

TEST REPORT

Applicant: FS.COM Inc

Address of Applicant: 380 Centerpoint Blvd, New Castle, DE 19720,
United States

Manufacturer: FS.COM Limited

Address of Manufacturer: 24F, Infore Center, No.19, Haitian 2nd Rd, Binhai
Community, Yuehai Street, Nanshan District,
Shenzhen City

Equipment Under Test (EUT)

Product Name: Dual Band Gigabit Wi-Fi 6 Router

Model No.: WR-AX1800

Trade Mark: FS

FCC ID: 2A2PW134041

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: August 30,2021

Date of Test: September 06,2021-October 01,2021

Date of report issued: October 08,2021

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



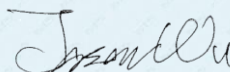
Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	October 08,2021	Original

Prepared By:

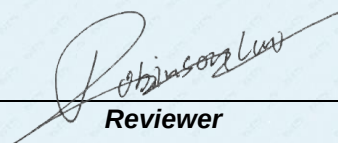


Project Engineer

Date:

October 08,2021

Check By:



Reviewer

Date:

October 08,2021

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4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Remark: Test according to ANSI C63.10:2013 and RSS-Gen

Pass: The EUT complies with the essential requirements in the standard.

Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	Dual Band Gigabit Wi-Fi 6 Router
Model No.:	WR-AX1800
Serial No.:	N/A
Hardware Version:	V1.0
Software Version:	V0.0.1
Test sample(s) ID:	GTSL202110000012-1
Sample(s) Status:	Engineer sample
Sample(s) Status	Engineer sample
Operation Frequency:	IEEE802.11b/IEEE802.11g /IEEE802.11n(HT20): 2412MHz~2462MHz IEEE VHT20/IEEE802.11 ax(HE20):2412MHz~2462MHz IEEE802.11n(HT40)/IEEE VHT40: 2422MHz~2452MHz IEEE802.11 ax(HE40): 2422MHz~2452MHz
Channel numbers:	IEEE802.11b/IEEE802.11g /IEEE802.11n(HT20): 11 IEEE VHT20/IEEE802.11 ax(HE20):11 IEEE802.11n(HT40)/IEEE VHT40/IEEE802.11 ax(HE40):7
Channel separation:	5MHz
Modulation technology:	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM IEEE vht: 256QAM IEEE 802.11ax: OFDMA
Antenna Type:	External Antenna
Antenna gain:	ANTA:5.0dBi ANTB:5.0dBi MIMO technology Directional gain=8.01dBi
Power supply:	DC 12V(Powered by AC/DC adaptor)
Adaptor Information:	Model: BN073-A12012U Input: 100-240V ~50/60Hz 0.4A Output: 12V/1A

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)	
	IEEE802.11b/IEEE802.11g IEEE802.11n(HT20) IEEE VHT20/IEEE802.11 ax(HE20)	IEEE802.11n(HT40)/IEEE VHT40 IEEE802.11 ax(HE40)
Lowest channel	2412MHz	2422MHz
Middle channel	2437MHz	2437MHz
Highest channel	2462MHz	2452MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
<i>Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i>	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	IEEE802.11b	IEEE802.11g	IEEE802.11n(HT20)	IEEE802.11n(HT40)
Data rate	1Mbps	6Mbps	MCS0	MCS0
Mode	IEEE802.11ax(HE20)	IEEE802.11ax(HE40)	IEEE VHT20	VHT40
Data rate	MCS0NSS2	MCS0NSS2	MCS0	MCS0

5.3 Description of Support Units

Notebook M/N: Latitude 3400

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

- **IC —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-

anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.8 Additional Instructions

Test Software	accessMTool V3_1_0_6
---------------	----------------------

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 24 2021	June. 23 2022
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 24 2021	June. 23 2022
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 24 2021	June. 23 2022
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 24 2021	June. 23 2022
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 24 2021	June. 23 2022
9	Coaxial Cable	GTS	N/A	GTS211	June. 24 2021	June. 23 2022
10	Coaxial cable	GTS	N/A	GTS210	June. 24 2021	June. 23 2022
11	Coaxial Cable	GTS	N/A	GTS212	June. 24 2021	June. 23 2022
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 24 2021	June. 23 2022
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 24 2021	June. 23 2022
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 24 2021	June. 23 2022
15	Band filter	Amindeon	82346	GTS219	June. 24 2021	June. 23 2022
16	Power Meter	Anritsu	ML2495A	GTS540	June. 24 2021	June. 23 2022
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 24 2021	June. 23 2022
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 24 2021	June. 23 2022
19	Splitter	Agilent	11636B	GTS237	June. 24 2021	June. 23 2022
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 24 2021	June. 23 2022
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 18 2020	Oct. 17 2021
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 18 2020	Oct. 17 2021
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 18 2020	Oct. 17 2021
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 24 2021	June. 23 2022

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 24 2021	June. 23 2022
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 24 2021	June. 23 2022
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 24 2021	June. 23 2022
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 24 2021	June. 23 2022
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 24 2021	June. 23 2022
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	June. 24 2021	June. 23 2022
10	High voltage probe	SCHWARZBECK	TK9420	GTS537	July. 09 2021	July. 08 2022

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 24 2021	June. 23 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 24 2021	June. 23 2022
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 24 2021	June. 23 2022
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 24 2021	June. 23 2022
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 24 2021	June. 23 2022
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 24 2021	June. 23 2022
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 24 2021	June. 23 2022
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 24 2021	June. 23 2022

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 24 2021	June. 23 2022
2	Barometer	ChangChun	DYM3	GTS255	June. 24 2021	June. 23 2022

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna:	
<i>The antennas are External Antenna(2T2R), the best case gain of the antennas are 5.0dBi, reference to the appendix II for details</i>	

7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207						
Test Method:	ANSI C63.10:2013						
Test Frequency Range:	150KHz to 30MHz						
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto						
Limit:	Frequency range (MHz)		Limit (dBuV)				
			Quasi-peak		Average		
	0.15-0.5		66 to 56*		56 to 46*		
	0.5-5		56		46		
	5-30		60		50		
* Decreases with the logarithm of the frequency.							
Test setup:	Reference Plane <i>Remark</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m						
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.						
Test Instruments:	Refer to section 6.0 for details						
Test mode:	Refer to section 5.2 for details						
Test environment:	Temp.:	25 °C	Humid.:	57%	Press.:	1012mbar	
Test voltage:	AC 120V, 60Hz						
Test results:	Pass						

Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

Measurement data

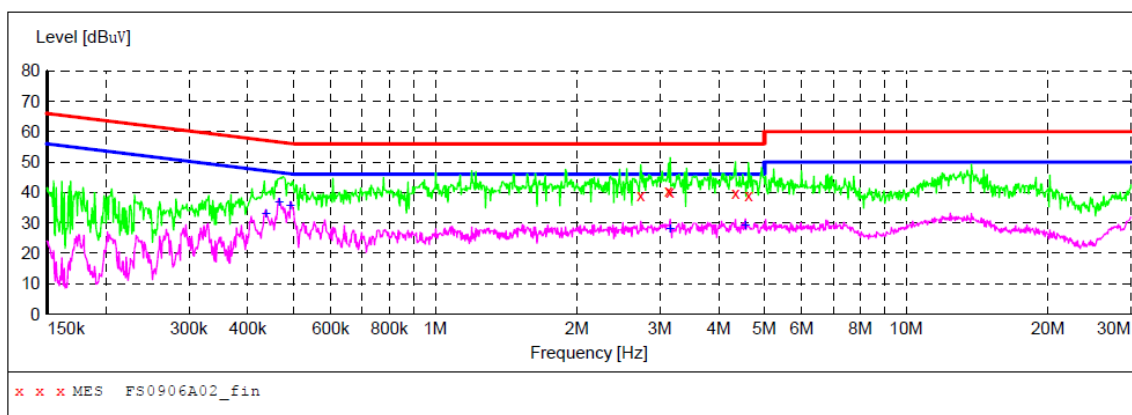
Line:

Voltage Mains Test:FCC PART 15 B

EUT: Dual Band Gigabit Wi-Fi 6 Router M/N: WR-AX1800
 Manufacturer: FS.COM
 Operating Condition: ON WITH WIFI(2.4GHz)
 Test Site: Shieldiing Room
 Operator: Jason
 Test Specification: AC 120V/60Hz
 Comment: L LINE

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "FS0906A02_fin"

2021-9-6 10:38

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
2.732124	39.00	10.3	56	17.0	QP	L1	GND
3.129296	40.50	10.4	56	15.5	QP	L1	GND
3.154381	40.10	10.4	56	15.9	QP	L1	GND
4.341214	39.90	10.4	56	16.1	QP	L1	GND
4.627544	38.90	10.4	56	17.1	QP	L1	GND

MEASUREMENT RESULT: "FS0906A02_fin2"

2021-9-6 10:38

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.437246	33.10	10.3	47	14.0	AV	L1	GND
0.466086	36.90	10.4	47	9.7	AV	L1	GND
0.492876	35.70	10.4	46	10.4	AV	L1	GND
3.154381	28.10	10.4	46	17.9	AV	L1	GND
4.554238	29.20	10.4	46	16.8	AV	L1	GND

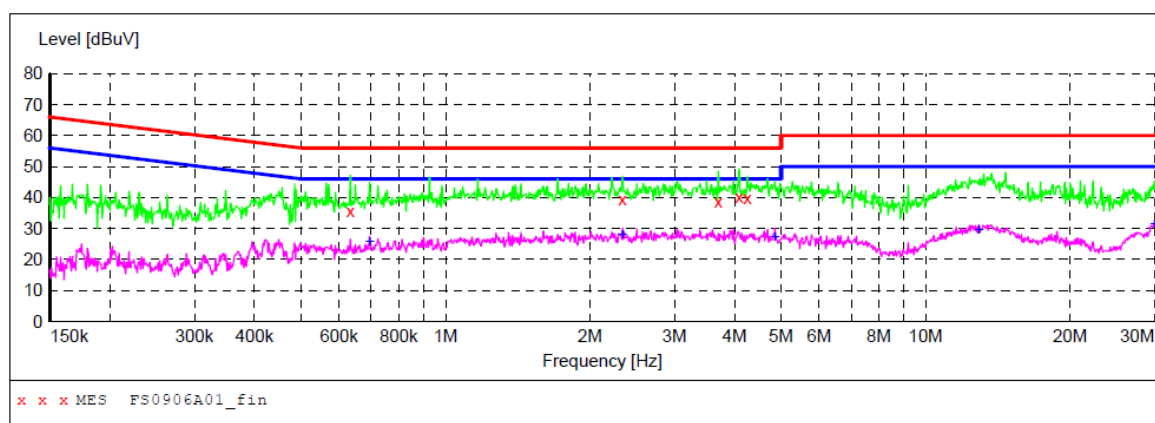
Neutral:

Voltage Mains Test:FCC PART 15 B

EUT: Dual Band Gigabit Wi-Fi 6 Router M/N: WR-AX1800
 Manufacturer: FS.COM
 Operating Condition: ON WITH WIFI(2.4GHz)
 Test Site: Shielding Room
 Operator: Jason
 Test Specification: AC 240V/50Hz
 Comment: N LINE

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "FS0906A01_fin"

2021-9-6 10:16

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.633814	35.60	10.3	56	20.4	QP	N	GND
2.338222	39.60	10.3	56	16.4	QP	N	GND
3.700519	38.60	10.4	56	17.4	QP	N	GND
4.088890	40.10	10.4	56	15.9	QP	N	GND
4.255422	39.80	10.4	56	16.2	QP	N	GND

MEASUREMENT RESULT: "FS0906A01_fin2"

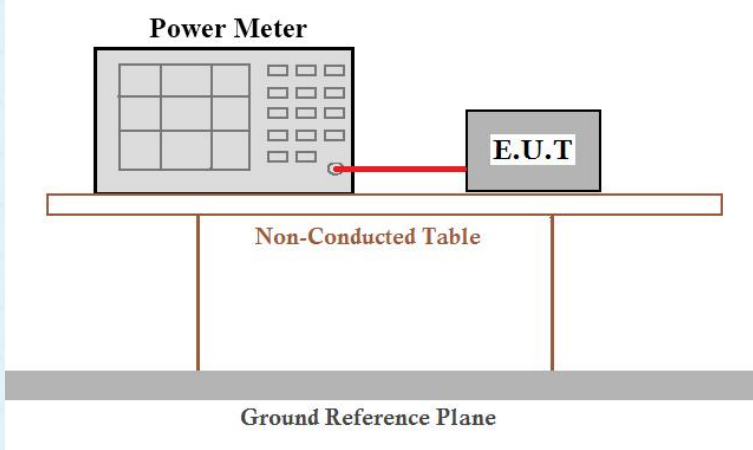
2021-9-6 10:16

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.694763	25.90	10.3	46	20.1	AV	N	GND
2.338222	27.90	10.3	46	18.1	AV	N	GND
4.854619	27.40	10.5	46	18.6	AV	N	GND
12.909658	29.50	10.6	50	20.5	AV	N	GND
29.972858	31.30	11.1	50	18.7	AV	N	GND

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss
4. *If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.*

7.3 Conducted Peak Output Power

Test Requirement :	FCC Part15 C Section 15.247 (b)(3)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Modulation	Frequency (MHz)	Duty cycle(%)		Duty Factor	
		Antenna-A	Antenna-B	Antenna-A	Antenna-B
802.11b	2412	94.96	94.97	0.22	0.22
	2437	94.97	94.96	0.22	0.22
	2462	95.59	95.6	0.2	0.2
802.11g	2412	95.67	95.63	0.19	0.19
	2437	95.57	95.54	0.2	0.2
	2462	95.64	95.65	0.19	0.19
IEEE VHT20	2412	91.28	91.26	0.4	0.4
	2437	91.14	91.15	0.4	0.4
	2462	91.39	91.41	0.39	0.39
IEEE VHT40	2422	86.75	86.73	0.62	0.62
	2437	86.05	86.08	0.65	0.65
	2452	86.49	86.46	0.63	0.63
802.11ax HE20	2412	92.2	92.25	0.35	0.35
	2437	92.3	92.2	0.35	0.35
	2462	91.88	91.83	0.37	0.37
802.11ax HE40	2422	86.47	86.44	0.63	0.63
	2437	86.64	86.62	0.62	0.62
	2452	86.51	86.55	0.63	0.63
802.11n HT20	2412	93.11	93.14	0.31	0.31
	2437	93.17	93.16	0.31	0.31
	2462	93.38	93.37	0.3	0.3
802.11n HT40	2422	89.07	89.05	0.5	0.5
	2437	89.63	89.66	0.48	0.48
	2452	89.75	89.78	0.47	0.47

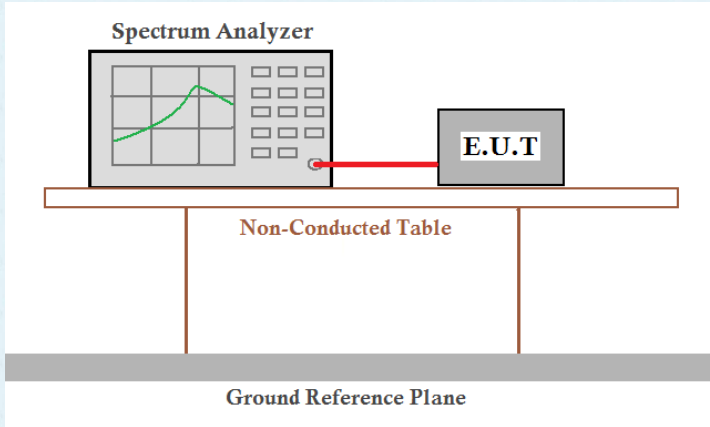
802.11b mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
01	2412	16.081	15.864	--	0.22	16.301	16.084	--	30	Pass
06	2437	16.094	15.959	--	0.22	16.314	16.179	--		
11	2462	16.547	16.108	--	0.2	16.747	16.308	--		
802.11g mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
01	2412	16.342	16.212	--	0.19	16.532	16.402	--	30	Pass
06	2437	16.323	16.157	--	0.2	16.523	16.357	--		
11	2462	16.706	16.302	--	0.19	16.896	16.492	--		
802.11 n(HT20) mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
01	2412	15.663	15.694	18.689	0.31	15.973	16.004	18.999	27.99	Pass
06	2437	15.673	15.754	18.724	0.31	15.983	16.064	19.034		
11	2462	16.064	15.891	18.989	0.3	16.364	16.191	19.289		
802.11 n(HT40) mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
03	2422	14.923	15.231	18.09	0.5	15.423	15.731	18.59	27.99	Pass
06	2437	15.008	15.273	18.153	0.48	15.488	15.753	18.633		
09	2452	15.204	15.359	18.292	0.47	15.674	15.829	18.762		
IEEE VHT20 mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
01	2412	15.646	15.786	18.728	0.4	16.048	16.186	19.128	27.99	Pass
06	2437	15.675	15.759	18.728	0.4	16.075	16.159	19.128		

11	2462	16.133	15.888	19.02 3	0.39	16.523	16.278	19.41 3		
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IEEE VHT40 mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
03	2422	14.903	15.185	18.057	0.62	15.523	15.805	18.677	27.99	Pass
06	2437	14.900	15.171	18.048	0.65	15.550	15.821	18.698		
09	2452	15.117	15.251	18.195	0.63	15.747	15.881	18.825		
802.11ax(HE20) mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
01	2412	15.985	16.129	19.068	0.35	16.335	16.479	19.418	27.99	Pass
06	2437	15.972	16.123	19.058	0.35	16.322	16.473	19.408		
11	2462	16.588	16.185	19.401	0.47	16.958	16.595	19.771		
802.11ax(HE40) mode										
CH No.	Frequency (MHz)	Measured Power (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT A	ANT B	ANT A+B		ANT A	ANT B	ANT A+B		
03	2422	15.11	15.491	18.315	0.63	15.74	16.121	18.945	27.99	Pass
06	2437	15.184	15.455	18.332	0.62	15.804	16.075	18.952		
09	2452	15.400	15.557	18.490	0.63	16.03	16.187	19.12		

Note: For MIMO mode, the Power Limit = 30 - 2.01 = 27.99 dBm

7.4 Channel Bandwidth & 99% Occupancy Bandwidth

Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	>500KHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected via a red cable to an E.U.T. (Equipment Under Test). Both are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane. The Spectrum Analyzer screen shows a frequency spectrum with a peak.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Test Channel I	Channel Bandwidth (MHz)								Limit (KHz)	Result
	802.11b		802.11g		802.11n(HT20)		802.11ax(HE20)			
	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B		
01	7.041	7.074	16.348	16.323	17.57	17.565	18.975	18.965	>500	Pass
06	7.038	6.054	16.334	16.37	17.569	17.584	18.92	18.943		
11	6.577	7.498	16.339	16.361	17.568	17.577	18.957	17.576		

Test Channel I	Channel Bandwidth (MHz)								Limit (KHz)	Result
	IEEE VHT20		/		/		/			
	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B		
01	17.596	17.595	/	/	/	/	/	/	>500	Pass
06	17.575	17.6	/	/	/	/	/	/		
11	17.572	17.583	/	/	/	/	/	/		

Test Channel I	Channel Bandwidth (MHz)								Limit (KHz)	Result
	802.11 n(ht40)		IEEE VHT40		802.11ax(HE40)		/			
	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B		
03	36.272	35.905	35.91	36.311	36.982	37.077	/	/	>500	Pass
06	36.286	35.949	36.315	36.295	37.091	37.422	/	/		
09	36.281	36.297	36.317	36.313	36.827	37.422	/	/		

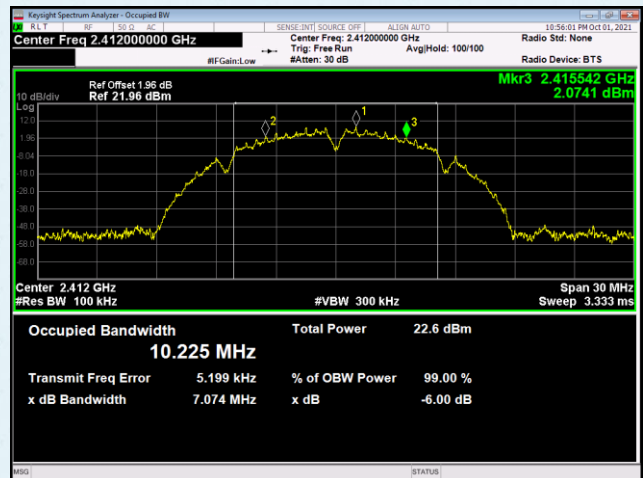
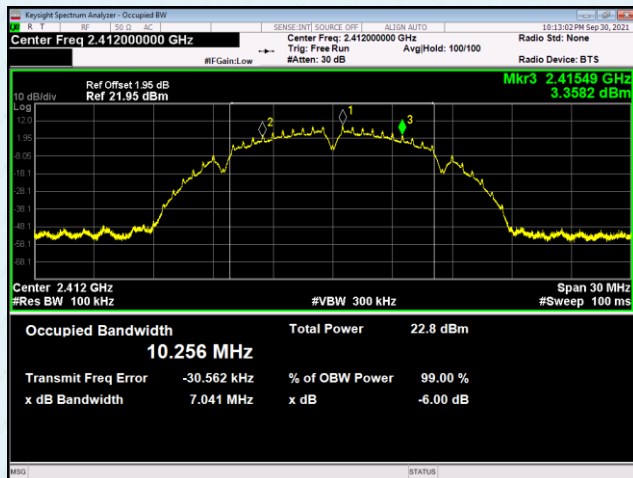
Test Channel	99% Occupy Bandwidth (MHz)										Result
	802.11b		802.11g		802.11n(HT20)		802.11ax(HE20)		IEEE VHT20		
	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	
01	10.291	10.239	16.646	16.640	17.868	17.837	19.006	18.968	17.805	17.775	Pass
06	10.221	10.216	16.701	16.634	17.877	17.826	19.000	19.042	17.798	17.815	
11	10.207	10.238	16.698	16.637	17.865	17.848	18.995	17.828	17.800	17.825	

Test Channel	99% Occupy Bandwidth (MHz)										Result
	802.11n(HT40)		802.11ax(HE40)		IEEE VHT40		/		/		
	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	ANT A	ANT B	
03	36.297	36.255	37.513	37.486	36.230	36.257	/	/	/	/	Pass
06	36.325	36.259	37.520	37.539	36.298	36.238	/	/	/	/	
09	36.331	36.264	37.552	37.545	36.270	36.260	/	/	/	/	

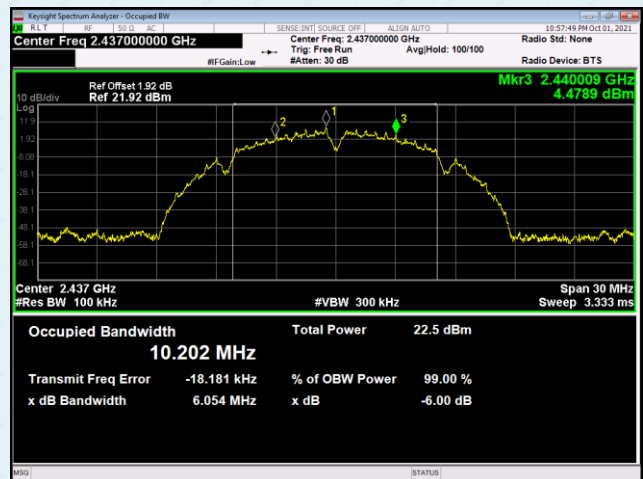
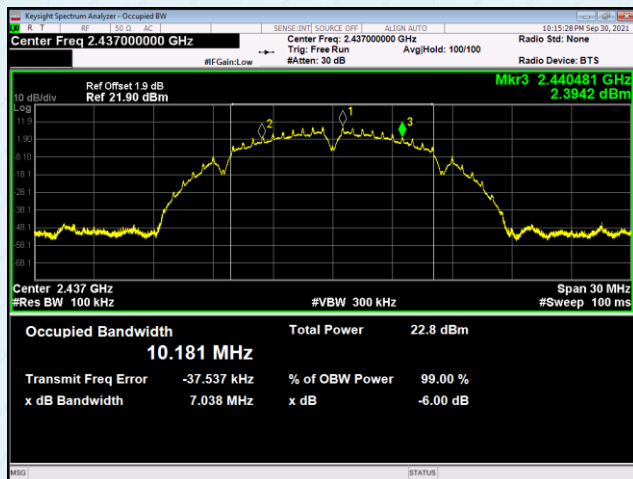
Test plot as follows:

-6dB BW

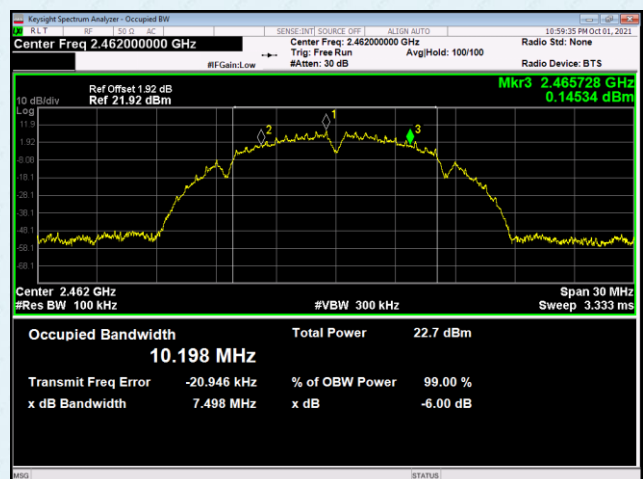
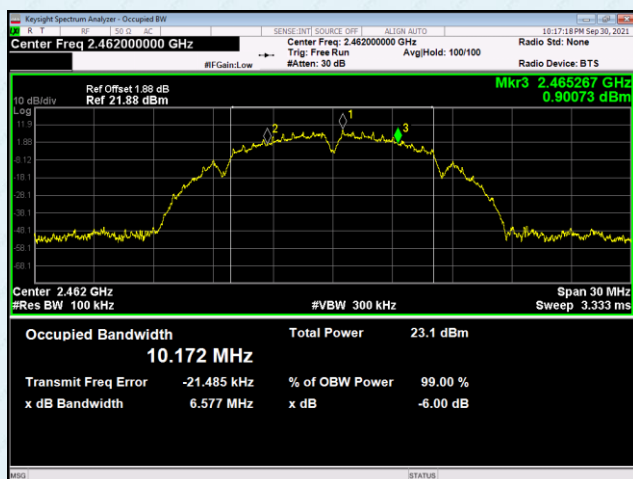
Test mode:	802.11b(Ant A)	Test mode:	802.11b(Ant B)
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Lowest channel

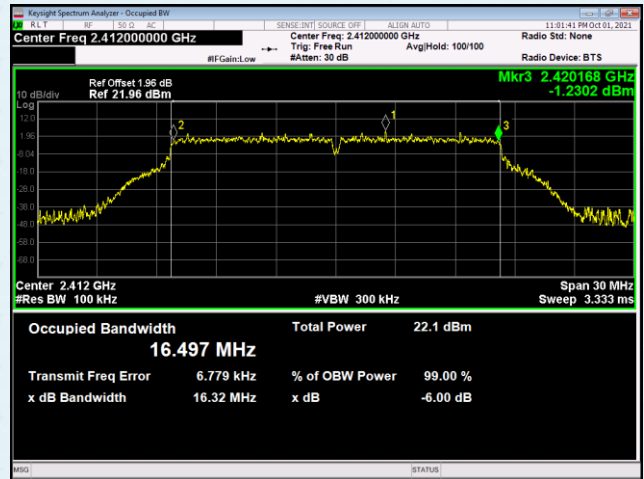
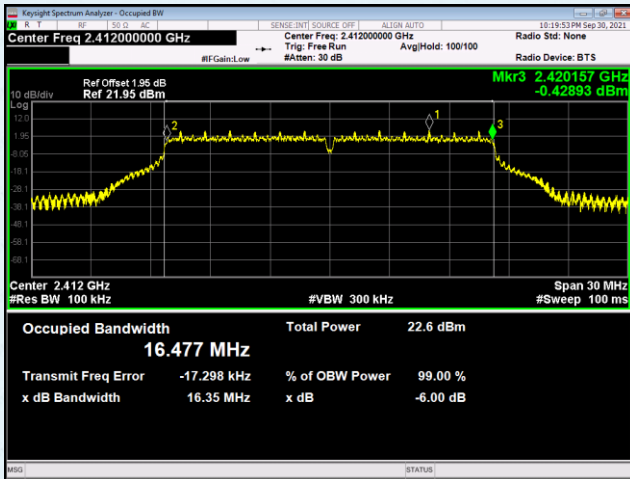


Middle channel

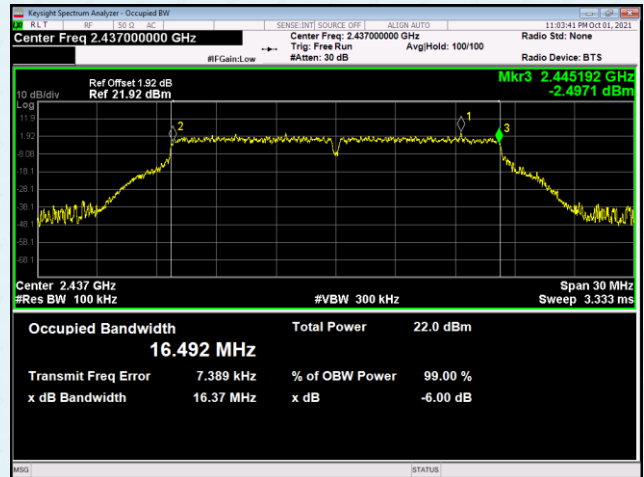
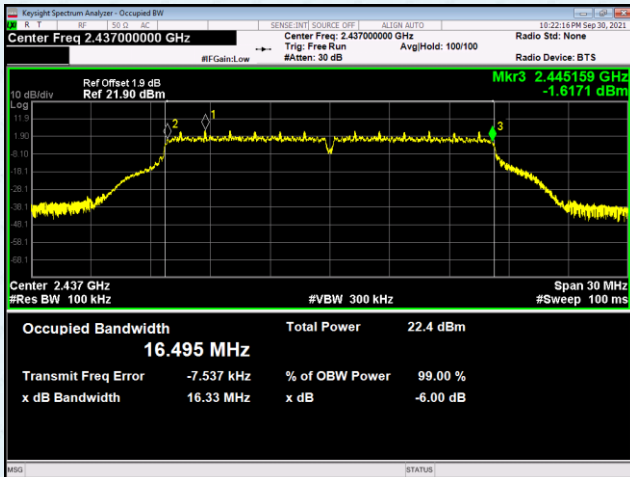


Highest channel

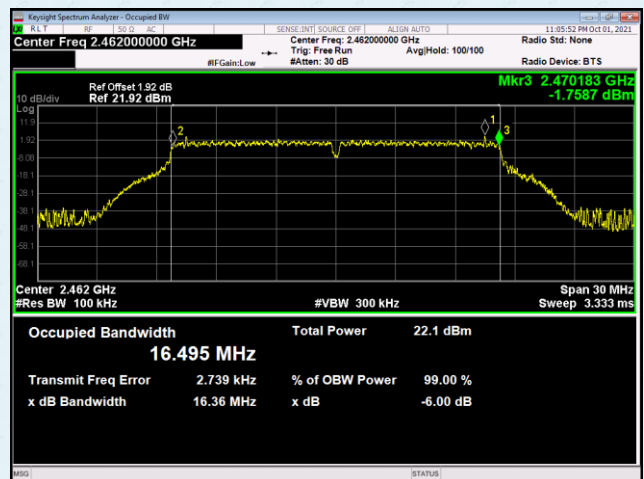
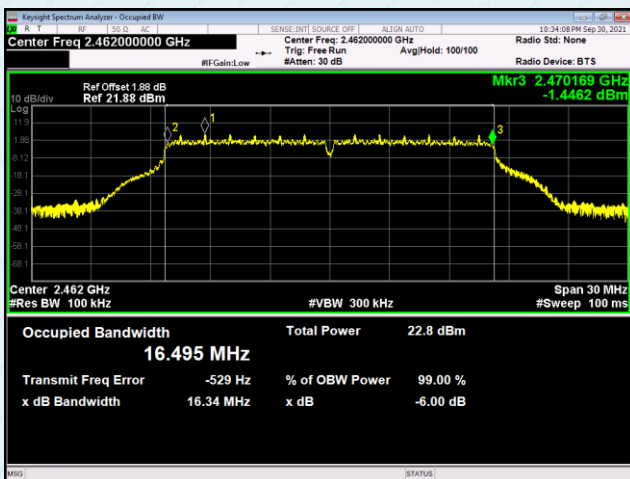
Test mode:	802.11g(Ant A)	Test mode:	802.11g(Ant B)
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Lowest channel

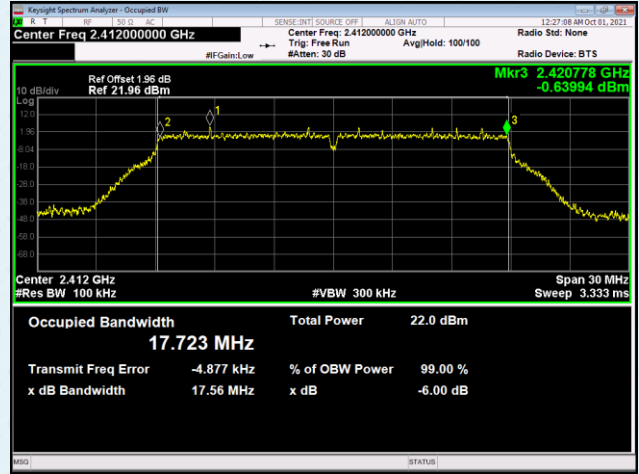
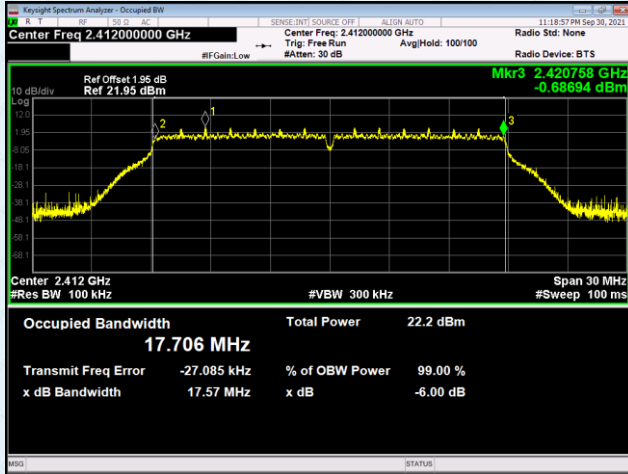


Middle channel

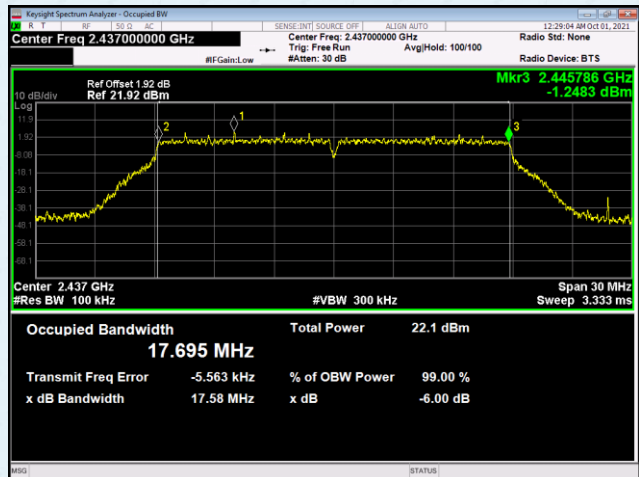
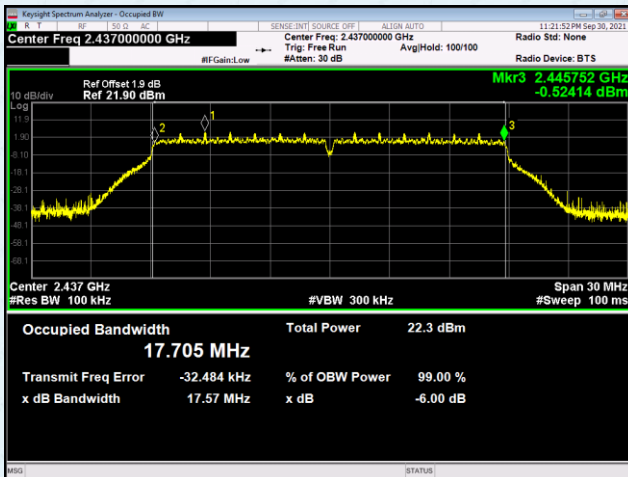


Highest channel

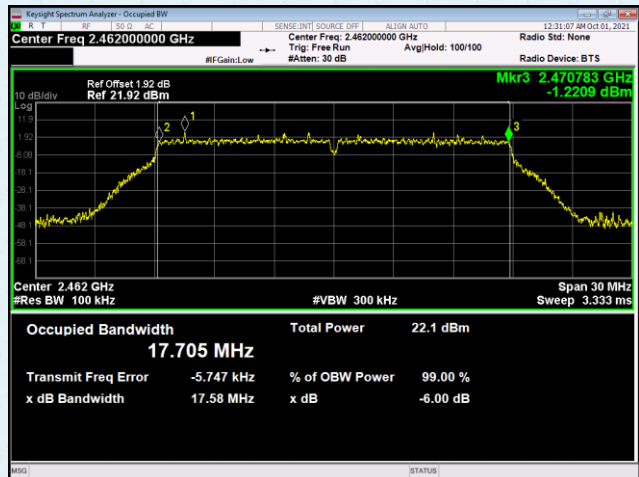
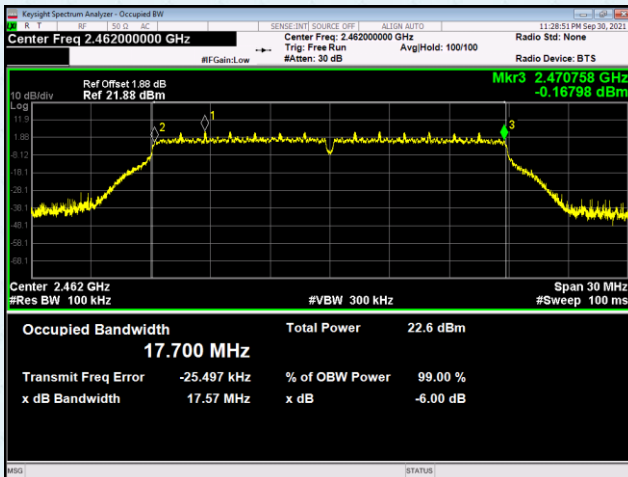
Test mode:	802.11n(HT20) ANT A	Test mode:	802.11n(HT20) ANT B
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Lowest channel



Middle channel



Highest channel