FCC Test Report

Product Name	：	FiberGateway
Trade Name	：	ALTICE, ALTICE LABS
Model No.	：	GR140DG
FCC ID	：	2ACJF-FGW-GR140DG

Applicant	：	Altice Labs, S.A.
Address	：	Rua Eng. Ferreira Pinto Basto, 3810-106, Aveiro, Portugal

Date of Receipt	：	Jul. 23, 2020
Issued Date	：	Dec. 17, 2020
Report No.	：	2070864R-E3032110123
Report Version	：	V2.0

Testing Laboratory
3024

Test Report Certification

Issued Date : Dec. 17, 2020
Report No. : 2070864R-E3032110123

Product Name	:	FiberGateway
Applicant	:	Altice Labs, S.A.
Address	:	Rua Eng. Ferreira Pinto Basto, 3810-106, Aveiro, Portugal
Manufacturer	:	Altice Labs, S.A.
Address	:	Rua Eng. Ferreira Pinto Basto, 3810-106, Aveiro, Portugal
Model No.	:	GR140DG
Trade Name	:	ALTICE, ALTICE LABS
FCC ID	:	2ACJF-FGW-GR140DG
EUT Voltage	:	AC 100~240V, 50/60Hz
Testing Voltage	:	AC 120V/60Hz
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2019 ANSI C63.10: 2013
Laboratory Name	:	Hsin Chu Laboratory
Address	:	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	:	Complied

Documented By : Carol Tsai

(Carol Tsai / Senior Engineering Adm. Specialist)

Tested By : Elwin Lin

(Elwin Lin / Engineer)

Approved By : Louis Hsu

(Louis Hsu / Deputy Manager)

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Nov. 27, 2020
V2.0	Add UNII-3 test data	Dec. 17, 2020

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	FiberGateway	
Trade Name	ALTICE, ALTICE LABS	
Model No.	GR140DG	
Frequency Range/ Channel Number	IEEE 802.11a/n/ac/ax (20MHz)	5180~5240MHz / 4 Channels 5745~5825MHz / 5 Channels
	IEEE 802.11n/ac/ax (40MHz)	5190~5230MHz / 2 Channels 5755~5795MHz / 2 Channels
	IEEE 802.11ac/ax (80MHz)	5210~5210MHz / 1 Channel 5775~5775MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n/ac/ax	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11a	6, 9, 18, 24, 36, 48, 54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 32 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac Proprietary MCS 10-MCS 11 (1024QAM)
	IEEE 802.11ax	Support a subset of the combination of GI, MCS 0~MCS 11 and bandwidth defined in 802.11ax

Antenna Information				
Ant. No.	Model No.	Brand	Ant. Type	Ant. Gain
1	02102140-06825-1	Galtronics USA, Inc.	PIFA Antenna	2.4GHz: 1.3dBi 5GHz: 4.5dBi
2	02102140-06825-2	Galtronics USA, Inc.	PIFA Antenna	2.4GHz: 1.1dBi 5GHz: 4.1dBi
3	02102140-06825-3	Galtronics USA, Inc.	PIFA Antenna	2.4GHz: 1.7dBi 5GHz: 4.7dBi
4	02102140-06825-4	Galtronics USA, Inc.	PIFA Antenna	2.4GHz: 1.5dBi 5GHz: 4.4dBi

Accessories Information	
Power Adapter	APD (Asian Power Devices Inc.); WA-36N12FU I/P: AC 100~240V 50/60Hz 0.9A O/P: DC 12V⎓3A Cable Out: Non-Shielded, 1.8m

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX			RX		
Mode/ Channel Bandwidth	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz
IEEE802.11a	✓			✓		
IEEE802.11n	✓	✓		✓	✓	
IEEE802.11ac/ax	✓	✓	✓	✓	✓	✓

IEEE 802.11a & IEEE 802.11n (20MHz) & IEEE 802.11ac/ax (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz						

IEEE 802.11n (40MHz) & IEEE 802.11ac/ax (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	151	5755 MHz	159	5795 MHz

IEEE 802.11ac/ax (80MHz)

Working Frequency of Each Channel			
Channel	Frequency	Channel	Frequency
42	5210 MHz	155	5775 MHz

Note:

1. This device including 2.4GHz b/g/n/ac/ax and 5GHz a/n/ac/ax transmitting and receiving functions.
2. Regards to the frequency band operation; the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.
3. The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report.
4. The EUT description is from the customer declaration.

1.2. Test Mode

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Test Mode	Mode 1: SISO Mode (802.11a) Mode 2: CDD Mode (802.11ac/ax)

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11ax(80MHz)	42/155	0+1+2+3	Complies
26dB & 99% & DTS Bandwidth	a	36/44/48/149/157/165	0/1/2/3	Complies
	11ac/ax(20MHz)	36/44/48/149/157/165	0/1/2/3	Complies
	11ac/ax(40MHz)	38/46/151/159	0/1/2/3	Complies
	11ac/ax(80MHz)	42/155	0/1/2/3	Complies
Maximum conducted output power	a	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(20MHz)	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(40MHz)	38/46/151/159	0+1+2+3	Complies
	11ac/ax(80MHz)	42/155	0+1+2+3	Complies
Maximum power spectral density	a	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(20MHz)	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(40MHz)	38/46/151/159	0+1+2+3	Complies
	11ac/ax(80MHz)	42/155	0+1+2+3	Complies
Radiated Emission	a	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(20MHz)	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(40MHz)	38/46/151/159	0+1+2+3	Complies
	11ac/ax(80MHz)	42/155	0+1+2+3	Complies
Band Edge	a	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(20MHz)	36/44/48/149/157/165	0+1+2+3	Complies
	11ac/ax(40MHz)	38/46/151/159	0+1+2+3	Complies
	11ac/ax(80MHz)	42/155	0+1+2+3	Complies

Note 1: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Note 2: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

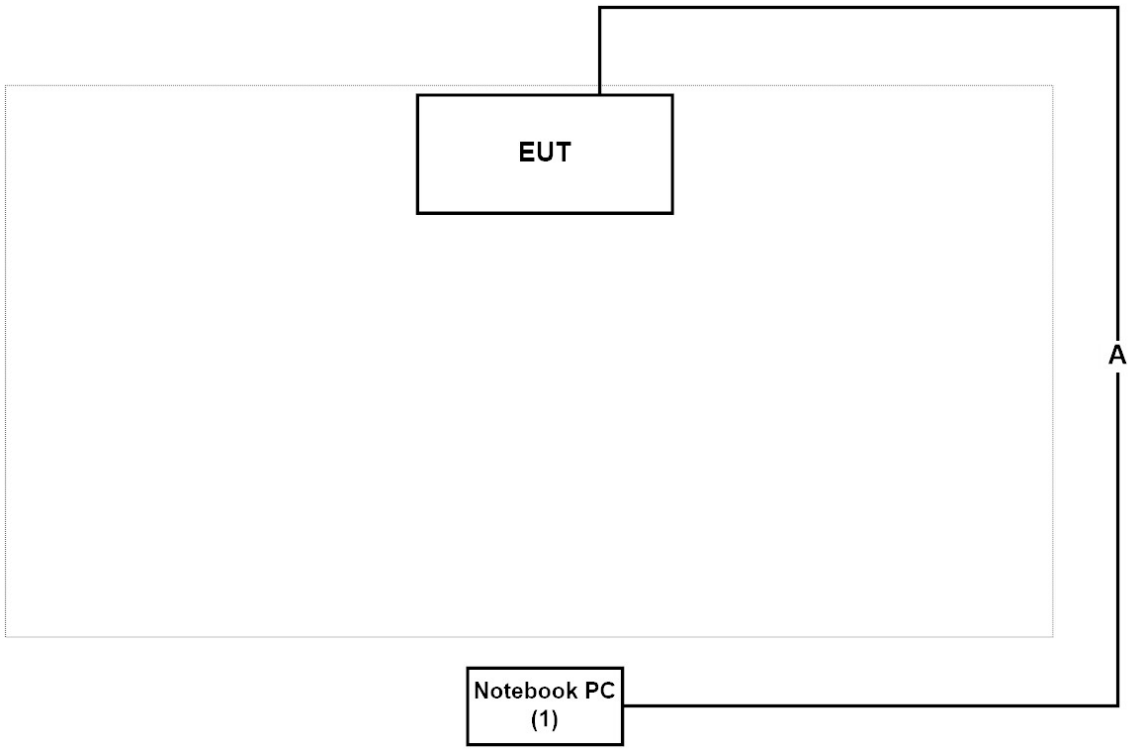
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	Lenove	80XL	PF0SXXY1	DoC	Shielded, 2m

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	Ethernet Cable	Non-Shielded, 10m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the Broadcom command.
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start TX” to start the continuous Transmit.
5	Verify that the EUT works properly.

1.6. Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required	Test Site
Temperature (°C)	FCC PART 15E 15.407	15 - 35	2
Humidity (%RH)	Conducted Emission	25 - 75	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	1
Humidity (%RH)	26dB & 99% & DTS Bandwidth	25 - 75	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	1
Humidity (%RH)	Maximum conducted output power	25 - 75	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	1
Humidity (%RH)	Maximum power spectral density	25 - 75	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	1
Humidity (%RH)	Radiated Emission	25 - 75	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	1
Humidity (%RH)	Band Edge	25 - 75	

Note: Test site information refers to Laboratory Information.

Laboratory Information

USA	**:**	**FCC Registration Number: TW3024**
Canada	**:**	**IC Registration Number: 22397-1 / 22397-2 / 22397-3**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw

If you have any comments, please don't hesitate to contact us. Our test sites as below:

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
Address	1. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. 2. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.
Phone number	1. +886-3-582-8001 2. +886-3-582-8001
Fax number	1. +886-3-582-8958 2. +886-3-582-8958
Email address	info.tw@dekra.com
Website	http://www.dekra.com.tw

1.8. List of Test Equipment

Conducted Emission / SR2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2020/01/08	2021/01/07
Test Receiver	R&S	ESCS 30	836858/022	2020/02/25	2021/02/24
LISN	R&S	ENV216	100092	2020/06/22	2021/06/21

Occupied Bandwidth / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2020/06/03	2021/06/02
Spectrum Analyzer	Keysight	N9010B	MY57110159	2020/04/15	2021/04/14
Spectrum Analyzer	Agilent	N9010A	US47140172	2020/06/18	2021/06/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29

Maximum conducted output power / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2019/12/02	2020/12/01
Pulse Power Sensor	Anritsu	MA2411B	1531043	2019/12/02	2020/12/01
Pulse Power Sensor	Anritsu	MA2411B	1531044	2019/12/02	2020/12/01
Power Meter	Keysight	8990B	MY51000248	2020/05/20	2021/05/19
Power Sensor	Keysight	N1923A	MY57240005	2020/05/20	2021/05/19

Maximum power spectral density / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2020/06/03	2021/06/02
Spectrum Analyzer	Keysight	N9010B	MY57110159	2020/04/15	2021/04/14
Spectrum Analyzer	Agilent	N9010A	US47140172	2020/06/18	2021/06/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29

Radiated Emission / CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal Analyzer	R&S	FSV40	101435	2020/06/24	2021/06/23
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
Bilog Antenna	Teseq	CBL6112D	23191	2020/06/12	2021/06/11
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2020/06/04	2021/06/03
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2019/10/25	2020/10/24
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/12/27	2020/12/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2020/03/09	2021/03/08
Pre-Amplifier	DEKRA	AP-025C	12183122	2019/09/24	2020/09/23
Pre-Amplifier	EMCI	EMC11830I	980366	2019/12/03	2020/12/02
Pre-Amplifier	DEKRA	AP-400C	201801231	2019/12/03	2020/12/02
Band Reject Filter	Micro-Tronics	BRM50716	G089	2020/03/18	2021/03/17
Band Reject Filter	Micro-Tronics	BRM50716	G068	2020/03/09	2021/03/08
Coaxial Cable(10m)	Suhner	SF102_SF104	CB4-H	2020/04/25	2021/04/24
EMI system	DEKRA	Version 1.0	CB4-H	NA	NA

Band Edge / CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal Analyzer	R&S	FSV40	101435	2020/06/24	2021/06/23
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
Bilog Antenna	Teseq	CBL6112D	23191	2020/06/12	2021/06/11
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2020/06/04	2021/06/03
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2019/10/25	2020/10/24
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/12/27	2020/12/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2020/03/09	2021/03/08
Pre-Amplifier	DEKRA	AP-025C	12183122	2019/09/24	2020/09/23
Pre-Amplifier	EMCI	EMC11830I	980366	2019/12/03	2020/12/02
Pre-Amplifier	DEKRA	AP-400C	201801231	2019/12/03	2020/12/02
Band Reject Filter	Micro-Tronics	BRM50716	G089	2020/03/18	2021/03/17
Band Reject Filter	Micro-Tronics	BRM50716	G068	2020/03/09	2021/03/08
Coaxial Cable(10m)	Suhner	SF102_SF104	CB4-H	2020/04/25	2021/04/24
EMI system	DEKRA	Version 1.0	CB4-H	NA	NA

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

1.9. Duty Cycle

Mode	On Time(ms)	On+Off Time(ms)	Duty Cycle(%)	Duty Factor(dB) linear voltage	Duty Factor(dB) Power	1/T Minimum VBW (kHz)
11A (SISO Mode)	2.053	2.083	98.56%	0.126006	0.06	0.010
VHT20 (CDD Mode)	1.913	1.952	98.00%	0.175297	0.09	0.010
VHT40 (CDD Mode)	0.944	0.972	97.12%	0.253885	0.13	1.059
VHT80 (CDD Mode)	0.444	0.479	92.72%	0.656952	0.33	2.251
HE20 (CDD Mode)	1.509	1.548	97.48%	0.221634	0.11	0.663
HE40 (CDD Mode)	0.767	0.794	96.52%	0.307221	0.15	1.304
HE80 (CDD Mode)	0.397	0.428	92.71%	0.657123	0.33	2.519

Note:

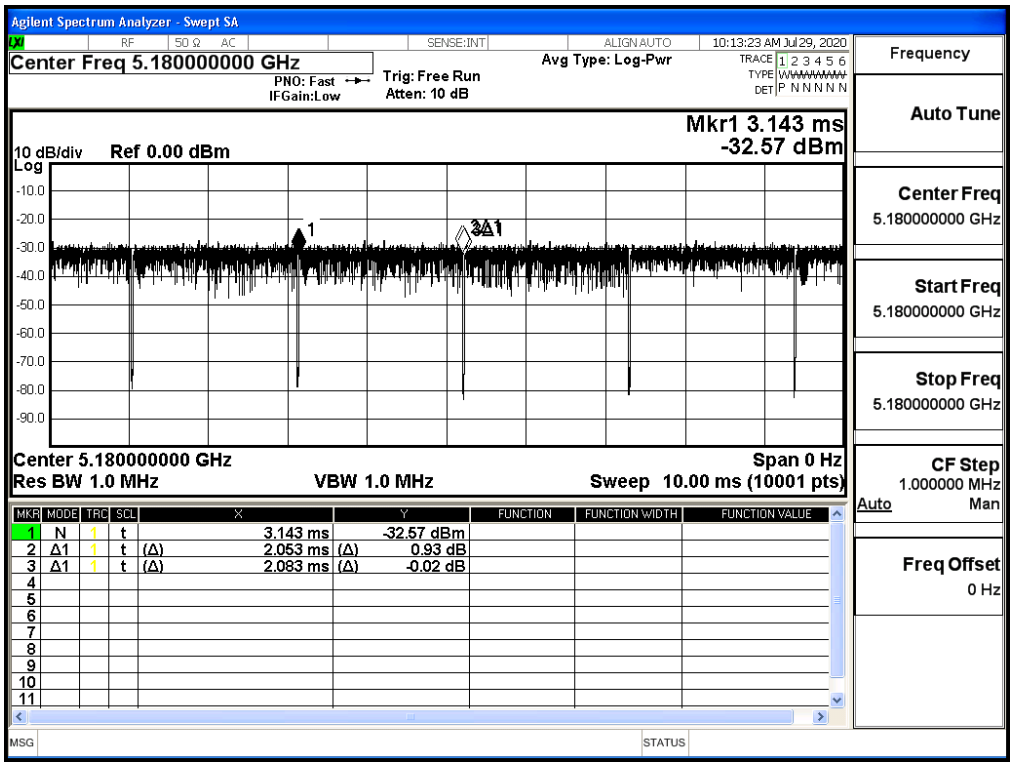
Offset = 20 log(1/duty cycle)

Accotding to KDB 789033

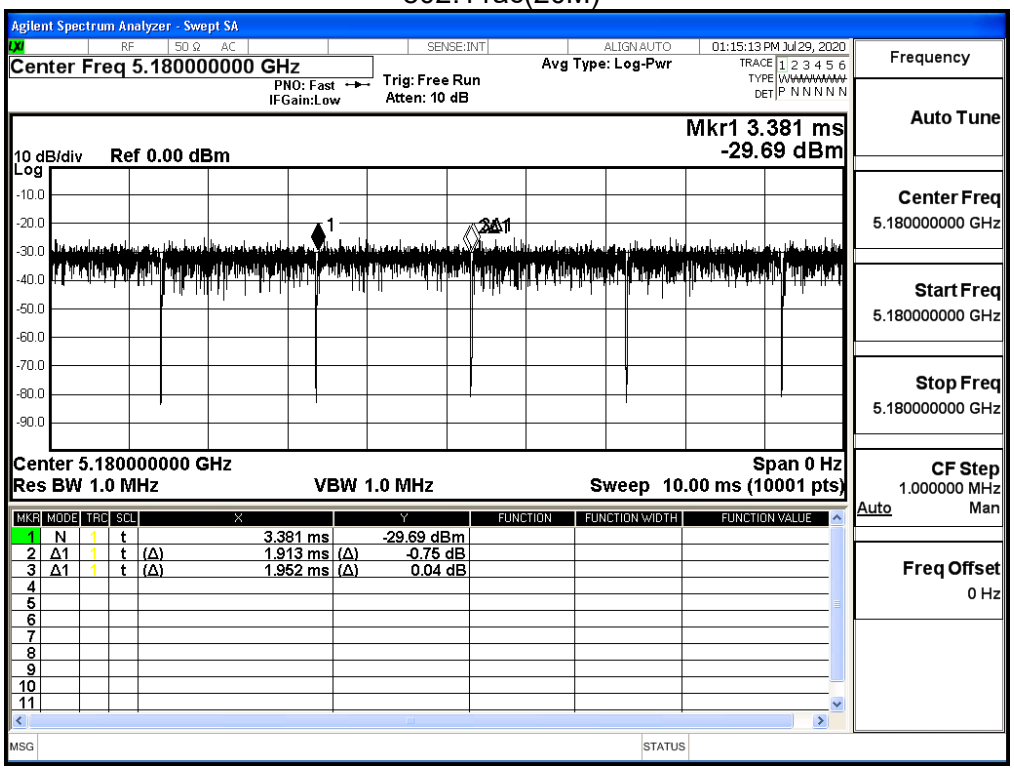
If power averaging (rms) mode was used in step (iv) above, the correction factor is 10 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB must be added to the measured emission levels.

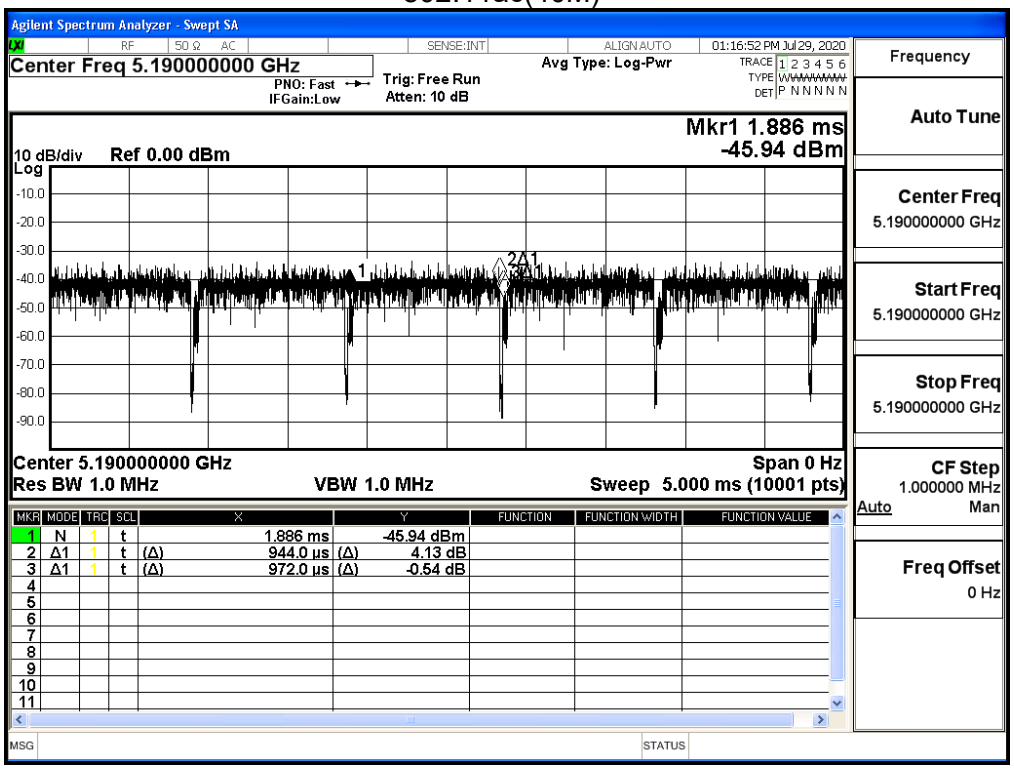
802.11a



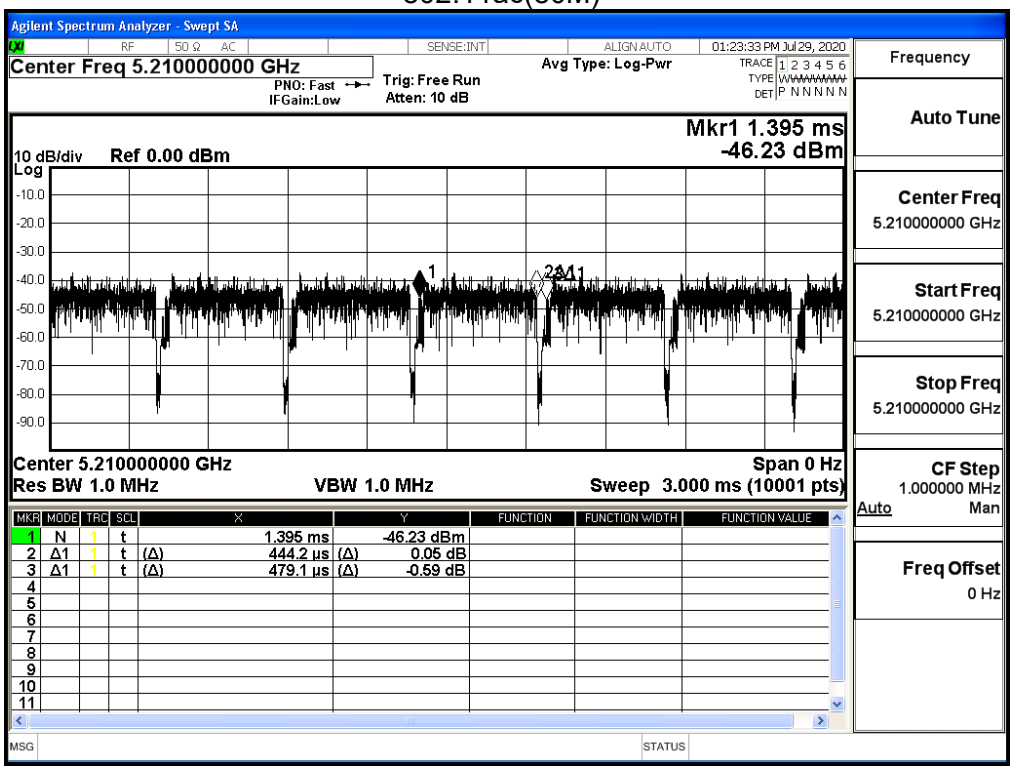
802.11ac(20M)



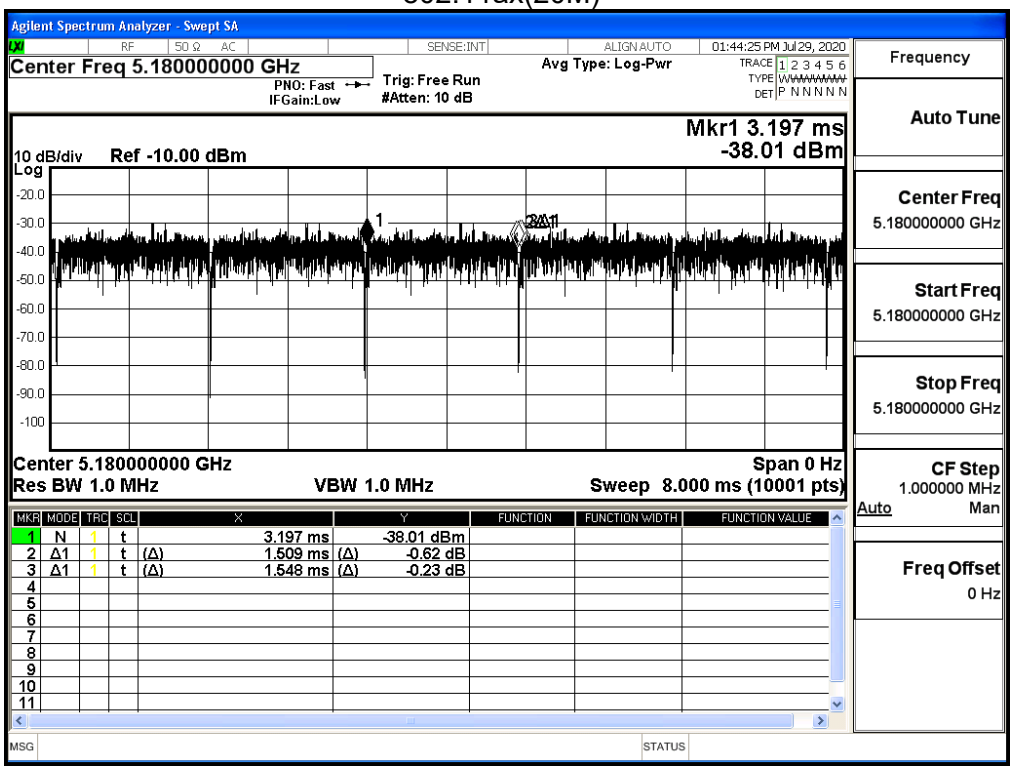
802.11ac(40M)



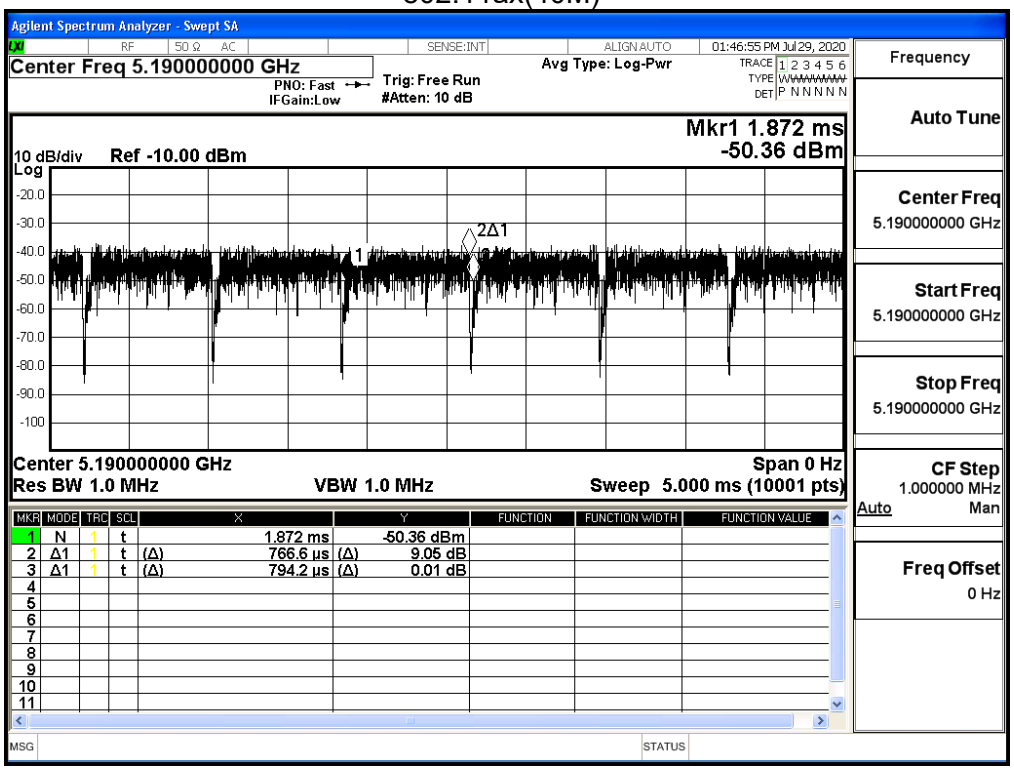
802.11ac(80M)



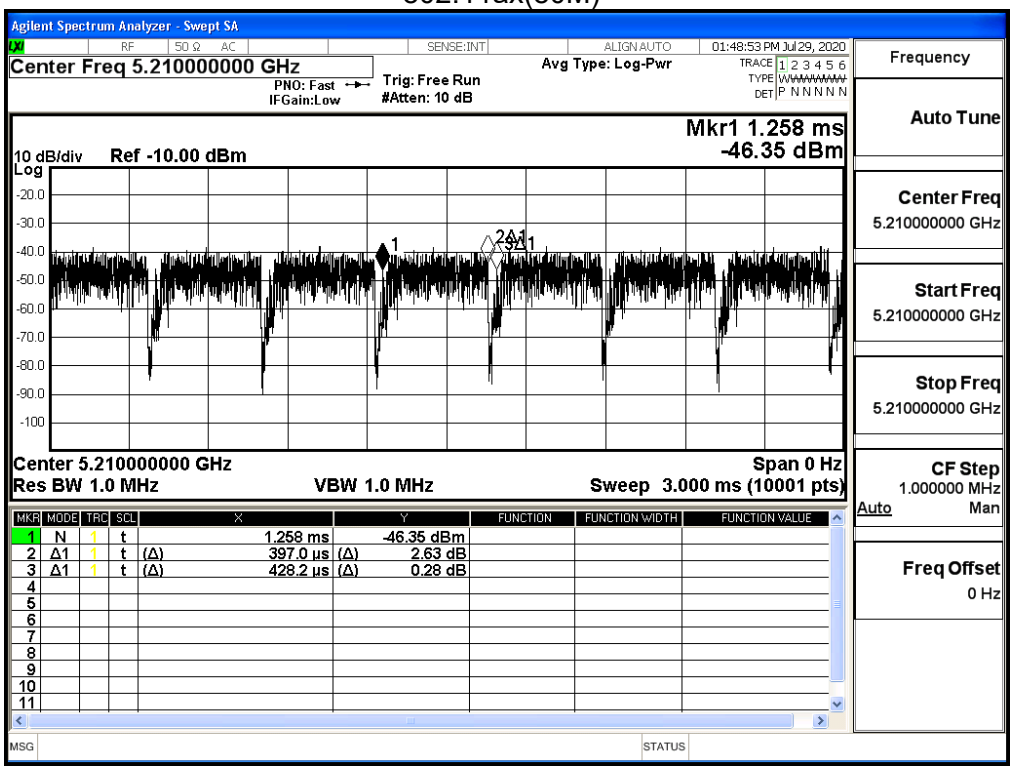
802.11ax(20M)



802.11ax(40M)



802.11ax(80M)

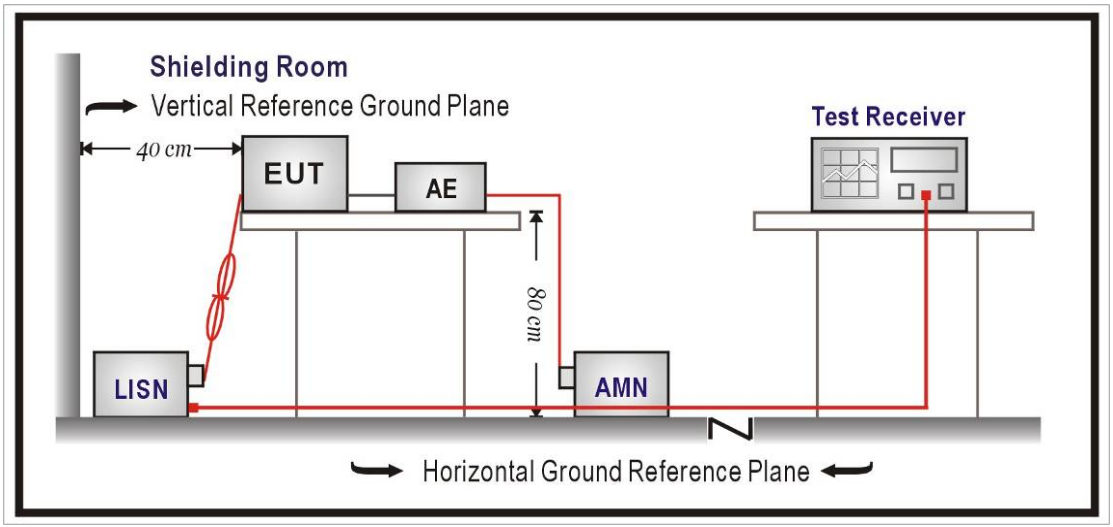

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Log-Pwr
01:48:53 PM Jul 29, 2020
Mkr1 1.258 ms
-46.35 dBm
10 dB/div
Log
Ref -10.00 dBm
Center 5.210000000 GHz
Res BW 1.0 MHz
VBW 1.0 MHz
Span 0 Hz
Sweep 3.000 ms (10001 pts)
1 N 1 t 1.258 ms -46.35 dBm
2 Δ1 1 t (Δ) 397.0 µs (Δ) 2.63 dB
3 Δ1 1 t (Δ) 428.2 µs (Δ) 0.28 dB
Frequency
Auto Tune
Center Freq
5.210000000 GHz
Start Freq
5.210000000 GHz
Stop Freq
5.210000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

1.10. Uncertainty

Test item	Uncertainty
Conducted Emission	± 2.26 dB
26dB & 99% & DTS Bandwidth	± 50 Hz
Maximum conducted output power	± 1.27 dB
Maximum power spectral density	± 1.27 dB
Radiated Emission	30MHz~1GHz as ± 3.43 dB 1GHz~26.5GHz as ± 3.65 dB
Band Edge	± 3.65 dB

2. Conducted Emission

2.1. Test Setup



2.2. Limits

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

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

2.3. Test Procedure

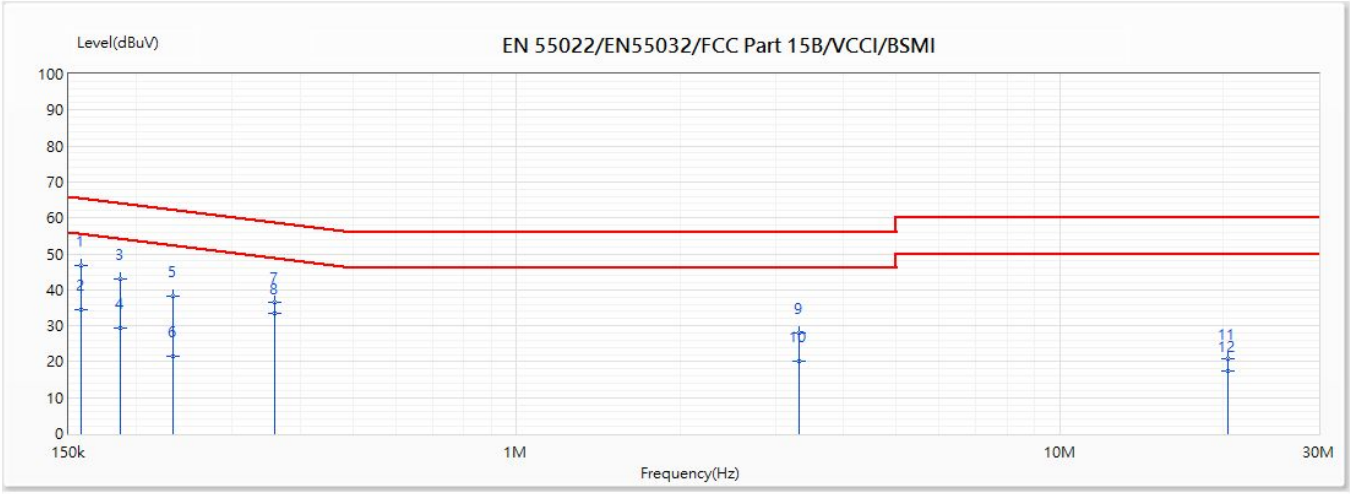
The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)
Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.407: 2019

2.5. Test Result

Model No	GR140DG	Site	SR2-H
Test Voltage	AC 120V/60Hz	Test Date	2020/8/25
Test Mode	Mode 2: CDD Mode	Engineer	Lion
Phase	L1	Temperature (℃)	23
Test Condition	802.11ax(80M)_5.21G	Humidity (%RH)	54



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.158	46.90	65.56	-18.66	37.24	9.66	QP
2	0.158	34.45	55.56	-21.11	24.79	9.66	AV
3	0.186	42.84	64.20	-21.36	33.19	9.65	QP
4	0.186	29.26	54.20	-24.94	19.61	9.65	AV
5	0.234	38.33	62.31	-23.98	28.67	9.65	QP
6	0.234	21.58	52.31	-30.73	11.92	9.65	AV
7	0.358	36.38	58.77	-22.39	26.71	9.67	QP
*8	0.358	33.32	48.77	-15.45	23.65	9.67	AV
9	3.32	27.91	56.00	-28.09	18.05	9.86	QP
10	3.32	20.09	46.00	-25.91	10.23	9.86	AV
11	20.435	20.93	60.00	-39.07	10.51	10.42	QP
12	20.435	17.26	50.00	-32.74	6.84	10.42	AV

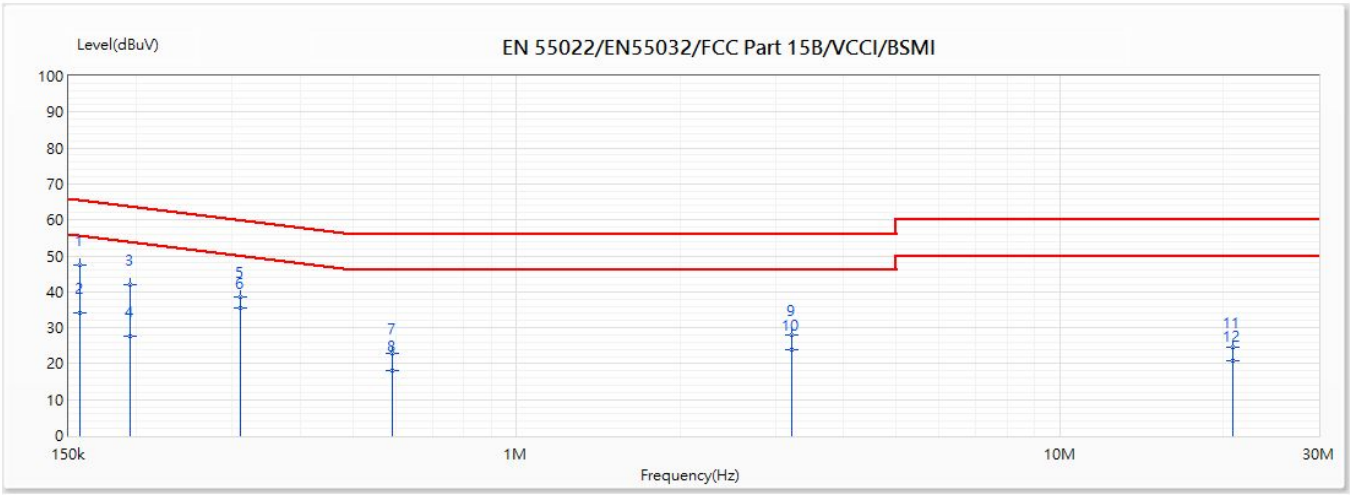
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Model No	GR140DG	Site	SR2-H
Test Voltage	AC 120V/60Hz	Test Date	2020/8/25
Test Mode	Mode 2: CDD Mode	Engineer	Lion
Phase	N	Temperature (℃)	23
Test Condition	802.11ax(80M)_5.21G	Humidity (%RH)	54



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.157	47.56	65.61	-18.05	37.91	9.65	QP
2	0.157	34.14	55.61	-21.47	24.49	9.65	AV
3	0.195	41.96	63.83	-21.87	32.32	9.64	QP
4	0.195	27.55	53.83	-26.28	17.91	9.64	AV
5	0.31	38.46	59.96	-21.50	28.81	9.66	QP
*6	0.31	35.41	49.96	-14.55	25.76	9.66	AV
7	0.592	22.88	56.00	-33.12	13.20	9.68	QP
8	0.592	17.93	46.00	-28.07	8.25	9.68	AV
9	3.215	28.01	56.00	-27.99	18.16	9.84	QP
10	3.215	23.80	46.00	-22.20	13.95	9.84	AV
11	20.876	24.58	60.00	-35.42	14.00	10.58	QP
12	20.876	20.79	50.00	-29.21	10.21	10.58	AV

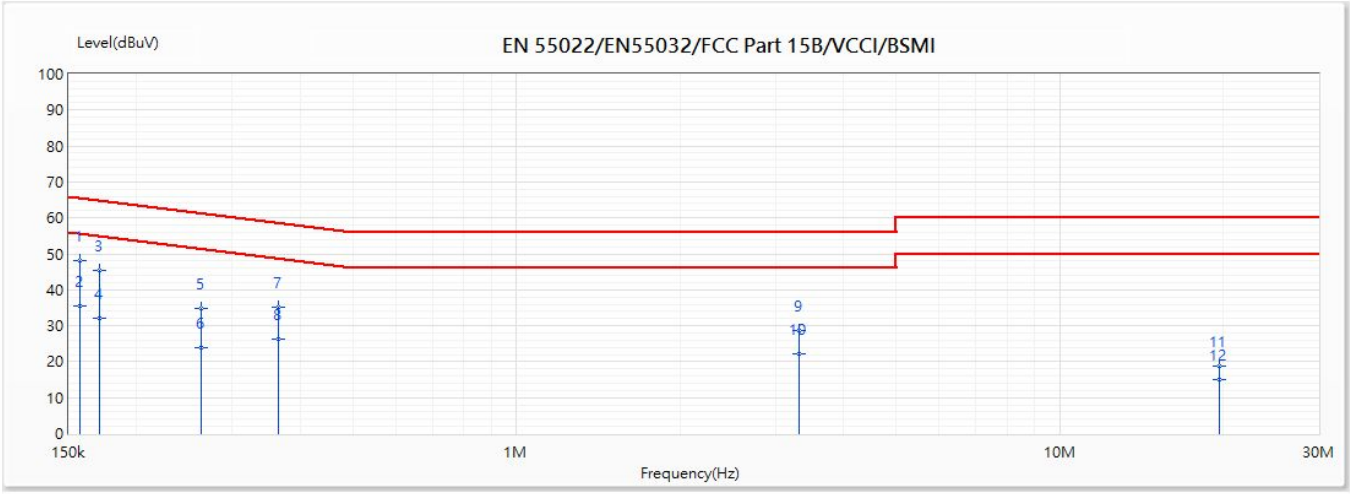
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Model No	GR140DG	Site	SR2-H
Test Voltage	AC 120V/60Hz	Test Date	2020/8/25
Test Mode	Mode 2: CDD Mode	Engineer	Lion
Phase	L1	Temperature (℃)	23
Test Condition	02.11ax(80M)_5.775G	Humidity (%RH)	54



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.157	48.14	65.61	-17.47	38.48	9.66	QP
2	0.157	35.45	55.61	-20.16	25.79	9.66	AV
3	0.17	45.28	64.94	-19.66	35.62	9.66	QP
4	0.17	32.18	54.94	-22.76	22.52	9.66	AV
5	0.262	34.81	61.36	-26.55	25.15	9.66	QP
6	0.262	23.74	51.36	-27.62	14.08	9.66	AV
7	0.365	35.08	58.61	-23.53	25.41	9.67	QP
8	0.365	26.37	48.61	-22.24	16.70	9.67	AV
9	3.313	28.77	56.00	-27.23	18.91	9.86	QP
10	3.313	22.11	46.00	-23.89	12.25	9.86	AV
11	19.708	18.61	60.00	-41.39	8.21	10.40	QP
12	19.708	15.04	50.00	-34.96	4.64	10.40	AV

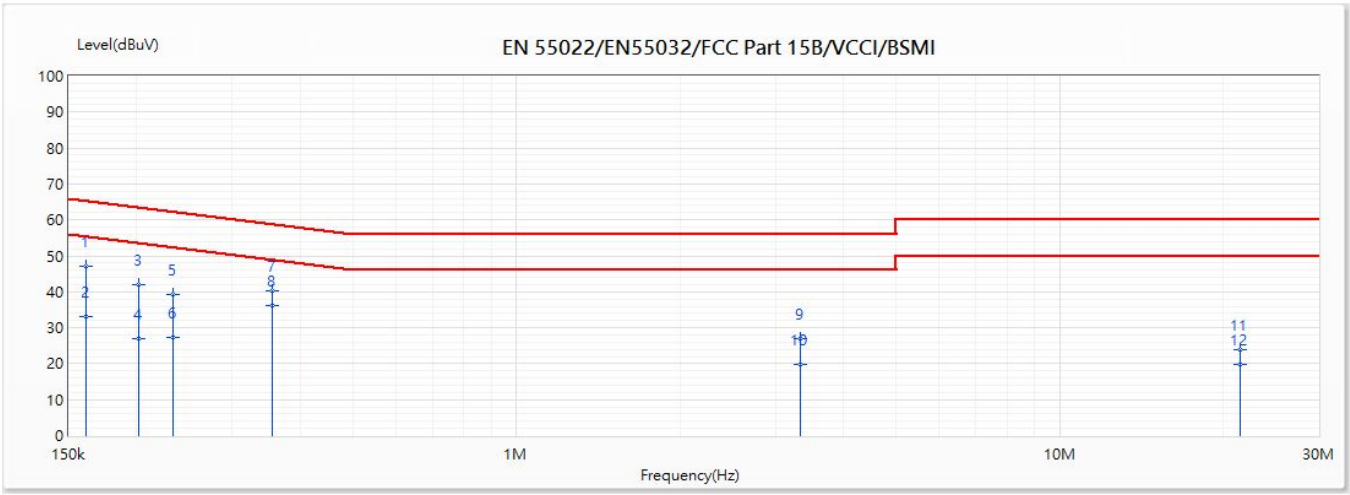
Remark:

1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

Model No	GR140DG	Site	SR2-H
Test Voltage	AC 120V/60Hz	Test Date	2020/8/25
Test Mode	Mode 2: CDD Mode	Engineer	Lion
Phase	N	Temperature (℃)	23
Test Condition	802.11ax(80M)_5.775G	Humidity (%RH)	54



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.161	47.24	65.39	-18.15	37.59	9.65	QP
2	0.161	32.95	55.39	-22.44	23.30	9.65	AV
3	0.202	42.15	63.54	-21.39	32.51	9.64	QP
4	0.202	27.13	53.54	-26.41	17.49	9.64	AV
5	0.233	39.23	62.34	-23.11	29.58	9.64	QP
6	0.233	27.45	52.34	-24.89	17.80	9.64	AV
7	0.354	40.11	58.86	-18.75	30.45	9.66	QP
*8	0.354	36.08	48.86	-12.78	26.42	9.66	AV
9	3.328	26.90	56.00	-29.10	17.05	9.85	QP
10	3.328	19.93	46.00	-26.07	10.08	9.85	AV
11	21.54	23.84	60.00	-36.16	13.24	10.59	QP
12	21.54	19.96	50.00	-30.04	9.36	10.59	AV

Remark:

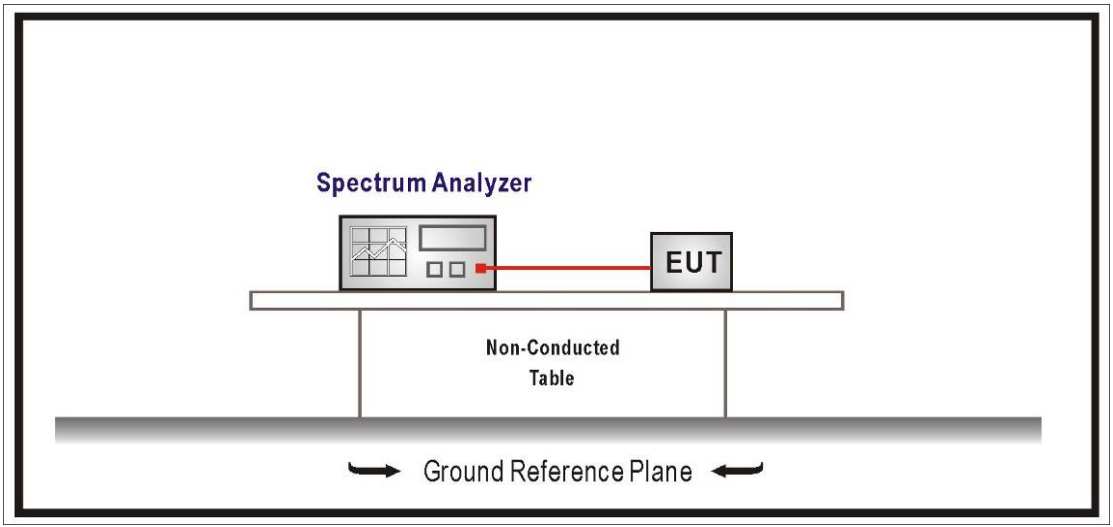
1. "*" means this data is the worst emission level.

2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).

3. Margin = Emission Level - Limit.

3. 26dB & 99% & DTS Bandwidth

3.1. Test Setup



3.2. Limits

99% & 26dB Bandwidth : No Required

6dB Bandwidth ≧ 500KHz

3.3. Test Procedure

99% & 26dB Bandwidth :
The EUT was tested according to U-NII test procedure of KDB 789033 D02 v02r01
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.
DTS Bandwidth :

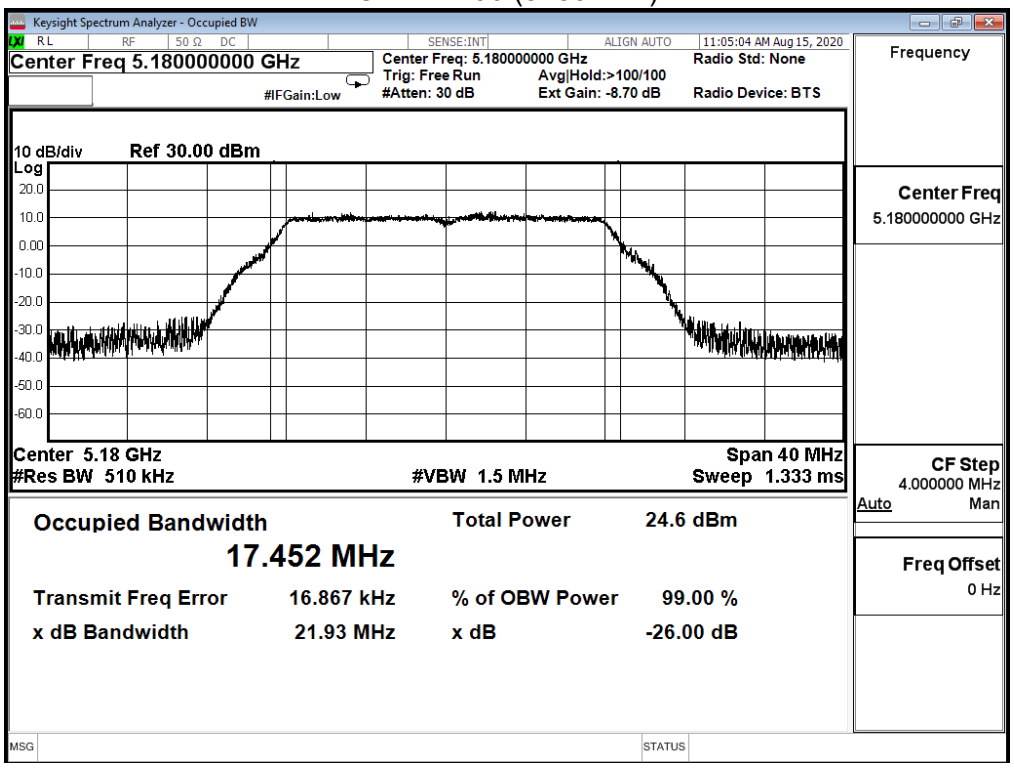
Set RBW = 100KHz, VBW≧3xRBW, Sweep time=Auto, Set Peak detector.

3.4. Test Result

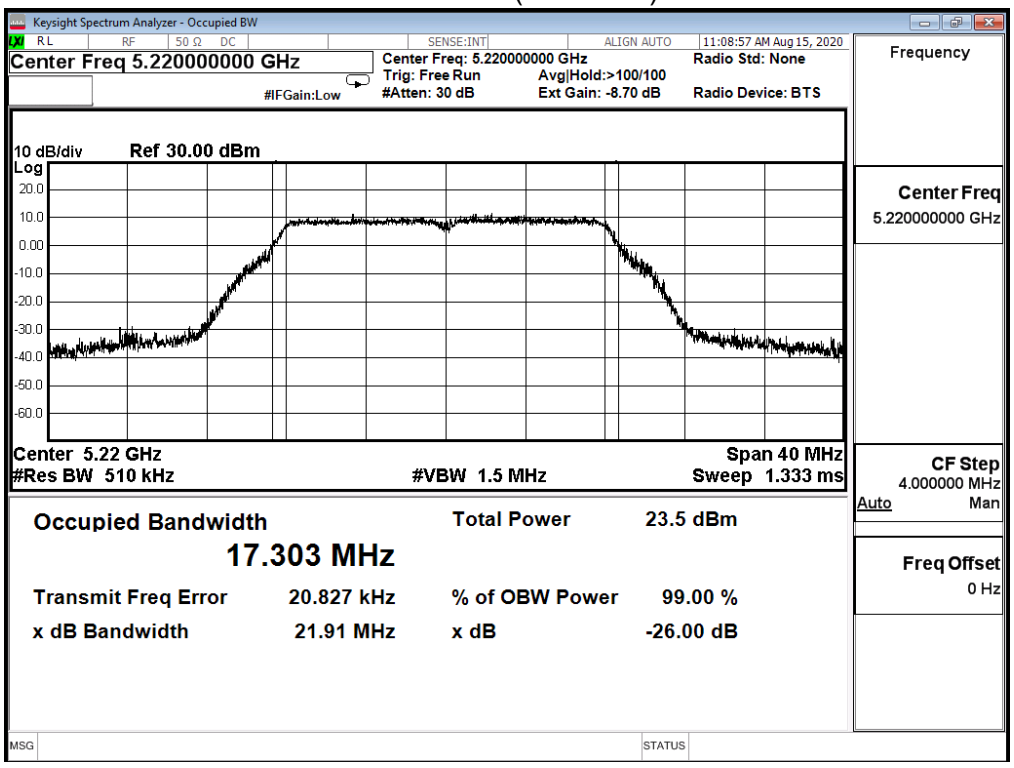
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: SISO Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11a (ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	17.452	21.930	--	Pass
44	5220	17.303	21.910	--	Pass
48	5240	17.338	21.760	--	Pass
149	5745	17.478	N/A	--	Pass
157	5785	17.454		--	Pass
165	5825	17.559		--	Pass

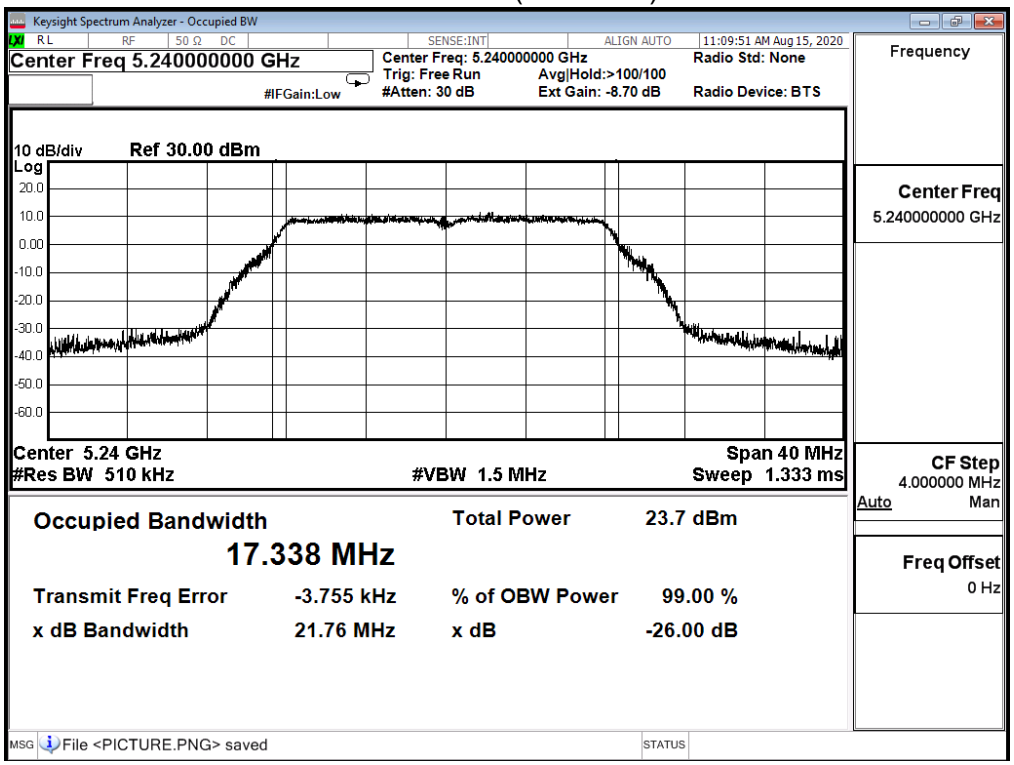
Channel 36 (5180MHz)



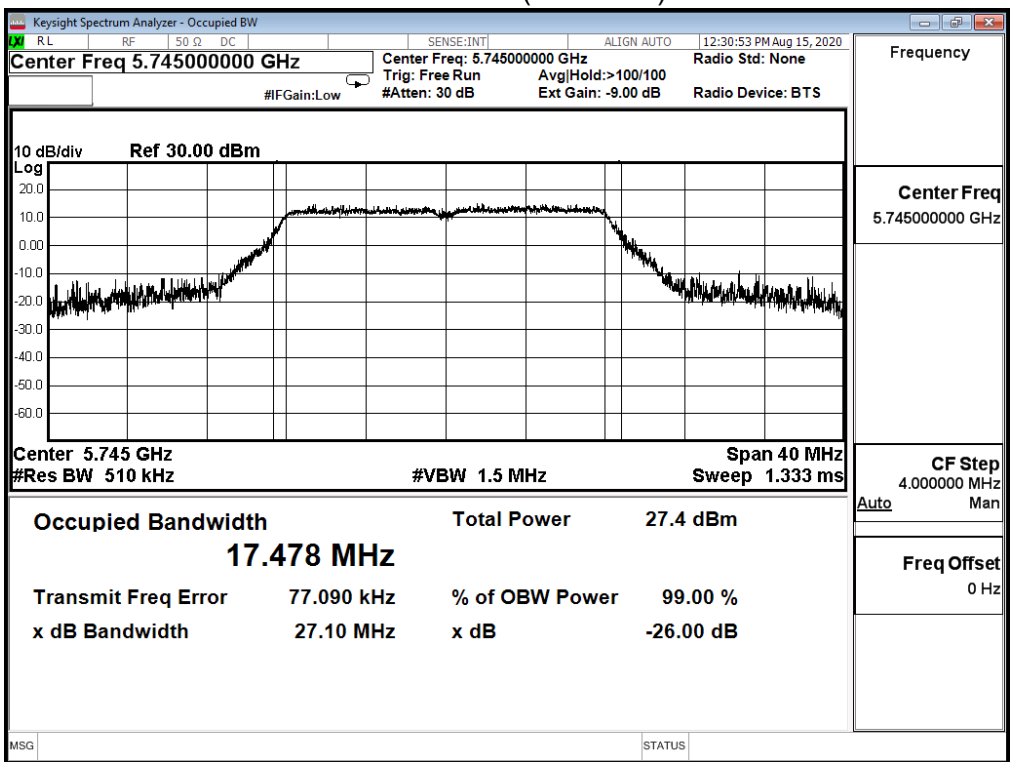
Channel 44 (5220MHz)



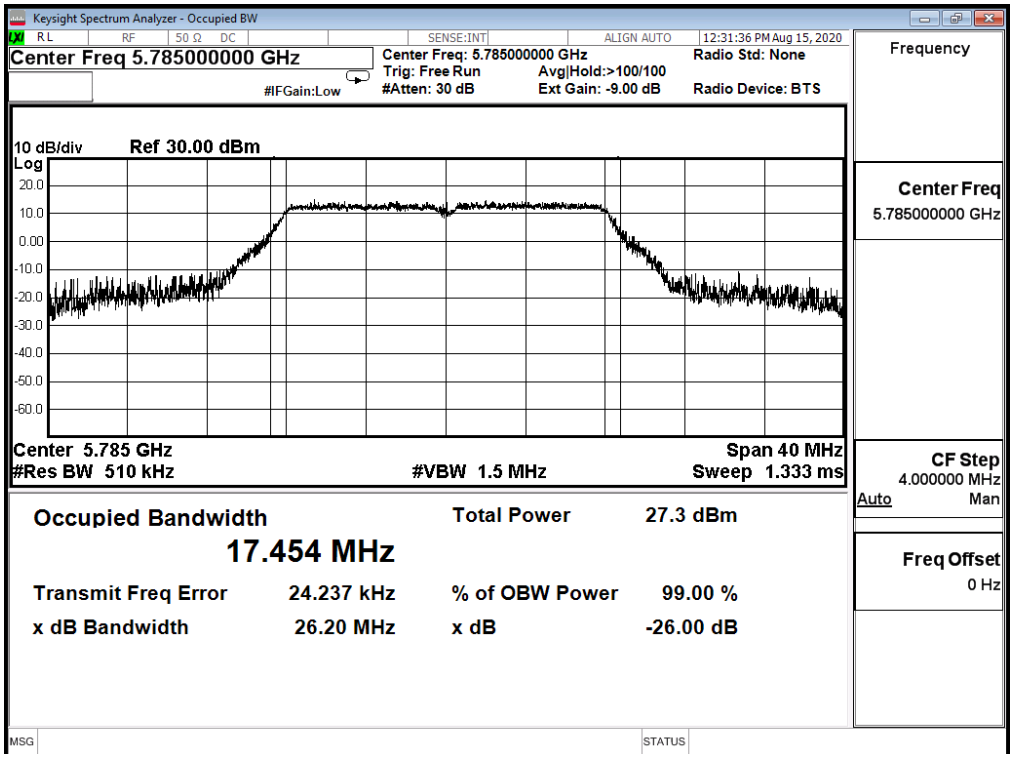
Channel 48 (5240MHz)



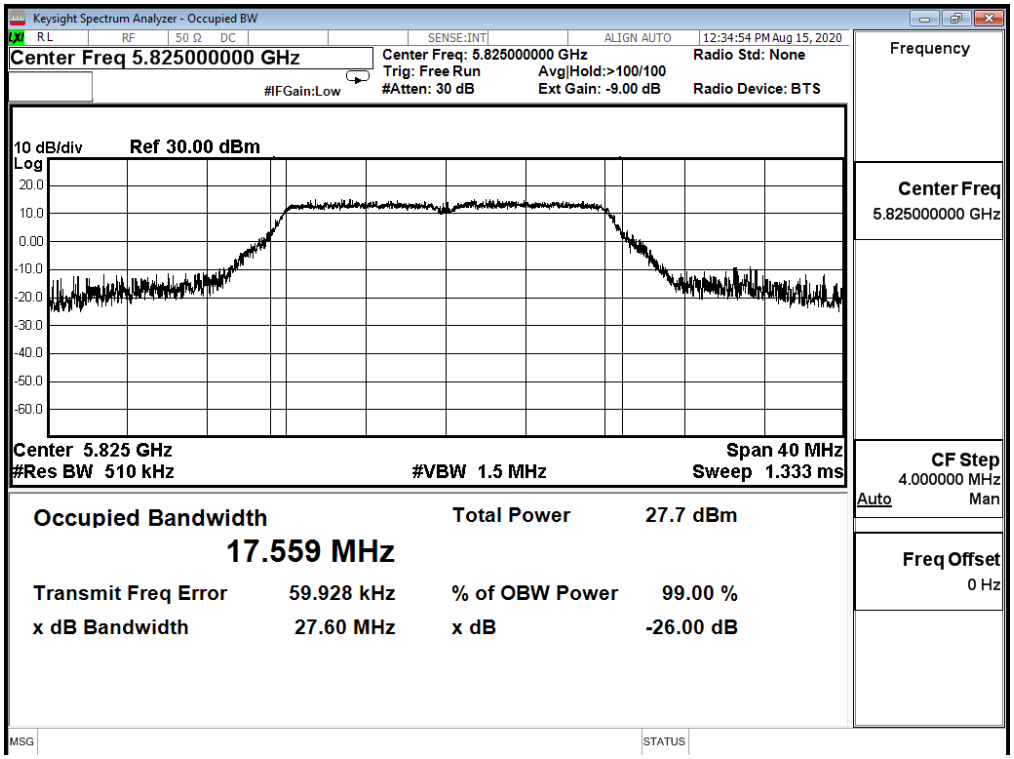
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

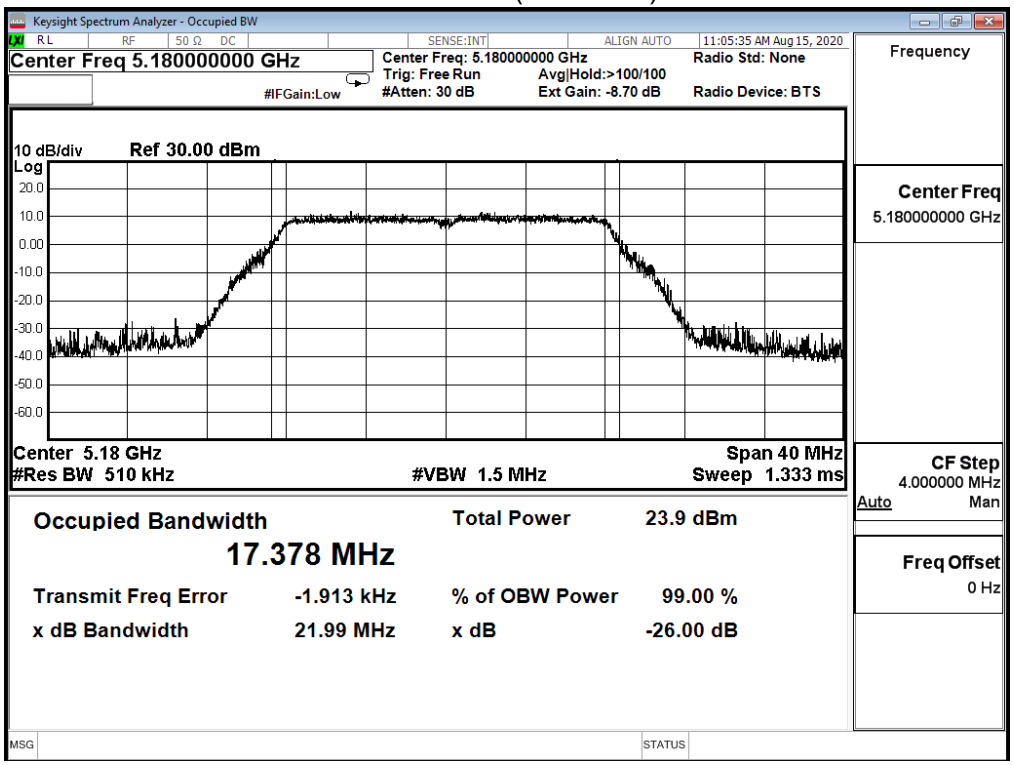


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: SISO Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0％

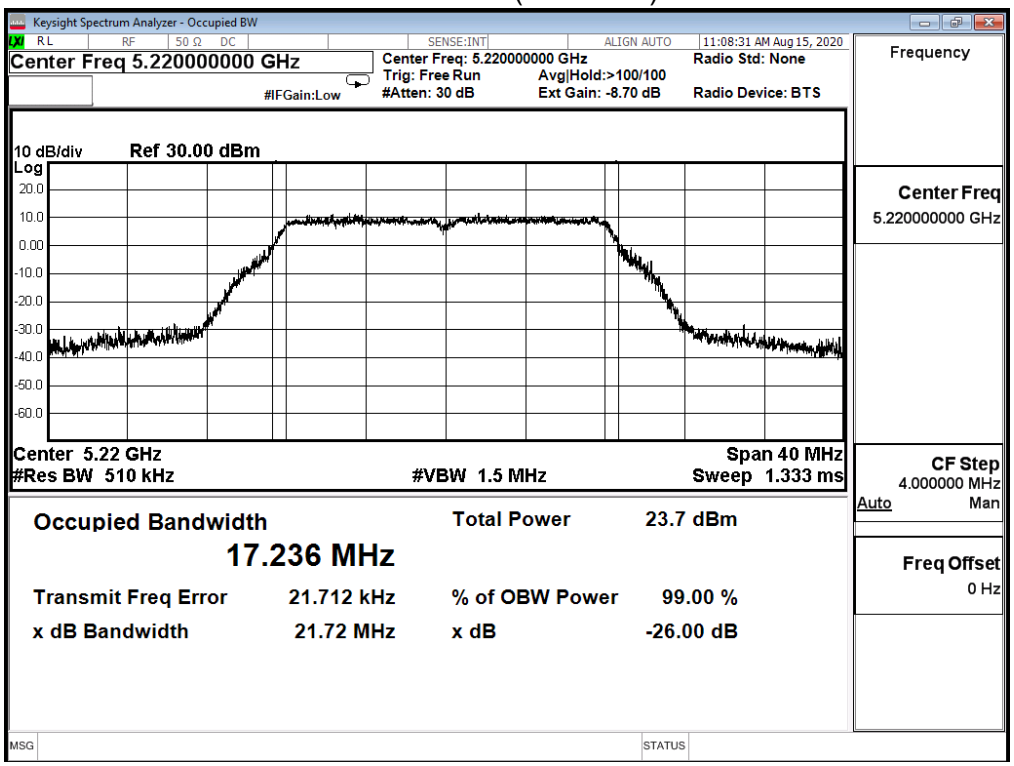
IEEE 802.11a (ANT 1)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	17.378	21.990	--	Pass
44	5220	17.236	21.720	--	Pass
48	5240	17.394	22.030	--	Pass
149	5745	17.450	N/A	--	Pass
157	5785	17.441		--	Pass
165	5825	17.406		--	Pass

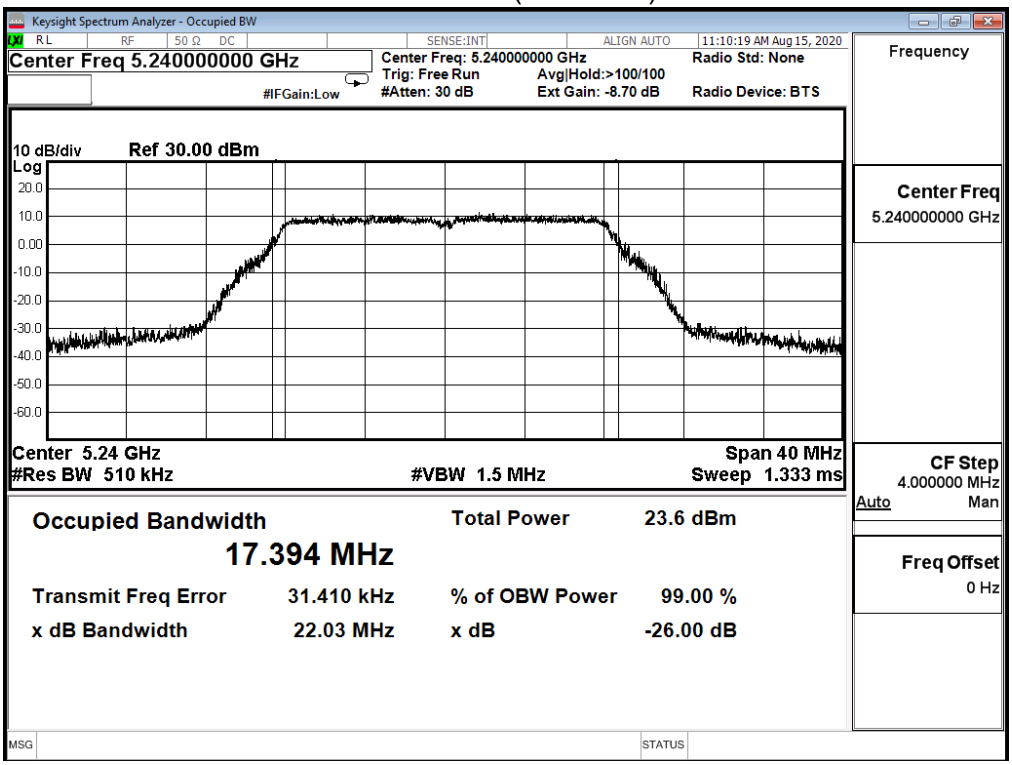
Channel 36 (5180MHz)



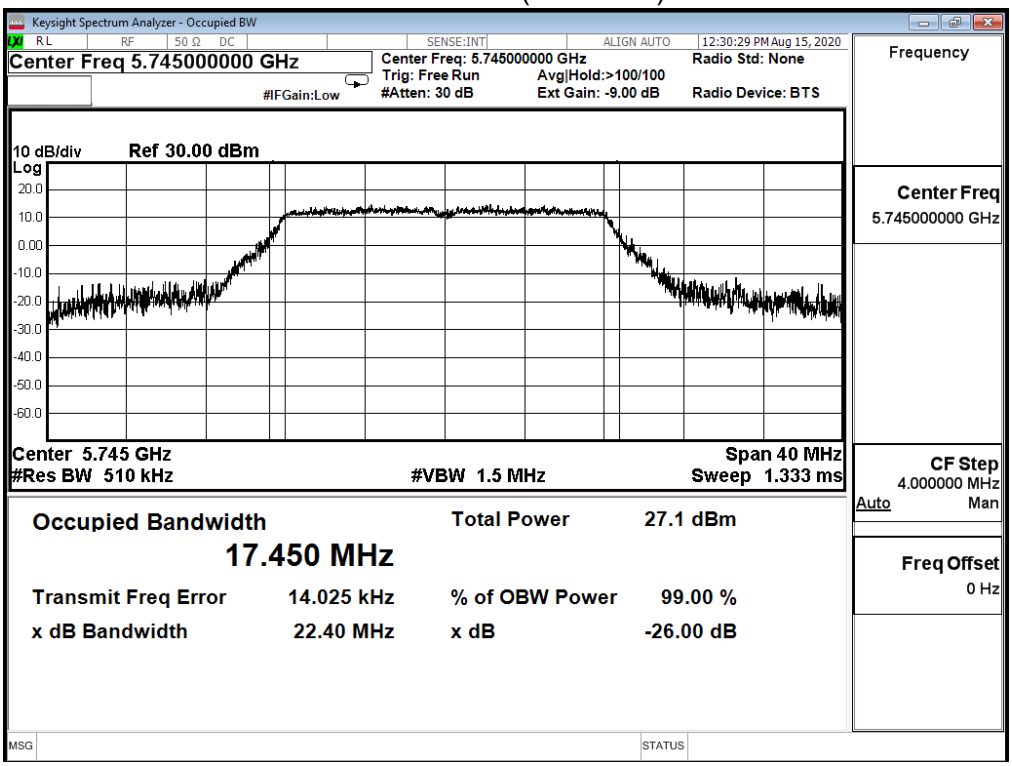
Channel 44 (5220MHz)



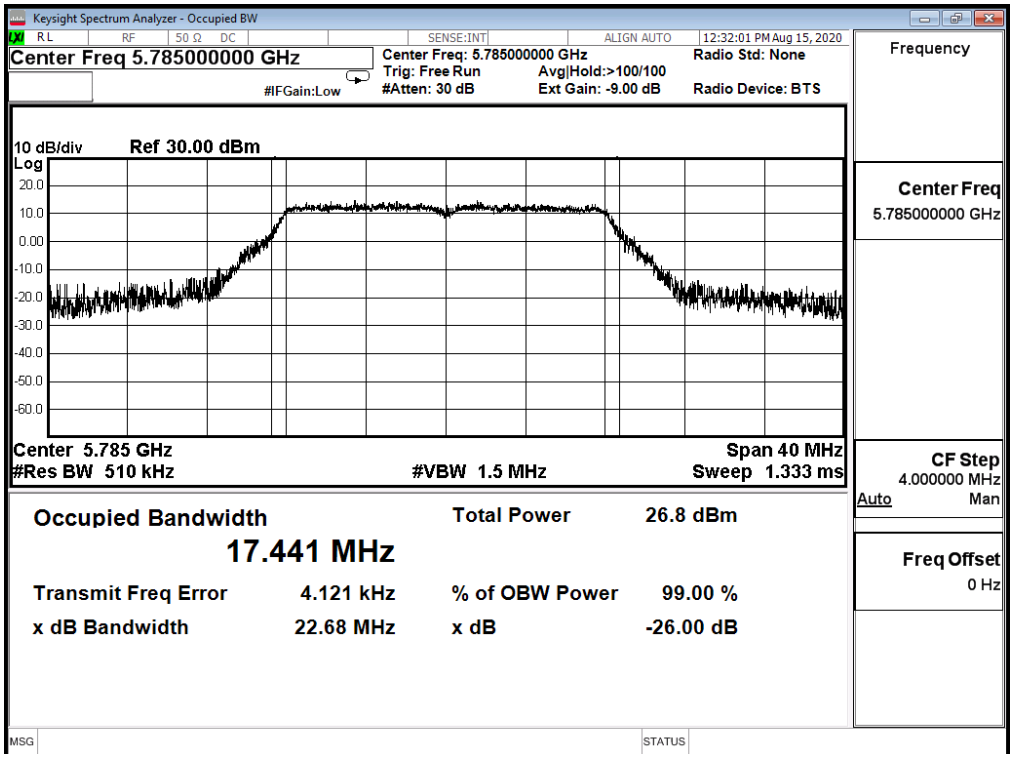
Channel 48 (5240MHz)



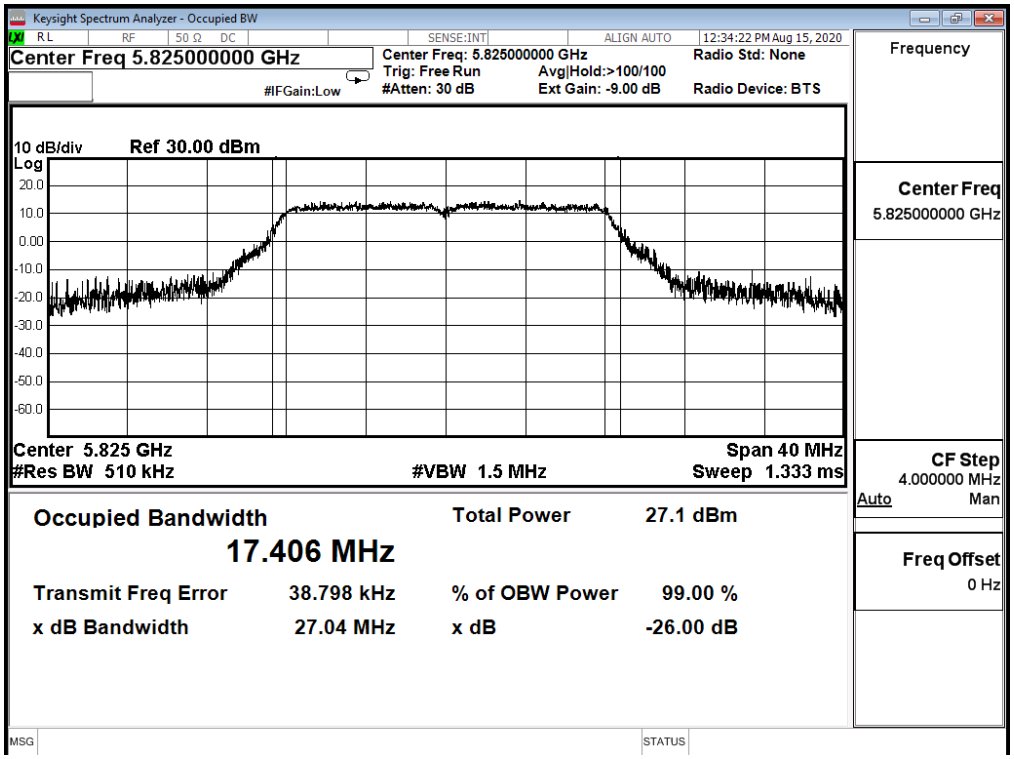
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

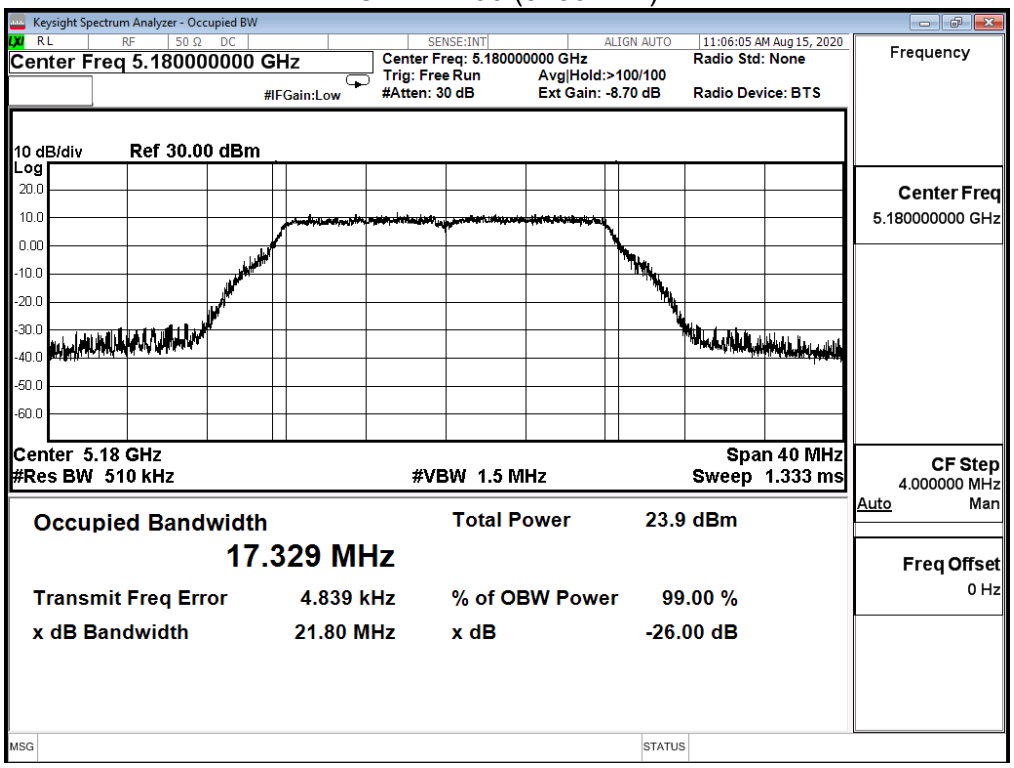


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: SISO Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

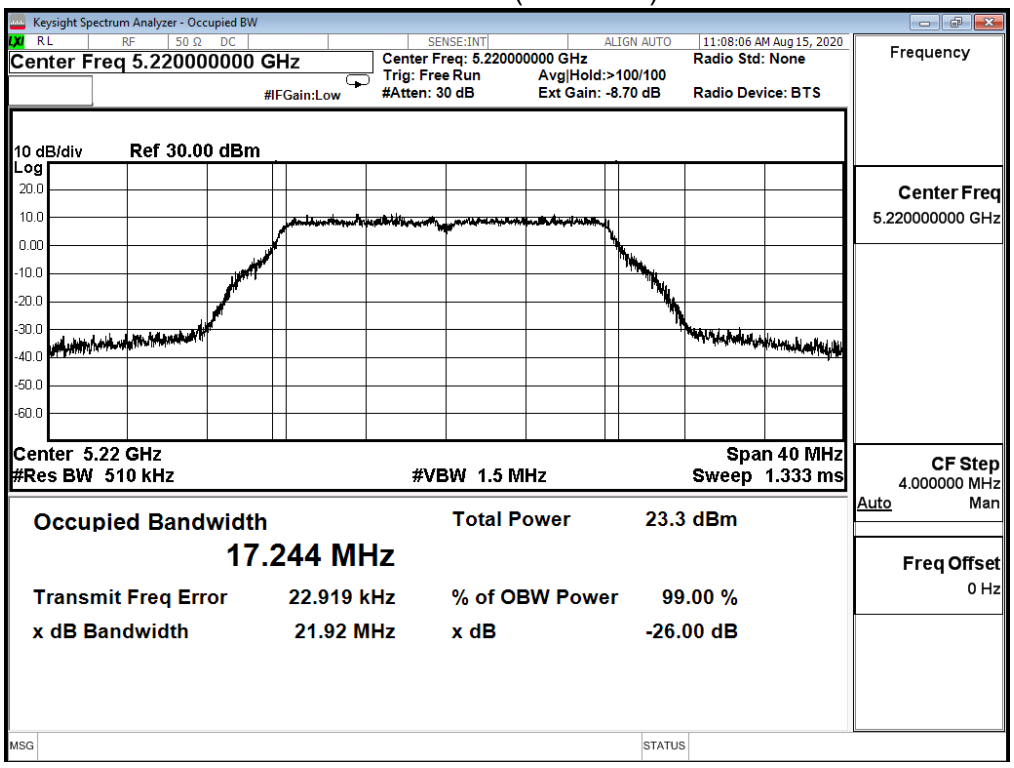
IEEE 802.11a (ANT 2)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	17.329	21.800	--	Pass
44	5220	17.244	21.920	--	Pass
48	5240	17.358	21.870	--	Pass
149	5745	17.467	N/A	--	Pass
157	5785	17.432		--	Pass
165	5825	17.475		--	Pass

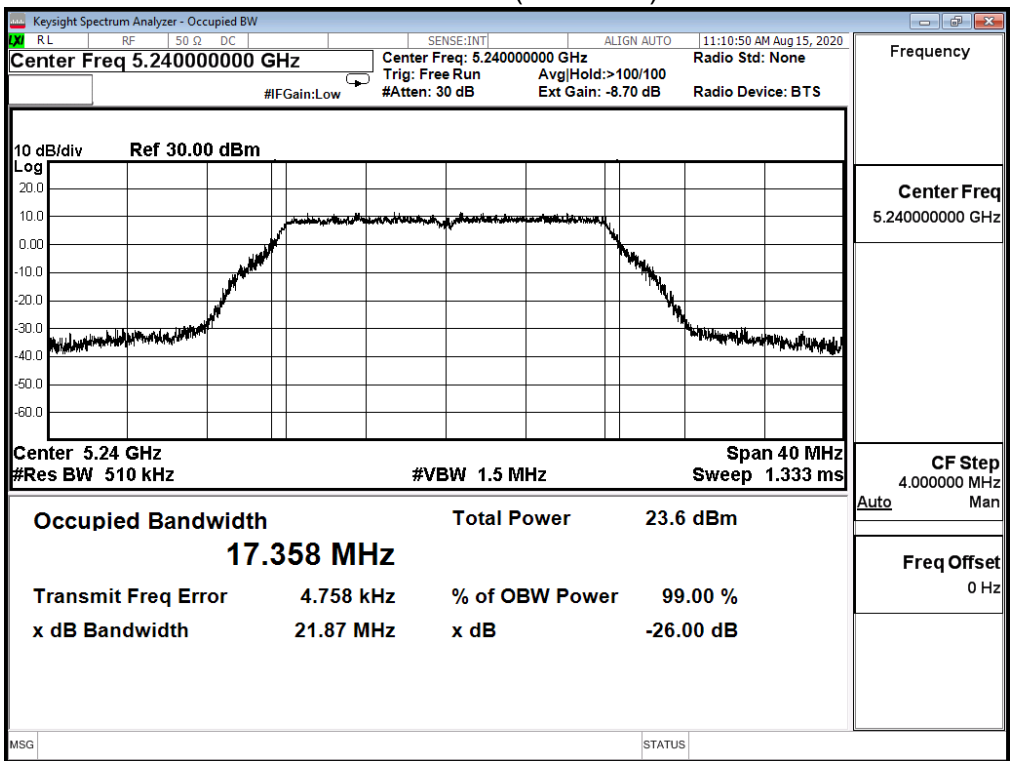
Channel 36 (5180MHz)



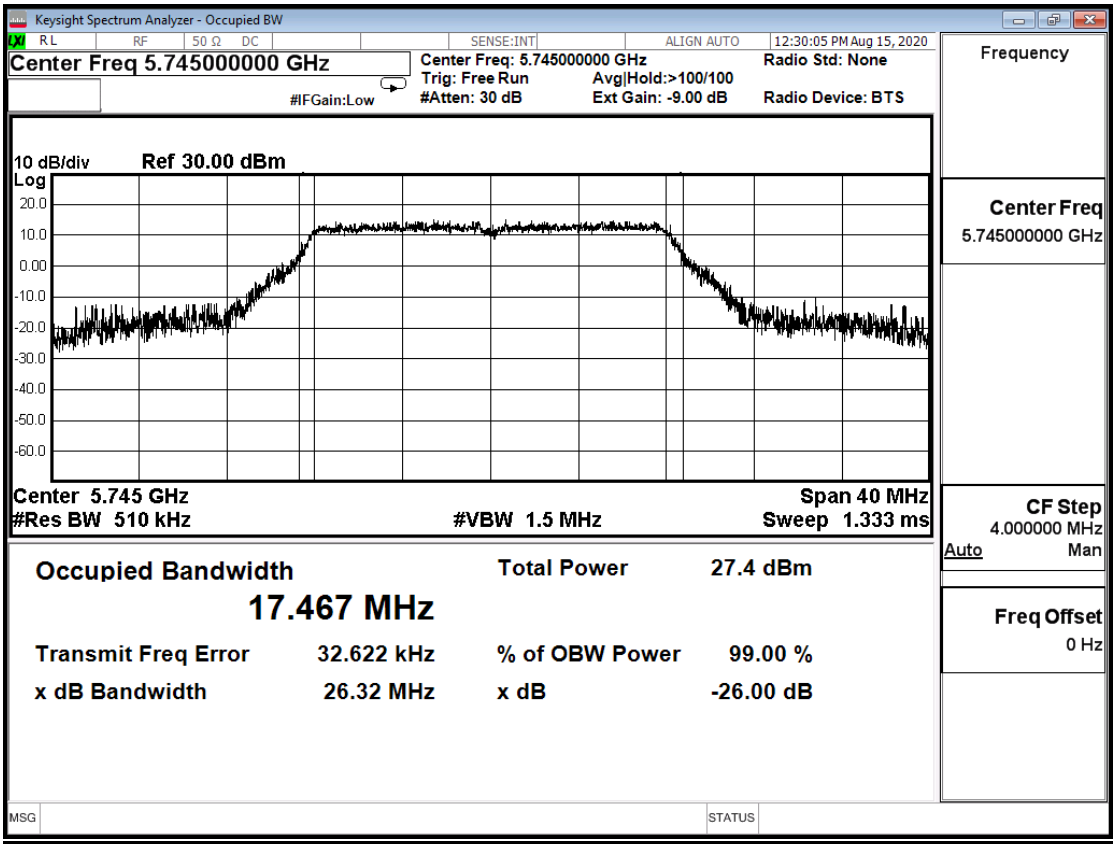
Channel 44 (5220MHz)



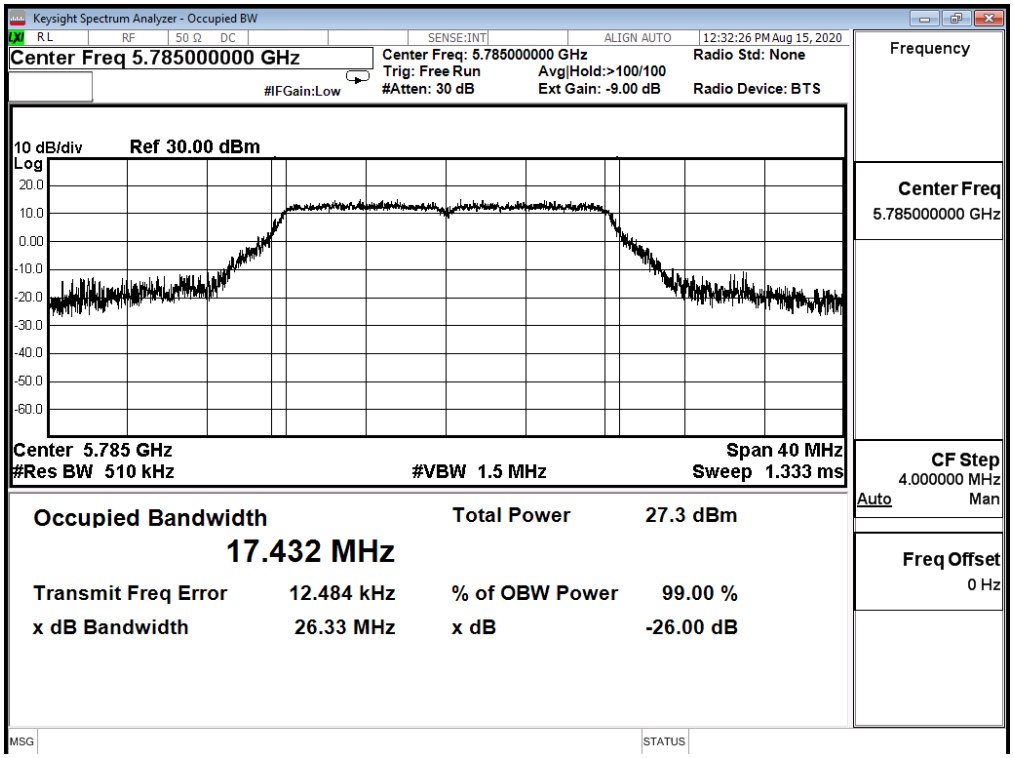
Channel 48 (5240MHz)



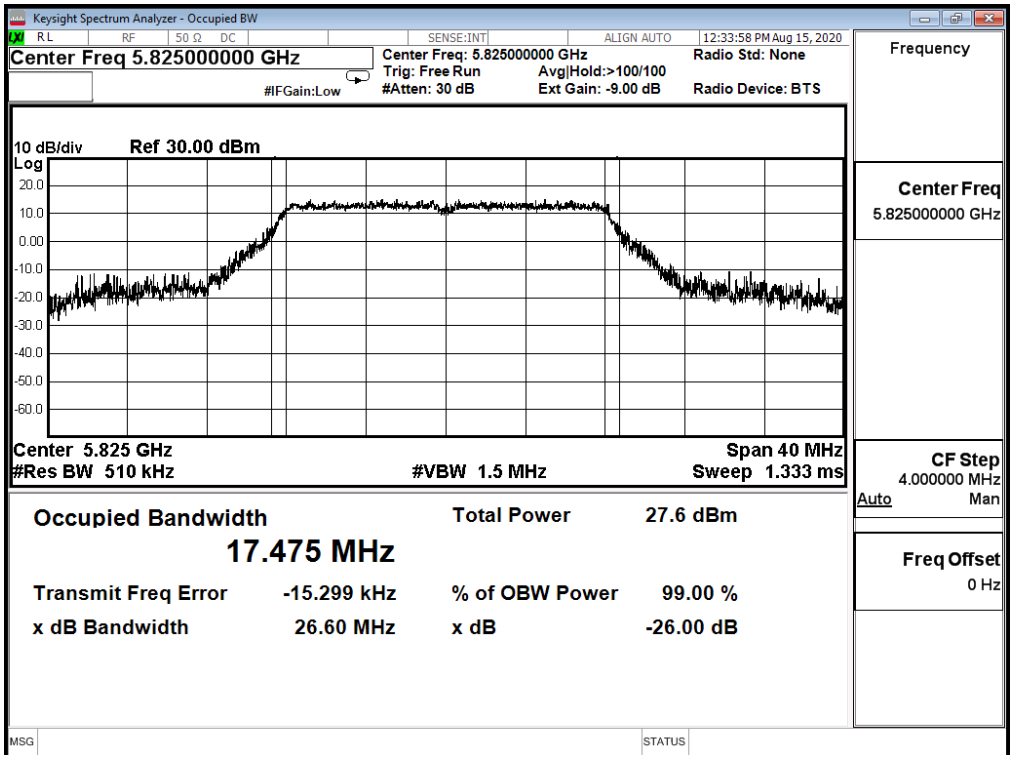
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

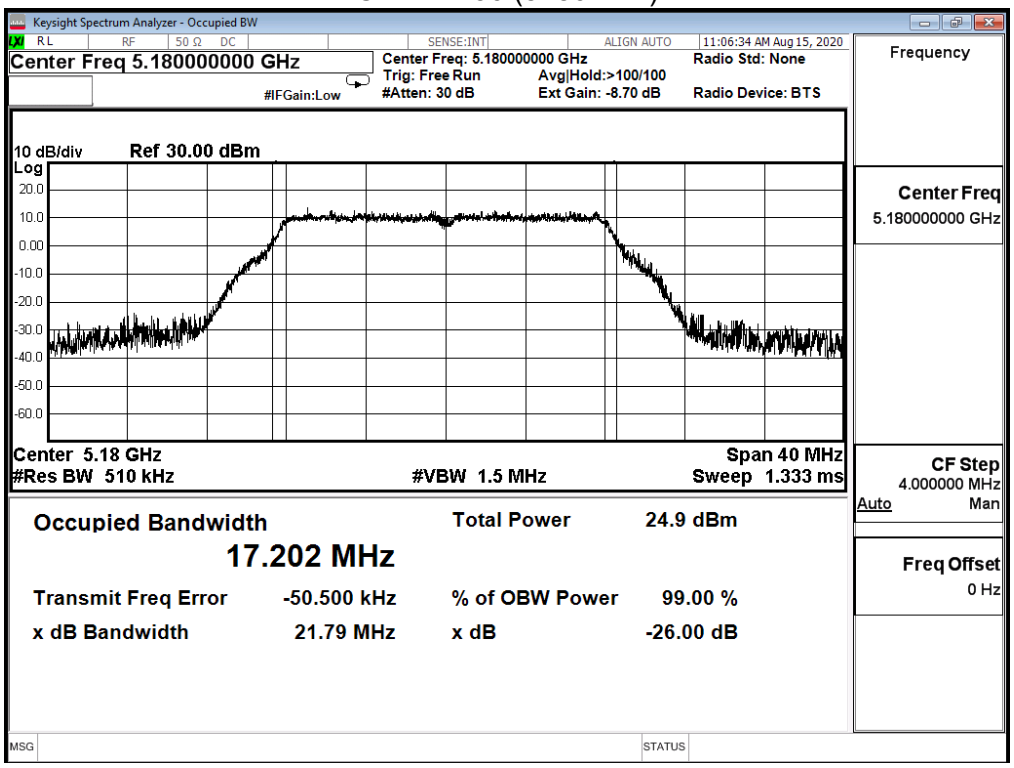


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: SISO Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0％

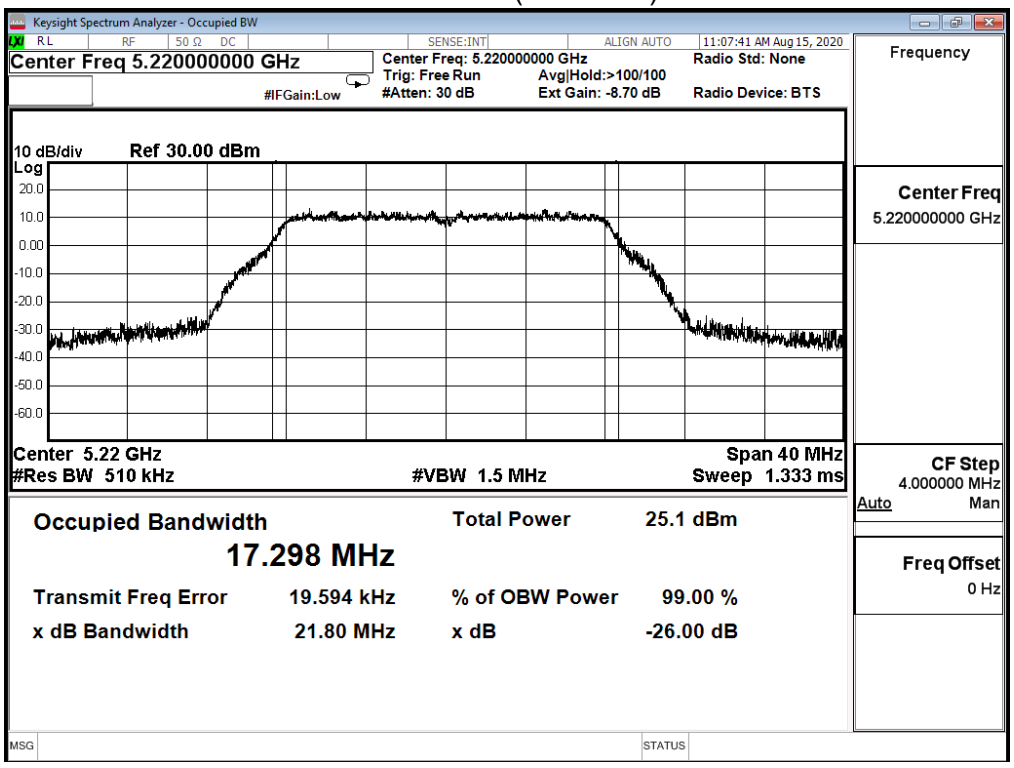
IEEE 802.11a (ANT 3)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	17.202	21.790	--	Pass
44	5220	17.298	21.800	--	Pass
48	5240	17.176	21.650	--	Pass
149	5745	17.638	N/A	--	Pass
157	5785	17.480		--	Pass
165	5825	17.563		--	Pass

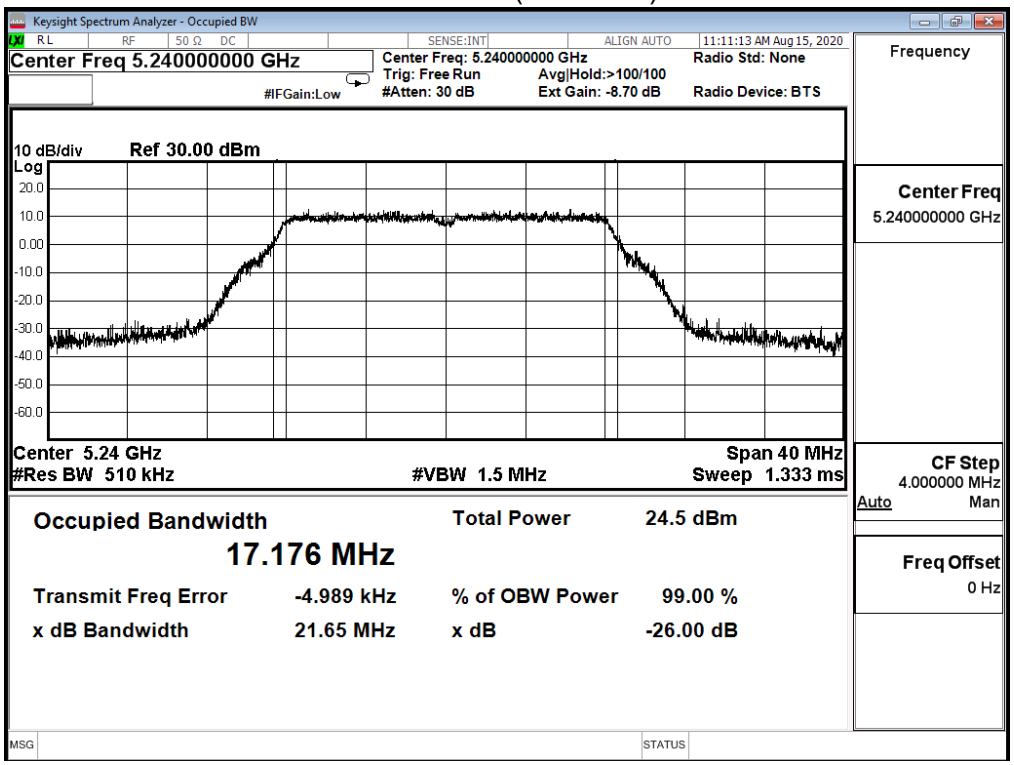
Channel 36 (5180MHz)



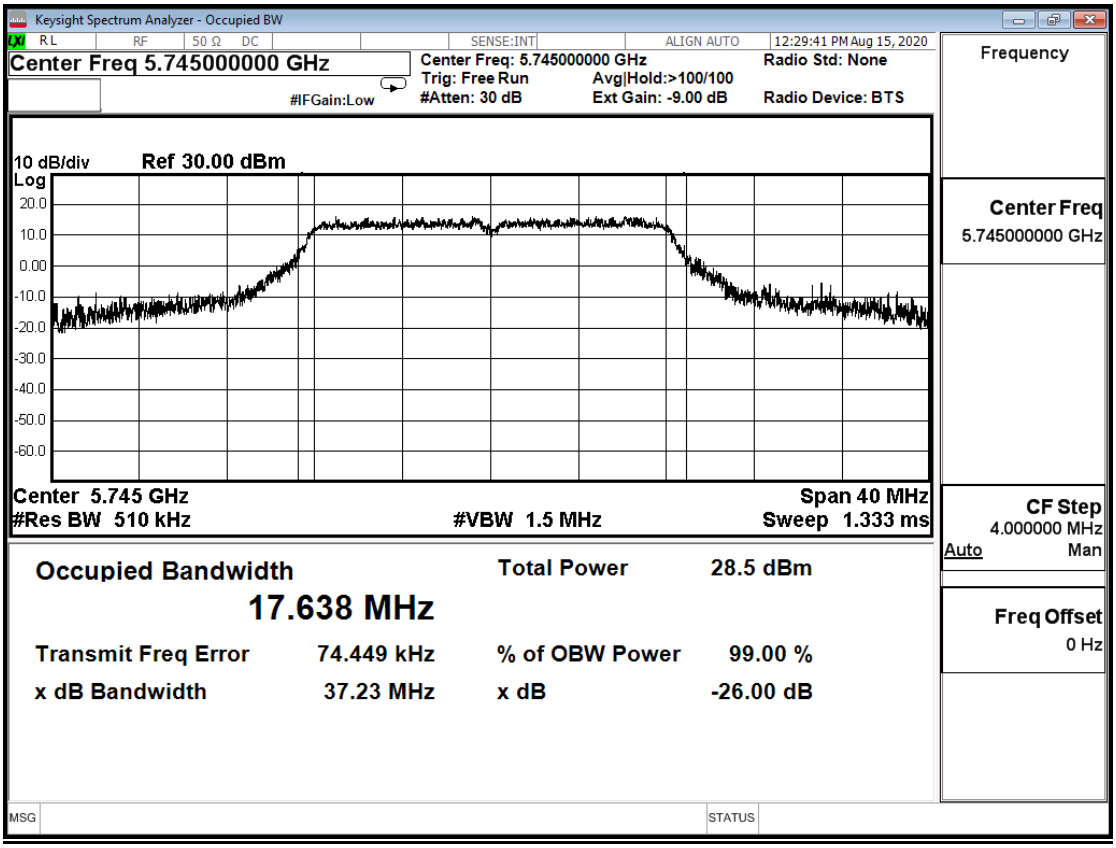
Channel 44 (5220MHz)



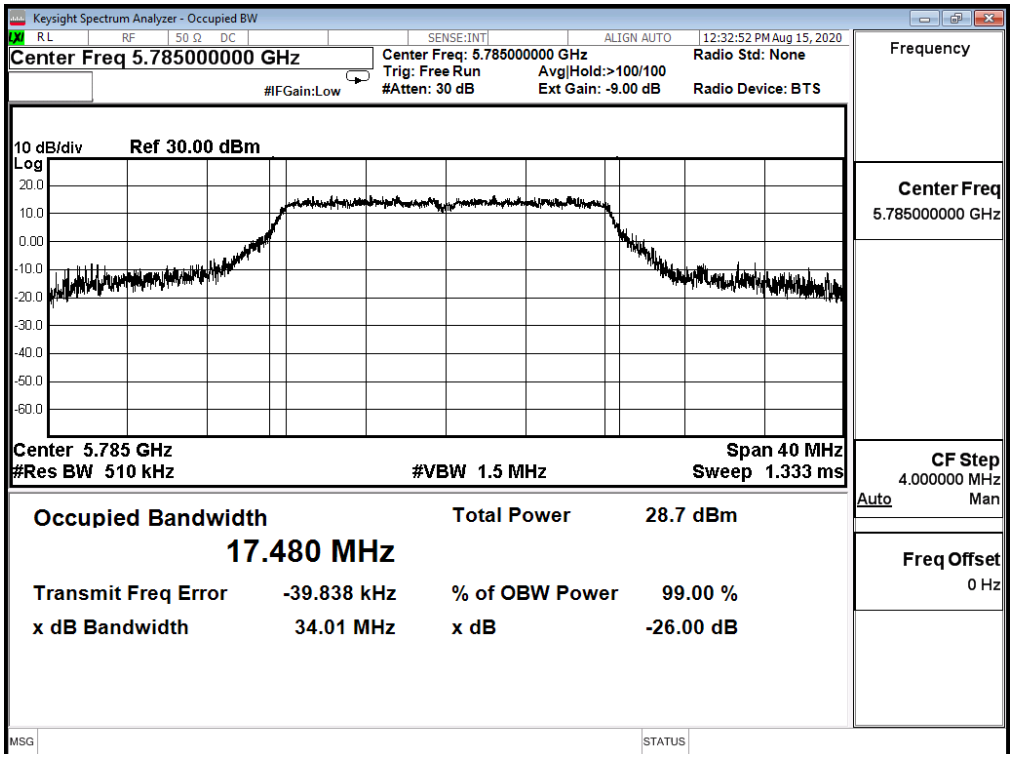
Channel 48 (5240MHz)



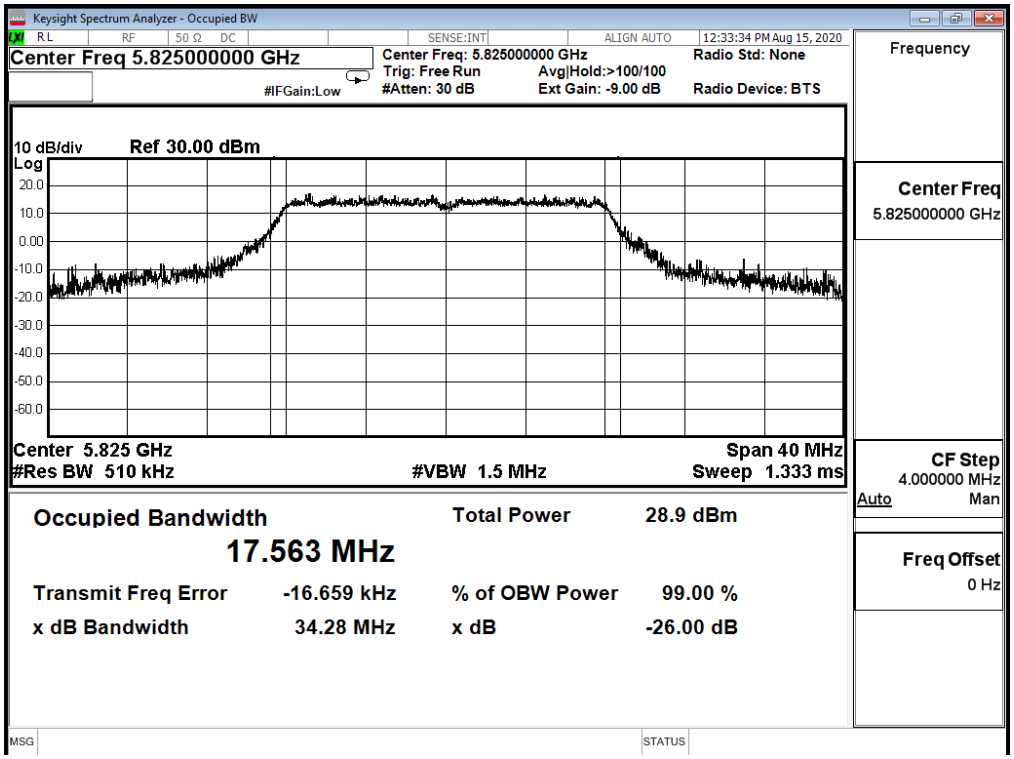
Channel 149 (5745MHz)



Channel 157 (5785MHz)



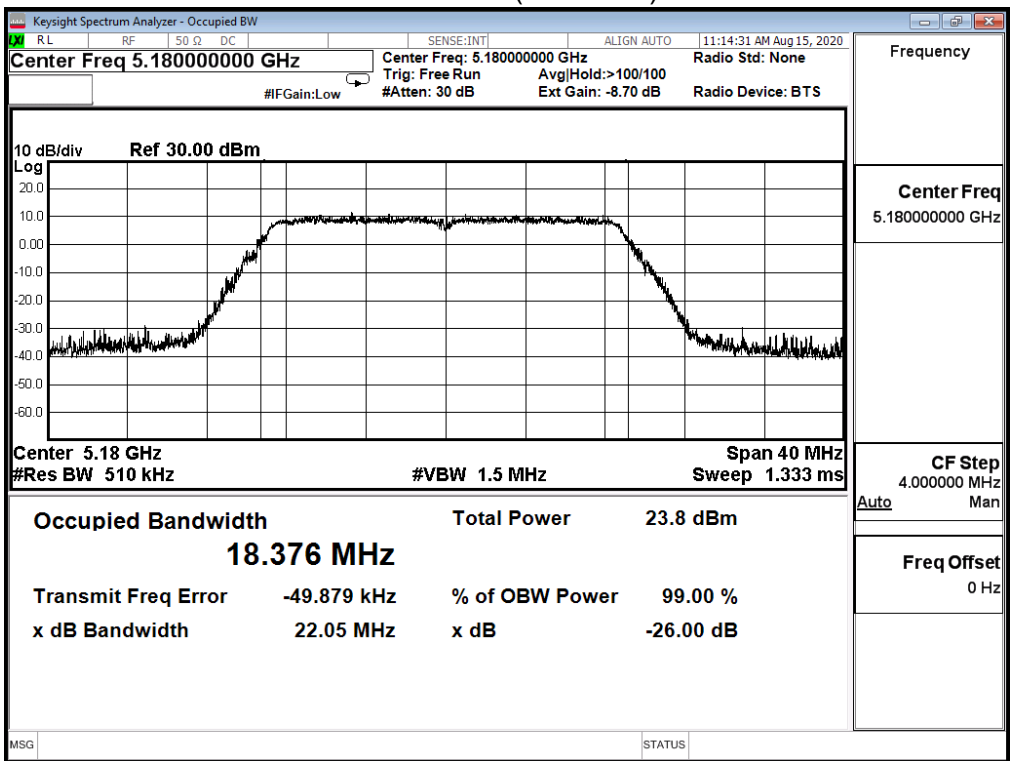
Channel 165 (5825MHz)



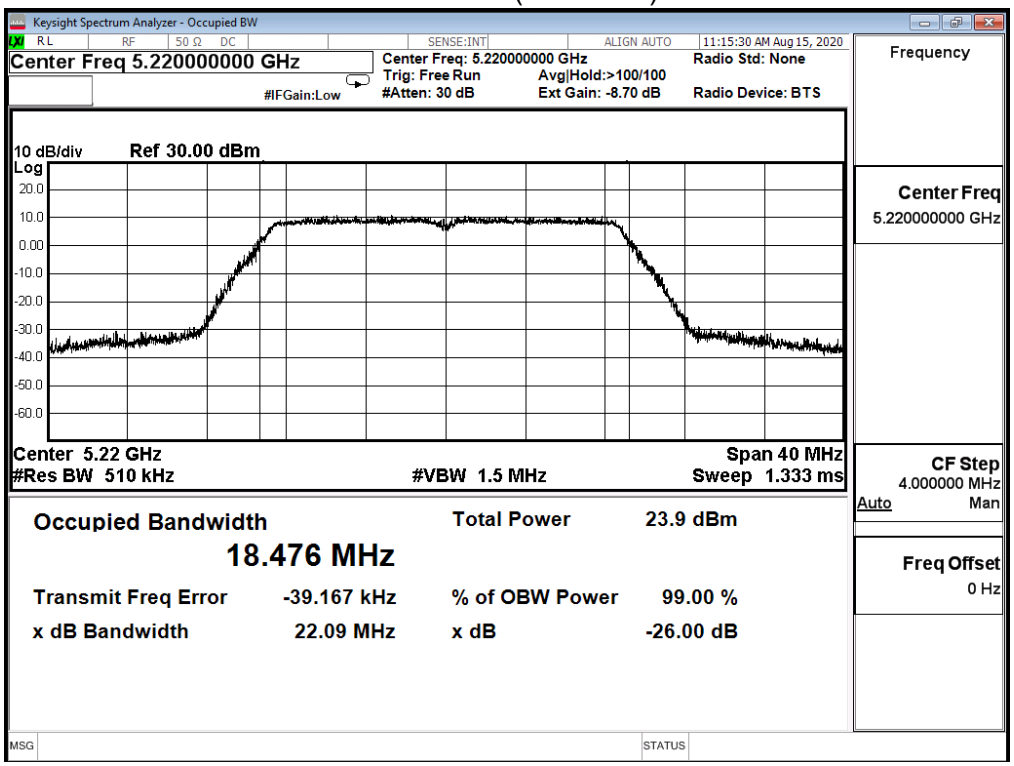
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_20M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	18.376	22.050	--	Pass
44	5220	18.476	22.090	--	Pass
48	5240	18.393	21.960	--	Pass
149	5745	18.556	N/A	--	Pass
157	5785	18.524		--	Pass
165	5825	18.585		--	Pass

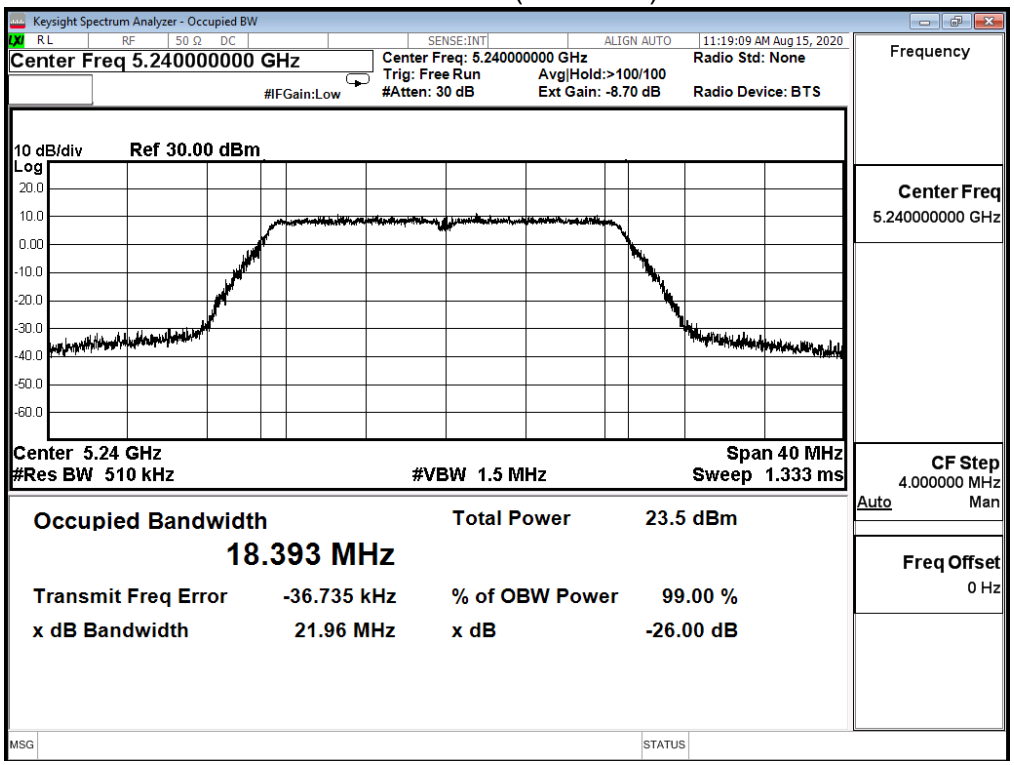
Channel 36 (5180MHz)



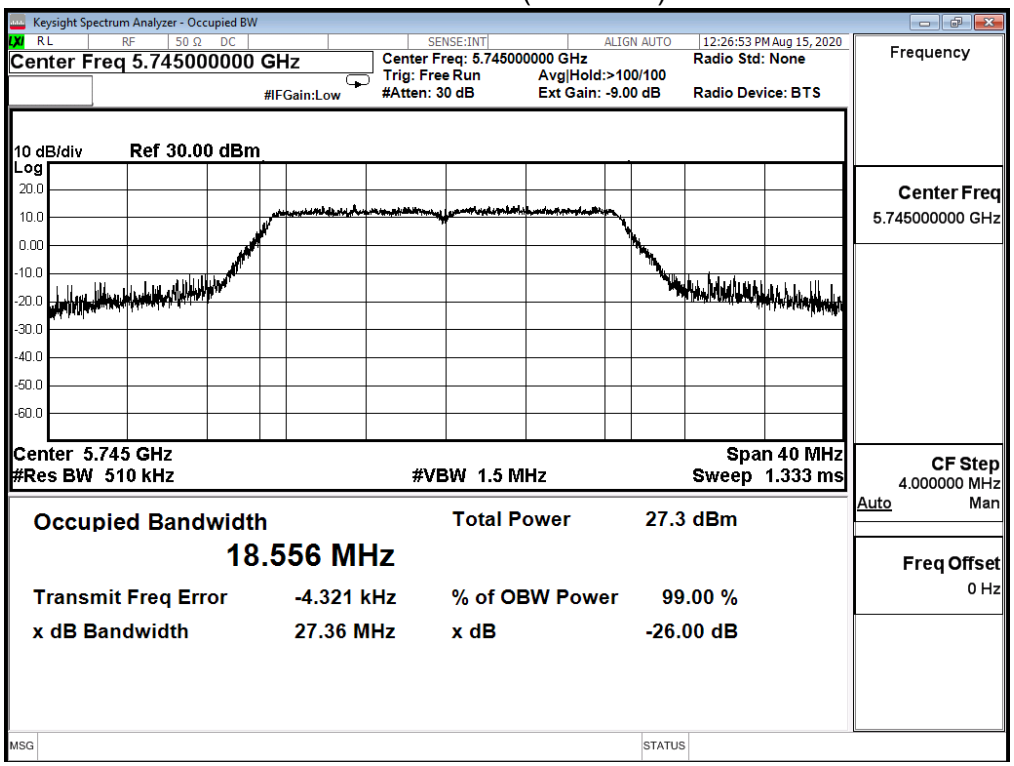
Channel 44 (5220MHz)



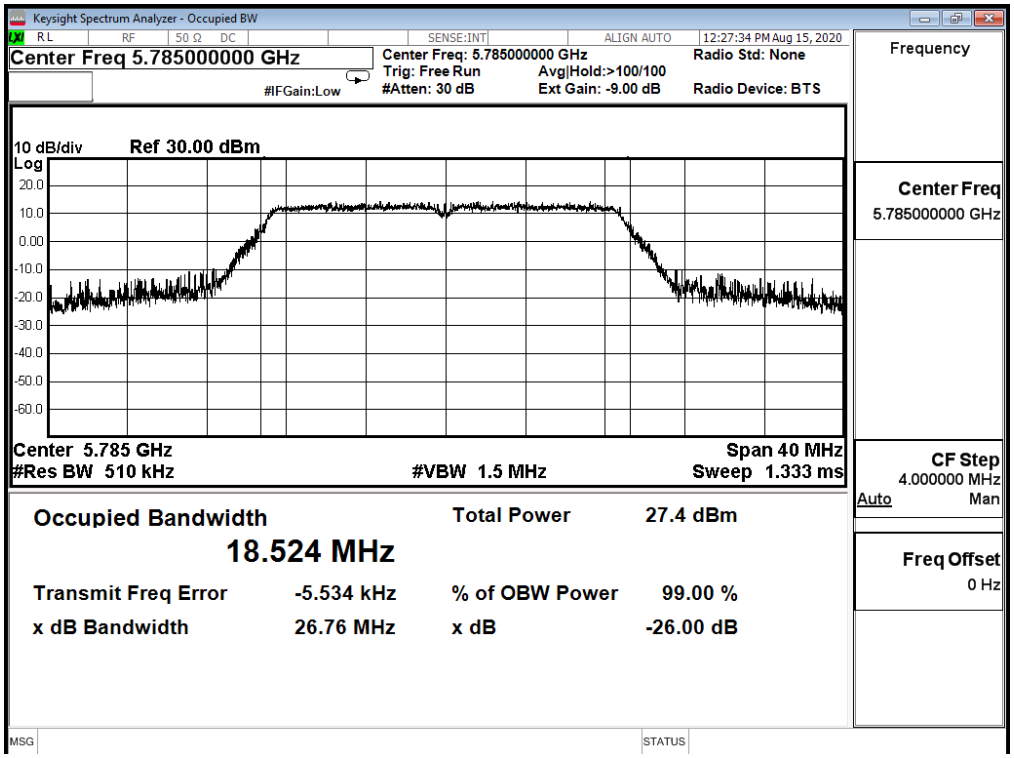
Channel 48 (5240MHz)



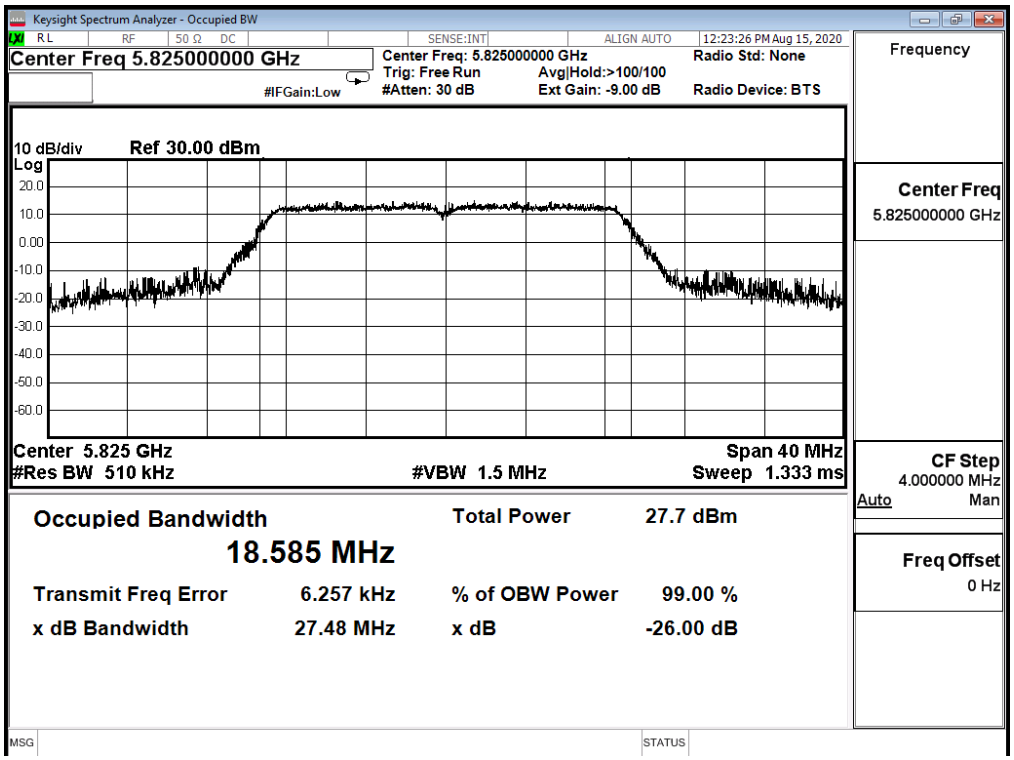
Channel 149 (5745MHz)



Channel 157 (5785MHz)



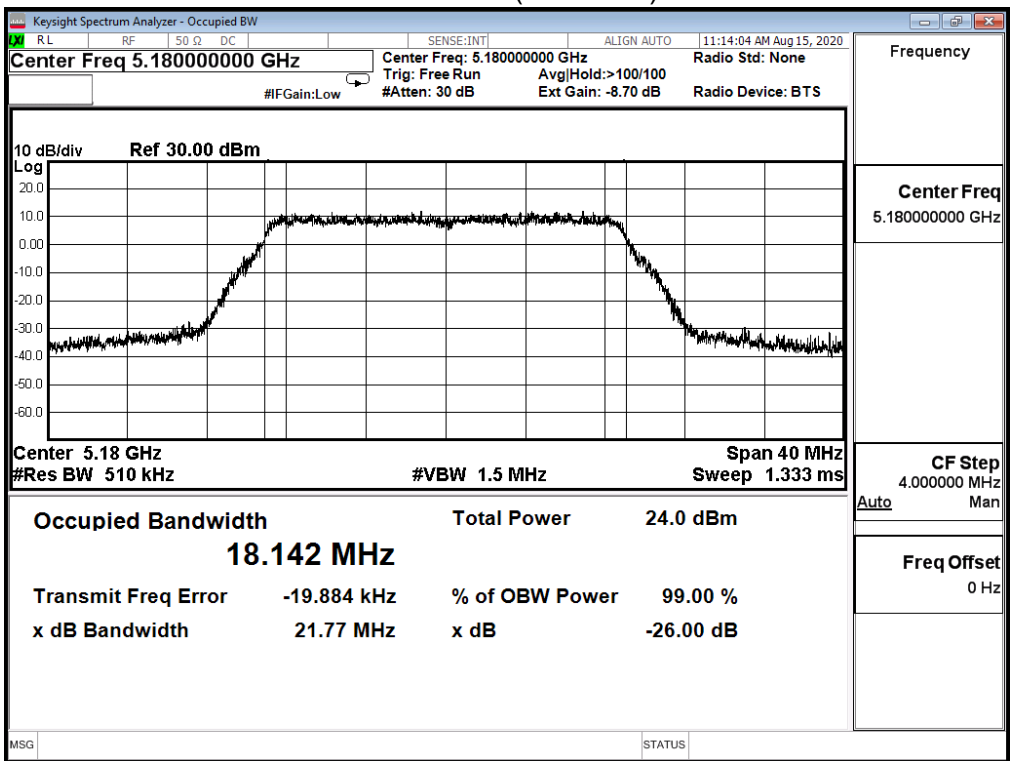
Channel 165 (5825MHz)



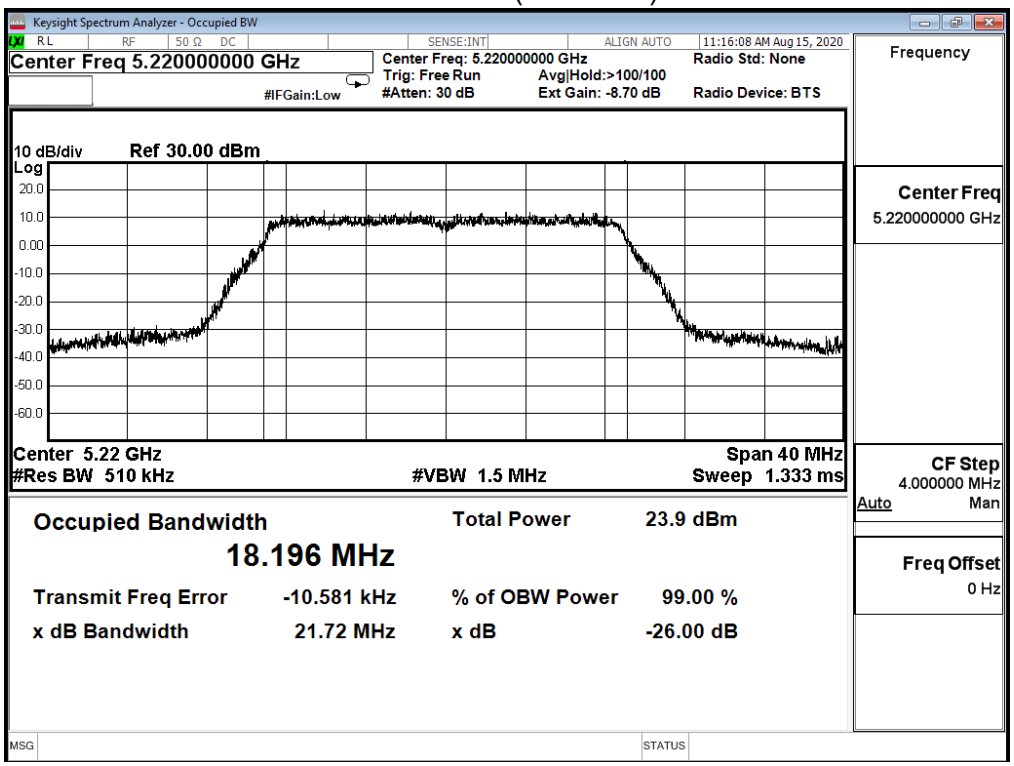
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_20M(ANT 1)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	18.142	21.770	--	Pass
44	5220	18.196	21.720	--	Pass
48	5240	18.169	21.870	--	Pass
149	5745	18.285	N/A	--	Pass
157	5785	18.209		--	Pass
165	5825	18.294		--	Pass

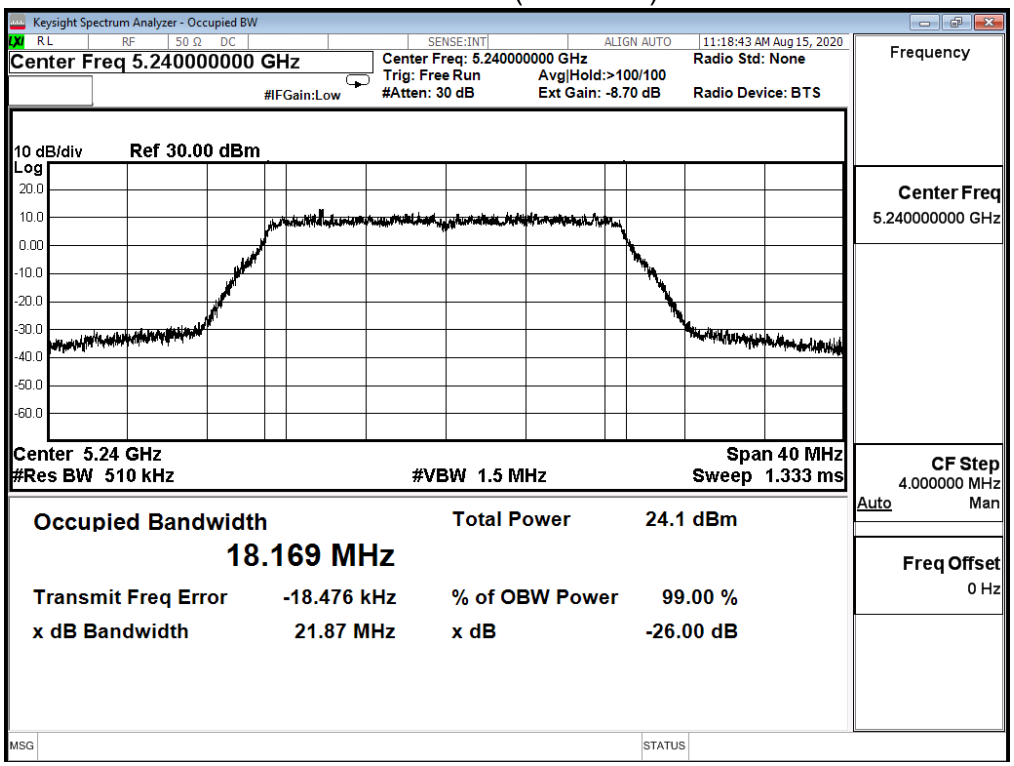
Channel 36 (5180MHz)



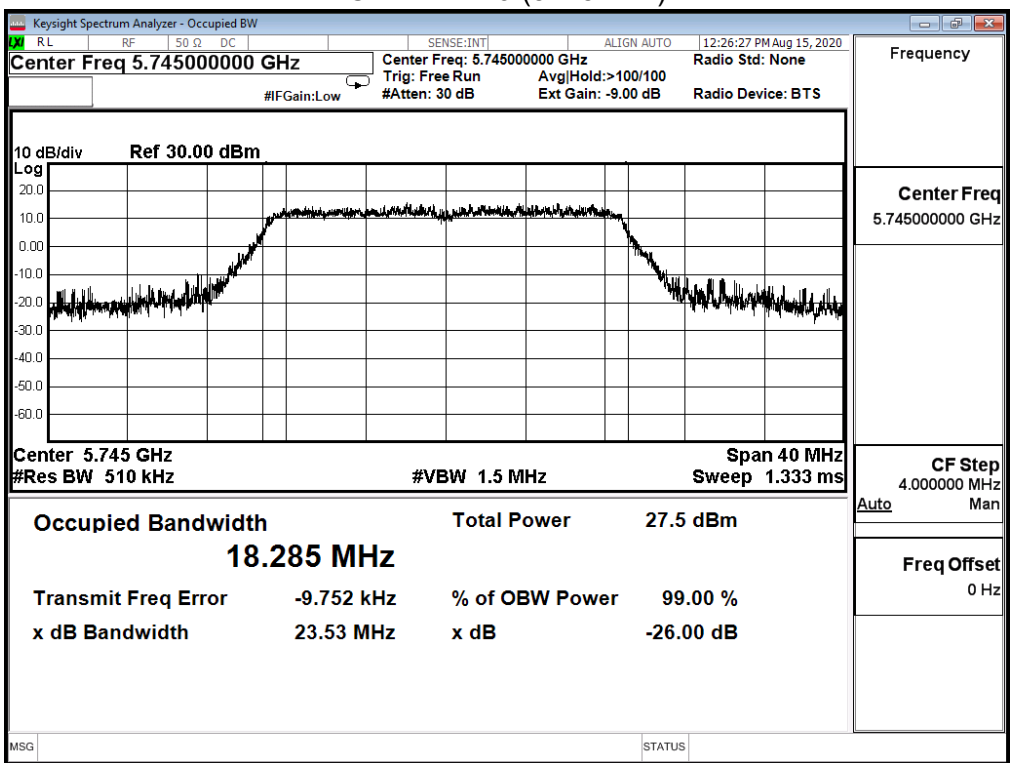
Channel 44 (5220MHz)



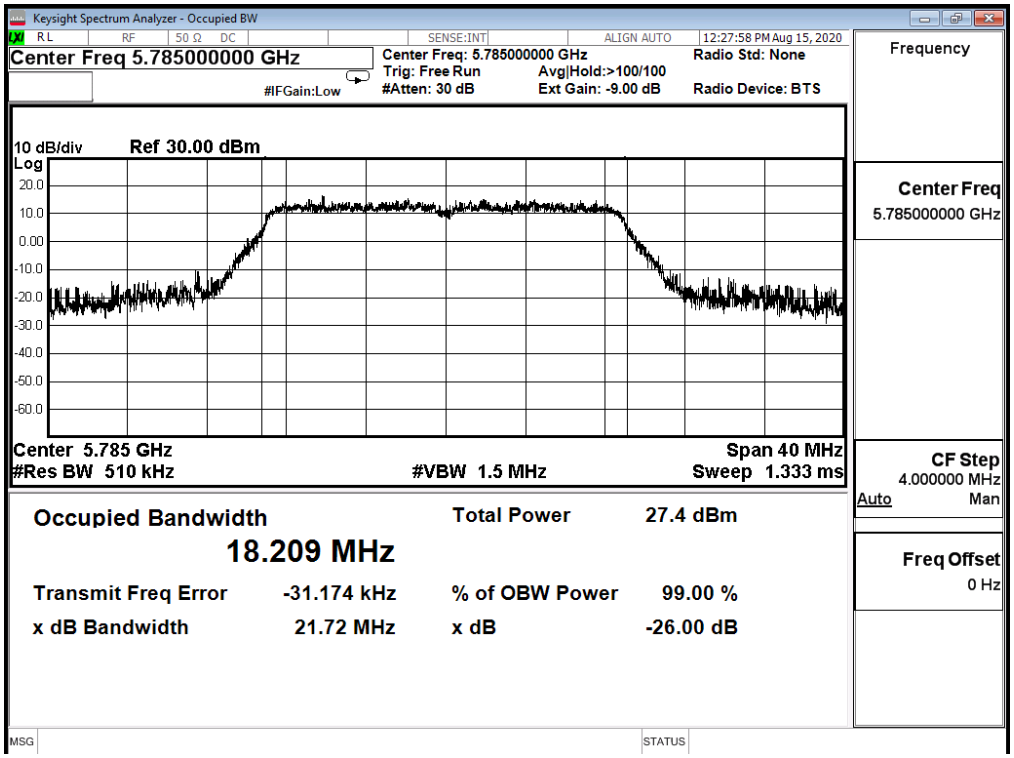
Channel 48 (5240MHz)



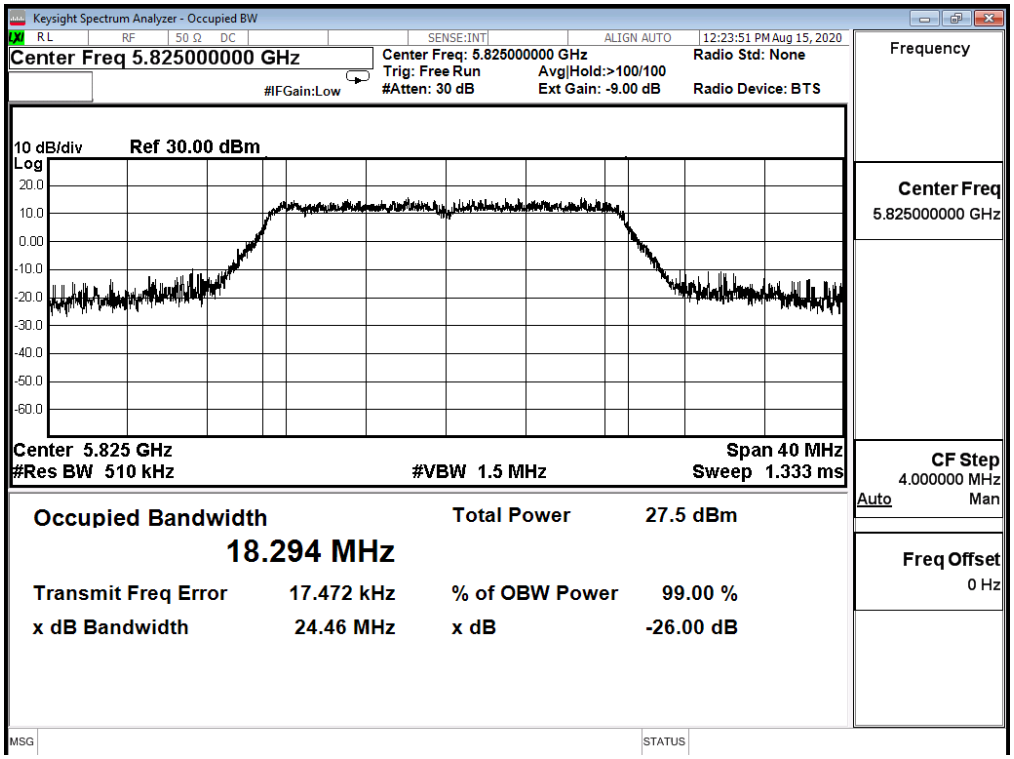
Channel 149 (5745MHz)



Channel 157 (5785MHz)



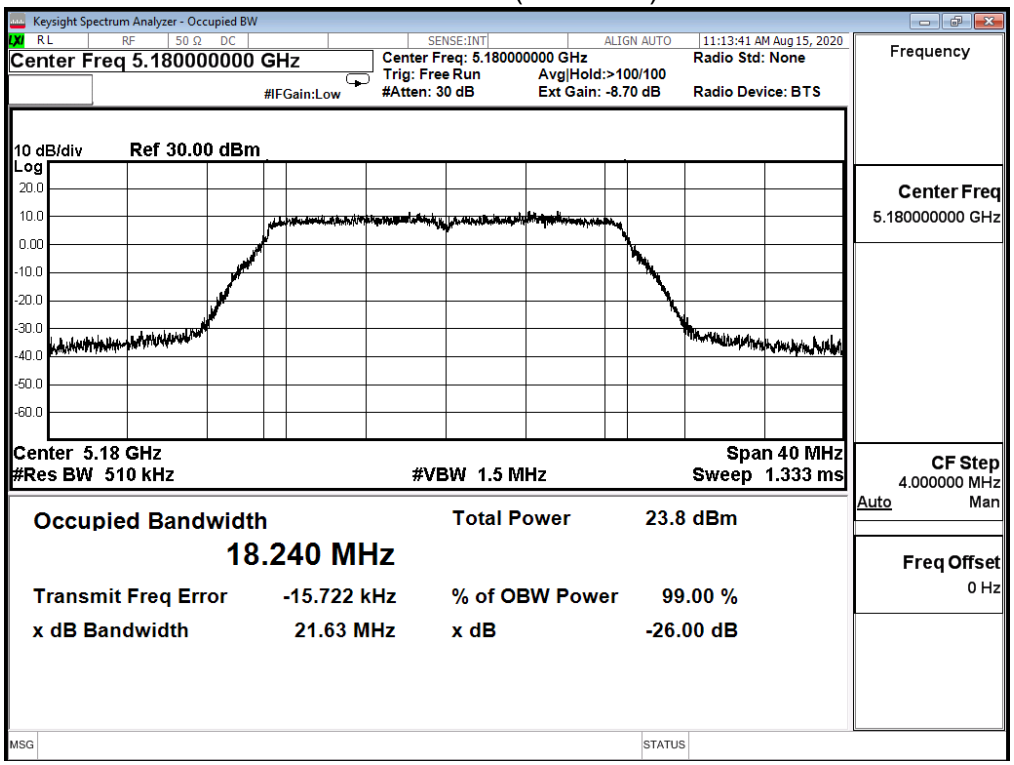
Channel 165 (5825MHz)



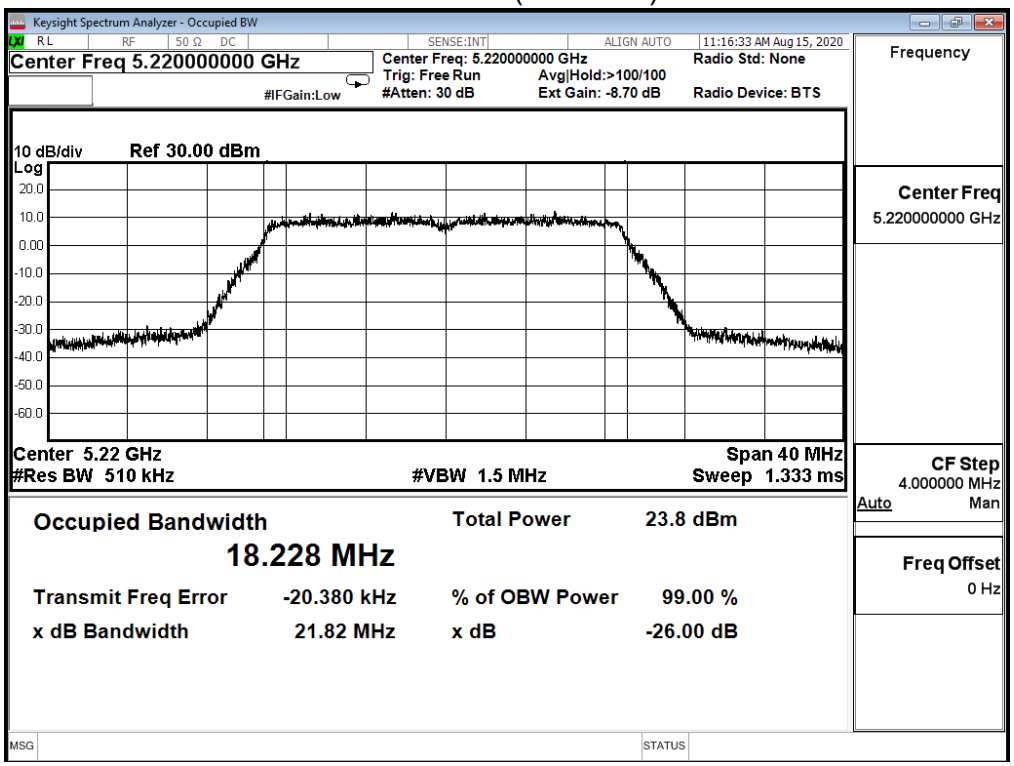
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_20M(ANT 2)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	18.240	21.630	--	Pass
44	5220	18.228	21.820	--	Pass
48	5240	18.282	21.910	--	Pass
149	5745	18.329	N/A	--	Pass
157	5785	18.343		--	Pass
165	5825	18.340		--	Pass

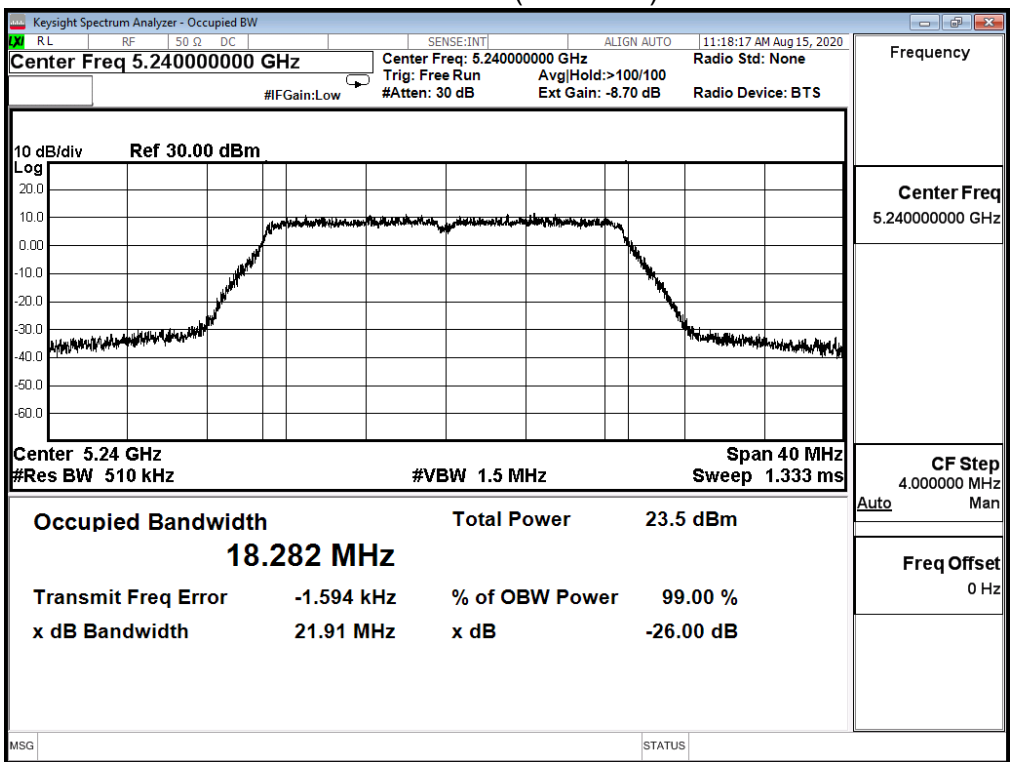
Channel 36 (5180MHz)



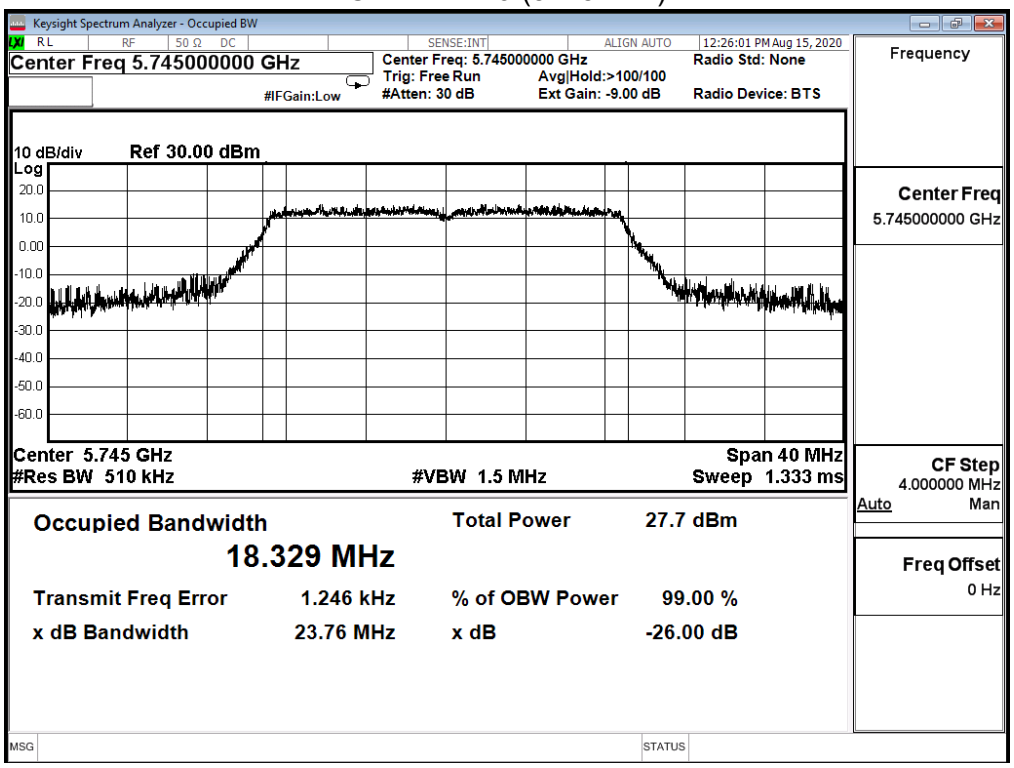
Channel 44 (5220MHz)



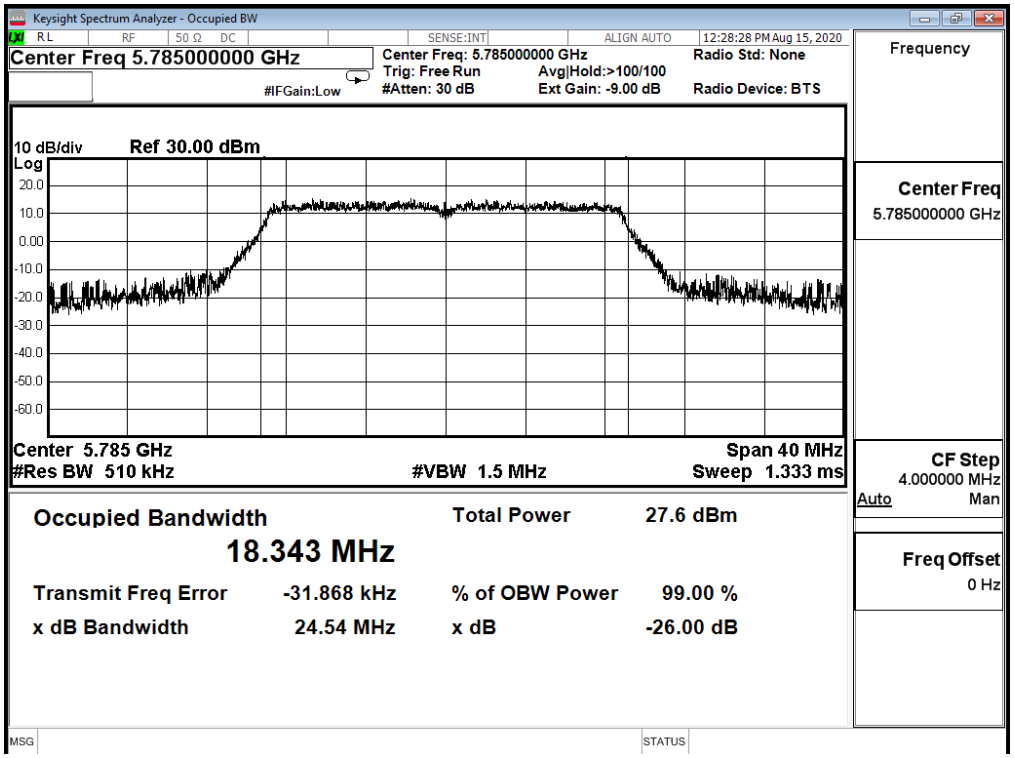
Channel 48 (5240MHz)



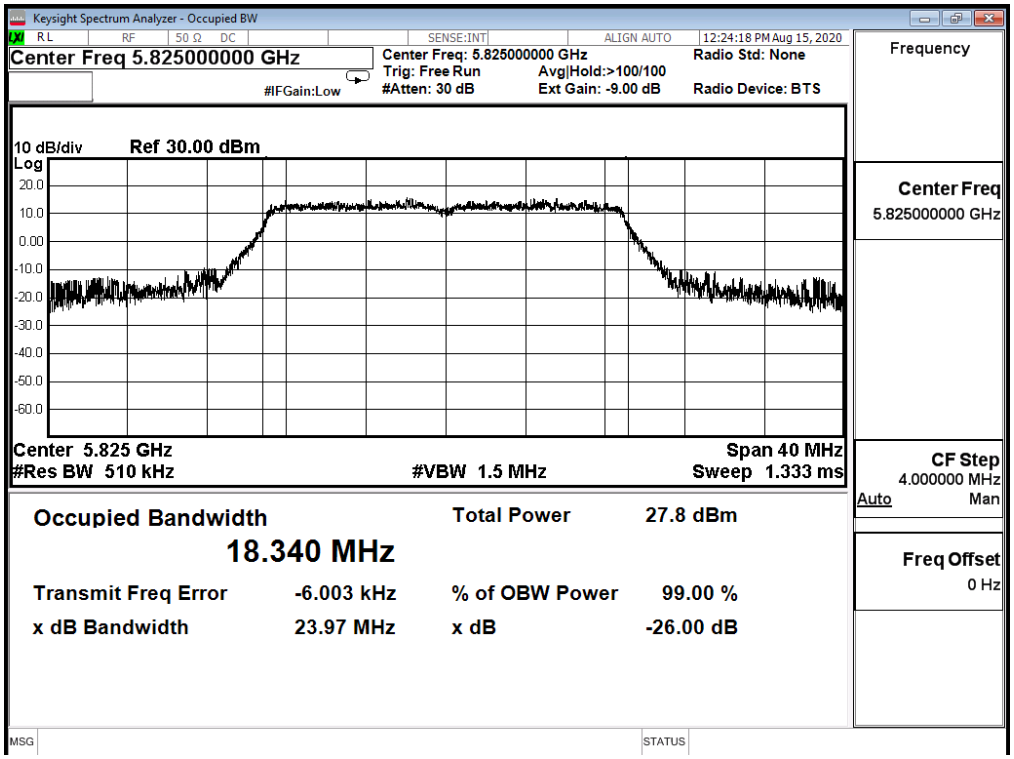
Channel 149 (5745MHz)



Channel 157 (5785MHz)



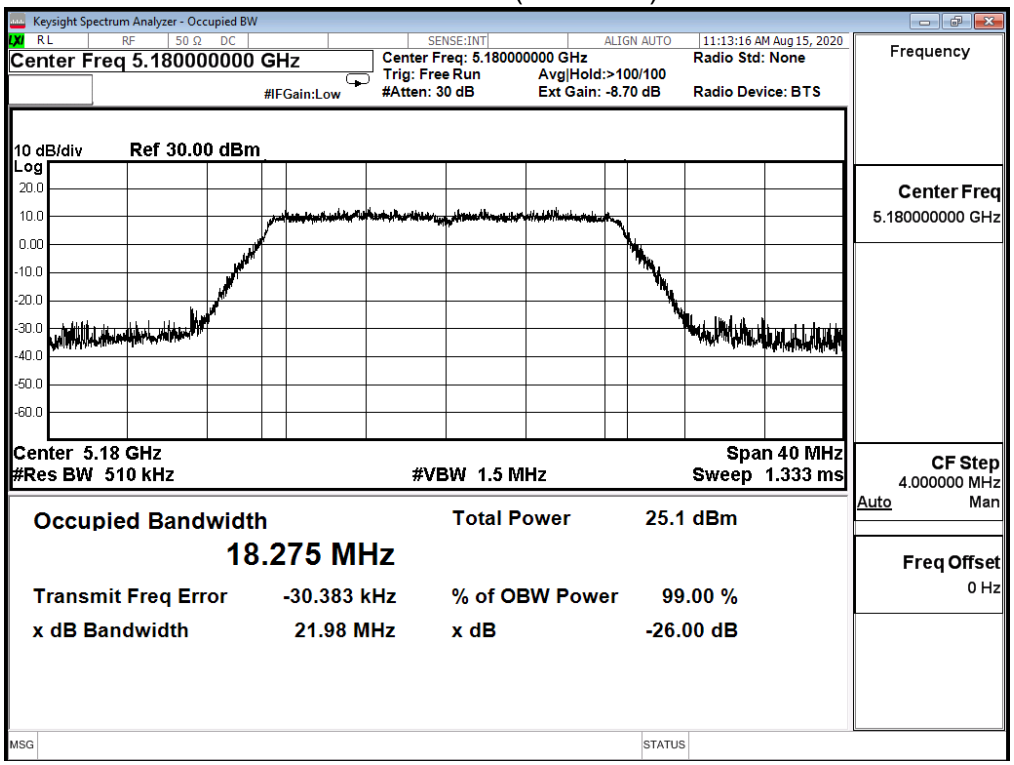
Channel165 (5825MHz)



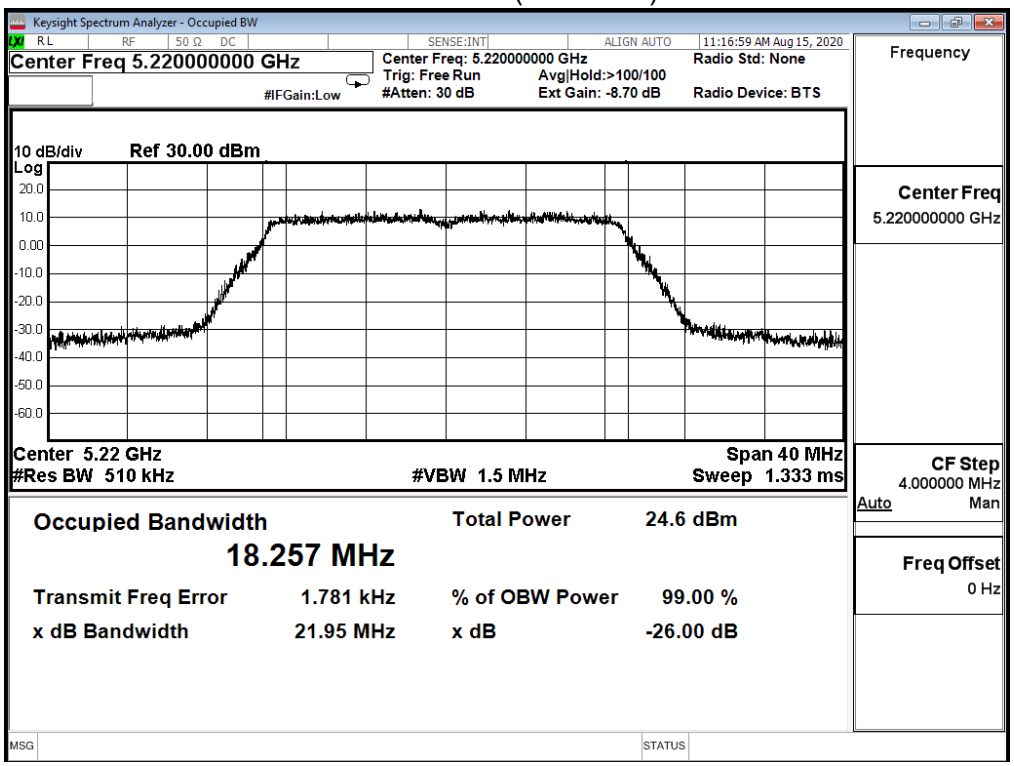
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_20M(ANT 3)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	18.275	21.980	--	Pass
44	5220	18.257	21.950	--	Pass
48	5240	18.294	21.640	--	Pass
149	5745	18.618	N/A	--	Pass
157	5785	18.427		--	Pass
165	5825	18.508		--	Pass

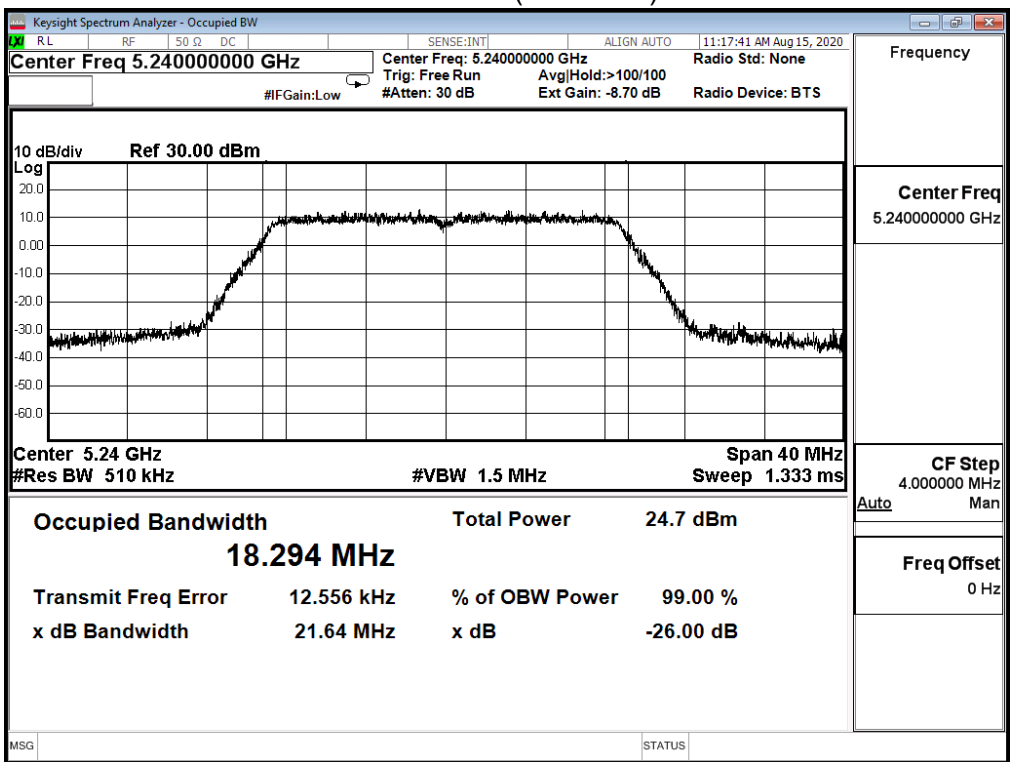
Channel 36 (5180MHz)



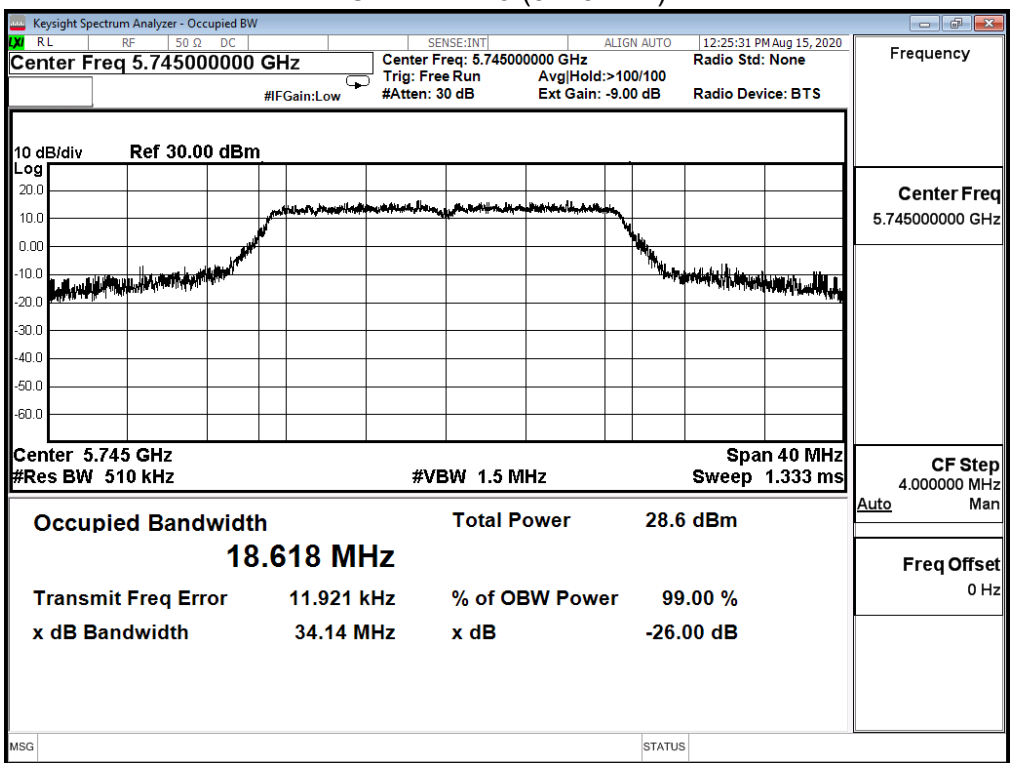
Channel 44 (5220MHz)



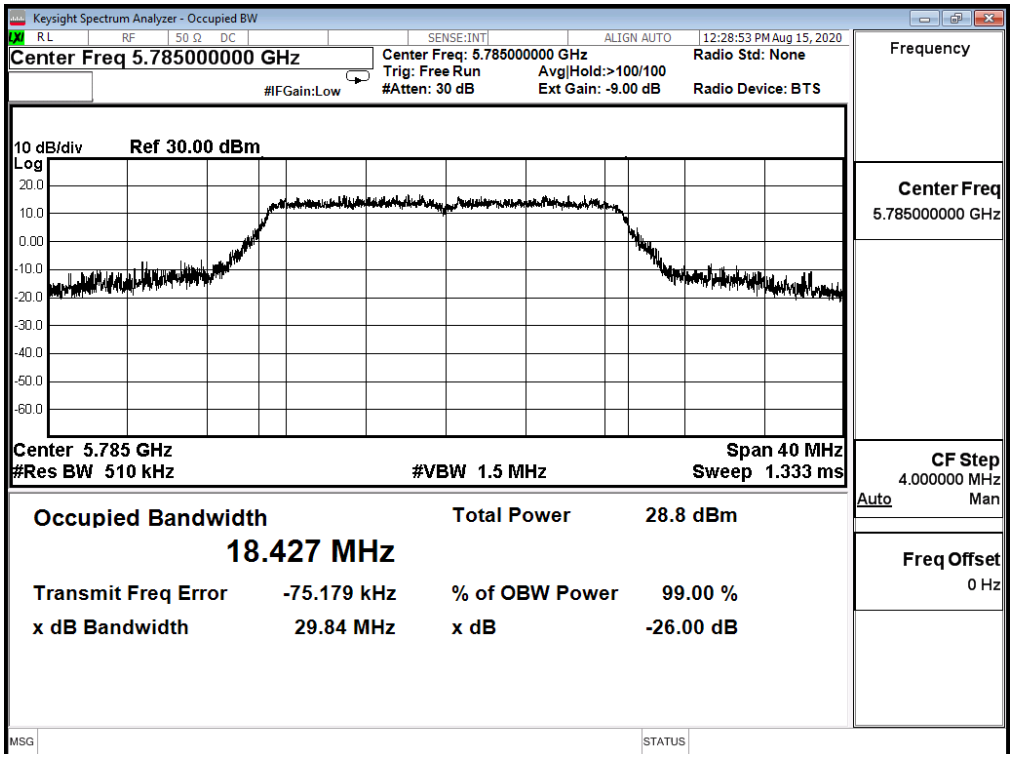
Channel 48 (5240MHz)



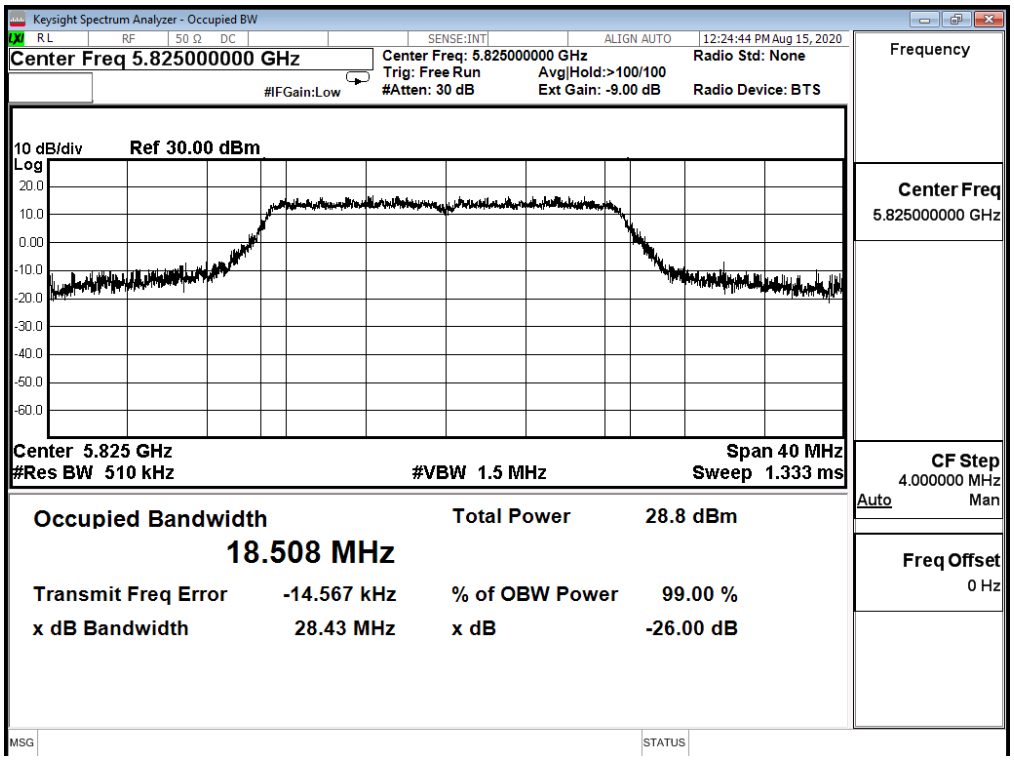
Channel 149 (5745MHz)



Channel 157 (5785MHz)



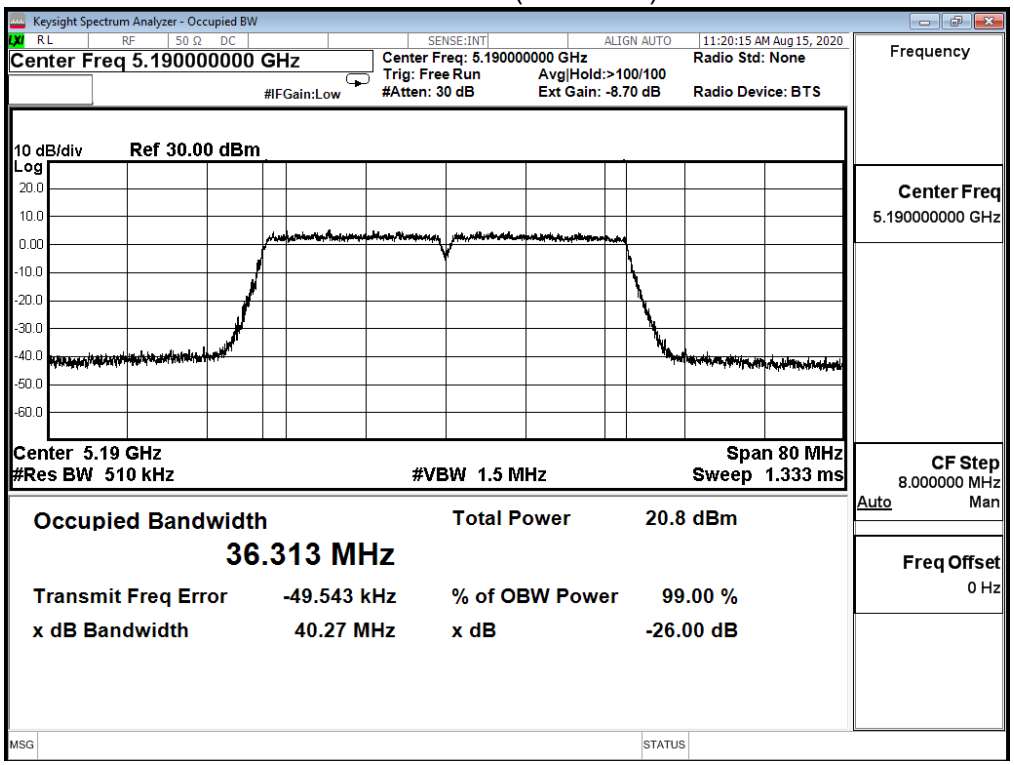
Channel165 (5825MHz)



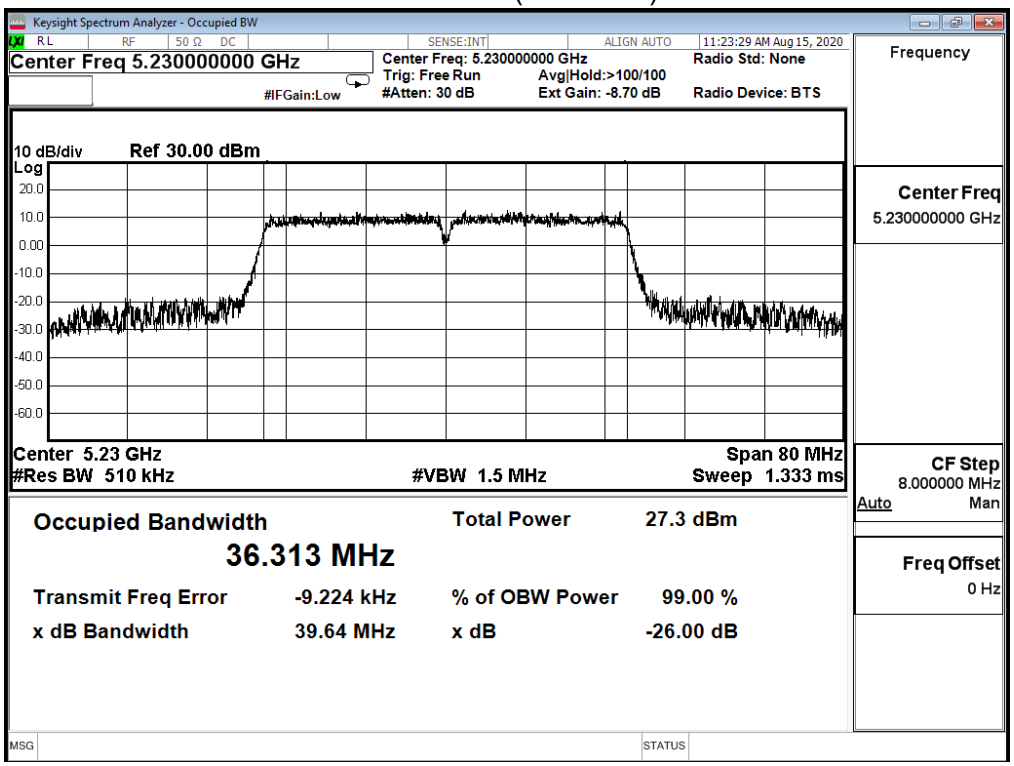
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_40M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	36.313	40.270	--	Pass
46	5230	36.313	39.640	--	Pass
151	5755	36.388	N/A	--	Pass
159	5795	36.484		--	Pass

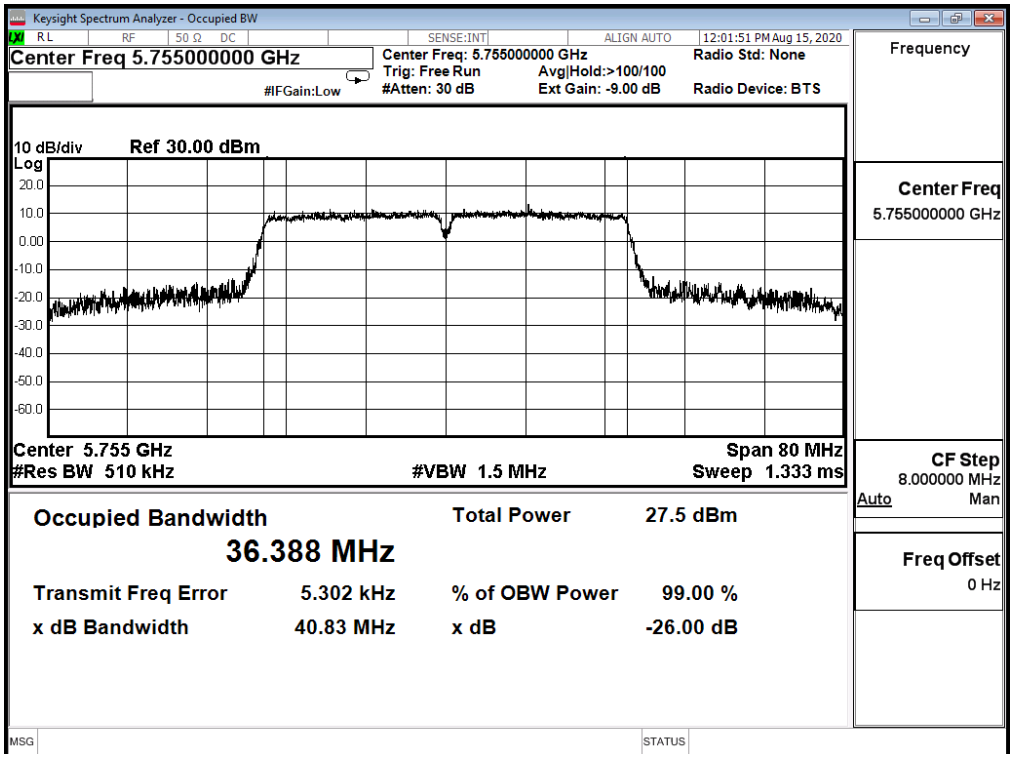
Channel 38 (5190MHz)



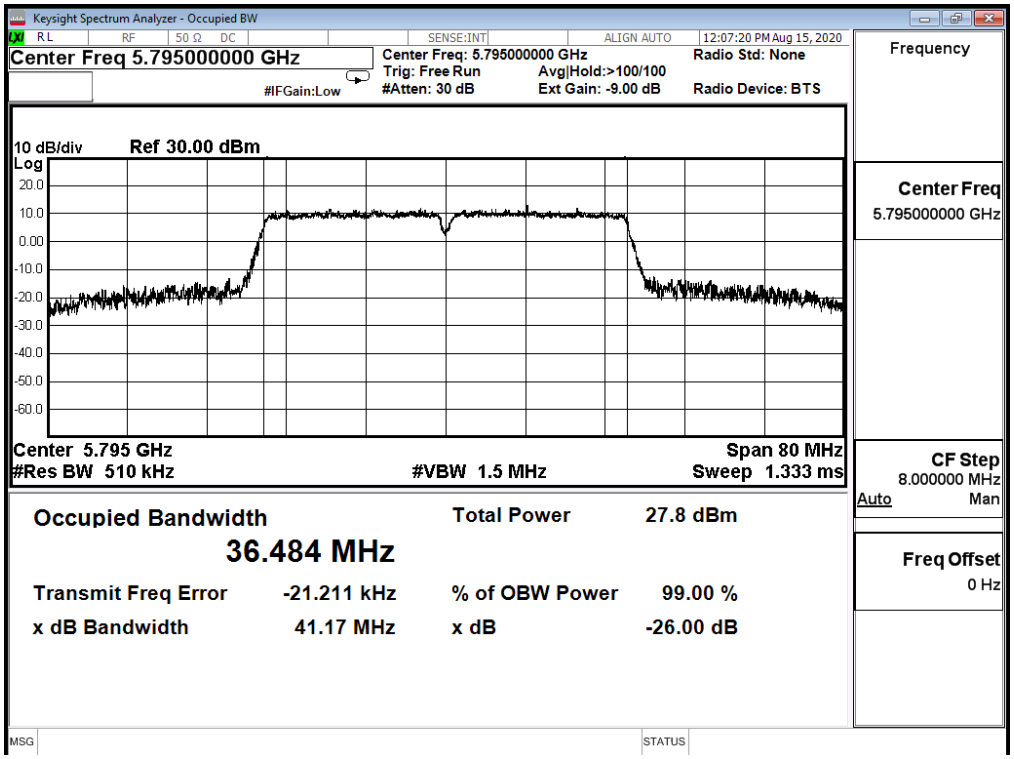
Channel 46 (5230MHz)



Channel 151 (5755MHz)



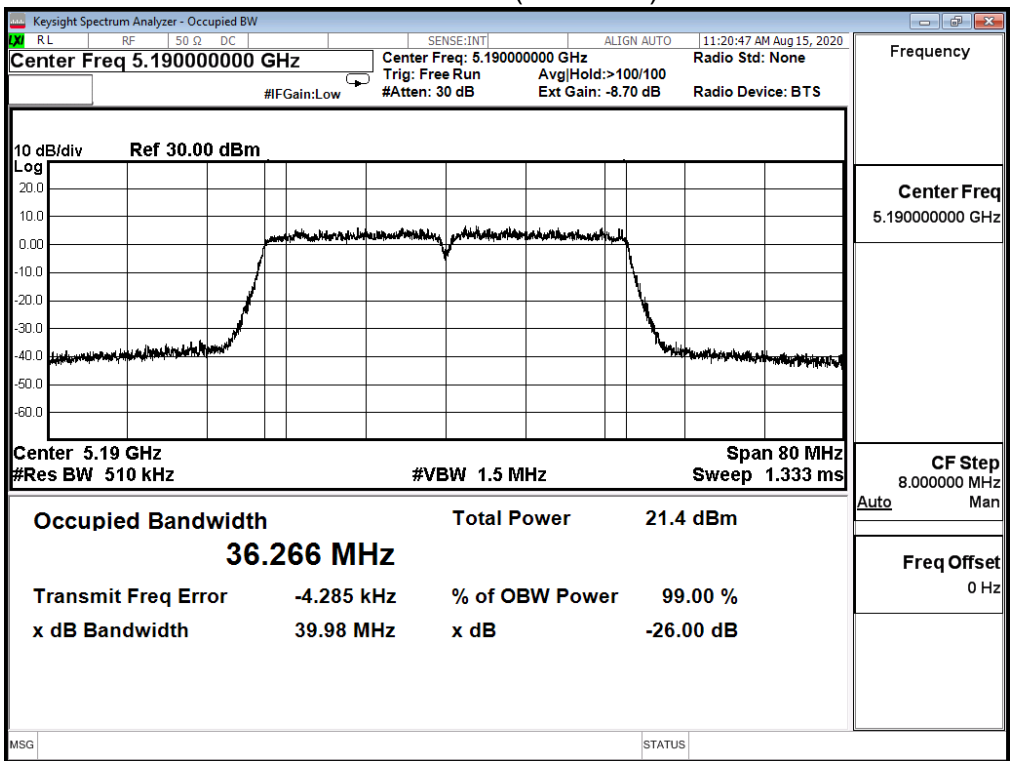
Channel 159 (5795MHz)



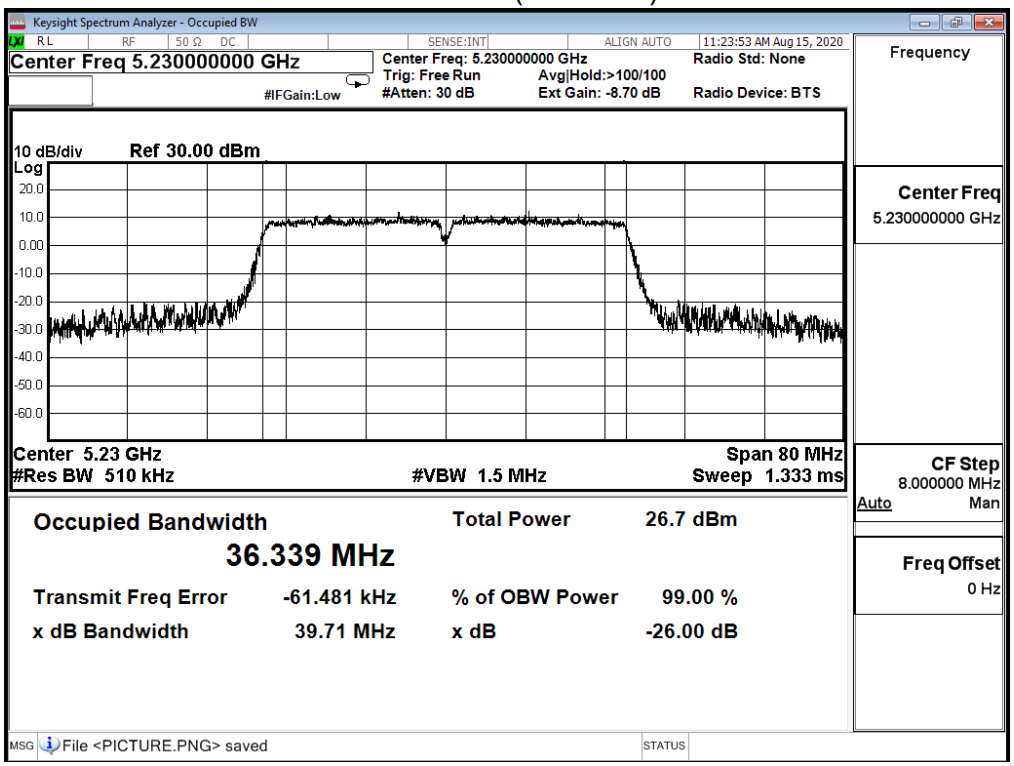
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_40M(ANT 1)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	36.266	39.980	--	Pass
46	5230	36.339	39.710	--	Pass
151	5755	36.375	N/A	--	Pass
159	5795	36.392		--	Pass

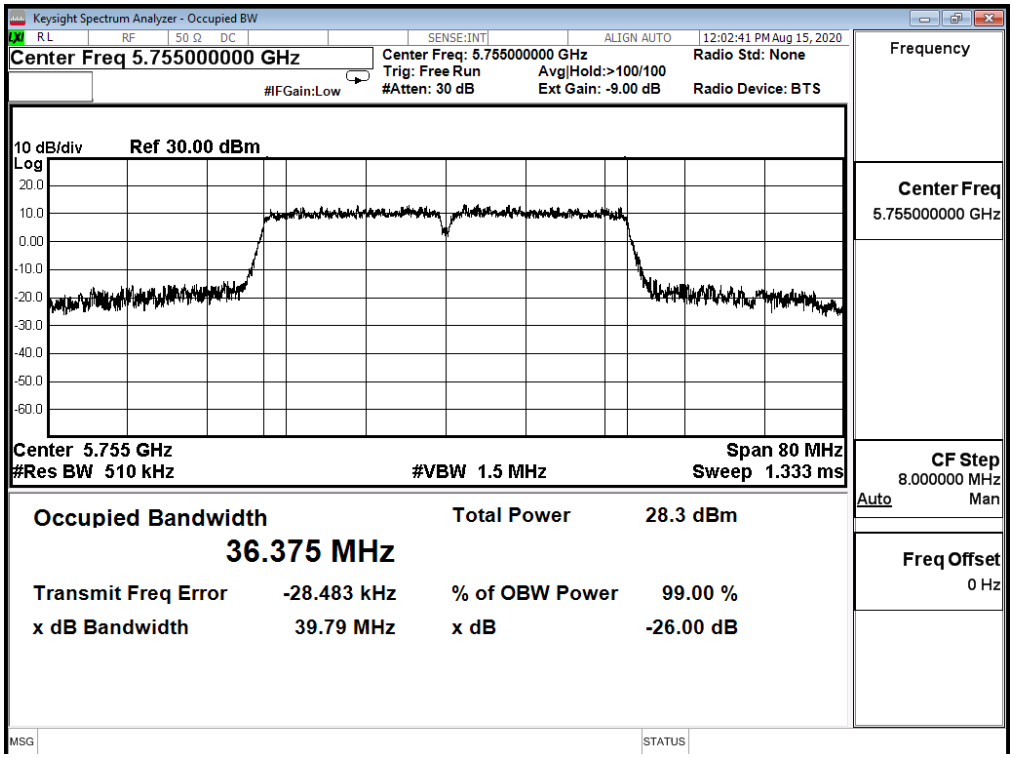
Channel 38 (5190MHz)



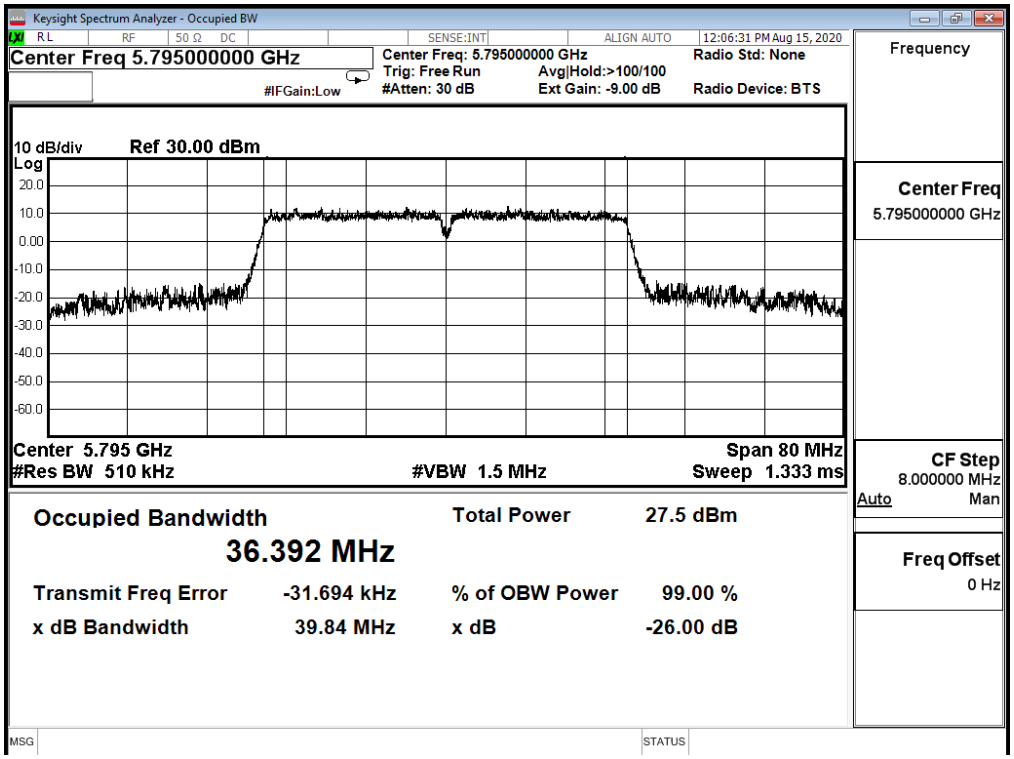
Channel 46 (5230MHz)



Channel 151 (5755MHz)



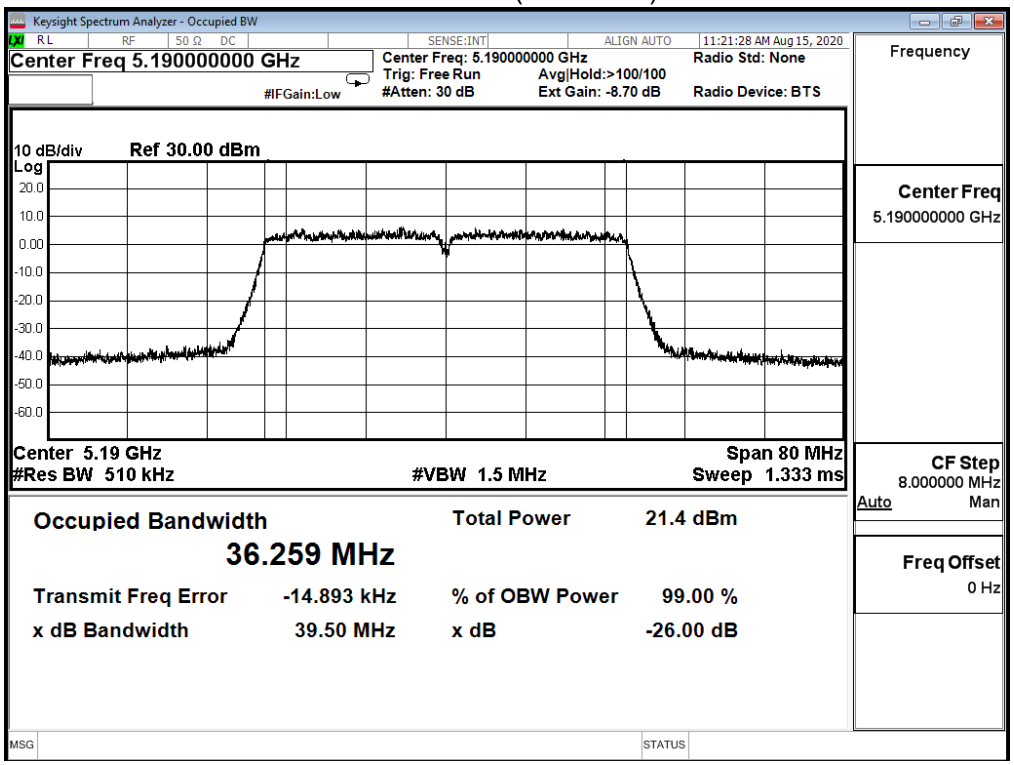
Channel 159 (5795MHz)



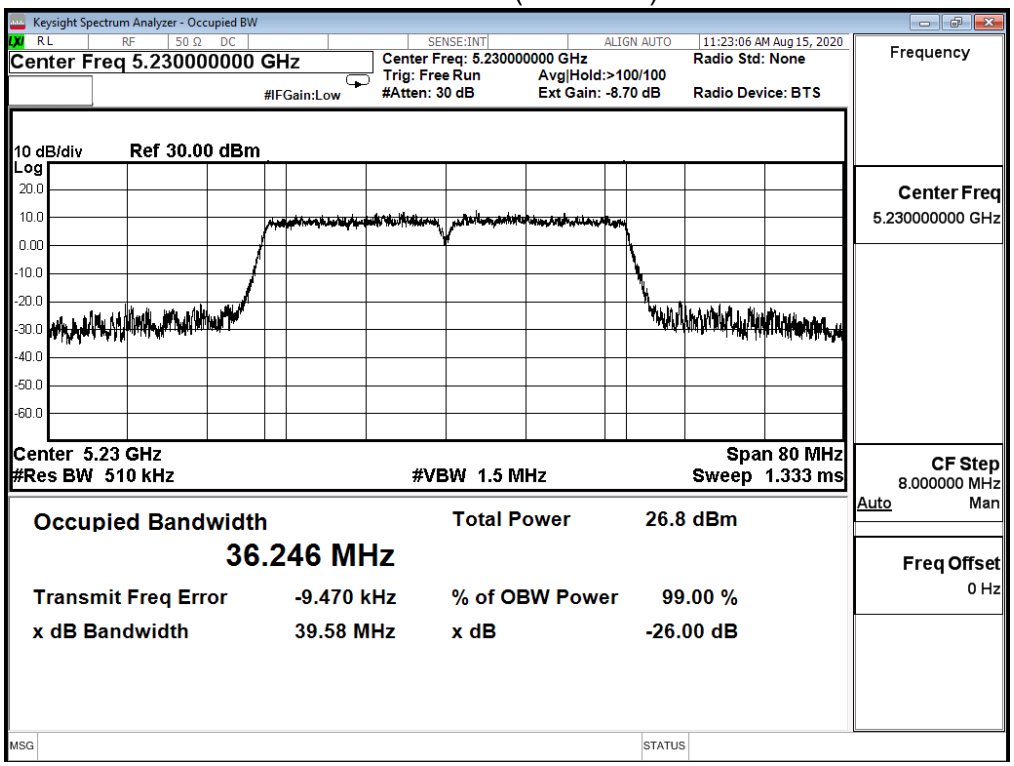
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ac_40M(ANT 2)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	36.259	39.500	--	Pass
46	5230	36.246	39.580	--	Pass
151	5755	36.304	N/A	--	Pass
159	5795	36.367		--	Pass

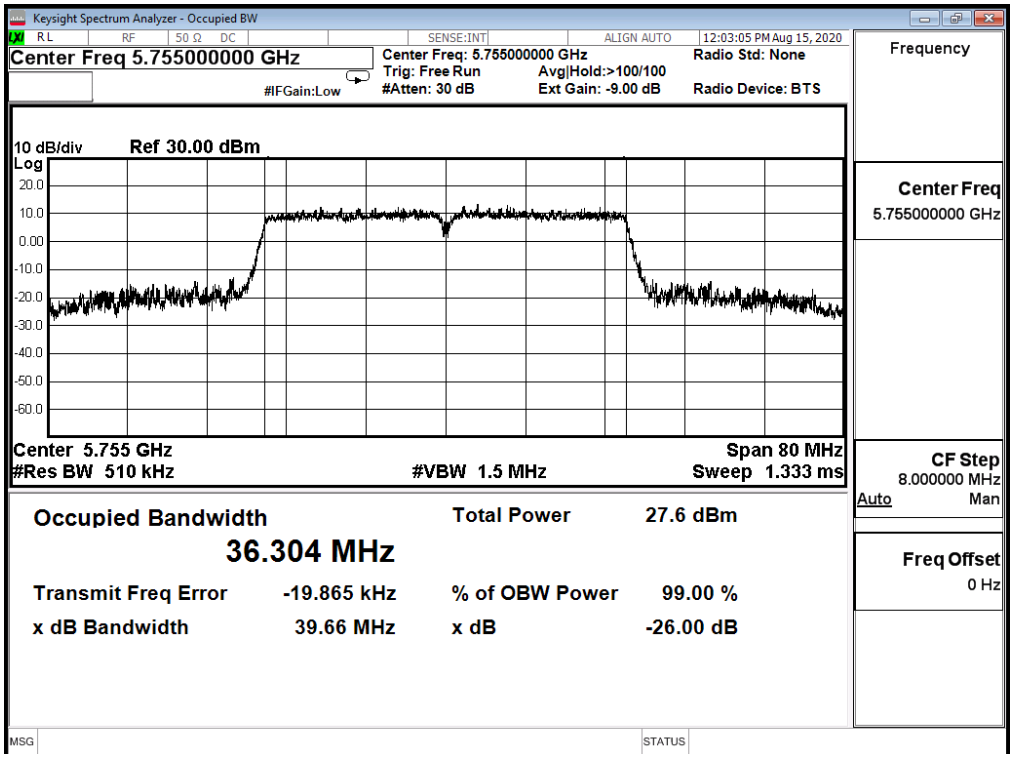
Channel 38 (5190MHz)



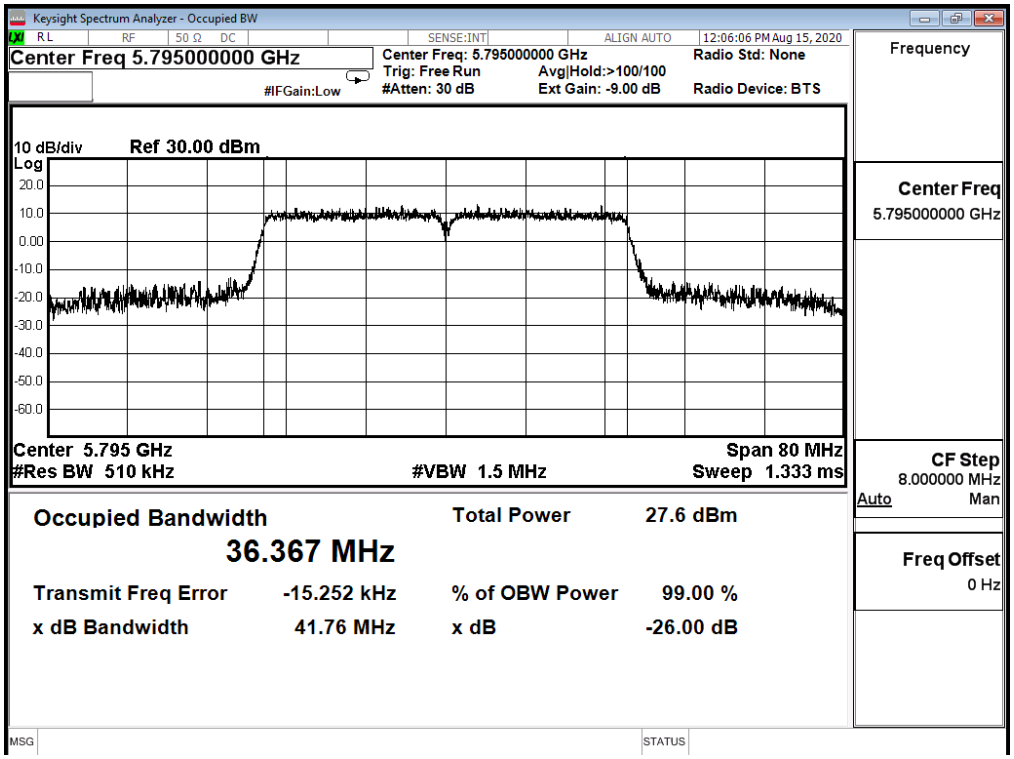
Channel 46 (5230MHz)



Channel 151 (5755MHz)



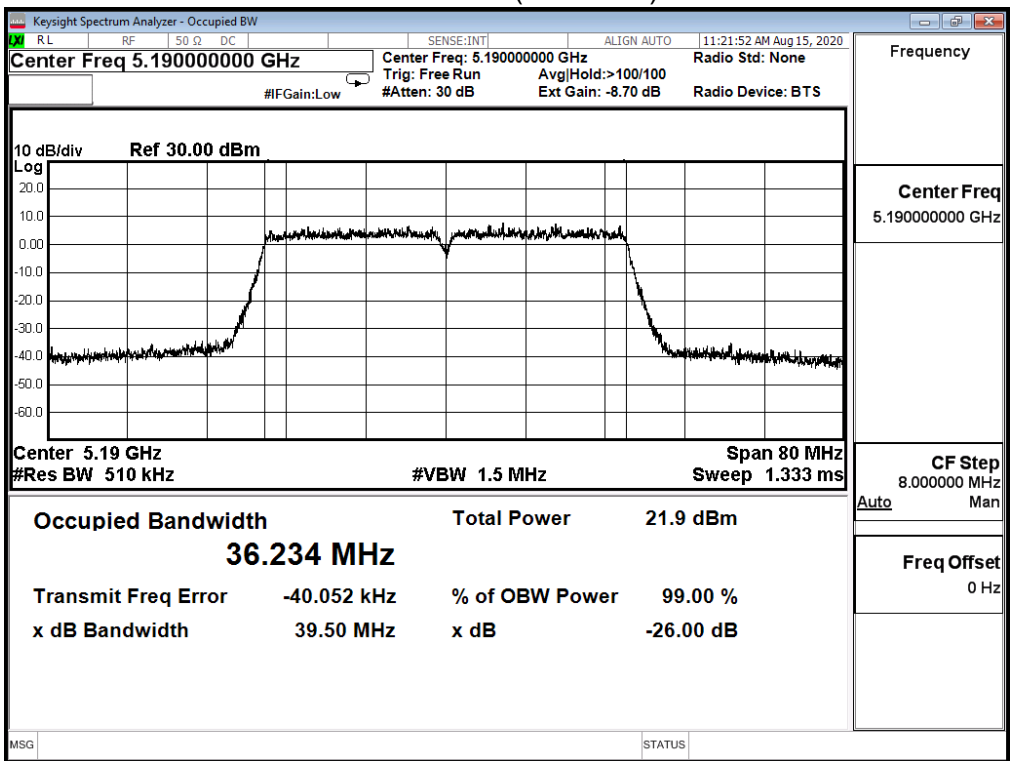
Channel 159 (5795MHz)



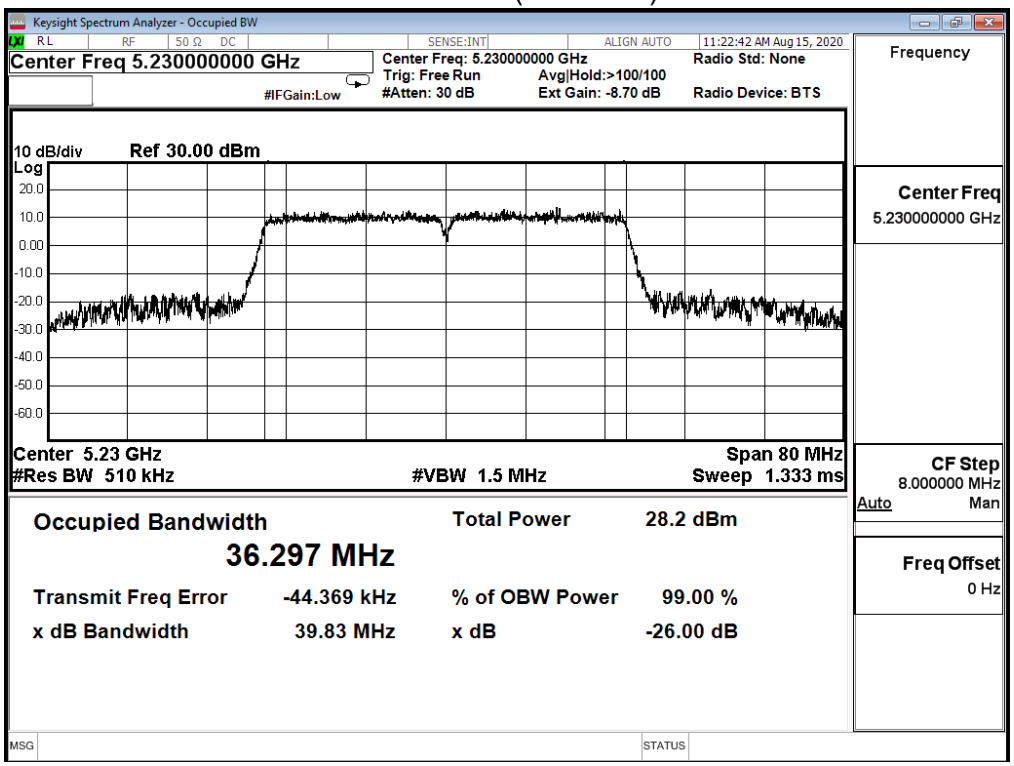
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0％

IEEE 802.11ac_40M(ANT 3)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	36.234	39.500	--	Pass
46	5230	36.297	39.830	--	Pass
151	5755	36.497	N/A	--	Pass
159	5795	36.481		--	Pass

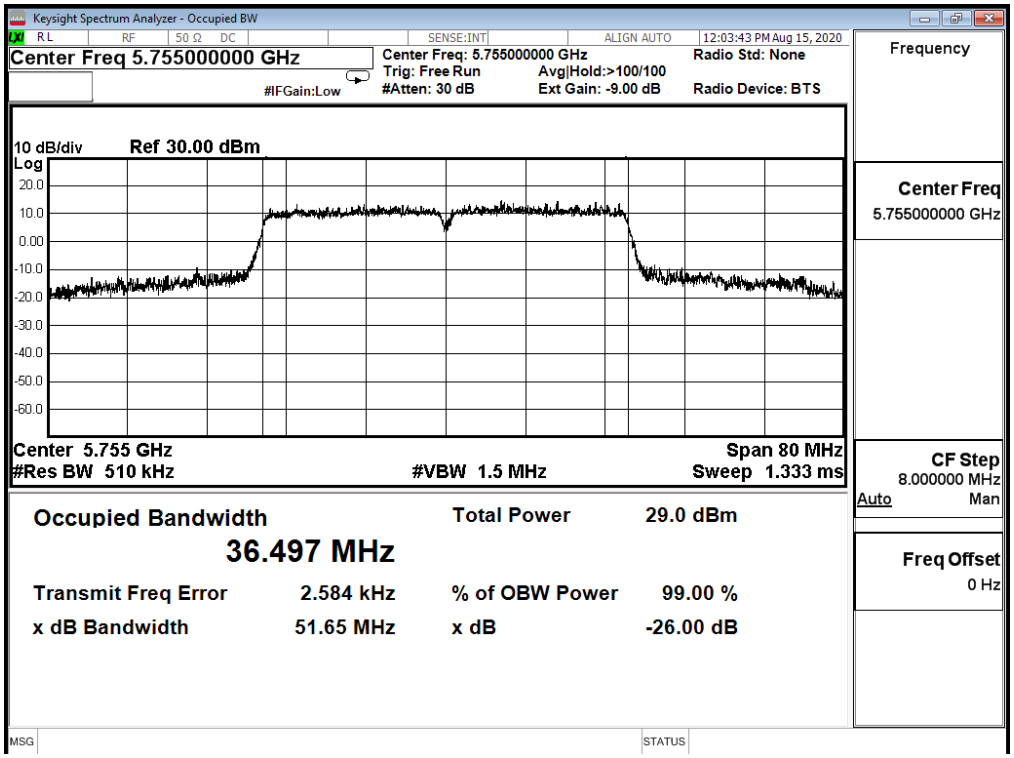
Channel 38 (5190MHz)



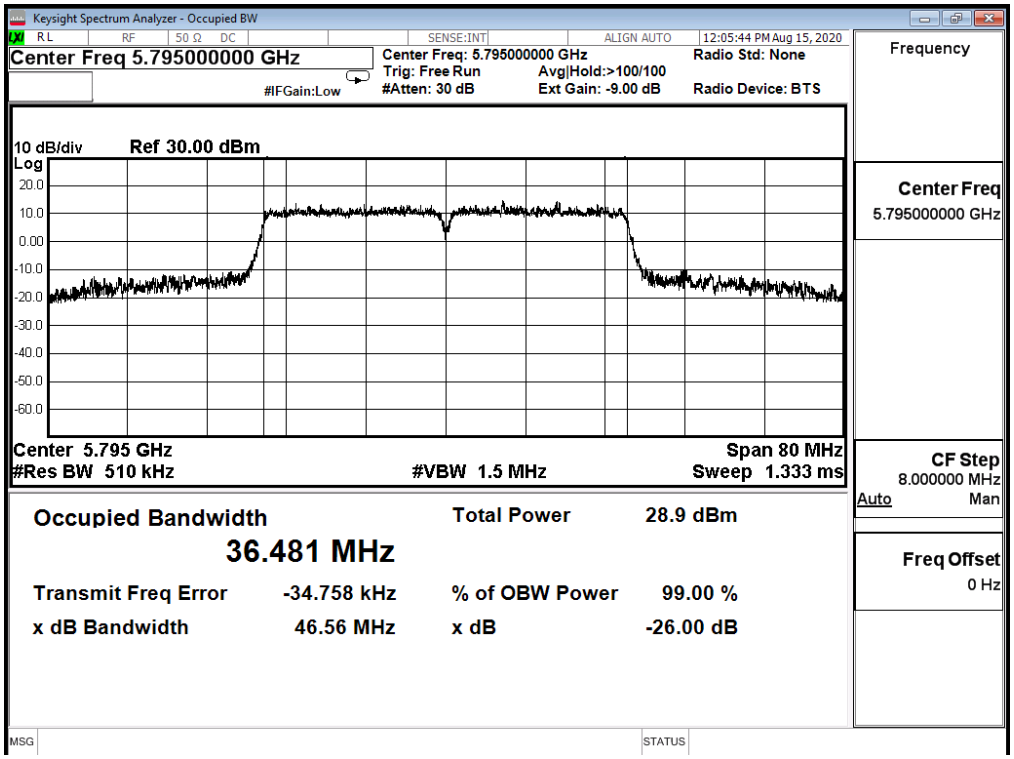
Channel 46 (5230MHz)



Channel 151 (5755MHz)



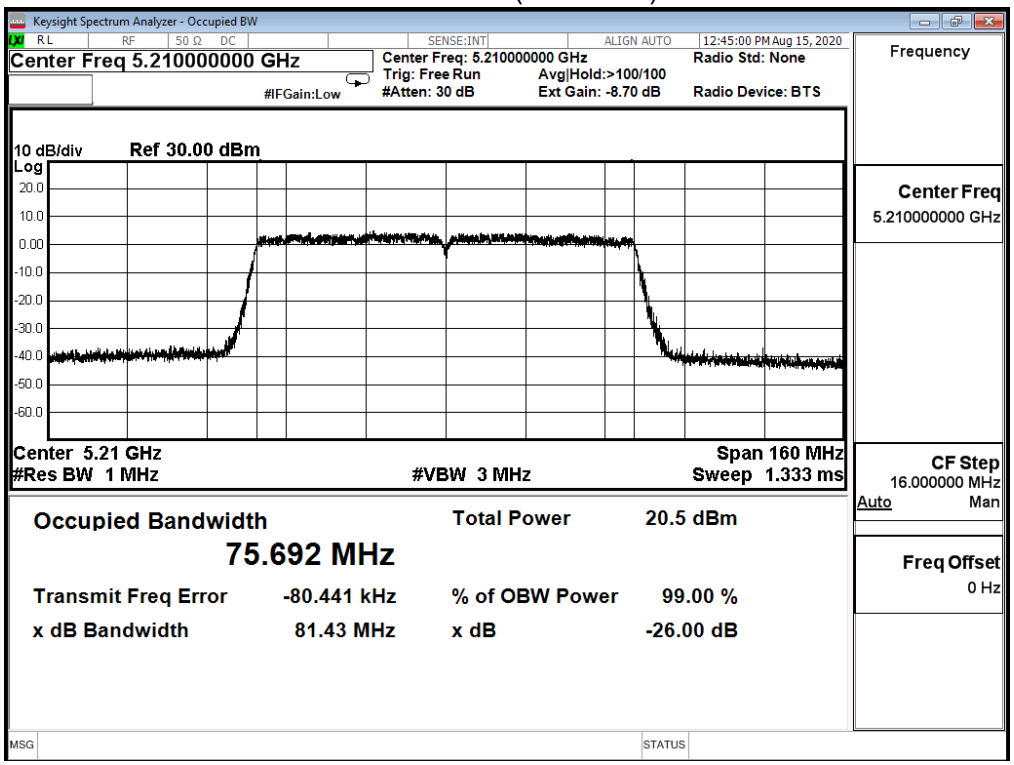
Channel 159 (5795MHz)



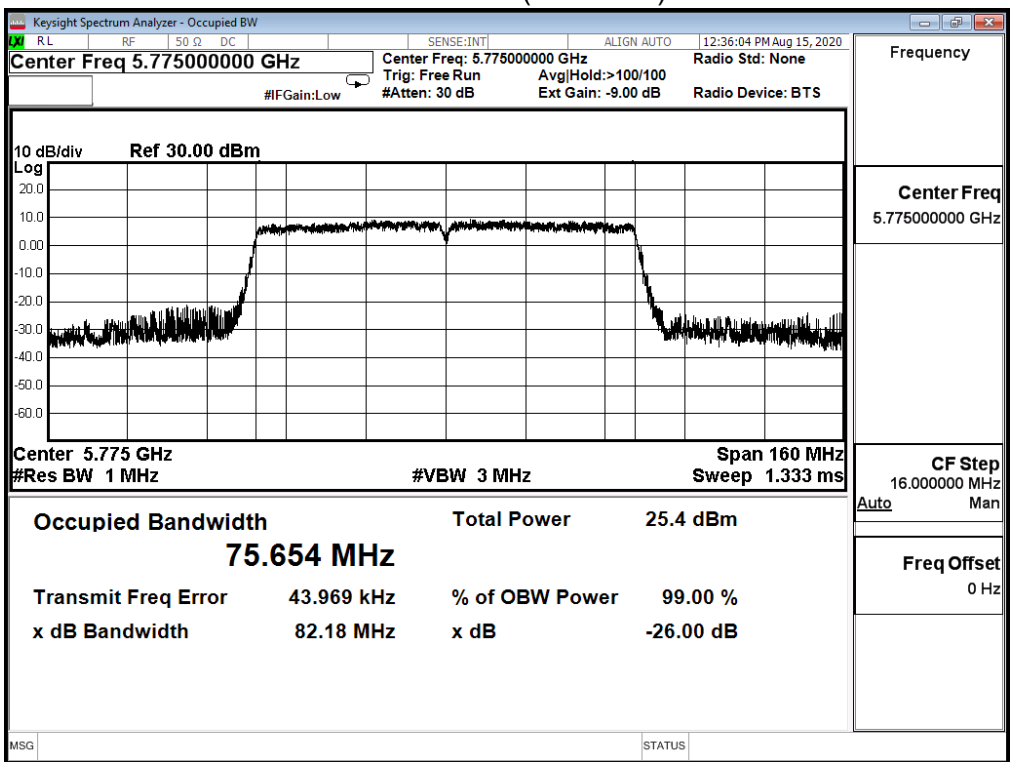
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0％

IEEE 802.11ac_80M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
42	5210	75.692	81.430	--	Pass
155	5775	75.654	N/A	--	Pass

Channel 42 (5210MHz)



Channel 155 (5775MHz)

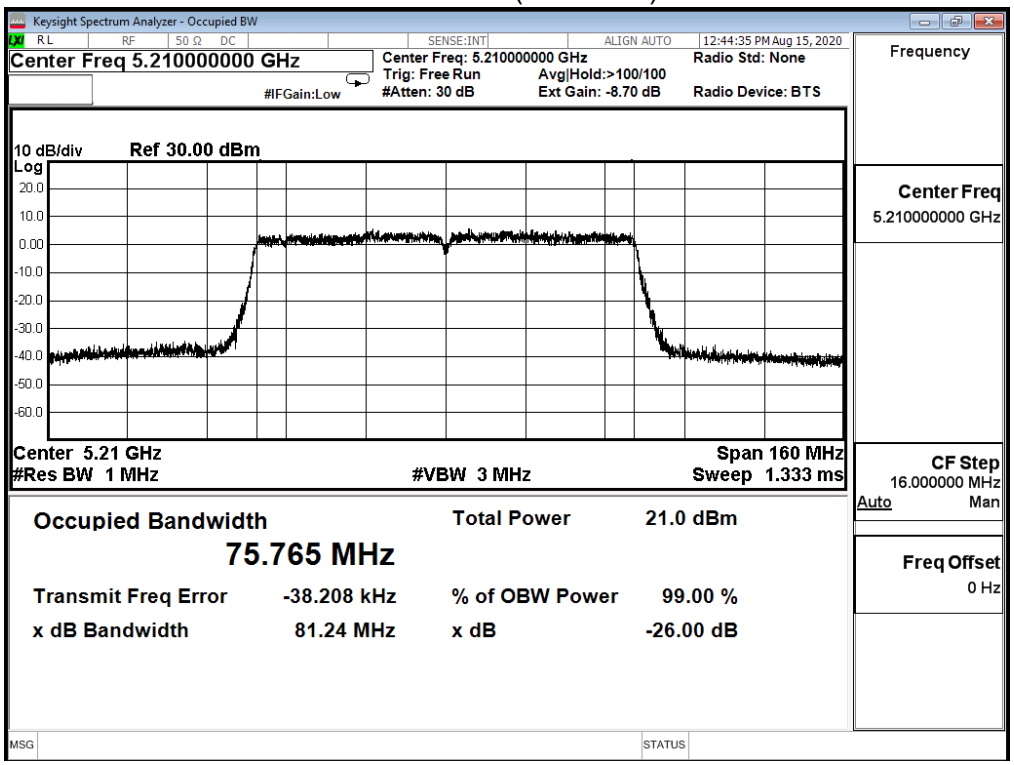


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

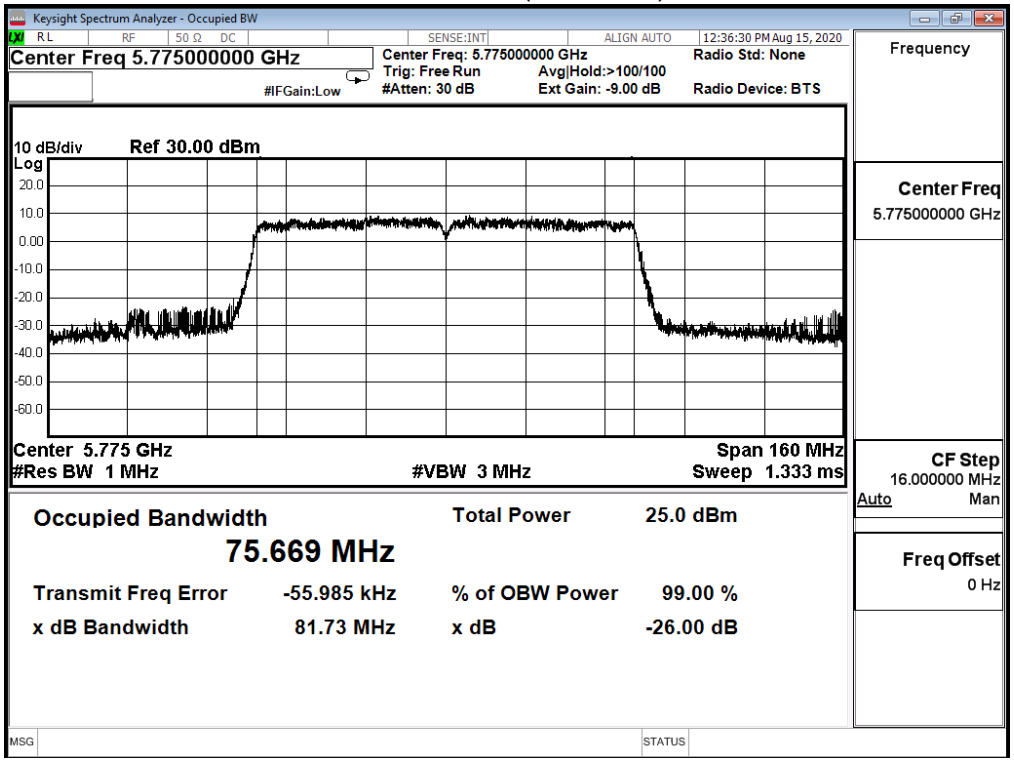
IEEE 802.11ac_80M(ANT 1)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
42	5210	75.765	81.240	--	Pass
155	5775	75.669	N/A	--	Pass

Channel 42 (5210MHz)



Channel 155 (5775MHz)

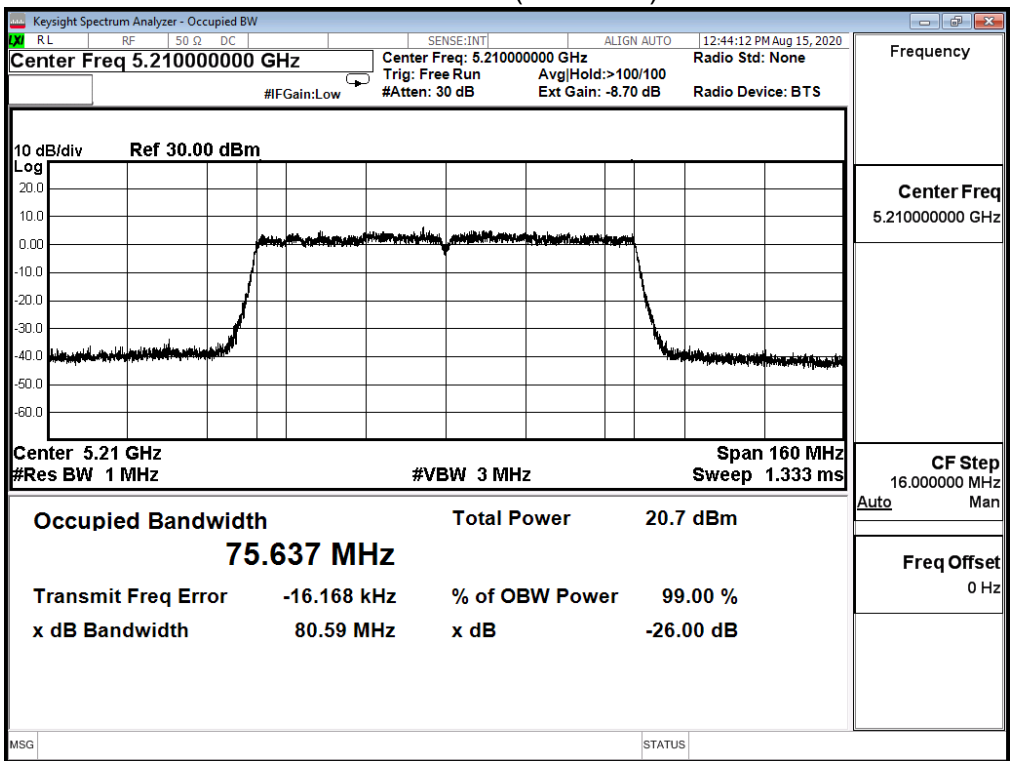


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

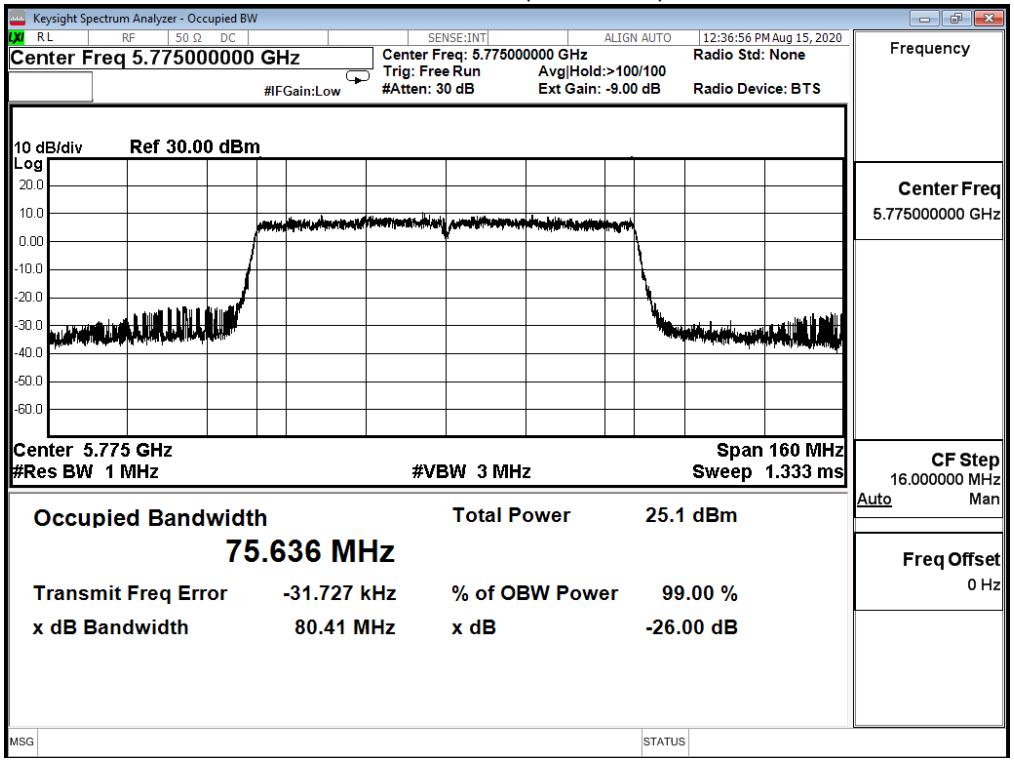
IEEE 802.11ac_80M(ANT 2)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
42	5210	75.637	80.590	--	Pass
155	5775	75.636	N/A	--	Pass

Channel 42 (5210MHz)



Channel 155 (5775MHz)

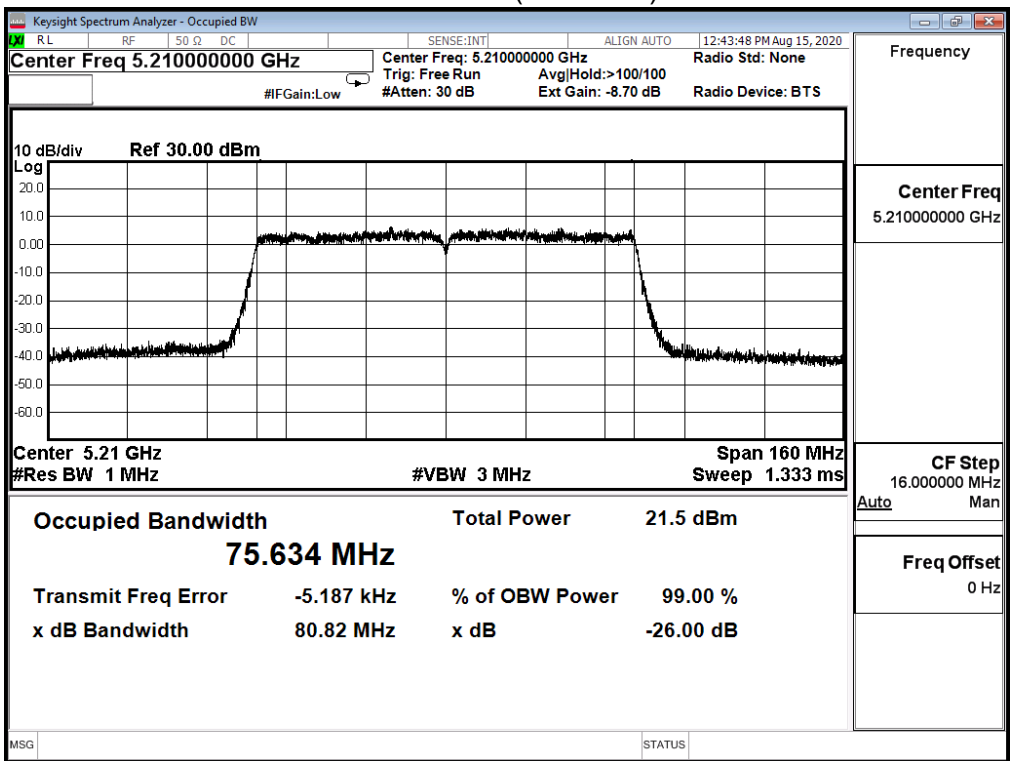


Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

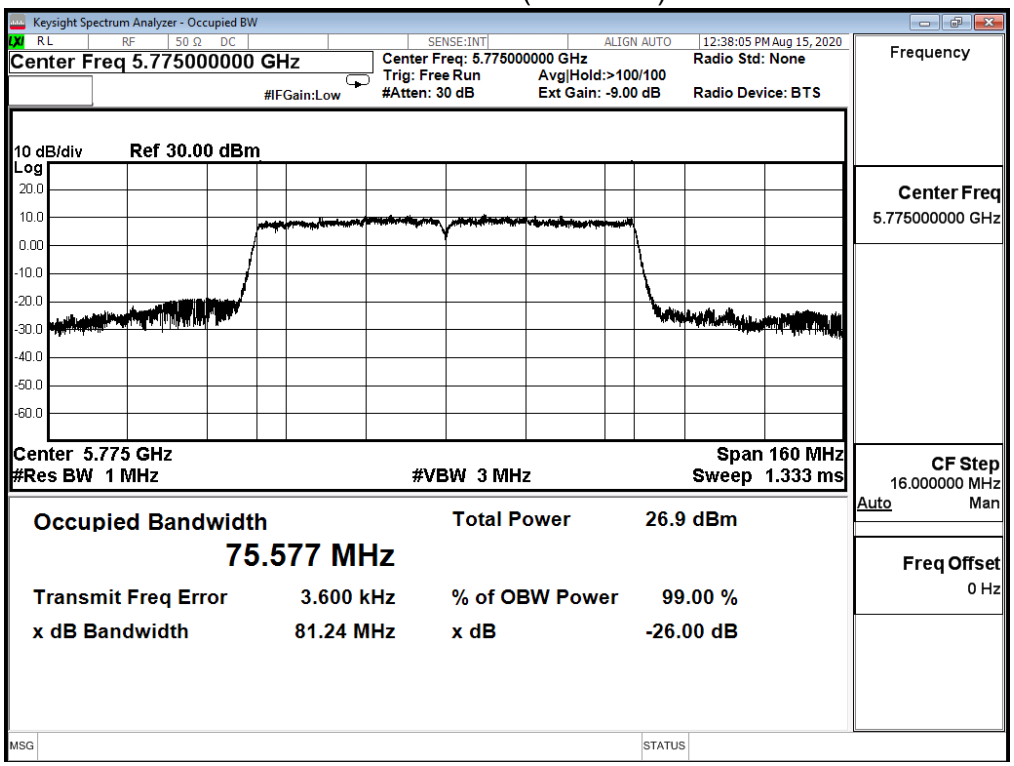
IEEE 802.11ac_80M(ANT 3)

Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
42	5210	75.634	80.820	--	Pass
155	5775	75.577	N/A	--	Pass

Channel 42 (5210MHz)



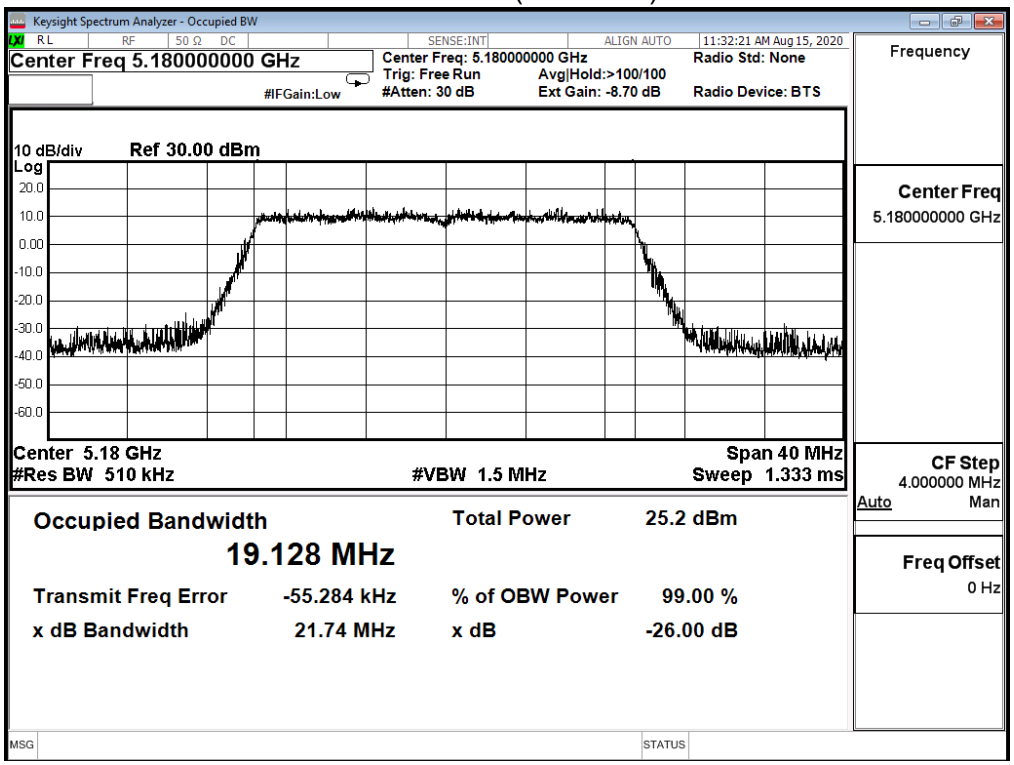
Channel 155 (5775MHz)



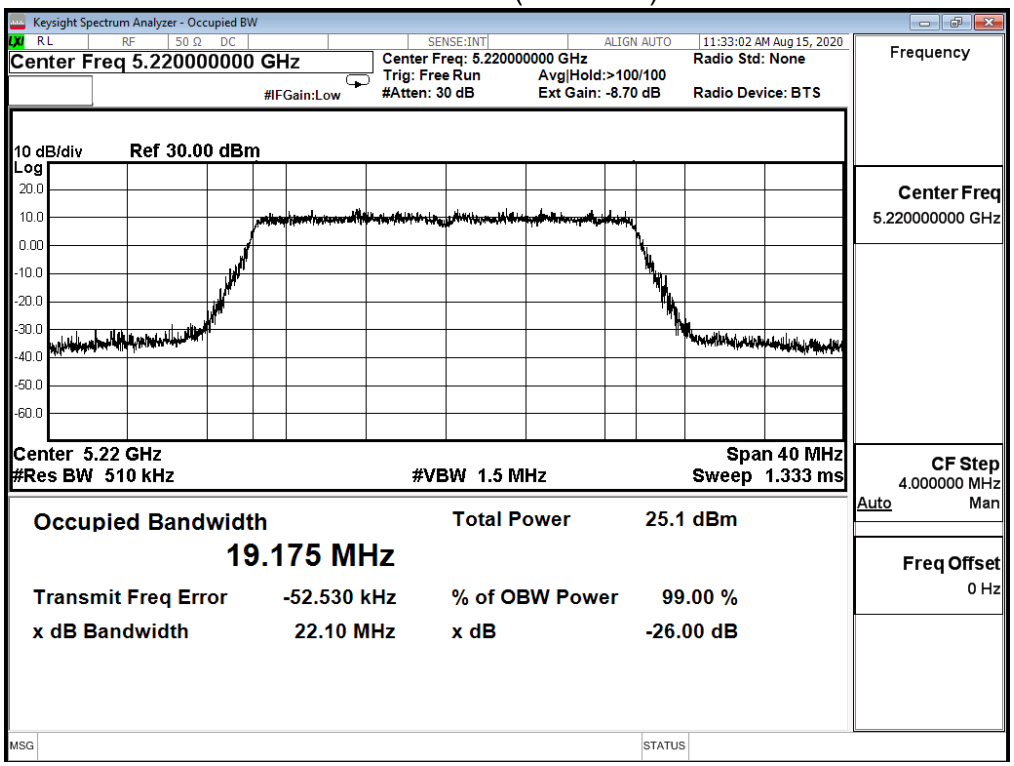
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_20M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	19.128	21.740	--	Pass
44	5220	19.175	22.100	--	Pass
48	5240	19.137	21.770	--	Pass
149	5745	19.212	N/A	--	Pass
157	5785	19.162		--	Pass
165	5825	19.219		--	Pass

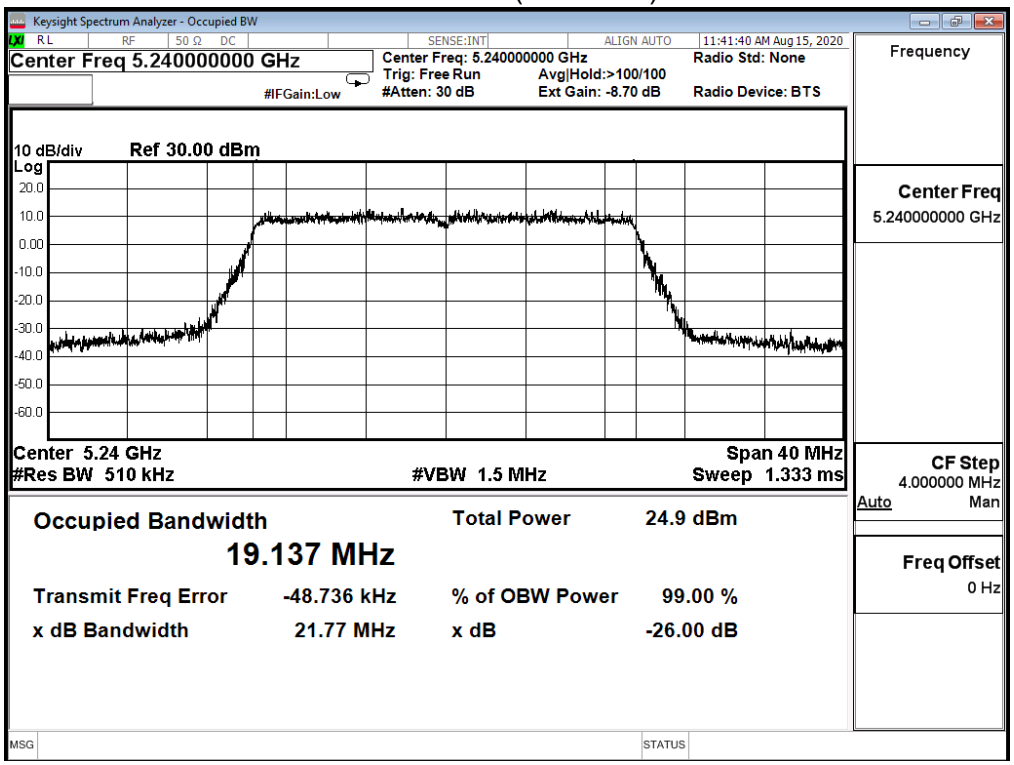
Channel 36 (5180MHz)



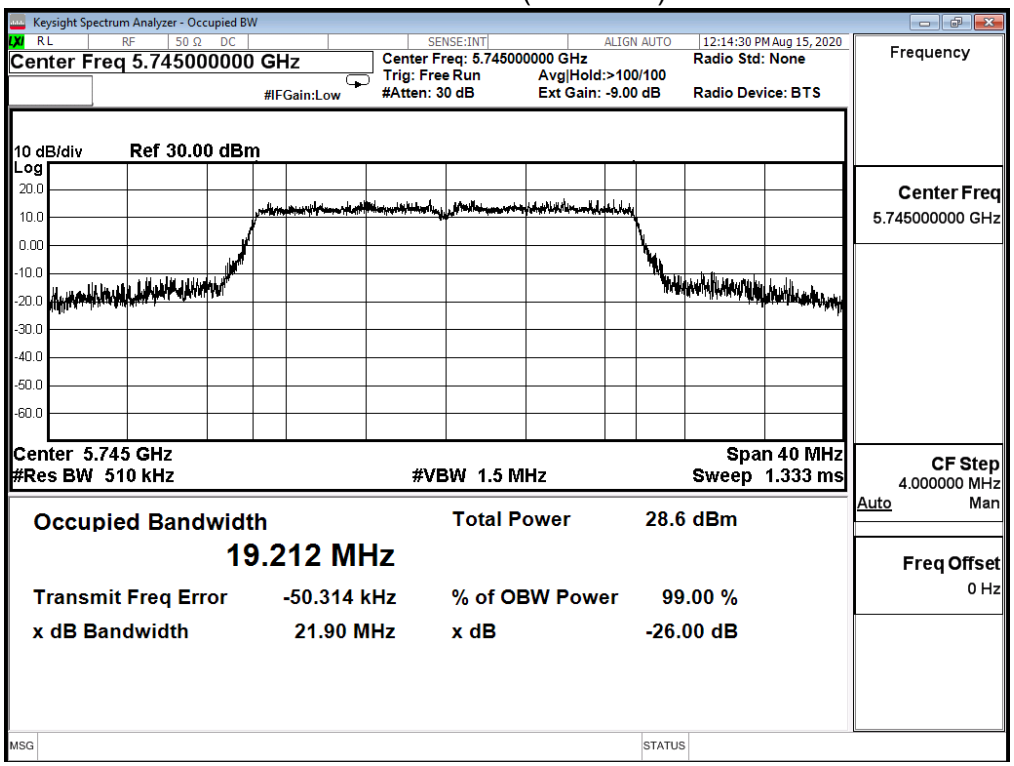
Channel 44 (5220MHz)



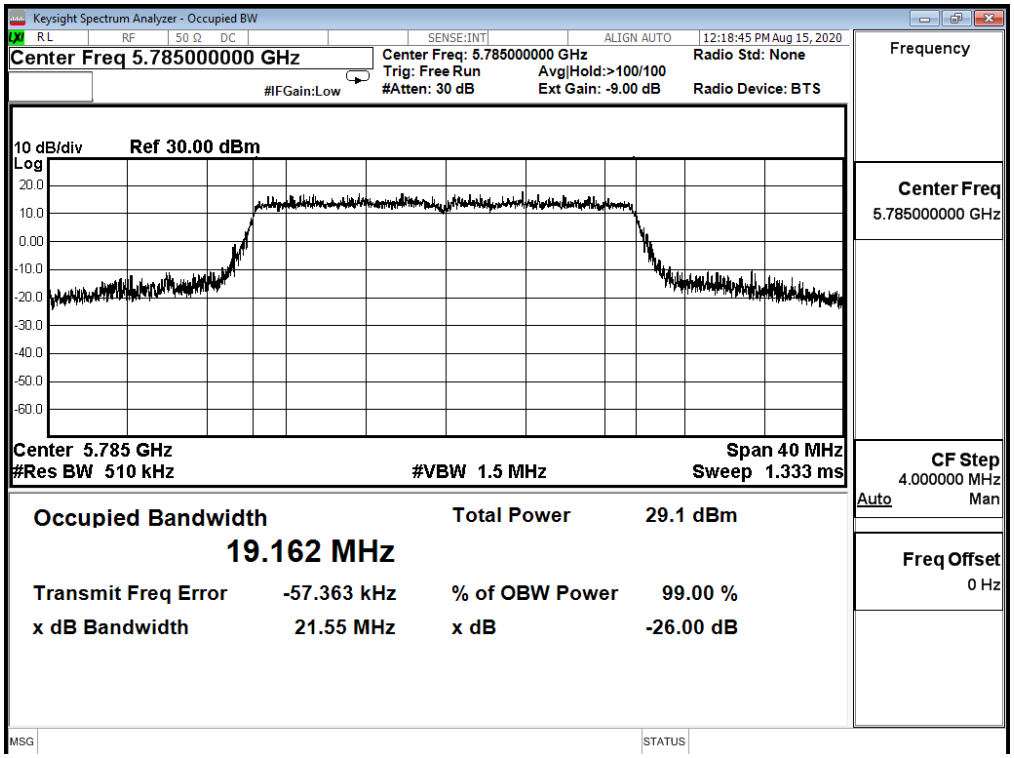
Channel 48 (5240MHz)



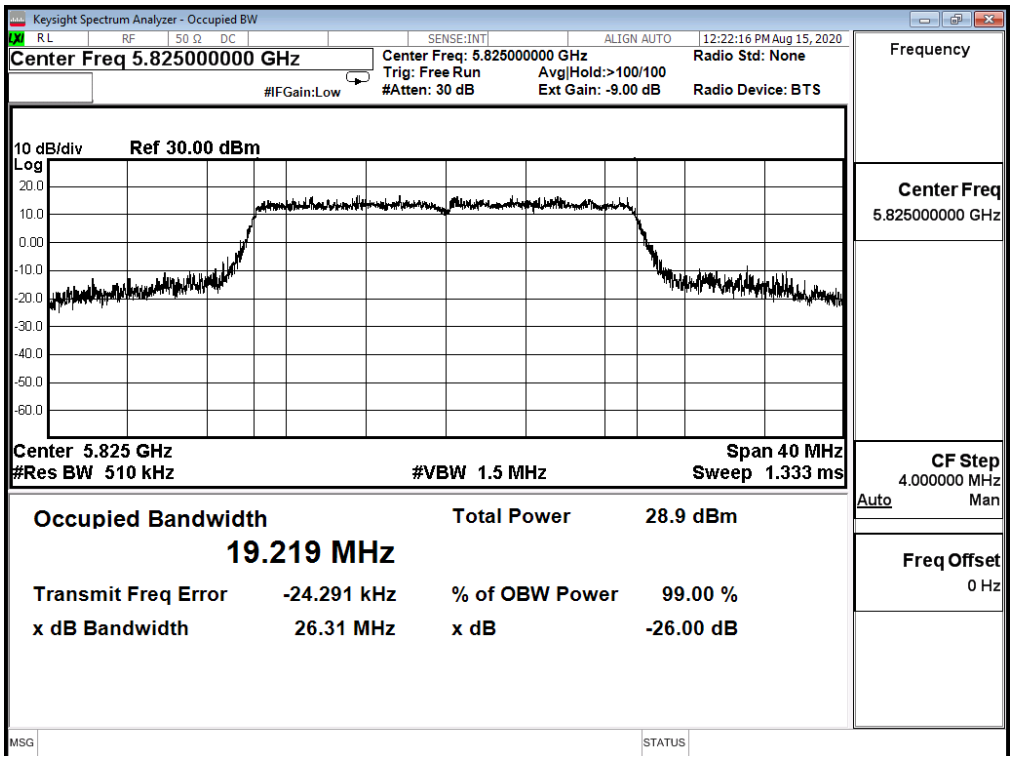
Channel 149 (5745MHz)



Channel 157 (5785MHz)



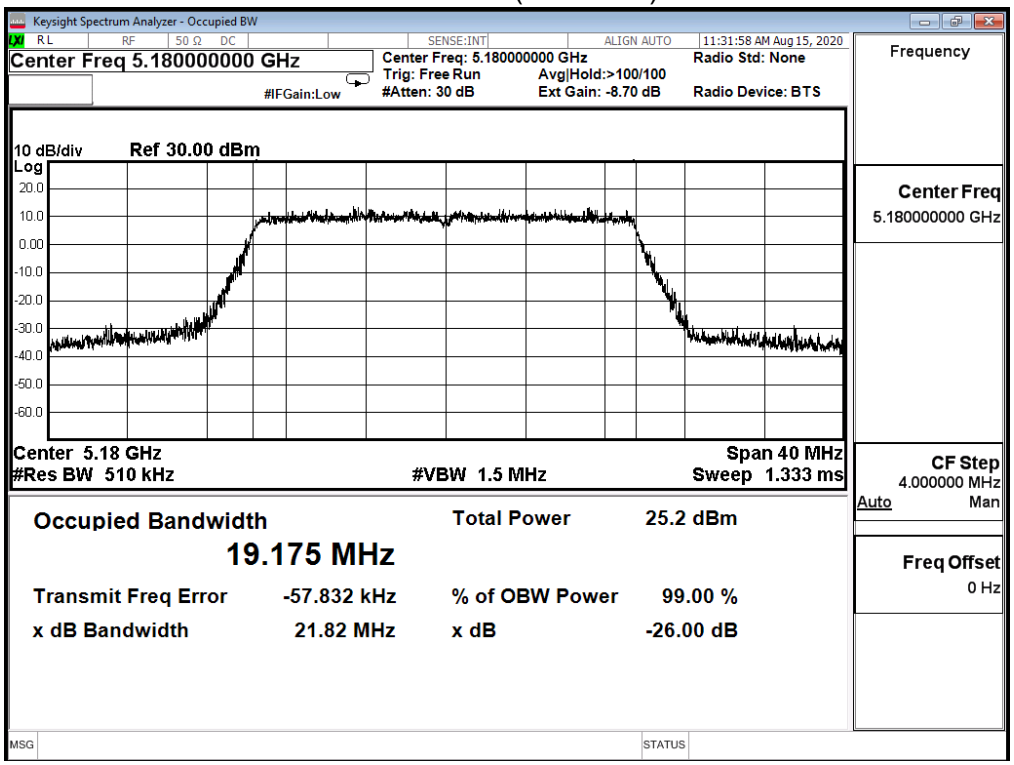
Channel 165 (5825MHz)



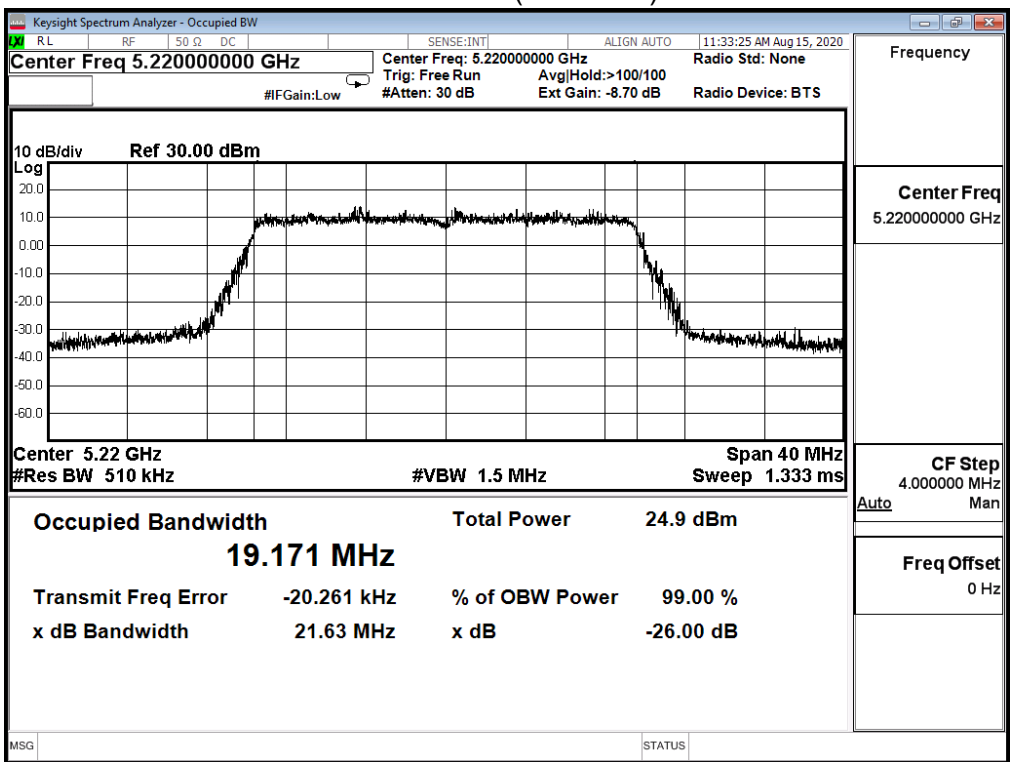
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_20M(ANT 1)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	19.175	21.820	--	Pass
44	5220	19.171	21.630	--	Pass
48	5240	19.224	22.150	--	Pass
149	5745	19.262	N/A	--	Pass
157	5785	19.246		--	Pass
165	5825	19.264		--	Pass

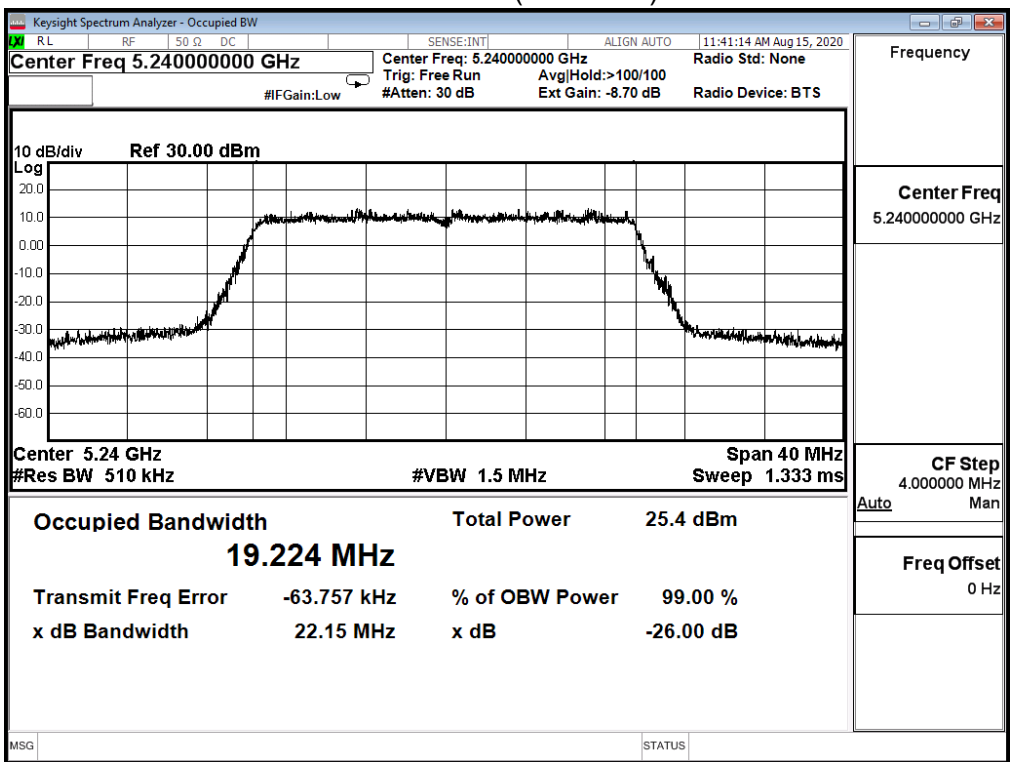
Channel 36 (5180MHz)



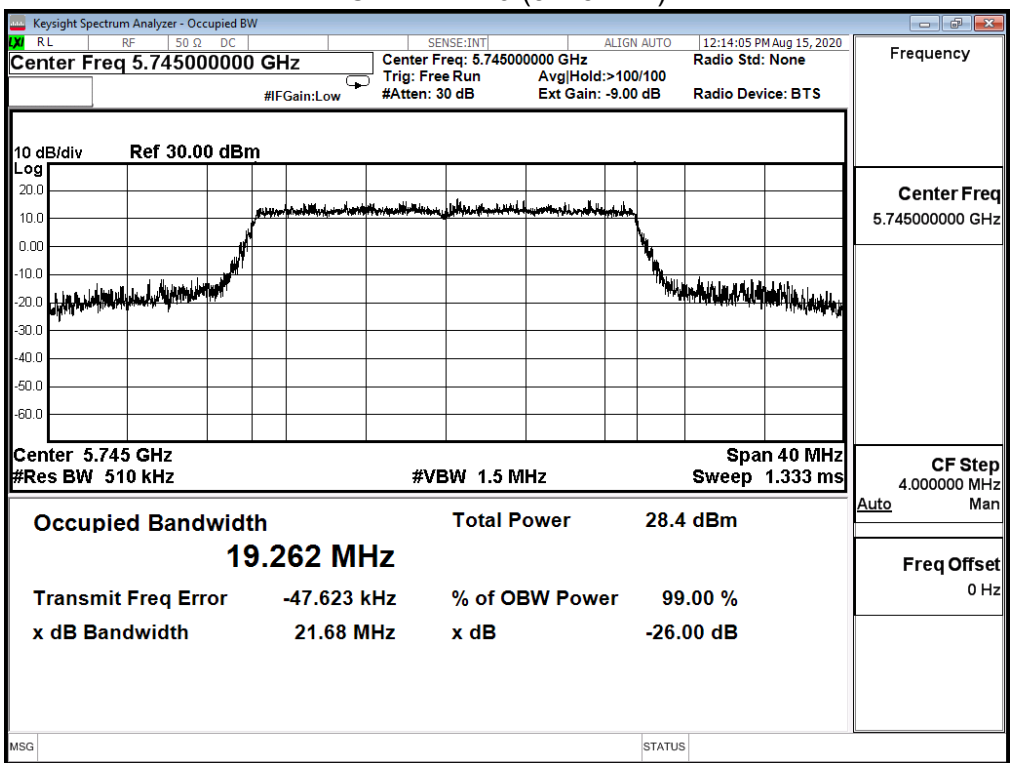
Channel 44 (5220MHz)



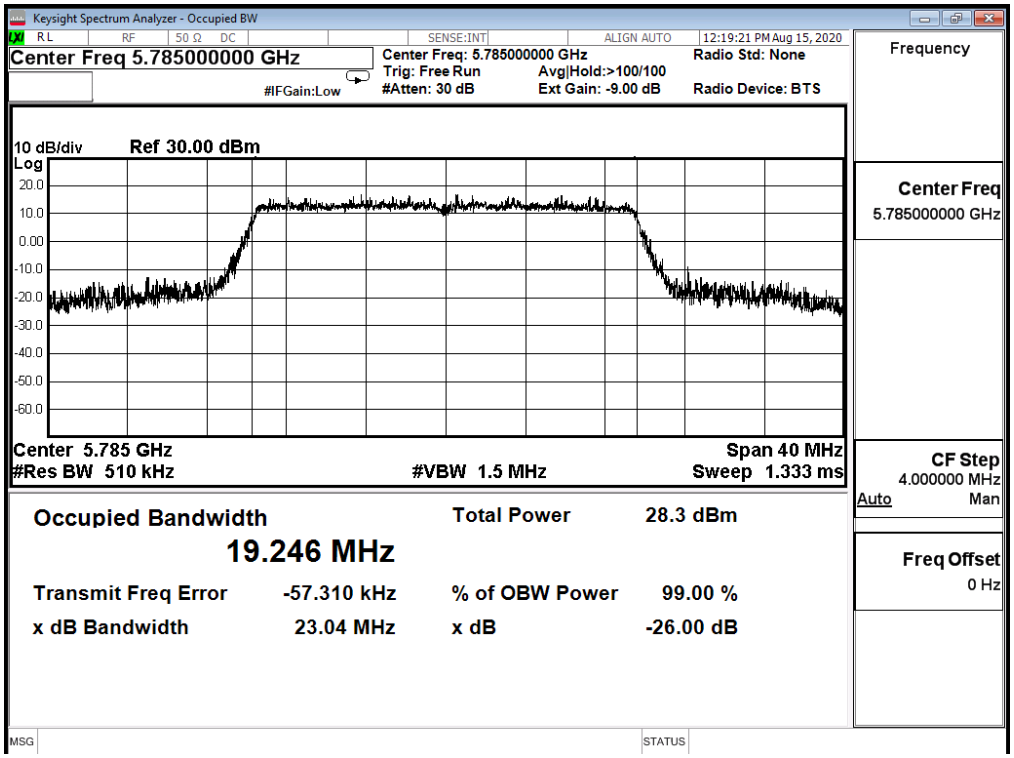
Channel 48 (5240MHz)



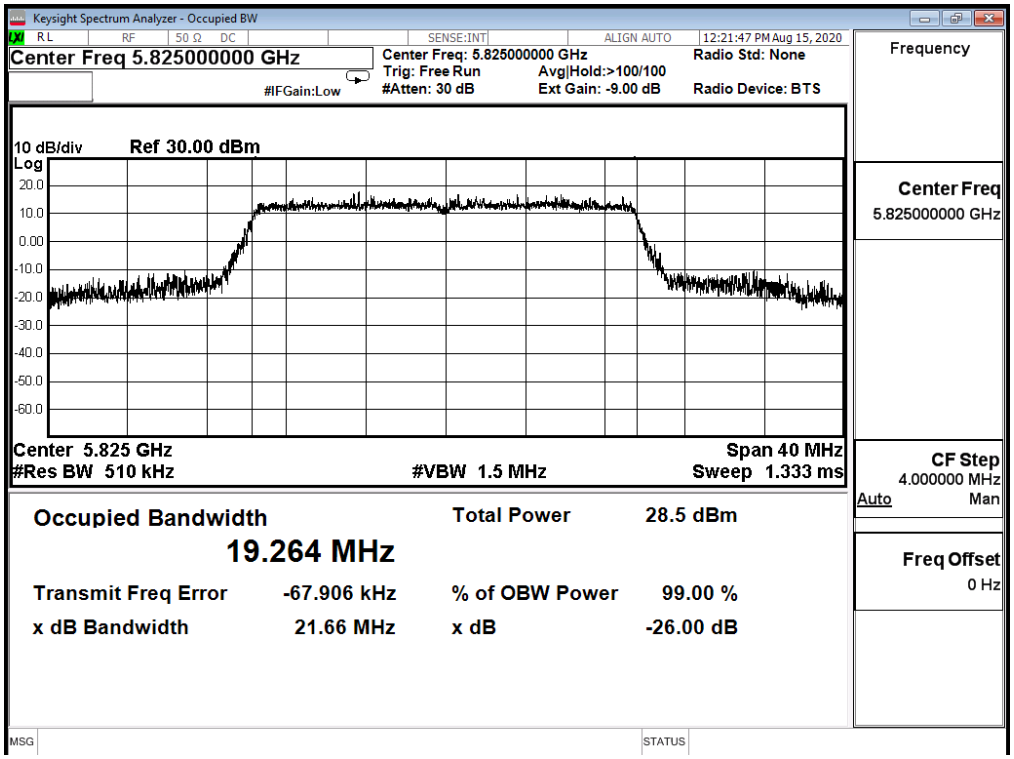
Channel 149 (5745MHz)



Channel 157 (5785MHz)



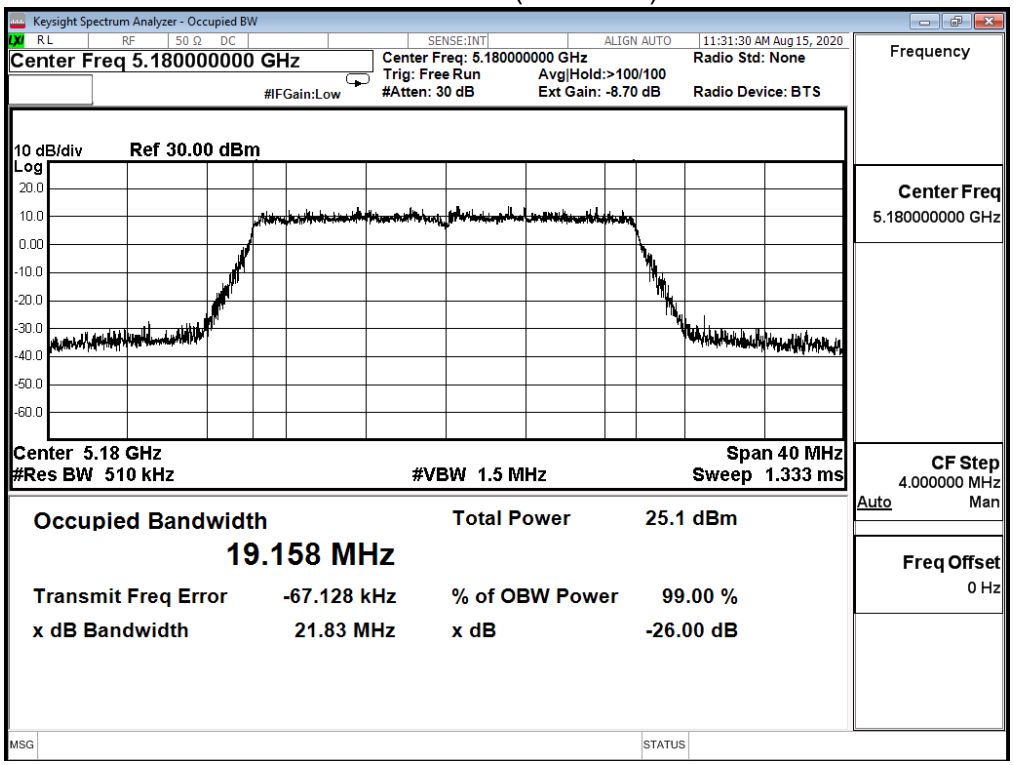
Channel 165 (5825MHz)



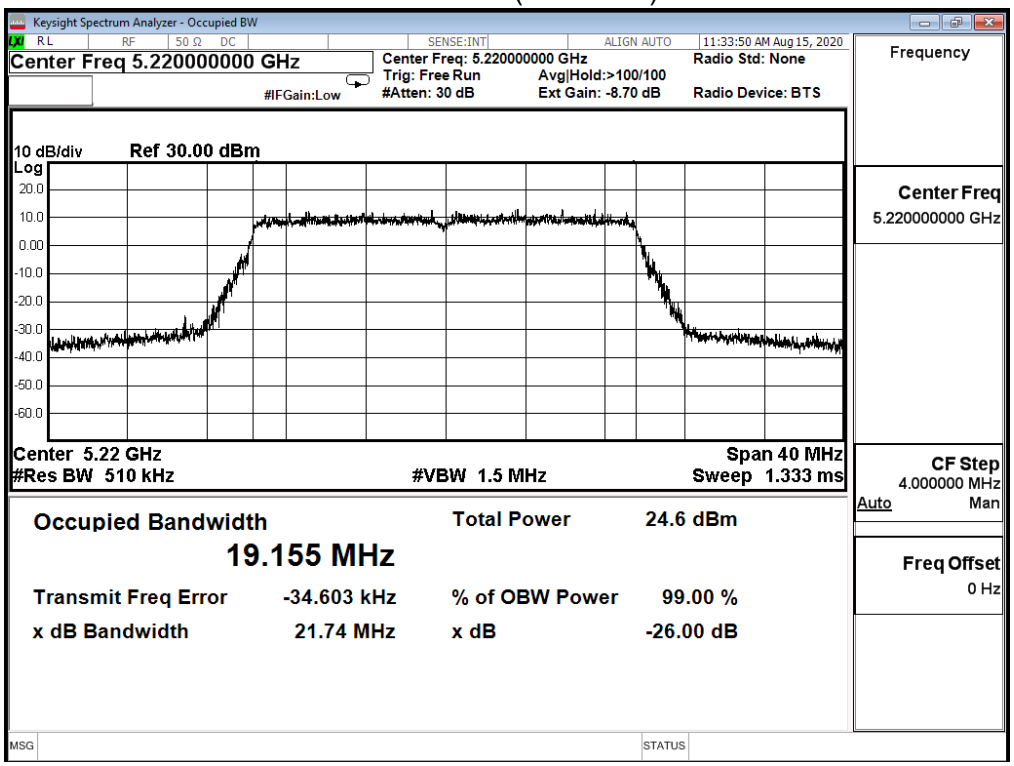
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_20M(ANT 2)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	19.158	21.830	--	Pass
44	5220	19.155	21.740	--	Pass
48	5240	19.157	21.750	--	Pass
149	5745	19.202	N/A	--	Pass
157	5785	19.213		--	Pass
165	5825	19.177		--	Pass

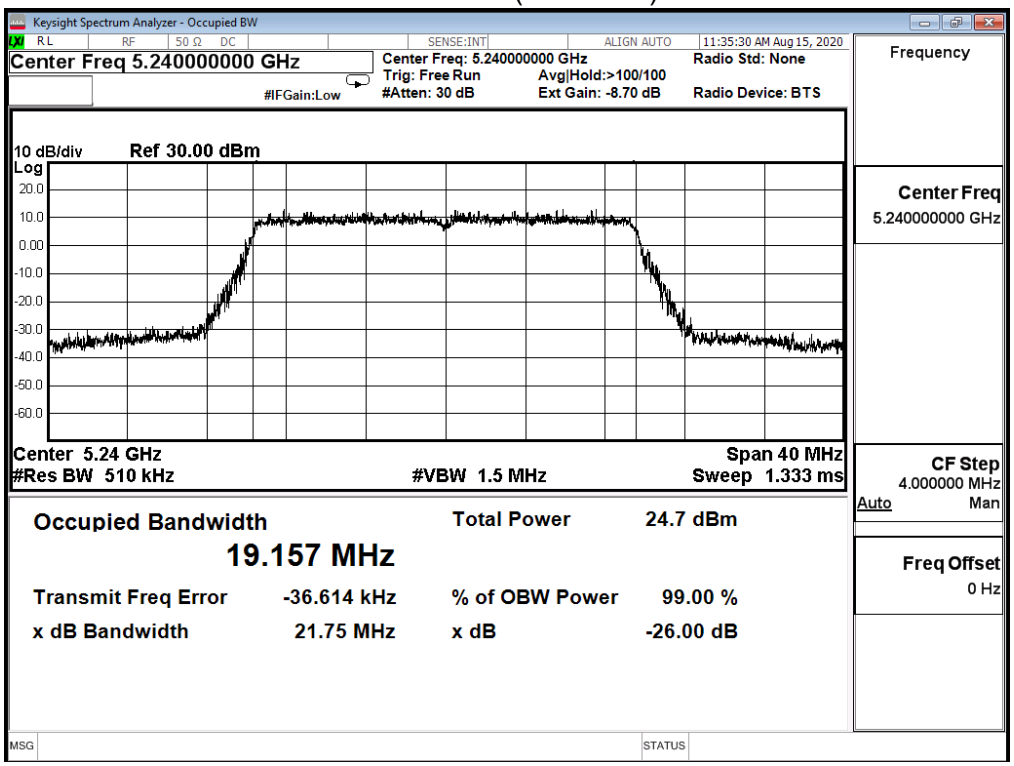
Channel 36 (5180MHz)



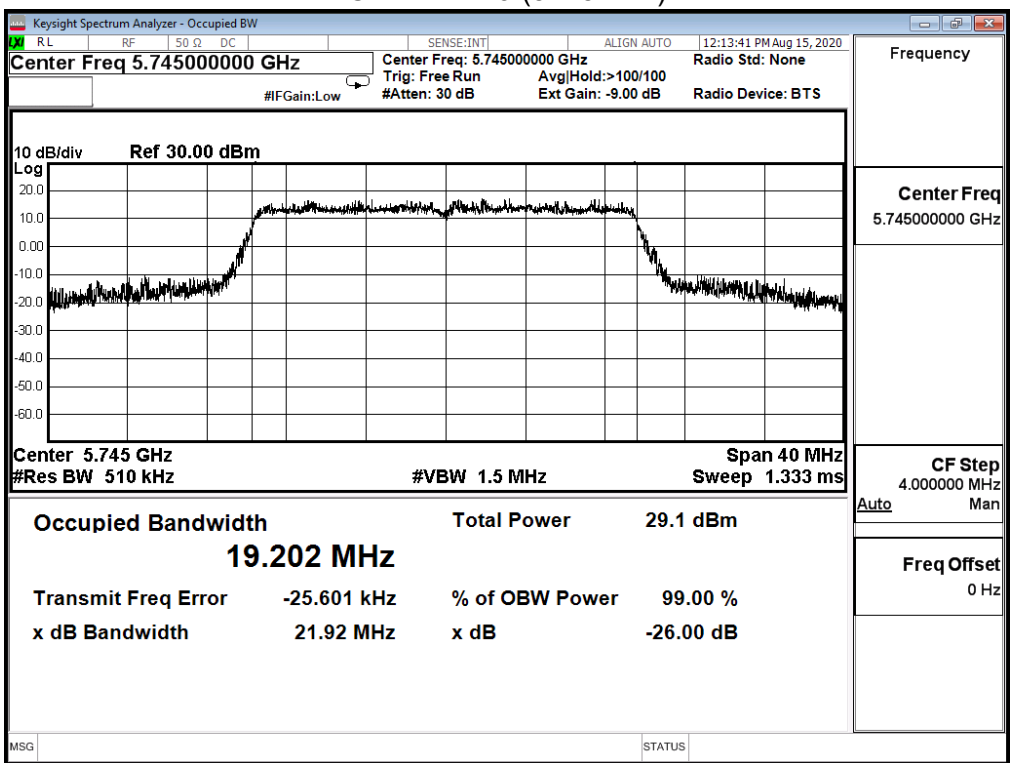
Channel 44 (5220MHz)



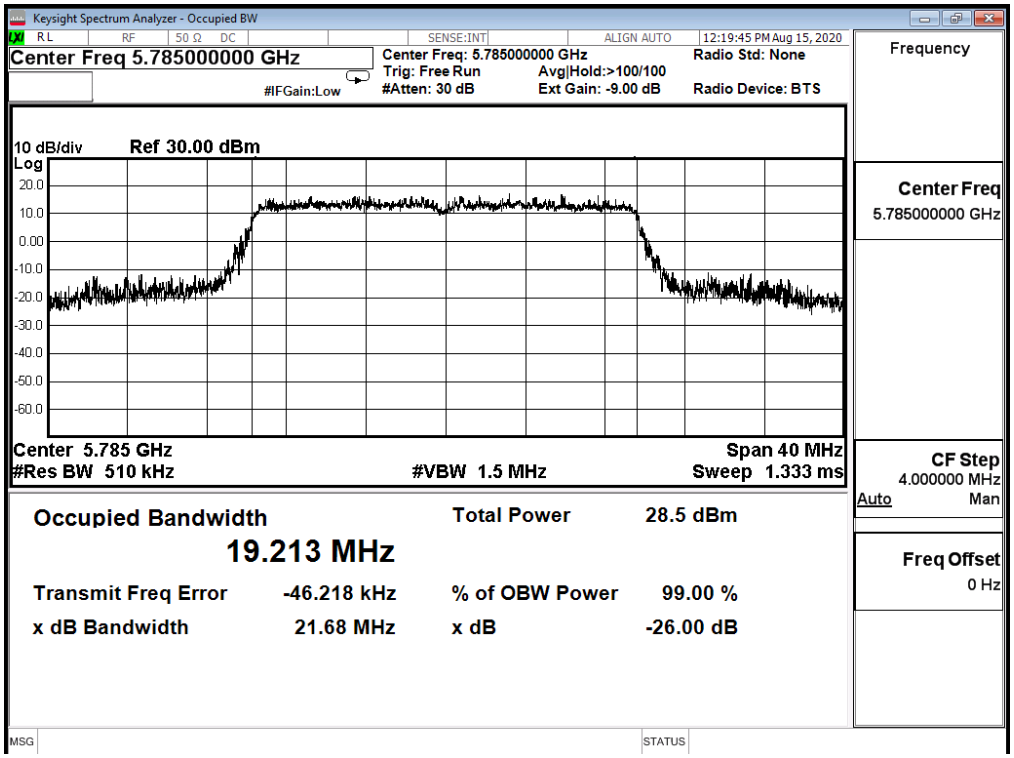
Channel 48 (5240MHz)



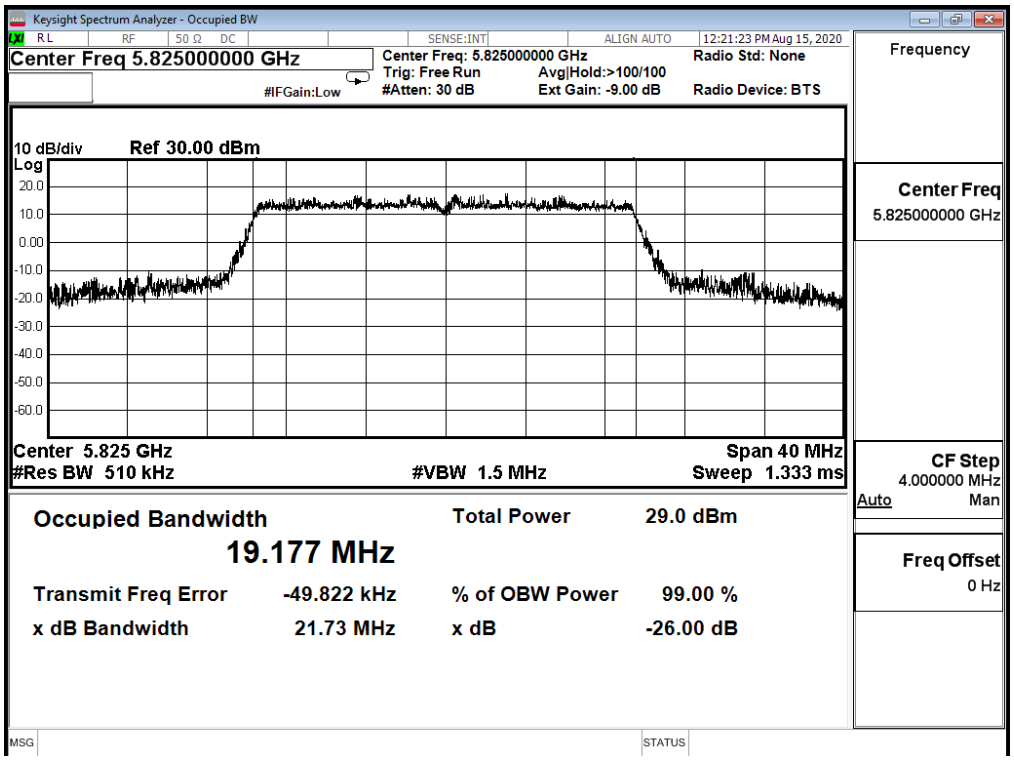
Channel 149 (5745MHz)



Channel 157 (5785MHz)



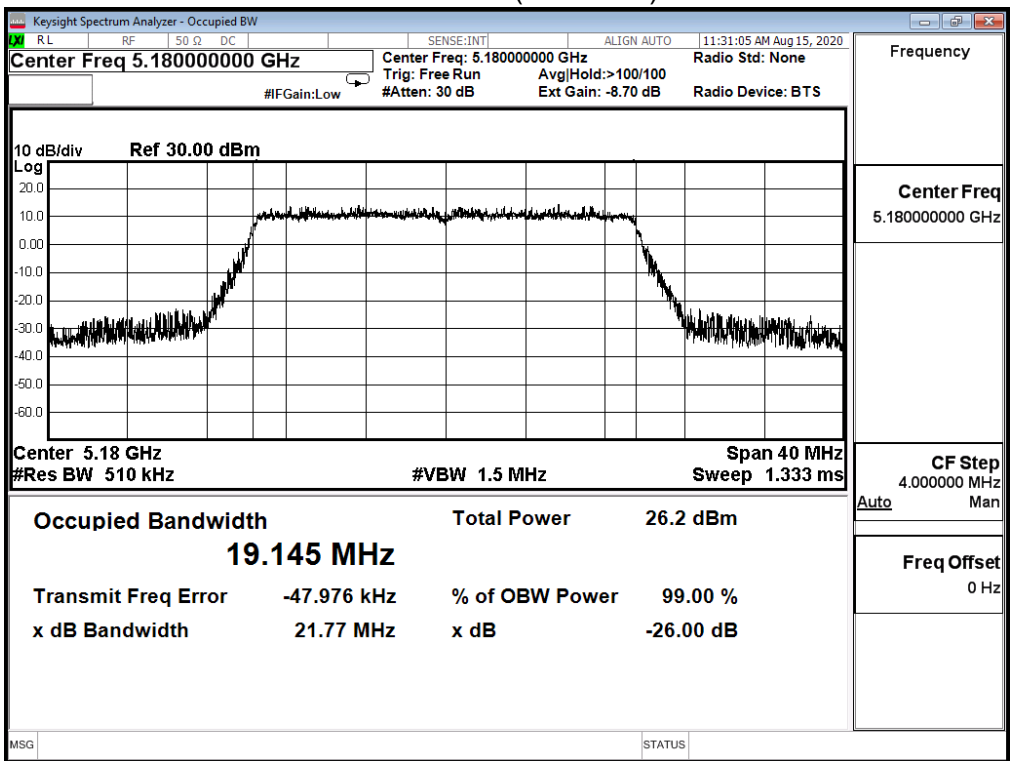
Channel165 (5825MHz)



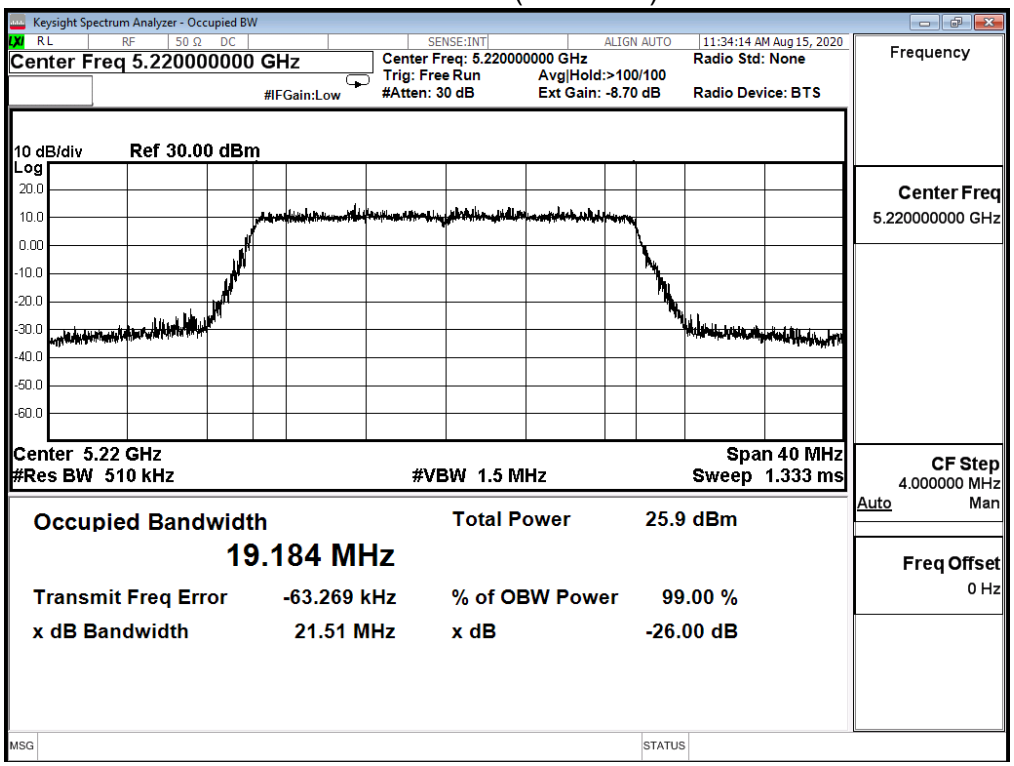
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_20M(ANT 3)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
36	5180	19.145	21.770	--	Pass
44	5220	19.184	21.510	--	Pass
48	5240	19.223	22.020	--	Pass
149	5745	19.397	N/A	--	Pass
157	5785	19.352		--	Pass
165	5825	19.287		--	Pass

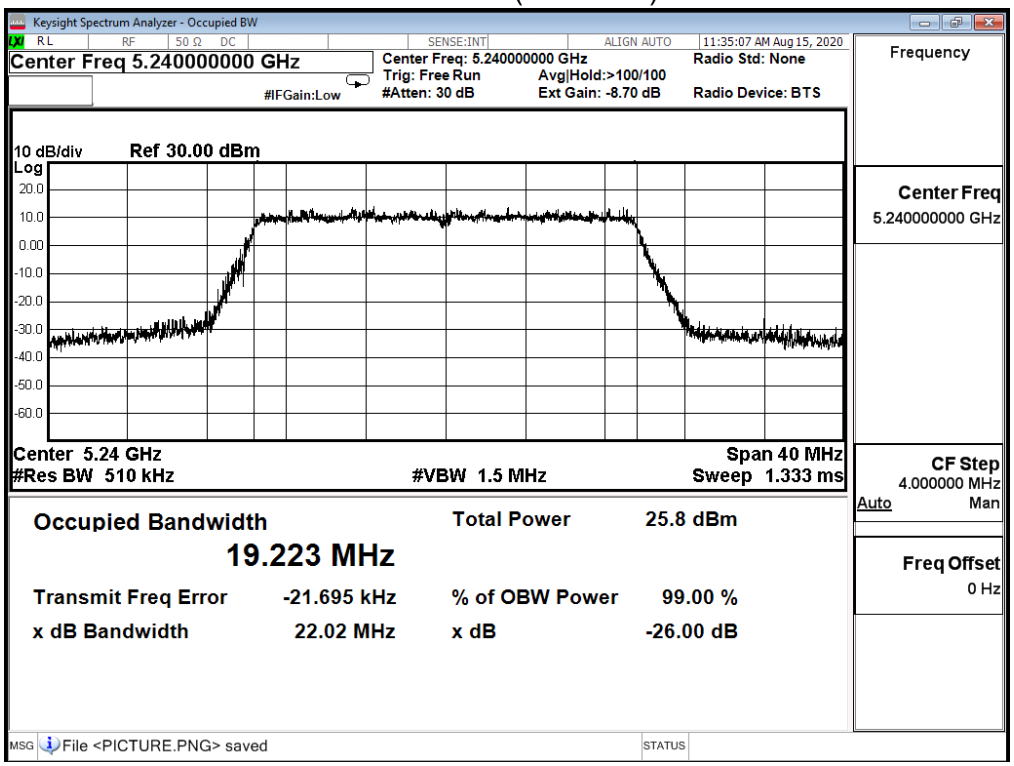
Channel 36 (5180MHz)



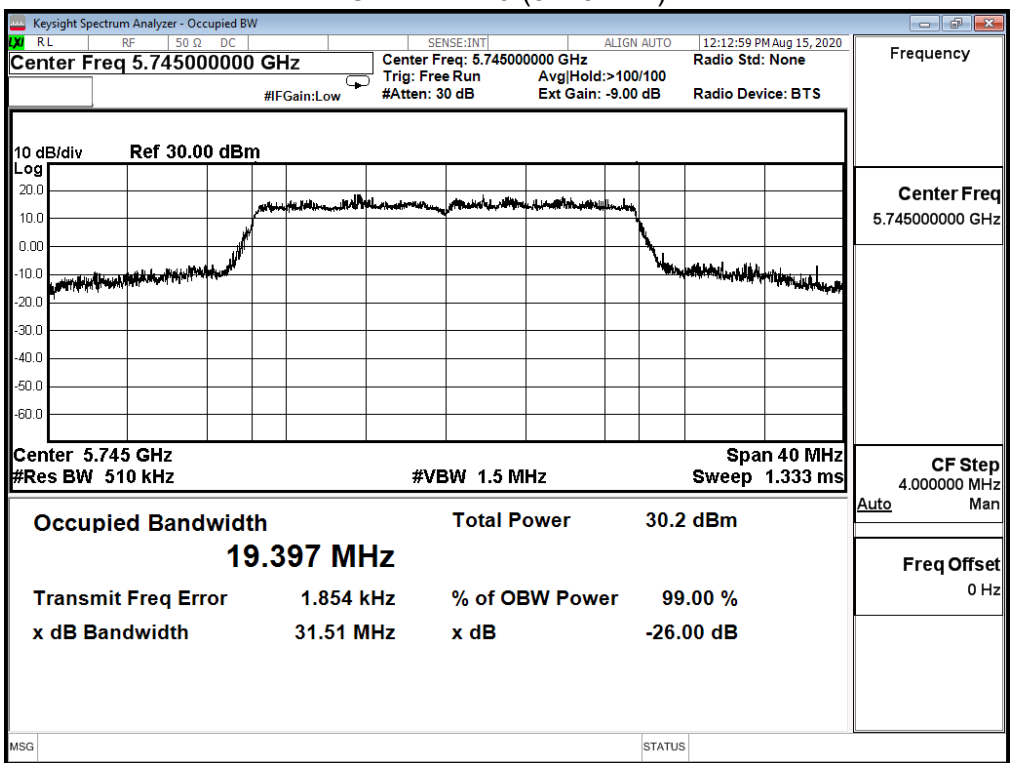
Channel 44 (5220MHz)



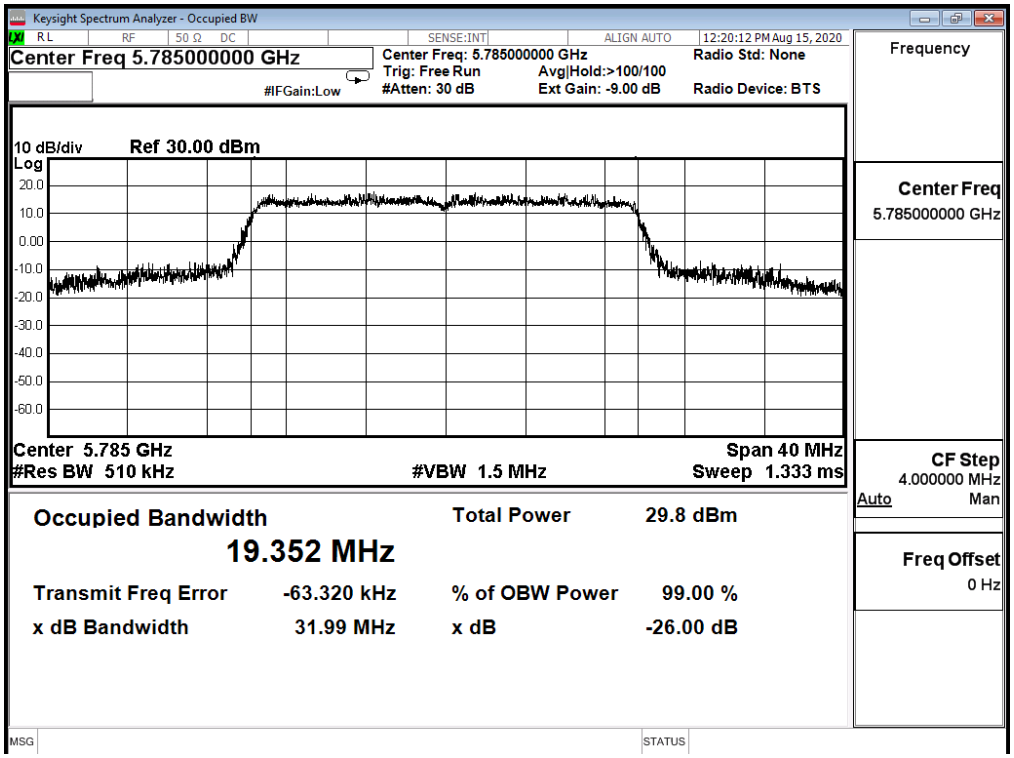
Channel 48 (5240MHz)



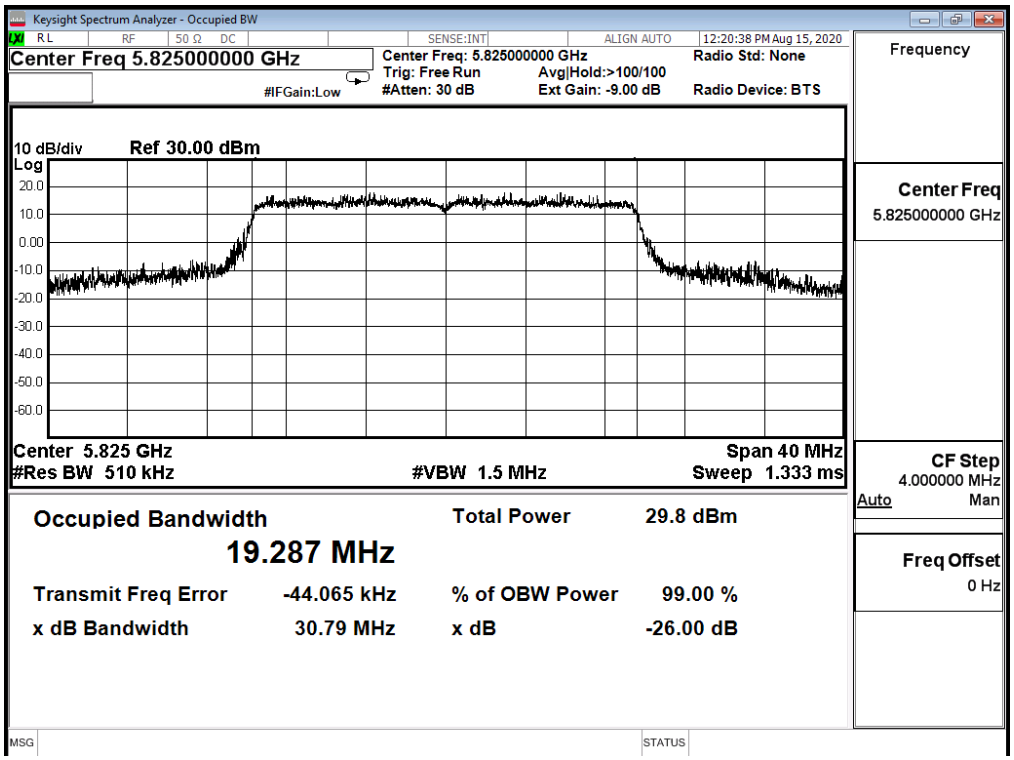
Channel 149 (5745MHz)



Channel 157 (5785MHz)



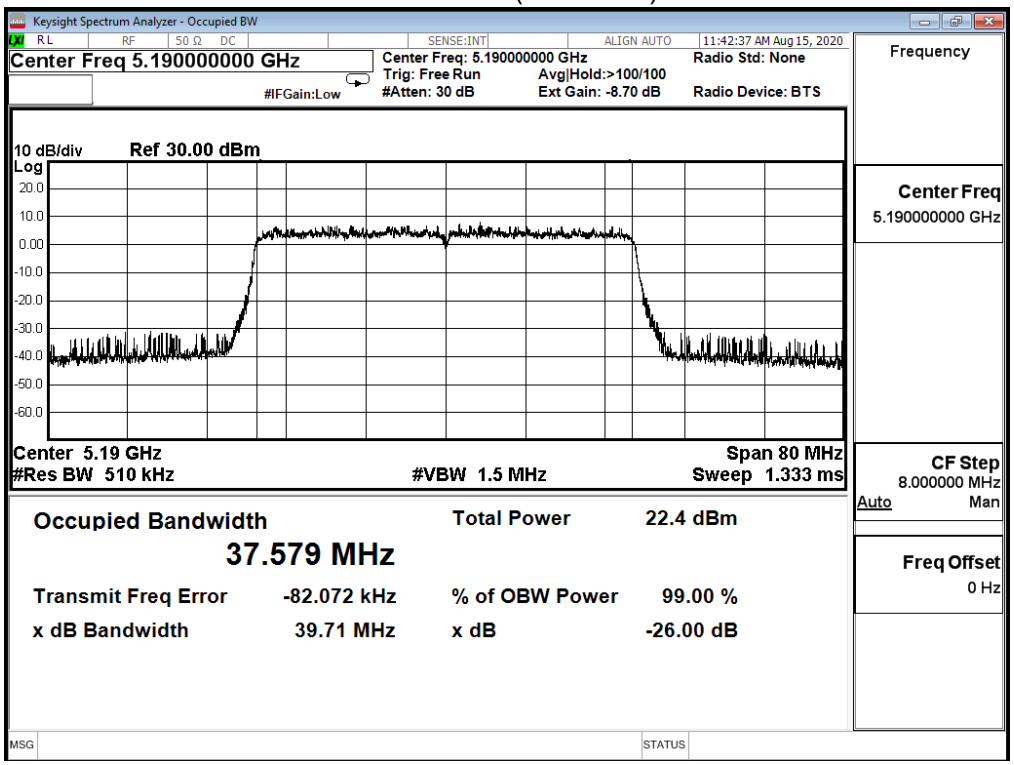
Channel165 (5825MHz)



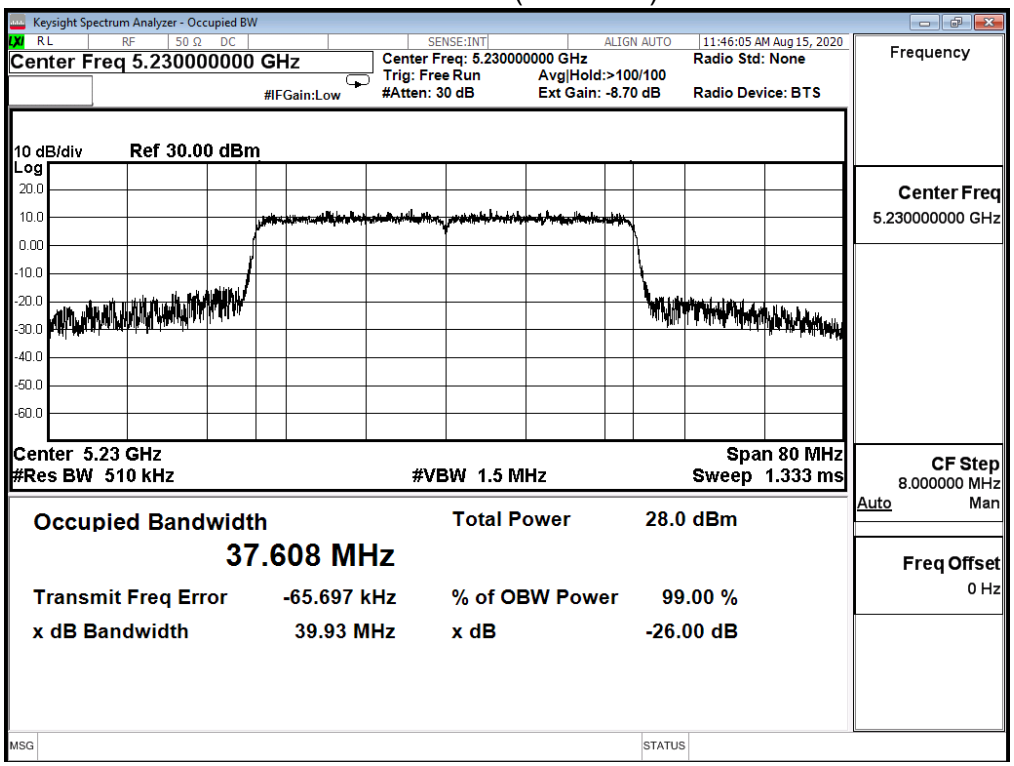
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_40M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	37.579	39.710	--	Pass
46	5230	37.608	39.930	--	Pass
151	5755	37.676	N/A	--	Pass
159	5795	37.744		--	Pass

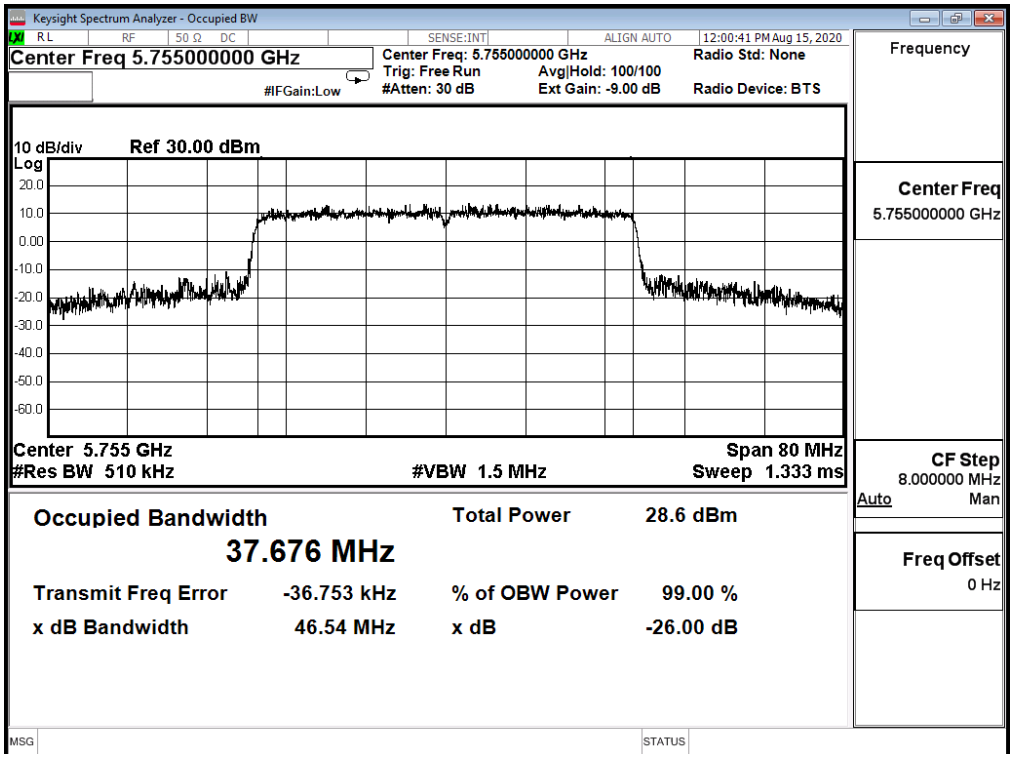
Channel 38 (5190MHz)



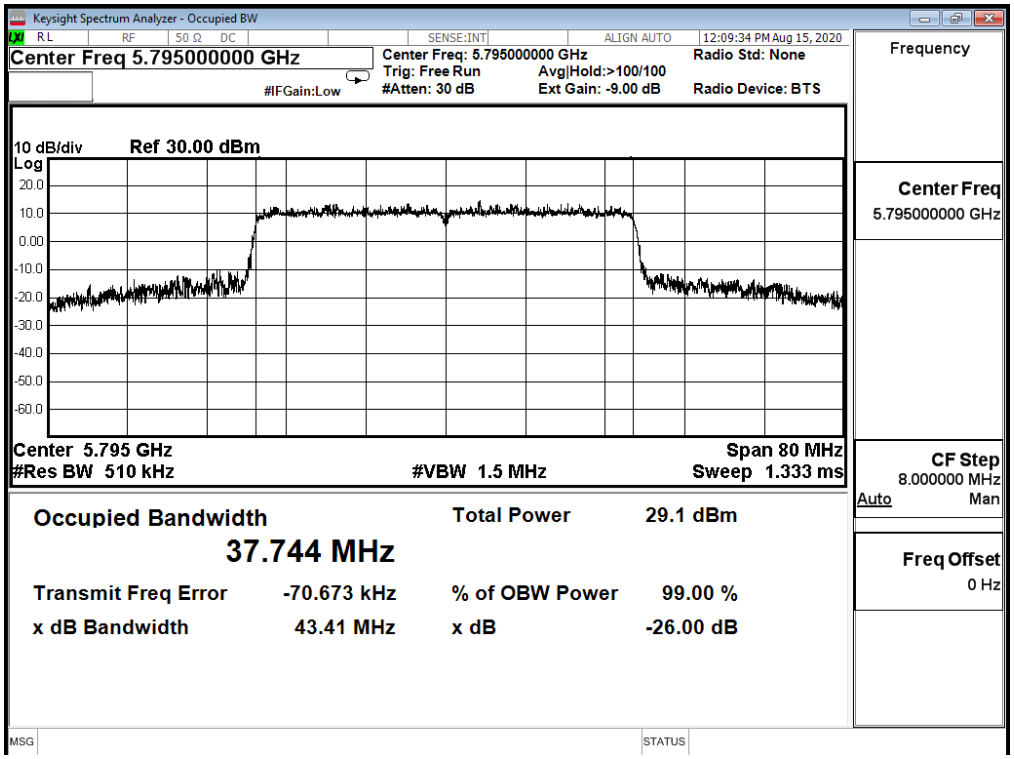
Channel 46 (5230MHz)



Channel 151 (5755MHz)



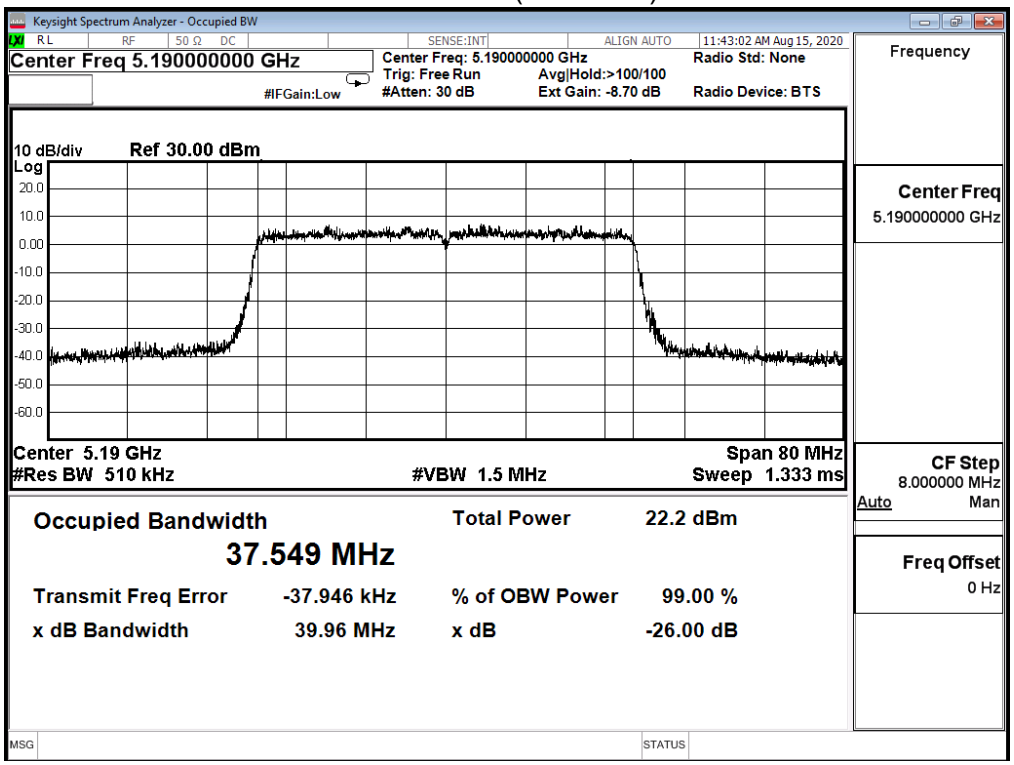
Channel 159 (5795MHz)



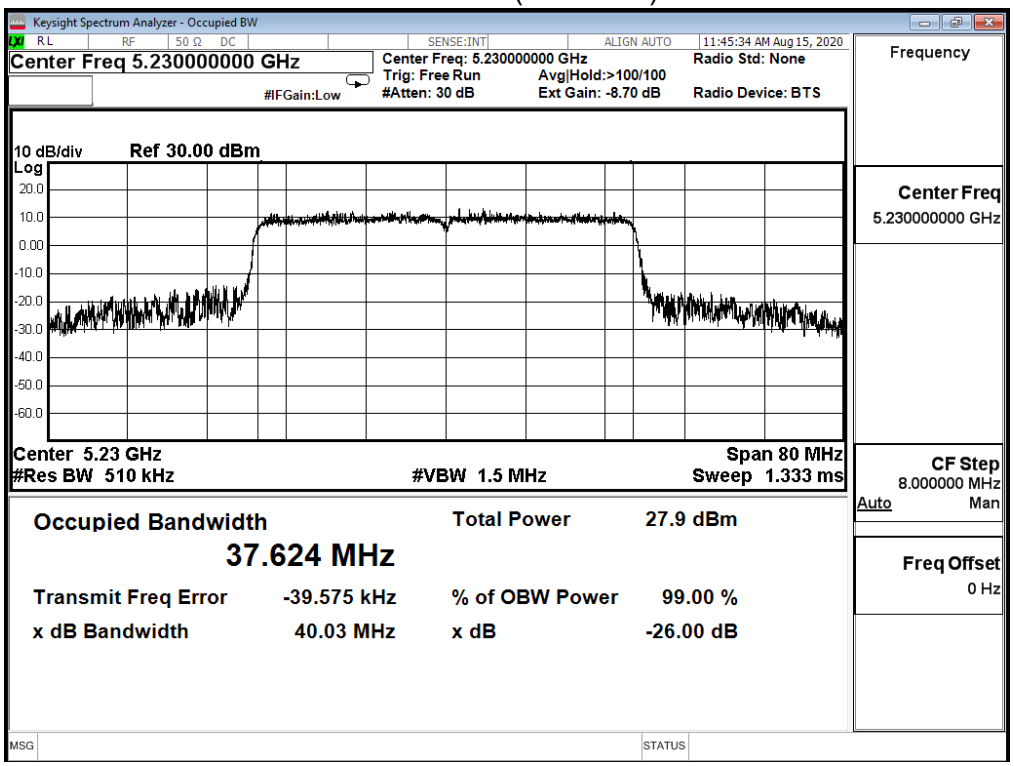
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_40M(ANT 1)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	37.549	39.960	--	Pass
46	5230	37.624	40.030	--	Pass
151	5755	37.665	N/A	--	Pass
159	5795	37.658		--	Pass

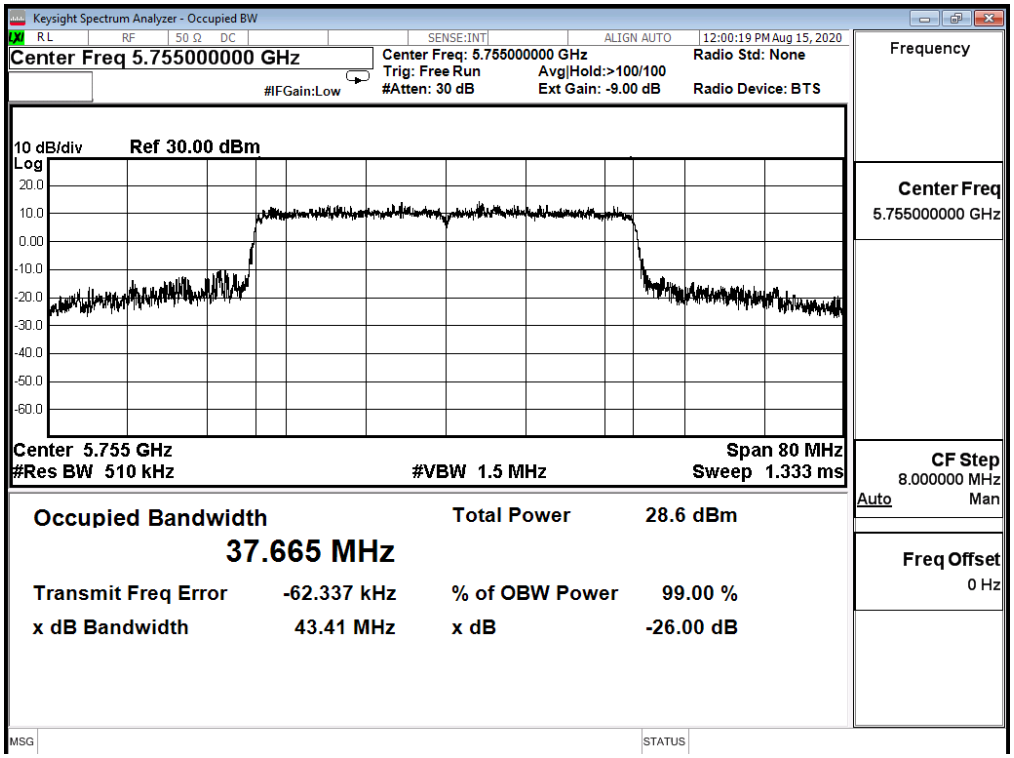
Channel 38 (5190MHz)



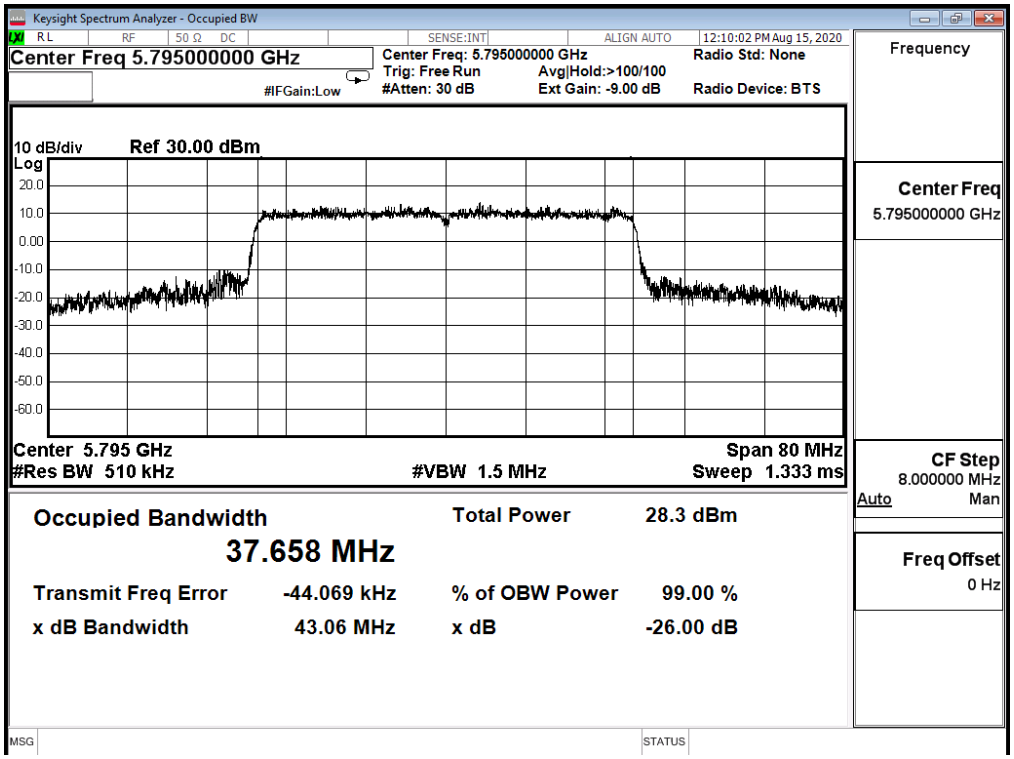
Channel 46 (5230MHz)



Channel 151 (5755MHz)



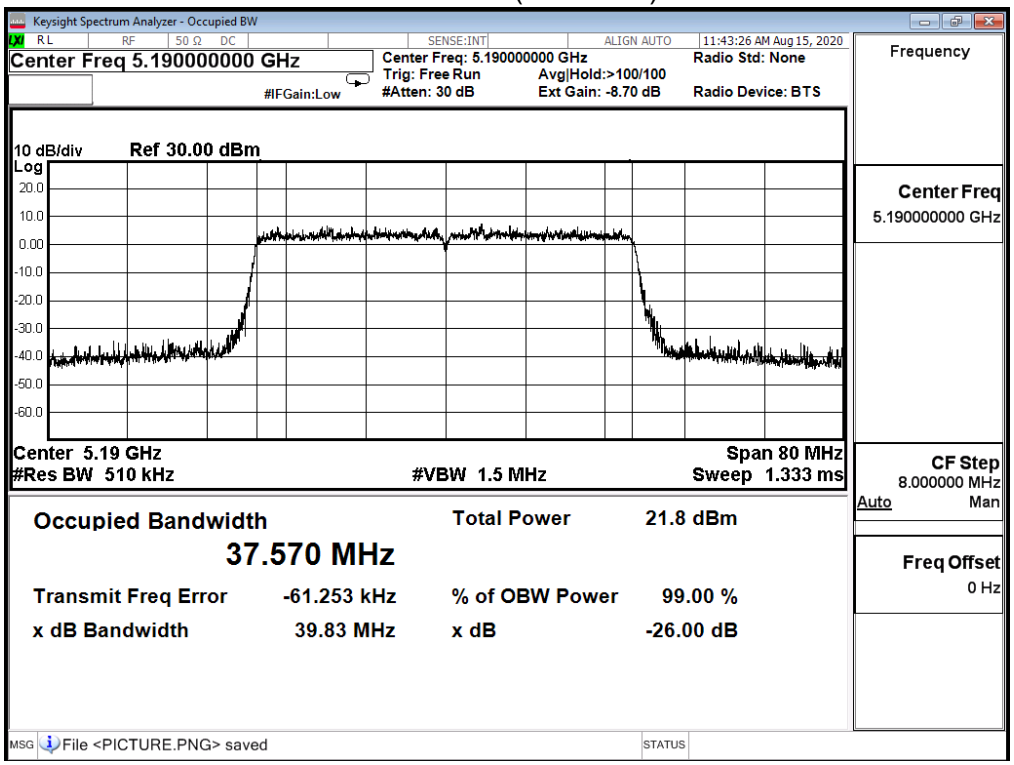
Channel 159 (5795MHz)



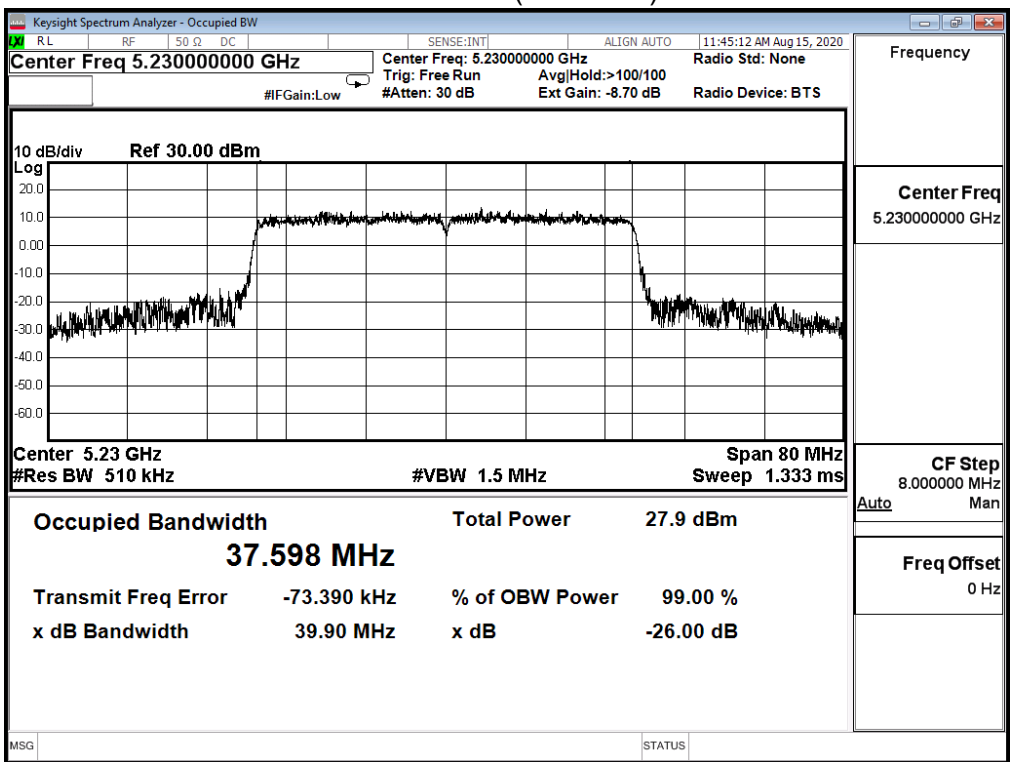
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_40M(ANT 2)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	37.570	39.830	--	Pass
46	5230	37.598	39.900	--	Pass
151	5755	37.626	N/A	--	Pass
159	5795	37.668		--	Pass

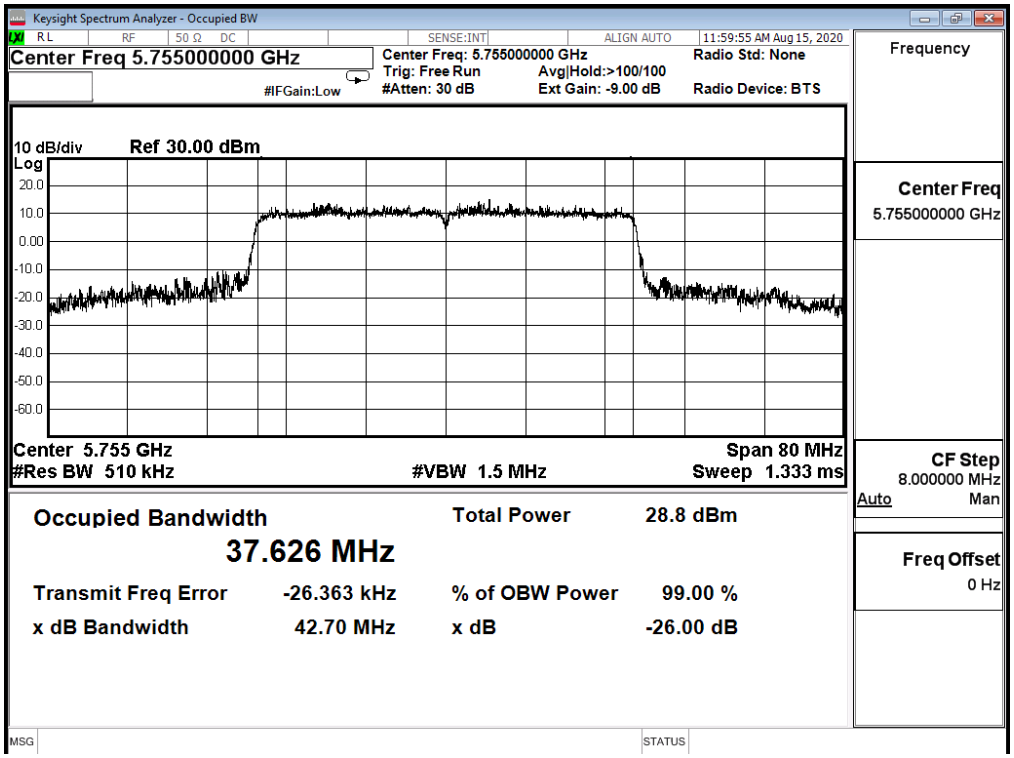
Channel 38 (5190MHz)



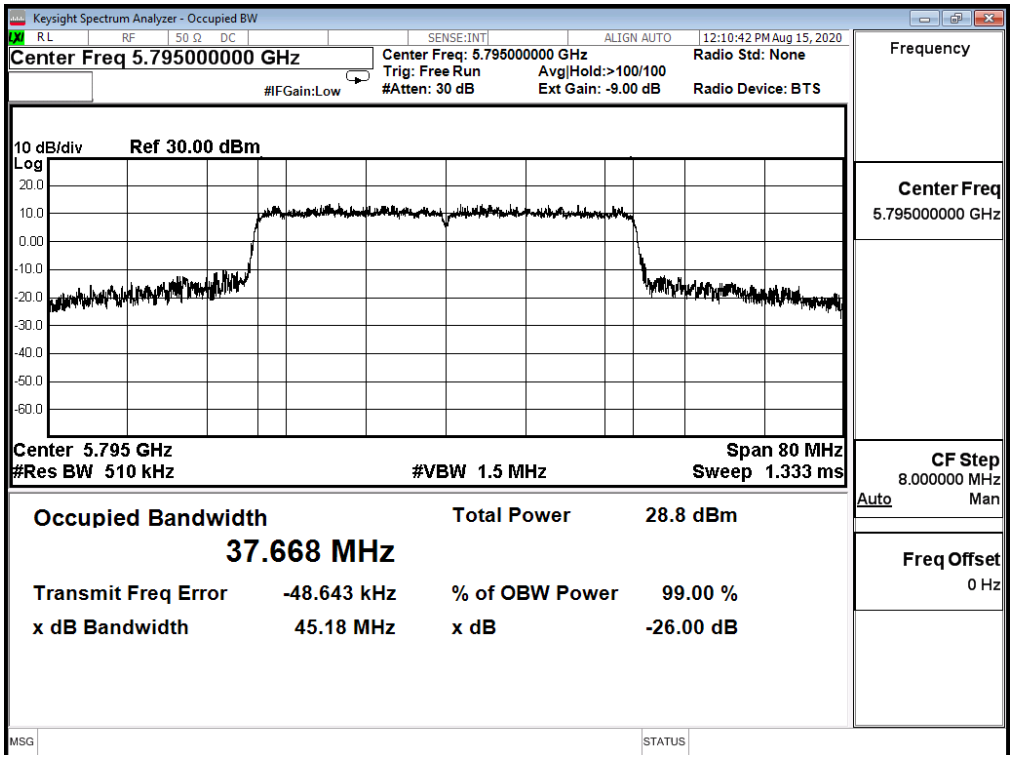
Channel 46 (5230MHz)



Channel 151 (5755MHz)



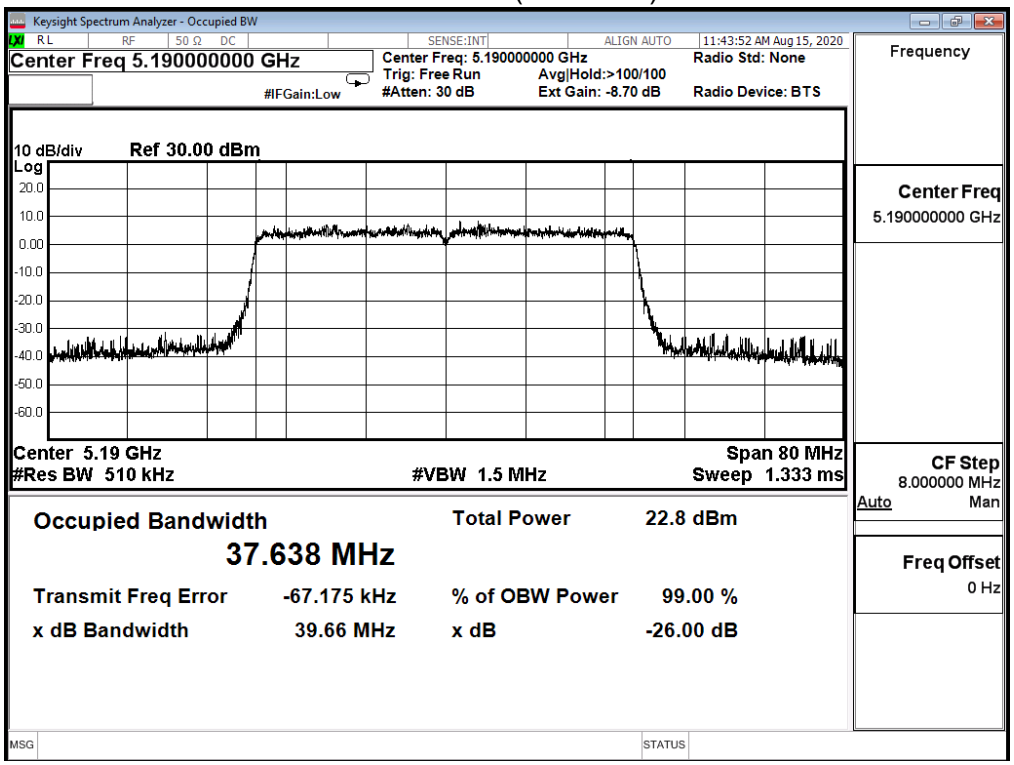
Channel 159 (5795MHz)



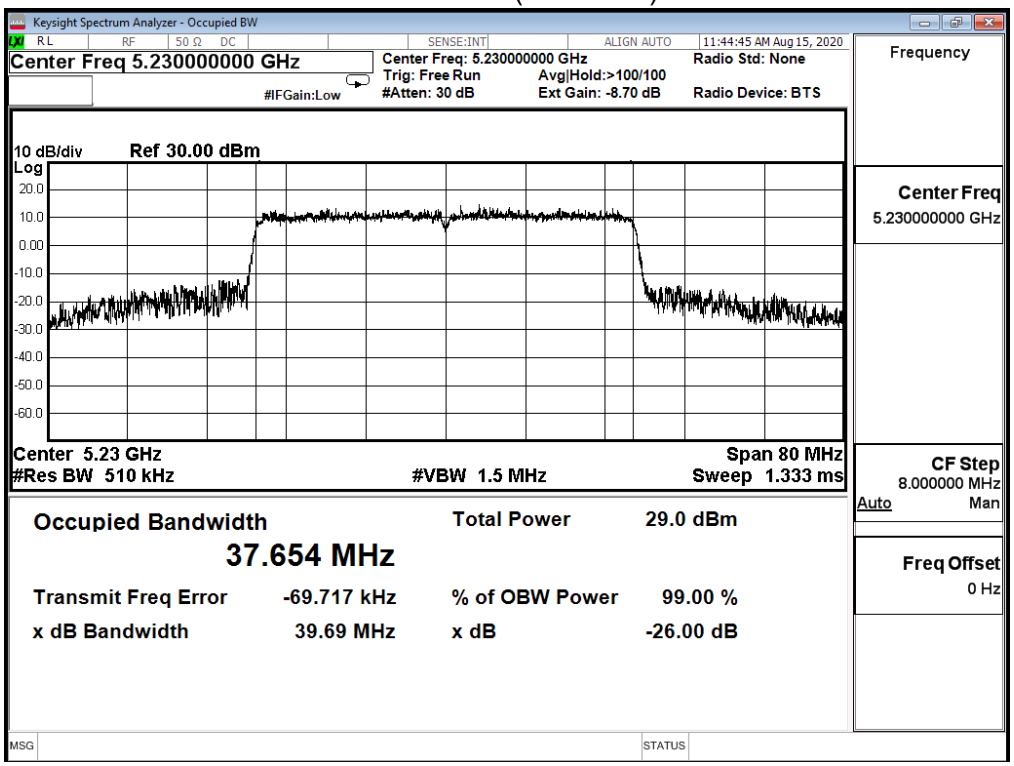
Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0％

IEEE 802.11ax_40M(ANT 3)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
38	5190	37.638	39.660	--	Pass
46	5230	37.654	39.690	--	Pass
151	5755	37.804	N/A	--	Pass
159	5795	37.809		--	Pass

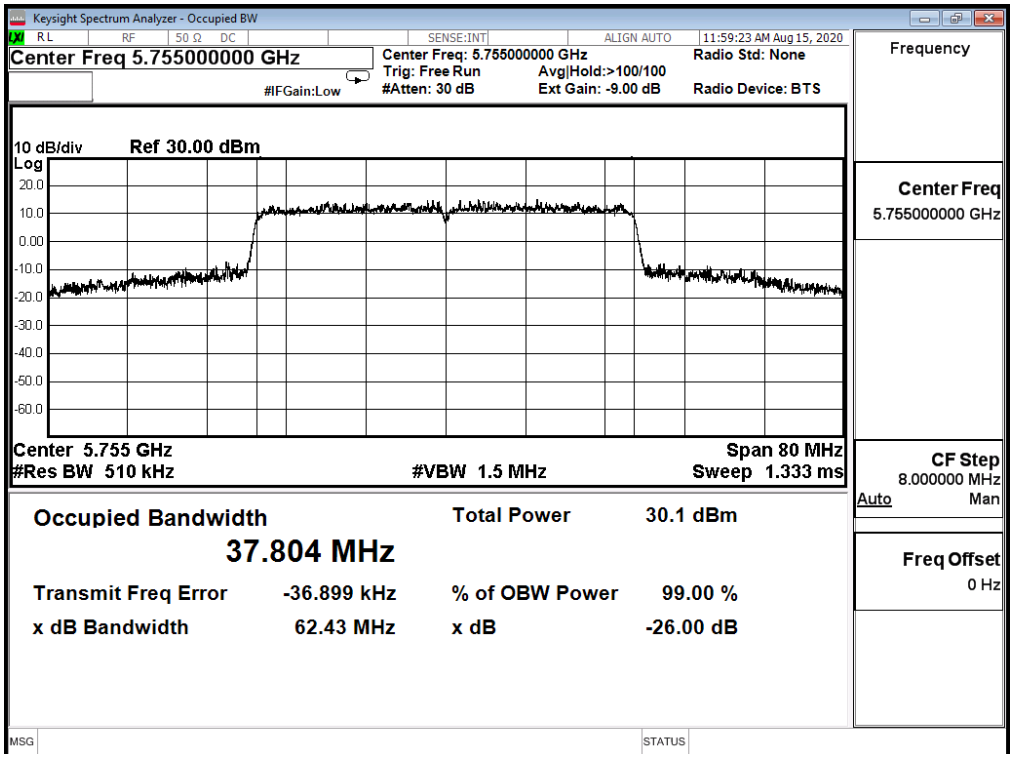
Channel 38 (5190MHz)



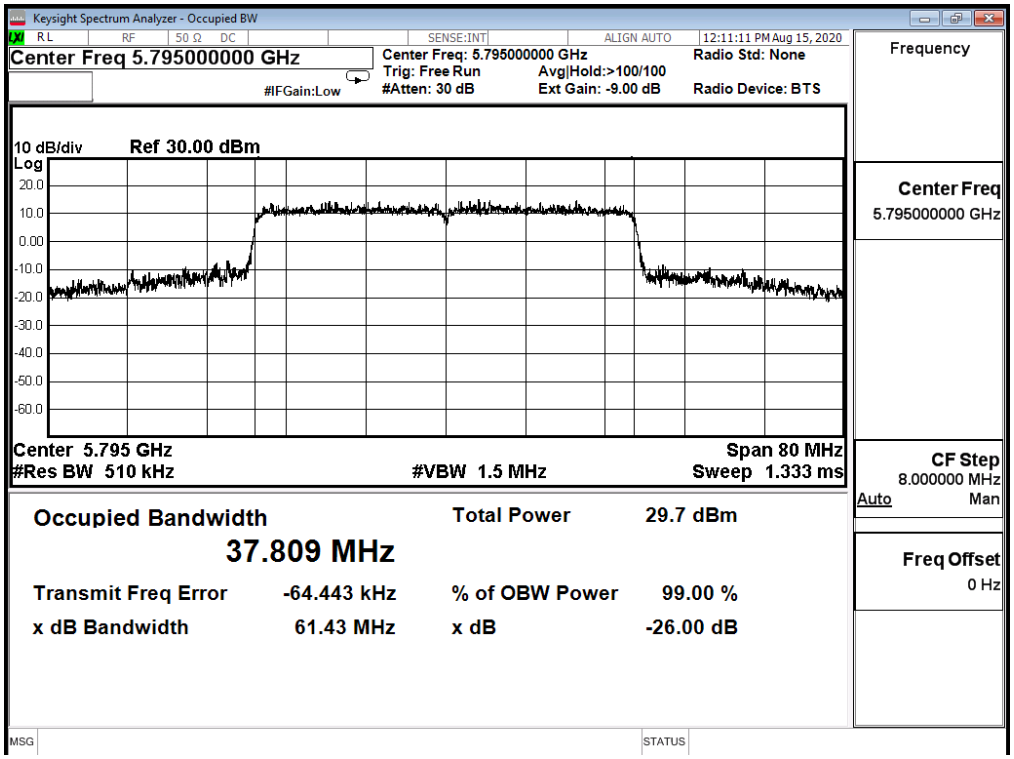
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



Product	FiberGateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 2: CDD Mode		
Date of Test	2020/08/15	Test Site	SR12-H
Test Temperature	24.0℃	Test Humidity	55.0%

IEEE 802.11ax_80M(ANT 0)					
Channel No.	Frequency (MHz)	Measure Value		Limit (MHz)	Result
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)		
42	5210	76.867	80.930	--	Pass
155	5775	76.862	N/A	--	Pass