FCC Test Report

FCC ID	:	**QXO-AP460**
Equipment	:	**Wireless Access Point**
Brand Name	:	Extreme networks or Extreme Networks
Model Name	:	**AP460i, AP460e**
Applicant	:	**Extreme Networks, Inc.** **6480 Via Del Oro, San Jose, CA 95119, United States**
Manufacturer	:	**Extreme Networks, Inc.** **6480 Via Del Oro, San Jose, CA 95119, United States**
Standard	:	**47 CFR FCC Part 15.407**

The product was received on Sep. 28, 2019, and testing was started from Sep. 28, 2019 and completed on Dec. 04, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FR970235-01AI	01	Initial issue of report	Mar. 03, 2020

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
-	15.207	AC Power-line Conducted Emissions	Not Performed	-
3.1	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Conducted Output Power	PASS	-
3.3	15.407(a)	Peak Power Spectral Density	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Sam Tsai

Report Producer: Jenny Yang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20), ax(HEW 20)	5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
Straddle 5720		5720	144 [1]
5250-5350	n (HT40), ac (VHT40), ax(HEW 40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
Straddle 5710		5710	142 [1]
5250-5350	ac (VHT80), ax(HEW 80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]
Straddle 5690		5690	138 [1]
5150-5350	ac (VHT160), ax(HEW 160)	5250	50 [1]
5470-5725		5570	114 [1]

Non-Beamforming

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	1TX
5.47-5.725GHz	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.25-5.35GHz	802.11ac VHT20	20	1TX
5.47-5.725GHz	802.11ac VHT20	20	1TX
5.725-5.85GHz	802.11ac VHT20	20	1TX
5.25-5.35GHz	802.11ac VHT40	40	1TX
5.47-5.725GHz	802.11ac VHT40	40	1TX
5.725-5.85GHz	802.11ac VHT40	40	1TX
5.25-5.35GHz	802.11ac VHT80	80	1TX
5.47-5.725GHz	802.11ac VHT80	80	1TX
5.725-5.85GHz	802.11ac VHT80	80	1TX
5.15-5.25GHz	802.11ac VHT160	160	1TX
5.25-5.35GHz	802.11ac VHT160	160	1TX
5.47-5.725GHz	802.11ac VHT160	160	1TX
5.25-5.35GHz	802.11ax HEW20	20	1TX

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ax HEW20	20	1TX
5.725-5.85GHz	802.11ax HEW20	20	1TX
5.25-5.35GHz	802.11ax HEW40	40	1TX
5.47-5.725GHz	802.11ax HEW40	40	1TX
5.725-5.85GHz	802.11ax HEW40	40	1TX
5.25-5.35GHz	802.11ax HEW80	80	1TX
5.725-5.85GHz	802.11ax HEW80	80	1TX
5.47-5.725GHz	802.11ax HEW80	80	1TX
5.15-5.25GHz	802.11ax HEW160	160	1TX
5.25-5.35GHz	802.11ax HEW160	160	1TX
5.47-5.725GHz	802.11ax HEW160	160	1TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.47-5.725GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX
5.15-5.25GHz	802.11ac VHT160	160	2TX
5.25-5.35GHz	802.11ac VHT160	160	2TX
5.47-5.725GHz	802.11ac VHT160	160	2TX
5.25-5.35GHz	802.11ax HEW20	20	2TX
5.47-5.725GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.25-5.35GHz	802.11ax HEW40	40	2TX
5.47-5.725GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.25-5.35GHz	802.11ax HEW80	80	2TX
5.47-5.725GHz	802.11ax HEW80	80	2TX

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ax HEW80	80	2TX
5.15-5.25GHz	802.11ax HEW160	160	2TX
5.25-5.35GHz	802.11ax HEW160	160	2TX
5.47-5.725GHz	802.11ax HEW160	160	2TX
5.25-5.35GHz	802.11a	20	4TX
5.47-5.725GHz	802.11a	20	4TX
5.725-5.85GHz	802.11a	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.25-5.35GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.25-5.35GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.15-5.25GHz	802.11ax HEW160	160	4TX
5.25-5.35GHz	802.11ax HEW160	160	4TX

Beamforming

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.47-5.725GHz	802.11ac VHT20-BF	20	2TX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.47-5.725GHz	802.11ac VHT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.47-5.725GHz	802.11ac VHT80-BF	80	2TX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX
5.47-5.725GHz	802.11ax HEW20-BF	20	2TX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX
5.47-5.725GHz	802.11ax HEW40-BF	40	2TX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX
5.47-5.725GHz	802.11ax HEW80-BF	80	2TX
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	4TX

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX
5.15-5.25GHz	802.11ax HEW160-BF	160	4TX
5.25-5.35GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX

Note:
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80, VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40, HEW80, HEW 160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.
- The resource unit of HEW 20, HEW 40, HEW 80, HEW 160 only support full loading.

1.1.2 Antenna Information

(AP460i) Internal Antenna

Ant.	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)			Remark
					2.4GHz	5GHz	BLE/Thread	
1	SENAO	5718A0462300	PIFA	IPEX	-	5.58	-	Radio 2
2	SENAO	5718A0463300	PIFA	IPEX	-	5.58	-	Radio 2
3	SENAO	5718A0465300	PIFA	IPEX	-	5.58	-	Radio 2
4	SENAO	5718A0464300	PIFA	IPEX	-	5.58	-	Radio 2
5	SENAO	5718A0458300	PIFA	IPEX	4.82	-	-	Radio 1
6	SENAO	5718A0459300	PIFA	IPEX	4.82	-	-	Radio 1
7	SENAO	5718A0460300	PIFA	IPEX	4.87	5.02	-	Radio 3
8	SENAO	5718A0461300	PIFA	IPEX	4.87	5.02	-	Radio 3
9	SENAO	5718A0466300	PIFA	IPEX	-	-	4.65	Radio 4

(AP460e) External Antenna

Group	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)		
					2.4GHz	5GHz	BLE/Thread
1	Extreme	ML-2452-APA2-01	Omni	RP SMA male	3.17	4.85	-
2	Extreme	ML-2452-APA2-02	Omni	RP SMA male	3.17	4.85	-
3	Extreme	ML-2452-HPA5-036	Omni	RP SMA male	3.9	5.7	-
4	Extreme	ML-2452-HPAG4A6-01	Omni	N male	4	7.3	-
5	Extreme	ML-2452-PNA5-01R	Panel	Type N-Male	4.5	5	-
6	Extreme	ML-2452-PTA4M4-036	Omni	Rev-Polarity SMA Male 4x	5	6.6	-
7	Extreme	ML-2452-HPAG5A8-01	Omni	N male	5	8	-
8	Extreme	WS-AO-DQ04360N	Omni	N male	5.5	6	-
9	Extreme	AI-DQ04360S	Omni	RP SMA male	5.5	6	-
10	Extreme	ML-2452-SEC6M4-036 / WS-AI-DQ05120	Panel	RP SMA male	6.92	7.23	-
11	Extreme	WS-AI-DE07025	Panel	RP SMA male	7.5	6.5	-
12	Extreme	ML-2452-PNA7-01R	Panel 1	Type N-Male	7.8	10.7	7.8
13	Extreme	WS-AI-DE10055	Panel 2	RP SMA male	10.5	7.5	-
14	Extreme	ML-2499-HPA8-01	Dipole	N male	-	-	8

Note 1: Group 7, 12 and 13 were measured during the test for WLAN 2.4G Mode.
Note 2: Group 12 and 14 were measured during the test for Bluetooth/Thread Mode.
Note 3: Group 7 and 12 were measured during the test for WLAN 5G Mode.

For 2.4GHz function:

For IEEE 802.11 b/g/n/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11 b/g/n/ax mode (2TX/2RX)

Port 1 and port 2 could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For Thread function:

For IEEE 802.15.4 Thread mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Port 1 and port 2 could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Port 1, port 2, port 3 and port 4 could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From PoE			
EUT Function	☐	Outdoor AP	☒	Indoor AP
	☐	Fixed P2P AP	☐	Outdoor/Indoor Client
Beamforming Function	☒	With beamforming	☐	Without beamforming
TPC Function	☒	With TPC Function	☐	Without TPC Function
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz

Type of EUT		
☒	Stand-alone	
☐	Combined (EUT where the radio part is fully integrated within another device)	
	Combined Equipment - Brand Name / Model No.:	…
☐	Plug-in radio (EUT intended for a variety of host systems)	
	Host System - Brand Name / Model No.:	…
☐	Other:	

1.1.4 Table for Multiple Listing

Sample Number	Model Name	Description
1	AP460i	The “i” in AP460i indicates that it comes with internal antennas and the “e” in AP460e indicates that the access point comes with external antenna connectors.
2	AP460e	

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR970235AI

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
U-NII-2A and UNII-2C were added.	All

1.1.6 Mode Test Duty Cycle

Non-Beamforming
Sample 1 & 2_Radio 2_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_1TX	0.951	0.22	2.066m	1k
802.11ac VHT20_Nss1,(MCS0)_1TX	0.985	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_1TX	0.971	0.13	954.688u	3k
802.11ac VHT80_Nss1,(MCS0)_1TX	0.943	0.25	462.5u	3k
802.11ac VHT160_Nss1,(MCS0)_1TX	0.9	0.46	254.688u	10k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX	0.963	0.16	775u	3k
802.11ax HEW80_Nss1,(MCS0)_1TX	0.929	0.32	403.125u	3k
802.11ax HEW160_Nss1,(MCS0)_1TX	0.889	0.51	234.375u	10k

Sample 1 & 2_Radio 2_2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.952	0.21	2.066m	1k
802.11ac VHT20_Nss2,(MCS0)_2TX	0.949	0.23	526.25u	3k
802.11ac VHT40_Nss2,(MCS0)_2TX	0.908	0.42	281.25u	10k
802.11ac VHT80_Nss2,(MCS0)_2TX	0.851	0.7	161.25u	10k
802.11ac VHT160_Nss2,(MCS0)_2TX	0.843	0.74	153.75u	10k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.933	0.3	437.5u	3k
802.11ax HEW40_Nss2,(MCS0)_2TX	0.896	0.48	261.25u	10k
802.11ax HEW80_Nss2,(MCS0)_2TX	0.843	0.74	170u	10k
802.11ax HEW160_Nss2,(MCS0)_2TX	0.833	0.79	155u	10k

Sample 1 & 2_Radio 2_4T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.952	0.21	2.065m	1k
802.11ac VHT20_Nss1,(MCS0)_4TX	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_4TX	0.97	0.13	953.125u	3k
802.11ac VHT80_Nss1,(MCS0)_4TX	0.941	0.26	460.625u	3k
802.11ac VHT160_Nss1,(MCS0)_4TX	0.896	0.48	253.125u	10k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.962	0.17	773.125u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.927	0.33	401.875u	3k
802.11ax HEW160_Nss1,(MCS0)_4TX	0.886	0.53	233.125u	10k

Sample 1 & 2_Radio 2_4T4S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20_Nss4,(MCS0)_4TX	0.949	0.23	526.563u	3k
802.11ac VHT40_Nss4,(MCS0)_4TX	0.906	0.43	280.625u	10k
802.11ac VHT80_Nss4,(MCS0)_4TX	0.847	0.72	160.625u	10k
802.11ac VHT160_Nss4,(MCS0)_4TX	0.788	1.03	108.438u	10k
802.11ax HEW20_Nss4,(MCS0)_4TX	0.933	0.3	439.062u	3k
802.11ax HEW40_Nss4,(MCS0)_4TX	0.897	0.47	260.937u	10k
802.11ax HEW80_Nss4,(MCS0)_4TX	0.84	0.76	168.75u	10k
802.11ax HEW160_Nss4,(MCS0)_4TX	0.8	0.97	123.75u	10k

Sample 1 & 2_Radio 3_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_1TX	0.951	0.22	2.066m	1k
802.11ac VHT20_Nss1,(MCS0)_1TX	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_1TX	0.972	0.12	954.688u	3k
802.11ac VHT80_Nss1,(MCS0)_1TX	0.943	0.25	462.5u	3k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX	0.963	0.16	775u	3k
802.11ax HEW80_Nss1,(MCS0)_1TX	0.929	0.32	403.125u	3k

Sample 1 & 2_Radio 3_2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.957	0.19	2.064m	1k
802.11ac VHT20_Nss2,(MCS0)_2TX	0.985	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss2,(MCS0)_2TX	0.971	0.13	952.5u	3k
802.11ac VHT80_Nss2,(MCS0)_2TX	0.942	0.26	460.313u	3k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.963	0.16	772.5u	3k
802.11ax HEW80_Nss2,(MCS0)_2TX	0.927	0.33	401.25u	3k

Beamforming

Sample 1_Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW160-BF	0.912	0.4	2.81m	1k
802.11ax HEW20-BF	0.871	0.6	1.503m	1k
802.11ax HEW40-BF	0.898	0.47	2.94m	1k
802.11ax HEW80-BF	0.924	0.34	5.216m	300
802.11ac VHT160-BF	0.91	0.41	2.81m	1k
802.11ac VHT20-BF	0.886	0.53	1.95m	1k
802.11ac VHT40-BF	0.925	0.34	3.714m	300
802.11ac VHT80-BF	0.93	0.32	4.701m	300

Sample 1_Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF	0.88	0.56	1.503m	1k
802.11ax HEW40-BF	0.906	0.43	2.94m	1k
802.11ax HEW80-BF	0.926	0.33	5.218m	300
802.11ac VHT20-BF	0.899	0.46	1.95m	1k
802.11ac VHT40-BF	0.921	0.36	3.714m	300
802.11ac VHT80-BF	0.934	0.3	4.701m	300

Sample 2_Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	0.886	0.53	1.95m	1k
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	0.925	0.34	3.714m	300
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	0.93	0.32	4.701m	300
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.91	0.41	2.81m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.871	0.6	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.898	0.47	2.94m	1k
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.924	0.34	5.216m	300
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.912	0.4	2.81m	1k

Sample 2_Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	0.899	0.46	1.95m	1k
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	0.921	0.36	3.714m	300
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	0.934	0.3	4.701m	300
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.88	0.56	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.906	0.43	2.94m	1k
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.926	0.33	5.218m	300

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 789033 D02 v02r01
- KDB 662911 D01 v02r01
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Gary Wang	23.5~25°C / 65~67%	28/Sep/2019~ 24/Dec/2019
Radiated	03CH03-HY	Patrick Hsieh	23.5~24.6°C / 52.9~54.3%	21/Oct/2019~ 28/Nov/2019

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 ℃	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
TnomVnom	Tnom	20°C
	Vnom	120V

2.2 Test Channel Mode

Test Software Version	accessMTool_REL_3_1_0_1

Non-Beamforming_
Sample 1_Radio 2_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	23
5300MHz	22.5
5320MHz	21.25
5500MHz	17.5
5580MHz	21.75
5700MHz	17.5
5720MHz Straddle 5.47-5.725GHz	22.5
5720MHz Straddle 5.725-5.85GHz	22.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	22.75
5300MHz	22.25
5320MHz	21.75
5500MHz	20.25
5580MHz	21.25
5700MHz	14.75
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	22.5
5310MHz	20.5
5510MHz	16.75
5550MHz	18.75

Mode	Power Setting
5670MHz	18.75
5710MHz Straddle 5.47-5.725GHz	21.25
5710MHz Straddle 5.725-5.85GHz	21.25
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	20.25
5530MHz	17.5
5610MHz	20.25
5690MHz Straddle 5.47-5.725GHz	20.5
5690MHz Straddle 5.725-5.85GHz	20.5
802.11ac VHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13.75
5250MHz Straddle 5.25-5.35GHz	13.75
5570MHz	14.5
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	22.75
5300MHz	22.25
5320MHz	21.75
5500MHz	20.25
5580MHz	21.25
5700MHz	14.75
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	22.5
5310MHz	20.5
5510MHz	16.75
5550MHz	20
5670MHz	19.5
5710MHz Straddle 5.47-5.725GHz	22
5710MHz Straddle 5.725-5.85GHz	22
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	20.25
5530MHz	17.5
5610MHz	20.25
5690MHz Straddle 5.47-5.725GHz	20.5

Mode	Power Setting
5690MHz Straddle 5.725-5.85GHz	20.5
802.11ax HEW160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13.75
5250MHz Straddle 5.25-5.35GHz	13.75
5570MHz	14.5

Sample 1_Radio 2_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	16.25
5300MHz	15.25
5320MHz	15
5500MHz	15.5
5580MHz	15
5700MHz	15.5
5720MHz Straddle 5.47-5.725GHz	15.5
5720MHz Straddle 5.725-5.85GHz	15.5
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	18.5
5300MHz	18
5320MHz	17.5
5500MHz	15.5
5580MHz	17.5
5700MHz	17.25
5720MHz Straddle 5.47-5.725GHz	17.75
5720MHz Straddle 5.725-5.85GHz	17.75
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	17.5
5510MHz	16.25
5550MHz	17.5
5670MHz	17.75
5710MHz Straddle 5.47-5.725GHz	17.75
5710MHz Straddle 5.725-5.85GHz	17.75
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	17
5530MHz	17.5
5610MHz	17.5
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75
802.11ac VHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	13

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	13
5570MHz	15.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	18.5
5300MHz	18
5320MHz	17.5
5500MHz	17.75
5580MHz	17.5
5700MHz	17.25
5720MHz Straddle 5.47-5.725GHz	17.75
5720MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	17.5
5510MHz	16.25
5550MHz	17.5
5670MHz	17.75
5710MHz Straddle 5.47-5.725GHz	17.75
5710MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	17
5530MHz	17.5
5610MHz	17.5
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	13
5250MHz Straddle 5.25-5.35GHz	13
5570MHz	15.75

Sample 1_Radio 2_4T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5260MHz	12.25
5300MHz	12.5
5320MHz	12.25
5500MHz	12.5
5580MHz	12.5
5700MHz	12.75
5720MHz Straddle 5.47-5.725GHz	13
5720MHz Straddle 5.725-5.85GHz	13
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5260MHz	12.75
5300MHz	12.75
5320MHz	12.5
5500MHz	12.75
5580MHz	12.5
5700MHz	13
5720MHz Straddle 5.47-5.725GHz	13
5720MHz Straddle 5.725-5.85GHz	13
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5270MHz	15.25
5310MHz	15.25
5510MHz	15.25
5550MHz	15.25
5670MHz	15.25
5710MHz Straddle 5.47-5.725GHz	15.5
5710MHz Straddle 5.725-5.85GHz	15.5
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5290MHz	17
5530MHz	16.5
5610MHz	17.25
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75
802.11ac VHT160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	11.5

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	11.5
5570MHz	13.25
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5260MHz	12.75
5300MHz	12.75
5320MHz	12.5
5500MHz	12.75
5580MHz	12.5
5700MHz	13
5720MHz Straddle 5.47-5.725GHz	13
5720MHz Straddle 5.725-5.85GHz	13
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5270MHz	15.25
5310MHz	15.25
5510MHz	15.25
5550MHz	15.25
5670MHz	15.25
5710MHz Straddle 5.47-5.725GHz	15.5
5710MHz Straddle 5.725-5.85GHz	15.5
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5290MHz	17
5530MHz	16.5
5610MHz	17.25
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	11.5
5250MHz Straddle 5.25-5.35GHz	11.5
5570MHz	13.25

Sample 1_Radio 2_4T4S

Mode	Power Setting
802.11ac VHT20_Nss4,(MCS0)_4TX	-
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	17
5580MHz	17
5700MHz	16.75
5720MHz Straddle 5.47-5.725GHz	18
5720MHz Straddle 5.725-5.85GHz	18
802.11ac VHT40_Nss4,(MCS0)_4TX	-
5270MHz	17.5
5310MHz	17.5
5510MHz	17.5
5550MHz	17.5
5670MHz	17.5
5710MHz Straddle 5.47-5.725GHz	18.25
5710MHz Straddle 5.725-5.85GHz	18.25
802.11ac VHT80_Nss4,(MCS0)_4TX	-
5290MHz	17
5530MHz	16.75
5610MHz	17.5
5690MHz Straddle 5.47-5.725GHz	18
5690MHz Straddle 5.725-5.85GHz	18
802.11ac VHT160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	11.75
5250MHz Straddle 5.25-5.35GHz	11.75
5570MHz	13
802.11ax HEW20_Nss4,(MCS0)_4TX	-
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	17
5580MHz	17
5700MHz	16.75

Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	18
5720MHz Straddle 5.725-5.85GHz	18
802.11ax HEW40_Nss4,(MCS0)_4TX	-
5270MHz	17.5
5310MHz	17.5
5510MHz	17.5
5550MHz	17.5
5670MHz	17.5
5710MHz Straddle 5.47-5.725GHz	18.25
5710MHz Straddle 5.725-5.85GHz	18.25
802.11ax HEW80_Nss4,(MCS0)_4TX	-
5290MHz	17
5530MHz	16.75
5610MHz	17.5
5690MHz Straddle 5.47-5.725GHz	18
5690MHz Straddle 5.725-5.85GHz	18
802.11ax HEW160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	11.75
5250MHz Straddle 5.25-5.35GHz	11.75
5570MHz	13

Sample 1_Radio 3_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	23
5300MHz	23
5320MHz	21.5
5500MHz	19.5
5580MHz	23.5
5700MHz	20.5
5720MHz Straddle 5.47-5.725GHz	24.5
5720MHz Straddle 5.725-5.85GHz	24.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	22.75
5300MHz	22.75
5320MHz	20.25
5500MHz	20
5580MHz	23.25
5700MHz	19
5720MHz Straddle 5.47-5.725GHz	24.25
5720MHz Straddle 5.725-5.85GHz	24.25
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	22.75
5310MHz	18.5
5510MHz	18.75
5550MHz	23.25
5670MHz	23
5710MHz Straddle 5.47-5.725GHz	24.25
5710MHz Straddle 5.725-5.85GHz	24.25
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	18.75
5530MHz	19.5
5610MHz	23.25
5690MHz Straddle 5.47-5.725GHz	23.75
5690MHz Straddle 5.725-5.85GHz	23.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	22.75

Mode	Power Setting
5300MHz	22.75
5320MHz	20.25
5500MHz	20
5580MHz	23.25
5700MHz	19
5720MHz Straddle 5.47-5.725GHz	24.25
5720MHz Straddle 5.725-5.85GHz	24.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	22.75
5310MHz	18.5
5510MHz	18.75
5550MHz	23.25
5670MHz	23
5710MHz Straddle 5.47-5.725GHz	24.25
5710MHz Straddle 5.725-5.85GHz	24.25
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	18.75
5530MHz	19.5
5610MHz	23.25
5690MHz Straddle 5.47-5.725GHz	23.75
5690MHz Straddle 5.725-5.85GHz	23.75

Sample 1_Radio 3_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	19.25
5300MHz	19.25
5320MHz	19.25
5500MHz	19.25
5580MHz	19.75
5700MHz	19.75
5720MHz Straddle 5.47-5.725GHz	20
5720MHz Straddle 5.725-5.85GHz	20
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	20.5
5300MHz	20.5
5320MHz	20.5
5500MHz	20.5
5580MHz	20.75
5700MHz	19.5
5720MHz Straddle 5.47-5.725GHz	22
5720MHz Straddle 5.725-5.85GHz	22
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	20.5
5310MHz	18.5
5510MHz	18
5550MHz	20.75
5670MHz	20.75
5710MHz Straddle 5.47-5.725GHz	22
5710MHz Straddle 5.725-5.85GHz	22
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	18.25
5530MHz	19.25
5610MHz	21
5690MHz Straddle 5.47-5.725GHz	21.75
5690MHz Straddle 5.725-5.85GHz	21.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	20.5

Mode	Power Setting
5300MHz	20.5
5320MHz	20.5
5500MHz	20.5
5580MHz	20.75
5700MHz	19.5
5720MHz Straddle 5.47-5.725GHz	22
5720MHz Straddle 5.725-5.85GHz	22
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	20.5
5310MHz	18.5
5510MHz	18
5550MHz	20.75
5670MHz	20.75
5710MHz Straddle 5.47-5.725GHz	22
5710MHz Straddle 5.725-5.85GHz	22
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	18.25
5530MHz	19.25
5610MHz	21
5690MHz Straddle 5.47-5.725GHz	21.75
5690MHz Straddle 5.725-5.85GHz	21.75

Sample 2_Radio 2_Omni_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	23
5300MHz	23.25
5320MHz	22
5500MHz	16.25
5580MHz	23
5700MHz	17
5720MHz Straddle 5.47-5.725GHz	26
5720MHz Straddle 5.725-5.85GHz	26
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	23
5300MHz	22.75
5320MHz	20.5
5500MHz	17
5580MHz	22.75
5700MHz	14.5
5720MHz Straddle 5.47-5.725GHz	25.25
5720MHz Straddle 5.725-5.85GHz	25.25
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	23
5310MHz	19
5510MHz	14.75
5550MHz	21.75
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	24.75
5710MHz Straddle 5.725-5.85GHz	24.75
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	19
5530MHz	15.5
5610MHz	18.75
5690MHz Straddle 5.47-5.725GHz	22.75
5690MHz Straddle 5.725-5.85GHz	22.75
802.11ac VHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	13
5570MHz	13.5
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	23
5300MHz	22.75
5320MHz	20.5
5500MHz	17
5580MHz	22.75
5700MHz	14.5
5720MHz Straddle 5.47-5.725GHz	25.25
5720MHz Straddle 5.725-5.85GHz	25.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	23
5310MHz	19
5510MHz	14.75
5550MHz	21.75
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	24.75
5710MHz Straddle 5.725-5.85GHz	24.75
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	19
5530MHz	15.5
5610MHz	18.75
5690MHz Straddle 5.47-5.725GHz	22.75
5690MHz Straddle 5.725-5.85GHz	22.75
802.11ax HEW160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13
5250MHz Straddle 5.25-5.35GHz	13
5570MHz	13.5

Sample 2_Radio 2_Omni_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	15.5
5300MHz	15.75
5320MHz	15.75
5500MHz	15
5580MHz	15.5
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	16
5720MHz Straddle 5.725-5.85GHz	16
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	18
5300MHz	18
5320MHz	17.25
5500MHz	17.25
5580MHz	17.75
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	15
5510MHz	14.75
5550MHz	18
5670MHz	15.5
5710MHz Straddle 5.47-5.725GHz	18.75
5710MHz Straddle 5.725-5.85GHz	18.75
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	14
5530MHz	15
5610MHz	18.25
5690MHz Straddle 5.47-5.725GHz	18.25
5690MHz Straddle 5.725-5.85GHz	18.25
802.11ac VHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	9

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	9
5570MHz	10.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	18
5300MHz	18
5320MHz	17.25
5500MHz	17.25
5580MHz	17.75
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	15
5510MHz	14.75
5550MHz	18
5670MHz	15.5
5710MHz Straddle 5.47-5.725GHz	18.75
5710MHz Straddle 5.725-5.85GHz	18.75
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	14
5530MHz	15
5610MHz	18.25
5690MHz Straddle 5.47-5.725GHz	18.25
5690MHz Straddle 5.725-5.85GHz	18.25
802.11ax HEW160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	9
5250MHz Straddle 5.25-5.35GHz	9
5570MHz	10.75

Sample 2_Radio 2_Omni_4T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5260MHz	10
5300MHz	10.25
5320MHz	10.25
5500MHz	10.25
5580MHz	10
5700MHz	10.5
5720MHz Straddle 5.47-5.725GHz	10.5
5720MHz Straddle 5.725-5.85GHz	10.5
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5260MHz	10.5
5300MHz	10.75
5320MHz	10.75
5500MHz	10.75
5580MHz	10.5
5700MHz	9
5720MHz Straddle 5.47-5.725GHz	11
5720MHz Straddle 5.725-5.85GHz	11
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5270MHz	15
5310MHz	12.25
5510MHz	12.25
5550MHz	14.25
5670MHz	14.25
5710MHz Straddle 5.47-5.725GHz	15.25
5710MHz Straddle 5.725-5.85GHz	15.25
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5290MHz	12.5
5530MHz	12.75
5610MHz	14.75
5690MHz Straddle 5.47-5.725GHz	15
5690MHz Straddle 5.725-5.85GHz	15
802.11ac VHT160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	8.75

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	8.75
5570MHz	10.75
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5260MHz	10.5
5300MHz	10.75
5320MHz	10.75
5500MHz	10.75
5580MHz	10.75
5700MHz	9
5720MHz Straddle 5.47-5.725GHz	11
5720MHz Straddle 5.725-5.85GHz	11
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5270MHz	15
5310MHz	12.25
5510MHz	12.25
5550MHz	14.25
5670MHz	14.25
5710MHz Straddle 5.47-5.725GHz	15.25
5710MHz Straddle 5.725-5.85GHz	15.25
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5290MHz	12.5
5530MHz	12.75
5610MHz	14.75
5690MHz Straddle 5.47-5.725GHz	15
5690MHz Straddle 5.725-5.85GHz	15
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	8.75
5250MHz Straddle 5.25-5.35GHz	8.75
5570MHz	10.75

Sample 2_Radio 2_Omni_4T4S

Mode	Power Setting
802.11ac VHT20_Nss4,(MCS0)_4TX	-
5260MHz	15.5
5300MHz	15.5
5320MHz	15.5
5500MHz	15.25
5580MHz	15.25
5700MHz	15
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ac VHT40_Nss4,(MCS0)_4TX	-
5270MHz	15.5
5310MHz	13.5
5510MHz	13.5
5550MHz	15.5
5670MHz	14.75
5710MHz Straddle 5.47-5.725GHz	16.75
5710MHz Straddle 5.725-5.85GHz	16.75
802.11ac VHT80_Nss4,(MCS0)_4TX	-
5290MHz	14
5530MHz	14.75
5610MHz	15.5
5690MHz Straddle 5.47-5.725GHz	16.25
5690MHz Straddle 5.725-5.85GHz	16.25
802.11ac VHT160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	8.25
5250MHz Straddle 5.25-5.35GHz	8.25
5570MHz	10.5
802.11ax HEW20_Nss4,(MCS0)_4TX	-
5260MHz	15.5
5300MHz	15.5
5320MHz	15.5
5500MHz	15.25
5580MHz	15.25
5700MHz	15

Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ax HEW40_Nss4,(MCS0)_4TX	-
5270MHz	15.5
5310MHz	13.5
5510MHz	13.5
5550MHz	15.5
5670MHz	14.75
5710MHz Straddle 5.47-5.725GHz	16.75
5710MHz Straddle 5.725-5.85GHz	16.75
802.11ax HEW80_Nss4,(MCS0)_4TX	-
5290MHz	14
5530MHz	14.75
5610MHz	15.5
5690MHz Straddle 5.47-5.725GHz	16.25
5690MHz Straddle 5.725-5.85GHz	16.25
802.11ax HEW160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	8.25
5250MHz Straddle 5.25-5.35GHz	8.25
5570MHz	10.5

Sample 2_Radio 2_Panel 1_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	19.25
5300MHz	19.25
5320MHz	19.25
5500MHz	16.75
5580MHz	19.25
5700MHz	17
5720MHz Straddle 5.47-5.725GHz	20
5720MHz Straddle 5.725-5.85GHz	20
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	19.25
5300MHz	19.25
5320MHz	19.25
5500MHz	16.75
5580MHz	18.75
5700MHz	14.25
5720MHz Straddle 5.47-5.725GHz	20
5720MHz Straddle 5.725-5.85GHz	20
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	19.25
5310MHz	17.5
5510MHz	15.5
5550MHz	19.25
5670MHz	18.75
5710MHz Straddle 5.47-5.725GHz	20.25
5710MHz Straddle 5.725-5.85GHz	20.25
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	17.75
5530MHz	17
5610MHz	19.5
5690MHz Straddle 5.47-5.725GHz	20
5690MHz Straddle 5.725-5.85GHz	20
802.11ac VHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13.75

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	13.75
5570MHz	14.25
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	19.25
5300MHz	19.25
5320MHz	19.25
5500MHz	16.75
5580MHz	18.75
5700MHz	14.25
5720MHz Straddle 5.47-5.725GHz	20
5720MHz Straddle 5.725-5.85GHz	20
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	19.25
5310MHz	17.5
5510MHz	15.5
5550MHz	19.25
5670MHz	18.75
5710MHz Straddle 5.47-5.725GHz	20.25
5710MHz Straddle 5.725-5.85GHz	20.25
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	17.75
5530MHz	17
5610MHz	19.5
5690MHz Straddle 5.47-5.725GHz	20
5690MHz Straddle 5.725-5.85GHz	20
802.11ax HEW160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	13.75
5250MHz Straddle 5.25-5.35GHz	13.75
5570MHz	14.25

Sample 2_Radio 2_Panel 1_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	13.5
5300MHz	13.5
5320MHz	13.5
5500MHz	13.5
5580MHz	13.5
5700MHz	14.25
5720MHz Straddle 5.47-5.725GHz	14.25
5720MHz Straddle 5.725-5.85GHz	14.25
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	15.25
5300MHz	15.5
5320MHz	15.25
5500MHz	15.5
5580MHz	15.5
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	16.25
5720MHz Straddle 5.725-5.85GHz	16.25
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	15.5
5310MHz	15.5
5510MHz	15
5550MHz	15.5
5670MHz	15.5
5710MHz Straddle 5.47-5.725GHz	16.75
5710MHz Straddle 5.725-5.85GHz	16.75
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	15.25
5530MHz	15.5
5610MHz	15.75
5690MHz Straddle 5.47-5.725GHz	16.25
5690MHz Straddle 5.725-5.85GHz	16.25
802.11ac VHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	9.25

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	9.25
5570MHz	11.25
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	15.25
5300MHz	15.5
5320MHz	15.25
5500MHz	15.5
5580MHz	15.5
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	16.25
5720MHz Straddle 5.725-5.85GHz	16.25
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	15.5
5310MHz	15.5
5510MHz	15
5550MHz	15.5
5670MHz	15.5
5710MHz Straddle 5.47-5.725GHz	16.75
5710MHz Straddle 5.725-5.85GHz	16.75
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	15.25
5530MHz	15.5
5610MHz	15.75
5690MHz Straddle 5.47-5.725GHz	16.25
5690MHz Straddle 5.725-5.85GHz	16.25
802.11ax HEW160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	9.25
5250MHz Straddle 5.25-5.35GHz	9.25
5570MHz	11.25

Sample 2_Radio 2_Panel 1_4T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5260MHz	8
5300MHz	8
5320MHz	8
5500MHz	8.25
5580MHz	8
5700MHz	8.5
5720MHz Straddle 5.47-5.725GHz	8.5
5720MHz Straddle 5.725-5.85GHz	8.5
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5260MHz	8.25
5300MHz	8.25
5320MHz	8.25
5500MHz	8.25
5580MHz	8
5700MHz	8.5
5720MHz Straddle 5.47-5.725GHz	8.5
5720MHz Straddle 5.725-5.85GHz	8.5
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5270MHz	11.25
5310MHz	11.25
5510MHz	11.25
5550MHz	11
5670MHz	11.5
5710MHz Straddle 5.47-5.725GHz	11.5
5710MHz Straddle 5.725-5.85GHz	11.5
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5290MHz	13
5530MHz	12.75
5610MHz	12.75
5690MHz Straddle 5.47-5.725GHz	13.25
5690MHz Straddle 5.725-5.85GHz	13.25
802.11ac VHT160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	9

Mode	Power Setting
5250MHz Straddle 5.25-5.35GHz	9
5570MHz	11
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5260MHz	8.25
5300MHz	8.25
5320MHz	8.25
5500MHz	8.25
5580MHz	8
5700MHz	8.5
5720MHz Straddle 5.47-5.725GHz	8.5
5720MHz Straddle 5.725-5.85GHz	8.5
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5270MHz	11.25
5310MHz	11.25
5510MHz	11.25
5550MHz	11
5670MHz	11.5
5710MHz Straddle 5.47-5.725GHz	11.5
5710MHz Straddle 5.725-5.85GHz	11.5
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5290MHz	13
5530MHz	12.75
5610MHz	12.75
5690MHz Straddle 5.47-5.725GHz	13.25
5690MHz Straddle 5.725-5.85GHz	13.25
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	9
5250MHz Straddle 5.25-5.35GHz	9
5570MHz	11

Sample 2_Radio 2_Panel 1_4T4S

Mode	Power Setting
802.11ac VHT20_Nss4,(MCS0)_4TX	-
5260MHz	13
5300MHz	12.75
5320MHz	12.75
5500MHz	13
5580MHz	12.75
5700MHz	13.25
5720MHz Straddle 5.47-5.725GHz	13.5
5720MHz Straddle 5.725-5.85GHz	13.5
802.11ac VHT40_Nss4,(MCS0)_4TX	-
5270MHz	13
5310MHz	13
5510MHz	13
5550MHz	12.75
5670MHz	13.25
5710MHz Straddle 5.47-5.725GHz	13.75
5710MHz Straddle 5.725-5.85GHz	13.75
802.11ac VHT80_Nss4,(MCS0)_4TX	-
5290MHz	13
5530MHz	12.75
5610MHz	13.25
5690MHz Straddle 5.47-5.725GHz	13.75
5690MHz Straddle 5.725-5.85GHz	13.75
802.11ac VHT160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	7.25
5250MHz Straddle 5.25-5.35GHz	7.25
5570MHz	9.5
802.11ax HEW20_Nss4,(MCS0)_4TX	-
5260MHz	13
5300MHz	13
5320MHz	12.75
5500MHz	13
5580MHz	12.75
5700MHz	13.25

Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	13.5
5720MHz Straddle 5.725-5.85GHz	13.5
802.11ax HEW40_Nss4,(MCS0)_4TX	-
5270MHz	13
5310MHz	13
5510MHz	13
5550MHz	12.75
5670MHz	13.25
5710MHz Straddle 5.47-5.725GHz	13.75
5710MHz Straddle 5.725-5.85GHz	13.75
802.11ax HEW80_Nss4,(MCS0)_4TX	-
5290MHz	13
5530MHz	12.75
5610MHz	13.25
5690MHz Straddle 5.47-5.725GHz	13.75
5690MHz Straddle 5.725-5.85GHz	13.75
802.11ax HEW160_Nss4,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	7.25
5250MHz Straddle 5.25-5.35GHz	7.25
5570MHz	9.5

Sample 2_Radio 3_Omni_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	20.5
5300MHz	20.5
5320MHz	18
5500MHz	16.75
5580MHz	20.75
5700MHz	17.75
5720MHz Straddle 5.47-5.725GHz	22
5720MHz Straddle 5.725-5.85GHz	22
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	20.25
5300MHz	20.25
5320MHz	17.75
5500MHz	17.25
5580MHz	20.75
5700MHz	14.25
5720MHz Straddle 5.47-5.725GHz	22.25
5720MHz Straddle 5.725-5.85GHz	22.25
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	20.25
5310MHz	13.75
5510MHz	15
5550MHz	21
5670MHz	18.5
5710MHz Straddle 5.47-5.725GHz	21.25
5710MHz Straddle 5.725-5.85GHz	21.25
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	14.25
5530MHz	14
5610MHz	19
5690MHz Straddle 5.47-5.725GHz	21
5690MHz Straddle 5.725-5.85GHz	21
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	20.25

Mode	Power Setting
5300MHz	20.25
5320MHz	17.75
5500MHz	17.25
5580MHz	20.75
5700MHz	14.25
5720MHz Straddle 5.47-5.725GHz	22.25
5720MHz Straddle 5.725-5.85GHz	22.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	19.75
5310MHz	13.75
5510MHz	15
5550MHz	21
5670MHz	18.5
5710MHz Straddle 5.47-5.725GHz	21.25
5710MHz Straddle 5.725-5.85GHz	21.25
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	14.25
5530MHz	14
5610MHz	19
5690MHz Straddle 5.47-5.725GHz	21
5690MHz Straddle 5.725-5.85GHz	21

Sample 2_Radio 3_Omni_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	15.75
5300MHz	15.75
5320MHz	15.75
5500MHz	15.75
5580MHz	15.75
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	16
5720MHz Straddle 5.725-5.85GHz	16
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	18
5300MHz	18
5320MHz	16.5
5500MHz	18
5580MHz	18.25
5700MHz	15.75
5720MHz Straddle 5.47-5.725GHz	19.5
5720MHz Straddle 5.725-5.85GHz	19.5
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	16
5510MHz	14
5550MHz	18.5
5670MHz	16.75
5710MHz Straddle 5.47-5.725GHz	19.5
5710MHz Straddle 5.725-5.85GHz	-
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	12.5
5530MHz	13
5610MHz	-
5690MHz Straddle 5.47-5.725GHz	19.25
5690MHz Straddle 5.725-5.85GHz	19.25
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	18

Mode	Power Setting
5300MHz	18
5320MHz	16.5
5500MHz	18
5580MHz	18.25
5700MHz	-
5720MHz Straddle 5.47-5.725GHz	19.5
5720MHz Straddle 5.725-5.85GHz	19.5
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	18.25
5310MHz	16
5510MHz	14
5550MHz	-
5670MHz	16.75
5710MHz Straddle 5.47-5.725GHz	19.5
5710MHz Straddle 5.725-5.85GHz	19.5
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	12.5
5530MHz	13
5610MHz	18.5
5690MHz Straddle 5.47-5.725GHz	19.25
5690MHz Straddle 5.725-5.85GHz	19.25

Sample 2_Radio 3_Panel 1_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5260MHz	20.25
5300MHz	20.25
5320MHz	17.75
5500MHz	17.5
5580MHz	21.25
5700MHz	18
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5260MHz	20
5300MHz	20
5320MHz	17.75
5500MHz	17.75
5580MHz	21
5700MHz	15.5
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5270MHz	20
5310MHz	15.25
5510MHz	16.5
5550MHz	21.5
5670MHz	18.25
5710MHz Straddle 5.47-5.725GHz	20.75
5710MHz Straddle 5.725-5.85GHz	20.75
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5290MHz	14.75
5530MHz	16.25
5610MHz	19.25
5690MHz Straddle 5.47-5.725GHz	21
5690MHz Straddle 5.725-5.85GHz	21
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5260MHz	20

Mode	Power Setting
5300MHz	20
5320MHz	17.75
5500MHz	17.75
5580MHz	21
5700MHz	15.5
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5270MHz	20
5310MHz	15.25
5510MHz	16.5
5550MHz	21.5
5670MHz	18.25
5710MHz Straddle 5.47-5.725GHz	20.75
5710MHz Straddle 5.725-5.85GHz	20.75
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5290MHz	14.75
5530MHz	16.25
5610MHz	19.25
5690MHz Straddle 5.47-5.725GHz	21
5690MHz Straddle 5.725-5.85GHz	21

Sample 2_Radio 3_Panel 1_2T2S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	14.5
5300MHz	14.5
5320MHz	14.75
5500MHz	15.25
5580MHz	15.25
5700MHz	15.5
5720MHz Straddle 5.47-5.725GHz	15.5
5720MHz Straddle 5.725-5.85GHz	15.5
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5260MHz	17
5300MHz	17
5320MHz	16.75
5500MHz	17.75
5580MHz	17.75
5700MHz	16.75
5720MHz Straddle 5.47-5.725GHz	17.75
5720MHz Straddle 5.725-5.85GHz	17.75
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5270MHz	17
5310MHz	14
5510MHz	16
5550MHz	17.75
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	18
5710MHz Straddle 5.725-5.85GHz	18
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5290MHz	12.5
5530MHz	14.25
5610MHz	18
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5260MHz	17

Mode	Power Setting
5300MHz	17
5320MHz	16.75
5500MHz	17.75
5580MHz	17.75
5700MHz	16.75
5720MHz Straddle 5.47-5.725GHz	17.75
5720MHz Straddle 5.725-5.85GHz	17.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5270MHz	17
5310MHz	14
5510MHz	16
5550MHz	17.75
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	18
5710MHz Straddle 5.725-5.85GHz	18
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5290MHz	12.5
5530MHz	14.25
5610MHz	18
5690MHz Straddle 5.47-5.725GHz	17.75
5690MHz Straddle 5.725-5.85GHz	17.75

Test Software Version	CMD

Beamforming
Sample 1_Radio 2_4T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5260MHz	13
5300MHz	12.75
5320MHz	12.75
5500MHz	12.5
5580MHz	12.5
5700MHz	13
5720MHz Straddle 5.47-5.725GHz	12.75
5720MHz Straddle 5.725-5.85GHz	12.75
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5270MHz	13
5310MHz	12.75
5510MHz	12.75
5550MHz	12.75
5670MHz	12.75
5710MHz Straddle 5.47-5.725GHz	12.75
5710MHz Straddle 5.725-5.85GHz	12.75
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5290MHz	12.75
5530MHz	12.75
5610MHz	12.5
5690MHz Straddle 5.47-5.725GHz	12.25
5690MHz Straddle 5.725-5.85GHz	12.25
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	12.25
5250MHz Straddle 5.25-5.35GHz	12.25
5570MHz	11.5
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5260MHz	13
5300MHz	12.75
5320MHz	12.75

Mode	Power Setting
5500MHz	12.5
5580MHz	12.5
5700MHz	13
5720MHz Straddle 5.47-5.725GHz	12.75
5720MHz Straddle 5.725-5.85GHz	12.75
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5270MHz	13
5310MHz	12.75
5510MHz	12.75
5550MHz	12.75
5670MHz	12.75
5710MHz Straddle 5.47-5.725GHz	12.75
5710MHz Straddle 5.725-5.85GHz	12.75
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5290MHz	12.75
5530MHz	12.75
5610MHz	12.5
5690MHz Straddle 5.47-5.725GHz	12.25
5690MHz Straddle 5.725-5.85GHz	12.25
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	12.25
5250MHz Straddle 5.25-5.35GHz	12.25
5570MHz	11.5

Sample 1_Radio 3_2T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	18.25
5300MHz	18.25
5320MHz	18.25
5500MHz	18.75
5580MHz	18.75
5700MHz	18.25
5720MHz Straddle 5.47-5.725GHz	18.5
5720MHz Straddle 5.725-5.85GHz	18.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	18.5
5310MHz	18.5
5510MHz	18
5550MHz	19.25
5670MHz	19.25
5710MHz Straddle 5.47-5.725GHz	19
5710MHz Straddle 5.725-5.85GHz	19
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	17.25
5530MHz	18
5610MHz	19.25
5690MHz Straddle 5.47-5.725GHz	18.25
5690MHz Straddle 5.725-5.85GHz	18.25
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5260MHz	18.25
5300MHz	18.25
5320MHz	18.25
5500MHz	18.75
5580MHz	18.75
5700MHz	18.25
5720MHz Straddle 5.47-5.725GHz	18.5
5720MHz Straddle 5.725-5.85GHz	18.5
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5270MHz	18.5

Mode	Power Setting
5310MHz	18.5
5510MHz	18
5550MHz	19.25
5670MHz	19.25
5710MHz Straddle 5.47-5.725GHz	19
5710MHz Straddle 5.725-5.85GHz	19
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5290MHz	17.25
5530MHz	18
5610MHz	19.25
5690MHz Straddle 5.47-5.725GHz	18.25
5690MHz Straddle 5.725-5.85GHz	18.25

Sample 2_Radio 2_Omni_4T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5260MHz	11.25
5300MHz	11.25
5320MHz	11.25
5500MHz	11.25
5580MHz	11
5700MHz	11
5720MHz Straddle 5.47-5.725GHz	11.25
5720MHz Straddle 5.725-5.85GHz	11.25
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5270MHz	11.25
5310MHz	8.5
5510MHz	11.25
5550MHz	11.25
5670MHz	11.5
5710MHz Straddle 5.47-5.725GHz	11.25
5710MHz Straddle 5.725-5.85GHz	11.25
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5290MHz	10.25
5530MHz	10.5
5610MHz	11
5690MHz Straddle 5.47-5.725GHz	10.5
5690MHz Straddle 5.725-5.85GHz	10.5
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	10.25
5250MHz Straddle 5.25-5.35GHz	10.25
5570MHz	10.75
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5260MHz	11.25
5300MHz	11.25
5320MHz	11.25
5500MHz	11.25
5580MHz	11
5700MHz	11

Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	11.25
5720MHz Straddle 5.725-5.85GHz	11.25
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5270MHz	11.25
5310MHz	8.5
5510MHz	11.25
5550MHz	11.25
5670MHz	11.5
5710MHz Straddle 5.47-5.725GHz	11.25
5710MHz Straddle 5.725-5.85GHz	11.25
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5290MHz	10.25
5530MHz	10.5
5610MHz	11
5690MHz Straddle 5.47-5.725GHz	10.5
5690MHz Straddle 5.725-5.85GHz	10.5
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	10.25
5250MHz Straddle 5.25-5.35GHz	10.25
5570MHz	10.75

Sample 2_Radio 2_Panel 1_4T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5260MHz	9
5300MHz	8.75
5320MHz	8.75
5500MHz	8.75
5580MHz	8.75
5700MHz	9
5720MHz Straddle 5.47-5.725GHz	9
5720MHz Straddle 5.725-5.85GHz	9
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5270MHz	8.75
5310MHz	8.75
5510MHz	8.5
5550MHz	8.5
5670MHz	8.75
5710MHz Straddle 5.47-5.725GHz	8.75
5710MHz Straddle 5.725-5.85GHz	8.75
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5290MHz	8.25
5530MHz	8.25
5610MHz	8.5
5690MHz Straddle 5.47-5.725GHz	8
5690MHz Straddle 5.725-5.85GHz	8
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	9.75
5250MHz Straddle 5.25-5.35GHz	9.75
5570MHz	8
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5260MHz	9
5300MHz	8.75
5320MHz	8.75
5500MHz	8.75
5580MHz	8.75
5700MHz	9

Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	9
5720MHz Straddle 5.725-5.85GHz	9
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5270MHz	8.75
5310MHz	8.75
5510MHz	8.5
5550MHz	8.5
5670MHz	8.75
5710MHz Straddle 5.47-5.725GHz	8.75
5710MHz Straddle 5.725-5.85GHz	8.75
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5290MHz	8.25
5530MHz	8.25
5610MHz	8.5
5690MHz Straddle 5.47-5.725GHz	8
5690MHz Straddle 5.725-5.85GHz	8
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	9.75
5250MHz Straddle 5.25-5.35GHz	9.75
5570MHz	8

Sample 2_Radio 3_Omni_2T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	16.5
5300MHz	16.5
5320MHz	15.25
5500MHz	16.25
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	16.5
5310MHz	12
5510MHz	10.5
5550MHz	17
5670MHz	15.75
5710MHz Straddle 5.47-5.725GHz	16.5
5710MHz Straddle 5.725-5.85GHz	16.5
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	12
5530MHz	14
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	16
5690MHz Straddle 5.725-5.85GHz	16
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5260MHz	16.5
5300MHz	16.5
5320MHz	15.25
5500MHz	16.25
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5270MHz	16.5

Mode	Power Setting
5310MHz	12
5510MHz	10.5
5550MHz	17
5670MHz	15.75
5710MHz Straddle 5.47-5.725GHz	16.5
5710MHz Straddle 5.725-5.85GHz	16.5
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5290MHz	12
5530MHz	14
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	16
5690MHz Straddle 5.725-5.85GHz	16

Sample 2_Radio 3_Panel 1_2T1S

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	13.5
5300MHz	13.5
5320MHz	13.75
5500MHz	14
5580MHz	14
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	13.75
5720MHz Straddle 5.725-5.85GHz	13.75
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	13.75
5310MHz	14
5510MHz	14.25
5550MHz	14.25
5670MHz	14.25
5710MHz Straddle 5.47-5.725GHz	13.75
5710MHz Straddle 5.725-5.85GHz	13.75
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	13.75
5530MHz	13.75
5610MHz	14
5690MHz Straddle 5.47-5.725GHz	13.25
5690MHz Straddle 5.725-5.85GHz	13.25
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5260MHz	13.5
5300MHz	13.5
5320MHz	13.75
5500MHz	14
5580MHz	14
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	13.75
5720MHz Straddle 5.725-5.85GHz	13.75
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5270MHz	13.75

Mode	Power Setting
5310MHz	14
5510MHz	14.25
5550MHz	14.25
5670MHz	14.25
5710MHz Straddle 5.47-5.725GHz	13.75
5710MHz Straddle 5.725-5.85GHz	13.75
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5290MHz	13.75
5530MHz	13.75
5610MHz	14
5690MHz Straddle 5.47-5.725GHz	13.25
5690MHz Straddle 5.725-5.85GHz	13.25

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	PoE Mode (Non-Beamforming_Sample 1_Radio 2_1T1S)
2	PoE Mode (Non-Beamforming_Sample 1_Radio 2_2T2S)
3	PoE Mode (Non-Beamforming_Sample 1_Radio 2_4T1S)
4	PoE Mode (Non-Beamforming_Sample 1_Radio 2_4T4S)
5	PoE Mode (Non-Beamforming_Sample 1_Radio 3_1T1S)
6	PoE Mode (Non-Beamforming_Sample 1_Radio 3_2T2S)
7	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_1T1S)
8	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_2T2S)
9	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_4T1S)
10	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_4T4S)
11	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_1T1S)
12	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_2T2S)
13	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_4T1S)
14	PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_4T4S)
15	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Omni_1T1S)
16	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Omni_2T2S)
17	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 1_1T1S)
18	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 1_2T2S)
19	PoE Mode (Beamforming_Sample 1_Radio 2_4T1S)
20	PoE Mode (Beamforming_Sample 1_Radio 3_2T1S)
21	PoE Mode (Beamforming_Sample 2_Radio 2_Omni_4T1S)
22	PoE Mode (Beamforming_Sample 2_Radio 2_Panel 1_4T1S)
23	PoE Mode (Beamforming_Sample 2_Radio 3_Omni_2T1S)

24	PoE Mode (Beamforming_Sample 2_Radio 3_Panel 1_2T1S)		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT	V	V	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4G+ WLAN 5G+ WLAN 2.4G+Thread
2	WLAN 2.4G+ WLAN 5G+ WLAN 2.4G+BT
3	WLAN 2.4G+ WLAN 5G+ WLAN 5G+Thread
4	WLAN 2.4G+ WLAN 5G+ WLAN 5G+BT
Refer to Sporton Test Report No.: FA970235-01 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	Notebook	DELL	E5410	DoC
4	Adapter for NB	DELL	HA65NM130	DoC
5	PoE	EnGenius	EPA5006GP	-

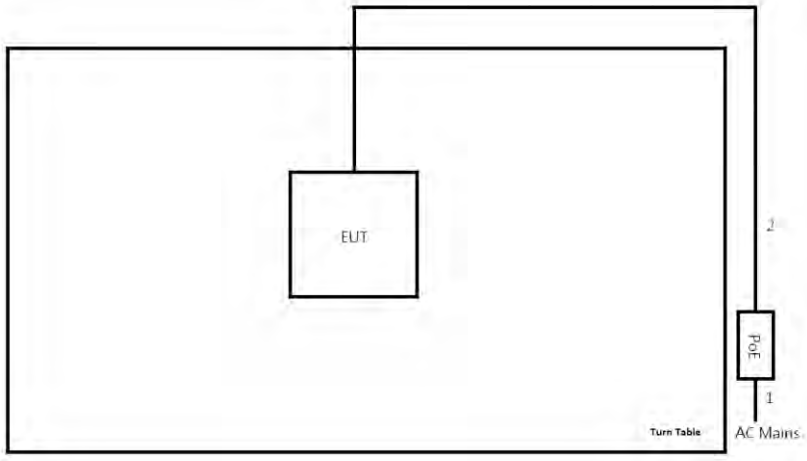
Note: Support equipment No.5 was provided by customer.

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Load	Sporton	-	-
2	LAN Cable	Power Sync	CAT-6E-01	-
3	LAN Cable	Power Sync	CAT-6E-10	-
4	PoE (remote)	EnGenius	EPA5006GP	-
5	AC Power Cable (remote)	-	-	-
6	Notebook (remote)	DELL	PP13S	-
7	LAN Cable (remote)	Power Sync	CAT-6E-01	-
8	Adapter for Notebook (remote)	DELL	AA90PM111	-

Note: Support equipment No.4, 5 were provided by customer.

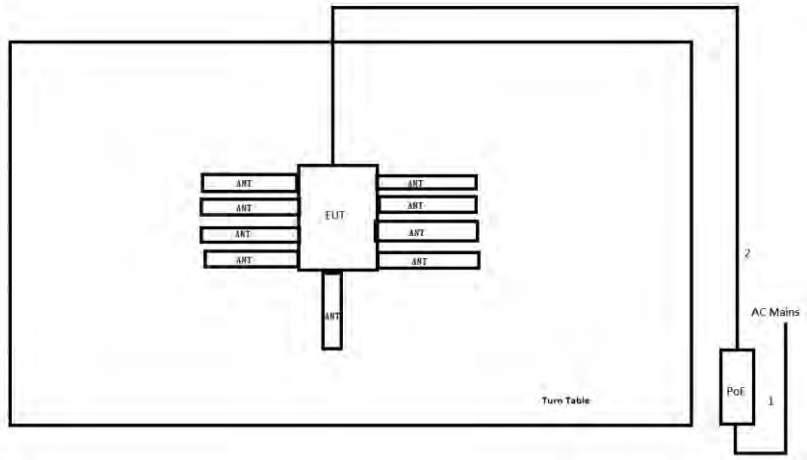
2.5 Test Setup Diagram

Test Setup Diagram - Radiated Test (Sample 1)



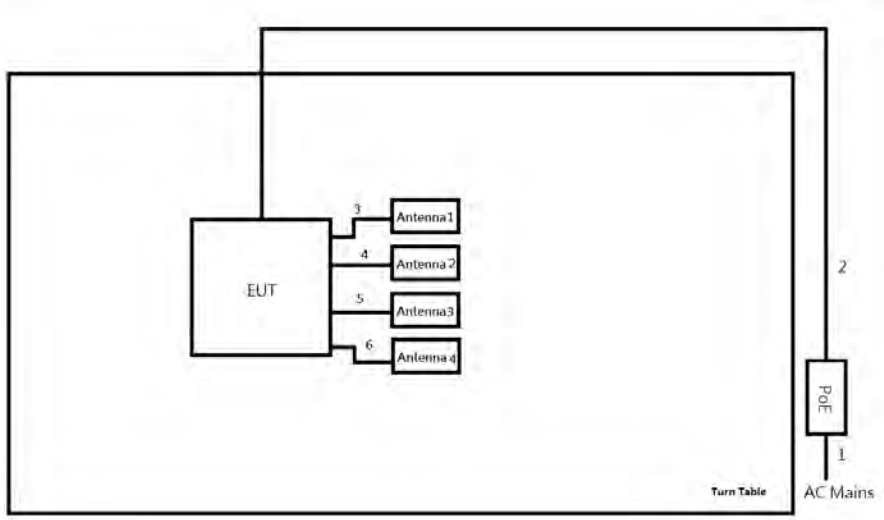
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-

Test Setup Diagram - Radiated Test (Sample 2_Omni)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-

Test Setup Diagram - Radiated Test (Sample 2_Panel 1)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-
3	Antenna Cable	No	0.5	-
4	Antenna Cable	No	0.5	-
5	Antenna Cable	No	0.5	-
6	Antenna Cable	No	0.5	-

3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit
UNII Devices
☐ For the 5.15-5.25 GHz band, N/A
☒ For the 5.25-5.35 GHz band, N/A
☒ For the 5.47-5.725 GHz band, N/A
☒ For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

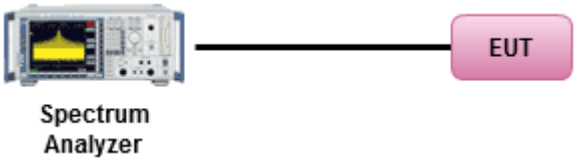
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
	☐ Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

3.1.4 Test Setup

Emission Bandwidth
 Spectrum Analyzer

3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒ For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).	
☒ For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).	
☒ For the 5.725-5.85 GHz band:	
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

3.2.2 Measuring Instruments

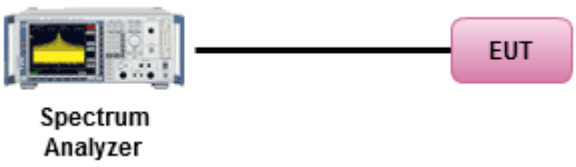
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ Maximum Conducted Output Power	
	Duty cycle ≥ 98%
	☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle < 98%
	☐ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☒ Refer as KDB 789033, clause E Method PM (using an RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.2.4 Test Setup

RF Output Power (Spectrum Analyzer)



RF Output Power (Power Meter)

3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☐ For the 5.15-5.25 GHz band:	
	▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).	
☒ For the 5.725-5.85 GHz band:	
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

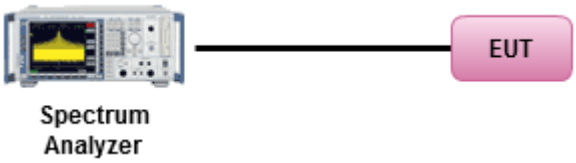
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:		
	☐ Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
	Duty cycle ≥ 98%	
	☐ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).	
	Duty cycle < 98%	
	☒ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
▪ For conducted measurement.		
	▪ If the EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
	▪	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.3.4 Test Setup

Power Spectral Density


3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

3.4 Unwanted Emissions

3.4.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

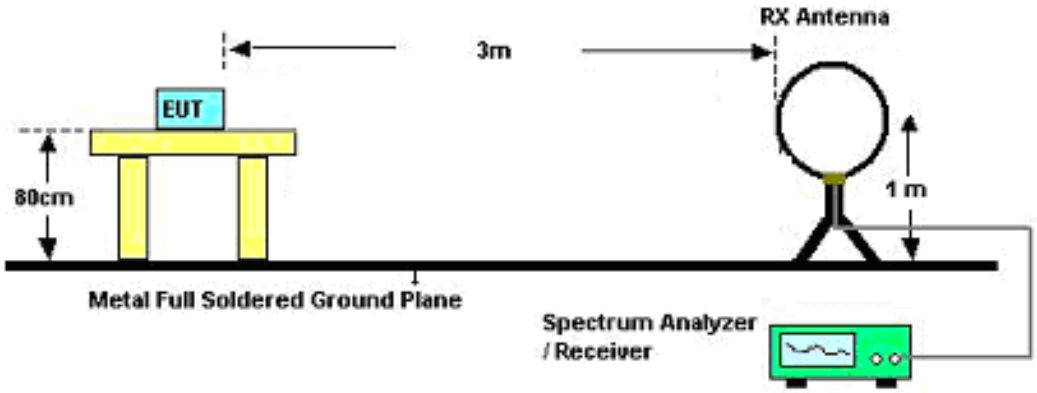
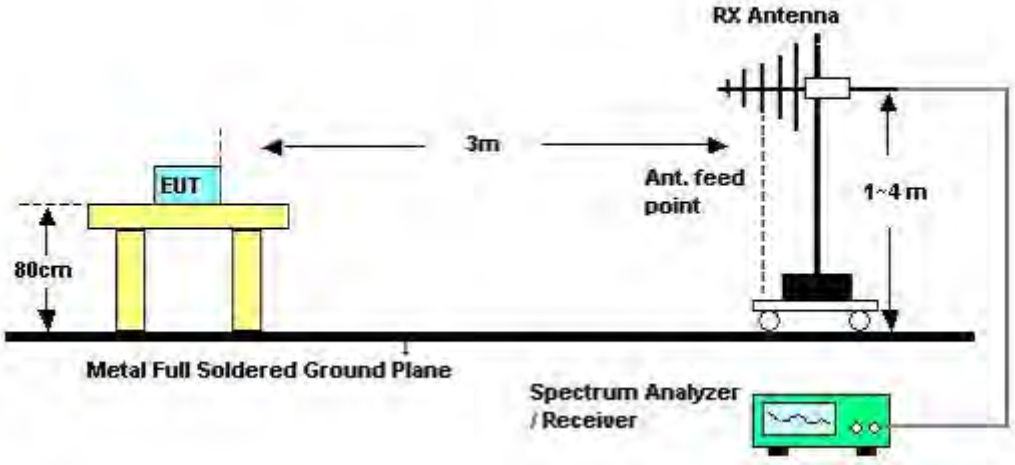
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

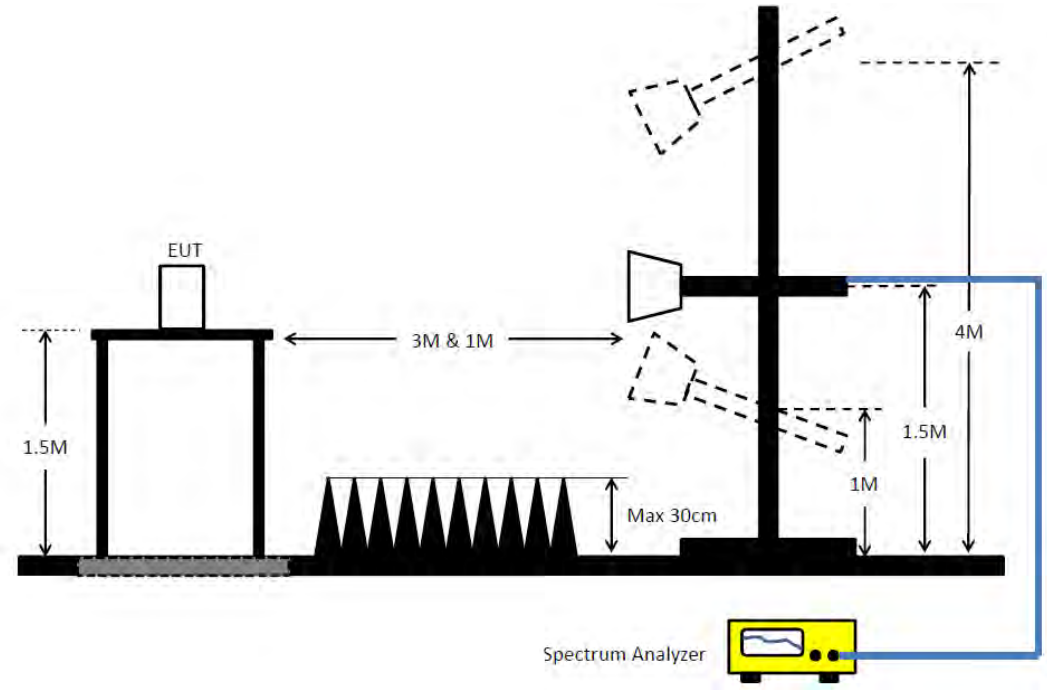
3.4.3 Test Procedures

Test Method			
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).			
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].			
▪ For the transmitter unwanted emissions shall be measured using following options below:			
	▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.		
	▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.		
		☒ Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.	
		☒ Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.	
▪ For radiated measurement.			
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.		
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.		
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.		
▪ The any unwanted emissions level shall not exceed the fundamental emission level.			
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.			

3.4.4 Test Setup

Transmitter Radiated Unwanted Emissions
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.4.5 Transmitter Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

4 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	07/Aug/2019	06/Aug/2020
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	14/Mar/2019	13/Mar/2020
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	14/Mar/2019	13/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Aug/2019	29/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Aug/2019	29/Aug/2020
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	11/Oct/2019	10/Oct//2020
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	09/Sep/2019	08/Sep/2020
Signal Analyzer	R&S	FSP40	100305	9 kHz ~ 40 GHz;-140-+30dBm	10/Jun/2019	09/Jun/2020
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	22/Mar/2019	21/Mar/2020
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz ~ 40GHz	21/Mar/2019	20/Mar/2020
RF CABLE	HUBER+SUHNER	SUOFLEX 104	802378/4	1 GHz ~ 18 GHz	04/Jul/2019	03/Jul/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/2019	08/Mar/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT160_Nss1,(MCS0)_1TX	82.72M	76.842M	76M8D1D	82.72M	76.842M
802.11ax HEW160_Nss1,(MCS0)_1TX	82.96M	77.561M	77M6D1D	82.96M	77.561M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	37.77M	17.841M	17M8D1D	27.54M	17.031M
802.11ac VHT20_Nss1,(MCS0)_1TX	39M	18.621M	18M6D1D	21.54M	17.871M
802.11ac VHT40_Nss1,(MCS0)_1TX	69.66M	36.882M	36M9D1D	40.38M	36.462M
802.11ac VHT80_Nss1,(MCS0)_1TX	112.92M	76.042M	76M0D1D	112.92M	76.042M
802.11ac VHT160_Nss1,(MCS0)_1TX	83.44M	76.602M	76M6D1D	83.44M	76.602M
802.11ax HEW20_Nss1,(MCS0)_1TX	40.26M	19.4M	19M4D1D	21.39M	19.01M
802.11ax HEW40_Nss1,(MCS0)_1TX	64.2M	37.841M	37M8D1D	40.14M	37.541M
802.11ax HEW80_Nss1,(MCS0)_1TX	131.52M	77.361M	77M4D1D	131.52M	77.361M
802.11ax HEW160_Nss1,(MCS0)_1TX	83.52M	77.561M	77M6D1D	83.52M	77.561M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	38.88M	19.16M	19M2D1D	21.48M	14.618M
802.11ac VHT20_Nss1,(MCS0)_1TX	41.91M	19.22M	19M2D1D	21.84M	14.513M
802.11ac VHT40_Nss1,(MCS0)_1TX	87.42M	38.621M	38M6D1D	41.04M	34.213M
802.11ac VHT80_Nss1,(MCS0)_1TX	161.76M	76.642M	76M6D1D	108.84M	74.063M
802.11ac VHT160_Nss1,(MCS0)_1TX	263.52M	154.963M	155MD1D	263.52M	154.963M
802.11ax HEW20_Nss1,(MCS0)_1TX	41.85M	19.76M	19M8D1D	21.69M	14.813M
802.11ax HEW40_Nss1,(MCS0)_1TX	84.66M	39.34M	39M3D1D	40.92M	34.213M
802.11ax HEW80_Nss1,(MCS0)_1TX	156.96M	77.841M	77M8D1D	103.56M	73.988M
802.11ax HEW160_Nss1,(MCS0)_1TX	166.08M	155.202M	155MD1D	166.08M	155.202M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	3.12M	10.235M	10M2D1D	3.12M	10.235M
802.11ac VHT20_Nss1,(MCS0)_1TX	3.72M	9.115M	9M12D1D	3.72M	9.115M
802.11ac VHT40_Nss1,(MCS0)_1TX	3.1M	23.568M	23M6D1D	3.1M	23.568M
802.11ac VHT80_Nss1,(MCS0)_1TX	3.08M	33.883M	33M9D1D	3.08M	33.883M
802.11ax HEW20_Nss1,(MCS0)_1TX	4.42M	11.134M	11M1D1D	4.42M	11.134M
802.11ax HEW40_Nss1,(MCS0)_1TX	3.82M	26.567M	26M6D1D	3.82M	26.567M
802.11ax HEW80_Nss1,(MCS0)_1TX	3.26M	34.743M	34M7D1D	3.26M	34.743M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5260MHz	Pass	Inf	27.54M	17.031M
5300MHz	Pass	Inf	37.77M	17.841M
5320MHz	Pass	Inf	37.65M	17.391M
5500MHz	Pass	Inf	21.48M	16.762M
5580MHz	Pass	Inf	38.88M	19.16M
5700MHz	Pass	Inf	21.66M	16.852M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	23.865M	14.618M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	10.235M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5260MHz	Pass	Inf	27.54M	18.081M
5300MHz	Pass	Inf	39M	18.621M
5320MHz	Pass	Inf	21.54M	17.871M
5500MHz	Pass	Inf	30.66M	18.051M
5580MHz	Pass	Inf	41.91M	19.22M
5700MHz	Pass	Inf	21.84M	17.871M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	23.925M	14.513M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.72M	9.115M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5270MHz	Pass	Inf	69.66M	36.882M
5310MHz	Pass	Inf	40.38M	36.462M
5510MHz	Pass	Inf	41.04M	36.522M
5550MHz	Pass	Inf	83.04M	37.181M
5670MHz	Pass	Inf	87.42M	38.621M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	54.495M	34.213M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	23.568M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5290MHz	Pass	Inf	112.92M	76.042M
5530MHz	Pass	Inf	108.84M	76.162M
5610MHz	Pass	Inf	161.76M	76.642M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	123.9M	74.063M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.08M	33.883M
802.11ac VHT160_Nss1,(MCS0)_1TX	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	82.72M	76.842M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	83.44M	76.602M
5570MHz	Pass	Inf	263.52M	154.963M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5260MHz	Pass	Inf	31.08M	19.16M
5300MHz	Pass	Inf	40.26M	19.4M
5320MHz	Pass	Inf	21.39M	19.01M
5500MHz	Pass	Inf	27.9M	19.16M
5580MHz	Pass	Inf	41.85M	19.76M
5700MHz	Pass	Inf	21.69M	19.04M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	25.47M	14.813M

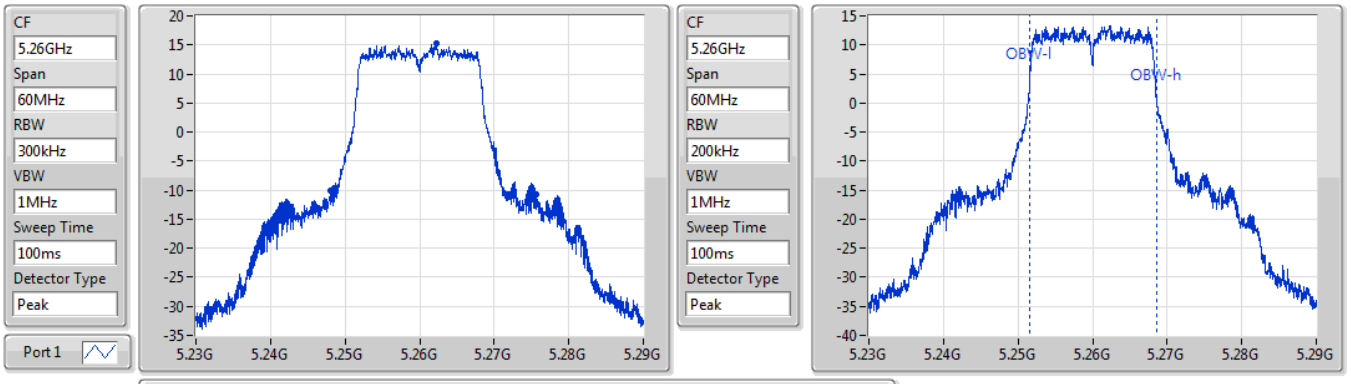
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.42M	11.134M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5270MHz	Pass	Inf	64.2M	37.841M
5310MHz	Pass	Inf	40.14M	37.541M
5510MHz	Pass	Inf	40.92M	37.601M
5550MHz	Pass	Inf	84.66M	39.34M
5670MHz	Pass	Inf	81.18M	38.501M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	55.265M	34.213M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.82M	26.567M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5290MHz	Pass	Inf	131.52M	77.361M
5530MHz	Pass	Inf	103.56M	77.361M
5610MHz	Pass	Inf	156.96M	77.841M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	121.95M	73.988M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.26M	34.743M
802.11ax HEW160_Nss1,(MCS0)_1TX	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	82.96M	77.561M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	83.52M	77.561M
5570MHz	Pass	Inf	166.08M	155.202M

Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_1TX EBW

5260MHz

12/11/2019

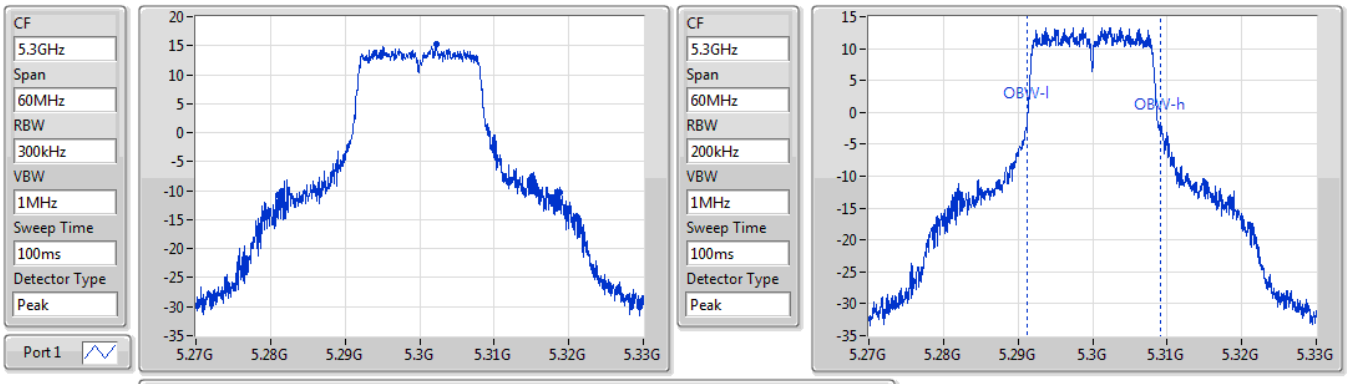


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.54M	5.24812G	5.27566G	17.031M	5.251544G	5.268576G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5300MHz

12/11/2019

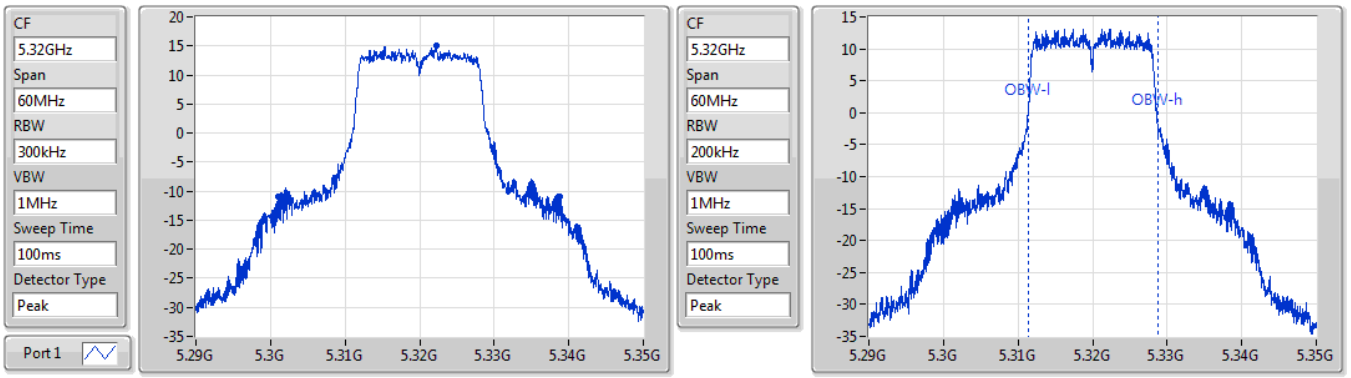


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.77M	5.28107G	5.31884G	17.841M	5.291274G	5.309115G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5320MHz

12/11/2019

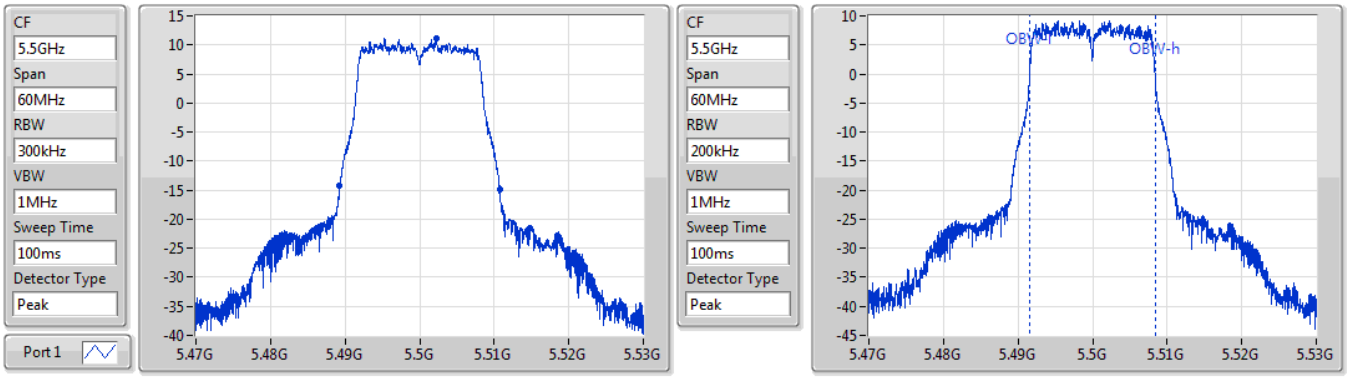


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.65M	5.3011G	5.33875G	17.391M	5.311334G	5.328726G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5500MHz

12/11/2019

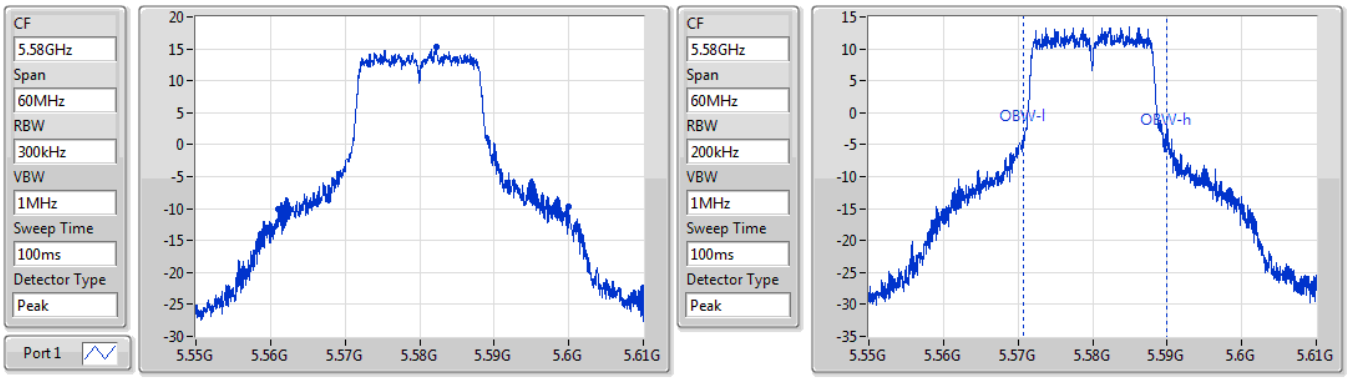


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.48M	5.48926G	5.51074G	16.762M	5.491604G	5.508366G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5580MHz

12/11/2019

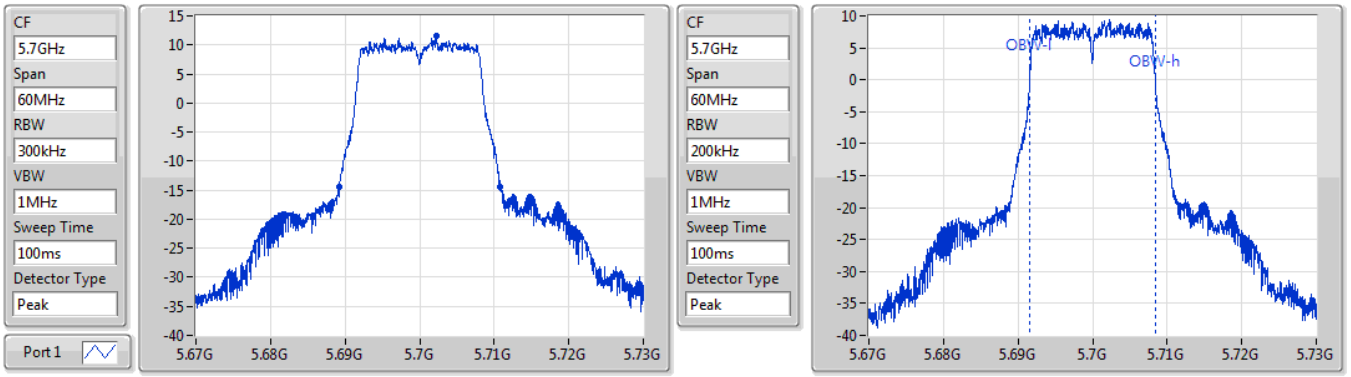


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
38.88M	5.5611G	5.59998G	19.16M	5.570765G	5.589925G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5700MHz

12/11/2019

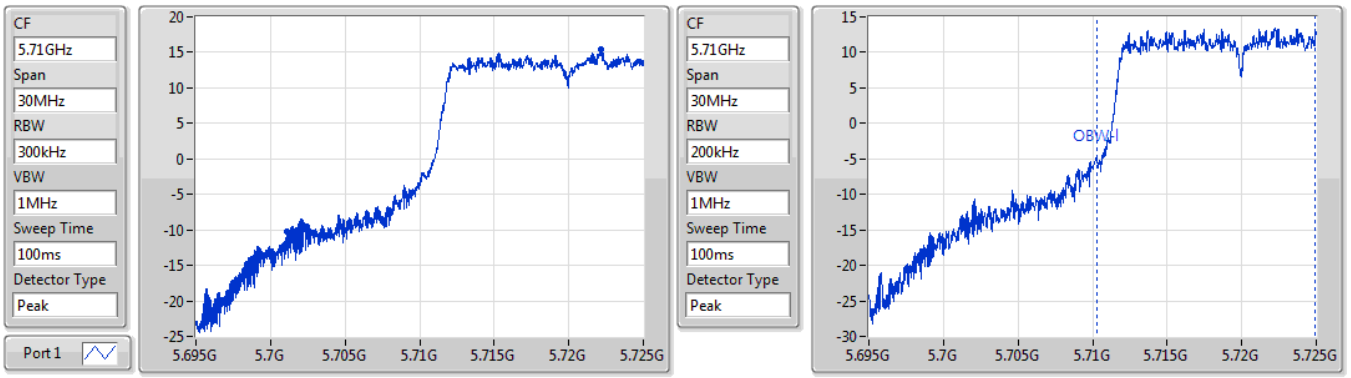


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.68917G	5.71083G	16.852M	5.691604G	5.708456G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5720MHz Straddle 5.47-5.725GHz

12/11/2019

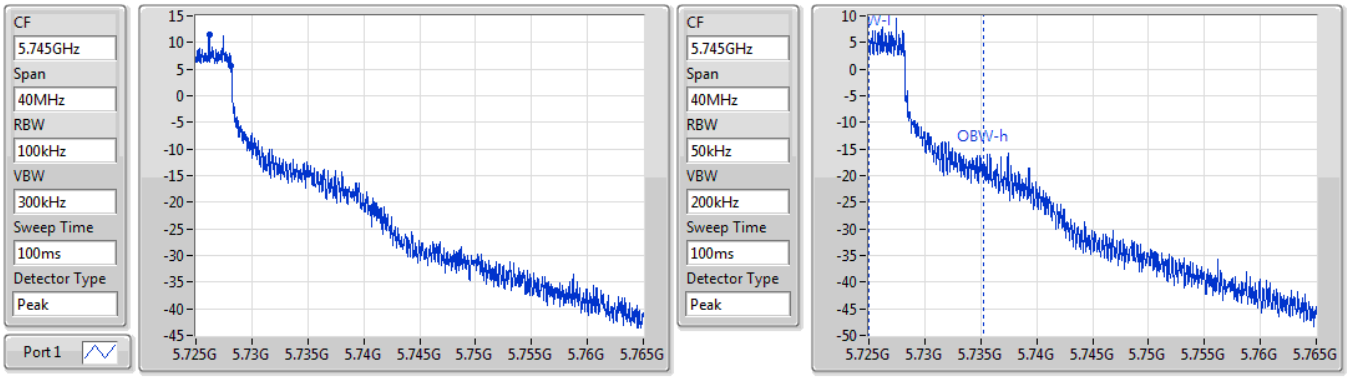


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.865M	5.701135G	5.725G	14.618M	5.71033G	5.724948G	Inf	1

802.11a_Nss1,(6Mbps)_1TX EBW

5720MHz Straddle 5.725-5.85GHz

12/11/2019

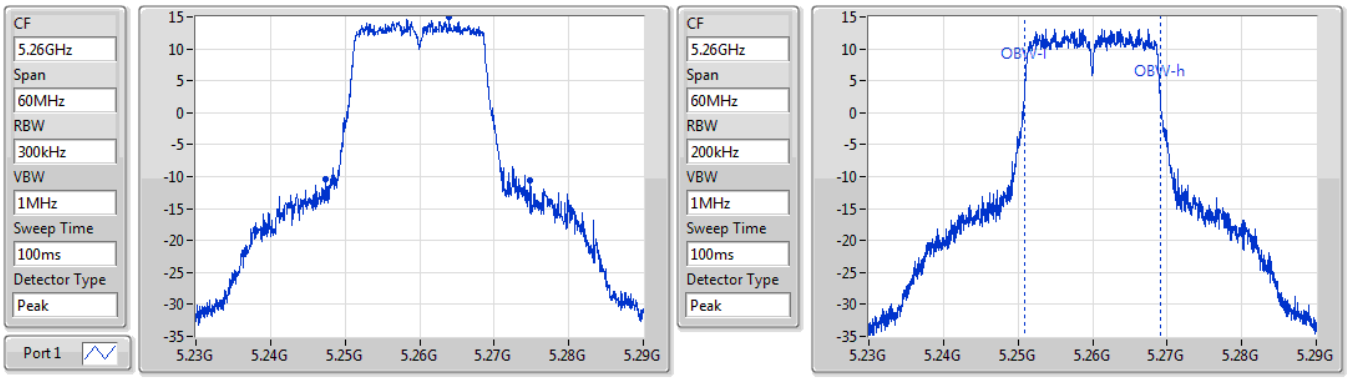


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.12M	5.725G	5.72812G	10.235M	5.72501G	5.735245G	500k	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5260MHz

12/11/2019

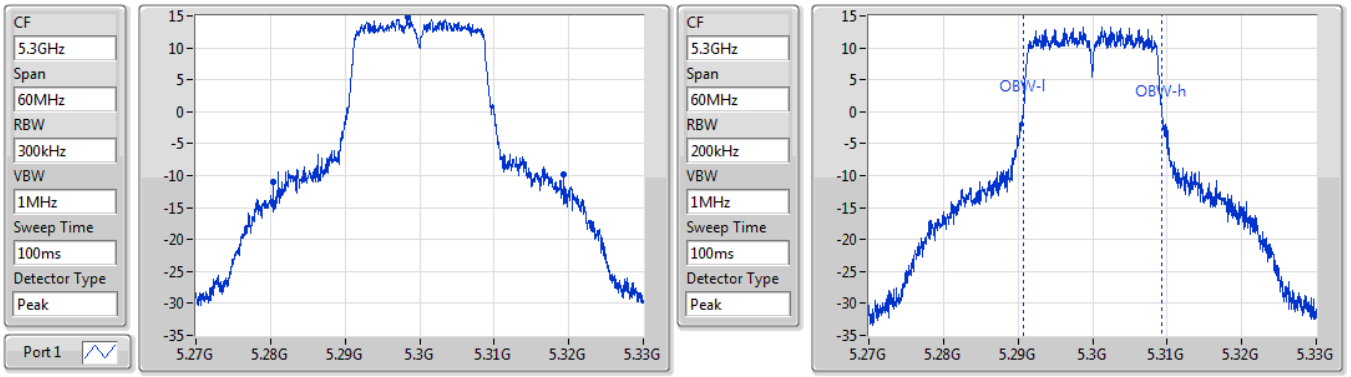


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.54M	5.24731G	5.27485G	18.081M	5.250945G	5.269025G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5300MHz

12/11/2019

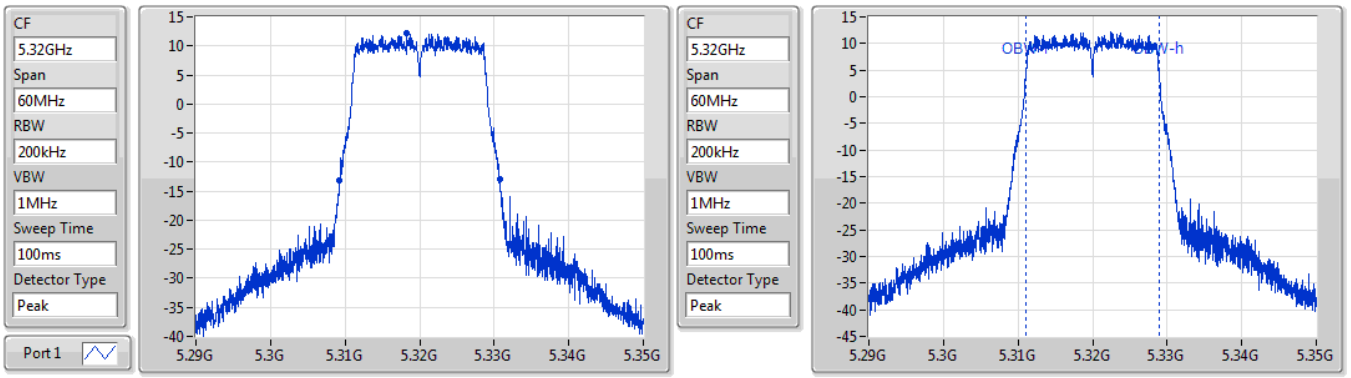


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39M	5.28035G	5.31935G	18.621M	5.290705G	5.309325G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5320MHz

16/12/2019

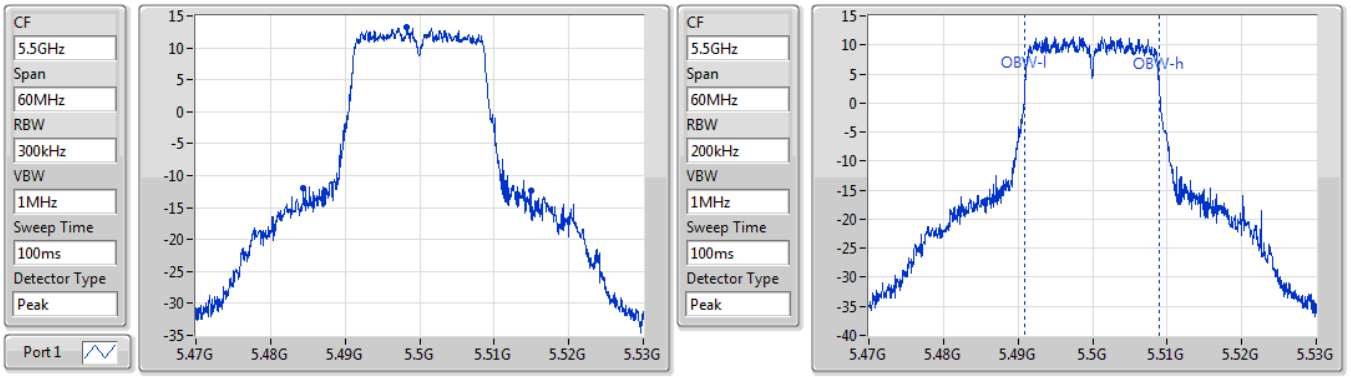


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.54M	5.3092G	5.33074G	17.871M	5.311064G	5.328936G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5500MHz

12/11/2019

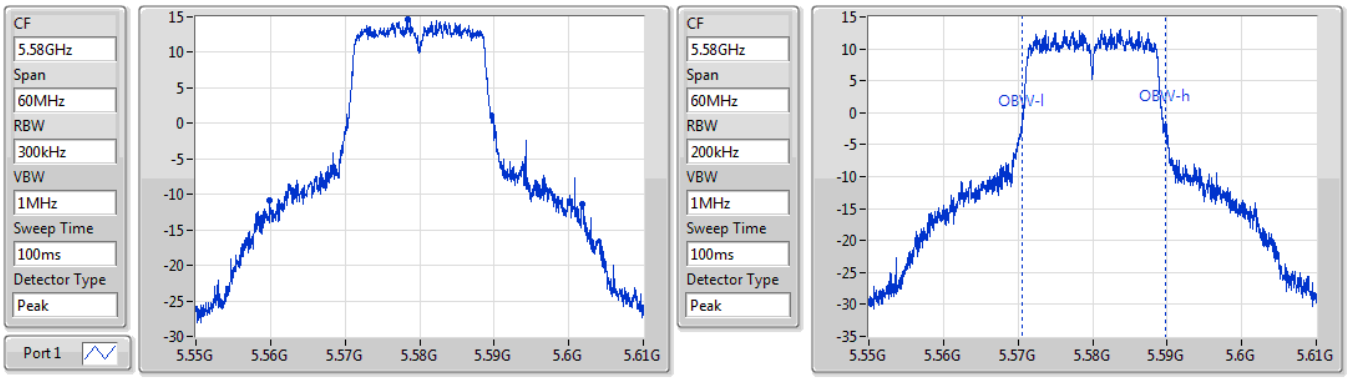


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
30.66M	5.48434G	5.515G	18.051M	5.490915G	5.508966G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5580MHz

12/11/2019

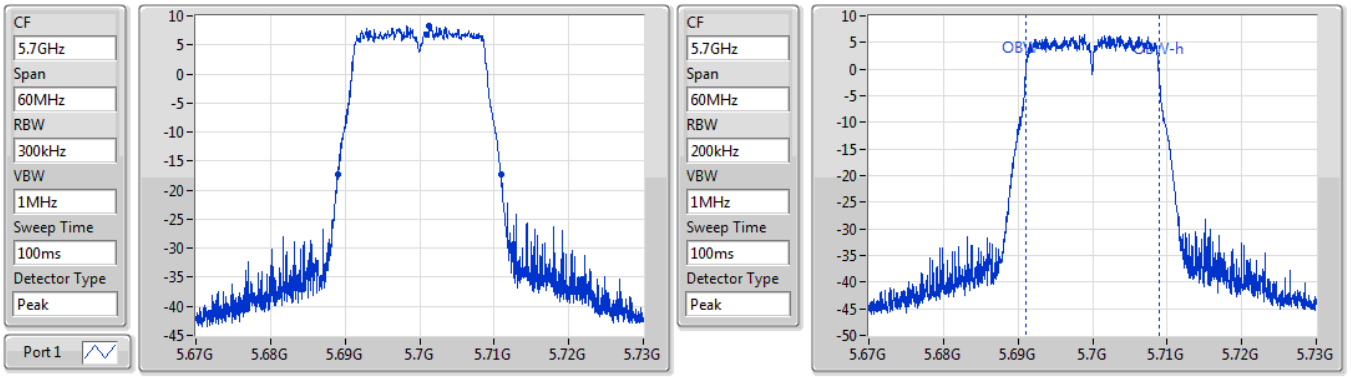


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.91M	5.55993G	5.60184G	19.22M	5.570525G	5.589745G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5700MHz

12/11/2019

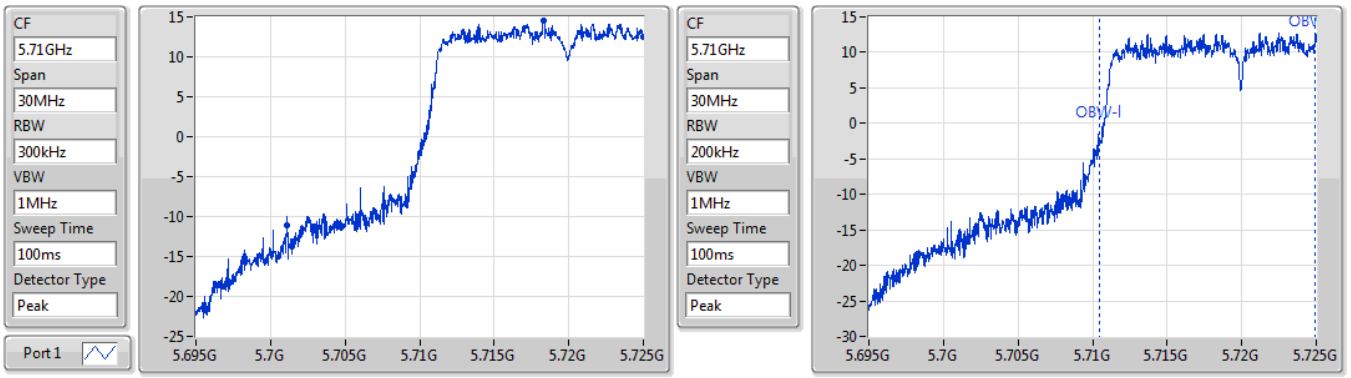


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.84M	5.68905G	5.71089G	17.871M	5.691034G	5.708906G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5720MHz Straddle 5.47-5.725GHz

12/11/2019

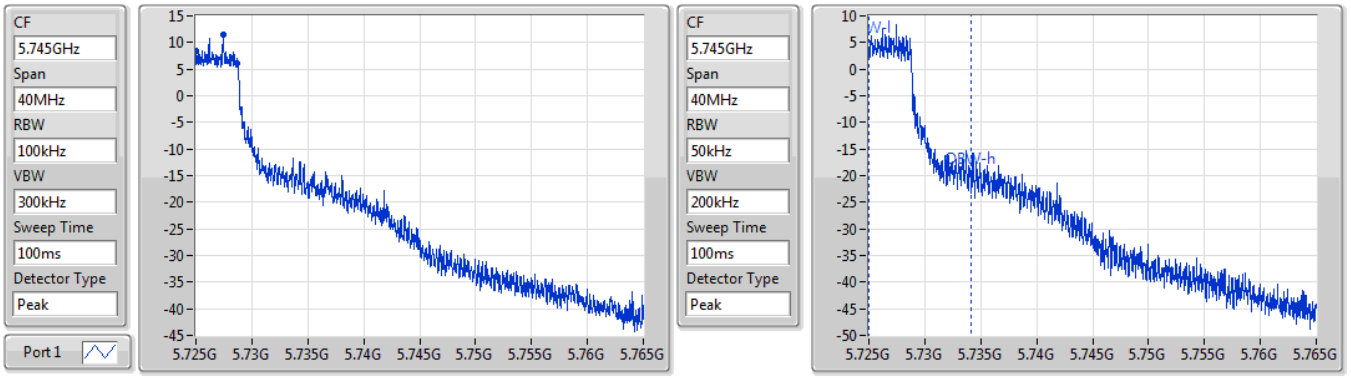


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.925M	5.701075G	5.725G	14.513M	5.710435G	5.724948G	Inf	1

802.11ac VHT20_Nss1,(MCS0)_1TX EBW

5720MHz Straddle 5.725-5.85GHz

12/11/2019

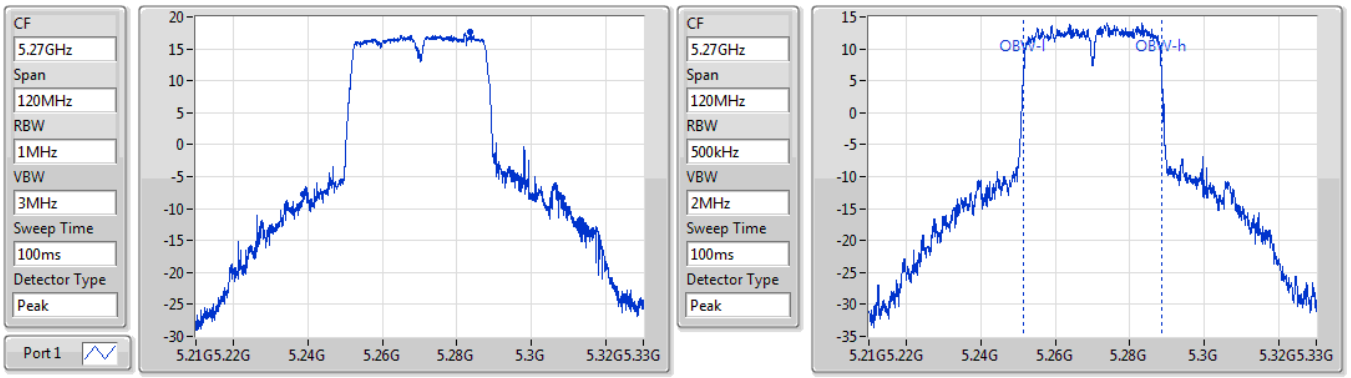


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.72M	5.725G	5.72872G	9.115M	5.72503G	5.734145G	500k	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5270MHz

12/11/2019

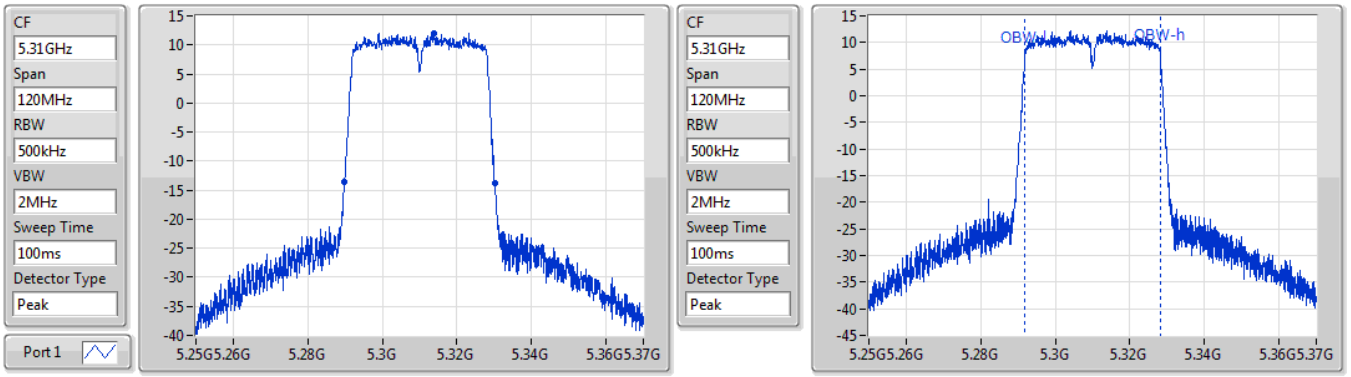


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
69.66M	5.23868G	5.30834G	36.882M	5.251589G	5.288471G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5310MHz

16/12/2019

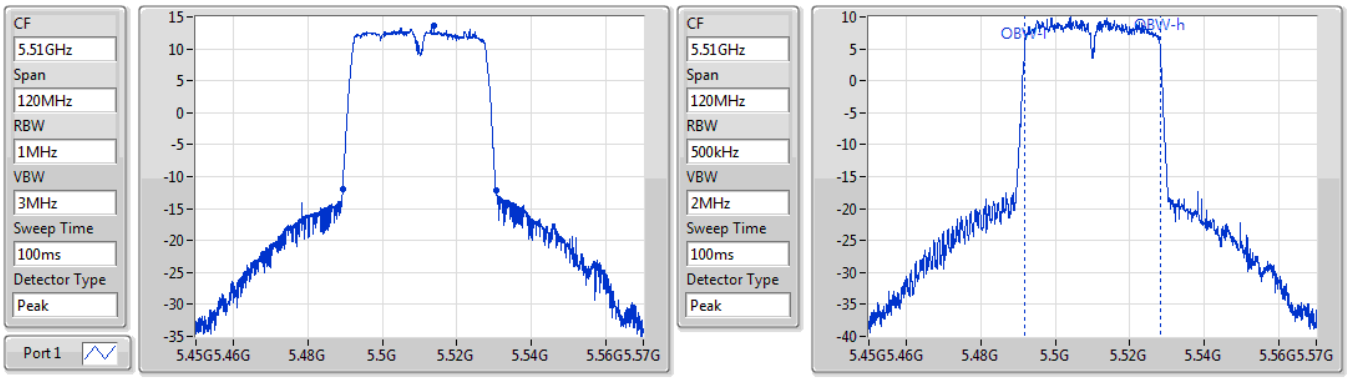


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.38M	5.28984G	5.33022G	36.462M	5.291769G	5.328231G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5510MHz

12/11/2019

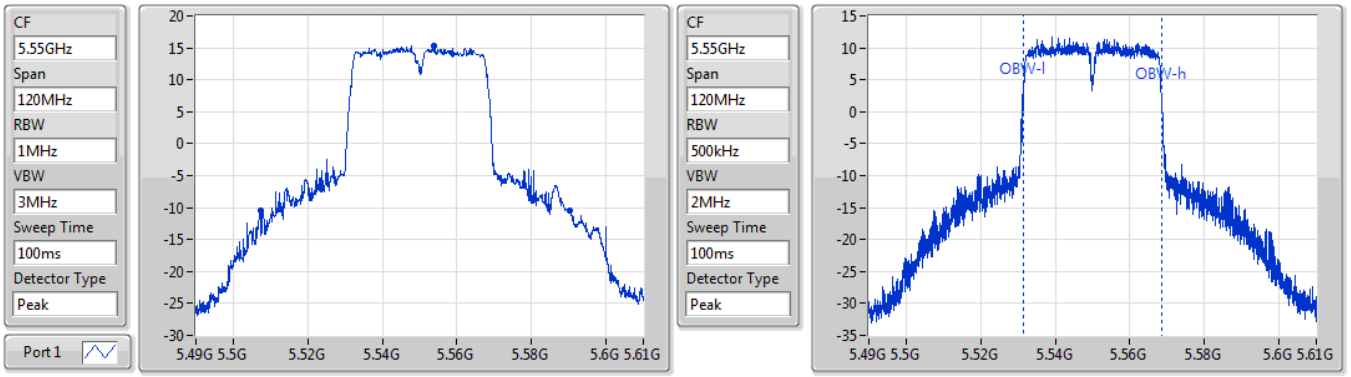


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.04M	5.48936G	5.5304G	36.522M	5.491649G	5.528171G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5550MHz

12/11/2019

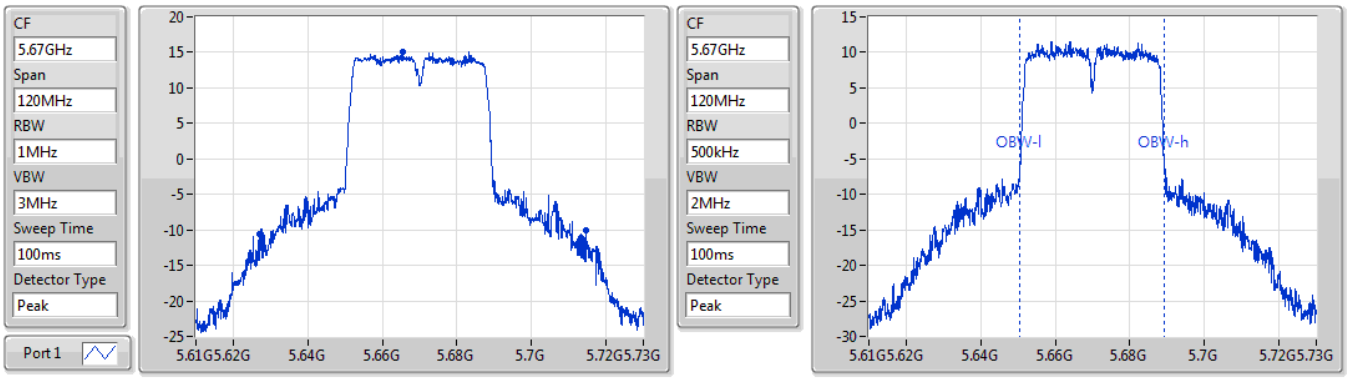


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.04M	5.5074G	5.59044G	37.181M	5.531289G	5.568471G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5670MHz

12/11/2019

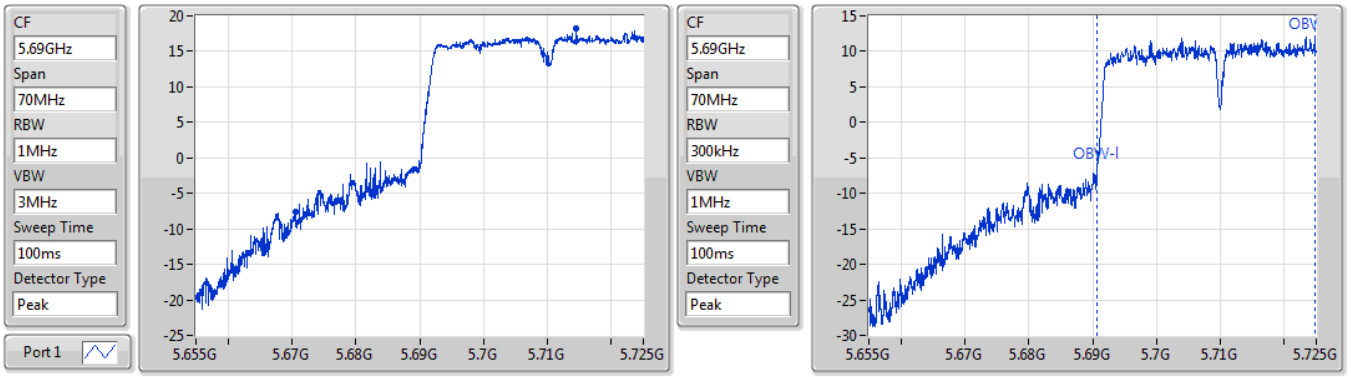


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
87.42M	5.6271G	5.71452G	38.621M	5.65051G	5.68913G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5710MHz Straddle 5.47-5.725GHz

12/11/2019

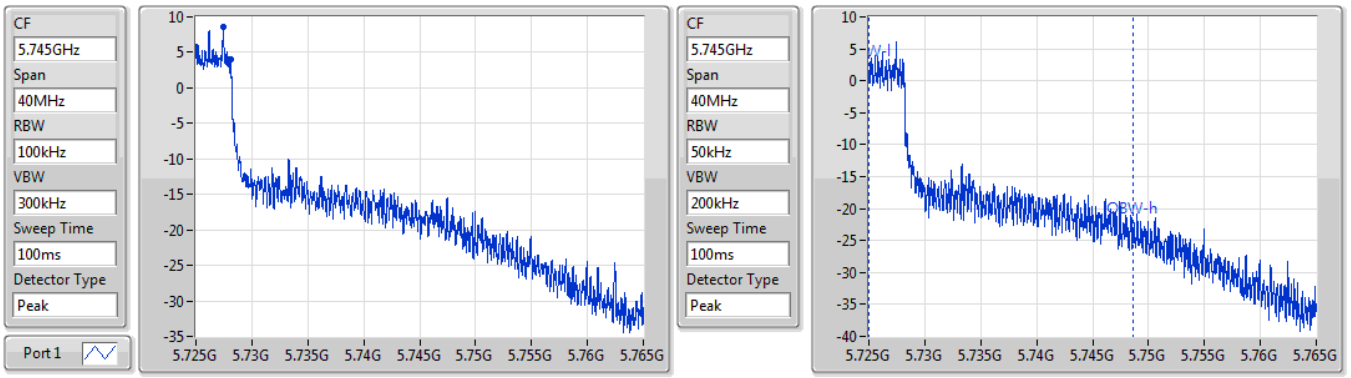


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
54.495M	5.670505G	5.725G	34.213M	5.69063G	5.724843G	Inf	1

802.11ac VHT40_Nss1,(MCS0)_1TX EBW

5710MHz Straddle 5.725-5.85GHz

12/11/2019

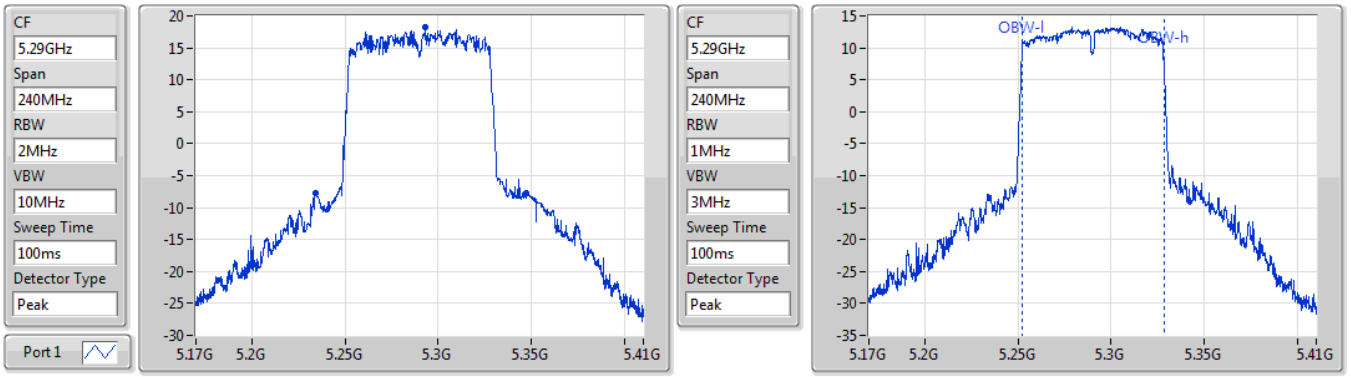


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.1M	5.725G	5.7281G	23.568M	5.72503G	5.748598G	500k	1

802.11ac VHT80_Nss1,(MCS0)_1TX EBW

5290MHz

12/11/2019

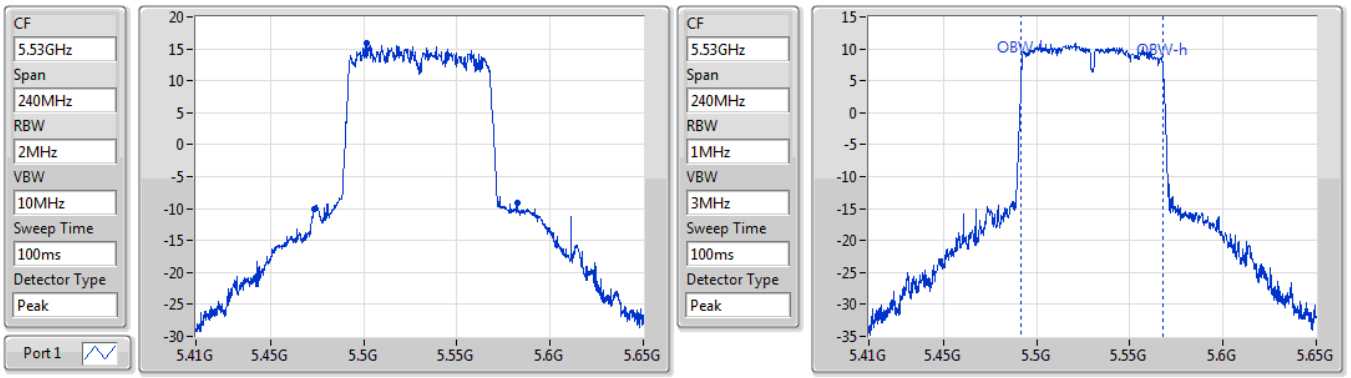


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
112.92M	5.23408G	5.347G	76.042M	5.252099G	5.328141G	Inf	1

802.11ac VHT80_Nss1,(MCS0)_1TX EBW

5530MHz

12/11/2019

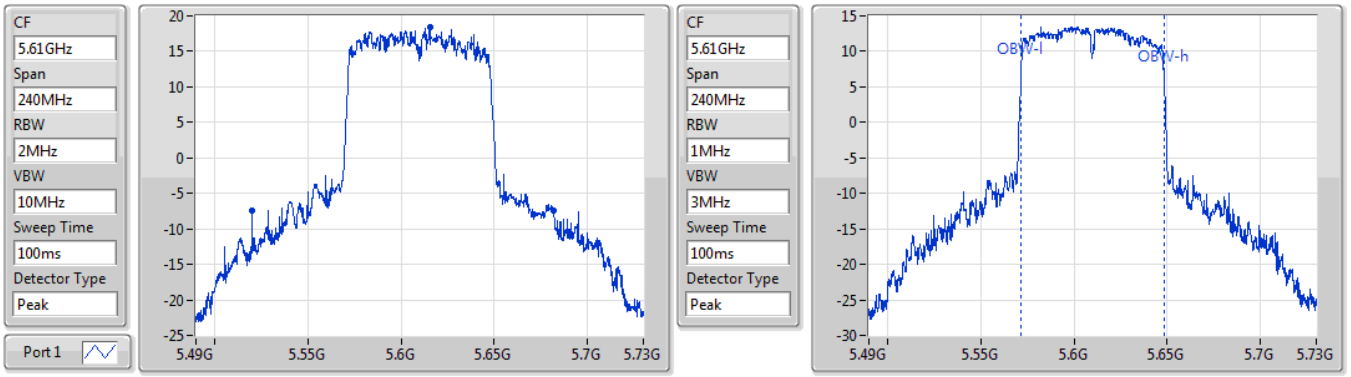


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
108.84M	5.47336G	5.5822G	76.162M	5.491859G	5.568021G	Inf	1

802.11ac VHT80_Nss1,(MCS0)_1TX EBW

5610MHz

12/11/2019

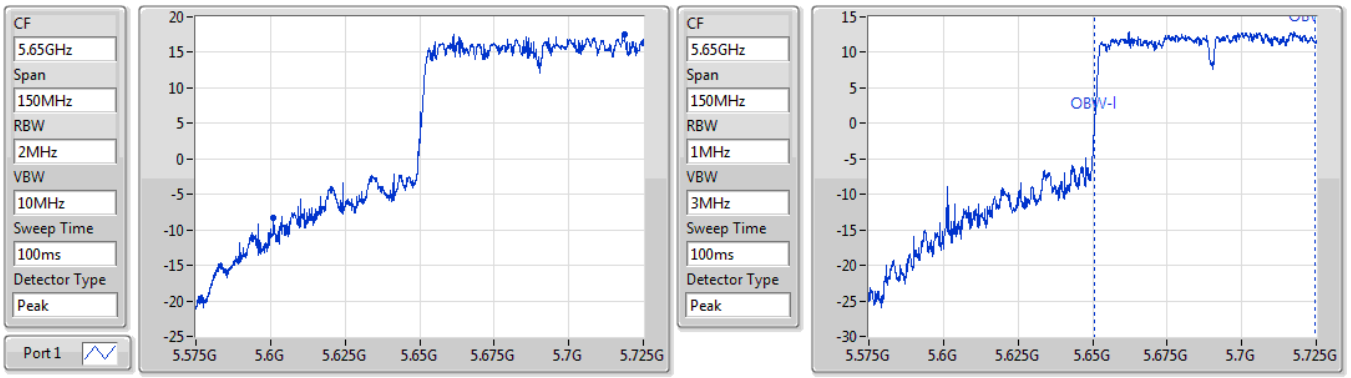


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
161.76M	5.52G	5.68176G	76.642M	5.571619G	5.648261G	Inf	1

802.11ac VHT80_Nss1,(MCS0)_1TX EBW

5690MHz Straddle 5.47-5.725GHz

12/11/2019

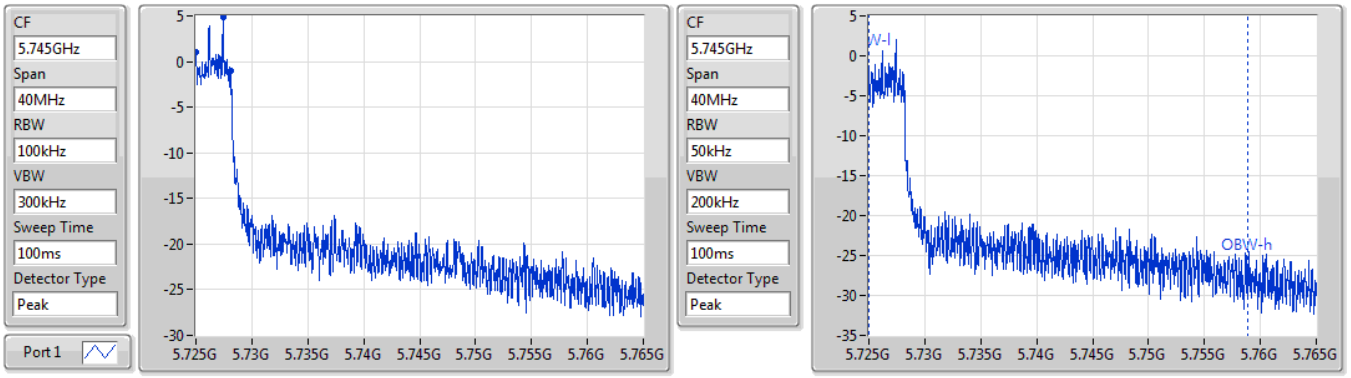


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
123.9M	5.6011G	5.725G	74.063M	5.650525G	5.724588G	Inf	1

802.11ac VHT80_Nss1,(MCS0)_1TX EBW

5690MHz Straddle 5.725-5.85GHz

12/11/2019

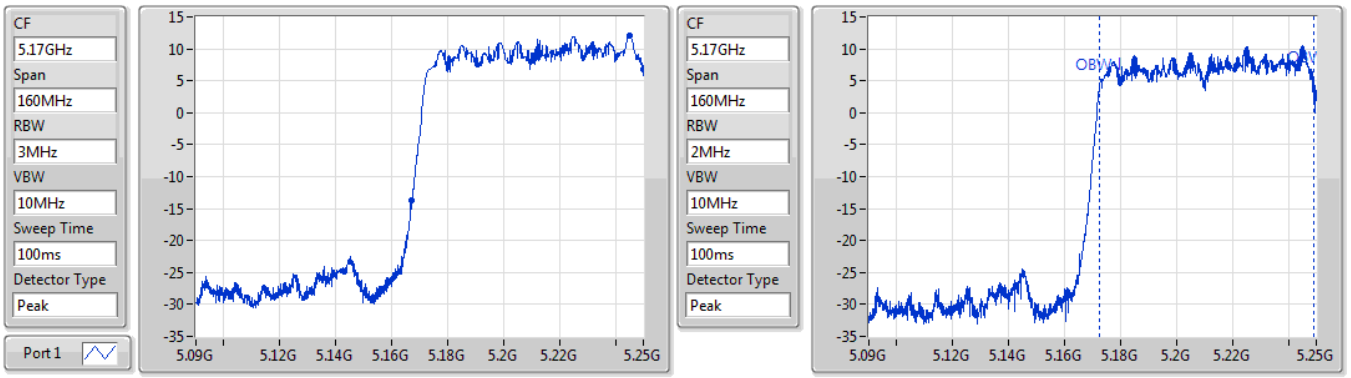


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.08M	5.725G	5.72808G	33.883M	5.72501G	5.758893G	500k	1

802.11ac VHT160_Nss1,(MCS0)_1TX EBW

5250MHz Straddle 5.15-5.25GHz

04/12/2019

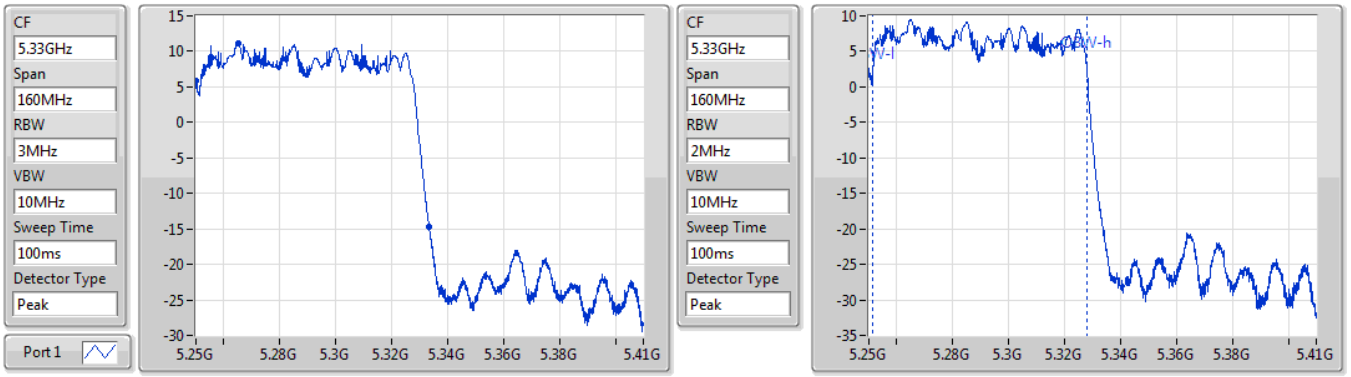


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.72M	5.16728G	5.25G	76.842M	5.172239G	5.24908G	Inf	1

802.11ac VHT160_Nss1,(MCS0)_1TX EBW

5250MHz Straddle 5.25-5.35GHz

12/11/2019

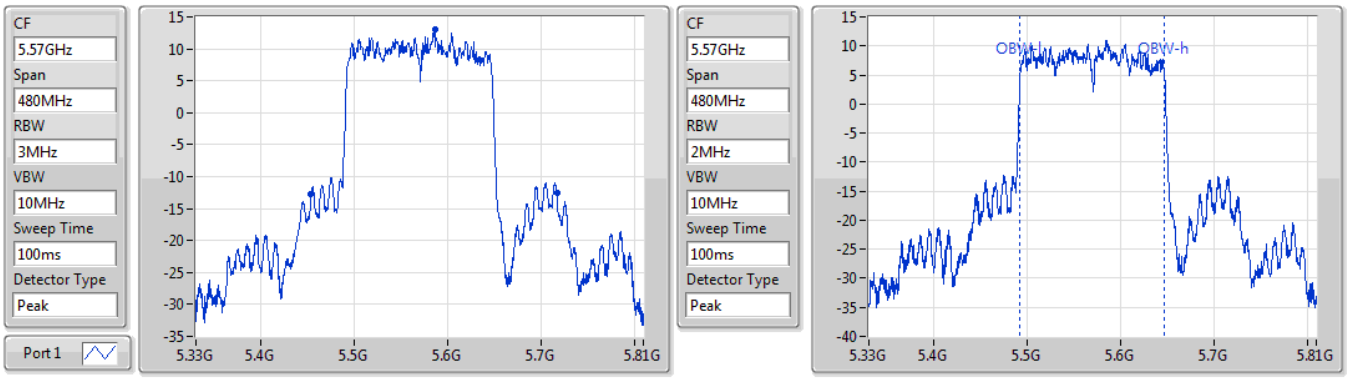


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.44M	5.25G	5.33344G	76.602M	5.251319G	5.327921G	Inf	1

802.11ac VHT160_Nss1,(MCS0)_1TX EBW

5570MHz

12/11/2019

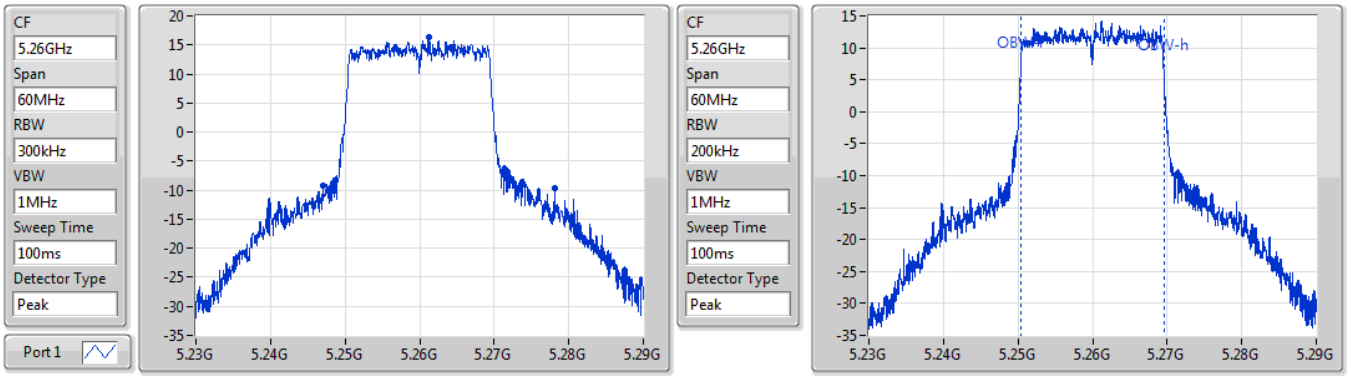


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
263.52M	5.4536G	5.71712G	154.963M	5.492279G	5.647241G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5260MHz

12/11/2019

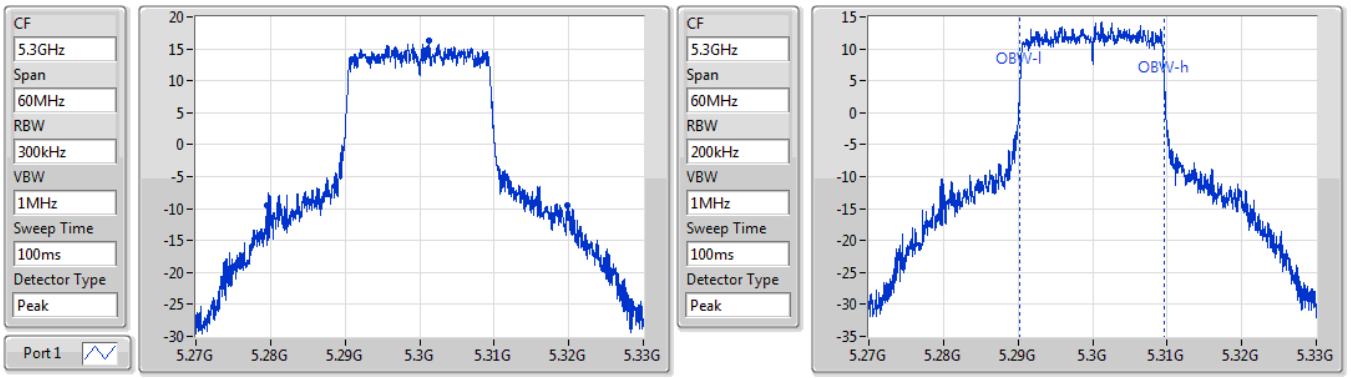


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.08M	5.24698G	5.27806G	19.16M	5.250375G	5.269535G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5300MHz

12/11/2019

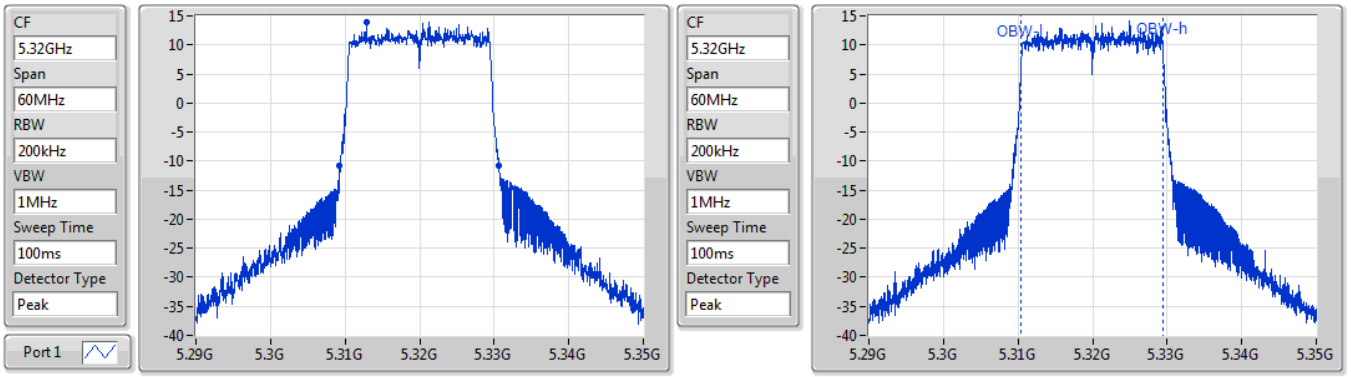


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.27951G	5.31977G	19.4M	5.290255G	5.309655G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5320MHz

16/12/2019

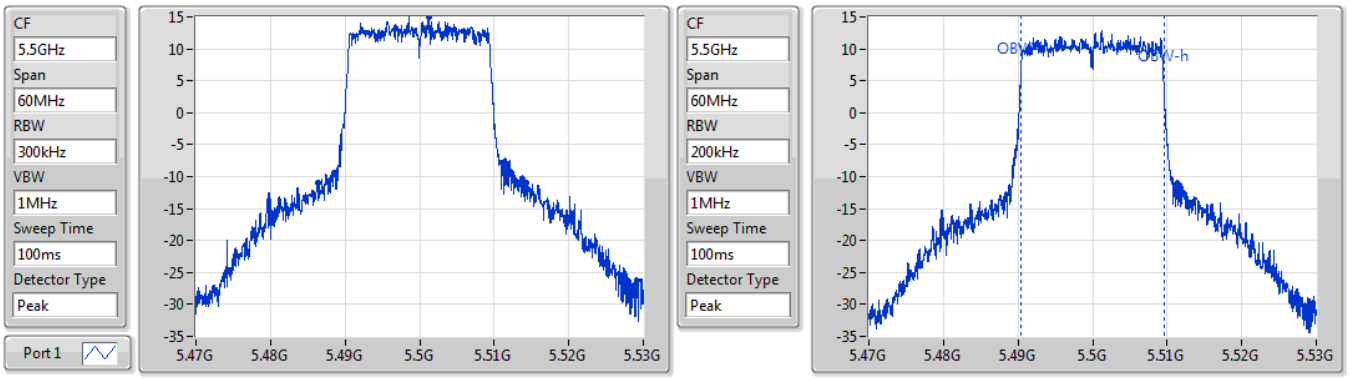


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.39M	5.30929G	5.33068G	19.01M	5.310465G	5.329475G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5500MHz

12/11/2019

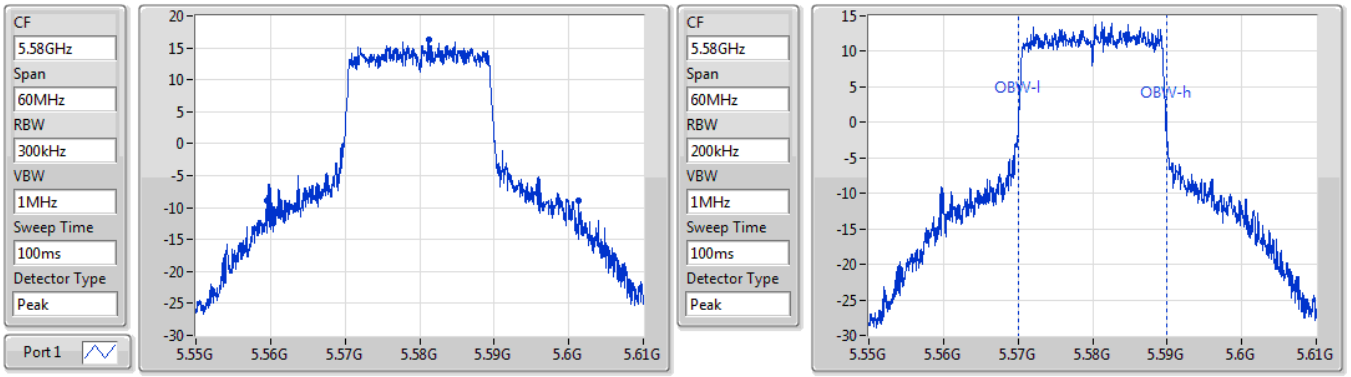


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.9M	5.48638G	5.51428G	19.16M	5.490375G	5.509535G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5580MHz

12/11/2019

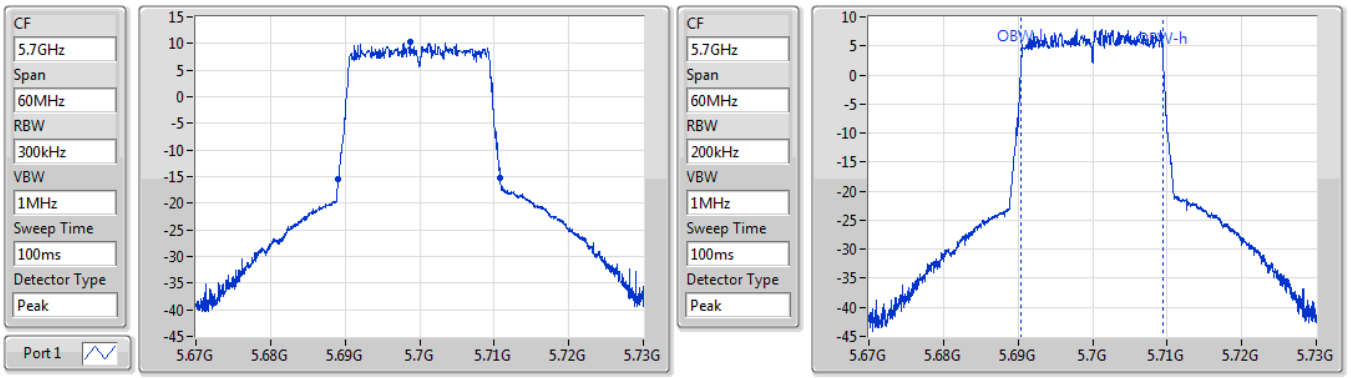


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.85M	5.55948G	5.60133G	19.76M	5.570135G	5.589895G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5700MHz

12/11/2019

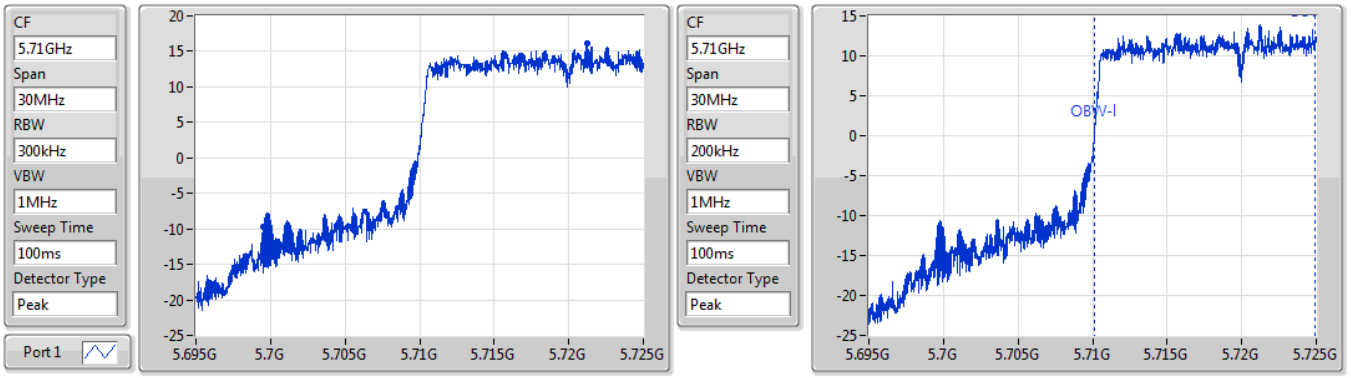


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.69M	5.68911G	5.7108G	19.04M	5.690435G	5.709475G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5720MHz Straddle 5.47-5.725GHz

12/11/2019

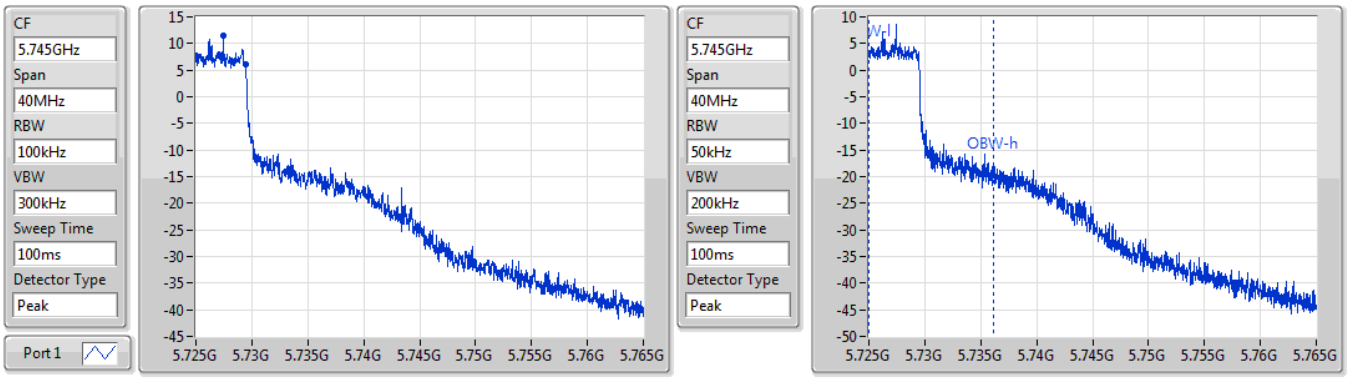


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.47M	5.69953G	5.725G	14.813M	5.71012G	5.724933G	Inf	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

5720MHz Straddle 5.725-5.85GHz

12/11/2019

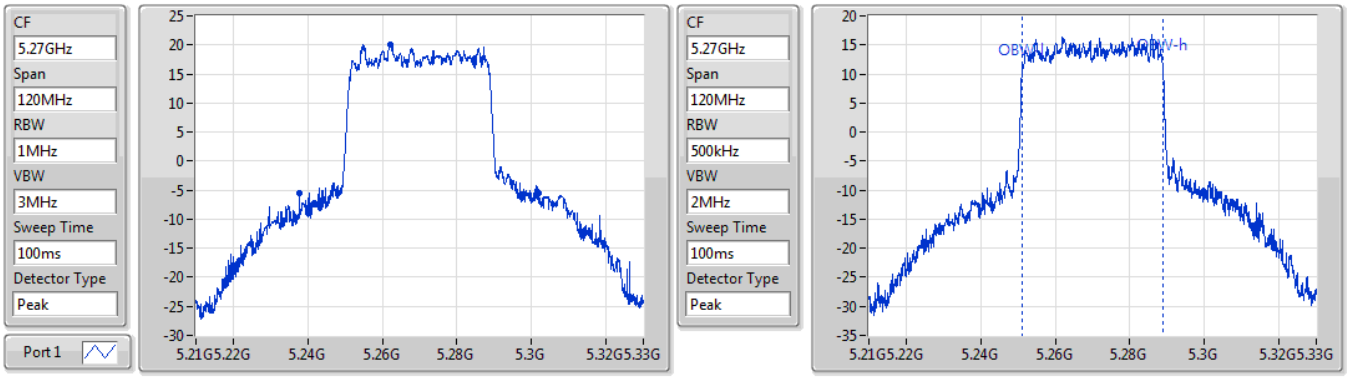


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.42M	5.725G	5.72942G	11.134M	5.72503G	5.736164G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

5270MHz

12/11/2019



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
64.2M	5.23778G	5.30198G	37.841M	5.251109G	5.288951G	Inf	1