	-19	-0.011	
Normal		+10	8	0.005	
Normal		+20	20	0.012	
Normal		+30	15	0.009	
Normal		+40	19	0.011	
Normal		+50	0	0.000	
High	4.35	+20	14	0.008	
BATT.ENDPOINT	3.60	+20	16	0.009	





WCDMA Band II, CH9400, 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	18	0.010	PASS
Normal		-10	20	0.011	
Normal		0	18	0.010	
Normal		+10	13	0.007	
Normal		+20	-12	-0.006	
Normal		+30	14	0.007	
Normal		+40	15	0.008	
Normal		+50	17	0.009	
High		+20	17	0.009	
BATT.ENDPOINT	3.60	+20	-13	-0.007	



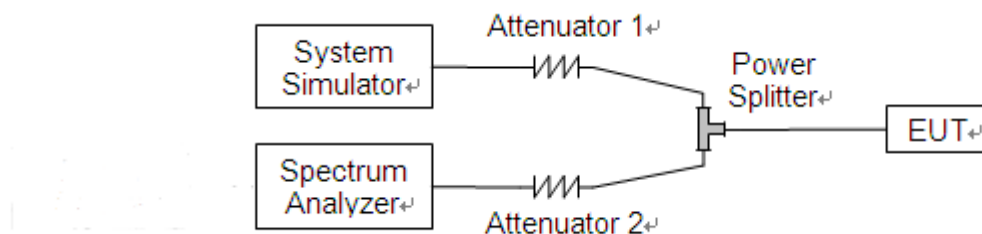
2.5. Conducted Out of Band Emissions

2.5.1. Requirement

According to FCC section 22.917(a), 24.238(a) and 27.53(h) 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 measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency.

2.5.2. Test Description

Test Setup:



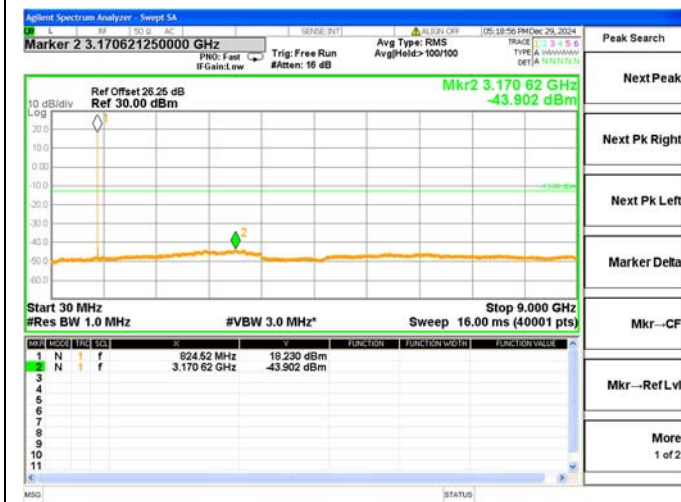
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum 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

GSM850(GSM), CH128, 824.2MHz



GSM850(GSM), CH189, 836.4MHz

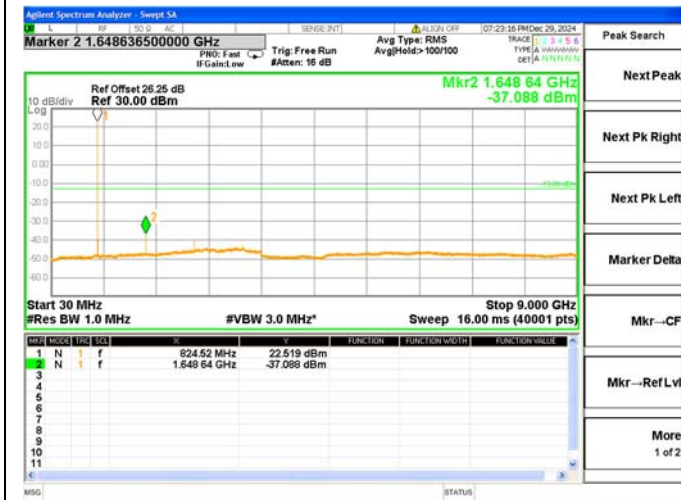


GSM850(GSM), CH251, 848.8MHz

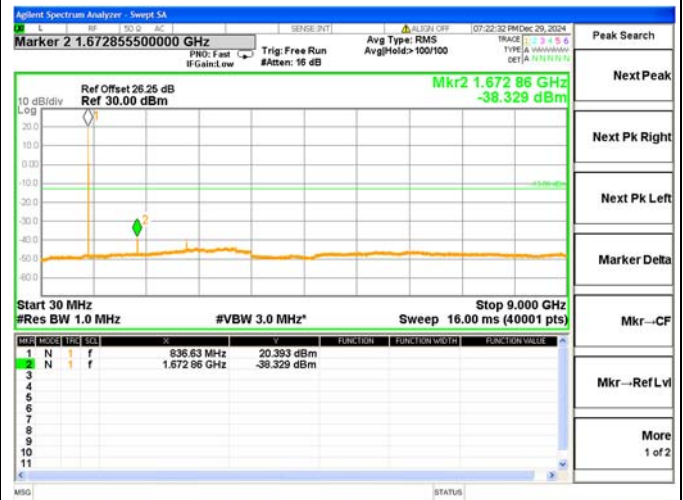




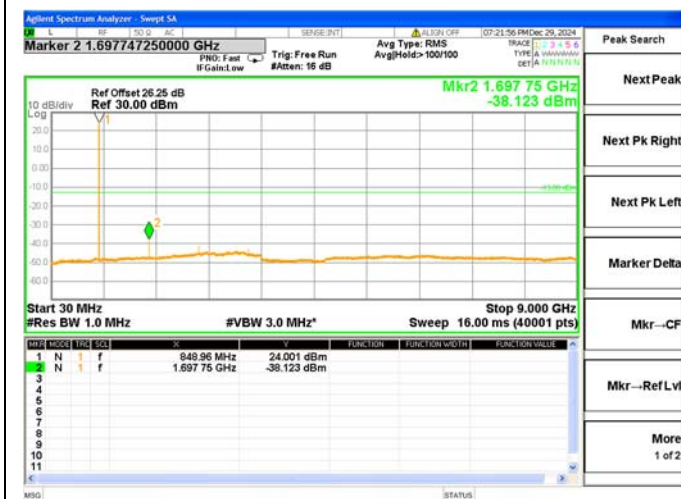
GSM850(EDGE), CH128, 824.2MHz



GSM850(EDGE), CH189, 836.4MHz

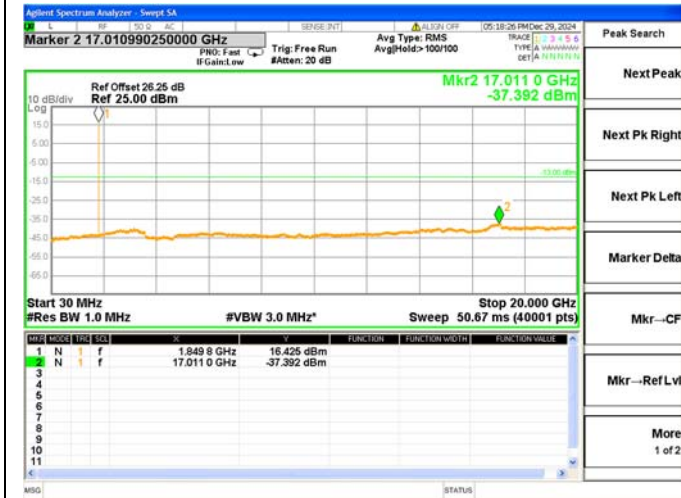


GSM850(EDGE), CH251, 848.8MHz

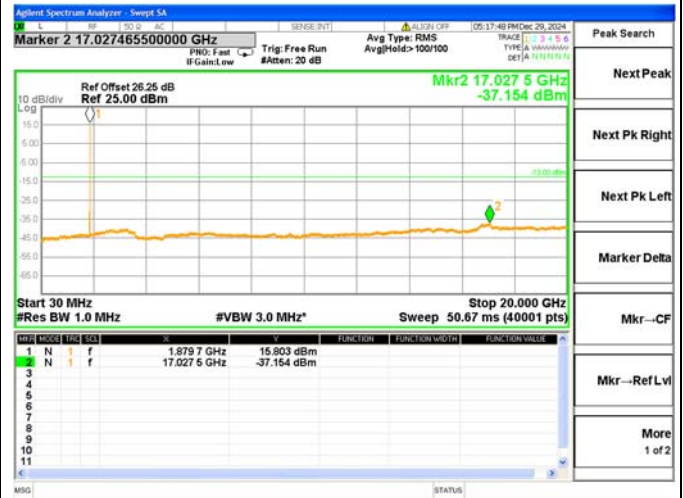




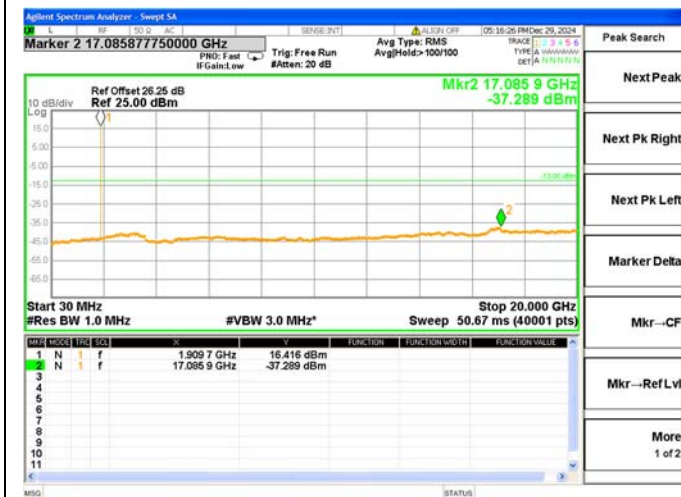
GSM1900(GSM), CH512, 1850.2MHz



GSM1900(GSM), CH661, 1880.0MHz

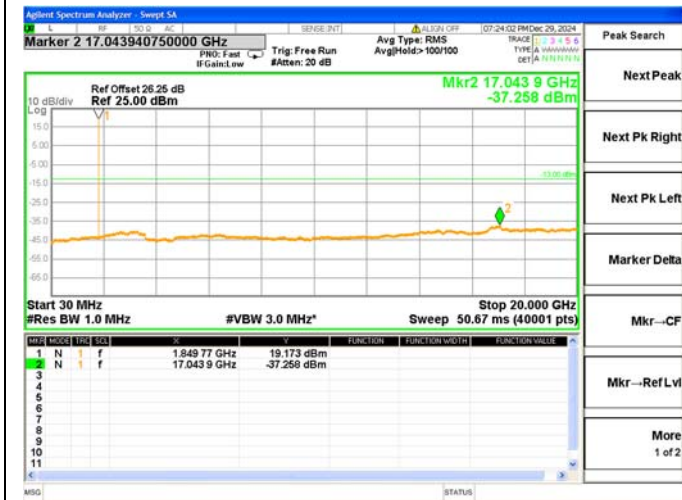


GSM1900(GSM), CH810, 1909.8MHz

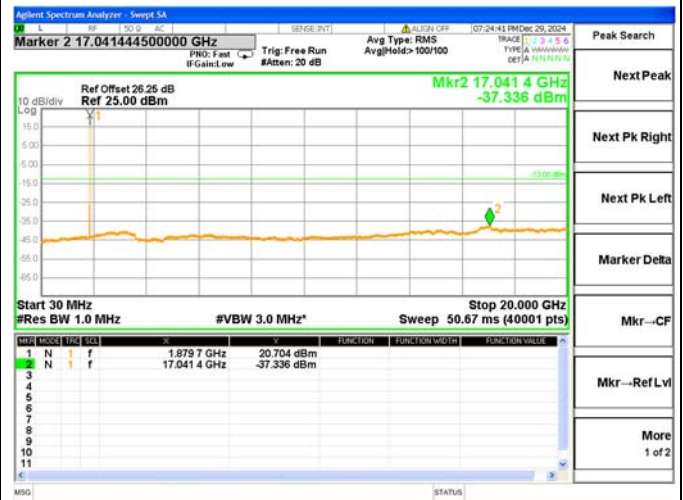




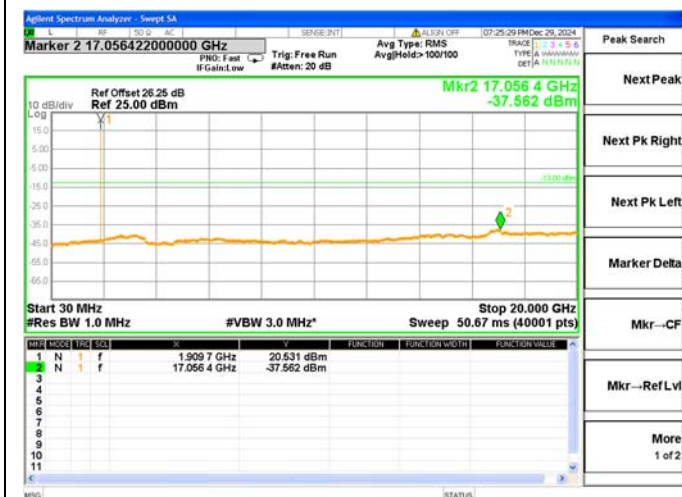
GSM1900(EDGE), CH512, 1850.2MHz



GSM1900(EDGE), CH661, 1880.0MHz

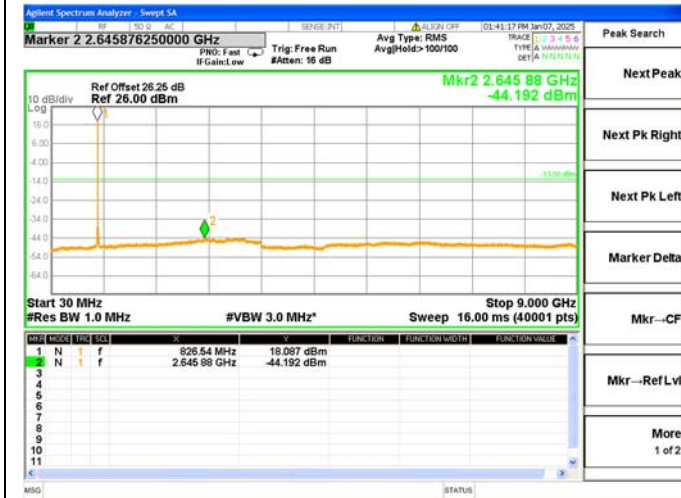


GSM1900(EDGE), CH810, 1909.8MHz

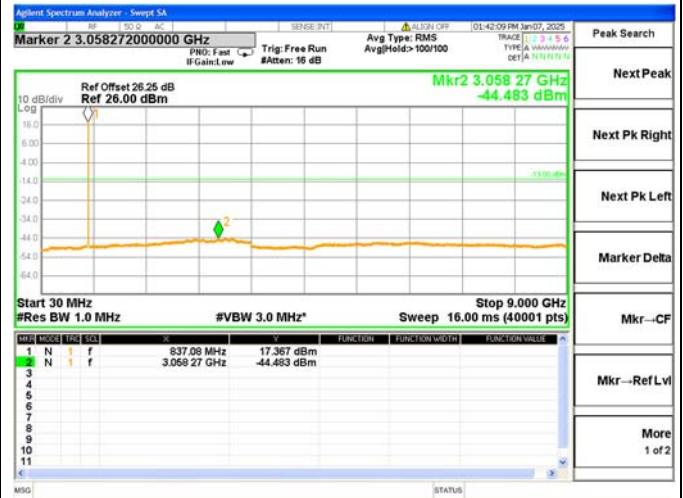




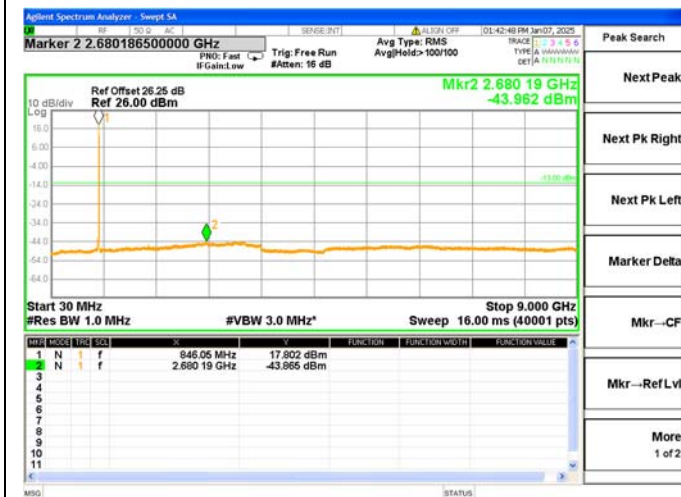
WCDMA Band V, CH4132, 826.4MHz



WCDMA Band V, CH4182, 836.4MHz

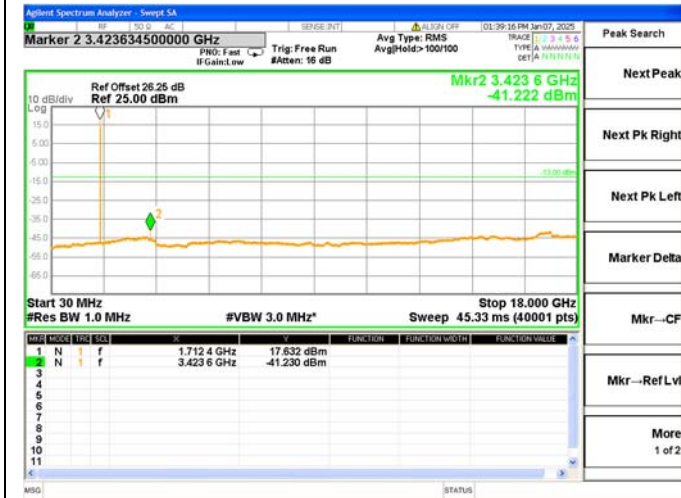


WCDMA Band V, CH4233, 846.6MHz

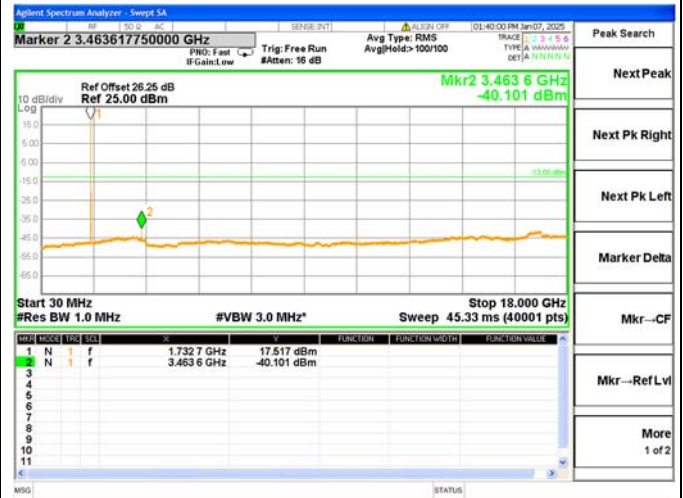




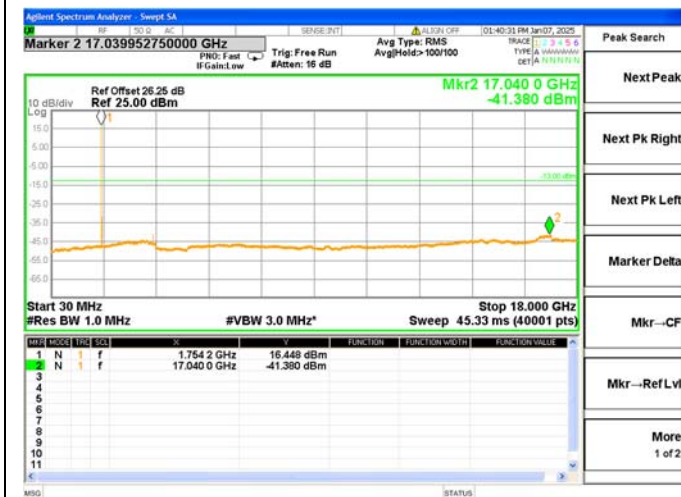
WCDMA Band IV, CH1312, 1712.4MHz



WCDMA Band IV, CH1413, 1732.6MHz

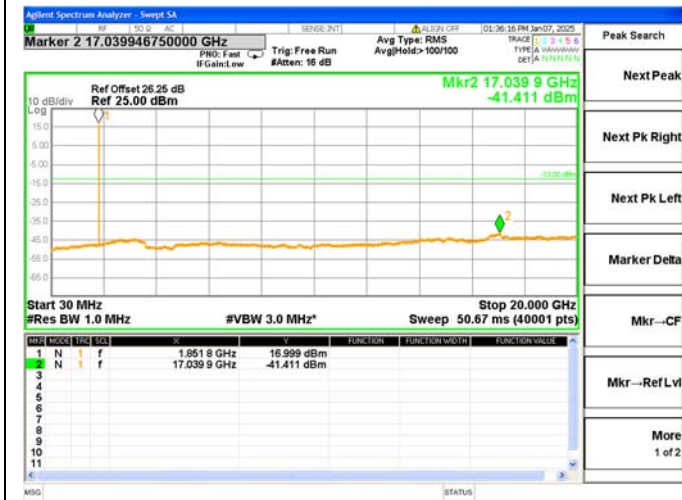


WCDMA Band IV, CH1513, 1752.6MHz

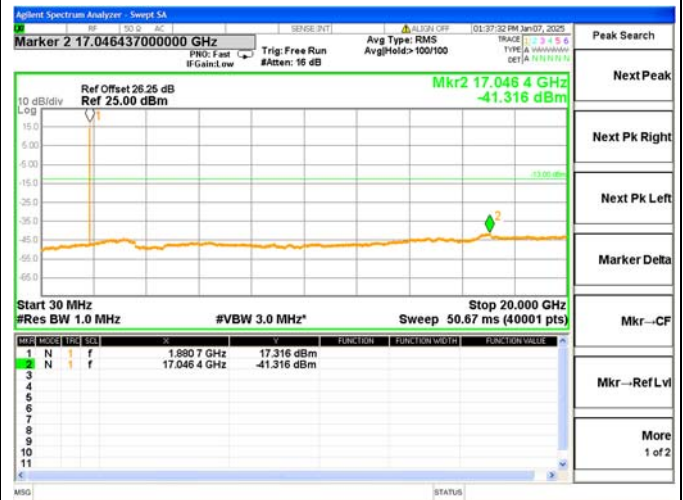




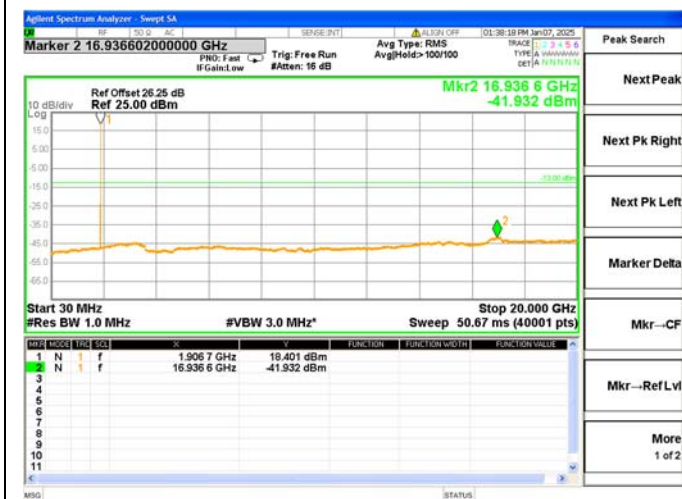
WCDMA Band II, CH9262, 1852.4MHz



WCDMA Band II, CH9400, 1880.0MHz



WCDMA Band II, CH9538, 1907.6MHz



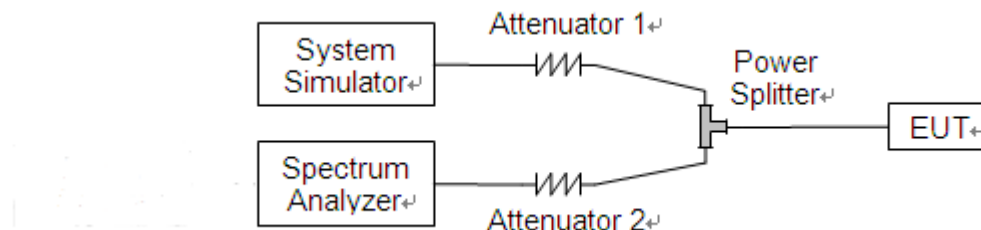
2.6. Band Edge

2.6.1. Requirement

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

2.6.2. Test Description

Test Setup:



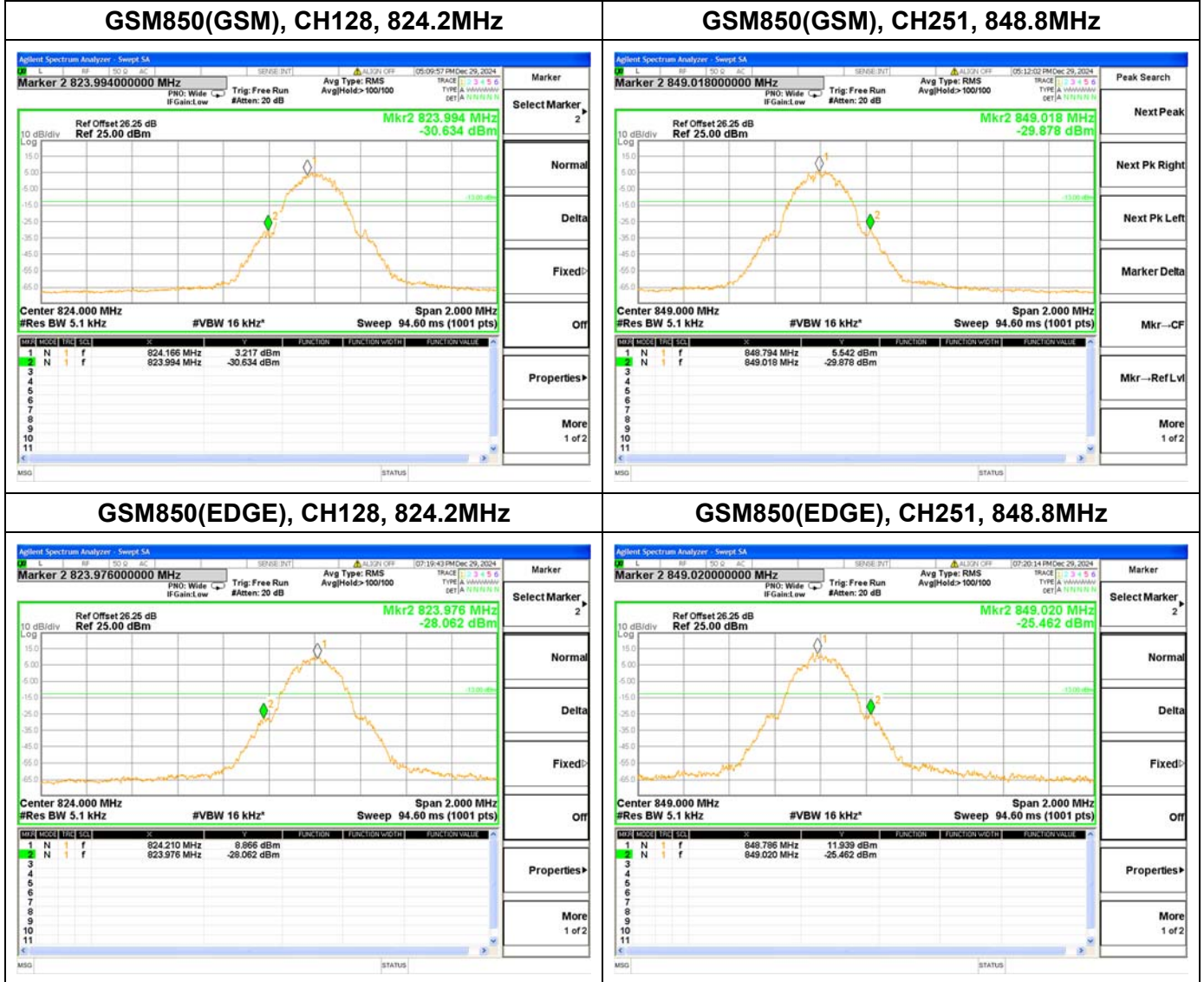
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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





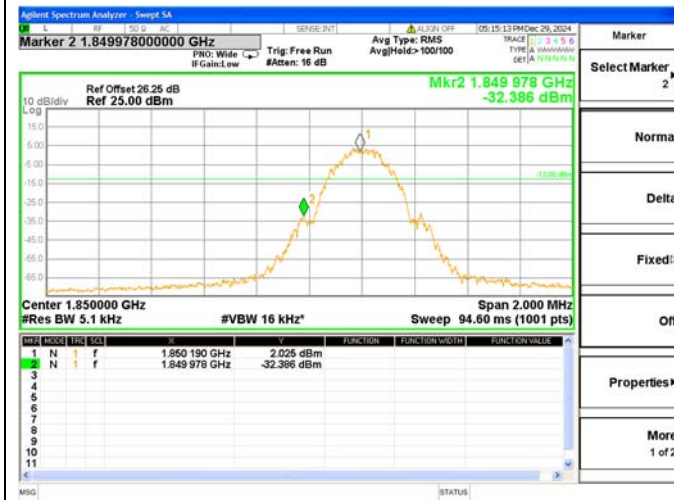
2.6.3. Test Result

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

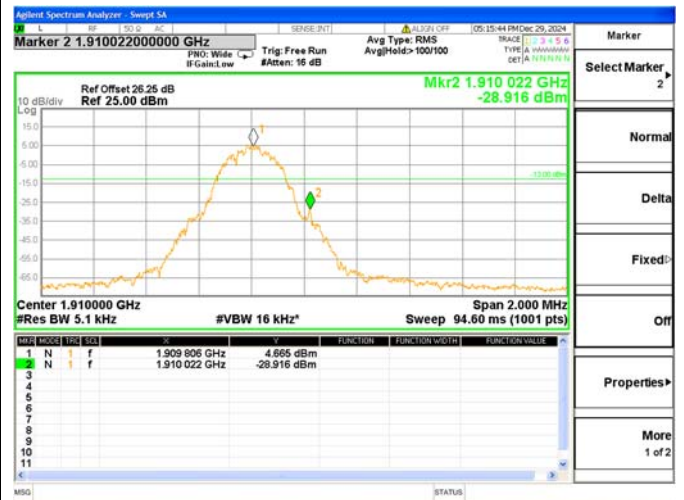




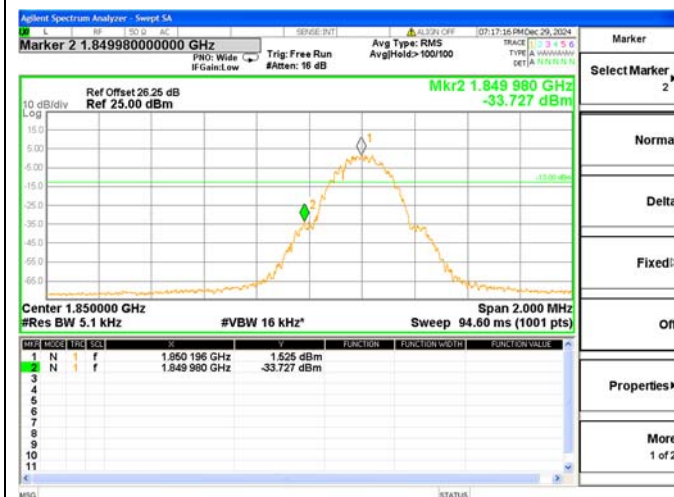
GSM1900(GSM), CH512, 1850.2MHz



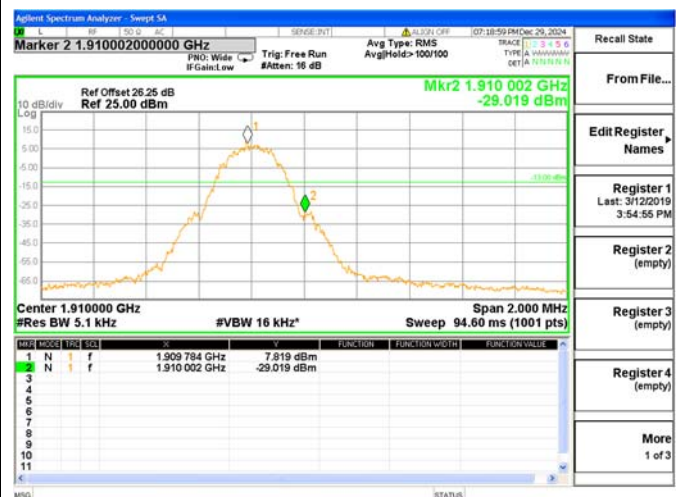
GSM1900(GSM), CH810, 1909.8MHz



GSM1900(EDGE), CH512, 1850.2MHz

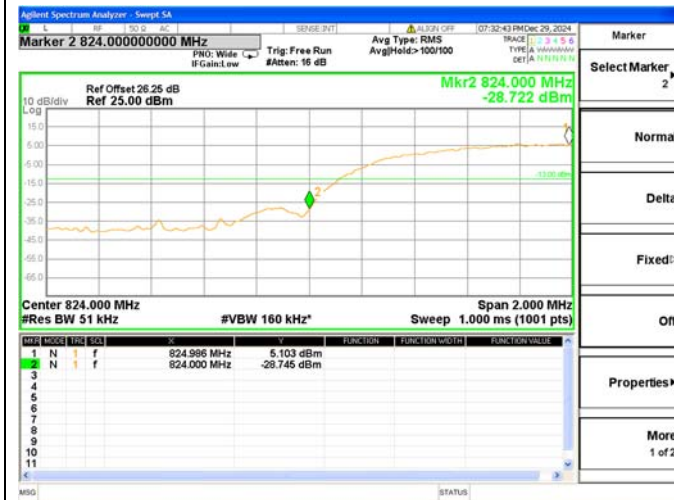


GSM1900(EDGE), CH810, 1909.8MHz

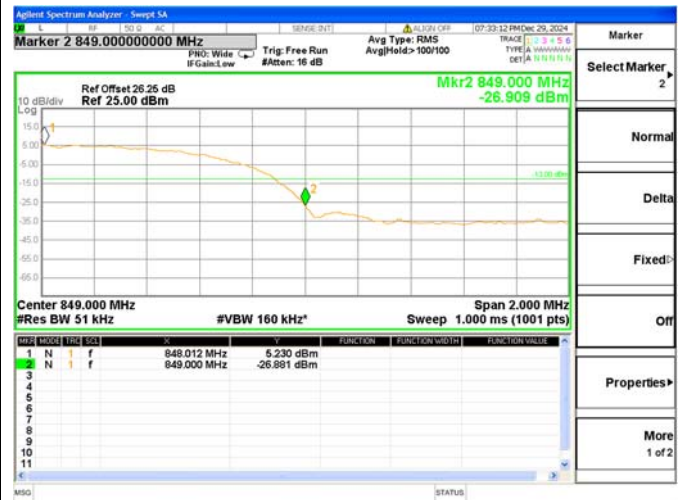




WCDMA Band V, CH4132, 826.4MHz



WCDMA Band V, CH4233, 846.6MHz



WCDMA Band IV, CH1312, 1712.4MHz



WCDMA Band IV, CH1513, 1752.6MHz



WCDMA Band II, CH9262, 1852.4MHz



WCDMA Band II, CH9538, 1907.6MHz



2.7. Determining E.R.P. and/or E.I.R.P. from conducted RF output power measurements

2.7.1. Requirement

According to FCC section 22.913, the Effective Radiated Power (E.R.P.) of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to FCC section 24.232, the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

According to FCC section 27.50, mobile, and portable (hand-held) stations is limited to 1 Watts e.i.r.p. peak power.

2.7.2. Test Description

The test setups refer to section 2.1.3

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

The relevant equation for determining the maximum E.R.P. or E.I.R.P. from the measured RF output power is given in Equation (1) as follows:

$$\text{E.R.P. or E.I.R.P.} = P_{\text{Meas}} + G_{\text{T}}$$

Where:

E.R.P. or E.I.R.P. effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_{T} gain of the transmitting antenna, in dBd (E.R.P.) or dBi (E.I.R.P.)

For devices utilizing multiple antennas, see ANSI C63.25-2015 6.4 for guidance with respect to determining the effective array transmit antenna gain term to be used in the above equation.

The following equations demonstrate the mathematical relationship between E.R.P. and E.I.R.P.:

a) E.R.P. = E.I.R.P. - 2.15, where E.R.P. and E.I.R.P. are expressed in consistent units.

b) E.I.R.P. = E.R.P. + 2.15, where E.R.P. and E.I.R.P. are expressed in consistent units.





2.7.3.Test Result

GSM850								
Band	Channel	Frequency (MHz)	PCL	Measured E.R.P.		Limit		Verdict
				dBm	W	dBm	W	
GSM	128	824.20	5	29.96	0.991	38.5	7	PASS
	189	836.40	5	29.98	0.995			PASS
	251	848.80	5	30.01	1.002			PASS
GPRS	128	824.20	5	29.93	0.984	38.5	7	PASS
	189	836.40	5	29.95	0.989			PASS
	251	848.80	5	29.97	0.993			PASS
EDGE	128	824.20	5	24.93	0.311	38.5	7	PASS
	189	836.40	5	24.96	0.313			PASS
	251	848.80	5	24.86	0.306			PASS
Note 1: For the GPRS and EDGE mode, all the slots were tested and just the worst data were recorded in this report.								

GSM1900								
Band	Channel	Frequency (MHz)	PCL	Measured E.I.R.P.		Limit		Verdict
				dBm	W	dBm	W	
GSM	512	1850.2	0	29.81	0.957	33	2	PASS
	661	1880.0	0	29.83	0.962			PASS
	810	1909.8	0	29.78	0.951			PASS
GPRS	512	1850.2	0	29.75	0.944	33	2	PASS
	661	1880.0	0	29.81	0.957			PASS
	810	1909.8	0	29.77	0.948			PASS
EDGE	512	1850.2	0	25.67	0.369	33	2	PASS
	661	1880.0	0	25.72	0.373			PASS
	810	1909.8	0	25.69	0.371			PASS
Note 1: For the GPRS and EDGE mode, all the slots were tested and just the worst data were recorded in this report.								





WCDMA Band V							
Band	Channel	Frequency (MHz)	Measured E.R.P.		Limit		Verdict
			dBm	W	dBm	W	
WCDMA	4132	826.4	21.24	0.133	38.5	7	PASS
	4182	836.4	21.27	0.134			PASS
	4233	846.6	21.25	0.133			PASS
HSDPA	4132	826.4	20.14	0.103	38.5	7	PASS
	4182	836.4	20.17	0.104			PASS
	4233	846.6	20.21	0.105			PASS
HSUPA	4132	826.4	20.12	0.103	38.5	7	PASS
	4182	836.4	20.17	0.104			PASS
	4233	846.6	20.23	0.105			PASS
Note 1: For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this report.							





WCDMA Band IV							
Band	Channel	Frequency (MHz)	Measured E.I.R.P.		Limit		Verdict
			dBm	W	dBm	W	
WCDMA	1312	1712.4	23.79	0.239	30	1	PASS
	1413	1732.6	23.86	0.243			PASS
	1513	1752.6	23.83	0.242			PASS
HSDPA	1312	1712.4	23.25	0.211	30	1	PASS
	1413	1732.6	23.18	0.208			PASS
	1513	1752.6	22.99	0.199			PASS
HSUPA	1312	1712.4	22.24	0.167	30	1	PASS
	1413	1732.6	22.15	0.164			PASS
	1513	1752.6	22.00	0.158			PASS
Note 1: For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this report.							





WCDMA Band II							
Band	Channel	Frequency (MHz)	Measured E.I.R.P.		Limit		Verdict
			dBm	W	dBm	W	
WCDMA	9262	1852.4	23.55	0.226	33	2	PASS
	9400	1880.0	23.59	0.229			PASS
	9538	1907.6	23.52	0.225			PASS
HSDPA	9262	1852.4	22.65	0.184	33	2	PASS
	9400	1880.0	22.77	0.189			PASS
	9538	1907.6	22.95	0.197			PASS
HSUPA	9262	1852.4	22.64	0.184	33	2	PASS
	9400	1880.0	22.77	0.189			PASS
	9538	1907.6	22.93	0.196			PASS
Note 1: For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this report.							

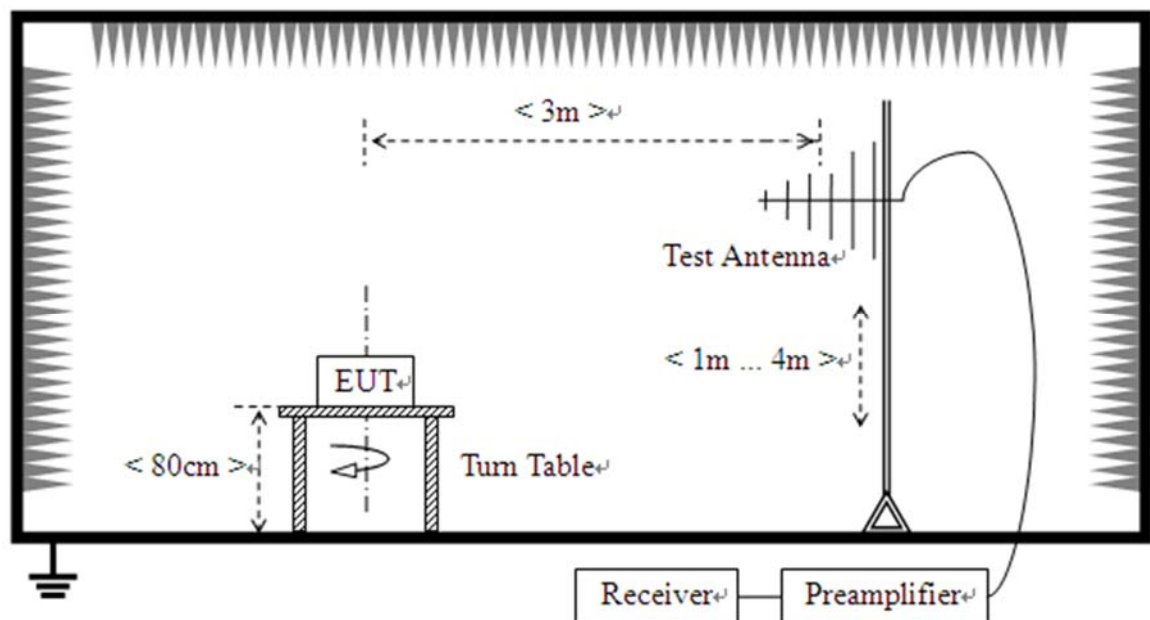


2.8. Radiated Out of Band Emissions

2.8.1. Requirement

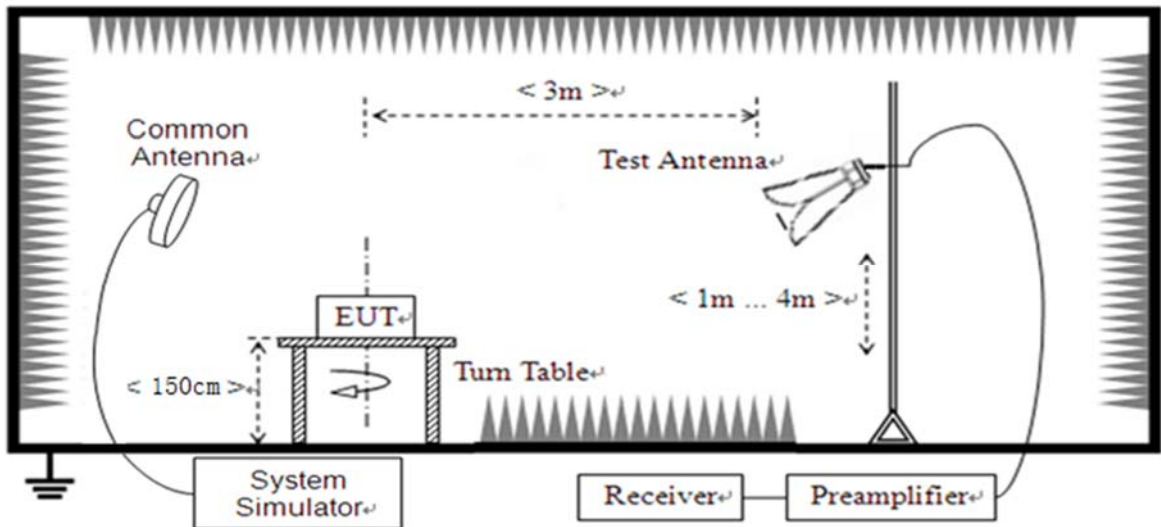
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \cdot \log(P)$ dB. This calculated to be -13dBm. The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency.

2.8.2. Test Description



(For the test frequency from 30MHz to 1GHz)





(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

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

2.8.3.Test Procedure

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements.



2.8.4.Test Result

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

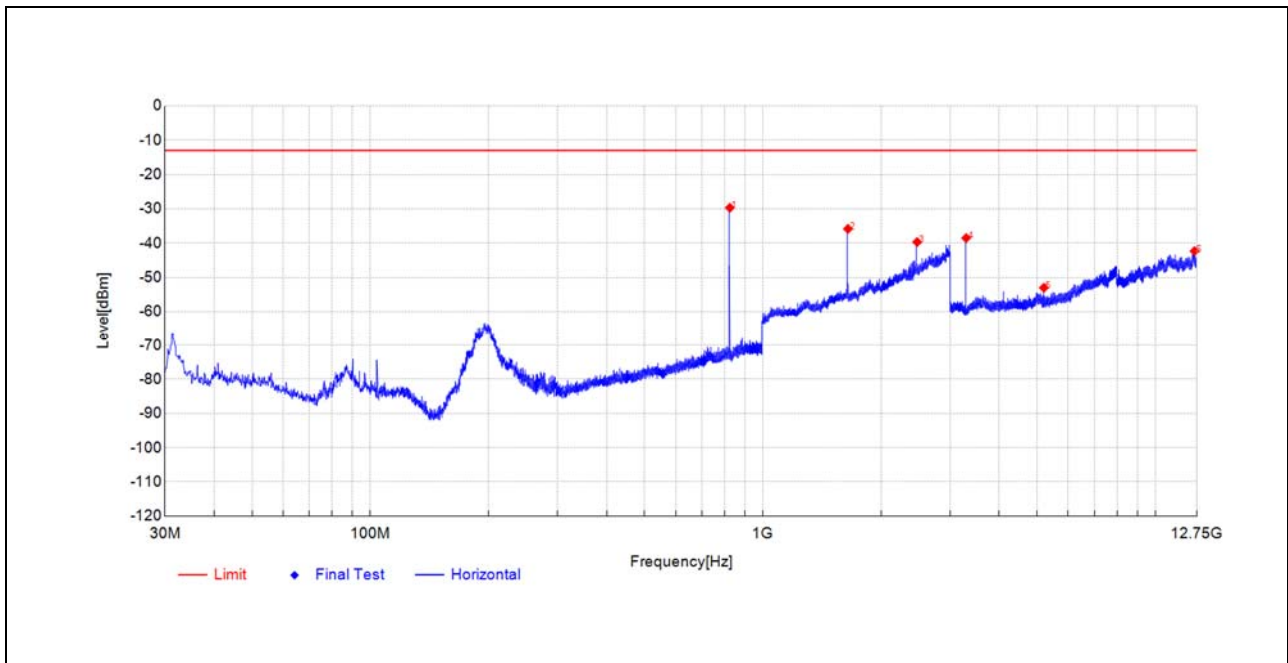
Note2: All test mode and condition mentioned were considered and evaluated respectively by performing full test, only the worst data were recorded and reported.

Note3: All spurious emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note4: NA means the frequency is the basic frequency or the base station frequency, they are no need to verdict.

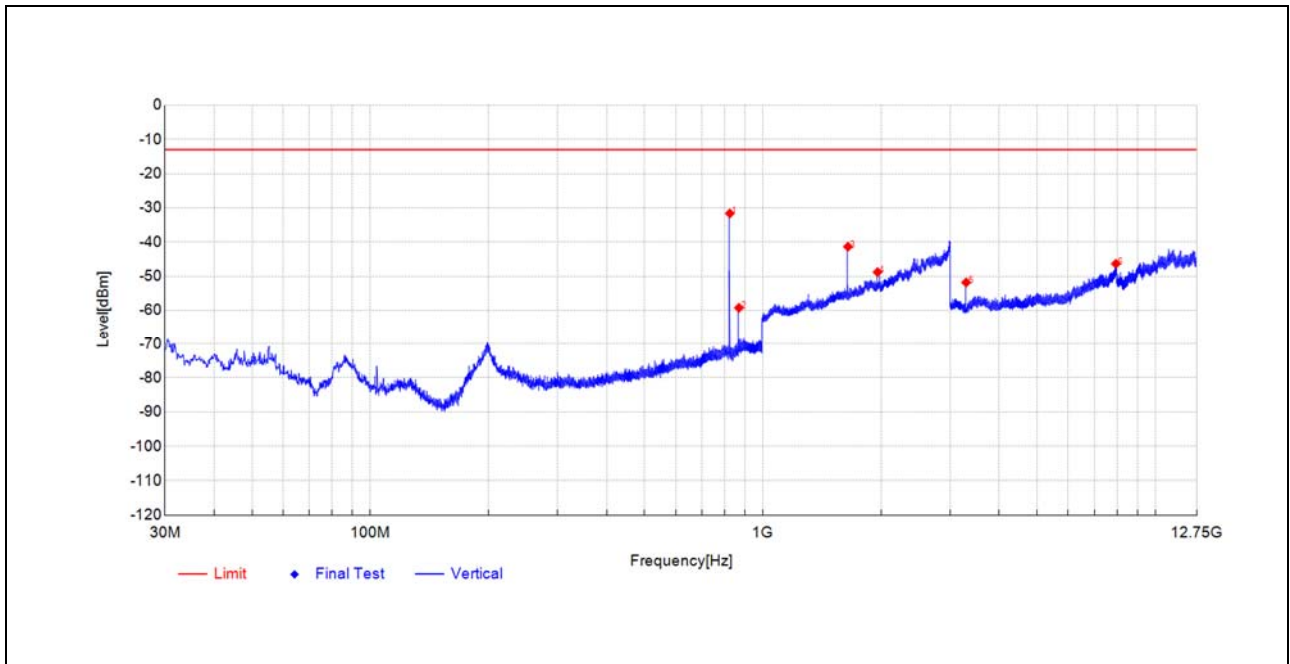
GSM850(GSM)

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
824.3588	-23.89	-29.69	-5.8	-13.0	16.7	Horizontal	PK	NA
1648.25	-38.49	-35.84	2.7	-13.0	22.8	Horizontal	PK	PASS
2473.25	-50.01	-39.67	10.3	-13.0	26.7	Horizontal	PK	PASS
3296.4148	-37.24	-38.51	-1.3	-13.0	25.5	Horizontal	PK	PASS
5198.7349	-58.13	-53.00	5.1	-13.0	40.0	Horizontal	PK	PASS
12587.654	-65.59	-42.34	23.3	-13.0	29.3	Horizontal	PK	PASS

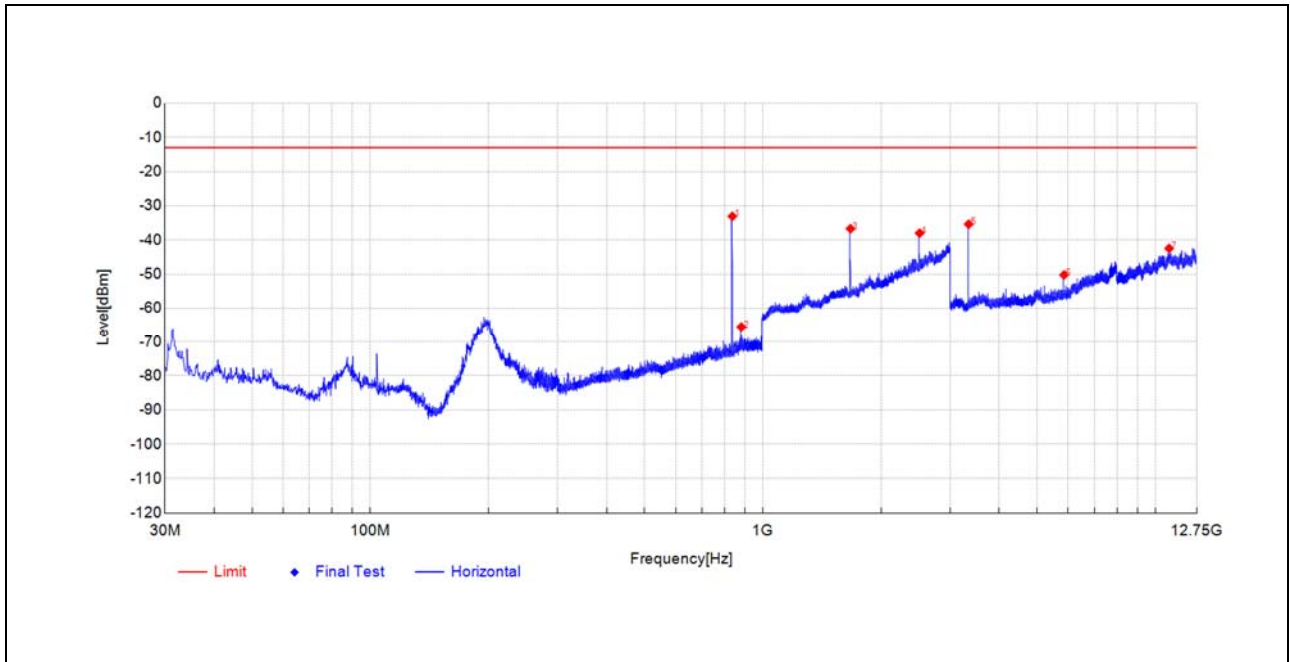




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
824.1875	-25.75	-31.64	-5.9	-13.0	18.6	Vertical	PK	NA
869.2925	-54.40	-59.26	-4.9	-13.0	46.3	Vertical	PK	NA
1648.25	-43.85	-41.37	2.5	-13.0	28.4	Vertical	PK	PASS
1960.25	-53.85	-48.80	5.1	-13.0	35.8	Vertical	PK	PASS
3296.4148	-50.65	-51.82	-1.2	-13.0	38.8	Vertical	PK	PASS
7937.6469	-59.04	-46.37	12.7	-13.0	33.4	Vertical	PK	PASS

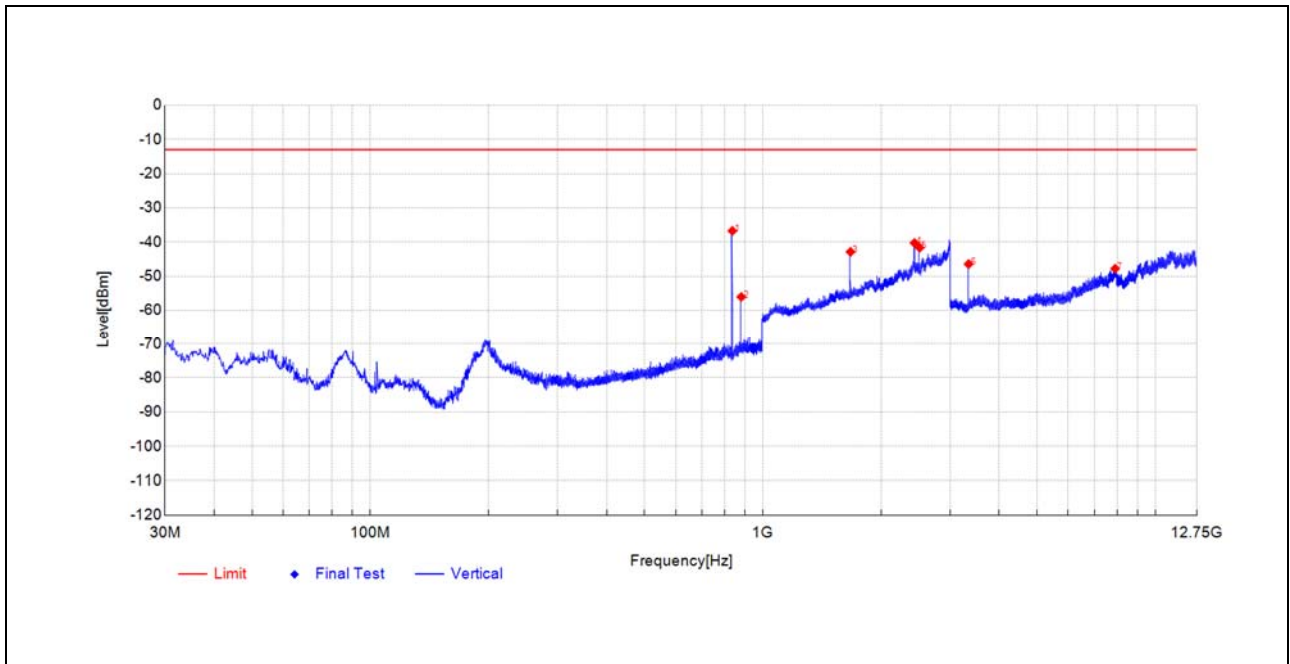


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
836.4338	-27.55	-33.08	-5.5	-13.0	20.1	Horizontal	PK	NA
881.5388	-60.74	-65.48	-4.7	-13.0	52.5	Horizontal	PK	NA
1672.75	-39.21	-36.71	2.5	-13.0	23.7	Horizontal	PK	PASS
2509.25	-48.08	-38.02	10.1	-13.0	25.0	Horizontal	PK	PASS
3345.6548	-34.78	-35.40	-0.6	-13.0	22.4	Horizontal	PK	PASS
5853.9677	-57.81	-50.23	7.6	-13.0	37.2	Horizontal	PK	PASS
10846.704	-63.02	-42.46	20.6	-13.0	29.5	Horizontal	PK	PASS

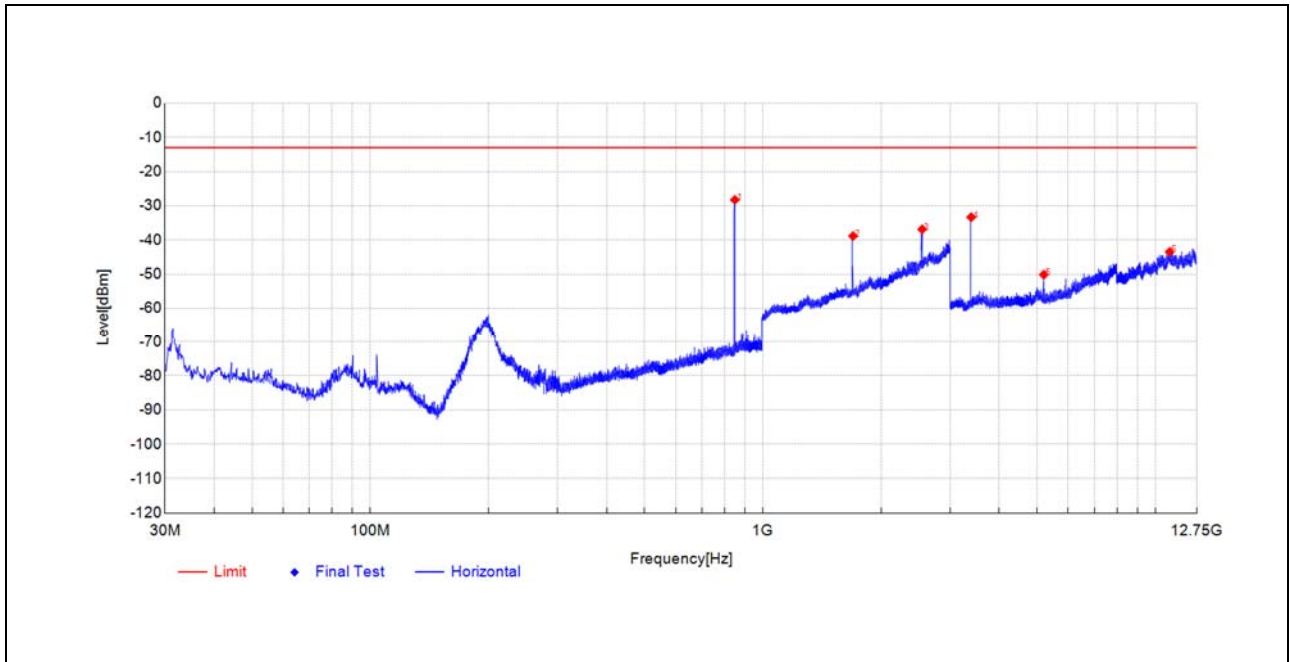




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
836.555	-30.92	-36.74	-5.8	-13.0	23.7	Vertical	PK	NA
881.5388	-51.58	-56.05	-4.5	-13.0	43.1	Vertical	PK	NA
1673	-45.63	-42.87	2.8	-13.0	29.9	Vertical	PK	PASS
2434.75	-51.44	-40.28	11.2	-13.0	27.3	Vertical	PK	PASS
2509.5	-51.51	-41.66	9.9	-13.0	28.7	Vertical	PK	PASS
3345.6548	-45.96	-46.46	-0.5	-13.0	33.5	Vertical	PK	PASS
7900.595	-60.25	-47.79	12.5	-13.0	34.8	Vertical	PK	PASS

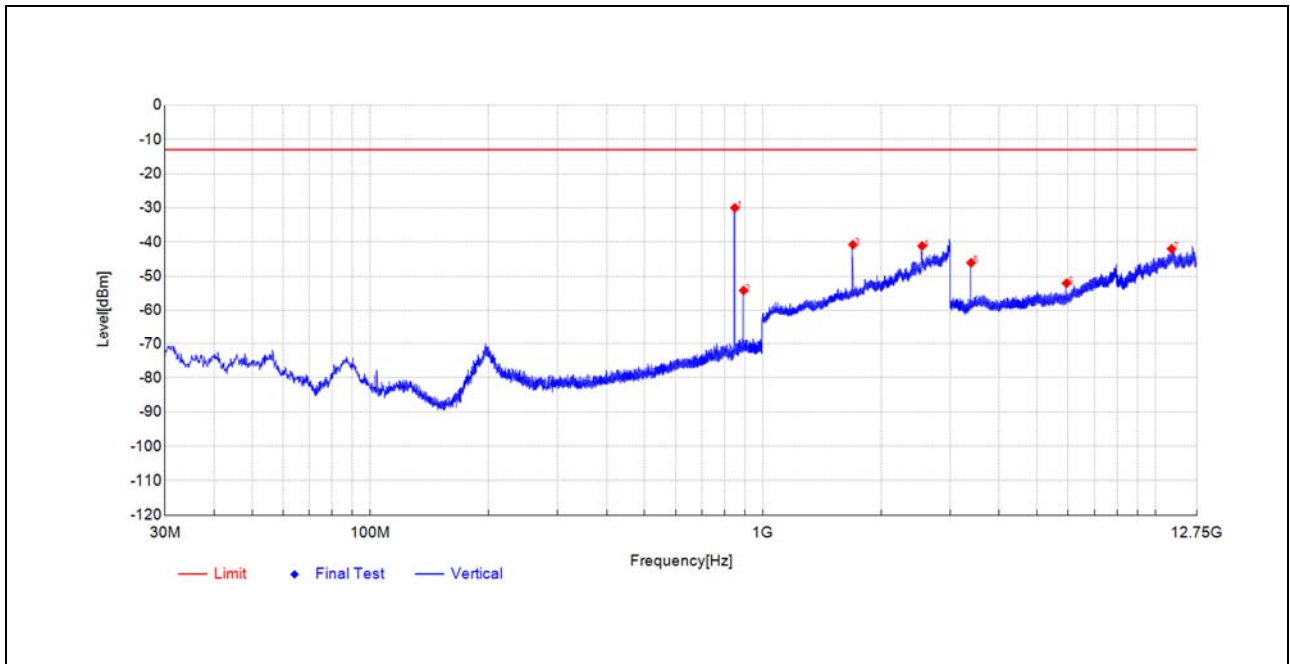


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
848.9225	-23.08	-28.27	-5.2	-13.0	15.3	Horizontal	PK	NA
1697.75	-41.78	-38.85	2.9	-13.0	25.9	Horizontal	PK	PASS
2546.5	-47.90	-36.88	11.0	-13.0	23.9	Horizontal	PK	PASS
3394.8947	-33.48	-33.35	0.1	-13.0	20.4	Horizontal	PK	PASS
5197.2724	-55.30	-50.15	5.2	-13.0	37.2	Horizontal	PK	PASS
10877.906	-64.27	-43.47	20.8	-13.0	30.5	Horizontal	PK	PASS



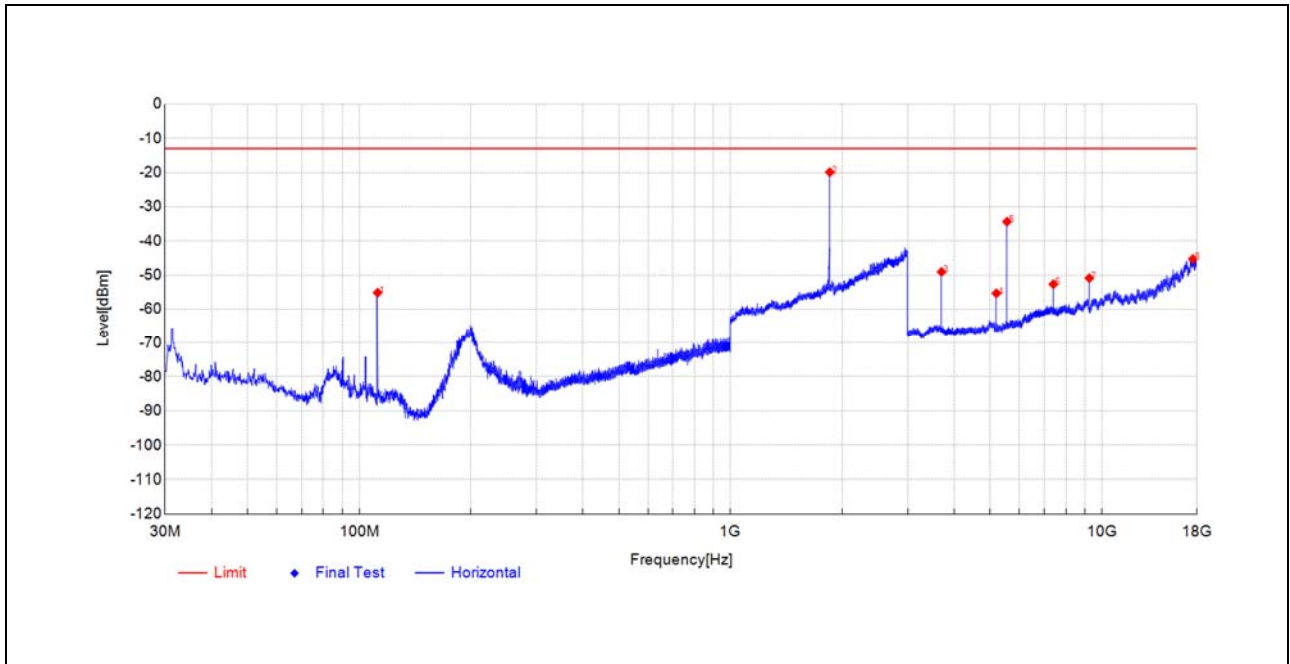


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
848.9225	-24.48	-30.00	-5.5	-13.0	17.0	Vertical	PK	NA
893.785	-49.75	-54.18	-4.4	-13.0	41.2	Vertical	PK	NA
1697.5	-43.90	-40.80	3.1	-13.0	27.8	Vertical	PK	PASS
2546.25	-52.59	-41.15	11.4	-13.0	28.2	Vertical	PK	PASS
3394.8947	-46.32	-46.07	0.3	-13.0	33.1	Vertical	PK	PASS
5942.2096	-59.07	-52.05	7.0	-13.0	39.1	Vertical	PK	PASS
11005.150	-64.03	-42.01	22.0	-13.0	29.0	Vertical	PK	PASS



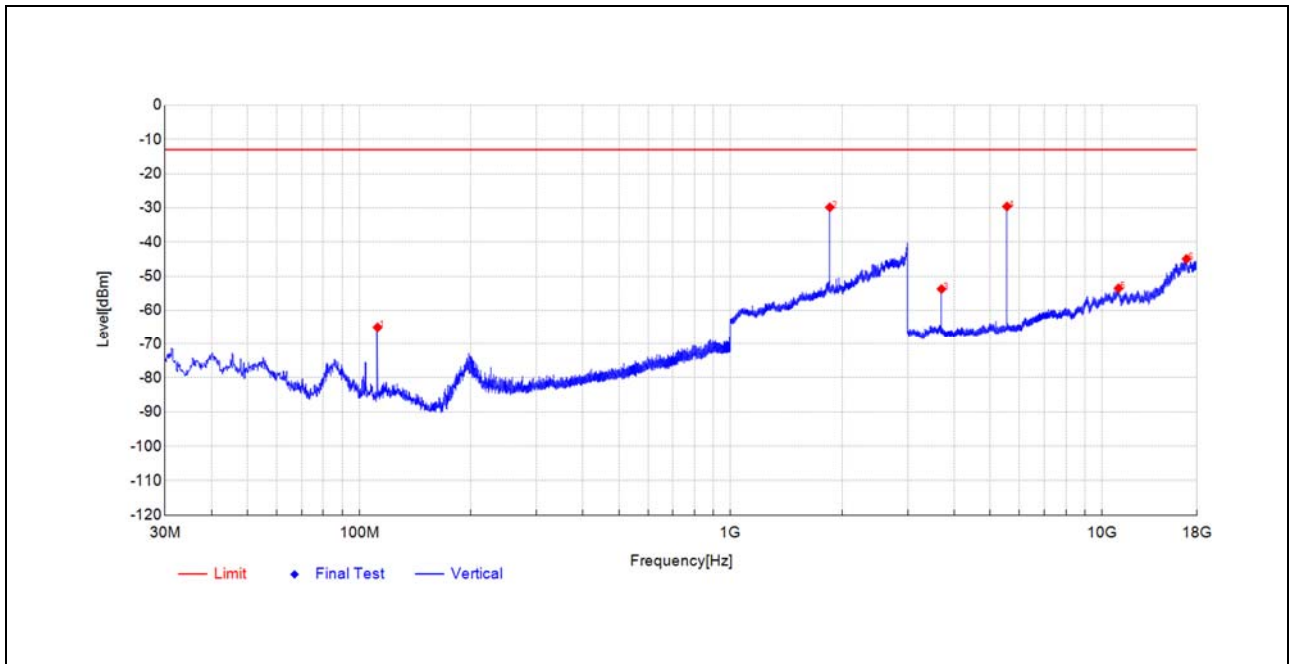
**GSM1900(GSM)**

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
112.0862	-31.68	-55.16	-23.5	-13.0	42.2	Horizontal	PK	NA
1850	-24.18	-19.90	4.3	-13.0	6.9	Horizontal	PK	PASS
3700.3344	-50.85	-49.07	1.8	-13.0	36.1	Horizontal	PK	PASS
5197.0999	-60.48	-55.33	5.2	-13.0	42.3	Horizontal	PK	PASS
5550.5485	-41.05	-34.39	6.7	-13.0	21.4	Horizontal	PK	PASS
7400.7625	-65.16	-52.66	12.5	-13.0	39.7	Horizontal	PK	PASS
9250.9766	-66.59	-50.89	15.7	-13.0	37.9	Horizontal	PK	PASS
17580.455	-81.73	-45.29	36.4	-13.0	32.3	Horizontal	PK	PASS

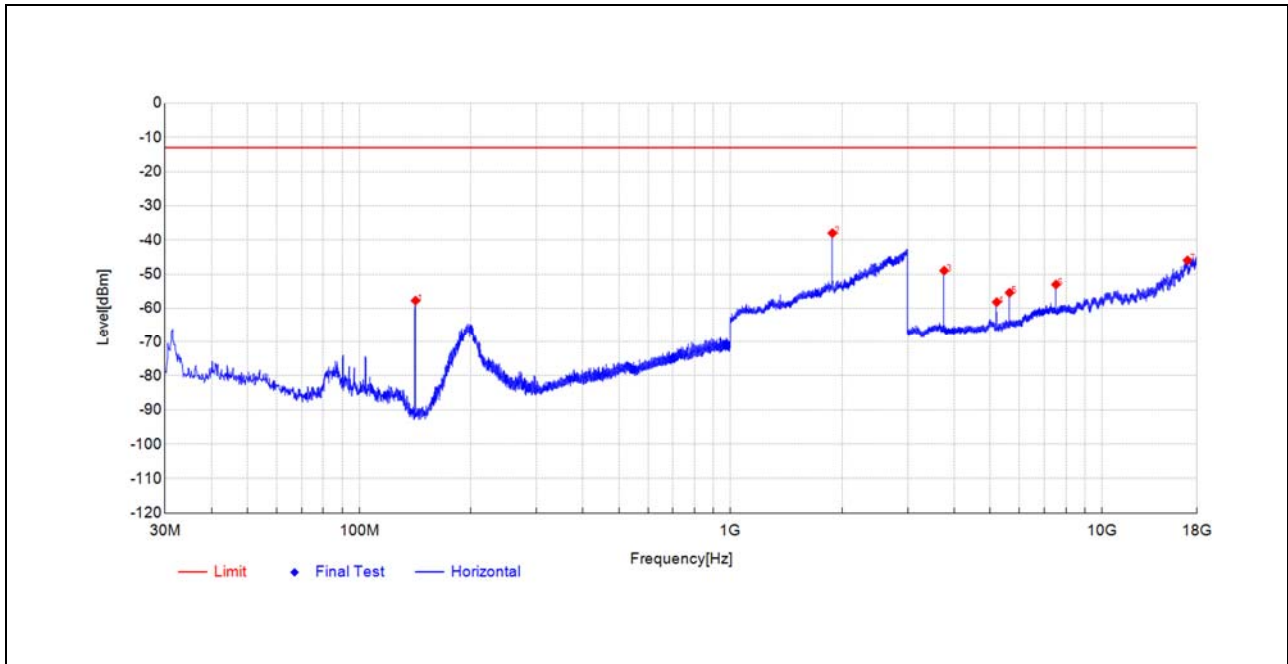




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
112.0862	-44.73	-64.98	-20.3	-13.0	52.0	Vertical	PK	PASS
1850.5	-34.18	-29.87	4.3	-13.0	16.9	Vertical	PK	NA
3700.3344	-55.53	-53.76	1.8	-13.0	40.8	Vertical	PK	PASS
5550.5485	-35.97	-29.62	6.4	-13.0	16.6	Vertical	PK	PASS
11084.783	-75.89	-53.54	22.4	-13.0	40.5	Vertical	PK	PASS
16892.777	-80.81	-44.95	35.9	-13.0	32.0	Vertical	PK	PASS

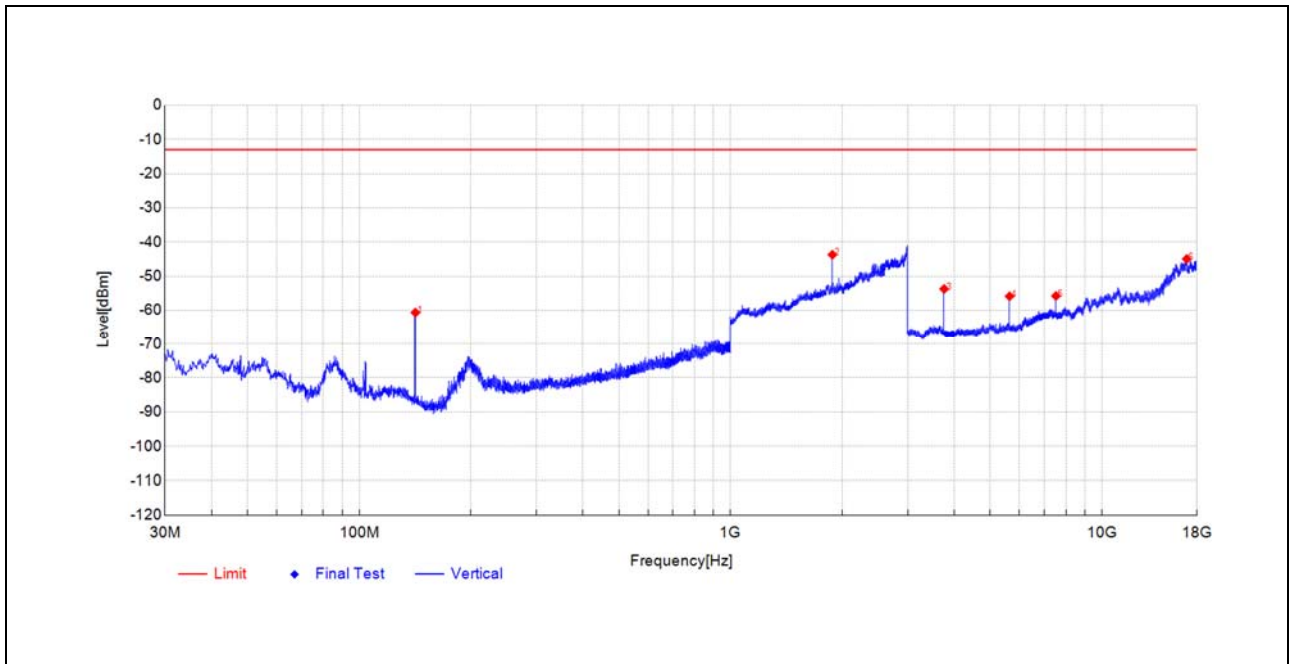


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
141.7925	-32.18	-57.75	-25.6	-13.0	44.8	Horizontal	PK	PASS
1880	-43.30	-38.01	5.3	-13.0	25.0	Horizontal	PK	NA
3759.8675	-50.17	-48.99	1.2	-13.0	36.0	Horizontal	PK	PASS
5206.944	-63.32	-58.18	5.1	-13.0	45.2	Horizontal	PK	PASS
5640.0825	-62.53	-55.43	7.1	-13.0	42.4	Horizontal	PK	PASS
7519.8287	-65.33	-53.03	12.3	-13.0	40.0	Horizontal	PK	PASS
17009.031	-80.65	-45.97	34.7	-13.0	33.0	Horizontal	PK	PASS

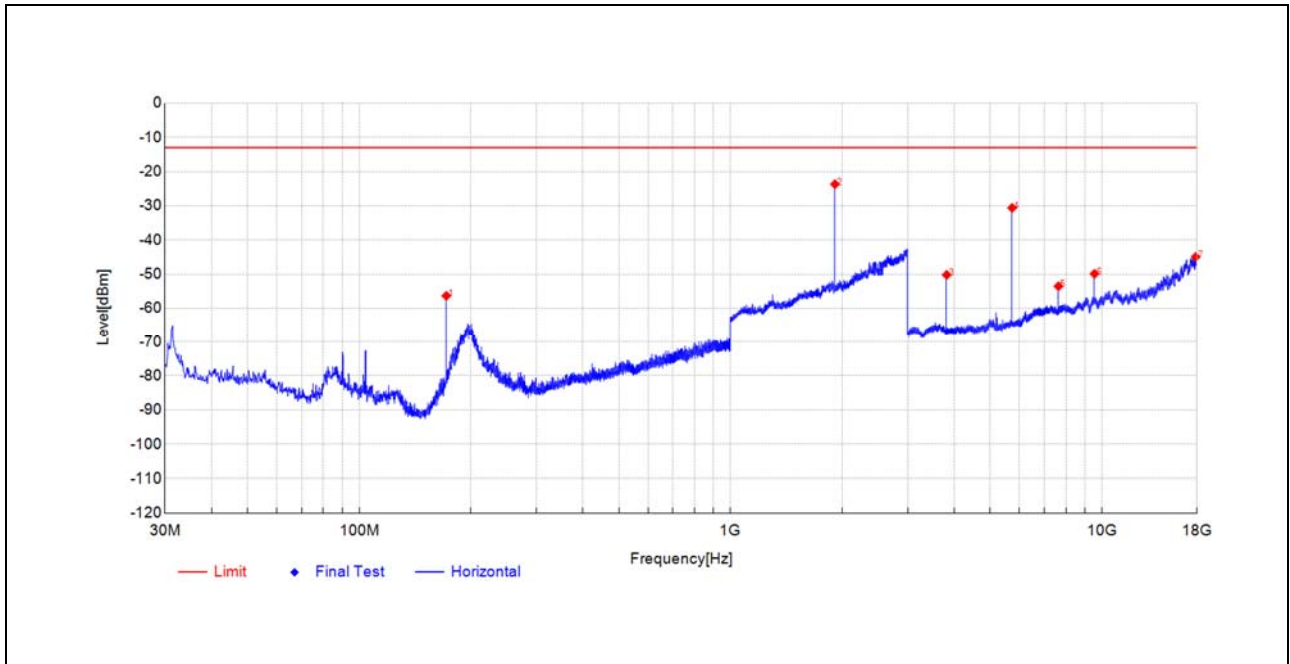




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
141.6712	-39.87	-60.64	-20.8	-13.0	47.6	Vertical	PK	PASS
1880	-48.83	-43.72	5.1	-13.0	30.7	Vertical	PK	NA
3759.8675	-54.81	-53.73	1.1	-13.0	40.7	Vertical	PK	PASS
5639.6137	-62.57	-55.88	6.7	-13.0	42.9	Vertical	PK	PASS
7519.8287	-67.65	-55.78	11.9	-13.0	42.8	Vertical	PK	PASS
16919.966	-80.70	-44.97	35.7	-13.0	32.0	Vertical	PK	PASS

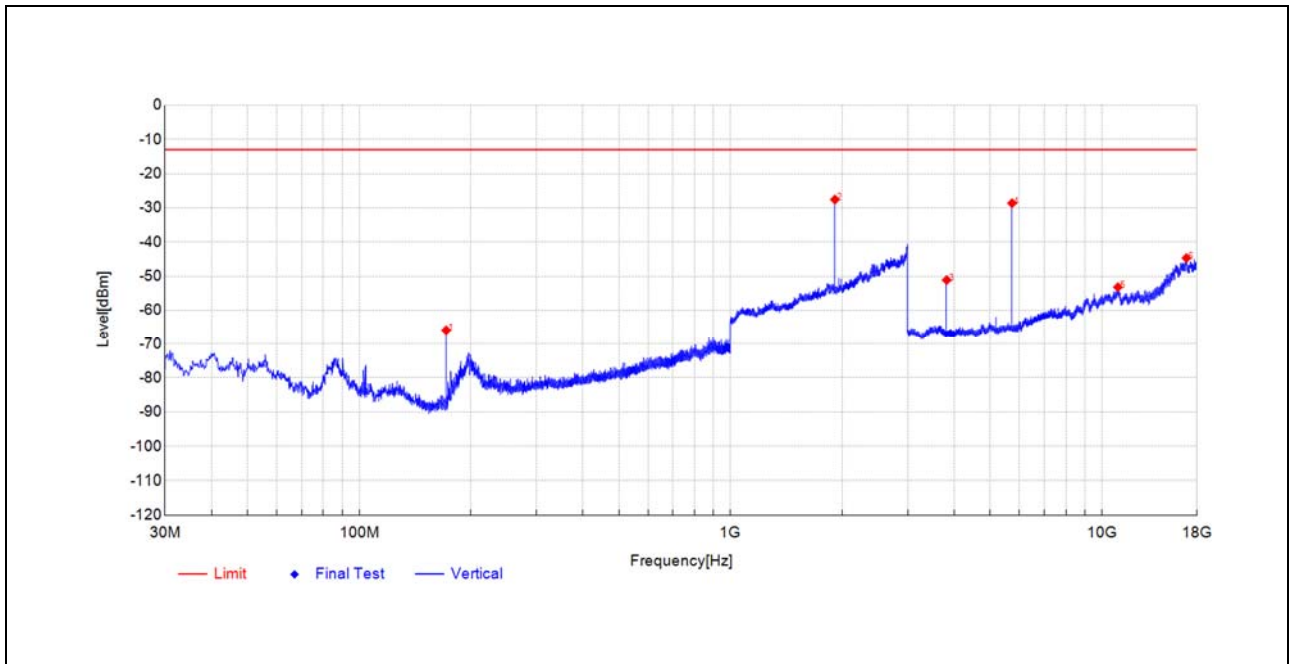


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
171.62	-34.01	-56.35	-22.3	-13.0	43.4	Horizontal	PK	PASS
1910	-27.93	-23.70	4.2	-13.0	10.7	Horizontal	PK	NA
3819.4006	-51.09	-50.21	0.9	-13.0	37.2	Horizontal	PK	PASS
5729.1478	-38.06	-30.63	7.4	-13.0	17.6	Horizontal	PK	PASS
7639.3637	-65.62	-53.54	12.1	-13.0	40.5	Horizontal	PK	PASS
9549.1109	-66.71	-49.92	16.8	-13.0	36.9	Horizontal	PK	PASS
17886.559	-81.50	-44.94	36.6	-13.0	31.9	Horizontal	PK	PASS



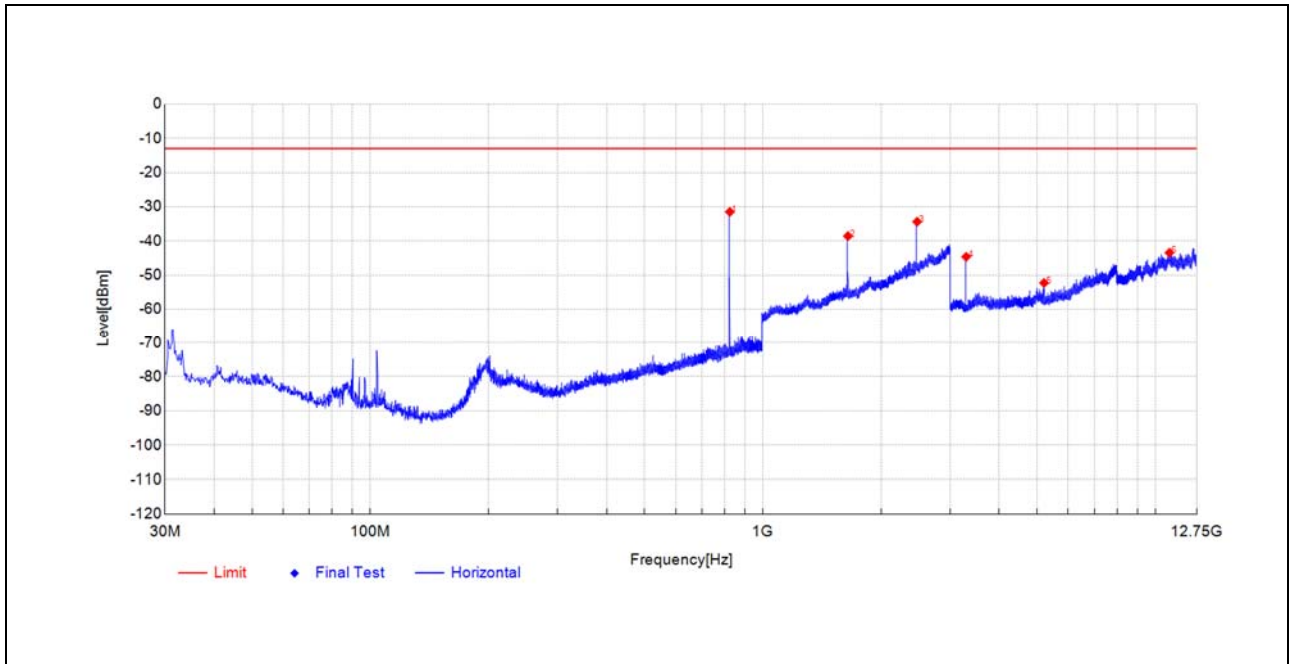


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
171.4988	-43.28	-65.83	-22.6	-13.0	52.8	Vertical	PK	PASS
1910	-32.43	-27.59	4.8	-13.0	14.6	Vertical	PK	NA
3819.4006	-51.83	-51.13	0.7	-13.0	38.1	Vertical	PK	PASS
5729.1478	-35.20	-28.65	6.6	-13.0	15.7	Vertical	PK	PASS
11043.063	-75.38	-53.21	22.2	-13.0	40.2	Vertical	PK	PASS
16889.027	-80.47	-44.68	35.8	-13.0	31.7	Vertical	PK	PASS



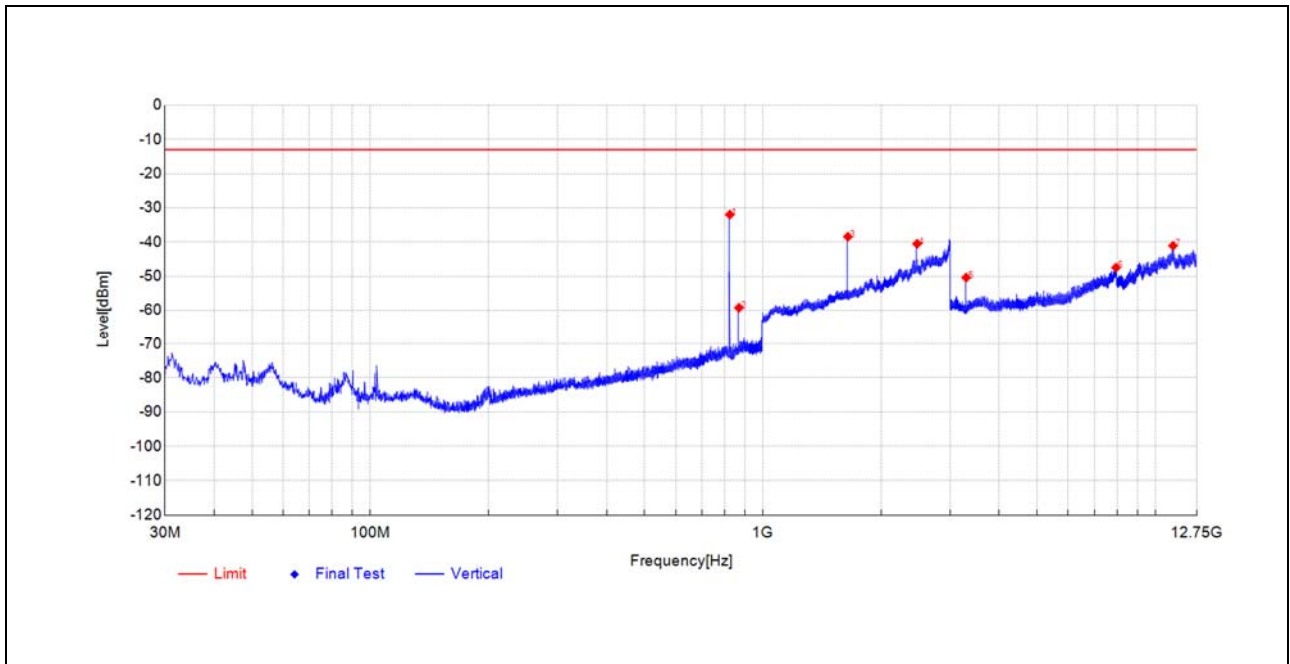
**GSM850(EDGE)**

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
824.3588	-25.70	-31.50	-5.8	-13.0	18.5	Horizontal	PK	NA
1648.25	-41.24	-38.59	2.7	-13.0	25.6	Horizontal	PK	PASS
2472.5	-44.72	-34.38	10.3	-13.0	21.4	Horizontal	PK	PASS
3296.4148	-43.39	-44.66	-1.3	-13.0	31.7	Horizontal	PK	PASS
5206.5353	-57.43	-52.29	5.1	-13.0	39.3	Horizontal	PK	PASS
10867.668	-64.17	-43.45	20.7	-13.0	30.5	Horizontal	PK	PASS

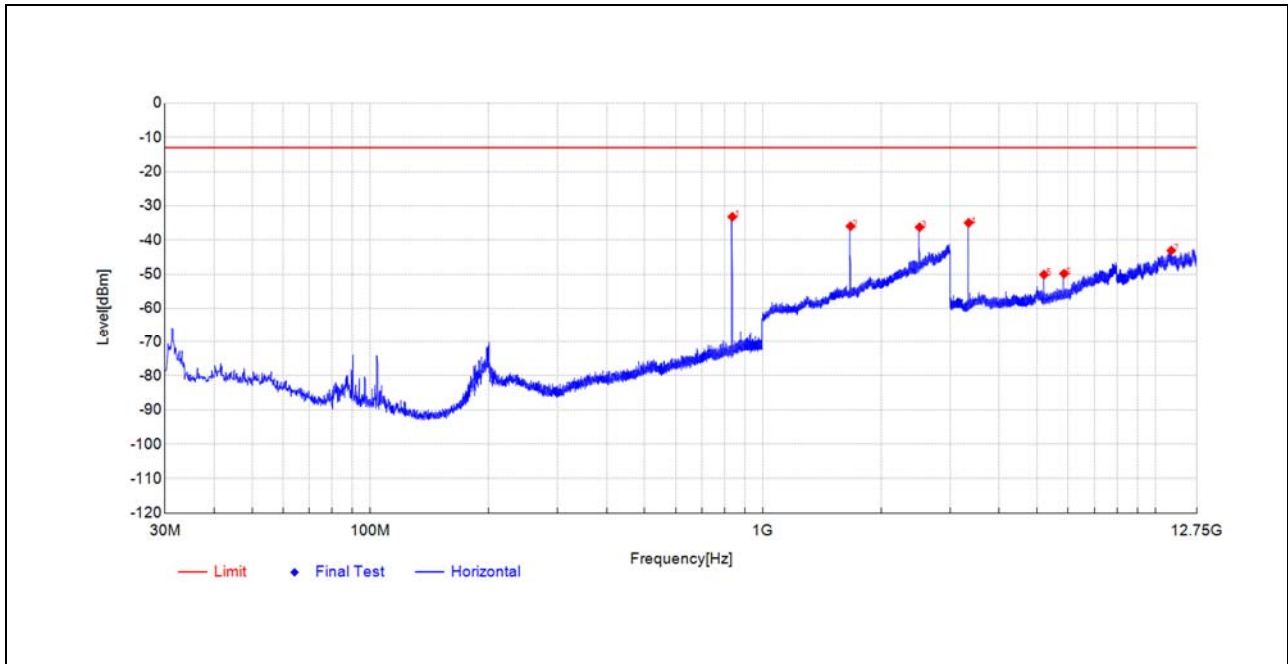




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
824.3588	-26.09	-31.98	-5.9	-13.0	19.0	Vertical	PK	NA
869.2925	-54.39	-59.25	-4.9	-13.0	46.3	Vertical	PK	NA
1648	-40.93	-38.45	2.5	-13.0	25.5	Vertical	PK	PASS
2472.75	-50.95	-40.52	10.4	-13.0	27.5	Vertical	PK	PASS
3296.9023	-49.22	-50.39	-1.2	-13.0	37.4	Vertical	PK	PASS
7943.4972	-60.19	-47.48	12.7	-13.0	34.5	Vertical	PK	PASS
11094.854	-63.48	-41.10	22.4	-13.0	28.1	Vertical	PK	PASS

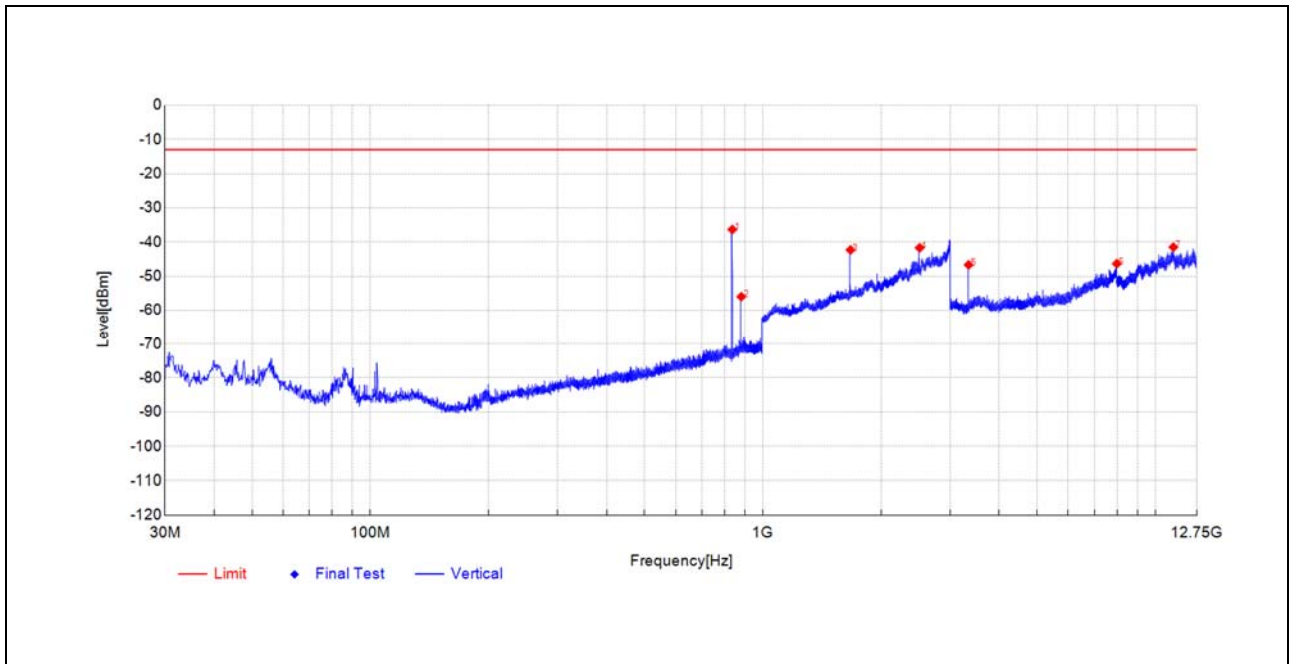


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
836.4338	-27.71	-33.24	-5.5	-13.0	20.2	Horizontal	PK	NA
1672.75	-38.49	-35.99	2.5	-13.0	23.0	Horizontal	PK	PASS
2509.25	-46.32	-36.26	10.1	-13.0	23.3	Horizontal	PK	PASS
3345.1673	-34.38	-35.01	-0.6	-13.0	22.0	Horizontal	PK	PASS
5205.0728	-55.27	-50.14	5.1	-13.0	37.1	Horizontal	PK	PASS
5854.4552	-57.47	-49.87	7.6	-13.0	36.9	Horizontal	PK	PASS
10986.136	-64.06	-43.09	21.0	-13.0	30.1	Horizontal	PK	PASS

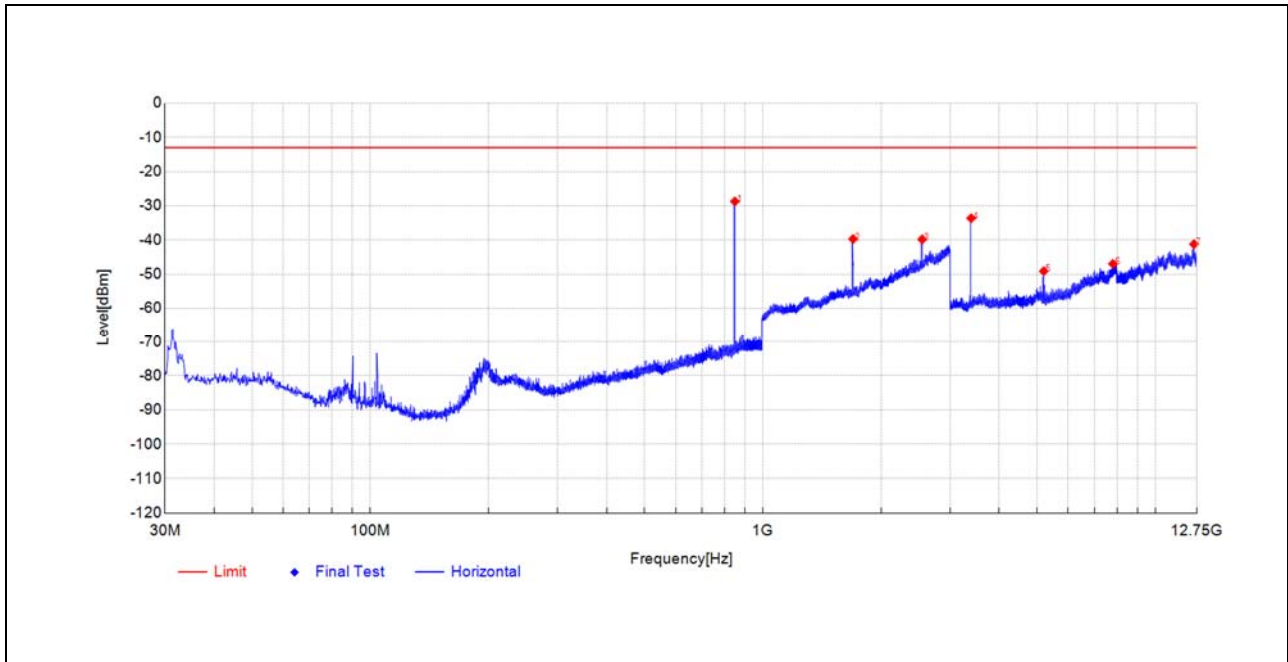




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
836.4338	-30.51	-36.34	-5.8	-13.0	23.3	Vertical	PK	NA
881.5388	-51.52	-55.99	-4.5	-13.0	43.0	Vertical	PK	NA
1672.5	-45.05	-42.31	2.7	-13.0	29.3	Vertical	PK	PASS
2509.25	-51.55	-41.70	9.9	-13.0	28.7	Vertical	PK	PASS
3345.6548	-46.19	-46.69	-0.5	-13.0	33.7	Vertical	PK	PASS
7977.6239	-59.25	-46.35	12.9	-13.0	33.4	Vertical	PK	PASS
11118.743	-63.65	-41.50	22.2	-13.0	28.5	Vertical	PK	PASS

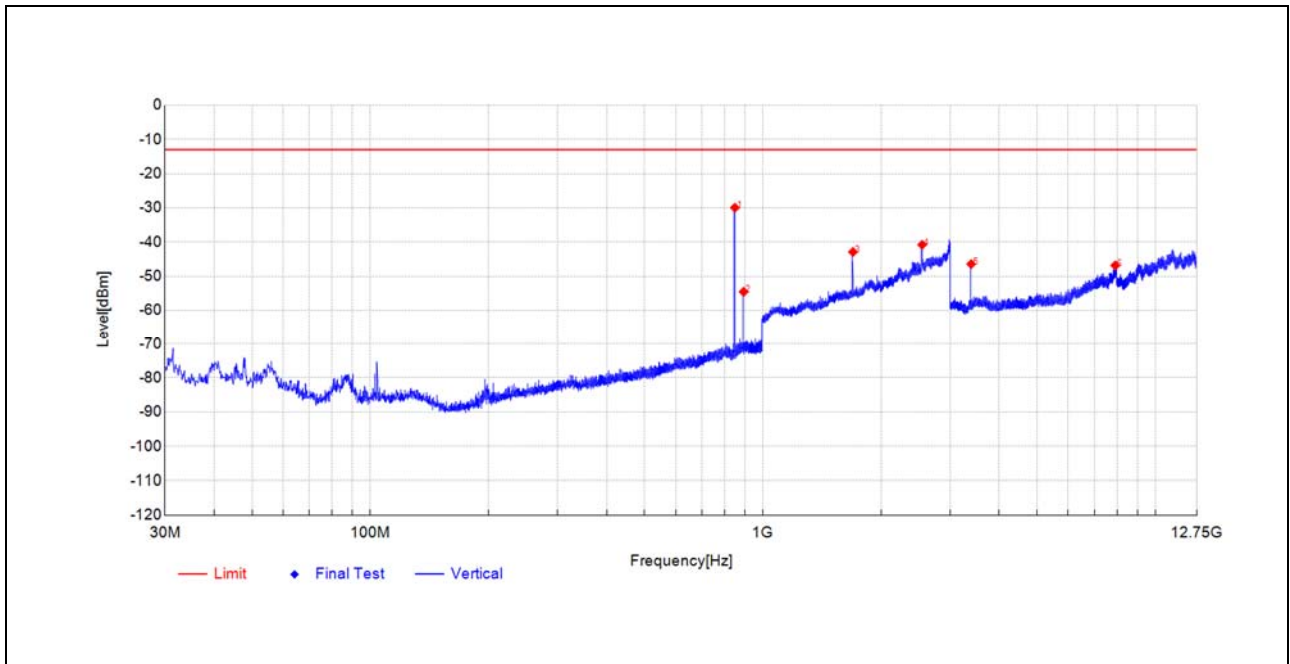


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
848.9225	-23.54	-28.73	-5.2	-13.0	15.7	Horizontal	PK	NA
1698.25	-42.67	-39.73	2.9	-13.0	26.7	Horizontal	PK	PASS
2547.5	-50.82	-39.82	11.0	-13.0	26.8	Horizontal	PK	PASS
3394.8947	-33.78	-33.65	0.1	-13.0	20.7	Horizontal	PK	PASS
5198.2474	-54.26	-49.13	5.1	-13.0	36.1	Horizontal	PK	PASS
7799.19	-59.43	-47.00	12.4	-13.0	34.0	Horizontal	PK	PASS
12551.090	-64.56	-41.23	23.3	-13.0	28.2	Horizontal	PK	PASS



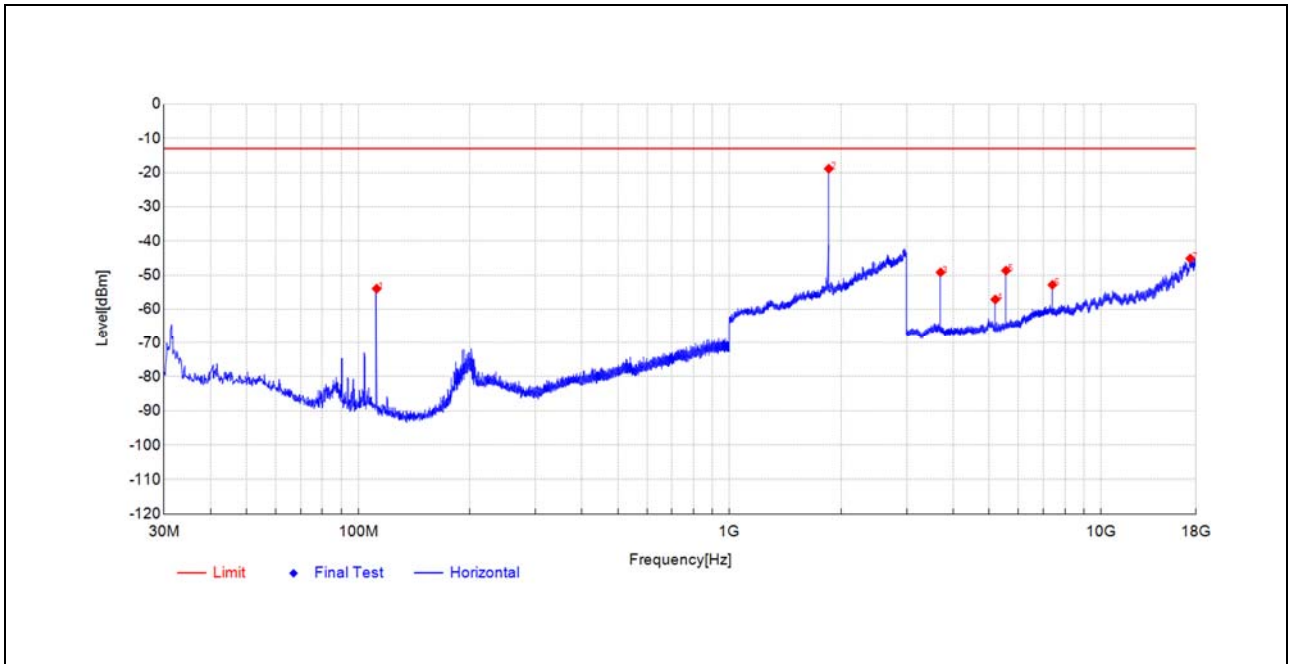


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
848.9225	-24.44	-29.96	-5.5	-13.0	17.0	Vertical	PK	NA
893.9062	-50.12	-54.55	-4.4	-13.0	41.6	Vertical	PK	NA
1697.25	-46.01	-42.92	3.1	-13.0	29.9	Vertical	PK	PASS
2546.25	-52.25	-40.81	11.4	-13.0	27.8	Vertical	PK	PASS
3394.8947	-46.70	-46.45	0.3	-13.0	33.5	Vertical	PK	PASS
7907.9079	-59.35	-46.84	12.5	-13.0	33.8	Vertical	PK	PASS



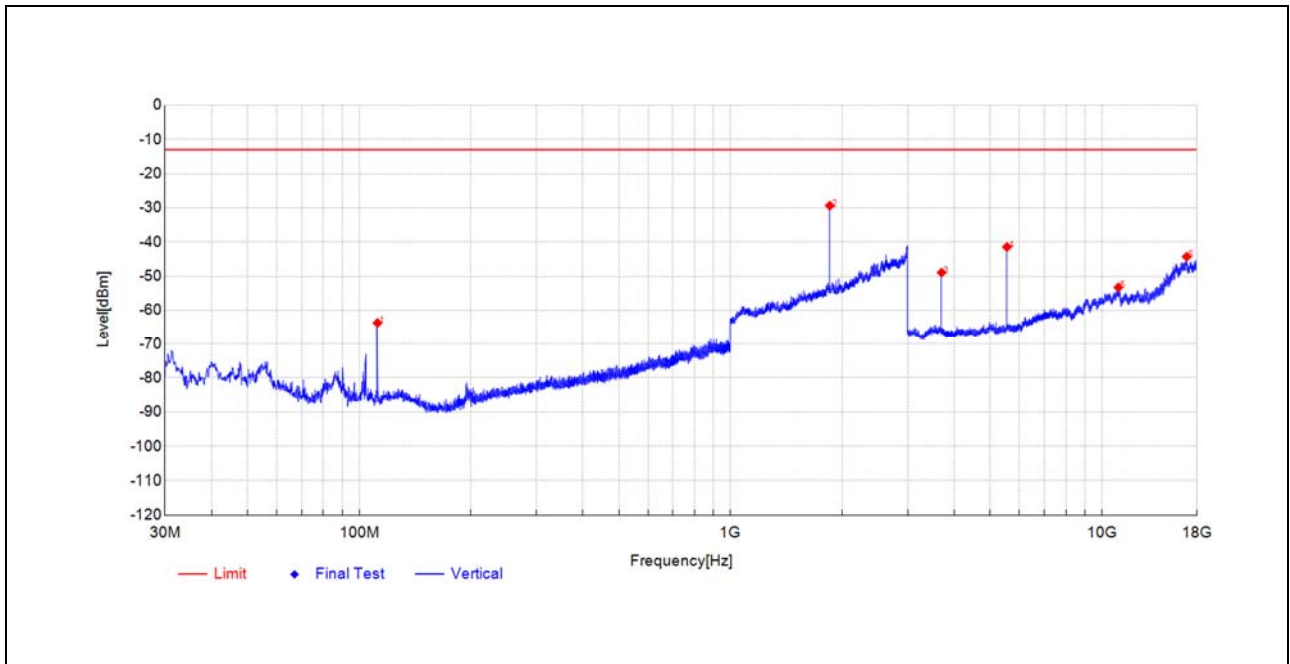
**GSM1900(EDGE)**

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
112.0862	-30.49	-53.97	-23.5	-13.0	41.0	Horizontal	PK	PASS
1850	-23.17	-18.89	4.3	-13.0	5.9	Horizontal	PK	NA
3699.8656	-50.96	-49.18	1.8	-13.0	36.2	Horizontal	PK	PASS
5196.1624	-62.28	-57.12	5.2	-13.0	44.1	Horizontal	PK	PASS
5550.5485	-55.35	-48.69	6.7	-13.0	35.7	Horizontal	PK	PASS
7400.7625	-65.36	-52.86	12.5	-13.0	39.9	Horizontal	PK	PASS
17402.325	-81.23	-45.14	36.1	-13.0	32.1	Horizontal	PK	PASS

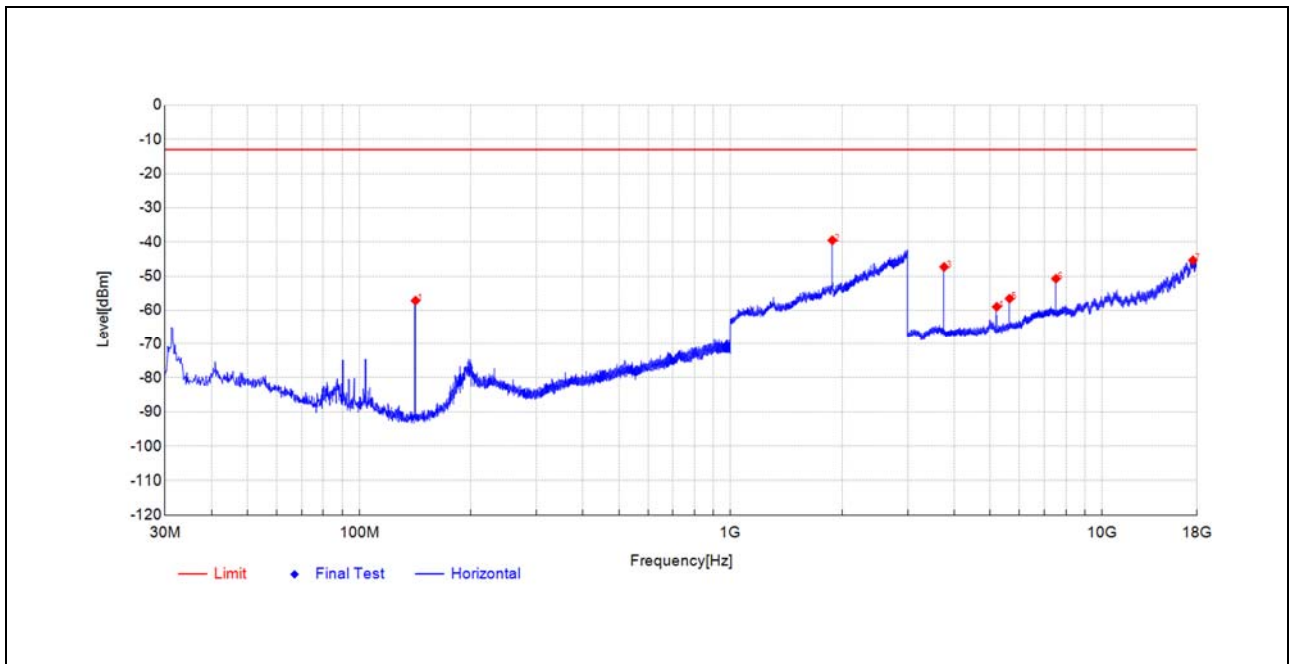




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
111.965	-43.43	-63.68	-20.3	-13.0	50.7	Vertical	PK	PASS
1850	-33.70	-29.38	4.3	-13.0	16.4	Vertical	PK	NA
3700.3344	-50.71	-48.94	1.8	-13.0	35.9	Vertical	PK	PASS
5550.0797	-47.81	-41.46	6.4	-13.0	28.5	Vertical	PK	PASS
11070.721	-75.55	-53.26	22.3	-13.0	40.3	Vertical	PK	PASS
16920.903	-80.03	-44.32	35.7	-13.0	31.3	Vertical	PK	PASS

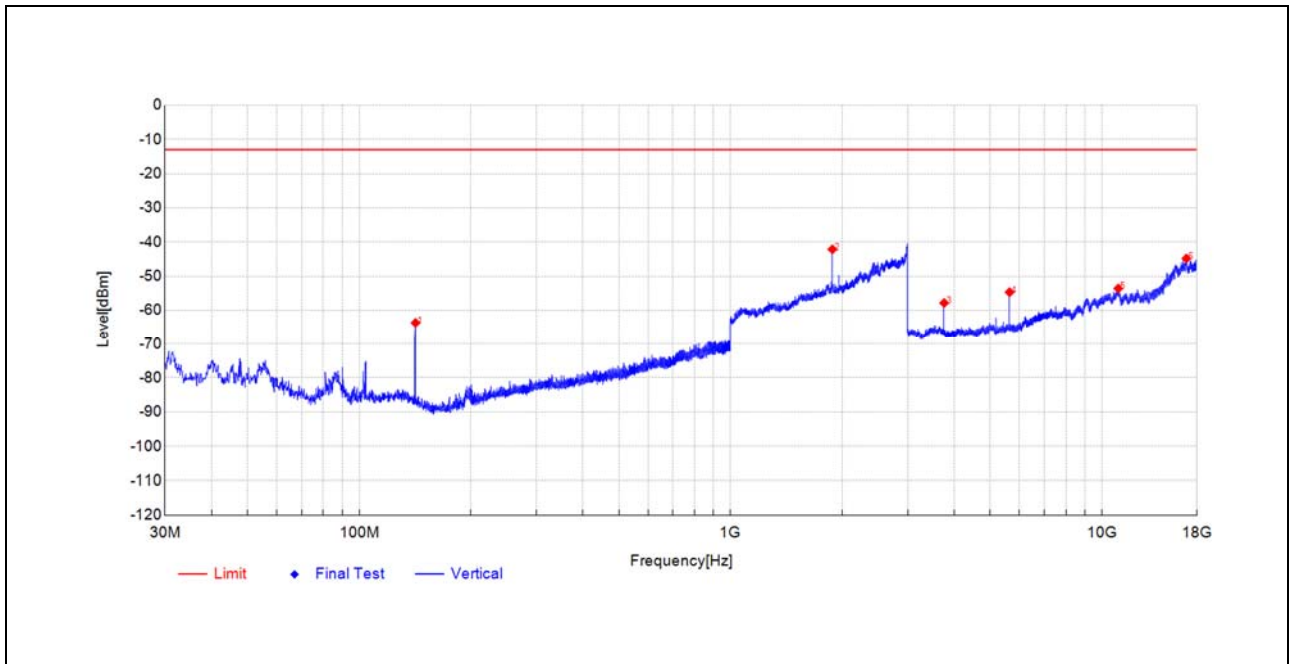


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
141.7925	-31.59	-57.16	-25.6	-13.0	44.2	Horizontal	PK	PASS
1880	-44.80	-39.51	5.3	-13.0	26.5	Horizontal	PK	NA
3759.8675	-48.48	-47.30	1.2	-13.0	34.3	Horizontal	PK	PASS
5207.8815	-64.11	-58.97	5.1	-13.0	46.0	Horizontal	PK	PASS
5640.0825	-63.68	-56.58	7.1	-13.0	43.6	Horizontal	PK	PASS
7519.8287	-63.06	-50.76	12.3	-13.0	37.8	Horizontal	PK	PASS
17587.487	-81.86	-45.36	36.5	-13.0	32.4	Horizontal	PK	PASS

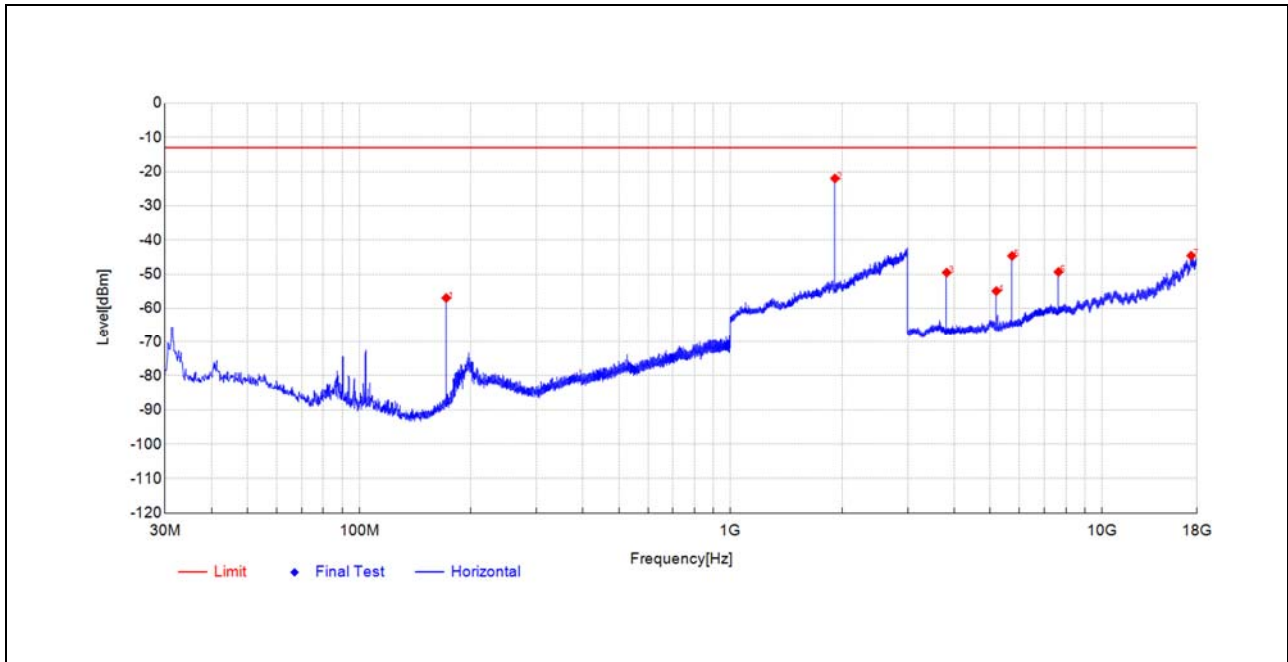




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
141.7925	-42.87	-63.66	-20.8	-13.0	50.7	Vertical	PK	PASS
1880	-47.25	-42.14	5.1	-13.0	29.1	Vertical	PK	NA
3759.8675	-58.90	-57.82	1.1	-13.0	44.8	Vertical	PK	PASS
5640.0825	-61.38	-54.68	6.7	-13.0	41.7	Vertical	PK	PASS
11067.439	-75.86	-53.59	22.3	-13.0	40.6	Vertical	PK	PASS
16883.871	-80.50	-44.82	35.7	-13.0	31.8	Vertical	PK	PASS

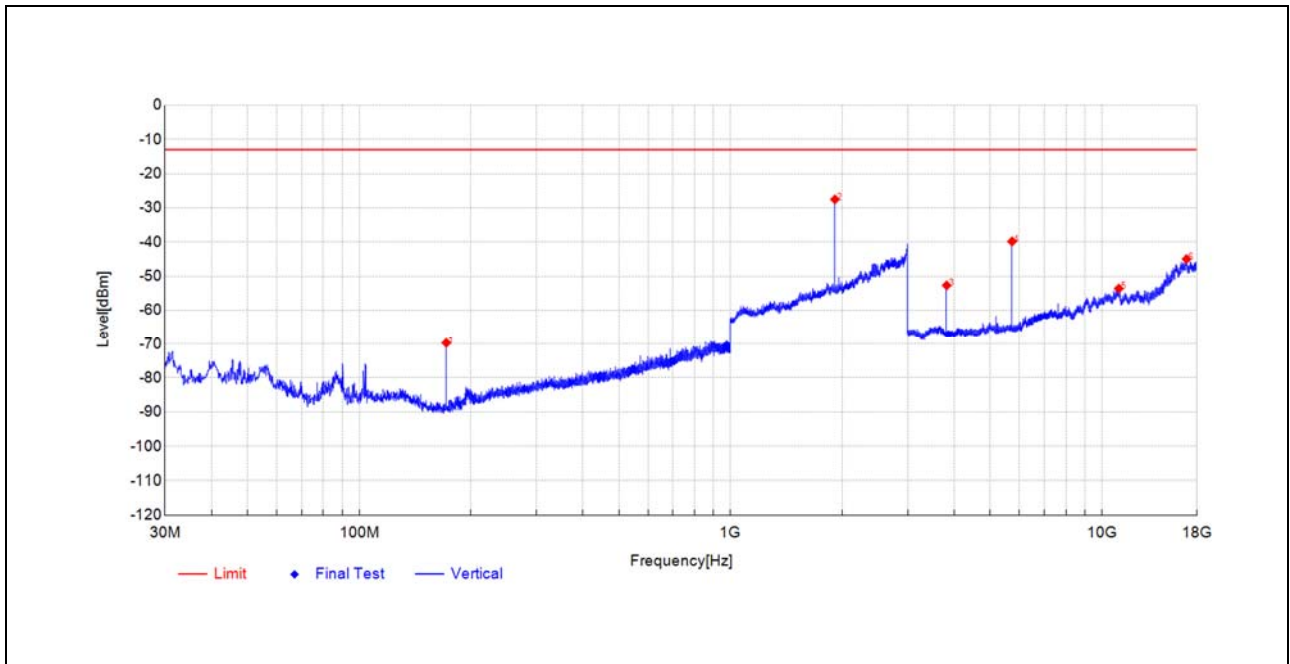


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
171.4988	-34.61	-56.97	-22.4	-13.0	44.0	Horizontal	PK	PASS
1910	-26.24	-22.01	4.2	-13.0	9.0	Horizontal	PK	NA
3819.4006	-50.42	-49.54	0.9	-13.0	36.5	Horizontal	PK	PASS
5196.1624	-60.10	-54.94	5.2	-13.0	41.9	Horizontal	PK	PASS
5729.1478	-52.10	-44.67	7.4	-13.0	31.7	Horizontal	PK	PASS
7639.3637	-61.44	-49.36	12.1	-13.0	36.4	Horizontal	PK	PASS
17399.512	-80.70	-44.61	36.1	-13.0	31.6	Horizontal	PK	PASS





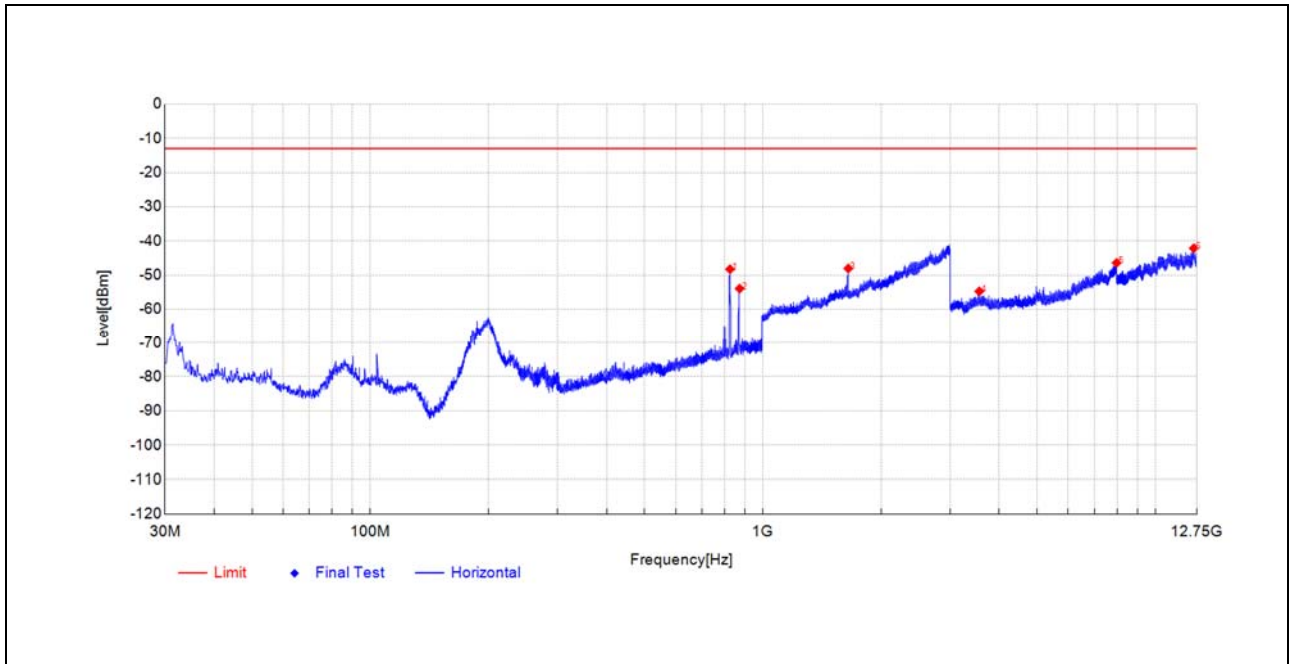
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
171.62	-47.19	-69.74	-22.6	-13.0	56.7	Vertical	PK	PASS
1910	-32.38	-27.54	4.8	-13.0	14.5	Vertical	PK	NA
3819.4006	-53.40	-52.70	0.7	-13.0	39.7	Vertical	PK	PASS
5729.1478	-46.37	-39.82	6.6	-13.0	26.8	Vertical	PK	PASS
11099.784	-76.03	-53.62	22.4	-13.0	40.6	Vertical	PK	PASS
16896.996	-80.95	-44.99	36.0	-13.0	32.0	Vertical	PK	PASS





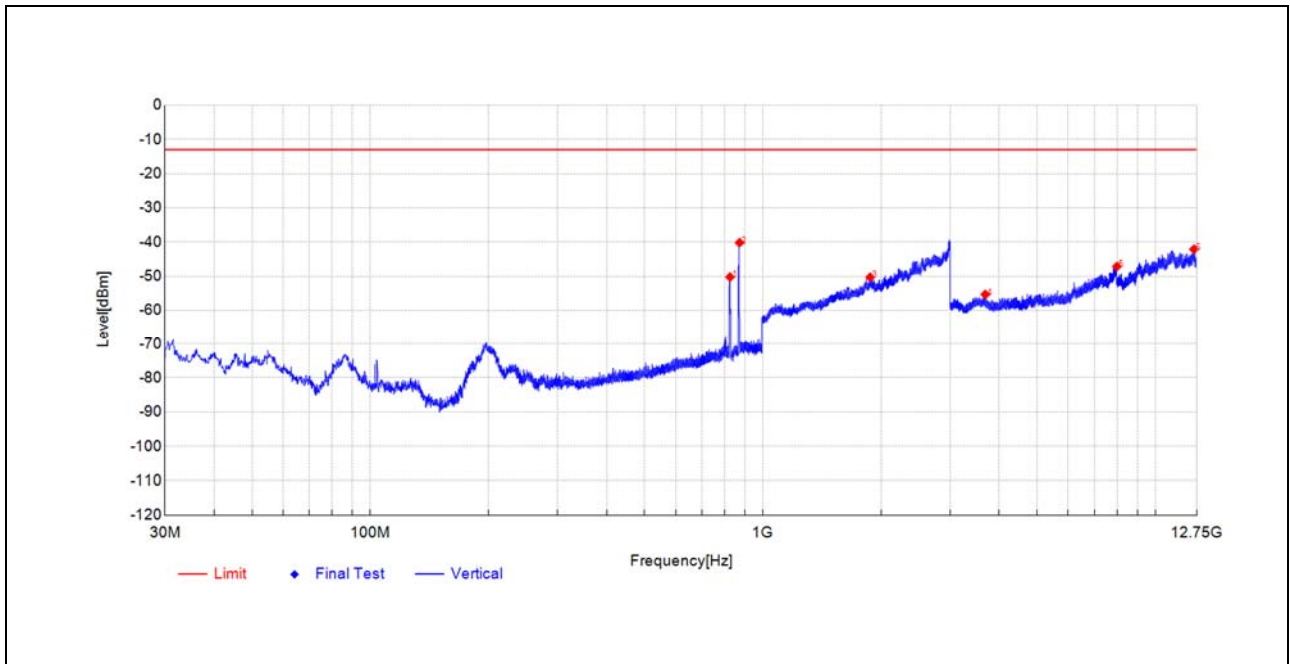
WCDMA Band V(WCDMA)

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
825.2787	-42.51	-48.29	-5.8	-13.0	35.3	Horizontal	PK	NA
873.0512	-49.13	-53.95	-4.8	-13.0	41.0	Horizontal	PK	NA
1651.25	-50.63	-48.05	2.6	-13.0	35.1	Horizontal	PK	PASS
3561.1406	-56.17	-54.75	1.4	-13.0	41.8	Horizontal	PK	PASS
7967.3859	-59.72	-46.43	13.3	-13.0	33.4	Horizontal	PK	PASS
12528.663	-65.53	-42.16	23.4	-13.0	29.2	Horizontal	PK	PASS

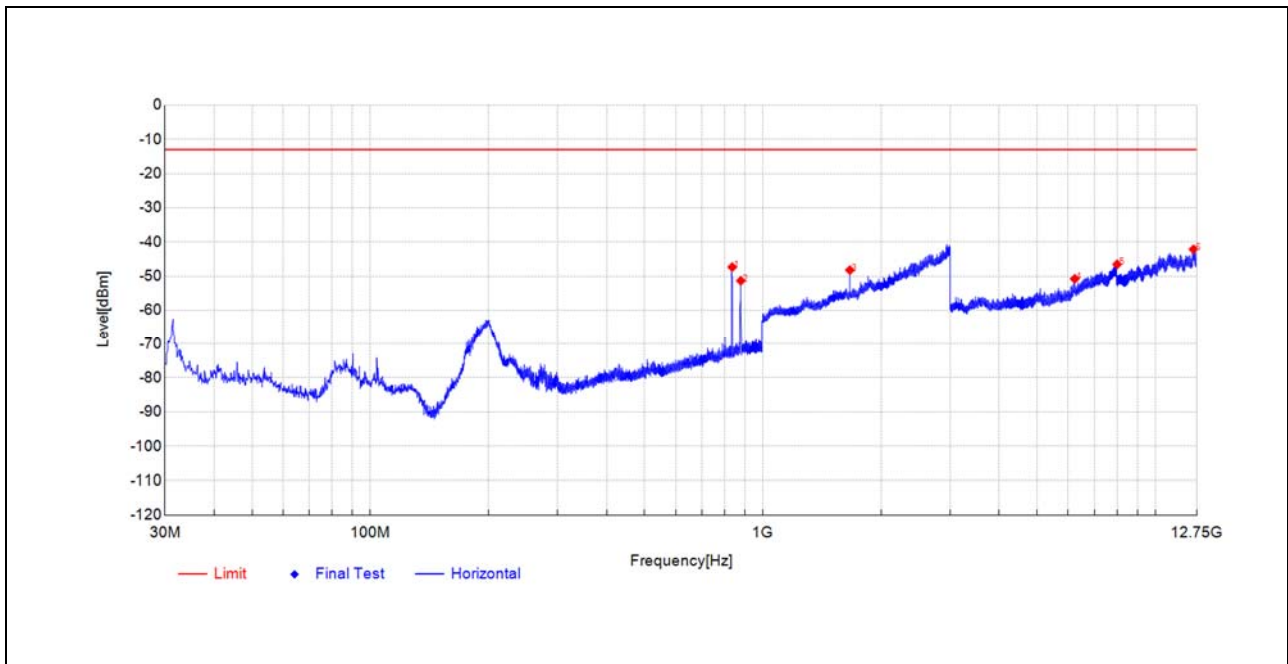




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
824.915	-44.35	-50.25	-5.9	-13.0	37.3	Vertical	PK	NA
872.5662	-35.45	-40.19	-4.7	-13.0	27.2	Vertical	PK	NA
1877.25	-56.09	-50.30	5.8	-13.0	37.3	Vertical	PK	PASS
3687.4094	-57.09	-55.35	1.7	-13.0	42.4	Vertical	PK	PASS
7983.4742	-60.10	-47.17	12.9	-13.0	34.2	Vertical	PK	PASS
12544.264	-65.39	-42.13	23.3	-13.0	29.1	Vertical	PK	PASS

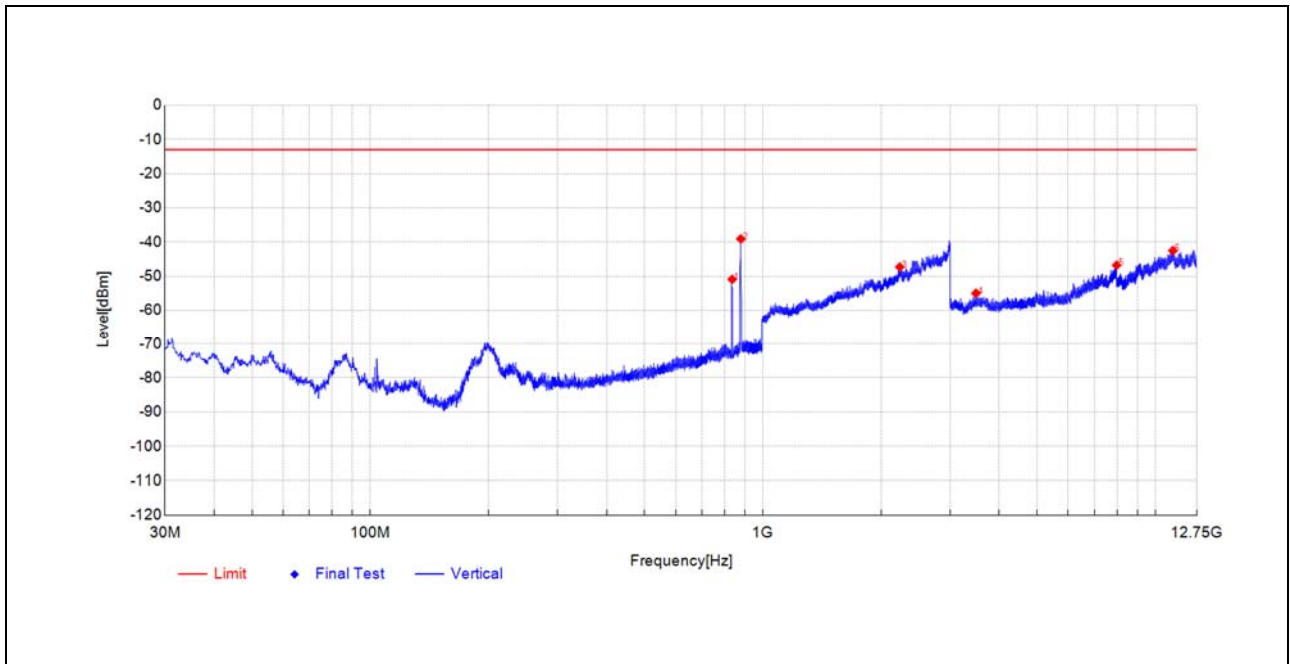


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
835.7062	-41.80	-47.36	-5.6	-13.0	34.4	Horizontal	PK	NA
878.9925	-46.59	-51.35	-4.8	-13.0	38.4	Horizontal	PK	NA
1667	-50.73	-48.23	2.5	-13.0	35.2	Horizontal	PK	PASS
6233.7492	-60.65	-50.80	9.9	-13.0	37.8	Horizontal	PK	PASS
7994.1997	-59.92	-46.54	13.4	-13.0	33.5	Horizontal	PK	PASS
12506.725	-65.56	-42.15	23.4	-13.0	29.2	Horizontal	PK	PASS

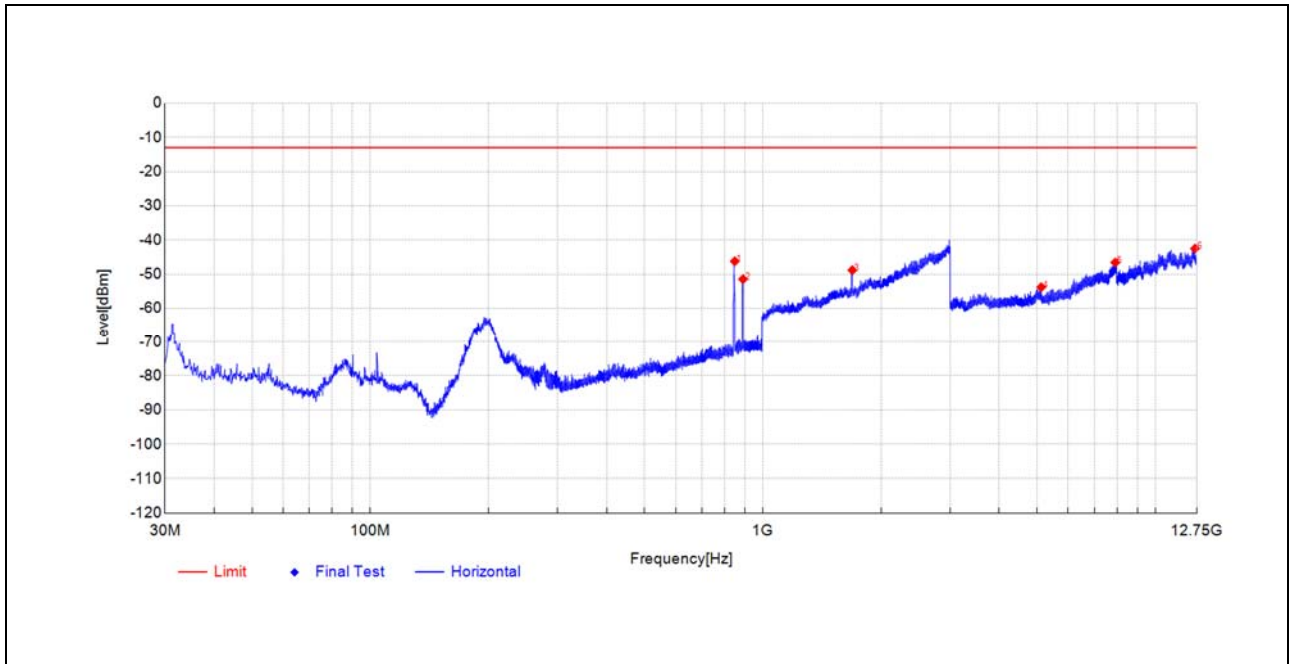




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
835.7062	-45.06	-50.91	-5.9	-13.0	37.9	Vertical	PK	NA
879.1138	-34.59	-39.10	-4.5	-13.0	26.1	Vertical	PK	NA
2233.75	-55.79	-47.31	8.5	-13.0	34.3	Vertical	PK	PASS
3492.8871	-56.23	-55.00	1.2	-13.0	42.0	Vertical	PK	PASS
7971.7736	-59.65	-46.78	12.9	-13.0	33.8	Vertical	PK	PASS
11087.054	-64.89	-42.53	22.4	-13.0	29.5	Vertical	PK	PASS

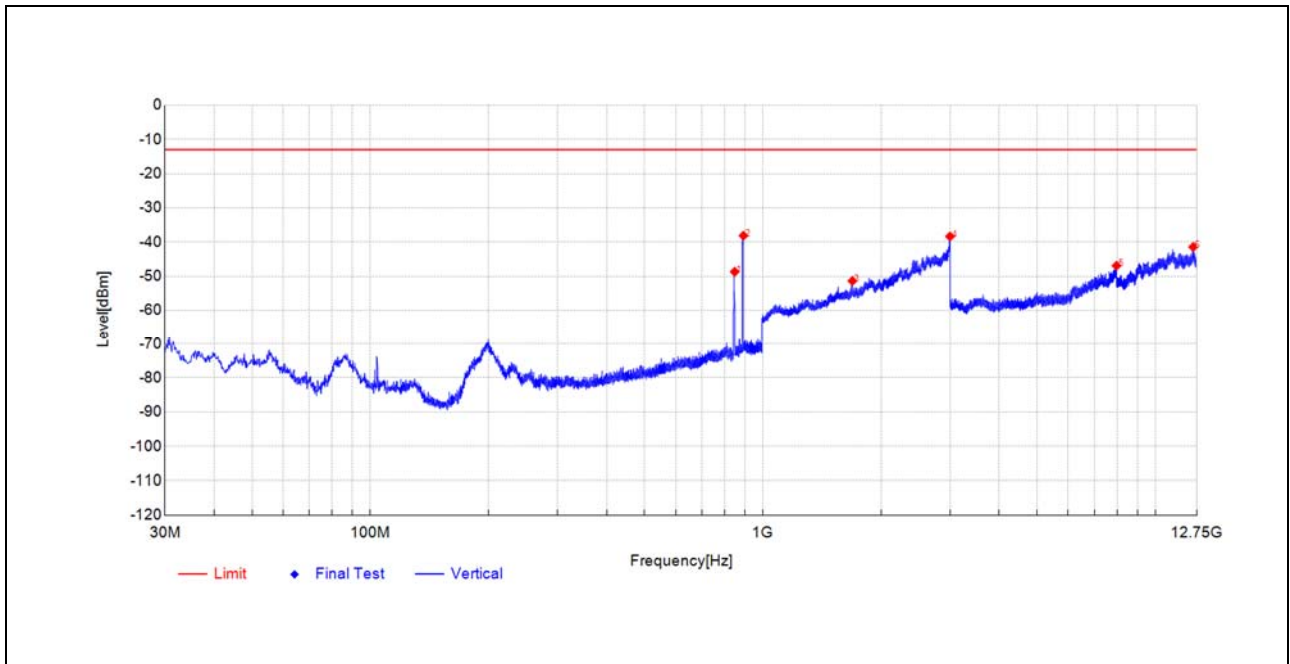


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
848.3162	-41.04	-46.24	-5.2	-13.0	33.2	Horizontal	PK	NA
890.2688	-46.78	-51.47	-4.7	-13.0	38.5	Horizontal	PK	NA
1690.75	-51.60	-48.83	2.8	-13.0	35.8	Horizontal	PK	PASS
5121.7061	-59.67	-53.82	5.9	-13.0	40.8	Horizontal	PK	PASS
7905.9578	-59.66	-46.58	13.1	-13.0	33.6	Horizontal	PK	PASS
12621.293	-65.56	-42.52	23.0	-13.0	29.5	Horizontal	PK	PASS



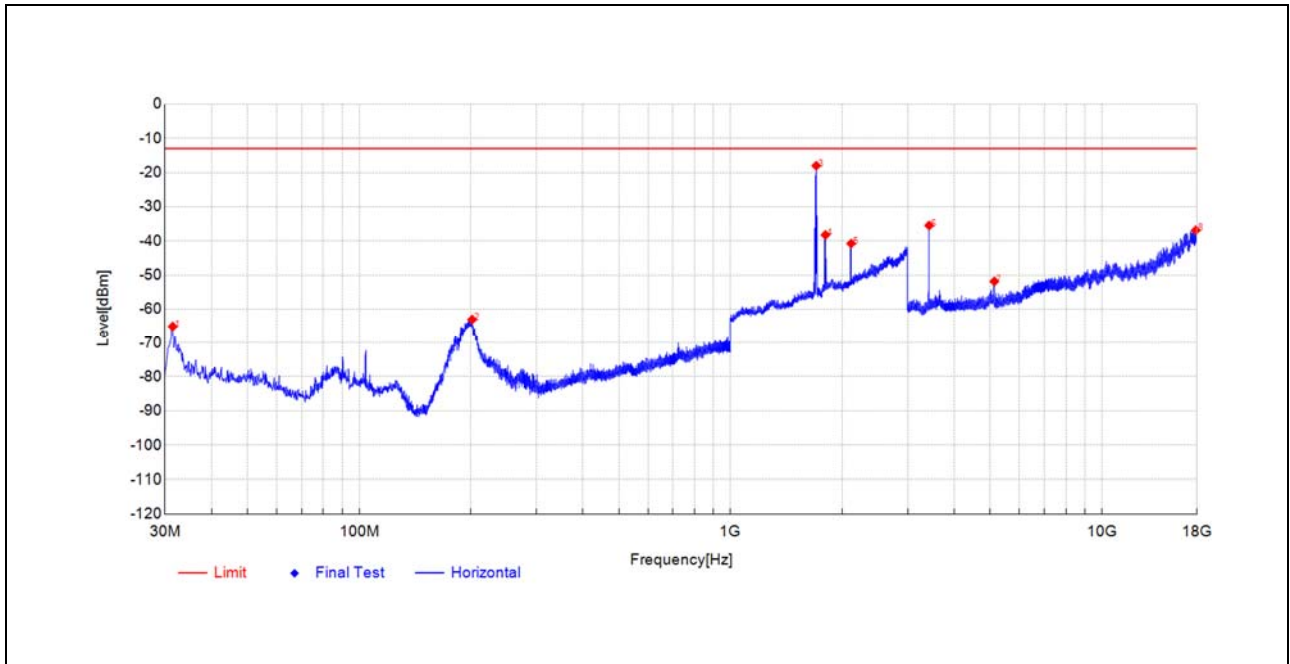


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
847.9525	-43.14	-48.69	-5.6	-13.0	35.7	Vertical	PK	NA
892.6938	-33.72	-38.15	-4.4	-13.0	25.2	Vertical	PK	NA
1691.75	-54.42	-51.39	3.0	-13.0	38.4	Vertical	PK	PASS
2999.5	-55.59	-38.38	17.2	-13.0	25.4	Vertical	PK	PASS
7963.9732	-59.75	-46.93	12.8	-13.0	33.9	Vertical	PK	PASS
12489.174	-64.84	-41.44	23.4	-13.0	28.4	Vertical	PK	PASS



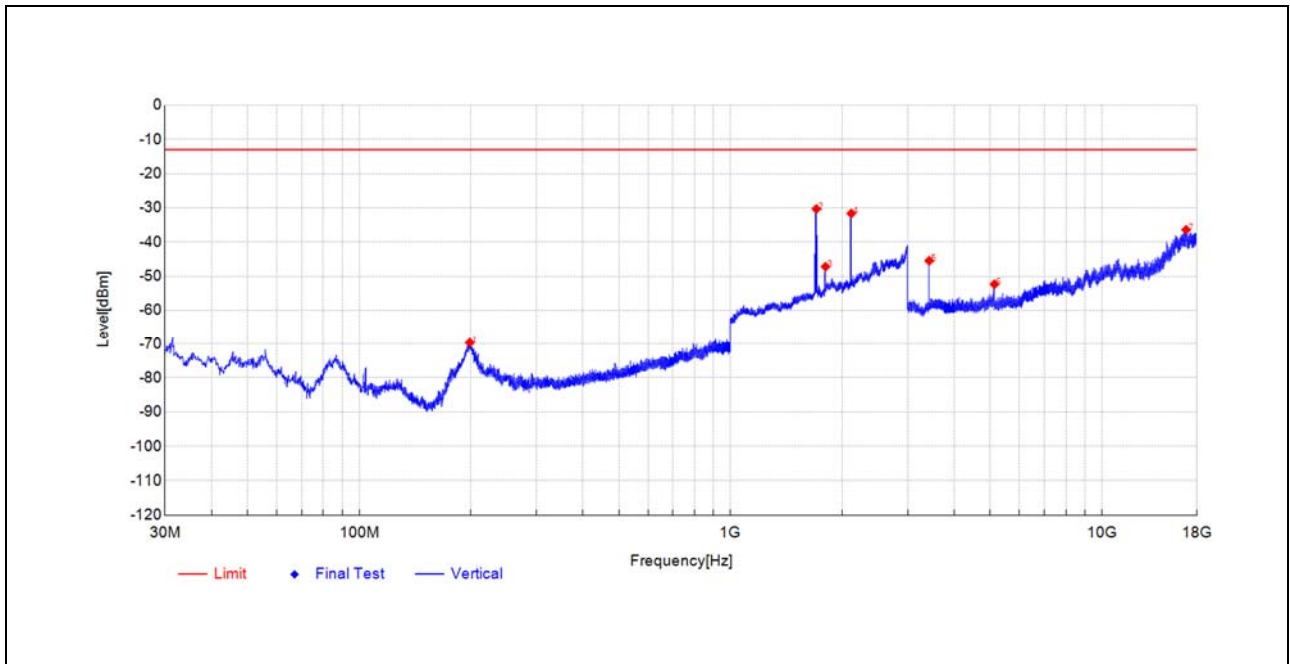
WCDMA Band IV(WCDMA)

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
31.455	-49.89	-65.07	-15.2	-13.0	52.1	Horizontal	PK	PASS
201.4475	-45.65	-63.02	-17.4	-13.0	50.0	Horizontal	PK	PASS
1701	-21.36	-18.01	3.4	-13.0	5.0	Horizontal	PK	PASS
1800.5	-42.45	-38.27	4.2	-13.0	25.3	Horizontal	PK	PASS
2112.5	-46.56	-40.77	5.8	-13.0	27.8	Horizontal	PK	PASS
3426.5758	-35.94	-35.50	0.4	-13.0	22.5	Horizontal	PK	PASS
5133.3479	-57.59	-51.84	5.8	-13.0	38.8	Horizontal	PK	PASS
17908.590	-73.64	-36.86	36.8	-13.0	23.9	Horizontal	PK	PASS

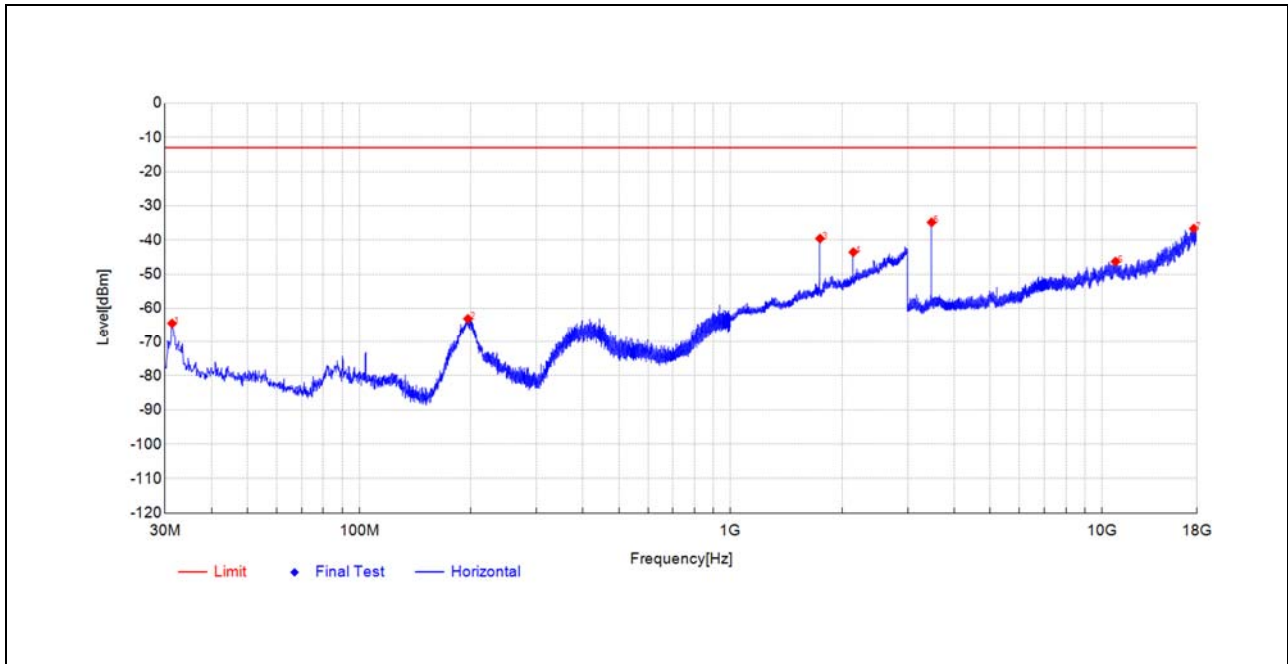




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
198.5375	-48.31	-69.69	-21.4	-13.0	56.7	Vertical	PK	PASS
1702	-33.82	-30.34	3.5	-13.0	17.3	Vertical	PK	PASS
1801.5	-51.05	-47.21	3.8	-13.0	34.2	Vertical	PK	PASS
2113.5	-37.28	-31.66	5.6	-13.0	18.7	Vertical	PK	PASS
3427.0446	-46.07	-45.47	0.6	-13.0	32.5	Vertical	PK	PASS
5133.8167	-57.62	-52.35	5.3	-13.0	39.4	Vertical	PK	PASS
16857.620	-71.55	-36.43	35.1	-13.0	23.4	Vertical	PK	PASS

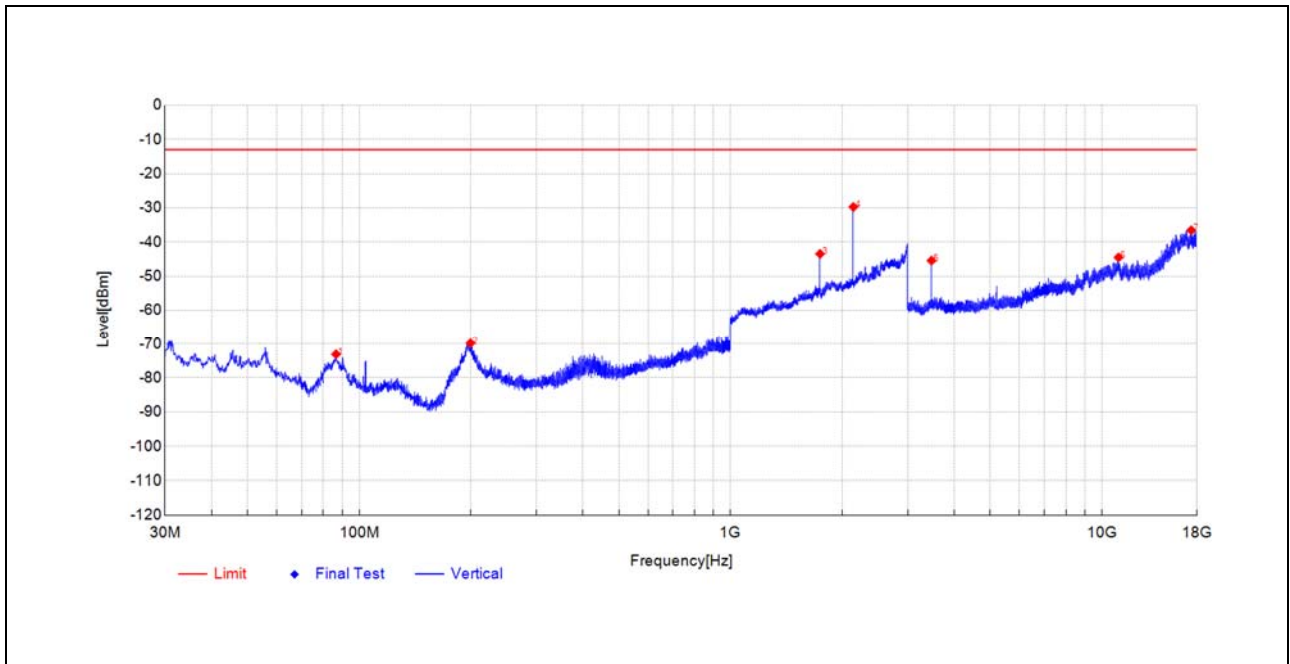


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
31.3338	-49.26	-64.43	-15.2	-13.0	51.4	Horizontal	PK	PASS
196.2337	-44.80	-63.07	-18.3	-13.0	50.1	Horizontal	PK	PASS
1741.5	-42.56	-39.58	3.0	-13.0	26.6	Horizontal	PK	PASS
2141	-49.59	-43.57	6.0	-13.0	30.6	Horizontal	PK	PASS
3477.6712	-35.71	-34.85	0.9	-13.0	21.9	Horizontal	PK	PASS
10875.246	-67.12	-46.34	20.8	-13.0	33.3	Horizontal	PK	PASS
17683.115	-73.15	-36.68	36.5	-13.0	23.7	Horizontal	PK	PASS



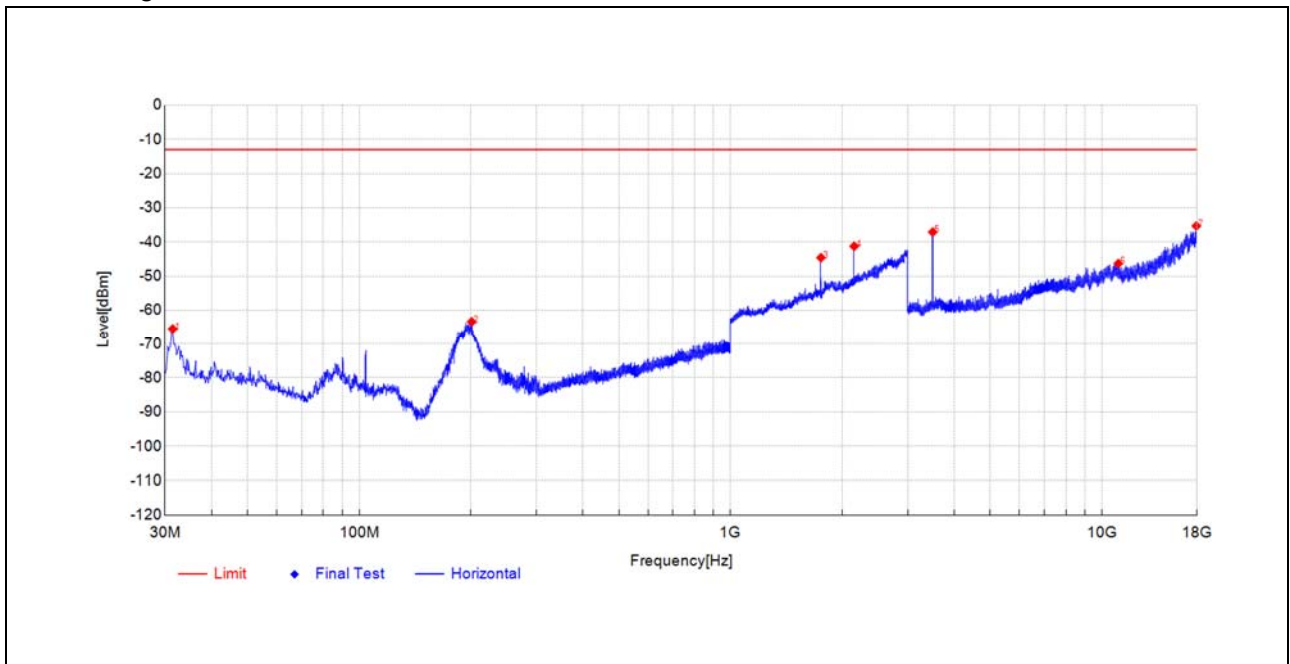


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
86.6238	-50.62	-73.09	-22.5	-13.0	60.1	Vertical	PK	PASS
199.3862	-48.50	-69.84	-21.3	-13.0	56.8	Vertical	PK	PASS
1741.5	-46.90	-43.47	3.4	-13.0	30.5	Vertical	PK	PASS
2141	-35.64	-29.76	5.9	-13.0	16.8	Vertical	PK	PASS
3477.2024	-46.52	-45.44	1.1	-13.0	32.4	Vertical	PK	PASS
11087.596	-66.87	-44.51	22.4	-13.0	31.5	Vertical	PK	PASS
17399.981	-72.19	-36.56	35.6	-13.0	23.6	Vertical	PK	PASS



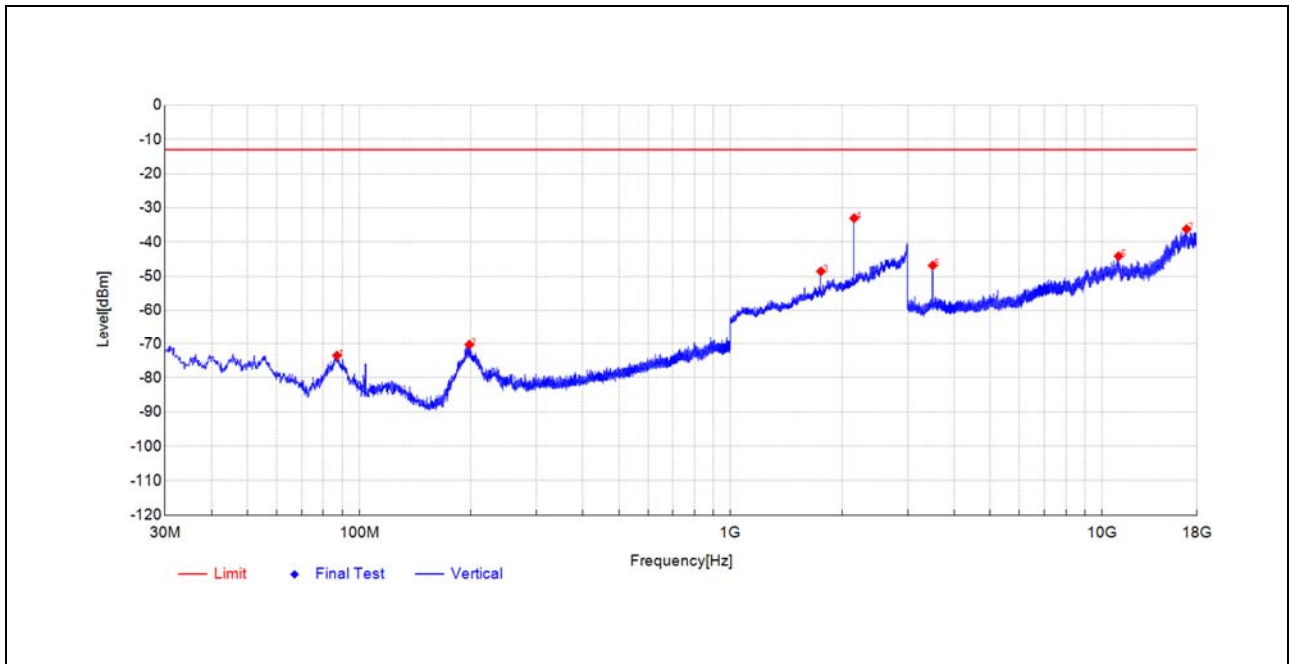


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
31.455	-50.29	-65.47	-15.2	-13.0	52.5	Horizontal	PK	PASS
200.8412	-45.88	-63.36	-17.5	-13.0	50.4	Horizontal	PK	PASS
1751.5	-47.52	-44.60	2.9	-13.0	31.6	Horizontal	PK	PASS
2152	-47.30	-41.27	6.0	-13.0	28.3	Horizontal	PK	PASS
3502.5157	-38.17	-37.10	1.1	-13.0	24.1	Horizontal	PK	PASS
11071.189	-66.60	-46.32	20.3	-13.0	33.3	Horizontal	PK	PASS
17963.436	-71.99	-35.34	36.7	-13.0	22.3	Horizontal	PK	PASS



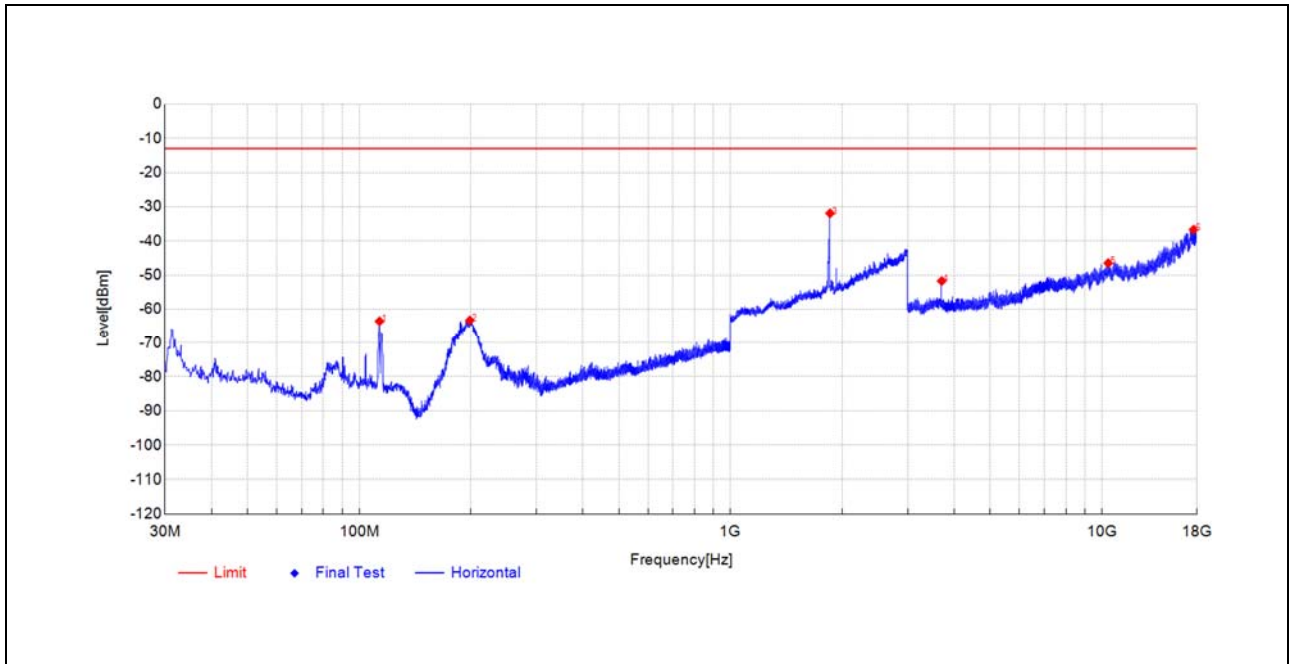


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
87.1088	-51.08	-73.50	-22.4	-13.0	60.5	Vertical	PK	PASS
198.0525	-48.90	-70.31	-21.4	-13.0	57.3	Vertical	PK	PASS
1751.5	-52.05	-48.58	3.5	-13.0	35.6	Vertical	PK	PASS
2151.5	-38.74	-33.03	5.7	-13.0	20.0	Vertical	PK	PASS
3502.5157	-48.19	-46.88	1.3	-13.0	33.9	Vertical	PK	PASS
11089.471	-66.51	-44.14	22.4	-13.0	31.1	Vertical	PK	PASS
16904.028	-72.18	-36.21	36.0	-13.0	23.2	Vertical	PK	PASS



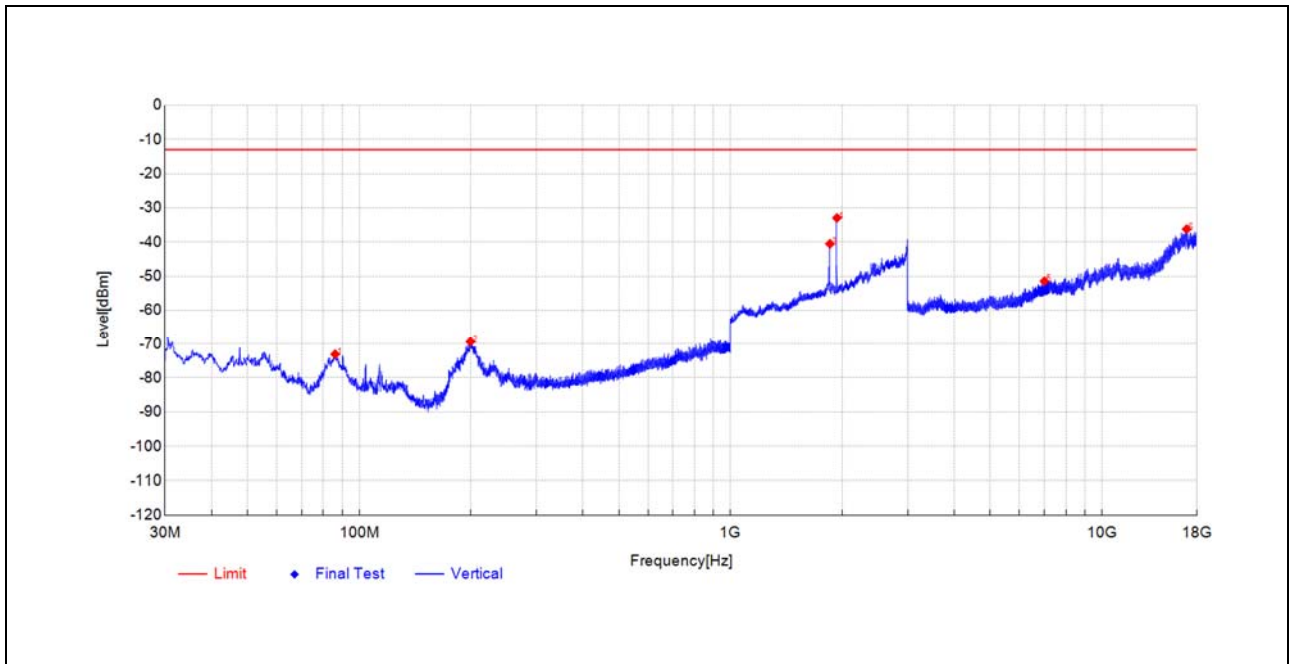
WCDMA Band II(WCDMA)

Plot for Low Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
113.42	-39.86	-63.53	-23.7	-13.0	50.5	Horizontal	PK	PASS
198.5375	-45.39	-63.27	-17.9	-13.0	50.3	Horizontal	PK	PASS
1853	-36.23	-31.92	4.3	-13.0	18.9	Horizontal	PK	NA
3702.2094	-53.48	-51.73	1.8	-13.0	38.7	Horizontal	PK	PASS
10401.325	-65.71	-46.50	19.2	-13.0	33.5	Horizontal	PK	PASS
17657.333	-73.22	-36.71	36.5	-13.0	23.7	Horizontal	PK	PASS

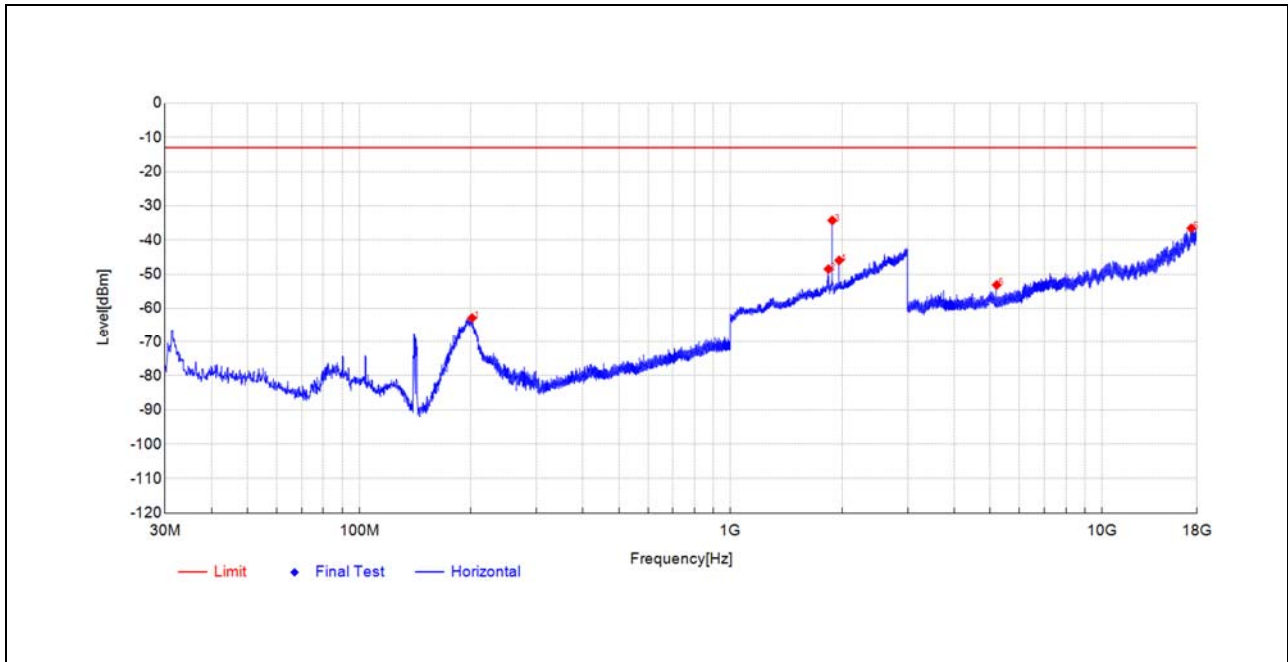




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
86.1388	-50.56	-73.08	-22.5	-13.0	60.1	Vertical	PK	PASS
199.265	-48.04	-69.39	-21.4	-13.0	56.4	Vertical	PK	PASS
1852	-44.80	-40.52	4.3	-13.0	27.5	Vertical	PK	NA
1933.5	-36.84	-32.96	3.9	-13.0	20.0	Vertical	PK	NA
7002.3126	-62.66	-51.44	11.2	-13.0	38.4	Vertical	PK	PASS
16912.934	-72.06	-36.23	35.8	-13.0	23.2	Vertical	PK	PASS

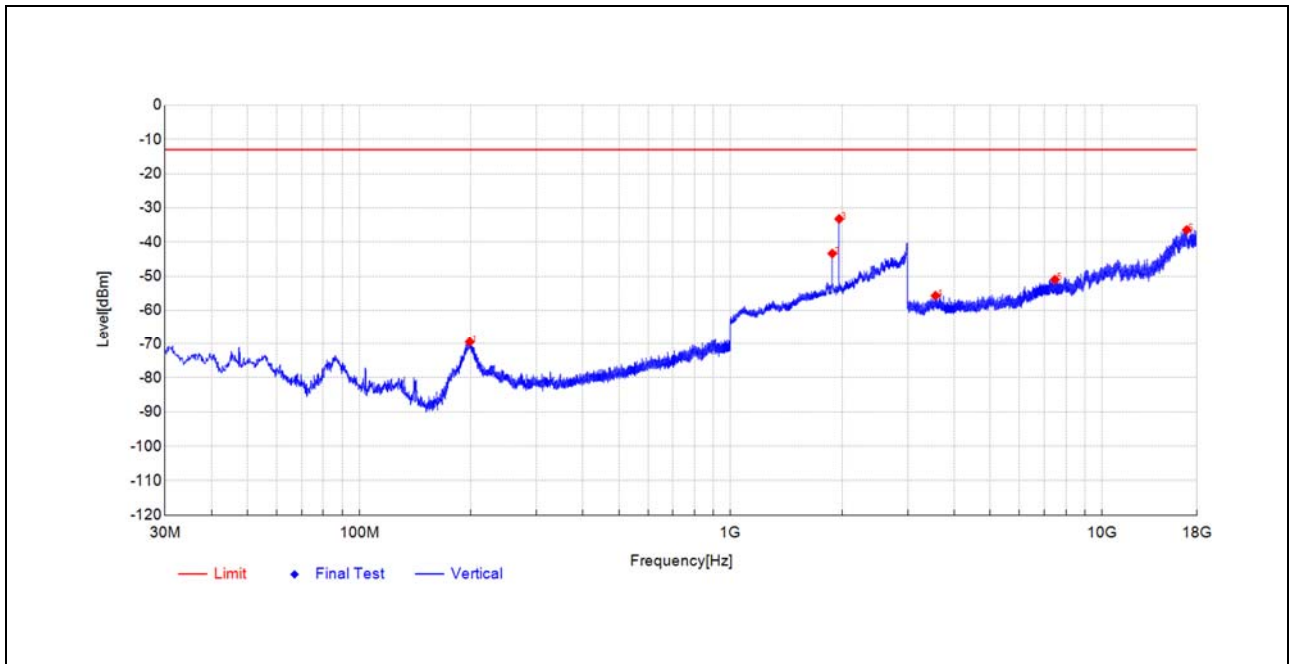


Plot for Mid Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
201.3262	-45.43	-62.82	-17.4	-13.0	49.8	Horizontal	PK	PASS
1835	-52.72	-48.52	4.2	-13.0	35.5	Horizontal	PK	PASS
1879	-39.54	-34.29	5.3	-13.0	21.3	Horizontal	PK	NA
1960.5	-50.48	-45.98	4.5	-13.0	33.0	Horizontal	PK	NA
5207.8815	-58.30	-53.16	5.1	-13.0	40.2	Horizontal	PK	PASS
17412.169	-72.66	-36.59	36.1	-13.0	23.6	Horizontal	PK	PASS

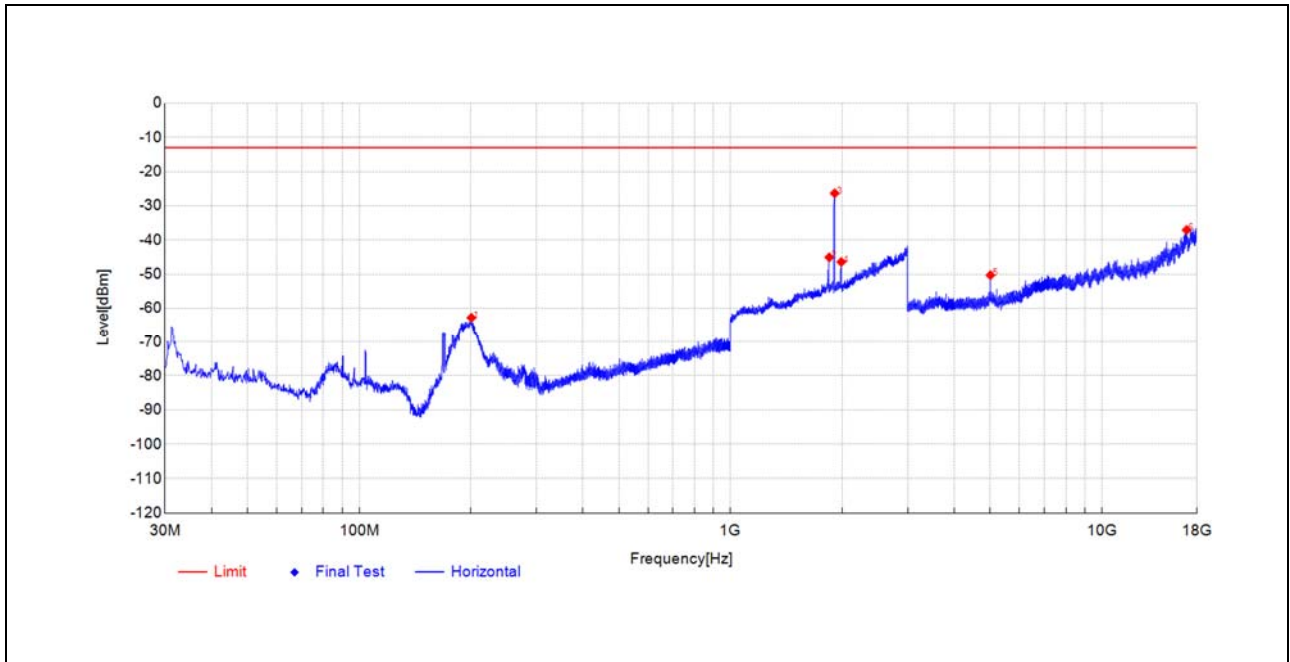




Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
198.4162	-48.06	-69.46	-21.4	-13.0	56.5	Vertical	PK	PASS
1879	-48.44	-43.37	5.1	-13.0	30.4	Vertical	PK	NA
1961	-37.49	-33.26	4.2	-13.0	20.3	Vertical	PK	NA
3562.5176	-57.14	-55.72	1.4	-13.0	42.7	Vertical	PK	PASS
7468.7334	-62.93	-50.99	11.9	-13.0	38.0	Vertical	PK	PASS
16915.747	-72.29	-36.50	35.8	-13.0	23.5	Vertical	PK	PASS

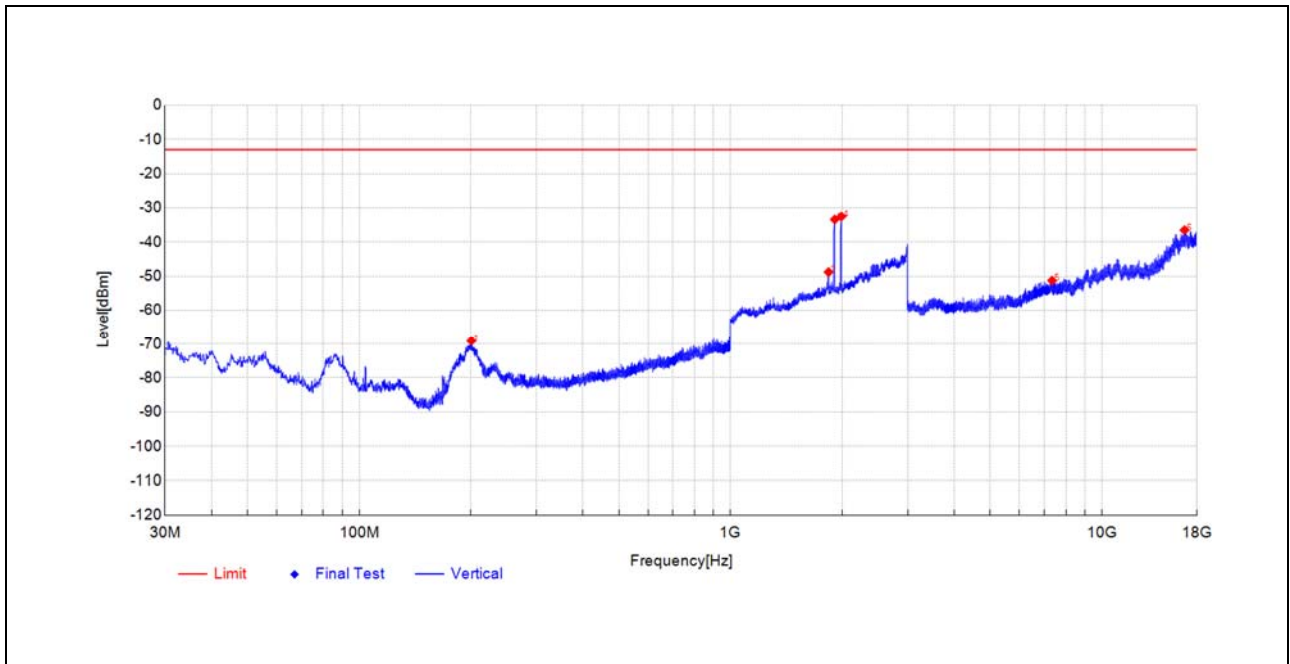


Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
200.4775	-45.21	-62.76	-17.6	-13.0	49.8	Horizontal	PK	PASS
1844.5	-49.32	-45.07	4.3	-13.0	32.1	Horizontal	PK	PASS
1907	-30.64	-26.36	4.3	-13.0	13.4	Horizontal	PK	NA
1987	-50.85	-46.44	4.4	-13.0	33.4	Horizontal	PK	NA
5009.594	-56.40	-50.30	6.1	-13.0	37.3	Horizontal	PK	PASS
16911.528	-71.28	-37.08	34.2	-13.0	24.1	Horizontal	PK	PASS





Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
200.4775	-47.84	-69.11	-21.3	-13.0	56.1	Vertical	PK	PASS
1836	-53.46	-48.79	4.7	-13.0	35.8	Vertical	PK	PASS
1908	-38.34	-33.40	4.9	-13.0	20.4	Vertical	PK	NA
1988.5	-36.99	-32.53	4.5	-13.0	19.5	Vertical	PK	NA
7341.6982	-63.23	-51.28	12.0	-13.0	38.3	Vertical	PK	PASS
16691.677	-71.12	-36.52	34.6	-13.0	23.5	Vertical	PK	PASS





Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Output Power	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{dB}$
Radiated Emission	$\pm 2.95\text{dB}$

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.





Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.





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4. Test Equipment Utilized

4.1 Conducted Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2024.06.19	2025.06.18
Communication Test Station	6200995016	MT8820C	Anritsu	2024.09.11	2025.09.10
Temperature Chamber	S022177101 00089002	KMT-36LF 1A0	KOMEG	2024.09.11	2025.09.10

4.2 List of Software Used

Description	Manufacturer	Software Version
JS36-RSE	Tonscend	5.0.0



**4.3 Radiated Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
System Simulator	152038	CMW500	R&S	2024.09.11	2025.09.10
Receiver	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna - Horn	9120D-963	BBHA 9120D	Schwarzbeck	2024.06.22	2025.06.21
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-K K-0.5	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-K KF-2	Qualwave	2024.07.03	2025.07.02
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118- 40C-S	Decentest	2024.05.30	2025.05.29
Notch Filter	N/A	WRCG-GSM 850	Wainwright	N/A	N/A
Notch Filter	N/A	WRCG-GSM 1900	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV-W Band V	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV-W Band II	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV-W Band IV	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.05.10	2025.05.09

END OF REPORT

