



FCC Test Report

FCC ID : H8NRAX1V1K
Equipment : 11ax DBDC Router
Brand Name : Charter
Model Name : RAX1V1K
Applicant / Manufacturer : ASKEY COMPUTER CORPORATION
10F, No. 119, Jiankang Road, Zhonghe Dist., New Taipei City, Taiwan
Standard : 47 CFR FCC Part 15.407

The product was received on May 09, 2018, and testing was started from Jun. 01, 2018 and completed on Jun. 08, 2018. 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

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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PHOTOGRAPHS OF EUT V01	

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Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Reviewed by: Sam Tsai

Report Producer: Debby Hung

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20) ax (HEW20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40) ax (HEW40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80) ax (HEW80)	5210	42 [1]
5725-5850		5775	155 [1]

<Non-Beamforming>

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

<Beamforming>

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector
1	1	Airgain	RT5000W	PCB antenna	I-PEX
2	2	Airgain	RT5000W	PCB antenna	I-PEX
3	3	Airgain	RT5000W	PCB antenna	I-PEX
4	4	Airgain	RT5000W	PCB antenna	I-PEX

Ant.	Gain (dBi)		
	2.4G	U-NII-1	U-NII-3
1	1.9	1.1	2.1
2	1.9	1.1	2.1
3	1.9	1.1	2.1
4	1.9	1.1	2.1

Note 1: The EUT has four antennas.

For 2.4GHz function:

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

Ant. 1 (port 1) , Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For 5GHz function:

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

Ant. 1 (port 1) , Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For IEEE 802.11 n mode (2TX/2RX)

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	☐ Outdoor	☒ Indoor	
	☐ Fixed P2P	☐ Client	
Beamforming Function	☒ With beamforming	☐ Without beamforming	
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 Mode Test Duty Cycle
<Non-Beamforming>

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.331	4.802	105u	10k
802.11ac VHT20	0.967	0.146	5.431m	300
802.11ac VHT40	0.967	0.146	5.431m	300
802.11ac VHT80	0.966	0.15	5.431m	300
802.11ax HEW20	0.967	0.146	5.447m	300
802.11ax HEW40	0.963	0.164	5.441m	300
802.11ax HEW80	0.962	0.168	5.434m	300

< Beamforming>

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20-BF	0.917	0.376	1.931m	1k
802.11ac VHT40-BF	0.879	0.56	1.997m	1k
802.11ac VHT80-BF	0.734	1.343	1.306m	1k

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

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
AC Conduction	CO04-HY	Kevin	25.5°C / 55%	08/Jun/2018
RF Conducted <Non-Beamforming>	TH01-HY	Randy	23.1°C / 64%	01/Jun/2018
RF Conducted <Beamforming>	TH01-HY	Randy	23.2°C / 61%	07/Jun/2018
Radiated	03CH09-HY	Jerry	25.5°C / 55%	07/Jun/2018

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)	3.6 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.0 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 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

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

2.2 Test Channel Mode

<Non-Beamforming>

Test Software Version	QSPR Version 5.0-00148
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Mode	PowerSetting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	22
5200MHz	24.5
5240MHz	23.5
5745MHz	25.5
5785MHz	25.5
5825MHz	27
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5180MHz	21.5
5200MHz	24
5240MHz	25.5
5745MHz	23
5785MHz	21.5
5825MHz	26.5
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5190MHz	18.5
5230MHz	25
5755MHz	23.5
5795MHz	23.5
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5210MHz	19
5775MHz	19
802.11ax HEW20_Nss1,(MCS0)_4TX	-

Mode	PowerSetting
5180MHz	20.5
5200MHz	21.5
5240MHz	22.5
5745MHz	22
5785MHz	23
5825MHz	24.5
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	17.5
5230MHz	22
5755MHz	23
5795MHz	23.5
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	17
5775MHz	21

< Beamforming>

Test Software	DoS
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Mode	PowerSetting
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5180MHz	23
5200MHz	23
5240MHz	22
5745MHz	26
5785MHz	26
5825MHz	20
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5190MHz	9
5230MHz	10
5755MHz	14
5795MHz	16
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5210MHz	8
5775MHz	18

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode

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	Adapter mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Y Plane
	
Worst Planes of EUT	V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA850858 for Co-location RF Exposure Evaluation.	

2.4 Accessories and Support Equipment

Accessories Information				
AC Adapter (US Plug)	Brand Name	SUNNY	Model Name	SYS1564-3012-W2
	Power Rating	I/P: 100 - 240Vac, 1.0 A, O/P: 12 Vdc, 2.5 A		
	Power Cord	1.5 meter, Non-Shielded cable, w/o ferrite core		
RJ45	Power Cord	1.8 meter, Non-Shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Client(remote)	-	-	-
2	Notebook(remote)	DELL	E5530	-
3	Notebook(remote)	DELL	E5532	-

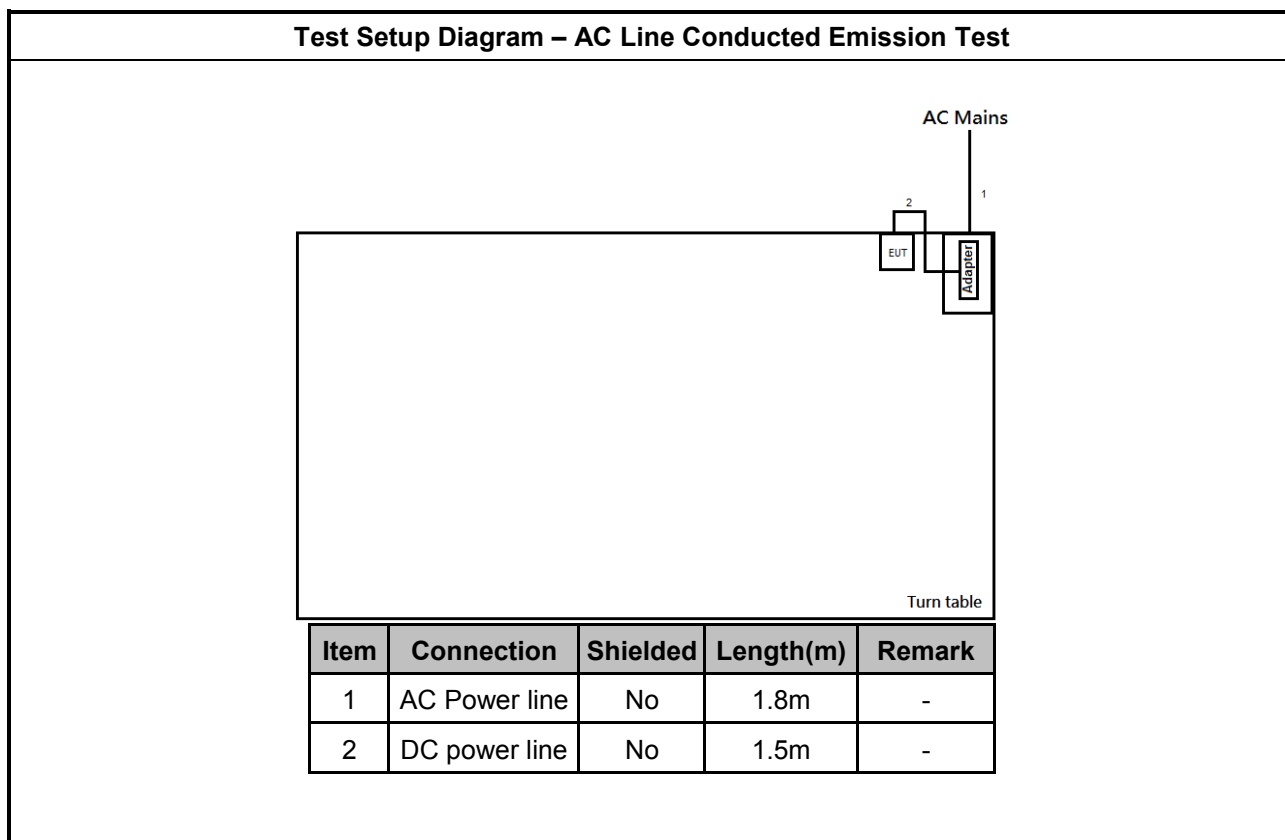
Note.Support equipment No.1 was provided by customer.

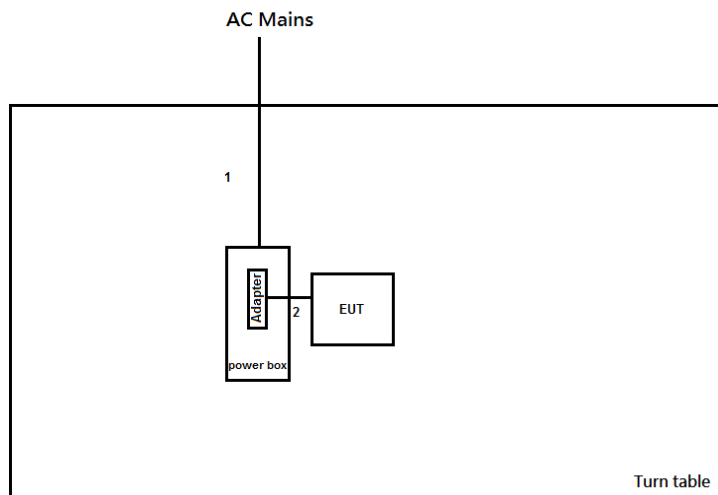
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	R33002 / DOC
2	Adapter for NB	DELL	HA65NM130	R35737 / DOC

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Client(remote)	-	-	-
2	Notebook(remote)	DELL	E5530	-
3	Notebook(remote)	DELL	E5532	-

Note.Support equipment No.1 was provided by customer.

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8m	-
2	DC power line	No	1.5m	

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

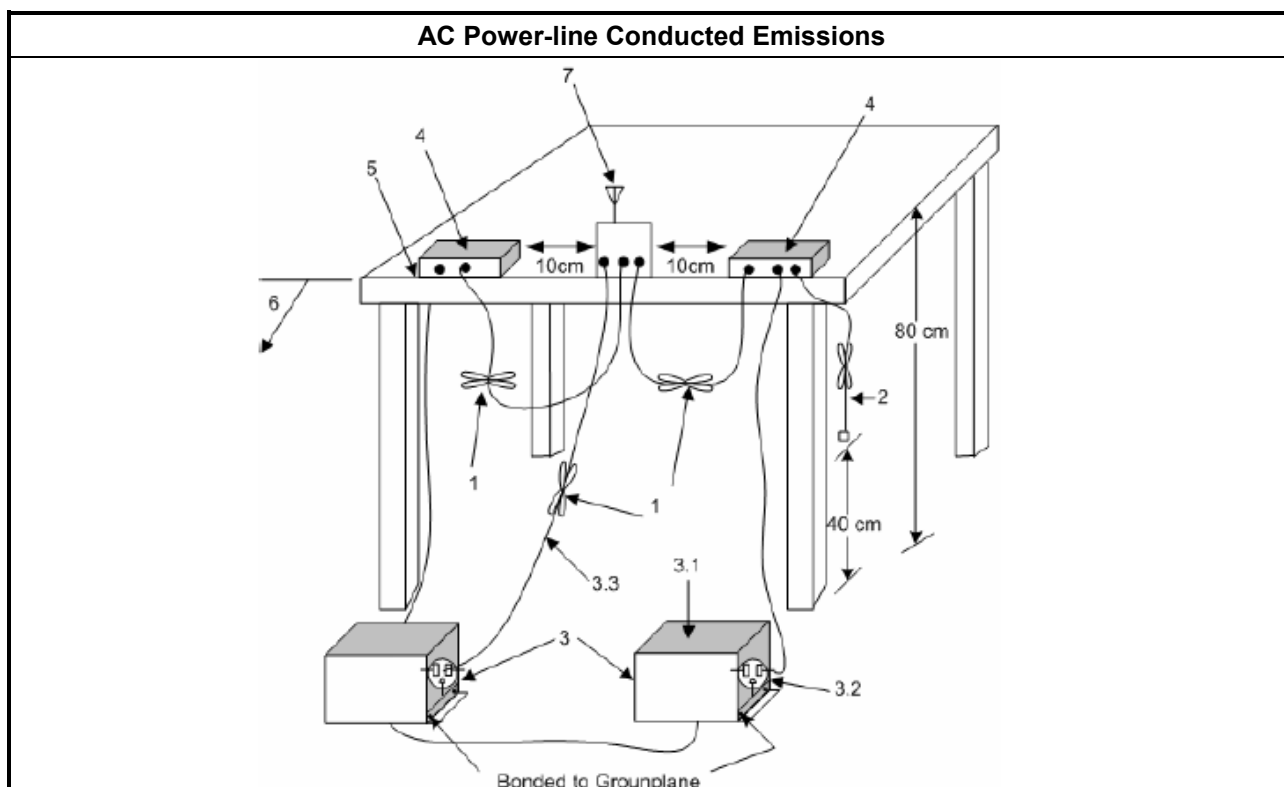
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 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, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

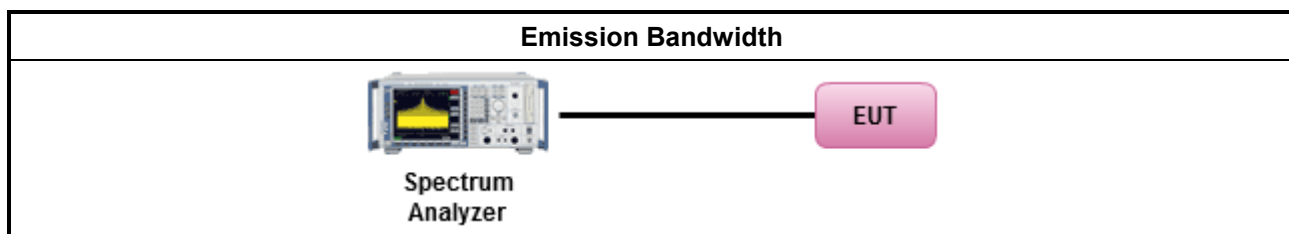
3.2.2 Measuring Instruments

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

3.2.3 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.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 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.	

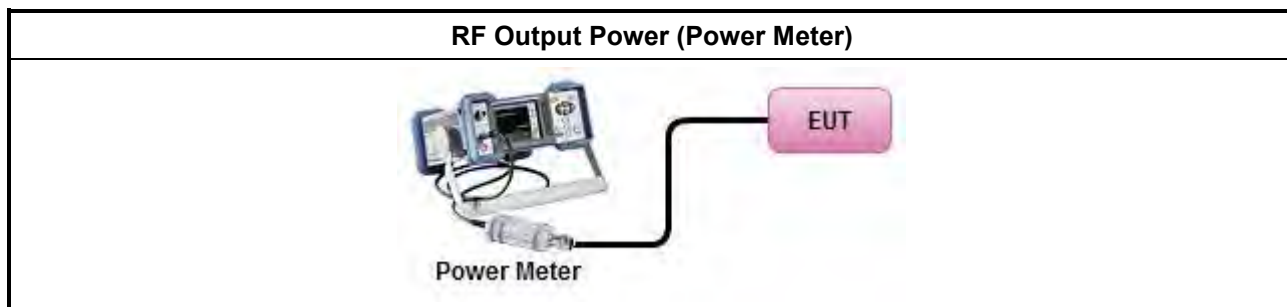
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☐	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: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 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.	

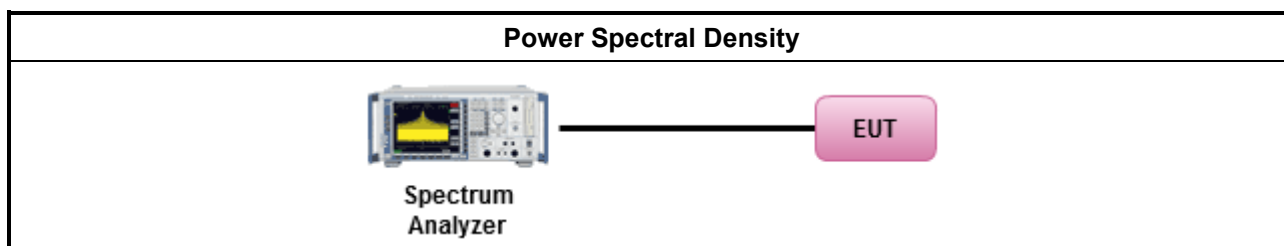
3.4.2 Measuring Instruments

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

3.4.3 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: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 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).

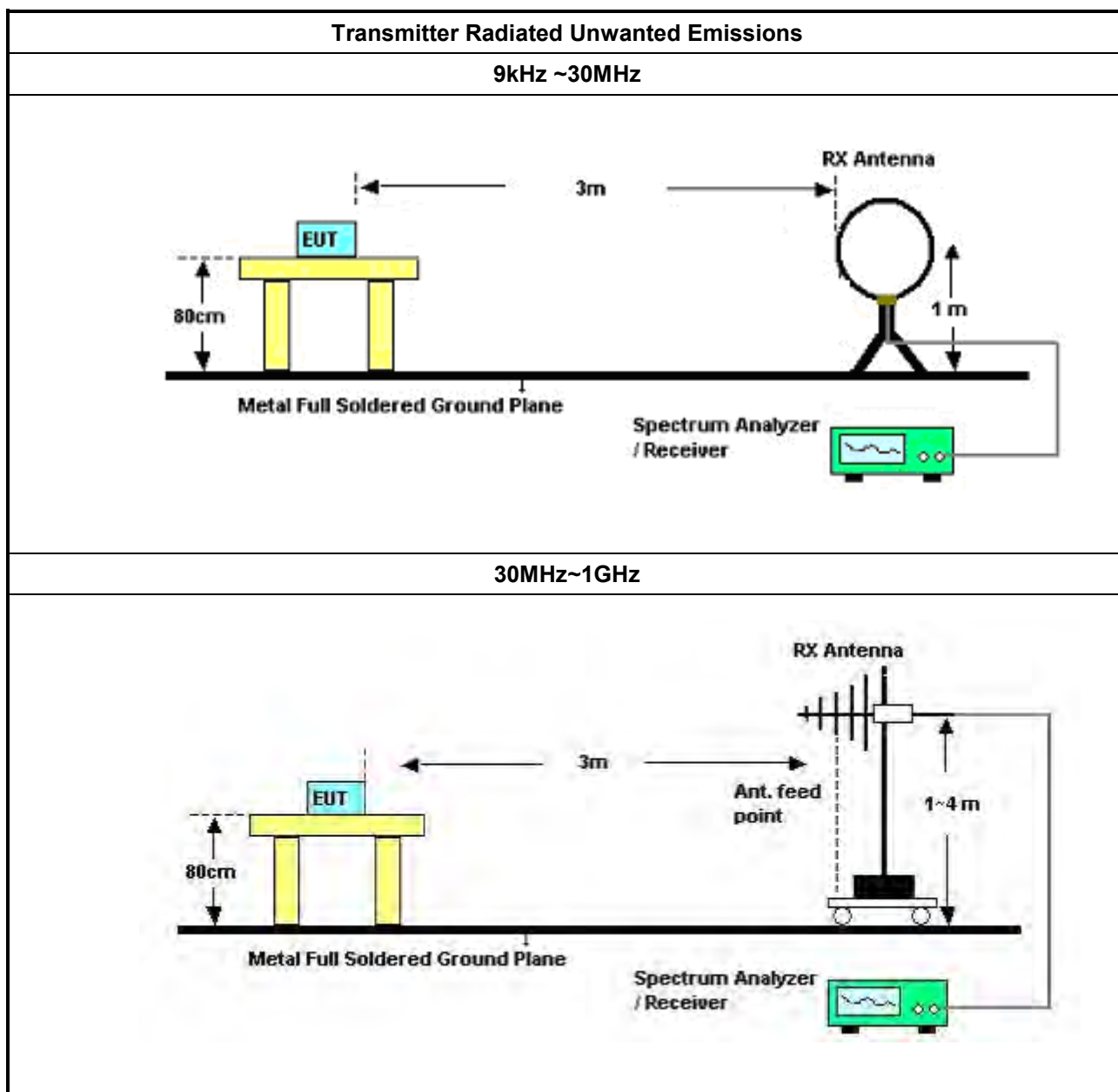
3.5.2 Measuring Instruments

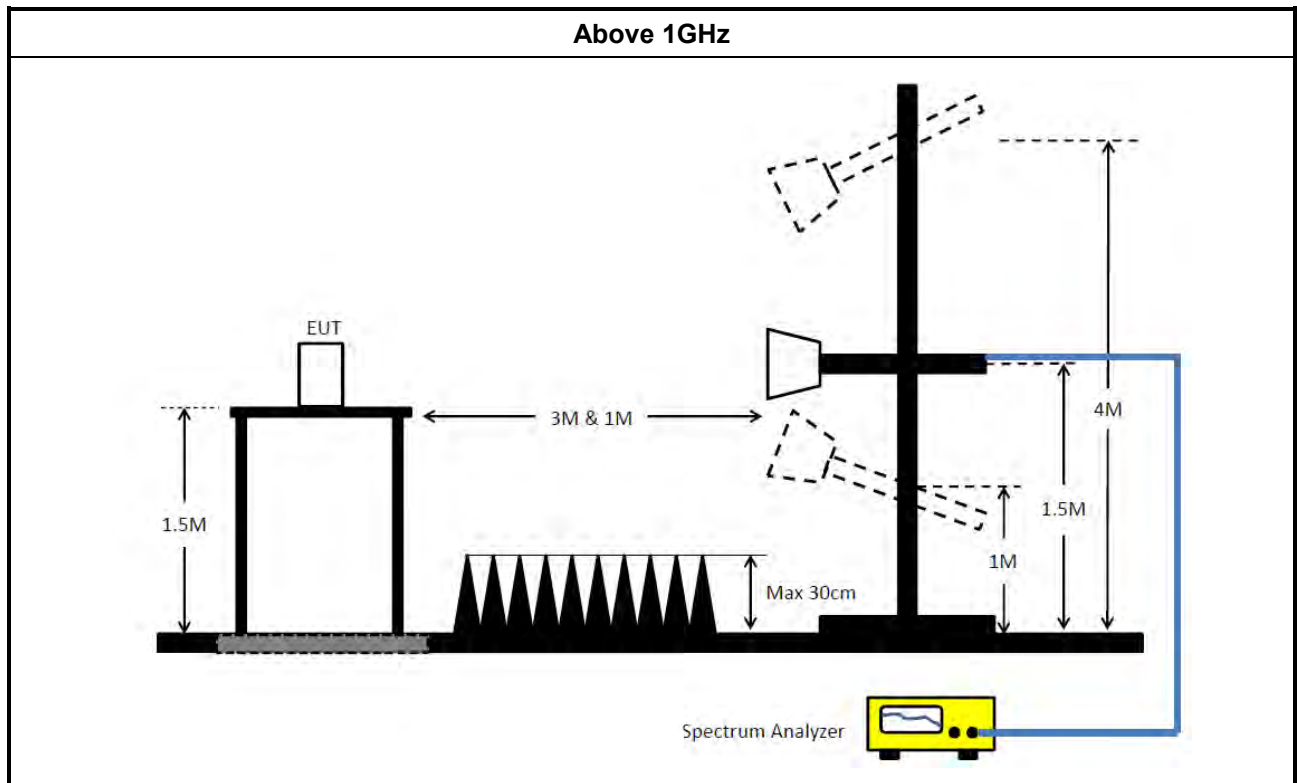
Refer a test equipment and calibration data table in this test report.

3.5.3 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 $\geq$ 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.	

3.5.4 Test Setup





3.5.5 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.

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

Instrument for Conducted Test

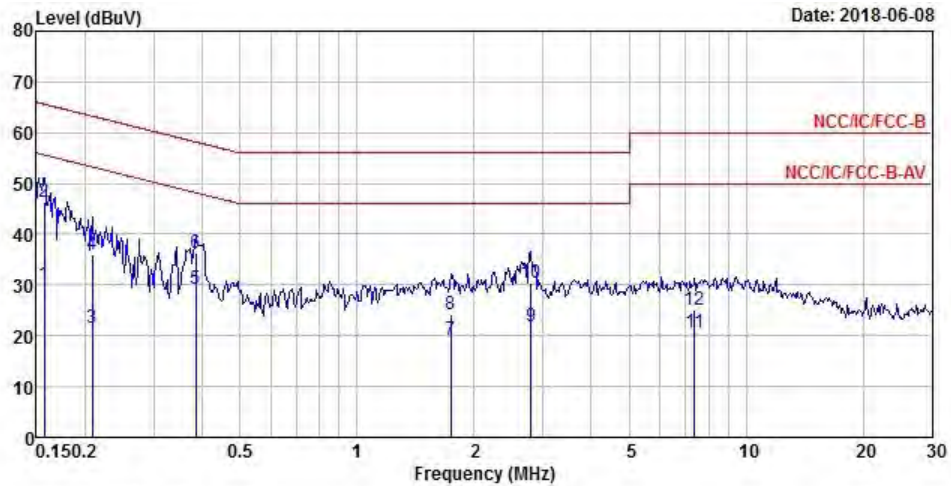
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	29/Dec/2017	28/Dec/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

**Instrument for Radiated Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	20/Jun/2017	19/Jun/2018
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2017	23/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	1/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	02/Feb/2018	01/Feb/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		



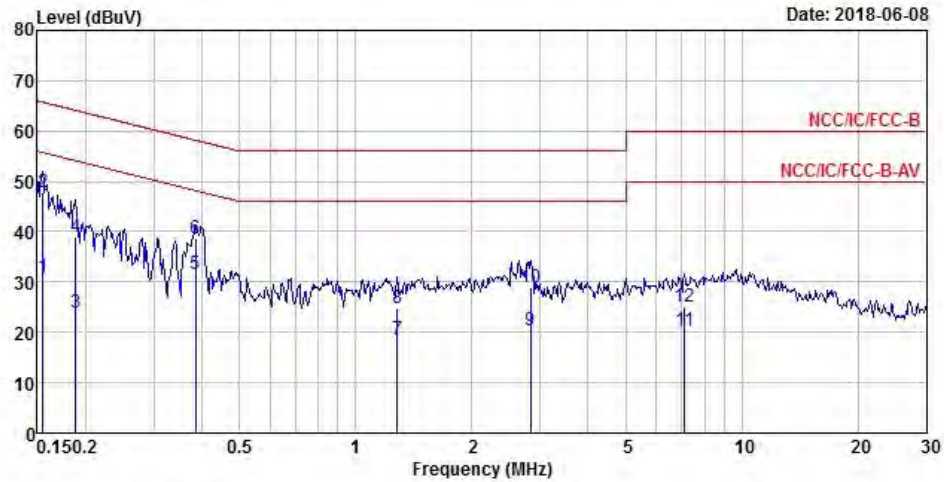
	Freq	Level	Over	Limit	Read	LISM	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	30.11	-25.49	55.60	20.44	9.63	0.04	Average
2	0.16	46.47	-19.13	65.60	36.80	9.63	0.04	QP
3	0.21	21.57	-31.70	53.27	11.94	9.62	0.01	Average
4	0.21	35.99	-27.28	63.27	26.36	9.62	0.01	QP
5 MAX	0.39	29.36	-18.81	48.17	19.66	9.61	0.09	Average
6	0.39	36.42	-21.75	58.17	26.72	9.61	0.09	QP
7	1.74	19.21	-26.79	46.00	9.58	9.63	0.00	Average
8	1.74	24.07	-31.93	56.00	14.44	9.63	0.00	QP
9	2.79	21.91	-24.09	46.00	12.24	9.63	0.04	Average
10	2.79	30.36	-25.64	56.00	20.69	9.63	0.04	QP
11	7.37	20.54	-29.46	50.00	10.71	9.67	0.16	Average
12	7.37	25.06	-34.94	60.00	15.23	9.67	0.16	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.15	30.96	-24.78	55.74	21.30	9.62	0.04	Average
2	0.15	47.97	-17.77	65.74	38.31	9.62	0.04	QP
3	0.19	23.92	-30.19	54.11	14.29	9.62	0.01	Average
4	0.19	38.91	-25.20	64.11	29.28	9.62	0.01	QP
5 MAX	0.39	31.54	-16.63	48.17	21.84	9.61	0.09	Average
6	0.39	38.67	-19.50	58.17	28.97	9.61	0.09	QP
7	1.28	18.45	-27.55	46.00	8.84	9.61	0.00	Average
8	1.28	24.92	-31.08	56.00	15.31	9.61	0.00	QP
9	2.84	20.47	-25.53	46.00	10.81	9.62	0.04	Average
10	2.84	28.80	-27.20	56.00	19.14	9.62	0.04	QP
11	7.10	20.48	-29.52	50.00	10.67	9.65	0.16	Average
12	7.10	25.08	-34.92	60.00	15.27	9.65	0.16	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.175M	16.592M	16M6D1D	19.975M	16.317M
802.11ac VHT20_Nss1,(MCS0)_4TX	34.2M	17.791M	17M8D1D	22.55M	17.716M
802.11ac VHT40_Nss1,(MCS0)_4TX	76.1M	36.482M	36M5D1D	46.75M	36.282M
802.11ac VHT80_Nss1,(MCS0)_4TX	92.2M	76.062M	76M1D1D	89.5M	75.862M
802.11ax HEW20_Nss1,(MCS0)_4TX	30.975M	19.04M	19M0D1D	23.175M	18.991M
802.11ax HEW40_Nss1,(MCS0)_4TX	57.7M	38.031M	38M0D1D	43.65M	37.781M
802.11ax HEW80_Nss1,(MCS0)_4TX	89.4M	77.561M	77M6D1D	86.8M	77.461M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.35M	19.04M	19M0D1D	13.85M	16.292M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.8M	18.116M	18M1D1D	13.35M	17.766M
802.11ac VHT40_Nss1,(MCS0)_4TX	36.5M	37.681M	37M7D1D	35.35M	36.382M
802.11ac VHT80_Nss1,(MCS0)_4TX	76.3M	75.962M	76M0D1D	76.3M	75.762M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.15M	19.215M	19M2D1D	18.925M	19.04M
802.11ax HEW40_Nss1,(MCS0)_4TX	38.25M	38.181M	38M2D1D	37.65M	37.981M
802.11ax HEW80_Nss1,(MCS0)_4TX	78.2M	77.661M	77M7D1D	77.8M	77.461M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% 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)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.5M	16.517M	21.7M	16.542M	19.975M	16.317M	20.525M	16.467M
5200MHz	Pass	Inf	24.175M	16.492M	22.35M	16.517M	20.9M	16.517M	21.25M	16.492M
5240MHz	Pass	Inf	21.85M	16.467M	21.025M	16.417M	21.375M	16.592M	20.85M	16.467M
5745MHz	Pass	500k	13.85M	16.292M	16.325M	19.04M	15.7M	18.016M	15.7M	17.291M
5785MHz	Pass	500k	16.35M	17.591M	15.7M	18.691M	13.85M	16.342M	15.725M	18.441M
5825MHz	Pass	500k	14.05M	16.692M	15.75M	17.666M	16.3M	17.066M	16.3M	17.416M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	22.55M	17.766M	22.675M	17.716M	22.625M	17.741M	22.675M	17.766M
5200MHz	Pass	Inf	23.8M	17.766M	26.975M	17.766M	29.525M	17.791M	23.225M	17.741M
5240MHz	Pass	Inf	30.325M	17.791M	29.9M	17.766M	34.2M	17.741M	33.2M	17.766M
5745MHz	Pass	500k	16.475M	17.791M	17.575M	17.916M	17.6M	18.116M	13.35M	17.766M
5785MHz	Pass	500k	17.775M	17.866M	17.6M	17.891M	17.75M	17.891M	17.6M	18.116M
5825MHz	Pass	500k	14.625M	17.766M	14.875M	17.841M	17.8M	18.041M	17M	17.891M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	46.8M	36.282M	46.9M	36.282M	46.75M	36.282M	47.05M	36.382M
5230MHz	Pass	Inf	75.75M	36.482M	61.5M	36.382M	48.95M	36.332M	76.1M	36.432M
5755MHz	Pass	500k	35.35M	36.432M	36.35M	36.932M	36.5M	37.681M	35.35M	36.382M
5795MHz	Pass	500k	36.35M	36.432M	36.35M	36.832M	36.35M	36.582M	36.35M	36.582M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	91.4M	75.962M	89.5M	75.962M	91.1M	76.062M	92.2M	75.862M
5775MHz	Pass	500k	76.3M	75.962M	76.3M	75.762M	76.3M	75.862M	76.3M	75.862M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	23.975M	18.991M	23.175M	19.015M	23.975M	19.015M	23.75M	19.015M
5200MHz	Pass	Inf	24.525M	19.015M	27.225M	19.04M	30.975M	18.991M	23.925M	18.991M
5240MHz	Pass	Inf	28.6M	18.991M	23.325M	19.015M	24.75M	19.04M	24.25M	19.015M
5745MHz	Pass	500k	19.15M	19.09M	19.125M	19.065M	19.1M	19.09M	19.125M	19.115M
5785MHz	Pass	500k	19.05M	19.09M	19.025M	19.04M	19.05M	19.165M	19.15M	19.09M
5825MHz	Pass	500k	19M	19.065M	18.925M	19.215M	19M	19.165M	19.125M	19.14M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	43.7M	37.931M	44.05M	38.031M	44.05M	37.781M	43.65M	37.831M
5230MHz	Pass	Inf	45.35M	37.881M	57.7M	37.981M	48.15M	37.831M	50.35M	37.881M
5755MHz	Pass	500k	38.15M	38.081M	37.65M	37.981M	38.25M	38.131M	38.1M	38.081M
5795MHz	Pass	500k	38.15M	38.031M	38.1M	38.181M	38.05M	38.131M	38.1M	38.131M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	89.4M	77.461M	87M	77.461M	86.8M	77.561M	88.6M	77.561M
5775MHz	Pass	500k	77.8M	77.561M	78.2M	77.661M	77.9M	77.461M	78.1M	77.661M

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)_4TX

EBW

5180MHz

21/05/2018

Ch Freq
5.18GHz

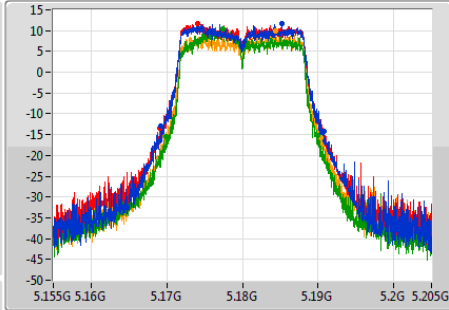
Span
50MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.18GHz

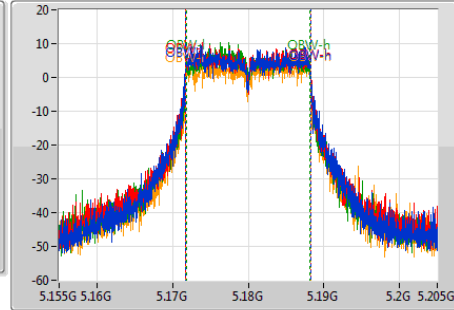
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.5M	5.169225G	5.190725G	16.517M	5.171729G	5.188246G	Inf	1
21.7M	5.1691G	5.1908G	16.542M	5.171704G	5.188246G	Inf	2
19.975M	5.169925G	5.1899G	16.317M	5.171829G	5.188146G	Inf	3
20.525M	5.169825G	5.19035G	16.467M	5.171754G	5.188221G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

21/05/2018

Ch Freq
5.2GHz

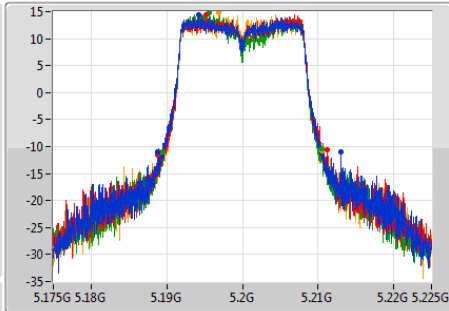
Span
50MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.2GHz

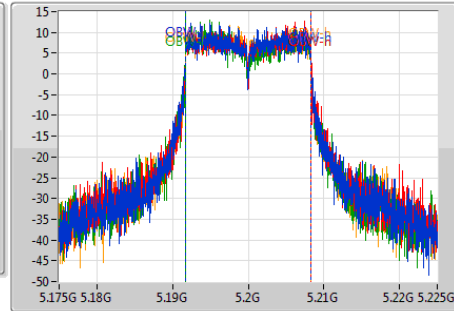
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.175M	5.1888G	5.212975G	16.492M	5.191729G	5.208221G	Inf	1
22.35M	5.1888G	5.21115G	16.517M	5.191754G	5.208271G	Inf	2
20.9M	5.18955G	5.21045G	16.517M	5.191704G	5.208221G	Inf	3
21.25M	5.18925G	5.2105G	16.492M	5.191729G	5.208221G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

21/05/2018

Ch Freq
5.24GHz

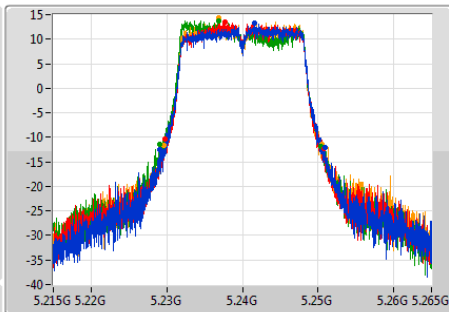
Span
50MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.24GHz

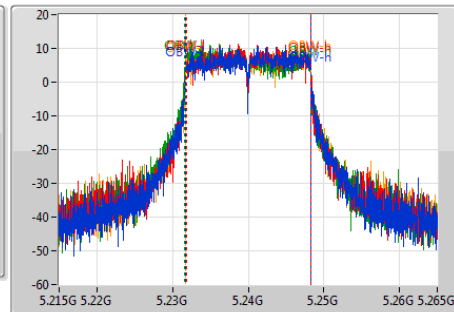
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



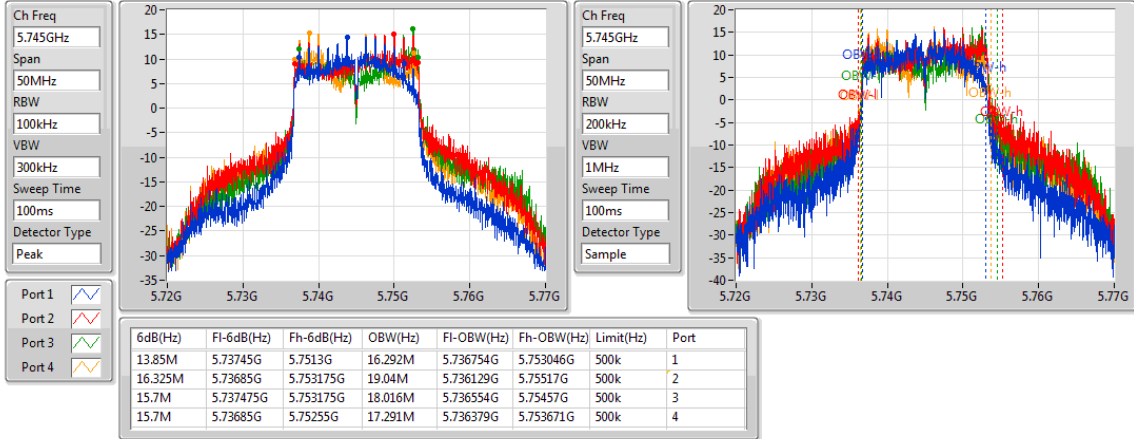
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.85M	5.2291G	5.25095G	16.467M	5.231779G	5.248246G	Inf	1
21.025M	5.22975G	5.250775G	16.417M	5.231804G	5.248221G	Inf	2
21.375M	5.22905G	5.250425G	16.592M	5.231629G	5.248221G	Inf	3
20.85M	5.2296G	5.25045G	16.467M	5.231754G	5.248221G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

21/05/2018

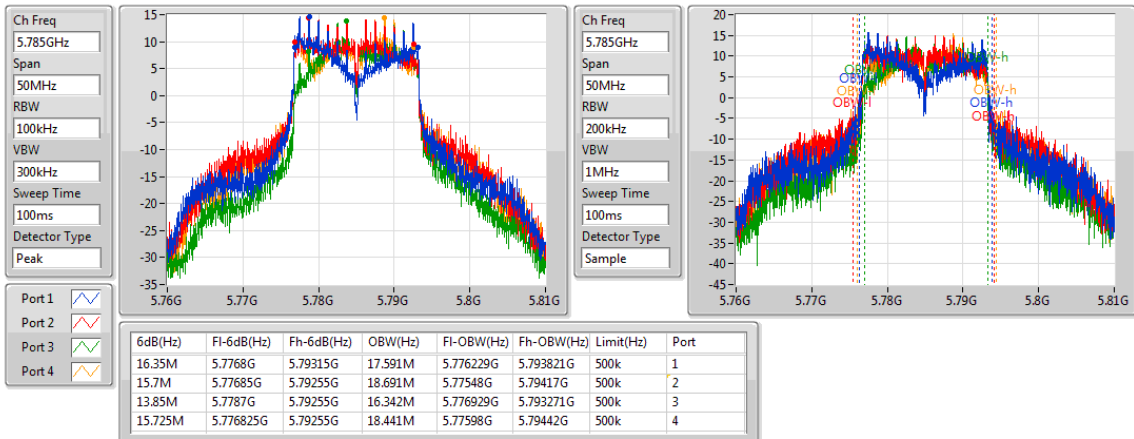


802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

21/05/2018

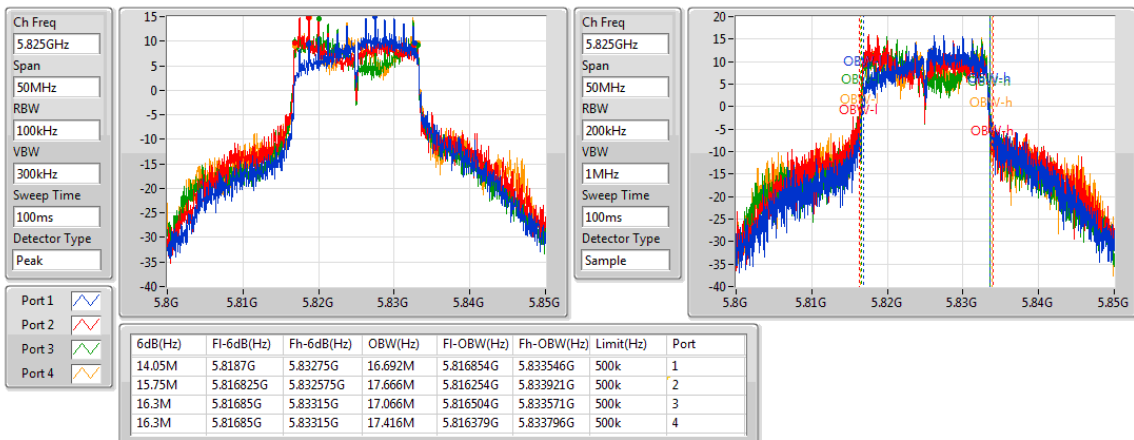


802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

21/05/2018



802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5180MHz

21/05/2018

Ch Freq
5.18GHz

Span
50MHz

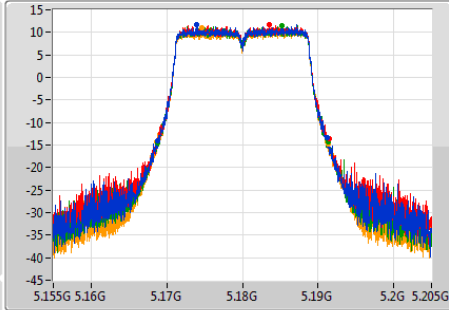
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.18GHz

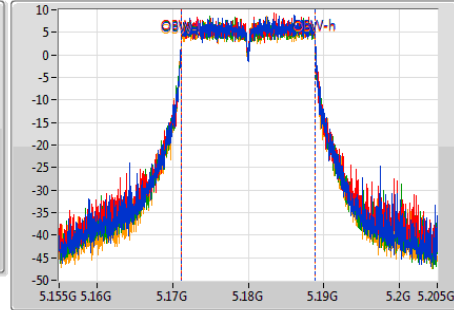
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.55M	5.168725G	5.191275G	17.766M	5.171104G	5.188871G	Inf	1
22.675M	5.168775G	5.19145G	17.716M	5.171129G	5.188846G	Inf	2
22.625M	5.16875G	5.191375G	17.741M	5.171104G	5.188846G	Inf	3
22.675M	5.1687G	5.191375G	17.766M	5.171104G	5.188871G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5200MHz

21/05/2018

Ch Freq
5.2GHz

Span
50MHz

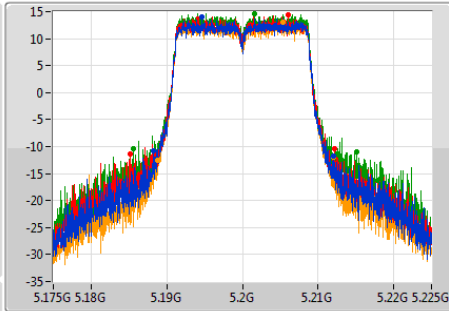
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.2GHz

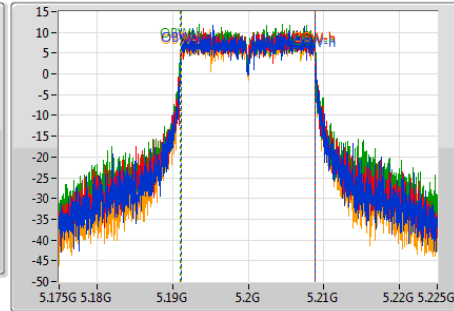
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.8M	5.1883G	5.2121G	17.766M	5.191104G	5.208871G	Inf	1
26.975M	5.185175G	5.21215G	17.766M	5.191104G	5.208871G	Inf	2
29.525M	5.185525G	5.21505G	17.791M	5.191079G	5.208871G	Inf	3
23.225M	5.188775G	5.212G	17.741M	5.191104G	5.208846G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5240MHz

21/05/2018

Ch Freq
5.24GHz

Span
50MHz

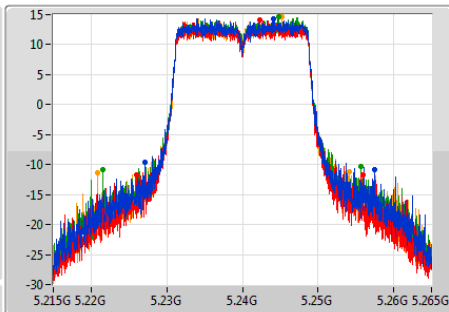
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.24GHz

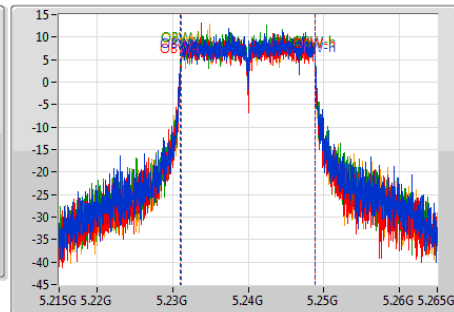
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



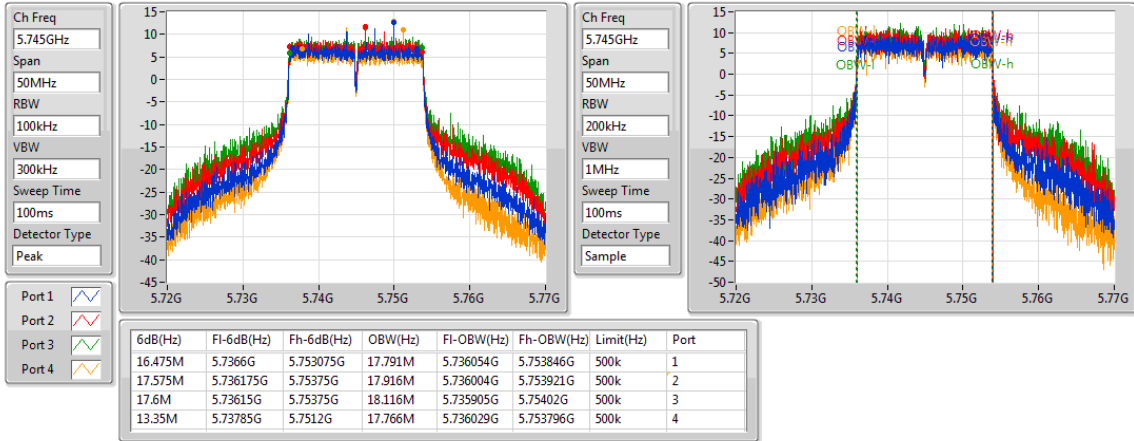
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
30.325M	5.2271G	5.257425G	17.791M	5.231079G	5.248871G	Inf	1
29.9M	5.22605G	5.25595G	17.766M	5.231079G	5.248846G	Inf	2
34.2M	5.221525G	5.255725G	17.741M	5.231104G	5.248846G	Inf	3
33.2M	5.220875G	5.254075G	17.766M	5.231104G	5.248871G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5745MHz

21/05/2018

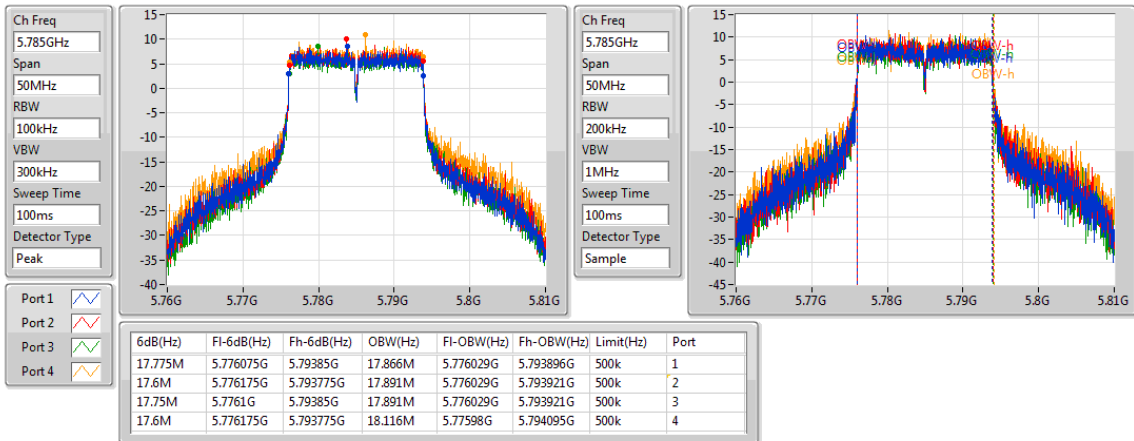


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5785MHz

21/05/2018

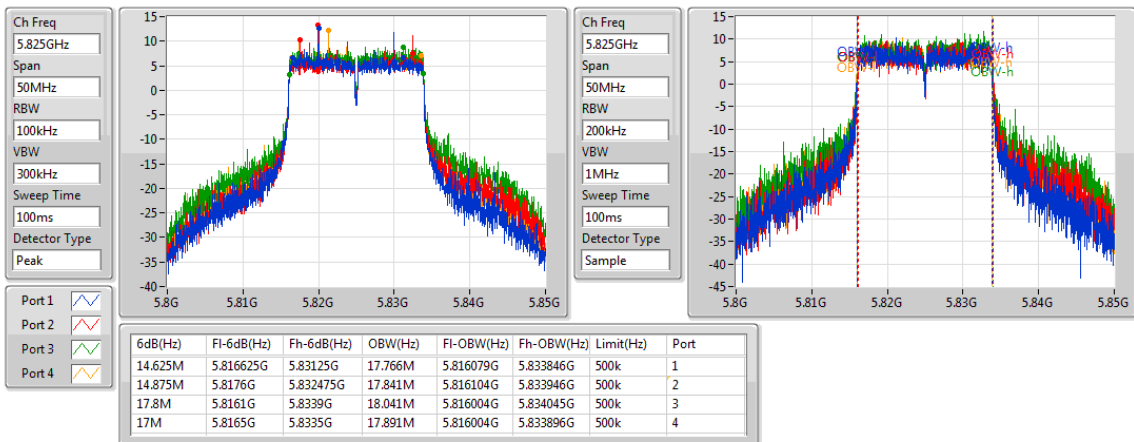


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5825MHz

21/05/2018



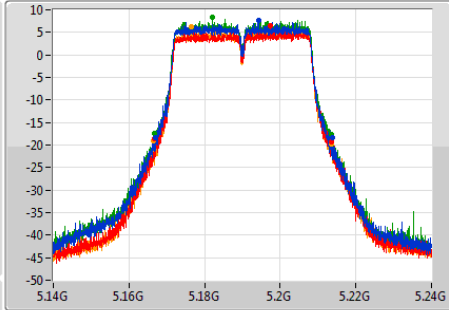
802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

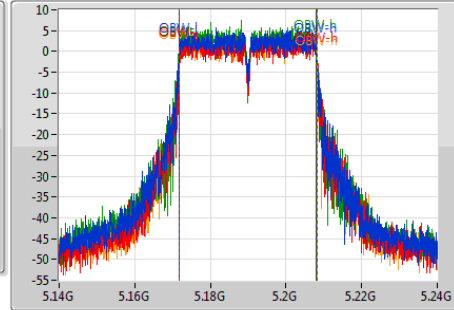
5190MHz

21/05/2018

Ch Freq
5.19GHz
Span
100MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Ch Freq
5.19GHz
Span
100MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
46.8M	5.1671G	5.2139G	36.282M	5.171809G	5.208091G	Inf	1
46.9M	5.1667G	5.2136G	36.282M	5.171859G	5.208141G	Inf	2
46.75M	5.1668G	5.21355G	36.282M	5.171809G	5.208091G	Inf	3
47.05M	5.1666G	5.21365G	36.382M	5.171759G	5.208141G	Inf	4

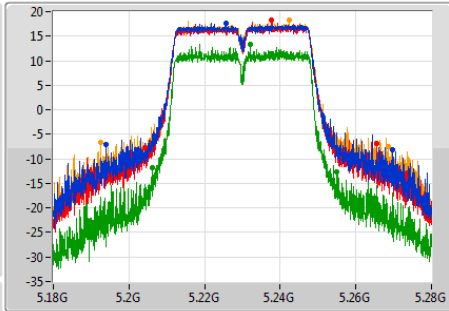
802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

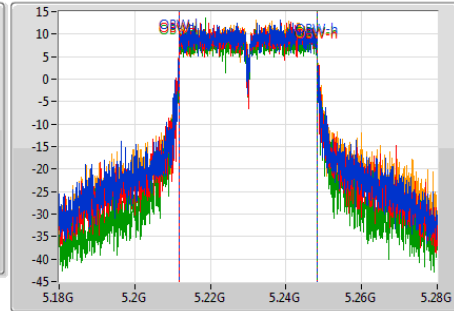
5230MHz

21/05/2018

Ch Freq
5.23GHz
Span
100MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



Ch Freq
5.23GHz
Span
100MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.75M	5.1939G	5.26965G	36.482M	5.211759G	5.248241G	Inf	1
61.5M	5.20415G	5.26565G	36.382M	5.211809G	5.248191G	Inf	2
48.95M	5.20605G	5.255G	36.332M	5.211809G	5.248141G	Inf	3
76.1M	5.19245G	5.26855G	36.432M	5.211759G	5.248191G	Inf	4

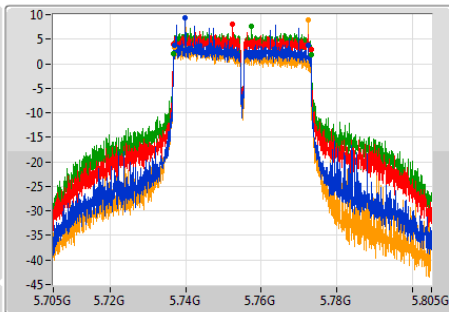
802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

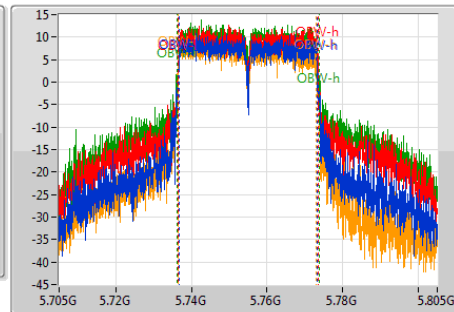
5755MHz

21/05/2018

Ch Freq
5.755GHz
Span
100MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



Ch Freq
5.755GHz
Span
100MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Sample



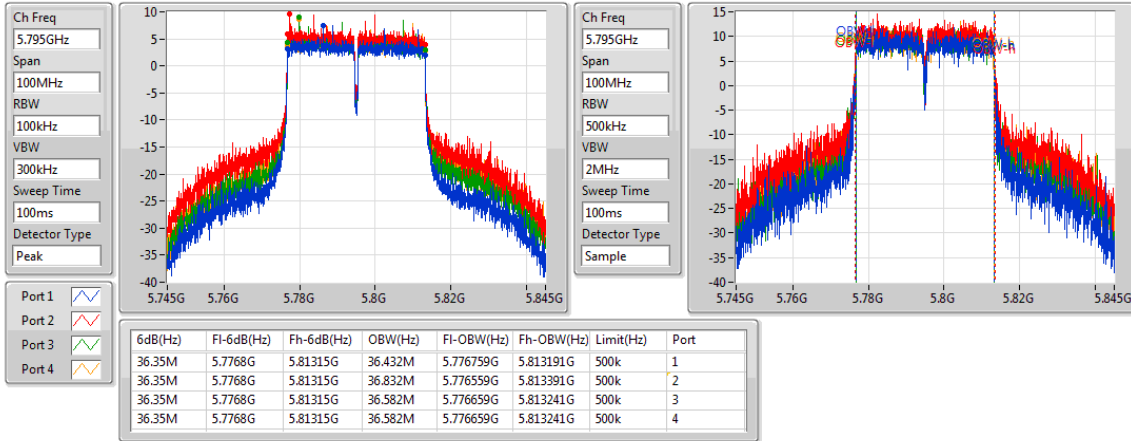
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.35M	5.73705G	5.7724G	36.432M	5.736709G	5.773141G	500k	1
36.35M	5.7368G	5.77315G	36.932M	5.736509G	5.773441G	500k	2
36.5M	5.7367G	5.7732G	37.681M	5.736059G	5.773741G	500k	3
35.35M	5.7371G	5.77245G	36.382M	5.736609G	5.772991G	500k	4

802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5795MHz

22/05/2018

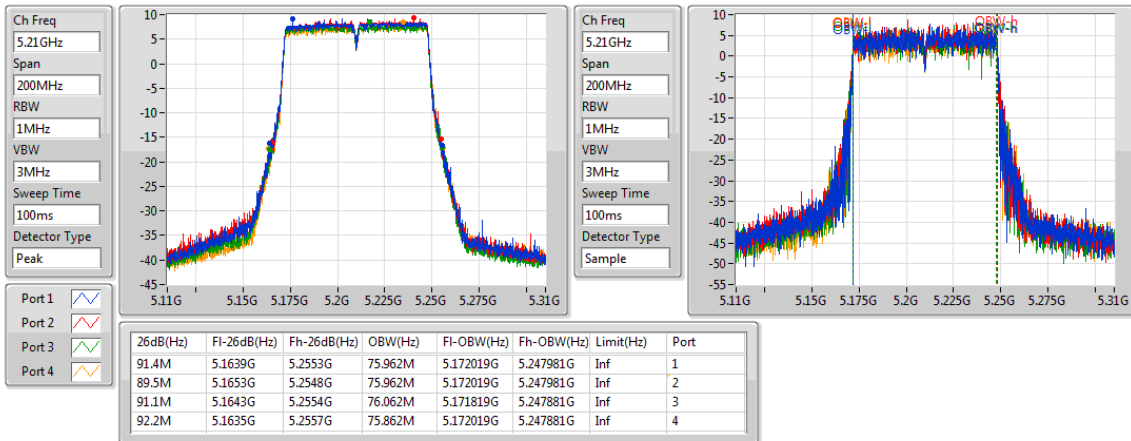


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5210MHz

22/05/2018

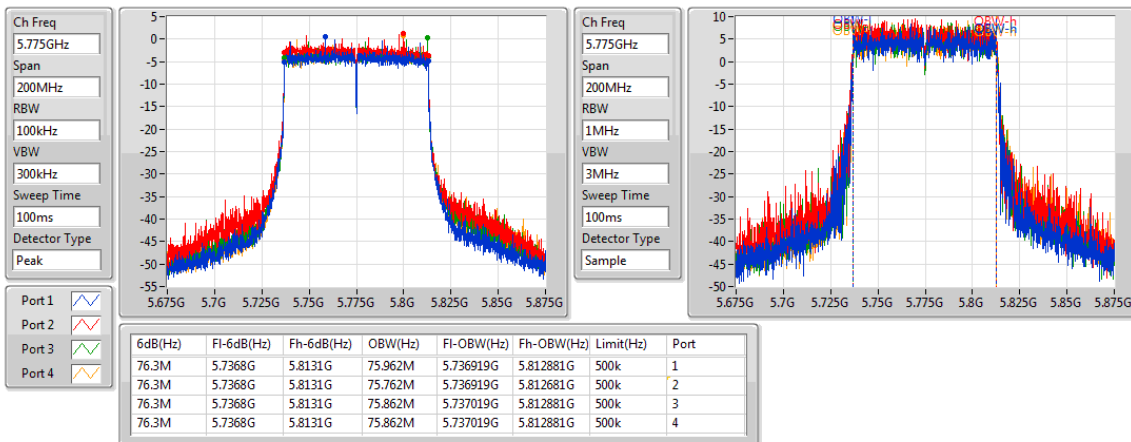


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5775MHz

22/05/2018

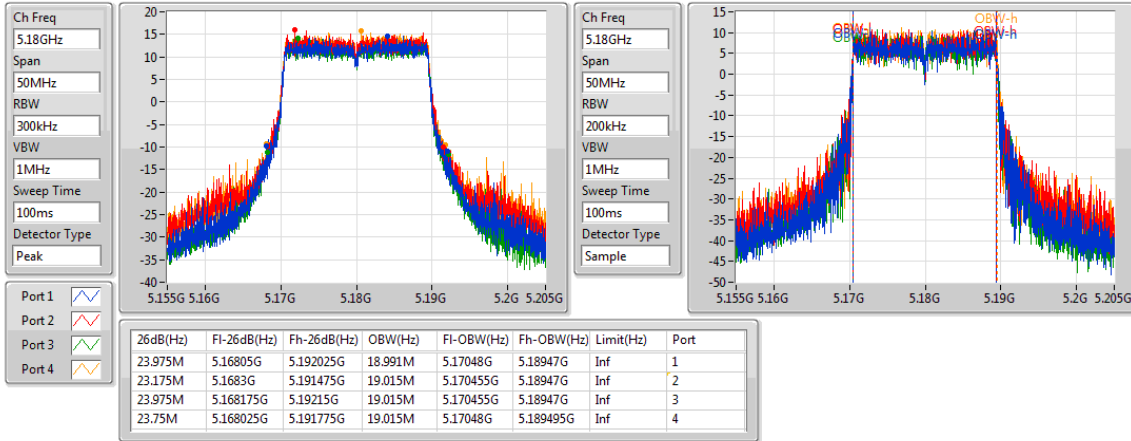


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5180MHz

01/06/2018

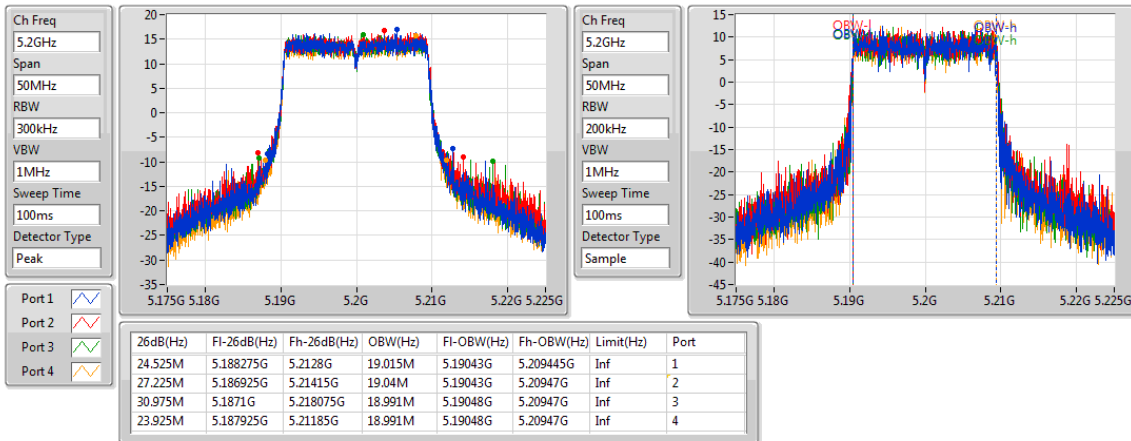


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5200MHz

01/06/2018

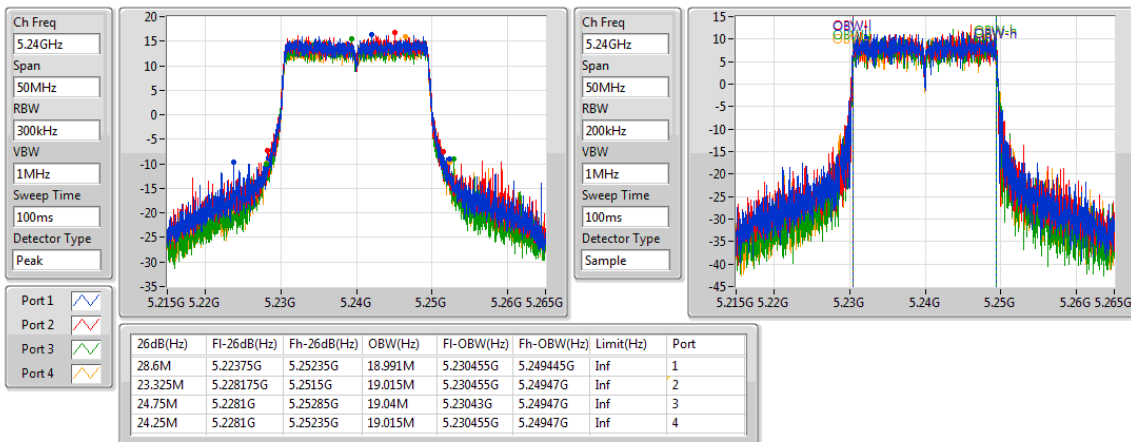


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5240MHz

01/06/2018

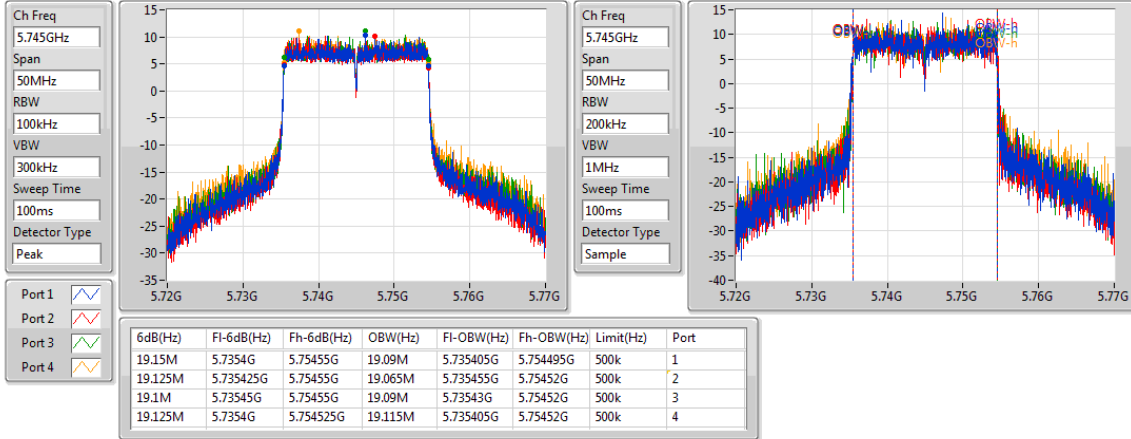


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5745MHz

01/06/2018

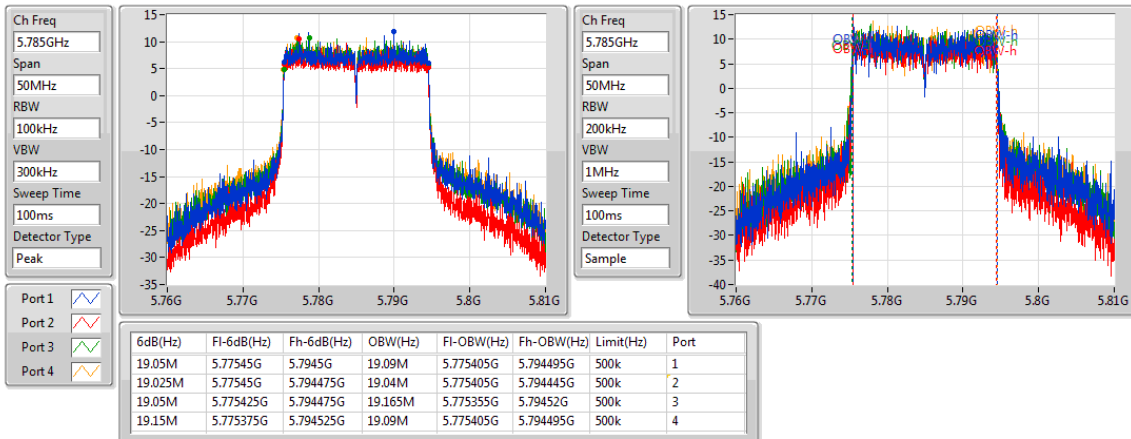


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5785MHz

01/06/2018

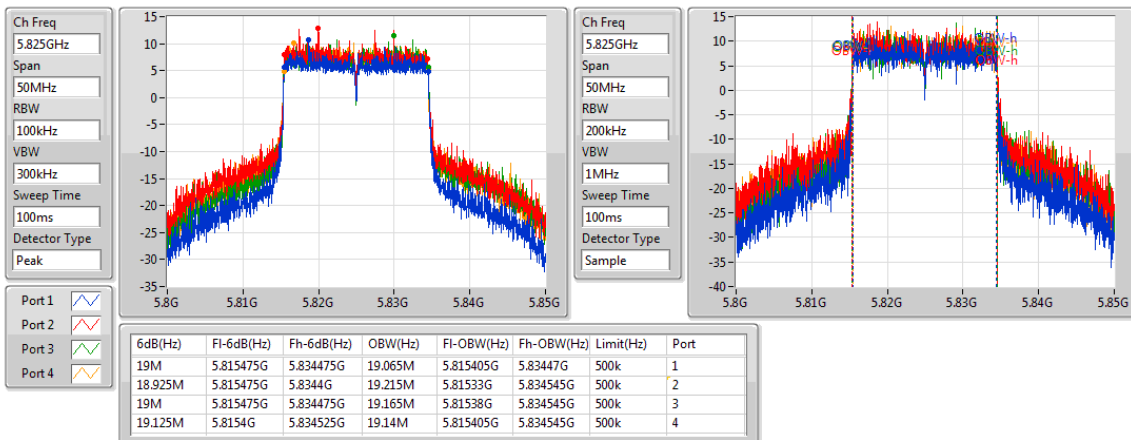


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5825MHz

01/06/2018

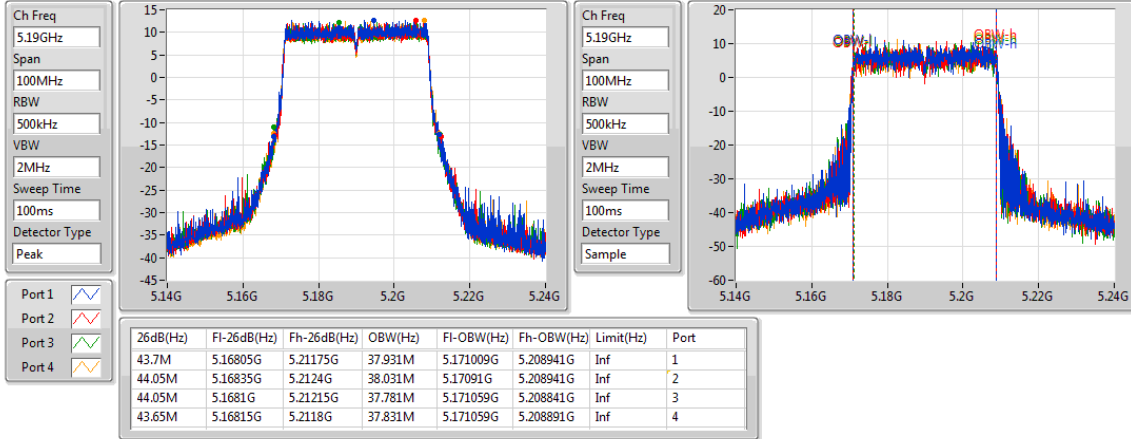


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5190MHz

01/06/2018

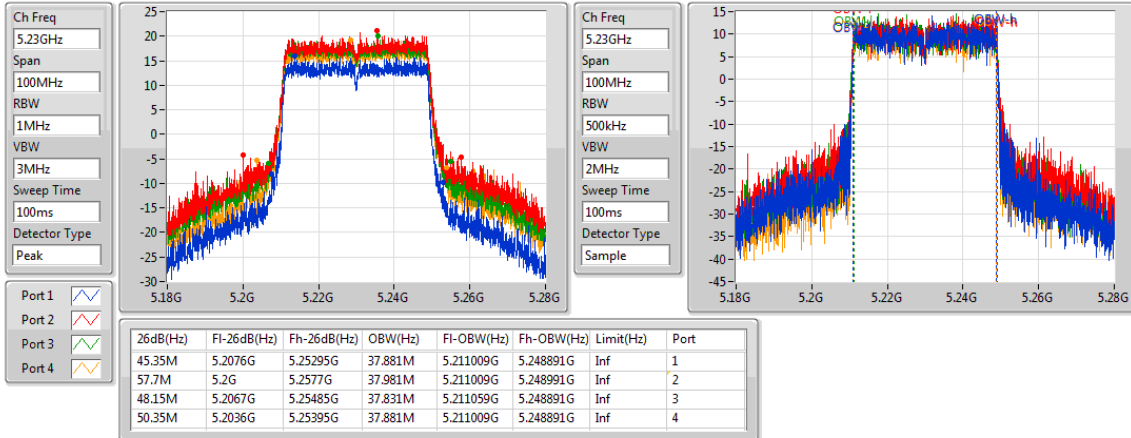


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5230MHz

01/06/2018

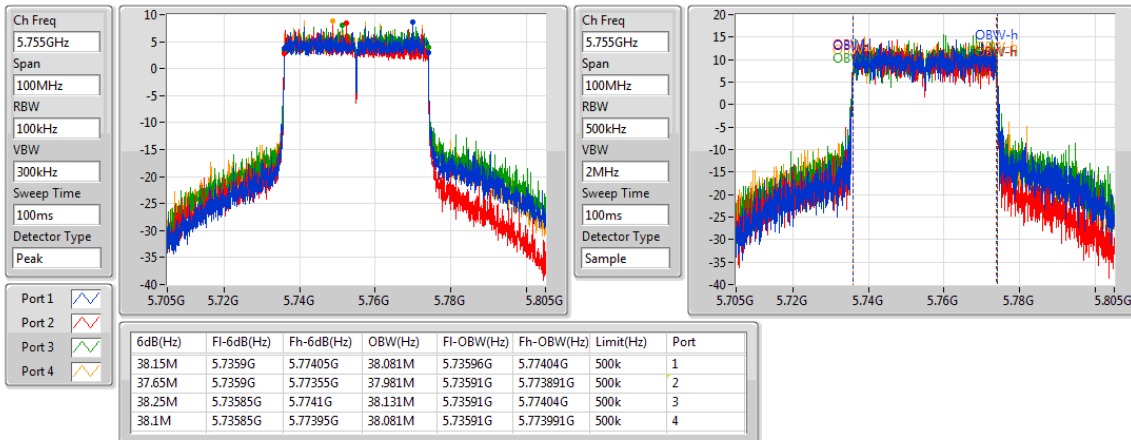


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5755MHz

01/06/2018

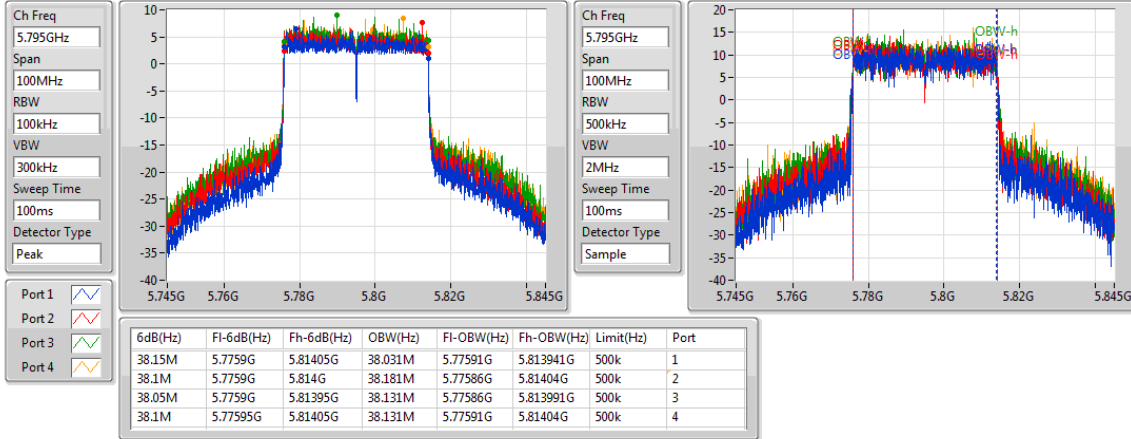


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5795MHz

01/06/2018

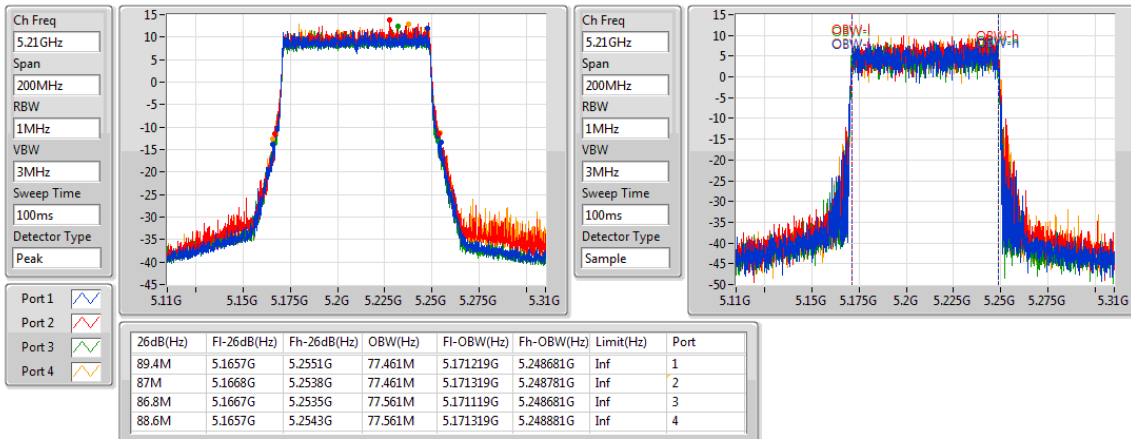


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5210MHz

01/06/2018

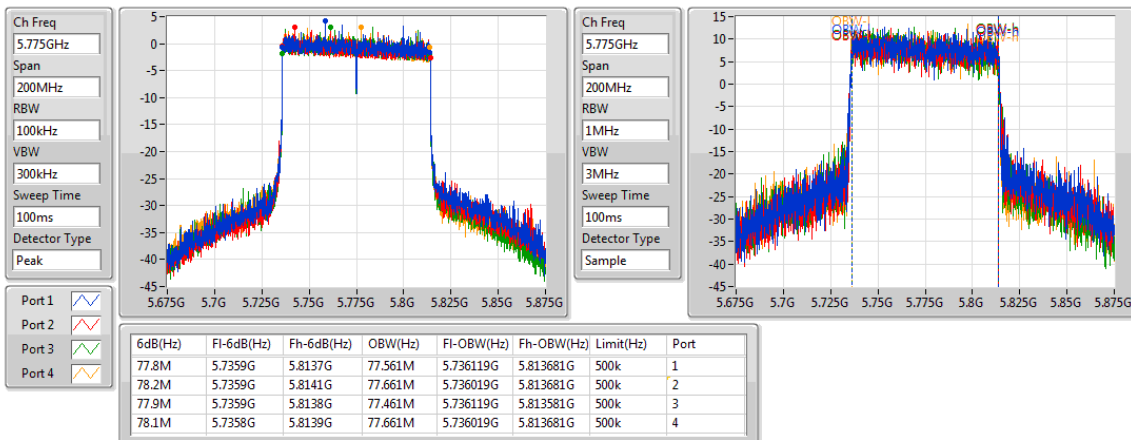


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5775MHz

01/06/2018



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	23.15M	17.791M	17M8D1D	21.65M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	45M	36.482M	36M5D1D	38.65M	36.282M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	88.9M	76.262M	76M3D1D	80.6M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.725M	17.766M	17M8D1D	16.75M	17.516M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	36.5M	36.532M	36M5D1D	34.55M	36.232M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	76M	76.262M	76M3D1D	11.3M	75.862M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% 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)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	22.85M	17.641M	22.725M	17.691M	22.625M	17.691M	22.475M	17.741M
5200MHz	Pass	Inf	22.725M	17.791M	21.775M	17.766M	22.6M	17.666M	23.15M	17.791M
5240MHz	Pass	Inf	22.625M	17.716M	22.6M	17.716M	21.65M	17.716M	22.975M	17.741M
5745MHz	Pass	500k	16.75M	17.566M	17.675M	17.741M	16.875M	17.591M	17.65M	17.691M
5785MHz	Pass	500k	16.825M	17.516M	17.725M	17.766M	16.825M	17.666M	17.575M	17.741M
5825MHz	Pass	500k	17.475M	17.691M	17.7M	17.766M	17.675M	17.716M	17.6M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	38.9M	36.482M	41.15M	36.282M	38.65M	36.332M	44.2M	36.382M
5230MHz	Pass	Inf	45M	36.382M	41.5M	36.432M	41.4M	36.432M	39.9M	36.332M
5755MHz	Pass	500k	36.05M	36.382M	36.4M	36.532M	35.7M	36.482M	35.5M	36.282M
5795MHz	Pass	500k	34.55M	36.482M	36.25M	36.232M	36.5M	36.482M	36.2M	36.332M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	80.6M	76.162M	84.4M	75.862M	88.9M	75.962M	88.4M	76.262M
5775MHz	Pass	500k	72.5M	76.162M	11.3M	75.962M	76M	76.262M	75.7M	75.862M

Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

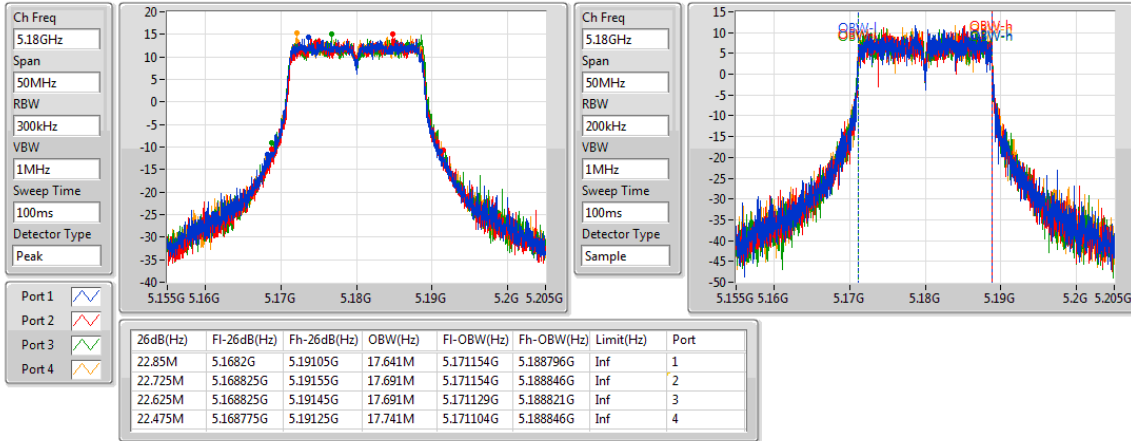
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5180MHz

07/06/2018

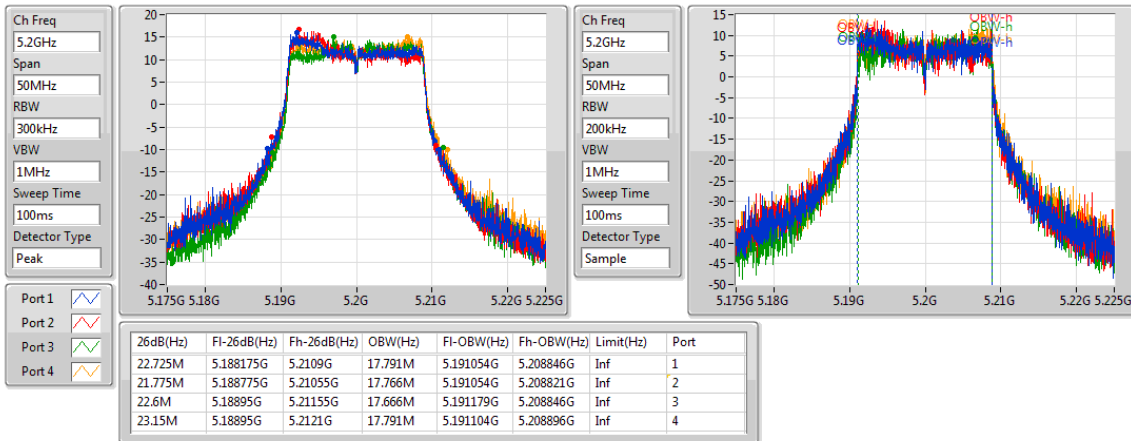


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5200MHz

07/06/2018

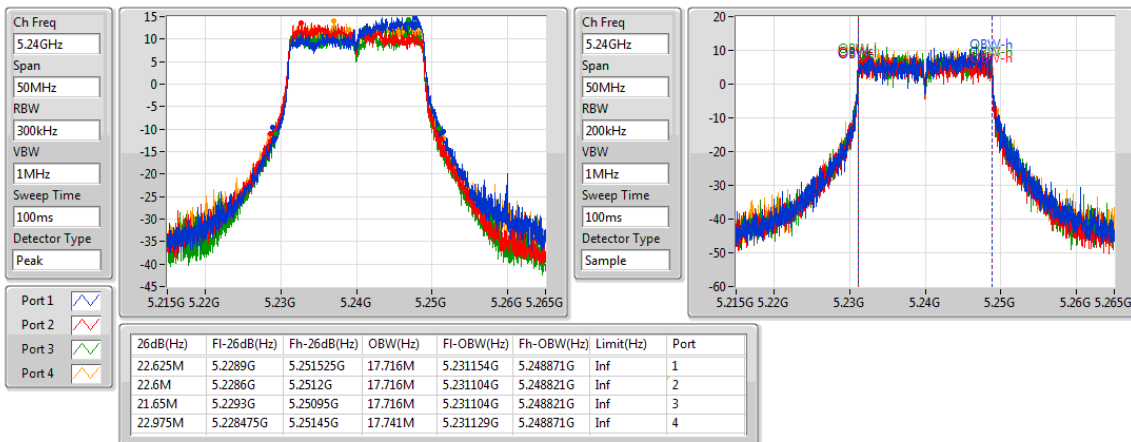


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5240MHz

07/06/2018



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

07/06/2018

Ch Freq
5.745GHz

Span
50MHz

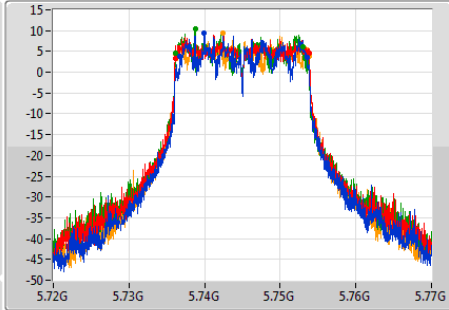
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.745GHz

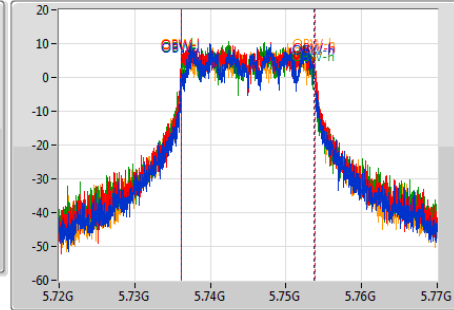
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.75M	5.73675G	5.7535G	17.566M	5.736179G	5.753746G	500k	1
17.675M	5.73615G	5.753825G	17.741M	5.736129G	5.753871G	500k	2
16.875M	5.736175G	5.75305G	17.591M	5.736129G	5.753721G	500k	3
17.65M	5.736175G	5.753825G	17.691M	5.736154G	5.753846G	500k	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

07/06/2018

Ch Freq
5.785GHz

Span
50MHz

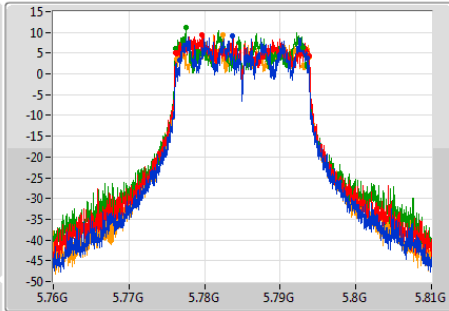
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.785GHz

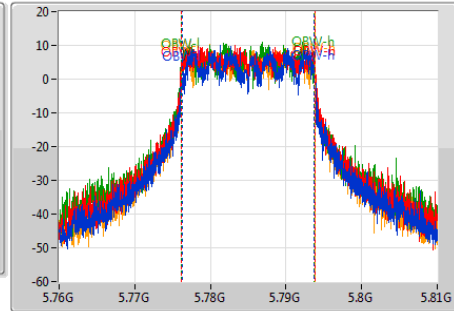
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.825M	5.776725G	5.79355G	17.516M	5.776254G	5.793771G	500k	1
17.725M	5.776125G	5.79385G	17.766M	5.776129G	5.793896G	500k	2
16.825M	5.7762G	5.793025G	17.666M	5.776104G	5.793771G	500k	3
17.575M	5.77625G	5.793825G	17.741M	5.776104G	5.793846G	500k	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

07/06/2018

Ch Freq
5.825GHz

Span
50MHz

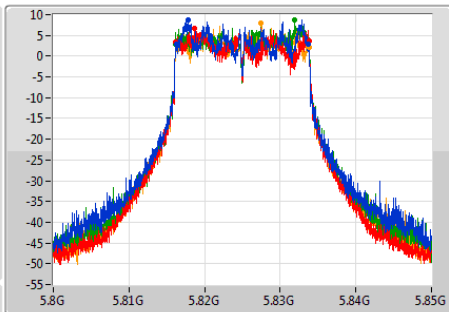
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.825GHz

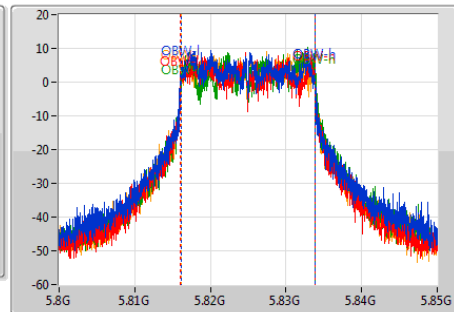
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



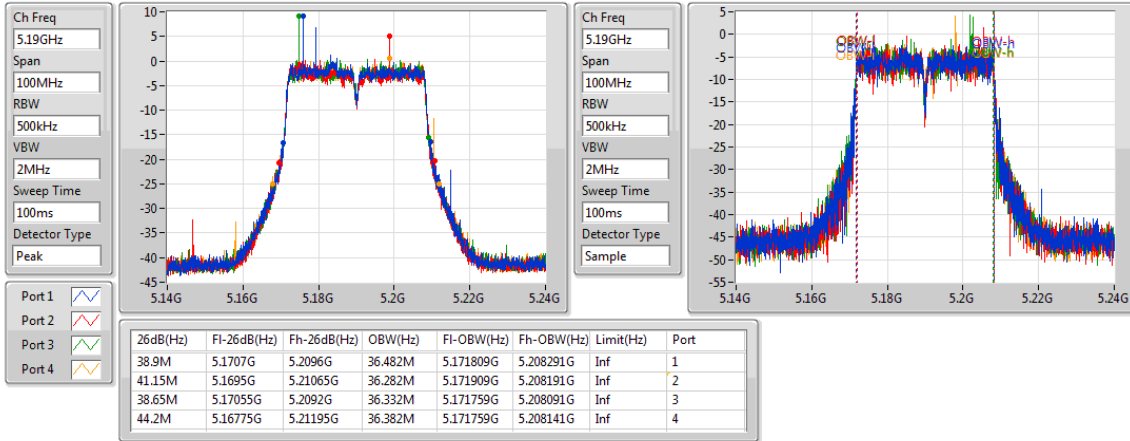
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.475M	5.81625G	5.833725G	17.691M	5.816104G	5.833796G	500k	1
17.7M	5.81615G	5.83385G	17.766M	5.816079G	5.833846G	500k	2
17.675M	5.816175G	5.83385G	17.716M	5.816179G	5.833896G	500k	3
17.6M	5.816225G	5.833825G	17.691M	5.816129G	5.833821G	500k	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

07/06/2018

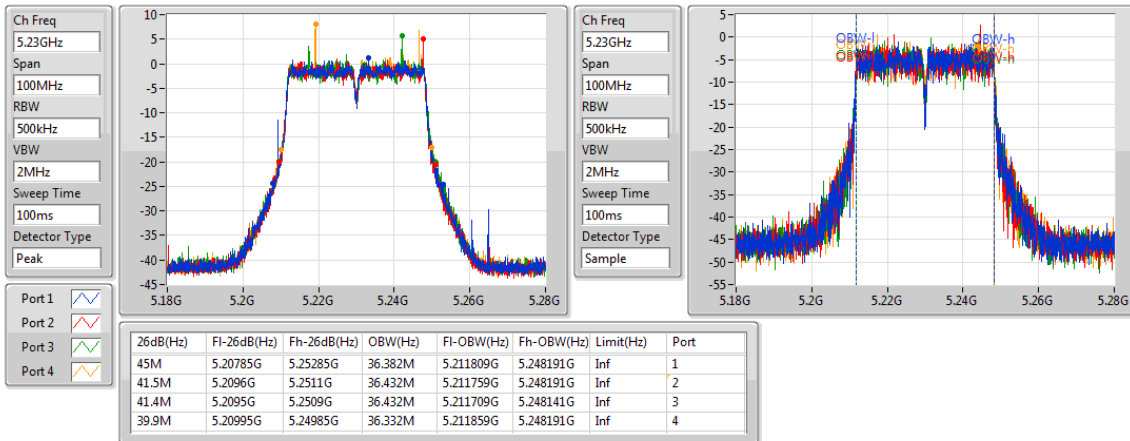


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5230MHz

07/06/2018

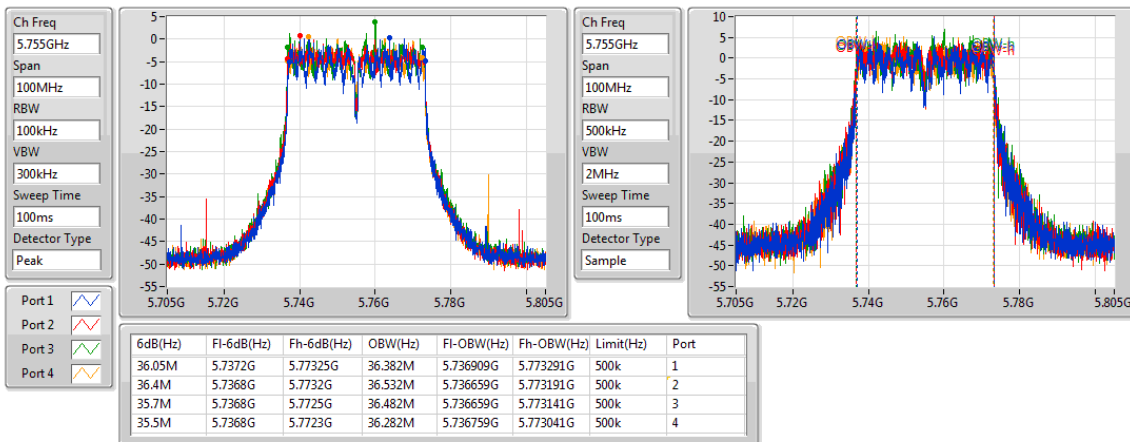


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5755MHz

07/06/2018

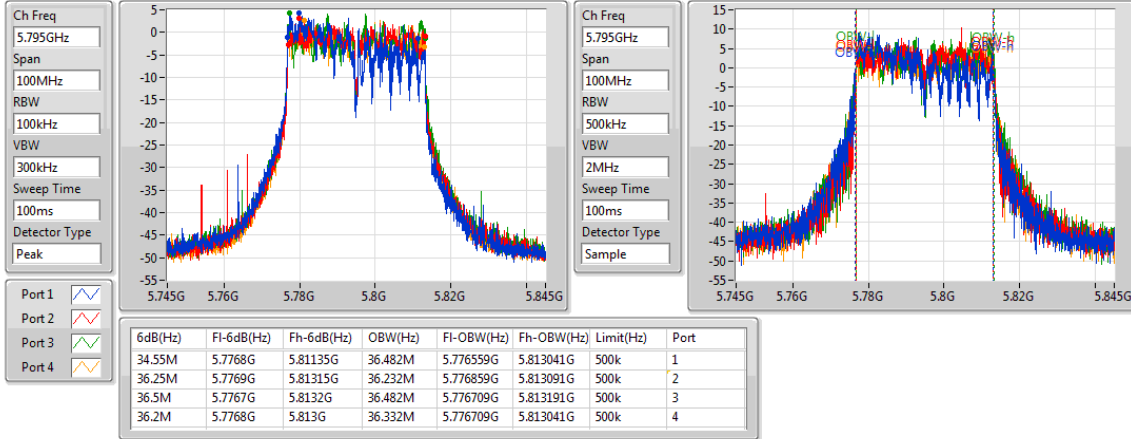


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5795MHz

07/06/2018

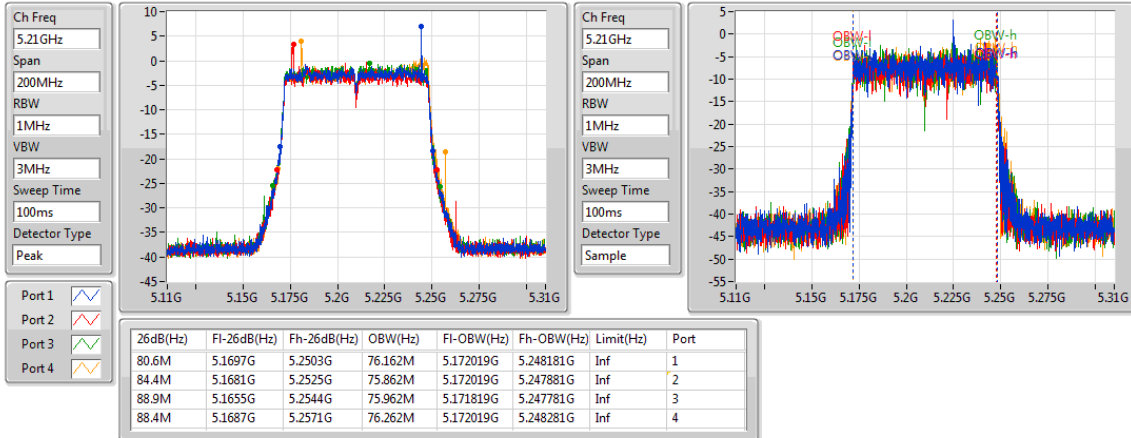


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5210MHz

07/06/2018

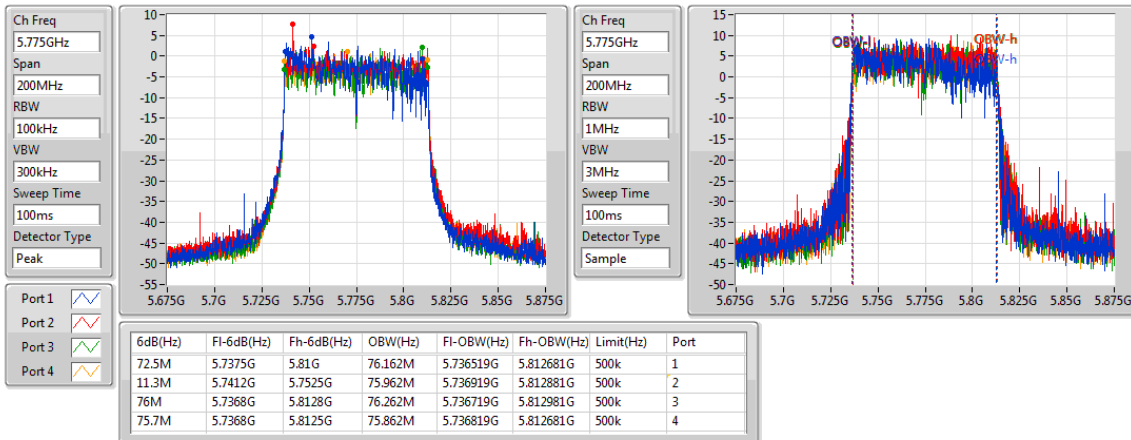


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz

07/06/2018



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	27.83	0.60674	28.93	0.78163
802.11ac VHT20_Nss1,(MCS0)_4TX	29.98	0.99541	31.08	1.28233
802.11ac VHT40_Nss1,(MCS0)_4TX	29.85	0.96605	30.95	1.24451
802.11ac VHT80_Nss1,(MCS0)_4TX	24.37	0.27353	25.47	0.35237
802.11ax HEW20_Nss1,(MCS0)_4TX	29.29	0.84918	30.39	1.09396
802.11ax HEW40_Nss1,(MCS0)_4TX	29.65	0.92257	30.75	1.18850
802.11ax HEW80_Nss1,(MCS0)_4TX	25.05	0.31989	26.15	0.41210
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	29.98	0.99541	32.08	1.61436
802.11ac VHT20_Nss1,(MCS0)_4TX	29.77	0.94842	31.87	1.53815
802.11ac VHT40_Nss1,(MCS0)_4TX	29.97	0.99312	32.07	1.61065
802.11ac VHT80_Nss1,(MCS0)_4TX	25.46	0.35156	27.56	0.57016
802.11ax HEW20_Nss1,(MCS0)_4TX	29.71	0.93541	31.81	1.51705
802.11ax HEW40_Nss1,(MCS0)_4TX	29.88	0.97275	31.98	1.57761
802.11ax HEW80_Nss1,(MCS0)_4TX	27.87	0.61235	29.97	0.99312

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	1.10	19.19	19.51	19.41	19.58	25.45	30.00	26.55	36.00
5200MHz	Pass	1.10	21.86	21.92	21.55	21.90	27.83	30.00	28.93	36.00
5240MHz	Pass	1.10	20.71	20.97	20.97	20.86	26.90	30.00	28.00	36.00
5745MHz	Pass	2.10	23.68	24.24	23.71	24.15	29.97	30.00	32.07	36.00
5785MHz	Pass	2.10	23.62	24.60	23.49	24.04	29.98	30.00	32.08	36.00
5825MHz	Pass	2.10	23.85	23.84	23.42	23.87	29.77	30.00	31.87	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	1.10	21.28	21.35	20.97	20.79	27.12	30.00	28.22	36.00
5200MHz	Pass	1.10	23.55	23.87	24.53	23.06	29.81	30.00	30.91	36.00
5240MHz	Pass	1.10	24.04	23.88	24.14	23.78	29.98	30.00	31.08	36.00
5745MHz	Pass	2.10	23.68	24.20	23.22	23.77	29.75	30.00	31.85	36.00
5785MHz	Pass	2.10	23.55	23.84	23.14	24.35	29.76	30.00	31.86	36.00
5825MHz	Pass	2.10	23.48	23.03	24.56	23.79	29.77	30.00	31.87	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	1.10	18.32	17.01	18.42	17.06	23.77	30.00	24.87	36.00
5230MHz	Pass	1.10	23.63	24.15	23.40	24.11	29.85	30.00	30.95	36.00
5755MHz	Pass	2.10	23.67	24.09	23.26	24.15	29.83	30.00	31.93	36.00
5795MHz	Pass	2.10	23.09	24.80	23.86	23.86	29.97	30.00	32.07	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	1.10	18.64	18.79	18.01	17.91	24.37	30.00	25.47	36.00
5775MHz	Pass	2.10	18.82	20.17	19.43	19.23	25.46	30.00	27.56	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	1.10	21.70	22.60	21.58	22.67	28.19	30.00	29.29	36.00
5200MHz	Pass	1.10	23.14	23.50	23.10	22.71	29.14	30.00	30.24	36.00
5240MHz	Pass	1.10	23.72	23.67	22.77	22.84	29.29	30.00	30.39	36.00
5745MHz	Pass	2.10	23.33	23.51	23.74	24.15	29.71	30.00	31.81	36.00
5785MHz	Pass	2.10	23.72	22.83	23.75	24.01	29.62	30.00	31.72	36.00
5825MHz	Pass	2.10	22.75	24.24	23.69	23.77	29.67	30.00	31.77	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	1.10	20.25	19.93	19.81	19.79	25.97	30.00	27.07	36.00
5230MHz	Pass	1.10	23.45	24.26	23.73	22.98	29.65	30.00	30.75	36.00
5755MHz	Pass	2.10	23.59	23.41	24.30	24.08	29.88	30.00	31.98	36.00
5795MHz	Pass	2.10	22.99	23.57	24.18	23.96	29.72	30.00	31.82	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	1.10	18.70	19.68	18.44	19.20	25.05	30.00	26.15	36.00
5775MHz	Pass	2.10	22.04	21.66	21.78	21.92	27.87	30.00	29.97	36.00

DG = Directional Gain; Port X = Port X output power

**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	27.84	0.60814	34.96	3.13329
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	14.97	0.03141	22.09	0.16181
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	12.56	0.01803	19.68	0.09290
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	27.28	0.53456	35.40	3.46737
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	21.93	0.15596	30.05	1.01158
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	23.57	0.22751	31.69	1.47571

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	7.12	21.96	21.78	21.50	21.99	27.83	28.88	34.95	36.00
5200MHz	Pass	7.12	21.94	21.93	21.24	22.10	27.84	28.88	34.96	36.00
5240MHz	Pass	7.12	20.41	20.63	20.55	21.01	26.68	28.88	33.80	36.00
5745MHz	Pass	8.12	23.34	20.90	19.95	19.89	27.28	27.88	35.40	36.00
5785MHz	Pass	8.12	19.18	20.49	20.31	19.65	25.96	27.88	34.08	36.00
5825MHz	Pass	8.12	18.79	16.89	17.84	18.29	24.03	27.88	32.15	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	7.12	7.38	7.49	7.87	7.69	13.63	28.88	20.75	36.00
5230MHz	Pass	7.12	8.65	8.57	9.59	8.91	14.97	28.88	22.09	36.00
5755MHz	Pass	8.12	13.15	14.29	13.78	13.92	19.82	27.88	27.94	36.00
5795MHz	Pass	8.12	15.20	16.44	16.31	15.57	21.93	27.88	30.05	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	7.12	6.45	6.21	6.72	6.77	12.56	28.88	19.68	36.00
5775MHz	Pass	8.12	16.98	18.30	17.36	17.45	23.57	27.88	31.69	36.00

DG = Directional Gain; **Port X** = Port X output power

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	15.66	22.78
802.11ac VHT20_Nss1,(MCS0)_4TX	15.68	22.80
802.11ac VHT40_Nss1,(MCS0)_4TX	12.68	19.80
802.11ac VHT80_Nss1,(MCS0)_4TX	4.38	11.50
802.11ax HEW20_Nss1,(MCS0)_4TX	15.86	22.98
802.11ax HEW40_Nss1,(MCS0)_4TX	13.37	20.49
802.11ax HEW80_Nss1,(MCS0)_4TX	5.75	12.87
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	17.73	25.85
802.11ac VHT20_Nss1,(MCS0)_4TX	13.99	22.11
802.11ac VHT40_Nss1,(MCS0)_4TX	11.84	19.96
802.11ac VHT80_Nss1,(MCS0)_4TX	3.95	12.07
802.11ax HEW20_Nss1,(MCS0)_4TX	14.91	23.03
802.11ax HEW40_Nss1,(MCS0)_4TX	12.03	20.15
802.11ax HEW80_Nss1,(MCS0)_4TX	7.15	15.27

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	7.12	7.13	7.62	8.25	7.51	13.14	15.88	20.26	23.00
5200MHz	Pass	7.12	9.73	10.03	11.08	9.72	15.66	15.88	22.78	23.00
5240MHz	Pass	7.12	9.51	10.14	10.81	9.68	15.61	15.88	22.73	23.00
5745MHz	Pass	8.12	12.04	12.22	13.35	13.03	17.47	27.88	25.59	36.00
5785MHz	Pass	8.12	12.78	12.10	11.89	12.56	17.06	27.88	25.18	36.00
5825MHz	Pass	8.12	12.74	12.90	12.28	12.61	17.73	27.88	25.85	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	7.12	7.01	7.16	6.85	6.65	12.92	15.88	20.04	23.00
5200MHz	Pass	7.12	9.45	9.67	10.44	9.00	15.68	15.88	22.80	23.00
5240MHz	Pass	7.12	9.34	9.70	10.26	9.92	15.66	15.88	22.78	23.00
5745MHz	Pass	8.12	7.47	8.41	8.87	6.99	13.99	27.88	22.11	36.00
5785MHz	Pass	8.12	7.56	7.72	6.98	8.18	13.55	27.88	21.67	36.00
5825MHz	Pass	8.12	7.19	7.03	8.35	7.43	13.35	27.88	21.47	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	7.12	0.44	-0.88	0.64	-0.52	5.94	15.88	13.06	23.00
5230MHz	Pass	7.12	7.37	7.02	5.17	7.05	12.68	15.88	19.80	23.00
5755MHz	Pass	8.12	4.36	5.75	6.50	3.97	11.26	27.88	19.38	36.00
5795MHz	Pass	8.12	5.00	6.88	5.71	5.55	11.84	27.88	19.96	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	7.12	-1.38	-1.17	-2.09	-1.87	4.38	15.88	11.50	23.00
5775MHz	Pass	8.12	-2.72	-1.21	-2.10	-2.12	3.95	27.88	12.07	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	7.12	8.63	9.34	8.57	9.69	14.84	15.88	21.96	23.00
5200MHz	Pass	7.12	10.27	10.59	10.10	9.62	15.64	15.88	22.76	23.00
5240MHz	Pass	7.12	10.75	10.68	9.76	10.02	15.86	15.88	22.98	23.00
5745MHz	Pass	8.12	9.32	8.92	9.34	9.48	14.91	27.88	23.03	36.00
5785MHz	Pass	8.12	9.19	8.38	9.48	9.74	14.85	27.88	22.97	36.00
5825MHz	Pass	8.12	8.43	9.62	9.00	9.63	14.77	27.88	22.89	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	7.12	4.30	3.85	3.67	3.86	9.54	15.88	16.66	23.00
5230MHz	Pass	7.12	7.40	8.52	7.73	6.97	13.37	15.88	20.49	23.00
5755MHz	Pass	8.12	6.11	6.40	6.95	6.87	12.03	27.88	20.15	36.00
5795MHz	Pass	8.12	5.58	6.44	6.76	6.69	11.84	27.88	19.96	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	7.12	-0.31	1.06	-0.78	0.46	5.75	15.88	12.87	23.00
5775MHz	Pass	8.12	1.63	1.60	1.45	2.08	7.15	27.88	15.27	36.00

DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;