

FCC ID: Z3K-VRM
Report No.: T201222W02-RP5

IC: 9930A-VRM

Page: 1 / 148
Rev.: 01

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

INDUSTRY CANADA RSS-247

Test Standard	FCC Part 15.407+ RSS-247 issue 2 and RSS-GEN issue 5
Product name	MODULE VIEDO ROUTER
Brand Name	STELLANTIS
Model No.	68494731, 68379840, 68449335
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Kevin Tsai
Deputy Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	March 26, 2021	Initial Issue	ALL	Doris Chu
01	April 13, 2021	See the following Note Rev. (01)	P.4, P.5, P.11, P.19-20, P.57-59, P.127-128, P.143-144, P.135-136, P.147-148	Doris Chu

Rev. (01)

- 1.Added remark No.4 in page 4.
- 2.Revised remark No.2 Frequency Range to 5600~5650 in page 5 & 11.
- 3.Added remark in page 19-20.
- 4.Added remark in page 57-59
- 5.Added test data in page 127-128, 143-144, 135-136, 147-148

Table of contents

1. GENERAL INFORMATION	4
1.1 EUT INFORMATION	4
1.2 EUT CHANNEL INFORMATION	5
1.3 ANTENNA INFORMATION	6
1.4 MEASUREMENT UNCERTAINTY	7
1.5 FACILITIES AND TEST LOCATION	8
1.6 INSTRUMENT CALIBRATION.....	8
1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT	9
1.8 TEST METHODOLOGY AND APPLIED STANDARDS	9
2. TEST SUMMARY	10
3. DESCRIPTION OF TEST MODES	11
3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION.....	11
3.2 THE WORST MODE OF MEASUREMENT	12
3.3 EUT DUTY CYCLE	13
4. TEST RESULT	14
4.1 AC POWER LINE CONDUCTED EMISSION	14
4.2 26DB BANDWIDTH, 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)	15
4.3 OUTPUT POWER MEASUREMENT.....	49
4.4 POWER SPECTRAL DENSITY	54
4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION	74
APPENDIX-A TEST PHOTO	A-1
APPENDIX 1 - PHOTOGRAPHS OF EUT	

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	JET OPTOELECTRONICS CO., LTD. 3F., No.300, Yangguang St., Neihu Dist., Taipei City 11491, Taiwan			
Manufacturer	JET OPTOELECTRONICS CO., LTD. 3F., No.300, Yangguang St., Neihu Dist., Taipei City 11491, Taiwan			
Equipment	MODULE VIEDO ROUTER			
Model No.	68494731, 68379840, 68449335			
Model Discrepancy	Model Number	Stand Position	Blue-Ray	Earphone
	68494731	Type 1	O	O
	68379840	Type 2	X	X
	68449335	Type 3	X	X
Trade Name	STELLANTIS			
Received Date	December 22, 2020			
Date of Test	January 6 ~ April 8, 2021			
Power Supply	Power from Power Supply: DC 12V			
HW Version	20200629 D01			
SW Version	90650			
EUT Serial #	J200730F000041			

Remark:

- For more details, please refer to the User's manual of the EUT.
- Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
- Disclaimer: The variant model numbers / trademarks are assessed as identical in hardware and software to each other, hence all variants are fully covered by the test results in this test report without further verification test.
- The EUT (model: 68494731) had been tested under operating condition.

1.2 EUT CHANNEL INFORMATION

Frequency Range	<table><tr><td colspan="2">UNII-2a</td></tr><tr><td>IEEE 802.11a</td><td>5260 ~ 5320 MHz</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5260 ~ 5320 MHz</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5270 ~ 5310 MHz</td></tr><tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5290 MHz</td></tr><tr><td colspan="2">UNII-2c</td></tr><tr><td>IEEE 802.11a</td><td>5500 ~ 5720 MHz</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5500 ~ 5720 MHz</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5510 ~ 5710 MHz</td></tr><tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5530, 5610, 5690 MHz</td></tr></table>	UNII-2a		IEEE 802.11a	5260 ~ 5320 MHz	IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz	IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz	IEEE 802.11ac VHT 80 MHz	5290 MHz	UNII-2c		IEEE 802.11a	5500 ~ 5720 MHz	IEEE 802.11n HT 20 MHz	5500 ~ 5720 MHz	IEEE 802.11n HT 40 MHz	5510 ~ 5710 MHz	IEEE 802.11ac VHT 80 MHz	5530, 5610, 5690 MHz
UNII-2a																					
IEEE 802.11a	5260 ~ 5320 MHz																				
IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz																				
IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz																				
IEEE 802.11ac VHT 80 MHz	5290 MHz																				
UNII-2c																					
IEEE 802.11a	5500 ~ 5720 MHz																				
IEEE 802.11n HT 20 MHz	5500 ~ 5720 MHz																				
IEEE 802.11n HT 40 MHz	5510 ~ 5710 MHz																				
IEEE 802.11ac VHT 80 MHz	5530, 5610, 5690 MHz																				
Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 80 MHz mode: OFDM																				

Remark:

1. Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels.
2. For Canada the EUT Frequency Range 5600~5650 MHz will be disabled.

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Type	☒ Ceramic ☐ PCB ☐ Dipole ☐ Coils
Antenna Gain	Chain 0: Gain :2.6 dBi Chain 1: Gain :2.6 dBi Power Directional Gain: 5.61 dBi
Antenna Connector	N/A

Notes:

1. Power Directional Gain = $10 \cdot \log \{ [10^{(Ant1/20)} + 10^{(Ant2/20)} + \dots + 10^{(Ant N /20)}]^2 / N \text{ ANT} \}$ dBi
2. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark:

- 1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT doesn't connect to AC Main Source direct.
Radiation	Jerry Chang	-
RF Conducted	Lance Chen	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+327109/4	09/19/2020	09/18/2021
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/06/2021	01/05/2022
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	09/30/2020	09/29/2021
High Pass Filters	MICRO TRONICS	HPM13195	003	02/08/2021	02/07/2022
Horn Antenna	ETS LINDGREN	3116	00026370	12/11/2020	12/10/2021
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	09/02/2020	09/01/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Coaxial Cable	Woken	WC12	CC003	06/29/2020	06/28/2021
Signal Analyzer	R&S	FSV 40	101073	09/17/2020	09/16/2021
EXA Signal Analyzer	KEYSIGHT	N9010B	MY55460167	09/07/2020	09/06/2021
Power Meter	Anritsu	ML2487A	6K00003260	05/21/2020	05/20/2021
Power Seneor	Anritsu	MA2490A	032910	05/21/2020	05/20/2021
Software	N/A				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	DC Power Source	Agilent	E3640A	N/A	N/A
2	NB(J)	TOSHIBA	PT345T-00L002	N/A	PD97260H

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02, RSS-247 Issue 2 and RSS-GEN Issue 5.

2. TEST SUMMARY

FCC Standard Sec.	IC Standard Sec.	Chapter	Test Item	Result
15.203	-	1.3	Antenna Requirement	Pass
15.207	RSS-Gen(8.8)	4.1	AC Conducted Emission	N/A
15.403(i)	-	4.2	26dB Bandwidth	Pass
15.407(e)	RSS-247(6.2.4)	4.2	6dB Bandwidth	Pass
15.403(i)	RSS-Gen (6.7)	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	RSS-247(6.2.1.1) RSS-247(6.2.2.1) RSS-247(6.2.3.1) RSS-247(6.2.4.1)	4.3	Output Power Measurement	Pass
15.407(a)	RSS-247(6.2.1.1) RSS-247(6.2.2.1) RSS-247(6.2.3.1) RSS-247(6.2.4.1)	4.4	Power Spectral Density	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.5	Radiation Band Edge	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.5	Radiation Spurious Emission	Pass
15.407(g)	RSS-Gen(6.11)	4.6	Frequency Stability	Pass
15.407(h)	-	4.7	Dynamic Frequency Selection	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT 20 MHz mode: MCS8 3. IEEE 802.11n HT 40 MHz mode: MCS8 4. IEEE 802.11ac VHT 80 MHz mode: MCS8																					
Operating Frequency	<table><tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr><tr><td rowspan="4">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5290</td></tr><tr><td rowspan="4">U-NII-2c</td><td>IEEE 802.11a</td><td>5500, 5580, 5700, 5720</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5500, 5580, 5700, 5720</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5510, 5550, 5670,5710</td></tr><tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5530, 5610, 5690</td></tr></table>		Mode	Frequency Range (MHz)	U-NII-2a	IEEE 802.11a	5260, 5300, 5320	IEEE 802.11n HT 20 MHz	5260, 5300, 5320	IEEE 802.11n HT 40 MHz	5270, 5310	IEEE 802.11ac VHT 80 MHz	5290	U-NII-2c	IEEE 802.11a	5500, 5580, 5700, 5720	IEEE 802.11n HT 20 MHz	5500, 5580, 5700, 5720	IEEE 802.11n HT 40 MHz	5510, 5550, 5670,5710	IEEE 802.11ac VHT 80 MHz	5530, 5610, 5690
	Mode	Frequency Range (MHz)																				
U-NII-2a	IEEE 802.11a	5260, 5300, 5320																				
	IEEE 802.11n HT 20 MHz	5260, 5300, 5320																				
	IEEE 802.11n HT 40 MHz	5270, 5310																				
	IEEE 802.11ac VHT 80 MHz	5290																				
U-NII-2c	IEEE 802.11a	5500, 5580, 5700, 5720																				
	IEEE 802.11n HT 20 MHz	5500, 5580, 5700, 5720																				
	IEEE 802.11n HT 40 MHz	5510, 5550, 5670,5710																				
	IEEE 802.11ac VHT 80 MHz	5530, 5610, 5690																				

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. For Canada the EUT Frequency Range 5600~5650 MHz will be disabled.

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Power supply
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Power supply
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

- 1. The worst mode was record in this test report.*
- 2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report*

Report No.: T201222W02-RP5

3.3 EUT DUTY CYCLE

Temperature: 22.6°C

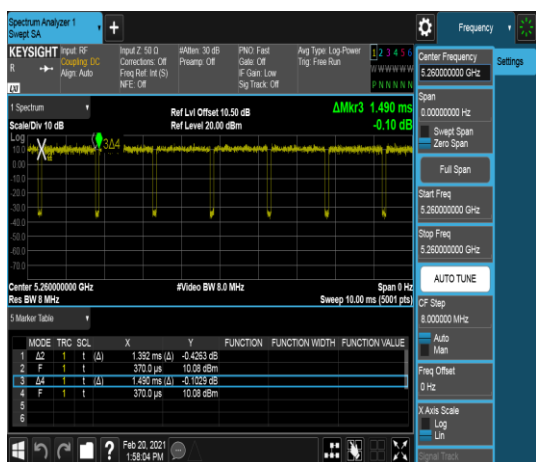
Humidity: 52% RH

Tested by: Lance Chen

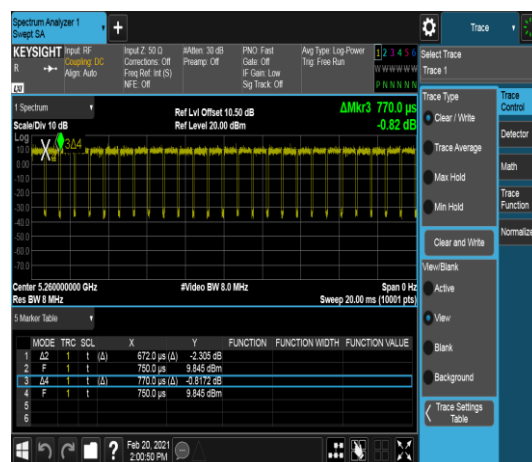
Test date: February 20, 2021

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	93.00	0.32	0.72	1.00
802.11n HT20	87.00	0.60	1.49	2.00
802.11n HT40	78.00	1.08	2.87	3.00
802.11ac VHT80	77.00	1.14	3.09	4.00

802.11a



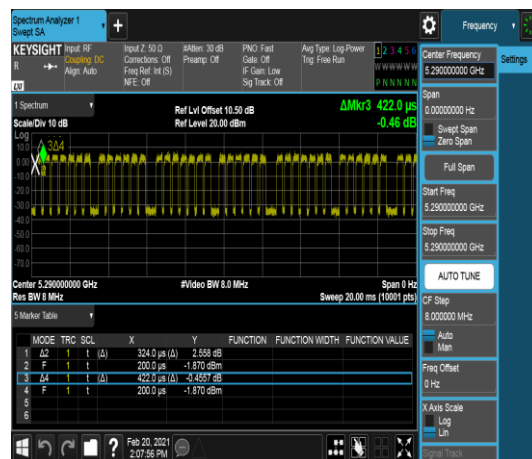
802.11n HT20



802.11n HT40



802.11ac VHT80



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

Frequency Range (MHz)	Limits(dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

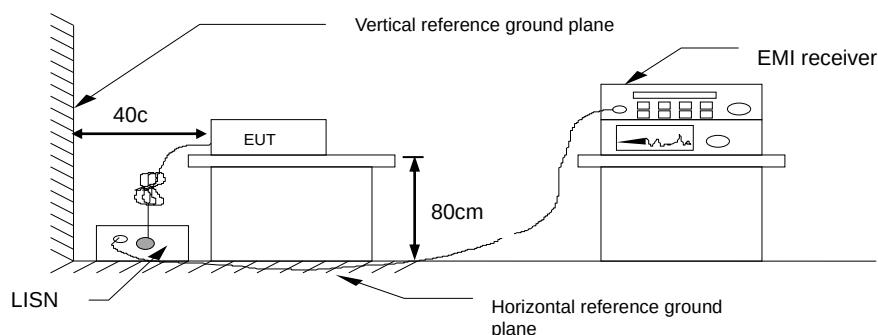
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-Peak and Average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

Not applicable, because EUT doesn't connect to AC Main Source direct.

4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth : For reporting purposes only.

6 dB Bandwidth : Least 500kHz.

Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

26dB

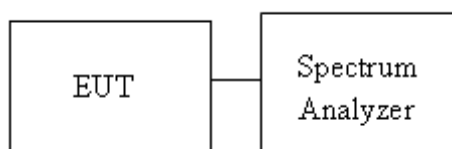
1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW>RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW $\geq 3 \times$ RBW

4.2.3 Test Setup

Report No.: T201222W02-RP5

Page: 17 / 148

Rev.: 01

4.2.4 Test Result

Temperature: 22.6°C

Tested by: Lance Chen

Humidity: 52% RH

Test date: February 20, 2021

Temperature: 22.4°C

Tested by: Lance Chen

Humidity: 53% RH

Test date: February 23, 2021

UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
52	5260	16.408	16.385	19.61	19.43
60	5300	16.401	16.380	21.14	19.59
64	5320	16.391	16.402	19.83	19.51
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
52	5260	17.533	17.535	19.75	19.84
60	5300	17.566	17.569	20.07	19.84
64	5320	17.569	17.549	19.89	20.00
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
54	5270	36.116	36.051	40.49	39.79
62	5310	36.081	36.052	40.38	39.93
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
58	5290	75.843	75.426	80.98	80.01

Report No.: T201222W02-RP5

UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
100	5500	16.397	16.375	19.58	19.36
116	5580	16.391	16.375	19.67	19.29
140	5700	16.452	16.325	19.70	19.25
144	5720(U-NII 2C)	13.206	13.188	14.74	14.77
144	5720 (U-NII 3)	3.206	3.188	4.74	4.77

Remark:

5720 MHz in UNII-2C = 5725- (5720-26dB BW/2)

5720 MHz in UNII-3=(5720+26 dB BW/2)-5725

Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
100	5500	17.510	17.557	19.80	19.85
116	5580	17.504	17.561	19.60	19.84
140	5700	17.554	17.542	19.83	19.92
144	5720(U-NII 2C)	13.769	13.766	14.90	14.96
144	5720 (U-NII 3)	3.769	3.766	4.90	4.96

Remark:

5720 MHz in UNII-2C = 5725- (5720-26dB BW/2)

5720 MHz in UNII-3=(5720+26 dB BW/2)-5725

Report No.: T201222W02-RP5

Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
102	5510	36.079	36.056	41.02	40.41
110	5550	36.132	36.120	40.84	39.85
134	5670	36.093	36.069	40.68	39.98
142	5710(U-NII 2C)	33.015	33.017	34.99	35.05
142	5710 (U-NII 3)	3.015	3.017	4.99	5.05

Remark:

5710 MHz in UNII-2C = 5725- (5710-26dB BW/2)

5710 MHz in UNII-3=(5710+26 dB BW/2)-5725

Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
106	5530	75.778	75.701	81.44	79.66
122	5610	75.794	75.816	81.36	79.78
138	5690(U-NII 2C)	72.835	72.864	75.60	74.90
138	5690 (U-NII 3)	2.835	2.864	5.60	4.90

Remark:

5690 MHz in UNII-2C = 5725- (5690-26dB BW/2)

5690 MHz in UNII-3=(5690+26 dB BW/2)-5725

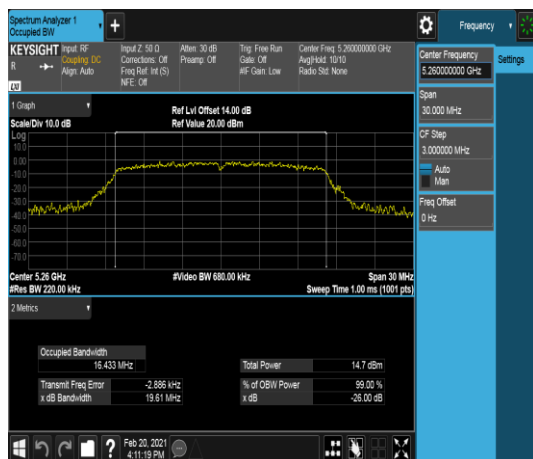
Report No.: T201222W02-RP5

Test Data

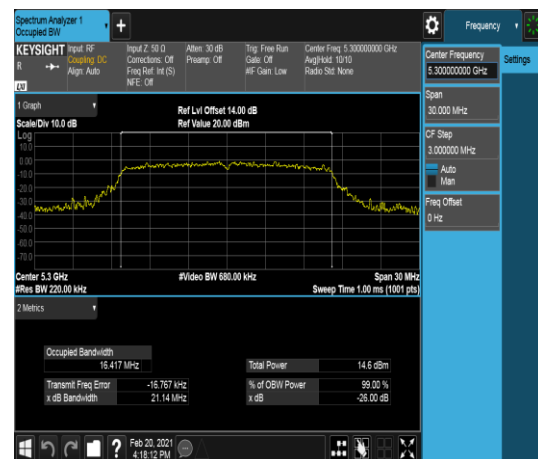
26dB BANDWIDTH

UNII-2a IEEE 802.11a mode- chain 0

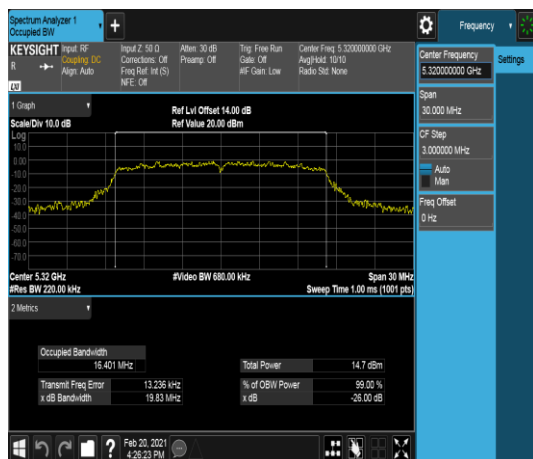
Low CH



Mid CH



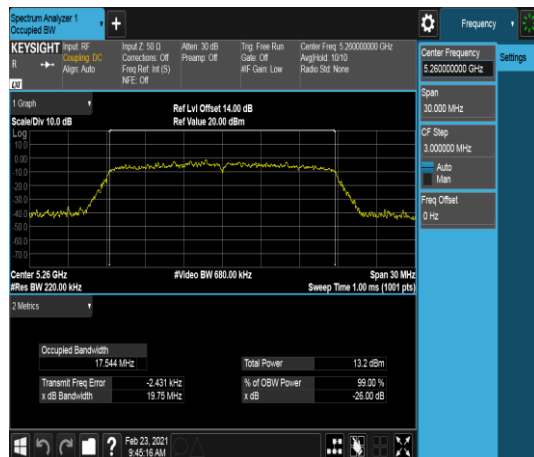
High CH



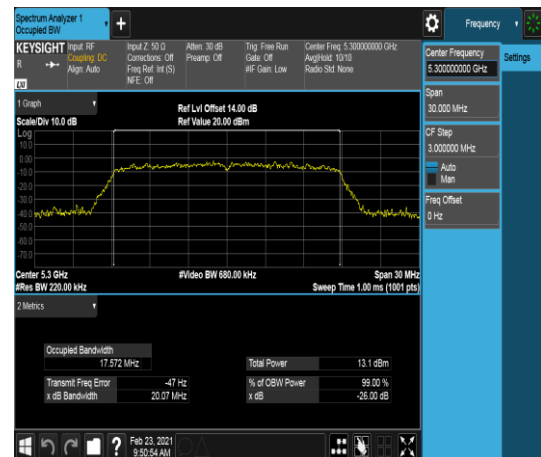
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT20 mode- chain 0

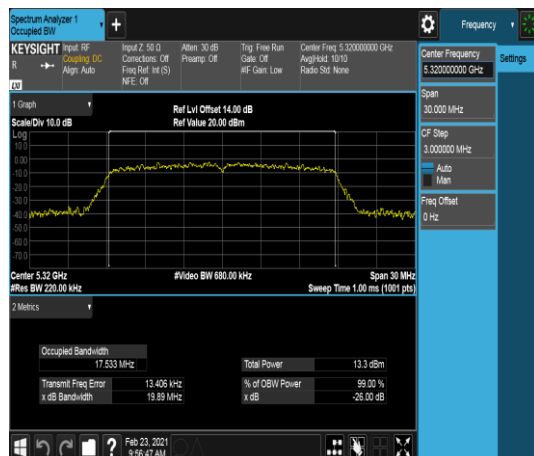
Low CH



Mid CH



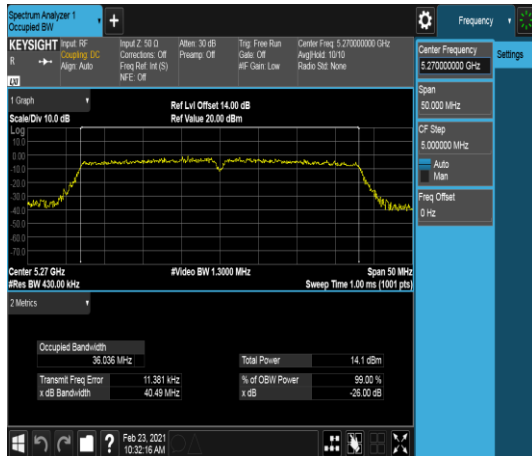
High CH



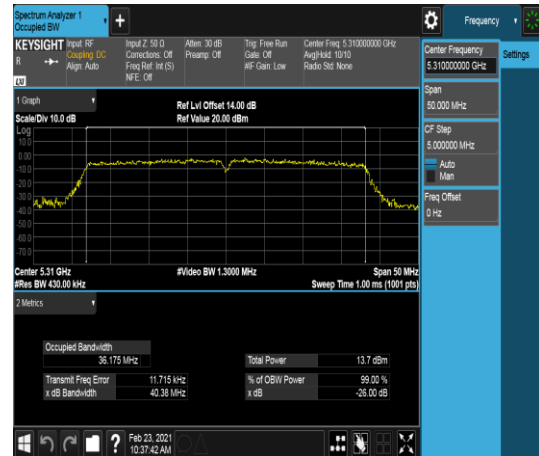
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT40 mode- chain 0

Low CH

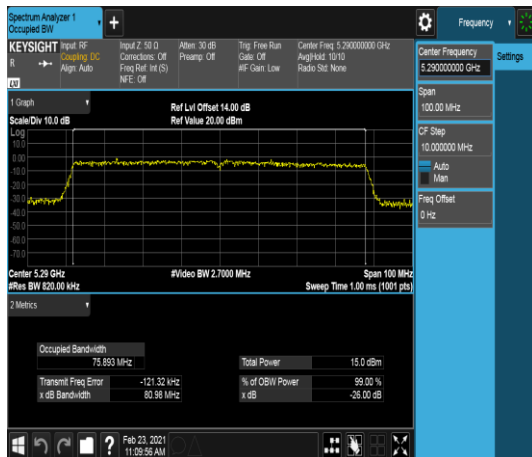


High CH



UNII-2a IEEE 802.11ac VHT80 mode- chain 0

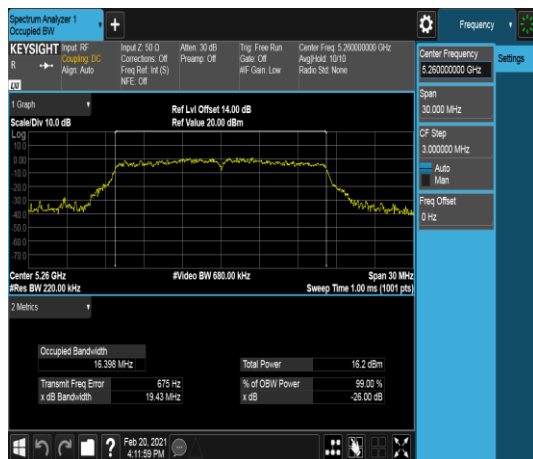
Low CH



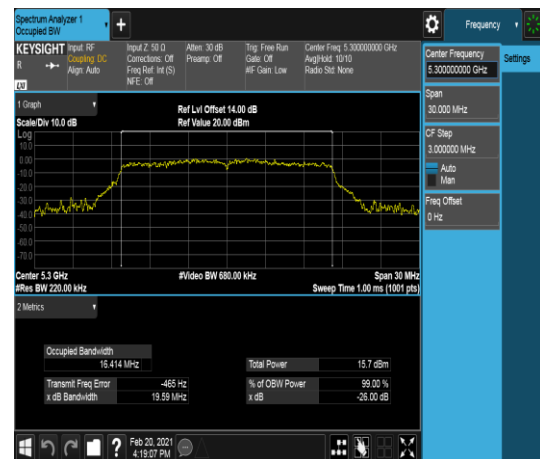
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11a mode- chain 1

Low CH



Mid CH



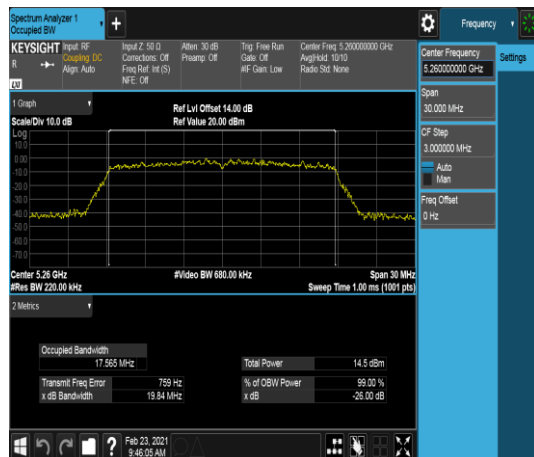
High CH



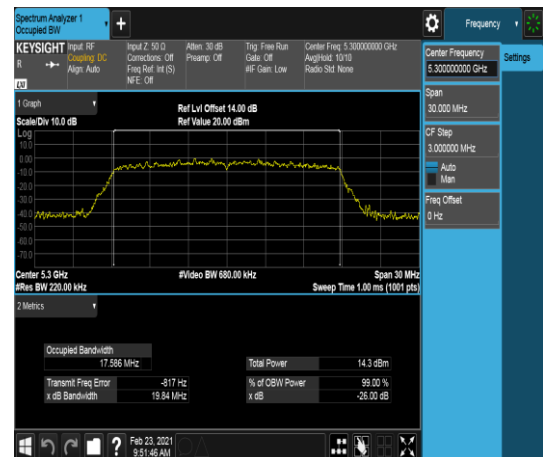
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT20 mode- chain 1

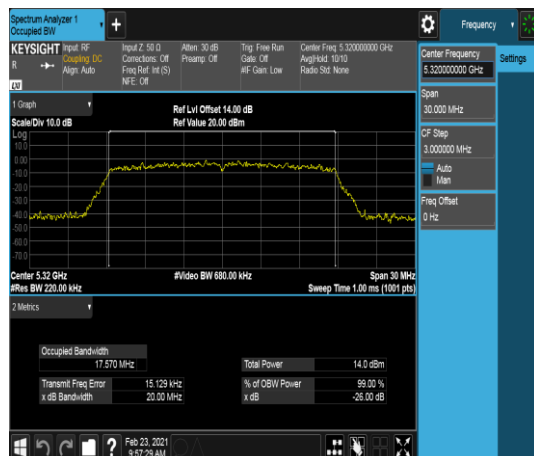
Low CH



Mid CH



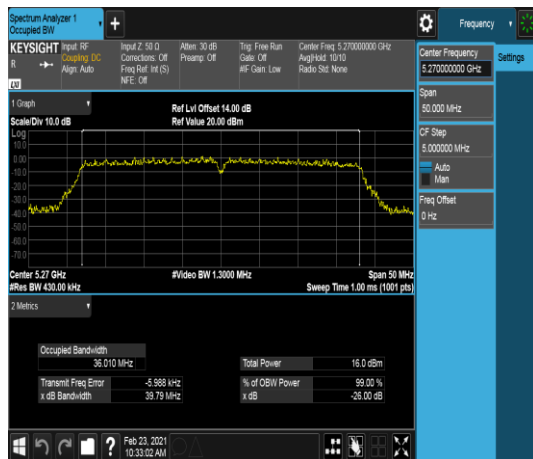
High CH



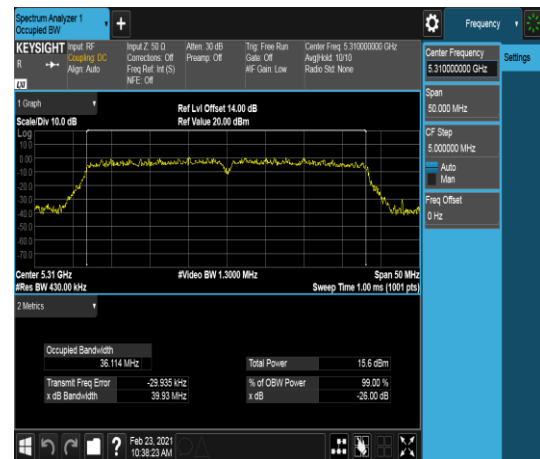
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT40 mode- chain 1

Low CH

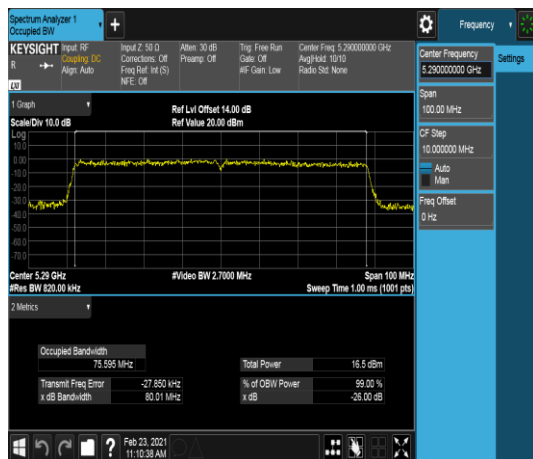


High CH



UNII-2a IEEE 802.11ac VHT80 mode- chain 1

Low CH



Report No.: T201222W02-RP5

Test Data

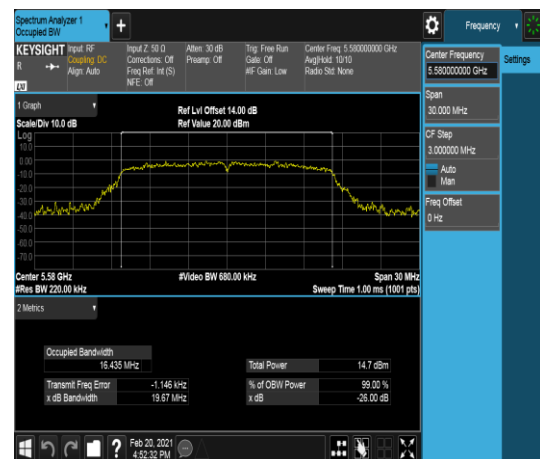
26dB BANDWIDTH

UNII-2c IEEE 802.11a mode- chain 0

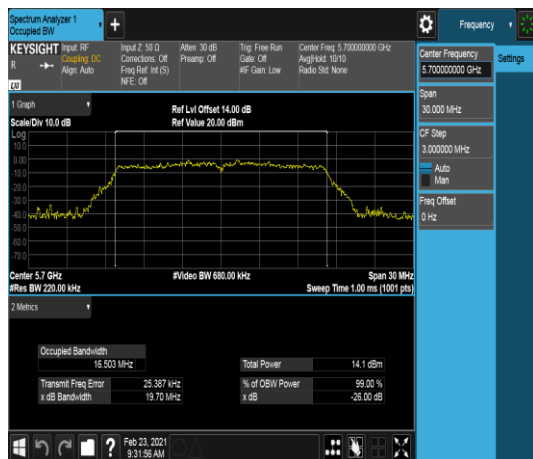
Low CH



Mid CH



High CH



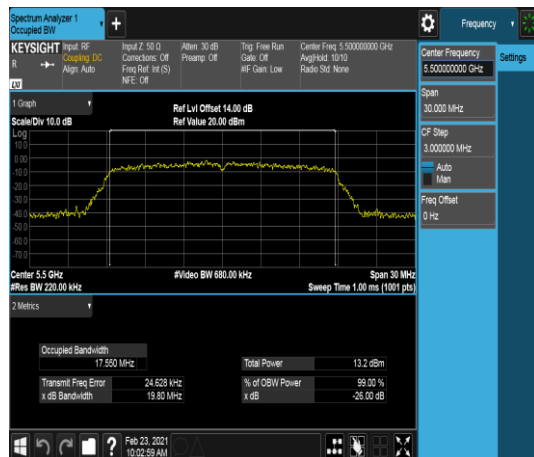
Cross CH



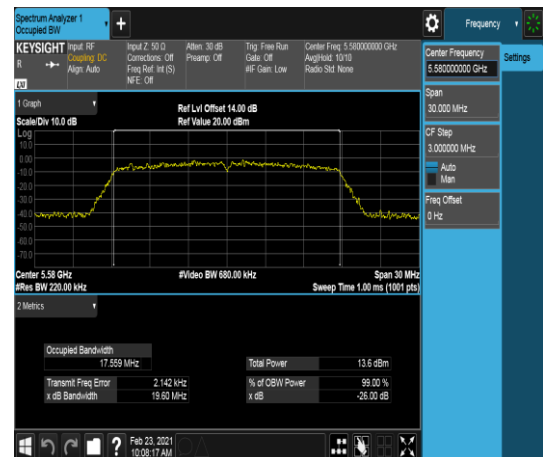
Report No.: T201222W02-RP5

UNII-2c IEEE 802.11n HT20 mode- chain 0

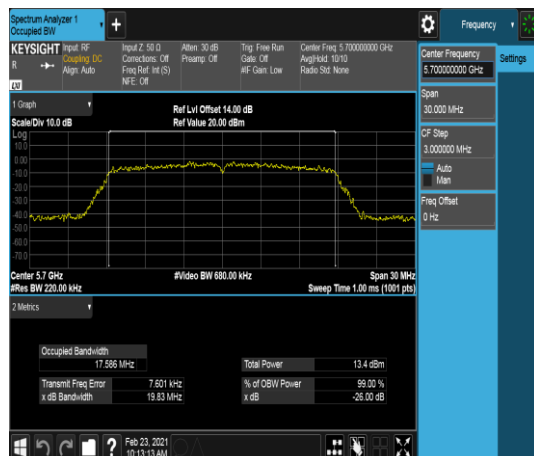
Low CH



Mid CH



High CH

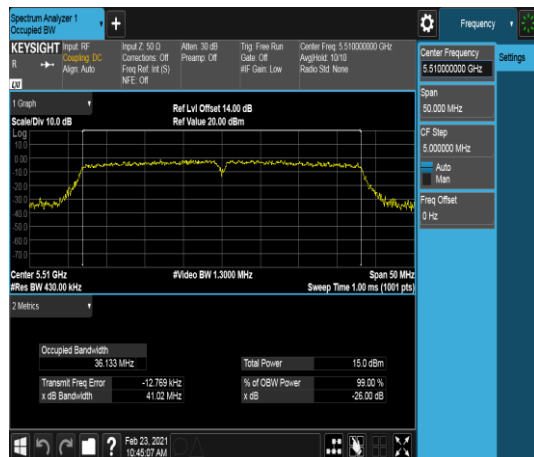


Cross CH

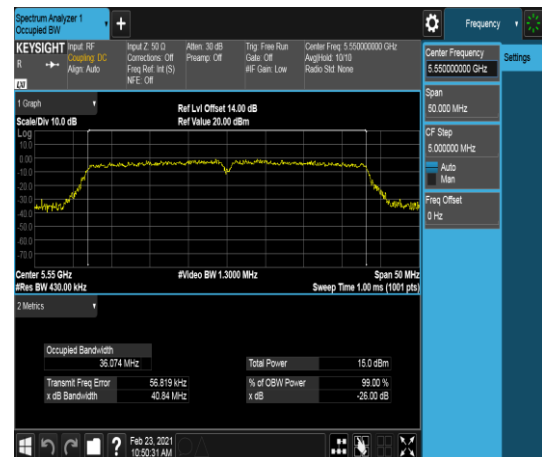


UNII-2c IEEE 802.11n HT40 mode- chain 0

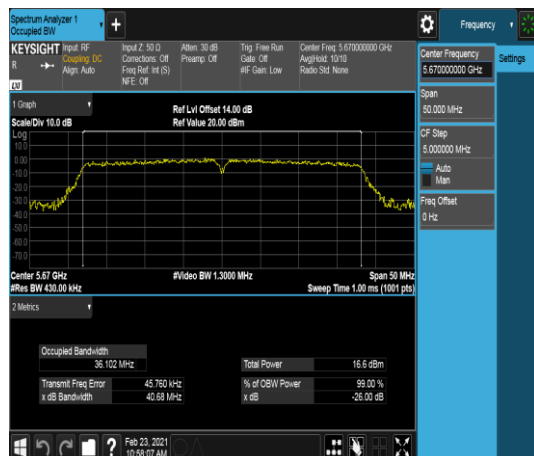
Low CH



Mid CH



High CH



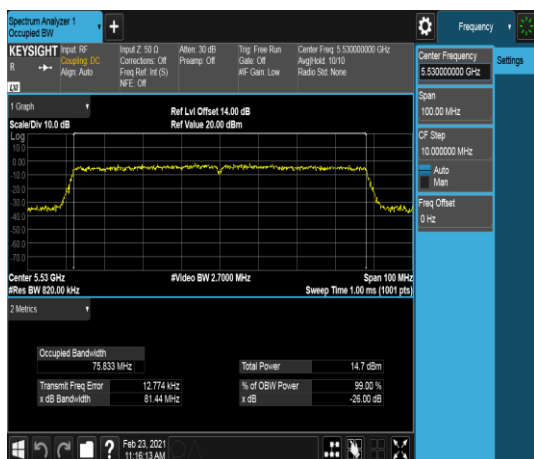
Cross CH



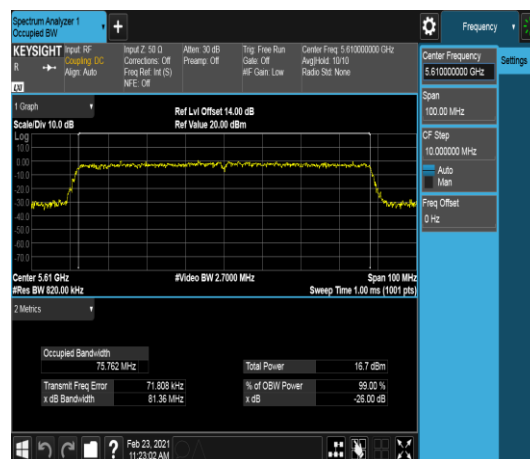
Report No.: T201222W02-RP5

UNII-2c IEEE 802.11ac VHT80 mode- chain 0

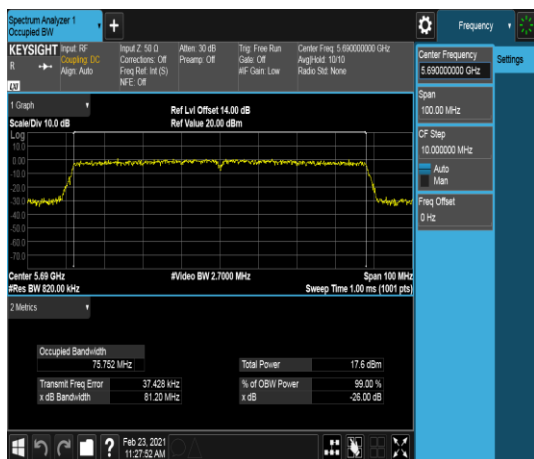
Low CH



High CH



Cross CH

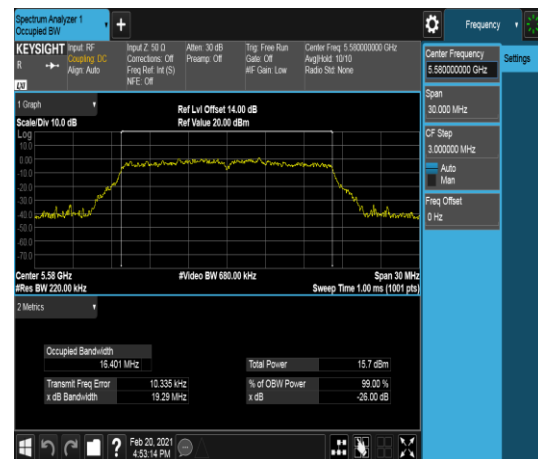


UNII-2c IEEE 802.11a mode- chain 1

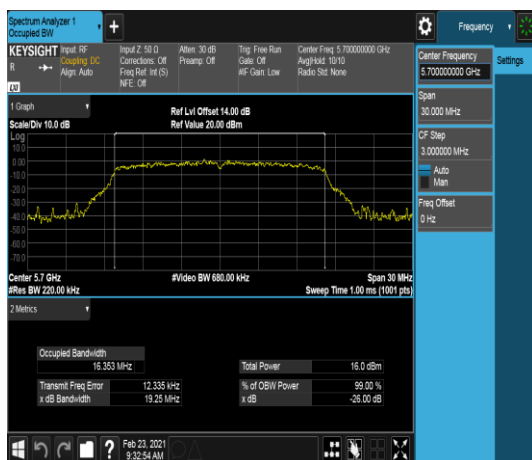
Low CH



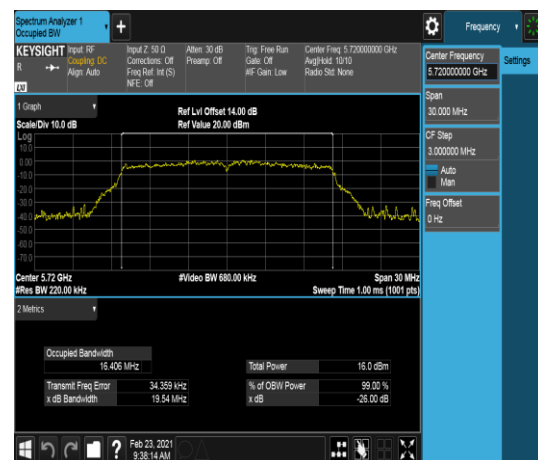
Mid CH



High CH



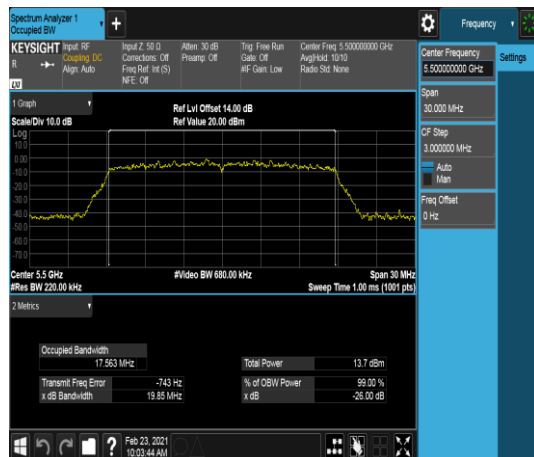
Cross CH



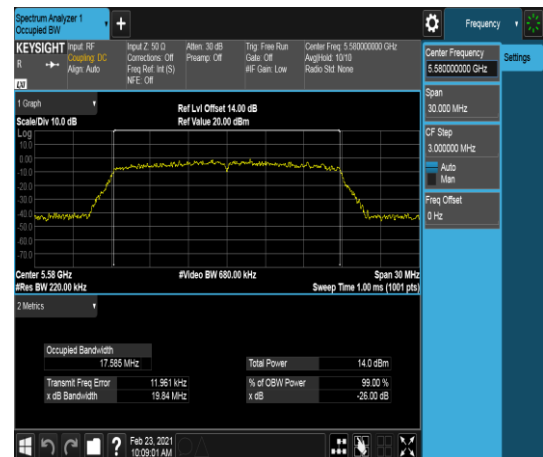
Report No.: T201222W02-RP5

UNII-2c IEEE 802.11n HT20 mode- chain 1

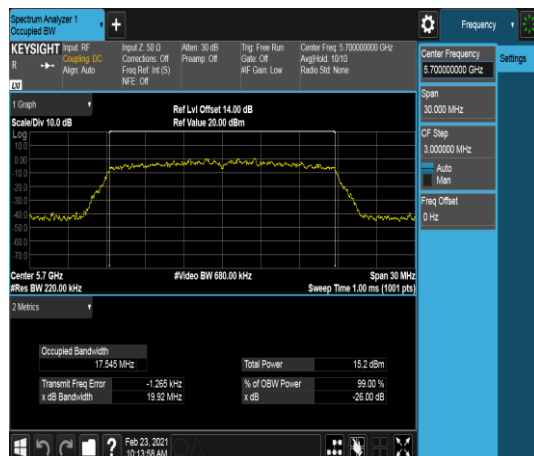
Low CH



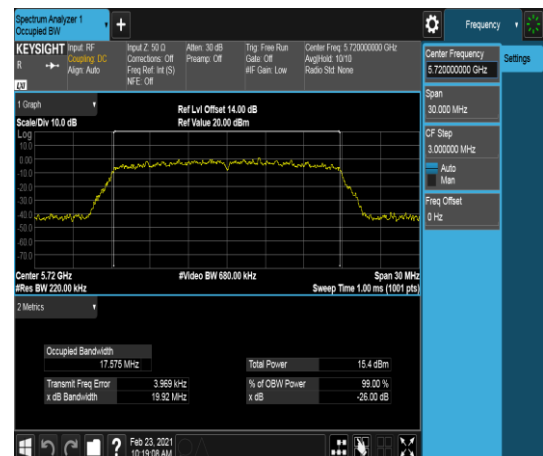
Mid CH



High CH



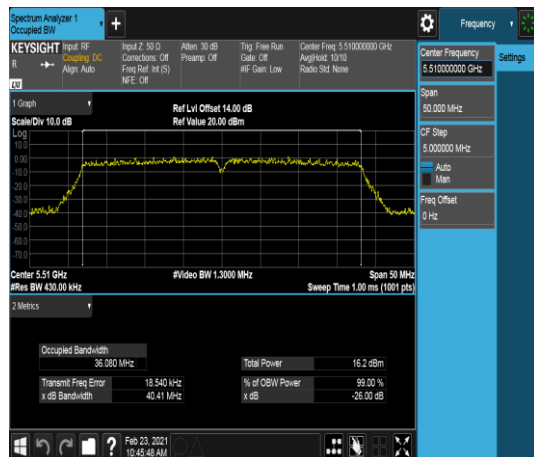
Cross CH



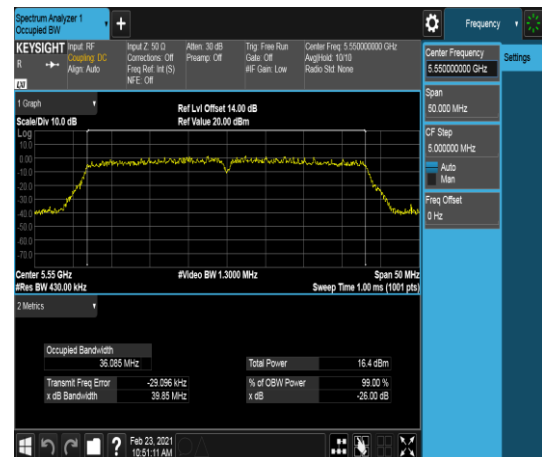
Report No.: T201222W02-RP5

UNII-2c IEEE 802.11n HT40 mode- chain 1

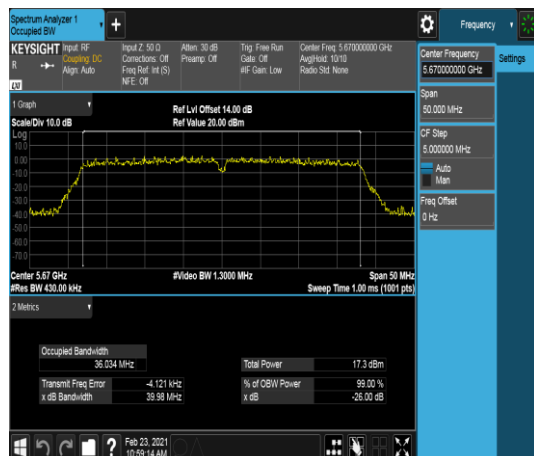
Low CH



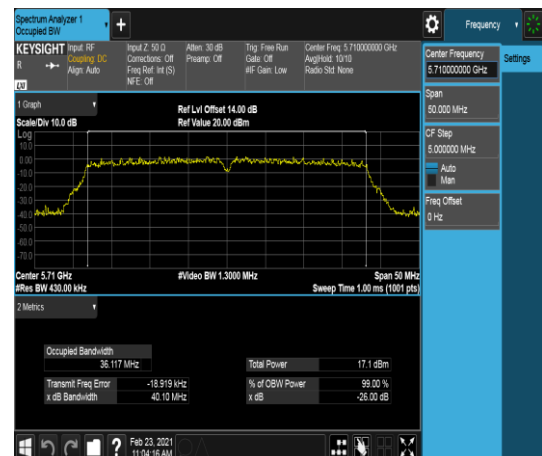
Mid CH



High CH



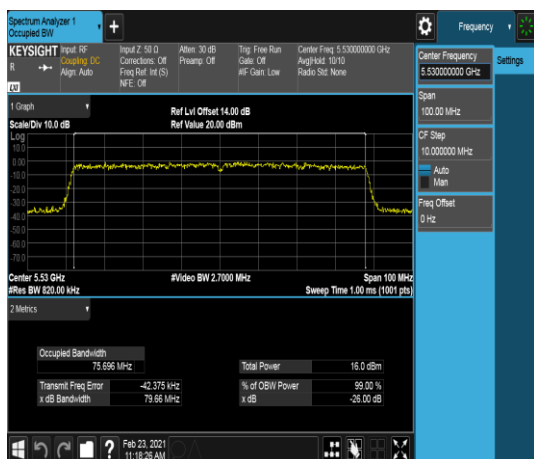
Cross CH



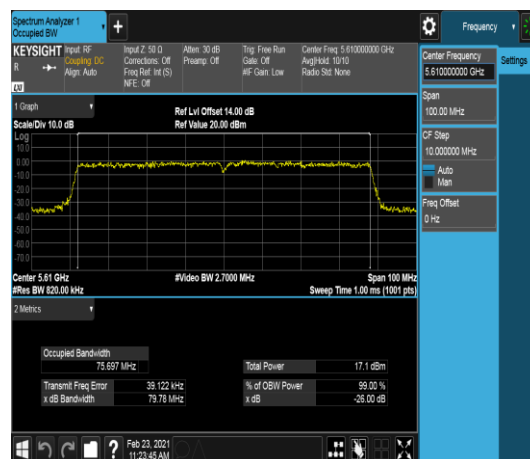
Report No.: T201222W02-RP5

UNII-2c IEEE 802.11ac VHT80 mode- chain 1

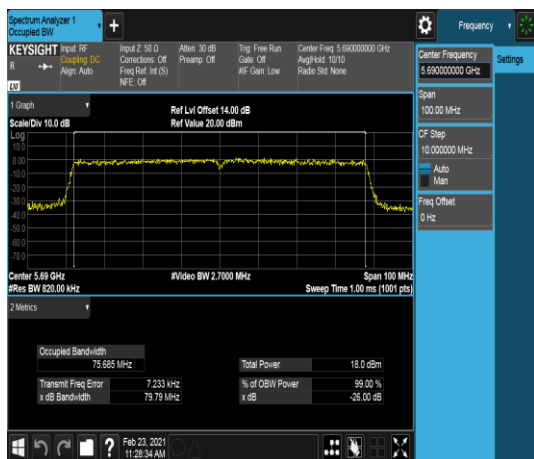
Low CH



High CH



Cross CH



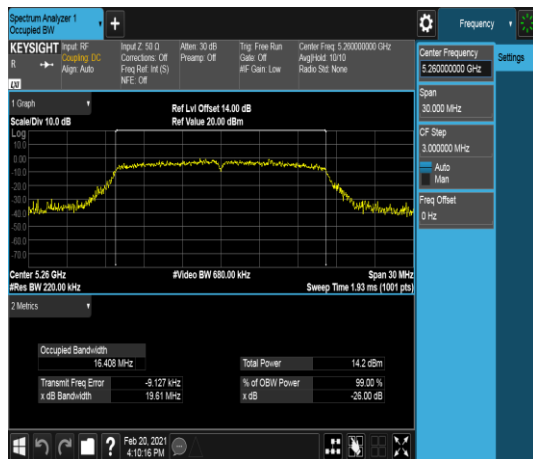
Report No.: T201222W02-RP5

Test Data

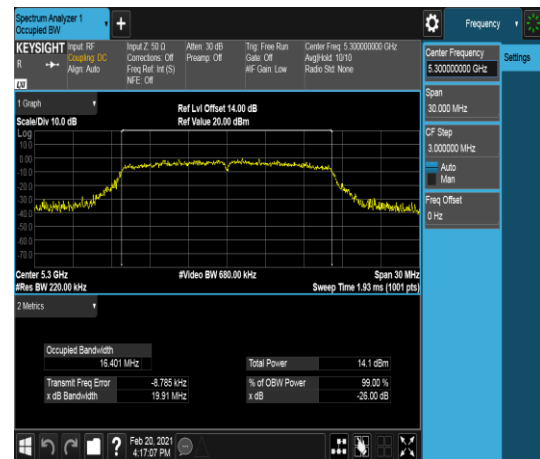
BANDWIDTH 99%

UNII-2a IEEE 802.11a mode- chain 0

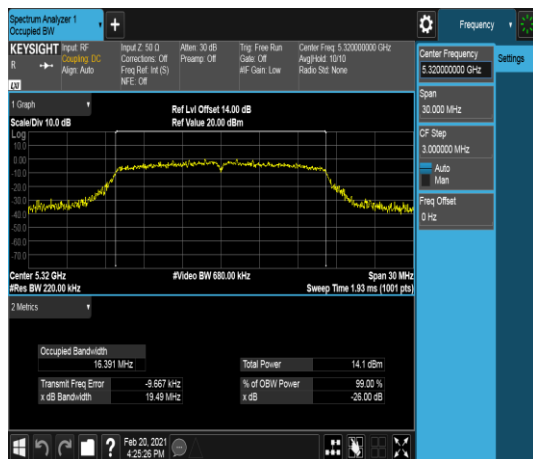
Low CH



Mid CH



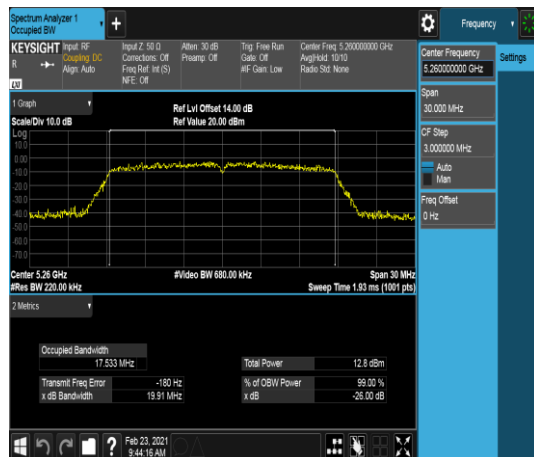
High CH



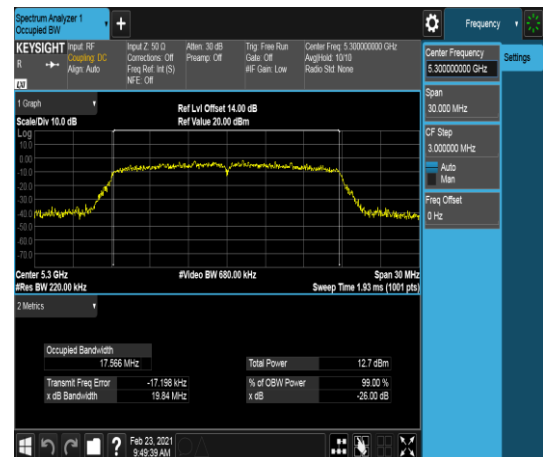
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT20 mode- chain 0

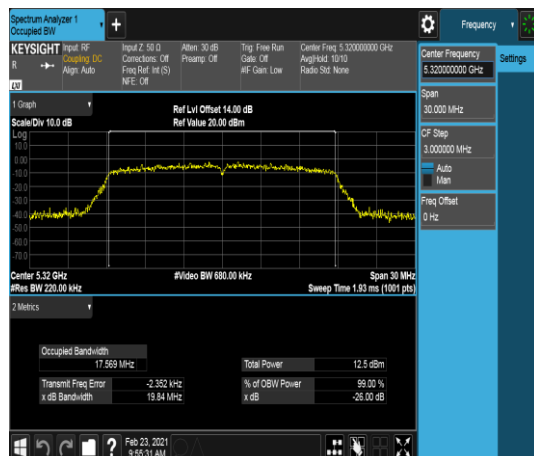
Low CH



Mid CH

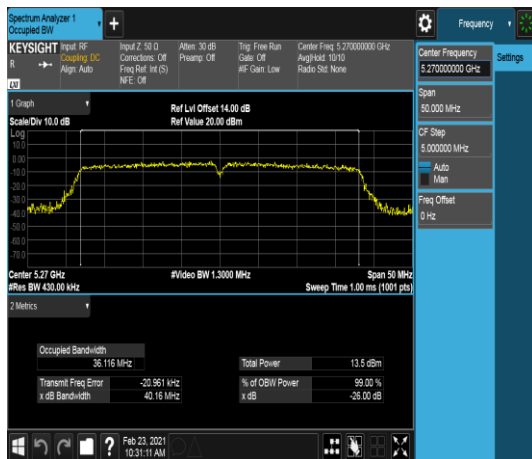


High CH



UNII-2a IEEE 802.11n HT40 mode- chain 0

Low CH

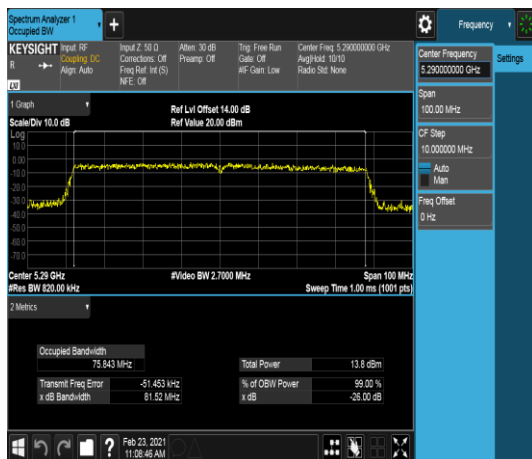


High CH



UNII-2a IEEE 802.11ac VHT80 mode- chain 0

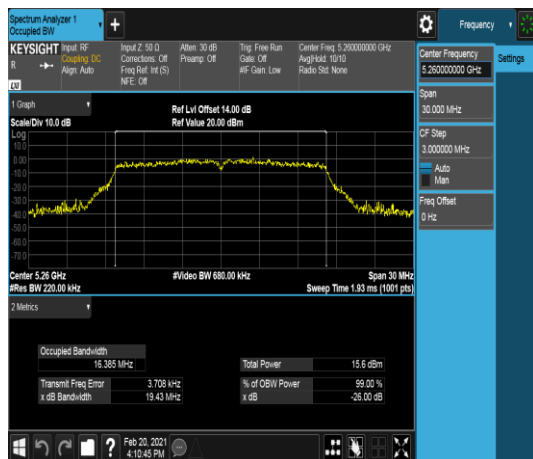
Low CH



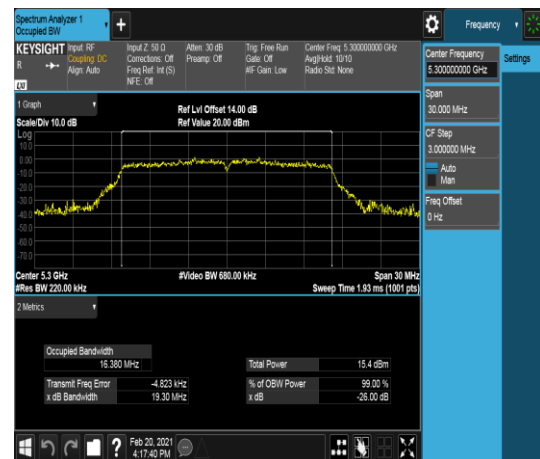
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11a mode- chain 1

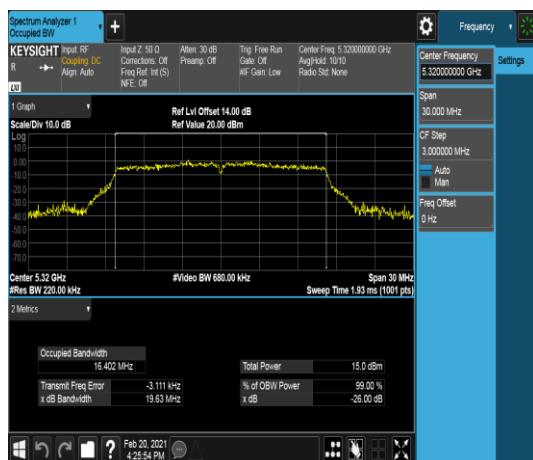
Low CH



Mid CH



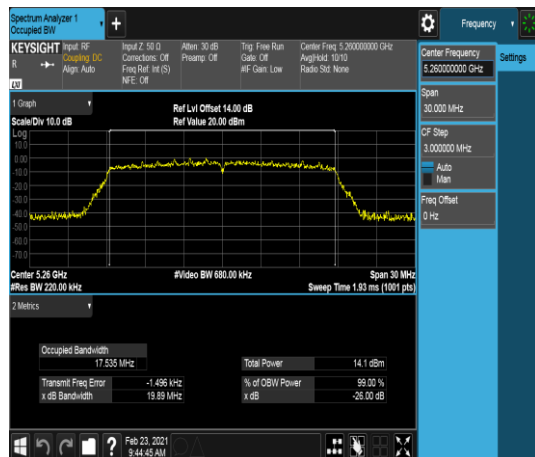
High CH



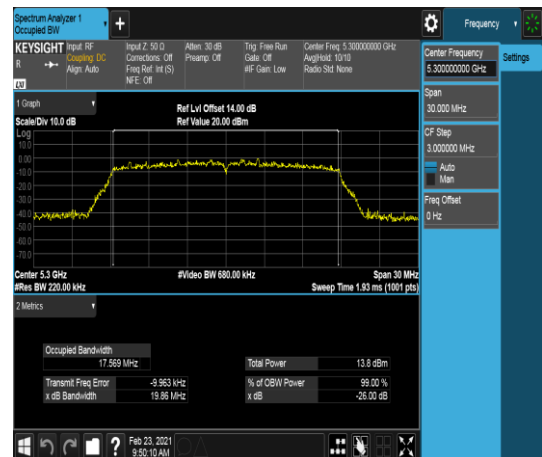
Report No.: T201222W02-RP5

UNII-2a IEEE 802.11n HT20 mode- chain 1

Low CH



Mid CH



High CH

