



MEASUREMENT REPORT

FCC PART 27 Subpart L & M

FCC ID: 2ADZR23002690FM20

Application: Nokia Shanghai Bell Co., Ltd

Application Type: Certification

Product: FastMile 4G Receiver

Model No.: 4G03-A

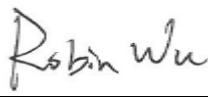
Brand Name: Nokia

FCC Rule Part(s): Part 27 Subpart L & M

Test Procedure(s): ANSI C63.26-2015, KDB 971168 D01v03r01

Test Date: July 28 ~ September 04, 2020

Reviewed By: 
(Sunny Sun)

Approved By: 
(Robin Wu)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2007RSU064-U1	Rev. 01	Initial Report	09-20-2020	Valid

Note: This report is prepared for FCC Class II permissive to supplementing LTE CA mode and adding related data.

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General Information

Applicant:	Nokia Shanghai Bell Co., Ltd
Applicant Address:	388#, Ningqiao Road, China (Shanghai) Pilot Free Trade Zone, Shanghai 201206, China
Manufacturer:	Nokia Shanghai Bell Co., Ltd
Manufacturer Address:	388#, Ningqiao Road, China (Shanghai) Pilot Free Trade Zone, Shanghai 201206, China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is an FCC accredited testing laboratory (MRT Designation No. CN1166) on the FCC website.
- MRT facility is an ISED recognized testing laboratory (MRT Reg. No. CN0001) on the ISED website.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the A2LA under the A2LA Program (Cert. No. 3628.01) and CNAS under the CNAS Program (Cert. No. L10551) in EMC, Safety, Radio, Telecommunications and SAR testing.

1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	FastMile 4G Receiver
Model No.:	4G03-A
Brand Name:	Nokia
Serial No.:	LC192600149
Intra-Band:	CA_7C, CA_41C
Modulation Type:	QPSK, 16QAM, 64QAM
T _x Frequency Range:	Band 7: 2500 ~ 2570 MHz Band 41: 2496 ~ 2690 MHz
R _x Frequency Range:	Band 7: 2620 ~ 2690 MHz Band 41: 2496 ~ 2690 MHz

Note: The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

2.2. EMI Suppression Device(s)/Modifications

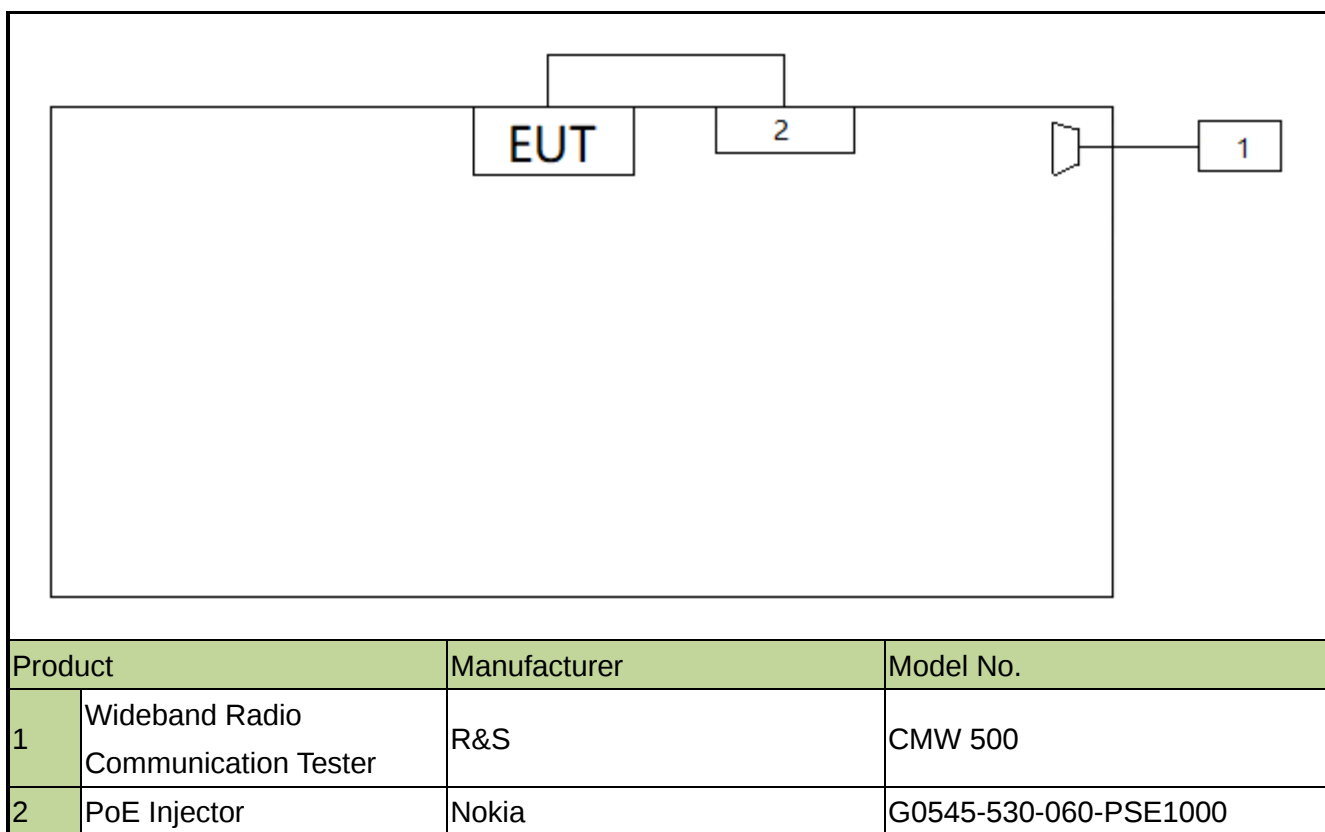
No EMI suppression device(s) were added and/or no modifications were made during testing.

2.3. Maximum Power, Frequency Tolerance, and Emission Designator

LTE Band 7 CA	QPSK			16QAM			64QAM		
BW (MHz)	Designator	Tolerance (ppm)	Max Power (W)	Designator	Tolerance (ppm)	Max Power (W)	Designator	Tolerance (ppm)	Max Power (W)
10 + 20MHz	27M4G7D	-	0.2649	27M4W7D	-	0.2388	27M4W7D	-	0.1977
15 + 10MHz	23M0G7D	-	0.2388	23M0W7D	-	0.2259	22M9W7D	-	0.1968
15 + 15MHz	28M0G7D	-	0.2512	28M0W7D	-	0.2133	28M0W7D	-	0.1932
15 + 20MHz	32M2G7D	-	0.2223	32M1W7D	-	0.1849	32M2W7D	-	0.1726
20 + 10MHz	27M4G7D	-	0.2070	27M4W7D	-	0.1950	27M4W7D	-	0.1563
20 + 15MHz	32M2G7D	-	0.2234	32M1W7D	-	0.1888	32M1W7D	-	0.1589
20 + 20MHz	37M1G7D	-	0.2518	37M0W7D	-	0.2109	37M0W7D	-	0.1589

LTE Band 41 CA	QPSK			16QAM			64QAM		
BW (MHz)	Designator	Tolerance (ppm)	Max Power (W)	Designator	Tolerance (ppm)	Max Power (W)	Designator	Tolerance (ppm)	Max Power (W)
5 + 20MHz	22M7G7D	-	0.2951	22M7W7D	-	0.2438	22M7W7D	-	0.1991
10 + 15MHz	23M0G7D	-	0.2924	23M0W7D	-	0.2427	23M1W7D	-	0.1799-
10 + 20MHz	27M6G7D	-	0.2624	27M6W7D	-	0.2168	27M7W7D	-	0.1581
15 + 10MHz	23M0G7D	-	0.2518	23M0W7D	-	0.2259	23M0W7D	-	0.2080
15 + 15MHz	28M2G7D	-	0.2582	28M2W7D	-	0.2265	28M2W7D	-	0.1905
15 + 20MHz	32M5G7D	-	0.2582	32M5W7D	-	0.2223	32M5W7D	-	0.1854
20 + 5MHz	22M7G7D	-	0.2472	22M7W7D	-	0.1866	22M7W7D	-	0.1585
20 + 10MHz	27M6G7D	-	0.2649	27M6W7D	-	0.2244	27M6W7D	-	0.1972
20 + 15MHz	32M4G7D	-	0.2636	32M5W7D	-	0.2208	32M5W7D	-	0.2061
20 + 20MHz	36M7G7D	-	0.2649	36M7W7D	-	0.2143	36M7W7D	-	0.1901

2.4. Configuration of Tested System



2.5. Test Mode

Test Item	Test Channel	Channel Bandwidth (MHz)	Modulation Type	RB#
LTE Band 7 CA				
Output Power	L, M, H	10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	1/Half/Full RB
EIRP	L, M, H	10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	1/Half/Full RB
Emission Bandwidth	L, M, H	10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	Full RB
Band Edge Measurements	L, H	10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 10, 20 + 15, 20 + 20	QPSK	1 RB
Conducted Spurious Emissions	L, M, H	10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 10, 20 + 15, 20 + 20	QPSK	1 RB
Radiated Spurious Emissions	L, M, H	10 + 20	QPSK	1 RB
LTE Band 41 CA				
Output Power	L, M, H	5 + 20, 10 + 15, 10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 5, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	1/Half/Full RB
EIRP	L, M, H	5 + 20, 10 + 15, 10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 5, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	1/Half/Full RB
Emission Bandwidth	L, M, H	5 + 20, 10 + 15, 10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 5, 20 + 10, 20 + 15, 20 + 20	QPSK, 16QAM, 64QAM	Full RB
Band Edge Measurements	L, H	5 + 20, 10 + 15, 10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 5, 20 + 10, 20 + 15, 20 + 20	QPSK	1 RB
Conducted Spurious Emissions	L, M, H	5 + 20, 10 + 15, 10 + 20, 15 + 10, 15 + 15, 15 + 20, 20 + 5, 20 + 10, 20 + 15, 20 + 20	QPSK	1 RB
Radiated Spurious Emissions	L, M, H	5 + 20	QPSK	1 RB

2.6. Test Environment Condition

Ambient Temperature	15°C ~ 35°C
Relative Humidity	20%RH ~75%RH

3. TEST EQUIPMENT CALIBRATION DATE

Radiated Emission - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2021/08/01
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2021/09/03
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2021/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2020/10/13
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2021/02/23
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
EMC Cable	HUBER+SUHN ER	SF126-2M	MRTSUE06732	1 year	2021/04/11
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2021/08/08
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2021/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2021/08/01
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2020/10/13
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2020/10/27
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2021/02/23
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
EMC Cable	HUBER+SUHN ER	SF126-2M	MRTSUE06733	1 year	2021/04/10
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2020/12/15
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2021/04/30

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2021/04/15
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06452	1 year	2021/07/11
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2021/04/15
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2020/11/18
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
True RMS Clamp Meter	Fluke	319	MRTSUE06080	1 year	2021/05/06
Directional Coupler	Agilent	87301D	MRTSUE06082	1 year	2021/03/25
Attenuator	MVE	6dB	MRTSUE06534	1 year	2020/12/12
Attenuator	MVE	10dB	MRTSUE06543	1 year	2020/12/12
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2020/11/07
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2021/08/08

Software	Version	Function
EMI Software	V3	EMI Test Software

4. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Radiated Emission Measurement	
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
Horizontal: 30MHz~300MHz: 5.04dB	
300MHz~1GHz: 4.95dB	
1GHz~40GHz: 6.40dB	
Vertical: 30MHz~300MHz: 5.24dB	
300MHz~1GHz: 6.03dB	
1GHz~40GHz: 6.40dB	
Spurious Emissions, Conducted	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
0.78dB	
Output Power	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
1.13dB	
Power Spectrum Density	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
1.15dB	
Occupied Bandwidth	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
0.28%	

5. TEST RESULT

5.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A	Conducted	Pass	Section 5.2
27.50(h)(2)	Equivalent Isotropic Radiated Power	< 2 Watts		Pass	Section 5.3
27.53(m)	Band Edge	27.53(m)(4)		Pass	Section 5.4, 5.5
2.1051, 27.53(m)	Conducted Spurious Emission	< 43 + 10log10 (P _[Watts])			
27.53(m)	Radiated Spurious Emissions	27.53(m)(4)	Radiated	Pass	Section 5.6

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) All supported modulation types were evaluated. The worst-case emission of modulation was selected. Therefore, the Channel Band Edge, Radiated & Conducted Spurious Emission were presented the worst data in the test report.

5.2. Occupied Bandwidth Measurement

5.2.1. Test Limit

The occupied bandwidth, 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 percent of the total mean power radiated by a given emission shall be measured.

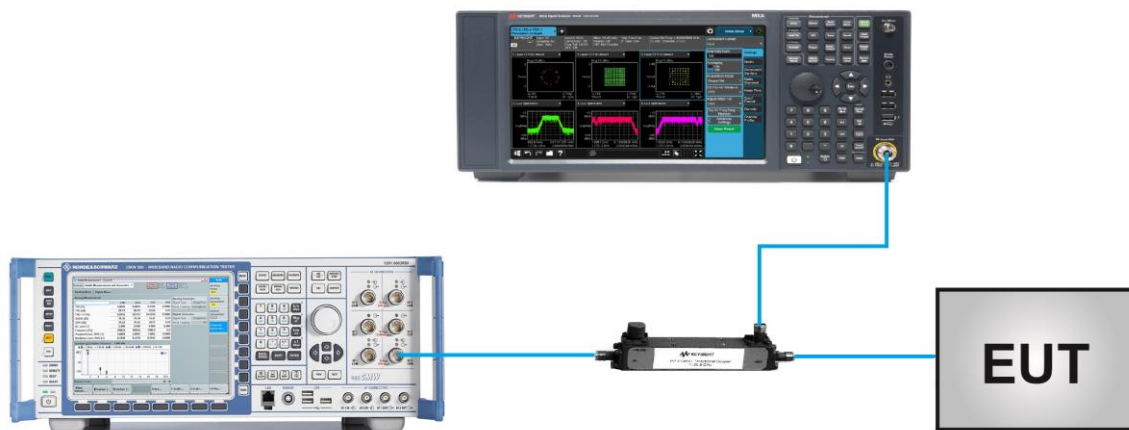
5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.4

5.2.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4. Test Setup



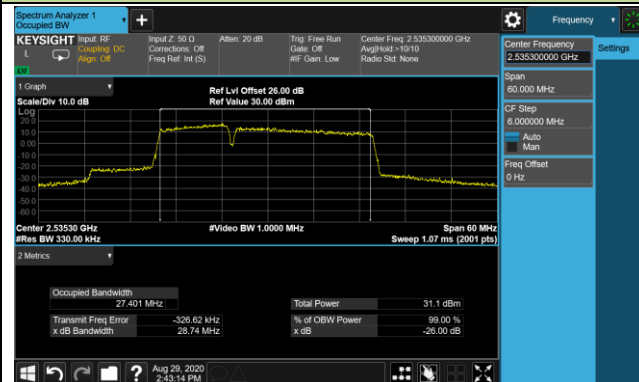
5.2.5.Test Result

Model Number	4G03-A	Test Engineer	Larry Yan
Test Site	SR6	Test Date	2020/08/29
Test Band	Intra-Band CA_7C		

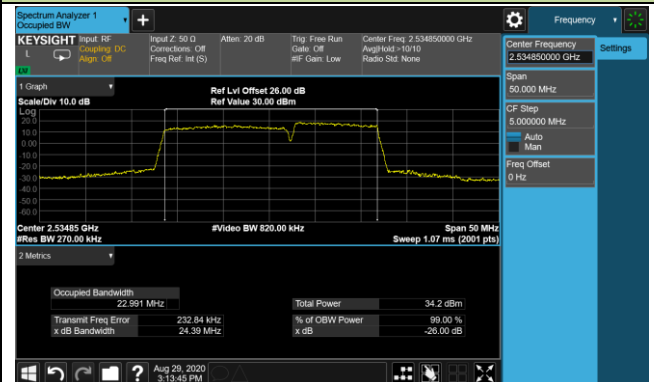
Modulation	Frequency (MHz)	Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK	2525.6+2540.0	10+20	28.74	27.40
	2530.1+2542.1	15+10	24.39	22.99
	2527.5+2542.5	15+15	29.59	28.00
	2525.3+2542.4	15+20	33.69	32.16
	2530.1+2544.5	20+10	28.79	27.42
	2527.6+2544.7	20+15	33.73	32.16
	2525.1+2544.9	20+20	38.75	37.07
16QAM	2525.6+2540.0	10+20	28.84	27.40
	2530.1+2542.1	15+10	24.44	22.96
	2527.5+2542.5	15+15	29.44	27.97
	2525.3+2542.4	15+20	33.78	32.11
	2530.1+2544.5	20+10	28.74	27.41
	2527.6+2544.7	20+15	33.70	32.13
	2525.1+2544.9	20+20	38.70	37.04
64QAM	2525.6+2540.0	10+20	28.74	27.41
	2530.1+2542.1	15+10	24.24	22.91
	2527.5+2542.5	15+15	29.39	27.97
	2525.3+2542.4	15+20	33.96	32.21
	2530.1+2544.5	20+10	28.72	27.44
	2527.6+2544.7	20+15	33.66	32.14
	2525.1+2544.9	20+20	38.71	36.98

Emission Bandwidth - QPSK

10+20MHz Channel Bandwidth



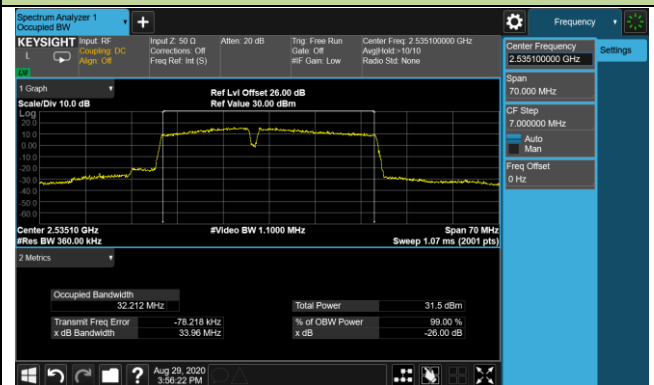
15+10MHz Channel Bandwidth



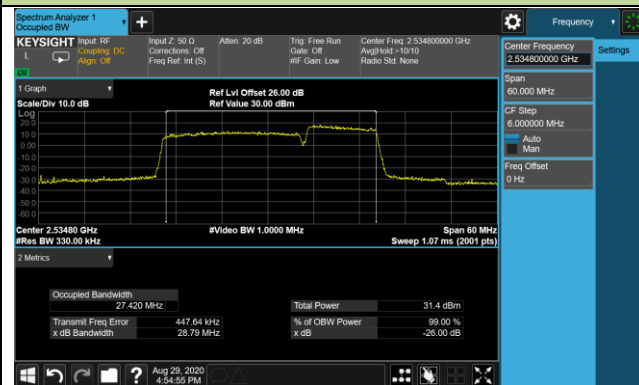
15+15MHz Channel Bandwidth



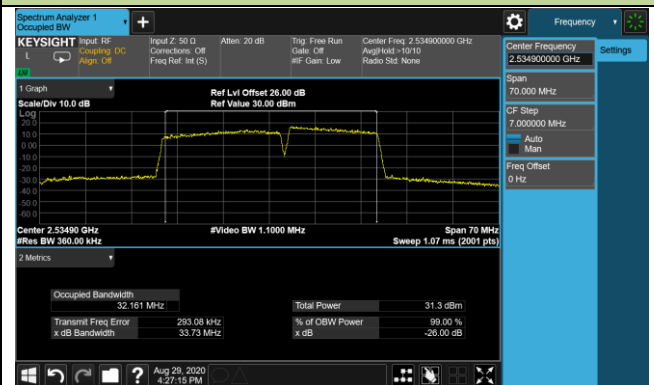
15+20MHz Channel Bandwidth



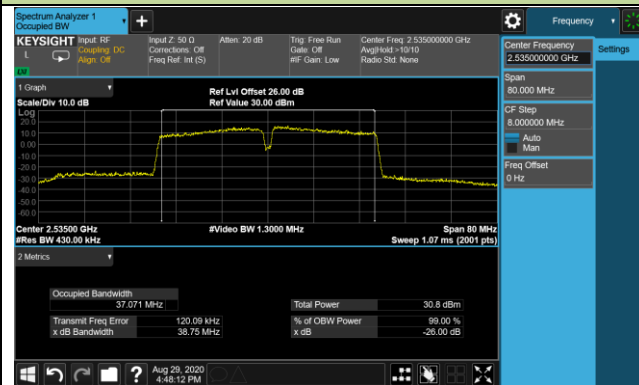
20+10MHz Channel Bandwidth



20+15MHz Channel Bandwidth

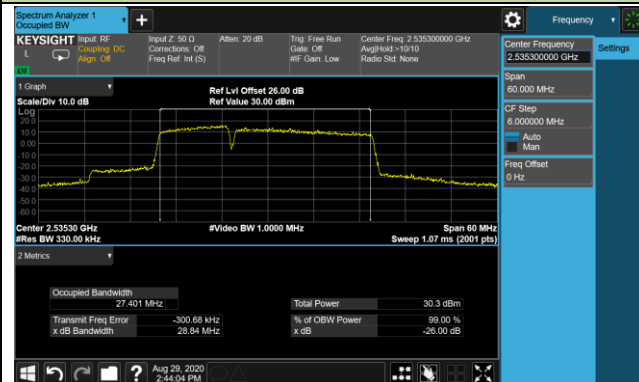


20+20MHz Channel Bandwidth

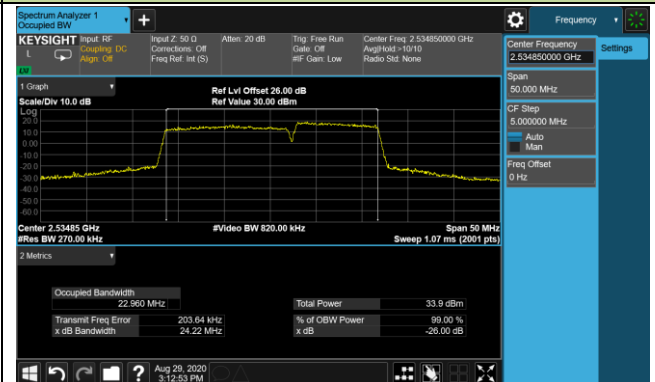


Emission Bandwidth - 16QAM

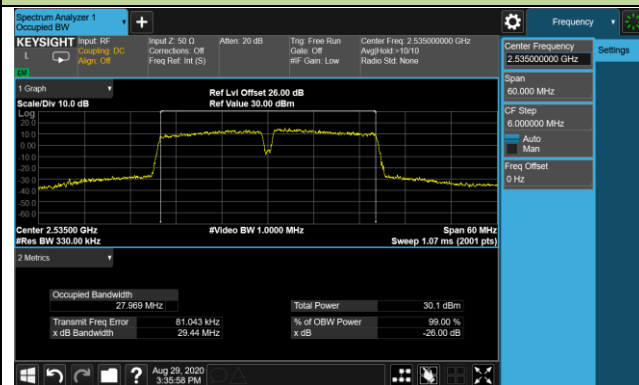
10+20MHz Channel Bandwidth



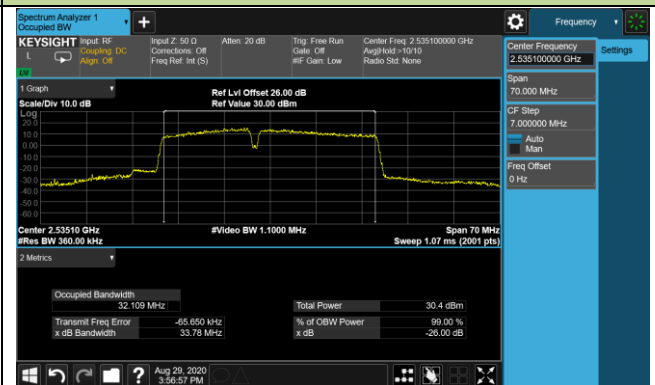
15+10MHz Channel Bandwidth



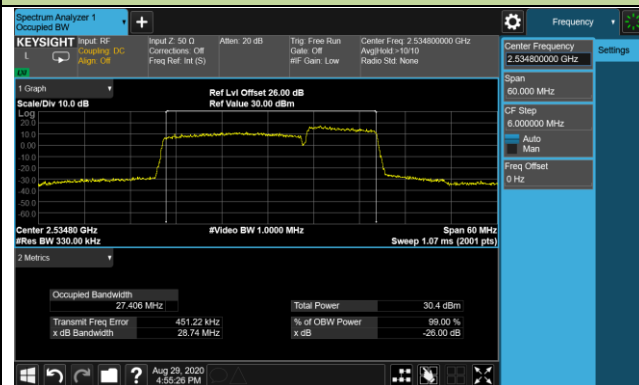
15+15MHz Channel Bandwidth



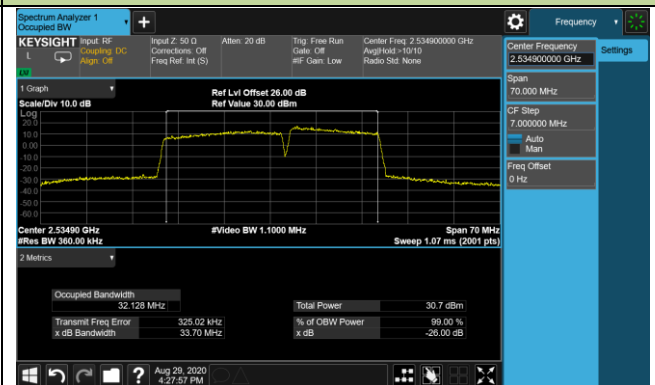
15+20MHz Channel Bandwidth



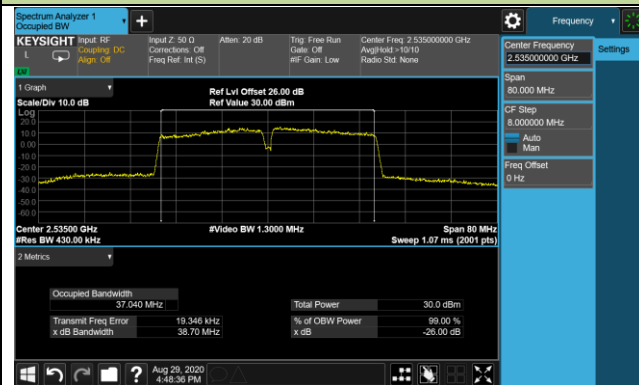
20+10MHz Channel Bandwidth



20+15MHz Channel Bandwidth

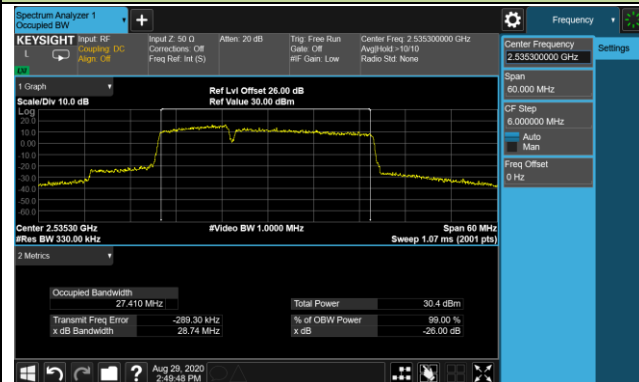


20+20MHz Channel Bandwidth

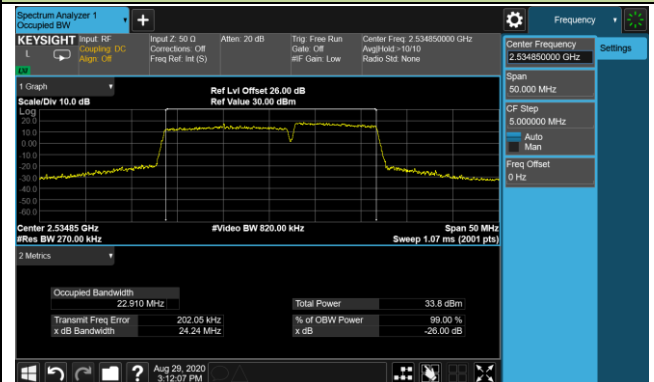


Emission Bandwidth - 64QAM

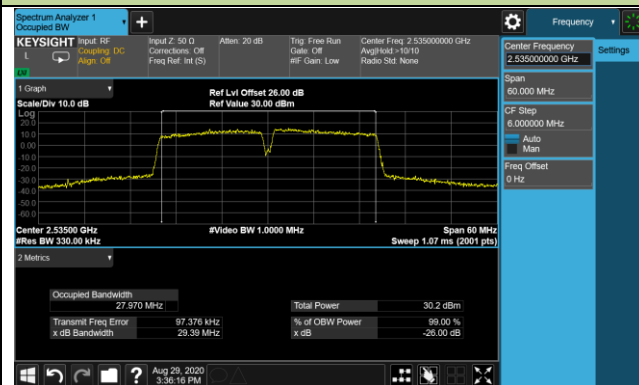
10+20MHz Channel Bandwidth



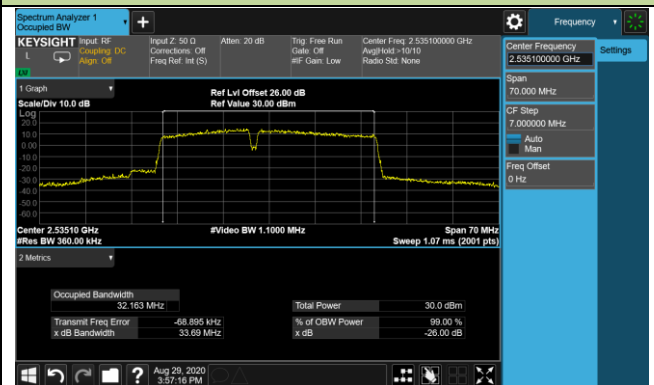
15+10MHz Channel Bandwidth



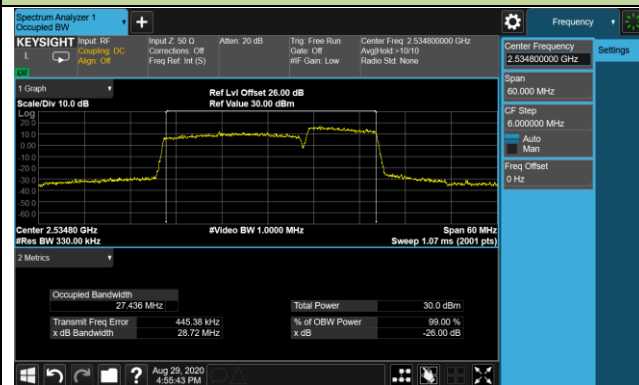
15+15MHz Channel Bandwidth



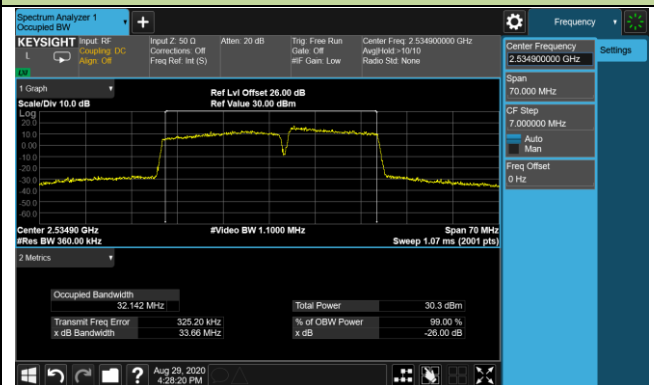
15+20MHz Channel Bandwidth



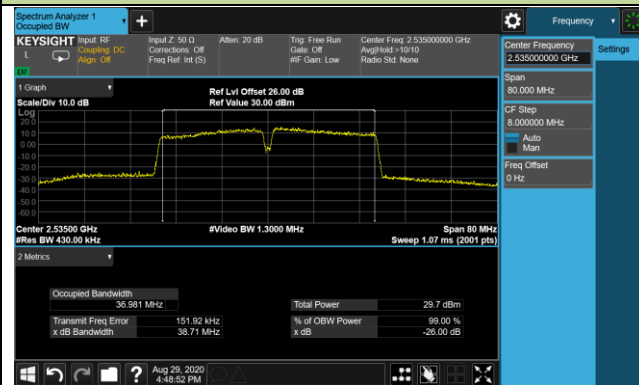
20+10MHz Channel Bandwidth



20+15MHz Channel Bandwidth



20+20MHz Channel Bandwidth

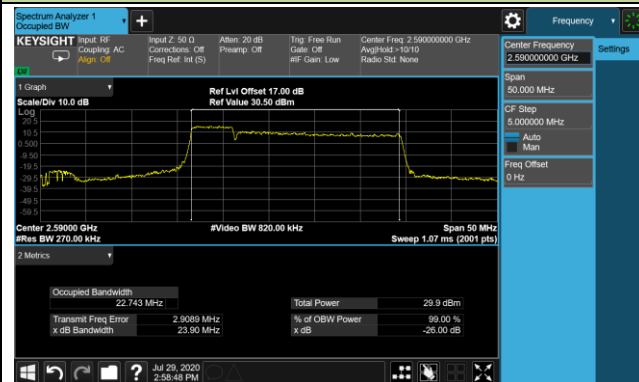


Model Number	4G03-A	Test Engineer	Eric Xu
Test Site	SR6	Test Date	2020/07/29
Test Band	Intra-Band CA_41C		

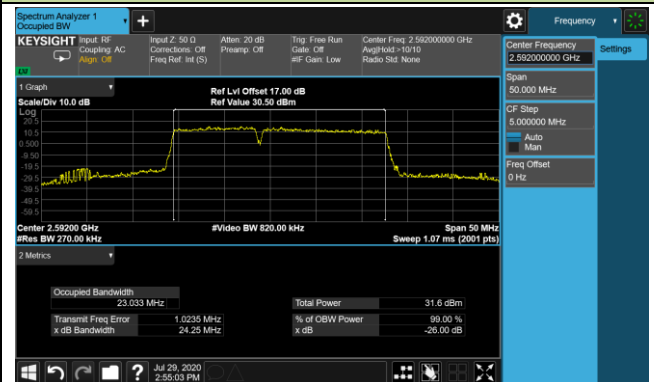
Modulation	Frequency (MHz)	Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK	2583.8 + 2595.5	5+20	23.90	22.74
	2585.9 + 2597.9	10+15	24.25	23.03
	2583.6 + 2598.0	10+20	29.02	27.60
	2588.1 + 2600.1	15+10	24.34	23.00
	2585.5 + 2600.5	15+15	29.65	28.16
	2583.3 + 2600.4	15+20	34.08	32.49
	2590.5 + 2602.2	20+5	23.96	22.72
	2588.1 + 2602.5	20+10	28.80	27.61
	2585.6 + 2602.7	20+15	34.06	32.41
	2583.1 + 2602.9	20+20	38.43	36.73
16QAM	2583.8 + 2595.5	5+20	23.90	22.72
	2585.9 + 2597.9	10+15	24.09	23.04
	2583.6 + 2598.0	10+20	28.87	27.63
	2588.1 + 2600.1	15+10	24.20	22.98
	2585.5 + 2600.5	15+15	29.74	28.20
	2583.3 + 2600.4	15+20	33.98	32.46
	2590.5 + 2602.2	20+5	23.76	22.71
	2588.1 + 2602.5	20+10	28.92	27.59
	2585.6 + 2602.7	20+15	33.87	32.47
	2583.1 + 2602.9	20+20	38.43	36.73
64QAM	2583.8 + 2595.5	5+20	23.75	22.70
	2585.9 + 2597.9	10+15	24.23	23.09
	2583.6 + 2598.0	10+20	28.72	27.70
	2588.1 + 2600.1	15+10	24.59	22.95
	2585.5 + 2600.5	15+15	29.60	28.21
	2583.3 + 2600.4	15+20	33.92	32.49
	2590.5 + 2602.2	20+5	23.71	22.72
	2588.1 + 2602.5	20+10	28.75	27.57
	2585.6 + 2602.7	20+15	33.97	32.48
	2583.1 + 2602.9	20+20	38.15	36.73

Emission Bandwidth - QPSK

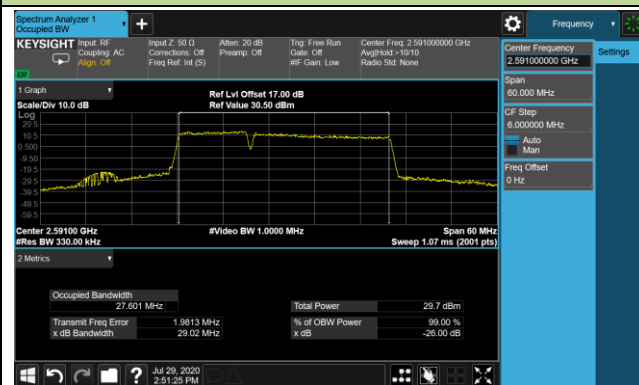
5+20MHz Channel Bandwidth



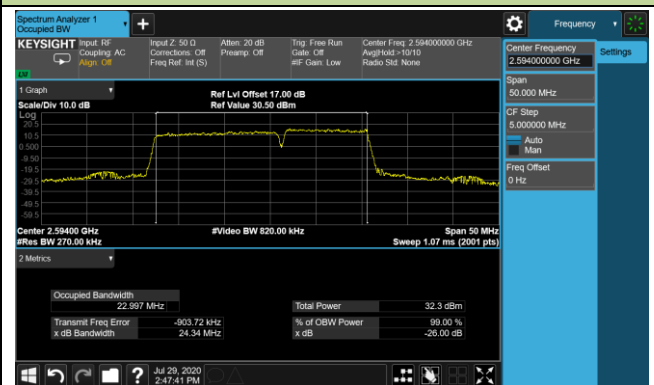
10+15MHz Channel Bandwidth



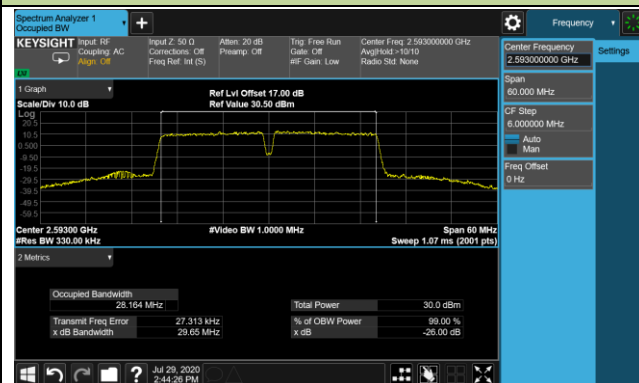
10+20MHz Channel Bandwidth



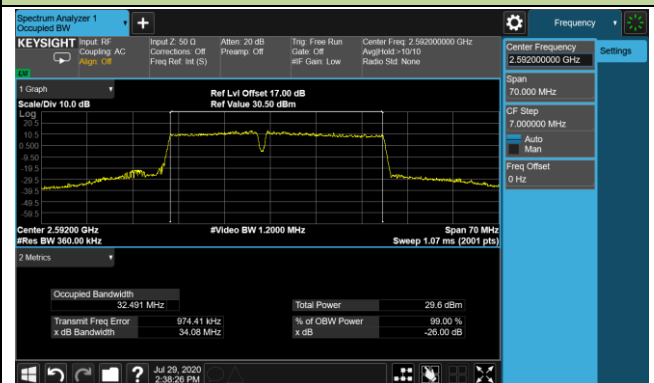
15+10MHz Channel Bandwidth



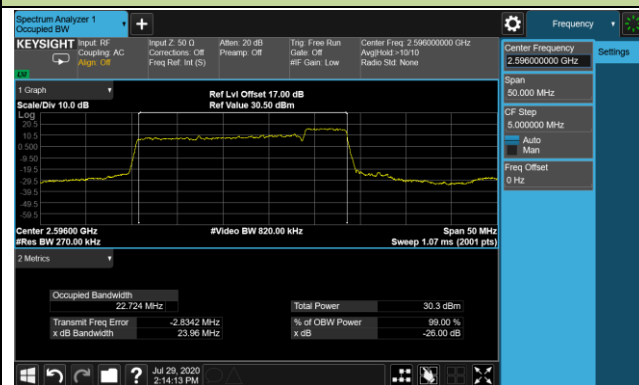
15+15MHz Channel Bandwidth



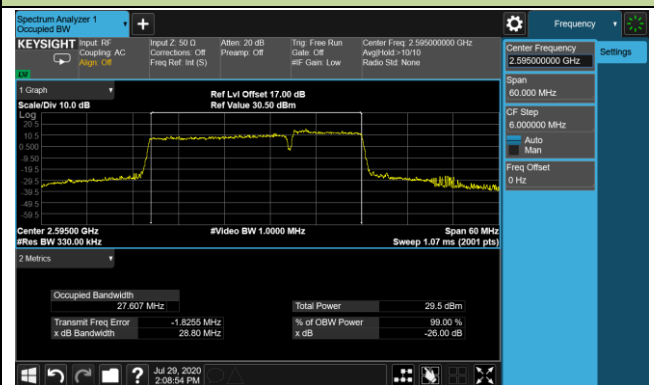
15+20MHz Channel Bandwidth

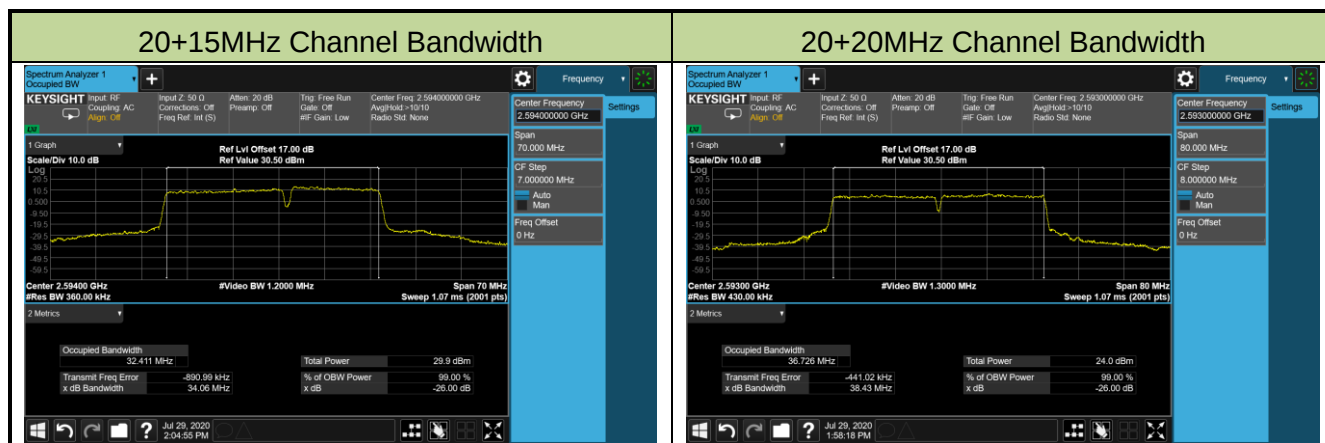


20+5MHz Channel Bandwidth



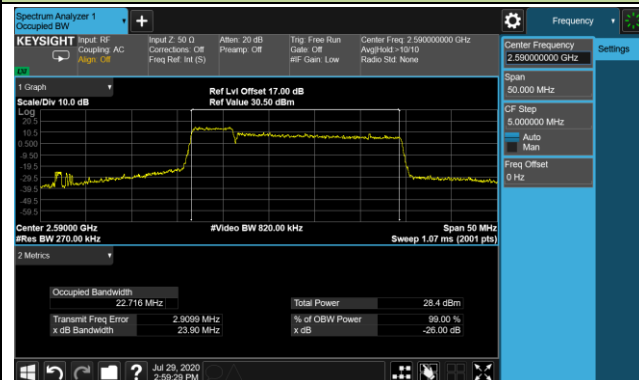
20+10MHz Channel Bandwidth



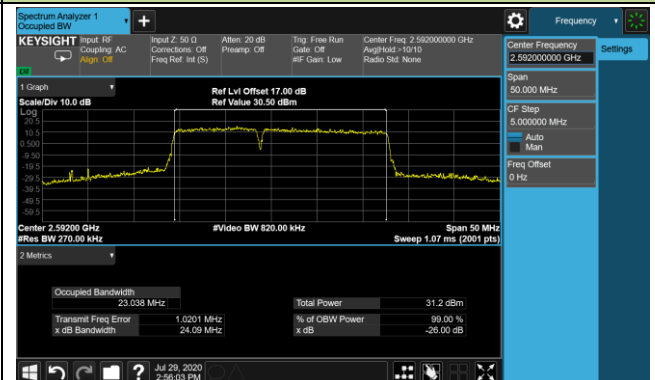


Emission Bandwidth - 16QAM

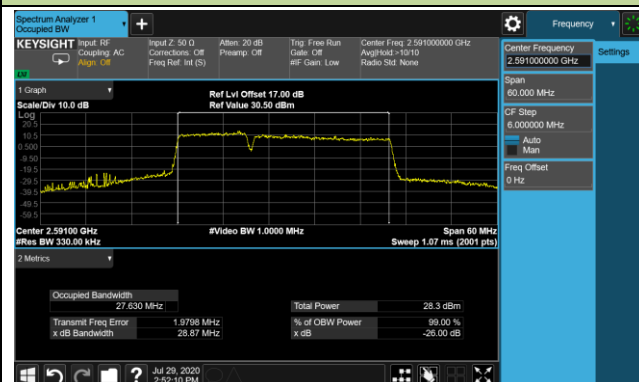
5+20MHz Channel Bandwidth



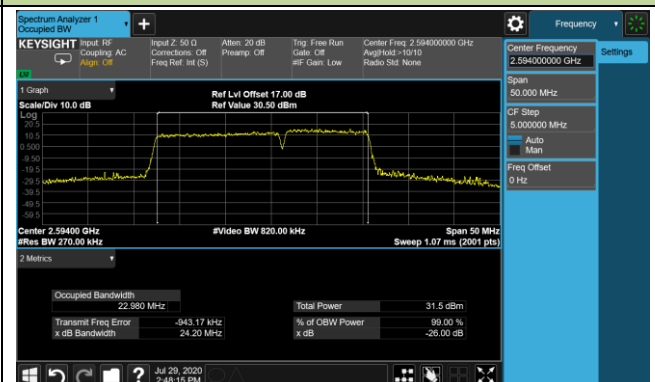
10+15MHz Channel Bandwidth



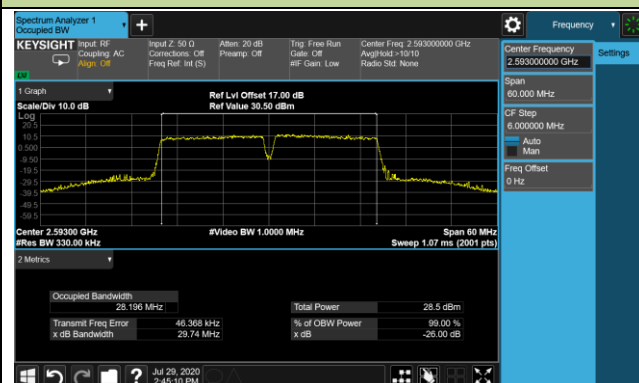
10+20MHz Channel Bandwidth



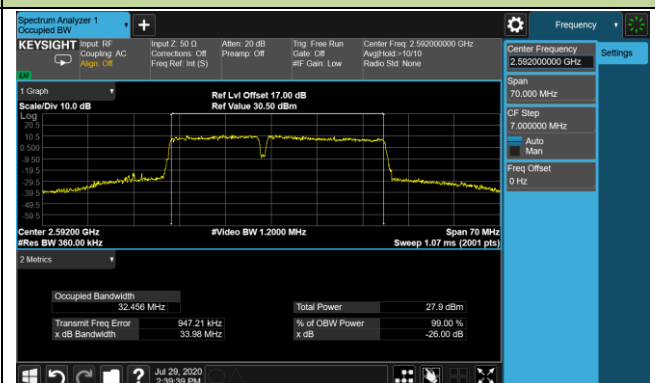
15+10MHz Channel Bandwidth



15+15MHz Channel Bandwidth



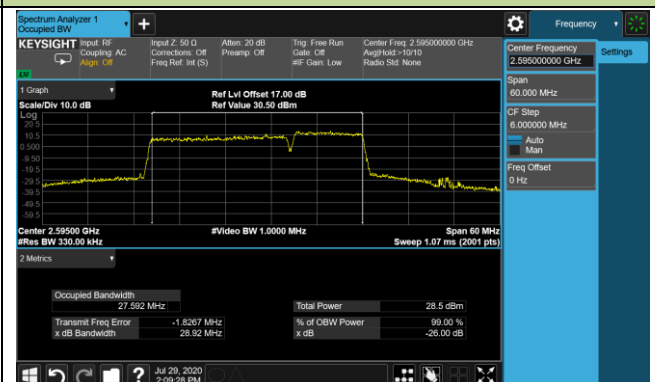
15+20MHz Channel Bandwidth

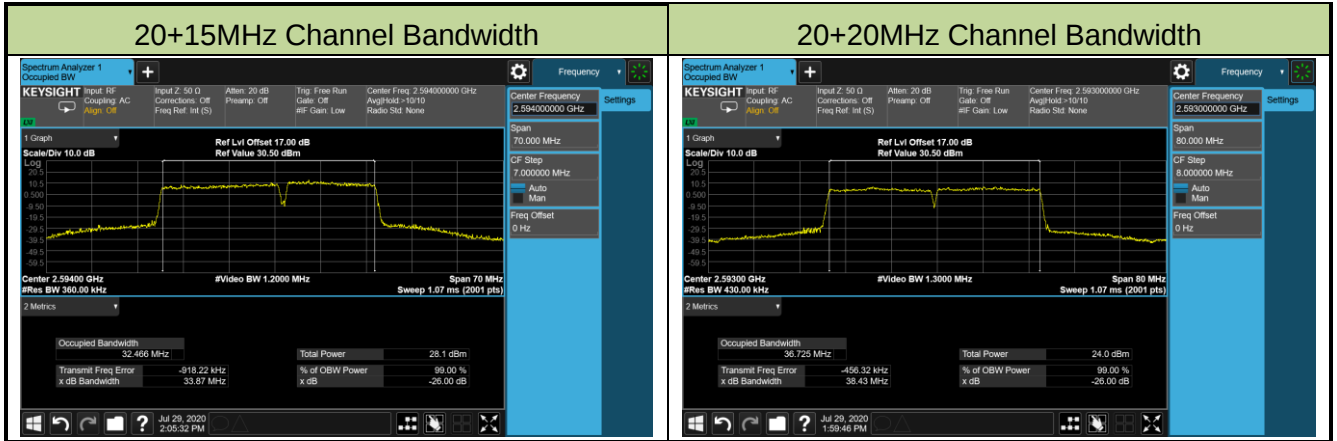


20+5MHz Channel Bandwidth



20+10MHz Channel Bandwidth



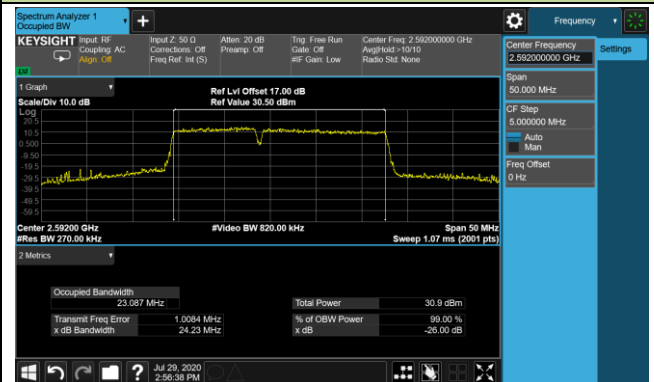


Emission Bandwidth - 64QAM

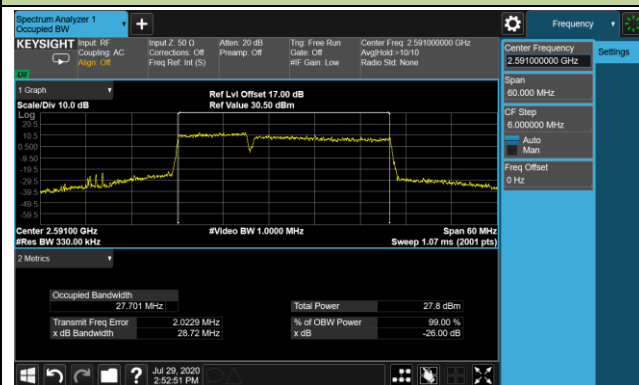
5+20MHz Channel Bandwidth



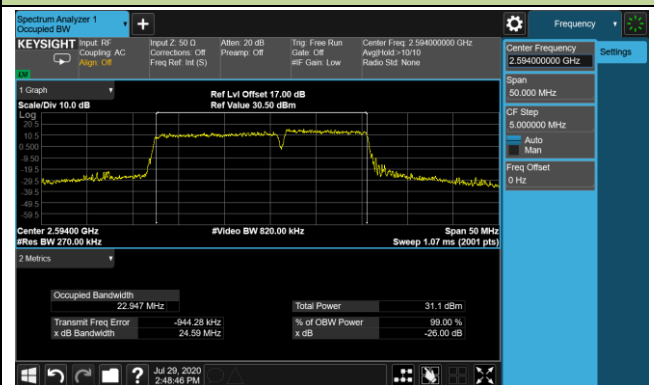
10+15MHz Channel Bandwidth



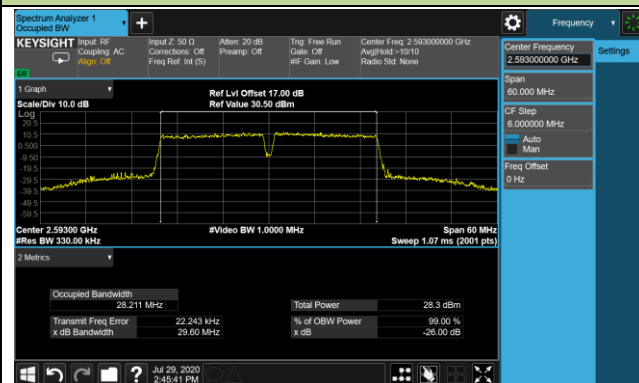
10+20MHz Channel Bandwidth



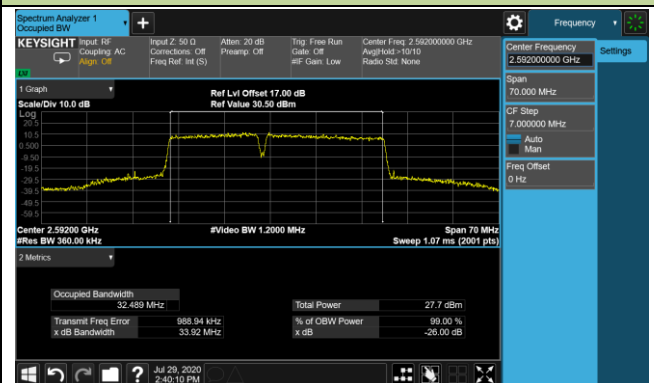
15+10MHz Channel Bandwidth



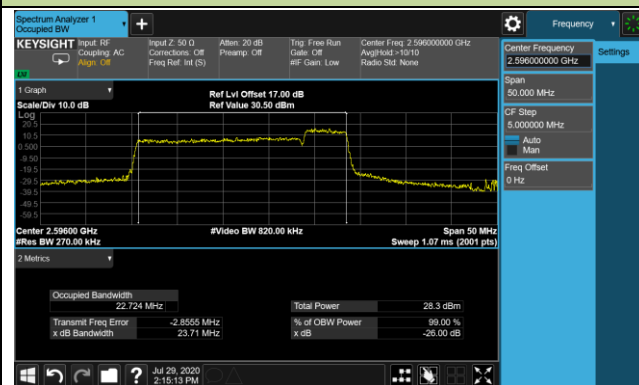
15+15MHz Channel Bandwidth



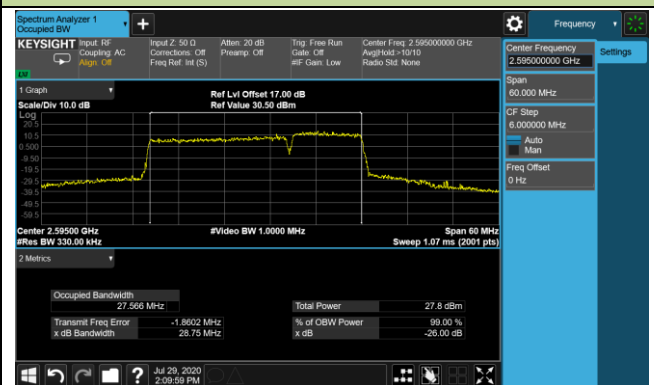
15+20MHz Channel Bandwidth

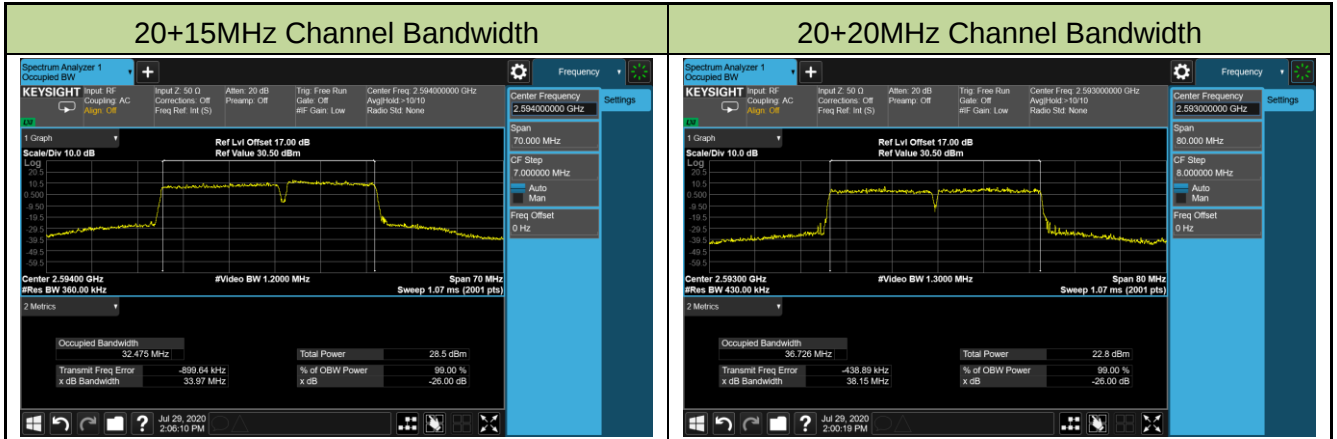


20+5MHz Channel Bandwidth



20+10MHz Channel Bandwidth





5.3. Equivalent Isotropically Radiated Power Measurement

5.3.1. Test Limit

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

5.3.2. Test Procedures Used

ANSI C63.26-2015 - Section 5.2

5.3.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

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

where

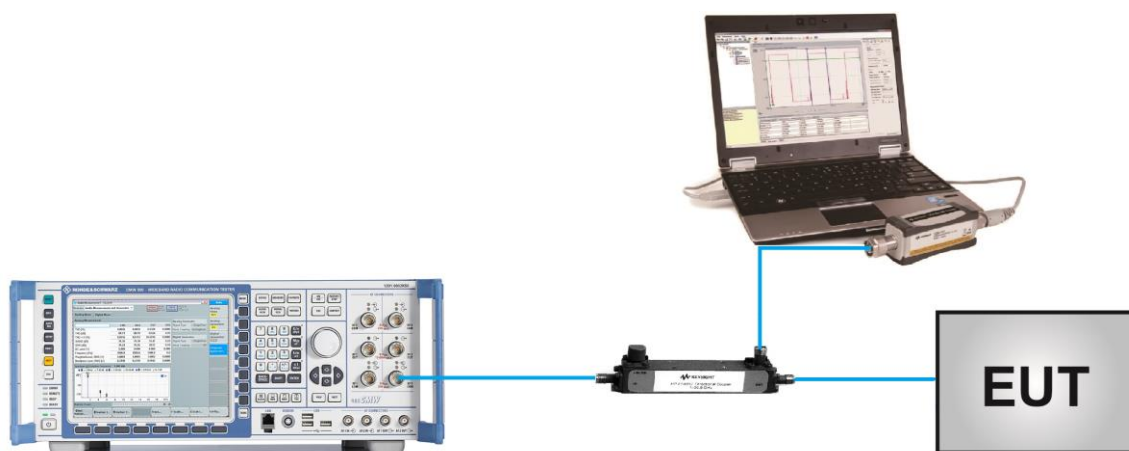
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

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)

$$\text{ERP} = \text{EIRP} - 2.15$$

5.3.4. Test Setup



5.3.5. Test Result

Model Number	4G03-A	Test Engineer	Larry Yan
Test Site	SR6	Test Date	2020/08/30
Test Band	Intra-Band CA_7C		

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2505.50	2519.90	10 + 20	P_1@0	S_0@0	23.89	< 33.01
2525.60	2540.00				23.63	< 33.01
2545.60	2560.00				22.11	< 33.01
2505.50	2519.90		P_1@24	S_0@0	21.98	< 33.01
2525.60	2540.00				24.23	< 33.01
2545.60	2560.00				20.99	< 33.01
2505.50	2519.90		P_1@49	S_0@0	22.09	< 33.01
2525.60	2540.00				23.66	< 33.01
2545.60	2560.00				21.22	< 33.01
2505.50	2519.90		P_50@0	S_0@0	21.27	< 33.01
2525.60	2540.00				23.79	< 33.01
2545.60	2560.00				20.86	< 33.01
2507.50	2519.50	15 + 10	P_1@0	S_0@0	23.27	< 33.01
2530.10	2542.10				22.96	< 33.01
2552.70	2564.70				22.17	< 33.01
2507.50	2519.50		P_1@36	S_0@0	20.57	< 33.01
2530.10	2542.10				23.56	< 33.01
2552.70	2564.70				21.78	< 33.01
2507.50	2519.50		P_1@74	S_0@0	21.01	< 33.01
2530.10	2542.10				22.78	< 33.01
2552.70	2564.70				23.51	< 33.01
2507.50	2519.50		P_75@0	S_0@0	21.64	< 33.01
2530.10	2542.10				23.78	< 33.01
2552.70	2564.70				23.32	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2507.50	2522.50	15 + 15	P_1@0	S_0@0	23.11	< 33.01
2527.50	2542.50				22.08	< 33.01
2547.50	2562.50				22.19	< 33.01
2507.50	2522.50		P_1@36	S_0@0	21.56	< 33.01
2527.50	2542.50				24.00	< 33.01
2547.50	2562.50				21.04	< 33.01
2507.50	2522.50		P_1@74	S_0@0	21.67	< 33.01
2527.50	2542.50				23.11	< 33.01
2547.50	2562.50				21.63	< 33.01
2507.50	2522.50		P_75@0	S_0@0	20.45	< 33.01
2527.50	2542.50				22.79	< 33.01
2547.50	2562.50				20.32	< 33.01
2507.80	2524.90	15 + 20	P_1@0	S_0@0	23.01	< 33.01
2525.30	2542.40				21.91	< 33.01
2542.90	2560.00				22.78	< 33.01
2507.80	2524.90		P_1@36	S_0@0	20.91	< 33.01
2525.30	2542.40				23.47	< 33.01
2542.90	2560.00				21.76	< 33.01
2507.80	2524.90		P_1@74	S_0@0	21.11	< 33.01
2525.30	2542.40				23.39	< 33.01
2542.90	2560.00				21.34	< 33.01
2507.80	2524.90		P_75@0	S_0@0	21.27	< 33.01
2525.30	2542.40				22.79	< 33.01
2542.90	2560.00				21.55	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2510.00	2524.40	20+10	P_1@0	S_0@0	23.16	< 33.01
2530.10	2544.50				22.45	< 33.01
2550.10	2564.50				22.07	< 33.01
2510.00	2524.40		P_1@49	S_0@0	20.98	< 33.01
2530.10	2544.50				23.14	< 33.01
2550.10	2564.50				20.54	< 33.01
2510.00	2524.40		P_1@99	S_0@0	21.61	< 33.01
2530.10	2544.50				22.08	< 33.01
2550.10	2564.50				23.16	< 33.01
2510.00	2524.40		P_100@0	S_0@0	21.01	< 33.01
2530.10	2544.50				21.65	< 33.01
2550.10	2564.50				20.98	< 33.01
2510.00	2527.10	20+15	P_1@0	S_0@0	23.23	< 33.01
2527.60	2544.70				21.96	< 33.01
2545.10	2562.60				23.12	< 33.01
2510.00	2527.10		P_1@49	S_0@0	20.87	< 33.01
2527.60	2544.70				23.49	< 33.01
2545.10	2562.60				20.53	< 33.01
2510.00	2527.10		P_1@99	S_0@0	21.27	< 33.01
2527.60	2544.70				22.58	< 33.01
2545.10	2562.60				21.87	< 33.01
2510.00	2527.10		P_100@0	S_0@0	20.19	< 33.01
2527.60	2544.70				21.38	< 33.01
2545.10	2562.60				20.88	< 33.01

Frequency (MHz)		Channel Bandwidth (MHz)	PCC RB	SCC RB	Output Power (dBm)	Limit (dBm)
PCC	SCC					
QPSK						
2510.00	2529.80	20 + 20	P_1@0	S_0@0	24.01	< 33.01
2525.10	2544.90				21.98	< 33.01
2540.20	2560.00				23.89	< 33.01
2510.00	2529.80		P_1@49	S_0@0	20.89	< 33.01
2525.10	2544.90				22.56	< 33.01
2540.20	2560.00				21.65	< 33.01
2510.00	2529.80		P_1@99	S_0@0	20.87	< 33.01
2525.10	2544.90				22.96	< 33.01
2540.20	2560.00				20.92	< 33.01
2510.00	2529.80		P_100@0	S_0@0	20.86	< 33.01
2525.10	2544.90				22.57	< 33.01
2540.20	2560.00				21.08	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2505.50	2519.90	10 + 20	P_1@0	S_0@0	23.52	< 33.01
2525.60	2540.00				23.35	< 33.01
2545.60	2560.00				22.08	< 33.01
2505.50	2519.90		P_1@24	S_0@0	21.77	< 33.01
2525.60	2540.00				23.78	< 33.01
2545.60	2560.00				20.57	< 33.01
2505.50	2519.90		P_1@49	S_0@0	22.08	< 33.01
2525.60	2540.00				22.83	< 33.01
2545.60	2560.00				21.16	< 33.01
2505.50	2519.90		P_50@0	S_0@0	20.99	< 33.01
2525.60	2540.00				22.57	< 33.01
2545.60	2560.00				20.65	< 33.01
2507.50	2519.50	15 + 10	P_1@0	S_0@0	22.81	< 33.01
2530.10	2542.10				22.88	< 33.01
2552.70	2564.70				21.34	< 33.01
2507.50	2519.50		P_1@36	S_0@0	20.43	< 33.01
2530.10	2542.10				23.45	< 33.01
2552.70	2564.70				21.54	< 33.01
2507.50	2519.50		P_1@74	S_0@0	20.78	< 33.01
2530.10	2542.10				22.63	< 33.01
2552.70	2564.70				23.09	< 33.01
2507.50	2519.50		P_75@0	S_0@0	21.09	< 33.01
2530.10	2542.10				23.54	< 33.01
2552.70	2564.70				21.88	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2507.50	2522.50	15 + 15	P_1@0	S_0@0	22.90	< 33.01
2527.50	2542.50				20.99	< 33.01
2547.50	2562.50				21.56	< 33.01
2507.50	2522.50		P_1@36	S_0@0	21.32	< 33.01
2527.50	2542.50				23.29	< 33.01
2547.50	2562.50				20.57	< 33.01
2507.50	2522.50		P_1@74	S_0@0	21.32	< 33.01
2527.50	2542.50				22.60	< 33.01
2547.50	2562.50				21.06	< 33.01
2507.50	2522.50		P_75@0	S_0@0	19.89	< 33.01
2527.50	2542.50				21.87	< 33.01
2547.50	2562.50				19.89	< 33.01
2507.80	2524.90	15 + 20	P_1@0	S_0@0	22.51	< 33.01
2525.30	2542.40				20.88	< 33.01
2542.90	2560.00				21.98	< 33.01
2507.80	2524.90		P_1@36	S_0@0	20.64	< 33.01
2525.30	2542.40				22.45	< 33.01
2542.90	2560.00				20.93	< 33.01
2507.80	2524.90		P_1@74	S_0@0	20.06	< 33.01
2525.30	2542.40				22.67	< 33.01
2542.90	2560.00				20.09	< 33.01
2507.80	2524.90		P_75@0	S_0@0	20.58	< 33.01
2525.30	2542.40				21.74	< 33.01
2542.90	2560.00				20.66	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2510.00	2524.40	20+10	P_1@0	S_0@0	22.73	< 33.01
2530.10	2544.50				21.48	< 33.01
2550.10	2564.50				20.95	< 33.01
2510.00	2524.40		P_1@49	S_0@0	20.09	< 33.01
2530.10	2544.50				22.90	< 33.01
2550.10	2564.50				19.77	< 33.01
2510.00	2524.40		P_1@99	S_0@0	20.50	< 33.01
2530.10	2544.50				21.65	< 33.01
2550.10	2564.50				22.29	< 33.01
2510.00	2524.40		P_100@0	S_0@0	19.91	< 33.01
2530.10	2544.50				20.87	< 33.01
2550.10	2564.50				20.33	< 33.01
2510.00	2527.10	20+15	P_1@0	S_0@0	22.55	< 33.01
2527.60	2544.70				21.01	< 33.01
2545.10	2562.60				22.16	< 33.01
2510.00	2527.10		P_1@49	S_0@0	20.56	< 33.01
2527.60	2544.70				22.76	< 33.01
2545.10	2562.60				19.96	< 33.01
2510.00	2527.10		P_1@99	S_0@0	20.08	< 33.01
2527.60	2544.70				21.95	< 33.01
2545.10	2562.60				20.67	< 33.01
2510.00	2527.10		P_100@0	S_0@0	19.54	< 33.01
2527.60	2544.70				20.51	< 33.01
2545.10	2562.60				20.11	< 33.01

Frequency (MHz)		Channel Bandwidth (MHz)	PCC RB	SCC RB	Output Power (dBm)	Limit (dBm)
PCC	SCC					
16QAM						
2510.00	2529.80	20 + 20	P_1@0	S_0@0	23.24	< 33.01
2525.10	2544.90				20.67	< 33.01
2540.20	2560.00				22.83	< 33.01
2510.00	2529.80		P_1@49	S_0@0	20.72	< 33.01
2525.10	2544.90				21.43	< 33.01
2540.20	2560.00				21.19	< 33.01
2510.00	2529.80		P_1@99	S_0@0	20.87	< 33.01
2525.10	2544.90				22.15	< 33.01
2540.20	2560.00				20.24	< 33.01
2510.00	2529.80		P_100@0	S_0@0	19.17	< 33.01
2525.10	2544.90				21.67	< 33.01
2540.20	2560.00				20.86	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2505.50	2519.90	10 + 20	P_1@0	S_0@0	22.95	< 33.01
2525.60	2540.00				22.96	< 33.01
2545.60	2560.00				21.67	< 33.01
2505.50	2519.90		P_1@24	S_0@0	20.65	< 33.01
2525.60	2540.00				22.57	< 33.01
2545.60	2560.00				20.04	< 33.01
2505.50	2519.90		P_1@49	S_0@0	21.11	< 33.01
2525.60	2540.00				22.46	< 33.01
2545.60	2560.00				20.41	< 33.01
2505.50	2519.90		P_50@0	S_0@0	20.01	< 33.01
2525.60	2540.00				21.81	< 33.01
2545.60	2560.00				19.89	< 33.01
2507.50	2519.50	15 + 10	P_1@0	S_0@0	22.77	< 33.01
2530.10	2542.10				22.06	< 33.01
2552.70	2564.70				21.09	< 33.01
2507.50	2519.50		P_1@36	S_0@0	20.19	< 33.01
2530.10	2542.10				22.94	< 33.01
2552.70	2564.70				20.98	< 33.01
2507.50	2519.50		P_1@74	S_0@0	20.78	< 33.01
2530.10	2542.10				22.43	< 33.01
2552.70	2564.70				22.35	< 33.01
2507.50	2519.50		P_75@0	S_0@0	20.93	< 33.01
2530.10	2542.10				22.78	< 33.01
2552.70	2564.70				21.57	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2507.50	2522.50	15 + 15	P_1@0	S_0@0	22.55	< 33.01
2527.50	2542.50				20.34	< 33.01
2547.50	2562.50				20.38	< 33.01
2507.50	2522.50		P_1@36	S_0@0	20.54	< 33.01
2527.50	2542.50				22.86	< 33.01
2547.50	2562.50				19.67	< 33.01
2507.50	2522.50		P_1@74	S_0@0	20.44	< 33.01
2527.50	2542.50				21.13	< 33.01
2547.50	2562.50				20.55	< 33.01
2507.50	2522.50		P_75@0	S_0@0	19.09	< 33.01
2527.50	2542.50				20.97	< 33.01
2547.50	2562.50				19.06	< 33.01
2507.80	2524.90	15 + 20	P_1@0	S_0@0	22.37	< 33.01
2525.30	2542.40				19.51	< 33.01
2542.90	2560.00				21.67	< 33.01
2507.80	2524.90		P_1@36	S_0@0	19.58	< 33.01
2525.30	2542.40				21.75	< 33.01
2542.90	2560.00				19.82	< 33.01
2507.80	2524.90		P_1@74	S_0@0	19.98	< 33.01
2525.30	2542.40				21.76	< 33.01
2542.90	2560.00				19.39	< 33.01
2507.80	2524.90		P_75@0	S_0@0	19.78	< 33.01
2525.30	2542.40				20.82	< 33.01
2542.90	2560.00				19.87	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2510.00	2524.40	20+10	P_1@0	S_0@0	21.67	< 33.01
2530.10	2544.50				20.04	< 33.01
2550.10	2564.50				19.86	< 33.01
2510.00	2524.40		P_1@49	S_0@0	19.87	< 33.01
2530.10	2544.50				21.58	< 33.01
2550.10	2564.50				19.12	< 33.01
2510.00	2524.40		P_1@99	S_0@0	19.82	< 33.01
2530.10	2544.50				20.31	< 33.01
2550.10	2564.50				21.94	< 33.01
2510.00	2524.40		P_100@0	S_0@0	19.32	< 33.01
2530.10	2544.50				20.41	< 33.01
2550.10	2564.50				19.53	< 33.01
2510.00	2527.10	20+15	P_1@0	S_0@0	21.56	< 33.01
2527.60	2544.70				20.42	< 33.01
2545.10	2562.60				21.81	< 33.01
2510.00	2527.10		P_1@49	S_0@0	19.98	< 33.01
2527.60	2544.70				22.01	< 33.01
2545.10	2562.60				18.98	< 33.01
2510.00	2527.10		P_1@99	S_0@0	19.21	< 33.01
2527.60	2544.70				20.97	< 33.01
2545.10	2562.60				20.01	< 33.01
2510.00	2527.10		P_100@0	S_0@0	19.30	< 33.01
2527.60	2544.70				20.41	< 33.01
2545.10	2562.60				19.16	< 33.01

Frequency (MHz)		Channel Bandwidth (MHz)	PCC RB	SCC RB	Output Power (dBm)	Limit (dBm)
PCC	SCC					
64QAM						
2510.00	2529.80	20 + 20	P_1@0	S_0@0	22.01	< 33.01
2525.10	2544.90				19.97	< 33.01
2540.20	2560.00				21.88	< 33.01
2510.00	2529.80		P_1@49	S_0@0	19.99	< 33.01
2525.10	2544.90				20.44	< 33.01
2540.20	2560.00				20.98	< 33.01
2510.00	2529.80		P_1@99	S_0@0	19.31	< 33.01
2525.10	2544.90				21.56	< 33.01
2540.20	2560.00				19.56	< 33.01
2510.00	2529.80		P_100@0	S_0@0	18.87	< 33.01
2525.10	2544.90				20.61	< 33.01
2540.20	2560.00				20.03	< 33.01

Model Number	4G03-A	Test Engineer	Eric Xu
Test Site	SR6	Test Date	2020/09/06
Test Band	Intra-Band CA_41C		

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2506.00	2525.80	20+20	P_1@0	S_0@0	24.23	< 33.01
2583.10	2602.90				23.40	< 33.01
2660.20	2680.00				22.61	< 33.01
2506.00	2525.80		P_1@49	S_0@0	23.26	< 33.01
2583.10	2602.90				22.77	< 33.01
2660.20	2680.00				22.89	< 33.01
2506.00	2525.80		P_1@99	S_0@0	23.07	< 33.01
2583.10	2602.90				23.68	< 33.01
2660.20	2680.00				23.06	< 33.01
2506.00	2525.80		P_100@0	S_0@0	23.02	< 33.01
2583.10	2602.90				21.54	< 33.01
2660.20	2680.00				21.86	< 33.01
2506.00	2523.10	20+15	P_1@0	S_0@0	24.21	< 33.01
2585.60	2602.70				22.94	< 33.01
2665.10	2682.20				23.88	< 33.01
2506.00	2523.10		P_1@49	S_0@0	23.03	< 33.01
2585.60	2602.70				22.25	< 33.01
2665.10	2682.20				23.47	< 33.01
2506.00	2523.10		P_1@99	S_0@0	23.48	< 33.01
2585.60	2602.70				22.86	< 33.01
2665.10	2682.20				23.41	< 33.01
2506.00	2523.10		P_100@0	S_0@0	22.13	< 33.01
2585.60	2602.70				21.93	< 33.01
2665.10	2682.20				22.18	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2503.80	2520.90	15+20	P_1@0	S_0@0	24.12	< 33.01
2593.30	2600.40				23.01	< 33.01
2662.90	2680.00				23.11	< 33.01
2503.80	2520.90		P_1@36	S_0@0	23.33	< 33.01
2593.30	2600.40				23.40	< 33.01
2662.90	2680.00				23.02	< 33.01
2503.80	2520.90		P_1@74	S_0@0	22.98	< 33.01
2593.30	2600.40				23.98	< 33.01
2662.90	2680.00				22.98	< 33.01
2503.80	2520.90		P_75@0	S_0@0	22.42	< 33.01
2593.30	2600.40				22.66	< 33.01
2662.90	2680.00				22.19	< 33.01
2506.00	2520.40	20+10	P_1@0	S_0@0	24.23	< 33.01
2588.10	2602.50				23.01	< 33.01
2670.10	2684.50				23.54	< 33.01
2506.00	2520.40		P_1@49	S_0@0	23.26	< 33.01
2588.10	2602.50				22.83	< 33.01
2670.10	2684.50				23.20	< 33.01
2506.00	2520.40		P_1@99	S_0@0	23.30	< 33.01
2588.10	2602.50				23.95	< 33.01
2670.10	2684.50				23.54	< 33.01
2506.00	2520.40		P_100@0	S_0@0	22.44	< 33.01
2588.10	2602.50				21.98	< 33.01
2670.10	2684.50				22.33	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2501.50	2515.90	10+20	P_1@0	S_0@0	24.19	< 33.01
2583.60	2598.00				23.29	< 33.01
2665.60	2680.00				22.96	< 33.01
2501.50	2515.90		P_1@24	S_0@0	23.59	< 33.01
2583.60	2598.00				23.13	< 33.01
2665.60	2680.00				23.20	< 33.01
2501.50	2515.90		P_1@49	S_0@0	23.03	< 33.01
2583.60	2598.00				23.54	< 33.01
2665.60	2680.00				23.31	< 33.01
2501.50	2515.90		P_50@0	S_0@0	22.59	< 33.01
2583.60	2598.00				22.96	< 33.01
2665.60	2680.00				22.09	< 33.01
2506.00	2517.70	20+5	P_1@0	S_0@0	23.68	< 33.01
2590.50	2602.20				23.93	< 33.01
2675.00	2686.70				23.58	< 33.01
2506.00	2517.70		P_1@49	S_0@0	23.70	< 33.01
2590.50	2602.20				23.84	< 33.01
2675.00	2686.70				23.90	< 33.01
2506.00	2517.70		P_1@99	S_0@0	23.85	< 33.01
2590.50	2602.20				23.61	< 33.01
2675.00	2686.70				23.05	< 33.01
2506.00	2517.70		P_100@	S_0@0	23.12	< 33.01
2590.50	2602.20				23.01	< 33.01
2675.00	2686.70				22.82	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2499.30	2511.00	5+20	P_1@0	S_0@0	24.70	< 33.01
2583.80	2595.50				24.24	< 33.01
2668.30	2680.00				24.32	< 33.01
2499.30	2511.00		P_1@12	S_0@0	24.44	< 33.01
2583.80	2595.50				23.90	< 33.01
2668.30	2680.00				24.03	< 33.01
2499.30	2511.00		P_1@24	S_0@0	24.32	< 33.01
2583.80	2595.50				24.21	< 33.01
2668.30	2680.00				24.33	< 33.01
2499.30	2511.00		P_25@0	S_0@0	23.52	< 33.01
2583.80	2595.50				23.35	< 33.01
2668.30	2680.00				23.30	< 33.01
2503.50	2518.50	15+15	P_1@0	S_0@0	24.12	< 33.01
2585.50	2600.50				23.98	< 33.01
2667.50	2682.50				23.68	< 33.01
2503.50	2518.50		P_1@36	S_0@0	23.80	< 33.01
2585.50	2600.50				23.48	< 33.01
2667.50	2682.50				23.49	< 33.01
2503.50	2518.50		P_1@74	S_0@0	23.21	< 33.01
2585.50	2600.50				23.68	< 33.01
2667.50	2682.50				23.58	< 33.01
2503.50	2518.50		P_75@0	S_0@0	22.45	< 33.01
2585.50	2600.50				22.87	< 33.01
2667.50	2682.50				22.08	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
QPSK						
2501.30	2513.30	10+15	P_1@0	S_0@0	23.77	< 33.01
2585.90	2597.90				24.18	< 33.01
2670.50	2682.50				23.41	< 33.01
2501.30	2513.30		P_1@24	S_0@0	24.02	< 33.01
2585.90	2597.90				24.56	< 33.01
2670.50	2682.50				23.41	< 33.01
2501.30	2513.30		P_1@49	S_0@0	24.11	< 33.01
2585.90	2597.90				24.66	< 33.01
2670.50	2682.50				23.89	< 33.01
2501.30	2513.30		P_50@0	S_0@0	22.79	< 33.01
2585.90	2597.90				23.01	< 33.01
2670.50	2682.50				22.25	< 33.01
2503.50	2515.50	15+10	P_1@0	S_0@0	23.95	< 33.01
2588.10	2600.10				23.51	< 33.01
2672.70	2684.70				23.87	< 33.01
2503.50	2515.50		P_1@36	S_0@0	23.15	< 33.01
2588.10	2600.10				23.79	< 33.01
2672.70	2684.70				24.01	< 33.01
2503.50	2515.50		P_1@74	S_0@0	23.60	< 33.01
2588.10	2600.10				23.58	< 33.01
2672.70	2684.70				23.85	< 33.01
2503.50	2515.50		P_75@0	S_0@0	22.78	< 33.01
2588.10	2600.10				23.28	< 33.01
2672.70	2684.70				23.01	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2506.00	2525.80	20+20	P_1@0	S_0@0	23.31	< 33.01
2583.10	2602.90				22.12	< 33.01
2660.20	2680.00				21.95	< 33.01
2506.00	2525.80		P_1@49	S_0@0	22.69	< 33.01
2583.10	2602.90				21.81	< 33.01
2660.20	2680.00				22.63	< 33.01
2506.00	2525.80		P_1@99	S_0@0	22.25	< 33.01
2583.10	2602.90				21.82	< 33.01
2660.20	2680.00				22.42	< 33.01
2506.00	2525.80		P_100@0	S_0@0	22.58	< 33.01
2583.10	2602.90				20.87	< 33.01
2660.20	2680.00				21.03	< 33.01
2506.00	2523.10	20+15	P_1@0	S_0@0	23.44	< 33.01
2585.60	2602.70				21.08	< 33.01
2665.10	2682.20				22.41	< 33.01
2506.00	2523.10		P_1@49	S_0@0	22.39	< 33.01
2585.60	2602.70				21.91	< 33.01
2665.10	2682.20				23.01	< 33.01
2506.00	2523.10		P_1@99	S_0@0	22.62	< 33.01
2585.60	2602.70				22.19	< 33.01
2665.10	2682.20				22.65	< 33.01
2506.00	2523.10		P_100@0	S_0@0	21.54	< 33.01
2585.60	2602.70				20.68	< 33.01
2665.10	2682.20				21.25	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2503.80	2520.90	15+20	P_1@0	S_0@0	23.47	< 33.01
2593.30	2600.40				22.58	< 33.01
2662.90	2680.00				22.43	< 33.01
2503.80	2520.90		P_1@36	S_0@0	22.25	< 33.01
2593.30	2600.40				22.66	< 33.01
2662.90	2680.00				22.43	< 33.01
2503.80	2520.90		P_1@74	S_0@0	22.04	< 33.01
2593.30	2600.40				23.27	< 33.01
2662.90	2680.00				22.54	< 33.01
2503.80	2520.90		P_75@0	S_0@0	21.58	< 33.01
2593.30	2600.40				21.74	< 33.01
2662.90	2680.00				21.36	< 33.01
2506.00	2520.40	20+10	P_1@0	S_0@0	23.51	< 33.01
2588.10	2602.50				22.25	< 33.01
2670.10	2684.50				22.61	< 33.01
2506.00	2520.40		P_1@49	S_0@0	22.76	< 33.01
2588.10	2602.50				21.44	< 33.01
2670.10	2684.50				22.55	< 33.01
2506.00	2520.40		P_1@99	S_0@0	22.84	< 33.01
2588.10	2602.50				22.54	< 33.01
2670.10	2684.50				22.51	< 33.01
2506.00	2520.40		P_100@0	S_0@0	21.65	< 33.01
2588.10	2602.50				20.47	< 33.01
2670.10	2684.50				21.54	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2501.50	2515.90	10+20	P_1@0	S_0@0	23.36	< 33.01
2583.60	2598.00				22.08	< 33.01
2665.60	2680.00				21.83	< 33.01
2501.50	2515.90		P_1@24	S_0@0	22.40	< 33.01
2583.60	2598.00				22.02	< 33.01
2665.60	2680.00				22.42	< 33.01
2501.50	2515.90		P_1@49	S_0@0	22.36	< 33.01
2583.60	2598.00				22.45	< 33.01
2665.60	2680.00				22.70	< 33.01
2501.50	2515.90		P_50@0	S_0@0	21.65	< 33.01
2583.60	2598.00				21.66	< 33.01
2665.60	2680.00				21.09	< 33.01
2506.00	2517.70	20+5	P_1@0	S_0@0	22.51	< 33.01
2590.50	2602.20				22.36	< 33.01
2675.00	2686.70				22.31	< 33.01
2506.00	2517.70		P_1@49	S_0@0	22.21	< 33.01
2590.50	2602.20				22.68	< 33.01
2675.00	2686.70				22.71	< 33.01
2506.00	2517.70		P_1@99	S_0@0	22.50	< 33.01
2590.50	2602.20				22.14	< 33.01
2675.00	2686.70				22.31	< 33.01
2506.00	2517.70		P_100@	S_0@0	22.51	< 33.01
2590.50	2602.20				22.25	< 33.01
2675.00	2686.70				21.40	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2499.30	2511.00	5+20	P_1@0	S_0@0	23.87	< 33.01
2583.80	2595.50				23.11	< 33.01
2668.30	2680.00				23.62	< 33.01
2499.30	2511.00		P_1@12	S_0@0	23.67	< 33.01
2583.80	2595.50				23.61	< 33.01
2668.30	2680.00				23.73	< 33.01
2499.30	2511.00		P_1@24	S_0@0	23.51	< 33.01
2583.80	2595.50				23.65	< 33.01
2668.30	2680.00				23.60	< 33.01
2499.30	2511.00		P_25@0	S_0@0	22.60	< 33.01
2583.80	2595.50				22.22	< 33.01
2668.30	2680.00				22.24	< 33.01
2503.50	2518.50	15+15	P_1@0	S_0@0	23.55	< 33.01
2585.50	2600.50				23.02	< 33.01
2667.50	2682.50				22.85	< 33.01
2503.50	2518.50		P_1@36	S_0@0	23.02	< 33.01
2585.50	2600.50				22.91	< 33.01
2667.50	2682.50				22.74	< 33.01
2503.50	2518.50		P_1@74	S_0@0	21.25	< 33.01
2585.50	2600.50				23.01	< 33.01
2667.50	2682.50				22.69	< 33.01
2503.50	2518.50		P_75@0	S_0@0	21.56	< 33.01
2585.50	2600.50				21.87	< 33.01
2667.50	2682.50				21.80	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
16QAM						
2501.30	2513.30	10+15	P_1@0	S_0@0	22.55	< 33.01
2585.90	2597.90				23.54	< 33.01
2670.50	2682.50				22.85	< 33.01
2501.30	2513.30		P_1@24	S_0@0	23.54	< 33.01
2585.90	2597.90				23.84	< 33.01
2670.50	2682.50				23.01	< 33.01
2501.30	2513.30		P_1@49	S_0@0	23.85	< 33.01
2585.90	2597.90				23.22	< 33.01
2670.50	2682.50				23.14	< 33.01
2501.30	2513.30		P_50@0	S_0@0	22.65	< 33.01
2585.90	2597.90				22.14	< 33.01
2670.50	2682.50				22.15	< 33.01
2503.50	2515.50	15+10	P_1@0	S_0@0	22.89	< 33.01
2588.10	2600.10				22.66	< 33.01
2672.70	2684.70				22.87	< 33.01
2503.50	2515.50		P_1@36	S_0@0	22.56	< 33.01
2588.10	2600.10				22.93	< 33.01
2672.70	2684.70				23.54	< 33.01
2503.50	2515.50		P_1@74	S_0@0	22.82	< 33.01
2588.10	2600.10				23.01	< 33.01
2672.70	2684.70				22.77	< 33.01
2503.50	2515.50		P_75@0	S_0@0	22.06	< 33.01
2588.10	2600.10				23.19	< 33.01
2672.70	2684.70				22.74	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2506.00	2525.80	20+20	P_1@0	S_0@0	22.79	< 33.01
2583.10	2602.90				21.09	< 33.01
2660.20	2680.00				20.85	< 33.01
2506.00	2525.80		P_1@49	S_0@0	21.65	< 33.01
2583.10	2602.90				21.15	< 33.01
2660.20	2680.00				21.40	< 33.01
2506.00	2525.80		P_1@99	S_0@0	21.42	< 33.01
2583.10	2602.90				20.56	< 33.01
2660.20	2680.00				21.41	< 33.01
2506.00	2525.80		P_100@0	S_0@0	21.57	< 33.01
2583.10	2602.90				19.89	< 33.01
2660.20	2680.00				20.51	< 33.01
2506.00	2523.10	20+15	P_1@0	S_0@0	22.85	< 33.01
2585.60	2602.70				20.18	< 33.01
2665.10	2682.20				21.41	< 33.01
2506.00	2523.10		P_1@49	S_0@0	21.36	< 33.01
2585.60	2602.70				20.01	< 33.01
2665.10	2682.20				23.14	< 33.01
2506.00	2523.10		P_1@99	S_0@0	21.59	< 33.01
2585.60	2602.70				20.84	< 33.01
2665.10	2682.20				21.54	< 33.01
2506.00	2523.10		P_100@0	S_0@0	20.12	< 33.01
2585.60	2602.70				19.84	< 33.01
2665.10	2682.20				20.84	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2503.80	2520.90	15+20	P_1@0	S_0@0	22.58	< 33.01
2593.30	2600.40				21.31	< 33.01
2662.90	2680.00				22.01	< 33.01
2503.80	2520.90		P_1@36	S_0@0	21.35	< 33.01
2593.30	2600.40				21.57	< 33.01
2662.90	2680.00				21.69	< 33.01
2503.80	2520.90		P_1@74	S_0@0	21.41	< 33.01
2593.30	2600.40				22.68	< 33.01
2662.90	2680.00				21.54	< 33.01
2503.80	2520.90		P_75@0	S_0@0	20.85	< 33.01
2593.30	2600.40				20.89	< 33.01
2662.90	2680.00				20.28	< 33.01
2506.00	2520.40	20+10	P_1@0	S_0@0	22.95	< 33.01
2588.10	2602.50				21.95	< 33.01
2670.10	2684.50				22.01	< 33.01
2506.00	2520.40		P_1@49	S_0@0	21.79	< 33.01
2588.10	2602.50				20.14	< 33.01
2670.10	2684.50				21.34	< 33.01
2506.00	2520.40		P_1@99	S_0@0	22.01	< 33.01
2588.10	2602.50				21.17	< 33.01
2670.10	2684.50				21.36	< 33.01
2506.00	2520.40		P_100@0	S_0@0	20.87	< 33.01
2588.10	2602.50				19.97	< 33.01
2670.10	2684.50				21.11	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2501.50	2515.90	10+20	P_1@0	S_0@0	21.99	< 33.01
2583.60	2598.00				21.98	< 33.01
2665.60	2680.00				20.72	< 33.01
2501.50	2515.90		P_1@24	S_0@0	21.92	< 33.01
2583.60	2598.00				21.58	< 33.01
2665.60	2680.00				21.29	< 33.01
2501.50	2515.90		P_1@49	S_0@0	21.10	< 33.01
2583.60	2598.00				21.38	< 33.01
2665.60	2680.00				21.70	< 33.01
2501.50	2515.90		P_50@0	S_0@0	20.53	< 33.01
2583.60	2598.00				20.41	< 33.01
2665.60	2680.00				20.68	< 33.01
2506.00	2517.70	20+5	P_1@0	S_0@0	21.50	< 33.01
2590.50	2602.20				21.66	< 33.01
2675.00	2686.70				21.01	< 33.01
2506.00	2517.70		P_1@49	S_0@0	21.82	< 33.01
2590.50	2602.20				22.00	< 33.01
2675.00	2686.70				21.82	< 33.01
2506.00	2517.70		P_1@99	S_0@0	21.84	< 33.01
2590.50	2602.20				21.50	< 33.01
2675.00	2686.70				21.34	< 33.01
2506.00	2517.70		P_100@	S_0@0	21.50	< 33.01
2590.50	2602.20				20.98	< 33.01
2675.00	2686.70				20.57	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2499.30	2511.00	5+20	P_1@0	S_0@0	22.65	< 33.01
2583.80	2595.50				22.25	< 33.01
2668.30	2680.00				22.94	< 33.01
2499.30	2511.00		P_1@12	S_0@0	22.99	< 33.01
2583.80	2595.50				22.70	< 33.01
2668.30	2680.00				22.41	< 33.01
2499.30	2511.00		P_1@24	S_0@0	22.56	< 33.01
2583.80	2595.50				22.71	< 33.01
2668.30	2680.00				22.84	< 33.01
2499.30	2511.00		P_25@0	S_0@0	21.61	< 33.01
2583.80	2595.50				21.01	< 33.01
2668.30	2680.00				21.20	< 33.01
2503.50	2518.50	15+15	P_1@0	S_0@0	22.48	< 33.01
2585.50	2600.50				22.05	< 33.01
2667.50	2682.50				21.58	< 33.01
2503.50	2518.50		P_1@36	S_0@0	22.74	< 33.01
2585.50	2600.50				21.83	< 33.01
2667.50	2682.50				21.58	< 33.01
2503.50	2518.50		P_1@74	S_0@0	21.21	< 33.01
2585.50	2600.50				22.80	< 33.01
2667.50	2682.50				21.87	< 33.01
2503.50	2518.50		P_75@0	S_0@0	20.51	< 33.01
2585.50	2600.50				20.58	< 33.01
2667.50	2682.50				20.30	< 33.01

Frequency (MHz)		Channel	PCC	SCC	Output	Limit
PCC	SCC	Bandwidth (MHz)	RB	RB	Power (dBm)	(dBm)
64QAM						
2501.30	2513.30	10+15	P_1@0	S_0@0	21.98	< 33.01
2585.90	2597.90				22.41	< 33.01
2670.50	2682.50				21.01	< 33.01
2501.30	2513.30		P_1@24	S_0@0	22.55	< 33.01
2585.90	2597.90				22.31	< 33.01
2670.50	2682.50				22.20	< 33.01
2501.30	2513.30		P_1@49	S_0@0	22.54	< 33.01
2585.90	2597.90				21.50	< 33.01
2670.50	2682.50				22.10	< 33.01
2501.30	2513.30		P_50@0	S_0@0	22.14	< 33.01
2585.90	2597.90				21.52	< 33.01
2670.50	2682.50				21.36	< 33.01
2503.50	2515.50	15+10	P_1@0	S_0@0	21.84	< 33.01
2588.10	2600.10				22.46	< 33.01
2672.70	2684.70				21.84	< 33.01
2503.50	2515.50		P_1@36	S_0@0	22.52	< 33.01
2588.10	2600.10				21.87	< 33.01
2672.70	2684.70				22.84	< 33.01
2503.50	2515.50		P_1@74	S_0@0	23.18	< 33.01
2588.10	2600.10				22.84	< 33.01
2672.70	2684.70				22.30	< 33.01
2503.50	2515.50		P_75@0	S_0@0	21.84	< 33.01
2588.10	2600.10				22.86	< 33.01
2672.70	2684.70				21.20	< 33.01

5.4. Band Edge Measurement

5.4.1. Test Limit

For all fixed digital user stations, the attenuation factor shall be not less than $43 + 10 \log (P)$ dB at the channel edge.

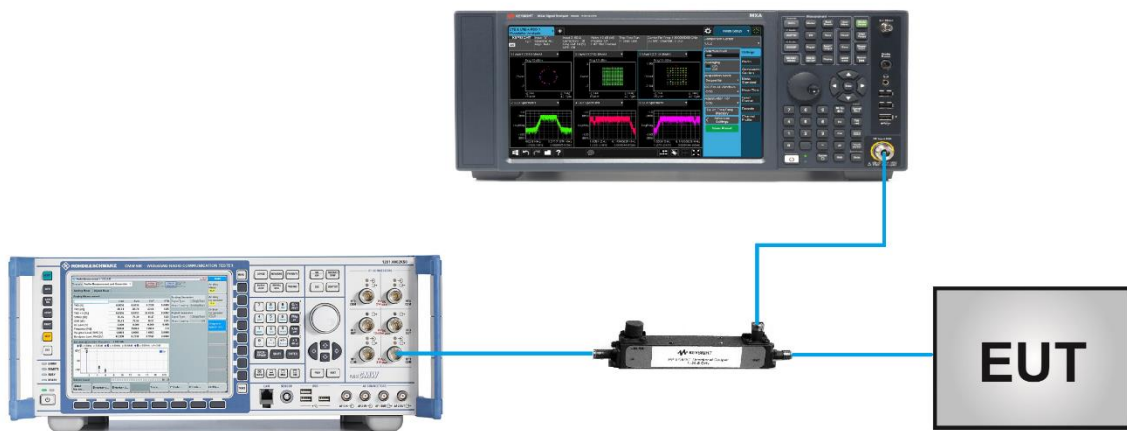
5.4.2. Test Procedure Used

ANSI C63.26-2015 - Section 5.7

5.4.3. Test Setting

1. Set the analyzer frequency to low or high channel
2. $RBW \geq$ The nominal RBW shall be in the range of 1% of the anticipated OBW (in the 1MHz band immediately outside and adjacent to the band edge). For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's band power functions.
3. $VBW \geq 3 \cdot RBW$
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to "free run."
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple.
To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

5.4.4. Test Setup

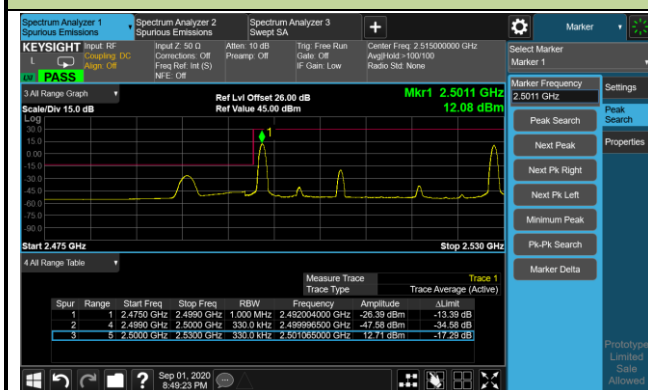


5.4.5. Test Result

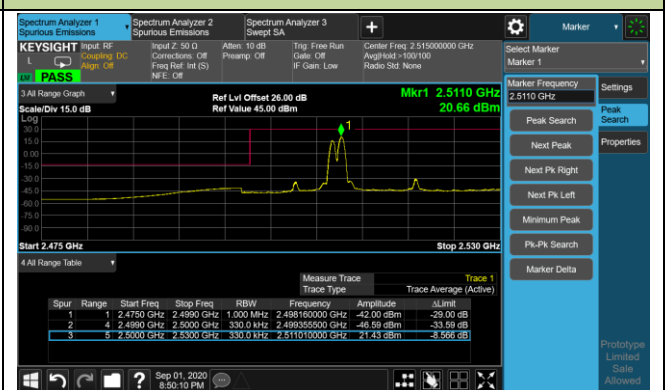
Model Number	4G03-A	Test Engineer	Larry Yan
Test Site	SR6	Test Date	2020/09/01
Test Band	Intra-Band CA_7C		

10MHz+20MHz Channel Bandwidth

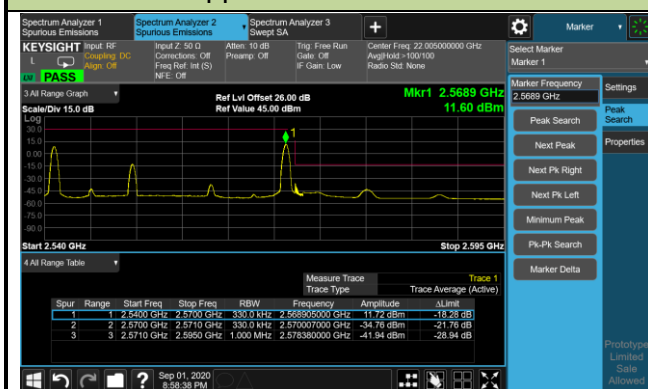
Lower ACP RB = 0 & 99



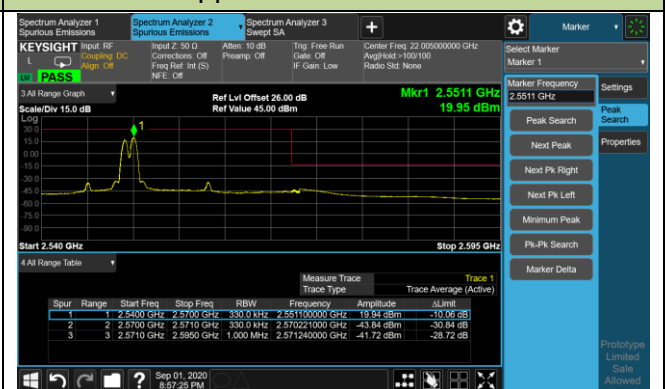
Lower ACP RB= 49 & 0



Upper ACP RB= 0 & 99

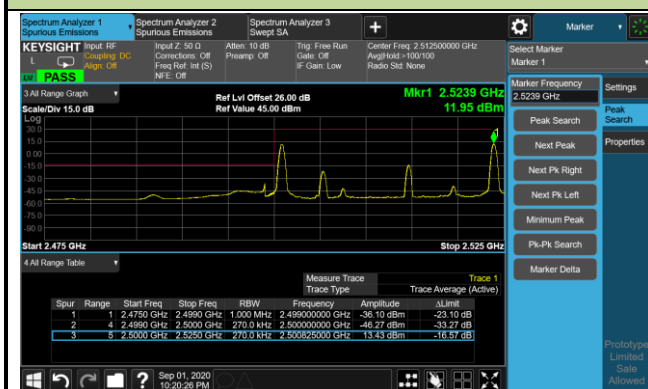


Upper ACP RB = 49 & 0

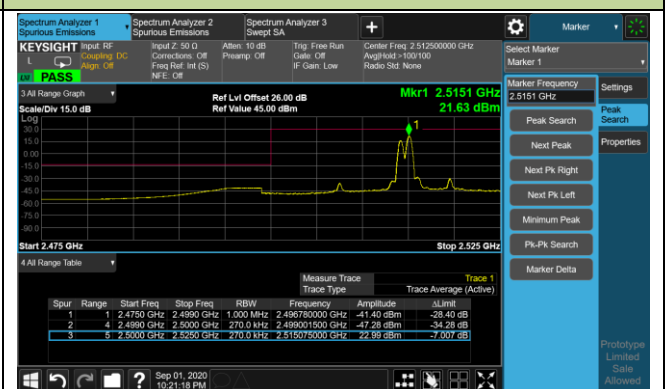


15MHz+10MHz Channel Bandwidth

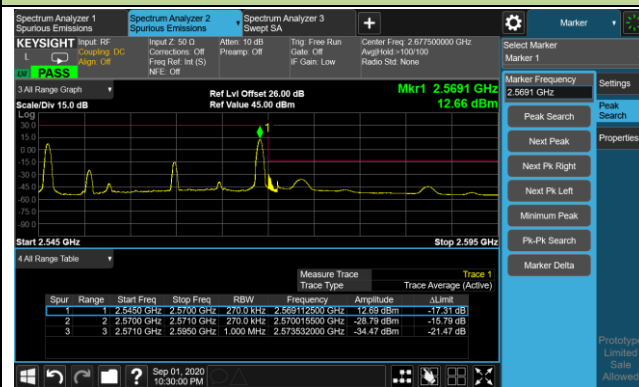
Lower ACP RB = 0 & 49



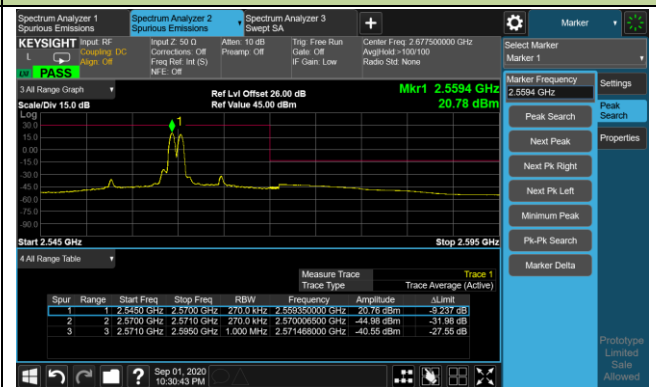
Lower ACP RB = 74 & 0



Upper ACP RB = 0 & 49

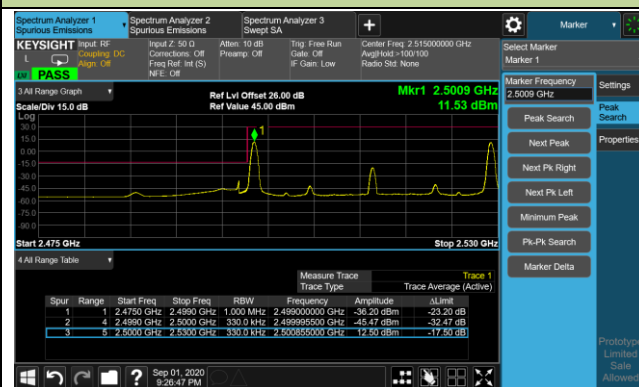


Upper ACP RB = 74 & 0

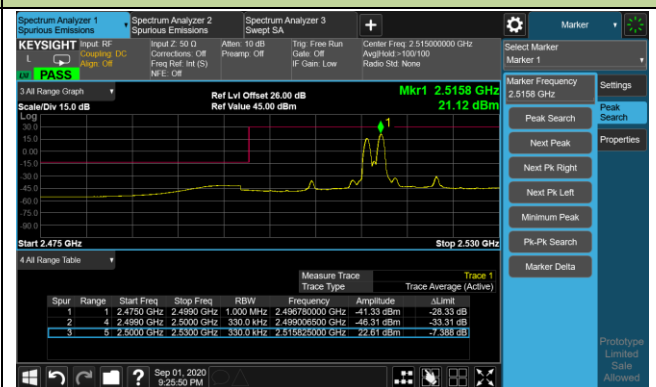


15MHz+15MHz Channel Bandwidth

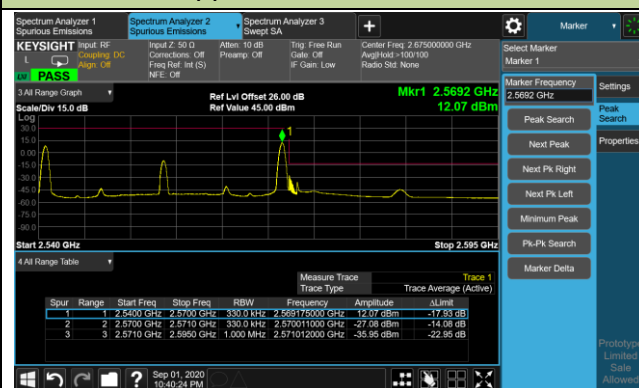
Lower ACP RB = 0 & 74



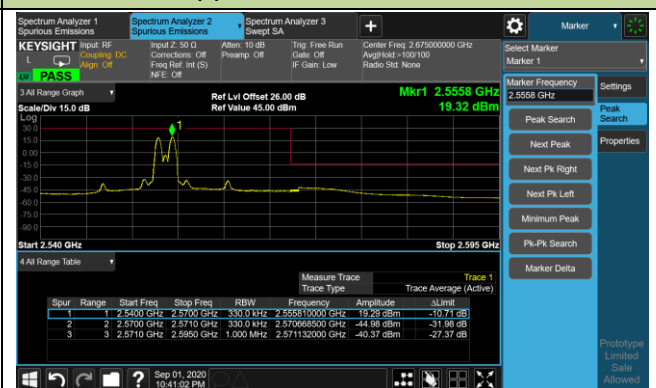
Lower ACP RB= 74 & 0



Upper ACP RB = 0 & 74

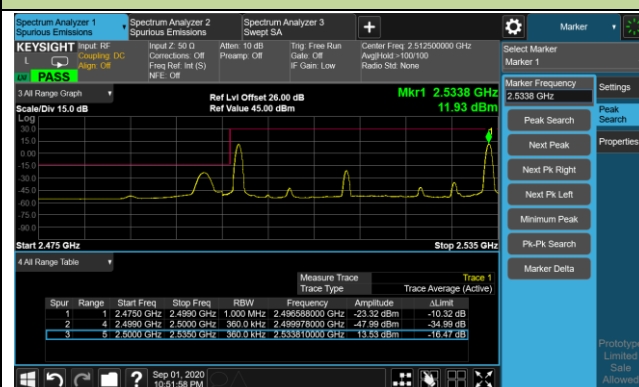


Upper ACP RB = 74 & 0



15MHz+20MHz Channel Bandwidth

Lower ACP RB = 0 & 99



Lower ACP RB = 74 & 0

