FCC Test Report (PART 27)

Report No.:	RFBEOO-WTW-P21020573A
FCC ID:	MAD-G2021-49-01B
Test Model:	G2021-49-01B
Received Date:	Mar. 31, 2021
Test Date:	Jun. 08 ~ Aug. 26, 2021
Issued Date:	Aug. 31, 2021
Applicant:	Microelectronics Technology Inc.
Address:	No. 1, Innovation Road II, Hsinchu Science Park, Hsinchu 300, 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 (1):	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number (1):	788550 / TW0003
Test Location (2):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number (2):	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
RFBEOO-WTW-P21020573A	Original release.	Aug. 31, 2021

1 Certificate of Conformity

Product:	Dual Mid Band RU
Brand:	MTI
Test Model:	G2021-49-01B
Sample Status:	Engineering sample
Applicant:	Microelectronics Technology Inc.
Test Date:	Jun. 08 ~ Aug. 26, 2021
Standards:	FCC Part 27, Subpart L FCC Part 2

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

Prepared by : Pettie Chen , **Date:** Aug. 31, 2021

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Aug. 31, 2021

Bruce Chen / Senior Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27, Subpart L & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(2)	Equivalent Isotropically radiated power	PASS	Meet the requirement of limit.
2.1047	Modulation characteristics	PASS	Meet the requirement
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	PASS	Meet the requirement of limit.
2.1049 27.53	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.53(h)	Band Edge Measurements	PASS	Meet the requirement of limit.
27.50(d)(5)	Peak To Average Ratio	PASS	Meet the requirement of limit.
2.1051 27.53(h)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(h)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -47.95dB at 10037.50MHz.

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	3.1 dB
	30MHz ~ 1GHz	5.4 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Test Site and Instruments

For radiated spurious emissions test:

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Keysight	N9038A	MY55420137	Apr. 09, 2021	Apr. 08, 2022
Pre-Amplifier EMCI	EMC001340	980142	May 24, 2021	May 23, 2022
Loop Antenna Electro-Metrics	EM-6879	264	Mar. 05, 2021	Mar. 04, 2022
RF Cable	5D-FB	LOOPCAB-001	Jan. 07, 2021	Jan. 06, 2022
RF Cable	5D-FB	LOOPCAB-002	Jan. 07, 2021	Jan. 06, 2022
Pre-Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	Oct. 20, 2020	Oct. 19, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 05, 2020	Nov. 04, 2021
RF Cable	8D	966-3-1	Mar. 16, 2021	Mar. 15, 2022
RF Cable	8D	966-3-2	Mar. 16, 2021	Mar. 15, 2022
RF Cable	8D	966-3-3	Mar. 16, 2021	Mar. 15, 2022
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 24, 2020	Sep. 23, 2021
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC104-SM-SM-1500	180504	Apr. 26, 2021	Apr. 25, 2022
RF Cable	EMC104-SM-SM-2000	180601	Jun. 08, 2021	Jun. 07, 2022
RF Cable	EMC104-SM-SM-6000	210201	May 13, 2021	May 12, 2022
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 09, 2022
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	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 Hsinchu 966 Chamber No. 3.

For other test:

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer Keysight	N9030B	MY60070562	Jan. 06, 2021	Jan. 05, 2022
Fixed Attenuator Woken	00800N1G03H-30	01	NA	NA
Temperature & Humidity Chamber TERCHY	MHU-225AU	911033	Nov. 24, 2020	Nov. 23, 2021
True RMS Clamp Meter FLUKE	325	31130711WS	Jun. 02, 2021	Jun. 01, 2022
DC power supply Chroma	62024P-80-60	62024PA00674	NA	NA
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

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

3 General Information

3.1 General Description of EUT

Product	Dual Mid Band RU			
Brand	MTI			
Test Model	G2021-49-01B			
Status of EUT	Engineering sample			
Power Supply Rating	-40.5Vdc to -58.5Vdc			
Modulation Type	QPSK, 16QAM, 64QAM, 256QAM			
Modulation Technology	5G NR FDD			
Operating Frequency	Band n66	Channel Bandwidth: 5MHz	ANT0	2112.5MHz ~ 2197.5MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 10MHz	ANT0	2115.0MHz ~ 2195.0MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 15MHz	ANT0	2117.5MHz ~ 2192.5MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 20MHz	ANT0	2120.0MHz ~ 2190.0MHz
			ANT1	
			ANT2	
			ANT3	
	Band n70	Channel Bandwidth: 5MHz	ANT0	1997.5MHz ~ 2017.5MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 10MHz	ANT0	2000.0MHz ~ 2015.0MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 15MHz	ANT0	2002.5MHz ~ 2012.5MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 20MHz	ANT0	2005.0MHz ~ 2010.0MHz
			ANT1	
			ANT2	
			ANT3	
		Channel Bandwidth: 25MHz	ANT0	2007.5MHz
			ANT1	
			ANT2	
			ANT3	

Max. EIRP Power	Band n66	ANT0	Channel Bandwidth: 5MHz	955.82 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 10MHz	769.77 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 15MHz	588.16 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 20MHz	465.69 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 20MHz+20MHz CA Contiguous	217.93 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 5MHz+5MHz CA Contiguous	744.15 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 5MHz+5MHz CA-NC Non-Contiguous	771.73 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
	Band n70	ANT0	Channel Bandwidth: 5MHz	1502.68 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 10MHz	781.20 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 15MHz	620.41 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 20MHz	476.24 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 25MHz	344.02 W/MHz (QPSK)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 5MHz+5MHz CA Contiguous	705.40 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 5MHz+20MHz CA Contiguous	312.35 W/MHz (QPSK)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 20MHz+5MHz CA Contiguous	316.48 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		
		ANT0	Channel Bandwidth: 5MHz+5MHz CA-NC Non-Contiguous	676.70 W/MHz (16QAM)
		ANT1		
		ANT2		
		ANT3		

				QPSK	16QAM	64QAM	256QAM
Emission Designator	Band n66	Channel Bandwidth: 5MHz	ANT0	4M48G7D	4M47D7W	4M46D7W	4M46D7W
			ANT1	4M47G7D	4M47D7W	4M46D7W	4M46D7W
			ANT2	4M48G7D	4M47D7W	4M46D7W	4M46D7W
			ANT3	4M48G7D	4M48D7W	4M46D7W	4M46D7W
		Channel Bandwidth: 10MHz	ANT0	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT1	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT2	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT3	9M16G7D	9M24D7W	9M29D7W	9M28D7W
		Channel Bandwidth: 15MHz	ANT0	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT1	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT2	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT3	14M1G7D	14M1D7W	14M1D7W	14M1D7W
		Channel Bandwidth: 20MHz	ANT0	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT1	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT2	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT3	18M9G7D	18M9D7W	18M9D7W	18M9D7W
		Channel Bandwidth: 20MHz+20MHz CA Contiguous	ANT0	38M8G7D	38M8D7W	38M8D7W	38M7D7W
			ANT1	38M8G7D	38M8D7W	38M8D7W	38M7D7W
			ANT2	38M8G7D	38M8D7W	38M8D7W	38M7D7W
			ANT3	38M8G7D	38M8D7W	38M8D7W	38M7D7W
		Channel Bandwidth: 5MHz+5MHz CA Contiguous	ANT0	9M44G7D	9M44D7W	9M41D7W	9M41D7W
			ANT1	9M44G7D	9M44D7W	9M41D7W	9M41D7W
			ANT2	9M44G7D	9M44D7W	9M41D7W	9M41D7W
			ANT3	9M44G7D	9M44D7W	9M41D7W	9M41D7W
		Channel Bandwidth: 5MHz+5MHz CA-NC Non-Contiguous	ANT0	8M96G7D	8M96D7W	8M92D7W	8M92D7W
			ANT1	8M96G7D	8M96D7W	8M92D7W	8M92D7W
			ANT2	8M96G7D	8M96D7W	8M92D7W	8M92D7W
			ANT3	8M96G7D	8M96D7W	8M92D7W	8M92D7W

Emission Designator				QPSK	16QAM	64QAM	256QAM
	Band n70	Channel Bandwidth: 5MHz	ANT0	4M48G7D	4M48D7W	4M46D7W	4M46D7W
			ANT1	4M48G7D	4M48D7W	4M46D7W	4M46D7W
			ANT2	4M48G7D	4M48D7W	4M46D7W	4M46D7W
			ANT3	4M48G7D	4M48D7W	4M48D7W	4M46D7W
		Channel Bandwidth: 10MHz	ANT0	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT1	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT2	9M16G7D	9M24D7W	9M29D7W	9M28D7W
			ANT3	9M16G7D	9M24D7W	9M29D7W	9M28D7W
		Channel Bandwidth: 15MHz	ANT0	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT1	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT2	14M1G7D	14M1D7W	14M1D7W	14M1D7W
			ANT3	14M1G7D	14M1D7W	14M1D7W	14M1D7W
		Channel Bandwidth: 20MHz	ANT0	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT1	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT2	18M9G7D	18M9D7W	18M9D7W	18M9D7W
			ANT3	18M9G7D	18M9D7W	18M9D7W	18M9D7W
		Channel Bandwidth: 25MHz	ANT0	23M8G7D	23M8D7W	23M7D7W	23M7D7W
			ANT1	23M8G7D	23M8D7W	23M7D7W	23M7D7W
			ANT2	23M8G7D	23M8D7W	23M7D7W	23M7D7W
			ANT3	23M8G7D	23M8D7W	23M7D7W	23M7D7W
		Channel Bandwidth: 5MHz+5MHz CA Contiguous	ANT0	9M44G7D	9M44D7W	9M42D7W	9M41D7W
			ANT1	9M44G7D	9M44D7W	9M42D7W	9M41D7W
			ANT2	9M44G7D	9M44D7W	9M42D7W	9M41D7W
			ANT3	9M44G7D	9M44D7W	9M42D7W	9M41D7W
		Channel Bandwidth: 5MHz+20MHz CA Contiguous	ANT0	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT1	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT2	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT3	24M1G7D	24M1D7W	24M1D7W	24M1D7W
		Channel Bandwidth: 20MHz+5MHz CA Contiguous	ANT0	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT1	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT2	24M1G7D	24M1D7W	24M1D7W	24M1D7W
			ANT3	24M1G7D	24M1D7W	24M1D7W	24M1D7W
		Channel Bandwidth: 5MHz+5MHz CA-NC Non-Contiguous	ANT0	8M96G7D	8M96D7W	8M92D7W	8M92D7W
			ANT1	8M96G7D	8M96D7W	8M92D7W	8M92D7W
			ANT2	8M96G7D	8M96D7W	8M94D7W	8M92D7W
			ANT3	8M96G7D	8M96D7W	8M93D7W	8M92D7W
Antenna Type	Directional Cross-Polarized Sector antenna with Band n66 Gain = 15 dBi Band n70 Gain = 17 dBi						
Antenna Connector	4x4.3-10 Female						
Accessory Device	NA						
Data Cable Supplied	NA						

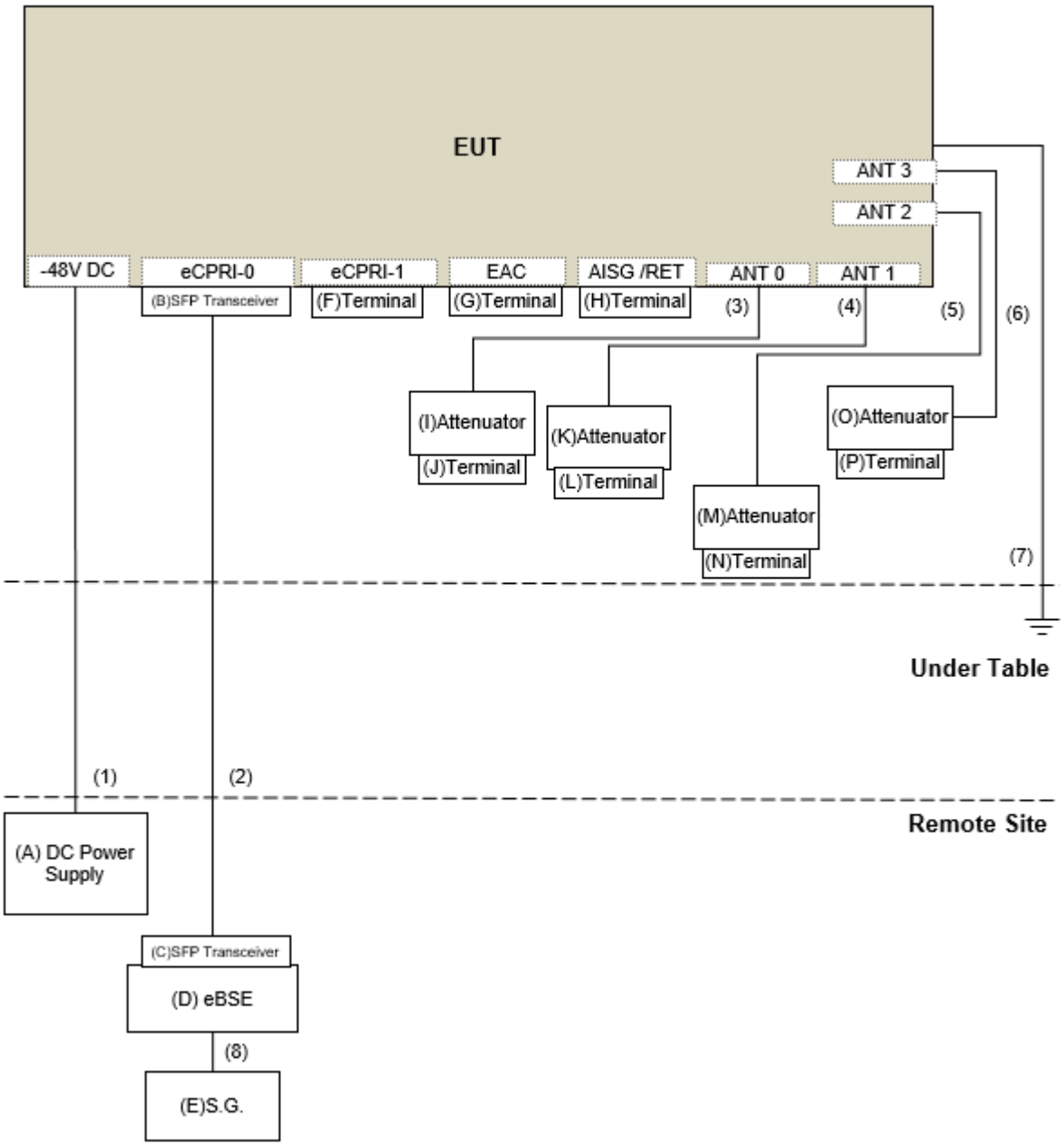
Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of BV CPS report no.: RFBEOO-WTW-P21020573. Difference compared with the original report is adding single carrier: n70 (Channel Bandwidth: 25MHz) and multi-carriers mode. Therefore, all tests for these modes are tested.
2. The EUT incorporates a MIMO function.

Band n66			
Channel Bandwidth	Modulation	TX & RX configuration	
5MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
10MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
15MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
20MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
Band n70			
Channel Bandwidth	Modulation	TX & RX configuration	
5MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
10MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
15MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
20MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX
25MHz	QPSK, 16QAM, 64QAM, 256QAM	4TX	4RX

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
4. The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
5. Based on the maximum RF power (conducted & EIRP) listed in this report, considerations pertaining to the maximum allowed EIRP (conducted power level), signal type and antenna gain should be considered for each installation.

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.

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	DC Power Supply	NA	NA	NA	NA	Supplied by client
B	SFP Transceiver	NA	NA	NA	NA	Supplied by client
C	SFP Transceiver	NA	NA	NA	NA	Supplied by client
D	eBSE (Note 2)	NA	NA	NA	NA	Supplied by client
E	S.G	Agilent	E4438C	NA	NA	Provided by Lab
F	Terminal	NA	NA	NA	NA	Supplied by client
G	Terminal	NA	NA	NA	NA	Supplied by client
H	Terminal	NA	NA	NA	NA	Supplied by client
I	Attenuator	NA	NA	NA	NA	Supplied by client
J	Terminal	NA	NA	NA	NA	Supplied by client
K	Attenuator	NA	NA	NA	NA	Supplied by client
L	Terminal	NA	NA	NA	NA	Supplied by client
M	Attenuator	NA	NA	NA	NA	Supplied by client
N	Terminal	NA	NA	NA	NA	Supplied by client
O	Attenuator	NA	NA	NA	NA	Supplied by client
P	Terminal	NA	NA	NA	NA	Supplied by client

NOTE:

1. All power cords of the above support units are non-shielded (1.8 m).
2. eBSE: Based Station Emulator which is to transmit/receive the waveform

No.	Cable	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Number)	Remark
1	DC Power Cable	1	10	Yes	0	Supplied by client
2	Coaxial Cable	1	10	Yes	0	Supplied by client
3	RF Cable	1	1.5	Yes	0	Supplied by client
4	RF Cable	1	1.5	Yes	0	Supplied by client
5	RF Cable	1	1.5	Yes	0	Supplied by client
6	RF Cable	1	1.5	Yes	0	Supplied by client
7	GND Cable	1	3	No	0	Provided by Lab
8	RF Cable	1	3	No	0	Supplied by client

3.3 Test Mode Applicability and Tested Channel Detail

Band n66:

Following channel(s) was (were) selected for the final test as listed below:

Test Item	Available Frequency (MHz)	Tested Channel	Channel Bandwidth	Modulation
Output Power	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 429000 (2145.0MHz)+ Ch 433000 (2165.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 430500 (2152.5MHz)+ Ch 431500 (2157.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Frequency Stability	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	16QAM
Emission Bandwidth	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 429000 (2145.0MHz)+ Ch 433000 (2165.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 430500 (2152.5MHz)+ Ch 431500 (2157.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Channel Edge	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	16QAM

Test Item	Available Frequency (MHz)	Tested Channel	Channel Bandwidth	Modulation
Peak To Average Ratio	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 429000 (2145.0MHz)+ Ch 433000 (2165.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 430500 (2152.5MHz)+ Ch 431500 (2157.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Conducted Emission	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 429000 (2145.0MHz)+ Ch 433000 (2165.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 430500 (2152.5MHz)+ Ch 431500 (2157.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	16QAM
Radiated Emission Below 1GHz	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	16QAM
		Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	16QAM
Radiated Emission Above 1GHz	2112.5 to 2190.0	Ch 424000 (2120.0MHz)+ Ch 428000 (2140.0MHz), Ch 429000 (2145.0MHz)+ Ch 433000 (2165.0MHz), Ch 434000 (2170.0MHz)+ Ch 438000 (2190.0MHz)	20MHz(30W)+20MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 423500 (2117.5MHz), Ch 430500 (2152.5MHz)+ Ch 431500 (2157.5MHz), Ch 438500 (2192.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA Contiguous	16QAM
		Ch 422500 (2112.5MHz)+ Ch 433500 (2167.5MHz), Ch 425500 (2127.5MHz)+ Ch 436500 (2182.5MHz), Ch 428500 (2142.5MHz)+ Ch 439500 (2197.5MHz)	5MHz(30W)+5MHz(30W) CA-NC Non-Contiguous	16QAM

NOTE:
The product is a base station, only test type full RB. All supported modulation types were evaluated. The Worst case of was selected. Therefore, the Frequency Stability, Conducted Emission and Radiated Emission were performed under Worst mode only.

Band n70:

Following channel(s) was (were) selected for the final test as listed below:

Test Item	Available Frequency (MHz)	Tested Channel	Channel Bandwidth	Modulation
Output Power	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 401000 (2005.0MHz)+ Ch 402000 (2010.0MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Modulation Characteristics	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK, 16QAM, 64QAM, 256QAM
Frequency Stability	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	16QAM
Emission Bandwidth	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 401000 (2005.0MHz)+ Ch 402000 (2010.0MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Channel Edge	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	16QAM

Test Item	Available Frequency (MHz)	Tested Frequency (MHz)	Channel Bandwidth	Modulation
Peak To Average Ratio	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 401000 (2005.0MHz)+ Ch 402000 (2010.0MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	QPSK, 16QAM, 64QAM, 256QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	QPSK, 16QAM, 64QAM, 256QAM
Conducted Emission	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 401000 (2005.0MHz)+ Ch 402000 (2010.0MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	16QAM
Radiated Emission Below 1GHz	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	16QAM
Radiated Emission Above 1GHz	1997.5 to 2017.5	Ch 401500 (2007.5MHz)	25MHz(40W) Single Carrier	QPSK
		Ch 399500 (1997.5MHz)+ Ch 400500 (2002.5MHz), Ch 401000 (2005.0MHz)+ Ch 402000 (2010.0MHz), Ch 402500 (2012.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 402000 (2010.0MHz)	5MHz(8W)+20MHz(32W) CA Contiguous	QPSK
		Ch 401000 (2005.0MHz)+ Ch 403500 (2017.5MHz)	20MHz(32W)+5MHz(8W) CA Contiguous	16QAM
		Ch 399500 (1997.5MHz)+ Ch 403500 (2017.5MHz)	5MHz(20W)+5MHz(20W) CA-NC Non-Contiguous	16QAM

NOTE:
The product is a base station, only test type full RB. All supported modulation types were evaluated. The Worst case of was selected. Therefore, the Frequency Stability, Conducted Emission and Radiated Emission were performed under Worst mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power (System)	Tested By
Output Power	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Modulation characteristics	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Frequency Stability	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Emission Bandwidth	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Band Edge	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Peak To Average Ratio	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Conducted Emission	25deg. C, 63%RH	120Vac, 60Hz	James Yang
Radiated Emission	25deg. C, 75%RH 20deg. C, 70%RH	120Vac, 60Hz	Tom Yang Ryan Du

Note: Above input power with the AC/DC PSU used during testing.

3.4 General Description of Applied Standards

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

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 27, Subpart L

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 and recorded as per the above standards and KDB test guidance.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

According to FCC 27.50(d)(2)that the power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to:

(i) An equivalent isotropically radiated power (EIRP) of 1640 watts when transmitting with an emission bandwidth of 1 MHz or less;

(ii) An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

4.1.2 Test Procedures

EIRP / ERP Measurement:

Conducted Power Measurement:

a. A spectrum analyzer was used on the output port of the EUT and recorded output power from the spectrum analyzer.
b. The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

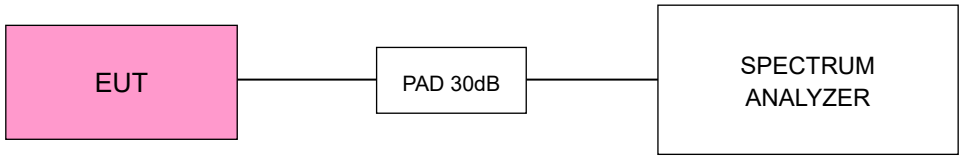
   EIRP = PMeas + GT
   ERP = PMeas + GT- 2.15

   Where ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as PMeas, e.g., dBm or dBW)

   PMeas : measured transmitter output power or PSD, in dBm or dBW
   GT : gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

4.1.3 Test Setup

CONDUCTED POWER MEASUREMENT:



4.1.4 Test Results

Band n66
CA Contiguous

20MHz+20MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
424000+428000	2120+2140	32.17	32.26	32.03	32.12	38.17	15	53.17	207.32	1640.00	PASS
429000+433000	2145+2165	32.01	32.51	31.85	31.80	38.07	15	53.07	202.88	1640.00	PASS
434000+438000	2170+2190	31.91	32.07	31.66	31.78	37.88	15	52.88	194.01	1640.00	PASS

20MHz+20MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
424000+428000	2120+2140	32.39	32.35	32.31	32.40	38.38	15	53.38	217.93	1640.00	PASS
429000+433000	2145+2165	32.43	32.22	32.01	32.24	38.25	15	53.25	211.26	1640.00	PASS
434000+438000	2170+2190	32.20	32.16	31.98	32.21	38.16	15	53.16	206.97	1640.00	PASS

20MHz+20MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
424000+428000	2120+2140	32.19	32.16	32.00	32.08	38.13	15	53.13	205.53	1640.00	PASS
429000+433000	2145+2165	31.91	32.06	31.86	31.90	37.95	15	52.95	197.41	1640.00	PASS
434000+438000	2170+2190	32.21	32.22	32.16	32.11	38.20	15	53.20	208.73	1640.00	PASS

20MHz+20MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
424000+428000	2120+2140	31.99	32.08	31.87	31.85	37.97	15	52.97	198.11	1640.00	PASS
429000+433000	2145+2165	31.89	31.96	31.77	31.82	37.88	15	52.88	194.14	1640.00	PASS
434000+438000	2170+2190	32.01	31.91	31.76	31.83	37.90	15	52.90	194.94	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+423500	2112.5+2117.5	37.86	37.74	37.48	37.58	43.69	15	58.69	739.27	1640.00	PASS
429000+433000	2152.5+2157.5	37.62	37.70	37.42	37.55	43.59	15	58.59	723.49	1640.00	PASS
438500+439500	2192.5+2197.5	37.66	37.70	37.28	37.50	43.56	15	58.56	717.58	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+423500	2112.5+2117.5	38.03	37.95	37.44	37.32	43.72	15	58.72	744.15	1640.00	PASS
429000+433000	2152.5+2157.5	37.81	37.72	37.42	37.39	43.61	15	58.61	726.02	1640.00	PASS
438500+439500	2192.5+2197.5	37.91	37.78	37.44	37.28	43.63	15	58.63	729.54	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+423500	2112.5+2117.5	37.65	37.66	37.42	37.48	43.57	15	58.57	720.17	1640.00	PASS
429000+433000	2152.5+2157.5	37.72	37.65	37.33	37.39	43.55	15	58.55	715.53	1640.00	PASS
438500+439500	2192.5+2197.5	37.73	37.64	37.34	37.42	42.37	15	57.37	545.77	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+423500	2112.5+2117.5	37.75	37.61	37.35	37.37	43.54	15	58.54	715.13	1640.00	PASS
429000+433000	2152.5+2157.5	37.44	37.57	37.26	37.48	43.46	15	58.46	701.38	1640.00	PASS
438500+439500	2192.5+2197.5	37.54	37.60	37.34	37.46	43.51	15	58.51	709.04	1640.00	PASS

CA-NC Non-Contiguous

5MHz+5MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+433500	2112.5+2167.5	37.58	37.61	37.15	37.44	43.47	15	58.47	702.97	1640.00	PASS
425500+436500	2127.5+2182.5	37.67	37.20	37.45	37.73	43.54	15	58.54	714.33	1640.00	PASS
428500+439500	2142.5+2197.5	37.71	37.65	37.29	37.41	43.54	15	58.54	714.33	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+433500	2112.5+2167.5	37.84	37.94	37.57	37.74	43.80	15	58.80	757.75	1640.00	PASS
425500+436500	2127.5+2182.5	37.99	38.08	37.65	37.68	43.87	15	58.87	771.73	1640.00	PASS
428500+439500	2142.5+2197.5	37.84	37.92	37.56	37.66	43.77	15	58.77	753.00	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+433500	2112.5+2167.5	37.51	37.49	37.01	37.15	43.32	15	58.32	678.57	1640.00	PASS
425500+436500	2127.5+2182.5	37.32	37.48	36.99	37.12	43.25	15	58.25	668.67	1640.00	PASS
428500+439500	2142.5+2197.5	37.31	37.34	37.01	37.03	43.20	15	58.20	660.05	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
422500+433500	2112.5+2167.5	37.86	37.82	37.37	37.46	43.65	15	58.65	733.40	1640.00	PASS
425500+436500	2127.5+2182.5	37.72	37.76	37.33	37.38	43.57	15	58.57	719.85	1640.00	PASS
428500+439500	2142.5+2197.5	37.61	37.68	37.32	37.36	43.52	15	58.52	710.54	1640.00	PASS

Band n70
Single Carrier

25MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401500	2007.5	32.36	32.42	32.29	32.31	38.37	17	55.37	344.02	1640.00	PASS

25MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401500	2007.5	32.04	32.20	32.13	32.11	38.14	17	55.14	326.66	1640.00	PASS

25MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401500	2007.5	31.97	32.07	31.99	32.00	38.03	17	55.03	318.31	1640.00	PASS

25MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401500	2007.5	32.06	32.13	32.08	32.02	38.09	17	55.09	323.07	1640.00	PASS

CA Contiguous

5MHz+5MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2002.5	35.40	35.23	35.23	35.13	41.27	17	58.27	671.30	1640.00	PASS
401000+402000	2005+2010	35.16	35.18	35.00	35.01	41.11	17	58.11	646.98	1640.00	PASS
402500+403500	2012.5+2017.5	35.06	35.07	35.01	34.90	41.03	17	58.03	635.50	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2002.5	35.60	35.52	35.40	35.33	41.48	17	58.48	705.40	1640.00	PASS
401000+402000	2005+2010	35.43	35.41	35.39	35.23	41.39	17	58.39	689.65	1640.00	PASS
402500+403500	2012.5+2017.5	35.46	35.35	35.29	35.26	41.36	17	58.36	685.69	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2002.5	35.45	35.36	35.19	35.29	41.34	17	58.34	682.99	1640.00	PASS
401000+402000	2005+2010	35.20	35.37	35.28	35.30	41.31	17	58.31	677.41	1640.00	PASS
402500+403500	2012.5+2017.5	35.25	35.23	35.26	35.23	41.26	17	58.26	670.37	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2002.5	35.23	35.19	35.04	35.08	41.16	17	58.16	654.08	1640.00	PASS
401000+402000	2005+2010	34.94	35.12	35.10	35.06	41.08	17	58.08	642.12	1640.00	PASS
402500+403500	2012.5+2017.5	34.92	34.92	35.09	35.00	41.00	17	58.00	631.49	1640.00	PASS

5MHz+20MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+402000	1997.5+2010.0	31.58	31.74	31.54	31.71	37.66	17	54.66	292.68	1640.00	PASS

5MHz+20MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+402000	1997.5+2010.0	31.98	32.02	31.80	31.90	37.95	17	54.95	312.35	1640.00	PASS

5MHz+20MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+402000	1997.5+2010.0	31.39	31.50	31.38	31.42	37.44	17	54.44	278.19	1640.00	PASS

5MHz+20MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+402000	1997.5+2010.0	31.40	31.52	31.48	31.42	37.48	17	54.48	280.28	1640.00	PASS

20MHz+5MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401000+403500	2005.0+2017.5	31.58	31.55	31.60	31.74	37.64	17	54.64	290.99	1640.00	PASS

20MHz+5MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401000+403500	2005.0+2017.5	31.92	31.97	31.97	32.07	38.00	17	55.00	316.48	1640.00	PASS

20MHz+5MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401000+403500	2005.0+2017.5	31.33	31.29	31.38	31.37	37.36	17	54.36	273.10	1640.00	PASS

20MHz+5MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
401000+403500	2005.0+2017.5	31.42	31.47	31.50	31.42	37.47	17	54.47	280.11	1640.00	PASS

CA-NC Non-Contiguous

5MHz+5MHz

Channel Number	Freq. (MHz)	QPSK									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2017.5	35.01	35.17	34.94	34.93	41.03	17	58.03	635.94	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	16QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2017.5	35.18	35.41	35.31	35.23	41.30	17	58.30	676.70	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	64QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2017.5	35.00	35.19	35.11	34.97	41.09	17	58.09	644.02	1640.00	PASS

5MHz+5MHz

Channel Number	Freq. (MHz)	256QAM									PASS /FAIL
		Conducted Average Power (dBm/MHz)					Gain	EIRP (dBm /MHz)	EIRP (W/MHz)	Limit (W/MHz)	
		Ant.0	Ant.1	Ant.2	Ant.3	Total					
399500+400500	1997.5+2017.5	34.94	35.02	34.87	34.93	40.96	17	57.96	625.31	1640.00	PASS

4.2 Modulation characteristics Measurement

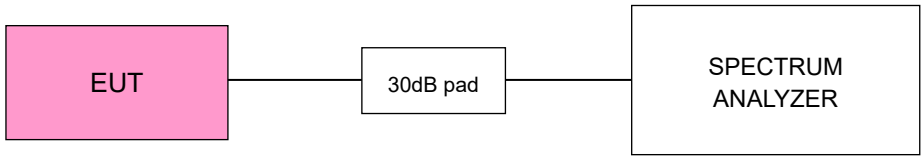
4.2.1 Limits of Modulation characteristics

N/A

4.2.2 Test Procedure

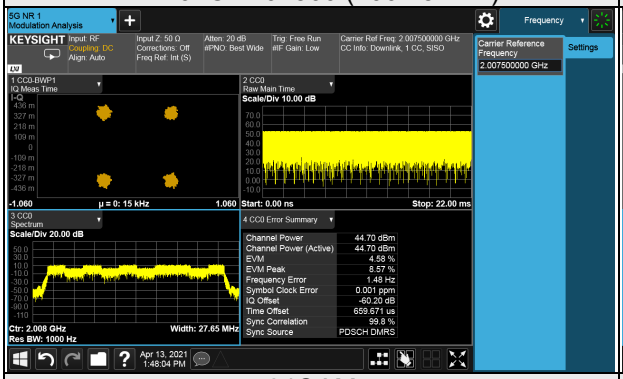
Connect the EUT to spectrum analyzer. The frequency band is set as EUT supported modulation and channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.2.3 Test Setup



4.2.4 Test Results

Band n70

Spectrum Plot of Measurement Value	
25MHz	
QPSK	16QAM
Ant. 0: Ch 401500 (2007.5MHz)	Ant. 0: Ch 401500 (2007.5MHz)
	
64QAM	256QAM
Ant. 0: Ch 401500 (2007.5MHz)	Ant. 0: Ch 401500 (2007.5MHz)
	

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 -40℃ ~ 55℃.

4.3.2 Test Procedure

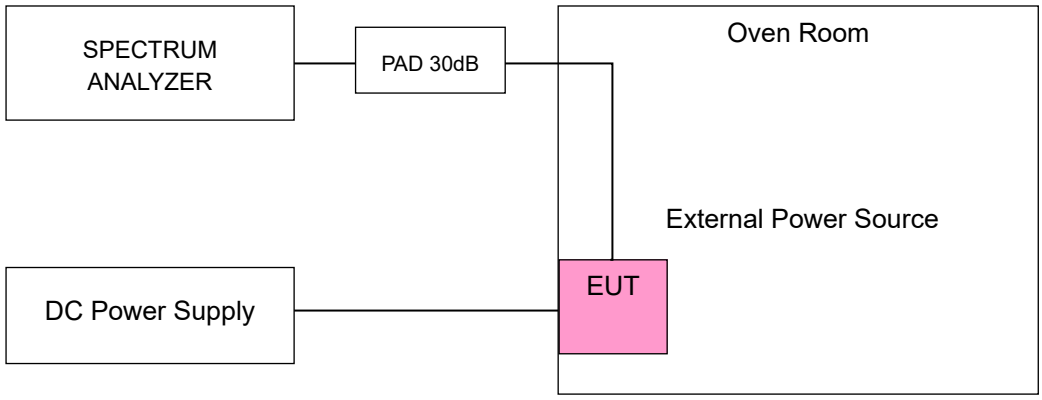
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

b. 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 from the spectrum analyzer.

4.3.3 Test Setup



4.3.4 Test Results

Band n66

CA Contiguous

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	20MHz+20MHz								
	Ant. TX 0				Ant. TX 1				
	2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2130.000070	0.033	2180.000097	0.044	2130.000032	0.015	2180.000042	0.019	PASS
-40.5	2130.000048	0.023	2180.000027	0.012	2130.000057	0.027	2180.000063	0.029	PASS
-58.5	2130.000092	0.043	2180.000089	0.041	2130.000085	0.040	2180.000094	0.043	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	20MHz+20MHz								
	Ant. TX 0				Ant. TX 1				
	2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2130.000037	0.017	2180.000062	0.028	2130.000050	0.023	2180.000044	0.020	PASS
-30	2130.000021	0.010	2180.000094	0.043	2130.000036	0.017	2180.000025	0.011	PASS
-20	2130.000071	0.033	2180.000046	0.021	2130.000033	0.015	2180.000079	0.036	PASS
-10	2130.000023	0.011	2180.000050	0.023	2130.000049	0.023	2180.000021	0.010	PASS
0	2130.000028	0.013	2180.000021	0.010	2130.000089	0.042	2180.000082	0.038	PASS
10	2130.000027	0.013	2180.000072	0.033	2130.000083	0.039	2180.000044	0.020	PASS
20	2129.999988	-0.006	2179.999989	-0.005	2129.999976	-0.011	2179.999945	-0.025	PASS
30	2129.999988	-0.006	2179.999910	-0.041	2129.999948	-0.024	2179.999904	-0.044	PASS
40	2129.999907	-0.044	2179.999981	-0.009	2129.999921	-0.037	2179.999953	-0.022	PASS
50	2129.999964	-0.017	2179.999988	-0.006	2129.999921	-0.037	2179.999979	-0.010	PASS
55	2129.999911	-0.042	2179.999958	-0.019	2129.999973	-0.013	2179.999926	-0.034	PASS

FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	20MHz+20MHz								
	Ant. TX 2				Ant. TX 3				
	2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2130.000035	0.016	2180.000030	0.014	2130.000030	0.014	2180.000032	0.015	PASS
-40.5	2130.000025	0.012	2180.000030	0.014	2130.000062	0.029	2180.000062	0.028	PASS
-58.5	2130.000076	0.036	2180.000096	0.044	2130.000028	0.013	2180.000078	0.036	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	20MHz+20MHz								
	Ant. TX 2				Ant. TX 3				
	2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		2120.0MHz+2140.0MHz		2170.0MHz+2190.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2130.000044	0.021	2180.000028	0.013	2130.000087	0.041	2180.000011	0.005	PASS
-30	2130.000042	0.020	2180.000060	0.028	2130.000093	0.044	2180.000053	0.024	PASS
-20	2130.000068	0.032	2180.000069	0.032	2130.000032	0.015	2180.000074	0.034	PASS
-10	2130.000075	0.035	2180.000062	0.028	2130.000087	0.041	2180.000093	0.043	PASS
0	2130.000067	0.031	2180.000071	0.033	2130.000055	0.026	2180.000093	0.043	PASS
10	2130.000023	0.011	2180.000012	0.006	2130.000072	0.034	2180.000073	0.033	PASS
20	2129.999965	-0.016	2179.999925	-0.034	2129.999958	-0.020	2179.999902	-0.045	PASS
30	2129.999936	-0.030	2179.999912	-0.040	2129.999945	-0.026	2179.999920	-0.037	PASS
40	2129.999936	-0.030	2179.999937	-0.029	2129.999933	-0.031	2179.999979	-0.010	PASS
50	2129.999915	-0.040	2179.999978	-0.010	2129.999970	-0.014	2179.999981	-0.009	PASS
55	2129.999913	-0.041	2179.999950	-0.023	2129.999976	-0.011	2179.999973	-0.012	PASS

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2115.000043	0.020	2195.000025	0.011	2115.000095	0.045	2195.000066	0.030	PASS
-40.5	2115.000013	0.006	2195.000072	0.033	2115.000072	0.034	2195.000080	0.036	PASS
-58.5	2115.000042	0.020	2195.000091	0.041	2115.000089	0.042	2195.000055	0.025	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2115.000026	0.012	2195.000028	0.013	2115.000048	0.023	2195.000094	0.043	PASS
-30	2115.000013	0.006	2195.000050	0.023	2115.000032	0.015	2195.000077	0.035	PASS
-20	2115.000072	0.034	2195.000089	0.041	2115.000039	0.018	2195.000026	0.012	PASS
-10	2115.000043	0.020	2195.000089	0.041	2115.000053	0.025	2195.000044	0.020	PASS
0	2115.000032	0.015	2195.000095	0.043	2115.000029	0.014	2195.000062	0.028	PASS
10	2115.000035	0.017	2195.000038	0.017	2115.000041	0.019	2195.000041	0.019	PASS
20	2114.999976	-0.011	2194.999970	-0.014	2114.999947	-0.025	2194.999954	-0.021	PASS
30	2114.999951	-0.023	2194.999960	-0.018	2114.999935	-0.031	2194.999978	-0.010	PASS
40	2114.999977	-0.011	2194.999913	-0.040	2114.999932	-0.032	2194.999921	-0.036	PASS
50	2114.999918	-0.039	2194.999918	-0.037	2114.999911	-0.042	2194.999985	-0.007	PASS
55	2114.999974	-0.012	2194.999948	-0.024	2114.999954	-0.022	2194.999934	-0.030	PASS

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2115.000099	0.047	2195.000054	0.025	2115.000038	0.018	2195.000066	0.030	PASS
-40.5	2115.000051	0.024	2195.000029	0.013	2115.000077	0.036	2195.000011	0.005	PASS
-58.5	2115.000097	0.046	2195.000020	0.009	2115.000068	0.032	2195.000053	0.024	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		2112.5MHz+2117.5MHz		2192.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2115.000058	0.027	2195.000073	0.033	2115.000051	0.024	2195.000066	0.030	PASS
-30	2115.000052	0.025	2195.000055	0.025	2115.000058	0.027	2195.000061	0.028	PASS
-20	2115.000019	0.009	2195.000038	0.017	2115.000070	0.033	2195.000021	0.010	PASS
-10	2115.000052	0.025	2195.000067	0.031	2115.000076	0.036	2195.000062	0.028	PASS
0	2115.000081	0.038	2195.000042	0.019	2115.000059	0.028	2195.000074	0.034	PASS
10	2115.000079	0.037	2195.000068	0.031	2115.000077	0.036	2195.000090	0.041	PASS
20	2114.999934	-0.031	2194.999960	-0.018	2114.999974	-0.012	2194.999918	-0.037	PASS
30	2114.999980	-0.009	2194.999977	-0.010	2114.999936	-0.030	2194.999988	-0.005	PASS
40	2114.999974	-0.012	2194.999940	-0.027	2114.999910	-0.043	2194.999927	-0.033	PASS
50	2114.999961	-0.018	2194.999902	-0.045	2114.999948	-0.025	2194.999990	-0.005	PASS
55	2114.999900	-0.047	2194.999945	-0.025	2114.999947	-0.025	2194.999962	-0.017	PASS

CA-NC Non Contiguous

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2145.000048	0.023	2165.000089	0.042	2145.000066	0.031	2165.000090	0.042	PASS
-40.5	2145.000031	0.015	2165.000075	0.035	2145.000056	0.027	2165.000042	0.020	PASS
-58.5	2145.000070	0.033	2165.000080	0.037	2145.000066	0.031	2165.000015	0.007	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2145.000065	0.031	2165.000089	0.042	2145.000028	0.013	2165.000061	0.028	PASS
-30	2145.000077	0.036	2165.000080	0.037	2145.000013	0.006	2165.000068	0.032	PASS
-20	2145.000060	0.028	2165.000016	0.007	2145.000072	0.034	2165.000049	0.023	PASS
-10	2145.000041	0.019	2165.000032	0.015	2145.000073	0.035	2165.000082	0.038	PASS
0	2145.000021	0.010	2165.000015	0.007	2145.000039	0.018	2165.000067	0.031	PASS
10	2145.000081	0.038	2165.000028	0.013	2145.000079	0.037	2165.000027	0.013	PASS
20	2144.999901	-0.047	2164.999989	-0.005	2144.999920	-0.038	2164.999900	-0.047	PASS
30	2144.999932	-0.032	2164.999936	-0.030	2144.999950	-0.024	2164.999939	-0.028	PASS
40	2144.999943	-0.027	2164.999948	-0.024	2144.999971	-0.014	2164.999948	-0.024	PASS
50	2144.999958	-0.020	2164.999956	-0.021	2144.999968	-0.015	2164.999957	-0.020	PASS
55	2144.999954	-0.022	2164.999903	-0.045	2144.999942	-0.027	2164.999937	-0.029	PASS

FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2145.000092	0.044	2165.000081	0.038	2145.000035	0.017	2165.000097	0.045	PASS
-40.5	2145.000010	0.005	2165.000028	0.013	2145.000018	0.009	2165.000062	0.029	PASS
-58.5	2145.000090	0.043	2165.000064	0.030	2145.000066	0.031	2165.000049	0.023	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		2112.5MHz+2167.5MHz		2142.5MHz+2197.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2145.000022	0.010	2165.000091	0.042	2145.000028	0.013	2165.000088	0.041	PASS
-30	2145.000036	0.017	2165.000092	0.043	2145.000060	0.028	2165.000083	0.039	PASS
-20	2145.000072	0.034	2165.000097	0.045	2145.000017	0.008	2165.000069	0.032	PASS
-10	2145.000040	0.019	2165.000023	0.011	2145.000097	0.046	2165.000087	0.041	PASS
0	2145.000061	0.029	2165.000080	0.037	2145.000028	0.013	2165.000064	0.030	PASS
10	2145.000047	0.022	2165.000049	0.023	2145.000091	0.043	2165.000039	0.018	PASS
20	2144.999989	-0.005	2164.999977	-0.011	2144.999943	-0.027	2164.999956	-0.021	PASS
30	2144.999959	-0.019	2164.999912	-0.041	2144.999902	-0.046	2164.999930	-0.033	PASS
40	2144.999971	-0.014	2164.999940	-0.028	2144.999922	-0.037	2164.999911	-0.042	PASS
50	2144.999944	-0.027	2164.999938	-0.029	2144.999914	-0.041	2164.999901	-0.046	PASS
55	2144.999969	-0.015	2164.999954	-0.021	2144.999980	-0.009	2164.999940	-0.028	PASS

Band n70
SC Mode

FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	25MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	2007.5Mz		2007.5Mz		2007.5Mz		2007.5Mz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2007.500030	0.015	2007.500018	0.009	2007.500028	0.014	2007.500021	0.010	PASS
-40.5	2007.500038	0.019	2007.500024	0.012	2007.500016	0.008	2007.500034	0.017	PASS
-58.5	2007.500018	0.009	2007.500011	0.005	2007.500020	0.010	2007.500032	0.016	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	25MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	2007.5Mz		2007.5Mz		2007.5Mz		2007.5Mz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2007.500038	0.019	2007.500022	0.011	2007.500038	0.019	2007.500037	0.018	PASS
-30	2007.500039	0.019	2007.500018	0.009	2007.500018	0.009	2007.500013	0.006	PASS
-20	2007.500038	0.019	2007.500021	0.010	2007.500037	0.018	2007.500010	0.005	PASS
-10	2007.500012	0.006	2007.500037	0.018	2007.500037	0.018	2007.500031	0.015	PASS
0	2007.500024	0.012	2007.500030	0.015	2007.500037	0.018	2007.500012	0.006	PASS
10	2007.500027	0.013	2007.500033	0.016	2007.500027	0.013	2007.500033	0.016	PASS
20	2007.499971	-0.014	2007.499965	-0.017	2007.499985	-0.007	2007.499966	-0.017	PASS
30	2007.499976	-0.012	2007.499987	-0.006	2007.499988	-0.006	2007.499980	-0.010	PASS
40	2007.499986	-0.007	2007.499964	-0.018	2007.499970	-0.015	2007.499965	-0.017	PASS
50	2007.499989	-0.005	2007.499971	-0.014	2007.499973	-0.013	2007.499966	-0.017	PASS
55	2007.499985	-0.007	2007.499972	-0.014	2007.499986	-0.007	2007.499987	-0.006	PASS

CA Contiguous

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2000.000088	0.044	2015.000062	0.031	2000.000037	0.019	2015.000092	0.046	PASS
-40.5	2000.000092	0.046	2015.000037	0.018	2000.000040	0.020	2015.000014	0.007	PASS
-58.5	2000.000083	0.042	2015.000033	0.016	2000.000013	0.007	2015.000032	0.016	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2000.000071	0.036	2015.000063	0.031	2000.000026	0.013	2015.000085	0.042	PASS
-30	2000.000075	0.038	2015.000070	0.035	2000.000057	0.029	2015.000087	0.043	PASS
-20	2000.000051	0.026	2015.000093	0.046	2000.000057	0.029	2015.000099	0.049	PASS
-10	2000.000059	0.030	2015.000087	0.043	2000.000024	0.012	2015.000088	0.044	PASS
0	2000.000079	0.040	2015.000022	0.011	2000.000038	0.019	2015.000078	0.039	PASS
10	2000.000062	0.031	2015.000021	0.010	2000.000021	0.011	2015.000036	0.018	PASS
20	1999.999963	-0.019	2014.999956	-0.022	1999.999978	-0.011	2014.999957	-0.021	PASS
30	1999.999921	-0.040	2014.999964	-0.018	1999.999983	-0.009	2014.999904	-0.048	PASS
40	1999.999933	-0.034	2014.999935	-0.032	1999.999968	-0.016	2014.999978	-0.011	PASS
50	1999.999959	-0.021	2014.999944	-0.028	1999.999908	-0.046	2014.999934	-0.033	PASS
55	1999.999906	-0.047	2014.999947	-0.026	1999.999970	-0.015	2014.999921	-0.039	PASS

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2000.000099	0.050	2015.000074	0.037	2000.000056	0.028	2015.000063	0.031	PASS
-40.5	2000.000061	0.031	2015.000035	0.017	2000.000053	0.027	2015.000087	0.043	PASS
-58.5	2000.000040	0.020	2015.000069	0.034	2000.000076	0.038	2015.000043	0.021	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		1997.5MHz+2002.5MHz		2012.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2000.000091	0.046	2015.000023	0.011	2000.000027	0.014	2015.000036	0.018	PASS
-30	2000.000090	0.045	2015.000059	0.029	2000.000064	0.032	2015.000052	0.026	PASS
-20	2000.000086	0.043	2015.000092	0.046	2000.000051	0.026	2015.000054	0.027	PASS
-10	2000.000011	0.006	2015.000091	0.045	2000.000064	0.032	2015.000012	0.006	PASS
0	2000.000059	0.030	2015.000026	0.013	2000.000038	0.019	2015.000039	0.019	PASS
10	2000.000067	0.034	2015.000050	0.025	2000.000057	0.029	2015.000048	0.024	PASS
20	1999.999974	-0.013	2014.999941	-0.029	1999.999984	-0.008	2014.999990	-0.005	PASS
30	1999.999943	-0.029	2014.999963	-0.018	1999.999967	-0.017	2014.999959	-0.020	PASS
40	1999.999911	-0.045	2014.999972	-0.014	1999.999900	-0.050	2014.999924	-0.038	PASS
50	1999.999923	-0.039	2014.999901	-0.049	1999.999908	-0.046	2014.999967	-0.016	PASS
55	1999.999906	-0.047	2014.999908	-0.046	1999.999902	-0.049	2014.999909	-0.045	PASS

FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	5MHz+20MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2007.500049	0.024	2007.500025	0.012	2007.500090	0.045	2007.500077	0.038	PASS
-40.5	2007.500083	0.041	2007.500065	0.032	2007.500031	0.015	2007.500079	0.039	PASS
-58.5	2007.500056	0.028	2007.500033	0.016	2007.500076	0.038	2007.500075	0.037	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	5MHz+20MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		1997.5MHz+ 2010.0MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2007.500068	0.034	2007.500023	0.011	2007.500062	0.031	2007.500087	0.043	PASS
-30	2007.500062	0.031	2007.500072	0.036	2007.500036	0.018	2007.500092	0.046	PASS
-20	2007.500067	0.033	2007.500062	0.031	2007.500017	0.008	2007.500042	0.021	PASS
-10	2007.500031	0.015	2007.500043	0.021	2007.500061	0.030	2007.500075	0.037	PASS
0	2007.500056	0.028	2007.500037	0.018	2007.500038	0.019	2007.500011	0.005	PASS
10	2007.500074	0.037	2007.500032	0.016	2007.500065	0.032	2007.500083	0.041	PASS
20	2007.499945	-0.027	2007.499941	-0.029	2007.499915	-0.042	2007.499980	-0.010	PASS
30	2007.499943	-0.028	2007.499970	-0.015	2007.499981	-0.009	2007.499964	-0.018	PASS
40	2007.499955	-0.022	2007.499984	-0.008	2007.499920	-0.040	2007.499963	-0.018	PASS
50	2007.499929	-0.035	2007.499963	-0.018	2007.499946	-0.027	2007.499978	-0.011	PASS
55	2007.499935	-0.032	2007.499924	-0.038	2007.499900	-0.050	2007.499940	-0.030	PASS

FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	20MHz+5MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	2007.500087	0.043	2007.500042	0.021	2007.500046	0.023	2007.500013	0.006	PASS
-40.5	2007.500079	0.039	2007.500055	0.027	2007.500029	0.014	2007.500054	0.027	PASS
-58.5	2007.500038	0.019	2007.500028	0.014	2007.500025	0.012	2007.500058	0.029	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	20MHz+5MHz								
	Ant. TX 0		Ant. TX 1		Ant. TX 2		Ant. TX 3		
	2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		2005.0MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	2007.500066	0.033	2007.500044	0.022	2007.500071	0.035	2007.500055	0.027	PASS
-30	2007.500060	0.030	2007.500036	0.018	2007.500096	0.048	2007.500054	0.027	PASS
-20	2007.500037	0.018	2007.500035	0.017	2007.500084	0.042	2007.500010	0.005	PASS
-10	2007.500038	0.019	2007.500016	0.008	2007.500085	0.042	2007.500041	0.020	PASS
0	2007.500018	0.009	2007.500031	0.015	2007.500035	0.017	2007.500077	0.038	PASS
10	2007.500066	0.033	2007.500013	0.006	2007.500044	0.022	2007.500023	0.011	PASS
20	2007.499911	-0.044	2007.499926	-0.037	2007.499922	-0.039	2007.499903	-0.048	PASS
30	2007.499918	-0.041	2007.499948	-0.026	2007.499980	-0.010	2007.499904	-0.048	PASS
40	2007.499972	-0.014	2007.499933	-0.033	2007.499948	-0.026	2007.499923	-0.038	PASS
50	2007.499913	-0.043	2007.499912	-0.044	2007.499909	-0.045	2007.499927	-0.036	PASS
55	2007.499986	-0.007	2007.499949	-0.025	2007.499958	-0.021	2007.499937	-0.031	PASS

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FREQUENCY ERROR vs. VOLTAGE									
Voltage (Volts)	Test result (MHz)								PASS/ FAIL
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	1997.500014	0.007	2017.500044	0.022	1997.500030	0.015	2017.500044	0.022	PASS
-40.5	1997.500020	0.010	2017.500056	0.028	1997.500058	0.029	2017.500071	0.035	PASS
-58.5	1997.500025	0.013	2017.500069	0.034	1997.500014	0.007	2017.500087	0.043	PASS

FREQUENCY ERROR vs. Temperature									
Temp. (℃)	Test result (MHz)								PASS/ FAIL
	5MHz+5MHz								
	Ant. TX 0				Ant. TX 1				
	1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	1997.500028	0.014	2017.500022	0.011	1997.500025	0.013	2017.500077	0.038	PASS
-30	1997.500022	0.011	2017.500041	0.020	1997.500056	0.028	2017.500042	0.021	PASS
-20	1997.500057	0.029	2017.500077	0.038	1997.500018	0.009	2017.500020	0.010	PASS
-10	1997.500059	0.030	2017.500048	0.024	1997.500083	0.042	2017.500031	0.015	PASS
0	1997.500017	0.009	2017.500061	0.030	1997.500024	0.012	2017.500075	0.037	PASS
10	1997.500078	0.039	2017.500020	0.010	1997.500020	0.010	2017.500100	0.050	PASS
20	1997.499968	-0.016	2017.499974	-0.013	1997.499961	-0.020	2017.499940	-0.030	PASS
30	1997.499962	-0.019	2017.499976	-0.012	1997.499978	-0.011	2017.499947	-0.026	PASS
40	1997.499920	-0.040	2017.499928	-0.036	1997.499902	-0.049	2017.499958	-0.021	PASS
50	1997.499917	-0.042	2017.499939	-0.030	1997.499906	-0.047	2017.499964	-0.018	PASS
55	1997.499956	-0.022	2017.499919	-0.040	1997.499973	-0.014	2017.499910	-0.045	PASS

FREQUENCY ERROR vs. VOLTAGE									PASS/ FAIL
Voltage (Volts)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-48	1997.500078	0.039	2017.500031	0.015	1997.500077	0.039	2017.500037	0.018	PASS
-40.5	1997.500022	0.011	2017.500044	0.022	1997.500049	0.025	2017.500082	0.041	PASS
-58.5	1997.500100	0.050	2017.500013	0.006	1997.500099	0.050	2017.500069	0.034	PASS

FREQUENCY ERROR vs. Temperature									PASS/ FAIL
Temp. (℃)	Test result (MHz)								
	5MHz+5MHz								
	Ant. TX 2				Ant. TX 3				
	1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		1997.5MHz+2010.0MHz		1997.5MHz+2017.5MHz		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-40	1997.500028	0.014	2017.500035	0.017	1997.500027	0.014	2017.500036	0.018	PASS
-30	1997.500021	0.011	2017.500031	0.015	1997.500098	0.049	2017.500054	0.027	PASS
-20	1997.500024	0.012	2017.500045	0.022	1997.500081	0.041	2017.500100	0.050	PASS
-10	1997.500041	0.021	2017.500085	0.042	1997.500066	0.033	2017.500071	0.035	PASS
0	1997.500063	0.032	2017.500020	0.010	1997.500034	0.017	2017.500016	0.008	PASS
10	1997.500056	0.028	2017.500022	0.011	1997.500050	0.025	2017.500038	0.019	PASS
20	1997.499921	-0.040	2017.499957	-0.021	1997.499948	-0.026	2017.499929	-0.035	PASS
30	1997.499939	-0.031	2017.499981	-0.009	1997.499947	-0.027	2017.499956	-0.022	PASS
40	1997.499964	-0.018	2017.499943	-0.028	1997.499901	-0.050	2017.499906	-0.047	PASS
50	1997.499956	-0.022	2017.499977	-0.011	1997.499986	-0.007	2017.499956	-0.022	PASS
55	1997.499914	-0.043	2017.499945	-0.027	1997.499954	-0.023	2017.499932	-0.034	PASS

4.4 Emission Bandwidth Measurement

4.4.1 Limits of Emission Bandwidth Measurement

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

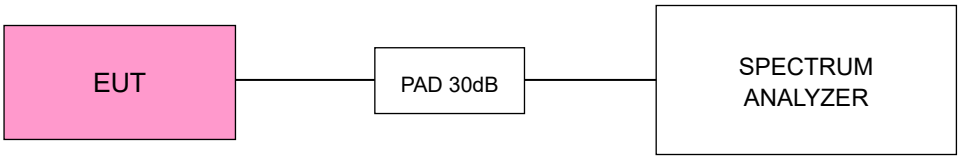
4.4.2 Test Procedure

-26dBc Bandwidth
That emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

Occupied Bandwidth
All measurements were done at low, middle and high operational frequency range. EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

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 = 51kHz and VBW = 160kHz (Channel Bandwidth: 5MHz), RBW = 100kHz and VBW = 300kHz (Channel Bandwidth: 10MHz), RBW = 150kHz and VBW = 470kHz (Channel Bandwidth: 15MHz), RBW = 200kHz and VBW = 620kHz (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



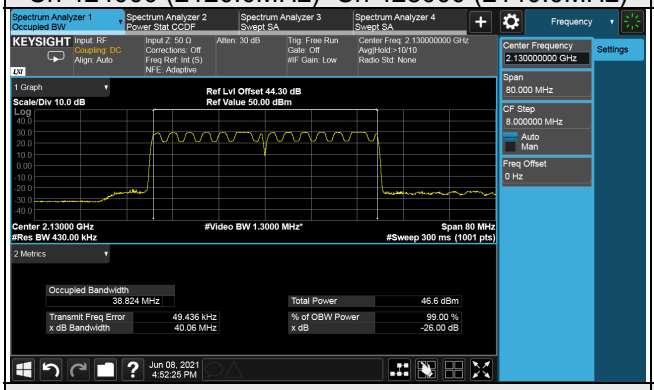
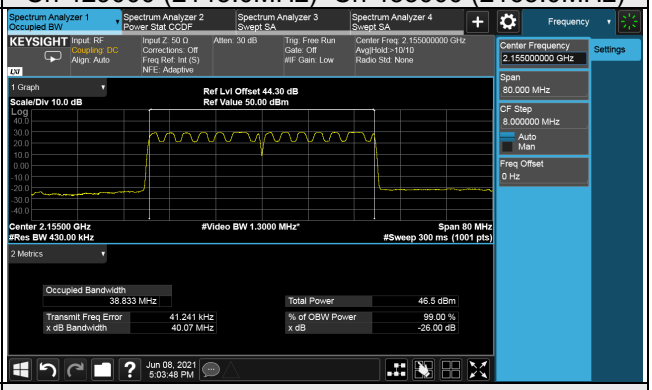
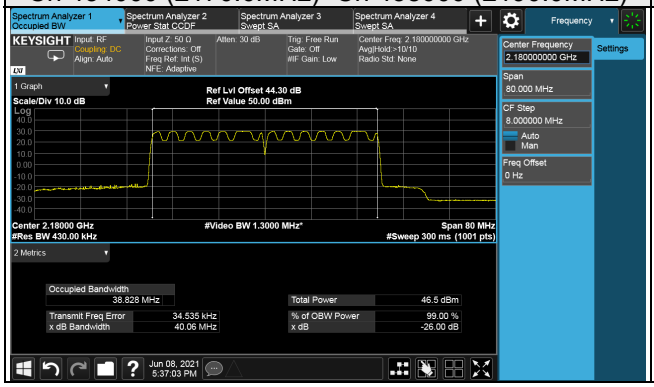
4.4.4 Test Results (-26dBc Bandwidth)

Band n66
CA Contiguous

20MHz+20MHz

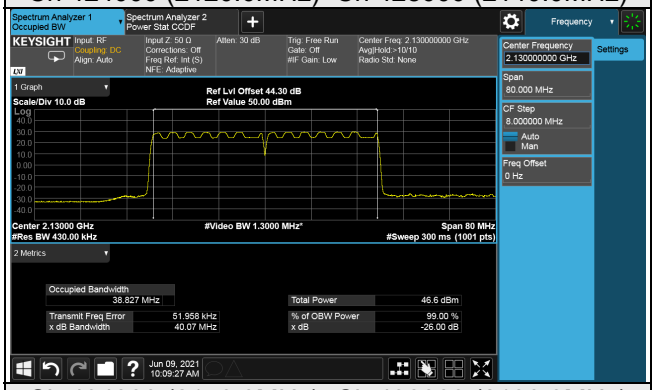
Channel Number	Freq. (MHz)	-26dB Bandwidth (MHz)															
		Ant. TX0				Ant. TX1				Ant. TX2				Ant. TX3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
424000+ 428000	2120.0+ 2140.0	40.06	40.07	40.10	40.09	40.06	40.07	40.10	40.09	40.06	40.07	40.10	40.09	40.06	40.07	40.10	40.09
429000+ 433000	2145.0+ 2165.0	40.07	40.07	40.10	40.09	40.06	40.07	40.10	40.10	40.06	40.07	40.10	40.10	40.06	40.07	40.10	40.09
434000+ 438000	2170.0+ 2190.0	40.06	40.07	40.10	40.09	40.07	40.07	40.10	40.09	40.06	40.07	40.10	40.09	40.07	40.07	40.10	40.09

Ant. TX 0

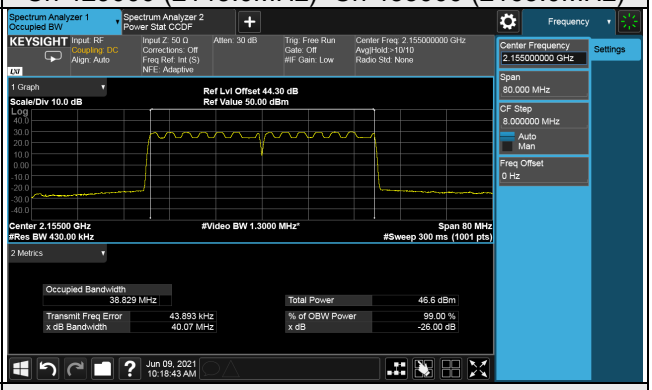
Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

16QAM

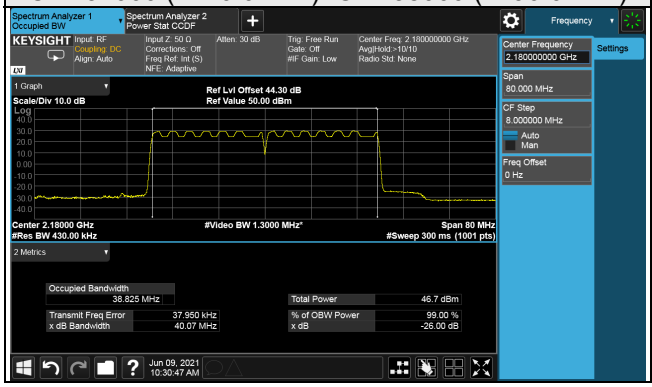
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)



Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)

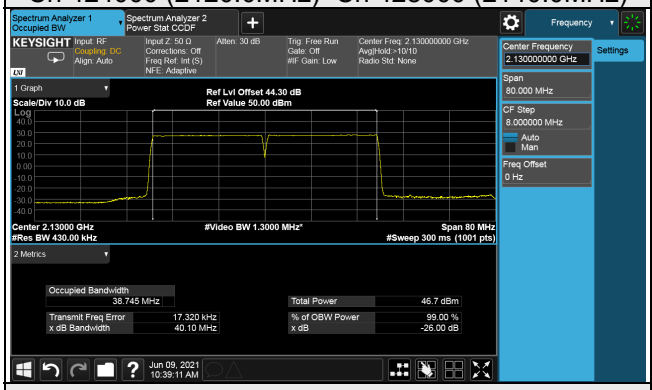


Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)

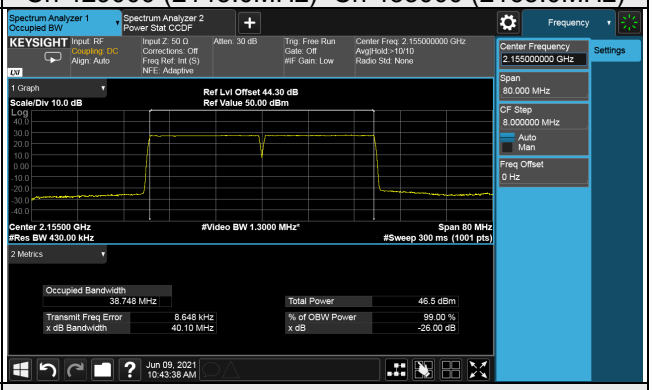


64QAM

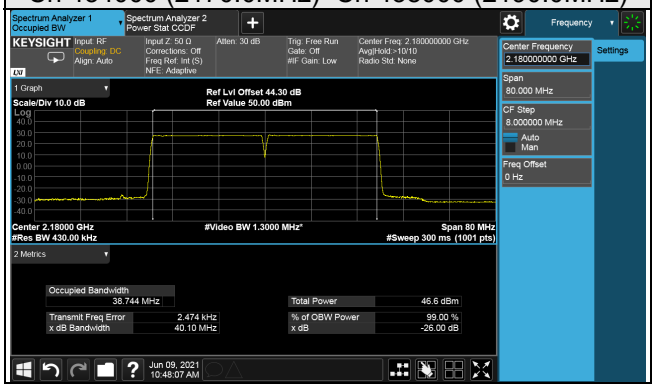
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)

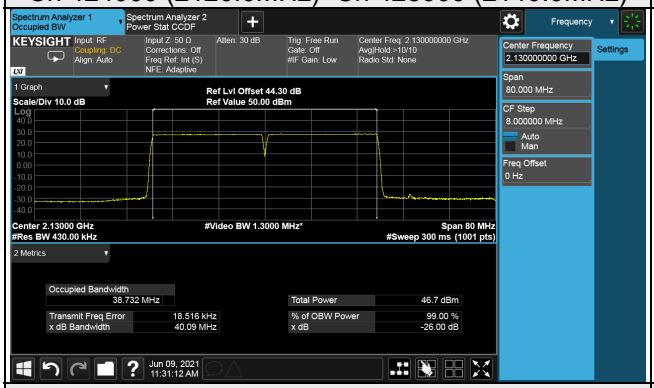
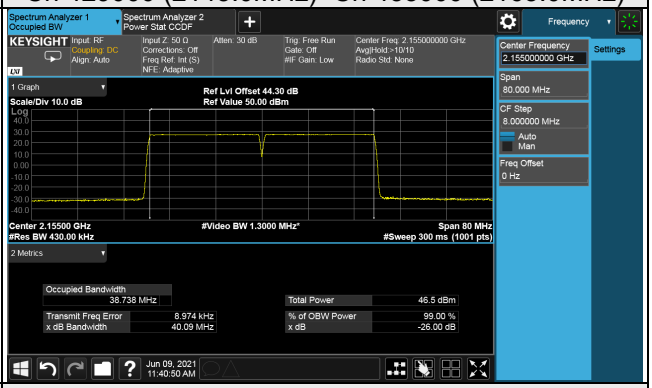
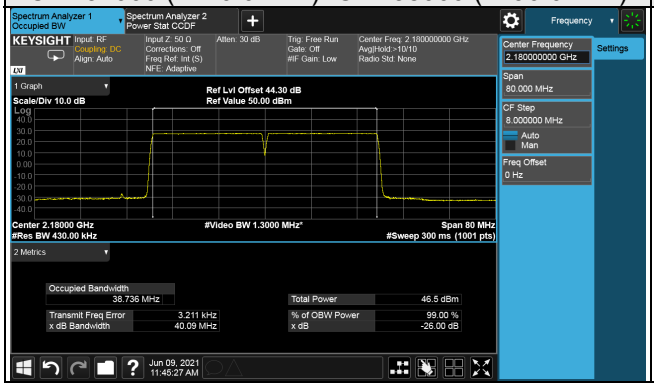


Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)

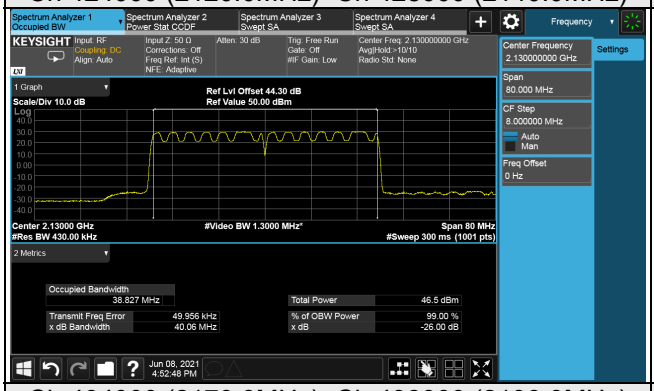
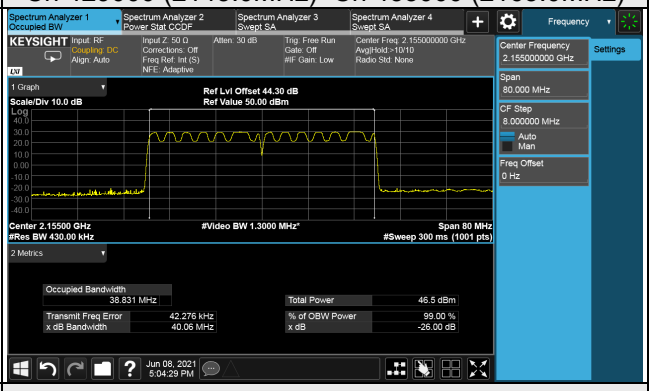
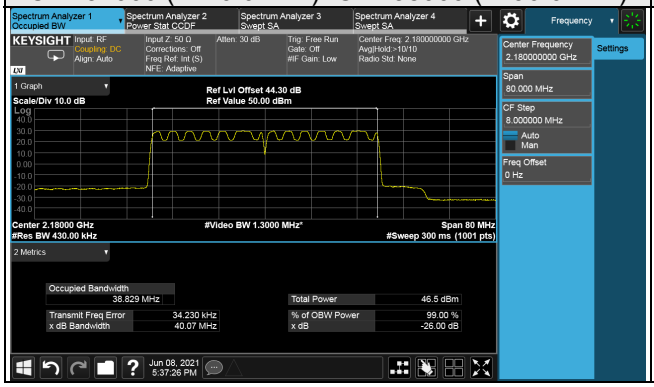


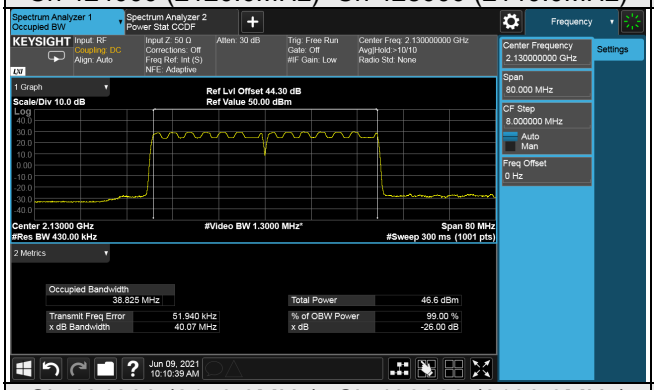
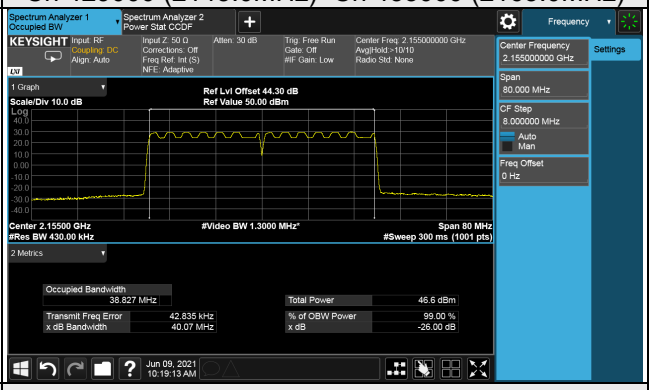
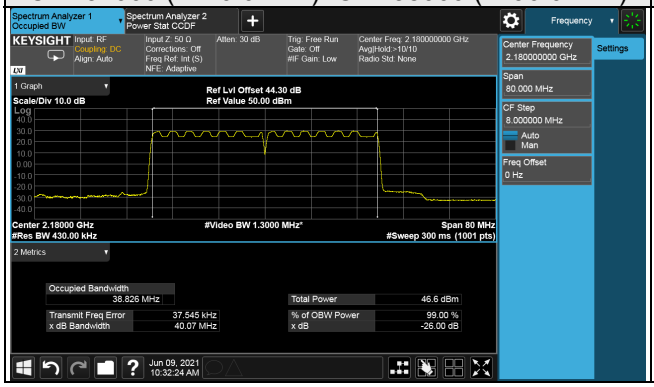
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)

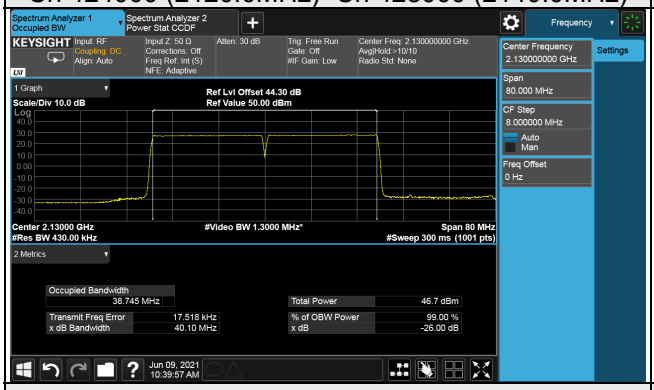
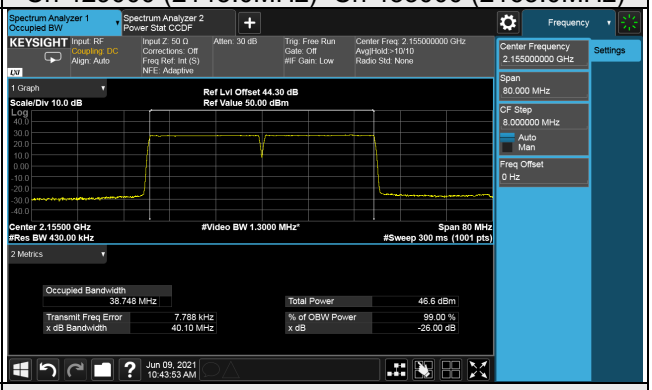


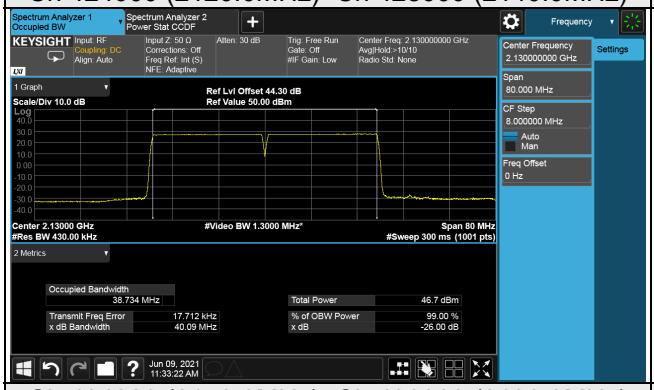
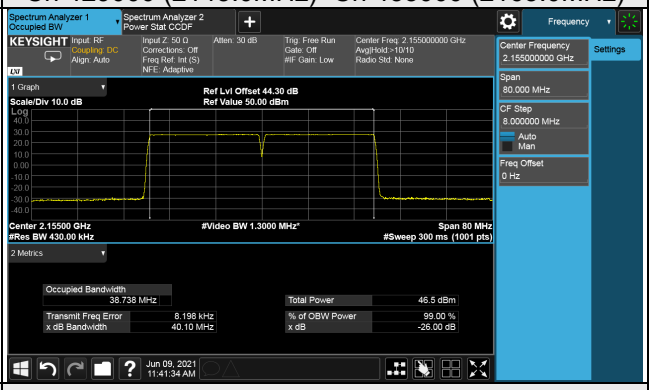
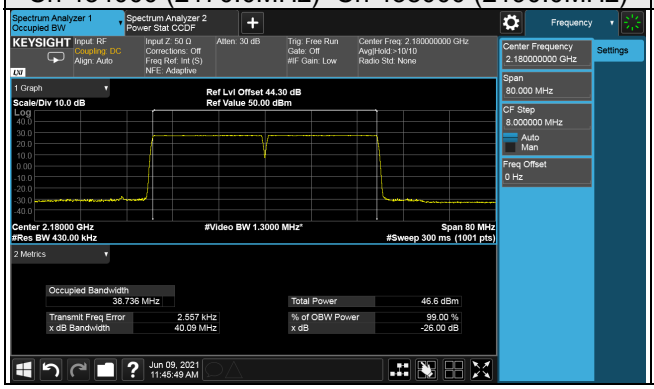
256QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

Ant. TX 1

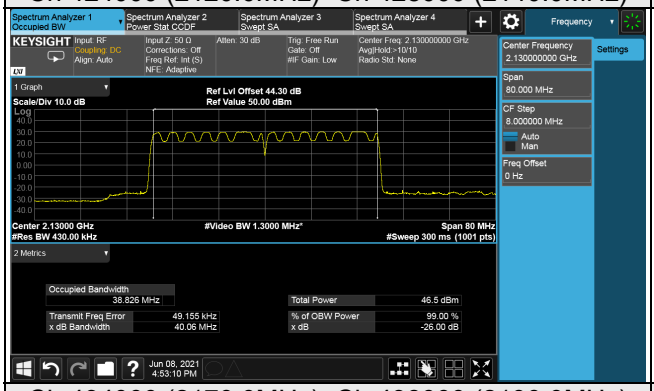
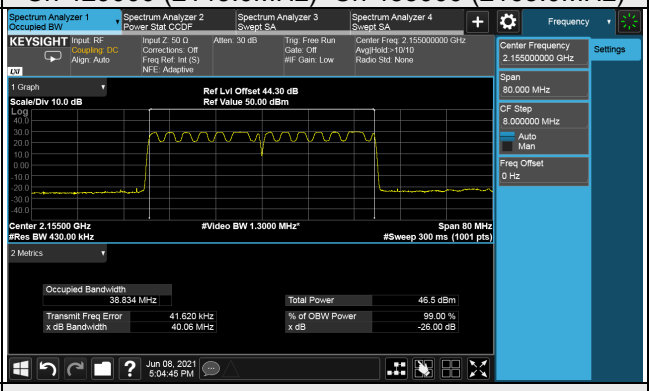
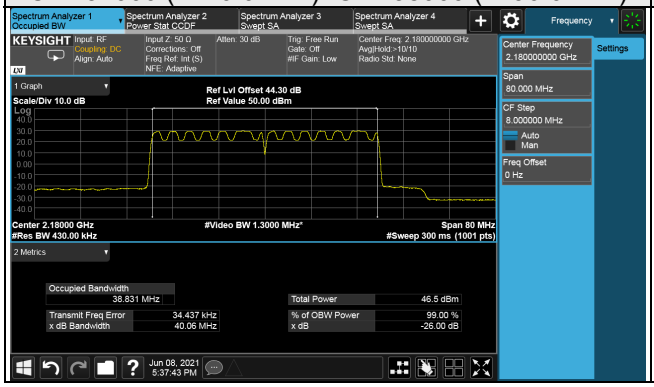
Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

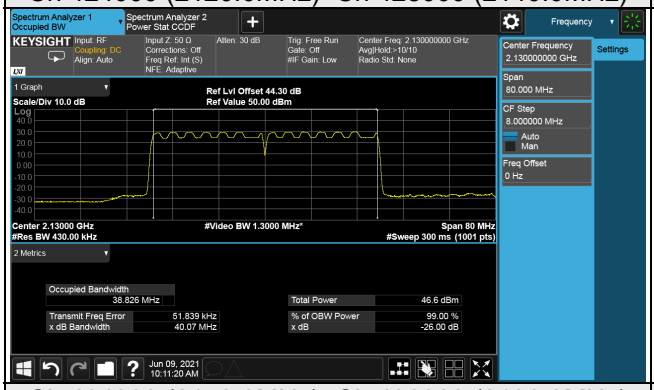
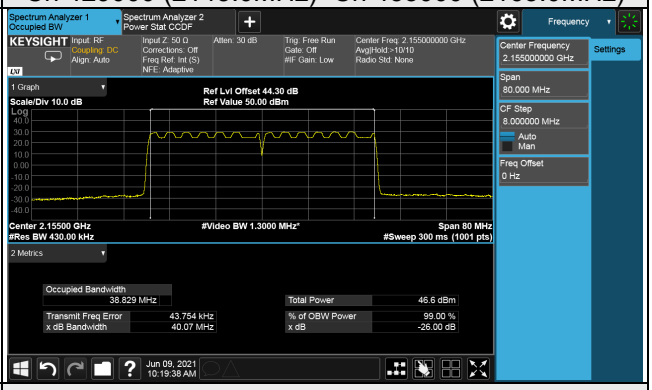
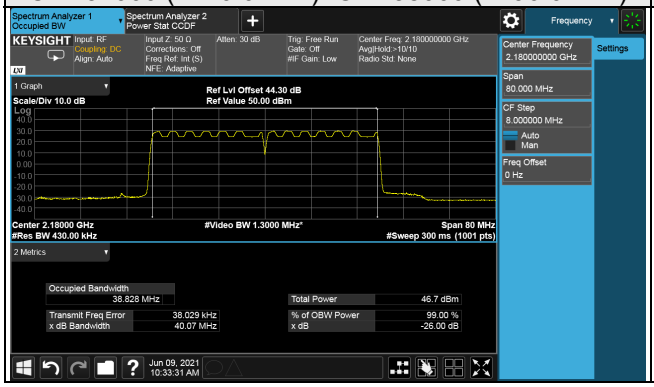
16QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

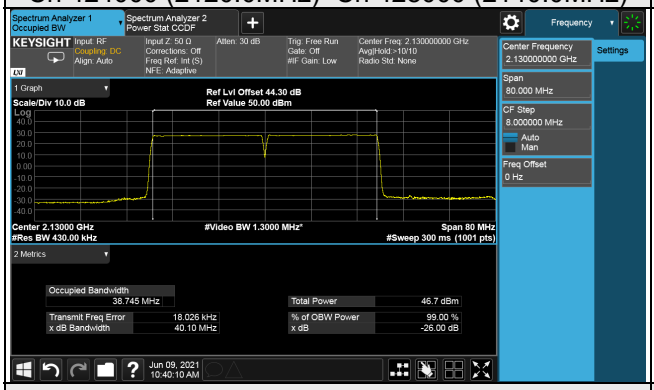
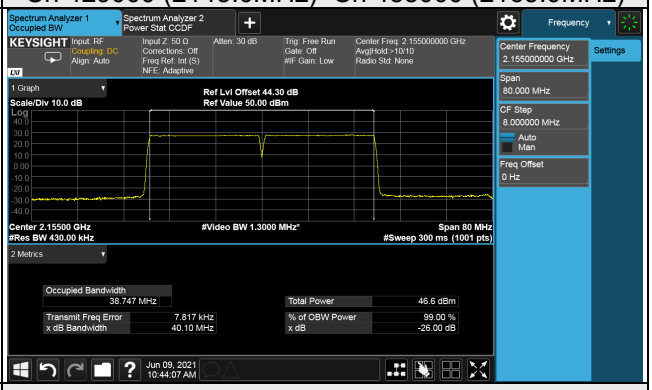
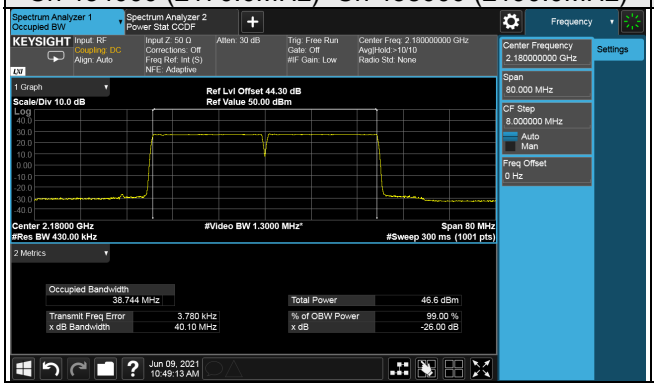
64QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

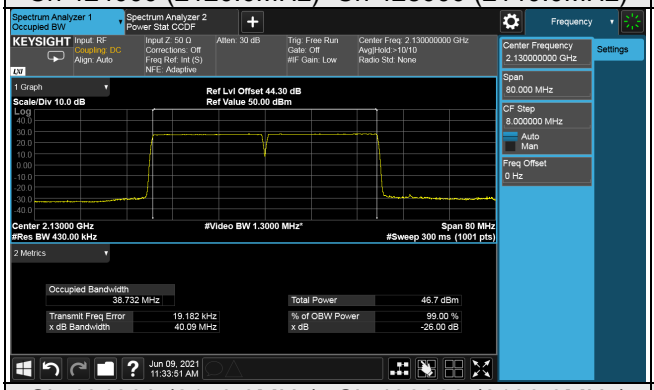
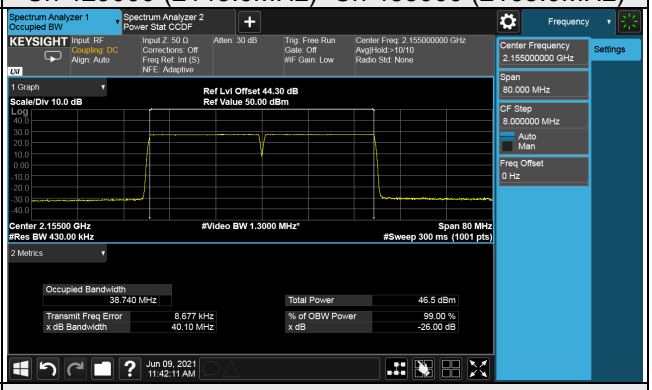
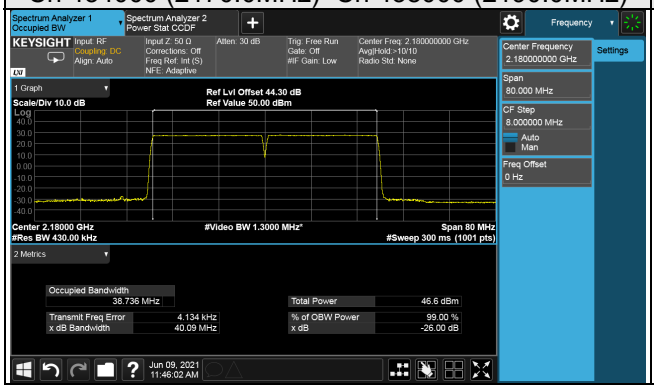
256QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

Ant. TX 2

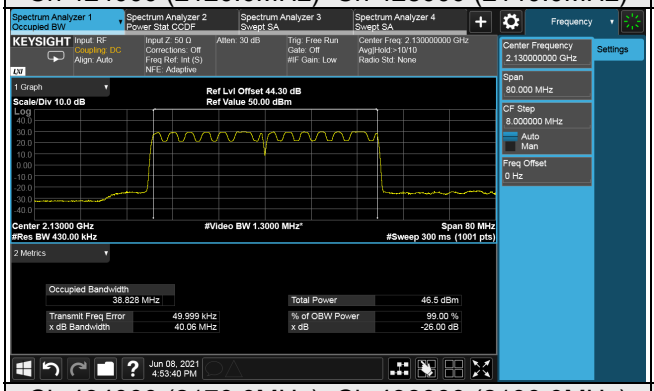
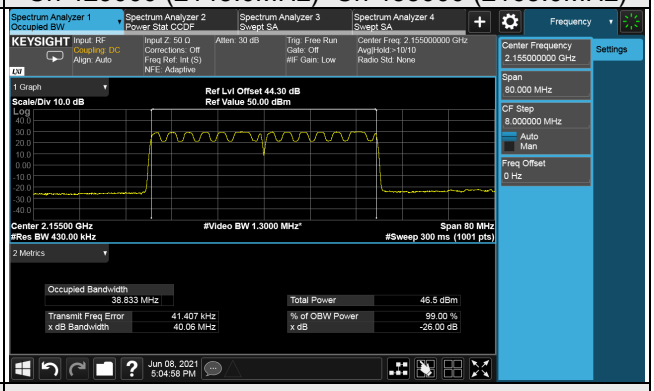
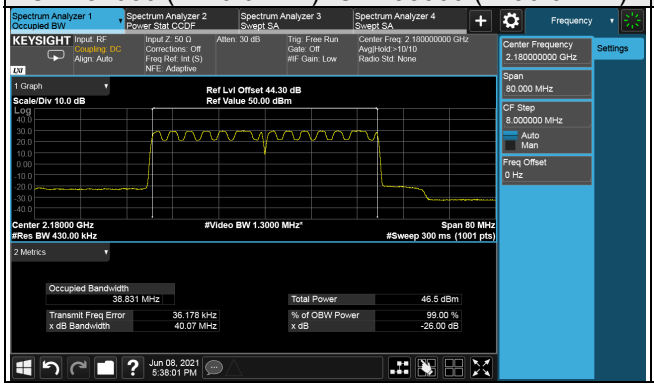
Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

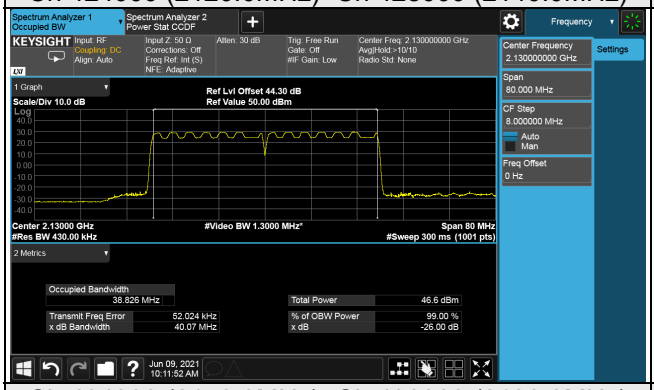
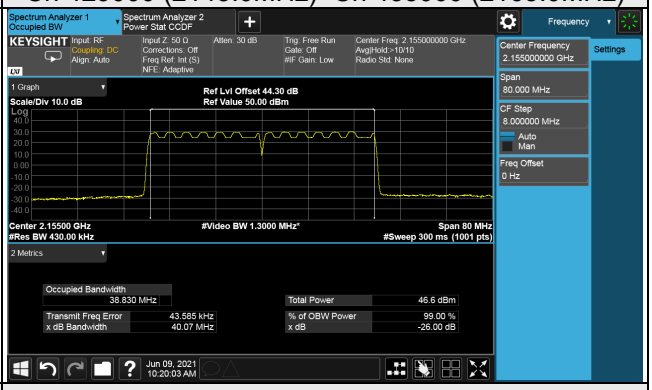
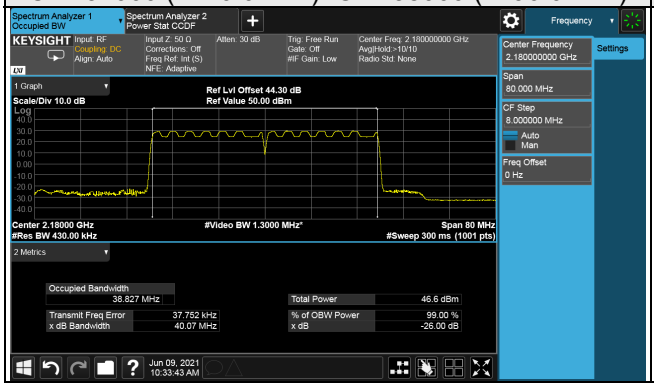
16QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

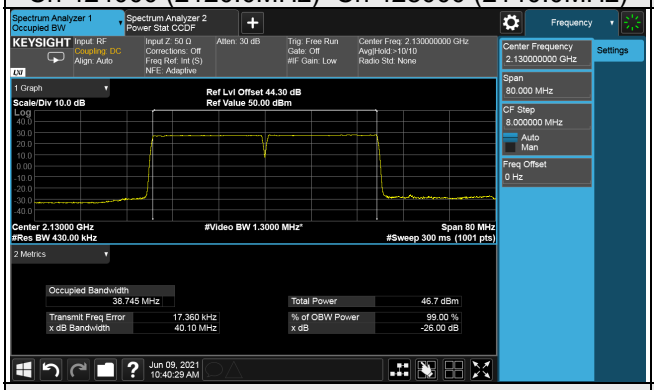
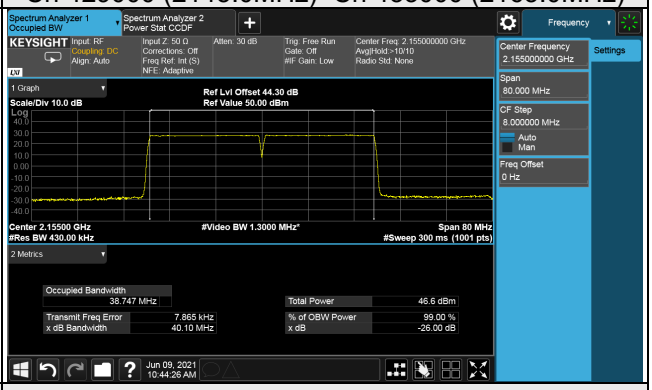
64QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

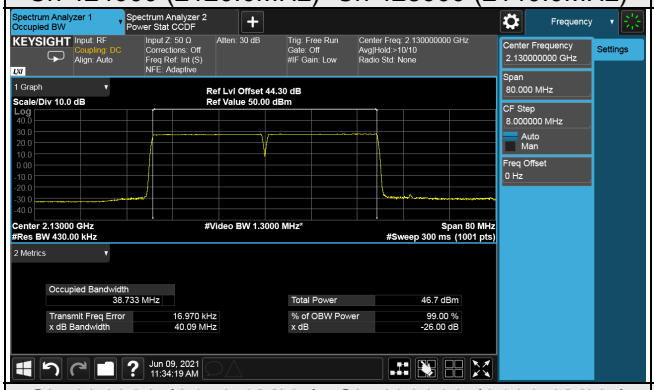
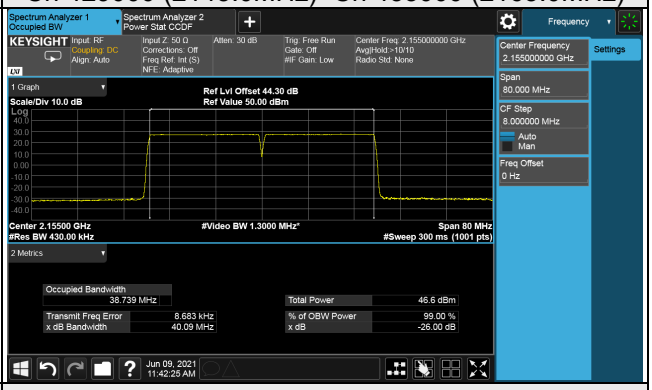
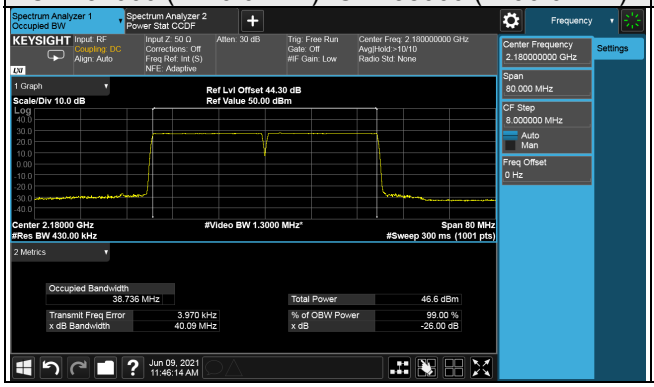
256QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

Ant. TX 3

Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

16QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

64QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

256QAM	
Ch 424000 (2120.0MHz)+Ch 428000 (2140.0MHz)	Ch 429000 (2145.0MHz)+Ch 433000 (2165.0MHz)
	
Ch 434000 (2170.0MHz)+Ch 438000 (2190.0MHz)	
	

5MHz+5MHz

Channel Number	Freq. (MHz)	-26dB Bandwidth (MHz)															
		Ant. TX0				Ant. TX1				Ant. TX2				Ant. TX3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
422500+ 423500	2112.5+ 2117.5	9.82	9.82	9.84	9.84	9.81	9.83	9.83	9.84	9.81	9.82	9.85	9.84	9.81	9.82	9.84	9.84
430500+ 431500	2152.5+ 2157.5	9.82	9.81	9.85	9.84	9.82	9.82	9.86	9.84	9.81	9.82	9.86	9.83	9.82	9.82	9.86	9.84
438500+ 439500	2192.5+ 2197.5	9.83	9.81	9.86	9.84	9.82	9.82	9.86	9.84	9.83	9.81	9.86	9.83	9.83	9.81	9.87	9.85

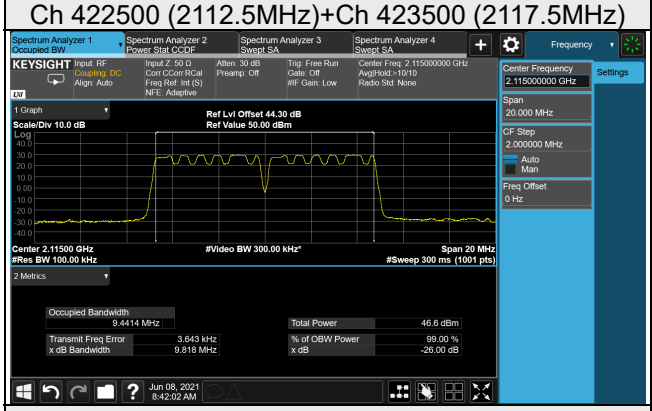
Ant. TX 0

Spectrum Plot of Worst Value

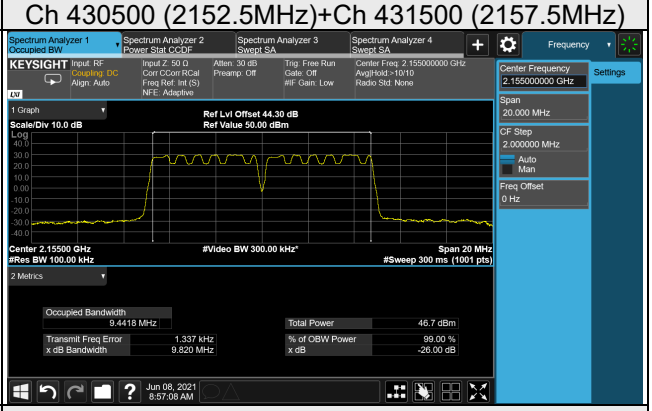
-26dBc Bandwidth

QPSK

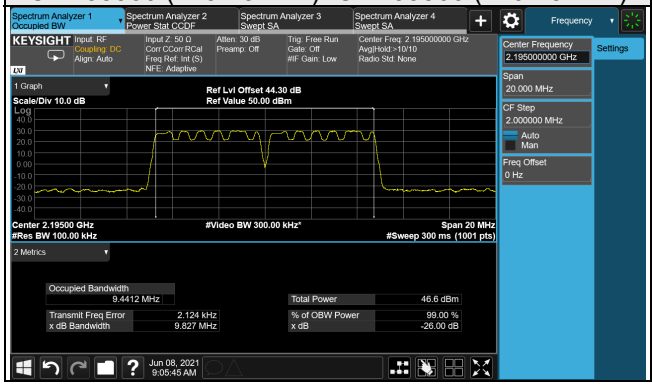
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)



Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)

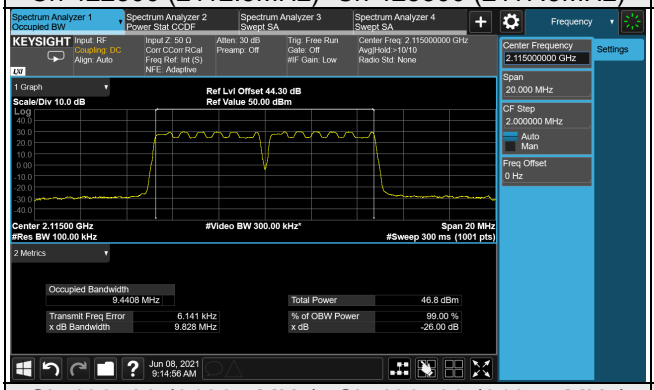


Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)

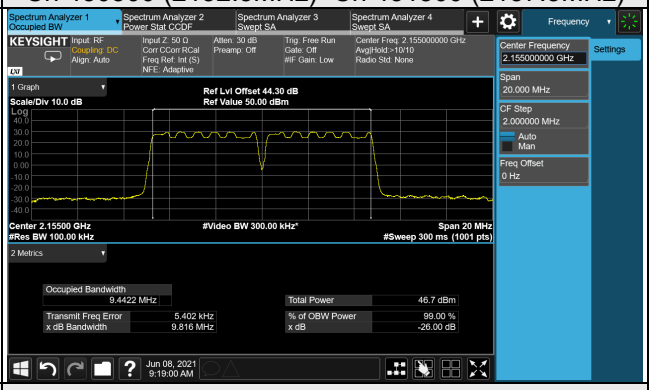


16QAM

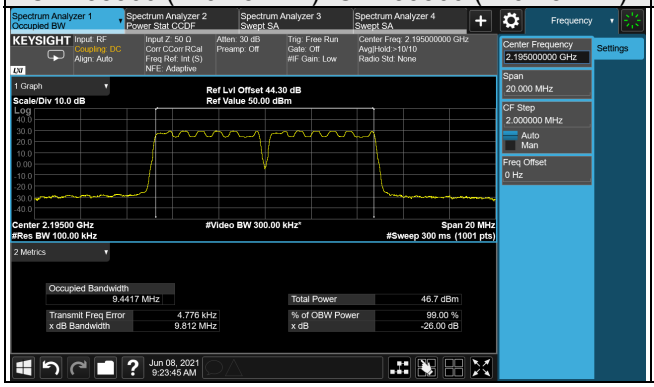
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)



Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)

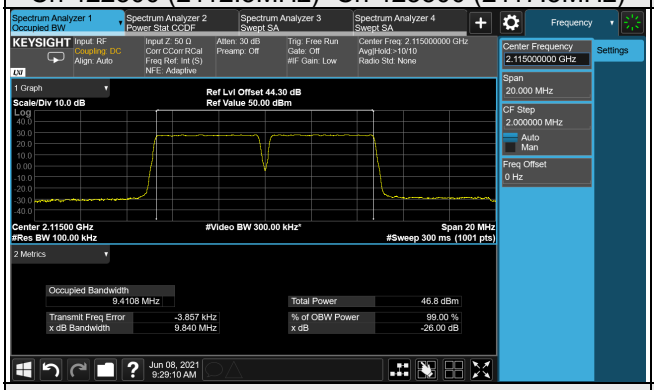


Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)

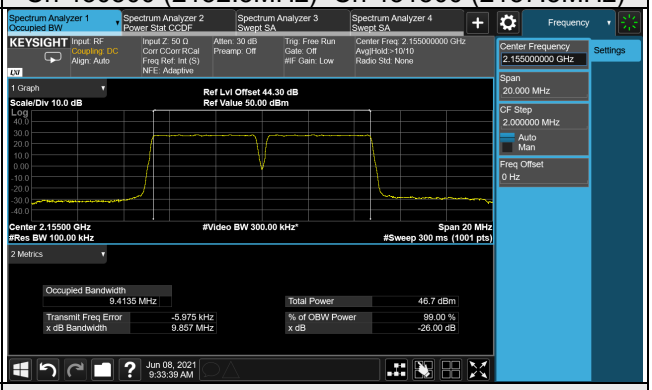


64QAM

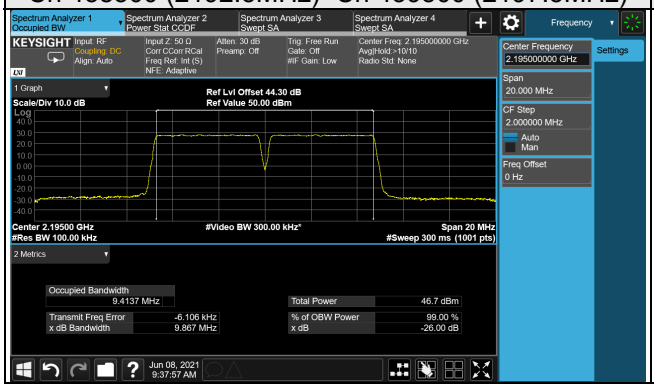
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)

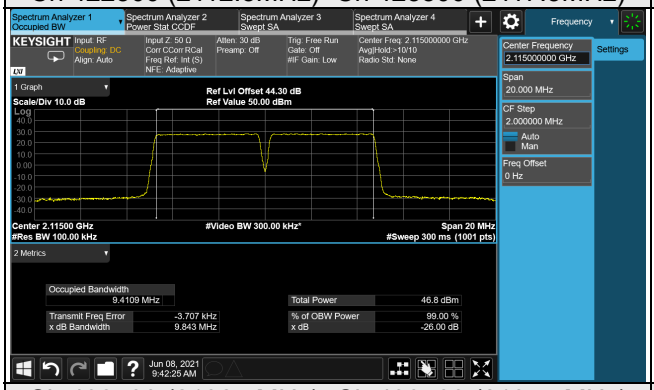
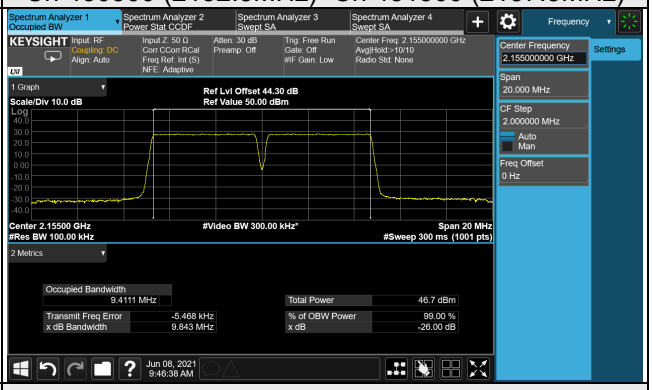
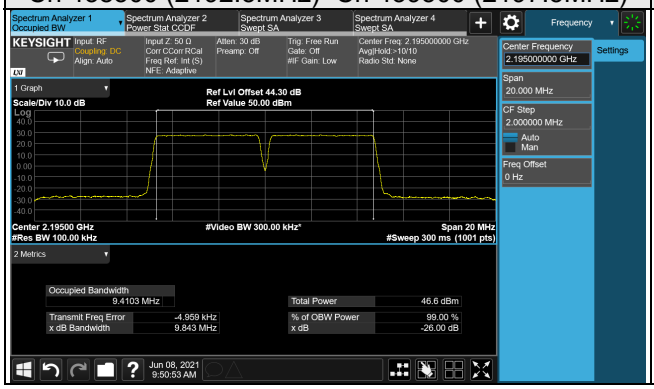


Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)

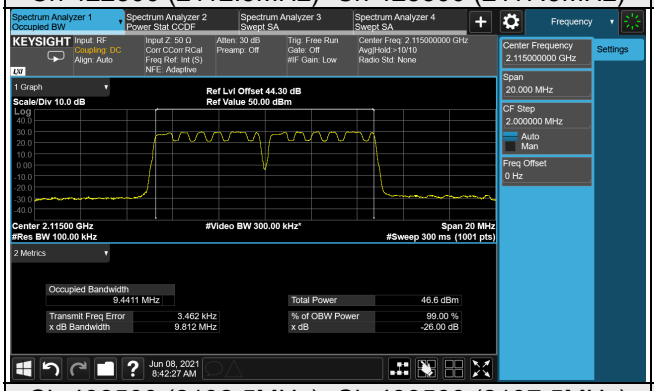
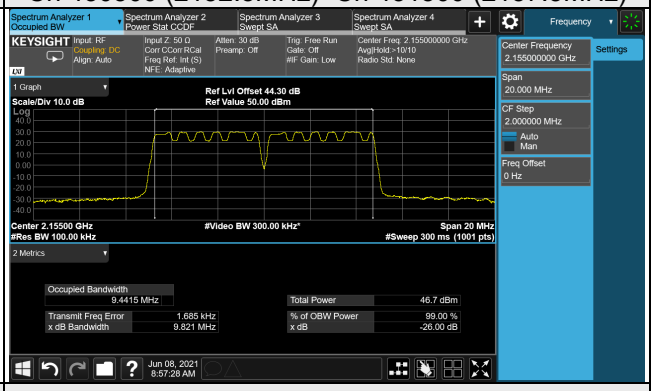
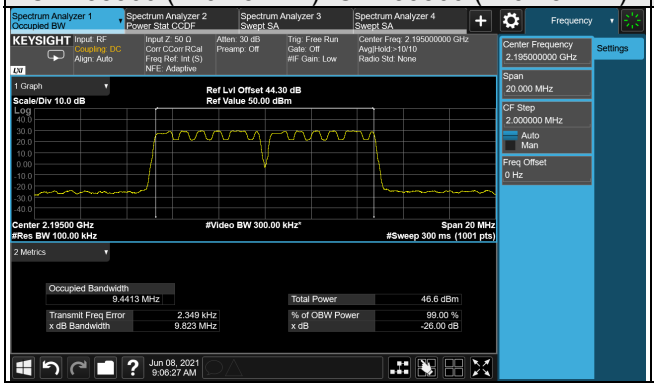


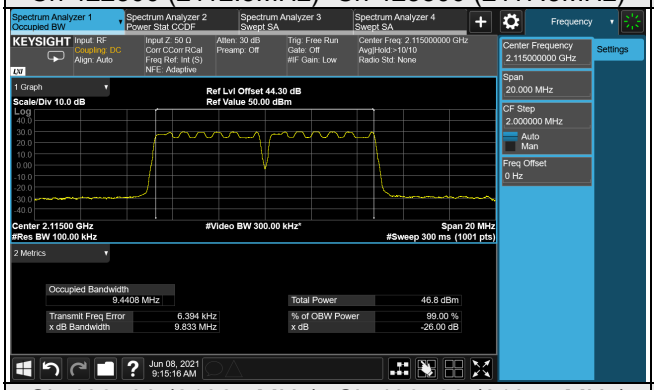
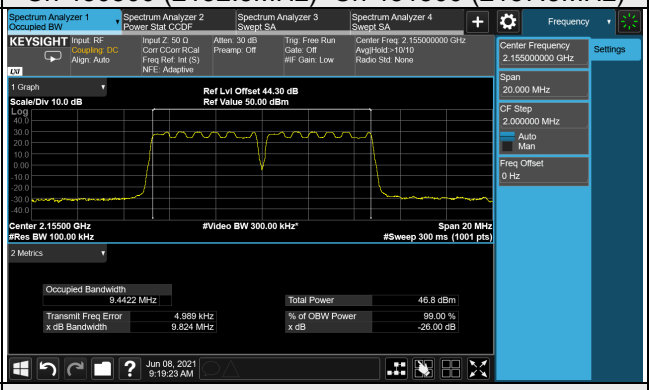
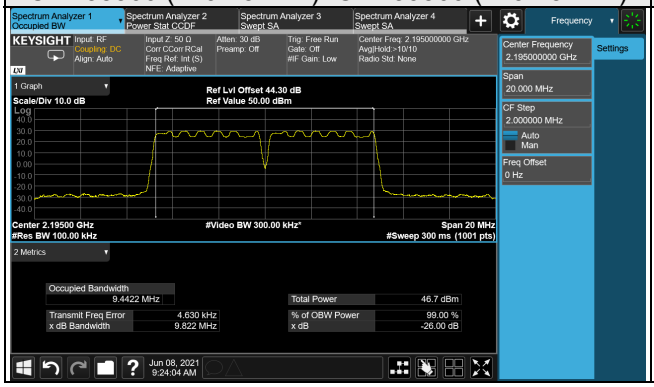
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)

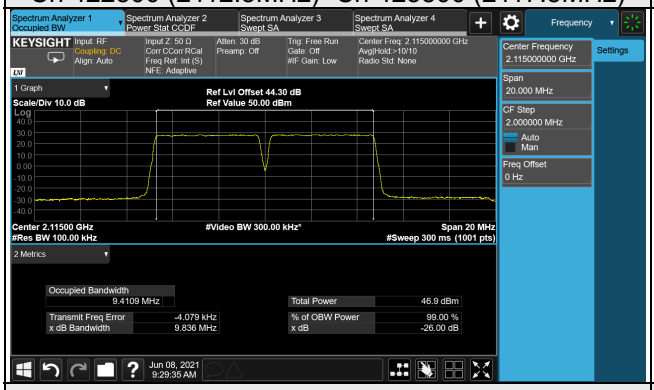
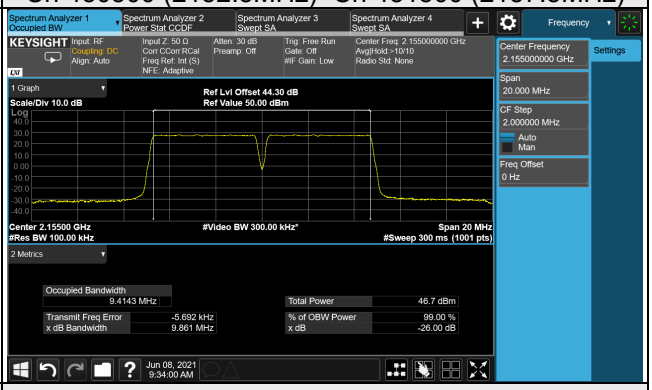
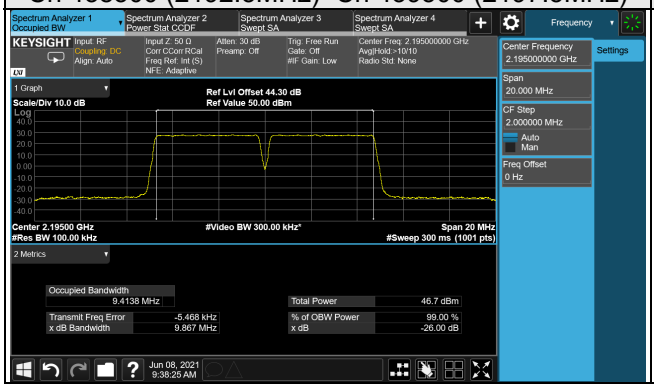


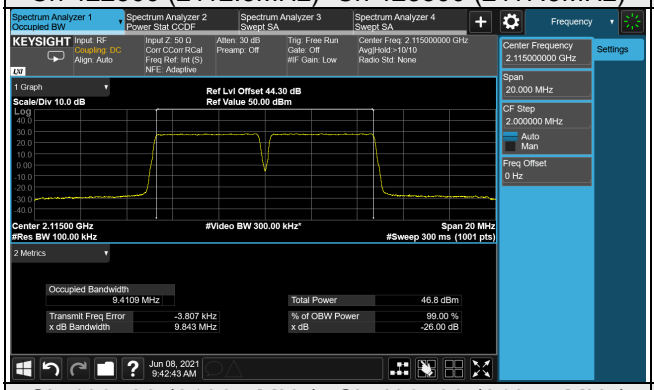
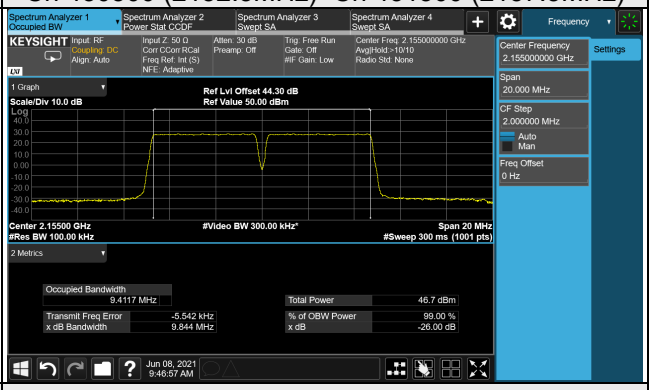
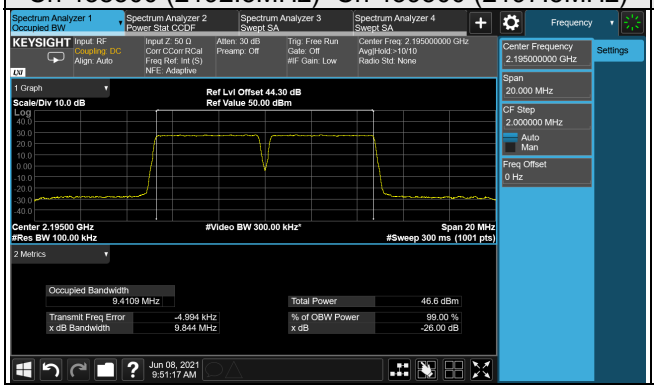
256QAM	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)	
	

Ant. TX 1

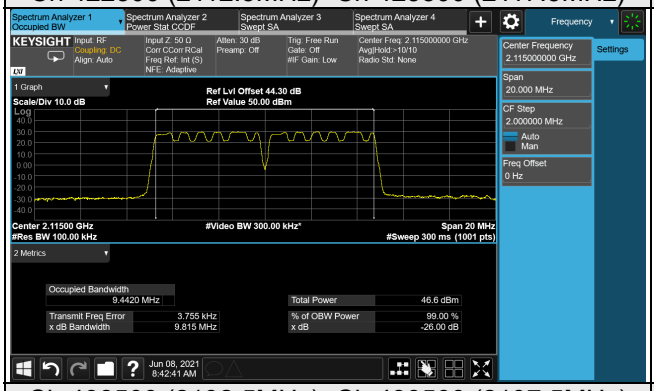
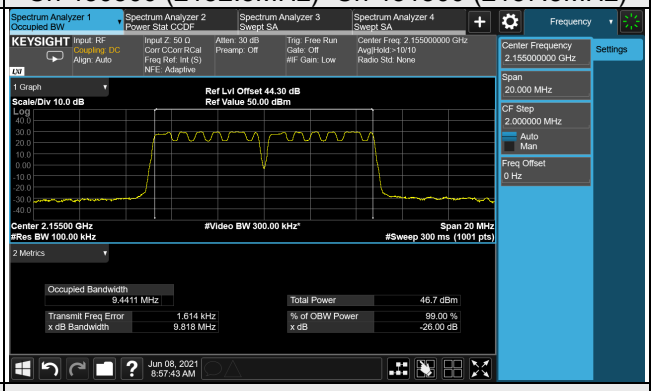
Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)	
	

16QAM	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)	
	

64QAM	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)	
	

256QAM	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)	
	

Ant. TX 2

Spectrum Plot of Worst Value	
-26dBc Bandwidth	
QPSK	
Ch 422500 (2112.5MHz)+Ch 423500 (2117.5MHz)	Ch 430500 (2152.5MHz)+Ch 431500 (2157.5MHz)
	
Ch 438500 (2192.5MHz)+Ch 439500 (2197.5MHz)