

FCC Test Report

(Part 27 – LTE Band 4, 7, 12, 13, 66, 71)

Report No.: RFBFJZ-WTW-P21050403-10

FCC ID: V65C6930

Test Model: C6930

Received Date: May 09, 2021

Test Date: Jun. 11 ~ Aug. 09, 2021

Issued Date: Aug. 11, 2021

Applicant: Kyocera Corporation c/o Kyocera International, Inc.

Address: 8611 Balboa Avenue, San Diego, CA 92123

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City
33383, Taiwan

FCC Registration / 788550 / TW0003
Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RFBFJZ-WTW-P21050403-10	Original release	Aug. 11, 2021

1 Certificate of Conformity

Product: SmartPhone

Brand: Kyocera

Test Model: C6930

Sample Status: Engineering sample

Applicant: Kyocera Corporation c/o Kyocera International, Inc.

Test Date: Jun. 11 ~ Aug. 09, 2021

Standards: FCC Part 27, Subpart C, F, H, L, M, N

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen, **Date:** Aug. 11, 2021
Pettie Chen / Senior Specialist

Approved by : Bruce Chen, **Date:** Aug. 11, 2021
Bruce Chen / Senior Engineer

2 Summary of Test Results

For LTE B4/B66

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	Pass	Meet the requirement
2.1055 27.54	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(h)	Channel Edge Measurements	Pass	Meet the requirement of limit.
27.50(d)(5)	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1051 27.53(h)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -29.90dB at 3558.60MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE B7

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(h)(2)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	Pass	Meet the requirement
2.1055 27.54	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(m)(4)(6)	Out of Band Emission Measurements	Pass	Meet the requirement of limit.
--	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1051 27.53(m)(4)(6)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -18.34dB at 5070.00MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE B12

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(c)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	Pass	Meet the requirement
2.1055 27.54	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(g)	Out of Band Emission Measurements	Pass	Meet the requirement of limit.
--	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1051 27.53(g)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -40.00dB at 682.81MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE B13

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(b)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	Pass	Meet the requirement
2.1055 27.54	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(c)	Channel Edge Measurements	Pass	Meet the requirement of limit.
--	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1051 27.53(c)(f)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(c)(f)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -16.15dB at 1564.00MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE B71

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(c)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	Pass	Meet the requirement
2.1055 27.54	Frequency Stability	Pass	Meet the requirement of limit.
2.1049 27.53(g)	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(g)	Out of Band Emission Measurements	Pass	Meet the requirement of limit.
--	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1051 27.53(g)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -35.07dB at 918.52MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 09, 2021	Apr. 08, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 10, 2021	Jun. 09, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSW43	101866	Dec. 14, 2020	Dec. 13, 2021
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 25, 2020	Nov. 24, 2021
Radio Communication Analyzer Anritsu	MT8821C	6261806803	Jan. 22, 2021	Jan. 21, 2022
Universal Radio Communication Tester R&S	CMU200	101095	Nov. 18, 2020	Nov. 17, 2021
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-969	Nov. 22, 2020	Nov. 21, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 06, 2020	Nov. 05, 2021
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jun. 05, 2021	Jun. 04, 2022
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 17, 2021	Feb. 16, 2022
Preamplifier EMCI	EMC 184045	980116	Oct. 07, 2020	Oct. 06, 2021
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM- SM8000	CABLE-CH9-02 (248780+171006)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable Woken	8D-FB	Cable-CH9-01	Jun. 05, 2021	Jun. 04, 2022
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Standard Temperature And Humidity Chamber GIANT FORCE	GTH-120-40-CP-AR	MAA1306-019	Sep. 10, 2020	Sep. 09, 2021

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 02, 2021	Jun. 01, 2022
DC power supply Keysight	U8002A	MY56330015	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.

3 General Information

3.1 General Description of EUT

Product	SmartPhone	
Brand	Kyocera	
Test Model	C6930	
Status of EUT	Engineering sample	
Power Supply Rating	3.87Vdc from battery 5Vdc / 9Vdc / 12Vdc from adapter	
Modulation Type	QPSK, 16QAM, 64QAM, 256QAM	
Operating Frequency	LTE Band 4 (Channel Bandwidth 1.4MHz)	1710.7MHz ~ 1754.3MHz
	LTE Band 4 (Channel Bandwidth 3MHz)	1711.5MHz ~ 1753.5MHz
	LTE Band 4 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1752.5MHz
	LTE Band 4 (Channel Bandwidth 10MHz)	1715.0MHz ~ 1750.0MHz
	LTE Band 4 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1747.5MHz
	LTE Band 4 (Channel Bandwidth 20MHz)	1720.0MHz ~ 1745.0MHz
	LTE Band 7 (Channel Bandwidth 5MHz)	2502.5MHz ~ 2567.5MHz
	LTE Band 7 (Channel Bandwidth 10MHz)	2505.0MHz ~ 2565.0MHz
	LTE Band 7 (Channel Bandwidth 15MHz)	2507.5MHz ~ 2562.5MHz
	LTE Band 7 (Channel Bandwidth 20MHz)	2510.0MHz ~ 2560.0MHz
	LTE Band 12 (Channel Bandwidth 1.4MHz)	699.7MHz ~ 715.3MHz
	LTE Band 12 (Channel Bandwidth 3MHz)	700.5MHz ~ 714.5MHz
	LTE Band 12 (Channel Bandwidth 5MHz)	701.5MHz ~ 713.5MHz
	LTE Band 12 (Channel Bandwidth 10MHz)	704.0MHz ~ 711.0MHz
	LTE Band 13 (Channel Bandwidth 5MHz)	779.5MHz ~ 784.5MHz
	LTE Band 13 (Channel Bandwidth 10MHz)	782.0MHz
	LTE Band 66 (Channel Bandwidth 1.4MHz)	1710.7MHz ~ 1779.3MHz
	LTE Band 66 (Channel Bandwidth 3MHz)	1711.5MHz ~ 1778.5MHz
	LTE Band 66 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1777.5MHz
	LTE Band 66 (Channel Bandwidth 10MHz)	1715.0MHz ~ 1775.0MHz
	LTE Band 66 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1772.5MHz
	LTE Band 66 (Channel Bandwidth 20MHz)	1720.0MHz ~ 1770.0MHz
	LTE Band 71 (Channel Bandwidth 5MHz)	665.5MHz ~ 695.5MHz
	LTE Band 71 (Channel Bandwidth 10MHz)	668.0MHz ~ 693.0MHz
	LTE Band 71 (Channel Bandwidth 15MHz)	670.5MHz ~ 690.5MHz
	LTE Band 71 (Channel Bandwidth 20MHz)	673.0MHz ~ 688.0MHz

Max. EIRP Power		QPSK	16QAM	64QAM	256QAM
	LTE Band 4 (Channel Bandwidth 1.4MHz)	401.791mW (26.04dBm)	328.852mW (25.17dBm)	258.226mW (24.12dBm)	127.057mW (21.04dBm)
	LTE Band 4 (Channel Bandwidth 3MHz)	385.478mW (25.86dBm)	328.852mW (25.17dBm)	256.448mW (24.09dBm)	130.317mW (21.15dBm)
	LTE Band 4 (Channel Bandwidth 5MHz)	396.278mW (25.98dBm)	332.660mW (25.22dBm)	258.226mW (24.12dBm)	129.420mW (21.12dBm)
	LTE Band 4 (Channel Bandwidth 10MHz)	391.742mW (25.93dBm)	331.894mW (25.21dBm)	257.040mW (24.10dBm)	130.918mW (21.17dBm)
	LTE Band 4 (Channel Bandwidth 15MHz)	404.576mW (26.07dBm)	333.426mW (25.23dBm)	260.615mW (24.16dBm)	129.420mW (21.12dBm)
	LTE Band 4 (Channel Bandwidth 20MHz)	405.509mW (26.08dBm)	334.965mW (25.25dBm)	262.422mW (24.19dBm)	131.522mW (21.19dBm)
	LTE Band 7 (Channel Bandwidth 5MHz)	49.091mW (16.91dBm)	39.174mW (15.93dBm)	31.189mW (14.94dBm)	15.276mW (11.84dBm)
	LTE Band 7 (Channel Bandwidth 10MHz)	49.545mW (16.95dBm)	38.548mW (15.86dBm)	31.769mW (15.02dBm)	15.171mW (11.81dBm)
	LTE Band 7 (Channel Bandwidth 15MHz)	50.119mW (17.00dBm)	39.446mW (15.96dBm)	31.696mW (15.01dBm)	15.346mW (11.86dBm)
	LTE Band 7 (Channel Bandwidth 20MHz)	50.350mW (17.02dBm)	39.994mW (16.02dBm)	32.285mW (15.09dBm)	15.631mW (11.94dBm)
	LTE Band 66 (Channel Bandwidth 1.4MHz)	401.791mW (26.04dBm)	331.894mW (25.21dBm)	235.505mW (23.72dBm)	132.739mW (21.23dBm)
	LTE Band 66 (Channel Bandwidth 3MHz)	399.945mW (26.02dBm)	326.588mW (25.14dBm)	225.944mW (23.54dBm)	131.220mW (21.18dBm)
	LTE Band 66 (Channel Bandwidth 5MHz)	401.791mW (26.04dBm)	334.195mW (25.24dBm)	221.309mW (23.45dBm)	133.660mW (21.26dBm)
	LTE Band 66 (Channel Bandwidth 10MHz)	402.717mW (26.05dBm)	328.852mW (25.17dBm)	229.615mW (23.61dBm)	130.918mW (21.17dBm)
	LTE Band 66 (Channel Bandwidth 15MHz)	405.509mW (26.08dBm)	331.131mW (25.20dBm)	230.675mW (23.63dBm)	131.522mW (21.19dBm)
	LTE Band 66 (Channel Bandwidth 20MHz)	412.098mW (26.15dBm)	337.287mW (25.28dBm)	230.675mW (23.63dBm)	134.586mW (21.29dBm)

Max. ERP Power		QPSK	16QAM	64QAM	256QAM
	LTE Band 12 (Channel Bandwidth 1.4MHz)	64.863mW (18.12dBm)	50.350mW (17.02dBm)	39.811mW (16.00dBm)	18.323mW (12.63dBm)
	LTE Band 12 (Channel Bandwidth 3MHz)	64.714mW (18.11dBm)	50.466mW (17.03dBm)	39.628mW (15.98dBm)	18.578mW (12.69dBm)
	LTE Band 12 (Channel Bandwidth 5MHz)	65.917mW (18.19dBm)	50.119mW (17.00dBm)	40.365mW (16.06dBm)	18.578mW (12.69dBm)
	LTE Band 12 (Channel Bandwidth 10MHz)	66.527mW (18.23dBm)	50.699mW (17.05dBm)	40.644mW (16.09dBm)	19.187mW (12.83dBm)
	LTE Band 13 (Channel Bandwidth 5MHz)	65.163mW (18.14dBm)	53.211mW (17.26dBm)	51.523mW (17.12dBm)	22.029mW (13.43dBm)
	LTE Band 13 (Channel Bandwidth 10MHz)	66.681mW (18.24dBm)	54.075mW (17.33dBm)	51.523mW (17.12dBm)	22.491mW (13.52dBm)
	LTE Band 71 (Channel Bandwidth 5MHz)	66.988mW (18.26dBm)	54.325mW (17.35dBm)	43.152mW (16.35dBm)	21.577mW (13.34dBm)
	LTE Band 71 (Channel Bandwidth 10MHz)	67.764mW (18.31dBm)	54.450mW (17.36dBm)	43.954mW (16.43dBm)	21.577mW (13.34dBm)
	LTE Band 71 (Channel Bandwidth 15MHz)	69.183mW (18.40dBm)	54.702mW (17.38dBm)	43.551mW (16.39dBm)	21.878mW (13.40dBm)
	LTE Band 71 (Channel Bandwidth 20MHz)	69.663mW (18.43dBm)	55.335mW (17.43dBm)	43.954mW (16.43dBm)	22.029mW (13.43dBm)

Emission Designator		QPSK	16QAM	64QAM	256QAM
	LTE Band 4 (Channel Bandwidth 1.4MHz)	1M09G7D	1M09D7W	1M09D7W	1M09D7W
	LTE Band 4 (Channel Bandwidth 3MHz)	2M70G7D	2M70D7W	2M70D7W	2M70D7W
	LTE Band 4 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M49D7W	4M49D7W
	LTE Band 4 (Channel Bandwidth 10MHz)	8M98G7D	8M98D7W	8M98D7W	8M98D7W
	LTE Band 4 (Channel Bandwidth 15MHz)	13M5G7D	13M5D7W	13M5D7W	13M5D7W
	LTE Band 4 (Channel Bandwidth 20MHz)	18M0G7D	18M0D7W	18M0D7W	18M0D7W
	LTE Band 7 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M50D7W	4M49D7W
	LTE Band 7 (Channel Bandwidth 10MHz)	8M98G7D	8M98D7W	8M98D7W	8M98D7W
	LTE Band 7 (Channel Bandwidth 15MHz)	13M5G7D	13M5D7W	13M5D7W	13M5D7W
	LTE Band 7 (Channel Bandwidth 20MHz)	18M0G7D	18M0D7W	18M0D7W	18M0D7W
	LTE Band 12 (Channel Bandwidth 1.4MHz)	1M09G7D	1M09D7W	1M09D7W	1M09D7W
	LTE Band 12 (Channel Bandwidth 3MHz)	2M70G7D	2M70D7W	2M70D7W	2M70D7W
	LTE Band 12 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M50D7W	4M49D7W
	LTE Band 12 (Channel Bandwidth 10MHz)	8M98G7D	8M99D7W	9M00D7W	8M97D7W
	LTE Band 13 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M50D7W	4M49D7W
	LTE Band 13 (Channel Bandwidth 10MHz)	8M95G7D	8M97D7W	8M97D7W	8M95D7W
	LTE Band 66 (Channel Bandwidth 1.4MHz)	1M09G7D	1M09D7W	1M09D7W	1M09D7W
	LTE Band 66 (Channel Bandwidth 3MHz)	2M70G7D	2M70D7W	2M70D7W	2M70D7W
	LTE Band 66 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M49D7W	4M49D7W
	LTE Band 66 (Channel Bandwidth 10MHz)	8M99G7D	8M98D7W	8M98D7W	8M98D7W
	LTE Band 66 (Channel Bandwidth 15MHz)	13M5G7D	13M5D7W	13M5D7W	13M5D7W
	LTE Band 66 (Channel Bandwidth 20MHz)	18M0G7D	18M0D7W	18M0D7W	18M0D7W
	LTE Band 71 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M49D7W	4M49D7W
	LTE Band 71 (Channel Bandwidth 10MHz)	8M99G7D	8M97D7W	8M97D7W	8M96D7W
	LTE Band 71 (Channel Bandwidth 15MHz)	13M4G7D	13M4D7W	13M4D7W	13M4D7W
	LTE Band 71 (Channel Bandwidth 20MHz)	17M9G7D	17M9D7W	17M9D7W	17M9D7W
Antenna Type	Refer to Note as below				
Antenna Connector	Refer to Note as below				
Accessory Device	Refer to Note as below				
Cable Supplied	Refer to Note as below				

Note:

- The EUT contains following accessory devices.

Battery	
Brand	KYOCERA
Model	SCP-75LBPS
Rating	3.87 V typ / 4500 mAh/17.5 Wh typ

Adapter	
Brand	KYOCERA Corporation
Model	SCP-49ADT
Input Power	AC 100-240V, 50/60Hz 0.4A
Output Power	DC 5.0V, 1.8A / 9.0V, 1.8A / 12.0V, 1.2A

USB Cable	
Brand	KYOCERA Corporation
Model	SCP-24SDC
Signal Line	1m shielded Type A to Type C USB cable

2. The following antennas were provided to the EUT.

Band	Freq. Range (MHz)	Gain (dBi)
LTE Band 4	1710.7 ~ 1754.3	2.3 (Tx1), -0.5 (Tx2) (diversity)
LTE Band 7	2502.5 ~ 2567.5	-7.0 (Tx1)
LTE Band 12	699.7 ~ 715.3	-3.6 (Tx1)
LTE Band 13	779.5 ~ 784.5	-3.4 (Tx1)
LTE Band 66	1710.7 ~ 1779.3	2.3 (Tx1), -0.5 (Tx2) (diversity)
LTE Band 71	665.5 ~ 695.5	-3.6 (Tx1)

* The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports

The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	Radiated Emission
LTE Band 4	X-plane
LTE Band 7	X-plane
LTE Band 12	Y-plane
LTE Band 13	Y-plane
LTE Band 66	X-plane
LTE Band 71	Y-plane

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Modulation Characteristics	20050 to 20300	20175 (1732.5MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Frequency Stability	19957 to 20393	19957 (1710.7MHz), 20393 (1754.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		19965 to 20385	19965 (1711.5MHz), 20385 (1753.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20375 (1752.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		20000 to 20350	20000 (1715.0MHz), 20350 (1750.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		20025 to 20325	20025 (1717.5MHz), 20325 (1747.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20300 (1745.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
-	Emission Bandwidth	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	6 RB / 0RB Offset
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	15 RB / 0RB Offset
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25RB / 0RB Offset
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50RB / 0RB Offset
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	75 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset
-	Band Edge	19957 to 20393	19957 (1710.7MHz), 20393 (1754.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		19965 to 20385	19965 (1711.5MHz), 20385 (1753.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20375 (1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		20000 to 20350	20000 (1715.0MHz), 20350 (1750.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		20025 to 20325	20025 (1717.5MHz), 20325 (1747.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20300 (1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Peak To Average Ratio	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	3 RB / 0 RB Offset
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK	3 RB / 0 RB Offset
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	19975 to 20375	20375 (1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK	3 RB / 0 RB Offset
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.
3. The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

LTE Band 7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Modulation Characteristics	20850 to 21350	21100 (2535.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset
-	Frequency Stability	20775 to 21425	20775 (2502.5MHz), 21425 (2567.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21400 (2565.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21375 (2562.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21350 (2560.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
-	Emission Bandwidth	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25 RB / 0 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	75 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Out-of-Band Emissions	20775 to 21425	20775 (2502.5MHz), 21425 (2567.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21400 (2565.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21375 (2562.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21350 (2560.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
-	Peak to Average Ratio	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 12 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 24 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK	1 RB / 12 RB Offset
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK	1 RB / 24 RB Offset
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	20775 to 21425	21100 (2535.0MHz),	5MHz	QPSK	1 RB / 12 RB Offset
-	Radiated Emission Above 1GHz	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK	1 RB / 12 RB Offset
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

- For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
- For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the 5MHz & highest channel bandwidth for final test.
- The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0 MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
-	Modulation Characteristics	23060 to 23130	23095 (707.5MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset
-	Frequency Stability	23017 to 23173	23017 (699.7MHz), 23173 (715.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23165 (714.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23155 (713.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23130 (711.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
-	Emission Bandwidth	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	6 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	15 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Band Edge	23017 to 23173	23017 (699.7MHz), 23173 (715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23165 (714.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23155 (713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23130 (711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
-	Peak to Average Ratio	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	23060 to 23130	23095 (707.5MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note:

1. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.
3. The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

LTE Band 13

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
-	Modulation Characteristics	23230	23230 (782.0MHz),	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset
-	Frequency Stability	23205 to 23255	23205 (779.5MHz), 23255 (784.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		23230	23230 (782.0MHz),	10MHz	QPSK	50 RB / 0 RB Offset
-	Emission Bandwidth	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25 RB / 0 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset
-	Band Edge	23205 to 23255	23205 (779.5MHz), 23255 (784.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
-	Peak to Average Ratio	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 24 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 24 RB Offset
-	Conducted Emission	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK	1 RB / 24 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK	1 RB / 24 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	23230	23230 (782.0MHz)	10MHz	QPSK	1 RB / 24 RB Offset
-	Radiated Emission Above 1GHz	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK	1 RB / 24 RB Offset
		23230	23230 (782.0MHz)	10MHz	QPSK	1 RB / 24 RB Offset

Note:

1. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the 5MHz & highest channel bandwidth for final test.
3. The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

LTE Band 66

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Modulation Characteristics	132072 to 132572	132322 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Frequency Stability	131979 to 132665	131979 (1710.7MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132657 (1778.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132647 (1777.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132622 (1775.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132597 (1772.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
-	Emission Bandwidth	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	6 RB / 0RB Offset
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	15 RB / 0RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25RB / 0RB Offset
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50RB / 0RB Offset
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	75 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset
-	Band Edge	131979 to 132665	131979 (1710.7MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132657 (1778.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132647 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132622 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132597 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Peak to Average Ratio	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM / 256QAM	3 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	3 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	131979 to 132665	132665 (1779.3MHz)	1.4MHz	QPSK	3 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	3 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.
3. The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Modulation Characteristics	133222 to 133372	133297 (680.5MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset
-	Frequency Stability	133147 to 133447	133147 (665.5MHz), 133447 (695.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133422 (693.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133397 (690.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133372 (688.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
-	Emission Bandwidth	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	25 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	50 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	75 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Band Edge	133147 to 133447	133147 (665.5MHz), 133447 (695.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133422 (693.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133397 (690.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133372 (688.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
-	Peak to Average Ratio	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	133222 to 133372	133297 (680.5MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

- For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
- For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the 5MHz & highest channel bandwidth for final test.
- The measured output power for QPSK mode is higher than the measured output power for 16QAM, 64QAM and 256QAM modes. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Output Power	25deg. C, 60%RH	120Vac, 60Hz	James Yang
Modulation characteristics	25deg. C, 60%RH	120Vac, 60Hz	James Yang
Frequency Stability	25deg. C, 60%RH	3.87Vdc	James Yang
Emission Bandwidth	25deg. C, 60%RH	120Vac, 60Hz	James Yang
Channel Edge / Out-of-Band Emission	25deg. C, 60%RH	120Vac, 60Hz	James Yang
Conducted Emission	25deg. C, 60%RH	120Vac, 60Hz	James Yang
Radiated Emission	22deg. C, 66%RH	120Vac, 60Hz	Han Wu

3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

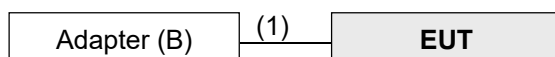
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-
B.	Adapter	KYOCERA	SCP-49ADT	NA	NA	Accessory

Note:

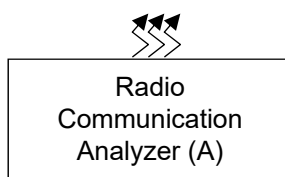
1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Type A to Type C USB cable	1	1	Y	0	Accessory

3.3.1 Configuration of System under Test



Remote site



3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

ANSI 63.26-2015

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-E 2016

NOTE: All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

For LTE Band 7:

Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

For LTE Band 12, 71:

Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

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.

For LTE Band 13:

Control stations and mobile stations in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 watts ERP.

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.

For LTE Band 4, 66:

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.

4.1.2 Test Procedures

Conducted Power Measurement:

The EUT was set up for the maximum power with LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Maximum EIRP / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_{\text{Meas}} + G_T$$

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
 (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

4.1.3 Test Setup

Conducted Power Measurement:



4.1.4 Test Results

Conducted Output Power (dBm)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	23.72	23.78	23.70
		1	50	23.59	23.65	23.57
		1	99	23.57	23.63	23.55
		50	0	22.76	22.82	22.74
		50	25	22.73	22.79	22.71
		50	50	22.68	22.74	22.66
		100	0	22.76	22.82	22.74
	16QAM	1	0	22.89	22.95	22.87
		1	50	22.86	22.92	22.84
		1	99	22.81	22.87	22.79
		50	0	21.82	21.88	21.80
		50	25	21.76	21.82	21.74
		50	50	21.72	21.78	21.70
		100	0	21.70	21.76	21.68
	64QAM	1	0	21.83	21.89	21.81
		1	50	21.80	21.86	21.78
		1	99	21.75	21.81	21.73
		50	0	20.82	20.88	20.80
		50	25	20.74	20.80	20.72
		50	50	20.66	20.72	20.64
		100	0	20.69	20.75	20.67
	256QAM	1	0	18.83	18.89	18.81
		1	50	18.78	18.84	18.76
		1	99	18.74	18.80	18.72
		50	0	18.72	18.78	18.70
		50	25	18.68	18.74	18.66
		50	50	18.64	18.70	18.62
		100	0	18.68	18.74	18.66

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	23.68	23.77	23.66
		1	37	23.51	23.61	23.55
		1	74	23.53	23.53	23.49
		36	0	22.76	22.73	22.64
		36	19	22.69	22.69	22.70
		36	39	22.59	22.68	22.58
		75	0	22.76	22.72	22.71
	16QAM	1	0	22.81	22.93	22.82
		1	37	22.84	22.87	22.76
		1	74	22.78	22.77	22.71
		36	0	21.80	21.81	21.71
		36	19	21.69	21.80	21.64
		36	39	21.62	21.75	21.63
		75	0	21.65	21.70	21.58
	64QAM	1	0	21.80	21.86	21.80
		1	37	21.77	21.81	21.69
		1	74	21.71	21.79	21.68
		36	0	20.72	20.85	20.74
		36	19	20.68	20.76	20.67
		36	39	20.60	20.65	20.64
		75	0	20.64	20.69	20.65
	256QAM	1	0	18.80	18.82	18.77
		1	37	18.70	18.79	18.75
		1	74	18.64	18.76	18.65
		36	0	18.70	18.70	18.70
		36	19	18.59	18.68	18.60
		36	39	18.59	18.66	18.62
		75	0	18.60	18.70	18.61

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	23.62	23.63	23.60
		1	24	23.43	23.51	23.52
		1	49	23.44	23.48	23.43
		25	0	22.61	22.74	22.51
		25	12	22.48	22.68	22.62
		25	25	22.57	22.57	22.58
		50	0	22.72	22.69	22.65
	16QAM	1	0	22.66	22.91	22.74
		1	24	22.75	22.80	22.73
		1	49	22.65	22.71	22.65
		25	0	21.75	21.67	21.76
		25	12	21.61	21.63	21.62
		25	25	21.57	21.61	21.49
		50	0	21.57	21.62	21.58
	64QAM	1	0	21.60	21.80	21.61
		1	24	21.72	21.67	21.72
		1	49	21.61	21.73	21.64
		25	0	20.75	20.84	20.66
		25	12	20.56	20.56	20.60
		25	25	20.51	20.68	20.47
		50	0	20.62	20.64	20.48
	256QAM	1	0	18.81	18.87	18.80
		1	24	18.69	18.74	18.71
		1	49	18.71	18.74	18.62
		25	0	18.70	18.69	18.64
		25	12	18.58	18.69	18.62
		25	25	18.55	18.70	18.59
		50	0	18.61	18.65	18.63

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	23.52	23.68	23.48
		1	12	23.49	23.47	23.41
		1	24	23.45	23.56	23.35
		12	0	22.70	22.63	22.51
		12	6	22.54	22.68	22.53
		12	13	22.58	22.65	22.56
		25	0	22.63	22.78	22.68
	16QAM	1	0	22.76	22.76	22.67
		1	12	22.77	22.92	22.69
		1	24	22.67	22.85	22.60
		12	0	21.78	21.86	21.69
		12	6	21.62	21.65	21.54
		12	13	21.64	21.61	21.50
		25	0	21.53	21.71	21.50
	64QAM	1	0	21.75	21.75	21.71
		1	12	21.70	21.82	21.59
		1	24	21.69	21.66	21.65
		12	0	20.67	20.77	20.60
		12	6	20.62	20.64	20.54
		12	13	20.60	20.63	20.42
		25	0	20.54	20.64	20.53
	256QAM	1	0	18.82	18.82	18.75
		1	12	18.77	18.77	18.69
		1	24	18.66	18.79	18.70
		12	0	18.70	18.73	18.63
		12	6	18.59	18.74	18.58
		12	13	18.63	18.61	18.54
		25	0	18.63	18.64	18.62

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	23.55	23.56	23.54
		1	7	23.39	23.50	23.40
		1	14	23.47	23.47	23.33
		8	0	22.63	22.63	22.66
		8	3	22.69	22.64	22.66
		8	7	22.51	22.60	22.53
		15	0	22.64	22.68	22.67
	16QAM	1	0	22.87	22.77	22.75
		1	7	22.78	22.74	22.78
		1	14	22.72	22.77	22.68
		8	0	21.68	21.78	21.79
		8	3	21.61	21.65	21.52
		8	7	21.58	21.58	21.61
		15	0	21.59	21.67	21.53
	64QAM	1	0	21.64	21.79	21.79
		1	7	21.61	21.69	21.71
		1	14	21.68	21.73	21.56
		8	0	20.71	20.67	20.66
		8	3	20.67	20.68	20.60
		8	7	20.49	20.69	20.51
		15	0	20.67	20.65	20.54
	256QAM	1	0	18.78	18.85	18.79
		1	7	18.69	18.78	18.72
		1	14	18.69	18.78	18.71
		8	0	18.62	18.75	18.63
		8	3	18.58	18.65	18.56
		8	7	18.58	18.64	18.62
		15	0	18.61	18.68	18.61

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	23.62	23.73	23.60
		1	2	23.50	23.60	23.40
		1	5	23.34	23.44	23.47
		3	0	23.60	23.74	23.65
		3	1	23.64	23.61	23.59
		3	3	23.54	23.63	23.57
		6	0	22.66	22.73	22.61
	16QAM	1	0	22.81	22.78	22.86
		1	2	22.71	22.87	22.69
		1	5	22.59	22.77	22.55
		3	0	22.71	22.85	22.60
		3	1	22.71	22.68	22.57
		3	3	22.48	22.69	22.47
		6	0	21.54	21.60	21.49
	64QAM	1	0	21.74	21.82	21.75
		1	2	21.72	21.78	21.59
		1	5	21.55	21.60	21.54
		3	0	21.70	21.81	21.76
		3	1	21.58	21.65	21.64
		3	3	21.54	21.61	21.39
		6	0	20.54	20.72	20.57
	256QAM	1	0	18.64	18.71	18.74
		1	2	18.59	18.69	18.66
		1	5	18.71	18.66	18.57
		3	0	18.54	18.69	18.56
		3	1	18.59	18.62	18.54
		3	3	18.45	18.60	18.54
		6	0	18.57	18.67	18.63

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	23.67	23.87	24.02
		1	50	23.63	23.83	23.98
		1	99	23.60	23.80	23.95
		50	0	22.73	22.93	23.08
		50	25	22.70	22.90	23.05
		50	50	22.62	22.82	22.97
		100	0	22.79	22.99	23.14
	16QAM	1	0	22.67	22.87	23.02
		1	50	22.61	22.81	22.96
		1	99	22.57	22.77	22.92
		50	0	21.83	22.03	22.18
		50	25	21.80	22.00	22.15
		50	50	21.77	21.97	22.12
		100	0	21.80	22.00	22.15
	64QAM	1	0	21.74	21.94	22.09
		1	50	21.70	21.90	22.05
		1	99	21.65	21.85	22.00
		50	0	20.83	21.03	21.18
		50	25	20.77	20.97	21.12
		50	50	20.68	20.88	21.03
		100	0	20.71	20.91	21.06
	256QAM	1	0	18.32	18.85	18.94
		1	50	18.19	18.72	18.81
		1	99	18.09	18.62	18.71
		50	0	17.94	18.47	18.56
		50	25	17.87	18.40	18.49
		50	50	17.82	18.35	18.44
		100	0	17.90	18.43	18.52

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	23.63	23.87	24.00
		1	37	23.61	23.79	23.95
		1	74	23.56	23.70	23.86
		36	0	22.69	22.84	23.07
		36	19	22.65	22.80	22.98
		36	39	22.58	22.74	22.94
		75	0	22.78	22.96	23.14
	16QAM	1	0	22.64	22.81	22.95
		1	37	22.61	22.78	22.96
		1	74	22.53	22.74	22.85
		36	0	21.77	22.03	22.16
		36	19	21.73	21.94	22.11
		36	39	21.70	21.90	22.08
		75	0	21.75	22.00	22.06
	64QAM	1	0	21.74	21.89	22.01
		1	37	21.68	21.89	22.00
		1	74	21.62	21.83	21.92
		36	0	20.82	20.94	21.16
		36	19	20.74	20.97	21.03
		36	39	20.58	20.78	20.96
		75	0	20.66	20.91	21.03
	256QAM	1	0	18.25	18.79	18.86
		1	37	18.15	18.63	18.76
		1	74	18.03	18.60	18.64
		36	0	17.90	18.47	18.56
		36	19	17.86	18.36	18.49
		36	39	17.79	18.31	18.40
		75	0	17.80	18.42	18.45

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	23.49	23.76	23.87
		1	24	23.55	23.72	23.95
		1	49	23.35	23.79	23.90
		25	0	22.69	22.80	22.94
		25	12	22.61	22.83	22.95
		25	25	22.49	22.68	22.92
		50	0	22.58	22.89	23.01
	16QAM	1	0	22.58	22.69	22.86
		1	24	22.37	22.74	22.80
		1	49	22.56	22.72	22.77
		25	0	21.60	21.92	21.93
		25	12	21.64	21.83	22.06
		25	25	21.66	21.84	22.03
		50	0	21.69	21.79	21.95
	64QAM	1	0	21.69	21.79	22.00
		1	24	21.51	21.84	22.02
		1	49	21.45	21.83	21.98
		25	0	20.65	20.88	21.08
		25	12	20.66	20.76	21.07
		25	25	20.52	20.76	20.98
		50	0	20.56	20.70	20.98
	256QAM	1	0	18.21	18.64	18.75
		1	24	18.07	18.51	18.81
		1	49	17.96	18.47	18.70
		25	0	17.90	18.34	18.43
		25	12	17.74	18.29	18.38
		25	25	17.78	18.20	18.31
		50	0	17.71	18.26	18.50

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	23.42	23.76	23.85
		1	12	23.51	23.69	23.91
		1	24	23.47	23.71	23.75
		12	0	22.67	22.75	22.80
		12	6	22.55	22.68	22.80
		12	13	22.54	22.69	22.69
		25	0	22.75	22.91	22.90
	16QAM	1	0	22.50	22.79	22.93
		1	12	22.53	22.72	22.90
		1	24	22.38	22.69	22.79
		12	0	21.63	21.82	22.11
		12	6	21.75	21.86	21.99
		12	13	21.60	21.84	21.91
		25	0	21.71	21.83	22.02
	64QAM	1	0	21.56	21.70	21.91
		1	12	21.67	21.73	21.94
		1	24	21.51	21.74	21.93
		12	0	20.68	20.90	20.98
		12	6	20.72	20.81	21.03
		12	13	20.57	20.75	20.93
		25	0	20.54	20.83	20.85
	256QAM	1	0	18.16	18.78	18.84
		1	12	18.03	18.53	18.72
		1	24	17.93	18.52	18.71
		12	0	17.87	18.37	18.54
		12	6	17.69	18.21	18.32
		12	13	17.79	18.16	18.32
		25	0	17.80	18.30	18.49

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	23.92	23.98	23.84
		1	24	23.83	23.84	23.80
		1	49	23.76	23.81	23.67
		25	0	22.79	22.85	22.69
		25	12	22.78	22.79	22.77
		25	25	22.66	22.72	22.61
		50	0	22.74	22.81	22.73
	16QAM	1	0	22.80	22.80	22.70
		1	24	22.66	22.75	22.61
		1	49	22.65	22.72	22.60
		25	0	21.79	21.87	21.73
		25	12	21.79	21.83	21.75
		25	25	21.70	21.78	21.69
		50	0	21.71	21.75	21.63
	64QAM	1	0	21.76	21.84	21.76
		1	24	21.72	21.81	21.66
		1	49	21.70	21.74	21.68
		25	0	20.75	20.85	20.71
		25	12	20.75	20.83	20.66
		25	25	20.71	20.80	20.65
		50	0	20.78	20.82	20.76
	256QAM	1	0	18.47	18.58	18.46
		1	24	18.34	18.45	18.33
		1	49	18.30	18.41	18.29
		25	0	18.26	18.37	18.25
		25	12	18.24	18.35	18.23
		25	25	18.15	18.26	18.14
		50	0	18.17	18.28	18.16

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	23.83	23.94	23.78
		1	12	23.75	23.76	23.77
		1	24	23.74	23.80	23.60
		12	0	22.79	22.75	22.62
		12	6	22.74	22.77	22.71
		12	13	22.62	22.65	22.56
		25	0	22.70	22.71	22.67
	16QAM	1	0	22.71	22.73	22.66
		1	12	22.60	22.75	22.53
		1	24	22.64	22.67	22.56
		12	0	21.77	21.82	21.70
		12	6	21.77	21.73	21.70
		12	13	21.63	21.75	21.64
		25	0	21.62	21.70	21.56
	64QAM	1	0	21.75	21.81	21.69
		1	12	21.62	21.73	21.58
		1	24	21.64	21.70	21.61
		12	0	20.75	20.84	20.62
		12	6	20.70	20.73	20.64
		12	13	20.62	20.78	20.56
		25	0	20.71	20.77	20.71
	256QAM	1	0	18.32	18.44	18.38
		1	12	18.20	18.29	18.15
		1	24	18.28	18.28	18.12
		12	0	18.17	18.16	18.14
		12	6	18.15	18.27	18.19
		12	13	18.04	18.07	17.99
		25	0	18.12	18.21	17.97

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	23.86	23.86	23.66
		1	7	23.76	23.74	23.67
		1	14	23.65	23.73	23.56
		8	0	22.59	22.75	22.49
		8	3	22.60	22.67	22.70
		8	7	22.50	22.54	22.47
		15	0	22.74	22.62	22.66
	16QAM	1	0	22.71	22.78	22.48
		1	7	22.52	22.73	22.48
		1	14	22.57	22.55	22.51
		8	0	21.73	21.75	21.68
		8	3	21.65	21.66	21.61
		8	7	21.52	21.58	21.63
		15	0	21.59	21.65	21.55
	64QAM	1	0	21.62	21.69	21.66
		1	7	21.51	21.73	21.44
		1	14	21.54	21.63	21.55
		8	0	20.64	20.76	20.61
		8	3	20.65	20.68	20.49
		8	7	20.58	20.74	20.43
		15	0	20.74	20.74	20.64
	256QAM	1	0	18.31	18.44	18.25
		1	7	18.15	18.31	18.12
		1	14	18.15	18.24	18.25
		8	0	18.22	18.27	18.19
		8	3	18.06	18.22	18.08
		8	7	17.98	18.06	17.98
		15	0	18.16	18.16	17.94

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	23.87	23.86	23.84
		1	2	23.78	23.73	23.65
		1	5	23.60	23.72	23.65
		3	0	23.67	23.70	23.57
		3	1	23.64	23.65	23.57
		3	3	23.56	23.67	23.57
		6	0	22.68	22.67	22.54
	16QAM	1	0	22.68	22.73	22.64
		1	2	22.53	22.63	22.45
		1	5	22.54	22.61	22.56
		3	0	22.63	22.77	22.61
		3	1	22.71	22.75	22.66
		3	3	22.56	22.69	22.59
		6	0	21.63	21.69	21.40
	64QAM	1	0	21.65	21.64	21.58
		1	2	21.60	21.69	21.44
		1	5	21.55	21.53	21.47
		3	0	21.55	21.75	21.55
		3	1	21.55	21.67	21.52
		3	3	21.53	21.66	21.47
		6	0	20.57	20.66	20.68
	256QAM	1	0	18.28	18.38	18.26
		1	2	18.20	18.33	18.16
		1	5	18.19	18.23	18.13
		3	0	18.04	18.30	18.03
		3	1	18.17	18.27	18.05
		3	3	18.06	18.16	17.90
		6	0	18.09	18.13	18.05

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	23.06
		1	24	23.79
		1	49	23.13
		25	0	21.95
		25	12	22.41
		25	25	21.87
		50	0	22.18
	16QAM	1	0	22.82
		1	24	22.88
		1	49	22.00
		25	0	21.18
		25	12	21.54
		25	25	21.15
		50	0	21.05
	64QAM	1	0	22.52
		1	24	22.67
		1	49	21.85
		25	0	21.03
		25	12	21.39
		25	25	21.00
		50	0	20.90
	256QAM	1	0	18.56
		1	24	19.07
		1	49	18.84
		25	0	18.72
		25	12	18.78
		25	25	18.75
		50	0	18.78

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	22.80	22.99	22.79
		1	12	23.41	23.69	23.63
		1	24	22.78	23.08	22.89
		12	0	21.78	21.92	21.78
		12	6	22.18	22.31	22.15
		12	13	21.74	21.78	21.71
		25	0	21.94	22.15	22.06
	16QAM	1	0	22.62	22.78	22.72
		1	12	22.54	22.81	22.74
		1	24	21.74	21.90	21.75
		12	0	20.82	21.09	21.03
		12	6	21.22	21.50	21.30
		12	13	20.96	21.10	20.99
		25	0	20.79	20.96	20.79
	64QAM	1	0	22.52	22.64	22.52
		1	12	22.46	22.67	22.56
		1	24	21.49	21.76	21.56
		12	0	21.08	21.23	21.06
		12	6	21.15	21.36	21.18
		12	13	20.83	20.96	20.81
		25	0	20.62	20.82	20.65
	256QAM	1	0	18.23	18.50	18.44
		1	12	18.85	18.98	18.91
		1	24	18.52	18.82	18.64
		12	0	18.39	18.69	18.56
		12	6	18.66	18.78	18.66
		12	13	18.55	18.65	18.58
		25	0	18.48	18.77	18.70

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.85	23.80	23.79
		1	50	23.71	23.77	23.69
		1	99	23.31	23.68	23.59
		50	0	22.85	22.79	22.57
		50	25	22.46	22.82	22.75
		50	50	22.50	22.76	22.70
		100	0	22.54	22.82	22.76
	16QAM	1	0	22.70	22.98	22.92
		1	50	22.60	22.96	22.89
		1	99	22.59	22.90	22.81
		50	0	21.52	21.80	21.77
		50	25	21.45	21.75	21.71
		50	50	21.35	21.72	21.64
		100	0	21.58	21.84	21.84
	64QAM	1	0	21.04	21.33	21.33
		1	50	20.91	21.20	21.15
		1	99	20.92	21.18	21.14
		50	0	20.21	20.45	20.45
		50	25	19.98	20.25	20.24
		50	50	19.73	20.12	20.02
		100	0	19.81	20.18	20.08
	256QAM	1	0	18.70	18.99	18.90
		1	50	18.68	18.94	18.88
		1	99	18.72	18.92	18.92
		50	0	18.53	18.80	18.73
		50	25	18.48	18.78	18.68
		50	50	18.50	18.75	18.70
		100	0	18.56	18.80	18.76

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.78	23.73	23.77
		1	37	23.71	23.77	23.65
		1	74	23.27	23.66	23.57
		36	0	22.54	22.83	22.78
		36	19	22.38	22.76	22.75
		36	39	22.41	22.70	22.62
		75	0	22.47	22.77	22.66
	16QAM	1	0	22.65	22.89	22.89
		1	37	22.59	22.90	22.82
		1	74	22.56	22.85	22.71
		36	0	21.52	21.73	21.75
		36	19	21.41	21.66	21.66
		36	39	21.25	21.63	21.57
		75	0	21.53	21.84	21.82
	64QAM	1	0	21.03	21.33	21.23
		1	37	20.85	21.12	21.07
		1	74	20.88	21.10	21.11
		36	0	20.15	20.35	20.37
		36	19	19.92	20.23	20.23
		36	39	19.72	20.10	19.96
		75	0	19.81	20.15	20.03
	256QAM	1	0	18.62	18.89	18.82
		1	37	18.63	18.84	18.83
		1	74	18.71	18.84	18.83
		36	0	18.50	18.73	18.70
		36	19	18.46	18.72	18.64
		36	39	18.45	18.65	18.61
		75	0	18.47	18.76	18.76

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	23.75	23.64	23.62
		1	24	23.71	23.68	23.55
		1	49	23.14	23.63	23.50
		25	0	22.38	22.82	22.65
		25	12	22.37	22.69	22.61
		25	25	22.35	22.59	22.61
		50	0	22.42	22.61	22.65
	16QAM	1	0	22.68	22.87	22.76
		1	24	22.41	22.79	22.76
		1	49	22.52	22.82	22.66
		25	0	21.39	21.71	21.67
		25	12	21.24	21.55	21.59
		25	25	21.18	21.62	21.57
		50	0	21.41	21.72	21.71
	64QAM	1	0	20.93	21.31	21.28
		1	24	20.81	21.16	21.07
		1	49	20.86	20.99	21.07
		25	0	20.08	20.23	20.38
		25	12	19.76	20.10	20.07
		25	25	19.75	19.97	19.93
		50	0	19.72	20.05	19.95
	256QAM	1	0	18.52	18.87	18.83
		1	24	18.47	18.79	18.70
		1	49	18.59	18.87	18.75
		25	0	18.39	18.68	18.67
		25	12	18.45	18.72	18.51
		25	25	18.31	18.71	18.50
		50	0	18.50	18.68	18.55

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	23.74	23.58	23.56
		1	12	23.72	23.54	23.55
		1	24	23.21	23.56	23.30
		12	0	22.40	22.80	22.53
		12	6	22.34	22.81	22.56
		12	13	22.35	22.70	22.56
		25	0	22.36	22.74	22.57
	16QAM	1	0	22.50	22.94	22.84
		1	12	22.44	22.83	22.82
		1	24	22.42	22.68	22.70
		12	0	21.41	21.63	21.73
		12	6	21.34	21.74	21.59
		12	13	21.13	21.62	21.48
		25	0	21.39	21.77	21.72
	64QAM	1	0	21.03	21.12	21.13
		1	12	20.73	21.15	21.05
		1	24	20.74	21.03	21.00
		12	0	20.00	20.33	20.29
		12	6	19.88	20.02	20.09
		12	13	19.78	20.03	19.90
		25	0	19.79	20.17	19.92
	256QAM	1	0	18.55	18.96	18.79
		1	12	18.53	18.84	18.81
		1	24	18.50	18.82	18.79
		12	0	18.31	18.66	18.69
		12	6	18.37	18.61	18.62
		12	13	18.44	18.64	18.45
		25	0	18.39	18.69	18.67

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	23.72	23.71	23.62
		1	7	23.71	23.61	23.50
		1	14	23.14	23.53	23.41
		8	0	22.41	22.74	22.77
		8	3	22.39	22.65	22.62
		8	7	22.34	22.64	22.58
		15	0	22.49	22.65	22.70
	16QAM	1	0	22.58	22.84	22.68
		1	7	22.49	22.83	22.75
		1	14	22.49	22.80	22.65
		8	0	21.43	21.63	21.63
		8	3	21.33	21.57	21.68
		8	7	21.13	21.63	21.44
		15	0	21.36	21.69	21.66
	64QAM	1	0	20.90	21.17	21.24
		1	7	20.76	21.08	21.05
		1	14	20.74	21.15	21.07
		8	0	20.10	20.36	20.35
		8	3	19.73	20.15	20.15
		8	7	19.72	20.01	19.83
		15	0	19.71	20.14	19.88
	256QAM	1	0	18.61	18.88	18.77
		1	7	18.54	18.86	18.80
		1	14	18.59	18.78	18.74
		8	0	18.43	18.67	18.72
		8	3	18.32	18.64	18.58
		8	7	18.34	18.61	18.57
		15	0	18.47	18.75	18.73

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	23.68	23.74	23.69
		1	2	23.63	23.73	23.60
		1	5	23.10	23.60	23.53
		3	0	23.33	23.73	23.74
		3	1	23.29	23.74	23.67
		3	3	23.37	23.60	23.61
		6	0	22.41	22.77	22.64
	16QAM	1	0	22.64	22.88	22.74
		1	2	22.43	22.91	22.75
		1	5	22.59	22.77	22.68
		3	0	22.40	22.66	22.60
		3	1	22.35	22.69	22.60
		3	3	22.16	22.53	22.49
		6	0	21.40	21.75	21.80
	64QAM	1	0	20.86	21.20	21.12
		1	2	20.74	21.09	20.94
		1	5	20.86	21.02	21.12
		3	0	20.98	21.32	21.42
		3	1	20.91	21.16	21.17
		3	3	20.76	20.97	20.87
		6	0	19.73	20.07	19.96
	256QAM	1	0	18.57	18.93	18.78
		1	2	18.58	18.73	18.72
		1	5	18.54	18.74	18.77
		3	0	18.41	18.75	18.58
		3	1	18.35	18.54	18.68
		3	3	18.25	18.57	18.54
		6	0	18.51	18.72	18.58

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	24.18	24.15	24.10
		1	50	24.09	24.04	24.03
		1	99	24.02	23.98	23.95
		50	0	23.19	23.17	23.12
		50	25	23.17	23.09	23.08
		50	50	23.14	23.10	23.09
		100	0	23.18	23.09	23.06
	16QAM	1	0	23.18	23.13	23.10
		1	50	23.15	23.08	23.06
		1	99	23.12	23.04	22.96
		50	0	22.17	22.12	22.03
		50	25	22.14	22.06	22.06
		50	50	22.13	22.03	21.99
		100	0	22.15	22.07	22.01
	64QAM	1	0	22.18	22.18	22.15
		1	50	22.13	22.13	22.03
		1	99	22.18	22.11	22.08
		50	0	21.19	21.18	21.16
		50	25	21.17	21.16	21.07
		50	50	21.12	21.08	21.00
		100	0	21.16	21.12	21.02
	256QAM	1	0	19.18	19.08	19.02
		1	50	19.17	19.11	19.02
		1	99	19.15	19.15	19.13
		50	0	19.17	19.17	19.14
		50	25	19.15	19.12	19.03
		50	50	19.14	19.07	19.03
		100	0	19.16	19.15	19.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	24.15	24.08	24.09
		1	37	24.08	23.95	24.03
		1	74	23.99	23.89	23.87
		36	0	23.11	23.14	23.03
		36	19	23.07	23.09	23.00
		36	39	23.12	23.08	23.05
		75	0	23.13	22.99	22.98
	16QAM	1	0	23.08	23.13	23.09
		1	37	23.05	23.07	23.02
		1	74	23.09	23.04	22.90
		36	0	22.07	22.03	21.94
		36	19	22.11	21.96	22.03
		36	39	22.07	22.02	21.94
		75	0	22.09	22.02	21.93
	64QAM	1	0	22.08	22.14	22.10
		1	37	22.04	22.06	22.02
		1	74	22.12	22.04	22.01
		36	0	21.15	21.15	21.06
		36	19	21.14	21.15	20.97
		36	39	21.07	21.05	20.91
		75	0	21.11	21.12	21.01
	256QAM	1	0	19.13	19.08	18.99
		1	37	19.15	19.06	19.02
		1	74	19.08	19.14	19.12
		36	0	19.08	19.07	19.12
		36	19	19.14	19.07	18.99
		36	39	19.11	19.07	18.99
		75	0	19.15	19.07	19.13

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	24.00	24.06	23.99
		1	24	23.91	23.81	23.95
		1	49	23.99	23.91	23.80
		25	0	23.07	23.12	22.98
		25	12	23.10	22.97	22.97
		25	25	23.00	22.89	22.90
		50	0	23.11	23.00	22.93
	16QAM	1	0	23.11	23.02	22.94
		1	24	23.03	23.01	23.01
		1	49	22.91	22.93	22.88
		25	0	22.00	22.07	21.89
		25	12	22.06	21.97	21.88
		25	25	21.99	21.92	21.85
		50	0	22.06	21.89	21.97
	64QAM	1	0	22.18	22.07	22.01
		1	24	21.98	22.02	21.93
		1	49	22.05	21.93	22.00
		25	0	21.08	21.12	21.04
		25	12	21.00	21.01	21.04
		25	25	21.01	20.86	20.88
		50	0	21.00	21.08	20.80
	256QAM	1	0	19.03	19.02	19.00
		1	24	19.09	18.90	18.97
		1	49	19.05	19.09	18.98
		25	0	18.95	19.08	19.00
		25	12	19.03	18.93	18.88
		25	25	18.97	18.93	18.80
		50	0	19.06	19.03	18.97

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	24.01	24.01	23.92
		1	12	24.01	23.90	23.87
		1	24	23.82	23.87	23.79
		12	0	23.08	22.96	22.95
		12	6	23.04	22.90	22.87
		12	13	22.98	23.02	22.79
		25	0	23.00	22.97	22.74
	16QAM	1	0	23.09	23.10	22.96
		1	12	23.03	22.94	22.93
		1	24	22.90	22.97	22.91
		12	0	22.04	21.93	21.92
		12	6	22.03	21.89	21.88
		12	13	22.06	21.87	21.92
		25	0	22.03	22.01	21.94
	64QAM	1	0	22.07	22.01	22.10
		1	12	21.95	21.89	21.95
		1	24	21.97	21.94	22.01
		12	0	21.08	21.12	21.02
		12	6	21.09	21.02	20.83
		12	13	21.05	20.93	20.93
		25	0	21.10	20.95	20.82
	256QAM	1	0	19.06	19.04	18.98
		1	12	19.04	18.94	18.93
		1	24	18.99	18.95	19.09
		12	0	19.03	19.07	18.98
		12	6	19.08	18.90	18.97
		12	13	19.05	18.92	18.96
		25	0	19.09	18.92	19.00

EIRP / ERP Power

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	26.02	26.08	26.00
		1	50	25.89	25.95	25.87
		1	99	25.87	25.93	25.85
		50	0	25.06	25.12	25.04
		50	25	25.03	25.09	25.01
		50	50	24.98	25.04	24.96
		100	0	25.06	25.12	25.04
	16QAM	1	0	25.19	25.25	25.17
		1	50	25.16	25.22	25.14
		1	99	25.11	25.17	25.09
		50	0	24.12	24.18	24.10
		50	25	24.06	24.12	24.04
		50	50	24.02	24.08	24.00
		100	0	24.00	24.06	23.98
	64QAM	1	0	24.13	24.19	24.11
		1	50	24.10	24.16	24.08
		1	99	24.05	24.11	24.03
		50	0	23.12	23.18	23.10
		50	25	23.04	23.10	23.02
		50	50	22.96	23.02	22.94
		100	0	22.99	23.05	22.97
	256QAM	1	0	21.13	21.19	21.11
		1	50	21.08	21.14	21.06
		1	99	21.04	21.10	21.02
		50	0	21.02	21.08	21.00
		50	25	20.98	21.04	20.96
		50	50	20.94	21.00	20.92
		100	0	20.98	21.04	20.96

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	25.98	26.07	25.96
		1	37	25.81	25.91	25.85
		1	74	25.83	25.83	25.79
		36	0	25.06	25.03	24.94
		36	19	24.99	24.99	25.00
		36	39	24.89	24.98	24.88
		75	0	25.06	25.02	25.01
	16QAM	1	0	25.11	25.23	25.12
		1	37	25.14	25.17	25.06
		1	74	25.08	25.07	25.01
		36	0	24.10	24.11	24.01
		36	19	23.99	24.10	23.94
		36	39	23.92	24.05	23.93
		75	0	23.95	24.00	23.88
	64QAM	1	0	24.10	24.16	24.10
		1	37	24.07	24.11	23.99
		1	74	24.01	24.09	23.98
		36	0	23.02	23.15	23.04
		36	19	22.98	23.06	22.97
		36	39	22.90	22.95	22.94
		75	0	22.94	22.99	22.95
	256QAM	1	0	21.10	21.12	21.07
		1	37	21.00	21.09	21.05
		1	74	20.94	21.06	20.95
		36	0	21.00	21.00	21.00
		36	19	20.89	20.98	20.90
		36	39	20.89	20.96	20.92
		75	0	20.90	21.00	20.91

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	25.92	25.93	25.90
		1	24	25.73	25.81	25.82
		1	49	25.74	25.78	25.73
		25	0	24.91	25.04	24.81
		25	12	24.78	24.98	24.92
		25	25	24.87	24.87	24.88
		50	0	25.02	24.99	24.95
	16QAM	1	0	24.96	25.21	25.04
		1	24	25.05	25.10	25.03
		1	49	24.95	25.01	24.95
		25	0	24.05	23.97	24.06
		25	12	23.91	23.93	23.92
		25	25	23.87	23.91	23.79
		50	0	23.87	23.92	23.88
	64QAM	1	0	23.90	24.10	23.91
		1	24	24.02	23.97	24.02
		1	49	23.91	24.03	23.94
		25	0	23.05	23.14	22.96
		25	12	22.86	22.86	22.90
		25	25	22.81	22.98	22.77
		50	0	22.92	22.94	22.78
	256QAM	1	0	21.11	21.17	21.10
		1	24	20.99	21.04	21.01
		1	49	21.01	21.04	20.92
		25	0	21.00	20.99	20.94
		25	12	20.88	20.99	20.92
		25	25	20.85	21.00	20.89
		50	0	20.91	20.95	20.93

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	25.82	25.98	25.78
		1	12	25.79	25.77	25.71
		1	24	25.75	25.86	25.65
		12	0	25.00	24.93	24.81
		12	6	24.84	24.98	24.83
		12	13	24.88	24.95	24.86
		25	0	24.93	25.08	24.98
	16QAM	1	0	25.06	25.06	24.97
		1	12	25.07	25.22	24.99
		1	24	24.97	25.15	24.90
		12	0	24.08	24.16	23.99
		12	6	23.92	23.95	23.84
		12	13	23.94	23.91	23.80
		25	0	23.83	24.01	23.80
	64QAM	1	0	24.05	24.05	24.01
		1	12	24.00	24.12	23.89
		1	24	23.99	23.96	23.95
		12	0	22.97	23.07	22.90
		12	6	22.92	22.94	22.84
		12	13	22.90	22.93	22.72
		25	0	22.84	22.94	22.83
	256QAM	1	0	21.12	21.12	21.05
		1	12	21.07	21.07	20.99
		1	24	20.96	21.09	21.00
		12	0	21.00	21.03	20.93
		12	6	20.89	21.04	20.88
		12	13	20.93	20.91	20.84
		25	0	20.93	20.94	20.92

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	25.85	25.86	25.84
		1	7	25.69	25.80	25.70
		1	14	25.77	25.77	25.63
		8	0	24.93	24.93	24.96
		8	3	24.99	24.94	24.96
		8	7	24.81	24.90	24.83
		15	0	24.94	24.98	24.97
	16QAM	1	0	25.17	25.07	25.05
		1	7	25.08	25.04	25.08
		1	14	25.02	25.07	24.98
		8	0	23.98	24.08	24.09
		8	3	23.91	23.95	23.82
		8	7	23.88	23.88	23.91
		15	0	23.89	23.97	23.83
	64QAM	1	0	23.94	24.09	24.09
		1	7	23.91	23.99	24.01
		1	14	23.98	24.03	23.86
		8	0	23.01	22.97	22.96
		8	3	22.97	22.98	22.90
		8	7	22.79	22.99	22.81
		15	0	22.97	22.95	22.84
	256QAM	1	0	21.08	21.15	21.09
		1	7	20.99	21.08	21.02
		1	14	20.99	21.08	21.01
		8	0	20.92	21.05	20.93
		8	3	20.88	20.95	20.86
		8	7	20.88	20.94	20.92
		15	0	20.91	20.98	20.91

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	25.92	26.03	25.90
		1	2	25.80	25.90	25.70
		1	5	25.64	25.74	25.77
		3	0	25.90	26.04	25.95
		3	1	25.94	25.91	25.89
		3	3	25.84	25.93	25.87
		6	0	24.96	25.03	24.91
	16QAM	1	0	25.11	25.08	25.16
		1	2	25.01	25.17	24.99
		1	5	24.89	25.07	24.85
		3	0	25.01	25.15	24.90
		3	1	25.01	24.98	24.87
		3	3	24.78	24.99	24.77
		6	0	23.84	23.90	23.79
	64QAM	1	0	24.04	24.12	24.05
		1	2	24.02	24.08	23.89
		1	5	23.85	23.90	23.84
		3	0	24.00	24.11	24.06
		3	1	23.88	23.95	23.94
		3	3	23.84	23.91	23.69
		6	0	22.84	23.02	22.87
	256QAM	1	0	20.94	21.01	21.04
		1	2	20.89	20.99	20.96
		1	5	21.01	20.96	20.87
		3	0	20.84	20.99	20.86
		3	1	20.89	20.92	20.84
		3	3	20.75	20.90	20.84
		6	0	20.87	20.97	20.93

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	16.67	16.87	17.02
		1	50	16.63	16.83	16.98
		1	99	16.60	16.80	16.95
		50	0	15.73	15.93	16.08
		50	25	15.70	15.90	16.05
		50	50	15.62	15.82	15.97
		100	0	15.79	15.99	16.14
	16QAM	1	0	15.67	15.87	16.02
		1	50	15.61	15.81	15.96
		1	99	15.57	15.77	15.92
		50	0	14.83	15.03	15.18
		50	25	14.80	15.00	15.15
		50	50	14.77	14.97	15.12
		100	0	14.80	15.00	15.15
	64QAM	1	0	14.74	14.94	15.09
		1	50	14.70	14.90	15.05
		1	99	14.65	14.85	15.00
		50	0	13.83	14.03	14.18
		50	25	13.77	13.97	14.12
		50	50	13.68	13.88	14.03
		100	0	13.71	13.91	14.06
	256QAM	1	0	11.32	11.85	11.94
		1	50	11.19	11.72	11.81
		1	99	11.09	11.62	11.71
		50	0	10.94	11.47	11.56
		50	25	10.87	11.40	11.49
		50	50	10.82	11.35	11.44
		100	0	10.90	11.43	11.52

*EIRP = Conducted + antenna gain (-7.0dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	16.63	16.87	17.00
		1	37	16.61	16.79	16.95
		1	74	16.56	16.70	16.86
		36	0	15.69	15.84	16.07
		36	19	15.65	15.80	15.98
		36	39	15.58	15.74	15.94
		75	0	15.78	15.96	16.14
	16QAM	1	0	15.64	15.81	15.95
		1	37	15.61	15.78	15.96
		1	74	15.53	15.74	15.85
		36	0	14.77	15.03	15.16
		36	19	14.73	14.94	15.11
		36	39	14.70	14.90	15.08
		75	0	14.75	15.00	15.06
	64QAM	1	0	14.74	14.89	15.01
		1	37	14.68	14.89	15.00
		1	74	14.62	14.83	14.92
		36	0	13.82	13.94	14.16
		36	19	13.74	13.97	14.03
		36	39	13.58	13.78	13.96
		75	0	13.66	13.91	14.03
	256QAM	1	0	11.25	11.79	11.86
		1	37	11.15	11.63	11.76
		1	74	11.03	11.60	11.64
		36	0	10.90	11.47	11.56
		36	19	10.86	11.36	11.49
		36	39	10.79	11.31	11.40
		75	0	10.80	11.42	11.45

*EIRP = Conducted + antenna gain (-7.0dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	16.49	16.76	16.87
		1	24	16.55	16.72	16.95
		1	49	16.35	16.79	16.90
		25	0	15.69	15.80	15.94
		25	12	15.61	15.83	15.95
		25	25	15.49	15.68	15.92
		50	0	15.58	15.89	16.01
	16QAM	1	0	15.58	15.69	15.86
		1	24	15.37	15.74	15.80
		1	49	15.56	15.72	15.77
		25	0	14.60	14.92	14.93
		25	12	14.64	14.83	15.06
		25	25	14.66	14.84	15.03
		50	0	14.69	14.79	14.95
	64QAM	1	0	14.69	14.79	15.00
		1	24	14.51	14.84	15.02
		1	49	14.45	14.83	14.98
		25	0	13.65	13.88	14.08
		25	12	13.66	13.76	14.07
		25	25	13.52	13.76	13.98
		50	0	13.56	13.70	13.98
	256QAM	1	0	11.21	11.64	11.75
		1	24	11.07	11.51	11.81
		1	49	10.96	11.47	11.70
		25	0	10.90	11.34	11.43
		25	12	10.74	11.29	11.38
		25	25	10.78	11.20	11.31
		50	0	10.71	11.26	11.50

*EIRP = Conducted + antenna gain (-7.0dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	16.42	16.76	16.85
		1	12	16.51	16.69	16.91
		1	24	16.47	16.71	16.75
		12	0	15.67	15.75	15.80
		12	6	15.55	15.68	15.80
		12	13	15.54	15.69	15.69
		25	0	15.75	15.91	15.90
	16QAM	1	0	15.50	15.79	15.93
		1	12	15.53	15.72	15.90
		1	24	15.38	15.69	15.79
		12	0	14.63	14.82	15.11
		12	6	14.75	14.86	14.99
		12	13	14.60	14.84	14.91
		25	0	14.71	14.83	15.02
	64QAM	1	0	14.56	14.70	14.91
		1	12	14.67	14.73	14.94
		1	24	14.51	14.74	14.93
		12	0	13.68	13.90	13.98
		12	6	13.72	13.81	14.03
		12	13	13.57	13.75	13.93
		25	0	13.54	13.83	13.85
	256QAM	1	0	11.16	11.78	11.84
		1	12	11.03	11.53	11.72
		1	24	10.93	11.52	11.71
		12	0	10.87	11.37	11.54
		12	6	10.69	11.21	11.32
		12	13	10.79	11.16	11.32
		25	0	10.80	11.30	11.49

*EIRP = Conducted + antenna gain (-7.0dBi)

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	18.17	18.23	18.09
		1	24	18.08	18.09	18.05
		1	49	18.01	18.06	17.92
		25	0	17.04	17.10	16.94
		25	12	17.03	17.04	17.02
		25	25	16.91	16.97	16.86
		50	0	16.99	17.06	16.98
	16QAM	1	0	17.05	17.05	16.95
		1	24	16.91	17.00	16.86
		1	49	16.90	16.97	16.85
		25	0	16.04	16.12	15.98
		25	12	16.04	16.08	16.00
		25	25	15.95	16.03	15.94
		50	0	15.96	16.00	15.88
	64QAM	1	0	16.01	16.09	16.01
		1	24	15.97	16.06	15.91
		1	49	15.95	15.99	15.93
		25	0	15.00	15.10	14.96
		25	12	15.00	15.08	14.91
		25	25	14.96	15.05	14.90
		50	0	15.03	15.07	15.01
	256QAM	1	0	12.72	12.83	12.71
		1	24	12.59	12.70	12.58
		1	49	12.55	12.66	12.54
		25	0	12.51	12.62	12.50
		25	12	12.49	12.60	12.48
		25	25	12.40	12.51	12.39
		50	0	12.42	12.53	12.41

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	18.08	18.19	18.03
		1	12	18.00	18.01	18.02
		1	24	17.99	18.05	17.85
		12	0	17.04	17.00	16.87
		12	6	16.99	17.02	16.96
		12	13	16.87	16.90	16.81
		25	0	16.95	16.96	16.92
	16QAM	1	0	16.96	16.98	16.91
		1	12	16.85	17.00	16.78
		1	24	16.89	16.92	16.81
		12	0	16.02	16.07	15.95
		12	6	16.02	15.98	15.95
		12	13	15.88	16.00	15.89
		25	0	15.87	15.95	15.81
	64QAM	1	0	16.00	16.06	15.94
		1	12	15.87	15.98	15.83
		1	24	15.89	15.95	15.86
		12	0	15.00	15.09	14.87
		12	6	14.95	14.98	14.89
		12	13	14.87	15.03	14.81
		25	0	14.96	15.02	14.96
	256QAM	1	0	12.57	12.69	12.63
		1	12	12.45	12.54	12.40
		1	24	12.53	12.53	12.37
		12	0	12.42	12.41	12.39
		12	6	12.40	12.52	12.44
		12	13	12.29	12.32	12.24
		25	0	12.37	12.46	12.22

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	18.11	18.11	17.91
		1	7	18.01	17.99	17.92
		1	14	17.90	17.98	17.81
		8	0	16.84	17.00	16.74
		8	3	16.85	16.92	16.95
		8	7	16.75	16.79	16.72
		15	0	16.99	16.87	16.91
	16QAM	1	0	16.96	17.03	16.73
		1	7	16.77	16.98	16.73
		1	14	16.82	16.80	16.76
		8	0	15.98	16.00	15.93
		8	3	15.90	15.91	15.86
		8	7	15.77	15.83	15.88
		15	0	15.84	15.90	15.80
	64QAM	1	0	15.87	15.94	15.91
		1	7	15.76	15.98	15.69
		1	14	15.79	15.88	15.80
		8	0	14.89	15.01	14.86
		8	3	14.90	14.93	14.74
		8	7	14.83	14.99	14.68
		15	0	14.99	14.99	14.89
	256QAM	1	0	12.56	12.69	12.50
		1	7	12.40	12.56	12.37
		1	14	12.40	12.49	12.50
		8	0	12.47	12.52	12.44
		8	3	12.31	12.47	12.33
		8	7	12.23	12.31	12.23
		15	0	12.41	12.41	12.19

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	18.12	18.11	18.09
		1	2	18.03	17.98	17.90
		1	5	17.85	17.97	17.90
		3	0	17.92	17.95	17.82
		3	1	17.89	17.90	17.82
		3	3	17.81	17.92	17.82
		6	0	16.93	16.92	16.79
	16QAM	1	0	16.93	16.98	16.89
		1	2	16.78	16.88	16.70
		1	5	16.79	16.86	16.81
		3	0	16.88	17.02	16.86
		3	1	16.96	17.00	16.91
		3	3	16.81	16.94	16.84
		6	0	15.88	15.94	15.65
	64QAM	1	0	15.90	15.89	15.83
		1	2	15.85	15.94	15.69
		1	5	15.80	15.78	15.72
		3	0	15.80	16.00	15.80
		3	1	15.80	15.92	15.77
		3	3	15.78	15.91	15.72
		6	0	14.82	14.91	14.93
	256QAM	1	0	12.53	12.63	12.51
		1	2	12.45	12.58	12.41
		1	5	12.44	12.48	12.38
		3	0	12.29	12.55	12.28
		3	1	12.42	12.52	12.30
		3	3	12.31	12.41	12.15
		6	0	12.34	12.38	12.30

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	17.51
		1	24	18.24
		1	49	17.58
		25	0	16.40
		25	12	16.86
		25	25	16.32
		50	0	16.63
	16QAM	1	0	17.27
		1	24	17.33
		1	49	16.45
		25	0	15.63
		25	12	15.99
		25	25	15.60
		50	0	15.50
	64QAM	1	0	16.97
		1	24	17.12
		1	49	16.30
		25	0	15.48
		25	12	15.84
		25	25	15.45
		50	0	15.35
	256QAM	1	0	13.01
		1	24	13.52
		1	49	13.29
		25	0	13.17
		25	12	13.23
		25	25	13.20
		50	0	13.23

*ERP = Conducted + antenna gain (-3.4dBi)-2.15

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	17.25	17.44	17.24
		1	12	17.86	18.14	18.08
		1	24	17.23	17.53	17.34
		12	0	16.23	16.37	16.23
		12	6	16.63	16.76	16.60
		12	13	16.19	16.23	16.16
		25	0	16.39	16.60	16.51
	16QAM	1	0	17.07	17.23	17.17
		1	12	16.99	17.26	17.19
		1	24	16.19	16.35	16.20
		12	0	15.27	15.54	15.48
		12	6	15.67	15.95	15.75
		12	13	15.41	15.55	15.44
		25	0	15.24	15.41	15.24
	64QAM	1	0	16.97	17.09	16.97
		1	12	16.91	17.12	17.01
		1	24	15.94	16.21	16.01
		12	0	15.53	15.68	15.51
		12	6	15.60	15.81	15.63
		12	13	15.28	15.41	15.26
		25	0	15.07	15.27	15.10
	256QAM	1	0	12.68	12.95	12.89
		1	12	13.30	13.43	13.36
		1	24	12.97	13.27	13.09
		12	0	12.84	13.14	13.01
		12	6	13.11	13.23	13.11
		12	13	13.00	13.10	13.03
		25	0	12.93	13.22	13.15

*ERP = Conducted + antenna gain (-3.4dBi)-2.15

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	26.15	26.10	26.09
		1	50	26.01	26.07	25.99
		1	99	25.61	25.98	25.89
		50	0	25.15	25.09	24.87
		50	25	24.76	25.12	25.05
		50	50	24.80	25.06	25.00
		100	0	24.84	25.12	25.06
	16QAM	1	0	25.00	25.28	25.22
		1	50	24.90	25.26	25.19
		1	99	24.89	25.20	25.11
		50	0	23.82	24.10	24.07
		50	25	23.75	24.05	24.01
		50	50	23.65	24.02	23.94
		100	0	23.88	24.14	24.14
	64QAM	1	0	23.34	23.63	23.63
		1	50	23.21	23.50	23.45
		1	99	23.22	23.48	23.44
		50	0	22.51	22.75	22.75
		50	25	22.28	22.55	22.54
		50	50	22.03	22.42	22.32
		100	0	22.11	22.48	22.38
	256QAM	1	0	21.00	21.29	21.20
		1	50	20.98	21.24	21.18
		1	99	21.02	21.22	21.22
		50	0	20.83	21.10	21.03
		50	25	20.78	21.08	20.98
		50	50	20.80	21.05	21.00
		100	0	20.86	21.10	21.06

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	26.08	26.03	26.07
		1	37	26.01	26.07	25.95
		1	74	25.57	25.96	25.87
		36	0	24.84	25.13	25.08
		36	19	24.68	25.06	25.05
		36	39	24.71	25.00	24.92
		75	0	24.77	25.07	24.96
	16QAM	1	0	24.95	25.19	25.19
		1	37	24.89	25.20	25.12
		1	74	24.86	25.15	25.01
		36	0	23.82	24.03	24.05
		36	19	23.71	23.96	23.96
		36	39	23.55	23.93	23.87
		75	0	23.83	24.14	24.12
	64QAM	1	0	23.33	23.63	23.53
		1	37	23.15	23.42	23.37
		1	74	23.18	23.40	23.41
		36	0	22.45	22.65	22.67
		36	19	22.22	22.53	22.53
		36	39	22.02	22.40	22.26
		75	0	22.11	22.45	22.33
	256QAM	1	0	20.92	21.19	21.12
		1	37	20.93	21.14	21.13
		1	74	21.01	21.14	21.13
		36	0	20.80	21.03	21.00
		36	19	20.76	21.02	20.94
		36	39	20.75	20.95	20.91
		75	0	20.77	21.06	21.06

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	26.05	25.94	25.92
		1	24	26.01	25.98	25.85
		1	49	25.44	25.93	25.80
		25	0	24.68	25.12	24.95
		25	12	24.67	24.99	24.91
		25	25	24.65	24.89	24.91
		50	0	24.72	24.91	24.95
	16QAM	1	0	24.98	25.17	25.06
		1	24	24.71	25.09	25.06
		1	49	24.82	25.12	24.96
		25	0	23.69	24.01	23.97
		25	12	23.54	23.85	23.89
		25	25	23.48	23.92	23.87
		50	0	23.71	24.02	24.01
	64QAM	1	0	23.23	23.61	23.58
		1	24	23.11	23.46	23.37
		1	49	23.16	23.29	23.37
		25	0	22.38	22.53	22.68
		25	12	22.06	22.40	22.37
		25	25	22.05	22.27	22.23
		50	0	22.02	22.35	22.25
	256QAM	1	0	20.82	21.17	21.13
		1	24	20.77	21.09	21.00
		1	49	20.89	21.17	21.05
		25	0	20.69	20.98	20.97
		25	12	20.75	21.02	20.81
		25	25	20.61	21.01	20.80
		50	0	20.80	20.98	20.85

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	26.04	25.88	25.86
		1	12	26.02	25.84	25.85
		1	24	25.51	25.86	25.60
		12	0	24.70	25.10	24.83
		12	6	24.64	25.11	24.86
		12	13	24.65	25.00	24.86
		25	0	24.66	25.04	24.87
	16QAM	1	0	24.80	25.24	25.14
		1	12	24.74	25.13	25.12
		1	24	24.72	24.98	25.00
		12	0	23.71	23.93	24.03
		12	6	23.64	24.04	23.89
		12	13	23.43	23.92	23.78
		25	0	23.69	24.07	24.02
	64QAM	1	0	23.33	23.42	23.43
		1	12	23.03	23.45	23.35
		1	24	23.04	23.33	23.30
		12	0	22.30	22.63	22.59
		12	6	22.18	22.32	22.39
		12	13	22.08	22.33	22.20
		25	0	22.09	22.47	22.22
	256QAM	1	0	20.85	21.26	21.09
		1	12	20.83	21.14	21.11
		1	24	20.80	21.12	21.09
		12	0	20.61	20.96	20.99
		12	6	20.67	20.91	20.92
		12	13	20.74	20.94	20.75
		25	0	20.69	20.99	20.97

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	26.02	26.01	25.92
		1	7	26.01	25.91	25.80
		1	14	25.44	25.83	25.71
		8	0	24.71	25.04	25.07
		8	3	24.69	24.95	24.92
		8	7	24.64	24.94	24.88
		15	0	24.79	24.95	25.00
	16QAM	1	0	24.88	25.14	24.98
		1	7	24.79	25.13	25.05
		1	14	24.79	25.10	24.95
		8	0	23.73	23.93	23.93
		8	3	23.63	23.87	23.98
		8	7	23.43	23.93	23.74
		15	0	23.66	23.99	23.96
	64QAM	1	0	23.20	23.47	23.54
		1	7	23.06	23.38	23.35
		1	14	23.04	23.45	23.37
		8	0	22.40	22.66	22.65
		8	3	22.03	22.45	22.45
		8	7	22.02	22.31	22.13
		15	0	22.01	22.44	22.18
	256QAM	1	0	20.91	21.18	21.07
		1	7	20.84	21.16	21.10
		1	14	20.89	21.08	21.04
		8	0	20.73	20.97	21.02
		8	3	20.62	20.94	20.88
		8	7	20.64	20.91	20.87
		15	0	20.77	21.05	21.03

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	25.98	26.04	25.99
		1	2	25.93	26.03	25.90
		1	5	25.40	25.90	25.83
		3	0	25.63	26.03	26.04
		3	1	25.59	26.04	25.97
		3	3	25.67	25.90	25.91
		6	0	24.71	25.07	24.94
	16QAM	1	0	24.94	25.18	25.04
		1	2	24.73	25.21	25.05
		1	5	24.89	25.07	24.98
		3	0	24.70	24.96	24.90
		3	1	24.65	24.99	24.90
		3	3	24.46	24.83	24.79
		6	0	23.70	24.05	24.10
	64QAM	1	0	23.16	23.50	23.42
		1	2	23.04	23.39	23.24
		1	5	23.16	23.32	23.42
		3	0	23.28	23.62	23.72
		3	1	23.21	23.46	23.47
		3	3	23.06	23.27	23.17
		6	0	22.03	22.37	22.26
	256QAM	1	0	20.87	21.23	21.08
		1	2	20.88	21.03	21.02
		1	5	20.84	21.04	21.07
		3	0	20.71	21.05	20.88
		3	1	20.65	20.84	20.98
		3	3	20.55	20.87	20.84
		6	0	20.81	21.02	20.88

*EIRP = Conducted + antenna gain (2.3dBi)

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	18.43	18.40	18.35
		1	50	18.34	18.29	18.28
		1	99	18.27	18.23	18.20
		50	0	17.44	17.42	17.37
		50	25	17.42	17.34	17.33
		50	50	17.39	17.35	17.34
		100	0	17.43	17.34	17.31
	16QAM	1	0	17.43	17.38	17.35
		1	50	17.40	17.33	17.31
		1	99	17.37	17.29	17.21
		50	0	16.42	16.37	16.28
		50	25	16.39	16.31	16.31
		50	50	16.38	16.28	16.24
		100	0	16.40	16.32	16.26
	64QAM	1	0	16.43	16.43	16.40
		1	50	16.38	16.38	16.28
		1	99	16.43	16.36	16.33
		50	0	15.44	15.43	15.41
		50	25	15.42	15.41	15.32
		50	50	15.37	15.33	15.25
		100	0	15.41	15.37	15.27
	256QAM	1	0	13.43	13.33	13.27
		1	50	13.42	13.36	13.27
		1	99	13.40	13.40	13.38
		50	0	13.42	13.42	13.39
		50	25	13.40	13.37	13.28
		50	50	13.39	13.32	13.28
		100	0	13.41	13.40	13.40

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	18.40	18.33	18.34
		1	37	18.33	18.20	18.28
		1	74	18.24	18.14	18.12
		36	0	17.36	17.39	17.28
		36	19	17.32	17.34	17.25
		36	39	17.37	17.33	17.30
		75	0	17.38	17.24	17.23
	16QAM	1	0	17.33	17.38	17.34
		1	37	17.30	17.32	17.27
		1	74	17.34	17.29	17.15
		36	0	16.32	16.28	16.19
		36	19	16.36	16.21	16.28
		36	39	16.32	16.27	16.19
		75	0	16.34	16.27	16.18
	64QAM	1	0	16.33	16.39	16.35
		1	37	16.29	16.31	16.27
		1	74	16.37	16.29	16.26
		36	0	15.40	15.40	15.31
		36	19	15.39	15.40	15.22
		36	39	15.32	15.30	15.16
		75	0	15.36	15.37	15.26
	256QAM	1	0	13.38	13.33	13.24
		1	37	13.40	13.31	13.27
		1	74	13.33	13.39	13.37
		36	0	13.33	13.32	13.37
		36	19	13.39	13.32	13.24
		36	39	13.36	13.32	13.24
		75	0	13.40	13.32	13.38

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	18.25	18.31	18.24
		1	24	18.16	18.06	18.20
		1	49	18.24	18.16	18.05
		25	0	17.32	17.37	17.23
		25	12	17.35	17.22	17.22
		25	25	17.25	17.14	17.15
		50	0	17.36	17.25	17.18
	16QAM	1	0	17.36	17.27	17.19
		1	24	17.28	17.26	17.26
		1	49	17.16	17.18	17.13
		25	0	16.25	16.32	16.14
		25	12	16.31	16.22	16.13
		25	25	16.24	16.17	16.10
		50	0	16.31	16.14	16.22
	64QAM	1	0	16.43	16.32	16.26
		1	24	16.23	16.27	16.18
		1	49	16.30	16.18	16.25
		25	0	15.33	15.37	15.29
		25	12	15.25	15.26	15.29
		25	25	15.26	15.11	15.13
		50	0	15.25	15.33	15.05
	256QAM	1	0	13.28	13.27	13.25
		1	24	13.34	13.15	13.22
		1	49	13.30	13.34	13.23
		25	0	13.20	13.33	13.25
		25	12	13.28	13.18	13.13
		25	25	13.22	13.18	13.05
		50	0	13.31	13.28	13.22

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	18.26	18.26	18.17
		1	12	18.26	18.15	18.12
		1	24	18.07	18.12	18.04
		12	0	17.33	17.21	17.20
		12	6	17.29	17.15	17.12
		12	13	17.23	17.27	17.04
		25	0	17.25	17.22	16.99
	16QAM	1	0	17.34	17.35	17.21
		1	12	17.28	17.19	17.18
		1	24	17.15	17.22	17.16
		12	0	16.29	16.18	16.17
		12	6	16.28	16.14	16.13
		12	13	16.31	16.12	16.17
		25	0	16.28	16.26	16.19
	64QAM	1	0	16.32	16.26	16.35
		1	12	16.20	16.14	16.20
		1	24	16.22	16.19	16.26
		12	0	15.33	15.37	15.27
		12	6	15.34	15.27	15.08
		12	13	15.30	15.18	15.18
		25	0	15.35	15.20	15.07
	256QAM	1	0	13.31	13.29	13.23
		1	12	13.29	13.19	13.18
		1	24	13.24	13.20	13.34
		12	0	13.28	13.32	13.23
		12	6	13.33	13.15	13.22
		12	13	13.30	13.17	13.21
		25	0	13.34	13.17	13.25

*ERP = Conducted + antenna gain (-3.6dBi)-2.15

4.2 Modulation characteristics Measurement

4.2.1 Limits of Modulation characteristics

N/A

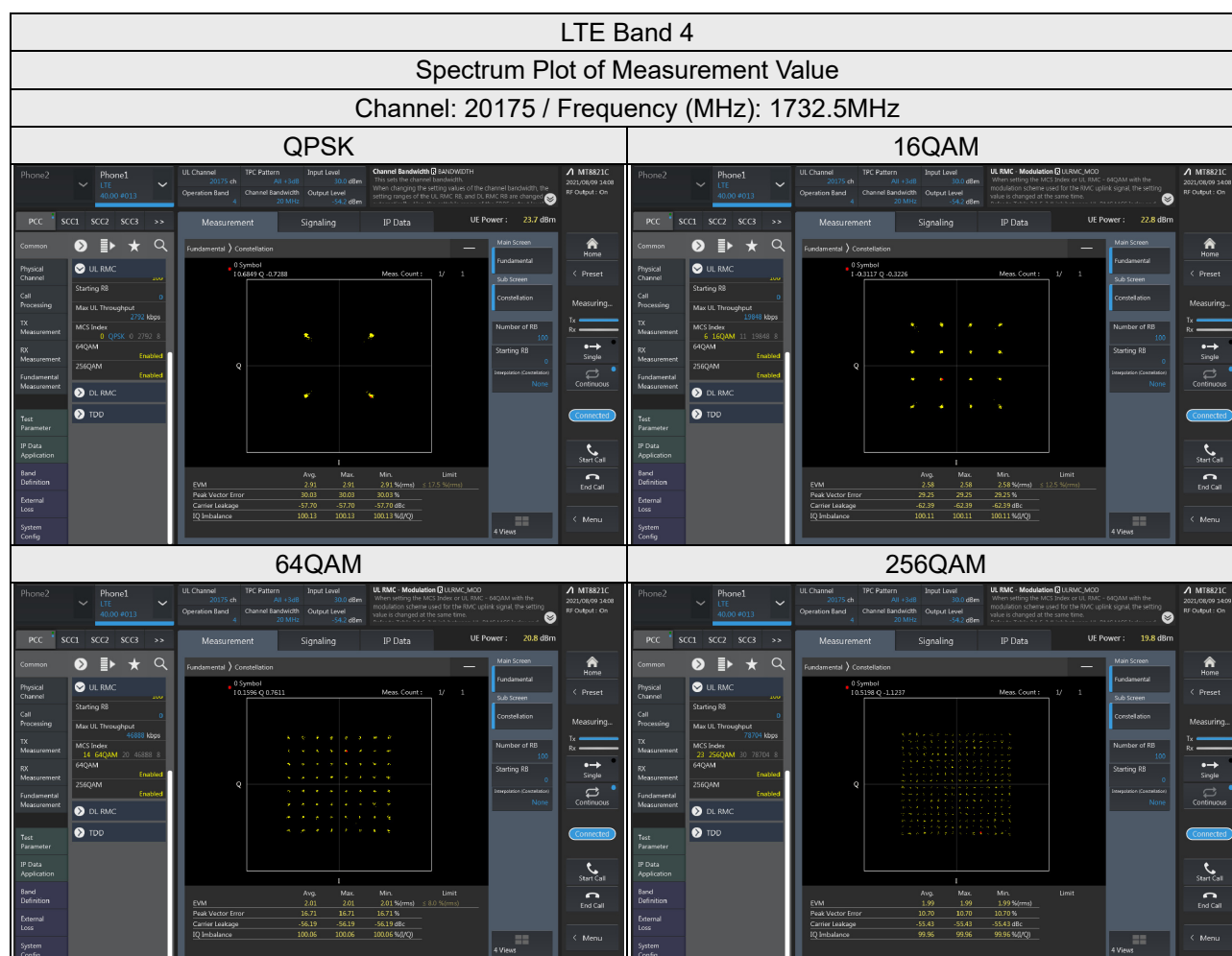
4.2.2 Test Procedure

Connect the EUT to Communication Simulator via the antenna connector, The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.2.3 Test Setup



4.2.4 Test Results

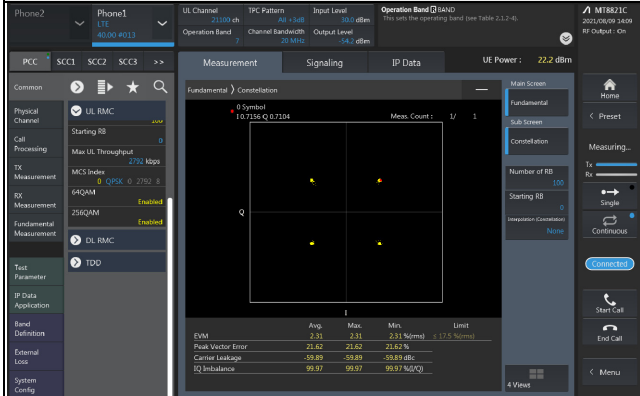


LTE Band 7

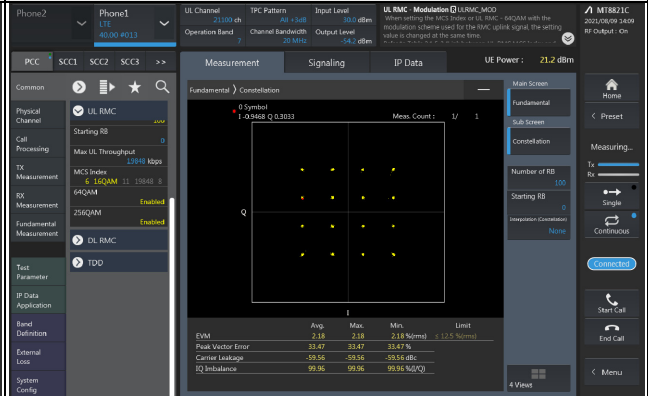
Spectrum Plot of Measurement Value

Channel: 21100 / Frequency (MHz): 2535.0MHz

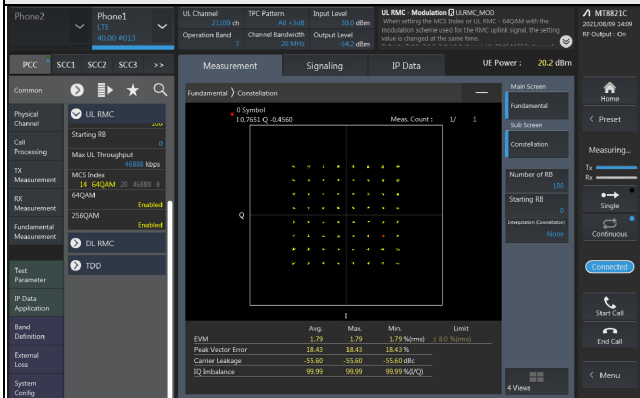
QPSK



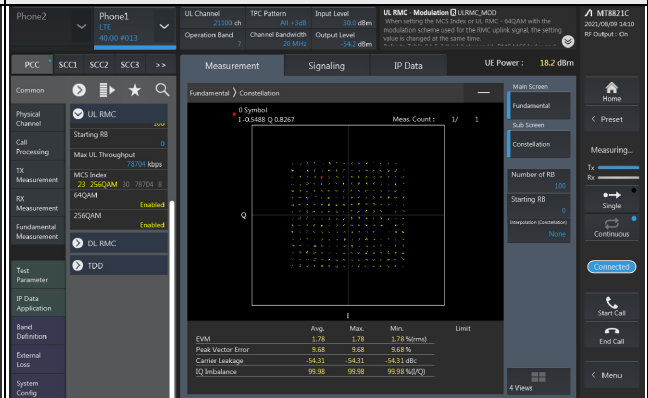
16QAM



64QAM



256QAM

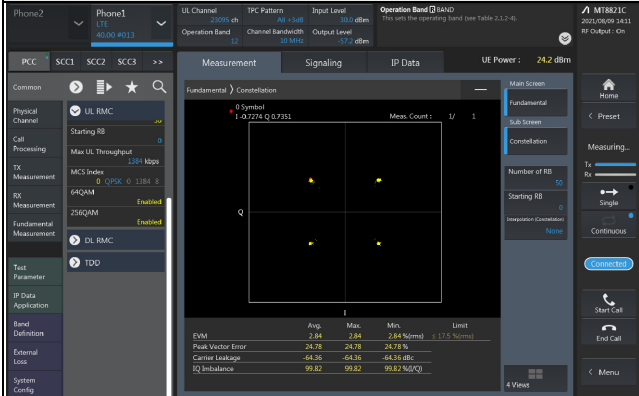


LTE Band 12

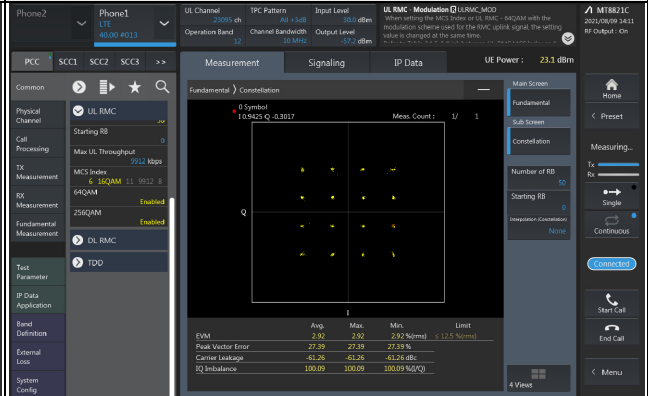
Spectrum Plot of Measurement Value

Channel: 23095 / Frequency (MHz): 707.5MHz

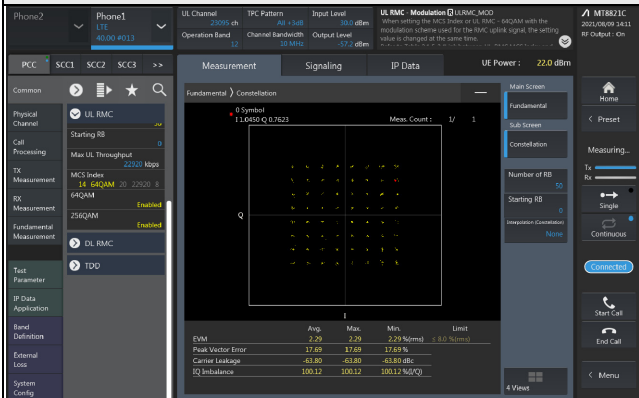
QPSK



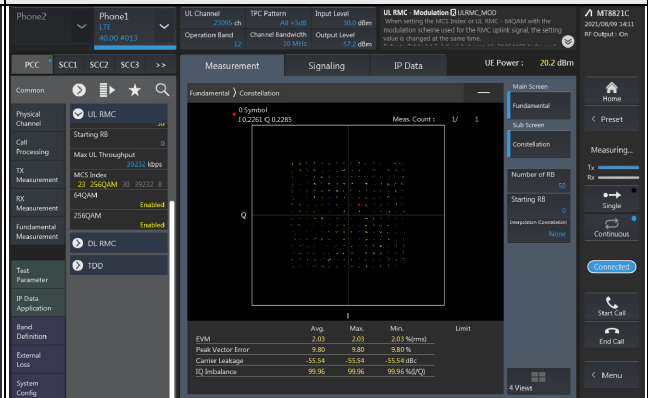
16QAM



64QAM



256QAM

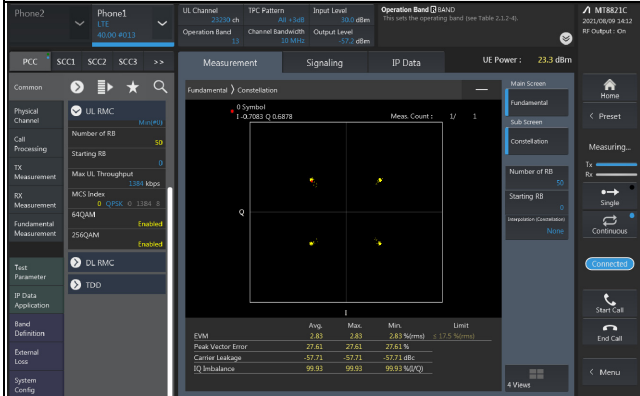


LTE Band 13

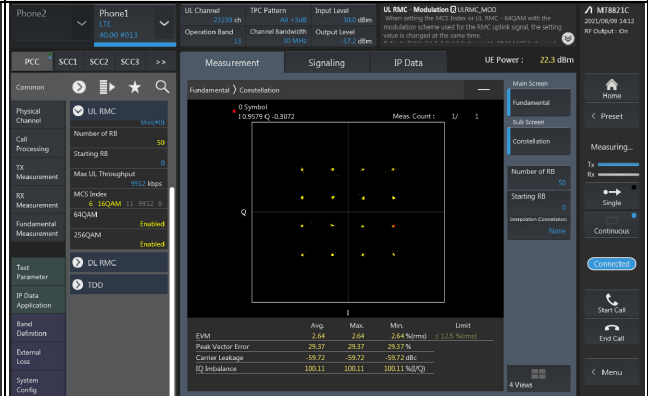
Spectrum Plot of Measurement Value

Channel: 23230 / Frequency (MHz): 782.0MHz

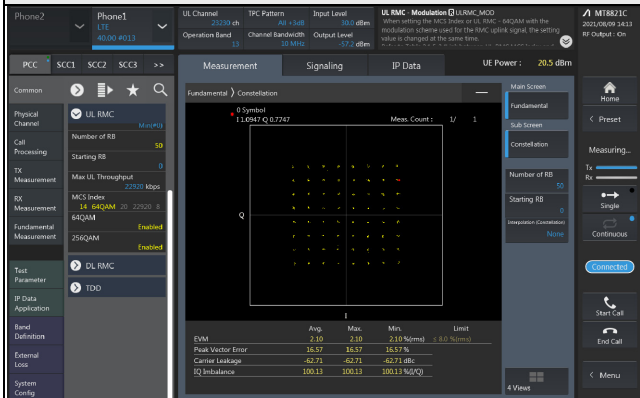
QPSK



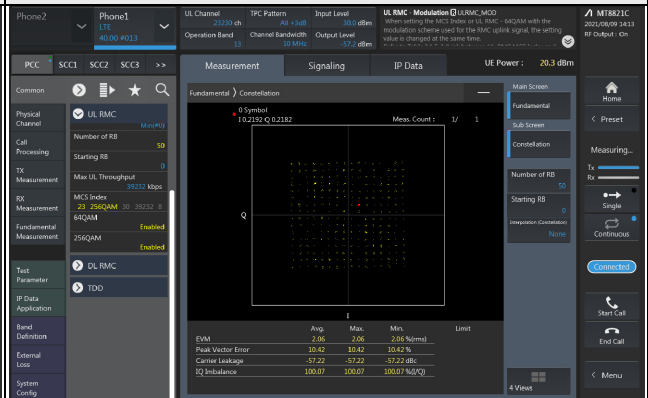
16QAM



64QAM



256QAM

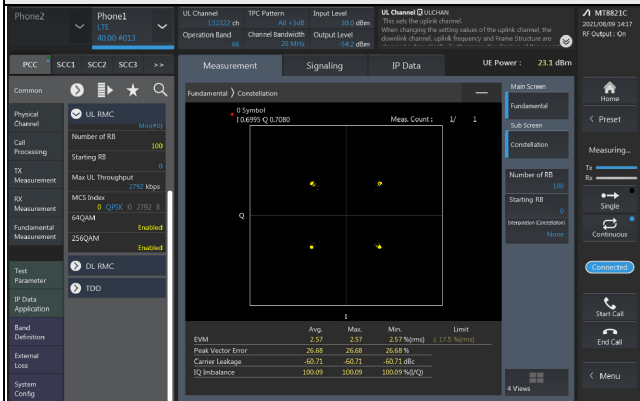


LTE Band 66

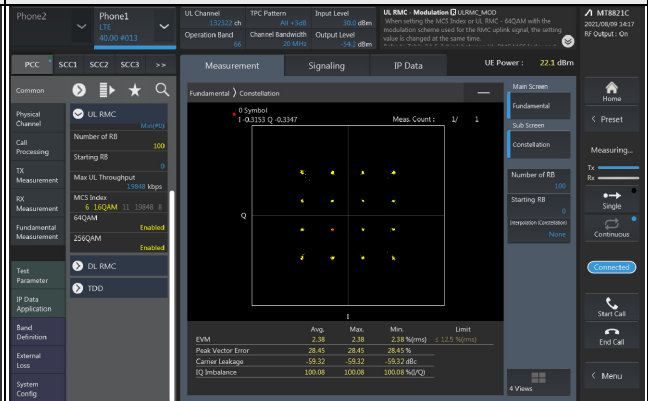
Spectrum Plot of Measurement Value

Channel: 132322 / Frequency (MHz): 1745.0MHz

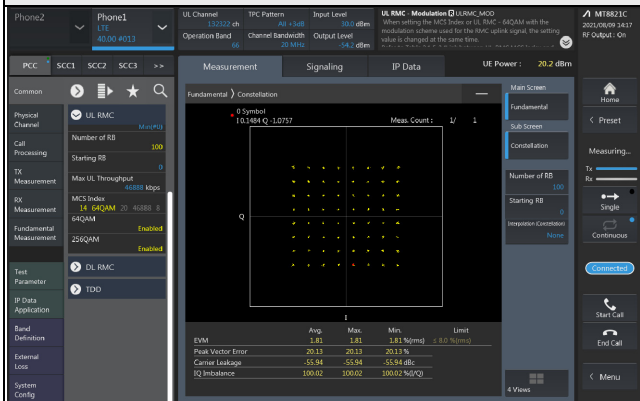
QPSK



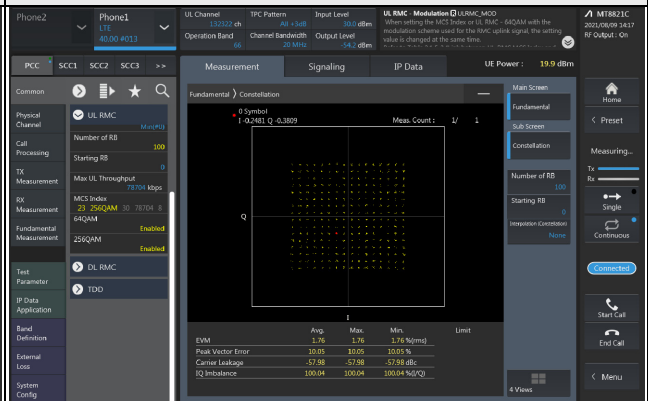
16QAM



64QAM



256QAM

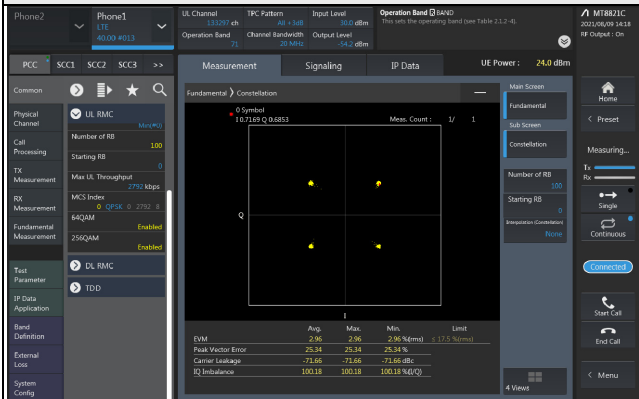


LTE Band 71

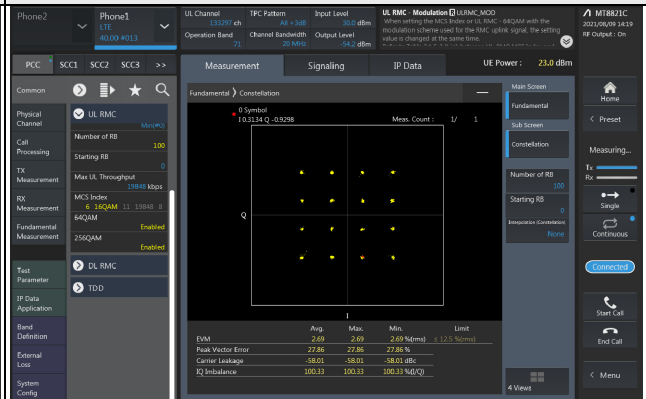
Spectrum Plot of Measurement Value

Channel: 133297 / Frequency (MHz): 680.5MHz

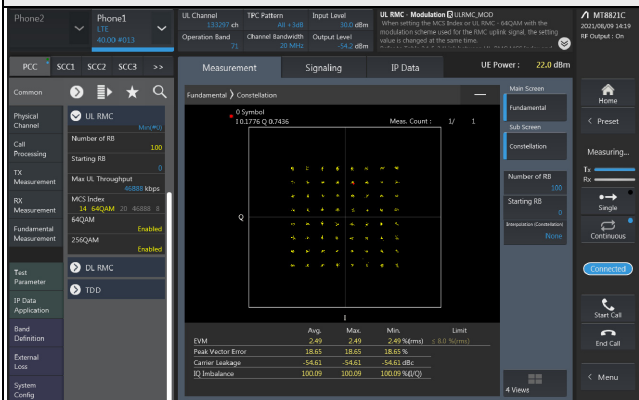
QPSK



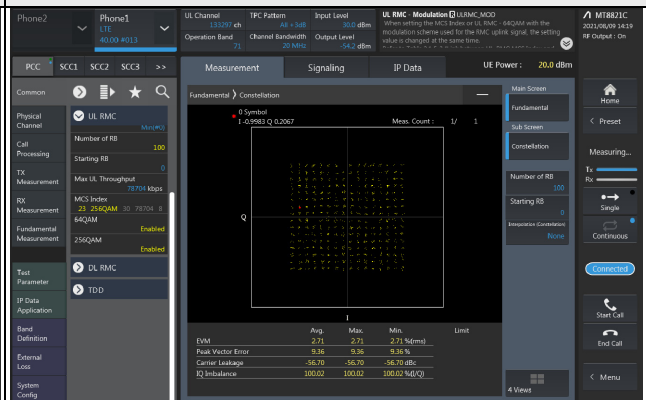
16QAM



64QAM



256QAM



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

According to the FCC part 2.1055 shall be tested the frequency stability. The rule is defined that "The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block." The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with specification of EUT $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$.

4.3.2 Test Procedure

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

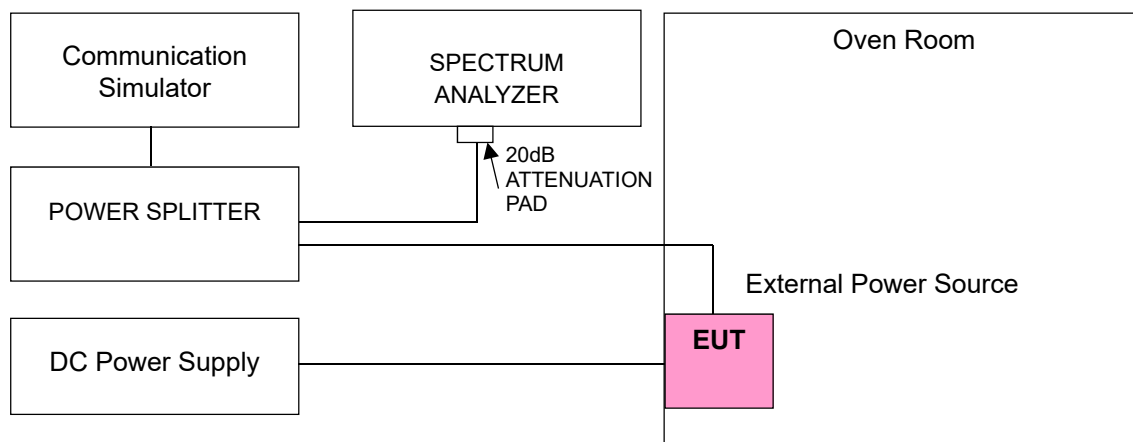
Note: The frequency error was recorded frequency error from the communication simulator.

4.3.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Radio Communication Analyzer Anritsu	MT8821C	6261806803	Jan. 22, 2021	Jan. 21, 2022
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	Dec. 24, 2020	Dec. 23, 2021
Digital Multimeter Fluke	87-III	70360755	Jul. 10, 2020 Jul. 08, 2021	Jul. 09, 2021 Jul. 07, 2022
DC Power Supply Topward	6306A	727263	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.4 Test Setup



4.3.5 Test Results

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1710.700033	0.019	1754.300028	0.016
3.28	1710.700029	0.017	1754.300037	0.021
4.45	1710.700025	0.015	1754.300040	0.023

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1710.700031	0.018	1754.300022	0.013
-20	1710.700030	0.018	1754.300019	0.011
-10	1710.700033	0.019	1754.300031	0.018
0	1710.700022	0.013	1754.300017	0.010
10	1710.700025	0.015	1754.300015	0.009
20	1710.699968	-0.019	1754.299968	-0.018
30	1710.699975	-0.015	1754.299966	-0.019
40	1710.699963	-0.022	1754.299972	-0.016
50	1710.699980	-0.012	1754.299976	-0.014
60	1710.699968	-0.019	1754.299984	-0.009

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1711.500021	0.012	1753.500010	0.006
3.28	1711.500012	0.007	1753.500032	0.018
4.45	1711.500030	0.018	1753.500025	0.014

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1711.500017	0.010	1753.500026	0.015
-20	1711.500015	0.009	1753.500031	0.018
-10	1711.500018	0.011	1753.500025	0.014
0	1711.500026	0.015	1753.500031	0.018
10	1711.500036	0.021	1753.500023	0.013
20	1711.499977	-0.013	1753.499964	-0.021
30	1711.499968	-0.019	1753.499976	-0.014
40	1711.499960	-0.023	1753.499990	-0.006
50	1711.499966	-0.020	1753.499971	-0.017
60	1711.499983	-0.010	1753.499985	-0.009

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1712.500013	0.008	1752.500022	0.013
3.28	1712.500032	0.019	1752.500030	0.017
4.45	1712.500025	0.015	1752.500030	0.017

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.500035	0.020	1752.500033	0.019
-20	1712.500037	0.022	1752.500032	0.018
-10	1712.500030	0.018	1752.500016	0.009
0	1712.500021	0.012	1752.500034	0.019
10	1712.500019	0.011	1752.500018	0.010
20	1712.499978	-0.013	1752.499976	-0.014
30	1712.499965	-0.020	1752.499966	-0.019
40	1712.499970	-0.018	1752.499988	-0.007
50	1712.499983	-0.010	1752.499987	-0.007
60	1712.499970	-0.018	1752.499975	-0.014

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1715.000039	0.023	1750.000038	0.022
3.28	1715.000020	0.012	1750.000037	0.021
4.45	1715.000029	0.017	1750.000011	0.006

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1715.000014	0.008	1750.000029	0.017
-20	1715.000011	0.006	1750.000032	0.018
-10	1715.000017	0.010	1750.000023	0.013
0	1715.000037	0.022	1750.000035	0.020
10	1715.000025	0.015	1750.000016	0.009
20	1714.999984	-0.009	1749.999990	-0.006
30	1714.999989	-0.006	1749.999986	-0.008
40	1714.999984	-0.009	1749.999975	-0.014
50	1714.999976	-0.014	1749.999962	-0.022
60	1714.999973	-0.016	1749.999975	-0.014

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1717.500010	0.006	1747.500010	0.006
3.28	1717.500026	0.015	1747.500019	0.011
4.45	1717.500019	0.011	1747.500036	0.021

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.500027	0.016	1747.500029	0.017
-20	1717.500034	0.020	1747.500038	0.022
-10	1717.500022	0.013	1747.500014	0.008
0	1717.500034	0.020	1747.500024	0.014
10	1717.500033	0.019	1747.500014	0.008
20	1717.499989	-0.006	1747.499985	-0.009
30	1717.499982	-0.010	1747.499979	-0.012
40	1717.499981	-0.011	1747.499966	-0.019
50	1717.499968	-0.019	1747.499986	-0.008
60	1717.499990	-0.006	1747.499963	-0.021

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	1720.000030	0.017	1745.000027	0.015
3.28	1720.000011	0.006	1745.000012	0.007
4.45	1720.000014	0.008	1745.000035	0.020

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1720.000014	0.008	1745.000026	0.015
-20	1720.000011	0.006	1745.000038	0.022
-10	1720.000037	0.022	1745.000022	0.013
0	1720.000038	0.022	1745.000039	0.022
10	1720.000027	0.016	1745.000012	0.007
20	1719.999970	-0.017	1744.999986	-0.008
30	1719.999983	-0.010	1744.999975	-0.014
40	1719.999966	-0.020	1744.999984	-0.009
50	1719.999975	-0.015	1744.999964	-0.021
60	1719.999977	-0.013	1744.999961	-0.022

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	2502.500014	0.006	2567.500031	0.012
3.28	2502.500024	0.010	2567.500037	0.014
4.45	2502.500026	0.010	2567.500016	0.006

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2502.500026	0.010	2567.500027	0.011
-20	2502.500023	0.009	2567.500029	0.011
-10	2502.500016	0.006	2567.500017	0.007
0	2502.500028	0.011	2567.500032	0.012
10	2502.500025	0.010	2567.500027	0.011
20	2502.499972	-0.011	2567.499972	-0.011
30	2502.499970	-0.012	2567.499968	-0.012
40	2502.499968	-0.013	2567.499961	-0.015
50	2502.499961	-0.016	2567.499990	-0.004
60	2502.499967	-0.013	2567.499989	-0.004

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	2505.000026	0.010	2565.000039	0.015
3.28	2505.000026	0.010	2565.000024	0.009
4.45	2505.000021	0.008	2565.000017	0.007

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2505.000013	0.005	2565.000033	0.013
-20	2505.000015	0.006	2565.000035	0.014
-10	2505.000015	0.006	2565.000019	0.007
0	2505.000029	0.012	2565.000019	0.007
10	2505.000035	0.014	2565.000034	0.013
20	2504.999986	-0.006	2564.999967	-0.013
30	2504.999964	-0.014	2564.999979	-0.008
40	2504.999971	-0.012	2564.999972	-0.011
50	2504.999961	-0.016	2564.999968	-0.012
60	2504.999968	-0.013	2564.999970	-0.012

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	2507.500027	0.011	2562.500036	0.014
3.28	2507.500016	0.006	2562.500019	0.007
4.45	2507.500040	0.016	2562.500014	0.005

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2507.500018	0.007	2562.500025	0.010
-20	2507.500013	0.005	2562.500027	0.011
-10	2507.500033	0.013	2562.500024	0.009
0	2507.500033	0.013	2562.500034	0.013
10	2507.500015	0.006	2562.500025	0.010
20	2507.499967	-0.013	2562.499975	-0.010
30	2507.499986	-0.006	2562.499978	-0.009
40	2507.499970	-0.012	2562.499971	-0.011
50	2507.499963	-0.015	2562.499964	-0.014
60	2507.499964	-0.014	2562.499963	-0.014

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.87	2510.000029	0.012	2560.000027	0.011
3.28	2510.000023	0.009	2560.000010	0.004
4.45	2510.000029	0.012	2560.000012	0.005

Note: The applicant defined the normal working voltage is from 3.28Vdc to 4.45Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2510.000027	0.011	2560.000031	0.012
-20	2510.000023	0.009	2560.000035	0.014
-10	2510.000032	0.013	2560.000021	0.008
0	2510.000020	0.008	2560.000027	0.011
10	2510.000038	0.015	2560.000017	0.007
20	2509.999976	-0.010	2559.999978	-0.009
30	2509.999971	-0.012	2559.999978	-0.009
40	2509.999987	-0.005	2559.999965	-0.014
50	2509.999989	-0.004	2559.999975	-0.010
60	2509.999985	-0.006	2559.999971	-0.011