FCC Test Report
(Part 27: 5GNR)

Report No.:	RF200109E02A-2
FCC ID:	2AQ68T99W175
Test Model:	T99W175
Received Date:	Jan. 10, 2020
Test Date:	Feb. 26 ~ Mar. 26, 2020
Issued Date:	Apr. 08, 2020
Applicant:	Hon Lin Technology Co., Ltd.
Address:	11F, No. 32, Jihu Rd., Neihu Dist., Taipei City 114, Taiwan R.O.C.
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
RF200109E02A-2	Original release	Apr. 08, 2020

1 Certificate of Conformity

Product:	5G WWAN Module
Brand:	Foxconn
Test Model:	T99W175
Sample Status:	Engineering Sample
Applicant:	Hon Lin Technology Co., Ltd.
Test Date:	Feb. 26 ~ Mar. 26, 2020
Standards:	FCC Part 27, Subpart H, L, M, N

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

Prepared by : Pettie Chen , **Date:** Apr. 08, 2020

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Apr. 08, 2020

Bruce Chen / Senior Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2					
FCC Clause			Test Item	Result	Remarks
n12/ n71	n7 / n38 / n41	n66			
2.1046 27.50 (c)	2.1046 27.50 (h)(2)	2.1046 27.50 (d)(4)	Equivalent Isotropically Radiated Power / Equivalent Radiated Power	Pass	Meet the requirement of limit.
2.1047	2.1047	2.1047	Modulation Characteristics	Pass	Meet the requirement of limit.
----	----	27.50 (d)(5)	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1055 27.54	2.1055 27.54	2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Meet the requirement of limit.
2.1049	2.1049	2.1049	Occupied Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(g)	2.1051 27.53 (m)(4)(6)	2.1051 27.53(h)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 27.53(g)	2.1051 27.53 (m)(4)(6)	2.1051 27.53(h)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(g)	2.1053 27.53 (m)(4)(6)	2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -16.4dB at 30.00MHz.

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

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 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 ROHDE & SCHWARZ	ESCI	100424	Dec. 31, 2019	Dec. 30, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 23, 2019	Sep. 22, 2020
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jul. 03, 2019	Jul. 02, 2020
Radio Communication Analyzer Anritsu	MT8000A	6262012865	Dec. 12, 2019	Dec. 11, 2020
MXG Vector signal generator Agilent	N5182B	MY53050162	Jan. 14, 2020	Jan. 13, 2021
HORN Antenna ETS	3117	00034128	Nov. 24, 2019	Nov. 23, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna ETS	3117	00034128	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Loop Antenna TESEQ	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jul. 11, 2019	Jul. 10, 2020
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 11, 2019	Jun. 10, 2020
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH4-01	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jul. 11, 2019	Jul. 10, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jul. 11, 2019	Jul. 10, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Standard Temperature And Humidity Chamber	MHU-225AU	920842	May 31, 2019	May 30, 2020
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	May 21, 2019	May 20, 2020
DC power supply	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 4.

3 General Information

3.1 General Description of EUT

Product	5G WWAN Module		
Brand	Foxconn		
Test Model	T99W175		
Status of EUT	Engineering Sample		
Power Supply Rating	5 Vdc (Host equipment) 3.135Vdc~3.63Vdc (Module)		
Modulation Type	QPSK, 16QAM, 64QAM		
Operating Frequency	n7	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
	n12	Channel Bandwidth 5MHz	701.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	704.0MHz ~ 711.0MHz
		Channel Bandwidth 15MHz	706.5MHz ~ 708.5MHz
	n38	Channel Bandwidth 20MHz	2580.0MHz ~ 2610.0MHz
	n41	Channel Bandwidth 20MHz	2506.02MHz ~ 2679.99MHz
		Channel Bandwidth 40MHz	2516.01MHz ~ 2670.00MHz
		Channel Bandwidth 50MHz	2521.02MHz ~ 2664.99MHz
		Channel Bandwidth 60MHz	2526.00MHz ~ 2659.98MHz
		Channel Bandwidth 80MHz	2536.02MHz ~ 2649.99MHz
		Channel Bandwidth 90MHz	2541.00MHz ~ 2644.98MHz
		Channel Bandwidth 100MHz	2546.01MHz ~ 2640.00MHz
	n66	Channel Bandwidth 5MHz	1712.5MHz ~ 1777.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1775.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1772.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1770.0MHz
	n71	Channel Bandwidth 5MHz	665.5MHz ~ 695.5MHz
		Channel Bandwidth 10MHz	668.0MHz ~ 693.0MHz
		Channel Bandwidth 15MHz	670.5MHz ~ 690.5MHz
		Channel Bandwidth 20MHz	673.0MHz ~ 688.0MHz

			QPSK	16QAM	64QAM
Max. EIRP Power	n7	Channel Bandwidth 5MHz	755.092mW (28.78dBm)	712.853mW (28.53dBm)	657.658mW (28.18dBm)
		Channel Bandwidth 10MHz	760.326mW (28.81dBm)	714.496mW (28.54dBm)	672.977mW (28.28dBm)
		Channel Bandwidth 15MHz	753.356mW (28.77dBm)	721.107mW (28.58dBm)	668.344mW (28.25dBm)
		Channel Bandwidth 20MHz	758.578mW (28.80dBm)	701.455mW (28.46dBm)	668.344mW (28.25dBm)
	n38	Channel Bandwidth 20MHz	709.578mW (28.51dBm)	669.885mW (28.26dBm)	608.135mW (27.84dBm)
	n41	Channel Bandwidth 20MHz	1321.296mW (31.21dBm)	1213.389mW (30.84dBm)	1104.079mW (30.43dBm)
		Channel Bandwidth 40MHz	1303.167mW (31.15dBm)	1233.105mW (30.91dBm)	1111.731mW (30.46dBm)
		Channel Bandwidth 50MHz	1309.182mW (31.17dBm)	1218.990mW (30.86dBm)	1114.295mW (30.47dBm)
		Channel Bandwidth 60MHz	1318.257mW (31.20dBm)	1221.800mW (30.87dBm)	1137.627mW (30.56dBm)
		Channel Bandwidth 80MHz	1306.171mW (31.16dBm)	1216.186mW (30.85dBm)	1124.605mW (30.51dBm)
		Channel Bandwidth 90MHz	1318.257mW (31.20dBm)	1224.616mW (30.88dBm)	1122.018mW (30.50dBm)
		Channel Bandwidth 100MHz	1315.225mW (31.19dBm)	1227.439mW (30.89dBm)	1101.539mW (30.42dBm)
	n66	Channel Bandwidth 5MHz	602.560mW (27.80dBm)	559.758mW (27.48dBm)	528.445mW (27.23dBm)
		Channel Bandwidth 10MHz	608.135mW (27.84dBm)	559.758mW (27.48dBm)	530.884mW (27.25dBm)
		Channel Bandwidth 15MHz	612.350mW (27.87dBm)	568.853mW (27.55dBm)	532.108mW (27.26dBm)
		Channel Bandwidth 20MHz	592.925mW (27.73dBm)	571.479mW (27.57dBm)	528.445mW (27.23dBm)
Max. ERP Power			QPSK	16QAM	64QAM
	n12	Channel Bandwidth 5MHz	376.704mW (25.76dBm)	347.536mW (25.41dBm)	328.095mW (25.16dBm)
		Channel Bandwidth 10MHz	369.828mW (25.68dBm)	351.560mW (25.46dBm)	323.594mW (25.10dBm)
		Channel Bandwidth 15MHz	365.595mW (25.63dBm)	350.752mW (25.45dBm)	324.340mW (25.11dBm)
	n71	Channel Bandwidth 5MHz	373.250mW (25.72dBm)	349.140mW (25.43dBm)	328.095mW (25.16dBm)
		Channel Bandwidth 10MHz	370.681mW (25.69dBm)	350.752mW (25.45dBm)	327.341mW (25.15dBm)
		Channel Bandwidth 15MHz	374.111mW (25.73dBm)	351.560mW (25.46dBm)	322.107mW (25.08dBm)
		Channel Bandwidth 20MHz	375.837mW (25.75dBm)	350.752mW (25.45dBm)	328.095mW (25.16dBm)

			QPSK	16QAM	64QAM
Emission Designator	n7	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W
	n12	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W
	n38	Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W
	n41	Channel Bandwidth 20MHz	17M8G7D	17M8D7W	17M8D7W
		Channel Bandwidth 40MHz	37M8G7D	37M8D7W	37M8D7W
		Channel Bandwidth 50MHz	47M5G7D	47M5D7W	47M5D7W
		Channel Bandwidth 60MHz	57M9G7D	57M9D7W	57M9D7W
		Channel Bandwidth 80MHz	77M5G7D	77M5D7W	77M5D7W
		Channel Bandwidth 90MHz	87M5G7D	87M5D7W	87M5D7W
		Channel Bandwidth 100MHz	97M4G7D	97M4D7W	97M3D7W
	n66	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M96D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W	13M5D7W
		Channel Bandwidth 20MHz	18M0G7D	18M0D7W	18M0D7W
	n71	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M50D7W
		Channel Bandwidth 10MHz	8M96G7D	8M97D7W	8M96D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W
Antenna Type	Refer to Note as below				
Antenna Connector	Refer to Note as below				
Accessory Device	NA				
Cable Supplied	NA				

Note:

1. There are four Difference HW of T99W175.

Brand	Model	HW
Foxconn	T99W175	1. 3G+LTE+Sub6+eSIM
		2. 3G+LTE+Sub6 only w/o eSIM
		3. 3G+LTE+Sub6+eSIM+GNSS connector
		4. 3G+LTE+Sub6 only+w/o eSIM+GNSS connector

*After pre-testing, “HW: 1. 3G+LTE+Sub6+eSIM” is the worst for the final tests.

2. The following antennas were provided to the EUT.

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
1		WHA YU	C107-511720-A	4.41	660~803	PCB	I-PEX
2		WHA YU	C107-511721-A	3.81 4.03	791~960 1447.9~1606	PCB	I-PEX
3		WHA YU	C107-511722-A	4.27 5.31	1710~2170 2500~2690	PCB	I-PEX
4		WHA YU	C107-511723-A	2.99 0.92	2300~2400 3500~3700	PCB	I-PEX
5		WHA YU	C107-511724-A	6.45	5150~5925	PCB	I-PEX
6		WHA YU	C107-511725-A	4.89	3400~3700	PCB	I-PEX
7		AVX	5000106-R1-X01	2.91	699~803	Monopole	I-PEX
8		AVX	5000107-R1-X01	2.59	791~960	Monopole	I-PEX
9		AVX	5000108-R1-X01	2.85	1427~1610	Monopole	I-PEX
10		AVX	5000109-R1-X01	2.23 2.94	1710~2200 5150~5925	Monopole	I-PEX
11		AVX	5000110-R1-X01	0.9	2300~2690	Monopole	I-PEX
12		AVX	5000111-R1-X01	0.87	3300~5000	Monopole	I-PEX
13	Tx1/ Rx1	Ethertronics	5003806	0.4 -1.61 0.39 2.95 1.98 0.38 0.83 2.31	698-821 824-960 1425-1515 1710-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Rx2	Ethertronics	5003807	-2.24 -4.52 2.87 2.99 2.93 2.91 2.23 -0.85 -3.04	716-821 824-960 1425-1515 1557-1610 1805-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Tx2/ Rx3	Ethertronics	5003806	2.21 2.25 -0.45 2.6	1710-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX
	Rx4	Ethertronics	5003700	1.38 2.87 0.6 -2.09	1805-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
14	Ant. 0 (TX/RX)	Master Wave	NA	2.4 2.2 2.9 2.9 2.9 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 2 (TX/RX)	Master Wave	NA	NA 2.2 2.8 2.9 2.8 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 1 (RX)	Master Wave	NA	NA 5.3 5.1 4.3 4.5 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 3 (RX)	Master Wave	NA	1.3 6.8 3.7 6.4 6.2 3.7	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX

*The max. gain of each band is chosen for the final tests. Only the antenna no. 4 is for band 30 requested by client.

3. ENDC configuration.

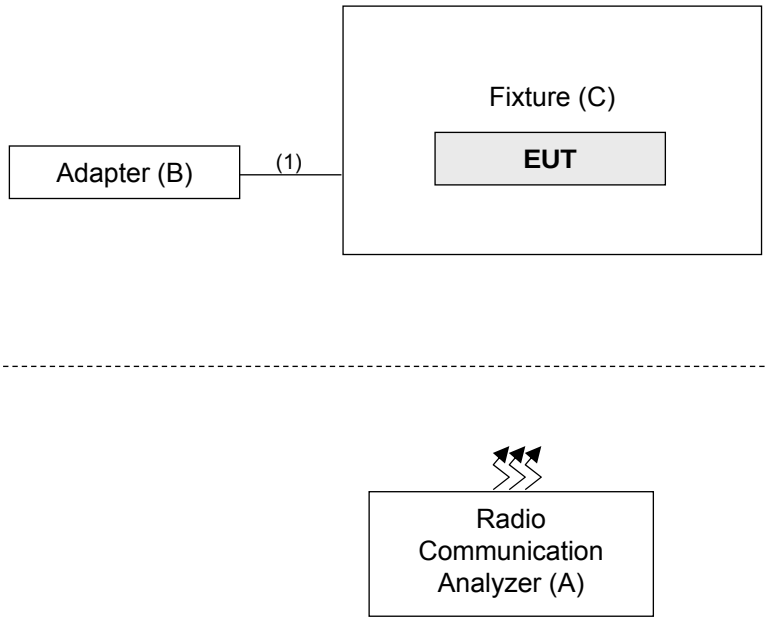
The EUT supports the following ENDC configuration.

	FCC 5G FR1			ENDC
	Band	SCS	Bandwidth (MHz)	
5GNR	n2	15kHz	5/10/15/20	Band 5/12/13/48
	n5	15kHz	5/10/15/20	Band 2/7/12/48/66
	n7	15kHz	5/10/15/20	Band 5/12
	n12	15kHz	5/10/15	Band 2/66
	n38	30kHz	20	Standalone
	n41	30kHz	20/40/50/60/80/90/100	Standalone/ Band 2/41/66
	n66	15kHz	5/10/15/20	Band 5/12/13/48/71
	n71	15kHz	5/10/15/20	Band 2/41/66

The following ENDC configuration was the worst for the final tests.

	FCC 5G FR1			ENDC
	Band	SCS	Bandwidth (MHz)	
5GNR	n2	15kHz	5/10/15/20	Band 5
	n5	15kHz	5/10/15/20	Band 2
	n7	15kHz	5/10/15/20	Band 5
	n12	15kHz	5/10/15	Band 2
	n38	30kHz	20	Standalone
	n41	30kHz	20/40/50/60/80/90/100	Standalone
	n66	15kHz	5/10/15/20	Band 5
	n71	15kHz	5/10/15/20	Band 2

3.2 Configuration of System under Test



3.2.1 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-
B.	Adapter	LITEON	PA-1050-39	NA	NA	-
C.	Fixture	NA	NA	NA	NA	Provided by client.

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1.5	Y	0	-

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

n7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 507000 (2535.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 507000 (2535.0MHz), 512500 (2562.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	502000 to 512000	507000 (2535.0MHz)	20MHz	QPSK / 16QAM / 64QAM	106 RB / 0 RB Offset
-	Frequency Stability	500500 to 513500	500500 (2502.5MHz), 513500 (2567.5MHz)	5 MHz	QPSK	25 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK	52 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 512500 (2562.5MHz)	15 MHz	QPSK	79 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK	106 RB / 0 RB Offset
-	Emission Bandwidth	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 507000 (2535.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	52 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 507000 (2535.0MHz), 512500 (2562.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	79 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	106 RB / 0 RB Offset
-	Emission Mask	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 507000 (2535.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 51 RB Offset 52 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 507000 (2535.0MHz), 512500 (2562.5MHz)	15 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 78 RB Offset 79 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 105 RB Offset 106 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Peak to Average Ratio	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 507000 (2535.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 507000 (2535.0MHz), 512500 (2562.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Conducted Emission	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5 MHz	QPSK	1 RB / 0 RB Offset
		501000 to 513000	501000 (2505.0MHz), 507000 (2535.0MHz), 513000 (2565.0MHz)	10 MHz	QPSK	1 RB / 0 RB Offset
		501500 to 512500	501500 (2507.5MHz), 507000 (2535.0MHz), 512500 (2562.5MHz)	15 MHz	QPSK	1 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	500500 to 513500	513500 (2567.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		502000 to 512000	512000 (2560.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	500500 to 513500	500500 (2502.5MHz), 507000 (2535.0MHz), 513500 (2567.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		502000 to 512000	502000 (2510.0MHz), 507000 (2535.0MHz), 512000 (2560.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only EIRP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 141500(707.5MHz), 142200(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	141300 to 141700	141500(707.5MHz)	15MHz	QPSK / 16QAM / 64QAM	79 RB / 0 RB Offset
-	Frequency Stability	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 141500(707.5MHz), 142200(711.0MHz)	10MHz	QPSK	52 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK	79 RB / 0 RB Offset
-	Emission Bandwidth	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 141500(707.5MHz), 142200(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM	52 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK / 16QAM / 64QAM	79 RB / 0 RB Offset
-	Band Edge	140300 to 142700	140300(701.5MHz), 142700(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 142200(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 51 RB Offset 52 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141700(708.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 78 RB Offset 79 RB / 0 RB Offset
-	Peak to Average Ratio	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 141500(707.5MHz), 142200(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Conducted Emission	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		140800 to 142200	140800(704.0MHz), 141500(707.5MHz), 142200(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	140300 to 142700	142700(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		141300 to 141700	141700(708.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	140300 to 142700	140300(701.5MHz), 141500(707.5MHz), 142700(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		141300 to 141700	141300(706.5MHz), 141500(707.5MHz), 141700(708.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only ERP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	512000 to 522000	519000(2595.0MHz)	20MHz	QPSK / 16QAM / 64QAM	51 RB / 0 RB Offset
-	Frequency Stability	512000 to 522000	516000(2580.0MHz), 522000(2610.0MHz)	20MHz	QPSK	51 RB / 0 RB Offset
-	Emission Bandwidth	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM	51 RB / 0 RB Offset
-	Band Edge	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 51 RB / 0 RB Offset
-	Peak to Average Ratio	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Conducted Emission	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	512000 to 522000	519000(2595.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	512000 to 522000	516000(2580.0MHz), 519000(2595.0MHz), 522000(2610.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only EIRP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 518598 (2592.99MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 518598 (2592.99MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 518598 (2592.99MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 518598 (2592.99MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	509202 to 528000	518598 (2592.99MHz)	100MHz	QPSK / 16QAM / 64QAM	273 RB / 0 RB Offset
-	Frequency Stability	501204 to 535998	501204 (2506.02MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Emission Bandwidth	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	51 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 518598 (2592.99MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	106 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	133 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 518598 (2592.99MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	162 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 518598 (2592.99MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	217 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 518598 (2592.99MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	245 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	273 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Emission Mask	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 51 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 518598 (2592.99MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 105 RB Offset 106 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 132 RB Offset 133 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 518598 (2592.99MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 161 RB Offset 162 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 518598 (2592.99MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 216 RB Offset 217 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 518598 (2592.99MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 244 RB Offset 245 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 272 RB Offset 273 RB / 0 RB Offset
-	Peak to Average Ratio	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 518598 (2592.99MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 518598 (2592.99MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 518598 (2592.99MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 518598 (2592.99MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Conducted Emission	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		503202 to 534000	503202 (2516.01MHz), 518598 (2592.99MHz), 534000 (2670.00MHz)	40MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		505200 to 531996	505200 (2526.00MHz), 518598 (2592.99MHz), 531996 (2659.98MHz)	60MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		507204 to 529998	507204 (2536.02MHz), 518598 (2592.99MHz), 529998 (2649.99MHz)	80MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		508200 to 528996	508200 (2541.00MHz), 518598 (2592.99MHz), 528996 (2644.98MHz)	90MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Radiated Emission Below 1GHz	501204 to 535998	501204 (2506.02MHz)	20MHz	QPSK	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz)	100MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	501204 to 535998	501204 (2506.02MHz), 518598 (2592.99MHz), 535998 (2679.99MHz)	20MHz	QPSK	1 RB / 0 RB Offset
		504204 to 532998	504204 (2521.02MHz), 518598 (2592.99MHz), 532998 (2664.99MHz)	50MHz	QPSK	1 RB / 0 RB Offset
		509202 to 528000	509202 (2546.01MHz), 518598 (2592.99MHz), 528000 (2640.00MHz)	100MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only EIRP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	344000 to 354000	349000 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
-	Frequency Stability	342500 to 355500	342500 (1712.5MHz), 355500 (1777.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	52 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 354500 (1772.5MHz)	15MHz	QPSK	79 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	106 RB / 0 RB Offset
-	Emission Bandwidth	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	52 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	79 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	106 RB / 0 RB Offset
-	Band Edge	342500 to 355500	342500 (1712.5MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 51 RB Offset 52 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 354500 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 78 RB Offset 79 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 105 RB Offset 106 RB / 0 RB Offset
-	Peak to Average Ratio	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Conducted Emission	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		343000 to 355000	343000 (1715.0MHz), 349000 (1745.0MHz), 355000 (1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		343500 to 354500	343500 (1717.5MHz), 349000 (1745.0MHz), 354500 (1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	342500 to 355500	349000 (1745.0MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	342500 to 355500	342500 (1712.5MHz), 349000 (1745.0MHz), 355500 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		344000 to 354000	344000 (1720.0MHz), 349000 (1745.0MHz), 354000 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only EIRP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	133100 to 139100	133100 (665.5MHz), 136100 (680.5MHz), 139100 (695.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	1 RB / 24 RB Offset
		133600 to 138600	133600 (668.0MHz), 136100 (680.5MHz), 138600 (693.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 136100 (680.5MHz), 138100 (690.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	1 RB / 74 RB Offset
		134600 to 137600	134600 (673.0MHz), 136100 (680.5MHz), 137600 (688.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	134600 to 137600	136100 (680.5MHz)	20 MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
-	Frequency Stability	133100 to 139100	133100 (665.5MHz), 139100 (695.5MHz)	5 MHz	QPSK	25 RB / 0 RB Offset
		133600 to 138600	133600 (668.0MHz), 138600 (693.0MHz)	10 MHz	QPSK	50 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 138100 (690.5MHz)	15 MHz	QPSK	75 RB / 0 RB Offset
		134600 to 137600	134600 (673.0MHz), 137600 (688.0MHz)	20 MHz	QPSK	100 RB / 0 RB Offset
-	Emission Bandwidth	133100 to 139100	133100 (665.5MHz), 136100 (680.5MHz), 139100 (695.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	6 RB / 0 RB Offset
		133600 to 138600	133600 (668.0MHz), 136100 (680.5MHz), 138600 (693.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	15 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 136100 (680.5MHz), 138100 (690.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		134600 to 137600	134600 (673.0MHz), 136100 (680.5MHz), 137600 (688.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
-	Band Edge	133100 to 139100	133100 (665.5MHz), 139100 (695.5MHz)	5 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		133600 to 138600	133600 (668.0MHz), 138600 (693.0MHz)	10 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 138100 (690.5MHz)	15 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		134600 to 137600	134600 (673.0MHz), 137600 (688.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
-	Peak to Average Ratio	133100 to 139100	133100 (665.5MHz), 136100 (680.5MHz), 139100 (695.5MHz)	5 MHz	QPSK / 16QAM / 64QAM	1 RB / 24 RB Offset
		133600 to 138600	133600 (668.0MHz), 136100 (680.5MHz), 138600 (693.0MHz)	10 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 136100 (680.5MHz), 138100 (690.5MHz)	15 MHz	QPSK / 16QAM / 64QAM	1 RB / 74 RB Offset
		134600 to 137600	134600 (673.0MHz), 136100 (680.5MHz), 137600 (688.0MHz)	20 MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Conducted Emission	133100 to 139100	133100 (665.5MHz), 136100 (680.5MHz), 139100 (695.5MHz)	5 MHz	QPSK	1 RB / 24 RB Offset
		133600 to 138600	133600 (668.0MHz), 136100 (680.5MHz), 138600 (693.0MHz)	10 MHz	QPSK	1 RB / 0 RB Offset
		134100 to 138100	134100 (670.5MHz), 136100 (680.5MHz), 138100 (690.5MHz)	15 MHz	QPSK	1 RB / 74 RB Offset
		134600 to 137600	134600 (673.0MHz), 136100 (680.5MHz), 137600 (688.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	133100 to 139100	139100 (695.5MHz)	5 MHz	QPSK	1 RB / 24 RB Offset
		134600 to 137600	137600 (688.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	133100 to 139100	133100 (665.5MHz), 136100 (680.5MHz), 139100 (695.5MHz)	5 MHz	QPSK	1 RB / 24 RB Offset
		134600 to 137600	134600 (673.0MHz), 136100 (680.5MHz), 137600 (688.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only ERP, Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	25deg. C, 70%RH	5Vdc	James Yang
Modulation characteristics	24deg. C, 64%RH	5Vdc	James Yang
Frequency Stability	24deg. C, 64%RH	5Vdc	James Yang
Occupied Bandwidth	24deg. C, 64%RH	5Vdc	James Yang
Band Edge	24deg. C, 64%RH	5Vdc	James Yang
Peak To Average Ratio	24deg. C, 64%RH	5Vdc	James Yang
Conducted Emission	24deg. C, 64%RH	5Vdc	James Yang
Radiated Emission	22deg. C, 68%RH	120Vac, 60Hz	Greg Lin

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

n66:
Mobile / Portable station are limited to 1 watts e.i.r.p.

n12, n71:
Control and mobile stations in the 698-746 MHz, 746-757 MHz, 787-788 MHz and 805-806 MHz band are limited to 30 watts ERP.
Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink, 746-757 MHz,787-788 MHz and 805-806 MHzband are limited to 3 watts ERP.

n7, n38, n41:
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 / ERP

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:

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

4.1.4 Test Results

Conducted Output Power (dBm)

n7						
BW	MCS Index	Channel		500500	507000	513500
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	23.32	23.14	23.15
		1	12	23.12	23.18	23.04
		1	24	**23.47**	23.37	23.39
		12	0	23.12	22.86	23.25
		12	6	23.01	23.01	22.98
		12	13	23.15	23.25	22.95
		25	0	22.92	23.28	22.95
	16QAM	1	0	**23.22**	22.81	23.03
		1	12	23.08	23.01	22.81
		1	24	23.16	23.05	23.07
		12	0	22.68	22.60	22.70
		12	6	22.60	22.85	22.69
		12	13	22.80	22.73	22.56
		25	0	22.72	22.88	22.70
	64QAM	1	0	22.65	22.67	22.85
		1	12	22.59	22.55	**22.87**
		1	24	22.77	22.50	22.52
		12	0	22.33	22.42	22.53
		12	6	22.70	22.33	22.56
		12	13	22.70	22.36	22.61
		25	0	22.71	22.67	22.49

n7						
BW	MCS Index	Channel		501000	507000	513000
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	23.19	23.21	23.46
		1	26	23.44	23.43	23.42
		1	51	23.38	23.41	**23.50**
		26	0	23.02	22.94	22.72
		26	13	22.92	22.91	22.97
		26	26	22.88	23.23	23.06
		52	0	23.28	22.99	23.19
	16QAM	1	0	23.08	23.05	23.06
		1	26	22.90	23.19	22.89
		1	51	**23.23**	23.16	22.97
		26	0	22.70	22.83	22.72
		26	13	22.53	22.54	22.72
		26	26	22.81	22.89	22.57
		52	0	22.53	22.64	22.93
	64QAM	1	0	22.79	22.69	22.52
		1	26	**22.97**	22.91	22.77
		1	51	22.88	22.69	22.52
		26	0	22.65	22.50	22.76
		26	13	22.30	22.51	22.75
		26	26	22.47	22.49	22.38
		52	0	22.51	22.56	22.45

n7						
BW	MCS Index	Channel		501500	507000	512500
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	23.18	23.16	23.34
		1	39	23.19	23.45	23.12
		1	78	**23.46**	23.25	23.29
		39	0	23.09	22.79	23.06
		39	19	23.26	22.89	23.10
		39	40	22.82	23.10	23.13
		79	0	22.72	22.77	22.82
	16QAM	1	0	23.02	23.19	22.80
		1	39	23.04	23.03	22.98
		1	78	22.85	**23.27**	23.23
		39	0	22.89	22.82	22.69
		39	19	22.58	22.90	22.70
		39	40	22.62	22.88	22.51
		79	0	22.96	22.61	22.75
	64QAM	1	0	22.76	**22.94**	22.81
		1	39	22.56	22.87	22.71
		1	78	22.83	22.79	22.88
		39	0	22.65	22.64	22.52
		39	19	22.49	22.51	22.73
		39	40	22.62	22.46	22.58
		79	0	22.56	22.73	22.47

n7						
BW	MCS Index	Channel		502000	507000	512000
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	**23.49**	23.33	23.42
		1	53	23.42	23.04	23.32
		1	105	23.40	23.15	23.18
		50	0	22.95	22.72	23.01
		50	25	22.73	23.05	23.17
		50	50	22.98	22.81	22.85
		106	0	23.29	22.89	23.01
	16QAM	1	0	22.97	22.95	22.93
		1	53	**23.15**	22.93	22.91
		1	105	22.95	23.03	22.85
		50	0	22.53	23.00	22.58
		50	25	22.92	22.59	22.92
		50	50	22.55	22.50	22.71
		106	0	22.75	22.64	22.79
	64QAM	1	0	22.64	22.92	22.92
		1	53	22.59	22.72	**22.94**
		1	105	22.66	22.65	22.88
		50	0	22.54	22.34	22.53
		50	25	22.68	22.58	22.63
		50	50	22.40	22.57	22.73
		106	0	22.69	22.66	22.78

n12						
BW	MCS Index	Channel		140300	141500	142700
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	23.28	23.10	23.33
		1	12	23.16	23.16	**23.50**
		1	24	23.01	23.39	23.43
		12	0	22.86	23.21	22.82
		12	6	23.03	22.94	23.17
		12	13	22.95	22.90	23.13
		25	0	23.10	22.92	22.86
	16QAM	1	0	23.03	22.80	**23.15**
		1	12	22.88	23.00	23.14
		1	24	23.01	22.91	22.89
		12	0	22.96	22.93	22.73
		12	6	22.81	22.64	22.90
		12	13	22.63	22.96	22.89
		25	0	22.64	22.80	22.80
	64QAM	1	0	22.56	22.40	22.49
		1	12	22.77	22.44	22.65
		1	24	22.75	22.61	**22.90**
		12	0	22.24	22.30	22.41
		12	6	22.54	22.26	22.33
		12	13	22.68	22.70	22.40
		25	0	22.46	22.21	22.58

n12						
BW	MCS Index	Channel		140800	141500	142200
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	23.31	23.33	23.07
		1	26	23.34	23.30	23.17
		1	51	23.25	23.05	**23.42**
		26	0	22.94	23.19	23.05
		26	13	23.28	22.85	23.14
		26	26	23.00	22.86	22.92
		52	0	23.16	23.05	23.18
	16QAM	1	0	22.81	22.82	22.80
		1	26	**23.20**	22.89	23.11
		1	51	22.91	23.13	23.10
		26	0	22.60	22.73	22.99
		26	13	22.81	22.69	22.67
		26	26	22.82	22.77	22.82
		52	0	22.99	22.76	22.64
	64QAM	1	0	22.52	22.83	**22.84**
		1	26	22.83	22.64	22.79
		1	51	22.79	22.82	22.74
		26	0	22.64	22.69	22.55
		26	13	22.64	22.24	22.21
		26	26	22.58	22.70	22.68
		52	0	22.27	22.49	22.67

n12						
BW	MCS Index	Channel		141300	141500	141700
		Frequency (MHz)		706.5	707.5	708.5
15M	QPSK	1	0	23.16	23.24	23.28
		1	39	23.27	23.27	23.03
		1	78	23.04	**23.37**	23.10
		39	0	23.16	23.10	22.87
		39	19	23.20	22.94	22.80
		39	40	23.08	22.94	23.03
		79	0	22.82	23.13	23.16
	16QAM	1	0	22.94	23.12	23.03
		1	39	22.92	23.05	**23.19**
		1	78	22.85	22.85	23.02
		39	0	22.64	22.97	22.88
		39	19	22.89	22.90	22.65
		39	40	22.88	22.67	22.77
		79	0	22.68	22.71	22.95
	64QAM	1	0	22.52	22.79	22.81
		1	39	22.50	**22.85**	22.46
		1	78	22.64	22.57	22.62
		39	0	22.20	22.23	22.30
		39	19	22.35	22.63	22.57
		39	40	22.54	22.68	22.37
		79	0	22.63	22.38	22.62

n38						
BW	MCS Index	Channel		516000	519000	522000
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	22.94	22.99	23.10
		1	12	23.05	**23.20**	22.99
		1	24	22.86	22.90	22.91
		25	0	22.52	22.42	22.62
		25	12	22.53	22.80	22.57
		25	25	22.42	22.75	22.42
		51	0	22.73	22.45	22.89
	16QAM	1	0	22.78	22.73	22.79
		1	12	22.60	22.63	22.89
		1	24	**22.95**	22.59	22.94
		25	0	22.78	22.53	22.73
		25	12	22.77	22.72	22.37
		25	25	22.80	22.49	22.31
		51	0	22.71	22.65	22.47
	64QAM	1	0	22.14	22.49	**22.53**
		1	12	22.10	22.20	22.36
		1	24	22.21	22.36	22.18
		25	0	22.34	22.14	22.31
		25	12	22.24	21.90	21.84
		25	25	21.92	22.27	22.09
		51	0	22.38	22.01	22.21

n41						
BW	MCS Index	Channel		501204	518598	535998
		Frequency (MHz)		2506.02	2592.99	2679.99
20M	QPSK	1	0	25.54	25.67	25.57
		1	25	25.77	25.51	25.71
		1	50	**25.90**	25.73	25.77
		25	0	25.12	25.57	25.32
		25	12	25.50	25.40	25.38
		25	25	25.26	25.10	25.42
		51	0	25.68	25.49	25.56
	16QAM	1	0	25.48	25.48	25.26
		1	25	25.29	25.45	25.24
		1	50	**25.53**	25.16	25.38
		25	0	25.07	25.31	24.93
		25	12	25.05	24.90	24.80
		25	25	25.35	24.82	24.94
		51	0	24.84	25.24	25.38
	64QAM	1	0	24.84	25.02	25.01
		1	25	24.90	24.81	24.99
		1	50	25.02	25.03	**25.12**
		25	0	24.80	24.82	25.00
		25	12	24.44	24.49	24.93
		25	25	24.51	24.99	24.58
		51	0	24.58	24.57	24.62

n41						
BW	MCS Index	Channel		503202	518598	534000
		Frequency (MHz)		2516.01	2592.99	2670
40M	QPSK	1	0	25.67	25.64	25.56
		1	53	25.75	25.64	25.56
		1	105	25.60	**25.84**	25.59
		53	0	25.24	25.52	25.50
		53	26	25.59	25.30	25.16
		53	53	25.53	25.26	25.42
		106	0	25.49	25.45	25.20
	16QAM	1	0	25.53	25.29	25.13
		1	53	25.29	**25.60**	25.51
		1	105	25.22	25.55	25.49
		53	0	24.83	24.85	25.22
		53	26	25.04	25.35	25.19
		53	53	25.18	25.06	25.11
		106	0	24.81	25.26	24.97
	64QAM	1	0	25.08	**25.20**	24.91
		1	53	24.93	24.87	25.12
		1	105	25.15	25.09	24.83
		53	0	24.74	24.99	24.91
		53	26	24.82	24.96	24.86
		53	53	24.98	24.76	24.81
		106	0	24.92	24.61	24.92

n41						
BW	MCS Index	Channel		504204	518598	532998
		Frequency (MHz)		2521.02	2592.99	2664.99
50M	QPSK	1	0	**25.86**	25.54	25.55
		1	66	25.69	25.57	25.63
		1	132	25.81	25.70	25.68
		66	0	25.65	25.34	25.26
		66	33	25.60	25.21	25.59
		66	66	25.56	25.12	25.43
		133	0	25.16	25.64	25.17
	16QAM	1	0	25.54	25.34	25.11
		1	66	25.46	25.14	25.33
		1	132	25.43	**25.55**	25.12
		66	0	25.01	25.21	25.12
		66	33	25.35	25.32	25.38
		66	66	24.87	25.37	24.87
		133	0	24.89	24.95	25.31
	64QAM	1	0	24.94	25.02	25.03
		1	66	**25.16**	24.94	24.84
		1	132	25.12	24.91	25.10
		66	0	24.87	24.42	24.65
		66	33	24.54	24.63	24.77
		66	66	24.77	25.00	24.96
		133	0	24.77	24.54	24.98

n41						
BW	MCS Index	Channel		505200	518598	531996
		Frequency (MHz)		2526	2592.99	2659.98
60M	QPSK	1	0	25.68	25.89	25.78
		1	81	25.56	25.60	25.66
		1	161	25.67	25.87	25.76
		81	0	25.35	25.36	25.27
		81	40	25.36	25.49	25.66
		81	81	25.48	25.39	25.59
		162	0	25.38	25.25	25.59
	16QAM	1	0	25.56	25.20	25.40
		1	81	25.14	25.44	25.44
		1	161	25.48	25.35	25.31
		81	0	24.96	25.01	24.83
		81	40	25.20	25.11	24.95
		81	81	25.10	25.15	24.83
		162	0	24.85	25.28	24.97
	64QAM	1	0	25.25	24.86	24.85
		1	81	25.19	24.98	25.09
		1	161	24.98	24.99	24.97
		81	0	24.47	24.60	24.50
		81	40	24.56	24.40	24.59
		81	81	24.66	24.68	24.63
		162	0	24.44	24.86	24.59

n41						
BW	MCS Index	Channel		507204	518598	529998
		Frequency (MHz)		2536.02	2592.99	2649.99
80M	QPSK	1	0	25.73	25.74	**25.85**
		1	108	25.78	25.68	25.81
		1	216	25.69	25.74	25.76
		108	0	25.64	25.29	25.50
		108	54	25.18	25.56	25.57
		108	108	25.41	25.19	25.44
		217	0	25.70	25.12	25.42
	16QAM	1	0	**25.54**	25.25	25.28
		1	108	25.19	25.49	25.31
		1	216	25.26	25.31	25.12
		108	0	25.12	24.95	24.96
		108	54	25.11	25.14	24.89
		108	108	24.80	24.99	25.35
		217	0	24.94	25.08	25.18
	64QAM	1	0	24.86	24.89	24.99
		1	108	24.97	**25.20**	24.80
		1	216	25.12	24.89	25.19
		108	0	24.92	24.87	24.60
		108	54	24.58	24.48	24.53
		108	108	24.45	24.88	24.50
		217	0	24.84	24.99	24.42

n41						
BW	MCS Index	Channel		508200	518598	528996
		Frequency (MHz)		2541	2592.99	2644.98
90M	QPSK	1	0	25.82	25.80	25.88
		1	122	**25.89**	25.51	25.65
		1	244	25.59	25.72	25.79
		122	0	25.54	25.66	25.22
		122	61	25.26	25.61	25.35
		122	122	25.40	25.67	25.27
		245	0	25.57	25.27	25.67
	16QAM	1	0	25.44	25.51	25.55
		1	122	25.22	**25.57**	25.45
		1	244	25.16	25.49	25.55
		122	0	25.19	25.38	25.24
		122	61	24.81	24.80	24.92
		122	122	25.14	25.35	25.20
		245	0	24.83	25.31	25.08
	64QAM	1	0	25.11	25.05	24.80
		1	122	24.82	24.92	**25.19**
		1	244	24.89	24.92	24.96
		122	0	24.70	24.57	24.69
		122	61	24.67	24.80	24.49
		122	122	24.65	24.49	24.48
		245	0	24.73	24.92	24.63

n41						
BW	MCS Index	Channel		509202	518598	528000
		Frequency (MHz)		2546.01	2592.99	2640
100M	QPSK	1	0	25.64	25.79	25.53
		1	136	25.66	25.55	**25.88**
		1	272	25.84	25.84	25.70
		136	0	25.39	25.70	25.52
		136	68	25.33	25.56	25.53
		136	136	25.67	25.55	25.50
		273	0	25.30	25.39	25.59
	16QAM	1	0	25.56	25.35	25.15
		1	136	25.16	**25.58**	25.26
		1	272	25.45	25.30	25.55
		136	0	25.04	25.36	24.99
		136	68	24.81	25.25	25.19
		136	136	25.09	24.91	24.88
		273	0	25.34	25.15	25.30
	64QAM	1	0	24.83	24.84	24.82
		1	136	25.04	24.90	**25.11**
		1	272	25.01	25.06	25.00
		136	0	24.70	24.47	24.43
		136	68	24.52	24.86	24.90
		136	136	24.88	24.65	24.83
		273	0	24.78	24.56	24.94

n66						
BW	MCS Index	Channel		342500	349000	355500
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	23.41	23.17	**23.53**
		1	12	23.38	23.14	23.36
		1	24	23.31	23.21	23.42
		12	0	23.14	22.97	22.91
		12	6	23.31	23.23	22.93
		12	13	23.06	23.30	23.13
		25	0	23.17	23.33	23.03
	16QAM	1	0	23.01	22.90	23.17
		1	12	**23.21**	23.14	23.14
		1	24	22.95	22.90	22.93
		12	0	22.73	22.71	22.82
		12	6	22.97	23.00	22.80
		12	13	22.87	22.84	23.02
		25	0	22.73	22.89	22.73
	64QAM	1	0	22.73	22.57	22.67
		1	12	22.52	22.51	**22.96**
		1	24	22.63	22.74	22.50
		12	0	22.76	22.65	22.47
		12	6	22.37	22.58	22.63
		12	13	22.40	22.35	22.36
		25	0	22.73	22.36	22.59

n66						
BW	MCS Index	Channel		343000	349000	355000
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	**23.57**	23.15	23.52
		1	26	23.32	23.41	23.17
		1	51	23.44	23.52	23.21
		26	0	23.22	23.16	23.27
		26	13	22.98	23.21	23.35
		26	26	23.24	23.23	22.97
		52	0	23.22	23.24	23.10
	16QAM	1	0	**23.21**	23.03	22.97
		1	26	22.90	22.94	22.94
		1	51	22.91	22.98	23.16
		26	0	23.08	22.90	22.77
		26	13	23.03	22.73	23.09
		26	26	23.08	23.04	22.92
		52	0	22.94	22.74	22.84
	64QAM	1	0	22.87	22.60	22.96
		1	26	22.84	22.70	22.95
		1	51	**22.98**	22.88	22.78
		26	0	22.61	22.53	22.61
		26	13	22.44	22.70	22.48
		26	26	22.56	22.63	22.35
		52	0	22.41	22.56	22.71

n66						
BW	MCS Index	Channel		343500	349000	354500
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.16	23.15	23.52
		1	39	23.17	23.53	**23.60**
		1	78	23.58	23.18	23.21
		39	0	23.15	23.24	23.27
		39	19	23.22	23.08	23.36
		39	40	23.37	23.04	23.12
		79	0	23.22	23.14	23.27
	16QAM	1	0	23.12	22.96	23.18
		1	39	23.07	22.99	23.24
		1	78	**23.28**	22.96	23.05
		39	0	22.95	22.85	23.08
		39	19	23.00	23.03	22.86
		39	40	22.91	22.98	23.01
		79	0	22.75	22.73	22.74
	64QAM	1	0	22.52	22.95	**22.99**
		1	39	22.95	22.72	22.75
		1	78	22.54	22.72	22.63
		39	0	22.64	22.30	22.74
		39	19	22.40	22.59	22.73
		39	40	22.80	22.56	22.57
		79	0	22.69	22.31	22.36

n66						
BW	MCS Index	Channel		344000	349000	132575
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.17	23.33	23.11
		1	53	23.36	23.20	23.17
		1	105	23.22	**23.46**	23.43
		50	0	23.27	22.94	22.95
		50	25	23.02	23.12	23.37
		50	50	22.98	23.00	23.21
		106	0	23.19	22.95	23.08
	16QAM	1	0	**23.30**	23.15	22.94
		1	53	22.90	23.15	23.05
		1	105	23.12	23.09	23.02
		50	0	22.98	22.96	22.80
		50	25	22.99	23.03	23.06
		50	50	22.90	22.76	22.81
		106	0	23.08	22.70	23.00
	64QAM	1	0	22.53	22.90	22.78
		1	53	**22.96**	22.85	22.95
		1	105	22.55	22.84	22.79
		50	0	22.77	22.49	22.51
		50	25	22.32	22.57	22.45
		50	50	22.46	22.77	22.71
		106	0	22.64	22.61	22.43

n71						
BW	MCS Index	Channel		133100	136100	139100
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	23.16	23.17	23.21
		1	12	23.43	23.35	23.31
		1	24	23.03	23.35	**23.46**
		12	0	23.17	22.84	23.27
		12	6	23.17	23.23	22.86
		12	13	22.85	22.83	23.20
		25	0	22.93	23.25	22.89
	16QAM	1	0	**23.17**	23.12	23.12
		1	12	22.81	22.83	22.95
		1	24	23.12	22.92	22.96
		12	0	22.80	22.98	22.67
		12	6	22.81	22.65	22.61
		12	13	23.00	22.98	22.91
		25	0	22.65	22.91	22.74
	64QAM	1	0	22.71	22.59	22.73
		1	12	22.69	22.47	22.46
		1	24	22.52	**22.90**	22.76
		12	0	22.68	22.34	22.55
		12	6	22.20	22.31	22.49
		12	13	22.64	22.24	22.44
		25	0	22.60	22.59	22.33

n71						
BW	MCS Index	Channel		133600	136100	138600
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	23.02	23.31	**23.43**
		1	26	23.40	23.37	23.30
		1	51	23.15	23.29	23.20
		26	0	23.13	22.82	23.19
		26	13	23.13	22.80	23.11
		26	26	22.85	23.08	23.14
		52	0	23.08	23.16	22.88
	16QAM	1	0	22.81	23.04	22.97
		1	26	22.81	22.87	22.81
		1	51	22.96	**23.19**	22.83
		26	0	22.62	22.77	22.85
		26	13	22.94	22.84	22.61
		26	26	22.69	22.82	22.91
		52	0	22.98	22.63	22.76
	64QAM	1	0	**22.89**	22.58	22.41
		1	26	22.85	22.52	22.44
		1	51	22.43	22.66	22.63
		26	0	22.53	22.49	22.67
		26	13	22.35	22.61	22.30
		26	26	22.37	22.44	22.45
		52	0	22.67	22.41	22.41

n71						
BW	MCS Index	Channel		134100	136100	138100
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	23.16	23.33	**23.47**
		1	39	23.40	23.24	23.21
		1	78	23.03	23.00	23.30
		39	0	22.95	23.06	22.87
		39	19	23.24	23.29	23.26
		39	40	23.08	22.94	23.19
		79	0	22.82	22.97	23.17
	16QAM	1	0	22.89	23.09	23.08
		1	39	**23.20**	22.87	23.05
		1	78	22.84	23.01	22.85
		39	0	22.82	22.80	22.93
		39	19	22.70	22.62	22.97
		39	40	22.96	22.91	22.88
		79	0	22.65	22.70	22.91
	64QAM	1	0	22.44	22.46	22.61
		1	39	22.68	**22.82**	22.53
		1	78	22.68	22.60	22.76
		39	0	22.40	22.21	22.26
		39	19	22.60	22.32	22.29
		39	40	22.34	22.47	22.33
		79	0	22.53	22.40	22.26

n71						
BW	MCS Index	Channel		134600	136100	137600
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	23.30	23.03	23.46
		1	53	23.33	**23.49**	23.09
		1	105	23.33	23.19	23.33
		50	0	22.95	23.25	23.09
		50	25	23.27	22.81	23.25
		50	50	22.86	23.27	22.82
		100	0	23.30	23.23	23.30
	16QAM	1	0	23.15	23.17	22.82
		1	53	22.81	23.10	22.99
		1	105	23.08	**23.19**	22.95
		50	0	22.91	22.98	22.75
		50	25	22.87	22.61	22.75
		50	50	22.77	22.94	22.67
		100	0	22.70	22.99	22.94
	64QAM	1	0	22.72	22.59	22.65
		1	53	22.74	**22.90**	22.68
		1	105	22.50	22.60	22.88
		50	0	22.64	22.63	22.41
		50	25	22.49	22.66	22.43
		50	50	22.67	22.28	22.41
		100	0	22.53	22.26	22.70

EIRP Power(dBm)

n7						
BW	MCS Index	Channel		500500	507000	513500
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	28.63	28.45	28.46
		1	12	28.43	28.49	28.35
		1	24	**28.78**	28.68	28.70
		12	0	28.43	28.17	28.56
		12	6	28.32	28.32	28.29
		12	13	28.46	28.56	28.26
		25	0	28.23	28.59	28.26
	16QAM	1	0	**28.53**	28.12	28.34
		1	12	28.39	28.32	28.12
		1	24	28.47	28.36	28.38
		12	0	27.99	27.91	28.01
		12	6	27.91	28.16	28.00
		12	13	28.11	28.04	27.87
		25	0	28.03	28.19	28.01
	64QAM	1	0	27.96	27.98	28.16
		1	12	27.90	27.86	**28.18**
		1	24	28.08	27.81	27.83
		12	0	27.64	27.73	27.84
		12	6	28.01	27.64	27.87
		12	13	28.01	27.67	27.92
		25	0	28.02	27.98	27.80

*EIRP = Conducted + antenna gain (5.31dBi)

n7						
BW	MCS Index	Channel		501000	507000	513000
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	28.50	28.52	28.77
		1	26	28.75	28.74	28.73
		1	51	28.69	28.72	**28.81**
		26	0	28.33	28.25	28.03
		26	13	28.23	28.22	28.28
		26	26	28.19	28.54	28.37
		52	0	28.59	28.30	28.50
	16QAM	1	0	28.39	28.36	28.37
		1	26	28.21	28.50	28.20
		1	51	**28.54**	28.47	28.28
		26	0	28.01	28.14	28.03
		26	13	27.84	27.85	28.03
		26	26	28.12	28.20	27.88
		52	0	27.84	27.95	28.24
	64QAM	1	0	28.10	28.00	27.83
		1	26	**28.28**	28.22	28.08
		1	51	28.19	28.00	27.83
		26	0	27.96	27.81	28.07
		26	13	27.61	27.82	28.06
		26	26	27.78	27.80	27.69
		52	0	27.82	27.87	27.76

*EIRP = Conducted + antenna gain (5.31dBi)

n7						
BW	MCS Index	Channel		501500	507000	512500
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	28.49	28.47	28.65
		1	39	28.50	28.76	28.43
		1	78	**28.77**	28.56	28.60
		39	0	28.40	28.10	28.37
		39	19	28.57	28.20	28.41
		39	40	28.13	28.41	28.44
		79	0	28.03	28.08	28.13
	16QAM	1	0	28.33	28.50	28.11
		1	39	28.35	28.34	28.29
		1	78	28.16	**28.58**	28.54
		39	0	28.20	28.13	28.00
		39	19	27.89	28.21	28.01
		39	40	27.93	28.19	27.82
		79	0	28.27	27.92	28.06
	64QAM	1	0	28.07	**28.25**	28.12
		1	39	27.87	28.18	28.02
		1	78	28.14	28.10	28.19
		39	0	27.96	27.95	27.83
		39	19	27.80	27.82	28.04
		39	40	27.93	27.77	27.89
		79	0	27.87	28.04	27.78

*EIRP = Conducted + antenna gain (5.31dBi)

n7						
BW	MCS Index	Channel		502000	507000	512000
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	**28.80**	28.64	28.73
		1	53	28.73	28.35	28.63
		1	105	28.71	28.46	28.49
		50	0	28.26	28.03	28.32
		50	25	28.04	28.36	28.48
		50	50	28.29	28.12	28.16
		106	0	28.60	28.20	28.32
	16QAM	1	0	28.28	28.26	28.24
		1	53	**28.46**	28.24	28.22
		1	105	28.26	28.34	28.16
		50	0	27.84	28.31	27.89
		50	25	28.23	27.90	28.23
		50	50	27.86	27.81	28.02
		106	0	28.06	27.95	28.10
	64QAM	1	0	27.95	28.23	28.23
		1	53	27.90	28.03	**28.25**
		1	105	27.97	27.96	28.19
		50	0	27.85	27.65	27.84
		50	25	27.99	27.89	27.94
		50	50	27.71	27.88	28.04
		106	0	28.00	27.97	28.09

*EIRP = Conducted + antenna gain (5.31dBi)

n38						
BW	MCS Index	Channel		516000	519000	522000
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	28.25	28.30	28.41
		1	12	28.36	**28.51**	28.30
		1	24	28.17	28.21	28.22
		25	0	27.83	27.73	27.93
		25	12	27.84	28.11	27.88
		25	25	27.73	28.06	27.73
		51	0	28.04	27.76	28.20
	16QAM	1	0	28.09	28.04	28.10
		1	12	27.91	27.94	28.20
		1	24	**28.26**	27.90	28.25
		25	0	28.09	27.84	28.04
		25	12	28.08	28.03	27.68
		25	25	28.11	27.80	27.62
		51	0	28.02	27.96	27.78
	64QAM	1	0	27.45	27.80	**27.84**
		1	12	27.41	27.51	27.67
		1	24	27.52	27.67	27.49
		25	0	27.65	27.45	27.62
		25	12	27.55	27.21	27.15
		25	25	27.23	27.58	27.40
		51	0	27.69	27.32	27.52

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		501204	518598	535998
		Frequency (MHz)		2506.02	2592.99	2679.99
20M	QPSK	1	0	30.85	30.98	30.88
		1	25	31.08	30.82	31.02
		1	50	**31.21**	31.04	31.08
		25	0	30.43	30.88	30.63
		25	12	30.81	30.71	30.69
		25	25	30.57	30.41	30.73
		51	0	30.99	30.80	30.87
	16QAM	1	0	30.79	30.79	30.57
		1	25	30.60	30.76	30.55
		1	50	**30.84**	30.47	30.69
		25	0	30.38	30.62	30.24
		25	12	30.36	30.21	30.11
		25	25	30.66	30.13	30.25
		51	0	30.15	30.55	30.69
	64QAM	1	0	30.15	30.33	30.32
		1	25	30.21	30.12	30.30
		1	50	30.33	30.34	**30.43**
		25	0	30.11	30.13	30.31
		25	12	29.75	29.80	30.24
		25	25	29.82	30.30	29.89
		51	0	29.89	29.88	29.93

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		503202	518598	534000
		Frequency (MHz)		2516.01	2592.99	2670
40M	QPSK	1	0	30.98	30.95	30.87
		1	53	31.06	30.95	30.87
		1	105	30.91	**31.15**	30.90
		53	0	30.55	30.83	30.81
		53	26	30.90	30.61	30.47
		53	53	30.84	30.57	30.73
		106	0	30.80	30.76	30.51
	16QAM	1	0	30.84	30.60	30.44
		1	53	30.60	**30.91**	30.82
		1	105	30.53	30.86	30.80
		53	0	30.14	30.16	30.53
		53	26	30.35	30.66	30.50
		53	53	30.49	30.37	30.42
		106	0	30.12	30.57	30.28
	64QAM	1	0	30.39	30.51	30.22
		1	53	30.24	30.18	30.43
		1	105	**30.46**	30.40	30.14
		53	0	30.05	30.30	30.22
		53	26	30.13	30.27	30.17
		53	53	30.29	30.07	30.12
		106	0	30.23	29.92	30.23

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		504204	518598	532998
		Frequency (MHz)		2521.02	2592.99	2664.99
50M	QPSK	1	0	**31.17**	30.85	30.86
		1	66	31.00	30.88	30.94
		1	132	31.12	31.01	30.99
		66	0	30.96	30.65	30.57
		66	33	30.91	30.52	30.90
		66	66	30.87	30.43	30.74
		133	0	30.47	30.95	30.48
	16QAM	1	0	30.85	30.65	30.42
		1	66	30.77	30.45	30.64
		1	132	30.74	**30.86**	30.43
		66	0	30.32	30.52	30.43
		66	33	30.66	30.63	30.69
		66	66	30.18	30.68	30.18
		133	0	30.20	30.26	30.62
	64QAM	1	0	30.25	30.33	30.34
		1	66	**30.47**	30.25	30.15
		1	132	30.43	30.22	30.41
		66	0	30.18	29.73	29.96
		66	33	29.85	29.94	30.08
		66	66	30.08	30.31	30.27
		133	0	30.08	29.85	30.29

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		505200	518598	531996
		Frequency (MHz)		2526	2592.99	2659.98
60M	QPSK	1	0	30.99	**31.20**	31.09
		1	81	30.87	30.91	30.97
		1	161	30.98	31.18	31.07
		81	0	30.66	30.67	30.58
		81	40	30.67	30.80	30.97
		81	81	30.79	30.70	30.90
		162	0	30.69	30.56	30.90
	16QAM	1	0	**30.87**	30.51	30.71
		1	81	30.45	30.75	30.75
		1	161	30.79	30.66	30.62
		81	0	30.27	30.32	30.14
		81	40	30.51	30.42	30.26
		81	81	30.41	30.46	30.14
		162	0	30.16	30.59	30.28
	64QAM	1	0	**30.56**	30.17	30.16
		1	81	30.50	30.29	30.40
		1	161	30.29	30.30	30.28
		81	0	29.78	29.91	29.81
		81	40	29.87	29.71	29.90
		81	81	29.97	29.99	29.94
		162	0	29.75	30.17	29.90

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		507204	518598	529998
		Frequency (MHz)		2536.02	2592.99	2649.99
80M	QPSK	1	0	31.04	31.05	**31.16**
		1	108	31.09	30.99	31.12
		1	216	31.00	31.05	31.07
		108	0	30.95	30.60	30.81
		108	54	30.49	30.87	30.88
		108	108	30.72	30.50	30.75
		217	0	31.01	30.43	30.73
	16QAM	1	0	**30.85**	30.56	30.59
		1	108	30.50	30.80	30.62
		1	216	30.57	30.62	30.43
		108	0	30.43	30.26	30.27
		108	54	30.42	30.45	30.20
		108	108	30.11	30.30	30.66
		217	0	30.25	30.39	30.49
	64QAM	1	0	30.17	30.20	30.30
		1	108	30.28	**30.51**	30.11
		1	216	30.43	30.20	30.50
		108	0	30.23	30.18	29.91
		108	54	29.89	29.79	29.84
		108	108	29.76	30.19	29.81
		217	0	30.15	30.30	29.73

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		508200	518598	528996
		Frequency (MHz)		2541	2592.99	2644.98
90M	QPSK	1	0	31.13	31.11	31.19
		1	122	**31.20**	30.82	30.96
		1	244	30.90	31.03	31.10
		122	0	30.85	30.97	30.53
		122	61	30.57	30.92	30.66
		122	122	30.71	30.98	30.58
		245	0	30.88	30.58	30.98
	16QAM	1	0	30.75	30.82	30.86
		1	122	30.53	**30.88**	30.76
		1	244	30.47	30.80	30.86
		122	0	30.50	30.69	30.55
		122	61	30.12	30.11	30.23
		122	122	30.45	30.66	30.51
		245	0	30.14	30.62	30.39
	64QAM	1	0	30.42	30.36	30.11
		1	122	30.13	30.23	**30.50**
		1	244	30.20	30.23	30.27
		122	0	30.01	29.88	30.00
		122	61	29.98	30.11	29.80
		122	122	29.96	29.80	29.79
		245	0	30.04	30.23	29.94

*EIRP = Conducted + antenna gain (5.31dBi)

n41						
BW	MCS Index	Channel		509202	518598	528000
		Frequency (MHz)		2546.01	2592.99	2640
100M	QPSK	1	0	30.95	31.10	30.84
		1	136	30.97	30.86	**31.19**
		1	272	31.15	31.15	31.01
		136	0	30.70	31.01	30.83
		136	68	30.64	30.87	30.84
		136	136	30.98	30.86	30.81
		273	0	30.61	30.70	30.90
	16QAM	1	0	30.87	30.66	30.46
		1	136	30.47	**30.89**	30.57
		1	272	30.76	30.61	30.86
		136	0	30.35	30.67	30.30
		136	68	30.12	30.56	30.50
		136	136	30.40	30.22	30.19
		273	0	30.65	30.46	30.61
	64QAM	1	0	30.14	30.15	30.13
		1	136	30.35	30.21	**30.42**
		1	272	30.32	30.37	30.31
		136	0	30.01	29.78	29.74
		136	68	29.83	30.17	30.21
		136	136	30.19	29.96	30.14
		273	0	30.09	29.87	30.25

*EIRP = Conducted + antenna gain (5.31dBi)

n66						
BW	MCS Index	Channel		342500	349000	355500
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	27.68	27.44	**27.80**
		1	12	27.65	27.41	27.63
		1	24	27.58	27.48	27.69
		12	0	27.41	27.24	27.18
		12	6	27.58	27.50	27.20
		12	13	27.33	27.57	27.40
		25	0	27.44	27.60	27.30
	16QAM	1	0	27.28	27.17	27.44
		1	12	**27.48**	27.41	27.41
		1	24	27.22	27.17	27.20
		12	0	27.00	26.98	27.09
		12	6	27.24	27.27	27.07
		12	13	27.14	27.11	27.29
		25	0	27.00	27.16	27.00
	64QAM	1	0	27.00	26.84	26.94
		1	12	26.79	26.78	**27.23**
		1	24	26.90	27.01	26.77
		12	0	27.03	26.92	26.74
		12	6	26.64	26.85	26.90
		12	13	26.67	26.62	26.63
		25	0	27.00	26.63	26.86

*EIRP = Conducted + antenna gain (4.27dBi)

n66						
BW	MCS Index	Channel		343000	349000	355000
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	**27.84**	27.42	27.79
		1	26	27.59	27.68	27.44
		1	51	27.71	27.79	27.48
		26	0	27.49	27.43	27.54
		26	13	27.25	27.48	27.62
		26	26	27.51	27.50	27.24
		52	0	27.49	27.51	27.37
	16QAM	1	0	**27.48**	27.30	27.24
		1	26	27.17	27.21	27.21
		1	51	27.18	27.25	27.43
		26	0	27.35	27.17	27.04
		26	13	27.30	27.00	27.36
		26	26	27.35	27.31	27.19
		52	0	27.21	27.01	27.11
	64QAM	1	0	27.14	26.87	27.23
		1	26	27.11	26.97	27.22
		1	51	**27.25**	27.15	27.05
		26	0	26.88	26.80	26.88
		26	13	26.71	26.97	26.75
		26	26	26.83	26.90	26.62
		52	0	26.68	26.83	26.98

*EIRP = Conducted + antenna gain (4.27dBi)

n66						
BW	MCS Index	Channel		343500	349000	354500
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	27.43	27.42	27.79
		1	39	27.44	27.80	**27.87**
		1	78	27.85	27.45	27.48
		39	0	27.42	27.51	27.54
		39	19	27.49	27.35	27.63
		39	40	27.64	27.31	27.39
		79	0	27.49	27.41	27.54
	16QAM	1	0	27.39	27.23	27.45
		1	39	27.34	27.26	27.51
		1	78	**27.55**	27.23	27.32
		39	0	27.22	27.12	27.35
		39	19	27.27	27.30	27.13
		39	40	27.18	27.25	27.28
		79	0	27.02	27.00	27.01
	64QAM	1	0	26.79	27.22	**27.26**
		1	39	27.22	26.99	27.02
		1	78	26.81	26.99	26.90
		39	0	26.91	26.57	27.01
		39	19	26.67	26.86	27.00
		39	40	27.07	26.83	26.84
		79	0	26.96	26.58	26.63

*EIRP = Conducted + antenna gain (4.27dBi)

n66						
BW	MCS Index	Channel		344000	349000	132575
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	27.44	27.60	27.38
		1	53	27.63	27.47	27.44
		1	105	27.49	**27.73**	27.70
		50	0	27.54	27.21	27.22
		50	25	27.29	27.39	27.64
		50	50	27.25	27.27	27.48
		106	0	27.46	27.22	27.35
	16QAM	1	0	**27.57**	27.42	27.21
		1	53	27.17	27.42	27.32
		1	105	27.39	27.36	27.29
		50	0	27.25	27.23	27.07
		50	25	27.26	27.30	27.33
		50	50	27.17	27.03	27.08
		106	0	27.35	26.97	27.27
	64QAM	1	0	26.80	27.17	27.05
		1	53	**27.23**	27.12	27.22
		1	105	26.82	27.11	27.06
		50	0	27.04	26.76	26.78
		50	25	26.59	26.84	26.72
		50	50	26.73	27.04	26.98
		106	0	26.91	26.88	26.70

*EIRP = Conducted + antenna gain (4.27dBi)

ERP Power (dBm)

n12						
BW	MCS Index	Channel		140300	141500	142700
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	25.54	25.36	25.59
		1	12	25.42	25.42	**25.76**
		1	24	25.27	25.65	25.69
		12	0	25.12	25.47	25.08
		12	6	25.29	25.20	25.43
		12	13	25.21	25.16	25.39
		25	0	25.36	25.18	25.12
	16QAM	1	0	25.29	25.06	**25.41**
		1	12	25.14	25.26	25.40
		1	24	25.27	25.17	25.15
		12	0	25.22	25.19	24.99
		12	6	25.07	24.90	25.16
		12	13	24.89	25.22	25.15
		25	0	24.90	25.06	25.06
	64QAM	1	0	24.82	24.66	24.75
		1	12	25.03	24.70	24.91
		1	24	25.01	24.87	**25.16**
		12	0	24.50	24.56	24.67
		12	6	24.80	24.52	24.59
		12	13	24.94	24.96	24.66
		25	0	24.72	24.47	24.84

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n12						
BW	MCS Index	Channel		140800	141500	142200
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	25.57	25.59	25.33
		1	26	25.60	25.56	25.43
		1	51	25.51	25.31	**25.68**
		26	0	25.20	25.45	25.31
		26	13	25.54	25.11	25.40
		26	26	25.26	25.12	25.18
		52	0	25.42	25.31	25.44
	16QAM	1	0	25.07	25.08	25.06
		1	26	**25.46**	25.15	25.37
		1	51	25.17	25.39	25.36
		26	0	24.86	24.99	25.25
		26	13	25.07	24.95	24.93
		26	26	25.08	25.03	25.08
		52	0	25.25	25.02	24.90
	64QAM	1	0	24.78	25.09	**25.10**
		1	26	25.09	24.90	25.05
		1	51	25.05	25.08	25.00
		26	0	24.90	24.95	24.81
		26	13	24.90	24.50	24.47
		26	26	24.84	24.96	24.94
		52	0	24.53	24.75	24.93

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n12						
BW	MCS Index	Channel		141300	141500	141700
		Frequency (MHz)		706.5	707.5	708.5
15M	QPSK	1	0	25.42	25.50	25.54
		1	39	25.53	25.53	25.29
		1	78	25.30	**25.63**	25.36
		39	0	25.42	25.36	25.13
		39	19	25.46	25.20	25.06
		39	40	25.34	25.20	25.29
		79	0	25.08	25.39	25.42
	16QAM	1	0	25.20	25.38	25.29
		1	39	25.18	25.31	**25.45**
		1	78	25.11	25.11	25.28
		39	0	24.90	25.23	25.14
		39	19	25.15	25.16	24.91
		39	40	25.14	24.93	25.03
		79	0	24.94	24.97	25.21
	64QAM	1	0	24.78	25.05	25.07
		1	39	24.76	**25.11**	24.72
		1	78	24.90	24.83	24.88
		39	0	24.46	24.49	24.56
		39	19	24.61	24.89	24.83
		39	40	24.80	24.94	24.63
		79	0	24.89	24.64	24.88

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n71						
BW	MCS Index	Channel		133100	136100	139100
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	25.42	25.43	25.47
		1	12	25.69	25.61	25.57
		1	24	25.29	25.61	**25.72**
		12	0	25.43	25.10	25.53
		12	6	25.43	25.49	25.12
		12	13	25.11	25.09	25.46
		25	0	25.19	25.51	25.15
	16QAM	1	0	**25.43**	25.38	25.38
		1	12	25.07	25.09	25.21
		1	24	25.38	25.18	25.22
		12	0	25.06	25.24	24.93
		12	6	25.07	24.91	24.87
		12	13	25.26	25.24	25.17
		25	0	24.91	25.17	25.00
	64QAM	1	0	24.97	24.85	24.99
		1	12	24.95	24.73	24.72
		1	24	24.78	**25.16**	25.02
		12	0	24.94	24.60	24.81
		12	6	24.46	24.57	24.75
		12	13	24.90	24.50	24.70
		25	0	24.86	24.85	24.59

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n71						
BW	MCS Index	Channel		133600	136100	138600
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	25.28	25.57	**25.69**
		1	26	25.66	25.63	25.56
		1	51	25.41	25.55	25.46
		26	0	25.39	25.08	25.45
		26	13	25.39	25.06	25.37
		26	26	25.11	25.34	25.40
		52	0	25.34	25.42	25.14
	16QAM	1	0	25.07	25.30	25.23
		1	26	25.07	25.13	25.07
		1	51	25.22	**25.45**	25.09
		26	0	24.88	25.03	25.11
		26	13	25.20	25.10	24.87
		26	26	24.95	25.08	25.17
		52	0	25.24	24.89	25.02
	64QAM	1	0	**25.15**	24.84	24.67
		1	26	25.11	24.78	24.70
		1	51	24.69	24.92	24.89
		26	0	24.79	24.75	24.93
		26	13	24.61	24.87	24.56
		26	26	24.63	24.70	24.71
		52	0	24.93	24.67	24.67

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n71						
BW	MCS Index	Channel		134100	136100	138100
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	25.42	25.59	**25.73**
		1	39	25.66	25.50	25.47
		1	78	25.29	25.26	25.56
		39	0	25.21	25.32	25.13
		39	19	25.50	25.55	25.52
		39	40	25.34	25.20	25.45
		79	0	25.08	25.23	25.43
	16QAM	1	0	25.15	25.35	25.34
		1	39	**25.46**	25.13	25.31
		1	78	25.10	25.27	25.11
		39	0	25.08	25.06	25.19
		39	19	24.96	24.88	25.23
		39	40	25.22	25.17	25.14
		79	0	24.91	24.96	25.17
	64QAM	1	0	24.70	24.72	24.87
		1	39	24.94	**25.08**	24.79
		1	78	24.94	24.86	25.02
		39	0	24.66	24.47	24.52
		39	19	24.86	24.58	24.55
		39	40	24.60	24.73	24.59
		79	0	24.79	24.66	24.52

*ERP = Conducted + antenna gain (4.41dBi)-2.15

n71						
BW	MCS Index	Channel		134600	136100	137600
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	25.56	25.29	25.72
		1	53	25.59	**25.75**	25.35
		1	105	25.59	25.45	25.59
		50	0	25.21	25.51	25.35
		50	25	25.53	25.07	25.51
		50	50	25.12	25.53	25.08
		106	0	25.56	25.49	25.56
	16QAM	1	0	25.41	25.43	25.08
		1	53	25.07	25.36	25.25
		1	105	25.34	**25.45**	25.21
		50	0	25.17	25.24	25.01
		50	25	25.13	24.87	25.01
		50	50	25.03	25.20	24.93
		106	0	24.96	25.25	25.20
	64QAM	1	0	24.98	24.85	24.91
		1	53	25.00	**25.16**	24.94
		1	105	24.76	24.86	25.14
		50	0	24.90	24.89	24.67
		50	25	24.75	24.92	24.69
		50	50	24.93	24.54	24.67
		106	0	24.79	24.52	24.96

*ERP = Conducted + antenna gain (4.41dBi)-2.15

4.2 Modulation Characteristics Measurement

4.2.1 Limits of Modulation Characteristics

N/A

4.2.2 Test Procedure

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

4.2.3 Test Setup

4.2.4 Test Results

n7	
Spectrum Plot of Measurement Value	
Channel: 507000 / Frequency (MHz): 2535.0MHz	
QPSK	16QAM
	
64QAM	
	

n12	
Spectrum Plot of Measurement Value	
Channel: 141500 / Frequency (MHz): 707.5 MHz	
QPSK	16QAM
	
64QAM	
	

n38	
Spectrum Plot of Measurement Value	
Channel: 519000 / Frequency (MHz): 2595.0 MHz	
QPSK	16QAM
	
64QAM	
	

n41	
Spectrum Plot of Measurement Value	
Channel: 518598 / Frequency (MHz): 2592.99 MHz	
QPSK	16QAM
	
64QAM	
	

n66	
Spectrum Plot of Measurement Value	
Channel: 349000 / Frequency (MHz): 1745.0 MHz	
QPSK	16QAM
	
64QAM	
	

n71	
Spectrum Plot of Measurement Value	
Channel: 136100 / Frequency (MHz): 680.5 MHz	
QPSK	16QAM
	
64QAM	
	

4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

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

4.3.2 Test Procedure

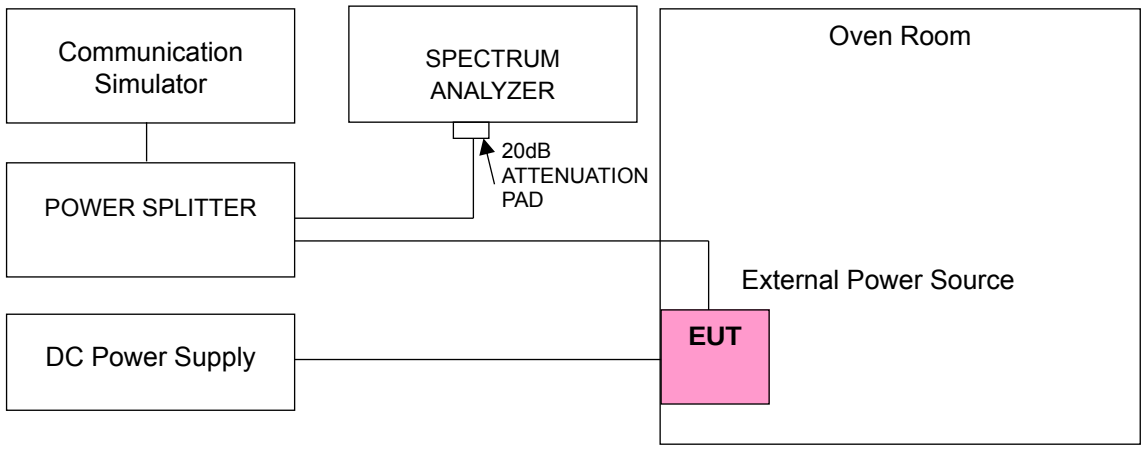
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

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 Setup



4.3.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	n7			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2502.500002	0.001	2567.500003	0.001
5	2502.500003	0.001	2567.500004	0.002
5.75	2502.500003	0.001	2567.500004	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n7			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2502.500004	0.001	2567.500002	0.001
-20	2502.500003	0.001	2567.500003	0.001
-10	2502.500003	0.001	2567.500004	0.001
0	2502.500003	0.001	2567.500001	0.000
10	2502.500003	0.001	2567.500003	0.001
20	2502.499997	-0.001	2567.499997	-0.001
30	2502.499997	-0.001	2567.499997	-0.001
40	2502.499998	-0.001	2567.499998	-0.001
50	2502.499996	-0.002	2567.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n7			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2505.000004	0.002	2565.000003	0.001
5	2505.000002	0.001	2565.000003	0.001
5.75	2505.000003	0.001	2565.000003	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n7			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2505.000003	0.001	2565.000003	0.001
-20	2505.000004	0.001	2565.000003	0.001
-10	2505.000003	0.001	2565.000003	0.001
0	2505.000004	0.002	2565.000001	0.001
10	2505.000002	0.001	2565.000002	0.001
20	2504.999999	-0.001	2564.999997	-0.001
30	2504.999997	-0.001	2564.999997	-0.001
40	2504.999996	-0.001	2564.999996	-0.002
50	2504.999997	-0.001	2564.999999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n7			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2507.500004	0.002	2562.500001	0.000
5	2507.500004	0.001	2562.500004	0.002
5.75	2507.500002	0.001	2562.500002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n7			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2507.500001	0.000	2562.500001	0.000
-20	2507.500002	0.001	2562.500003	0.001
-10	2507.500001	0.000	2562.500003	0.001
0	2507.500004	0.002	2562.500002	0.001
10	2507.500003	0.001	2562.500003	0.001
20	2507.499999	0.000	2562.499999	-0.001
30	2507.499999	-0.001	2562.499997	-0.001
40	2507.499997	-0.001	2562.499998	-0.001
50	2507.499997	-0.001	2562.499996	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n7			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2510.000002	0.001	2560.000001	0.000
5	2510.000003	0.001	2560.000001	0.000
5.75	2510.000001	0.000	2560.000003	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n7			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2510.000003	0.001	2560.000003	0.001
-20	2510.000002	0.001	2560.000004	0.001
-10	2510.000002	0.001	2560.000001	0.001
0	2510.000002	0.001	2560.000003	0.001
10	2510.000001	0.000	2560.000004	0.001
20	2509.999997	-0.001	2559.999998	-0.001
30	2509.999998	-0.001	2559.999998	-0.001
40	2509.999998	-0.001	2559.999998	-0.001
50	2509.999998	-0.001	2559.999996	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	n12			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	701.500004	0.006	713.500002	0.003
5	701.500001	0.002	713.500004	0.005
5.75	701.500004	0.005	713.500003	0.005

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n12			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	701.500002	0.003	713.500002	0.003
-20	701.500003	0.004	713.500003	0.004
-10	701.500001	0.001	713.500002	0.002
0	701.500004	0.006	713.500002	0.003
10	701.500004	0.005	713.500003	0.004
20	701.499999	-0.001	713.499999	-0.002
30	701.499999	-0.001	713.499997	-0.004
40	701.499996	-0.005	713.499996	-0.006
50	701.499998	-0.003	713.499997	-0.004

Frequency Error vs. Voltage

Voltage (Volts)	n12			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	704.000003	0.004	711.000004	0.005
5	704.000002	0.003	711.000002	0.003
5.75	704.000002	0.003	711.000004	0.006

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n12			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	704.000002	0.002	711.000001	0.002
-20	704.000001	0.002	711.000001	0.001
-10	704.000004	0.005	711.000004	0.005
0	704.000002	0.003	711.000004	0.005
10	704.000004	0.005	711.000003	0.004
20	703.999998	-0.003	710.999998	-0.003
30	703.999997	-0.004	710.999998	-0.003
40	703.999997	-0.004	710.999998	-0.004
50	703.999997	-0.004	710.999996	-0.005

Frequency Error vs. Voltage

Voltage (Volts)	n12			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	706.500001	0.002	708.500002	0.002
5	706.500004	0.005	708.500001	0.002
5.75	706.500003	0.005	708.500002	0.003

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n12			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	706.500001	0.002	708.500004	0.005
-20	706.500002	0.003	708.500002	0.003
-10	706.500002	0.003	708.500003	0.004
0	706.500002	0.003	708.500001	0.001
10	706.500003	0.004	708.500002	0.002
20	706.499997	-0.005	708.499997	-0.004
30	706.499997	-0.004	708.499997	-0.005
40	706.499999	-0.002	708.499999	-0.002
50	706.499998	-0.003	708.499998	-0.003

Frequency Error vs. Voltage

Voltage (Volts)	n38			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2580.000003	0.001	2610.000003	0.001
5	2580.000003	0.001	2610.000002	0.001
5.75	2580.000003	0.001	2610.000000	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n38			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2580.000002	0.001	2610.000003	0.001
-20	2580.000003	0.001	2610.000002	0.001
-10	2580.000001	0.001	2610.000004	0.001
0	2580.000002	0.001	2610.000004	0.001
10	2580.000002	0.001	2610.000003	0.001
20	2579.999998	-0.001	2609.999998	-0.001
30	2579.999999	0.000	2609.999999	0.000
40	2579.999997	-0.001	2609.999996	-0.001
50	2579.999997	-0.001	2609.999997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2506.020003	0.001	2679.990003	0.001
5	2506.020002	0.001	2679.990002	0.001
5.75	2506.020002	0.001	2679.990002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2506.020001	0.001	2679.990004	0.001
-20	2506.020002	0.001	2679.990003	0.001
-10	2506.020003	0.001	2679.990002	0.001
0	2506.020003	0.001	2679.990003	0.001
10	2506.020002	0.001	2679.990004	0.001
20	2506.019998	-0.001	2679.989998	-0.001
30	2506.019997	-0.001	2679.989997	-0.001
40	2506.019998	-0.001	2679.989996	-0.001
50	2506.019997	-0.001	2679.989997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2516.010002	0.001	2670.000003	0.001
5	2516.010001	0.000	2670.000002	0.001
5.75	2516.010004	0.002	2670.000003	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 40 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2516.010003	0.001	2670.000003	0.001
-20	2516.010002	0.001	2670.000001	0.000
-10	2516.010003	0.001	2670.000004	0.001
0	2516.010001	0.000	2670.000001	0.000
10	2516.010002	0.001	2670.000004	0.001
20	2516.009997	-0.001	2669.999998	-0.001
30	2516.009997	-0.001	2669.999998	-0.001
40	2516.009998	-0.001	2669.999999	-0.001
50	2516.009998	-0.001	2669.999997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 50 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2521.020004	0.001	2664.990004	0.001
5	2521.020003	0.001	2664.990003	0.001
5.75	2521.020001	0.000	2664.990002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 50 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2521.020002	0.001	2664.990002	0.001
-20	2521.020003	0.001	2664.990001	0.001
-10	2521.020004	0.001	2664.990004	0.001
0	2521.020004	0.001	2664.990001	0.000
10	2521.020003	0.001	2664.990001	0.000
20	2521.019996	-0.002	2664.989998	-0.001
30	2521.019999	0.000	2664.989998	-0.001
40	2521.019998	-0.001	2664.989999	0.000
50	2521.019998	-0.001	2664.989998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 60 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2526.000003	0.001	2659.980002	0.001
5	2526.000001	0.001	2659.980002	0.001
5.75	2526.000002	0.001	2659.980004	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 60 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2526.000004	0.001	2659.980003	0.001
-20	2526.000002	0.001	2659.980003	0.001
-10	2526.000002	0.001	2659.980004	0.001
0	2526.000004	0.001	2659.980002	0.001
10	2526.000004	0.002	2659.980002	0.001
20	2525.999998	-0.001	2659.979998	-0.001
30	2525.999997	-0.001	2659.979998	-0.001
40	2525.999999	-0.001	2659.979998	-0.001
50	2525.999999	0.000	2659.979997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 80 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2536.020003	0.001	2649.990003	0.001
5	2536.020004	0.002	2649.990004	0.001
5.75	2536.020003	0.001	2649.990002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 80 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2536.020004	0.001	2649.990002	0.001
-20	2536.020003	0.001	2649.990003	0.001
-10	2536.020003	0.001	2649.990003	0.001
0	2536.020002	0.001	2649.990001	0.000
10	2536.020003	0.001	2649.990004	0.001
20	2536.019998	-0.001	2649.989997	-0.001
30	2536.019996	-0.002	2649.989998	-0.001
40	2536.019999	0.000	2649.989998	-0.001
50	2536.019998	-0.001	2649.989999	0.000

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 90 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2541.000003	0.001	2644.980004	0.002
5	2541.000003	0.001	2644.980001	0.000
5.75	2541.000001	0.001	2644.980003	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 90 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2541.000003	0.001	2644.980001	0.000
-20	2541.000003	0.001	2644.980003	0.001
-10	2541.000004	0.001	2644.980003	0.001
0	2541.000003	0.001	2644.980003	0.001
10	2541.000002	0.001	2644.980003	0.001
20	2540.999998	-0.001	2644.979998	-0.001
30	2540.999996	-0.002	2644.979999	0.000
40	2540.999997	-0.001	2644.979997	-0.001
50	2540.999998	-0.001	2644.979997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n41			
	Channel Bandwidth: 100 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2546.010001	0.001	2640.000004	0.001
5	2546.010004	0.001	2640.000003	0.001
5.75	2546.010002	0.001	2640.000004	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n41			
	Channel Bandwidth: 100 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2546.010001	0.000	2640.000003	0.001
-20	2546.010002	0.001	2640.000004	0.001
-10	2546.010002	0.001	2640.000003	0.001
0	2546.010002	0.001	2640.000002	0.001
10	2546.010002	0.001	2640.000002	0.001
20	2546.009997	-0.001	2639.999998	-0.001
30	2546.009997	-0.001	2639.999997	-0.001
40	2546.009998	-0.001	2639.999998	-0.001
50	2546.009997	-0.001	2639.999996	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n66			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1712.500001	0.001	1777.500004	0.002
5	1712.500002	0.001	1777.500002	0.001
5.75	1712.500002	0.001	1777.500004	0.002

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n66			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.500002	0.001	1777.500001	0.001
-20	1712.500003	0.002	1777.500003	0.002
-10	1712.500003	0.002	1777.500002	0.001
0	1712.500002	0.001	1777.500001	0.001
10	1712.500002	0.001	1777.500003	0.002
20	1712.499998	-0.001	1777.499999	-0.001
30	1712.499996	-0.002	1777.499998	-0.001
40	1712.499999	-0.001	1777.499999	-0.001
50	1712.499996	-0.002	1777.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n66			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1715.000001	0.001	1775.000004	0.002
5	1715.000002	0.001	1775.000001	0.001
5.75	1715.000003	0.002	1775.000001	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n66			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1715.000002	0.001	1775.000003	0.002
-20	1715.000001	0.001	1775.000003	0.002
-10	1715.000003	0.002	1775.000002	0.001
0	1715.000003	0.001	1775.000003	0.002
10	1715.000001	0.001	1775.000001	0.001
20	1714.999998	-0.001	1774.999997	-0.002
30	1714.999997	-0.002	1774.999997	-0.002
40	1714.999997	-0.002	1774.999998	-0.001
50	1714.999997	-0.002	1774.999999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n66			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1717.500002	0.001	1772.500004	0.002
5	1717.500001	0.001	1772.500002	0.001
5.75	1717.500002	0.001	1772.500002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n66			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.500004	0.002	1772.500002	0.001
-20	1717.500004	0.002	1772.500001	0.001
-10	1717.500001	0.001	1772.500001	0.001
0	1717.500001	0.001	1772.500003	0.002
10	1717.500004	0.002	1772.500001	0.001
20	1717.499997	-0.002	1772.499997	-0.002
30	1717.499996	-0.002	1772.499998	-0.001
40	1717.499996	-0.002	1772.499996	-0.002
50	1717.499997	-0.002	1772.499997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n66			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1720.000002	0.001	1770.000004	0.002
5	1720.000002	0.001	1770.000004	0.002
5.75	1720.000003	0.002	1770.000003	0.002

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n66			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1720.000004	0.002	1770.000002	0.001
-20	1720.000003	0.002	1770.000004	0.002
-10	1720.000001	0.001	1770.000003	0.002
0	1720.000001	0.001	1770.000002	0.001
10	1720.000001	0.001	1770.000003	0.001
20	1719.999997	-0.002	1769.999998	-0.001
30	1719.999999	-0.001	1769.999998	-0.001
40	1719.999996	-0.002	1769.999997	-0.002
50	1719.999996	-0.002	1769.999999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	n71			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	665.500003	0.004	695.500002	0.003
5	665.500001	0.002	695.500003	0.004
5.75	665.500004	0.006	695.500003	0.004

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n71			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	665.500001	0.002	695.500004	0.006
-20	665.500003	0.004	695.500001	0.002
-10	665.500004	0.006	695.500003	0.004
0	665.500002	0.004	695.500002	0.003
10	665.500003	0.005	695.500003	0.004
20	665.499997	-0.005	695.499997	-0.005
30	665.499996	-0.006	695.499997	-0.005
40	665.499998	-0.003	695.499998	-0.003
50	665.499997	-0.005	695.499999	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	n71			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	668.000004	0.005	693.000003	0.004
5	668.000002	0.003	693.000001	0.002
5.75	668.000004	0.006	693.000002	0.003

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n71			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	668.000003	0.004	693.000001	0.001
-20	668.000004	0.006	693.000003	0.004
-10	668.000004	0.006	693.000002	0.002
0	668.000003	0.004	693.000001	0.001
10	668.000001	0.002	693.000004	0.006
20	667.999997	-0.004	692.999998	-0.003
30	667.999996	-0.006	692.999997	-0.004
40	667.999999	-0.002	692.999998	-0.003
50	667.999998	-0.003	692.999999	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	n71			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	670.500002	0.003	690.500004	0.006
5	670.500003	0.005	690.500002	0.002
5.75	670.500004	0.005	690.500004	0.006

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n71			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	670.500003	0.004	690.500003	0.004
-20	670.500001	0.002	690.500002	0.003
-10	670.500003	0.005	690.500001	0.001
0	670.500002	0.002	690.500003	0.004
10	670.500001	0.002	690.500003	0.004
20	670.499997	-0.004	690.499997	-0.005
30	670.499997	-0.005	690.499998	-0.003
40	670.499997	-0.005	690.499997	-0.005
50	670.499998	-0.004	690.499998	-0.003

Frequency Error vs. Voltage

Voltage (Volts)	n71			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	673.000002	0.003	688.000003	0.004
5	673.000001	0.002	688.000003	0.005
5.75	673.000001	0.001	688.000003	0.004

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (℃)	n71			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	673.000002	0.003	688.000004	0.005
-20	673.000003	0.005	688.000001	0.002
-10	673.000003	0.004	688.000002	0.002
0	673.000002	0.003	688.000003	0.005
10	673.000003	0.004	688.000003	0.004
20	672.999997	-0.005	687.999997	-0.005
30	672.999997	-0.004	687.999999	-0.002
40	672.999997	-0.005	687.999997	-0.005
50	672.999997	-0.005	687.999996	-0.005

4.4 Occupied Bandwidth Measurement

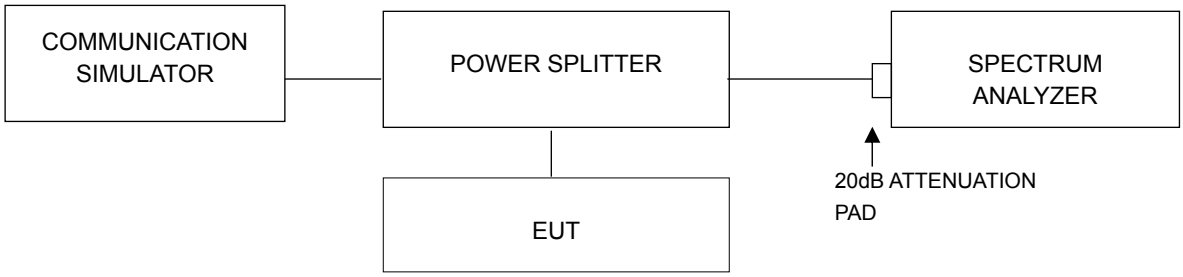
4.4.1 Limits of Occupied Bandwidth Measurement

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

4.4.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW = 100kHz and VBW = 300kHz (Channel Bandwidth: 5MHz), RBW = 200kHz and VBW = 1MHz (Channel Bandwidth: 10MHz), RBW = 300kHz and VBW = 1MHz (Channel Bandwidth: 15MHz) and RBW = 430kHz and VBW = 1.3MHz (Channel Bandwidth: 20MHz). The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

4.4.3 Test Setup

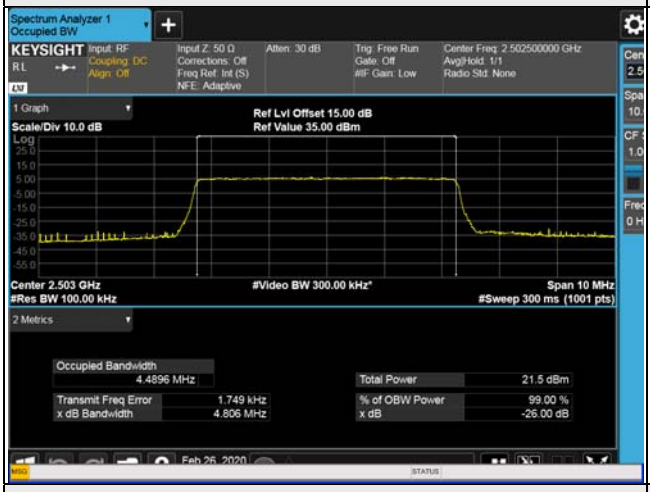
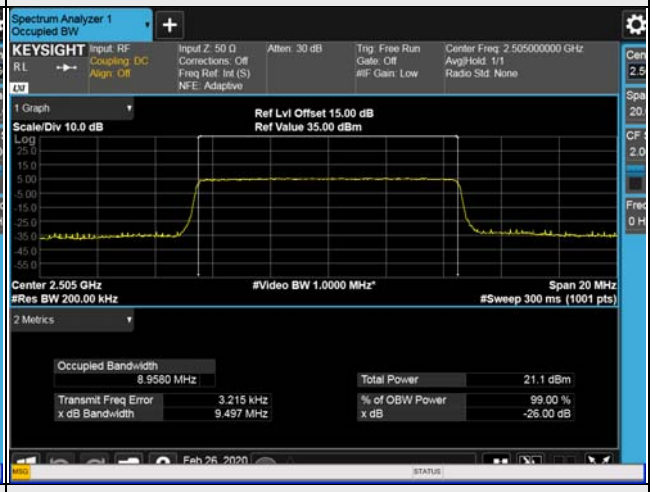
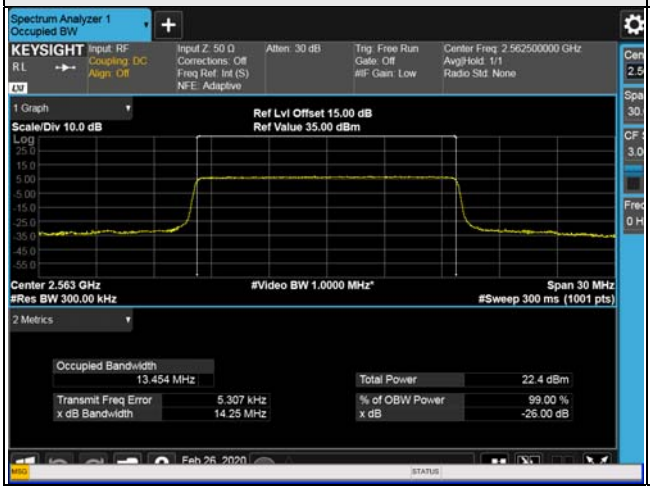
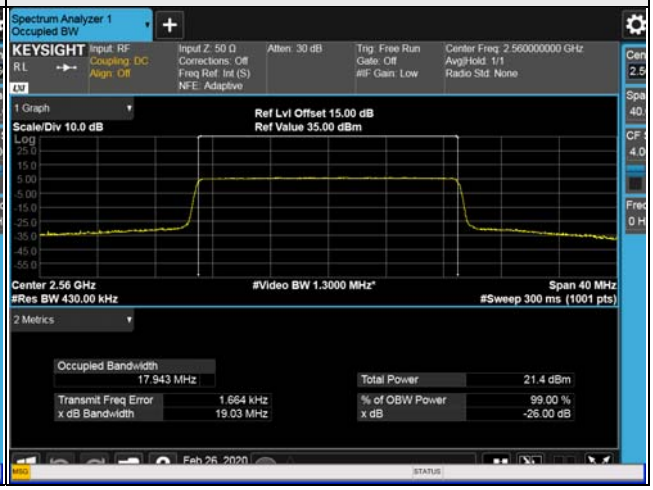


4.4.4 Test Result

Occupied Bandwidth

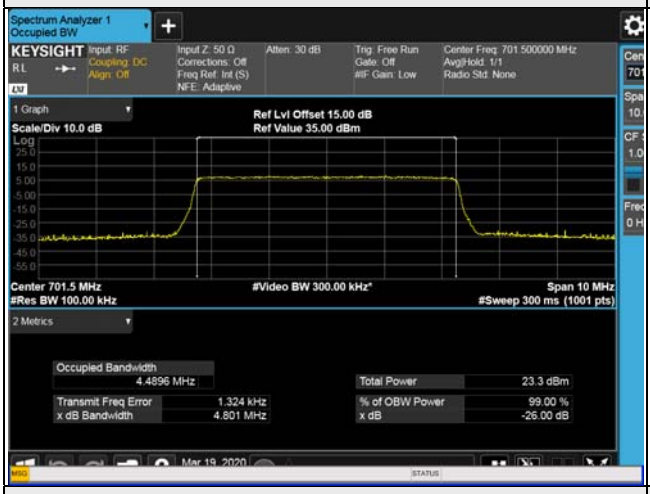
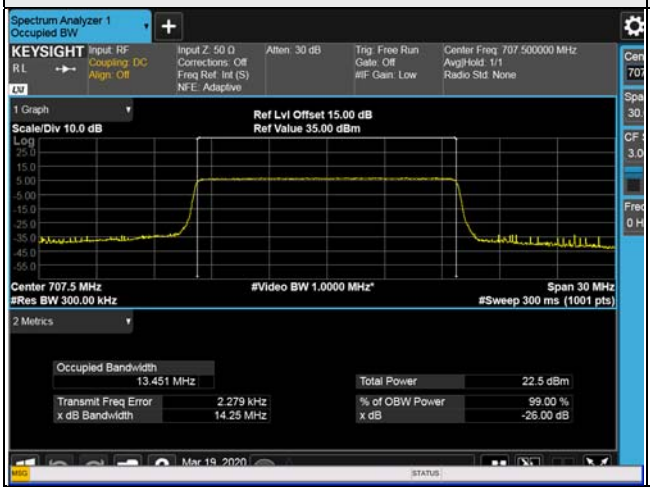
n7

n7, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
500500	2502.5	4.4869	4.4868	4.4896
507000	2535.0	4.4865	4.4861	4.4887
513500	2567.5	4.4848	4.4839	4.4884
n7, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501000	2505.0	8.9561	8.9580	8.9517
507000	2535.0	8.9508	8.9524	8.9471
513000	2565.0	8.9484	8.9527	8.9463
n7, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501500	2507.5	13.453	13.433	13.431
507000	2535.0	13.452	13.440	13.435
512500	2562.5	13.454	13.446	13.437
n7, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
502000	2510.0	17.897	17.918	17.924
507000	2535.0	17.908	17.928	17.915
512000	2560.0	17.928	17.943	17.936

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 16QAM
	
15MHz / QPSK	20MHz / 16QAM
	

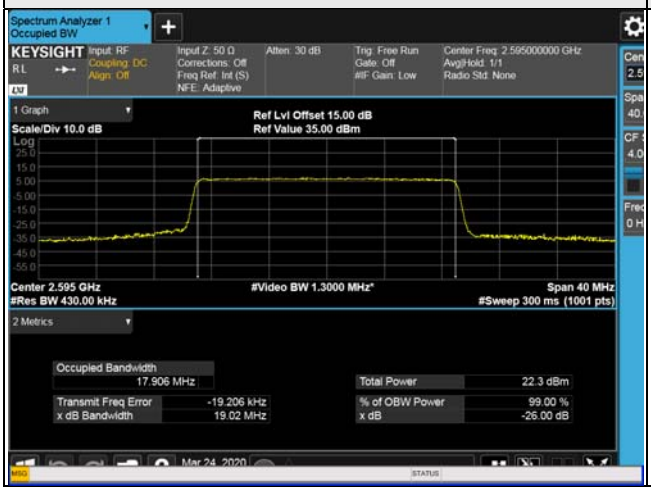
n12

n12, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
140300	701.5	4.4859	4.4893	4.4896
141500	707.5	4.4833	4.4847	4.4864
142700	713.5	4.4873	4.4880	4.4873
n12, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
140800	704.0	8.9572	8.9609	8.9535
141500	707.5	8.9492	8.9570	8.9475
142200	711.0	8.9492	8.9508	8.9424
n12, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
141300	706.5	13.444	13.435	13.428
141500	707.5	13.451	13.437	13.433
141700	708.5	13.447	13.442	13.437

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 16QAM
	
15MHz / QPSK	
	

n38

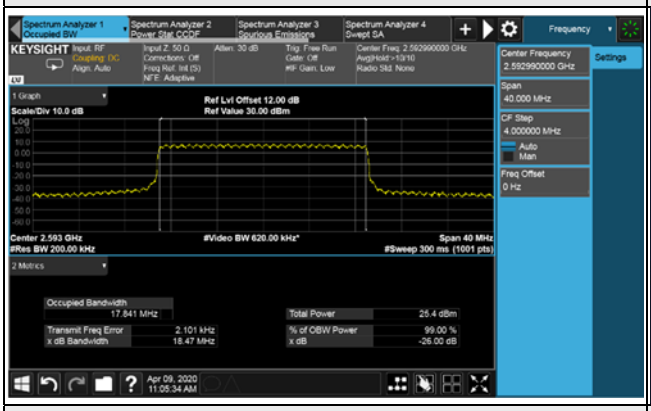
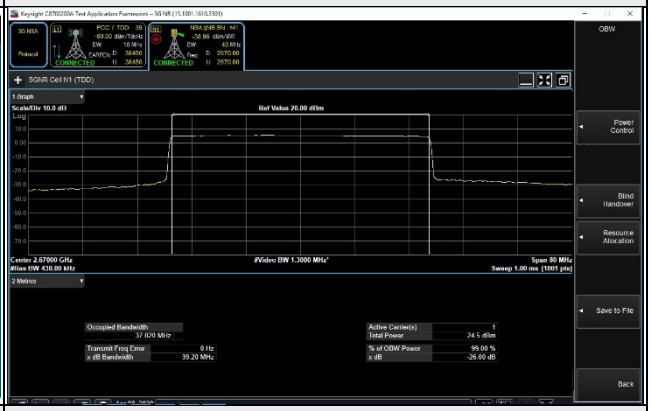
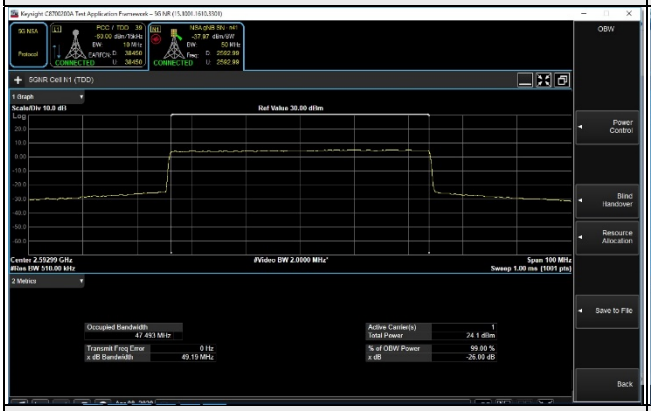
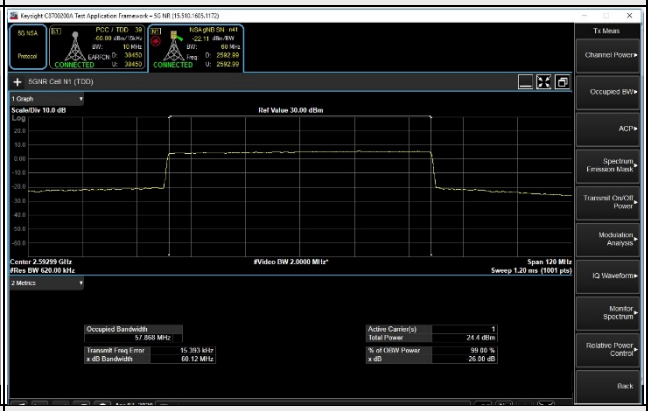
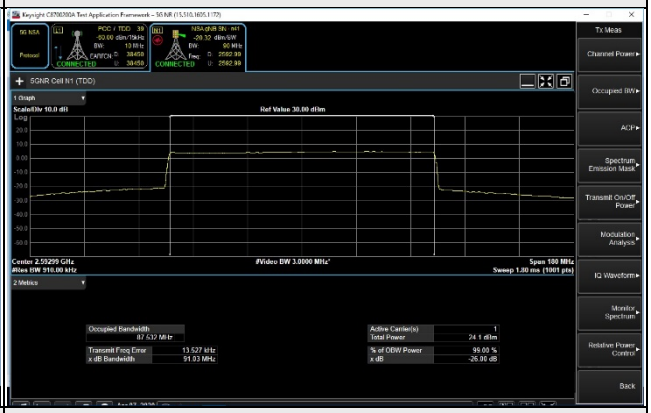
n38, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
516000	2580.0	17.903	17.902	17.898
519000	2595.0	17.906	17.893	17.900
522000	2610.0	17.904	17.891	17.901

Spectrum Plot of Worst Value	
20MHz / QPSK	
	

n41

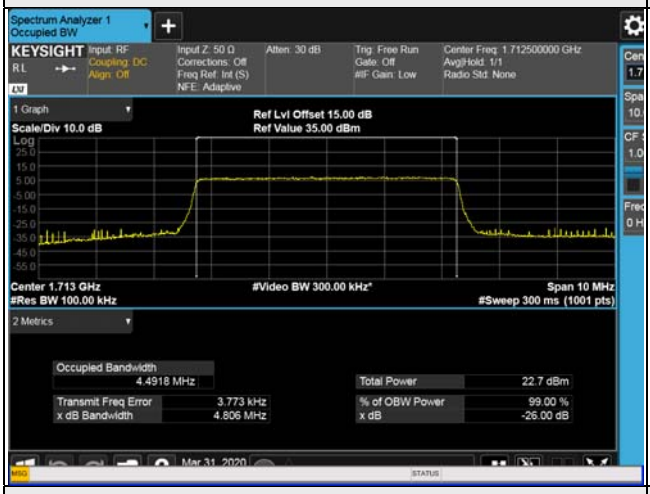
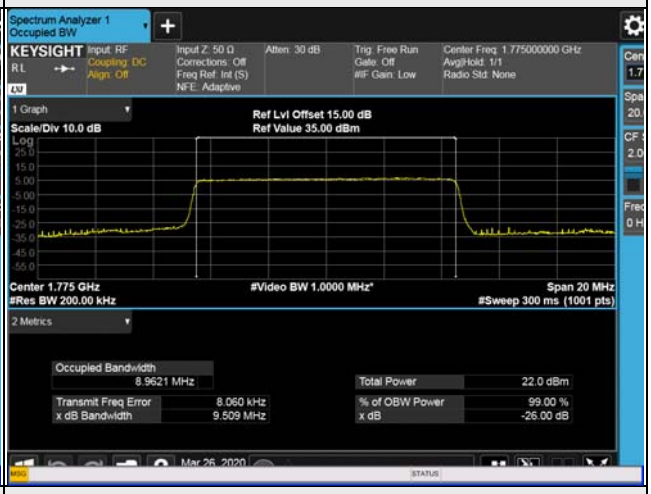
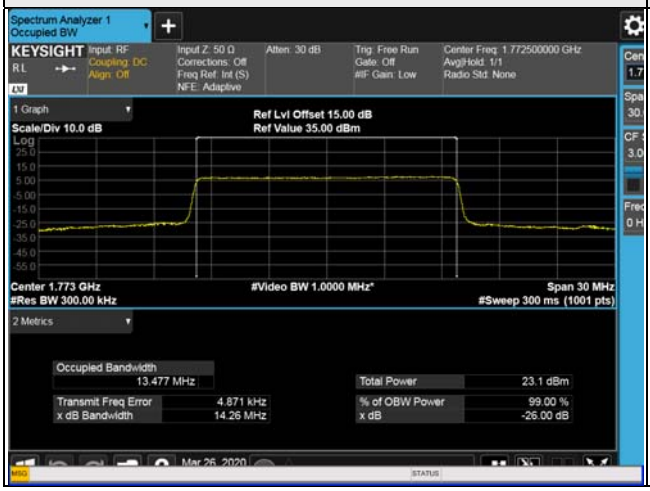
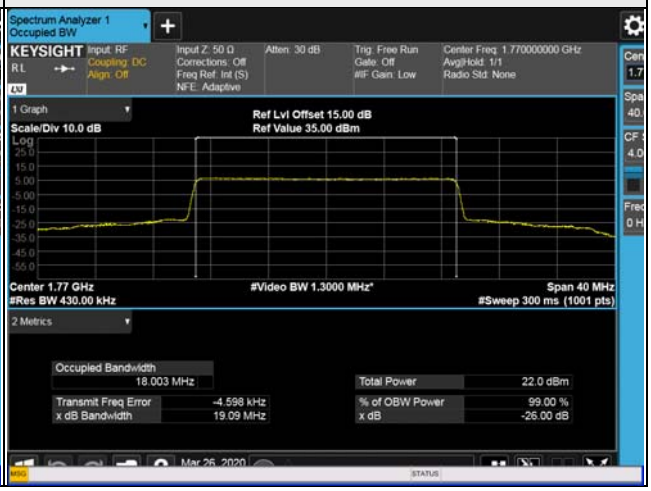
n41, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501204	2506.02	17.75	17.81	17.82
518598	2592.99	17.80	17.84	17.78
535998	2679.99	17.83	17.83	17.83
n41, Channel Bandwidth 40MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
503202	2516.01	37.70	37.70	37.67
518598	2592.99	37.81	37.81	37.80
534000	2670.00	37.82	37.81	37.80
n41, Channel Bandwidth 50MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
504204	2521.02	47.44	47.44	47.45
518598	2592.99	47.48	47.48	47.49
532998	2664.99	47.47	47.46	47.47
n41, Channel Bandwidth 60MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
505200	2526.00	57.57	57.57	57.57
518598	2592.99	57.87	57.86	57.87
531996	2659.98	57.73	57.72	57.71

n41, Channel Bandwidth 80MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
507204	2536.02	77.21	77.25	77.13
518598	2592.99	77.50	77.52	77.45
529998	2649.99	77.28	77.32	77.21
n41, Channel Bandwidth 90MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
508200	2541.00	87.18	87.18	87.18
518598	2592.99	87.51	87.50	87.53
528996	2644.98	87.21	87.21	87.19
n41, Channel Bandwidth 100MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
509202	2546.01	96.03	96.06	96.07
518598	2592.99	97.39	97.41	97.33
528000	2640.00	97.09	97.14	97.05

Spectrum Plot of Worst Value	
20MHz / 16QAM	40MHz / QPSK
	
50MHz / 64QAM	60MHz / 64QAM
	
80MHz / 16QAM	90MHz / 64QAM
	
100MHz / 16QAM	
	

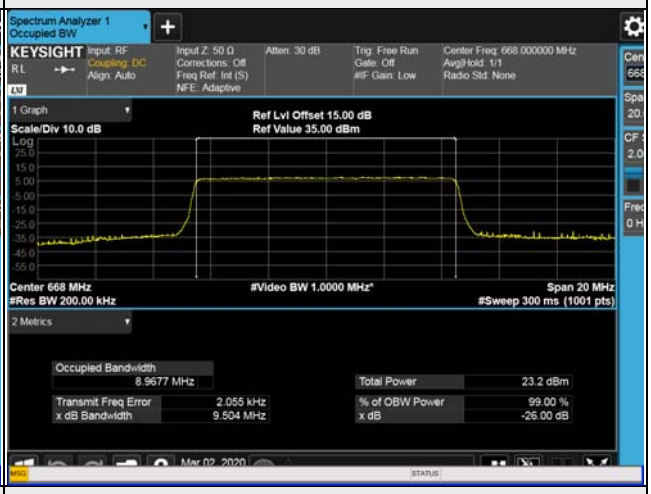
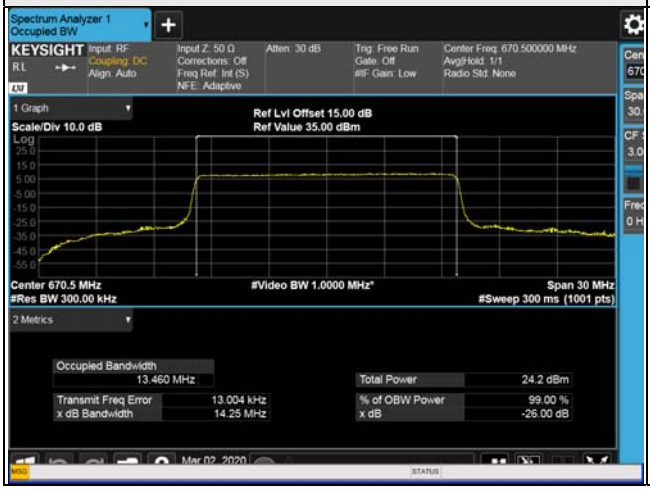
n66

n66, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
342500	1712.5	4.4854	4.4885	4.4918
349000	1745.0	4.4875	4.4874	4.4908
355500	1777.5	4.4864	4.4879	4.4875
n66, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
343000	1715.0	8.9592	8.9582	8.9557
349000	1745.0	8.9615	8.9618	8.9564
355000	1775.0	8.9561	8.9621	8.9568
n66, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
343500	1717.5	13.447	13.438	13.433
349000	1745.0	13.468	13.459	13.458
354500	1772.5	13.477	13.468	13.464
n66, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
344000	1720.0	17.903	17.911	17.909
349000	1745.0	17.953	17.973	17.971
354000	1770.0	17.980	18.003	18.001

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 16QAM
	
15MHz / QPSK	20MHz / 16QAM
	

n71

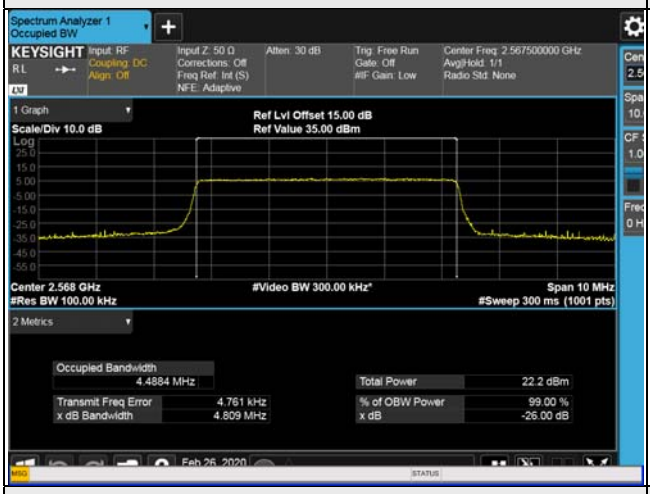
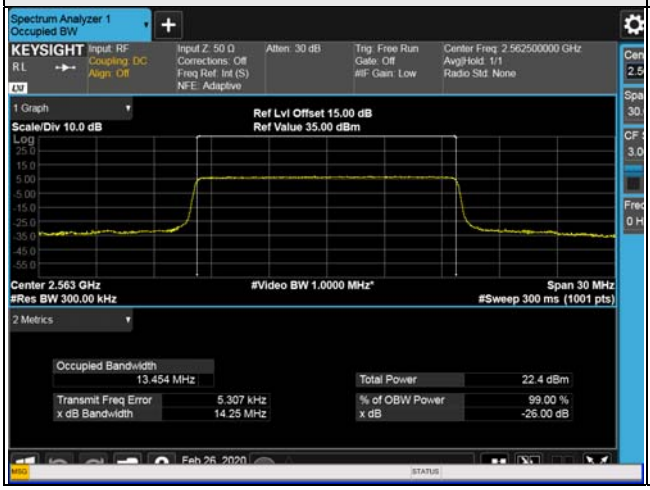
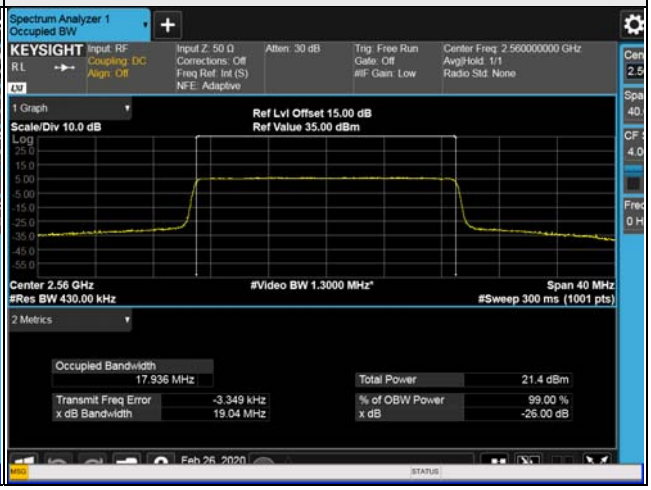
n71, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
133100	665.5	4.4860	4.4870	4.4911
136100	680.5	4.4881	4.4856	4.4967
139100	695.5	4.4880	4.4891	4.4976
n71, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
133600	668	8.9628	8.9677	8.9645
136100	680.5	8.9525	8.9557	8.9576
138600	693	8.9558	8.9550	8.9565
n71, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
134100	670.5	13.460	13.445	13.441
136100	680.5	13.456	13.447	13.440
138100	690.5	13.441	13.432	13.431
n71, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
134600	673	17.894	17.917	17.909
136100	680.5	17.914	17.927	17.924
137600	688	17.902	17.923	17.922

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 16QAM
	
15MHz / QPSK	20MHz / 16QAM
	

26dB Bandwidth

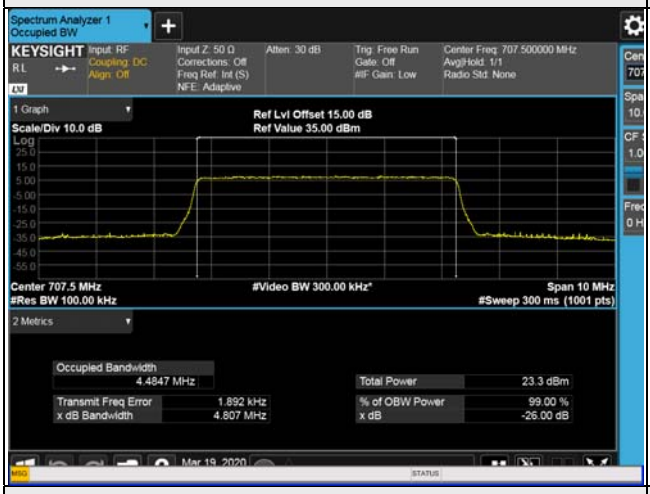
n7

n7, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
500500	2502.5	4.802	4.794	4.806
507000	2535.0	4.788	4.795	4.800
513500	2567.5	4.800	4.809	4.809
n7, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501000	2505.0	9.494	9.497	9.496
507000	2535.0	9.494	9.500	9.511
513000	2565.0	9.513	9.496	9.494
n7, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501500	2507.5	14.25	14.24	14.23
507000	2535.0	14.25	14.24	14.24
512500	2562.5	14.25	14.25	14.24
n7, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
502000	2510.0	19.00	19.02	19.02
507000	2535.0	19.01	19.02	19.03
512000	2560.0	19.03	19.03	19.04

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / QPSK
	
15MHz / QPSK	20MHz / 64QAM
	

n12

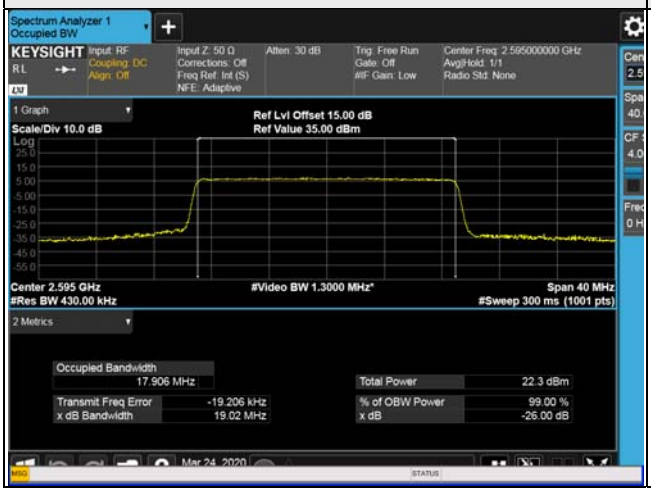
n12, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
140300	701.5	4.805	4.794	4.801
141500	707.5	4.782	4.807	4.795
142700	713.5	4.804	4.802	4.795
n12, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
140800	704.0	9.515	9.515	9.496
141500	707.5	9.499	9.503	9.495
142200	711.0	9.499	9.496	9.514
n12, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
141300	706.5	14.23	14.23	14.23
141500	707.5	14.25	14.24	14.24
141700	708.5	14.26	14.26	14.23

Spectrum Plot of Worst Value	
5MHz / 16QAM	10MHz / 16QAM
	
15MHz / 16QAM	
	

n38

n38, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
516000	2580.0	19.00	18.99	19.00
519000	2595.0	19.02	19.01	18.99
522000	2610.0	19.01	18.99	19.00

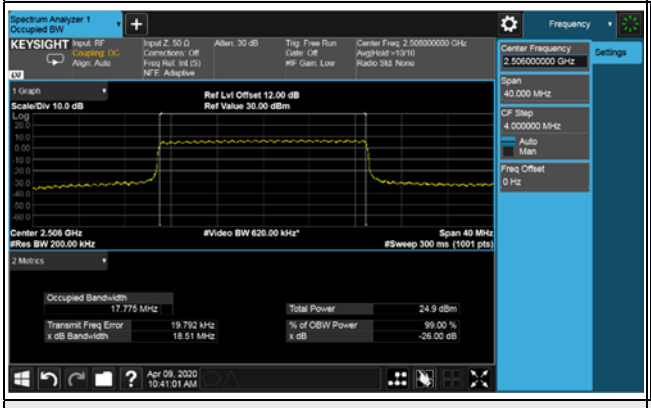
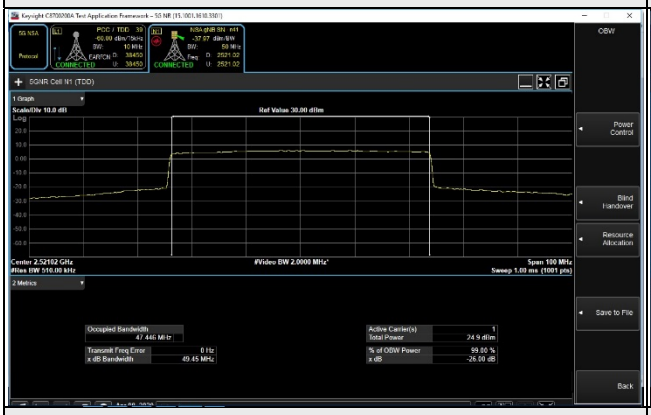
Spectrum Plot of Worst Value	
20MHz / QPSK	



n41

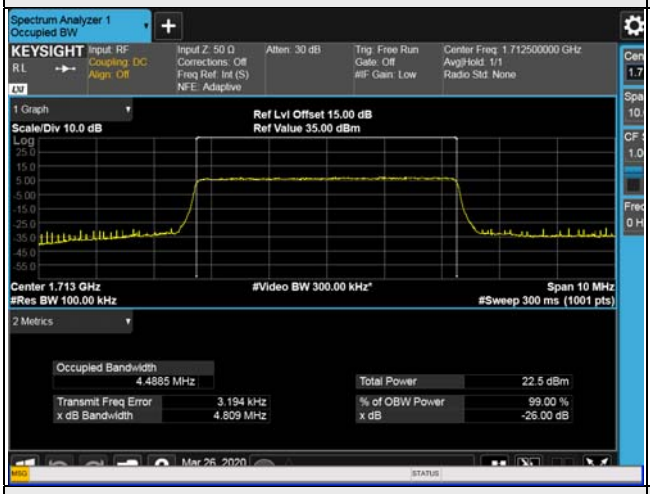
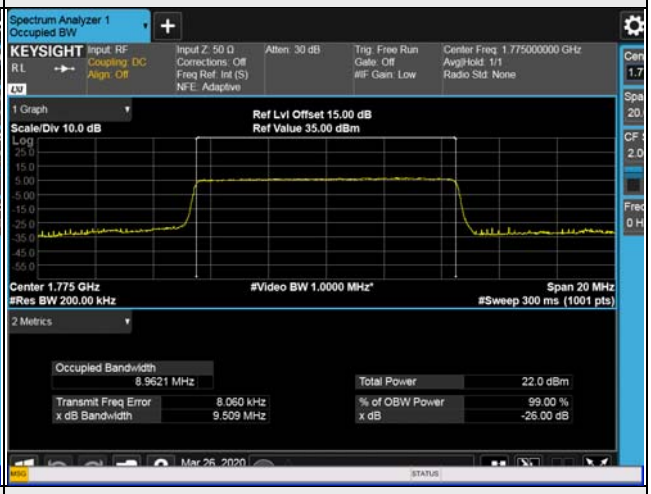
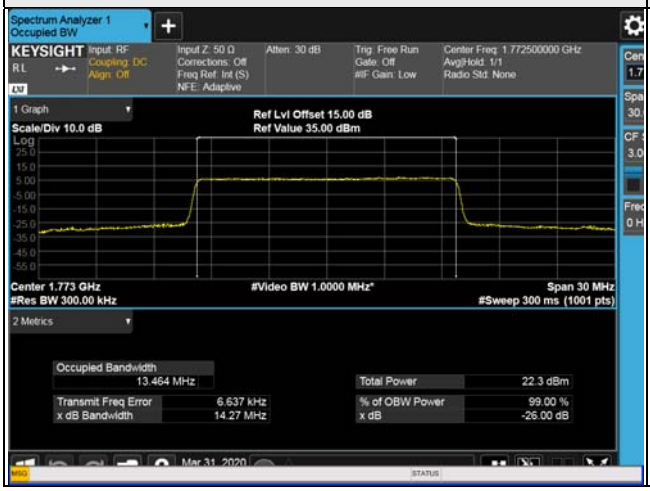
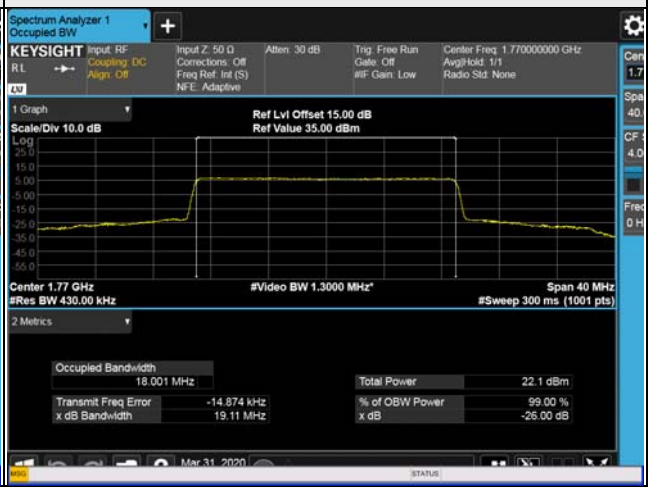
n41, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
501204	2506.02	18.51	18.51	18.51
518598	2592.99	18.49	18.47	18.49
535998	2679.99	18.47	18.47	18.46
n41, Channel Bandwidth 40MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
503202	2516.01	39.17	39.15	39.17
518598	2592.99	39.25	39.21	39.24
534000	2670.00	39.20	39.22	39.21
n41, Channel Bandwidth 50MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
504204	2521.02	49.42	49.45	49.38
518598	2592.99	49.20	49.19	49.19
532998	2664.99	49.14	49.11	49.15
n41, Channel Bandwidth 60MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
505200	2526.00	59.75	59.75	59.76
518598	2592.99	60.16	60.14	60.12
531996	2659.98	59.83	59.81	59.83

n41, Channel Bandwidth 80MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
507204	2536.02	80.05	80.06	80.00
518598	2592.99	80.28	80.38	80.28
529998	2649.99	80.03	80.04	80.02
n41, Channel Bandwidth 90MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
508200	2541.00	90.43	90.40	90.39
518598	2592.99	92.31	90.91	91.03
528996	2644.98	90.37	90.37	90.29
n41, Channel Bandwidth 100MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
509202	2546.01	99.41	99.44	99.43
518598	2592.99	100.60	100.60	100.60
528000	2640.00	100.50	100.50	100.40

Spectrum Plot of Worst Value	
20MHz / QPSK	40MHz / QPSK
	
50MHz / 16QAM	60MHz / QPSK
	
80MHz / 16QAM	90MHz / QPSK
	
100MHz / QPSK	
	

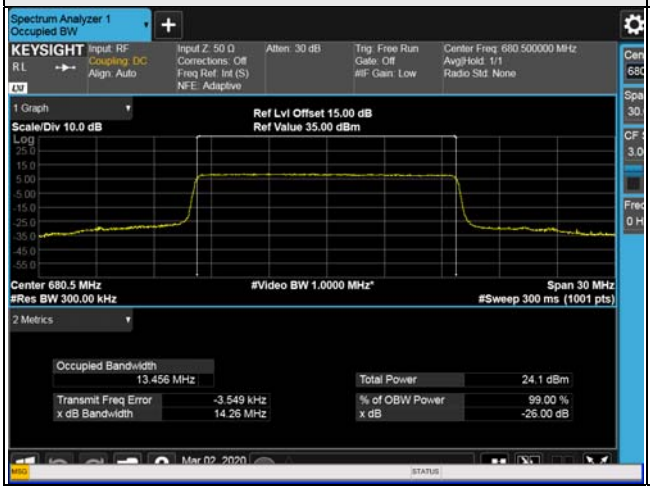
n66

n66, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
342500	1712.5	4.785	4.809	4.806
349000	1745.0	4.800	4.796	4.803
355500	1777.5	4.802	4.803	4.796
n66, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
343000	1715.0	9.499	9.506	9.488
349000	1745.0	9.492	9.501	9.503
355000	1775.0	9.497	9.509	9.502
n66, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
343500	1717.5	14.24	14.24	14.21
349000	1745.0	14.26	14.24	14.24
354500	1772.5	14.26	14.27	14.27
n66, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
344000	1720.0	19.05	19.03	19.02
349000	1745.0	19.02	19.02	19.05
354000	1770.0	19.10	19.09	19.11

Spectrum Plot of Worst Value	
5MHz / 16QAM	10MHz / 16QAM
	
15MHz / 64QAM	20MHz / 64QAM
	

n71

n71, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
133100	665.5	4.801	4.793	4.832
136100	680.5	4.794	4.798	4.848
139100	695.5	4.812	4.795	4.837
n71, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
133600	668	9.499	9.504	9.506
136100	680.5	9.504	9.503	9.504
138600	693	9.501	9.506	9.507
n71, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
134100	670.5	14.25	14.24	14.25
136100	680.5	14.26	14.25	14.25
138100	690.5	14.23	14.23	14.24
n71, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
134600	673	19.01	19.01	19.00
136100	680.5	19.02	19.03	19.02
137600	688	19.02	18.99	19.01

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / QPSK	20MHz / 16QAM
	

4.5 Channel Edge Measurement

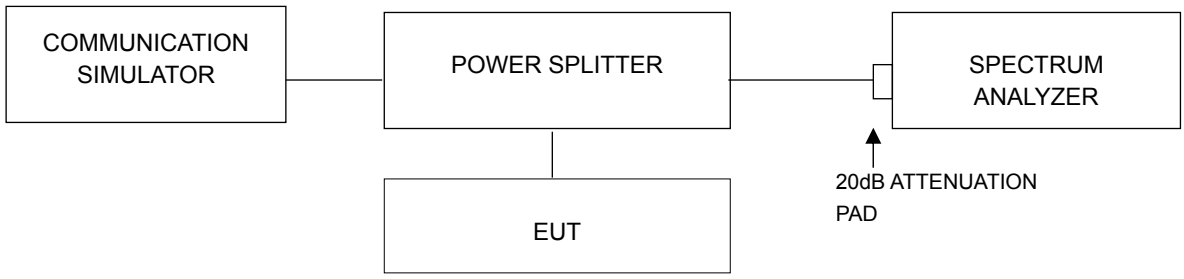
4.5.1 Limits of Band Edge Measurement

For n66
According to FCC 27.53(h) for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log (P) dB.

For n7, n38, n41
According to FCC 27.53(m)(4) specified that power of any emission outside of the channel edge must be attenuated below the transmitting power (P) by a factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed.

For n12, n71
According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of

4.5.2 Test Setup



4.5.3 Test Procedures

a. The EUT was set up for the rated peak power. The power was measured with Spectrum Analyzer. Band edge measurements were done at 2 channels: low, middle and high operational frequency range. Emission mask measurements were done at 3 channels: low and high operational frequency range.

b. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 51kHz and VB of the spectrum is 160kHz (Channel Bandwidth 5MHz).

c. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (Channel Bandwidth 10MHz).

d. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 150kHz and VB of the spectrum is 470kHz (Channel Bandwidth 15MHz).

e. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 200kHz and VB of the spectrum is 1MHz (Channel Bandwidth 20MHz).

f. n12 measurement procedure refer 27.53(g)(m)(6).

g. n7, n38 measurement procedure refer 27.53(m)(4).

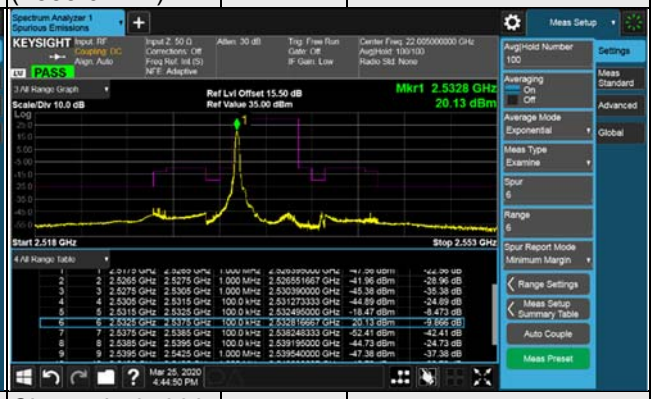
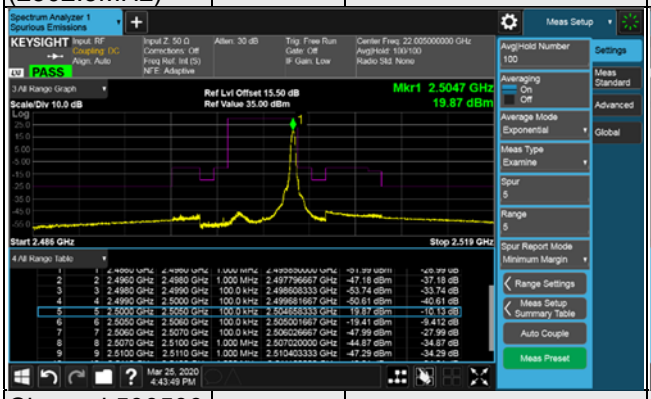
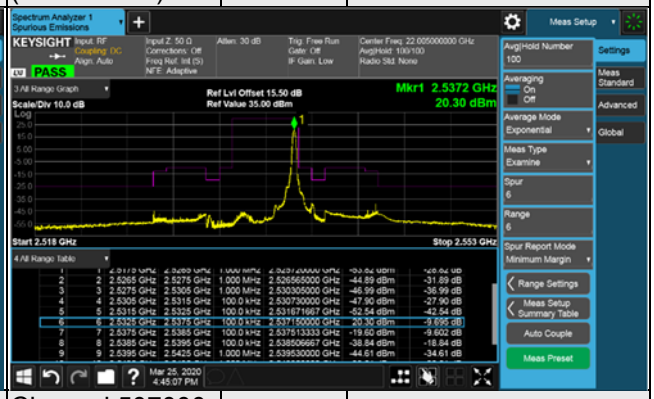
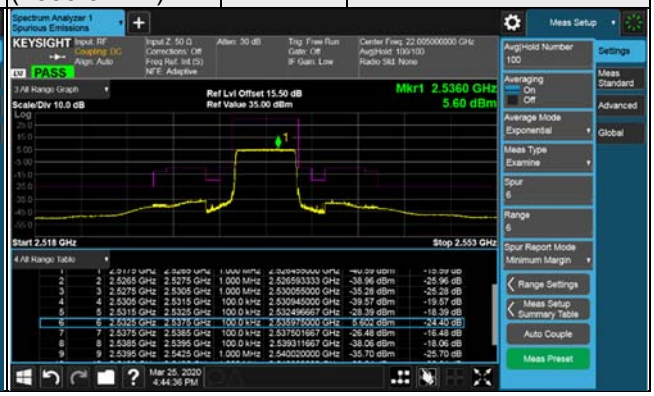
h. n41 operations in the 20 MHz to 100 MHz channel BW mode, extend the 1% range from 1M to 2M above and below the channel edge and then reduce the limit. As an alternative, the highest power level measured in a narrower RBW (relative to the specified reference bandwidth) can be scaled by applying a correction factor determined from: 10 log [(reference bandwidth) / (resolution or measurement bandwidth)] measurement procedure refer to ANSI 63.26 section 5.7.2 a)

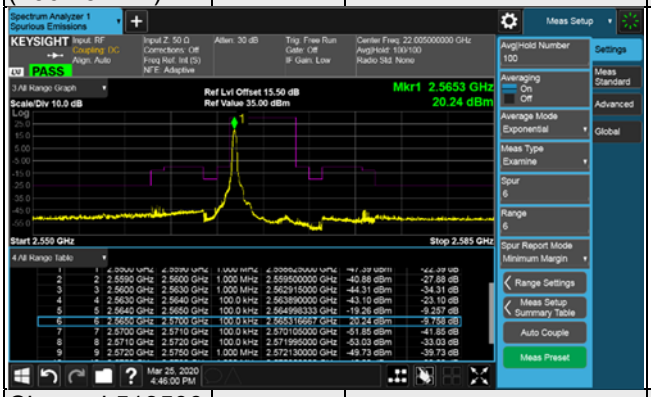
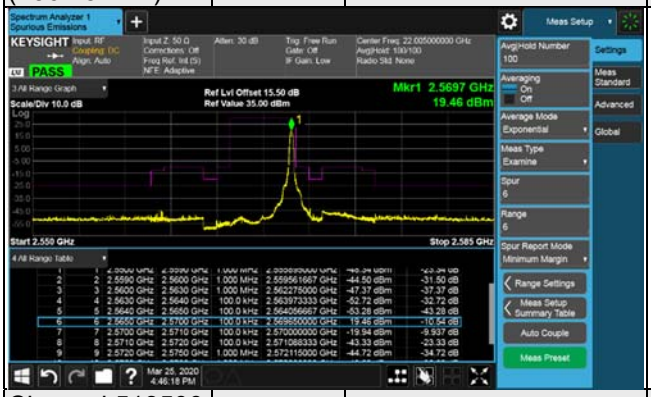
i. Record the max trace plot into the test report.

4.5.4 Test Results

n7

Emission Mask:

Channel Bandwidth: 5MHz					
Channel 500500 (2502.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 507000 (2535.0MHz)	QPSK	1 RB / 0 RB Offset
					
Channel 500500 (2502.5MHz)	QPSK	1 RB / 24 RB Offset	Channel 507000 (2535.0MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 500500 (2502.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 507000 (2535.0MHz)	QPSK	25 RB / 0 RB Offset
					

Channel Bandwidth: 5MHz					
Channel 513500 (2567.5MHz)	QPSK	1 RB / 0 RB Offset			
					
Channel 513500 (2567.5MHz)	QPSK	1 RB / 24 RB Offset			
					
Channel 513500 (2567.5MHz)	QPSK	25 RB / 0 RB Offset