

FCC Test Report

Product Name	Portable computer
Model No	P102F
FCC ID	E2K-P102F00401

Applicant	Dell Inc.
Address	One Dell Way, Round Rock, Texas 78682, United States.

Date of Receipt	Mar. 20, 2020
Issued Date	Jun. 17, 2020
Report No.	2030634R-RFUSP06V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issued Date: Jun. 17, 2020

Report No.: 2030634R-RFUSP06V00



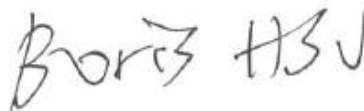
Product Name	Portable computer
Applicant	Dell Inc.
Address	One Dell Way, Round Rock, Texas 78682, United States.
Manufacturer	Dell Inc.
Model No.	P102F
FCC ID.	E2K-P102F00401
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	DELL
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E ANSI C63.4: 2014, ANSI C63.10: 2013 KDB Publication 789033
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Rita Huang)

Tested By :



(Engineer / Boris Hsu)

Approved By :



(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Portable computer
Trade Name	DELL
FCC ID.	E2K-P102F00401
Model No.	P102F
Frequency Range	802.11a/n/ax-20MHz: 5180-5320MHz, 5500-5700MHz, 5720MHz, 5745-5825MHz 802.11n/ax-40MHz: 5190-5310MHz, 5510-5670MHz, 5710MHz, 5755-5795MHz 802.11ac/ax-80MHz: 5210-5290MHz, 5530-5690MHz, 5775MHz 802.11ac/ax-160MHz: 5250MHz, 5570MHz
Number of Channels	802.11a/n/ax-20MHz: 25 802.11n/ax-40MHz: 12 802.11ac/ax-80MHz: 6 802.11ac/ax-160MHz: 2
Data Speed	802.11a: 6 - 54Mbps 802.11n: up to 300Mbps 802.11ac: up to 1733.3Mbps 802.11ax: up to 2402Mbps
Channel Control	Auto
Type of Modulation	802.11a/n/ac/ax: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Antenna type	PIFA Antenna
Antenna Gain	Refer to the table "Antenna List"
Power Adapter	MFR: Chiconypower, M/N: HA65NS5-00 Input: AC 100-240V~50-60Hz 1.7A Output: 19V==3.34A Cable Out: Shielded, 1.7m, with one ferrite core bonded

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	SPEED	025.901MP.0001 (Main) 025.901MP.0001 (Aux)	PIFA Antenna	-2.36dBi For 5.15~5.25GHz -1.47dBi For 5.25~5.35GHz 0.49dBi For 5.47~5.725GHz -0.11dBi For 5.725~5.825GHz
2	WNC	025.901MP.0011 (Main) 025.901MP.0011 (Aux)	PIFA Antenna	-2.16dBi For 5.15~5.25GHz -1.89dBi For 5.25~5.35GHz -0.88dBi For 5.47~5.725GHz 1.11dBi For 5.725~5.825GHz

Note: The antenna of EUT is conform to FCC 15.203

802.11a/n/ax -20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz	Channel 144:	5720 MHz
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

802.11n/ax -40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 54:	5270 MHz	Channel 62:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz	Channel 142:	5710 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz

802.11ac/ax -80MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
Channel 138:	5690 MHz	Channel 155:	5775 MHz				

802.11ac/ax-160MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency
Channel 160:	5250 MHz	Channel 114:	5570 MHz

Note:

1. This device is a Portable computer with built-in WLAN and Bluetooth transceiver, this report for WLAN 5GHz.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
5. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.

Test item:

	Maximum conducted output power	Peak Power Spectral Density	Occupied Bandwidth	Radiated Emission	Band Edge
SISOA-802.11a	✓	✓	✓	✓	✓
SISOA-802.11n20	✓				
SISOA-802.11n40	✓				
SISOA-802.11ac80	✓				
SISOA-802.11ac160	✓	✓			✓
SISOA-802.11ax20 (RU config: Full)	✓				
SISOA-802.11ax40 (RU config: Full)	✓				
SISOA-802.11ax80 (RU config: Full)	✓				
SISOA-802.11ax160 (RU config: Full)	✓	✓			✓
SISOA-802.11ax20 (RU config: Other)	✓				
SISOA-802.11ax40 (RU config: Other)	✓				
SISOA-802.11ax80 (RU config: Other)	✓				
SISOA-802.11ax160 (RU config: Other)	✓	✓			
SISOB-802.11a	✓				
SISOB-802.11n20	✓				
SISOB-802.11n40	✓				
SISOB-802.11ac80	✓				
SISOB-802.11ac160	✓				
SISOB-802.11ax20 (RU config: Full)	✓				
SISOB-802.11ax40 (RU config: Full)	✓				
SISOB-802.11ax80 (RU config: Full)	✓				
SISOB-802.11ax160 (RU config: Full)	✓				
SISOB-802.11ax20 (RU config: Other)	✓				
SISOB-802.11ax40 (RU config: Other)	✓				
SISOB-802.11ax80 (RU config: Other)	✓				
SISOB-802.11ax160 (RU config: Other)	✓				
MIMO-802.11n20	✓	✓	✓	✓	✓
MIMO-802.11n40	✓	✓	✓	✓	✓
MIMO-802.11ac80	✓	✓	✓	✓	✓
MIMO-802.11ac160	✓	✓	✓	✓	✓
MIMO-802.11ax20 (RU config: Full)	✓	✓	✓	✓	✓
MIMO-802.11ax40 (RU config: Full)	✓	✓	✓	✓	✓
MIMO-802.11ax80 (RU config: Full)	✓	✓	✓	✓	✓
MIMO-802.11ax160 (RU config: Full)	✓	✓	✓	✓	✓
MIMO-802.11ax20 (RU config: Other)	✓	✓			
MIMO-802.11ax40 (RU config: Other)	✓	✓			
MIMO-802.11ax80 (RU config: Other)	✓	✓			
MIMO-802.11ax160 (RU config: Other)	✓	✓			

Note:

1. The EUT applies to SISOA 、SISOB and MIMO mode. Each mode through the pretest, only the worst case (Please see Test item table) are shown in the test report.
2. RU config settings, please refer to each test item data.

Test Mode (5GHz)	Mode 1 SISO A: Transmit (802.11a_6Mbps)
	Mode 2 SISO A: Transmit (802.11n-20BW_7.2Mbps)
	Mode 3 SISO A: Transmit (802.11n-40BW_15Mbps)
	Mode 4 SISO A: Transmit (802.11ac-80BW_32.5Mbps)
	Mode 5 SISO A: Transmit (802.11ac-160BW_65Mbps)
	Mode 6: SISO A: Transmit (802.11ax-20BW_8.6Mbps)
	Mode 7: SISO A: Transmit (802.11ax-40BW_17.2Mbps)
	Mode 8: SISO A: Transmit (802.11ax-80BW_36Mbps)
	Mode 9: SISO A: Transmit (802.11ax-160BW_72.1Mbps)
	Mode 10 SISO B: Transmit (802.11a_6Mbps)
	Mode 11 SISO B: Transmit (802.11n-20BW_7.2Mbps)
	Mode 12 SISO B: Transmit (802.11n-40BW_15Mbps)
	Mode 13 SISO B: Transmit (802.11ac-80BW_32.5Mbps)
	Mode 14 SISO B: Transmit (802.11ac-160BW_65Mbps)
	Mode 15: SISO B: Transmit (802.11ax-20BW_8.6Mbps)
	Mode 16: SISO B: Transmit (802.11ax-40BW_17.2Mbps)
	Mode 17: SISO B: Transmit (802.11ax-80BW_36Mbps)
	Mode 18: SISO B: Transmit (802.11ax-160BW_72.1Mbps)
	Mode 19 MIMO: Transmit (802.11n-20BW_14.4Mbps)
	Mode 20 MIMO: Transmit (802.11n-40BW_30Mbps)
	Mode 21 MIMO: Transmit (802.11ac-80BW_65Mbps)
	Mode 22 MIMO: Transmit (802.11ac-160BW_130Mbps)
	Mode 23: MIMO: Transmit (802.11ax-20BW_17.2Mbps)
	Mode 24: MIMO: Transmit (802.11ax-40BW_34.4Mbps)
	Mode 25: MIMO: Transmit (802.11ax-80BW_72.1Mbps)
	Mode 26: MIMO: Transmit (802.11ax-160BW_144.1Mbps)

1.2. Operational Description

The EUT is a Portable computer with built-in WLAN (802.11a/b/g/n/ac/ax) with Bluetooth (5.0 and V3.0+HS, V2.1+EDR) transceiver. The antenna is PIFA Antenna.

The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps, the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11a).

The device provided of eight kinds of transmitting speed 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130 and 144.4Mbps in 802.11n(20M-BW) mode and 30, 60, 90, 120, 180, 240, 270 and 300Mbps in 802.11n(40M-BW) mode and the device provided of ten kinds of transmitting speed 65, 130, 195, 260, 390, 520, 585, 650, 780 and 866.7Mbps in 802.11ac(80M-BW) mode and 130, 260, 390, 520, 780, 1040, 1170, 1300, 1560 and 1733.3Mbps in 802.11ac(160M-BW) mode and the device provided of twelve kinds of transmitting speed 17.2, 34.4, 51.6, 68.8, 103.2, 137.6, 154.9, 172.1, 206.5, 229.4, 258.1 and 286.8Mbps in 802.11ax(20M-BW) mode and 34.4, 68.8, 103.2, 137.6, 206.5, 275.3, 309.7, 344.1, 412.9, 458.8, 516.2 and 573.5Mbps in 802.11ax(40M-BW) mode and 72.1, 144.1, 216.2, 288.2, 432.4, 576.5, 648.5, 720.6, 864.7, 960.8, 1080.9 and 1201Mbps in 802.11ax(80M-BW) mode and 144.1, 288.2, 432.4, 576.5, 864.7, 1152.9, 1297.1, 1441.2, 1729.4, 1921.6, 2161.8 and 2402Mbps in 802.11ax(160M-BW) mode, the device of RF carrier is BPSK, QPSK, 16QAM, 64QAM and 256QAM and 1024QAM (IEEE 802.11n/ac/ax)

The IEEE 802.11n/ac/ax is Multiple In, Multiple Out (MIMO) technology to support 2(Transmit) * 2(Receive) MIMO technology.

This equipment includes WLAN 、Bluetooth, which can not transmit signals simultaneously.

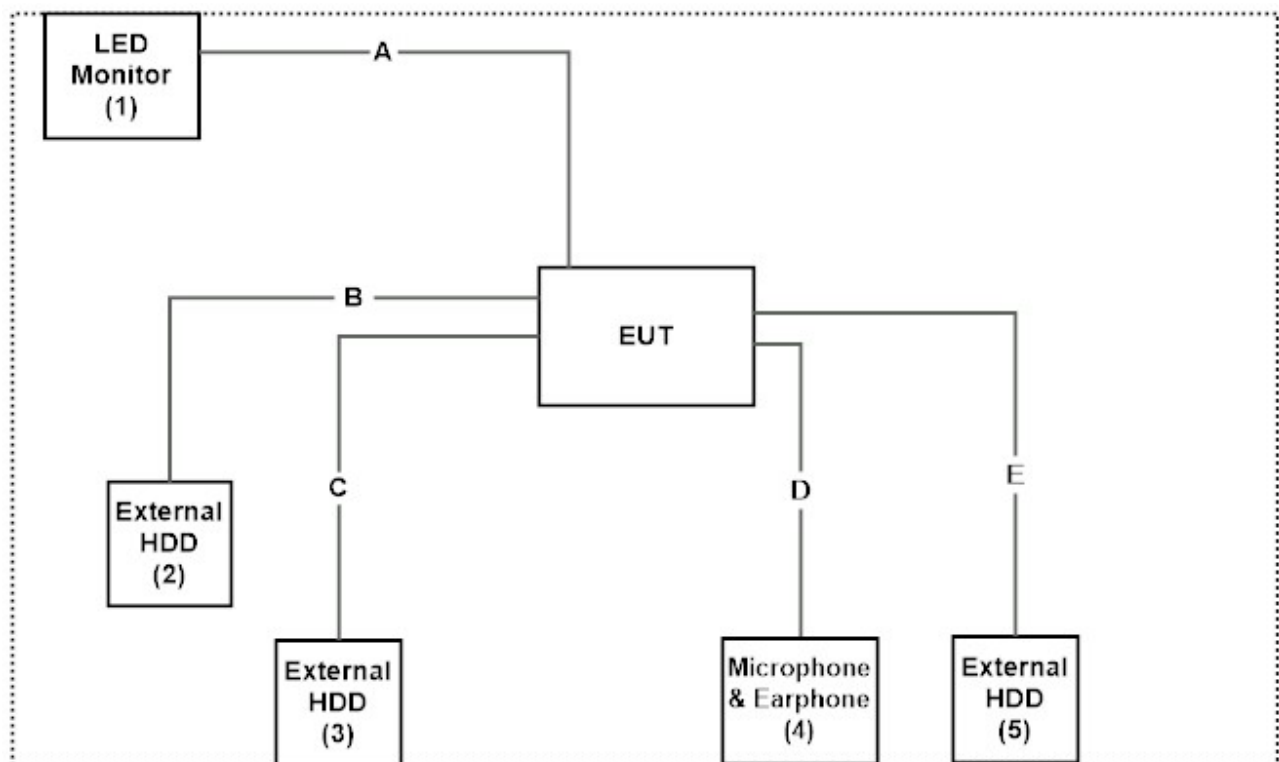
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	LED Monitor	ViewSonic	VX2257-mhd	UFY163502150	Non-Shielded, 1.8m
2	External HDD	Transcend	TS1TSJ25H3B	F21786-0125	N/A
3	External HDD	Transcend	TS1TSJ25MC	F30467-0011	N/A
4	Microphone & Earphone	RONEVER	MOE241	N/A	N/A
5	External HDD	Transcend	TS1TSJ25H3B	F21786-0019	N/A

Signal Cable Type	Signal cable Description
A	HDMI Cable Shielded, 1.8m
B	USB Cable Shielded, 0.5m
C	USB to Type-C Cable Shielded, 0.5m
D	Microphone & Earphone Cable Non-Shielded, 1.2m
E	USB Cable Shielded, 0.5m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “DRTU Ver.11.1941.0-10270” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	24.9 °C
	Humidity (%RH)	10~90 %	60 %
Radiated Emission	Temperature (°C)	10~40 °C	20.5 °C
	Humidity (%RH)	10~90 %	65.2 %
Conductive	Temperature (°C)	10~40 °C	21.1 °C
	Humidity (%RH)	10~90 %	71.7 %

USA : FCC Registration Number: TW3023

Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF
Accredited Number: 3023

Test Laboratory: DEKRA Testing and Certification Co., Ltd
Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,
Taiwan, R.O.C.
Phone number: 886-2-8601-3788
Fax number: 886-2-8601-3789
Email address: info.tw@dekra.com
Website: <http://www.dekra.com.tw>

1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2020/04/06	2021/04/05
X	Spectrum Analyzer	Agilent	N9010A	MY53470892	2019/09/25	2020/09/24
X	Peak Power Analyzer	Keysight	8990B	MY51000410	2019/07/30	2020/07/29
X	Wideband Power Sensor	Keysight	N1923A	MY56080003	2019/07/30	2020/07/29
X	Wideband Power Sensor	Keysight	N1923A	MY56080004	2019/07/30	2020/07/29
X	EMI Test Receiver	R&S	ESCS 30	100369	2019/11/27	2020/11/26
X	LISN	R&S	ENV216	101105	2020/04/27	2021/04/26
X	LISN	R&S	ESH3-Z5	836679/014	2020/04/26	2021/04/25
X	Coaxial Cable	DEKRA	RG 400	LC018-RG	2019/06/20	2020/06/19

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test SystemV9.0.5.

For Radiated measurements /Site3/CB8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Test Receiver	R&S	ESR7	101602	2019/12/16	2020/12/15
X	Signal Analyzer	R&S	FSV40	101869	2019/07/04	2020/07/03
X	Loop Antenna	Teseq	HLA6121	37133	2019/10/15	2021/10/14
X	Bilog Antenna	Schaffner Chase	CBL6112B	2916	2020/01/20	2021/01/19
X	Coaxial Cable	DEKRA	L1907-001C	280280.F141.1000D	2019/07/10	2020/07/09
X	Amplifier	EMCI	EMC001330	980254	2019/08/22	2020/08/21
X	Horn Antenna	ETS-LINDGREN	3117	00228113	2020/05/01	2021/04/30
X	Coaxial Cable	DEKRA	L1907-002C	280280.F141.1000D	2019/07/10	2020/07/09
X	Amplifier	EMCI	EMC05820SE	980362	2019/06/26	2020/06/25
X	Amplifier	EMCI	EMC051845SE	980632	2019/08/08	2020/08/07
X	Horn Antenna	Com-Power	AH-1840	101101	2019/10/31	2020/10/30
X	Amplifier + Cable	EMCI	EMC184045SE	980369	2020/04/23	2021/04/22
	Bilog Antenna	Schaffner Chase	CBL6112B	2925	2020/02/20	2021/02/19
	Coaxial Cable	DEKRA	L1907-003C	00100A1B3A120M	2019/07/10	2020/07/09
	Amplifier	EMCI	EMC001330	980255	2020/03/17	2021/03/16
X	Filter	MICRO-TRONICS	BRM50702	G270	2019/08/08	2020/08/07
X	Filter	MICRO-TRONICS	BRM50716	G196	2019/08/08	2020/08/07

Note:

1. Loop Antenna is calibrated every two years, the other equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Test SystemV1.1.

1.8. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document, and is described in each test chapter of this report.

The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2014 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2014; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

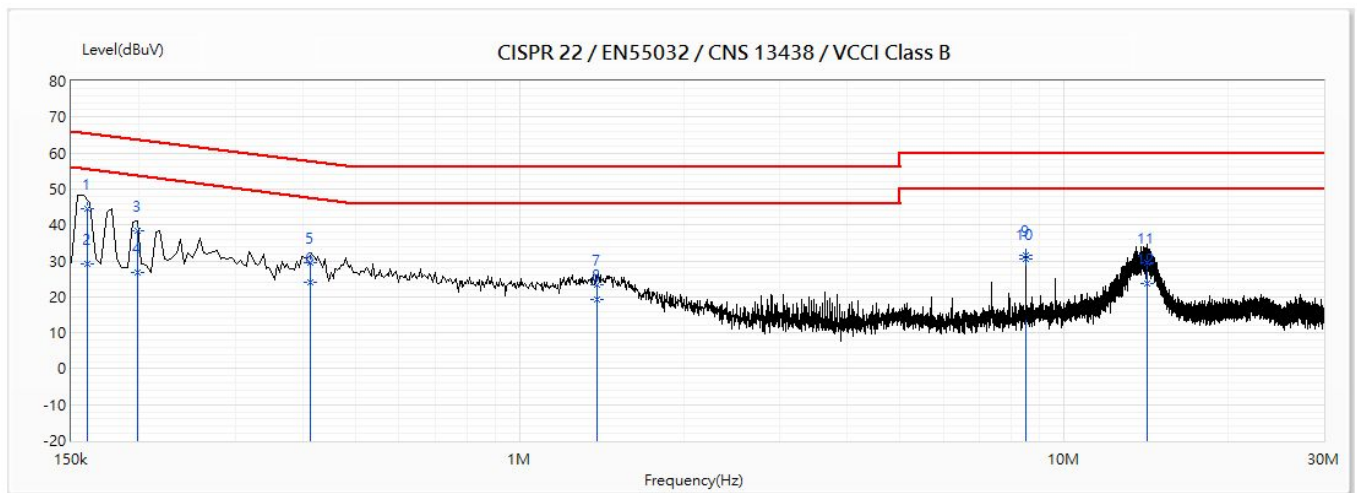
2.4. Uncertainty

± 2.26 dB

2.5. Test Result of Conducted Emission

Product : Portable computer
 Test Item : Conducted Emission Test
 Test date : 2020/05/28
 Test Mode : Mode 26: MIMO: Transmit (802.11ax-160BW_144.1Mbps) (5250MHz)

Line1



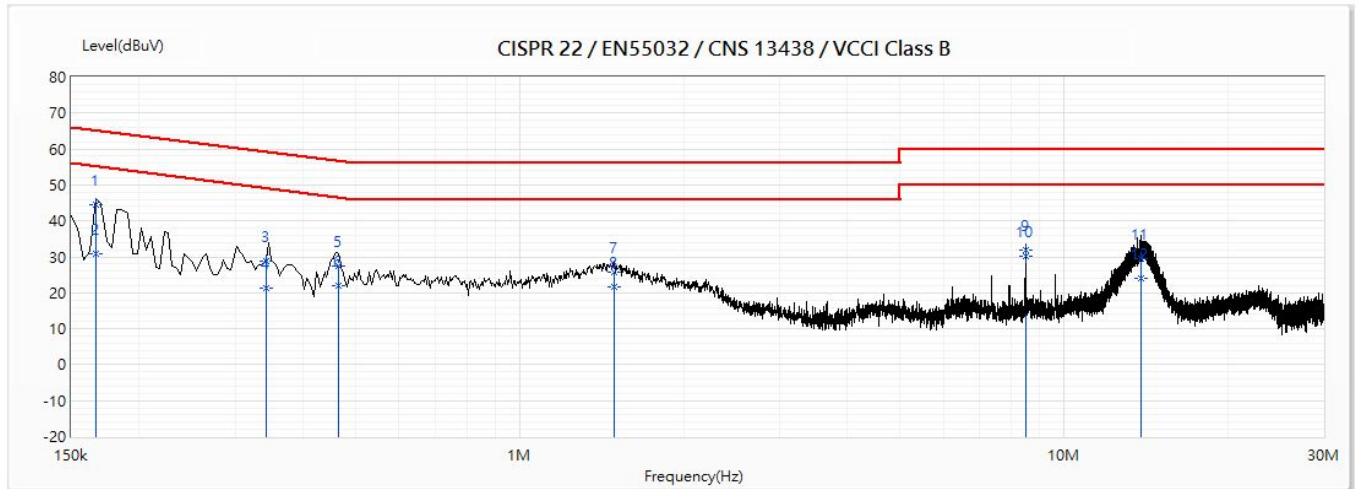
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.16	44.63	65.46	-20.82	34.83	9.80	QP
2	0.16	29.02	55.46	-26.44	19.22	9.80	AV
3	0.198	38.31	63.68	-25.36	28.52	9.79	QP
4	0.198	26.90	53.68	-26.77	17.11	9.79	AV
5	0.412	29.45	57.61	-28.15	19.67	9.79	QP
6	0.412	23.90	47.61	-23.71	14.11	9.79	AV
7	1.389	23.28	56.00	-32.72	13.44	9.84	QP
8	1.389	19.21	46.00	-26.79	9.37	9.84	AV
9	8.505	31.69	60.00	-28.31	21.63	10.06	QP
*10	8.505	30.62	50.00	-19.38	20.56	10.06	AV
11	14.226	29.54	60.00	-30.46	19.37	10.16	QP
12	14.226	23.71	50.00	-26.29	13.55	10.16	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Product : Portable computer
 Test Item : Conducted Emission Test
 Test date : 2020/05/28
 Test Mode : Mode 26: MIMO: Transmit (802.11ax-160BW_144.1Mbps) (5250MHz)

N



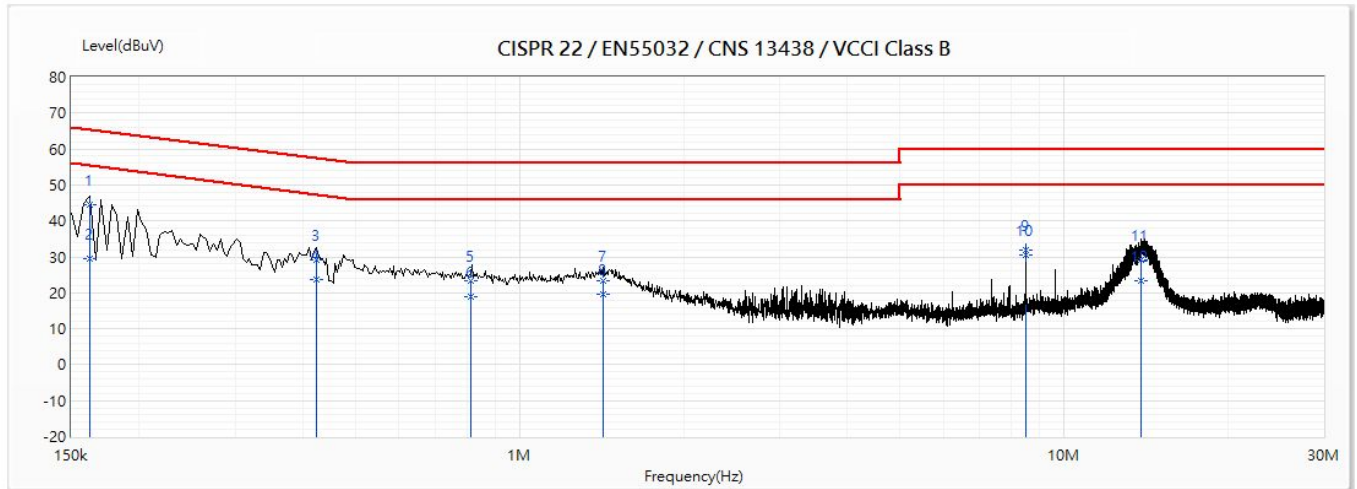
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.166	44.59	65.16	-20.57	34.81	9.78	QP
2	0.166	30.70	55.16	-24.46	20.92	9.78	AV
3	0.342	28.91	59.15	-30.24	19.13	9.78	QP
4	0.342	21.23	49.15	-27.92	11.46	9.78	AV
5	0.465	27.53	56.60	-29.07	17.75	9.78	QP
6	0.465	22.03	46.60	-24.57	12.25	9.78	AV
7	1.492	25.73	56.00	-30.27	15.90	9.83	QP
8	1.492	21.64	46.00	-24.36	11.81	9.83	AV
9	8.505	31.99	60.00	-28.01	21.92	10.07	QP
*10	8.505	30.34	50.00	-19.66	20.27	10.07	AV
11	13.84	29.36	60.00	-30.64	19.14	10.22	QP
12	13.84	24.13	50.00	-25.87	13.91	10.22	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Product : Portable computer
 Test Item : Conducted Emission Test
 Test date : 2020/05/28
 Test Mode : Mode 26: MIMO: Transmit (802.11ax-160BW_144.1Mbps) (5570MHz)

Line1



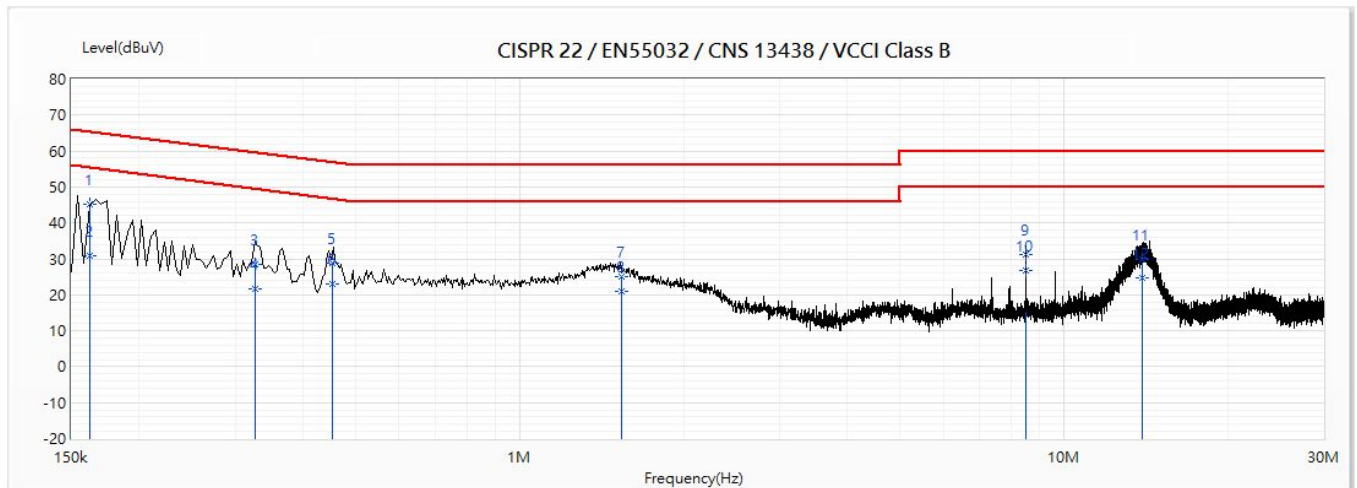
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.162	44.67	65.34	-20.67	34.88	9.80	QP
2	0.162	29.62	55.34	-25.72	19.82	9.80	AV
3	0.423	29.10	57.39	-28.29	19.31	9.79	QP
4	0.423	23.58	47.39	-23.81	13.80	9.79	AV
5	0.813	23.43	56.00	-32.57	13.62	9.81	QP
6	0.813	18.98	46.00	-27.02	9.17	9.81	AV
7	1.421	23.47	56.00	-32.53	13.63	9.84	QP
8	1.421	19.56	46.00	-26.44	9.72	9.84	AV
9	8.503	31.83	60.00	-28.17	21.77	10.06	QP
*10	8.503	30.50	50.00	-19.50	20.44	10.06	AV
11	13.86	29.08	60.00	-30.92	18.92	10.15	QP
12	13.86	23.33	50.00	-26.67	13.17	10.15	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Product : Portable computer
 Test Item : Conducted Emission Test
 Test date : 2020/05/28
 Test Mode : Mode 26: MIMO: Transmit (802.11ax-160BW_144.1Mbps) (5570MHz)

N



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.162	45.21	65.34	-20.13	35.43	9.78	QP
2	0.162	30.78	55.34	-24.56	21.00	9.78	AV
3	0.326	28.62	59.56	-30.93	18.85	9.78	QP
4	0.326	21.54	49.56	-28.02	11.76	9.78	AV
5	0.452	28.68	56.83	-28.16	18.90	9.78	QP
6	0.452	22.98	46.83	-23.85	13.20	9.78	AV
7	1.537	25.18	56.00	-30.82	15.35	9.84	QP
8	1.537	21.03	46.00	-24.97	11.19	9.84	AV
9	8.51	31.35	60.00	-28.65	21.27	10.07	QP
10	8.51	26.68	50.00	-23.32	16.60	10.07	AV
11	13.907	29.94	60.00	-30.06	19.71	10.22	QP
12	13.907	24.59	50.00	-25.41	14.37	10.22	AV

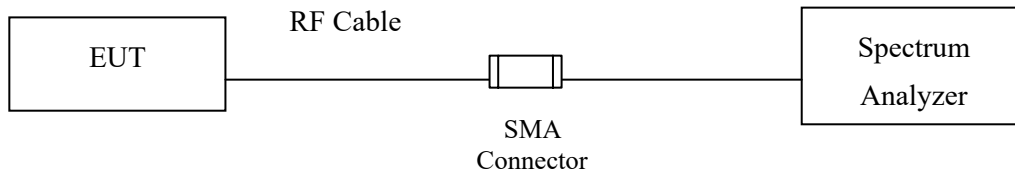
Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

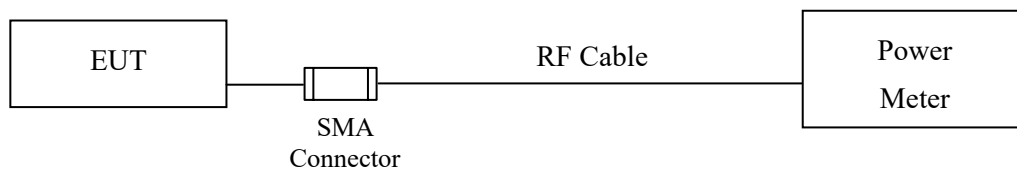
3. Maximun conducted output power

3.1. Test Setup

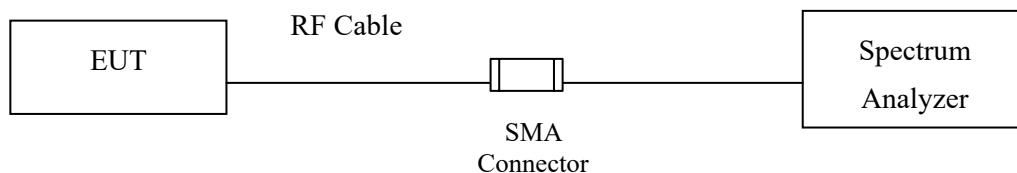
26dB Occupied Bandwidth



Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



3.2. Limits

3.2.1. For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 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, the maximum conducted output power 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 5.15-5.25 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. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power 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 5.15-5.25 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. 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 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 5.15-5.25 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. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

3.2.3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII 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.

3.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT

was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an ($BW \leq 40\text{MHz}$) Maximum conducted output power using KDB 789033 section E)3)b)
Method PM-G (Measurement using a gated RF average power meter)

Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac ($BW=80\text{MHz}$) Maximum conducted output power using KDB 789033 section E)2)b)
Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

3.4. Uncertainty

$\pm 1.62 \text{ dB}$

3.5. Test Result of Maximum conducted output power

Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 1 SISO A: Transmit (802.11a_6Mbps)

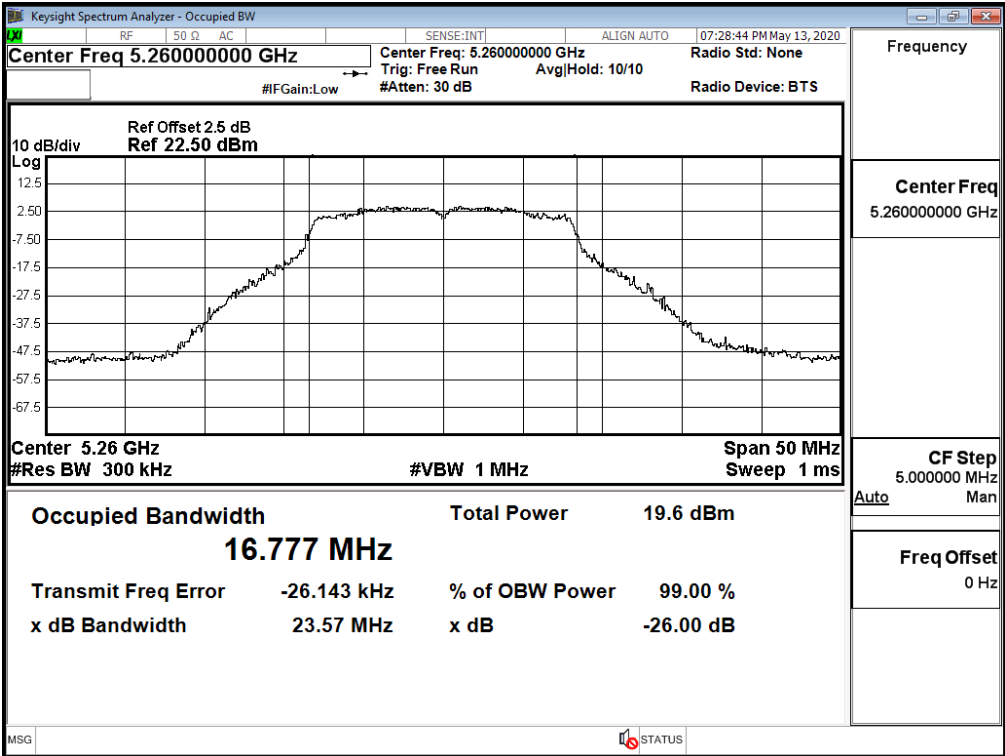
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	13.49	--	--	--	--	--	--	--
44	5220	13.44	13.34	13.24	13.21	13.14	13.11	13.05	13.02
48	5240	13.48	--	--	--	--	--	--	--
52	5260	13.41	--	--	--	--	--	--	--
60	5300	13.47	13.4	13.32	13.26	13.22	13.17	13.10	13.00
64	5320	13.44	--	--	--	--	--	--	--
100	5500	13.48	--	--	--	--	--	--	--
116	5580	13.49	13.45	13.41	13.33	13.24	13.20	13.13	13.04
140	5700	13.48	--	--	--	--	--	--	--
149	5745	13.41	--	--	--	--	--	--	--
157	5785	13.42	13.39	13.34	13.24	13.15	13.10	13.02	12.98
165	5825	13.46	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

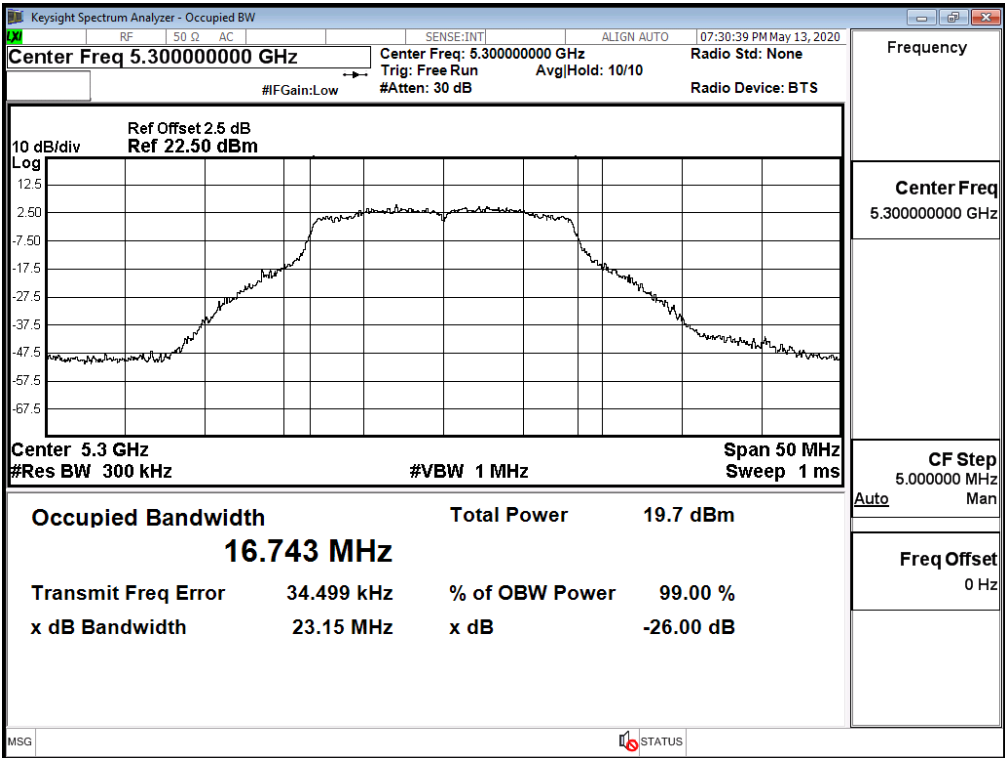
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.49	24	--	Pass
44	5220	--	13.44	24	--	Pass
48	5240	--	13.48	24	--	Pass
52	5260	23.570	13.41	24	24.72	Pass
60	5300	23.150	13.47	24	24.65	Pass
64	5320	23.430	13.44	24	24.70	Pass
100	5500	23.270	13.48	24	24.67	Pass
116	5580	23.510	13.49	24	24.71	Pass
140	5700	22.980	13.48	24	24.61	Pass
149	5745	--	13.41	30	--	Pass
157	5785	--	13.42	30	--	Pass
165	5825	--	13.46	30	--	Pass

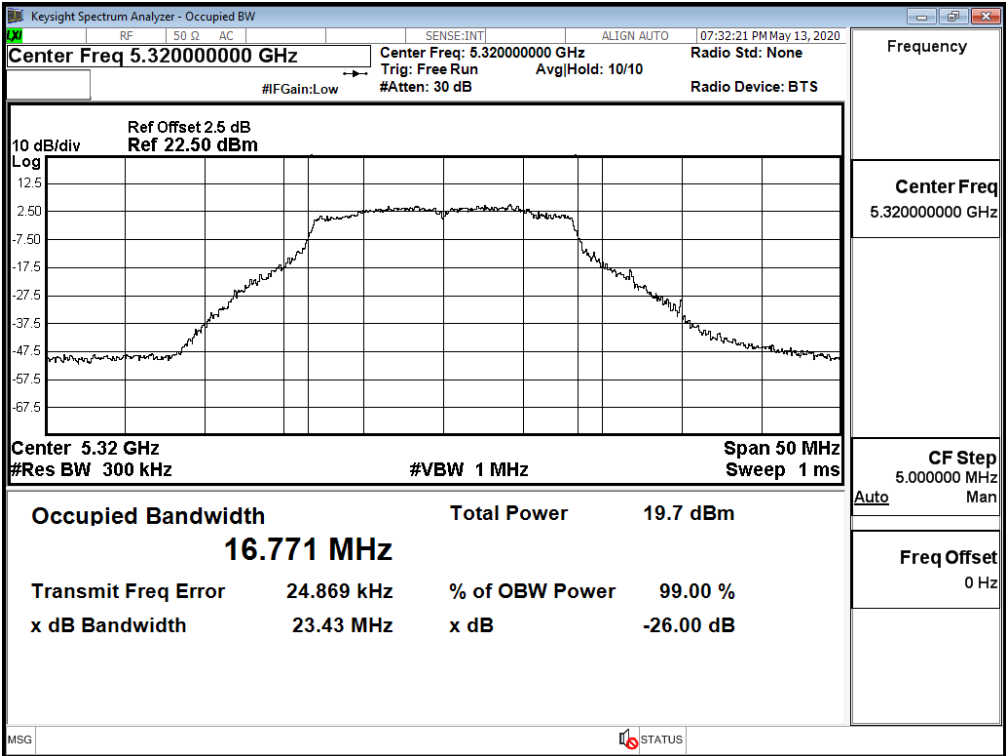
26dB Occupied Bandwidth:
Channel 52



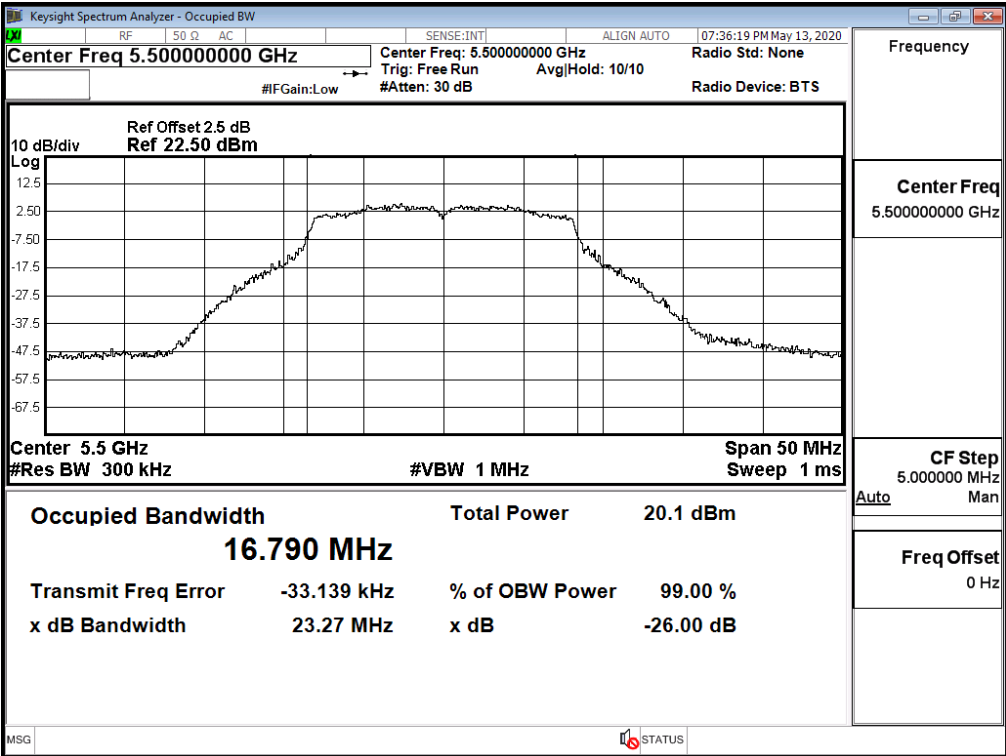
Channel 60



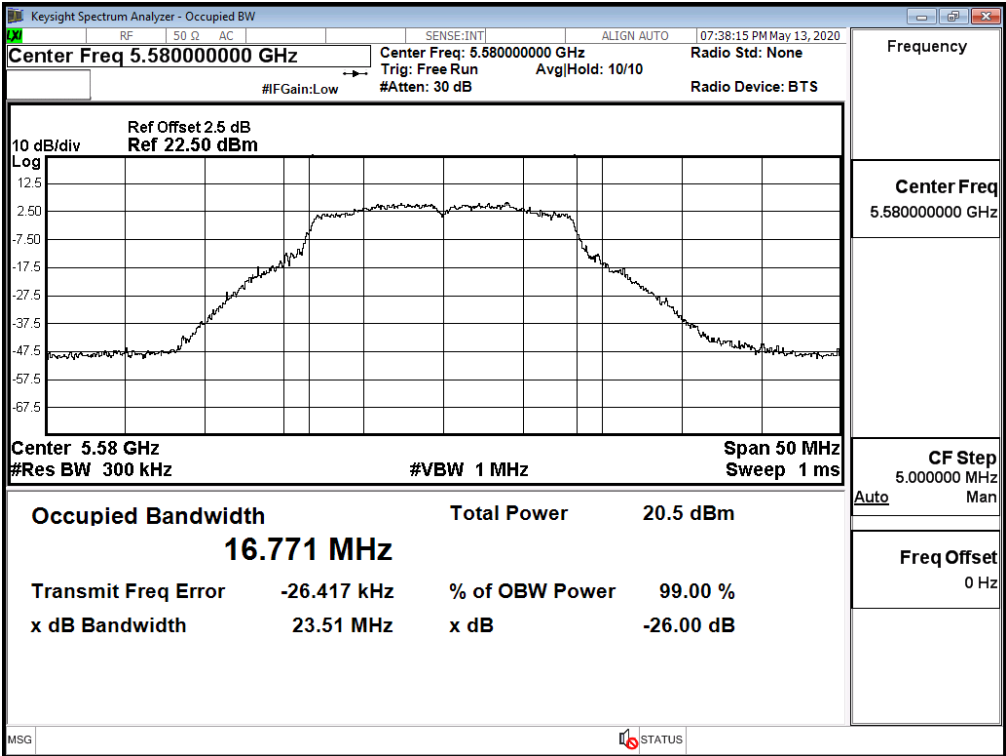
Channel 64



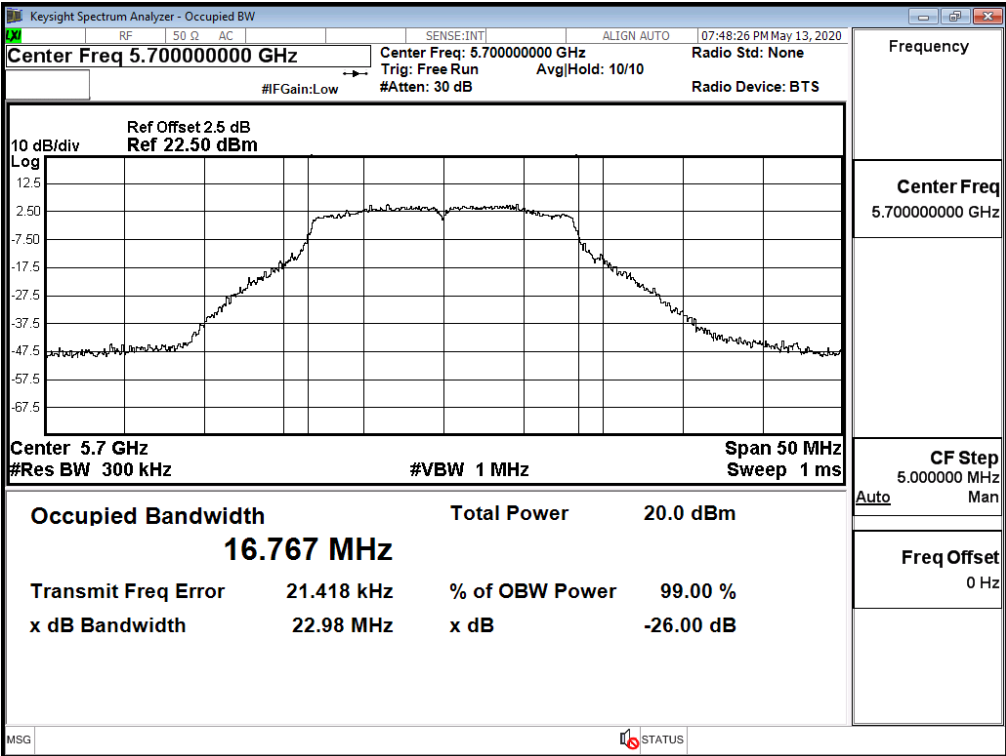
Channel 100



Channel 116



Channel 140



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 2 SISO A: Transmit (802.11n-20BW_7.2Mbps)

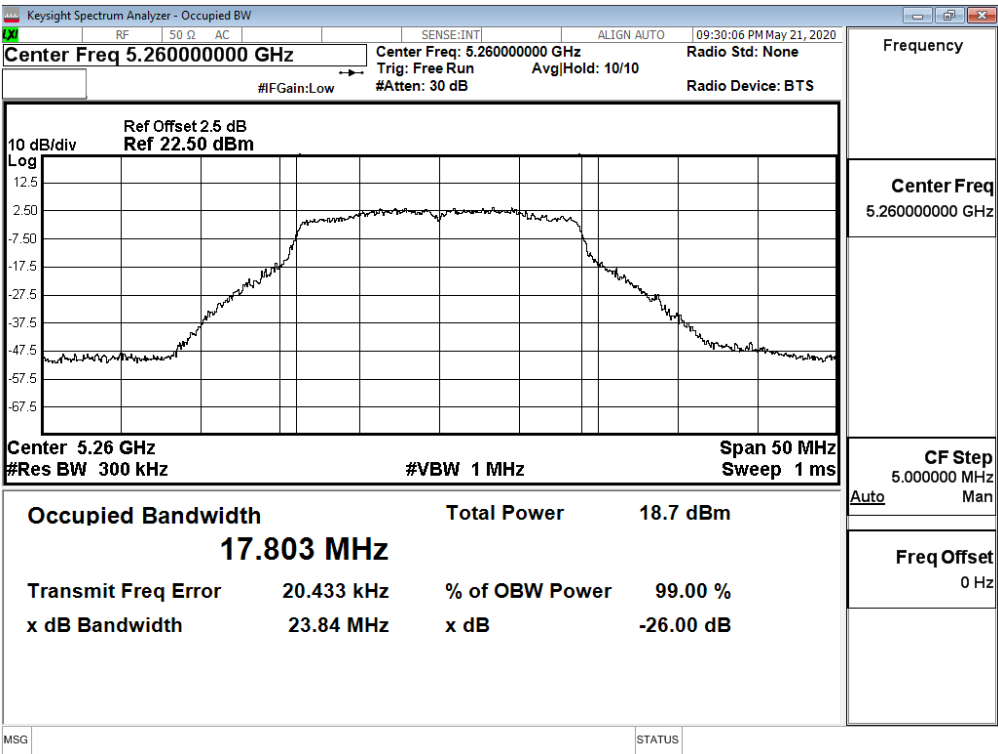
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT0	HT1	HT2	HT3	HT4	HT5	HT6	HT7
		Measurement Level (dBm)							
36	5180	13.49	--	--	--	--	--	--	--
44	5220	13.5	13.45	13.37	13.30	13.26	13.23	13.14	13.08
48	5240	13.44	--	--	--	--	--	--	--
52	5260	13.46	--	--	--	--	--	--	--
60	5300	13.42	13.38	13.31	13.24	13.14	13.07	13.01	12.97
64	5320	13.45	--	--	--	--	--	--	--
100	5500	13.47	--	--	--	--	--	--	--
116	5580	13.5	13.44	13.36	13.27	13.23	13.14	13.05	13.00
140	5700	13.49	--	--	--	--	--	--	--
144(Band3)	5720	12.77	12.7	12.66	12.62	12.54	12.47	12.41	12.37
144(Band4)	5720	5.29	5.27	5.23	5.19	5.16	5.12	5.04	4.94
149	5745	13.41	--	--	--	--	--	--	--
157	5785	13.4	13.35	13.29	13.23	13.17	13.13	13.10	13.02
165	5825	13.42	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

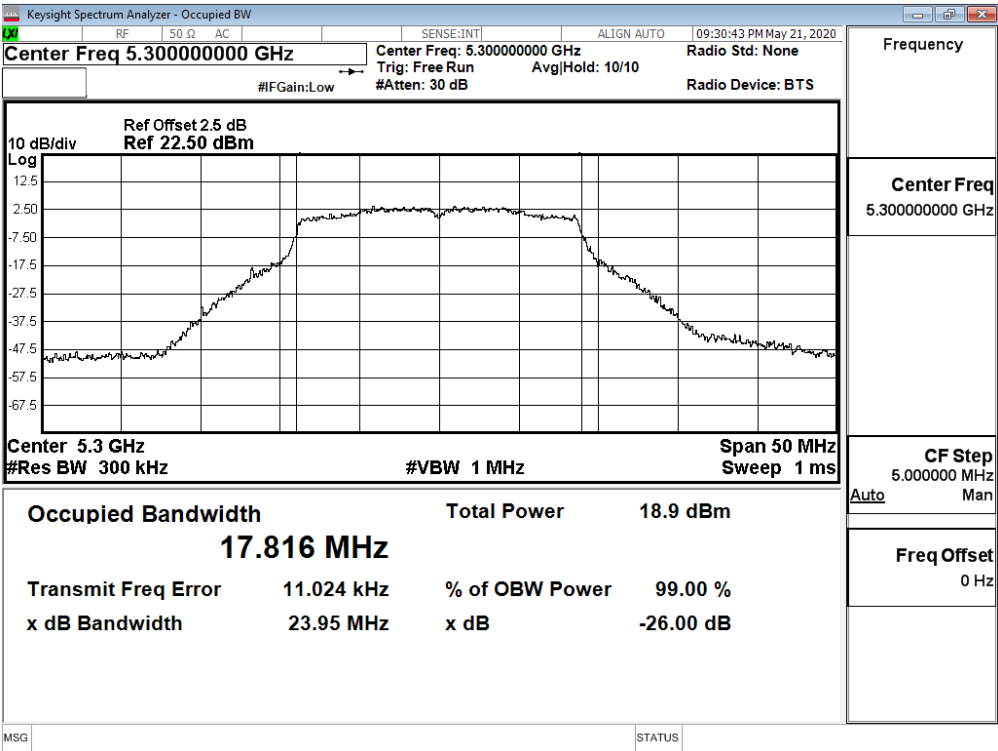
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.49	24	--	Pass
44	5220	--	13.5	24	--	Pass
48	5240	--	13.44	24	--	Pass
52	5260	23.840	13.46	24	24.77	Pass
60	5300	23.950	13.42	24	24.79	Pass
64	5320	23.090	13.45	24	24.63	Pass
100	5500	23.270	13.47	24	24.67	Pass
116	5580	23.640	13.5	24	24.74	Pass
140	5700	23.570	13.49	24	24.72	Pass
144(Band3)	5720	16.750	12.77	24	23.24	Pass
144(Band4)	5720	--	5.29	30	--	Pass
149	5745	--	13.41	30	--	Pass
157	5785	--	13.4	30	--	Pass
165	5825	--	13.42	30	--	Pass

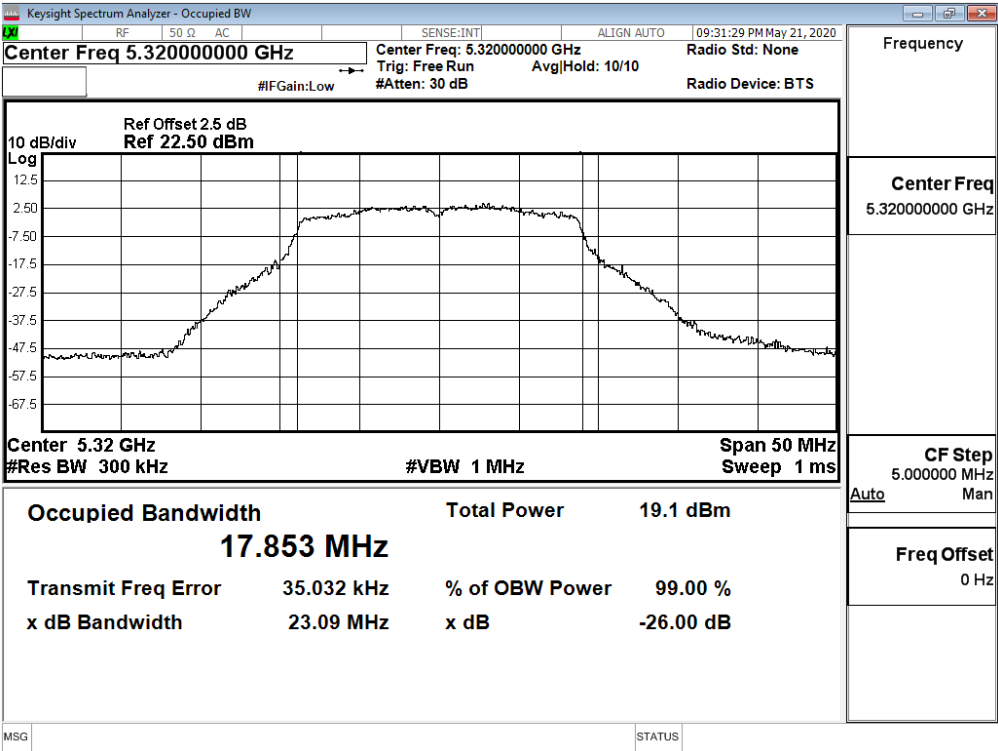
26dB Occupied Bandwidth:
Channel 52



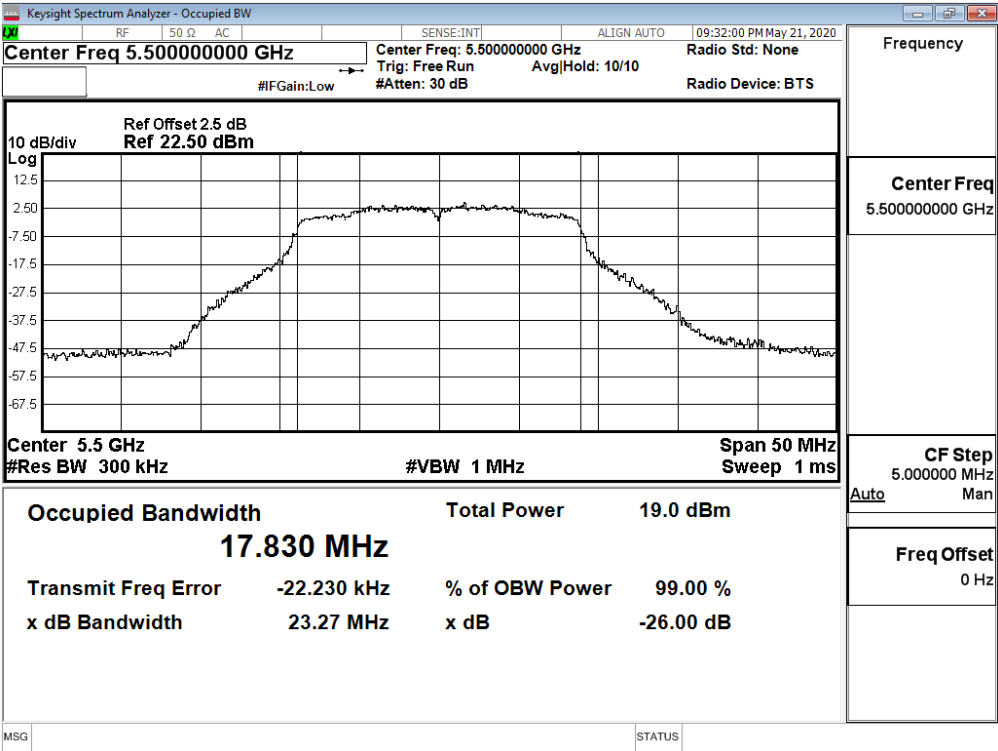
Channel 60



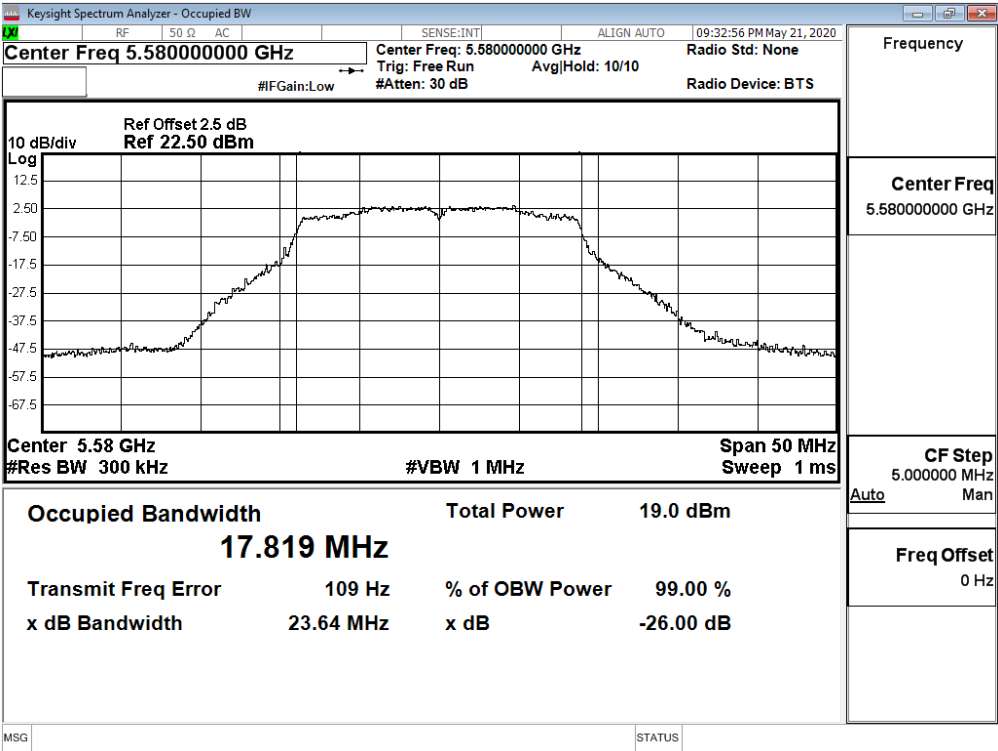
Channel 64



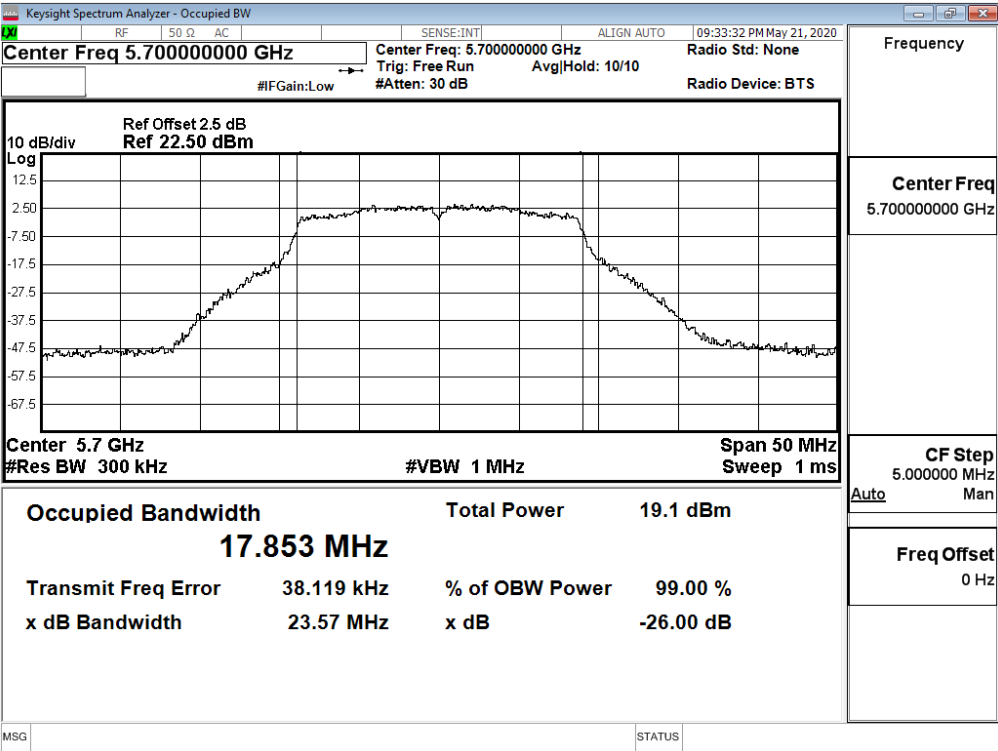
Channel 100



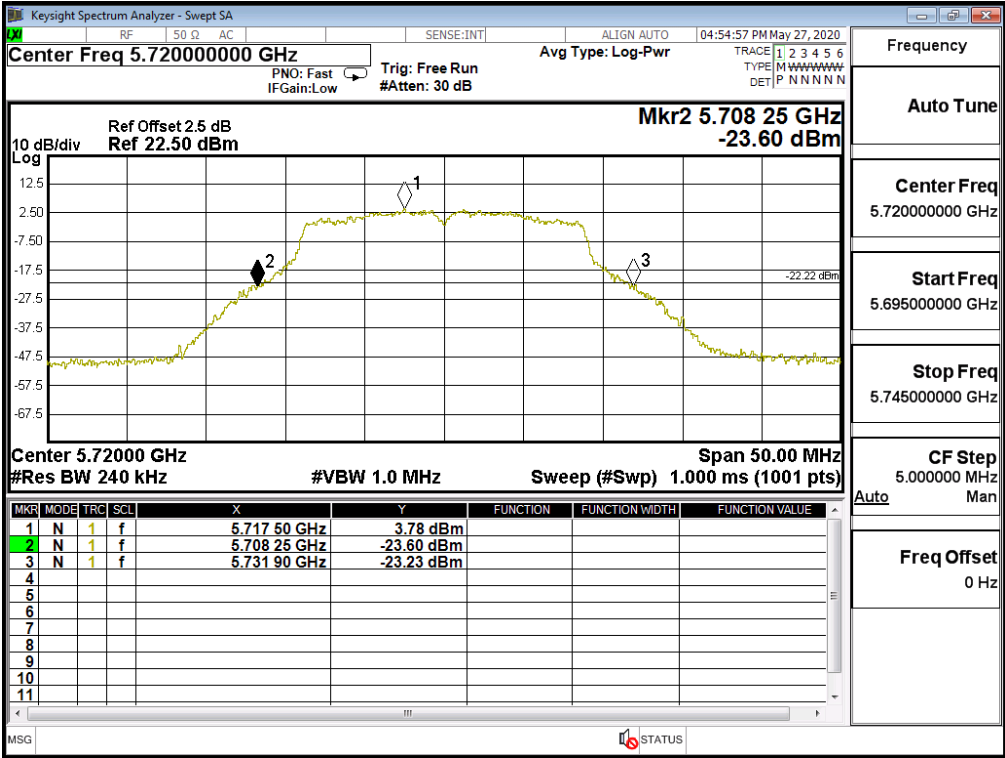
Channel 116



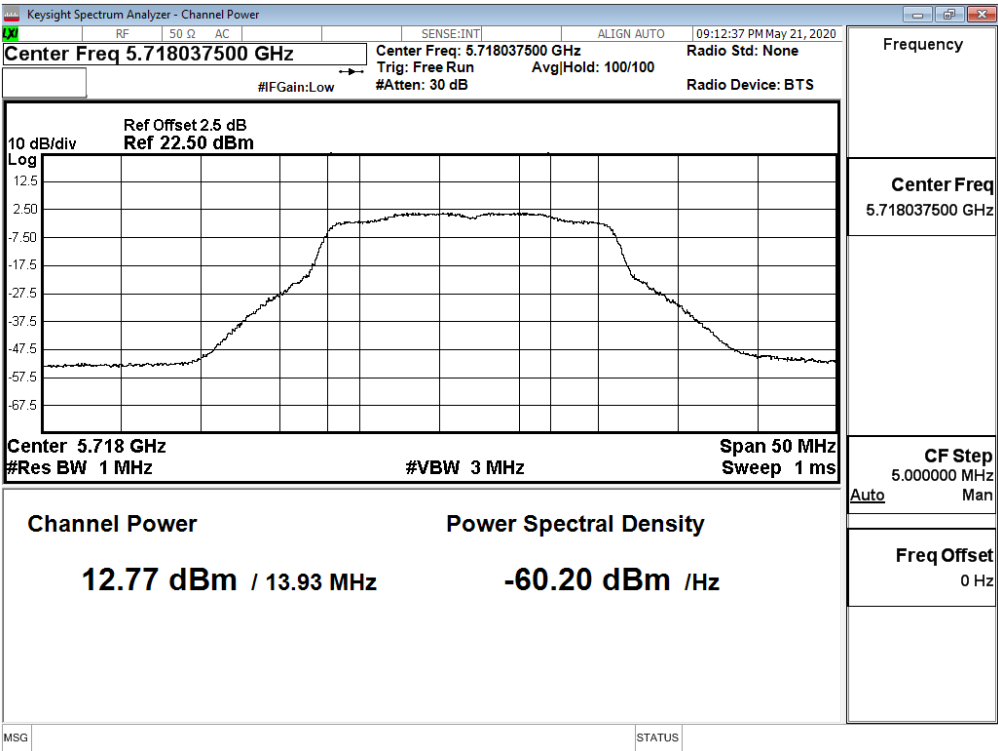
Channel 140



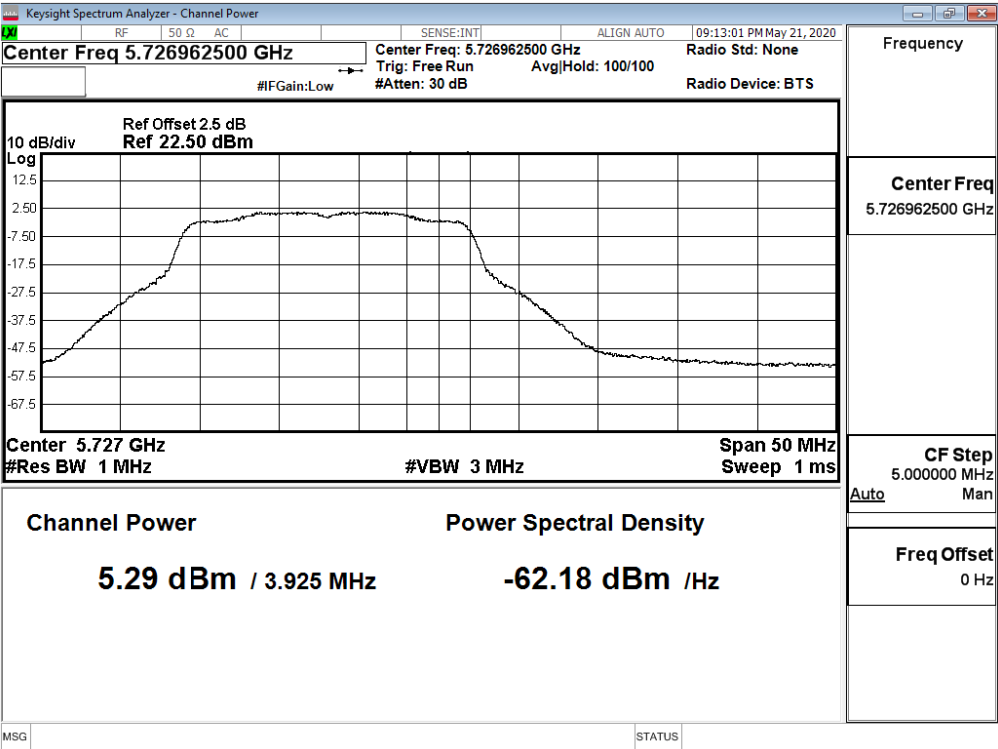
Channel 144



Maximum conducted output power:
Channel 144 (Band3)



Maximum conducted output power:
Channel 144 (Band4)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 3 SISO A: Transmit (802.11n-40BW_15Mbps)

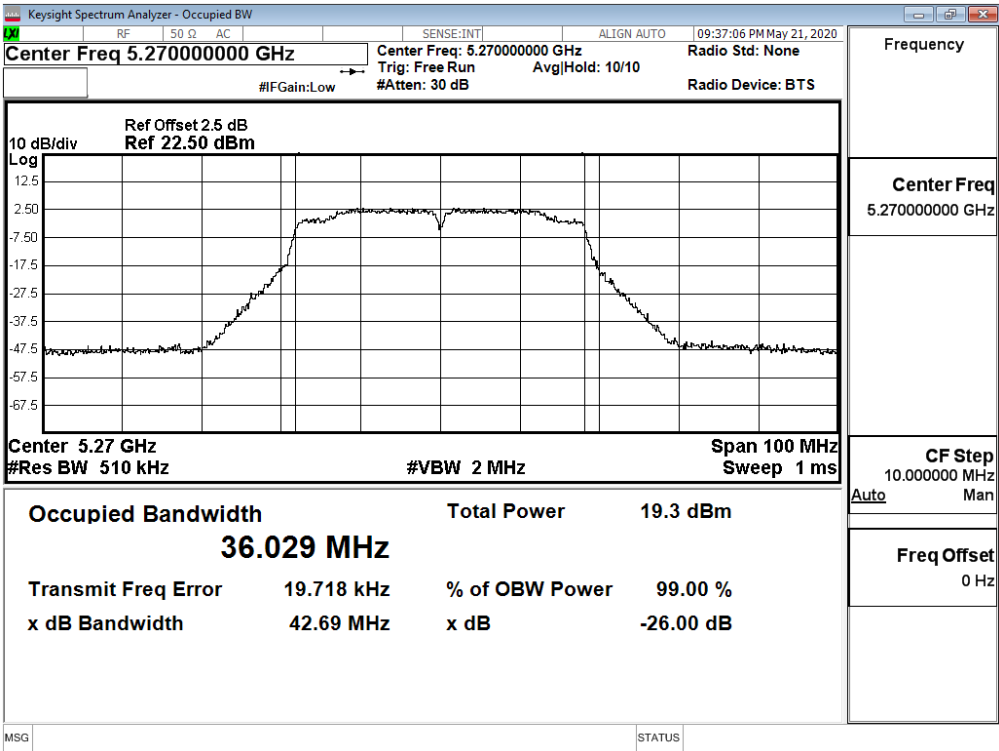
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT0	HT1	HT2	HT3	HT4	HT5	HT6	HT7
		Measurement Level (dBm)							
38	5190	13.45	--	--	--	--	--	--	--
46	5230	13.47	13.39	13.36	13.33	13.30	13.25	13.18	13.08
54	5270	13.46	--	--	--	--	--	--	--
62	5310	13.48	13.38	13.32	13.24	13.15	13.10	13.00	12.91
102	5510	13.4	--	--	--	--	--	--	--
110	5550	13.47	13.42	13.34	13.31	13.22	13.13	13.07	13.03
134	5670	13.47	--	--	--	--	--	--	--
142F(Band3)	5710	13.2	13.17	13.1	13.03	12.94	12.85	12.76	12.73
142F(Band4)	5710	0.48	0.4	0.36	0.33	0.3	0.29	0.27	0.25
151	5755	13.42	--	--	--	--	--	--	--
159	5795	13.43	13.36	13.33	13.30	13.21	13.12	13.02	12.96

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

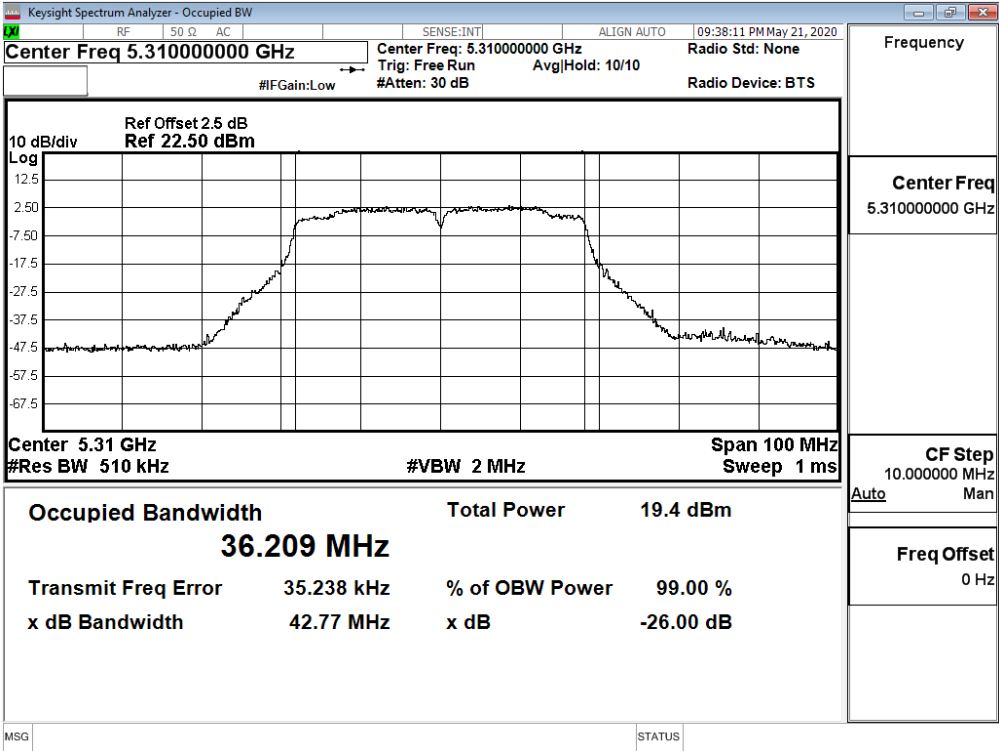
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
38	5190	--	13.45	24	--	Pass
46	5230	--	13.47	24	--	Pass
54	5270	42.690	13.46	24	27.30	Pass
62	5310	42.770	13.48	24	27.31	Pass
102	5510	42.680	13.4	24	27.30	Pass
110	5550	42.360	13.47	24	27.27	Pass
134	5670	42.610	13.47	24	27.30	Pass
142F(Band3)	5710	35.900	13.2	24	26.55	Pass
142F(Band4)	5710	--	0.48	30	--	Pass
151	5755	--	13.42	30	--	Pass
159	5795	--	13.43	30	--	Pass

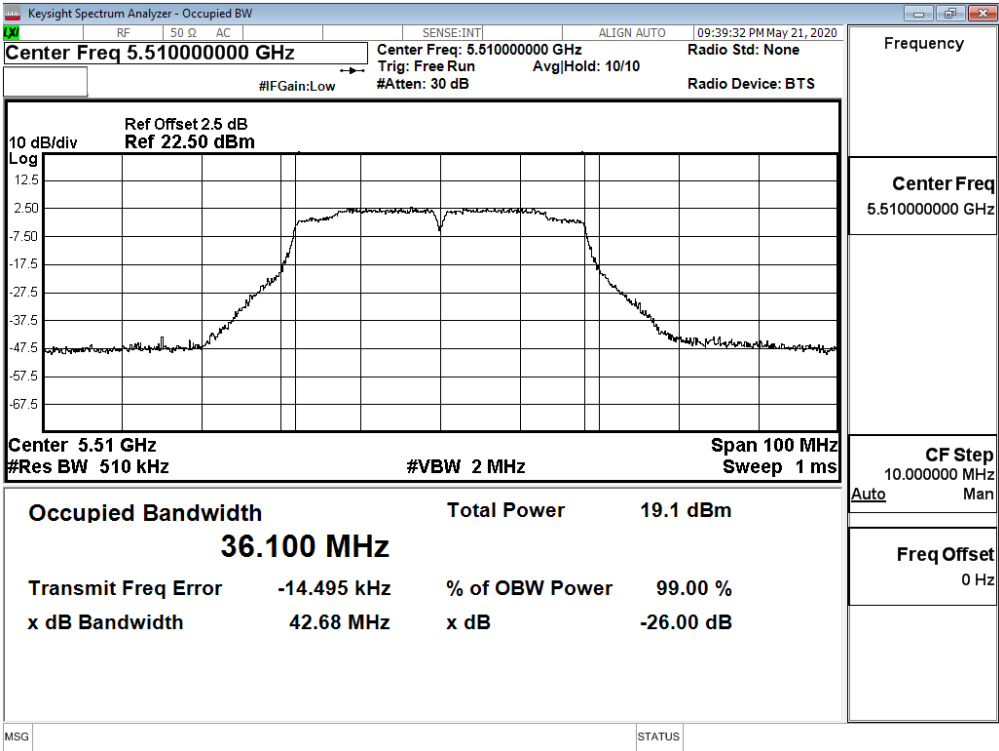
26dB Occupied Bandwidth:
Channel 54



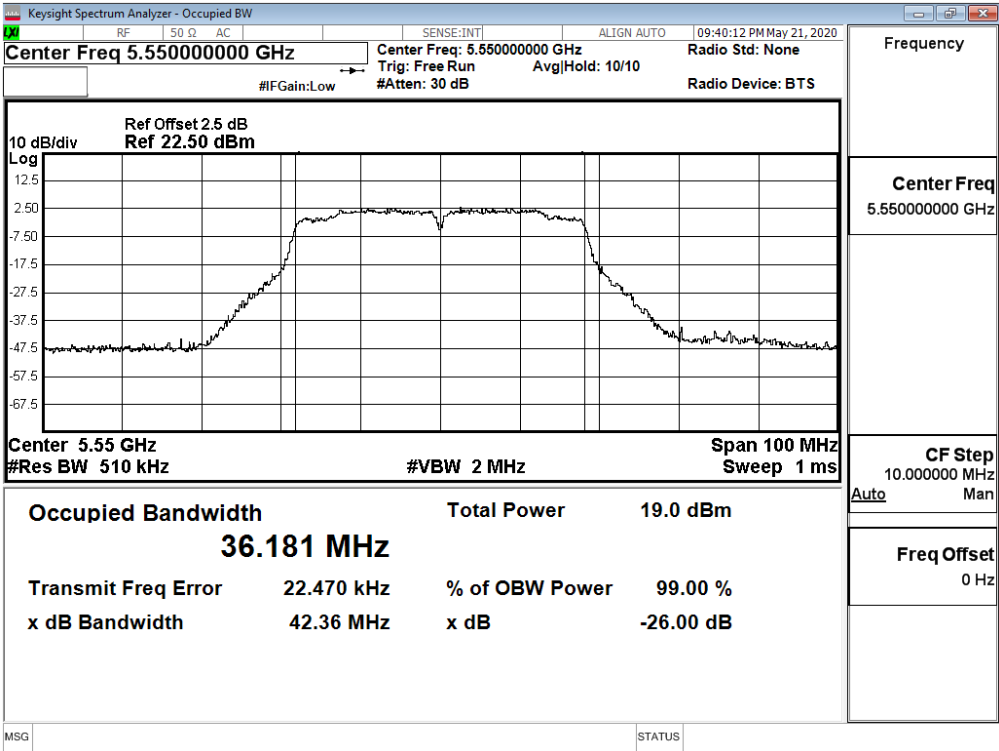
Channel 62



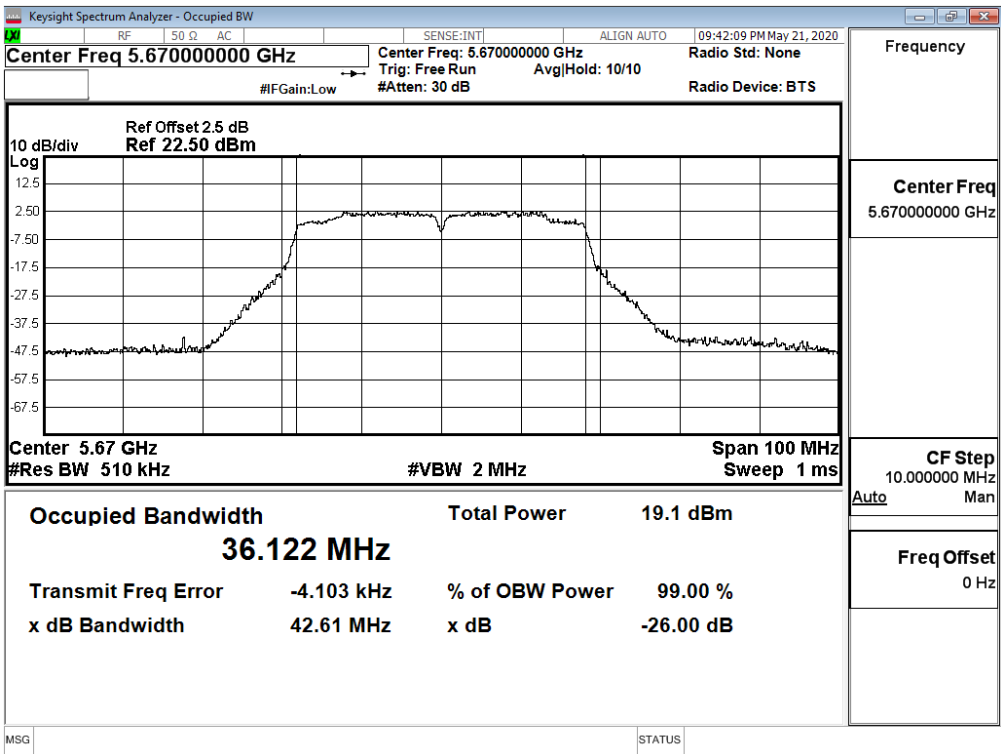
Channel 102



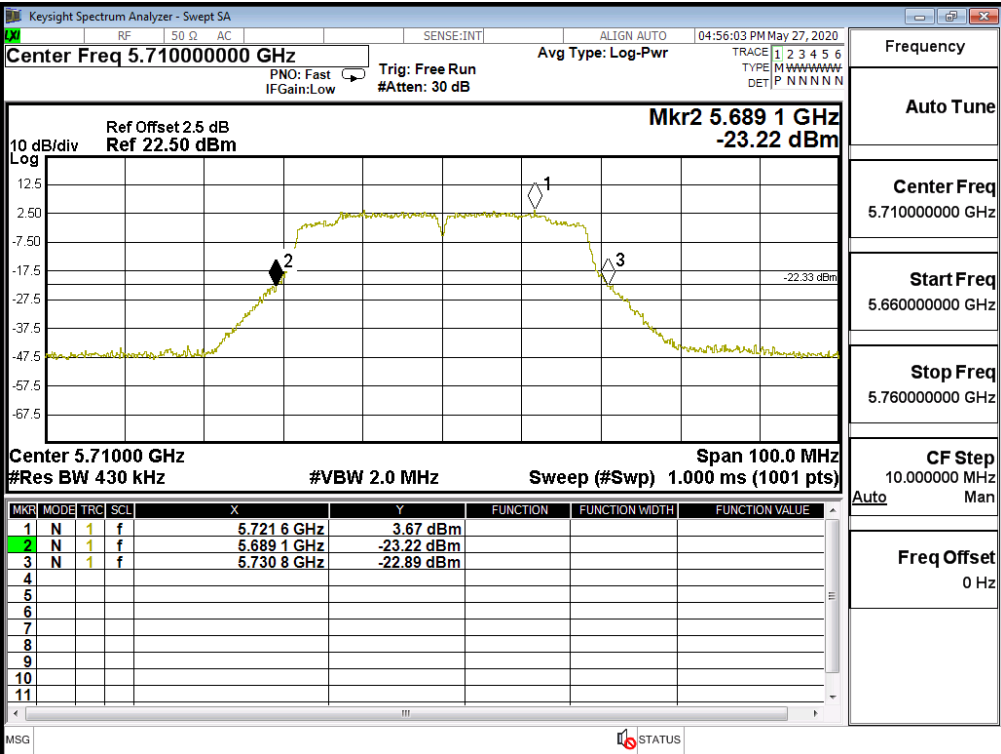
Channel 110



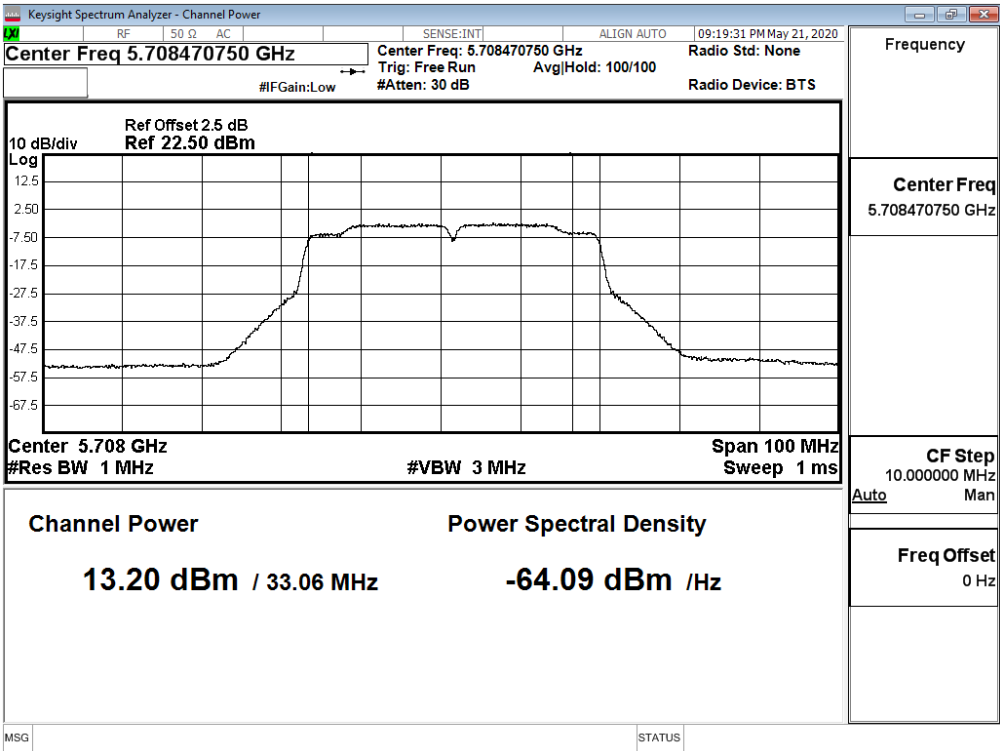
Channel 134



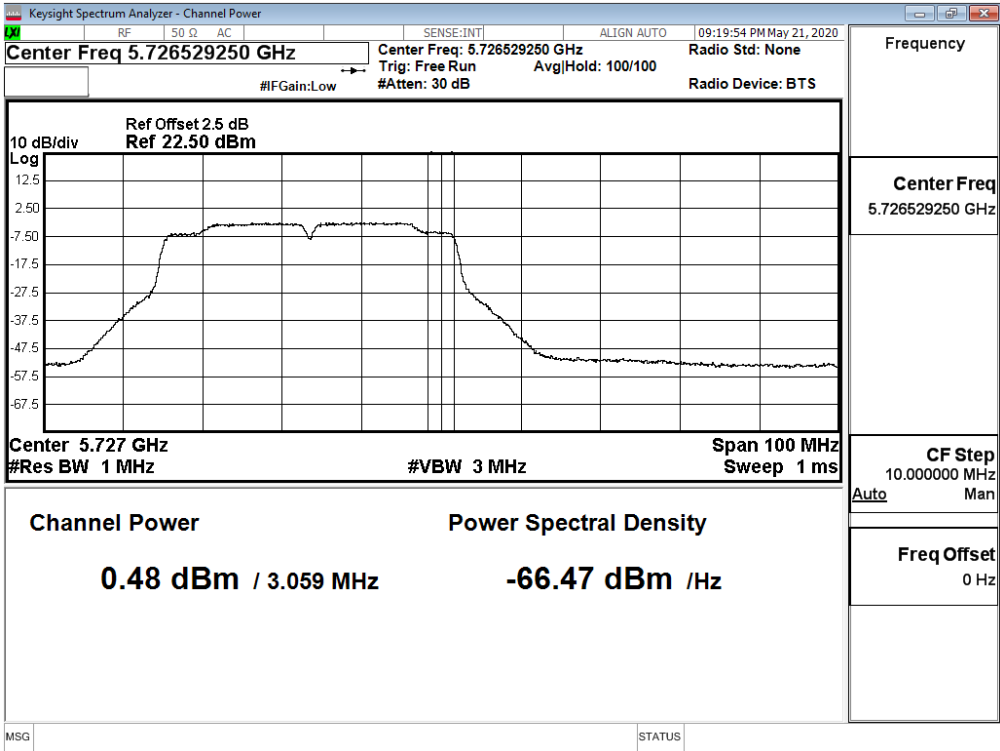
Channel 142



Maximum conducted output power:
Channel 142 (Band3)



Maximum conducted output power:
Channel 142 (Band4)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 4 SISO A: Transmit (802.11ac-80BW_32.5Mbps)

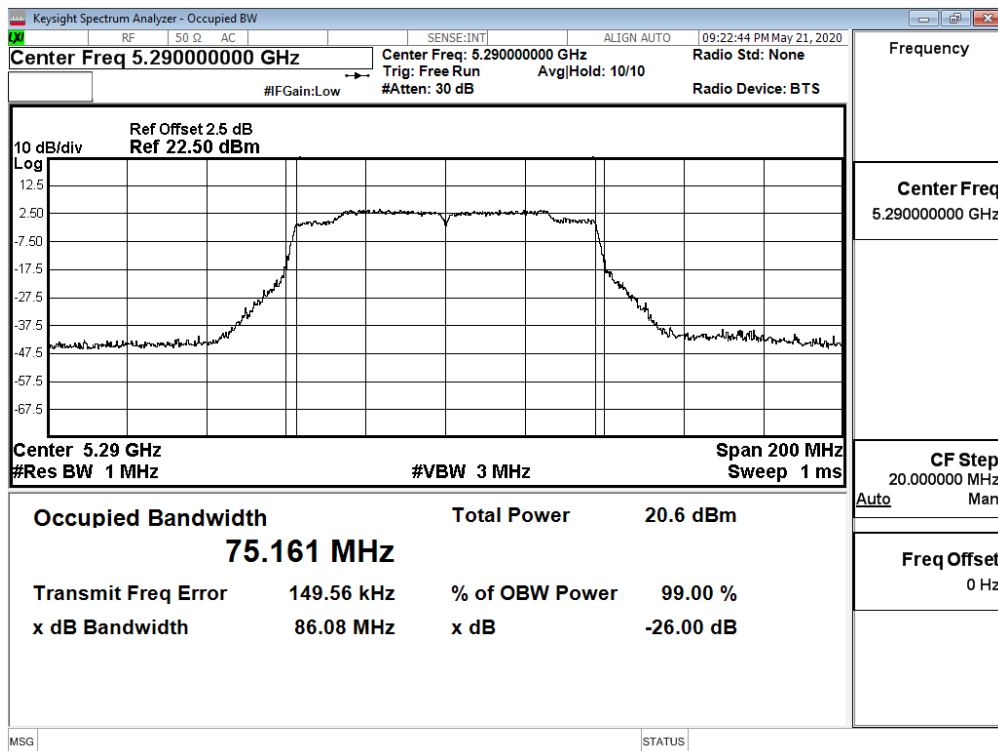
Cable loss=2.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VHT0	VHT1	VHT2	VHT3	VHT4	VHT5	VHT6	VHT7	VHT8	VHT9
42	5210	13.49	13.45	13.42	13.39	13.36	13.3	13.21	13.12	13.02	12.97
58	5290	13.45	13.36	13.33	13.30	13.23	13.15	13.10	13.00	12.93	12.84
106ac80	5530	13.42	13.35	13.29	13.2	13.11	13.02	12.95	12.92	12.85	12.78
122ac80	5610	13.48	13.39	13.31	13.21	13.13	13.08	13.02	12.97	12.87	12.84
138ac80(Band3)	5690	13.43	13.4	13.34	13.29	13.26	13.19	13.11	13.08	13.03	12.99
138ac80(Band4)	5690	-4.18	-4.27	-4.36	-4.43	-4.48	-4.58	-4.61	-4.69	-4.76	-4.79
155ac80	5775	13.46	13.42	13.32	13.29	13.21	13.13	13.05	13.01	12.94	12.84

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

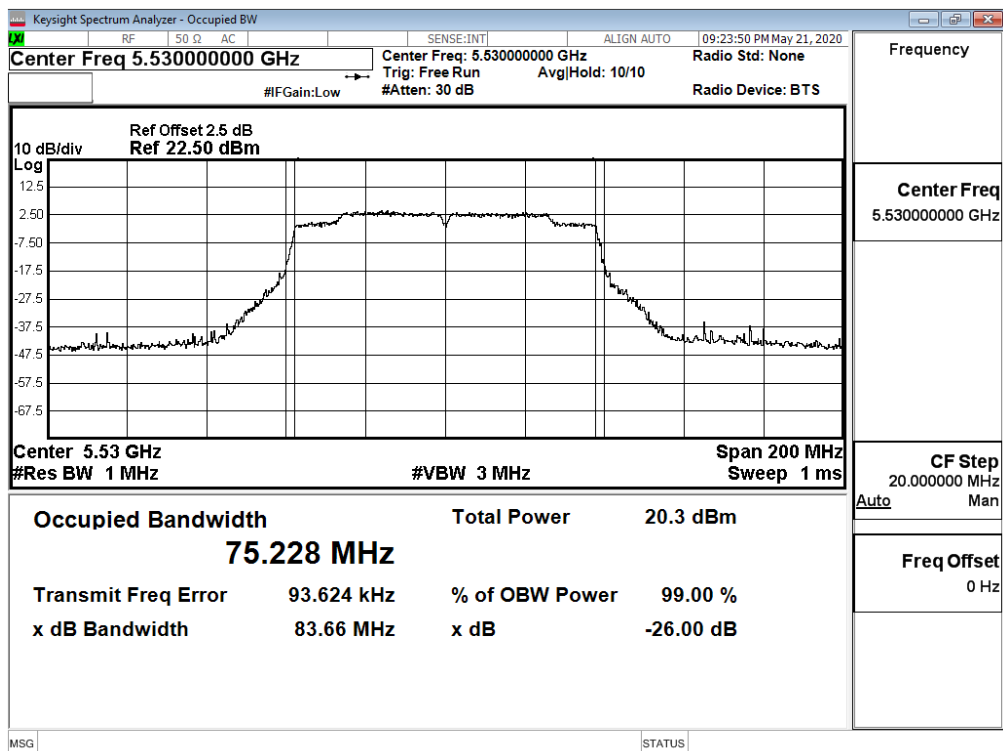
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
42	5210	--	13.49	24	--	Pass
58	5290	86.080	13.45	24	30.35	Pass
106ac80	5530	83.660	13.42	24	30.23	Pass
122ac80	5610	84.530	13.48	24	30.27	Pass
138ac80(Band3)	5690	78.400	13.43	24	29.94	Pass
138ac80(Band4)	5690	--	-4.18	30	--	Pass
155ac80	5775	--	13.46	30	--	Pass

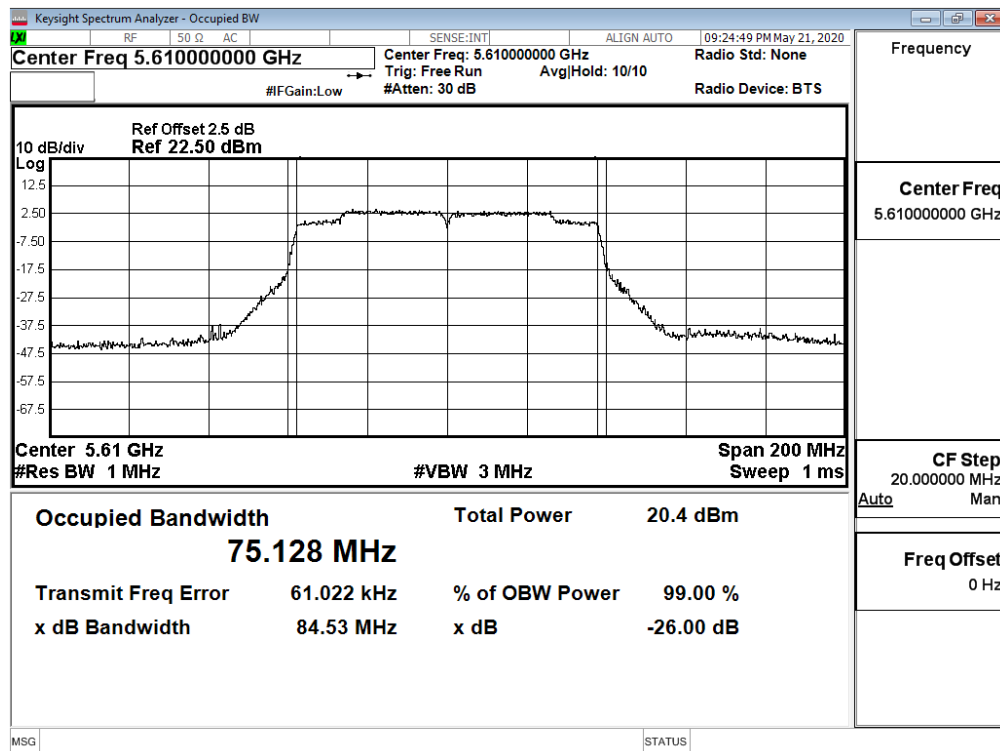
26dB Occupied Bandwidth: Channel 58



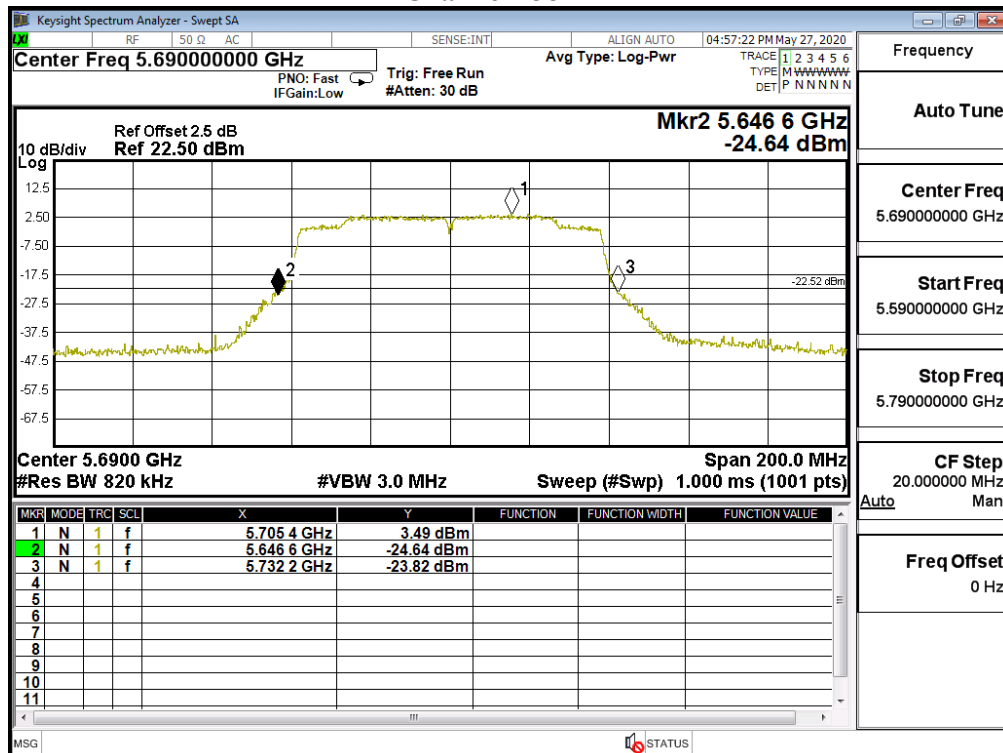
Channel 106

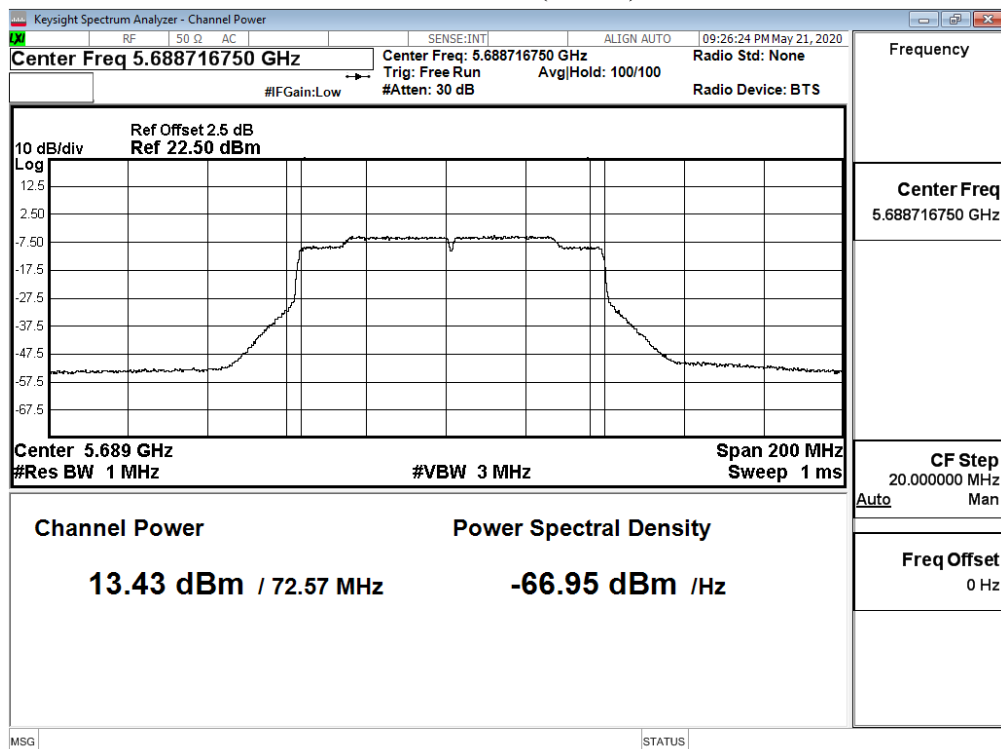
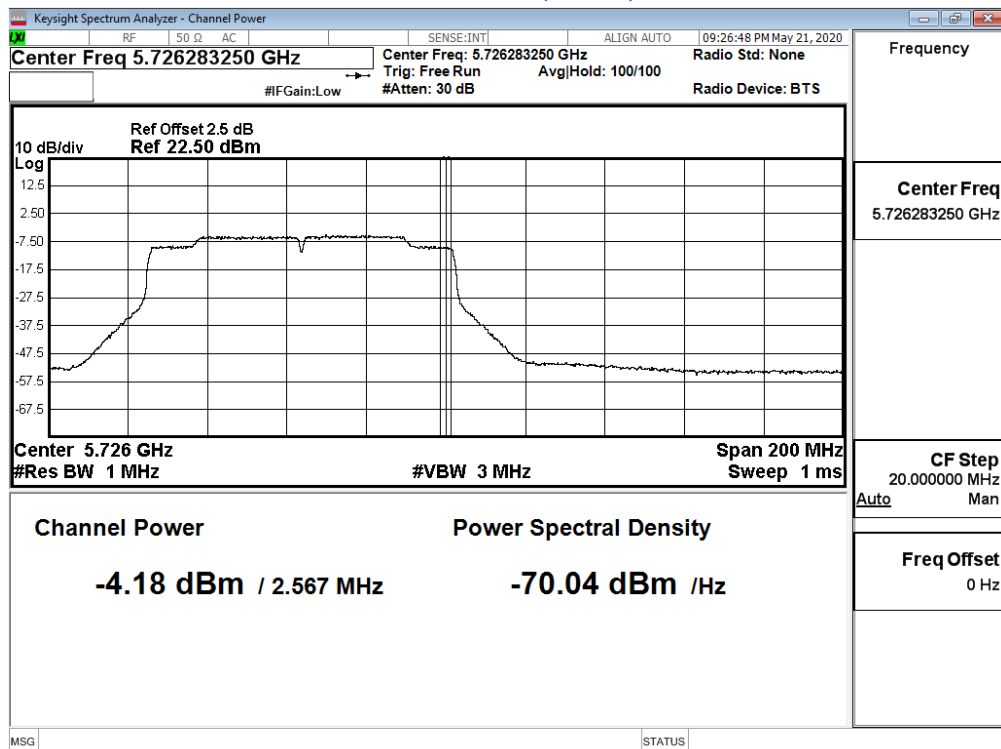


Channel 122



Channel 138



Maximum conducted output power:**Channel 138 (Band3)****Maximum conducted output power:****Channel 138 (Band4)**

Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 5 SISO A: Transmit (802.11ac-160BW_65Mbps)

Cable loss=2.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VHT0	VHT1	VHT2	VHT3	VHT4	VHT5	VHT6	VHT7	VHT8	VHT9
50ac160(Band1)	5250	10.25	10.15	10.11	10.05	9.99	9.89	9.87	9.86	9.78	9.7
50ac160(Band2)	5250	10.66	10.62	10.6	10.51	10.47	10.43	10.41	10.33	10.29	10.21
114ac160	5570	13.42	13.37	13.3	13.21	13.13	13.08	13.01	12.96	12.93	12.89

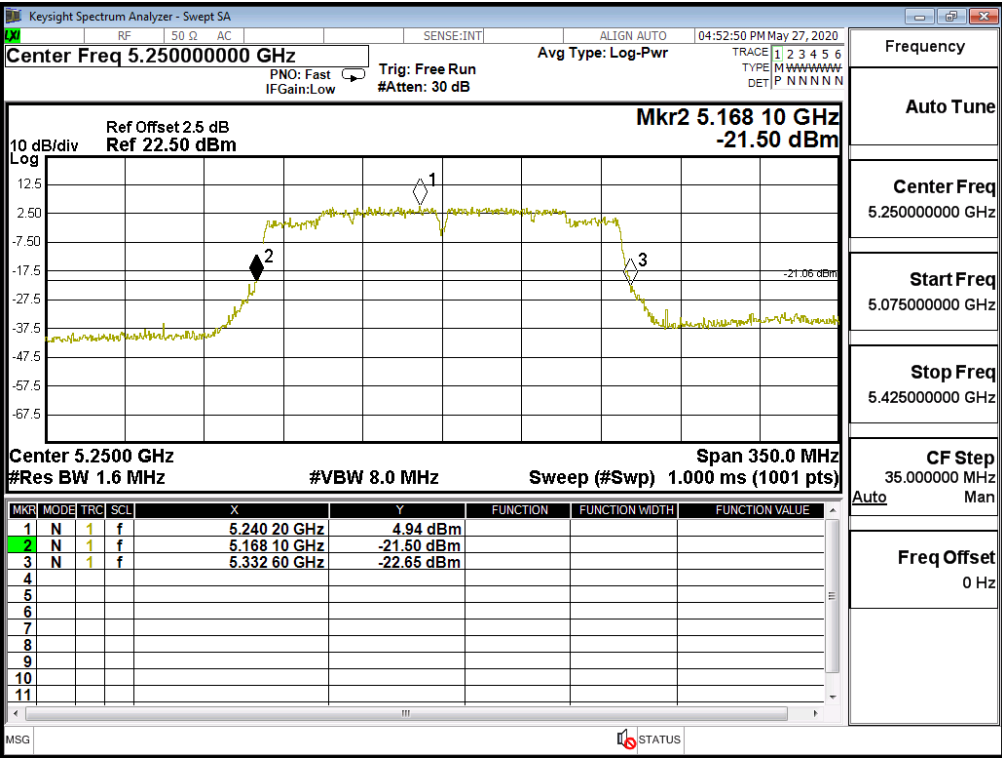
Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement:

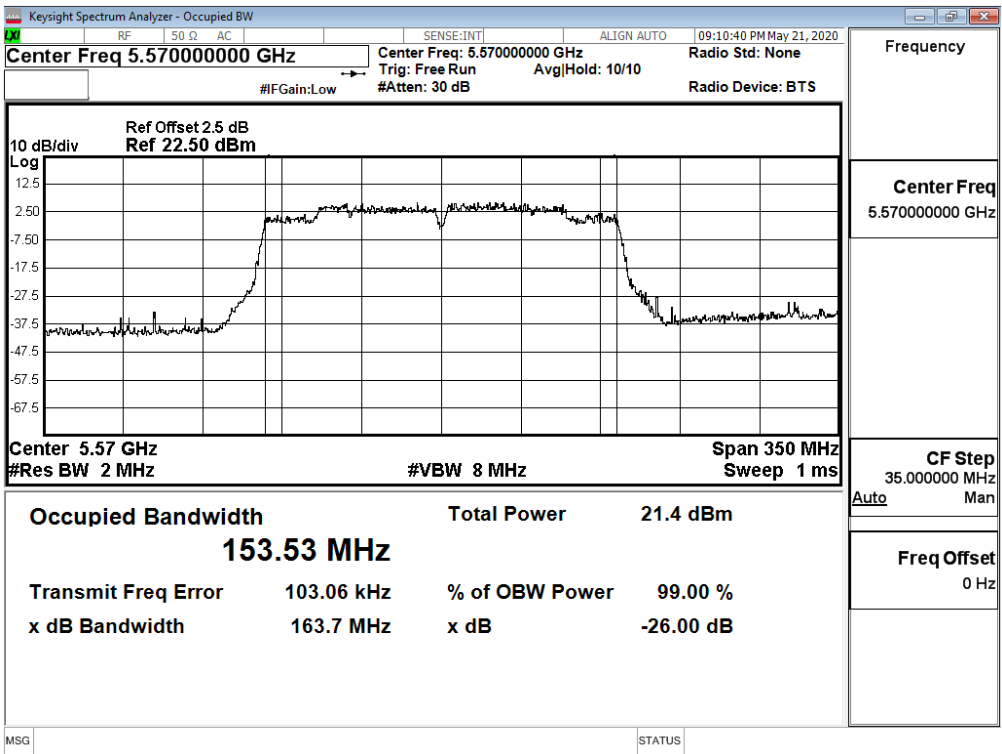
Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
50ac160(Band1)	5250	--	10.25	24	--	Pass
80ac160(Band2)	5250	82.600	10.66	24	21.28	Pass
114ac160	5570	163.700	13.42	24	22.28	Pass

26dB Occupied Bandwidth:

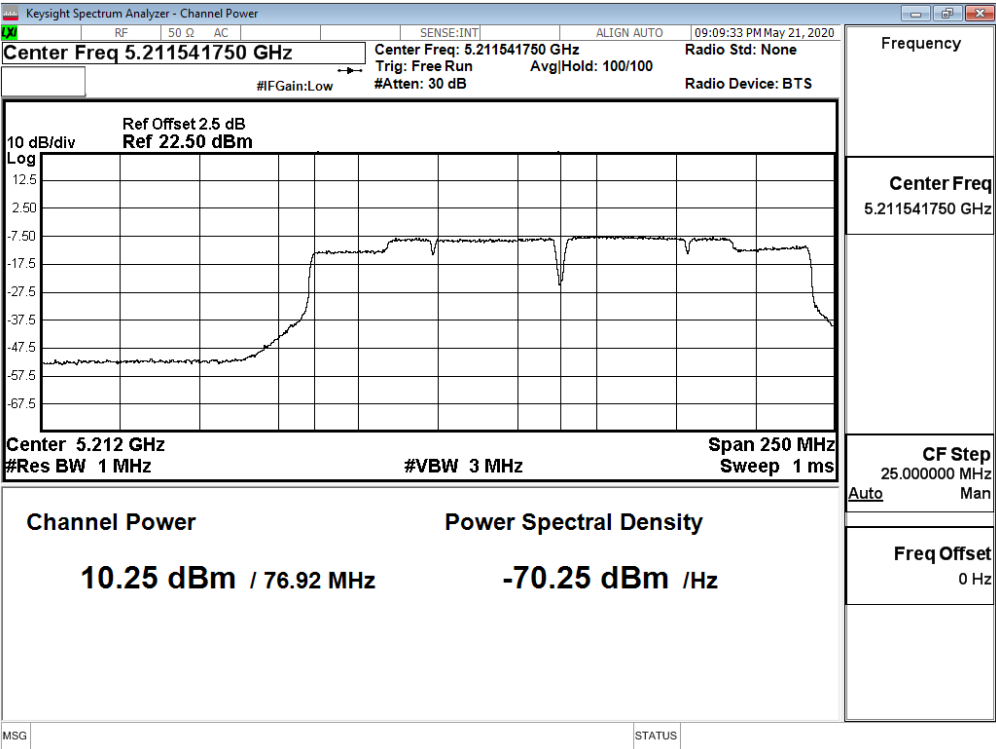
Channel 50



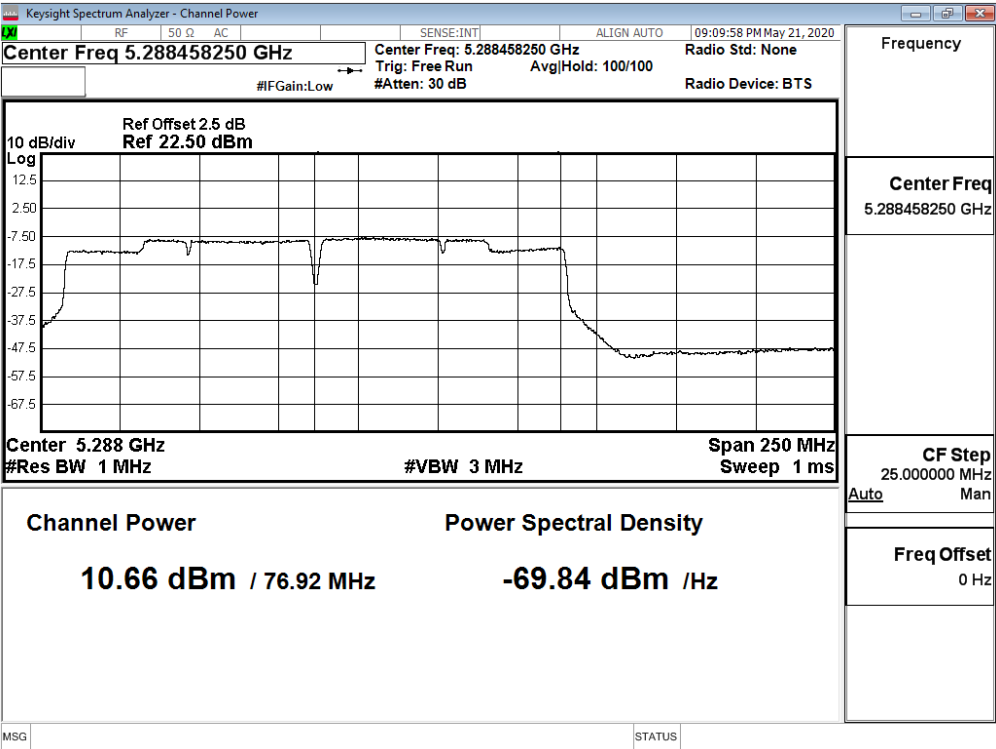
Channel 114



Maximum conducted output power:
Channel 50 (Band1)



Maximum conducted output power:
Channel 50 (Band2)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 6: SISO A: Transmit (802.11ax-20BW_8.6Mbps)

RU config: Full

Cable loss=2.5dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate (Mbps)											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
		Measurement Level (dBm)											
36	5180	13.49	--	--	--	--	--	--	--	--	--	--	--
44	5220	13.47	13.44	13.41	13.33	13.30	13.25	13.20	13.11	13.07	13.03	13.02	12.98
48	5240	13.48	--	--	--	--	--	--	--	--	--	--	--
52	5260	13.46	--	--	--	--	--	--	--	--	--	--	--
60	5300	13.42	13.39	13.29	13.24	13.16	13.08	13.03	12.95	12.88	12.82	12.78	12.74
64	5320	13.48	--	--	--	--	--	--	--	--	--	--	--
100	5500	13.46	--	--	--	--	--	--	--	--	--	--	--
116	5580	13.43	13.33	13.29	13.24	13.23	13.13	13.05	13.02	12.95	12.89	12.87	12.85
140	5700	13.47	--	--	--	--	--	--	--	--	--	--	--
144(Band3)	5720	12.72	12.7	12.62	12.56	12.55	12.47	12.39	12.31	12.21	12.17	12.12	12.04
144(Band4)	5720	5.63	5.59	5.57	5.49	5.47	5.43	5.34	5.3	5.24	5.23	5.2	5.14
149	5745	13.45	--	--	--	--	--	--	--	--	--	--	--
157	5785	13.5	13.4	13.36	13.31	13.30	13.26	13.22	13.15	13.09	13.04	12.94	12.92
165	5825	13.49	--	--	--	--	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.49	24	--	Pass
44	5220	--	13.47	24	--	Pass
48	5240	--	13.48	24	--	Pass
52	5260	22.530	13.46	24	24.53	Pass
60	5300	23.630	13.42	24	24.73	Pass
64	5320	23.250	13.48	24	24.66	Pass
100	5500	23.140	13.46	24	24.64	Pass
116	5580	22.770	13.43	24	24.57	Pass
140	5700	23.420	13.47	24	24.70	Pass
144(Band3)	5720	16.850	12.72	24	23.27	Pass
144(Band4)	5720	--	5.63	30	--	Pass
149	5745	--	13.45	30	--	Pass
157	5785	--	13.5	30	--	Pass
165	5825	--	13.49	30	--	Pass

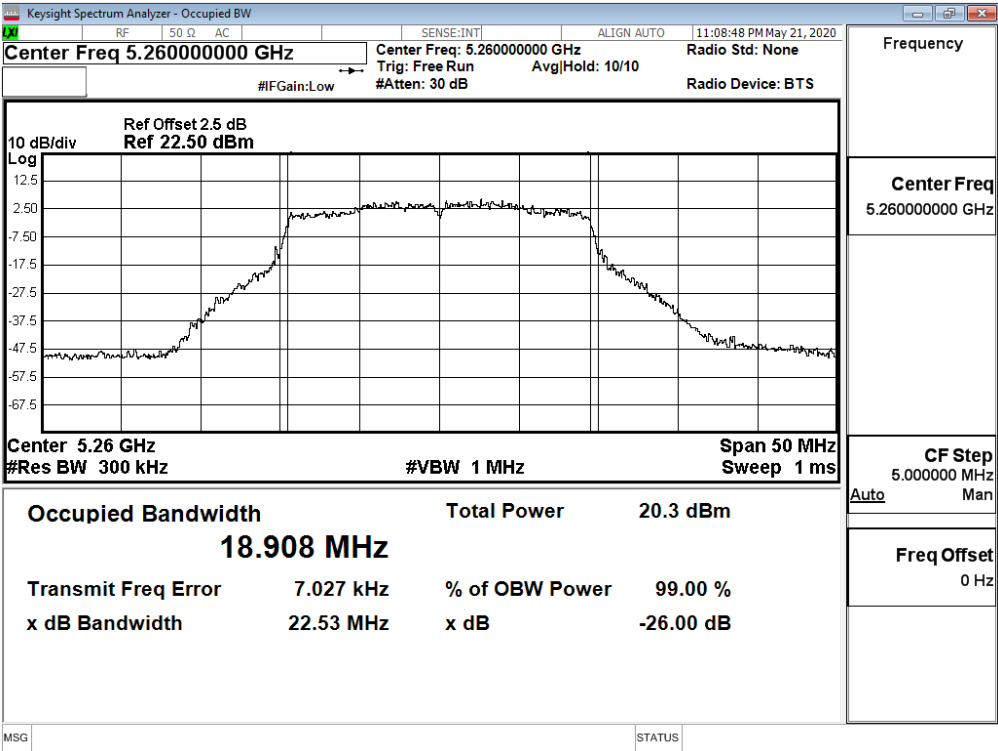
RU config: Other

Channel No / Frequency (MHz)	RU setting	Average Power Output (dBm)													Required Lim
		Data Rate (Mbps)													
		MCS0	--	--	--	--	--	--	--	--	--	--	--		
36/5180	26/0	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/37	13.5	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/53	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
64/5320	26/8	13.4	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/40	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/54	13.46	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
100/5500	26/0	13.41	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/37	13.5	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/53	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
140/5700	26/8	13.44	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/40	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/54	13.41	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
149/5745	26/0	13.48	--	--	--	--	--	--	--	--	--	--	--	<30dBm	
	52/37	13.49	--	--	--	--	--	--	--	--	--	--	--	<30dBm	
	106/53	13.5	--	--	--	--	--	--	--	--	--	--	--	<30dBm	

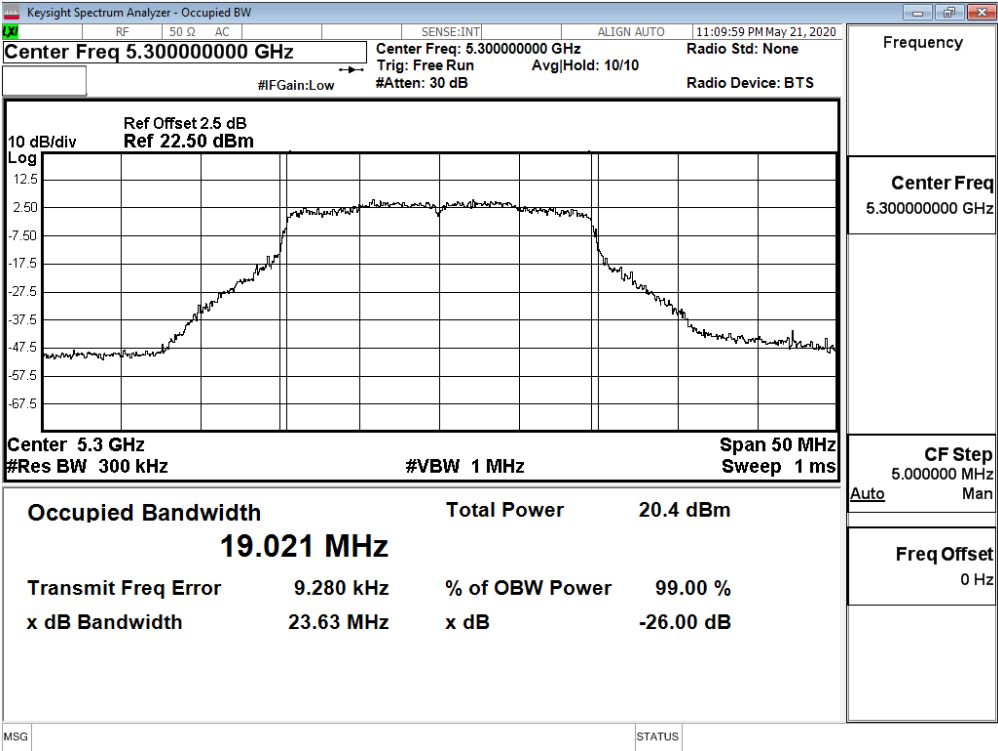
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36/5180	26/0	--	13.48	24	--	Pass
	52/37	--	13.5	24	--	Pass
	106/53	--	13.48	24	--	Pass
64/5320	26/8	20.280	13.4	24	24.07	Pass
	52/40	22.140	13.48	24	24.45	Pass
	106/54	23.940	13.46	24	24.79	Pass
100/5500	26/0	20.380	13.41	24	24.09	Pass
	52/37	21.190	13.5	24	24.26	Pass
	106/53	22.390	13.49	24	24.50	Pass
140/5700	26/8	20.540	13.44	24	24.13	Pass
	52/40	21.480	13.49	24	24.32	Pass
	106/54	24.010	13.41	24	24.80	Pass
149/5745	26/0	--	13.48	30	--	Pass
	52/37	--	13.49	30	--	Pass
	106/53	--	13.5	30	--	Pass

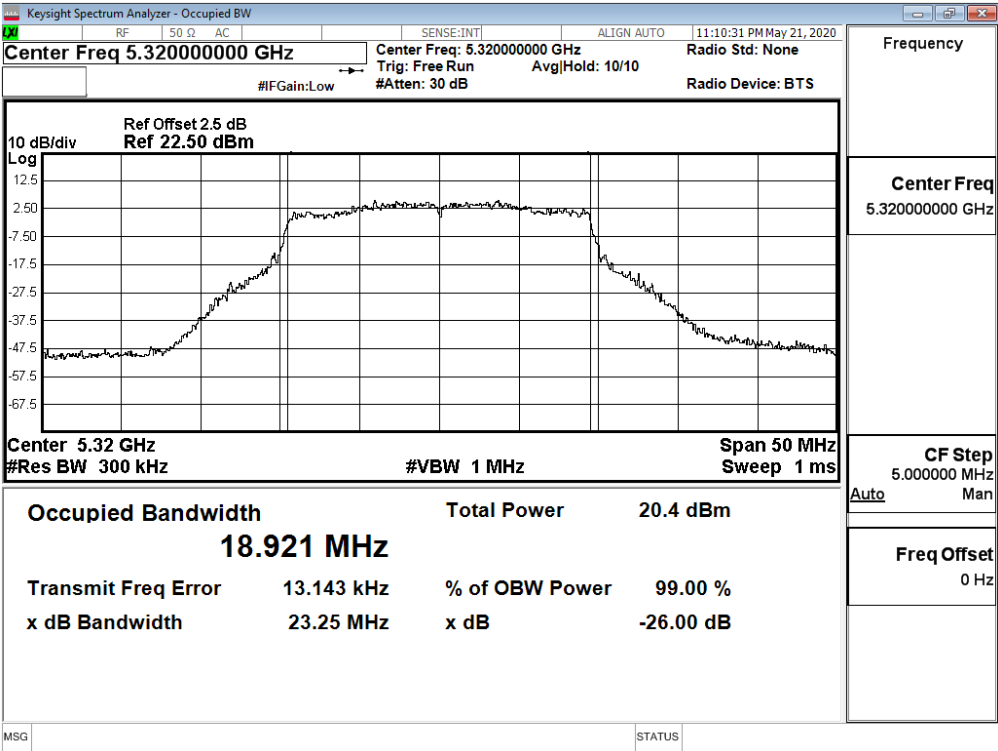
RU config: Full
26dB Occupied Bandwidth:
Channel 52



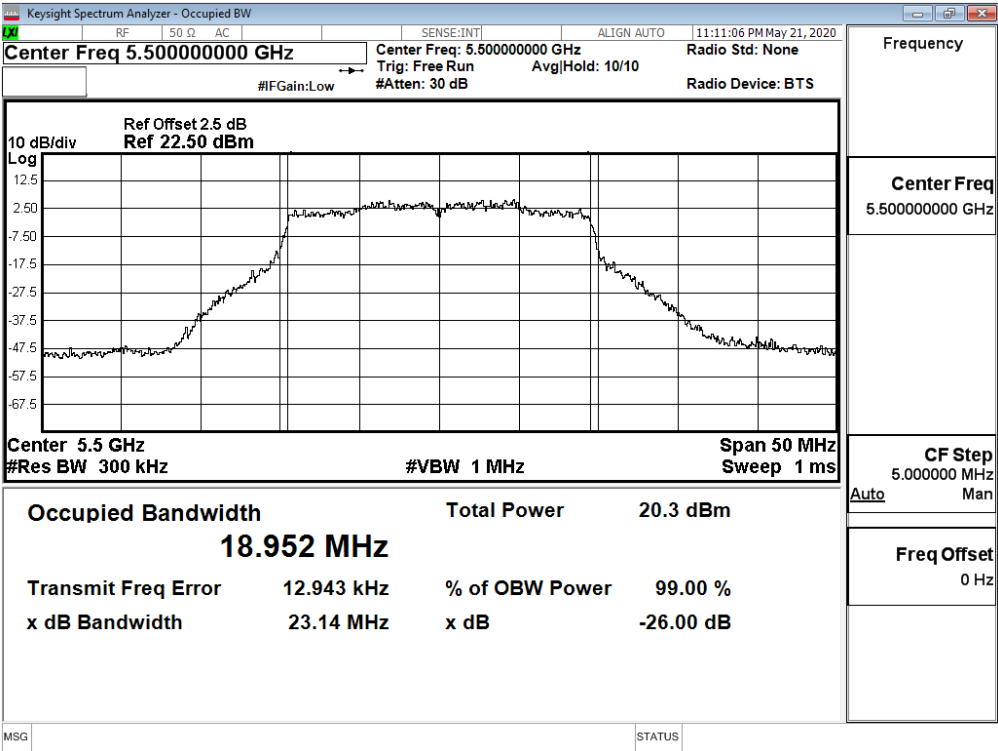
Channel 60



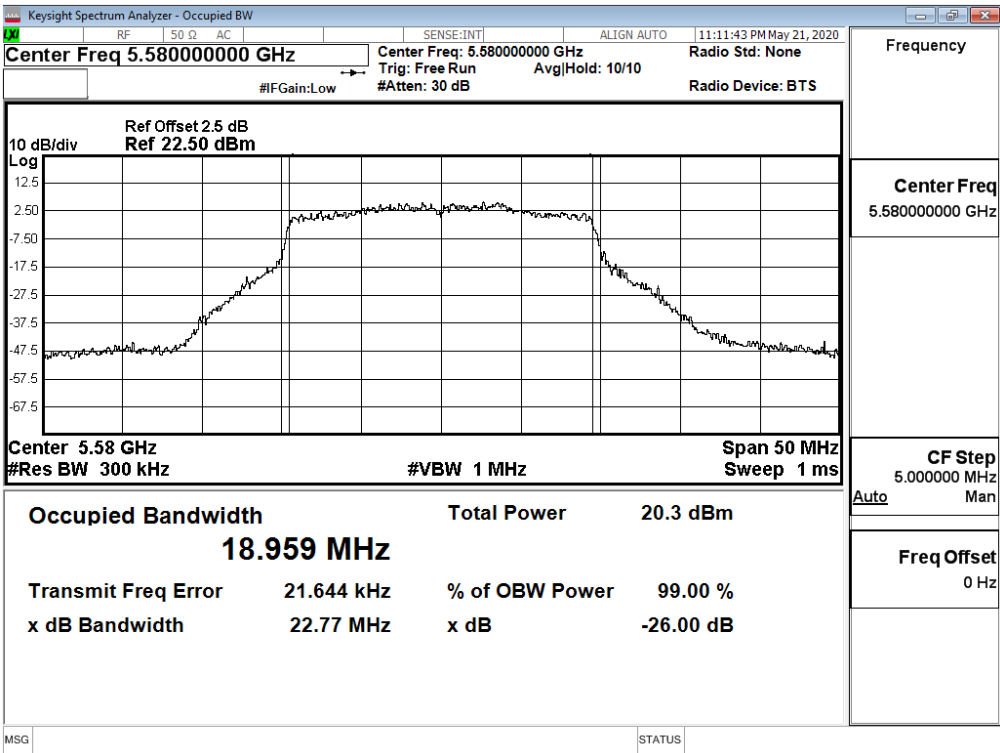
Channel 64



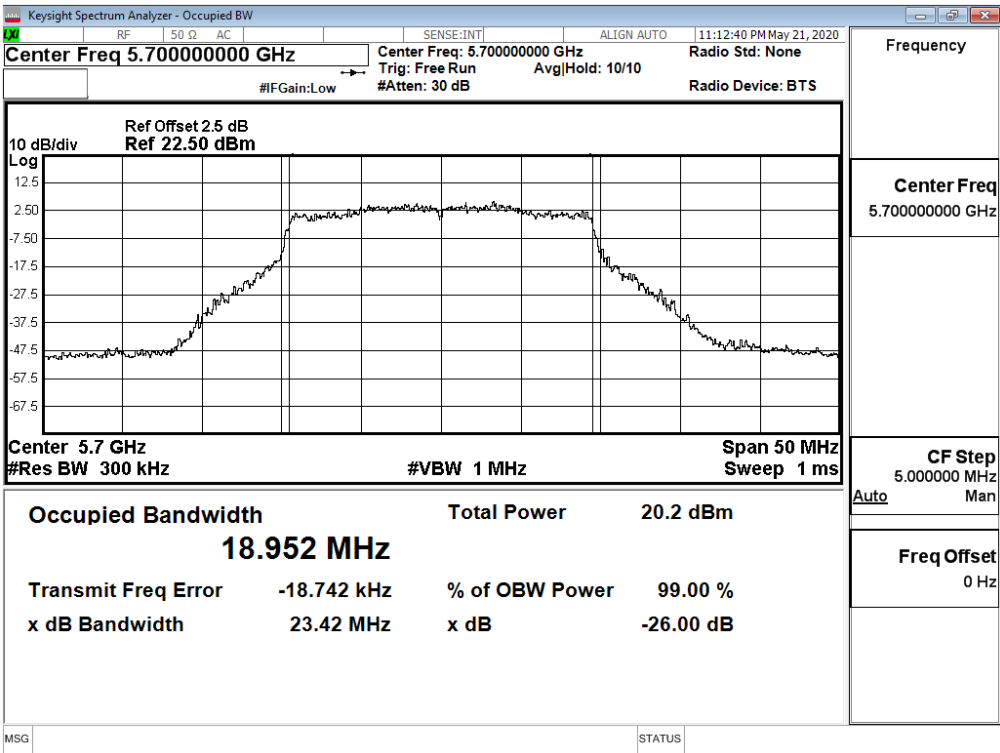
Channel 100



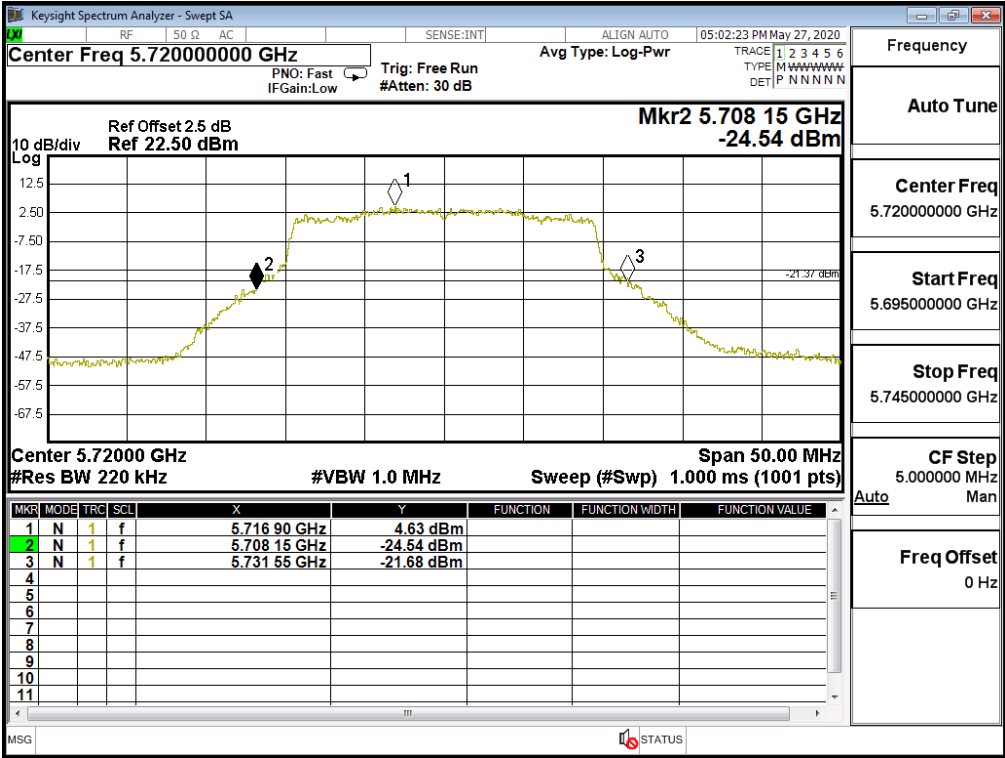
Channel 116



Channel 140



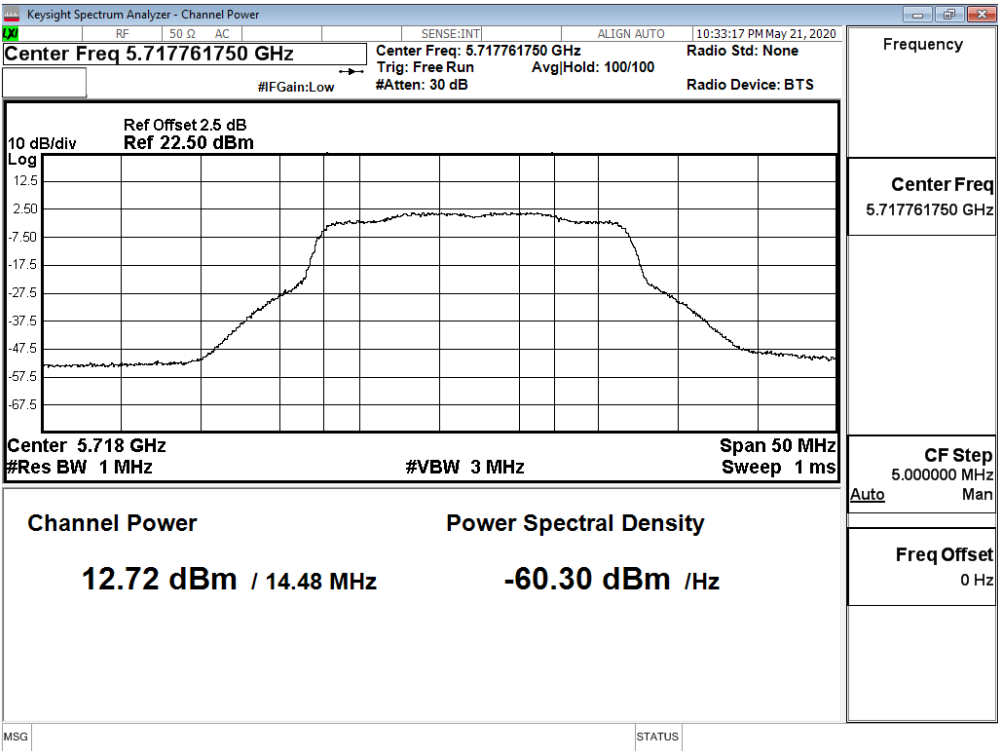
Channel 144



RU config: Full

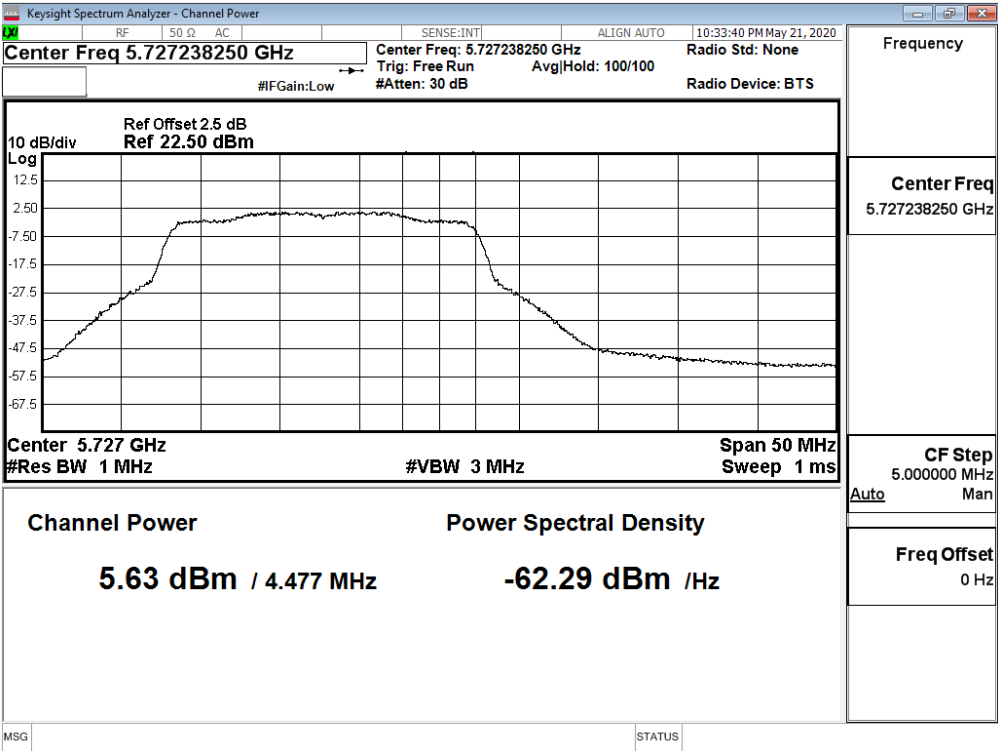
Maximum conducted output power:

Channel 144 (Band3)



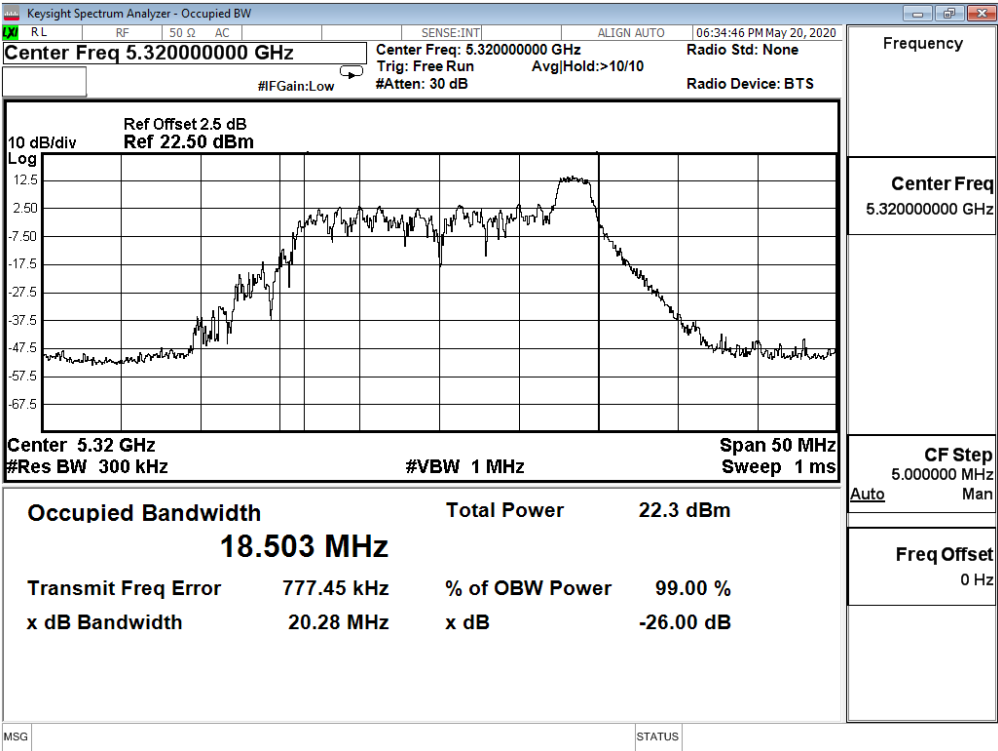
Maximum conducted output power:

Channel 144 (Band4)

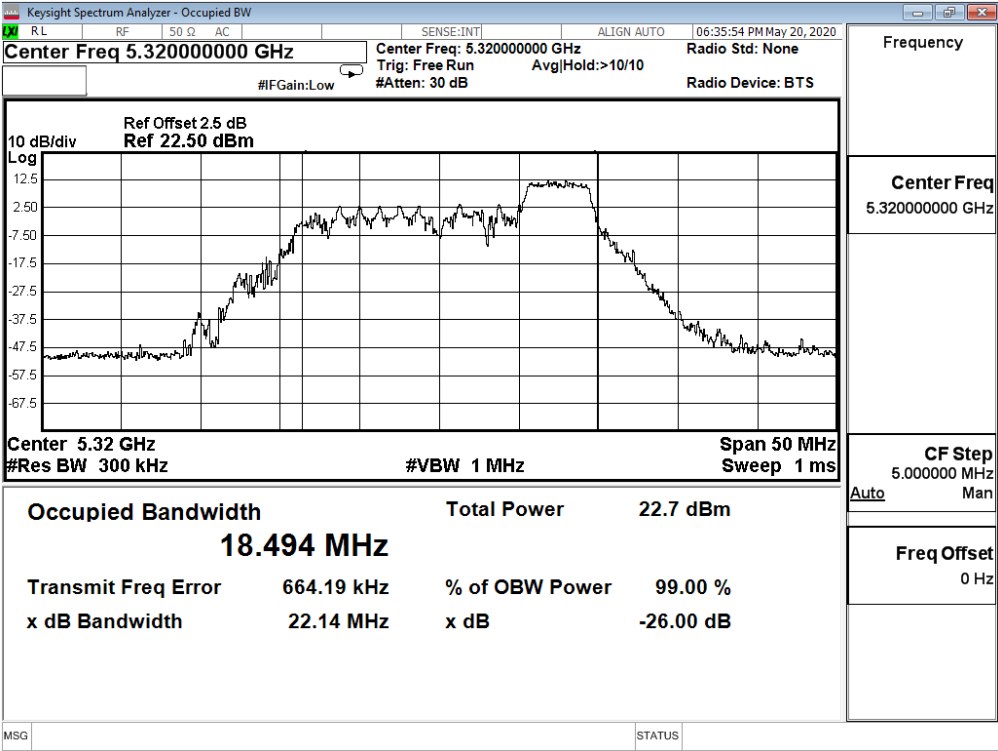


RU config: Other

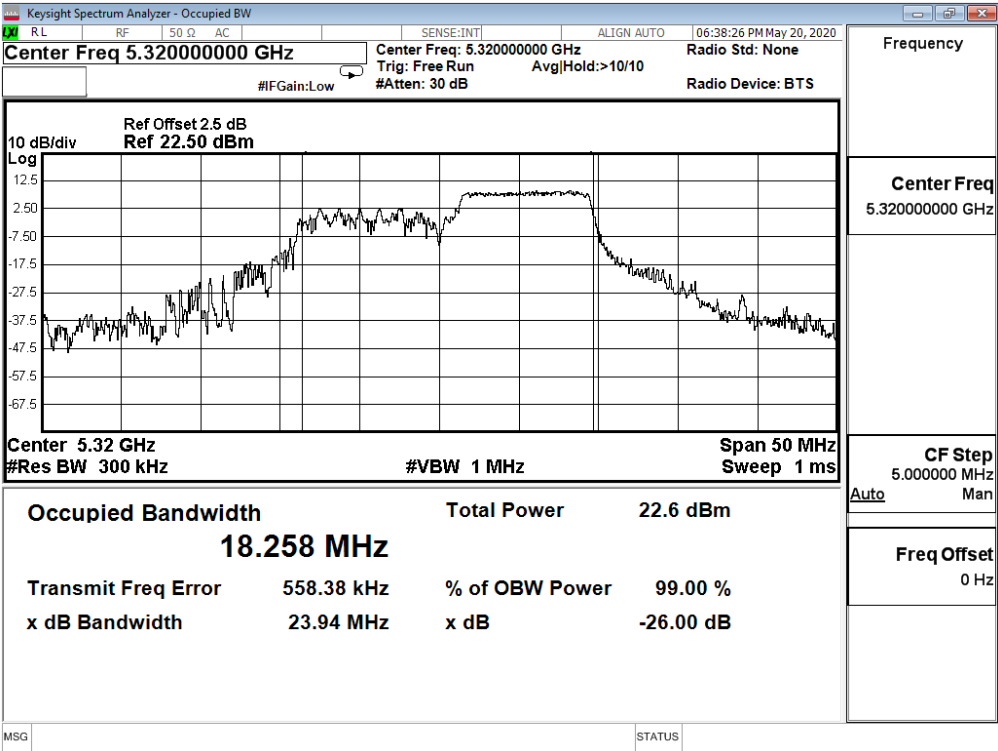
26dB Occupied Bandwidth:
Channel 64 - 26/8



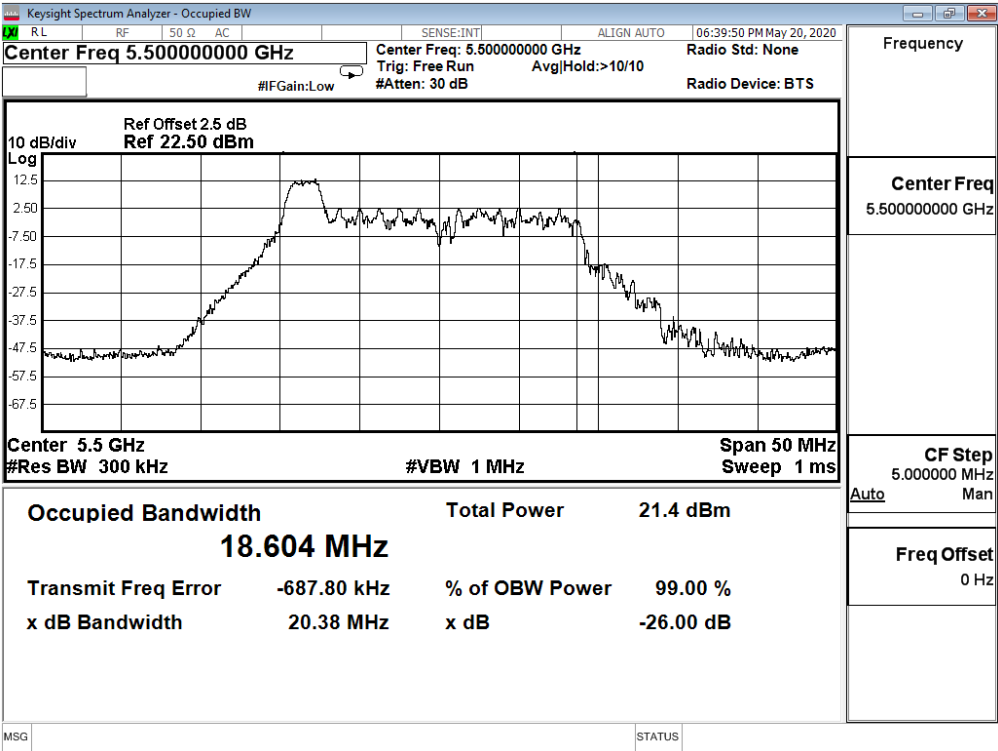
Channel 64 - 52/40



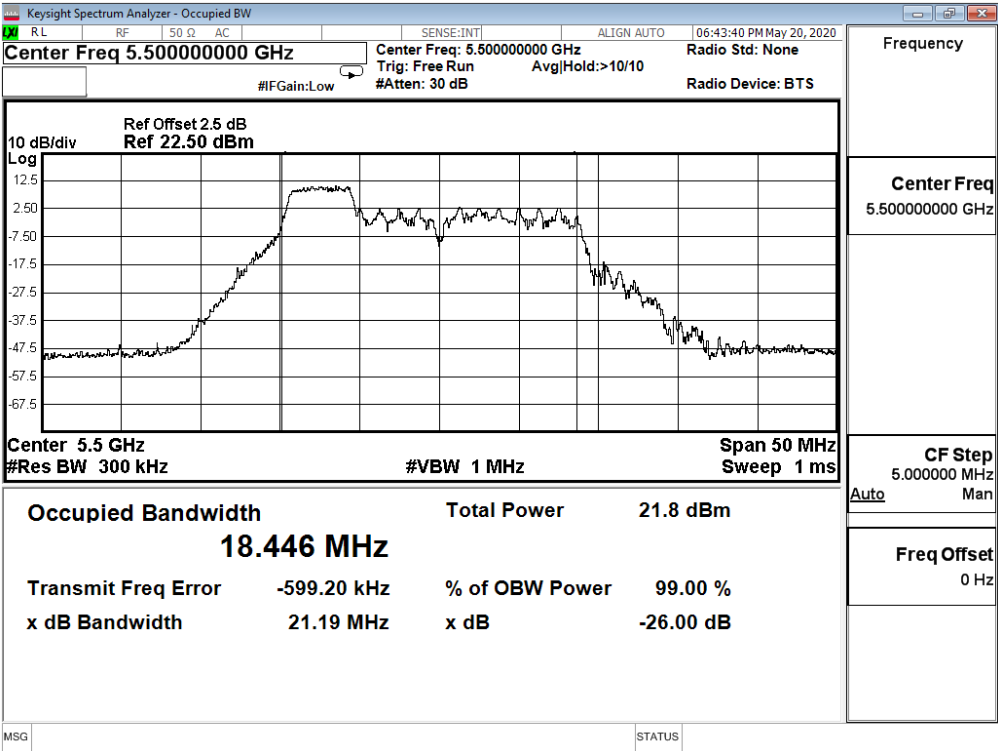
Channel 64 - 106/54



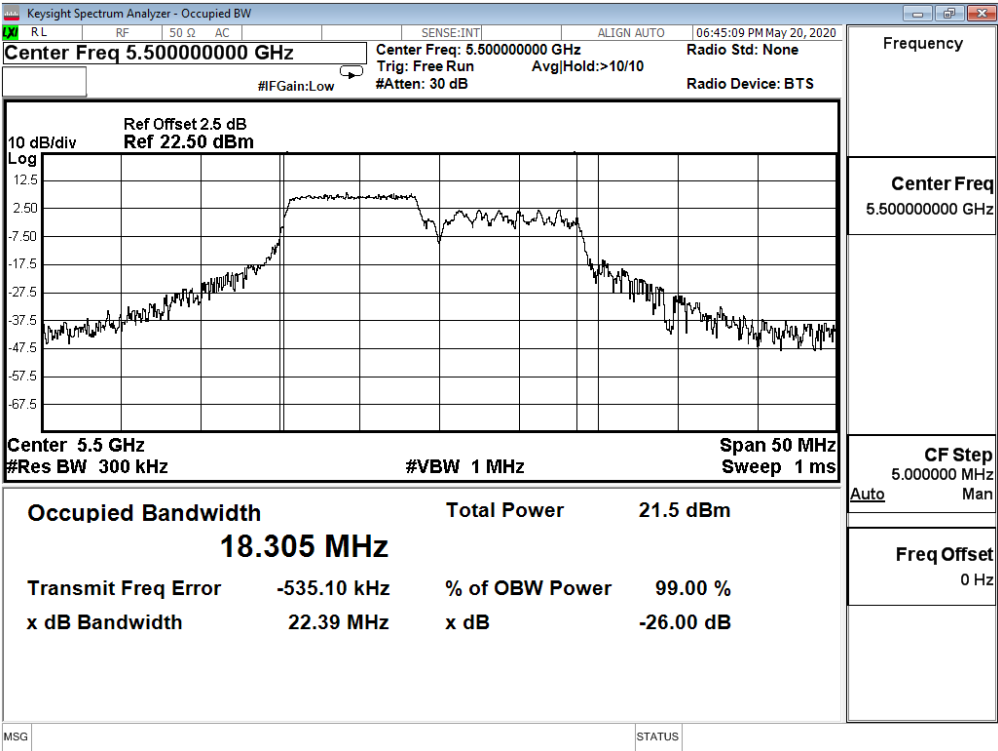
Channel 100 - 26/0



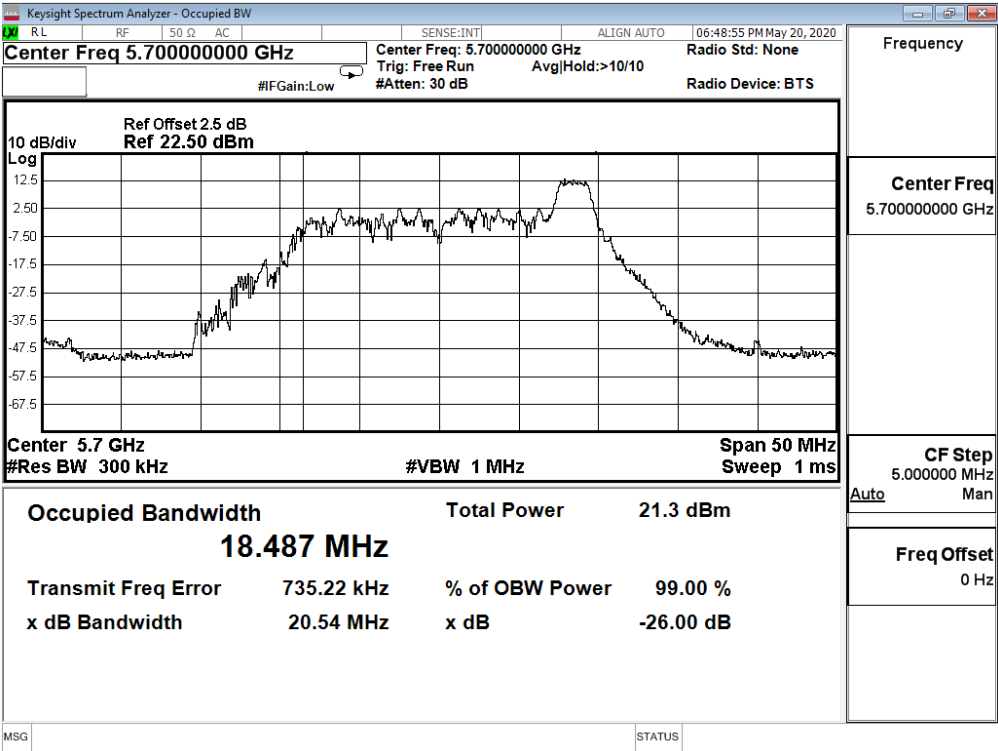
Channel 100 - 52/37



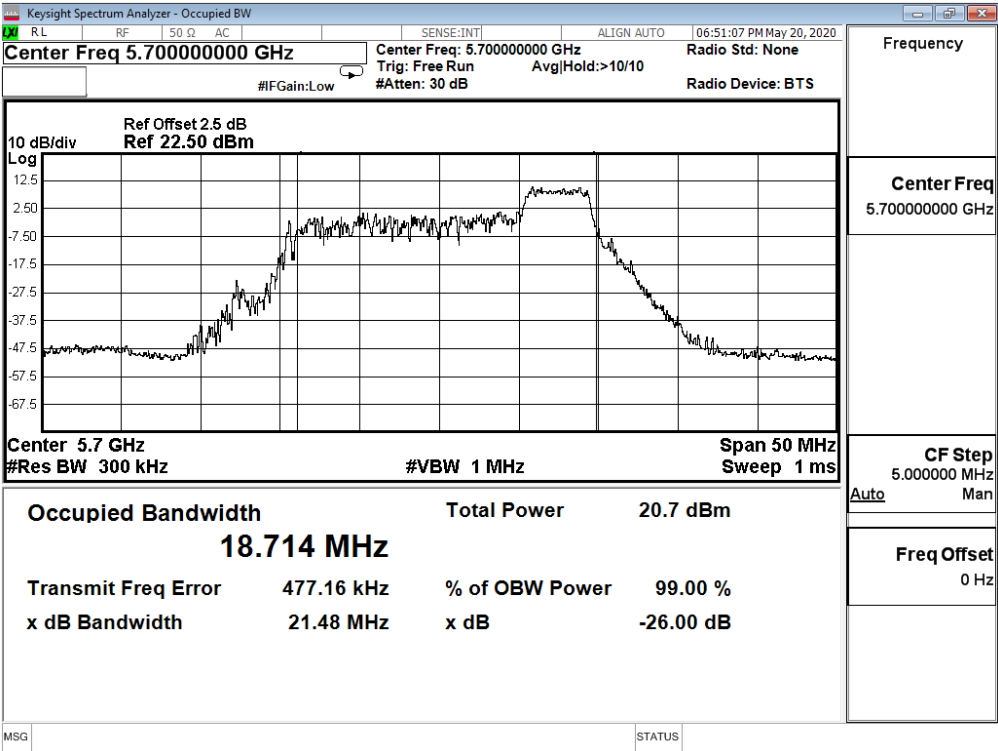
Channel 100 - 106/53



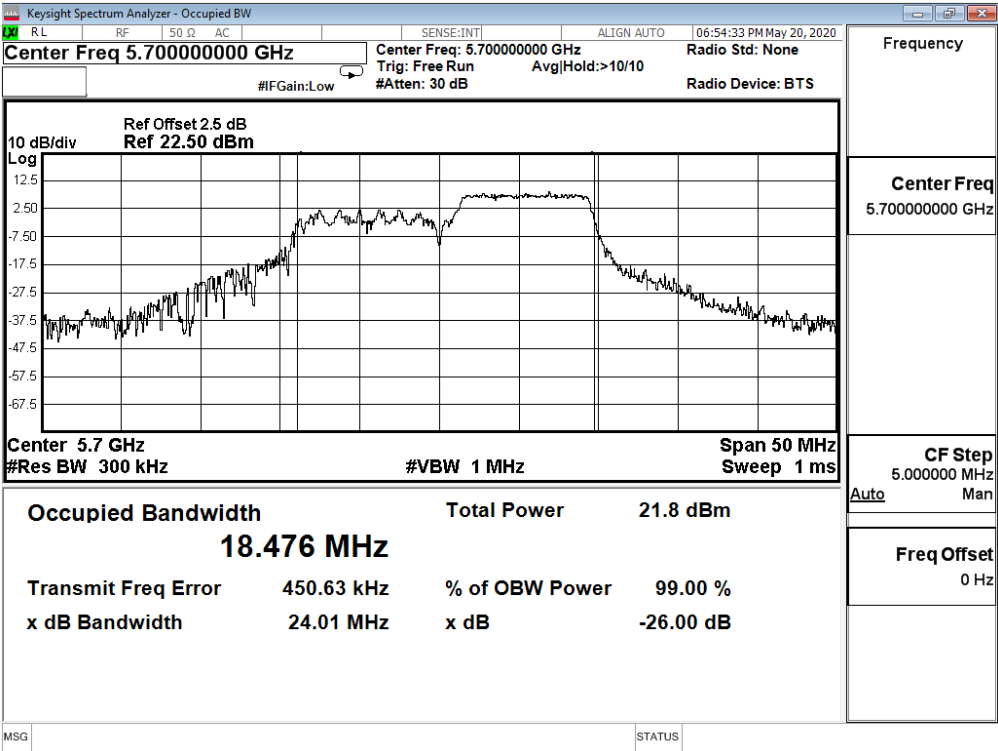
Channel 140 - 26/8



Channel 140 - 52/40



Channel 140 - 106/54



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 7: SISO A: Transmit (802.11ax-40BW_17.2Mbps)

RU config: Full

Cable loss=2.5dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate (Mbps)											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
		Measurement Level (dBm)											
38	5190	13.49	--	--	--	--	--	--	--	--	--	--	--
46	5230	13.43	13.41	13.31	13.30	13.26	13.22	13.16	13.08	13.07	13.02	12.95	12.94
54	5270	13.42	--	--	--	--	--	--	--	--	--	--	--
62	5310	13.46	13.42	13.38	13.29	13.24	13.21	13.19	13.18	13.17	13.15	13.05	12.96
102	5510	13.44	--	--	--	--	--	--	--	--	--	--	--
110	5550	13.5	13.45	13.4	13.33	13.23	13.19	13.12	13.04	12.94	12.91	12.86	12.85
134	5670	13.49	--	--	--	--	--	--	--	--	--	--	--
142F(Band3)	5710	13.16	13.15	13.11	13.01	12.96	12.95	12.86	12.85	12.84	12.81	12.76	12.7
142F(Band4)	5710	1.22	1.18	1.09	1	0.97	0.93	0.83	0.79	0.73	0.72	0.68	0.66
151	5755	13.48	--	--	--	--	--	--	--	--	--	--	--
159	5795	13.47	13.42	13.35	13.32	13.29	13.21	13.18	13.15	13.11	13.01	12.93	12.91

Note: Maximum conducted output power Value = Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
38	5190	--	13.49	24	--	Pass
46	5230	--	13.43	24	--	Pass
54	5270	41.350	13.42	24	27.16	Pass
62	5310	41.900	13.46	24	27.22	Pass
102	5510	41.940	13.44	24	27.23	Pass
110	5550	43.270	13.5	24	27.36	Pass
134	5670	41.370	13.49	24	27.17	Pass
142F(Band3)	5710	35.600	13.16	24	26.51	Pass
142F(Band4)	5710	5.600	1.22	30	18.48	Pass
151	5755	--	13.48	30	--	Pass
159	5795	--	13.47	30	--	Pass

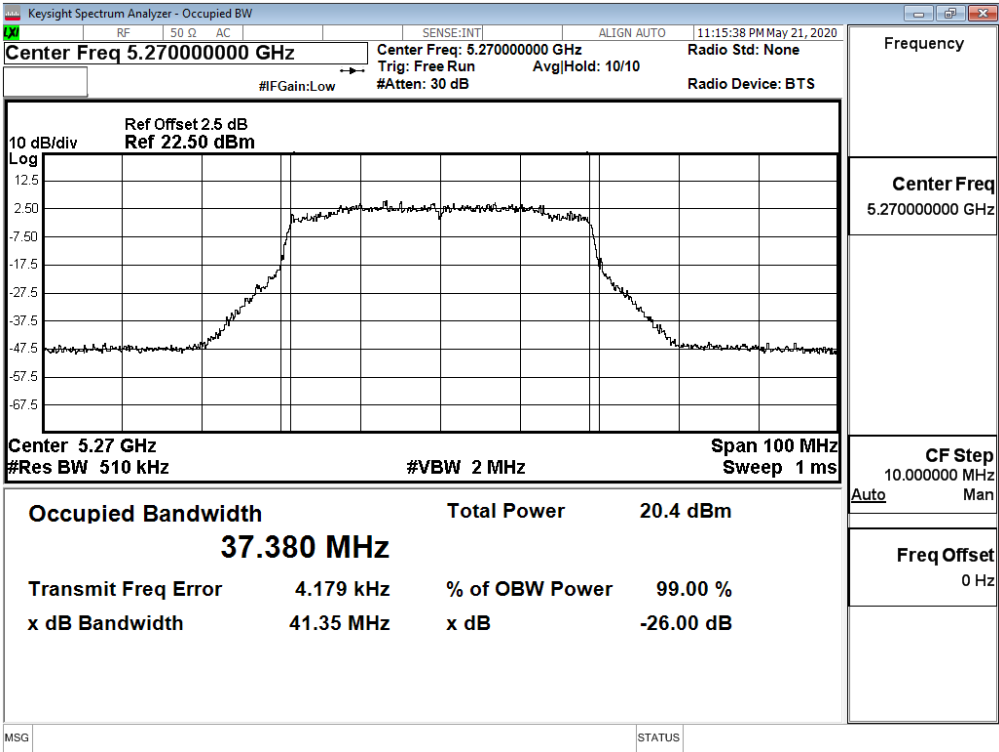
RU config: Other

Channel No / Frequency (MHz)	RU setting	Average Power Output (dBm)													Required Limi
		Data Rate (Mbps)													
		MCS0	--	--	--	--	--	--	--	--	--	--	--		
38 / 5190	242/61	13.43	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
62 / 5310	242/62	13.42	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
102 / 5510	242/61	13.45	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
134 / 5670	242/62	13.50	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
151 / 5755	242/61	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm	

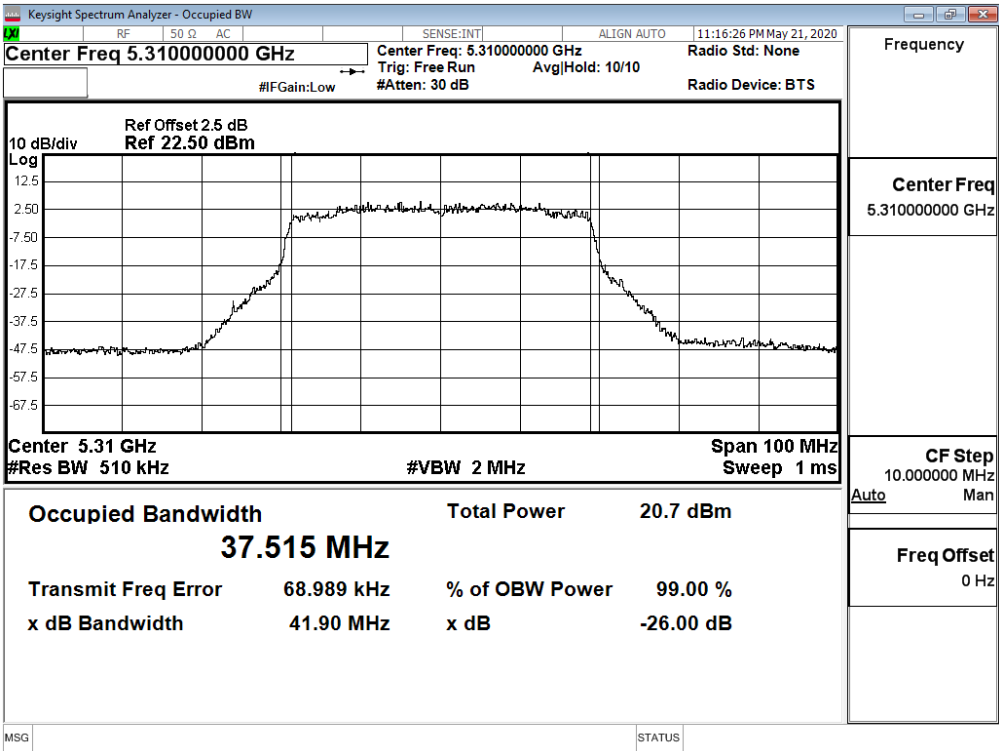
Maximum conducted output power Measurement:

Channel No /Frequency Range (MHz)	RU setting	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
38 / 5190	242/61	--	13.43	24	--	Pass
62 / 5310	242/62	22.890	13.42	24	24.60	Pass
102 / 5510	242/61	23.710	13.45	24	24.75	Pass
134 / 5670	242/62	26.340	13.50	24	25.21	Pass
151 / 5755	242/61	--	13.48	30	--	Pass

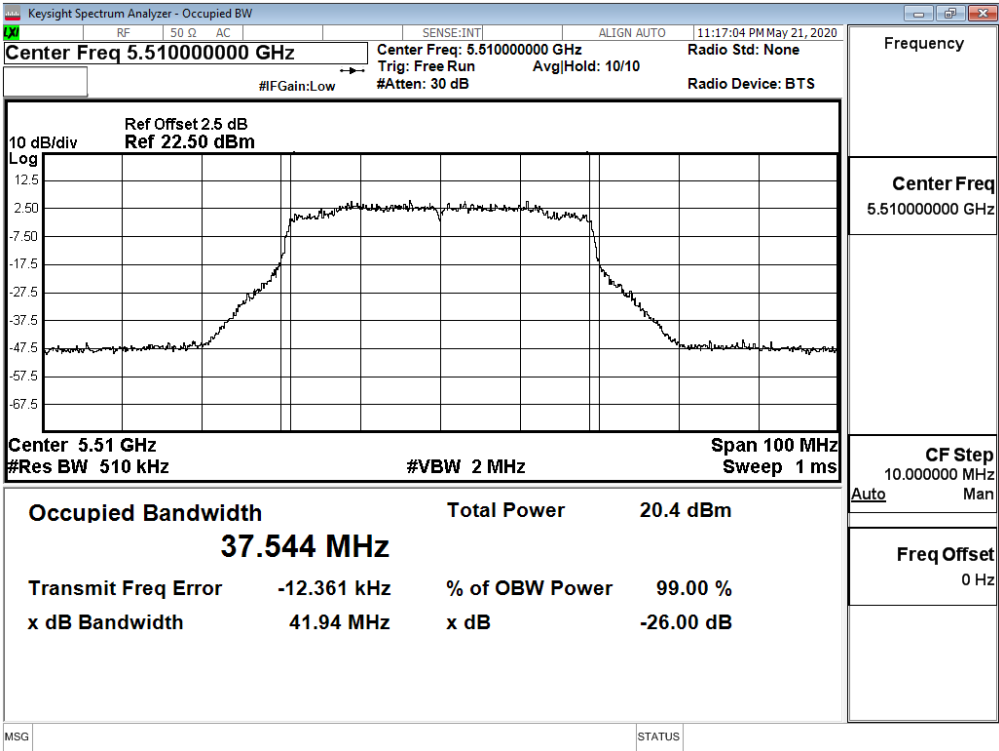
RU config: Full
26dB Occupied Bandwidth:
Channel 54



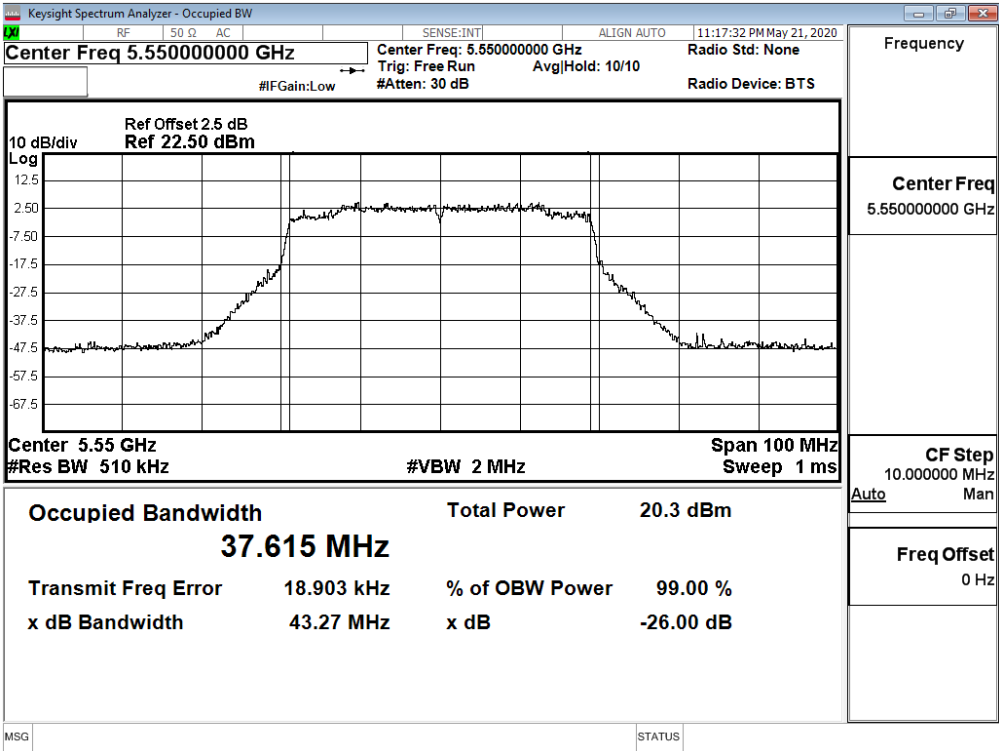
Channel 62



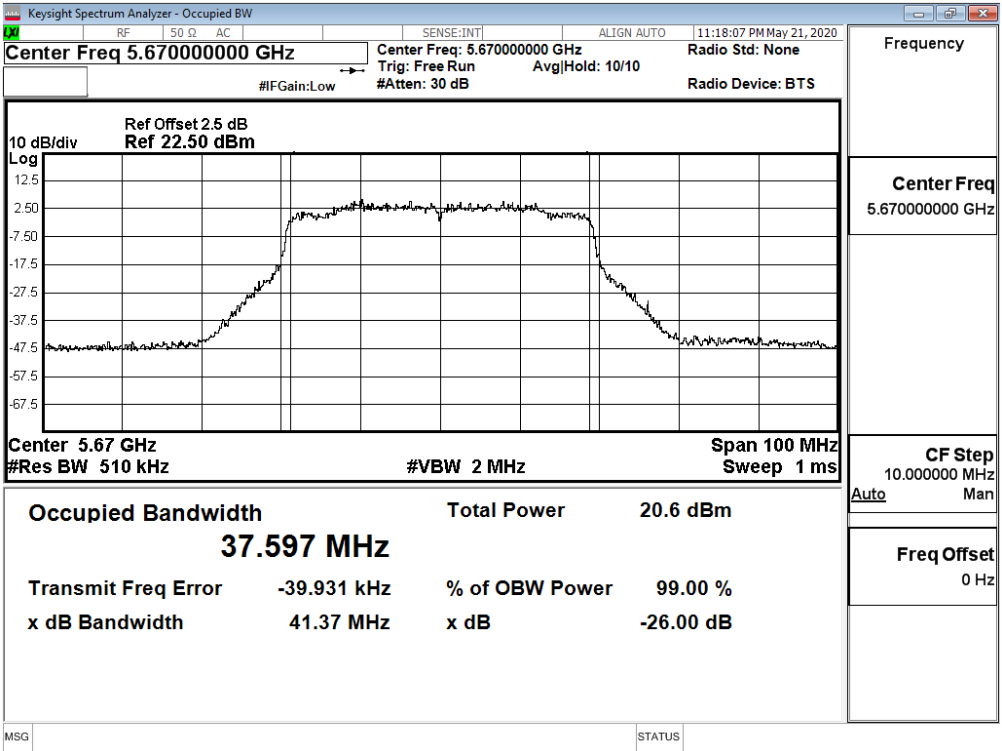
Channel 102



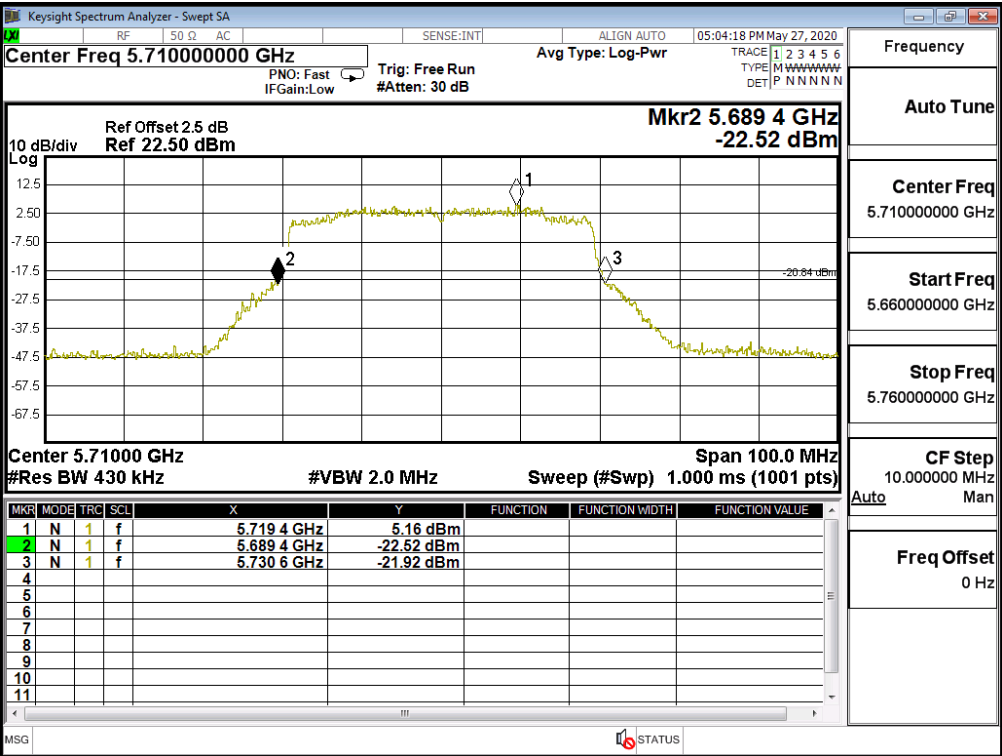
Channel 110



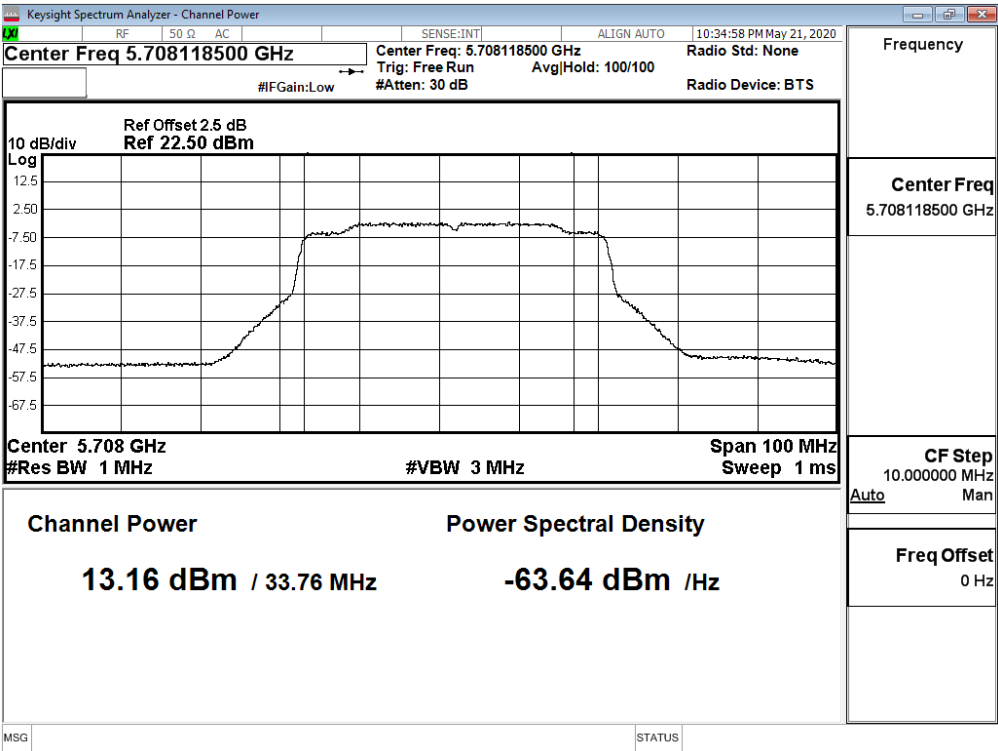
Channel 134



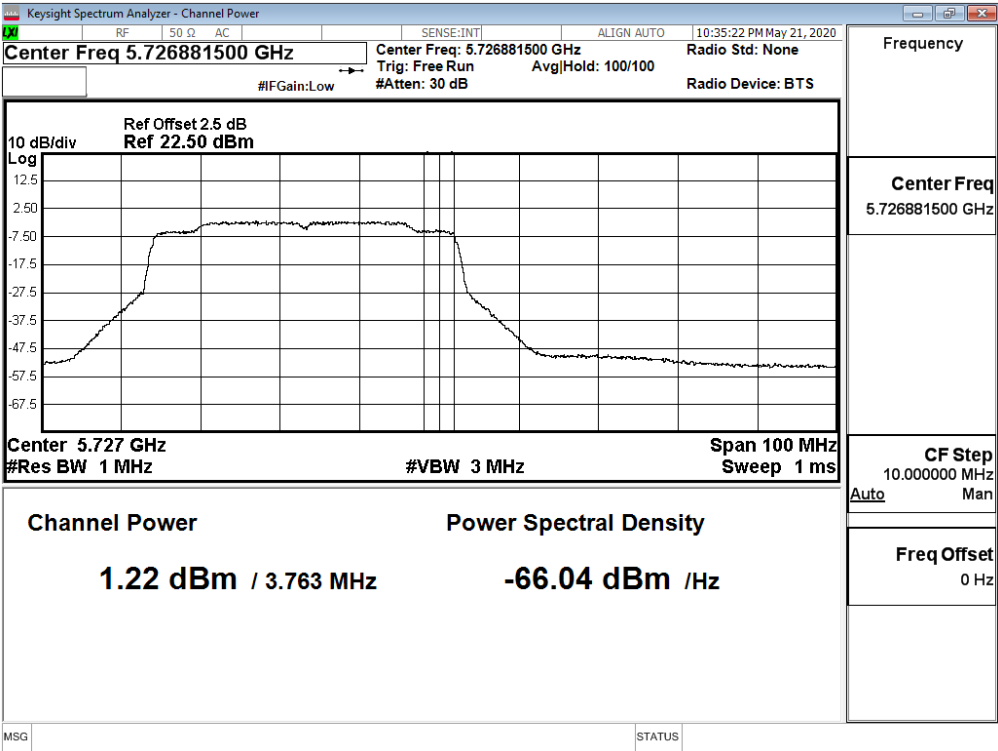
Channel 142



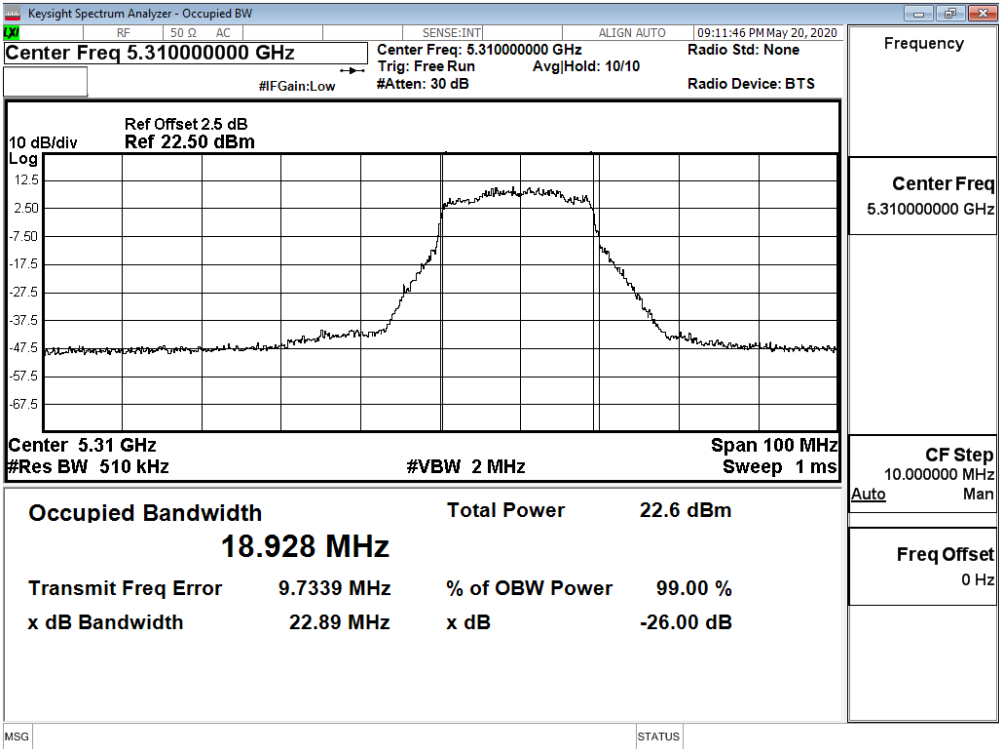
RU config: Full
Maximum conducted output power:
Channel 142 (Band3)



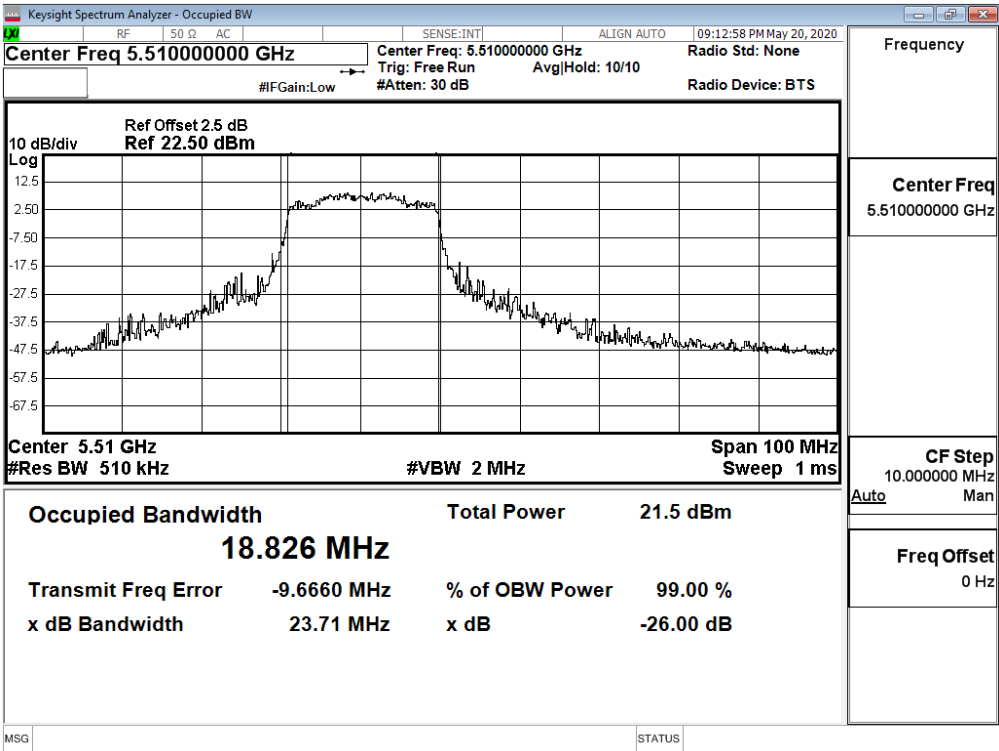
Maximum conducted output power:
Channel 142 (Band4)



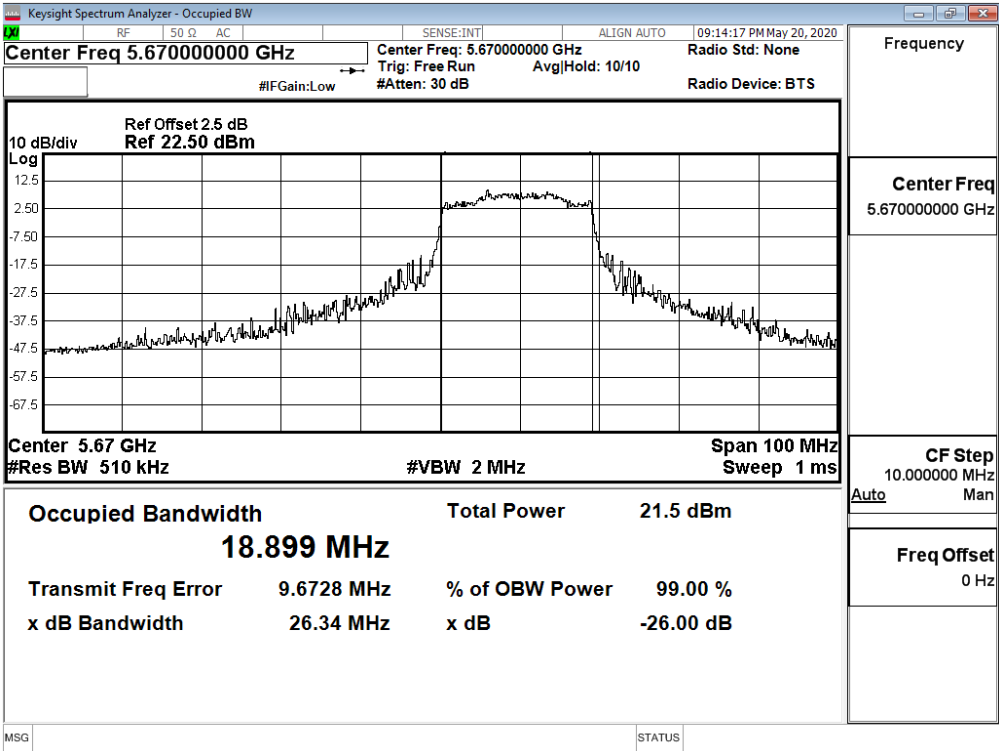
RU config: Other
26dB Occupied Bandwidth:
Channel 62 - 242/62



Channel 102 - 242/61



Channel 134 - 242/62



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 8: SISO A: Transmit (802.11ax-80BW_36Mbps)

RU config: Full

Cable loss=2.5dB		Maximum conducted output power											
Channel No	Frequency (MHz)	Data Rate (Mbps)											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
42	5210	13.41	13.33	13.25	13.15	13.1	13.06	13	12.92	12.87	12.82	12.73	12.66
58	5290	13.45	13.42	13.39	13.36	13.3	13.24	13.17	13.11	13.05	12.96	12.87	12.81
106ac80	5530	13.48	13.41	13.31	13.28	13.21	13.13	13.09	13	12.94	12.87	12.78	12.75
122ac80	5610	13.5	13.4	13.36	13.3	13.26	13.21	13.12	13.03	12.99	12.93	12.86	12.79
138ac80(Band3)	5690	13.33	13.28	13.24	13.18	13.13	13.1	13.05	13.02	12.92	12.82	12.77	12.73
138ac80(Band4)	5690	-3.19	-3.22	-3.3	-3.37	-3.44	-3.53	-3.62	-3.68	-3.73	-3.82	-3.87	-3.97
155ac80	5775	13.46	13.36	13.26	13.2	13.16	13.09	13.06	12.99	12.91	12.84	12.77	12.73

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
42	5210	--	13.41	24	--	Pass
58	5290	83.190	13.45	24	30.20	Pass
106ac80	5530	83.380	13.48	24	30.21	Pass
122ac80	5610	83.730	13.5	24	30.23	Pass
138ac80(Band3)	5690	77.000	13.33	24	29.86	Pass
138ac80(Band4)	5690	--	-3.19	30	--	Pass
155ac80	5775	--	13.46	30	--	Pass

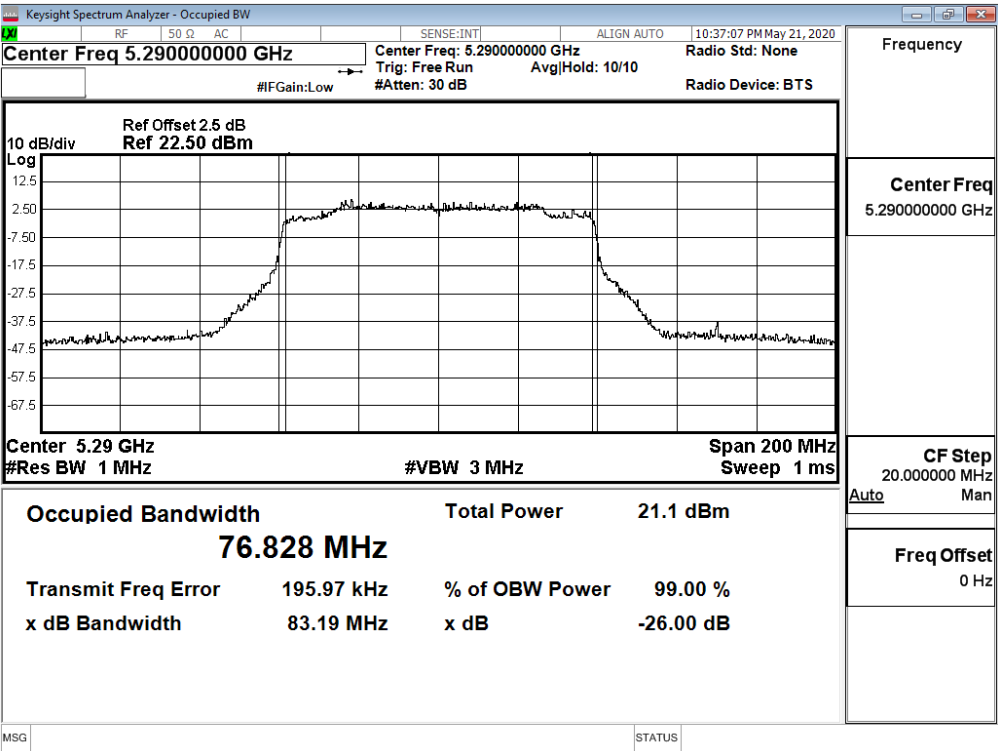
RU config: Other

Channel No / Frequency Range (MHz)	RU setting	Maximum Conducted Power Output (dBm)												
		Data Rate (Mbps)												Required Limit
		MCS0	--	--	--	--	--	--	--	--	--	--	--	
42/5210	484/65	13.5	--	--	--	--	--	--	--	--	--	--	--	<24dBm
58/5290	484/66	13.46	--	--	--	--	--	--	--	--	--	--	--	<24dBm
106/5530	484/65	13.43	--	--	--	--	--	--	--	--	--	--	--	<24dBm
155/5775	484/65	13.43	--	--	--	--	--	--	--	--	--	--	--	<30dBm

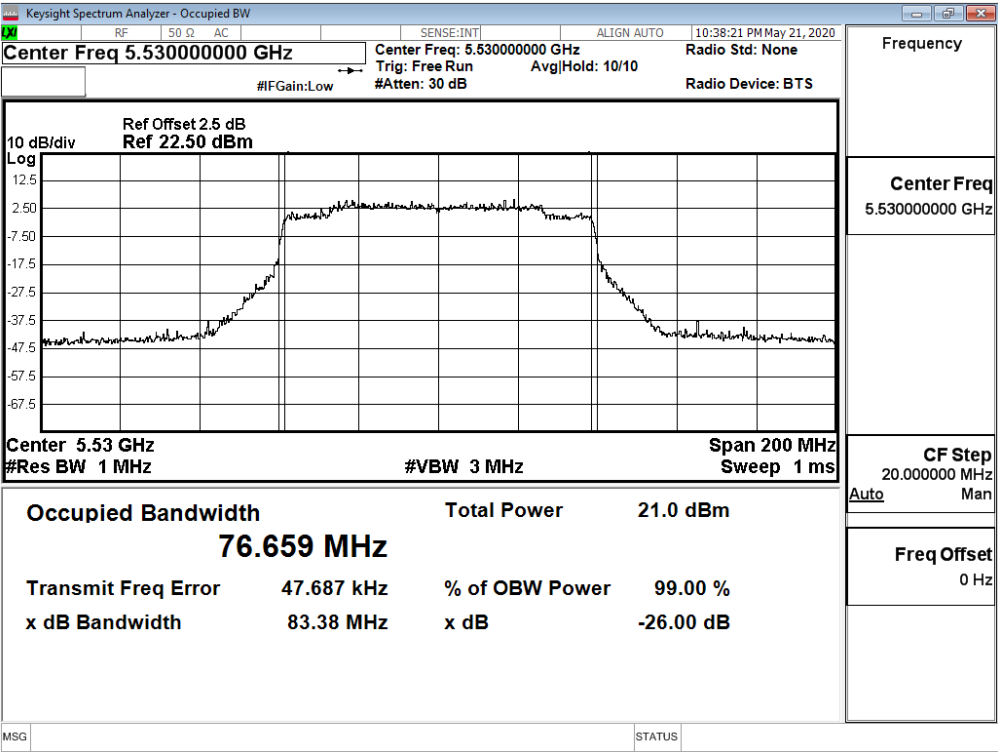
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
42/5210	484/65	--	13.5	24	--	Pass
58/5290	484/66	42.960	13.46	24	27.33	Pass
106/5530	484/65	55.690	13.43	24	28.46	Pass
155/5775	484/65	--	13.43	30	--	Pass

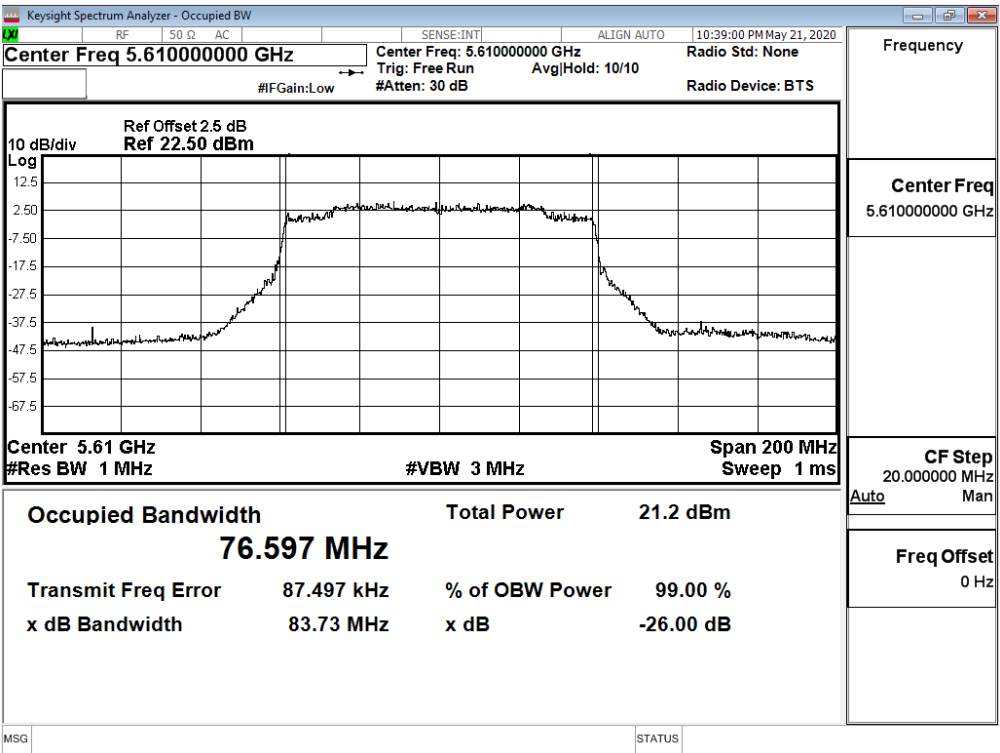
RU config: Full
26dB Occupied Bandwidth:
Channel 58



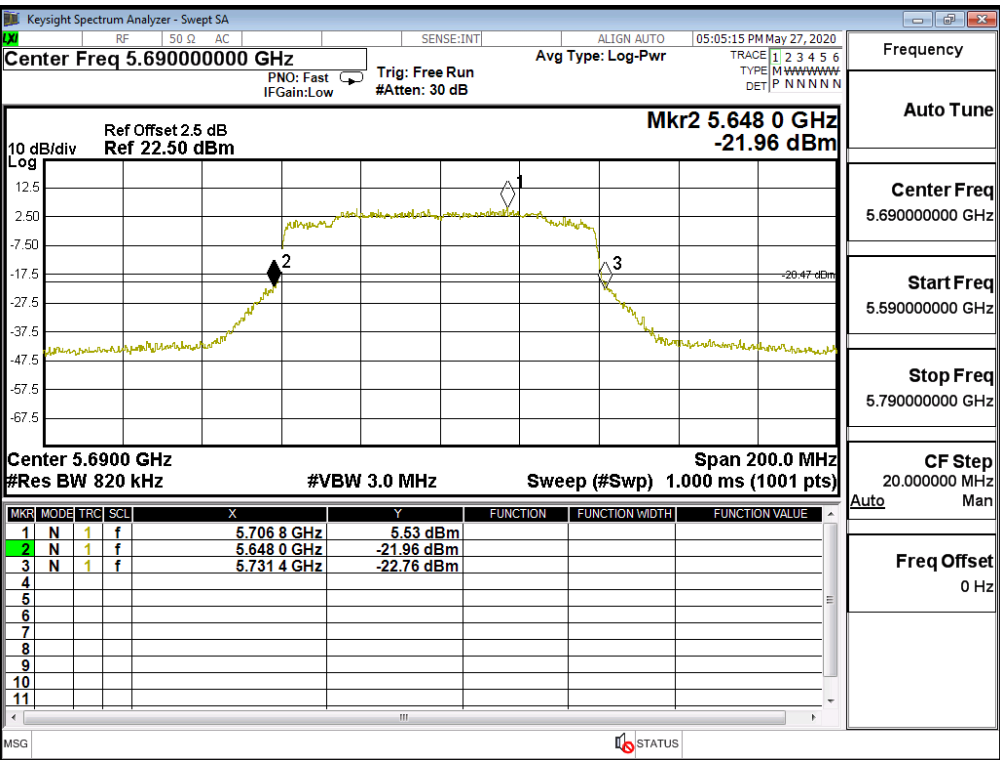
Channel 106



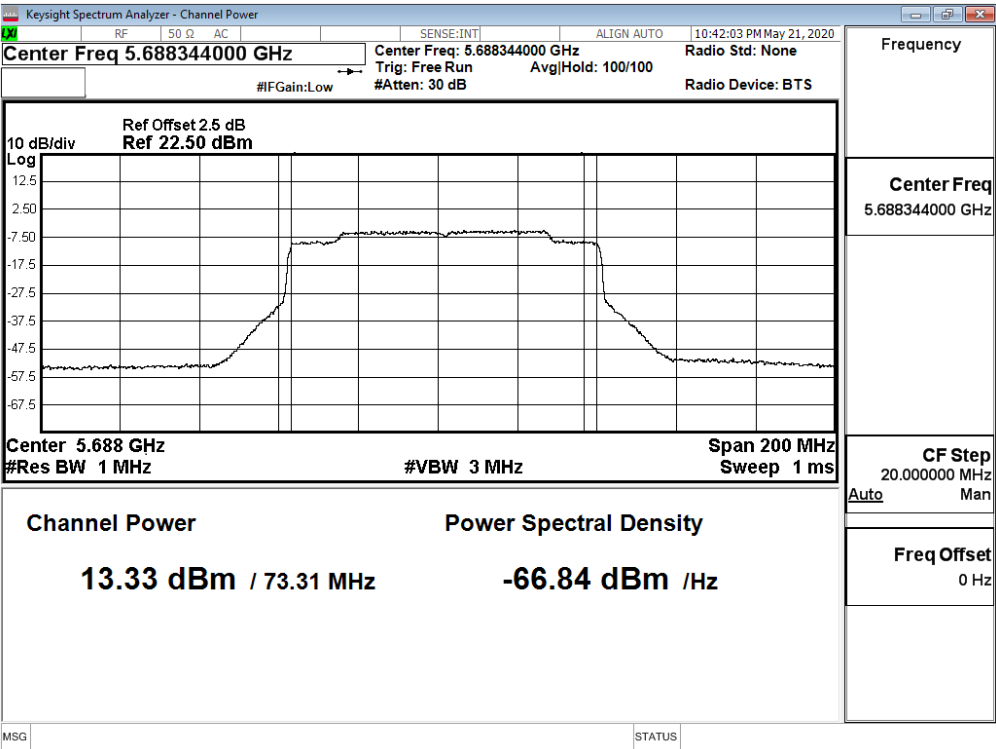
Channel 122



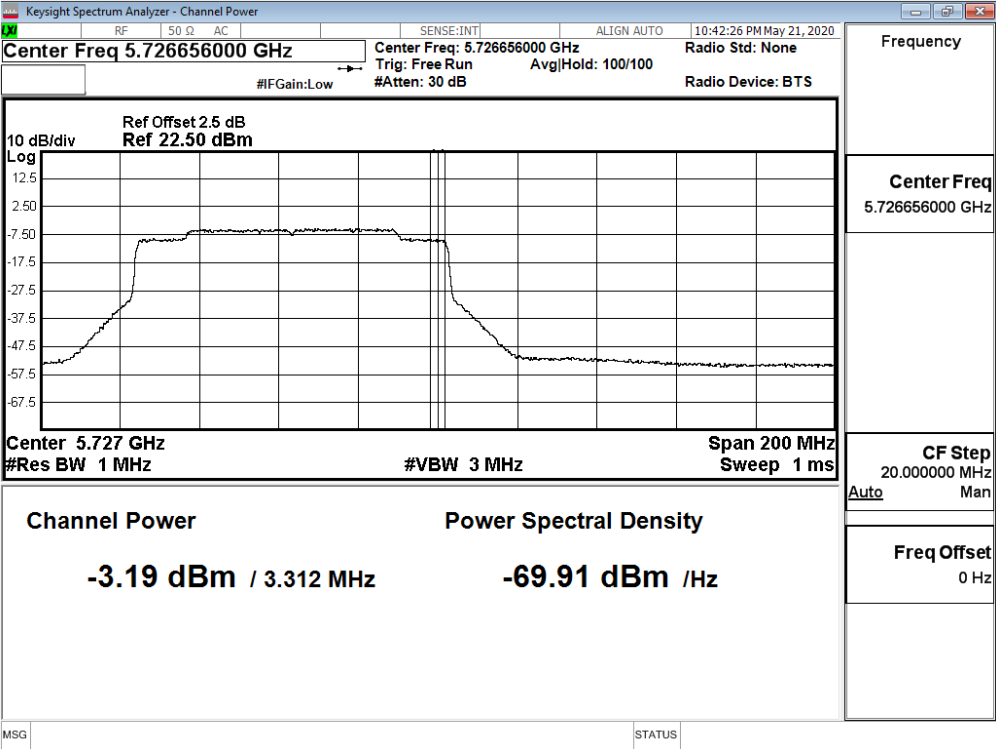
Channel 138



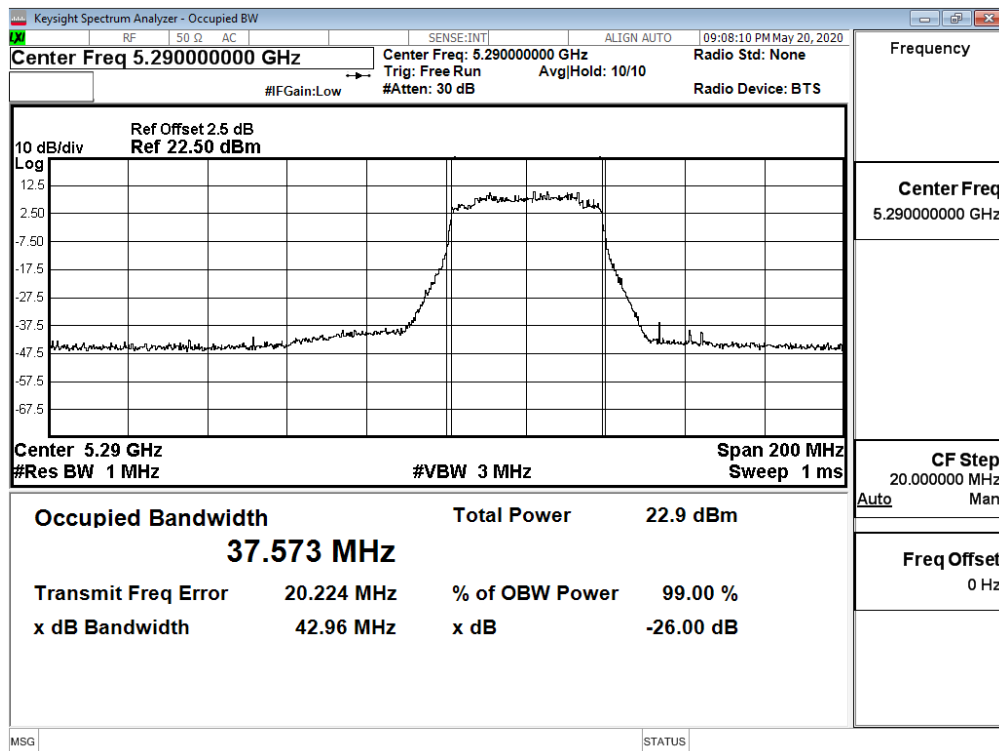
RU config: Full
Maximum conducted output power:
Channel 138 ((Band3))



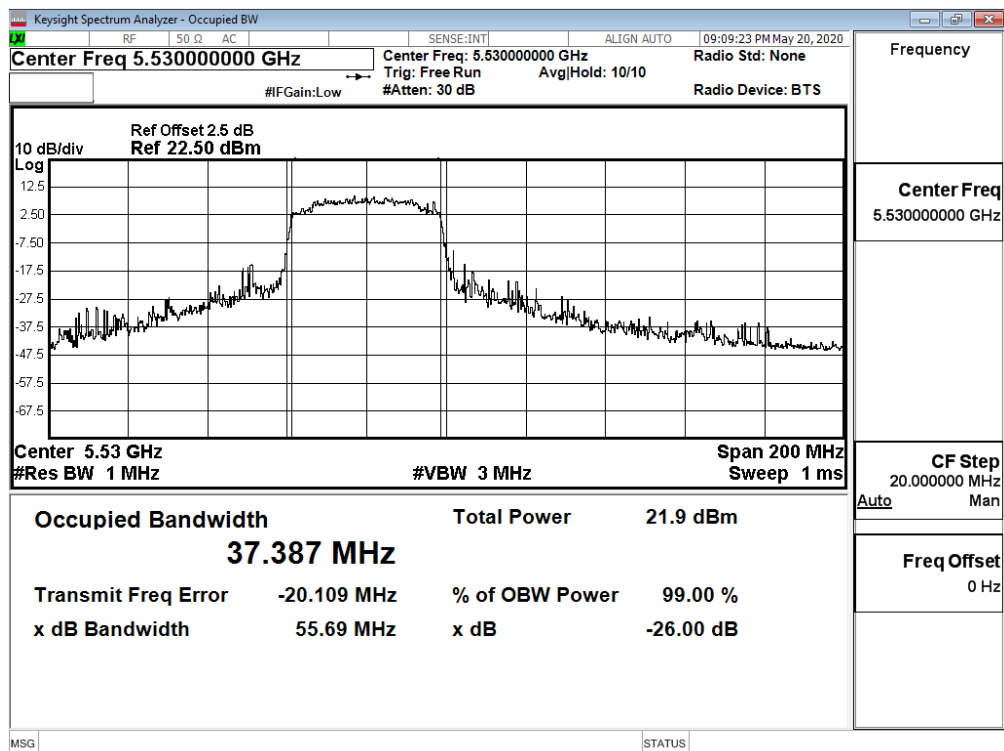
Maximum conducted output power:
Channel 138 ((Band4))



RU config: Other
26dB Occupied Bandwidth:
Channel 58 - 484/66



Channel 106 - 484/65



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 9: SISO A: Transmit (802.11ax-160BW_72.1Mbps)

RU config: Full

Cable loss=2.5dB		Maximum conducted output power											
Channel No	Frequency (MHz)	Data Rate (Mbps)											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
50ac160(Band1)	5250	10.4	10.35	10.3	10.21	10.15	10.11	10.05	9.96	9.94	9.88	9.82	9.73
50ac160(Band2)	5250	10.56	10.49	10.45	10.40	10.39	10.35	10.29	10.22	10.18	10.15	10.11	10.04
114ac160	5570	13.48	13.37	13.3	13.21	13.13	13.08	13.01	12.96	12.93	12.89	12.83	12.77

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
50ac160(Band1)	5250	--	10.4	24		Pass
80ac160(Band2)	5250	82.950	10.56	24	21.24	Pass
114ac160	5570	165.400	13.48	24	22.30	Pass

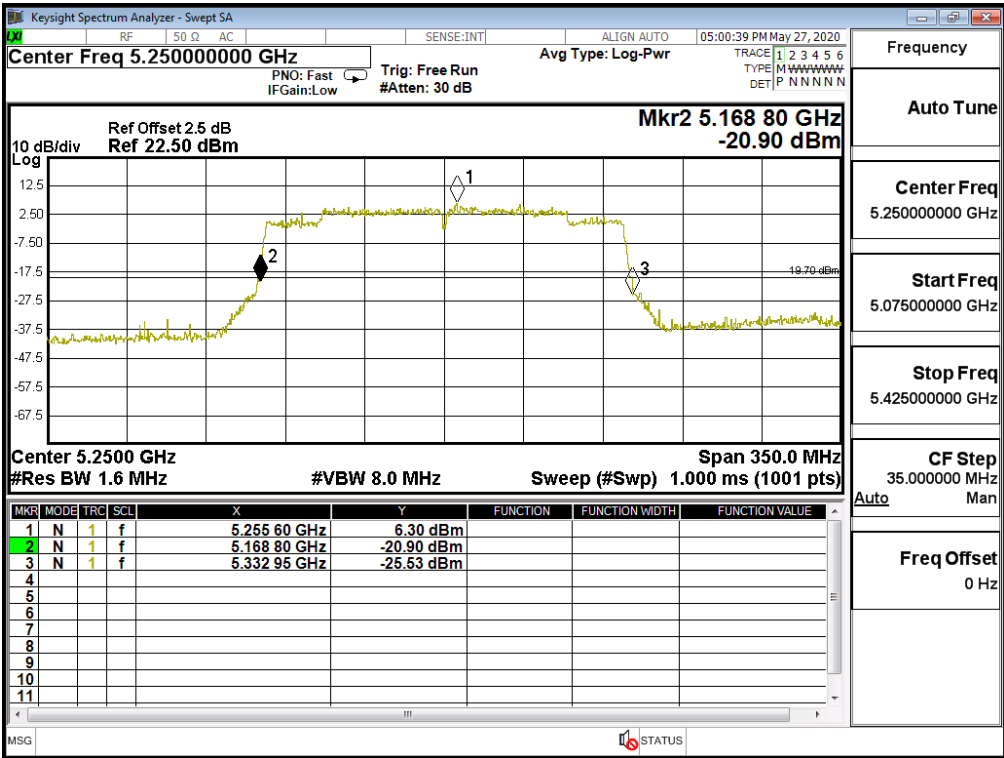
RU config: Other

Channel No / Frequency (MHz)	RU setting	Average Power Output (dBm)												
		Data Rate (Mbps)												Required Limit
		MCS0	--	--	--	--	--	--	--	--	--	--	--	
50/5250	996/67	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm
	996/S67	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm
114/5570	996/67	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm
	996/S67	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm

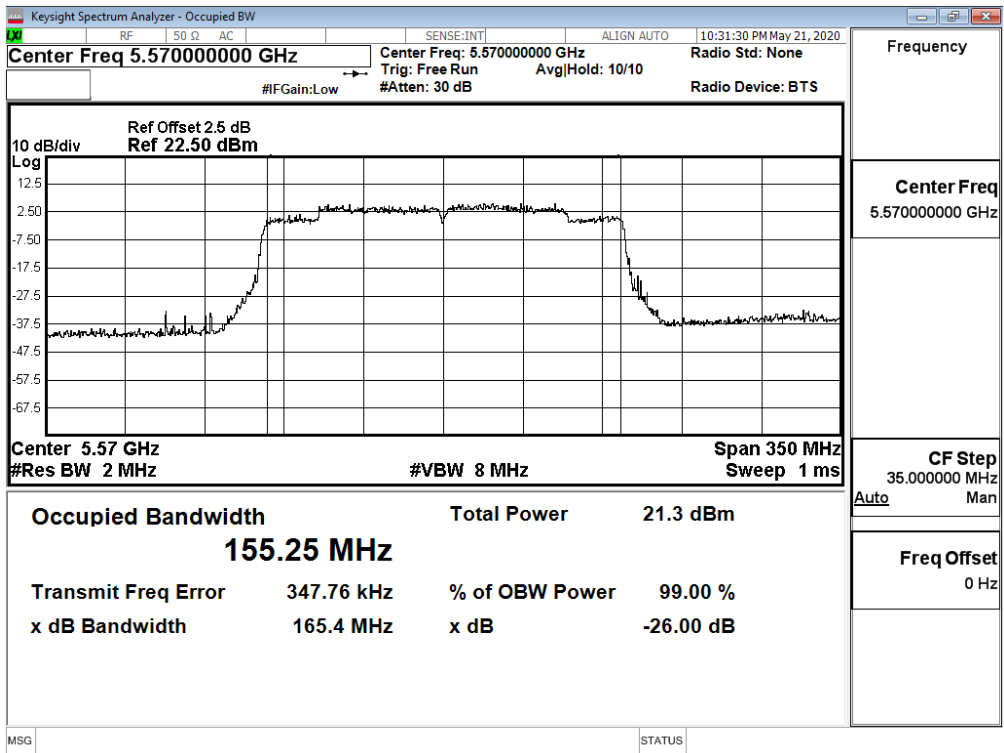
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
50/5250	996/67	--	13.48	24	--	Pass
	996/S67	--	13.49	24	--	Pass
114/5570	996/67	83.530	13.49	24	22.28	Pass
	996/S67	83.910	13.49	24	22.30	Pass

RU config: Full
26dB Occupied Bandwidth:
Channel 50



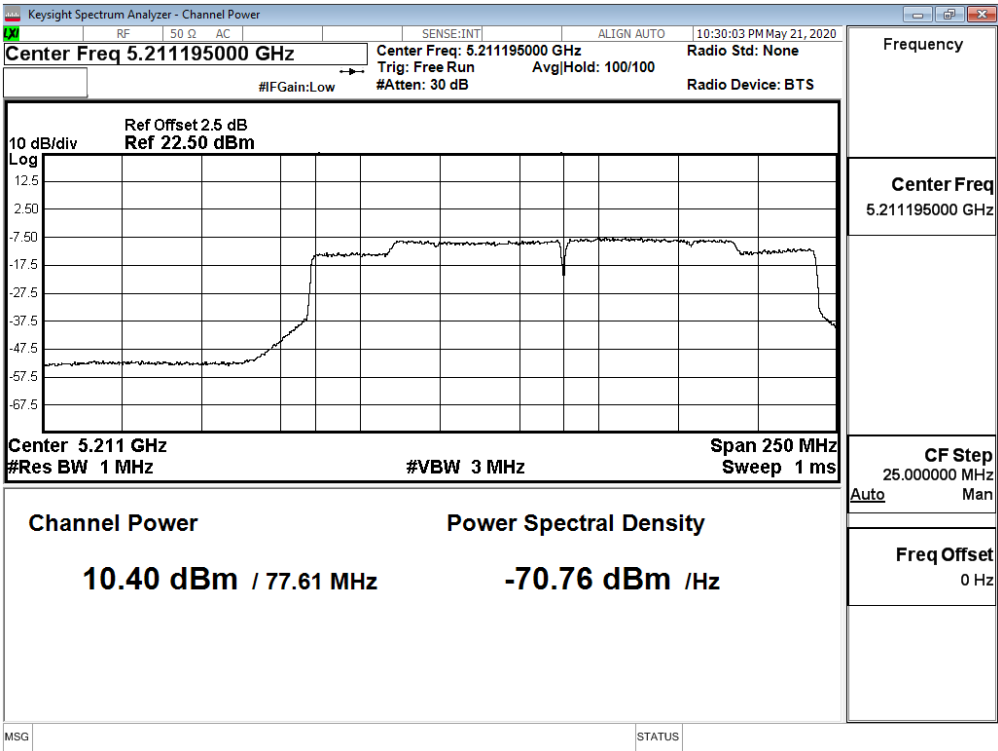
Channel 114



RU config: Full

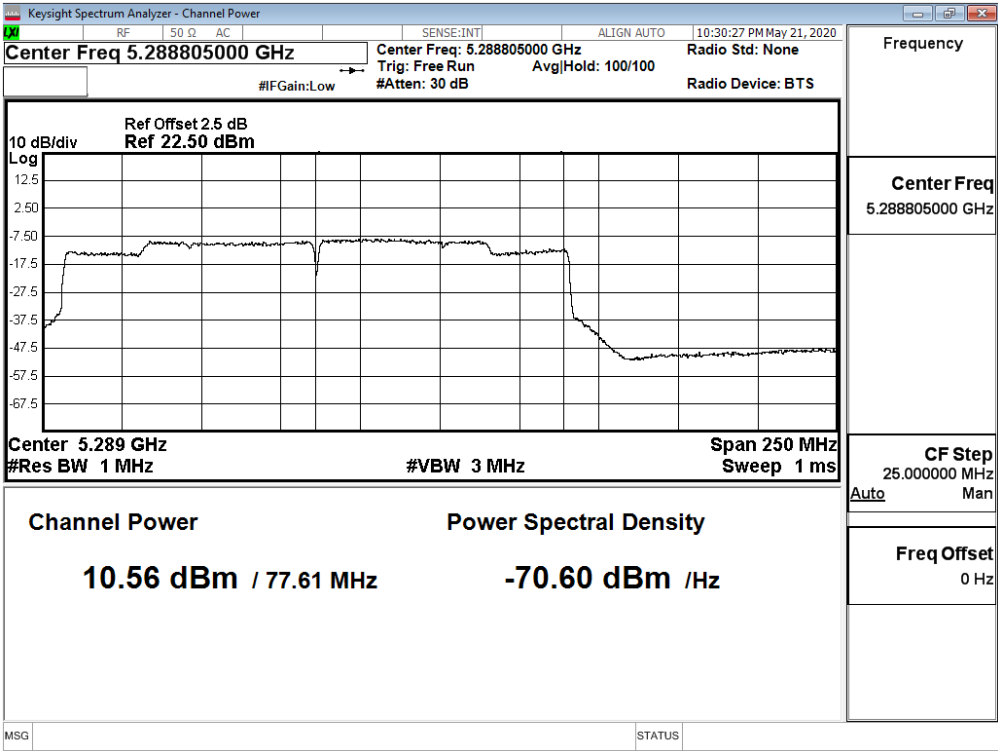
Maximum conducted output power:

Channel 50 (Band1)

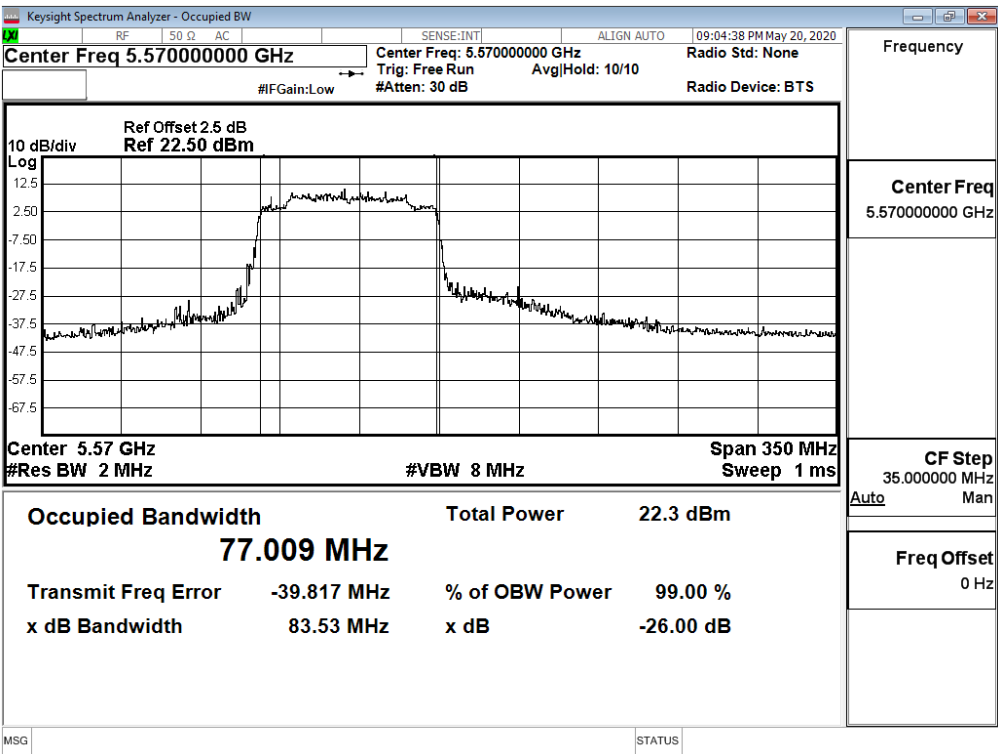


Maximum conducted output power:

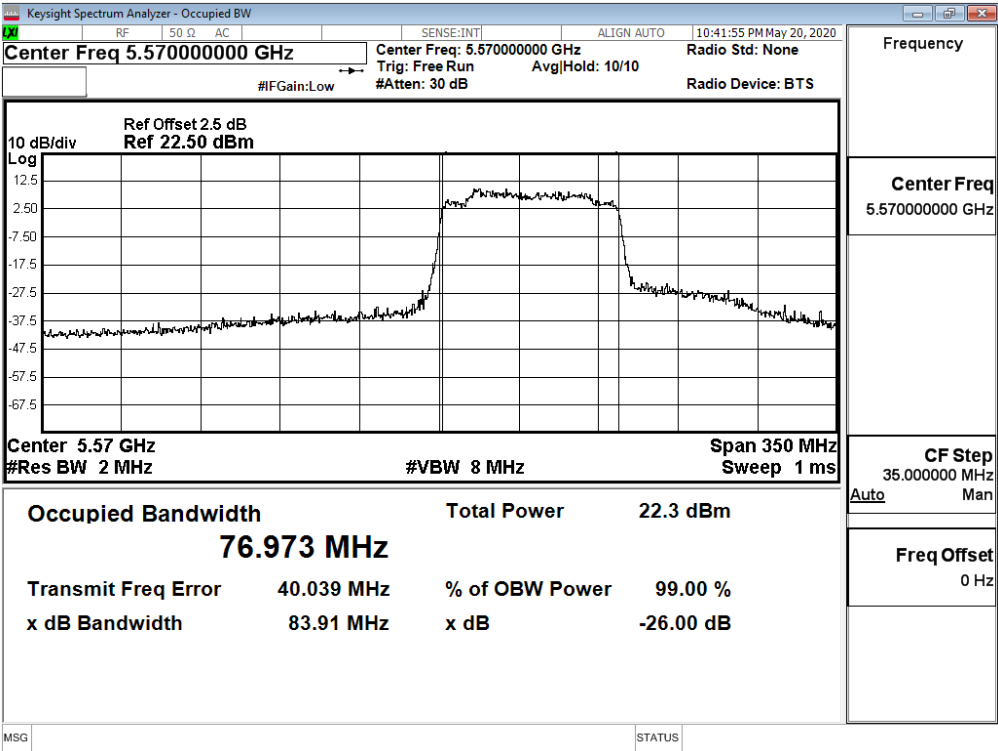
Channel 50 (Band2)



RU config: Other
26dB Occupied Bandwidth:
Channel 114 - 996/67



Channel 114 - 996/S67



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 10 SISO B: Transmit (802.11a_6Mbps)

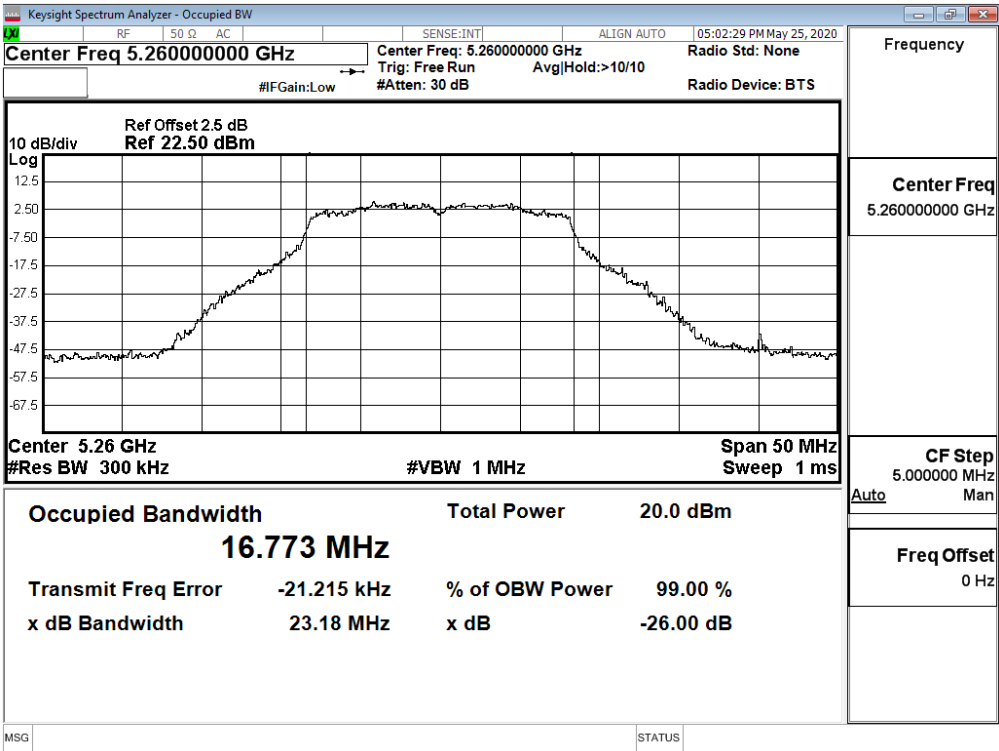
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	13.48	--	--	--	--	--	--	--
44	5220	13.34	13.26	13.19	13.10	13.07	13.01	12.96	12.88
48	5240	13.32	--	--	--	--	--	--	--
52	5260	13.25	--	--	--	--	--	--	--
60	5300	13.3	13.27	13.23	13.15	13.05	13.01	12.94	12.84
64	5320	13.25	--	--	--	--	--	--	--
100	5500	13.46	--	--	--	--	--	--	--
116	5580	13.31	13.23	13.16	13.06	12.98	12.93	12.85	12.77
140	5700	13.46	--	--	--	--	--	--	--
149	5745	13.29	--	--	--	--	--	--	--
157	5785	13.41	13.33	13.29	13.25	13.20	13.10	13.02	12.94
165	5825	13.27	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

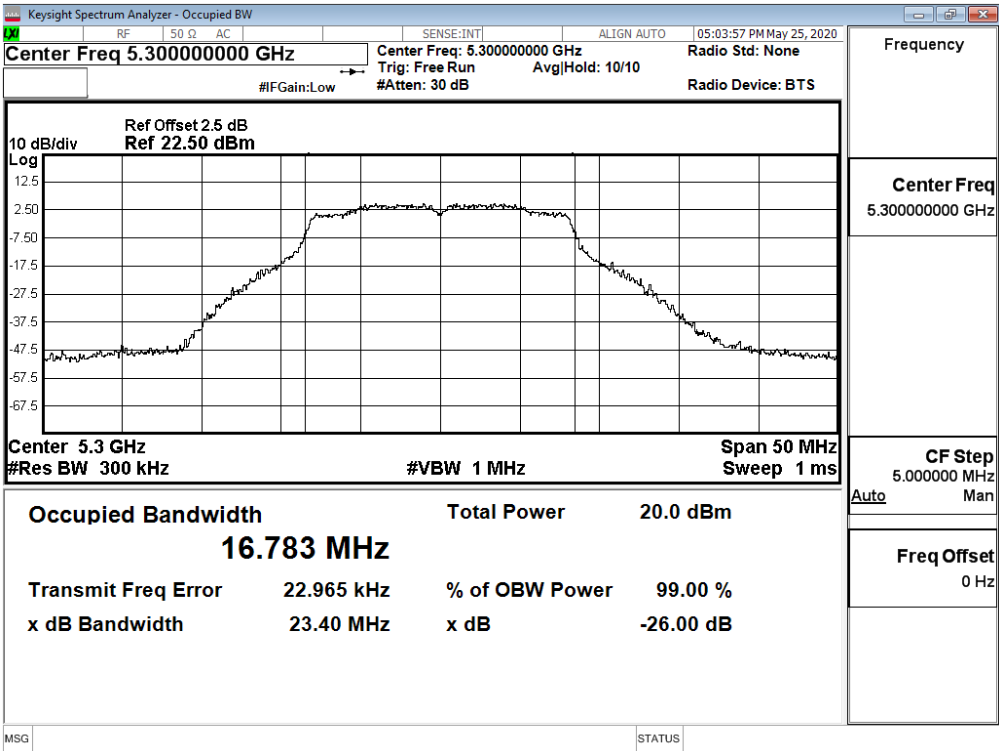
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.48	24	--	Pass
44	5220	--	13.34	24	--	Pass
48	5240	--	13.32	24	--	Pass
52	5260	23.180	13.25	24	24.65	Pass
60	5300	23.400	13.3	24	24.69	Pass
64	5320	23.640	13.25	24	24.74	Pass
100	5500	23.490	13.46	24	24.71	Pass
116	5580	23.140	13.31	24	24.64	Pass
140	5700	23.020	13.46	24	24.62	Pass
149	5745	--	13.29	30	--	Pass
157	5785	--	13.41	30	--	Pass
165	5825	--	13.27	30	--	Pass

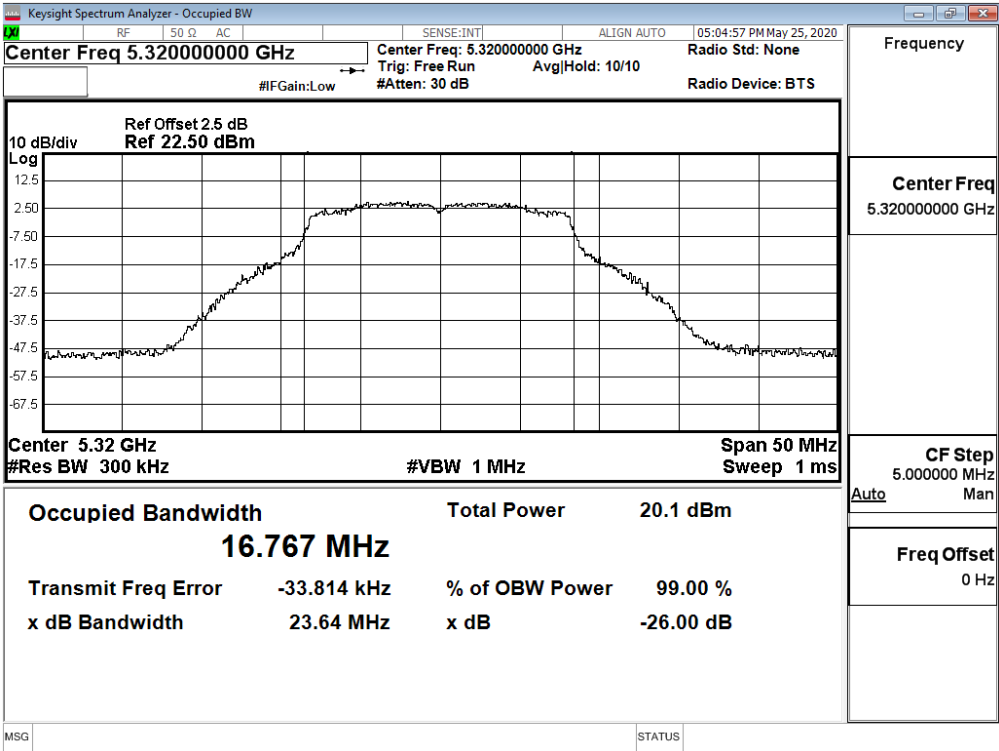
26dB Occupied Bandwidth:
Channel 52



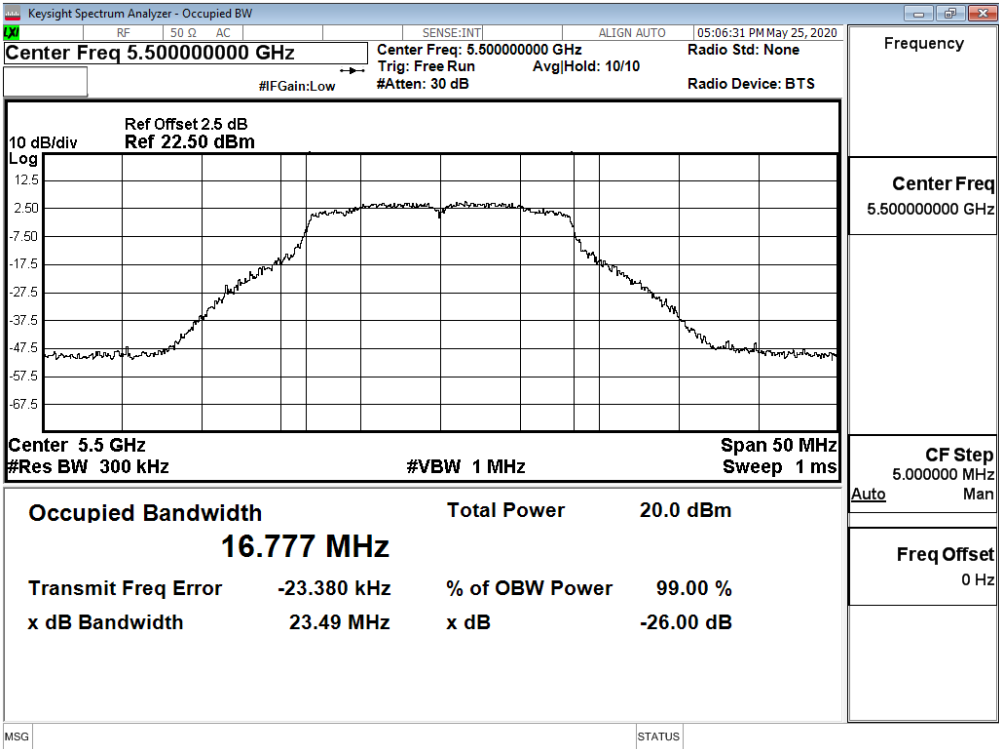
Channel 60



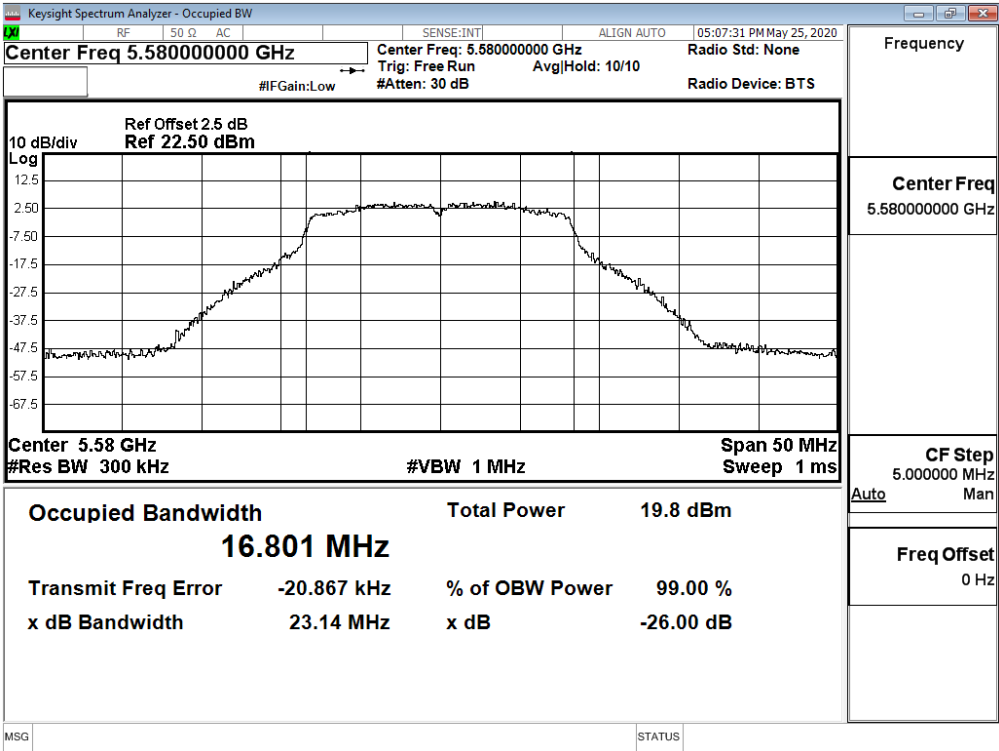
Channel 64



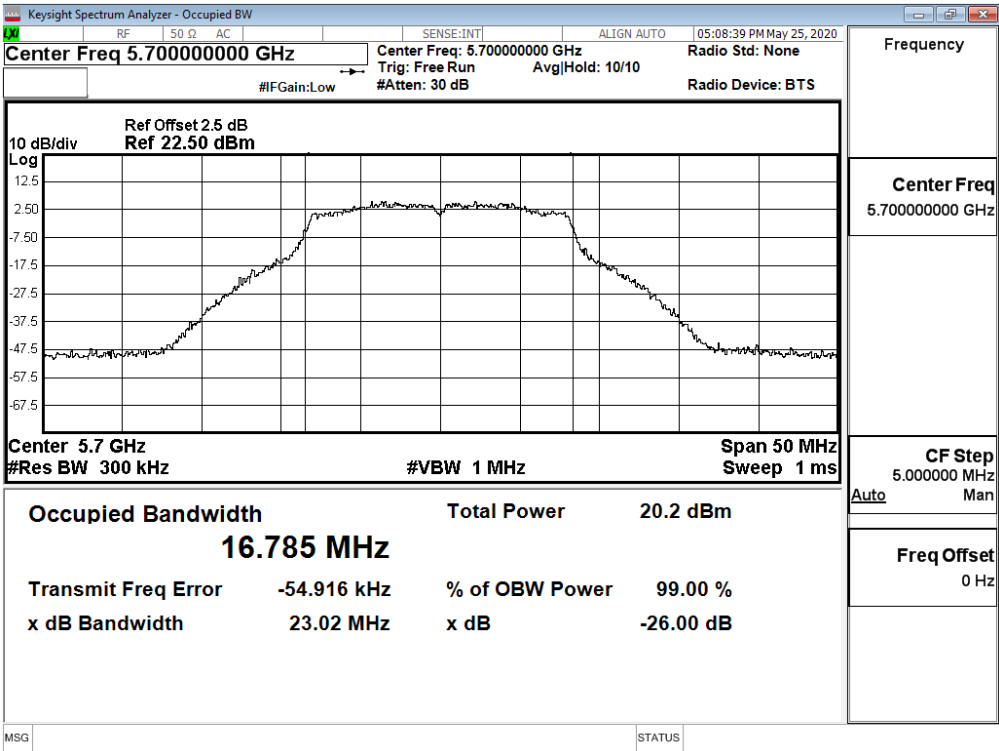
Channel 100



Channel 116



Channel 140



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 11 SISO B: Transmit (802.11n-20BW_7.2Mbps)

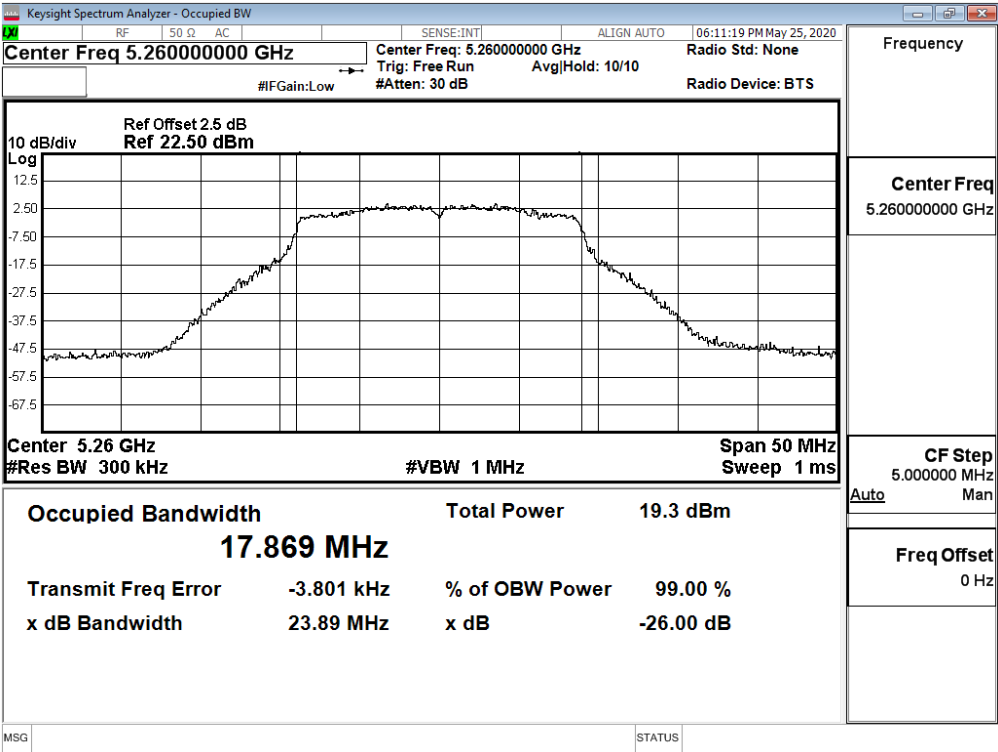
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT0	HT1	HT2	HT3	HT4	HT5	HT6	HT7
		Measurement Level (dBm)							
36	5180	13.45	--	--	--	--	--	--	--
44	5220	13.41	13.37	13.32	13.28	13.24	13.14	13.08	12.98
48	5240	13.33	--	--	--	--	--	--	--
52	5260	13.36	--	--	--	--	--	--	--
60	5300	13.4	13.31	13.21	13.11	13.02	12.96	12.89	12.86
64	5320	13.31	--	--	--	--	--	--	--
100	5500	13.43	--	--	--	--	--	--	--
116	5580	13.4	13.34	13.25	13.21	13.17	13.09	13.06	13.01
140	5700	13.44	--	--	--	--	--	--	--
144(Band3)	5720	12.73	12.67	12.56	12.48	12.38	12.33	12.24	12.13
144(Band4)	5720	5.32	5.21	5.16	5.07	4.97	4.88	4.79	4.76
149	5745	13.41	--	--	--	--	--	--	--
157	5785	13.28	13.18	13.13	13.08	12.99	12.90	12.80	12.71
165	5825	13.25	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

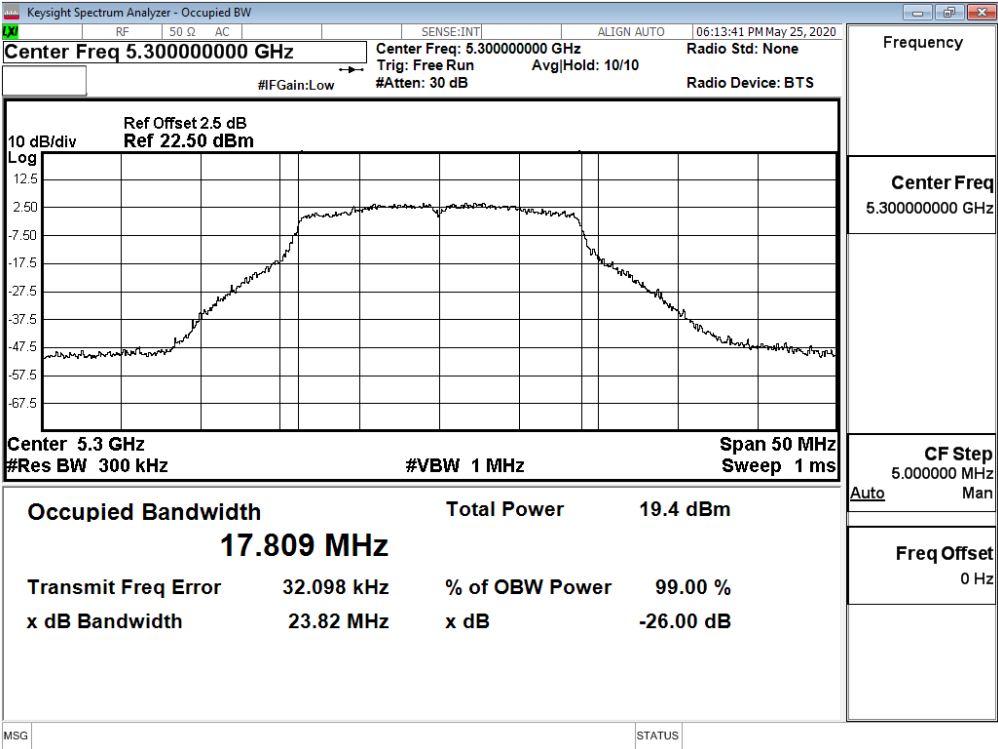
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.45	24	--	Pass
44	5220	--	13.41	24	--	Pass
48	5240	--	13.33	24	--	Pass
52	5260	23.890	13.36	24	24.78	Pass
60	5300	23.820	13.4	24	24.77	Pass
64	5320	24.180	13.31	24	24.83	Pass
100	5500	23.910	13.43	24	24.79	Pass
116	5580	23.880	13.4	24	24.78	Pass
140	5700	23.450	13.44	24	24.70	Pass
144(Band3)	5720	17.150	12.73	24	23.34	Pass
144(Band4)	5720	--	5.32	30	--	Pass
149	5745	--	13.41	30	--	Pass
157	5785	--	13.28	30	--	Pass
165	5825	--	13.25	30	--	Pass

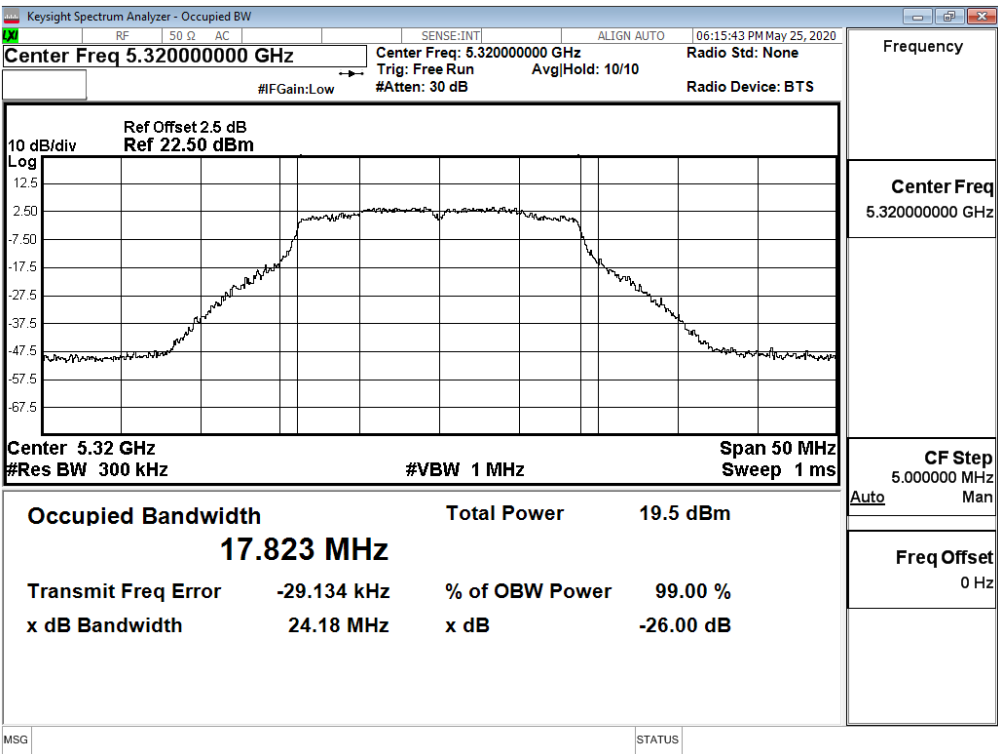
26dB Occupied Bandwidth:
Channel 52



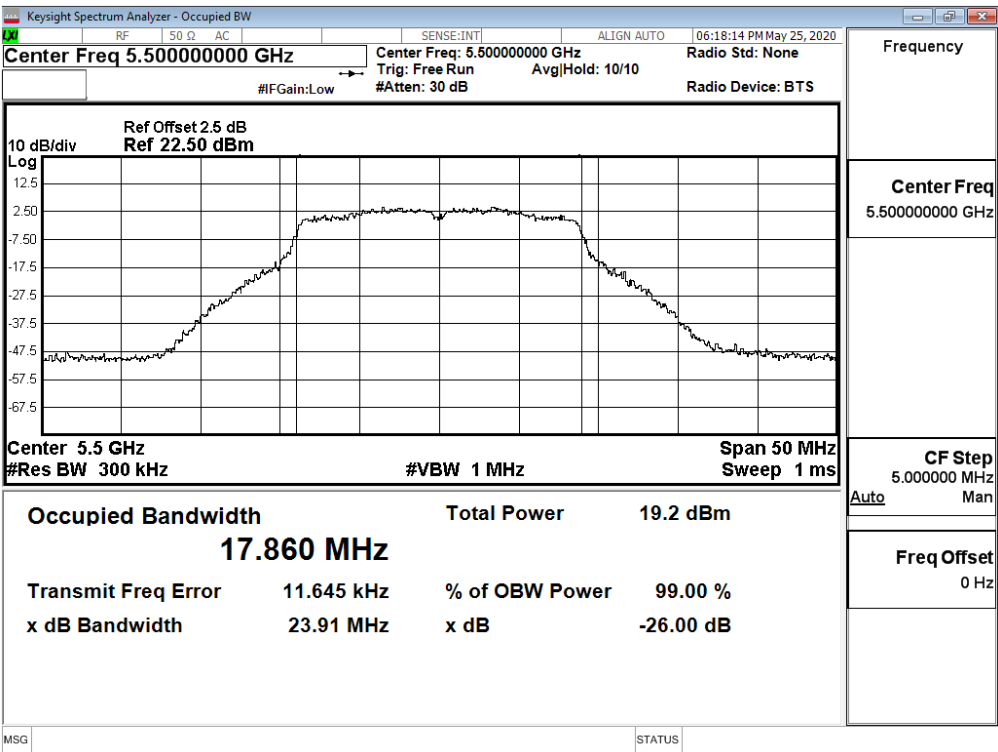
Channel 60



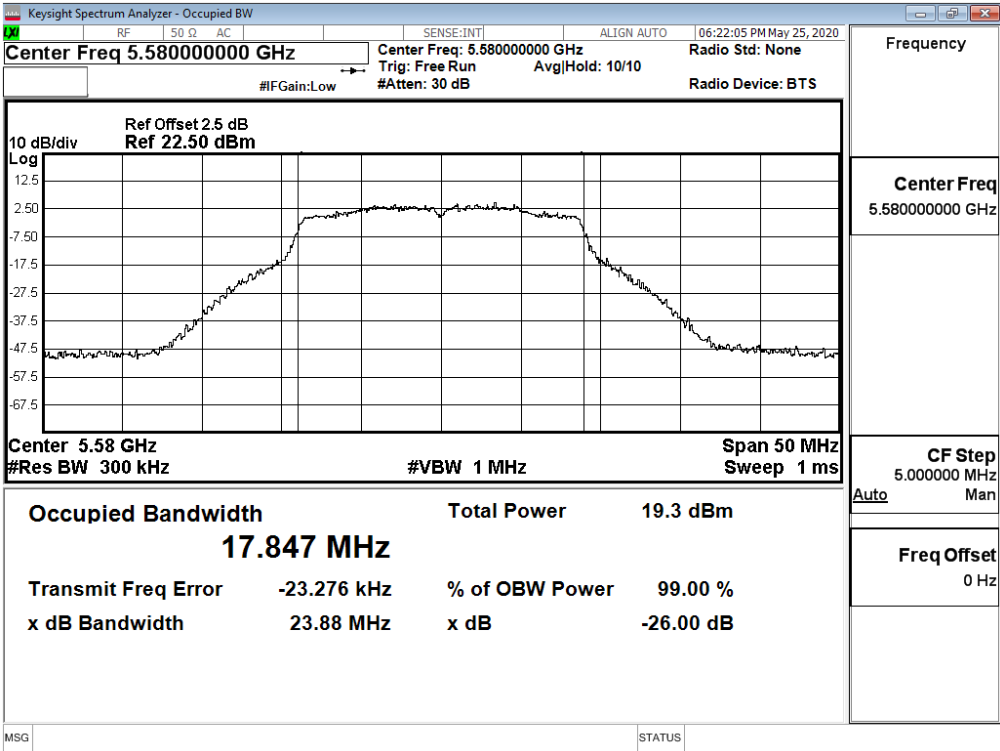
Channel 64



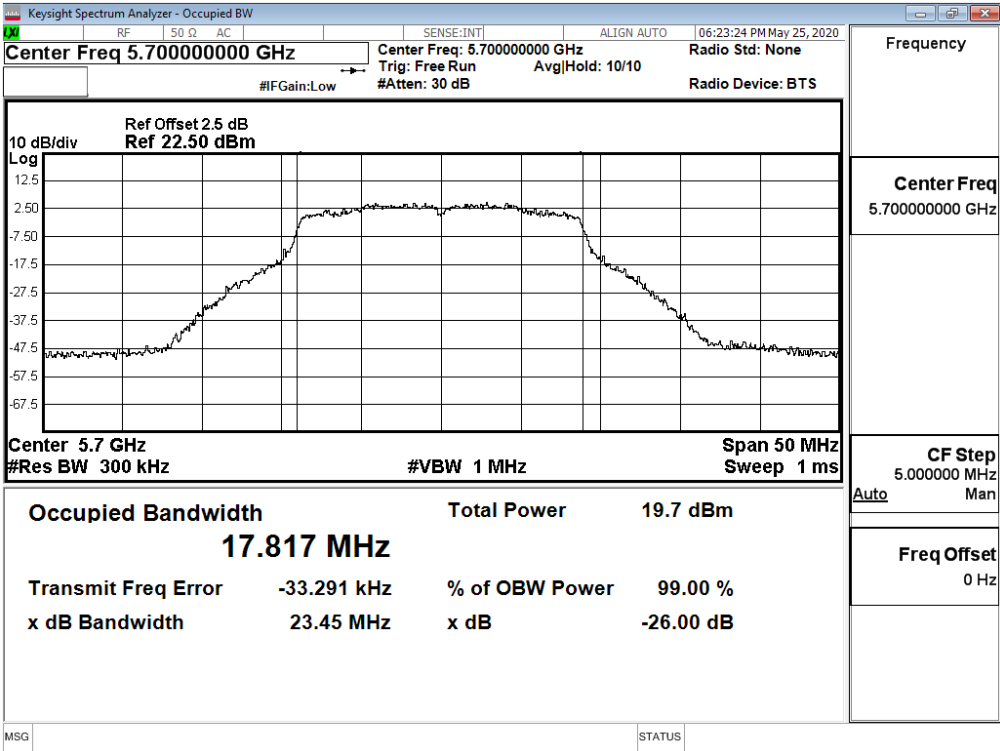
Channel 100



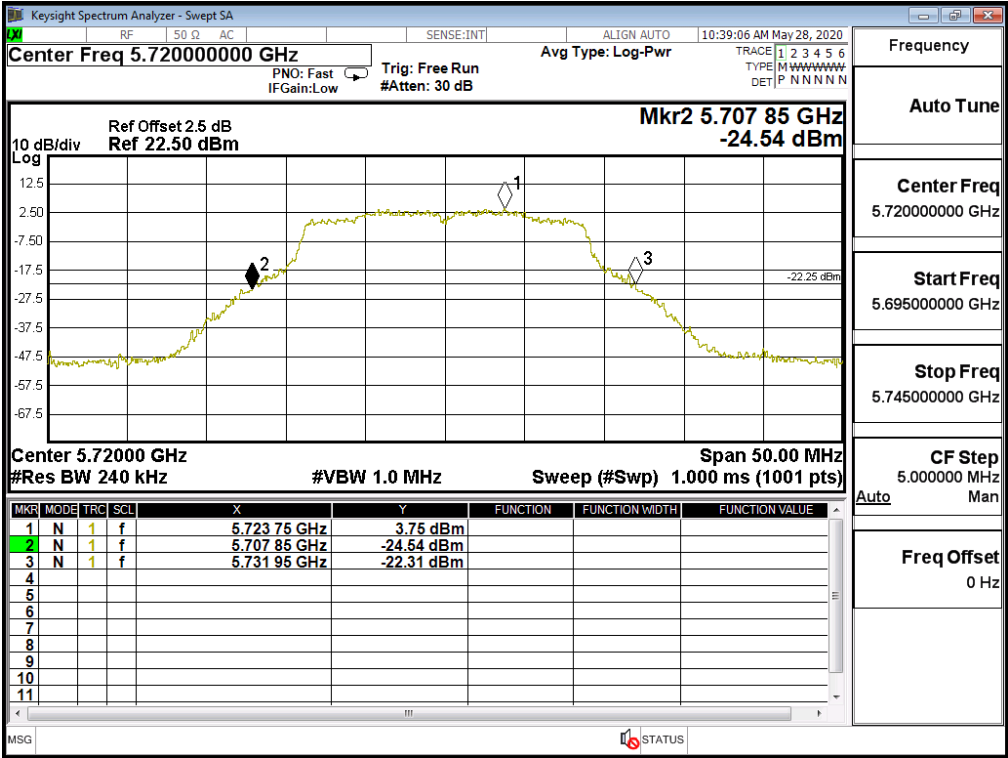
Channel 116



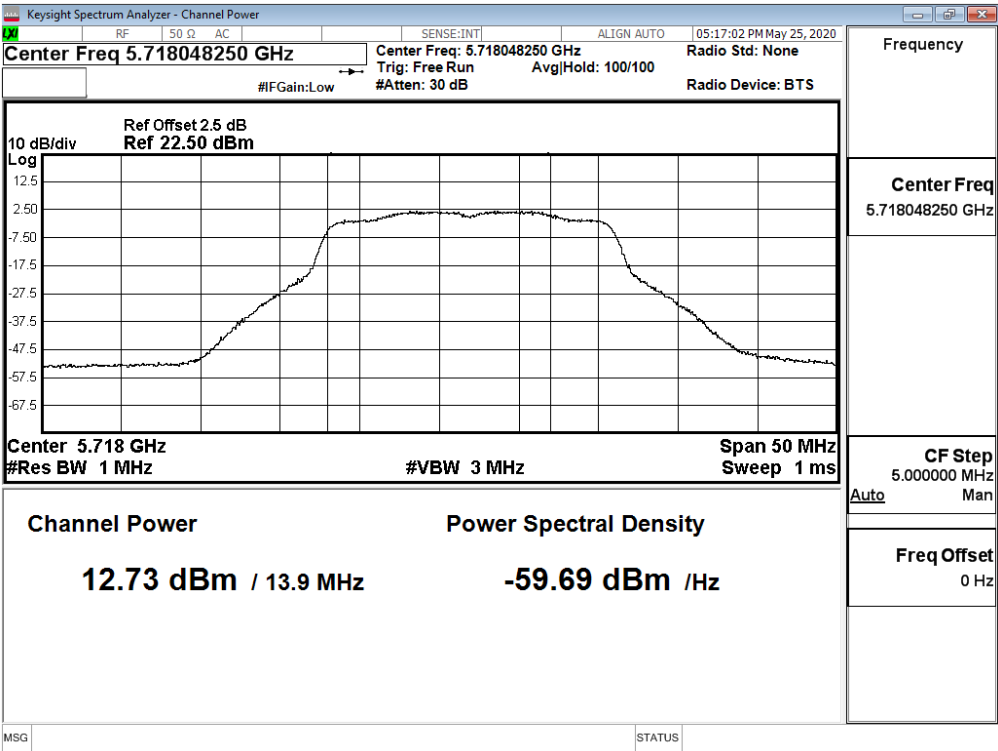
Channel 140



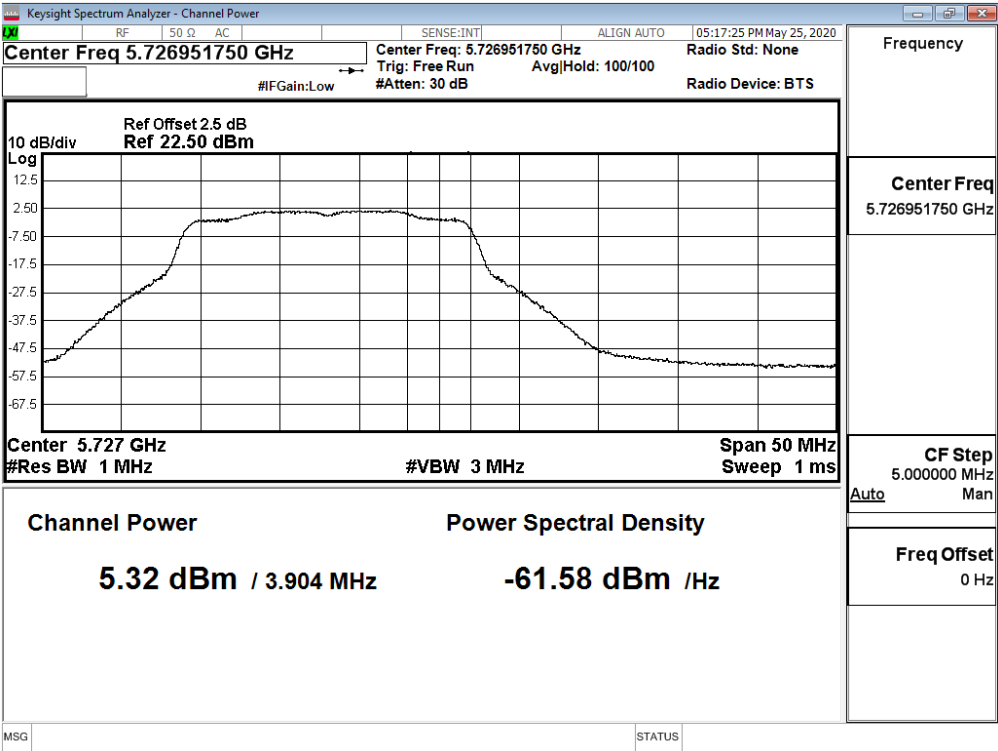
Channel 144



Maximum conducted output power:
Channel 144 (Band3)



Maximum conducted output power:
Channel 144 (Band4)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 12 SISO B: Transmit (802.11n-40BW_15Mbps)

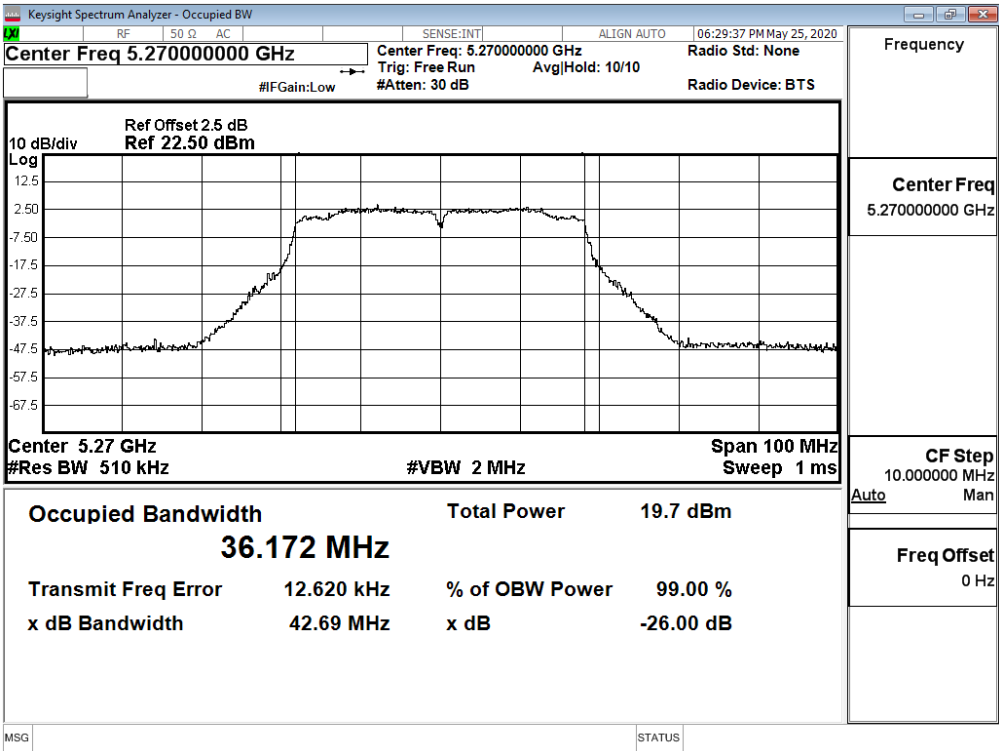
Cable loss=2.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT0	HT1	HT2	HT3	HT4	HT5	HT6	HT7
		Measurement Level (dBm)							
38	5190	13.42	--	--	--	--	--	--	--
46	5230	13.43	13.37	13.29	13.26	13.23	13.16	13.07	13.03
54	5270	13.26	--	--	--	--	--	--	--
62	5310	13.45	13.42	13.35	13.25	13.15	13.11	13.06	13.00
102	5510	13.2	--	--	--	--	--	--	--
110	5550	13.36	13.28	13.18	13.11	13.02	12.93	12.86	12.78
134	5670	13.36	--	--	--	--	--	--	--
142F(Band3)	5710	13.06	13.01	12.97	12.93	12.82	12.72	12.65	12.62
142F(Band4)	5710	0.38	0.35	0.31	0.2	0.11	0	-0.08	-0.16
151	5755	13.3	--	--	--	--	--	--	--
159	5795	13.23	13.14	13.06	13.03	12.98	12.95	12.88	12.84

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

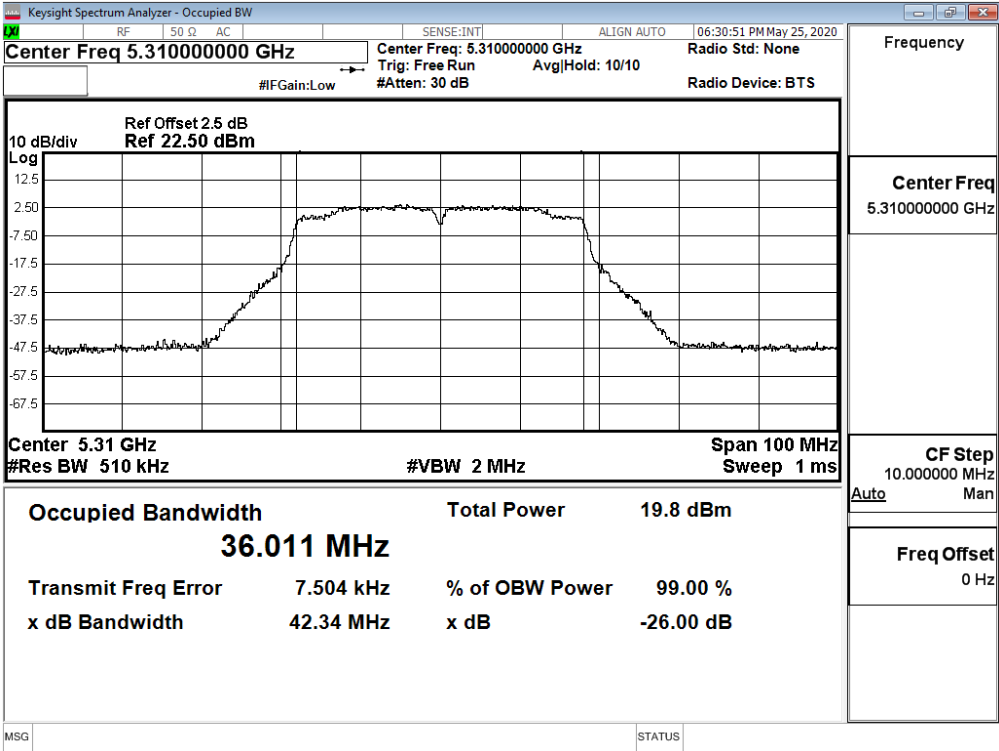
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
38	5190	--	13.42	24	--	Pass
46	5230	--	13.43	24	--	Pass
54	5270	42.690	13.26	24	27.30	Pass
62	5310	42.340	13.45	24	27.27	Pass
102	5510	42.660	13.2	24	27.30	Pass
110	5550	42.580	13.36	24	27.29	Pass
134	5670	41.540	13.36	24	27.18	Pass
142F(Band3)	5710	36.400	13.06	24	26.61	Pass
142F(Band4)	5710	--	0.38	30	--	Pass
151	5755	--	13.3	30	--	Pass
159	5795	--	13.23	30	--	Pass

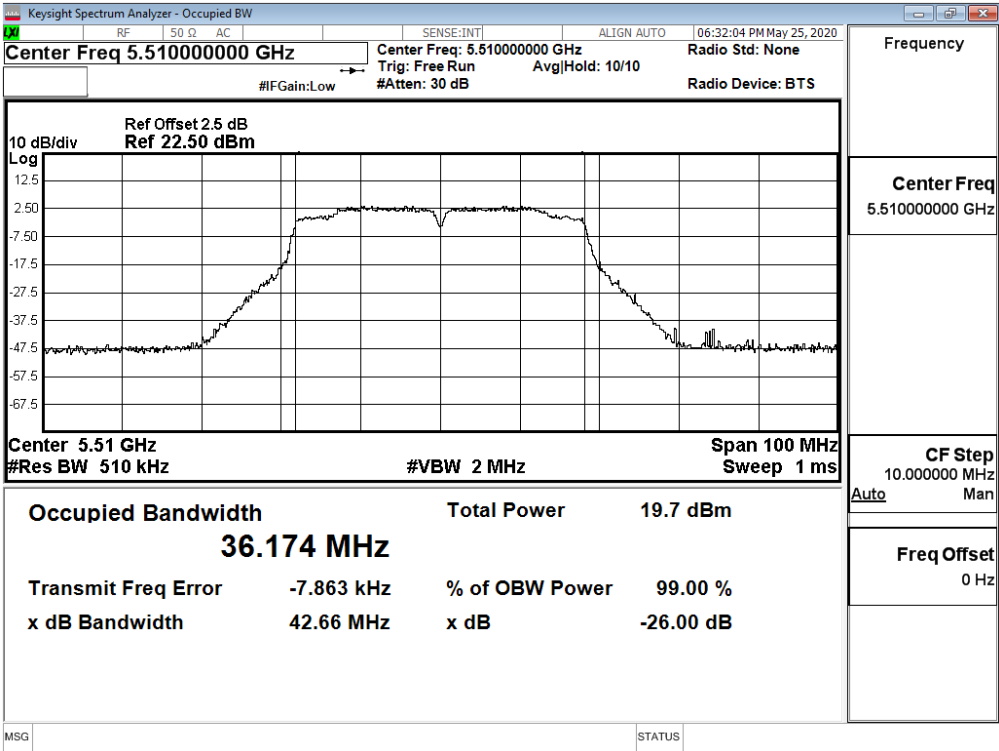
26dB Occupied Bandwidth:
Channel 54



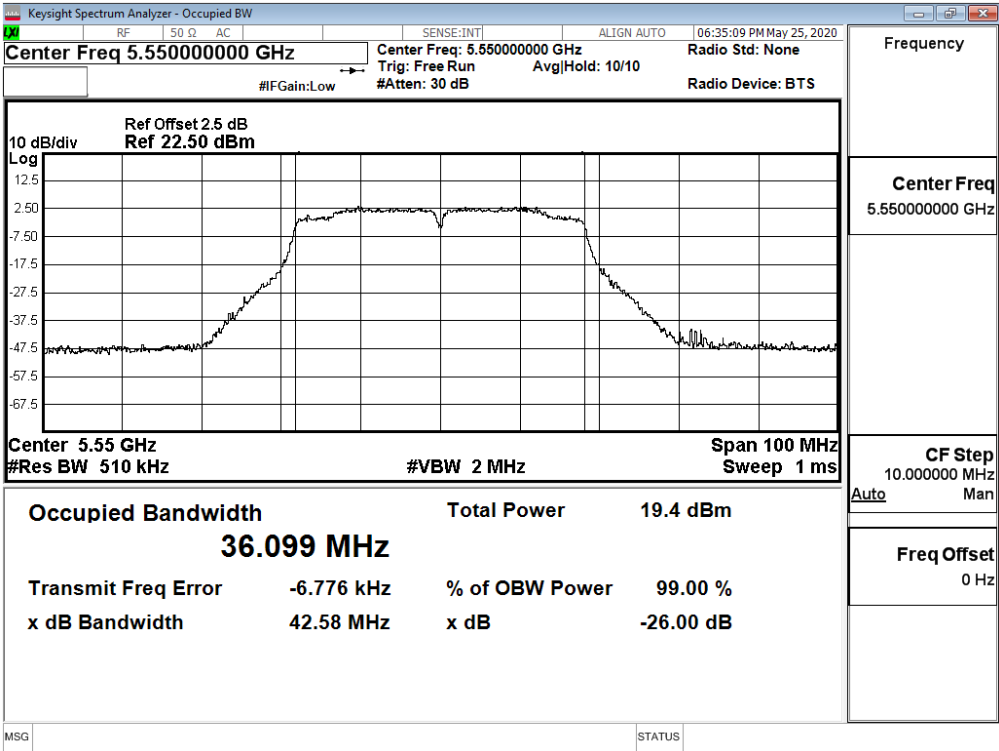
Channel 62



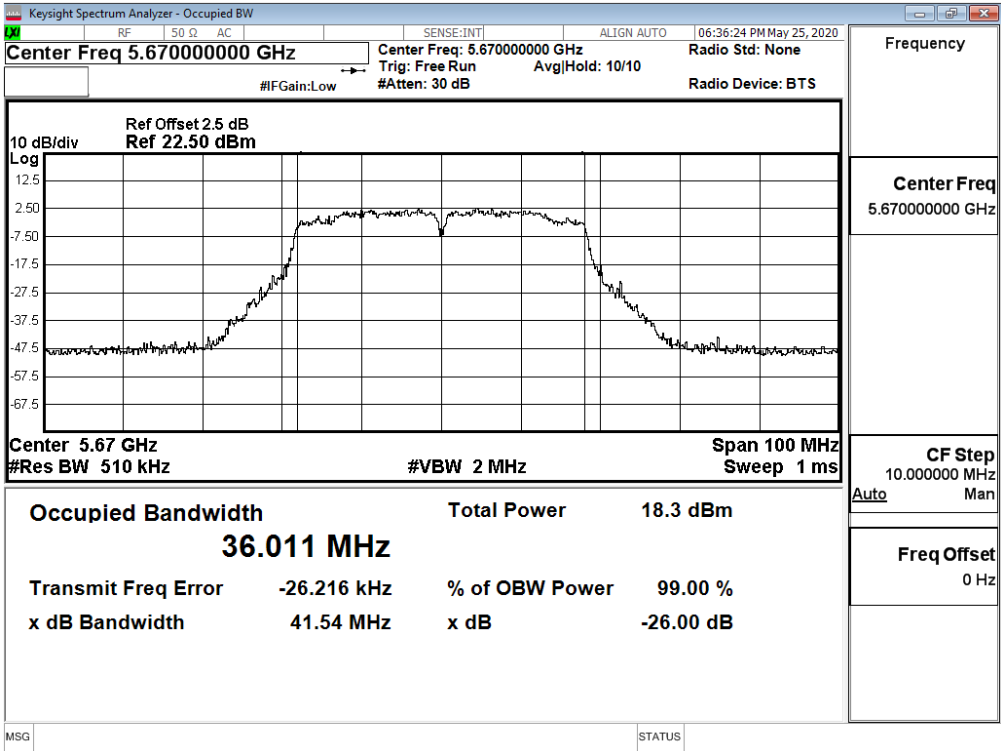
Channel 102



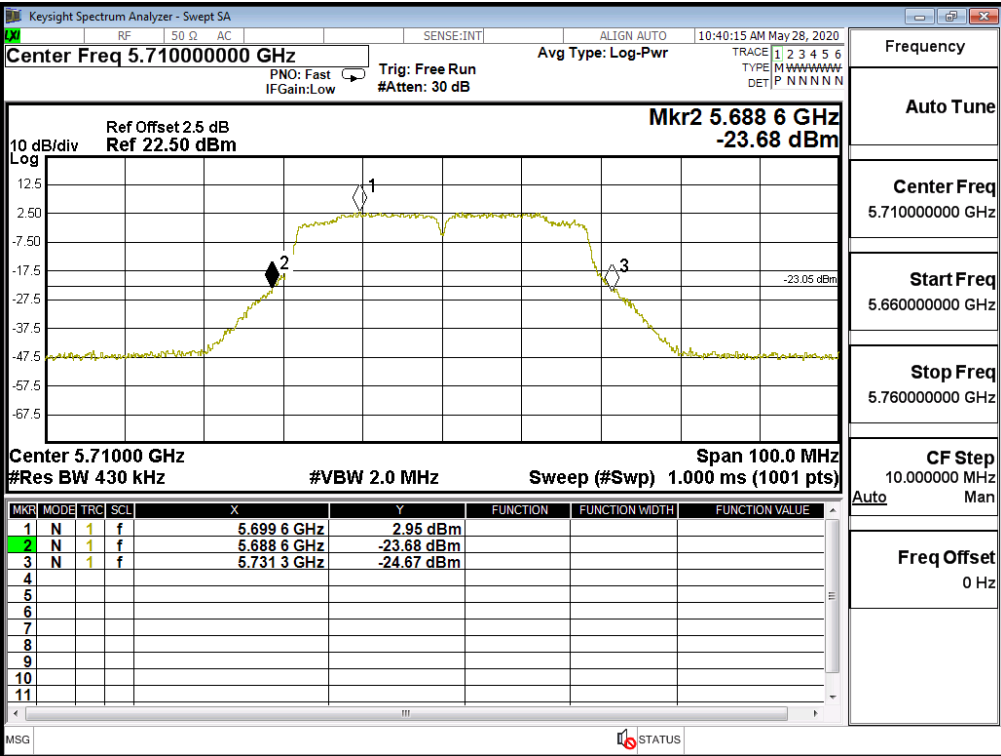
Channel 110



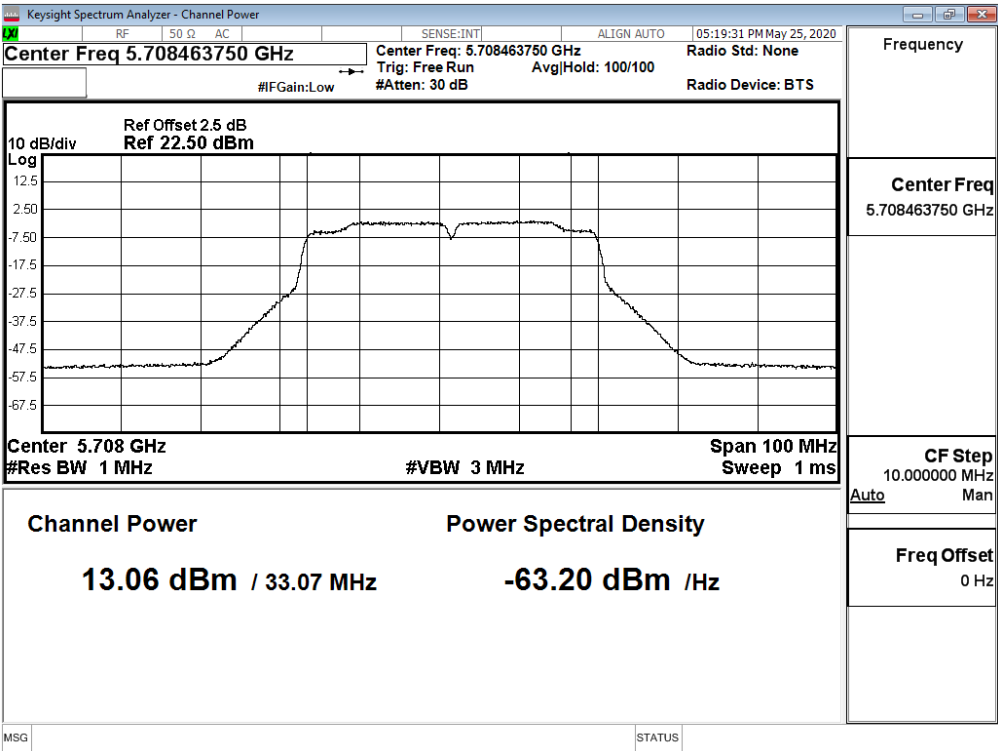
Channel 134



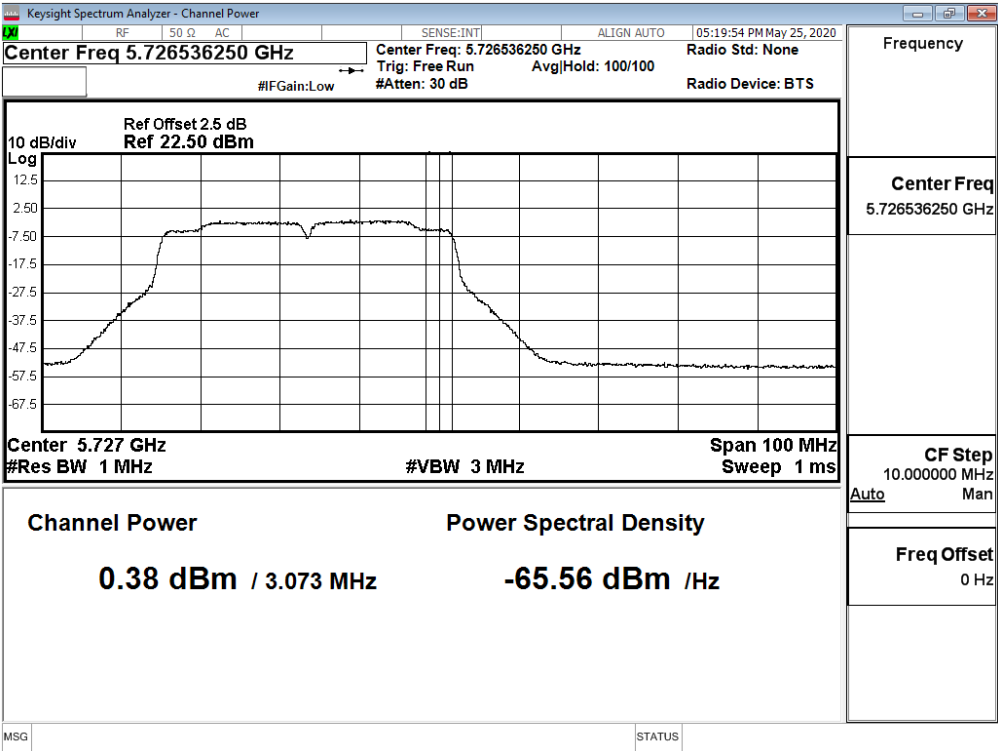
Channel 142



Maximum conducted output power:
Channel 142 (Band3)



Maximum conducted output power:
Channel 142 (Band4)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 13 SISO B: Transmit (802.11ac-80BW_32.5Mbps)

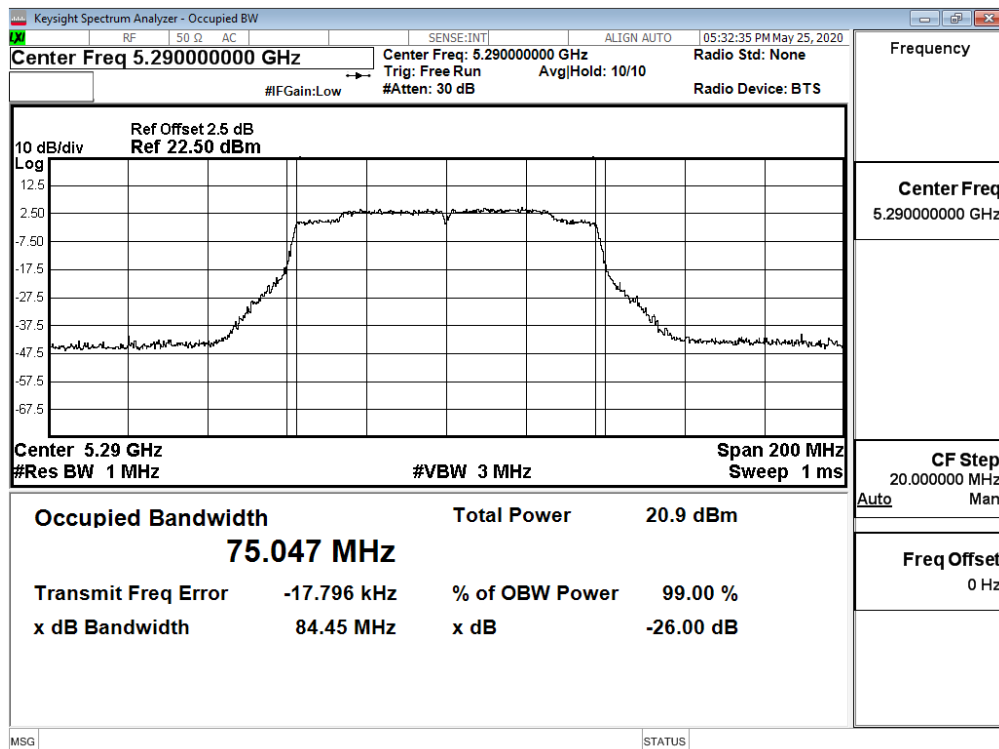
Cable loss=2.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VHT0	VHT1	VHT2	VHT3	VHT4	VHT5	VHT6	VHT7	VHT8	VHT9
42	5210	13.41	13.35	13.29	13.22	13.16	13.12	13.05	13.02	12.93	12.86
58	5290	13.34	13.3	13.25	13.19	13.09	13.06	12.96	12.88	12.78	12.74
106ac80	5530	13.26	13.23	13.16	13.12	13.06	12.98	12.9	12.82	12.77	12.7
122ac80	5610	13.47	13.38	13.3	13.24	13.17	13.12	13.07	13.01	12.97	12.93
138ac80(Band3)	5690	13.39	13.35	13.32	13.25	13.22	13.13	13.05	12.96	12.87	12.8
138ac80(Band4)	5690	-3.81	-3.92	-4.01	-4.07	-4.13	-4.22	-4.26	-4.31	-4.39	-4.42
155ac80	5775	13.41	13.32	13.28	13.25	13.21	13.11	13.01	12.93	12.87	12.78

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

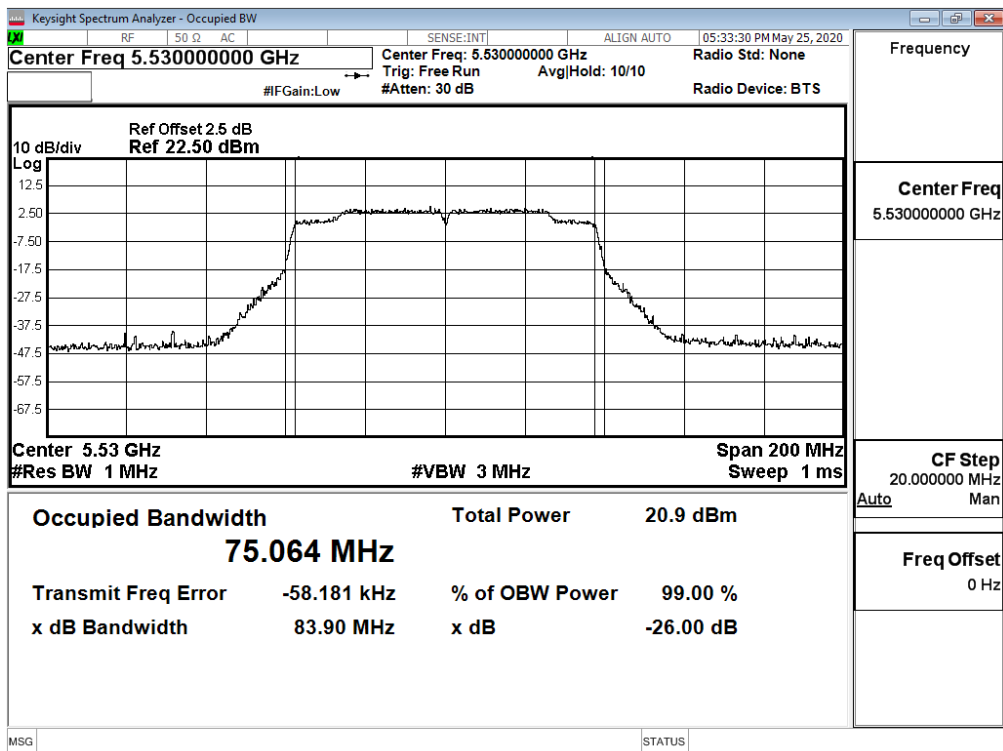
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
42	5210	--	13.41	24	--	Pass
58	5290	84.450	13.34	24	30.27	Pass
106ac80	5530	83.900	13.26	24	30.24	Pass
122ac80	5610	86.040	13.47	24	30.35	Pass
138ac80(Band3)	5690	77.000	13.39	24	29.86	Pass
138ac80(Band4)	5690	--	-3.81	30	--	Pass
155ac80	5775	--	13.41	30	--	Pass

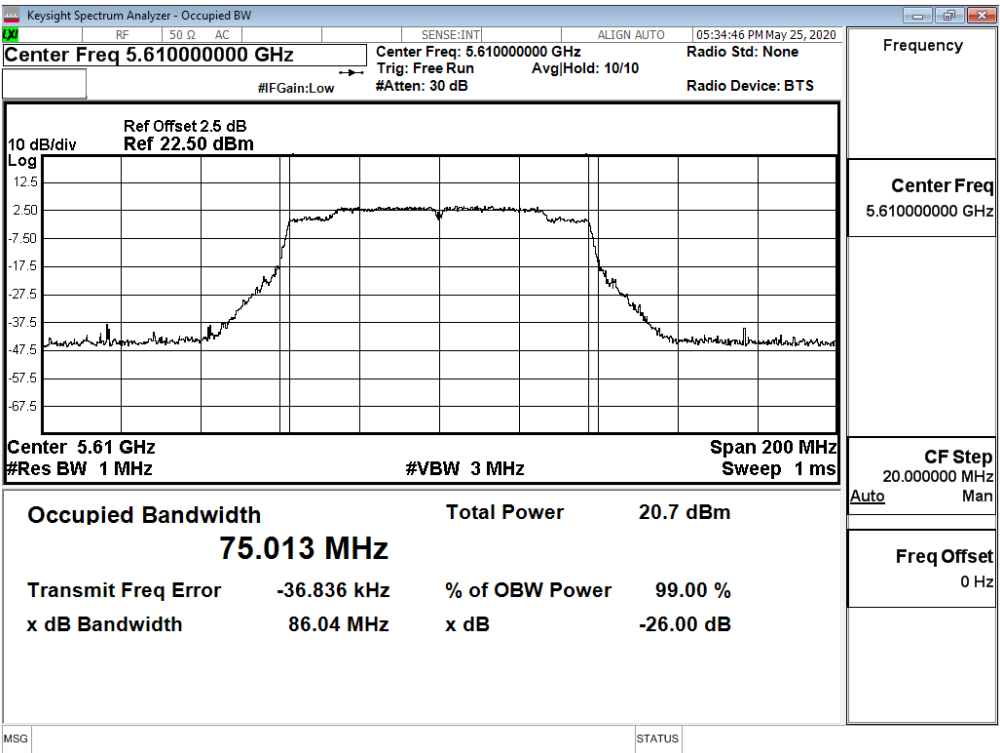
26dB Occupied Bandwidth: Channel 58



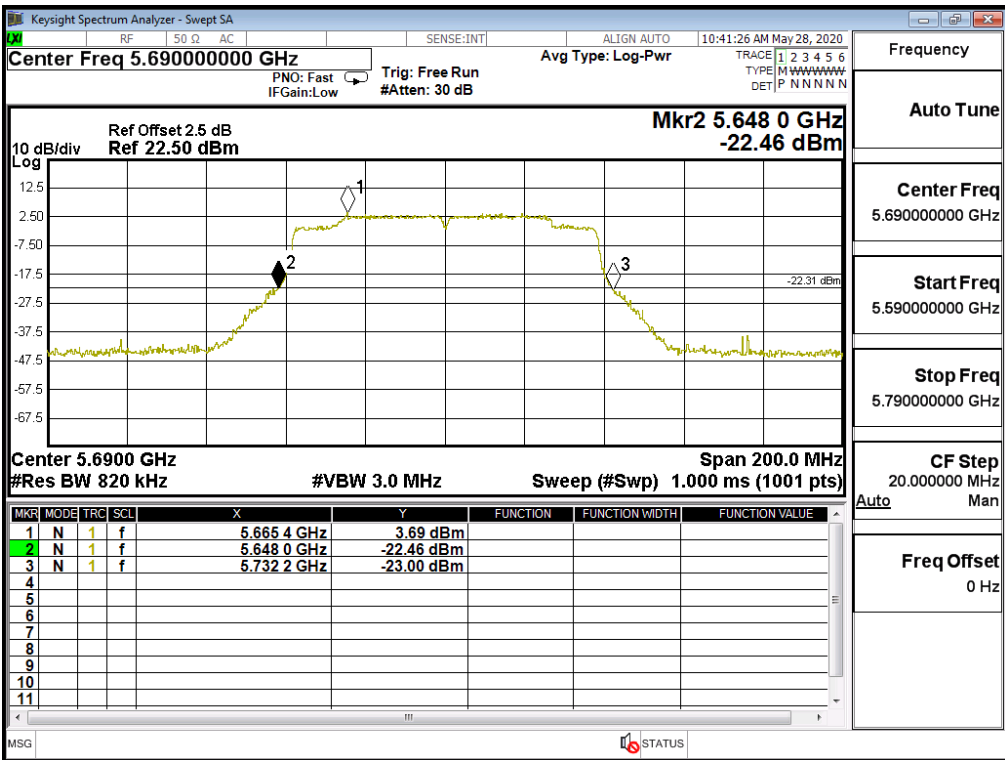
Channel 106



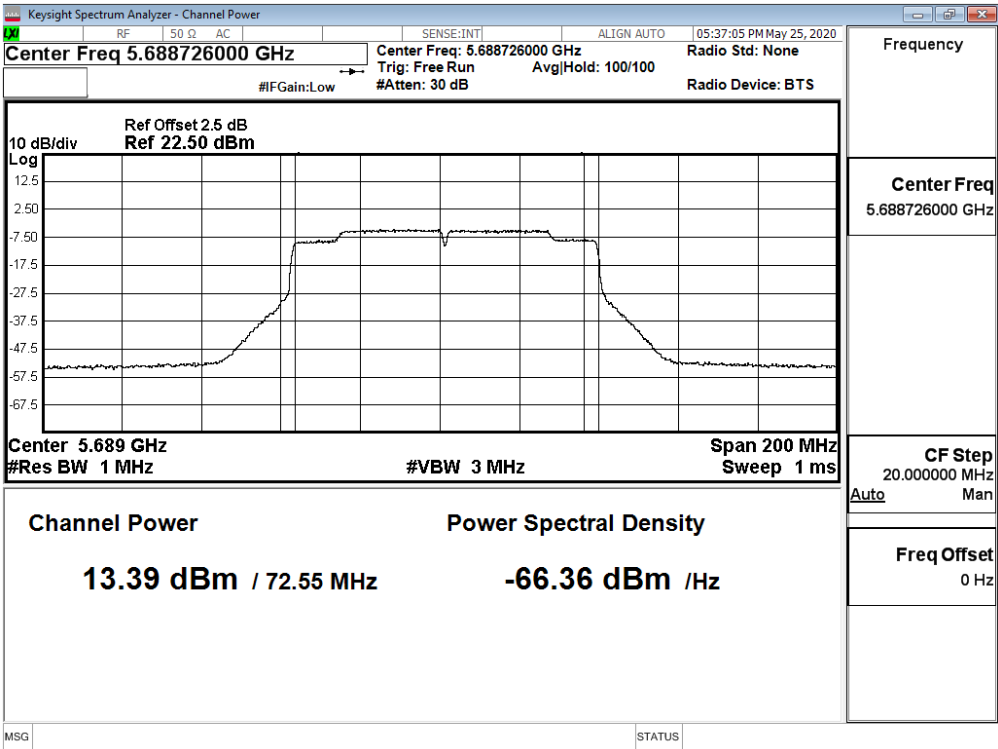
Channel 122



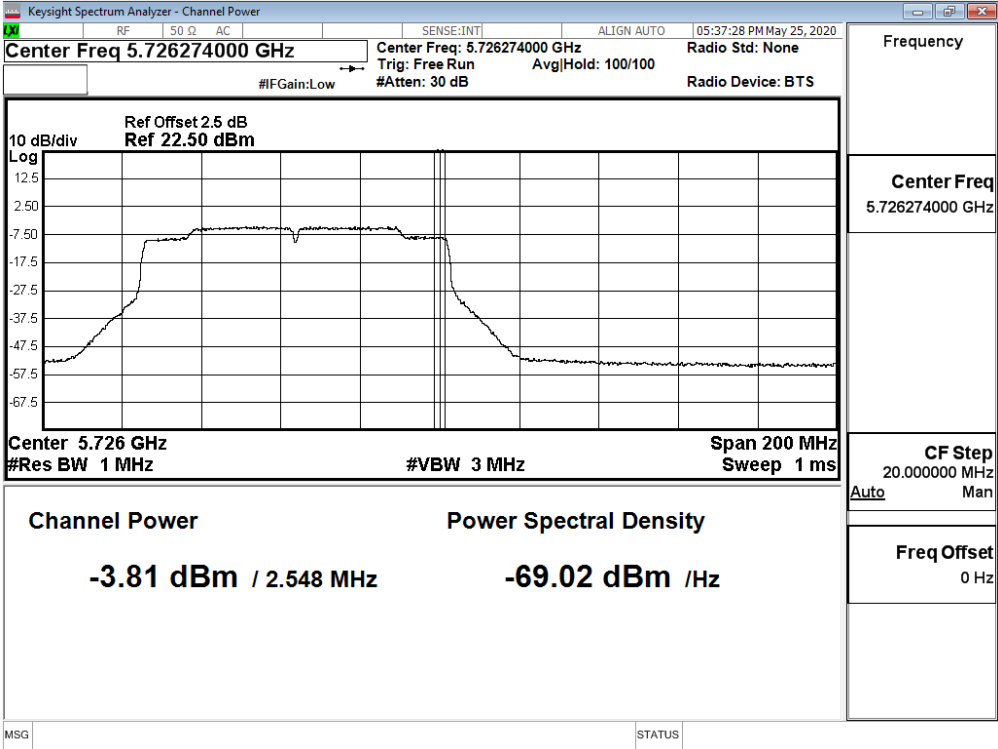
Channel 138



Maximum conducted output power:
Channel 138 (Band3)



Maximum conducted output power:
Channel 138 (Band4)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 14 SISO B: Transmit (802.11ac-160BW_65Mbps)

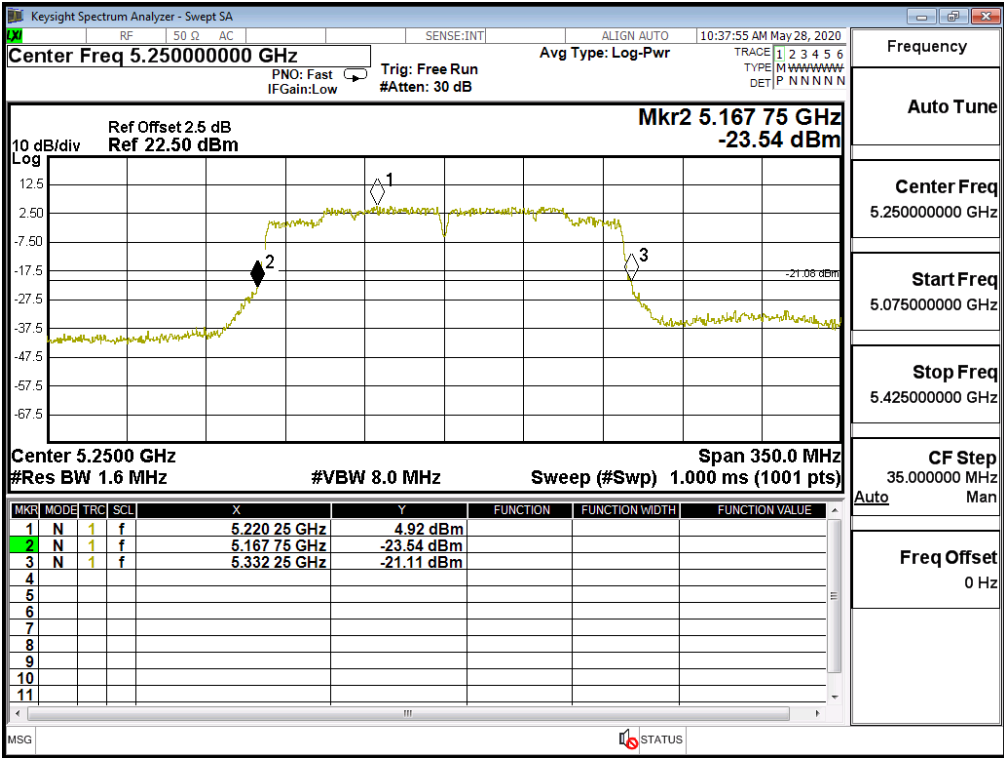
Cable loss=2.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VHT0	VHT1	VHT2	VHT3	VHT4	VHT5	VHT6	VHT7	VHT8	VHT9
50ac160(Band1)	5250	10.49	10.45	10.39	10.28	10.18	10.11	10.06	9.99	9.91	9.86
50ac160(Band2)	5250	10.2	10.11	10.05	9.95	9.90	9.87	9.81	9.73	9.62	9.54
114ac160	5570	13.31	13.22	13.18	13.1	13.02	12.99	12.91	12.81	12.76	12.7

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

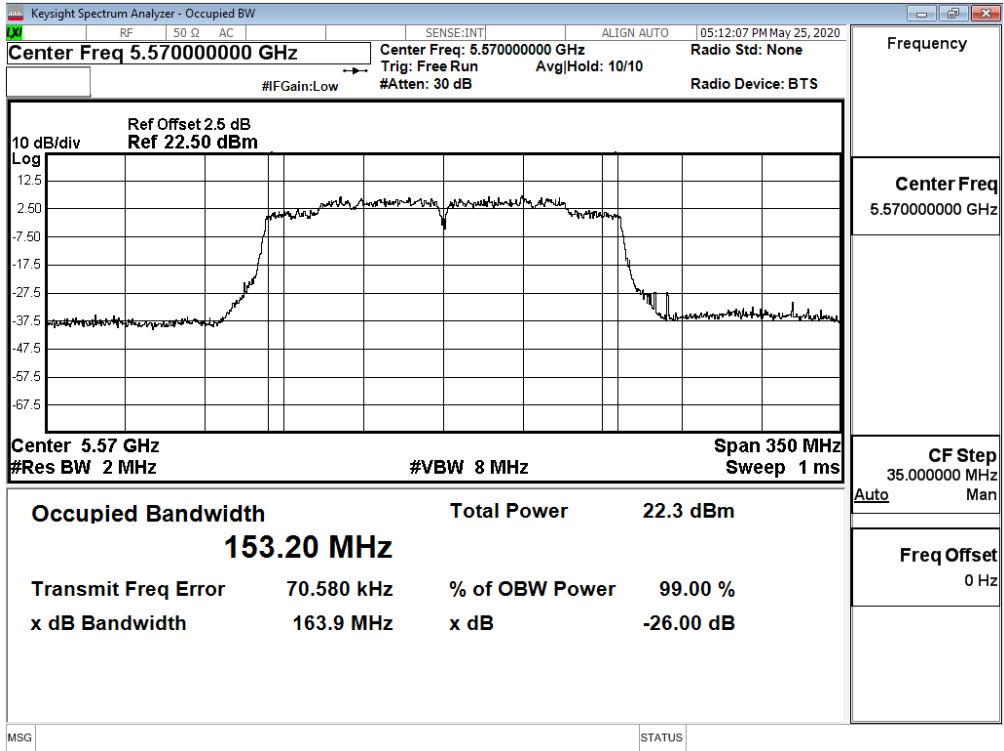
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
50ac160(Band1)	5250	--	10.49	24	--	Pass
80ac160(Band2)	5250	82.250	10.2	24	21.09	Pass
114ac160	5570	163.900	13.31	24	22.24	Pass

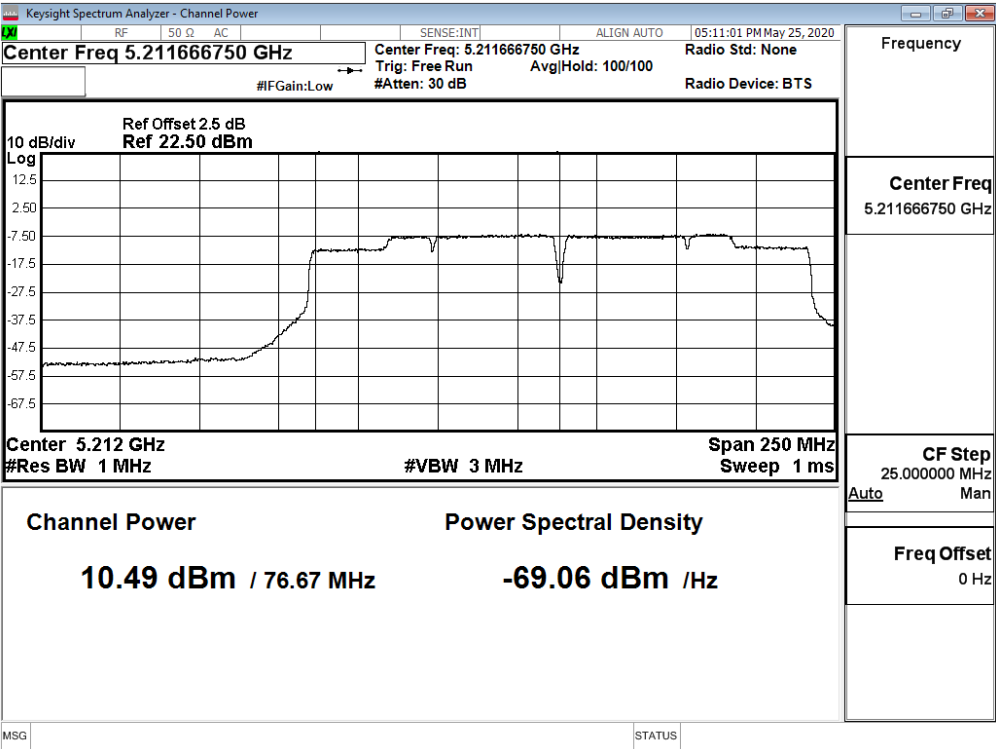
26dB Occupied Bandwidth:
Channel 50



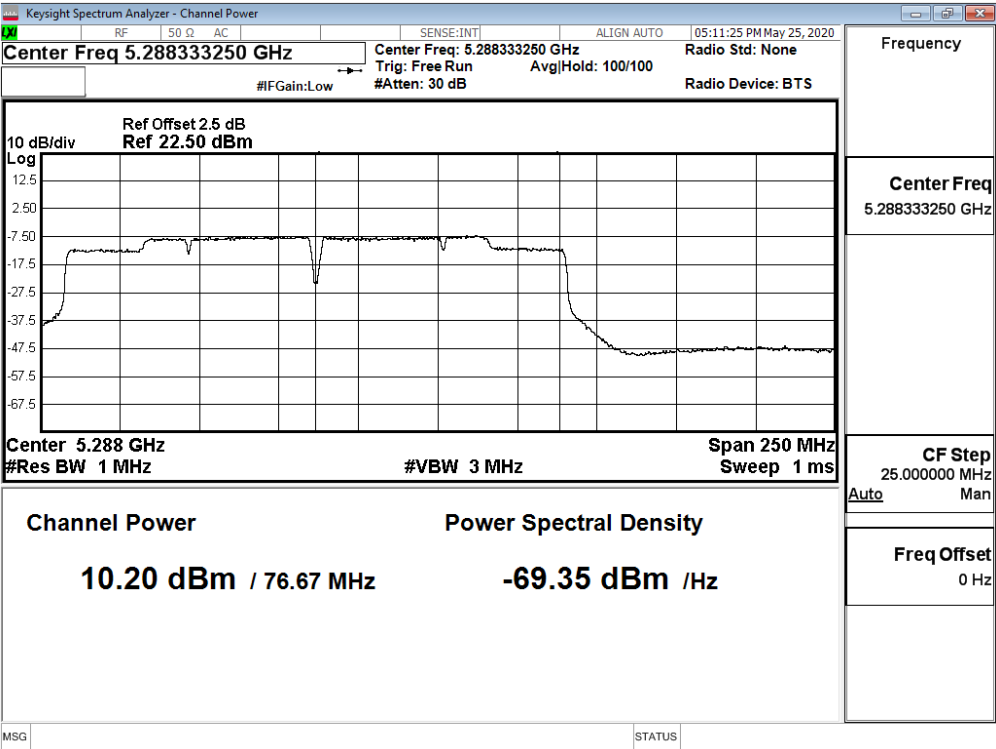
Channel 114



Maximum conducted output power:
Channel 50 (Band1)



Maximum conducted output power:
Channel 50 (Band2)



Product : Portable computer
 Test Item : Maximum conducted output power
 Test Date : 2020/05/18
 Test Mode : Mode 15: SISO B: Transmit (802.11ax-20BW_8.6Mbps)

RU config: Full

Cable loss=2.5dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate (Mbps)											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
		Measurement Level (dBm)											
36	5180	13.48	--	--	--	--	--	--	--	--	--	--	--
44	5220	13.35	13.33	13.29	13.26	13.20	13.15	13.11	13.06	13.04	12.97	12.93	12.92
48	5240	13.4	--	--	--	--	--	--	--	--	--	--	--
52	5260	13.33	--	--	--	--	--	--	--	--	--	--	--
60	5300	13.24	13.2	13.17	13.09	13.01	12.97	12.93	12.83	12.73	12.63	12.58	12.48
64	5320	13.44	--	--	--	--	--	--	--	--	--	--	--
100	5500	13.33	--	--	--	--	--	--	--	--	--	--	--
116	5580	13.41	13.31	13.29	13.22	13.15	13.10	13.00	12.97	12.90	12.86	12.82	12.80
140	5700	13.36	--	--	--	--	--	--	--	--	--	--	--
144(Band3)	5720	12.73	12.65	12.56	12.46	12.4	12.3	12.26	12.16	12.11	12.08	12.02	11.93
144(Band4)	5720	4.96	4.92	4.84	4.81	4.71	4.67	4.57	4.51	4.45	4.41	4.31	4.23
149	5745	13.42	--	--	--	--	--	--	--	--	--	--	--
157	5785	13.47	13.4	13.38	13.33	13.26	13.19	13.18	13.15	13.09	13.00	12.99	12.93
165	5825	13.44	--	--	--	--	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	13.48	24	--	Pass
44	5220	--	13.35	24	--	Pass
48	5240	--	13.4	24	--	Pass
52	5260	23.300	13.33	24	24.67	Pass
60	5300	22.570	13.24	24	24.54	Pass
64	5320	23.250	13.44	24	24.66	Pass
100	5500	23.440	13.33	24	24.70	Pass
116	5580	22.990	13.41	24	24.62	Pass
140	5700	23.760	13.36	24	24.76	Pass
144(Band3)	5720	16.600	12.73	24	23.20	Pass
144(Band4)	5720	--	4.96	30	--	Pass
149	5745	--	13.42	30	--	Pass
157	5785	--	13.47	30	--	Pass
165	5825	--	13.44	30	--	Pass

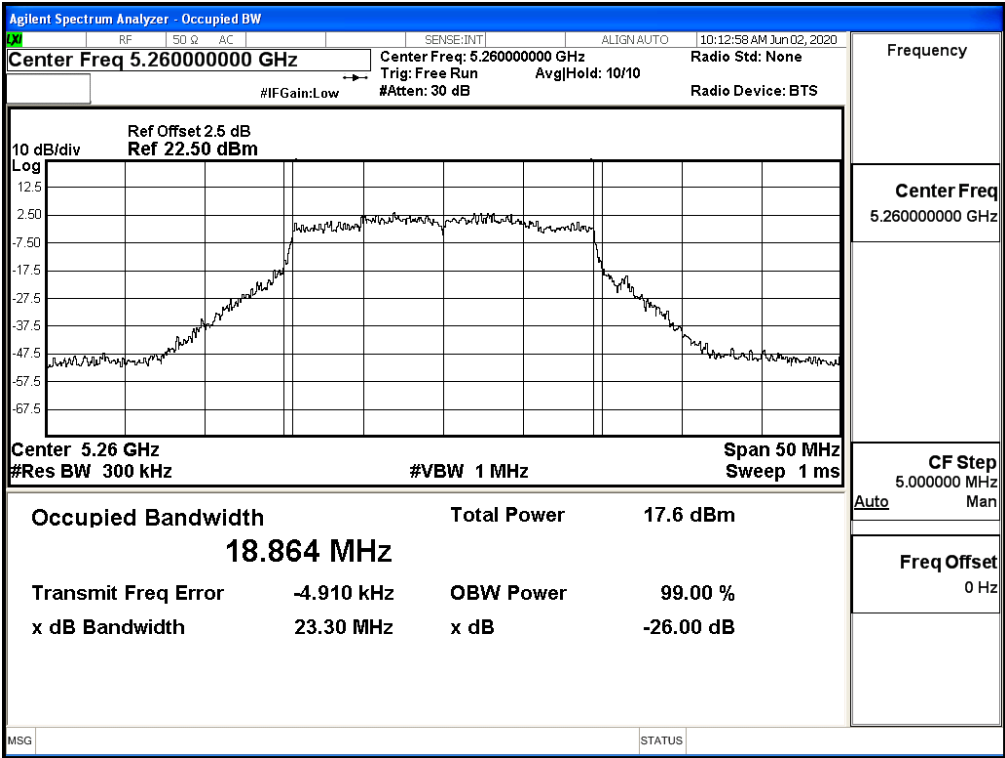
RU config: Other

Channel No / Frequency (MHz)	RU setting	Average Power Output (dBm)													Required Lim
		Data Rate (Mbps)													
		MCS0	--	--	--	--	--	--	--	--	--	--	--		
36/5180	26/0	13.43	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/37	13.43	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/53	13.4	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
64/5320	26/8	13.34	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/40	13.48	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/54	13.36	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
100/5500	26/0	13.4	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/37	13.49	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/53	13.42	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
140/5700	26/8	13.42	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	52/40	13.47	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
	106/54	13.39	--	--	--	--	--	--	--	--	--	--	--	<24dBm	
149/5745	26/0	13.48	--	--	--	--	--	--	--	--	--	--	--	<30dBm	
	52/37	13.49	--	--	--	--	--	--	--	--	--	--	--	<30dBm	
	106/53	13.49	--	--	--	--	--	--	--	--	--	--	--	<30dBm	

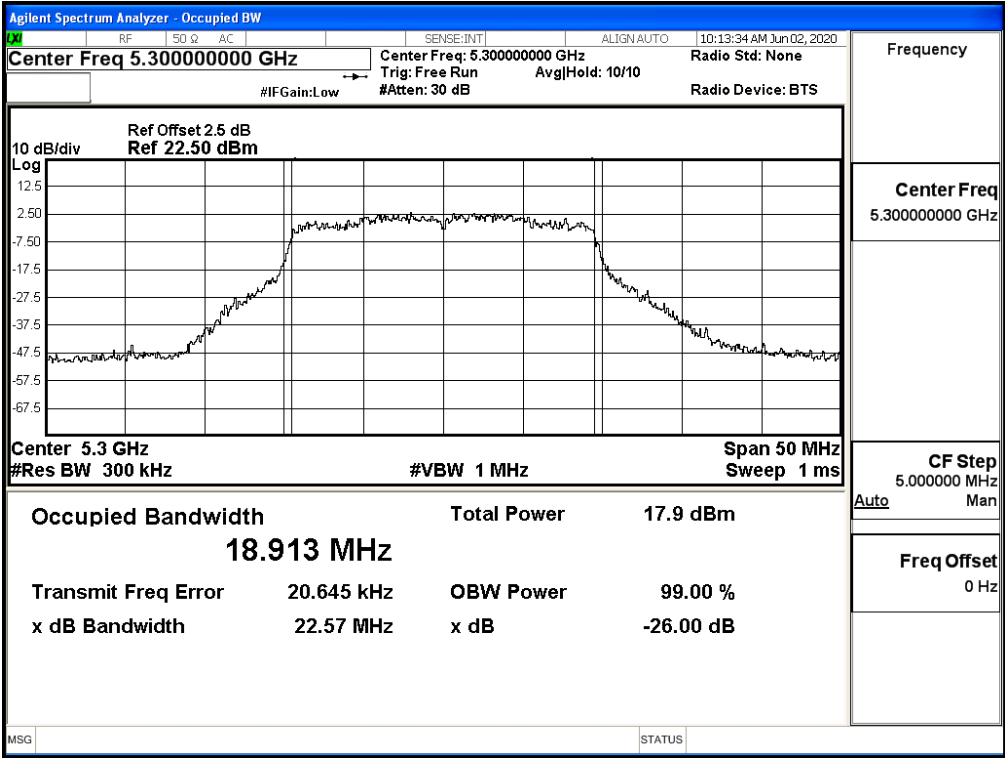
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36/5180	26/0	--	13.43	24	--	Pass
	52/37	--	13.43	24	--	Pass
	106/53	--	13.4	24	--	Pass
64/5320	26/8	20.920	13.34	24	24.21	Pass
	52/40	22.460	13.48	24	24.51	Pass
	106/54	23.830	13.36	24	24.77	Pass
100/5500	26/0	20.250	13.4	24	24.06	Pass
	52/37	21.380	13.49	24	24.30	Pass
	106/53	21.950	13.42	24	24.41	Pass
140/5700	26/8	21.060	13.42	24	24.23	Pass
	52/40	21.080	13.47	24	24.24	Pass
	106/54	22.320	13.39	24	24.49	Pass
149/5745	26/0	--	13.48	30	--	Pass
	52/37	--	13.49	30	--	Pass
	106/53	--	13.49	30	--	Pass

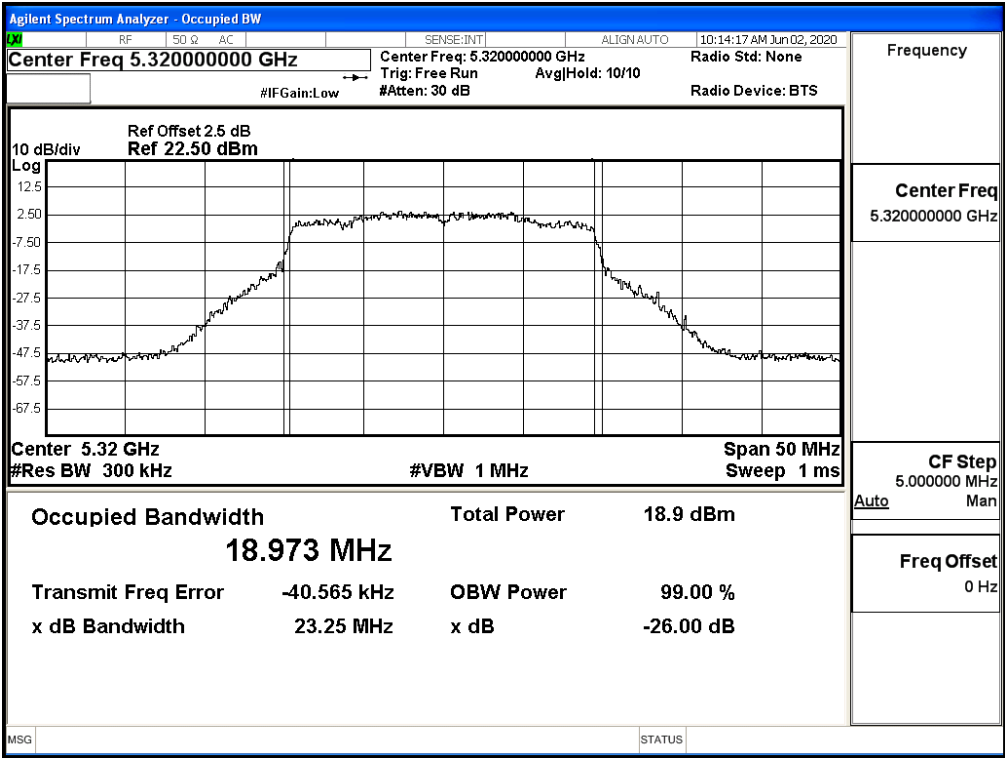
RU config: Full
26dB Occupied Bandwidth:
Channel 52



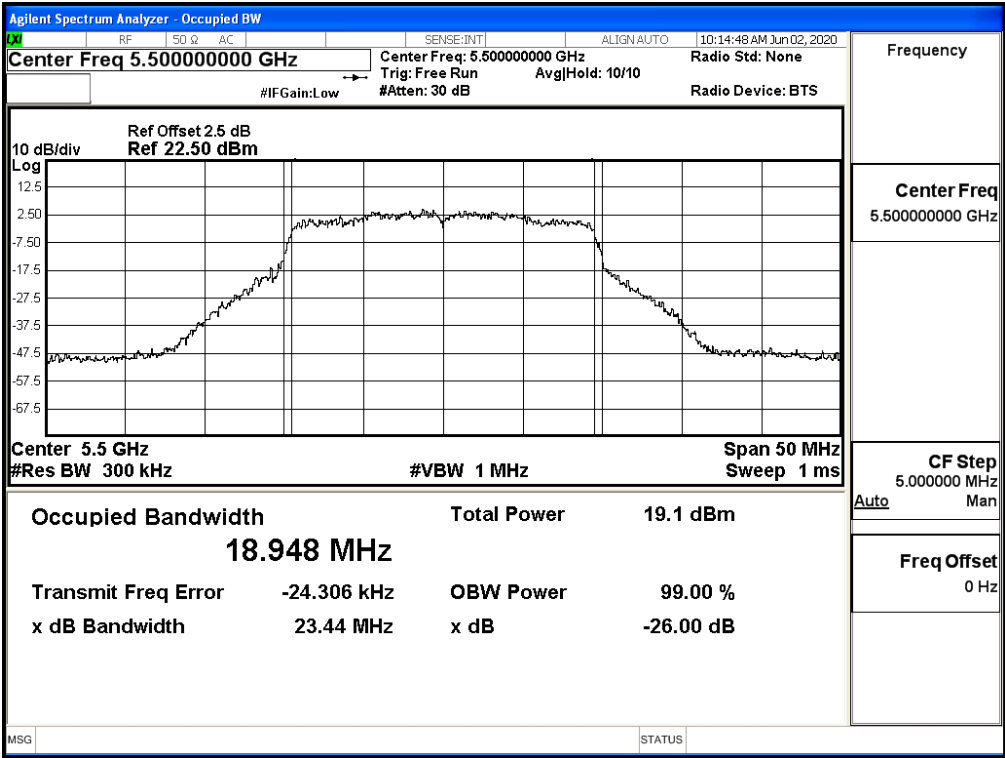
Channel 60



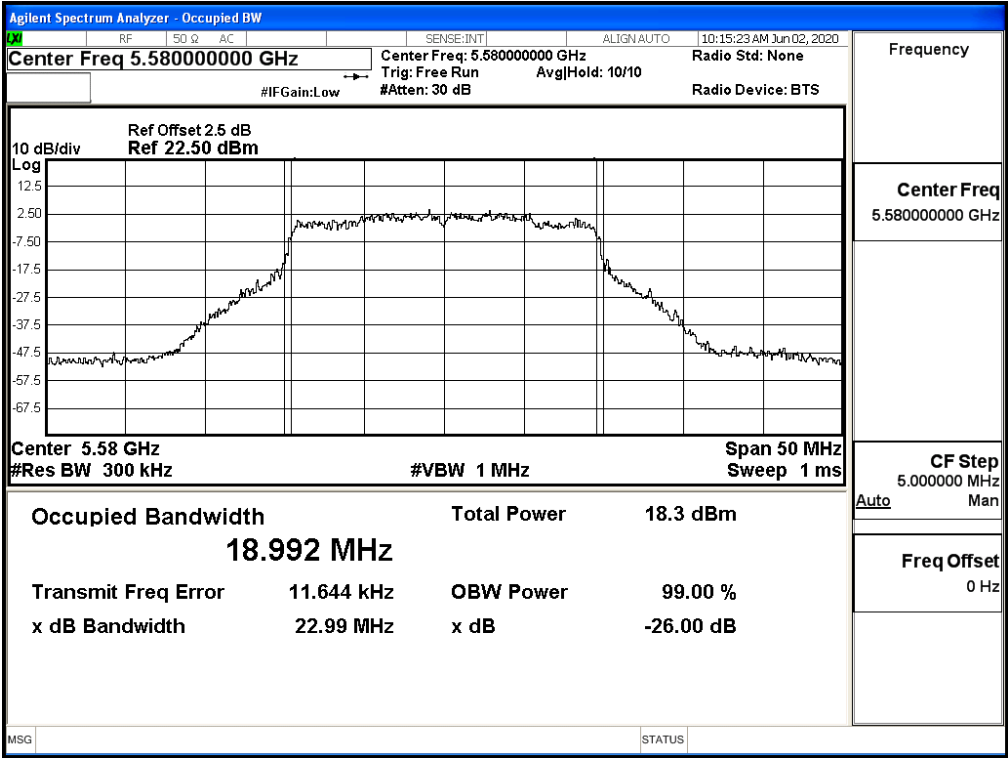
Channel 64



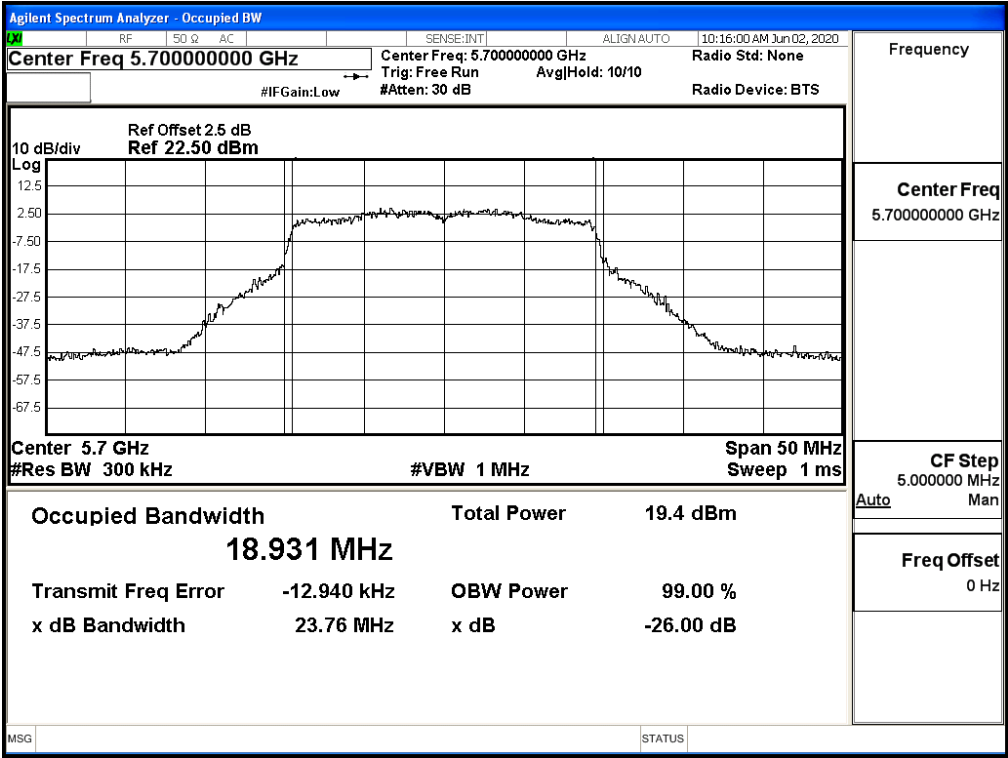
Channel 100



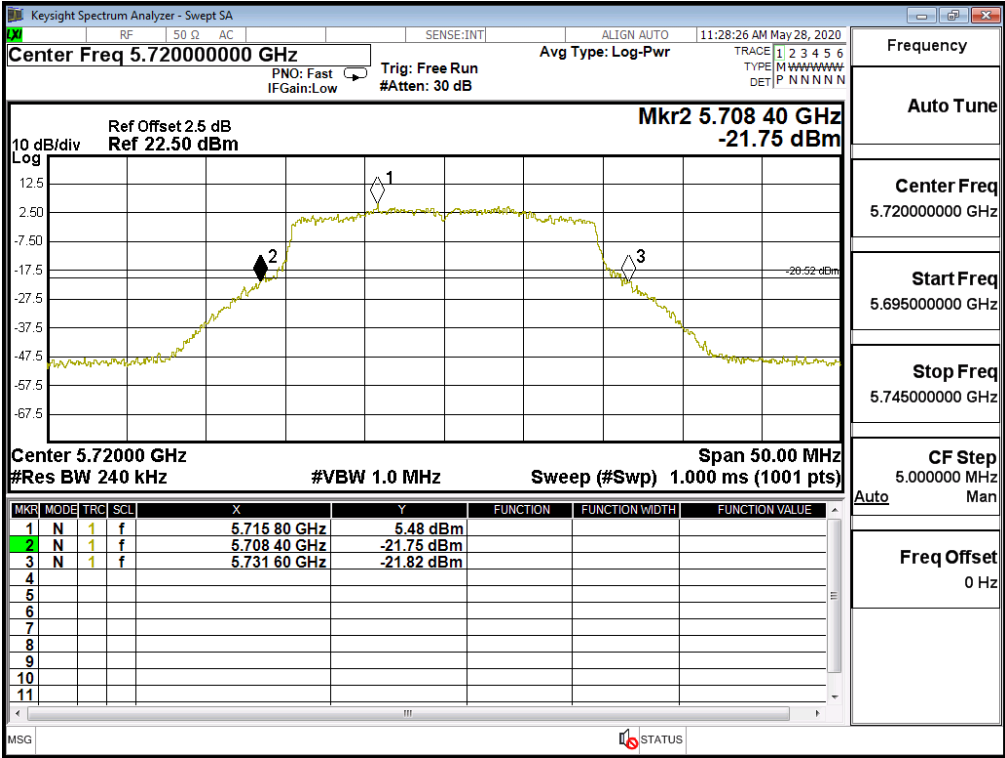
Channel 116



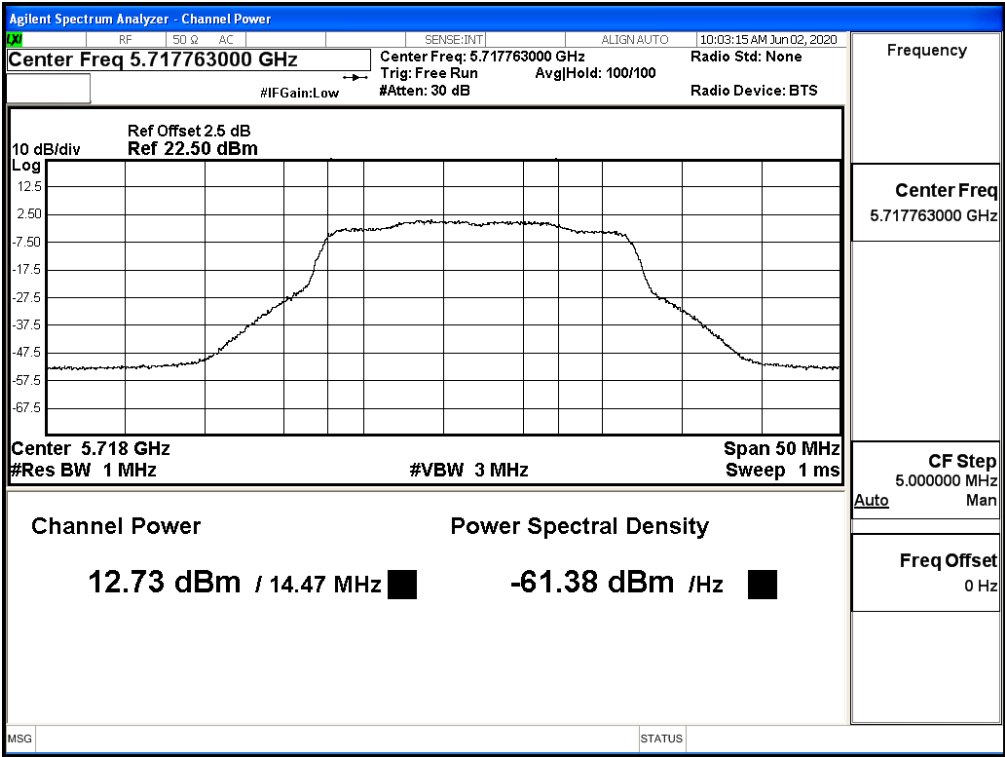
Channel 140



Channel 144



RU config: Full
Maximum conducted output power:
Channel 144 (Band3)



Maximum conducted output power:
Channel 144 (Band4)

