TEST REPORT

REPORT NUMBER:I23W00020-GSM RF

ON

Type of Equipment:	**4G Smart Phone**
Type of Designation:	**MobiWire H6322, Altice S35**
Brand Name：	**MobiWire, Altice**
Manufacturer:	**MobiWire SAS**
FCC ID:	**QPN-H6322**

ACCORDING TO

FCC 47 CFR Part 24; FCC 47 CFR Part 22;FCC 47 CFR Part 2;

Chongqing Academy of Information and Communications Technology

Month date, year
Jun 16, 2023

Signature

Xiang Luoyong
Director
Note:
The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

Revision Version

Report Number	Revision	Date	Memo
I23W00020-GSM RF	00	2023-06-16	Initial creation of test report

CONTENTS

1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
FCC Registration Number:	CN1239
Address:	Building C, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

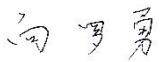
1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	30-60%

1.3. Project data

Testing Start Date:	2023-05-23
Testing End Date:	2023-05-26

1.4. Signature

	2023-06-16
Dong Junxin **(Prepared this test report)**	**Date**
	2023-06-16
Li Xu **(Reviewed this test report)**	**Date**
	2023-06-16
Xiang Luoyong **Director of the laboratory** **(Approved this test report)**	**Date**

2. Client Information

2.1. Applicant Information

Company Name:	MobiWire SAS
Address /Post:	107 Boulevard de la Mission Marchand 92400 Courbevoie,France
City:	Courbevoie
Country:	France
Telephone:	+33625028368
Fax:	N/A
Email:	olivier.tiennault@mobiwire.com
Contact Person:	Olivier Tiennault

2.2. Manufacturer Information

Company Name:	MobiWire SAS
Address /Post:	107 Boulevard de la Mission Marchand 92400 Courbevoie,France
City:	Courbevoie
Country:	France
Telephone:	+33625028368
Fax:	N/A
Email:	olivier.tiennault@mobiwire.com
Contact Person:	Olivier Tiennault

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	4G Smart Phone
Model name	MobiWire H6322, Altice S35
Brand name	MobiWire, Altice
GSM Frequency Band	GSM:850/ 900/ 1800/1900
WCDMA Frequency Band	WCDMA:B1/B2/B5/B8
LTE Frequency Band	LTE:B1/2/3/4/5/7/8/20/28/38/41
BLUETOOTH Frequency Band	2402MHz-2480MHz
WLAN Frequency Band	Wi-Fi 2.4G:802.11b/g/n, Wi-Fi 5G U-NII-1/ U-NII-2a/U-NII-2c/U-NII-3:802.11a/n/ac
Type of GSM modulation	GMSK/8PSK
Power Class 2	N/A
Power Class 3	N/A
Extreme Temperature	-10/+55℃
Nominal Voltage	3.85V
Extreme High Voltage	4.4V
Extreme Low Voltage	3.6V

Note: Photographs of EUT are shown in ANNEX A of this test report.
Note: High and low voltage values in extreme condition test are given by manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
S3	354365420004383 354365420004391	V01	Mobiwire_H6322_V01	2023-05-23
S8	354365420006222 354365420006230	V01	Mobiwire_H6322_V01	2023-05-23
S9	354365420009044 354365420009051	V01	Mobiwire_H6322_V01	2023-05-23

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Outline of Equipment under Test

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)	Note
2G	850	824-849	869-894	N/A
	1900	1850-1910	1930-1990	N/A

3.4. Internal Identification of AE used during the test

AE ID*	Description	dB*
AE1	RF cable	0.5

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC 47 CFR Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	--
FCC 47 CFR Part 22	PUBLIC MOBILE SERVICES	--
FCC 47 CFR Part 24	PERSONAL COMMUNICATIONS SERVICES	--

5. Test Equipments Utilized

5.1. RF Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Spectrum analyzer	FSQ 26	201137/026	--	--	R&S	2023-06-29
2	Spectrum analyzer	FSW26	104280	--	--	R&S	2023-06-29
3	DC Power Supply	3303D	801128	--	--	Topward	2023-06-29
4	Universal Radio Communication Tester	CMW500	152395	--	--	R&S	2023-06-29

5.2. RSE Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	EMI Test Receiver	ESU40	100307	--	--	R&S	2023-06-29
2	TRILOG Broadband Antenna	VULB9163	9163-586	--	--	Schwarzbeck	2024-10-28
3	Horn antenna	9120D	1083	--	--	Schwarzbeck	2024-12-14
4	Horn antenna	DATE 1152	LM7127	--	--	ETS	2024-09-06
5	Horn antenna	DATE 1012	LM5945	--	--	ETS	2024-09-06
6	Amplifier1	SCU-08F1	8320027	--	--	R&S	2023-06-29
7	Amplifier2	SCU-18F	180093	--	--	R&S	2023-06-29

5.3. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal.Due Date
--	--	--	--	--	--

5.4. Anechoic chamber Vibration table

No.	Name	Type	SN	Manufacture	Cal.Due Date
1	Fully-Anechoic Chamber	FAC 5	--	TDK	2024-09-22

5.5. Test software

No.	Name	version	SN	Manufacture
1	EMC32	V 10.20.01	--	R&S

6. Test Results

6.1. Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
Output Power	2.1046/22.913(a)/24.232(c)	PASS
EIRP	2.1046/22.913(a)/24.232(c)	PASS
Peak-to-Average Ratio	24.232(d)	PASS
99%Occupied Bandwidth	2.1049(h)(i)/ 22.917(b)	PASS
-26dB Emission Bandwidth	22.917(b)/24.238(b)	PASS
Band Edge at antenna terminals	22.917(a)/24.238(a)	PASS
Frequency stability	2.1055/24.235	PASS
Conducted Spurious mission	2.1053/22.917(a)/24.238(a)	PASS
Emission Limit	2.1051/22.917/24.238/22.913/24.232	PASS
Note:The MobiWire H6322, Altice S35, manufactured by MobiWire SAS is a new product for testing.		

6.2. Output Power

Specifications:	FCC Part 2.1046/22.913(a)/24.232(c)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

During the process of testing, the EUT was controlled Rhode & Schwarz Digital Radio. Communication tester to ensure max power transmission and proper modulation.

This result contains peak output power and EIRP measurements for the EUT. In all cases, output power is within the specified limits.

6.2.1. Method of Measurements

Method of measurements please refer to KDB971168 D01 v03 clause 5.

The EUT was set up for the max output power with pseudo random data modulation.

The power was measured with Rhode & Schwarz Spectrum Analyzer FSQ(peak).

These measurements were done at 3 frequencies, 1850.2 MHz, 1880.0MHz and 1909.8MHz for PCS1900 band; 824.2MHz, 836.6MHz and 848.8MHz for GSM850 band. (bottom, middle and top of operational frequency range).

6.2.2. Test procedures

The transmitter output port was connected to base station.

Set the EUT at maximum power through base station.

Select lowest, middle, and highest channels for each band and different modulation.

Measure maximum average power for other modulation signal.

6.2.3. Limit

22.913(a) Mobile stations are limited to 7 watts.

24.232(c) Mobile and portable stations are limited to 2 watts.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.6 dB (k=2)

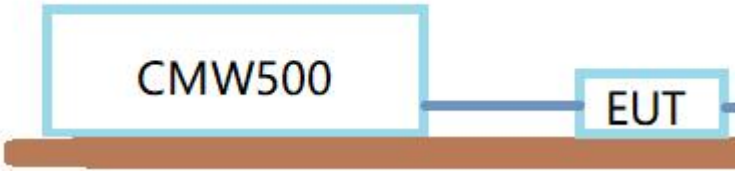
6.2.4. Test Proceduer

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

6.2.5. GSM Test Condition

RBW	VBW	Sweep time	Span
3MHz	10MHz	Auto	50MHz

6.2.6. Test Setup



6.2.7. Measurement results

GSM 850 (GMSK 1 Slot)	
Channel/fc(MHz)	Peak power (dBm)
Mid 190/836.4	31.80
Low 128/824.2	31.81
High 251/848.8	31.91

GPRS 850 (GMSK 1 Slot)	
Channel/fc(MHz)	Peak power (dBm)
Mid 190/836.4	31.73
Low 128/824.2	31.88
High 251/848.8	31.91

EGPRS 850 (8PSK 1 Slot)	
Channel/fc(MHz)	Peak power (dBm)
Mid 190/836.4	26.32
Low 128/824.2	26.62
High 251/848.8	26.89

GSM 1900 (GMSK 1 Slot)

Channel/fc(MHz)	Peak power (dBm)
Mid 661/1880	29.40
Low 512/1850.2	29.45
High 810/1909.8	29.39

GPRS 1900 (GMSK 1 Slot)	
Channel/fc(MHz)	Peak power (dBm)
Mid 661/1880	29.47
Low 512/1850.2	29.42
High 810/1909.8	29.50

EGPRS 1900 (8PSK 1 Slot)	
Channel/fc(MHz)	Peak power (dBm)
Mid 661/1880	26.01
Low 512/1850.2	26.10
High 810/1909.8	26.61

6.3. EIRP

Specifications:	FCC Part 2.1046/22.913(a)/24.232(c)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.3.1. Description

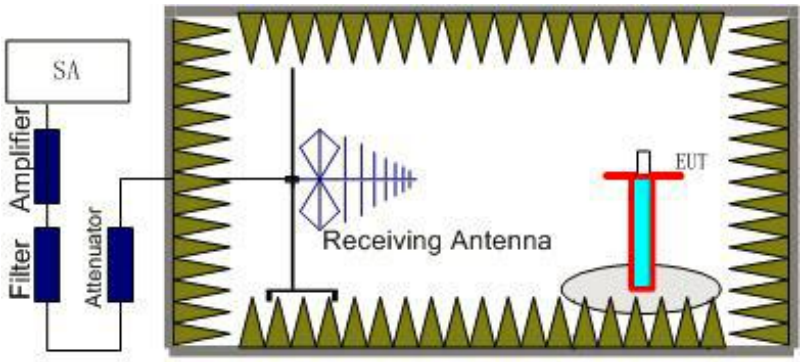
This is the test for the maximum radiated power from the EUT.

Rule Part 24.232(c) specifies, "Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power" and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage." Rule Part 22.913(a) specifies " The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts."

6.3.1 Method of Measurement

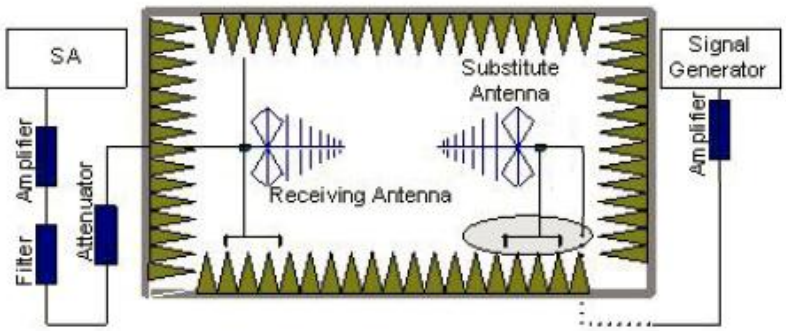
The measurements procedures in TIA-603E-2016 are used.

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).

3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna.

The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.

The measurement results are obtained as described below:

Power (EIRP)=PMea+ PAg -Pcl+ Ga

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi.

6.3.2 Limit

Rule 2.1051/22.917/24.238/22.913/24.232 specifies that " In the 1.0 MHz bands immediately outside and adjacent to the equipment’s operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p(watts).

After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p(watts). If the measurement is performed using 1% of the emission bandwidth, power integration over 1.0 MHz is required.” Limit -13 dBm

Rule 2.1051/22.917/24.238/22.913/24.232 specifies that " In the 1.0 MHz bands immediately outside and adjacent to the equipment’s operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p(watts).

After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p(watts). If the measurement is performed

using 1% of the emission bandwidth, power integration over 1.0 MHz is required.” Limit -13 dBm
Rule RSS-132 5.5 specifies that " In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p (watts).
After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.” Limit -13 dBm
Rule RSS-133 6.5 specifies that " In the 1.0 MHz bands immediately outside and adjacent to the equipment’s operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10p(watts).
After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10p(watts). If the measurement is performed using 1% of the emission bandwidth, power integration over 1.0 MHz is required. Limit -13 dBm

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.6 dB (k=2)

6.3.3 Measurement result

Maximum of Antenna Gain:

No.	Item(s)	Data
1	850	0.2dBi
2	1900	0.12dBi
Note: The data of gain is provided by the customer may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

GSM850

GSM(GMSK)

Frequency(MHz)	Peak EIRP (dBm)	Peak ERP (dBm)	Polarization
824.2	32.60	29.85	H
836.6	32.01	29.86	H
848.8	32.11	29.96	H

GPRS(GMSK)

Frequency(MHz)	Peak EIRP (dBm)	Peak ERP (dBm)	Polarization
824.2	31.93	29.78	H
836.6	32.08	29.93	H
848.8	32.11	29.96	H

EDGE(8PSK)

Frequency(MHz)	Peak EIRP (dBm)	Peak ERP (dBm)	Polarization

824.2	26.52	24.37	H
836.4	26.82	24.67	H
848.8	27.09	24.94	H

PCS 1900

GSM (GMSK)

Frequency(MHz)	Peak EIRP (dBm)	Polarization
1850.2	29.52	V
1880.0	29.57	H
1909.8	29.51	V

GPRS (GMSK)

Frequency(MHz)	Peak EIRP (dBm)	Polarization
1850.2	29.59	V
1880.0	29.54	H
1909.8	29.62	V

EDGE (8PSK)

Frequency(MHz)	Peak EIRP (dBm)	Polarization
1850.2	26.13	V
1880.0	26.22	H
1909.8	26.73	V

6.4. Peak-to-Average Power Ratio

Specifications:	FCC Part 24.232(d)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.4.1. PAPR Limit

The peak-to-average power ratio (PAPR) of the transmission may not exceed 13Db.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.22 dB (k=2)

6.4.2. Test procedures

The EUT was connected to the spectrum analyzer and system simulator via a power divider.

Select the spectrum analyzer CCDF function.

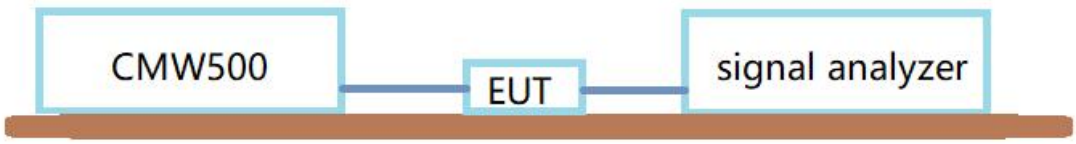
Set RBW ≥ signal's occupied bandwidth.

Set the number of counts to a value that stabilizes the measured CCDF cure;

Sweep time ≥ 1s.

Record the maximum PAPR level associated with a probability of 0.1%.

6.4.3. Test Setup



6.4.4. Test result

Band	Network	Channel	PCL/Gamma	PAPR	Limit
GSM850	GSM	128	5	8.52	13
GSM850	GSM	189	5	4.78	13
GSM850	GSM	251	5	8.58	13

GSM850	GPRS	128	3	8.43	13
GSM850	GPRS	189	3	4.81	13
GSM850	GPRS	251	3	9.01	13
GSM850	EDGE	128	6	8.32	13
GSM850	EDGE	189	6	8.52	13
GSM850	EDGE	251	6	4.72	13

Band	Network	Channel	PCL/Gamma	PAPR	Limit
GSM1900	GSM	512	0	8.58	13
GSM1900	GSM	661	0	4.7	13
GSM1900	GSM	810	0	8.46	13
GSM1900	GPRS	512	3	4.7	13
GSM1900	GPRS	661	3	4.7	13
GSM1900	GPRS	810	3	6.61	13
GSM1900	EDGE	512	5	4.7	13
GSM1900	EDGE	661	5	8.38	13
GSM1900	EDGE	810	5	8.38	13

6.5. 99% Occupied Bandwidth

Specifications:	FCC Part 2.1049(h)(i)/ 22.917(b)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.5.1. Occupied Bandwidth

Similar to conducted emissions; occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of GSM850, PCS1900.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	70.04 Hz (k=2)

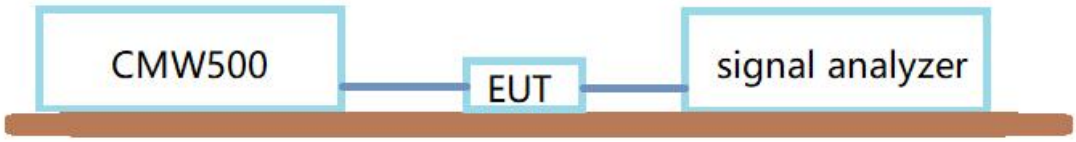
6.5.2. Test Procedure

The EUT output RF connector was connected with a short cable to the signal analyzer.

RBW was set to about 1% of emission BW, VBW >= 3 times RBW,.

99% bandwidth were measured, the occupied bandwidth is delta frequency between the two points where the display line intersects the signal trace.

6.5.3. Test Setup

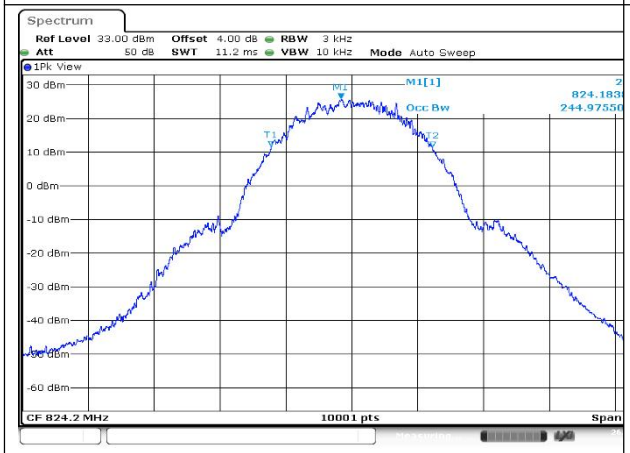
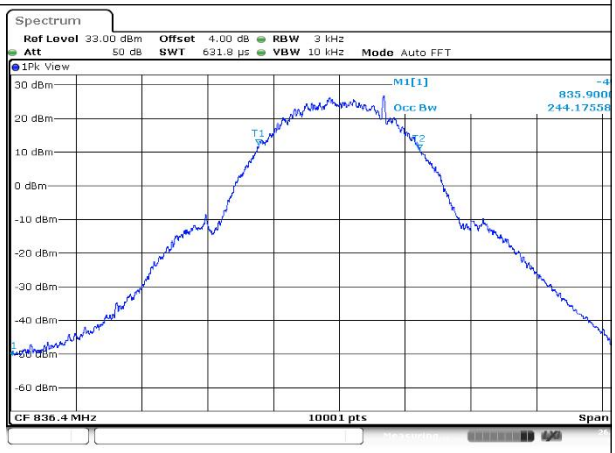
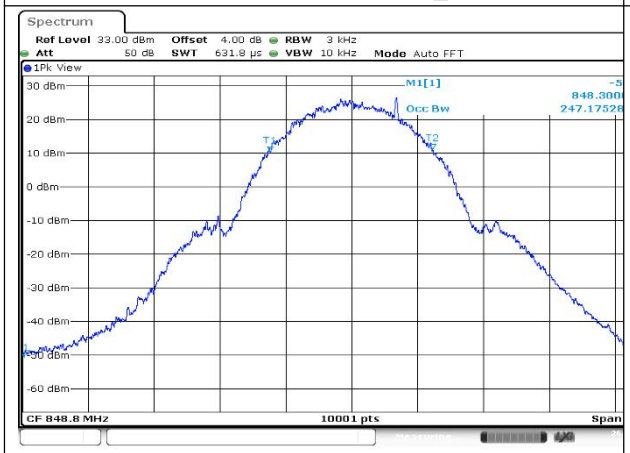
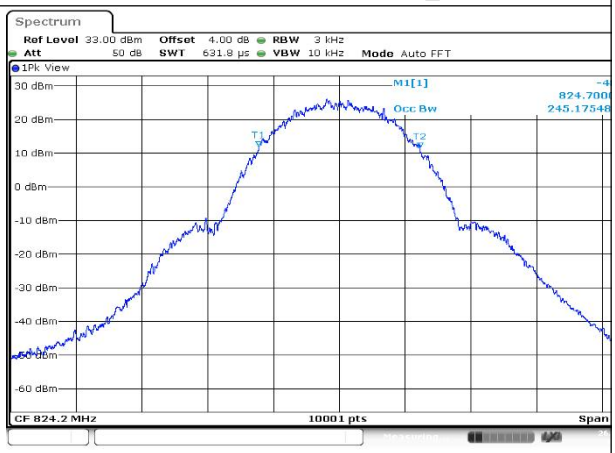
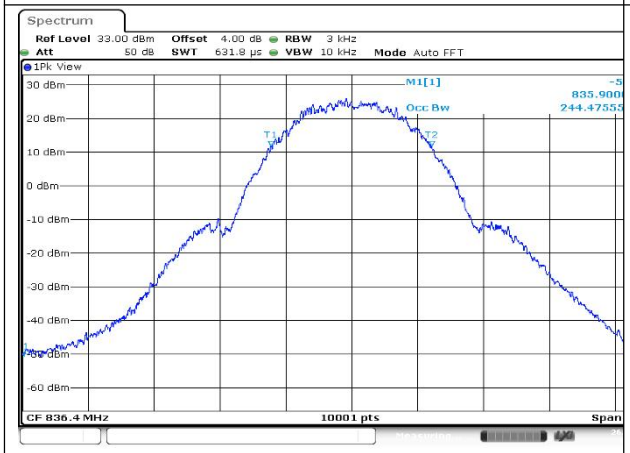
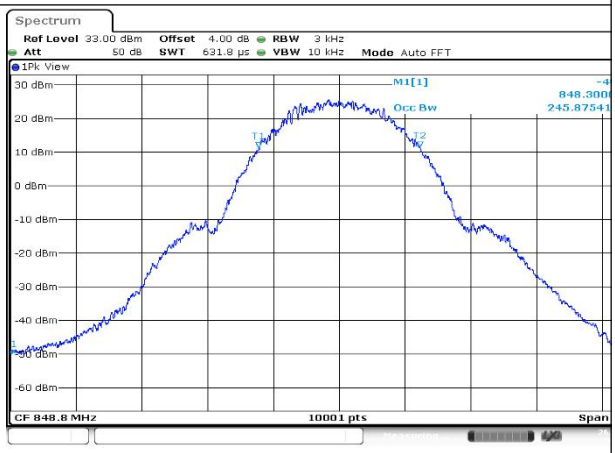


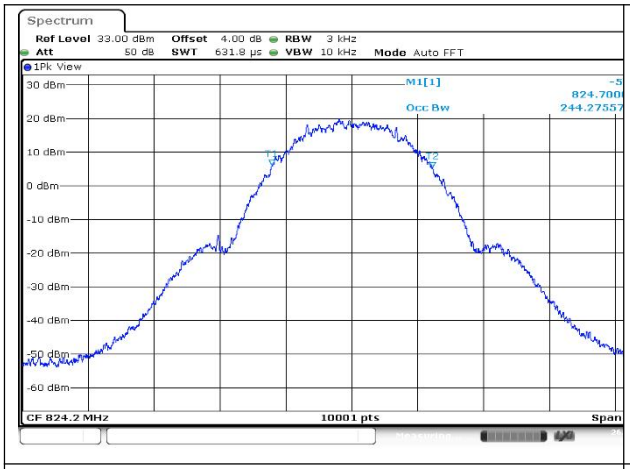
6.5.4. Test result

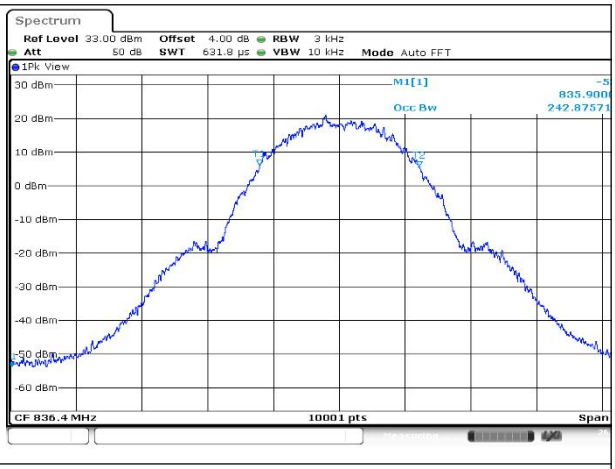
Band	Network	Channel/fc(MHz)	PCL	99%OBW(kHz)
GSM850	GSM	128	5	244.98
GSM850	GSM	189	5	244.18
GSM850	GSM	251	5	247.18

GSM850	GPRS	128	3	245.18
GSM850	GPRS	189	3	244.48
GSM850	GPRS	251	3	245.88
GSM850	EDGE	128	6	244.28
GSM850	EDGE	189	6	242.88
GSM850	EDGE	251	6	245.98
GSM1900	GSM	512	0	246.08
GSM1900	GSM	661	0	245.08
GSM1900	GSM	810	0	243.08
GSM1900	GPRS	512	3	245.78
GSM1900	GPRS	661	3	245.68
GSM1900	GPRS	810	3	243.18
GSM1900	EDGE	512	5	245.38
GSM1900	EDGE	661	5	244.78
GSM1900	EDGE	810	5	245.38

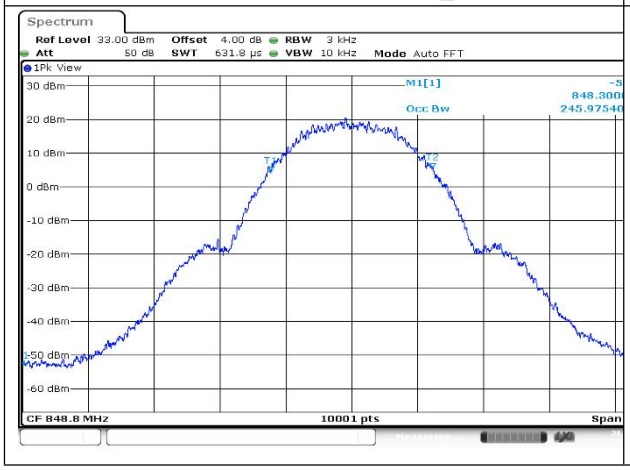
Conclusion: PASS

GSM850,GSM,5,824.2MHz_OBW	GSM850,GSM,5,836.4MHz_OBW
	
GSM850,GSM,5,848.8MHz_OBW	GSM850,GPRS,3,824.2MHz_OBW
	
GSM850,GPRS,3,836.4MHz_OBW	GSM850,GPRS,3,848.8MHz_OBW
	
GSM850,EDGE,6,824.2MHz_OBW	GSM850,EDGE,6,836.4MHz_OBW

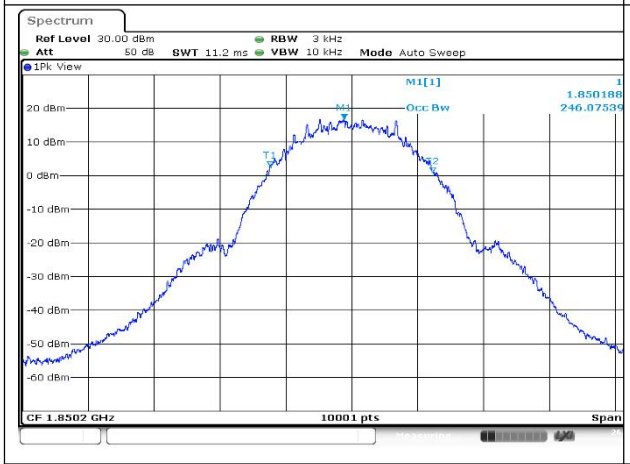




GSM850,EDGE,6,848.8MHz_OBW

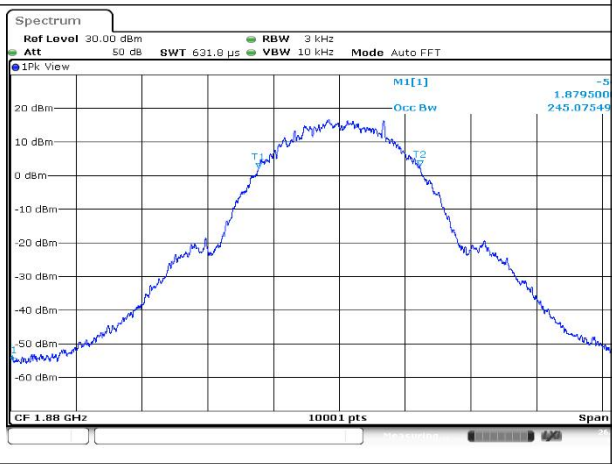


GSM1900,GSM,0,1850.2MHz_OBW

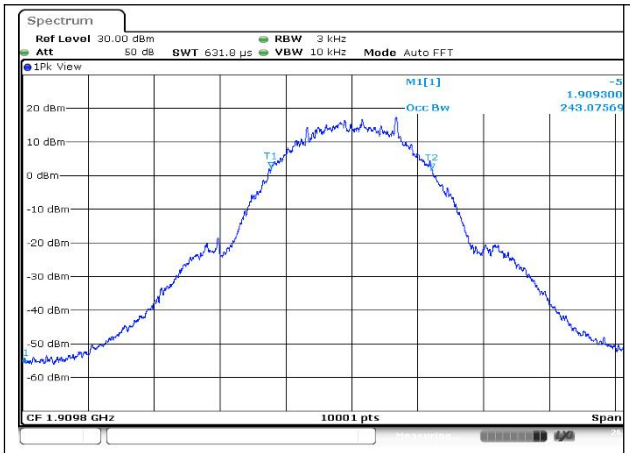


GSM1900,GSM,0,1909.8MHz_OBW

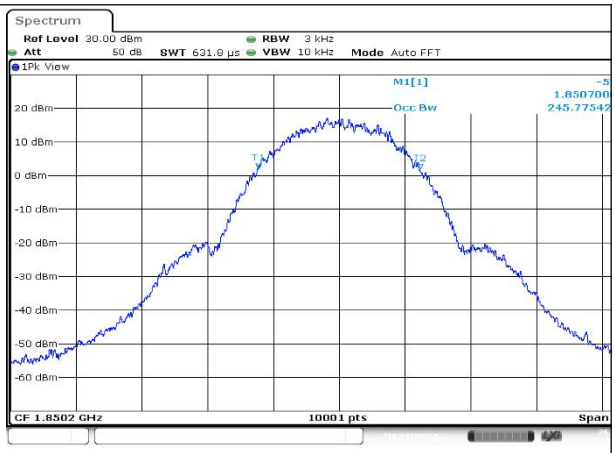
GSM1900,GSM,0,1880MHz_OBW



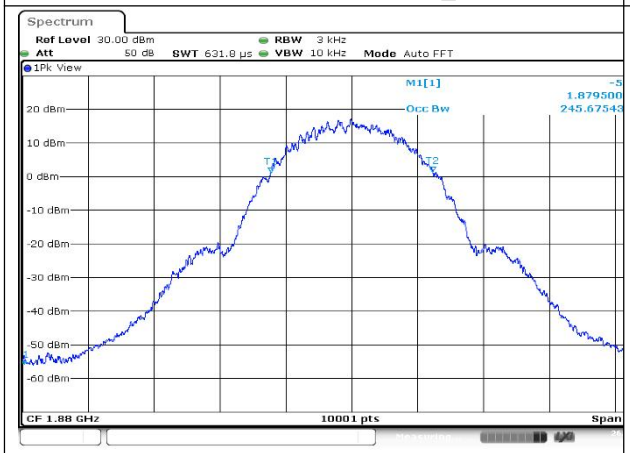
GSM1900,GPRS,3,1850.2MHz_OBW



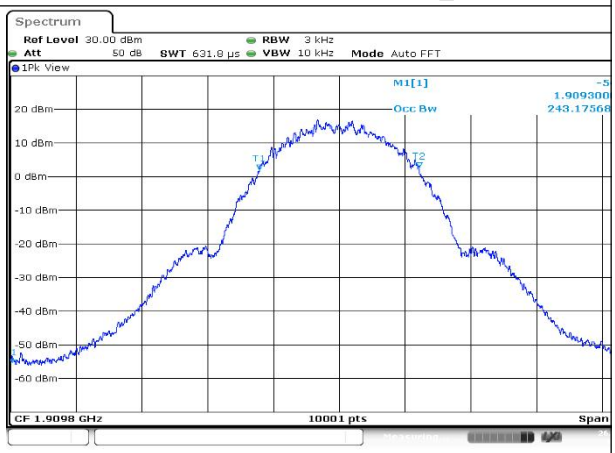
GSM1900,GPRS,3,1880MHz_OBW



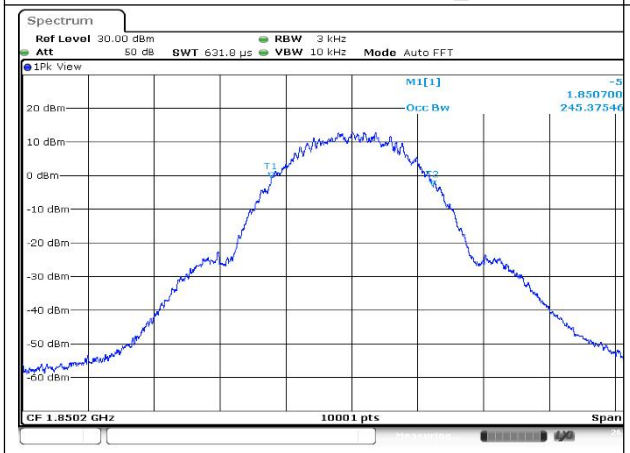
GSM1900,GPRS,3,1909.8MHz_OBW



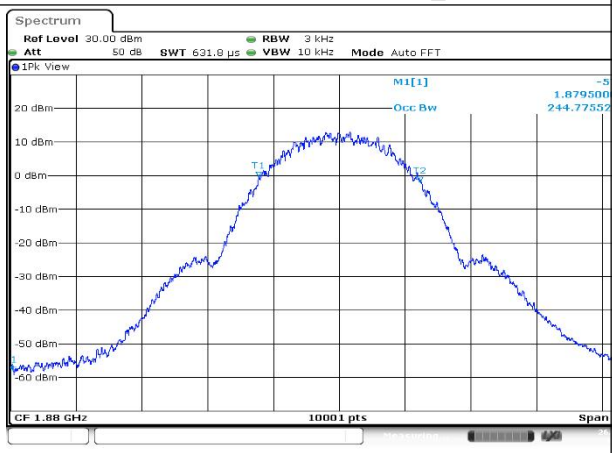
GSM1900,EDGE,5,1850.2MHz_OBW

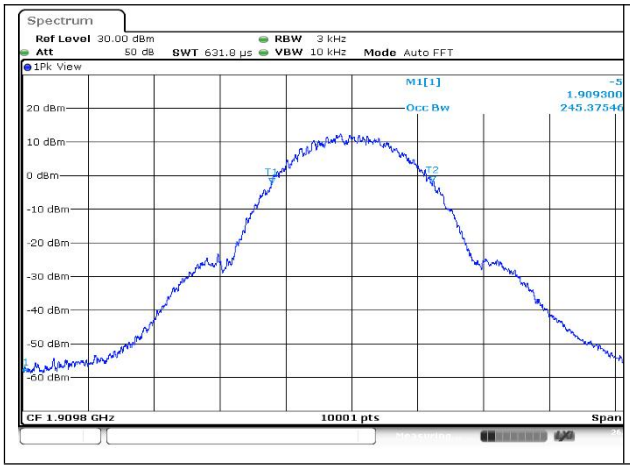


GSM1900,EDGE,5,1880MHz_OBW



GSM1900,EDGE,5,1909.8MHz_OBW




Spectrum
Ref Level 30.00 dBm
RBW 3 kHz
Att 50 dB
SWT 631.0 µs
VBW 10 kHz
Mode Auto FFT
1Pk View
M1[1]
-5
1.909300
Occ Bw
245.37546
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 1.9098 GHz
10001 pts
Span

6.6. -26dB Emission Bandwidth

Specifications:	FCC Part 22.917(b)/24.238(b)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Method of test please refer to KDB971168 D01 v03 clause 4.0.

Similar to conducted emissions; occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of GSM.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	70.04 Hz (k=2)

6.7.1 Test Procedure:

The EUT output RF connector related to a short cable to the signal analyzer.

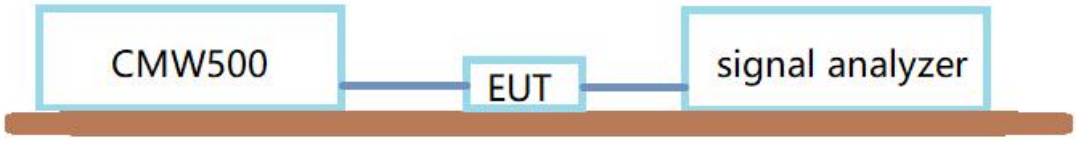
RBW was set to about 1% of emission BW, VBW >= 3 times RBW,.

26dB bandwidth were measured, the occupied bandwidth is delta frequency between the two points where the display line intersects the signal trace.

6.6.1. Measurement methods

For GSM: signal analyzer setting as: RBW= 3KHz; VBW=10KHz; Span=1MHz.

6.6.2. Test Setup



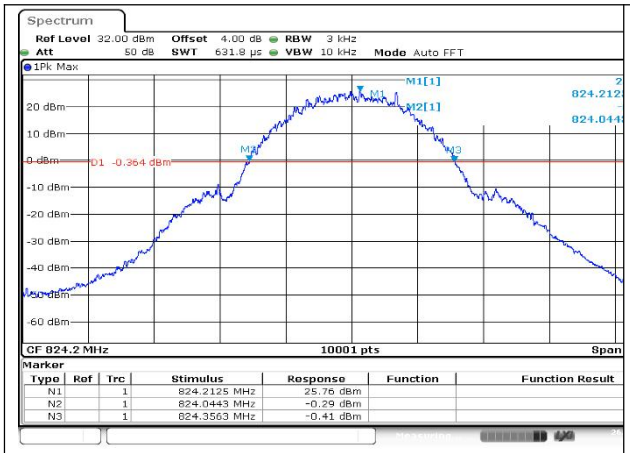
6.6.3. Test results

Band	Network	Channel/fc(MHz)	PCL	26dBDown

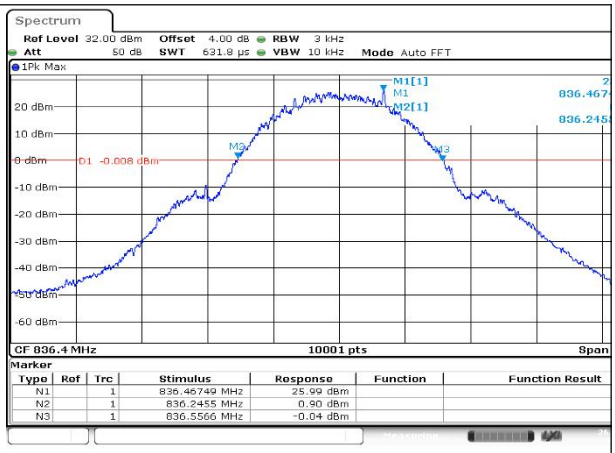
				OccupiedWidth(kHz)
GSM850	GSM	128	5	312.00
GSM850	GSM	189	5	311.00
GSM850	GSM	251	5	312.00
GSM850	GPRS	128	3	320.00
GSM850	GPRS	189	3	313.00
GSM850	GPRS	251	3	315.00
GSM850	EDGE	128	6	315.00
GSM850	EDGE	189	6	317.00
GSM850	EDGE	251	6	316.00
GSM1900	GSM	512	0	315.00
GSM1900	GSM	661	0	313.00
GSM1900	GSM	810	0	309.00
GSM1900	GPRS	512	3	318.00
GSM1900	GPRS	661	3	317.00
GSM1900	GPRS	810	3	322.00
GSM1900	EDGE	512	5	321.00
GSM1900	EDGE	661	5	314.00
GSM1900	EDGE	810	5	315.00

Conclusion: PASS

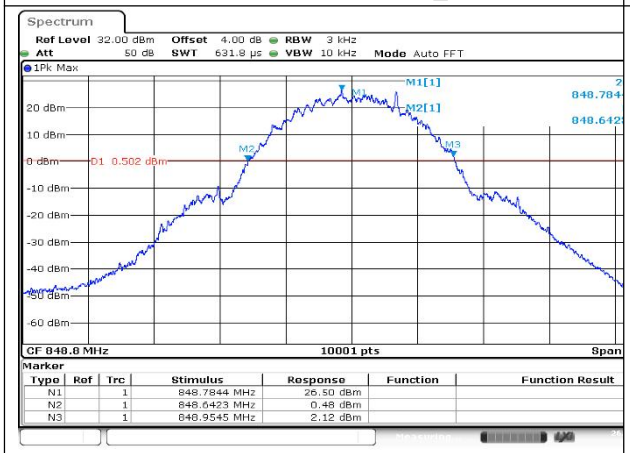
GSM850,GSM,5,824.2MHz_OBW	GSM850,GSM,5,836.4MHz_OBW



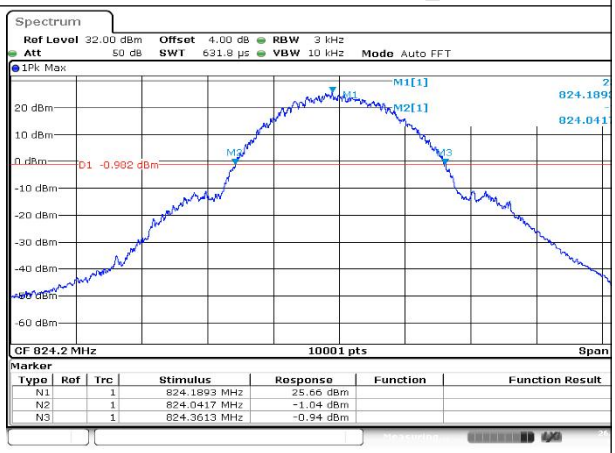
GSM850,GSM,5,848.8MHz_OBW



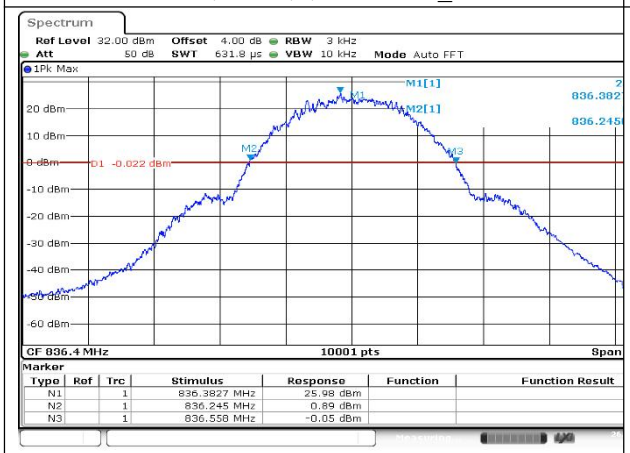
GSM850,GPRS,3,824.2MHz_OBW



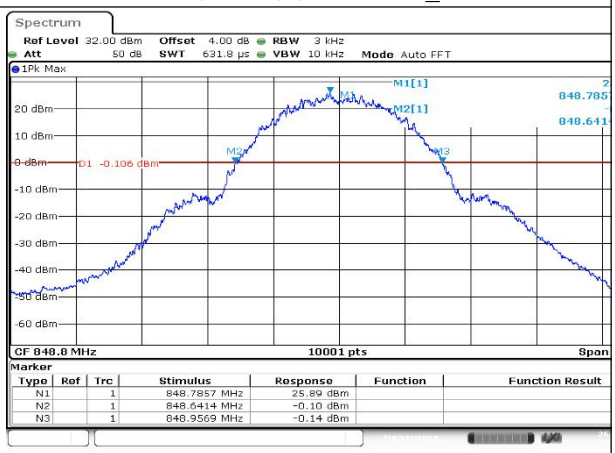
GSM850,GPRS,3,836.4MHz_OBW



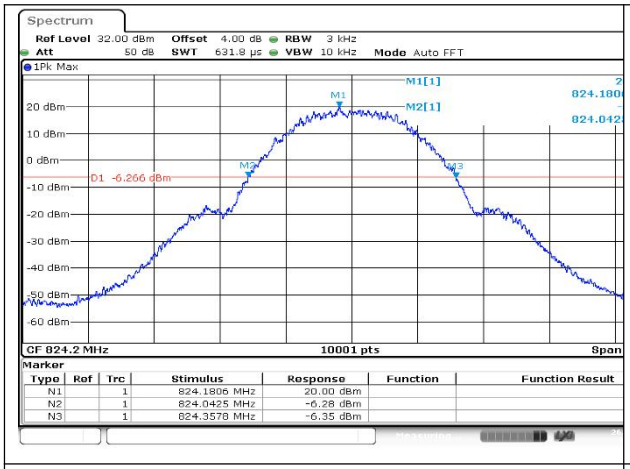
GSM850,GPRS,3,848.8MHz_OBW



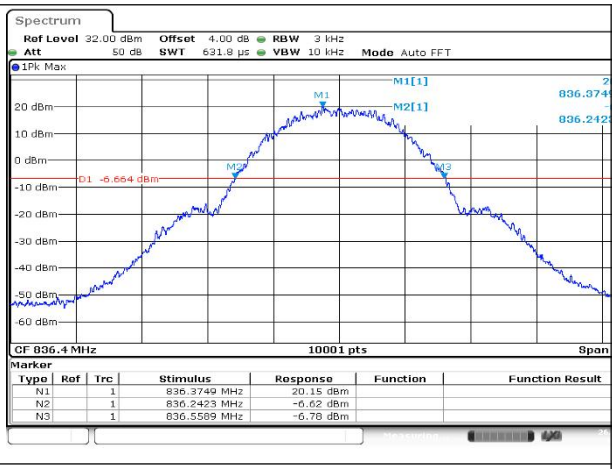
GSM850,EDGE,6,824.2MHz_OBW

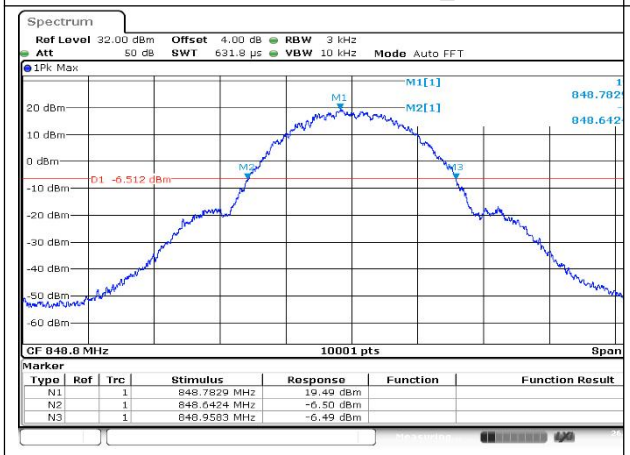


GSM850,EDGE,6,836.4MHz_OBW



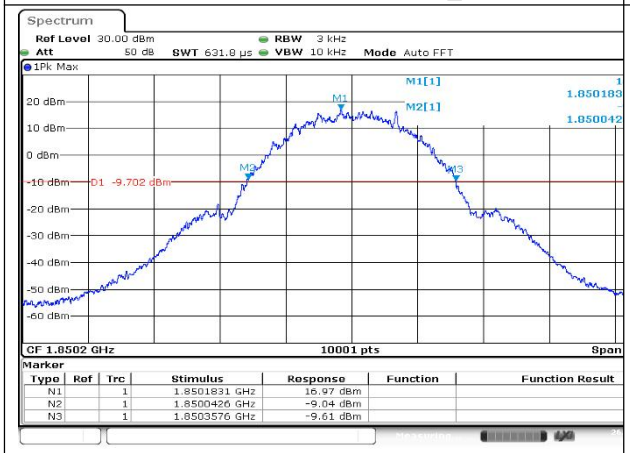
GSM850,EDGE,6,848.8MHz_OBW

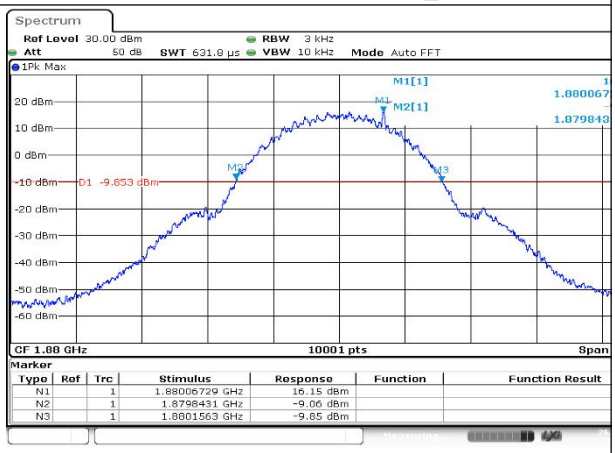




GSM1900,GSM,0,1850.2MHz_OBW

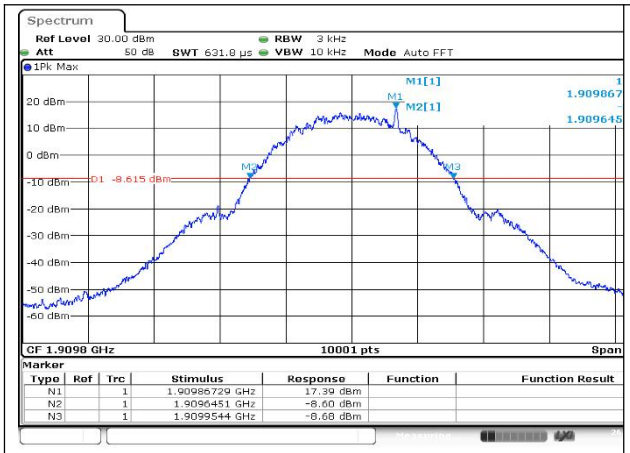
GSM1900,GSM,0,1880MHz_OBW



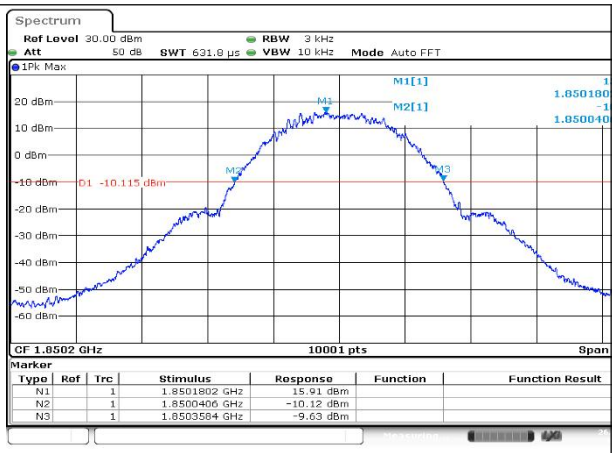


GSM1900,GSM,0,1909.8MHz_OBW

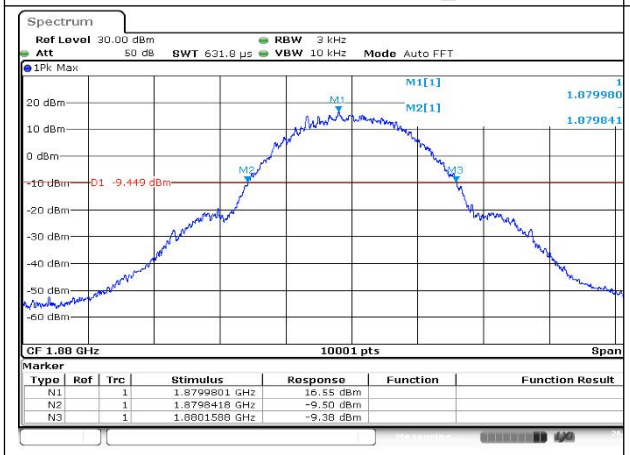
GSM1900,GPRS,3,1850.2MHz_OBW



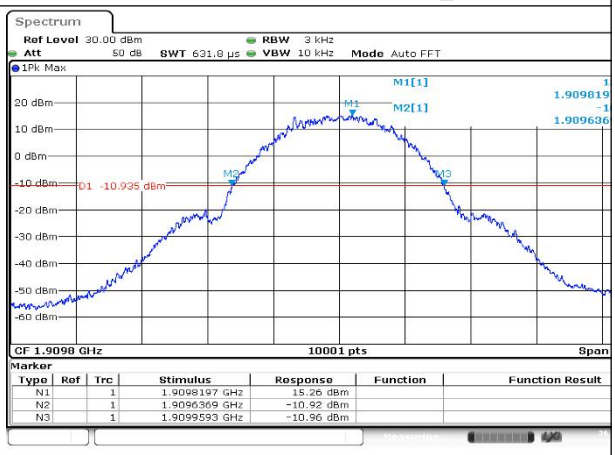
GSM1900,GPRS,3,1880MHz_OBW



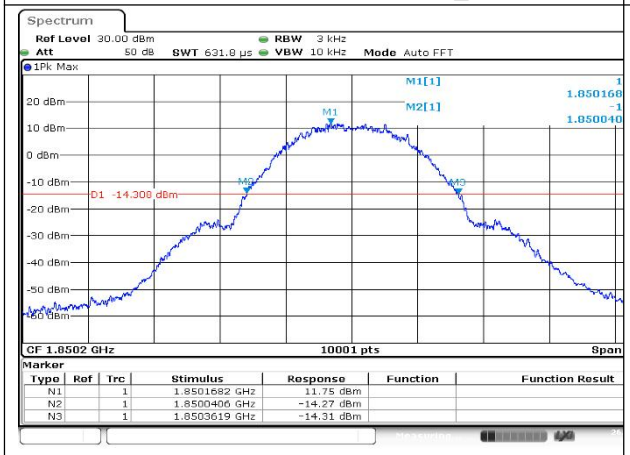
GSM1900,GPRS,3,1909.8MHz_OBW



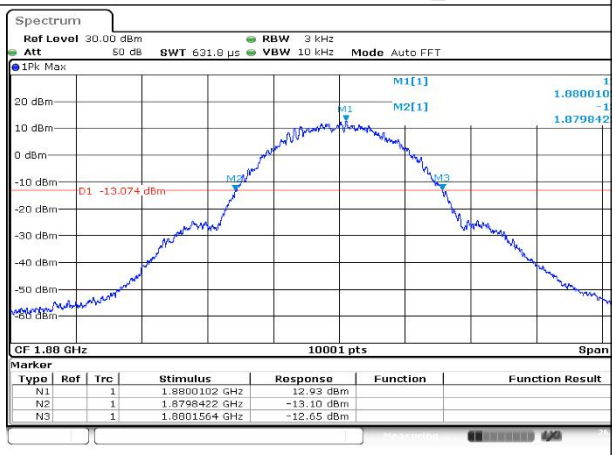
GSM1900,EDGE,5,1850.2MHz_OBW

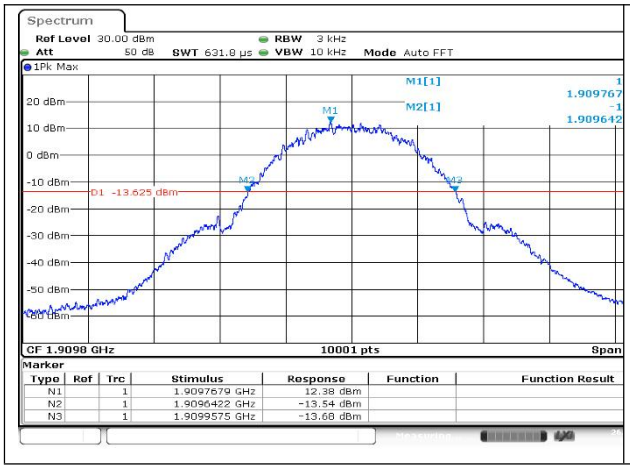


GSM1900,EDGE,5,1880MHz_OBW



GSM1900,EDGE,5,1909.8MHz_OBW




Spectrum
Ref Level 30.00 dBm
RBW 3 kHz
Att 50 dB
SWT 631.0 µs
VBW 10 kHz
Mode Auto FFT
1Pk Max
M1[1]
1.909767
M2[1]
-1
1.909642
M1
M2
D1 -13.625 dBm
CF 1.9098 GHz
10001 pts
Span
Marker
Type Ref Trc Stimulus Response Function Function Result
N1 1 1.9097679 GHz 12.38 dBm
N2 1 1.9096422 GHz -13.54 dBm
N3 1 1.9099575 GHz -13.68 dBm

6.7. Band Edge at antenna terminals

Method of test measurements please refer to KDB971168 D01 v03 clause 6

6.7.1. Limit

Specifications:	FCC Part 22.917(a)/24.238(a)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Part 22.917(a),24.238(a) state that The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	1.28 dB (k=2)

6.7.2. Test procedure:

The RF output of the transceiver was connected to a signal analyzer through appropriate attenuation.

In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band

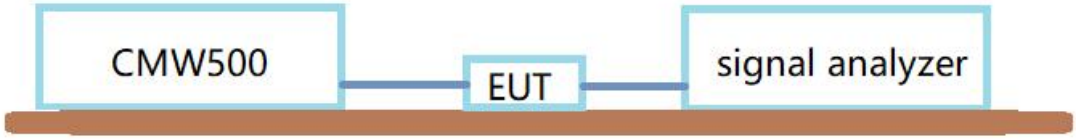
The limit line is derived from 43+10log(P) Db below the transmitter power P(Watts)

=P(W)-[43+10log(P)](Db)

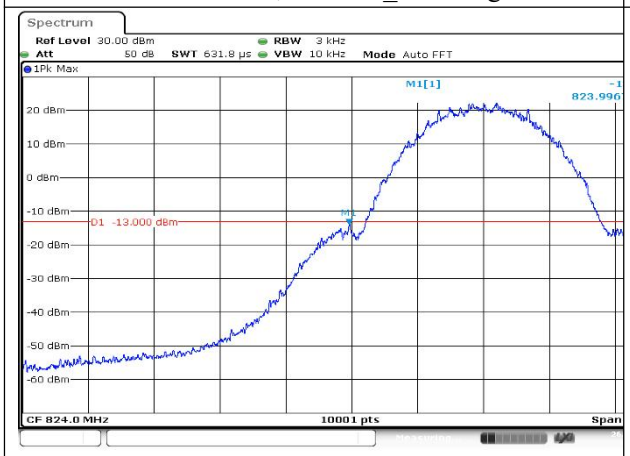
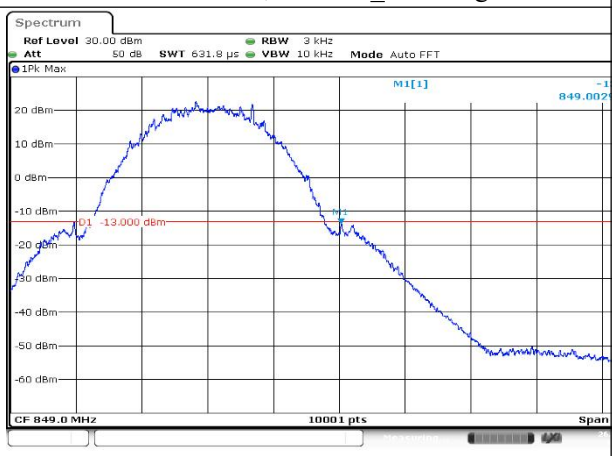
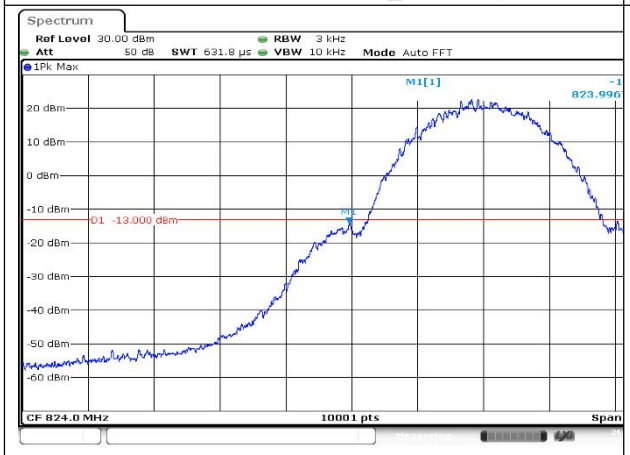
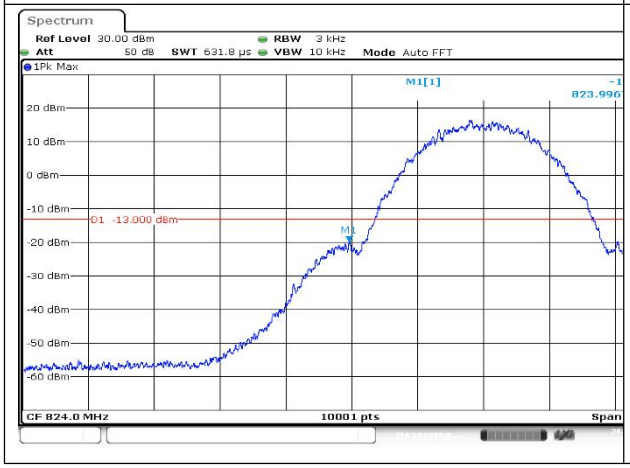
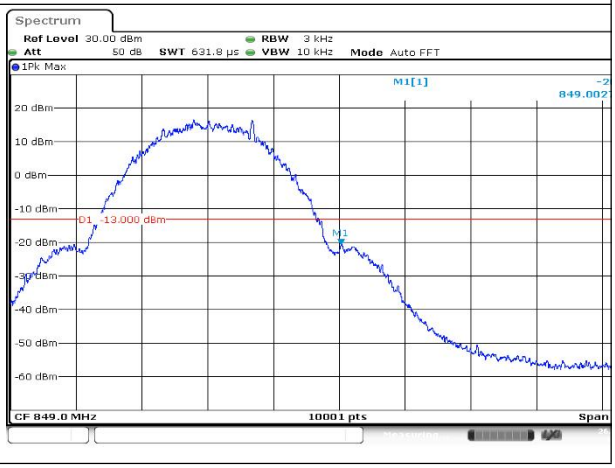
=[30+10log(P)](dBm)-[43+10log(P)](Db)

=-13dBm

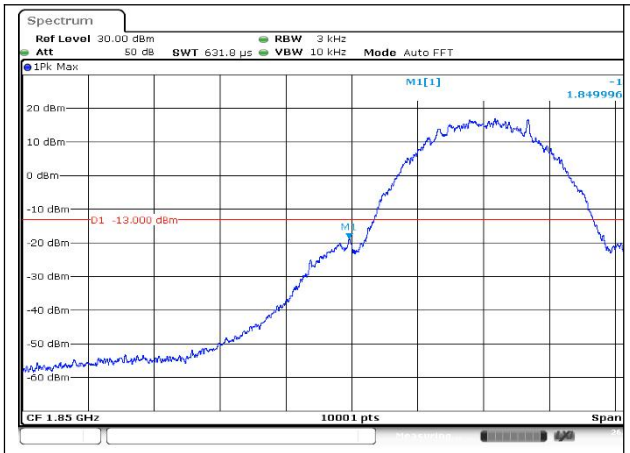
6.7.3. Test Setup



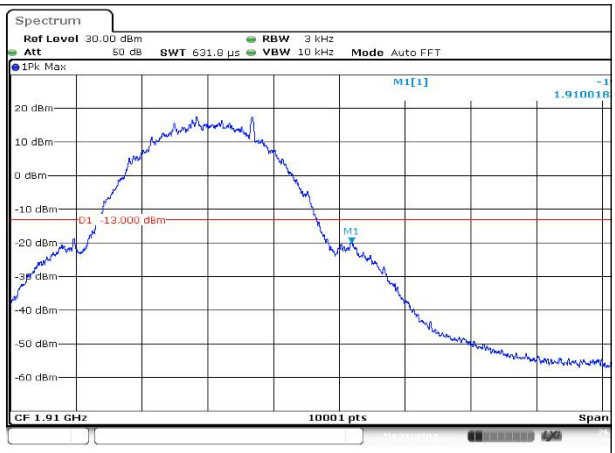
6.7.4. Test Result

GSM850GSM,824MHz_BandEdge	GSM850GSM,849MHz_BandEdge
	
GSM850GPRS,824MHz_BandEdge	GSM850GPRS,849MHz_BandEdge
	
GSM850EDGE,824MHz_BandEdge	GSM850EDGE,849MHz_BandEdge
	

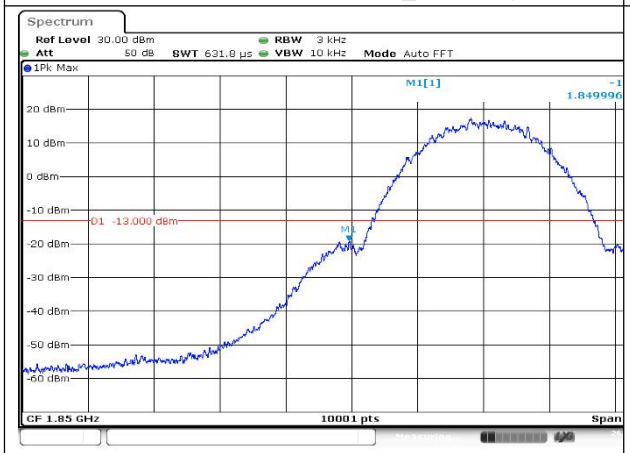
GSM1900GSM,1850MHz_BandEdge	GSM1900GSM,1910MHz_BandEdge



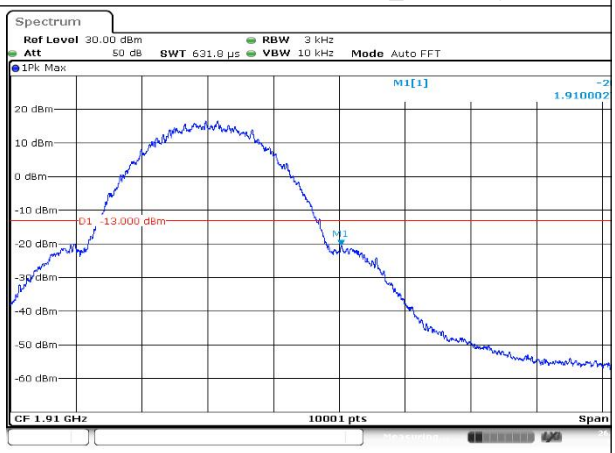
GSM1900GPRS,1850MHz_BandEdge



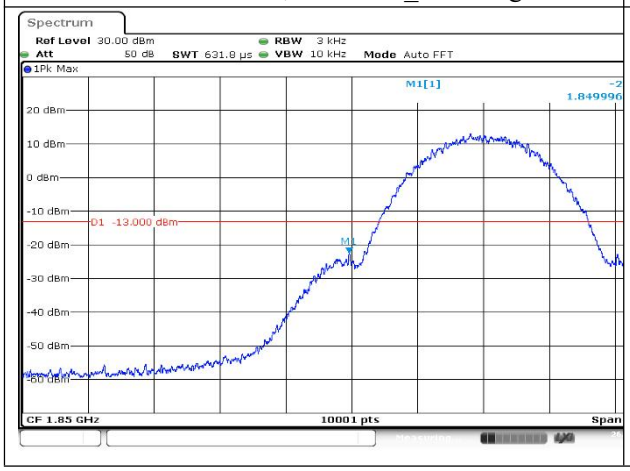
GSM1900GPRS,1910MHz_BandEdge

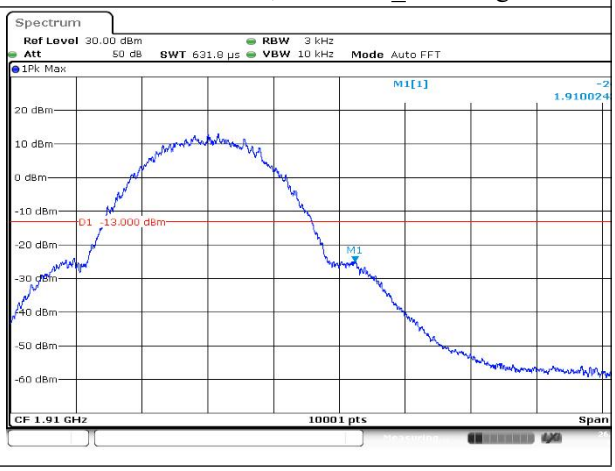


GSM1900EDGE,1850MHz_BandEdge



GSM1900EDGE,1910MHz_BandEdge





6.8. Frequency Stability

Specifications:	FCC Part 2.1055/24.235
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Method of test measurements please refer to KDB971168 D01 v03 clause 9

6.8.1. Method of Measurement and test procedures

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of R&S CMW500 DIGITAL RADIO COMMUNICATION TESTER.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -10℃.
3. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on mid channel of GSM850, PCS1900, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at -10℃ increments from -10℃ to +50℃. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50℃.
7. With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 C increments from +50℃ to -10℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

6.8.2. Measurement Limit

For Hand carried battery powered equipment

According to the JTC standard the GSM frequency stability of the carrier shall be accurate to within 0.1ppm of the received frequency from the base station. And the WCDMA is 2.5ppm. This accuracy is sufficient to meet Sec.24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered

"Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.6VDC and 4.35VDC, with a nominal voltage of 3.8VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. These voltages was varied from 85% to 115%.

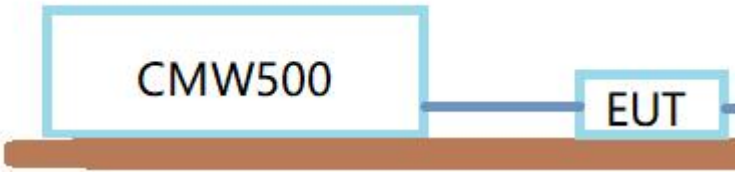
For equipment powered by primary supply voltage

According to the JTC standard the GSM frequency stability of the carrier shall be accurate to within 0.1ppm of the received frequency from the base station. And the WCDMA is 2.5ppm. This accuracy is sufficient to meet Sec.24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	1.54 Hz (k=2)

6.8.3. Test Setup



6.8.4. Test results

GSM850

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	824.076	848.924		
50				-2.84	0.0068
40				-0.03	0.0001
30				-1.32	0.0032
10				-2.20	0.0052
0				-2.62	0.0063
-10				-3.65	0.0087

-20				-3.71	0.0089
-30				-0.84	0.0020

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	824.076	848.924	-1.81	0.0043
4.4				-1.61	0.0039

PCS1900

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	1850.078	1909.922		
50				1.65	0.0018
40				2.97	0.0032
30				1.10	0.0012
10				2.58	0.0027
0				3.36	0.0036
-10				4.10	0.0044
-20				4.52	0.0048
-30				-0.23	0.0002

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1850.078	1909.922	0.45	0.0005
4.4				3.97	0.0042

EDGE850Mid Channel/Fc (MHz) 189/836.4

Frequency Error VS Temperature

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.85	-30	9.07	84
3.85	-20	6.26	84
3.85	-10	10.75	84
3.85	0	10.59	84
3.85	10	6.13	84
3.85	20	13.24	84
3.85	30	14.04	84
3.85	45	8.46	84
3.85	50	6.52	84

Frequency Error VS Voltage

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.6	25	10.33	84
3.85	25	6.07	84
4.4	25	11.88	84

GPRS1900 Mid Channel/fc(MHz) 661/1880

Frequency Error VS Temperature

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.85	-30	5.84	84
3.85	-20	10.85	84
3.85	-10	16.08	84
3.85	0	7.14	84
3.85	10	11.88	84
3.85	20	13.82	84
3.85	30	11.33	84
3.85	45	7.36	84
3.85	50	3.87	84

Frequency Error VS Voltage

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.6	25	11.49	84
3.85	25	11.04	84
4.4	25	12.91	84

EDGE1900 Mid Channel/fc(MHz) 661/1880

Frequency Error VS Temperature

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.85	-30	13.11	84
3.85	-20	12.69	84
3.85	-10	15.92	84
3.85	0	9.85	84
3.85	10	21.05	84
3.85	20	13.30	84
3.85	30	8.23	84
3.85	45	11.36	84
3.85	50	14.24	84

Frequency Error VS Voltage

Power Supply (VDc)	Environment Temperature(℃)	Frequency error(Hz)	Limit (Hz)
3.6	25	10.94	84
3.85	25	17.63	84
4.4	25	12.91	84

6.9. Conducted Spurious Emission

Specifications:	FCC Part 2.1053/22.917(a)/24.238(a)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.9.1. GSM Measurement Method and test procedures

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the equipment of PCS1900 band, this equates to a frequency range of 30 MHz to 19.1 GHz, data taken from 30 MHz to 20 GHz. For GSM850, data taken from 30 MHz to 10 GHz.

2. The sweep time is set automatically by instrument itself. That should be the optimal sweep time for the span and the RBW. If the sweep time is too short, that is sweep is too fast, the sweep result is not accurate; If the sweep time is too long, that is sweep is too low, some frequency components may be lost. The instrument will give a optimal sweep time according the selected span and RBW.

3. The procedure to get the conducted spurious emission is as follows:
The trace mode is set to MaxHold to get the highest signal at each frequency;
Wait 25 seconds; Get the result.

4. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	1.74 dB (k=2)

GSM 850 Transmitter

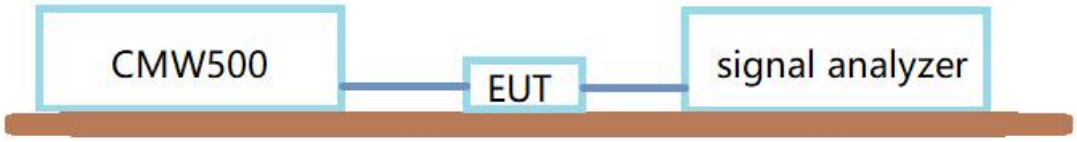
Channel	Frequency(MHz)
128	824.2
189	836.4

251	848.8

PCS 1900 Transmitter

Channel	Frequency(MHz)
512	1850.2
661	1880.0
810	1909.8

6.9.2. Test Setup



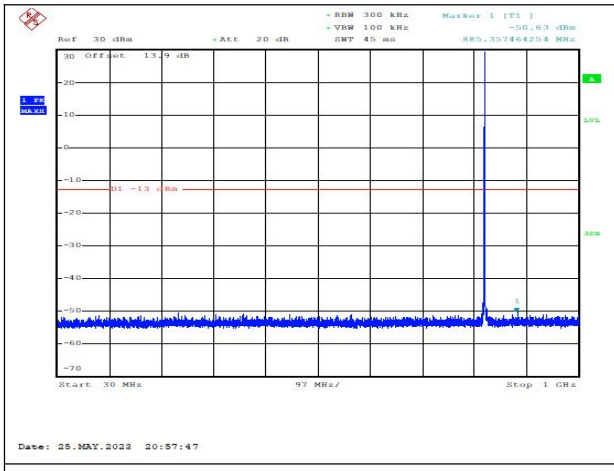
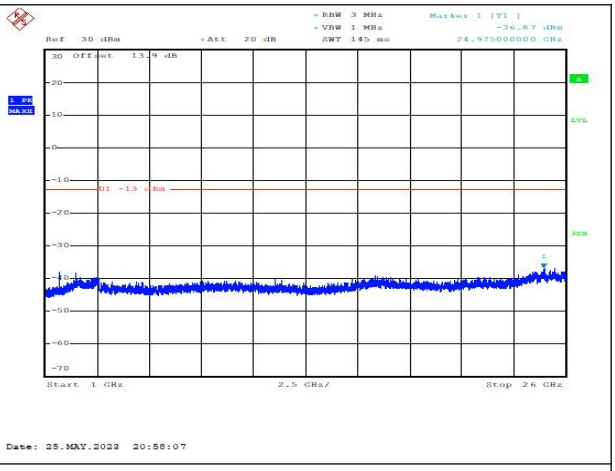
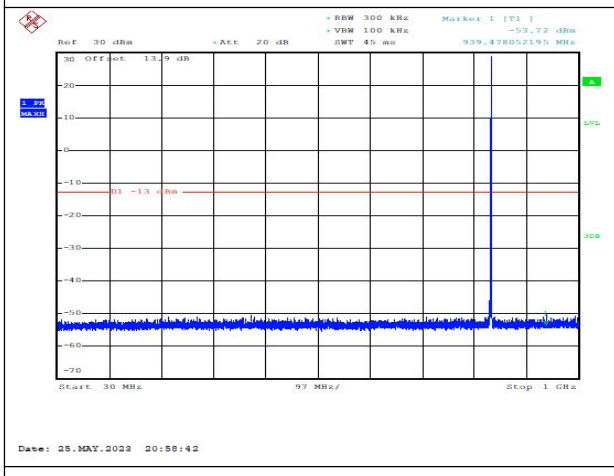
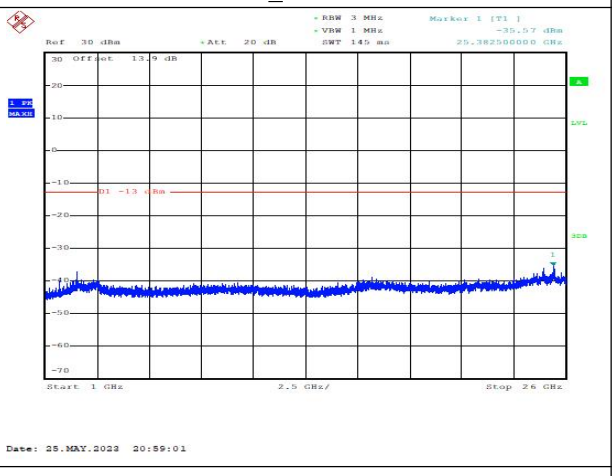
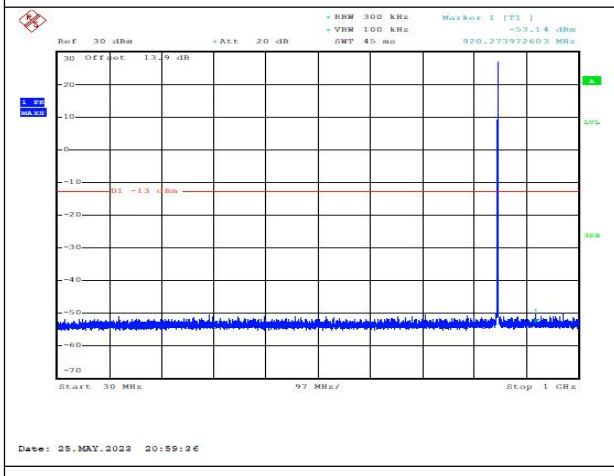
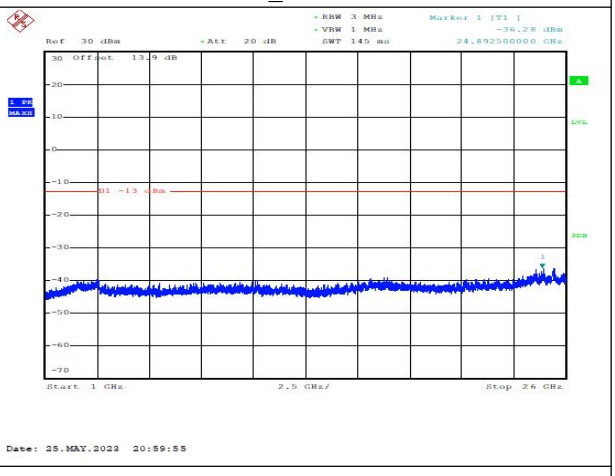
6.9.3. Measurement result

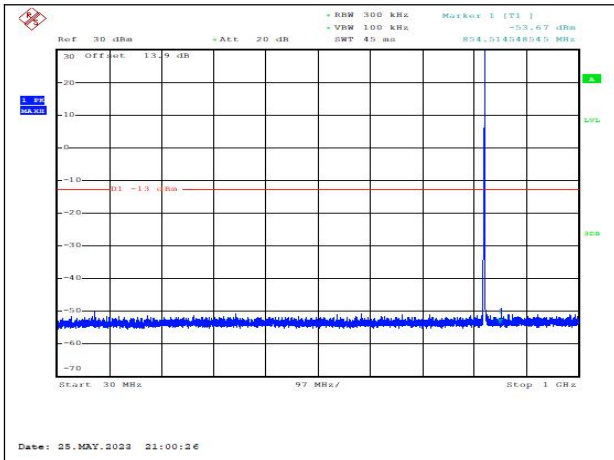
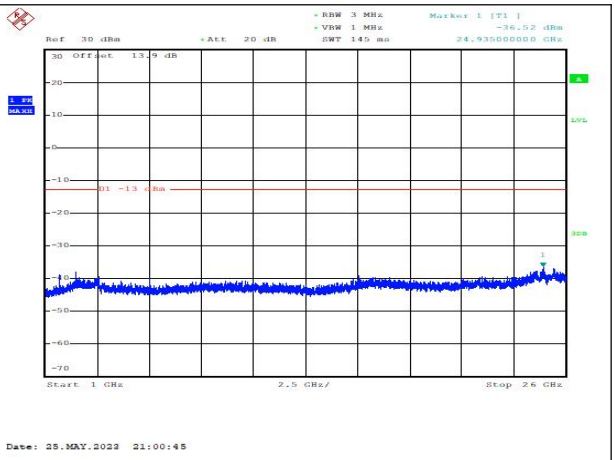
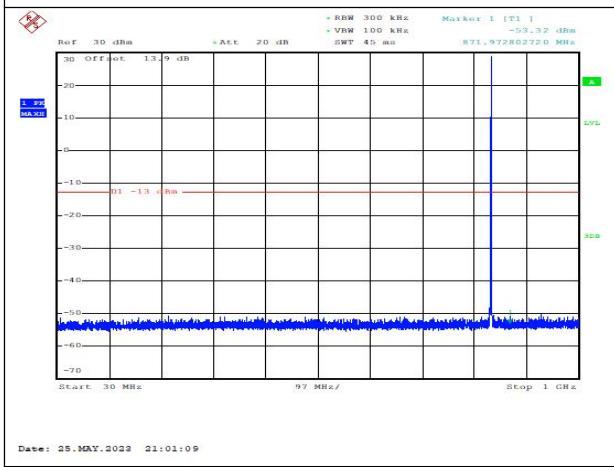
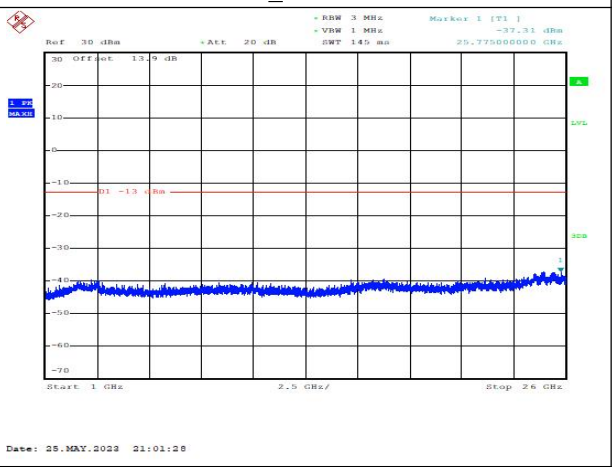
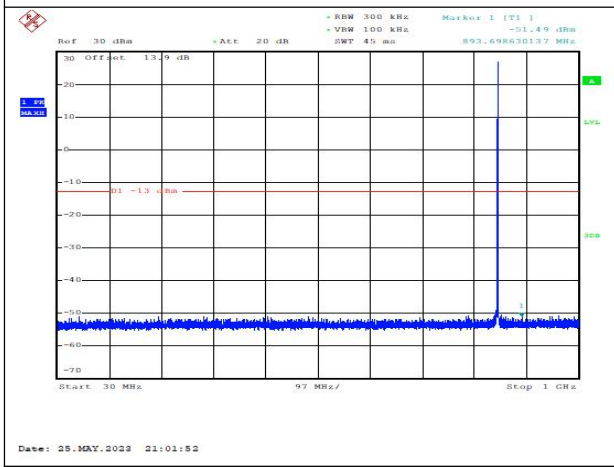
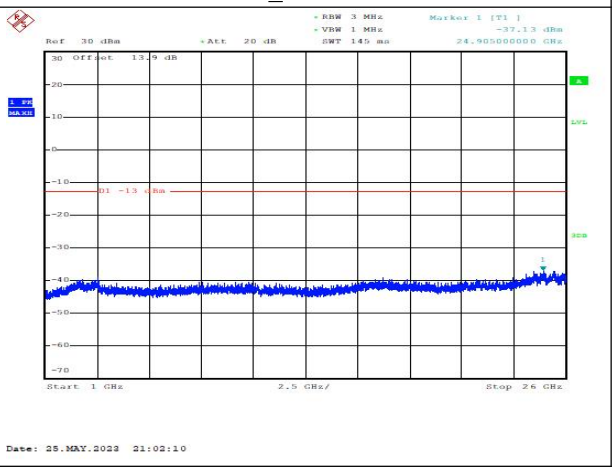
Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

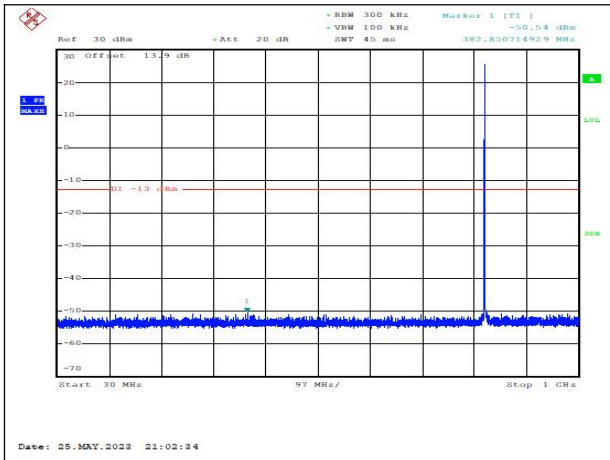
The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Note: peak above the limit line is the carrier frequency.

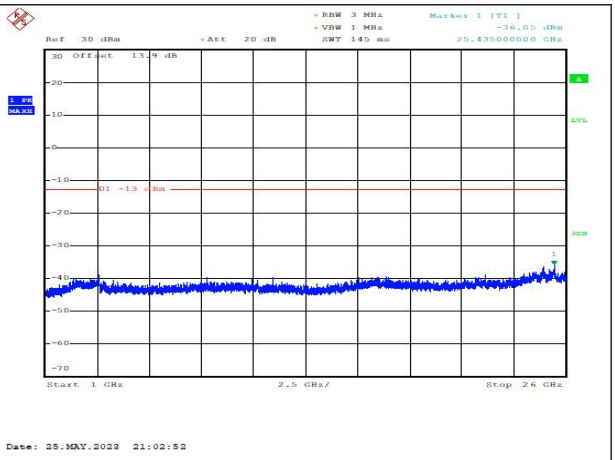
GSM850_GSM_128_30MHz-1000MHz_CSE	GSM850_GSM_128_1000MHz-26000MHz _CSE

	
GSM850_GSM_189_30MHz-1000MHz_CSE	GSM850_GSM_189_1000MHz-26000MHz _CSE
	
GSM850_GSM_251_30MHz-1000MHz_CSE	GSM850_GSM_251_1000MHz-26000MHz _CSE
	
GSM850_GPRS_128_30MHz-1000MHz_CSE	GSM850_GPRS_128_1000MHz-26000MHz _CSE

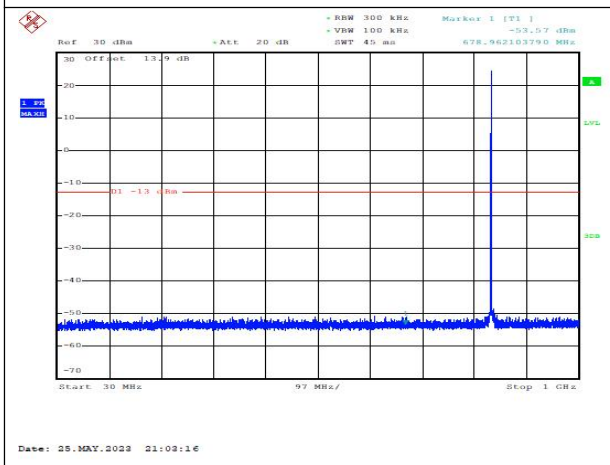
	
GSM850_GPRS_189_30MHz-1000MHz_CSE	GSM850_GPRS_189_1000MHz-26000MHz _CSE
	
GSM850_GPRS_251_30MHz-1000MHz_CSE	GSM850_GPRS_251_1000MHz-26000MHz _CSE
	
GSM850_EDGE_128_30MHz-1000MHz_CSE	GSM850_EDGE_128_1000MHz-26000MHz _CSE



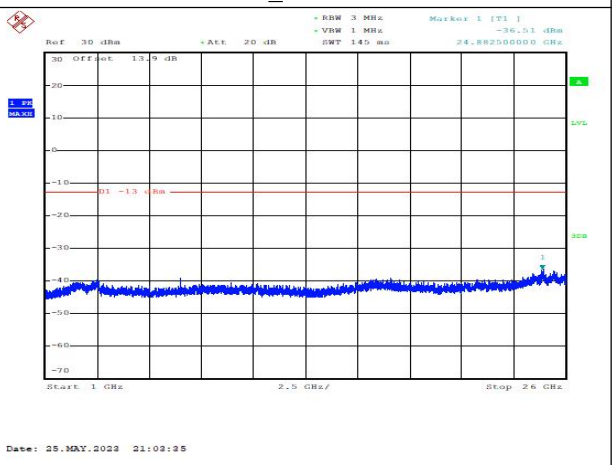
GSM850_EDGE_189_30MHz-1000MHz_CSE



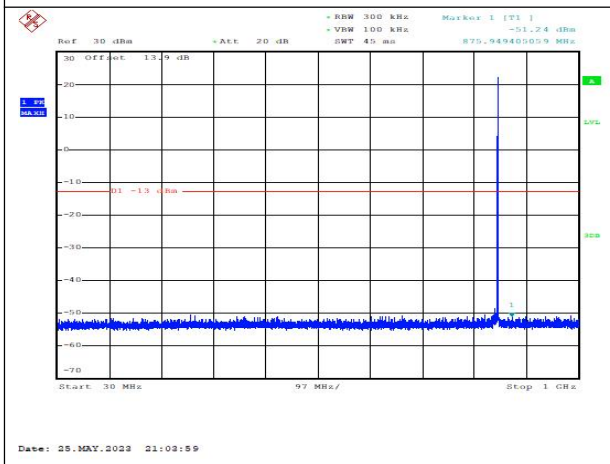
GSM850_EDGE_189_1000MHz-26000MHz_CSE

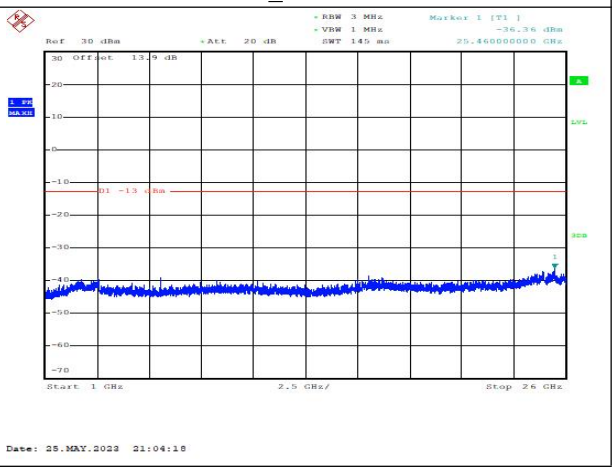


GSM850_EDGE_251_30MHz-1000MHz_CSE



GSM850_EDGE_251_1000MHz-26000MHz_CSE





6.10. EMISSION LIMIT

Specifications:	FCC Part 2.1051/22.917/24.238/22.913/24.232
DUT Serial Number:	S8 S9
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.10.1. Measurement Method

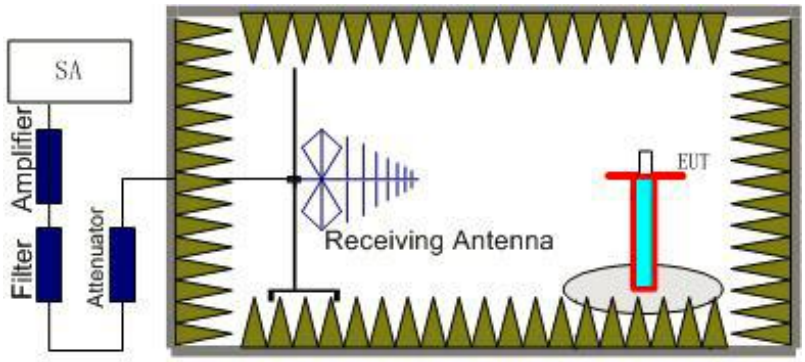
The measurements procedures in TIA-603E-2016 are used.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in part 2.1051, part 27.53(g), part FCC Part 2.1051/22.917/24.238/22.913/24.232

The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of GSM

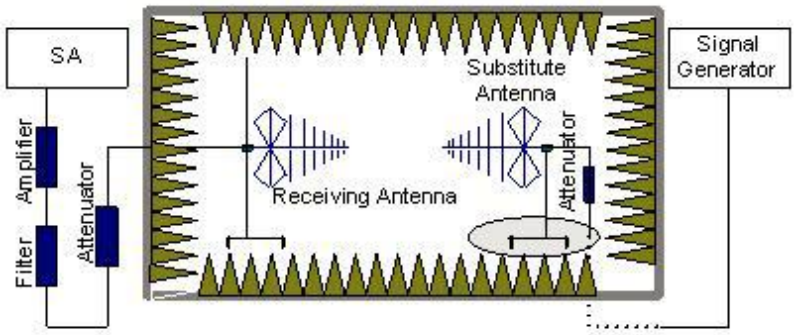
6.10.2. The procedure of radiated spurious emissions is as follows

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10thharmonic were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).

3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. The Path loss (Ppl) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain (Ga) should be recorded after test.

A amplifier should be connected in for the test.

The Path loss (Ppl) is the summation of the cable loss .

The measurement results are obtained as described below:

Power(EIRP)=PMea- Ppl+ Ga

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi

6.10.3. Measurement Limit

Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Part 27.53(g),27.53(h), 27.53(m) state that on any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log (P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant

specification limit of -13 dBm.

According to KDB 971168 6, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

Part 27.53(m) states that for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Measurement Uncertainty:

30MHz-150MHz 3.82 dB (k=2)
150MHz-1000MHz 3.97 dB (k=2)
1000MHz-3000MHz 3.09 dB (k=2)
3000MHz-6000MHz 3.29 dB (k=2)
6000MHz-18000MHz 3.91 dB (k=2)
18000MHz-26000MHz 4.60 dB (k=2)
26000MHz-40000MHz 4.77 dB (k=2)

6.10.4. Measurement Results

Note: We only provided the worst mode on the report.

Mainly Supply

RSE-GPRS1900-H

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3819.6	-48.37	6.7	7.9	-47.17	-13	V
5728.8	-49.09	8.5	10.2	-47.39	-13	V
8264.4	-52.67	10.1	12.4	-50.37	-13	H
11283.6	-46.15	12.1	12.3	-45.95	-13	V
13368.0	-42.42	13.7	12.3	-43.82	-13	H
16806.0	-35.92	15.8	12.3	-39.42	-13	H

RSE-GPRS1900-L

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3700.2	-52.46	6.6	7.9	-51.16	-13	H
5550.6	-43.61	8.2	9.8	-42.01	-13	H
7480.8	-52.26	9.7	11.6	-50.36	-13	H
10148.4	-48.11	11.3	12.5	-46.91	-13	V
13330.8	-43.85	13.6	12.3	-45.15	-13	H
16837.2	-36.12	15.8	12.3	-39.62	-13	H

RSE-GPRS1900-M

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3700.2	-49.4	6.6	7.9	-48.1	-13	H
5550.6	-43.49	8.2	9.8	-41.89	-13	V
7930.8	-52.92	9.8	12.2	-50.52	-13	H
10218.0	-47.27	11.3	12.5	-46.07	-13	H
13448.4	-43.37	13.7	12.3	-44.77	-13	V
16946.4	-36.09	16.3	12.3	-40.09	-13	H

Secondary Supply

RSE-GPRS1900-H

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3820.2	-48.77	6.7	7.9	-47.57	-13	H
5729.4	-49.29	8.5	10.2	-47.59	-13	H
7638.0	-52.69	9.7	11.8	-50.59	-13	H
9591.6	-51	10.8	12.7	-49.1	-13	V
11498.4	-46.81	12.3	12.3	-46.81	-13	V
13276.8	-42.99	13.6	12.3	-44.29	-13	V

RSE-GPRS1900-L

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3700.2	-52.31	6.6	7.9	-51.01	-13	H

5550.6	-44.6	8.2	9.8	-43	-13	H
7400.4	-50.19	9.7	11.6	-48.29	-13	H
9256.8	-50.59	10.7	12.7	-48.59	-13	H
11112.0	-47.5	12.1	12.3	-47.3	-13	V
12948.0	-43.81	13.0	12.3	-44.51	-13	H

RSE-GPRS1900-M

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit （dBm）	Polarization
3759.6	-51.95	6.6	7.9	-50.65	-13	H
5640.0	-44.88	8.3	10.2	-42.98	-13	V
7518.0	-53.11	9.7	11.6	-51.21	-13	V
9410.4	-50.98	10.7	12.7	-48.98	-13	V
11286.0	-47.74	12.1	12.3	-47.54	-13	V
12489.6	-46.07	12.7	12.3	-46.47	-13	H

Annex A EUT Photos

See the document"I23W00020-External Photos".
See the document"I23W00020-Internal Photos".

Annex B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

*****END OF REPORT*****