

FCC PART 27
FCC PART 22H, PART 24E, PART 90
TEST REPORT

For

ComNav Technology Ltd.

Building 2, No.618 Chengliu Middle Rd. shanghai, China

FCC ID: 2ACHBMERCURY

Report Type: Original Report	Product Name: GNSS Receiver
Report Number:	<u>RKSA260302001-00E</u>
Report Date:	<u>2026-06-03</u>
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA260302001-00E	R1V1	2026-06-03	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	ComNav Technology Ltd.
Tested Model:	Mercury
Product Name:	GNSS Receiver
Power Supply:	DC 5V/9V from adapter or DC 7.3V from battery
Maximum Conducted Output Power:	Band 2: 20.31 dBm; Band 4: 21.52dBm Band 5: 23.95dBm; Band 7: 23.79 dBm Band 12: 24.16 dBm; Band 13: 23.77 dBm Band 25: 20.08 dBm; Band 26 (814-824MHz): 24.06 dBm Band 26 (824MHz): 23.83 dBm; Band 26 (824-849MHz): 23.92 dBm Band 38: 24.03 dBm; Band 41: 24.11 dBm
RF Function:	LTE
Operating Band/Frequency:	LTE Band 2: 1850-1910 MHz(TX), 1930-1990 MHz(RX) LTE Band 4: 1710-1755 MHz(TX), 2110-2155 MHz(RX) LTE Band 5: 824-849 MHz(TX), 869-894 MHz(RX) LTE Band 7: 2500-2570 MHz(TX), 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX) LTE Band 13: 777-787 MHz(TX), 746-756 MHz(RX) LTE Band 25: 1850-1915 MHz(TX), 1930-1995 MHz(RX) LTE Band 26: 814-849 MHz(TX), 859-894 MHz(RX) LTE Band 38: 2570-2620 MHz(TX), 2570-2620 MHz(RX) LTE Band 41: 2496-2690 MHz(TX), 2496-2690 MHz(RX)
Modulation Type:	QPSK, 16QAM
Antenna Type:	FPC Antenna
Sample/EUT Status:	Good condition
★Maximum Antenna Gain :	LTE Band 2: 3.9 dBi; LTE Band 4: 5.0 dBi LTE Band 5: 2.7 dBi; LTE Band 7: 1.7 dBi LTE Band 12: 2.6 dBi; LTE Band 13: 3.0 dBi LTE Band 25: 3.9 dBi; LTE Band 26: 2.7 dBi LTE Band 38: 1.7 dBi; LTE Band 41: 2.1 dBi

Adapter Information:

Model: QJ15QC09-ZU

Input: 100-240V, 50/60Hz, 0.5A Max

Output: 5.0V,3.0A 9V,2.0A, 12V,1.5A

Note: The device supports UE Category 1bis, and maximum 27RB for 16QAM mode.

All measurement and test data in this report was gathered from production sample serial number: RKSA260302001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2026-03-02.)

Objective

This type approval report is prepared for *ComNav Technology Ltd.* in accordance with Part 2, Part 22-Subpart H and Part 24-Subpart E, Part 27 and Part 90 of the Federal Communication Commission's rules.

The objective is to determine the compliance of 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, Sub-Part 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
 Part 90- PRIVATE LAND MOBILE RADIO SERVICES

Applicable Standards: ANSI C63.26-2015.

Measurement Uncertainty

Item		Uncertainty
RF Frequency		0.082×10^{-7}
RF output power, conducted		0.73dB
RF conducted test with spectrum		0.9dB
Radiated emission	9 kHz~150 kHz	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	5.91dB
	1GHz~6GHz	4.68dB
	6GHz~18GHz	4.92dB
	18GHz~40GHz	5.21dB
Occupied Bandwidth		0.5kHz
Temperature		1.0°C
Humidity		6%
Supply voltages		$\pm 0.4\%$

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Justification

The EUT was configured for testing according to ANSI C63.26-2015.

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

Channel List

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
LTE Band 2	1.4	1850.7	1880.0	1909.3
	3	1851.5	1880.0	1908.5
	5	1852.5	1880.0	1907.5
	10	1855.0	1880.0	1905.0
	15	1857.5	1880.0	1902.5
	20	1860.0	1880.0	1900.0
LTE Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715.0	1732.5	1750.0
	15	1717.5	1732.5	1747.5
	20	1720.0	1732.5	1745.0
LTE Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829.0	836.5	844.0
LTE Band 7	5	2502.5	2535.0	2567.5
	10	2505.0	2535.0	2565.0
	15	2507.5	2535.0	2562.5
	20	2510.0	2535.0	2560.0
LTE Band 12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704.0	707.5	711.0
LTE Band 13	5	779.5	782.0	784.5
	10	/	782.0	/

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
LTE Band 25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855.0	1882.5	1910.0
	15	1857.5	1882.5	1907.5
	20	1860.0	1882.5	1905.0
LTE Band 26 Upper	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
	15	831.5	836.5	841.5
LTE Band 38	5	2572.5	2595.0	2617.5
	10	2575.0	2595.0	2615.0
	15	2577.5	2595.0	2612.5
	20	2580.0	2595.0	2610.0
LTE Band 41	5	2498.5	2593.0	2687.5
	10	2501.0	2593.0	2685.0
	15	2503.5	2593.0	2682.5
	20	2506.0	2593.0	2680.0

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	High	Cross
LTE Band 26 Lower	1.4	814.7	823.3	824
	3	815.5	822.5	824
	5	816.5	821.5	824
	10	819	/	824
	15	821.5	/	824

Equipment Modifications

No modifications were made to the EUT.

Support Equipment List and Details

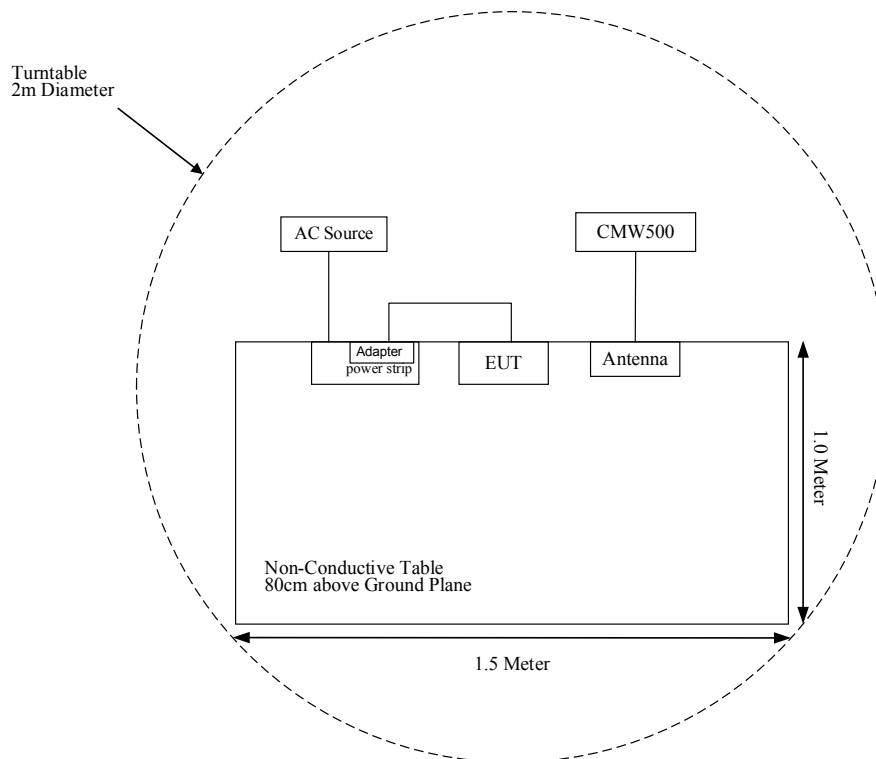
Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478
Aihuaxin technology	Antenna	/	/
/	Power strip	/	/

External I/O Cable

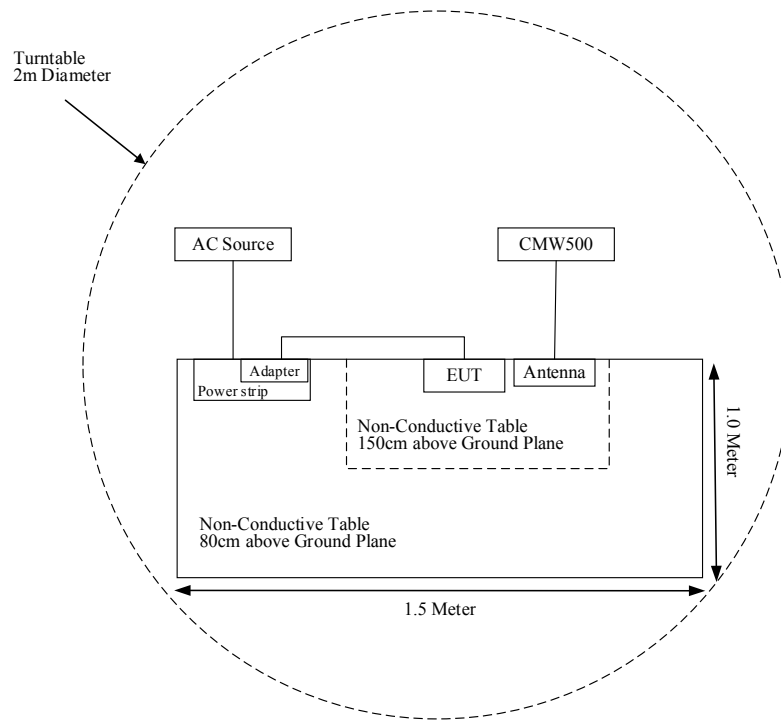
Cable Description	Length (m)	From Port	To Port
Power Cable	1.0	AC Source	Power strip
USB Cable	1.0	Adapter	EUT

Block Diagram of Test Setup

For Radiated Emissions(Below 1GHz):



For Radiated Emissions (Above 1 GHz):



TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2026-03-13	2027-03-12
Keysight	Signal Generator	N5183A	MY47420304	2026-03-13	2027-03-12
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2024-11-08	2027-11-07
Sunol Sciences	Hybrid Antenna	JB3	A090314-2	2024-10-29	2027-10-28
Sonoma Instrument	Amplifier	310N	171205	2026-03-13	2027-03-12
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-7	007	2026-03-16	2027-03-15
MICRO-COAX	Coaxial Cable	Cable-8	008	2026-03-13	2027-03-12
MICRO-COAX	Coaxial Cable	Cable-9	009	2026-03-13	2027-03-12
MICRO-COAX	Coaxial Cable	Cable-10	010	2026-03-13	2027-03-12
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2026-03-12	2027-03-11
Radiated Emission Test (Chamber #2)					
Keysight	Signal Generator	N5183A	MY47420304	2026-03-13	2027-03-12
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2026-03-16	2027-03-15
EMCO	Horn Antenna	3115	9207-3900	2024-11-03	2027-11-02
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2026-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
ETS-LINDGREN	Horn Antenna	3116	84159	2024-12-08	2027-12-07
A.H.Systems,inc	Amplifier	PAM-0118P	512	2026-03-16	2027-03-15
EM Electronics Corporation	Amplifier	EM18G40G	060726	2026-03-16	2027-03-15
Wi	Band reject filter (cavity)	SN1	WRCGV5-765-777-787-799-35SS	2026-03-13	2027-03-12
Wi	Band reject filter	SN1	WRCGV5-804-824-849-869-30SS	2026-04-08	2027-04-07
Wi	Band reject filter	SN1	WRCGV6-1830-1850-1910-1930-30SS	2026-04-08	2027-04-07
Wi	Band reject filter	SN1	WRCGV8-1695-1710-1755-1770-30SS	2026-04-08	2027-04-07
Wi	Band reject filter	SN3	WRCJV8-2450-2500-2570-2620-40SS	2026-03-13	2027-03-12
Wi	Band reject filter	SN2	WRCT16-697-699-716-718-60SS	2026-03-13	2027-03-12
Wi	Band reject filter	SN2	WRCJV8-2436-2496-2690-2750-25SS	2026-03-13	2027-03-12

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-25	025	2026-03-12	2027-03-11
MICRO-COAX	Coaxial Cable	Cable-11	011	2026-03-16	2027-03-15
MICRO-COAX	Coaxial Cable	Cable-12	012	2026-03-16	2027-03-15
MICRO-COAX	Coaxial Cable	Cable-13	013	2026-03-16	2027-03-15
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2026-03-12	2027-03-11
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSV40	101116	2026-03-16	2027-03-15
BACL	Temperature & Humidity Chamber	BTH-150	30023	2026-03-16	2027-03-15
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2026-03-16	2027-03-15
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2026-03-12	2027-03-11
Narda	Attenuator	10dB	010	2026-03-16	2027-03-15
Eastsheep	Attenuator	2W-N-JK-18G	20dB-01	2026-03-13	2027-03-12
MACOM	Power Splitter	2090-6214-00	96341	2026-03-13	2027-03-12
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A
Unknown	RF Cable	RF Cable C01	C01	Each Time	N/A

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

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307(b)(1)& §2.1093	RF EXPOSURE	Compliant
§ 2.1046; § 22.913 (a); §24.232 (c); §27.50 (b) (c) (d) (h) §90.635 (b)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049, §22.917, §22.905 &§24.238, §27.53; §90.209	Occupied Bandwidth	Compliant
§ 2.1051; § 22.917 (a); § 24.238 (a); §27.53 (c) (f) (g) (h) (m);§90.691	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a);§27.53 (c) (f) (g) (h) (m);§90.691	Spurious Radiated Emissions	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 (c) (f) (g) (h) (m); §90.691	Band Edge	Compliant
§ 2.1055; §2.1055; §22.355; §24.235; §27.54; §90.213	Frequency stability	Compliant

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

Applicable Standard

FCC§1.1307, §2.1093.

Measurement Result

Result: Please refer to the SAR report: RKSA260302001-20B.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E, Part 27, Part 90 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC §2.1046; § 22.913 (a); §24.232 (c); §27.50 (b) (c) (d) (h) §90.635 (b) - RF OUTPUT POWER

Applicable Standards

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts (38.45dBm).

According to §27.50(b) (10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

According to FCC §2.1046 and §24.232 (c), mobile and portable stations are limited to 2 watts (33dBm) EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(c), 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), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1780MHz.

According to §27.50(h) (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 §90.635 (b), The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

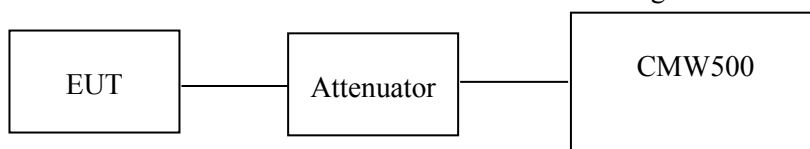
The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

Test Procedure

Conducted method:

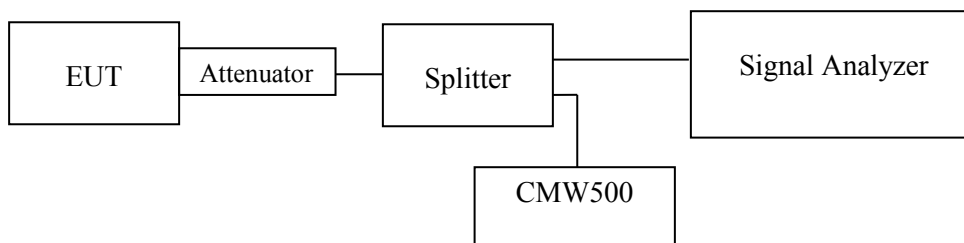
Maximum output power:

The RF output of the transmitter was connected to the CMW500 through sufficient attenuation.



Note: Offset (11dB) = Attenuator (10dB) + Cable Loss (1 dB) for maximum output power

Peak-to-average power ratio (PAPR)



Note: Offset (15dB) = Attenuator (10dB) + Splitter (4.5dB) + Cable Loss (0.5dB) for PAPR

Test Data: See appendix A

FCC §2.1049, §22.917, §22.905 & §24.238, §27.53, §90.209 - OCCUPIED BANDWIDTH

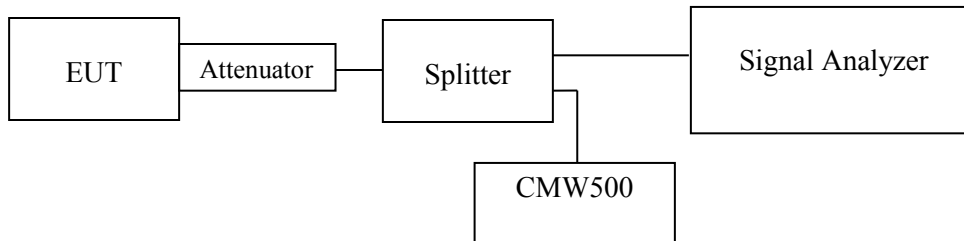
Applicable Standards

FCC 47 §2.1049, §22.917, §22.905 & §24.238, §27.53 and §90.209.

Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation. The 26 dB & 99% bandwidth was recorded.

Note : The 15dB is the Insertion loss of the RF cable, Power Splitter, Attenuator, which was offset into the Spectrum Analyzer.



Note: Offset (15dB) = Attenuator (10dB) + Splitter (4.5dB) + Cable Loss (0.5dB)

Test Data: See Appendix B

FCC § 2.1051; § 22.917 (a); § 24.238 (a); §27.53 (c) (f) (g) (h) (m); § 90.691 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standards

FCC §2.1051, §22.917(a), §24.238(a), §27.53 (c) (f) (g) (h) (m) and § 90.691.

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

According to §22.917(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.

24.238 (a) Out of band emissions. 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.

27.53 (c)

c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

27.53 (f)

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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

27.53 (h) AWS emission limits —

(1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log(P)$ dB.

27.53m(4) 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 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

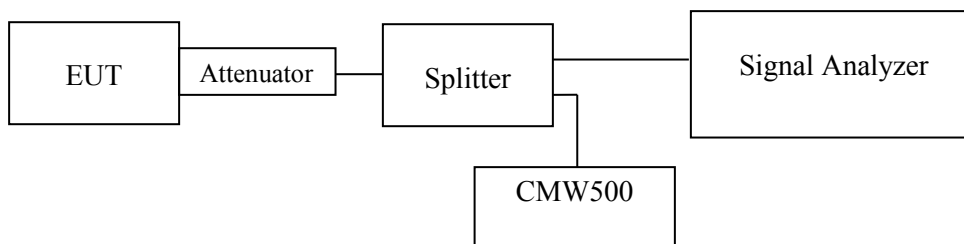
Part 90.691

Rule Part 90.691 specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

Test Procedure

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 100 kHz for below 1GHz & 1MHz for above 1GHz. sufficient scans were taken to show any out of band emissions up to 10th harmonic.

Note : The Insertion loss of the RF cable, Power Splitter, Attenuator, which was offset into the Spectrum Analyzer.



Note:

Offset (15.8dB) = Attenuator (10dB) + Splitter (4.5dB) + Cable Loss (1.3dB) for Band 2/4/25

Offset (15.3dB) = Attenuator (10dB) + Splitter (4.5dB) + Cable Loss (0.8dB) for Band 5/12/13/26

Offset (16.5dB) = Attenuator (10dB) + Splitter (4.5dB) + Cable Loss (2.0dB) for Band 7/38/41

Test Data: See Appendix D

FCC § 2.1053; § 22.917 (a); § 24.238 (a) & §27.53 (c) (f) (g) (h) (m); § 90.691 - SPURIOUS RADIATED EMISSIONS

Applicable Standards

FCC § 2.1053, §22.917(a) and § 24.238(a), §90.691 and § 27.53 (c) (f) (g) (h) (m)

22.917 (a)

Out of band emissions. 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.

24.238 (a)

Out of band emissions. 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.

27.53 (c)

c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

27.53 (f)

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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

27.53 (h) AWS emission limits —

- (1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.

27.53m(4) 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 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Rule Part 90.691 specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

Test Procedure

According to ANSI C63.26-2015 Section 5.5.3:

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 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.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Test Data: See Appendix A

FCC § 22.917 (a); § 24.238 (a); §27.53 (c) (f) (g) (h) (m); § 90.691 - BAND EDGES

Applicable Standards

22.917 (a)

Out of band emissions. 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.

24.238 (a)

Out of band emissions. 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.

27.53(c)

c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

27.53(f)

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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

27.53 (h) AWS emission limits —

(1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.

27.53m(4) 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 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

§ 90.691(a)

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

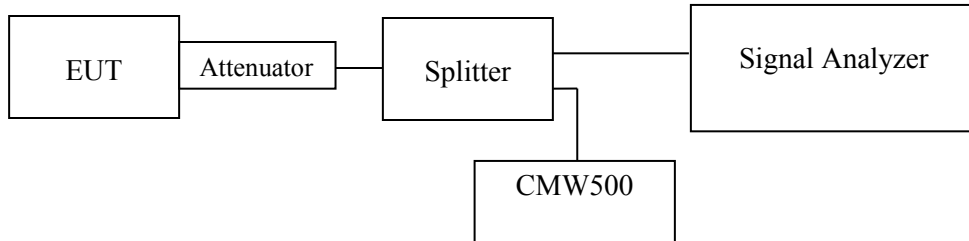
(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

Test Procedure

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 Insertion loss of the RF cable, Power Splitter, Attenuator, which was offset into the Spectrum Analyzer.



Note: Offset (15dB) = Attenuator (10dB) + Splitter (4.5dB)+Cable Loss (0.5dB) for FDD Band
Offset (17.23dB) = Attenuator (10dB) + Splitter (4.5dB)+Cable Loss (0.5dB)+ Duty Cycle
Factor(2.23dB) for TDD Band

Test Data: See Appendix C

FCC §2.1055; § 2.1055; §22.355; §24.235; §27.54 §90.213 - FREQUENCY STABILITY

Applicable Standards

FCC § 2.1055, §22.355, §24.235, §27.54 and § 90.213.

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 emissions stays within the authorized frequency block.

According to §27.54 Frequency stability, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

§90.213(a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table. Table 1 to § 90.213(a).

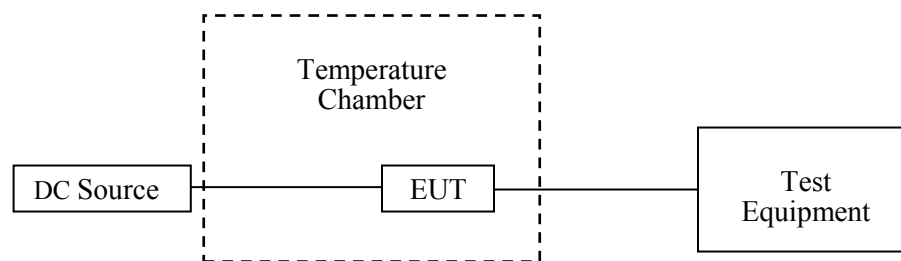
Test Procedure

According to 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.



Note: Offset (11dB) = Attenuator (10dB) + Cable Loss (1dB)

Test Data: See Appendix A

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A - EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B - EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT D - TEST SETUP PHOTOGRAPHS.

APPENDIX A - TEST DATA

RF OUTPUT POWER

Environmental Conditions & Test Information

Test Date:	2026-04-27 to 2026-05-21
Temperature:	22.7-23.5°C
Relative Humidity:	48-52 %
ATM Pressure:	101.2-102.5 kPa
Test Engineer:	Neil Zhou

Please check the APPENDIX F_RF Output power for detail.

Peak-to-average ratio (PAR):

Please check the APPENDIX E_Peak-to-average Ratio for detail.

OCCUPIED BANDWIDTH**Environmental Conditions & Test Information**

Test Date:	2026-04-18 to 2026-04-20
Temperature:	21.7-23.2 °C
Relative Humidity:	47-51 %
ATM Pressure:	100.9-101.8kPa
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

LTE: Please check the APPENDIX B_Occupied bandwidth for detail.

SPURIOUS EMISSIONS AT ANTENNA TERMINALS**Environmental Conditions & Test Information**

Test Date:	2026-04-28 to 2026-05-21
Temperature:	21.8-23.5℃
Relative Humidity:	49-52 %
ATM Pressure:	101.4-102.5 kPa
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

Test Result: Compliance

LTE: Please check the APPENDIX D_TX spurious for detail.

SPURIOUS RADIATED EMISSIONS**Environmental Conditions & Test Information**

Test Date:	2026-04-27 to 2026-05-21
Temperature:	22.7-23.5℃
Relative Humidity:	48-52 %
ATM Pressure:	101.2-102.5 kPa
Test Engineer:	Neil Zhou

Test mode: Transmitting (Pre-scan with 1RB of all the bandwidth, and worst case as below)

30 MHz ~ 10 GHz:

LTE Band 5:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
279.95	45.87	H	-59.02	0.45	-2.19	-61.66	-13	48.66
279.95	47.66	V	-59.84	0.45	-2.19	-62.48	-13	49.48
1649.40	48.63	H	-64.71	0.84	8.44	-57.11	-13	44.11
1649.40	47.47	V	-65.87	0.84	8.44	-58.27	-13	45.27
16-QAM 1.4MHz Bandwidth Low Channel								
279.95	46.21	H	-58.68	0.45	-2.19	-61.32	-13	48.32
279.95	48.00	V	-59.50	0.45	-2.19	-62.14	-13	49.14
1649.40	47.85	H	-65.49	0.84	8.44	-57.89	-13	44.89
1649.40	47.12	V	-66.22	0.84	8.44	-58.62	-13	45.62
QPSK 1.4MHz Bandwidth Middle Channel								
631.85	38.46	H	-59.44	0.60	-1.00	-61.04	-13	48.04
631.85	42.45	V	-58.68	0.60	-1.00	-60.28	-13	47.28
1673.00	48.19	H	-64.98	0.84	8.48	-57.34	-13	44.34
1673.00	47.48	V	-65.69	0.84	8.48	-58.05	-13	45.05
16-QAM 1.4MHz Bandwidth Middle Channel								
631.85	38.33	H	-59.57	0.60	-1.00	-61.17	-13	48.17
631.85	42.43	V	-58.70	0.60	-1.00	-60.30	-13	47.30
1673.00	48.12	H	-65.05	0.84	8.48	-57.41	-13	44.41
1673.00	47.14	V	-66.03	0.84	8.48	-58.39	-13	45.39
QPSK 1.4MHz Bandwidth High Channel								
631.85	38.18	H	-59.72	0.60	-1.00	-61.32	-13	48.32
631.85	42.19	V	-58.94	0.60	-1.00	-60.54	-13	47.54
1696.60	47.13	H	-65.88	0.84	8.52	-58.20	-13	45.20
1696.60	47.98	V	-65.03	0.84	8.52	-57.35	-13	44.35
16-QAM 1.4MHz Bandwidth High Channel								
631.85	39.55	H	-58.35	0.60	-1.00	-59.95	-13	46.95
631.85	41.85	V	-59.28	0.60	-1.00	-60.88	-13	47.88
1696.60	47.19	H	-65.82	0.84	8.52	-58.14	-13	45.14
1696.60	48.23	V	-64.78	0.84	8.52	-57.10	-13	44.10

LTE Band 12:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
634.78	37.92	H	-59.56	0.60	-1.03	-61.19	-13	48.19
634.78	42.48	V	-58.60	0.60	-1.03	-60.23	-13	47.23
1399.40	50.85	H	-63.32	0.82	7.92	-56.22	-13	43.22
1399.40	51.61	V	-62.56	0.82	7.92	-55.46	-13	42.46
16-QAM 1.4MHz Bandwidth Low Channel								
634.78	38.07	H	-59.41	0.60	-1.03	-61.04	-13	48.04
634.78	42.41	V	-58.67	0.60	-1.03	-60.30	-13	47.30
1399.40	52.03	H	-62.14	0.82	7.92	-55.04	-13	42.04
1399.40	52.71	V	-61.46	0.82	7.92	-54.36	-13	41.36
QPSK 1.4MHz Bandwidth Middle Channel								
279.99	47.21	H	-57.69	0.45	-2.19	-60.33	-13	47.33
279.99	48.73	V	-58.77	0.45	-2.19	-61.41	-13	48.41
1415.00	51.50	H	-62.70	0.82	7.96	-55.56	-13	42.56
1415.00	52.38	V	-61.82	0.82	7.96	-54.68	-13	41.68
16-QAM 1.4MHz Bandwidth Middle Channel								
279.99	45.34	H	-59.56	0.45	-2.19	-62.20	-13	49.20
279.99	49.01	V	-58.49	0.45	-2.19	-61.13	-13	48.13
1415.00	50.34	H	-63.86	0.82	7.96	-56.72	-13	43.72
1415.00	49.60	V	-64.60	0.82	7.96	-57.46	-13	44.46
QPSK 1.4MHz Bandwidth High Channel								
634.78	38.61	H	-58.87	0.60	-1.03	-60.50	-13	47.50
634.78	41.24	V	-59.84	0.60	-1.03	-61.47	-13	48.47
1430.60	51.71	H	-62.52	0.82	8.01	-55.33	-13	42.33
1430.60	53.05	V	-61.18	0.82	8.01	-53.99	-13	40.99
16-QAM 1.4MHz Bandwidth High Channel								
634.78	38.08	H	-59.40	0.60	-1.03	-61.03	-13	48.03
634.78	40.79	V	-60.29	0.60	-1.03	-61.92	-13	48.92
1430.60	51.44	H	-62.79	0.82	8.01	-55.60	-13	42.60
1430.60	52.26	V	-61.97	0.82	8.01	-54.78	-13	41.78

LTE Band 13:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5MHz Bandwidth Low Channel								
634.79	38.76	H	-58.72	0.60	-1.03	-60.35	-13	47.35
634.79	43.29	V	-57.79	0.60	-1.03	-59.42	-13	46.42
1559.00	48.20	H	-65.76	0.83	8.29	-58.30	-40	18.30
1559.00	49.23	V	-64.73	0.83	8.29	-57.27	-40	17.27
16-QAM 5MHz Bandwidth Low Channel								
634.79	37.89	H	-59.59	0.60	-1.03	-61.22	-13	48.22
634.79	42.70	V	-58.38	0.60	-1.03	-60.01	-13	47.01
1559.00	47.14	H	-66.82	0.83	8.29	-59.36	-40	19.36
1559.00	48.41	V	-65.55	0.83	8.29	-58.09	-40	18.09
QPSK 5MHz Bandwidth High Channel								
634.79	38.33	H	-59.15	0.60	-1.03	-60.78	-13	47.78
634.79	42.78	V	-58.30	0.60	-1.03	-59.93	-13	46.93
1569.00	46.79	H	-67.10	0.83	8.31	-59.62	-40	19.62
1569.00	47.61	V	-66.28	0.83	8.31	-58.80	-40	18.80
16-QAM 5MHz Bandwidth High Channel								
634.79	37.64	H	-59.84	0.60	-1.03	-61.47	-13	48.47
634.79	42.12	V	-58.96	0.60	-1.03	-60.59	-13	47.59
1569.00	46.98	H	-66.91	0.83	8.31	-59.43	-40	19.43
1569.00	47.85	V	-66.04	0.83	8.31	-58.56	-40	18.56

LTE Band 26(814MHz~824MHz):

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
634.79	37.86	H	-59.62	0.60	-1.03	-61.25	-13	48.25
634.79	42.32	V	-58.76	0.60	-1.03	-60.39	-13	47.39
1629.40	47.19	H	-66.28	0.84	8.41	-58.71	-13	45.71
1629.40	48.08	V	-65.39	0.84	8.41	-57.82	-13	44.82
16-QAM 1.4MHz Bandwidth Low Channel								
634.79	37.68	H	-59.80	0.60	-1.03	-61.43	-13	48.43
634.79	42.21	V	-58.87	0.60	-1.03	-60.50	-13	47.50
1629.40	46.56	H	-66.91	0.84	8.41	-59.34	-13	46.34
1629.40	47.45	V	-66.02	0.84	8.41	-58.45	-13	45.45
QPSK 1.4MHz Bandwidth High Channel								
634.79	36.79	H	-60.69	0.60	-1.03	-62.32	-13	49.32
634.79	41.24	V	-59.84	0.60	-1.03	-61.47	-13	48.47
1646.60	47.11	H	-66.25	0.84	8.43	-58.66	-13	45.66
1646.60	47.98	V	-65.38	0.84	8.43	-57.79	-13	44.79
16-QAM 1.4MHz Bandwidth High Channel								
634.79	37.21	H	-60.27	0.60	-1.03	-61.90	-13	48.90
634.79	41.90	V	-59.18	0.60	-1.03	-60.81	-13	47.81
1646.60	46.83	H	-66.53	0.84	8.43	-58.94	-13	45.94
1646.60	47.97	V	-65.39	0.84	8.43	-57.80	-13	44.80

LTE Band 26(824MHz):

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Middle Channel								
280.01	47.49	H	-57.41	0.45	-2.19	-60.05	-13	47.05
280.01	51.21	V	-56.29	0.45	-2.19	-58.93	-13	45.93
1648.00	48.17	H	-66.50	0.84	8.61	-58.73	-13	45.73
1648.00	49.21	V	-65.46	0.84	8.61	-57.69	-13	44.69
16-QAM 1.4MHz Bandwidth Middle Channel								
634.79	38.98	H	-58.50	0.60	-1.03	-60.13	-13	47.13
634.79	43.49	V	-57.59	0.60	-1.03	-59.22	-13	46.22
1648.00	48.48	H	-66.19	0.84	8.61	-58.42	-13	45.42
1648.00	47.59	V	-67.08	0.84	8.61	-59.31	-13	46.31

LTE Band 26(824MHz~849MHz):

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
280.01	47.97	H	-56.93	0.45	-2.19	-59.57	-13	46.57
280.01	49.80	V	-57.70	0.45	-2.19	-60.34	-13	47.34
1649.40	47.01	H	-66.33	0.84	8.44	-58.73	-13	45.73
1649.40	48.05	V	-65.29	0.84	8.44	-57.69	-13	44.69
16-QAM 1.4MHz Bandwidth Low Channel								
280.01	47.94	H	-56.96	0.45	-2.19	-59.60	-13	46.60
280.01	49.72	V	-57.78	0.45	-2.19	-60.42	-13	47.42
1649.40	47.32	H	-66.02	0.84	8.44	-58.42	-13	45.42
1649.40	46.43	V	-66.91	0.84	8.44	-59.31	-13	46.31
QPSK 1.4MHz Bandwidth Middle Channel								
634.79	39.03	H	-58.45	0.60	-1.03	-60.08	-13	47.08
634.79	43.60	V	-57.48	0.60	-1.03	-59.11	-13	46.11
1663.00	46.54	H	-66.70	0.84	8.46	-59.08	-13	46.08
1663.00	47.43	V	-65.81	0.84	8.46	-58.19	-13	45.19
16-QAM 1.4MHz Bandwidth Middle Channel								
634.79	38.56	H	-58.92	0.60	-1.03	-60.55	-13	47.55
634.79	42.99	V	-58.09	0.60	-1.03	-59.72	-13	46.72
1663.00	46.65	H	-66.59	0.84	8.46	-58.97	-13	45.97
1663.00	47.49	V	-65.75	0.84	8.46	-58.13	-13	45.13
QPSK 1.4MHz Bandwidth High Channel								
634.79	39.92	H	-57.56	0.60	-1.03	-59.19	-13	46.19
634.79	42.67	V	-58.41	0.60	-1.03	-60.04	-13	47.04
1696.60	46.31	H	-66.70	0.84	8.51	-59.03	-13	46.03
1696.60	47.16	V	-65.85	0.84	8.51	-58.18	-13	45.18
16-QAM 1.4MHz Bandwidth High Channel								
634.79	39.64	H	-57.84	0.60	-1.03	-59.47	-13	46.47
634.79	42.38	V	-58.70	0.60	-1.03	-60.33	-13	47.33
1696.60	45.28	H	-67.73	0.84	8.51	-60.06	-13	47.06
1696.60	46.21	V	-66.80	0.84	8.51	-59.13	-13	46.13

30 MHz ~ 20 GHz:**LTE Band 2:**

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
634.75	37.82	H	-59.66	0.60	-1.03	-61.29	-13	48.29
634.75	42.39	V	-58.69	0.60	-1.03	-60.32	-13	47.32
3701.40	46.24	H	-60.72	0.95	9.78	-51.89	-13	38.89
3701.40	45.38	V	-61.58	0.95	9.78	-52.75	-13	39.75
16-QAM 1.4MHz Bandwidth Low Channel								
634.75	38.24	H	-59.24	0.60	-1.03	-60.87	-13	47.87
634.75	42.76	V	-58.32	0.60	-1.03	-59.95	-13	46.95
3701.40	46.10	H	-60.86	0.95	9.78	-52.03	-13	39.03
3701.40	45.22	V	-61.74	0.95	9.78	-52.91	-13	39.91
QPSK 1.4MHz Bandwidth Middle Channel								
280.01	46.90	H	-58.00	0.45	-2.19	-60.64	-13	47.64
280.01	48.35	V	-59.15	0.45	-2.19	-61.79	-13	48.79
3760.00	44.85	H	-61.93	0.95	9.74	-53.14	-13	40.14
3760.00	45.96	V	-60.82	0.95	9.74	-52.03	-13	39.03
16-QAM 1.4MHz Bandwidth Middle Channel								
280.01	47.17	H	-57.73	0.45	-2.19	-60.37	-13	47.37
280.01	48.96	V	-58.54	0.45	-2.19	-61.18	-13	48.18
3760.00	45.01	H	-61.77	0.95	9.74	-52.98	-13	39.98
3760.00	46.15	V	-60.63	0.95	9.74	-51.84	-13	38.84
QPSK 1.4MHz Bandwidth High Channel								
634.76	37.88	H	-59.60	0.60	-1.03	-61.23	-13	48.23
634.76	42.27	V	-58.81	0.60	-1.03	-60.44	-13	47.44
3818.60	46.05	H	-60.54	0.96	9.71	-51.79	-13	38.79
3818.60	45.18	V	-61.41	0.96	9.71	-52.66	-13	39.66
16-QAM 1.4MHz Bandwidth High Channel								
634.76	37.34	H	-60.14	0.60	-1.03	-61.77	-13	48.77
634.76	41.87	V	-59.21	0.60	-1.03	-60.84	-13	47.84
3818.60	46.17	H	-60.42	0.96	9.71	-51.67	-13	38.67
3818.60	45.34	V	-61.25	0.96	9.71	-52.50	-13	39.50

LTE Band 4:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
634.79	38.56	H	-58.92	0.60	-1.03	-60.55	-13	47.55
634.79	43.03	V	-58.05	0.60	-1.03	-59.68	-13	46.68
3421.40	71.03	H	-36.91	0.93	9.82	-28.02	-13	15.02
3421.40	69.72	V	-38.22	0.93	9.82	-29.33	-13	16.33
16-QAM 1.4MHz Bandwidth Low Channel								
634.79	38.03	H	-59.45	0.60	-1.03	-61.08	-13	48.08
634.79	42.58	V	-58.50	0.60	-1.03	-60.13	-13	47.13
3421.40	71.16	H	-36.78	0.93	9.82	-27.89	-13	14.89
3421.40	70.08	V	-37.86	0.93	9.82	-28.97	-13	15.97
QPSK 1.4MHz Bandwidth Middle Channel								
400.06	45.33	H	-59.88	0.53	-1.35	-61.76	-13	48.76
400.06	45.42	V	-59.03	0.53	-1.35	-60.91	-13	47.91
3465.00	71.70	H	-36.05	0.93	9.87	-27.11	-13	14.11
3465.00	70.77	V	-36.98	0.93	9.87	-28.04	-13	15.04
16-QAM 1.4MHz Bandwidth Middle Channel								
400.06	45.89	H	-59.32	0.53	-1.35	-61.20	-13	48.20
400.06	46.14	V	-58.31	0.53	-1.35	-60.19	-13	47.19
3465.00	70.96	H	-36.79	0.93	9.87	-27.85	-13	14.85
3465.00	70.12	V	-37.63	0.93	9.87	-28.69	-13	15.69
QPSK 1.4MHz Bandwidth High Channel								
280.02	47.22	H	-57.68	0.45	-2.19	-60.32	-13	47.32
280.02	48.93	V	-58.57	0.45	-2.19	-61.21	-13	48.21
3508.60	69.99	H	-37.58	0.93	9.89	-28.62	-13	15.62
3508.60	70.66	V	-36.91	0.93	9.89	-27.95	-13	14.95
16-QAM 1.4MHz Bandwidth High Channel								
280.02	47.00	H	-57.90	0.45	-2.19	-60.54	-13	47.54
280.02	48.76	V	-58.74	0.45	-2.19	-61.38	-13	48.38
3508.60	70.06	H	-37.51	0.93	9.89	-28.55	-13	15.55
3508.60	70.98	V	-36.59	0.93	9.89	-27.63	-13	14.63

LTE Band 25:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4MHz Bandwidth Low Channel								
839.94	34.31	H	-60.31	0.63	-1.06	-62.00	-13	49.00
839.94	38.96	V	-59.36	0.63	-1.06	-61.05	-13	48.05
3701.40	46.45	H	-60.51	0.95	9.78	-51.68	-13	38.68
3701.40	45.26	V	-61.70	0.95	9.78	-52.87	-13	39.87
16-QAM 1.4MHz Bandwidth Low Channel								
839.94	33.95	H	-60.67	0.63	-1.06	-62.36	-13	49.36
839.94	38.51	V	-59.81	0.63	-1.06	-61.50	-13	48.50
3701.40	46.40	H	-60.56	0.95	9.78	-51.73	-13	38.73
3701.40	45.33	V	-61.63	0.95	9.78	-52.80	-13	39.80
QPSK 1.4MHz Bandwidth Middle Channel								
631.79	38.40	H	-59.51	0.60	-1.00	-61.11	-13	48.11
631.79	42.83	V	-58.30	0.60	-1.00	-59.90	-13	46.90
3765.00	46.29	H	-60.47	0.95	9.74	-51.68	-13	38.68
3765.00	45.40	V	-61.36	0.95	9.74	-52.57	-13	39.57
16-QAM 1.4MHz Bandwidth Middle Channel								
631.79	39.24	H	-58.67	0.60	-1.00	-60.27	-13	47.27
631.79	43.24	V	-57.89	0.60	-1.00	-59.49	-13	46.49
3765.00	46.48	H	-60.28	0.95	9.74	-51.49	-13	38.49
3765.00	45.59	V	-61.17	0.95	9.74	-52.38	-13	39.38
QPSK 1.4MHz Bandwidth High Channel								
631.78	38.41	H	-59.50	0.60	-1.00	-61.10	-13	48.10
631.78	42.50	V	-58.63	0.60	-1.00	-60.23	-13	47.23
3828.60	46.05	H	-60.51	0.96	9.70	-51.77	-13	38.77
3828.60	44.97	V	-61.59	0.96	9.70	-52.85	-13	39.85
16-QAM 1.4MHz Bandwidth High Channel								
631.78	38.79	H	-59.12	0.60	-1.00	-60.72	-13	47.72
631.78	43.04	V	-58.09	0.60	-1.00	-59.69	-13	46.69
3828.60	40.01	H	-66.55	0.96	9.70	-57.81	-13	44.81
3828.60	39.08	V	-67.48	0.96	9.70	-58.74	-13	45.74

30 MHz ~ 26.5 GHz:**LTE Band 7:**

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5MHz Bandwidth Low Channel								
634.79	38.02	H	-59.46	0.60	-1.03	-61.09	-25	36.09
634.79	42.53	V	-58.55	0.60	-1.03	-60.18	-25	35.18
5005.00	50.66	H	-55.33	1.08	10.30	-46.11	-25	21.11
5005.00	51.53	V	-54.46	1.08	10.30	-45.24	-25	20.24
16-QAM 5MHz Bandwidth Low Channel								
634.79	37.83	H	-59.65	0.60	-1.03	-61.28	-25	36.28
634.79	42.58	V	-58.50	0.60	-1.03	-60.13	-25	35.13
5005.00	50.46	H	-55.53	1.08	10.30	-46.31	-25	21.31
5005.00	51.49	V	-54.50	1.08	10.30	-45.28	-25	20.28
QPSK 5MHz Bandwidth Middle Channel								
280.01	45.38	H	-59.52	0.45	-2.19	-62.16	-25	37.16
280.01	46.84	V	-60.66	0.45	-2.19	-63.30	-25	38.30
5070.00	51.22	H	-54.41	1.09	10.30	-45.20	-25	20.20
5070.00	52.10	V	-53.53	1.09	10.30	-44.32	-25	19.32
16-QAM 5MHz Bandwidth Middle Channel								
280.01	45.99	H	-58.91	0.45	-2.19	-61.55	-25	36.55
280.01	47.39	V	-60.11	0.45	-2.19	-62.75	-25	37.75
5070.00	51.22	H	-54.41	1.09	10.30	-45.20	-25	20.20
5070.00	52.37	V	-53.26	1.09	10.30	-44.05	-25	19.05
QPSK 5MHz Bandwidth High Channel								
634.79	37.24	H	-60.24	0.60	-1.03	-61.87	-25	36.87
634.79	41.92	V	-59.16	0.60	-1.03	-60.79	-25	35.79
5135.00	51.44	H	-53.83	1.10	10.30	-44.63	-25	19.63
5135.00	50.67	V	-54.60	1.10	10.30	-45.40	-25	20.40
16-QAM 5MHz Bandwidth High Channel								
634.79	37.85	H	-59.63	0.60	-1.03	-61.26	-25	36.26
634.79	42.39	V	-58.69	0.60	-1.03	-60.32	-25	35.32
5135.00	51.72	H	-53.55	1.10	10.30	-44.35	-25	19.35
5135.00	50.80	V	-54.47	1.10	10.30	-45.27	-25	20.27

LTE Band 38:

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5MHz Bandwidth Low Channel								
634.79	38.77	H	-58.71	0.60	-1.03	-60.34	-25	35.34
634.79	43.23	V	-57.85	0.60	-1.03	-59.48	-25	34.48
5145.00	51.20	H	-54.01	1.10	10.30	-44.81	-25	19.81
5145.00	52.12	V	-53.09	1.10	10.30	-43.89	-25	18.89
16-QAM 5MHz Bandwidth Low Channel								
634.79	39.36	H	-58.12	0.60	-1.03	-59.75	-25	34.75
634.79	43.78	V	-57.30	0.60	-1.03	-58.93	-25	33.93
5145.00	51.14	H	-54.07	1.10	10.30	-44.87	-25	19.87
5145.00	52.03	V	-53.18	1.10	10.30	-43.98	-25	18.98
QPSK 5MHz Bandwidth Middle Channel								
634.64	38.93	H	-58.55	0.60	-1.03	-60.18	-25	35.18
634.64	43.68	V	-57.40	0.60	-1.03	-59.03	-25	34.03
5190.00	51.18	H	-53.78	1.11	10.30	-44.59	-25	19.59
5190.00	50.37	V	-54.59	1.11	10.30	-45.40	-25	20.40
16-QAM 5MHz Bandwidth Middle Channel								
634.64	38.72	H	-58.76	0.60	-1.03	-60.39	-25	35.39
634.64	43.05	V	-58.03	0.60	-1.03	-59.66	-25	34.66
5190.00	49.85	H	-55.11	1.11	10.30	-45.92	-25	20.92
5190.00	49.55	V	-55.41	1.11	10.30	-46.22	-25	21.22
QPSK 5MHz Bandwidth High Channel								
634.79	38.84	H	-58.64	0.60	-1.03	-60.27	-25	35.27
634.79	43.38	V	-57.70	0.60	-1.03	-59.33	-25	34.33
5235.00	51.28	H	-53.43	1.12	10.30	-44.25	-25	19.25
5235.00	50.22	V	-54.49	1.12	10.30	-45.31	-25	20.31
16-QAM 5MHz Bandwidth High Channel								
634.79	40.11	H	-57.37	0.60	-1.03	-59.00	-25	34.00
634.79	42.70	V	-58.38	0.60	-1.03	-60.01	-25	35.01
5235.00	50.79	H	-53.92	1.12	10.30	-44.74	-25	19.74
5235.00	49.91	V	-54.80	1.12	10.30	-45.62	-25	20.62

30 MHz ~ 27 GHz:**LTE Band 41:**

Frequency (MHz)	Receiver Reading (dBμV)	Rx Antenna	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Polar (H/V)	Submitted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5MHz Bandwidth Low Channel								
280.01	47.56	H	-57.34	0.45	-2.19	-59.98	-25	34.98
280.01	48.81	V	-58.69	0.45	-2.19	-61.33	-25	36.33
4997.00	50.96	H	-55.07	1.08	10.30	-45.85	-25	20.85
4997.00	50.07	V	-55.96	1.08	10.30	-46.74	-25	21.74
16-QAM 5MHz Bandwidth Low Channel								
280.01	47.42	H	-57.48	0.45	-2.19	-60.12	-25	35.12
280.01	48.75	V	-58.75	0.45	-2.19	-61.39	-25	36.39
4997.00	51.04	H	-54.99	1.08	10.30	-45.77	-25	20.77
4997.00	49.91	V	-56.12	1.08	10.30	-46.90	-25	21.90
QPSK 5MHz Bandwidth Middle Channel								
634.79	38.71	H	-58.77	0.60	-1.03	-60.40	-25	35.40
634.79	43.18	V	-57.90	0.60	-1.03	-59.53	-25	34.53
5186.00	51.19	H	-53.80	1.10	10.30	-44.60	-25	19.60
5186.00	50.15	V	-54.84	1.10	10.30	-45.64	-25	20.64
16-QAM 5MHz Bandwidth Middle Channel								
634.79	38.85	H	-58.63	0.60	-1.03	-60.26	-25	35.26
634.79	43.38	V	-57.70	0.60	-1.03	-59.33	-25	34.33
5186.00	51.06	H	-53.93	1.10	10.30	-44.73	-25	19.73
5186.00	49.94	V	-55.05	1.10	10.30	-45.85	-25	20.85
QPSK 5MHz Bandwidth High Channel								
634.79	39.34	H	-58.14	0.60	-1.03	-59.77	-25	34.77
634.79	42.02	V	-59.06	0.60	-1.03	-60.69	-25	35.69
5375.00	49.21	H	-54.73	1.13	10.30	-45.56	-25	20.56
5375.00	48.28	V	-55.66	1.13	10.30	-46.49	-25	21.49
16-QAM 5MHz Bandwidth High Channel								
634.79	39.53	H	-57.95	0.60	-1.03	-59.58	-25	34.58
634.79	42.12	V	-58.96	0.60	-1.03	-60.59	-25	35.59
5375.00	49.15	H	-54.79	1.13	10.30	-45.62	-25	20.62
5375.00	48.22	V	-55.72	1.13	10.30	-46.55	-25	21.55

Note:

1) Absolute Level (dBm) = Submitted Level (dBm) - Cable loss (dB) + Antenna Gain (dBd/dBi)

2) Margin (dB) = Limit (dBm) - Absolute Level (dBm)

Antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz

BAND EDGES**Environmental Conditions & Test Information**

Test Date:	2026-04-20 to 2026-05-21
Temperature:	23.2-23.5 °C
Relative Humidity:	47-52 %
ATM Pressure:	101.8-102.5 kPa
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

Test Result: Compliant.

LTE: Please check the APPENDIX C_Band edge for detail.

FREQUENCY STABILITY**Environmental Conditions & Test Information**

Test Date:	2026-04-27 to 2026-05-21
Temperature:	22.7-23.5℃
Relative Humidity:	48-52 %
ATM Pressure:	101.2-102.5 kPa
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

LTE Band 2:

20.0 MHz Low Channel & High Channel (QPSK)					
Temperature (°C)	Voltage Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	7.3	1850.06369	1909.89952	1850	1910
-20		1850.06217	1909.91917	1850	1910
-10		1850.05798	1909.90137	1850	1910
0		1850.07832	1909.92450	1850	1910
10		1850.06238	1909.89996	1850	1910
20		1850.05341	1909.88241	1850	1910
30		1850.05784	1909.89736	1850	1910
40		1850.05086	1909.91602	1850	1910
50		1850.06075	1909.96833	1850	1910
20	V min.= 6.2	1850.06645	1909.97717	1850	1910
	V max.= 8.4	1850.05734	1909.95212	1850	1910

20.0 MHz Low Channel & High Channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	7.3	1850.07498	1909.93366	1850	1910
-20		1850.06473	1909.96847	1850	1910
-10		1850.06490	1909.96069	1850	1910
0		1850.06781	1909.86691	1850	1910
10		1850.06900	1909.96893	1850	1910
20		1850.05832	1909.95808	1850	1910
30		1850.05877	1909.96268	1850	1910
40		1850.06433	1909.94350	1850	1910
50		1850.06116	1909.89988	1850	1910
20	V min.= 6.2	1850.05367	1909.01477	1850	1910
	V max.= 8.4	1850.06150	1909.97728	1850	1910

LTE Band 4:

20.0 MHz Low Channel & High Channel (QPSK)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	1710.07085	1754.98818	1710	1755
-20		1710.05020	1754.91755	1710	1755
-10		1710.05348	1754.95450	1710	1755
0		1710.05498	1754.81656	1710	1755
10		1710.04387	1754.87614	1710	1755
20		1710.05699	1754.91614	1710	1755
30		1710.04299	1754.94984	1710	1755
40		1710.06272	1754.94368	1710	1755
50		1710.06219	1754.93379	1710	1755
20	V min.= 6.2	1710.07574	1754.89176	1710	1755
	V max.= 8.4	1710.07966	1754.92409	1710	1755

20.0 MHz Low Channel & High Channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	1710.05908	1754.97832	1710	1755
-20		1710.05033	1754.91109	1710	1755
-10		1710.06041	1754.93085	1710	1755
0		1710.04594	1754.94571	1710	1755
10		1710.04823	1754.97963	1710	1755
20		1710.05475	1754.93804	1710	1755
30		1710.05209	1754.85590	1710	1755
40		1710.05885	1754.91027	1710	1755
50		1710.05831	1754.96262	1710	1755
20	V min.= 6.2	1710.05446	1754.90814	1710	1755
	V max.= 8.4	1710.07812	1754.93412	1710	1755

LTE Band 5:

10.0 MHz Middle channel (QPSK)				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-10	-0.01195	2.5
-20		-14	-0.01674	2.5
-10		-8	-0.00956	2.5
0		-6	-0.00717	2.5
10		-11	-0.01315	2.5
20		-7	-0.00837	2.5
30		-12	-0.01435	2.5
40		-14	-0.01674	2.5
50		-12	-0.01435	2.5
20	V min.= 6.2	-13	-0.01554	2.5
	V max.= 8.4	-9	-0.01076	2.5

10.0 MHz Middle channel (16-QAM)				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-6	-0.00717	2.5
-20		-7	-0.00837	2.5
-10		-14	-0.01674	2.5
0		-15	-0.01793	2.5
10		-10	-0.01195	2.5
20		-14	-0.01674	2.5
30		-7	-0.00837	2.5
40		-7	-0.00837	2.5
50		-14	-0.01674	2.5
20	V min.= 6.2	-13	-0.01554	2.5
	V max.= 8.4	-6	-0.00717	2.5

LTE Band 7:

20 MHz Bandwidth Low Channel & High Channel (QPSK)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	2500.05654	2569.97610	2500	2570
-20		2500.06528	2569.84621	2500	2570
-10		2500.05802	2569.83336	2500	2570
0		2500.05620	2569.96217	2500	2570
10		2500.06514	2569.93543	2500	2570
20		2500.04921	2569.82203	2500	2570
30		2500.06118	2569.89197	2500	2570
40		2500.05699	2569.93505	2500	2570
50		2500.06243	2569.87746	2500	2570
20	V min.= 6.2	2500.06054	2569.95721	2500	2570
	V max.= 8.4	2500.07253	2569.97254	2500	2570

20 MHz Bandwidth Low Channel & High Channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	2500.05646	2569.88493	2500	2570
-20		2500.05661	2569.89261	2500	2570
-10		2500.06270	2569.89954	2500	2570
0		2500.04728	2569.89704	2500	2570
10		2500.05042	2569.90998	2500	2570
20		2500.05467	2569.95588	2500	2570
30		2500.04724	2569.96956	2500	2570
40		2500.04488	2569.92768	2500	2570
50		2500.07308	2569.92211	2500	2570
20	V min.= 6.2	2500.08098	2569.88938	2500	2570
	V max.= 8.4	2500.05328	2569.96999	2500	2570

LTE Band 12:

QPSK, 10MHz, low channel& high channel					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	699.05718	715.83276	699	716
-20		699.04436	715.95679	699	716
-10		699.07513	715.90064	699	716
0		699.06473	715.84437	699	716
10		699.04210	715.87659	699	716
20		699.05736	715.88622	699	716
30		699.05891	715.93116	699	716
40		699.06823	715.87288	699	716
50		699.06486	715.93235	699	716
20	V min.= 6.2	699.05475	715.86315	699	716
	V max.= 8.4	699.06533	715.98128	699	716

16QAM, 10MHz, low channel& high channel					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	699.07044	715.97130	699	716
-20		699.07506	715.95477	699	716
-10		699.05782	715.91170	699	716
0		699.05476	715.89294	699	716
10		699.06572	715.90522	699	716
20		699.06848	715.97747	699	716
30		699.05478	715.89851	699	716
40		699.06879	715.82270	699	716
50		699.05893	715.97434	699	716
20	V min.= 6.2	699.05681	715.87709	699	716
20	V max.= 8.4	699.06590	715.90228	699	716

LTE Band 13:

QPSK, 10MHz, Middle channel					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	777.08718	786.95589	777	787
-20		777.06216	786.97337	777	787
-10		777.06051	786.88110	777	787
0		777.04951	786.84652	777	787
10		777.06956	786.84695	777	787
20		777.04895	786.91177	777	787
30		777.06459	786.94886	777	787
40		777.05773	786.97426	777	787
50		777.06893	786.88886	777	787
20	V min.= 6.2	777.05470	786.80723	777	787
	V max.= 8.4	777.04150	786.80086	777	787

16QAM, 10MHz, Middle channel					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	777.05057	786.88166	777	787
-20		777.05810	786.92605	777	787
-10		777.07597	786.95189	777	787
0		777.06078	786.88044	777	787
10		777.05400	786.85523	777	787
20		777.06001	786.89733	777	787
30		777.06410	786.89297	777	787
40		777.07721	786.90484	777	787
50		777.05000	786.99542	777	787
20	V min.= 6.2	777.05584	786.99755	777	787
	V max.= 8.4	777.05749	786.87838	777	787

LTE Band 25:

20.0 MHz Low Channel & High Channel (QPSK)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L	F_H	F_L Limit	F_H Limit
-30	7.3	1850.06075	1914.91818	1850	1915
-20		1850.07289	1914.88823	1850	1915
-10		1850.06282	1914.88316	1850	1915
0		1850.04156	1914.82012	1850	1915
10		1850.04621	1914.88882	1850	1915
20		1850.06485	1914.90866	1850	1915
30		1850.06869	1914.82288	1850	1915
40		1850.05218	1914.93653	1850	1915
50		1850.06145	1914.83573	1850	1915
20	V min.= 6.2	1850.06634	1914.88502	1850	1915
	V max.= 8.4	1850.07183	1914.88540	1850	1915

20.0 MHz Low Channel & High Channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L	F_H	F_L Limit	F_H Limit
-30	7.3	1850.06490	1914.88003	1850	1915
-20		1850.05873	1914.86042	1850	1915
-10		1850.07804	1914.86778	1850	1915
0		1850.07565	1914.83816	1850	1915
10		1850.04928	1914.85489	1850	1915
20		1850.06942	1914.83160	1850	1915
30		1850.05894	1914.84865	1850	1915
40		1850.06484	1914.83132	1850	1915
50		1850.05239	1914.82608	1850	1915
20	V min.= 6.2	1850.04303	1914.82941	1850	1915
	V max.= 8.4	1850.02138	1914.80973	1850	1915

LTE Band 26(824-849MHz):

QPSK, 15.0 MHz, Middle channel (836.5MHz)				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-6	-0.00717	2.5
-20		-8	-0.00956	2.5
-10		-7	-0.00837	2.5
0		-10	-0.01195	2.5
10		-12	-0.01435	2.5
20		-9	-0.01076	2.5
30		-14	-0.01674	2.5
40		-10	-0.01195	2.5
50		-9	-0.01076	2.5
20	V min.= 6.2	-15	-0.01793	2.5
	V max.= 8.4	-5	-0.00598	2.5

16-QAM, 15.0 MHz, Middle channel (836.5MHz)				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-12	-0.01435	2.5
-20		-7	-0.00837	2.5
-10		-9	-0.01076	2.5
0		-13	-0.01554	2.5
10		-10	-0.01195	2.5
20		-6	-0.00717	2.5
30		-10	-0.01195	2.5
40		-8	-0.00956	2.5
50		-14	-0.01674	2.5
20	V min.= 6.2	-9	-0.01076	2.5
	V max.= 8.4	-10	-0.01195	2.5

LTE Band 26(814-824MHz):

QPSK, 5MHz_Middle channel (821.5MHz)				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-5	-0.00609	2.5
-20		-9	-0.01096	2.5
-10		-6	-0.0073	2.5
0		-7	-0.00852	2.5
10		-13	-0.01582	2.5
20		-6	-0.0073	2.5
30		-6	-0.0073	2.5
40		-9	-0.01096	2.5
50		-14	-0.01704	2.5
20	V min.= 6.2	-6	-0.0073	2.5
	V max.= 8.4	-9	-0.01096	2.5

16-QAM, 5MHz_Middle channel (821.5MHz)				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	7.3	-7	-0.00852	2.5
-20		-9	-0.01096	2.5
-10		-9	-0.01096	2.5
0		-12	-0.01461	2.5
10		-5	-0.00609	2.5
20		-9	-0.01096	2.5
30		-9	-0.01096	2.5
40		-6	-0.0073	2.5
50		-13	-0.01582	2.5
20	V min.= 6.2	-15	-0.01826	2.5
	V max.= 8.4	-8	-0.00974	2.5

LTE Band 38:

20MHz Bandwidth low channel &high channel (QPSK)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	2570.07353	2619.69329	2570	2620
-20		2570.08801	2619.77014	2570	2620
-10		2570.08331	2619.97463	2570	2620
0		2570.09743	2619.89227	2570	2620
10		2570.08473	2619.80076	2570	2620
20		2570.11059	2619.88578	2570	2620
30		2570.11966	2619.88682	2570	2620
40		2570.08076	2619.79689	2570	2620
50		2570.09291	2619.98231	2570	2620
20	V min.= 6.2	2570.09894	2619.88405	2570	2620
	V max.= 8.4	2570.09277	2619.79561	2570	2620

20MHz Bandwidth low channel &high channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	7.3	2570.09336	2619.79302	2570	2620
-20		2570.09659	2619.80628	2570	2620
-10		2570.08838	2619.96966	2570	2620
0		2570.04232	2619.90582	2570	2620
10		2570.06337	2619.88815	2570	2620
20		2570.02223	2619.85985	2570	2620
30		2570.07739	2619.93047	2570	2620
40		2570.01765	2619.91637	2570	2620
50		2570.08515	2619.94397	2570	2620
20	V min.= 6.2	2570.04553	2619.88883	2570	2620
20	V max.= 8.4	2570.04940	2619.83565	2570	2620

LTE Band 41:

20MHz Bandwidth low channel &high channel (QPSK)					
Temperature (°C)	Voltage Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	7.3	2496.19489	2689.57160	2496	2690
-20		2496.19924	2689.64504	2496	2690
-10		2496.18627	2689.69186	2496	2690
0		2496.15042	2689.56688	2496	2690
10		2496.18052	2689.87036	2496	2690
20		2496.15403	2689.60001	2496	2690
30		2496.16460	2689.69819	2496	2690
40		2496.17005	2689.62339	2496	2690
50		2496.15304	2689.59249	2496	2690
20	V min.= 6.2	2496.17921	2689.62031	2496	2690
	V max.= 8.4	2496.18215	2689.82923	2496	2690

20MHz Bandwidth low channel &high channel (16-QAM)					
Temperature (°C)	Voltage Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	7.3	2496.16631	2689.89044	2496	2690
-20		2496.11788	2689.94594	2496	2690
-10		2496.10510	2689.88861	2496	2690
0		2496.09934	2689.94739	2496	2690
10		2496.07008	2689.79922	2496	2690
20		2496.12942	2689.83597	2496	2690
30		2496.11462	2689.98487	2496	2690
40		2496.12572	2689.90280	2496	2690
50		2496.14882	2689.95893	2496	2690
20	V min.= 6.2	2496.13405	2689.83589	2496	2690
	V max.= 8.4	2496.09708	2689.94099	2496	2690

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with “★”.
2. The test data was only valid for the test sample(s).
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.

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