

TESTREPORT

Applicant Name : Inrico Technologies Co.,Ltd
Address : A1703, Shenzhen National Engineering Laboratory Building,
No. 20 Gaoxin South 7th Road, Shenzhen, China
Report Number: SZNS220901-39755E-RF-00A
FCC ID: 2AIV6-T310R

Test Standard (s)

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

Sample Description

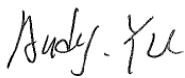
Product Type: PoC RADIO
Model No.: T310R
Trade Mark: N/A
Date Received: Inrico
Date Received: 2022/09/01
Report Date: 2022/11/09

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

Prepared and Checked By:

Approved By:



Andy Yu
EMC Engineer



Candy Li
EMC Engineer

Note: This report may contain data that are not covered by the A2LA 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	SZNS220901-39755E-RF-00A	Original Report	2022/11/09

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

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 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 40 Lower: 2305-2315MHz(TX/RX) LTE Band 40 Upper: 2350-2360MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX); 2110-2180MHz(RX)
Modulation Technique	2G: GMSK/8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification*	Band 2: 2.24 dBi; Band 5: 0.55dBi; Band 4/66: 1.78 dBi; Band 7: 3.23dBi; Band 40: 1.54dBi (provided by the applicant)
Voltage Range	DC 3.8V from battery or DC 5V from adapter
Sample serial number	SZNS220901-39755E-RF-S1 for Radiated Emissions SZNS220901-39755E-RF-S2 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Normal/Extreme Condition	L.V.: Low Voltage 3.8V _{DC} ; N.V.: Normal Voltage 3.4V _{DC} ; H.V.: High Voltage 4.35V _{DC} ;
Adapter information	Model: HJ-0501000E1-US Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5V, 1000mA

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H and Part24-Subpart E and Subpart 27of the Federal Communication Commissions rules.

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

Test Methodology

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

Part 22 Subpart H - Public Mobile Services
 Part 24 Subpart E - Personal Communication Services
 Part 27 – Miscellaneous wireless communications services

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

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		0.082×10^{-7}
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz- 18GHz	4.98dB
	18GHz-26.5GHz	5.06dB
	26.5GHz-40GHz	4.72dB
Temperature		1 °C
Humidity		6%
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 Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISED), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

Test was performed as below table:

Frequency band	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GSM850	0.25	824.2	836.6	848.8
DCS1900	0.25	1850.2	1880	1909.8
WCDMA B2	4.2	1852.4	1880	1907.6
WCDMA B5	4.2	826.4	836.6	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 B40 Lower	5	2307.5	2310	2312.5
	10	/	2310	/
LTE B40 Upper	5	2352.5	2355	2357.5
	10	/	2355	/
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.

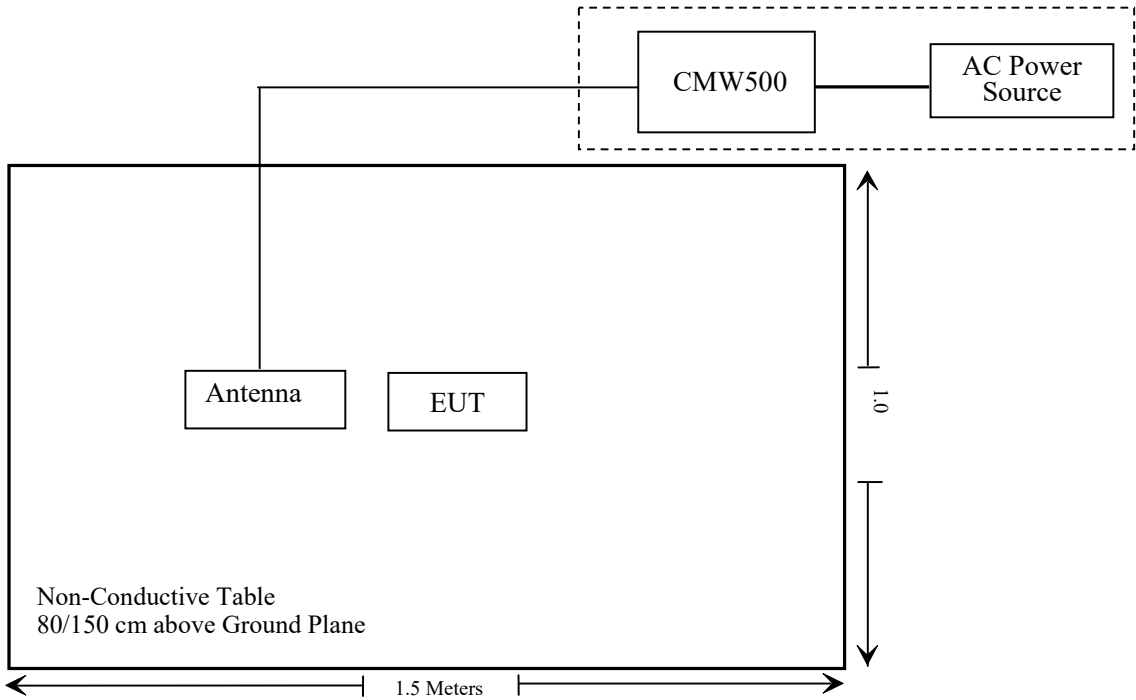
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606

Support Cable Description

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

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

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

Note: * Please refer to SAR report number: CR22090015-20.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-184055 36-J0	15964001002	2021/11/11	2022/11/10
Schwarzbeck	Bilog Antenna	VULB9163	9163-194	2020/01/05	2023/01/04
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-655	2020/01/05	2023/01/04
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
PASTERNAK	Horn Antenn	PE9852/2F-20	1120 (ATC-BA-024-1)	2020/01/05	2023/01/04
PASTERNAK	Horn Antenn	PE9852/2F-20	1120 (ATC-BA-025-1)	2020/01/05	2023/01/04
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.11	N1000	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.14	N800	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13
Agilent	Signal Generator	N5183A	MY51040755	2021/12/13	2022/12/12
Unknown	RF Coaxial Cable	No.16	N200	2021/12/14	2022/12/13
Wainwright	High Pass Filter	WHKX3.6/18 G-10SS	5	2021/12/14	2022/12/13
CD	High Pass Filter	HPM-1.2/18G -60	110	2021/12/14	2022/12/13

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200982	2022/07/04	2023/07/03
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606	2021/12/13	2022/12/12
WEINSCHEL	10dB Attenuator	5324	AU 3842	2021/12/14	2022/12/13
Mini-Circuits	Power Splitter	DC-18000MHz	SF10944151S	2021/12/14	2022/12/13
Unknown	3dB Attenuator	Unknown	Unknown	2021/12/14	2022/12/13
Gongwen	Temp. & Humid. Chamber	HSD-500	109	2021/10/14	2022/10/13
Gongwen	Temp. & Humid. Chamber	HSD-500	109	2022/10/13	2023/10/12
Fluke	Multi Meter	45	7664009	2021/12/14	2022/12/13
Manson	DC Power Source	KPS-6604	ATCS-205	NCR	NCR
Unknown	RF Coaxial Cable	No.33	RF-03	Each time	

* Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

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

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: CR22090015-20.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

FCC § 2.1046, § 22.913 (a), § 24.232 (c), § 27.50- 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.

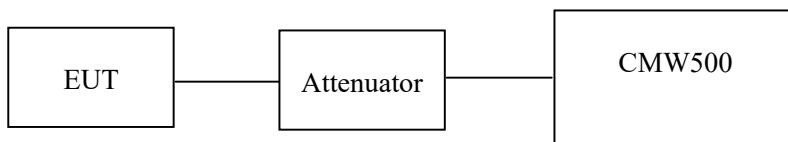
According to §27.50(a), For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

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.

Test Procedure*Conducted method:*

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



Note: the path loss(cable loss and attenuator) has including in result.

Test Data**Environmental Conditions**

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Andy Yu from 2022-09-16 to 2022-11-08

Conducted Power**Cellular Band (Part 22H)**

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	ERP(dBm)	Limit (dBm)
GSM	128	824.2	32.30	30.70	38.45
	190	836.6	32.30	30.70	38.45
	251	848.8	32.30	30.70	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	128	824.2	32.36	31.23	29.17	26.96	30.76	29.63	27.57	25.36	38.45
	190	836.6	32.35	31.27	29.22	27.05	30.75	29.67	27.62	25.45	38.45
	251	848.8	32.32	31.22	29.20	27.00	30.72	29.62	27.60	25.40	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	128	824.2	27.47	26.44	24.05	21.79	25.87	24.84	22.45	20.19	38.45
	190	836.6	27.39	26.55	24.18	21.91	25.79	24.95	22.58	20.31	38.45
	251	848.8	27.52	26.35	24.06	21.81	25.92	24.75	22.46	20.21	38.45

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 5)	RMC12.2k		22.94	23.07	23.04	21.34	21.47	21.44
	HSDPA	1	22.50	21.98	22.17	20.90	20.38	20.57
		2	22.06	21.75	22.14	20.46	20.15	20.54
		3	22.33	21.62	22.05	20.73	20.02	20.45
		4	22.41	21.82	22.12	20.81	20.22	20.52
	HSUPA	1	22.01	22.24	22.16	20.41	20.64	20.56
		2	22.02	22.11	22.14	20.42	20.51	20.54
		3	22.14	22.13	22.13	20.54	20.53	20.53
		4	22.13	22.12	22.11	20.53	20.52	20.51
		5	22.02	22.16	22.07	20.42	20.56	20.47
	HSPA+	1	22.03	22.02	22.03	20.43	20.42	20.43

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)

For GSM850 / WCDMA Band5: Antenna Gain = 0.55dBi = -1.60dBd (0dBd=2.15dBi)

Limit: ERP≤38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	EIRP(dBm)	Limit (dBm)
GSM	512	1850.2	29.99	32.23	33
	661	1880.0	29.92	32.16	33
	810	1909.8	29.90	32.14	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	29.92	28.50	27.49	25.45	32.16	30.74	29.73	27.69	33
	661	1880.0	29.91	28.20	27.08	25.12	32.15	30.44	29.32	27.36	33
	810	1909.8	29.87	28.07	26.67	24.82	32.11	30.31	28.91	27.06	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	26.80	24.82	22.33	20.46	29.04	27.06	24.57	22.70	33
	661	1880.0	26.63	24.84	22.52	20.50	28.87	27.08	24.76	22.74	33
	810	1909.8	26.06	24.21	21.98	20.05	28.30	26.45	24.22	22.29	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		22.93	23.07	23.04	25.17	25.31	25.28
	HSDPA	1	22.50	22.19	22.13	24.74	24.43	24.37
		2	22.45	22.12	22.14	24.69	24.36	24.38
		3	22.41	22.14	22.11	24.65	24.38	24.35
		4	22.36	22.11	22.13	24.60	24.35	24.37
	HSUPA	1	22.47	21.96	22.12	24.71	24.20	24.36
		2	22.33	21.87	22.05	24.57	24.11	24.29
		3	22.28	21.66	22.06	24.52	23.90	24.30
		4	22.31	21.48	22.31	24.55	23.72	24.55
		5	22.17	21.39	22.08	24.41	23.63	24.32
	HSPA+	1	22.25	21.52	22.14	24.49	23.76	24.38

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For PCS1900 / WCDMA Band2: Antenna Gain = 2.24dBi

Limit: EIRP ≤ 33dBm

LTE Band 2

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	20.95	20.14	20.56	23.19	22.38	22.80
		RB1#3	20.93	20.18	20.61	23.17	22.42	22.85
		RB1#5	20.99	20.22	20.59	23.23	22.46	22.83
		RB3#0	21.00	20.25	20.76	23.24	22.49	23.00
		RB3#3	21.05	20.25	20.73	23.29	22.49	22.97
		RB6#0	19.98	19.13	19.63	22.22	21.37	21.87
	16QAM	RB1#0	19.81	19.46	20.42	22.05	21.70	22.66
		RB1#3	19.77	19.45	20.39	22.01	21.69	22.63
		RB1#5	19.83	19.45	20.40	22.07	21.69	22.64
		RB3#0	20.15	19.10	19.50	22.39	21.34	21.74
		RB3#3	20.08	19.16	19.57	22.32	21.40	21.81
		RB6#0	19.65	19.40	19.87	21.89	21.64	22.11
3.0	QPSK	RB1#0	20.24	20.19	20.63	22.48	22.43	22.87
		RB1#8	20.18	20.18	20.69	22.42	22.42	22.93
		RB1#14	20.21	20.23	20.68	22.45	22.47	22.92
		RB6#0	19.36	19.30	19.63	21.60	21.54	21.87
		RB6#9	19.29	19.18	19.83	21.53	21.42	22.07
		RB15#0	19.27	19.22	19.79	21.51	21.46	22.03
	16QAM	RB1#0	20.05	18.95	20.10	22.29	21.19	22.34
		RB1#8	20.07	18.97	20.25	22.31	21.21	22.49
		RB1#14	19.99	18.93	20.16	22.23	21.17	22.40
		RB6#0	18.72	18.38	18.74	20.96	20.62	20.98
		RB6#9	18.26	18.60	18.99	20.50	20.84	21.23
		RB15#0	18.69	18.26	19.14	20.93	20.50	21.38

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	21.10	20.4	20.62	23.34	22.64	22.86
		RB1#13	21.07	20.3	20.50	23.31	22.54	22.74
		RB1#24	21.11	20.39	20.56	23.35	22.63	22.80
		RB15#0	20.01	19.44	19.62	22.25	21.68	21.86
		RB15#10	19.95	19.47	19.67	22.19	21.71	21.91
		RB25#0	20.01	19.41	19.64	22.25	21.65	21.88
	16QAM	RB1#0	20.16	19.10	18.87	22.40	21.34	21.11
		RB1#13	20.06	19.06	18.85	22.30	21.30	21.09
		RB1#24	20.04	19.14	18.93	22.28	21.38	21.17
		RB15#0	19.30	18.46	18.77	21.54	20.70	21.01
		RB15#10	18.90	18.82	18.98	21.14	21.06	21.22
		RB25#0	19.01	18.33	18.68	21.25	20.57	20.92
10.0	QPSK	RB1#0	20.93	20.70	20.55	23.17	22.94	22.79
		RB1#25	20.94	20.56	20.54	23.18	22.80	22.78
		RB1#49	20.86	20.64	20.50	23.10	22.88	22.74
		RB25#0	19.94	19.65	19.61	22.18	21.89	21.85
		RB25#25	19.92	19.59	19.57	22.16	21.83	21.81
		RB50#0	19.93	19.52	19.54	22.17	21.76	21.78
	16QAM	RB1#0	20.10	19.19	19.63	22.34	21.43	21.87
		RB1#25	20.04	19.16	19.68	22.28	21.40	21.92
		RB1#49	20.02	19.16	19.70	22.26	21.40	21.94
		RB25#0	19.14	18.82	18.56	21.38	21.06	20.80
		RB25#25	19.07	18.76	18.51	21.31	21.00	20.75
		RB50#0	19.12	18.66	18.69	21.36	20.90	20.93

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	21.02	20.56	20.67	23.26	22.80	22.91
		RB1#38	20.95	20.55	20.61	23.19	22.79	22.85
		RB1#74	20.85	20.54	20.62	23.09	22.78	22.86
		RB36#0	20.08	19.50	19.65	22.32	21.74	21.89
		RB36#39	19.83	19.36	19.60	22.07	21.60	21.84
		RB75#0	19.95	19.42	19.72	22.19	21.66	21.96
	16QAM	RB1#0	20.12	19.88	19.85	22.36	22.12	22.09
		RB1#38	20.05	19.79	19.80	22.29	22.03	22.04
		RB1#74	19.90	19.78	19.78	22.14	22.02	22.02
		RB36#0	19.13	18.58	18.83	21.37	20.82	21.07
		RB36#39	18.99	18.46	18.70	21.23	20.70	20.94
		RB75#0	19.10	18.53	18.66	21.34	20.77	20.90
20.0	QPSK	RB1#0	20.41	20.67	20.96	22.65	22.91	23.20
		RB1#50	20.34	20.92	20.98	22.58	23.16	23.22
		RB1#99	20.20	20.90	20.81	22.44	23.14	23.05
		RB50#0	19.23	19.74	19.86	21.47	21.98	22.10
		RB50#50	19.13	19.77	19.88	21.37	22.01	22.12
		RB100#0	19.07	19.75	19.81	21.31	21.99	22.05
	16QAM	RB1#0	19.31	19.85	20.62	21.55	22.09	22.86
		RB1#50	19.27	19.71	20.49	21.51	21.95	22.73
		RB1#99	19.10	19.70	20.44	21.34	21.94	22.68
		RB50#0	18.25	18.83	18.97	20.49	21.07	21.21
		RB50#50	18.05	19.02	18.87	20.29	21.26	21.11
		RB100#0	18.09	18.81	18.89	20.33	21.05	21.13

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For Band2: Antenna Gain = 2.24dB

Limit: EIRP ≤ 33dBm

LTE Band 4

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	21.32	21.44	21.60	23.10	23.22	23.38
		RB1#3	21.26	21.54	21.59	23.04	23.32	23.37
		RB1#5	21.29	21.61	21.68	23.07	23.39	23.46
		RB3#0	21.38	21.75	21.45	23.16	23.53	23.23
		RB3#3	21.36	21.72	21.53	23.14	23.50	23.31
		RB6#0	20.45	20.62	20.43	22.23	22.40	22.21
	16QAM	RB1#0	21.03	20.34	21.33	22.81	22.12	23.11
		RB1#3	21.01	20.34	21.36	22.79	22.12	23.14
		RB1#5	21.03	20.33	21.42	22.81	22.11	23.20
		RB3#0	20.24	20.77	20.55	22.02	22.55	22.33
		RB3#3	20.25	20.72	20.6	22.03	22.50	22.38
		RB6#0	19.89	19.87	19.55	21.67	21.65	21.33
3.0	QPSK	RB1#0	21.23	20.97	21.73	23.01	22.75	23.51
		RB1#8	21.24	20.98	21.80	23.02	22.76	23.58
		RB1#14	21.23	20.92	21.66	23.01	22.70	23.44
		RB6#0	20.35	20.12	20.97	22.13	21.90	22.75
		RB6#9	20.27	20.04	20.87	22.05	21.82	22.65
		RB15#0	20.18	20.02	20.75	21.96	21.80	22.53
	16QAM	RB1#0	21.00	19.77	21.10	22.78	21.55	22.88
		RB1#8	21.03	19.68	21.00	22.81	21.46	22.78
		RB1#14	20.99	19.78	21.09	22.77	21.56	22.87
		RB6#0	19.82	19.78	20.11	21.60	21.56	21.89
		RB6#9	19.43	19.18	19.94	21.21	20.96	21.72
		RB15#0	19.70	18.97	19.97	21.48	20.75	21.75

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.00	21.81	21.19	23.78	23.59	22.97
		RB1#13	21.88	21.92	21.24	23.66	23.70	23.02
		RB1#24	21.92	21.79	21.30	23.70	23.57	23.08
		RB15#0	20.88	20.97	20.21	22.66	22.75	21.99
		RB15#10	20.90	20.89	20.06	22.68	22.67	21.84
		RB25#0	20.86	20.88	20.18	22.64	22.66	21.96
	16QAM	RB1#0	21.03	20.64	19.34	22.81	22.42	21.12
		RB1#13	20.99	20.53	19.41	22.77	22.31	21.19
		RB1#24	20.93	20.66	19.36	22.71	22.44	21.14
		RB15#0	20.33	20.45	19.22	22.11	22.23	21.00
		RB15#10	19.70	19.98	19.26	21.48	21.76	21.04
		RB25#0	19.88	19.87	19.33	21.66	21.65	21.11
10.0	QPSK	RB1#0	21.98	21.83	21.22	23.76	23.61	23.00
		RB1#25	21.90	21.88	21.25	23.68	23.66	23.03
		RB1#49	21.95	21.84	21.21	23.73	23.62	22.99
		RB25#0	21.05	21.00	20.29	22.83	22.78	22.07
		RB25#25	20.88	20.80	20.13	22.66	22.58	21.91
		RB50#0	20.90	20.79	20.26	22.68	22.57	22.04
	16QAM	RB1#0	21.05	20.39	20.49	22.83	22.17	22.27
		RB1#25	21.02	20.32	20.47	22.80	22.10	22.25
		RB1#49	21.07	20.4	20.38	22.85	22.18	22.16
		RB25#0	20.05	20.39	19.28	21.83	22.17	21.06
		RB25#25	20.41	20.05	19.25	22.19	21.83	21.03
		RB50#0	20.04	19.87	19.41	21.82	21.65	21.19

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.00	21.09	21.09	23.78	22.87	22.87
		RB1#38	21.96	21.03	21.08	23.74	22.81	22.86
		RB1#74	21.95	20.97	21.10	23.73	22.75	22.88
		RB36#0	20.84	20.16	20.14	22.62	21.94	21.92
		RB36#39	20.96	20.16	20.08	22.74	21.94	21.86
		RB75#0	21.01	19.97	20.18	22.79	21.75	21.96
	16QAM	RB1#0	21.05	20.44	20.39	22.83	22.22	22.17
		RB1#38	21.06	20.41	20.34	22.84	22.19	22.12
		RB1#74	21.01	20.38	20.31	22.79	22.16	22.09
		RB36#0	20.04	19.19	19.32	21.82	20.97	21.10
		RB36#39	20.44	19.19	19.27	22.22	20.97	21.05
		RB75#0	20.38	19.13	19.25	22.16	20.91	21.03
20.0	QPSK	RB1#0	22.11	21.60	21.82	23.89	23.38	23.60
		RB1#50	22.06	21.54	21.77	23.84	23.32	23.55
		RB1#99	21.97	21.54	21.84	23.75	23.32	23.62
		RB50#0	20.98	20.49	20.72	22.76	22.27	22.50
		RB50#50	20.84	20.36	20.75	22.62	22.14	22.53
		RB100#0	20.90	20.51	20.53	22.68	22.29	22.31
	16QAM	RB1#0	21.08	21.27	19.99	22.86	23.05	21.77
		RB1#50	21.00	21.16	20.02	22.78	22.94	21.80
		RB1#99	21.01	21.16	20.00	22.79	22.94	21.78
		RB50#0	19.93	19.94	19.68	21.71	21.72	21.46
		RB50#50	19.98	19.53	19.84	21.76	21.31	21.62
		RB100#0	20.04	19.59	19.64	21.82	21.37	21.42

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For Band4: Antenna Gain = 1.78dBi

Limit: EIRP ≤ 30dBm

LTE Band 5

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	22.88	23.19	22.23	21.28	21.59	20.63
		RB1#3	22.90	23.24	22.26	21.30	21.64	20.66
		RB1#5	22.89	23.21	22.21	21.29	21.61	20.61
		RB3#0	23.02	23.17	22.25	21.42	21.57	20.65
		RB3#3	23.05	23.13	22.17	21.45	21.53	20.57
		RB6#0	21.92	22.10	21.15	20.32	20.50	19.55
	16QAM	RB1#0	22.56	21.59	21.79	20.96	19.99	20.19
		RB1#3	22.59	21.61	21.71	20.99	20.01	20.11
		RB1#5	22.61	21.66	21.66	21.01	20.06	20.06
		RB3#0	21.77	21.90	21.24	20.17	20.30	19.64
		RB3#3	21.76	21.88	21.34	20.16	20.28	19.74
		RB6#0	20.98	21.24	20.46	19.38	19.64	18.86
3.0	QPSK	RB1#0	22.27	22.98	23.13	20.67	21.38	21.53
		RB1#8	22.19	23.16	23.09	20.59	21.56	21.49
		RB1#14	22.19	23.10	23.02	20.59	21.50	21.42
		RB6#0	21.24	22.02	22.05	19.64	20.42	20.45
		RB6#9	21.37	22.07	22.10	19.77	20.47	20.50
		RB15#0	21.27	22.08	22.13	19.67	20.48	20.53
	16QAM	RB1#0	21.97	21.79	22.47	20.37	20.19	20.87
		RB1#8	21.89	21.72	22.41	20.29	20.12	20.81
		RB1#14	22.02	21.70	22.32	20.42	20.10	20.72
		RB6#0	20.27	21.28	21.11	18.67	19.68	19.51
		RB6#9	20.75	21.27	21.17	19.15	19.67	19.57
		RB15#0	20.34	21.28	21.17	18.74	19.68	19.57

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.20	23.03	23.14	21.60	21.43	21.54
		RB1#13	23.15	23.03	22.97	21.55	21.43	21.37
		RB1#24	23.09	22.99	22.95	21.49	21.39	21.35
		RB15#0	21.94	22.11	22.02	20.34	20.51	20.42
		RB15#10	22.12	22.15	22.04	20.52	20.55	20.44
		RB25#0	22.22	22.06	22.02	20.62	20.46	20.42
	16QAM	RB1#0	22.12	21.69	21.17	20.52	20.09	19.57
		RB1#13	22.19	21.68	21.13	20.59	20.08	19.53
		RB1#24	22.17	21.76	21.11	20.57	20.16	19.51
		RB15#0	21.01	21.16	21.59	19.41	19.56	19.99
		RB15#10	21.36	21.14	21.10	19.76	19.54	19.50
		RB25#0	21.51	20.99	21.14	19.91	19.39	19.54
10.0	QPSK	RB1#0	22.71	23.14	22.97	21.11	21.54	21.37
		RB1#25	22.71	23.04	22.93	21.11	21.44	21.33
		RB1#49	21.74	22.08	22.15	20.14	20.48	20.55
		RB25#0	21.66	22.08	21.96	20.06	20.48	20.36
		RB25#25	21.65	22.11	22.48	20.05	20.51	20.88
		RB50#0	21.77	21.61	22.14	20.17	20.01	20.54
	16QAM	RB1#0	21.79	21.62	22.67	20.19	20.02	21.07
		RB1#25	21.80	21.61	22.16	20.20	20.01	20.56
		RB1#49	21.17	21.18	21.09	19.57	19.58	19.49
		RB25#0	20.62	21.65	21.08	19.02	20.05	19.48
		RB25#25	20.67	21.16	21.57	19.07	19.56	19.97
		RB50#0	22.71	23.14	22.97	21.11	21.54	21.37

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)

For Band5: Antenna Gain = 0.55dBi = -1.60dBd (0dBd=2.15dBi)

Limit: ERP ≤ 38.45dBm

LTE Band 7

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	18.34	17.97	18.05	21.57	21.20	21.28
		RB1#13	18.34	17.94	18.02	21.57	21.17	21.25
		RB1#24	18.34	18.01	17.95	21.57	21.24	21.18
		RB15#0	17.25	17.16	16.94	20.48	20.39	20.17
		RB15#10	17.34	17.00	17.04	20.57	20.23	20.27
		RB25#0	17.25	17.15	17.02	20.48	20.38	20.25
	16QAM	RB1#0	17.40	16.64	16.24	20.63	19.87	19.47
		RB1#13	17.32	16.65	15.93	20.55	19.88	19.16
		RB1#24	17.39	16.60	16.22	20.62	19.83	19.45
		RB15#0	16.24	16.23	16.16	19.47	19.46	19.39
		RB15#10	16.26	16.18	16.14	19.49	19.41	19.37
		RB25#0	16.47	16.05	16.05	19.70	19.28	19.28
10.0	QPSK	RB1#0	17.64	18.25	18.28	20.87	21.48	21.51
		RB1#25	17.59	18.28	18.28	20.82	21.51	21.51
		RB1#49	17.56	18.20	18.24	20.79	21.43	21.47
		RB25#0	16.63	17.14	17.41	19.86	20.37	20.64
		RB25#25	16.63	17.09	17.33	19.86	20.32	20.56
		RB50#0	16.67	17.03	17.49	19.90	20.26	20.72
	16QAM	RB1#0	16.88	16.64	17.46	20.11	19.87	20.69
		RB1#25	16.81	16.62	17.64	20.04	19.85	20.87
		RB1#49	16.75	16.59	17.58	19.98	19.82	20.81
		RB25#0	15.79	16.33	16.39	19.02	19.56	19.62
		RB25#25	15.75	16.27	16.44	18.98	19.50	19.67
		RB50#0	15.73	16.20	16.62	18.96	19.43	19.85

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	18.19	18.10	17.55	21.42	21.33	20.78
		RB1#38	18.13	18.03	17.55	21.36	21.26	20.78
		RB1#74	18.18	18.10	17.59	21.41	21.33	20.82
		RB36#0	17.22	17.02	16.64	20.45	20.25	19.87
		RB36#39	17.13	17.06	16.68	20.36	20.29	19.91
		RB75#0	17.24	16.97	16.65	20.47	20.20	19.88
	16QAM	RB1#0	17.67	17.52	16.93	20.90	20.75	20.16
		RB1#38	17.57	17.54	16.91	20.80	20.77	20.14
		RB1#74	17.54	17.40	16.91	20.77	20.63	20.14
		RB36#0	16.27	16.19	15.92	19.50	19.42	19.15
		RB36#39	16.32	16.15	15.80	19.55	19.38	19.03
		RB75#0	16.32	16.18	15.82	19.55	19.41	19.05
20.0	QPSK	RB1#0	18.51	18.27	18.49	21.74	21.50	21.72
		RB1#50	18.35	18.22	18.58	21.58	21.45	21.81
		RB1#99	18.37	18.25	18.54	21.60	21.48	21.77
		RB50#0	17.22	17.18	17.48	20.45	20.41	20.71
		RB50#50	17.15	17.05	17.42	20.38	20.28	20.65
		RB100#0	17.18	17.10	17.42	20.41	20.33	20.65
	16QAM	RB1#0	17.41	17.77	17.17	20.64	21.00	20.40
		RB1#50	17.39	17.65	17.14	20.62	20.88	20.37
		RB1#99	17.33	17.71	17.19	20.56	20.94	20.42
		RB50#0	16.28	16.22	16.57	19.51	19.45	19.80
		RB50#50	16.22	16.13	16.71	19.45	19.36	19.94
		RB100#0	16.25	16.26	16.52	19.48	19.49	19.75

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For Band7: Antenna Gain = 3.23dBi

Limit: ERP ≤ 33dBm

LTE Band 40 Lower: (2305-2315MHz)

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	20.88	20.86	20.72	22.42	22.40	22.26
		RB1#13	20.54	20.61	20.55	22.08	22.15	22.09
		RB1#24	20.22	20.43	20.23	21.76	21.97	21.77
		RB15#0	20.21	20.37	20.18	21.75	21.91	21.72
		RB15#10	20.46	20.62	20.28	22.00	22.16	21.82
		RB25#0	20.13	20.65	20.71	21.67	22.19	22.25
	16QAM	RB1#0	20.17	20.23	20.13	21.71	21.77	21.67
		RB1#13	20.53	20.05	20.33	22.07	21.59	21.87
		RB1#24	20.54	20.22	20.31	22.08	21.76	21.85
		RB15#0	20.25	20.51	20.37	21.79	22.05	21.91
		RB15#10	20.27	20.15	20.36	21.81	21.69	21.90
		RB25#0	20.33	20.04	20.66	21.87	21.58	22.20
10.0	QPSK	RB1#0	/	20.19	/	/	21.73	/
		RB1#25	/	20.28	/	/	21.82	/
		RB1#49	/	20.39	/	/	21.93	/
		RB25#0	/	20.14	/	/	21.68	/
		RB25#25	/	20.19	/	/	21.73	/
		RB50#0	/	20.23	/	/	21.77	/
	16QAM	RB1#0	/	20.22	/	/	21.76	/
		RB1#25	/	20.45	/	/	21.99	/
		RB1#49	/	20.27	/	/	21.81	/
		RB25#0	/	20.19	/	/	21.73	/
		RB25#25	/	20.24	/	/	21.78	/
		RB50#0	/	20.51	/	/	22.05	/

LTE Band 40 Upper: (2350-2360MHz)

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	20.69	20.61	20.71	22.23	22.15	22.25
		RB1#13	20.24	20.35	20.41	21.78	21.89	21.95
		RB1#24	20.26	20.14	20.15	21.80	21.68	21.69
		RB15#0	20.37	20.24	20.32	21.91	21.78	21.86
		RB15#10	20.22	20.48	20.54	21.76	22.02	22.08
		RB25#0	20.31	20.54	20.17	21.85	22.08	21.71
	16QAM	RB1#0	20.14	20.46	20.45	21.68	22.00	21.99
		RB1#13	20.22	20.35	20.33	21.76	21.89	21.87
		RB1#24	20.15	20.39	20.22	21.69	21.93	21.76
		RB15#0	20.29	20.32	20.36	21.83	21.86	21.90
		RB15#10	20.27	20.38	20.19	21.81	21.92	21.73
		RB25#0	20.16	20.26	20.21	21.70	21.80	21.75
10.0	QPSK	RB1#0	/	20.39	/	/	21.93	/
		RB1#25	/	20.34	/	/	21.88	/
		RB1#49	/	20.14	/	/	21.68	/
		RB25#0	/	20.44	/	/	21.98	/
		RB25#25	/	20.27	/	/	21.81	/
		RB50#0	/	20.15	/	/	21.69	/
	16QAM	RB1#0	/	20.26	/	/	21.80	/
		RB1#25	/	20.31	/	/	21.85	/
		RB1#49	/	20.36	/	/	21.90	/
		RB25#0	/	20.34	/	/	21.88	/
		RB25#25	/	20.21	/	/	21.75	/
		RB50#0	/	20.28	/	/	21.82	/

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For Band40: Antenna Gain = 1.54dBi

Limit: EIRP ≤ 33dBm

LTE Band 66:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	21.56	22.10	21.96	23.34	23.88	23.74
		RB1#3	21.59	22.08	21.98	23.37	23.86	23.76
		RB1#5	21.72	22.12	21.91	23.50	23.90	23.69
		RB3#0	21.71	22.13	21.93	23.49	23.91	23.71
		RB3#3	21.69	22.12	21.89	23.47	23.90	23.67
		RB6#0	20.63	21.10	20.84	22.41	22.88	22.62
	16QAM	RB1#0	21.34	20.66	21.53	23.12	22.44	23.31
		RB1#3	21.40	20.46	21.51	23.18	22.24	23.29
		RB1#5	21.34	20.70	21.52	23.12	22.48	23.30
		RB3#0	20.49	20.96	21.01	22.27	22.74	22.79
		RB3#3	20.50	20.92	21.04	22.28	22.70	22.82
		RB6#0	19.64	20.26	20.12	21.42	22.04	21.90
3.0	QPSK	RB1#0	22.05	22.20	21.78	23.83	23.98	23.56
		RB1#8	22.02	22.07	21.77	23.80	23.85	23.55
		RB1#14	22.05	22.11	21.71	23.83	23.89	23.49
		RB6#0	21.16	21.10	20.88	22.94	22.88	22.66
		RB6#9	21.09	21.12	20.84	22.87	22.90	22.62
		RB15#0	21.12	20.96	20.90	22.90	22.74	22.68
	16QAM	RB1#0	21.84	21.12	21.25	23.62	22.90	23.03
		RB1#8	21.84	21.00	21.21	23.62	22.78	22.99
		RB1#14	21.92	21.04	21.19	23.70	22.82	22.97
		RB6#0	20.19	20.36	19.84	21.97	22.14	21.62
		RB6#9	20.21	20.37	19.82	21.99	22.15	21.60
		RB15#0	20.15	20.11	19.95	21.93	21.89	21.73

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.21	22.05	21.71	23.99	23.83	23.49
		RB1#13	22.22	22.01	21.69	24.00	23.79	23.47
		RB1#24	22.25	21.99	21.67	24.03	23.77	23.45
		RB15#0	21.02	21.16	20.83	22.80	22.94	22.61
		RB15#10	21.04	21.17	20.67	22.82	22.95	22.45
		RB25#0	21.12	21.11	20.70	22.90	22.89	22.48
	16QAM	RB1#0	21.19	20.72	20.07	22.97	22.50	21.85
		RB1#13	21.19	20.74	20.02	22.97	22.52	21.80
		RB1#24	21.18	20.72	20.02	22.96	22.50	21.80
		RB15#0	20.04	20.13	19.86	21.82	21.91	21.64
		RB15#10	20.06	20.12	19.91	21.84	21.90	21.69
		RB25#0	20.15	19.96	19.92	21.93	21.74	21.70
10.0	QPSK	RB1#0	21.57	22.30	21.06	23.35	24.08	22.84
		RB1#25	21.53	22.20	21.04	23.31	23.98	22.82
		RB1#49	21.55	22.24	20.95	23.33	24.02	22.73
		RB25#0	20.51	21.16	20.17	22.29	22.94	21.95
		RB25#25	20.60	21.09	20.07	22.38	22.87	21.85
		RB50#0	20.56	21.05	20.08	22.34	22.83	21.86
	16QAM	RB1#0	20.70	20.67	20.30	22.48	22.45	22.08
		RB1#25	20.65	20.60	20.20	22.43	22.38	21.98
		RB1#49	20.63	20.59	20.19	22.41	22.37	21.97
		RB25#0	19.69	20.29	19.12	21.47	22.07	20.90
		RB25#25	19.70	20.31	19.12	21.48	22.09	20.90
		RB50#0	19.74	20.16	19.13	21.52	21.94	20.91

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.11	22.39	21.89	23.89	24.17	23.67
		RB1#38	22.10	22.34	21.87	23.88	24.12	23.65
		RB1#74	22.10	22.29	21.75	23.88	24.07	23.53
		RB36#0	21.23	21.23	21.00	23.01	23.01	22.78
		RB36#39	21.09	21.20	20.91	22.87	22.98	22.69
		RB75#0	21.21	21.18	20.86	22.99	22.96	22.64
	16QAM	RB1#0	21.27	21.50	21.15	23.05	23.28	22.93
		RB1#38	21.28	21.50	21.02	23.06	23.28	22.80
		RB1#74	21.28	21.55	20.98	23.06	23.33	22.76
		RB36#0	20.28	20.34	20.14	22.06	22.12	21.92
		RB36#39	20.18	20.23	20.02	21.96	22.01	21.80
		RB75#0	20.25	20.32	20.03	22.03	22.10	21.81
20.0	QPSK	RB1#0	22.27	22.38	21.96	24.05	24.16	23.74
		RB1#50	22.22	22.42	21.82	24.00	24.20	23.60
		RB1#99	22.22	22.34	21.80	24.00	24.12	23.58
		RB50#0	21.18	21.37	20.79	22.96	23.15	22.57
		RB50#50	21.05	21.14	20.68	22.83	22.92	22.46
		RB100#0	21.10	21.30	20.70	22.88	23.08	22.48
	16QAM	RB1#0	21.32	21.90	21.70	23.10	23.68	23.48
		RB1#50	21.28	21.78	21.66	23.06	23.56	23.44
		RB1#99	21.22	21.75	21.52	23.00	23.53	23.30
		RB50#0	20.29	20.31	19.93	22.07	22.09	21.71
		RB50#50	20.15	20.22	19.75	21.93	22.00	21.53
		RB100#0	20.18	20.38	19.80	21.96	22.16	21.58

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)

For Band 66: Antenna Gain = 1.78dBi

Limit: EIRP ≤ 30dBm

Peak-to-average ratio (PAR)**Cellular Band**

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.61	13
	Middle	3.55	13
	High	3.48	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.52	13
	Middle	3.49	13
	High	3.48	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.56	13
	Middle	3.44	13
	High	3.45	13
HSDPA (16QAM)	Low	3.61	13
	Middle	3.63	13
	High	3.65	13
HSUPA (BPSK)	Low	3.48	13
	Middle	3.47	13
	High	3.52	13
HSPA+	Low	3.52	13
	Middle	3.51	13
	High	3.57	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.54	13
	Middle	3.55	13
	High	3.57	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.52	13
	Middle	3.54	13
	High	3.48	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.41	13
	Middle	3.55	13
	High	3.42	13
HSDPA (16QAM)	Low	3.47	13
	Middle	3.56	13
	High	3.62	13
HSUPA (BPSK)	Low	3.45	13
	Middle	3.25	13
	High	3.36	13
HSPA+	Low	3.39	13
	Middle	3.57	13
	High	3.46	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	8.65	5.64	5.45	13	Pass
QPSK (100RB Size)	5.61	5.77	5.61	13	Pass
16QAM (1RB Size)	6.12	6.99	6.92	13	Pass
16QAM (100RB Size)	6.57	6.47	6.31	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.61	6.06	5.74	13	Pass
QPSK (100RB Size)	5.74	5.77	5.77	13	Pass
16QAM (1RB Size)	6.06	7.44	7.40	13	Pass
16QAM (100RB Size)	6.70	6.67	6.60	13	Pass

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.62	4.42	4.26	13	Pass
QPSK (50RB Size)	5.54	5.45	5.58	13	Pass
16QAM (1RB Size)	5.71	5.16	5.32	13	Pass
16QAM (50RB Size)	6.44	6.28	6.44	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.93	5.61	5.71	13	Pass
QPSK (100RB Size)	5.58	5.58	5.61	13	Pass
16QAM (1RB Size)	7.05	7.15	6.15	13	Pass
16QAM (100RB Size)	6.44	6.44	6.44	13	Pass

LTE Band 66 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.71	5.80	5.61	13	Pass
QPSK (100RB Size)	5.80	5.71	5.71	13	Pass
16QAM (1RB Size)	7.31	6.60	6.22	13	Pass
16QAM (100RB Size)	6.54	6.57	6.67	13	Pass

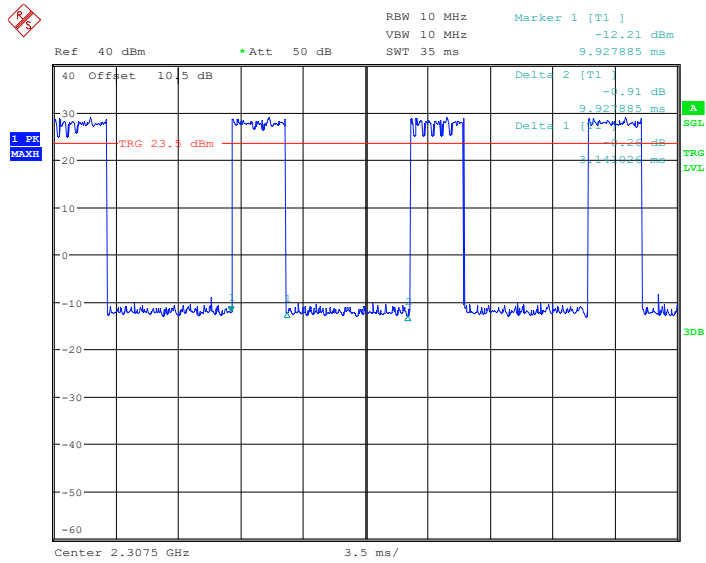
Duty cycle: (LTE B40)**2305-2315MHz:**

Test Modulation	Test Bandwidth	T _{on} (ms)	T _{total} (ms)	Duty Cycle (%)	Limit (%)
QPSK	5MHz	3.197	10.040	31.84	38
	10MHz	3.253	10.096	32.22	
16-QAM	5MHz	3.141	9.928	31.64	
	10MHz	3.197	10.096	31.67	

2350-2360MHz:

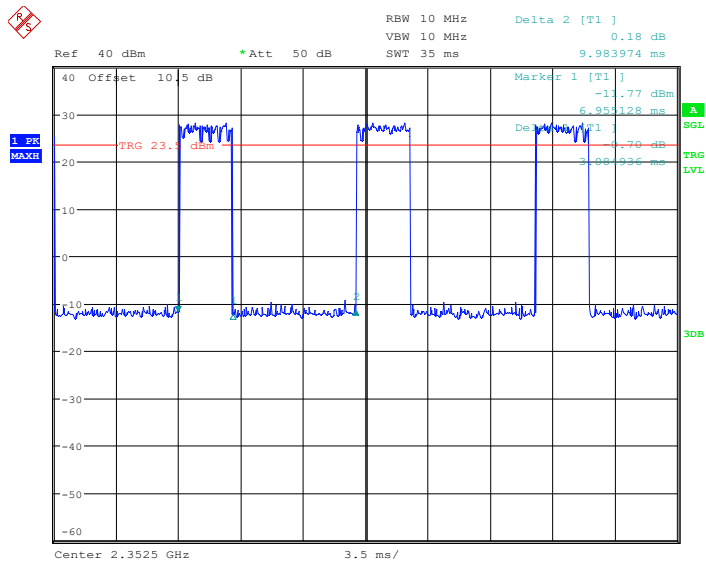
Test Modulation	Test Bandwidth	T _{on} (ms)	T _{total} (ms)	Duty Cycle (%)	Limit (%)
QPSK	5MHz	3.197	10.096	31.67	38
	10MHz	3.197	10.040	31.84	
16-QAM	5MHz	3.085	9.984	30.90	
	10MHz	3.141	10.040	31.28	

5M-16QAM(2305-2315MHz)



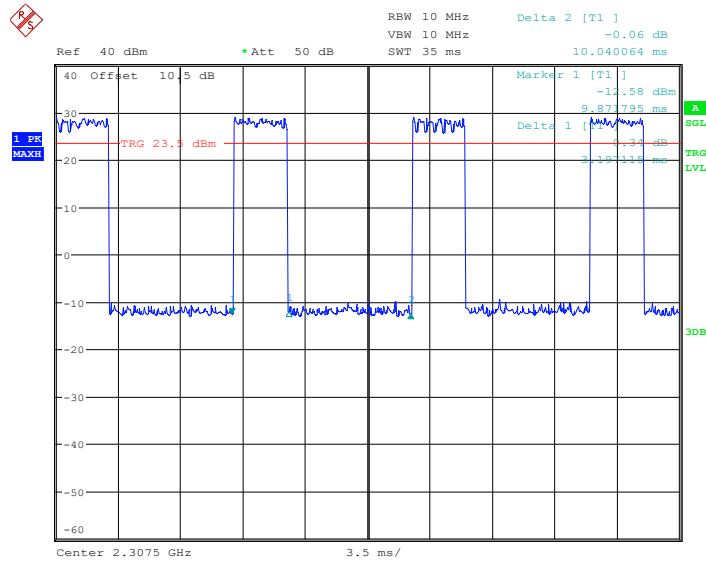
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5M-16QAM(2350-2360MHz)



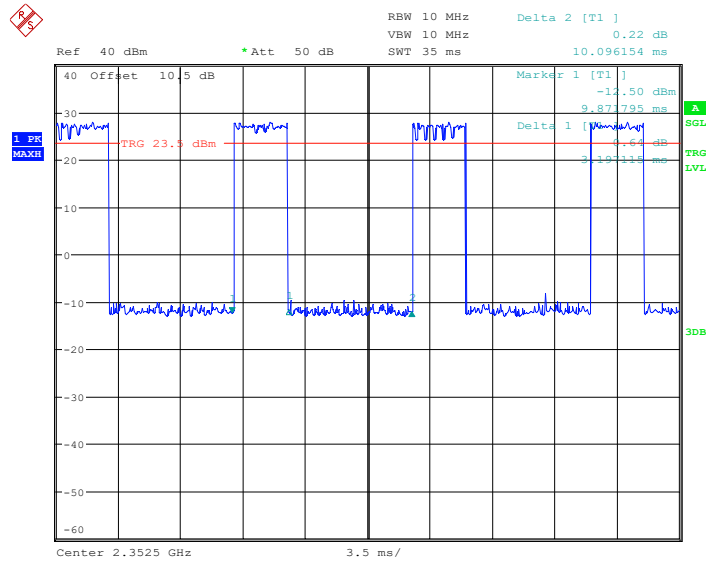
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5M-QPSK(2305-2315MHz)



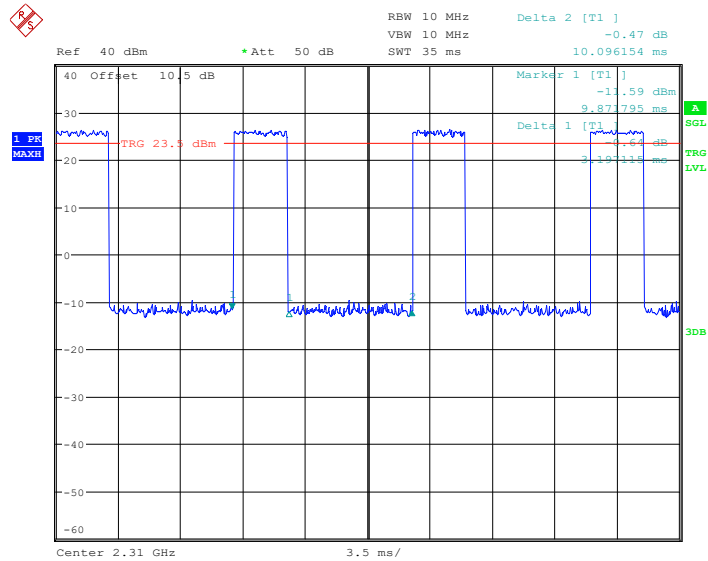
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5M-QPSK(2350-2360MHz)



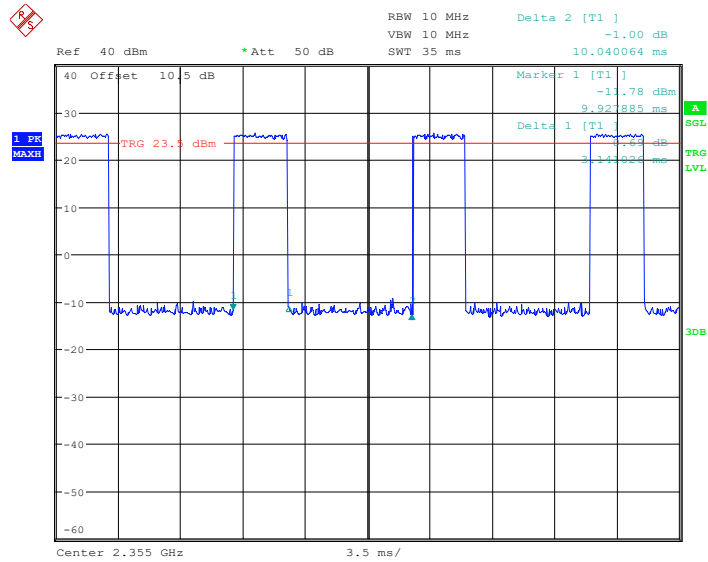
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10M-16QAM(2305-2315MHz)



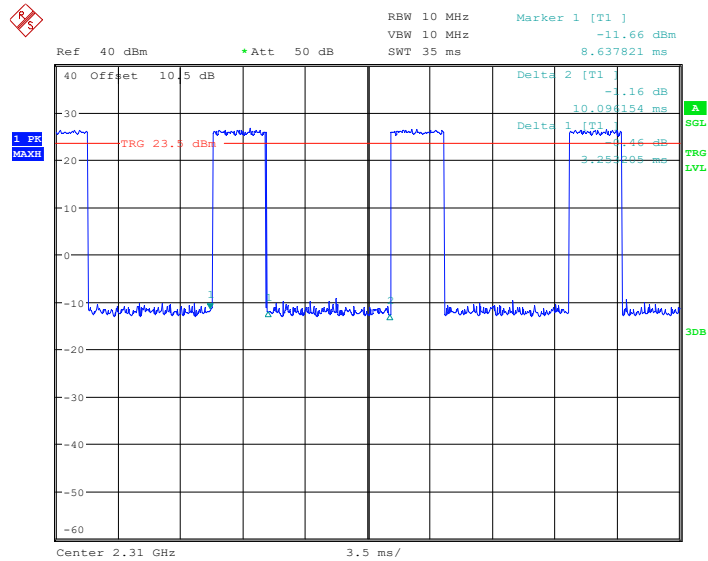
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10M-16QAM(2350-2360MHz)



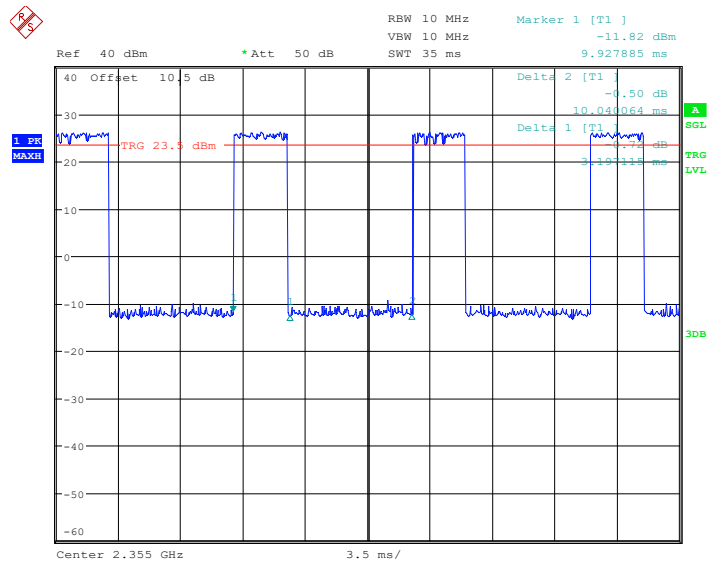
Date: 8.NOV.2022 09:09:47

10M-QPSK(2305-2315MHz)



Date: 8.NOV.2022 08:48:13

10M-QPSK(2350-2360MHz)



Date: 8.NOV.2022 09:10:38

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

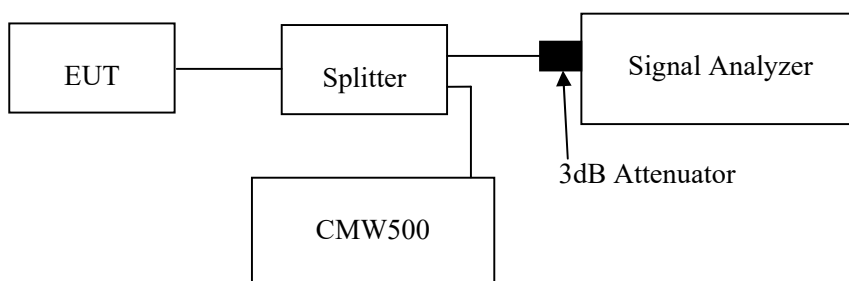
Applicable Standard

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

Test Procedure

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.



Note: the worst path loss (cable loss, 3dB attenuator and splitter inset loss) among the test frequency range has including in plot

Test Data

Environmental Conditions

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Andy Yu from 2022-09-16 to 2022-11-05.

EUT operation mode: Transmitting

Test Result: Pass

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM (GMSK)	128	824.2	243	317
	190	836.6	242	321
	251	848.8	242	316
EGPRS(8PSK)	128	824.2	239	304
	190	836.6	241	308
	251	848.8	240	310

	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.14	4.71
	836.6	4.14	4.70
	846.6	4.16	4.70
HSDPA	826.4	4.16	4.70
	836.6	4.16	4.68
	846.6	4.16	4.70
HSUPA	826.4	4.14	4.71
	836.6	4.14	4.68
	846.6	4.14	4.68

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM (GMSK)	512	1850.2	244	3.17
	661	1880.0	242	312
	810	1909.8	243	317
EGPRS(8PSK)	512	1850.2	240	307
	661	1880.0	240	307
	810	1909.8	240	307

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.14	4.70
	1880.0	4.16	4.70
	1907.6	4.16	4.70
HSDPA	1852.4	4.16	4.70
	1880.0	4.16	4.70
	1907.6	4.16	4.70
HSUPA	1852.4	4.14	4.70
	1880.0	4.16	4.70
	1907.6	4.16	4.70

LTE Mode:**LTE Band 2:**

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.110	1.260	1.104	1.260	1.104	1.260
	16QAM	1.098	1.260	1.110	1.260	1.098	1.254
3 MHz	QPSK	2.700	2.988	2.700	3.012	2.700	3.000
	16QAM	2.688	3.012	2.700	3.024	2.700	3.012
5 MHz	QPSK	4.520	5.000	4.520	4.960	4.540	5.000
	16QAM	4.540	5.020	4.540	5.040	4.520	5.000
10 MHz	QPSK	8.960	9.680	9.000	9.800	9.000	9.760
	16QAM	8.960	9.840	8.960	9.840	8.920	9.720
15 MHz	QPSK	13.500	14.940	13.560	15.120	13.620	15.120
	16QAM	13.560	15.180	13.560	15.060	13.620	15.120
20 MHz	QPSK	18.000	19.600	18.080	19.840	18.080	19.760
	16QAM	18.000	19.920	18.080	19.760	18.160	19.680

LTE Band 4:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.104	1.260	1.104	1.254	1.104	1.254
	16QAM	1.104	1.254	1.110	1.260	1.110	1.250
3 MHz	QPSK	2.700	3.000	2.700	3.024	2.700	3.000
	16QAM	2.700	3.000	2.700	3.024	2.700	3.012
5 MHz	QPSK	4.520	5.020	4.520	4.980	4.520	5.000
	16QAM	4.540	4.980	4.560	5.040	4.520	4.980
10 MHz	QPSK	9.000	9.760	8.960	9.800	9.000	9.760
	16QAM	8.960	9.760	8.960	9.800	8.960	9.760
15 MHz	QPSK	13.500	15.100	13.560	15.240	13.560	15.060
	16QAM	13.560	15.120	13.560	15.120	13.620	15.120
20 MHz	QPSK	18.000	19.680	18.000	19.680	18.080	19.680
	16QAM	18.080	19.840	18.000	19.680	18.080	19.840

LTE Band 5:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.104	1.266	1.098	1.260	1.104	1.260
	16QAM	1.098	1.248	1.104	1.260	1.116	1.260
3 MHz	QPSK	2.700	3.000	2.700	3.012	2.700	3.012
	16QAM	2.688	3.000	2.700	3.024	2.700	3.000
5 MHz	QPSK	4.520	5.000	4.980	5.000	4.520	5.000
	16QAM	4.540	5.020	4.520	5.000	4.520	4.960
10 MHz	QPSK	8.960	9.720	8.960	9.720	8.960	9.720
	16QAM	8.960	9.680	8.960	9.840	8.960	9.760

LTE Band 7:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.540	5.000	4.520	4.980	4.540	4.960
	16QAM	4.540	5.000	4.500	5.020	4.520	5.000
10 MHz	QPSK	9.000	9.760	9.000	9.800	9.000	9.760
	16QAM	9.000	9.720	9.000	9.760	8.960	9.720
15 MHz	QPSK	13.500	14.940	13.560	15.180	13.560	15.120
	16QAM	13.560	15.180	13.560	15.060	13.560	15.060
20 MHz	QPSK	18.000	19.680	18.000	19.760	18.000	19.680
	16QAM	18.000	19.680	18.000	19.840	18.080	19.680

LTE Band 40 Lower: (2305-2315MHz)

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.500	4.940	4.520	4.980	4.520	4.980
	16QAM	4.500	4.920	4.500	5.000	4.520	4.960
10 MHz	QPSK	/	/	8.960	9.800	/	/
	16QAM	/	/	8.960	9.640	/	/

LTE Band 40 Upper: (2350-2360MHz)

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.500	4.980	4.520	5.200	4.520	4.980
	16QAM	4.500	4.960	4.520	5.080	4.520	5.020
10 MHz	QPSK	/	/	9.000	9.800	/	/
	16QAM	/	/	8.960	9.720	/	/

LTE Band 66

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.110	1.260	1.104	1.254	1.104	1.224
	16QAM	1.098	1.254	1.110	1.260	1.101	1.240
3 MHz	QPSK	2.700	3.012	2.688	3.012	2.700	3.012
	16QAM	2.688	3.012	2.688	3.000	2.700	3.000
5 MHz	QPSK	4.520	5.000	4.500	4.980	4.540	5.000
	16QAM	4.540	5.000	4.540	4.980	4.520	4.980
10 MHz	QPSK	8.960	9.760	8.960	9.760	8.960	9.760
	16QAM	8.960	9.760	8.960	9.800	8.960	9.760
15 MHz	QPSK	13.500	15.000	13.560	15.180	13.560	15.120
	16QAM	13.560	15.240	13.620	15.120	13.560	15.000
20 MHz	QPSK	18.000	19.680	18.000	19.840	18.000	19.520
	16QAM	18.080	19.840	18.080	19.840	18.160	19.600

Test plots refer to the Appendix A.

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

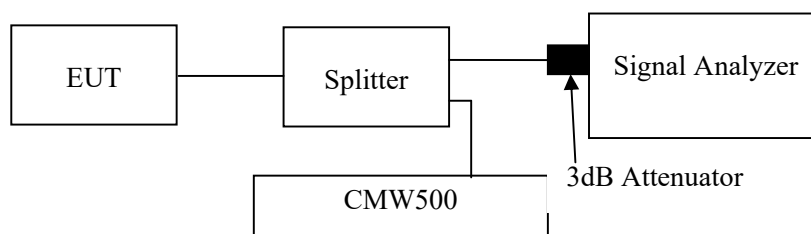
Applicable Standard

FCC §2.1051, §22.917(a) and §24.238(a) and §27.53.

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

Test Procedure

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



Note: the worst path loss (cable loss, 3dB attenuator and splitter inset loss) among the test frequency range has including in plot

Test Data

Environmental Conditions

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Andy Yu from 2022-09-16 to 2022-11-07.

EUT operation mode: Transmitting

Test result: Pass

Test plots refer to the Appendix B.

FCC § 2.1053; § 22.917 (a); § 24.238 (a); § 27.53- SPURIOUS RADIATED EMISSIONS**Applicable Standard**

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

Test Procedure

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:	26.8~27 °C
Relative Humidity:	52~56 %
ATM Pressure:	101.0 kPa

The testing was performed by Jeff Jiang from 2022-09-11 to 2022-09-20.

EUT operation mode:

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

The worst case is as below:

30 MHz ~ 10 GHz:**Cellular Band**

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
GSM Mode								
Low channel								
960.66	-62.95	218	1.3	H	10	-52.95	-13	-39.95
960.66	-62.12	284	1.2	V	11.7	-50.42	-13	-37.42
1648.4	-40.60	320	1.7	H	3.5	-37.10	-13	-24.10
1648.4	-41.40	354	2	V	3.1	-38.30	-13	-25.30
2472.6	-35.80	353	1.8	H	6.6	-29.20	-13	-16.20
2472.6	-34.90	4	1.4	V	5.8	-29.10	-13	-16.10
3296.8	-50.90	260	1.4	H	6.4	-44.50	-13	-31.50
3296.8	-48.90	6	1.7	V	5.7	-43.20	-13	-30.20
Middle Channel								
960.42	-62.38	259	1.6	H	10	-52.38	-13	-39.38
960.42	-62.83	109	1.8	V	11.7	-51.13	-13	-38.13
1673.2	-41.40	15	2.5	H	3.8	-37.60	-13	-24.60
1673.2	-36.20	223	1.9	V	3.1	-33.10	-13	-20.10
2509.8	-49.50	298	1.3	H	6.2	-43.30	-13	-30.30
2509.8	-47.50	54	2.3	V	5.6	-41.90	-13	-28.90
3346.4	-50.20	243	1.9	H	6.6	-43.60	-13	-30.60
3346.4	-48.40	109	1.9	V	5.4	-43.00	-13	-30.00
High Channel								
959.3	-62.04	186	1.9	H	10	-52.04	-13	-39.04
959.3	-62.37	155	1.5	V	11.7	-50.67	-13	-37.67
1697.6	-41.00	134	2.5	H	4.1	-36.90	-13	-23.90
1697.6	-33.90	128	1.3	V	3.1	-30.80	-13	-17.80
2546.4	-49.70	73	1.2	H	6.1	-43.60	-13	-30.60
2546.4	-45.90	291	2.5	V	5.8	-40.10	-13	-27.10
3395.2	-48.80	96	1.6	H	6.2	-42.60	-13	-29.60
3395.2	-49.90	1	2.1	V	5.4	-44.50	-13	-31.50

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
WCDMA Mode								
Low channel								
961.13	-63.1	205	1.5	H	10	-53.1	-13	-40.1
961.13	-61.81	142	1.3	V	11.7	-50.11	-13	-37.11
1652.8	-55.60	264	1.8	H	3.5	-52.10	-13	-39.10
1652.8	-51.40	249	2.4	V	3.1	-48.30	-13	-35.30
2479.2	-36.40	120	2	H	6.6	-29.80	-13	-16.80
2479.2	-33.50	81	1.5	V	5.8	-27.70	-13	-14.70
3305.6	-51.70	137	2	H	6.4	-45.30	-13	-32.30
3305.6	-51.20	232	2.2	V	5.7	-45.50	-13	-32.50
Middle Channel								
960.97	-62.67	171	1.5	H	10	-52.67	-13	-39.67
960.97	-62.96	171	1.6	V	11.7	-51.26	-13	-38.26
1673.2	-55.50	50	1.5	H	3.8	-51.70	-13	-38.70
1673.2	-51.10	110	1.5	V	3.1	-48.00	-13	-35.00
2509.8	-55.00	232	2.4	H	6.2	-48.80	-13	-35.80
2509.8	-52.40	348	2.3	V	5.6	-46.80	-13	-33.80
3346.4	-51.70	292	2.1	H	6.6	-45.10	-13	-32.10
3346.4	-50.70	160	2	V	5.4	-45.30	-13	-32.30
High Channel								
959.62	-62.31	202	1.7	H	10	-52.31	-13	-39.31
959.62	-62.2	321	2.2	V	11.7	-50.5	-13	-37.5
1693.2	-54.30	195	1.0	H	4.1	-50.20	-13	-37.20
1693.2	-51.10	99	2.1	V	3.1	-48.00	-13	-35.00
2539.8	-55.80	57	1.4	H	6.1	-49.70	-13	-36.70
2539.8	-55.40	357	2.2	V	5.8	-49.60	-13	-36.60
3386.4	-51.60	46	1.8	H	6.2	-45.40	-13	-32.40
3386.4	-50.80	209	1.6	V	5.4	-45.40	-13	-32.40

30 MHz ~ 20 GHz:**PCS Band**

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
GSM Mode								
Low channel								
960.9	-63.07	64	1.9	H	10	-53.07	-13	-40.07
960.9	-62.09	43	1.5	V	11.7	-50.39	-13	-37.39
3700.4	-50.80	156	2.3	H	8.1	-42.70	-13	-29.70
3700.4	-47.50	283	1.1	V	7.6	-39.90	-13	-26.90
Middle Channel								
960.15	-63.06	88	1.4	H	10	-53.06	-13	-40.06
960.15	-62.36	117	2.4	V	11.7	-50.66	-13	-37.66
3760	-53.40	338	2	H	8.8	-44.60	-13	-31.60
3760	-49.50	274	1.2	V	8	-41.50	-13	-28.50
High Channel								
959.6	-62.41	301	1.7	H	10	-52.41	-13	-39.41
959.6	-62.77	244	1.8	V	11.7	-51.07	-13	-38.07
3819.6	-54.00	84	1.8	H	8.7	-45.30	-13	-32.30
3819.6	-51.10	254	2	V	7.9	-43.20	-13	-30.20
WCDMA Mode								
Low channel								
961.13	-63.1	205	1.5	H	10	-53.1	-13	-40.1
961.13	-61.81	142	1.3	V	11.7	-50.11	-13	-37.11
3704.8	-54.20	347	2.4	H	8.1	-46.10	-13	-33.10
3704.8	-51.80	256	1.2	V	7.6	-44.20	-13	-31.20
Middle channel								
960.97	-62.67	171	1.5	H	10	-52.67	-13	-39.67
960.97	-62.96	171	1.6	V	11.7	-51.26	-13	-38.26
3760	-55.60	81	1.1	H	8.8	-46.80	-13	-33.80
3760	-53.90	353	2.2	V	8	-45.90	-13	-32.90
High channel								
959.62	-62.31	202	1.7	H	10	-52.31	-13	-39.31
959.62	-62.2	321	2.2	V	11.7	-50.5	-13	-37.5
3815.2	-55.30	102	2.3	H	8.7	-46.60	-13	-33.60
3815.2	-53.50	39	2	V	7.9	-45.60	-13	-32.60

LTE Band: (Pre-scan with all the bandwidth/modulation, the worst case as below)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 2								
Test frequency range: 30MHz-20GHz								
1.4MHz Bandwidth, QPSK, Low Channel								
961.07	-62.45	215	1.9	H	10	-52.45	-13	-39.45
961.07	-61.39	63	1.4	V	11.7	-49.69	-13	-36.69
3701.4	-54.20	147	2.3	H	8.1	-46.10	-13	-33.10
3701.4	-52.20	303	1.7	V	7.6	-44.60	-13	-31.60
1.4MHz Bandwidth, QPSK, Middle Channel								
960.49	-62.78	57	1.9	H	10	-52.78	-13	-39.78
960.49	-62.57	190	1.5	V	11.7	-50.87	-13	-37.87
3760	-54.80	89	1.4	H	8.8	-46.00	-13	-33.00
3760	-52.80	54	1	V	8	-44.80	-13	-31.80
1.4MHz Bandwidth, QPSK, High Channel								
959.42	-61.64	71	2.1	H	10	-51.64	-13	-38.64
959.42	-62.39	36	2	V	11.7	-50.69	-13	-37.69
3818.6	-54.90	140	2.2	H	8.7	-46.20	-13	-33.20
3818.6	-53.20	222	1.2	V	7.9	-45.30	-13	-32.30
Band 4								
Test frequency range: 30MHz-20GHz								
1.4MHz Bandwidth, QPSK, Low Channel								
961.6	-62.08	322	1.7	H	10	-52.08	-13	-39.08
961.6	-62.23	174	1.6	V	11.7	-50.53	-13	-37.53
3421.4	-48.10	83	1.5	H	6.4	-41.70	-13	-28.70
3421.4	-43.80	292	1.9	V	5.8	-38.00	-13	-25.00
1.4MHz Bandwidth, QPSK, Middle Channel								
961.04	-62.76	28	1.2	H	10	-52.76	-13	-39.76
961.04	-62.63	168	1.8	V	11.7	-50.93	-13	-37.93
3465	-47.4	171	2.1	H	7	-40.40	-13	-27.40
3465	-42.8	185	1	V	6.2	-36.60	-13	-23.60
1.4MHz Bandwidth, QPSK, High Channel								
959.89	-61.7	119	1	H	10	-51.7	-13	-38.7
959.89	-62.12	191	2.2	V	11.7	-50.42	-13	-37.42
3508.6	-48.70	163	2.4	H	7.8	-40.90	-13	-27.90
3508.6	-42.90	44	1.6	V	6.5	-36.40	-13	-23.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 5								
Test frequency range: 30MHz-10GHz								
1.4MHz Bandwidth, QPSK, Low Channel								
959.81	-62.48	187	2.3	H	10	-52.48	-13	-39.48
959.81	-61.69	203	1.5	V	11.7	-49.99	-13	-36.99
1649.4	-52.40	166	2.5	H	3.5	-48.90	-13	-35.90
1649.4	-53.00	184	1.9	V	3.1	-49.90	-13	-36.90
2474.1	-34.30	213	2.4	H	6.6	-27.70	-13	-14.70
2474.1	-35.40	242	2	V	5.8	-29.60	-13	-16.60
3298.8	-51.90	280	2.1	H	6.4	-45.50	-13	-32.50
3298.8	-51.00	229	1.9	V	5.7	-45.30	-13	-32.30
1.4MHz Bandwidth, QPSK, Middle Channel								
960.68	-62.43	122	1.2	H	10	-52.43	-13	-39.43
960.68	-62.06	350	2.5	V	11.7	-50.36	-13	-37.36
1673.2	-49.20	157	2.2	H	3.8	-45.40	-13	-32.40
1673.2	-46.90	8	2	V	3.1	-43.80	-13	-30.80
2509.8	-47.10	358	1.4	H	6.2	-40.90	-13	-27.90
2509.8	-51.20	206	1.2	V	5.6	-45.60	-13	-32.60
3346.4	-51.90	144	2.3	H	6.6	-45.30	-13	-32.30
3346.4	-50.40	223	2.5	V	5.4	-45.00	-13	-32.00
1.4MHz Bandwidth, QPSK, High Channel								
959.86	-62.46	201	1.6	H	10	-52.46	-13	-39.46
959.86	-62.41	172	1.1	V	11.7	-50.71	-13	-37.71
1696.6	-51.20	339	1.3	H	4.1	-47.10	-13	-34.10
1696.6	-44.70	81	1.1	V	3.1	-41.60	-13	-28.60
2544.9	-46.40	299	1.6	H	6.1	-40.30	-13	-27.30
2544.9	-51.30	236	1.3	V	5.8	-45.50	-13	-32.50
3393.2	-51.80	360	2.2	H	6.2	-45.60	-13	-32.60
3393.2	-50.30	212	2.0	V	5.4	-44.90	-13	-31.90

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 7								
Test frequency range: 30MHz-26.5GHz								
5MHz Bandwidth, QPSK, Low Channel								
959.95	-62.3	342	1.5	H	10	-52.3	-25	-27.3
959.95	-61.67	72	2.2	V	11.7	-49.97	-25	-24.97
5005	-55.30	295	2	H	10.8	-44.50	-25	-19.50
5005	-54.50	155	1.1	V	10.2	-44.30	-25	-19.30
5MHz Bandwidth, QPSK, Middle Channel								
960.25	-62.73	291	1.2	H	10	-52.73	-25	-27.73
960.25	-62.19	6	2.5	V	11.7	-50.49	-25	-25.49
5070	-55.40	263	1.7	H	11.1	-44.30	-25	-19.30
5070	-55.50	273	1.8	V	10.8	-44.70	-25	-19.70
5MHz Bandwidth, QPSK, High Channel								
959.83	-61.65	265	1.5	H	10	-51.65	-25	-26.65
959.83	-61.68	30	1	V	11.7	-49.98	-25	-24.98
5135	-55.80	25	1.3	H	11.3	-44.50	-25	-19.50
5135	-55.20	20	1.1	V	10.8	-44.40	-25	-19.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 40 Lower								
Test frequency range: 30MHz-25GHz								
5MHz Bandwidth, QPSK, Low Channel								
959.77	-62.93	318	1.9	H	10	-52.93	-40	-12.93
959.77	-61.75	218	2.1	V	11.7	-50.05	-40	-10.05
4615	-61.9	279	1.3	H	10.4	-51.50	-40	-11.50
4615	-59.8	216	1.4	V	10.1	-49.70	-40	-9.70
5MHz Bandwidth, QPSK, Middle Channel								
960.52	-62.24	274	1.2	H	10	-52.24	-40	-12.24
960.52	-62.32	167	1.6	V	11.7	-50.62	-40	-10.62
4620	-61.4	356	1.8	H	10.5	-50.90	-40	-10.90
4620	-59.9	149	1.8	V	10.1	-49.80	-40	-9.80
5MHz Bandwidth, QPSK, High Channel								
959.81	-61.59	295	1.3	H	10	-51.59	-40	-11.59
959.81	-62.38	110	2.4	V	11.7	-50.68	-40	-10.68
4625	-61.7	28	1.5	H	10.5	-51.20	-40	-11.20
4625	-59.4	181	1.3	V	10.1	-49.30	-40	-9.30
Band 40 Upper								
Test frequency range: 30MHz-25GHz								
5MHz Bandwidth, QPSK, Low Channel								
960.06	-62.08	91	1.8	H	10	-52.08	-40	-12.08
960.06	-62.02	71	1	V	11.7	-50.32	-40	-10.32
4705	-62.7	166	1.9	H	10.9	-51.80	-40	-11.80
4705	-59.9	332	1.5	V	10	-49.90	-40	-9.90
5MHz Bandwidth, QPSK, Middle Channel								
959.93	-62.07	22	1	H	10	-52.07	-40	-12.07
959.93	-62.64	299	1.1	V	11.7	-50.94	-40	-10.94
4710	-63	338	1.9	H	10.9	-52.10	-40	-12.10
4710	-60.2	291	1.1	V	10	-50.20	-40	-10.20
5MHz Bandwidth, QPSK, High Channel								
960.13	-62.05	300	1.5	H	10	-52.05	-40	-12.05
960.13	-61.78	252	1.4	V	11.7	-50.08	-40	-10.08
4715	-63.1	102	1.8	H	10.9	-52.20	-40	-12.20
4715	-60.4	190	2	V	10	-50.40	-40	-10.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 66								
Test frequency range: 30MHz-20GHz								
1.4MHz Bandwidth, QPSK, Low Channel								
960.44	-62.57	169	1	H	10	-52.57	-13	-39.57
960.44	-62.06	19	1.1	V	11.7	-50.36	-13	-37.36
3421.4	-47.7	19	1	H	6.4	-41.30	-13	-28.30
3421.4	-44	279	2	V	5.7	-38.30	-13	-25.30
1.4MHz Bandwidth, QPSK, Middle Channel								
960.61	-62.47	320	2.2	H	10	-52.47	-13	-39.47
960.61	-62.86	160	1.3	V	11.7	-51.16	-13	-38.16
3490	-48.1	327	1.8	H	7.6	-40.50	-13	-27.50
3490	-43.5	251	2.4	V	6.4	-37.10	-13	-24.10
1.4MHz Bandwidth, QPSK, High Channel								
960.1	-62.28	254	1.6	H	10	-52.28	-13	-39.28
960.1	-62.48	61	1.5	V	11.7	-50.78	-13	-37.78
3598.6	-49.8	337	2	H	7.8	-42.00	-13	-29.00
3598.6	-43.3	327	1.2	V	7	-36.30	-13	-23.30

Note:

Absolute Level = Reading Level + Substituted Factor

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

Margin = Limit - Absolute Level

FCC§ 22.917 (a), § 24.238 (a), §27.53 - 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.

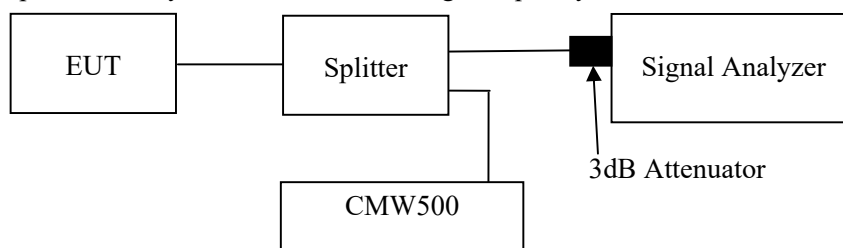
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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

Test Procedure

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

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



Note: the worst path loss (cable loss, 3dB attenuator and splitter inset loss) among the test frequency range has including in plot

Test Data

Environmental Conditions

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Andy Yu from 2022-09-16 to 2022-11-07.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

Test plots refer to the Appendix C.

FCC § 2.1055, § 22.355, § 24.235, §27.54- FREQUENCY STABILITY

Applicable Standard

FCC § 2.1055, §22.355, §24.235, §27.54

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

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

Frequency Tolerance for Transmitters in the Public Mobile Services

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

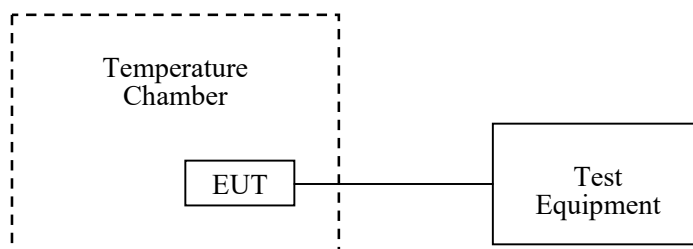
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

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:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Andy Yu from 2022-09-16 to 2022-09-17.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

Cellular Band (Part 22H)**GSM Mode**

Middle Channel, $f_0=836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	7	0.0084	2.5
-20		8	0.0096	2.5
-10		4	0.0048	2.5
0		6	0.0072	2.5
10		3	0.0360	2.5
20		5	0.0060	2.5
30		6	0.0072	2.5
40		4	0.0048	2.5
50		8	0.0096	2.5
20	L.V.	2	0.0024	2.5
	H.V.	3	0.0036	2.5

EDGE Mode

Middle Channel, $f_0=836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	8	0.0096	2.5
-20		6	0.0072	2.5
-10		3	0.0036	2.5
0		4	0.0048	2.5
10		6	0.0072	2.5
20		-5	-0.0060	2.5
30		7	0.0084	2.5
40		3	0.0036	2.5
50		2	0.0024	2.5
20	L.V.	4	0.0048	2.5
	H.V.	3	0.0036	2.5

WCDMA Mode

Middle Channel, $f_0=836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	2.10	0.0025	2.5
-20		2.41	0.0029	2.5
-10		2.11	0.0025	2.5
0		1.34	0.0016	2.5
10		1.22	0.0015	2.5
20		0.78	0.0009	2.5
30		1.33	0.0016	2.5
40		1.25	0.0015	2.5
50		1.64	0.0020	2.5
20	L.V.	1.38	0.0016	2.5
	H.V.	1.52	0.0018	2.5

PCS Band (Part 24E)**GSM Mode**

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	3	0.0016	pass
-20		4	0.0021	pass
-10		6	0.0032	pass
0		7	0.0037	pass
10		2	0.0011	pass
20		8	0.0043	pass
30		3	0.0016	pass
40		4	0.0021	pass
50		5	0.0027	pass
20	L.V.	6	0.0032	pass
	H.V.	3	0.0016	pass

EDGE Mode

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	4	0.0021	pass
-20		6	0.0032	pass
-10		8	0.0042	pass
0		10	0.0054	pass
10		4	0.0021	pass
20		1	0.0007	pass
30		3	0.0016	pass
40		5	0.0027	pass
50		7	0.0037	pass
20	L.V.	3	0.0016	pass
	H.V.	4	0.0021	pass

WCDMA Mode

Middle Channel, $f_0=1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	2.53	0.0013	pass
-20		2.11	0.0011	pass
-10		1.78	0.0009	pass
0		1.62	0.0009	pass
10		1.58	0.0008	pass
20		1.10	0.0006	pass
30		1.32	0.0007	pass
40		2.11	0.0011	pass
50		1.42	0.0008	pass
20	L.V.	1.58	0.0008	pass
	H.V.	2.22	0.0012	pass

LTE:
QPSK:
Band 2:

10.0 MHz Middle Channel, $f_0=1880$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-24.1	-0.0128	pass
-20		7.3	0.0039	pass
-10		-9.4	-0.0050	pass
0		6.6	0.0035	pass
10		5.9	0.0031	pass
20		7.3	0.0039	pass
30		5.5	0.0029	pass
40		-7.0	-0.0037	pass
50		-6.9	-0.0037	pass
20	L.V.	7.0	0.0037	pass
	H.V.	7.1	0.0038	pass

Band 4:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	1710.1165	1754.8739	1710	1755
-20		1710.1152	1754.8737	1710	1755
-10		1710.1190	1754.8726	1710	1755
0		1710.1153	1754.8732	1710	1755
10		1710.1146	1754.8754	1710	1755
20		1710.1149	1754.8749	1710	1755
30		1710.1137	1754.8756	1710	1755
40		1710.1122	1754.8732	1710	1755
50		1710.1126	1754.8747	1710	1755
20	L.V.	1710.1138	1754.8733	1710	1755
	H.V.	1710.1044	1754.8742	1710	1755

Band 5:

10.0 MHz Middle Channel, f ₀ =836.5MHz				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	0.31	0.0004	2.5
-20		-5.22	-0.0062	2.5
-10		-6.81	-0.0081	2.5
0		6.71	0.0080	2.5
10		-5.09	-0.0061	2.5
20		-8.36	-0.0100	2.5
30		8.24	0.0099	2.5
40		6.85	0.0082	2.5
50		-5.84	-0.0070	2.5
20	L.V.	-6.70	-0.0080	2.5
	H.V.	6.53	0.0078	2.5

Band 7:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2500.0782	2569.9852	2500	2570
-20		2500.0796	2569.9944	2500	2570
-10		2500.0787	2569.9853	2500	2570
0		2500.0786	2569.9761	2500	2570
10		2500.0982	2569.9827	2500	2570
20		2500.0878	2569.9422	2500	2570
30		2500.0754	2569.9339	2500	2570
40		2500.0653	2569.9925	2500	2570
50		2500.0565	2569.9879	2500	2570
20	L.V.	2500.0525	2569.9832	2500	2570
	H.V.	2500.0436	2569.9741	2500	2570

Band 40 Lower:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2305.1252	2314.9278	2305	2315
-20		2305.1271	2314.9254	2305	2315
-10		2305.1269	2314.9262	2305	2315
0		2305.1223	2314.9253	2305	2315
10		2305.1307	2314.9251	2305	2315
20		2305.1198	2314.9307	2305	2315
30		2305.1154	2314.9302	2305	2315
40		2305.1156	2314.9304	2305	2315
50		2305.1232	2314.9306	2305	2315
20	L.V.	2305.1222	2314.9233	2305	2315
	H.V.	2305.1125	2314.9281	2305	2315

Band 40 Upper:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2350.1721	2359.9255	2350	2360
-20		2350.1631	2359.9224	2350	2360
-10		2350.1526	2359.9213	2350	2360
0		2350.1414	2359.9252	2350	2360
10		2350.1323	2359.9246	2350	2360
20		2350.1226	2359.9235	2350	2360
30		2350.1114	2359.9257	2350	2360
40		2350.1122	2359.9233	2350	2360
50		2350.1926	2359.9265	2350	2360
20	L.V.	2350.1615	2359.9222	2350	2360
	H.V.	2350.1522	2359.9214	2350	2360

Band 66:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	1710.0243	1779.9724	1710	1780
-20		1710.0237	1779.9724	1710	1780
-10		1710.0240	1779.9832	1710	1780
0		1710.0234	1779.9755	1710	1780
10		1710.0236	1779.9753	1710	1780
20		1710.0228	1779.9744	1710	1780
30		1710.0257	1779.9745	1710	1780
40		1710.0256	1779.9752	1710	1780
50		1710.0229	1779.9823	1710	1780
20	L.V.	1710.0227	1779.9721	1710	1780
	H.V.	1710.0224	1779.9762	1710	1780

16QAM:**Band 2:**

10.0 MHz Middle Channel, $f_o=1880\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-10.87	-0.0058	pass
-20		5.66	0.0030	pass
-10		-7.42	-0.0039	pass
0		-9.46	-0.0050	pass
10		5.90	0.0031	pass
20		-6.70	-0.0036	pass
30		-9.55	-0.0051	pass
40		9.31	0.0050	pass
50		-8.84	-0.0047	pass
20	L.V.	5.29	0.0028	pass
	H.V.	-8.03	-0.0043	pass

Band 4:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	1710.2964	1754.7675	1710	1755
-20		1710.2952	1754.7564	1710	1755
-10		1710.2752	1754.7673	1710	1755
0		1710.2653	1754.7454	1710	1755
10		1710.2632	1754.7436	1710	1755
20		1710.2645	1754.7627	1710	1755
30		1710.2577	1754.7622	1710	1755
40		1710.2654	1754.7656	1710	1755
50		1710.2611	1754.7751	1710	1755
20	L.V.	1710.2624	1754.7535	1710	1755
	H.V.	1710.2716	1754.7522	1710	1755

Band 5:

10.0 MHz Middle Channel, $f_0=836.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	-3.09	-0.0037	2.5
-20		9.82	0.0117	2.5
-10		5.53	0.0066	2.5
0		-7.71	-0.0092	2.5
10		-9.38	-0.0112	2.5
20		6.11	0.0073	2.5
30		7.75	0.0093	2.5
40		-8.24	-0.0099	2.5
50		8.23	0.0098	2.5
20	L.V.	8.89	0.0106	2.5
	H.V.	-6.55	-0.0078	2.5

Band 7:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2500.0459	2569.8374	2500	2570
-20		2500.0421	2569.8554	2500	2570
-10		2500.0648	2569.8422	2500	2570
0		2500.0252	2569.8536	2500	2570
10		2500.0327	2569.8284	2500	2570
20		2500.0230	2569.7825	2500	2570
30		2500.0353	2569.7832	2500	2570
40		2500.0227	2569.8421	2500	2570
50		2500.0225	2569.8453	2500	2570
20	L.V.	2500.0234	2569.8357	2500	2570
	H.V.	2500.0146	2569.8232	2500	2570

Band 40 Lower:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2305.1433	2314.9251	2305	2315
-20		2305.1445	2314.9285	2305	2315
-10		2305.1375	2314.9284	2305	2315
0		2305.1264	2314.9272	2305	2315
10		2305.1136	2314.9289	2305	2315
20		2305.1172	2314.9281	2305	2315
30		2305.1981	2314.9185	2305	2315
40		2305.1889	2314.9185	2305	2315
50		2305.1824	2314.9184	2305	2315
20	L.V.	2305.1612	2314.9263	2305	2315
	H.V.	2305.1575	2314.9242	2305	2315

Band 40 Upper:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2350.1433	2359.9241	2350	2360
-20		2350.1453	2359.9183	2350	2360
-10		2350.1314	2359.9174	2350	2360
0		2350.1258	2359.9226	2350	2360
10		2350.1133	2359.9233	2350	2360
20		2350.1161	2359.9192	2350	2360
30		2350.1936	2359.9236	2350	2360
40		2350.1553	2359.9226	2350	2360
50		2350.1815	2359.9195	2350	2360
20	L.V.	2350.1636	2359.9264	2350	2360
	H.V.	2350.1528	2359.9233	2350	2360

Band 66:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	1710.0272	1779.8393	1710	1780
-20		1710.0243	1779.8445	1710	1780
-10		1710.0245	1779.8364	1710	1780
0		1710.0274	1779.8352	1710	1780
10		1710.0266	1779.8363	1710	1780
20		1710.0232	1779.8335	1710	1780
30		1710.0244	1779.8342	1710	1780
40		1710.0243	1779.8363	1710	1780
50		1710.0231	1779.8377	1710	1780
20	L.V.	1710.0291	1779.8352	1710	1780
	H.V.	1710.0253	1779.8355	1710	1780

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