TEST REPORT

Applicant Name:	HONG KONG YO YOUNG INTELLIGENT CO., LIMITED
Address:	19H MAXGRAND PLAZA NO.3 TAI YAU STREET SAN PO KONG,KOWLOON,HONGKONG
Report Number:	2401V31893E-RF-00F
FCC ID:	2A8X4-AIR3

Test Standard (s)

FCC PART 27; FCC PART 22H; FCC PART 24E; FCC PART 90

Sample Description

Product Type:	Smart phone
Model No.:	Air3
Multiple Model(s) No.:	N/A
Trade Mark:	IIIF150
Date Received:	2024/07/22
Issue Date:	2024/09/10

Test Result:	Pass▲

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

Prepared and Checked By:

Gala Liu

RF Engineer

Approved By:

Nancy Wang

RF Supervisor

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

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

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401V31893E-RF-00F	Original Report	2024/09/10

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Smart phone		
Tested Model	Air3		
Multiple Model(s)	N/A		
Frequency Range	GSM 850: 824-849MHz(TX); 869-894MHz(RX) PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(RX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 13: 777-787MHz(TX); 746-756MHz(RX) LTE Band 17: 704-716MHz(TX); 734-746MHz(RX) LTE Band 25: 1850-1915MHz(TX);1930-1995MHz(RX) LTE Band 26(Part 22): 824-849MHz(TX); 869-894MHz(RX) LTE Band 26(Part 90): 814-824MHz(TX); 859-869MHz(RX) LTE Band 38: 2570-2620MHz(TX/RX) LTE Band 41: 2535-2655MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX); 2110-2200MHz(RX)		
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM		
Antenna Specification#	Operation Bands	Antenna Gain (G_T) (dBi)	L_C (dB)
	GSM 850/WCDMA B5/LTE B5	-4.83	0.6
	PCS1900/WCDMA B2/LTE B2/ LTE B25	-1.16	0
	WCDMA B4/ LTE B4	-0.95	0
	LTE B7	0	0
	LTE B12/ LTE B17	-5.51	0.6
	LTE B13	-5.34	0.6
	LTE B26	-4.83	0.6
	LTE B38/ LTE B41	0.25	0
	LTE B66	-0.79	0
	Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.		
Voltage Range	DC3.87V from Li-ion Battery or DC 5/9/12/15/3.3-11V from adapter		
Sample serial number	2ONZ-2 for Radiated Emissions Test 2ONZ-1 for RF Conducted Test (Assigned by BACL, Shenzhen)		
Sample/EUT Status	Good condition		
Normal/Extreme Condition#	L.V.: Low Voltage 3.42V_{DC} N.V.: Normal Voltage 3.87V_{DC} H.V.: High Voltage 4.45V_{DC}		
Adapter Information	Model: FC69U Input: AC 100-240V, 50/60Hz, 0.8A Max Output: QC: DC 5V, 3A or 9V, 3A or 12V, 2.5A PD: DC 5V, 3A or 9V, 3A or 12V, 2.5A or 15V, 2A PPS: DC 3.3-11V, 2.72A		

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part24-Subpart E, Part 27 and Part 90 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
Part 90 – Private Land Mobile Radio Services

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB 971168 D01: Power Meas License Digital Systems v03r01

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

Each test item follows test standards and with no deviation.

Measurement Uncertainty

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

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

Test Facility

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

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
GSM850	0.25	824.2	836.6	848.8
PCS1900	0.25	1850.2	1880	1909.8
WCDMA B2	4.2	1852.4	1880	1907.6
WCDMA B4	4.2	1712.4	1732.4	1752.6
WCDMA B5	4.2	826.4	836.4	846.6
LTE B2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE B4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE B5	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
LTE B7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE B12	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 B13	5	779.5	782	784.5
	10	/	782	/
LTE B17	5	706.5	710	713.5
	10	709	710	711

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
LTE B25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855	1882.5	1910
	15	1857.5	1882.5	1907.5
	20	1860	1882.5	1905

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Lowest for 90s	Highest for 90s	Channel Cross 90s and 22H
LTE 26(Part 90s)	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
	Note: For 15MHz bandwidth, 821.5MHz cross Rules 90s and 22H.			
Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Lowest for 22H	Middle for 22H	Highest for 22H
LTE 26(Part 22H)	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

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
LTE B38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610
LTE B41	5	2537.5	2595	2652.5
	10	2540	2595	2650
	15	2542.5	2595	2647.5
	20	2545	2595	2645
LTE B66	1.4	1710.7	1745	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770

Equipment Modifications

No modification was made to the EUT.

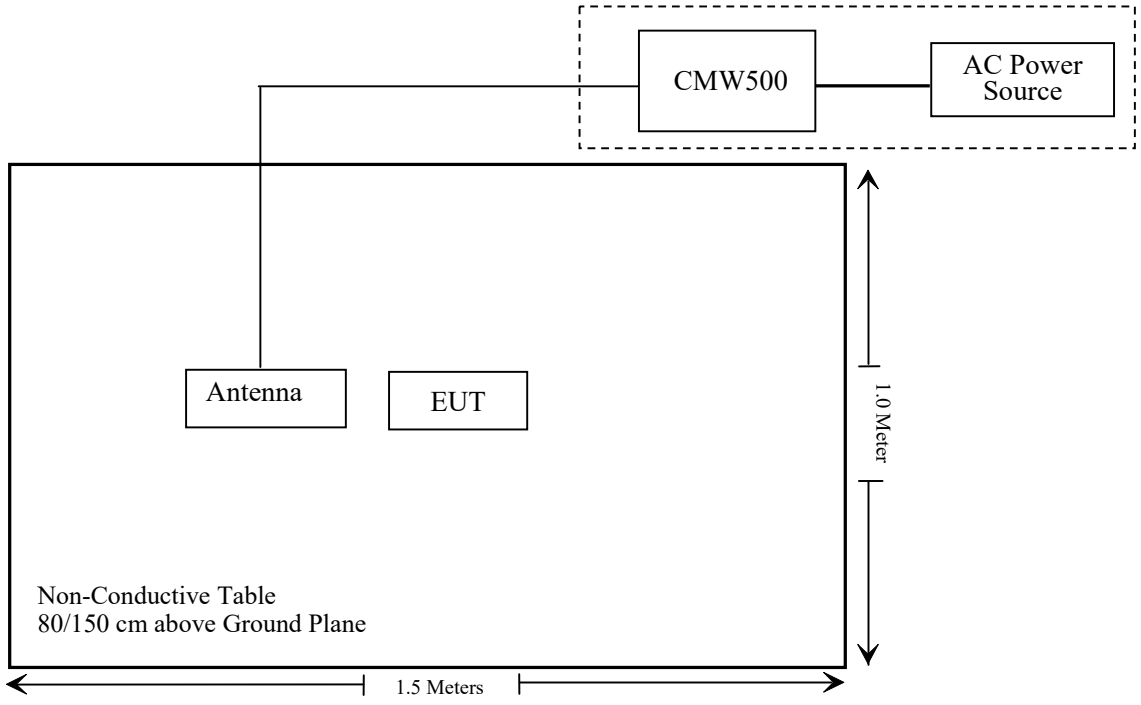
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520

Support Cable Description

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

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

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

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
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	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
Unknown	RF Cable	XH750A-N	J-10M	2024/06/18	2025/06/17
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	2024/06/18	2025/06/17
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
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	2023/08/03	2024/08/02
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Agilent	Signal Generator	N5183A	MY50140588	2023/12/18	2024/12/17

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200982	2023/12/18	2024/12/17
Rohde & Schwarz	Spectrum Analyzer	FSV40	101473	2024/01/16	2025/01/15
BACL	Temperature & Humidity Chamber	BTH-150-40	30145	2024/01/16	2025/01/15
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2024/05/21	2025/05/20
narda	Power divider	SN5	100005	2024/06/27	2025/06/26
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM119	2024/06/27	2025/06/26
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2024/05/21	2025/05/20
Unknown	RF Cable	65475	01670515	2024/06/27	2025/06/26

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

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

Applicable Standard

FCC§1.1307 and §2.1093.

Test Result

Compliant, please refer to the SAR report: 2403V31893E-20.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

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

Applicable Standard

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

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

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

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

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

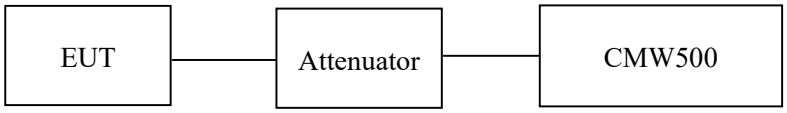
According to §27.50(h), the maximum EIRP must not exceed 2Watts (33dBm) for 2496-2690MHz.

According to §90.635, the maximum ERP must not exceed 100Watts (50dBm) for 814-824MHz.

Test Procedure

Conducted method: ANSI C63.26-2015 Section 5.2

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



Test Data

Environmental Conditions

Temperature:	25~26.5℃
Relative Humidity:	40~50%
ATM Pressure:	101 kPa

The testing was performed by Jim Cheng and Allen Bai from 2024-08-02 to 2024-08-14.

Test Result: Compliant

The test data of GSM and WCDMA please refer to the Appendix A&B.

LTE Band 2

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	20.31	20.26	20.30	19.31	33
	RB1#3	20.37	20.31	20.35		
	RB1#5	20.28	20.22	20.29		
	RB3#0	20.41	20.43	20.45		
	RB3#3	20.47	20.41	20.42		
	RB6#0	19.52	19.45	19.52		
1.4MHz 16QAM	RB1#0	19.32	19.30	19.42	18.48	33
	RB1#3	19.41	19.33	19.54		
	RB1#5	19.35	19.31	19.41		
	RB3#0	19.54	19.62	19.40		
	RB3#3	19.56	19.64	19.42		
	RB6#0	18.44	18.54	18.56		
3MHz QPSK	RB1#0	20.18	20.12	20.26	19.14	33
	RB1#8	20.25	20.20	20.30		
	RB1#14	20.15	20.17	20.16		
	RB6#0	19.37	19.39	19.38		
	RB6#9	19.35	19.39	19.34		
	RB15#0	19.33	19.37	19.39		
3MHz 16QAM	RB1#0	19.24	19.86	19.36	18.70	33
	RB1#8	19.32	19.85	19.46		
	RB1#14	19.20	19.73	19.34		
	RB6#0	18.36	18.49	18.45		
	RB6#9	18.29	18.46	18.46		
	RB15#0	18.43	18.48	18.38		
5MHz QPSK	RB1#0	19.86	19.67	19.90	18.90	33
	RB1#13	20.04	19.76	20.06		
	RB1#24	19.90	19.65	19.88		
	RB15#0	18.88	18.84	18.63		
	RB15#10	18.94	18.80	18.57		
	RB25#0	18.87	18.84	18.63		
5MHz 16QAM	RB1#0	20.72	20.66	20.58	**19.65**	33
	RB1#13	20.81	20.64	20.56		
	RB1#24	20.70	20.59	20.48		
	RB15#0	19.71	19.70	19.60		
	RB15#10	19.86	19.75	19.54		
	RB25#0	19.78	19.74	19.60		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	19.81	20.49	19.80	19.33	33
	RB1#25	19.91	20.46	19.81		
	RB1#49	19.86	20.39	19.70		
	RB25#0	18.83	18.79	18.70		
	RB25#25	19.00	18.84	18.62		
	RB50#0	18.90	18.84	18.68		
10MHz 16QAM	RB1#0	20.64	20.62	20.60	19.62	33
	RB1#25	20.78	20.69	20.64		
	RB1#49	20.65	20.55	20.46		
	RB25#0	19.67	19.72	19.58		
	RB25#25	19.76	19.74	19.53		
	RB50#0	19.74	19.74	19.57		
15MHz QPSK	RB1#0	20.43	20.48	20.29	**19.49**	33
	RB1#38	20.52	20.50	20.34		
	RB1#74	20.51	20.45	20.29		
	RB36#0	20.65	20.63	20.40		
	RB36#39	20.65	20.63	20.45		
	RB75#0	19.72	19.71	19.50		
15MHz 16QAM	RB1#0	19.62	19.57	19.50	18.79	33
	RB1#38	19.61	19.63	19.57		
	RB1#74	19.58	19.55	19.48		
	RB36#0	19.82	19.92	19.61		
	RB36#39	19.88	19.95	19.61		
	RB75#0	18.71	18.79	18.59		
20MHz QPSK	RB1#0	20.28	20.30	20.15	19.28	33
	RB1#50	20.30	20.44	20.20		
	RB1#99	20.14	20.31	20.07		
	RB50#0	19.38	19.55	19.38		
	RB50#50	19.68	19.50	19.41		
	RB100#0	19.62	19.61	19.40		
20MHz 16QAM	RB1#0	19.27	19.35	19.16	18.57	33
	RB1#50	19.35	19.33	19.16		
	RB1#99	19.59	19.38	19.09		
	RB50#0	19.73	19.44	19.14		
	RB50#50	19.62	19.20	19.05		
	RB100#0	18.40	18.37	18.23		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 4

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	18.40	18.45	18.26	17.67	30
	RB1#3	18.49	18.47	18.31		
	RB1#5	18.48	18.42	18.26		
	RB3#0	18.62	18.60	18.37		
	RB3#3	18.62	18.60	18.42		
	RB6#0	17.69	17.68	17.47		
1.4MHz 16QAM	RB1#0	17.59	17.54	17.47	16.97	30
	RB1#3	17.58	17.60	17.54		
	RB1#5	17.55	17.52	17.45		
	RB3#0	17.79	17.89	17.58		
	RB3#3	17.85	17.92	17.58		
	RB6#0	16.68	16.76	16.56		
3MHz QPSK	RB1#0	18.25	18.27	18.12	17.46	30
	RB1#8	18.27	18.41	18.17		
	RB1#14	18.11	18.28	18.04		
	RB6#0	17.35	17.52	17.35		
	RB6#9	17.65	17.47	17.38		
	RB15#0	17.59	17.58	17.37		
3MHz 16QAM	RB1#0	18.10	17.52	17.28	17.29	30
	RB1#8	18.24	17.66	17.40		
	RB1#14	18.09	17.55	17.26		
	RB6#0	16.77	16.57	16.34		
	RB6#9	16.74	16.64	16.33		
	RB15#0	16.78	16.59	16.54		
5MHz QPSK	RB1#0	18.60	18.61	18.50	17.83	30
	RB1#13	18.78	18.73	18.60		
	RB1#24	18.63	18.56	18.44		
	RB15#0	17.72	17.66	17.58		
	RB15#10	17.81	17.67	17.48		
	RB25#0	17.78	17.71	17.55		
5MHz 16QAM	RB1#0	17.83	17.64	17.87	17.08	30
	RB1#13	18.01	17.73	18.03		
	RB1#24	17.87	17.62	17.85		
	RB15#0	16.85	16.81	16.60		
	RB15#10	16.91	16.77	16.54		
	RB25#0	16.84	16.81	16.60		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	18.69	18.63	18.55	17.83	30
	RB1#25	18.78	18.61	18.53		
	RB1#49	18.67	18.56	18.45		
	RB25#0	17.68	17.67	17.57		
	RB25#25	17.83	17.72	17.51		
	RB50#0	17.75	17.71	17.57		
10MHz 16QAM	RB1#0	17.78	18.46	17.77	17.51	30
	RB1#25	17.88	18.43	17.78		
	RB1#49	17.83	18.36	17.67		
	RB25#0	16.80	16.76	16.67		
	RB25#25	16.97	16.81	16.59		
	RB50#0	16.87	16.81	16.65		
15MHz QPSK	RB1#0	18.61	18.59	18.57	17.80	30
	RB1#38	18.75	18.66	18.61		
	RB1#74	18.62	18.52	18.43		
	RB36#0	17.64	17.69	17.55		
	RB36#39	17.73	17.71	17.50		
	RB75#0	17.71	17.71	17.54		
15MHz 16QAM	RB1#0	18.25	18.49	17.78	**17.54**	30
	RB1#38	18.39	18.45	17.84		
	RB1#74	18.22	18.33	17.67		
	RB36#0	16.69	16.75	16.65		
	RB36#39	16.74	16.75	16.58		
	RB75#0	16.79	16.74	16.62		
20MHz QPSK	RB1#0	18.63	16.76	17.69	**17.84**	30
	RB1#50	18.79	16.83	17.73		
	RB1#99	18.62	16.58	17.48		
	RB50#0	17.77	15.84	16.77		
	RB50#50	17.95	15.80	16.65		
	RB100#0	17.84	15.85	16.72		
20MHz 16QAM	RB1#0	17.42	16.19	17.01	16.56	30
	RB1#50	17.51	16.27	17.13		
	RB1#99	17.31	16.05	16.81		
	RB50#0	16.86	16.90	16.83		
	RB50#50	16.98	16.89	16.72		
	RB100#0	16.91	16.89	16.77		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 5

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	23.41	23.36	23.40	15.99	38.45
	RB1#3	23.47	23.41	23.45		
	RB1#5	23.38	23.32	23.39		
	RB3#0	23.51	23.53	23.55		
	RB3#3	23.57	23.51	23.52		
	RB6#0	22.62	22.55	22.62		
1.4MHz 16QAM	RB1#0	22.42	22.40	22.52	15.16	38.45
	RB1#3	22.51	22.43	22.64		
	RB1#5	22.45	22.41	22.51		
	RB3#0	22.64	22.72	22.50		
	RB3#3	22.66	22.74	22.52		
	RB6#0	21.54	21.64	21.66		
3MHz QPSK	RB1#0	23.28	23.22	23.36	15.82	38.45
	RB1#8	23.35	23.30	23.40		
	RB1#14	23.25	23.27	23.26		
	RB6#0	22.47	22.49	22.48		
	RB6#9	22.45	22.49	22.44		
	RB15#0	22.43	22.47	22.49		
3MHz 16QAM	RB1#0	22.34	22.96	22.46	15.38	38.45
	RB1#8	22.42	22.95	22.56		
	RB1#14	22.30	22.83	22.44		
	RB6#0	21.46	21.59	21.55		
	RB6#9	21.39	21.56	21.56		
	RB15#0	21.53	21.58	21.48		
5MHz QPSK	RB1#0	23.65	23.70	23.75	**16.22**	38.45
	RB1#13	23.76	23.76	23.80		
	RB1#24	23.65	23.65	23.69		
	RB15#0	22.70	22.68	22.76		
	RB15#10	22.71	22.64	22.63		
	RB25#0	22.74	22.73	22.71		
5MHz 16QAM	RB1#0	22.76	22.63	23.02	**15.54**	38.45
	RB1#13	22.87	22.72	23.12		
	RB1#24	22.75	22.61	22.99		
	RB15#0	21.76	21.81	21.77		
	RB15#10	21.79	21.74	21.65		
	RB25#0	21.78	21.80	21.68		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	23.11	23.09	23.20	15.62	38.45
	RB1#25	23.09	23.10	23.19		
	RB1#49	23.04	23.10	23.20		
	RB25#0	21.98	22.03	22.08		
	RB25#25	22.13	22.07	22.08		
	RB50#0	22.06	22.09	22.05		
10MHz 16QAM	RB1#0	22.62	22.31	22.23	15.12	38.45
	RB1#25	22.70	22.30	22.27		
	RB1#49	22.70	22.34	22.21		
	RB25#0	21.03	21.12	21.21		
	RB25#25	21.23	21.09	21.23		
	RB50#0	21.13	21.16	21.15		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 7

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	16.74	16.82	16.67	**17.00**	33
	RB1#13	16.93	17.00	16.82		
	RB1#24	16.76	16.88	16.69		
	RB15#0	15.66	15.87	15.79		
	RB15#10	15.71	15.87	15.74		
	RB25#0	15.76	15.91	15.76		
5MHz 16QAM	RB1#0	15.69	16.15	15.88	16.28	33
	RB1#13	15.82	16.28	15.89		
	RB1#24	15.71	16.16	15.80		
	RB15#0	14.92	14.94	14.88		
	RB15#10	14.92	14.96	14.88		
	RB25#0	14.89	14.97	14.87		
10MHz QPSK	RB1#0	16.88	16.94	16.87	16.95	33
	RB1#25	16.86	16.95	16.86		
	RB1#49	16.86	16.93	16.81		
	RB25#0	15.84	15.89	15.83		
	RB25#25	15.85	16.00	15.74		
	RB50#0	15.83	15.90	15.85		
10MHz 16QAM	RB1#0	15.88	16.57	15.97	16.61	33
	RB1#25	15.90	16.61	15.97		
	RB1#49	15.90	16.60	15.95		
	RB25#0	14.99	15.09	14.97		
	RB25#25	14.99	15.15	14.93		
	RB50#0	14.93	15.06	14.98		
15MHz QPSK	RB1#0	16.78	16.87	16.86	16.97	33
	RB1#38	16.93	16.97	16.91		
	RB1#74	16.82	16.87	16.75		
	RB36#0	15.81	15.87	15.79		
	RB36#39	15.82	15.88	15.76		
	RB75#0	15.86	15.86	15.83		
15MHz 16QAM	RB1#0	16.27	16.50	15.99	**16.68**	33
	RB1#38	16.41	16.68	16.07		
	RB1#74	16.26	16.58	15.95		
	RB36#0	14.88	14.99	14.93		
	RB36#39	14.86	15.03	14.85		
	RB75#0	14.90	15.05	14.88		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	16.70	16.77	16.74	16.99	33
	RB1#50	16.91	16.99	16.90		
	RB1#99	16.76	16.87	16.75		
	RB50#0	15.86	15.83	15.83		
	RB50#50	15.86	15.90	15.71		
	RB100#0	15.82	15.87	15.73		
20MHz 16QAM	RB1#0	16.33	16.11	16.04	16.50	33
	RB1#50	16.50	16.34	16.19		
	RB1#99	16.39	16.20	16.00		
	RB50#0	14.93	14.93	14.95		
	RB50#50	14.93	15.02	14.84		
	RB100#0	14.89	14.96	14.88		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 12

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.75	22.94	22.82	14.90	34.77
	RB1#3	23.07	23.00	22.86		
	RB1#5	22.97	22.97	22.83		
	RB3#0	23.13	23.11	22.96		
	RB3#3	23.16	23.10	22.95		
	RB6#0	22.20	22.12	21.96		
1.4MHz 16QAM	RB1#0	22.03	22.02	21.90	14.11	34.77
	RB1#3	22.11	22.04	22.03		
	RB1#5	22.06	21.98	21.89		
	RB3#0	22.24	22.33	21.87		
	RB3#3	22.30	22.37	21.84		
	RB6#0	21.19	21.18	21.06		
3MHz QPSK	RB1#0	22.85	22.76	22.70	14.67	34.77
	RB1#8	22.93	22.83	22.80		
	RB1#14	22.84	22.75	22.64		
	RB6#0	22.05	22.01	21.89		
	RB6#9	22.05	22.00	21.86		
	RB15#0	22.04	22.01	21.90		
3MHz 16QAM	RB1#0	21.89	22.45	21.83	14.23	34.77
	RB1#8	22.00	22.49	21.98		
	RB1#14	21.91	22.36	21.82		
	RB6#0	20.97	21.12	20.94		
	RB6#9	21.02	21.07	20.98		
	RB15#0	21.11	21.13	20.92		
5MHz QPSK	RB1#0	23.09	23.05	23.05	14.90	34.77
	RB1#13	23.16	23.13	23.09		
	RB1#24	23.04	23.06	22.90		
	RB15#0	22.09	22.16	21.96		
	RB15#10	22.15	22.03	21.89		
	RB25#0	22.12	22.18	21.92		
5MHz 16QAM	RB1#0	22.19	22.00	22.37	14.15	34.77
	RB1#13	22.31	22.13	22.41		
	RB1#24	22.18	22.04	22.23		
	RB15#0	21.14	21.30	21.02		
	RB15#10	21.25	21.21	20.93		
	RB25#0	21.20	21.25	20.98		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	23.26	23.27	23.26	**15.01**	34.77
	RB1#25	23.26	23.27	23.27		
	RB1#49	23.21	23.20	23.15		
	RB25#0	22.19	22.39	22.24		
	RB25#25	22.19	22.29	22.17		
	RB50#0	22.17	22.35	22.19		
10MHz 16QAM	RB1#0	22.92	22.47	22.34	**14.66**	34.77
	RB1#25	22.91	22.47	22.35		
	RB1#49	22.91	22.40	22.22		
	RB25#0	21.29	21.41	21.40		
	RB25#25	21.31	21.44	21.32		
	RB50#0	21.24	21.42	21.33		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 13

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	23.39	23.39	23.41	15.49	34.77
	RB1#13	23.50	23.53	23.58		
	RB1#24	23.38	23.50	23.47		
	RB15#0	22.31	22.45	22.55		
	RB15#10	22.35	22.44	22.47		
	RB25#0	22.38	22.47	22.52		
5MHz 16QAM	RB1#0	22.23	22.66	22.53	**14.79**	34.77
	RB1#13	22.35	22.88	22.63		
	RB1#24	22.33	22.75	22.51		
	RB15#0	21.38	21.53	21.62		
	RB15#10	21.45	21.44	21.55		
	RB25#0	21.45	21.50	21.55		
10MHz QPSK	RB1#0	/	23.45	/	**15.50**	34.77
	RB1#25	/	23.58	/		
	RB1#49	/	23.59	/		
	RB25#0	/	22.34	/		
	RB25#25	/	22.44	/		
	RB50#0	/	22.44	/		
10MHz 16QAM	RB1#0	/	22.58	/	14.64	34.77
	RB1#25	/	22.73	/		
	RB1#49	/	22.71	/		
	RB25#0	/	21.42	/		
	RB25#25	/	21.51	/		
	RB50#0	/	21.46	/		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 17

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	23.35	23.37	23.24	**15.22**	34.77
	RB1#13	23.48	23.44	23.36		
	RB1#24	23.40	23.20	23.22		
	RB15#0	22.47	22.41	22.21		
	RB15#10	22.37	22.45	22.26		
	RB25#0	22.45	22.43	22.26		
5MHz 16QAM	RB1#0	22.69	22.48	22.19	**14.57**	34.77
	RB1#13	22.83	22.54	22.24		
	RB1#24	22.72	22.30	22.15		
	RB15#0	21.50	21.47	21.33		
	RB15#10	21.42	21.53	21.35		
	RB25#0	21.49	21.47	21.37		
10MHz QPSK	RB1#0	23.10	23.08	23.13	14.93	34.77
	RB1#25	23.19	23.14	23.07		
	RB1#49	23.00	23.03	23.00		
	RB25#0	22.18	22.12	22.12		
	RB25#25	22.21	22.12	22.04		
	RB50#0	22.18	22.15	22.11		
10MHz 16QAM	RB1#0	22.25	22.15	22.76	14.50	34.77
	RB1#25	22.33	22.20	22.74		
	RB1#49	22.17	22.07	22.58		
	RB25#0	21.25	21.24	21.21		
	RB25#25	21.29	21.24	21.16		
	RB50#0	21.27	21.25	21.19		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 25

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	18.12	18.25	18.66	17.50	33
	RB1#3	18.05	18.23	18.57		
	RB1#5	17.00	17.28	17.08		
	RB3#0	17.01	17.26	16.95		
	RB3#3	16.97	17.19	17.07		
	RB6#0	16.91	17.08	16.98		
1.4MHz 16QAM	RB1#0	16.92	17.06	16.87	**18.55**	33
	RB1#3	16.93	17.12	16.94		
	RB1#5	19.19	19.48	19.31		
	RB3#0	19.40	19.71	19.54		
	RB3#3	19.32	19.56	19.32		
	RB6#0	17.39	18.21	18.38		
3MHz QPSK	RB1#0	17.28	18.08	18.25	17.97	33
	RB1#8	16.33	17.24	17.08		
	RB1#14	16.27	17.19	16.91		
	RB6#0	16.28	17.24	17.02		
	RB6#9	18.87	19.13	18.91		
	RB15#0	18.43	18.85	18.20		
3MHz 16QAM	RB1#0	18.36	18.76	18.01	18.55	33
	RB1#8	16.91	17.08	16.98		
	RB1#14	16.92	17.06	16.87		
	RB6#0	16.93	17.12	16.94		
	RB6#9	19.19	19.48	19.31		
	RB15#0	19.40	19.71	19.54		
5MHz QPSK	RB1#0	17.87	18.80	18.78	17.77	33
	RB1#13	17.99	18.93	18.90		
	RB1#24	17.89	18.79	18.74		
	RB15#0	16.99	17.83	17.94		
	RB15#10	16.96	17.82	17.76		
	RB25#0	17.02	17.85	17.91		
5MHz 16QAM	RB1#0	17.04	17.79	18.16	17.11	33
	RB1#13	17.17	17.91	18.27		
	RB1#24	17.06	17.78	18.14		
	RB15#0	16.11	16.94	16.97		
	RB15#10	16.05	16.89	16.80		
	RB25#0	16.06	16.94	16.91		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	18.65	18.83	18.80	17.70	33
	RB1#25	18.69	18.86	18.79		
	RB1#49	18.63	18.84	18.73		
	RB25#0	17.67	17.83	17.89		
	RB25#25	17.68	17.85	17.72		
	RB50#0	17.73	17.80	17.80		
10MHz 16QAM	RB1#0	17.85	17.92	18.50	17.39	33
	RB1#25	17.90	17.95	18.55		
	RB1#49	17.83	17.93	18.46		
	RB25#0	16.78	16.98	16.97		
	RB25#25	16.79	16.96	16.84		
	RB50#0	16.75	16.89	16.96		
15MHz QPSK	RB1#0	18.56	18.70	18.80	17.73	33
	RB1#38	18.65	18.82	18.89		
	RB1#74	18.60	18.72	18.73		
	RB36#0	17.67	17.80	17.82		
	RB36#39	17.68	17.80	17.67		
	RB75#0	17.67	17.81	17.73		
15MHz 16QAM	RB1#0	18.13	18.44	18.03	17.39	33
	RB1#38	18.21	18.55	18.09		
	RB1#74	18.14	18.46	17.90		
	RB36#0	16.69	16.78	16.87		
	RB36#39	16.70	16.76	16.76		
	RB75#0	16.71	16.82	16.83		
20MHz QPSK	RB1#0	18.97	19.18	19.20	**18.27**	33
	RB1#50	19.18	19.41	19.43		
	RB1#99	19.10	19.26	19.21		
	RB50#0	18.22	18.28	18.30		
	RB50#50	18.31	18.27	18.15		
	RB100#0	18.25	18.28	18.23		
20MHz 16QAM	RB1#0	18.67	18.60	18.50	17.69	33
	RB1#50	18.85	18.79	18.70		
	RB1#99	18.77	18.63	18.51		
	RB50#0	17.28	17.28	17.36		
	RB50#50	17.36	17.29	17.23		
	RB100#0	17.33	17.31	17.33		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 26 (Part 90s):

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel For 90s	Highest Channel For 90s	Cross Channel		
1.4MHz QPSK	RB1#0	23.09	22.99	22.79	15.67	50
	RB1#3	23.18	23.07	22.82		
	RB1#5	23.09	22.97	22.71		
	RB3#0	23.25	23.14	22.90		
	RB3#3	23.21	23.17	22.88		
	RB6#0	22.29	22.20	21.96		
1.4MHz 16QAM	RB1#0	22.29	22.09	21.84	14.75	50
	RB1#3	22.33	22.15	21.89		
	RB1#5	22.26	22.08	21.75		
	RB3#0	22.26	22.25	22.07		
	RB3#3	22.26	22.26	22.13		
	RB6#0	21.38	21.15	21.00		
3MHz QPSK	RB1#0	23.11	22.87	22.64	15.53	50
	RB1#8	23.10	22.99	22.73		
	RB1#14	22.99	22.82	22.60		
	RB6#0	22.20	22.09	21.88		
	RB6#9	22.12	22.07	21.83		
	RB15#0	22.15	22.09	21.90		
3MHz 16QAM	RB1#0	22.17	21.93	22.28	14.72	50
	RB1#8	22.24	22.02	22.30		
	RB1#14	22.12	21.92	22.15		
	RB6#0	21.21	21.07	20.96		
	RB6#9	21.17	20.99	20.91		
	RB15#0	21.16	21.19	21.00		
5MHz QPSK	RB1#0	23.35	23.17	22.95	15.77	50
	RB1#13	23.34	23.25	23.06		
	RB1#24	23.21	23.13	22.88		
	RB15#0	22.29	22.23	21.97		
	RB15#10	22.25	22.14	21.85		
	RB25#0	22.31	22.21	21.93		
5MHz 16QAM	RB1#0	22.65	22.32	21.87	15.10	50
	RB1#13	22.68	22.36	21.97		
	RB1#24	22.52	22.24	21.81		
	RB15#0	21.28	21.32	21.08		
	RB15#10	21.27	21.28	20.91		
	RB25#0	21.33	21.28	21.03		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel For 90s	Highest Channel For 90s	Cross Channel		
10MHz QPSK	RB1#0	23.37	23.27	23.08	**15.79**	50
	RB1#25	23.34	23.23	23.00		
	RB1#49	23.24	23.12	22.89		
	RB25#0	22.24	22.22	21.98		
	RB25#25	22.30	22.18	21.92		
	RB50#0	22.27	22.22	21.92		
10MHz 16QAM	RB1#0	22.44	/	22.21	14.86	50
	RB1#25	22.34	/	22.17		
	RB1#49	22.30	/	22.09		
	RB25#0	21.35	/	21.01		
	RB25#25	21.42	/	20.92		
	RB50#0	21.35	/	21.00		
15MHz QPSK	RB1#0	23.27	/	22.43	15.69	50
	RB1#25	23.23	/	22.19		
	RB1#49	23.12	/	22.14		
	RB25#0	22.22	/	22.56		
	RB25#25	22.18	/	22.54		
	RB50#0	22.22	/	22.55		
15MHz 16QAM	RB1#0	22.91	/	22.40	**15.33**	50
	RB1#38	22.86	/	22.41		
	RB1#74	22.78	/	22.46		
	RB36#0	21.28	/	22.57		
	RB36#39	21.22	/	22.26		
	RB75#0	21.23	/	22.52		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 26 (Part 22H):

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H		
1.4MHz QPSK	RB1#0	22.97	22.86	22.83	15.55	38.45
	RB1#3	23.06	22.94	22.86		
	RB1#5	22.97	22.84	22.75		
	RB3#0	23.13	23.01	22.94		
	RB3#3	23.09	23.04	22.92		
	RB6#0	22.17	22.07	22.00		
1.4MHz 16QAM	RB1#0	22.17	21.96	21.88	14.63	38.45
	RB1#3	22.21	22.02	21.93		
	RB1#5	22.14	21.95	21.79		
	RB3#0	22.14	22.12	22.11		
	RB3#3	22.14	22.13	22.17		
	RB6#0	21.26	21.02	21.04		
3MHz QPSK	RB1#0	22.99	22.74	22.68	15.41	38.45
	RB1#8	22.98	22.86	22.77		
	RB1#14	22.87	22.69	22.64		
	RB6#0	22.08	21.96	21.92		
	RB6#9	22.00	21.94	21.87		
	RB15#0	22.03	21.96	21.94		
3MHz 16QAM	RB1#0	22.05	21.80	22.32	14.76	38.45
	RB1#8	22.12	21.89	22.34		
	RB1#14	22.00	21.79	22.19		
	RB6#0	21.09	20.94	21.00		
	RB6#9	21.05	20.86	20.95		
	RB15#0	21.04	21.06	21.04		
5MHz QPSK	RB1#0	23.23	23.04	22.99	15.65	38.45
	RB1#13	23.22	23.12	23.10		
	RB1#24	23.09	23.00	22.92		
	RB15#0	22.17	22.10	22.01		
	RB15#10	22.13	22.01	21.89		
	RB25#0	22.19	22.08	21.97		
5MHz 16QAM	RB1#0	22.53	22.19	21.91	14.98	38.45
	RB1#13	22.56	22.23	22.01		
	RB1#24	22.40	22.11	21.85		
	RB15#0	21.16	21.19	21.12		
	RB15#10	21.15	21.15	20.95		
	RB25#0	21.21	21.15	21.07		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	23.25	23.14	23.12	**15.67**	38.45
	RB1#25	23.22	23.10	23.04		
	RB1#49	23.12	22.99	22.93		
	RB25#0	22.12	22.09	22.02		
	RB25#25	22.18	22.05	21.96		
	RB50#0	22.15	22.09	21.96		
10MHz 16QAM	RB1#0	22.32	22.78	22.25	**15.20**	38.45
	RB1#25	22.22	22.73	22.21		
	RB1#49	22.18	22.65	22.13		
	RB25#0	21.23	21.15	21.05		
	RB25#25	21.30	21.09	20.96		
	RB50#0	21.23	21.10	21.04		
15MHz QPSK	RB1#0	22.27	22.30	22.18	14.86	38.45
	RB1#38	22.18	22.16	22.10		
	RB1#74	22.39	22.33	22.11		
	RB36#0	22.39	22.24	22.37		
	RB36#39	22.29	22.27	22.44		
	RB75#0	22.38	22.01	22.44		
15MHz 16QAM	RB1#0	22.19	22.32	22.11	14.88	38.45
	RB1#38	22.05	22.30	22.30		
	RB1#74	22.44	22.43	22.44		
	RB36#0	22.14	22.44	22.08		
	RB36#39	22.44	22.46	22.20		
	RB75#0	22.21	22.31	22.21		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 38

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	18.89	18.93	18.54	**19.26**	33
	RB1#13	18.96	19.01	18.65		
	RB1#24	18.81	18.87	18.49		
	RB15#0	17.89	17.92	17.55		
	RB15#10	17.87	17.89	17.50		
	RB25#0	17.89	17.95	17.53		
5MHz 16QAM	RB1#0	17.98	18.19	17.55	**18.54**	33
	RB1#13	18.05	18.29	17.68		
	RB1#24	17.86	18.13	17.51		
	RB15#0	16.92	16.97	16.50		
	RB15#10	16.91	16.94	16.47		
	RB25#0	16.93	16.85	16.55		
10MHz QPSK	RB1#0	18.99	18.22	18.48	19.24	33
	RB1#25	18.99	18.22	18.45		
	RB1#49	18.86	18.10	18.36		
	RB25#0	17.90	17.11	17.39		
	RB25#25	17.85	17.10	17.35		
	RB50#0	17.84	17.09	17.39		
10MHz 16QAM	RB1#0	17.94	17.35	17.70	18.19	33
	RB1#25	17.89	17.33	17.69		
	RB1#49	17.80	17.21	17.58		
	RB25#0	16.93	16.14	16.39		
	RB25#25	16.86	16.14	16.31		
	RB50#0	16.87	16.15	16.37		
15MHz QPSK	RB1#0	18.95	18.55	18.47	19.20	33
	RB1#38	18.93	18.59	18.47		
	RB1#74	18.75	18.44	18.32		
	RB36#0	17.85	17.51	17.39		
	RB36#39	17.78	17.43	17.32		
	RB75#0	17.81	17.50	17.37		
15MHz 16QAM	RB1#0	18.15	17.80	17.40	18.42	33
	RB1#38	18.17	17.83	17.45		
	RB1#74	17.97	17.65	17.23		
	RB36#0	16.88	16.46	16.33		
	RB36#39	16.80	16.40	16.23		
	RB75#0	16.86	16.42	16.35		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	18.91	17.96	17.94	19.25	33
	RB1#50	19.00	18.06	18.03		
	RB1#99	18.74	17.78	17.75		
	RB50#0	17.80	16.97	16.95		
	RB50#50	17.71	16.87	16.88		
	RB100#0	17.72	16.92	16.91		
20MHz 16QAM	RB1#0	18.14	17.07	16.96	18.47	33
	RB1#50	18.22	17.15	17.06		
	RB1#99	17.94	16.88	16.74		
	RB50#0	16.82	15.97	16.03		
	RB50#50	16.74	15.93	15.96		
	RB100#0	16.77	15.95	15.94		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 41

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	18.88	18.62	18.07	19.30	33
	RB1#13	19.05	18.72	18.16		
	RB1#24	19.00	18.55	18.00		
	RB15#0	17.82	17.60	17.10		
	RB15#10	18.01	17.58	17.04		
	RB25#0	17.90	17.60	17.09		
5MHz 16QAM	RB1#0	17.87	17.87	17.10	18.33	33
	RB1#13	18.08	17.98	17.21		
	RB1#24	18.00	17.83	17.04		
	RB15#0	16.78	16.66	16.06		
	RB15#10	17.02	16.64	16.00		
	RB25#0	16.90	16.59	16.12		
10MHz QPSK	RB1#0	19.14	18.66	18.01	19.50	33
	RB1#25	19.25	18.61	17.94		
	RB1#49	19.25	18.52	17.88		
	RB25#0	18.06	17.56	16.97		
	RB25#25	18.28	17.49	16.77		
	RB50#0	18.12	17.51	16.92		
10MHz 16QAM	RB1#0	18.26	17.54	17.10	18.66	33
	RB1#25	18.41	17.58	17.08		
	RB1#49	18.40	17.43	17.02		
	RB25#0	16.94	16.56	15.99		
	RB25#25	17.23	16.52	15.83		
	RB50#0	17.08	16.55	15.94		
15MHz QPSK	RB1#0	19.10	18.30	18.68	19.54	33
	RB1#38	19.29	18.34	18.69		
	RB1#74	19.15	18.15	18.53		
	RB36#0	18.12	17.24	17.62		
	RB36#39	18.25	17.17	17.45		
	RB75#0	18.20	17.22	17.55		
15MHz 16QAM	RB1#0	18.20	17.24	17.92	18.70	33
	RB1#38	18.45	17.27	17.96		
	RB1#74	18.31	17.06	17.78		
	RB36#0	17.04	16.14	16.71		
	RB36#39	17.19	16.07	16.54		
	RB75#0	17.12	16.20	16.60		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	19.18	19.00	19.53	**19.91**	33
	RB1#50	19.44	19.11	19.66		
	RB1#99	19.20	18.84	19.37		
	RB50#0	18.08	18.04	18.59		
	RB50#50	18.37	18.01	18.30		
	RB100#0	18.21	17.98	18.45		
20MHz 16QAM	RB1#0	18.20	17.99	18.78	**19.14**	33
	RB1#50	18.46	18.15	18.89		
	RB1#99	18.22	17.85	18.65		
	RB50#0	17.01	17.11	17.66		
	RB50#50	17.33	17.06	17.36		
	RB100#0	17.17	17.03	17.48		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 66

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	17.86	18.43	17.98	17.89	30
	RB1#3	17.94	18.53	18.00		
	RB1#5	17.86	18.48	17.95		
	RB3#0	18.01	18.65	18.14		
	RB3#3	18.03	18.68	18.12		
	RB6#0	17.02	17.67	17.15		
1.4MHz 16QAM	RB1#0	17.01	17.52	16.99	17.03	30
	RB1#3	17.08	17.64	17.09		
	RB1#5	16.99	17.59	17.04		
	RB3#0	17.09	17.82	17.38		
	RB3#3	17.07	17.82	17.43		
	RB6#0	16.13	16.66	16.26		
3MHz QPSK	RB1#0	18.48	17.68	17.77	17.81	30
	RB1#8	18.60	17.80	17.81		
	RB1#14	18.45	17.66	17.70		
	RB6#0	17.65	16.93	16.88		
	RB6#9	17.70	16.91	16.84		
	RB15#0	17.73	16.95	16.89		
3MHz 16QAM	RB1#0	17.64	17.43	16.89	16.92	30
	RB1#8	17.71	17.49	16.97		
	RB1#14	17.62	17.34	16.88		
	RB6#0	16.71	16.09	15.96		
	RB6#9	16.71	16.01	16.01		
	RB15#0	16.85	16.07	15.90		
5MHz QPSK	RB1#0	18.85	18.54	18.10	18.21	30
	RB1#13	19.00	18.63	18.25		
	RB1#24	18.90	18.50	18.08		
	RB15#0	17.80	17.60	17.14		
	RB15#10	17.87	17.51	17.08		
	RB25#0	17.90	17.60	17.10		
5MHz 16QAM	RB1#0	18.22	17.73	17.07	**17.55**	30
	RB1#13	18.34	17.73	17.17		
	RB1#24	18.23	17.60	17.04		
	RB15#0	16.80	16.67	16.27		
	RB15#10	16.91	16.63	16.20		
	RB25#0	16.91	16.67	16.24		

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	18.93	18.22	18.55	18.16	30
	RB1#25	18.95	18.23	18.53		
	RB1#49	18.94	18.11	18.45		
	RB25#0	17.82	17.20	17.60		
	RB25#25	17.97	17.15	17.55		
	RB50#0	17.89	17.18	17.59		
10MHz 16QAM	RB1#0	18.13	17.37	18.30	17.52	30
	RB1#25	18.14	17.29	18.31		
	RB1#49	18.08	17.21	18.19		
	RB25#0	16.92	16.30	16.69		
	RB25#25	17.04	16.31	16.62		
	RB50#0	16.97	16.32	16.64		
15MHz QPSK	RB1#0	18.90	18.43	17.88	18.21	30
	RB1#38	19.00	18.42	17.97		
	RB1#74	18.84	18.24	17.78		
	RB36#0	17.80	17.37	17.00		
	RB36#39	17.90	17.26	16.88		
	RB75#0	17.85	17.33	16.94		
15MHz 16QAM	RB1#0	18.08	17.93	17.61	17.39	30
	RB1#38	18.18	17.91	17.72		
	RB1#74	18.02	17.72	17.57		
	RB36#0	16.86	16.46	16.00		
	RB36#39	16.93	16.29	15.91		
	RB75#0	16.92	16.37	16.03		
20MHz QPSK	RB1#0	18.84	17.95	17.79	**18.21**	30
	RB1#50	19.00	17.99	17.92		
	RB1#99	18.76	17.70	17.72		
	RB50#0	17.83	17.03	16.99		
	RB50#50	17.97	16.90	16.81		
	RB100#0	17.92	16.99	16.87		
20MHz 16QAM	RB1#0	18.10	17.60	17.18	17.53	30
	RB1#50	18.32	17.68	17.30		
	RB1#99	18.04	17.42	17.10		
	RB50#0	16.88	16.11	16.05		
	RB50#50	17.04	16.00	15.84		
	RB100#0	16.97	16.03	15.98		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Peak-to-average ratio (PAR)

LTE Band: *(pre-scan all bandwidth, the worst case as below)*

LTE Band 2 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	6.55	9.43	8.02	13
	RB100#0	6.53	8.30	8.79	13
20MHz 16QAM	RB1#0	6.47	7.25	7.70	13
	RB100#0	7.89	6.30	6.34	13

LTE Band 4 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.99	6.21	7.05	13
	RB100#0	6.76	9.92	6.85	13
20MHz 16QAM	RB1#0	7.07	7.91	6.36	13
	RB100#0	7.98	6.3	8.12	13

LTE Band 5 10MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	8.21	9.22	9.52	13
	RB50#0	8.97	7.42	9.23	13
10MHz 16QAM	RB1#0	7.52	8.26	9.83	13
	RB50#0	6.80	8.74	7.93	13

LTE Band 7 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	9.10	9.80	8.22	13
	RB100#0	8.57	7.49	9.82	13
20MHz 16QAM	RB1#0	6.54	9.21	9.14	13
	RB100#0	6.58	6.77	9.56	13

LTE Band 12 10MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	8.45	9.61	8.35	13
	RB50#0	7.32	8.72	7.52	13
10MHz 16QAM	RB1#0	8.46	6.74	8.54	13
	RB50#0	6.70	9.15	8.45	13

LTE Band 13 10MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	/	9.53	/	13
	RB50#0	/	8.64	/	13
10MHz 16QAM	RB1#0	/	6.66	/	13
	RB50#0	/	9.07	/	13

LTE Band 17 10MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	8.45	8.53	8.57	13
	RB50#0	8.03	8.32	7.18	13
10MHz 16QAM	RB1#0	6.22	7.52	8.45	13
	RB50#0	7.95	7.08	7.68	13

LTE Band 25 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.01	6.33	8.61	13
	RB100#0	6.91	8.74	8.78	13
20MHz 16QAM	RB1#0	7.34	8.57	8.78	13
	RB100#0	8.43	8.47	6.57	13

LTE Band 26 (Part 90s) 15MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel For 90s	Highest Channel For 90s	Cross Channel	
15MHz QPSK	RB1#0	7.69	/	6.84	13
	RB75#0	7.49	/	7.45	13
15MHz 16QAM	RB1#0	8.24	/	8.14	13
	RB75#0	6.17	/	9.35	13

LTE Band 26 (Part 22H) 15MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel For 22H	Middle Channel For 22H	Highest Channel For 22H	
15MHz QPSK	RB1#0	8.65	6.65	6.84	13
	RB75#0	7.42	7.57	7.47	13
15MHz 16QAM	RB1#0	7.05	8.57	8.06	13
	RB75#0	6.01	5.69	7.10	13

LTE Band 38 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.01	6.33	8.61	13
	RB100#0	6.91	8.74	8.56	13
20MHz 16QAM	RB1#0	7.34	9.34	8.78	13
	RB100#0	8.43	8.47	6.57	13

LTE Band 41 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	8.71	6.42	8.58	13
	RB100#0	8.85	7.28	7.19	13
20MHz 16QAM	RB1#0	9.52	7.6	9.24	13
	RB100#0	9.6	7.72	9.16	13

LTE Band 66 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	6.09	8.57	8.45	13
	RB100#0	8.31	6.94	8.34	13
20MHz 16QAM	RB1#0	8.46	9.79	8.60	13
	RB100#0	7.85	8.90	6.40	13

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

Applicable Standard

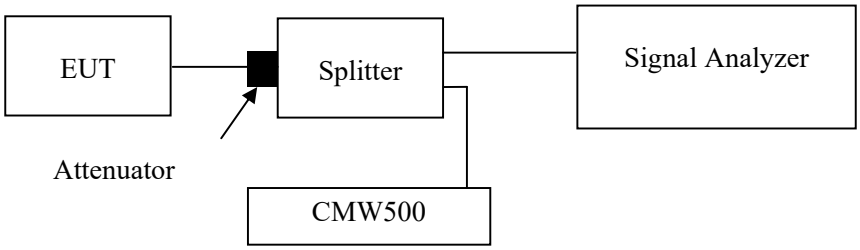
FCC 47 §2.1049, §22.917, §22.905, §24.238, §27.53&§90.209.

Test Procedure

ANSI C63.26-2015 Section 5.4.4

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

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



Test Data

Environmental Conditions

Temperature:	25~26.5℃
Relative Humidity:	40~50%
ATM Pressure:	101 kPa

The testing was performed by Jim Cheng, Brain Li and Allen Bai from 2024-08-02 to 2024-09-09.

EUT operation mode: Transmitting

Test Result: Compliant

Please refer to the following tables and plots.

LTE Band 2

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.098	1.110	1.290	1.302	1.308
1.4MHz 16QAM	1.104	1.110	1.098	1.308	1.302	1.284
3MHz QPSK	2.688	2.688	2.688	2.940	2.916	2.916
3MHz 16QAM	2.688	2.676	2.688	2.928	2.964	2.940
5MHz QPSK	4.520	4.520	4.500	4.940	4.940	4.940
5MHz 16QAM	4.500	4.520	4.520	4.920	4.940	4.940
10MHz QPSK	8.960	8.960	8.920	9.680	9.720	9.520
10MHz 16QAM	8.960	8.960	9.000	9.560	9.600	9.560
15MHz QPSK	13.560	13.500	13.500	14.940	14.760	14.760
15MHz 16QAM	13.560	13.500	13.560	14.760	14.760	14.760
20MHz QPSK	18.000	18.000	18.000	19.360	19.440	19.360
20MHz 16QAM	18.000	18.000	18.000	19.440	19.440	19.280

LTE Band 4

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.098	1.110	1.290	1.290	1.314
1.4MHz 16QAM	1.104	1.104	1.098	1.296	1.314	1.296
3MHz QPSK	2.688	2.676	2.676	2.940	2.952	2.916
3MHz 16QAM	2.688	2.676	2.688	2.952	2.940	2.952
5MHz QPSK	4.500	4.520	4.520	4.920	4.960	4.960
5MHz 16QAM	4.520	4.500	4.520	4.960	4.920	4.960
10MHz QPSK	8.960	8.960	8.960	9.720	9.600	9.600
10MHz 16QAM	8.920	8.960	8.960	9.640	9.560	9.680
15MHz QPSK	13.500	13.500	13.260	14.700	14.820	14.820
15MHz 16QAM	13.560	13.560	13.560	14.700	14.700	14.760
20MHz QPSK	18.000	18.000	17.920	19.520	19.280	19.440
20MHz 16QAM	18.000	18.000	18.000	19.360	19.360	19.360

LTE Band 5

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.110	1.092	1.284	1.308	1.224
1.4MHz 16QAM	1.104	1.104	1.104	1.290	1.302	1.302
3MHz QPSK	2.688	2.676	2.688	2.940	2.904	2.928
3MHz 16QAM	2.688	2.767	2.688	2.928	2.916	2.940
5MHz QPSK	4.500	4.520	4.520	5.080	4.900	4.920
5MHz 16QAM	4.520	4.520	4.520	4.960	4.900	4.920
10MHz QPSK	8.960	8.960	8.960	9.560	9.560	9.840
10MHz 16QAM	8.960	8.960	8.960	9.600	9.600	9.560

LTE Band 7

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.520	4.540	4.520	4.900	4.940	4.940
5MHz 16QAM	4.540	4.500	4.520	4.940	4.920	4.940
10MHz QPSK	8.960	9.000	8.960	9.680	9.640	9.560
10MHz 16QAM	8.960	8.960	9.000	9.680	9.640	9.640
15MHz QPSK	13.560	13.560	13.500	14.820	14.760	14.700
15MHz 16QAM	13.500	13.560	13.500	14.700	14.760	14.700
20MHz QPSK	18.000	18.000	17.920	19.520	19.360	19.280
20MHz 16QAM	18.000	17.920	18.000	19.360	19.360	19.280

LTE Band 12

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.104	1.104	1.284	1.296	1.308
1.4MHz 16QAM	1.104	1.110	1.098	1.296	1.308	1.290
3MHz QPSK	2.676	2.688	2.688	2.940	2.928	2.952
3MHz 16QAM	2.688	2.688	2.688	2.916	2.928	2.952
5MHz QPSK	4.500	4.520	4.520	4.900	4.920	4.920
5MHz 16QAM	4.520	4.520	4.940	4.940	4.900	4.520
10MHz QPSK	8.960	8.960	8.960	9.560	9.720	9.600
10MHz 16QAM	8.960	8.960	8.960	9.640	9.600	9.560

LTE Band 13

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.500	4.540	4.520	4.920	4.920	4.920
5MHz 16QAM	4.500	4.520	4.520	4.940	4.880	4.940
10MHz QPSK	/	8.960	/	/	9.600	/
10MHz 16QAM	/	8.960	/	/	9.680	/

LTE Band 17

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.520	4.520	4.520	4.960	4.940	4.920
5MHz 16QAM	4.520	4.520	4.520	4.900	4.920	4.940
10MHz QPSK	8.960	8.960	8.960	9.680	9.640	9.600
10MHz 16QAM	8.960	8.960	8.960	9.680	9.720	9.600

LTE Band 25

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.104	1.104	1.308	1.290	1.296
1.4MHz 16QAM	1.098	1.104	1.104	1.290	1.302	1.302
3MHz QPSK	2.700	2.688	2.700	2.952	2.928	2.952
3MHz 16QAM	2.688	2.688	2.676	2.940	2.952	2.952
5MHz QPSK	4.500	4.520	4.520	4.920	4.940	4.920
5MHz 16QAM	4.500	4.500	4.520	4.920	4.940	4.920
10MHz QPSK	8.960	8.960	8.960	9.640	9.640	9.600
10MHz 16QAM	8.960	8.960	8.960	9.600	9.600	9.560
15MHz QPSK	13.560	13.500	13.440	14.880	14.820	14.640
15MHz 16QAM	13.560	13.560	13.500	14.820	14.760	14.760
20MHz QPSK	18.000	18.000	18.000	19.520	19.360	19.280
20MHz 16QAM	18.000	18.000	17.920	19.360	19.280	19.360

LTE Band 26 (Part 90s)

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest Channel For 90s	Highest Channel For 90s	Cross Channel	Lowest Channel For 90s	Highest Channel For 90s	Cross Channel
1.4MHz QPSK	1.104	1.104	1.110	1.296	1.302	1.278
1.4MHz 16QAM	1.098	1.110	1.104	1.290	1.308	1.290
3MHz QPSK	2.688	2.700	2.688	2.940	2.916	2.940
3MHz 16QAM	2.688	2.688	2.688	2.952	2.928	2.928
5MHz QPSK	4.520	4.520	4.520	4.920	4.940	4.920
5MHz 16QAM	4.540	4.520	4.520	4.960	4.920	4.980
10MHz QPSK	8.960	/	8.960	9.600	/	9.560
10MHz 16QAM	8.960	/	8.960	9.600	/	9.600
15MHz QPSK	13.459	/	13.560	14.240	/	14.820
15MHz 16QAM	13.502	/	13.560	14.240	/	14.820

LTE Band 26 (Part 22H)

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest Channel For 22H	Middle Channel For 22H	Highest Channel For 22H	Lowest Channel For 22H	Middle Channel For 22H	Highest Channel For 22H
1.4MHz QPSK	1.110	1.104	1.098	1.302	1.278	1.290
1.4MHz 16QAM	1.092	1.098	1.110	1.284	1.278	1.296
3MHz QPSK	2.688	2.688	2.688	2.940	2.916	2.916
3MHz 16QAM	2.688	2.688	2.688	2.964	2.928	2.952
5MHz QPSK	4.500	4.520	4.500	4.920	4.900	4.920
5MHz 16QAM	4.540	4.520	4.520	4.940	4.900	4.920
10MHz QPSK	8.920	8.960	8.960	9.600	9.560	9.560
10MHz 16QAM	8.960	8.960	8.960	9.640	9.640	9.560
15MHz QPSK	13.500	13.500	13.560	14.700	14.820	14.820
15MHz 16QAM	13.500	13.500	13.500	14.700	14.700	14.760

LTE Band 38

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.520	4.500	4.500	5.020	4.960	4.960
5MHz 16QAM	4.500	4.520	4.500	4.900	4.920	5.020
10MHz QPSK	8.960	8.960	8.960	9.560	9.680	9.640
10MHz 16QAM	9.000	8.960	8.960	9.960	9.520	9.520
15MHz QPSK	13.500	13.500	13.560	15.000	14.700	14.820
15MHz 16QAM	13.560	13.620	13.500	15.000	15.180	14.700
20MHz QPSK	17.920	17.840	17.840	19.280	19.280	19.280
20MHz 16QAM	17.920	18.000	18.000	19.280	19.360	19.360

LTE Band 41

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.515	4.501	4.501	5.051	4.906	4.848
5MHz 16QAM	4.501	4.515	4.501	4.949	4.906	5.166
10MHz QPSK	8.944	8.915	8.973	9.609	9.638	9.638
10MHz 16QAM	8.944	8.944	8.944	9.638	9.638	9.522
15MHz QPSK	13.415	13.459	13.459	14.718	14.544	14.414
15MHz 16QAM	13.459	13.459	13.502	14.674	14.631	14.501
20MHz QPSK	17.945	17.829	17.887	19.103	18.929	18.987
20MHz 16QAM	17.887	17.887	17.887	19.276	19.103	19.276

LTE Band 66

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.104	1.110	1.104	1.314	1.284	1.296
1.4MHz 16QAM	1.098	1.104	1.110	1.284	1.296	1.302
3MHz QPSK	2.676	2.688	2.676	2.940	2.094	2.952
3MHz 16QAM	2.676	2.688	2.688	2.940	2.952	2.988
5MHz QPSK	4.500	4.520	4.520	4.920	4.940	4.900
5MHz 16QAM	4.540	4.500	4.520	4.940	4.900	4.920
10MHz QPSK	8.920	8.960	8.960	9.600	9.640	9.600
10MHz 16QAM	8.960	8.960	8.960	9.640	9.640	9.600
15MHz QPSK	13.560	13.560	13.500	14.820	14.880	14.760
15MHz 16QAM	13.560	13.500	13.500	14.760	14.820	15.240
20MHz QPSK	17.920	18.000	18.000	19.360	19.600	19.360
20MHz 16QAM	18.000	18.000	18.080	19.280	19.360	19.440

The test data and plots of GSM and WCDMA please refer to the Appendix A&B.

The test plots of LTE band please refer to the Appendix C.

FCC §2.1051, §22.917(a) & §24.238(a) & §27.53 & §90.691 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

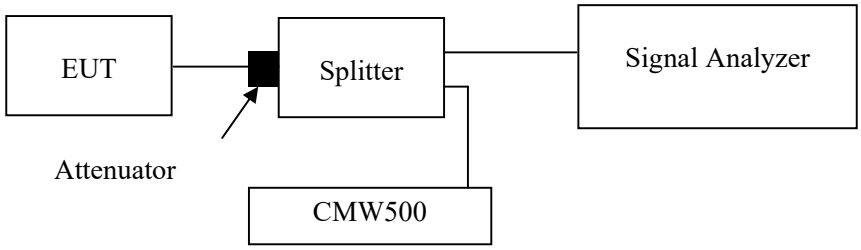
FCC §2.1051, §22.917(a) & §24.238(a) & §27.53 &§90.691.

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^{th} harmonic.



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range was added into plots.

Test Data

Environmental Conditions

Temperature:	25~26.5℃
Relative Humidity:	40~50%
ATM Pressure:	101 kPa

The testing was performed by Jim Cheng, Brain Li and Allen Bai from 2024-08-02 to 2024-09-09.

EUT operation mode: Transmitting

Test result: Compliant

Please refer to the following plots.

The test data and plots of GSM and WCDMA please refer to the Appendix A&B.

The test plots of LTE band please refer to the Appendix D.

FCC § 2.1053; § 22.917 (a); § 24.238 (a); §27.53; §90.691- SPURIOUS RADIATED EMISSIONS

Applicable Standard

FCC § 2.1053, §22.917(a)& § 24.238(a) &§ 27.53 &§90.691.

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.

Test Data

Environmental Conditions

Temperature:	25 ~25.5℃
Relative Humidity:	50 %
ATM Pressure:	101 kPa

The testing was performed by Anson Su on 2024-08-03 for below 1GHz and Zenos Qiao on 2024-08-03 for above 1GHz.

EUT operation mode: Transmitting (Pre-scan in the X, Y and Z axes of orientation, the worst case Y-axis of orientation was recorded)

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
GSM 850 (30MHz-10GHz)								
Low Channel								
957.0	32.89	H	-63.6	1.36	0.0	-64.96	-13	51.96
957.0	32.75	V	-61.3	1.36	0.0	-62.66	-13	49.66
1648.40	77.48	H	-30.2	0.90	8.60	-22.50	-13	9.50
1648.40	76.19	V	-32.0	0.90	8.60	-24.30	-13	11.30
2472.60	78.87	H	-28.5	1.10	8.80	-20.80	-13	7.80
2472.60	77.72	V	-29.4	1.10	8.80	-21.70	-13	8.70
3296.80	68.36	H	-37.6	1.30	8.80	-30.10	-13	17.10
3296.80	67.23	V	-38.5	1.30	8.80	-31.00	-13	18.00
Middle Channel								
952.3	33.05	H	-63.5	1.36	0.0	-64.86	-13	51.86
952.3	32.98	V	-61.1	1.36	0.0	-62.46	-13	49.46
1673.20	78.14	H	-29.4	0.90	8.60	-21.70	-13	8.70
1673.20	76.83	V	-31.3	0.90	8.60	-23.60	-13	10.60
2509.80	79.95	H	-27.4	1.10	8.80	-19.70	-13	6.70
2509.80	78.39	V	-28.7	1.10	8.80	-21.00	-13	8.00
3346.40	69.76	H	-36.2	1.30	8.80	-28.70	-13	15.70
3346.40	68.57	V	-37.1	1.30	8.80	-29.60	-13	16.60
High Channel								
954.4	33.28	H	-63.2	1.36	0.0	-64.56	-13	51.56
954.4	33.14	V	-60.9	1.36	0.0	-62.26	-13	49.26
1697.60	79.25	H	-28.3	0.90	8.60	-20.60	-13	7.60
1697.60	77.76	V	-30.4	0.90	8.60	-22.70	-13	9.70
2546.40	80.93	H	-26.4	1.10	8.80	-18.70	-13	5.70
2546.40	79.51	V	-27.6	1.10	8.80	-19.90	-13	6.90
3395.20	70.84	H	-35.1	1.30	9.90	-26.50	-13	13.50
3395.20	69.47	V	-36.2	1.30	9.90	-27.60	-13	14.60

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
PCS 1900(30MHz-20GHz)								
Low Channel								
955.5	33.48	H	-63.0	1.36	0.0	-64.36	-13	51.36
955.5	33.39	V	-60.7	1.36	0.0	-62.06	-13	49.06
3700.40	63.19	H	-42.2	1.30	11.00	-32.50	-13	19.50
3700.40	61.26	V	-44.0	1.30	11.00	-34.30	-13	21.30
Middle Channel								
953.7	33.64	H	-62.9	1.36	0.0	-64.26	-13	51.26
953.7	33.51	V	-60.5	1.36	0.0	-61.86	-13	48.86
3760.00	64.44	H	-40.7	1.30	10.70	-31.30	-13	18.30
3760.00	62.31	V	-42.8	1.30	10.70	-33.40	-13	20.40
High Channel								
959.6	33.84	H	-62.7	1.36	0.0	-64.06	-13	51.06
959.6	33.67	V	-60.4	1.36	0.0	-61.76	-13	48.76
3819.60	65.68	H	-39.5	1.30	10.70	-30.10	-13	17.10
3819.60	63.95	V	-41.1	1.30	10.70	-31.70	-13	18.70

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
WCDMA Band 2 (30MHz-20GHz)								
Low Channel								
953.6	32.15	H	-64.4	1.36	0.0	-65.76	-13	52.76
953.6	32.07	V	-62.0	1.36	0.0	-63.36	-13	50.36
3704.80	51.57	H	-53.8	1.30	11.00	-44.10	-13	31.10
3704.80	50.64	V	-54.6	1.30	11.00	-44.90	-13	31.90
5557.20	47.48	H	-54.9	1.70	10.90	-45.70	-13	32.70
5557.20	46.91	V	-55.6	1.70	10.90	-46.40	-13	33.40
Middle Channel								
959.9	32.31	H	-64.2	1.36	0.0	-65.56	-13	52.56
959.9	32.29	V	-61.8	1.36	0.0	-63.16	-13	50.16
3760.00	52.24	H	-52.9	1.30	10.70	-43.50	-13	30.50
3760.00	51.41	V	-53.7	1.30	10.70	-44.30	-13	31.30
5640.00	48.03	H	-54.4	1.70	10.90	-45.20	-13	32.20
5640.00	47.16	V	-55.4	1.70	10.90	-46.20	-13	33.20
High Channel								
954.8	32.53	H	-64.0	1.36	0.0	-65.36	-13	52.36
954.8	32.42	V	-61.6	1.36	0.0	-62.96	-13	49.96
3815.20	53.45	H	-51.7	1.30	10.70	-42.30	-13	29.30
3815.20	52.38	V	-52.7	1.30	10.70	-43.30	-13	30.30
5722.80	49.17	H	-53.0	1.70	11.10	-43.60	-13	30.60
5722.80	48.42	V	-53.9	1.70	11.10	-44.50	-13	31.50

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
WCDMA Band 4 (30MHz-20GHz)								
Low Channel								
957.1	32.64	H	-63.9	1.36	0.0	-65.26	-13	52.26
957.1	32.71	V	-61.3	1.36	0.0	-62.66	-13	49.66
3424.80	52.67	H	-53.3	1.30	9.90	-44.70	-13	31.70
3424.80	51.39	V	-54.3	1.30	9.90	-45.70	-13	32.70
5137.20	48.84	H	-54.3	1.50	9.60	-46.20	-13	33.20
5137.20	49.72	V	-52.9	1.50	9.60	-44.80	-13	31.80
Middle Channel								
953.3	32.84	H	-63.7	1.36	0.0	-65.06	-13	52.06
953.3	32.97	V	-61.1	1.36	0.0	-62.46	-13	49.46
3464.80	53.49	H	-52.5	1.30	10.50	-43.30	-13	30.30
3464.80	52.18	V	-53.4	1.30	10.50	-44.20	-13	31.20
5197.20	49.31	H	-53.7	1.60	9.70	-45.60	-13	32.60
5197.20	50.22	V	-52.4	1.60	9.70	-44.30	-13	31.30
High Channel								
959.0	33.08	H	-63.4	1.36	0.0	-64.76	-13	51.76
959.0	33.17	V	-60.9	1.36	0.0	-62.26	-13	49.26
3505.20	55.15	H	-50.8	1.30	10.50	-41.60	-13	28.60
3505.20	53.83	V	-51.8	1.30	10.50	-42.60	-13	29.60
5257.80	50.54	H	-52.4	1.60	10.00	-44.00	-13	31.00
5257.80	51.40	V	-51.3	1.60	10.00	-42.90	-13	29.90

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
WCDMA Band 5 (30MHz-10GHz)								
Low Channel								
958.4	33.27	H	-63.2	1.36	0.0	-64.56	-13	51.56
958.4	33.43	V	-60.6	1.36	0.0	-61.96	-13	48.96
1652.80	48.12	H	-59.4	0.90	8.60	-51.70	-13	38.70
1652.80	47.69	V	-60.5	0.90	8.60	-52.80	-13	39.80
2479.20	48.91	H	-58.5	1.10	8.80	-50.80	-13	37.80
2479.20	49.84	V	-57.3	1.10	8.80	-49.60	-13	36.60
3305.60	46.57	H	-59.4	1.30	8.80	-51.90	-13	38.90
3305.60	45.93	V	-59.8	1.30	8.80	-52.30	-13	39.30
Middle Channel								
956.6	33.53	H	-63.0	1.36	0.0	-64.36	-13	51.36
956.6	33.71	V	-60.3	1.36	0.0	-61.66	-13	48.66
1672.80	48.54	H	-59.0	0.90	8.60	-51.30	-13	38.30
1672.80	48.21	V	-59.9	0.90	8.60	-52.20	-13	39.20
2509.20	49.68	H	-57.7	1.10	8.80	-50.00	-13	37.00
2509.20	50.32	V	-56.8	1.10	8.80	-49.10	-13	36.10
3345.60	47.00	H	-59.0	1.30	8.80	-51.50	-13	38.50
3345.60	46.27	V	-59.4	1.30	8.80	-51.90	-13	38.90
High Channel								
953.8	33.78	H	-62.7	1.36	0.0	-64.06	-13	51.06
953.8	33.94	V	-60.1	1.36	0.0	-61.46	-13	48.46
1693.20	49.37	H	-58.2	0.90	8.60	-50.50	-13	37.50
1693.20	48.89	V	-59.3	0.90	8.60	-51.60	-13	38.60
2539.80	50.75	H	-56.6	1.10	8.80	-48.90	-13	35.90
2539.80	51.52	V	-55.6	1.10	8.80	-47.90	-13	34.90
3386.40	48.44	H	-57.5	1.30	9.90	-48.90	-13	35.90
3386.40	47.61	V	-58.0	1.30	9.90	-49.40	-13	36.40

LTE Bands: (pre-scan QPSK & 16QAM with all bandwidths, the worst case as below)

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 2 (30MHz-20GHz)								
QPSK, 1.4MHz, Low Channel								
951.6	32.59	H	-63.9	1.36	0.0	-65.26	-13	52.26
951.6	32.64	V	-61.4	1.36	0.0	-62.76	-13	49.76
3701.40	53.54	H	-51.9	1.30	11.00	-42.20	-13	29.20
3701.40	52.01	V	-53.2	1.30	11.00	-43.50	-13	30.50
5552.10	49.87	H	-52.5	1.70	10.90	-43.30	-13	30.30
5552.10	48.65	V	-53.9	1.70	10.90	-44.70	-13	31.70
QPSK, 1.4MHz, Middle Channel								
950.5	32.76	H	-63.7	1.36	0.0	-65.06	-13	52.06
950.5	32.81	V	-61.2	1.36	0.0	-62.56	-13	49.56
3760.00	54.42	H	-50.7	1.30	10.70	-41.30	-13	28.30
3760.00	52.95	V	-52.1	1.30	10.70	-42.70	-13	29.70
5640.00	50.69	H	-51.7	1.70	10.90	-42.50	-13	29.50
5640.00	49.08	V	-53.5	1.70	10.90	-44.30	-13	31.30
QPSK, 1.4MHz, High Channel								
953.4	32.98	H	-63.5	1.36	0.0	-64.86	-13	51.86
953.4	32.94	V	-61.1	1.36	0.0	-62.46	-13	49.46
3818.60	55.58	H	-49.6	1.30	10.70	-40.20	-13	27.20
3818.60	54.19	V	-50.9	1.30	10.70	-41.50	-13	28.50
5727.90	51.46	H	-50.7	1.70	11.10	-41.30	-13	28.30
5727.90	50.32	V	-52.0	1.70	11.10	-42.60	-13	29.60

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 4 (30MHz-20GHz)								
QPSK, 1.4MHz, Low Channel								
959.4	33.17	H	-63.3	1.36	0.0	-64.66	-13	51.66
959.4	33.08	V	-61.0	1.36	0.0	-62.36	-13	49.36
3421.40	53.87	H	-52.1	1.30	9.90	-43.50	-13	30.50
3421.40	52.36	V	-53.3	1.30	9.90	-44.70	-13	31.70
5132.10	53.52	H	-49.7	1.50	9.60	-41.60	-13	28.60
5132.10	54.75	V	-47.9	1.50	9.60	-39.80	-13	26.80
QPSK, 1.4MHz, Middle Channel								
950.8	33.38	H	-63.1	1.36	0.0	-64.46	-13	51.46
950.8	33.24	V	-60.8	1.36	0.0	-62.16	-13	49.16
3465.00	54.63	H	-51.3	1.30	10.50	-42.10	-13	29.10
3465.00	53.12	V	-52.5	1.30	10.50	-43.30	-13	30.30
5197.50	53.74	H	-49.3	1.60	9.70	-41.20	-13	28.20
5197.50	55.28	V	-47.4	1.60	9.70	-39.30	-13	26.30
QPSK, 1.4MHz, High Channel								
955.2	33.59	H	-62.9	1.36	0.0	-64.26	-13	51.26
955.2	33.49	V	-60.6	1.36	0.0	-61.96	-13	48.96
3508.60	55.94	H	-50.0	1.30	10.50	-40.80	-13	27.80
3508.60	54.48	V	-51.1	1.30	10.50	-41.90	-13	28.90
5262.90	55.05	H	-47.9	1.60	10.00	-39.50	-13	26.50
5262.90	56.39	V	-46.3	1.60	10.00	-37.90	-13	24.90

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 5 (30MHz-10GHz)								
QPSK, 1.4MHz, Low Channel								
953.1	33.71	H	-62.8	1.36	0.0	-64.16	-13	51.16
953.1	33.62	V	-60.4	1.36	0.0	-61.76	-13	48.76
1649.40	55.48	H	-52.2	0.90	8.60	-44.50	-13	31.50
1649.40	54.05	V	-54.1	0.90	8.60	-46.40	-13	33.40
2474.10	51.12	H	-56.2	1.10	8.80	-48.50	-13	35.50
2474.10	52.37	V	-54.7	1.10	8.80	-47.00	-13	34.00
3298.80	47.04	H	-58.9	1.30	8.80	-51.40	-13	38.40
3298.80	46.61	V	-59.1	1.30	8.80	-51.60	-13	38.60
QPSK, 1.4MHz, Middle Channel								
957.4	33.84	H	-62.7	1.36	0.0	-64.06	-13	51.06
957.4	33.79	V	-60.3	1.36	0.0	-61.66	-13	48.66
1673.00	56.45	H	-51.1	0.90	8.60	-43.40	-13	30.40
1673.00	54.94	V	-53.2	0.90	8.60	-45.50	-13	32.50
2509.50	51.87	H	-55.5	1.10	8.80	-47.80	-13	34.80
2509.50	53.03	V	-54.1	1.10	8.80	-46.40	-13	33.40
3346.00	47.68	H	-58.3	1.30	8.80	-50.80	-13	37.80
3346.00	47.19	V	-58.5	1.30	8.80	-51.00	-13	38.00
QPSK, 1.4MHz, High Channel								
958.8	33.94	H	-62.6	1.36	0.0	-63.96	-13	50.96
958.8	33.91	V	-60.1	1.36	0.0	-61.46	-13	48.46
1696.60	57.69	H	-49.9	0.90	8.60	-42.20	-13	29.20
1696.60	56.21	V	-51.9	0.90	8.60	-44.20	-13	31.20
2544.90	52.78	H	-54.6	1.10	8.80	-46.90	-13	33.90
2544.90	54.15	V	-53.0	1.10	8.80	-45.30	-13	32.30
3393.20	48.36	H	-57.6	1.30	9.90	-49.00	-13	36.00
3393.20	47.82	V	-57.8	1.30	9.90	-49.20	-13	36.20

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 7 (30MHz-26.5GHz)								
QPSK, 5MHz, Low Channel								
953.7	32.45	H	-64.1	1.36	0.0	-65.46	-25	40.46
953.7	32.59	V	-61.5	1.36	0.0	-62.86	-25	37.86
5005.00	54.73	H	-48.6	1.50	9.80	-40.30	-25	15.30
5005.00	55.99	V	-46.6	1.50	9.80	-38.30	-25	13.30
7507.50	53.86	H	-42.1	1.90	10.80	-33.20	-25	8.20
7507.50	55.07	V	-41.2	1.90	10.80	-32.30	-25	7.30
QPSK, 5MHz, Middle Channel								
951.9	32.71	H	-63.8	1.36	0.0	-65.16	-25	40.16
951.9	32.84	V	-61.2	1.36	0.0	-62.56	-25	37.56
5070.00	55.87	H	-47.3	1.50	9.60	-39.20	-25	14.20
5070.00	57.12	V	-45.5	1.50	9.60	-37.40	-25	12.40
7605.00	54.54	H	-41.3	1.90	11.00	-32.20	-25	7.20
7605.00	55.78	V	-40.5	1.90	11.00	-31.40	-25	6.40
QPSK, 5MHz, High Channel								
952.6	32.98	H	-63.5	1.36	0.0	-64.86	-25	39.86
952.6	33.04	V	-61.0	1.36	0.0	-62.36	-25	37.36
5135.00	56.69	H	-46.5	1.50	9.60	-38.40	-25	13.40
5135.00	57.94	V	-44.7	1.50	9.60	-36.60	-25	11.60
7702.50	55.58	H	-40.2	1.90	10.90	-31.20	-25	6.20
7702.50	56.81	V	-39.4	1.90	10.90	-30.40	-25	5.40

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 12 (30MHz-10GHz)								
QPSK, 1.4MHz, Low Channel								
954.4	32.11	H	-64.4	1.36	0.0	-65.76	-13	52.76
954.4	32.29	V	-61.8	1.36	0.0	-63.16	-13	50.16
1399.40	55.52	H	-52.2	0.80	7.90	-45.10	-13	32.10
1399.40	54.23	V	-54.2	0.80	7.90	-47.10	-13	34.10
2099.10	53.36	H	-53.9	1.00	8.30	-46.60	-13	33.60
2099.10	54.65	V	-53.2	1.00	8.30	-45.90	-13	32.90
2798.80	60.58	H	-46.0	1.20	9.20	-38.00	-13	25.00
2798.80	61.49	V	-44.8	1.20	9.20	-36.80	-13	23.80
QPSK, 1.4MHz, Middle Channel								
958.9	32.24	H	-64.3	1.36	0.0	-65.66	-13	52.66
958.9	32.42	V	-61.6	1.36	0.0	-62.96	-13	49.96
1415.00	56.34	H	-51.4	0.80	7.90	-44.30	-13	31.30
1415.00	55.07	V	-53.3	0.80	7.90	-46.20	-13	33.20
2122.50	54.15	H	-53.2	1.00	8.30	-45.90	-13	32.90
2122.50	55.48	V	-52.3	1.00	8.30	-45.00	-13	32.00
2830.00	61.81	H	-44.8	1.20	9.20	-36.80	-13	23.80
2830.00	62.79	V	-43.5	1.20	9.20	-35.50	-13	22.50
QPSK, 1.4MHz, High Channel								
951.0	32.34	H	-64.2	1.36	0.0	-65.56	-13	52.56
951.0	32.51	V	-61.5	1.36	0.0	-62.86	-13	49.86
1430.60	57.75	H	-50.0	0.80	7.90	-42.90	-13	29.90
1430.60	56.41	V	-52.0	0.80	7.90	-44.90	-13	31.90
2145.90	55.39	H	-51.9	1.00	8.30	-44.60	-13	31.60
2145.90	56.62	V	-51.2	1.00	8.30	-43.90	-13	30.90
2861.20	62.77	H	-43.5	1.20	9.00	-35.70	-13	22.70
2861.20	63.84	V	-42.2	1.20	9.00	-34.40	-13	21.40

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 13 (30MHz-10GHz)								
QPSK, 5MHz, Low Channel								
953.3	32.03	H	-64.5	1.36	0.0	-65.86	-13	52.86
953.3	32.15	V	-61.9	1.36	0.0	-63.26	-13	50.26
1559.00	54.57	H	-53.1	0.90	8.60	-45.40	-40	5.40
1559.00	55.63	V	-52.6	0.90	8.60	-44.90	-40	4.90
2338.50	67.84	H	-39.5	1.10	9.40	-31.20	-13	18.20
2338.50	69.05	V	-38.4	1.10	9.40	-30.10	-13	17.10
3118.00	49.96	H	-56.1	1.20	7.20	-50.10	-13	37.10
3118.00	50.79	V	-55.0	1.20	7.20	-49.00	-13	36.00
QPSK, 5MHz, Middle Channel								
955.8	34.01	H	-62.5	1.36	0.0	-63.86	-13	50.86
955.8	33.95	V	-60.1	1.36	0.0	-61.46	-13	48.46
1564.00	55.20	H	-52.5	0.90	8.60	-44.80	-40	4.80
1564.00	56.09	V	-52.1	0.90	8.60	-44.40	-40	4.40
2346.00	68.52	H	-38.8	1.10	9.40	-30.50	-13	17.50
2346.00	69.98	V	-37.5	1.10	9.40	-29.20	-13	16.20
3128.00	50.64	H	-55.4	1.20	7.20	-49.40	-13	36.40
3128.00	51.05	V	-54.7	1.20	7.20	-48.70	-13	35.70
QPSK, 5MHz, High Channel								
959.8	34.12	H	-62.4	1.36	0.0	-63.76	-13	50.76
959.8	34.02	V	-60.0	1.36	0.0	-61.36	-13	48.36
1569.00	56.35	H	-51.3	0.90	8.60	-43.60	-40	3.60
1569.00	57.12	V	-51.1	0.90	8.60	-43.40	-40	3.40
2353.50	69.48	H	-37.9	1.10	9.10	-29.90	-13	16.90
2353.50	70.89	V	-36.4	1.10	9.10	-28.40	-13	15.40
3138.00	51.57	H	-54.5	1.20	7.20	-48.50	-13	35.50
3138.00	52.24	V	-53.5	1.20	7.20	-47.50	-13	34.50

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 17 (30MHz-10GHz)								
QPSK, 5MHz, Low Channel								
953.4	34.73	H	-61.8	1.36	0.0	-63.16	-13	50.16
953.4	34.74	V	-59.3	1.36	0.0	-60.66	-13	47.66
1413.00	53.87	H	-53.8	0.80	7.90	-46.70	-13	33.70
1413.00	52.64	V	-55.8	0.80	7.90	-48.70	-13	35.70
2119.50	51.06	H	-56.2	1.00	8.30	-48.90	-13	35.90
2119.50	49.92	V	-57.9	1.00	8.30	-50.60	-13	37.60
2826.00	59.53	H	-47.0	1.20	9.20	-39.00	-13	26.00
2826.00	60.61	V	-45.7	1.20	9.20	-37.70	-13	24.70
QPSK, 5MHz, Middle Channel								
956.1	34.83	H	-61.7	1.36	0.0	-63.06	-13	50.06
956.1	34.81	V	-59.2	1.36	0.0	-60.56	-13	47.56
1420.00	54.33	H	-53.4	0.80	7.90	-46.30	-13	33.30
1420.00	53.06	V	-55.3	0.80	7.90	-48.20	-13	35.20
2130.00	51.94	H	-55.4	1.00	8.30	-48.10	-13	35.10
2130.00	50.72	V	-57.1	1.00	8.30	-49.80	-13	36.80
2840.00	60.28	H	-46.3	1.20	9.20	-38.30	-13	25.30
2840.00	61.17	V	-45.1	1.20	9.20	-37.10	-13	24.10
QPSK, 5MHz, High Channel								
952.4	34.94	H	-61.6	1.36	0.0	-62.96	-13	49.96
952.4	34.97	V	-59.1	1.36	0.0	-60.46	-13	47.46
1427.00	55.49	H	-52.2	0.80	7.90	-45.10	-13	32.10
1427.00	54.17	V	-54.2	0.80	7.90	-47.10	-13	34.10
2140.50	52.88	H	-54.4	1.00	8.30	-47.10	-13	34.10
2140.50	51.52	V	-56.3	1.00	8.30	-49.00	-13	36.00
2854.00	61.75	H	-44.6	1.20	9.00	-36.80	-13	23.80
2854.00	62.93	V	-43.1	1.20	9.00	-35.30	-13	22.30

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 25(30MHz-20GHz)								
QPSK, 1.4MHz, Low Channel								
950.7	34.38	H	-62.1	1.36	0.0	-63.46	-13	50.46
950.7	34.42	V	-59.6	1.36	0.0	-60.96	-13	47.96
3701.40	54.97	H	-50.4	1.30	11.00	-40.70	-13	27.70
3701.40	53.66	V	-51.6	1.30	11.00	-41.90	-13	28.90
5552.10	52.02	H	-50.4	1.70	10.90	-41.20	-13	28.20
5552.10	50.78	V	-51.8	1.70	10.90	-42.60	-13	29.60
QPSK, 1.4MHz, Middle Channel								
951.2	34.49	H	-62.0	1.36	0.0	-63.36	-13	50.36
951.2	34.53	V	-59.5	1.36	0.0	-60.86	-13	47.86
3765.00	55.48	H	-49.7	1.30	10.70	-40.30	-13	27.30
3765.00	54.19	V	-50.9	1.30	10.70	-41.50	-13	28.50
5647.50	52.81	H	-49.6	1.70	10.90	-40.40	-13	27.40
5647.50	51.65	V	-50.9	1.70	10.90	-41.70	-13	28.70
QPSK, 1.4MHz, High Channel								
954.4	34.61	H	-61.9	1.36	0.0	-63.26	-13	50.26
954.4	34.64	V	-59.4	1.36	0.0	-60.76	-13	47.76
3828.60	56.54	H	-48.6	1.30	10.70	-39.20	-13	26.20
3828.60	55.32	V	-49.7	1.30	10.70	-40.30	-13	27.30
5742.90	53.75	H	-48.4	1.70	11.10	-39.00	-13	26.00
5742.90	52.47	V	-49.9	1.70	11.10	-40.50	-13	27.50

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 26_ Part 90s (30MHz-10GHz)								
QPSK, 1.4MHz, Low Channel								
958.1	34.57	H	-61.90	1.36	0.0	-63.26	-13	50.26
958.1	34.04	V	-60.00	1.36	0.0	-61.36	-13	48.36
1629.40	65.19	H	-42.5	0.90	8.60	-34.80	-13	21.80
1629.40	63.86	V	-44.3	0.90	8.60	-36.60	-13	23.60
2444.10	61.27	H	-46.1	1.10	9.10	-38.10	-13	25.10
2444.10	62.64	V	-44.6	1.10	9.10	-36.60	-13	23.60
3258.80	47.05	H	-58.9	1.30	8.80	-51.40	-13	38.40
3258.80	46.48	V	-59.2	1.30	8.80	-51.70	-13	38.70
QPSK, 1.4MHz, High Channel								
957.8	31.72	H	62.82	1.36	0.0	-64.16	-13	51.16
957.8	33.18	V	60.85	1.36	0.0	-62.26	-13	49.26
1646.60	67.96	H	-39.5	0.90	8.40	-32.00	-13	19.00
1646.60	66.57	V	-41.5	0.90	8.40	-34.00	-13	21.00
2469.90	63.25	H	-43.3	1.20	9.20	-35.30	-13	22.30
2469.90	64.61	V	-41.7	1.20	9.20	-33.70	-13	20.70
3293.20	48.84	H	-56.6	1.30	11.00	-46.90	-13	33.90
3293.20	48.32	V	-56.9	1.30	11.00	-47.20	-13	34.20
QPSK, 1.4MHz, Cross Channel								
958.2	35.35	H	61.20	1.36	0.0	-62.56	-13	49.56
958.2	33.98	V	60.10	1.36	0.0	-61.46	-13	48.46
1648.00	66.83	H	-40.8	0.90	8.60	-33.10	-13	20.10
1648.00	65.24	V	-43.0	0.90	8.60	-35.30	-13	22.30
2472.00	61.72	H	-45.6	1.10	8.80	-37.90	-13	24.90
2472.00	63.45	V	-43.7	1.10	8.80	-36.00	-13	23.00
3296.00	47.51	H	-58.5	1.30	8.80	-51.00	-13	38.00
3296.00	47.08	V	-58.6	1.30	8.80	-51.10	-13	38.10

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 26_ Part 22H (30MHz-10GHz)								
QPSK, 1.4MHz, Low Channel								
958.0	31.97	H	-64.5	1.36	0.0	-65.86	-13	52.86
958.0	31.94	V	-62.1	1.36	0.0	-63.46	-13	50.46
1649.40	68.91	H	-38.7	0.90	8.60	-31.00	-13	18.00
1649.40	66.62	V	-41.6	0.90	8.60	-33.90	-13	20.90
2474.10	63.36	H	-44.0	1.10	8.80	-36.30	-13	23.30
2474.10	64.91	V	-42.2	1.10	8.80	-34.50	-13	21.50
3298.80	49.13	H	-56.8	1.30	8.80	-49.30	-13	36.30
3298.80	48.54	V	-57.1	1.30	8.80	-49.60	-13	36.60
QPSK, 1.4MHz, Middle Channel								
958.6	34.15	H	-62.4	1.36	0.0	-63.76	-13	50.76
958.6	34.28	V	-59.8	1.36	0.0	-61.16	-13	48.16
1673.00	68.27	H	-39.3	0.90	8.60	-31.60	-13	18.60
1673.00	67.05	V	-41.1	0.90	8.60	-33.40	-13	20.40
2509.50	63.71	H	-43.6	1.10	8.80	-35.90	-13	22.90
2509.50	64.70	V	-42.4	1.10	8.80	-34.70	-13	21.70
3346.00	49.44	H	-56.5	1.30	8.80	-49.00	-13	36.00
3346.00	48.50	V	-57.2	1.30	8.80	-49.70	-13	36.70
QPSK, 1.4MHz, High Channel								
957.3	34.24	H	-62.3	1.36	0.0	-63.66	-13	50.66
957.3	34.33	V	-59.7	1.36	0.0	-61.06	-13	48.06
1696.60	68.35	H	-39.2	0.90	8.60	-31.50	-13	18.50
1696.60	67.10	V	-41.0	0.90	8.60	-33.30	-13	20.30
2544.90	63.61	H	-43.8	1.10	8.80	-36.10	-13	23.10
2544.90	65.44	V	-41.7	1.10	8.80	-34.00	-13	21.00
3393.20	49.03	H	-56.9	1.30	9.90	-48.30	-13	35.30
3393.20	49.12	V	-56.5	1.30	9.90	-47.90	-13	34.90

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 38 (30MHz-26.5GHz)								
QPSK, 5MHz, Low Channel								
951.6	33.14	H	-63.4	1.36	0.0	-64.76	-25	39.76
951.6	33.25	V	-60.8	1.36	0.0	-62.16	-25	37.16
5145.00	56.24	H	-46.9	1.50	9.60	-38.80	-25	13.80
5145.00	57.57	V	-45.0	1.50	9.60	-36.90	-25	11.90
7717.50	54.32	H	-41.5	1.90	10.90	-32.50	-25	7.50
7717.50	55.49	V	-40.7	1.90	10.90	-31.70	-25	6.70
QPSK, 5MHz, Middle Channel								
950.6	33.28	H	-63.2	1.36	0.0	-64.56	-25	39.56
950.6	33.31	V	-60.7	1.36	0.0	-62.06	-25	37.06
5190.00	57.08	H	-46.0	1.60	9.70	-37.90	-25	12.90
5190.00	58.45	V	-44.2	1.60	9.70	-36.10	-25	11.10
7785.00	55.12	H	-40.6	1.90	11.10	-31.40	-25	6.40
7785.00	56.37	V	-39.7	1.90	11.10	-30.50	-25	5.50
QPSK, 5MHz, High Channel								
957.5	33.46	H	-63.0	1.36	0.0	-64.36	-25	39.36
957.5	33.42	V	-60.6	1.36	0.0	-61.96	-25	36.96
5235.00	57.94	H	-45.1	1.60	9.70	-37.00	-25	12.00
5235.00	59.36	V	-43.3	1.60	9.70	-35.20	-25	10.20
7852.50	56.28	H	-39.4	1.90	11.10	-30.20	-25	5.20
7852.50	57.59	V	-38.4	1.90	11.10	-29.20	-25	4.20

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 41 (30MHz-27GHz)								
QPSK, 5MHz, Low Channel								
959.2	33.57	H	-62.9	1.36	0.0	-64.26	-25	39.26
959.2	33.59	V	-60.5	1.36	0.0	-61.86	-25	36.86
5075.00	57.14	H	-46.2	1.50	9.80	-37.90	-25	12.90
5075.00	58.45	V	-44.1	1.50	9.80	-35.80	-25	10.80
7612.50	55.27	H	-40.7	1.90	10.80	-31.80	-25	6.80
7612.50	56.56	V	-39.8	1.90	10.80	-30.90	-25	5.90
QPSK, 5MHz, Middle Channel								
958.3	33.67	H	-62.8	1.36	0.0	-64.16	-25	39.16
958.3	33.74	V	-60.3	1.36	0.0	-61.66	-25	36.66
5190.00	58.32	H	-44.7	1.60	9.70	-36.60	-25	11.60
5190.00	59.65	V	-43.0	1.60	9.70	-34.90	-25	9.90
7785.00	56.04	H	-39.7	1.90	11.10	-30.50	-25	5.50
7785.00	57.29	V	-38.8	1.90	11.10	-29.60	-25	4.60
QPSK, 5MHz, High Channel								
951.4	33.87	H	-62.6	1.36	0.0	-63.96	-25	38.96
951.4	33.98	V	-60.1	1.36	0.0	-61.46	-25	36.46
5305.00	59.45	H	-43.3	1.70	10.50	-34.50	-25	9.50
5305.00	60.87	V	-41.9	1.70	10.50	-33.10	-25	8.10
7957.50	56.93	H	-38.7	2.00	11.40	-29.30	-25	4.30
7957.50	58.21	V	-37.7	2.00	11.40	-28.30	-25	3.30

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
Band 66 (30MHz-20GHz)								
QPSK, 1.4MHz, Low Channel								
952.6	35.12	H	-61.4	1.36	0.0	-62.76	-25	37.76
952.6	35.08	V	-59.0	1.36	0.0	-60.36	-25	35.36
3421.40	55.15	H	-50.8	1.30	9.90	-42.20	-13	29.20
3421.40	53.72	V	-51.9	1.30	9.90	-43.30	-13	30.30
5132.10	50.67	H	-52.5	1.50	9.60	-44.40	-13	31.40
5132.10	51.94	V	-50.7	1.50	9.60	-42.60	-13	29.60
QPSK, 1.4MHz, Middle Channel								
958.5	35.34	H	-61.2	1.36	0.0	-62.56	-25	37.56
958.5	35.21	V	-58.8	1.36	0.0	-60.16	-25	35.16
3490.00	55.86	H	-50.1	1.30	10.50	-40.90	-13	27.90
3490.00	54.39	V	-51.2	1.30	10.50	-42.00	-13	29.00
5235.00	51.18	H	-51.9	1.60	9.70	-43.80	-13	30.80
5235.00	52.43	V	-50.2	1.60	9.70	-42.10	-13	29.10
QPSK, 1.4MHz, High Channel								
954.1	35.61	H	-60.9	1.36	0.0	-62.26	-25	37.26
954.1	35.37	V	-58.7	1.36	0.0	-60.06	-25	35.06
3558.60	57.27	H	-48.4	1.30	10.90	-38.80	-13	25.80
3558.60	55.84	V	-49.6	1.30	10.90	-40.00	-13	27.00
5337.90	52.32	H	-50.6	1.60	10.00	-42.20	-13	29.20
5337.90	53.68	V	-49.0	1.60	10.00	-40.60	-13	27.60

Note:
Absolute Level = Reading Level + Substituted Factor
Substituted Factor contains: Substituted Level - Cable loss+ Antenna Gain
Margin = Limit-Absolute Level

FCC§ 22.917 (a); § 24.238 (a); §27.53(c)(g)(h)(m); §90.691 - 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 emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

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

According to § 90.691, (a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(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 Log10(f/6.1) decibels or 50 + 10 Log10(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 + 10Log10(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.

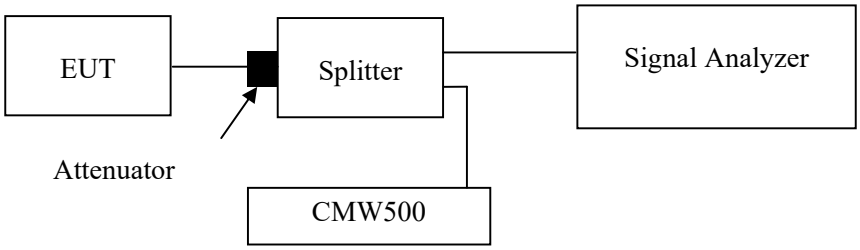
(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section

Test Procedure

ANSI C63.26-2015 Section 5.7

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

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



Test Data

Environmental Conditions

Temperature:	25~26.5℃
Relative Humidity:	40~50%
ATM Pressure:	101 kPa

The testing was performed by Jim Cheng, Brian Li and Allen Bai from 2024-08-02 to 2024-09-09.

EUT operation mode: Transmitting (Worst case)

Test Result: Compliant

Please refer to the following plots.

The test data of 2G and 3G please refer to the Appendix A&B.

The test plots of LTE bands please refer to the Appendix E1~E3.

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

Applicable Standard

FCC § 2.1055, §22.355, §24.235&§27.54&§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&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

According to §90.213, 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)—MINIMUM FREQUENCY STABILITY

[Parts per million (ppm)]

Frequency range (MHz)	Fixed and base stations	Mobile stations	
		Over 2 watts output power	2 watts or less output power
Below 25	[1 2 3]100	100	200
25-50	20	20	50
72-76	5		50
150-174	[5 11]5	[6]5	[4 6]50
216-220	1.0		1.0
220-222[12]	0.1	1.5	1.5
421-512	[7 11 14]2.5	[8]5	[8]5
806-809	[14]1.0	1.5	1.5
809-824	[14]1.5	2.5	2.5
851-854	1.0	1.5	1.5
854-869	1.5	2.5	2.5
896-901	[14]0.1	1.5	1.5
902-928	2.5	2.5	2.5
902-928[13]	2.5	2.5	2.5
929-930	1.5		
935-940	0.1	1.5	1.5
1427-1435	[9]300	300	300
Above 2450[10]			

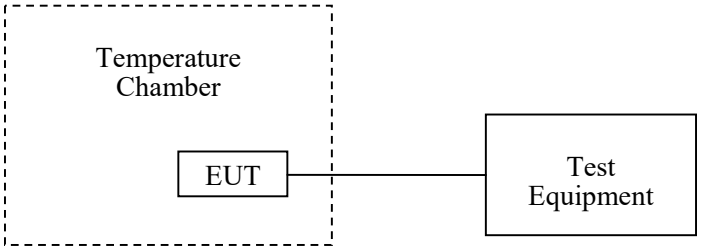
Test Procedure

ANSI C63.26-2015 Section 5.6

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

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

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



Test Data

Environmental Conditions

Temperature:	25~26.5℃
Relative Humidity:	40~50%
ATM Pressure:	101 kPa

The testing was performed by Jim Cheng and Allen Bai from 2024-08-02 to 2024-08-14.

EUT operation mode: Transmitting

Test Result: Compliant

Please refer to the following tables.

The test data of 2G and 3G please refer to the Appendix A&B.

LTE Band 2
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1850.260	1850.000	1909.730	1910.000
	-20	3.87	1850.300	1850.000	1909.740	1910.000
	-10	3.87	1850.310	1850.000	1909.790	1910.000
	0	3.87	1850.260	1850.000	1909.770	1910.000
	10	3.87	1850.220	1850.000	1909.710	1910.000
	20	3.87	1850.220	1850.000	1909.730	1910.000
	30	3.87	1850.290	1850.000	1909.710	1910.000
	40	3.87	1850.280	1850.000	1909.730	1910.000
	50	3.87	1850.260	1850.000	1909.780	1910.000
Frequency Stability vs. Voltage	20	3.42	1850.110	1850.000	1909.810	1910.000
	20	4.45	1850.120	1850.000	1909.790	1910.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1850.210	1850.000	1909.680	1910.000
	-20	3.87	1850.210	1850.000	1909.670	1910.000
	-10	3.87	1850.150	1850.000	1909.660	1910.000
	0	3.87	1850.140	1850.000	1909.680	1910.000
	10	3.87	1850.110	1850.000	1909.650	1910.000
	20	3.87	1850.110	1850.000	1909.660	1910.000
	30	3.87	1850.150	1850.000	1909.720	1910.000
	40	3.87	1850.160	1850.000	1909.710	1910.000
	50	3.87	1850.120	1850.000	1909.750	1910.000
Frequency Stability vs. Voltage	20	3.42	1850.140	1850.000	1909.680	1910.000
	20	4.45	1850.160	1850.000	1909.780	1910.000

LTE Band 4
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1710.060	1710.000	1754.720	1755.000
	-20	3.87	1710.070	1710.000	1754.740	1755.000
	-10	3.87	1710.100	1710.000	1754.770	1755.000
	0	3.87	1710.060	1710.000	1754.700	1755.000
	10	3.87	1710.002	1710.000	1754.672	1755.000
	20	3.87	1710.040	1710.000	1754.760	1755.000
	30	3.87	1710.030	1710.000	1754.760	1755.000
	40	3.87	1710.020	1710.000	1754.680	1755.000
	50	3.87	1710.020	1710.000	1754.690	1755.000
Frequency Stability vs. Voltage	20	3.42	1710.027	1710.000	1754.740	1755.000
	20	4.45	1710.016	1710.000	1754.670	1755.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1710.030	1710.000	1754.830	1755.000
	-20	3.87	1710.030	1710.000	1754.860	1755.000
	-10	3.87	1710.080	1710.000	1754.810	1755.000
	0	3.87	1710.060	1710.000	1754.770	1755.000
	10	3.87	1710.003	1710.000	1754.765	1755.000
	20	3.87	1710.090	1710.000	1754.820	1755.000
	30	3.87	1710.070	1710.000	1754.840	1755.000
	40	3.87	1710.090	1710.000	1754.820	1755.000
	50	3.87	1710.050	1710.000	1754.810	1755.000
Frequency Stability vs. Voltage	20	3.42	1710.014	1710.000	1754.853	1755.000
	20	4.45	1710.016	1710.000	1754.787	1755.000

LTE Band 5
QPSK:

Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	118.910	0.142	2.5
	-20	3.87	117.537	0.141	2.5
	-10	3.87	115.745	0.138	2.5
	0	3.87	105.976	0.127	2.5
	10	3.87	105.745	0.126	2.5
	20	3.87	116.997	0.140	2.5
	30	3.87	100.403	0.120	2.5
	40	3.87	112.931	0.135	2.5
	50	3.87	110.863	0.133	2.5
Frequency Stability vs. Voltage	20	3.42	111.496	0.133	2.5
	20	4.45	110.299	0.132	2.5

16QAM:

Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	104.033	0.124	2.5
	-20	3.87	113.623	0.136	2.5
	-10	3.87	103.860	0.124	2.5
	0	3.87	102.597	0.123	2.5
	10	3.87	114.993	0.137	2.5
	20	3.87	102.489	0.123	2.5
	30	3.87	119.194	0.142	2.5
	40	3.87	111.510	0.133	2.5
	50	3.87	107.130	0.128	2.5
Frequency Stability vs. Voltage	20	3.42	107.483	0.128	2.5
	20	4.45	118.911	0.142	2.5

LTE Band 7
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2500.150	2500.000	2569.790	2570.000
	-20	3.87	2500.210	2500.000	2569.740	2570.000
	-10	3.87	2500.190	2500.000	2569.750	2570.000
	0	3.87	2500.180	2500.000	2569.810	2570.000
	10	3.87	2500.120	2500.000	2569.720	2570.000
	20	3.87	2500.210	2500.000	2569.740	2570.000
	30	3.87	2500.130	2500.000	2569.810	2570.000
	40	3.87	2500.190	2500.000	2569.750	2570.000
	50	3.87	2500.120	2500.000	2569.810	2570.000
Frequency Stability vs. Voltage	20	3.42	2500.280	2500.000	2569.770	2570.000
	20	4.45	2500.240	2500.000	2569.780	2570.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2500.320	2500.000	2569.590	2570.000
	-20	3.87	2500.310	2500.000	2569.570	2570.000
	-10	3.87	2500.340	2500.000	2569.560	2570.000
	0	3.87	2500.270	2500.000	2569.540	2570.000
	10	3.87	2500.260	2500.000	2569.520	2570.000
	20	3.87	2500.260	2500.000	2569.620	2570.000
	30	3.87	2500.260	2500.000	2569.580	2570.000
	40	3.87	2500.270	2500.000	2569.540	2570.000
	50	3.87	2500.320	2500.000	2569.550	2570.000
Frequency Stability vs. Voltage	20	3.42	2500.240	2500.000	2569.720	2570.000
	20	4.45	2500.280	2500.00	2569.670	2570.000

LTE Band 12
QPSK:

Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	699.400	699.000	715.600	716.000
	-20	3.87	699.370	699.000	715.630	716.000
	-10	3.87	699.400	699.000	715.600	716.000
	0	3.87	699.400	699.000	715.600	716.000
	10	3.87	699.330	699.000	715.540	716.000
	20	3.87	699.360	699.000	715.620	716.000
	30	3.87	699.390	699.000	715.540	716.000
	40	3.87	699.370	699.000	715.560	716.000
	50	3.87	699.360	699.000	715.580	716.000
Frequency Stability vs. Voltage	20	3.42	699.230	699.000	715.670	716.000
	20	4.45	699.250	699.000	715.480	716.000

16QAM:

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	699.320	699.000	715.680	716.000
	-20	3.87	699.310	699.000	715.720	716.000
	-10	3.87	699.320	699.000	715.630	716.000
	0	3.87	699.300	699.000	715.720	716.000
	10	3.87	699.280	699.000	715.630	716.000
	20	3.87	699.290	699.000	715.670	716.000
	30	3.87	699.290	699.000	715.670	716.000
	40	3.87	699.310	699.000	715.730	716.000
	50	3.87	699.370	699.000	715.700	716.000
Frequency Stability vs. Voltage	20	3.42	699.250	699.000	715.690	716.000
	20	4.45	699.420	699.000	715.710	716.000

LTE Band 13
QPSK:

Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	777.230	777.000	786.590	787.000
	-20	3.87	777.240	777.000	786.660	787.000
	-10	3.87	777.180	777.000	786.670	787.000
	0	3.87	777.250	777.000	786.640	787.000
	10	3.87	777.180	777.000	786.590	787.000
	20	3.87	777.280	777.000	786.610	787.000
	30	3.87	777.210	777.000	786.670	787.000
	40	3.87	777.200	777.000	786.680	787.000
	50	3.87	777.280	777.000	786.660	787.000
Frequency Stability vs. Voltage	20	3.42	777.240	777.000	786.720	787.000
	20	4.45	777.160	777.000	786.680	787.000

16QAM:

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	777.120	777.000	786.790	787.000
	-20	3.87	777.180	777.000	786.820	787.000
	-10	3.87	777.190	777.000	786.840	787.000
	0	3.87	777.180	777.000	786.780	787.000
	10	3.87	777.120	777.000	786.770	787.000
	20	3.87	777.130	777.000	786.780	787.000
	30	3.87	777.140	777.000	786.860	787.000
	40	3.87	777.160	777.000	786.840	787.000
	50	3.87	777.140	777.000	786.810	787.000
Frequency Stability vs. Voltage	20	3.42	777.210	777.00	786.830	787.00
	20	4.45	777.320	777.00	786.780	787.00

LTE Band 17
QPSK:

Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	704.040	704.000	715.740	716.000
	-20	3.87	704.050	704.000	715.720	716.000
	-10	3.87	704.050	704.000	715.780	716.000
	0	3.87	704.120	704.000	715.760	716.000
	10	3.87	704.022	704.000	715.680	716.000
	20	3.87	704.100	704.000	715.700	716.000
	30	3.87	704.040	704.000	715.730	716.000
	40	3.87	704.080	704.000	715.690	716.000
	50	3.87	704.090	704.000	715.710	716.000
Frequency Stability vs. Voltage	20	3.42	704.025	704.000	715.760	716.000
	20	4.45	704.033	704.000	715.750	716.000

16QAM:

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	704.110	704.000	715.720	716.000
	-20	3.87	704.100	704.000	715.730	716.000
	-10	3.87	704.070	704.000	715.700	716.000
	0	3.87	704.060	704.000	715.660	716.000
	10	3.87	704.016	704.000	715.630	716.000
	20	3.87	704.050	704.000	715.720	716.000
	30	3.87	704.080	704.000	715.720	716.000
	40	3.87	704.110	704.000	715.670	716.000
	50	3.87	704.020	704.000	715.670	716.000
Frequency Stability vs. Voltage	20	3.42	704.026	704.000	715.720	716.000
	20	4.45	704.033	704.000	715.690	716.000

LTE Band 25
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1850.110	1850.000	1914.770	1915.000
	-20	3.87	1850.070	1850.000	1914.720	1915.000
	-10	3.87	1850.080	1850.000	1914.740	1915.000
	0	3.87	1850.080	1850.000	1914.760	1915.000
	10	3.87	1850.018	1850.000	1914.722	1915.000
	20	3.87	1850.110	1850.000	1914.730	1915.000
	30	3.87	1850.090	1850.000	1914.770	1915.000
	40	3.87	1850.050	1850.000	1914.750	1915.000
	50	3.87	1850.100	1850.000	1914.800	1915.000
Frequency Stability vs. Voltage	20	3.42	1850.018	1850.000	1914.810	1915.000
	20	4.45	1850.013	1850.000	1914.760	1915.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1850.120	1850.000	1914.860	1915.000
	-20	3.87	1850.150	1850.000	1914.800	1915.000
	-10	3.87	1850.110	1850.000	1914.810	1915.000
	0	3.87	1850.150	1850.000	1914.850	1915.000
	10	3.87	1850.100	1850.000	1914.760	1915.000
	20	3.87	1850.120	1850.000	1914.770	1915.000
	30	3.87	1850.130	1850.000	1914.810	1915.000
	40	3.87	1850.110	1850.000	1914.840	1915.000
	50	3.87	1850.170	1850.000	1914.860	1915.000
Frequency Stability vs. Voltage	20	3.42	1850.003	1850.000	1914.880	1915.000
	20	4.45	1850.021	1850.000	1914.770	1915.000

LTE Band 26(Part 90s)
QPSK:

Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	103.579	0.124	2.5
	-20	3.87	114.363	0.137	2.5
	-10	3.87	104.771	0.125	2.5
	0	3.87	105.031	0.126	2.5
	10	3.87	110.542	0.132	2.5
	20	3.87	117.004	0.140	2.5
	30	3.87	106.708	0.128	2.5
	40	3.87	102.770	0.123	2.5
	50	3.87	110.395	0.132	2.5
Frequency Stability vs. Voltage	20	3.42	118.258	0.141	2.5
	20	4.45	113.383	0.136	2.5

16QAM:

Test Modulation:	15 MHz 16QAM		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	104.397	0.127	2.5
	-20	3.87	110.318	0.133	2.5
	-10	3.87	106.415	0.128	2.5
	0	3.87	112.736	0.136	2.5
	10	3.87	105.995	0.127	2.5
	20	3.87	101.970	0.123	2.5
	30	3.87	104.911	0.126	2.5
	40	3.87	114.231	0.137	2.5
	50	3.87	104.741	0.126	2.5
Frequency Stability vs. Voltage	20	3.42	107.413	0.129	2.5
	20	4.45	113.187	0.136	2.5

LTE Band 26(Part 22H)
QPSK:

Test Modulation:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	118.463	0.142	2.5
	-20	3.87	111.168	0.134	2.5
	-10	3.87	100.429	0.121	2.5
	0	3.87	118.898	0.143	2.5
	10	3.87	103.923	0.125	2.5
	20	3.87	101.145	0.122	2.5
	30	3.87	107.101	0.129	2.5
	40	3.87	117.941	0.142	2.5
	50	3.87	115.271	0.139	2.5
Frequency Stability vs. Voltage	20	3.42	105.565	0.127	2.5
	20	4.45	119.254	0.143	2.5

16QAM:

Test Modulation:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	112.607	0.135	2.5
	-20	3.87	101.437	0.122	2.5
	-10	3.87	119.800	0.144	2.5
	0	3.87	103.172	0.124	2.5
	10	3.87	105.843	0.127	2.5
	20	3.87	119.035	0.143	2.5
	30	3.87	106.631	0.128	2.5
	40	3.87	114.094	0.137	2.5
	50	3.87	101.405	0.122	2.5
Frequency Stability vs. Voltage	20	3.42	104.605	0.126	2.5
	20	4.45	111.675	0.134	2.5

LTE Band 38
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2570.090	2570.000	2619.710	2620.000
	-20	3.87	2570.040	2570.000	2619.730	2620.000
	-10	3.87	2570.080	2570.000	2619.660	2620.000
	0	3.87	2570.030	2570.000	2619.670	2620.000
	10	3.87	2570.018	2570.000	2619.660	2620.000
	20	3.87	2570.050	2570.000	2619.700	2620.000
	30	3.87	2570.080	2570.000	2619.730	2620.000
	40	3.87	2570.040	2570.000	2619.750	2620.000
	50	3.87	2570.100	2570.000	2619.760	2620.000
Frequency Stability vs. Voltage	20	3.42	2570.011	2570.000	2619.680	2620.000
	20	4.45	2570.017	2570.000	2619.810	2620.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2570.170	2570.000	2619.810	2620.000
	-20	3.87	2570.210	2570.000	2619.770	2620.000
	-10	3.87	2570.200	2570.000	2619.840	2620.000
	0	3.87	2570.220	2570.000	2619.870	2620.000
	10	3.87	2570.130	2570.000	2619.770	2620.000
	20	3.87	2570.150	2570.000	2619.810	2620.000
	30	3.87	2570.220	2570.000	2619.790	2620.000
	40	3.87	2570.190	2570.000	2619.820	2620.000
	50	3.87	2570.160	2570.000	2619.770	2620.000
Frequency Stability vs. Voltage	20	3.42	2570.130	2570.000	2619.730	2620.000
	20	4.45	2570.210	2570.000	2619.770	2620.000

LTE Band 41
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2535.190	2535.000	2654.850	2655.000
	-20	3.87	2535.120	2535.000	2654.850	2655.000
	-10	3.87	2535.120	2535.000	2654.830	2655.000
	0	3.87	2535.200	2535.000	2654.840	2655.000
	10	3.87	2535.110	2535.000	2654.790	2655.000
	20	3.87	2535.120	2535.000	2654.870	2655.000
	30	3.87	2535.200	2535.000	2654.810	2655.000
	40	3.87	2535.130	2535.000	2654.840	2655.000
	50	3.87	2535.210	2535.000	2654.810	2655.000
Frequency Stability vs. Voltage	20	3.42	2535.280	2535.000	2654.890	2655.000
	20	4.45	2535.320	2535.000	2654.870	2655.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2535.320	2535.000	2654.610	2655.000
	-20	3.87	2535.350	2535.000	2654.620	2690.000
	-10	3.87	2535.340	2535.000	2654.600	2655.000
	0	3.87	2535.340	2535.000	2654.600	2655.000
	10	3.87	2535.270	2535.000	2654.580	2655.000
	20	3.87	2535.290	2535.000	2654.660	2655.000
	30	3.87	2535.340	2535.000	2654.600	2655.000
	40	3.87	2535.280	2535.000	2654.660	2655.000
	50	3.87	2535.360	2535.000	2654.620	2655.000
Frequency Stability vs. Voltage	20	3.42	2535.250	2535.000	2654.740	2655.000
	20	4.45	2535.330	2535.000	2654.600	2655.000

LTE Band 66
QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1710.190	1710.000	1779.690	1780.000
	-20	3.87	1710.270	1710.000	1779.680	1780.000
	-10	3.87	1710.200	1710.000	1779.710	1780.000
	0	3.87	1710.190	1710.000	1779.670	1780.000
	10	3.87	1710.180	1710.000	1779.650	1780.000
	20	3.87	1710.270	1710.000	1779.720	1780.000
	30	3.87	1710.220	1710.000	1779.700	1780.000
	40	3.87	1710.280	1710.000	1779.710	1780.000
	50	3.87	1710.210	1710.000	1779.740	1780.000
Frequency Stability vs. Voltage	20	3.42	1710.240	1710.000	1779.690	1780.000
	20	4.45	1710.310	1710.000	1779.580	1780.000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	1710.280	1710.000	1779.670	1780.000
	-20	3.87	1710.290	1710.000	1779.660	1780.000
	-10	3.87	1710.260	1710.000	1779.680	1780.000
	0	3.87	1710.240	1710.000	1779.690	1780.000
	10	3.87	1710.220	1710.000	1779.610	1780.000
	20	3.87	1710.310	1710.000	1779.610	1780.000
	30	3.87	1710.230	1710.000	1779.650	1780.000
	40	3.87	1710.270	1710.000	1779.620	1780.000
	50	3.87	1710.250	1710.000	1779.640	1780.000
Frequency Stability vs. Voltage	20	3.42	1710.320	1710.000	1779.590	1780.000
	20	4.45	1710.230	1710.000	1779.670	1780.000

EUT PHOTOGRAPHS

Please refer to the attachment 2401V31893E-RF External photo and 2401V31893E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401V31893E-RFC Test Setup photo.

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