

# TEST REPORT

Applicant Name: Shenzhen Harvilon Technology Co.,Ltd  
Address: 2nd Floor, Building 2, No. 137 Bulan Road, Saitu Technology Park, Longgang district, Shenzhen, China  
Report Number: 2501P42038E-RF-00D  
FCC ID: ZZJ-MF511

**Test Standard (s)**

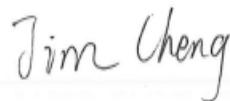
FCC PART 27; FCC PART 22H; FCC PART 24E

**Sample Description**

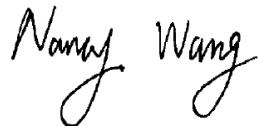
Product Type: 5G Portable Wi-Fi  
Model No.: MF511  
Multiple Model(s) No.: MF510, JTN5G  
Trade Mark: Harvilon  
Date Received: 2025-03-24  
Issue Date: 2025-06-13

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

**Prepared and Checked By:**

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**Approved By:**

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## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2501P42038E-RF-00D	Original Report	2025-06-13

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

<b>Product</b>	5G Portable Wi-Fi			
<b>Tested Model</b>	MF511			
<b>Multiple Model(s)</b>	MF510, JTN5G			
<b>Frequency Range</b>	5G NR Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) 5G NR Band 5: 824-849 MHz(TX); 869-894MHz(RX) 5G NR Band 41: 2496-2690MHz(TX/RX) 5G NR Band 66: 1710-1780MHz(TX); 2110-2200MHz(RX) 5G NR Band 71: 663-698MHz(TX); 617-652MHz(RX)			
<b>EN-DC possible combinations</b>	N/A			
<b>Carrier aggregation</b>	None Carrier aggregation			
<b>Modulation Technique</b>	DFT-s-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM			
<b>Antenna Specification<sup>#</sup></b>	<b>Antenna</b>	<b>Operation Bands</b>	<b>Antenna Gain (G<sub>T</sub>) (dBi)</b>	<b>L<sub>C</sub> (dB)</b>
	ANT0	Band 5	-0.55	0.5
		Band 71	-2.68	0.5
	ANT2	Band 2	0.08	0
		Band 41	3.19	0
		Band 66	0.72	0
	Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.			
<b>Voltage Range</b>	DC 3.85V from battery or DC 5V from Type-C Port			
<b>Sample serial number</b>	306X-2 for Radiated Emissions Test 306X-1 for RF Conducted Test (Assigned by BACL, Shenzhen)			
<b>Sample/EUT Status</b>	Good condition			
<b>Normal/Extreme Condition<sup>#</sup></b>	LV: Low Voltage 3.4V <sub>DC</sub> NV: Normal Voltage 3.85V <sub>DC</sub> HV: High Voltage 4.4V <sub>DC</sub> (provided by the applicant)			
<b>Adapter Information</b>	NA			
Note: The Multiple models are electrically identical with the test model except for model name and shell, The difference between MF510 and JTN5G is the model name and sales channel. Please refer to the declaration letter <sup>#</sup> for more detail, which was provided by manufacturer. Only the worst case (Model MF511) was recorded in the report.				

## Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E and Part 27 of 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 24 Subpart E - Personal Communication 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	109.2kHz(k=2, 95% level of confidence)
RF Frequency	56.6Hz(k=2, 95% level of confidence)
RF output power, conducted	0.86dB(k=2, 95% level of confidence)
Unwanted Emission, conducted	1.60dB(k=2, 95% level of confidence)
Emissions, Radiated	30MHz~200MHz (Horizontal)
	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)
	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)
	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)
1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
18GHz - 40GHz	5.64dB(k=2, 95% level of confidence)
Temperature	±1°C
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.

Bands	Frequency Range (MHz)	Bandwidth (MHz)	SCS (kHz)	Test Frequency (MHz)		
				Low	Middle	High
N2	1850-1910	5	15	1852.5	1880	1907.5
		10	15, 30	1855	1880	1905
		15	15, 30	1857.5	1880	1902.5
		20	15, 30	1860	1880	1900
N5	824-849	5	15	826.5	836.5	846.5
		10	15, 30	829	836.5	844
		15	15, 30	831.5	836.5	841.5
		20	15, 30	834	836.5	839
N41	2496-2690	10	15, 30	2501.01	2592.99	2685
		15	15, 30	2503.5	2592.99	2682.48
		20	15, 30	2506.02	2592.99	2679.99
		30	15, 30	2511	2592.99	2674.98
		40	15, 30	2516.01	2592.99	2670
		50	15, 30	2521.02	2592.99	2664.99
		60	30	2526	2592.99	2659.98
		70	30	2531.01	2592.99	2655
		80	30	2536.02	2592.99	2649.99
		90	30	2541	2592.99	2644.98
N66	1710-1780	100	30	2546.01	2592.99	2640
		5	15	1712.5	1745	1777.5
		10	15, 30	1715	1745	1775
		15	15, 30	1717.5	1745	1772.5
		20	15, 30	1720	1745	1770
		25	15, 30	1722.5	1745	1767.5
		30	15, 30	1725	1745	1765
N71	663-698	40	15, 30	1730	1745	1760
		5	15	665.5	680.5	695.5
		10	15, 30	668	680.5	693
		15	15, 30	670.5	680.5	690.5
		20	15, 30	673	680.5	688

Note:

1. The SCS 15kHz and 30kHz have same output power, so only SCS 15kHz was tested for FDD band, and SCS 30kHz tested for TDD band.
2. 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**

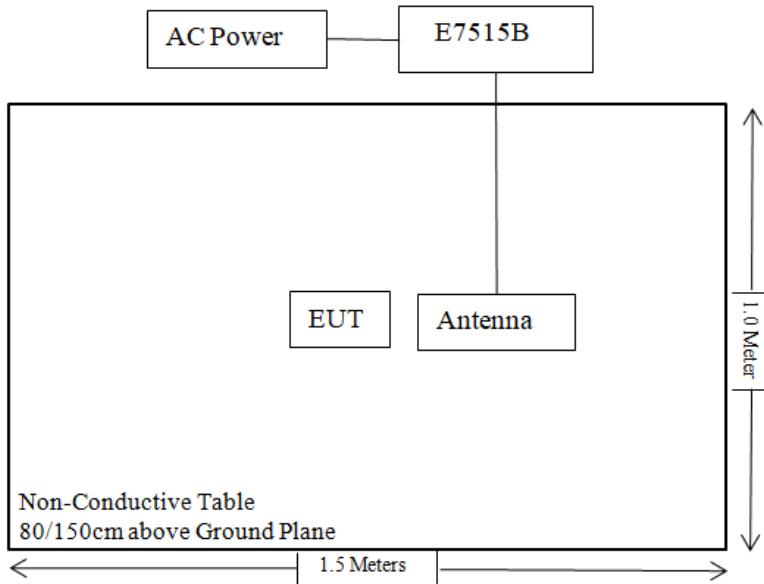
No modification was made to the EUT tested.

**Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
Keysight	UXM 5G Wireless Test Platform	E7515B	MY58120284

**External I/O Cable**

Cable Description	Length (m)	From Port	To
Un-shielded Un-detachable AC cable	1.2	AC Power	E7515B

**Block Diagram of Test Setup**

## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §1.1307 & §2.1093	RF Exposure	Compliant
FCC §2.1046; § 22.913 (a) (d); § 24.232 (c) (d); §27.50 (c) (d) (h)	RF Output Power	Compliant
FCC §2.1047	Modulation Characteristics	Not Applicable
FCC §2.1049; § 22.905;§ 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliant
FCC §2.1051; §22.917 (a);§ 24.238 (a); §27.53	Spurious Emissions at Antenna Terminal	Compliant
FCC §2.1053; §22.917 (a); §24.238 (a); §27.53	Field Strength of Spurious Radiation	Compliant
FCC §22.917 (a);§ 24.238 (a); §27.53 (g) (h) (m)	Band Edge	Compliant
FCC §2.1055; § 22.355; § 24.235; §27.54	Frequency stability	Compliant

## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Radiated Emission Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/12/04	2025/12/03
Sonoma instrument	Pre-amplifier	310N	186238	2025/04/29	2026/04/28
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
COM-POWER	Dipole Antenna	3121C	9209-860	NCR	NCR
Unknown	Cable	Chamber Cable 1	F-03-EM236	2025/04/29	2026/04/28
Unknown	Cable	XH500C	J-10M-A	2025/04/29	2026/04/28
Rohde&Schwarz	Spectrum Analyzer	FSV40	101605	2025/03/26	2026/03/25
A.H.System	Preamplifier	PAM-0118P	489	2024/11/15	2025/11/14
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2026/07/25
The Electro-Mechanics Co.	Horn Antenna	3115	9107-3694	2024/06/06	2027/06/05
Unknown	RF Cable	KMSE	0735	2024/12/06	2025/12/05
Unknown	RF Cable	UFA147	219661	2024/12/06	2025/12/05
Unknown	RF Cable	XH750A-N	J-10M	2024/12/06	2025/12/05
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/04/29	2026/04/28
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
UTIFLEX	RF Cable	NO. 13	232308-001	2024/12/18	2025/12/17
Keysight	UXM 5G Wireless Test Platform	E7515B	MY58120284	2024/05/17	2025/05/16
Agilent	Signal Generator	N5183A	MY50140588	2024/09/13	2025/09/12

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>RF Conducted Test</b>					
R&S	Spectrum Analyzer	FSV40	101942	2024/09/20	2025/09/19
BACL	Temperature & Humidity Chamber	BTH-150-40	30145	2024/12/06	2025/12/05
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2025/04/29	2026/04/28
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2024/06/27	2025/06/26
WEINSCHEL	Power Splitter	1515	RH476	2024/06/27	2025/06/26
Unknown	RF Cable	65475	01670515	2024/06/27	2025/06/26
Keysight	UXM 5G Wireless Test Platform	E7515B	MY58120284	2024/05/17	2025/05/16
Keysight	UXM 5G Wireless Test Platform	E7515B	MY58120284	2025/05/16	2026/05/15

**\* 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).

## **REQUIREMENTS AND TEST PROCEDURES**

### **Modulation Characteristic**

According to FCC § 2.1047(d), Part 22H, Part 24E and Part 27, there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

## RF Output Power

### Applicable Standard

According to FCC §2.1046 and §22.913

(a)(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7watts.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-toaverage ratio (PAR) of the transmission must not exceed 13 dB. Power measurements for base transmitters and repeaters must be made in accordance with either of the following:

- (1) A Commission-approved average power technique (*see* FCC Laboratory's Knowledge Database); or
- (2) For purposes of this section, peak transmit power must be measured over an interval of continuous transmission using instrumentation calibrated in terms of an rmsequivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, *etc.*, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

According to §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.

(d)Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. 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.

According to §27.50

(c)(10) 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.

(d)(4) 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. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

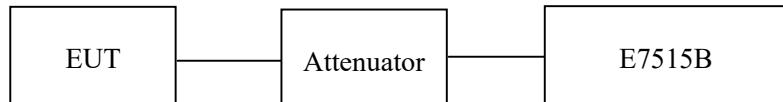
(h) The following power limits shall apply in the BRS and EBS:

(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.

### Test Procedure

Conducted method: ANSI C63.26-2015 Section 5.2

The RF output of the transmitter was connected to the E7515B through sufficient attenuation.



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

**Occupied Bandwidth****Applicable Standard**

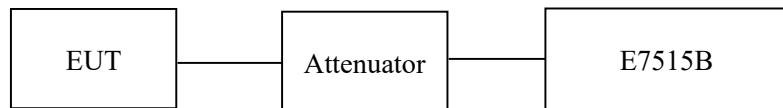
FCC 47 § 2.1049; § 22.905; § 22.917; § 24.238; § 27.53

**Test Procedure**

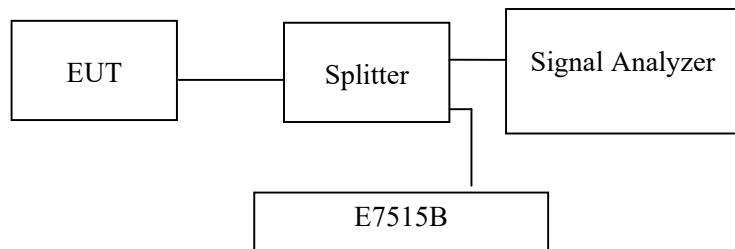
ANSI C63.26-2015 Section 5.4.4

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.



Or



## Spurious Emissions at Antenna Terminals

### Applicable Standard

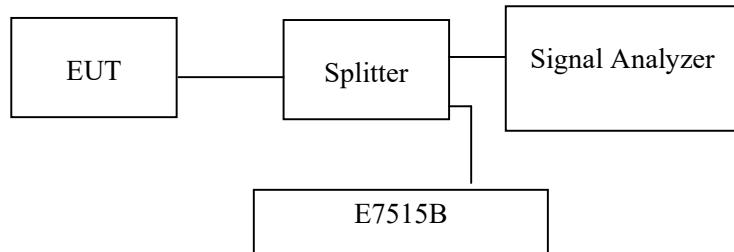
FCC § 2.1051; §22.917 (a);§ 24.238 (a); §27.53

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 10<sup>th</sup> harmonic.



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

## Spurious Radiated Emissions

### Applicable Standard

FCC § 2.1053; §22.917 (a); §24.238 (a); §27.53

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

### Test setup:

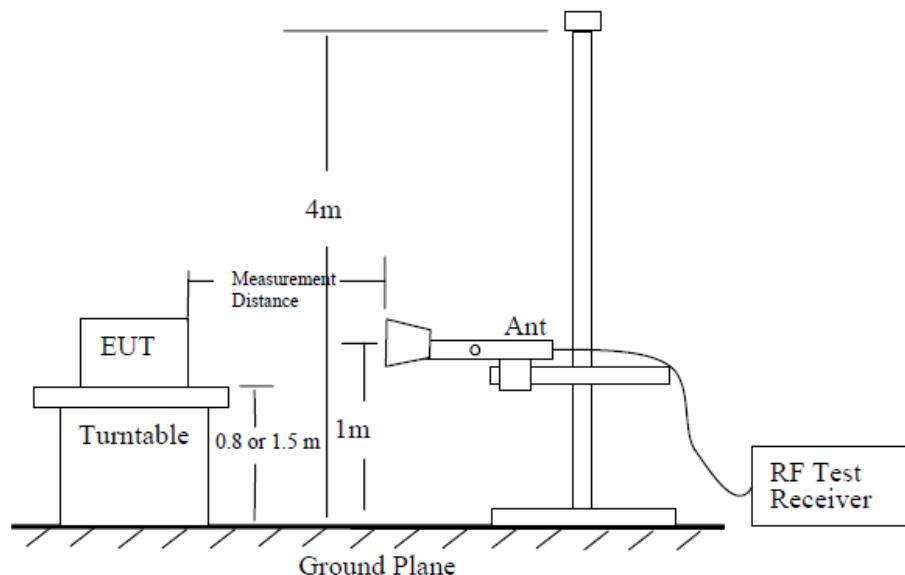


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

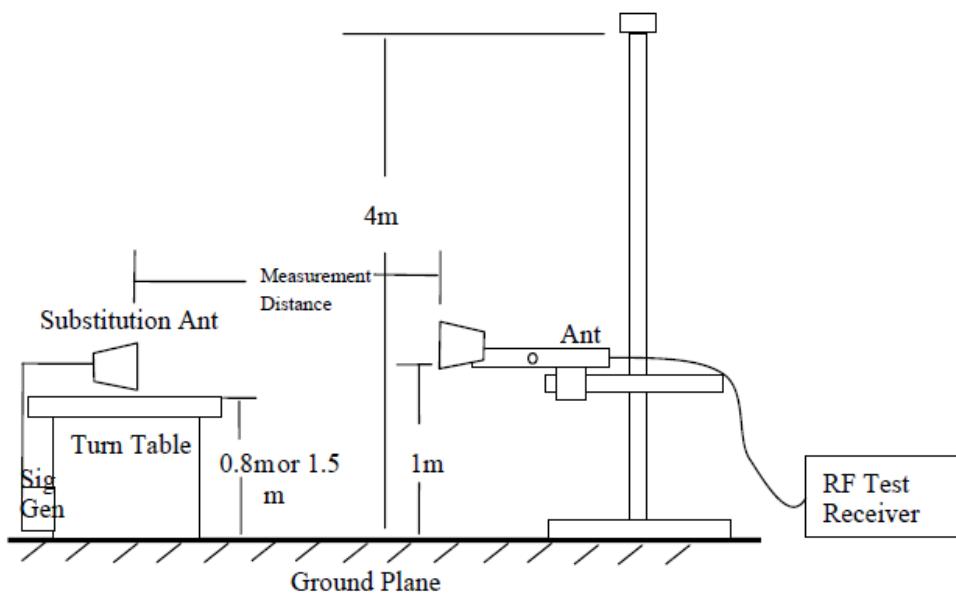


Figure 7—Substitution method set-up for radiated emission

### **Test Procedure**

#### ANSI C63.26-2015 Section 5.5

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.

## 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 §24.238 (a), 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 (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.

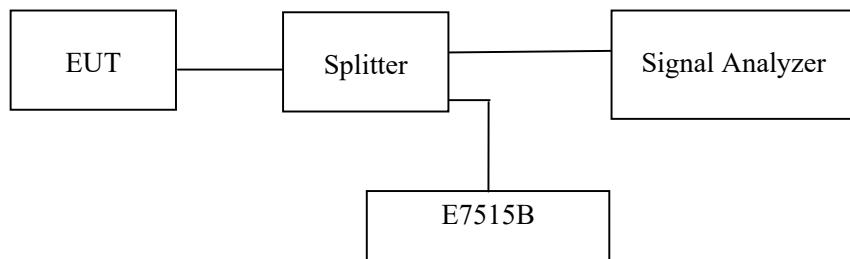
According to FCC §27.53 (m), For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel 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 than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5MHz.

## 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



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

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

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

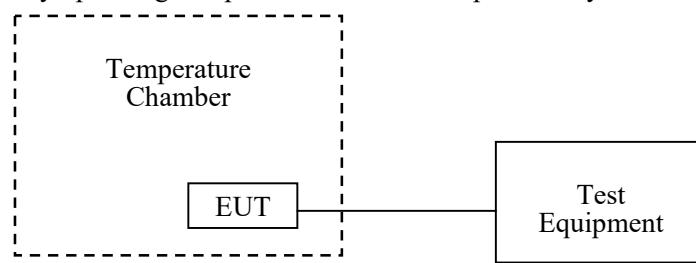
### Test Procedure

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 AND RESULTS

### Spurious Radiated Emissions

#### Environmental Conditions

Temperature (°C)	24.2-25.4	Relative Humidity (%)	34-48
ATM Pressure (kPa):	100.2-100.6	Test engineer:	Alex Yan & Wing K Ji
Test date:	2025/05/10-2025/05/16		
EUT operation mode:	Transmitting		
Note:	After pre-scan in the X, Y and Z axes of orientation, the worst case z-axis of orientation were recorded.		

#### Test Mode Description(Worst Case)

Mode	NR Band	Channel	SCS(kHz)	Condition
SA	n2	Low/Middle/High	15	5MHz_DFT-s-OFDM (QPSK)
	n5	Low/Middle/High	15	5MHz_DFT-s-OFDM (QPSK)
	n41	Low/Middle/High	30	10MHz_DFT-s-OFDM (QPSK)
	n66	Low/Middle/High	15	5MHz_DFT-s-OFDM (QPSK)
	n71	Low/Middle/High	15	5MHz_DFT-s-OFDM (QPSK)

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)					
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)								
N2 (30MHz-20GHz)													
Low Channel													
284.8	43.70	H	-64.3	1.36	0.0	-65.66	-13	52.66					
89.7	43.94	V	-64.5	1.36	0.0	-65.86	-13	52.86					
3705.00	51.16	H	-61.6	2.10	9.7	-54.00	-13	41.00					
3705.00	50.92	V	-61.7	2.10	9.7	-54.10	-13	41.10					
Middle Channel													
284.8	43.73	H	-64.3	1.36	0.0	-65.66	-13	52.66					
89.7	44.21	V	-64.2	1.36	0.0	-65.56	-13	52.56					
3760.00	51.05	H	-62.3	2.00	9.6	-54.70	-13	41.70					
3760.00	50.90	V	-62.4	2.00	9.6	-54.80	-13	41.80					
High Channel													
284.8	43.57	H	-64.4	1.36	0.0	-65.76	-13	52.76					
89.7	44.22	V	-64.2	1.36	0.0	-65.56	-13	52.56					
3815.00	51.22	H	-62.2	2.00	9.6	-54.60	-13	41.60					
3815.00	51.04	V	-62.3	2.00	9.6	-54.70	-13	41.70					
N5 (30MHz-10GHz)													
284.8	43.67	H	-64.3	1.36	0.0	-65.66	-13	52.66					
89.7	44.10	V	-64.3	1.36	0.0	-65.66	-13	52.66					
1653.00	55.89	H	-58.3	1.50	8.8	-51.00	-13	38.00					
1653.00	55.15	V	-59.6	1.50	8.8	-52.30	-13	39.30					
Middle Channel													
284.8	43.80	H	-64.2	1.36	0.0	-65.56	-13	52.56					
89.7	44.19	V	-64.2	1.36	0.0	-65.56	-13	52.56					
1673.00	55.33	H	-58.8	1.50	8.8	-51.50	-13	38.50					
1673.00	55.04	V	-59.7	1.50	8.8	-52.40	-13	39.40					
High Channel													
284.8	43.72	H	-64.3	1.36	0.0	-65.66	-13	52.66					
89.7	44.05	V	-64.4	1.36	0.0	-65.76	-13	52.76					
1693.00	54.86	H	-59.3	1.50	8.8	-52.00	-13	39.00					
1693.00	54.60	V	-60.1	1.50	8.8	-52.80	-13	39.80					

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)					
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)								
N41 (30MHz-27GHz)													
Low Channel													
284.8	43.63	H	-64.4	1.36	0.0	-65.76	-25	40.76					
89.7	44.17	V	-64.2	1.36	0.0	-65.56	-25	40.56					
5002.02	52.41	H	-60.3	2.00	10.6	-51.70	-25	26.70					
5002.02	52.05	V	-59.9	2.00	10.6	-51.30	-25	26.30					
Middle Channel													
284.8	43.76	H	-64.2	1.36	0.0	-65.56	-25	40.56					
89.7	44.16	V	-64.2	1.36	0.0	-65.56	-25	40.56					
5185.98	52.53	H	-59.9	2.40	10.6	-51.70	-25	26.70					
5185.98	52.11	V	-60.0	2.40	10.6	-51.80	-25	26.80					
High Channel													
284.8	43.62	H	-64.4	1.36	0.0	-65.76	-25	40.76					
89.7	44.16	V	-64.2	1.36	0.0	-65.56	-25	40.56					
5370.00	52.31	H	-59.7	2.30	10.6	-51.40	-25	26.40					
5370.00	52.03	V	-59.9	2.30	10.6	-51.60	-25	26.60					
N66 (30MHz-18GHz)													
Low channel													
284.8	43.51	H	-64.5	1.36	0.0	-65.86	-13	52.86					
89.7	44.07	V	-64.3	1.36	0.0	-65.66	-13	52.66					
3425.00	52.22	H	-61.5	1.70	9.6	-53.60	-13	40.60					
3425.00	51.97	V	-61.5	1.70	9.6	-53.60	-13	40.60					
Middle channel													
284.8	43.58	H	-64.4	1.36	0.0	-65.76	-13	52.76					
89.7	44.11	V	-64.3	1.36	0.0	-65.66	-13	52.66					
3490.00	52.65	H	-60.9	1.80	9.7	-53.00	-13	40.00					
3490.00	52.18	V	-61.0	1.80	9.7	-53.10	-13	40.10					
High channel													
284.8	43.51	H	-64.5	1.36	0.0	-65.86	-13	52.86					
89.7	44.02	V	-64.4	1.36	0.0	-65.76	-13	52.76					
3555.00	52.40	H	-60.3	1.90	9.6	-52.60	-13	39.60					
3555.00	52.16	V	-60.3	1.90	9.6	-52.60	-13	39.60					

Frequency (MHz)	Receiver Reading (dB $\mu$ V)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)					
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)								
N71 (30MHz-10GHz)													
Low channel													
284.8	43.65	H	-64.3	1.36	0.0	-65.66	-13	52.66					
89.7	44.13	V	-64.3	1.36	0.0	-65.66	-13	52.66					
1331.00	55.18	H	-59.2	1.00	7.3	-52.90	-13	39.90					
1331.00	54.26	V	-61.0	1.00	7.3	-54.70	-13	41.70					
Middle channel													
284.8	43.60	H	-64.4	1.36	0.0	-65.76	-13	52.76					
89.7	43.99	V	-64.4	1.36	0.0	-65.76	-13	52.76					
1361.00	56.05	H	-58.3	0.90	7.8	-51.40	-13	38.40					
1361.00	55.49	V	-59.5	0.90	7.8	-52.60	-13	39.60					
High channel													
284.8	43.76	H	-64.2	1.36	0.0	-65.56	-13	52.56					
89.7	44.04	V	-64.4	1.36	0.0	-65.76	-13	52.76					
1391.00	55.68	H	-58.6	0.90	7.8	-51.70	-13	38.70					
1391.00	55.10	V	-59.9	0.90	7.8	-53.00	-13	40.00					

Note:

Absolute Level = Reading Level + Substituted Factor

Substituted Factor contains: Substituted Level - Cable loss+ Antenna Gain

Margin = Limit-Absolute Level

**RF Conducted data**

Please refer to Annex "Appendix H~M" for detail test data.

## **RF EXPOSURE INFORMATION**

### **Applicable Standard**

FCC§1.1310 and §2.1093.

### **Test Result**

Compliant, please refer to the SAR report: 2501P42038E-SA.

## **EUT PHOTOGRAPHS**

Please refer to the attachment 2501P42038E-RF External photo and 2501P42038E-RF Internal photo.

## **TEST SETUP PHOTOGRAPHS**

Please refer to the attachment 2501P42038E-RF-00C Test Setup photo.

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