

FCC Test Report

(ENDC: n66+Band 2/5/7/12/13/14/30/48/71)

Report No.: RFBFLF-WTW-P21010278-29

FCC ID: MSQI007D

Test Model: ASUS_I007D

Received Date: Jan. 04, 2021

Test Date: Feb. 26 ~ Apr. 19, 2021

Issued Date: Apr. 19, 2021

Applicant: ASUSTeK COMPUTER INC.

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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RFBFLF-WTW-P21010278-29	Original release	Apr. 19, 2021

1 Certificate of Conformity

Product: EXP21 Smartphone

Brand: ASUS

Test Model: ASUS_I007D

Sample Status: Engineering sample

Applicant: ASUSTeK COMPUTER INC.

Test Date: Feb. 26 ~ Apr. 19, 2021

Standards: FCC Part 22, Subpart H
FCC Part 24, Subpart E
FCC Part 27, Subpart C, D, F, H, M, N
FCC Part 90, Subpart R
FCC Part 96

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:** Apr. 19, 2021
Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Apr. 19, 2021
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

For 5GNR n66:

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (d)(4)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Meet the requirement of limit.
27.50 (d)(5)	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Meet the requirement of limit.
2.1049	Occupied Bandwidth	Pass	Meet the requirement.
2.1051 27.53 (h)	Band Edge Measurements	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 -34.60dB at 3555.00MHz.

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

For LTE Band 5:

Applied Standard: FCC Part 22 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 22.913 (a)	Effective radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Refer to Note 1
22.913 (d)	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 22.355	Frequency Stability	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
22.917	Band Edge Measurements	Pass	Refer to Note 1
2.1051 22.917	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 22.917	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -40.58dB at 1688.00MHz.

Note:

- This report is a partial report. Therefore, only test item of Effective radiated power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-9.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 2:

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Effective Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1046 24.232(d)	Peak To Average Ratio	Pass	Refer to Note 1
2.1047	Modulation Characteristics	Pass	Refer to Note 1
2.1055 24.235	Frequency Stability	Pass	Refer to Note 1
2.1049 24.238(b)	Occupied Bandwidth	Pass	Refer to Note 1
24.238(b)	Band Edge Measurements	Pass	Refer to Note 1
2.1051 24.238	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -38.50dB at 3705.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Effective Isotropically Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-10.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 7:

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.
2.1047	Modulation Characteristics	Pass	Refer to Note 1
----	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
2.1051 27.53 (m)(4)(6)	Band Edge / Out of Band Emissions Measurements	Pass	Refer to Note 1
2.1051 27.53 (m)(4)(6)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 27.53 (m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -19.30dB at 5120.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Isotropically Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-11.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 12:

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.
2.1047	Modulation Characteristics	Pass	Refer to Note 1
----	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
2.1051 27.53 (g)	Band Edge Measurements	Pass	Refer to Note 1
2.1051 27.53 (g)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 27.53 (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -39.10dB at 1422.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-11.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 13:

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	Refer to Note 1
----	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
2.1051 27.53(c)	Band Edge / Out of Band Emissions Measurements	Pass	Refer to Note 1
2.1051 27.53 (c)(f)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 27.53(c)(f)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.00dB at 1564.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-11.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 14:

Applied Standard: FCC Part 90 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 90.542 (a)(7)	Effective Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Refer to Note 1
2.1055 90.539 (e)	Frequency Stability	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
90.210 (n)	Emission Masks	Pass	Refer to Note 1
2.1053 90.543 (e)(2)(3)	Band Edge Measurements	Pass	Refer to Note 1
2.1051 90.543 (e)(3)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 90.543 (e)(f)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -12.20dB at 1586.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-12.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 30:

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (a)(3)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Refer to Note 1
----	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
2.1051 27.53 (a)(4)	Band Edge / Out of Band Emissions Measurements	Pass	Refer to Note 1
2.1051 27.53 (a)(4)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 27.53 (a)(4)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -7.90dB at 4620.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Isotropically Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-11.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 48:

47 CFR FCC Part 96			
FCC Clause	Test Item	Result	Remarks
2.1046 96.41(b)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1046 96.41(b)	Maximum Power Spectral Density	Pass	Refer to Note 1
96.41(g)	Peak to Average Ration	Pass	Refer to Note 1
2.1049	Emission Bandwidth	Pass	Refer to Note 1
2.1055	Frequency Stability	Pass	Refer to Note 1
2.1051 96.41(e)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 96.41(e)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.75dB at 7395.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Maximum Peak Output Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-13.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 71:

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	Refer to Note 1
----	Peak To Average Ratio	Pass	Refer to Note 1
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Refer to Note 1
2.1049	Occupied Bandwidth	Pass	Refer to Note 1
2.1051 27.53 (g)	Band Edge / Out of Band Emissions Measurements	Pass	Refer to Note 1
2.1051 27.53 (g)	Conducted Spurious Emissions	Pass	Refer to Note 1
2.1053 27.53 (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -37.30dB at 1376.00MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RFBFLF-WTW-P21010278-11.
2. 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) (±)
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. 16, 2020	Apr. 15, 2021
			Apr. 09, 2021	Apr. 08, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2020	Jun. 11, 2021
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
5G Wireless Test Platforms Keysight	E7515B	MY60102114	May 28, 2020	May 27, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Nov. 06, 2020	Nov. 05, 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. 08, 2020	Jun. 07, 2021
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 18, 2020	Feb. 17, 2021
			Feb. 17, 2021	Feb. 16, 2022
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM80 00	CABLE-CH9-02 (248780+171006)	Jan. 18, 2020	Jan. 17, 2021
			Jan. 16, 2021	Jan. 15, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jan. 18, 2020	Jan. 17, 2021
			Jan. 16, 2021	Jan. 15, 2022
RF signal cable Woken	8D-FB	Cable-CH9-01	Jun. 08, 2020	Jun. 07, 2021
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-A R	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. 06, 2020	Jun. 05, 2021
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	EXP21 Smartphone
Brand	ASUS
Test Model	ASUS_I007D
Sample Status	Engineering sample
Power Supply Rating	7.74 Vdc (Battery) 5 Vdc / 9 Vdc / 12 Vdc / 15Vdc / 20Vdc (Adapter)

n66

Modulation Type	$\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM					
Waveform Type	CP-OFDM, DFT-s-OFDM					
Operating Frequency	n66 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1777.5MHz				
	n66 (Channel Bandwidth 10MHz)	1715.0MHz ~ 1775.0MHz				
	n66 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1772.5MHz				
	n66 (Channel Bandwidth 20MHz)	1720.0MHz ~ 1770.0MHz				
	n66 (Channel Bandwidth 30MHz)	1725.0MHz ~ 1765.0MHz				
	n66 (Channel Bandwidth 40MHz)	1730.0MHz ~ 1760.0MHz				
Max. EIRP Power		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
	n66 (Channel Bandwidth 5MHz)	159.588mW (22.0dBm)	160.694mW (22.06dBm)	128.233mW (21.08dBm)	89.125mW (19.50dBm)	54.075mW (17.33dBm)
	n66 (Channel Bandwidth 10MHz)	159.588mW (22.0dBm)	160.694mW (22.06dBm)	128.233mW (21.08dBm)	90.782mW (19.58dBm)	56.105mW (17.49dBm)
	n66 (Channel Bandwidth 15MHz)	162.555mW (22.1dBm)	163.682mW (22.14dBm)	126.183mW (21.01dBm)	90.573mW (19.57dBm)	57.016mW (17.56dBm)
	n66 (Channel Bandwidth 20MHz)	160.694mW (22.1dBm)	162.930mW (22.12dBm)	128.233mW (21.08dBm)	90.782mW (19.58dBm)	55.976mW (17.48dBm)
	n66 (Channel Bandwidth 30MHz)	164.816mW (22.2dBm)	168.267mW (22.26dBm)	130.617mW (21.16dBm)	74.302mW (18.71dBm)	58.614mW (17.68dBm)
	n66 (Channel Bandwidth 40MHz)	162.181mW (22.1dBm)	169.044mW (22.28dBm)	127.938mW (21.07dBm)	73.451mW (18.66dBm)	57.677mW (17.61dBm)
Emission Designator		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
	n66 (Channel Bandwidth 5MHz)	4M48G7D	4M47G7D	4M48D7W	4M47D7W	4M47D7W
	n66 (Channel Bandwidth 10MHz)	9M25G7D	9M29G7D	9M29D7W	9M29D7W	9M29D7W
	n66 (Channel Bandwidth 15MHz)	14M0G7D	14M1G7D	14M1D7W	14M1D7W	14M1D7W
	n66 (Channel Bandwidth 20MHz)	18M8G7D	18M9G7D	18M9D7W	18M9D7W	18M9D7W
	n66 (Channel Bandwidth 30MHz)	28M6G7D	28M6G7D	28M6W7D	28M6W7D	28M6W7D
	n66 (Channel Bandwidth 40MHz)	38M6G7D	38M5G7D	38M6W7D	38M6W7D	38M5W7D

LTE Band

Modulation Type	QPSK, 16QAM, 64QAM, 256QAM					
Operating Frequency	LTE Band 2	Channel Bandwidth 1.4MHz	1850.7MHz ~ 1909.3MHz			
		Channel Bandwidth 3MHz	1851.5MHz ~ 1908.5MHz			
		Channel Bandwidth 5MHz	1852.5MHz ~ 1907.5MHz			
		Channel Bandwidth 10MHz	1855.0MHz ~ 1905.0MHz			
		Channel Bandwidth 15MHz	1857.5MHz ~ 1902.5MHz			
		Channel Bandwidth 20MHz	1860.0MHz ~ 1900.0MHz			
	LTE Band 5	Channel Bandwidth 1.4MHz	824.7MHz ~ 848.3MHz			
		Channel Bandwidth 3MHz	825.5MHz ~ 847.5MHz			
		Channel Bandwidth 5MHz	826.5MHz ~ 846.5MHz			
		Channel Bandwidth 10MHz	829.0MHz ~ 844.0MHz			
	LTE Band 7	Channel Bandwidth 5MHz	2502.5MHz ~ 2567.5MHz			
		Channel Bandwidth 10MHz	2505.0MHz ~ 2565.0MHz			
		Channel Bandwidth 15MHz	2507.5MHz ~ 2562.5MHz			
		Channel Bandwidth 20MHz	2510.0MHz ~ 2560.0MHz			
	LTE Band 12	Channel Bandwidth 1.4MHz	699.7MHz ~ 715.3MHz			
		Channel Bandwidth 3MHz	700.5MHz ~ 714.5MHz			
		Channel Bandwidth 5MHz	701.5MHz ~ 713.5MHz			
		Channel Bandwidth 10MHz	704.0MHz ~ 711.0MHz			
	LTE Band 13	Channel Bandwidth 5MHz	779.5MHz ~ 784.5MHz			
		Channel Bandwidth 10MHz	782.0MHz			
	LTE Band 14	Channel Bandwidth 5MHz	790.5MHz ~ 795.5MHz			
		Channel Bandwidth 10MHz	793.0MHz			
	LTE Band 30	Channel Bandwidth 5MHz	2307.5MHz ~ 2312.5MHz			
		Channel Bandwidth 10MHz	2310.0MHz			
	LTE Band 48	Channel Bandwidth 5MHz	3552.5MHz ~ 3697.5MHz			
		Channel Bandwidth 10MHz	3555.0MHz ~ 3695.0MHz			
		Channel Bandwidth 15MHz	3557.5MHz ~ 3692.5MHz			
		Channel Bandwidth 20MHz	3560.0MHz ~ 3690.0MHz			
LTE Band 71	Channel Bandwidth 5MHz	665.5MHz ~ 695.5MHz				
	Channel Bandwidth 10MHz	668.0MHz ~ 693.0MHz				
	Channel Bandwidth 15MHz	670.5MHz ~ 690.5MHz				
	Channel Bandwidth 20MHz	673.0MHz ~ 688.0MHz				
Max. ERP Power	LTE Band 5	Channel Bandwidth 1.4MHz	QPSK 108.643mW (20.36dBm)	16QAM 90.365mW (19.56dBm)	64QAM 64.417mW (18.09dBm)	256QAM 34.119mW (15.33dBm)
		Channel Bandwidth 3MHz	106.905mW (20.29dBm)	89.536mW (19.52dBm)	69.024mW (18.39dBm)	31.842mW (15.03dBm)
		Channel Bandwidth 5MHz	104.713mW (20.20dBm)	93.111mW (19.69dBm)	70.146mW (18.46dBm)	31.915mW (15.04dBm)
		Channel Bandwidth 10MHz	110.662mW (20.44dBm)	90.991mW (19.59dBm)	68.707mW (18.37dBm)	35.563mW (15.51dBm)
	LTE Band 12	Channel Bandwidth 1.4MHz	99.312mW (19.97dBm)	83.753mW (19.23dBm)	65.766mW (18.18dBm)	31.989mW (15.05dBm)
		Channel Bandwidth 3MHz	97.949mW (19.91dBm)	81.096mW (19.09dBm)	64.269mW (18.08dBm)	30.479mW (14.84dBm)
		Channel Bandwidth 5MHz	99.770mW (19.99dBm)	87.498mW (19.42dBm)	70.795mW (18.50dBm)	33.497mW (15.25dBm)
		Channel Bandwidth 10MHz	100.231mW (20.01dBm)	83.946mW (19.24dBm)	67.298mW (18.28dBm)	32.584mW (15.13dBm)

Max. ERP Power	LTE Band 13	Channel Bandwidth 5MHz	99.541mW (19.98dBm)	89.536mW (19.52dBm)	67.608mW (18.30dBm)	32.659mW (15.14dBm)	
		Channel Bandwidth 10MHz	99.770mW (19.99dBm)	87.902mW (19.44dBm)	67.920mW (18.32dBm)	33.651mW (15.27dBm)	
	LTE Band 14	Channel Bandwidth 5MHz	61.235mW (17.87dBm)	51.761mW (17.14dBm)	38.107mW (15.81dBm)	19.011mW (12.79dBm)	
		Channel Bandwidth 10MHz	61.376mW (17.88dBm)	49.431mW (16.94dBm)	38.905mW (15.90dBm)	20.559mW (13.13dBm)	
	LTE Band 71	Channel Bandwidth 5MHz	45.394mW (16.57dBm)	37.757mW (15.77dBm)	30.200mW (14.80dBm)	14.689mW (11.67dBm)	
		Channel Bandwidth 10MHz	45.394mW (16.57dBm)	37.931mW (15.79dBm)	30.761mW (14.88dBm)	13.709mW (11.37dBm)	
		Channel Bandwidth 15MHz	45.394mW (16.57dBm)	38.019mW (15.80dBm)	30.832mW (14.89dBm)	14.723mW (11.68dBm)	
		Channel Bandwidth 20MHz	45.604mW (16.59dBm)	38.815mW (15.89dBm)	30.200mW (14.80dBm)	14.289mW (11.55dBm)	
	Max. EIRP Power	LTE Band 2	Channel Bandwidth 1.4MHz	165.577mW (22.19dBm)	140.929mW (21.49dBm)	106.414mW (20.27dBm)	51.642mW (17.13dBm)
			Channel Bandwidth 3MHz	159.221mW (22.02dBm)	136.144mW (21.34dBm)	103.276mW (20.14dBm)	48.417mW (16.85dBm)
Channel Bandwidth 5MHz			160.694mW (22.06dBm)	136.458mW (21.35dBm)	104.232mW (20.18dBm)	49.317mW (16.93dBm)	
Channel Bandwidth 10MHz			159.588mW (22.03dBm)	134.276mW (21.28dBm)	101.391mW (20.06dBm)	49.888mW (16.98dBm)	
Channel Bandwidth 15MHz			162.555mW (22.11dBm)	140.281mW (21.47dBm)	105.925mW (20.25dBm)	50.582mW (17.04dBm)	
Channel Bandwidth 20MHz			165.959mW (22.20dBm)	140.605mW (21.48dBm)	109.901mW (20.41dBm)	52.360mW (17.19dBm)	
LTE Band 7		Channel Bandwidth 5MHz	214.783mW (23.32dBm)	187.068mW (22.72dBm)	147.911mW (21.70dBm)	66.681mW (18.24dBm)	
		Channel Bandwidth 10MHz	216.272mW (23.35dBm)	177.011mW (22.48dBm)	148.936mW (21.73dBm)	65.313mW (18.15dBm)	
		Channel Bandwidth 15MHz	220.293mW (23.43dBm)	182.390mW (22.61dBm)	150.314mW (21.77dBm)	65.013mW (18.13dBm)	
		Channel Bandwidth 20MHz	220.800mW (23.44dBm)	184.502mW (22.66dBm)	155.597mW (21.92dBm)	70.307mW (18.47dBm)	
LTE Band 30		Channel Bandwidth 5MHz	143.549mW (21.57dBm/ 5MHz)	119.124mW (20.76dBm/ 5MHz)	93.325mW (19.70dBm/ 5MHz)	45.499mW (16.58dBm/ 5MHz)	
		Channel Bandwidth 10MHz	144.544mW (21.60dBm/ 5MHz)	122.462mW (20.88dBm/ 5MHz)	95.499mW (19.80dBm/ 5MHz)	43.053mW (16.34dBm/ 5MHz)	
LTE Band 48 (Per 10M Power)		Channel Bandwidth 5MHz	96.383mW (19.84dBm/ 10MHz)	73.282mW (18.65dBm/ 10MHz)	58.884mW (17.70dBm/ 10MHz)	47.315mW (16.75dBm/ 10MHz)	
		Channel Bandwidth 10MHz	102.094mW (20.09dBm/ 10MHz)	82.224mW (19.15dBm/ 10MHz)	67.608mW (18.30dBm/ 10MHz)	52.845mW (17.23dBm/ 10MHz)	
		Channel Bandwidth 15MHz	74.302mW (18.71dBm/ 10MHz)	59.020mW (17.71dBm/ 10MHz)	51.404mW (17.11dBm/ 10MHz)	40.738mW (16.10dBm/ 10MHz)	
		Channel Bandwidth 20MHz	81.658mW (19.12dBm/ 10MHz)	63.241mW (18.01dBm/ 10MHz)	50.234mW (17.01dBm/ 10MHz)	39.902mW (16.01dBm/ 10MHz)	
LTE Band 48 (Full Power)		Channel Bandwidth 5MHz	96.383mW (19.84dBm)	73.282mW (18.65dBm)	58.884mW (17.70dBm)	47.315mW (16.75dBm)	
		Channel Bandwidth 10MHz	102.094mW (20.09dBm)	82.224mW (19.15dBm)	67.608mW (18.30dBm)	52.845mW (17.23dBm)	
		Channel Bandwidth 15MHz	92.045mW (19.64dBm)	75.683mW (18.79dBm)	57.412mW (17.59dBm)	44.978mW (16.53dBm)	
		Channel Bandwidth 20MHz	105.196mW (20.22dBm)	85.114mW (19.30dBm)	69.823mW (18.44dBm)	52.119mW (17.17dBm)	
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:

1. The EUT contains following accessory devices.

Product	Brand	Model	Description
Battery	SCUD	C21P2002	Rating: 7.74 Vdc, 15.2 Wh
Adapter	AOHAI	A320Q-200325C-US	I/P: 100-240Vac, 50/60Hz, 1.5A O/P: 5 Vdc, 3 A; 9 Vdc, 3 A; 12 Vdc, 3A; 15 Vdc, 3 A; 20 Vdc, 3.25 A
Type A to Type C USB Cable	Luxshare	LA9U2026-CS-R	0.5m
Type C to Type C Cable	Luxshare	LA9UC006-CS-R	1.2m
Bluetooth Earphone	Bang & Olufsen	EQ Earbud R	FCC ID: TTUBEOPLAYEQR IC: 3775B-BEOPLAYEQR
		EQ Earbud L	FCC ID: TTUBEOPLAYEQL IC: 3775B-BEOPLAYEQL
Bluetooth Earphone Charging Case	Bang & Olufsen	EQ Charging case	I/P: 5Vdc/500mA O/P: 5Vdc/ R170mA; L170mA

2. The following antennas were provided to the EUT.

Ant. No.	Brand	Model	Ant. Type	Connector	Frequency Range
Ant 0	ASUS	ZS675KW	PIFA	LCP+Ipx	610-960MHz, 1710-2690MHz
Ant 1	ASUS	ZS675KW	PIFA	LCP+Ipx	1427-1510MHz, 1710-2690MHz
Ant 2	ASUS	ZS675KW	PIFA	LCP+Ipx	610-960MHz, 1427-1510MHz, 1710-2690MHz
Ant 3	INPAQ	ZS675KW	PIFA	Ipx	1575-1610MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 4	INPAQ	ZS675KW	PIFA	Ipx	1176±10MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 5	INPAQ	ZS675KW	PIFA	LCP+Ipx	3300-4000MHz, 4400-5000MHz
Ant 6	INPAQ	ZS675KW	PIFA	Ipx	1427-1510MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 7	INPAQ	ZS675KW	PIFA	LCP+Ipx	3300-4000MHz, 4400-5000MHz
Ant 8	ASUS	ZS675KW	PIFA	LCP+Ipx	1427-1510MHz, 1710-2690MHz
Ant 9	ASUS	ZS675KW	PIFA	LCP+Ipx	1710-2690MHz
Ant 10	INPAQ	ZS675KW	PIFA	Ipx	3300-4000MHz, 4400-5000MHz
Ant 11	INPAQ	ZS675KW	PIFA	Ipx	3300-4000MHz, 4400-5000MHz

2G / 3G Band													
Band	Freq. Range (MHz)	Gain (dBi)											
		Ant. 0	Ant. 1	Ant. 2	Ant. 3	Ant. 4	Ant. 5	Ant. 6	Ant. 7	Ant. 8	Ant. 9	Ant. 10	Ant. 11
GSM-850	824 ~ 849	-1.891		-4.526									
GSM-1900	1850 ~ 1910		-1.887	-1.394							-2.89579		
WCDMA B2	1850 ~ 1910		-1.887	-1.394							-2.89579		
WCDMA B4	1710 ~ 1755		-2.884	-3.228							-3.13552		
WCDMA B5	824 ~ 849	-1.891		-4.526									
CDMA BC0	815 ~ 849	-1.891		-4.526									
CDMA BC1	1850 ~ 1910		-1.887	-1.394							-2.89579		
CDMA BC10	806 ~ 901	-1.891		-4.526									

LTE Band													
Band	Freq. Range (MHz)	Gain (dBi)											
		Ant. 0	Ant. 1	Ant. 2	Ant. 3	Ant. 4	Ant. 5	Ant. 6	Ant. 7	Ant. 8	Ant. 9	Ant. 10	Ant. 11
LTE B2	1850 ~ 1910		-1.887	-1.394							-2.89579	-1.804	
LTE B4	1710 ~ 1755		-2.884	-3.228							-3.13552	-1.706	
LTE B5	824 ~ 849	-1.891		-4.526									
LTE B7	2500 ~ 2570		0.185	-0.657							-0.50837	-1.117	
LTE B12	698 ~ 716	-2.135		-4.343									
LTE B13	777 ~ 787	-4.37		-8.13									
LTE B14	788 ~ 798	-4.37		-7.931									
LTE B17	704 ~ 716	-2.135		-4.343									
LTE B25	1850 ~ 1915		-1.887	-1.394							-2.89579		
LTE B26	814 ~ 849	-1.891		-4.526									
LTE B30	2305 ~ 2315		-1.326	-2.669							-1.28433		
LTE B66	1710 ~ 1780		-2.884	-2.478							-3.0668	-1.685	
LTE B71	663 ~ 698	-5.741		-7.388									
T-LTE B38	2570 ~ 2620		0.724	-0.912							-0.59557		
T-LTE B40	2300 ~ 2400		-1.326	-2.669							-1.28433		
T-LTE B41	2496 ~ 2690		1.143	-0.657							-0.59557		
T-LTE B42	3400 ~ 3600						0.313		0.5277			-2.493	-0.35195
T-LTE B43	3600 ~ 3800						-0.434		0.5277			-0.477	-0.161
T-LTE B48	3550 ~ 3700						-0.434		0.5277			-0.477	-0.161

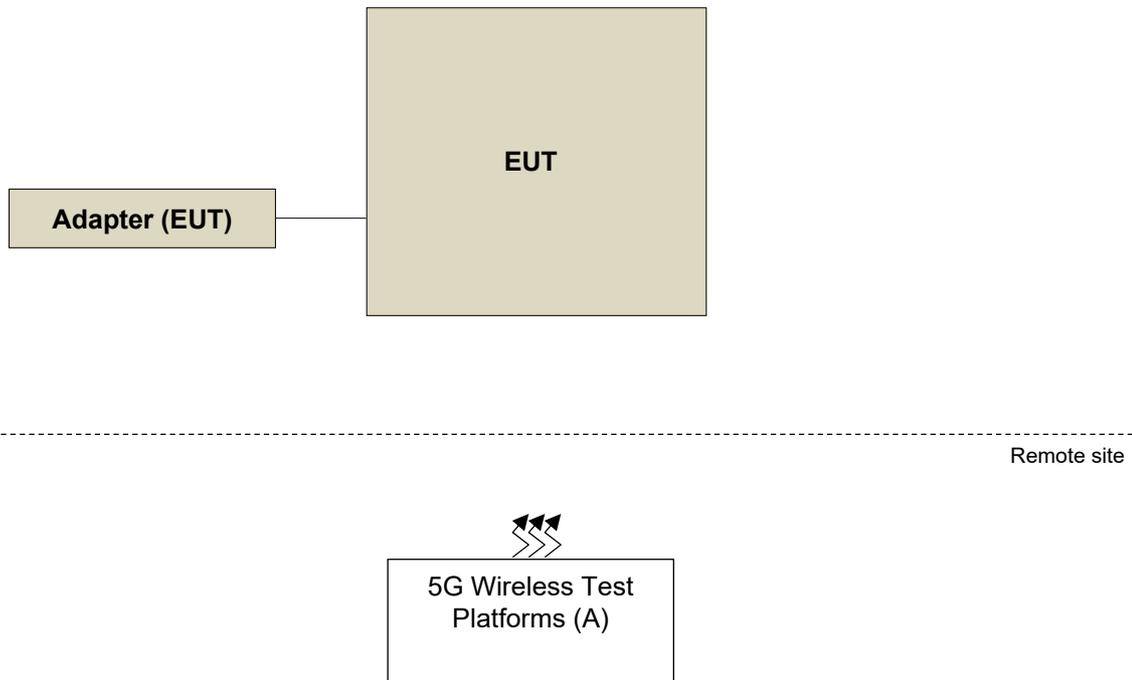
5G FR1 Band													
Band	Freq. Range (MHz)	Gain (dBi)											
		Ant. 0	Ant. 1	Ant. 2	Ant. 3	Ant. 4	Ant. 5	Ant. 6	Ant. 7	Ant. 8	Ant. 9	Ant. 10	Ant. 11
n2	1850 ~ 1910		-1.887	-1.394						-2.89579	-1.804		
n5	824 ~ 849	-1.891		-4.526									
n7	2500 ~ 2570		0.185	-0.657						-0.50837	-1.117		
n12	699 ~ 716	-2.135		-4.343									
n13	777 ~ 787	-4.37		-8.13									
n14	788 ~ 798	-4.37		-7.931									
n25	1850 ~ 1915		-1.887	-1.394						-2.89579	-1.627		
n26	814 ~ 849	-1.891		-4.526									
n30	2305 ~ 2315		-1.326	-2.669						-1.28433			
n38	2570 ~ 2620		0.724	-0.912						-0.59557	-1.3		
n41	2496 ~ 2690		1.143	-0.657						-0.59557	-0.076		
n66	1710 ~ 1780		-2.884	-2.478						-3.0668	-1.685		
n71	663 ~ 698	-5.741		-7.388									
n77	3300 ~ 4200						0.313		0.5277			2.017	0.19902
n78	3300 ~ 3800						0.313		0.5277			2.017	-0.161

* 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. The EUT supports the following ENDC configuration.

	FCC 5G FR1			ENDC
	Band	SCS	Bandwidth (MHz)	
5GNR	n2	15kHz	5/10/15/20	Band 5/12/13/14/30/66
	n5	15kHz	5/10/15/20	Band 2/7/12/30/48/66
	n7	15kHz	5/10/15/20	Band 2/5/12/13/66
	n12	15kHz	5/10/15	Band 2/66
	n14	15kHz	5/10	Band 2
	n25	15kHz	5/10/15/20/25/30/40	Band 12/66
	n30	15kHz	5/10	Band 2/5/66
	n38	30kHz	20/30/40	Band 2/4/5/12/66/71
	n41	30kHz	20/30/40/50/60/80/90/100	Band 2/4/12/25/26/66
	n66	15kHz	5/10/15/20/30/40	Band 2/5/7/12/13/14/30/48/71
	n71	15kHz	5/10/15/20	Band 2/7/66
	n77	30kHz	20/30/40/50/60/70/80/90/100	Band 7/41
	n78	30kHz	20/30/40/50/60/70/80/90/100	Band 2/4/5/7/12/13/38/66/71

3.2 Configuration of System under Test



3.2.1 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.	5G Wireless Test Platforms	Keysight	E7515B	MY58300759	NA	-

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.

3.3 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 on Y-plane. Following channel(s) was (were) selected for the final test as listed below.

n66

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 13 RB Offset 1 RB / 23 RB Offset 12 RB / 0 RB Offset 12 RB / 7 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 26 RB Offset 1 RB / 50 RB Offset 25 RB / 0 RB Offset 25 RB / 14 RB Offset 25 RB / 27 RB Offset 50 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 40 RB Offset 1 RB / 77 RB Offset 36 RB / 0 RB Offset 36 RB / 22 RB Offset 36 RB / 43 RB Offset 75 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 53 RB Offset 1 RB / 104 RB Offset 50RB / 0 RB Offset 50 RB / 28 RB Offset 50 RB / 56 RB Offset 100 RB / 0 RB Offset
		344000 to 354000	345000 (1725.0MHz), 349000 (1745.0MHz), 353000 (1765.0MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 80 RB Offset 1 RB / 158 RB Offset 80RB / 0 RB Offset 80 RB / 40 RB Offset 80 RB / 80 RB Offset 160 RB / 0 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 108 RB Offset 1 RB / 214 RB Offset 108 RB / 0 RB Offset 108 RB / 54 RB Offset 108 RB / 108 RB Offset 216 RB / 0 RB Offset
-	Modulation Characteristics	344000 to 354000	349000 (1745.0MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	106 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Frequency Stability	342500 to 355500	342500 (1712.5MHz), 355500 (1777.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	52 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 354500 (1772.5MHz)	15MHz	QPSK	79 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	106 RB / 0 RB Offset
		344000 to 354000	345000 (1725.0MHz), 353000 (1765.0MHz)	30MHz	QPSK	160 RB / 0 RB Offset
		344000 to 354000	346000 (1730.0MHz), 352000 (1760.0MHz)	40MHz	QPSK	216 RB / 0 RB Offset
-	Emission Bandwidth	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	52 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	79 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	106 RB / 0 RB Offset
		344000 to 354000	345000 (1725.0MHz), 349000 (1745.0MHz), 353000 (1765.0MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	160 RB / 0 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	216 RB / 0 RB Offset
-	Band Edge	342500 to 355500	342500 (1712.5MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 23 RB Offset 25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 50 RB Offset 50 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 354500 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 77 RB Offset 75 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 104 RB Offset 100 RB / 0 RB Offset
		344000 to 354000	345000 (1725.0MHz), 349000 (1745.0MHz), 353000 (1765.0MHz)	30MHz	QPSK	1 RB / 0 RB Offset 1 RB / 158 RB Offset 160 RB / 0 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	QPSK	1 RB / 0 RB Offset 1 RB / 214 RB Offset 216 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Peak to Average Ratio	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		344000 to 354000	345000 (1725.0MHz), 349000 (1745.0MHz), 353000 (1765.0MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset
-	Conducted Emission	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 1 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	1 RB / 1 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	QPSK	1 RB / 1 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 1 RB Offset
		344000 to 354000	345000 (1725.0MHz), 349000 (1745.0MHz), 353000 (1765.0MHz)	30MHz	QPSK	1 RB / 1 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	QPSK	1 RB / 1 RB Offset
-	Radiated Emission Below 1GHz	342500 to 355500	355500 (1777.5MHz)	5MHz	QPSK	1 RB / 1 RB Offset
-	Radiated Emission Above 1GHz	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 1 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 1 RB Offset
		344000 to 354000	346000 (1730.0MHz), 349000 (1745.0MHz), 352000 (1760.0MHz)	40MHz	QPSK	1 RB / 1 RB Offset

Note:

1. Only output power, modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under $\pi/2$ BPSK, QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under worst mode according to the maximum output power.
2. For radiated emission, according to 3GPP 38.521-1 Section 6.5.3.1.4, choose the lowest, middlest & highest channel bandwidth for final test.
3. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 2

EUT Configure Mode	Test item	Available channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	18607 to 19193	18607 (1850.70MHz), 18900 (1880.00MHz), 19193 (1909.30MHz)	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
		18615 to 19185	18615 (1851.50MHz), 18900 (1880.00MHz), 19185 (1908.50MHz)	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
		18625 to 19175	18625 (1852.50MHz), 18900 (1880.00MHz), 19175 (1907.50MHz)	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
		18650 to 19150	18650 (1855.00MHz), 18900 (1880.00MHz), 19150 (1905.00MHz)	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
		18675 to 19125	18675 (1857.50MHz), 18900 (1880.00MHz), 19125 (1902.50MHz)	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
		18700 to 19100	18700 (1860.00MHz), 18900 (1880.00MHz), 19100 (1900.00MHz)	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
-	Radiated Emission Below 1GHz	18625 to 19175	18625 (1852.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	18607 to 19193	18607 (1850.70MHz), 18900 (1880.00MHz), 19193 (1909.30MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		18625 to 19175	18625 (1852.50MHz), 18900 (1880.00MHz), 19175 (1907.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		18700 to 19100	18700 (1860.00MHz), 18900 (1880.00MHz), 19100 (1900.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 5

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	20407 to 20643	20407(824.7MHz), 20525(836.5MHz), 20643(848.3MHz)	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
		20415 to 20635	20415(825.5MHz), 20525(836.5MHz), 20635(847.5MHz)	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
		20425 to 20625	20425(826.5MHz), 20525(836.5MHz), 20625(846.5MHz)	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
		20450 to 20600	20450(829.0MHz), 20525(836.5MHz), 20600(844.0MHz)	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
-	Radiated Emission Below 1GHz	20450 to 20600	20600(844.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	20407 to 20643	20407(824.7MHz), 20525(836.5MHz), 20643(848.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		20425 to 20625	20425(826.5MHz), 20525(836.5MHz), 20625(846.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		20450 to 20600	20450(829.0MHz), 20525(836.5MHz), 20600(844.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

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)	5 MHz	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)	10 MHz	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)	15 MHz	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)	20 MHz	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
-	Radiated Emission Below 1GHz	20850 to 21350	21350 (2560.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	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

Note:

1. The conducted output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

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(707.5 MHz), 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
-	Radiated Emission Below 1GHz	23060 to 23130	23130(711.0MHz)	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. The conducted output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

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
-	Radiated Emission Below 1GHz	23230	23230(782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	23205 to 23255	23205(779.5MHz), 23230(782.0MHz), 23255(784.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230(782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emissions below 1 GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 14

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23305 to 23355	23305 (790.5MHz), 23330 (793.0MHz), 23355 (795.5MHz)	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
		23330	23330 (793.0MHz)	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
-	Radiated Emission below 1GHz	23330	23330 (793.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission above 1GHz	23305 to 23355	23305 (790.5MHz), 23330 (793.0MHz), 23355 (795.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23330	23330 (793.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. Therefore, only Modulation characteristics, occupied bandwidth items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.
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. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 30

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	27685 to 27735	27685 (2307.5MHz), 27710 (2310.0MHz), 27735 (2312.5MHz)	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
		27710	27710 (2310.0MHz)	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
-	Radiated Emission Below 1GHz	27710	27710 (2310.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	27685 to 27735	27685 (2307.5MHz), 27710 (2310.0MHz), 27735 (2312.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		27710	27710 (2310.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. Therefore, only Modulation characteristics, occupied bandwidth items had been tested under QPSK, 16QAM, 64QAM and 256QAM modes, the other test items were performed under QPSK mode only.
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. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 48

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	55265 to 56715	55265 (3552.5MHz), 55990 (3625.0MHz), 56715 (3697.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM
	55290 to 56690	55290 (3555.0MHz), 55990 (3625.0MHz), 56690 (3695.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	55315 to 56665	55315 (3557.5MHz), 55990 (3625.0MHz), 56665 (3692.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM
	55340 to 56640	55340 (3560.0MHz), 55990 (3625.0MHz), 56640 (3690.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
Radiated Emission Below 1GHz	55265 to 56715	55990 (3625.0MHz)	5MHz	QPSK
Radiated Emission Above 1GHz	55265 to 56715	55265 (3552.5MHz), 55990 (3625.0MHz), 56715 (3697.5MHz)	5MHz	QPSK
	55340 to 56640	55340 (3560.0MHz), 55990 (3625.0MHz), 56640 (3690.0MHz)	20MHz	QPSK

Note:

1. The output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.

LTE Band 71

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
-	Radiated Emission Below 1GHz	133222 to 133372	133372 (688.0MHz)	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:

1. The output power for QPSK, 16QAM, 64QAM and 256QAM, measured value of QPSK is higher than 16QAM, 64QAM and 256QAM mode. 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.
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. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
ERP / EIRP	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Modulation Characteristics	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Frequency Stability	25deg. C, 60%RH	7.74Vdc	Willy Cheng
Occupied Bandwidth	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Band Edge	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Peak To Average Ratio	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Conducted Emission	25deg. C, 60%RH	120Vac, 60Hz	Willy Cheng
Radiated Emission	23deg. C, 67%RH 25deg. C, 65%RH	120Vac, 60Hz	Adair Peng Tank Wu Noah Chang

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 and References

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

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 22

FCC 47 CFR Part 24

FCC 47 CFR Part 27

FCC 47 CFR Part 90

FCC 47 CFR Part 96

ANSI/TIA/EIA-603-D-2010

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 971168 D02 Misc Rev Approv License Devices v02r01

KDB 940660 D01 Part 96 CBRS Eqpt v02

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

For n66:

Mobile / Portable station are limited to 1 watts e.i.r.p.

For LTE Band 2:

Mobile / Portable station are limited to 2 watts e.i.r.p.

For LTE Band 5:

Mobile / Portable station are limited to 7 watts e.r.p.

For LTE Band 7:

For mobile subscriber equipment, the e.i.r.p. shall not exceed 2 W. For fixed subscriber equipment, the transmitter output power shall not exceed 2 W and the e.i.r.p. shall be limited to 40 W.

For LTE Band 12, LTE Band 13, LTE Band 71:

Control and mobile stations in the 698-746 MHz, 746-757 MHz, 787-788 MHz and 805-806 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, 746-757 MHz, 787-788 MHz and 805-806 MHz band are limited to 3 watts ERP.

For LTE Band 14:

The output power shall be according to the specific rule Part 90.635 that "Mobile station are limited to 100 watts e.r.p".

For LTE Band 30:

For mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

For LTE Band 48:

Device		Maximum EIRP (dBm/10 MHz)
<input checked="" type="checkbox"/>	End User Device	23
<input type="checkbox"/>	Category A CBSD	30
<input type="checkbox"/>	Category B CBSD	47

4.1.2 Test Procedures

Conducted Power Measurement:

For n66, LTE Band 2, LTE Band 5, LTE Band 7, LTE Band 12, LTE Band 13, LTE Band 14 and LTE Band 71:
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.

For LTE Band 30:

Measurement method refers to ANSI C63.26 section 5.2.7 & 5.2.4.

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:

$$\text{EIRP} = P_{\text{Meas}} + G_{\text{T}}$$

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

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)

For LTE Band 48:

- a. Set span to at least 1.5 times the OBW.
- b. Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c. Set VBW $\geq 3 \times$ RBW.
- d. Set number of points in sweep $\geq 2 \times$ span / RBW.
- e. Sweep time = auto-couple.
- f. Detector = RMS (power averaging).
- g. If the EUT can be configured to transmit continuously (i.e., burst duty cycle $\geq 98\%$), then set the trigger to free run.
- h. If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle $< 98\%$), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
- i. Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- j. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- k. For per 10MHz method, channel power integrating bandwidth 10MHz is used for bandwidth 5M, 10M, 15M and 20M. For full power method, channel power integrating bandwidth 10MHz is used for bandwidth 5M, 10M, integrating bandwidth 15MHz is used for bandwidth 15M, integrating bandwidth 20MHz is used for bandwidth 20M.
- l. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- m. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15 dB. Correction Factor (includes EIRP and ERP unit conversion factor) = Antenna gain of substitution horn. – Tx cable loss.
- n. Measurement method refers to ANSI C63.26 section 5.2.7 & 5.2.4.

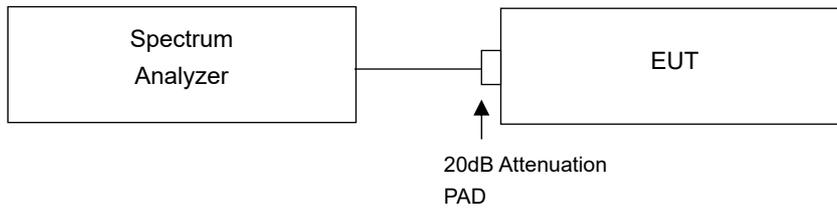
4.1.3 Test Setup

For n66, LTE Band 2, LTE Band 5, LTE Band 7, LTE Band 12, LTE Band 13, LTE Band 14 and LTE Band 71:

Conducted Power Measurement:



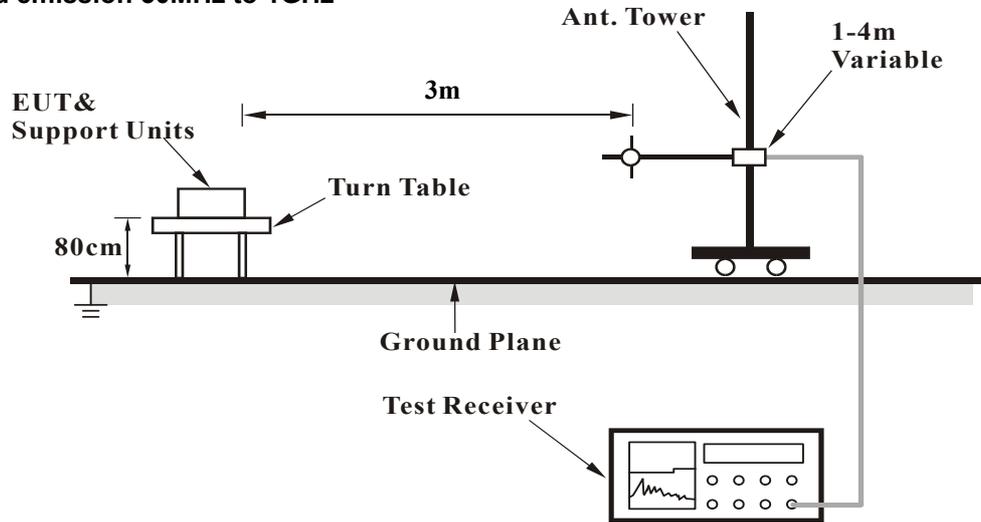
For LTE Band 30:



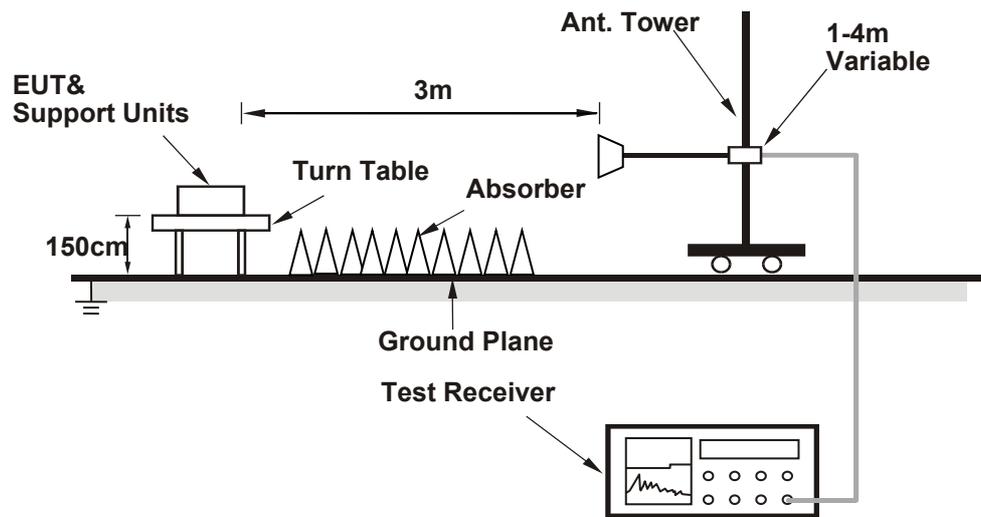
For LTE Band 48:

EIRP / ERP Measurement:

For radiated emission 30MHz to 1GHz



For radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.4 Test Results

Conducted Output Power (dBm, dBm/5MHz for LTE Band 30)

5GNR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		346000	349000	352000
		Frequency (MHz)		1730	1745	1760
40M	$\pi/2$ BPSK	1	1	23.75	23.69	23.71
		1	108	23.78	23.74	23.71
		1	214	23.76	23.68	23.65
		108	0	23.23	23.19	23.20
		108	54	23.76	23.76	23.68
		108	108	23.27	23.25	23.17
		216	0	23.33	23.26	23.31
40M	PSK	1	1	23.92	23.96	23.94
		1	108	23.78	23.75	23.70
		1	214	23.71	23.69	23.67
		108	0	22.91	22.94	22.88
		108	54	23.86	23.89	23.83
		108	108	22.78	22.72	22.79
		216	0	22.86	22.93	22.88
40M	16QAM	1	1	22.75	22.69	22.68
40M	64QAM	1	1	20.34	20.28	20.30
40M	256QAM	1	1	19.29	19.28	19.29
BW	MCS Index	Channel		345000	349000	353000
		Frequency (MHz)		1725	1745	1765
30M	$\pi/2$ BPSK	1	1	23.84	23.78	23.78
		1	80	23.85	23.79	23.79
		1	158	23.78	23.72	23.72
		80	0	23.28	23.22	23.22
		80	40	23.84	23.78	23.78
		80	80	23.33	23.27	23.27
		160	0	23.38	23.32	23.32
30M	PSK	1	1	23.91	23.94	23.92
		1	80	23.83	23.77	23.77
		1	158	23.81	23.75	23.75
		80	0	22.93	22.97	22.96
		80	40	23.87	23.88	23.81
		80	80	22.86	22.80	22.80
		160	0	22.91	22.94	22.93
30M	16QAM	1	1	22.84	22.78	22.78
30M	64QAM	1	1	20.39	20.33	20.33
30M	256QAM	1	1	19.36	19.30	19.30

5GNR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		344000	349000	354000
		Frequency (MHz)		1720	1745	1770
20M	$\pi/2$ BPSK	1	1	23.74	23.58	23.73
		1	53	23.70	23.69	23.62
		1	104	23.68	23.63	23.65
		50	0	23.21	23.15	23.04
		50	28	23.73	23.73	23.69
		50	56	23.27	23.21	23.16
		100	0	23.31	23.16	23.22
20M	PSK	1	1	23.70	23.66	23.78
		1	53	23.65	23.72	23.65
		1	104	23.66	23.60	23.60
		50	0	22.72	22.69	22.61
		50	28	23.80	23.76	23.60
		50	56	22.75	22.71	22.64
		100	0	22.78	22.72	22.71
20M	16QAM	1	1	22.72	22.76	22.67
20M	64QAM	1	1	21.26	21.15	21.22
20M	256QAM	1	1	19.16	19.09	19.12
BW	MCS Index	Channel		343500	349000	354500
		Frequency (MHz)		1717.5	1745	1772.5
15M	$\pi/2$ BPSK	1	1	23.76	23.66	23.68
		1	40	23.68	23.79	23.78
		1	77	23.70	23.61	23.71
		36	0	23.22	23.18	23.09
		36	22	23.78	23.76	23.75
		36	43	23.26	23.23	23.11
		75	0	23.30	23.26	23.21
15M	PSK	1	1	23.82	23.68	23.64
		1	40	23.66	23.72	23.73
		1	77	23.74	23.58	23.63
		36	0	22.68	22.70	22.61
		36	22	23.73	23.70	23.66
		36	43	22.74	22.66	22.69
		75	0	22.78	22.75	22.76
15M	16QAM	1	1	22.69	22.58	22.66
15M	64QAM	1	1	21.25	21.16	21.18
15M	256QAM	1	1	19.24	19.16	19.07

5GNR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		343000	349000	355000
		Frequency (MHz)		1715	1745	1775
10M	$\pi/2$ BPSK	1	1	23.63	23.62	23.49
		1	26	23.68	23.71	23.71
		1	50	23.58	23.60	23.62
		25	0	23.16	23.02	23.00
		25	14	23.69	23.55	23.61
		25	27	23.15	23.21	23.15
		50	0	23.11	23.15	23.21
10M	PSK	1	1	23.71	23.66	23.54
		1	26	23.61	23.74	23.72
		1	50	23.57	23.57	23.60
		25	0	22.61	22.56	22.54
		25	14	23.72	23.50	23.60
		25	27	22.62	22.64	22.61
		50	0	22.70	22.63	22.64
10M	16QAM	1	1	22.76	22.61	22.61
10M	64QAM	1	1	21.26	21.12	21.19
10M	256QAM	1	1	19.14	19.17	19.04
BW	MCS Index	Channel		342500	349000	355500
		Frequency (MHz)		1712.5	1745	1777.5
5M	$\pi/2$ BPSK	1	1	23.65	23.58	23.64
		1	13	23.66	23.71	23.59
		1	23	23.66	23.61	23.59
		12	0	23.20	22.99	23.10
		12	7	23.71	23.60	23.64
		12	13	23.18	23.17	23.16
		25	0	23.24	23.28	23.18
5M	PSK	1	1	23.60	23.68	23.60
		1	13	23.74	23.68	23.63
		1	23	23.62	23.51	23.65
		12	0	22.68	22.55	22.67
		12	7	23.66	23.56	23.65
		12	13	22.74	22.65	22.74
		25	0	22.78	22.73	22.68
5M	16QAM	1	1	22.76	22.63	22.67
5M	64QAM	1	1	21.13	21.12	21.18
5M	256QAM	1	1	19.00	19.00	19.01

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18700	18900	19100
		Frequency (MHz)		1860	1880	1900
20M	QPSK	1	0	23.59	23.51	23.32
		1	50	23.39	23.51	23.21
		1	99	23.56	23.57	23.53
		50	0	22.84	22.32	22.62
		50	25	22.49	22.37	22.34
		50	50	22.21	22.61	22.62
		100	0	22.69	22.20	22.36
20M	16QAM	1	0	22.88	22.37	22.58
		1	50	22.46	22.53	22.21
		1	99	22.56	22.40	22.73
		50	0	21.28	21.31	21.53
		50	25	21.63	21.08	21.10
		50	50	21.18	21.07	21.04
		100	0	21.15	21.28	21.30
20M	64QAM	1	0	21.41	21.80	21.48
		1	50	21.51	21.58	21.47
		1	99	21.33	21.20	21.42
		50	0	20.75	20.26	20.34
		50	25	20.67	20.12	20.11
		50	50	20.59	20.40	20.54
		100	0	20.51	20.54	20.69
20M	256QAM	1	0	18.58	17.91	18.33
		1	50	17.93	18.15	18.27
		1	99	18.09	17.73	18.01
		50	0	17.87	17.81	17.93
		50	25	18.26	17.91	18.02
		50	50	18.21	18.04	17.82
		100	0	17.92	17.86	18.19

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18675	18900	19125
		Frequency (MHz)		1857.5	1880	1902.5
15M	QPSK	1	0	23.37	23.51	23.48
		1	37	23.35	23.41	23.27
		1	74	23.37	23.16	23.48
		36	0	22.50	22.62	22.51
		36	19	22.67	22.37	22.77
		36	39	22.58	22.39	22.69
		75	0	22.20	22.67	22.42
15M	16QAM	1	0	22.54	22.86	22.47
		1	37	22.40	22.21	22.50
		1	74	22.21	22.41	22.37
		36	0	21.68	21.13	21.52
		36	19	21.26	21.20	21.07
		36	39	21.13	21.02	21.51
		75	0	21.47	21.47	21.21
15M	64QAM	1	0	21.36	21.26	21.29
		1	37	21.43	21.18	21.30
		1	74	21.65	21.48	21.40
		36	0	20.49	20.65	20.61
		36	19	20.34	20.55	20.02
		36	39	20.38	20.18	20.56
		75	0	20.48	20.51	20.73
15M	256QAM	1	0	17.95	18.05	18.43
		1	37	18.18	17.69	18.31
		1	74	18.21	17.88	17.95
		36	0	16.94	17.24	17.21
		36	19	17.08	16.77	16.84
		36	39	17.31	17.14	16.91
		75	0	17.05	16.94	17.01

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18650	18900	19150
		Frequency (MHz)		1855	1880	1905
10M	QPSK	1	0	23.24	23.35	23.42
		1	24	23.18	23.14	23.18
		1	49	23.39	23.33	23.17
		25	0	22.41	22.39	22.29
		25	12	22.17	22.40	22.43
		25	25	22.40	22.36	22.21
		50	0	22.53	22.12	22.33
10M	16QAM	1	0	22.28	22.54	22.67
		1	24	22.40	22.22	22.29
		1	49	22.15	22.57	22.45
		25	0	21.06	21.13	21.54
		25	12	20.97	21.32	20.93
		25	25	21.13	21.28	21.20
		50	0	21.23	21.08	21.10
10M	64QAM	1	0	21.29	21.01	21.19
		1	24	21.02	21.46	21.40
		1	49	21.12	21.30	20.95
		25	0	20.43	20.52	20.33
		25	12	20.26	20.10	19.94
		25	25	20.05	20.51	19.98
		50	0	20.07	20.41	20.44
10M	256QAM	1	0	18.07	18.38	18.01
		1	24	17.90	17.89	17.86
		1	49	17.92	18.10	17.88
		25	0	17.34	16.69	17.18
		25	12	16.55	16.80	17.09
		25	25	16.80	17.11	16.70
		50	0	16.88	17.06	17.23

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18625	18900	19175
		Frequency (MHz)		1852.5	1880	1907.5
5M	QPSK	1	0	23.26	23.45	23.12
		1	12	23.25	23.40	23.22
		1	24	23.28	23.16	23.39
		12	0	22.18	22.18	22.36
		12	6	22.54	22.57	22.63
		12	13	22.12	21.89	22.05
		25	0	22.60	22.15	22.51
5M	16QAM	1	0	22.59	22.73	22.74
		1	12	22.44	22.47	22.11
		1	24	22.06	22.37	22.29
		12	0	21.10	21.27	21.14
		12	6	21.40	20.93	20.91
		12	13	21.31	21.42	21.27
		25	0	21.49	21.07	21.16
5M	64QAM	1	0	21.32	21.25	21.33
		1	12	21.26	21.18	21.57
		1	24	21.19	21.32	21.51
		12	0	20.63	20.31	20.45
		12	6	20.36	19.91	20.19
		12	13	20.22	20.27	20.11
		25	0	20.58	20.58	20.08
5M	256QAM	1	0	17.81	17.92	17.74
		1	12	17.72	17.96	17.95
		1	24	18.32	18.16	17.66
		12	0	17.39	17.18	16.99
		12	6	17.09	16.95	16.75
		12	13	16.68	16.45	16.78
		25	0	17.13	17.00	16.79

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18615	18900	19185
		Frequency (MHz)		1851.5	1880	1908.5
3M	QPSK	1	0	23.32	23.38	23.31
		1	7	23.01	23.35	23.14
		1	14	23.22	23.41	23.36
		8	0	22.59	22.38	22.47
		8	3	22.64	22.05	22.65
		8	7	22.65	22.36	22.33
		15	0	22.72	22.57	22.65
3M	16QAM	1	0	22.39	22.63	22.43
		1	7	22.73	22.67	22.63
		1	14	22.24	22.09	22.14
		8	0	21.32	21.44	21.51
		8	3	20.97	21.50	20.98
		8	7	21.40	21.42	21.26
		15	0	21.37	20.91	21.08
3M	64QAM	1	0	21.20	21.30	21.53
		1	7	21.19	21.51	21.45
		1	14	21.28	21.30	21.52
		8	0	20.15	20.50	20.49
		8	3	20.54	20.38	20.39
		8	7	20.43	20.18	19.98
		15	0	20.30	20.61	20.42
3M	256QAM	1	0	18.01	18.21	18.09
		1	7	18.03	17.60	17.88
		1	14	18.25	17.72	17.82
		8	0	17.14	16.74	16.61
		8	3	17.10	16.74	17.23
		8	7	17.15	17.29	17.10
		15	0	17.21	16.59	17.01

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18607	18900	19193
		Frequency (MHz)		1850.7	1880	1909.3
1.4M	QPSK	1	0	23.45	23.58	23.42
		1	2	23.47	23.52	23.37
		1	5	23.43	23.45	23.21
		3	0	23.46	23.46	23.46
		3	1	23.12	23.55	23.08
		3	3	23.46	23.41	23.24
		6	0	22.16	22.55	22.59
1.4M	16QAM	1	0	22.89	22.73	22.44
		1	2	22.07	22.17	22.64
		1	5	22.34	22.43	22.19
		3	0	22.24	22.26	22.24
		3	1	21.98	22.41	22.51
		3	3	22.21	22.17	22.50
		6	0	21.16	21.37	21.31
1.4M	64QAM	1	0	21.39	21.41	21.67
		1	2	21.31	21.58	21.60
		1	5	21.23	21.30	21.36
		3	0	21.23	21.37	21.53
		3	1	21.58	21.14	21.35
		3	3	21.37	21.00	21.15
		6	0	20.48	20.48	20.31
1.4M	256QAM	1	0	17.89	17.74	18.52
		1	2	18.11	17.94	18.32
		1	5	17.97	18.18	17.65
		3	0	17.98	18.11	18.08
		3	1	18.31	18.06	18.19
		3	3	18.09	17.91	17.55
		6	0	16.95	17.09	16.87

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20450	20525	20600
		Frequency (MHz)		829	836.5	844
10M	QPSK	1	0	24.40	24.48	24.42
		1	24	24.35	24.40	24.38
		1	49	24.10	24.41	23.72
		25	0	23.45	23.82	23.54
		25	12	23.14	23.51	23.35
		25	25	23.39	23.17	23.05
		50	0	23.19	23.89	23.50
10M	16QAM	1	0	23.26	23.43	23.63
		1	24	23.11	23.46	23.37
		1	49	23.35	23.30	23.10
		25	0	22.46	22.32	22.65
		25	12	22.14	22.81	22.50
		25	25	22.29	22.67	21.85
		50	0	22.53	22.34	22.40
10M	64QAM	1	0	21.97	22.41	22.02
		1	24	22.02	21.98	21.64
		1	49	21.45	21.43	21.19
		25	0	20.75	21.40	21.08
		25	12	21.25	21.02	20.89
		25	25	20.57	20.79	20.23
		50	0	20.75	21.09	20.52
10M	256QAM	1	0	19.08	19.55	18.84
		1	24	18.59	19.06	18.48
		1	49	18.59	19.04	18.74
		25	0	18.04	18.21	18.09
		25	12	18.21	18.18	18.11
		25	25	17.95	17.96	17.66
		50	0	18.07	17.99	17.83

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20425	20525	20625
		Frequency (MHz)		826.5	836.5	846.5
5M	QPSK	1	0	24.24	24.24	24.09
		1	12	24.13	24.16	23.82
		1	24	23.74	24.15	23.81
		12	0	23.54	23.70	23.29
		12	6	23.47	23.78	23.05
		12	13	23.33	23.26	22.78
		25	0	23.34	23.27	23.10
5M	16QAM	1	0	23.10	23.40	23.65
		1	12	23.22	23.73	23.59
		1	24	22.84	23.05	22.86
		12	0	22.45	22.71	22.35
		12	6	22.49	22.72	22.29
		12	13	22.33	22.18	22.03
		25	0	22.27	22.34	22.58
5M	64QAM	1	0	22.04	22.50	22.17
		1	12	22.04	21.94	21.65
		1	24	21.26	21.36	21.50
		12	0	21.18	21.07	21.13
		12	6	20.67	21.04	20.96
		12	13	20.73	20.41	20.23
		25	0	20.52	20.50	20.27
5M	256QAM	1	0	18.55	19.08	18.83
		1	12	18.63	19.04	18.72
		1	24	18.79	18.89	18.82
		12	0	17.59	18.27	18.21
		12	6	18.13	18.43	18.03
		12	13	17.96	17.95	17.92
		25	0	17.95	17.87	17.77

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20415	20525	20635
		Frequency (MHz)		825.5	836.5	847.5
3M	QPSK	1	0	24.22	24.33	24.11
		1	7	23.99	24.20	24.11
		1	14	24.07	24.05	23.57
		8	0	23.04	23.16	23.35
		8	3	23.19	23.43	23.57
		8	7	23.27	23.29	22.71
		15	0	23.37	23.50	22.79
3M	16QAM	1	0	23.31	23.42	23.46
		1	7	23.21	23.56	23.48
		1	14	22.87	23.27	22.54
		8	0	22.40	22.45	22.47
		8	3	22.29	22.37	22.01
		8	7	22.43	22.47	21.96
		15	0	22.19	22.63	22.35
3M	64QAM	1	0	22.12	22.43	21.69
		1	7	22.07	21.97	21.67
		1	14	21.45	21.57	21.20
		8	0	21.04	21.36	20.60
		8	3	21.00	21.05	20.53
		8	7	20.22	20.41	20.34
		15	0	20.65	20.70	20.63
3M	256QAM	1	0	18.77	18.71	18.73
		1	7	18.80	19.07	18.64
		1	14	18.59	18.73	18.29
		8	0	17.99	18.13	17.72
		8	3	17.64	18.20	18.05
		8	7	17.64	18.24	17.92
		15	0	17.72	17.94	17.87

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20407	20525	20643
		Frequency (MHz)		824.7	836.5	848.3
1.4M	QPSK	1	0	24.25	24.13	24.25
		1	2	24.20	24.16	24.20
		1	5	24.05	24.16	23.73
		3	0	24.31	24.24	24.13
		3	1	24.40	24.33	24.40
		3	3	24.39	24.38	23.79
		6	0	23.50	23.53	23.01
1.4M	16QAM	1	0	23.39	23.44	23.00
		1	2	23.40	23.43	23.22
		1	5	23.12	22.81	22.82
		3	0	23.17	23.59	23.21
		3	1	23.07	23.60	23.45
		3	3	23.26	23.19	22.80
		6	0	22.09	22.30	22.54
1.4M	64QAM	1	0	21.98	22.12	21.70
		1	2	21.98	22.05	22.03
		1	5	21.53	21.65	21.15
		3	0	21.72	22.01	22.06
		3	1	22.13	22.07	21.99
		3	3	21.03	21.77	21.35
		6	0	20.62	20.90	20.36
1.4M	256QAM	1	0	19.04	18.81	19.13
		1	2	19.23	19.00	18.52
		1	5	18.35	18.55	18.26
		3	0	18.72	19.37	18.44
		3	1	18.71	18.77	18.64
		3	3	19.14	18.84	18.69
		6	0	18.33	18.49	17.91

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	23.22	23.00	23.25
		1	50	23.20	22.95	23.14
		1	99	23.20	22.92	23.13
		50	0	22.28	22.48	22.43
		50	25	22.05	22.02	22.18
		50	50	22.08	22.03	22.12
		100	0	22.00	21.93	22.44
20M	16QAM	1	0	22.29	22.47	22.31
		1	50	21.78	21.80	22.21
		1	99	22.15	21.61	22.17
		50	0	21.56	21.42	21.69
		50	25	21.44	21.38	21.69
		50	50	21.35	21.38	21.34
		100	0	21.26	20.96	21.16
20M	64QAM	1	0	21.18	21.36	21.73
		1	50	21.07	20.99	21.53
		1	99	21.05	20.83	21.20
		50	0	20.46	20.31	20.56
		50	25	20.24	20.44	20.71
		50	50	20.34	19.94	20.12
		100	0	20.36	20.13	20.32
20M	256QAM	1	0	18.29	17.86	17.79
		1	50	17.51	17.80	17.91
		1	99	18.15	17.40	17.59
		50	0	17.02	16.76	16.92
		50	25	16.56	17.00	17.17
		50	50	16.66	16.94	16.93
		100	0	17.00	17.20	16.94

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	23.24	23.08	22.24
		1	37	22.92	22.76	22.97
		1	74	23.02	22.81	22.98
		36	0	22.25	22.12	22.67
		36	19	22.27	22.28	22.38
		36	39	22.28	22.26	22.32
		75	0	22.14	22.28	22.08
15M	16QAM	1	0	22.39	22.42	22.30
		1	37	21.82	22.05	21.83
		1	74	21.88	21.84	21.82
		36	0	21.57	21.24	21.34
		36	19	21.30	21.06	21.28
		36	39	21.01	20.94	21.09
		75	0	21.52	21.25	21.62
15M	64QAM	1	0	21.13	21.13	21.24
		1	37	21.50	21.25	21.58
		1	74	21.09	21.17	20.80
		36	0	20.31	20.39	20.56
		36	19	20.48	20.17	20.39
		36	39	19.99	19.96	20.25
		75	0	20.25	19.97	20.12
15M	256QAM	1	0	17.33	17.52	17.94
		1	37	17.58	17.43	17.72
		1	74	17.72	17.52	17.46
		36	0	17.01	16.63	17.23
		36	19	16.90	16.54	16.99
		36	39	16.77	16.90	16.93
		75	0	16.47	16.96	17.01

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	23.16	23.01	23.13
		1	24	22.81	22.80	22.90
		1	49	23.14	22.79	22.75
		25	0	22.12	22.34	22.34
		25	12	22.11	22.31	22.09
		25	25	22.27	21.98	22.32
		50	0	22.09	21.97	22.34
10M	16QAM	1	0	22.29	22.09	22.25
		1	24	21.60	22.01	22.16
		1	49	22.04	21.81	21.94
		25	0	20.99	21.13	21.22
		25	12	21.14	21.32	21.10
		25	25	20.94	20.95	20.94
		50	0	21.18	21.00	21.27
10M	64QAM	1	0	21.28	21.20	21.54
		1	24	20.80	21.01	21.47
		1	49	20.87	20.58	20.88
		25	0	20.35	19.97	20.27
		25	12	20.35	20.07	20.12
		25	25	20.28	19.92	19.99
		50	0	20.25	19.99	20.35
10M	256QAM	1	0	17.90	17.55	17.57
		1	24	17.97	17.31	17.47
		1	49	17.74	17.46	17.33
		25	0	16.85	16.74	17.02
		25	12	17.12	16.50	16.90
		25	25	16.94	16.53	17.09
		50	0	17.00	16.52	17.05

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	23.13	23.13	23.06
		1	12	22.77	22.79	23.04
		1	24	22.60	22.80	22.93
		12	0	21.98	22.27	22.19
		12	6	22.34	22.16	22.42
		12	13	22.09	21.74	22.17
		25	0	22.05	21.97	22.19
5M	16QAM	1	0	22.54	21.87	22.50
		1	12	21.70	22.06	21.75
		1	24	21.69	21.58	21.77
		12	0	21.06	21.00	21.03
		12	6	21.27	21.10	21.42
		12	13	21.24	20.79	21.34
		25	0	21.09	21.29	21.57
5M	64QAM	1	0	21.32	21.33	21.36
		1	12	21.39	21.39	21.51
		1	24	20.95	20.85	20.94
		12	0	20.10	20.26	20.21
		12	6	20.04	20.25	20.49
		12	13	19.75	19.77	20.12
		25	0	19.90	20.26	20.16
5M	256QAM	1	0	18.05	17.78	17.41
		1	12	17.43	17.30	17.82
		1	24	17.31	17.15	17.92
		12	0	16.71	16.69	16.67
		12	6	16.64	16.75	16.52
		12	13	17.00	17.00	16.72
		25	0	16.67	16.66	16.86

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	24.29	24.26	24.22
		1	24	24.28	24.23	24.27
		1	49	24.23	24.27	24.00
		25	0	23.40	23.35	23.09
		25	12	23.69	23.28	23.48
		25	25	23.64	23.33	22.91
		50	0	23.72	23.27	23.26
10M	16QAM	1	0	23.21	23.52	23.04
		1	24	23.38	22.94	23.28
		1	49	23.35	22.89	22.80
		25	0	22.53	22.52	22.50
		25	12	22.37	22.06	21.95
		25	25	22.78	22.55	22.36
		50	0	22.52	22.23	22.09
10M	64QAM	1	0	22.44	22.03	22.24
		1	24	22.57	21.95	22.20
		1	49	21.88	21.66	21.79
		25	0	21.13	21.41	21.34
		25	12	21.49	21.36	21.19
		25	25	21.30	21.10	21.12
		50	0	21.15	21.20	21.12
10M	256QAM	1	0	19.41	19.06	18.83
		1	24	19.14	18.90	19.00
		1	49	18.89	18.43	18.98
		25	0	18.19	17.87	17.71
		25	12	18.31	18.05	17.66
		25	25	18.24	17.98	18.00
		50	0	17.87	18.21	17.97

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	24.20	24.20	24.10
		1	12	24.28	24.18	24.04
		1	24	24.23	24.23	24.10
		12	0	23.61	22.92	23.10
		12	6	23.66	23.27	23.10
		12	13	23.51	23.12	23.16
		25	0	23.71	23.13	23.46
5M	16QAM	1	0	23.70	22.96	23.01
		1	12	23.09	22.94	22.91
		1	24	23.21	23.36	22.76
		12	0	22.58	22.53	22.10
		12	6	22.48	21.98	22.10
		12	13	22.58	22.21	21.92
		25	0	22.33	21.97	22.11
5M	64QAM	1	0	22.78	21.98	22.10
		1	12	22.50	22.07	21.98
		1	24	22.28	22.02	21.71
		12	0	21.51	21.06	21.11
		12	6	21.45	20.87	20.79
		12	13	21.19	20.85	21.04
		25	0	21.05	21.28	20.89
5M	256QAM	1	0	19.53	18.96	19.15
		1	12	18.83	19.05	18.76
		1	24	18.90	18.30	18.70
		12	0	18.19	17.44	17.55
		12	6	17.60	17.79	17.83
		12	13	17.97	17.50	17.70
		25	0	18.30	18.26	17.58

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	24.18	24.19	24.19
		1	7	24.17	24.00	23.99
		1	14	24.14	24.19	23.85
		8	0	23.02	23.05	23.24
		8	3	23.39	23.01	23.10
		8	7	23.53	22.83	23.06
		15	0	23.35	23.16	23.20
3M	16QAM	1	0	23.07	23.30	23.07
		1	7	23.38	22.78	23.12
		1	14	23.35	23.09	22.70
		8	0	22.32	22.22	22.18
		8	3	22.50	22.33	22.16
		8	7	22.68	21.94	22.30
		15	0	22.27	22.28	22.36
3M	64QAM	1	0	22.37	22.20	22.30
		1	7	22.25	22.16	22.00
		1	14	21.99	21.58	21.46
		8	0	21.33	21.02	21.24
		8	3	20.93	20.69	20.94
		8	7	20.84	20.71	20.91
		15	0	21.26	20.86	20.78
3M	256QAM	1	0	19.13	18.68	18.94
		1	7	19.01	18.85	18.72
		1	14	19.04	19.06	18.44
		8	0	18.03	17.43	17.83
		8	3	18.05	18.05	17.80
		8	7	17.86	17.47	17.91
		15	0	18.22	17.76	17.48

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	24.21	24.24	24.07
		1	2	24.17	24.25	24.00
		1	5	24.15	24.22	24.21
		3	0	24.17	24.01	24.24
		3	1	24.09	23.86	23.96
		3	3	24.18	23.93	23.00
		6	0	23.35	23.36	23.11
1.4M	16QAM	1	0	23.49	23.51	23.22
		1	2	23.43	23.14	22.87
		1	5	23.30	23.29	22.99
		3	0	23.28	23.31	22.86
		3	1	23.31	23.25	23.03
		3	3	23.50	23.26	22.98
		6	0	22.59	21.96	22.30
1.4M	64QAM	1	0	22.47	22.06	22.38
		1	2	22.46	22.27	21.75
		1	5	22.10	21.77	21.77
		3	0	22.16	22.09	22.16
		3	1	21.98	22.02	21.56
		3	3	21.86	21.74	22.05
		6	0	21.26	20.69	21.17
1.4M	256QAM	1	0	19.24	19.19	18.86
		1	2	19.19	18.59	19.04
		1	5	18.78	18.61	18.30
		3	0	19.33	18.71	18.72
		3	1	19.10	18.91	18.86
		3	3	19.05	18.75	18.80
		6	0	17.99	17.68	17.87

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	24.27
		1	24	24.24
		1	49	24.17
		25	0	23.40
		25	12	23.30
		25	25	23.45
		50	0	23.27
10M	16QAM	1	0	23.61
		1	24	23.47
		1	49	23.72
		25	0	22.78
		25	12	22.31
		25	25	22.55
		50	0	22.80
10M	64QAM	1	0	22.44
		1	24	22.29
		1	49	22.60
		25	0	21.35
		25	12	21.48
		25	25	21.37
		50	0	21.31
10M	256QAM	1	0	19.56
		1	24	18.96
		1	49	19.32
		25	0	18.03
		25	12	17.85
		25	25	17.78
		50	0	18.01

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	24.22	24.26	24.22
		1	12	24.23	24.23	24.22
		1	24	24.26	24.24	24.05
		12	0	23.49	23.61	23.44
		12	6	23.52	23.17	23.25
		12	13	23.28	23.46	23.03
		25	0	23.47	23.41	23.43
5M	16QAM	1	0	23.34	23.75	23.47
		1	12	23.23	23.80	23.17
		1	24	23.48	23.37	23.42
		12	0	22.74	22.24	22.15
		12	6	22.36	22.68	22.65
		12	13	22.22	22.16	22.06
		25	0	22.35	22.81	22.54
5M	64QAM	1	0	22.18	22.27	22.58
		1	12	22.57	22.55	22.20
		1	24	22.12	22.06	22.11
		12	0	21.34	21.27	20.86
		12	6	20.96	21.23	21.07
		12	13	21.26	21.33	21.04
		25	0	21.11	21.18	21.30
5M	256QAM	1	0	18.72	18.84	18.99
		1	12	19.41	19.42	19.13
		1	24	18.67	18.95	19.29
		12	0	18.02	18.28	17.93
		12	6	18.12	17.67	17.76
		12	13	18.40	18.29	17.92
		25	0	18.34	17.89	17.57

LTE Band 14				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		23330
		Frequency (MHz)		793
10M	QPSK	1	0	24.40
		1	24	23.94
		1	49	23.89
		25	0	23.38
		25	12	22.81
		25	25	22.26
		50	0	23.35
10M	16QAM	1	0	23.46
		1	24	23.44
		1	49	22.97
		25	0	22.59
		25	12	21.87
		25	25	21.72
		50	0	21.85
10M	64QAM	1	0	22.42
		1	24	21.68
		1	49	21.52
		25	0	20.66
		25	12	20.00
		25	25	19.94
		50	0	20.01
10M	256QAM	1	0	19.65
		1	24	18.66
		1	49	18.14
		25	0	17.64
		25	12	17.66
		25	25	17.41
		50	0	17.86

LTE Band 14						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23305	23330	23355
		Frequency (MHz)		790.5	793	795.5
5M	QPSK	1	0	24.32	24.39	24.16
		1	12	24.25	24.34	24.00
		1	24	23.96	24.06	23.92
		12	0	23.33	23.53	23.13
		12	6	22.91	22.54	22.61
		12	13	22.15	22.38	22.38
		25	0	23.22	23.21	23.23
5M	16QAM	1	0	23.43	23.66	23.46
		1	12	23.03	22.90	23.02
		1	24	22.79	23.04	23.16
		12	0	22.17	22.36	22.48
		12	6	21.71	21.64	22.12
		12	13	21.28	21.30	21.45
		25	0	22.10	22.06	21.69
5M	64QAM	1	0	22.33	21.88	21.88
		1	12	21.31	21.45	21.51
		1	24	21.00	21.53	20.99
		12	0	20.63	20.94	20.40
		12	6	20.20	19.89	19.83
		12	13	19.69	19.94	19.92
		25	0	20.15	19.97	20.18
5M	256QAM	1	0	19.00	19.31	19.27
		1	12	18.36	18.70	18.70
		1	24	18.67	18.41	18.34
		12	0	17.91	17.87	17.77
		12	6	17.86	17.89	17.86
		12	13	17.62	17.89	17.90
		25	0	18.11	17.92	18.01

LTE Band 30				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		27710
		Frequency (MHz)		2310
10M	QPSK	1	0	22.88
		1	24	22.77
		1	49	22.71
		25	0	21.70
		25	12	22.07
		25	25	21.83
		50	0	21.63
10M	16QAM	1	0	21.70
		1	24	22.17
		1	49	22.08
		25	0	21.25
		25	12	20.91
		25	25	20.74
		50	0	20.99
10M	64QAM	1	0	20.67
		1	24	21.08
		1	49	20.59
		25	0	19.97
		25	12	19.88
		25	25	20.11
		50	0	20.01
10M	256QAM	1	0	17.53
		1	24	17.63
		1	49	17.39
		25	0	16.75
		25	12	16.95
		25	25	16.78
		50	0	17.10

LTE Band 30						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		27685	27710	27735
		Frequency (MHz)		2307.5	2310	2312.5
5M	QPSK	1	0	22.73	22.85	22.65
		1	12	22.40	22.84	22.75
		1	24	22.42	22.69	22.50
		12	0	21.70	22.00	21.89
		12	6	22.00	21.71	22.00
		12	13	21.81	21.62	21.88
		25	0	21.74	21.71	21.76
5M	16QAM	1	0	21.61	22.04	21.71
		1	12	22.02	21.74	21.57
		1	24	21.52	21.95	21.77
		12	0	20.58	20.99	20.77
		12	6	20.59	21.03	20.85
		12	13	20.77	20.50	21.00
		25	0	20.73	21.02	21.00
5M	64QAM	1	0	20.59	20.99	20.58
		1	12	20.71	20.78	20.66
		1	24	20.45	20.63	20.80
		12	0	19.58	19.63	19.78
		12	6	19.66	20.00	19.89
		12	13	19.76	19.85	19.45
		25	0	19.52	19.53	19.79
5M	256QAM	1	0	17.44	17.86	17.51
		1	12	17.57	17.45	17.26
		1	24	17.32	17.23	17.24
		12	0	16.41	17.15	16.90
		12	6	16.42	16.89	16.89
		12	13	17.11	16.89	16.63
		25	0	16.39	16.68	16.73

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	24.40	24.48	24.40
		1	50	24.43	24.41	24.32
		1	99	24.42	24.39	24.41
		50	0	23.77	23.60	23.35
		50	25	23.25	23.37	23.58
		50	50	23.42	23.28	23.40
		100	0	23.51	23.71	23.71
20M	16QAM	1	0	23.34	23.45	23.78
		1	50	23.30	23.28	23.35
		1	99	23.58	23.17	23.66
		50	0	22.67	22.63	22.24
		50	25	22.65	22.28	22.14
		50	50	22.52	22.53	22.14
		100	0	22.70	22.68	22.43
20M	64QAM	1	0	22.69	22.66	22.33
		1	50	22.62	22.33	22.51
		1	99	22.62	22.60	22.58
		50	0	21.72	21.65	21.74
		50	25	21.57	21.18	21.29
		50	50	21.65	21.55	21.59
		100	0	21.52	21.20	21.58
20M	256QAM	1	0	19.31	18.71	19.44
		1	50	18.95	18.89	18.72
		1	99	19.11	19.05	18.87
		50	0	18.39	18.12	18.05
		50	25	17.86	17.85	18.36
		50	50	18.31	18.11	18.12
		100	0	18.10	18.20	18.15

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	24.45	24.38	24.40
		1	37	24.45	24.41	24.26
		1	74	24.26	24.41	24.46
		36	0	23.55	23.46	23.25
		36	19	23.40	23.41	23.17
		36	39	23.63	23.41	23.53
		75	0	23.66	23.45	23.24
15M	16QAM	1	0	23.64	23.44	23.28
		1	37	23.29	23.69	23.54
		1	74	23.51	23.11	23.48
		36	0	22.57	22.45	22.52
		36	19	22.34	22.27	22.06
		36	39	22.55	22.46	22.04
		75	0	22.74	22.57	22.48
15M	64QAM	1	0	22.78	22.74	22.20
		1	37	22.68	22.47	22.57
		1	74	22.33	22.30	22.22
		36	0	21.10	21.43	21.60
		36	19	21.42	21.13	21.36
		36	39	21.44	21.53	21.24
		75	0	21.13	21.21	21.33
15M	256QAM	1	0	19.53	19.20	18.94
		1	37	19.23	19.28	19.57
		1	74	19.42	18.92	18.84
		36	0	17.89	18.09	18.52
		36	19	18.17	18.25	17.91
		36	39	18.08	18.29	18.44
		75	0	18.47	17.62	18.20

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	24.46	24.40	24.43
		1	24	24.45	24.17	24.43
		1	49	24.40	24.43	24.23
		25	0	23.71	23.51	23.48
		25	12	23.74	23.45	23.50
		25	25	23.55	23.58	23.36
		50	0	23.77	23.46	23.37
10M	16QAM	1	0	23.68	23.51	23.36
		1	24	23.25	23.37	23.16
		1	49	23.39	23.44	23.58
		25	0	22.33	22.43	22.75
		25	12	22.20	22.29	22.16
		25	25	22.19	22.15	22.01
		50	0	22.37	22.40	22.55
10M	64QAM	1	0	22.55	22.74	22.41
		1	24	22.77	22.69	22.65
		1	49	22.20	22.71	22.49
		25	0	21.18	21.48	21.54
		25	12	21.66	21.64	21.10
		25	25	21.27	21.43	21.27
		50	0	21.31	21.33	21.25
10M	256QAM	1	0	19.07	19.18	18.90
		1	24	19.26	18.94	18.89
		1	49	18.93	19.16	19.09
		25	0	17.84	18.07	17.90
		25	12	18.04	18.03	18.07
		25	25	18.05	18.10	18.01
		50	0	18.33	18.20	17.73

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	24.35	24.37	24.46
		1	12	24.20	24.35	24.41
		1	24	24.22	24.34	24.32
		12	0	23.70	23.24	23.68
		12	6	23.42	23.74	23.18
		12	13	23.28	23.12	23.28
		25	0	23.53	23.64	23.22
5M	16QAM	1	0	23.66	23.29	23.55
		1	12	23.46	23.18	23.31
		1	24	23.27	23.42	23.39
		12	0	22.40	22.51	22.40
		12	6	22.29	22.24	22.51
		12	13	22.18	22.38	22.49
		25	0	22.23	22.70	22.38
5M	64QAM	1	0	22.52	22.44	22.63
		1	12	22.69	22.39	22.42
		1	24	22.12	22.36	22.68
		12	0	21.68	21.33	21.34
		12	6	21.70	21.29	21.58
		12	13	21.19	21.46	21.23
		25	0	21.26	21.64	21.74
5M	256QAM	1	0	18.85	19.12	19.21
		1	12	19.06	19.56	18.98
		1	24	18.87	19.12	19.42
		12	0	18.25	17.93	18.14
		12	6	18.30	17.98	18.17
		12	13	17.73	17.90	18.04
		25	0	18.22	18.04	17.85

EIRP / ERP Power (dBm, dBm/5MHz for LTE Band 30)

NR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		346000	349000	352000
		Frequency (MHz)		1730	1745	1760
40M	$\pi/2$ BPSK	1	1	22.07	22.01	22.03
		1	108	22.10	22.06	22.03
		1	214	22.08	22.00	21.97
		108	0	21.55	21.51	21.52
		108	54	22.08	22.08	22.00
		108	108	21.59	21.57	21.49
		216	0	21.65	21.58	21.63
40M	PSK	1	1	22.24	22.28	22.26
		1	108	22.10	22.07	22.02
		1	214	22.03	22.01	21.99
		108	0	21.23	21.26	21.20
		108	54	22.18	22.21	22.15
		108	108	21.10	21.04	21.11
		216	0	21.18	21.25	21.20
40M	16QAM	1	1	21.07	21.01	21.00
40M	64QAM	1	1	18.66	18.60	18.62
40M	256QAM	1	1	17.61	17.60	17.61
BW	MCS Index	Channel		345000	349000	353000
		Frequency (MHz)		1725	1745	1765
30M	$\pi/2$ BPSK	1	1	22.16	22.10	22.10
		1	80	22.17	22.11	22.11
		1	158	22.10	22.04	22.04
		80	0	21.60	21.54	21.54
		80	40	22.16	22.10	22.10
		80	80	21.65	21.59	21.59
		160	0	21.70	21.64	21.64
30M	PSK	1	1	22.23	22.26	22.24
		1	80	22.15	22.09	22.09
		1	158	22.13	22.07	22.07
		80	0	21.25	21.29	21.28
		80	40	22.19	22.20	22.13
		80	80	21.18	21.12	21.12
		160	0	21.23	21.26	21.25
30M	16QAM	1	1	21.16	21.10	21.10
30M	64QAM	1	1	18.71	18.65	18.65
30M	256QAM	1	1	17.68	17.62	17.62

*EIRP = Conducted + antenna gain (-1.685dBi)

NR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		344000	349000	354000
		Frequency (MHz)		1720	1745	1770
20M	$\pi/2$ BPSK	1	1	22.06	21.90	22.05
		1	53	22.02	22.01	21.94
		1	104	22.00	21.95	21.97
		50	0	21.53	21.47	21.36
		50	28	22.05	22.05	22.01
		50	56	21.59	21.53	21.48
		100	0	21.63	21.48	21.54
20M	PSK	1	1	22.02	21.98	22.10
		1	53	21.97	22.04	21.97
		1	104	21.98	21.92	21.92
		50	0	21.04	21.01	20.93
		50	28	22.12	22.08	21.92
		50	56	21.07	21.03	20.96
		100	0	21.10	21.04	21.03
20M	16QAM	1	1	21.04	21.08	20.99
20M	64QAM	1	1	19.58	19.47	19.54
20M	256QAM	1	1	17.48	17.41	17.44
BW	MCS Index	Channel		343500	349000	354500
		Frequency (MHz)		1717.5	1745	1772.5
15M	$\pi/2$ BPSK	1	1	22.08	21.98	22.00
		1	40	22.00	22.11	22.10
		1	77	22.02	21.93	22.03
		36	0	21.54	21.50	21.41
		36	22	22.10	22.08	22.07
		36	43	21.58	21.55	21.43
		75	0	21.62	21.58	21.53
15M	PSK	1	1	22.14	22.00	21.96
		1	40	21.98	22.04	22.05
		1	77	22.06	21.90	21.95
		36	0	21.00	21.02	20.93
		36	22	22.05	22.02	21.98
		36	43	21.06	20.98	21.01
		75	0	21.10	21.07	21.08
15M	16QAM	1	1	21.01	20.90	20.98
15M	64QAM	1	1	19.57	19.48	19.50
15M	256QAM	1	1	17.56	17.48	17.39

*EIRP = Conducted + antenna gain (-1.685dBi)

NR Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		343000	349000	355000
		Frequency (MHz)		1715	1745	1775
10M	$\pi/2$ BPSK	1	1	21.95	21.94	21.81
		1	26	22.00	22.03	22.03
		1	50	21.90	21.92	21.94
		25	0	21.48	21.34	21.32
		25	14	22.01	21.87	21.93
		25	27	21.47	21.53	21.47
		50	0	21.43	21.47	21.53
10M	PSK	1	1	22.03	21.98	21.86
		1	26	21.93	22.06	22.04
		1	50	21.89	21.89	21.92
		25	0	20.93	20.88	20.86
		25	14	22.04	21.82	21.92
		25	27	20.94	20.96	20.93
		50	0	21.02	20.95	20.96
10M	16QAM	1	1	21.08	20.93	20.93
10M	64QAM	1	1	19.58	19.44	19.51
10M	256QAM	1	1	17.46	17.49	17.36
BW	MCS Index	Channel		342500	349000	355500
		Frequency (MHz)		1712.5	1745	1777.5
5M	$\pi/2$ BPSK	1	1	21.97	21.90	21.96
		1	13	21.98	22.03	21.91
		1	23	21.98	21.93	21.91
		12	0	21.52	21.31	21.42
		12	7	22.03	21.92	21.96
		12	13	21.50	21.49	21.48
		25	0	21.56	21.60	21.50
5M	PSK	1	1	21.92	22.00	21.92
		1	13	22.06	22.00	21.95
		1	23	21.94	21.83	21.97
		12	0	21.00	20.87	20.99
		12	7	21.98	21.88	21.97
		12	13	21.06	20.97	21.06
		25	0	21.10	21.05	21.00
5M	16QAM	1	1	21.08	20.95	20.99
5M	64QAM	1	1	19.45	19.44	19.50
5M	256QAM	1	1	17.32	17.32	17.33

*EIRP = Conducted + antenna gain (-1.685dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18700	18900	19100
		Frequency (MHz)		1860	1880	1900
20M	QPSK	1	0	22.20	22.12	21.92
		1	50	22.00	22.12	21.82
		1	99	22.17	22.18	22.14
		50	0	21.45	20.93	21.22
		50	25	21.10	20.98	20.95
		50	50	20.82	21.22	21.23
		100	0	21.29	20.81	20.97
20M	16QAM	1	0	21.48	20.97	21.19
		1	50	21.07	21.14	20.82
		1	99	21.17	21.01	21.34
		50	0	19.89	19.92	20.14
		50	25	20.23	19.68	19.70
		50	50	19.79	19.68	19.64
		100	0	19.75	19.89	19.91
20M	64QAM	1	0	20.02	20.41	20.09
		1	50	20.11	20.19	20.08
		1	99	19.93	19.80	20.03
		50	0	19.36	18.86	18.95
		50	25	19.27	18.72	18.72
		50	50	19.19	19.01	19.15
		100	0	19.12	19.15	19.29
20M	256QAM	1	0	17.19	16.52	16.93
		1	50	16.53	16.76	16.87
		1	99	16.70	16.33	16.61
		50	0	16.47	16.42	16.54
		50	25	16.87	16.52	16.62
		50	50	16.82	16.64	16.42
		100	0	16.53	16.47	16.80

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18675	18900	19125
		Frequency (MHz)		1857.5	1880	1902.5
15M	QPSK	1	0	21.98	22.11	22.09
		1	37	21.96	22.02	21.88
		1	74	21.97	21.77	22.08
		36	0	21.10	21.22	21.11
		36	19	21.28	20.98	21.38
		36	39	21.19	21.00	21.30
		75	0	20.81	21.27	21.03
15M	16QAM	1	0	21.14	21.47	21.08
		1	37	21.00	20.81	21.10
		1	74	20.81	21.02	20.98
		36	0	20.29	19.74	20.13
		36	19	19.87	19.81	19.68
		36	39	19.73	19.63	20.12
		75	0	20.07	20.07	19.82
15M	64QAM	1	0	19.97	19.87	19.90
		1	37	20.04	19.79	19.90
		1	74	20.25	20.09	20.01
		36	0	19.09	19.26	19.21
		36	19	18.94	19.16	18.63
		36	39	18.98	18.78	19.16
		75	0	19.09	19.12	19.33
15M	256QAM	1	0	16.56	16.66	17.04
		1	37	16.79	16.29	16.92
		1	74	16.81	16.49	16.56
		36	0	15.55	15.84	15.81
		36	19	15.68	15.38	15.45
		36	39	15.92	15.74	15.51
		75	0	15.66	15.55	15.62

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18650	18900	19150
		Frequency (MHz)		1855	1880	1905
10M	QPSK	1	0	21.85	21.96	22.03
		1	24	21.79	21.75	21.79
		1	49	21.99	21.93	21.78
		25	0	21.01	21.00	20.89
		25	12	20.78	21.01	21.04
		25	25	21.01	20.96	20.82
		50	0	21.13	20.73	20.93
10M	16QAM	1	0	20.88	21.15	21.28
		1	24	21.00	20.83	20.90
		1	49	20.76	21.18	21.06
		25	0	19.67	19.73	20.15
		25	12	19.58	19.92	19.54
		25	25	19.74	19.89	19.80
		50	0	19.83	19.68	19.71
10M	64QAM	1	0	19.90	19.62	19.80
		1	24	19.63	20.06	20.00
		1	49	19.72	19.91	19.56
		25	0	19.03	19.13	18.94
		25	12	18.87	18.71	18.55
		25	25	18.66	19.12	18.59
		50	0	18.68	19.02	19.05
10M	256QAM	1	0	16.68	16.98	16.61
		1	24	16.50	16.50	16.46
		1	49	16.53	16.70	16.49
		25	0	15.95	15.30	15.78
		25	12	15.15	15.41	15.70
		25	25	15.41	15.71	15.31
		50	0	15.48	15.67	15.84

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18625	18900	19175
		Frequency (MHz)		1852.5	1880	1907.5
5M	QPSK	1	0	21.87	22.06	21.73
		1	12	21.85	22.01	21.83
		1	24	21.88	21.77	22.00
		12	0	20.79	20.78	20.96
		12	6	21.14	21.18	21.24
		12	13	20.73	20.50	20.66
		25	0	21.20	20.75	21.12
5M	16QAM	1	0	21.19	21.33	21.35
		1	12	21.05	21.08	20.72
		1	24	20.66	20.97	20.90
		12	0	19.71	19.88	19.75
		12	6	20.01	19.54	19.52
		12	13	19.92	20.03	19.88
		25	0	20.10	19.68	19.77
5M	64QAM	1	0	19.92	19.86	19.94
		1	12	19.86	19.78	20.18
		1	24	19.79	19.92	20.12
		12	0	19.24	18.92	19.06
		12	6	18.97	18.52	18.80
		12	13	18.82	18.88	18.72
		25	0	19.18	19.18	18.69
5M	256QAM	1	0	16.42	16.53	16.35
		1	12	16.33	16.56	16.56
		1	24	16.93	16.77	16.26
		12	0	15.99	15.79	15.59
		12	6	15.70	15.56	15.36
		12	13	15.29	15.06	15.38
		25	0	15.74	15.61	15.40

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18615	18900	19185
		Frequency (MHz)		1851.5	1880	1908.5
3M	QPSK	1	0	21.93	21.99	21.92
		1	7	21.61	21.96	21.75
		1	14	21.82	22.02	21.96
		8	0	21.20	20.98	21.08
		8	3	21.24	20.65	21.25
		8	7	21.25	20.97	20.93
		15	0	21.33	21.18	21.26
3M	16QAM	1	0	20.99	21.24	21.03
		1	7	21.34	21.28	21.24
		1	14	20.84	20.70	20.75
		8	0	19.93	20.05	20.11
		8	3	19.58	20.11	19.58
		8	7	20.00	20.03	19.87
		15	0	19.98	19.52	19.69
3M	64QAM	1	0	19.81	19.91	20.14
		1	7	19.80	20.12	20.06
		1	14	19.89	19.90	20.13
		8	0	18.75	19.10	19.10
		8	3	19.15	18.99	19.00
		8	7	19.04	18.79	18.59
		15	0	18.90	19.21	19.03
3M	256QAM	1	0	16.62	16.82	16.70
		1	7	16.63	16.20	16.48
		1	14	16.85	16.33	16.42
		8	0	15.75	15.35	15.22
		8	3	15.70	15.35	15.84
		8	7	15.76	15.89	15.71
		15	0	15.82	15.19	15.62

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 2						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		18607	18900	19193
		Frequency (MHz)		1850.7	1880	1909.3
1.4M	QPSK	1	0	22.06	22.19	22.02
		1	2	22.08	22.13	21.98
		1	5	22.04	22.06	21.82
		3	0	22.07	22.07	22.07
		3	1	21.73	22.15	21.68
		3	3	22.06	22.02	21.85
		6	0	20.76	21.16	21.20
1.4M	16QAM	1	0	21.49	21.34	21.05
		1	2	20.68	20.77	21.25
		1	5	20.95	21.04	20.80
		3	0	20.85	20.87	20.84
		3	1	20.58	21.02	21.12
		3	3	20.81	20.77	21.11
		6	0	19.76	19.97	19.92
1.4M	64QAM	1	0	19.99	20.02	20.27
		1	2	19.92	20.18	20.21
		1	5	19.84	19.91	19.96
		3	0	19.83	19.97	20.13
		3	1	20.19	19.75	19.95
		3	3	19.98	19.61	19.76
		6	0	19.08	19.09	18.91
1.4M	256QAM	1	0	16.49	16.34	17.13
		1	2	16.71	16.55	16.93
		1	5	16.58	16.79	16.26
		3	0	16.59	16.72	16.68
		3	1	16.92	16.66	16.80
		3	3	16.70	16.52	16.16
		6	0	15.55	15.70	15.47

*EIRP = Conducted + antenna gain (-1.394dBi)

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20450	20525	20600
		Frequency (MHz)		829	836.5	844
10M	QPSK	1	0	20.36	20.44	20.38
		1	24	20.31	20.36	20.34
		1	49	20.06	20.37	19.68
		25	0	19.41	19.78	19.50
		25	12	19.10	19.47	19.31
		25	25	19.35	19.13	19.01
		50	0	19.15	19.85	19.46
10M	16QAM	1	0	19.22	19.39	19.59
		1	24	19.07	19.42	19.33
		1	49	19.31	19.26	19.06
		25	0	18.42	18.28	18.61
		25	12	18.10	18.77	18.46
		25	25	18.25	18.63	17.81
		50	0	18.49	18.30	18.36
10M	64QAM	1	0	17.93	18.37	17.98
		1	24	17.98	17.94	17.60
		1	49	17.41	17.39	17.15
		25	0	16.71	17.36	17.04
		25	12	17.21	16.98	16.85
		25	25	16.53	16.75	16.19
		50	0	16.71	17.05	16.48
10M	256QAM	1	0	15.04	15.51	14.80
		1	24	14.55	15.02	14.44
		1	49	14.55	15.00	14.70
		25	0	14.00	14.17	14.05
		25	12	14.17	14.14	14.07
		25	25	13.91	13.92	13.62
		50	0	14.03	13.95	13.79

*ERP = Conducted + antenna gain (-1.891dBi)-2.15

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20425	20525	20625
		Frequency (MHz)		826.5	836.5	846.5
5M	QPSK	1	0	20.20	20.20	20.05
		1	12	20.09	20.12	19.78
		1	24	19.70	20.11	19.77
		12	0	19.50	19.66	19.25
		12	6	19.43	19.74	19.01
		12	13	19.29	19.22	18.74
		25	0	19.30	19.23	19.06
5M	16QAM	1	0	19.06	19.36	19.61
		1	12	19.18	19.69	19.55
		1	24	18.80	19.01	18.82
		12	0	18.41	18.67	18.31
		12	6	18.45	18.68	18.25
		12	13	18.29	18.14	17.99
		25	0	18.23	18.30	18.54
5M	64QAM	1	0	18.00	18.46	18.13
		1	12	18.00	17.90	17.61
		1	24	17.22	17.32	17.46
		12	0	17.14	17.03	17.09
		12	6	16.63	17.00	16.92
		12	13	16.69	16.37	16.19
		25	0	16.48	16.46	16.23
5M	256QAM	1	0	14.51	15.04	14.79
		1	12	14.59	15.00	14.68
		1	24	14.75	14.85	14.78
		12	0	13.55	14.23	14.17
		12	6	14.09	14.39	13.99
		12	13	13.92	13.91	13.88
		25	0	13.91	13.83	13.73

*ERP = Conducted + antenna gain (-1.891dBi)-2.15

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20415	20525	20635
		Frequency (MHz)		825.5	836.5	847.5
3M	QPSK	1	0	20.18	20.29	20.07
		1	7	19.95	20.16	20.07
		1	14	20.03	20.01	19.53
		8	0	19.00	19.12	19.31
		8	3	19.15	19.39	19.53
		8	7	19.23	19.25	18.67
		15	0	19.33	19.46	18.75
3M	16QAM	1	0	19.27	19.38	19.42
		1	7	19.17	19.52	19.44
		1	14	18.83	19.23	18.50
		8	0	18.36	18.41	18.43
		8	3	18.25	18.33	17.97
		8	7	18.39	18.43	17.92
		15	0	18.15	18.59	18.31
3M	64QAM	1	0	18.08	18.39	17.65
		1	7	18.03	17.93	17.63
		1	14	17.41	17.53	17.16
		8	0	17.00	17.32	16.56
		8	3	16.96	17.01	16.49
		8	7	16.18	16.37	16.30
		15	0	16.61	16.66	16.59
3M	256QAM	1	0	14.73	14.67	14.69
		1	7	14.76	15.03	14.60
		1	14	14.55	14.69	14.25
		8	0	13.95	14.09	13.68
		8	3	13.60	14.16	14.01
		8	7	13.60	14.20	13.88
		15	0	13.68	13.90	13.83

*ERP = Conducted + antenna gain (-1.891dBi)-2.15

LTE Band 5						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20407	20525	20643
		Frequency (MHz)		824.7	836.5	848.3
1.4M	QPSK	1	0	20.21	20.09	20.21
		1	2	20.16	20.12	20.16
		1	5	20.01	20.12	19.69
		3	0	20.27	20.20	20.09
		3	1	20.36	20.29	20.36
		3	3	20.35	20.34	19.75
		6	0	19.46	19.49	18.97
1.4M	16QAM	1	0	19.35	19.40	18.96
		1	2	19.36	19.39	19.18
		1	5	19.08	18.77	18.78
		3	0	19.13	19.55	19.17
		3	1	19.03	19.56	19.41
		3	3	19.22	19.15	18.76
		6	0	18.05	18.26	18.50
1.4M	64QAM	1	0	17.94	18.08	17.66
		1	2	17.94	18.01	17.99
		1	5	17.49	17.61	17.11
		3	0	17.68	17.97	18.02
		3	1	18.09	18.03	17.95
		3	3	16.99	17.73	17.31
		6	0	16.58	16.86	16.32
1.4M	256QAM	1	0	15.00	14.77	15.09
		1	2	15.19	14.96	14.48
		1	5	14.31	14.51	14.22
		3	0	14.68	15.33	14.40
		3	1	14.67	14.73	14.60
		3	3	15.10	14.80	14.65
		6	0	14.29	14.45	13.87

*ERP = Conducted + antenna gain (-1.891dBi)-2.15

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	23.41	23.18	23.44
		1	50	23.39	23.14	23.33
		1	99	23.39	23.10	23.32
		50	0	22.46	22.67	22.61
		50	25	22.24	22.20	22.37
		50	50	22.27	22.22	22.31
		100	0	22.19	22.12	22.63
20M	16QAM	1	0	22.47	22.66	22.50
		1	50	21.97	21.98	22.40
		1	99	22.33	21.79	22.36
		50	0	21.74	21.61	21.88
		50	25	21.63	21.56	21.87
		50	50	21.54	21.56	21.53
		100	0	21.45	21.15	21.35
20M	64QAM	1	0	21.37	21.54	21.92
		1	50	21.25	21.17	21.72
		1	99	21.23	21.02	21.38
		50	0	20.65	20.50	20.74
		50	25	20.43	20.62	20.89
		50	50	20.53	20.13	20.31
		100	0	20.55	20.32	20.51
20M	256QAM	1	0	18.47	18.05	17.98
		1	50	17.70	17.99	18.09
		1	99	18.34	17.58	17.78
		50	0	17.21	16.95	17.10
		50	25	16.75	17.19	17.35
		50	50	16.85	17.13	17.11
		100	0	17.19	17.39	17.13

*EIRP = Conducted + antenna gain (0.185dBi)

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	23.43	23.27	22.43
		1	37	23.11	22.94	23.16
		1	74	23.20	22.99	23.17
		36	0	22.44	22.30	22.85
		36	19	22.45	22.47	22.57
		36	39	22.47	22.45	22.50
		75	0	22.32	22.47	22.27
15M	16QAM	1	0	22.58	22.61	22.48
		1	37	22.01	22.24	22.02
		1	74	22.06	22.03	22.01
		36	0	21.75	21.42	21.52
		36	19	21.48	21.24	21.46
		36	39	21.20	21.13	21.27
		75	0	21.70	21.44	21.81
15M	64QAM	1	0	21.32	21.31	21.42
		1	37	21.68	21.43	21.77
		1	74	21.27	21.36	20.99
		36	0	20.50	20.58	20.75
		36	19	20.67	20.36	20.58
		36	39	20.18	20.15	20.43
		75	0	20.44	20.16	20.31
15M	256QAM	1	0	17.52	17.70	18.13
		1	37	17.77	17.61	17.91
		1	74	17.90	17.71	17.65
		36	0	17.20	16.82	17.42
		36	19	17.09	16.72	17.18
		36	39	16.95	17.09	17.11
		75	0	16.66	17.15	17.20

*EIRP = Conducted + antenna gain (0.185dBi)

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	23.35	23.20	23.32
		1	24	23.00	22.99	23.09
		1	49	23.33	22.98	22.94
		25	0	22.31	22.53	22.53
		25	12	22.30	22.49	22.28
		25	25	22.45	22.17	22.51
		50	0	22.27	22.16	22.53
10M	16QAM	1	0	22.48	22.28	22.44
		1	24	21.79	22.20	22.34
		1	49	22.23	22.00	22.13
		25	0	21.18	21.31	21.40
		25	12	21.32	21.50	21.29
		25	25	21.12	21.14	21.13
		50	0	21.37	21.18	21.46
10M	64QAM	1	0	21.46	21.38	21.73
		1	24	20.99	21.20	21.65
		1	49	21.06	20.77	21.07
		25	0	20.53	20.16	20.46
		25	12	20.54	20.26	20.31
		25	25	20.46	20.11	20.18
		50	0	20.44	20.18	20.54
10M	256QAM	1	0	18.09	17.74	17.76
		1	24	18.15	17.50	17.65
		1	49	17.93	17.65	17.52
		25	0	17.04	16.92	17.20
		25	12	17.31	16.69	17.09
		25	25	17.13	16.71	17.28
		50	0	17.19	16.71	17.24

*EIRP = Conducted + antenna gain (0.185dBi)

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	23.32	23.31	23.24
		1	12	22.95	22.97	23.23
		1	24	22.79	22.99	23.11
		12	0	22.17	22.46	22.37
		12	6	22.52	22.35	22.61
		12	13	22.28	21.93	22.36
		25	0	22.24	22.16	22.38
5M	16QAM	1	0	22.72	22.05	22.68
		1	12	21.88	22.24	21.94
		1	24	21.87	21.77	21.95
		12	0	21.25	21.18	21.21
		12	6	21.45	21.29	21.61
		12	13	21.43	20.98	21.53
		25	0	21.28	21.47	21.76
5M	64QAM	1	0	21.50	21.51	21.54
		1	12	21.58	21.57	21.70
		1	24	21.14	21.04	21.13
		12	0	20.29	20.45	20.39
		12	6	20.22	20.44	20.68
		12	13	19.94	19.96	20.30
		25	0	20.08	20.44	20.35
5M	256QAM	1	0	18.24	17.97	17.59
		1	12	17.62	17.49	18.00
		1	24	17.50	17.33	18.10
		12	0	16.90	16.88	16.86
		12	6	16.83	16.94	16.71
		12	13	17.18	17.19	16.91
		25	0	16.85	16.85	17.04

*EIRP = Conducted + antenna gain (0.185dBi)

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	20.01	19.97	19.94
		1	24	19.99	19.95	19.99
		1	49	19.95	19.99	19.72
		25	0	19.12	19.07	18.81
		25	12	19.40	18.99	19.20
		25	25	19.35	19.04	18.62
		50	0	19.43	18.98	18.98
10M	16QAM	1	0	18.92	19.24	18.75
		1	24	19.10	18.66	19.00
		1	49	19.07	18.61	18.52
		25	0	18.25	18.24	18.22
		25	12	18.08	17.78	17.67
		25	25	18.50	18.27	18.08
		50	0	18.24	17.95	17.81
10M	64QAM	1	0	18.15	17.75	17.95
		1	24	18.28	17.66	17.92
		1	49	17.60	17.38	17.51
		25	0	16.84	17.13	17.06
		25	12	17.20	17.07	16.91
		25	25	17.02	16.82	16.83
		50	0	16.86	16.91	16.83
10M	256QAM	1	0	15.13	14.78	14.55
		1	24	14.85	14.62	14.72
		1	49	14.61	14.15	14.70
		25	0	13.91	13.59	13.43
		25	12	14.03	13.77	13.38
		25	25	13.95	13.69	13.72
		50	0	13.59	13.92	13.69

*ERP = Conducted + antenna gain (-2.135dBi)-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	19.92	19.92	19.81
		1	12	19.99	19.89	19.76
		1	24	19.95	19.95	19.82
		12	0	19.33	18.64	18.82
		12	6	19.38	18.99	18.81
		12	13	19.23	18.83	18.88
		25	0	19.42	18.85	19.18
5M	16QAM	1	0	19.42	18.68	18.72
		1	12	18.81	18.65	18.63
		1	24	18.93	19.07	18.48
		12	0	18.30	18.25	17.81
		12	6	18.20	17.70	17.82
		12	13	18.30	17.93	17.64
		25	0	18.05	17.69	17.82
5M	64QAM	1	0	18.50	17.70	17.81
		1	12	18.22	17.78	17.70
		1	24	18.00	17.73	17.43
		12	0	17.23	16.77	16.83
		12	6	17.17	16.59	16.51
		12	13	16.91	16.56	16.76
		25	0	16.76	17.00	16.60
5M	256QAM	1	0	15.25	14.68	14.86
		1	12	14.54	14.76	14.47
		1	24	14.62	14.02	14.41
		12	0	13.91	13.15	13.27
		12	6	13.31	13.51	13.55
		12	13	13.68	13.21	13.42
		25	0	14.02	13.98	13.30

*ERP = Conducted + antenna gain (-2.135dBi)-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	19.90	19.90	19.90
		1	7	19.89	19.72	19.71
		1	14	19.86	19.91	19.56
		8	0	18.73	18.77	18.96
		8	3	19.10	18.73	18.82
		8	7	19.25	18.55	18.77
		15	0	19.07	18.87	18.92
3M	16QAM	1	0	18.79	19.02	18.79
		1	7	19.09	18.50	18.84
		1	14	19.06	18.80	18.42
		8	0	18.04	17.94	17.90
		8	3	18.22	18.05	17.88
		8	7	18.39	17.66	18.02
		15	0	17.99	18.00	18.08
3M	64QAM	1	0	18.08	17.92	18.02
		1	7	17.97	17.88	17.72
		1	14	17.70	17.29	17.18
		8	0	17.05	16.73	16.95
		8	3	16.65	16.41	16.66
		8	7	16.56	16.43	16.63
		15	0	16.98	16.58	16.50
3M	256QAM	1	0	14.84	14.40	14.66
		1	7	14.73	14.57	14.43
		1	14	14.76	14.77	14.15
		8	0	13.75	13.14	13.54
		8	3	13.77	13.77	13.52
		8	7	13.58	13.18	13.63
		15	0	13.94	13.47	13.20

*ERP = Conducted + antenna gain (-2.135dBi)-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	19.93	19.96	19.79
		1	2	19.89	19.97	19.72
		1	5	19.87	19.93	19.93
		3	0	19.89	19.73	19.95
		3	1	19.81	19.58	19.68
		3	3	19.89	19.65	18.72
		6	0	19.07	19.08	18.83
1.4M	16QAM	1	0	19.20	19.23	18.93
		1	2	19.15	18.86	18.58
		1	5	19.02	19.01	18.71
		3	0	18.99	19.03	18.58
		3	1	19.03	18.97	18.75
		3	3	19.22	18.97	18.69
		6	0	18.31	17.67	18.02
1.4M	64QAM	1	0	18.18	17.78	18.09
		1	2	18.18	17.98	17.47
		1	5	17.82	17.48	17.49
		3	0	17.87	17.80	17.87
		3	1	17.69	17.74	17.28
		3	3	17.57	17.46	17.77
		6	0	16.98	16.41	16.89
1.4M	256QAM	1	0	14.95	14.91	14.58
		1	2	14.90	14.31	14.75
		1	5	14.50	14.32	14.01
		3	0	15.05	14.43	14.44
		3	1	14.82	14.63	14.58
		3	3	14.77	14.47	14.52
		6	0	13.71	13.39	13.59

*ERP = Conducted + antenna gain (-2.135dBi)-2.15

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	19.99
		1	24	19.96
		1	49	19.89
		25	0	19.12
		25	12	19.02
		25	25	19.17
		50	0	18.98
10M	16QAM	1	0	19.32
		1	24	19.18
		1	49	19.44
		25	0	18.50
		25	12	18.03
		25	25	18.26
		50	0	18.52
10M	64QAM	1	0	18.16
		1	24	18.01
		1	49	18.32
		25	0	17.06
		25	12	17.20
		25	25	17.09
		50	0	17.03
10M	256QAM	1	0	15.27
		1	24	14.68
		1	49	15.04
		25	0	13.74
		25	12	13.57
		25	25	13.50
		50	0	13.73

*ERP = Conducted + antenna gain (-4.37dBi)-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	19.94	19.98	19.94
		1	12	19.95	19.95	19.94
		1	24	19.98	19.96	19.76
		12	0	19.21	19.32	19.15
		12	6	19.24	18.89	18.96
		12	13	19.00	19.18	18.74
		25	0	19.18	19.13	19.15
5M	16QAM	1	0	19.05	19.46	19.19
		1	12	18.94	19.52	18.89
		1	24	19.20	19.09	19.13
		12	0	18.46	17.95	17.87
		12	6	18.08	18.40	18.37
		12	13	17.94	17.87	17.78
		25	0	18.07	18.53	18.26
5M	64QAM	1	0	17.90	17.99	18.30
		1	12	18.29	18.27	17.91
		1	24	17.84	17.78	17.83
		12	0	17.06	16.98	16.57
		12	6	16.68	16.95	16.78
		12	13	16.98	17.05	16.75
		25	0	16.83	16.90	17.02
5M	256QAM	1	0	14.44	14.55	14.71
		1	12	15.12	15.14	14.85
		1	24	14.39	14.66	15.00
		12	0	13.74	14.00	13.65
		12	6	13.84	13.39	13.47
		12	13	14.12	14.00	13.63
		25	0	14.05	13.61	13.29

*ERP = Conducted + antenna gain (-4.37dBi)-2.15

LTE Band 14				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		23330
		Frequency (MHz)		793
10M	QPSK	1	0	17.88
		1	24	17.42
		1	49	17.37
		25	0	16.86
		25	12	16.29
		25	25	15.74
		50	0	16.83
10M	16QAM	1	0	16.94
		1	24	16.92
		1	49	16.45
		25	0	16.07
		25	12	15.35
		25	25	15.20
		50	0	15.33
10M	64QAM	1	0	15.90
		1	24	15.16
		1	49	15.00
		25	0	14.14
		25	12	13.48
		25	25	13.42
		50	0	13.49
10M	256QAM	1	0	13.13
		1	24	12.14
		1	49	11.62
		25	0	11.12
		25	12	11.14
		25	25	10.89
		50	0	11.34

*ERP = Conducted + antenna gain (-4.37dBi)-2.15

LTE Band 14						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23305	23330	23355
		Frequency (MHz)		790.5	793	795.5
5M	QPSK	1	0	17.80	17.87	17.64
		1	12	17.73	17.82	17.48
		1	24	17.44	17.54	17.40
		12	0	16.81	17.01	16.61
		12	6	16.39	16.02	16.09
		12	13	15.63	15.86	15.86
		25	0	16.70	16.69	16.71
5M	16QAM	1	0	16.91	17.14	16.94
		1	12	16.51	16.38	16.50
		1	24	16.27	16.52	16.64
		12	0	15.65	15.84	15.96
		12	6	15.19	15.12	15.60
		12	13	14.76	14.78	14.93
		25	0	15.58	15.54	15.17
5M	64QAM	1	0	15.81	15.36	15.36
		1	12	14.79	14.93	14.99
		1	24	14.48	15.01	14.47
		12	0	14.11	14.42	13.88
		12	6	13.68	13.37	13.31
		12	13	13.17	13.42	13.40
		25	0	13.63	13.45	13.66
5M	256QAM	1	0	12.48	12.79	12.75
		1	12	11.84	12.18	12.18
		1	24	12.15	11.89	11.82
		12	0	11.39	11.35	11.25
		12	6	11.34	11.37	11.34
		12	13	11.10	11.37	11.38
		25	0	11.59	11.40	11.49

*ERP = Conducted + antenna gain (-4.37dBi)-2.15

LTE Band 30				
BW	MCS Index	RB Size	RB Offset	Mid
		Channel		27710
		Frequency (MHz)		2310
10M	QPSK	1	0	21.60
		1	24	21.49
		1	49	21.43
		25	0	20.42
		25	12	20.78
		25	25	20.54
		50	0	20.35
10M	16QAM	1	0	20.42
		1	24	20.88
		1	49	20.79
		25	0	19.97
		25	12	19.62
		25	25	19.45
		50	0	19.70
10M	64QAM	1	0	19.39
		1	24	19.80
		1	49	19.31
		25	0	18.69
		25	12	18.59
		25	25	18.83
		50	0	18.72
10M	256QAM	1	0	16.25
		1	24	16.34
		1	49	16.11
		25	0	15.47
		25	12	15.66
		25	25	15.49
		50	0	15.82

*EIRP = Conducted + antenna gain (-1.2843dBi)

LTE Band 30						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		27685	27710	27735
		Frequency (MHz)		2307.5	2310	2312.5
5M	QPSK	1	0	21.45	21.57	21.37
		1	12	21.11	21.56	21.46
		1	24	21.13	21.41	21.22
		12	0	20.41	20.72	20.60
		12	6	20.72	20.42	20.72
		12	13	20.52	20.33	20.60
		25	0	20.46	20.43	20.47
5M	16QAM	1	0	20.32	20.76	20.43
		1	12	20.74	20.46	20.29
		1	24	20.24	20.66	20.48
		12	0	19.30	19.71	19.49
		12	6	19.31	19.74	19.57
		12	13	19.49	19.21	19.72
		25	0	19.45	19.73	19.72
5M	64QAM	1	0	19.31	19.70	19.29
		1	12	19.43	19.50	19.38
		1	24	19.17	19.34	19.52
		12	0	18.30	18.34	18.49
		12	6	18.38	18.72	18.60
		12	13	18.47	18.57	18.17
		25	0	18.24	18.25	18.50
5M	256QAM	1	0	16.15	16.58	16.23
		1	12	16.29	16.17	15.98
		1	24	16.03	15.95	15.96
		12	0	15.13	15.86	15.62
		12	6	15.14	15.61	15.61
		12	13	15.83	15.60	15.35
		25	0	15.11	15.40	15.45

*EIRP = Conducted + antenna gain (-1.2843dBi)

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	16.51	16.59	16.51
		1	50	16.54	16.52	16.43
		1	99	16.53	16.50	16.52
		50	0	15.88	15.71	15.46
		50	25	15.36	15.48	15.69
		50	50	15.53	15.39	15.51
		100	0	15.62	15.82	15.82
20M	16QAM	1	0	15.45	15.56	15.89
		1	50	15.41	15.39	15.46
		1	99	15.69	15.28	15.77
		50	0	14.78	14.74	14.35
		50	25	14.76	14.39	14.25
		50	50	14.63	14.64	14.25
		100	0	14.81	14.79	14.54
20M	64QAM	1	0	14.80	14.77	14.44
		1	50	14.73	14.44	14.62
		1	99	14.73	14.71	14.69
		50	0	13.83	13.76	13.85
		50	25	13.68	13.29	13.40
		50	50	13.76	13.66	13.70
		100	0	13.63	13.31	13.69
20M	256QAM	1	0	11.42	10.82	11.55
		1	50	11.06	11.00	10.83
		1	99	11.22	11.16	10.98
		50	0	10.50	10.23	10.16
		50	25	9.97	9.96	10.47
		50	50	10.42	10.22	10.23
		100	0	10.21	10.31	10.26

*ERP = Conducted + antenna gain (-5.741dBi)-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	16.56	16.49	16.51
		1	37	16.56	16.52	16.37
		1	74	16.37	16.52	16.57
		36	0	15.66	15.57	15.36
		36	19	15.51	15.52	15.28
		36	39	15.74	15.52	15.64
		75	0	15.77	15.56	15.35
15M	16QAM	1	0	15.75	15.55	15.39
		1	37	15.40	15.80	15.65
		1	74	15.62	15.22	15.59
		36	0	14.68	14.56	14.63
		36	19	14.45	14.38	14.17
		36	39	14.66	14.57	14.15
		75	0	14.85	14.68	14.59
15M	64QAM	1	0	14.89	14.85	14.31
		1	37	14.79	14.58	14.68
		1	74	14.44	14.41	14.33
		36	0	13.21	13.54	13.71
		36	19	13.53	13.24	13.47
		36	39	13.55	13.64	13.35
		75	0	13.24	13.32	13.44
15M	256QAM	1	0	11.64	11.31	11.05
		1	37	11.34	11.39	11.68
		1	74	11.53	11.03	10.95
		36	0	10.00	10.20	10.63
		36	19	10.28	10.36	10.02
		36	39	10.19	10.40	10.55
		75	0	10.58	9.73	10.31

*ERP = Conducted + antenna gain (-5.741dBi)-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	16.57	16.51	16.54
		1	24	16.56	16.28	16.54
		1	49	16.51	16.54	16.34
		25	0	15.82	15.62	15.59
		25	12	15.85	15.56	15.61
		25	25	15.66	15.69	15.47
		50	0	15.88	15.57	15.48
10M	16QAM	1	0	15.79	15.62	15.47
		1	24	15.36	15.48	15.27
		1	49	15.50	15.55	15.69
		25	0	14.44	14.54	14.86
		25	12	14.31	14.40	14.27
		25	25	14.30	14.26	14.12
		50	0	14.48	14.51	14.66
10M	64QAM	1	0	14.66	14.85	14.52
		1	24	14.88	14.80	14.76
		1	49	14.31	14.82	14.60
		25	0	13.29	13.59	13.65
		25	12	13.77	13.75	13.21
		25	25	13.38	13.54	13.38
		50	0	13.42	13.44	13.36
10M	256QAM	1	0	11.18	11.29	11.01
		1	24	11.37	11.05	11.00
		1	49	11.04	11.27	11.20
		25	0	9.95	10.18	10.01
		25	12	10.15	10.14	10.18
		25	25	10.16	10.21	10.12
		50	0	10.44	10.31	9.84

*ERP = Conducted + antenna gain (-5.741dBi)-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	16.46	16.48	16.57
		1	12	16.31	16.46	16.52
		1	24	16.33	16.45	16.43
		12	0	15.81	15.35	15.79
		12	6	15.53	15.85	15.29
		12	13	15.39	15.23	15.39
		25	0	15.64	15.75	15.33
5M	16QAM	1	0	15.77	15.40	15.66
		1	12	15.57	15.29	15.42
		1	24	15.38	15.53	15.50
		12	0	14.51	14.62	14.51
		12	6	14.40	14.35	14.62
		12	13	14.29	14.49	14.60
		25	0	14.34	14.81	14.49
5M	64QAM	1	0	14.63	14.55	14.74
		1	12	14.80	14.50	14.53
		1	24	14.23	14.47	14.79
		12	0	13.79	13.44	13.45
		12	6	13.81	13.40	13.69
		12	13	13.30	13.57	13.34
		25	0	13.37	13.75	13.85
5M	256QAM	1	0	10.96	11.23	11.32
		1	12	11.17	11.67	11.09
		1	24	10.98	11.23	11.53
		12	0	10.36	10.04	10.25
		12	6	10.41	10.09	10.28
		12	13	9.84	10.01	10.15
		25	0	10.33	10.15	9.96

*ERP = Conducted + antenna gain (-5.741dBi)-2.15

EIRP Full Power (dBm/10MHz)

Modulation Type: QPSK

LTE Band 48, Channel Bandwidth 5MHz

Mode		TX channel 55265, 55990, 56715						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	19.84	23.00	-3.16	2.75 H	197	81.82	-61.98
2	3625.00	19.71	23.00	-3.29	2.65 H	197	81.52	-61.81
3	3697.50	19.77	23.00	-3.23	2.69 H	203	81.45	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	17.75	23.00	-5.25	2.30 V	334	79.73	-61.98
2	3625.00	17.29	23.00	-5.71	2.27 V	341	79.10	-61.81
3	3697.50	17.42	23.00	-5.58	2.31 V	338	79.10	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 10MHz

Mode		TX channel 55290, 55990, 56690						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	19.54	23.00	-3.46	2.75 H	201	81.52	-61.98
2	3625.00	19.45	23.00	-3.55	2.65 H	200	81.26	-61.81
3	3695.00	20.09	23.00	-2.91	2.66 H	203	81.77	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	17.29	23.00	-5.71	2.32 V	338	79.27	-61.98
2	3625.00	17.00	23.00	-6.00	2.23 V	360	78.81	-61.81
3	3695.00	17.84	23.00	-5.16	2.26 V	338	79.52	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	18.71	23.00	-4.29	2.71 H	197	80.68	-61.97
2	3625.00	18.23	23.00	-4.77	2.70 H	203	80.04	-61.81
3	3692.50	18.64	23.00	-4.36	2.73 H	197	80.33	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	16.40	23.00	-6.60	2.30 V	337	78.37	-61.97
2	3625.00	16.30	23.00	-6.70	2.24 V	340	78.11	-61.81
3	3692.50	16.60	23.00	-6.40	2.23 V	339	78.29	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	18.78	23.00	-4.22	2.65 H	199	80.75	-61.97
2	3625.00	19.12	23.00	-3.88	2.67 H	203	80.93	-61.81
3	3690.00	18.88	23.00	-4.12	2.68 H	199	80.57	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	16.50	23.00	-6.50	2.32 V	335	78.47	-61.97
2	3625.00	17.00	23.00	-6.00	2.22 V	340	78.81	-61.81
3	3690.00	16.32	23.00	-6.68	2.25 V	334	78.01	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Modulation Type: 16QAM

LTE Band 48, Channel Bandwidth 5MHz

Mode		TX channel 55265, 55990, 56715						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	18.65	23.00	-4.35	2.72 H	204	80.63	-61.98
2	3625.00	18.53	23.00	-4.47	2.73 H	204	80.34	-61.81
3	3697.50	18.64	23.00	-4.36	2.70 H	200	80.32	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	16.76	23.00	-6.24	2.32 V	336	78.74	-61.98
2	3625.00	16.49	23.00	-6.51	2.32 V	339	78.30	-61.81
3	3697.50	16.24	23.00	-6.76	2.23 V	336	77.92	-61.68

Remarks:

1. EIRP(dBm/10MHz) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 10MHz

Mode		TX channel 55290, 55990, 56690						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	18.63	23.00	-4.37	2.70 H	201	80.61	-61.98
2	3625.00	18.38	23.00	-4.62	2.66 H	202	80.19	-61.81
3	3695.00	19.15	23.00	-3.85	2.75 H	197	80.83	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	16.38	23.00	-6.62	2.22 V	339	78.36	-61.98
2	3625.00	15.96	23.00	-7.04	2.25 V	335	77.77	-61.81
3	3695.00	16.87	23.00	-6.13	2.26 V	337	78.55	-61.68

Remarks:

1. EIRP(dBm/10MHz) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	17.71	23.00	-5.29	2.71 H	197	79.68	-61.97
2	3625.00	17.20	23.00	-5.80	2.70 H	203	79.01	-61.81
3	3692.50	17.60	23.00	-5.40	2.73 H	197	79.29	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	15.94	23.00	-7.06	2.30 V	337	77.91	-61.97
2	3625.00	15.83	23.00	-7.17	2.24 V	340	77.64	-61.81
3	3692.50	16.00	23.00	-7.00	2.23 V	339	77.69	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	17.78	23.00	-5.22	2.65 H	199	79.75	-61.97
2	3625.00	18.01	23.00	-4.99	2.67 H	203	79.82	-61.81
3	3690.00	17.99	23.00	-5.01	2.68 H	199	79.68	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	15.50	23.00	-7.50	2.32 V	335	77.47	-61.97
2	3625.00	16.00	23.00	-7.00	2.22 V	340	77.81	-61.81
3	3690.00	15.32	23.00	-7.68	2.25 V	334	77.01	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Modulation Type: 64QAM

LTE Band 48, Channel Bandwidth 5MHz

Mode		TX channel 55265, 55990, 56715						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	17.70	23.00	-5.30	2.69 H	197	79.68	-61.98
2	3625.00	17.59	23.00	-5.41	2.72 H	199	79.40	-61.81
3	3697.50	17.49	23.00	-5.51	2.75 H	203	79.17	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	15.91	23.00	-7.09	2.26 V	334	77.89	-61.98
2	3625.00	15.63	23.00	-7.37	2.27 V	336	77.44	-61.81
3	3697.50	15.06	23.00	-7.94	2.30 V	341	76.74	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 10MHz

Mode		TX channel 55290, 55990, 56690						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	17.74	23.00	-5.26	2.68 H	204	79.72	-61.98
2	3625.00	17.31	23.00	-5.69	2.68 H	198	79.12	-61.81
3	3695.00	18.30	23.00	-4.70	2.73 H	202	79.98	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	15.35	23.00	-7.65	2.30 V	338	77.33	-61.98
2	3625.00	15.00	23.00	-8.00	2.29 V	340	76.81	-61.81
3	3695.00	15.67	23.00	-7.33	2.26 V	339	77.35	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	17.11	23.00	-5.89	2.71 H	197	79.08	-61.97
2	3625.00	16.72	23.00	-6.28	2.70 H	203	78.53	-61.81
3	3692.50	17.06	23.00	-5.94	2.73 H	197	78.75	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	15.34	23.00	-7.66	2.30 V	337	77.31	-61.97
2	3625.00	15.30	23.00	-7.70	2.24 V	340	77.11	-61.81
3	3692.50	15.50	23.00	-7.50	2.23 V	339	77.19	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	16.88	23.00	-6.12	2.65 H	199	78.85	-61.97
2	3625.00	17.01	23.00	-5.99	2.67 H	203	78.82	-61.81
3	3690.00	16.99	23.00	-6.01	2.68 H	199	78.68	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	15.00	23.00	-8.00	2.32 V	335	76.97	-61.97
2	3625.00	15.60	23.00	-7.40	2.22 V	340	77.41	-61.81
3	3690.00	14.53	23.00	-8.47	2.25 V	334	76.22	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Modulation Type: 256QAM

LTE Band 48, Channel Bandwidth 5MHz

Mode		TX channel 55265, 55990, 56715						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	16.75	23.00	-6.25	2.81 H	204	78.73	-61.98
2	3625.00	16.64	23.00	-6.36	2.66 H	203	78.45	-61.81
3	3697.50	16.48	23.00	-6.52	2.72 H	201	78.16	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3552.50	14.84	23.00	-8.16	2.23 V	336	76.82	-61.98
2	3625.00	14.67	23.00	-8.33	2.32 V	336	76.48	-61.81
3	3697.50	13.88	23.00	-9.12	2.23 V	339	75.56	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 10MHz

Mode		TX channel 55290, 55990, 56690						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	16.56	23.00	-6.44	2.68 H	200	78.54	-61.98
2	3625.00	16.46	23.00	-6.54	2.72 H	203	78.27	-61.81
3	3695.00	17.23	23.00	-5.77	2.73 H	201	78.91	-61.68
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	14.43	23.00	-8.57	2.31 V	339	76.41	-61.98
2	3625.00	14.13	23.00	-8.87	2.28 V	335	75.94	-61.81
3	3695.00	14.84	23.00	-8.16	2.25 V	339	76.52	-61.68

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	16.10	23.00	-6.90	2.71 H	197	78.07	-61.97
2	3625.00	15.70	23.00	-7.30	2.70 H	203	77.51	-61.81
3	3692.50	16.01	23.00	-6.99	2.73 H	197	77.70	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	14.35	23.00	-8.65	2.30 V	337	76.32	-61.97
2	3625.00	14.30	23.00	-8.70	2.24 V	340	76.11	-61.81
3	3692.50	14.50	23.00	-8.50	2.23 V	339	76.19	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	16.00	23.00	-7.00	2.65 H	199	77.97	-61.97
2	3625.00	16.01	23.00	-6.99	2.67 H	203	77.82	-61.81
3	3690.00	15.99	23.00	-7.01	2.68 H	199	77.68	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	14.10	23.00	-8.90	2.32 V	335	76.07	-61.97
2	3625.00	14.70	23.00	-8.30	2.22 V	340	76.51	-61.81
3	3690.00	13.95	23.00	-9.05	2.25 V	334	75.64	-61.69

Remarks:

1. $EIRP(dBm/10MHz) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

EIRP Full Power (dBm)

Modulation Type: QPSK

LTE Band 48, Channel Bandwidth 5MHz and Channel Bandwidth 10MHz full power test data, please refer to Channel Bandwidth 5MHz and Channel Bandwidth 10MHz per 10MHz power.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	3557.50	19.71	23.00	-3.29	2.71 H	197	81.68	-61.97
2	3625.00	19.23	23.00	-3.77	2.70 H	203	81.04	-61.81
3	3692.50	19.64	23.00	-3.36	2.73 H	197	81.33	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	3557.50	17.40	23.00	-5.60	2.30 V	337	79.37	-61.97
2	3625.00	17.22	23.00	-5.78	2.24 V	340	79.03	-61.81
3	3692.50	17.62	23.00	-5.38	2.23 V	339	79.31	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m).$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value.$
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	19.80	23.00	-3.20	2.65 H	199	81.77	-61.97
2	3625.00	20.22	23.00	-2.78	2.67 H	203	82.03	-61.81
3	3690.00	19.77	23.00	-3.23	2.68 H	199	81.46	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	17.30	23.00	-5.70	2.32 V	335	79.27	-61.97
2	3625.00	17.98	23.00	-5.02	2.22 V	340	79.79	-61.81
3	3690.00	17.24	23.00	-5.76	2.25 V	334	78.93	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m).$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Modulation Type: 16QAM

LTE Band 48, Channel Bandwidth 5MHz and Channel Bandwidth 10MHz full power test data, please refer to Channel Bandwidth 5MHz and Channel Bandwidth 10MHz per 10MHz power.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	18.56	23.00	-4.44	2.71 H	200	80.53	-61.97
2	3625.00	18.13	23.00	-4.87	2.67 H	197	79.94	-61.81
3	3692.50	18.79	23.00	-4.21	2.67 H	199	80.48	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	16.28	23.00	-6.72	2.26 V	334	78.25	-61.97
2	3625.00	16.32	23.00	-6.68	2.25 V	336	78.13	-61.81
3	3692.50	16.57	23.00	-6.43	2.23 V	341	78.26	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	19.00	23.00	-4.00	2.74 H	202	80.97	-61.97
2	3625.00	19.30	23.00	-3.70	2.73 H	204	81.11	-61.81
3	3690.00	18.95	23.00	-4.05	2.65 H	202	80.64	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	16.16	23.00	-6.84	2.23 V	338	78.13	-61.97
2	3625.00	16.79	23.00	-6.21	2.31 V	338	78.60	-61.81
3	3690.00	16.34	23.00	-6.66	2.26 V	337	78.03	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Modulation Type: 64QAM

LTE Band 48, Channel Bandwidth 5MHz and Channel Bandwidth 10MHz full power test data, please refer to Channel Bandwidth 5MHz and Channel Bandwidth 10MHz per 10MHz power.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	17.52	23.00	-5.48	2.65 H	197	79.49	-61.97
2	3625.00	17.18	23.00	-5.82	2.66 H	197	78.99	-61.81
3	3692.50	17.59	23.00	-5.41	2.75 H	203	79.28	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	15.42	23.00	-7.58	2.27 V	339	77.39	-61.97
2	3625.00	15.39	23.00	-7.61	2.25 V	341	77.20	-61.81
3	3692.50	15.44	23.00	-7.56	2.31 V	336	77.13	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	17.91	23.00	-5.09	2.26 H	197	79.88	-61.97
2	3625.00	18.44	23.00	-4.56	2.69 H	202	80.25	-61.81
3	3690.00	18.09	23.00	-4.91	2.72 H	198	79.78	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	15.18	23.00	-7.82	2.26 V	339	77.15	-61.97
2	3625.00	15.92	23.00	-7.08	2.23 V	339	77.73	-61.81
3	3690.00	15.19	23.00	-7.81	2.30 V	338	76.88	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$.
4. The other EIRP levels were very low against the limit.

Modulation Type: 256QAM

LTE Band 48, Channel Bandwidth 5MHz and Channel Bandwidth 10MHz full power test data, please refer to Channel Bandwidth 5MHz and Channel Bandwidth 10MHz per 10MHz power.

LTE Band 48, Channel Bandwidth 15MHz

Mode		TX channel 55315, 55990, 56665						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	16.53	23.00	-6.47	2.68 H	203	78.50	-61.97
2	3625.00	16.20	23.00	-6.80	2.68 H	201	78.01	-61.81
3	3692.50	16.52	23.00	-6.48	2.72 H	203	78.21	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3557.50	14.40	23.00	-8.60	2.27 V	335	76.37	-61.97
2	3625.00	14.58	23.00	-8.42	2.32 V	337	76.39	-61.81
3	3692.50	14.26	23.00	-8.74	2.26 V	334	75.95	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode		TX channel 55340, 55990, 56640						
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	16.83	23.00	-6.17	2.70 H	199	78.80	-61.97
2	3625.00	17.28	23.00	-5.72	2.67 H	204	79.09	-61.81
3	3690.00	17.17	23.00	-5.83	2.73 H	199	78.86	-61.69
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3560.00	14.13	23.00	-8.87	2.23 V	337	76.10	-61.97
2	3625.00	14.91	23.00	-8.09	2.30 V	338	76.72	-61.81
3	3690.00	14.30	23.00	-8.70	2.27 V	337	75.99	-61.69

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$.
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$.
4. The other EIRP levels were very low against the limit.

4.2 Modulation Characteristics Measurement

4.2.1 Limits of Modulation Characteristics Measurement

N/A

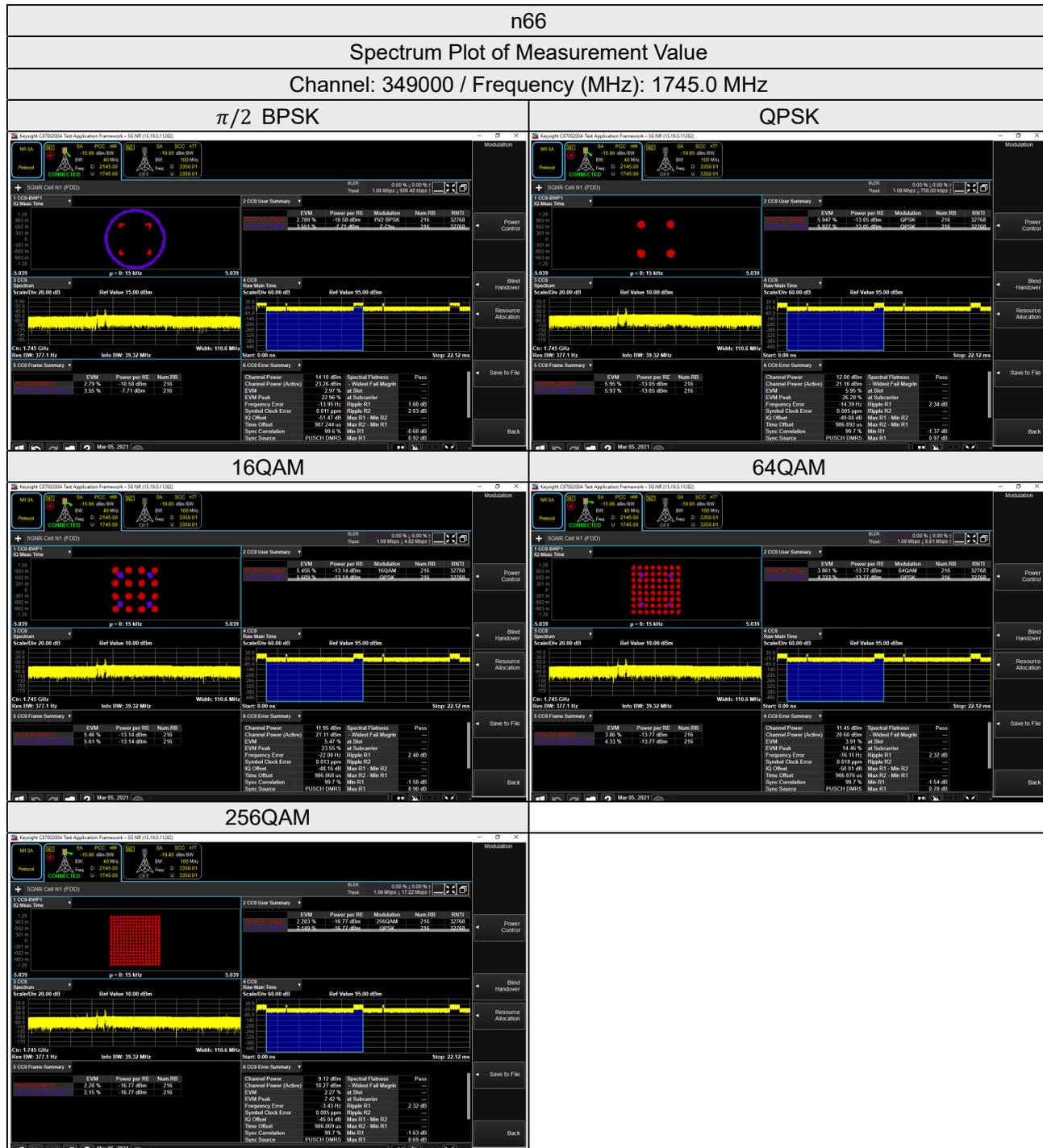
4.2.2 Test Procedure

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



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

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 Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
5G Wireless Test Platforms Keysight	E7515B	MY60102114	May 28, 2020	May 27, 2021
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	Dec. 24, 2020	Dec. 23, 2021
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2020	Jun. 22, 2021
DC Power Supply Topward	6306A	727263	NA	NA

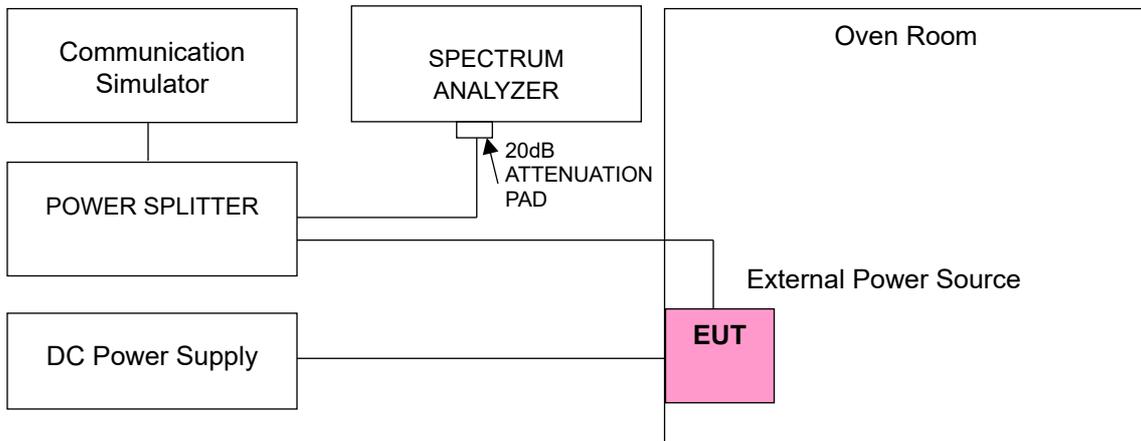
Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 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.

4.3.4 Test Setup



4.3.5 Test Results

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1712.500004	0.002	1777.500000	0.002
7.74	1712.500003	0.002	1777.500000	0.001
6.58	1712.500002	0.001	1777.500000	0.001

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.500003	0.001	1777.500000	0.001
-20	1712.500003	0.002	1777.500000	0.002
-10	1712.500001	0.001	1777.500000	0.001
0	1712.500002	0.001	1777.500000	0.002
10	1712.499999	-0.001	1777.500000	-0.002
20	1712.499997	-0.002	1777.500000	-0.002
30	1712.499996	-0.002	1777.500000	-0.002
40	1712.499997	-0.002	1777.500000	-0.001
50	1712.499996	-0.002	1777.500000	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1715.000003	0.002	1775.000002	0.001
7.74	1715.000001	0.001	1775.000002	0.001
6.58	1715.000003	0.002	1775.000003	0.002

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1715.000003	0.002	1775.000002	0.001
-20	1715.000002	0.001	1775.000002	0.001
-10	1715.000002	0.001	1775.000002	0.001
0	1715.000002	0.001	1775.000004	0.002
10	1714.999997	-0.002	1774.999998	-0.001
20	1714.999997	-0.002	1774.999998	-0.001
30	1714.999997	-0.002	1774.999996	-0.002
40	1714.999997	-0.002	1774.999996	-0.002
50	1714.999999	-0.001	1774.999999	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1717.500004	0.002	1772.500003	0.001
7.74	1717.500001	0.001	1772.500003	0.001
6.58	1717.500002	0.001	1772.500002	0.001

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.500002	0.001	1772.500001	0.001
-20	1717.500002	0.001	1772.500003	0.002
-10	1717.500002	0.001	1772.500002	0.001
0	1717.500004	0.002	1772.500002	0.001
10	1717.499999	-0.001	1772.499999	-0.001
20	1717.499997	-0.002	1772.499998	-0.001
30	1717.499996	-0.002	1772.499998	-0.001
40	1717.499998	-0.001	1772.499997	-0.002
50	1717.499999	-0.001	1772.499997	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1720.000002	0.001	1770.000002	0.001
7.74	1720.000003	0.002	1770.000002	0.001
6.58	1720.000004	0.002	1770.000002	0.001

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1720.000002	0.001	1770.000003	0.002
-20	1720.000003	0.002	1770.000004	0.002
-10	1720.000001	0.001	1770.000003	0.001
0	1720.000002	0.001	1770.000003	0.001
10	1719.999999	-0.001	1769.999998	-0.001
20	1719.999997	-0.002	1769.999997	-0.002
30	1719.999997	-0.002	1769.999997	-0.002
40	1719.999998	-0.001	1769.999998	-0.001
50	1719.999999	-0.001	1769.999997	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 30 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1725.000002	0.001	1765.000003	0.002
7.74	1725.000003	0.002	1765.000002	0.001
6.58	1725.000003	0.002	1765.000002	0.001

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 30 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1725.000003	0.001	1765.000003	0.002
-20	1725.000003	0.002	1765.000003	0.002
-10	1725.000004	0.002	1765.000003	0.001
0	1725.000002	0.001	1765.000001	0.001
10	1724.999999	-0.001	1764.999998	-0.001
20	1724.999998	-0.001	1764.999998	-0.001
30	1724.999999	-0.001	1764.999996	-0.002
40	1724.999999	-0.001	1764.999997	-0.001
50	1724.999997	-0.002	1764.999997	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	n66			
	Channel Bandwidth: 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	1730.000002	0.001	1760.000004	0.002
7.74	1730.000004	0.002	1760.000002	0.001
6.58	1730.000002	0.001	1760.000001	0.001

Note: The applicant defined the normal working voltage is from 6.58Vdc to 8.90Vdc.

Frequency Error vs. Temperature

Temp. (°C)	n66			
	Channel Bandwidth: 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1730.000002	0.001	1760.000001	0.001
-20	1730.000002	0.001	1760.000003	0.002
-10	1730.000004	0.002	1760.000002	0.001
0	1730.000003	0.002	1760.000003	0.002
10	1729.999998	-0.001	1759.999996	-0.002
20	1729.999998	-0.001	1759.999998	-0.001
30	1729.999998	-0.001	1759.999996	-0.002
40	1729.999996	-0.002	1759.999998	-0.001
50	1729.999996	-0.002	1759.999996	-0.002

4.4 Occupied Bandwidth Measurement

4.4.1 Limits of Occupied Bandwidth Measurement

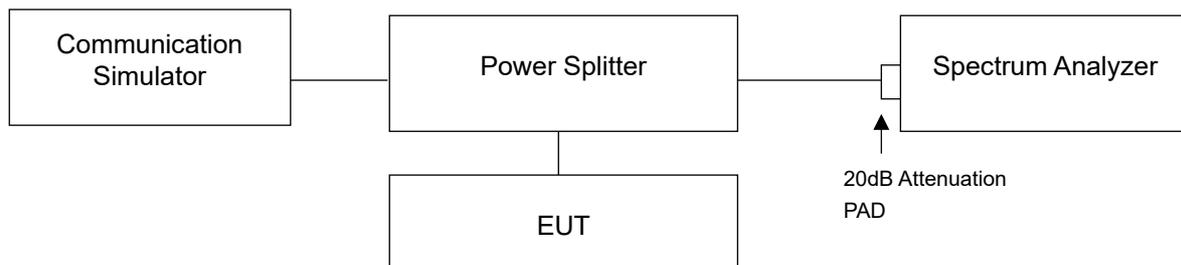
The occupied bandwidth (OBW), that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 % of the total mean power radiated by a given emission.

4.4.2 Test Procedure

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Measurement method, please refer to section 5.4.4 of ANSI C63.26. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

For the 26dBc bandwidth measurement method, please refer to section 5.4.3 of ANSI C63.26.

4.4.3 Test Setup



4.4.4 Test Result

Occupied Bandwidth

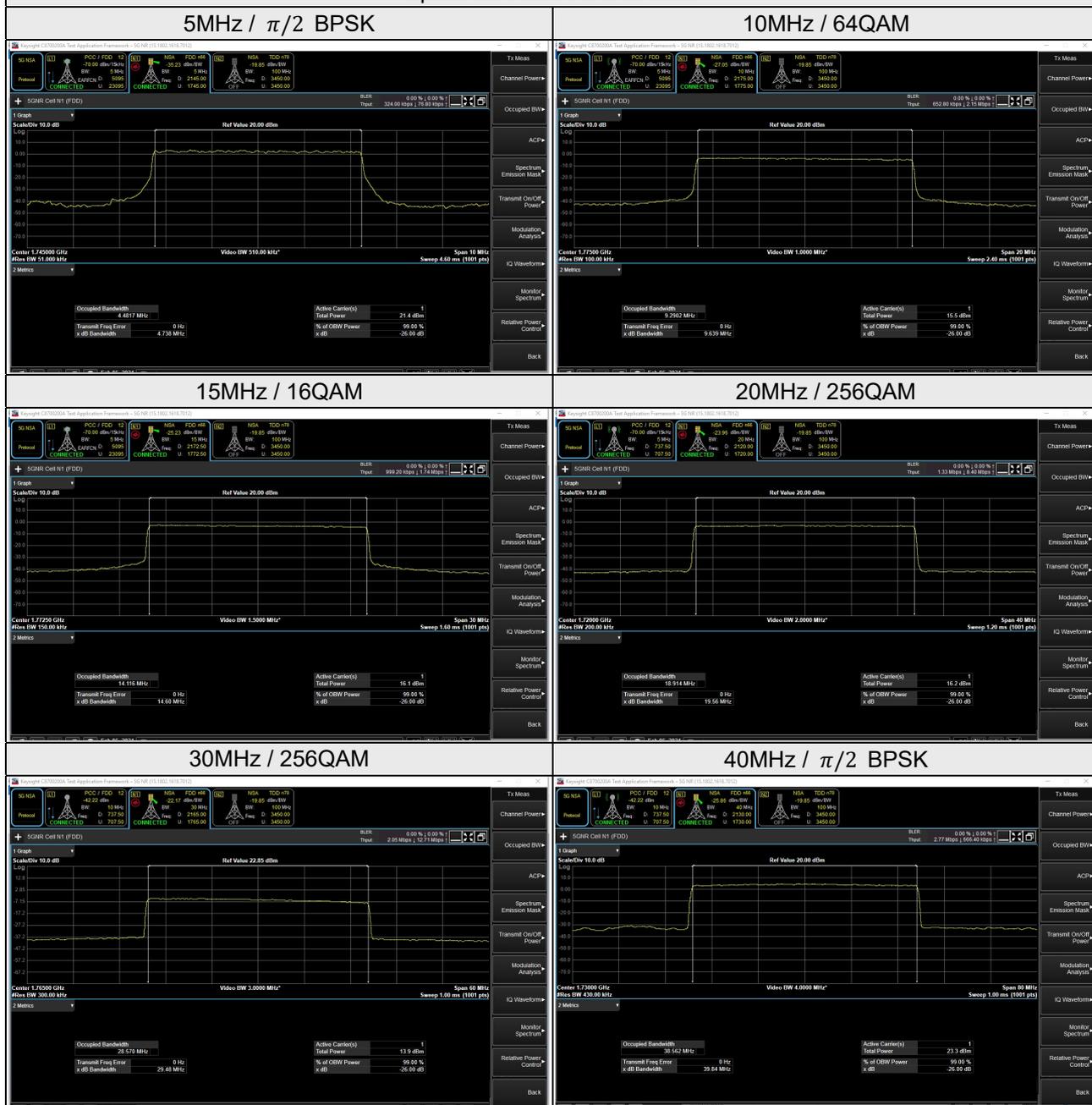
n66

n66, Channel Bandwidth 5MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
342500	1712.5	4.47	4.47	4.47	4.47	4.47
349000	1745.0	4.48	4.47	4.48	4.47	4.47
355500	1777.5	4.47	4.47	4.47	4.47	4.47
n66, Channel Bandwidth 10MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343000	1715.0	9.21	9.29	9.28	9.28	9.29
349000	1745.0	9.21	9.29	9.29	9.28	9.28
355000	1775.0	9.25	9.29	9.28	9.29	9.29
n66, Channel Bandwidth 15MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343500	1717.5	13.94	14.11	14.11	14.11	14.11
349000	1745.0	14.00	14.11	14.11	14.11	14.11
354500	1772.5	14.00	14.11	14.12	14.11	14.11
n66, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
344000	1720.0	18.67	18.91	18.91	18.91	18.91
349000	1745.0	18.83	18.91	18.91	18.90	18.91
354000	1770.0	18.82	18.91	18.90	18.91	18.91
n66, Channel Bandwidth 30MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
345000	1725	28.49	28.56	28.56	28.57	28.49
349000	1745	28.56	28.56	28.56	28.56	28.49
353000	1765	28.58	28.57	28.57	28.57	28.57

n66, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
346000	1730	38.56	38.48	38.56	38.56	38.47
349000	1745	38.47	38.47	38.47	38.47	38.47
352000	1760	38.47	38.48	38.48	38.47	38.48

Spectrum Plot of Worst Value



26dB Bandwidth

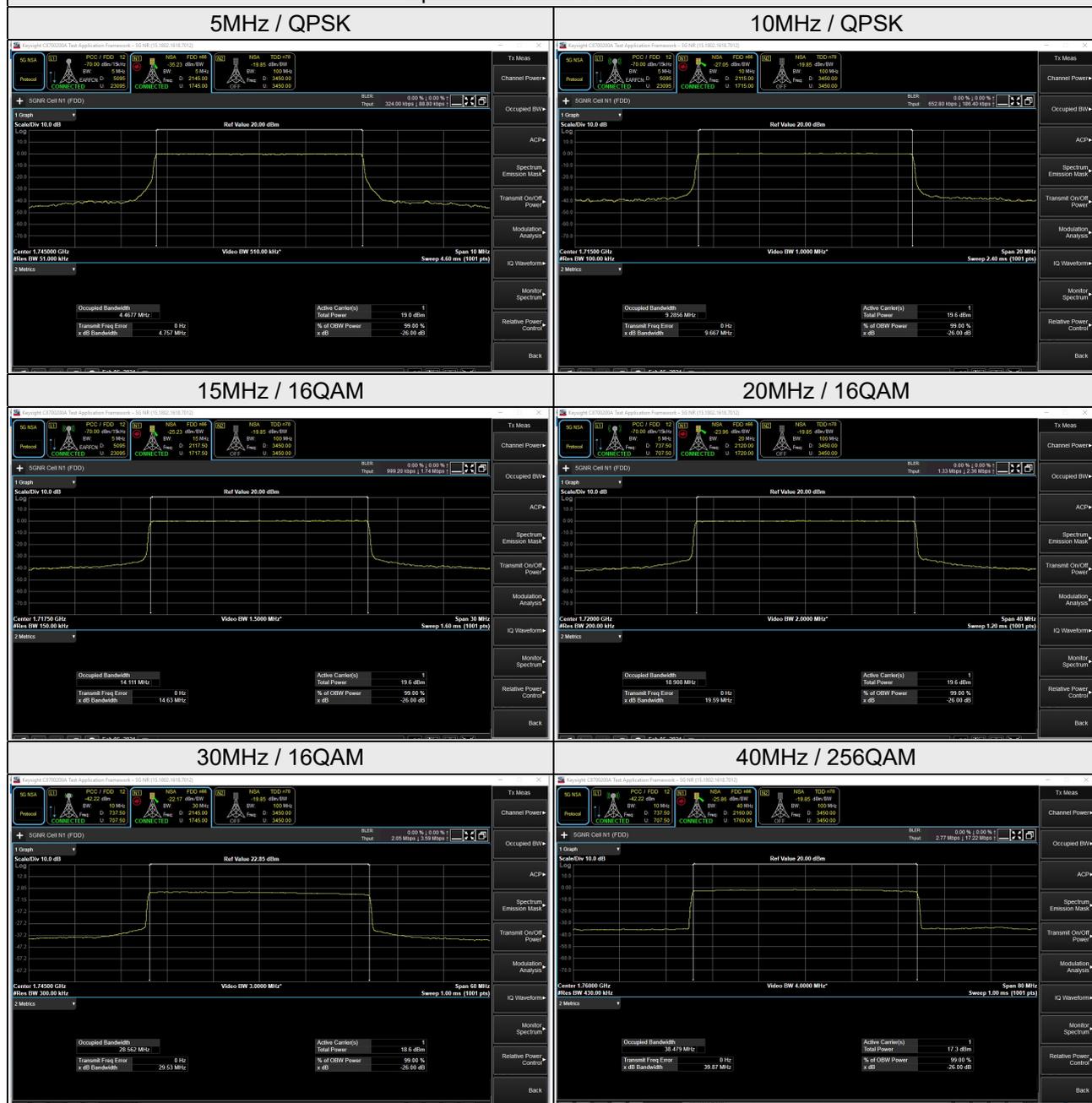
n66

n66, Channel Bandwidth 5MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
342500	1712.5	4.75	4.72	4.72	4.70	4.75
349000	1745.0	4.74	4.76	4.74	4.74	4.72
355500	1777.5	4.74	4.72	4.75	4.71	4.69
n66, Channel Bandwidth 10MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343000	1715.0	9.29	9.67	9.65	9.65	9.65
349000	1745.0	9.28	9.65	9.65	9.63	9.62
355000	1775.0	9.29	9.64	9.66	9.64	9.63
n66, Channel Bandwidth 15MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343500	1717.5	13.90	14.61	14.63	14.63	14.61
349000	1745.0	13.88	14.62	14.62	14.60	14.60
354500	1772.5	13.60	14.60	14.60	14.59	14.60
n66, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
344000	1720.0	18.46	19.58	19.59	19.57	19.56
349000	1745.0	18.47	19.57	19.58	19.55	19.56
354000	1770.0	18.48	19.58	19.55	19.55	19.57
n66, Channel Bandwidth 30MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
345000	1725	29.48	29.52	29.51	29.51	29.48
349000	1745	29.47	29.51	29.53	29.51	29.48
353000	1765	29.46	29.52	29.50	29.49	29.48

n66, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
346000	1730	39.84	39.86	39.87	39.87	39.86
349000	1745	39.85	39.86	39.87	39.85	39.85
352000	1760	39.83	39.87	39.86	39.87	39.87

Spectrum Plot of Worst Value

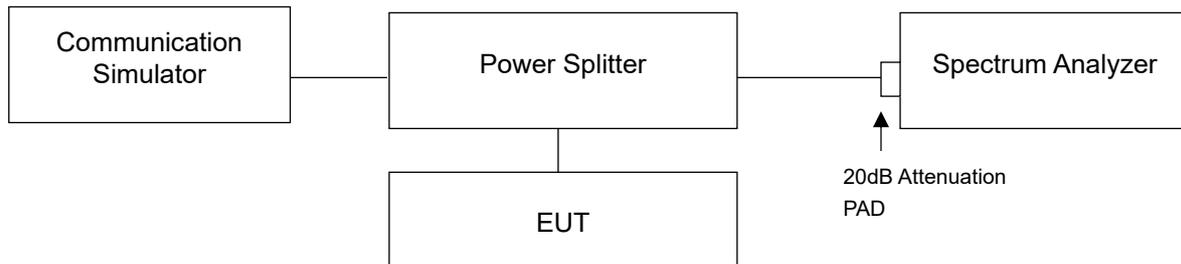


4.5 Band Edge Measurement

4.5.1 Limits of Band Edge Measurement

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.5.2 Test Setup



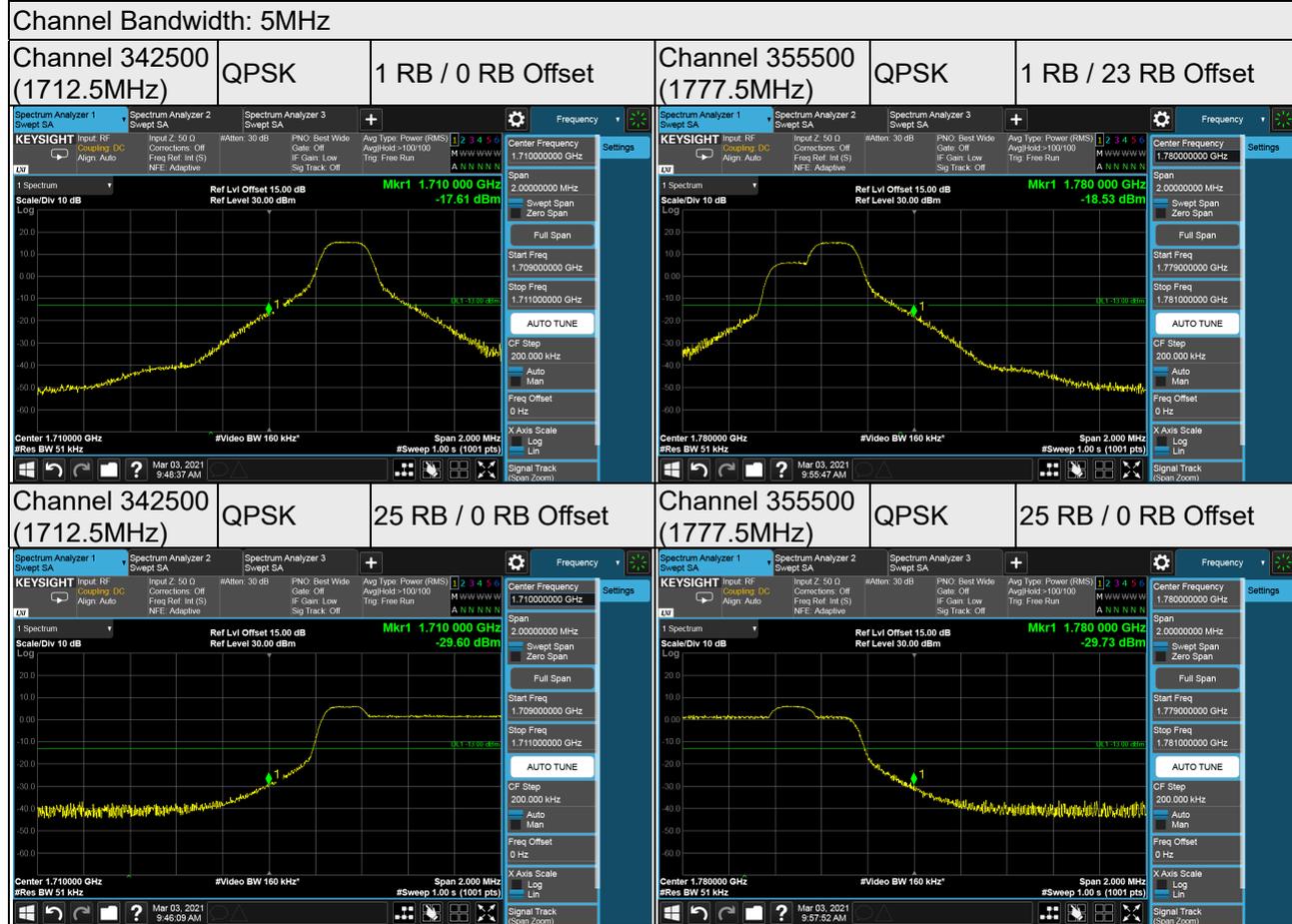
4.5.3 Test Procedures

- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 51kHz and VB of the spectrum is 160kHz (5G NR Channel Bandwidth 5MHz).
- c. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (5G NR Channel Bandwidth 10MHz).
- d. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 150kHz and VB of the spectrum is 470kHz (5G NR Channel Bandwidth 15MHz).
- e. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 200kHz and VB of the spectrum is 620kHz (5G NR Channel Bandwidth 20MHz).
- f. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 300kHz and VB of the spectrum is 1MHz (5G NR Channel Bandwidth 30MHz/40MHz).
- g. The emission operations in the 40 MHz channel BW mode of 5G NR, the 1% range channel edge using a 300 kHz bandwidth on the spectrum analyzer, the correction factor is further improved by $10 \log(400/300) = 1.25\text{dB}$, the spectrum reading value is added with the correction factor to determine whether the limit is met. Measurement method refers to ANSI C63.26 section 5.7.2.

4.5.4 Test Results

n66

Band edge:



Channel Bandwidth: 10MHz

Channel 343000
(1715.0MHz)

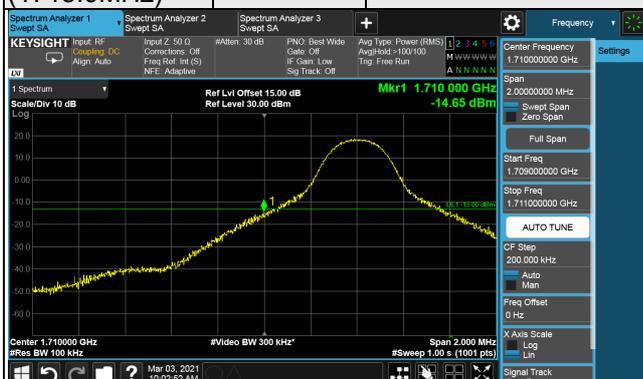
QPSK

1 RB / 0 RB Offset

Channel 355000
(1775.0MHz)

QPSK

1 RB / 50 RB Offset



Channel 343000
(1715.0MHz)

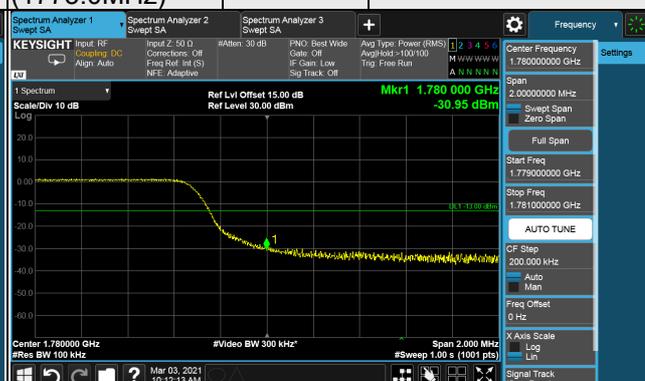
QPSK

50 RB / 0 RB Offset

Channel 355000
(1775.0MHz)

QPSK

50 RB / 0 RB Offset



Channel Bandwidth: 15MHz

Channel 343500
(1717.5MHz)

QPSK

1 RB / 0 RB Offset

Channel 354500
(1772.5MHz)

QPSK

1 RB / 77 RB Offset



Channel 343500
(1717.5MHz)

QPSK

75 RB / 0 RB Offset

Channel 354500
(1772.5MHz)

QPSK

75 RB / 0 RB Offset



Channel Bandwidth: 20MHz

Channel 344000
(1720.0MHz)

QPSK

1 RB / 0 RB Offset

Channel 354000
(1770.0MHz)

QPSK

1 RB / 104 RB Offset



Channel 344000
(1720.0MHz)

QPSK

100 RB / 0 RB Offset

Channel 354000
(1770.0MHz)

QPSK

100 RB / 0 RB Offset



Channel Bandwidth: 30MHz

Channel 345000
(1725.0MHz)

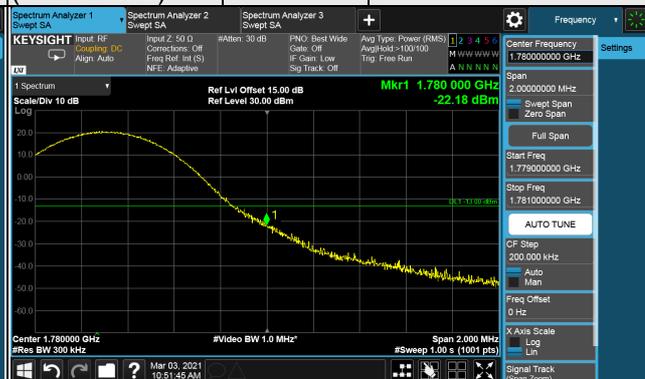
QPSK

1 RB / 0 RB Offset

Channel 353000
(1765.0MHz)

QPSK

1 RB / 158 RB Offset



Channel 345000
(1725.0MHz)

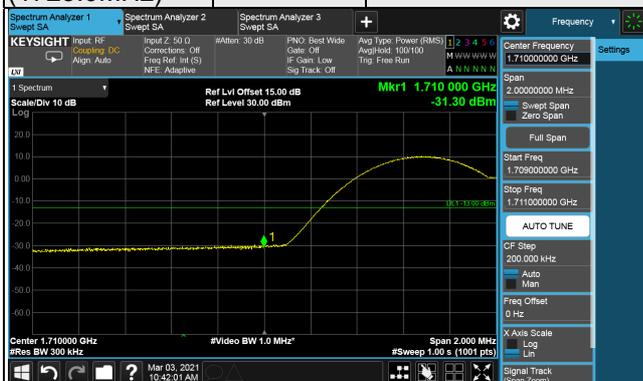
QPSK

160 RB / 0 RB Offset

Channel 353000
(1765.0MHz)

QPSK

160 RB / 0 RB Offset



Channel Bandwidth: 40MHz

Channel 346000
(1730.0MHz)

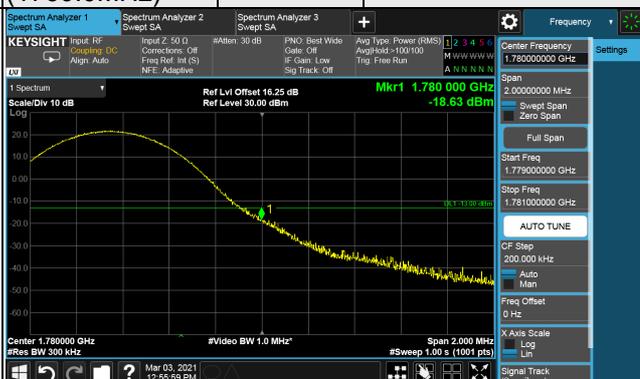
QPSK

1 RB / 0 RB Offset

Channel 352000
(1760.0MHz)

QPSK

1 RB / 214 RB Offset



Channel 346000
(1730.0MHz)

QPSK

216 RB / 0 RB Offset

Channel 352000
(1760.0MHz)

QPSK

216 RB / 0 RB Offset

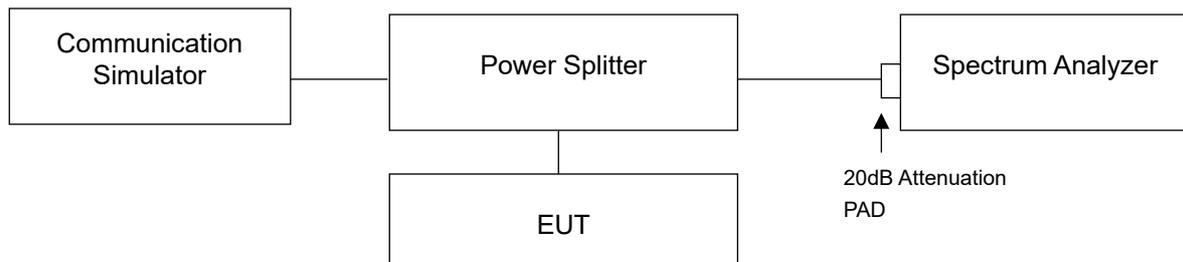


4.6 Peak to Average Ratio

4.6.1 Limits of Peak to Average Ratio Measurement

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.6.2 Test Setup



4.6.3 Test Procedures

- Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

4.6.4 Test Results

n66

n66, Channel Bandwidth 5MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
342500	1712.5	3.97	6.70	6.80	7.23	8.59
349000	1745.0	3.99	6.66	6.77	7.24	8.63
355500	1777.5	4.02	6.72	6.80	7.26	8.61
n66, Channel Bandwidth 10MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343000	1715.0	4.05	6.84	6.82	7.26	8.62
349000	1745.0	3.96	6.76	6.75	7.21	8.66
355000	1775.0	3.89	6.51	6.47	6.96	8.54
n66, Channel Bandwidth 15MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
343500	1717.5	4.12	6.74	6.75	7.34	8.61
349000	1745.0	4.11	6.70	6.66	7.27	8.55
354500	1772.5	4.20	6.65	6.69	7.13	8.55
n66, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
344000	1720.0	3.95	6.71	6.73	7.12	8.61
349000	1745.0	4.00	6.65	6.68	7.08	8.60
354000	1770.0	4.27	6.71	6.73	7.08	8.56
n66, Channel Bandwidth 30MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
345000	1725	4.00	6.75	6.86	7.32	8.64
349000	1745	4.19	6.91	6.96	7.38	8.60
353000	1765	4.48	6.92	7.02	7.38	8.47