FCC PART 22H/24E MEASURMENT AND TEST REPORT

For

CDM Miami Inc

1825 NW 112 AVE Unit 158, Miami, FL 33172, USA

E.U.T.: GSM Phone

Model Name: WOW, R200, ABLA, R600BL, ABLA PLUS, R600B, TU, R800

Trade name: OLA, FUN

FCC ID: ZZRTM707

Report Number: WB1111012F

Test Date(s): November 01 2011 to November 18 2011

Report Date(s): November 18, 2011

Prepared by

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Approved By

Sunm Lv / Q.A. Director
Dongguan NTC Co., Ltd.

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1.0 GENERAL INFORMATION

1.1 Product Description for Equipment under Test

The CDM Miami Inc's product, model name : ABLA (referred to as the EUT in this report) is a GSM/GPRS mobil phone. It's power by internal 3.7V rechargeable Li-lithium battery, and also can be charged by external adapter.

A major descriptions of EUT is described as following:

Frequency:	:	Celluar Band: 824-849MHz PCB Band: 1850-1910MHz Bluetooth: 2402-2480MHz
Modulation	:	GFSK (Bluetooth), GMSK (GSM/PCS)
Multi-slot Class	:	8/10 (GPRS850 & GPRS1900 test in Multislot class 10 mode)
Software Version:	:	7707VB0 TEST_1_1025P2_EN_AR_HI_PE_FR_BT_FM_SC_DUAL_128X160_6432_V01_111018_1439
Hardware Version:	:	6600L7A+QS518+SKY77568
Max RF Output Power	:	32±2dBm (Cellular Band) 30±2dBm (PCS Band) 2dBm (Bluetooth)
Antenna Type	:	Internal antenna
Antenna Gain	:	0dBi
Power Supply	:	Li-lithium Battery 3.7V
	:	Input : AC 110-240V 50/60Hz (Adapter)
	:	Output :DC 5V 500mA ±50mA
	:	Model: SM-800A
	:	
Model name	:	WOW, R200, ABLA, R600BL, ABLA PLUS, R600B, TU, R800
Remark	:	All models are the same except appearance, trade name and model name, we prepare ABLA for EMC test.
Note:		This measurement and test report only pertains to the GSM portion of the EUT. For measurement and test results to the Bluetooth function please refer to report WB1111011F.

1.2 Related Submittal(s) / Grant (s)

FCC Part 15.247(Bluetooth)submission with FCC ID: ZZRTM707

1.3 Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Applicable Standards: TIA/EIA 603-C, ANSI C63.4-2003.
All radiated and conducted emissions measurements were performed at Dongguan NTC Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters..

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Objective

This type approval report is prepared on behalf of CDM Miami Inc. in accordance with Part 2, Subpart J, Part 22 Subpart H, and Part 24 Subpart E of the Federal Communication Commissions rules.
The objective is to determine compliance with FCC rules for output power, occupied bandwidth, and spurious emission at antenna terminal, spurious radiated emission, frequency stability, band edge and radiated margin.

1.7 Test Facility

Accredited by FCC, August 02, 2011
The Certificate Registration Number is 665078.

Accredited by Industry Canada, July 01, 2011
The Certificate Registration Number is 46405-9743.

1.8 Summary of Test Results

FCC Rules	Description Of Test	Result
§2.1046 §22.913(a) §24.232(c)	RF Output Power	Compliant
§ 2.1049 § 22.905 § 22.917 § 24.238	99% & -26 dB Occupied Bandwidth	Compliant
§ 2.1055 § 22.355 § 24.235	Frequency stability vs. temperature Frequency stability vs. voltage	Compliant
§ 22.917 (a) § 24.238 (a)	Out of band emission, Band Edge	Compliant
§ 2.1047	Modulation Characteristics	N/A
§ 2.1051 § 22.917 (a) § 24.238 (a)	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053 § 22.917 (a) § 24.238 (a)	Field Strength of Spurious Radiation	Compliant
§1.1307, §2.1093	RF Exposure (SAR)	Compliant(refer to SAR report please)

* SAR report provide by SIEMIC Testing and Certification Services.

2.0 RF OUTPUT POWER

2.1 Applicable Standard

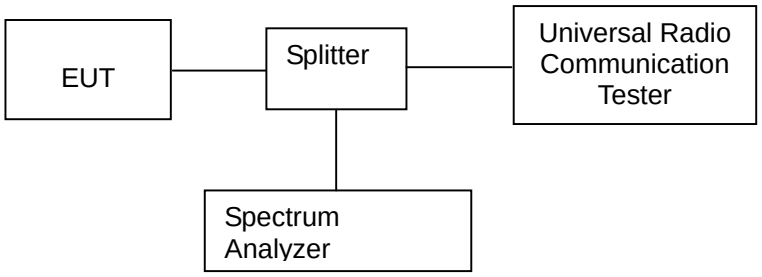
According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (C), in no case may the peak output power of a base station transmitter exceed 2 watt EIRP.

2.2 Test Procedure

Conducted Method:

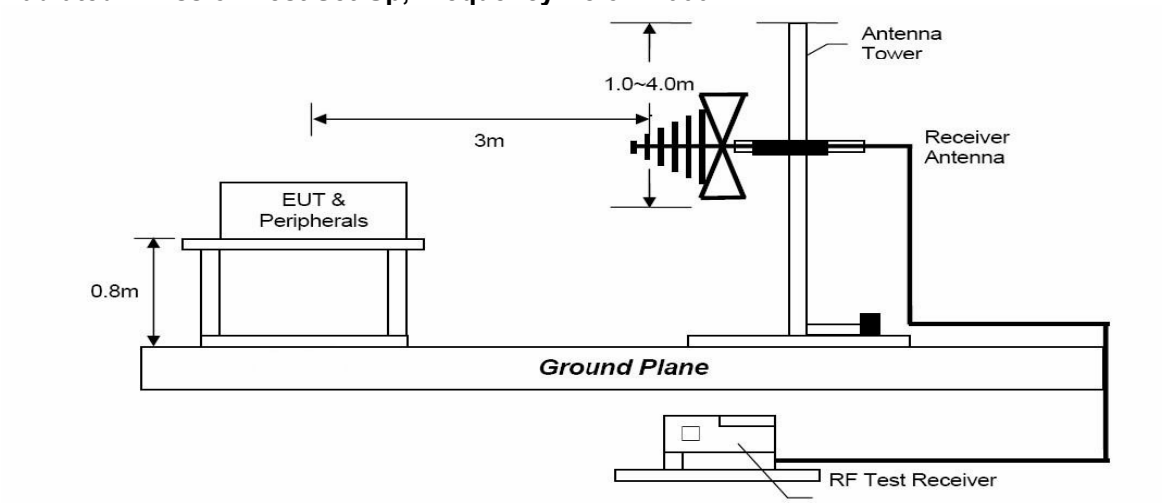
The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a spectrum analysis. Transmitter output was read off the spectrum analysis in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to spectrum analysis reading.



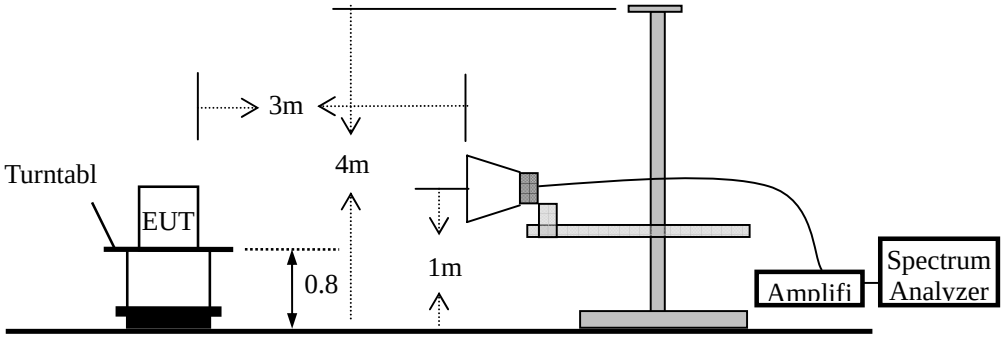
Radiated method:

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated. ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB) EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)

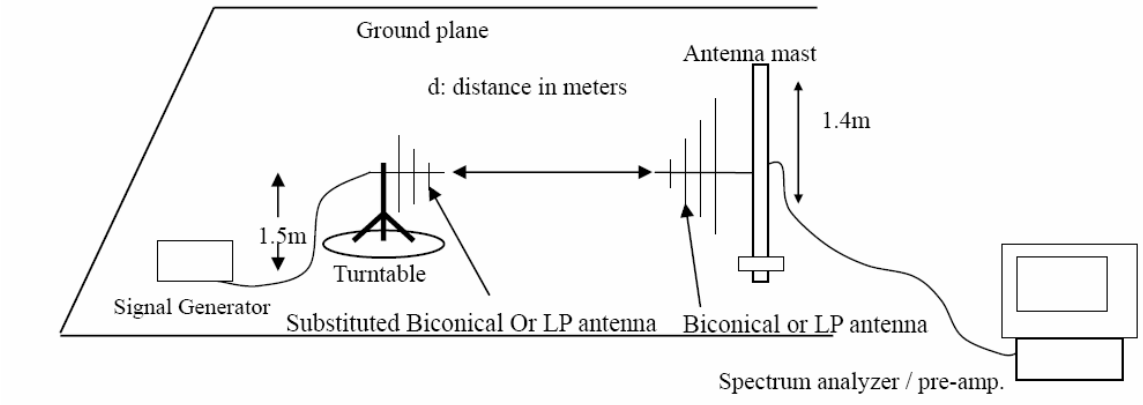
Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-Up, Frequency above 1GHz



Substituted Method Test Set-UP



Conducted Power:

Cellular Band (Part 22H)				
Humidity :		52 %	Temperature :	23 ℃
Test Result:		PASS	Test By:	Think
Mode	Channel	**Frequency (MHz)**	**Output Power (dBm)**	Limit **(dBm)**
GSM	Low	824.2	31.52	38.45
	Middle	836.6	31.52	38.45
	High	848.8	31.53	38.45
GPRS	Low	824.2	31.49	38.45
	Middle	836.6	31.42	38.45
	High	848.8	31.43	38.45

Cellular Band (Part 24E)				
Humidity :		52 %	Temperature :	23 ℃
Test Result:		PASS	Test By:	Think
Mode	Channel	**Frequency (MHz)**	**Output Power (dBm)**	Limit **(dBm)**
GSM	Low	1850.2	28.87	33
	Middle	1880.0	28.18	33
	High	1909.8	28.20	33
GPRS	Low	1850.2	29.40	33
	Middle	1880.0	28.98	33
	High	1909.8	28.38	33

Radiated Power (ERP and EIRP)

Cellular Band (Part 22H)									
Humidity :		52 %	Temperature :			23 ℃			
Mode:		GSM	Test By:			Think			
Test Result:		PASS							
Indicated		Antenna	Substituted			Antenna Gain Correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
Frequency (MHz)	Ampl (dBμV/m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel									
824.2	89.16	H	824.2	15.3	H	0	0.9	14.4	38.45
824.2	103.71	V	824.2	26.7	V	0	0.9	25.8	38.45
Middle Channel									
836.6	89.84	H	836.6	15.7	H	0	0.9	14.8	38.45
836.6	103.17	V	836.6	26.3	V	0	0.9	25.4	38.45
High Channel									
848.8	90.86	H	848.8	16.8	H	0	0.9	15.9	38.45
848.8	103.76	V	848.8	27.0	V	0	0.9	26.1	38.45

Cellular Band (Part 22H)									
Humidity :		52 %	Temperature :			23 ℃			
Mode:		GPRS	Test By:			Think			
Test Result:		PASS							
Indicated		Antenna	Substituted			Antenna Gain Correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
Frequency (MHz)	Ampl (dBμV/m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel									
824.2	90.24	H	824.2	16.4	H	0	0.9	15.5	38.45
824.2	103.86	V	824.2	26.9	V	0	0.9	26.0	38.45
Middle Channel									
836.6	88.88	H	836.6	14.7	H	0	0.9	13.8	38.45
836.6	103.65	V	836.6	26.9	V	0	0.9	26.2	38.45
High Channel									
848.8	91.23	H	848.8	17.3	H	0	0.9	16.4	38.45
848.8	103.69	V	848.8	27.1	V	0	0.9	26.2	38.45

PCS Band (Part 24E)									
Humidity :		52 %	Temperature :			23 ℃			
Mode:		GSM	Test By:			Think			
Test Result:		PASS							
Indicated		Antenna	Substituted			Antenna Gain Correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
Frequency (MHz)	Ampl (dBμV/m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel									
1850.2	84.19	H	1850.2	16.1	H	6.2	2.3	20.0	33
1850.2	91.58	V	1850.2	20.9	V	6.2	2.3	24.8	33
Middle Channel									
1880	84.85	H	1880	16.5	H	6.2	2.3	20.4	33
1880	91.69	V	1880	20.6	V	6.2	2.3	24.5	33
High Channel									
1909.8	85.04	H	1909.8	16.8	H	6.2	2.3	20.7	33
1909.8	91.84	V	1909.8	20.8	V	6.2	2.3	24.7	33

PCS Band (Part 24E)									
Humidity :		52 %	Temperature :			23 ℃			
Mode:		GPRS	Test By:			Think			
Test Result:		PASS							
Indicated		Antenna	Substituted			Antenna Gain Correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
Frequency (MHz)	Ampl (dBμV/m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel									
1850.2	86.61	H	1850.2	17.2	H	6.2	2.3	21.1	33
1850.2	92.10	V	1850.2	21.3	V	6.2	2.3	25.2	33
Middle Channel									
1880	86.13	H	1880	17.6	H	6.2	2.3	21.5	33
1880	91.53	V	1880	20.8	V	6.2	2.3	24.7	33
High Channel									
1909.8	86.56	H	1909.8	17.8	H	6.2	2.3	21.7	33
1909.8	91.04	V	1909.8	20.8	V	6.2	2.3	24.7	33

3. Test OCCUPIED BANDWIDTH

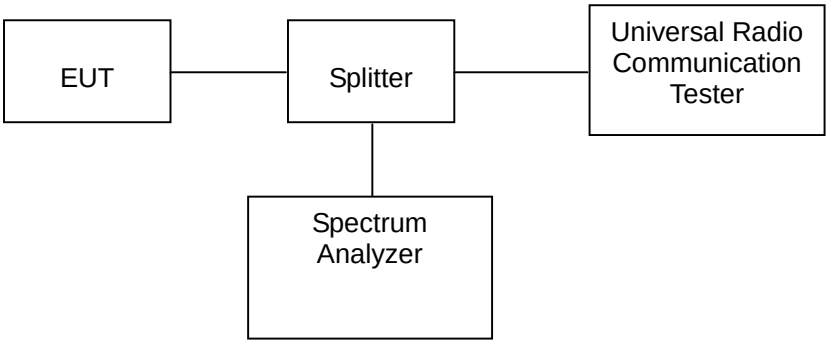
3.1 Applicable Standard

CFR 47 §2.1049, §22.917, §22.905 and §24.238.

3.2 Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The resolution bandwidth of the spectrum analyzer was set at 30 kHz (Cellular /PCS) and the 26 dB & 99% bandwidth was recorded.



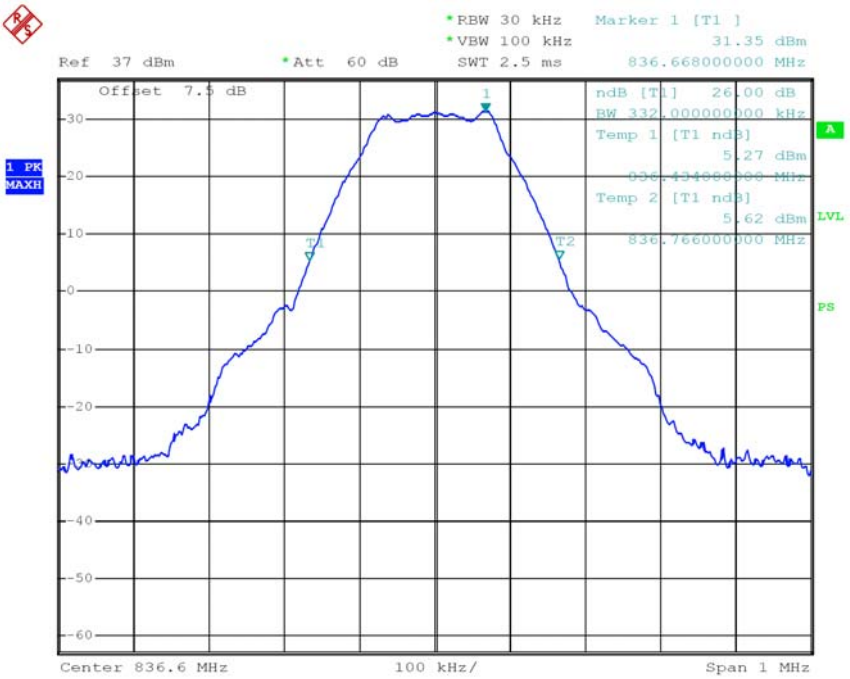
Cellular Band (Part 22H)				
Humidity :		52 %	Temperature :	23 ℃
Test Result:		PASS	Test By:	Think
Mode	Channel	**Frequency (MHz)**	**99% Power Bandwidth (kHz)**	**26 dB Bandwidth (kHz)**
GSM	190	836.6	246.0000	332.0000
GPRS	190	836.6	248.0000	332.0000

PCS Band (Part 24E)				
Humidity :		52 %	Temperature :	23 ℃
Test Result:		PASS	Test By:	Think
Mode	Channel	**Frequency (MHz)**	**99% Power Bandwidth (kHz)**	**26 dB Bandwidth (kHz)**
GSM	661	1880.0	250.0000	334.0000
GPRS	661	1880.0	248.0000	334.0000

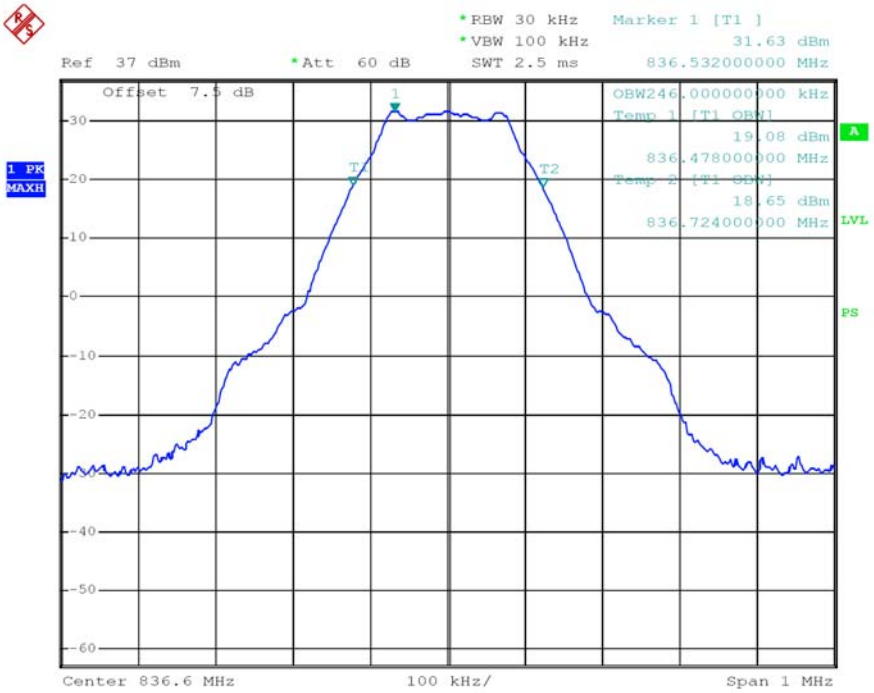
Cellular Band (Part 22H)

GSM

26 dB Bandwidth



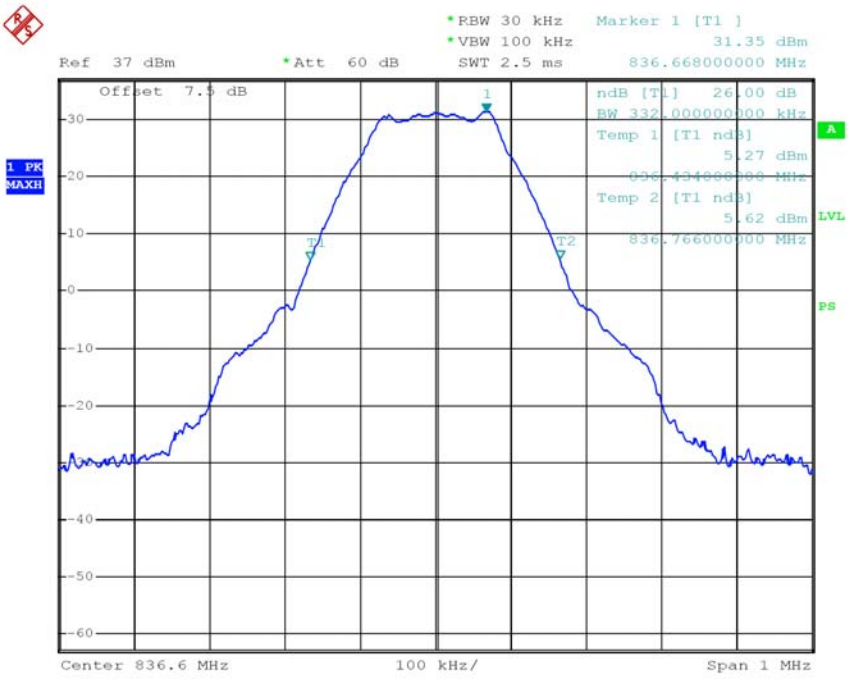
99% Band width



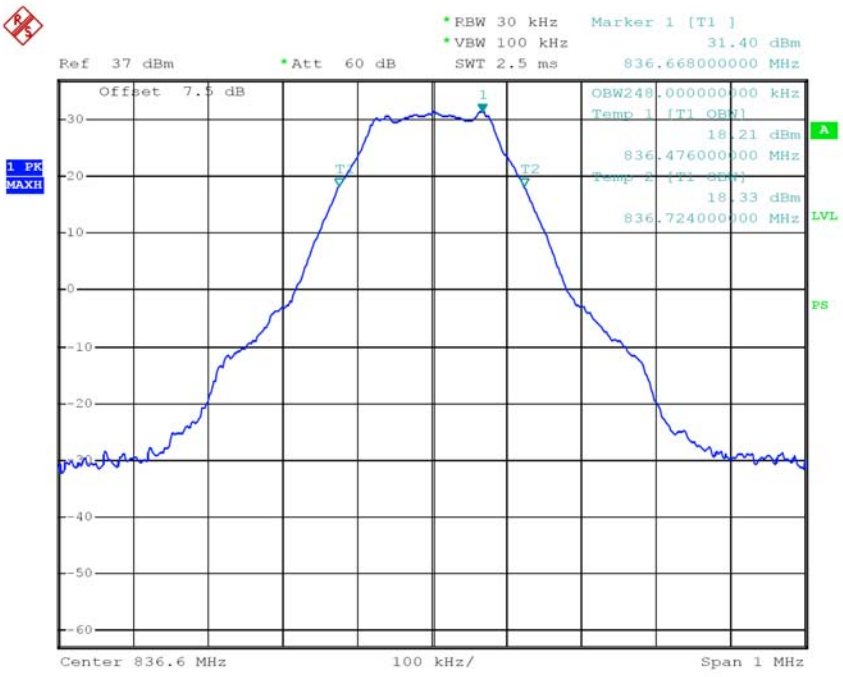
Cellular Band (Part 22H)

GPRS

26 dB Bandwidth

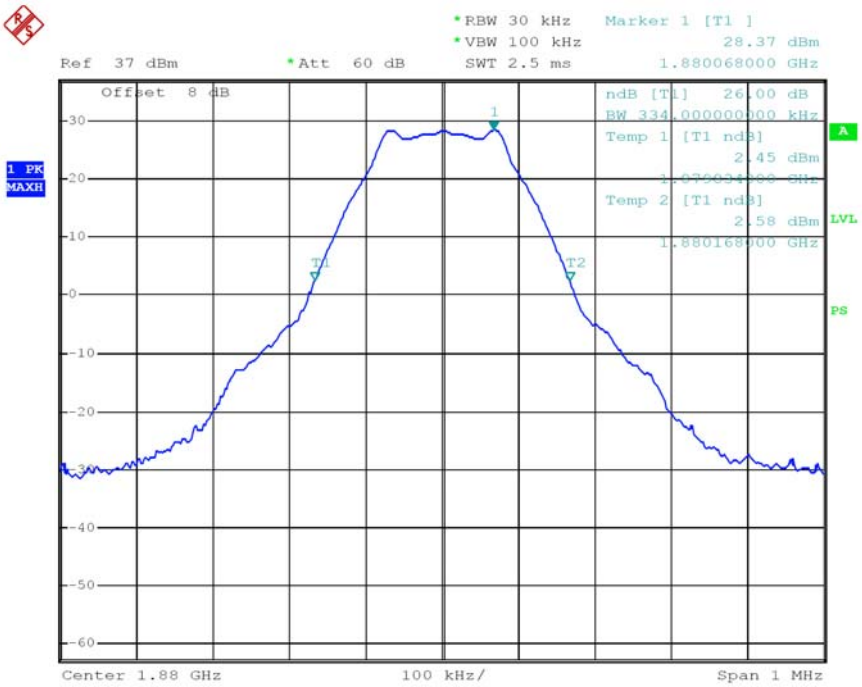


99% Band width

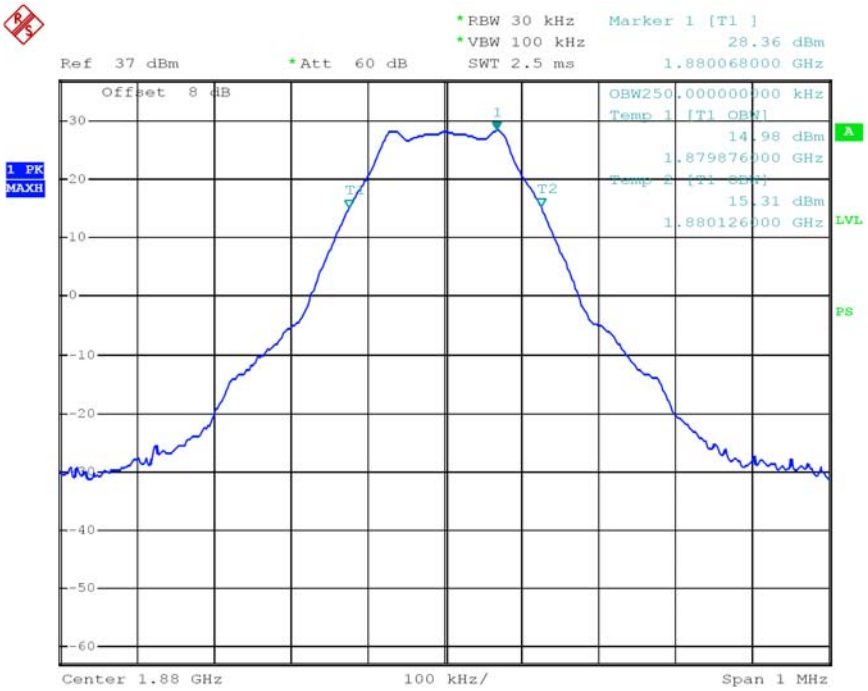


PCS Band (Part 24H)
GSM

26 dB Bandwidth

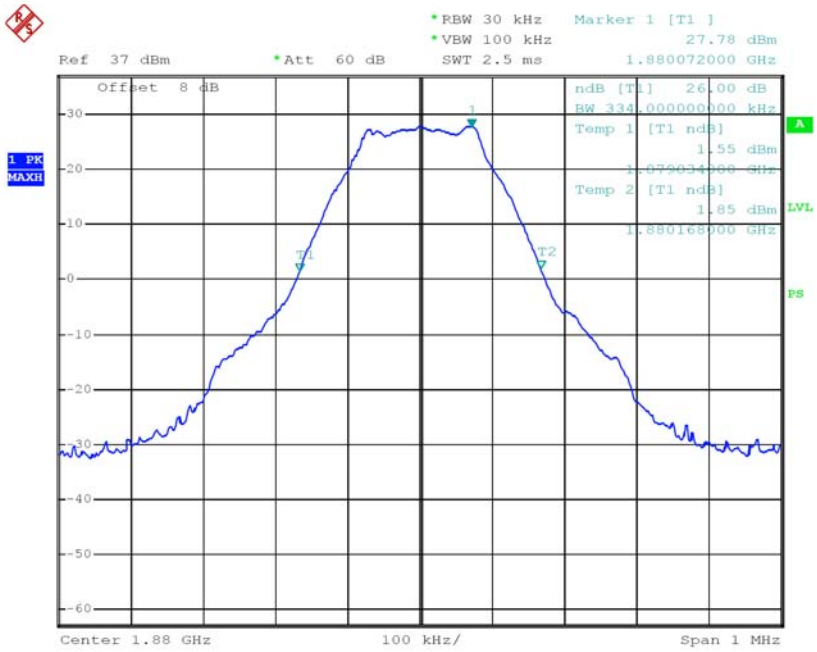


99% Band width

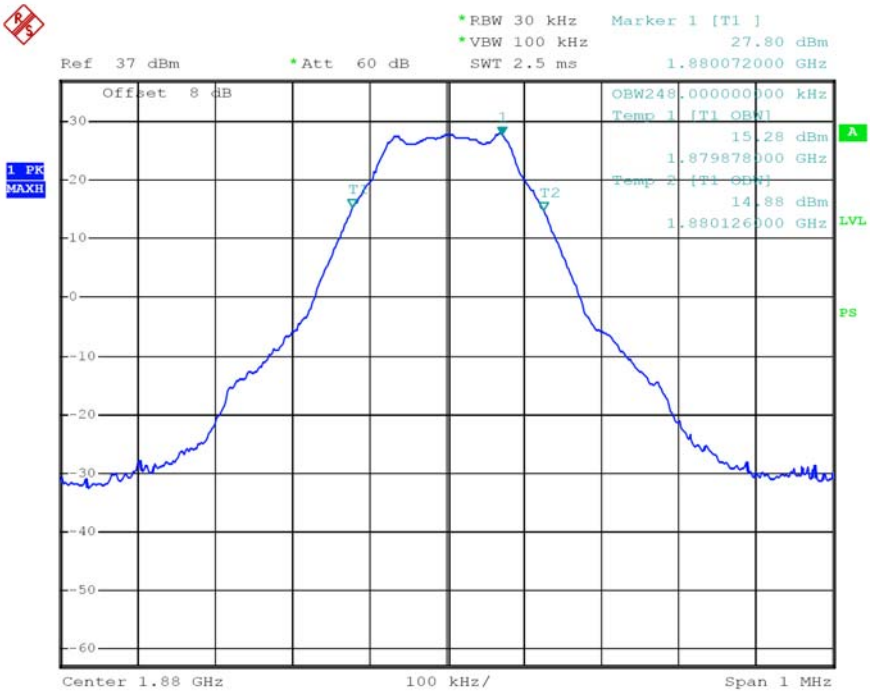


PCS Band (Part 24H)
GPRS

26 dB Bandwidth



99% Band width



4. FREQUENCY STABILITY

4.1 Applicable Standard

CFR47 § 2.1055 (a), § 2.1055 (d), §22.355, §24.235

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency Range (MHz)	Base, fixed (ppm)	Mobile ≤ 3 watts (ppm)	Mobile ≤ 3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929.	5.0	N/A	N/A
929 to 960.	1.5	N/A	N/A
2110 to 2220	10.0	N/A	N/A

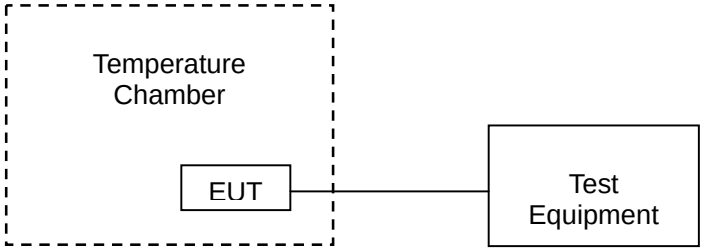
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

4.2 Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 30 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



Cellular Band			
Humidity :	52 %	Temperature :	23 ℃
Mode:	GSM	Test By:	Think
Test Result:	PASS		

Middle channel, f_o =836.6MHz;

Temperature (℃)	Power Supplied (Vdc)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	3.7	-9	-0.01076	2.5
-20		-9	-0.01076	2.5
-10		-7	-0.00837	2.5
0		-11	-0.01315	2.5
20		-9	-0.01076	2.5
40		-10	-0.01195	2.5
50		-10	-0.01195	2.5
25	3.7	-12	-0.01434	2.5
	3.5	-10	-0.01195	2.5
	4.2	-11	-0.01315	2.5

Cellular Band			
Humidity :	52 %	Temperature :	23 ℃
Mode:	GPRS	Test By:	Think
Test Result:	PASS		

Middle channel, f_o =836.6MHz;

Temperature (℃)	Power Supplied (Vdc)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	3.7	-10	-0.01195	2.5
-20		-8	-0.00956	2.5
-10		-9	-0.01076	2.5
0		-7	-0.00837	2.5
20		-8	-0.00956	2.5
40		-10	-0.01195	2.5
50		-11	-0.01315	2.5
25	3.7	-8	-0.00956	2.5
	3.5	-7	-0.00837	2.5
	4.2	-10	-0.01195	2.5

PCB Band			
Humidity :	52 %	Temperature :	23 ℃
Mode:	GSM	Test By:	Think
Test Result:	PASS		

Middle channel, f_o =1880.0MHz;

Temperature (℃)	Power Supplied (Vdc)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	3.7	38	0.020213	2.5
-20		37	0.019681	2.5
-10		35	0.018617	2.5
0		37	0.019681	2.5
20		40	0.021277	2.5
40		38	0.020213	2.5
50		40	0.021277	2.5
25	3.7	41	0.021809	2.5
	3.5	37	0.019681	2.5
	4.2	37	0.019681	2.5

PCB Band			
Humidity :	52 %	Temperature :	23 ℃
Mode:	GPRS	Test By:	Think
Test Result:	PASS		

Middle channel, f_o =1880.0MHz;

Temperature (℃)	Power Supplied (Vdc)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	3.7	41	0.021809	2.5
-20		41	0.021809	2.5
-10		37	0.019681	2.5
0		39	0.020745	2.5
20		37	0.019681	2.5
40		37	0.019681	2.5
50		38	0.020213	2.5
25	3.7	39	0.020745	2.5
	3.5	37	0.019681	2.5
	4.2	37	0.019681	2.5

5. BAND EDGES

5.1 Applicable Standard

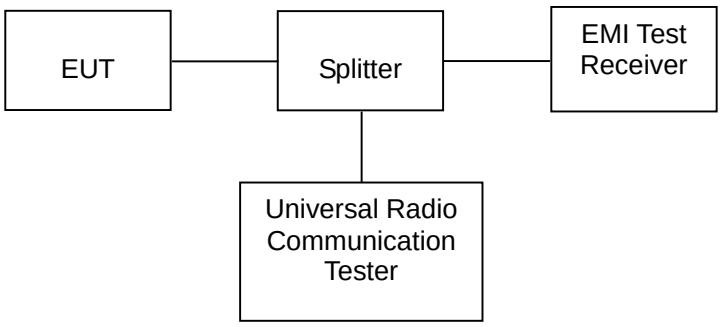
According to § 22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions 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.

5.2 Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency, RBW set to 3 kHz.



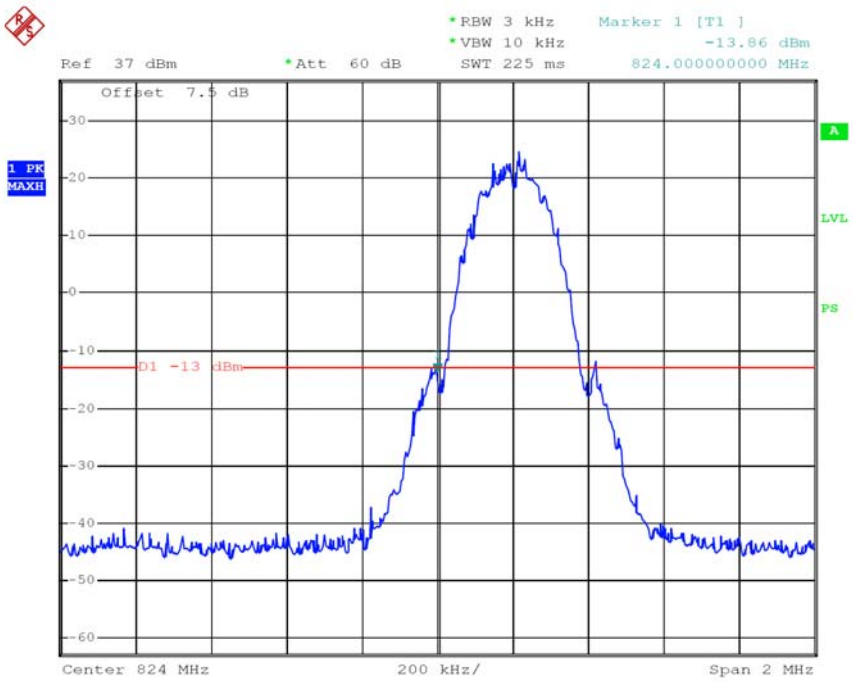
Cellular Band			
Humidity :	52 %	Temperature :	23 ℃
Test Result:	PASS	Test By:	Think
Mode	GSM		
Frequency (MHz)	**Emission (dBm)**		Limit **(dBm)**
824	-13.86		-13
849	-15.49		-13

Cellular Band			
Humidity :	52 %	Temperature :	23 ℃
Test Result:	PASS	Test By:	Think
Mode	GPRS		
Frequency (MHz)	**Emission (dBm)**		Limit **(dBm)**
824	-13.68		-13
849	-15.64		-13

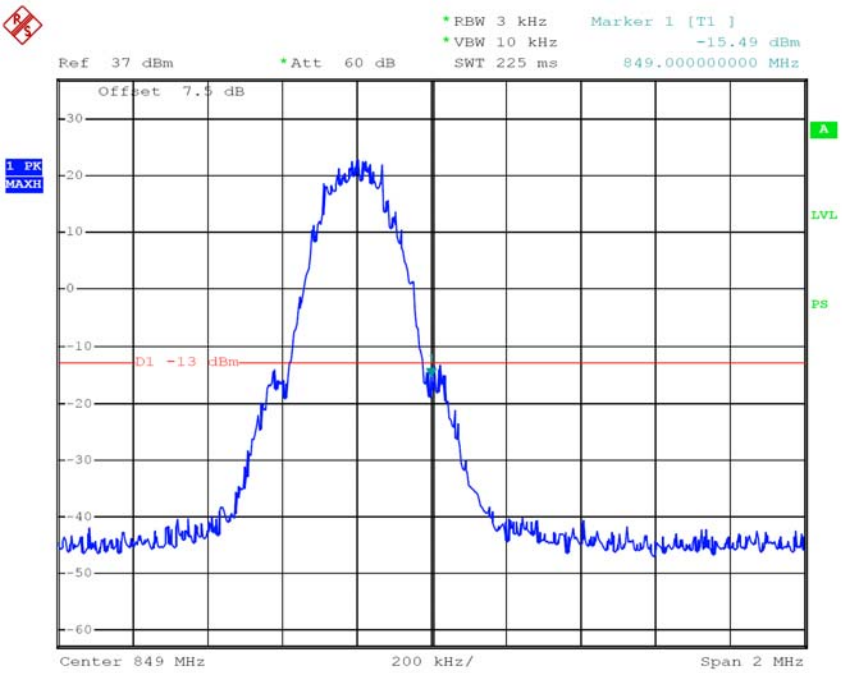
PCS Band			
Humidity :	52 %	Temperature :	23 ℃
Test Result:	PASS	Test By:	Think
Mode	GSM		
Frequency (MHz)	**Emission (dBm)**		Limit **(dBm)**
1850	-13.29		-13
1910	-19.70		-13

PCS Band			
Humidity :	52 %	Temperature :	23 ℃
Test Result:	PASS	Test By:	Think
Mode	GPRS		
Frequency (MHz)	**Emission (dBm)**		Limit **(dBm)**
1850	-13.72		-13
1910	-18.03		-13

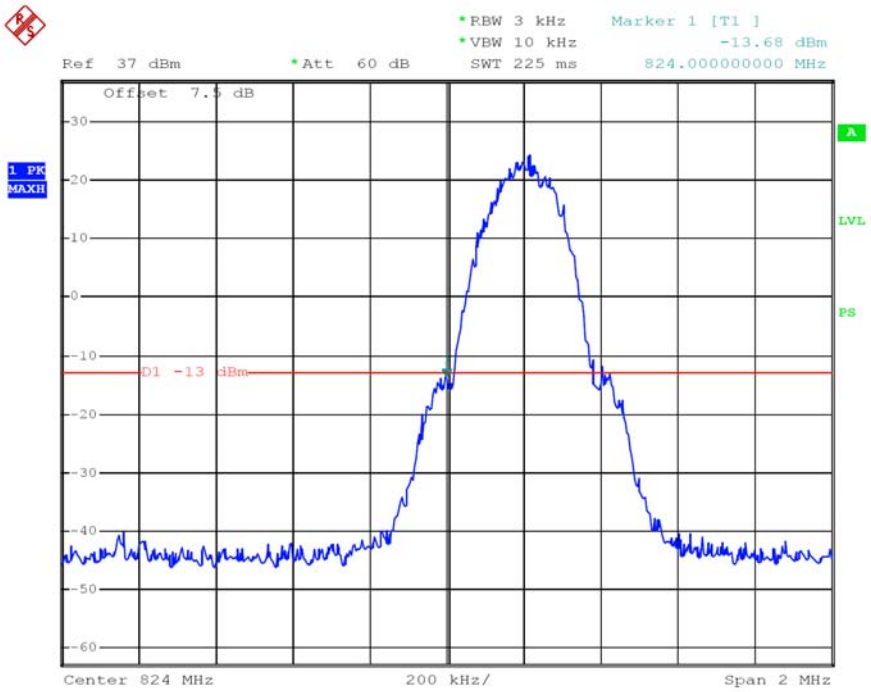
Cellular Band, Low Channel (GSM)



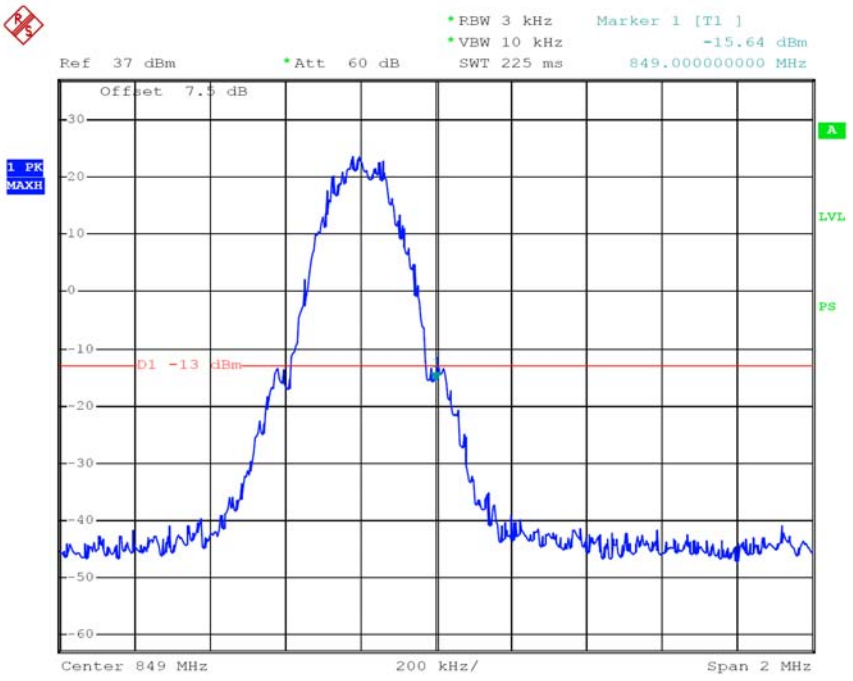
Cellular Band, High Channel (GSM)



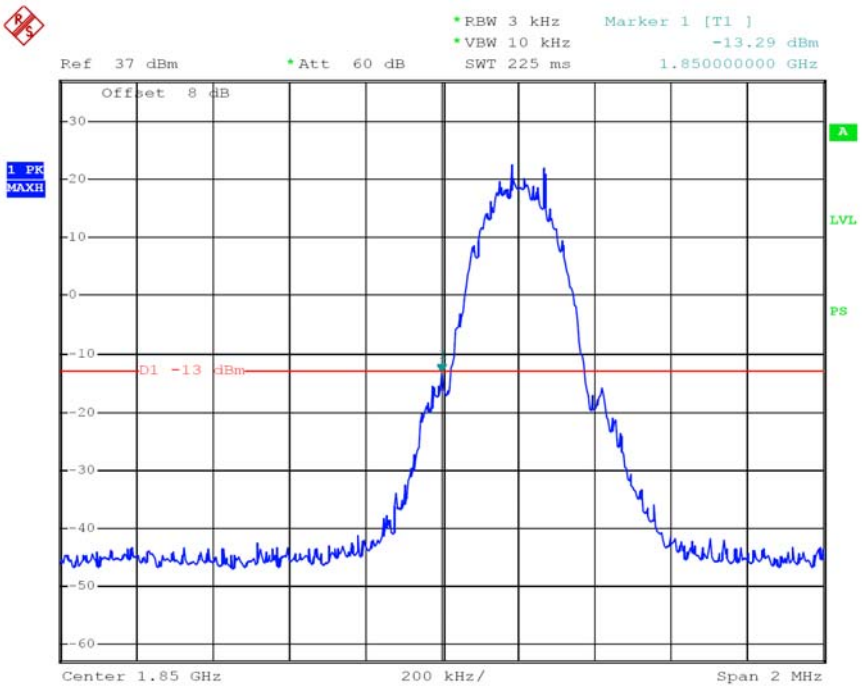
Cellular Band, Low Channel (GPRS)



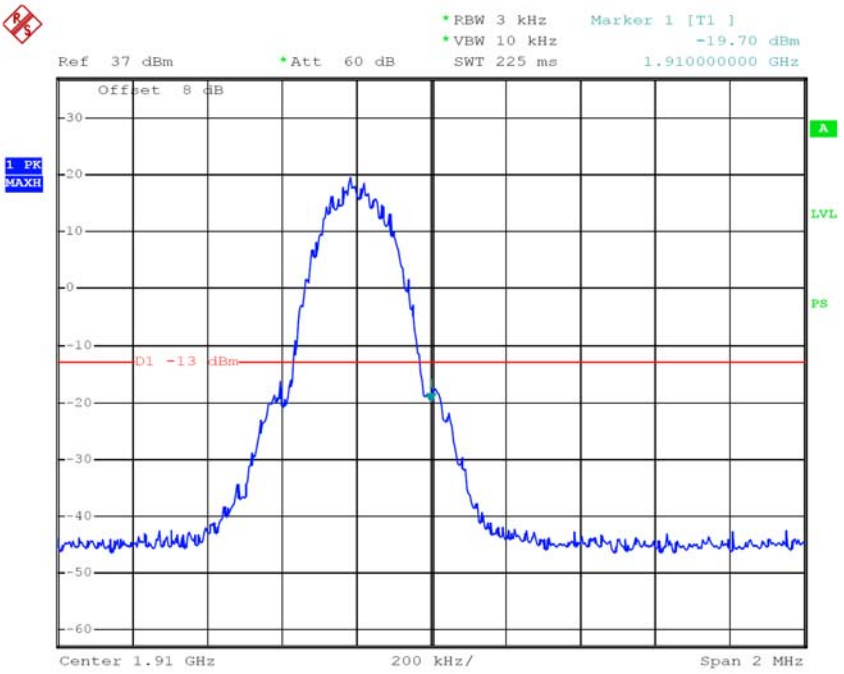
Cellular Band, High Channel (GPRS)



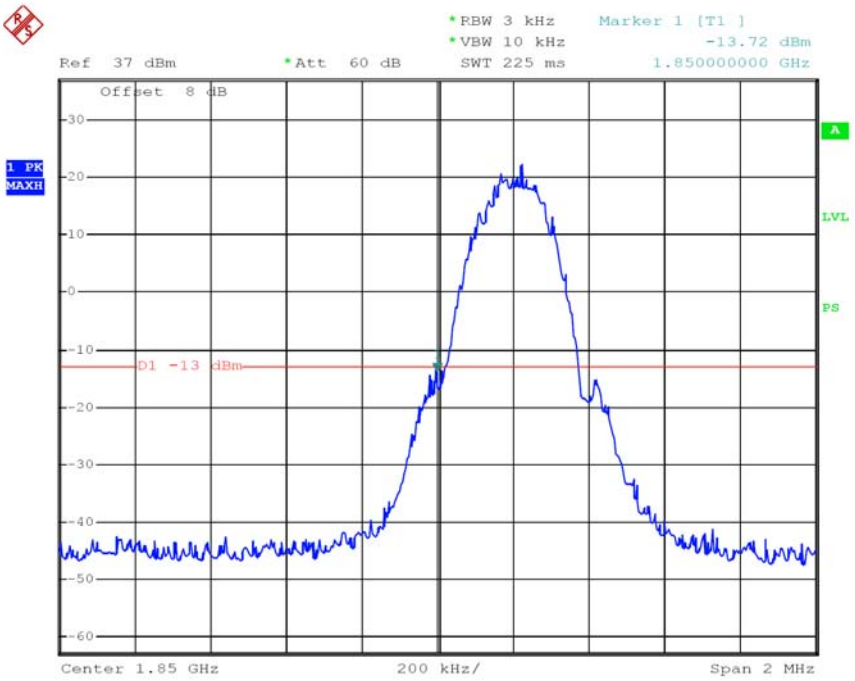
PCS Band, Low Channel (GSM)



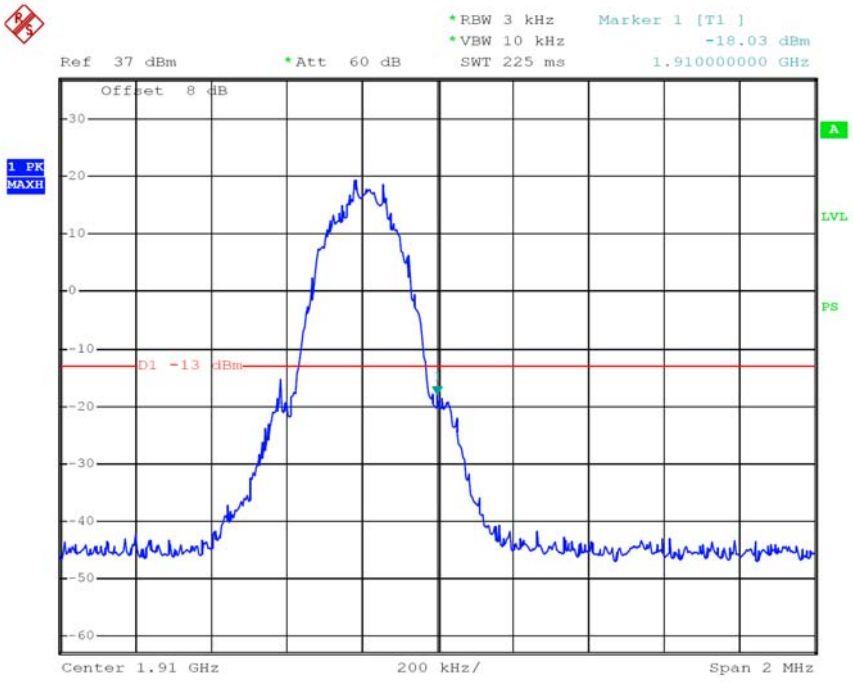
PCS Band, High Channel (GSM)



PCS Band, Low Channel (GPRS)



PCS Band, High Channel (GPRS)



6. MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

7. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

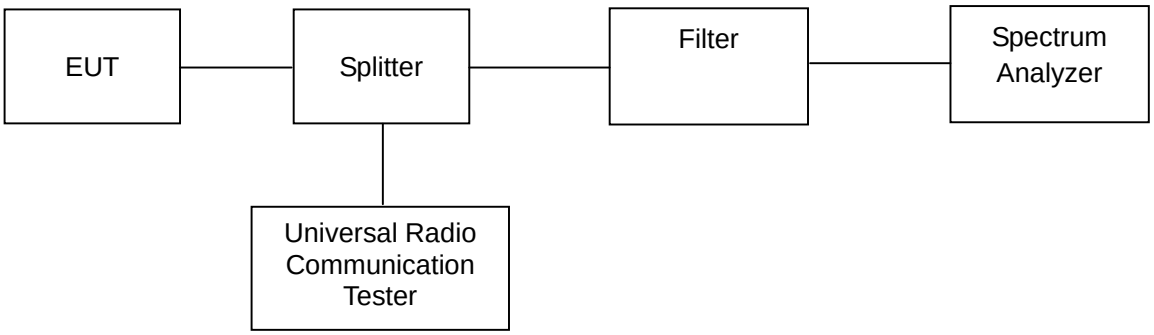
7.1 Applicable Standards

CFR 47 §2.1051, §22.917(a) and §24.238(a).

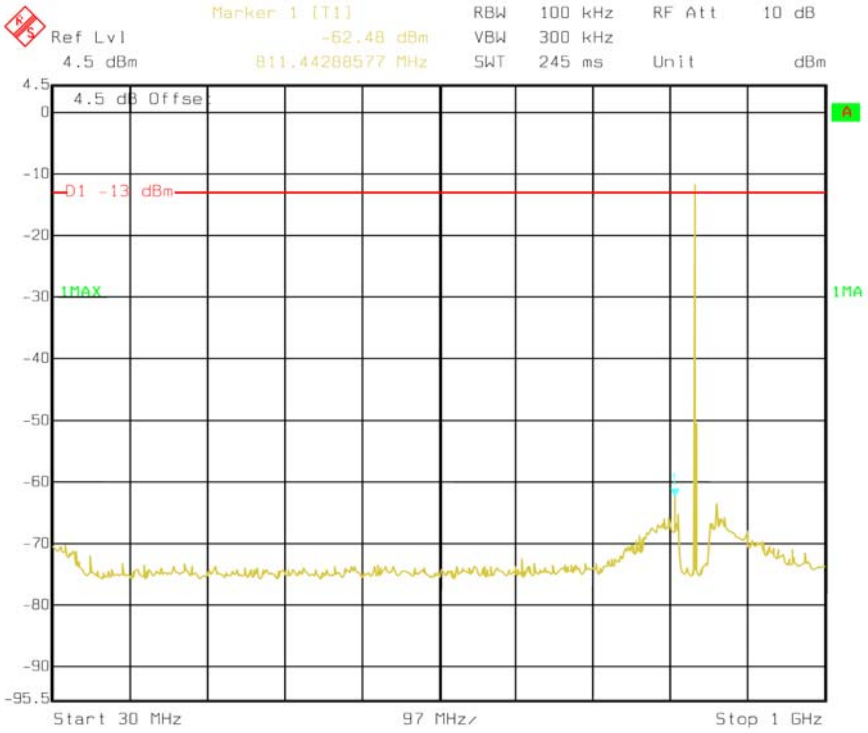
The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

7.2 Test Procedure

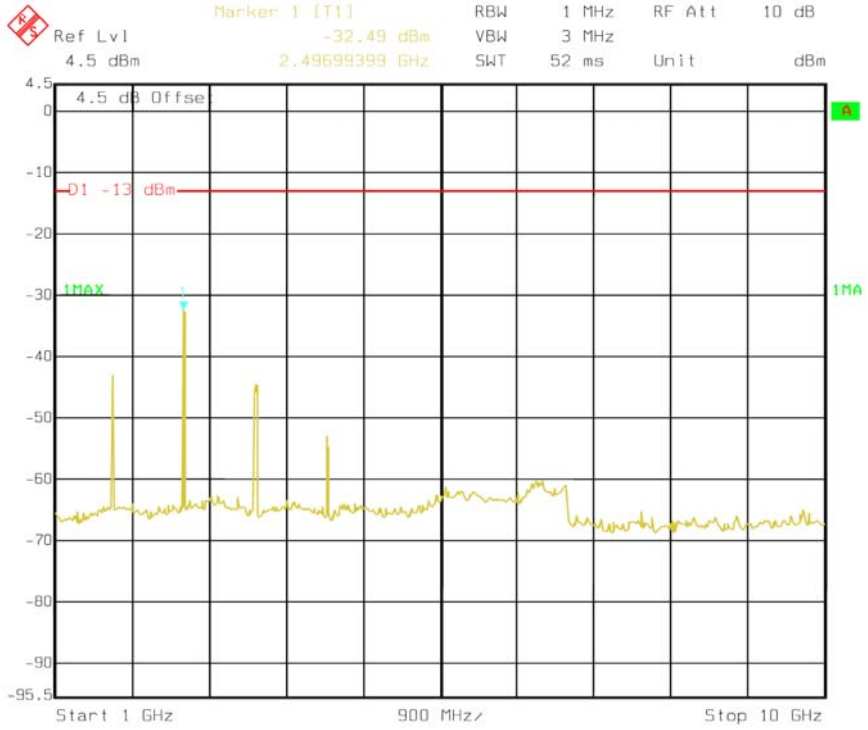
The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate
attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz. Sufficient scans were taken to show any out of band emissions up to 10^{th} harmonic.



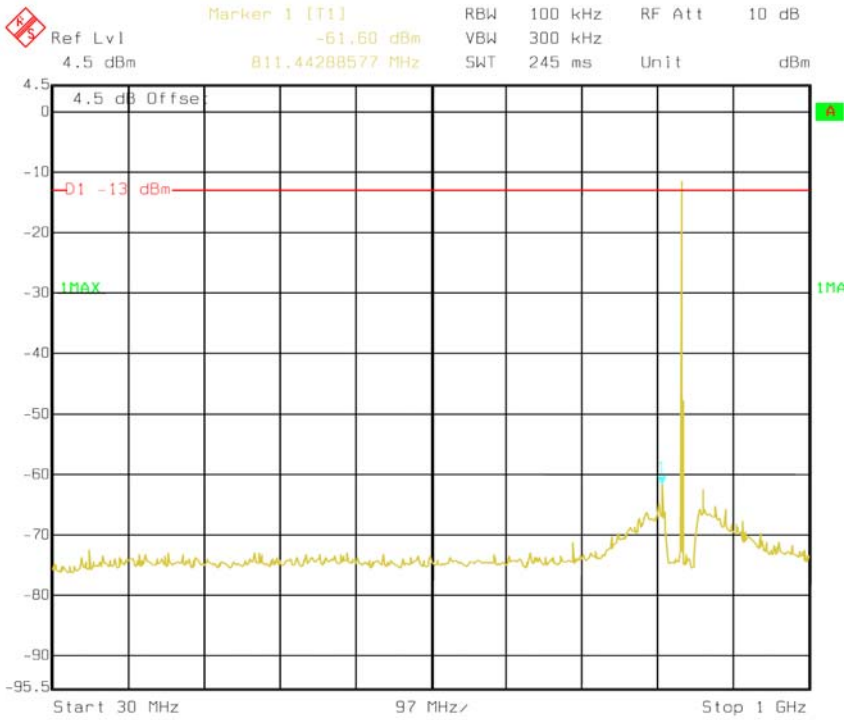
Cellular Band (Part 22H)
30 – 1000 MHz - Middle Channel (GSM)



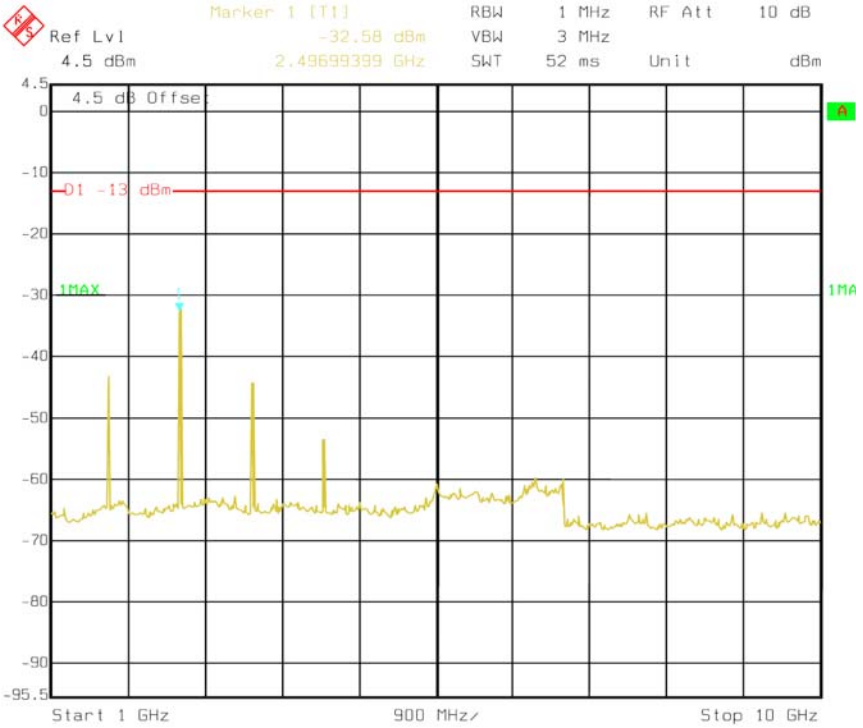
1 – 10 GHz - Middle Channel (GSM)



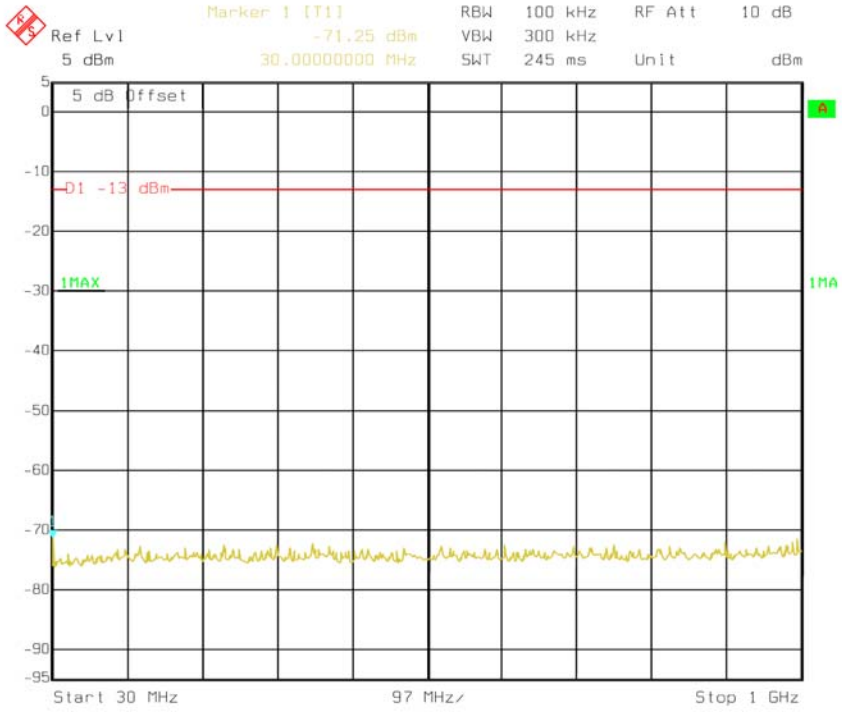
Cellular Band (Part 22H)
30 – 1000 MHz - Middle Channel (GPRS)



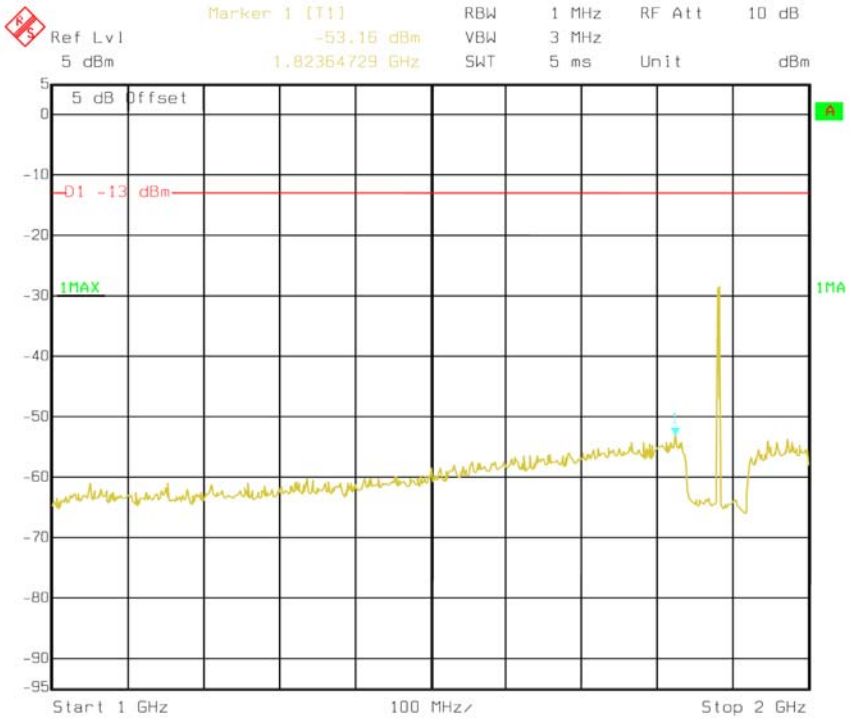
1 – 10 GHz - Middle Channel (GPRS)



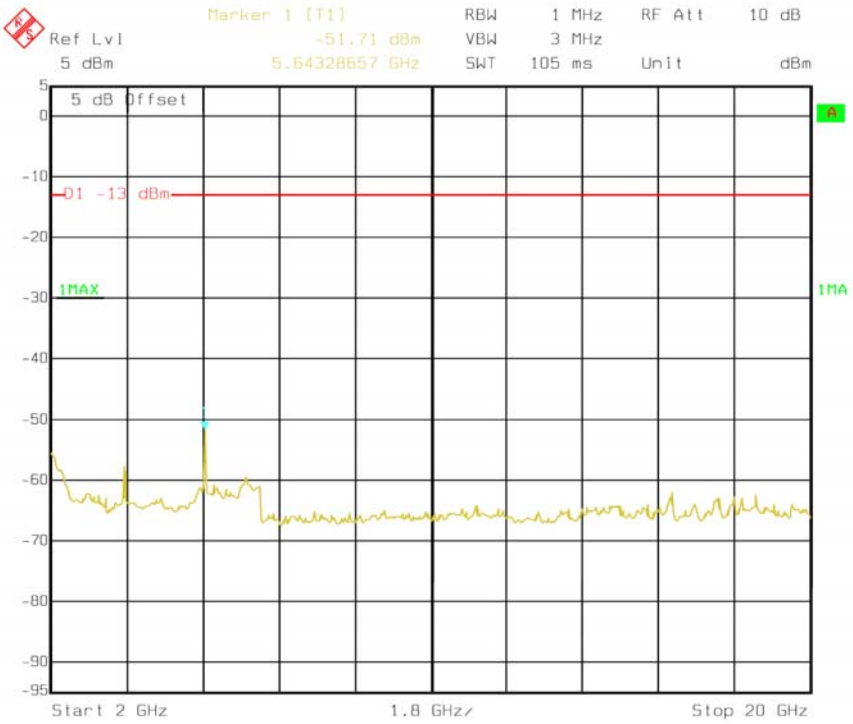
PCS Band (Part24E)
30 – 1000 MHz - Middle Channel (GSM)



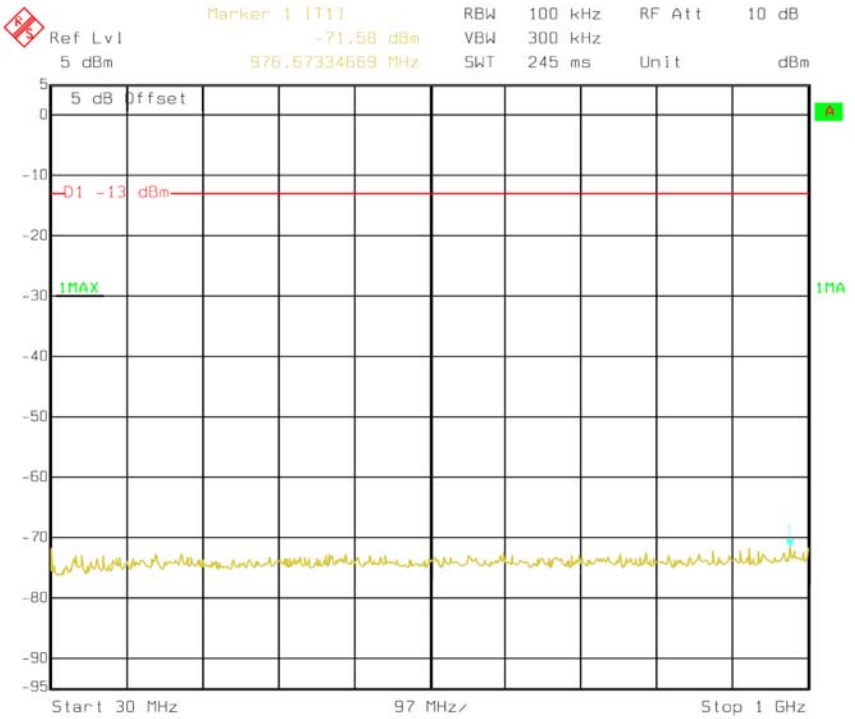
1.0 – 2.0 GHz - Middle Channel (GSM)



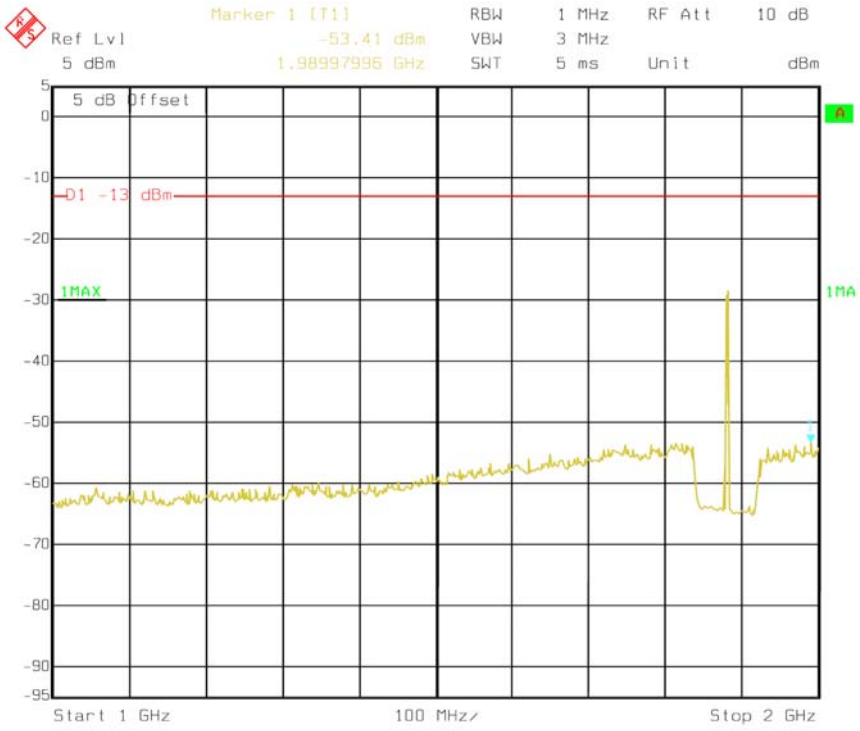
2.0 – 20 GHz - Middle Channel (GSM)



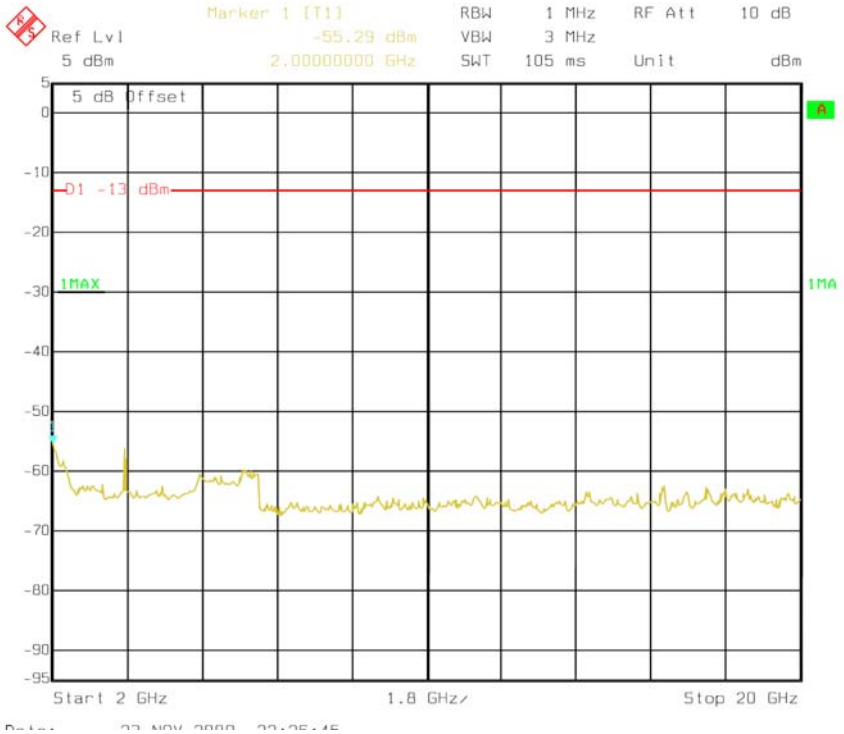
PCS Band (Part24E)
30 – 1000 MHz - Middle Channel (GPRS)



1.0 – 2.0 GHz - Middle Channel (GPRS)



2.0 – 20 GHz - Middle Channel (GPRS)



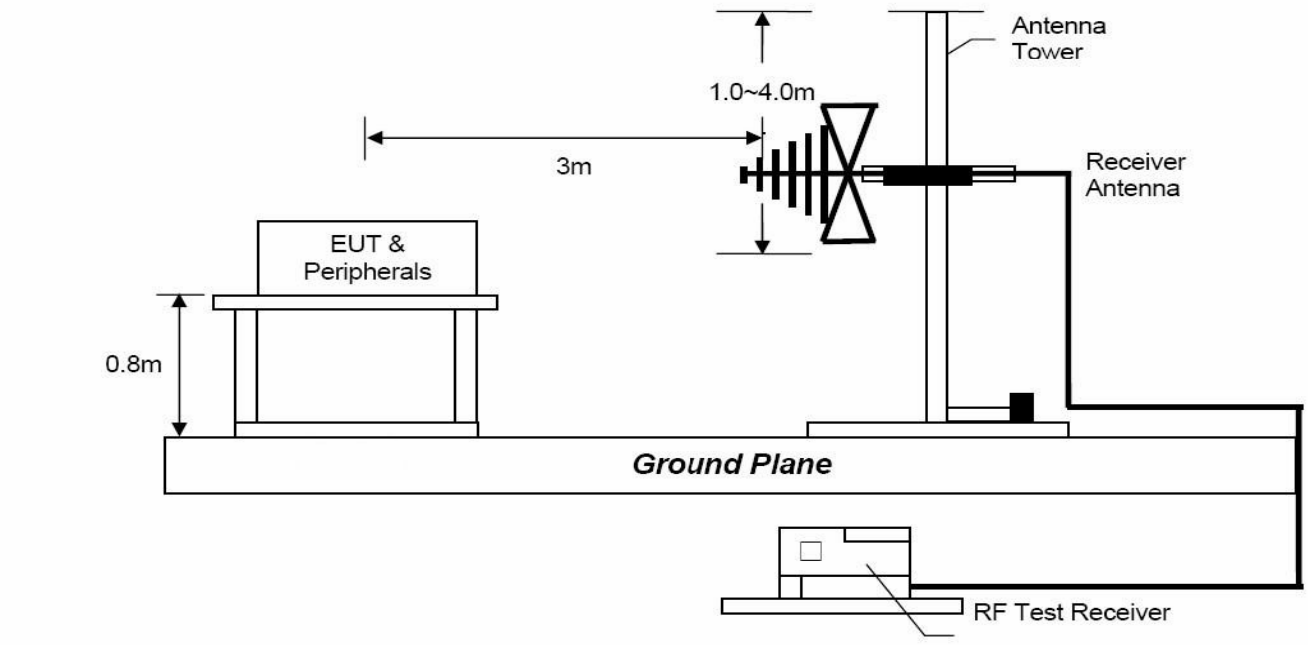
8. FIELD STRENGTH OF SPURIOUS RADIATED EMISSIONS

8.1 Applicable Standards

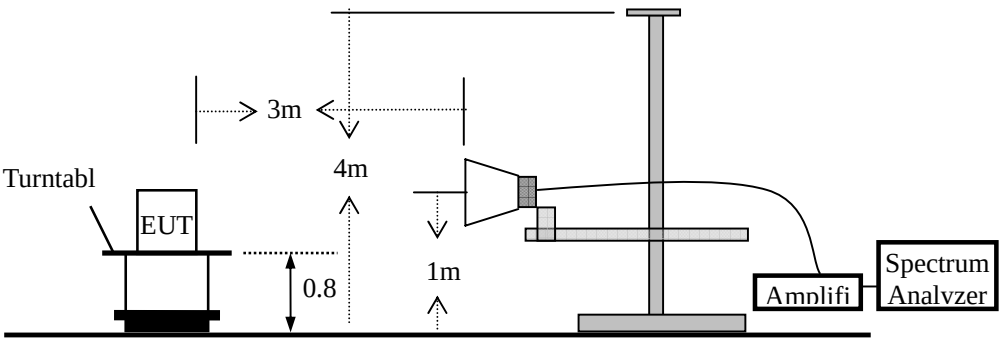
According to FCC §2.1053
FCC §22.917(a),§24.238(a), the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

8.2 Test of Block Diagram of configuration

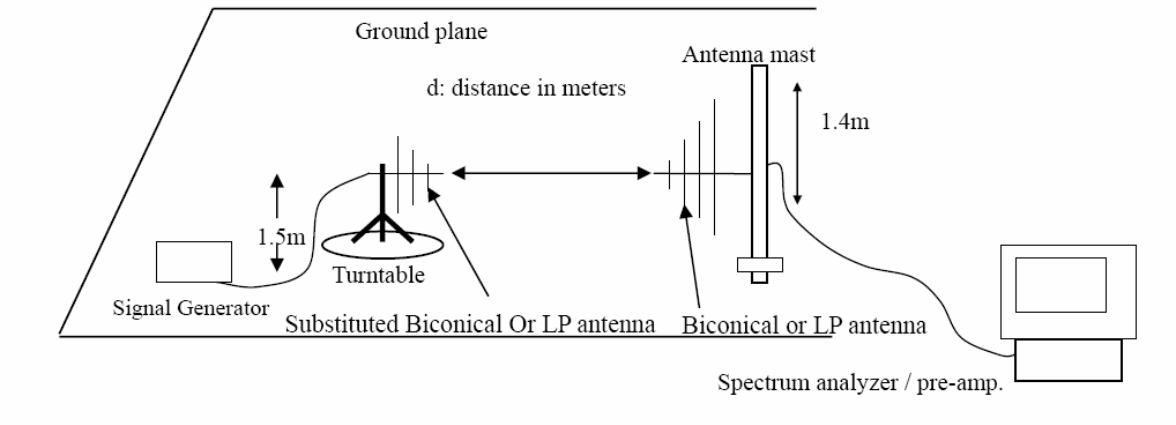
Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-Up, Frequency above 1GHz



Substituted Method Test Set-UP



8.3 Test Procedure

The EUT was placed on a non-conductive, The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. EIRP = S.G. output (dBm) + Antenna Gain(dBi) – Cable Loss (dB)

Cellular Band									
Humidity :		**52 %**	**Temperature :**				**23 ℃**		
Mode:		**GSM**	**Test By:**				**Think**		
Test Result:		**PASS**	**Frequency range:**				**Below 1GHz**		
Indicated		**Antenna**	**Substituted**				**Absolute Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
Frequency (MHz)	**Ampl (dBμV/m)**	**Polar (H/V)**	**Frequency (MHz)**	**Level (dBm)**	**Antenna Gain (dBi)**	**Cable Loss (dB)**			
Low Channel									
750	34.4	V	750	-63.1	0	0.6	-63.7	-13	50.7
950	35.9	H	950	-62.9	0	0.7	-63.6	-13	50.6
Middle Channel									
750	35.0	V	750	-62.5	0	0.6	-63.1	-13	50.1
950	36.4	H	950	-62.4	0	0.7	-63.1	-13	50.1
High Channel									
750	34.6	V	750	-62.8	0	0.6	-63.4	-13	50.4
950	36.1	H	950	-62.6	0	0.7	-63.3	-13	50.3

PCS Band									
Humidity :		**52 %**	**Temperature :**				**23 ℃**		
Mode:		**GSM**	**Test By:**				**Think**		
Test Result:		**PASS**	**Frequency range:**				**Below 1GHz**		
Indicated		**Antenna**	**Substituted**				**Absolute Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
Frequency (MHz)	**Ampl (dBμV/m)**	**Polar (H/V)**	**Frequency (MHz)**	**Level (dBm)**	**Antenna Gain (dBi)**	**Cable Loss (dB)**			
Low Channel									
801.2	35.2	V	801.2	-62.3	0	0.6	-62.9	-13	49.9
950	36.5	H	950	-62.1	0	0.7	-62.8	-13	49.8
Middle Channel									
801.2	35.4	V	801.2	-62.0	0	0.6	-62.6	-13	49.6
950	36.9	H	950	-61.8	0	0.7	-62.5	-13	49.5
High Channel									
801.2	35.1	V	801.2	-62.5	0	0.6	-63.1	-13	50.1
950	36.6	H	950	-62.0	0	0.7	-62.7	-13	49.7

Cellular Band									
Humidity :		**52 %**	**Temperature :**				**23 ℃**		
Mode:		**GSM**	**Test By:**				**Think**		
Test Result:		**PASS**	**Frequency range:**				**Above 1GHz**		
Indicated		**Antenna**	**Substituted**				**Absolute Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
Frequency (MHz)	**Ampl (dBμV/m)**	**Polar (H/V)**	**Frequency (MHz)**	**Level (dBm)**	**Antenna Gain (dBi)**	**Cable Loss (dB)**			
Low Channel									
1805.6	57.13	V	1805.6	-44.8	6.1	2.3	-41.0	-13	28.0
2707.4	41.24	V	2707.4	-60.2	7.2	3.4	-56.4	-13	43.4
3609.2	44.35	V	3609.2	-56.9	7.1	3.8	-53.6	-13	40.6
1805.6	53.29	H	1805.6	-48.0	6.1	2.3	-44.2	-13	31.2
2707.4	44.51	H	2707.4	-57.5	7.2	3.4	-53.7	-13	40.7
3609.2	45.62	H	3609.2	-56.3	7.1	3.8	-53.0	-13	40.0
Middle Channel									
1805.6	57.57	V	1805.6	-44.2	6.1	2.3	-40.4	-13	27.4
2707.4	41.37	V	2707.4	-59.9	7.2	3.4	-56.1	-13	43.1
3609.2	44.63	V	3609.2	-56.7	7.1	3.8	-53.4	-13	40.4
1805.6	53.72	H	1805.6	-47.8	6.1	2.3	-44.0	-13	31.0
2707.4	44.74	H	2707.4	-57.2	7.2	3.4	-53.4	-13	40.4
3609.2	45.68	H	3609.2	-56.2	7.1	3.8	-52.9	-13	39.9
High Channel									
1805.6	57.10	V	1805.6	-44.8	6.1	2.3	-41.0	-13	28.0
2707.4	41.31	V	2707.4	-60.1	7.2	3.4	-56.3	-13	43.3
3609.2	44.27	V	3609.2	-56.9	7.1	3.8	-53.6	-13	40.6
1805.6	53.43	H	1805.6	-47.9	6.1	2.3	-44.1	-13	31.1
2707.4	44.64	H	2707.4	-57.4	7.2	3.4	-53.6	-13	40.6
3609.2	45.57	H	3609.2	-56.5	7.1	3.8	-53.2	-13	40.2

PCS Band									
Humidity :		**52 %**	**Temperature :**				**23 ℃**		
Mode:		**GSM**	**Test By:**				**Think**		
Test Result:		**PASS**	**Frequency range:**				**Above 1GHz**		
Indicated		**Antenna**	**Substituted**				**Absolute Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
Frequency (MHz)	**Ampl (dBμV/m)**	**Polar (H/V)**	**Frequency (MHz)**	**Level (dBm)**	**Antenna Gain (dBi)**	**Cable Loss (dB)**			
Low Channel									
1192	42.39	V	3760	-59.5	6.3	1.3	-54.5	-13	41.5
1192	38.94	H	7520	-62.1	6.3	1.3	-57.1	-13	44.1
3495	52.97	V	7520	-49.7	6.8	3.5	-46.4	-13	33.4
3495	57.71	H	3760	-44.8	6.8	3.5	-41.5	-13	28.5
6450	51.93	V	5640	-50.6	8.4	6.6	-48.8	-13	35.8
6450	57.01	H	5640	-45.5	8.4	6.6	-43.7	-13	30.7
Middle Channel									
1192	42.60	V	3760	-59.2	6.3	1.3	-54.2	-13	41.2
1192	40.00	H	7520	-61.0	6.3	1.3	-56.0	-13	43.0
3495	53.53	V	7520	-49.1	6.8	3.5	-45.8	-13	32.8
3495	58.76	H	3760	-44.1	6.8	3.5	-40.8	-13	27.8
6450	52.48	V	5640	-50.2	8.4	6.6	-48.4	-13	35.4
6450	57.96	H	5640	-44.9	8.4	6.6	-43.1	-13	30.1
High Channel									
1192	42.24	V	3760	-59.6	6.3	1.3	-54.6	-13	41.6
1192	38.82	H	7520	-62.2	6.3	1.3	-57.2	-13	44.2
3495	53.04	V	7520	-49.4	6.8	3.5	-46.1	-13	33.1
3495	57.76	H	3760	-44.8	6.8	3.5	-41.5	-13	28.5
6450	51.39	V	5640	-51.0	8.4	6.6	-49.2	-13	36.2
6450	57.53	H	5640	-45.1	8.4	6.6	-43.3	-13	30.3

9. RF Exposure

9.1 Applicable Standards

§1.1307 and §2.1093.

9.2 Test Result

Compliance

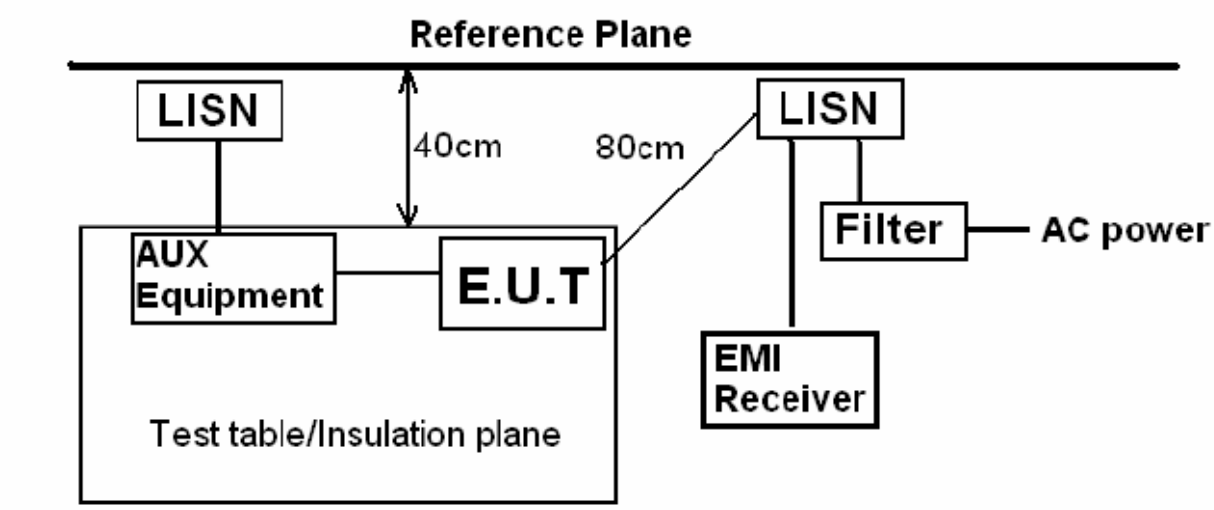
The EUT is a portable device, thus requires SAR evaluation; please refer to SAR Report that issue by SIEMIC Testing and Certification Services.

10. Conducted Emissions Test

10.1 Applicable Standards

According to FCC §15.207. The emission value for frequency within 150KHz to 30MHz shall not Exceed criteria of below chart.

10.2 Test SET-UP (Block Diagram of Configuration)



10.3 Test Procedure

a) The EUT was placed on a table which is 0.8m above ground plane.
b) Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
c) Repeat above procedures until all frequency measured were complete.

10.4 Test Conditiation

Frequency Range: 150KHz ~ 30MHz

Detector: RBW 9KHz, VBW 30KHz

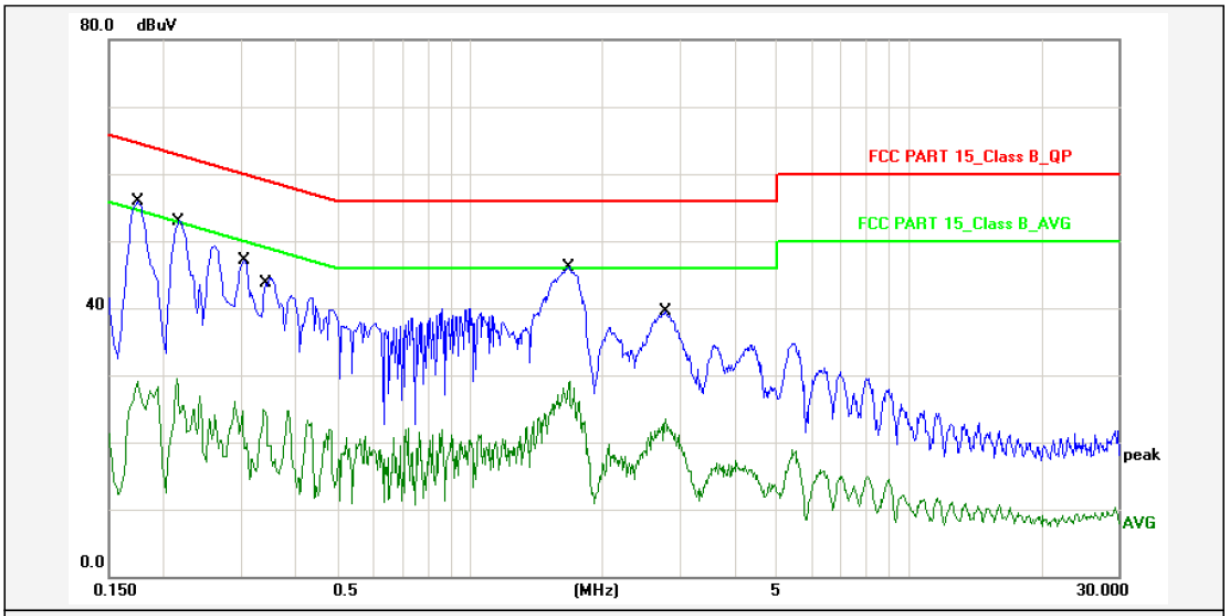
Operation Mode: Cellular Band , PCS Band

10.5 Measurment Results

Pass

Please refer to following scan wave(the worst case).

Test Time: 2011-11-9 13:34:55



Report No.: ABLA

Test Standard: FCC PART 15_Class B_QP

Test item: Conducted Emission

Phase: L1

Applicant: HUABAO

Temp.( )/Hum.(%): 26(C) / 60 %

Product: GSM PHONE

Power Rating: AC 120V/60Hz

Model No.: ABLA

Test Engineer: Think

Test Mode: PCS

Remark:

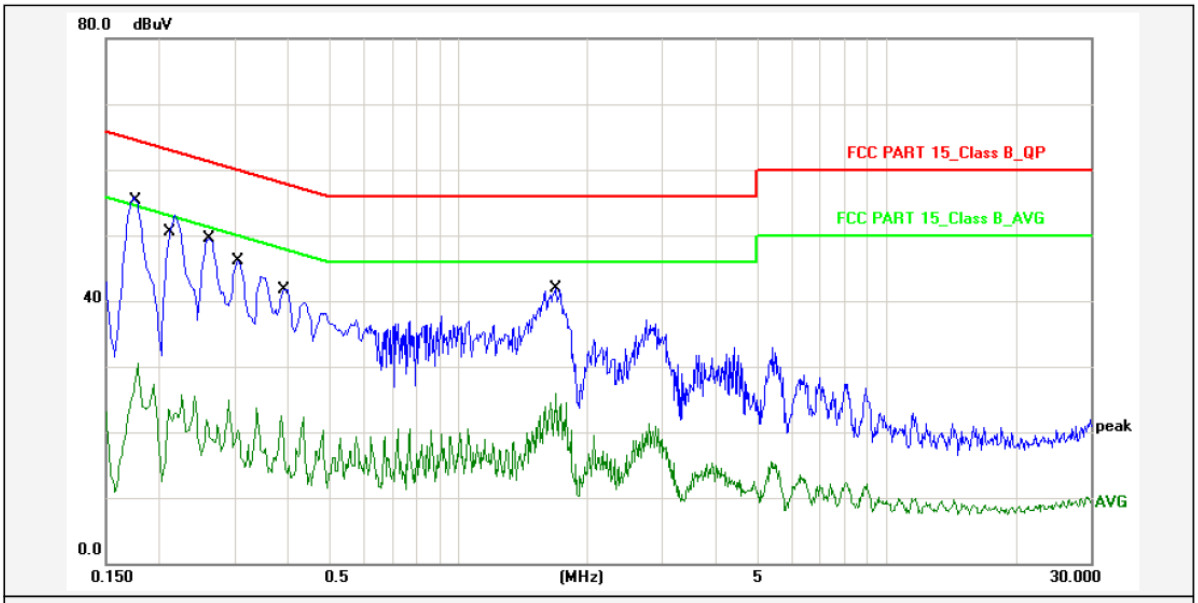
No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1740	12.00	40.29	52.29	64.76	-12.47	QP	P	
2	0.1740	12.00	17.18	29.18	54.76	-25.58	AVG	P	
3	0.2140	12.00	38.07	50.07	63.04	-12.97	QP	P	
4	0.2140	12.00	17.60	29.60	53.04	-23.44	AVG	P	
5	0.3019	12.00	31.14	43.14	60.19	-17.05	QP	P	
6	0.3019	12.00	12.76	24.76	50.19	-25.43	AVG	P	
7	0.3379	12.00	28.67	40.67	59.25	-18.58	QP	P	
8	0.3379	12.00	12.87	24.87	49.25	-24.38	AVG	P	
9	1.6820	12.00	31.15	43.15	56.00	-12.85	QP	P	
10	1.6820	12.00	17.11	29.11	46.00	-16.89	AVG	P	
11	2.7860	12.00	24.52	36.52	56.00	-19.48	QP	P	
12	2.7860	12.00	11.54	23.54	46.00	-22.46	AVG	P	

Note: Level=Reading+Factor.

Margin=Limit-Level.

File:ABLA\ #5 *Page: 1*

Test Time: 2011-11-9 13:40:45



Report No.: ABLA

Test Standard: FCC PART 15_Class B_QP

Test item: Conducted Emission Phase: N

Applicant: HUABAO Temp.( )/Hum.(%): 26(C) / 60 %

Product: GSM PHONE Power Rating: AC 120V/60Hz

Model No.: ABLA Test Engineer: Think

Test Mode: PCS

Remark:

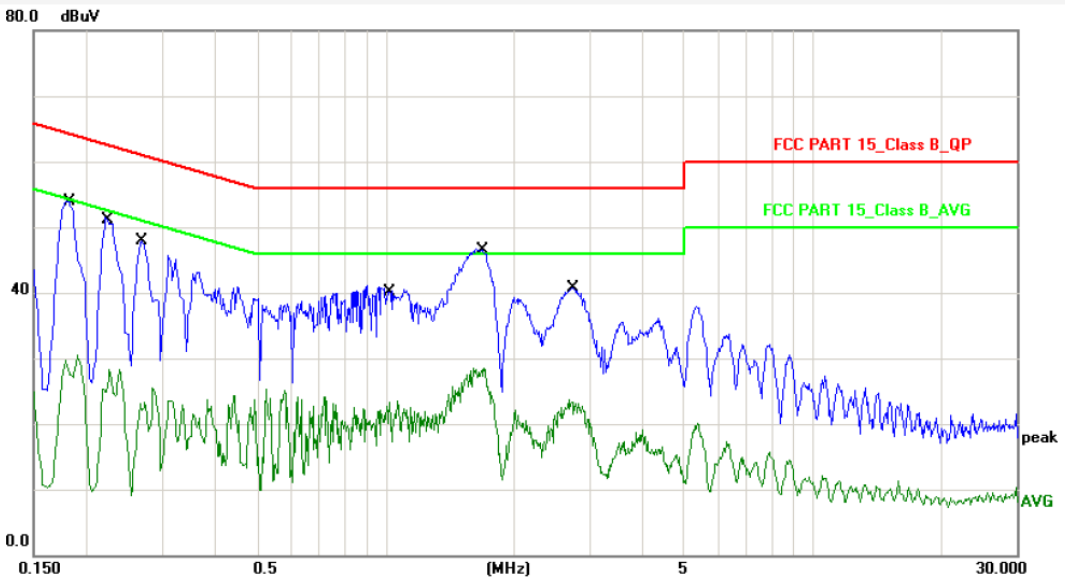
No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1780	12.00	40.26	52.26	64.57	-12.31	QP	P	
2	0.1780	12.00	18.43	30.43	54.57	-24.14	AVG	P	
3	0.2100	12.00	38.16	50.16	63.20	-13.04	QP	P	
4	0.2100	12.00	11.52	23.52	53.20	-29.68	AVG	P	
5	0.2630	12.00	34.35	46.35	61.33	-14.98	QP	P	
6	0.2630	12.00	9.92	21.92	51.33	-29.41	AVG	P	
7	0.3059	12.00	32.28	44.28	60.08	-15.80	QP	P	
8	0.3059	12.00	8.36	20.36	50.08	-29.72	AVG	P	
9	0.3899	12.00	25.64	37.64	58.06	-20.42	QP	P	
10	0.3899	12.00	10.45	22.45	48.06	-25.61	AVG	P	
11	1.6900	12.00	26.23	38.23	56.00	-17.77	QP	P	
12	1.6900	12.00	13.94	25.94	46.00	-20.06	AVG	P	

Note: Level=Reading+Factor.

Margin=Limit-Level.

File:ABLA\ #6 *Page: 1*

Test Time: 2011-11-9 13:58:14



Report No.: ABLA
Test Standard: FCC PART 15_Class B_QP
Test item: Conducted Emission
Phase: L1
Applicant: HUABAO
Temp.( )/Hum.(%): 26(C) / 60 %
Product: GSM PHONE
Power Rating: AC 120V/60Hz
Model No.: ABLA
Test Engineer: Think

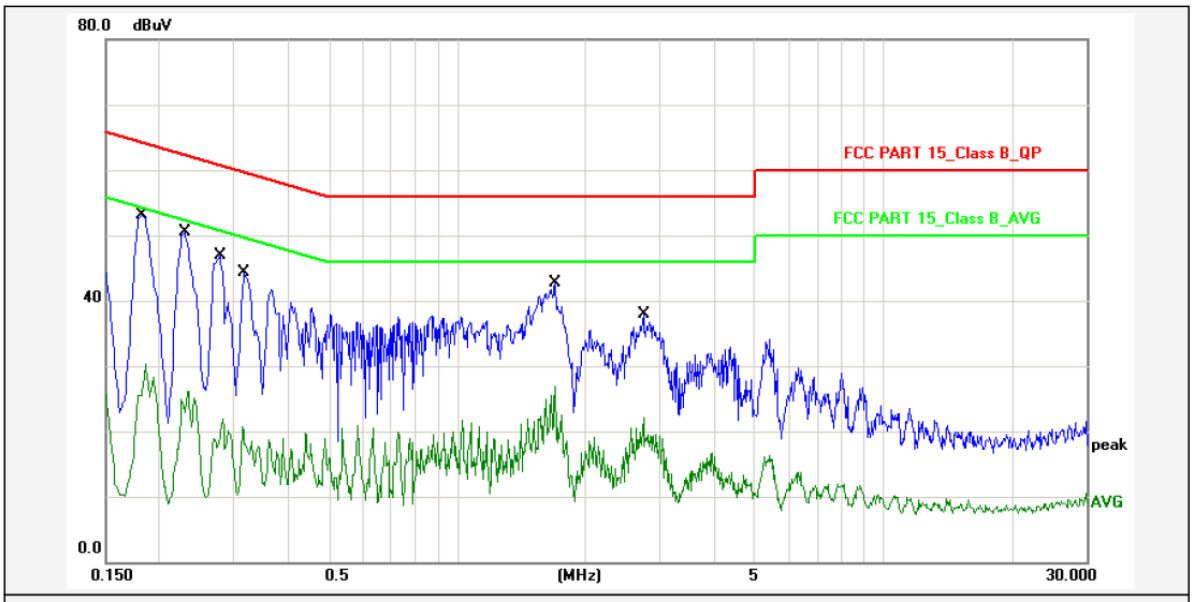
Test Mode: GSM
Remark:

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1824	12.00	39.59	51.59	64.37	-12.78	QP	P	
2	0.1824	12.00	16.91	28.91	54.37	-25.46	AVG	P	
3	0.2260	12.00	36.47	48.47	62.59	-14.12	QP	P	
4	0.2260	12.00	13.93	25.93	52.59	-26.66	AVG	P	
5	0.2700	12.00	33.10	45.10	61.12	-16.02	QP	P	
6	0.2700	12.00	10.84	22.84	51.12	-28.28	AVG	P	
7	1.0220	12.00	25.65	37.65	56.00	-18.35	QP	P	
8	1.0220	12.00	11.27	23.27	46.00	-22.73	AVG	P	
9	1.7060	12.00	30.68	42.68	56.00	-13.32	QP	P	
10	1.7060	12.00	16.56	28.56	46.00	-17.44	AVG	P	
11	2.7620	12.00	24.31	36.31	56.00	-19.69	QP	P	
12	2.7620	12.00	11.68	23.68	46.00	-22.32	AVG	P	

Note: Level=Reading+Factor.
Margin=Limit-Level.

File:ABLA\ #9 *Page: 1*

Test Time: 2011-11-9 14:02:44



Report No.: ABLA

Test Standard: FCC PART 15_Class B_QP

Test item: Conducted Emission Phase: N

Applicant: HUABAO Temp.( )/Hum.(%): 26(C) / 60 %

Product: GSM PHONE Power Rating: AC 120V/60Hz

Model No.: ABLA Test Engineer: Think

Test Mode: GSM

Remark:

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1819	12.00	38.17	50.17	64.39	-14.22	QP	P	
2	0.1819	12.00	18.25	30.25	54.39	-24.14	AVG	P	
3	0.2300	12.00	35.58	47.58	62.45	-14.87	QP	P	
4	0.2300	12.00	14.18	26.18	52.45	-26.27	AVG	P	
5	0.2779	12.00	30.86	42.86	60.88	-18.02	QP	P	
6	0.2779	12.00	9.98	21.98	50.88	-28.90	AVG	P	
7	0.3140	12.00	29.24	41.24	59.86	-18.62	QP	P	
8	0.3140	12.00	8.66	20.66	49.86	-29.20	AVG	P	
9	1.7020	12.00	28.66	40.66	56.00	-15.34	QP	P	
10	1.7020	12.00	14.91	26.91	46.00	-19.09	AVG	P	
11	2.7459	12.00	23.61	35.61	56.00	-20.39	QP	P	
12	2.7459	12.00	10.04	22.04	46.00	-23.96	AVG	P	

Note: Level=Reading+Factor.

Margin=Limit-Level.

File:ABLA\ #10 *Page: 1*

11. Test Equipment List

Description	Manfucaturer	Model Number	Serial Number	Calibration Date	Calibration Due Date
Receiver	Rohde & Schwarz	ESCI7	100837	Mar.14 2011	Mar.14 2012
Receiver	Rohde & Schwarz	ESCI	101152	Mar. 09, 2011	Mar.09 2012
L.I.S.N	Rohde & Schwarz	ENV-216	101317	Mar. 07, 2011	Mar. 07, 2012
RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar. 07, 2011	Mar. 07, 2012
Splitter	Agilent	11636B	07184	Aug. 15, 2011	Aug. 15, 2012
DC Power Source	HUA YI	HY5003-2	N/A	Mar. 19, 2011	Mar. 19, 2012
Temperature & Humidity Chamber	TOS STAR	TOS-831B	20071117	May 23, 2011	May 23, 2011
Spectrum Analyzer	Rohde & Schwarz	FSEM30	849720/021	Aug. 15, 2011	Aug. 15, 2012
Spectrum Analyzer	Agilent	8564E	3943A10314	Mar. 19, 2011	Mar. 19, 2012
Universal Radio Communication Tester	Rohde & Schwarz	CMU200	108462	Aug. 15, 2011	Aug. 15, 2012
Fliter	Amindeon	82346	N/A	Aug. 15, 2011	Aug. 15, 2012
Pre-Amplifier	HP	8447D	2944A07999	Mar. 19, 2011	Mar. 19, 2012
Broadband Antenna	Schwarzbeck	VULB9162	9162-010	Apr. 18, 2011	Apr. 18, 2012
Horn Antenna	Schwarzbeck	BBHA9120D	D262	Mar. 26, 2011	Mar. 26, 2012
Horn Antenna	ETS	3116	00101347	Apr. 24, 2011	Apr. 24, 2012
Pre-Amplifier	Agilent	8449B	3008A02964	Mar. 19, 2011	Mar. 19, 2012
Cable	UBER+SUHNER	CBL2-NN-1M	22320001	Mar. 19, 2011	Mar. 19, 2012
Cable	Schwarzbeck	CIL02	N/A	Mar. 19, 2011	Mar. 19, 2012