



FCC Radio Test Report

FCC ID: 2APJ4-SLM770A

This report concerns: Original Grant

Project No. : 2402C072
Equipment : 4G LTE Module
Brand Name : MEIGLink
Test Model : SLM770A
Series Model : N/A
Applicant : MeiG Smart Technology Co., Ltd
Address : 2nd Floor,Office Building,No.5 LingxiaRoad,Fenghuang,Fuyong Street,Bao'an District,Shenzhen,China
Manufacturer : MeiG Smart Technology Co., Ltd
Address : 2nd Floor,Office Building,No.5 LingxiaRoad,Fenghuang,Fuyong Street,Bao'an District,Shenzhen,China
Date of Receipt : Feb. 07, 2024
Date of Test : Feb. 18, 2024 ~ Apr. 28, 2024
Issued Date : Apr. 30, 2024
Report Version : R00
Test Sample : Engineering Sample No.: SSL2024020714 and SSL2024020717 for radiated, SSL2024020714 and SSL2024020715 for conducted.
Standard(s) : 47 CFR FCC Part 22 Subpart H
47 CFR FCC Part 2

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-1-2402C072	R00	Original Report.	Apr. 30, 2024	Valid

1. APPLICABLE STANDARDS

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

ANSI C63.26-2015

The following reference test guidance is not within the scope of accreditation of A2LA:

FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 22 Subpart H & Part 2			
Standard(s) Section	Test Item	Judgment	Remark
2.1046	Output Power	PASS	-----
22.913(a)(5)	Effective Radiated Power	PASS	-----
2.1049	Occupied Bandwidth	PASS	-----
2.1051 22.917(a)	Conducted Spurious Emissions	PASS	-----
2.1053 22.917(a)	Radiated Spurious Emissions	PASS	-----
22.917(a)	Band Edge Measurements	PASS	-----
22.913(d)	Peak To Average Ratio	PASS	-----
2.1055 22.355	Frequency Stability	PASS	-----

Note:

(1) "N/A" denotes test is not applicable in this test report.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.

BTL's Registration Number for FCC: 747969

BTL's Designation Number for FCC: CN1377

2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

The BTL measurement uncertainty as below table:

A. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U,(dB)
SSL-CB01	CISPR	9kHz ~ 30MHz	2.74

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
SSL-CB01 (3m)	CISPR	30MHz ~ 200MHz	V	4.70
		30MHz ~ 200MHz	H	3.56
		200MHz ~ 1,000MHz	V	4.92
		200MHz ~ 1,000MHz	H	4.54

Test Site	Method	Measurement Frequency Range	U,(dB)
SSL-CB01 (3m)	CISPR	1GHz ~ 6GHz	4.56
		6GHz ~ 18GHz	5.14

B. Other Measurement:

Parameter	Uncertainty
Spectrum Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Frequency Stability	±0.16 dB
Temperature	±0.08 °C
Time	±0.58 %
Supply voltages	±0.3 %

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

2.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
Output Power & ERP	23-26.2°C	40-42%	DC 3.8V	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024
Occupied Bandwidth	23-26.2°C	40-42%	DC 3.8V	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024
Conducted Spurious Emissions	23-26.2°C	40-42%	DC 3.8V	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024
Radiated Spurious Emissions (9 kHz to 30 MHz)	25°C	60%	DC 3.8V	Max Wang	Feb. 27, 2024
Radiated Spurious Emissions (30 MHz to 1000 MHz)	23°C	50%	DC 3.8V	Max Wang	Feb. 25, 2024 Feb. 27, 2024
Radiated Spurious Emissions (Above 1000 MHz)	23°C	50%	DC 3.8V	Max Wang	Feb. 25, 2024
Band Edge	23-26.2°C	40-42%	DC 3.8V	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024
Peak to Average Ratio	23-26.2°C	40-42%	DC 3.8V	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024
Frequency Stability	Normal & Extreme	40-42%	Normal & Extreme	Gana Cai	Feb. 20, 2024~ Feb. 26, 2024

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	4G LTE Module				
Brand Name	MEIGLink				
Test Model	SLM770A				
Series Model	N/A				
Model Difference(s)	N/A				
Hardware Version	SLM770A_MB_V1.02				
Software Version	SLM770A-H_3.0.1_EQ100				
Power Source	DC voltage supplied from external power supply.				
Power Rating	DC 3.8V				
IMEI No.	Radiated	861232062139917, 861232062139511			
	Conducted	861232062139917, 861232062139503			
Modulation Type	GSM/GPRS		GMSK		
	EDGE		GMSK, 8PSK		
	WCDMA/HSDPA/HSUPA		UL: QPSK,16QAM DL: QPSK,16QAM,64QAM		
	LTE		UL: QPSK,16QAM DL: QPSK,16QAM,64QAM		
Max. ERP	GSM 850 / GPRS 850		GMSK	29.55	dBm
	EDGE 850		8PSK	24.55	dBm
	WCDMA Band V		QPSK	20.27	dBm
	HSDPA Band V		QPSK	20.04	dBm
	HSUPA Band V		QPSK	20.10	dBm
	LTE		Channel Bandwidth (MHz)	QPSK (dBm)	16QAM (dBm)
	Band 5		1.4	20.27	19.67
			3	20.00	19.25
			5	20.24	19.40
			10	20.03	19.28

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

GSM 850				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	128	824.2	137	869.2
Mid Range	190	836.6	199	881.6
High Range	251	848.8	260	893.8

WCDMA Band V				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	4132	826.4	4357	871.4
Mid Range	4182	836.4	4407	881.4
High Range	4233	846.6	4458	891.6

LTE Band 5(UL: 824-849MHz,DL: 869-894MHz)					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	20407	824.7	2407	869.7
	3	20415	825.5	2415	870.5
	5	20425	826.5	2425	871.5
	10	20450	829	2450	874
Mid Range	1.4/3/5/10	20525	836.5	2525	881.5
High Range	1.4	20643	848.3	2643	893.3
	3	20635	847.5	2635	892.5
	5	20625	846.5	2625	891.5
	10	20600	844	2600	889

3. Table for Filed Antenna:

Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)	Note
ShenZhen VLG Wireless TECHNOLOGY CO.,LTD	45-V1497-057-01	Dipole	SMA	-1.1	GSM 850
				-1.1	WCDMA Band V
				-1.1	LTE Band 5

Note: The antenna gain is provided by the manufacturer.

3.2 DESCRIPTION OF TEST MODES

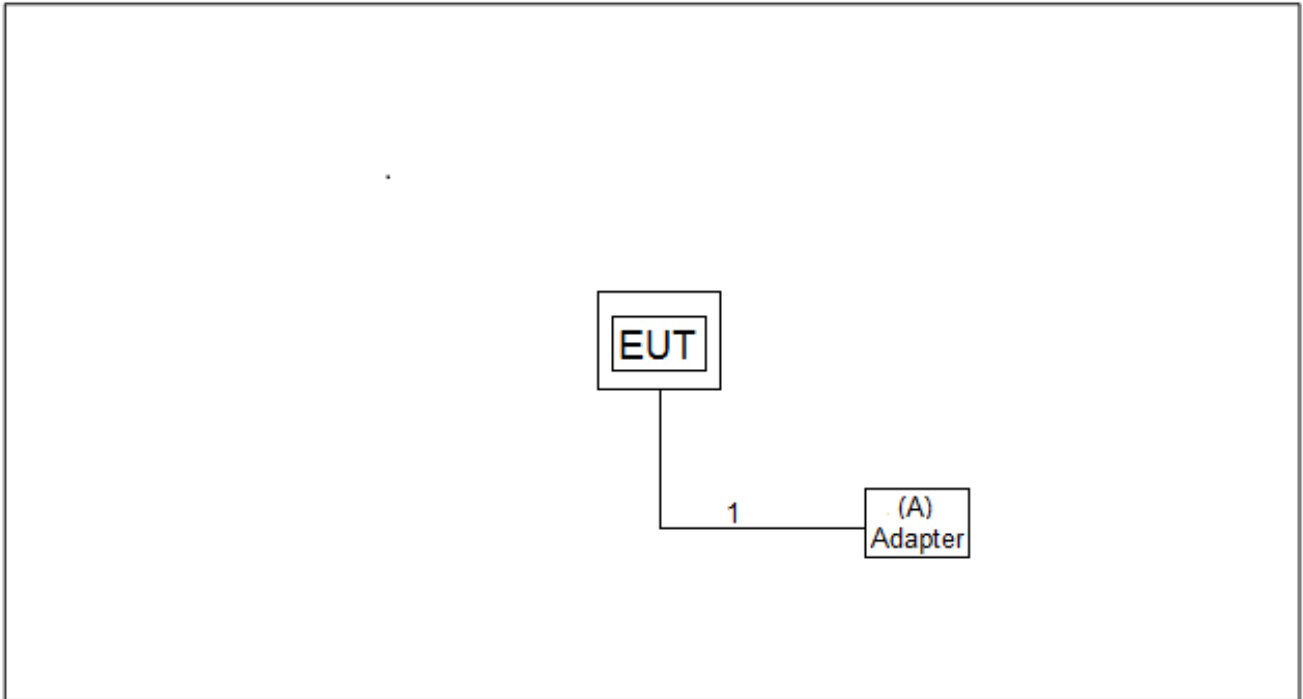
Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

GSM MODE			
Test Item	Available Channel	Tested Channel	Mode
Output Power & ERP	128 to 251	128, 190, 251	GSM, GPRS, EDGE
Occupied Bandwidth	128 to 251	128, 190, 251	GSM, EDGE
Conducted Spurious Emissions	128 to 251	190	GSM, EDGE
Radiated Spurious Emissions	128 to 251	190	GSM
Band Edge	128 to 251	128, 251	GSM, EDGE
Peak to Average Ratio	128 to 251	128, 190, 251	GSM, EDGE
Frequency Stability	128 to 251	190	GSM

WCDMA BAND V MODE			
Test Item	Available Channel	Tested Channel	Mode
Output Power & ERP	4132 to 4233	4132, 4182, 4233	WCDMA, HSDPA, HSUPA
Occupied Bandwidth	4132 to 4233	4132, 4182, 4233	WCDMA
Conducted Spurious Emissions	4132 to 4233	4182	WCDMA
Radiated Spurious Emissions	4132 to 4233	4182	WCDMA
Band Edge	4132 to 4233	4132, 4233	WCDMA
Peak To Average Ratio	4132 to 4233	4132, 4182, 4233	WCDMA
Frequency Stability	4132 to 4233	4182	WCDMA

LTE BAND 5 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & ERP	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM	1RB/3RB/6RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1RB/8RB/15RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1RB/12RB/25RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1RB/25RB/50RB
Occupied Bandwidth	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM	6RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	15RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	25RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	50RB
Conducted Spurious Emissions	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB
Radiated Spurious Emissions	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB
Band Edge	20407 to 20643	20407, 20643	1.4MHz	QPSK	1RB/6RB
	20415 to 20635	20415, 20635	3MHz	QPSK	1RB/15RB
	20425 to 20625	20425, 20625	5MHz	QPSK	1RB/25RB
	20450 to 20600	20450, 20600	10MHz	QPSK	1RB/50RB
Peak To Average Ratio	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM	1RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1RB
Frequency Stability	20450 to 20600	20525	10MHz	QPSK	50RB

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
A	Adapter	BAIJUNDA	AT-506E-120100JC	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.2m

4. TEST RESULT

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMIT

Mobile / Portable station are limited to 7 watts e.r.p.

4.1.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5 or ANSI C63.26-2015 Section 5.2.

EIRP / ERP:

$EIRP = \text{Output Power} + \text{Antenan gain}$

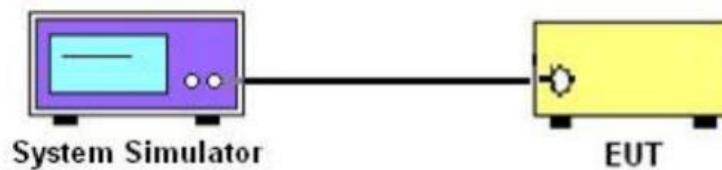
$ERP = EIPR - 2.15\text{dBi}$

Output Power:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

4.1.3 TEST SETUP LAYOUT

Output Power Measurement



4.1.4 TEST DEVIATION

No deviation

4.1.5 TEST RESULTS

Please refer to the APPENDIX A.

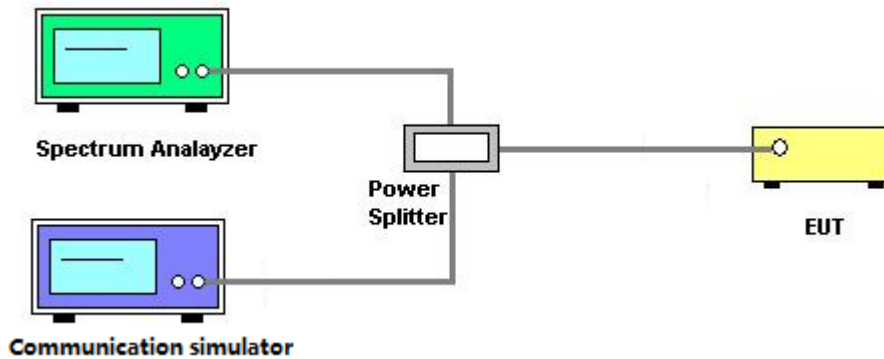
4.2 OCCUPIED BANDWIDTH MEASUREMENT

4.2.1 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 4 or ANSI C63.26-2015 Section 5.4.

1. The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. $RBW=(1\% \sim 5\%)*EBW$
 $VBW \geq 3* RBW$
4. Set spectrum analyzer with Peak detector.

4.2.2 TEST SETUP LAYOUT



4.2.3 TEST DEVIATION

No deviation

4.2.4 TEST RESULTS

Please refer to the APPENDIX B.

4.3 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

4.3.1 LIMIT

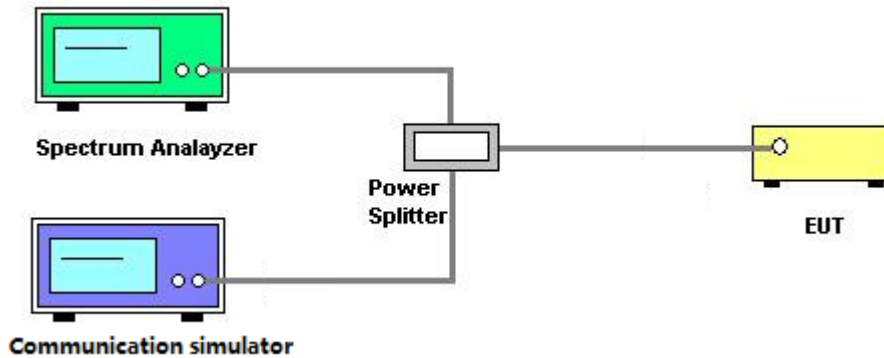
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.3.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6 or ANSI C63.26-2015 Section 5.7.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with Peak or RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

4.3.3 TEST SETUP LAYOUT



4.3.4 TEST DEVIATION

No deviation

4.3.5 TEST RESULTS

Please refer to the APPENDIX C.

4.4 RADIATED SPURIOUS EMISSIONS MEASUREMENT

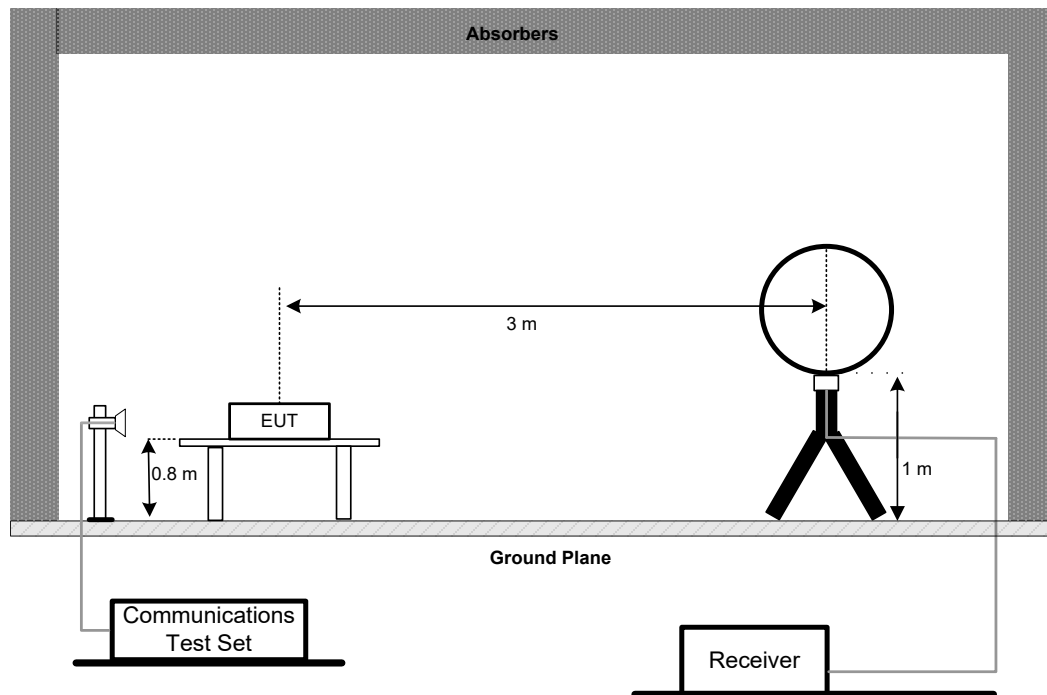
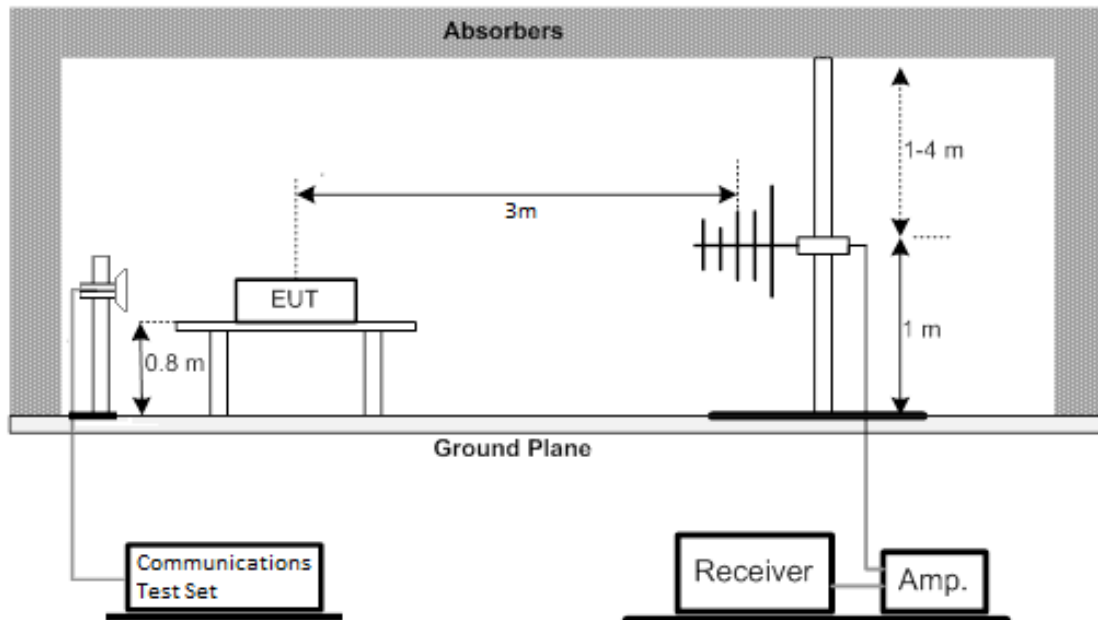
4.4.1 LIMIT

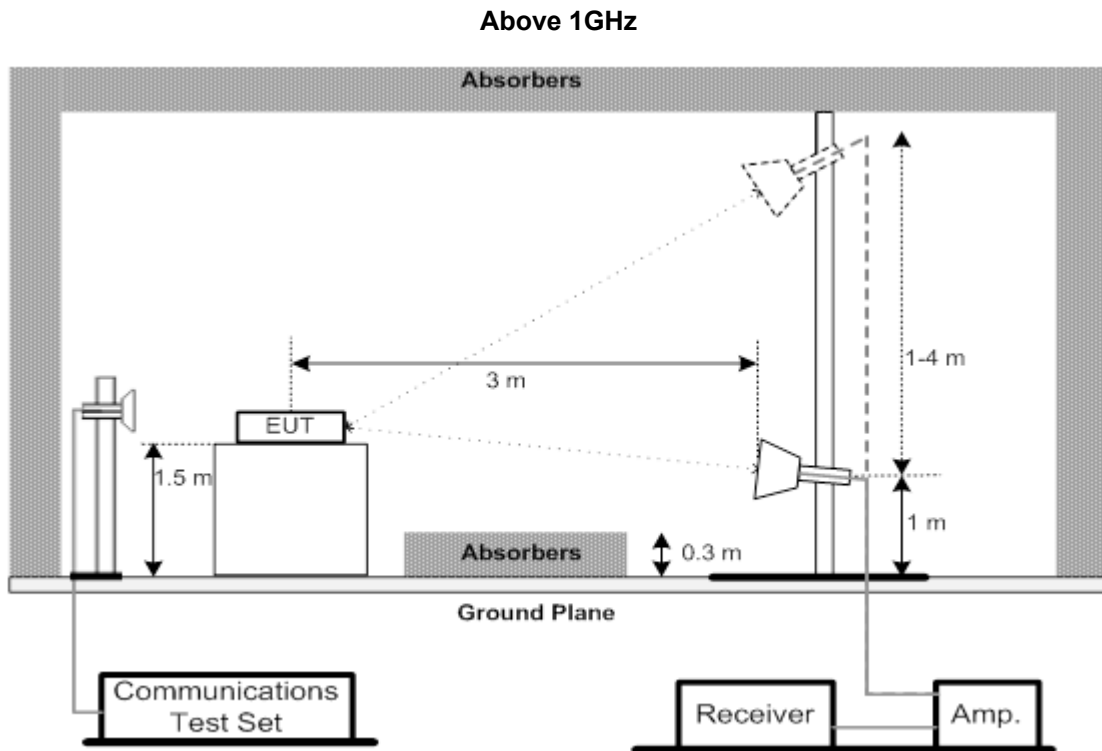
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.4.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.2 or ANSI C63.26-2015 Section 5.5.

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
4. Start the test, rotate the table 360° to find the worst Angle, maintain the worst Angle, raise the antenna to 1-4m to find the worst height, maintain the worst height, then rotate the table to determine the final worst Angle, grab the spectrum diagram.
5. EUT shall be placed in accordance with X,Y,Z as required by Figure 5 in ANSI C63.26.
Repeat Step 5 above to find the worst placement. Test all bands according to the worst placement.
6. Then EIRP is then converted to field strength as follows in Equation
7. $E \text{ (dBuV/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8$; where D is the measurement distance (in the far field region) in m. The emission limit equal to 82.26dBuV/m.

4.4.3 TEST SETUP LAYOUT**Below 30MHz****30MHz to 1000MHz**



4.4.4 TEST DEVIATION

No deviation

4.4.5 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the APPENDIX D.

4.4.6 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the APPENDIX E.

4.4.7 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the APPENDIX F.

4.5 BAND EDGE MEASUREMENT

4.5.1 LIMIT

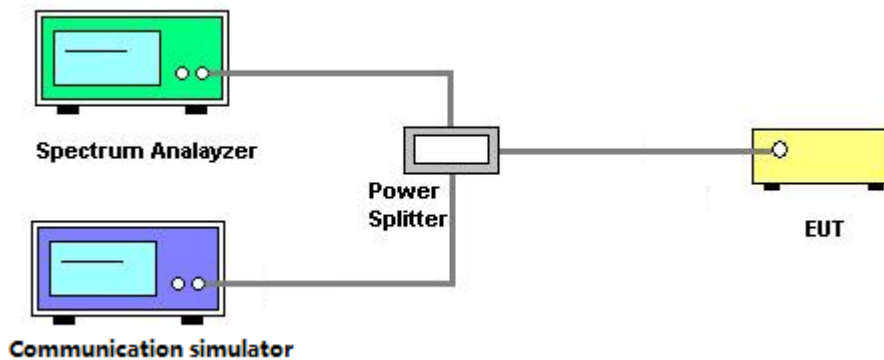
A Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.5.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6 or ANSI C63.26-2015 Section 5.7.

1. All measurements were done at low and high operational frequency range.
2. Record the max trace plot into the test report.

4.5.3 TEST SETUP LAYOUT



4.5.4 TEST DEVIATION

No deviation

4.5.5 TEST RESULTS

Please refer to the APPENDIX G.

4.6 PEAK TO AVERAGE RATIO MEASUREMENT

4.6.1 LIMIT

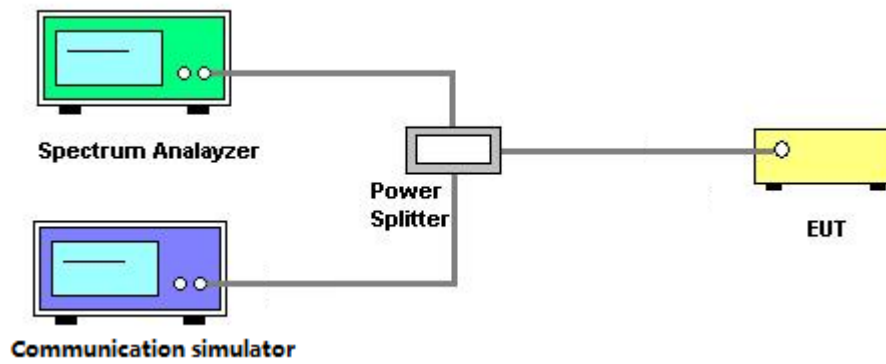
In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

4.6.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 5.7 or ANSI C63.26-2015 Section 5.2.6.

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

4.6.3 TEST SETUP LAYOUT



4.6.4 TEST DEVIATION

No deviation

4.6.5 TEST RESULTS

Please refer to the APPENDIX H.

4.7 FREQUENCY STABILITY MEASUREMENT

4.7.1 LIMIT

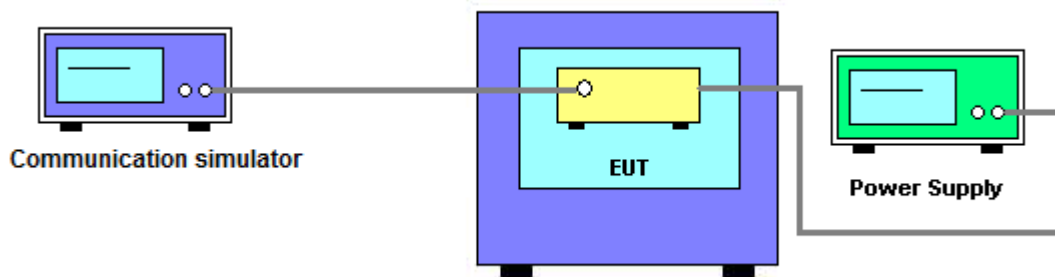
±1.5 ppm is for base and fixed station. ±2.5 ppm is for mobile station.

4.7.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 9 or ANSI C63.26-2015 Section 5.6.

1. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
2. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
3. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5°C during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
4. The frequency error was recorded frequency error from the communication simulator.

4.7.3 TEST SETUP LAYOUT



4.7.4 TEST DEVIATION

No deviation

4.7.5 TEST RESULTS

Please refer to the APPENDIX I.

4. LIST OF MEASUREMENT EQUIPMENTS

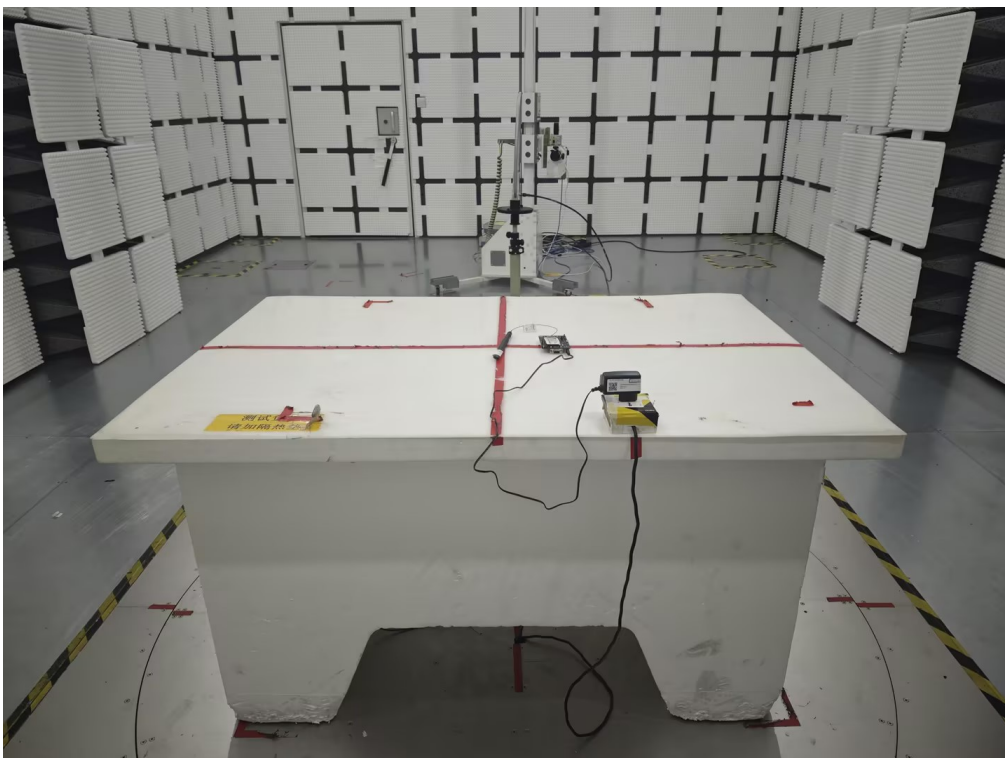
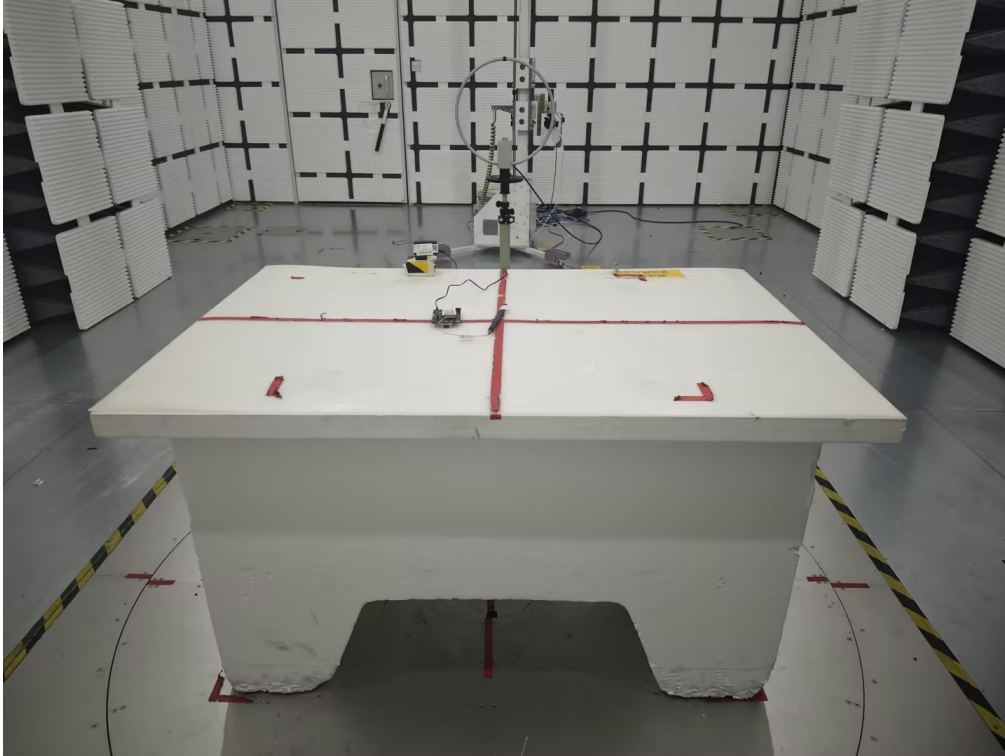
Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Active Loop Antenna	Schwarzbeck	FMZB 1513-60	1513-60-025	Apr. 01, 2024
2	MXE EMI Receiver	Keysight	N9038A	MY59050118	Sep. 26, 2024
3	Cable	EMC INSTRUMENT	EMCCFD400-NM-NM-3000	N/A	Jun. 08, 2024
4	Cable	EMC INSTRUMENT	EMCCFD400-NM-NM-7000	N/A	Jun. 08, 2024
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

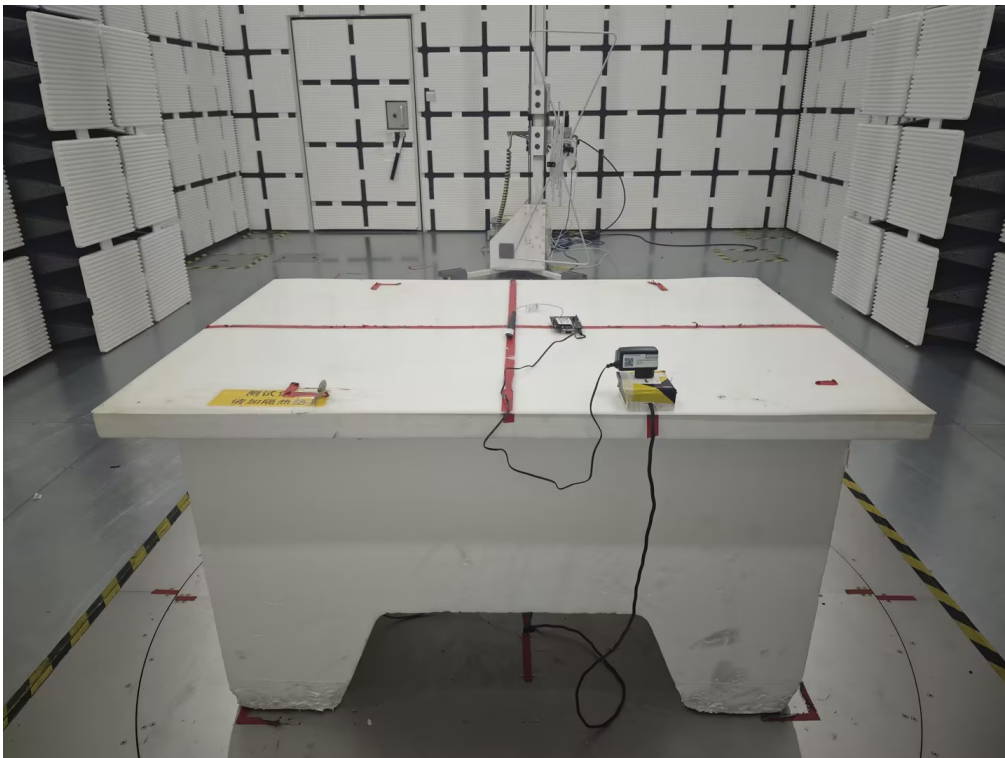
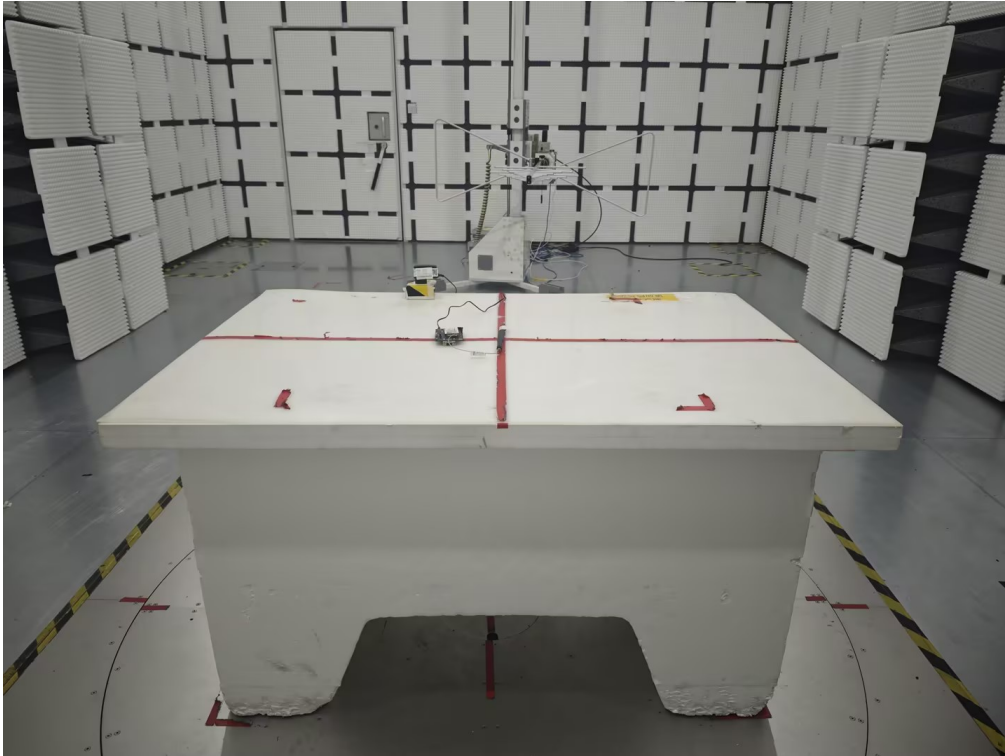
Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	01269	May 15, 2024
2	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AN-N0697	May 15, 2024
3	Preamplifier	EMC INSTRUMENT	EMC001330	980825	Jan. 19, 2025
4	Cable	EMC INSTRUMENT	EMCCFD400-NM-NM-2500	N/A	Jun. 08, 2024
5	Cable	EMC INSTRUMENT	EMCCFD400-NM-NM-7000	N/A	Jun. 08, 2024
6	Cable	EMC INSTRUMENT	EMCCFD400-NM-NM-3000	N/A	Jun. 08, 2024
7	MXE EMI Receiver	Keysight	N9038A	MY59050118	Sep. 26, 2024
8	Positioning Controller	MF	MF-7802BS	N/A	N/A
9	Max-Full Antenna Corp	MF	MFA-560BSN	N/A	N/A
10	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
11	wideband radio communication tester	R&S	CMW500	164094	Jul. 07, 2024
12	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A
13	966 Chamber room	Tai He	9*6*6(NSA&VSWR)	N/A	Jun. 07, 2024

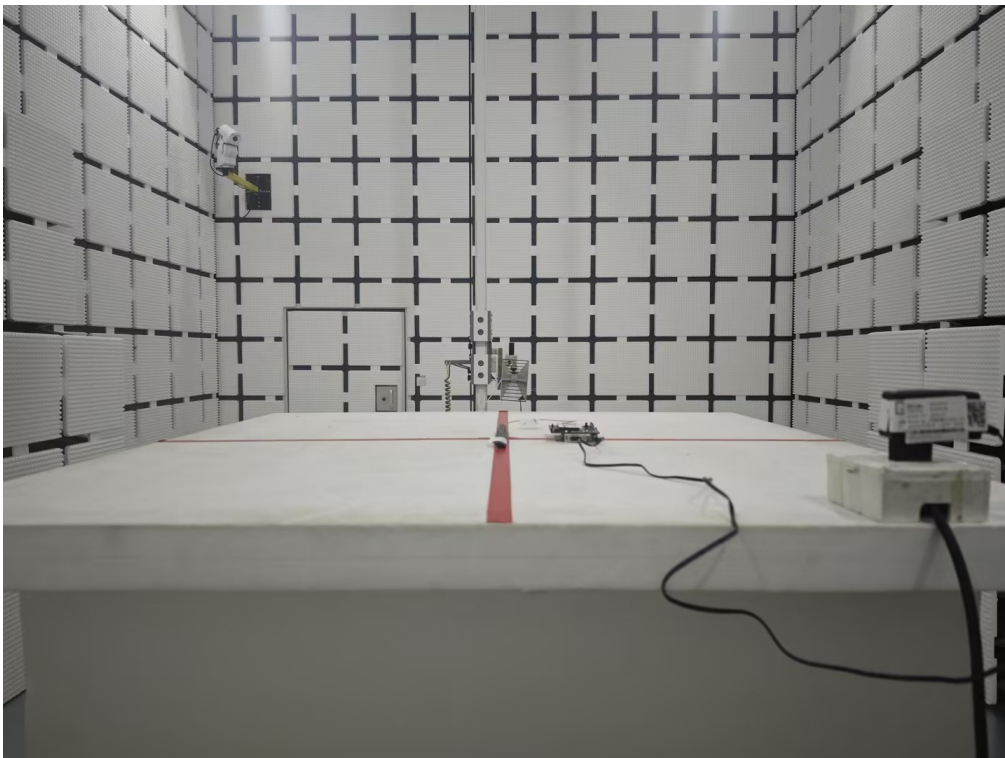
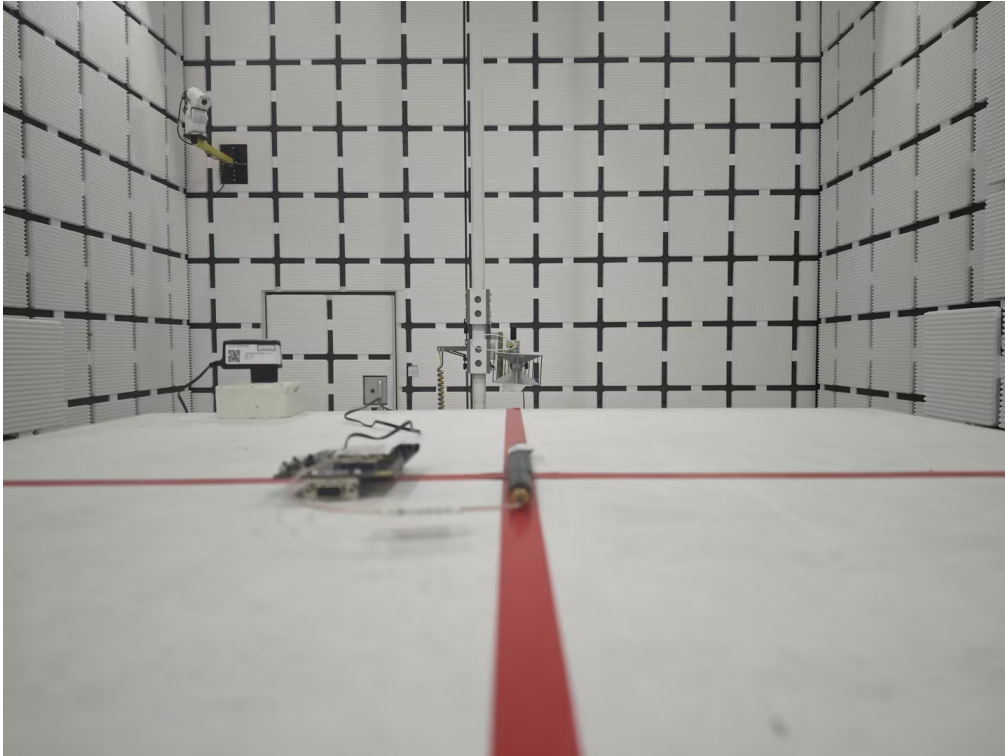
Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY59050118	Sep. 26, 2024
2	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
3	Preamplifier	EMC INSTRUMENT	EMC118A45SE	980739	Jan. 19, 2025
4	Cable	EMC INSTRUMENT	EMC104-SM-SM-1 0000	N/A	Jun. 08, 2024
5	Cable	EMC INSTRUMENT	EMC104-SM-SM-3 000	N/A	Jun. 08, 2024
6	Cable	EMC INSTRUMENT	EMC104-SM-SM-8 00	N/A	Jun. 08, 2024
7	Double Ridged Broadband Horn Antenna	RF SPIN	DRH18-E	210106A18E	Jul. 04, 2024
8	Preamplifier	EMC INSTRUMENT	EMC184045SE	980793	Jan. 19, 2025
9	Cable	EMC INSTRUMENT	EMC101G-KM-KM- 800	N/A	Aug. 13, 2024
10	Cable	EMC INSTRUMENT	EMC101G-KM-KM- 6000	N/A	Aug. 13, 2024
11	wideband radio communication tester	R&S	CMW500	164094	Jul. 07, 2024
12	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A
13	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	1046	Jul. 05, 2024
14	966 Chamber room	Tai He	9*6*6(NSA&VSWR)	N/A	Jun. 07, 2024

Conducted Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wideband Radio Communication Tester	R&S	CWM 500	104462	Jul. 07, 2024
2	Wideband Radio Communication Tester	R&S	CWM 500	165578	May 11, 2024
3	Signal Analyzer	R&S	FSV 40	100948	Jul. 07, 2024
4	MXA Signal Analyzer	Agilent Technologies	N9020A	MY49100060	Jul. 07, 2024
5	Temperature Chamber	ESPEC	SU-242	93018777	Jul. 07, 2024
6	Power Splitter	N/A	N/A	SF103501511	Jan. 21, 2025
7	Cable	N/A	RWP50-4.6A-SMS M-1M	N/A	N/A
8	Cable	N/A	RWP50-4.6A-SMS M-1M	N/A	N/A
9	DC Source metter	Iteck	IT6154	006104126768201001	Jul. 07, 2024

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

5. EUT TEST PHOTO**Radiated Emissions Test Photos****9 kHz to 30 MHz**

Radiated Emissions Test Photos**30 MHz to 1 GHz**

Radiated Emissions Test Photos**Above 1 GHz**

APPENDIX A - OUTPUT POWER

Output Power (dBm)

GSM850		128CH	190CH	251CH
		824.2MHz	836.6MHz	848.8MHz
GSM (CS)		32.7	32.60	32.50
GPRS/EDGE (GMSK)	1 Tx Slot	32.73	32.80	32.70
	2 Tx Slot	32.72	32.78	32.68
	3 Tx Slot	31.59	31.61	31.51
	4 Tx Slot	29.82	29.90	29.83
EDGE (8PSK)	1 Tx Slot	27.8	27.19	27.53
	2 Tx Slot	26.19	25.41	25.58
	3 Tx Slot	23.05	23.21	23.03
	4 Tx Slot	20.88	20.26	19.97

Modulation	Band	WCDMA Band V		
	Tx Channel	4132CH	4182CH	4233CH
	Frequency	826.4MHz	836.4MHz	846.6MHz
QPSK	RMC 12.2K	23.36	23.46	23.2
	RMC 64K	23.38	23.51	23.21
	RMC 144K	23.43	23.52	23.23
	RMC 384K	23.37	23.46	23.21
	HSDPA Subtest-1	23.29	23.09	22.59
	HSDPA Subtest-2	22.67	22.54	22.05
	HSDPA Subtest-3	22.14	22.03	21.57
	HSDPA Subtest-4	22.09	22.02	21.55
	HSUPA Subtest-1	21.99	22.16	21.84
	HSUPA Subtest-2	20.9	21.12	20.73
	HSUPA Subtest-3	21.06	21.3	20.92
	HSUPA Subtest-4	20.48	20.8	20.39
	HSUPA Subtest-5	23.27	23.35	23.05

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20407CH	20525CH	20643CH
				824.7MHz	836.5MHz	848.3MHz
5 / 1.4MHz	QPSK	1	0	23.50	23.08	22.74
		1	2	23.36	22.95	22.67
		1	5	23.52	23.00	22.65
		3	0	23.28	23.02	22.58
		3	1	23.30	23.02	22.63
		3	2	23.28	22.96	22.56
	16QAM	6	0	22.35	22.04	21.72
		1	0	22.88	22.21	21.99
		1	2	22.75	22.18	21.93
		1	5	22.92	22.21	21.90
		3	0	22.64	22.32	21.78
		3	1	22.56	22.32	21.84
		3	2	22.59	22.28	21.77
		6	0	21.39	21.28	20.97

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20415CH	20525CH	20635CH
				825.5MHz	836.5MHz	847.5MHz
5 / 3MHz	QPSK	1	0	23.21	22.93	22.65
		1	7	23.25	23.00	22.65
		1	14	23.19	22.82	22.55
		8	0	22.28	22.12	21.83
		8	4	22.32	22.12	21.89
		8	7	22.38	22.02	21.80
		15	0	22.30	22.07	21.83
	16QAM	1	0	22.16	22.42	21.86
		1	7	22.31	22.50	21.87
		1	14	22.26	22.32	21.72
		8	0	21.45	21.21	20.93
		8	4	21.49	21.22	20.99
		8	7	21.55	21.13	20.92
		15	0	21.41	21.10	20.86

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20425CH	20525CH	20625CH
				826.5MHz	836.5MHz	846.5MHz
5 / 5MHz	QPSK	1	0	23.30	22.96	22.70
		1	13	23.49	22.99	22.84
		1	24	23.39	22.78	22.62
		12	0	22.29	22.10	21.79
		12	6	22.43	22.14	21.85
		12	11	22.41	22.04	21.85
	16QAM	25	0	22.39	22.07	21.79
		1	0	22.47	22.60	21.91
		1	13	22.64	22.65	22.05
		1	24	22.58	22.34	21.78
		12	0	21.46	21.23	20.94
		12	6	21.55	21.28	21.00
		12	11	21.53	21.18	20.92
		25	0	21.45	21.14	20.80

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20450CH	20525CH	20600CH
				829.0MHz	836.5MHz	844.0MHz
5 / 10MHz	QPSK	1	0	23.03	23.03	22.50
		1	25	23.28	22.93	22.56
		1	49	22.81	22.51	22.31
		25	0	22.24	21.90	21.55
		25	13	22.41	22.00	21.66
		25	25	22.17	21.72	21.56
		50	0	22.22	21.90	21.52
	16QAM	1	0	22.02	22.53	21.68
		1	25	22.38	22.46	21.79
		1	49	21.80	22.01	21.47
		25	0	21.33	20.92	20.76
		25	13	21.40	21.08	20.86
		25	25	21.22	20.80	20.78
		50	0	21.29	20.96	20.66

ERP (dBm)

GSM850		128CH	190CH	251CH
		824.2MHz	836.6MHz	848.8MHz
GSM (CS)		29.45	29.35	29.25
GPRS/EDGE (GMSK)	1 Tx Slot	29.48	29.55	29.45
	2 Tx Slot	29.47	29.53	29.43
	3 Tx Slot	28.34	28.36	28.26
	4 Tx Slot	26.57	26.65	26.58
EDGE (8PSK)	1 Tx Slot	24.55	23.94	24.28
	2 Tx Slot	22.94	22.16	22.33
	3 Tx Slot	19.80	19.96	19.78
	4 Tx Slot	17.63	17.01	16.72

Modulation	Band	WCDMA Band V		
	Tx Channel	4132CH	4182CH	4233CH
	Frequency	826.4MHz	836.4MHz	846.6MHz
QPSK	RMC 12.2K	20.11	20.21	19.95
	RMC 64K	20.13	20.26	19.96
	RMC 144K	20.18	20.27	19.98
	RMC 384K	20.12	20.21	19.96
	HSDPA Subtest-1	20.04	19.84	19.34
	HSDPA Subtest-2	19.42	19.29	18.80
	HSDPA Subtest-3	18.89	18.78	18.32
	HSDPA Subtest-4	18.84	18.77	18.30
	HSUPA Subtest-1	18.74	18.91	18.59
	HSUPA Subtest-2	17.65	17.87	17.48
	HSUPA Subtest-3	17.81	18.05	17.67
	HSUPA Subtest-4	17.23	17.55	17.14
	HSUPA Subtest-5	20.02	20.10	19.80

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20407CH	20525CH	20643CH
				824.7MHz	836.5MHz	848.3MHz
5 / 1.4MHz	QPSK	1	0	20.25	19.83	19.49
		1	2	20.11	19.70	19.42
		1	5	20.27	19.75	19.40
		3	0	20.03	19.77	19.33
		3	1	20.05	19.77	19.38
		3	2	20.03	19.71	19.31
	16QAM	6	0	19.10	18.79	18.47
		1	0	19.63	18.96	18.74
		1	2	19.50	18.93	18.68
		1	5	19.67	18.96	18.65
		3	0	19.39	19.07	18.53
		3	1	19.31	19.07	18.59
		3	2	19.34	19.03	18.52
		6	0	18.14	18.03	17.72

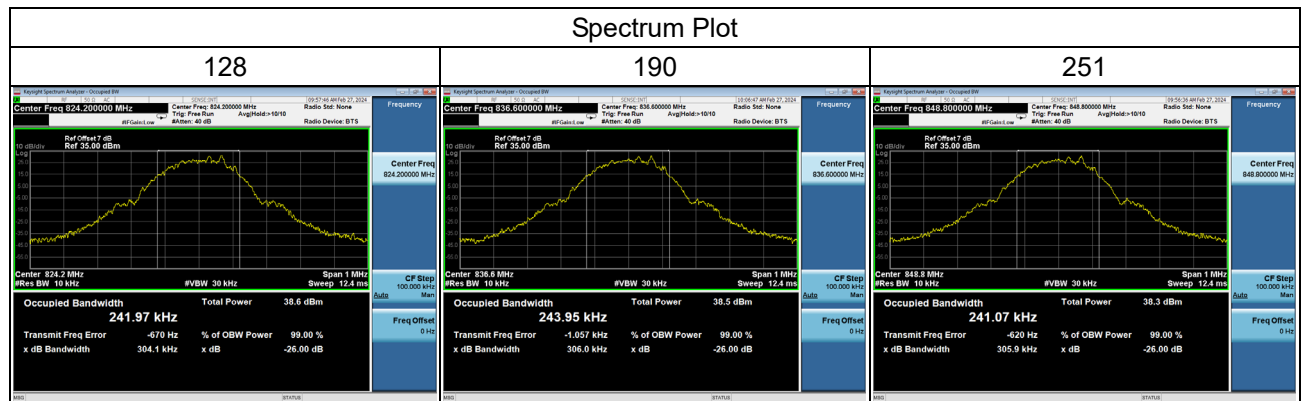
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20415CH	20525CH	20635CH
				825.5MHz	836.5MHz	847.5MHz
5 / 3MHz	QPSK	1	0	19.96	19.68	19.40
		1	7	20.00	19.75	19.40
		1	14	19.94	19.57	19.30
		8	0	19.03	18.87	18.58
		8	4	19.07	18.87	18.64
		8	7	19.13	18.77	18.55
		15	0	19.05	18.82	18.58
	16QAM	1	0	18.91	19.17	18.61
		1	7	19.06	19.25	18.62
		1	14	19.01	19.07	18.47
		8	0	18.20	17.96	17.68
		8	4	18.24	17.97	17.74
		8	7	18.30	17.88	17.67
		15	0	18.16	17.85	17.61

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20425CH	20525CH	20625CH
				826.5MHz	836.5MHz	846.5MHz
5 / 5MHz	QPSK	1	0	20.05	19.71	19.45
		1	13	20.24	19.74	19.59
		1	24	20.14	19.53	19.37
		12	0	19.04	18.85	18.54
		12	6	19.18	18.89	18.60
		12	11	19.16	18.79	18.60
	16QAM	25	0	19.14	18.82	18.54
		1	0	19.22	19.35	18.66
		1	13	19.39	19.40	18.80
		1	24	19.33	19.09	18.53
		12	0	18.21	17.98	17.69
		12	6	18.30	18.03	17.75
		12	11	18.28	17.93	17.67
		25	0	18.20	17.89	17.55

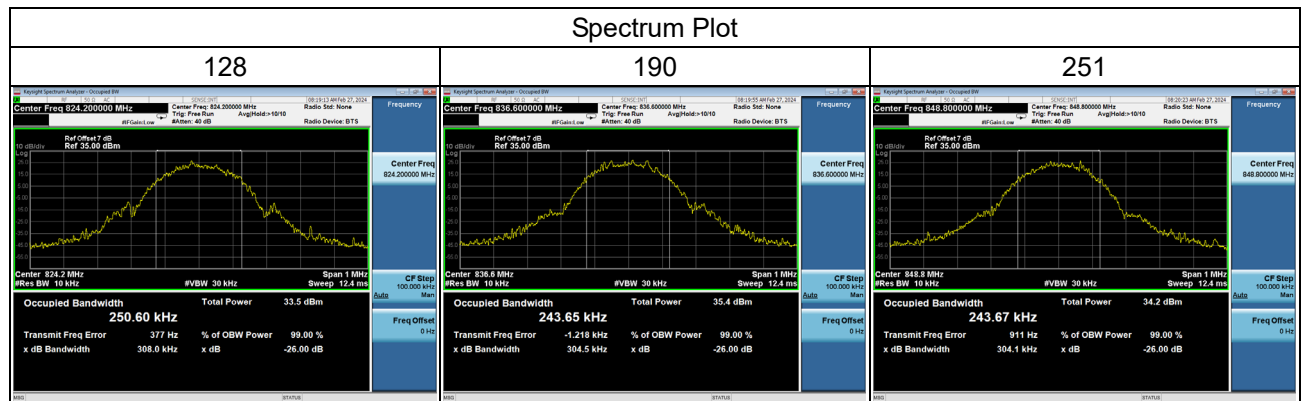
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20450CH	20525CH	20600CH
				829.0MHz	836.5MHz	844.0MHz
5 / 10MHz	QPSK	1	0	19.78	19.78	19.25
		1	25	20.03	19.68	19.31
		1	49	19.56	19.26	19.06
		25	0	18.99	18.65	18.30
		25	13	19.16	18.75	18.41
		25	25	18.92	18.47	18.31
		50	0	18.97	18.65	18.27
	16QAM	1	0	18.77	19.28	18.43
		1	25	19.13	19.21	18.54
		1	49	18.55	18.76	18.22
		25	0	18.08	17.67	17.51
		25	13	18.15	17.83	17.61
		25	25	17.97	17.55	17.53
		50	0	18.04	17.71	17.41

APPENDIX B - OCCUPIED BANDWIDTH

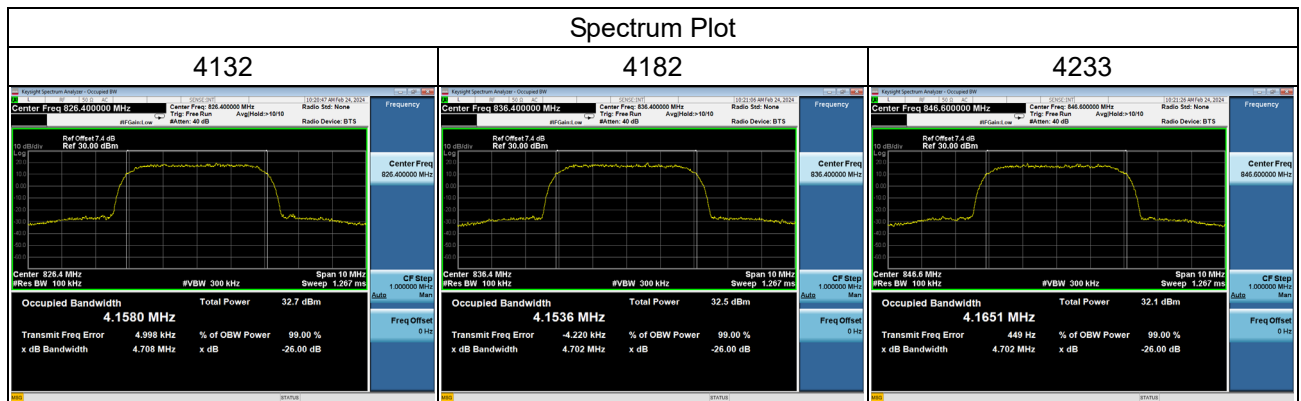
GSM850_GSM			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK	QPSK
128	824.2	0.2420	0.3041
190	836.6	0.2440	0.3060
251	848.8	0.2411	0.3059



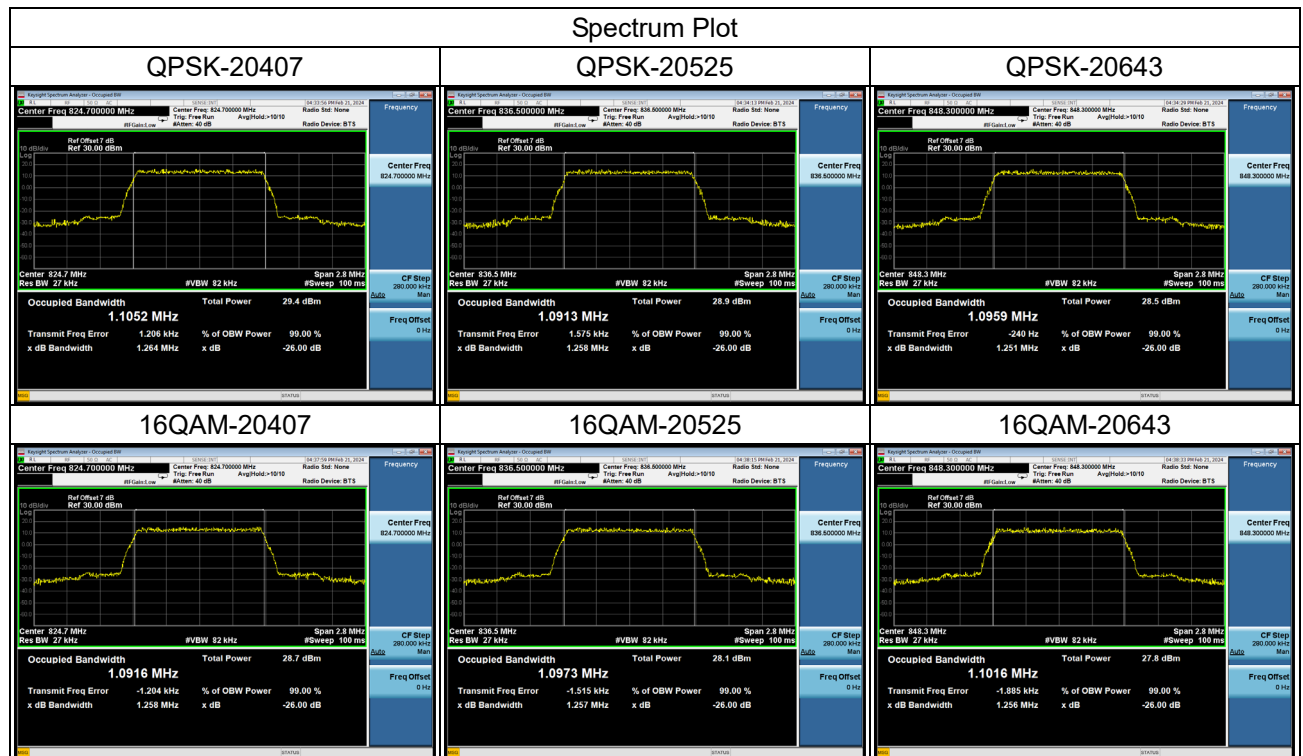
GSM850_EDGE			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK	QPSK
128	824.2	0.2506	0.3080
190	836.6	0.2437	0.3045
251	848.8	0.2437	0.3041



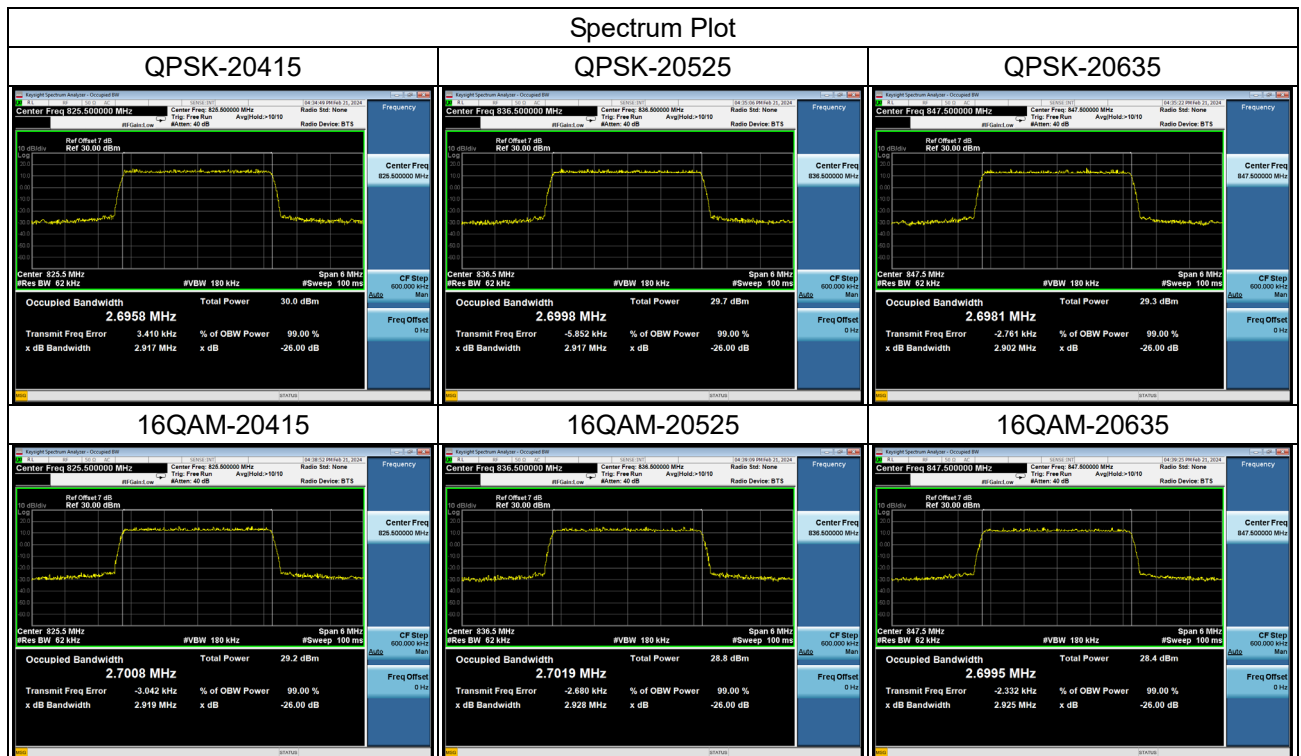
WCDMA Band V_WCDMA			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK	QPSK
4132	826.4	4.1580	4.708
4182	836.4	4.1536	4.702
4233	846.6	4.1651	4.702



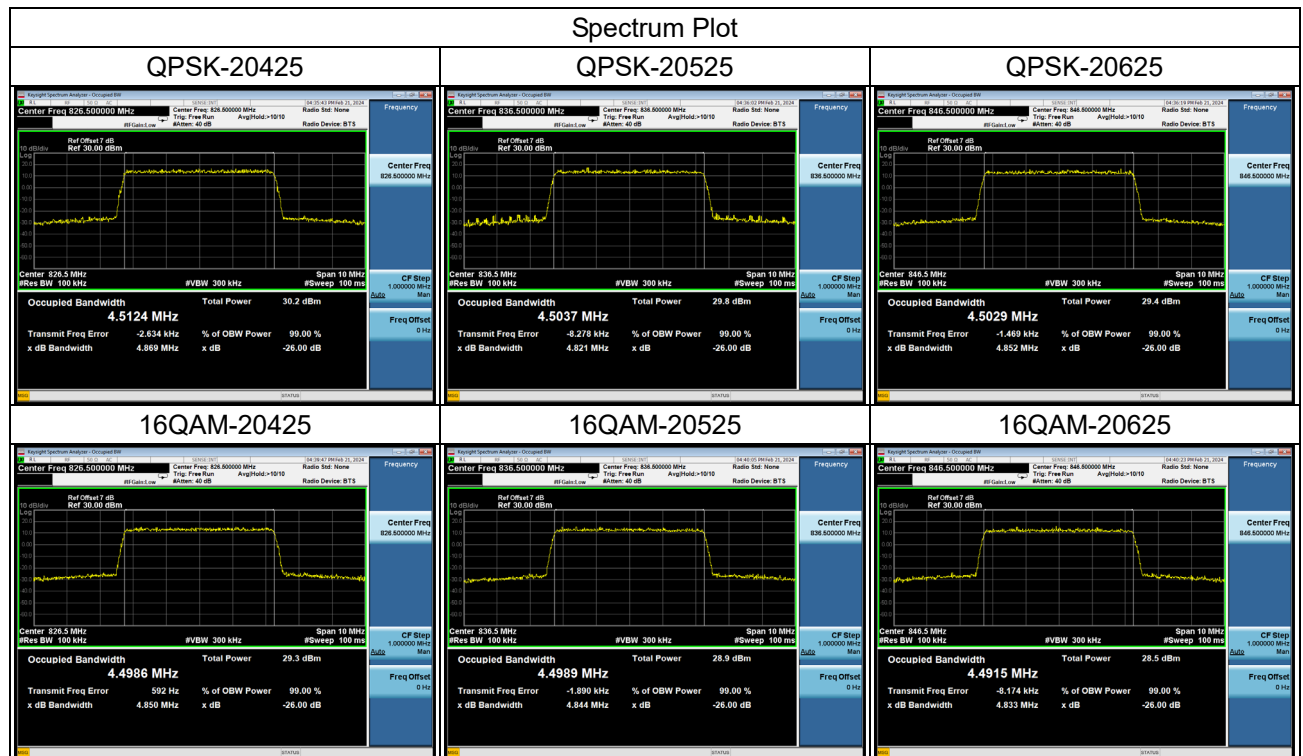
LTE Band 5_1.4MHz					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20407	824.7	1.1052	1.0916	1.264	1.258
20525	836.5	1.0913	1.0973	1.258	1.257
20643	848.3	1.0959	1.1016	1.251	1.256



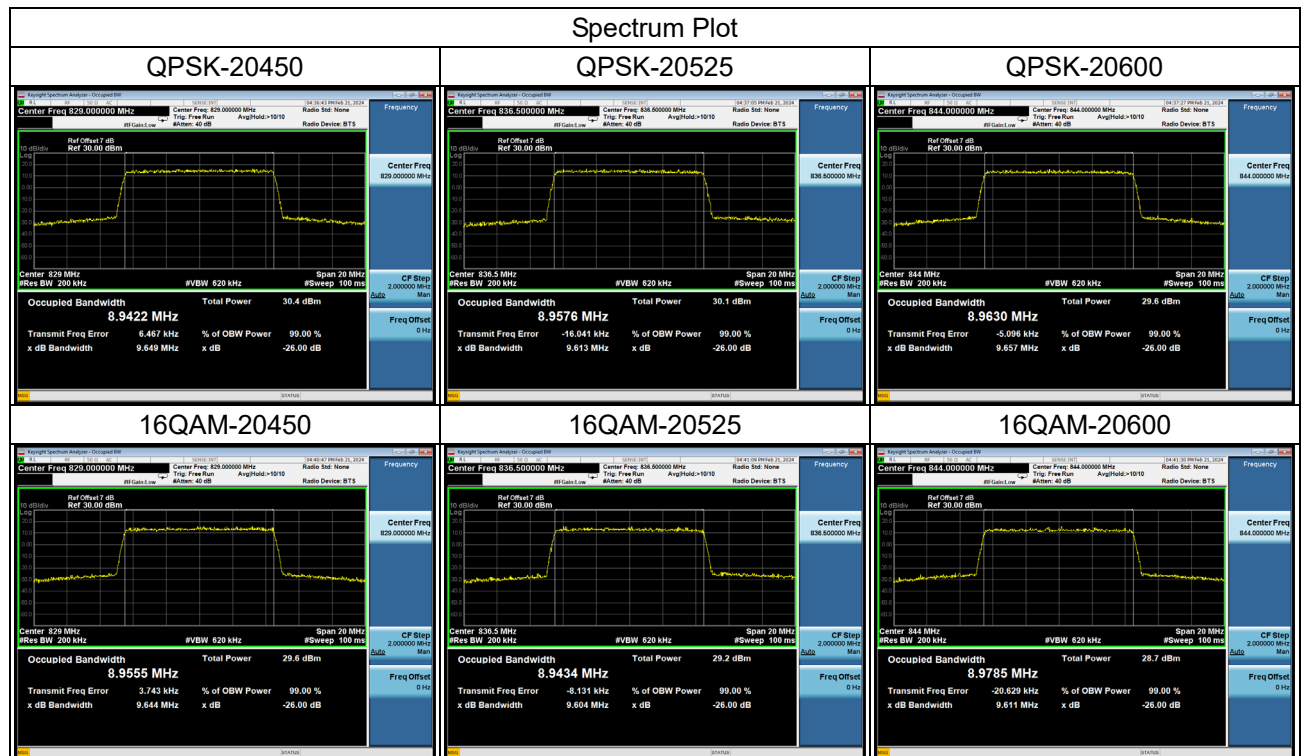
LTE Band 5_3MHz					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20415	825.5	2.6958	2.7008	2.917	2.919
20525	836.5	2.6998	2.7019	2.917	2.928
20635	847.5	2.6981	2.6995	2.902	2.925



LTE Band 5_5MHz					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20425	826.5	4.5124	4.4986	4.869	4.850
20525	836.5	4.5037	4.4989	4.821	4.844
20625	846.5	4.5029	4.4915	4.852	4.833



LTE Band 5_10MHz					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20450	829.0	8.9422	8.9555	9.649	9.644
20525	836.5	8.9576	8.9434	9.613	9.604
20600	844.0	8.9630	8.9785	9.657	9.611



APPENDIX C - CONDUCTED SPURIOUS EMISSIONS