TEST REPORT

Dt&C Co., Ltd.
42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No : DRTFCC2507-0045(1)

2. Customer

- Name (FCC) : LG Electronics Inc. / Name (ISED): LG ELECTRONICS INC.
- Address (FCC) : 222 LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, South Korea, 17709
  Address (ISED) : 222, LG-ro, Jinwi-myeon Pyeongtaek-si, Gyeonggi-do 451-713 Korea (Republic Of)

3. Use of Report : FCC & ISED Original Certification

4. Product Name / Model Name : RF Module / WC1NH25
   FCC ID : 2BO3L-WC1NH25
   IC : 2703H-WC1NH25

5. FCC Regulation(s): Part 15.407
   IC Standard(s): RSS-247 Issue 4, RSS-Gen Issue 5
   Test Method used: ANSI C63.10-2020, KDB789033 D02v02r01, KDB662911 D01v02r01

6. Date of Test : 2025.06.16 ~ 2025.07.10

7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

8. Testing Environment : See appended test report.

9. Test Result : Refer to the attached test result.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test report is not related to KOLAS accreditation.

Affirmation	Tested by Name : SeungMin Gil (Signature)	Technical Manager Name : JaeJin Lee (Signature)

2025 . 07 . 29 .

Dt&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description	Revised by	Reviewed by
DRTFCC2507-0045	Jul. 22, 2025	Initial issue	SeungMin Gil	JaeJin Lee
DRTFCC2507-0045(1)	Jul. 29, 2025	Update standard	SeungMin Gil	JaeJin Lee

CONTENTS

1. General Information

1.1. Description of EUT

Equipment Class	Unlicensed National Information Infrastructure TX(NII)
Product Name	RF Module
Model Name	WC1NH25
Add Model Name	-
Firmware Version Identification Number	V1.0
EUT Serial Number	Conducted: 2504020190000(MAC: 287B11F3990C) Radiated: 2504020190000(MAC: 287B11F38D36)
Power Supply	DC 3.3 V
Modulation Technique	OFDM, OFDMA
Antenna Specification	Antenna type: FPC Antenna Antenna gain: Refer to the clause 3 in test report.

Band	Mode	Tx. frequency(MHz)	Max. conducted power(dBm)	Max. Antenna gain(dBi)	Max. e.i.r.p (dBm)
U-NII 1	802.11ax(HE20)	5 180 ~ 5 240	10.67	7.46	18.13
	802.11ax(HE40)	5 190 ~ 5 230	13.14	7.46	20.60
	802.11ax(HE80)	5 210	**14.19**	7.46	21.65
U-NII 2A	802.11ax(HE20)	5 260 ~ 5 320	17.02	7.46	24.48
	802.11ax(HE40)	5 270 ~ 5 310	**18.26**	7.46	25.72
	802.11ax(HE80)	5 290	14.50	7.46	21.96
U-NII 2C	802.11ax(HE20)	5 500 ~ 5 720	16.19	7.46	23.65
	802.11ax(HE40)	5 510 ~ 5 710	18.91	7.46	26.37
	802.11ax(HE80)	5 530 ~ 5 690	**19.11**	7.46	26.57
U-NII 3	802.11ax(HE20)	5 745 ~ 5 825	19.19	7.46	26.65
	802.11ax(HE40)	5 755 ~ 5 795	**19.45**	7.46	26.91
	802.11ax(HE80)	5 775	18.75	7.46	26.21

1.2. Support Equipment

N/A

1.3. Testing Laboratory

Dt&C Co., Ltd.		
The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042. The test site complies with the requirements of Part 2.948. **- FCC & ISED MRA Designation No. : KR0034** **- ISED#: 5740A**		
www.dtnc.net		
Telephone	:	+ 82-31-321-2664
FAX	:	+ 82-31-321-1664

1.4. Testing Environment

Ambient Condition	
▪ Temperature	+20 ℃ ~ +25 ℃
▪ Relative Humidity	+35 % ~ +45 %

1.5. Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C63.10-2020. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

Parameter	Measurement uncertainty
Antenna-port conducted emission	1.0 dB (The confidence level is about 95 %, k = 2)
AC power-line conducted emission	3.4 dB (The confidence level is about 95 %, k = 2)
Radiated emission (1 GHz Below)	5.0 dB (The confidence level is about 95 %, k = 2)
Radiated emission (1 GHz ~ 18 GHz)	4.8 dB (The confidence level is about 95 %, k = 2)
Radiated emission (18 GHz Above)	5.8 dB (The confidence level is about 95 %, k = 2)

1.6. Test Equipment List

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal.Date (yy/mm/dd)	S/N
Spectrum Analyzer	KEYSIGHT	N9020A	24/11/27	25/11/27	MY50410272
Spectrum Analyzer	KEYSIGHT	N9020A	24/11/28	25/11/28	MY53309959
Spectrum Analyzer	Agilent Technologies	N9020A	25/05/26	26/05/26	US47360812
Spectrum Analyzer	Agilent Technologies	N9020A	24/11/26	25/11/26	MY50410399
Spectrum Analyzer	KEYSIGHT	N9030B	24/11/25	25/11/25	MY55480168
Multimeter	FLUKE	17B	24/11/27	25/11/27	26030065WS
Signal Generator	Rohde Schwarz	SMBV100A	24/12/10	25/12/10	255571
Signal Generator	KEYSIGHT	M9383A	24/12/10	25/12/10	E76F804A28
Thermohygrometer	BODYCOM	BJ5478	24/12/17	25/12/17	090205-4
Thermohygrometer	BODYCOM	BJ5478	24/12/05	25/12/05	120612-2
Thermohygrometer	BODYCOM	BJ5478	25/05/29	26/05/29	N/A
Loop Antenna	ETS-Lindgren	6502	24/11/08	26/11/08	00060496
Hybrid Antenna	Schwarzbeck	VULB 9160	24/12/13	25/12/13	3362
Horn Antenna	ETS-Lindgren	3117	25/05/27	26/05/27	00143278
Horn Antenna	A.H.Systems Inc.	SAS-574	25/06/12	26/06/12	155
PreAmplifier	tsj	MLA-0118-B01-40	24/11/26	25/11/26	1852267
PreAmplifier	tsj	MLA-1840-J02-45	25/05/29	26/05/29	16966-10728
PreAmplifier	H.P	8447D	24/12/11	25/12/11	2944A07774
High Pass Filter	Wainwright Instruments	WHKX12-935-1000-15000-40SS	25/05/26	26/05/26	8
High Pass Filter	Wainwright Instruments	WHKX10-2838-3300-18000-60SS	25/05/26	26/05/26	1
High Pass Filter	Wainwright Instruments	WHNX8.0/26.5-6SS	25/05/26	26/05/26	3
Attenuator	Hefei Shunze	SS5T2.92-10-40	25/05/26	26/05/26	16012202
Attenuator	Aeroflex/Weinschel	56-3	25/05/26	26/05/26	Y2370
Attenuator	SMAJK	SMAJK-2-3	25/05/26	26/05/26	3
Attenuator	SMAJK	SMAJK-2-3	25/05/26	26/05/26	2
Attenuator	SMAJK	SMAJK-50-10	25/05/26	26/05/26	3-50-10
Attenuator	Aeroflex/Weinschel	23-10-34	25/05/27	26/05/27	BP4386
Power Meter & Wide Bandwidth Sensor	Anritsu	ML2496A MA2490A MA2411B	24/12/12 24/12/11 24/12/11	25/12/12 25/12/11 25/12/11	1338004 1249303 1911481
EMI Receiver	ROHDE&SCHWARZ	ESCI7	25/01/20	26/01/20	100910
PULSE LIMITER	Rohde Schwarz	ESH3-Z2	24/08/21	25/08/21	101333
LISN	SCHWARZBECK	NSLK 8128 RC	24/10/21	25/10/21	8128 RC-387
Digital Thermo Hygrometer	CAS	TE-303N	25/02/13	26/02/13	220502531
Cable	Dt&C	Cable	25/01/02	26/01/02	G-2
Cable	HUBER+SUHNER	SUCOFLEX 100	25/01/02	26/01/02	G-3
Cable	Dt&C	Cable	25/01/02	26/01/02	G-4
Cable	OMT	YSS21S	25/01/02	26/01/02	G-5
Cable	Junkosha	MWX241	25/01/02	26/01/02	mmW-1
Cable	Junkosha	MWX241	25/01/02	26/01/02	mmW-4
Cable	HUBER+SUHNER	SUCOFLEX100	25/01/02	26/01/02	M-01
Cable	HUBER+SUHNER	SUCOFLEX100	25/01/02	26/01/02	M-02
Cable	JUNKOSHA	MWX241/B	25/01/02	26/01/02	M-03
Cable	JUNKOSHA	J12J101757-00	25/01/02	26/01/02	M-07
Cable	HUBER+SUHNER	SUCOFLEX106	25/01/02	26/01/02	M-09
Cable	Dt&C	Cable	25/01/02	26/01/02	RFC-69
Cable	Radiall	TESTPRO3	25/01/02	26/01/02	RFC-70
Cable	Radiall	TESTPRO3	25/01/02	26/01/02	RFC-01
Test Software	tsj	EMI Measurement	NA	NA	Version 2.00.0185
Test Software	tsj	Noise Terminal Measurement	NA	NA	Version 2.00.0190
3m Semi Anechoic Chamber	SYC	3m-SAC	25/06/13(NSA) 25/06/19(VSWR)	26/06/13(NSA) 26/06/19(VSWR)	3m-SAC-1
3m Semi Anechoic Chamber	SYC	3m-SAC	25/01/14(NSA) 25/01/17(VSWR)	26/01/14(NSA) 26/01/17(VSWR)	3m-SAC-2

Note1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017.
Note2: The cable is not a regular calibration item, so it has been calibrated by Dt&C itself.

2. Test Methodology

The measurement procedures described in the ANSI C63.10-2020 and the guidance provided in KDB789033 D02v02r01 were used in measurement of the EUT.

The EUT was tested per the guidance of KDB789033 D02v02r01. And ANSI C63.10-2020 was used to reference appropriate EUT setup and maximizing procedures of radiated spurious emission and AC line conducted emission testing.

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT was operated in the test mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E.

2.3. General Test Procedures

Conducted Emissions

The power-line conducted emission test procedure is not described on the KDB789033 D02v02r01.

So this test was fulfilled with the requirements in Section 6.2 of ANSI C63.10-2020.

The EUT is placed on the wooden table, which is 0.8 m above ground plane and the conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and Average detector.

Radiated Emissions

Basically the radiated tests were performed with KDB789033 D02v02r01. But some requirements and procedures like test site requirements, EUT setup and maximizing procedure were fulfilled with the requirements in Section 5 and 6 of the ANSI C63.10-2020 as stated on KDB789033 D02v02r01.

The EUT is placed on a non-conductive table, which is 0.8 m above ground plane. For emission measurements above 1 GHz, the table height is 1.5 m. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 1 m or 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the highest emission, the relative positions of the EUT were rotated through three orthogonal axis.

2.4. Instrument Calibration

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.5. Description of Test Modes

The EUT has been tested with the operating condition for maximizing the emission characteristics. A test program is used to control the EUT for staying in continuous transmitting.

Transmitting Configuration of EUT

Mode	SISO		MIMO (CDD)	MIMO (SDM)
	Ant 1	Ant 2	Ant 1 & 2	Ant 1 & 2
	Data rate			
802.11ax(HE20)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(2SS)
802.11ax(HE40)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(2SS)
802.11ax(HE80)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(1SS)	MCS 0 ~ 11(2SS)

Note1: SDM = Spatial Diversity Multiplexing, CDD = Cycle Delay Diversity, SS = Spatial Streams

Tested Mode

Test Mode	ANT configuration	Worst data rate
802.11ax(HE20)	CDD Multiple transmitting	MCS 0
802.11ax(HE40)	CDD Multiple transmitting	MCS 0
802.11ax(HE80)	CDD Multiple transmitting	MCS 0

Note 1: The worst case data rate is determined as above test mode according to the power measurements.

EUT Operation test setup

- Test Software: MT7961 QA 0.0.2.39
- Power setting: Refer to the table next page.

Tested frequency and power setting

Tones(RU Index)	Band	802.11ax(HE20)		
		Channel	Frequency (MHz)	Power Setting
26(0, 4, 8)	U-NII 1	36	5 180	-3
		40	5 200	-3
		48	5 240	-3
	U-NII 2A	52	5 260	3
		60	5 300	3
		64	5 320	3
	U-NII 2C	100	5 500	3
		116	5 580	3
		144	5 720	3
	U-NII 3	149	5 745	13
		157	5 785	12
		165	5 825	12
52(37, 38, 40)	U-NII 1	36	5 180	-1
		40	5 200	-1
		48	5 240	-1
	U-NII 2A	52	5 260	5
		60	5 300	5
		64	5 320	5
	U-NII 2C	100	5 500	5
		116	5 580	5
		144	5 720	5
	U-NII 3	149	5 745	14
		157	5 785	14
		165	5 825	14
106(53, 54)	U-NII 1	36	5 180	2
		40	5 200	2
		48	5 240	2
	U-NII 2A	52	5 260	8
		60	5 300	8
		64	5 320	8
	U-NII 2C	100	5 500	8
		116	5 580	8
		144	5 720	8
	U-NII 3	149	5 745	14
		157	5 785	14
		165	5 825	14

Tones(RU Index)	Band	802.11ax(HE20)		
		Channel	Frequency (MHz)	Power Setting
242(61)	U-NII 1	36	5 180	5
		40	5 200	5
		48	5 240	5
	U-NII 2A	52	5 260	11
		60	5 300	11
		64	5 320	11
	U-NII 2C	100	5 500	11
		116	5 580	11
		144	5 720	11
	U-NII 3	149	5 745	14
		157	5 785	14
		165	5 825	14
SU	U-NII 1	36	5 180	5
		40	5 200	5
		48	5 240	5
	U-NII 2A	52	5 260	11
		60	5 300	11
		64	5 320	11
	U-NII 2C	100	5 500	11
		116	5 580	11
		144	5 720	11
	U-NII 3	149	5 745	14
		157	5 785	14
		165	5 825	14

Tones(RU Index)	Band	802.11ax(HE40)		
		Channel	Frequency (MHz)	Power Setting
26(0, 8, 17)	U-NII 1	38	5 190	-3
		46	5 230	-3
	U-NII 2A	54	5 270	3
		62	5 310	3
	U-NII 2C	102	5 510	3
		110	5 550	3
		142	5 710	3
	U-NII 3	151	5 755	13
		159	5 795	13
52(37, 40, 44)	U-NII 1	38	5 190	-1
		46	5 230	-1
	U-NII 2A	54	5 270	5
		62	5 310	5
	U-NII 2C	102	5 510	5
		110	5 550	5
		142	5 710	5
	U-NII 3	151	5 755	14
		159	5 795	14
106(53, 54, 56)	U-NII 1	38	5 190	2
		46	5 230	2
	U-NII 2A	54	5 270	8
		62	5 310	8
	U-NII 2C	102	5 510	8
		110	5 550	8
		142	5 710	8
	U-NII 3	151	5 755	14
		159	5 795	14

Tones(RU Index)	Band	802.11ax(HE40)		
		Channel	Frequency (MHz)	Power Setting
242(61, 62)	U-NII 1	38	5 190	5
		46	5 230	5
	U-NII 2A	54	5 270	11
		62	5 310	11
	U-NII 2C	102	5 510	11
		110	5 550	11
		142	5 710	11
	U-NII 3	151	5 755	14
		159	5 795	14
484(65)	U-NII 1	38	5 190	8
		46	5 230	8
	U-NII 2A	54	5 270	14
		62	5 310	11
	U-NII 2C	102	5 510	11.5
		110	5 550	14
		142	5 710	14
	U-NII 3	151	5 755	14
		159	5 795	14
SU	U-NII 1	38	5 190	7
		46	5 230	7
	U-NII 2A	54	5 270	13
		62	5 310	10.5
	U-NII 2C	102	5 510	11
		110	5 550	13
		142	5 710	13
	U-NII 3	151	5 755	14
		159	5 795	14

Tones(RU Index)	Band	802.11ax(HE80)		
		Channel	Frequency (MHz)	Power Setting
26(0, 17, 36)	U-NII 1	42	5 210	-3
	U-NII 2A	58	5 290	3
	U-NII 2C	106	5 530	3
		138	5 690	3
	U-NII 3	155	5 775	12
52(37, 44, 52)	U-NII 1	42	5 210	-1
	U-NII 2A	58	5 290	5
	U-NII 2C	106	5 530	5
		138	5 690	5
	U-NII 3	155	5 775	13.5
106(53, 56, 60)	U-NII 1	42	5 210	2
	U-NII 2A	58	5 290	8
	U-NII 2C	106	5 530	8
		138	5 690	8
	U-NII 3	155	5 775	14
242(61, 62, 64)	U-NII 1	42	5 210	5
	U-NII 2A	58	5 290	9
	U-NII 2C	106	5 530	8.5
		138	5 690	14
	U-NII 3	155	5 775	14
484(65, 66)	U-NII 1	42	5 210	8
	U-NII 2A	58	5 290	9
	U-NII 2C	106	5 530	8.5
		138	5 690	14
	U-NII 3	155	5 775	14
996(67)	U-NII 1	42	5 210	9
	U-NII 2A	58	5 290	9
	U-NII 2C	106	5 530	10
		138	5 690	14
	U-NII 3	155	5 775	14
SU	U-NII 1	42	5 210	8
	U-NII 2A	58	5 290	9
	U-NII 2C	106	5 530	9
		138	5 690	14
	U-NII 3	155	5 775	14

3. Antenna Requirements

▣ **According to Part 15.203**

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 shall be considered sufficient to comply with the provisions of this section."

The antenna employs a unique antenna connector.(Refer to Internal photo file.)
Therefore this E.U.T complies with the requirement of Part 15.203

Directional antenna gain:

Bands	Antenna	SISO		MIMO (CDD) Note 1.
		ANT 1 (dBi)	ANT 2 (dBi)	Directional Gain(dBi)
U-NII 1	**M5(WIFI)**	3.98	4.90	7.46
U-NII 2A		3.98	4.90	7.46
U-NII 2C		3.98	4.90	7.46
U-NII 3		3.98	4.90	7.46
U-NII 1	M3(WIFI)	2.91	3.42	6.18
U-NII 2A		2.91	3.42	6.18
U-NII 2C		2.91	3.42	6.18
U-NII 3		2.91	3.42	6.18
U-NII 1	S7(WIFI)	2.58	2.87	5.74
U-NII 2A		2.58	2.87	5.74
U-NII 2C		2.58	2.87	5.74
U-NII 3		2.58	2.87	5.74

Note 1. Directional gain(correlated signal with unequal antenna gain and equal transmit power)
$10 \log [(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N^{ANT}]$ dBi

4. Summary of Test Result

FCC Part Section(s)	RSS Section(s)	Test Description	Limit	Test Condition	Status Note 1
15.407(a)	RSS-247[7.3.1.3]	Emission Bandwidth (26 dB Bandwidth)	N/A	Conducted	C
15.407(e)	RSS-247[7.3.4.2]	Minimum Emission Bandwidth (6 dB Bandwidth)	> 500 kHz in 5 725 ~ 5 850 MHz		C
15.407(a)	RSS-247[7.3]	Maximum Conducted Output Power	Part 15.407(a) (Refer to section 5.3)		C
15.407(a)	RSS-247[7.3]	Peak Power Spectral Density	Part 15.407(a) (Refer to section 5.4)		C
-	RSS-Gen[6.7]	Occupied Bandwidth (99 %)	N/A		C
15.407(h)	RSS-247[7.3.6]	Dynamic Frequency Selection	Part 15.407(h) (Refer to the DFS test report)		C Note 4
15.407(b) 15.205 15.209	RSS-247[7.3] RSS-Gen[8.9] RSS-Gen[8.10]]	Unwanted Emissions	Part 15.209, 15.407(b) (Refer to section 5.5)	Radiated	C Note 2, 3
15.207	RSS-Gen[8.8]	AC Conducted Emissions	Part 15.207 (Refer to section 5.6)	AC Line Conducted	C
15.203	-	Antenna Requirements	Part 15.203 (Refer to section 3)	-	C

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable
Note 2: This test item was performed in three orthogonal EUT positions and the worst case data was reported.
Note 3: The radiated emission test was performed using the highest gain antenna(Model: M5), and the results are reported. Spot check testing was performed for antennas with lower gain, and the results were similar to or lower than those of the highest gain antenna.
Note 4: Refer to the DFS test report.

5. Test Result

5.1. Emission Bandwidth (26 dB Bandwidth) & Occupied BW (99 %)

▣ Test Requirements

- Emission Bandwidth (26 dB Bandwidth)

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

The 26 dB bandwidth is used to determine the conducted output power limit.

- Occupied BW (99 %)

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99 % emission bandwidth, as calculated or measured

▣ Test Configuration

Refer to the APPENDIX I.

▣ Test Procedure

- Emission Bandwidth (26 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer and used following test procedure of **KDB789033 D02v02r01**.

1. Set resolution bandwidth (RBW) = approximately **1 %** of the EBW.
2. Set the video bandwidth **(VBW) > RBW**.
3. Detector = **Peak**.
4. Trace mode = **max hold**.

Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

- Occupied BW (99 %): RSS-Gen[6.7]

1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
2. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
3. The resolution bandwidth (RBW) shall be in the range of 1 % to 5 % of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

▣ **Test Results: Comply**

Mode	Band	Frequency (MHz)	Tone	RU Index	Test Result			
					26 dB BW(MHz)		99 % BW(MHz)	
					CDD			
					ANT 1	ANT 2	ANT 1	ANT 2
802.11ax (HE20)	U-NII 1	5 180	26	0	20.92	20.42	18.73	18.51
				4	18.31	18.08	17.07	17.02
				8	20.59	**21.51**	18.60	18.80
			242	61	**22.71**	21.20	**19.01**	**18.92**
		5 200	26	0	20.39	20.14	18.59	18.52
				4	18.07	18.04	16.98	16.99
				8	20.47	20.18	18.63	18.65
			242	61	**23.51**	**24.21**	**18.96**	**18.96**
		5 240	26	0	18.99	19.00	18.09	18.11
				4	18.15	18.09	16.94	16.88
				8	19.12	19.01	18.09	18.04
			242	61	**19.87**	**19.82**	**18.84**	**18.81**
	U-NII 2A	5 260	26	0	20.63	20.01	18.68	18.51
				4	18.10	18.09	17.05	17.05
				8	20.34	20.75	18.62	18.75
			242	61	**24.99**	**21.18**	**18.97**	**18.92**
		5 300	26	0	20.30	20.55	18.59	18.61
				4	18.15	18.11	17.06	17.11
				8	20.48	20.24	18.57	18.65
			242	61	**21.65**	**24.11**	**18.95**	**18.95**
		5 320	26	0	20.17	20.16	18.59	18.59
				4	18.07	18.09	17.03	17.07
				8	20.71	20.43	18.54	18.64
			242	61	**28.26**	**23.21**	**18.96**	**18.99**
	U-NII 2C	5 500	26	0	20.67	20.09	18.69	18.48
				4	18.15	18.03	17.04	17.01
				8	20.47	20.07	18.60	18.52
			242	61	**21.80**	**22.16**	**18.96**	**18.97**
		5 580	26	0	20.54	20.29	18.66	18.56
				4	18.06	18.04	16.95	16.99
				8	20.65	20.31	18.54	18.66
			242	61	**29.03**	**21.63**	**18.95**	**18.95**
		5 720	26	0	20.95	20.25	18.62	18.51
				4	18.13	18.10	16.97	17.01
				8	20.40	20.16	18.55	18.76
			242	61	**21.44**	**22.42**	**18.97**	**19.00**

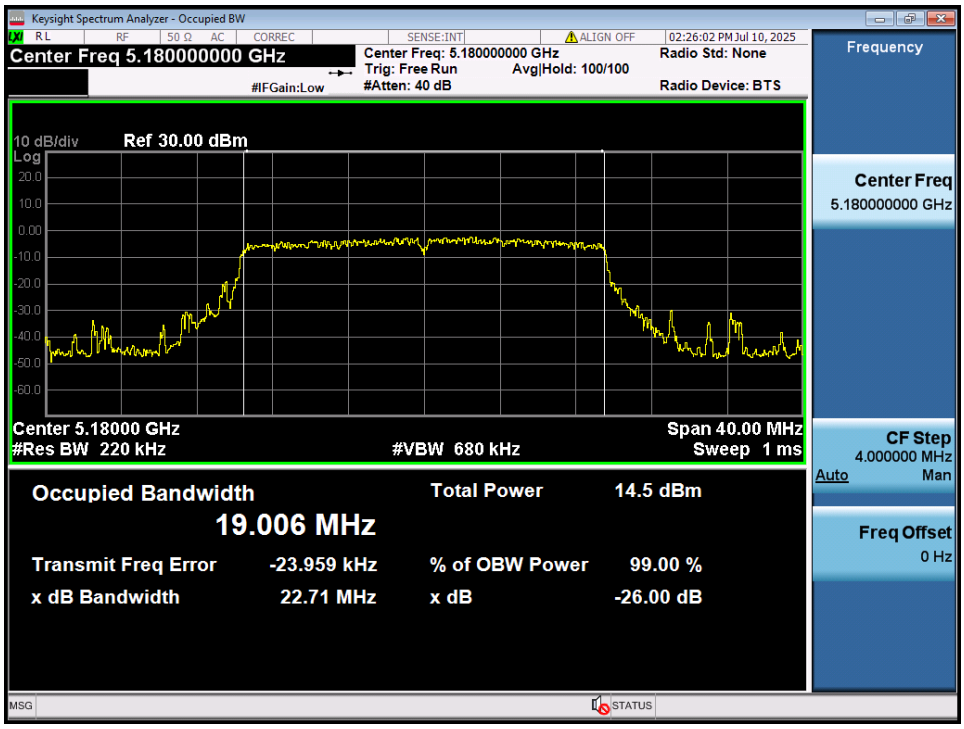
Mode	Band	Frequency (MHz)	Tone	RU Index	Test Result			
					26 dB BW(MHz)		99 % BW(MHz)	
					CDD			
					ANT 1	ANT 2	ANT 1	ANT 2
802.11ax (HE40)	U-NII 1	5 190	26	0	20.95	20.60	19.00	18.90
				8	23.34	21.86	21.07	20.15
				17	19.36	19.02	17.91	17.83
			484	65	**39.27**	**39.38**	**37.33**	**37.59**
		5 230	26	0	20.51	20.87	19.10	18.77
				8	22.05	22.15	20.60	20.19
				17	19.27	19.13	17.86	17.83
			484	65	**39.39**	**39.42**	**37.42**	**37.46**
	U-NII 2A	5 270	26	0	20.60	21.18	18.94	18.87
				8	22.29	22.20	20.50	20.13
				17	19.03	19.11	17.69	17.76
			484	65	**39.45**	**39.25**	**37.55**	**37.55**
		5 310	26	0	20.32	20.45	18.83	18.86
				8	23.02	22.22	20.53	20.29
				17	19.21	19.10	17.79	17.82
			484	65	**39.34**	**39.35**	**37.57**	**37.50**
	U-NII 2C	5 510	26	0	19.21	19.20	17.87	17.85
				8	23.07	21.84	20.68	20.09
				17	19.15	19.04	17.80	17.88
			484	65	**39.29**	**39.40**	**37.52**	**37.57**
		5 550	26	0	19.10	19.18	17.88	17.91
				8	22.88	22.29	20.54	20.32
				17	19.17	19.14	17.95	17.76
			484	65	**39.33**	**39.34**	**37.41**	**37.31**
		5 710	26	0	19.00	19.10	17.80	17.87
				8	23.32	22.86	20.65	20.45
				17	19.26	19.09	17.77	17.83
			484	65	**39.41**	**39.37**	**37.52**	**37.40**

Mode	Band	Frequency (MHz)	Tone	RU Index	Test Result			
					26 dB BW(MHz)		99 % BW(MHz)	
					CDD			
					ANT 1	ANT 2	ANT 1	ANT 2
802.11ax (HE80)	U-NII 1	5 210	26	0	20.99	20.07	19.15	18.52
				17	23.28	23.38	22.98	21.95
				36	21.28	19.74	19.50	18.45
			996	67	**79.77**	**79.73**	**76.48**	**76.67**
	U-NII 2A	5 290	26	0	20.95	20.13	19.10	18.42
				17	23.06	23.34	22.32	21.28
				36	20.22	19.75	18.37	18.40
			996	67	**79.97**	**79.90**	**76.63**	**76.44**
	U-NII 2C	5 530	26	0	20.76	20.01	18.72	18.48
				17	23.41	24.14	21.94	21.85
				36	20.01	19.96	18.51	18.46
			996	67	**79.83**	**79.82**	**76.52**	**76.69**
		5 690	26	0	21.81	20.94	19.50	19.34
				17	22.22	22.92	22.29	21.61
				36	20.37	19.84	18.47	18.37
			996	67	**79.82**	**79.90**	**76.68**	**76.70**

Note: The worst-case plots(Maximum 26dB Bandwidth) are reported.

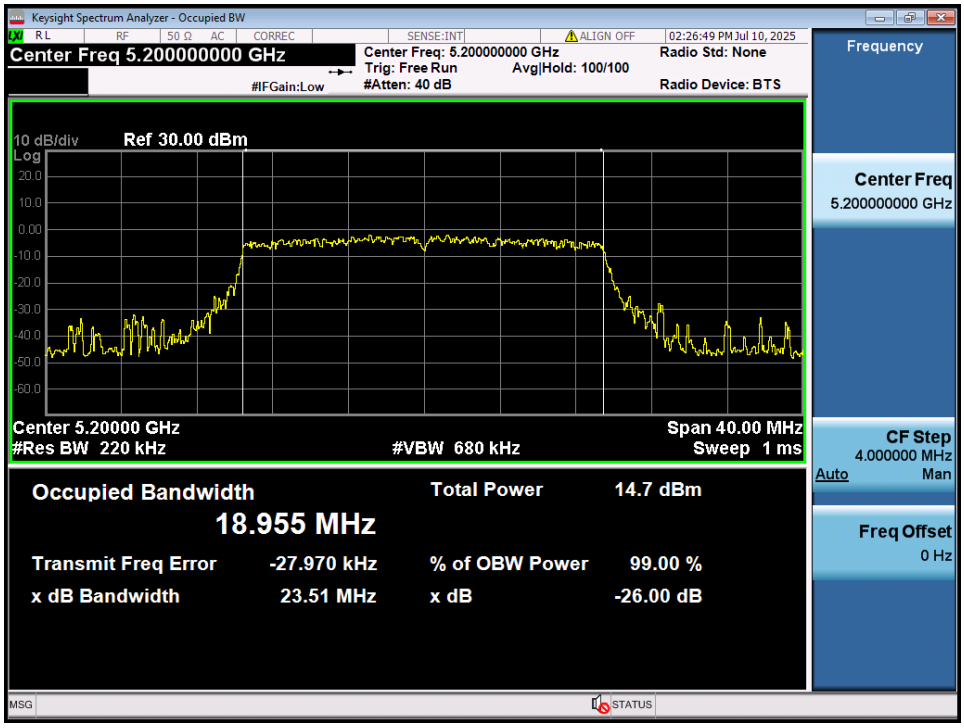
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.36



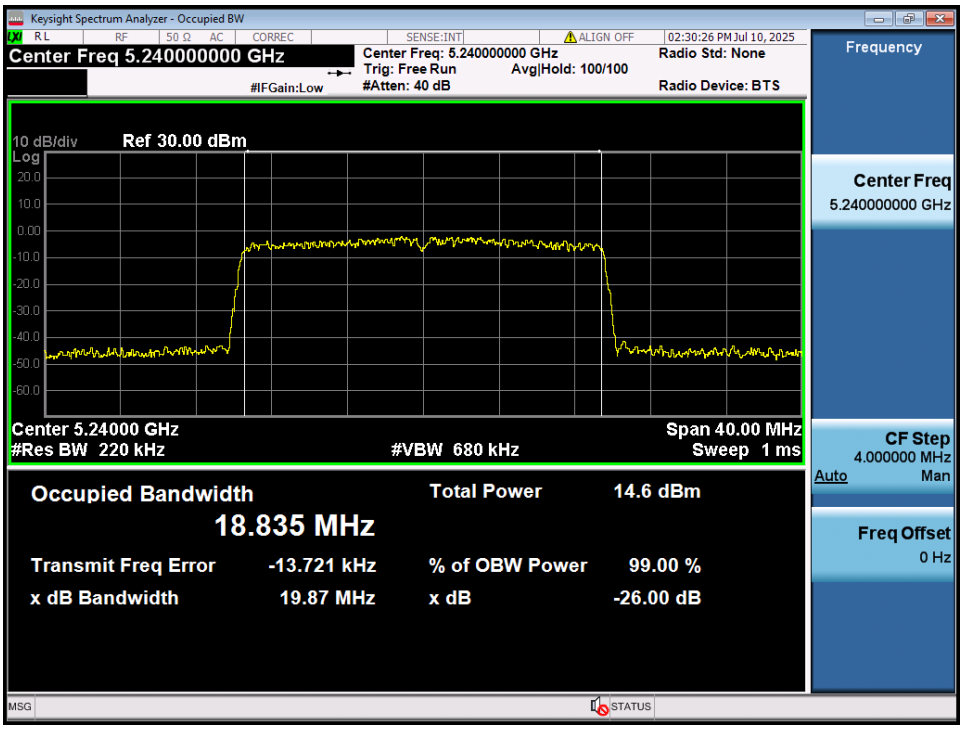
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.40



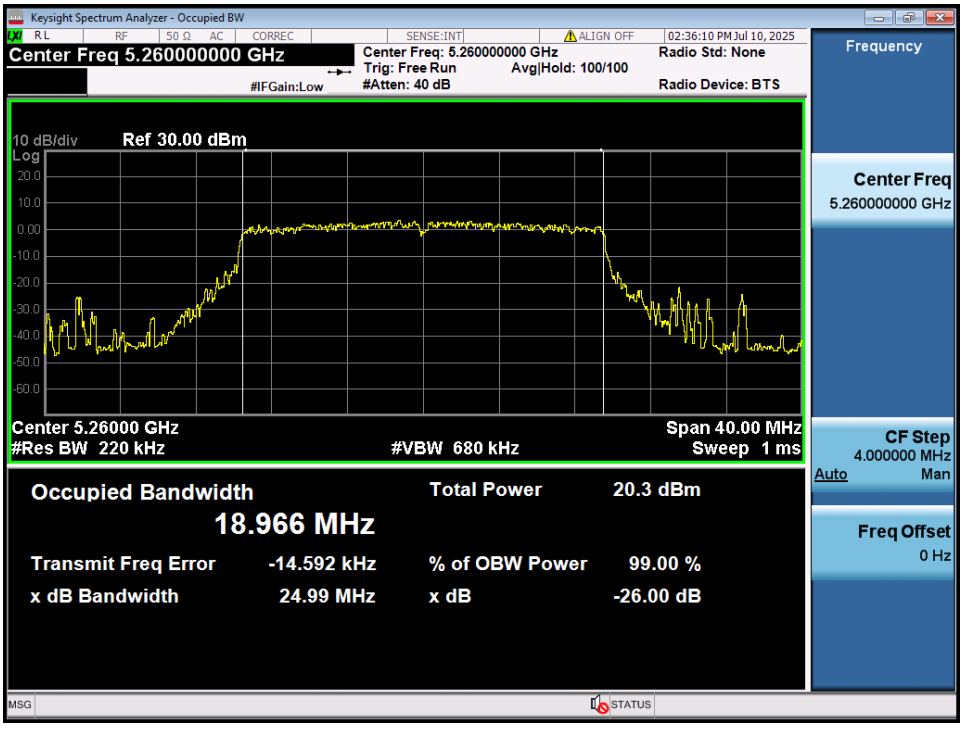
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.48



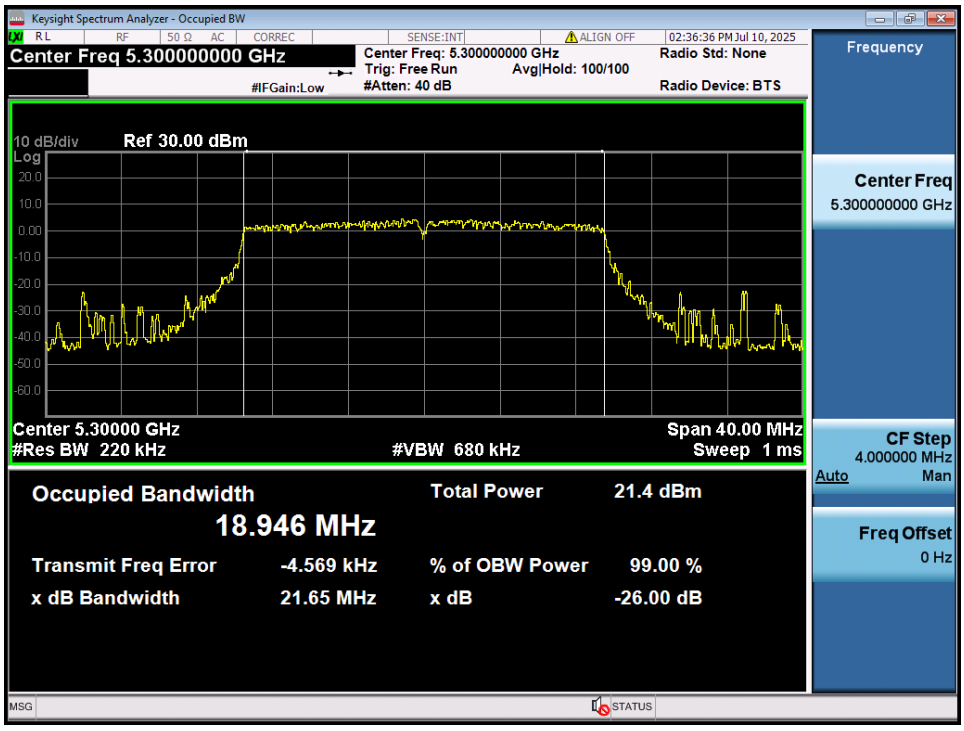
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.52



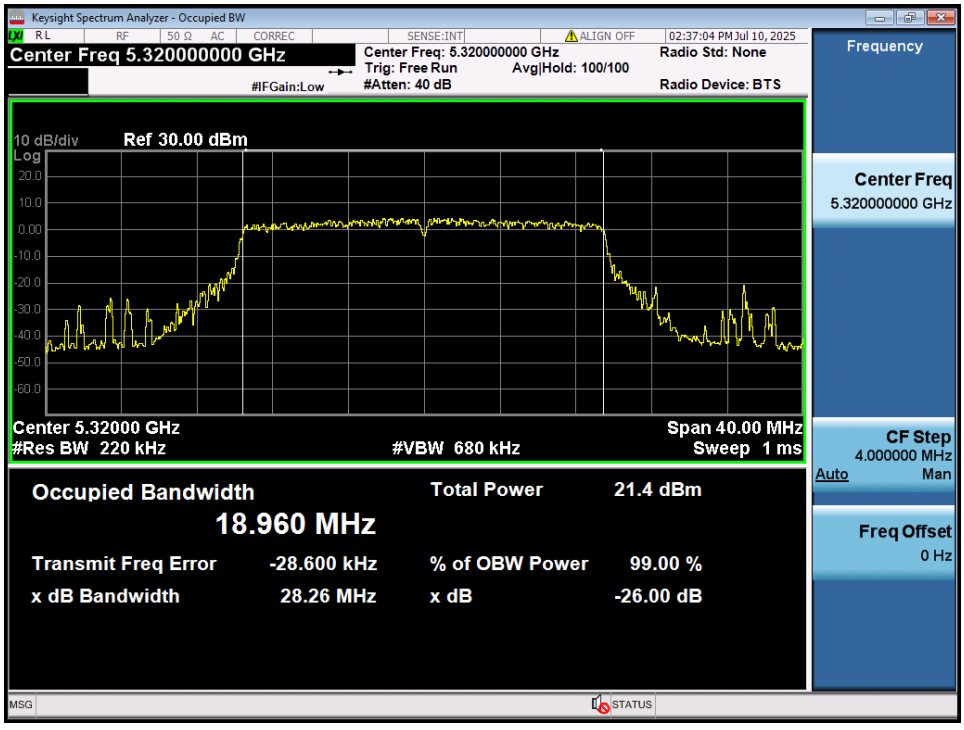
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.60



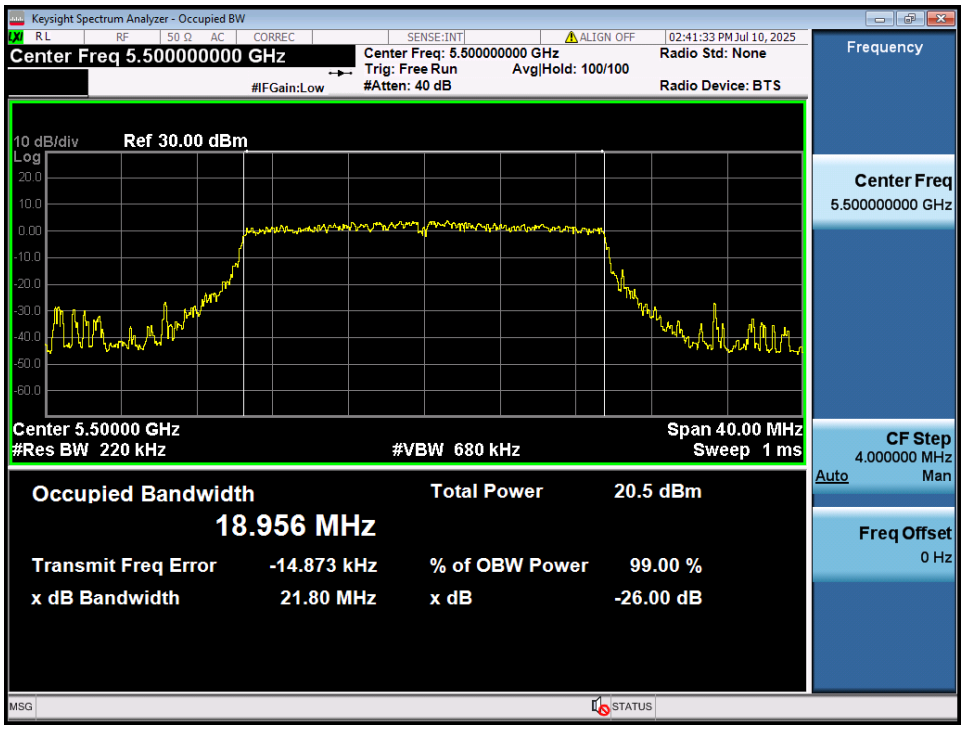
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.64



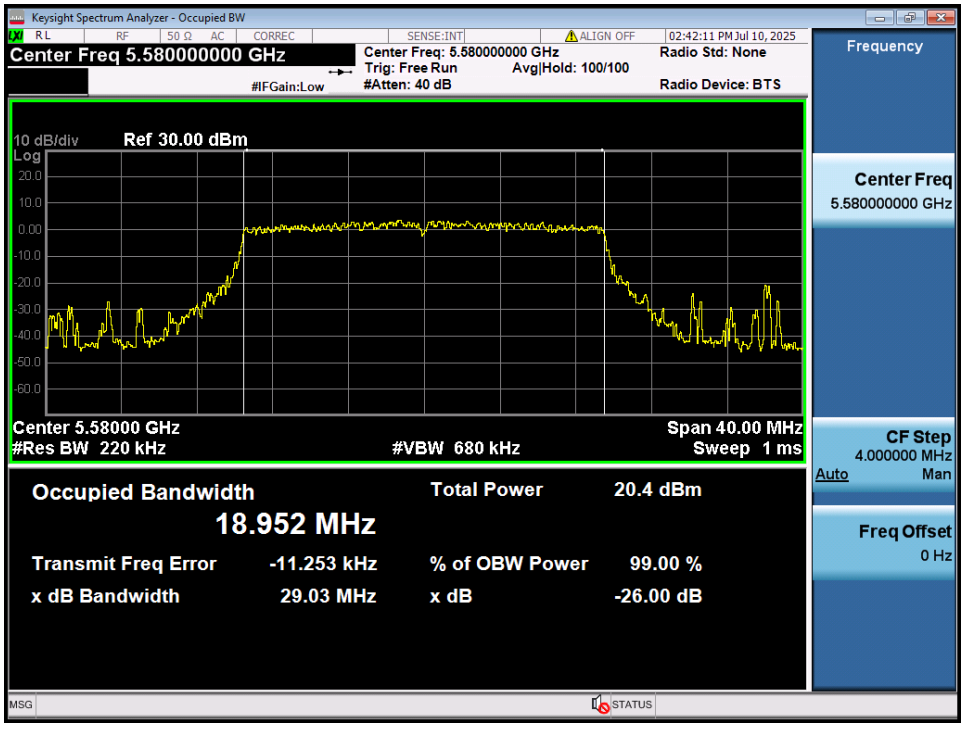
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.100



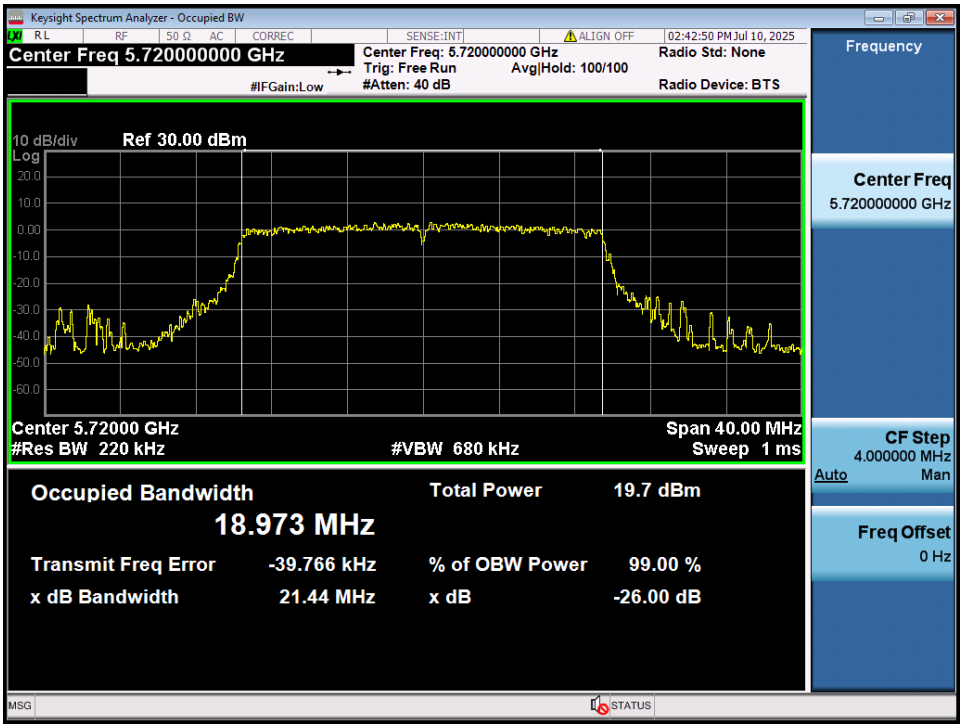
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.116



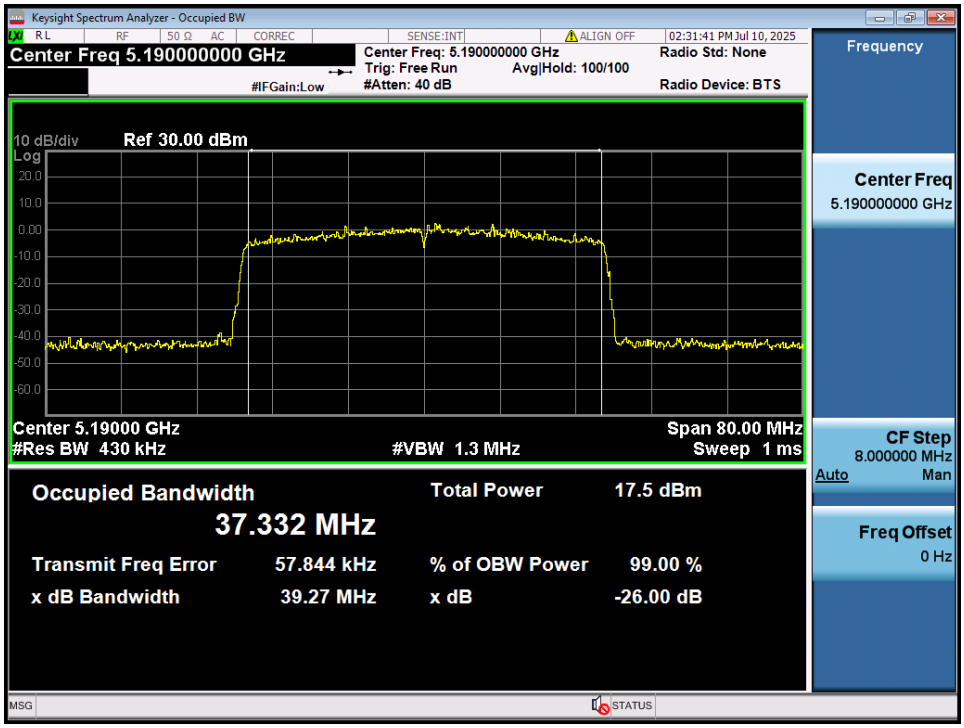
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.144



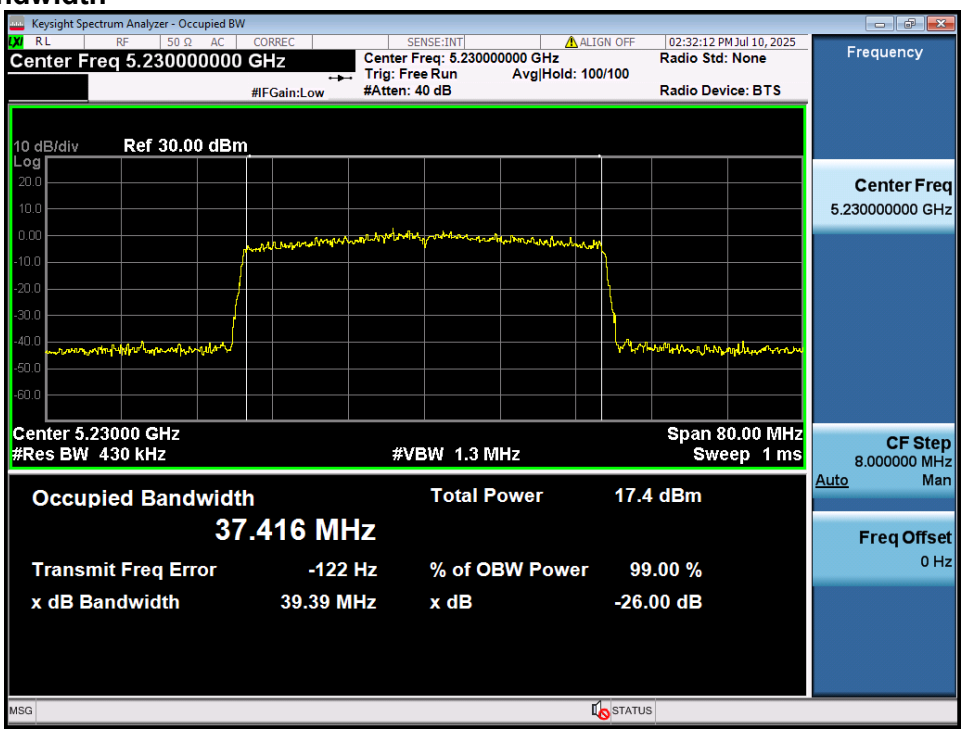
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.38



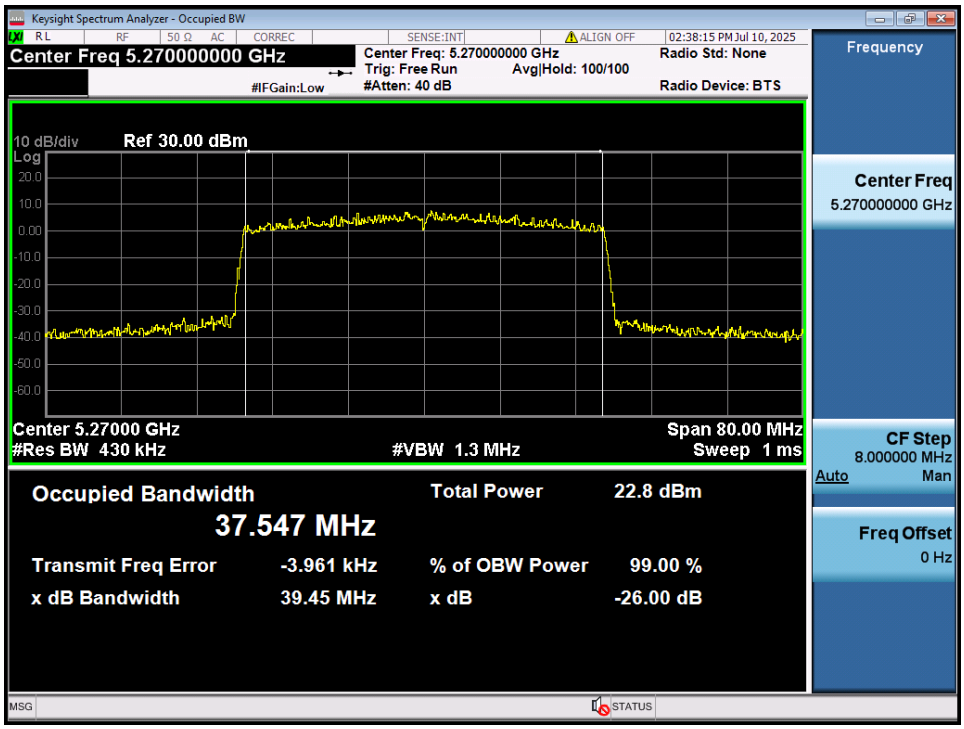
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.46



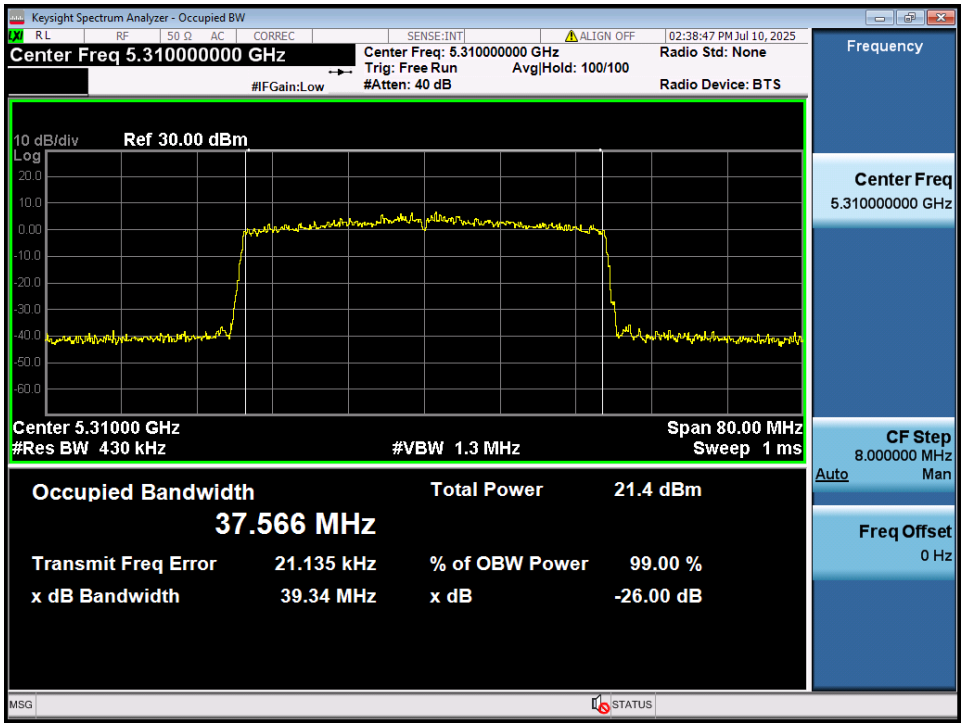
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.54



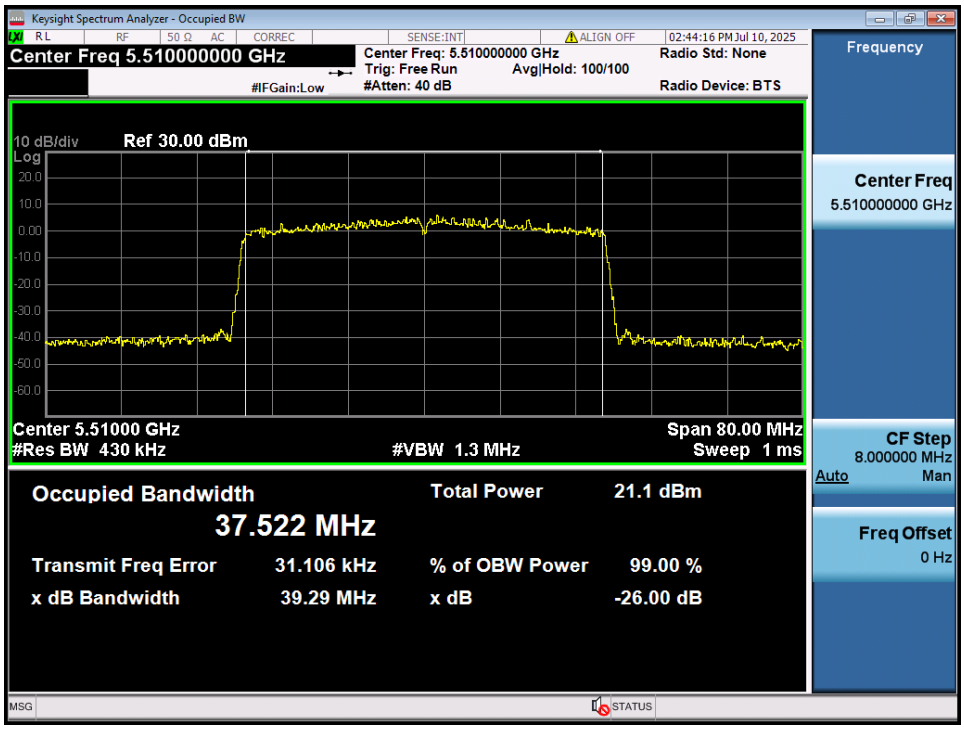
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.62



26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.102

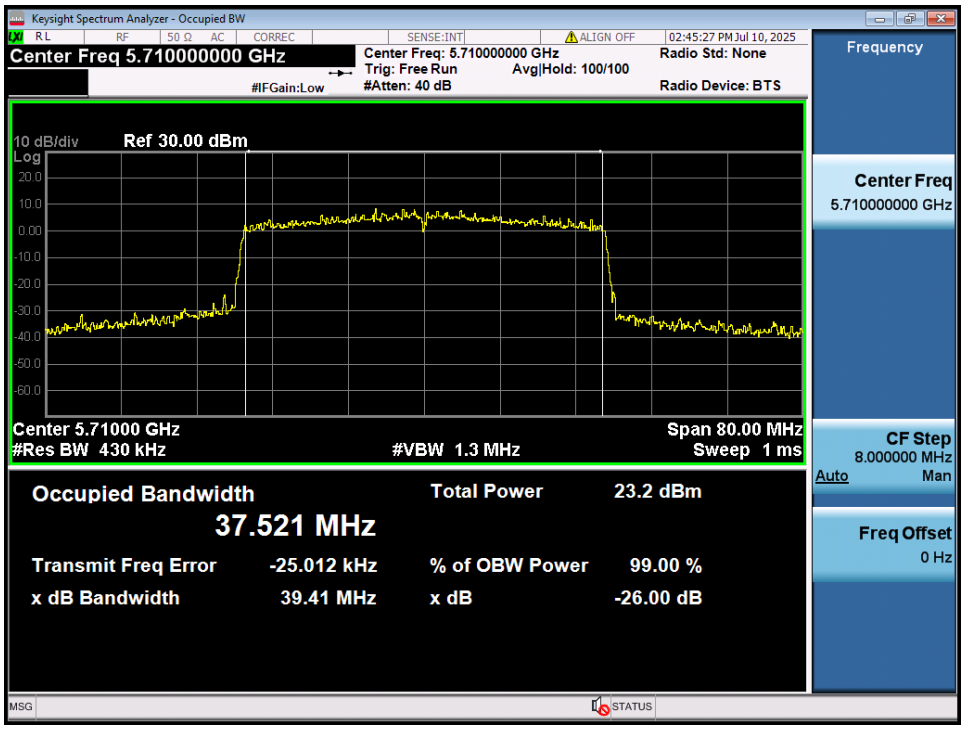


26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.110

26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 484 Tone & 65 RU & Ch.142

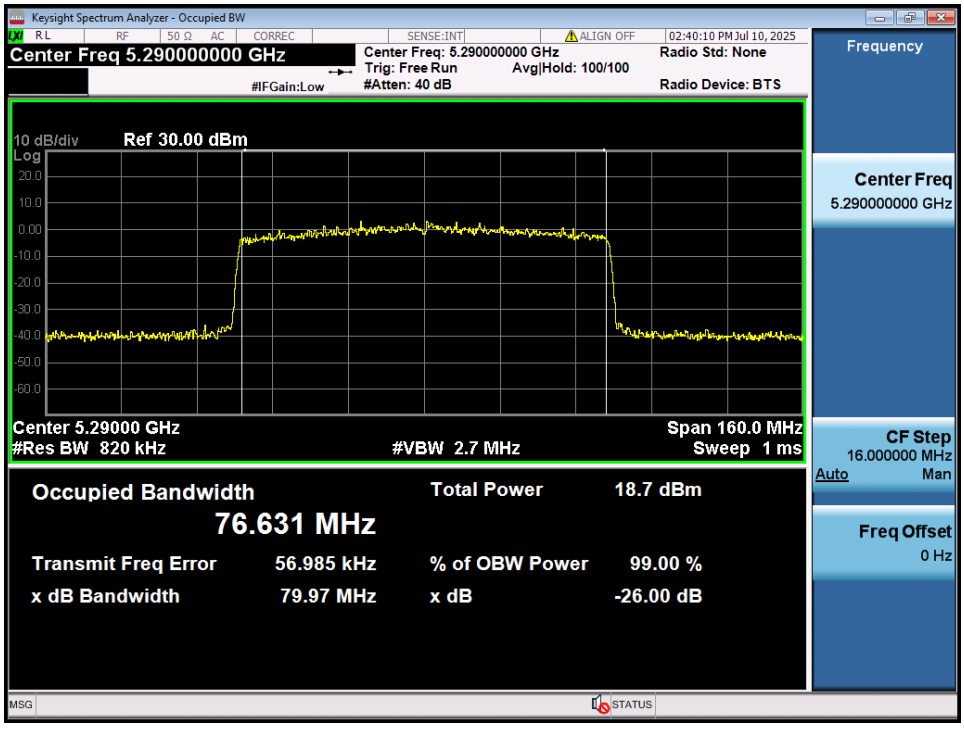


26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 996 Tone & 67 RU & Ch.42

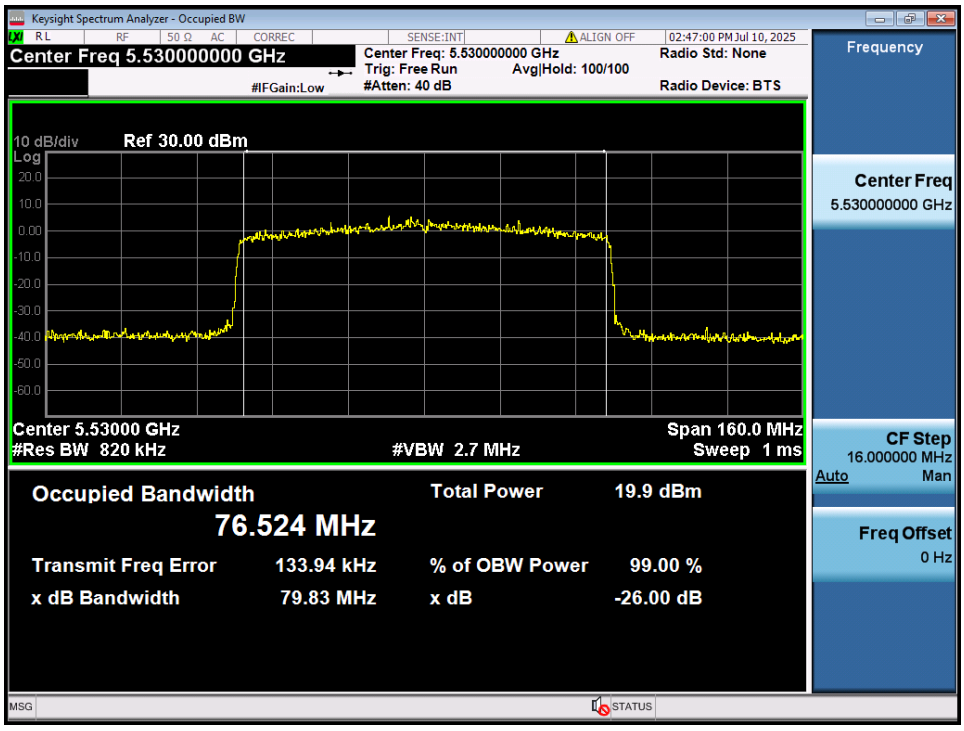
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 996 Tone & 67 RU & Ch.58



26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 996 Tone & 67 RU & Ch.106

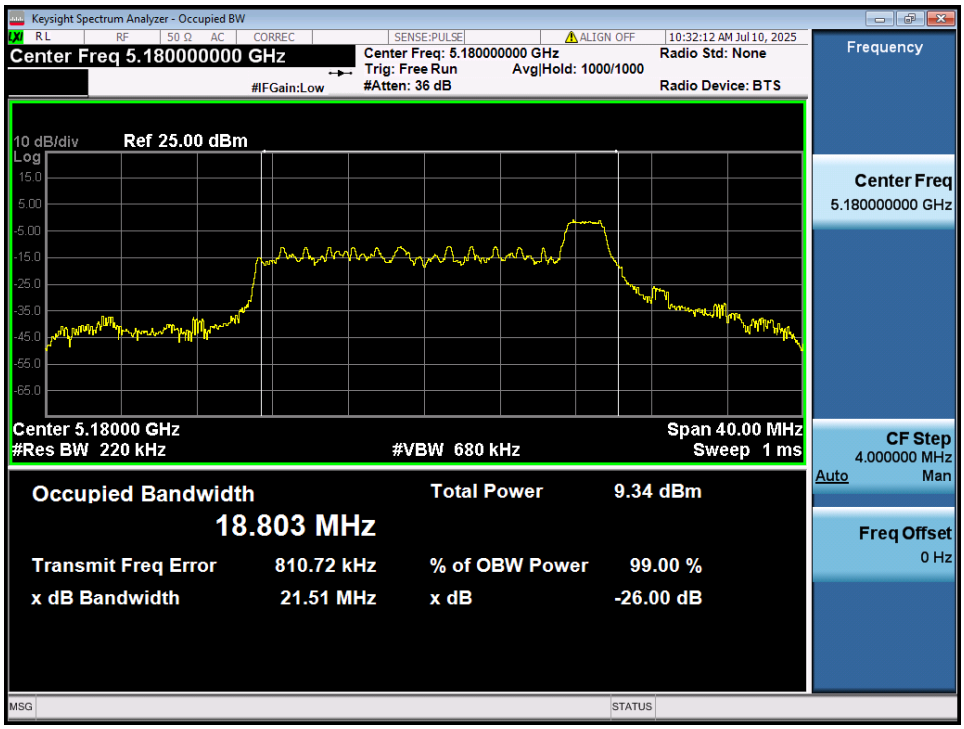


26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 996 Tone & 67 RU & Ch.138

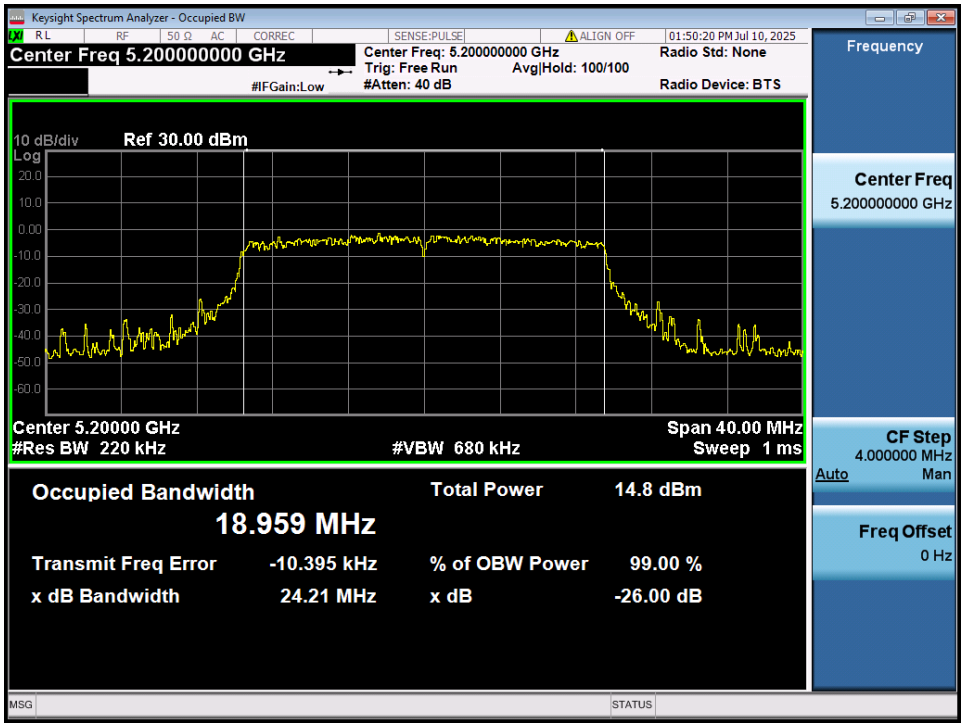
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 8 RU & Ch.36



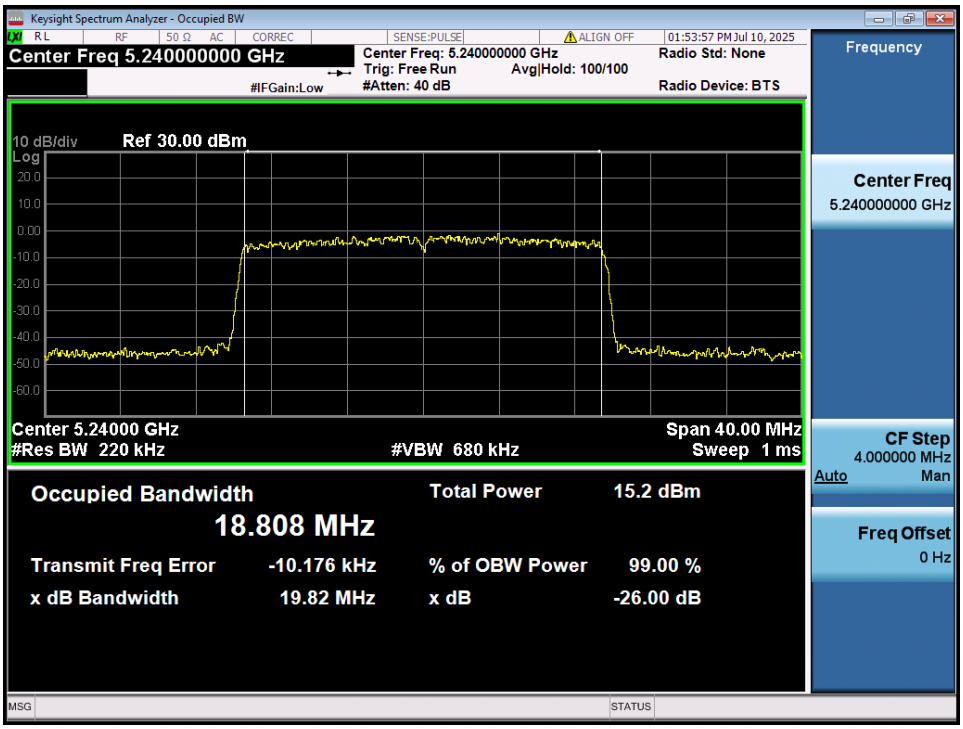
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.40



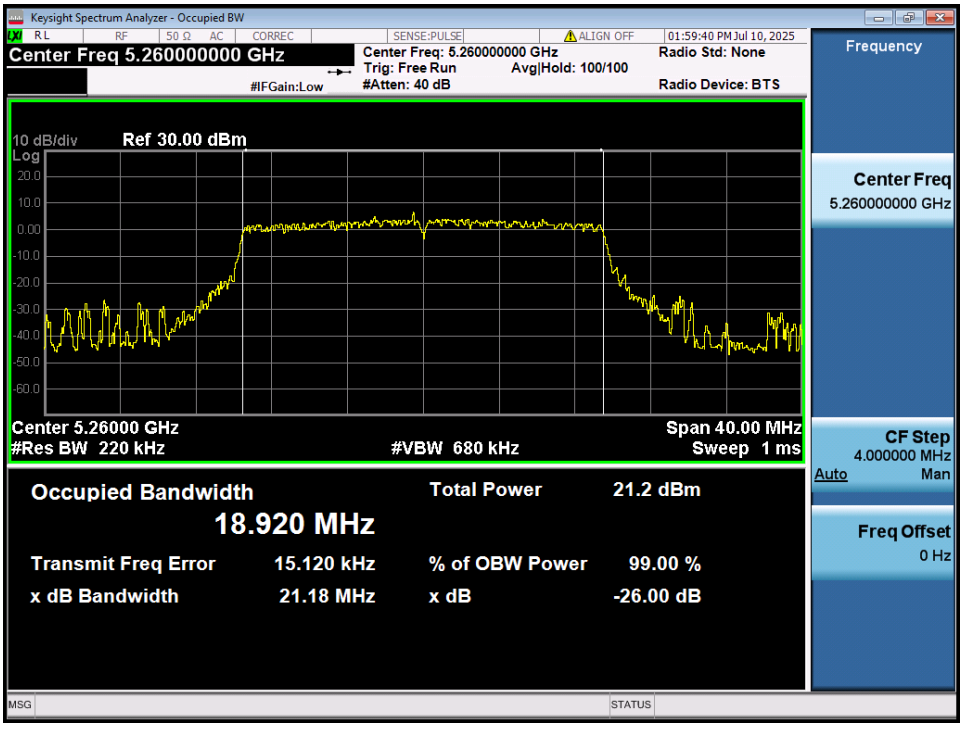
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.48



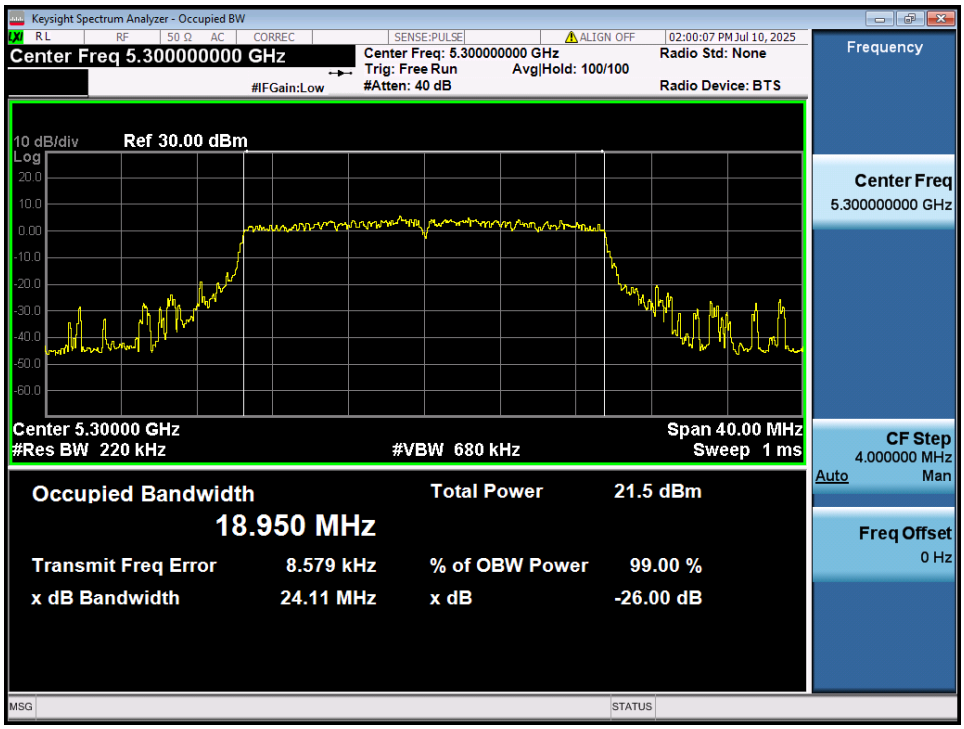
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.52



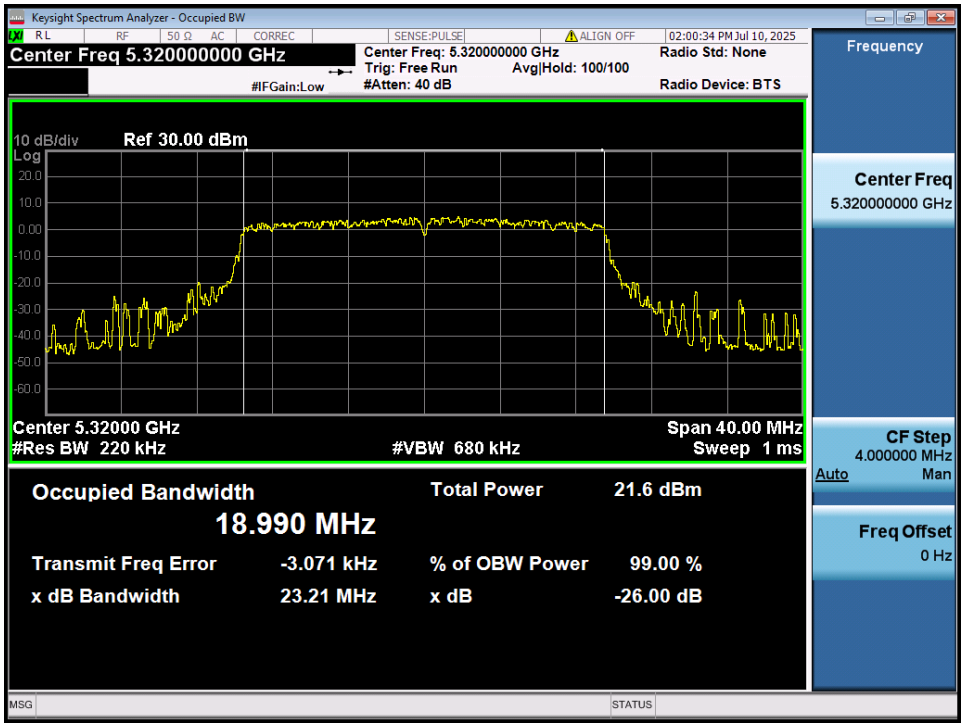
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.60



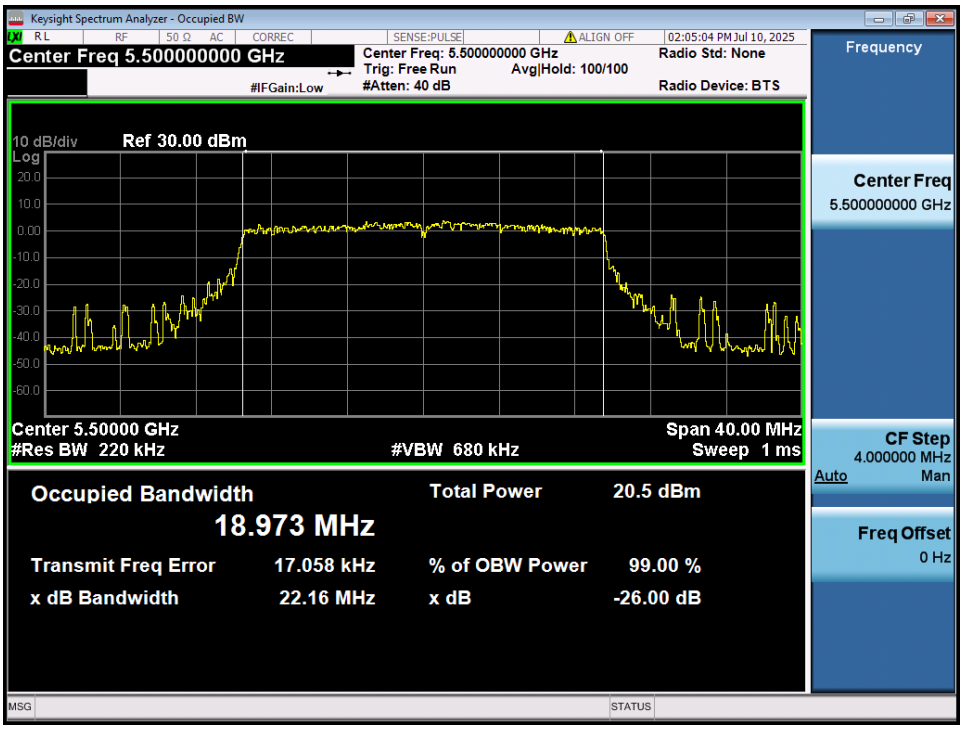
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.64



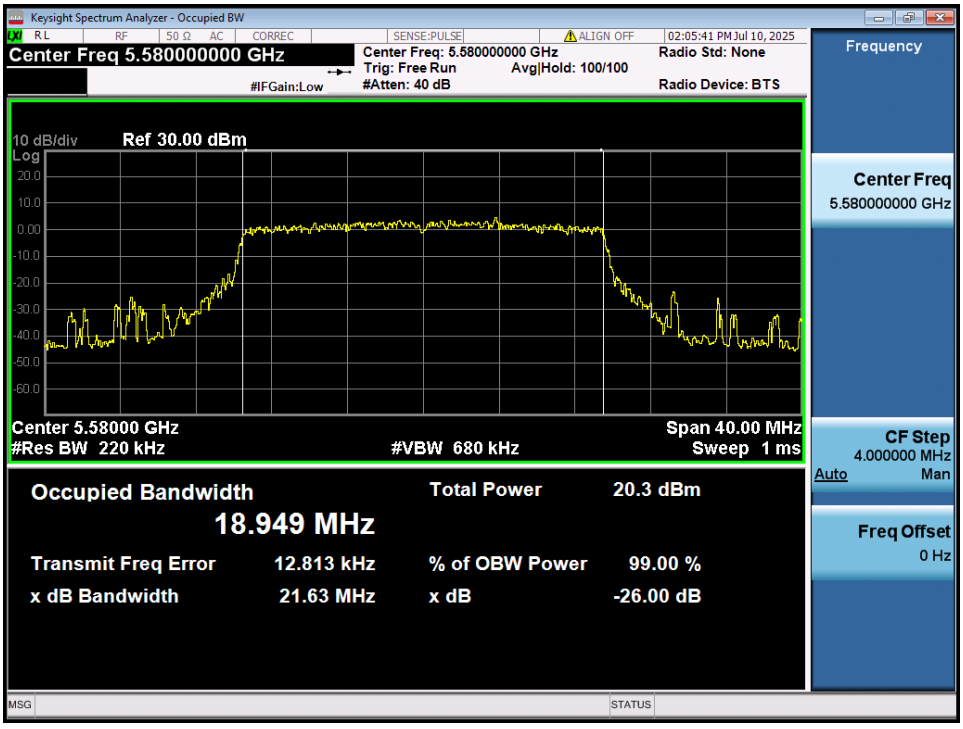
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.100



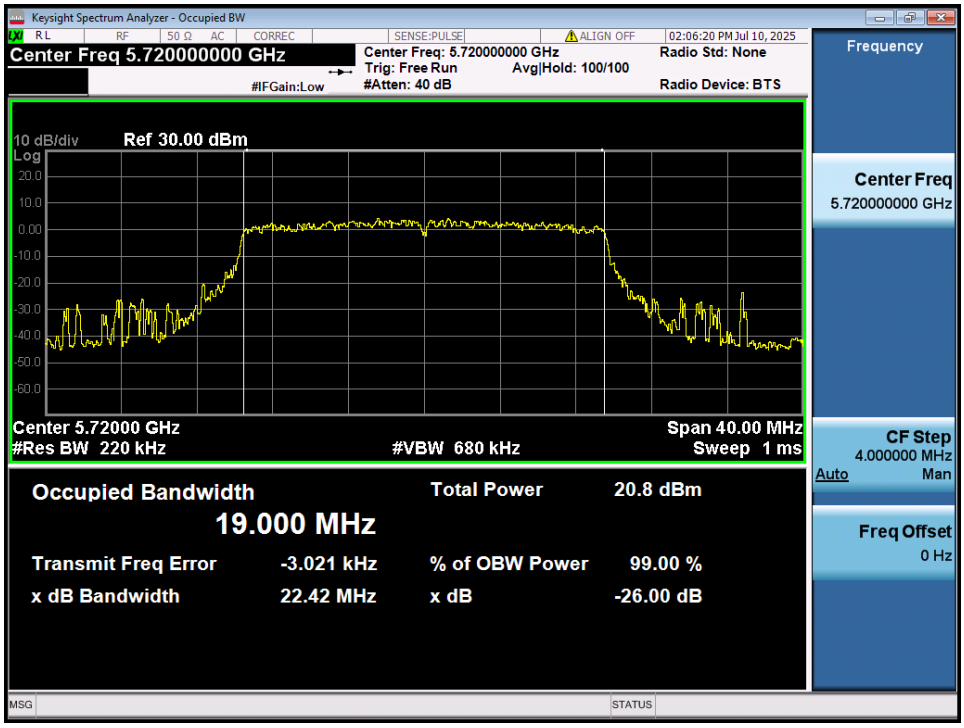
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.116



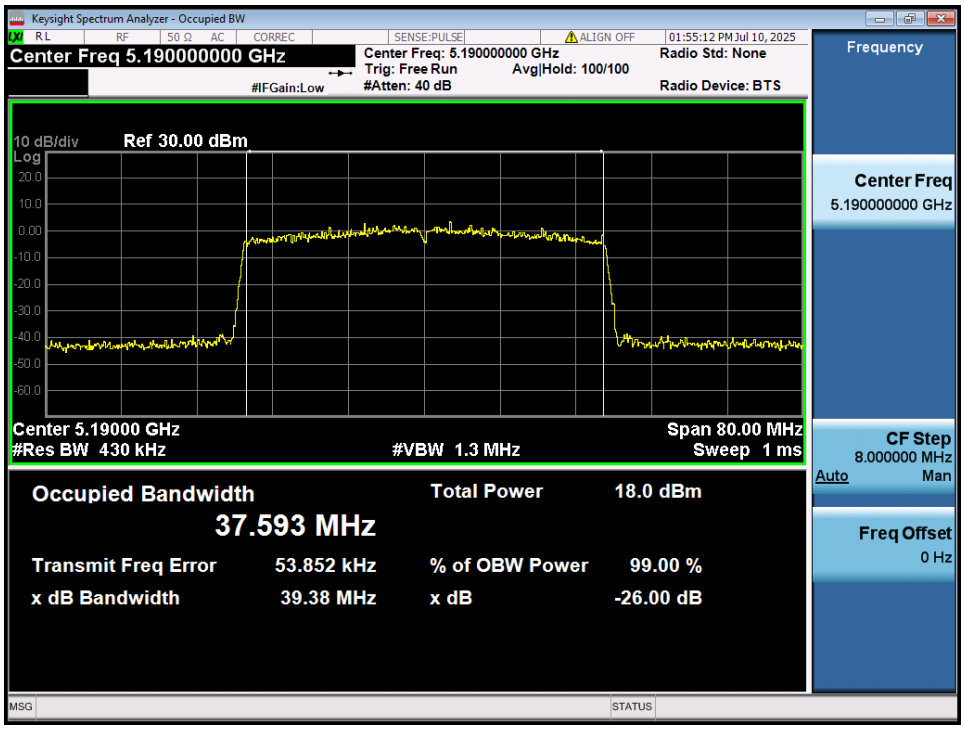
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.144



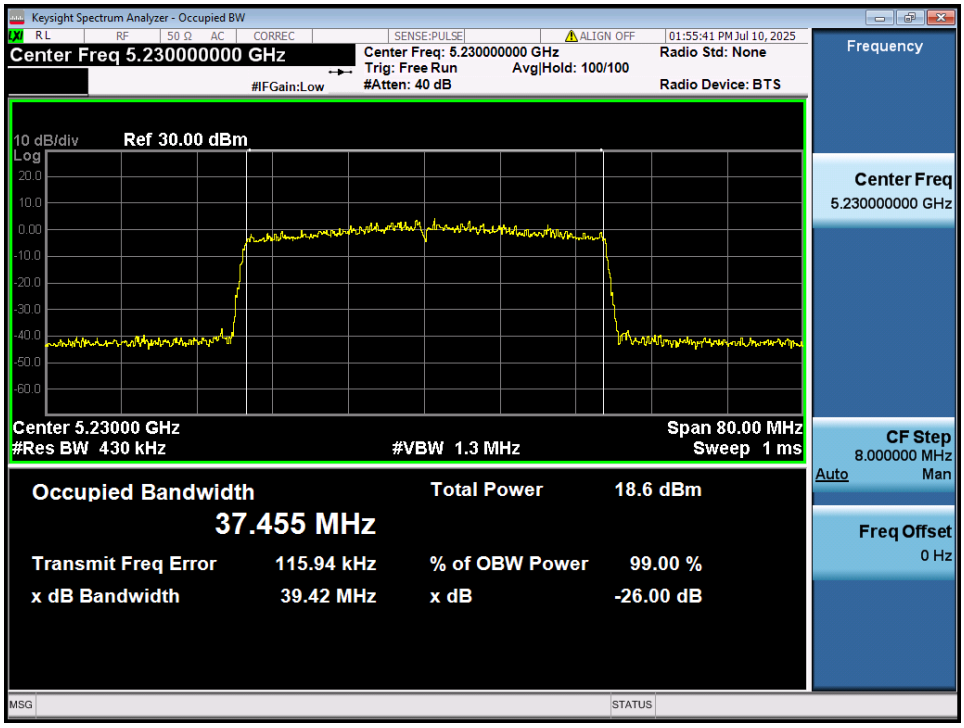
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.38



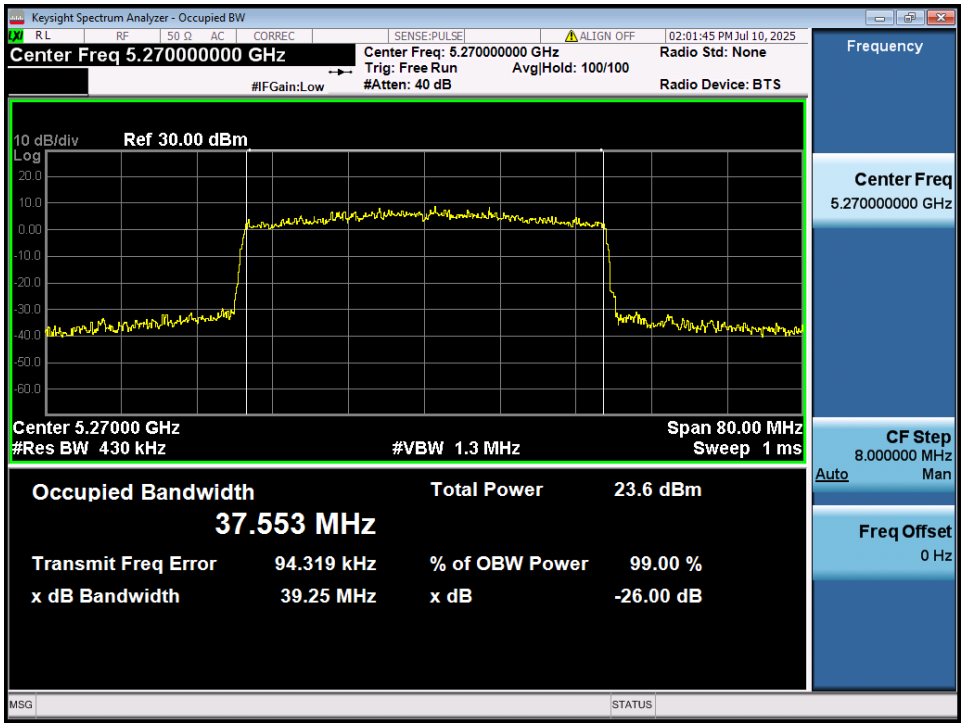
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.46



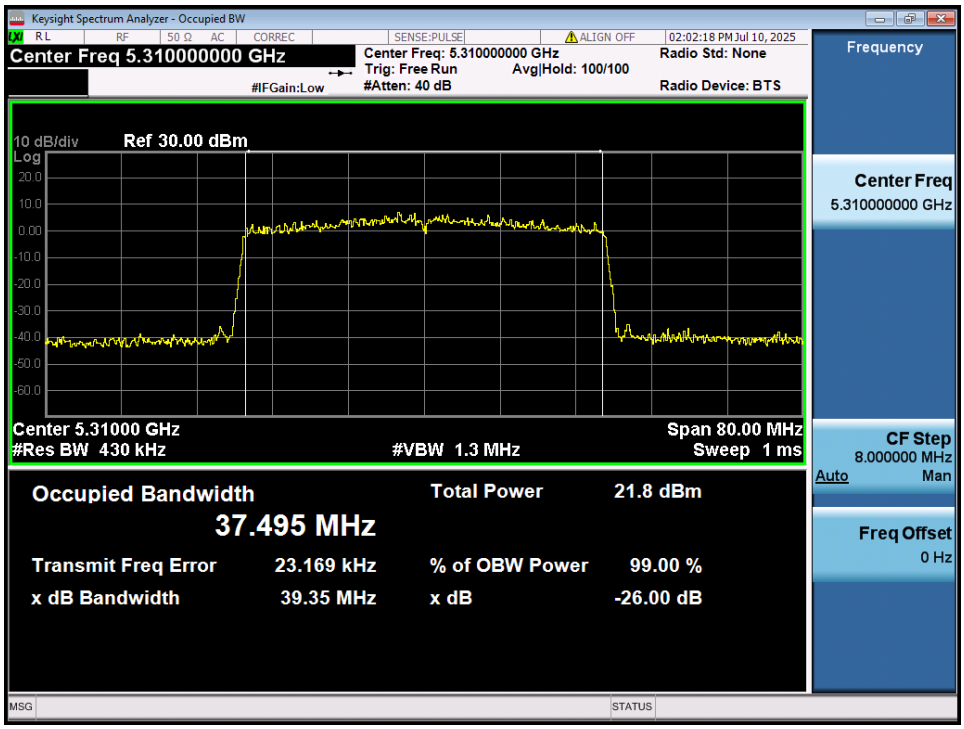
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.54



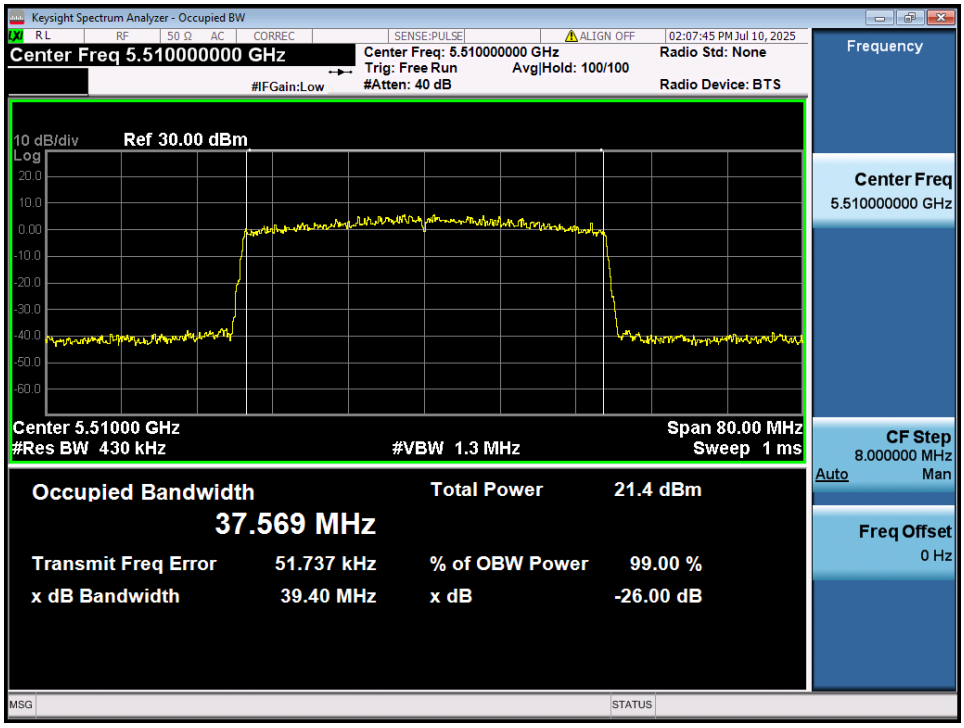
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.62



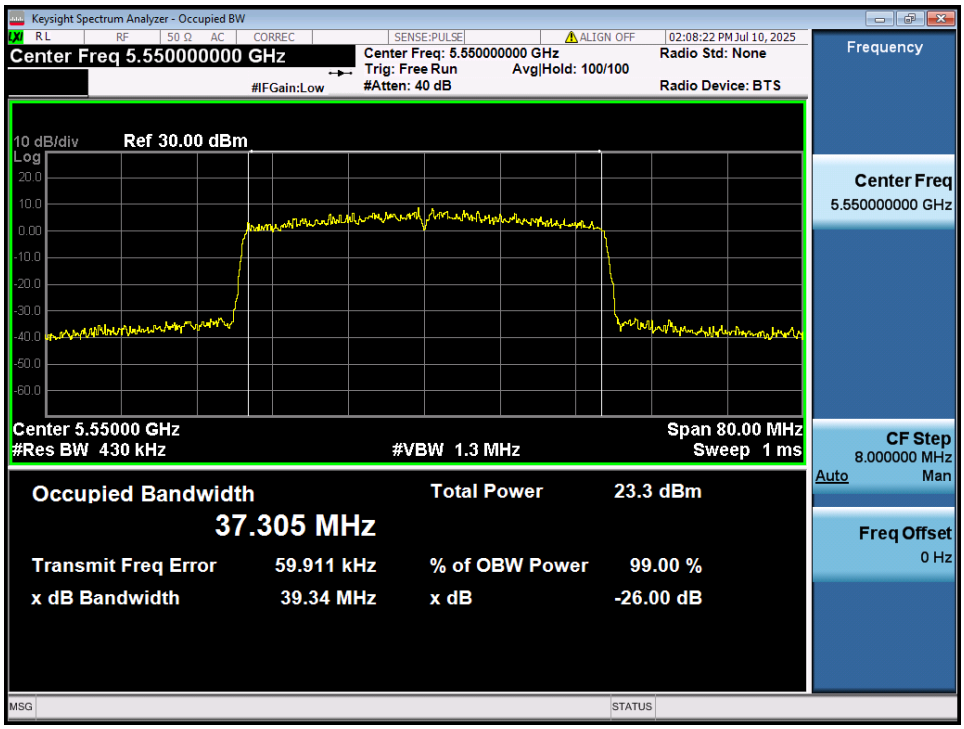
26 dB Bandwidth
& Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.102



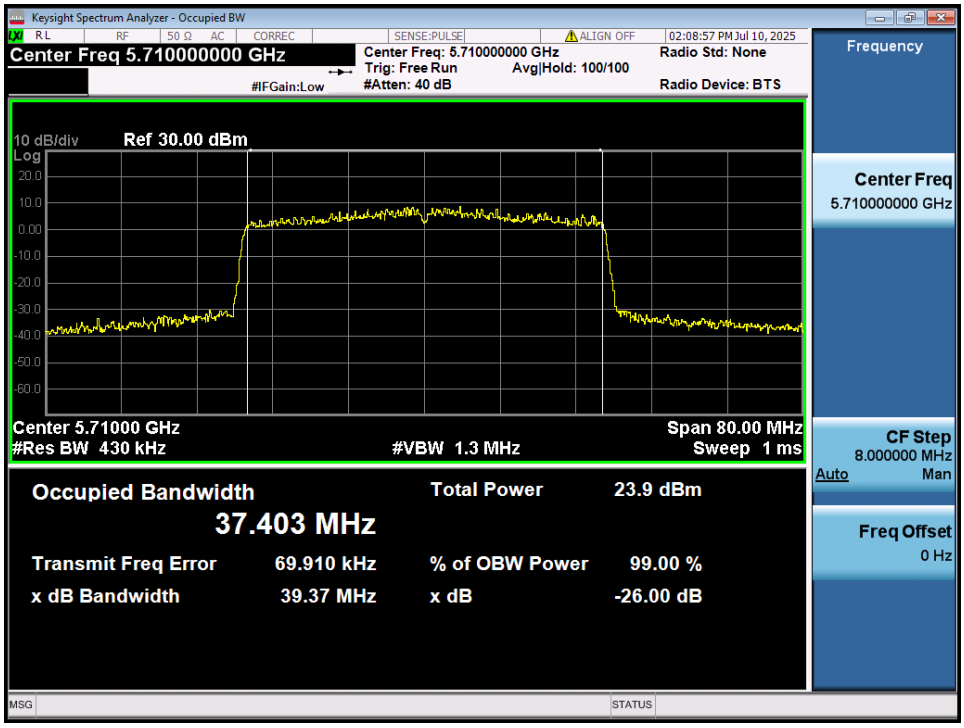
26 dB Bandwidth
& Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.110



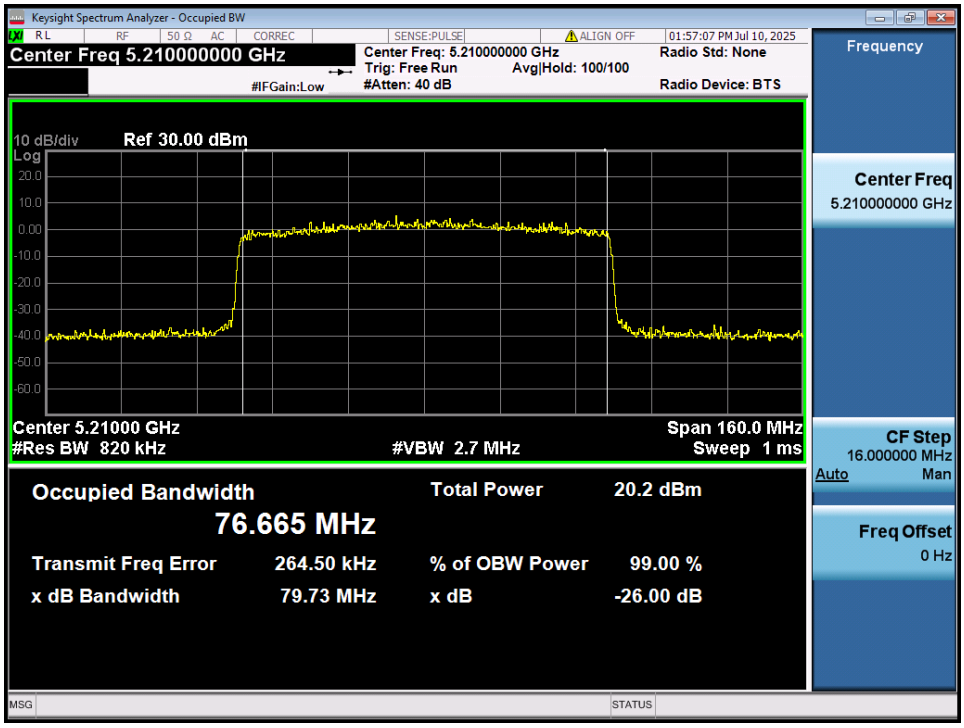
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 484 Tone & 65 RU & Ch.142



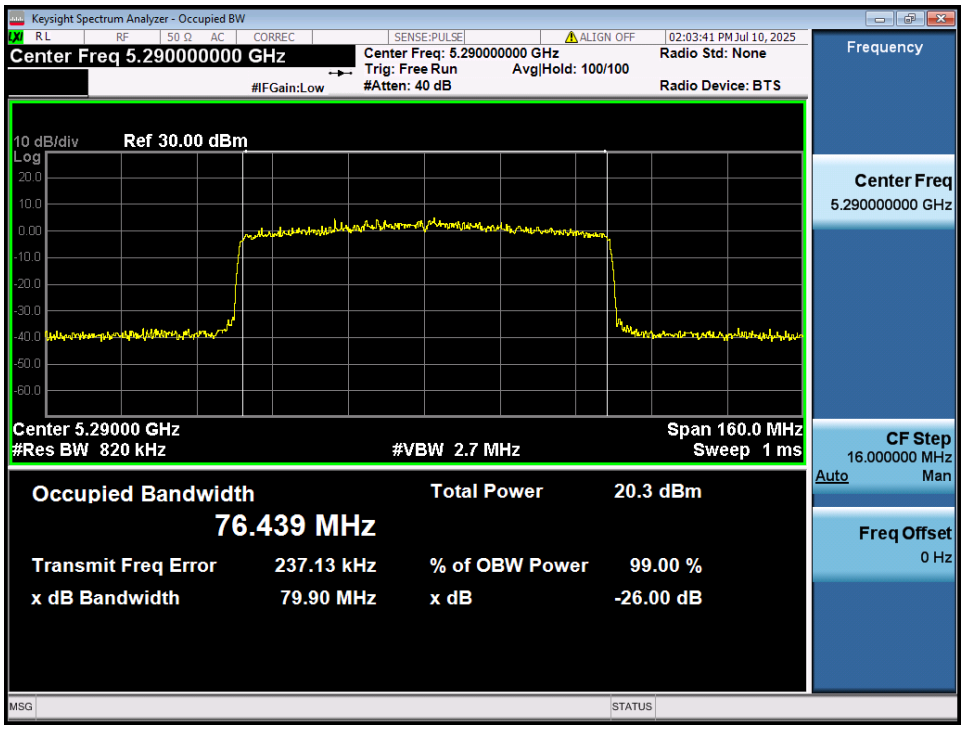
26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 996Tone & 67 RU & Ch.42



26 dB Bandwidth & Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 996Tone & 67 RU & & Ch.58



26 dB Bandwidth
& Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 996Tone & 67 RU & & Ch.106

26 dB Bandwidth
& Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 996Tone & 67 RU & & Ch.138

5.2. Minimum Emission Bandwidth (6 dB Bandwidth) & Occupied BW (99 %)

▣ Test Requirements

- Emission Bandwidth (6 dB Bandwidth)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

- Occupied BW (99 %)

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99 % emission bandwidth, as calculated or measured.

▣ Test Configuration

Refer to the APPENDIX I.

▣ Test Procedure

- Emission Bandwidth (6 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer and used following test procedure of **KDB789033 D02v02r01**.

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth **≥ 3 x RBW**.
3. Detector = **Peak**.
4. Trace mode = **max hold**.

   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.

- Occupied BW (99 %) : RSS-Gen[6.7]

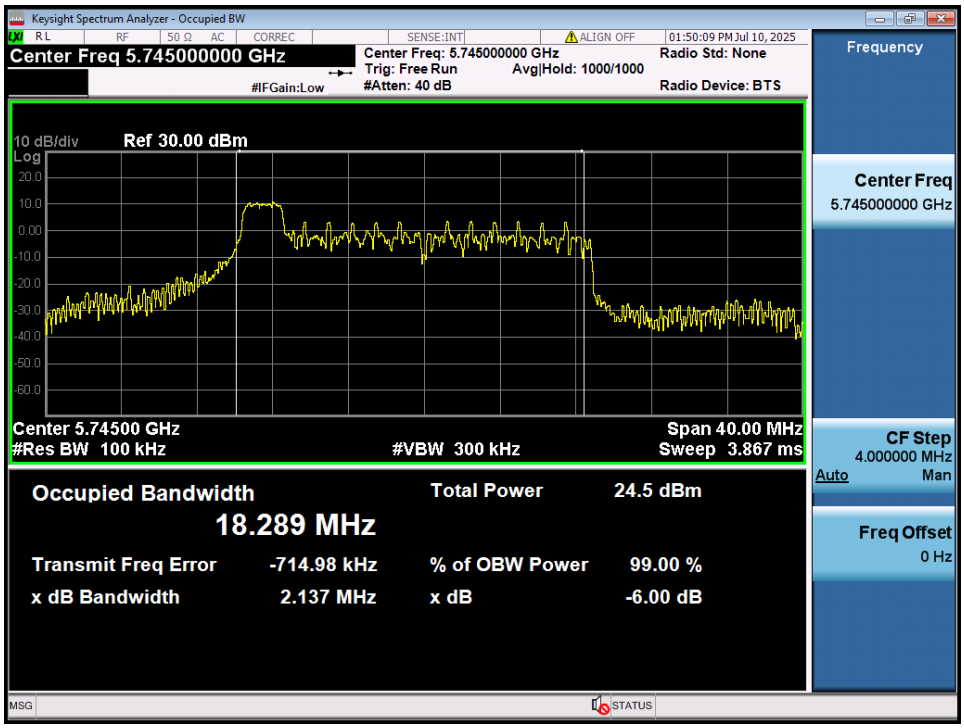
1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
2. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
3. The resolution bandwidth (RBW) shall be in the range of 1 % to 5 % of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3 x RBW.

▣ **Test Results: Comply**

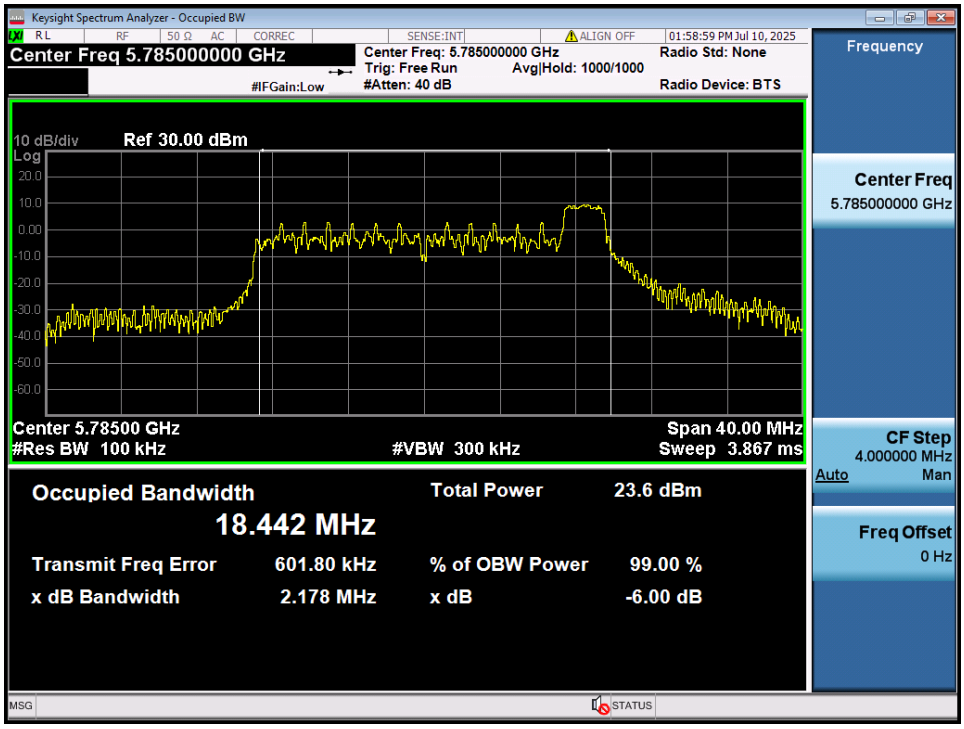
Mode	Band	Frequency (MHz)	Tone	RU Index	Test Result			
					6 dB BW(MHz)		99 % BW(MHz)	
					CDD			
					ANT 1	ANT 2	ANT 1	ANT 2
802.11ax(HE20)	U-NII 3	5 745	26	0	**2.14**	**2.11**	18.60	18.46
				4	2.72	2.69	17.03	17.08
				8	2.14	2.16	18.62	18.68
			242	61	18.82	18.18	**18.97**	**18.97**
		5 785	26	0	2.18	2.14	18.43	18.47
				4	2.69	2.68	16.98	17.11
				8	**2.18**	**2.11**	18.56	18.61
			242	61	18.89	18.49	**18.94**	**18.95**
		5 825	26	0	**2.15**	**2.11**	18.55	18.48
				4	2.69	2.66	16.92	17.04
				8	2.16	2.15	18.53	18.61
			242	61	18.60	18.70	**18.98**	**18.94**
802.11ax(HE40)	U-NII 3	5 755	26	0	17.14	17.11	18.92	18.75
				8	2.19	2.21	20.59	20.12
				17	**2.14**	**2.15**	17.89	17.84
			484	65	37.09	33.03	**37.48**	**37.47**
		5 795	26	0	**2.16**	**2.16**	17.89	17.92
				8	2.24	2.17	20.40	20.12
				17	2.16	2.16	17.82	17.82
			484	65	35.21	35.14	**37.41**	**37.50**
802.11ax(HE80)	U-NII 3	5 775	26	0	**2.23**	**2.23**	18.96	18.26
				17	2.29	2.29	22.42	21.94
				36	2.24	2.28	18.45	18.43
			996	67	73.92	69.60	**76.91**	**76.65**

Note: The worst-case plots(Minimum 6 dB Bandwidth) are reported.

6 dB Bandwidth Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 0 RU & Ch.149

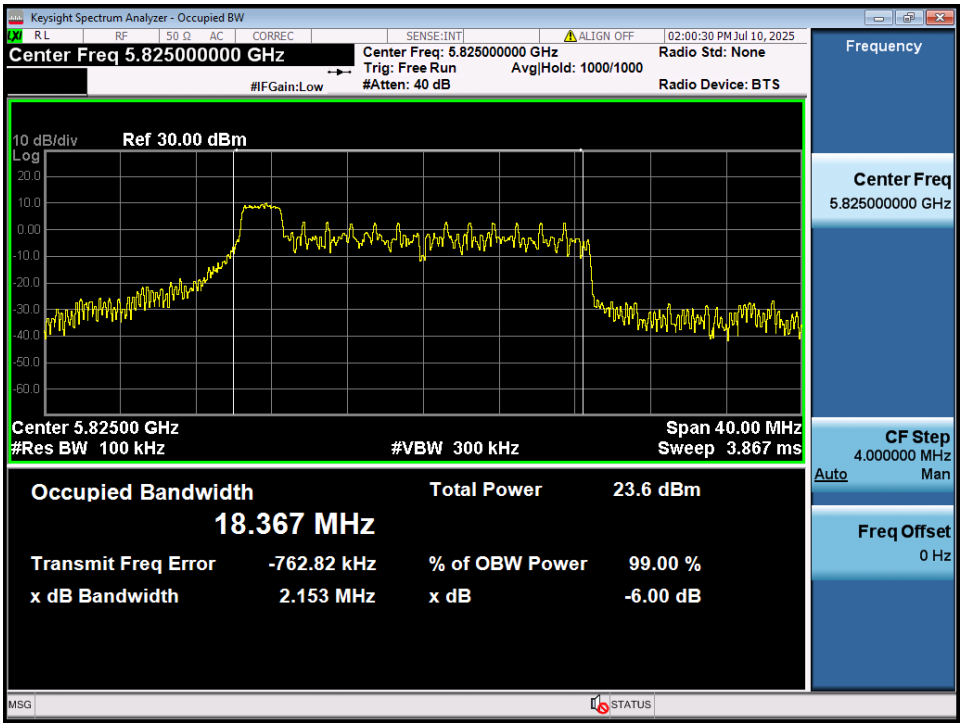


6 dB Bandwidth Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 8 RU & Ch.157

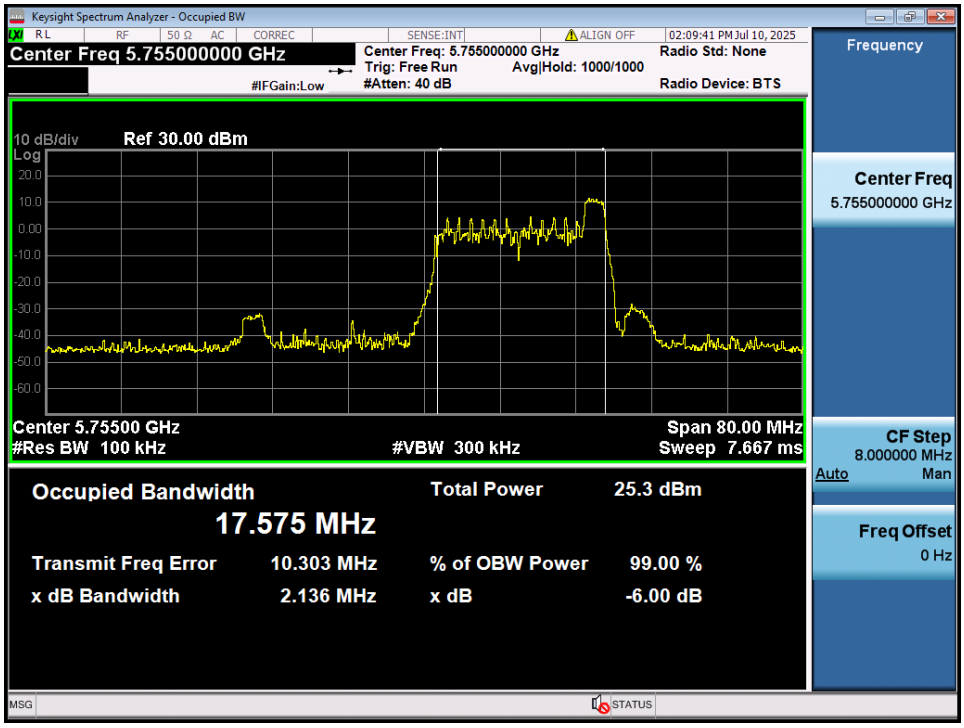


6 dB Bandwidth

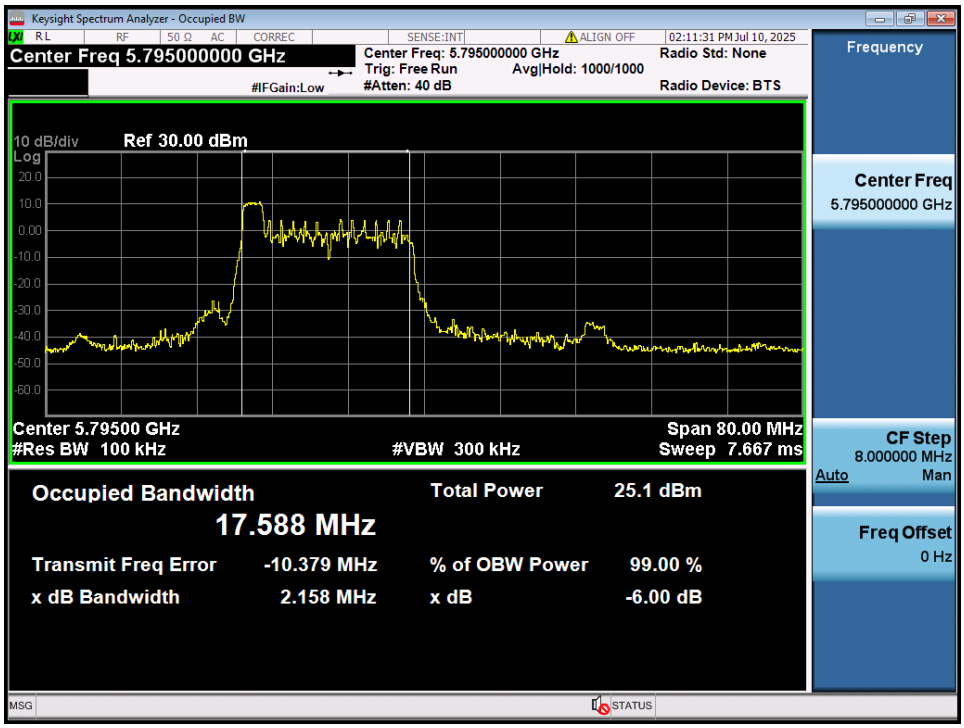
Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 0 RU & Ch.165



6 dB Bandwidth Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 17 RU & Ch.151

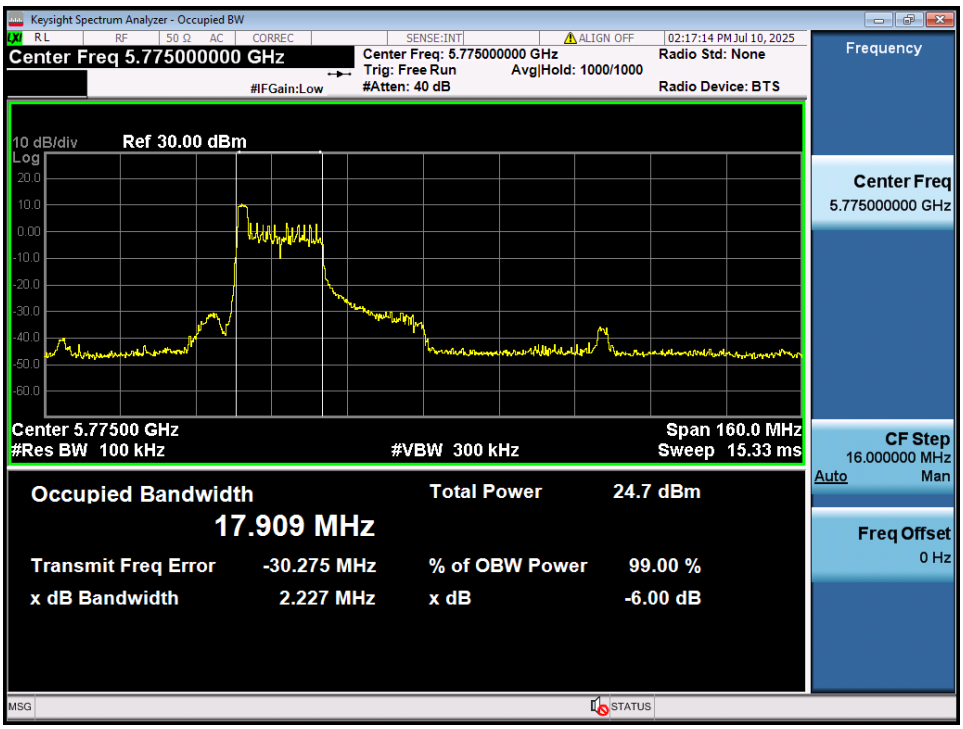


6 dB Bandwidth Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 0 RU & Ch.159



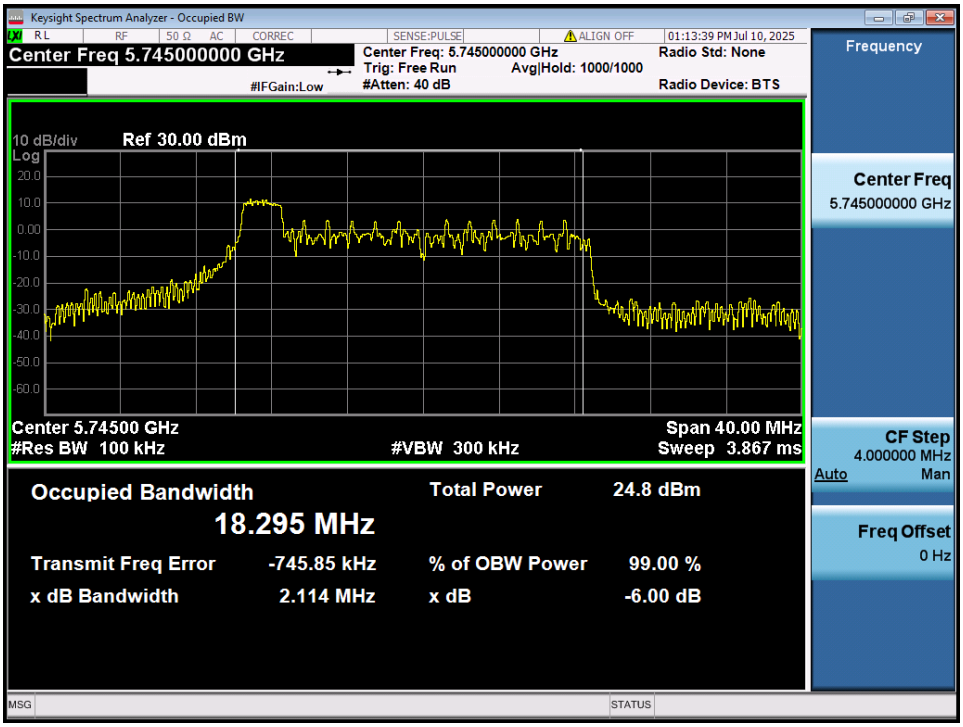
6 dB Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 0 RU & Ch.155



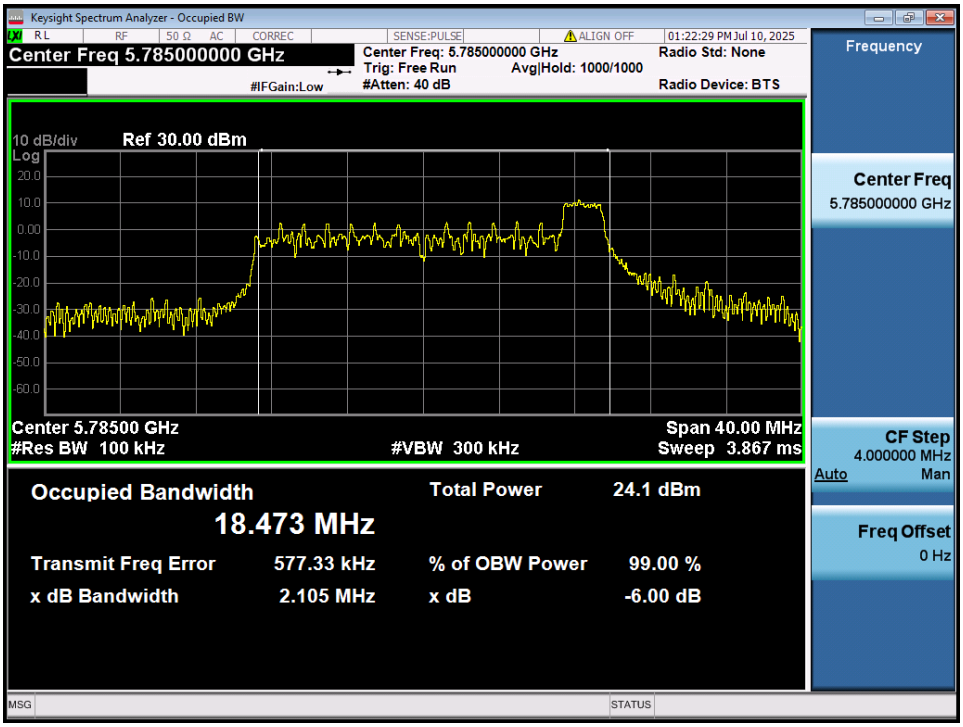
6 dB Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 0 RU & Ch.149



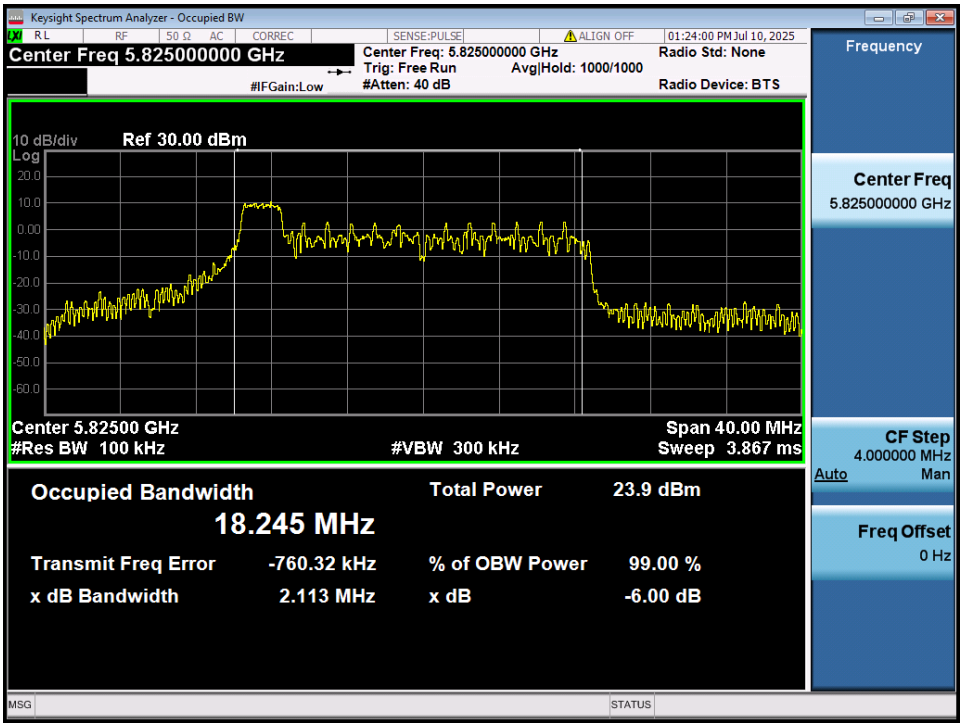
6 dB Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 8 RU & Ch.157



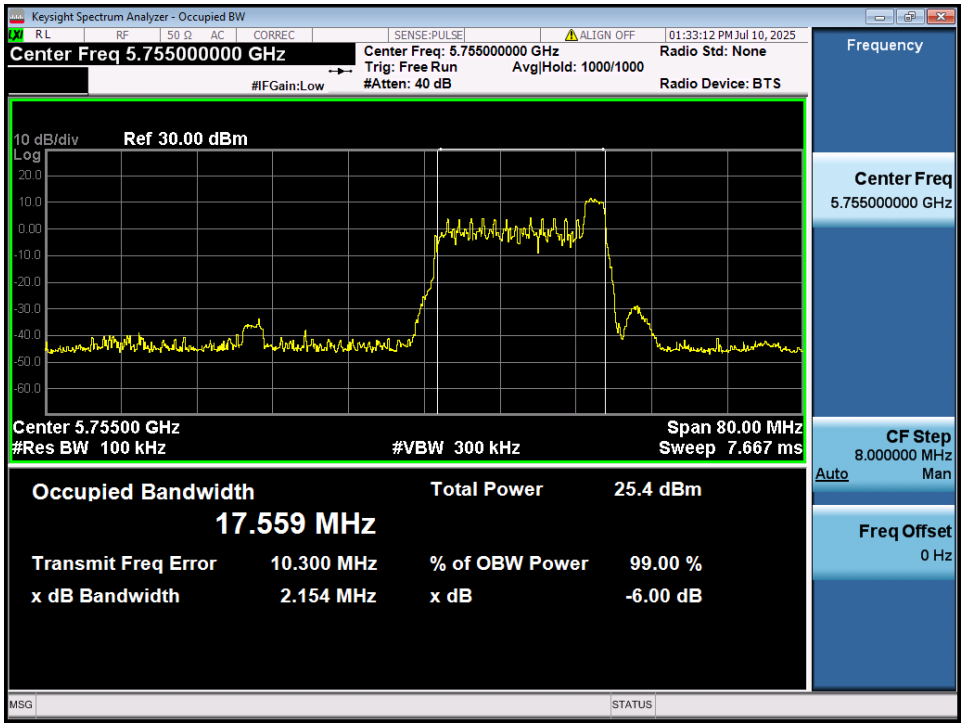
6 dB Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 0 RU & Ch.165



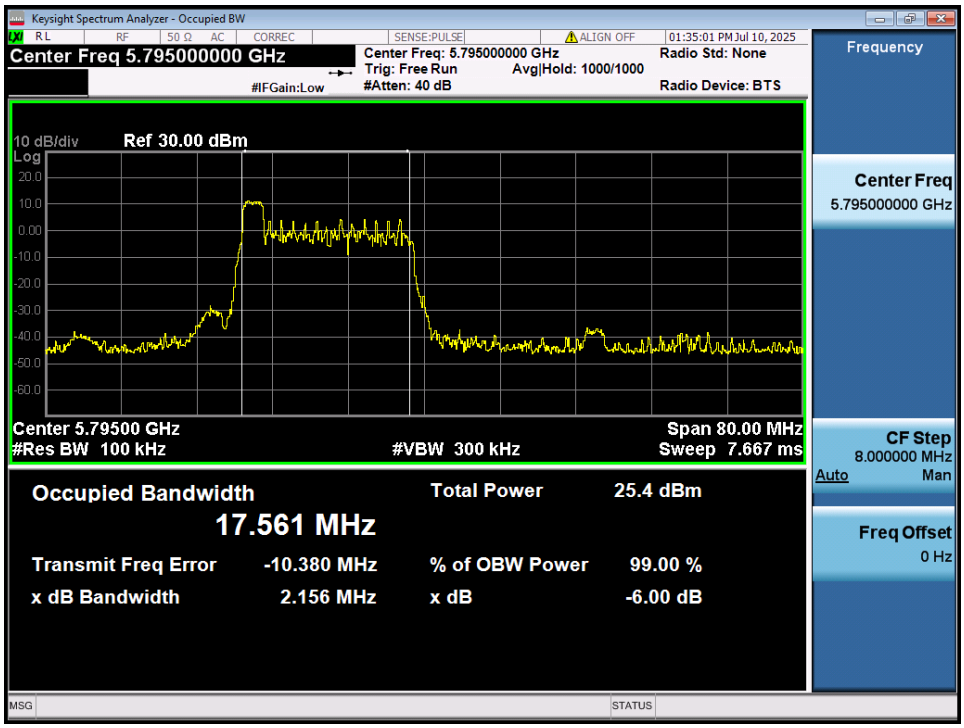
6 dB Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 17 RU & Ch.151



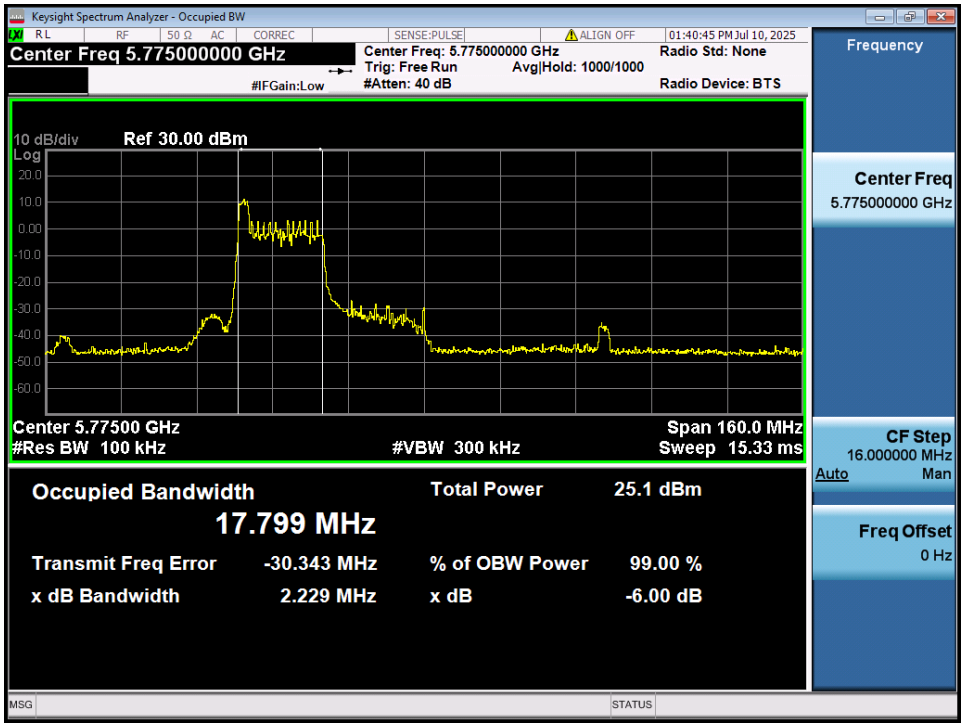
6 dB Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 0 RU & Ch.159



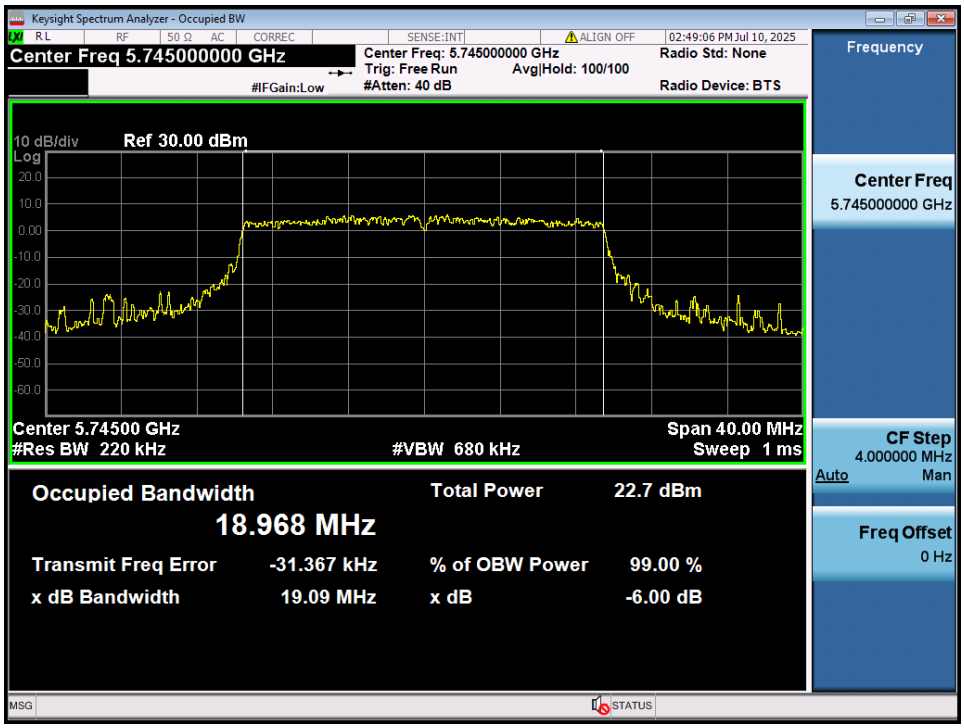
6 dB Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 36 RU & Ch.155

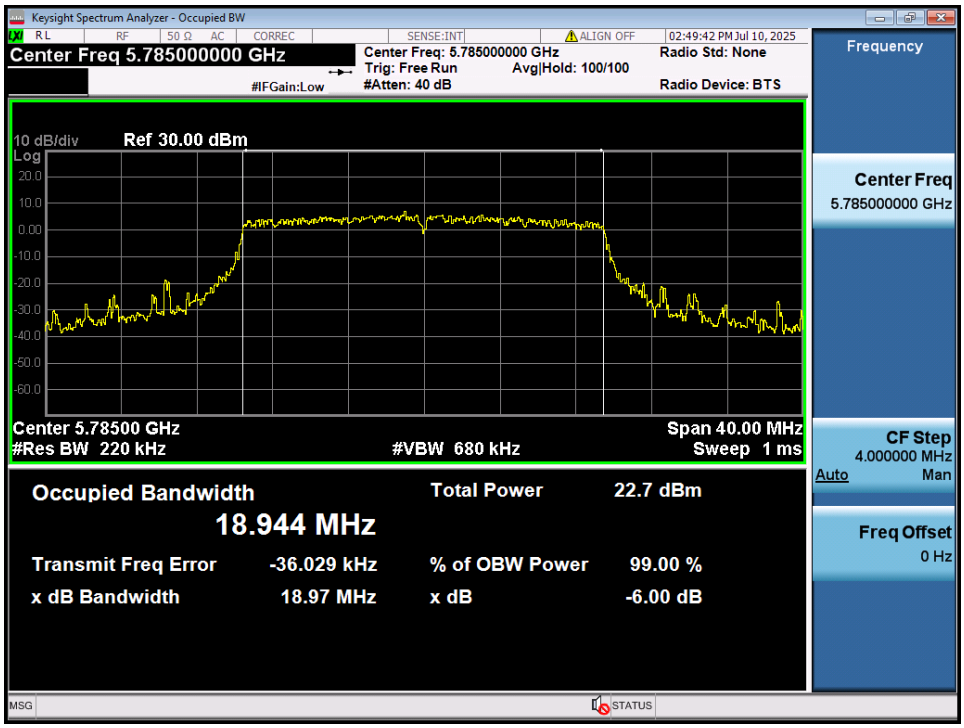


Note: The worst-case plots(Maximum Occupied Bandwidth) are reported.

Occupied Bandwidth Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.149

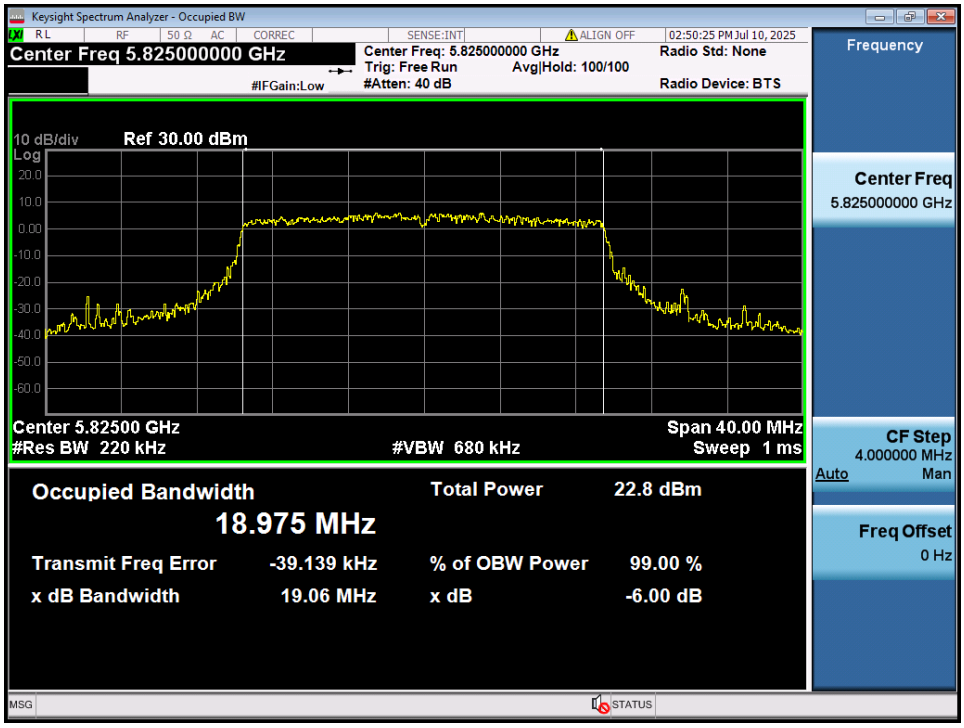


Occupied Bandwidth Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.157



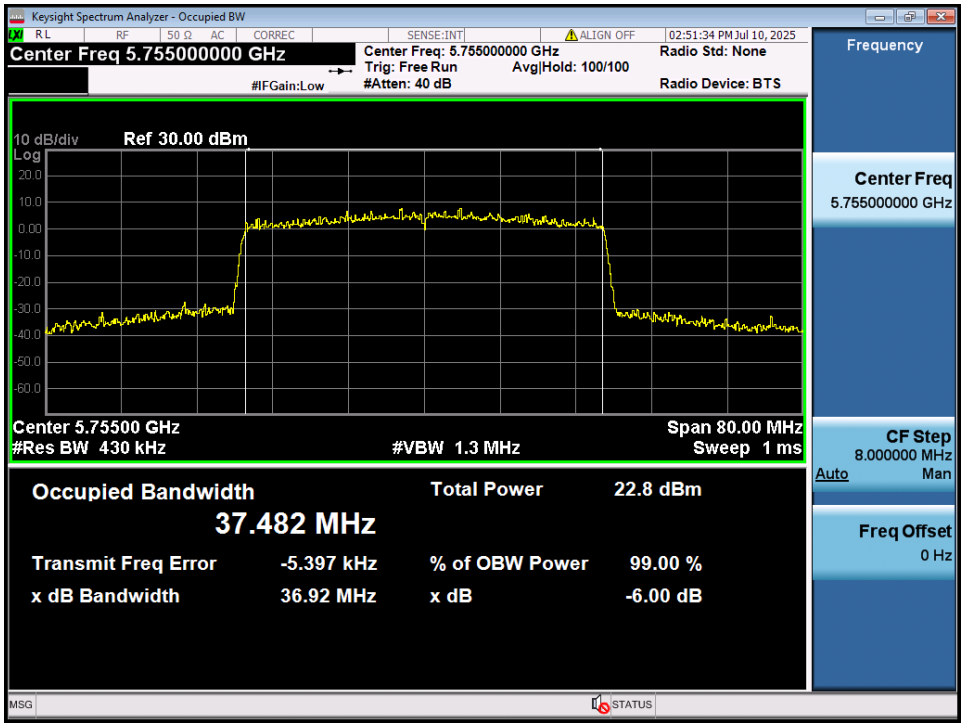
Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 1 & 242 Tone & 61 RU & Ch.165



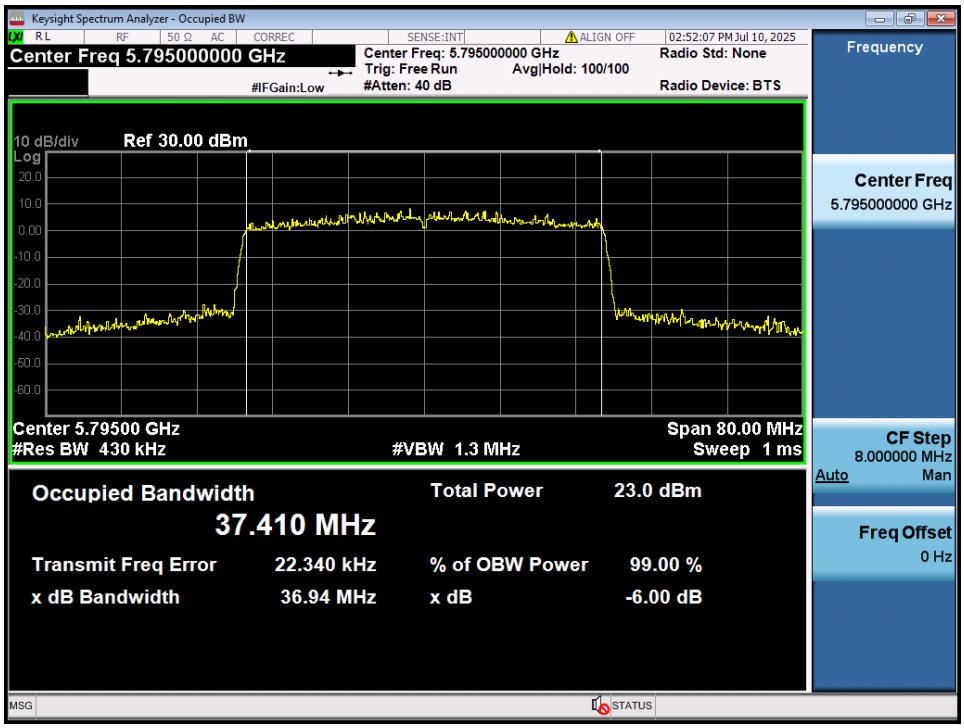
Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 242 Tone & 65 RU & Ch.151



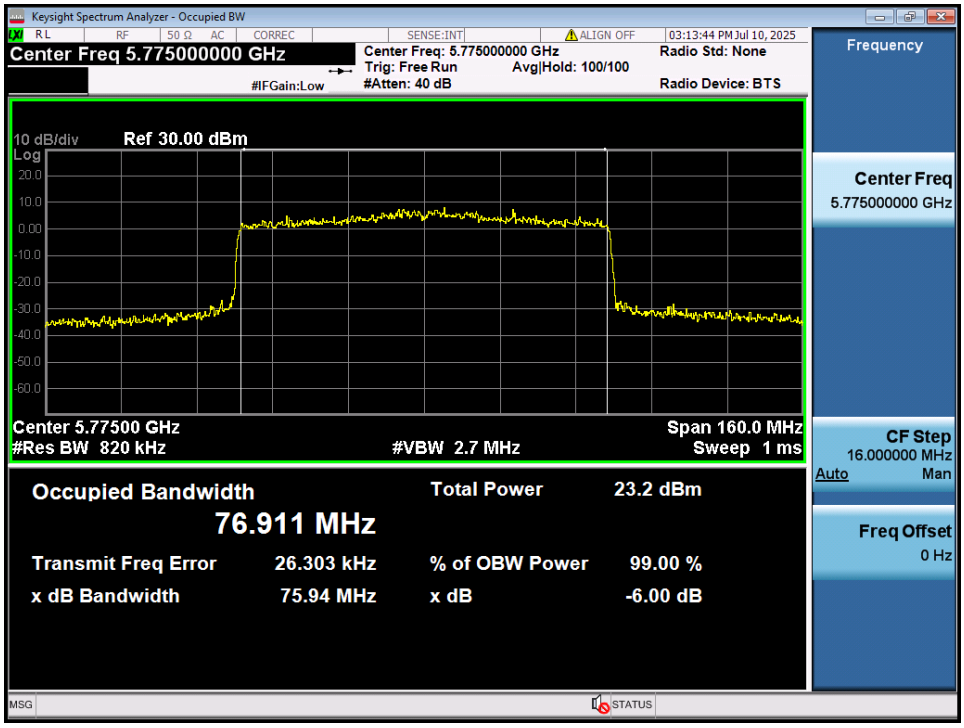
Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 1 & 242 Tone & 65 RU & Ch.159



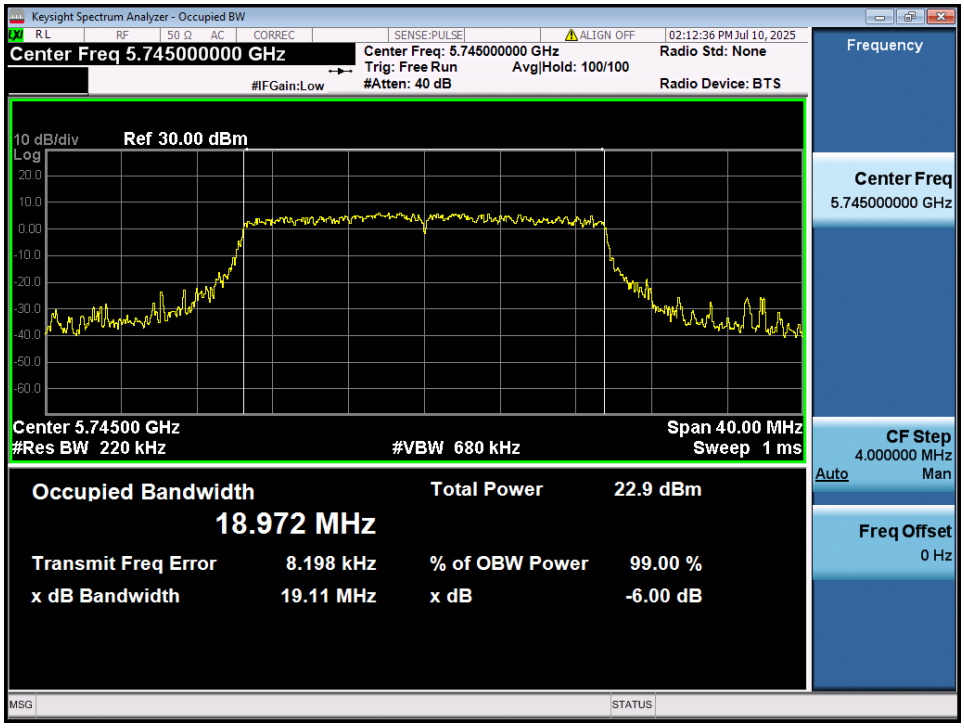
Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 1 & 996 Tone & 67 RU & Ch.155



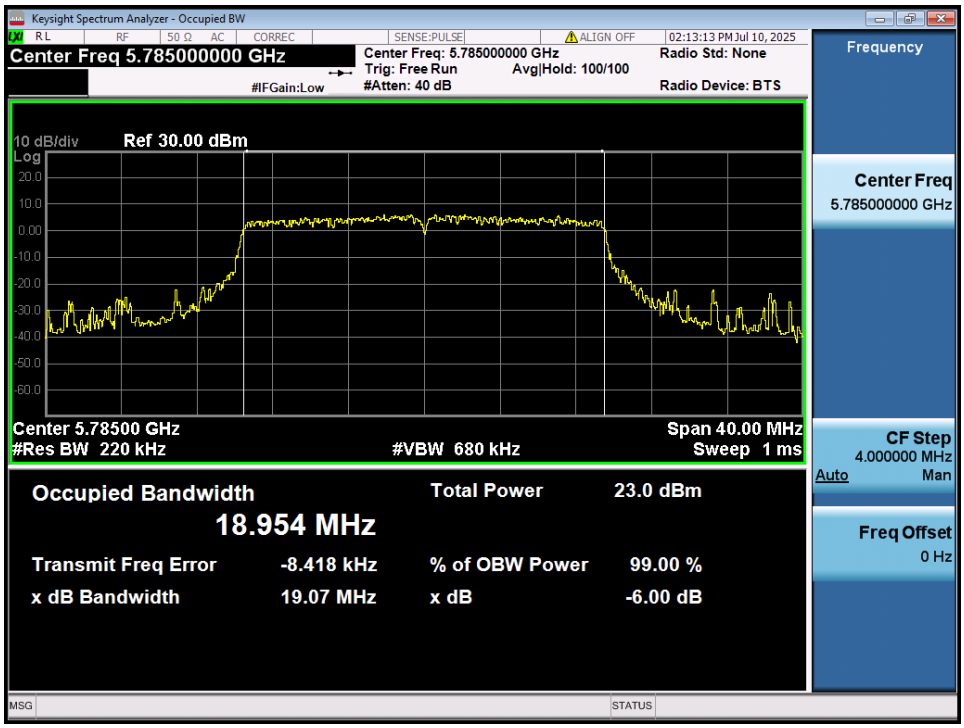
Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.149



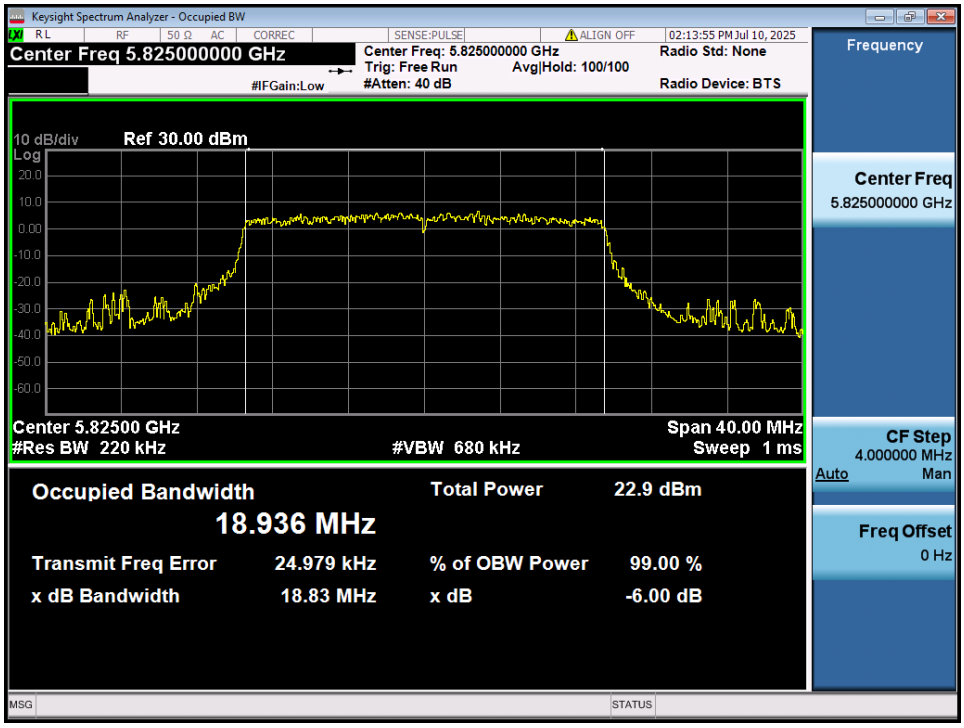
Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.157



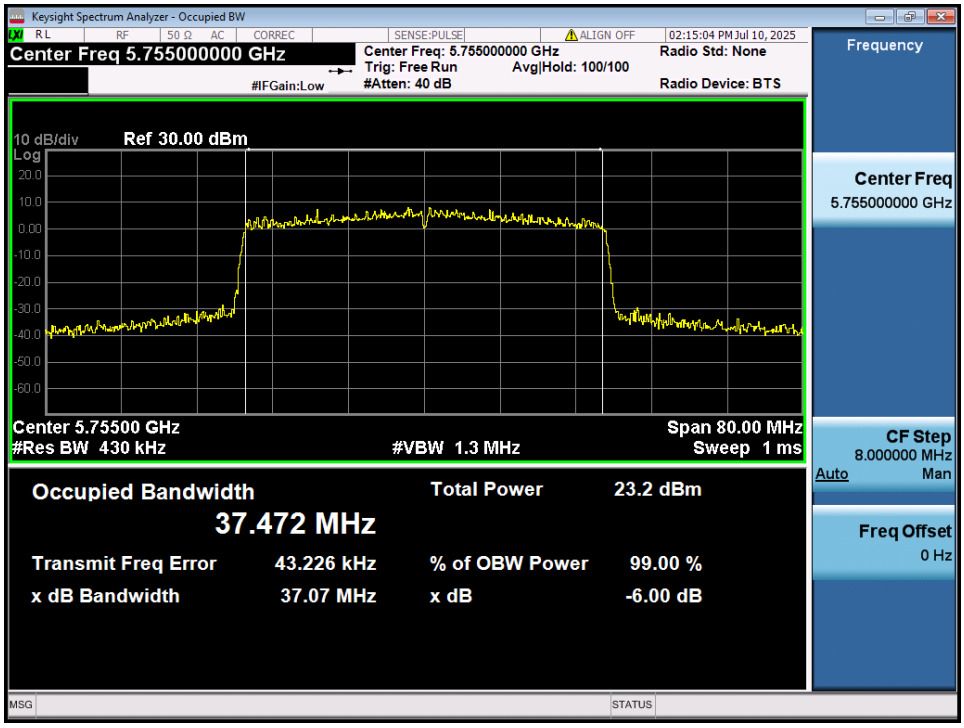
Occupied Bandwidth

Test Mode: 802.11ax HE20 & ANT 2 & 242 Tone & 61 RU & Ch.165



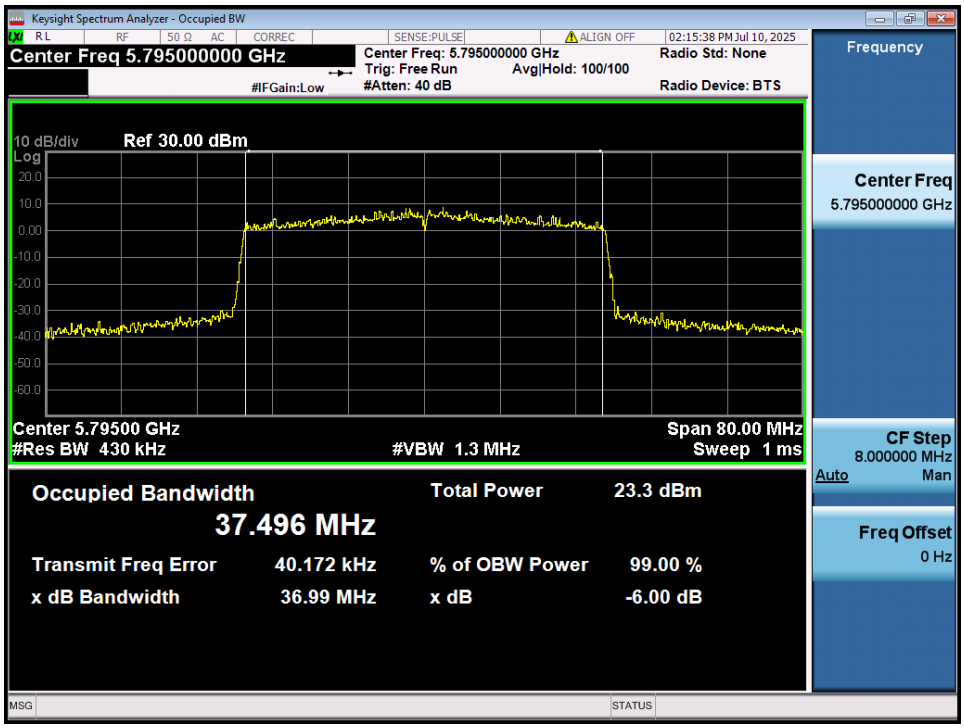
Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 242 Tone & 65 RU & Ch.151



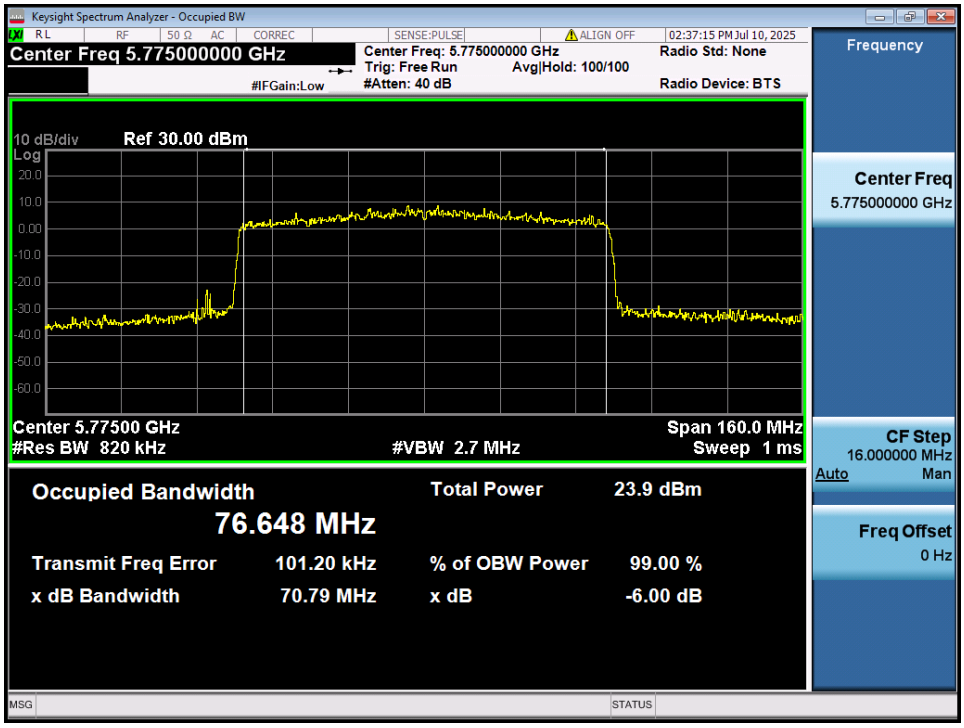
Occupied Bandwidth

Test Mode: 802.11ax HE40 & ANT 2 & 242 Tone & 65 RU & Ch.159



Occupied Bandwidth

Test Mode: 802.11ax HE80 & ANT 2 & 996 Tone & 67 RU & Ch.155



5.3. Maximum Conducted Output Power

▣ Test Requirements

Part. 15.407(a)

(1) For the band 5.15 GHz - 5.25 GHz.

(i) For an outdoor access point operating in the band 5.15 GHz - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15 GHz - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
(iii) For fixed point-to-point access points operating in the band 5.15 GHz - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
(iv) For mobile and portable client devices in the 5.15 GHz - 5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) **For the 5.25 GHz - 5.35 GHz and 5.47 GHz - 5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.** If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) **For the band 5.725 GHz - 5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W**. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

RSS-247[7.3] Power and unwanted emissions limits

RSS-247[7.3.1.2] For band 5 150 MHz – 5 250 MHz

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed the lesser of: 30 mW; or 1.76 + 10 log10B, dBm.

OEM devices installed in vehicles with a maximum e.i.r.p. greater than 15 mW shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For all other devices the maximum e.i.r.p. spectral density shall not exceed 10 dBm/MHz. The maximum e.i.r.p. shall not exceed the lesser of:

200 mW; or 10 + 10 log10B, dBm.

RSS-247[7.3.2.2] For band 5 250 MHz – 5 350 MHz

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed the lesser of:

a. 30 mW; or
b. 1.76 + 10 log10B, dBm.

OEM devices installed in vehicles with a maximum e.i.r.p. greater than 15 mW shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

All other devices shall comply with the following:

a. the maximum power spectral density shall not exceed 11 dBm/MHz and the maximum conducted output power shall not exceed the lesser of:
   i. 250 mW; or
   ii. 11 + 10 log10B, dBm.
b. the maximum e.i.r.p. shall not exceed the lesser of:
   i. 1.0 W; or
   ii. 17 + 10 log10B, dBm.
c.Devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

RSS-247[7.3.3.2] For band 5 470 MHz – 5 725 MHz

Equipment operating in the band 5470-5725 MHz band shall comply with the following power limits:

a.the maximum conducted output power shall not exceed the lesser of:
   i. 250 mW; or
   ii. 11 + 10 log10B, dBm.
b. the maximum power spectral density shall not exceed 11 dBm/MHz.
c. the maximum e.i.r.p. shall not exceed the lesser of:
   i. 1.0 W; or
   ii. 17 + 10 log10B, dBm.
d. equipment with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

RSS-247[7.3.4.3] For band 5 725 MHz – 5 850 MHz

Equipment operating in the band 5725-5850 shall comply with the following power limits:

a. the maximum conducted output power shall not exceed 1 W; and
b. the maximum output power spectral density shall not exceed 30 dBm/500 kHz.

When using transmitting antennas with a directional gain exceeding 6 dBi, the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

However, FPTP devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter maximum conducted output power and the power spectral density. FPTP operations exclude the use of PTMP systems, omnidirectional applications and multiple collocated transmitters transmitting the same information. However, remote stations of PTMP systems shall be permitted to operate at e.i.r.p. greater than 4 W under the same conditions as for FPTP systems.

▣ Test Configuration

Method PM-G

▣ Test Procedure

Method PM-G of KDB789033 D02v02r01

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

▣ **Test Results: Comply**

- Summed Output Power: CDD

Mode	Freq.(MHz)	Tone	RU Index	Test Result (dBm)			Antenna Gain(dBi)	e.i.r.p[Note1] (dBm)
				ANT 1	ANT 2	ANT1+ANT2 (CDD)		
802.11ax (HE20)	5 180	26	0	-0.64	-0.49	2.45	7.46	9.91
			4	-0.57	-0.40	2.53	7.46	9.99
			8	-0.46	-0.31	2.63	7.46	10.09
	5 200	26	0	-1.23	-0.26	2.29	7.46	9.75
			4	-1.03	0.07	2.57	7.46	10.03
			8	-0.87	0.27	2.75	7.46	10.21
	5 240	26	0	-1.16	0.01	2.47	7.46	9.93
			4	-1.03	0.23	2.66	7.46	10.12
			8	-1.04	0.34	2.71	7.46	10.17
	5 260	26	0	4.55	6.25	8.49	7.46	15.95
			4	4.49	6.15	8.41	7.46	15.87
			8	4.62	6.28	8.54	7.46	16.00
	5 300	26	0	5.40	6.86	9.20	7.46	16.66
			4	5.35	6.57	9.01	7.46	16.47
			8	5.39	6.66	9.08	7.46	16.54
	5 320	26	0	5.71	6.92	9.37	7.46	16.83
			4	5.61	6.79	9.25	7.46	16.71
			8	5.53	6.83	9.24	7.46	16.70
	5 500	26	0	5.30	5.34	8.33	7.46	15.79
			4	5.39	5.39	8.40	7.46	15.86
			8	5.34	5.09	8.23	7.46	15.69
	5 580	26	0	4.52	4.82	7.68	7.46	15.14
			4	4.68	4.77	7.74	7.46	15.20
			8	4.71	4.63	7.68	7.46	15.14
	5 720	26	0	4.38	5.64	8.07	7.46	15.53
			4	4.44	5.43	7.97	7.46	15.43
			8	4.50	5.59	8.09	7.46	15.55
	5 745	26	0	14.72	14.94	17.84	7.46	25.30
			4	14.61	14.83	17.73	7.46	25.19
			8	14.59	14.70	17.66	7.46	25.12
	5 785	26	0	14.01	14.40	17.22	7.46	24.68
			4	14.11	14.48	17.31	7.46	24.77
			8	14.15	14.53	17.35	7.46	24.81
	5 825	26	0	13.60	14.41	17.03	7.46	24.49
			4	13.59	14.46	17.06	7.46	24.52
			8	13.50	14.66	17.13	7.46	24.59

Note 1: e.i.r.p= Conducted Output Power + Antenna Gain

Mode	Freq.(MHz)	Tone	RU Index	Test Result (dBm)			Antenna Gain(dBi)	e.i.r.p[Note1] (dBm)
				ANT 1	ANT 2	ANT1+ANT2 (CDD)		
802.11ax (HE20)	5 180	52	37	1.63	1.72	4.69	7.46	12.15
			38	1.52	1.49	4.52	7.46	11.98
			40	1.46	1.53	4.51	7.46	11.97
	5 200	52	37	1.00	2.08	4.58	7.46	12.04
			38	1.13	2.08	4.64	7.46	12.10
			40	1.07	2.18	4.67	7.46	12.13
	5 240	52	37	1.02	2.33	4.73	7.46	12.19
			38	1.08	2.24	4.71	7.46	12.17
			40	1.25	2.29	4.81	7.46	12.27
	5 260	52	37	6.85	7.92	10.43	7.46	17.89
			38	6.45	7.81	10.19	7.46	17.65
			40	6.55	7.98	10.33	7.46	17.79
	5 300	52	37	7.53	8.47	11.04	7.46	18.50
			38	7.31	8.42	10.91	7.46	18.37
			40	7.19	8.32	10.80	7.46	18.26
	5 320	52	37	7.77	8.46	11.14	7.46	18.60
			38	7.56	8.43	11.03	7.46	18.49
			40	7.50	8.33	10.95	7.46	18.41
	5 500	52	37	7.41	7.38	10.41	7.46	17.87
			38	7.38	7.08	10.24	7.46	17.70
			40	7.24	7.25	10.26	7.46	17.72
	5 580	52	37	7.70	7.63	10.68	7.46	18.14
			38	7.53	7.42	10.49	7.46	17.95
			40	7.40	7.58	10.50	7.46	17.96
	5 720	52	37	6.88	7.88	10.42	7.46	17.88
			38	6.75	7.78	10.31	7.46	17.77
			40	6.89	7.61	10.28	7.46	17.74
	5 745	52	37	15.48	14.67	18.10	7.46	25.56
			38	15.34	14.44	17.92	7.46	25.38
			40	15.30	14.52	17.94	7.46	25.40
	5 785	52	37	15.86	16.20	19.04	7.46	26.50
			38	15.81	16.39	19.12	7.46	26.58
			40	15.88	16.25	19.08	7.46	26.54
	5 825	52	37	15.86	16.14	19.01	7.46	26.47
			38	15.42	16.45	18.98	7.46	26.44
			40	15.49	16.30	18.92	7.46	26.38

Note 1: e.i.r.p= Conducted Output Power + Antenna Gain