TEST REPORT

DT&C Co., Ltd.
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Tel : 031-321-2664, Fax : 031-321-1664

1. Report No : DRTFCC2104-0031
2. Customer
   - Name : MERCURY Corporation
   - Address : 90, Gajaeul-ro, Seo-gu, Incheon, South Korea
3. Use of Report : FCC Original Grant
4. Product Name / Model Name : acrobox / AM114D
   FCC ID : 2AVW5AM114D
5. FCC Regulation(s) : FCC Part 15.407
   Test Method Used : KDB789033 D02v02r01, ANSI C63.10-2013
6. Date of Test : 2020.09.19 ~ 2020.11.11
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.

Affirmation	Tested by Name : SeungJu Woo (Signature)	Reviewed by Name : JaeJin Lee (Signature)

2021 . 04 . 01 .

DT&C Co., Ltd.

This test report is a general report that does not use the KOLAS accreditation mark and is not related to KS Q ISO/IEC 17025 and KOLAS accreditation.

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
DRTFCC2104-0031	Apr. 01, 2021	Initial issue	SeungJu Woo	JaeJin Lee

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1. EUT DESCRIPTION

1.1 EUT Description

FCC Equipment Class	Unlicensed National Information Infrastructure (UNII)
Product	acrobox
Model Name	AM114D
Add Model Name	NA
Power Supply	DC 12 V
Modulation type	OFDM
Antenna Specification	**Antenna type:** External Antenna **Antenna gain:** Refer to the clause 7 in test report.

5GHz Band	Mode	Tx frequency (MHz)	Max power(dBm)
U-NII 1	802.11a	5 180 ~ 5 240	19.02
	802.11n(HT20)	5 180 ~ 5 240	**20.46**
	802.11ac(VHT20)	5 180 ~ 5 240	20.41
	802.11n(HT40)	5 190 ~ 5 230	19.69
	802.11ac(VHT40)	5 190 ~ 5 230	19.78
	802.11ac(VHT80)	5 210	13.08
U-NII 2A	802.11a	5 260 ~ 5 320	18.62
	802.11n(HT20)	5 260 ~ 5 320	**20.26**
	802.11ac(VHT20)	5 260 ~ 5 320	20.00
	802.11n(HT40)	5 270 ~ 5 310	19.87
	802.11ac(VHT40)	5 270 ~ 5 310	19.85
	802.11ac(VHT80)	5 290	11.56
U-NII 2C	802.11a	5 500 ~ 5 700	18.12
	802.11n(HT20)	5 500 ~ 5 700	17.74
	802.11ac(VHT20)	5 500 ~ 5 700	17.79
	802.11n(HT40)	5 510 ~ 5 670	17.26
	802.11ac(VHT40)	5 510 ~ 5 670	17.24
	802.11ac(VHT80)	5 530 ~ 5 610	**18.16**
U-NII 3	802.11a	5 745 ~ 5 825	18.67
	802.11n(HT20)	5 745 ~ 5 825	**20.11**
	802.11ac(VHT20)	5 745 ~ 5 825	20.07
	802.11n(HT40)	5 755 ~ 5 795	19.49
	802.11ac(VHT40)	5 755 ~ 5 795	19.37
	802.11ac(VHT80)	5 775	18.58

1.2 Transmitting configuration of EUT

Mode	SISO		MIMO
	Ant 1	Ant 2	Ant 1 & 2
	Data rate		
802.11a	6 Mbps ~ 54 Mbps	6 Mbps ~ 54 Mbps	-
802.11n(HT20)	MCS 0 ~ 7	MCS 0 ~ 7	MCS 8 ~ 15
802.11ac(VHT20)	MCS 0 ~ 8(1SS)	MCS 0 ~ 8(1SS)	MCS 0 ~ 8(2SS)
802.11n(HT40)	MCS 0 ~ 7	MCS 0 ~ 7	MCS 8 ~ 15
802.11ac(VHT40)	MCS 0 ~ 9(1SS)	MCS 0 ~ 9(1SS)	MCS 0 ~ 9(2SS)
802.11ac(VHT80)	MCS 0 ~ 9(1SS)	MCS 0 ~ 9(1SS)	MCS 0 ~ 9(2SS)

2. Information about test items

2.1 Test Mode

Test Mode		ANT configuration	Worst data rate
TM 1	802.11a	Single transmitting	6 Mbps
TM 2	802.11n(HT20)	Single transmitting	MCS 0
TM 3	802.11n(HT40)	Single transmitting	MCS 0
TM 4	802.11ac(VHT80)	Single transmitting	MCS 0
TM 5	802.11n(HT20)	Multiple transmitting	MCS 8
TM 6	802.11n(HT40)	Multiple transmitting	MCS 8
TM 7	802.11ac(VHT80)	Multiple transmitting	MCS 0

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

2.2 Tested Channel Information

5GHz Band	802.11a/n(HT20) /802.11ac(VHT20)		802.11n(HT40) /802.11ac(VHT40)		802.11ac(VHT80)	
	Channel	Frequency [MHz]	Channel	Frequency [MHz]	Channel	Frequency [MHz]
U-NII 1	36	5 180	38	5 190	42	5 210
	40	5 200	-	-	-	-
	48	5 240	46	5 230	-	-
U-NII 2A	52	5 260	54	5 270	58	5 290
	60	5 300	-	-	-	-
	64	5 320	62	5 310	-	-
U-NII 2C	100	5 500	102	5 510	106	5 530
	120	5 600	118	5 590	122	5 610
	140	5 700	138	5 670	-	-
U-NII 3	149	5 745	151	5 755	155	5 775
	157	5 785	-	-	-	-
	165	5 825	159	5 795	-	-

2.3 Testing Environment

Temperature	:	20 ºC ~ 24 ºC
Relative humidity content	:	35 % ~ 44 %
Details of power supply	:	DC 12 V

2.4 EMI Suppression Device(s)/Modifications

EMI suppression device(s) added and/or modifications made during testing
→ None

2.5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C 63.4-2014 and ANSI C 63.10-2013. All measurement uncertainty values are shown with a coverage factor of *k* = 2 to indicate a 95 % level of confidence.

Test items	Measurement uncertainty
Antenna-port conducted emission	0.9 dB (The confidence level is about 95 %, k = 2)
AC conducted emission	3.6 dB (The confidence level is about 95 %, k = 2)
Radiated emission (1 GHz Below)	4.9 dB (The confidence level is about 95 %, k = 2)
Radiated emission (1 GHz ~ 18 GHz)	5.1 dB (The confidence level is about 95 %, k = 2)
Radiated emission (18 GHz Above)	5.3 dB (The confidence level is about 95 %, k = 2)

3. SUMMARY OF TESTS

FCC Part Section(s)	Parameter	Limit	Test Condition	Status Note 1
15.407(a)	Emission Bandwidth (26 dB Bandwidth)	N/A	Conducted	C
15.407(e)	Minimum Emission Bandwidth (6 dB Bandwidth)	> 500 kHz in 5725 ~ 5850 MHz		C
15.407(a)	Maximum Conducted Output Power	5150 ~ 5250 MHz : < 30.00 dBm (For an indoor access point) 5250 ~ 5350 & 5470 ~ 5725 MHz : < 250 mW or < 11 + 10 log10(B) dBm, whichever power is less. (B is the 26dB BW.) 5725 ~ 5850 MHz : < 30 dBm		C
15.407(a)	Maximum Power Spectral Density	5150 ~ 5250 MHz : 17 dBm/MHz (For an indoor access point) 5250 ~ 5350 MHz : 11 dBm/MHz 5470 ~ 5725 MHz : 11 dBm/MHz 5725 ~ 5850 MHz : 30 dBm/500kHz		C
15.407(h)	Dynamic Frequency Selection	FCC 15.407(h)		C Note 3
15.407(b)	Undesirable Emissions	5150 ~ 5725 MHz: < -27 dBm/MHz EIRP 5725 ~ 5850 MHz: < -27 dBm/MHz or < 10 dBm/MHz or 15.6 dBm/MHz < 27dBm/MHz EIRP	Radiated	C Note 4
15.205 15.209 15.407(b)	General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	FCC Part 15.209, 15.407(b) (Refer to the section 8.5)		C Note 4
15.207	AC Conducted Emissions	FCC 15.207 (Refer to the section 8.6)	AC Line Conducted	C
15.203	Antenna Requirements	FCC 15.203 (Refer to the section 4)	-	C

Note 1: **C** = Comply **NC** = Not Comply **NT** = Not Tested **NA** = Not Applicable

Note 2: For radiated emission tests below 30 MHz were performed on semi-anechoic chamber which is correlated with OATS.
Note 3: Refer to the DFS test report.
Note 4: This test item was performed in each axis and the worst case data was reported.

4. TEST METHODOLOGY

The measurement procedures described in the ANSI C63.10-2013 and the guidance provided in KDB 789033 D02v02r01 were used in measurement of the EUT.

The EUT was tested per the guidance of KDB789033 D02v02r01. And ANSI C63.10-2013 was used to reference appropriate EUT setup and maximizing procedures of radiated spurious emission and AC line conducted emission testing.

4.1 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.

4.2 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.

4.3 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 C63.10-2013.

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 C63.10-2013 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 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.

4.4 Description of test modes

The EUT has been tested with all modes of operating conditions to determine the worst case emission characteristics.

A test program is used to control the EUT for staying in continuous transmitting mode with maximum fixed duty cycle.

5. 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.

6. FACILITIES AND ACCREDITATIONS

6.1 Facilities

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 § 2.948 according to ANSI C63.4-2014. **- FCC MRA Designation No. : KR0034**		
www.dtnc.net		
Telephone	:	+ 82-31-321-2664
FAX	:	+ 82-31-321-1664

6.2 Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, loop, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and peak, quasi-peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements. All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

7. ANTENNA REQUIREMENTS

According to FCC 47 CFR §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 External antenna employs a unique antenna connector. (Refer to Internal Photo file.)
Therefore this E.U.T Complies with the requirement of §15.203

Directional antenna gain:

Bands	SISO		MIMO Note 2
	ANT 1 [dBi]	ANT 2 [dBi]	Directional gain [dBi]
U-NII 1	6.82	6.73	6.78
U-NII 2A	6.82	6.81	6.82
U-NII 2C	7.77	7.88	7.83
U-NII 3	6.76	7.00	6.88

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

8. TEST RESULT

8.1 Emission Bandwidth (26 dB Bandwidth)

▣ Test Requirements

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.

▣ Test Configuration

Refer to the APPENDIX I.

▣ Test Procedure

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%.

▣ **Test Results : Comply**

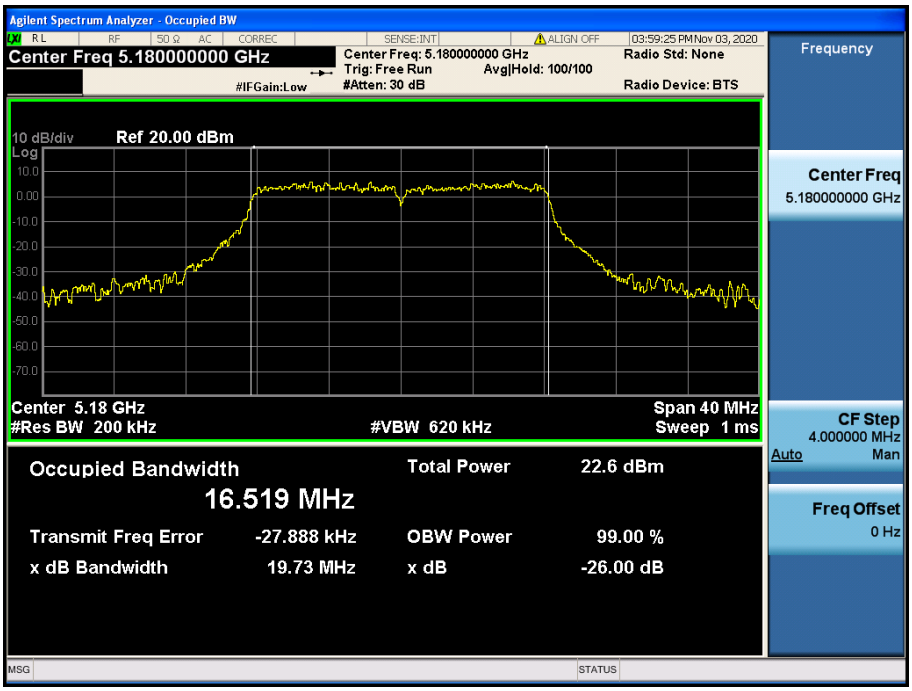
Mode	Band	Channel	Frequency [MHz]	Test Result [MHz]	
				ANT 1	ANT 2
TM 1	U-NII 1	36	5 180	19.73	19.72
		40	5 200	19.97	19.77
		48	5 240	20.01	19.97
	U-NII 2A	52	5 260	19.90	19.80
		60	5 300	19.87	19.74
		64	5 320	19.91	19.64
	U-NII 2C	100	5 500	19.35	19.54
		120	5 600	19.89	19.85
		140	5 700	19.99	19.54
TM 2	U-NII 1	36	5 180	20.23	20.31
		40	5 200	20.39	20.25
		48	5 240	20.85	20.37
	U-NII 2A	52	5 260	20.17	20.62
		60	5 300	20.79	20.67
		64	5 320	20.72	20.36
	U-NII 2C	100	5 500	20.85	20.48
		120	5 600	20.39	20.51
		140	5 700	20.61	20.39
TM 3	U-NII 1	38	5 190	42.31	42.04
		46	5 230	42.34	41.96
	U-NII 2A	54	5 270	41.59	41.75
		62	5 310	42.30	41.86
	U-NII 2C	102	5 510	42.21	41.14
		118	5 590	42.27	41.73
		134	5 670	42.20	42.12
TM 4	U-NII 1	42	5 210	81.29	81.25
	U-NII 2A	58	5 290	81.56	81.28
	U-NII 2C	106	5 530	80.99	80.89
		122	5 610	81.43	81.15

Mode	Band	Channel	Frequency [MHz]	Test Result [MHz]	
				ANT 1	ANT 2
TM 5	U-NII 1	36	5 180	20.32	20.40
		40	5 200	20.47	20.34
		48	5 240	20.69	20.56
	U-NII 2A	52	5 260	20.70	20.55
		60	5 300	20.35	20.49
		64	5 320	20.36	20.74
	U-NII 2C	100	5 500	20.67	20.46
		120	5 600	20.75	20.88
		140	5 700	20.31	20.16
TM 6	U-NII 1	38	5 190	42.77	40.48
		46	5 230	42.55	40.18
	U-NII 2A	54	5 270	42.54	40.70
		62	5 310	42.89	40.78
	U-NII 2C	102	5 510	41.68	40.48
		118	5 590	41.60	40.60
		134	5 670	42.29	40.67
TM 7	U-NII 1	42	5 210	81.28	80.08
	U-NII 2A	58	5 290	81.41	80.68
	U-NII 2C	106	5 530	81.33	80.78
		122	5 610	81.96	80.25

▣ Result Plots

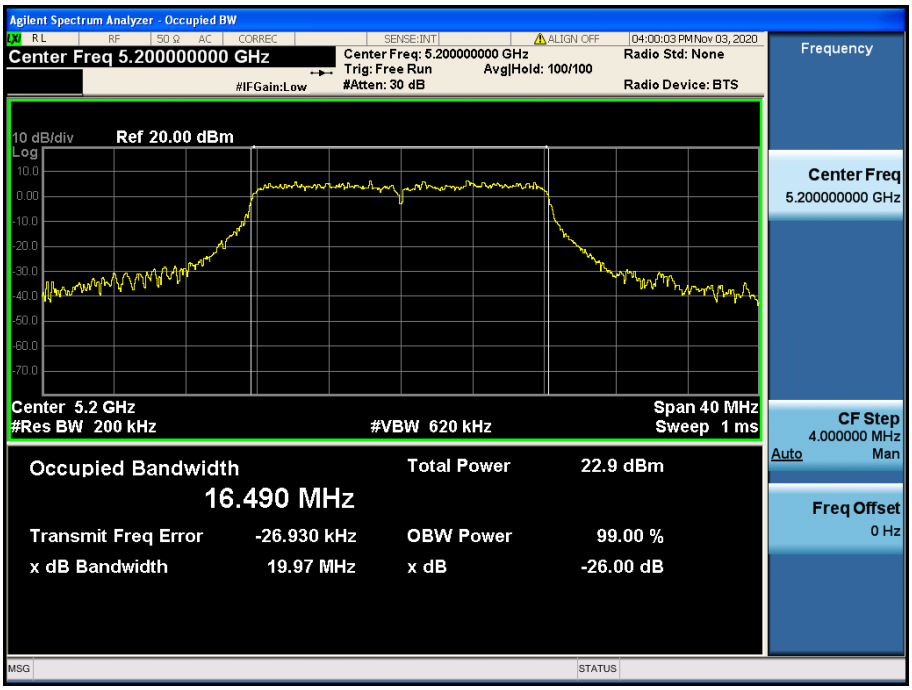
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.36



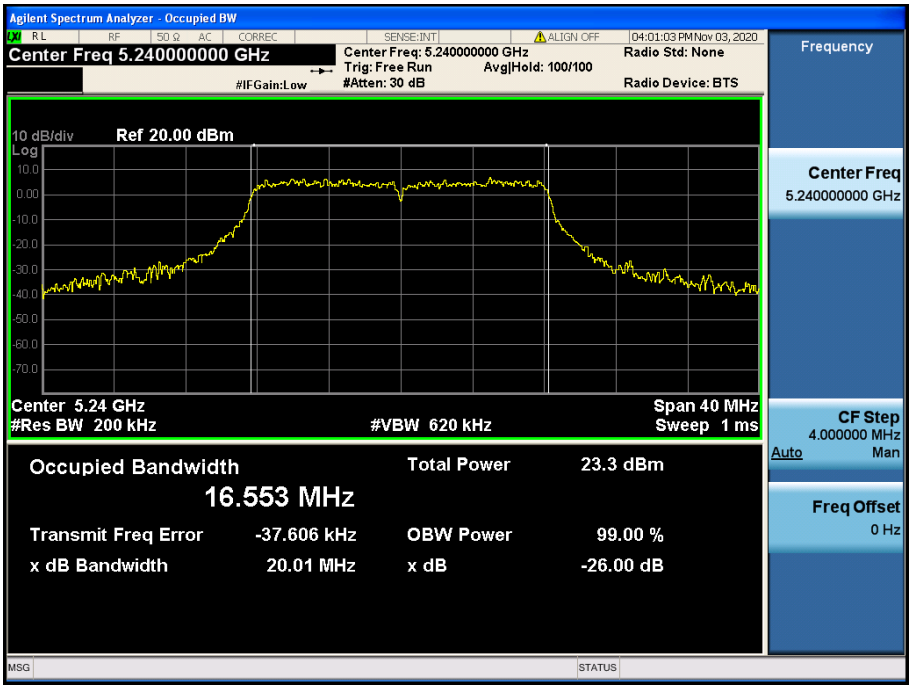
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.40



26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.48



26 dB Bandwidth

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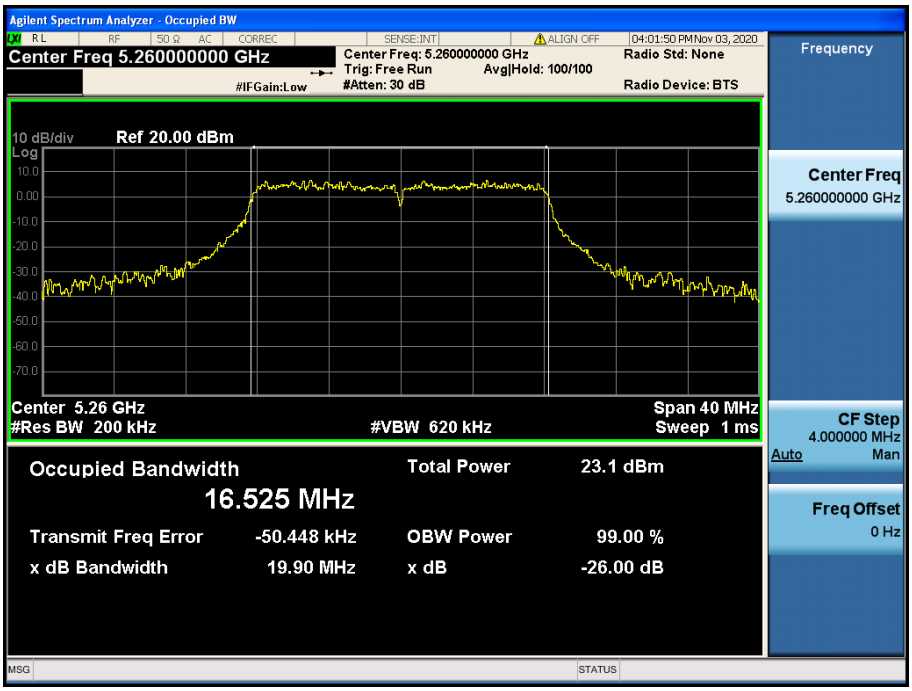

26 dB Bandwidth

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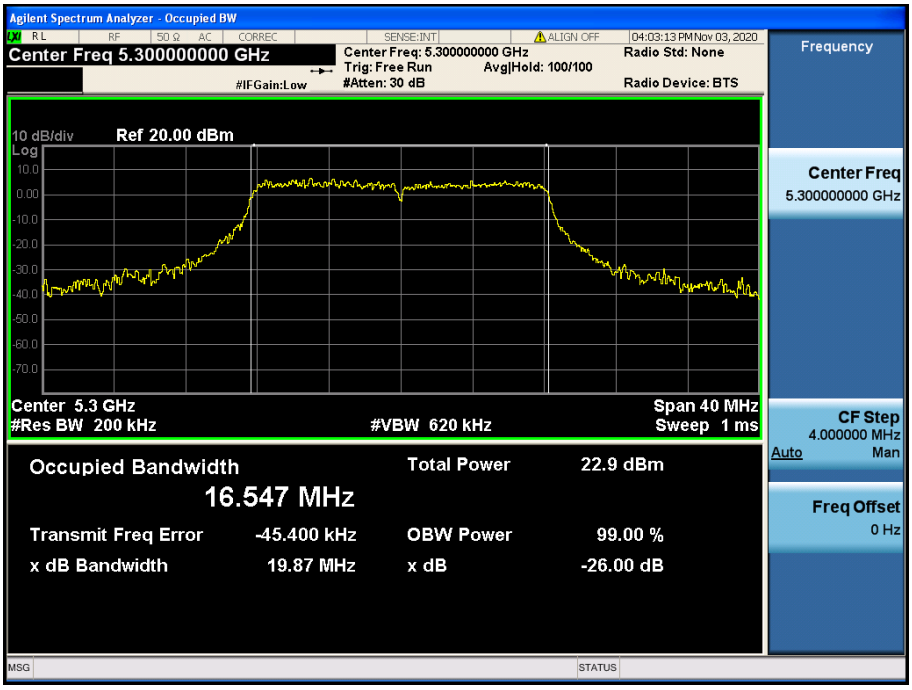
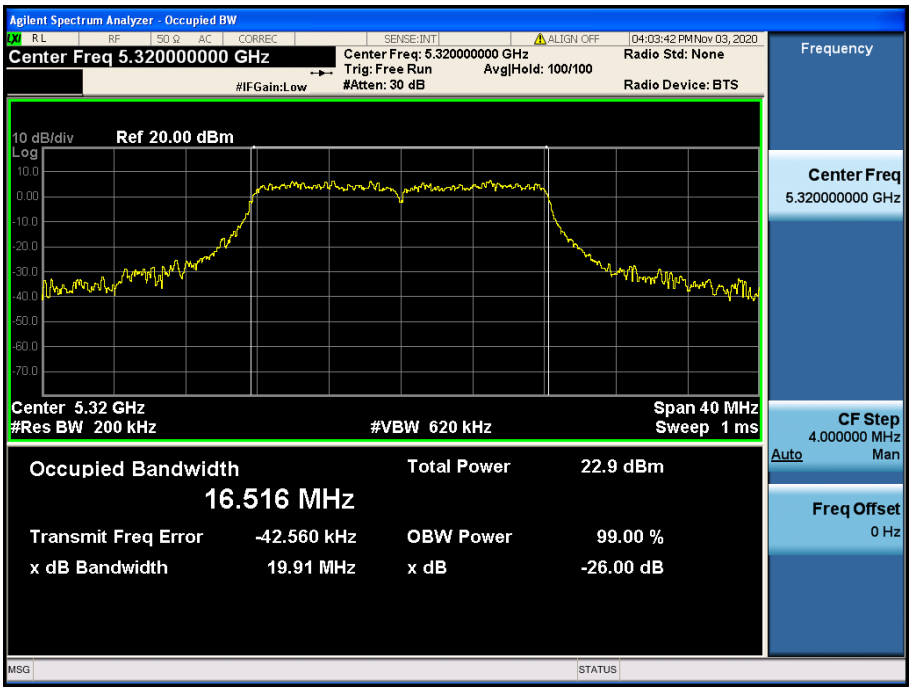


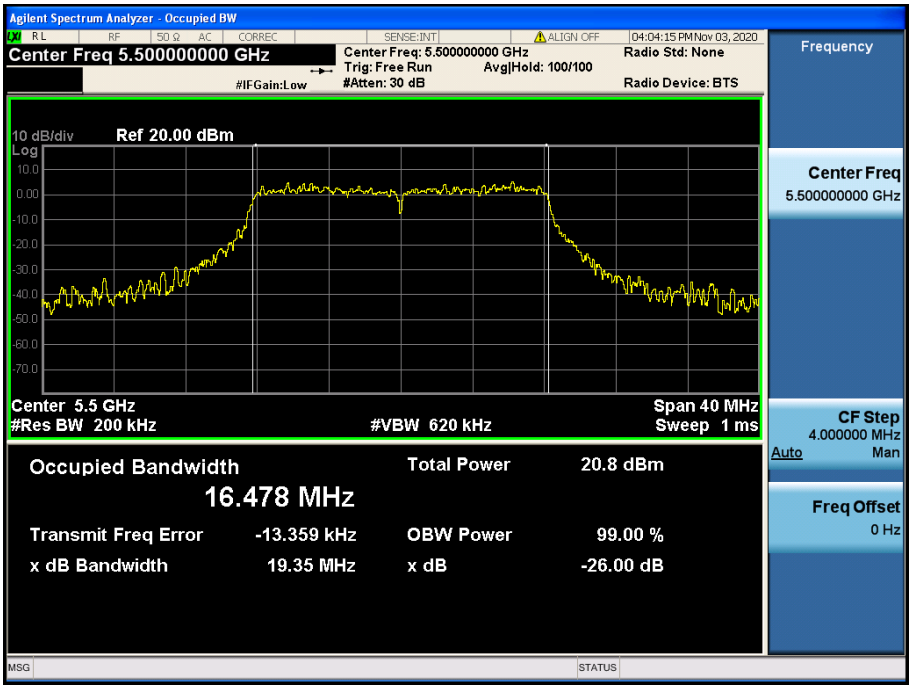
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.64



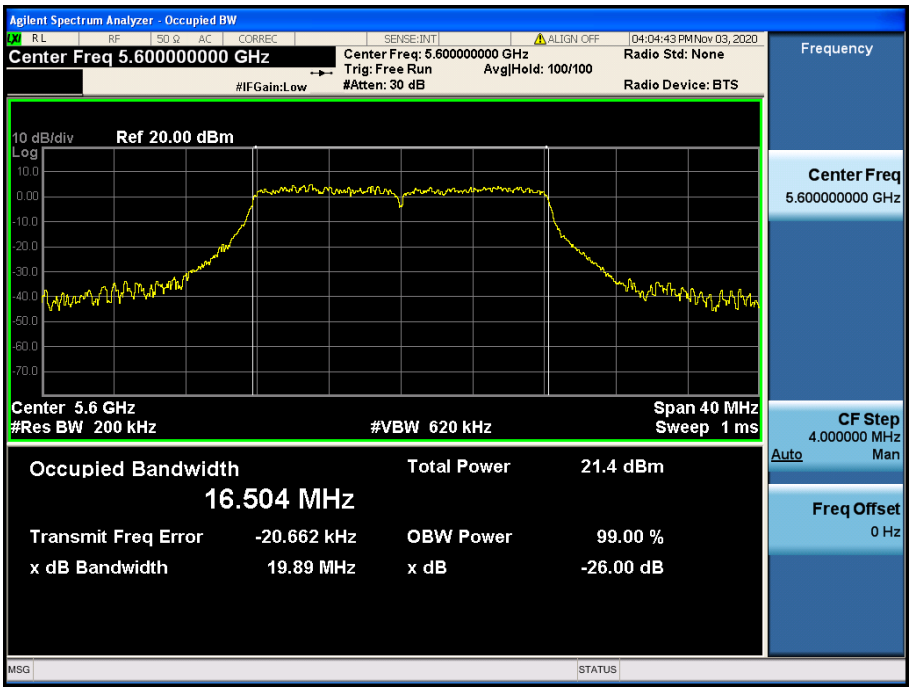
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.100



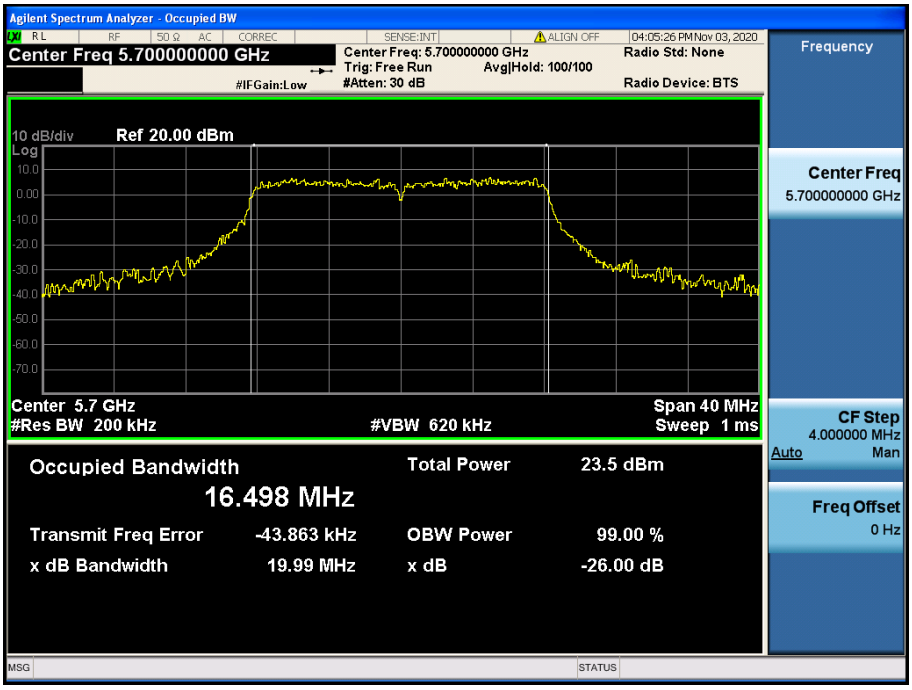
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.120



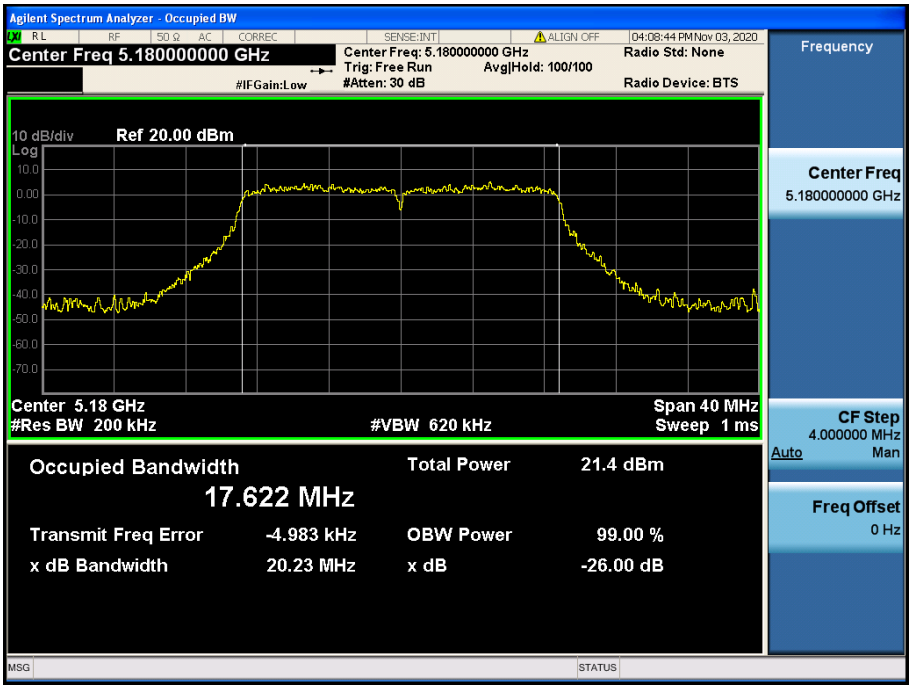
26 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.140



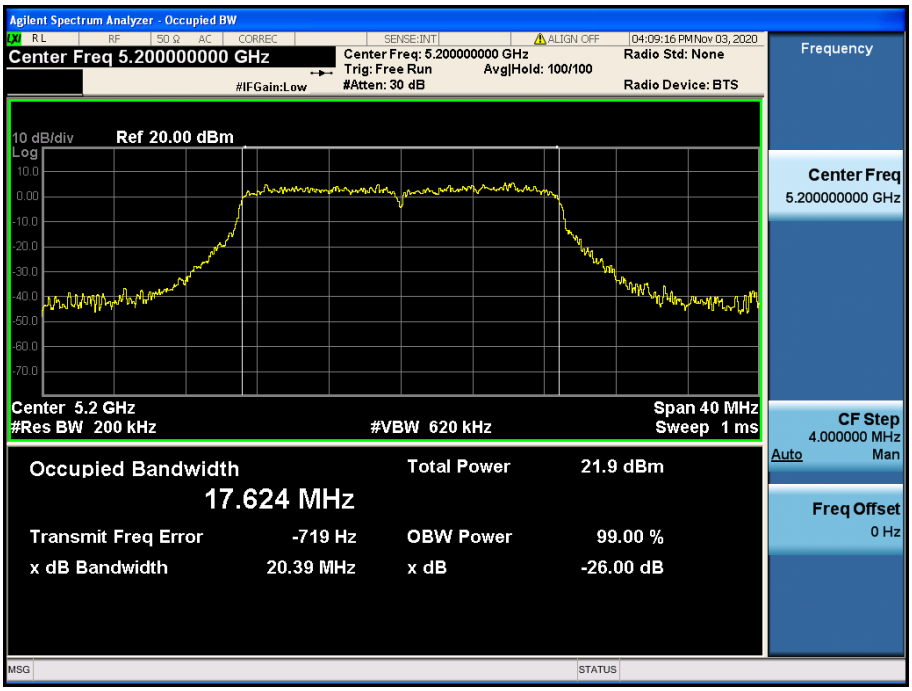
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.36



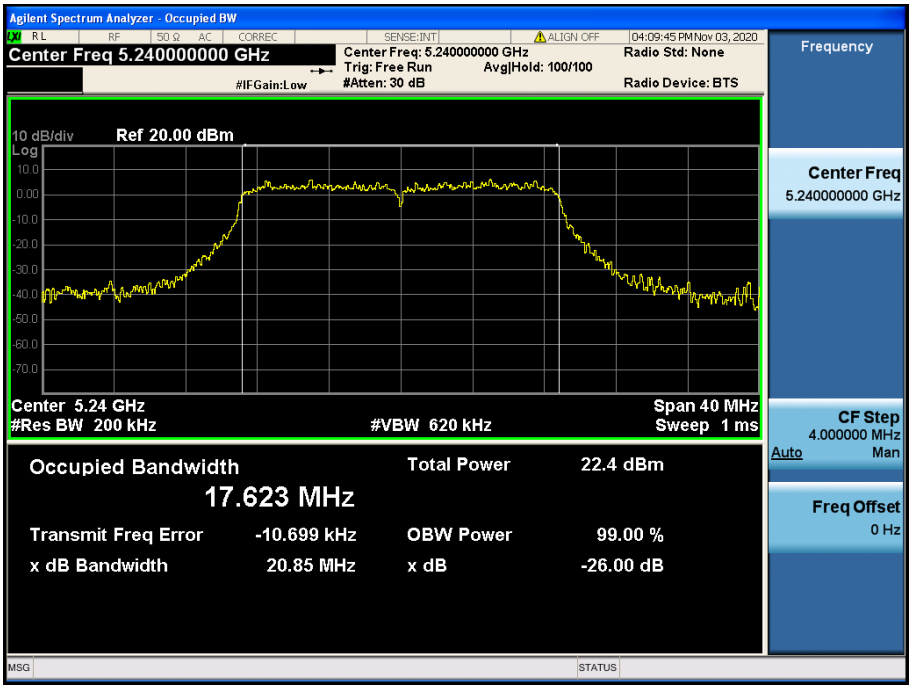
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.40



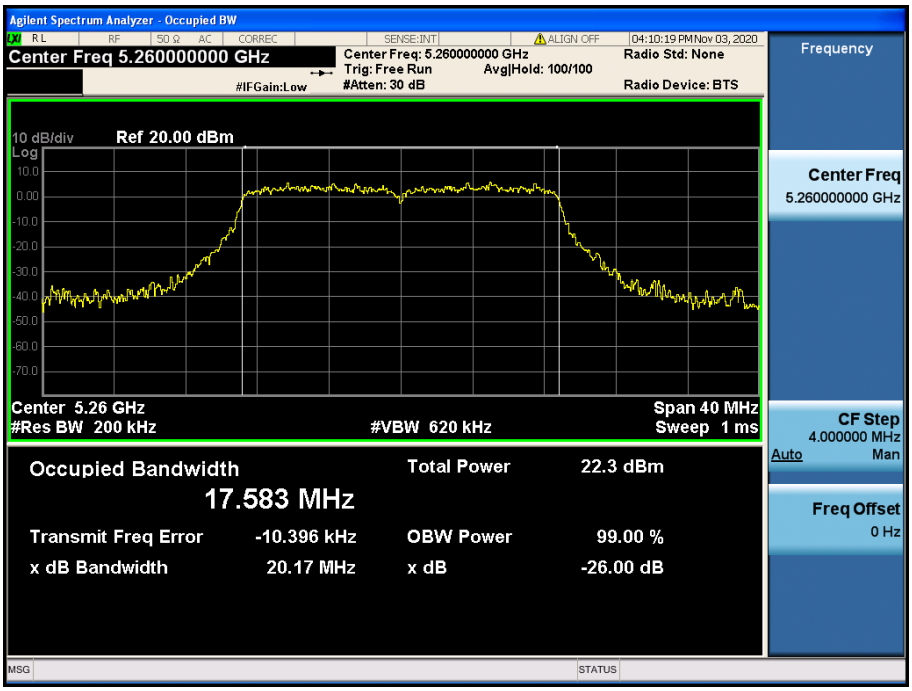
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.48



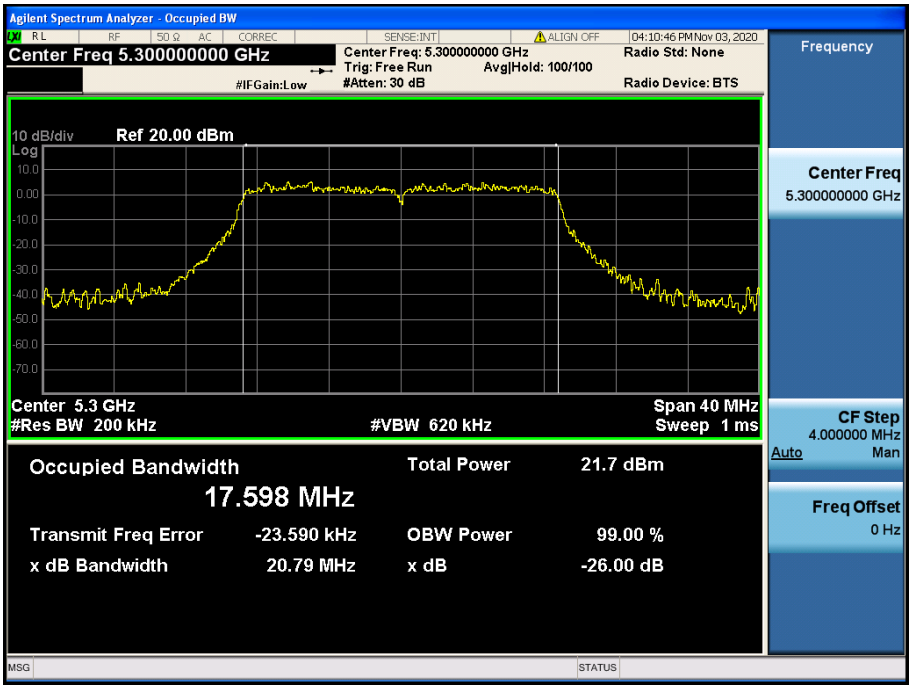
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.52



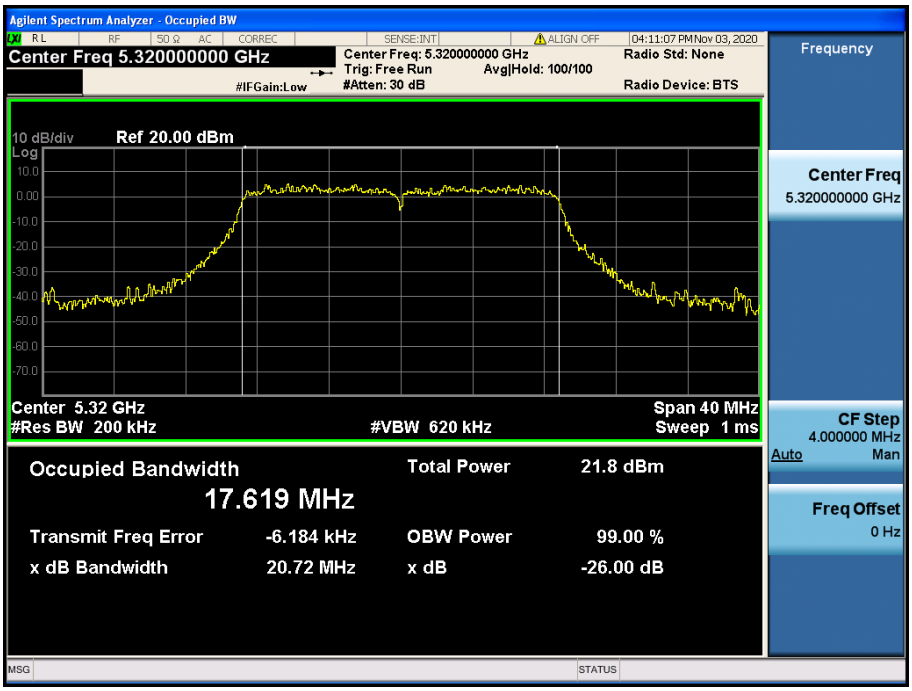
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.60



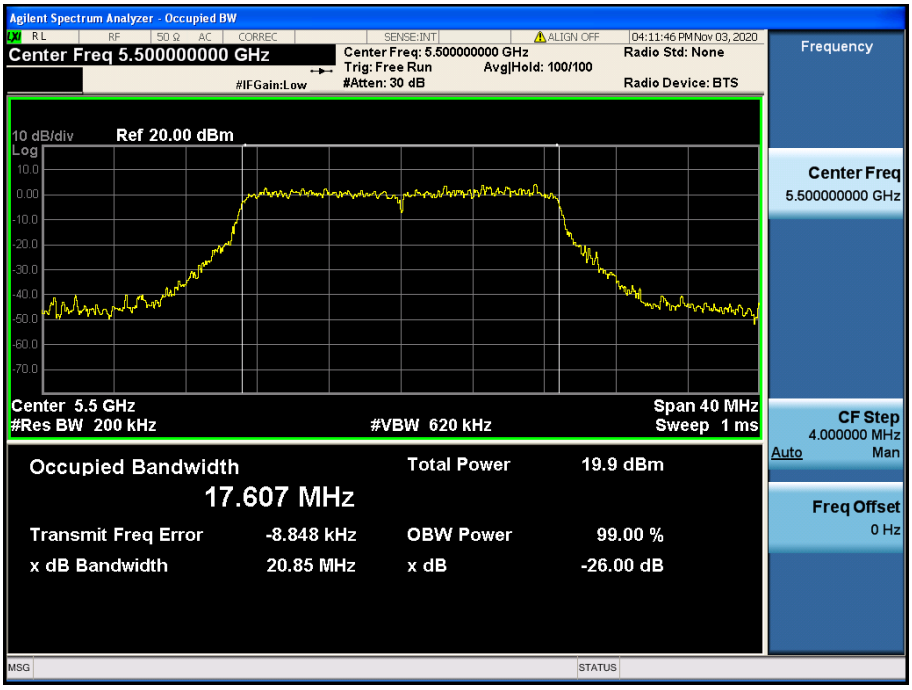
26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.64



26 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.100



26 dB Bandwidth

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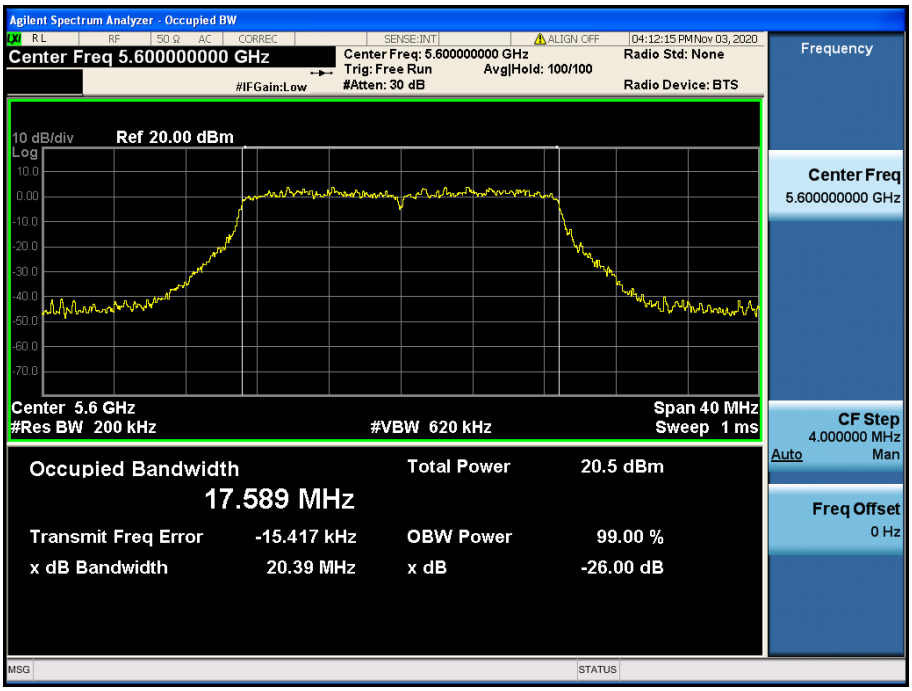

26 dB Bandwidth

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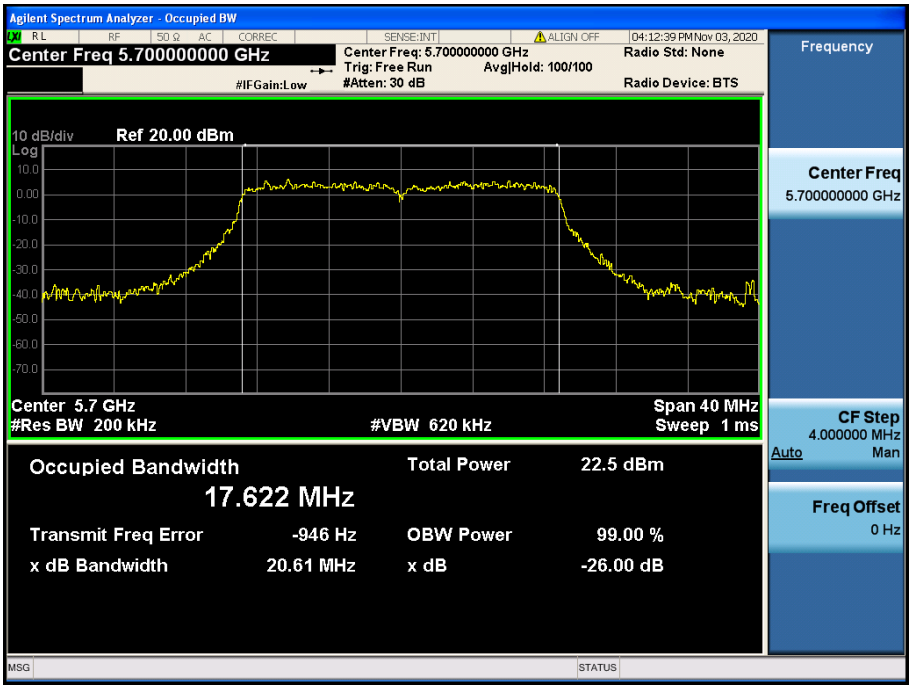
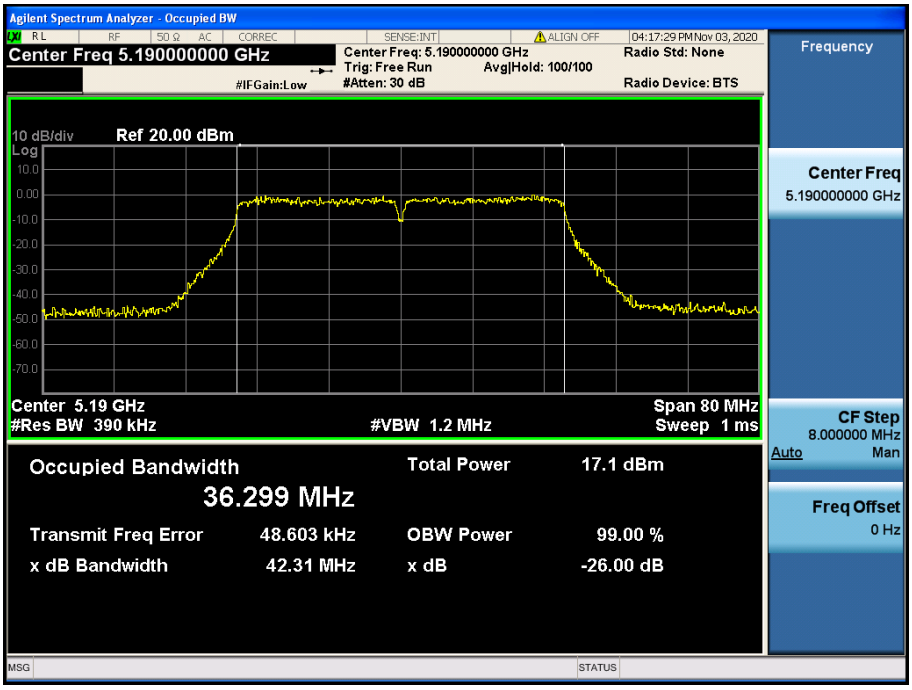


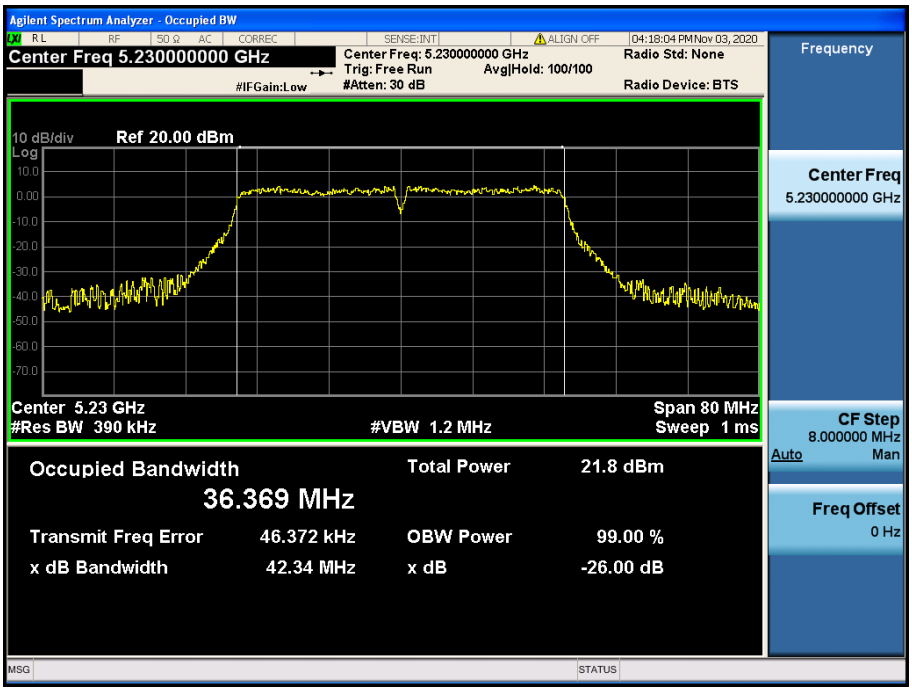
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.38



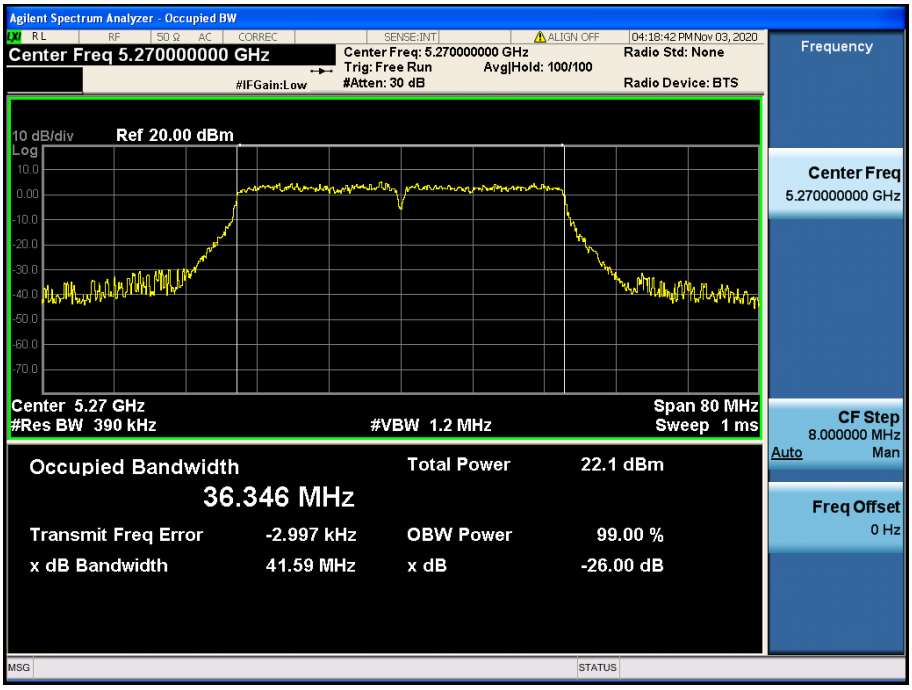
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.46



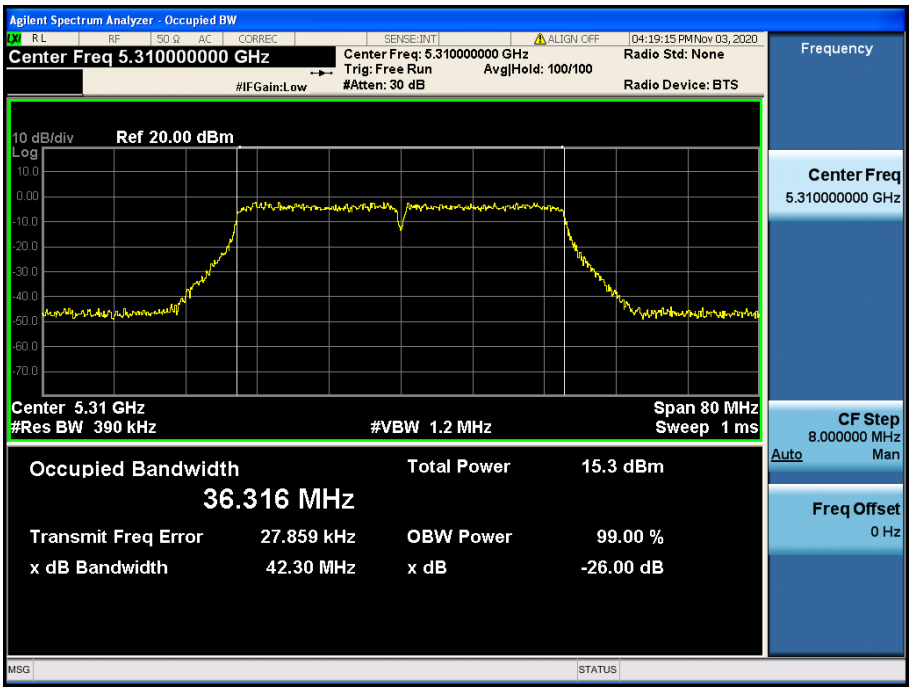
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.54



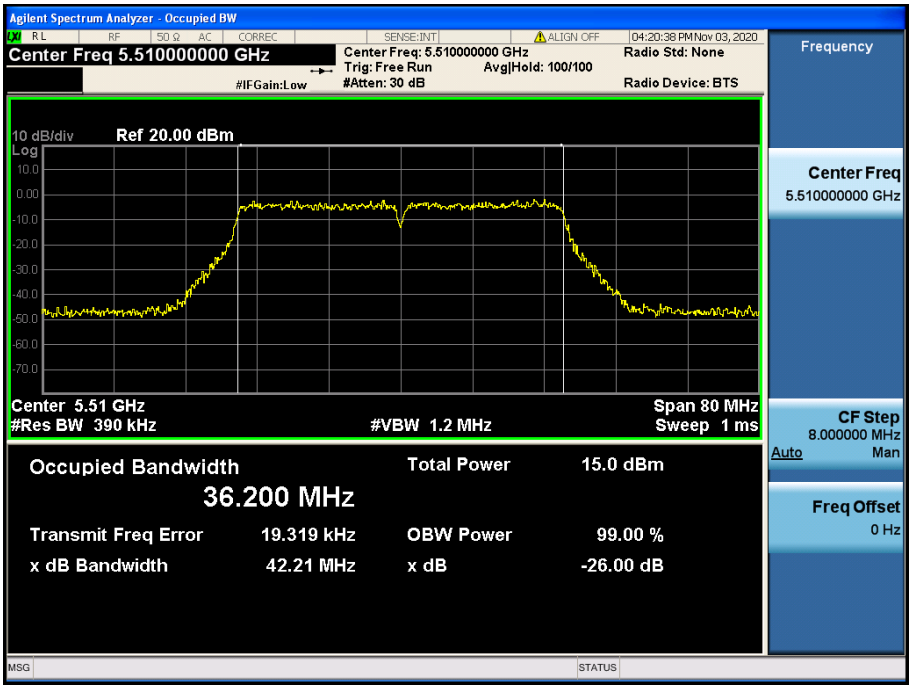
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.62



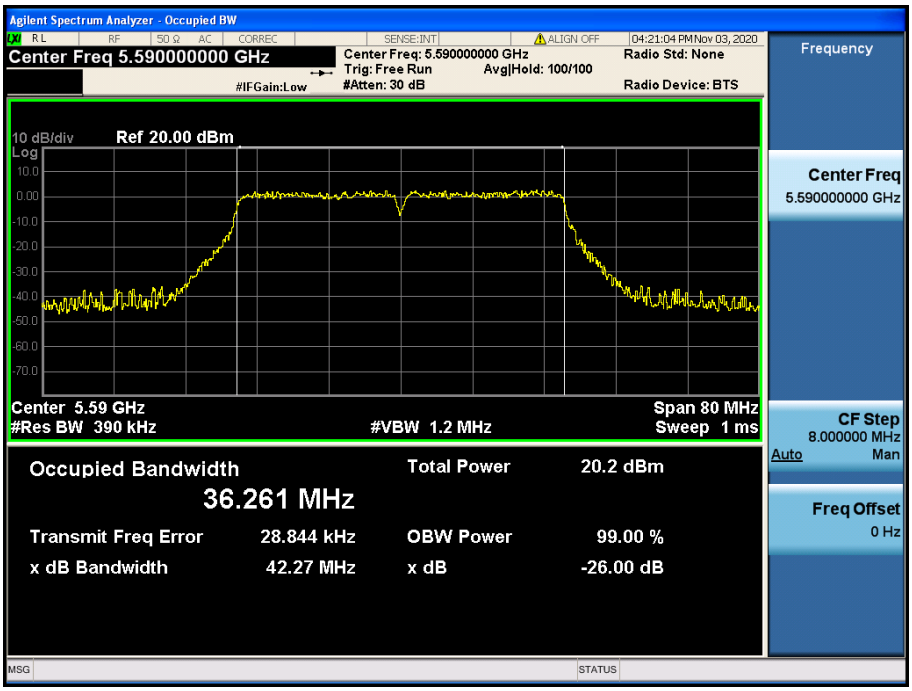
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.102



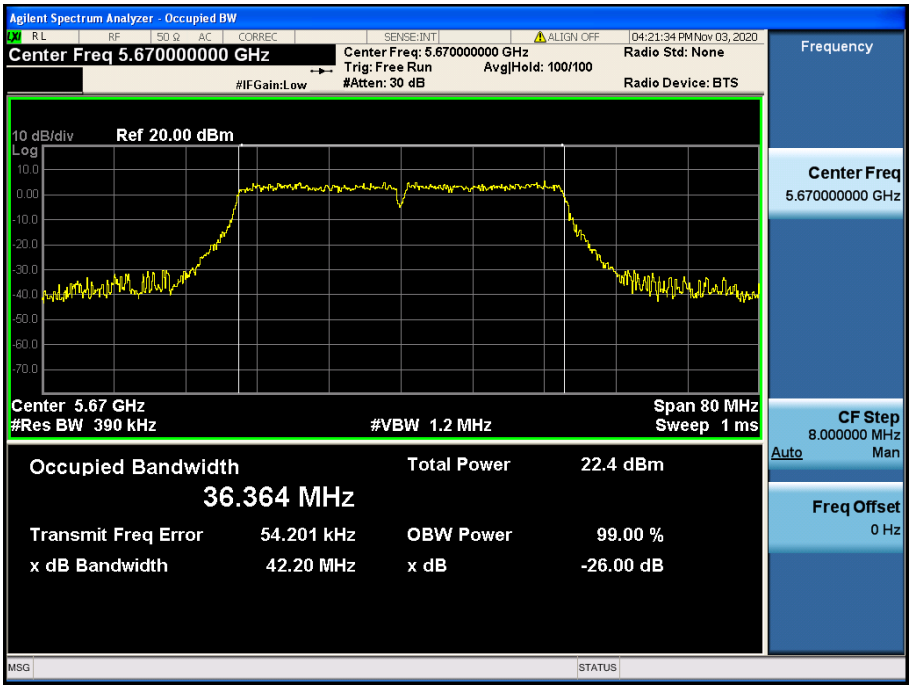
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.118



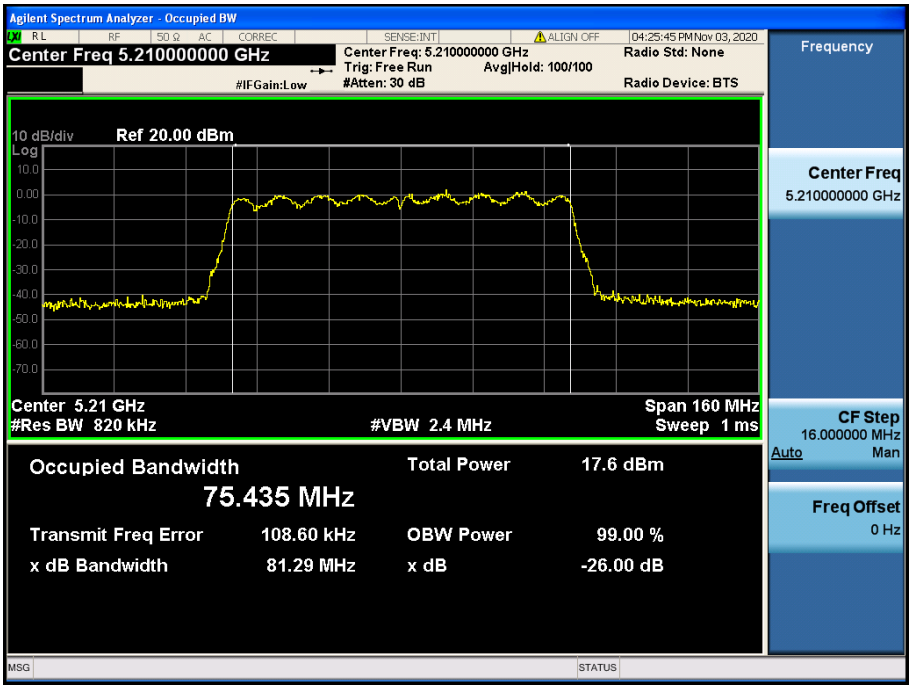
26 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.134



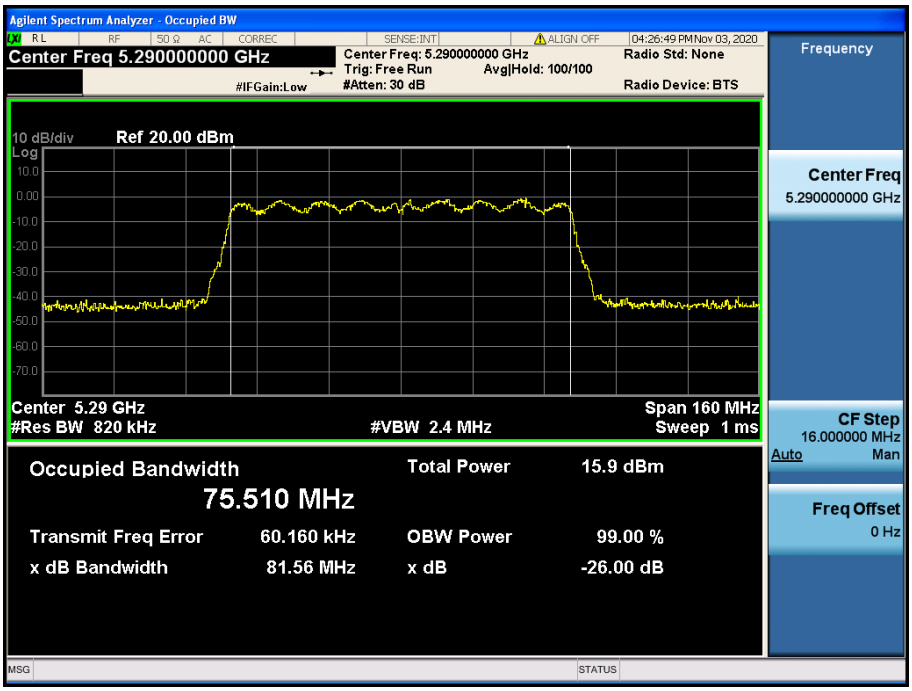
26 dB Bandwidth

Test Mode: TM 4 & ANT 1 & Ch.42



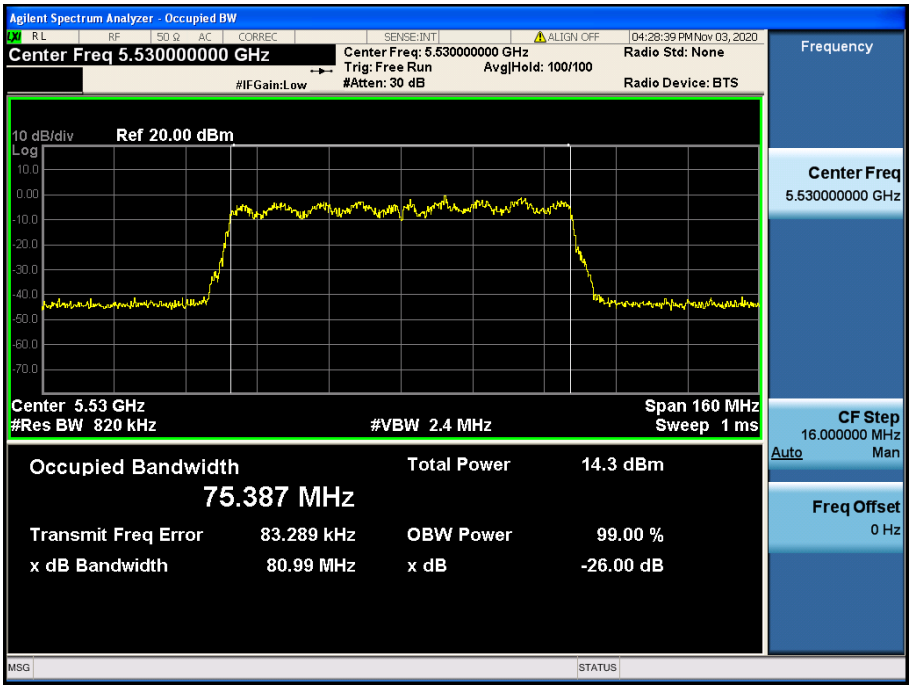
26 dB Bandwidth

Test Mode: TM 4 & ANT 1 & Ch.58



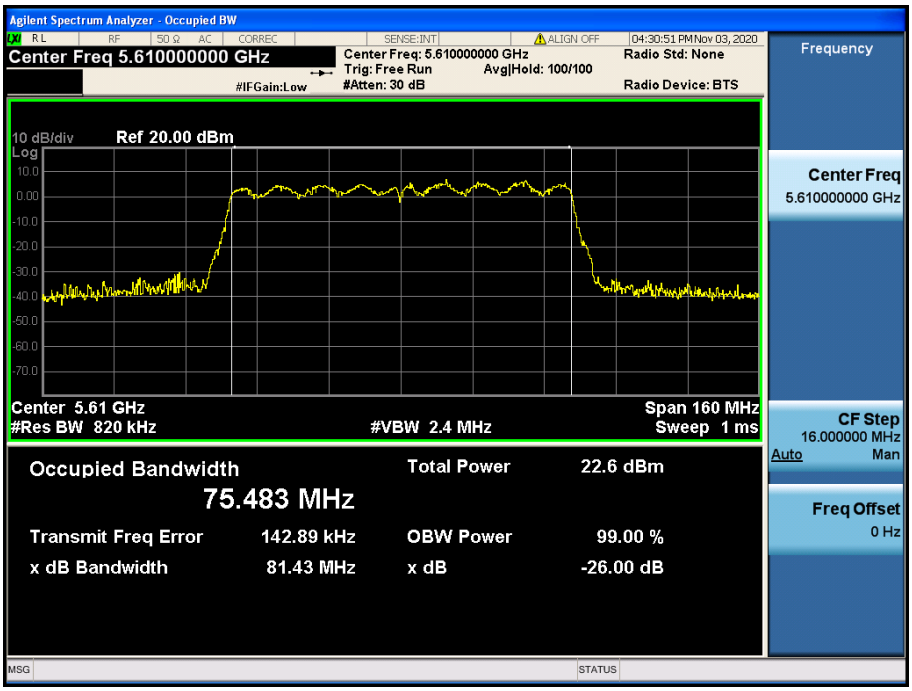
26 dB Bandwidth

Test Mode: TM 4 & ANT 1 & Ch.106



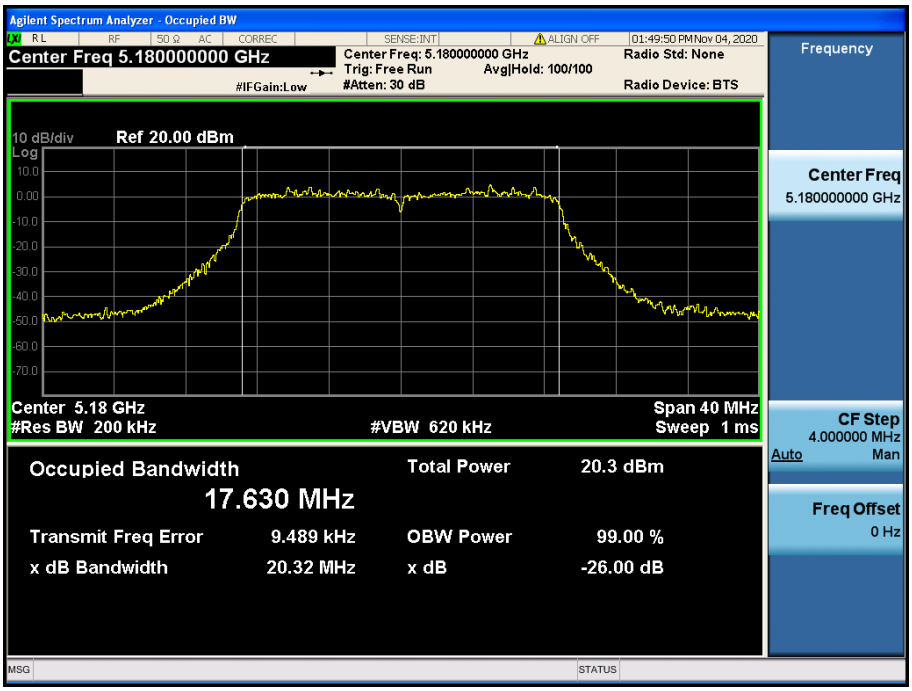
26 dB Bandwidth

Test Mode: TM 4 & ANT 1 & Ch.122



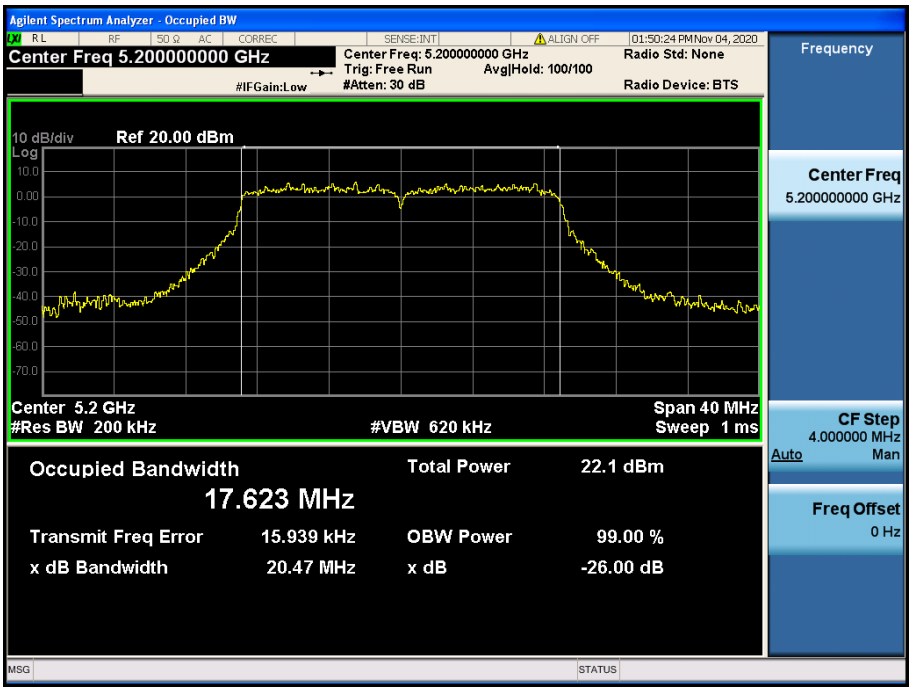
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.36



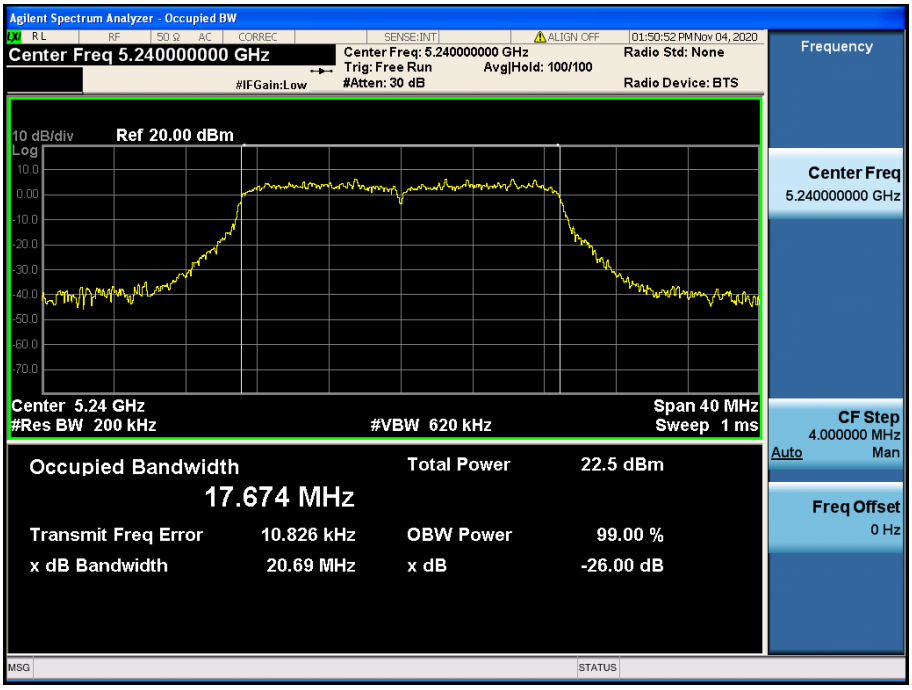
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.40



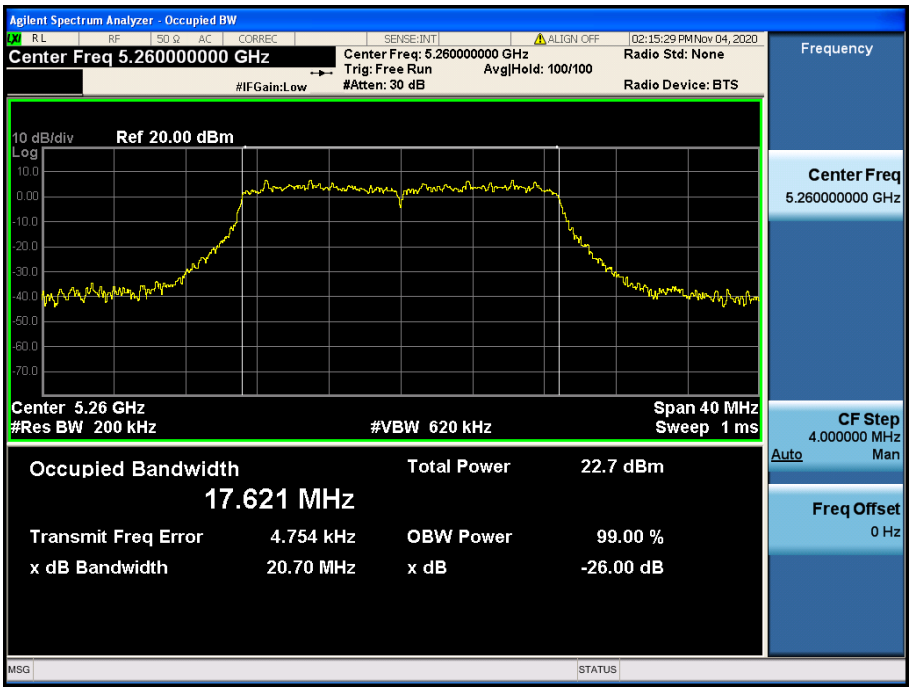
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.48



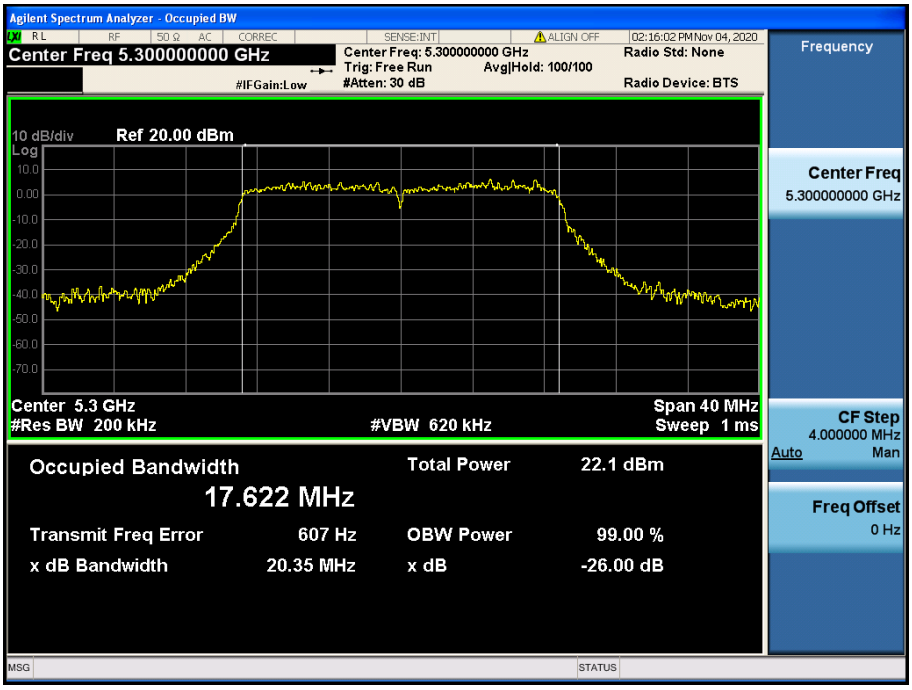
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.52



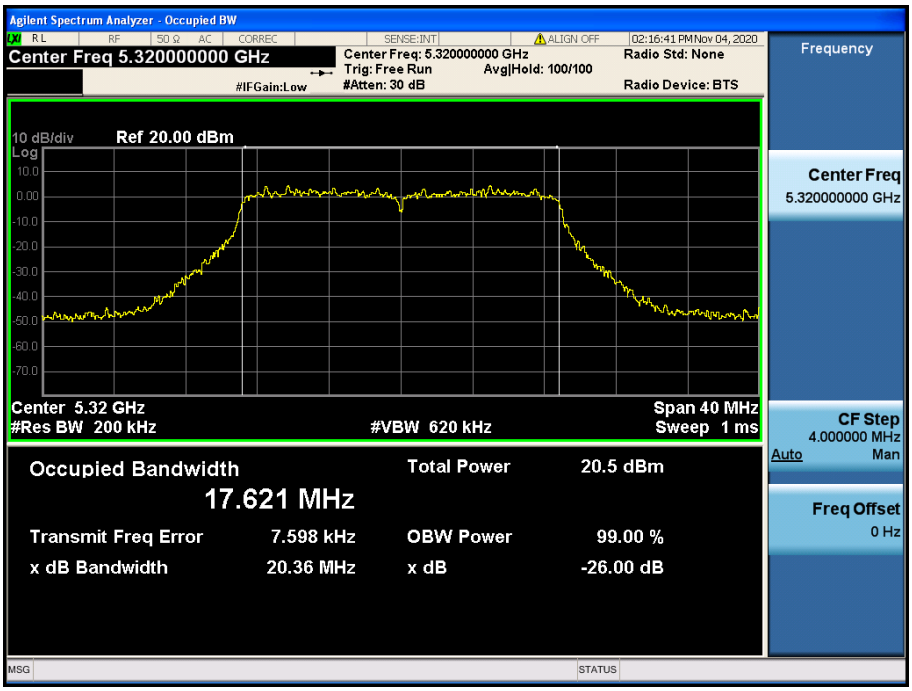
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.60



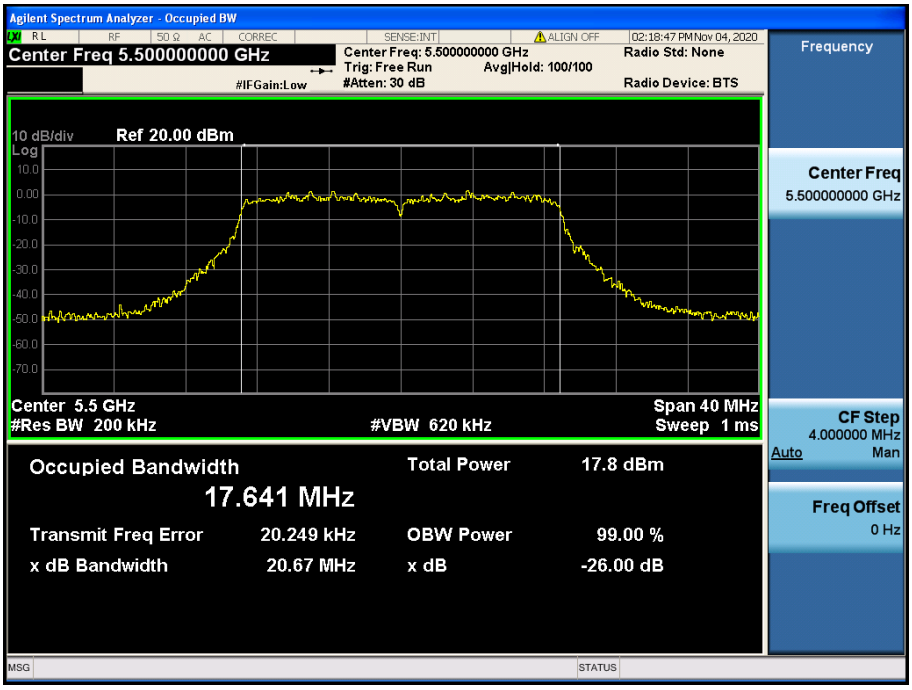
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.64



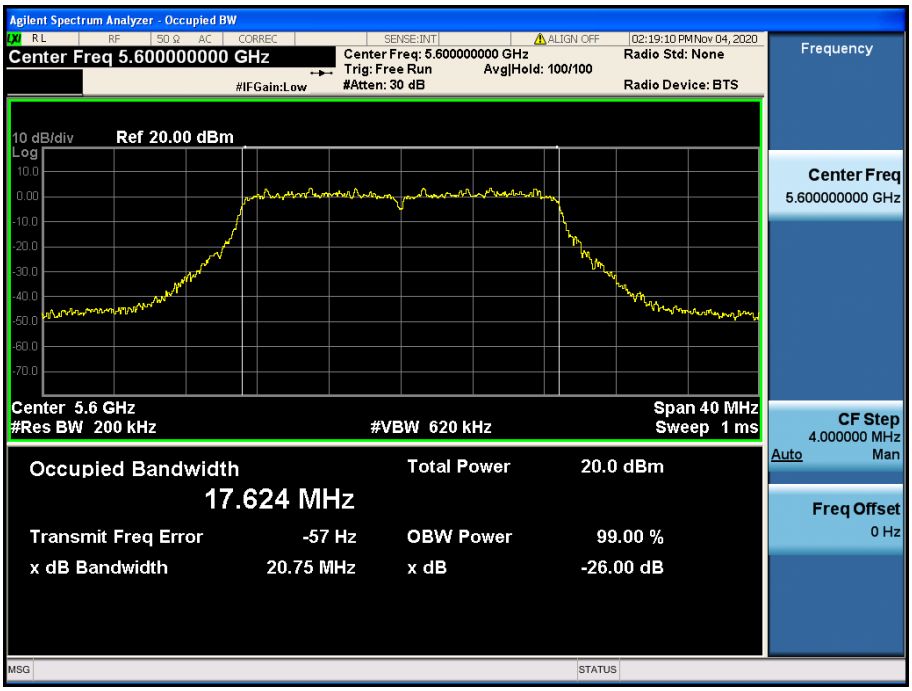
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.100



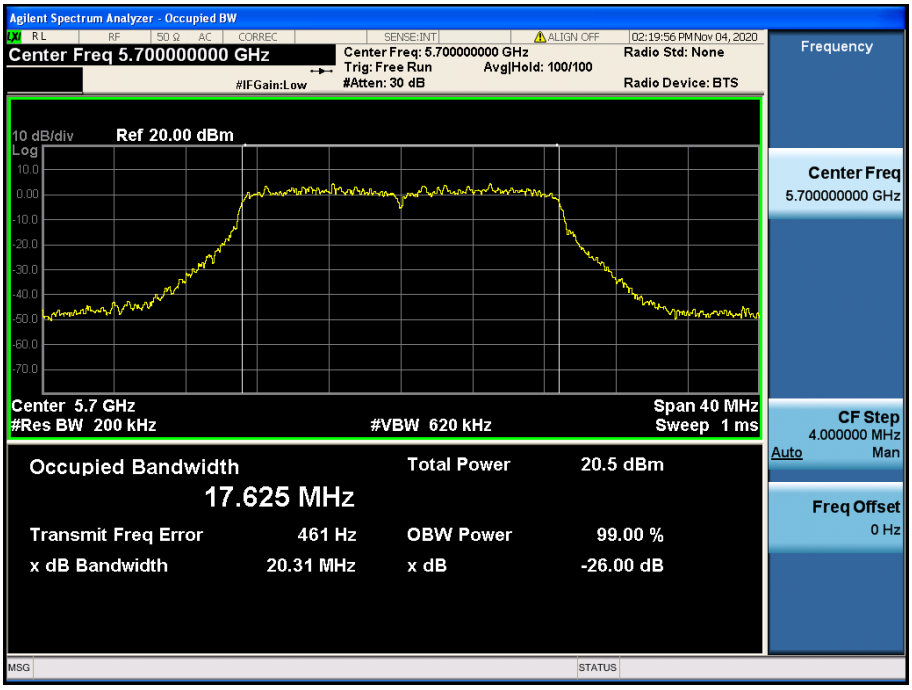
26 dB Bandwidth

Test Mode: TM 5 & ANT 1 & Ch.120

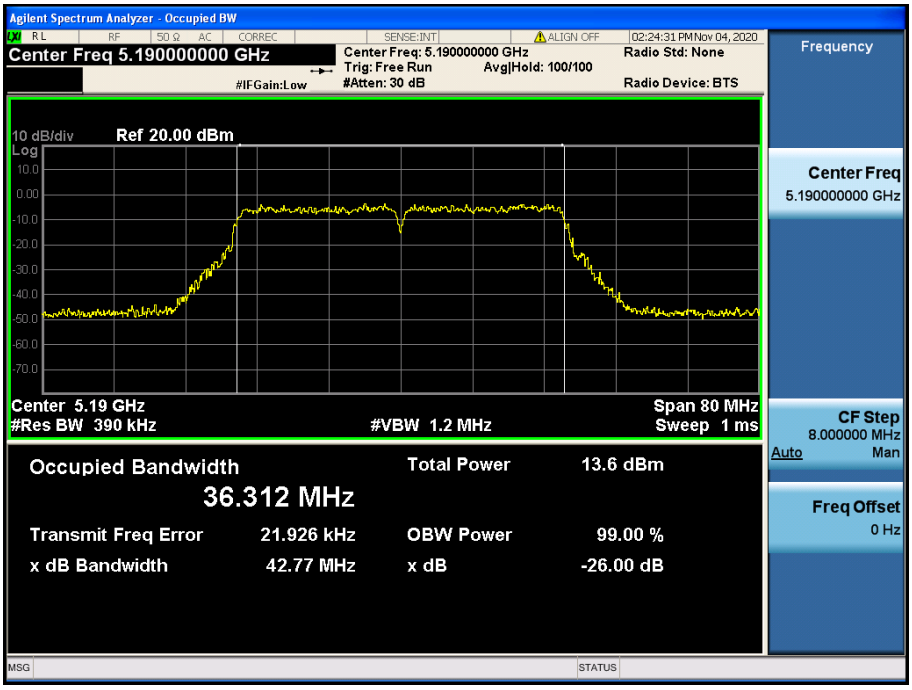


26 dB Bandwidth

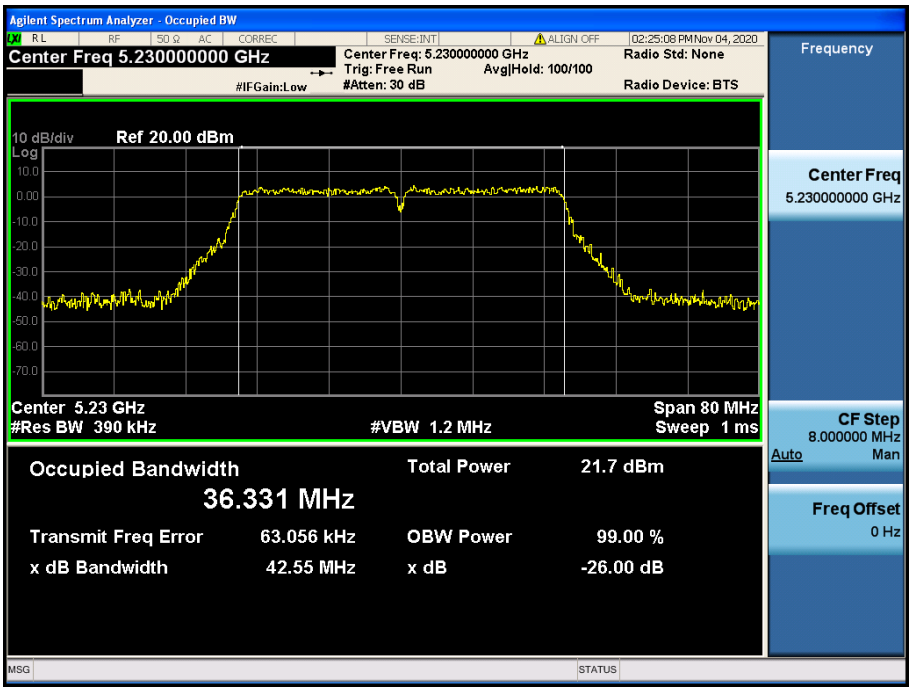
Test Mode: TM 5 & ANT 1 & Ch.140



26 dB Bandwidth Test Mode: TM 6 & ANT 1 & Ch.38

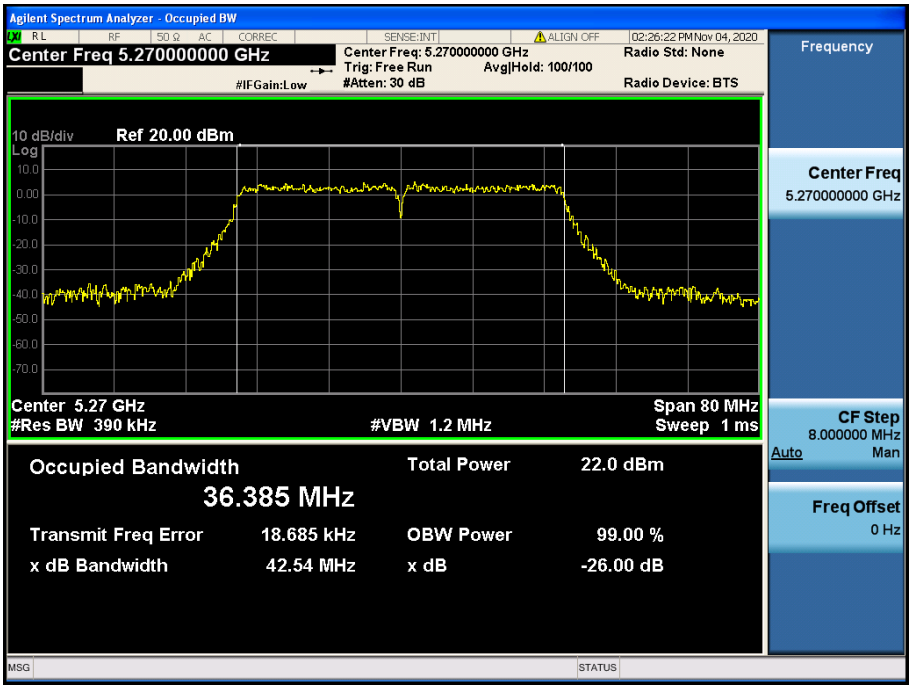


26 dB Bandwidth Test Mode: TM 6 & ANT 1 & Ch.46



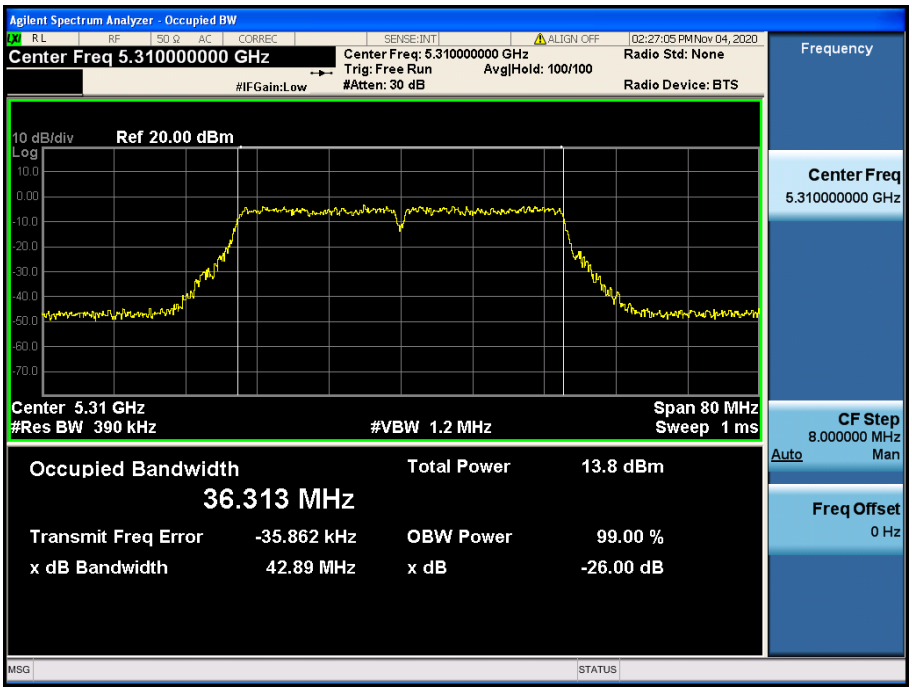
26 dB Bandwidth

Test Mode: TM 6 & ANT 1 & Ch.54



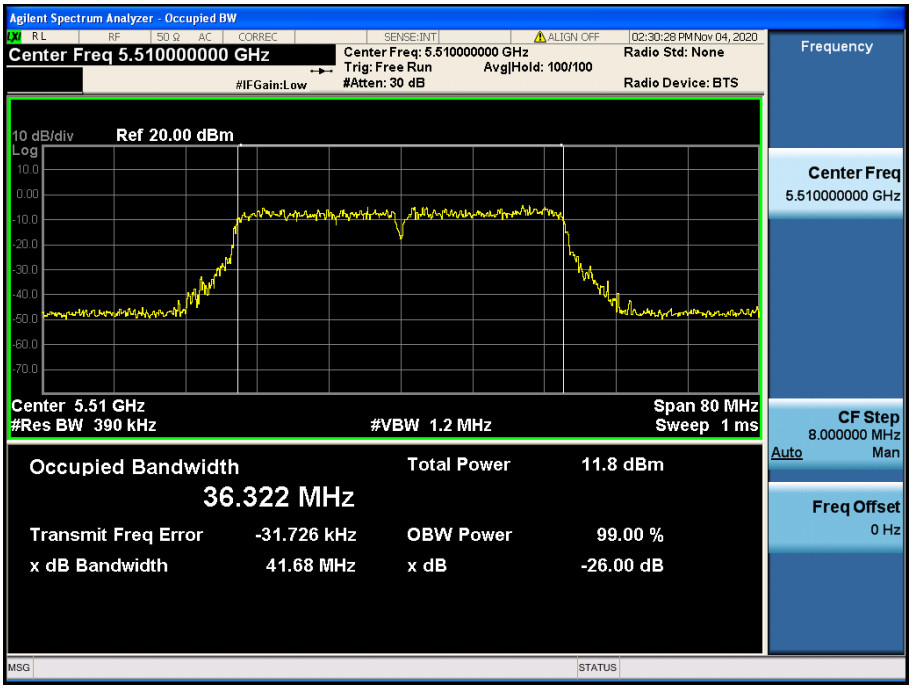
26 dB Bandwidth

Test Mode: TM 6 & ANT 1 & Ch.62



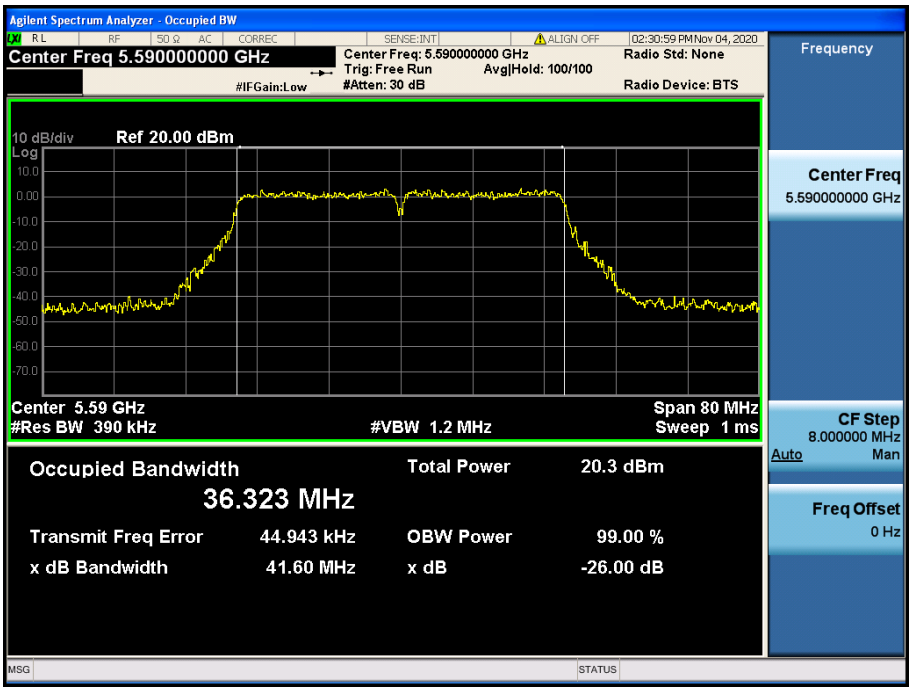
26 dB Bandwidth

Test Mode: TM 6 & ANT 1 & Ch.102



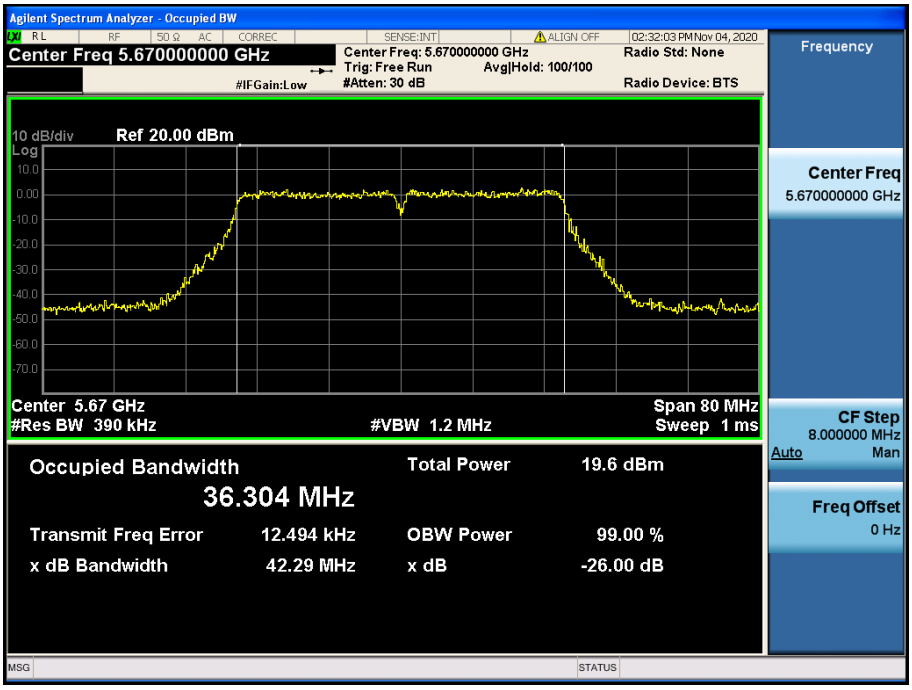
26 dB Bandwidth

Test Mode: TM 6 & ANT 1 & Ch.118



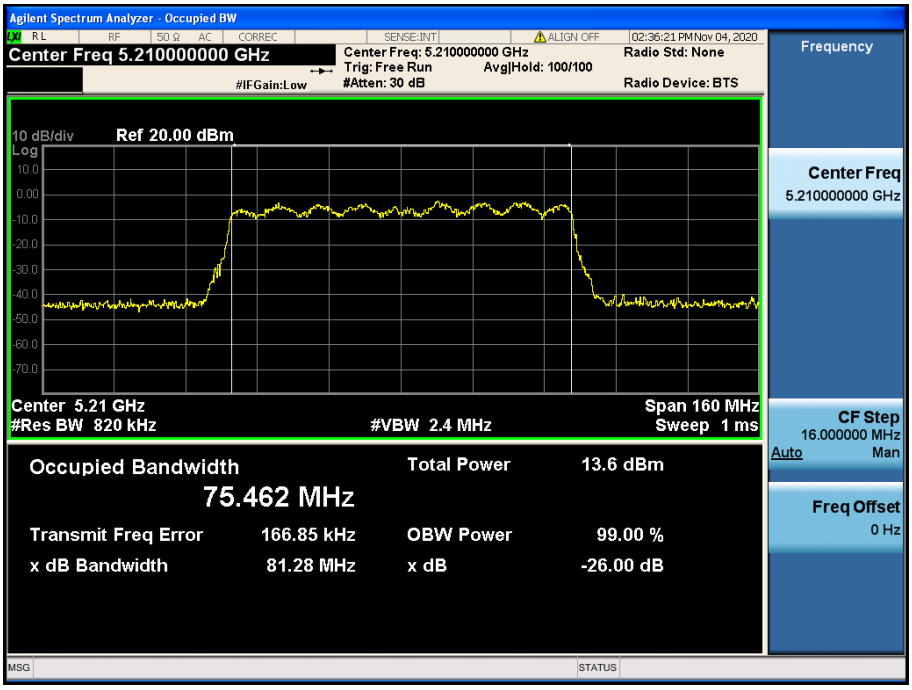
26 dB Bandwidth

Test Mode: TM 6 & ANT 1 & Ch.134



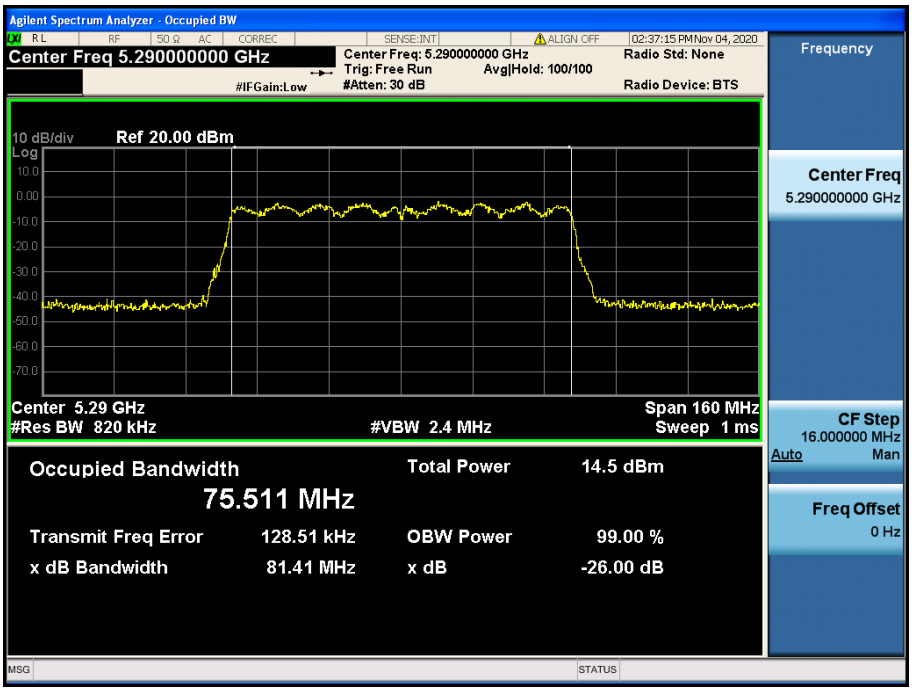
26 dB Bandwidth

Test Mode: TM 7 & ANT 1 & Ch.42



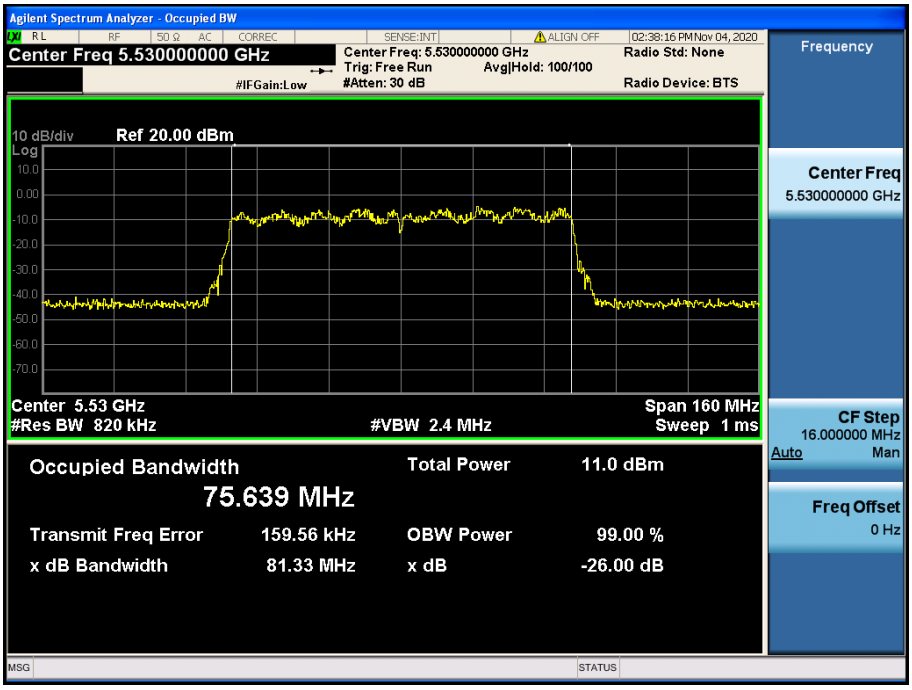
26 dB Bandwidth

Test Mode: TM 7 & ANT 1 & Ch.58



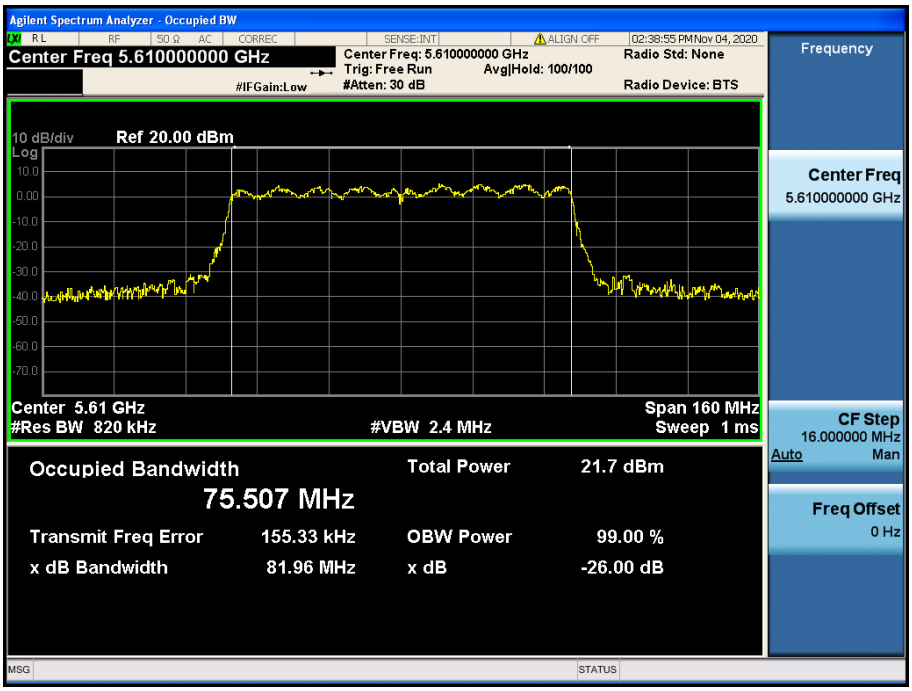
26 dB Bandwidth

Test Mode: TM 7 & ANT 1 & Ch.106



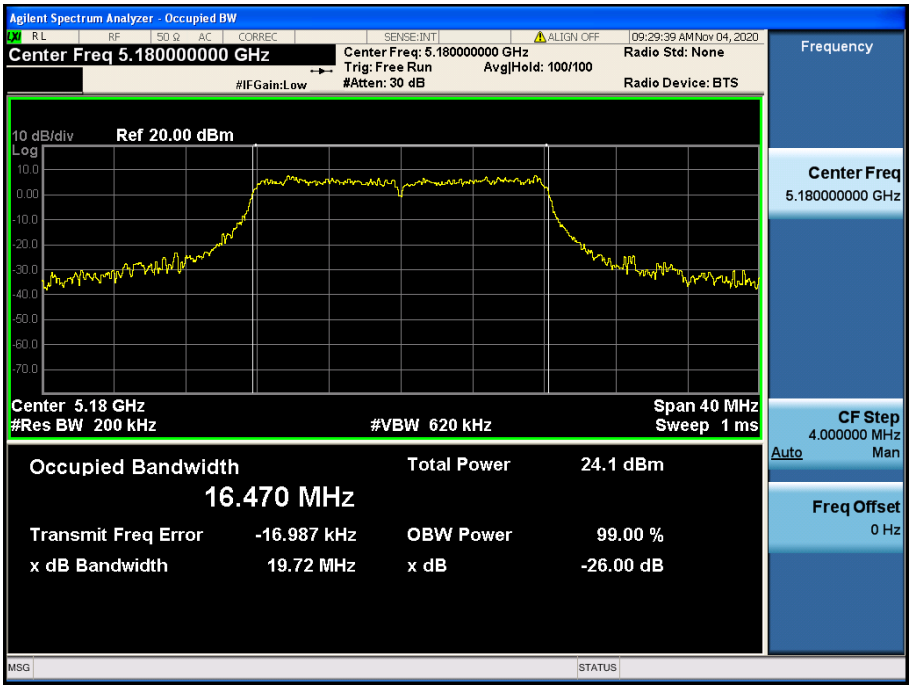
26 dB Bandwidth

Test Mode: TM 7 & ANT 1 & Ch.122



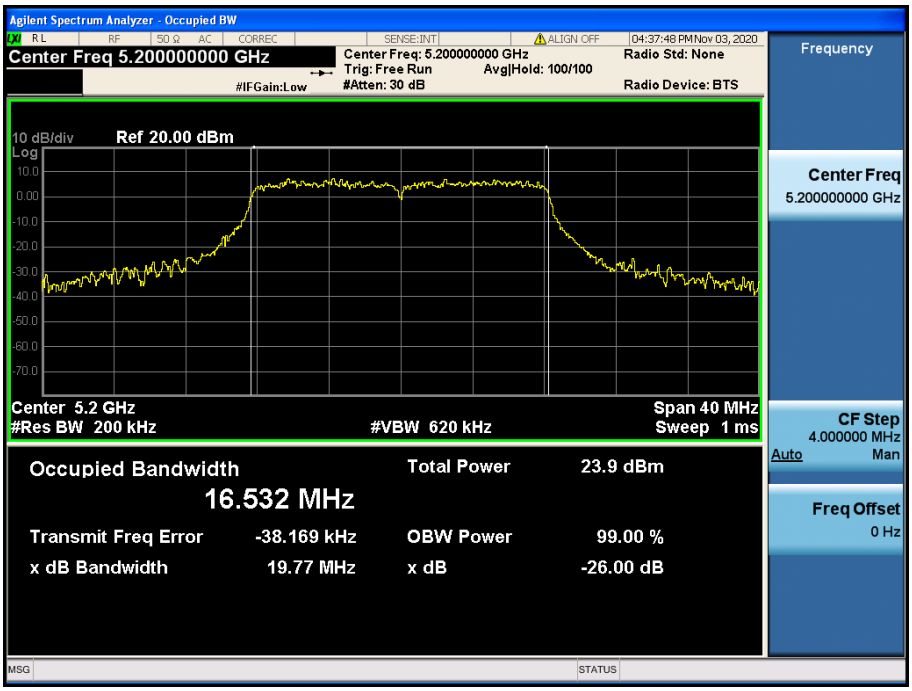
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.36



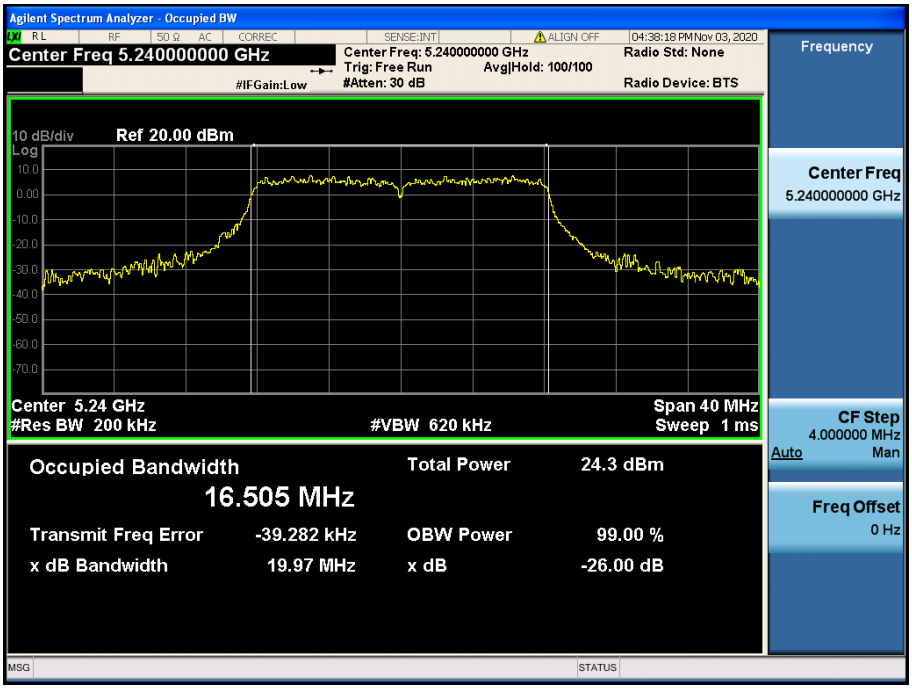
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.40



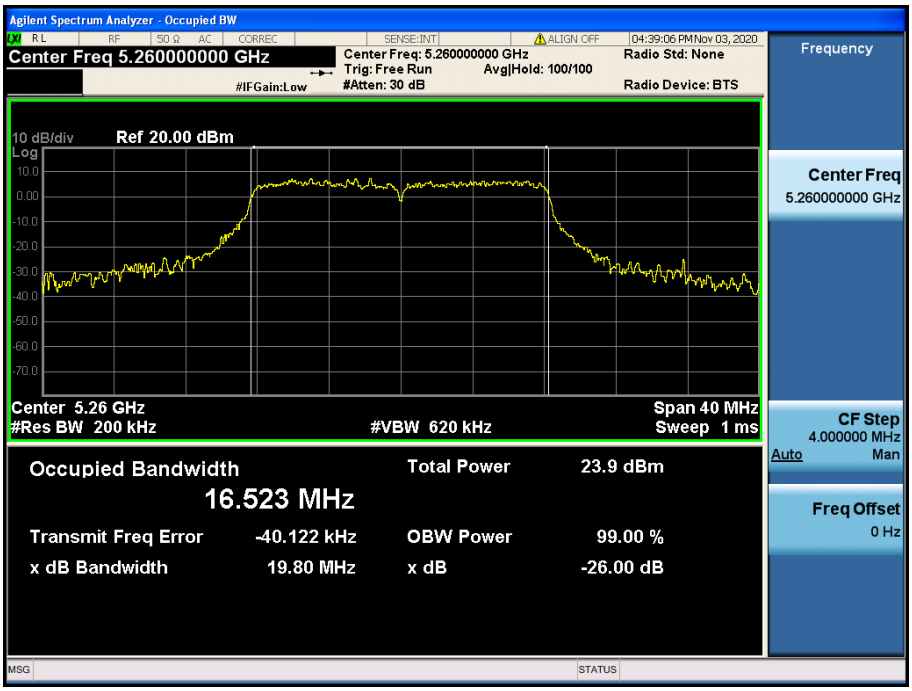
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.48



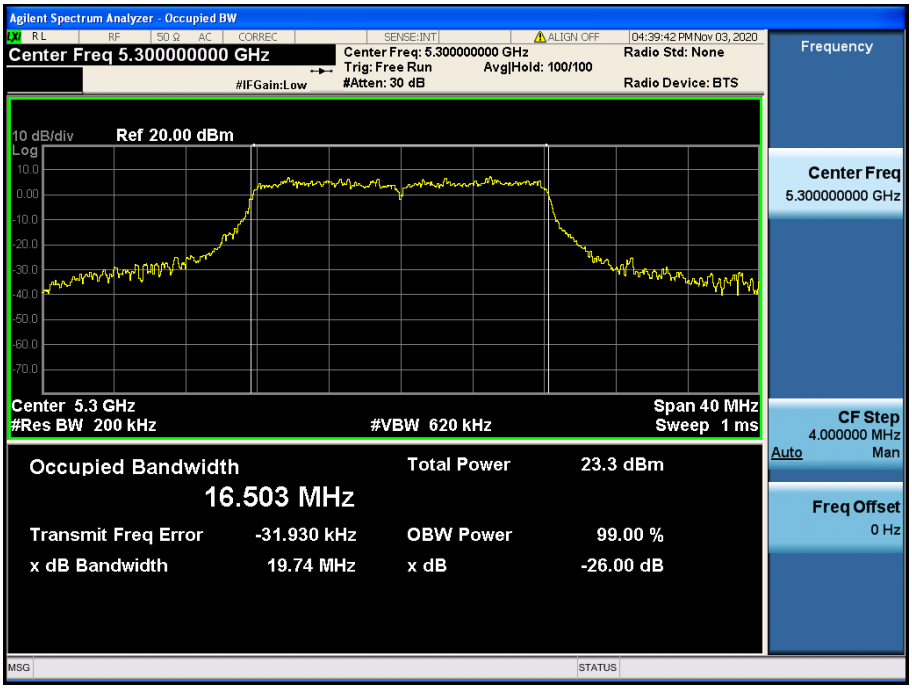
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.52



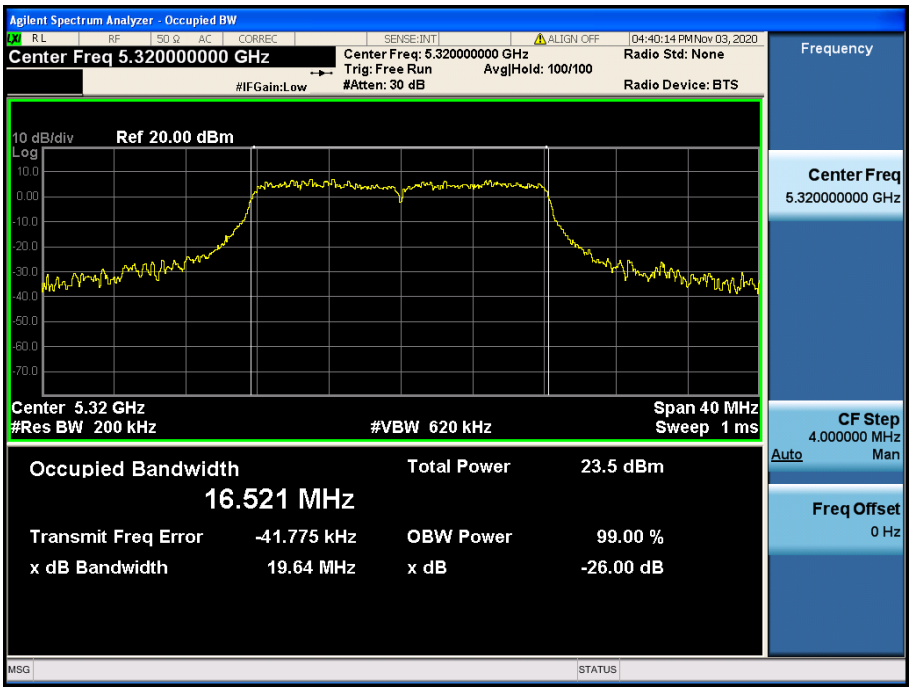
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.60



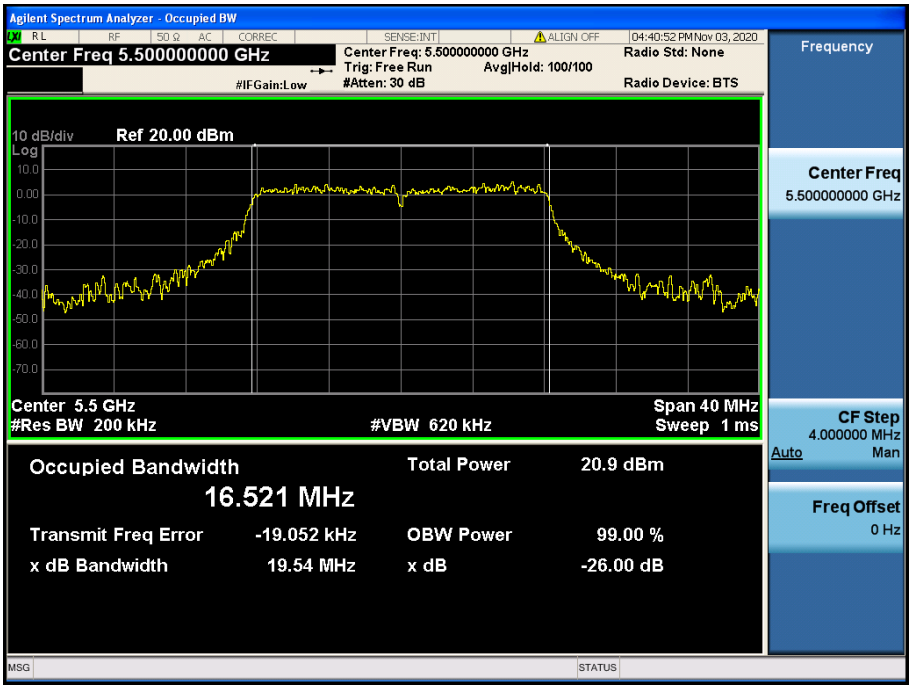
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.64



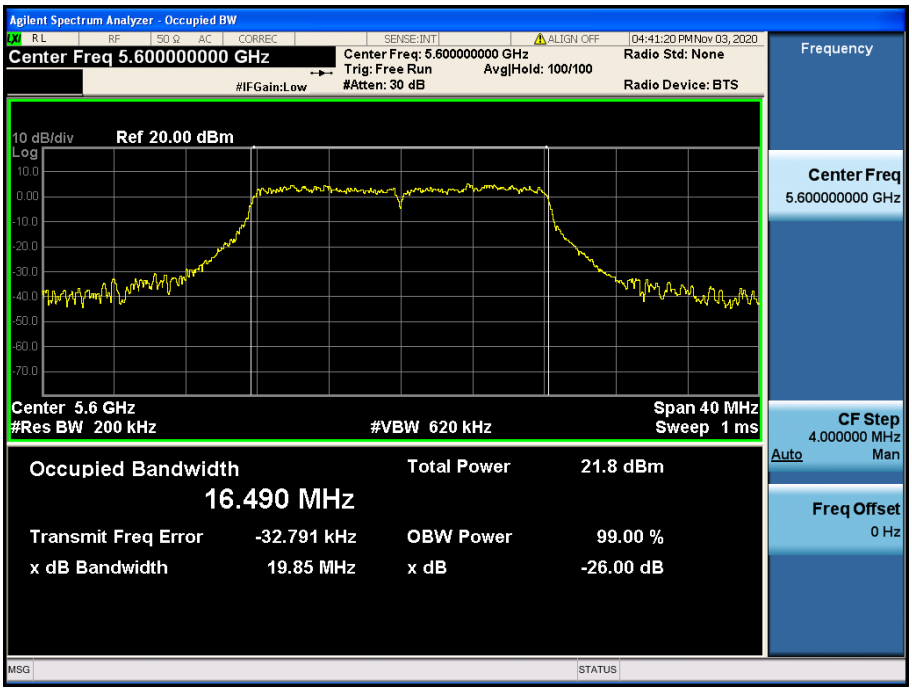
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.100



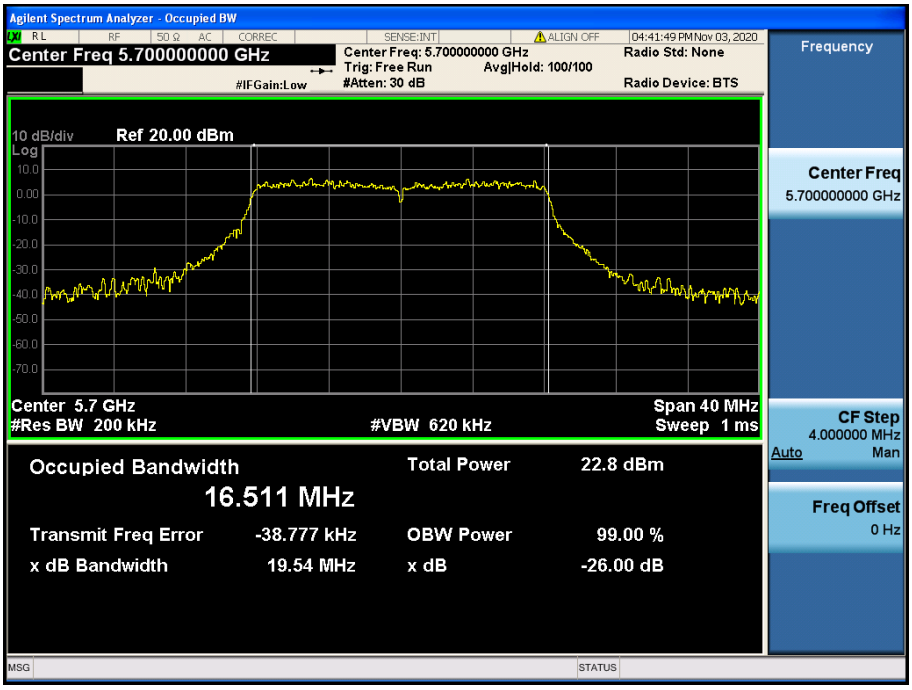
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.120



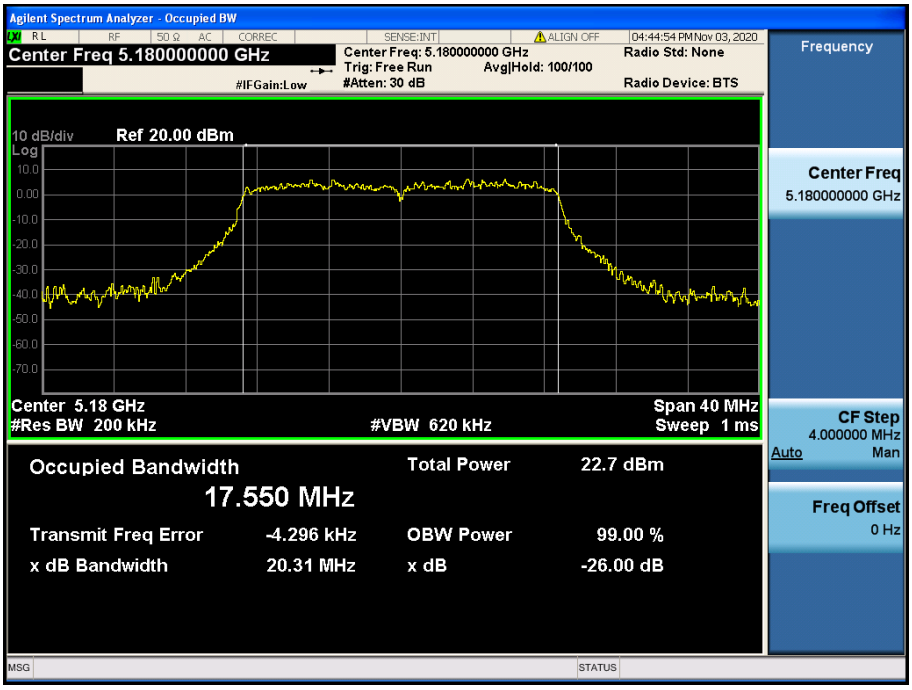
26 dB Bandwidth

Test Mode: TM 1 & ANT 2 & Ch.140



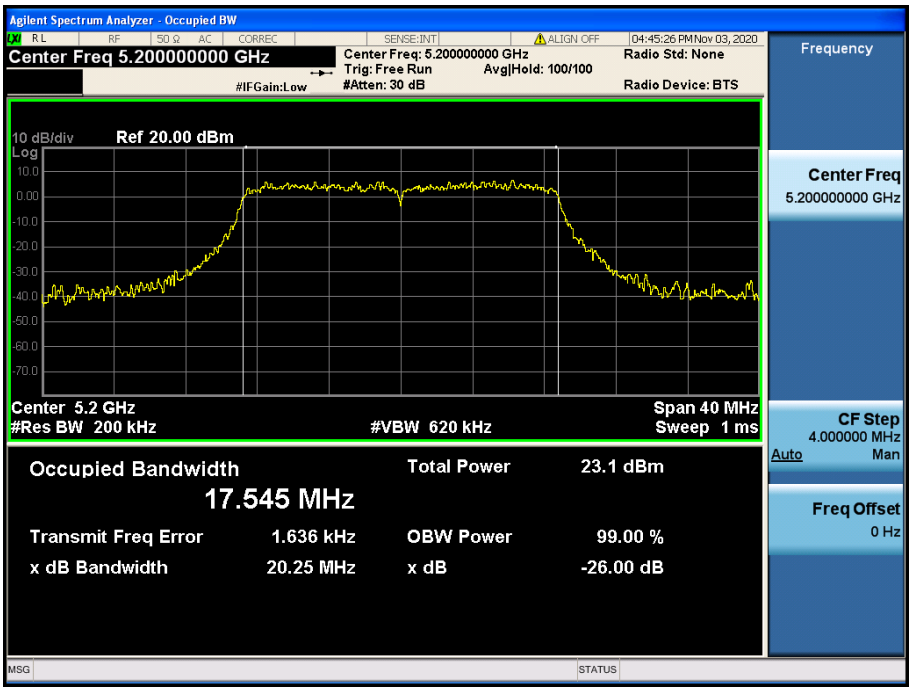
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.36



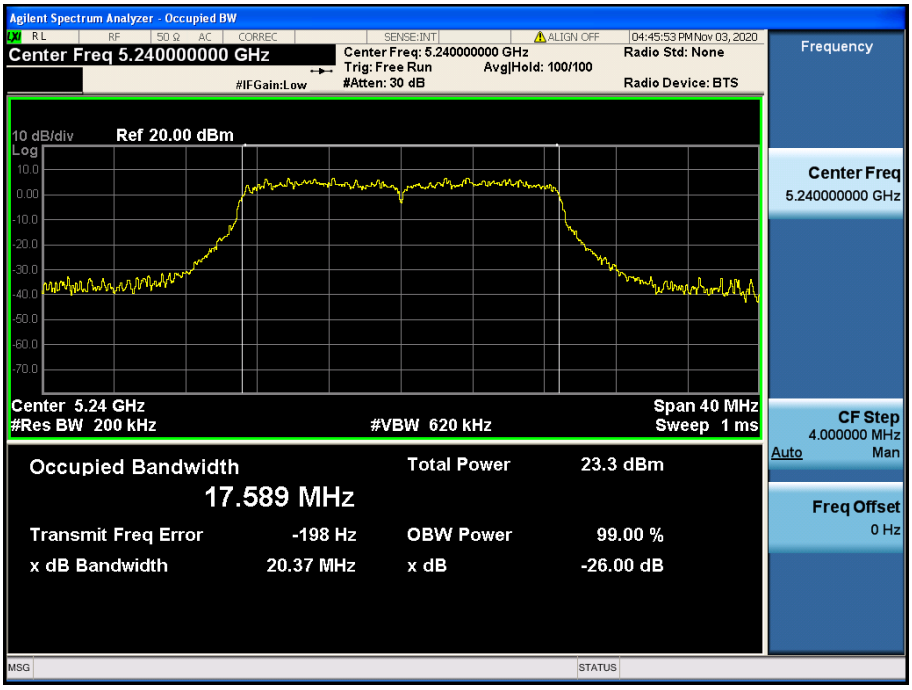
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.40



26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.48

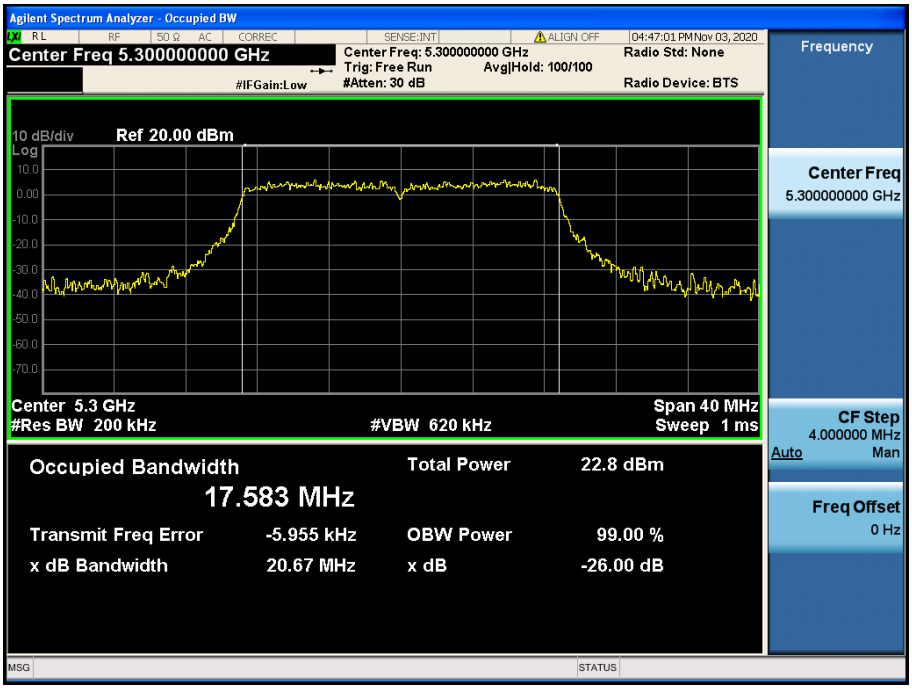


26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.52

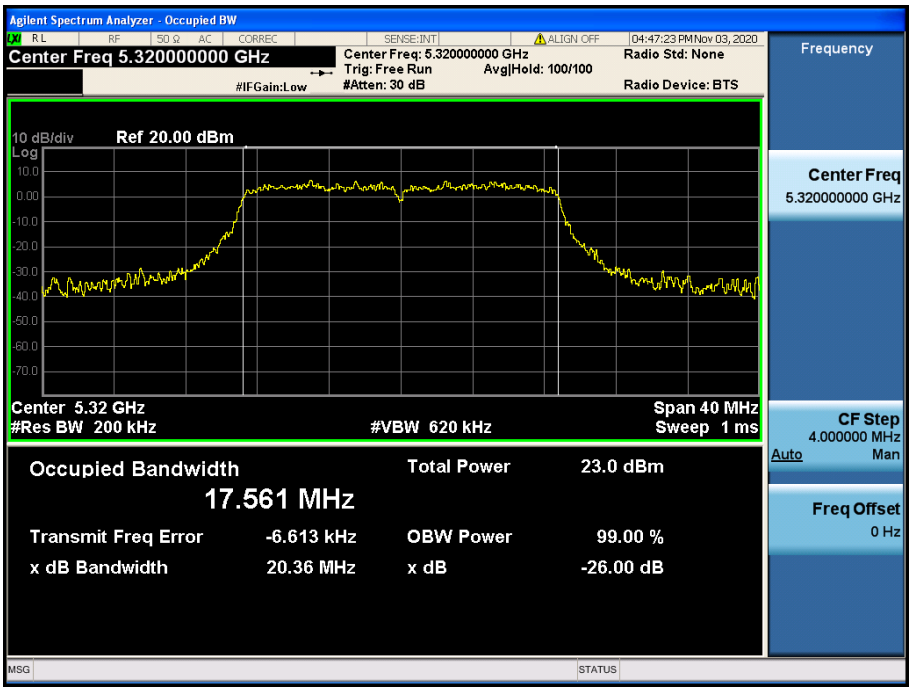
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.60



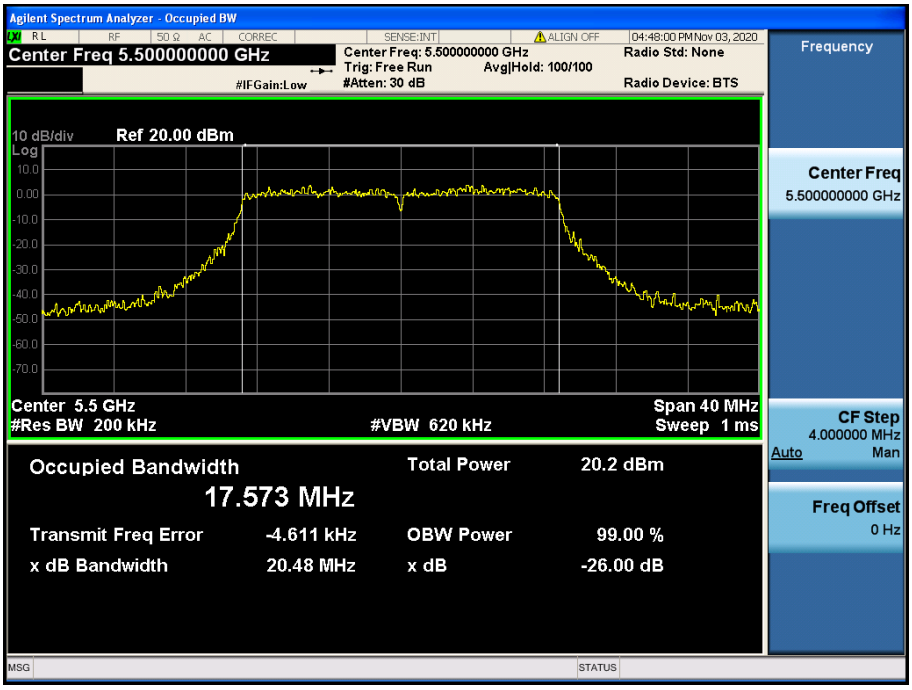
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.64



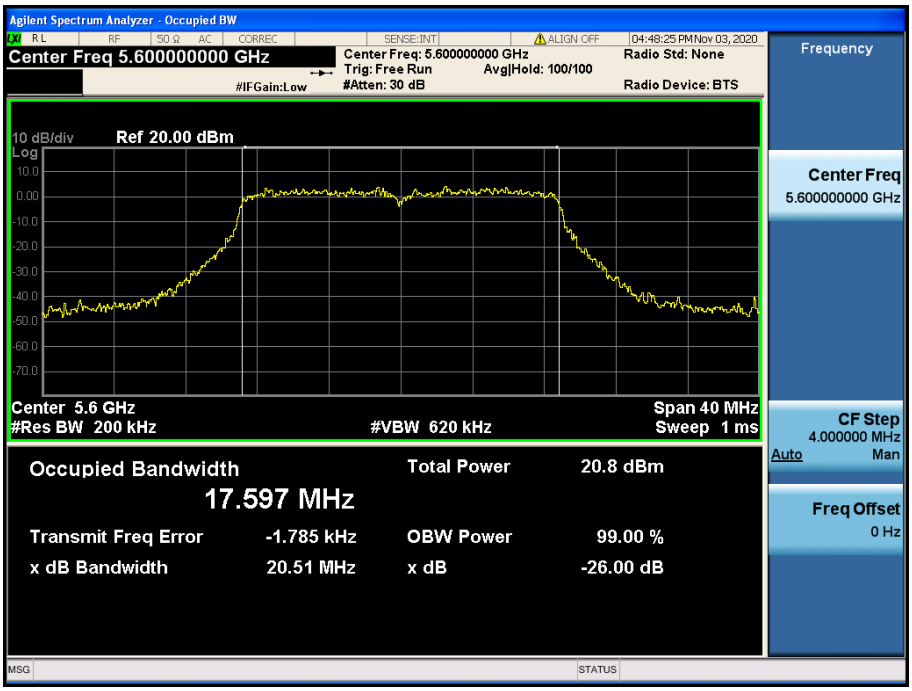
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.100



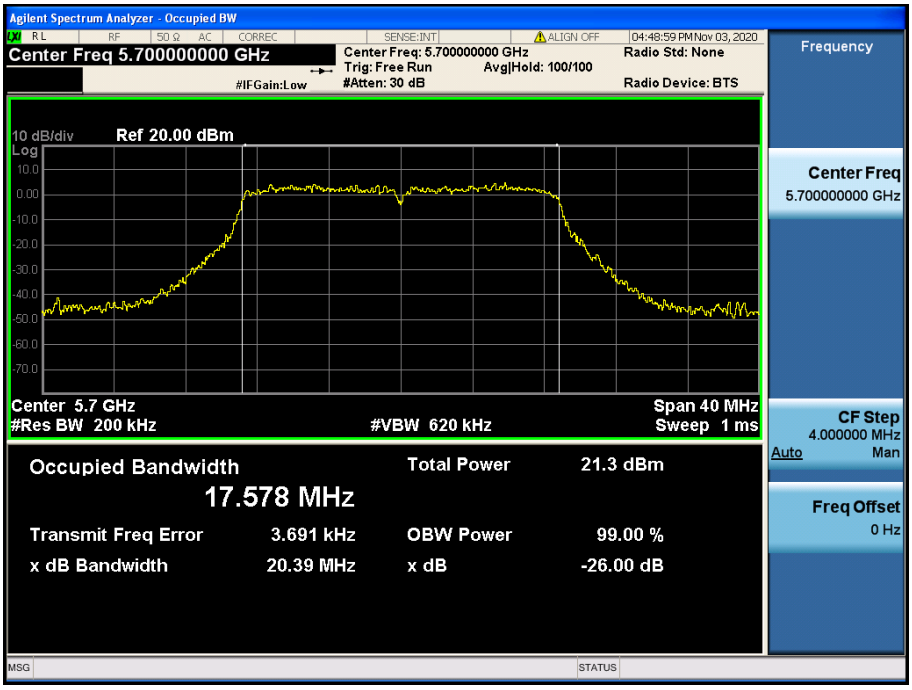
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.120



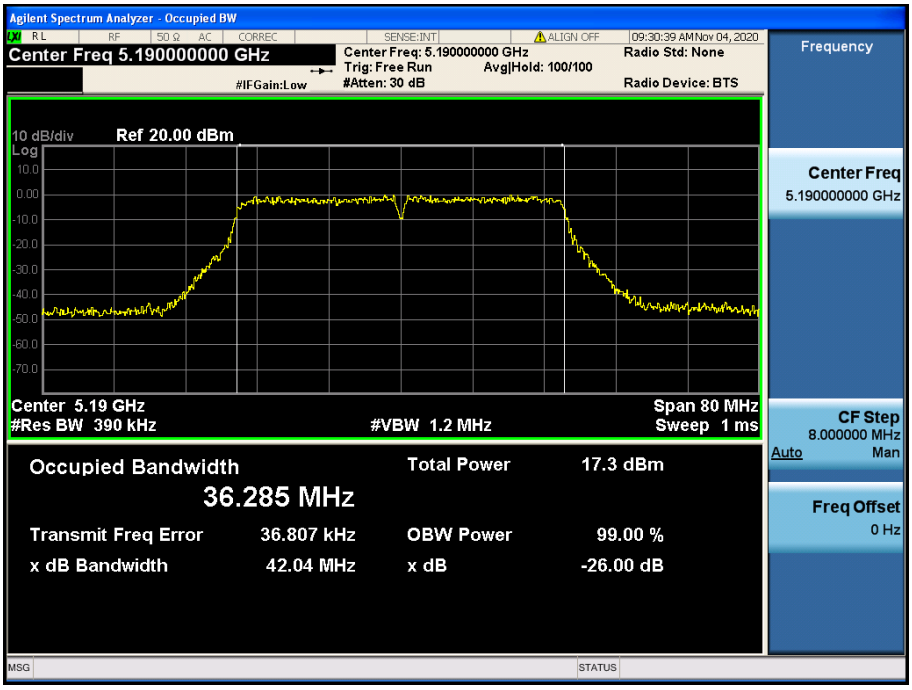
26 dB Bandwidth

Test Mode: TM 2 & ANT 2 & Ch.140



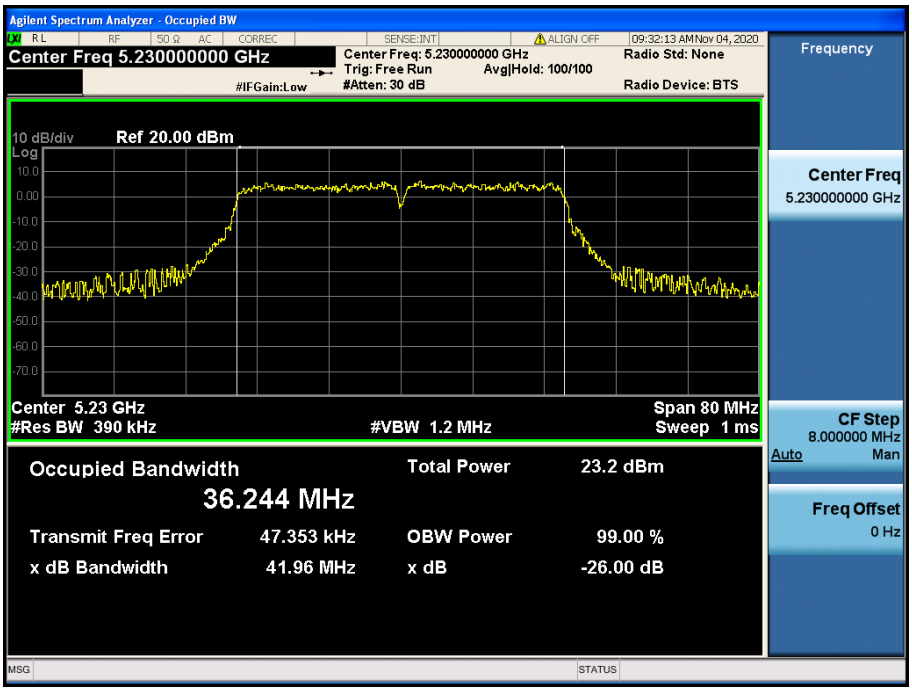
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.38



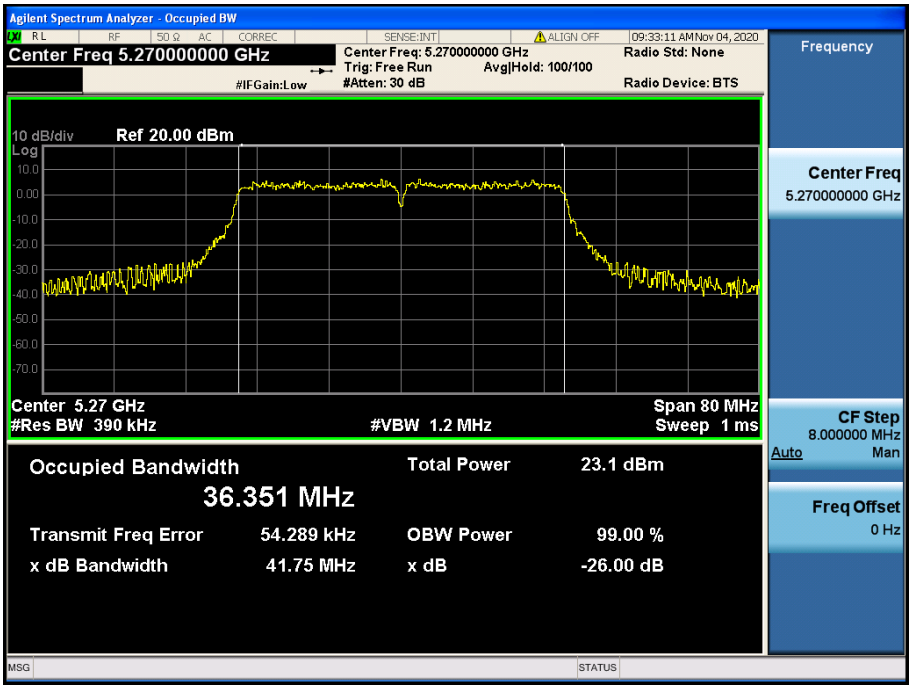
26 dB Bandwidth

Test Mode: : TM 3 & ANT 2 & Ch.46



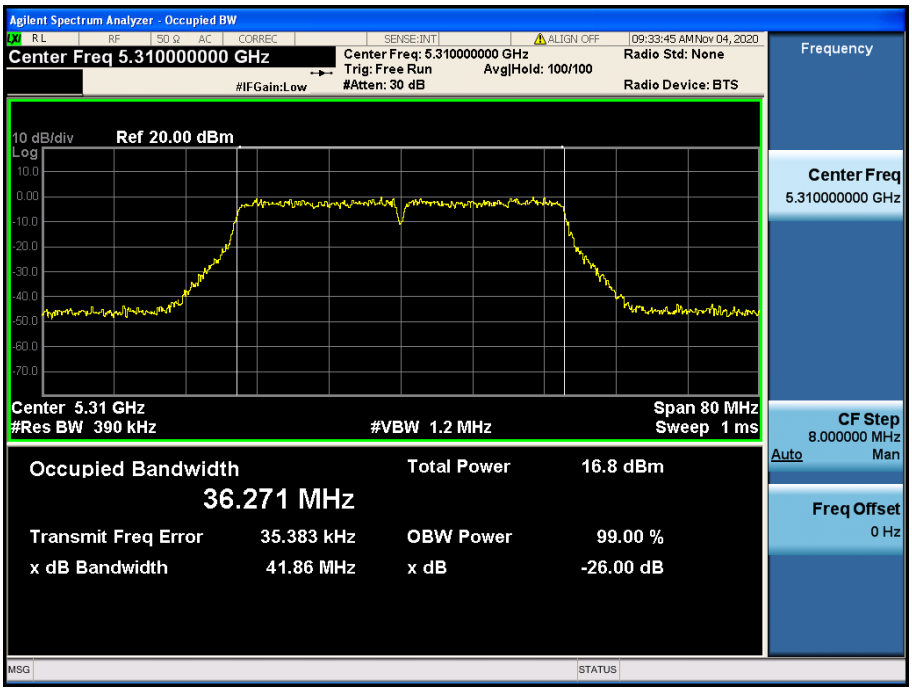
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.54



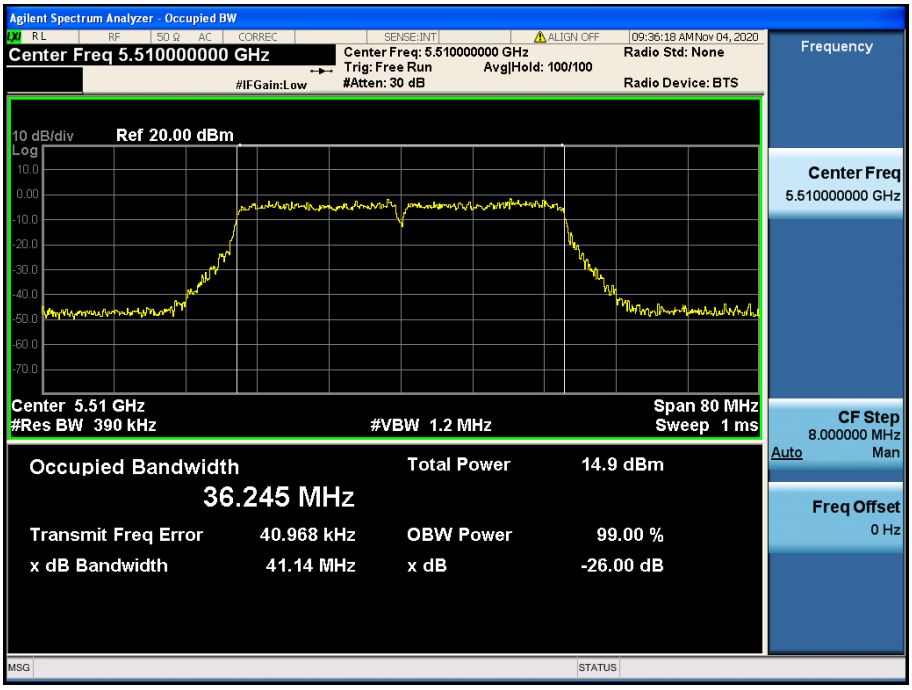
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.62



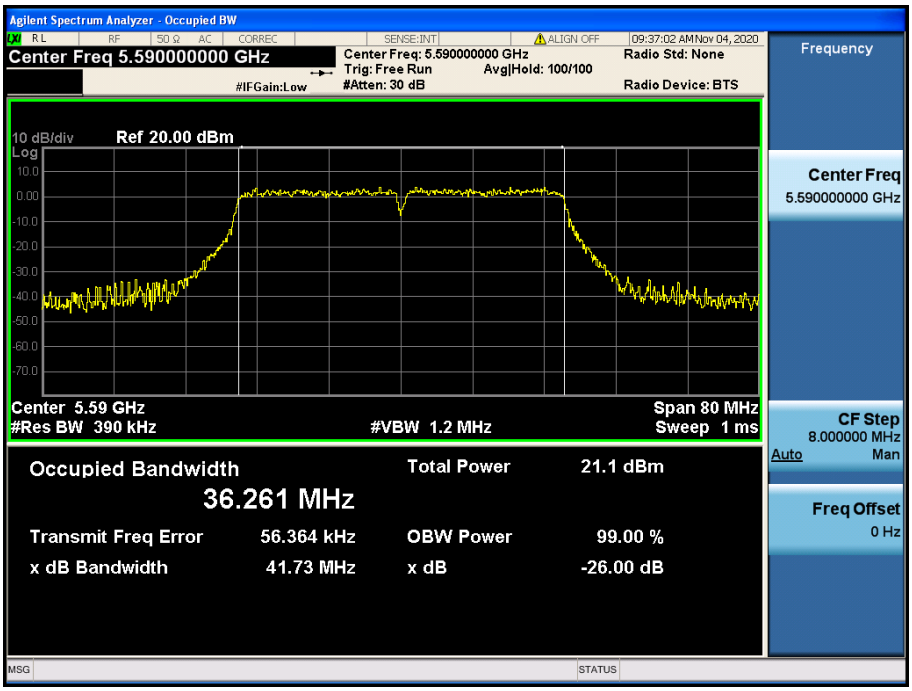
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.102



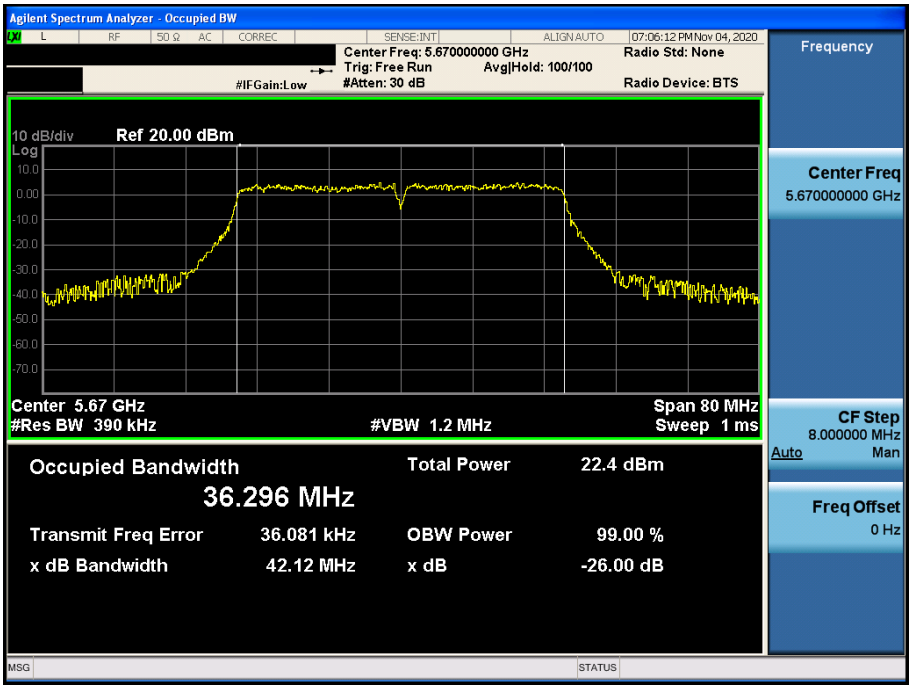
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.118



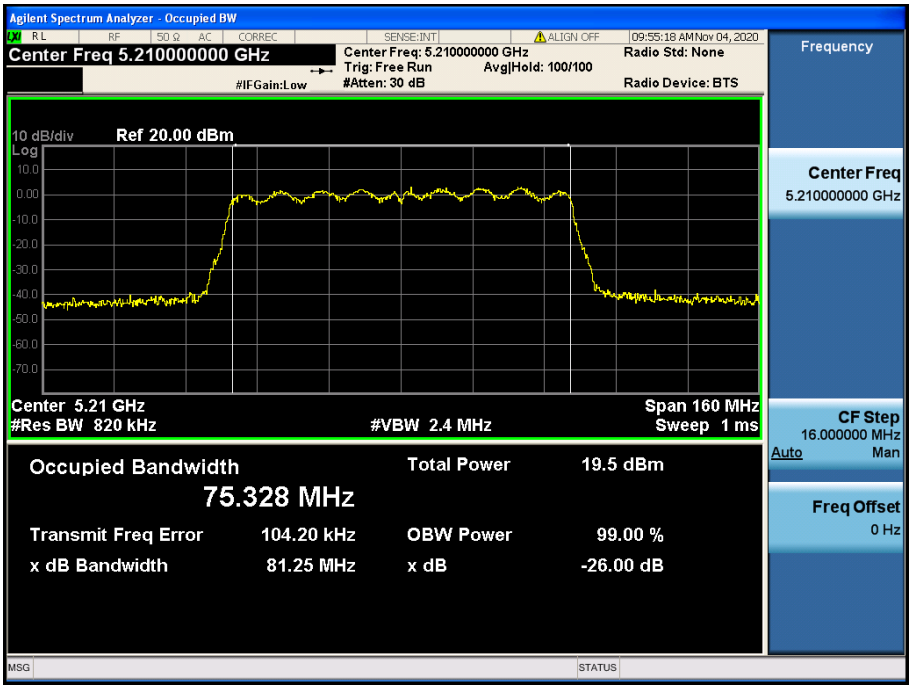
26 dB Bandwidth

Test Mode: TM 3 & ANT 2 & Ch.134



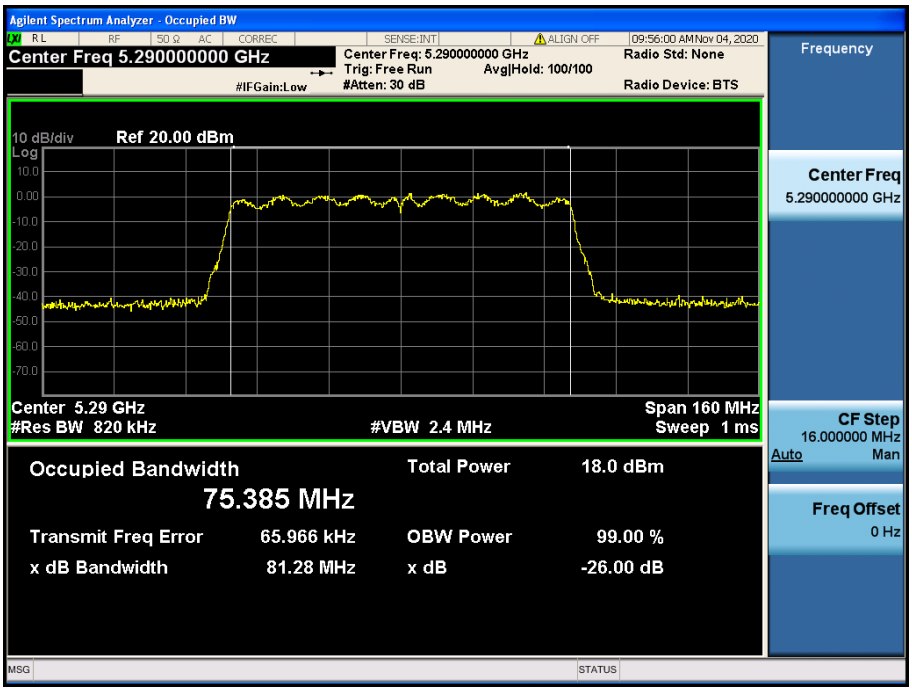
26 dB Bandwidth

Test Mode: TM 4 & ANT 2 & Ch.42



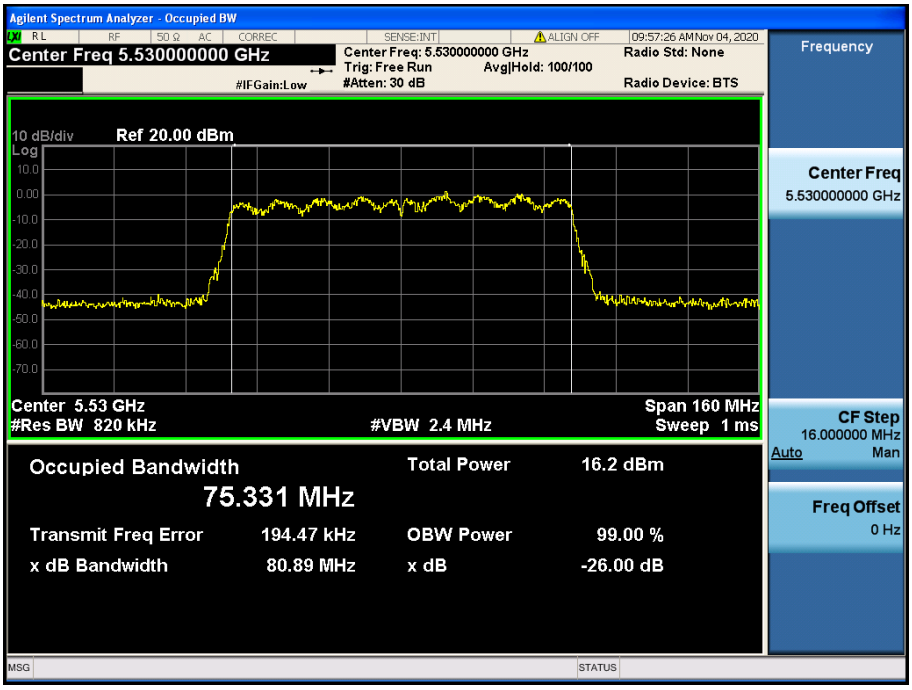
26 dB Bandwidth

Test Mode: TM 4 & ANT 2 & Ch.58



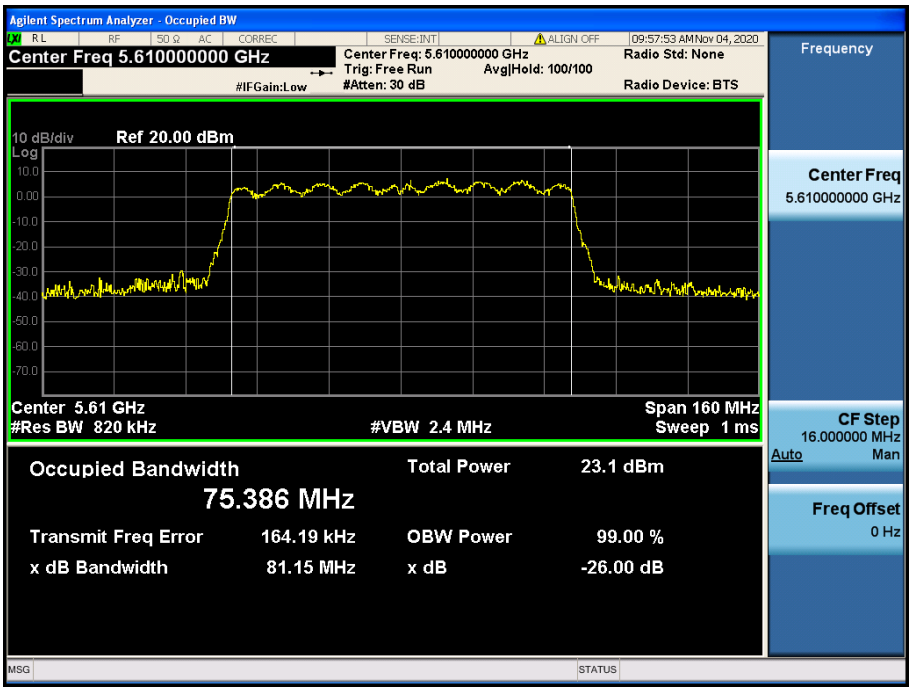
26 dB Bandwidth

Test Mode: TM 4 & ANT 2 & Ch.106



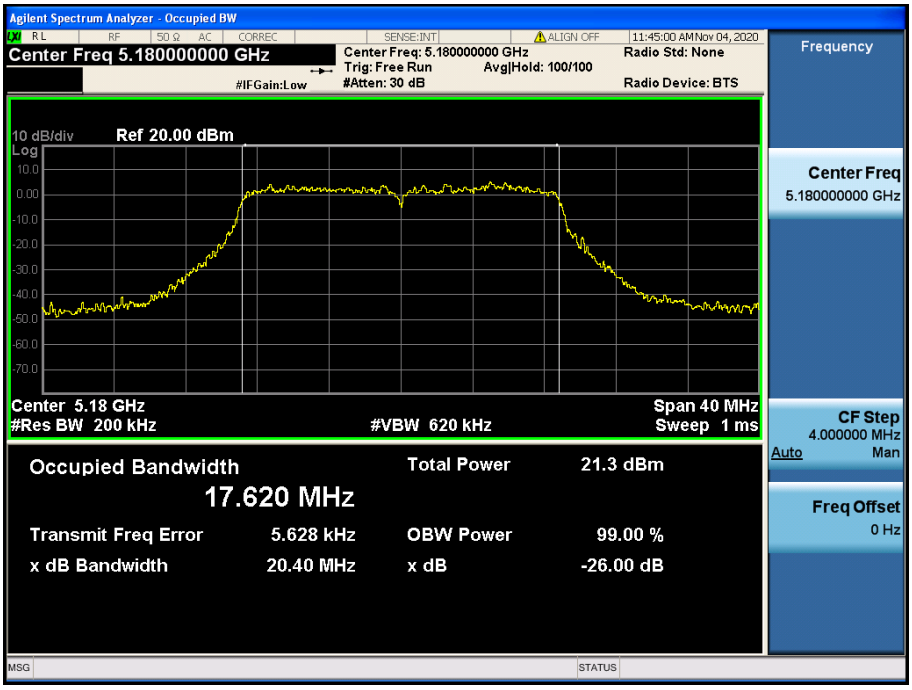
26 dB Bandwidth

Test Mode: TM 4 & ANT 2 & Ch.122



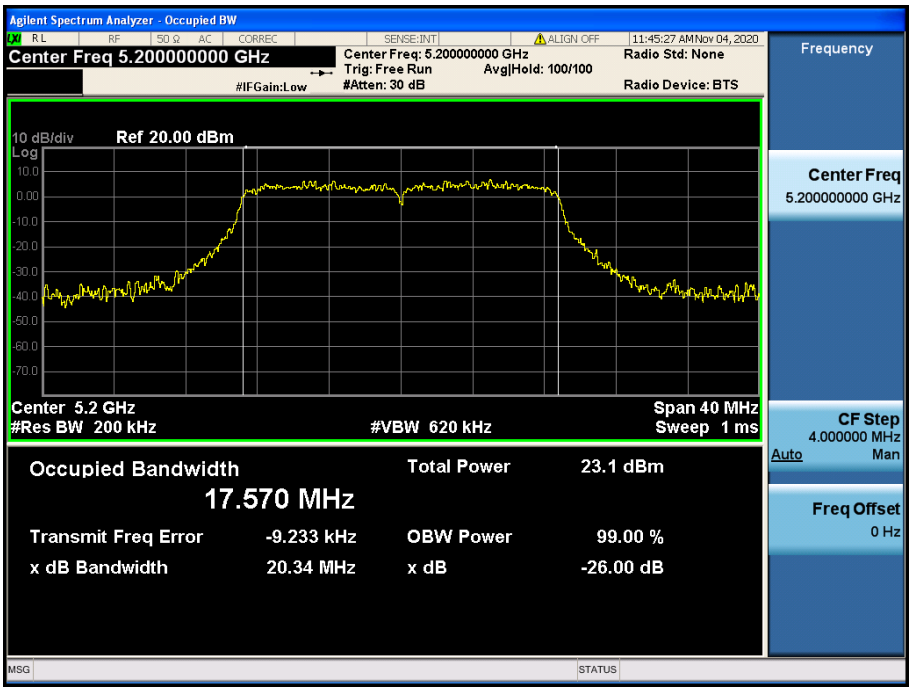
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.36



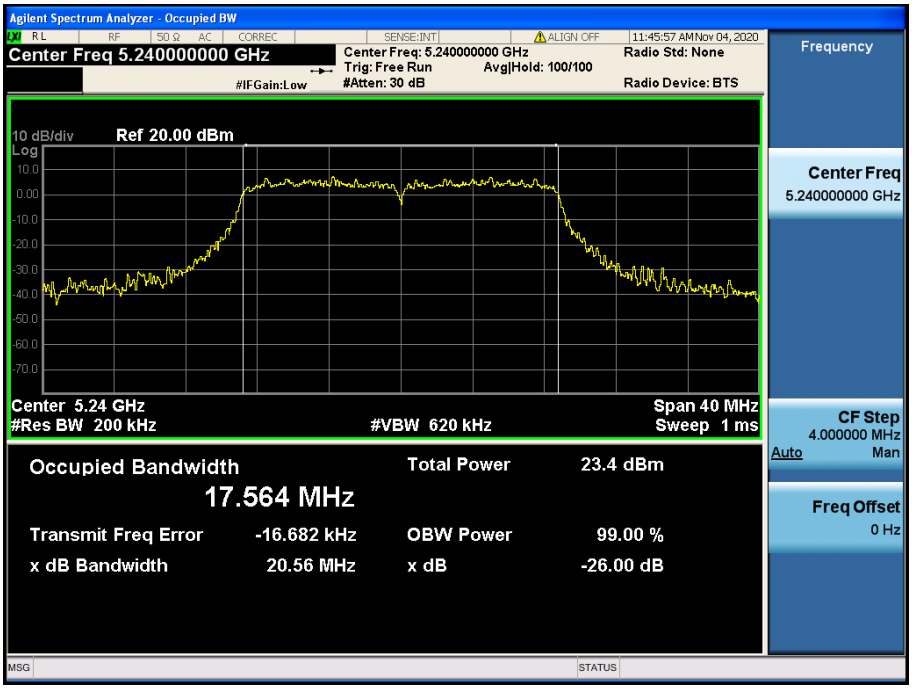
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.40



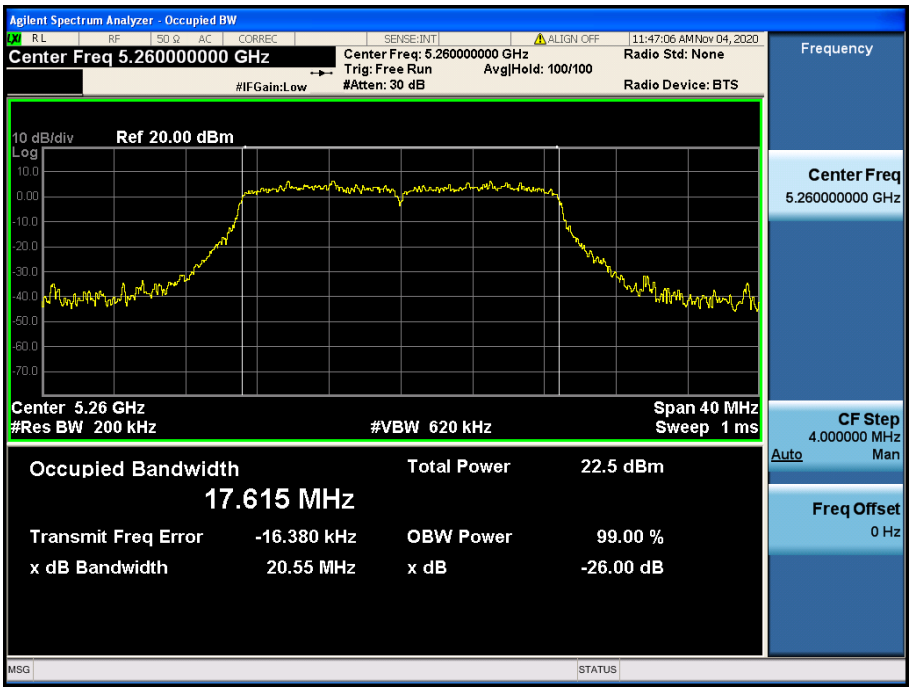
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.48



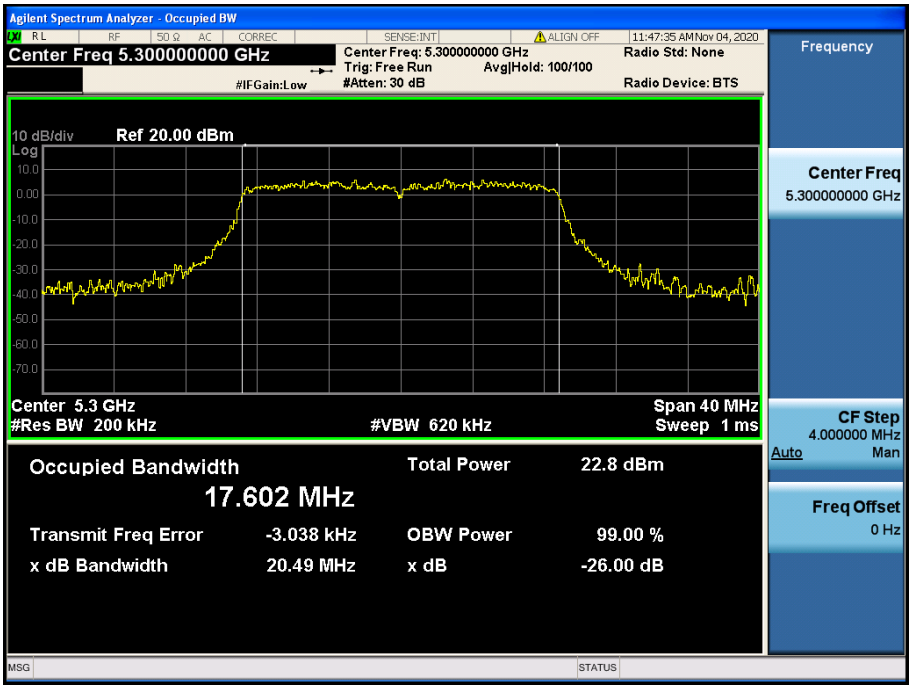
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.52



26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.60

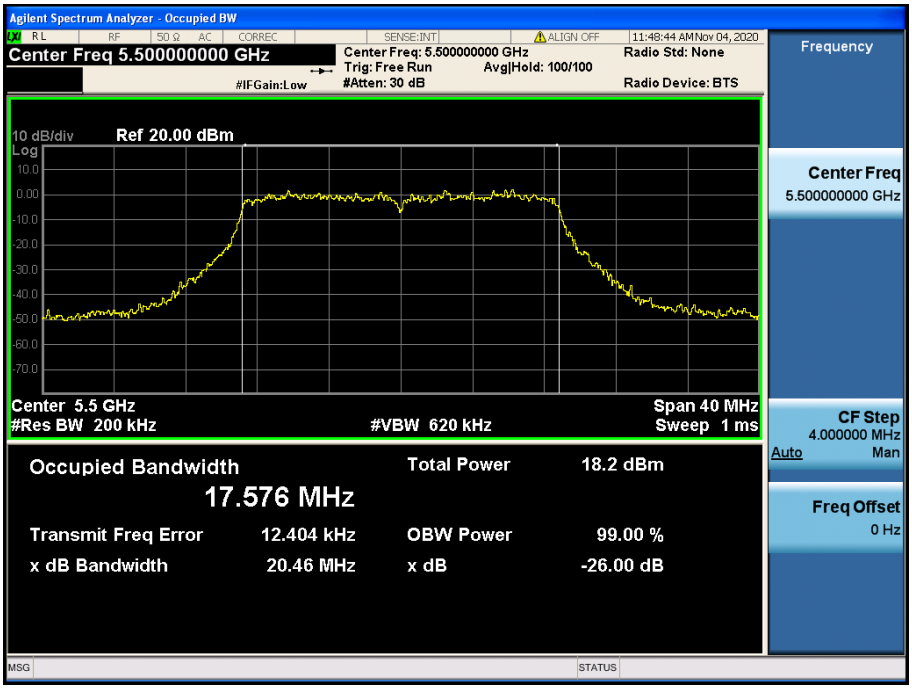


26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.64

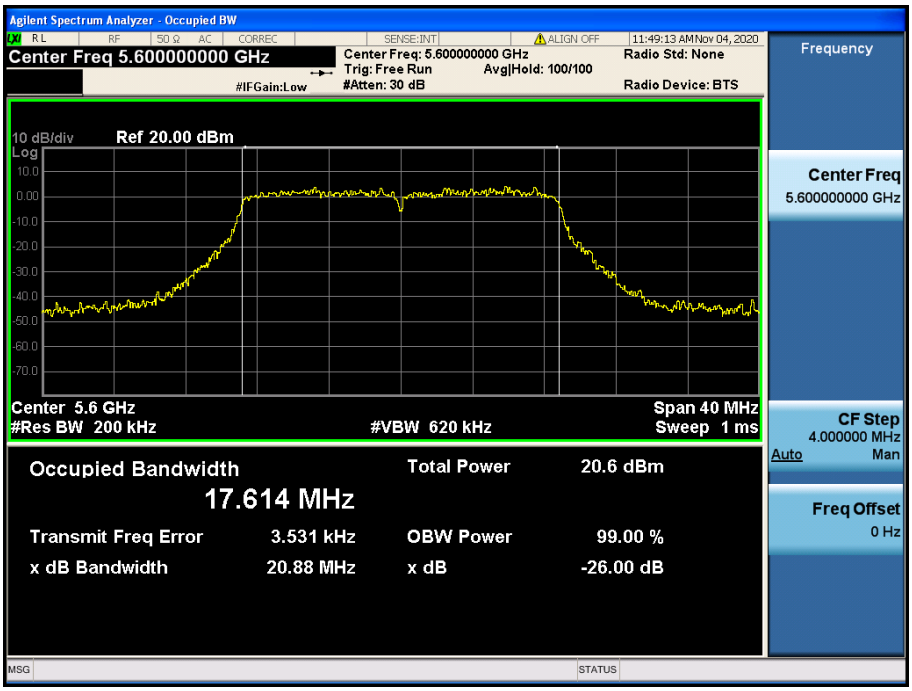
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.100



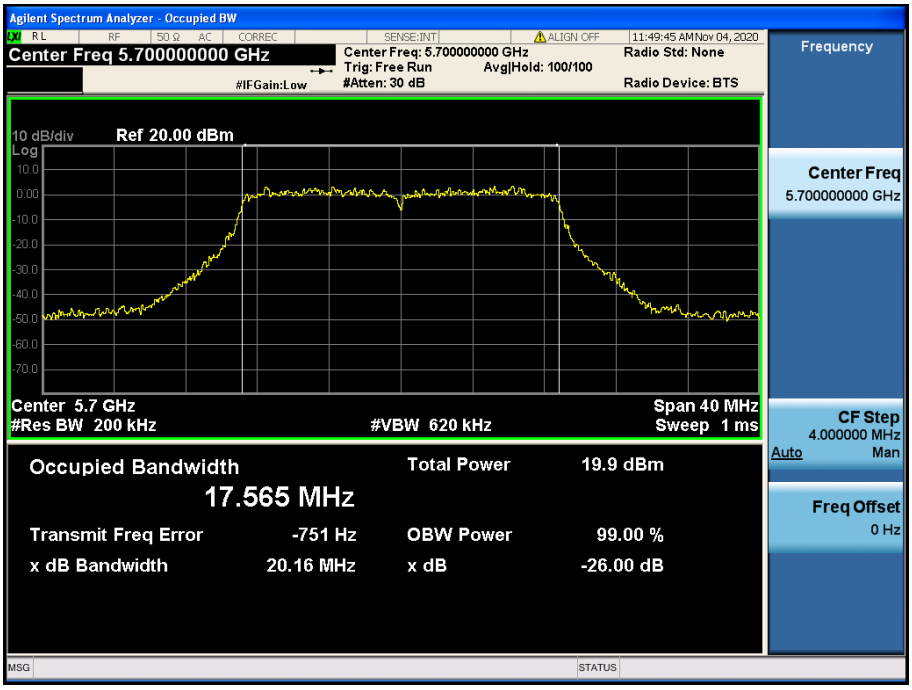
26 dB Bandwidth

Test Mode: TM 5 & ANT 2 & Ch.120

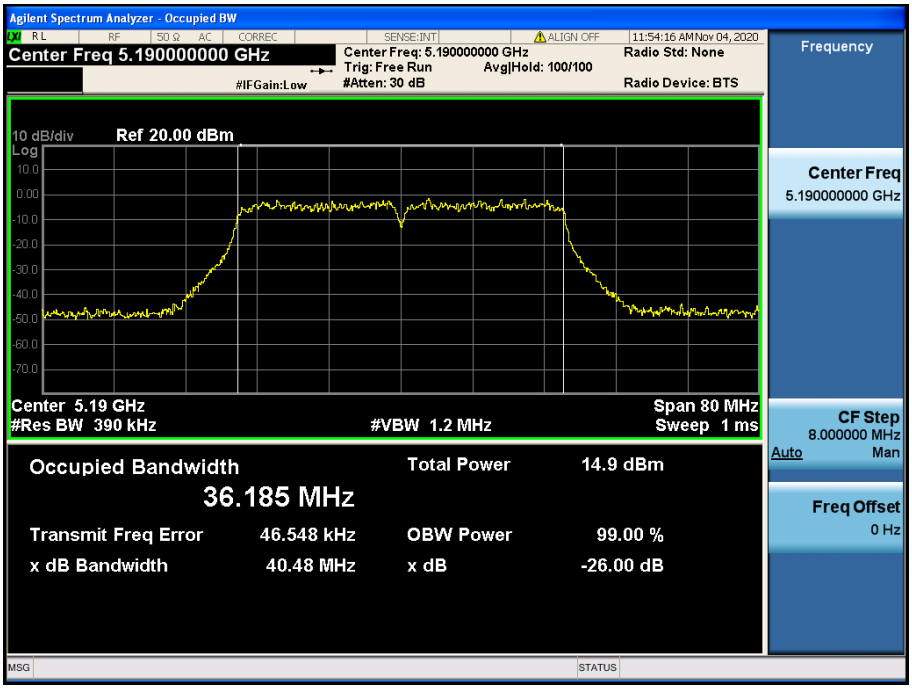


26 dB Bandwidth

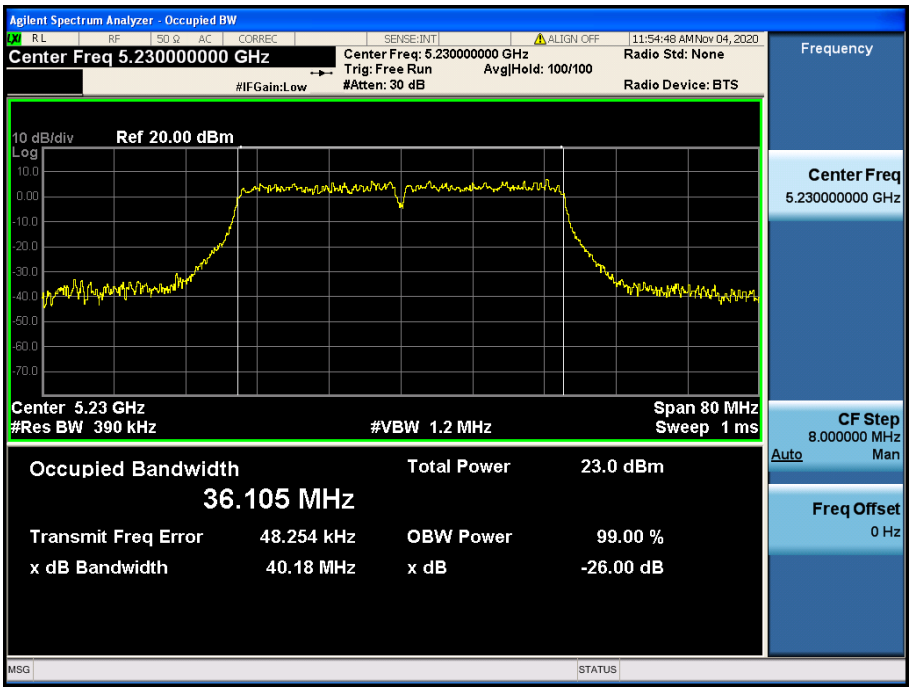
Test Mode: TM 5 & ANT 2 & Ch.140



26 dB Bandwidth Test Mode: TM 6 & ANT 2 & Ch.38

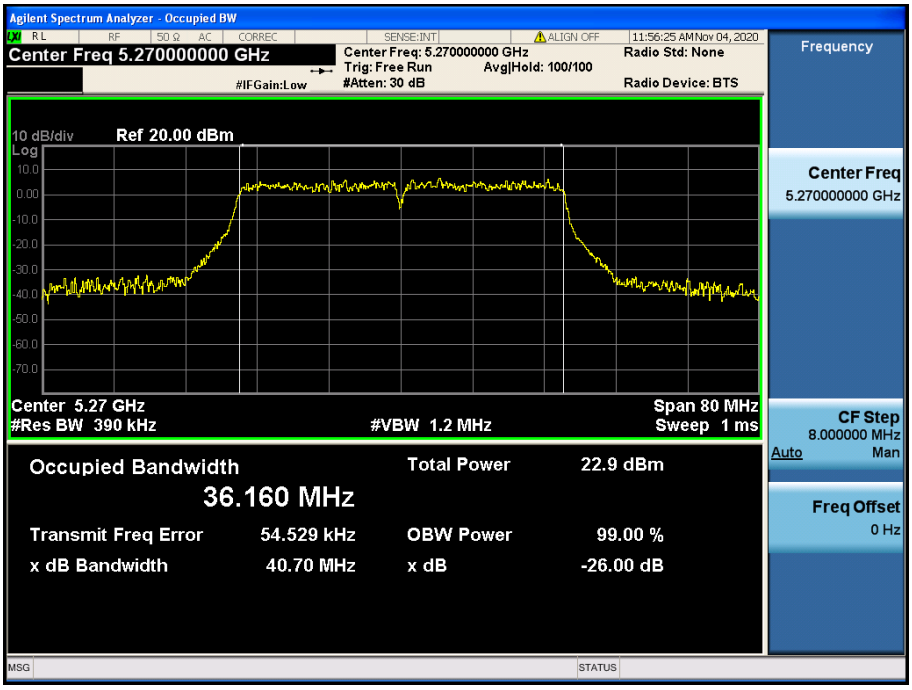


26 dB Bandwidth Test Mode: : TM 6 & ANT 2 & Ch.46



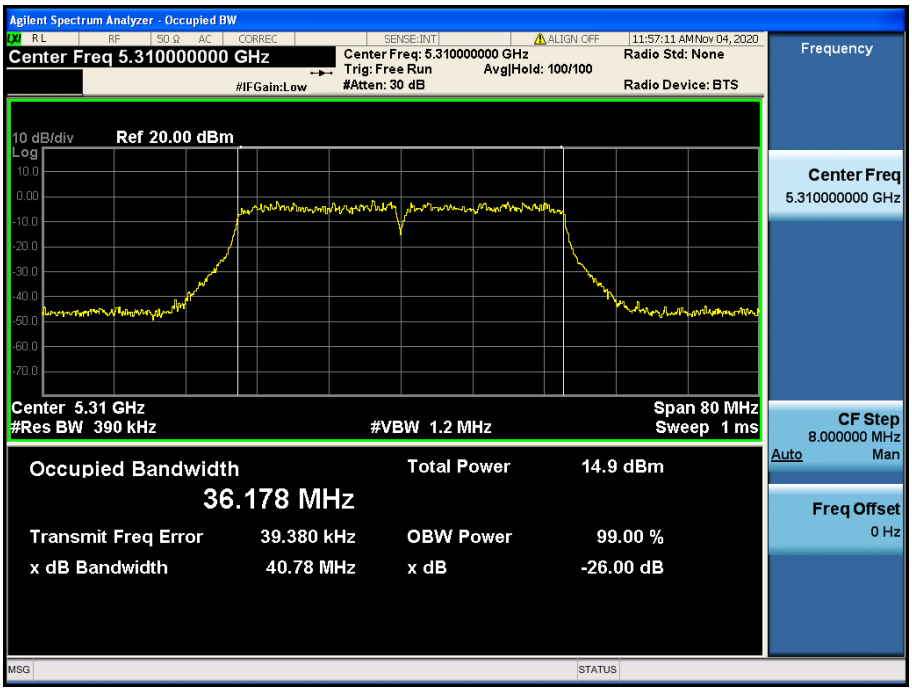
26 dB Bandwidth

Test Mode: TM 6 & ANT 2 & Ch.54



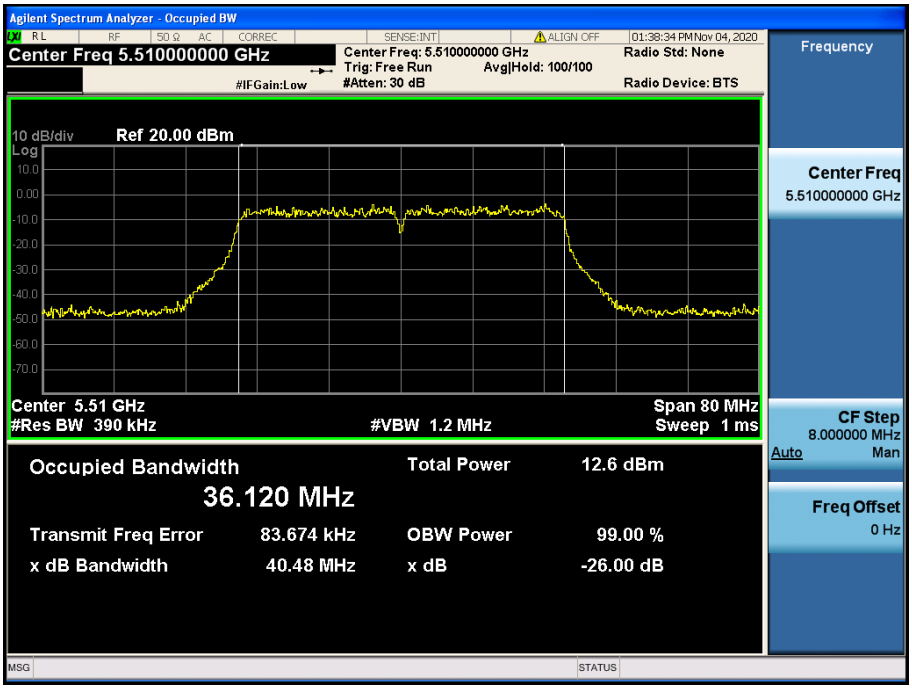
26 dB Bandwidth

Test Mode: TM 6 & ANT 2 & Ch.62



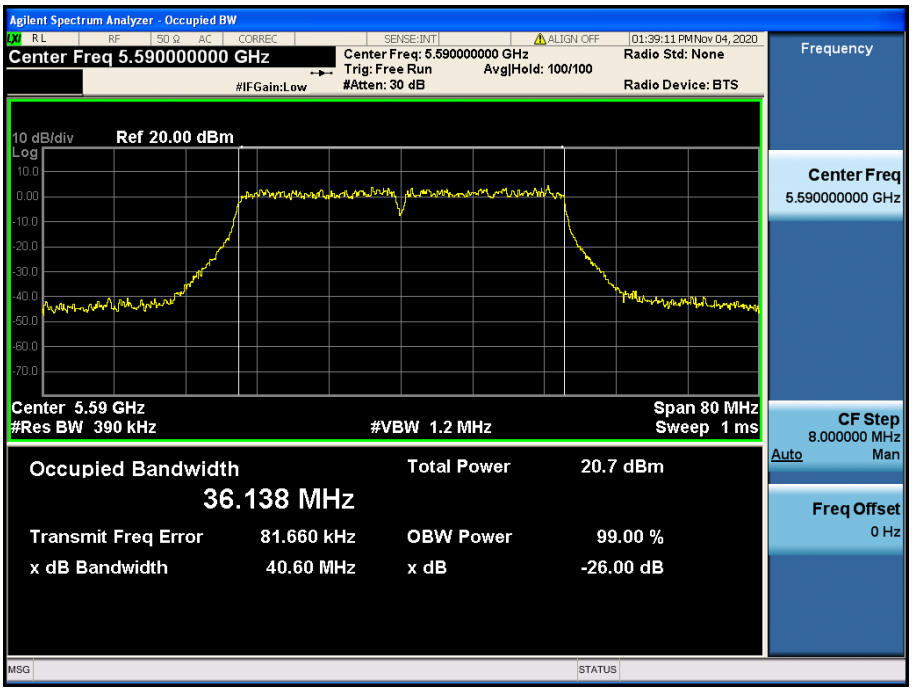
26 dB Bandwidth

Test Mode: TM 6 & ANT 2 & Ch.102



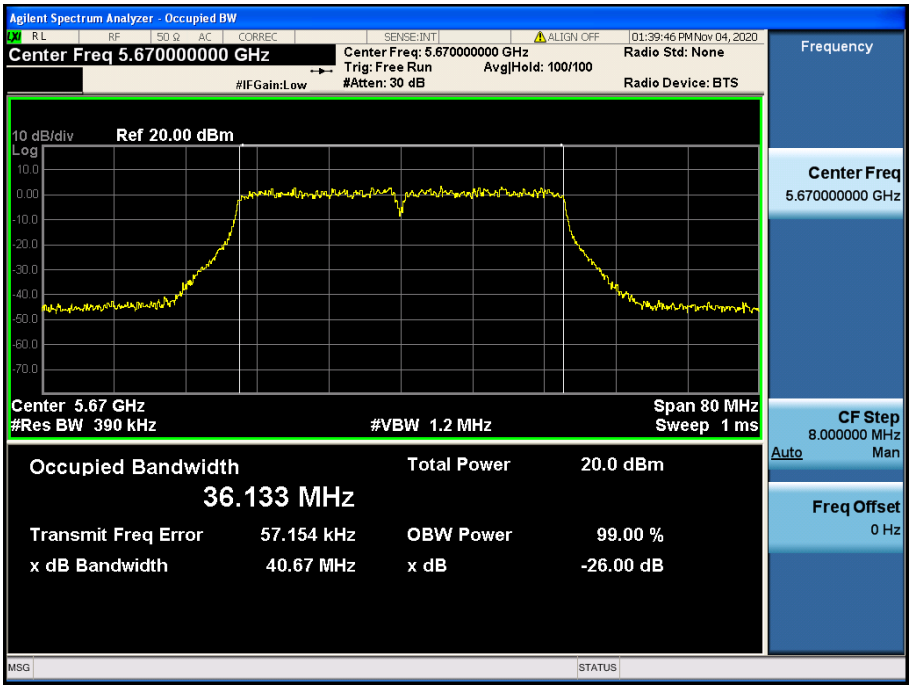
26 dB Bandwidth

Test Mode: TM 6 & ANT 2 & Ch.118



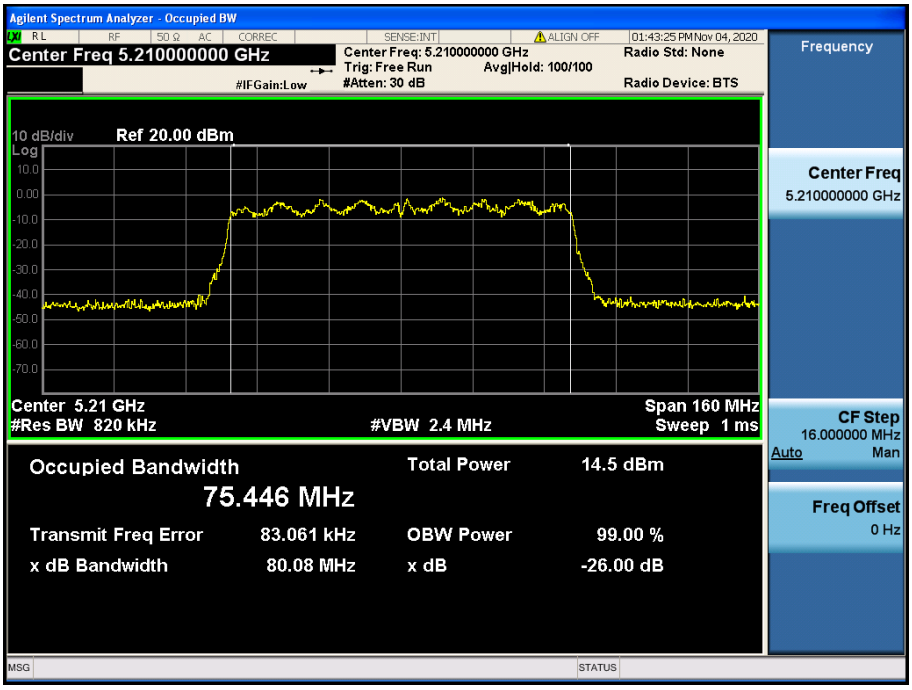
26 dB Bandwidth

Test Mode: TM 6 & ANT 2 & Ch.134



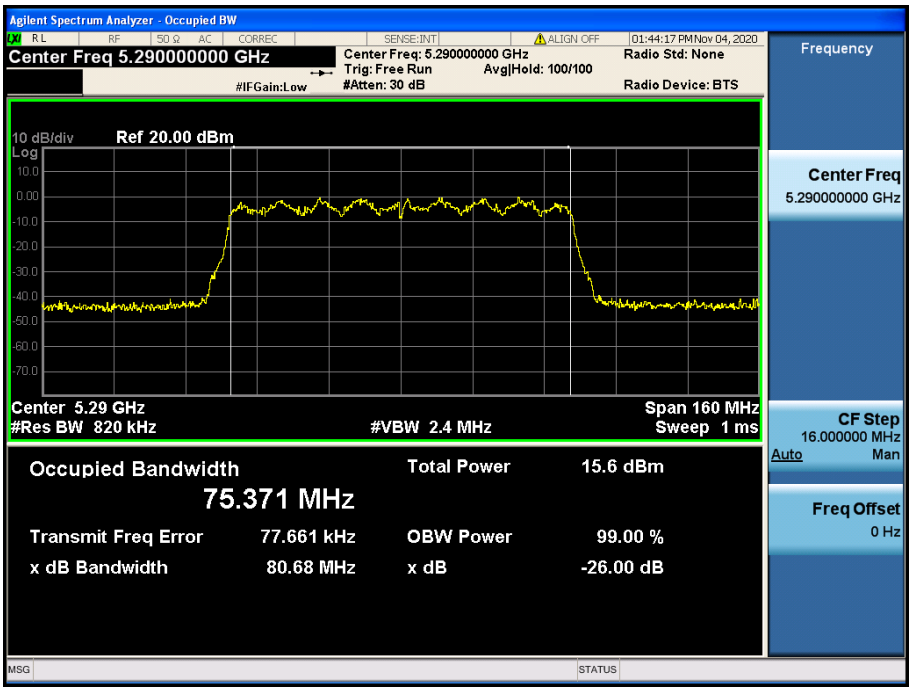
26 dB Bandwidth

Test Mode: TM 7 & ANT 2 & Ch.42



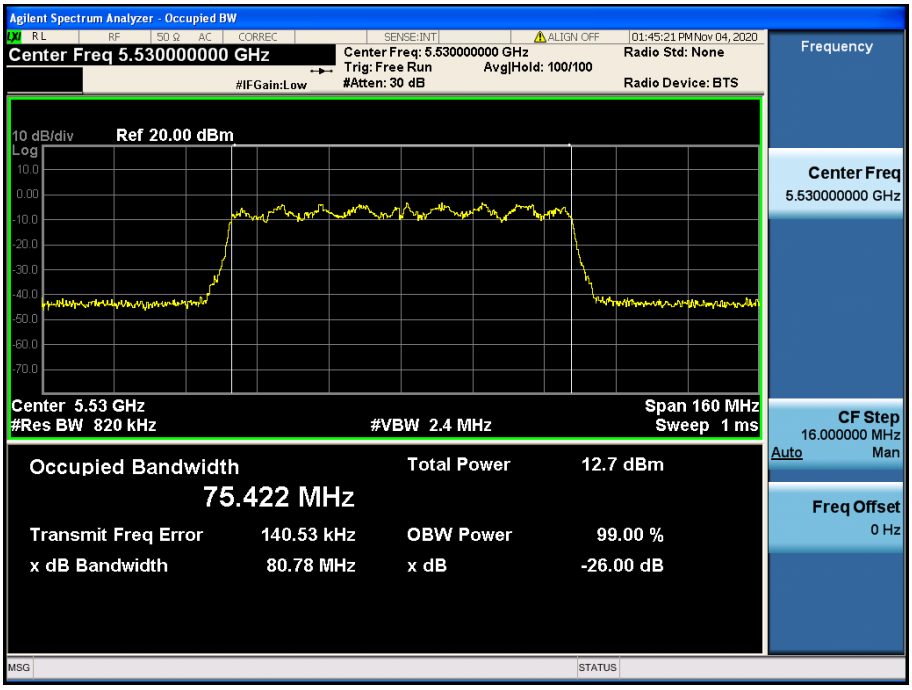
26 dB Bandwidth

Test Mode: TM 7 & ANT 2 & Ch.58



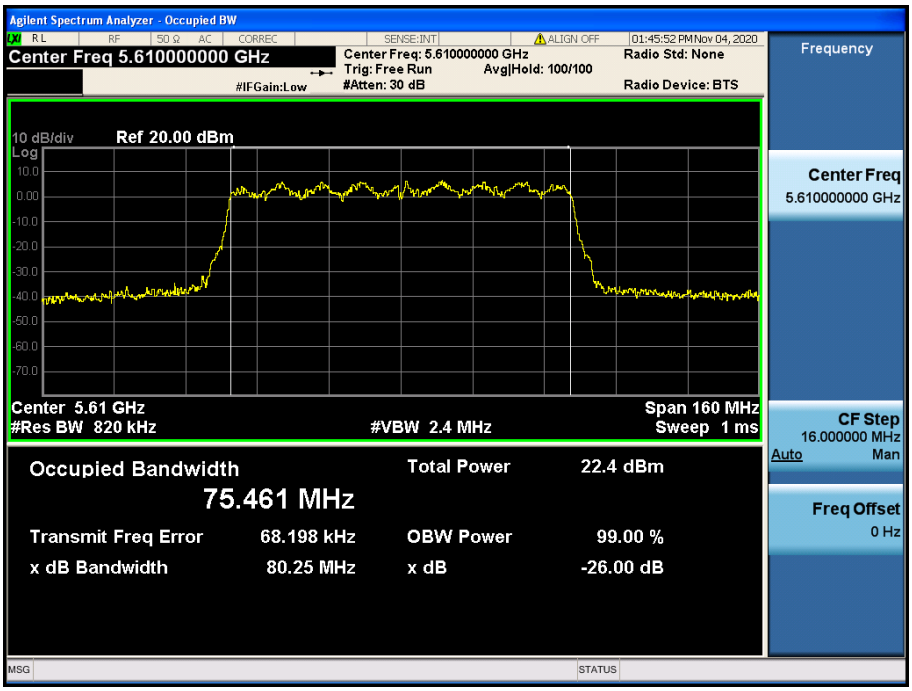
26 dB Bandwidth

Test Mode: TM 7 & ANT 2 & Ch.106



26 dB Bandwidth

Test Mode: TM 7 & ANT 2 & Ch.122



8.2 Minimum Emission Bandwidth (6 dB Bandwidth)

▣ Test Requirements

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

▣ Test Configuration

Refer to the APPENDIX I.

▣ Test Procedure

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.

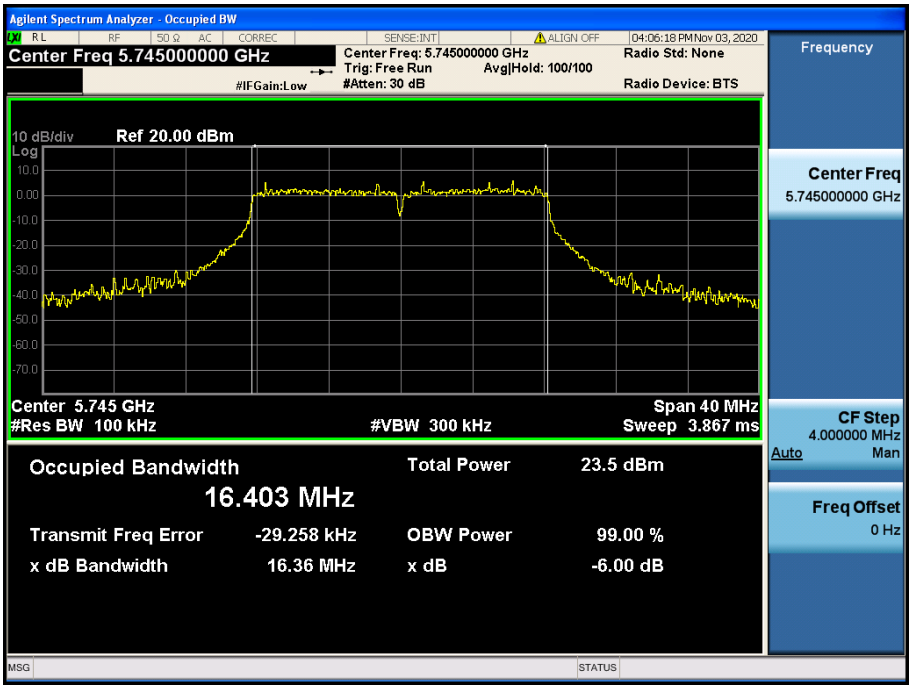
▣ Test Results: Comply

Mode	Band	Channel	Frequency [MHz]	Test Result [MHz]	
				ANT 1	ANT 2
TM 1	U-NII 3	149	5 745	16.36	16.34
		157	5 785	16.32	16.31
		165	5 825	16.31	16.32
TM 2		149	5 745	16.96	16.87
		157	5 785	17.07	17.02
		165	5 825	16.97	16.94
TM 3		151	5 755	35.98	35.96
		159	5 795	35.70	35.48
TM 4		155	5 775	75.32	75.24
TM 5		149	5 745	17.13	16.81
		157	5 785	16.96	17.07
		165	5 825	17.11	17.20
TM 6		151	5 755	35.36	35.96
		159	5 795	35.41	35.61
TM 7		155	5 775	75.23	75.24

▣ Result Plots

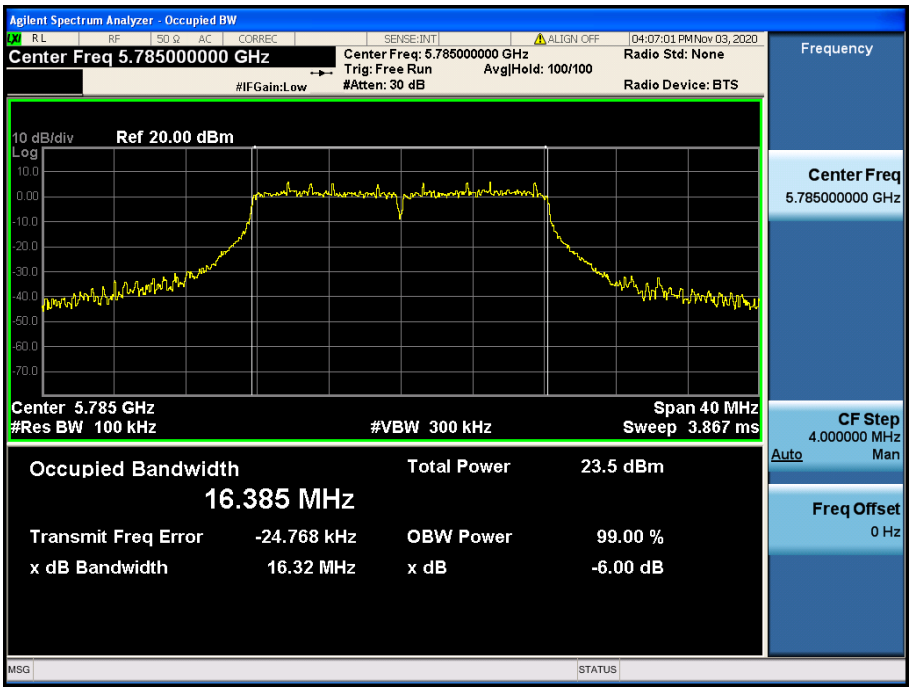
6 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.149



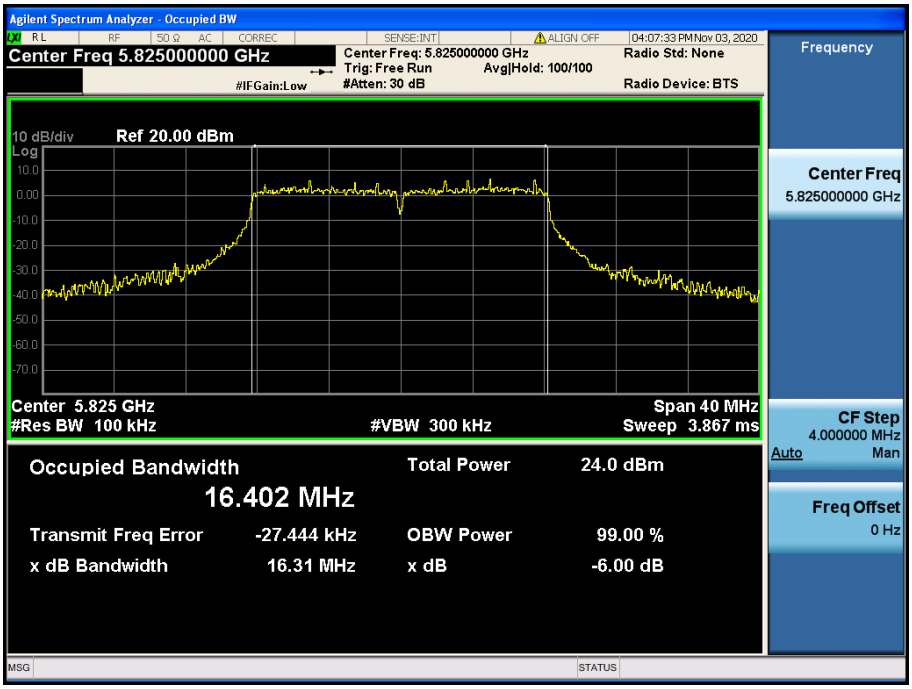
6 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.157



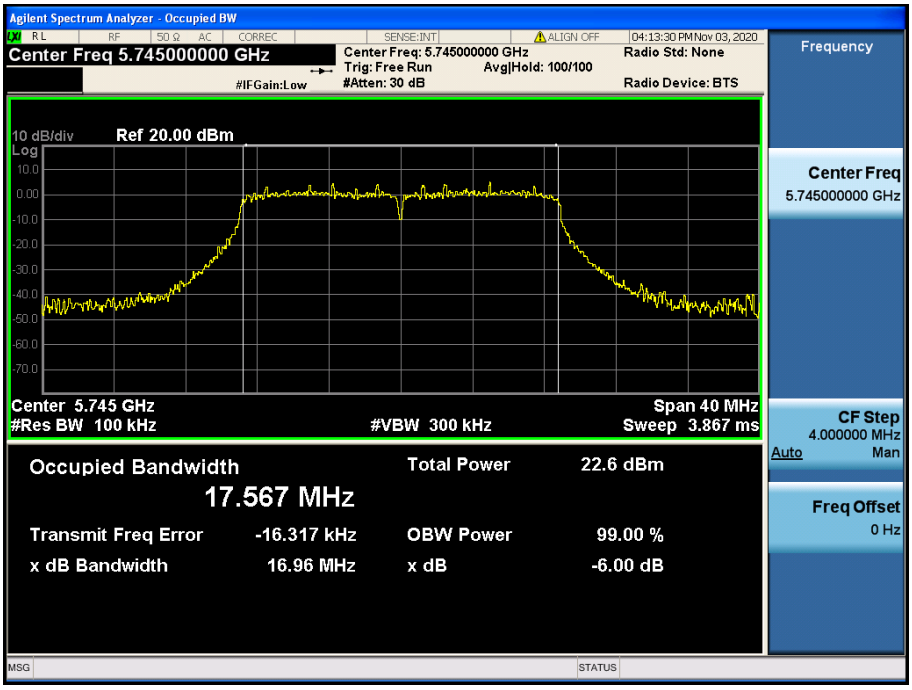
6 dB Bandwidth

Test Mode: TM 1 & ANT 1 & Ch.165



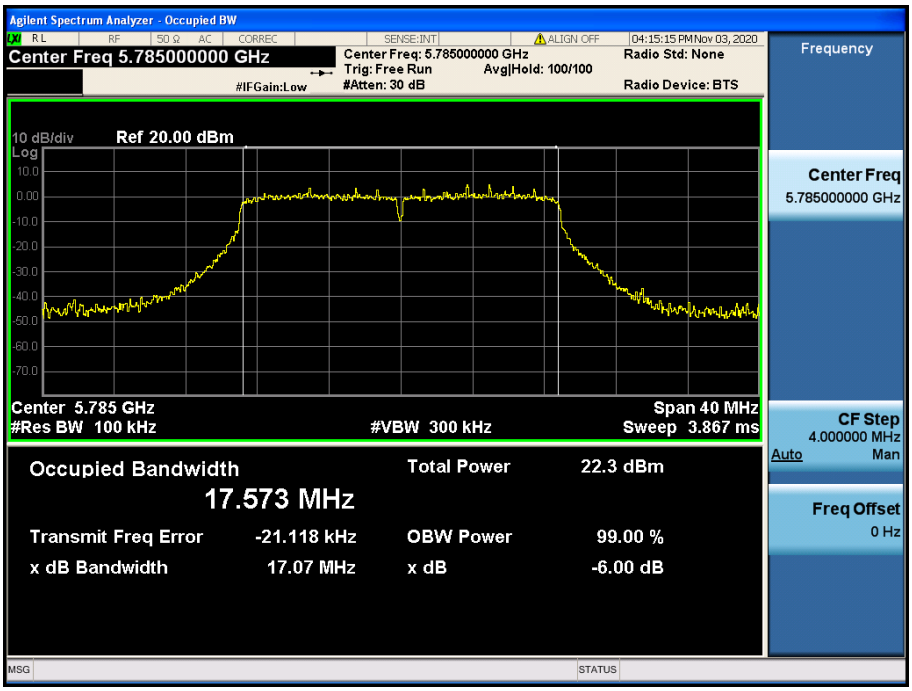
6 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.149



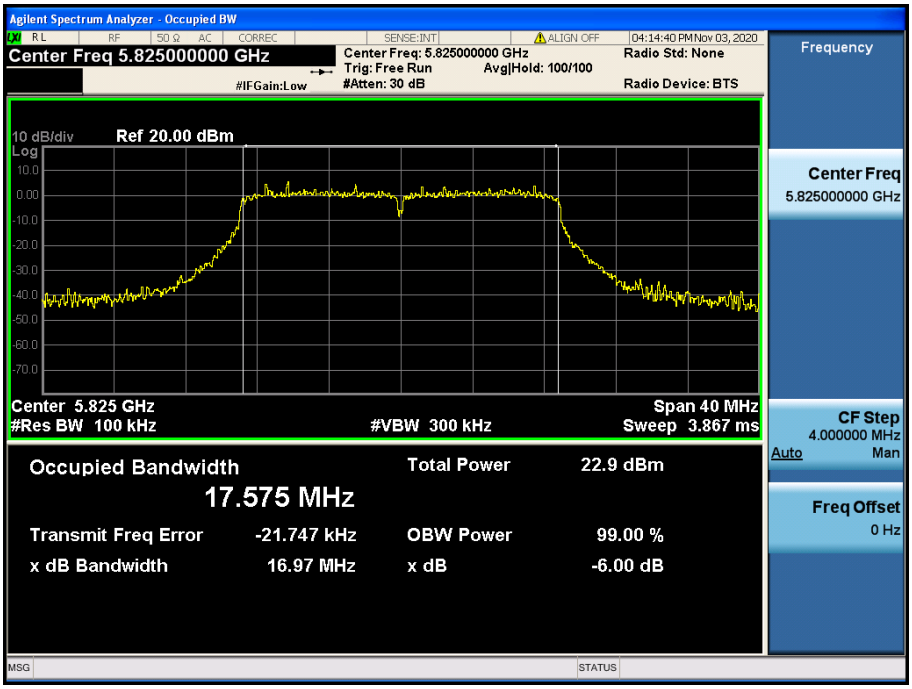
6 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.157



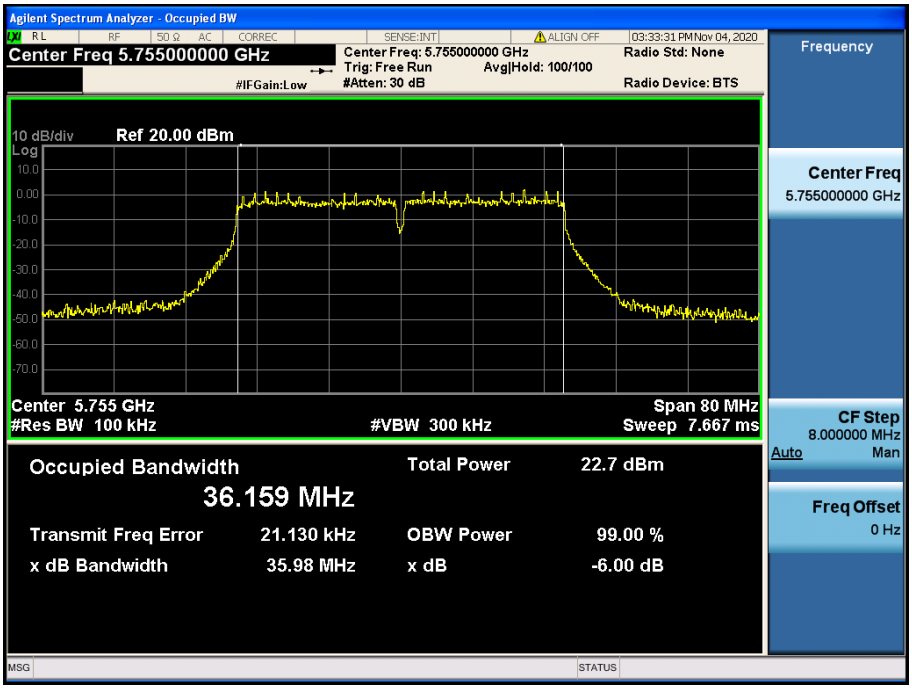
6 dB Bandwidth

Test Mode: TM 2 & ANT 1 & Ch.165



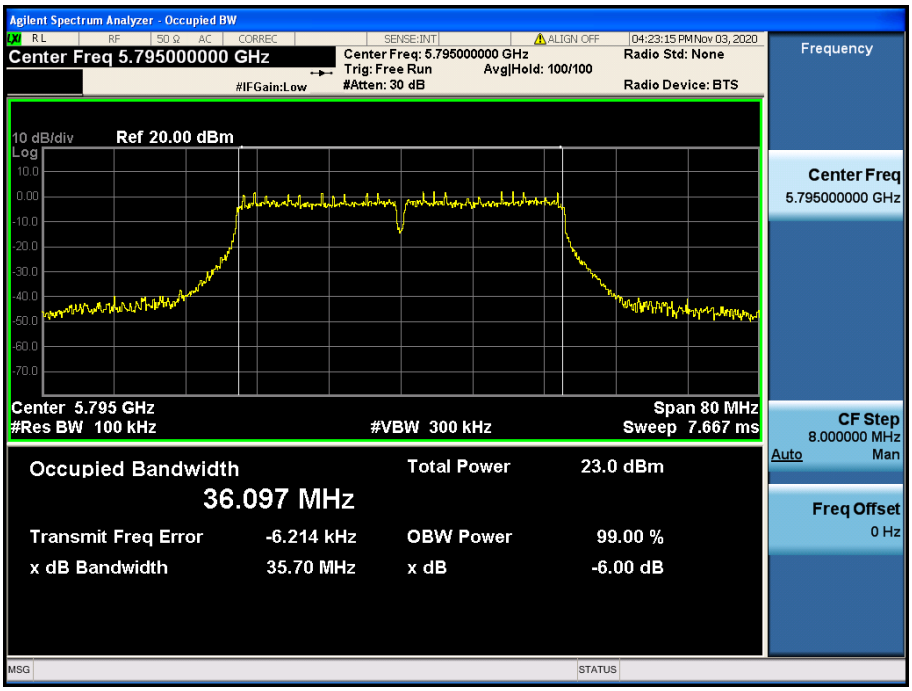
6 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.151



6 dB Bandwidth

Test Mode: TM 3 & ANT 1 & Ch.159



6 dB Bandwidth

Test Mode: TM 4 & ANT 1 & Ch.155