FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2503-1, XT2505-3
FCC ID	:	IHDT56AU7
STANDARD	:	47 CFR Part 22(H), 24(E), 27(L)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Dec. 26, 2024 ~ Jan. 05, 2025

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED
Cert #5145.01

Sporton International Inc. (ShenZhen)

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4D1311A	Rev. 01	Initial issue of report	Jan. 24, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power	< 1 Watts	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	< 13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Band Edge Measurement	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Emission	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability for Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053; §22.917(a); §24.238(a); §27.53(h)	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 41.91 dB at 7520.00 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2503-1, XT2505-3
FCC ID	IHDT56AU7
IMEI Code	Conducted: 354424860019615 Radiation: 354424860020035/354424860020043
HW Version	DVT2
SW Version	V2VC35.13
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, model name: XT2503-1 is sample 1 and model name: XT2505-3 is sample 2, the differences could be referred to the XT2503-1, XT2505-3_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, for RF report, we choose sample 1 to full test.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	**GSM/GPRS/EDGE:** 850: 824 MHz ~ 849 MHz 1900: 1850MHz ~ 1910MHz **WCDMA:** Band V: 824 MHz ~ 849 MHz Band II: 1850 MHz ~ 1910 MHz Band IV: 1710 MHz ~ 1755 MHz
Rx Frequency	**GSM/GPRS/EDGE:** 850: 869 MHz ~ 894 MHz 1900: 1930 MHz ~ 1990 MHz **WCDMA:** Band V: 869 MHz ~ 894 MHz Band II: 1930 MHz ~ 1990 MHz Band IV: 2110 MHz ~ 2155 MHz
Maximum Output Power to Antenna	**Ant0:** **GSM/GPRS/EDGE:** 850: 31.75 dBm **WCDMA:** Band V: 22.81 dBm **Ant1:** **GSM/GPRS/EDGE:** 850: 31.55 dBm 1900: 27.11 dBm **WCDMA:** Band V: 22.58 dBm Band II: 20.85 dBm Band IV: 20.75 dBm **Ant2:** **GSM/GPRS/EDGE:** 1900: 28.86 dBm **WCDMA:** Band II: 22.68 dBm Band IV: 22.78 dBm
Antenna Type	PIFA Antenna
Antenna Gain	**Ant0:** Cellular Band: -5.1 dBi **Ant1:** Cellular Band: -4.5 dBi PCS Band: -2.9 dBi AWS Band: -3.9 dBi **Ant2:** PCS Band: -1.1 dBi AWS Band: -2.2 dBi
Type of Modulation	GSM/GPRS: GMSK

	EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK HSPA : QPSK HSPA+ : 16QAM DC-HSDPA : 64QAM

Note: The maximum ERP/EIRP is calculated from max output power and max antenna gain, so only the maximum ERP/EIRP of Antenna 1 for GSM 850/ WCDMA Band V and Antenna 2 for GSM 1900/ WCDMA Band II/ Band IV are shown in the report.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-681N
AC Adapter 1(EU)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-682N
AC Adapter 1(UK)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-683N
AC Adapter 1(AU)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-685N
AC Adapter 1(AR)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-686N
AC Adapter 1(BR)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-687N
AC Adapter 1(CHILE)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-689N
AC Adapter 2(US)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-681N
AC Adapter 2(EU)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-682N
AC Adapter 2(UK)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-683N
AC Adapter 2(AU)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-685N
AC Adapter 2(AR)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-686N
AC Adapter 2(BR)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-687N
AC Adapter 2(CHILE)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-689N
Battery 1	**Brand Name**	Motorola (ATL)	**Model Name**	RM52
Battery 2	**Brand Name**	Motorola (Cosmx)	**Model Name**	RM52
USB Cable 1	**Brand Name**	Motorola (SAIBAO)	**Model Name**	SC18D71644
USB Cable 2	**Brand Name**	Motorola (Luxshare)	**Model Name**	SC18E08104
USB Cable 3	**Brand Name**	Motorola (SAIBAO)	**Model Name**	SC18D86731
USB Cable 4	**Brand Name**	Motorola (Luxshare)	**Model Name**	SC18E08103
Wireless Earphones	**Brand Name**	Motorola	**Model Name**	XT2443-1

1.7 Maximum ERP/EIRP Power, and Emission Designator

FCC Rule	Frequency Band	Frequency Range (MHz)	Type of Modulation	Maximum ERP/EIRP (W)	Emission Designator
Part 22H	GSM850 (GSM)	824.2 ~ 848.8	GMSK	0.3090	245KGXW
Part 22H	GSM850 (EDGE)	824.2 ~ 848.8	8PSK	0.0885	252KG7W
Part 22H	WCDMA Band V	826.4 ~ 846.6	BPSK	0.0392	4M15F9W
Part 24E	GSM1900 (GSM)	1850.2 ~ 1909.8	GMSK	0.5970	245KGXW
Part 24E	GSM1900 (EDGE)	1850.2 ~ 1909.8	8PSK	0.2350	253KG7W
Part 24E	WCDMA Band II	1852.4 ~ 1907.6	BPSK	0.1439	4M15F9W
Part 27L	WCDMA Band IV	1712.4 ~ 1752.6	BPSK	0.1143	4M15F9W

1.8 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	CN1256	421272

1.9 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

1.10 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 22(H), 24(E), 27(L)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes for Adapter mode and Earphone mode to find the maximum emission.(Z/Y-Plane)

Radiated emissions were investigated as following frequency range:

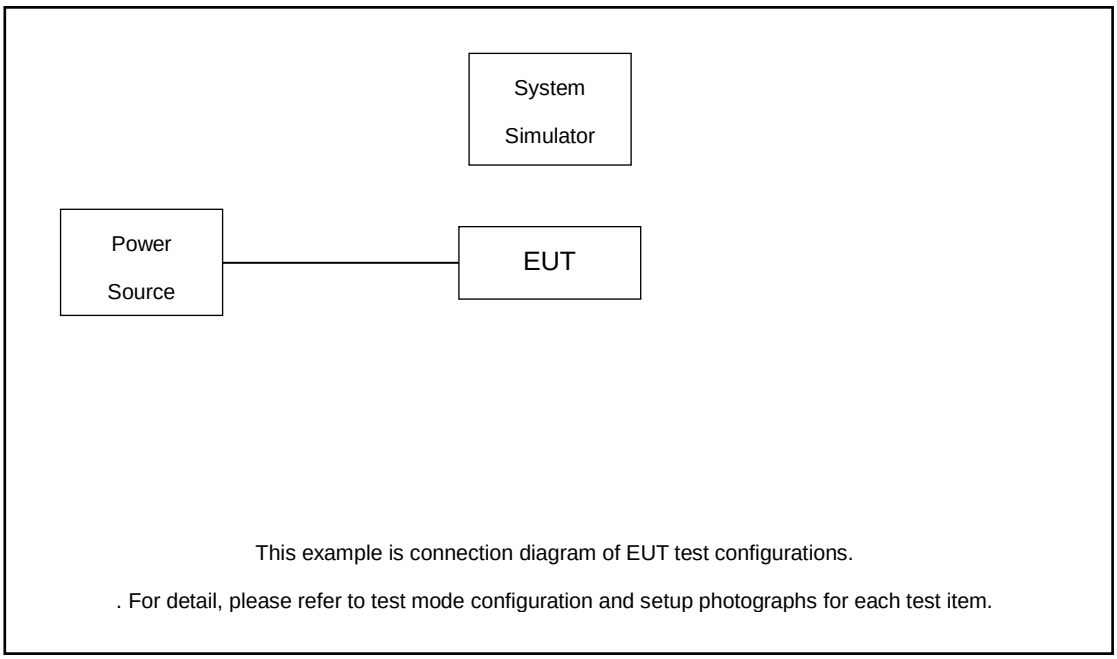
1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V.
2. 30 MHz to 18000 MHz for WCDMA Band IV.
3. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	**Radiated TCs**	**Conducted TCs**
GSM 850	■ GSM Link ■ EDGE 1 Tx slots Link	■ GSM Link ■ EDGE 1 Tx slots Link
GSM 1900	■ GSM Link ■ EDGE 1 Tx slots Link	■ GSM Link ■ EDGE 1 Tx slots Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

2.2 Connection Diagram of Test System



The EUT has been configuration operated in a manner tended to maximize its emission characteristics in a typical application.

2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 4.0 dB and a 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.0 + 10 = 14.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

Frequency List				
Band	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
GSM850	Channel	128	189	251
	Frequency	824.2	836.4	848.8
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
GSM1900	Channel	512	661	810
	Frequency	1850.2	1880.0	1909.8
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6

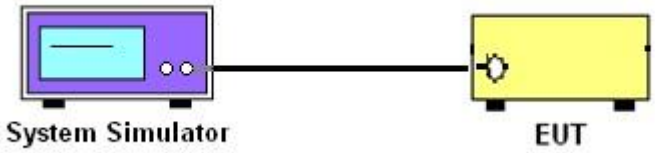
3 Conducted Test Result

3.1 Measuring Instruments

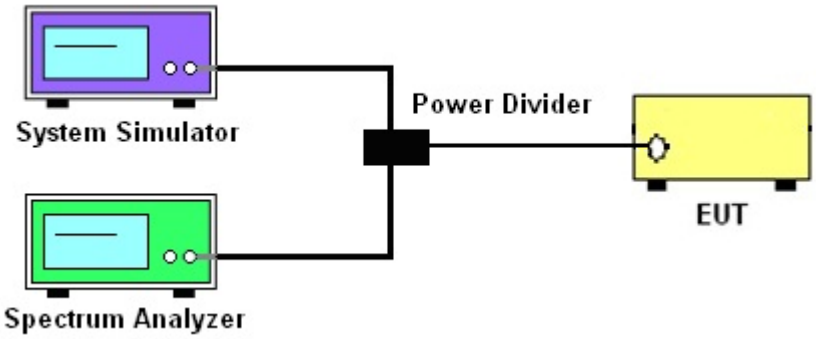
See list of measuring instruments of this test report.

3.2 Test Setup

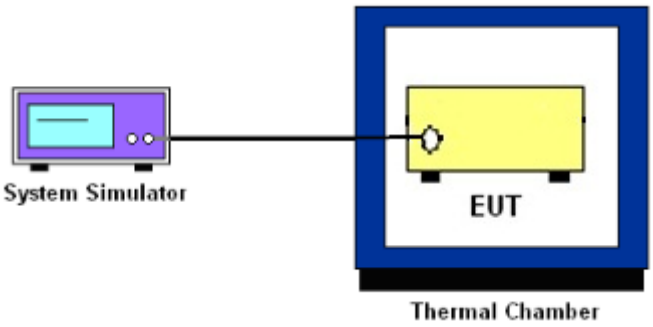
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth, Conducted Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for GSM850 and WCDMA Band V.

The EIRP of mobile transmitters must not exceed 2 Watts for GSM1900 and WCDMA Band II.

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.6.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
   (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The band edges of low and high channels for the highest RF powers were measured.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

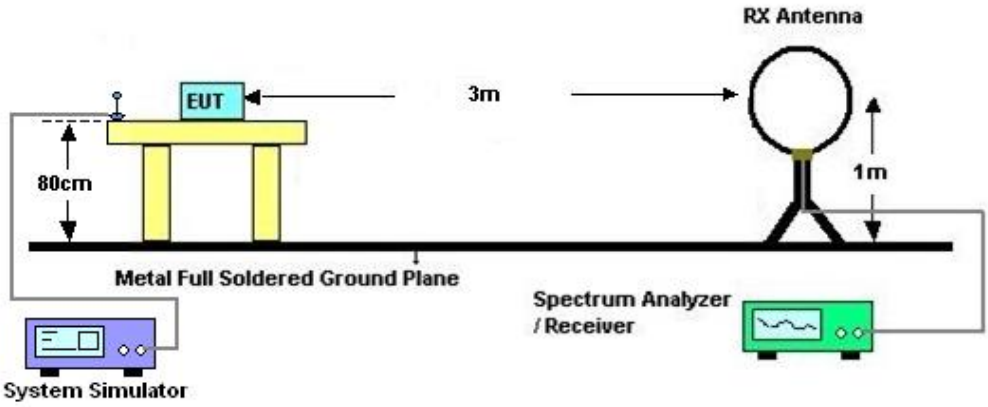
4 Radiated Test Items

4.1 Measuring Instruments

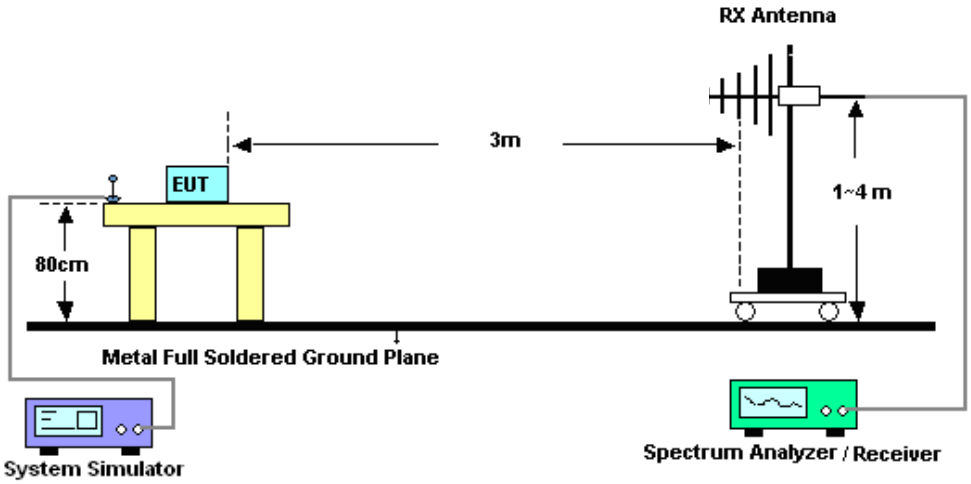
See list of measuring instruments of this test report.

4.2 Test Setup

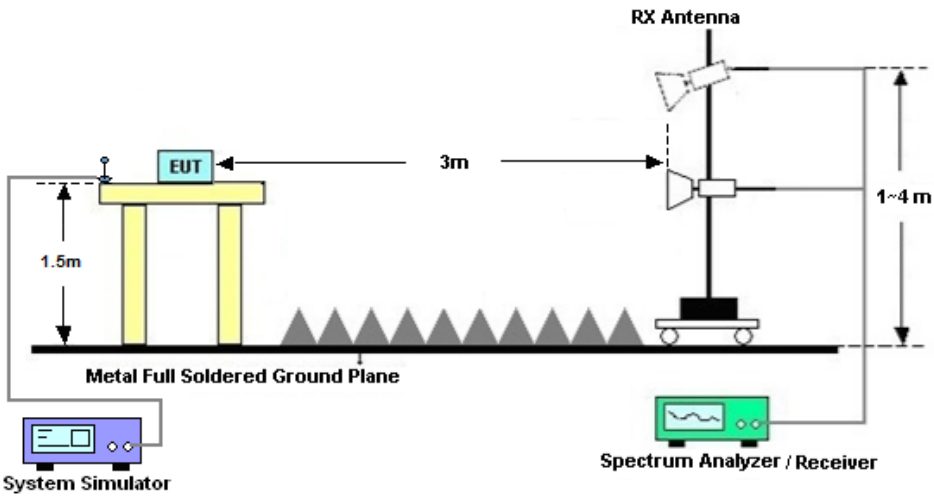
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 02, 2025~ Jan. 05, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
Power Divider	Titan	P02N005180	923402	0.4GHz~26.5GHz	Nov. 08, 2024	Jan. 02, 2025~ Jan. 05, 2025	Nov. 07, 2025	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 03, 2024	Jan. 02, 2025~ Jan. 05, 2025	Jul. 02, 2025	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Dec. 26, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Dec. 26, 2024	Dec. 28, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14, 2024	Dec. 26, 2024	Oct. 13, 2025	Radiation (03CH01-SZ
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Dec. 26, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Dec. 26, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Dec. 26, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Dec. 26, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 14, 2024	Dec. 26, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2024	Dec. 26, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Oct. 14, 2024	Dec. 26, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 26, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 26, 2024	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Peak to Average Ratio	±1.34 dB
Frequency Stability	±1.3 Hz

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.48dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.53dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.02dB

---------- THE END ----------

Appendix A. Test Results of Conducted Test

Test Engineer :	Khan Zhen	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and ERP/EIRP

GSM850_Ant1	Burst Average Power (dBm)			ERP(W)		
TX Channel	128	189	251			
Frequency (MHz)	824.2	836.4	848.8	L	M	H
GSM 1 Tx slot	31.55	31.49	31.34	0.3090	0.3048	0.2944
GPRS 1 Tx slot	31.51	31.47	31.32	0.3062	0.3034	0.2931
GPRS 2 Tx slots	30.73	30.69	30.55	0.2559	0.2535	0.2455
GPRS 3 Tx slots	28.94	28.96	28.83	0.1694	0.1702	0.1652
GPRS 4 Tx slots	27.80	27.81	27.74	0.1303	0.1306	0.1285
EDGE 1 Tx slot	25.96	26.05	26.12	0.0853	0.0871	0.0885
EDGE 2 Tx slots	24.86	24.87	24.96	0.0662	0.0664	0.0678
EDGE 3 Tx slots	22.63	22.66	22.75	0.0396	0.0399	0.0407
EDGE 4 Tx slots	21.35	21.45	21.49	0.0295	0.0302	0.0305

Band		WCDMA V_Ant1			ERP(W)		
TX Channel		4132	4182	4233			
Rx Channel		4357	4407	4458			
Frequency (MHz)		826.4	836.4	846.6	L	M	H
3GPP Rel 99	AMR 12.2Kbps	22.50	22.44	22.29	0.0385	0.0379	0.0366
3GPP Rel 99	RMC 12.2Kbps	22.54	22.58	22.55	0.0388	0.0392	0.0389
3GPP Rel 6	HSDPA Subtest-1	21.51	21.49	21.40	0.0306	0.0305	0.0299
3GPP Rel 6	HSDPA Subtest-2	21.50	21.52	21.47	0.0305	0.0307	0.0303
3GPP Rel 6	HSDPA Subtest-3	20.97	21.04	20.90	0.0270	0.0275	0.0266
3GPP Rel 6	HSDPA Subtest-4	21.07	21.08	20.82	0.0277	0.0277	0.0261
3GPP Rel 8	DC-HSDPA Subtest-1	21.53	21.53	21.39	0.0308	0.0308	0.0298
3GPP Rel 8	DC-HSDPA Subtest-2	21.59	21.49	21.43	0.0312	0.0305	0.0301
3GPP Rel 8	DC-HSDPA Subtest-3	21.00	21.04	21.01	0.0272	0.0275	0.0273
3GPP Rel 8	DC-HSDPA Subtest-4	21.06	21.03	20.94	0.0276	0.0274	0.0269
3GPP Rel 6	HSUPA Subtest-1	21.55	21.44	21.42	0.0309	0.0301	0.0300
3GPP Rel 6	HSUPA Subtest-2	19.57	19.45	19.30	0.0196	0.0191	0.0184
3GPP Rel 6	HSUPA Subtest-3	20.63	20.55	20.49	0.0250	0.0245	0.0242
3GPP Rel 6	HSUPA Subtest-4	19.55	19.46	19.47	0.0195	0.0191	0.0191
3GPP Rel 6	HSUPA Subtest-5	21.49	21.55	21.47	0.0305	0.0309	0.0303
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.10	19.23	19.19	0.0176	0.0181	0.0179

GSM1900_Ant2	Burst Average Power (dBm)			EIRP(W)		
TX Channel	512	661	810			
Frequency (MHz)	1850.2	1880	1909.8	L	M	H
GSM 1 Tx slot	28.86	28.73	28.55	0.5970	0.5794	0.5559
GPRS 1 Tx slot	28.85	28.72	28.54	0.5957	0.5781	0.5546
GPRS 2 Tx slots	28.08	27.95	27.82	0.4989	0.4842	0.4699

GPRS 3 Tx slots	26.31	26.34	26.25	0.3319	0.3342	0.3273
GPRS 4 Tx slots	25.24	25.16	25.06	0.2594	0.2547	0.2489
EDGE 1 Tx slot	24.40	24.61	24.81	0.2138	0.2244	0.2350
EDGE 2 Tx slots	23.32	23.48	23.73	0.1667	0.1730	0.1832
EDGE 3 Tx slots	21.27	21.44	21.67	0.1040	0.1081	0.1140
EDGE 4 Tx slots	20.15	20.20	20.28	0.0804	0.0813	0.0828

Band		WCDMA II_Ant2			EIRP(W)		
TX Channel		9262	9400	9538			
Rx Channel		9662	9800	9938			
Frequency (MHz)		1852.4	1880	1907.6	L	M	H
3GPP Rel 99	AMR 12.2Kbps	22.65	22.54	22.51	0.1429	0.1393	0.1384
3GPP Rel 99	RMC 12.2Kbps	22.63	22.68	22.66	0.1422	0.1439	0.1432
3GPP Rel 6	HSDPA Subtest-1	21.63	21.66	21.61	0.1130	0.1138	0.1125
3GPP Rel 6	HSDPA Subtest-2	21.62	21.70	21.59	0.1127	0.1148	0.1119
3GPP Rel 6	HSDPA Subtest-3	21.16	21.22	20.94	0.1014	0.1028	0.0964
3GPP Rel 6	HSDPA Subtest-4	21.24	21.22	20.98	0.1033	0.1028	0.0973
3GPP Rel 8	DC-HSDPA Subtest-1	21.58	21.70	21.53	0.1117	0.1148	0.1104
3GPP Rel 8	DC-HSDPA Subtest-2	21.72	21.63	21.54	0.1153	0.1130	0.1107
3GPP Rel 8	DC-HSDPA Subtest-3	21.14	21.19	21.11	0.1009	0.1021	0.1002
3GPP Rel 8	DC-HSDPA Subtest-4	21.17	21.20	21.14	0.1016	0.1023	0.1009
3GPP Rel 6	HSUPA Subtest-1	21.60	21.55	21.52	0.1122	0.1109	0.1102
3GPP Rel 6	HSUPA Subtest-2	19.65	19.63	19.47	0.0716	0.0713	0.0687
3GPP Rel 6	HSUPA Subtest-3	20.77	20.65	20.59	0.0927	0.0902	0.0889
3GPP Rel 6	HSUPA Subtest-4	19.73	19.59	19.66	0.0729	0.0706	0.0718
3GPP Rel 6	HSUPA Subtest-5	21.64	21.65	21.62	0.1132	0.1135	0.1127
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.28	19.32	19.27	0.0658	0.0664	0.0656

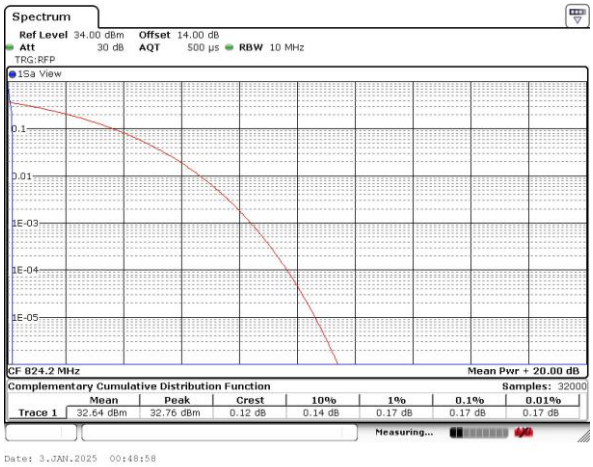
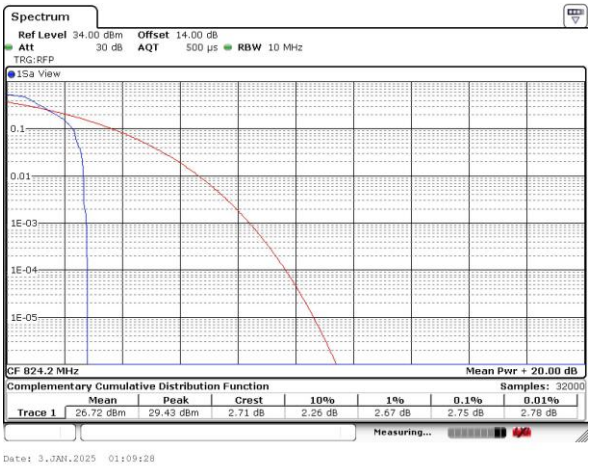
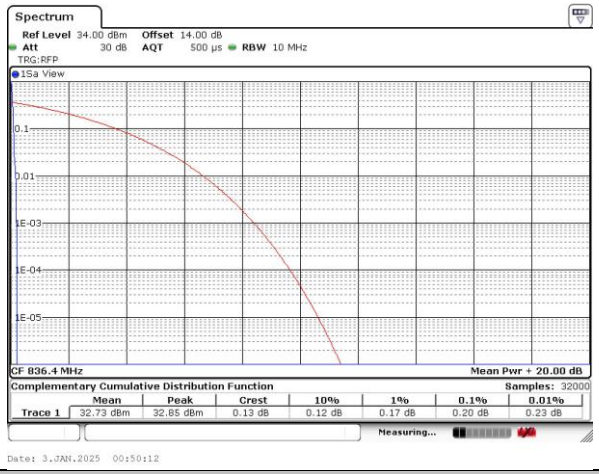
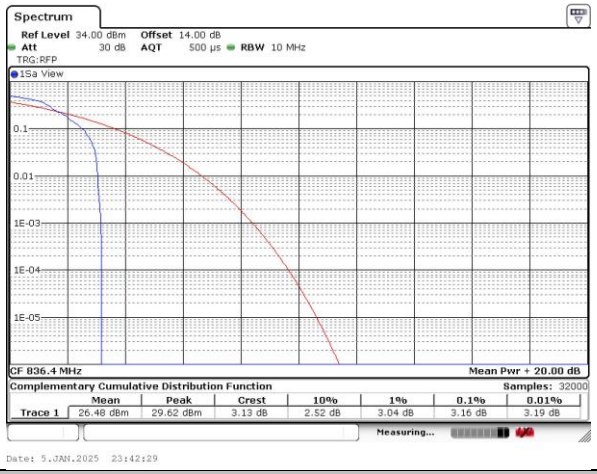
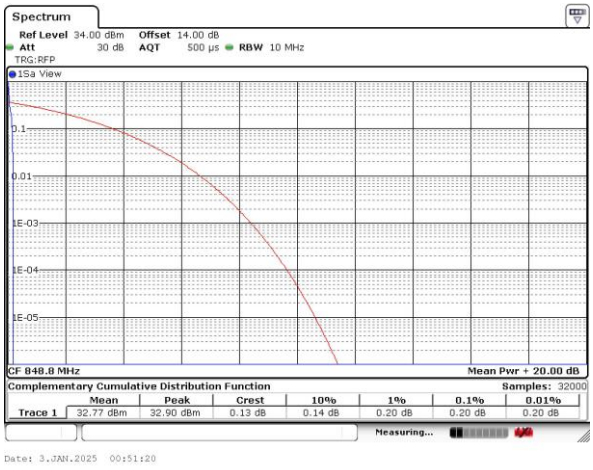
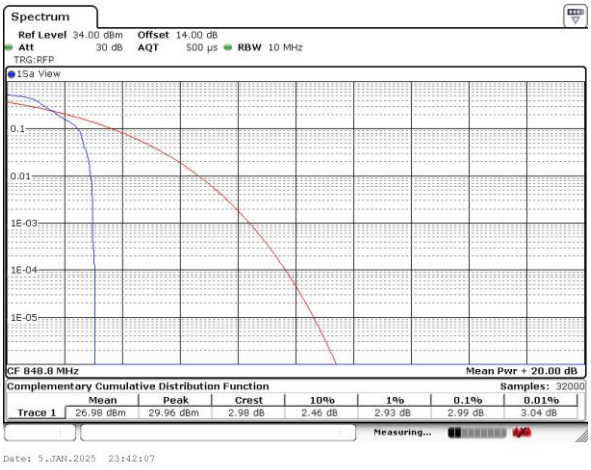
Band		WCDMA IV_Ant2			EIRP(W)		
TX Channel		1312	1413	1513			
Rx Channel		1537	1638	1738			
Frequency (MHz)		1712.4	1732.6	1752.6	L	M	H
3GPP Rel 99	AMR 12.2Kbps	22.67	22.74	22.61	0.1114	0.1132	0.1099
3GPP Rel 99	RMC 12.2Kbps	22.73	22.78	22.75	0.1130	0.1143	0.1135
3GPP Rel 6	HSDPA Subtest-1	21.76	21.74	21.70	0.0904	0.0899	0.0891
3GPP Rel 6	HSDPA Subtest-2	21.72	21.80	21.73	0.0895	0.0912	0.0897
3GPP Rel 6	HSDPA Subtest-3	21.20	21.34	21.04	0.0794	0.0820	0.0766
3GPP Rel 6	HSDPA Subtest-4	21.38	21.30	21.05	0.0828	0.0813	0.0767
3GPP Rel 8	DC-HSDPA Subtest-1	21.79	21.86	21.67	0.0910	0.0925	0.0885
3GPP Rel 8	DC-HSDPA Subtest-2	21.77	21.65	21.57	0.0906	0.0881	0.0865
3GPP Rel 8	DC-HSDPA Subtest-3	21.28	21.24	21.21	0.0809	0.0802	0.0796
3GPP Rel 8	DC-HSDPA Subtest-4	21.24	21.33	21.26	0.0802	0.0818	0.0805
3GPP Rel 6	HSUPA Subtest-1	21.78	21.65	21.60	0.0908	0.0881	0.0871
3GPP Rel 6	HSUPA Subtest-2	19.77	19.68	19.53	0.0571	0.0560	0.0541
3GPP Rel 6	HSUPA Subtest-3	20.83	20.78	20.75	0.0729	0.0721	0.0716
3GPP Rel 6	HSUPA Subtest-4	19.90	19.73	19.74	0.0589	0.0566	0.0568
3GPP Rel 6	HSUPA Subtest-5	21.71	21.82	21.73	0.0893	0.0916	0.0897
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.42	19.38	19.38	0.0527	0.0522	0.0522

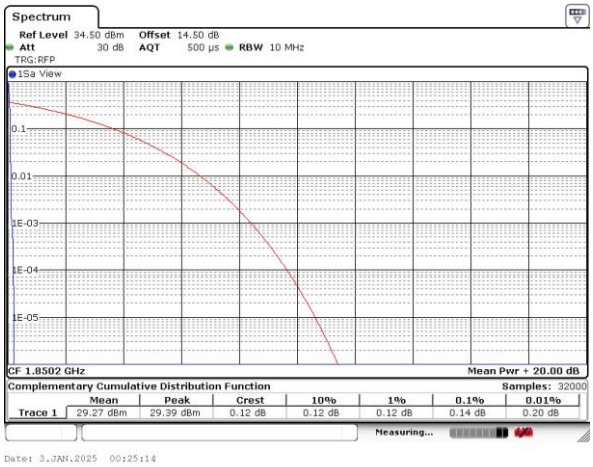
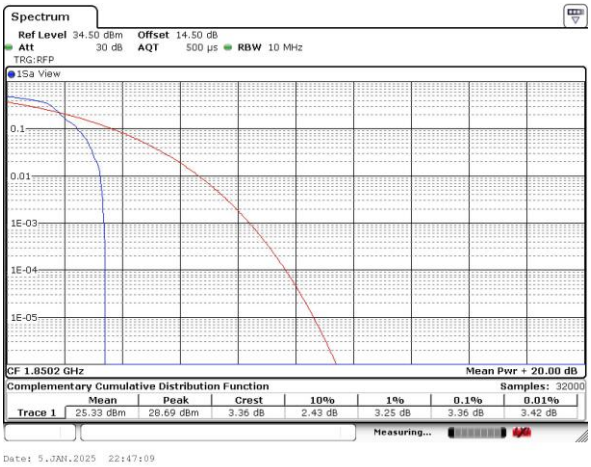
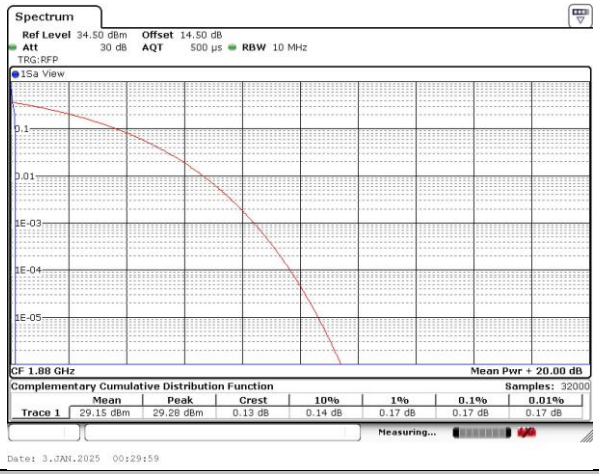
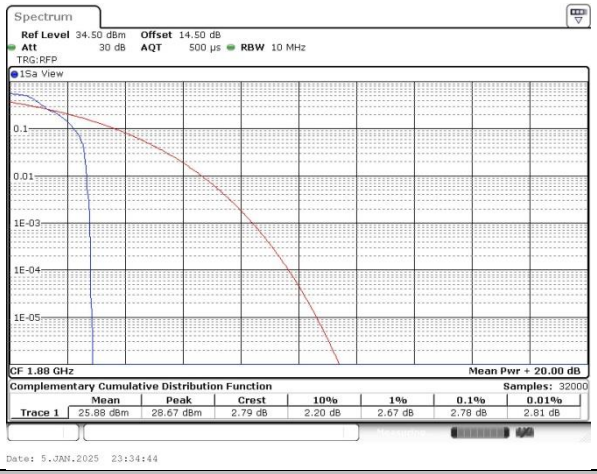
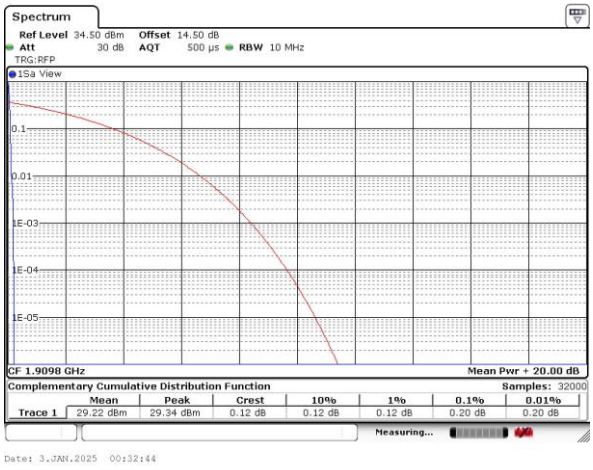
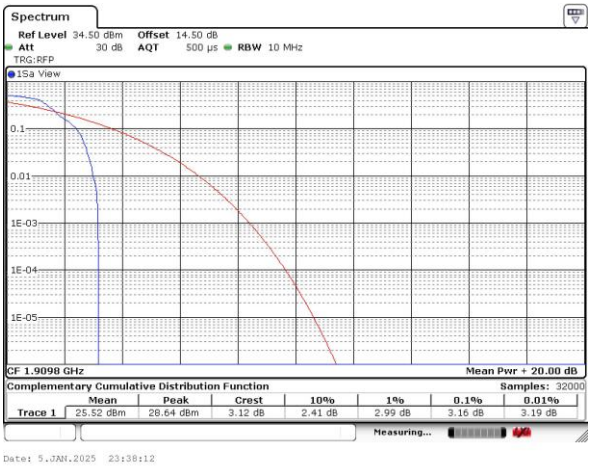
A1. GSM

Peak-to-Average Ratio

Mode	GSM850(dB)		Limit: 13dB
Mod.	GSM	EDGE class 8	Result
Lowest CH	0.17	2.75	PASS
Middle CH	0.20	3.16	
Highest CH	0.20	2.99	

Mode	GSM1900(dB)		Limit: 13dB
Mod.	GSM	EDGE class 8	Result
Lowest CH	0.14	3.36	PASS
Middle CH	0.17	2.78	
Highest CH	0.20	3.16	

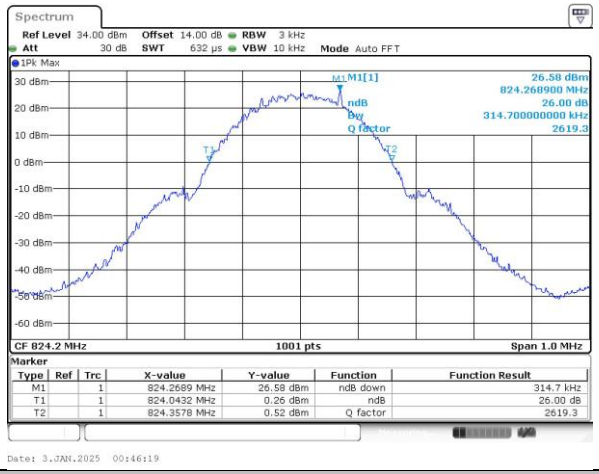
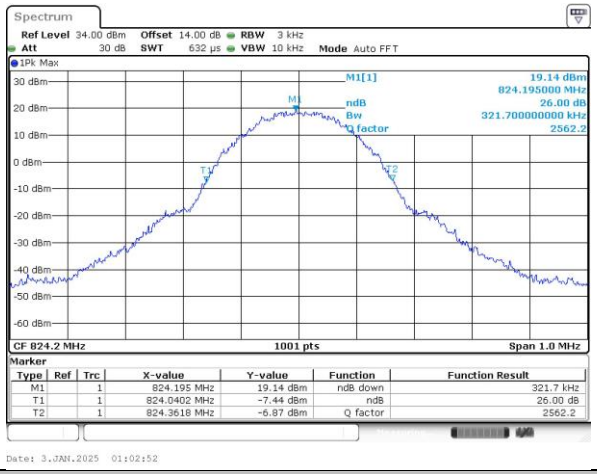
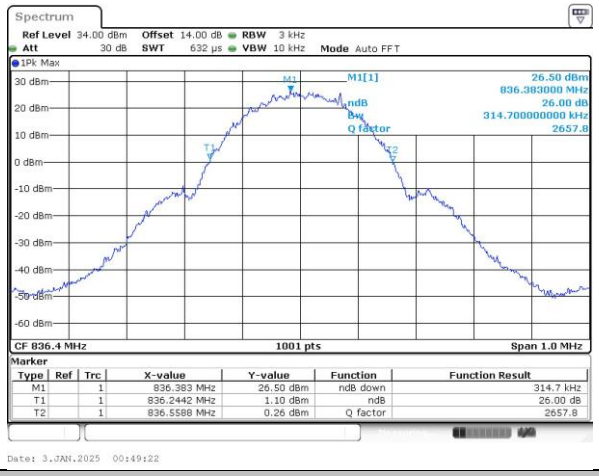
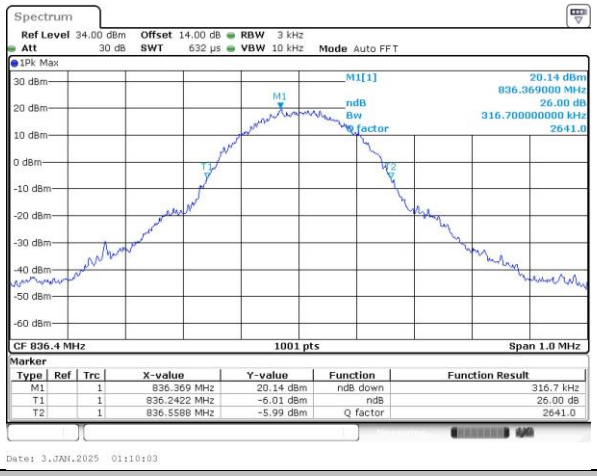
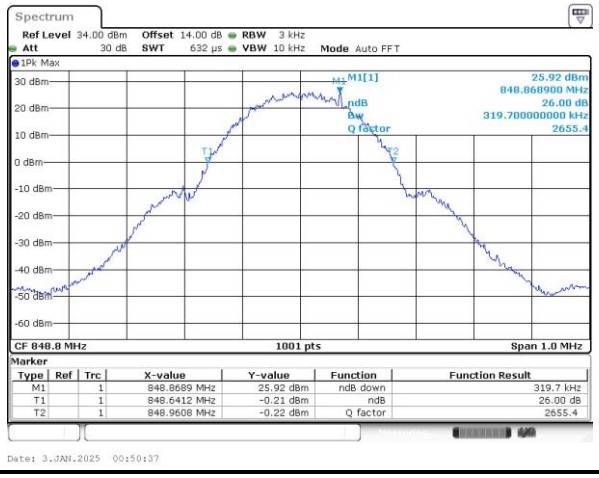
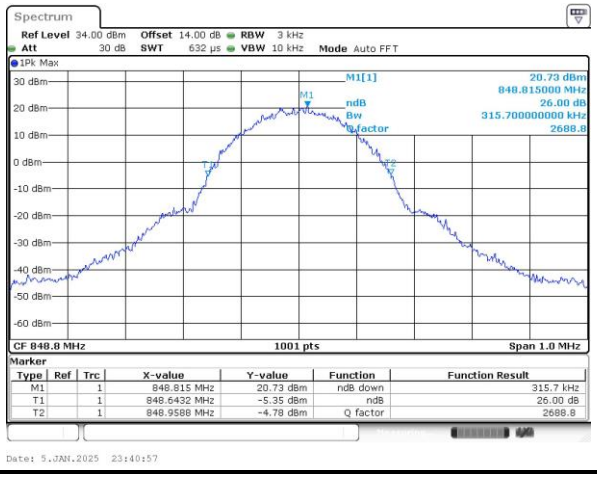
GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

GSM1900 (GSM)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

26dB Bandwidth

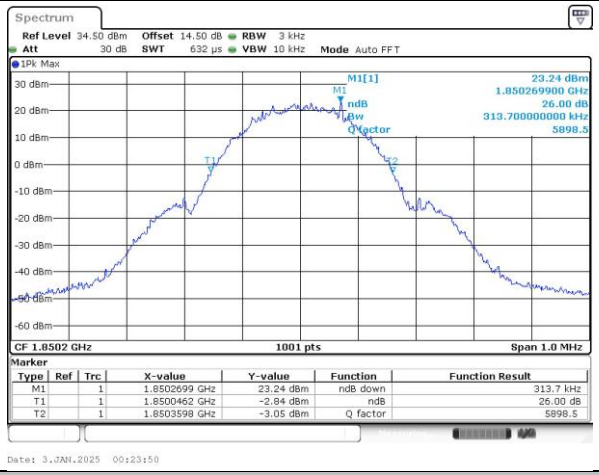
Mode	GSM850(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.31	0.32
Middle CH	0.31	0.32
Highest CH	0.32	0.32

Mode	GSM1900(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.31	0.31
Middle CH	0.31	0.32
Highest CH	0.31	0.32

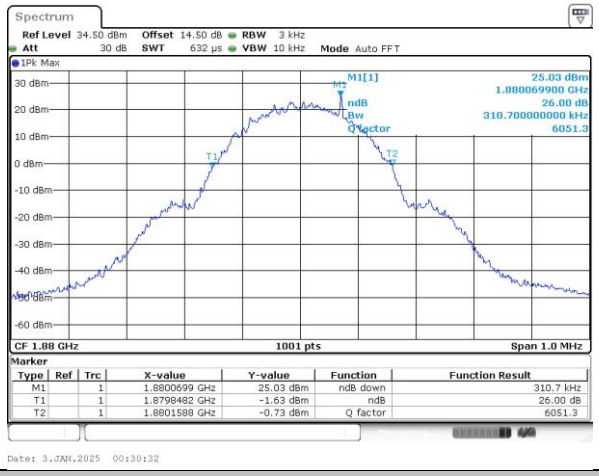
GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

GSM1900 (GSM)

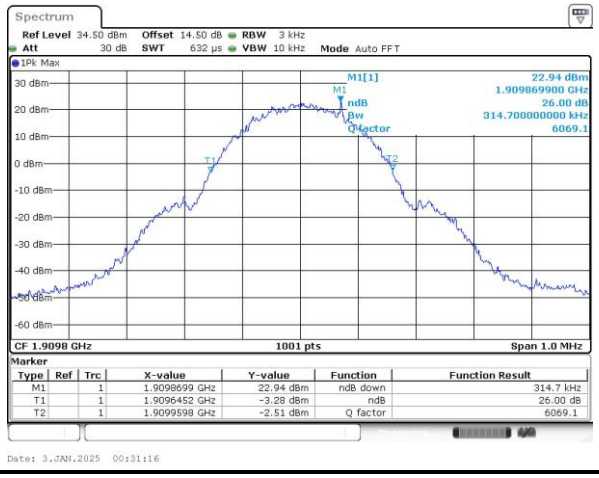
Lowest Channel



Middle Channel

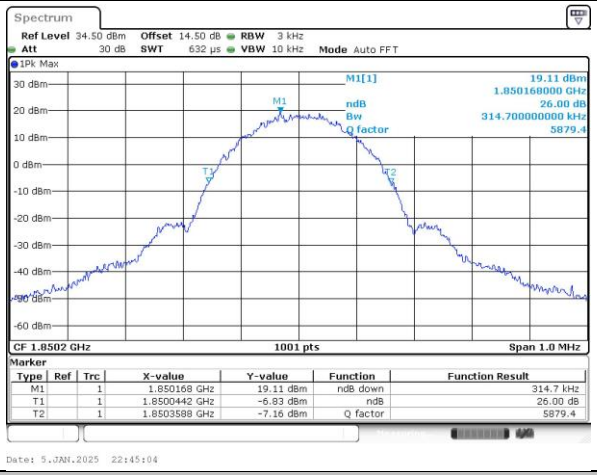


Highest Channel

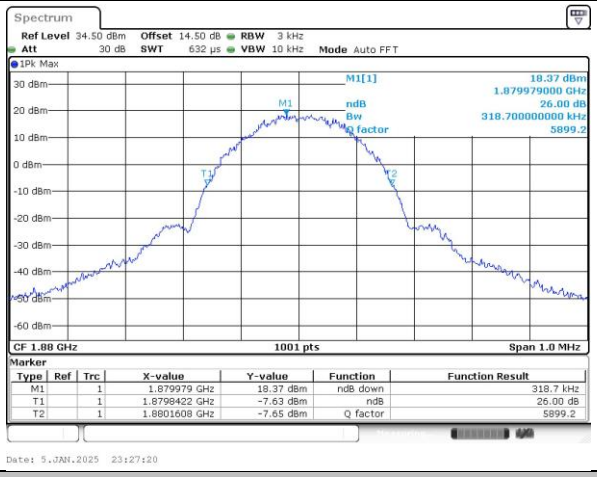


GSM1900 (EDGE class 8)

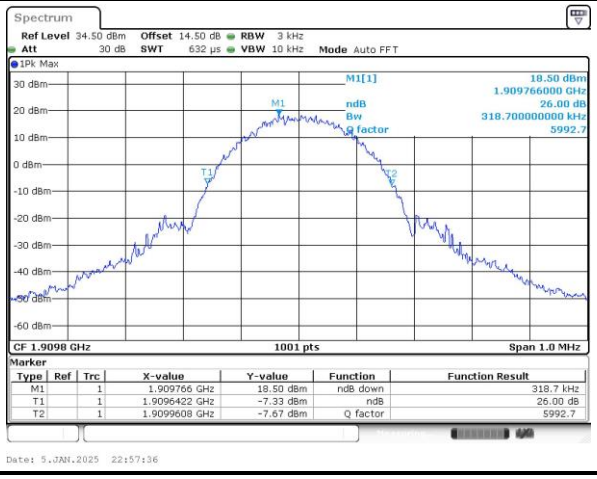
Lowest Channel



Middle Channel



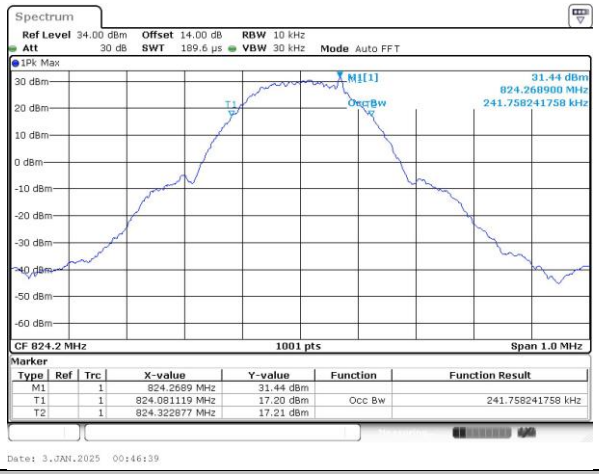
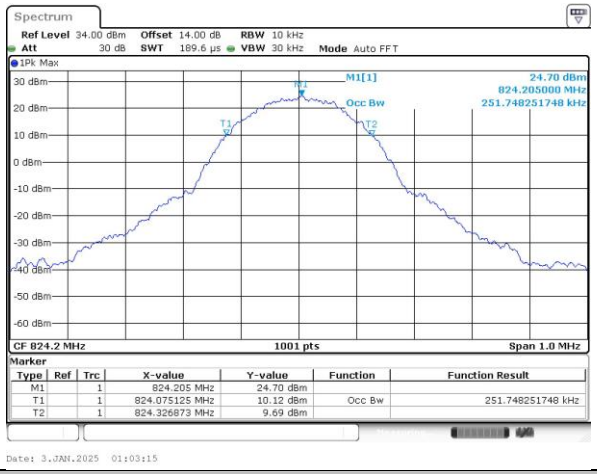
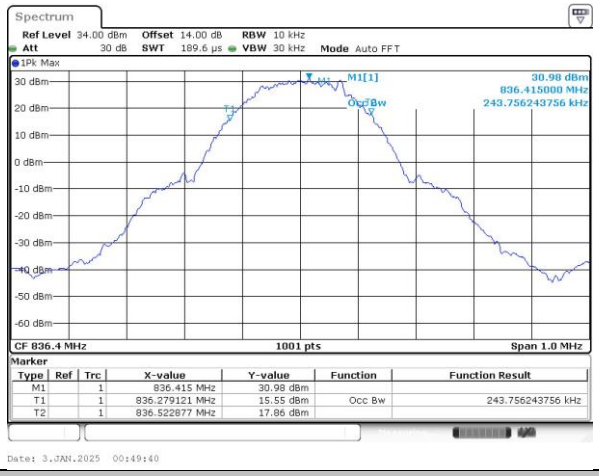
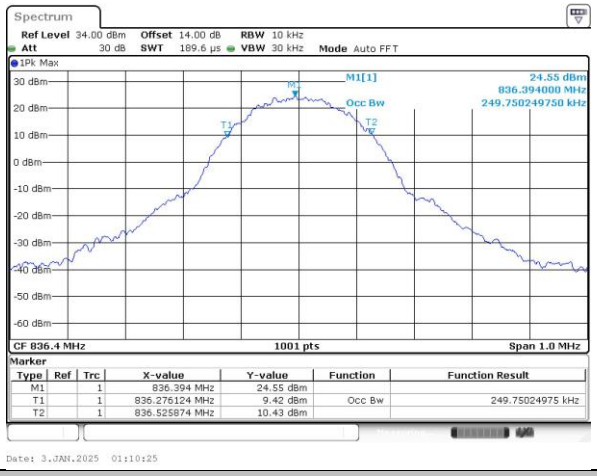
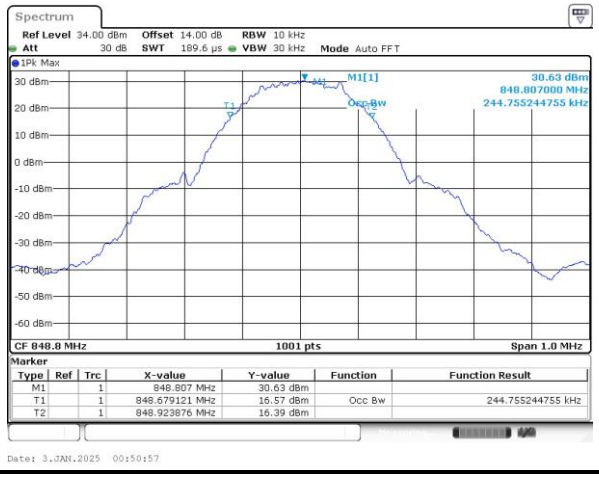
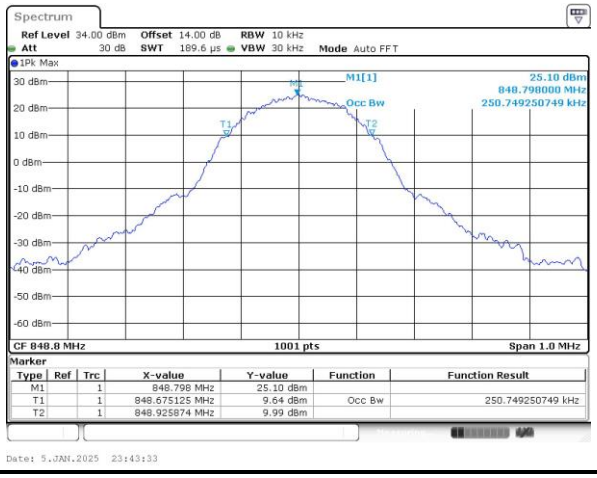
Highest Channel

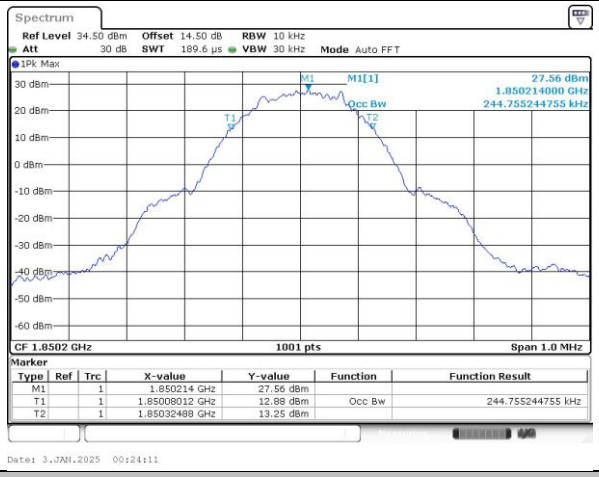
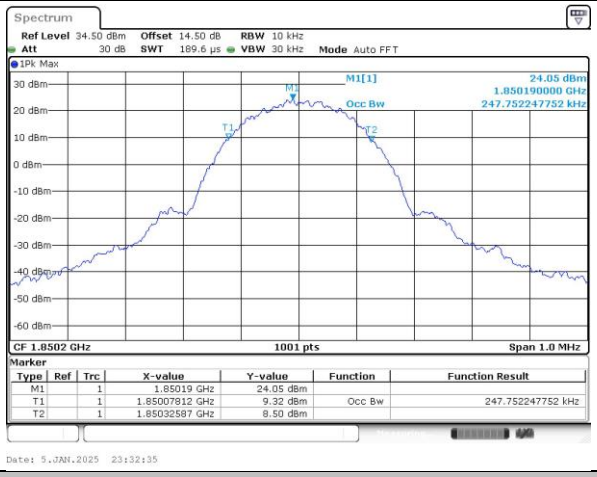
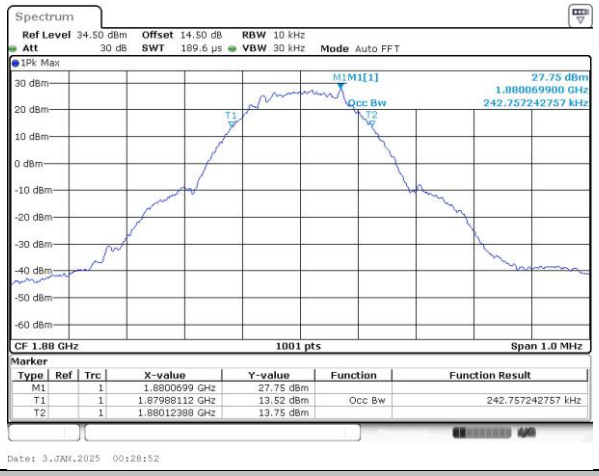
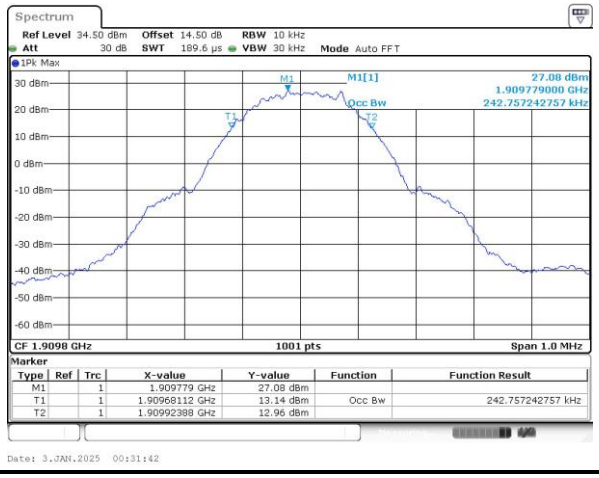
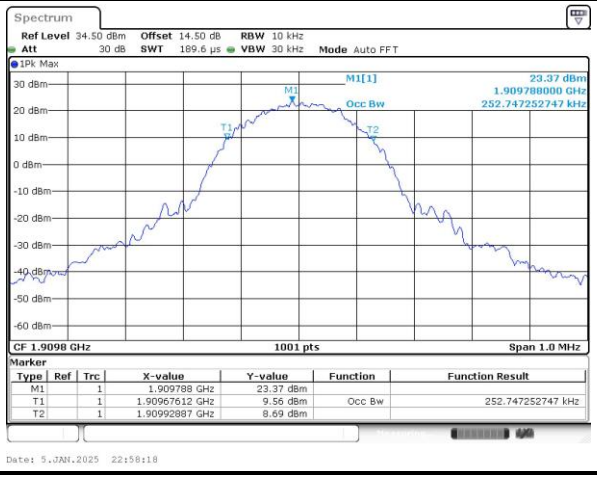


Occupied Bandwidth

Mode	GSM850(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.242	0.252
Middle CH	0.244	0.250
Highest CH	0.245	0.251

Mode	GSM1900(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.245	0.248
Middle CH	0.243	0.244
Highest CH	0.243	0.253

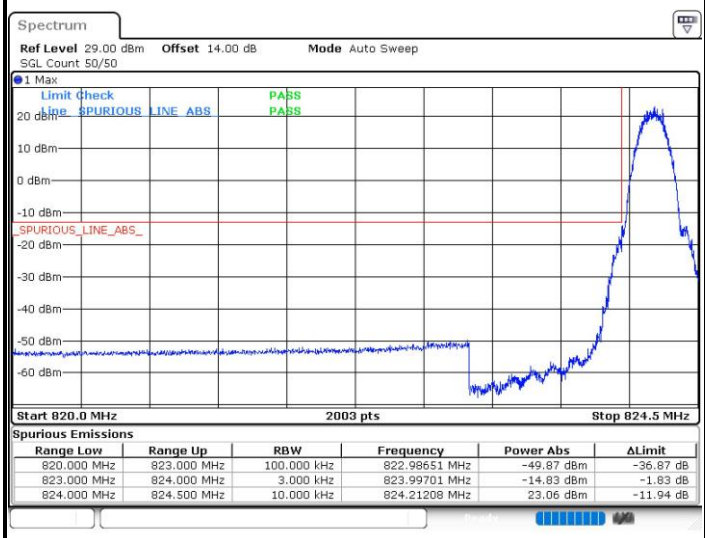
GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

GSM1900 (GSM)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

Conducted Band Edge

GSM850 (GSM)

Lowest Band Edge

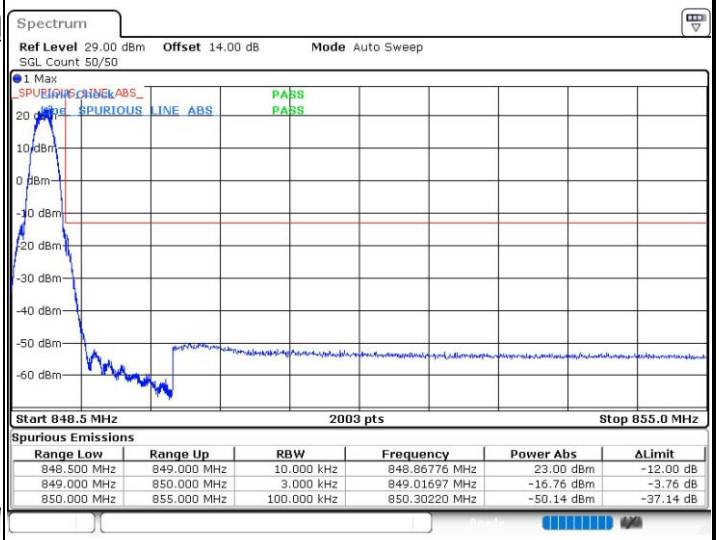


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.98651 MHz	-49.87 dBm	-36.87 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.99701 MHz	-14.83 dBm	-1.83 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.21208 MHz	23.06 dBm	-11.94 dB

Date: 3.JAN.2025 00:48:21

Highest Band Edge



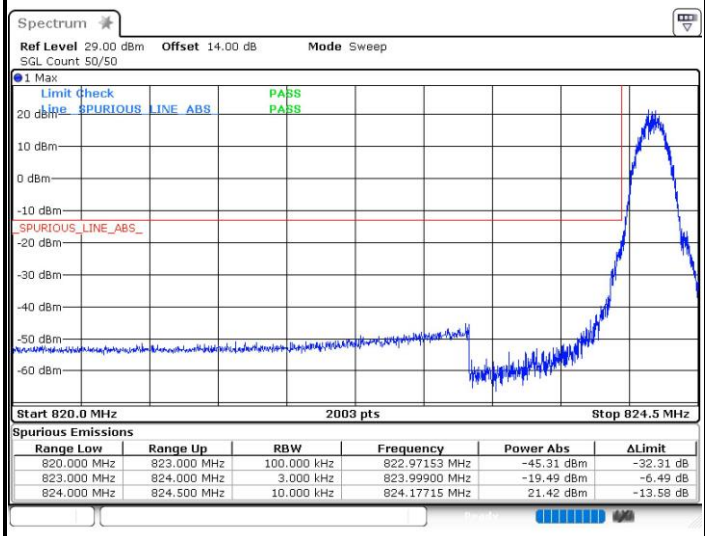
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.86776 MHz	23.00 dBm	-12.00 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.01697 MHz	-16.76 dBm	-3.76 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.30220 MHz	-50.14 dBm	-37.14 dB

Date: 3.JAN.2025 00:52:58

GSM850 (EDGE class 8)

Lowest Band Edge

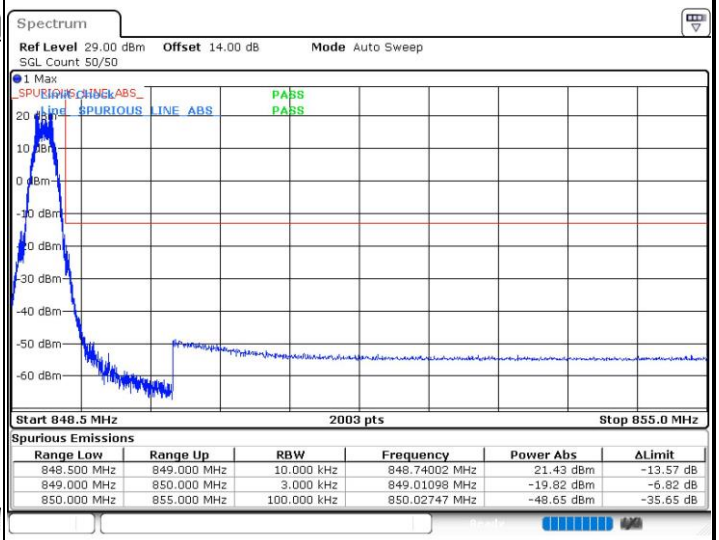


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.97153 MHz	-45.31 dBm	-32.31 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.99900 MHz	-19.49 dBm	-6.49 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.17715 MHz	21.42 dBm	-13.58 dB

Date: 5.JAN.2025 23:46:42

Highest Band Edge



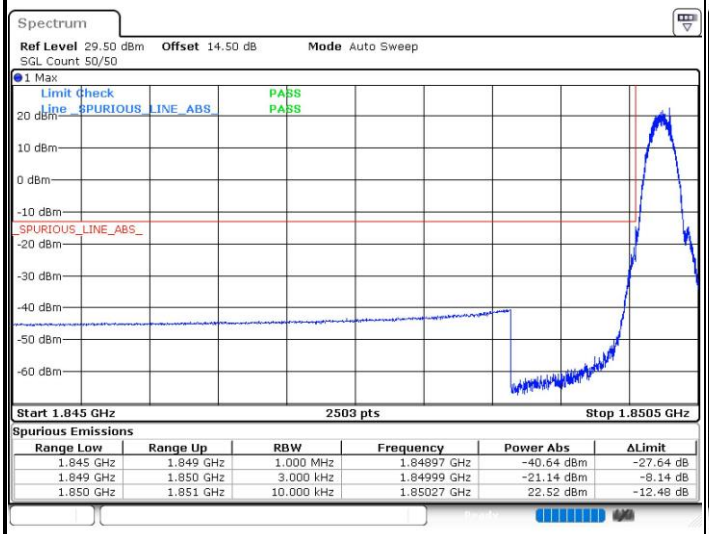
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.74002 MHz	21.43 dBm	-13.57 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.01098 MHz	-19.82 dBm	-6.82 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.02747 MHz	-48.65 dBm	-35.65 dB

Date: 5.JAN.2025 23:45:04

GSM1900 (GSM)

Lowest Band Edge

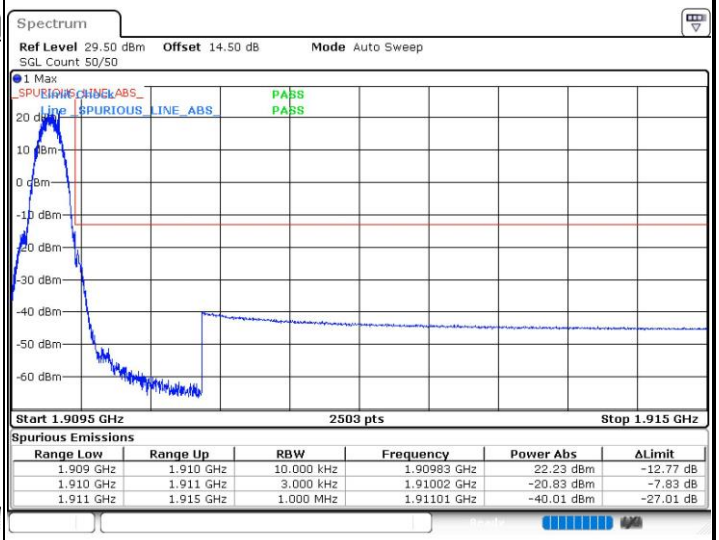


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84897 GHz	-40.64 dBm	-27.64 dB
1.849 GHz	1.850 GHz	3.000 kHz	1.84999 GHz	-21.14 dBm	-8.14 dB
1.850 GHz	1.851 GHz	10.000 kHz	1.85027 GHz	22.52 dBm	-12.48 dB

Date: 3.JAN.2025 00:27:32

Highest Band Edge



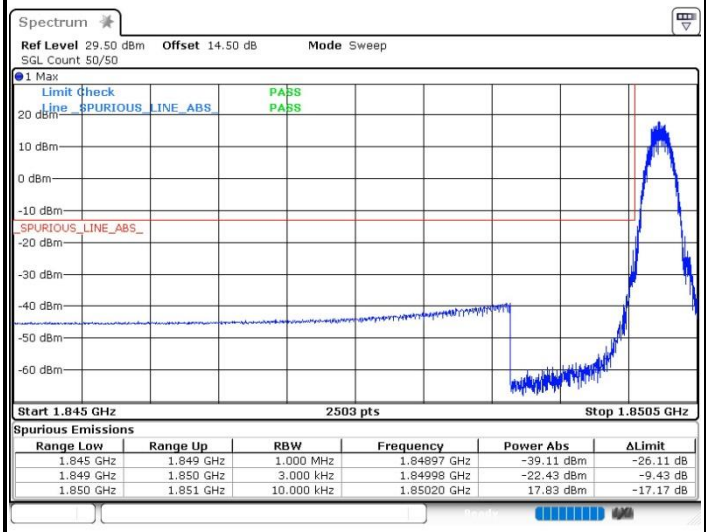
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.909 GHz	1.910 GHz	10.000 kHz	1.90983 GHz	22.23 dBm	-12.77 dB
1.910 GHz	1.911 GHz	3.000 kHz	1.91002 GHz	-20.83 dBm	-7.83 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91101 GHz	-40.01 dBm	-27.01 dB

Date: 3.JAN.2025 00:34:31

GSM1900 (EDGE class 8)

Lowest Band Edge

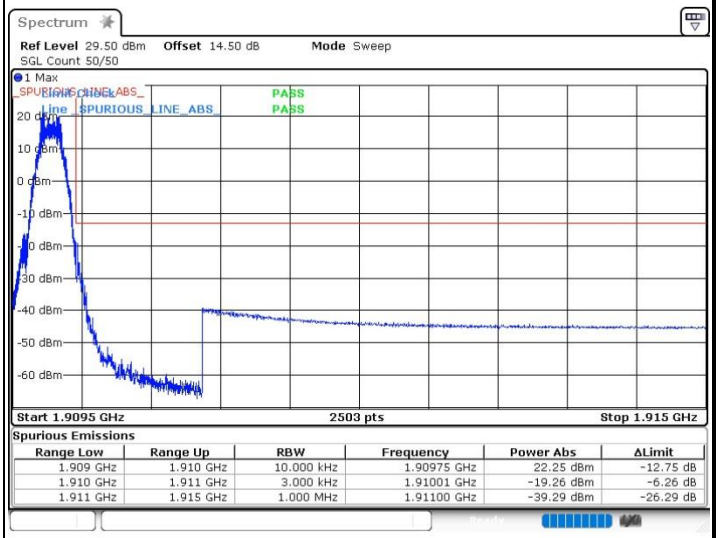


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84897 GHz	-39.11 dBm	-26.11 dB
1.849 GHz	1.850 GHz	3.000 kHz	1.84998 GHz	-22.43 dBm	-9.43 dB
1.850 GHz	1.851 GHz	10.000 kHz	1.85020 GHz	17.83 dBm	-17.17 dB

Date: 5.JAN.2025 22:49:59

Highest Band Edge



Spurious Emissions

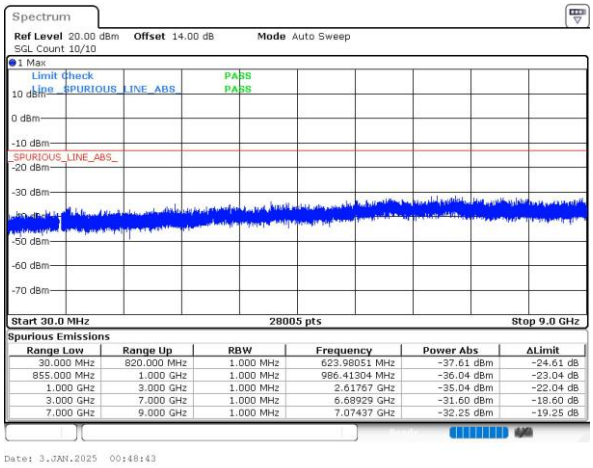
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.909 GHz	1.910 GHz	10.000 kHz	1.90975 GHz	22.25 dBm	-12.75 dB
1.910 GHz	1.911 GHz	3.000 kHz	1.91001 GHz	-19.26 dBm	-6.26 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91100 GHz	-39.29 dBm	-26.29 dB

Date: 5.JAN.2025 22:57:13

Conducted Spurious Emission

GSM850 (GSM)

Lowest Channel

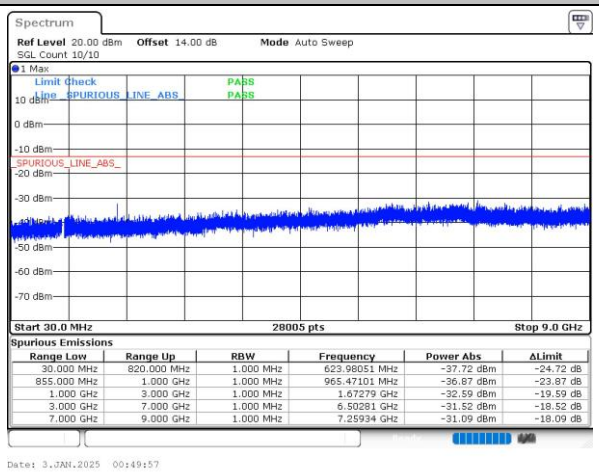


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	623.98051 MHz	-37.61 dBm	-24.61 dB
855.000 MHz	1.000 GHz	1.000 MHz	986.41304 MHz	-36.04 dBm	-23.04 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.61767 GHz	-35.04 dBm	-22.04 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.68929 GHz	-31.60 dBm	-18.60 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.07437 GHz	-32.25 dBm	-19.25 dB

Date: 3.JAN.2025 00:48:43

Middle Channel

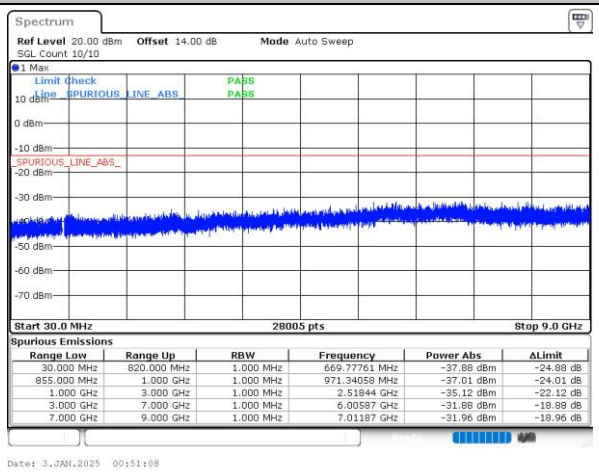


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	623.98051 MHz	-37.72 dBm	-24.72 dB
855.000 MHz	1.000 GHz	1.000 MHz	965.47101 MHz	-36.87 dBm	-23.87 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.67279 GHz	-32.59 dBm	-19.59 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.50281 GHz	-31.52 dBm	-18.52 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.25934 GHz	-31.09 dBm	-18.09 dB

Date: 3.JAN.2025 00:49:57

Highest Channel



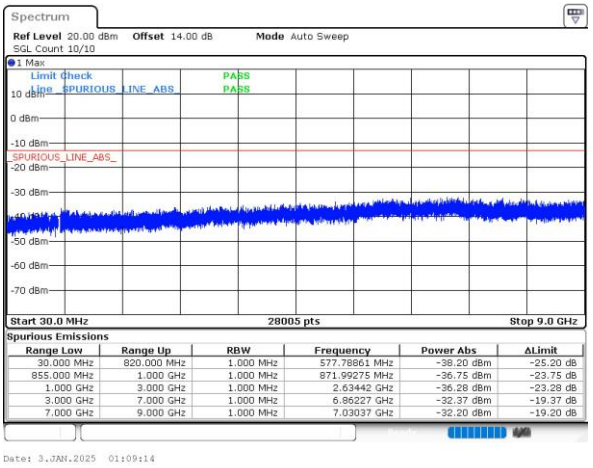
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	669.77761 MHz	-37.88 dBm	-24.88 dB
855.000 MHz	1.000 GHz	1.000 MHz	971.34058 MHz	-37.01 dBm	-24.01 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.51844 GHz	-35.12 dBm	-22.12 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.00587 GHz	-31.88 dBm	-18.88 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01187 GHz	-31.96 dBm	-18.96 dB

Date: 3.JAN.2025 00:51:08

GSM850 (EDGE class 8)

Lowest Channel

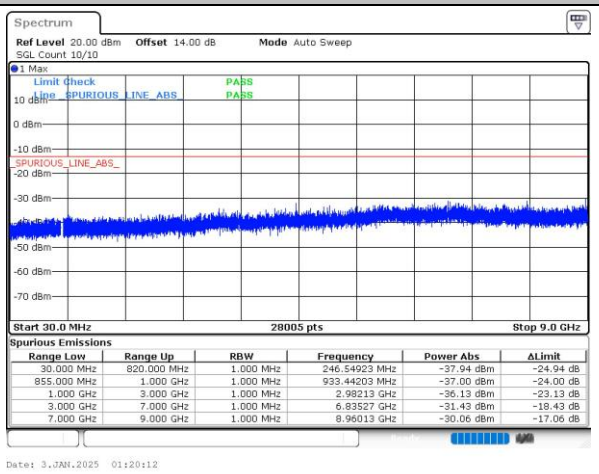


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	577.78861 MHz	-38.20 dBm	-25.20 dB
855.000 MHz	1.000 GHz	1.000 MHz	871.99275 MHz	-36.75 dBm	-23.75 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63442 GHz	-36.28 dBm	-23.28 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86227 GHz	-32.37 dBm	-19.37 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.03037 GHz	-32.20 dBm	-19.20 dB

Date: 3.JAN.2025 01:09:14

Middle Channel

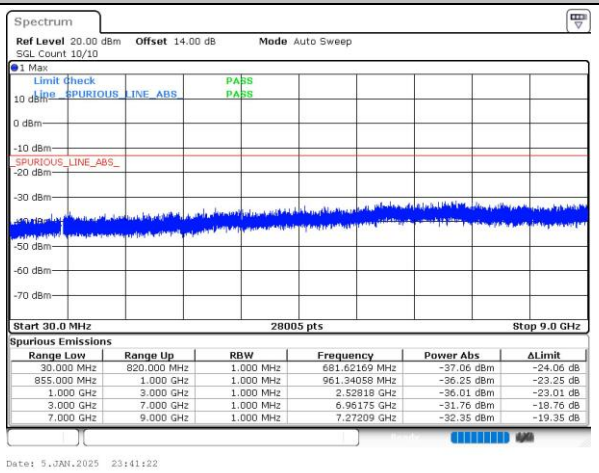


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	246.54923 MHz	-37.94 dBm	-24.94 dB
855.000 MHz	1.000 GHz	1.000 MHz	933.44203 MHz	-37.00 dBm	-24.00 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98213 GHz	-36.13 dBm	-23.13 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83527 GHz	-31.43 dBm	-18.43 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.96013 GHz	-30.06 dBm	-17.06 dB

Date: 3.JAN.2025 01:20:12

Highest Channel



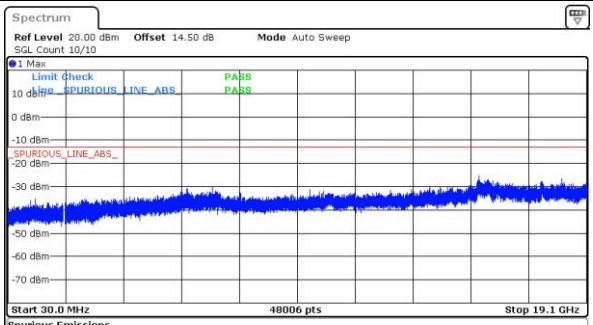
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	681.62169 MHz	-37.06 dBm	-24.06 dB
855.000 MHz	1.000 GHz	1.000 MHz	961.34058 MHz	-36.25 dBm	-23.25 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.52818 GHz	-36.01 dBm	-23.01 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96175 GHz	-31.76 dBm	-18.76 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.27209 GHz	-32.35 dBm	-19.35 dB

Date: 5.JAN.2025 23:41:22

GSM1900 (GSM)

Lowest Channel

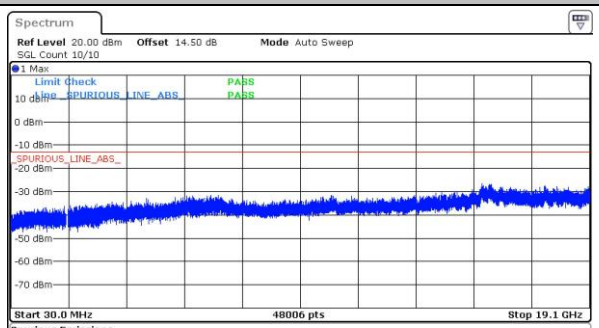


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	923.65067 MHz	-35.43 dBm	-22.43 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.35324 GHz	-37.06 dBm	-24.06 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.57073 GHz	-35.37 dBm	-22.37 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.75528 GHz	-30.42 dBm	-17.42 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.33060 GHz	-31.28 dBm	-18.28 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.54666 GHz	-25.41 dBm	-12.41 dB

Date: 3.JAN.2025 00:24:44

Middle Channel

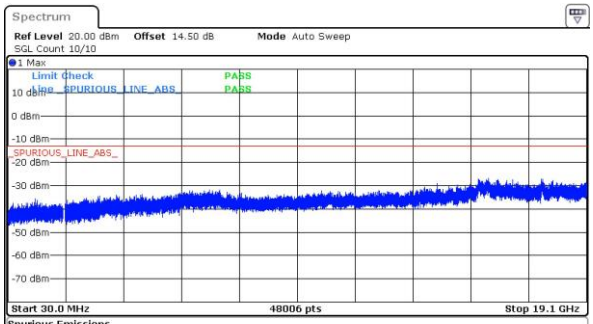


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	907.65367 MHz	-37.42 dBm	-24.42 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.78313 GHz	-36.41 dBm	-23.41 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.85049 GHz	-35.27 dBm	-22.27 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.61630 GHz	-31.54 dBm	-18.54 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.31928 GHz	-31.55 dBm	-18.55 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.54784 GHz	-26.54 dBm	-13.54 dB

Date: 3.JAN.2025 00:29:31

Highest Channel



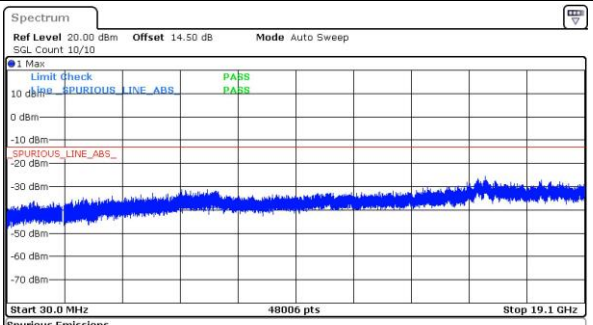
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	929.46777 MHz	-35.65 dBm	-22.65 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.14210 GHz	-37.46 dBm	-24.46 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.99234 GHz	-34.67 dBm	-21.67 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99775 GHz	-31.75 dBm	-18.75 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.50926 GHz	-31.78 dBm	-18.78 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.87311 GHz	-26.94 dBm	-13.94 dB

Date: 3.JAN.2025 00:32:14

GSM1900 (EDGE class 8)

Lowest Channel

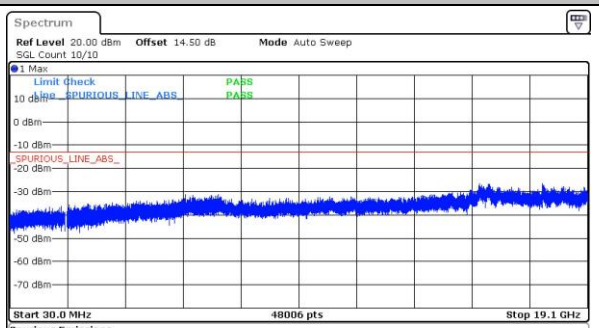


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	893.59570 MHz	-36.22 dBm	-23.22 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.56228 GHz	-36.60 dBm	-23.60 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.53181 GHz	-34.79 dBm	-21.79 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.65379 GHz	-31.13 dBm	-18.13 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.54838 GHz	-31.47 dBm	-18.47 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.80986 GHz	-25.45 dBm	-12.45 dB

Date: 5.JAN.2025 23:32:55

Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	944.98001 MHz	-37.20 dBm	-24.20 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.72021 GHz	-36.19 dBm	-23.19 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.62199 GHz	-35.25 dBm	-22.25 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90476 GHz	-31.12 dBm	-18.12 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.59882 GHz	-31.99 dBm	-18.99 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.61255 GHz	-26.63 dBm	-13.63 dB

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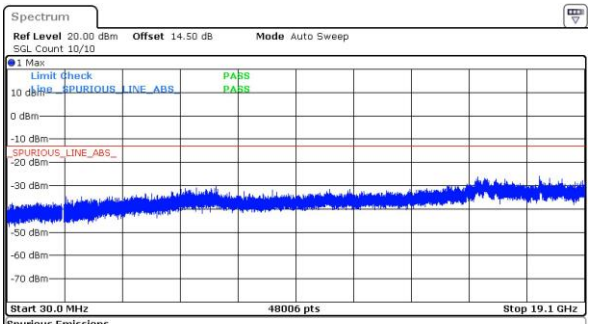
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	190.21239 MHz	-37.51 dBm	-24.51 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.01626 GHz	-37.12 dBm	-24.12 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.48503 GHz	-34.62 dBm	-21.62 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92876 GHz	-30.12 dBm	-17.12 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.34320 GHz	-31.54 dBm	-18.54 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.61216 GHz	-26.06 dBm	-13.06 dB

Date: 5.JAN.2025 23:35:47

Frequency Stability

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0007	0.0001	PASS
40	Normal Voltage	0.0012	0.0004	
30	Normal Voltage	0.0023	0.0009	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0008	0.0007	
0	Normal Voltage	0.0020	0.0000	
-10	Normal Voltage	0.0016	0.0005	
-20	Normal Voltage	0.0018	0.0004	
-30	Normal Voltage	0.0004	0.0006	
20	Maximum Voltage	0.0008	0.0005	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0010	0.0002	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0001	0.0007	PASS
40	Normal Voltage	0.0004	0.0004	
30	Normal Voltage	0.0009	0.0003	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0007	0.0009	
0	Normal Voltage	0.0000	0.0006	
-10	Normal Voltage	0.0005	0.0013	
-20	Normal Voltage	0.0004	0.0003	
-30	Normal Voltage	0.0006	0.0010	
20	Maximum Voltage	0.0005	0.0005	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0002	0.0002	

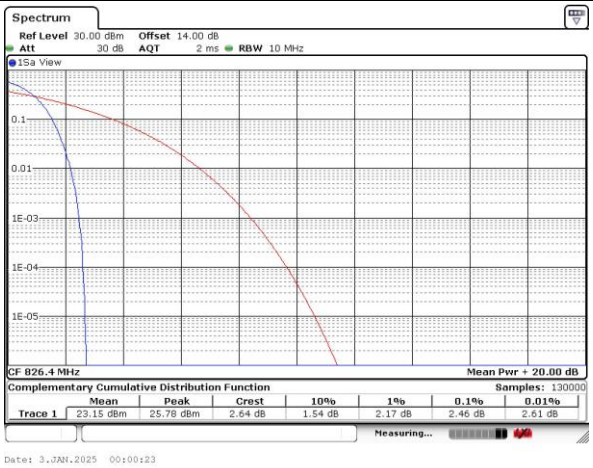
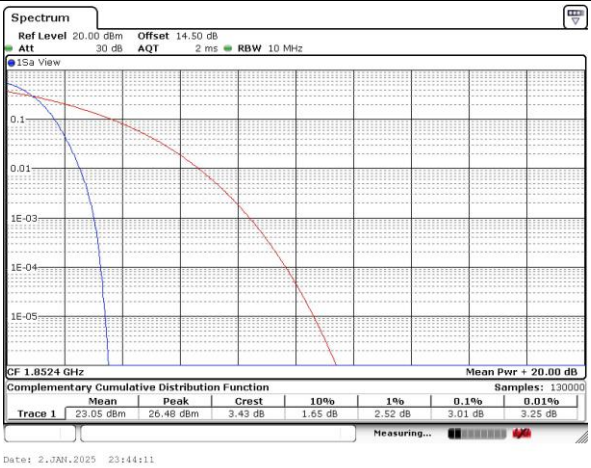
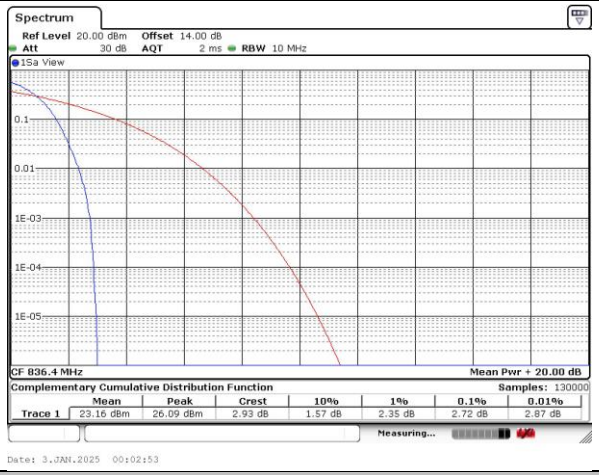
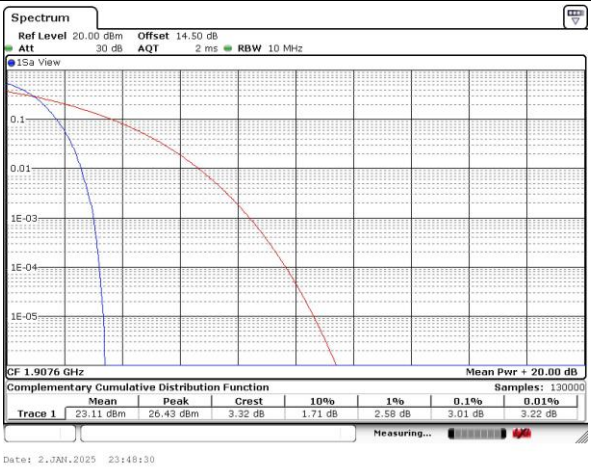
Note:

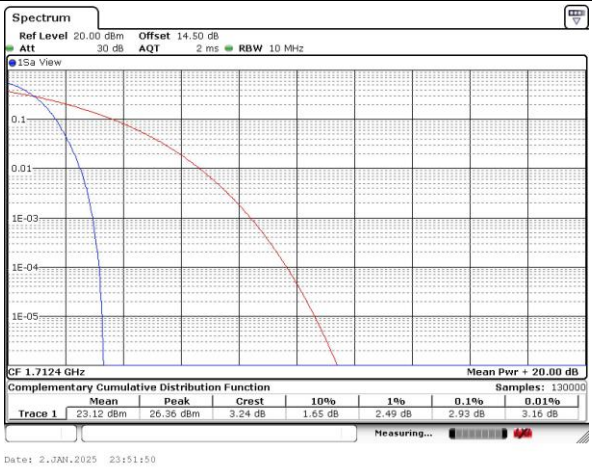
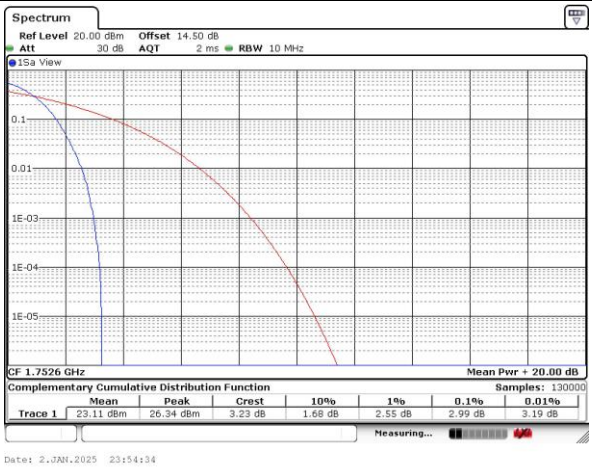
1. Normal Voltage = 3.91V；Minimum Voltage = 3.6 V；Maximum Voltage =4.5 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

A2. WCDMA

Peak-to-Average Ratio

Mode	WCDMA Band V(dB)	WCDMA Band II(dB)	WCDMA Band IV(dB)	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	2.46	3.01	2.93	PASS
Middle CH	2.72	3.04	3.01	
Highest CH	2.78	3.01	2.99	

WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

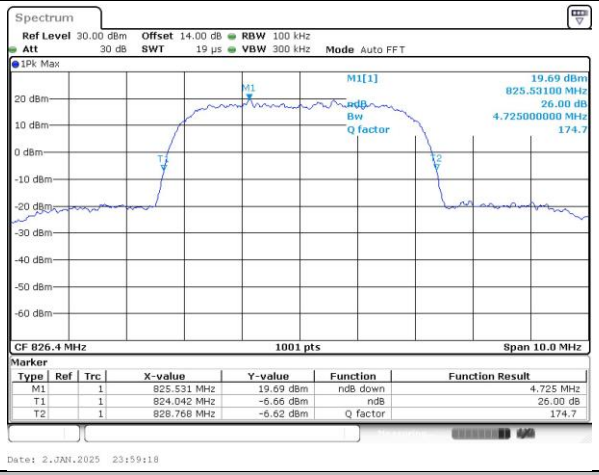
WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
Highest Channel	
	

26dB Bandwidth

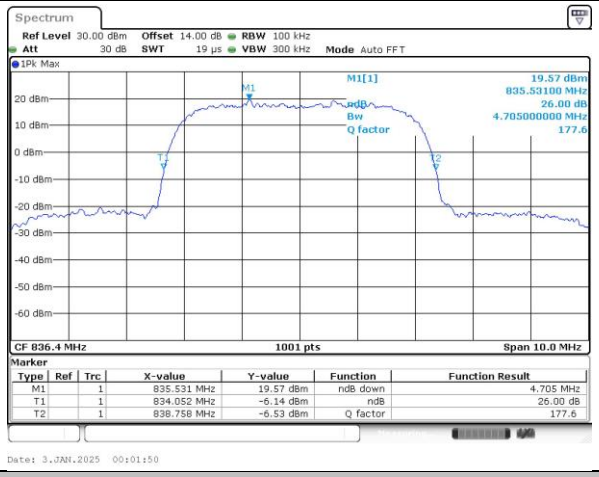
Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.73	4.71	4.70
Middle CH	4.71	4.70	4.70
Highest CH	4.71	4.69	4.70

WCDMA Band V (RMC 12.2Kbps)

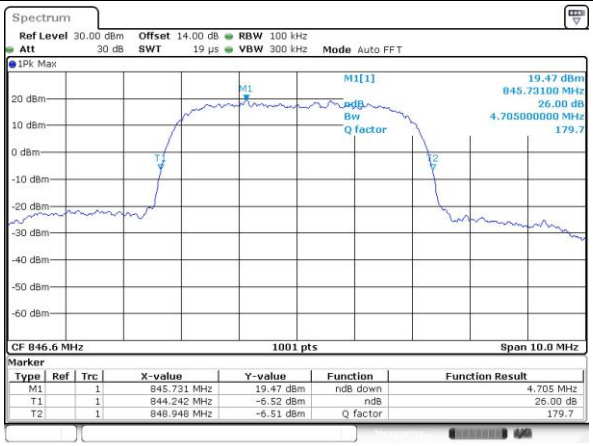
Lowest Channel



Middle Channel

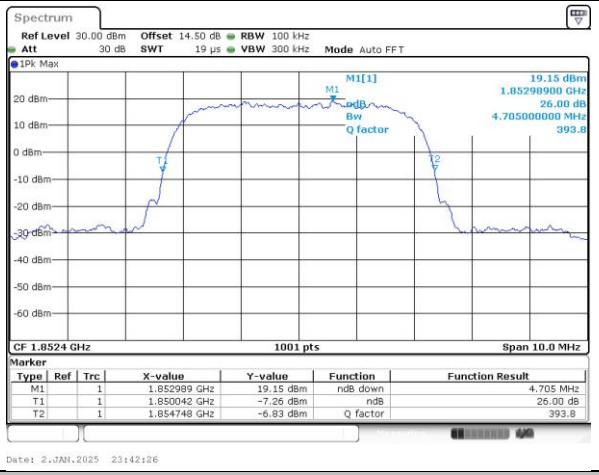


Highest Channel

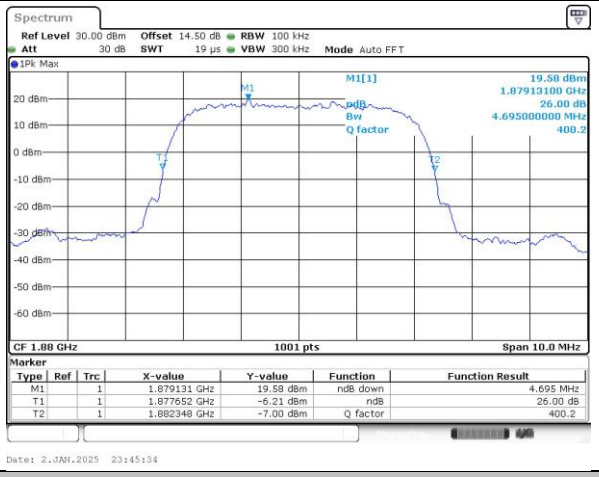


WCDMA Band II (RMC 12.2Kbps)

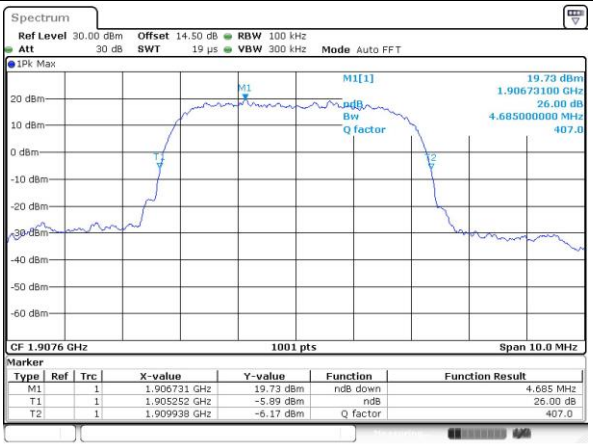
Lowest Channel



Middle Channel

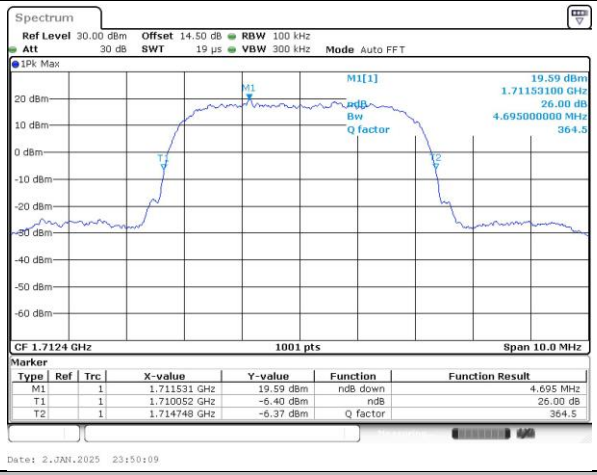


Highest Channel

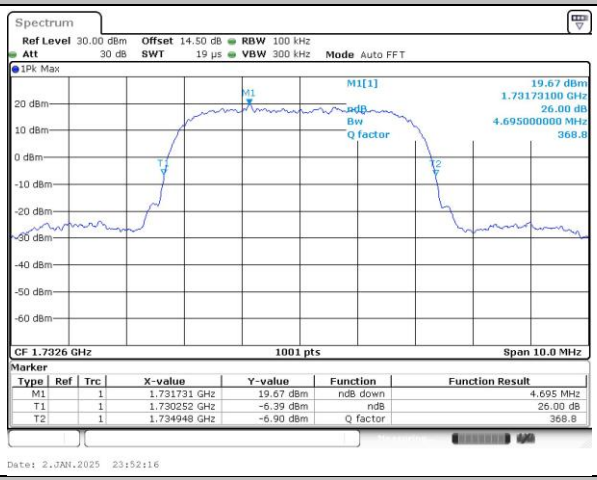


WCDMA Band IV (RMC 12.2Kbps)

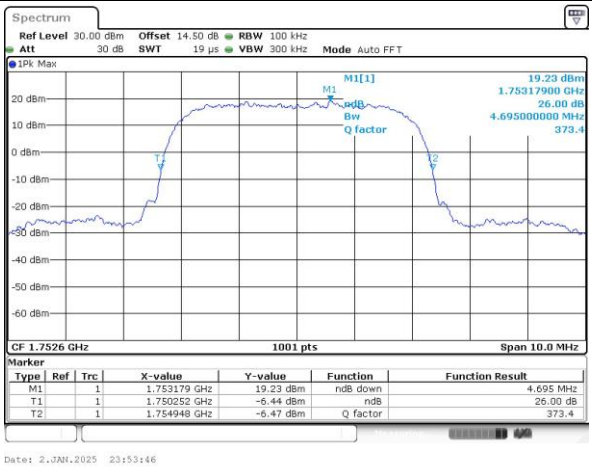
Lowest Channel



Middle Channel

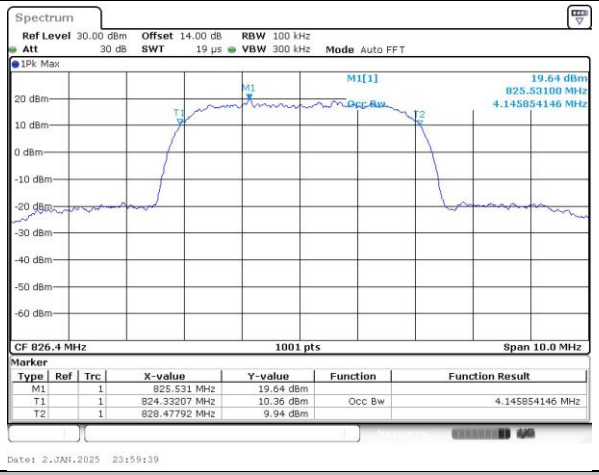
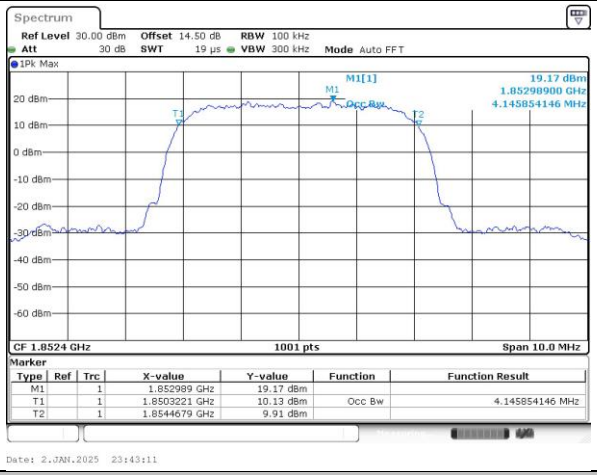
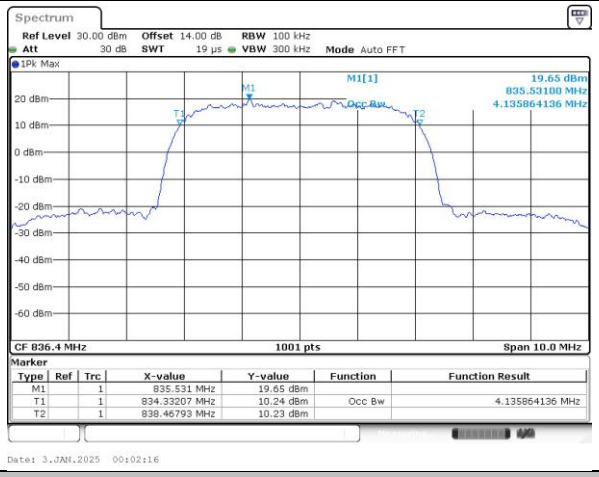
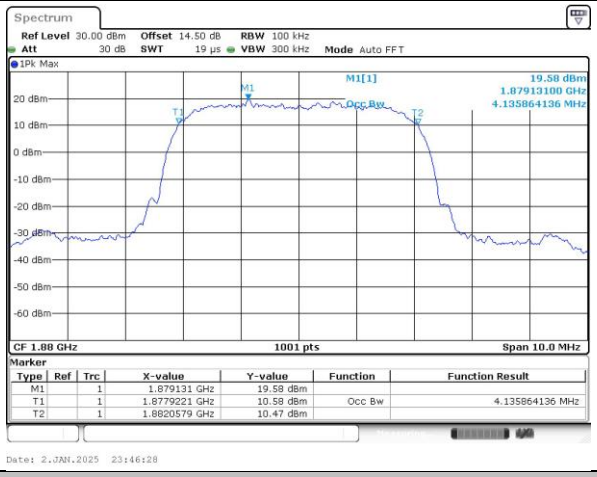
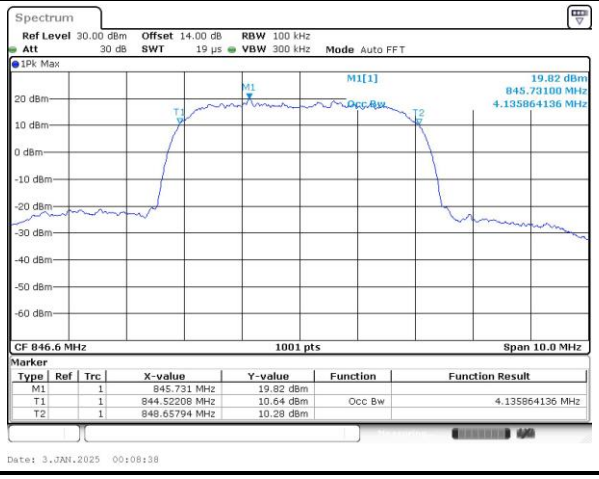
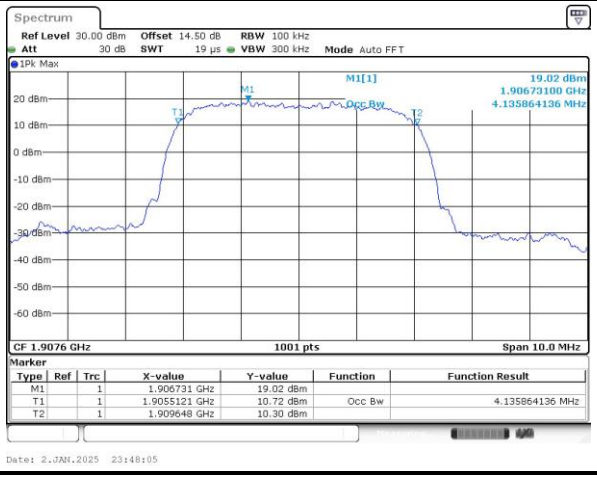


Highest Channel



Occupied Bandwidth

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.15	4.15	4.15
Middle CH	4.14	4.14	4.14
Highest CH	4.14	4.14	4.15

WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**