TEST REPORT

Applicant Name:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Report Number:	SZ1231211-74617E-RF-00F
FCC ID:	2ADYY-CL7

Test Standard (s)

FCC PART 27; FCC PART 22H;

Sample Description

Product Type:	Mobile Phone
Model No.:	CL7
Multiple Model(s) No.:	N/A
Trade Mark:	TECNO
Date Received:	2023/12/11
Issue Date:	2024/03/08

Test Result:	Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Black Chen
RF Engineer

Approved By:

Nancy Wang
RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	SZ1231211-74617E-RF-00F	Original Report	2024/03/08

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

<table>
<tr><td>Product</td><td>Mobile Phone</td></tr>
<tr><td>Tested Model</td><td>CL7</td></tr>
<tr><td>Multiple Model(s)</td><td>N/A</td></tr>
<tr><td>Frequency Range</td><td>5G NR Band 5: 824-849 MHz(TX); 869-894MHz(RX)
5G NR Band 7: 2500-2570 MHz(TX); 2620-2690MHz(RX)
5G NR Band 12: 699-716MHz(TX);1930-1995MHz(RX)
5G NR Band 38: 2570-2620MHz(TX/RX)
5G NR Band 40 Lower: 2305-2315MHz (TX/RX)
5G NR Band 40 Upper: 2350-2360MHz(TX/RX)
5G NR Band 41: 2496-2690MHz(TX/RX)
5G NR Band 66: 1710-1780MHz(TX); 2110-2180MHz(RX)
5G NR Band 77 Lower: 3450-3550MHz (TX/RX)
5G NR Band 77 Upper: 3700-3980MHz(TX/RX)
5G NR Band 78 Lower: 3450-3550MHz (TX/RX)
5G NR Band 78 Upper: 3700-3800MHz(TX/RX)</td></tr>
<tr><td>EN-DC possible combinations</td><td>DC_2A_n7A, DC_5A_n7A, DC_7A_n7A, DC_66A_n7A, DC_5A_n40A, DC_7A_n40A, DC_40A_n40A, DC_4A_n38A, DC_5A_n38A, DC_66A_n38A, DC_4A_n41A, DC_5A_n41A, DC_40A_n41A, DC_41A_n41A, DC_66A_n41A, DC_2A_n66A, DC_5A_n66A, DC_7A_n66A, DC_66A_n66A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_38A_n78A, DC_40A_n78A, DC_41A_n78A, DC_66A_n78A, DC_5A_n77A, DC_7A_n77A, DC_40A_n77A, DC_41A_n77A, DC_66A_n77A</td></tr>
<tr><td>Carrier aggregation</td><td>None Carrier aggregation</td></tr>
<tr><td>Modulation Technique</td><td>DFT-s-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM</td></tr>
<tr><td>Antenna Specification#</td><td>SA ANT Location:
<table>
<tr><th>Antenna</th><th>Operation Bands</th><th>Antenna Gain (G_T) (dBi)</th><th>L_C (dB)</th></tr>
<tr><td rowspan="3">ANT0</td><td>N5</td><td>-6.9</td><td>0.5</td></tr>
<tr><td>N12</td><td>-6.0</td><td>0.5</td></tr>
<tr><td>N66</td><td>-2.1</td><td>0.8</td></tr>
<tr><td>ANT1</td><td>N7</td><td>-2.7</td><td>0.8</td></tr>
<tr><td rowspan="7">ANT4</td><td>N5</td><td>-6.1</td><td>0</td></tr>
<tr><td>N12</td><td>-8.0</td><td>0</td></tr>
<tr><td>N38</td><td>-0.2</td><td>0</td></tr>
<tr><td>N40</td><td>-0.5</td><td>0</td></tr>
<tr><td>N41</td><td>0.7</td><td>0</td></tr>
<tr><td>N66</td><td>-4.2</td><td>0</td></tr>
<tr><td rowspan="2">ANT5</td><td>N77</td><td>0.25</td><td>0</td></tr>
<tr><td>N78</td><td>1.8</td><td>0</td></tr>
</table>
Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.
NSA ANT Location:
<table>
<tr><th>NSA mode:</th><th>LTE</th><th>NR</th></tr>
<tr><td>DC_5A_n7A</td><td>ANT0</td><td>ANT4 (-0.5dBi)</td></tr>
<tr><td>DC_5A_n66A</td><td>ANT0</td><td>ANT4 (-4.2dBi)</td></tr>
</table>
Note: The other NSA bands have the same antenna location as the corresponding</td></tr>
</table>

	LTE/SA Bands.
Voltage Range	DC 3.91V from battery or DC 4-20V from adapter
Sample serial number	RE: 2F2G-4, RF: 2F2G-1 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Normal/Extreme condition#	L.V.: Low Voltage 3.45$V_{DC,}$ N.V.: Normal Voltage 3.91V_{DC} H.V.: High Voltage 4.45V_{DC} (provided by the applicant)
Adapter Information	Model: U700TSA Input: 100~240V, 50/60Hz 2.0A Output: 5.0V, 3.0A 15.0W or 5.0-10.0V, 7.0A MAX or 11.0V, 6.4A MAX or 4.0-20.0V, 3.5A 70.0W MAX
Remark: For NSA mode, we only show the combination of the maximum power among all NSA combinations in the report as below: DC_5A_n7A, DC_5A_n38A, DC_5A_n40A, DC_5A_n41A, DC_5A_n66A, DC_41A_n77A, DC_41A_n78A	

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H and Part 27of the Federal Communication Commission's rules.

The objective is to determine the compliance of the EUT with FCC rules for output power, modulation characteristic, occupied bandwidth, and spurious emission at antenna terminal, spurious radiated emission, frequency stability and band edge.

Test Methodology

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

Part 22 Subpart H - Public Mobile Services
Part 27 - Miscellaneous Wireless Communications Services

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		±5%
RF Frequency		213.55Hz(k=2, 95% level of confidence)
RF output power, conducted		0.72 dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.75 dB(k=2, 95% level of confidence)
Emissions, Radiated	30MHz~200MHz (Horizontal)	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.05dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.35dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.44dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.16dB(k=2, 95% level of confidence)
Temperature		±1℃
Humidity		±1%
Supply voltages		±0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The final qualification test was performed with the EUT operating at normal mode.

The test items were performed with the EUT operating at testing mode. Test was performed with channels as below table:

Bands	Frequency Range (MHz)	Bandwidth (MHz)	Test Frequency (MHz)		
			Low Channel	Middle Channel	High Channel
N5	824-849	5	826.5	836.5	846.5
		10	829.0	836.5	844.0
		15	831.5	836.5	841.5
		20	834.0	836.5	839.0
N7	2500-2570	5	2502.5	2535	2567.5
		10	2505.0	2535	2565.0
		15	2507.5	2535	2562.5
		20	2510.0	2535	2560.0
N12	699-716	5	701.5	707.5	713.5
		10	704.0	707.5	711.0
		15	706.5	707.5	708.5
N38	2570-2620	10	2575	2595	2615
		15	2577.5	2595	2612.5
		20	2580	2595	2610
		25	2582.5	2595	2607.5
		30	2585	2595	2605
		40	2590.0	2595.0	2600
N40 Lower	2305-2315	10	/	2310	/
N40 Upper	2350-2360	10	/	2355	/

Bands	Frequency Range (MHz)	Bandwidth (MHz)	Test Frequency (MHz)		
			Low Channel	Middle Channel	High Channel
N41	2496-2690	10	2501.01	2592.99	2685
		15	2503.5	2592.99	2682.48
		20	2506.02	2592.99	2679.99
		30	2511.00	2592.99	2674.99
		40	2516.01	2592.99	2670.00
		50	2521.02	2592.99	2664.99
		60	2526.00	2592.99	2659.99
		80	2536.02	2592.99	2649.99
		90	2541.0	2592.99	2644.98
		100	2546.01	2592.99	2640.00
N66	1710-1780	5	1712.5	1745	1777.5
		10	1715	1745	1775
		15	1717.5	1745	1772.5
		20	1720	1745	1770
		25	1722.5	1745	1767.5
		30	1725	1745	1765
		40	1730	1745	1760
N77 Lower	3450-3550	10	3455.0	3500.0	3545.0
		15	3457.5	3500.0	3542.5
		20	3460.0	3500.0	3540.0
		30	3465.0	3500.0	3535.0
		40	3470.0	3500.0	3530.0
		50	3475.0	3500.0	3525.0
		60	3480.0	3500.0	3520.0
		70	3485.0	3500.0	3515.0
		80	3490.0	3500.0	3510.0
		90	3495.0	3500.0	3405.0
		100	/	3500.0	/

Bands	Frequency Range (MHz)	Bandwidth (MHz)	Test Frequency (MHz)		
			Low Channel	Middle Channel	High Channel
N77 Upper	3700-3980	10	3705.0	3840.0	3975.0
		15	3707.5	3840.0	3972.5
		20	3710.0	3840.0	3970.0
		30	3715.0	3840.0	3965.0
		40	3720.0	3840.0	3960.0
		50	3725.0	3840.0	3955.0
		60	3730.0	3840.0	3950.0
		70	3735.0	3840.0	3945.0
		80	3740.0	3840.0	3940.0
		90	3745.0	3840.0	3935.0
		100	3750.0	3840.0	3930.0
N78 Lower	3450-3550	10	3455.0	3500.0	3545.0
		15	3457.5	3500.0	3542.5
		20	3460.0	3500.0	3540.0
		25	3462.5	3475.0	3537.5
		30	3465.0	3500.0	3535.0
		40	3470.0	3500.0	3530.0
		50	3475.0	3500.0	3525.0
		60	3480.0	3500.0	3520.0
		70	3485.0	3500.0	3515.0
		80	3490.0	3500.0	3510.0
		90	3495.0	3500.0	3405.0
		100	/	3500.0	/

Bands	Frequency Range (MHz)	Bandwidth (MHz)	Test Frequency (MHz)		
			Low Channel	Middle Channel	High Channel
N78 Upper	3700-3800	10	3705.0	3750.0	3795.0
		15	3707.5	3750.0	3792.5
		20	3710.0	3750.0	3790.0
		25	3712.5	3750.0	3787.5
		30	3715.0	3750.0	3785.0
		40	3720.0	3750.0	3780.0
		50	3725.0	3750.0	3775.0
		60	3730.0	3750.0	3770.0
		70	3735.0	3750.0	3765.0
		80	3740.0	3750.0	3760.0
		90	3745.0	3750.0	3755.0
		100	/	3750.0	/

Note:
SCS 15kHz, 30kHz, 60kHz was supports by the device, they have same output power. so only SCS 15kHz was tested for FDD band, and CSC 30kHz tested for TDD band.
For modulation of CP-OFDM and DFT-s-OFDM, the maximum power of CP-OFDM is lower than DFT-s-OFDM modulation, therefore, we chose higher power (DFT-s-OFDM modulation) to perform all tests and show in the report

Equipment Modifications

No modification was made to the EUT.

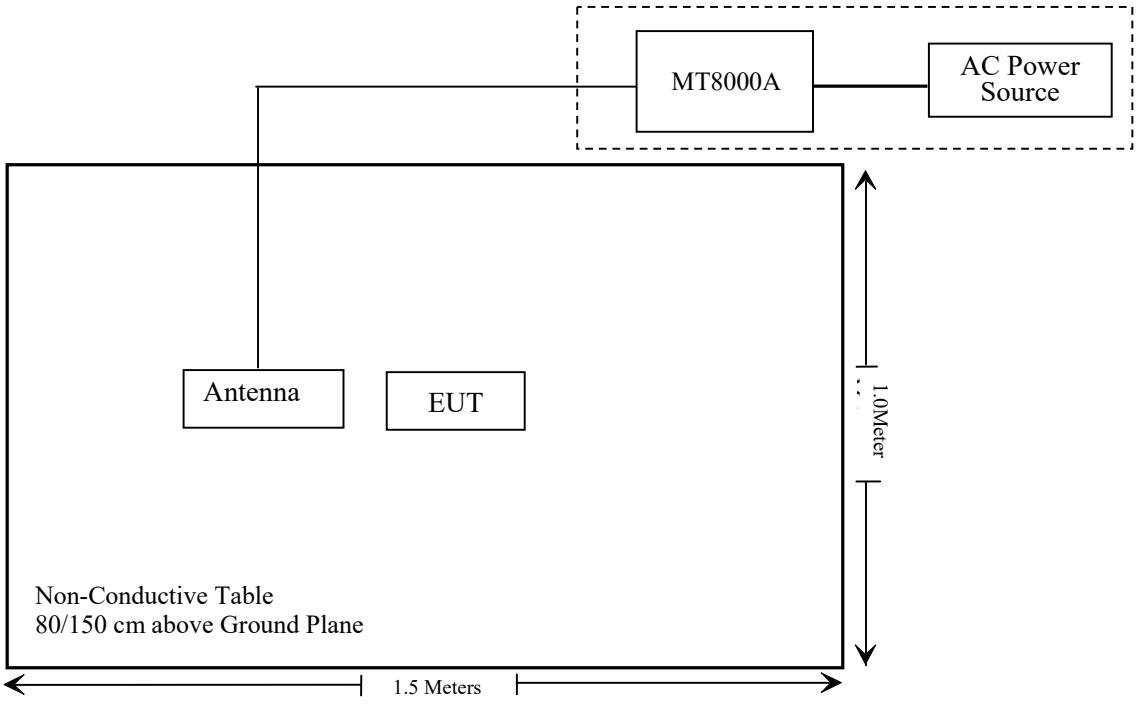
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Anritsu	Radio Communication Test Station	MT8000A	6262309799

Support Cable Description

Cable Description	Length (m)	From / Port	To
Un-shielded Un-detachable AC Cable	1.2	AC Power	CMW500

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
§1.1307 ,§2.1093	RF Exposure (SAR)	Compliant
§2.1046; § 22.913 (a) (d); §27.50(a) (c) (d) (h) (k)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905; § 22.917;§27.53	Occupied Bandwidth	Compliant
§ 2.1051; §22.917 (a); §27.53;	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); §27.53	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a);§27.53(a) (g) (h)(m)(n)	Band Edge	Compliant
§ 2.1055; § 22.355;§27.54;	Frequency stability	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2023/02/08	2024/02/07
Sonoma instrument	Pre-amplifier	310 N	186238	2023/06/08	2024/06/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2024/07/19
Unknown	Cable	Chamber Cable 1	F-03-EM236	2023/08/03	2024/08/02
Unknown	Cable	Chamber Cable 4	EC-007	2023/08/03	2024/08/02
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2023/04/18	2024/04/17
COM-POWER	Pre-amplifier	PA-122	181919	2023/06/29	2024/06/28
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2024/07/25
Electro-Mechanics Co	Horn Antenna	3115	9107-3694	2021/01/15	2024/01/14
Unknown	RF Cable	KMSE	0735	2023/10/08	2024/10/07
Unknown	RF Cable	UFA147	219661	2023/10/08	2024/10/07
MICRO-TRONICS	2.8G Passband filter	HPM50111	F-03-EM217	2023/08/03	2024/08/02
Unknown	1.3G High Pass filter	1.3GHz	101120	2023/08/03	2024/08/02
A.H.System	Pre-amplifier	PAM-1840VH	190	2023/08/03	2024/08/02
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
Electro-Mechanics Co	Horn Antenna	3116	2026	2023/09/18	2026/09/17
Agilent	Signal Generator	N5183A	MY51040755	2023/02/08	2024/02/07

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
BACL	Temperature & Humidity Chamber	BTH-150-40	30144	2024/01/16	2025/01/15
Rohde & Schwarz	Signal and Spectrum Analyzer	FSV40	141718	2023/09/06	2024/09/05
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2023/06/08	2024/06/07
Anritsu	Radio Communication Analyzer	MT8821C	6262287697	2023/04/16	2024/04/15
Anritsu	Radio Communication Test Station	MT8000A	6262309799	2023/04/15	2024/04/14
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2023/07/04	2024/07/03
WEINSCHEL	Power Splitter	1515	RH397	2023/07/04	2024/07/03

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1307(b) & §2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: SZ1231211-74617E-SA.

FCC§2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d) , Part 22H and Part 27, there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a) (d) & §27.50(a) (c) (d) (h) (k) - RF OUTPUT POWER

Applicable Standard

According to FCC §2.1046 and §24.232 (c),mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50 (a)(3) *Mobile and portable stations.*
(i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, *except that* for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.
(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.
(iii) *Automatic transmit power control.* Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.
(iv) *Prohibition on external vehicle-mounted antennas.* The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

According to §27.50(c), Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP. And Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

According to §27.50(d),Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

According to §27.50 (h) The following power limits shall apply in the BRS and EBS:
(2)Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

According to §27.50 (j) The following power requirements apply to stations transmitting in the 3700 – 3980 MHz band:
(3) Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

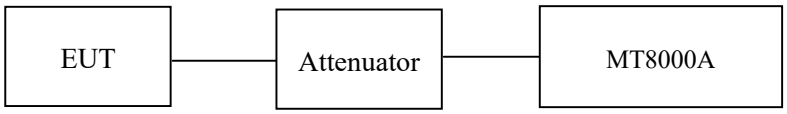
According to §27.50 (k) The following power requirements apply to stations transmitting in the 3450 – 3550 MHz band:
(3) Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

Test Procedure

Conducted method: ANSI C63.26-2015 Section 5.2

The RF output of the transmitter was connected to the MT8000A through sufficient attenuation.



Test Data

Environmental Conditions

Temperature:	23.6~26.1 ℃
Relative Humidity:	56.1~54.8%
ATM Pressure:	101.0 kPa

The testing was performed by Jim Cheng from 2024-01-17 to 2024-03-06.

EUT operation mode: Transmitting (Worst case record in the reports)

Please refer to the Appendix D1& Appendix D2 for Conducted Power

Please refer to the Appendix E1 for Peak-to-average ratio (PAR)

Please refer to the Appendix E2 for n40 Duty Cycle

FCC §2.1049, §22.917, §22.905 &§27.53& - OCCUPIED BANDWIDTH

Applicable Standard

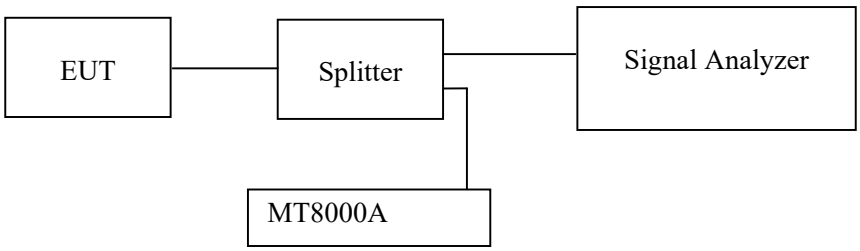
FCC 47 §2.1049, §27.53, §22.917, §22.905,

Test Procedure

ANSI C63.26-2015 Section 5.4.4

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

The resolution bandwidth of the spectrum analyzer was set at 1% to 5% of the anticipated emission bandwidth and the 26 dB & 99% bandwidth was recorded.



Test Data

Environmental Conditions

Temperature:	23.6~26.1 ℃
Relative Humidity:	56.1~54.8%
ATM Pressure:	101.0kPa

The testing was performed by Jim Cheng from 2024-01-18 to 2024-03-06.

EUT operation mode: Transmitting (Worst case record in the reports)

Test Result: Pass

Please refer to the Appendix F1 for occupied bandwidth

FCC §2.1051, §22.917(a) && §27.53 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

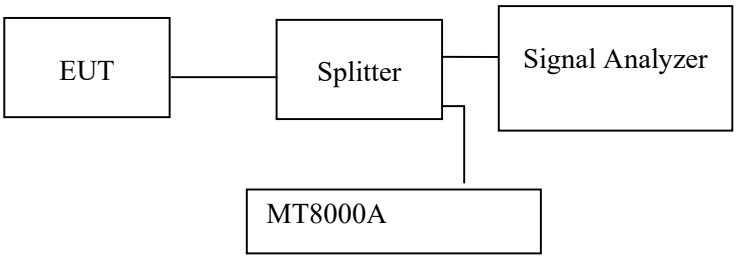
FCC §2.1051, §22.917(a) & §27.53

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

Test Procedure

ANSI C63.26-2015 Section 5.7

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Note: the worst case path loss (cable loss and splitter inset loss) among the test frequency range has included in plots.

Test Data

Environmental Conditions

Temperature:	23.6~26.1 ℃
Relative Humidity:	56.1~54.8%
ATM Pressure:	101.0kPa

The testing was performed by Jim Cheng and Bamboo from 2024-01-17 to 2024-03-06

EUT operation mode: Transmitting (Worst case record in the reports)

Test result: Pass

Please refer to the Appendix G1 for spurious emissions at antenna terminals.

FCC § 2.1053; § 22.917 (a);§27.53- SPURIOUS RADIATED EMISSIONS

Applicable Standard

FCC § 2.1053, §22.917(a)& &§ 27.53

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

Test Procedure

ANSI/TIA-603-E-2016 Section 2.2.12
KDB 671168 D01 v03r01 Section 6.2

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the receiving antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Test Data

Environmental Conditions

Temperature:	22~25 ℃
Relative Humidity:	50
ATM Pressure:	101.0kPa

The testing was performed by Warren Huang on 2024-02-18 for below 1GHz and by Tyler Wu on 2024-02-25 for above 1GHz.

EUT operation mode: Transmitting (Scan with X-axis, Y-axis, Z-axis, the worst case Y-axis was recorded)

The worst case is as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N5 Low Channel										
1658.00	51.36	69	1.2	H	-56.2	0.90	8.60	-48.50	-13	35.50
1658.00	52.73	3	2.0	V	-55.4	0.90	8.60	-47.70	-13	34.70
2487.00	55.72	37	2.0	H	-51.6	1.10	8.80	-43.90	-13	30.90
2487.00	56.39	73	1.5	V	-50.7	1.10	8.80	-43.00	-13	30.00
3316.00	48.23	19	1.4	H	-57.8	1.30	8.80	-50.30	-13	37.30
3316.00	47.45	94	1.3	V	-58.2	1.30	8.80	-50.70	-13	37.70
N5 Middle Channel										
1673.00	49.29	302	1.2	H	-58.3	0.90	8.60	-50.60	-13	37.60
1673.00	50.38	171	1.7	V	-57.8	0.90	8.60	-50.10	-13	37.10
2509.50	59.12	22	1.0	H	-48.2	1.10	8.80	-40.50	-13	27.50
2509.50	60.57	343	2.0	V	-46.5	1.10	8.80	-38.80	-13	25.80
3346.00	48.04	347	1.0	H	-57.9	1.30	8.80	-50.40	-13	37.40
3346.00	49.65	235	2.3	V	-56.0	1.30	8.80	-48.50	-13	35.50
N5 High Channel										
1688.00	48.75	287	1.6	H	-58.8	0.90	8.60	-51.10	-13	38.10
1688.00	49.05	19	2.5	V	-59.1	0.90	8.60	-51.40	-13	38.40
2532.00	51.28	193	1.3	H	-56.1	1.10	8.80	-48.40	-13	35.40
2532.00	50.47	106	1.0	V	-56.6	1.10	8.80	-48.90	-13	35.90
3376.00	45.94	77	2.4	H	-60.0	1.30	9.90	-51.40	-13	38.40
3376.00	46.25	79	2.4	V	-59.4	1.30	9.90	-50.80	-13	37.80
N7 Low Channel										
5010.00	49.69	100	1.6	H	-53.6	1.50	9.80	-45.30	-25	20.30
5010.00	49.43	167	1.3	V	-53.2	1.50	9.80	-44.90	-25	19.90
7515.00	50.02	321	2.1	H	-45.9	1.90	10.80	-37.00	-25	12.00
7515.00	50.26	304	2.3	V	-46.1	1.90	10.80	-37.20	-25	12.20
N7 Middle Channel										
5070.00	51.25	205	1.6	H	-51.9	1.50	9.60	-43.80	-25	18.80
5070.00	51.52	76	2.2	V	-51.1	1.50	9.60	-43.00	-25	18.00
7605.00	51.13	316	1.3	H	-44.8	1.90	11.00	-35.70	-25	10.70
7605.00	51.36	310	1.7	V	-44.9	1.90	11.00	-35.80	-25	10.80
N7 High Channel										
5130.00	50.73	132	1.8	H	-52.4	1.50	9.60	-44.30	-25	19.30
5130.00	50.26	260	2.1	V	-52.4	1.50	9.60	-44.30	-25	19.30
7695.00	50.39	69	1.3	H	-45.4	1.90	10.90	-36.40	-25	11.40
7695.00	51.25	194	1.2	V	-44.9	1.90	10.90	-35.90	-25	10.90

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N12 Low Channel										
1408.00	46.06	171	1.2	H	-61.6	0.80	7.90	-54.50	-13	41.50
1408.00	47.61	198	1.6	V	-60.8	0.80	7.90	-53.70	-13	40.70
2112.00	48.79	282	1.8	H	-58.5	1.00	8.30	-51.20	-13	38.20
2112.00	49.48	328	1.2	V	-58.3	1.00	8.30	-51.00	-13	38.00
2816.00	47.52	3	2.1	H	-59.0	1.20	9.20	-51.00	-13	38.00
2816.00	48.43	204	1.3	V	-57.9	1.20	9.20	-49.90	-13	36.90
N12 Middle Channel										
1415.00	46.31	276	1.3	H	-61.4	0.80	7.90	-54.30	-13	41.30
1415.00	47.35	76	2.3	V	-61.1	0.80	7.90	-54.00	-13	41.00
2122.50	50.27	209	2.2	H	-57.0	1.00	8.30	-49.70	-13	36.70
2122.50	51.42	232	1.9	V	-56.4	1.00	8.30	-49.10	-13	36.10
2830.00	47.31	291	2.2	H	-59.3	1.20	9.20	-51.30	-13	38.30
2830.00	48.47	194	1.9	V	-57.8	1.20	9.20	-49.80	-13	36.80
N12 High Channel										
1422.00	46.18	297	2.2	H	-61.5	0.80	7.90	-54.40	-13	41.40
1422.00	47.53	170	1.2	V	-60.9	0.80	7.90	-53.80	-13	40.80
2133.00	49.24	256	1.4	H	-58.1	1.00	8.30	-50.80	-13	37.80
2133.00	50.62	333	1.3	V	-57.2	1.00	8.30	-49.90	-13	36.90
2844.00	47.46	289	2.4	H	-59.1	1.20	9.20	-51.10	-13	38.10
2844.00	48.45	62	1.4	V	-57.9	1.20	9.20	-49.90	-13	36.90
N38 Low Channel										
5150.00	46.17	86	2.3	H	-56.9	1.60	9.70	-48.80	-25	23.80
5150.00	46.23	350	1.9	V	-56.4	1.60	9.70	-48.30	-25	23.30
7725.00	53.95	243	1.8	H	-41.9	1.90	10.90	-32.90	-25	7.90
7725.00	52.89	169	1.7	V	-43.3	1.90	10.90	-34.30	-25	9.30
N38 Middle Channel										
5190.00	53.52	13	2.1	H	-49.5	1.60	9.70	-41.40	-25	16.40
5190.00	53.86	15	1.8	V	-48.8	1.60	9.70	-40.70	-25	15.70
7785.00	48.01	331	1.1	H	-47.7	1.90	11.10	-38.50	-25	13.50
7785.00	47.97	235	1.7	V	-48.1	1.90	11.10	-38.90	-25	13.90
N38 High Channel										
5230.00	48.96	175	2.1	H	-54.1	1.60	9.70	-46.00	-25	21.00
5230.00	47.53	193	2.0	V	-55.1	1.60	9.70	-47.00	-25	22.00
7845.00	51.62	307	2.1	H	-44.1	1.90	11.10	-34.90	-25	9.90
7845.00	50.34	156	2.4	V	-45.7	1.90	11.10	-36.50	-25	11.50

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N40 Lower(2305MHz~2315MHz)										
Middle Channel										
4620.00	49.35	247	1.4	H	-54.6	1.50	10.50	-45.60	-40	5.60
4620.00	49.32	18	2	V	-54.3	1.50	10.50	-45.30	-40	5.30
6930.00	45.24	315	1.8	H	-53.0	1.90	10.30	-44.60	-40	4.60
6930.00	44.78	68	1.3	V	-53.6	1.90	10.30	-45.20	-40	5.20
N40 Upper(2350MHz~2360MHz)										
Middle Channel										
4710.00	49.18	295	1.7	H	-54.6	1.50	10.30	-45.80	-40	5.80
4710.00	49.06	82	1.6	V	-54.3	1.50	10.30	-45.50	-40	5.50
7065.00	45.03	195	1.6	H	-52.3	1.90	10.20	-44.00	-40	4.00
7065.00	44.65	14	1.8	V	-52.9	1.90	10.20	-44.60	-40	4.60
N41 Low Channel										
5002.00	50.24	47	1.3	H	-53.1	1.50	9.80	-44.80	-13	31.80
5002.00	49.67	197	1.3	V	-52.9	1.50	9.80	-44.60	-13	31.60
7503.00	51.98	3	1.9	H	-44.0	1.90	10.80	-35.10	-13	22.10
7503.00	52.01	307	1.4	V	-44.3	1.90	10.80	-35.40	-13	22.40
N41 Middle Channel										
5186.00	53.81	46	2.0	H	-49.2	1.60	9.70	-41.10	-13	28.10
5186.00	53.76	160	2.2	V	-48.9	1.60	9.70	-40.80	-13	27.80
7779.00	47.69	210	1.5	H	-48.0	1.90	11.10	-38.80	-13	25.80
7779.00	46.78	76	2.1	V	-49.3	1.90	11.10	-40.10	-13	27.10
N41 High Channel										
5370.00	51.85	199	2.4	H	-50.9	1.70	10.50	-42.10	-13	29.10
5370.00	50.29	34	1.3	V	-52.4	1.70	10.50	-43.60	-13	30.60
8055.00	48.36	350	1.3	H	-47.3	2.00	11.40	-37.90	-13	24.90
8055.00	47.12	95	1.9	V	-48.8	2.00	11.40	-39.40	-13	26.40
N66 Low Channel										
3430.00	48.56	164	2.1	H	-57.4	1.30	9.90	-48.80	-13	35.80
3430.00	49.51	177	1.5	V	-56.1	1.30	9.90	-47.50	-13	34.50
5145.00	46.42	53	2.0	H	-56.8	1.50	9.60	-48.70	-13	35.70
5145.00	45.83	294	1.7	V	-56.8	1.50	9.60	-48.70	-13	35.70
N66 Middle Channel										
3490.00	50.13	243	1.7	H	-55.8	1.30	10.50	-46.60	-13	33.60
3490.00	51.36	353	1.6	V	-54.3	1.30	10.50	-45.10	-13	32.10
5235.00	48.23	31	2.3	H	-54.8	1.60	9.70	-46.70	-13	33.70
5235.00	48.59	78	1.6	V	-54.1	1.60	9.70	-46.00	-13	33.00
N66 High Channel										
3550.00	49.36	263	2.1	H	-56.3	1.30	10.90	-46.70	-13	33.70
3550.00	50.12	117	1.5	V	-55.3	1.30	10.90	-45.70	-13	32.70
5325.00	47.45	67	1.7	H	-55.5	1.60	10.00	-47.10	-13	34.10
5325.00	48.07	19	1.5	V	-54.6	1.60	10.00	-46.20	-13	33.20

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N77 Lower(3450MHz ~3550MHz)										
Low Channel										
6910.00	51.12	262	1.5	H	-47.1	1.90	10.30	-38.70	-13	25.70
6910.00	50.45	244	1	V	-47.9	1.90	10.30	-39.50	-13	26.50
10365.00	48.01	203	1.1	H	-44.1	2.30	11.30	-35.10	-13	22.10
10365.00	48.14	220	1.6	V	-44.0	2.30	11.30	-35.00	-13	22.00
Middle Channel										
7000.00	52.13	27	1.3	H	-45.6	1.90	10.20	-37.30	-13	24.30
7000.00	52.45	286	1.8	V	-45.4	1.90	10.20	-37.10	-13	24.10
10500.00	48.82	186	1.3	H	-43.2	2.20	11.30	-34.10	-13	21.10
10500.00	49.67	318	1.3	V	-42.3	2.20	11.30	-33.20	-13	20.20
High Channel										
7090.00	51.85	150	2.3	H	-45.5	1.90	10.20	-37.20	-13	24.20
7090.00	51.26	323	1.7	V	-46.3	1.90	10.20	-38.00	-13	25.00
10635.00	48.37	274	1.6	H	-43.4	2.20	11.30	-34.30	-13	21.30
10635.00	49.12	19	1.8	V	-42.5	2.20	11.30	-33.40	-13	20.40
N77 Upper(3700MHz ~3980MHz)										
Low Channel										
7410.00	51.34	118	1.7	H	-45.0	1.90	10.60	-36.30	-13	23.30
7410.00	50.72	234	1.4	V	-45.9	1.90	10.60	-37.20	-13	24.20
11115.00	48.76	202	1.4	H	-41.7	2.30	11.30	-32.70	-13	19.70
11115.00	48.31	322	2.3	V	-41.7	2.30	11.30	-32.70	-13	19.70
Middle Channel										
7680.00	52.73	194	2.1	H	-43.1	1.90	10.90	-34.10	-13	21.10
7680.00	52.94	74	1.5	V	-43.2	1.90	10.90	-34.20	-13	21.20
11520.00	49.12	254	1.3	H	-41.4	2.20	11.80	-31.80	-13	18.80
11520.00	50.45	25	2.5	V	-39.6	2.20	11.80	-30.00	-13	17.00
High Channel										
7950.00	52.16	177	1.3	H	-43.4	1.90	11.10	-34.20	-13	21.20
7950.00	51.74	165	2.2	V	-44.2	1.90	11.10	-35.00	-13	22.00
11925.00	49.03	345	1.8	H	-43.1	2.20	11.40	-33.90	-13	20.90
11925.00	48.62	159	1.8	V	-43.4	2.20	11.40	-34.20	-13	21.20

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N78 Lower(3450MHz ~3550MHz)										
Low Channel										
6910.00	50.67	121	2.2	H	-47.6	1.90	10.30	-39.20	-13	26.20
6910.00	49.92	146	1.1	V	-48.4	1.90	10.30	-40.00	-13	27.00
10365.00	48.45	52	1	H	-43.7	2.30	11.30	-34.70	-13	21.70
10365.00	48.76	237	1.1	V	-43.4	2.30	11.30	-34.40	-13	21.40
Middle Channel										
7000.00	49.27	312	2.3	H	-48.5	1.90	10.20	-40.20	-13	27.20
7000.00	48.68	284	1.3	V	-49.1	1.90	10.20	-40.80	-13	27.80
10500.00	45.74	82	1.7	H	-46.3	2.20	11.30	-37.20	-13	24.20
10500.00	45.69	293	2.4	V	-46.3	2.20	11.30	-37.20	-13	24.20
High Channel										
7090.00	50.31	195	2.4	H	-47.1	1.90	10.20	-38.80	-13	25.80
7090.00	49.46	106	1.3	V	-48.1	1.90	10.20	-39.80	-13	26.80
10635.00	47.52	97	1.5	H	-44.2	2.20	11.30	-35.10	-13	22.10
10635.00	46.18	140	1.2	V	-45.4	2.20	11.30	-36.30	-13	23.30
N78 Upper(3700MHz ~3800MHz)										
Low Channel										
7410.00	51.23	356	2	H	-45.1	1.90	10.60	-36.40	-13	23.40
7410.00	50.95	337	1.2	V	-45.7	1.90	10.60	-37.00	-13	24.00
11115.00	49.62	310	1.7	H	-40.9	2.30	11.30	-31.90	-13	18.90
11115.00	49.15	288	1.7	V	-40.9	2.30	11.30	-31.90	-13	18.90
Middle Channel										
7500.00	50.36	321	1.9	H	-45.6	1.90	10.80	-36.70	-13	23.70
7500.00	49.21	241	2.1	V	-47.1	1.90	10.80	-38.20	-13	25.20
11250.00	46.57	173	2.3	H	-43.9	2.20	11.70	-34.40	-13	21.40
11250.00	46.89	358	1.9	V	-43.1	2.20	11.70	-33.60	-13	20.60
High Channel										
7590.00	50.63	269	1.7	H	-45.3	1.90	11.00	-36.20	-13	23.20
7590.00	50.27	96	1.8	V	-46.0	1.90	11.00	-36.90	-13	23.90
11385.00	47.46	125	1.4	H	-43.1	2.20	11.90	-33.40	-13	20.40
11385.00	47.08	129	2.5	V	-42.9	2.20	11.90	-33.20	-13	20.20

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Limit (dBm)	Margin (dB)			
DC_5A_n7A Low Channel										
5005.00	53.47	218	1.3	H	-49.8	1.50	9.80	-41.50	-25	16.50
5005.00	52.69	50	1.2	V	-49.9	1.50	9.80	-41.60	-25	16.60
7507.50	51.78	39	1.2	H	-44.2	1.90	10.80	-35.30	-25	10.30
7507.50	50.31	271	2.1	V	-46.0	1.90	10.80	-37.10	-25	12.10
DC_5A_n7A Middle Channel										
5070.00	52.04	279	2.4	H	-51.1	1.50	9.60	-43.00	-25	18.00
5070.00	51.57	289	2.3	V	-51.0	1.50	9.60	-42.90	-25	17.90
7605.00	50.09	208	2.4	H	-45.8	1.90	11.00	-36.70	-25	11.70
7605.00	49.95	63	2.1	V	-46.3	1.90	11.00	-37.20	-25	12.20
DC_5A_n7A High Channel										
5135.00	53.15	160	1.6	H	-50.0	1.50	9.60	-41.90	-25	16.90
5135.00	52.16	175	2.4	V	-50.5	1.50	9.60	-42.40	-25	17.40
7702.50	51.47	181	1.1	H	-44.3	1.90	10.90	-35.30	-25	10.30
7702.50	50.02	203	1.4	V	-46.1	1.90	10.90	-37.10	-25	12.10
DC_5A_n38A Low Channel										
5150.00	54.38	9	2.4	H	-48.7	1.60	9.70	-40.60	-25	15.60
5150.00	53.96	45	2.3	V	-48.7	1.60	9.70	-40.60	-25	15.60
7725.00	46.72	330	1.9	H	-49.1	1.90	10.90	-40.10	-25	15.10
7725.00	46.35	118	2.1	V	-49.8	1.90	10.90	-40.80	-25	15.80
DC_5A_n38A Middle Channel										
5190.00	53.12	278	1.4	H	-49.9	1.60	9.70	-41.80	-25	16.80
5190.00	53.87	72	1.0	V	-48.8	1.60	9.70	-40.70	-25	15.70
7785.00	45.28	145	1.0	H	-50.4	1.90	11.10	-41.20	-25	16.20
7785.00	45.56	283	1.5	V	-50.5	1.90	11.10	-41.30	-25	16.30
DC_5A_n38A High Channel										
5230.00	54.07	35	1.1	H	-49.0	1.60	9.70	-40.90	-25	15.90
5230.00	53.89	104	1.8	V	-48.8	1.60	9.70	-40.70	-25	15.70
7845.00	46.27	37	2.1	H	-49.5	1.90	11.10	-40.30	-25	15.30
7845.00	46.06	351	2.2	V	-50.0	1.90	11.10	-40.80	-25	15.80

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Limit (dBm)	Margin (dB)			
DC_5A_n40A Low Channel										
4610.00	48.59	340	2.4	H	-55.4	1.50	10.50	-46.40	-40	6.40
4610.00	49.25	287	2.2	V	-54.3	1.50	10.50	-45.30	-40	5.30
6915.00	46.73	128	1.4	H	-51.5	1.90	10.30	-43.10	-40	3.10
6915.00	46.12	334	1.9	V	-52.2	1.90	10.30	-43.80	-40	3.80
DC_5A_n40A Middle Channel										
4700.00	47.98	33	1.9	H	-55.8	1.50	10.30	-47.00	-40	7.00
4700.00	48.15	329	1.9	V	-55.2	1.50	10.30	-46.40	-40	6.40
7050.00	45.73	288	2.2	H	-51.6	1.90	10.20	-43.30	-40	3.30
7050.00	45.19	94	1.4	V	-52.3	1.90	10.20	-44.00	-40	4.00
DC_5A_n40A High Channel										
4790.00	48.13	294	2.3	H	-55.5	1.50	10.20	-46.80	-40	6.80
4790.00	48.64	216	1.3	V	-54.4	1.50	10.20	-45.70	-40	5.70
7185.00	45.65	286	1.4	H	-51.4	1.90	10.30	-43.00	-40	3.00
7185.00	45.28	335	2.4	V	-51.9	1.90	10.30	-43.50	-40	3.50
DC_5A_n41A Low Channel										
5002.00	56.37	136	1.4	H	-46.9	1.50	9.80	-38.60	-25	13.60
5002.00	57.81	45	1.5	V	-44.8	1.50	9.80	-36.50	-25	11.50
7503.00	46.39	49	1.4	H	-49.6	1.90	10.80	-40.70	-25	15.70
7503.00	46.12	165	2.0	V	-50.2	1.90	10.80	-41.30	-25	16.30
DC_5A_n41A Middle Channel										
5186.00	55.24	122	2.1	H	-47.8	1.60	9.70	-39.70	-25	14.70
5186.00	56.29	42	1.4	V	-46.4	1.60	9.70	-38.30	-25	13.30
7779.00	45.16	3	2.3	H	-50.6	1.90	11.10	-41.40	-25	16.40
7779.00	45.37	243	1.8	V	-50.7	1.90	11.10	-41.50	-25	16.50
DC_5A_n41A High Channel										
5370.00	56.15	13	1.6	H	-46.6	1.70	10.50	-37.80	-25	12.80
5370.00	57.32	126	1.0	V	-45.4	1.70	10.50	-36.60	-25	11.60
8055.00	45.45	11	2.5	H	-50.2	2.00	11.40	-40.80	-25	15.80
8055.00	45.81	146	2.1	V	-50.1	2.00	11.40	-40.70	-25	15.70

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Limit (dBm)	Margin (dB)			
DC_5A_n66A Low Channel										
3430.00	50.37	215	2.2	H	-55.6	1.30	9.90	-47.00	-13	34.00
3430.00	49.85	300	2.0	V	-55.8	1.30	9.90	-47.20	-13	34.20
5145.00	48.46	99	2.1	H	-54.7	1.50	9.60	-46.60	-13	33.60
5145.00	48.02	94	1.5	V	-54.6	1.50	9.60	-46.50	-13	33.50
DC_5A_n66A Middle Channel										
3430.00	50.37	215	2.2	H	-55.6	1.30	9.90	-47.00	-13	34.00
3430.00	49.85	300	2.0	V	-55.8	1.30	9.90	-47.20	-13	34.20
5145.00	48.46	99	2.1	H	-54.7	1.50	9.60	-46.60	-13	33.60
5145.00	48.02	94	1.5	V	-54.6	1.50	9.60	-46.50	-13	33.50
DC_5A_n66A High Channel										
3550.00	50.16	219	1.1	H	-55.5	1.30	10.90	-45.90	-13	32.90
3550.00	49.63	309	1.4	V	-55.8	1.30	10.90	-46.20	-13	33.20
5325.00	48.07	81	1.1	H	-54.8	1.60	10.00	-46.40	-13	33.40
5325.00	47.52	248	1.6	V	-55.2	1.60	10.00	-46.80	-13	33.80
DC_41A_n77A Low Channel										
6610.00	47.59	179	1.1	H	-52.3	1.90	10.20	-44.00	-13	31.00
6610.00	47.12	81	1.5	V	-52.8	1.90	10.20	-44.50	-13	31.50
9915.00	46.54	106	1.5	H	-46.2	2.40	11.60	-37.00	-13	24.00
9915.00	45.86	311	1.1	V	-47.0	2.40	11.60	-37.80	-13	24.80
DC_41A _n77A Middle Channel										
7500.00	46.93	74	1.1	H	-49.0	1.90	10.80	-40.10	-13	27.10
7500.00	46.28	15	2.0	V	-50.0	1.90	10.80	-41.10	-13	28.10
11250.00	44.87	286	1.5	H	-45.6	2.20	11.70	-36.10	-13	23.10
11250.00	45.52	336	2.4	V	-44.5	2.20	11.70	-35.00	-13	22.00
DC_41A _n77A High Channel										
8390.00	47.23	135	2.0	H	-48.7	2.00	11.50	-39.20	-13	26.20
8390.00	46.59	291	1.6	V	-49.4	2.00	11.50	-39.90	-13	26.90
12585.00	46.31	331	1.8	H	-47.6	2.40	10.70	-39.30	-13	26.30
12585.00	45.74	184	1.5	V	-48.5	2.40	10.70	-40.20	-13	27.20
DC_41A_n78A Low Channel										
6610.00	48.53	104	1.7	H	-51.3	1.90	10.20	-43.00	-13	30.00
6610.00	47.69	126	1.7	V	-52.2	1.90	10.20	-43.90	-13	30.90
9915.00	47.15	254	1.2	H	-45.6	2.40	11.60	-36.40	-13	23.40
9915.00	46.82	257	2.0	V	-46.0	2.40	11.60	-36.80	-13	23.80
DC_41A_n78A Middle Channel										
7500.00	46.74	130	2.0	H	-49.2	1.90	10.80	-40.30	-13	27.30
7500.00	46.36	285	1.7	V	-50.0	1.90	10.80	-41.10	-13	28.10
11250.00	45.68	349	1.6	H	-44.8	2.20	11.70	-35.30	-13	22.30
11250.00	44.97	151	1.8	V	-45.1	2.20	11.70	-35.60	-13	22.60
DC_41A_n78A High Channel										
7590.00	48.06	177	1.5	H	-47.8	1.90	11.00	-38.70	-13	25.70
7590.00	47.25	270	1.5	V	-49.0	1.90	11.00	-39.90	-13	26.90
11385.00	46.83	119	2.2	H	-43.7	2.20	11.90	-34.00	-13	21.00
11385.00	45.72	337	1.5	V	-44.3	2.20	11.90	-34.60	-13	21.60

Ant 4：

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N5 Low Channel										
1653.00	47.86	160	1.1	H	-59.7	0.90	8.60	-52.00	-13	39.00
1653.00	49.83	271	2.3	V	-58.3	0.90	8.60	-50.60	-13	37.60
2479.50	46.19	208	1.4	H	-61.2	1.10	8.80	-53.50	-13	40.50
2479.50	46.28	108	2.5	V	-60.8	1.10	8.80	-53.10	-13	40.10
3306.00	48.86	167	1.1	H	-57.1	1.30	8.80	-49.60	-13	36.60
3306.00	49.49	272	1.5	V	-56.2	1.30	8.80	-48.70	-13	35.70
N5 Middle Channel										
1673.00	48.09	310	1.9	H	-59.5	0.90	8.60	-51.80	-13	38.80
1673.00	50.65	262	2.5	V	-57.5	0.90	8.60	-49.80	-13	36.80
2509.50	46.59	147	2.3	H	-60.8	1.10	8.80	-53.10	-13	40.10
2509.50	47.15	94	2.0	V	-60.0	1.10	8.80	-52.30	-13	39.30
3346.00	49.67	265	2.4	H	-56.3	1.30	8.80	-48.80	-13	35.80
3346.00	50.12	74	1.5	V	-55.6	1.30	8.80	-48.10	-13	35.10
N5 High Channel										
1693.00	48.38	211	1.3	H	-59.2	0.90	8.60	-51.50	-13	38.50
1693.00	50.98	239	1.5	V	-57.2	0.90	8.60	-49.50	-13	36.50
2539.50	47.34	63	1.9	H	-60.0	1.10	8.80	-52.30	-13	39.30
2539.50	47.65	194	1.3	V	-59.5	1.10	8.80	-51.80	-13	38.80
3386.00	50.11	91	1.4	H	-55.9	1.30	9.90	-47.30	-13	34.30
3386.00	50.31	118	1.2	V	-55.3	1.30	9.90	-46.70	-13	33.70

Frequency (MHz)	Receiver Reading (dBμV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
N12 Low Channel										
1403.00	46.07	337	1.7	H	-61.6	0.80	7.90	-54.50	-25	29.50
1403.00	47.91	142	2.4	V	-60.5	0.80	7.90	-53.40	-25	28.40
2104.50	49.09	76	1.1	H	-58.2	1.00	8.30	-50.90	-25	25.90
2104.50	50.29	92	1.6	V	-57.5	1.00	8.30	-50.20	-25	25.20
2806.00	46.72	348	2.2	H	-59.8	1.20	9.20	-51.80	-25	26.80
2806.00	49.48	193	2.5	V	-56.8	1.20	9.20	-48.80	-25	23.80
N12 Middle Channel										
1415.00	46.76	249	1.4	H	-60.9	0.80	7.90	-53.80	-25	28.80
1415.00	48.27	166	2.2	V	-60.1	0.80	7.90	-53.00	-25	28.00
2122.50	50.02	120	1.0	H	-57.3	1.00	8.30	-50.00	-25	25.00
2122.50	51.17	173	2.0	V	-56.7	1.00	8.30	-49.40	-25	24.40
2830.00	47.22	127	1.9	H	-59.3	1.20	9.20	-51.30	-25	26.30
2830.00	49.52	256	2.5	V	-56.8	1.20	9.20	-48.80	-25	23.80
N12 High Channel										
1427.00	47.23	221	1.8	H	-60.5	0.80	7.90	-53.40	-25	28.40
1427.00	48.88	136	1.8	V	-59.5	0.80	7.90	-52.40	-25	27.40
2140.50	49.55	9	2.4	H	-57.8	1.00	8.30	-50.50	-25	25.50
2140.50	50.79	303	1.9	V	-57.0	1.00	8.30	-49.70	-25	24.70
2854.00	47.07	185	1.5	H	-59.2	1.20	9.00	-51.40	-25	26.40
2854.00	49.61	245	1.2	V	-56.4	1.20	9.00	-48.60	-25	23.60
N66 Low Channel										
3425.00	49.77	81	1.9	H	-56.2	1.30	9.90	-47.60	-13	34.60
3425.00	51.05	329	1.4	V	-54.6	1.30	9.90	-46.00	-13	33.00
N66 Middle Channel										
3490.00	50.13	74	1.3	H	-55.8	1.30	10.50	-46.60	-13	33.60
3490.00	51.22	24	2.2	V	-54.4	1.30	10.50	-45.20	-13	32.20
N66 High Channel										
3555.00	50.28	123	2.1	H	-55.4	1.30	10.90	-45.80	-13	32.80
3555.00	51.36	12	1.6	V	-54.1	1.30	10.90	-44.50	-13	31.50

Note:
Absolute Level = Reading Level + Substituted Factor
Substituted Factor contains: Substituted Level - Cable loss+ Antenna Gain
Margin = Absolute Level–Limit
The radiated spurious emission data of below 1GHz is 20dB below the limit which was not recorded.

FCC§ 22.917 (a); §27.53(a)(g) (h)(m)(n) - BAND EDGES

Applicable Standard

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

According to FCC §27.53 (a), For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:
(4)For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

According to FCC §27.53 (g) , For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC §27.53 (h), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC §27.53 (m), For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5MHz.

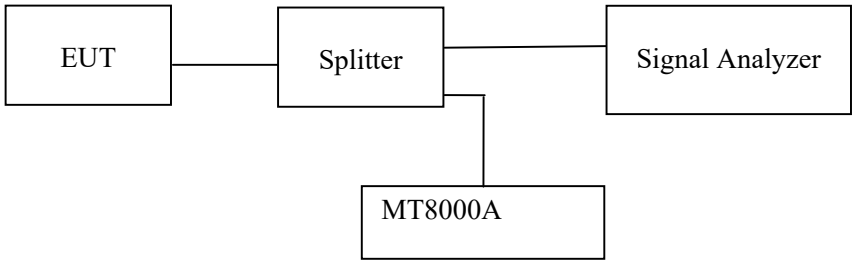
According to FCC §27.53(n)(2), For mobile operations in the 3450 – 3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed − 13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Test Procedure

ANSI C63.26-2015 Section 5.7

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

The center of the spectrum analyzer was set to block edge frequency



Test Data

Environmental Conditions

Temperature:	23.6~26.1 ℃
Relative Humidity:	56.1~54.8%
ATM Pressure:	101.0kPa

The testing was performed by Jim Cheng from 2024-01-29 to 2024-03-06.

EUT operation mode: Transmitting (Worst case record in the reports)

Test Result: Pass

Please refer to the Appendix H1 for band edges.

FCC § 2.1055; § 22.355; §27.54 - FREQUENCY STABILITY

Applicable Standard

FCC § 2.1055, § 22.355; §27.54

According to FCC §2.1055, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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

Frequency Tolerance for Transmitters in the Public Mobile Services

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

According to §§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

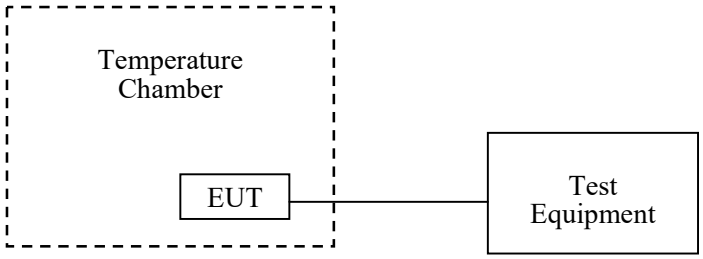
Test Procedure

ANSI C63.26-2015 Section 5.6

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

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: For hand carried, battery powered equipment; reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.



Test Data

Environmental Conditions

Temperature:	23.6~26.1 ℃
Relative Humidity:	56.1~54.8%
ATM Pressure:	101.0kPa

The testing was performed by Jim Cheng from 2024-01-17 to 2024-01-31.
EUT operation mode: Transmitting (Worst case record in the reports)

Test Result: Pass

Please refer to the Appendix I1& I2&I3&I4&I5&I6&I7&I8&I9&I0&I11&I12 for frequency stability.

EUT PHOTOGRAPHS

Please refer to the attachment SZ1231211-74617E-RF External photo and SZ1231211-74617E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment SZ1231211-74617E-RF Test Setup photo.

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