FCC Test Report
(ENDC: n77+Band 7/41)

Report No.:	RFBFLF-WTW-P21010278-31
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.
Address:	1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBFLF-WTW-P21010278-31	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 27, Subpart C, M, O

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 n77:

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (j)	Equivalent Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Meet the requirement of limit.
----	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 of limit.
2.1051 27.53(l)	Band Edge / Out of Band Emissions Measurements	Pass	Meet the requirement of limit.
2.1051 27.53(l)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(l)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -31.00dB at 7899.96MHz.

Note: 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 -25.01dB at 5070.00MHz.

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 41:

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (h)(2)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	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 -26.05dB at 5360.00MHz.

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.

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-SM8000	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-AR	MAA1306-019	Sep. 10, 2020	Sep. 09, 2021

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 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)

n77

Modulation Type	$\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM					
Waveform Type	CP-OFDM, DFT-s-OFDM					
Operating Frequency	n77 (Channel Bandwidth 20MHz)	3710.01MHz ~ 3969.99MHz				
	n77 (Channel Bandwidth 30MHz)	3715.02MHz ~ 3964.98MHz				
	n77 (Channel Bandwidth 40MHz)	3720.00MHz ~ 3960.00MHz				
	n77 (Channel Bandwidth 50MHz)	3725.01MHz ~ 3954.99MHz				
	n77 (Channel Bandwidth 60MHz)	3730.02MHz ~ 3949.98MHz				
	n77 (Channel Bandwidth 70MHz)	3750.00MHz ~ 3945.00MHz				
	n77 (Channel Bandwidth 80MHz)	3740.01MHz ~ 3939.99MHz				
	n77 (Channel Bandwidth 90MHz)	3745.02MHz ~ 3934.98MHz				
	n77 (Channel Bandwidth 100MHz)	3750.00MHz ~ 3930.00MHz				
Max. EIRP Power		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
	n77 (Channel Bandwidth 20MHz)	396.278mW (26.0dBm)	397.192mW (26.0dBm)	312.608mW (25.0dBm)	220.293mW (23.4dBm)	137.721mW (21.4dBm)
	n77 (Channel Bandwidth 30MHz)	396.278mW (26.0dBm)	397.192mW (26.0dBm)	311.889mW (24.9dBm)	219.786mW (23.4dBm)	138.357mW (21.4dBm)
	n77 (Channel Bandwidth 40MHz)	402.717mW (26.05dBm)	404.576mW (26.07dBm)	314.051mW (24.97dBm)	221.820mW (23.46dBm)	140.929mW (21.49dBm)
	n77 (Channel Bandwidth 50MHz)	401.791mW (26.04dBm)	399.025mW (26.01dBm)	314.775mW (24.98dBm)	223.872mW (23.50dBm)	142.561mW (21.54dBm)
	n77 (Channel Bandwidth 60MHz)	402.717mW (26.05dBm)	400.867mW (26.03dBm)	317.687mW (25.02dBm)	225.424mW (23.53dBm)	142.561mW (21.54dBm)
	n77 (Channel Bandwidth 70MHz)	401.791mW (26.04dBm)	399.025mW (26.01dBm)	314.775mW (24.98dBm)	223.872mW (23.50dBm)	142.561mW (21.54dBm)
	n77 (Channel Bandwidth 80MHz)	404.576mW (26.07dBm)	401.791mW (26.04dBm)	323.594mW (25.10dBm)	224.905mW (23.52dBm)	142.233mW (21.53dBm)
	n77 (Channel Bandwidth 90MHz)	407.380mW (26.10dBm)	407.380mW (26.10dBm)	323.594mW (25.10dBm)	225.424mW (23.53dBm)	144.212mW (21.59dBm)
	n77 (Channel Bandwidth 100MHz)	407.380mW (26.10dBm)	414.954mW (26.18dBm)	317.687mW (25.02dBm)	231.739mW (23.65dBm)	144.544mW (21.60dBm)
Emission Designator		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
	n77 (Channel Bandwidth 20MHz)	18M0G7D	18M2G7D	18M2D7W	18M3D7W	18M2D7W
	n77 (Channel Bandwidth 30MHz)	27M6G7D	27M9G7D	27M9D7W	27M9D7W	27M9D7W
	n77 (Channel Bandwidth 40MHz)	37M5G7D	37M8G7D	37M8D7W	37M8D7W	37M8D7W
	n77 (Channel Bandwidth 50MHz)	47M1G7D	47M5G7D	47M5D7W	47M5D7W	47M5D7W
	n77 (Channel Bandwidth 60MHz)	57M9G7D	57M9G7D	57M9D7W	57M9D7W	57M9D7W
	n77 (Channel Bandwidth 70MHz)	67M3G7D	67M9G7D	67M9D7W	67M9D7W	67M8D7W
	n77 (Channel Bandwidth 80MHz)	77M2G7D	77M5G7D	77M5D7W	77M5D7W	77M5D7W
	n77 (Channel Bandwidth 90MHz)	86M9G7D	87M6G7D	87M5D7W	87M5D7W	87M5D7W
	n77 (Channel Bandwidth 100MHz)	96M8G7D	97M6G7D	97M6D7W	97M6D7W	97M6D7W

LTE Band

Modulation Type	QPSK, 16QAM, 64QAM, 256QAM					
Operating Frequency	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 41	Channel Bandwidth 5MHz	2498.5MHz ~ 2687.5MHz			
		Channel Bandwidth 10MHz	2501.0MHz ~ 2685.0 MHz			
		Channel Bandwidth 15MHz	2503.5MHz ~ 2682.5MHz			
		Channel Bandwidth 20MHz	2506.0MHz ~ 2680.0 MHz			
Max. EIRP Power			QPSK	16QAM	64QAM	256QAM
	LTE Band 7	Channel Bandwidth 5MHz	215.774mW (23.34dBm)	186.209mW (22.70dBm)	150.314mW (21.77dBm)	62.951mW (17.99dBm)
		Channel Bandwidth 10MHz	215.774mW (23.34dBm)	187.499mW (22.73dBm)	146.555mW (21.66dBm)	66.069mW (18.20dBm)
		Channel Bandwidth 15MHz	217.270mW (23.37dBm)	201.372mW (23.04dBm)	143.880mW (21.58dBm)	71.779mW (18.56dBm)
		Channel Bandwidth 20MHz	219.786mW (23.42dBm)	201.837mW (23.05dBm)	147.911mW (21.70dBm)	68.707mW (18.37dBm)
	LTE Band 41	Channel Bandwidth 5MHz	458.142mW (26.61dBm)	394.457mW (25.96dBm)	306.902mW (24.87dBm)	127.938mW (21.07dBm)
		Channel Bandwidth 10MHz	449.780mW (26.53dBm)	402.717mW (26.05dBm)	291.743mW (24.65dBm)	142.233mW (21.53dBm)
		Channel Bandwidth 15MHz	445.656mW (26.49dBm)	394.457mW (25.96dBm)	304.789mW (24.84dBm)	137.088mW (21.37dBm)
		Channel Bandwidth 20MHz	459.198mW (26.62dBm)	393.550mW (25.95dBm)	314.775mW (24.98dBm)	140.605mW (21.48dBm)
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	Connecter	Frequency Range
Ant 0	ASUS	ZS675KW	PIFA	LCP+Ipex	610-960MHz, 1710-2690MHz
Ant 1	ASUS	ZS675KW	PIFA	LCP+Ipex	1427-1510MHz, 1710-2690MHz
Ant 2	ASUS	ZS675KW	PIFA	LCP+Ipex	610-960MHz, 1427-1510MHz, 1710-2690MHz
Ant 3	INPAQ	ZS675KW	PIFA	Ipex	1575-1610MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 4	INPAQ	ZS675KW	PIFA	Ipex	1176±10MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 5	INPAQ	ZS675KW	PIFA	LCP+Ipex	3300-4000MHz, 4400-5000MHz
Ant 6	INPAQ	ZS675KW	PIFA	Ipex	1427-1510MHz, 2400-2500MHz, 5150-5850MHz, 5925-7125MHz
Ant 7	INPAQ	ZS675KW	PIFA	LCP+Ipex	3300-4000MHz, 4400-5000MHz
Ant 8	ASUS	ZS675KW	PIFA	LCP+Ipex	1427-1510MHz, 1710-2690MHz
Ant 9	ASUS	ZS675KW	PIFA	LCP+Ipex	1710-2690MHz
Ant 10	INPAQ	ZS675KW	PIFA	Ipex	3300-4000MHz, 4400-5000MHz
Ant 11	INPAQ	ZS675KW	PIFA	Ipex	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

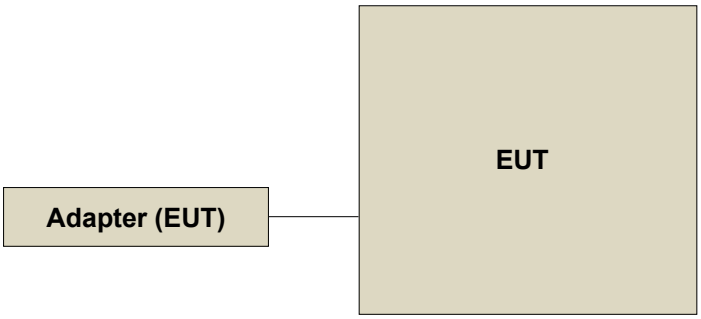
5G FR1 Band												
Band	Freq. Range (MHz)	Gain (dBi)										
		Ant. 0	Ant. 1	Ant. 2	Ant. 3	Ant. 4	Ant. 5	Ant. 6	Ant. 7	Ant. 8	Ant. 9	Ant. 10	Ant. 11
n2	1850 ~ 1910		-1.887	-1.394						-2.89579	-1.804		
n5	824 ~ 849	-1.891		-4.526									
n7	2500 ~ 2570		0.185	-0.657						-0.50837	-1.117		
n12	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



Remote site

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.

n77

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	647334 to 664666	647334 (3710.01MHz), 656000 (3840.00MHz), 664666 (3969.99MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 26 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 13 RB Offset 25 RB / 26 RB Offset 50 RB / 0 RB Offset
		647668 to 664332	647668 (3715.02MHz), 656000 (3840.00MHz), 665666 (3964.98MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 39 RB Offset 1 RB / 76 RB Offset 36 RB / 0 RB Offset 36 RB / 21 RB Offset 36 RB / 42 RB Offset 75 RB / 0 RB Offset
		648000 to 664000	648000 (3720.00MHz), 656000 (3840.00MHz), 664000 (3960.00MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 53 RB Offset 1 RB / 104 RB Offset 50 RB / 0 RB Offset 50 RB / 28 RB Offset 50 RB / 56 RB Offset 100 RB / 0 RB Offset
		648334 to 663666	648334 (3725.01MHz), 656000 (3840.00MHz), 663666 (3954.99MHz)	50MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 67 RB Offset 1 RB / 131 RB Offset 64 RB / 0 RB Offset 64 RB / 35 RB Offset 64 RB / 69 RB Offset 128 RB / 0 RB Offset
		648668 to 663332	648668 (3730.02MHz), 656000 (3840.00MHz), 663332 (3949.98MHz)	60MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 81 RB Offset 1 RB / 160 RB Offset 81 RB / 0 RB Offset 81 RB / 41 RB Offset 81 RB / 81 RB Offset 162 RB / 0 RB Offset
		649000 to 663332	649000 (3735.00MHz), 656000 (3840.00MHz), 663000 (3945.00MHz)	70MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 95 RB Offset 1 RB / 187 RB Offset 90 RB / 0 RB Offset 90 RB / 50 RB Offset 90 RB / 99 RB Offset 180 RB / 0 RB Offset
		649334 to 662666	649334 (3740.01MHz), 656000 (3840.00MHz), 662666 (3939.99MHz)	80MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 109 RB Offset 1 RB / 215 RB Offset 108 RB / 0 RB Offset 108 RB / 55 RB Offset 108 RB / 109 RB Offset 216 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	649668 to 662332	649668 (3745.02MHz), 656000 (3840.00MHz), 662332 (3934.98MHz)	90MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 123 RB Offset 1 RB / 243 RB Offset 120 RB / 0 RB Offset 120 RB / 63 RB Offset 120 RB / 125 RB Offset 243 RB / 0 RB Offset
		650000 to 662000	650000 (3750.00MHz), 656000 (3840.00MHz), 662000 (3930.00MHz)	100MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset 1 RB / 137 RB Offset 1 RB / 271 RB Offset 135 RB / 0 RB Offset 135 RB / 69 RB Offset 135 RB / 138 RB Offset 270 RB / 0 RB Offset
-	Modulation Characteristics	650000 to 662000	656000 (3840.00MHz)	100MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	273 RB / 0 RB Offset
-	Frequency Stability	647334 to 664666	647334 (3710.01MHz), 664666 (3969.99MHz)	20MHz	QPSK	51 RB / 0 RB Offset
		647668 to 664332	647668 (3715.02MHz), 665666 (3964.98MHz)	30MHz	QPSK	78 RB / 0 RB Offset
		648000 to 664000	648000 (3720.00MHz), 664000 (3960.00MHz)	40MHz	QPSK	106 RB / 0 RB Offset
		648334 to 663666	648334 (3725.01MHz), 663666 (3954.99MHz)	50MHz	QPSK	133 RB / 0 RB Offset
		648668 to 663332	648668 (3730.02MHz), 663332 (3949.98MHz)	60MHz	QPSK	162 RB / 0 RB Offset
		649000 to 663332	649000 (3735.00MHz), 663000 (3945.00MHz)	70MHz	QPSK	189 RB / 0 RB Offset
		649334 to 662666	649334 (3740.01MHz), 662666 (3939.99MHz)	80MHz	QPSK	217 RB / 0 RB Offset
		649668 to 662332	649668 (3745.02MHz), 662332 (3934.98MHz)	90MHz	QPSK	245 RB / 0 RB Offset
		650000 to 662000	650000 (3750.00MHz), 662000 (3930.00MHz)	100MHz	QPSK	273 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Emission Bandwidth	647334 to 664666	647334 (3710.01MHz), 656000 (3840.00MHz), 664666 (3969.99MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	51 RB / 0 RB Offset
		647668 to 664332	647668 (3715.02MHz), 656000 (3840.00MHz), 665666 (3964.98MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	78 RB / 0 RB Offset
		648000 to 664000	648000 (3720.00MHz), 656000 (3840.00MHz), 664000 (3960.00MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	106 RB / 0 RB Offset
		648334 to 663666	648334 (3725.01MHz), 656000 (3840.00MHz), 663666 (3954.99MHz)	50MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	133 RB / 0 RB Offset
		648668 to 663332	648668 (3730.02MHz), 656000 (3840.00MHz), 663332 (3949.98MHz)	60MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	162 RB / 0 RB Offset
		649000 to 663332	649000 (3735.00MHz), 656000 (3840.00MHz), 663000 (3945.00MHz)	70MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	189 RB / 0 RB Offset
		649334 to 662666	649334 (3740.01MHz), 656000 (3840.00MHz), 662666 (3939.99MHz)	80MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	217 RB / 0 RB Offset
		649668 to 662332	649668 (3745.02MHz), 656000 (3840.00MHz), 662332 (3934.98MHz)	90MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	245 RB / 0 RB Offset
		650000 to 662000	650000 (3750.00MHz), 656000 (3840.00MHz), 662000 (3930.00MHz)	100MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	273 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Band Edge	647334 to 664666	647334 (3710.01MHz), 664666 (3969.99MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 50 RB Offset 51 RB / 0 RB Offset
		647668 to 664332	647668 (3715.02MHz), 665666 (3964.98MHz)	30MHz	QPSK	1 RB / 0 RB Offset 1 RB / 77 RB Offset 78 RB / 0 RB Offset
		648000 to 664000	648000 (3720.00MHz), 664000 (3960.00MHz)	40MHz	QPSK	1 RB / 0 RB Offset 1 RB / 105 RB Offset 106 RB / 0 RB Offset
		648334 to 663666	648334 (3725.01MHz), 663666 (3954.99MHz)	50MHz	QPSK	1 RB / 0 RB Offset 1 RB / 132 RB Offset 133 RB / 0 RB Offset
		648668 to 663332	648668 (3730.02MHz), 663332 (3949.98MHz)	60MHz	QPSK	1 RB / 0 RB Offset 1 RB / 161 RB Offset 162 RB / 0 RB Offset
		649000 to 663332	649000 (3735.00MHz), 663000 (3945.00MHz)	70MHz	QPSK	1 RB / 0 RB Offset 1 RB / 188 RB Offset 189 RB / 0 RB Offset
		649334 to 662666	649334 (3740.01MHz), 662666 (3939.99MHz)	80MHz	QPSK	1 RB / 0 RB Offset 1 RB / 216 RB Offset 217 RB / 0 RB Offset
		649668 to 662332	649668 (3745.02MHz), 662332 (3934.98MHz)	90MHz	QPSK	1 RB / 0 RB Offset 1 RB / 244 RB Offset 245 RB / 0 RB Offset
		650000 to 662000	650000 (3750.00MHz), 662000 (3930.00MHz)	100MHz	QPSK	1 RB / 0 RB Offset 1 RB / 272 RB Offset 273 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Peak to Average Ratio	647334 to 664666	647334 (3710.01MHz), 656000 (3840.00MHz), 664666 (3969.99MHz)	20MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		647668 to 664332	647668 (3715.02MHz), 656000 (3840.00MHz), 665666 (3964.98MHz)	30MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		648000 to 664000	648000 (3720.00MHz), 656000 (3840.00MHz), 664000 (3960.00MHz)	40MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		648334 to 663666	648334 (3725.01MHz), 656000 (3840.00MHz), 663666 (3954.99MHz)	50MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		648668 to 663332	648668 (3730.02MHz), 656000 (3840.00MHz), 663332 (3949.98MHz)	60MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		649000 to 663332	649000 (3735.00MHz), 656000 (3840.00MHz), 663000 (3945.00MHz)	70MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		649334 to 662666	649334 (3740.01MHz), 656000 (3840.00MHz), 662666 (3939.99MHz)	80MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		649668 to 662332	649668 (3745.02MHz), 656000 (3840.00MHz), 662332 (3934.98MHz)	90MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset
		650000 to 662000	650000 (3750.00MHz), 656000 (3840.00MHz), 662000 (3930.00MHz)	100MHz	$\pi/2$ BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB / 1 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Conducted Emission	647334 to 664666	647334 (3710.01MHz), 656000 (3840.00MHz), 664666 (3969.99MHz)	20MHz	QPSK	1 RB / 1 RB Offset
		647668 to 664332	647668 (3715.02MHz), 656000 (3840.00MHz), 665666 (3964.98MHz)	30MHz	QPSK	1 RB / 1 RB Offset
		648000 to 664000	648000 (3720.00MHz), 656000 (3840.00MHz), 664000 (3960.00MHz)	40MHz	QPSK	1 RB / 1 RB Offset
		648334 to 663666	648334 (3725.01MHz), 656000 (3840.00MHz), 663666 (3954.99MHz)	50MHz	QPSK	1 RB / 1 RB Offset
		648668 to 663332	648668 (3730.02MHz), 656000 (3840.00MHz), 663332 (3949.98MHz)	60MHz	QPSK	1 RB / 1 RB Offset
		649000 to 663332	649000 (3735.00MHz), 656000 (3840.00MHz), 663000 (3945.00MHz)	70MHz	QPSK	1 RB / 1 RB Offset
		649334 to 662666	649334 (3740.01MHz), 656000 (3840.00MHz), 662666 (3939.99MHz)	80MHz	QPSK	1 RB / 1 RB Offset
		649668 to 662332	649668 (3745.02MHz), 656000 (3840.00MHz), 662332 (3934.98MHz)	90MHz	QPSK	1 RB / 1 RB Offset
		650000 to 662000	650000 (3750.00MHz), 656000 (3840.00MHz), 662000 (3930.00MHz)	100MHz	QPSK	1 RB / 1 RB Offset
-	Radiated Emission Below 1GHz	650000 to 662000	662000 (3930.00MHz)	100MHz	QPSK	1 RB / 1 RB Offset
-	Radiated Emission Above 1GHz	647334 to 664666	647334 (3710.01MHz), 656000 (3840.00MHz), 664666 (3969.99MHz)	20MHz	QPSK	1 RB / 1 RB Offset
		648668 to 663332	648668 (3730.02MHz), 656000 (3840.00MHz), 663332 (3949.98MHz)	60MHz	QPSK	1 RB / 1 RB Offset
		650000 to 662000	650000 (3750.00MHz), 656000 (3840.00MHz), 662000 (3930.00MHz)	100MHz	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 above 1GHz, according to 3GPP 38.521-1 Section 6.5.3.1.4, choose the lowest, mid and 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 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	21100 (2535.0MHz)	20MHz	QPSK	1 RB / 50 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 / 50 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 EIRP, 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 41

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39675 to 41565	39675 (2498.5MHz), 40620 (2593.0MHz), 41565 (2687.5MHz)	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
		39700 to 41540	39700 (2501.0MHz), 40620 (2593.0MHz), 41540 (2685.0MHz)	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
		39725 to 41515	39725 (2503.5MHz), 40620 (2593.0MHz), 41515 (2682.5MHz)	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
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	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	39750 to 41490	41490 (2680.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	39675 to 41565	39675 (2498.5MHz), 40620 (2593.0MHz), 41565 (2687.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	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 (system)	Tested By
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 27

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

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

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

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 n77:
Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

For LTE Band 7, 41:
Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

4.1.2 Test Procedures

Conducted Power Measurement:

The EUT was set up for the maximum power with 5GNR link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Maximum EIRP

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

ERP or EIRP = P_{Meas} + G_T

where

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

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

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

4.1.3 Test Setup

Conducted Power Measurement:

4.1.4 Test Results

Conducted Output Power (dBm)

NR Band 77:

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3750	3840	3930
100M	$\pi/2$ BPSK	1	1	24.08	24.08	24.03
		1	137	24.06	24.06	24.01
		1	271	24.07	24.07	24.02
		135	0	23.64	23.64	23.59
		135	69	24.03	24.02	24.00
		135	138	23.56	23.56	23.51
		270	0	23.55	23.55	23.50
100M	PSK	1	1	24.16	24.16	24.11
		1	137	24.08	24.08	24.03
		1	271	24.11	24.11	24.06
		135	0	23.16	23.15	23.11
		135	69	24.06	24.06	24.01
		135	138	23.14	23.14	23.09
		270	0	23.01	22.94	22.98
100M	16QAM	1	1	23.00	23.00	22.95
100M	64QAM	1	1	21.63	21.63	21.58
100M	256QAM	1	1	19.58	19.58	19.53
BW	MCS Index	Channel		649668	656000	662332
		Frequency (MHz)		3745.02	3840	3934.98
90M	$\pi/2$ BPSK	1	1	24.08	24.05	24.01
		1	123	24.02	23.99	23.99
		1	243	23.97	24.01	24.02
		120	0	23.60	23.63	23.51
		120	63	24.06	24.06	23.97
		120	125	23.55	23.55	23.46
		243	0	23.55	23.47	23.41
90M	PSK	1	1	24.08	24.03	24.02
		1	123	23.99	23.97	23.98
		1	243	23.99	24.04	23.92
		120	0	23.05	23.11	23.07
		120	63	23.98	23.99	24.00
		120	125	22.99	22.97	22.96
		243	0	23.05	23.00	22.93
90M	16QAM	1	1	23.08	23.06	22.93
90M	64QAM	1	1	21.48	21.51	21.44
90M	256QAM	1	1	19.57	19.53	19.47

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		649334	656000	662666
		Frequency (MHz)		3740.01	3840	3939.99
80M	$\pi/2$ BPSK	1	1	23.97	23.95	23.89
		1	109	24.02	24.01	23.84
		1	215	24.00	24.05	23.85
		108	0	23.61	23.50	23.48
		108	55	24.02	23.99	23.93
		108	109	23.47	23.38	23.38
		216	0	23.44	23.37	23.39
80M	PSK	1	1	23.98	23.96	23.87
		1	109	23.93	24.02	23.84
		1	215	23.97	23.98	23.83
		108	0	23.02	23.03	22.98
		108	55	24.02	23.95	24.00
		108	109	23.03	22.92	22.91
		216	0	22.92	22.90	22.89
80M	16QAM	1	1	23.08	22.98	22.99
80M	64QAM	1	1	21.50	21.43	21.32
80M	256QAM	1	1	19.47	19.51	19.48
BW	MCS Index	Channel		649000	6560000	663000
		Frequency (MHz)		3735	3840	3945
70M	$\pi/2$ BPSK	1	1	23.85	23.88	23.92
		1	95	23.87	23.95	23.89
		1	187	23.94	23.96	24.02
		90	0	23.47	23.51	23.58
		90	50	23.90	23.91	23.92
		90	99	23.51	23.38	23.41
		180	0	23.27	23.38	23.34
70M	PSK	1	1	23.87	23.91	23.87
		1	95	23.94	23.92	23.80
		1	187	23.89	23.99	23.95
		90	0	22.95	23.01	23.08
		90	50	23.91	23.93	23.91
		90	99	22.95	22.86	22.86
		180	0	22.84	22.84	22.92
70M	16QAM	1	1	22.90	22.96	22.90
70M	64QAM	1	1	21.31	21.48	21.46
70M	256QAM	1	1	19.45	19.52	19.40

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		648668	656000	663332
		Frequency (MHz)		3730.02	3840	3949.98
60M	$\pi/2$ BPSK	1	1	23.96	23.99	23.97
		1	81	24.03	23.97	23.94
		1	160	23.96	23.94	24.00
		81	0	23.61	23.45	23.48
		81	41	23.92	24.00	23.89
		81	81	23.47	23.46	23.42
		162	0	23.43	23.49	23.41
60M	PSK	1	1	23.88	23.95	23.89
		1	81	24.01	24.01	23.91
		1	160	24.00	24.01	23.97
		81	0	23.05	22.94	23.01
		81	41	23.90	23.92	23.91
		81	81	22.98	22.95	22.89
		162	0	22.94	22.98	22.99
60M	16QAM	1	1	23.00	22.90	22.90
60M	64QAM	1	1	21.43	21.51	21.42
60M	256QAM	1	1	19.52	19.50	19.46
BW	MCS Index	Channel		648334	656000	663666
		Frequency (MHz)		3725.01	3840	3954.99
50M	$\pi/2$ BPSK	1	1	23.88	23.92	23.84
		1	67	23.95	23.89	23.87
		1	131	23.96	24.02	23.88
		64	0	23.51	23.58	23.51
		64	35	23.91	23.92	23.90
		64	69	23.38	23.41	23.29
		128	0	23.38	23.34	23.24
50M	PSK	1	1	23.91	23.87	23.81
		1	67	23.92	23.80	23.83
		1	131	23.99	23.95	23.93
		64	0	23.01	23.08	22.99
		64	35	23.93	23.91	23.93
		64	69	22.86	22.86	22.82
		128	0	22.84	22.92	22.76
50M	16QAM	1	1	22.96	22.90	22.92
50M	64QAM	1	1	21.48	21.46	21.40
50M	256QAM	1	1	19.52	19.40	19.39

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		648000	656000	664000
		Frequency (MHz)		3720	3840	3960
40M	$\pi/2$ BPSK	1	1	23.96	23.85	23.78
		1	53	23.82	23.87	23.91
		1	104	23.91	23.94	23.80
		50	0	23.44	23.47	23.49
		50	28	24.03	23.90	23.75
		50	56	23.40	23.51	23.32
		100	0	23.49	23.27	23.42
40M	PSK	1	1	23.91	23.87	23.83
		1	53	23.88	23.94	23.91
		1	104	23.88	23.89	23.76
		50	0	22.90	22.95	22.96
		50	28	24.05	23.91	23.73
		50	56	22.93	22.95	22.88
		100	0	22.93	22.84	22.85
40M	16QAM	1	1	22.95	22.90	22.88
40M	64QAM	1	1	21.30	21.31	21.44
40M	256QAM	1	1	19.47	19.45	19.30
BW	MCS Index	Channel		647668	656000	664332
		Frequency (MHz)		3715.02	3840	3964.98
30M	$\pi/2$ BPSK	1	1	23.80	23.81	23.84
		1	39	23.91	23.78	23.87
		1	76	23.95	23.87	23.88
		36	0	23.49	23.48	23.51
		36	21	23.78	23.96	23.90
		36	42	23.35	23.39	23.29
		75	0	23.43	23.26	23.24
30M	PSK	1	1	23.86	23.82	23.81
		1	39	23.82	23.72	23.83
		1	76	23.97	23.80	23.93
		36	0	23.00	22.96	22.99
		36	21	23.79	23.90	23.93
		36	42	22.81	22.84	22.82
		75	0	22.88	22.78	22.76
30M	16QAM	1	1	22.76	22.79	22.92
30M	64QAM	1	1	21.23	21.31	21.40
30M	256QAM	1	1	19.34	19.21	19.39

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		647334	656000	664666
		Frequency (MHz)		3710.01	3840	3969.99
20M	$\pi/2$ BPSK	1	1	23.80	23.86	23.81
		1	26	23.91	23.93	23.78
		1	49	23.95	23.87	23.87
		25	0	23.49	23.46	23.48
		25	13	23.78	23.84	23.96
		25	26	23.35	23.36	23.39
		50	0	23.43	23.40	23.26
20M	PSK	1	1	23.86	23.90	23.82
		1	26	23.82	23.86	23.72
		1	49	23.97	23.81	23.80
		25	0	23.00	22.90	22.96
		25	13	23.79	23.81	23.90
		25	26	22.81	22.77	22.84
		50	0	22.88	22.85	22.78
20M	16QAM	1	1	22.76	22.93	22.79
20M	64QAM	1	1	21.23	21.41	21.31
20M	256QAM	1	1	19.34	19.37	19.21

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	23.23	23.04	23.11
		1	50	23.08	22.93	23.14
		1	99	22.84	23.11	23.13
		50	0	22.35	22.50	22.30
		50	25	22.17	22.40	22.37
		50	50	22.40	22.08	22.62
		100	0	22.38	22.20	22.30
20M	16QAM	1	0	22.10	22.44	22.86
		1	50	22.24	21.62	22.02
		1	99	21.69	21.99	21.90
		50	0	21.28	21.12	21.55
		50	25	21.02	21.10	21.69
		50	50	21.12	21.35	21.15
		100	0	21.23	20.97	21.28
20M	64QAM	1	0	21.44	21.24	21.41
		1	50	21.18	20.93	21.51
		1	99	21.17	21.19	21.30
		50	0	20.47	20.23	20.36
		50	25	20.06	20.41	20.69
		50	50	20.04	20.04	20.25
		100	0	19.98	20.32	20.66
20M	256QAM	1	0	17.89	18.08	18.19
		1	50	17.54	17.45	17.88
		1	99	17.92	17.62	17.85
		50	0	16.98	16.60	17.10
		50	25	16.78	16.75	17.28
		50	50	16.90	17.10	16.84
		100	0	17.07	16.84	17.10

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	23.18	22.94	23.15
		1	37	23.02	23.12	22.92
		1	74	22.77	23.12	23.17
		36	0	22.14	22.32	22.76
		36	19	22.03	22.48	22.25
		36	39	22.13	22.21	21.98
		75	0	22.15	22.29	22.12
15M	16QAM	1	0	22.36	22.15	22.86
		1	37	22.07	21.88	22.03
		1	74	21.89	21.49	22.21
		36	0	21.05	21.40	21.34
		36	19	21.20	21.20	21.56
		36	39	21.02	21.01	21.44
		75	0	21.31	20.89	21.43
15M	64QAM	1	0	21.17	20.91	21.28
		1	37	21.16	20.93	21.40
		1	74	21.06	21.14	21.20
		36	0	20.54	20.25	20.30
		36	19	20.06	19.96	20.51
		36	39	20.27	19.73	20.37
		75	0	20.19	20.33	20.34
15M	256QAM	1	0	17.64	17.49	18.37
		1	37	17.42	17.58	17.59
		1	74	17.65	17.46	17.70
		36	0	16.87	16.96	17.25
		36	19	16.60	16.90	16.89
		36	39	16.57	16.96	16.79
		75	0	16.69	16.61	16.84

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	23.00	23.01	23.15
		1	24	23.00	22.98	22.97
		1	49	23.04	22.78	23.07
		25	0	21.95	22.19	22.15
		25	12	21.93	22.36	22.51
		25	25	22.20	22.22	22.08
		50	0	22.42	22.04	22.32
10M	16QAM	1	0	22.54	22.20	22.55
		1	24	21.89	21.73	21.88
		1	49	21.58	21.58	21.68
		25	0	20.82	21.24	21.46
		25	12	21.35	20.77	21.30
		25	25	21.45	21.03	21.25
		50	0	21.07	21.30	21.42
10M	64QAM	1	0	20.82	21.01	21.20
		1	24	20.81	20.86	21.47
		1	49	21.00	20.89	21.11
		25	0	20.37	20.28	20.68
		25	12	20.16	20.42	20.10
		25	25	20.10	20.12	20.43
		50	0	20.17	20.19	20.52
10M	256QAM	1	0	17.68	17.53	18.02
		1	24	17.70	17.43	17.63
		1	49	17.45	17.52	17.17
		25	0	16.72	16.46	17.10
		25	12	16.91	16.63	16.86
		25	25	16.60	17.00	16.96
		50	0	16.97	16.95	17.35

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	23.15	23.11	23.02
		1	12	22.69	22.98	23.04
		1	24	22.68	22.82	22.85
		12	0	22.43	21.83	22.09
		12	6	22.35	22.23	22.40
		12	13	22.17	22.23	22.20
		25	0	22.15	22.00	22.43
5M	16QAM	1	0	22.04	22.17	22.51
		1	12	22.14	22.08	21.95
		1	24	21.58	21.49	21.71
		12	0	21.07	21.17	21.19
		12	6	21.32	20.86	21.12
		12	13	20.94	20.94	21.54
		25	0	21.04	21.01	21.51
5M	64QAM	1	0	20.95	21.41	21.58
		1	12	21.09	21.31	21.31
		1	24	20.72	21.09	20.82
		12	0	20.25	19.89	20.49
		12	6	20.20	20.18	20.53
		12	13	19.94	19.87	20.16
		25	0	20.18	20.14	20.37
5M	256QAM	1	0	17.59	17.57	17.80
		1	12	17.16	17.78	17.48
		1	24	17.32	17.41	17.70
		12	0	17.03	16.82	17.14
		12	6	16.48	17.02	16.82
		12	13	16.91	16.75	16.95
		25	0	16.76	17.02	16.52

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	25.17	25.48	25.28
		1	50	25.11	25.45	25.11
		1	99	25.09	25.44	25.10
		50	0	24.90	24.97	24.97
		50	25	24.56	24.73	24.82
		50	50	24.72	24.70	24.55
		100	0	24.80	24.60	24.40
20M	16QAM	1	0	24.69	24.81	24.52
		1	50	24.44	24.49	24.21
		1	99	24.13	24.56	24.25
		50	0	23.63	23.87	23.77
		50	25	23.83	23.75	23.27
		50	50	23.35	23.56	23.62
		100	0	23.60	23.82	23.44
20M	64QAM	1	0	23.34	23.84	23.45
		1	50	23.46	23.51	23.41
		1	99	22.91	23.47	22.91
		50	0	22.74	22.99	22.87
		50	25	22.55	23.06	22.58
		50	50	22.84	22.67	22.68
		100	0	22.21	23.00	22.45
20M	256QAM	1	0	20.07	20.04	20.33
		1	50	19.75	20.32	19.79
		1	99	20.27	19.97	20.11
		50	0	18.96	19.68	19.02
		50	25	19.42	19.65	19.10
		50	50	19.37	19.49	18.91
		100	0	19.13	19.12	18.95

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	25.10	25.35	25.22
		1	37	25.11	25.33	24.94
		1	74	25.10	25.30	24.86
		36	0	24.46	24.99	24.94
		36	19	24.47	25.00	24.24
		36	39	24.27	24.59	24.69
		75	0	24.24	24.71	24.59
15M	16QAM	1	0	24.10	24.52	24.12
		1	37	24.32	24.82	24.35
		1	74	24.30	24.20	24.36
		36	0	23.87	23.80	23.60
		36	19	23.44	23.73	23.49
		36	39	23.26	23.58	23.41
		75	0	23.34	23.94	23.46
15M	64QAM	1	0	23.70	23.34	23.45
		1	37	23.52	23.58	23.28
		1	74	23.20	23.31	23.04
		36	0	22.38	22.70	22.70
		36	19	22.86	23.06	22.78
		36	39	22.34	23.07	22.51
		75	0	22.21	22.90	22.64
15M	256QAM	1	0	19.80	19.97	19.72
		1	37	20.11	20.23	19.92
		1	74	20.06	20.11	19.48
		36	0	19.12	19.94	19.51
		36	19	19.64	19.34	19.46
		36	39	19.38	19.65	18.59
		75	0	19.34	19.55	19.29

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	25.30	25.39	25.07
		1	24	25.20	25.36	25.09
		1	49	24.95	25.31	24.87
		25	0	24.65	25.12	24.86
		25	12	24.46	24.69	24.63
		25	25	24.70	24.90	24.26
		50	0	24.45	24.86	24.45
10M	16QAM	1	0	24.60	24.91	24.25
		1	24	24.23	24.60	24.30
		1	49	24.33	24.48	24.26
		25	0	23.59	23.70	23.71
		25	12	23.94	24.11	23.64
		25	25	23.31	23.87	23.33
		50	0	23.48	23.67	23.66
10M	64QAM	1	0	23.08	23.39	23.44
		1	24	23.28	23.27	23.16
		1	49	22.97	23.50	23.37
		25	0	22.42	23.06	22.76
		25	12	22.64	23.16	22.33
		25	25	22.29	22.58	22.25
		50	0	22.58	22.80	22.29
10M	256QAM	1	0	19.69	20.05	20.15
		1	24	19.65	20.05	19.32
		1	49	19.58	20.39	19.95
		25	0	19.02	19.60	19.32
		25	12	19.22	19.26	18.90
		25	25	19.10	19.20	18.77
		50	0	19.02	19.74	18.87

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	25.42	25.44	25.14
		1	12	25.37	25.47	25.17
		1	24	25.16	25.44	24.94
		12	0	24.86	24.74	24.47
		12	6	24.86	24.75	24.77
		12	13	24.33	24.77	24.70
		25	0	24.59	24.86	24.17
5M	16QAM	1	0	24.51	24.81	24.25
		1	12	24.41	24.14	24.02
		1	24	24.21	24.64	24.26
		12	0	23.81	23.88	23.48
		12	6	23.35	23.92	23.53
		12	13	23.57	23.65	23.47
		25	0	23.68	23.58	23.44
5M	64QAM	1	0	23.43	23.42	23.35
		1	12	23.33	23.51	23.30
		1	24	23.27	23.72	23.06
		12	0	22.61	23.02	22.44
		12	6	22.39	22.92	22.41
		12	13	22.60	22.55	22.26
		25	0	22.17	22.81	22.20
5M	256QAM	1	0	19.88	19.88	19.90
		1	12	19.86	19.90	19.80
		1	24	19.90	19.93	19.88
		12	0	18.86	19.15	19.21
		12	6	19.45	19.87	19.60
		12	13	18.91	19.49	19.01
		25	0	19.27	19.03	18.67

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	24.34	24.56	24.52
		1	50	24.11	24.41	24.50
		1	99	24.13	24.29	24.45
		50	0	23.54	24.02	23.52
		50	25	23.29	24.04	23.74
		50	50	23.78	23.79	23.50
		100	0	23.30	23.52	23.50
20M	16QAM	1	0	23.65	23.91	23.86
		1	50	23.72	24.04	23.44
		1	99	23.81	23.63	23.76
		50	0	22.62	23.16	22.52
		50	25	22.57	23.11	22.82
		50	50	22.83	22.92	22.45
		100	0	22.55	22.76	22.28
20M	64QAM	1	0	22.72	23.01	22.92
		1	50	22.68	23.09	22.92
		1	99	22.88	22.60	22.35
		50	0	21.99	21.82	21.84
		50	25	21.91	22.12	21.90
		50	50	21.51	22.15	21.76
		100	0	21.53	21.69	21.55
20M	256QAM	1	0	19.35	18.98	19.12
		1	50	18.66	19.37	19.14
		1	99	19.09	19.05	19.20
		50	0	18.43	18.74	18.54
		50	25	18.56	18.68	18.57
		50	50	18.23	17.99	18.38
		100	0	18.34	18.83	18.33

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	24.29	24.51	24.42
		1	37	24.10	24.46	24.22
		1	74	24.13	24.49	24.40
		36	0	23.52	24.04	23.55
		36	19	23.73	24.06	23.73
		36	39	23.76	23.69	23.35
		75	0	23.56	23.88	23.34
15M	16QAM	1	0	23.42	24.00	23.41
		1	37	23.75	23.95	23.12
		1	74	23.53	23.91	22.95
		36	0	22.84	22.57	22.71
		36	19	22.54	22.65	22.81
		36	39	22.54	22.67	22.26
		75	0	22.48	22.60	22.17
15M	64QAM	1	0	22.44	22.87	22.86
		1	37	22.46	23.01	22.56
		1	74	22.61	22.45	22.06
		36	0	21.54	21.99	21.61
		36	19	21.55	22.04	21.80
		36	39	21.72	21.69	21.43
		75	0	21.28	21.89	21.84
15M	256QAM	1	0	19.35	19.50	19.17
		1	37	18.58	19.41	18.93
		1	74	18.65	18.90	18.63
		36	0	18.56	18.62	18.05
		36	19	18.49	18.09	18.05
		36	39	18.02	18.22	18.22
		75	0	18.18	17.92	18.16

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	24.29	24.48	24.44
		1	24	23.95	24.45	24.22
		1	49	24.02	24.45	24.04
		25	0	23.27	23.84	23.78
		25	12	23.59	23.57	23.70
		25	25	23.20	23.54	23.50
		50	0	23.44	23.97	23.59
10M	16QAM	1	0	23.30	23.60	23.55
		1	24	22.94	23.49	23.26
		1	49	23.15	23.54	22.99
		25	0	22.61	22.45	22.77
		25	12	22.71	22.48	22.39
		25	25	22.66	22.84	22.20
		50	0	22.25	22.84	22.78
10M	64QAM	1	0	22.34	22.89	22.53
		1	24	22.53	22.55	22.10
		1	49	21.98	22.21	22.26
		25	0	21.33	21.63	21.43
		25	12	21.71	21.68	21.53
		25	25	21.52	21.92	21.70
		50	0	21.28	21.66	21.76
10M	256QAM	1	0	18.92	19.47	19.13
		1	24	18.66	19.04	18.98
		1	49	19.05	18.99	18.86
		25	0	18.39	18.39	18.48
		25	12	18.27	18.40	18.33
		25	25	17.88	18.70	18.12
		50	0	18.33	18.35	18.36

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	24.27	24.54	24.24
		1	12	23.90	24.55	24.09
		1	24	23.75	24.50	24.14
		12	0	23.72	23.66	23.91
		12	6	23.80	23.95	23.70
		12	13	23.42	23.72	23.29
		25	0	23.61	23.70	23.21
5M	16QAM	1	0	23.70	23.71	23.72
		1	12	23.03	23.26	23.22
		1	24	23.07	23.25	23.31
		12	0	22.52	22.66	22.61
		12	6	22.54	22.59	22.61
		12	13	22.24	22.52	22.56
		25	0	22.68	22.79	22.52
5M	64QAM	1	0	22.31	22.88	22.18
		1	12	22.05	22.19	22.37
		1	24	22.15	22.59	22.28
		12	0	21.53	22.04	21.69
		12	6	21.26	21.65	21.19
		12	13	21.35	21.46	21.67
		25	0	21.23	21.46	21.18
5M	256QAM	1	0	18.81	19.01	18.90
		1	12	19.09	19.00	19.08
		1	24	18.24	19.00	18.89
		12	0	18.22	18.33	18.43
		12	6	18.36	18.47	18.24
		12	13	18.65	18.39	18.40
		25	0	18.25	18.21	18.00

EIRP (dBm)

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3750	3840	3930
100M	$\pi/2$ BPSK	1	1	26.10	26.10	26.05
		1	137	26.08	26.08	26.03
		1	271	26.09	26.09	26.04
		135	0	25.66	25.66	25.61
		135	69	26.05	26.04	26.02
		135	138	25.58	25.58	25.53
		270	0	25.57	25.57	25.52
100M	PSK	1	1	26.18	26.18	26.13
		1	137	26.10	26.10	26.05
		1	271	26.13	26.13	26.08
		135	0	25.18	25.17	25.13
		135	69	26.08	26.08	26.03
		135	138	25.16	25.16	25.11
		270	0	25.03	24.96	25.00
100M	16QAM	1	1	25.02	25.02	24.97
100M	64QAM	1	1	23.65	23.65	23.60
100M	256QAM	1	1	21.60	21.60	21.55
BW	MCS Index	Channel		649668	656000	662332
		Frequency (MHz)		3745.02	3840	3934.98
90M	$\pi/2$ BPSK	1	1	26.10	26.07	26.03
		1	123	26.04	26.01	26.01
		1	243	25.99	26.03	26.04
		120	0	25.62	25.65	25.53
		120	63	26.08	26.08	25.99
		120	125	25.57	25.57	25.48
		243	0	25.57	25.49	25.43
90M	PSK	1	1	26.10	26.05	26.04
		1	123	26.01	25.99	26.00
		1	243	26.01	26.06	25.94
		120	0	25.07	25.13	25.09
		120	63	26.00	26.01	26.02
		120	125	25.01	24.99	24.98
		243	0	25.07	25.02	24.95
90M	16QAM	1	1	25.10	25.08	24.95
90M	64QAM	1	1	23.50	23.53	23.46
90M	256QAM	1	1	21.59	21.55	21.49

*EIRP = Conducted + antenna gain (2.017dBi)

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		649334	656000	662666
		Frequency (MHz)		3740.01	3840	3939.99
80M	$\pi/2$ BPSK	1	1	25.99	25.97	25.91
		1	109	26.04	26.03	25.86
		1	215	26.02	26.07	25.87
		108	0	25.63	25.52	25.50
		108	55	26.04	26.01	25.95
		108	109	25.49	25.40	25.40
		216	0	25.46	25.39	25.41
80M	PSK	1	1	26.00	25.98	25.89
		1	109	25.95	26.04	25.86
		1	215	25.99	26.00	25.85
		108	0	25.04	25.05	25.00
		108	55	26.04	25.97	26.02
		108	109	25.05	24.94	24.93
		216	0	24.94	24.92	24.91
80M	16QAM	1	1	25.10	25.00	25.01
80M	64QAM	1	1	23.52	23.45	23.34
80M	256QAM	1	1	21.49	21.53	21.50
BW	MCS Index	Channel		649000	6560000	663000
		Frequency (MHz)		3735	3840	3945
70M	$\pi/2$ BPSK	1	1	25.87	25.90	25.94
		1	95	25.89	25.97	25.91
		1	187	25.96	25.98	26.04
		90	0	25.49	25.53	25.60
		90	50	25.92	25.93	25.94
		90	99	25.53	25.40	25.43
		180	0	25.29	25.40	25.36
70M	PSK	1	1	25.89	25.93	25.89
		1	95	25.96	25.94	25.82
		1	187	25.91	26.01	25.97
		90	0	24.97	25.03	25.10
		90	50	25.93	25.95	25.93
		90	99	24.97	24.88	24.88
		180	0	24.86	24.86	24.94
70M	16QAM	1	1	24.92	24.98	24.92
70M	64QAM	1	1	23.33	23.50	23.48
70M	256QAM	1	1	21.47	21.54	21.42

*EIRP = Conducted + antenna gain (2.017dBi)

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		648668	656000	663332
		Frequency (MHz)		3730.02	3840	3949.98
60M	$\pi/2$ BPSK	1	1	25.98	26.01	25.99
		1	81	26.05	25.99	25.96
		1	160	25.98	25.96	26.02
		81	0	25.63	25.47	25.50
		81	41	25.94	26.02	25.91
		81	81	25.49	25.48	25.44
		162	0	25.45	25.51	25.43
60M	PSK	1	1	25.90	25.97	25.91
		1	81	26.03	26.03	25.93
		1	160	26.02	26.03	25.99
		81	0	25.07	24.96	25.03
		81	41	25.92	25.94	25.93
		81	81	25.00	24.97	24.91
		162	0	24.96	25.00	25.01
60M	16QAM	1	1	25.02	24.92	24.92
60M	64QAM	1	1	23.45	23.53	23.44
60M	256QAM	1	1	21.54	21.52	21.48
BW	MCS Index	Channel		648334	656000	663666
		Frequency (MHz)		3725.01	3840	3954.99
50M	$\pi/2$ BPSK	1	1	25.90	25.94	25.86
		1	67	25.97	25.91	25.89
		1	131	25.98	26.04	25.90
		64	0	25.53	25.60	25.53
		64	35	25.93	25.94	25.92
		64	69	25.40	25.43	25.31
		128	0	25.40	25.36	25.26
50M	PSK	1	1	25.93	25.89	25.83
		1	67	25.94	25.82	25.85
		1	131	26.01	25.97	25.95
		64	0	25.03	25.10	25.01
		64	35	25.95	25.93	25.95
		64	69	24.88	24.88	24.84
		128	0	24.86	24.94	24.78
50M	16QAM	1	1	24.98	24.92	24.94
50M	64QAM	1	1	23.50	23.48	23.42
50M	256QAM	1	1	21.54	21.42	21.41

*EIRP = Conducted + antenna gain (2.017dBi)

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		648000	656000	664000
		Frequency (MHz)		3720	3840	3960
40M	$\pi/2$ BPSK	1	1	25.98	25.87	25.80
		1	53	25.84	25.89	25.93
		1	104	25.93	25.96	25.82
		50	0	25.46	25.49	25.51
		50	28	26.05	25.92	25.77
		50	56	25.42	25.53	25.34
		100	0	25.51	25.29	25.44
40M	PSK	1	1	25.93	25.89	25.85
		1	53	25.90	25.96	25.93
		1	104	25.90	25.91	25.78
		50	0	24.92	24.97	24.98
		50	28	26.07	25.93	25.75
		50	56	24.95	24.97	24.90
		100	0	24.95	24.86	24.87
40M	16QAM	1	1	24.97	24.92	24.90
40M	64QAM	1	1	23.32	23.33	23.46
40M	256QAM	1	1	21.49	21.47	21.32
BW	MCS Index	Channel		647668	656000	664332
		Frequency (MHz)		3715.02	3840	3964.98
30M	$\pi/2$ BPSK	1	1	25.82	25.83	25.86
		1	39	25.93	25.80	25.89
		1	76	25.97	25.89	25.90
		36	0	25.51	25.50	25.53
		36	21	25.80	25.98	25.92
		36	42	25.37	25.41	25.31
		75	0	25.45	25.28	25.26
30M	PSK	1	1	25.88	25.84	25.83
		1	39	25.84	25.74	25.85
		1	76	25.99	25.82	25.95
		36	0	25.02	24.98	25.01
		36	21	25.81	25.92	25.95
		36	42	24.83	24.86	24.84
		75	0	24.90	24.80	24.78
30M	16QAM	1	1	24.78	24.81	24.94
30M	64QAM	1	1	23.25	23.33	23.42
30M	256QAM	1	1	21.36	21.23	21.41

*EIRP = Conducted + antenna gain (2.017dBi)

NR Band 77						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		647334	656000	664666
		Frequency (MHz)		3710.01	3840	3969.99
20M	$\pi/2$ BPSK	1	1	25.82	25.88	25.83
		1	26	25.93	25.95	25.80
		1	49	25.97	25.89	25.89
		25	0	25.51	25.48	25.50
		25	13	25.80	25.86	25.98
		25	26	25.37	25.38	25.41
		50	0	25.45	25.42	25.28
20M	PSK	1	1	25.88	25.92	25.84
		1	26	25.84	25.88	25.74
		1	49	25.99	25.83	25.82
		25	0	25.02	24.92	24.98
		25	13	25.81	25.83	25.92
		25	26	24.83	24.79	24.86
		50	0	24.90	24.87	24.80
20M	16QAM	1	1	24.78	24.95	24.81
20M	64QAM	1	1	23.25	23.43	23.33
20M	256QAM	1	1	21.36	21.39	21.23

*EIRP = Conducted + antenna gain (2.017dBi)

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	23.42	23.22	23.30
		1	50	23.27	23.11	23.32
		1	99	23.02	23.30	23.32
		50	0	22.54	22.68	22.49
		50	25	22.36	22.58	22.55
		50	50	22.59	22.27	22.81
		100	0	22.56	22.39	22.49
20M	16QAM	1	0	22.29	22.63	23.05
		1	50	22.43	21.80	22.21
		1	99	21.87	22.18	22.09
		50	0	21.46	21.31	21.73
		50	25	21.21	21.29	21.88
		50	50	21.30	21.54	21.34
		100	0	21.42	21.15	21.46
20M	64QAM	1	0	21.62	21.43	21.59
		1	50	21.37	21.12	21.70
		1	99	21.35	21.38	21.49
		50	0	20.66	20.41	20.55
		50	25	20.24	20.60	20.88
		50	50	20.23	20.22	20.43
		100	0	20.17	20.51	20.85
20M	256QAM	1	0	18.08	18.27	18.37
		1	50	17.73	17.63	18.07
		1	99	18.11	17.80	18.04
		50	0	17.16	16.79	17.29
		50	25	16.97	16.94	17.47
		50	50	17.08	17.29	17.03
		100	0	17.25	17.03	17.28

*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	23.37	23.13	23.34
		1	37	23.20	23.31	23.10
		1	74	22.96	23.31	23.36
		36	0	22.33	22.51	22.95
		36	19	22.21	22.67	22.44
		36	39	22.31	22.40	22.17
		75	0	22.34	22.47	22.31
15M	16QAM	1	0	22.55	22.34	23.04
		1	37	22.26	22.07	22.22
		1	74	22.08	21.67	22.40
		36	0	21.24	21.59	21.53
		36	19	21.38	21.39	21.74
		36	39	21.21	21.19	21.63
		75	0	21.50	21.07	21.62
15M	64QAM	1	0	21.36	21.10	21.47
		1	37	21.34	21.11	21.58
		1	74	21.25	21.32	21.39
		36	0	20.73	20.43	20.49
		36	19	20.25	20.15	20.70
		36	39	20.46	19.91	20.56
		75	0	20.38	20.52	20.53
15M	256QAM	1	0	17.82	17.68	18.56
		1	37	17.60	17.77	17.78
		1	74	17.84	17.65	17.88
		36	0	17.05	17.15	17.43
		36	19	16.79	17.09	17.08
		36	39	16.75	17.15	16.97
		75	0	16.87	16.79	17.03

*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	23.19	23.19	23.34
		1	24	23.19	23.17	23.16
		1	49	23.23	22.97	23.26
		25	0	22.14	22.38	22.34
		25	12	22.12	22.55	22.70
		25	25	22.39	22.41	22.27
		50	0	22.61	22.23	22.51
10M	16QAM	1	0	22.73	22.39	22.73
		1	24	22.08	21.91	22.06
		1	49	21.77	21.77	21.87
		25	0	21.01	21.43	21.65
		25	12	21.54	20.96	21.49
		25	25	21.64	21.22	21.43
		50	0	21.26	21.48	21.61
10M	64QAM	1	0	21.00	21.20	21.39
		1	24	21.00	21.05	21.66
		1	49	21.19	21.07	21.30
		25	0	20.55	20.47	20.87
		25	12	20.35	20.60	20.29
		25	25	20.28	20.31	20.61
		50	0	20.36	20.38	20.71
10M	256QAM	1	0	17.87	17.72	18.20
		1	24	17.89	17.62	17.82
		1	49	17.63	17.70	17.36
		25	0	16.90	16.64	17.28
		25	12	17.10	16.82	17.05
		25	25	16.79	17.19	17.14
		50	0	17.16	17.13	17.53

*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	23.34	23.29	23.21
		1	12	22.87	23.17	23.23
		1	24	22.87	23.01	23.04
		12	0	22.62	22.02	22.27
		12	6	22.54	22.41	22.58
		12	13	22.36	22.41	22.39
		25	0	22.34	22.19	22.62
5M	16QAM	1	0	22.22	22.36	22.70
		1	12	22.33	22.27	22.13
		1	24	21.77	21.68	21.90
		12	0	21.26	21.36	21.37
		12	6	21.51	21.05	21.31
		12	13	21.13	21.13	21.72
		25	0	21.22	21.20	21.70
5M	64QAM	1	0	21.14	21.60	21.77
		1	12	21.28	21.49	21.50
		1	24	20.91	21.28	21.00
		12	0	20.44	20.08	20.67
		12	6	20.39	20.36	20.72
		12	13	20.13	20.06	20.35
		25	0	20.37	20.32	20.56
5M	256QAM	1	0	17.78	17.76	17.99
		1	12	17.35	17.97	17.66
		1	24	17.50	17.60	17.89
		12	0	17.22	17.01	17.33
		12	6	16.67	17.21	17.00
		12	13	17.10	16.93	17.13
		25	0	16.95	17.21	16.70

*EIRP = Conducted + antenna gain (0.185dBi)

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	26.31	26.62	26.43
		1	50	26.25	26.59	26.25
		1	99	26.23	26.58	26.24
		50	0	26.04	26.12	26.12
		50	25	25.70	25.87	25.97
		50	50	25.86	25.84	25.70
		100	0	25.95	25.74	25.54
20M	16QAM	1	0	25.83	25.95	25.66
		1	50	25.58	25.63	25.36
		1	99	25.28	25.70	25.39
		50	0	24.78	25.02	24.92
		50	25	24.97	24.89	24.41
		50	50	24.50	24.71	24.76
		100	0	24.75	24.96	24.58
20M	64QAM	1	0	24.48	24.98	24.59
		1	50	24.60	24.65	24.55
		1	99	24.05	24.62	24.06
		50	0	23.88	24.14	24.01
		50	25	23.70	24.21	23.72
		50	50	23.99	23.81	23.82
		100	0	23.36	24.14	23.60
20M	256QAM	1	0	21.21	21.18	21.48
		1	50	20.89	21.46	20.93
		1	99	21.41	21.11	21.25
		50	0	20.11	20.82	20.16
		50	25	20.57	20.80	20.25
		50	50	20.51	20.63	20.05
		100	0	20.27	20.27	20.09

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	26.24	26.49	26.36
		1	37	26.25	26.47	26.08
		1	74	26.24	26.44	26.00
		36	0	25.60	26.13	26.09
		36	19	25.61	26.15	25.38
		36	39	25.41	25.74	25.83
		75	0	25.38	25.85	25.74
15M	16QAM	1	0	25.24	25.66	25.27
		1	37	25.47	25.96	25.50
		1	74	25.44	25.34	25.51
		36	0	25.01	24.94	24.74
		36	19	24.58	24.88	24.63
		36	39	24.40	24.72	24.55
		75	0	24.48	25.09	24.60
15M	64QAM	1	0	24.84	24.48	24.60
		1	37	24.67	24.73	24.42
		1	74	24.35	24.45	24.19
		36	0	23.53	23.84	23.85
		36	19	24.00	24.20	23.92
		36	39	23.48	24.22	23.66
		75	0	23.35	24.04	23.78
15M	256QAM	1	0	20.94	21.11	20.86
		1	37	21.25	21.37	21.06
		1	74	21.20	21.26	20.62
		36	0	20.27	21.09	20.66
		36	19	20.78	20.49	20.60
		36	39	20.53	20.79	19.73
		75	0	20.49	20.70	20.44

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	26.44	26.53	26.21
		1	24	26.34	26.50	26.23
		1	49	26.09	26.45	26.01
		25	0	25.80	26.27	26.01
		25	12	25.60	25.83	25.77
		25	25	25.85	26.05	25.40
		50	0	25.59	26.01	25.60
10M	16QAM	1	0	25.75	26.05	25.39
		1	24	25.37	25.75	25.44
		1	49	25.47	25.62	25.40
		25	0	24.73	24.84	24.86
		25	12	25.09	25.25	24.79
		25	25	24.46	25.01	24.48
		50	0	24.62	24.81	24.81
10M	64QAM	1	0	24.23	24.53	24.58
		1	24	24.42	24.41	24.31
		1	49	24.11	24.65	24.51
		25	0	23.57	24.20	23.91
		25	12	23.78	24.30	23.48
		25	25	23.43	23.73	23.40
		50	0	23.73	23.94	23.43
10M	256QAM	1	0	20.84	21.19	21.30
		1	24	20.79	21.19	20.47
		1	49	20.73	21.53	21.09
		25	0	20.16	20.75	20.47
		25	12	20.36	20.40	20.04
		25	25	20.24	20.34	19.91
		50	0	20.16	20.88	20.01

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 2)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	26.56	26.58	26.28
		1	12	26.51	26.61	26.31
		1	24	26.31	26.58	26.08
		12	0	26.00	25.88	25.62
		12	6	26.00	25.90	25.91
		12	13	25.47	25.91	25.84
		25	0	25.73	26.00	25.32
5M	16QAM	1	0	25.66	25.96	25.39
		1	12	25.55	25.29	25.16
		1	24	25.35	25.78	25.40
		12	0	24.95	25.02	24.62
		12	6	24.49	25.06	24.68
		12	13	24.72	24.79	24.61
		25	0	24.82	24.73	24.59
5M	64QAM	1	0	24.57	24.57	24.49
		1	12	24.47	24.65	24.44
		1	24	24.41	24.87	24.21
		12	0	23.75	24.17	23.58
		12	6	23.53	24.06	23.55
		12	13	23.75	23.70	23.40
		25	0	23.32	23.96	23.34
5M	256QAM	1	0	21.03	21.02	21.05
		1	12	21.00	21.05	20.95
		1	24	21.05	21.07	21.02
		12	0	20.00	20.30	20.35
		12	6	20.59	21.01	20.74
		12	13	20.06	20.64	20.15
		25	0	20.41	20.18	19.81

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	25.49	25.70	25.66
		1	50	25.25	25.55	25.64
		1	99	25.27	25.43	25.59
		50	0	24.68	25.16	24.66
		50	25	24.43	25.18	24.88
		50	50	24.92	24.93	24.64
		100	0	24.45	24.66	24.65
20M	16QAM	1	0	24.79	25.05	25.00
		1	50	24.86	25.18	24.58
		1	99	24.95	24.77	24.90
		50	0	23.77	24.30	23.66
		50	25	23.71	24.25	23.97
		50	50	23.97	24.06	23.60
		100	0	23.69	23.90	23.42
20M	64QAM	1	0	23.86	24.16	24.06
		1	50	23.83	24.23	24.06
		1	99	24.03	23.74	23.50
		50	0	23.13	22.97	22.98
		50	25	23.05	23.26	23.05
		50	50	22.66	23.29	22.90
		100	0	22.68	22.84	22.70
20M	256QAM	1	0	20.50	20.12	20.27
		1	50	19.80	20.52	20.28
		1	99	20.24	20.20	20.35
		50	0	19.58	19.88	19.69
		50	25	19.70	19.82	19.71
		50	50	19.37	19.13	19.52
		100	0	19.49	19.98	19.48

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	25.44	25.66	25.56
		1	37	25.24	25.60	25.37
		1	74	25.28	25.63	25.54
		36	0	24.67	25.18	24.69
		36	19	24.87	25.21	24.87
		36	39	24.90	24.83	24.49
		75	0	24.71	25.03	24.48
15M	16QAM	1	0	24.56	25.14	24.55
		1	37	24.90	25.10	24.26
		1	74	24.68	25.06	24.09
		36	0	23.98	23.71	23.86
		36	19	23.69	23.79	23.96
		36	39	23.68	23.81	23.40
		75	0	23.62	23.74	23.31
15M	64QAM	1	0	23.59	24.01	24.00
		1	37	23.61	24.15	23.71
		1	74	23.76	23.60	23.21
		36	0	22.68	23.13	22.75
		36	19	22.69	23.18	22.94
		36	39	22.86	22.83	22.57
		75	0	22.43	23.03	22.98
15M	256QAM	1	0	20.49	20.64	20.31
		1	37	19.73	20.55	20.07
		1	74	19.79	20.04	19.77
		36	0	19.70	19.76	19.19
		36	19	19.63	19.24	19.19
		36	39	19.16	19.36	19.36
		75	0	19.33	19.06	19.31

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	25.43	25.62	25.59
		1	24	25.09	25.59	25.36
		1	49	25.17	25.60	25.18
		25	0	24.42	24.99	24.93
		25	12	24.73	24.71	24.84
		25	25	24.34	24.69	24.64
		50	0	24.59	25.11	24.74
10M	16QAM	1	0	24.44	24.74	24.69
		1	24	24.08	24.63	24.40
		1	49	24.29	24.68	24.14
		25	0	23.76	23.59	23.91
		25	12	23.86	23.62	23.53
		25	25	23.80	23.99	23.34
		50	0	23.40	23.98	23.92
10M	64QAM	1	0	23.48	24.04	23.67
		1	24	23.67	23.69	23.24
		1	49	23.12	23.36	23.41
		25	0	22.47	22.77	22.58
		25	12	22.86	22.83	22.67
		25	25	22.66	23.06	22.84
		50	0	22.42	22.81	22.91
10M	256QAM	1	0	20.06	20.61	20.27
		1	24	19.80	20.19	20.13
		1	49	20.19	20.13	20.00
		25	0	19.54	19.53	19.63
		25	12	19.41	19.55	19.48
		25	25	19.03	19.84	19.26
		50	0	19.47	19.49	19.50

*EIRP = Conducted + antenna gain (1.143dBi)

LTE Band 41 (Power Class 3)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	25.41	25.68	25.39
		1	12	25.04	25.69	25.24
		1	24	24.89	25.64	25.29
		12	0	24.86	24.80	25.06
		12	6	24.95	25.09	24.84
		12	13	24.57	24.86	24.43
		25	0	24.75	24.84	24.35
5M	16QAM	1	0	24.84	24.86	24.86
		1	12	24.17	24.41	24.36
		1	24	24.22	24.40	24.45
		12	0	23.66	23.80	23.75
		12	6	23.69	23.74	23.75
		12	13	23.38	23.67	23.71
		25	0	23.83	23.94	23.67
5M	64QAM	1	0	23.46	24.03	23.33
		1	12	23.20	23.33	23.52
		1	24	23.29	23.74	23.42
		12	0	22.67	23.18	22.83
		12	6	22.40	22.80	22.34
		12	13	22.49	22.60	22.82
		25	0	22.38	22.61	22.32
5M	256QAM	1	0	19.96	20.15	20.04
		1	12	20.24	20.15	20.22
		1	24	19.39	20.14	20.03
		12	0	19.36	19.48	19.58
		12	6	19.50	19.61	19.39
		12	13	19.79	19.53	19.55
		25	0	19.39	19.35	19.14

*EIRP = Conducted + antenna gain (1.143dBi)

4.2 Modulation Characteristics Measurement

4.2.1 Limits of Modulation Characteristics

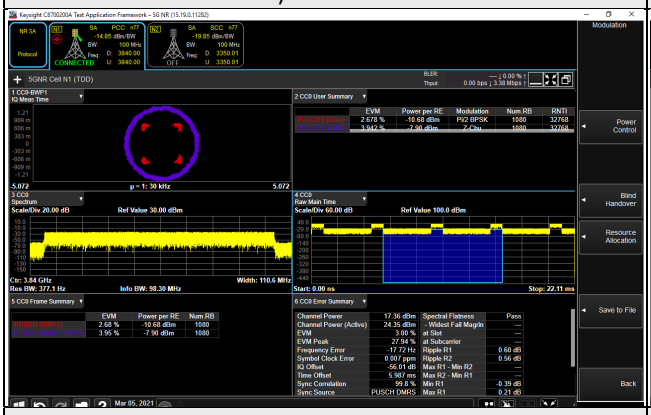
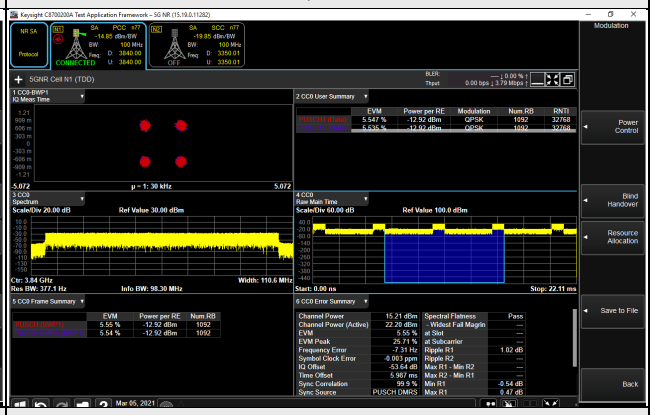
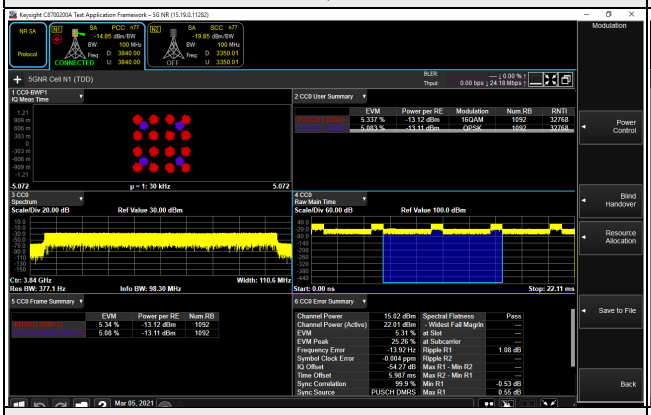
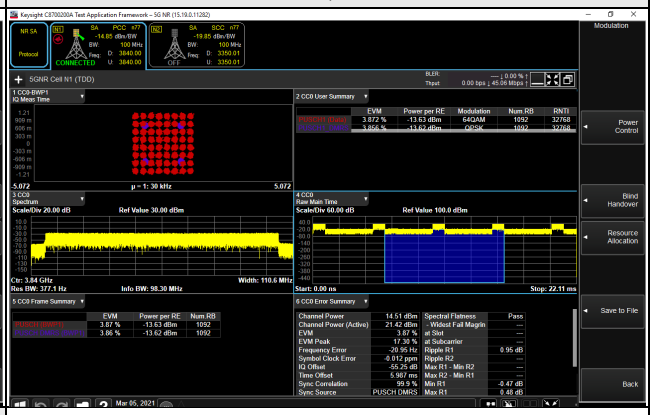
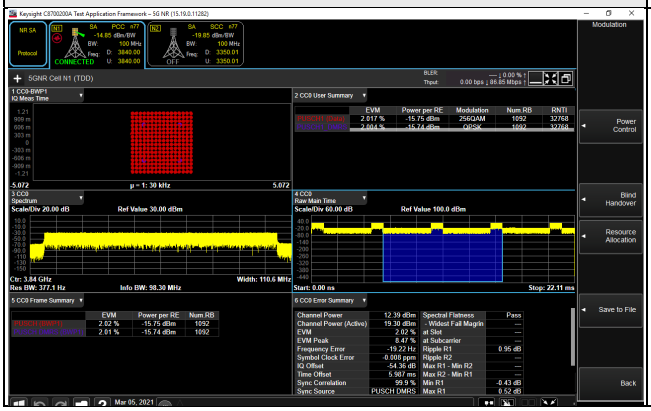
N/A

4.2.2 Test Procedure

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

4.2.3 Test Setup

4.2.4 Test Results

n77	
Spectrum Plot of Measurement Value	
Channel: 656000 / Frequency (MHz): 3840.00MHz	
$\pi/2$ BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

4.3.2 Test Procedure

a. 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.
b. 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.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5 ℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

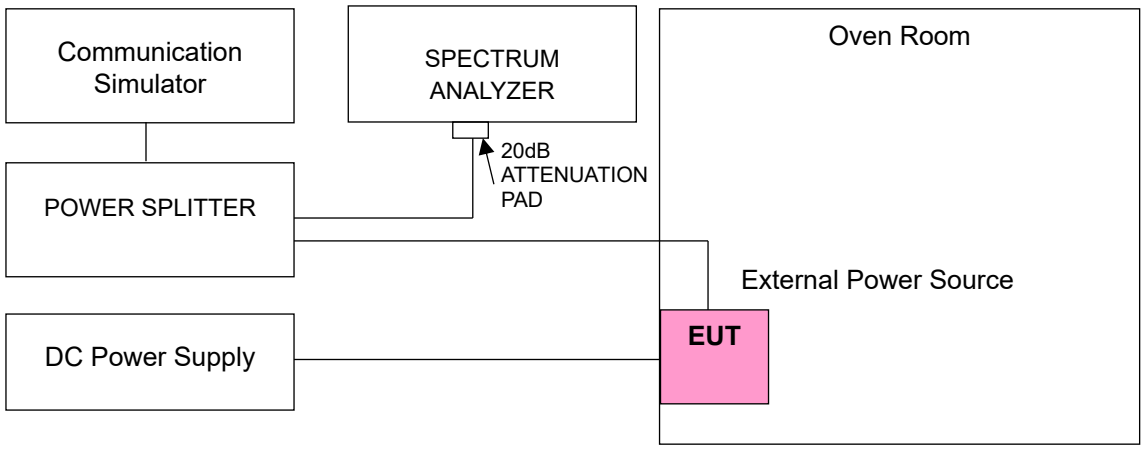
Note: The frequency error was recorded frequency error from the communication simulator.

4.3.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
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.

4.3.4 Test Setup



4.3.5 Test Results

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3710.010004	0.001	3969.990000	0.001
7.74	3710.010003	0.001	3969.990000	0.000
6.58	3710.010002	0.000	3969.990000	0.001

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3710.010002	0.001	3969.990000	0.000
-20	3710.010004	0.001	3969.990000	0.000
-10	3710.010003	0.001	3969.990000	0.001
0	3710.010002	0.000	3969.990000	0.001
10	3710.009999	0.000	3969.990000	0.000
20	3710.009996	-0.001	3969.990000	0.000
30	3710.009997	-0.001	3969.990000	0.000
40	3710.009997	-0.001	3969.990000	-0.001
50	3710.009996	-0.001	3969.990000	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 30 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3715.020002	0.000	3964.980002	0.000
7.74	3715.020003	0.001	3964.980003	0.001
6.58	3715.020004	0.001	3964.980001	0.000

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 30 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3715.020004	0.001	3964.980003	0.001
-20	3715.020004	0.001	3964.980002	0.001
-10	3715.020003	0.001	3964.980001	0.000
0	3715.020002	0.001	3964.980004	0.001
10	3715.019997	-0.001	3964.979997	-0.001
20	3715.019996	-0.001	3964.979999	0.000
30	3715.019998	-0.001	3964.979999	0.000
40	3715.019999	0.000	3964.979998	0.000
50	3715.019996	-0.001	3964.979999	0.000

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3720.000004	0.001	3960.000001	0.000
7.74	3720.000002	0.001	3960.000002	0.000
6.58	3720.000001	0.000	3960.000001	0.000

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3720.000003	0.001	3960.000002	0.000
-20	3720.000004	0.001	3960.000001	0.000
-10	3720.000003	0.001	3960.000002	0.000
0	3720.000001	0.000	3960.000003	0.001
10	3719.999999	0.000	3959.999998	-0.001
20	3719.999998	-0.001	3959.999997	-0.001
30	3719.999998	0.000	3959.999998	-0.001
40	3719.999998	-0.001	3959.999997	-0.001
50	3719.999998	0.000	3959.999996	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 50 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3725.010004	0.001	3954.990003	0.001
7.74	3725.010002	0.001	3954.990002	0.000
6.58	3725.010003	0.001	3954.990004	0.001

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 50 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3725.010004	0.001	3954.990003	0.001
-20	3725.010003	0.001	3954.990003	0.001
-10	3725.010004	0.001	3954.990002	0.000
0	3725.010002	0.001	3954.990003	0.001
10	3725.009997	-0.001	3954.989997	-0.001
20	3725.009997	-0.001	3954.989999	0.000
30	3725.009997	-0.001	3954.989996	-0.001
40	3725.009997	-0.001	3954.989996	-0.001
50	3725.009997	-0.001	3954.989996	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 60 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3730.020001	0.000	3949.980003	0.001
7.74	3730.020004	0.001	3949.980001	0.000
6.58	3730.020002	0.001	3949.980002	0.000

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 60 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3730.020002	0.000	3949.980002	0.001
-20	3730.020004	0.001	3949.980001	0.000
-10	3730.020002	0.000	3949.980001	0.000
0	3730.020003	0.001	3949.980002	0.001
10	3730.019997	-0.001	3949.979997	-0.001
20	3730.019999	0.000	3949.979998	0.000
30	3730.019999	0.000	3949.979997	-0.001
40	3730.019996	-0.001	3949.979998	-0.001
50	3730.019997	-0.001	3949.979998	0.000

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 70 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3735.000003	0.001	3945.000003	0.001
7.74	3735.000002	0.001	3945.000002	0.001
6.58	3735.000002	0.001	3945.000001	0.000

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 70 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3735.000002	0.001	3945.000002	0.001
-20	3735.000001	0.000	3945.000002	0.000
-10	3735.000004	0.001	3945.000002	0.001
0	3735.000002	0.001	3945.000004	0.001
10	3734.999997	-0.001	3944.999998	0.000
20	3734.999999	0.000	3944.999998	-0.001
30	3734.999996	-0.001	3944.999999	0.000
40	3734.999997	-0.001	3944.999998	0.000
50	3734.999996	-0.001	3944.999997	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 80 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3740.010003	0.001	3939.990004	0.001
7.74	3740.010001	0.000	3939.990002	0.000
6.58	3740.010003	0.001	3939.990003	0.001

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 80 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3740.010004	0.001	3939.990004	0.001
-20	3740.010004	0.001	3939.990002	0.001
-10	3740.010004	0.001	3939.990002	0.000
0	3740.010002	0.001	3939.990002	0.001
10	3740.009998	-0.001	3939.989997	-0.001
20	3740.009997	-0.001	3939.989996	-0.001
30	3740.009997	-0.001	3939.989997	-0.001
40	3740.009998	-0.001	3939.989999	0.000
50	3740.009997	-0.001	3939.989997	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 90 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3745.020002	0.001	3934.980002	0.000
7.74	3745.020002	0.000	3934.980001	0.000
6.58	3745.020002	0.001	3934.980002	0.001

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

Frequency Error vs. Temperature

Temp. (℃)	n77			
	Channel Bandwidth 90 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3745.020001	0.000	3934.980004	0.001
-20	3745.020001	0.000	3934.980004	0.001
-10	3745.020002	0.001	3934.980001	0.000
0	3745.020003	0.001	3934.980003	0.001
10	3745.019998	-0.001	3934.979998	0.000
20	3745.019997	-0.001	3934.979999	0.000
30	3745.019999	0.000	3934.979997	-0.001
40	3745.019997	-0.001	3934.979999	0.000
50	3745.019996	-0.001	3934.979996	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	n77			
	Channel Bandwidth 100 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
8.90	3750.000001	0.000	3930.000001	0.000
7.74	3750.000002	0.001	3930.000004	0.001
6.58	3750.000003	0.001	3930.000003	0.001

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

Frequency Error vs. Temperature

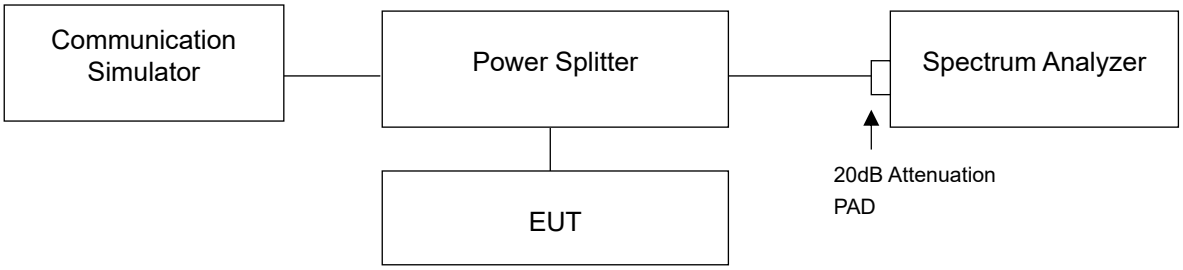
Temp. (℃)	n77			
	Channel Bandwidth 100 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3750.000001	0.000	3930.000003	0.001
-20	3750.000001	0.000	3930.000003	0.001
-10	3750.000001	0.000	3930.000002	0.000
0	3750.000003	0.001	3930.000002	0.001
10	3749.999998	-0.001	3929.999996	-0.001
20	3749.999999	0.000	3929.999998	-0.001
30	3749.999996	-0.001	3929.999998	-0.001
40	3749.999999	0.000	3929.999997	-0.001
50	3749.999997	-0.001	3929.999997	-0.001

4.4 Occupied Bandwidth Measurement

4.4.1 Test Procedure

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 Setup

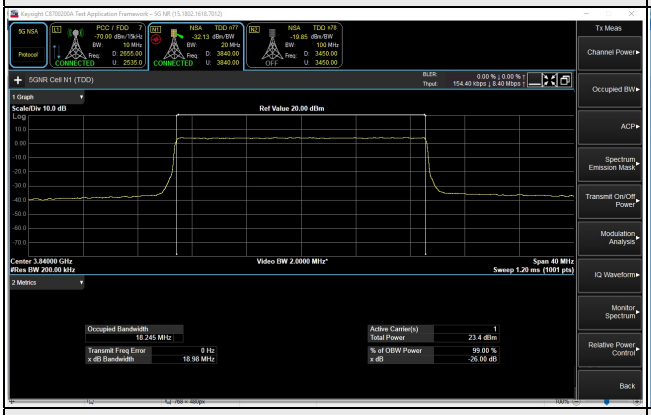
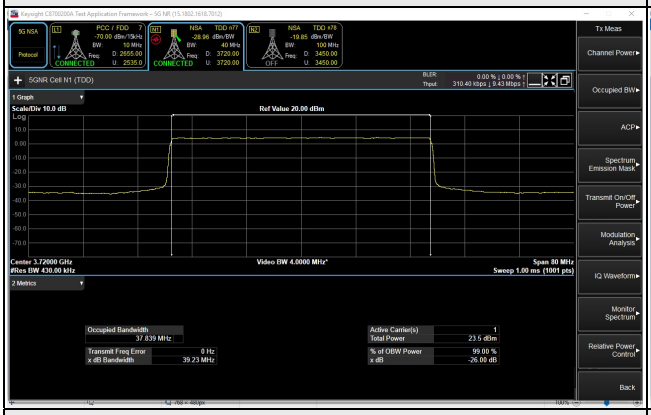
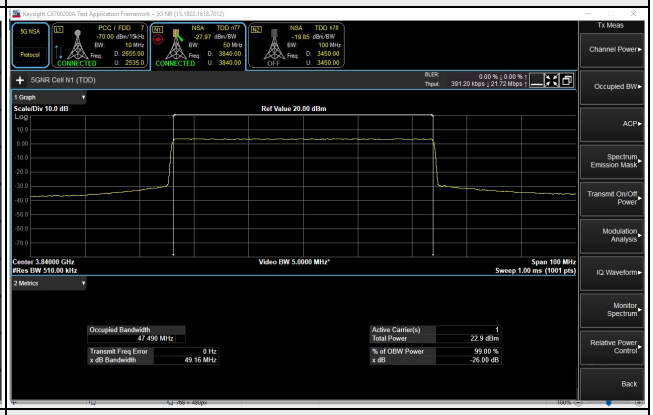
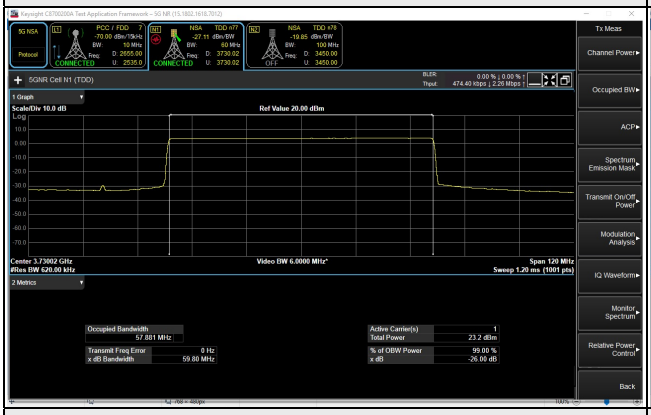


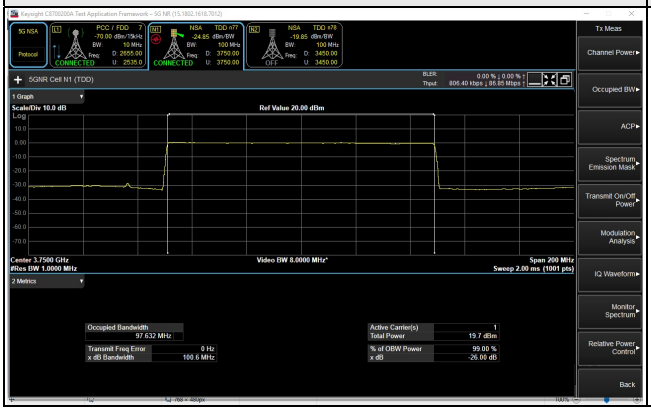
4.4.3 Test Result

Occupied Bandwidth

n77, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
647334	3710.01	18.04	18.24	18.20	18.24	18.24
656000	3840.00	18.02	18.20	18.19	18.25	18.20
664666	3969.99	18.02	18.20	18.20	18.20	18.24
n77, Channel Bandwidth 30MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
647668	3715.02	27.62	27.88	27.87	27.87	27.87
656000	3840.00	27.60	27.86	27.86	27.87	27.85
664332	3964.98	27.60	27.86	27.87	27.86	27.87
n77, Channel Bandwidth 40MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648000	3720.00	37.48	37.83	37.84	37.83	37.83
656000	3840.00	37.36	37.81	37.82	37.81	37.81
664000	3960.00	37.35	37.82	37.82	37.82	37.82
n77, Channel Bandwidth 50MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648334	3725.01	47.08	47.47	47.48	47.47	47.47
656000	3840.00	47.04	47.47	47.47	47.49	47.47
663666	3954.99	47.04	47.47	47.47	47.47	47.47
n77, Channel Bandwidth 60MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648668	3730.02	57.85	57.88	57.88	57.88	57.88
656000	3840.00	57.84	57.85	57.86	57.84	57.85
663332	3949.98	57.85	57.86	57.86	57.86	57.86

n77, Channel Bandwidth 70MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649000	3735.00	66.93	67.53	67.53	67.53	67.52
656000	3840.00	67.34	67.88	67.88	67.87	67.81
663000	3945.00	66.72	67.51	67.52	67.50	67.51
n77, Channel Bandwidth 80MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649334	3740.01	77.16	77.51	77.51	77.50	77.51
656000	3840.00	77.13	77.47	77.48	77.47	77.49
662666	3939.99	77.14	77.51	77.48	77.50	77.51
n77, Channel Bandwidth 90MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649558	3745.02	86.90	87.54	87.53	87.54	87.52
656000	3840.00	86.88	87.54	87.53	87.53	87.53
662332	3934.98	86.86	87.55	87.53	87.54	87.52
n77, Channel Bandwidth 100MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
650000	3750.00	96.84	97.61	97.61	97.61	97.63
656000	3840.00	96.52	97.38	97.34	97.37	97.38
662000	3930.00	96.50	97.40	97.40	97.60	97.62

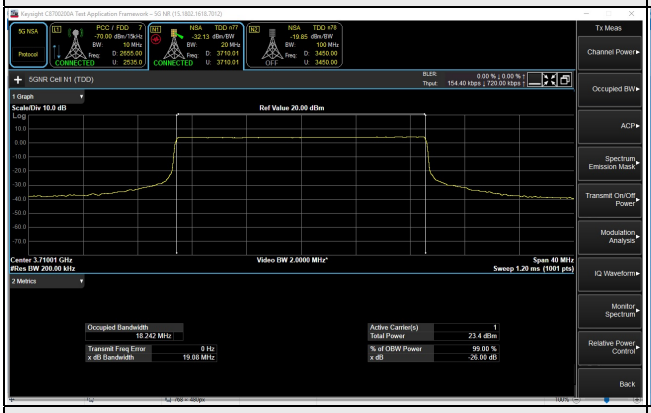
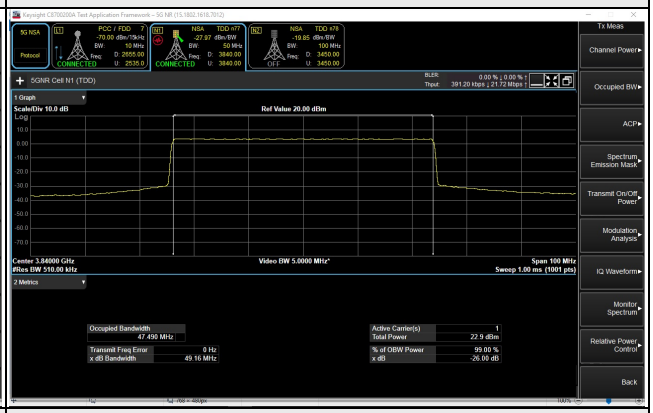
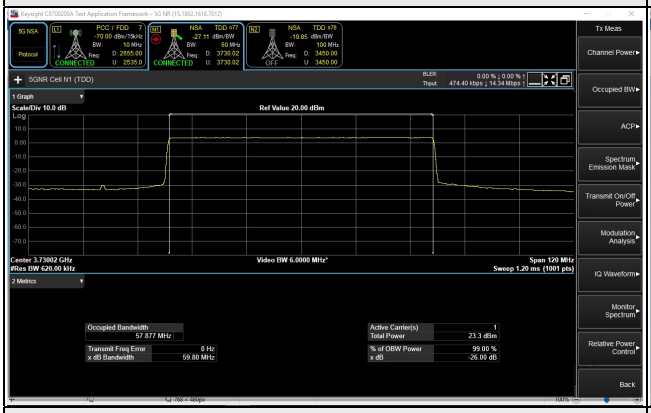
Spectrum Plot of Worst Value	
20MHz / 64QAM	30MHz / QPSK
	
40MHz / 16QAM	50MHz / 64QAM
	
60MHz / QPSK	70MHz / QPSK
	
80MHz / 16QAM	90MHz / QPSK
	

100MHz / 256QAM	
	

26dB Bandwidth

n77, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
647334	3710.01	18.58	19.08	19.01	18.97	18.98
656000	3840.00	18.64	19.05	18.97	18.98	18.98
664666	3969.99	18.57	19.02	18.95	19.01	18.98
n77, Channel Bandwidth 30MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
647668	3715.02	27.95	29.10	29.09	29.06	28.93
656000	3840.00	27.78	28.90	28.94	28.94	28.83
664332	3964.98	27.82	28.99	28.98	28.93	28.90
n77, Channel Bandwidth 40MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648000	3720.00	37.03	39.21	39.23	39.23	39.20
656000	3840.00	37.04	39.20	39.21	39.18	39.23
664000	3960.00	37.03	39.20	39.18	39.20	39.19
n77, Channel Bandwidth 50MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648334	3725.01	47.28	49.15	49.14	49.14	49.11
656000	3840.00	47.30	49.14	49.13	49.16	49.11
663666	3954.99	47.26	49.14	49.14	49.15	49.12
n77, Channel Bandwidth 60MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
648668	3730.02	59.75	59.80	59.80	59.78	59.78
656000	3840.00	59.74	59.78	59.78	59.75	59.75
663332	3949.98	59.74	59.80	59.76	59.76	59.75

n77, Channel Bandwidth 70MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649000	3735.00	66.56	69.90	69.91	69.90	69.82
656000	3840.00	66.92	69.86	69.87	69.98	69.91
663000	3945.00	66.53	69.84	69.87	69.85	69.81
n77, Channel Bandwidth 80MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649334	3740.01	79.66	80.02	80.01	80.00	80.03
656000	3840.00	79.63	79.99	79.99	79.99	80.01
662666	3939.99	79.63	80.00	79.98	79.99	79.99
n77, Channel Bandwidth 90MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
649558	3745.02	89.57	90.37	90.37	90.34	90.31
656000	3840.00	89.57	90.35	90.34	90.34	90.29
662332	3934.98	89.57	90.40	90.35	90.36	90.32
n77, Channel Bandwidth 100MHz						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
650000	3750.00	99.55	100.60	100.60	100.60	100.60
656000	3840.00	99.48	100.60	100.60	100.60	100.60
662000	3930.00	99.44	100.60	100.60	100.60	100.60

Spectrum Plot of Worst Value	
20MHz / QPSK	30MHz / QPSK
	
40MHz / 16QAM	50MHz / 64QAM
	
60MHz / 16QAM	70MHz / 64QAM
	
80MHz / 256QAM	90MHz / QPSK
	

100MHz / QPSK	
	

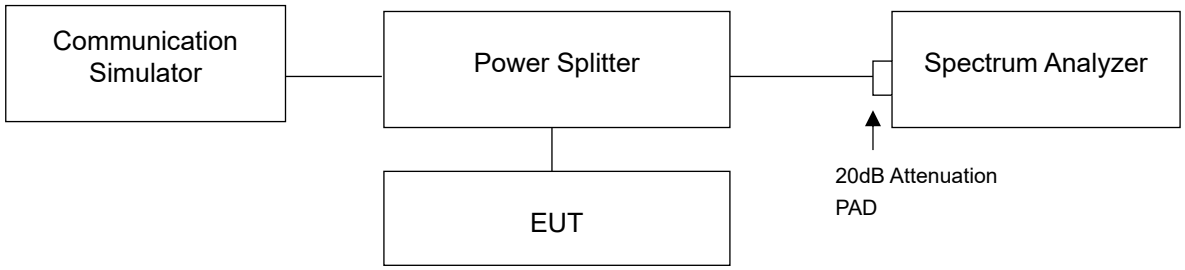
5G NSA
Protocol
PCC / FDD
CONNECTED
NSA
TDD n77
CONNECTED
NSA
TDD n78
OFF
5GNR Cell N1 (TDD)
1 Graph
Scale/Div 10.0 dB
Ref Value 20.00 dBm
Center 3.7500 GHz
#Res BW 1.0000 MHz
Video BW 8.0000 MHz*
Span 200 MHz
Sweep 2.00 ms (1001 pts)
2 Metrics
Occupied Bandwidth
97.612 MHz
Transmit Freq Error
0 Hz
x dB Bandwidth
100.6 MHz
Active Carrier(s)
1
Total Power
23.2 dBm
% of OBW Power
99.00 %
x dB
-26.00 dB
Tx Meas
Channel Power
Occupied BW
ACP
Spectrum Emission Mask
Transmit On/Off Power
Modulation Analysis
IQ Waveform
Monitor Spectrum
Relative Power Control
Back

4.5 Band Edge Measurement

4.5.1 Limits of Band Edge Measurement

According to FCC 27.53(l) for mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

4.5.2 Test Setup

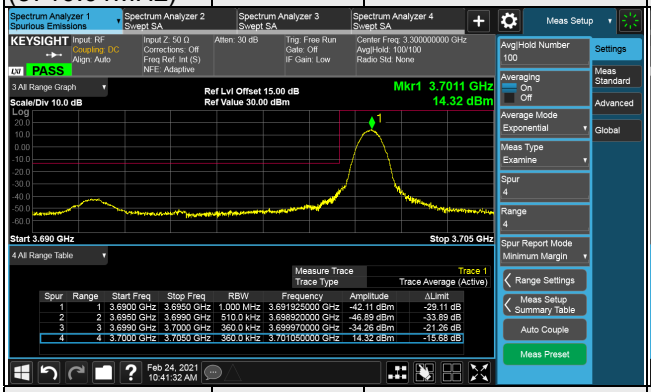
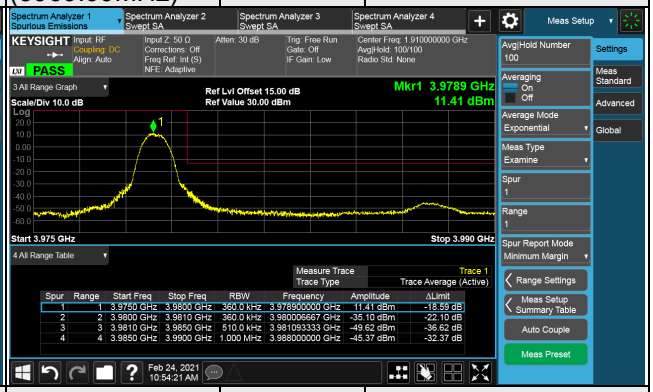
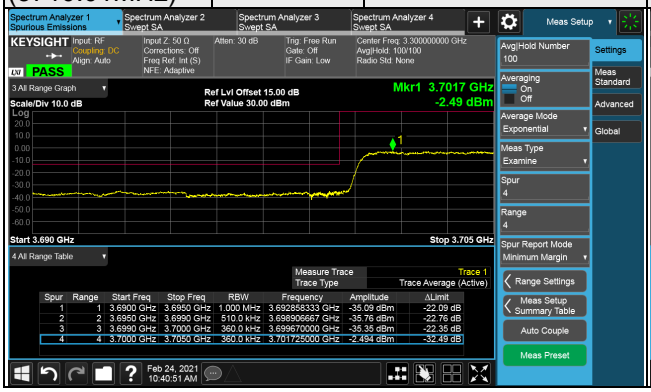
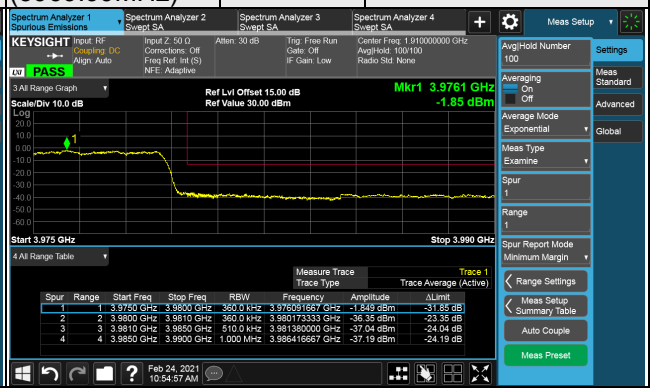


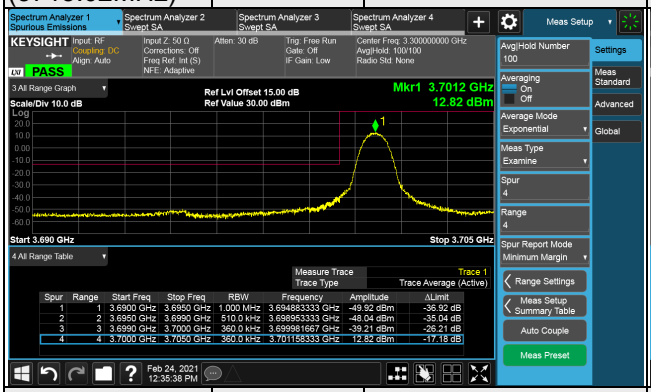
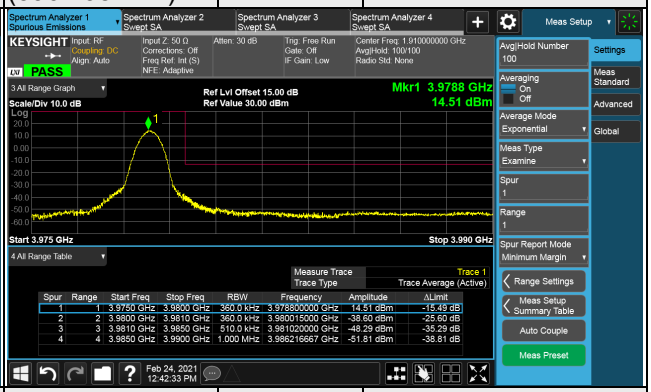
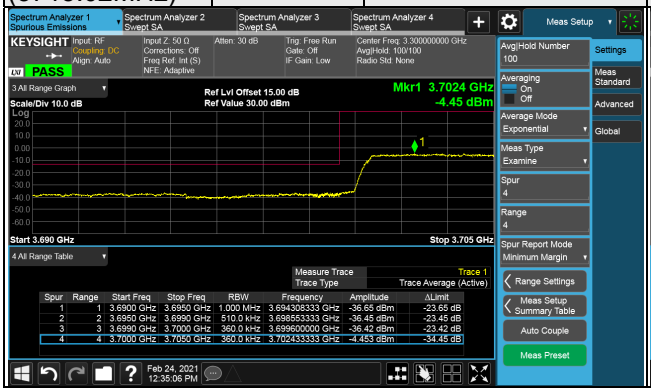
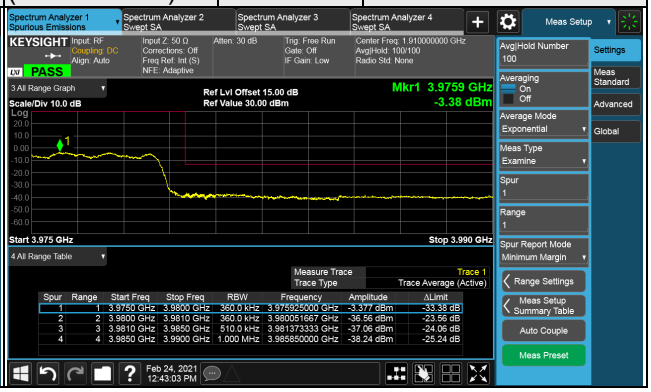
4.5.3 Test Procedures

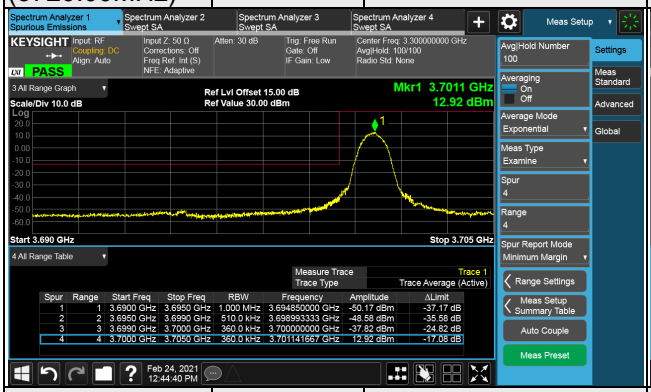
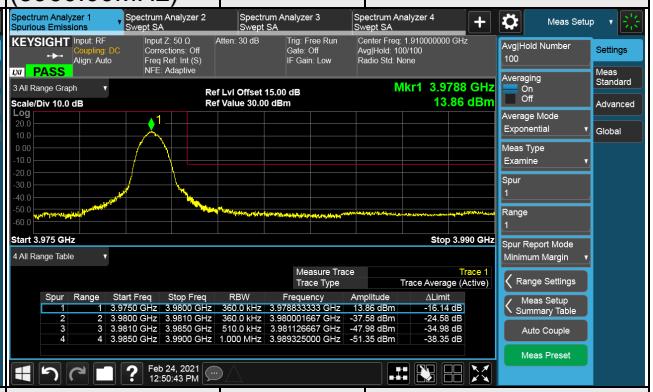
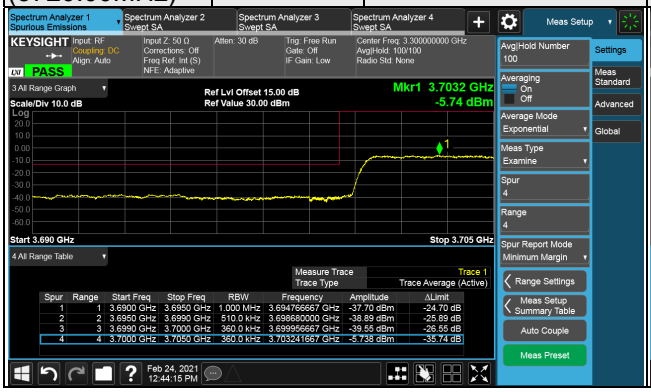
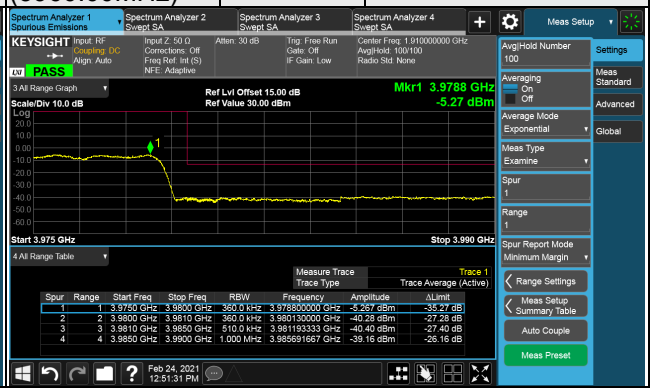
a. The testing follows ANSI C63.26 section 5.7
b. The EUT was connected to spectrum analyzer and system simulator via a power divider.
c. The band edges of low and high channels for the highest RF powers were measured.
d. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
e. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
f. Set spectrum analyzer with RMS detector.
g. Checked that all the results comply with the emission limit line.

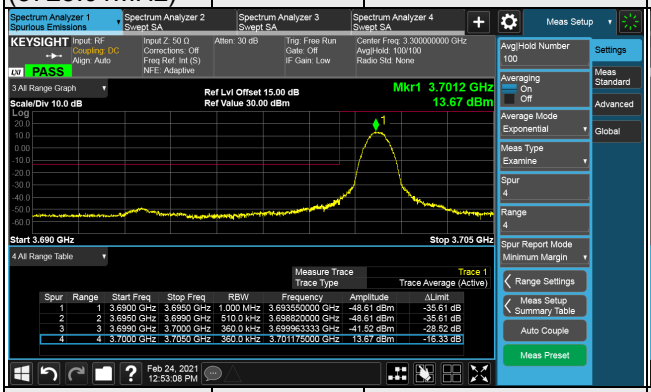
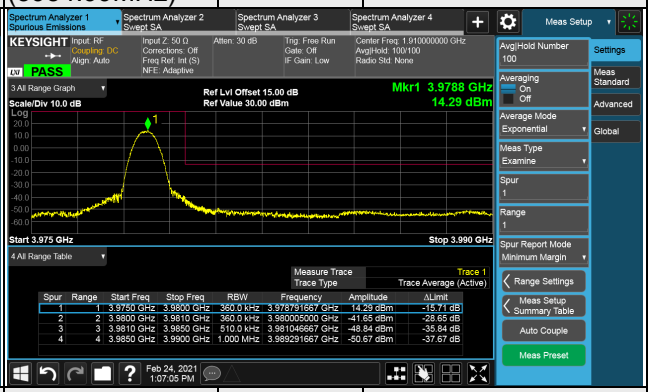
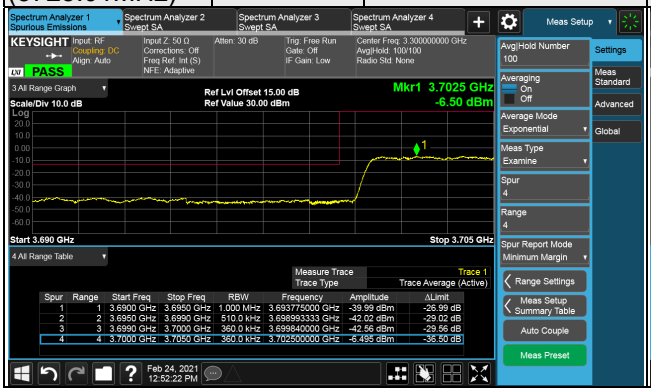
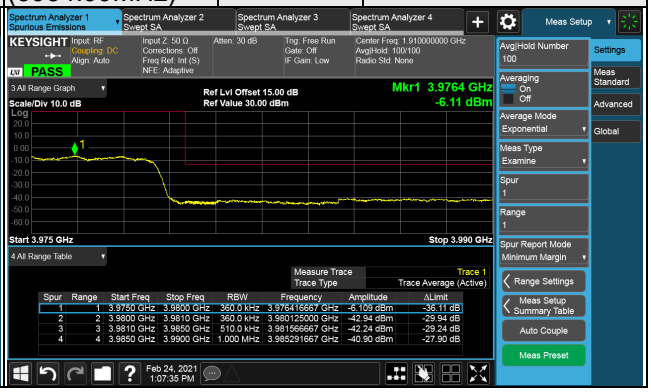
4.5.4 Test Results

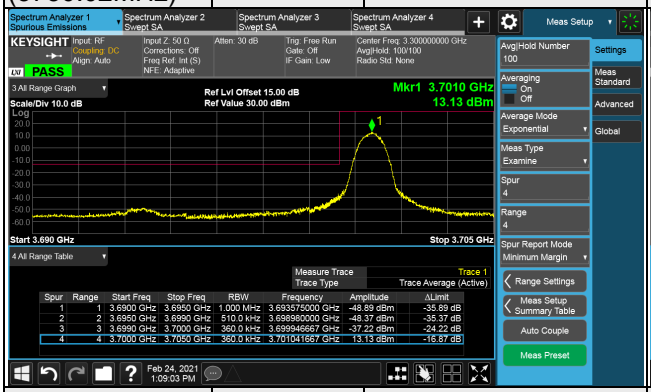
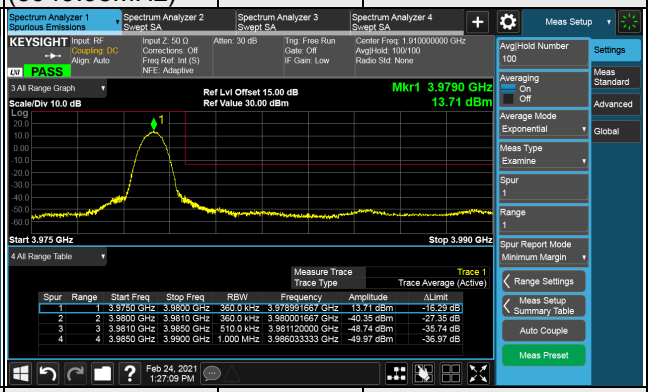
Out-of-Band Emission

n77, Channel Bandwidth 20MHz					
Channel 647334 (3710.01MHz)	QPSK	1 RB / 0 RB Offset	Channel 664666 (3969.99MHz)	QPSK	1 RB / 49 RB Offset
					
Channel 647334 (3710.01MHz)	QPSK	51 RB / 0 RB Offset	Channel 664666 (3969.99MHz)	QPSK	51 RB / 0 RB Offset
					

n77, Channel Bandwidth 30MHz					
Channel 647668 (3715.02MHz)	QPSK	1 RB / 0 RB Offset	Channel 664332 (3964.98MHz)	QPSK	1 RB / 77 RB Offset
					
Channel 647668 (3715.02MHz)	QPSK	78 RB / 0 RB Offset	Channel 664332 (3964.98MHz)	QPSK	78 RB / 0 RB Offset
					

n77, Channel Bandwidth 40MHz					
Channel 648000 (3720.00MHz)	QPSK	1 RB / 0 RB Offset	Channel 664000 (3960.00MHz)	QPSK	1 RB / 105 RB Offset
					
Channel 648000 (3720.00MHz)	QPSK	106 RB / 0 RB Offset	Channel 664000 (3960.00MHz)	QPSK	106 RB / 0 RB Offset
					

n77, Channel Bandwidth 50MHz					
Channel 648334 (3725.01MHz)	QPSK	1 RB / 0 RB Offset	Channel 663666 (3954.99MHz)	QPSK	1 RB / 132 RB Offset
					
Channel 648334 (3725.01MHz)	QPSK	133 RB / 0 RB Offset	Channel 663666 (3954.99MHz)	QPSK	133 RB / 0 RB Offset
					

n77, Channel Bandwidth 60MHz					
Channel 648668 (3730.02MHz)	QPSK	1 RB / 0 RB Offset	Channel 663332 (3949.98MHz)	QPSK	1 RB / 161 RB Offset
					
Channel 648668 (3730.02MHz)	QPSK	162 RB / 0 RB Offset	Channel 663332 (3949.98MHz)	QPSK	162 RB / 0 RB Offset