FCC Test Report

FCC ID	:	**U4GSX5WB**
Equipment	:	**Rugged mobile computer with barcode reader**
Brand Name	:	**Datalogic**
Model Name	:	**Skorpio X5**
Applicant	:	**Datalogic S.r.l. Via S. Vitalino 13, 40012 Lippo di Calderara di Reno (BO) - Italy**
Manufacturer	:	**Datalogic S.r.l. Via S. Vitalino 13, 40012 Lippo di Calderara di Reno (BO) - Italy**
Standard	:	**47 CFR FCC Part 15.407**

The product was received on Jun. 08, 2020, and testing was started from Jun. 15, 2020 and completed on Sep. 08, 2020. 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 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.

Allen Lin

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

Table of Contents

HISTORY OF THIS TEST REPORT 3

SUMMARY OF TEST RESULT 4

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Testing Applied Standards 8
1.3 Testing Location Information 8
1.4 Measurement Uncertainty 9

2 TEST CONFIGURATION OF EUT 10

2.1 Test Condition 10
2.2 Test Channel Mode 10
2.3 The Worst Case Measurement Configuration 12
2.4 Accessories 13
2.5 Support Equipment 13
2.6 Test Setup Diagram 14

3 TRANSMITTER TEST RESULT 16

3.1 AC Power-line Conducted Emissions 16
3.2 Emission Bandwidth 18
3.3 Maximum Conducted Output Power 19
3.4 Peak Power Spectral Density 21
3.5 Unwanted Emissions 23

4 TEST EQUIPMENT AND CALIBRATION DATA 27

APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX B. TEST RESULTS OF EMISSION BANDWIDTH

APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY

APPENDIX E. TEST RESULTS OF UNWANTED EMISSIONS

APPENDIX F. TEST RESULTS OF RADIATED EMISSION CO-LOCATION

APPENDIX G. TEST PHOTOS

PHOTOGRAPHS OF EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FR9N0606-03AN	01	Initial issue of report	Oct. 19, 2020

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	-

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: Ann Hou

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)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [8]
Straddle 5720		5720	144 [1]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [3]
Straddle 5710		5710	142 [1]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530	106 [1]
Straddle 5690		5690	138 [1]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ac VHT20	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
5.15-5.25GHz	802.11ac VHT40	40	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

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT80	80	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

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.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Datalogic-USI	Skorpio X5 antenna	PIFA	mini I-pex
2	Datalogic-USI	Skorpio X5 antenna	PIFA	mini I-pex

Ant.	Port	Gain (dBi)					
		2.4G	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	BT
1	1	1.7	2.6	3.5	3.5	3.8	1.7
2	2	1.5	3.6	3.6	4.2	4.2	-

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

For 5GHz function:

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

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

For BT function:

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

Ant. 1 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From AC Adapter / Battery			
EUT Function	☐	Outdoor AP	☐	Indoor AP
	☐	Fixed P2P AP	☒	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 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.983	0.07	2.066m	10
802.11ac VHT20_Nss1,(MCS0)_2TX	0.982	0.08	1.934m	10
802.11ac VHT40_Nss1,(MCS0)_2TX	0.964	0.16	953.75u	3k
802.11ac VHT80_Nss1,(MCS0)_2TX	0.93	0.32	465u	3k

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

1.1.5 Table for Multiple Listing

Form factor	Dock connection	2.4G	5G	Bluetooth	NFC	WPC	Description
Handheld	Wired (Pogo pin)	V	V	V	V		Handheld type with wired charging
Handheld	WLC (wireless)	V	V	V	V	V	Handheld type with wireless charging
Pistol (with handle)	Wired (Pogo pin)	V	V	V	V		Pistol type with wired charging
Pistol	WLC (wireless)	V	V	V	V	V	Pistol type with wireless charging

Note: The information from manufacturer.

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

The following reference test guidance is not within the scope of accreditation of TAF:

- 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.					
☐	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)			
		TEL : 886-3-318-0787		FAX : 886-3-318-0287	
Test site Designation No. TW1097 with FCC.					

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	21.6~27°C / 50~61%	19/Jun/2020~ 09/Sep/2020
RF Conducted	TH01-HY	Barry	22.6~24.1°C / 53~60%	15/Jun/2020~ 18/Jun/2020
Radiated	03CH02-HY	Streak	21.2~23.8°C / 56~58%	16/Jun/2020~ 08/Sep/2020
Radiated (Co-location)	03CH03-HY	Streak	23.4~23.6°C / 53~58%	01/Aug/2020~ 26/Aug/2020

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)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	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	QRCT4

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	17.5
5200MHz	17.5
5240MHz	17.5
5260MHz	17.5
5300MHz	17.5
5320MHz	17.5
5500MHz	17.5
5580MHz	17.5
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	17.5
5720MHz Straddle 5.725-5.85GHz	17.5
5745MHz	17.5
5785MHz	17.5
5825MHz	17.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	18
5200MHz	19
5240MHz	19
5260MHz	19
5300MHz	19
5320MHz	18.5
5500MHz	12
5580MHz	19

Mode	Power Setting
5700MHz	13.5
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
5745MHz	19
5785MHz	19
5825MHz	19
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	17.5
5270MHz	17.5
5310MHz	13.5
5510MHz	15
5550MHz	17.5
5670MHz	16.5
5710MHz Straddle 5.47-5.725GHz	17.5
5710MHz Straddle 5.725-5.85GHz	17.5
5755MHz	17.5
5795MHz	17.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	14.5
5290MHz	12
5530MHz	14.5
5690MHz Straddle 5.47-5.725GHz	14.5
5690MHz Straddle 5.725-5.85GHz	14.5
5775MHz	14.5

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 (WLC Handheld)
2	Adapter mode (Wired Handheld)
3	Adapter mode (Wired Pistol)
4	USB mode (Wired Pistol)
5	Adapter mode (WLC Pistol)

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 (WLC Handheld)		
2	Adapter mode (Wired Handheld)		
3	Adapter mode (Wired Pistol)		
4	USB mode (Wired Pistol)		
5	Adapter mode (WLC Pistol)		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
Worst Planes of EUT			V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA9N0606-03 for Co-location RF Exposure Evaluation and Appendix F for Radiated Emission Co-location.	

2.4 Accessories

Accessories				
AC Adapter	**Brand Name**	BI	**Model Name**	BI24-050300-I
	Power Rating	I/P: 100-240Vac, 0.8A, O/P: 5Vdc, 3A		
	Power Cord	1.5 meter, Shielded cable, with ferrite core		
Battery 1	**Brand Name**	Zhuhai Gushine Electronic Technology Co.Ltd.	**Model Name**	BY-07
	Power Rating	3.7Vdc, 3460mAh	**Type**	Li-ion
Battery 2	**Brand Name**	Zhuhai Gushine Electronic Technology Co.Ltd.	**Model Name**	BY-08
	Power Rating	3.635Vdc, 6080mAh	**Type**	Li-ion
USB Cable	**Power Cord**	1.5 meter, Shielded cable, w/o ferrite core		

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

2.5 Support Equipment

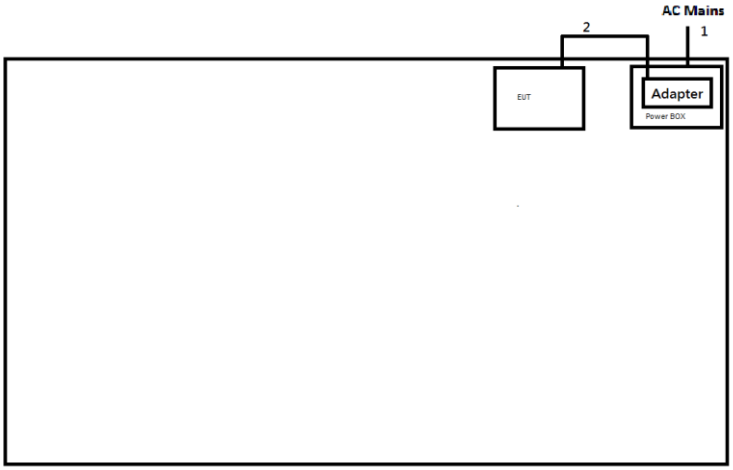
Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	Dell	PP13S	-	-
2	AC adapter for NB	Dell	AA90PM111	-	-

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	Dell	PP13S	-	-
2	AC adapter for NB	Dell	AA90PM111	-	-

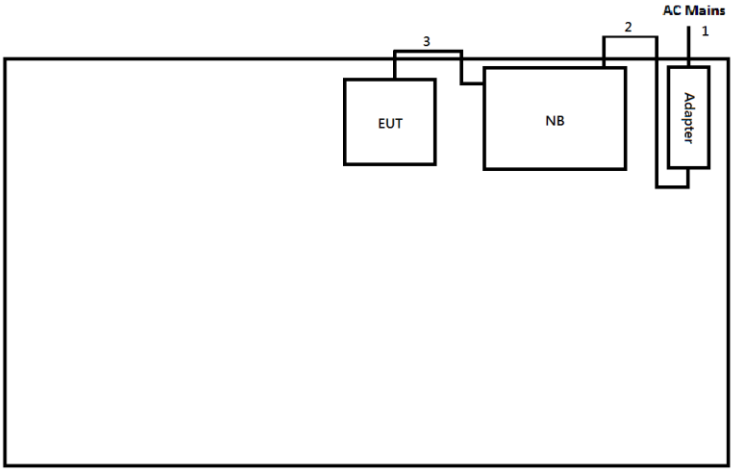
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test (Adapter mode)



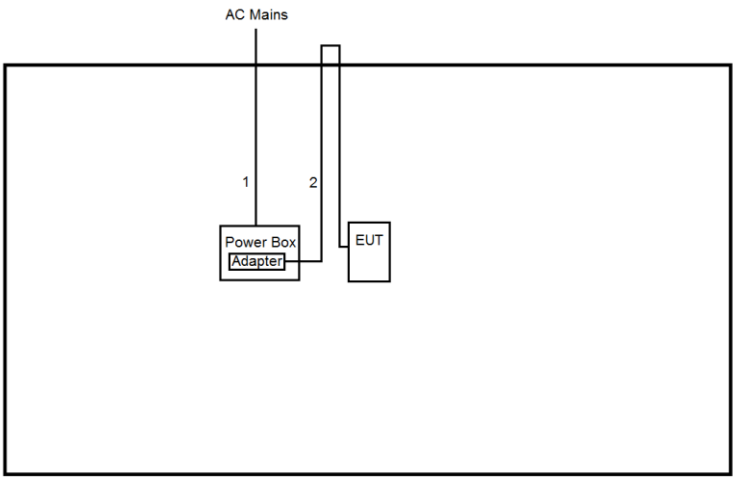
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	Yes	1.5

Test Setup Diagram – AC Line Conducted Emission Test (USB mode)



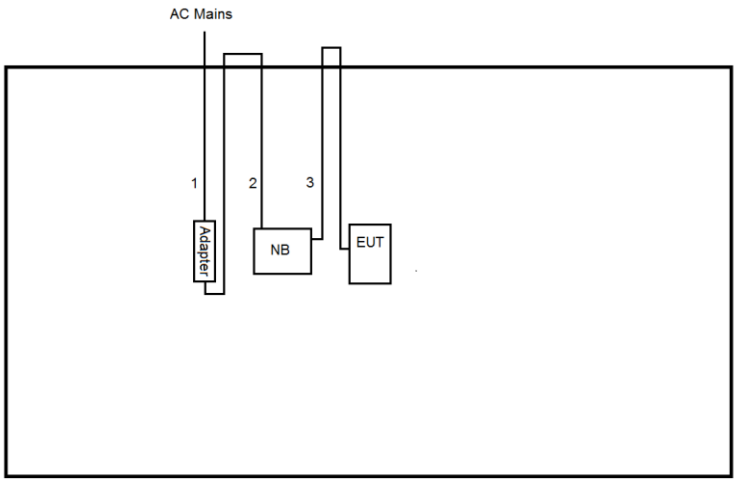
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	USB Cable	Yes	1.5

Test Setup Diagram - Radiated Test (Adapter mode)



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	Yes	1.5

Test Setup Diagram - Radiated Test (USB mode)



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.8
3	USB Cable	Yes	1.5

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

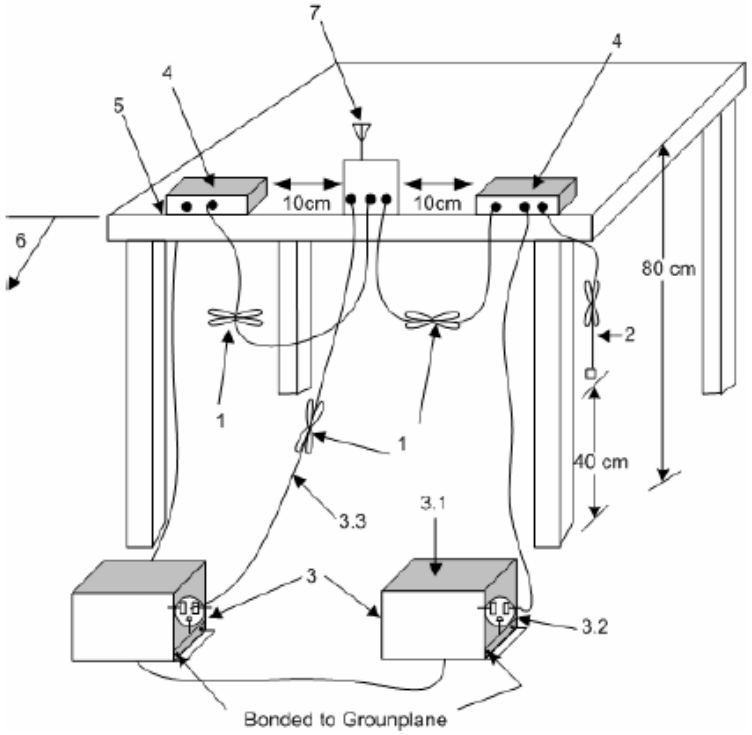
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.6 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, 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.

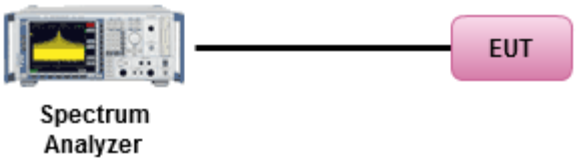
3.2.2 Measuring Instruments

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

Emission Bandwidth


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

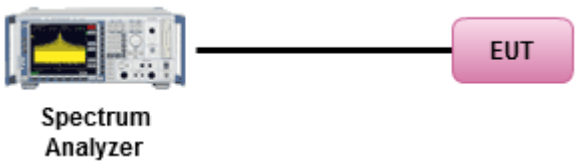
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

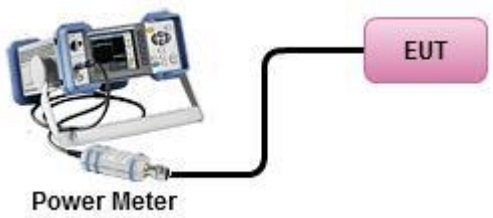
Test Method	
▪ Maximum Conducted Output Power	
	Duty cycle ≥ 98%
	☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle < 98%
	☒ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods 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]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

RF Output Power (Spectrum Analyzer)



RF Output Power (Power Meter)



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.	

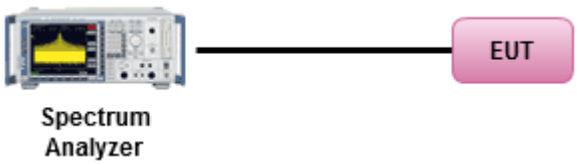
3.4.2 Measuring Instruments

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

3.4.4 Test Setup

Power Spectral Density


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 ≥ 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.		
▪ Use the following spectrum analyzer settings:		
	▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.	
	▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.	
▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.		
	▪ Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.	
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.	

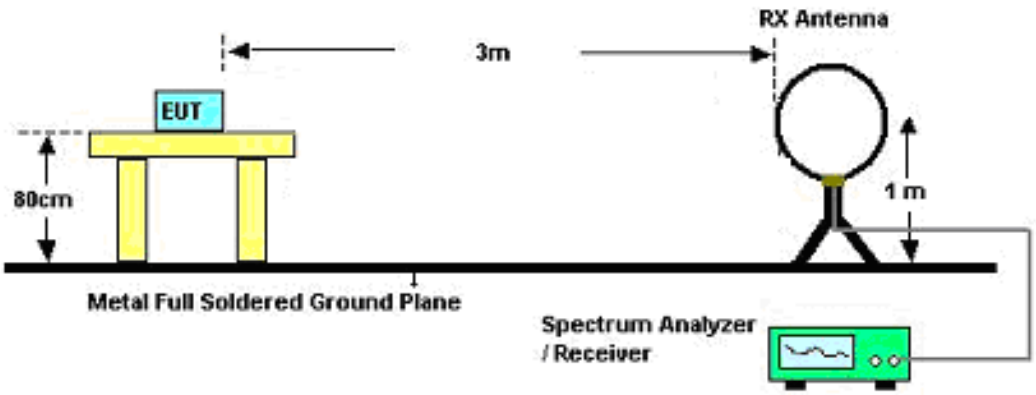
3.5.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

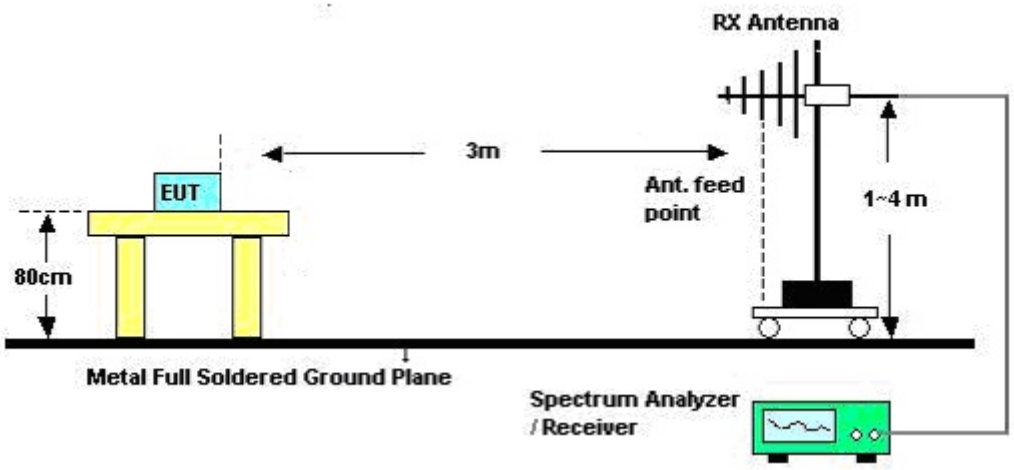
3.5.5 Test Setup

Transmitter Radiated Unwanted Emissions

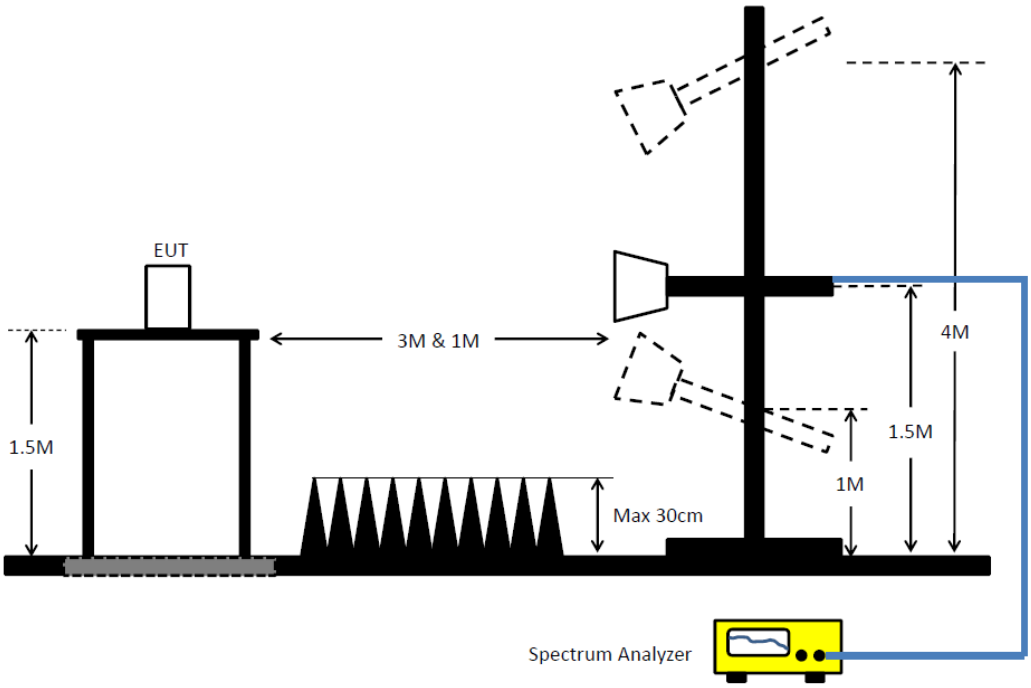
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.6 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.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	31/Aug/2020	30/Aug/2021
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	24/Sep/2019	23/Sep/2020

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	19/Mar/2020	18/Mar/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	11/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	29/Aug/2019	28/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	29/Aug/2019	28/Aug/2020
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	27/Feb/2020	26/Feb/2021
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	30/Jun/2020	29/Jun/2021
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~18GHz	16/Oct/2019	15/Oct/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	28/Feb/2020	27/Feb/2021
Double Ridged Guide Horn Antenna	SCHWARZBEC	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	09/Jun/2020	08/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~30MHz	20/Jun/2020	19/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~1GHz	25/Mar/2020	24/Mar/2021
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	805193/4+805192/4	1GHz~40GHz	08/Apr/2020	07/Apr/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

Instrument for Radiated Test (Co-location)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	04/Aug/2020	03/Aug/2021
Signal Analyzer	R&S	FSP 30	100793	10Hz~30GHz	15/Feb/2020	14/Feb/2021
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz~26.5GHz	09/Sep/2019	08/Sep/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz~18GHz	26/Mar/2020	25/Mar/2021
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4+SN 804300/4	1GHz~40GHz	18/Mar/2020	17/Mar/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	433.769k	27.80	47.19	-19.39	Line
Mode 2	Pass	AV	435.504k	29.99	47.15	-17.16	Neutral
Mode 3	Pass	AV	438.995k	26.67	47.09	-20.42	Line
Mode 4	Pass	QP	173.876k	50.21	64.78	-14.57	Neutral
Mode 5	Pass	AV	456.875k	26.31	46.75	-20.44	Neutral

Mode Configure

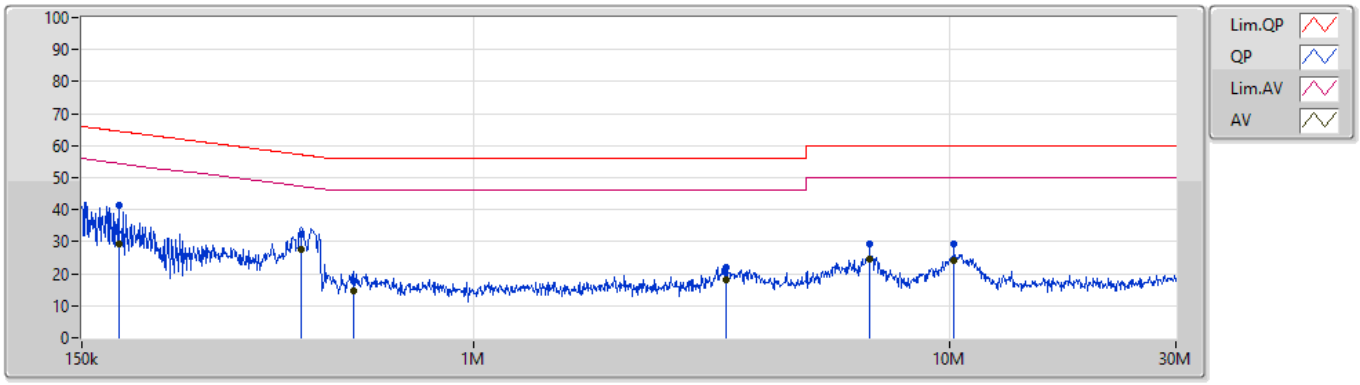
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	179.518k	41.53	64.51	-22.98	Line	-
Mode 1	Pass	AV	179.518k	29.46	54.51	-25.05	Line	-
Mode 1	Pass	QP	433.769k	32.52	57.19	-24.67	Line	-
Mode 1	Pass	AV	433.769k	27.80	47.19	-19.39	Line	“Worst”
Mode 1	Pass	QP	557.805k	17.47	56.00	-38.53	Line	-
Mode 1	Pass	AV	557.805k	14.58	46.00	-31.42	Line	-
Mode 1	Pass	QP	3.389M	21.91	56.00	-34.09	Line	-
Mode 1	Pass	AV	3.389M	18.17	46.00	-27.83	Line	-
Mode 1	Pass	QP	6.816M	29.37	60.00	-30.63	Line	-
Mode 1	Pass	AV	6.816M	24.56	50.00	-25.44	Line	-
Mode 1	Pass	QP	10.201M	29.12	60.00	-30.88	Line	-
Mode 1	Pass	AV	10.201M	24.21	50.00	-25.79	Line	-
Mode 1	Pass	QP	177.381k	43.74	64.60	-20.86	Neutral	“Worst”
Mode 1	Pass	AV	177.381k	30.43	54.60	-24.17	Neutral	-
Mode 1	Pass	QP	284.109k	28.86	60.70	-31.84	Neutral	-
Mode 1	Pass	AV	284.109k	19.54	50.70	-31.16	Neutral	-
Mode 1	Pass	QP	416.794k	23.54	57.51	-33.97	Neutral	-
Mode 1	Pass	AV	416.794k	17.14	47.51	-30.37	Neutral	-
Mode 1	Pass	QP	2.15M	22.54	56.00	-33.46	Neutral	-
Mode 1	Pass	AV	2.15M	17.32	46.00	-28.68	Neutral	-
Mode 1	Pass	QP	6.523M	28.69	60.00	-31.31	Neutral	-
Mode 1	Pass	AV	6.523M	24.16	50.00	-25.84	Neutral	-
Mode 1	Pass	QP	10.365M	28.30	60.00	-31.70	Neutral	-
Mode 1	Pass	AV	10.365M	23.44	50.00	-26.56	Neutral	-
Mode 2	Pass	QP	165.743k	42.90	65.18	-22.28	Line	-
Mode 2	Pass	AV	165.743k	31.44	55.18	-23.74	Line	-
Mode 2	Pass	QP	217.434k	34.30	62.92	-28.62	Line	-
Mode 2	Pass	AV	217.434k	22.48	52.92	-30.44	Line	-
Mode 2	Pass	QP	435.504k	31.24	57.15	-25.91	Line	-
Mode 2	Pass	AV	435.504k	27.01	47.15	-20.14	Line	“Worst”
Mode 2	Pass	QP	3.485M	22.00	56.00	-34.00	Line	-
Mode 2	Pass	AV	3.485M	18.03	46.00	-27.97	Line	-
Mode 2	Pass	QP	6.735M	26.97	60.00	-33.03	Line	-
Mode 2	Pass	AV	6.735M	22.88	50.00	-27.12	Line	-
Mode 2	Pass	QP	11.048M	27.01	60.00	-32.99	Line	-
Mode 2	Pass	AV	11.048M	22.44	50.00	-27.56	Line	-
Mode 2	Pass	QP	165.743k	42.55	65.18	-22.63	Neutral	-
Mode 2	Pass	AV	165.743k	31.53	55.18	-23.65	Neutral	-
Mode 2	Pass	QP	217.434k	34.45	62.92	-28.47	Neutral	-
Mode 2	Pass	AV	217.434k	22.01	52.92	-30.91	Neutral	-
Mode 2	Pass	QP	435.504k	33.98	57.15	-23.17	Neutral	-
Mode 2	Pass	AV	435.504k	29.99	47.15	-17.16	Neutral	“Worst”
Mode 2	Pass	QP	3.485M	22.73	56.00	-33.27	Neutral	-
Mode 2	Pass	AV	3.485M	18.19	46.00	-27.81	Neutral	-
Mode 2	Pass	QP	6.735M	26.81	60.00	-33.19	Neutral	-
Mode 2	Pass	AV	6.735M	22.92	50.00	-27.08	Neutral	-
Mode 2	Pass	QP	11.048M	26.58	60.00	-33.42	Neutral	-
Mode 2	Pass	AV	11.048M	22.25	50.00	-27.75	Neutral	-
Mode 3	Pass	QP	150.6k	42.83	65.96	-23.13	Line	-
Mode 3	Pass	AV	150.6k	31.56	55.96	-24.40	Line	-

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 3	Pass	QP	231.775k	35.69	62.39	-26.70	Line	-
Mode 3	Pass	AV	231.775k	26.48	52.39	-25.91	Line	-
Mode 3	Pass	QP	438.995k	31.59	57.09	-25.50	Line	-
Mode 3	Pass	AV	438.995k	26.67	47.09	-20.42	Line	"Worst"
Mode 3	Pass	QP	3.389M	22.37	56.00	-33.63	Line	-
Mode 3	Pass	AV	3.389M	18.01	46.00	-27.99	Line	-
Mode 3	Pass	QP	6.898M	29.63	60.00	-30.37	Line	-
Mode 3	Pass	AV	6.898M	24.97	50.00	-25.03	Line	-
Mode 3	Pass	QP	10.917M	31.36	60.00	-28.64	Line	-
Mode 3	Pass	AV	10.917M	26.28	50.00	-23.72	Line	-
Mode 3	Pass	QP	187.577k	43.46	64.15	-20.69	Neutral	"Worst"
Mode 3	Pass	AV	187.577k	29.89	54.15	-24.26	Neutral	-
Mode 3	Pass	QP	243.148k	36.13	61.98	-25.85	Neutral	-
Mode 3	Pass	AV	243.148k	25.10	51.98	-26.88	Neutral	-
Mode 3	Pass	QP	359.562k	27.83	58.73	-30.90	Neutral	-
Mode 3	Pass	AV	359.562k	18.70	48.73	-30.03	Neutral	-
Mode 3	Pass	QP	3.403M	22.93	56.00	-33.07	Neutral	-
Mode 3	Pass	AV	3.403M	17.59	46.00	-28.41	Neutral	-
Mode 3	Pass	QP	6.926M	30.31	60.00	-29.69	Neutral	-
Mode 3	Pass	AV	6.926M	25.73	50.00	-24.27	Neutral	-
Mode 3	Pass	QP	10.744M	28.94	60.00	-31.06	Neutral	-
Mode 3	Pass	AV	10.744M	24.24	50.00	-25.76	Neutral	-
Mode 4	Pass	QP	176.674k	48.71	64.64	-15.93	Line	-
Mode 4	Pass	AV	176.674k	30.17	54.64	-24.47	Line	-
Mode 4	Pass	QP	222.704k	43.38	62.71	-19.33	Line	-
Mode 4	Pass	AV	222.704k	31.20	52.71	-21.51	Line	-
Mode 4	Pass	QP	589.868k	22.96	56.00	-33.04	Line	-
Mode 4	Pass	AV	589.868k	17.36	46.00	-28.64	Line	-
Mode 4	Pass	QP	4.536M	27.99	56.00	-28.01	Line	-
Mode 4	Pass	AV	4.536M	20.97	46.00	-25.03	Line	-
Mode 4	Pass	QP	6.926M	25.63	60.00	-34.37	Line	-
Mode 4	Pass	AV	6.926M	20.80	50.00	-29.20	Line	-
Mode 4	Pass	QP	14.786M	29.18	60.00	-30.82	Line	-
Mode 4	Pass	AV	14.786M	19.94	50.00	-30.06	Line	-
Mode 4	Pass	QP	173.876k	50.21	64.78	-14.57	Neutral	-
Mode 4	Pass	AV	173.876k	32.19	54.78	-22.59	Neutral	-
Mode 4	Pass	QP	218.303	44.38	120.24	-75.86	Neutral	-
Mode 4	Pass	AV	218.303	42.88	110.24	-67.36	Neutral	-
Mode 4	Pass	QP	435.504k	23.52	57.15	-33.63	Neutral	-
Mode 4	Pass	AV	435.504k	15.21	47.15	-31.94	Neutral	-
Mode 4	Pass	QP	1.885M	26.94	56.00	-29.06	Neutral	-
Mode 4	Pass	AV	1.885M	21.75	46.00	-24.25	Neutral	-
Mode 4	Pass	QP	7.15M	24.82	60.00	-35.18	Neutral	-
Mode 4	Pass	AV	7.15M	19.49	50.00	-30.51	Neutral	-
Mode 4	Pass	QP	14.905M	34.81	60.00	-25.19	Neutral	-
Mode 4	Pass	AV	14.905M	27.02	50.00	-22.98	Neutral	-
Mode 5	Pass	QP	162.467k	29.69	65.33	-35.64	Line	-
Mode 5	Pass	AV	162.467k	20.82	55.33	-34.51	Line	-
Mode 5	Pass	QP	464.229k	30.04	56.61	-26.57	Line	-
Mode 5	Pass	AV	464.229k	21.76	46.61	-24.85	Line	"Worst"

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 5	Pass	QP	628.773k	17.71	56.00	-38.29	Line	-
Mode 5	Pass	AV	628.773k	14.09	46.00	-31.91	Line	-
Mode 5	Pass	QP	2.292M	19.51	56.00	-36.49	Line	-
Mode 5	Pass	AV	2.292M	15.31	46.00	-30.69	Line	-
Mode 5	Pass	QP	3.701M	25.94	56.00	-30.06	Line	-
Mode 5	Pass	AV	3.701M	20.42	46.00	-25.58	Line	-
Mode 5	Pass	QP	12.961M	21.61	60.00	-38.39	Line	-
Mode 5	Pass	AV	12.961M	16.38	50.00	-33.62	Line	-
Mode 5	Pass	QP	152.414k	33.65	65.87	-32.22	Neutral	-
Mode 5	Pass	AV	152.414k	23.62	55.87	-32.25	Neutral	-
Mode 5	Pass	QP	224.49k	32.03	62.65	-30.62	Neutral	-
Mode 5	Pass	AV	224.49k	25.07	52.65	-27.58	Neutral	-
Mode 5	Pass	QP	456.875k	35.89	56.75	-20.86	Neutral	-
Mode 5	Pass	AV	456.875k	26.31	46.75	-20.44	Neutral	“Worst”
Mode 5	Pass	QP	2.194M	21.25	56.00	-34.75	Neutral	-
Mode 5	Pass	AV	2.194M	16.50	46.00	-29.50	Neutral	-
Mode 5	Pass	QP	3.701M	24.75	56.00	-31.25	Neutral	-
Mode 5	Pass	AV	3.701M	19.65	46.00	-26.35	Neutral	-
Mode 5	Pass	QP	12.015M	24.97	60.00	-35.03	Neutral	-
Mode 5	Pass	AV	12.015M	18.07	50.00	-31.93	Neutral	-

Conducted Emissions at Powerline_Mode 1

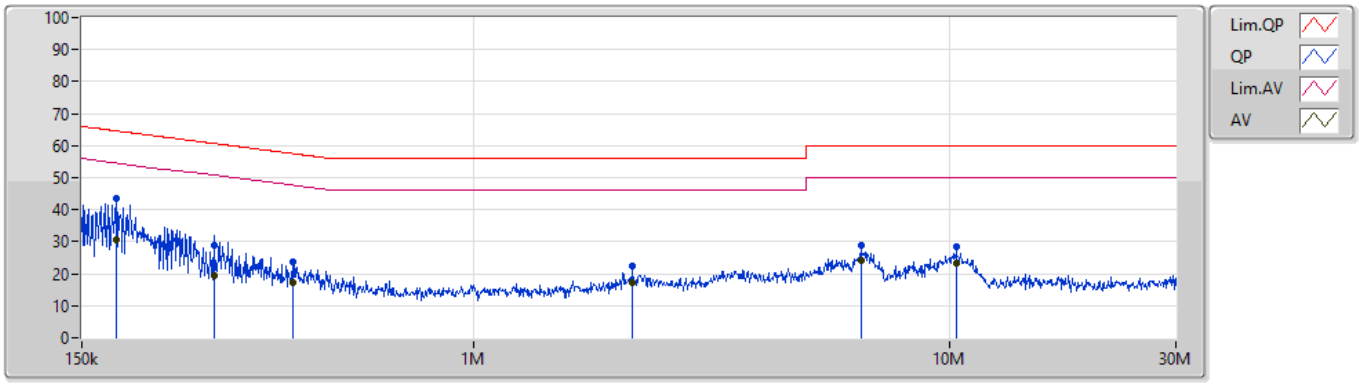
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	179.518k	41.53	64.51	-22.98	19.63	Line	-	21.90	9.65	0.11
AV	179.518k	29.46	54.51	-25.05	19.63	Line	-	9.83	9.65	0.11
QP	433.769k	32.52	57.19	-24.67	19.64	Line	-	12.88	9.64	0.13
AV	433.769k	27.80	47.19	-19.39	19.64	Line	"Worst"	8.16	9.64	0.13
QP	557.805k	17.47	56.00	-38.53	19.64	Line	-	-2.17	9.64	0.13
AV	557.805k	14.58	46.00	-31.42	19.64	Line	-	-5.06	9.64	0.13
QP	3.389M	21.91	56.00	-34.09	19.72	Line	-	2.19	9.66	0.18
AV	3.389M	18.17	46.00	-27.83	19.72	Line	-	-1.55	9.66	0.18
QP	6.816M	29.37	60.00	-30.63	19.79	Line	-	9.58	9.68	0.23
AV	6.816M	24.56	50.00	-25.44	19.79	Line	-	4.77	9.68	0.23
QP	10.201M	29.12	60.00	-30.88	19.84	Line	-	9.28	9.69	0.27
AV	10.201M	24.21	50.00	-25.79	19.84	Line	-	4.37	9.69	0.27

Conducted Emissions at Powerline_Mode 1

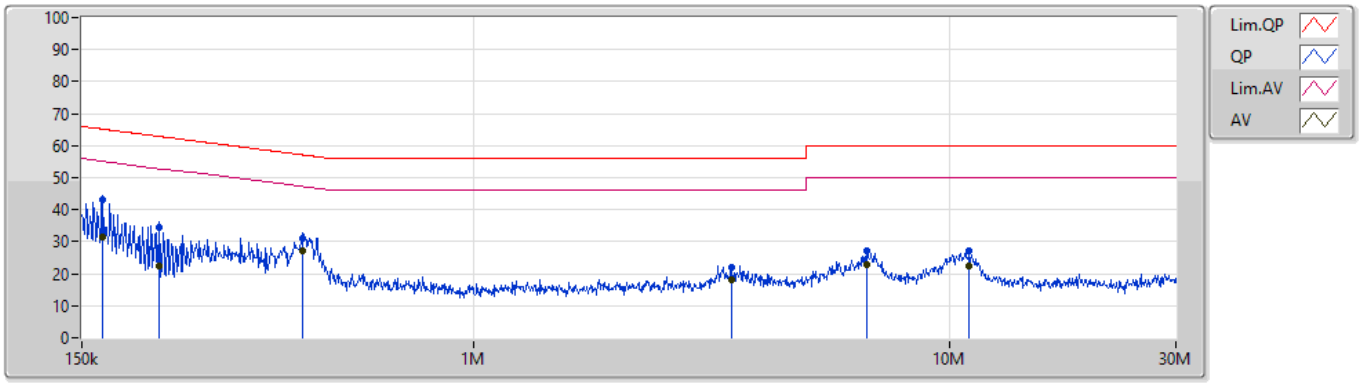
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	177.381k	43.74	64.60	-20.86	19.62	Neutral	"Worst"	24.12	9.64	0.11
AV	177.381k	30.43	54.60	-24.17	19.62	Neutral	-	10.81	9.64	0.11
QP	284.109k	28.86	60.70	-31.84	19.62	Neutral	-	9.24	9.63	0.12
AV	284.109k	19.54	50.70	-31.16	19.62	Neutral	-	-0.08	9.63	0.12
QP	416.794k	23.54	57.51	-33.97	19.63	Neutral	-	3.91	9.63	0.13
AV	416.794k	17.14	47.51	-30.37	19.63	Neutral	-	-2.49	9.63	0.13
QP	2.15M	22.54	56.00	-33.46	19.67	Neutral	-	2.87	9.65	0.15
AV	2.15M	17.32	46.00	-28.68	19.67	Neutral	-	-2.35	9.65	0.15
QP	6.523M	28.69	60.00	-31.31	19.79	Neutral	-	8.90	9.68	0.23
AV	6.523M	24.16	50.00	-25.84	19.79	Neutral	-	4.37	9.68	0.23
QP	10.365M	28.30	60.00	-31.70	19.85	Neutral	-	8.45	9.70	0.27
AV	10.365M	23.44	50.00	-26.56	19.85	Neutral	-	3.59	9.70	0.27

Conducted Emissions at Powerline_Mode 2

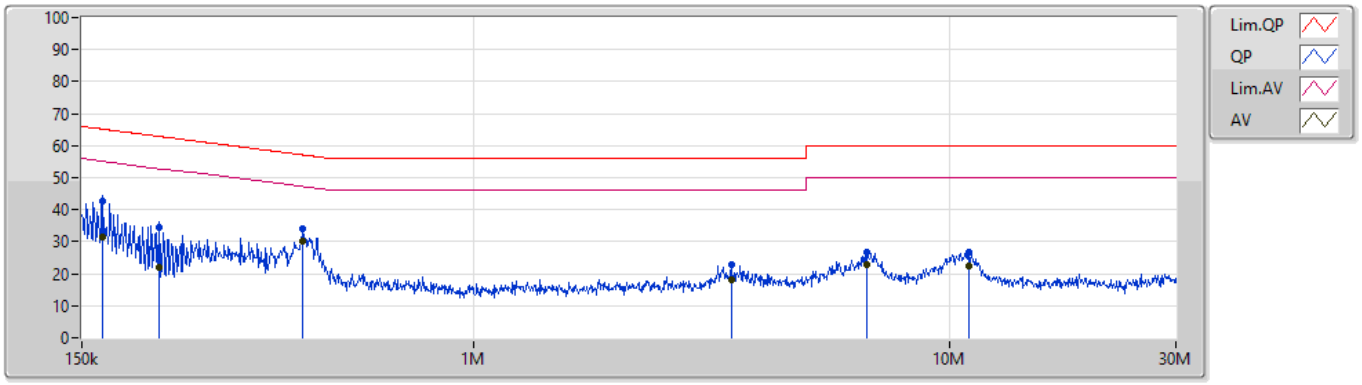
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	165.743k	42.90	65.18	-22.28	19.64	Line	-	23.26	9.66	0.11
AV	165.743k	31.44	55.18	-23.74	19.64	Line	-	11.80	9.66	0.11
QP	217.434k	34.30	62.92	-28.62	19.63	Line	-	14.67	9.65	0.11
AV	217.434k	22.48	52.92	-30.44	19.63	Line	-	2.85	9.65	0.11
QP	435.504k	31.24	57.15	-25.91	19.64	Line	-	11.60	9.64	0.13
AV	435.504k	27.01	47.15	-20.14	19.64	Line	"Worst"	7.37	9.64	0.13
QP	3.485M	22.00	56.00	-34.00	19.72	Line	-	2.28	9.66	0.18
AV	3.485M	18.03	46.00	-27.97	19.72	Line	-	-1.69	9.66	0.18
QP	6.735M	26.97	60.00	-33.03	19.79	Line	-	7.18	9.68	0.23
AV	6.735M	22.88	50.00	-27.12	19.79	Line	-	3.09	9.68	0.23
QP	11.048M	27.01	60.00	-32.99	19.84	Line	-	7.17	9.68	0.28
AV	11.048M	22.44	50.00	-27.56	19.84	Line	-	2.60	9.68	0.28

Conducted Emissions at Powerline_Mode 2

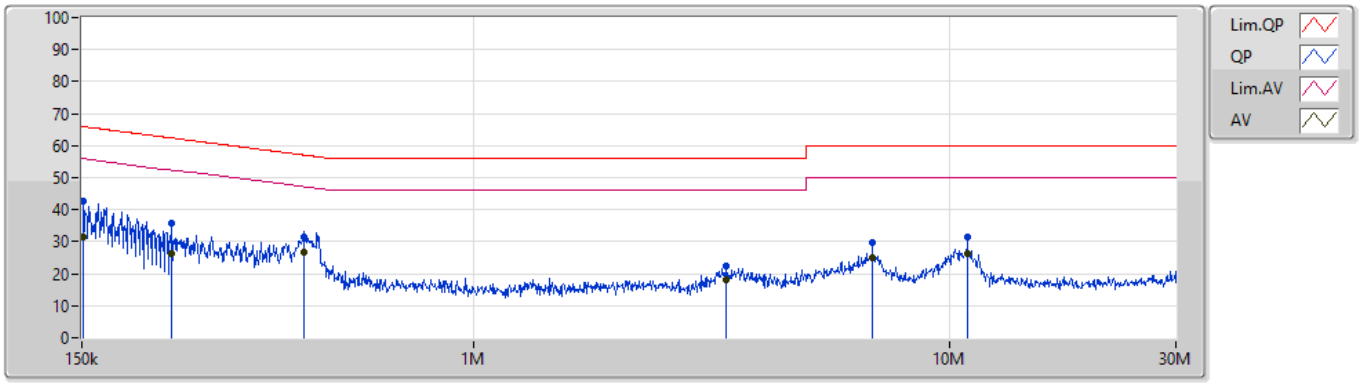
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	165.743k	42.55	65.18	-22.63	19.63	Neutral	-	22.92	9.65	0.11
AV	165.743k	31.53	55.18	-23.65	19.63	Neutral	-	11.90	9.65	0.11
QP	217.434k	34.45	62.92	-28.47	19.62	Neutral	-	14.83	9.64	0.11
AV	217.434k	22.01	52.92	-30.91	19.62	Neutral	-	2.39	9.64	0.11
QP	435.504k	33.98	57.15	-23.17	19.63	Neutral	-	14.35	9.63	0.13
AV	435.504k	29.99	47.15	-17.16	19.63	Neutral	"Worst"	10.36	9.63	0.13
QP	3.485M	22.73	56.00	-33.27	19.72	Neutral	-	3.01	9.66	0.18
AV	3.485M	18.19	46.00	-27.81	19.72	Neutral	-	-1.53	9.66	0.18
QP	6.735M	26.81	60.00	-33.19	19.79	Neutral	-	7.02	9.68	0.23
AV	6.735M	22.92	50.00	-27.08	19.79	Neutral	-	3.13	9.68	0.23
QP	11.048M	26.58	60.00	-33.42	19.86	Neutral	-	6.72	9.70	0.28
AV	11.048M	22.25	50.00	-27.75	19.86	Neutral	-	2.39	9.70	0.28

Conducted Emissions at Powerline_Mode 3

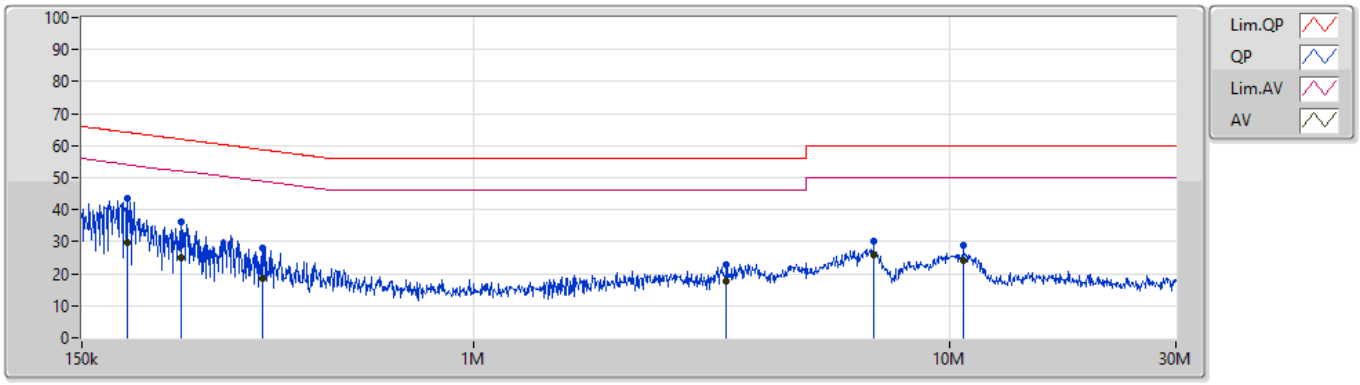
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	150.6k	42.83	65.96	-23.13	19.64	Line	-	23.19	9.66	0.11
AV	150.6k	31.56	55.96	-24.40	19.64	Line	-	11.92	9.66	0.11
QP	231.775k	35.69	62.39	-26.70	19.64	Line	-	16.05	9.65	0.12
AV	231.775k	26.48	52.39	-25.91	19.64	Line	-	6.84	9.65	0.12
QP	438.995k	31.59	57.09	-25.50	19.64	Line	-	11.95	9.64	0.13
AV	438.995k	26.67	47.09	-20.42	19.64	Line	"Worst"	7.03	9.64	0.13
QP	3.389M	22.37	56.00	-33.63	19.72	Line	-	2.65	9.66	0.18
AV	3.389M	18.01	46.00	-27.99	19.72	Line	-	-1.71	9.66	0.18
QP	6.898M	29.63	60.00	-30.37	19.79	Line	-	9.84	9.68	0.23
AV	6.898M	24.97	50.00	-25.03	19.79	Line	-	5.18	9.68	0.23
QP	10.917M	31.36	60.00	-28.64	19.84	Line	-	11.52	9.68	0.28
AV	10.917M	26.28	50.00	-23.72	19.84	Line	-	6.44	9.68	0.28

Conducted Emissions at Powerline_Mode 3

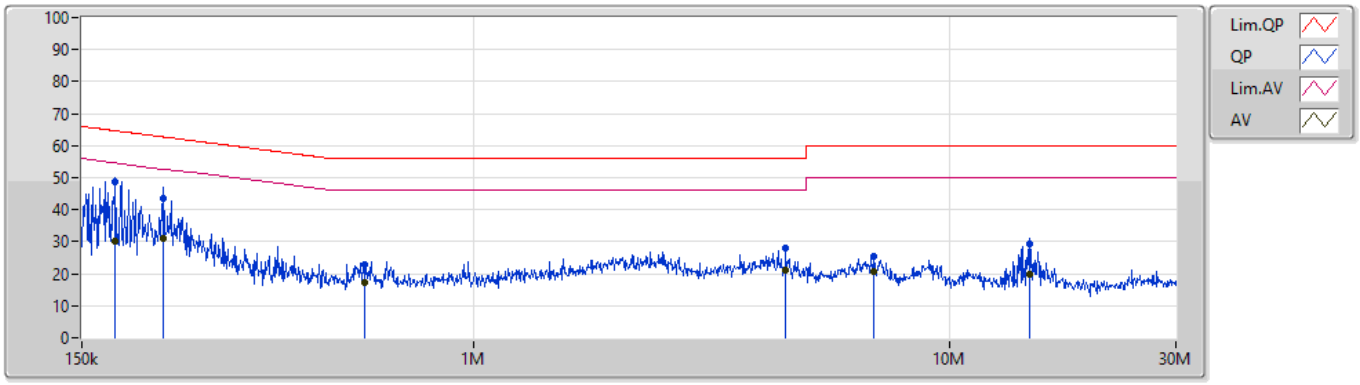
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	187.577k	43.46	64.15	-20.69	19.62	Neutral	"Worst"	23.84	9.64	0.11
AV	187.577k	29.89	54.15	-24.26	19.62	Neutral	-	10.27	9.64	0.11
QP	243.148k	36.13	61.98	-25.85	19.63	Neutral	-	16.50	9.64	0.12
AV	243.148k	25.10	51.98	-26.88	19.63	Neutral	-	5.47	9.64	0.12
QP	359.562k	27.83	58.73	-30.90	19.62	Neutral	-	8.21	9.63	0.12
AV	359.562k	18.70	48.73	-30.03	19.62	Neutral	-	-0.92	9.63	0.12
QP	3.403M	22.93	56.00	-33.07	19.72	Neutral	-	3.21	9.66	0.18
AV	3.403M	17.59	46.00	-28.41	19.72	Neutral	-	-2.13	9.66	0.18
QP	6.926M	30.31	60.00	-29.69	19.79	Neutral	-	10.52	9.68	0.23
AV	6.926M	25.73	50.00	-24.27	19.79	Neutral	-	5.94	9.68	0.23
QP	10.744M	28.94	60.00	-31.06	19.86	Neutral	-	9.08	9.70	0.28
AV	10.744M	24.24	50.00	-25.76	19.86	Neutral	-	4.38	9.70	0.28

Conducted Emissions at Powerline_Mode 4

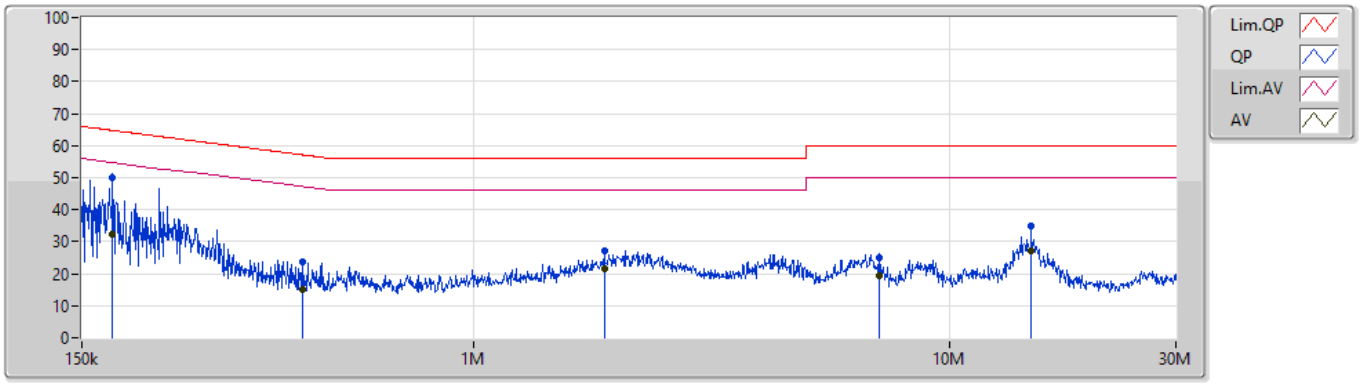
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	176.674k	48.71	64.64	-15.93	19.63	Line	-	29.08	9.65	0.11
AV	176.674k	30.17	54.64	-24.47	19.63	Line	-	10.54	9.65	0.11
QP	222.704k	43.38	62.71	-19.33	19.63	Line	-	23.75	9.65	0.11
AV	222.704k	31.20	52.71	-21.51	19.63	Line	-	11.57	9.65	0.11
QP	589.868k	22.96	56.00	-33.04	19.64	Line	-	3.32	9.64	0.13
AV	589.868k	17.36	46.00	-28.64	19.64	Line	-	-2.28	9.64	0.13
QP	4.536M	27.99	56.00	-28.01	19.73	Line	-	8.26	9.66	0.19
AV	4.536M	20.97	46.00	-25.03	19.73	Line	-	1.24	9.66	0.19
QP	6.926M	25.63	60.00	-34.37	19.79	Line	-	5.84	9.68	0.23
AV	6.926M	20.80	50.00	-29.20	19.79	Line	-	1.01	9.68	0.23
QP	14.786M	29.18	60.00	-30.82	19.85	Line	-	9.33	9.66	0.31
AV	14.786M	19.94	50.00	-30.06	19.85	Line	-	0.09	9.66	0.31

Conducted Emissions at Powerline_Mode 4

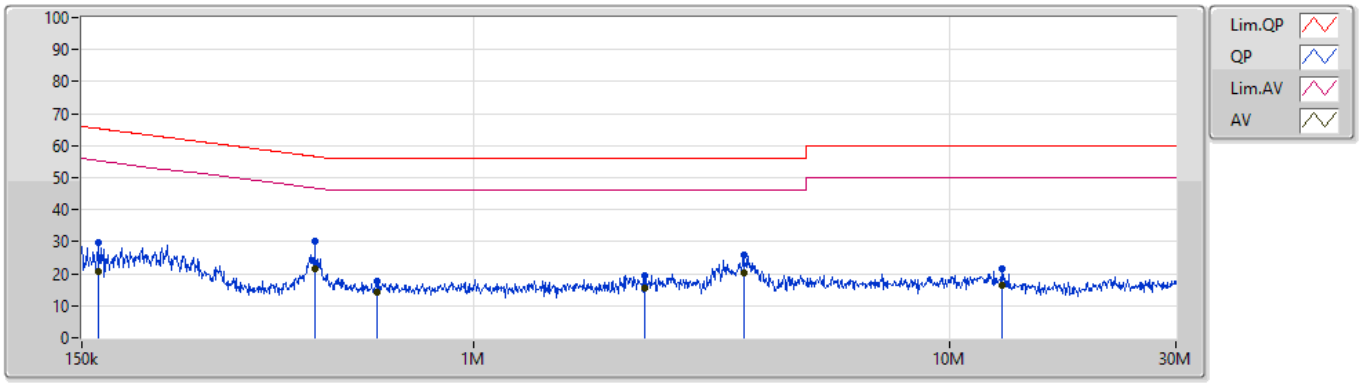
19/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)
QP	173.876k	50.21	64.78	-14.57	19.62	Neutral	-	30.59	9.64	0.11
AV	173.876k	32.19	54.78	-22.59	19.62	Neutral	-	12.57	9.64	0.11
QP	218.303	44.38	120.24	-75.86	22.30	Neutral	-	22.08	12.55	-0.13
AV	218.303	42.88	110.24	-67.36	22.30	Neutral	-	20.58	12.55	-0.13
QP	435.504k	23.52	57.15	-33.63	19.63	Neutral	-	3.89	9.63	0.13
AV	435.504k	15.21	47.15	-31.94	19.63	Neutral	-	-4.42	9.63	0.13
QP	1.885M	26.94	56.00	-29.06	19.67	Neutral	-	7.27	9.65	0.15
AV	1.885M	21.75	46.00	-24.25	19.67	Neutral	-	2.08	9.65	0.15
QP	7.15M	24.82	60.00	-35.18	19.81	Neutral	-	5.01	9.69	0.24
AV	7.15M	19.49	50.00	-30.51	19.81	Neutral	-	-0.32	9.69	0.24
QP	14.905M	34.81	60.00	-25.19	19.90	Neutral	-	14.91	9.71	0.31
AV	14.905M	27.02	50.00	-22.98	19.90	Neutral	-	7.12	9.71	0.31

Conducted Emissions at Powerline_Mode 5

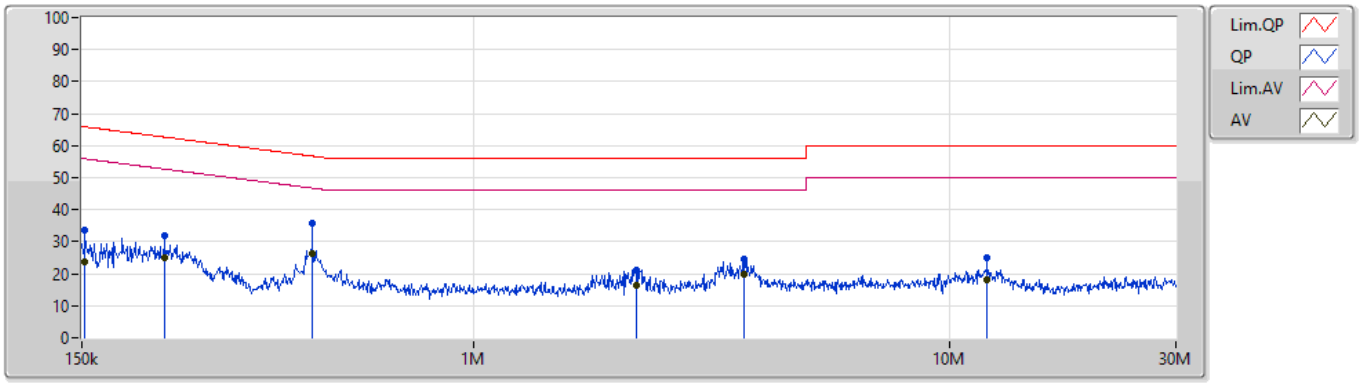
09/09/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	162.467k	29.69	65.33	-35.64	19.54	Line	-	10.15	9.66	0.01	9.87
AV	162.467k	20.82	55.33	-34.51	19.54	Line	-	1.28	9.66	0.01	9.87
QP	464.229k	30.04	56.61	-26.57	19.53	Line	-	10.51	9.64	0.02	9.87
AV	464.229k	21.76	46.61	-24.85	19.53	Line	"Worst"	2.23	9.64	0.02	9.87
QP	628.773k	17.71	56.00	-38.29	19.54	Line	-	-1.83	9.64	0.03	9.87
AV	628.773k	14.09	46.00	-31.91	19.54	Line	-	-5.45	9.64	0.03	9.87
QP	2.292M	19.51	56.00	-36.49	19.61	Line	-	-0.10	9.65	0.09	9.87
AV	2.292M	15.31	46.00	-30.69	19.61	Line	-	-4.30	9.65	0.09	9.87
QP	3.701M	25.94	56.00	-30.06	19.66	Line	-	6.28	9.66	0.12	9.88
AV	3.701M	20.42	46.00	-25.58	19.66	Line	-	0.76	9.66	0.12	9.88
QP	12.961M	21.61	60.00	-38.39	19.79	Line	-	1.82	9.67	0.24	9.88
AV	12.961M	16.38	50.00	-33.62	19.79	Line	-	-3.41	9.67	0.24	9.88

Conducted Emissions at Powerline_Mode 5

09/09/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	152.414k	33.65	65.87	-32.22	19.53	Neutral	-	14.12	9.65	0.01	9.87
AV	152.414k	23.62	55.87	-32.25	19.53	Neutral	-	4.09	9.65	0.01	9.87
QP	224.49k	32.03	62.65	-30.62	19.52	Neutral	-	12.51	9.64	0.01	9.87
AV	224.49k	25.07	52.65	-27.58	19.52	Neutral	-	5.55	9.64	0.01	9.87
QP	456.875k	35.89	56.75	-20.86	19.52	Neutral	-	16.37	9.63	0.02	9.87
AV	456.875k	26.31	46.75	-20.44	19.52	Neutral	"Worst"	6.79	9.63	0.02	9.87
QP	2.194M	21.25	56.00	-34.75	19.61	Neutral	-	1.64	9.65	0.09	9.87
AV	2.194M	16.50	46.00	-29.50	19.61	Neutral	-	-3.11	9.65	0.09	9.87
QP	3.701M	24.75	56.00	-31.25	19.66	Neutral	-	5.09	9.66	0.12	9.88
AV	3.701M	19.65	46.00	-26.35	19.66	Neutral	-	-0.01	9.66	0.12	9.88
QP	12.015M	24.97	60.00	-35.03	19.82	Neutral	-	5.15	9.71	0.23	9.88
AV	12.015M	18.07	50.00	-31.93	19.82	Neutral	-	-1.75	9.71	0.23	9.88

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)_2TX	24.12M	16.552M	16M6D1D	23.46M	16.504M
802.11ac VHT20_Nss1,(MCS0)_2TX	28.8M	17.895M	17M9D1D	24.18M	17.703M
802.11ac VHT40_Nss1,(MCS0)_2TX	42.36M	36.222M	36M2D1D	41.4M	36.174M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.76M	75.802M	75M8D1D	82.56M	75.802M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	24.51M	16.624M	16M6D1D	23.46M	16.48M
802.11ac VHT20_Nss1,(MCS0)_2TX	30.21M	18.063M	18M1D1D	24.09M	17.679M
802.11ac VHT40_Nss1,(MCS0)_2TX	42.42M	36.174M	36M2D1D	41.52M	36.126M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.28M	75.706M	75M7D1D	83.16M	75.61M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	24.39M	16.648M	16M6D1D	16.019M	13.221M
802.11ac VHT20_Nss1,(MCS0)_2TX	29.16M	18.039M	18M0D1D	16.899M	13.908M
802.11ac VHT40_Nss1,(MCS0)_2TX	42.54M	36.222M	36M2D1D	35.978M	32.924M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.76M	75.898M	75M9D1D	75.963M	72.46M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.99M	16.6M	16M6D1D	3.12M	4.738M
802.11ac VHT20_Nss1,(MCS0)_2TX	16.77M	18.135M	18M1D1D	3.75M	5.082M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.28M	36.27M	36M3D1D	3.12M	4.048M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.12M	75.706M	75M7D1D	3.12M	4.963M

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)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	23.97M	16.504M	24.06M	16.552M
5200MHz	Pass	Inf	23.46M	16.552M	24.12M	16.528M
5240MHz	Pass	Inf	23.46M	16.504M	23.94M	16.552M
5260MHz	Pass	Inf	23.91M	16.528M	24.36M	16.576M
5300MHz	Pass	Inf	23.46M	16.48M	24.39M	16.624M
5320MHz	Pass	Inf	23.7M	16.504M	24.51M	16.624M
5500MHz	Pass	Inf	24.21M	16.504M	24.39M	16.648M
5580MHz	Pass	Inf	22.35M	16.48M	24.06M	16.576M
5700MHz	Pass	Inf	22.35M	16.504M	23.34M	16.504M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.019M	13.221M	16.679M	13.276M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	4.738M	3.135M	5.337M
5745MHz	Pass	500k	15.06M	16.528M	15.06M	16.6M
5785MHz	Pass	500k	15.63M	16.528M	15.12M	16.6M
5825MHz	Pass	500k	15.51M	16.48M	15.99M	16.6M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	24.18M	17.727M	25.2M	17.775M
5200MHz	Pass	Inf	25.41M	17.703M	28.38M	17.799M
5240MHz	Pass	Inf	25.56M	17.775M	28.8M	17.895M
5260MHz	Pass	Inf	25.53M	17.703M	29.13M	17.919M
5300MHz	Pass	Inf	24.75M	17.751M	30.21M	18.063M
5320MHz	Pass	Inf	24.09M	17.679M	28.71M	17.871M
5500MHz	Pass	Inf	24.06M	17.751M	23.7M	17.727M
5580MHz	Pass	Inf	25.56M	17.751M	29.16M	18.039M
5700MHz	Pass	Inf	23.46M	17.679M	24.87M	17.727M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.899M	13.908M	19.126M	14.032M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.75M	5.082M	3.75M	7.676M
5745MHz	Pass	500k	15.96M	17.703M	16.5M	18.063M
5785MHz	Pass	500k	16.5M	17.823M	16.26M	17.991M
5825MHz	Pass	500k	16.77M	17.799M	15.45M	18.135M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	41.82M	36.174M	41.4M	36.174M
5230MHz	Pass	Inf	41.46M	36.174M	42.36M	36.222M
5270MHz	Pass	Inf	41.58M	36.174M	42.42M	36.174M
5310MHz	Pass	Inf	41.52M	36.126M	41.64M	36.126M
5510MHz	Pass	Inf	41.4M	36.174M	41.58M	36.174M
5550MHz	Pass	Inf	41.58M	36.174M	42.54M	36.222M
5670MHz	Pass	Inf	41.94M	36.222M	41.1M	36.126M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.978M	32.924M	36.079M	32.957M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.135M	4.048M	3.12M	9.94M
5755MHz	Pass	500k	35.04M	36.27M	35.04M	36.222M
5795MHz	Pass	500k	35.28M	36.126M	35.1M	36.27M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.76M	75.802M	82.56M	75.802M

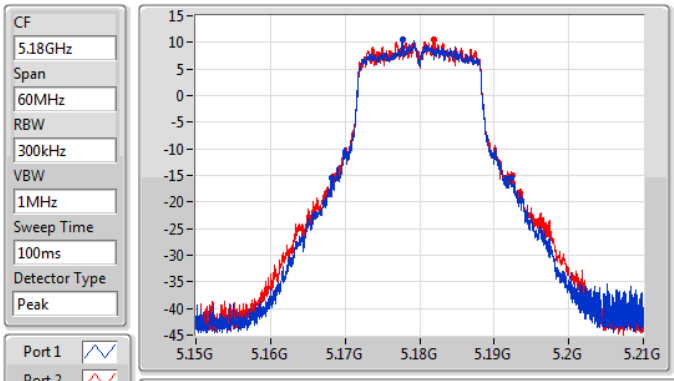
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5290MHz	Pass	Inf	83.28M	75.61M	83.16M	75.706M
5530MHz	Pass	Inf	83.76M	75.898M	82.8M	75.802M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.405M	72.534M	75.963M	72.46M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.135M	4.963M	3.12M	4.993M
5775MHz	Pass	500k	75.12M	75.514M	75.12M	75.706M

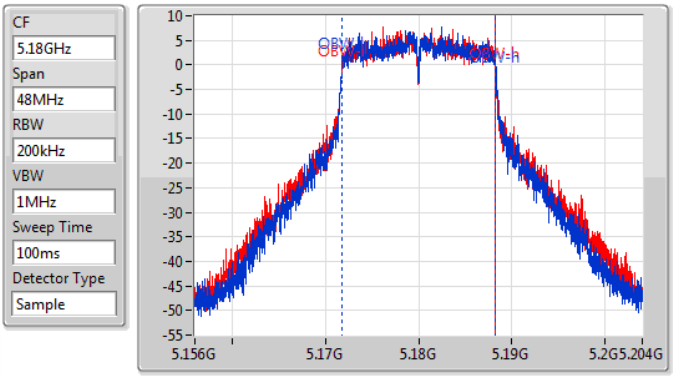
Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX EBW

5180MHz

15/06/2020



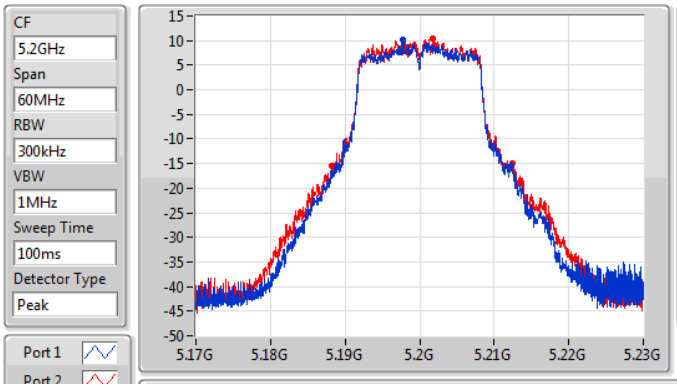


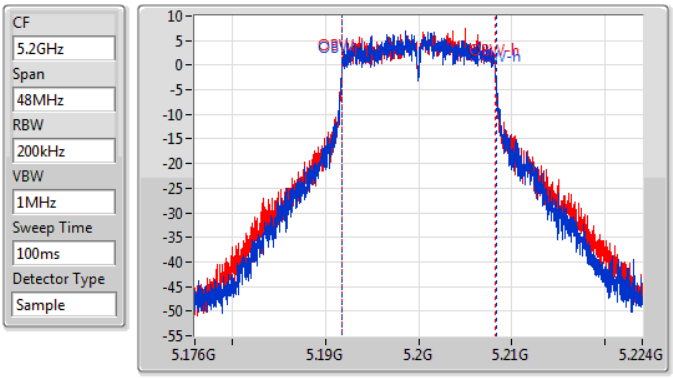
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.97M	5.1683G	5.19227G	16.504M	5.171772G	5.188276G	Inf	1
24.06M	5.16836G	5.19242G	16.552M	5.171724G	5.188276G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5200MHz

15/06/2020



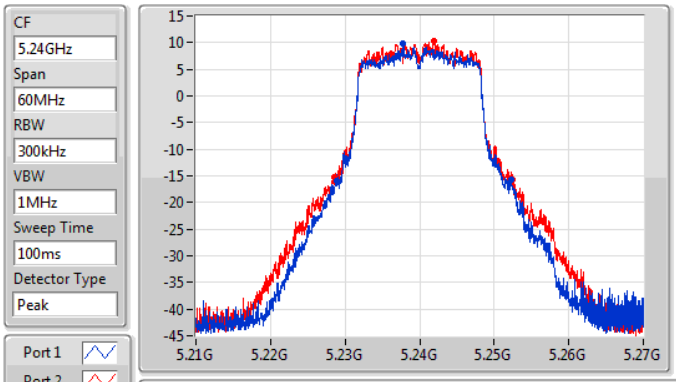


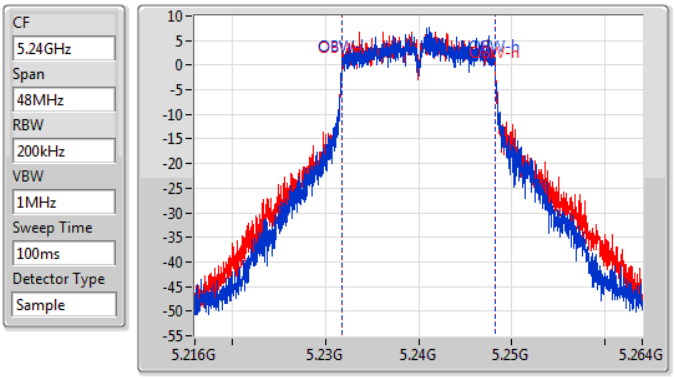
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.46M	5.18881G	5.21227G	16.552M	5.191748G	5.2083G	Inf	1
24.12M	5.1883G	5.21242G	16.528M	5.191748G	5.208276G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5240MHz

15/06/2020



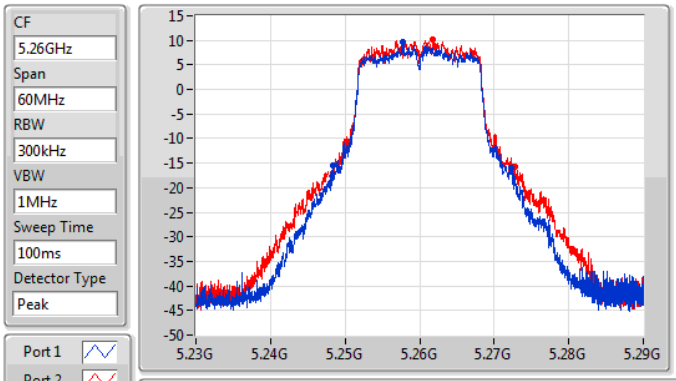


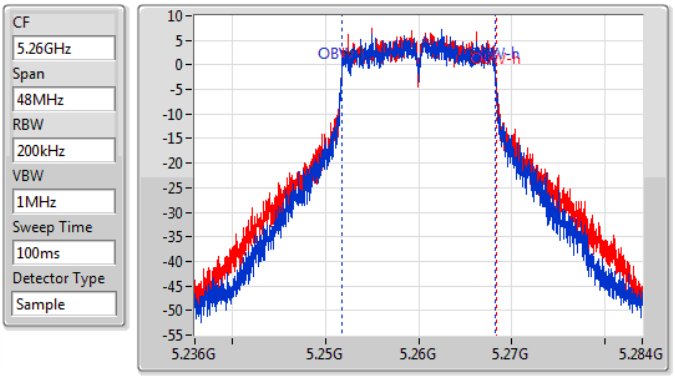
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.46M	5.22884G	5.2523G	16.504M	5.231748G	5.248252G	Inf	1
23.94M	5.22857G	5.25251G	16.552M	5.231724G	5.248276G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5260MHz

15/06/2020



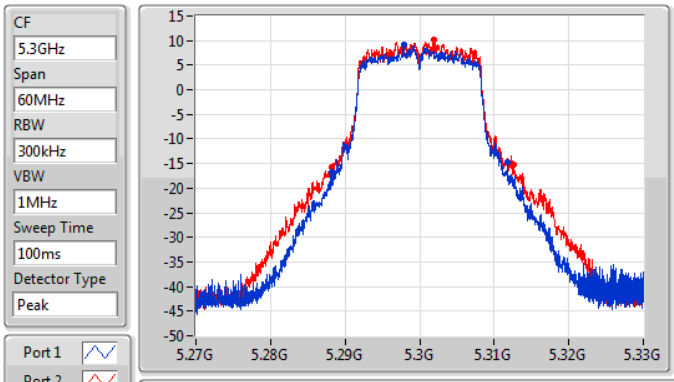


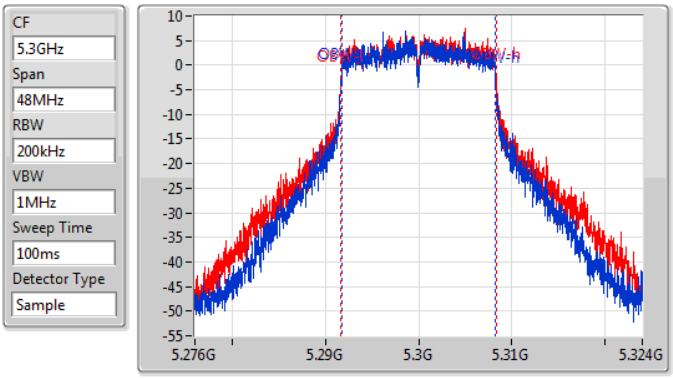
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.91M	5.24845G	5.27236G	16.528M	5.251724G	5.268252G	Inf	1
24.36M	5.24836G	5.27272G	16.576M	5.251724G	5.2683G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5300MHz

15/06/2020



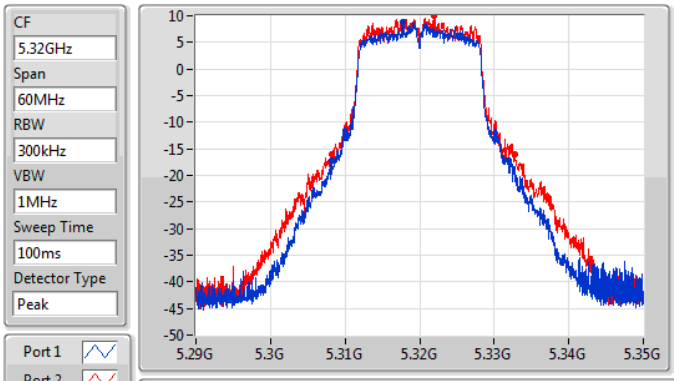


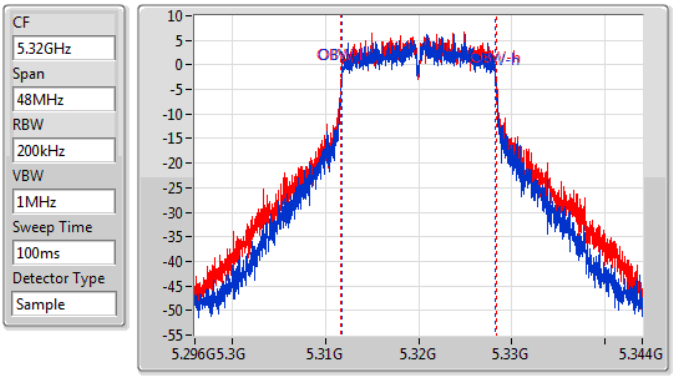
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.46M	5.28827G	5.31173G	16.48M	5.291748G	5.308228G	Inf	1
24.39M	5.28824G	5.31263G	16.624M	5.2917G	5.308324G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5320MHz

15/06/2020



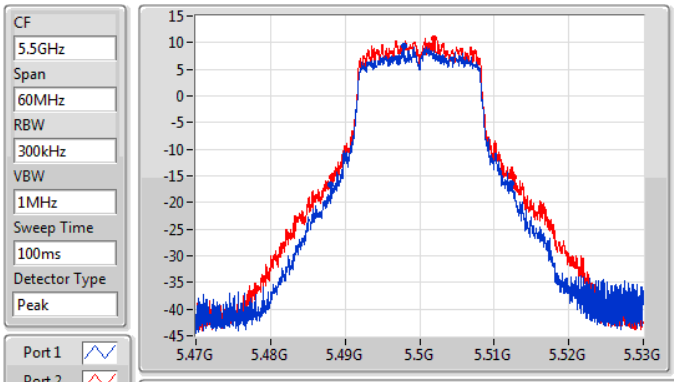


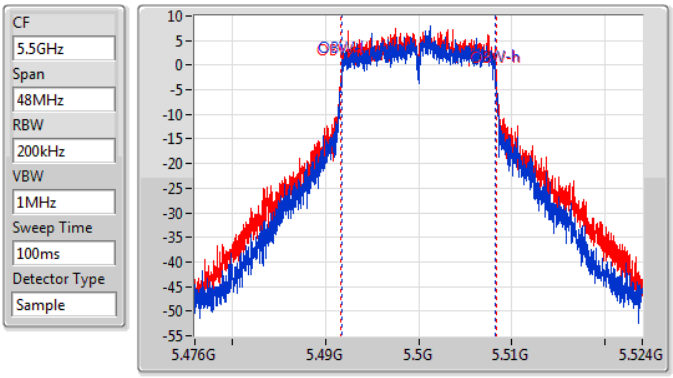
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.7M	5.30818G	5.33188G	16.504M	5.311748G	5.328252G	Inf	1
24.51M	5.30821G	5.33272G	16.624M	5.3117G	5.328324G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5500MHz

15/06/2020



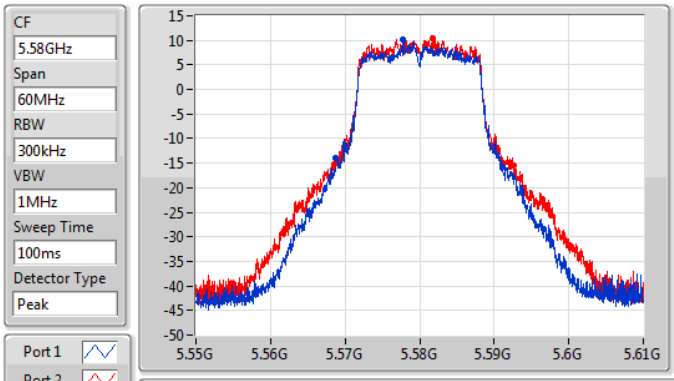


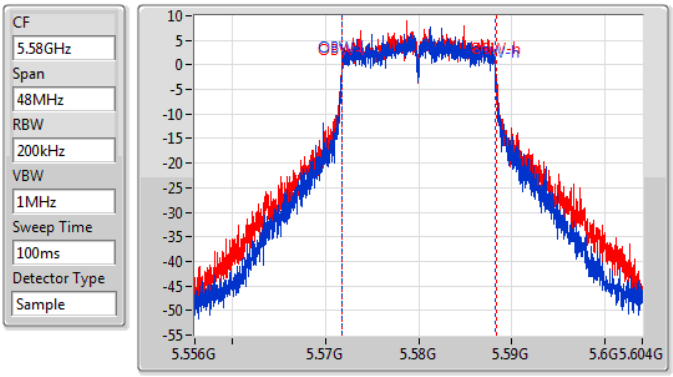
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.21M	5.48812G	5.51233G	16.504M	5.491748G	5.508252G	Inf	1
24.39M	5.48827G	5.51266G	16.648M	5.491676G	5.508324G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5580MHz

15/06/2020



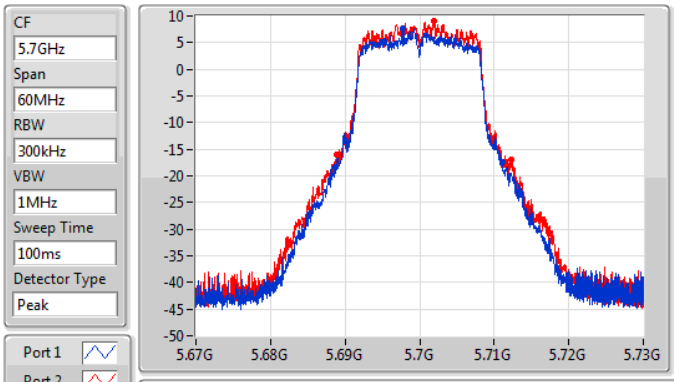


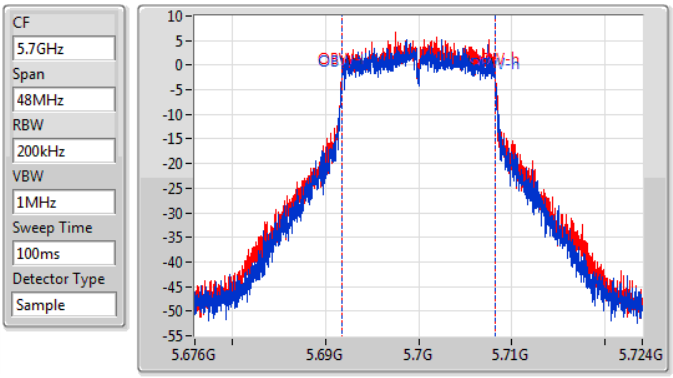
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.35M	5.56875G	5.5911G	16.48M	5.571772G	5.588252G	Inf	1
24.06M	5.56854G	5.5926G	16.576M	5.571724G	5.5883G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5700MHz

18/06/2020



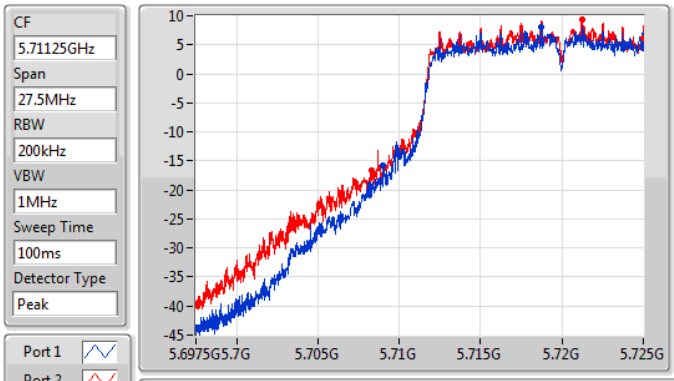


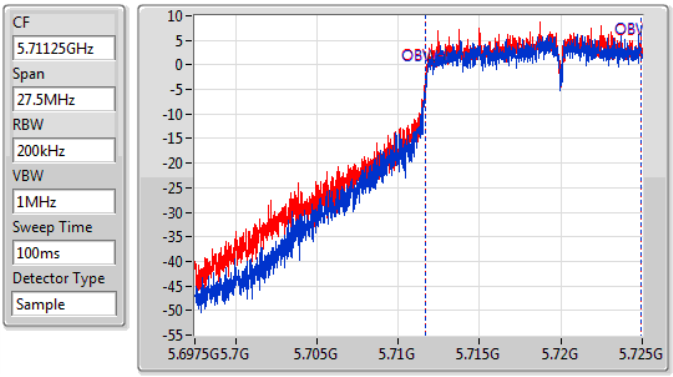
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.35M	5.68869G	5.71104G	16.504M	5.691748G	5.708252G	Inf	1
23.34M	5.68887G	5.71221G	16.504M	5.691748G	5.708252G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5720MHz Straddle 5.47-5.725GHz

15/06/2020



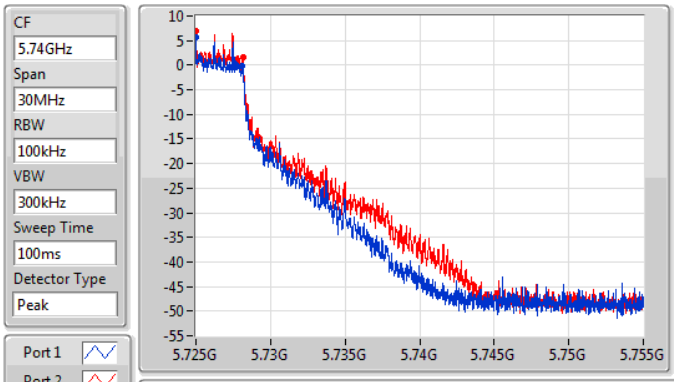


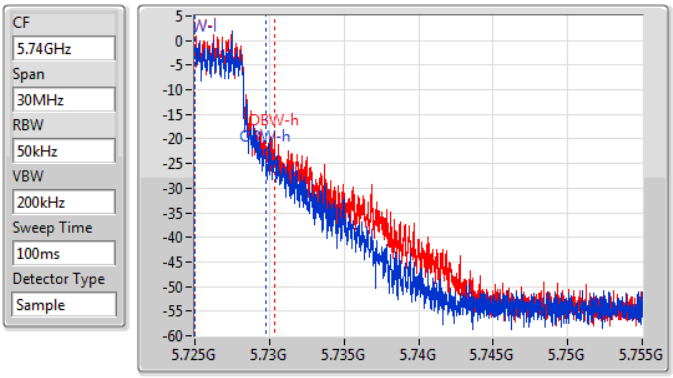
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.019M	5.708981G	5.725G	13.221M	5.711704G	5.724924G	Inf	1
16.679M	5.708321G	5.725G	13.276M	5.711649G	5.724924G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5720MHz Straddle 5.725-5.85GHz

15/06/2020



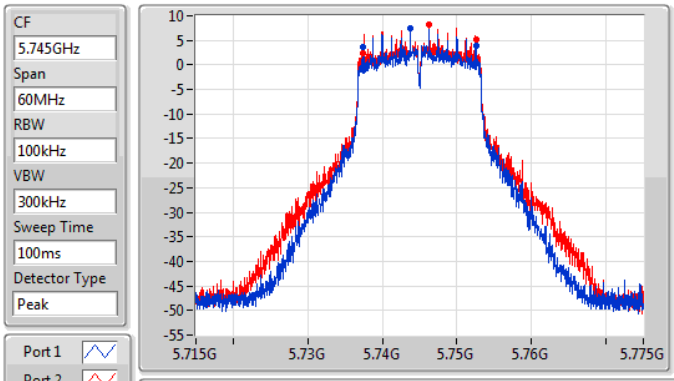


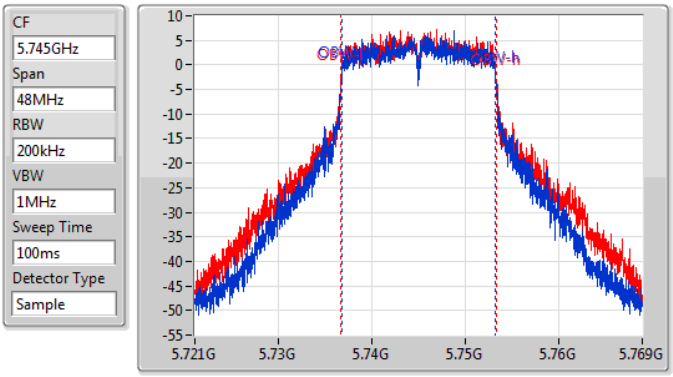
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.12M	5.725G	5.72812G	4.738M	5.725007G	5.729745G	500k	1
3.135M	5.725G	5.728135G	5.337M	5.725022G	5.73036G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

5745MHz

15/06/2020



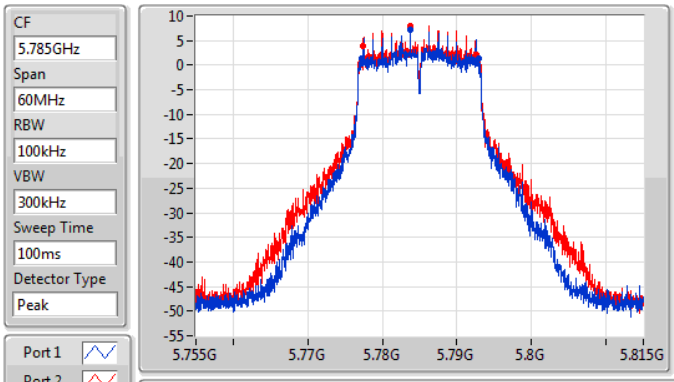


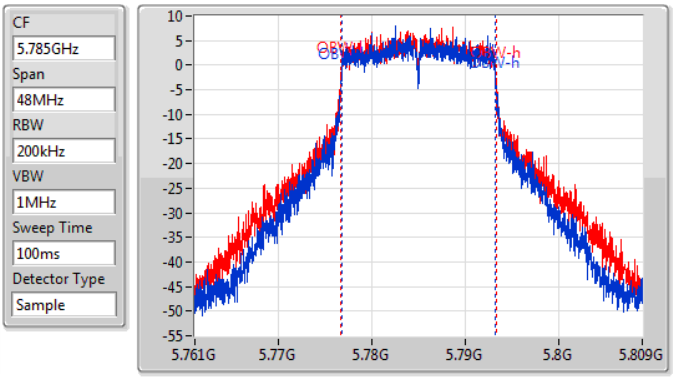
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.06M	5.73747G	5.75253G	16.528M	5.736748G	5.753276G	500k	1
15.06M	5.73747G	5.75253G	16.6M	5.7367G	5.7533G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

5785MHz

15/06/2020



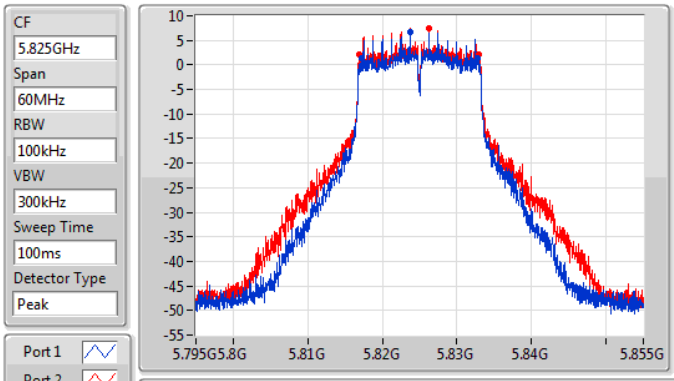


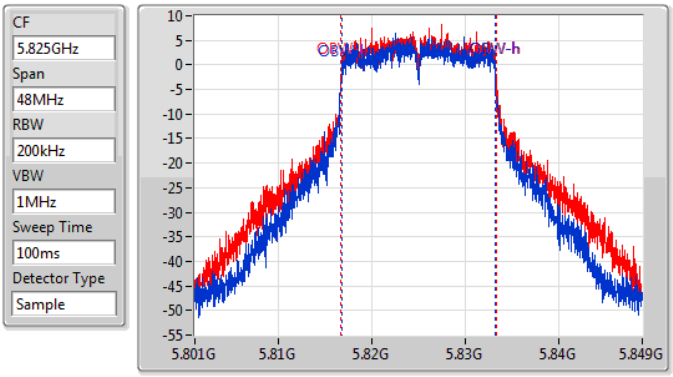
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.63M	5.77723G	5.79286G	16.528M	5.776724G	5.793252G	500k	1
15.12M	5.77744G	5.79256G	16.6M	5.7767G	5.7933G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

5825MHz

15/06/2020



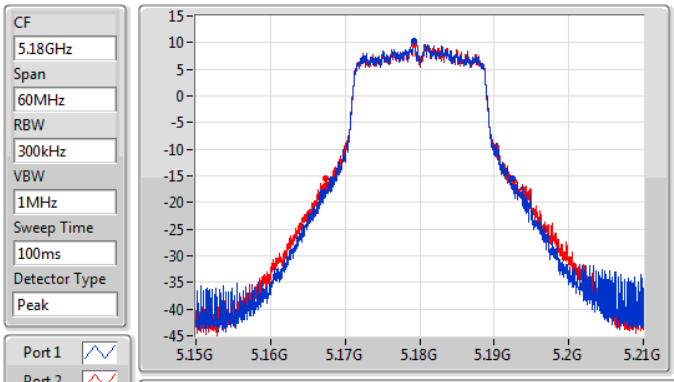


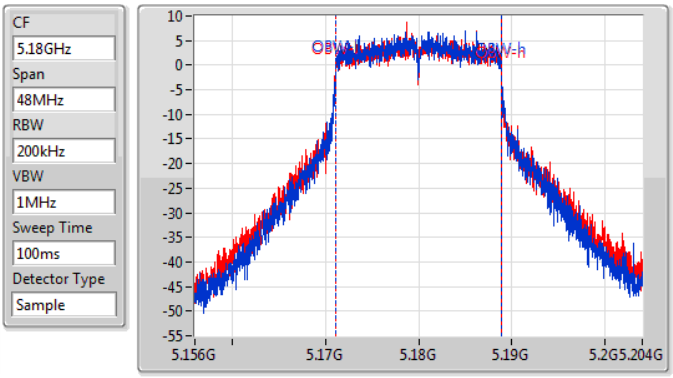
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.51M	5.81723G	5.83274G	16.48M	5.816748G	5.833228G	500k	1
15.99M	5.81687G	5.83286G	16.6M	5.8167G	5.8333G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5180MHz

18/06/2020



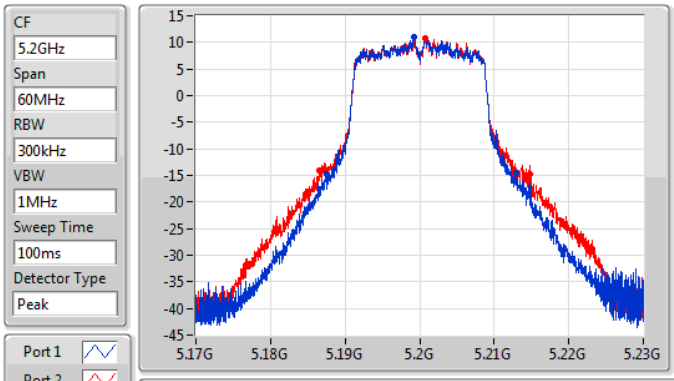


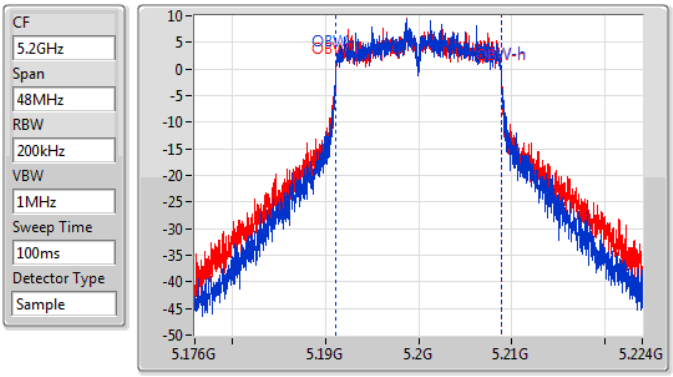
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.18M	5.16827G	5.19245G	17.727M	5.171124G	5.188852G	Inf	1
25.2M	5.16746G	5.19266G	17.775M	5.1711G	5.188876G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5200MHz

15/06/2020



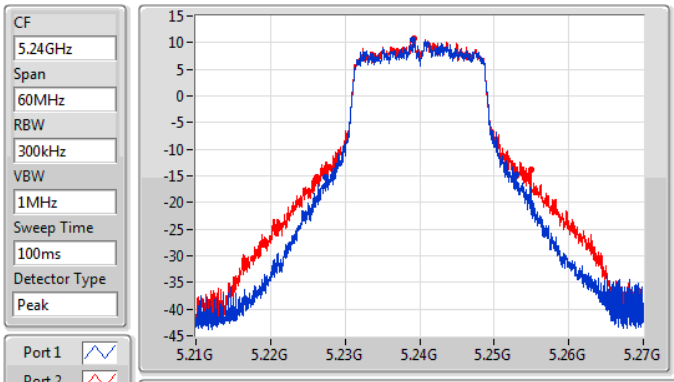


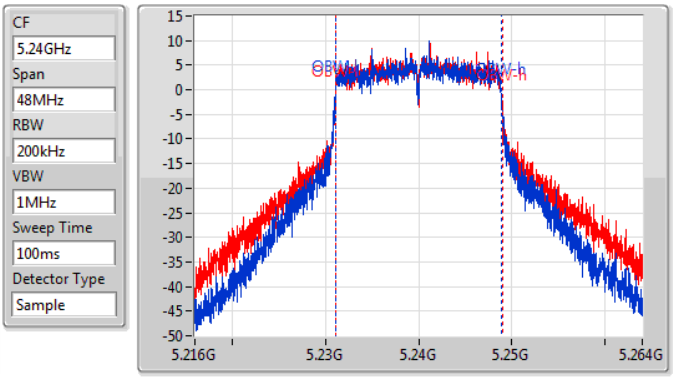
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.41M	5.18749G	5.2129G	17.703M	5.191148G	5.208852G	Inf	1
28.38M	5.18647G	5.21485G	17.799M	5.1911G	5.2089G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5240MHz

15/06/2020



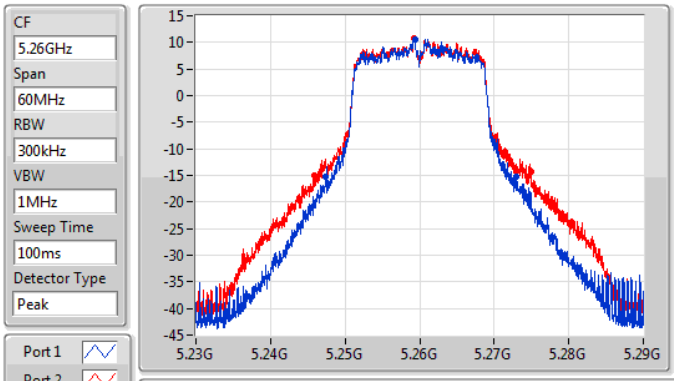


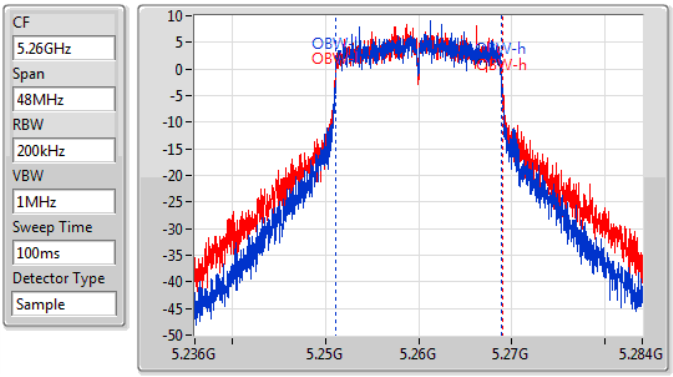
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.56M	5.2274G	5.25296G	17.775M	5.231124G	5.2489G	Inf	1
28.8M	5.2262G	5.255G	17.895M	5.231076G	5.248972G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5260MHz

15/06/2020



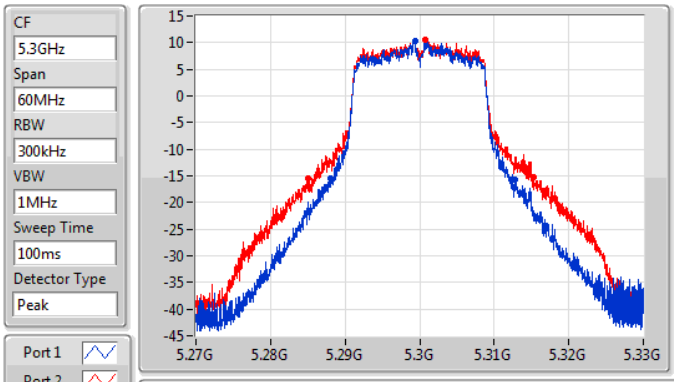


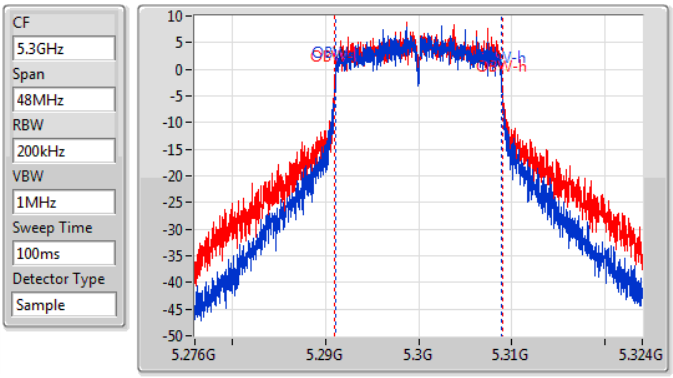
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.53M	5.24743G	5.27296G	17.703M	5.251148G	5.268852G	Inf	1
29.13M	5.24584G	5.27497G	17.919M	5.251052G	5.268972G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5300MHz

15/06/2020



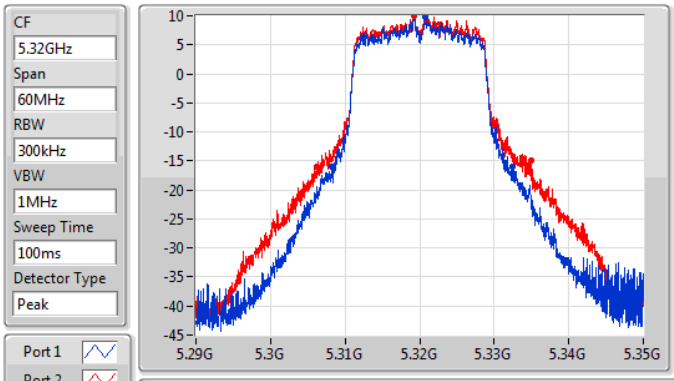


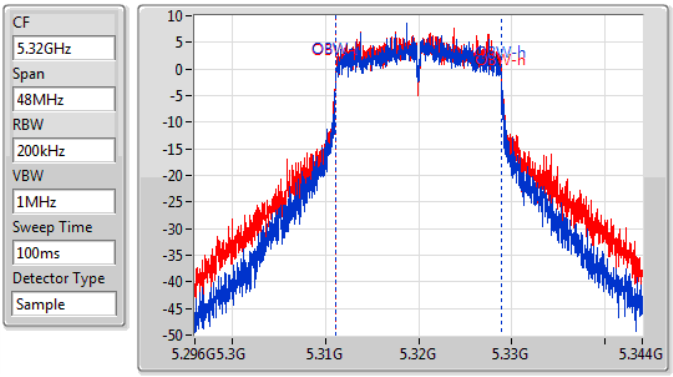
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.75M	5.28809G	5.31284G	17.751M	5.2911G	5.308852G	Inf	1
30.21M	5.28506G	5.31527G	18.063M	5.291004G	5.309067G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5320MHz

15/06/2020



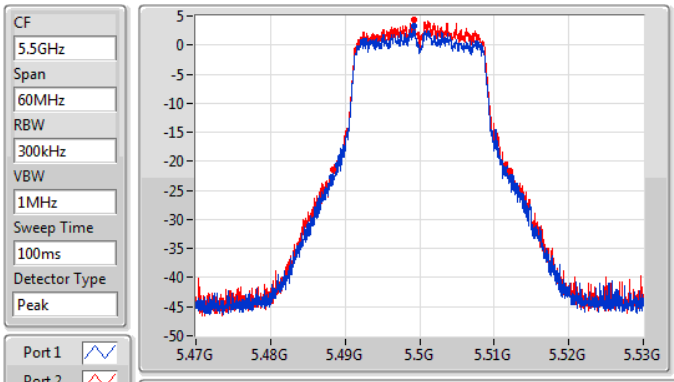


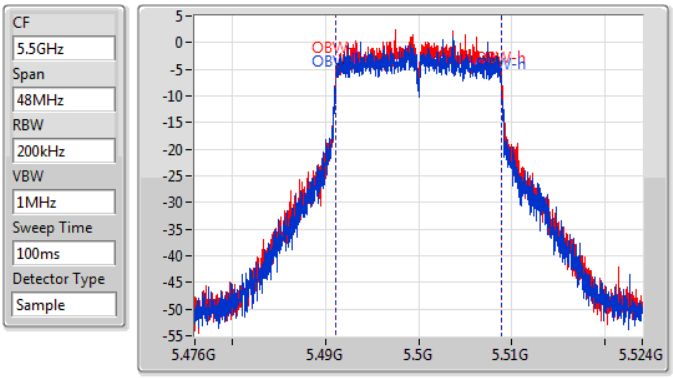
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.09M	5.3083G	5.33239G	17.679M	5.311148G	5.328828G	Inf	1
28.71M	5.30626G	5.33497G	17.871M	5.311076G	5.328948G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5500MHz

18/06/2020



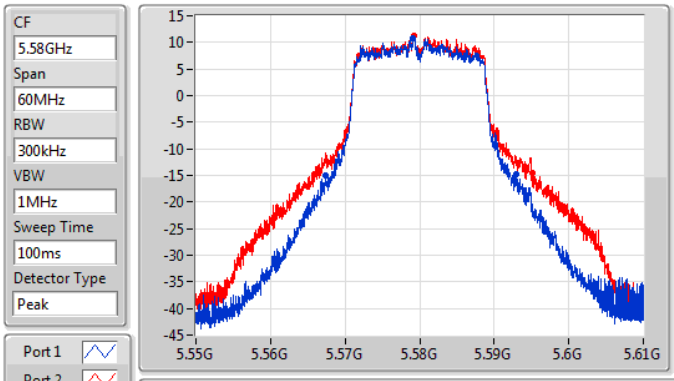


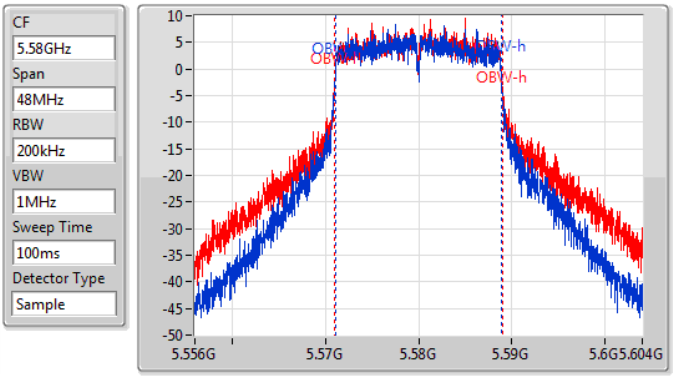
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.06M	5.48827G	5.51233G	17.751M	5.4911G	5.508852G	Inf	1
23.7M	5.48836G	5.51206G	17.727M	5.491148G	5.508876G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5580MHz

15/06/2020



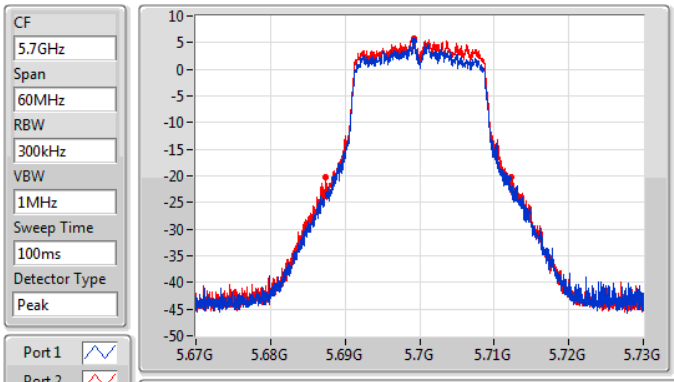


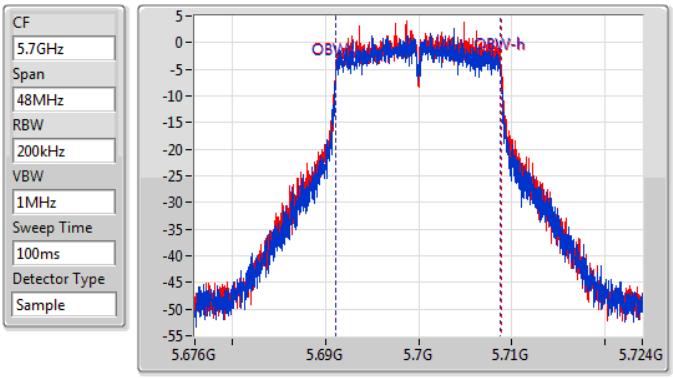
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.56M	5.56734G	5.5929G	17.751M	5.5711G	5.588852G	Inf	1
29.16M	5.56593G	5.59509G	18.039M	5.571028G	5.589067G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5700MHz

18/06/2020



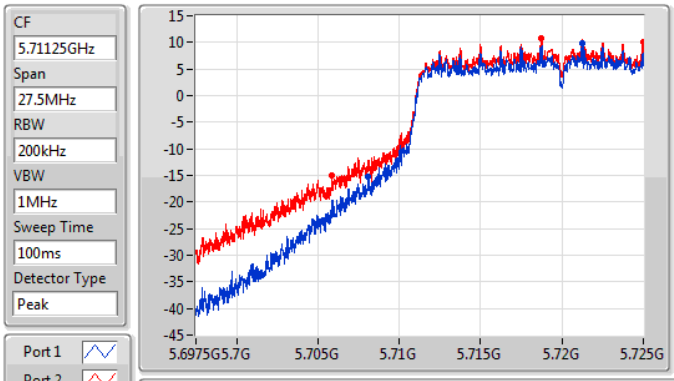


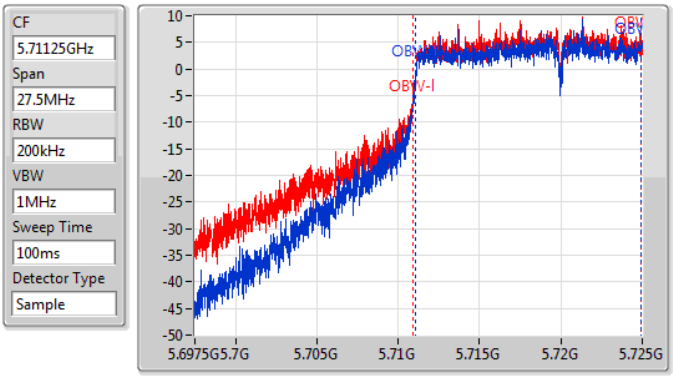
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.46M	5.68857G	5.71203G	17.679M	5.691124G	5.708804G	Inf	1
24.87M	5.68737G	5.71224G	17.727M	5.691124G	5.708852G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5720MHz Straddle 5.47-5.725GHz

15/06/2020



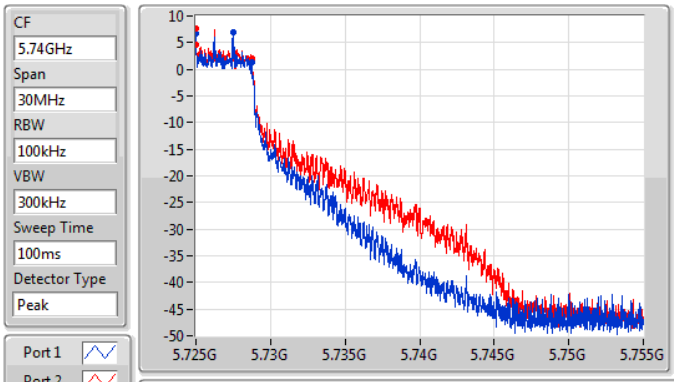


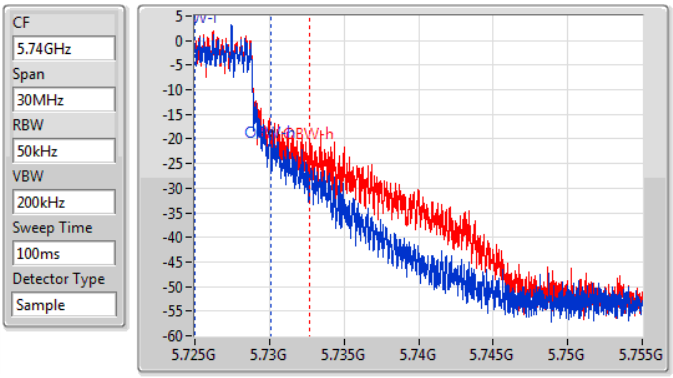
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.899M	5.708101G	5.725G	13.908M	5.71103G	5.724938G	Inf	1
19.126M	5.705874G	5.725G	14.032M	5.710893G	5.724924G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5720MHz Straddle 5.725-5.85GHz

15/06/2020



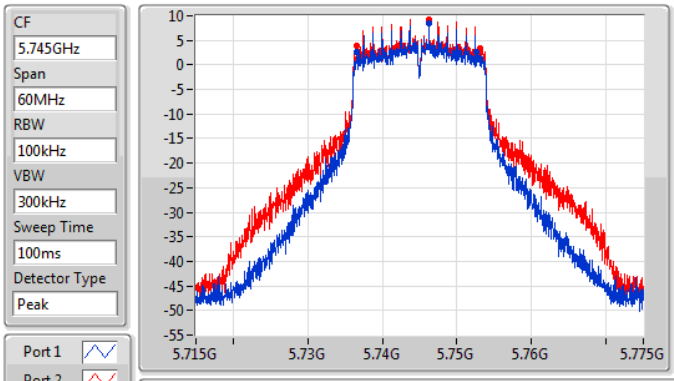


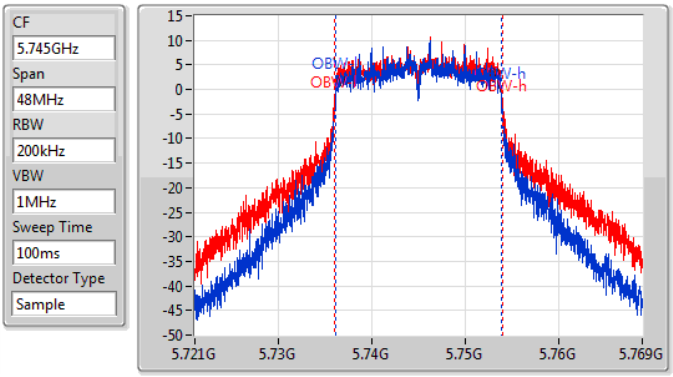
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.75M	5.725G	5.72875G	5.082M	5.725007G	5.73009G	500k	1
3.75M	5.725G	5.72875G	7.676M	5.725007G	5.732684G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5745MHz

15/06/2020



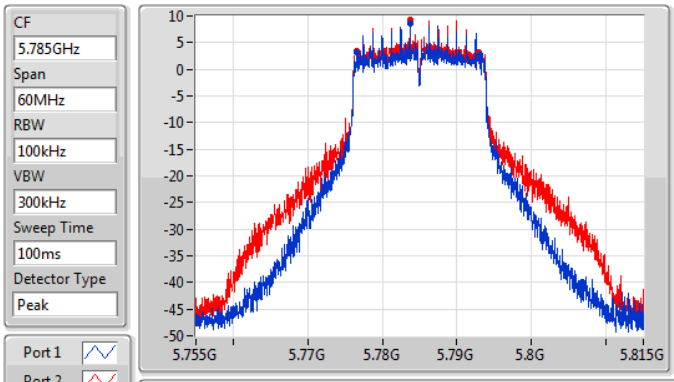


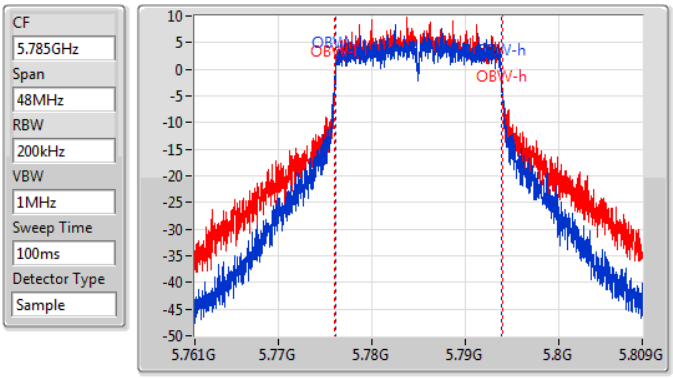
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.96M	5.7366G	5.75256G	17.703M	5.736148G	5.753852G	500k	1
16.5M	5.73663G	5.75313G	18.063M	5.736004G	5.754067G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5785MHz

15/06/2020



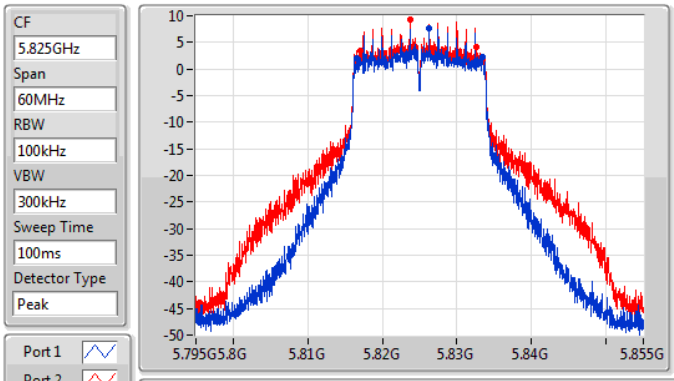


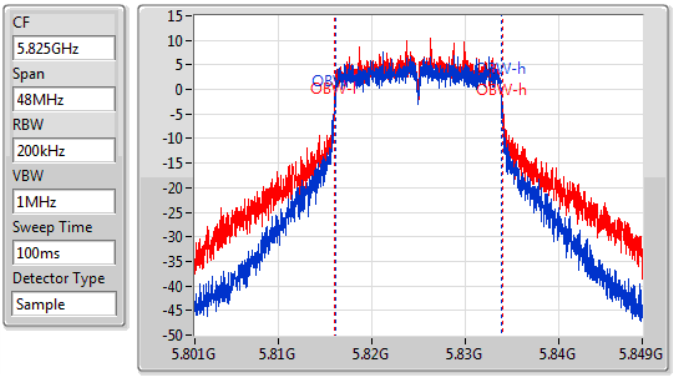
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.5M	5.77663G	5.79313G	17.823M	5.776052G	5.793876G	500k	1
16.26M	5.7766G	5.79286G	17.991M	5.776028G	5.794019G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5825MHz

15/06/2020



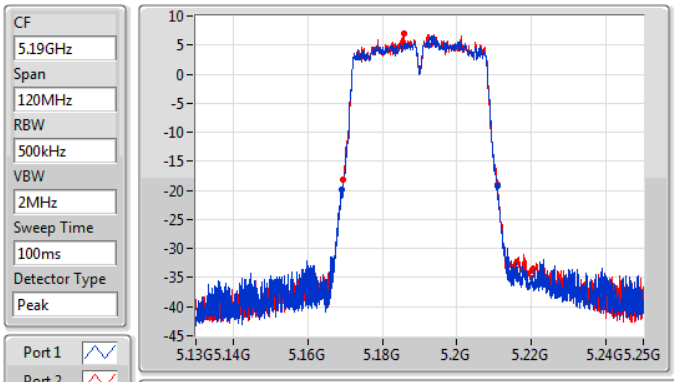


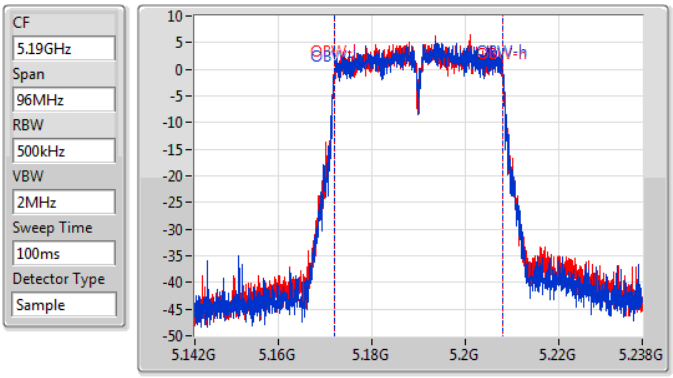
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.77M	5.8166G	5.83337G	17.799M	5.816052G	5.833852G	500k	1
15.45M	5.81711G	5.83256G	18.135M	5.815957G	5.834091G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5190MHz

15/06/2020



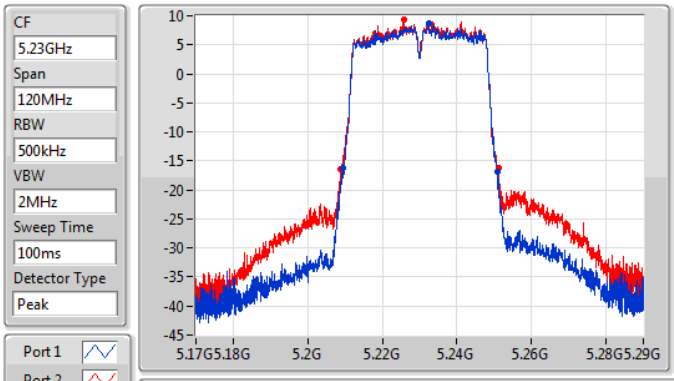


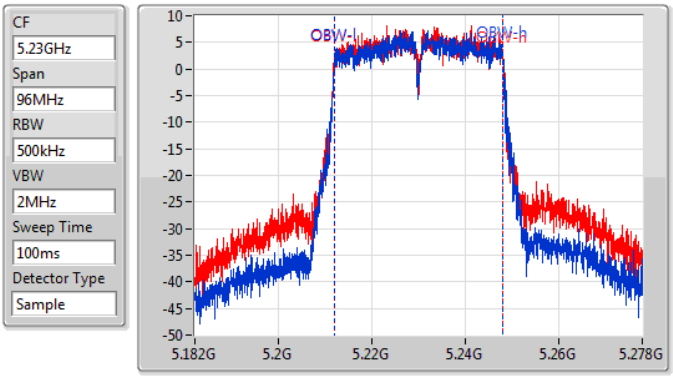
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.82M	5.169G	5.21082G	36.174M	5.171913G	5.208087G	Inf	1
41.4M	5.16948G	5.21088G	36.174M	5.171913G	5.208087G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5230MHz

15/06/2020



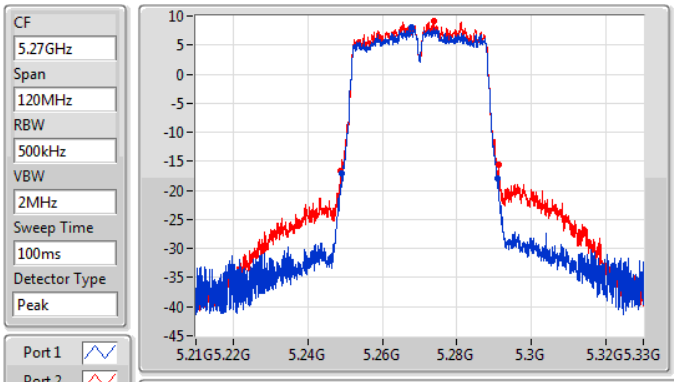


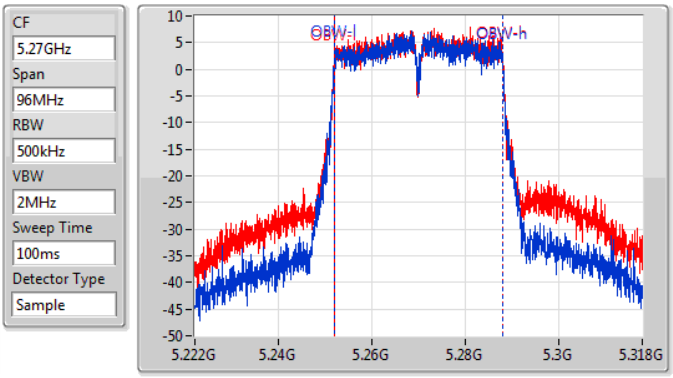
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.46M	5.2093G	5.25076G	36.174M	5.211961G	5.248135G	Inf	1
42.36M	5.20882G	5.25118G	36.222M	5.211913G	5.248135G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5270MHz

15/06/2020



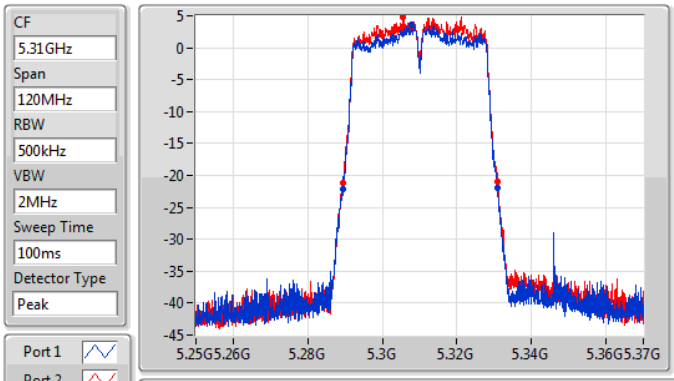


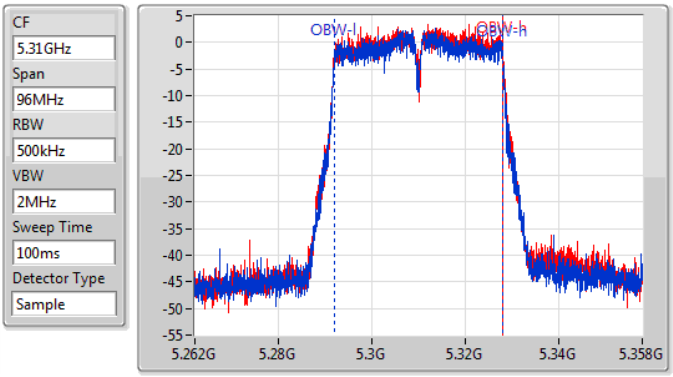
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.58M	5.24918G	5.29076G	36.174M	5.251913G	5.288087G	Inf	1
42.42M	5.24882G	5.29124G	36.174M	5.251913G	5.288087G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5310MHz

18/06/2020



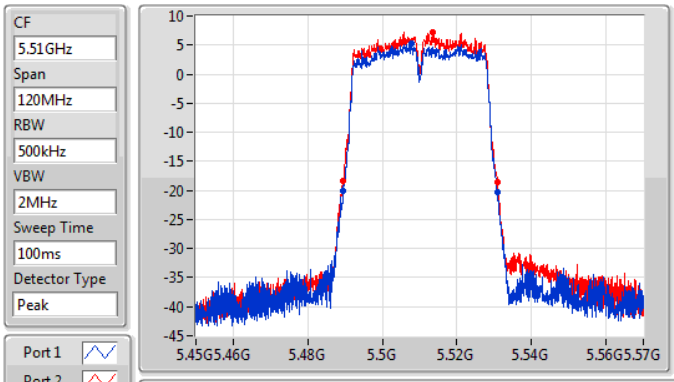


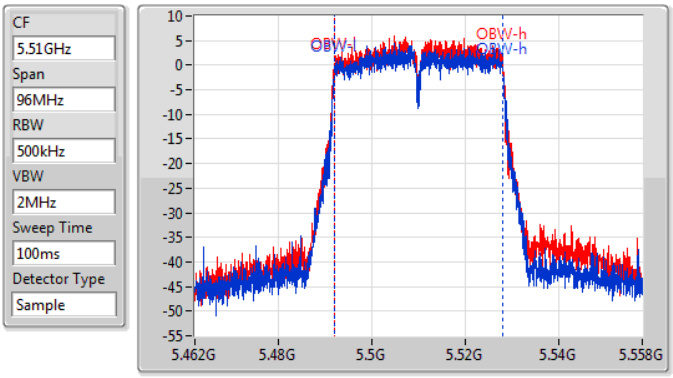
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.52M	5.28942G	5.33094G	36.126M	5.291961G	5.328087G	Inf	1
41.64M	5.2893G	5.33094G	36.126M	5.291961G	5.328087G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5510MHz

18/06/2020



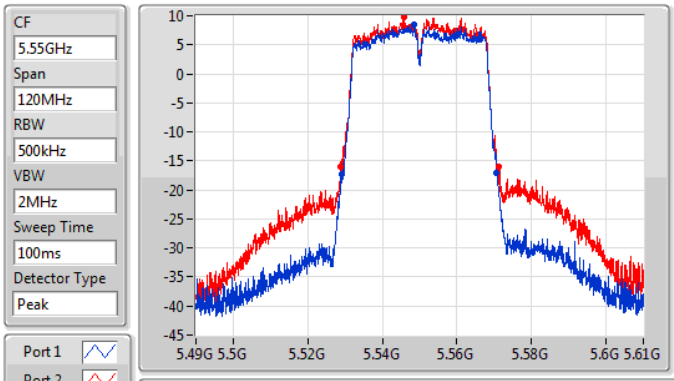


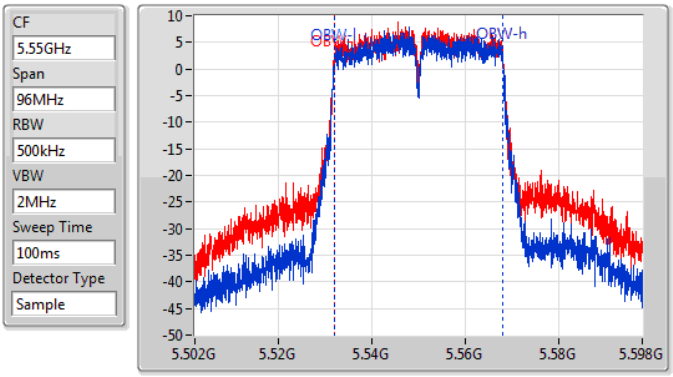
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.4M	5.48942G	5.53082G	36.174M	5.491961G	5.528135G	Inf	1
41.58M	5.4893G	5.53088G	36.174M	5.491913G	5.528087G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5550MHz

15/06/2020



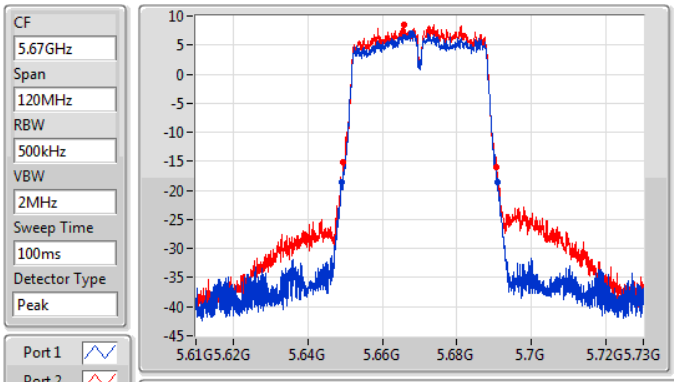


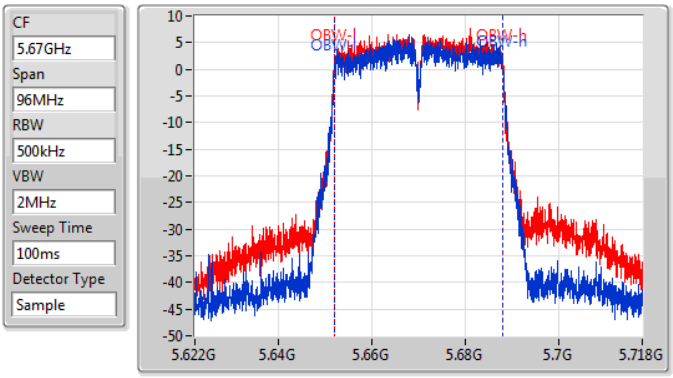
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.58M	5.52912G	5.5707G	36.174M	5.531913G	5.568087G	Inf	1
42.54M	5.52876G	5.5713G	36.222M	5.531913G	5.568135G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5670MHz

18/06/2020



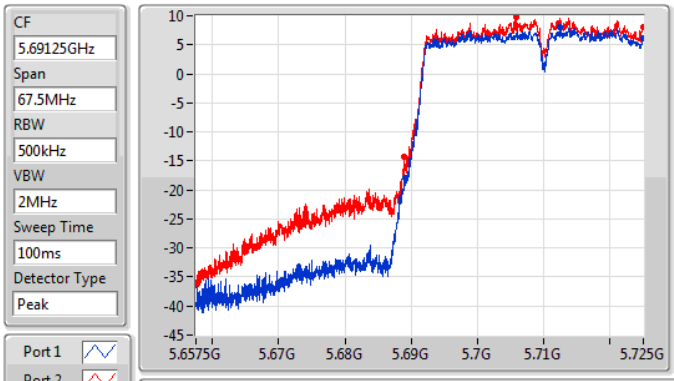


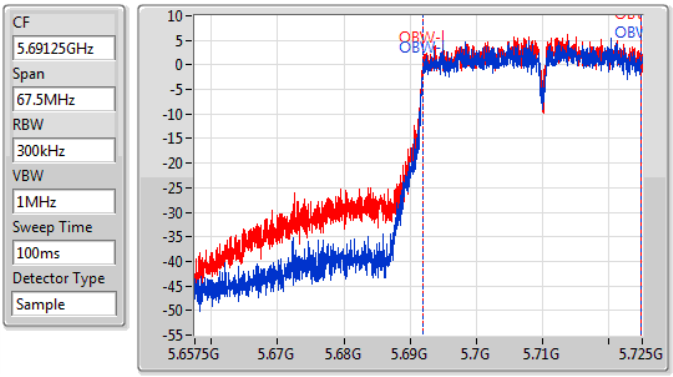
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.94M	5.649G	5.69094G	36.222M	5.651913G	5.688135G	Inf	1
41.1M	5.6496G	5.6907G	36.126M	5.651961G	5.688087G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5710MHz Straddle 5.47-5.725GHz

15/06/2020





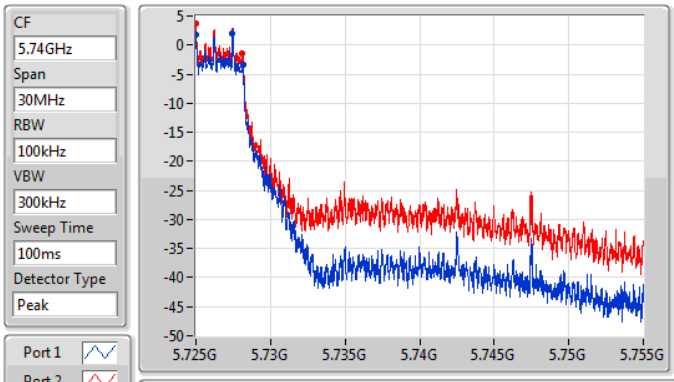
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.978M	5.689023G	5.725G	32.924M	5.691925G	5.724848G	Inf	1
36.079M	5.688921G	5.725G	32.957M	5.691891G	5.724848G	Inf	2

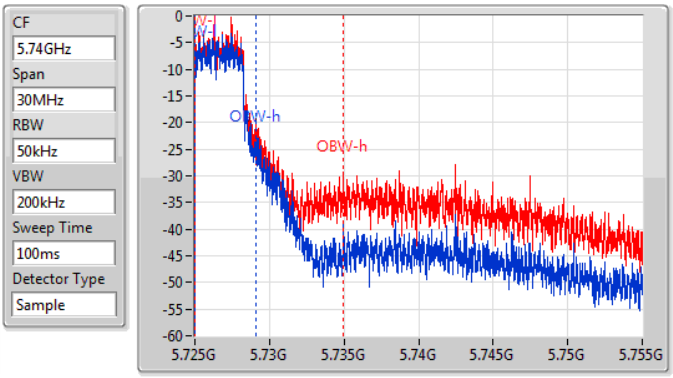
802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5710MHz Straddle 5.725-5.85GHz

15/06/2020





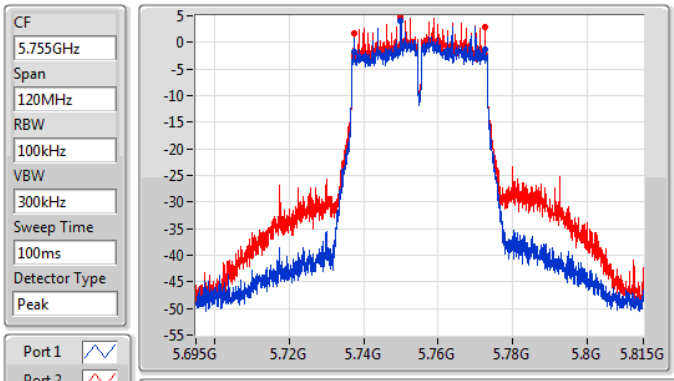
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.135M	5.725G	5.728135G	4.048M	5.725022G	5.72907G	500k	1
3.12M	5.725G	5.72812G	9.94M	5.725022G	5.734963G	500k	2

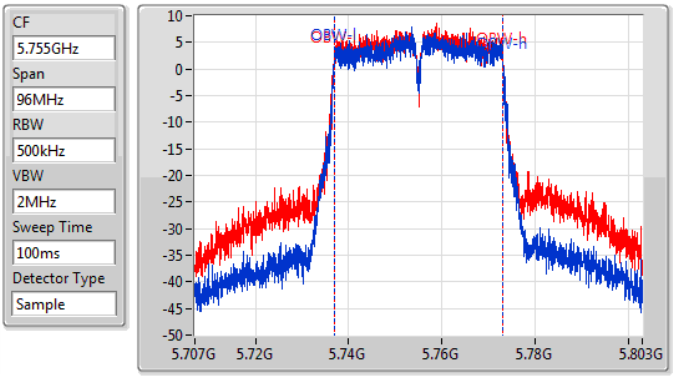
802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5755MHz

15/06/2020



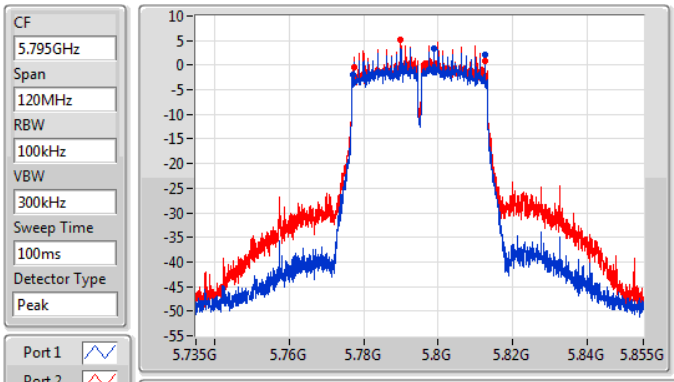


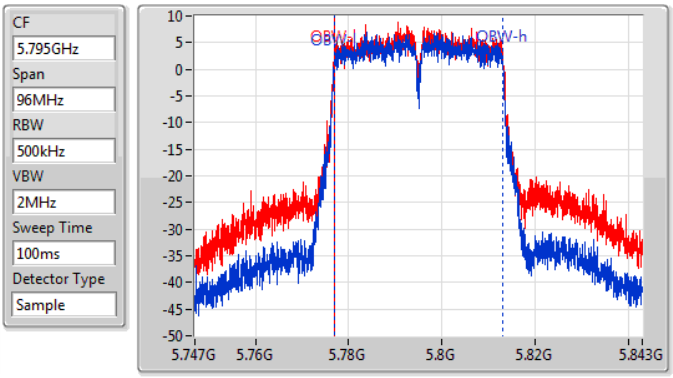
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.04M	5.73742G	5.77246G	36.27M	5.736865G	5.773135G	500k	1
35.04M	5.73748G	5.77252G	36.222M	5.736865G	5.773087G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5795MHz

15/06/2020



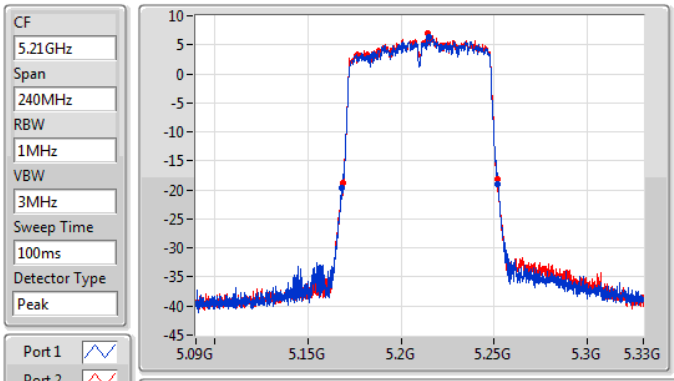


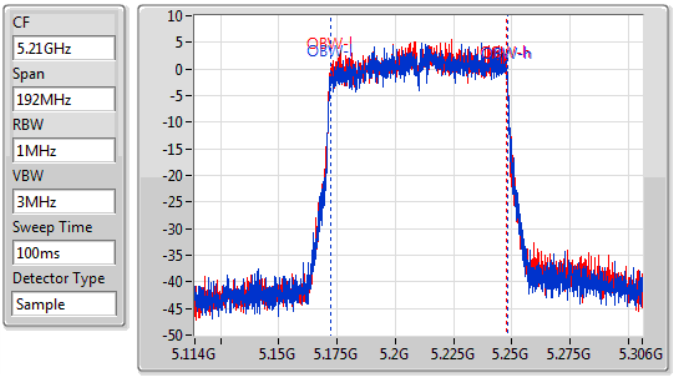
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.28M	5.77724G	5.81252G	36.126M	5.776913G	5.813039G	500k	1
35.1M	5.77742G	5.81252G	36.27M	5.776865G	5.813135G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5210MHz

15/06/2020



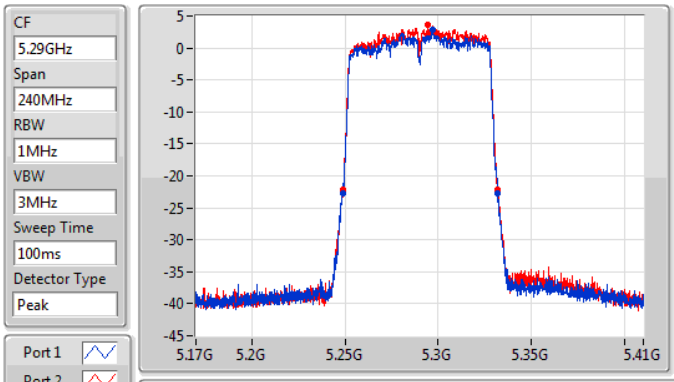


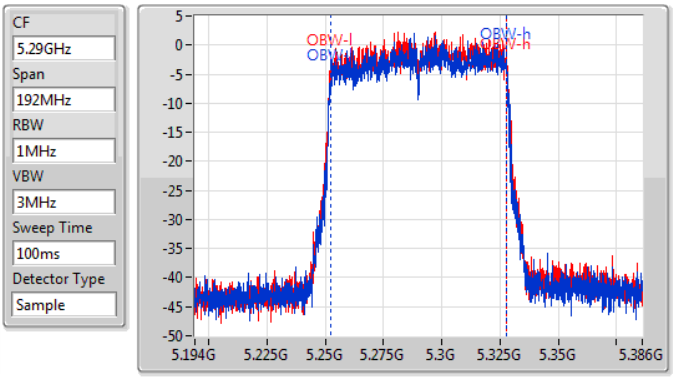
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.76M	5.16824G	5.252G	75.802M	5.172195G	5.247997G	Inf	1
82.56M	5.1692G	5.25176G	75.802M	5.172099G	5.247901G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5290MHz

18/06/2020



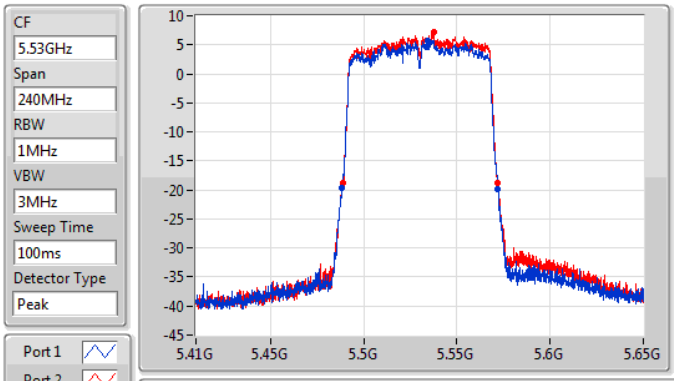


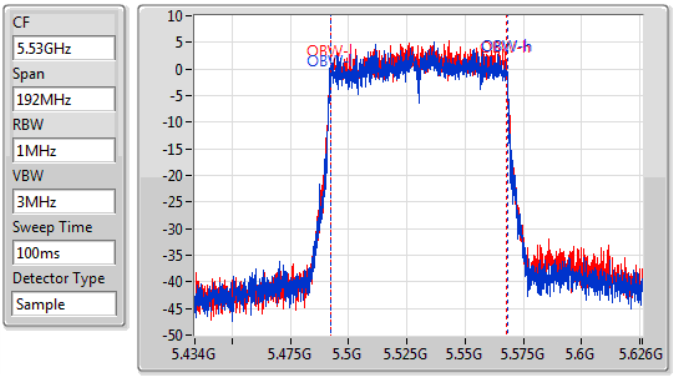
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.28M	5.2486G	5.33188G	75.61M	5.252291G	5.327901G	Inf	1
83.16M	5.24872G	5.33188G	75.706M	5.252195G	5.327901G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5530MHz

15/06/2020



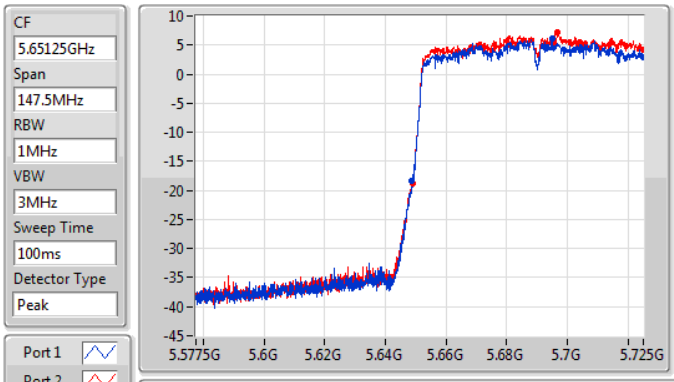


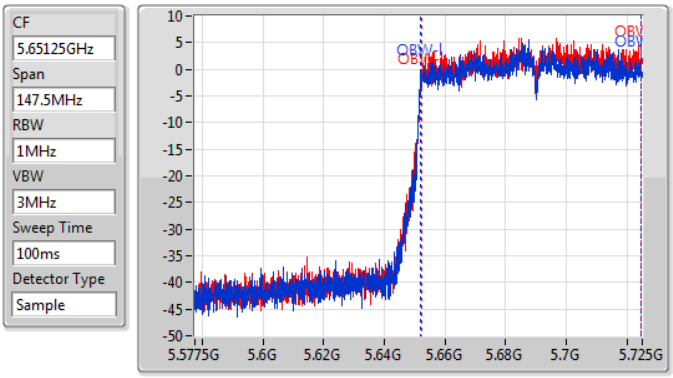
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.76M	5.48824G	5.572G	75.898M	5.492099G	5.567997G	Inf	1
82.8M	5.4892G	5.572G	75.802M	5.492099G	5.567901G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5690MHz Straddle 5.47-5.725GHz

15/06/2020



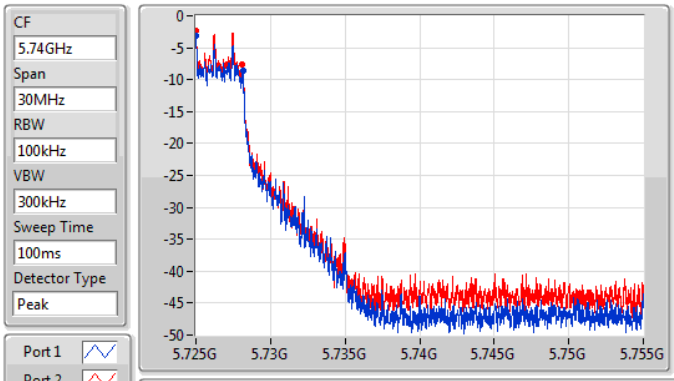


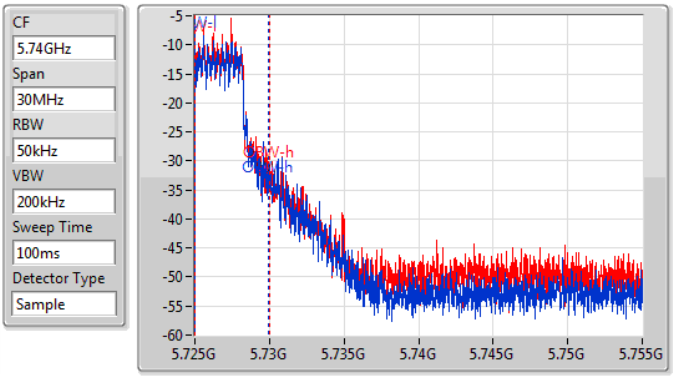
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.405M	5.648595G	5.725G	72.534M	5.652061G	5.724595G	Inf	1
75.963M	5.649038G	5.725G	72.46M	5.652208G	5.724668G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5690MHz Straddle 5.725-5.85GHz

15/06/2020





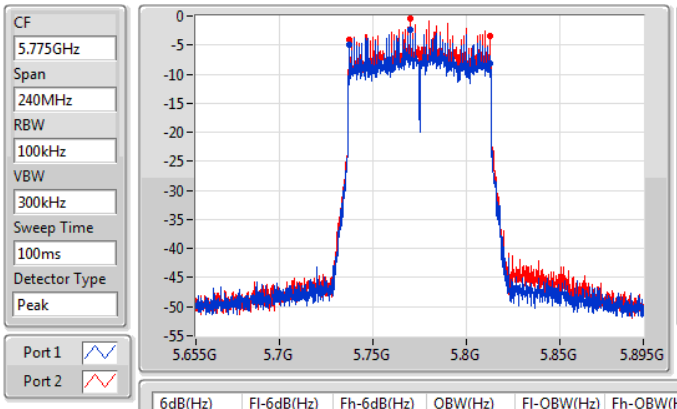
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.135M	5.725G	5.728135G	4.963M	5.725007G	5.72997G	500k	1
3.12M	5.725G	5.72812G	4.993M	5.725022G	5.730015G	500k	2

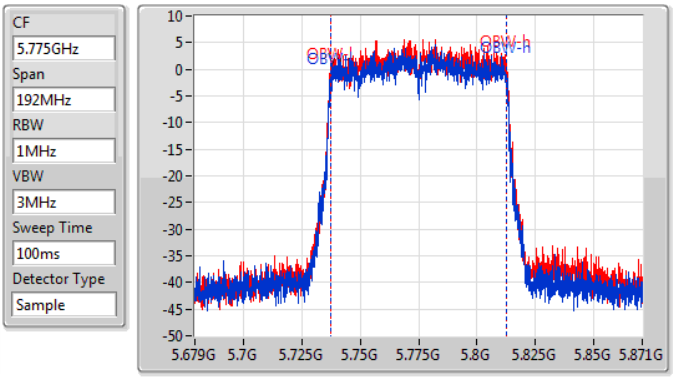
802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5775MHz

15/06/2020





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.12M	5.73744G	5.81256G	75.514M	5.737291G	5.812805G	500k	1
75.12M	5.73744G	5.81256G	75.706M	5.737099G	5.812805G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.88	0.12246	24.48	0.28054
802.11ac VHT20_Nss1,(MCS0)_2TX	21.93	0.15596	25.53	0.35727
802.11ac VHT40_Nss1,(MCS0)_2TX	20.87	0.12218	24.47	0.27990
802.11ac VHT80_Nss1,(MCS0)_2TX	17.42	0.05521	21.02	0.12647
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.46	0.11117	24.06	0.25468
802.11ac VHT20_Nss1,(MCS0)_2TX	21.61	0.14488	25.21	0.33189
802.11ac VHT40_Nss1,(MCS0)_2TX	20.56	0.11376	24.16	0.26062
802.11ac VHT80_Nss1,(MCS0)_2TX	14.59	0.02877	18.19	0.06592
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.58	0.11429	24.78	0.30061
802.11ac VHT20_Nss1,(MCS0)_2TX	22.01	0.15885	26.21	0.41783
802.11ac VHT40_Nss1,(MCS0)_2TX	20.74	0.11858	24.94	0.31189
802.11ac VHT80_Nss1,(MCS0)_2TX	17.40	0.05495	21.60	0.14454
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.69	0.11722	24.89	0.30832
802.11ac VHT20_Nss1,(MCS0)_2TX	21.98	0.15776	26.18	0.41495
802.11ac VHT40_Nss1,(MCS0)_2TX	20.89	0.12274	25.09	0.32285
802.11ac VHT80_Nss1,(MCS0)_2TX	17.47	0.05585	21.67	0.14689

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.60	17.89	17.85	20.88	23.98	24.48	30.00
5200MHz	Pass	3.60	17.70	17.95	20.84	23.98	24.44	30.00
5240MHz	Pass	3.60	17.24	17.79	20.53	23.98	24.13	30.00
5260MHz	Pass	3.60	17.14	17.74	20.46	23.98	24.06	30.00
5300MHz	Pass	3.60	16.97	17.57	20.29	23.98	23.89	30.00
5320MHz	Pass	3.60	16.65	17.25	19.97	23.98	23.57	30.00
5500MHz	Pass	4.20	17.07	17.67	20.39	23.98	24.59	30.00
5580MHz	Pass	4.20	17.31	17.81	20.58	23.98	24.78	30.00
5700MHz	Pass	4.20	15.73	16.22	18.99	23.98	23.19	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.20	16.26	17.16	19.74	23.05	23.94	29.05
5720MHz Straddle 5.725-5.85GHz	Pass	4.20	9.41	10.44	12.97	30.00	17.17	36.00
5745MHz	Pass	4.20	17.25	18.07	20.69	30.00	24.89	36.00
5785MHz	Pass	4.20	17.17	18.12	20.68	30.00	24.88	36.00
5825MHz	Pass	4.20	16.83	17.92	20.42	30.00	24.62	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.60	18.38	18.22	21.31	23.98	24.91	30.00
5200MHz	Pass	3.60	18.97	18.86	21.93	23.98	25.53	30.00
5240MHz	Pass	3.60	18.56	18.81	21.70	23.98	25.30	30.00
5260MHz	Pass	3.60	18.49	18.71	21.61	23.98	25.21	30.00
5300MHz	Pass	3.60	18.16	18.74	21.47	23.98	25.07	30.00
5320MHz	Pass	3.60	17.48	18.12	20.82	23.98	24.42	30.00
5500MHz	Pass	4.20	11.52	12.80	15.22	23.98	19.42	30.00
5580MHz	Pass	4.20	18.77	19.22	22.01	23.98	26.21	30.00
5700MHz	Pass	4.20	13.13	13.61	16.39	23.98	20.59	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.20	17.21	18.35	20.83	23.28	25.03	29.28
5720MHz Straddle 5.725-5.85GHz	Pass	4.20	11.38	12.02	14.72	30.00	18.92	36.00
5745MHz	Pass	4.20	18.40	19.36	21.92	30.00	26.12	36.00
5785MHz	Pass	4.20	18.50	19.40	21.98	30.00	26.18	36.00
5825MHz	Pass	4.20	18.05	19.24	21.70	30.00	25.90	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.60	15.67	15.60	18.65	23.98	22.25	30.00
5230MHz	Pass	3.60	17.76	17.96	20.87	23.98	24.47	30.00
5270MHz	Pass	3.60	17.29	17.80	20.56	23.98	24.16	30.00
5310MHz	Pass	3.60	13.09	14.10	16.63	23.98	20.23	30.00
5510MHz	Pass	4.20	14.94	15.28	18.12	23.98	22.32	30.00
5550MHz	Pass	4.20	17.57	17.88	20.74	23.98	24.94	30.00
5670MHz	Pass	4.20	16.70	16.87	19.80	23.98	24.00	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.20	17.04	17.91	20.51	23.98	24.71	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.20	6.04	7.40	9.78	30.00	13.98	36.00
5755MHz	Pass	4.20	17.41	18.30	20.89	30.00	25.09	36.00
5795MHz	Pass	4.20	17.39	18.13	20.79	30.00	24.99	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.60	14.33	14.48	17.42	23.98	21.02	30.00

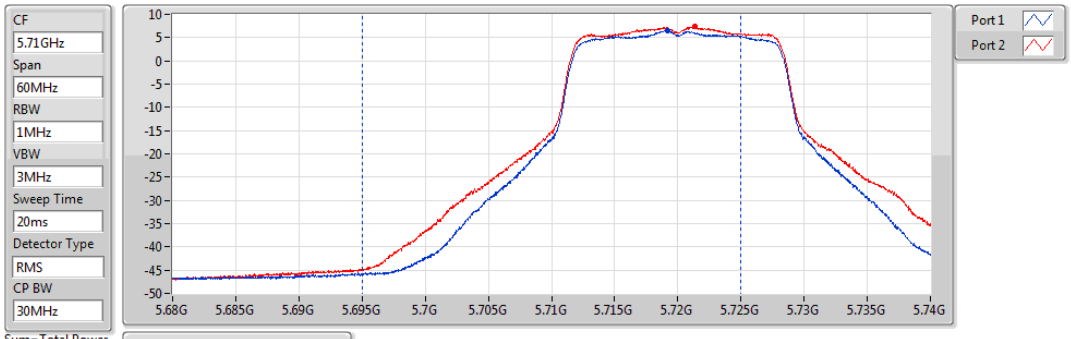
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5290MHz	Pass	3.60	11.22	11.92	14.59	23.98	18.19	30.00
5530MHz	Pass	4.20	14.00	14.74	17.40	23.98	21.60	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.20	13.87	14.80	17.37	23.98	21.57	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.20	0.39	1.22	3.84	30.00	8.04	36.00
5775MHz	Pass	4.20	13.91	14.94	17.47	30.00	21.67	36.00

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

802.11a_Nss1,(6Mbps)_2TX **AV Power**

5720MHz Straddle 5.47-5.725GHz_TnomVnom

15/06/2020



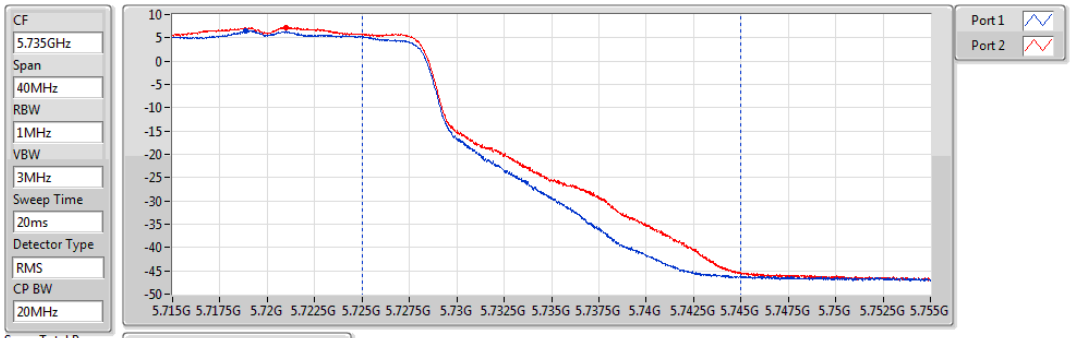
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
19.74	16.26	17.16

802.11a_Nss1,(6Mbps)_2TX **AV Power**

5720MHz Straddle 5.725-5.85GHz_TnomVnom

15/06/2020



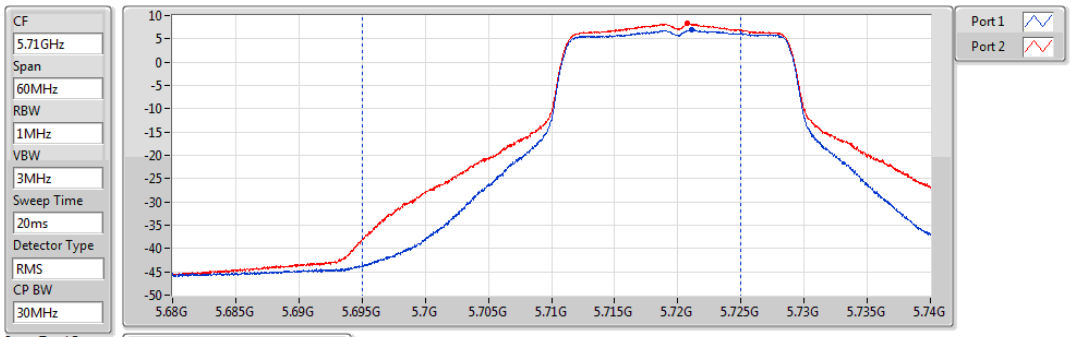
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
12.97	9.41	10.44

802.11ac VHT20_Nss1,(MCS0)_2TX **AV Power**

5720MHz Straddle 5.47-5.725GHz_TnomVnom

15/06/2020



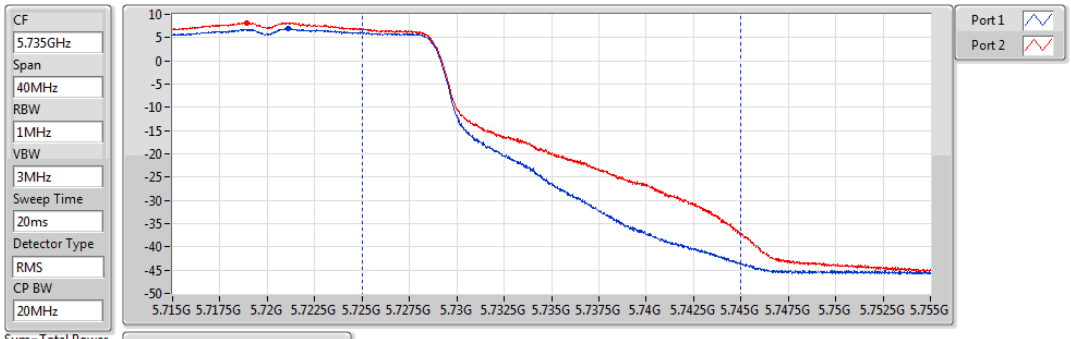
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
20.83	17.21	18.35

802.11ac VHT20_Nss1,(MCS0)_2TX **AV Power**

5720MHz Straddle 5.725-5.85GHz_TnomVnom

15/06/2020



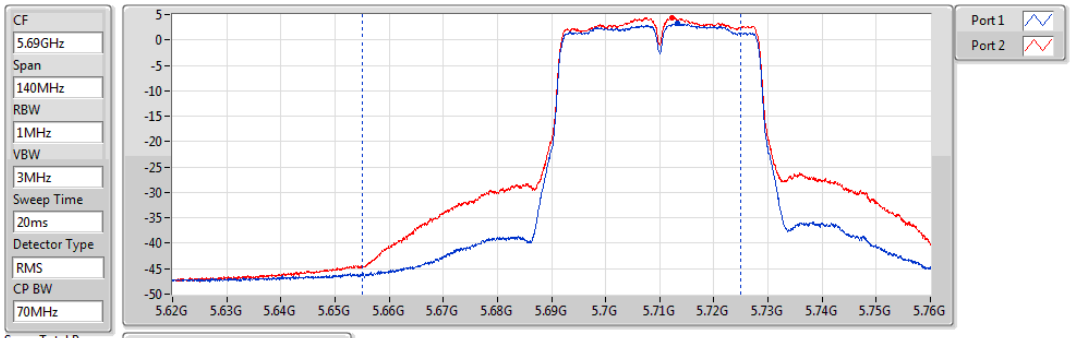
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
14.72	11.38	12.02

802.11ac VHT40_Nss1,(MCS0)_2TX **AV Power**

5710MHz Straddle 5.47-5.725GHz_TnomVnom

15/06/2020



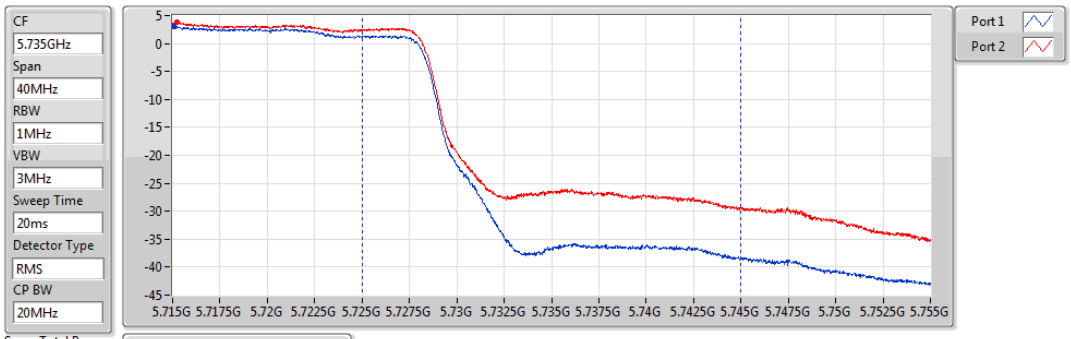
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
20.51	17.04	17.91

802.11ac VHT40_Nss1,(MCS0)_2TX **AV Power**

5710MHz Straddle 5.725-5.85GHz_TnomVnom

15/06/2020



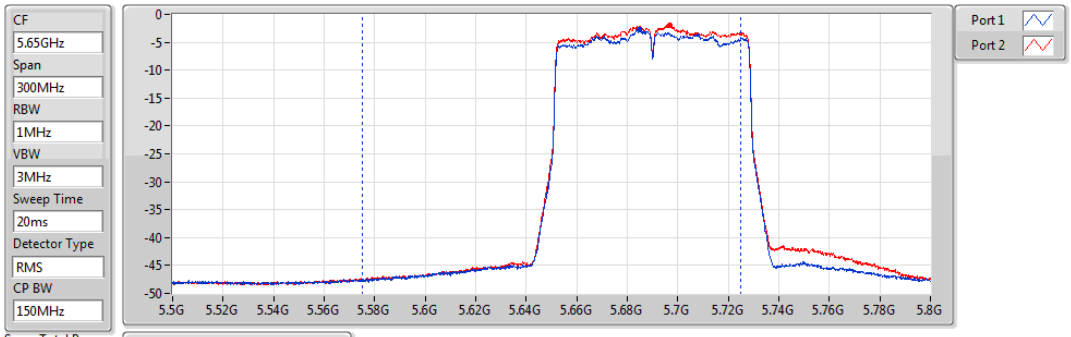
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
9.78	6.04	7.40

802.11ac VHT80_Nss1,(MCS0)_2TX **AV Power**

5690MHz Straddle 5.47-5.725GHz_TnomVnom

15/06/2020



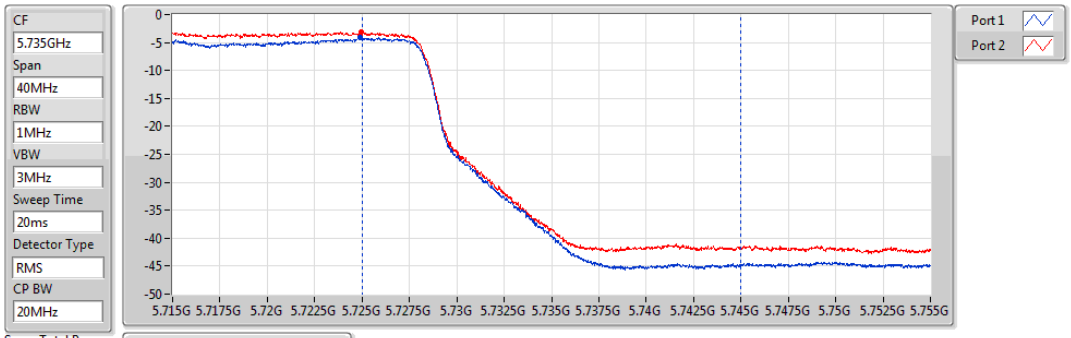
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
17.37	13.87	14.80

802.11ac VHT80_Nss1,(MCS0)_2TX **AV Power**

5690MHz Straddle 5.725-5.85GHz_TnomVnom

15/06/2020



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
3.84	0.39	1.22

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.91	15.52
802.11ac VHT20_Nss1,(MCS0)_2TX	9.43	16.04
802.11ac VHT40_Nss1,(MCS0)_2TX	5.26	11.87
802.11ac VHT80_Nss1,(MCS0)_2TX	-0.92	5.69
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.24	14.85
802.11ac VHT20_Nss1,(MCS0)_2TX	9.05	15.66
802.11ac VHT40_Nss1,(MCS0)_2TX	4.96	11.57
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.14	2.47
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.75	15.96
802.11ac VHT20_Nss1,(MCS0)_2TX	9.49	16.70
802.11ac VHT40_Nss1,(MCS0)_2TX	5.57	12.78
802.11ac VHT80_Nss1,(MCS0)_2TX	-0.93	6.28
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	7.08	14.29
802.11ac VHT20_Nss1,(MCS0)_2TX	8.04	15.25
802.11ac VHT40_Nss1,(MCS0)_2TX	3.88	11.09
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.54	4.67

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

Result

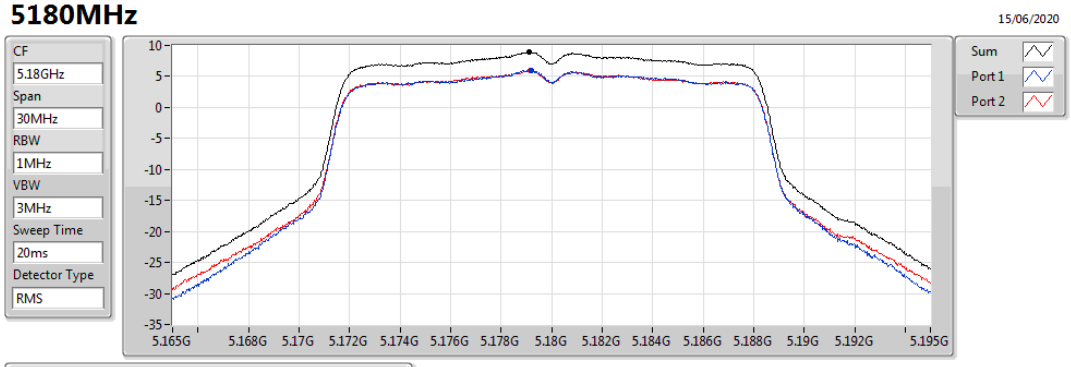
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.61	6.04	5.87	8.91	10.39	15.52	17.00
5200MHz	Pass	6.61	5.61	5.71	8.64	10.39	15.25	17.00
5240MHz	Pass	6.61	5.18	5.69	8.37	10.39	14.98	17.00
5260MHz	Pass	6.61	4.94	5.61	8.24	10.39	14.85	17.00
5300MHz	Pass	6.61	4.90	5.50	8.21	10.39	14.82	17.00
5320MHz	Pass	6.61	4.54	5.14	7.83	10.39	14.44	17.00
5500MHz	Pass	7.21	5.27	6.14	8.70	9.79	15.91	17.00
5580MHz	Pass	7.21	5.54	5.97	8.75	9.79	15.96	17.00
5700MHz	Pass	7.21	3.51	4.16	6.81	9.79	14.02	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.21	5.20	5.80	8.45	9.79	15.66	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.21	2.24	2.81	5.54	28.79	12.75	36.00
5745MHz	Pass	7.21	3.91	4.46	7.08	28.79	14.29	36.00
5785MHz	Pass	7.21	3.47	4.66	7.03	28.79	14.24	36.00
5825MHz	Pass	7.21	3.19	4.46	6.85	28.79	14.06	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.61	5.54	5.29	8.39	10.39	15.00	17.00
5200MHz	Pass	6.61	6.60	6.35	9.43	10.39	16.04	17.00
5240MHz	Pass	6.61	6.00	6.31	9.09	10.39	15.70	17.00
5260MHz	Pass	6.61	6.08	6.05	9.05	10.39	15.66	17.00
5300MHz	Pass	6.61	5.89	6.08	8.96	10.39	15.57	17.00
5320MHz	Pass	6.61	5.20	5.49	8.31	10.39	14.92	17.00
5500MHz	Pass	7.21	-1.55	-0.09	2.19	9.79	9.40	17.00
5580MHz	Pass	7.21	6.40	6.70	9.49	9.79	16.70	17.00
5700MHz	Pass	7.21	0.54	1.23	3.83	9.79	11.04	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.21	5.67	6.88	9.25	9.79	16.46	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.21	3.13	3.98	6.52	28.79	13.73	36.00
5745MHz	Pass	7.21	4.75	5.30	8.04	28.79	15.25	36.00
5785MHz	Pass	7.21	4.22	5.36	7.83	28.79	15.04	36.00
5825MHz	Pass	7.21	3.83	5.14	7.47	28.79	14.68	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.61	0.06	0.10	3.06	10.39	9.67	17.00
5230MHz	Pass	6.61	2.22	2.35	5.26	10.39	11.87	17.00
5270MHz	Pass	6.61	1.86	2.15	4.96	10.39	11.57	17.00
5310MHz	Pass	6.61	-2.54	-1.94	0.73	10.39	7.34	17.00
5510MHz	Pass	7.21	-0.93	0.32	2.74	9.79	9.95	17.00
5550MHz	Pass	7.21	2.23	2.92	5.57	9.79	12.78	17.00
5670MHz	Pass	7.21	1.13	1.63	4.25	9.79	11.46	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	7.21	1.66	2.77	5.21	9.79	12.42	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	7.21	-1.70	-0.30	2.03	28.79	9.24	36.00
5755MHz	Pass	7.21	0.52	1.22	3.88	28.79	11.09	36.00
5795MHz	Pass	7.21	0.09	1.25	3.67	28.79	10.88	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.61	-3.91	-3.91	-0.92	10.39	5.69	17.00

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
5290MHz	Pass	6.61	-7.32	-6.91	-4.14	10.39	2.47	17.00
5530MHz	Pass	7.21	-4.29	-3.42	-0.93	9.79	6.28	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	7.21	-4.22	-3.40	-1.06	9.79	6.15	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	7.21	-7.10	-6.21	-3.62	28.79	3.59	36.00
5775MHz	Pass	7.21	-5.93	-4.98	-2.54	28.79	4.67	36.00

DG = Directional Gain; **RBW** = 500 kHz 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 X power density;

802.11a_Nss1,(6Mbps)_2TX PSD

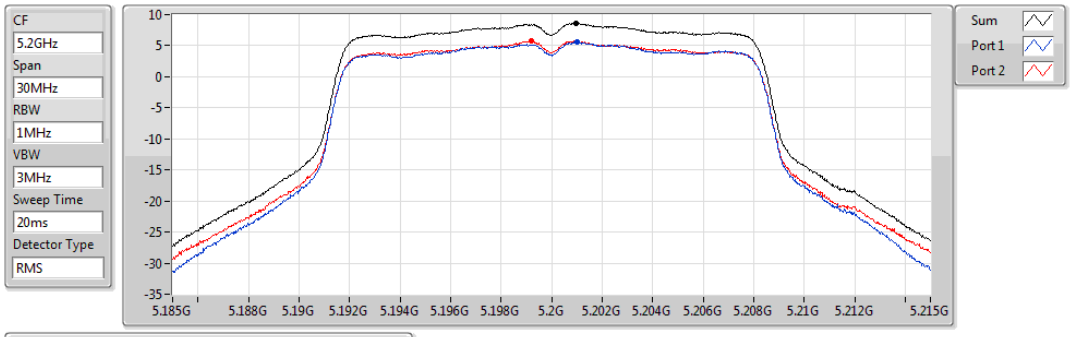
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.91	8.91	6.04	5.87

802.11a_Nss1,(6Mbps)_2TX PSD

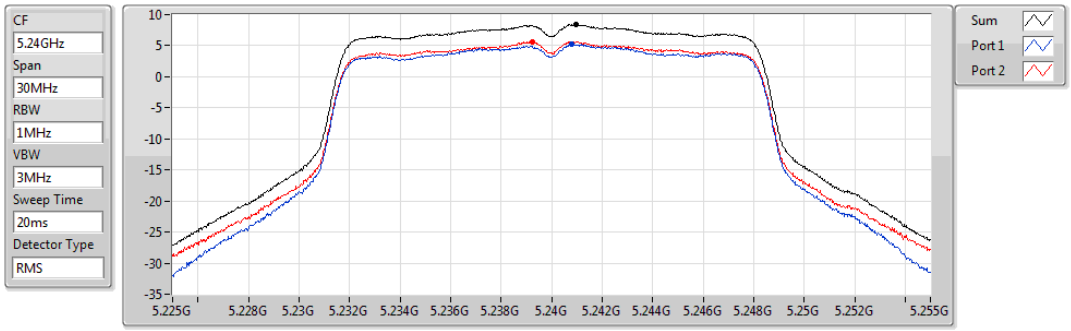
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.64	8.64	5.61	5.71

802.11a_Nss1,(6Mbps)_2TX PSD

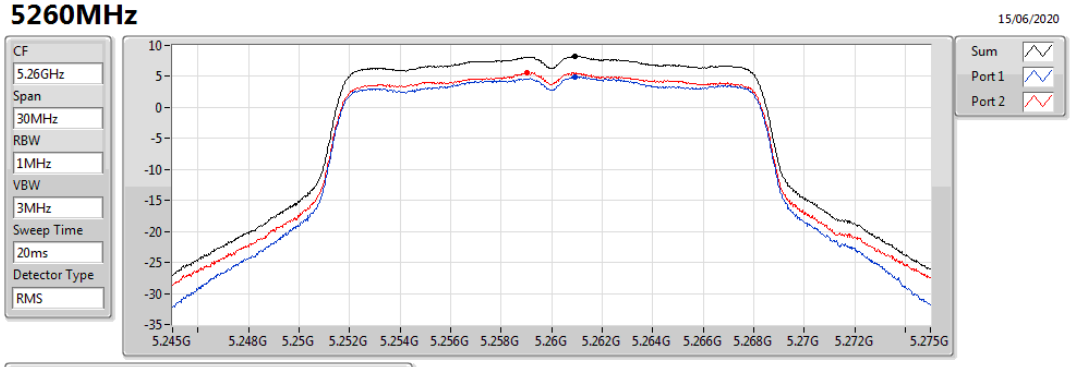
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.37	8.37	5.18	5.69

802.11a_Nss1,(6Mbps)_2TX PSD

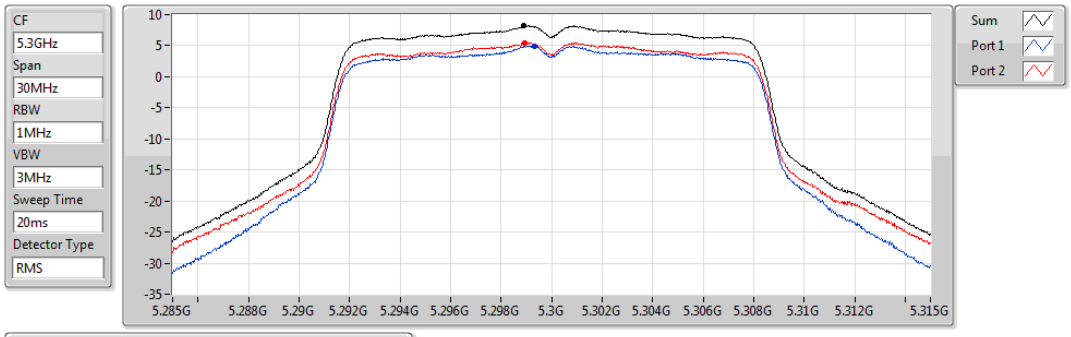
5260MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.24	8.24	4.94	5.61

802.11a_Nss1,(6Mbps)_2TX PSD

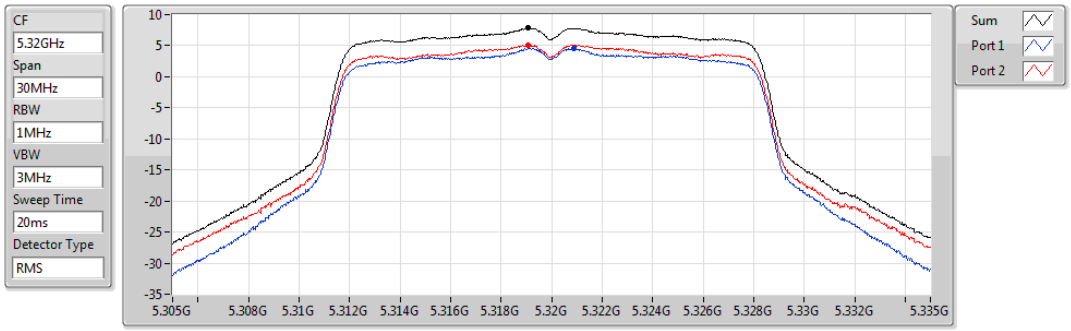
5300MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.21	8.21	4.90	5.50

802.11a_Nss1,(6Mbps)_2TX PSD

5320MHz

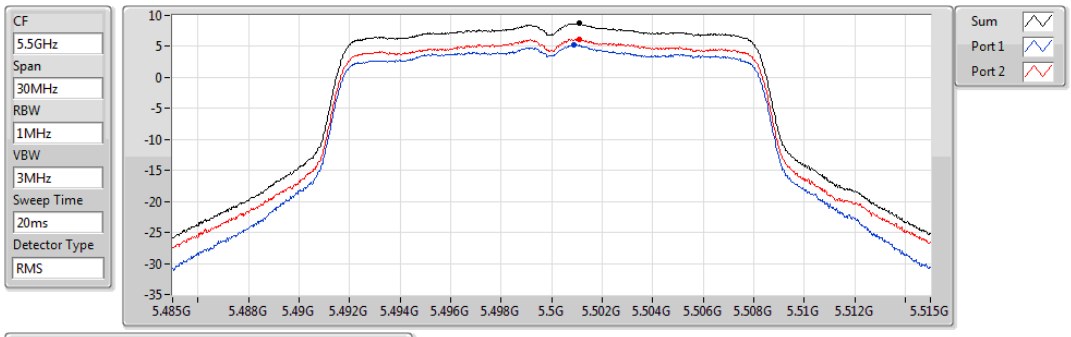


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.83	7.83	4.54	5.14

802.11a_Nss1,(6Mbps)_2TX PSD

5500MHz

15/06/2020

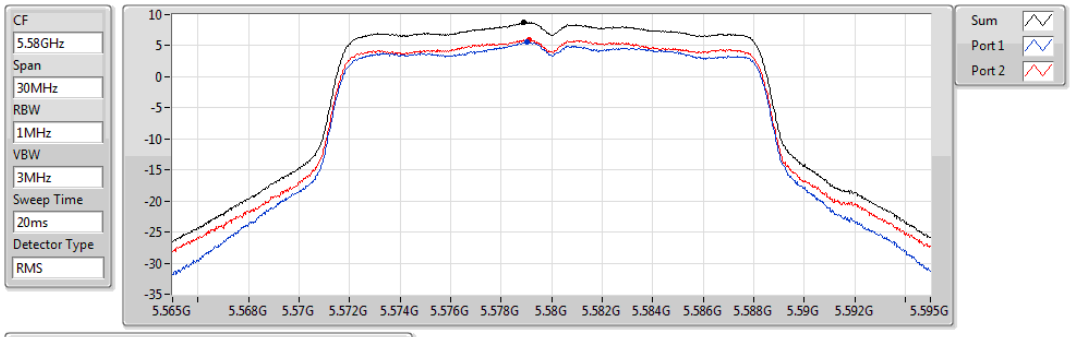


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.70	8.70	5.27	6.14

802.11a_Nss1,(6Mbps)_2TX PSD

5580MHz

15/06/2020

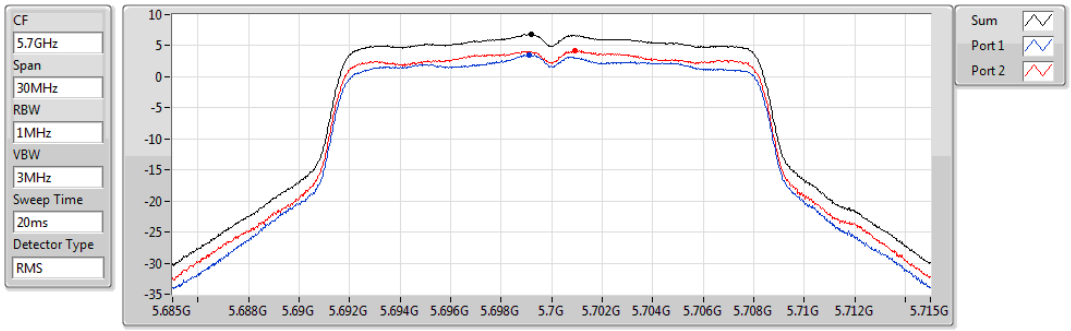


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.75	8.75	5.54	5.97

802.11a_Nss1,(6Mbps)_2TX PSD

5700MHz

18/06/2020

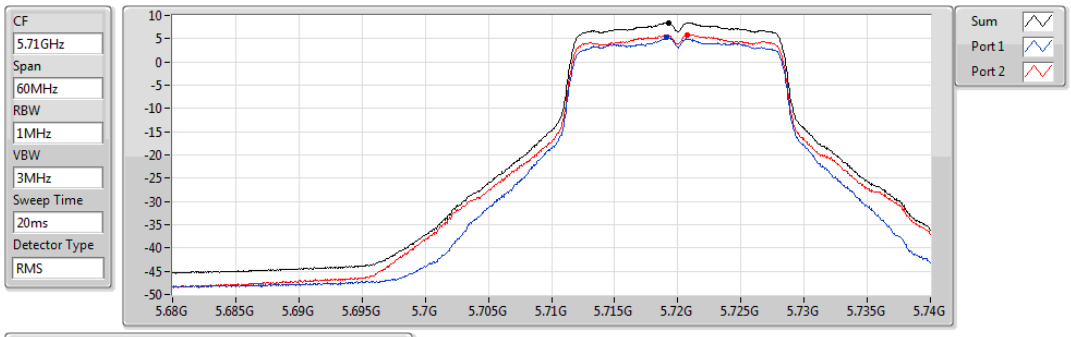


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.81	6.81	3.51	4.16

802.11a_Nss1,(6Mbps)_2TX PSD

5720MHz Straddle 5.47-5.725GHz

15/06/2020

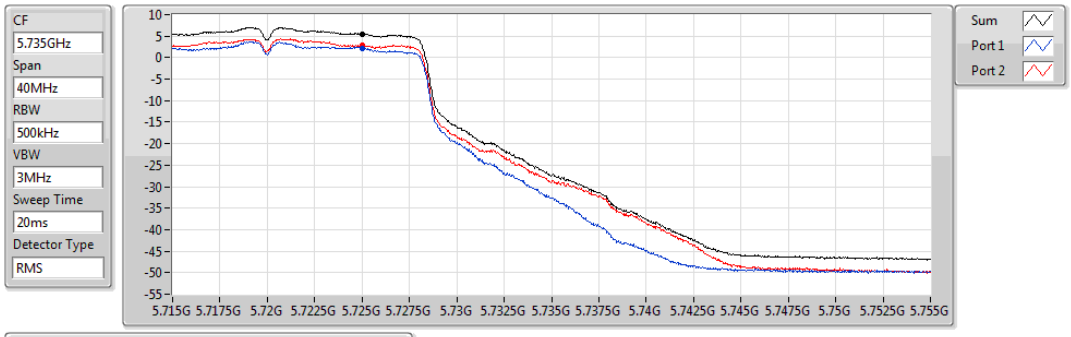


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.45	8.45	5.20	5.80

802.11a_Nss1,(6Mbps)_2TX PSD

5720MHz Straddle 5.725-5.85GHz

15/06/2020

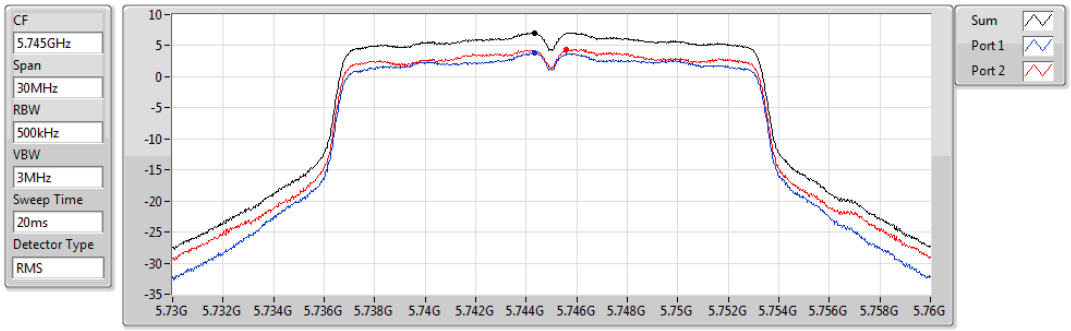


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.54	5.54	2.24	2.81

802.11a_Nss1,(6Mbps)_2TX PSD

5745MHz

15/06/2020

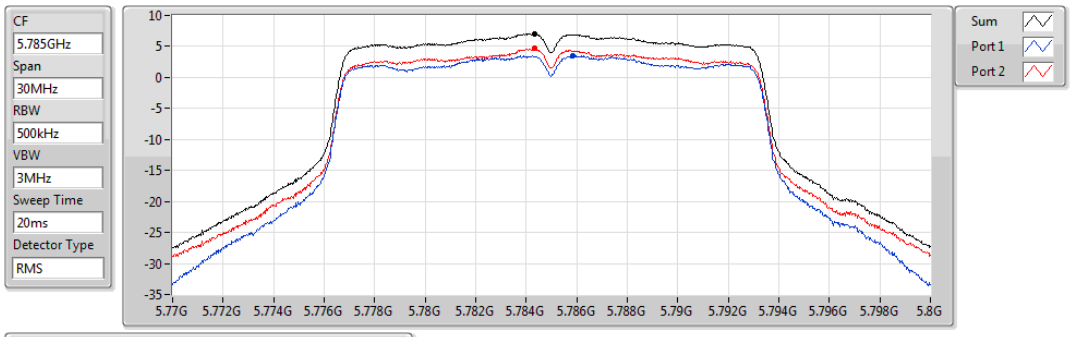


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.08	7.08	3.91	4.46

802.11a_Nss1,(6Mbps)_2TX PSD

5785MHz

15/06/2020

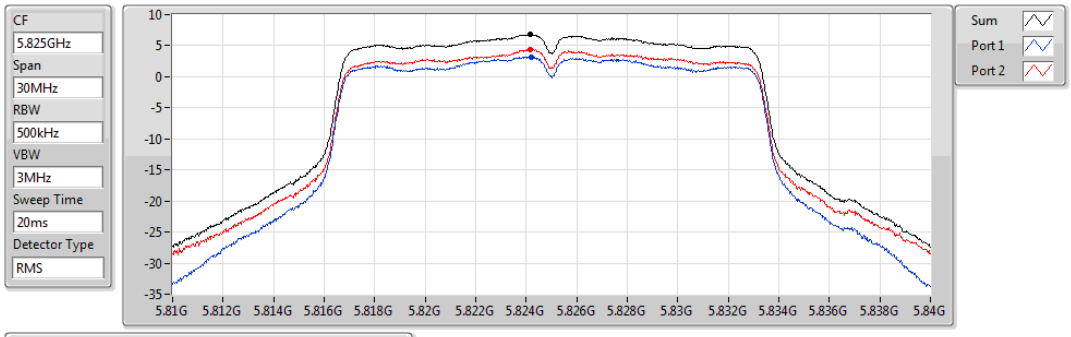


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.03	7.03	3.47	4.66

802.11a_Nss1,(6Mbps)_2TX PSD

5825MHz

15/06/2020

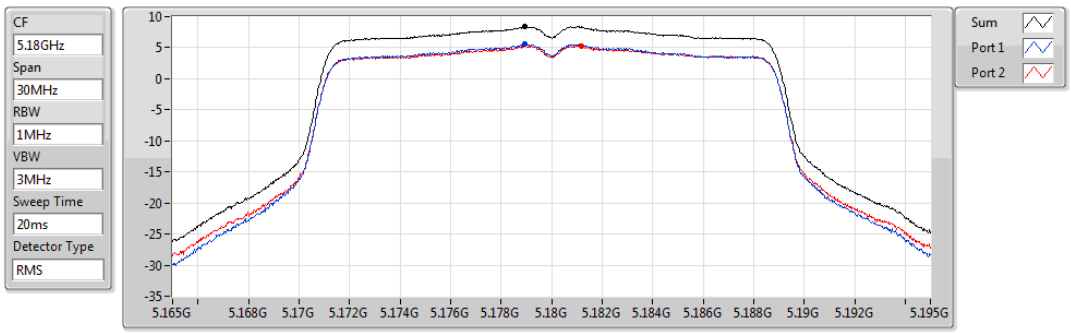


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.85	6.85	3.19	4.46

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5180MHz

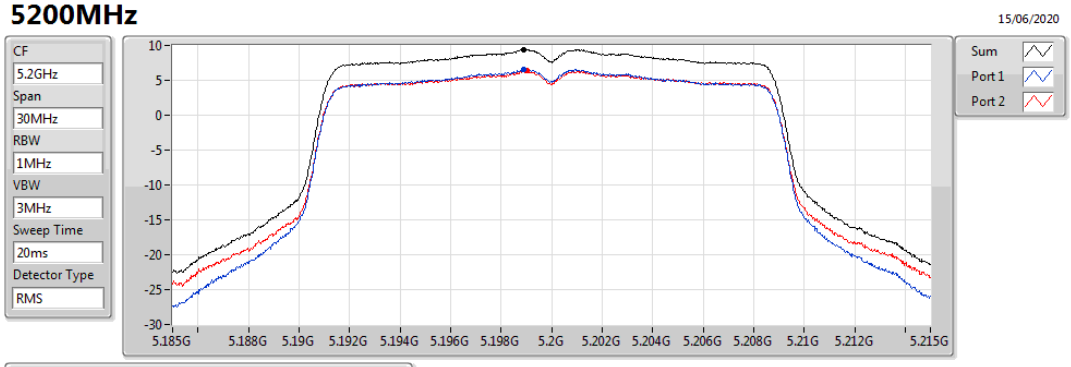
18/06/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.39	8.39	5.54	5.29

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

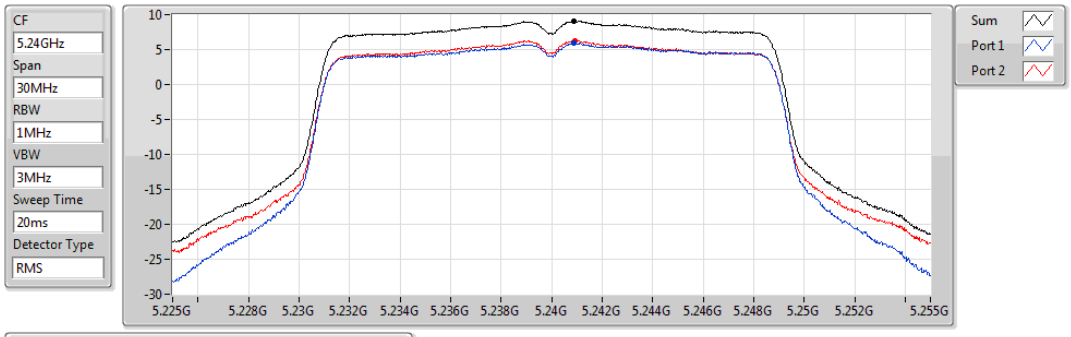
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.43	9.43	6.60	6.35

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

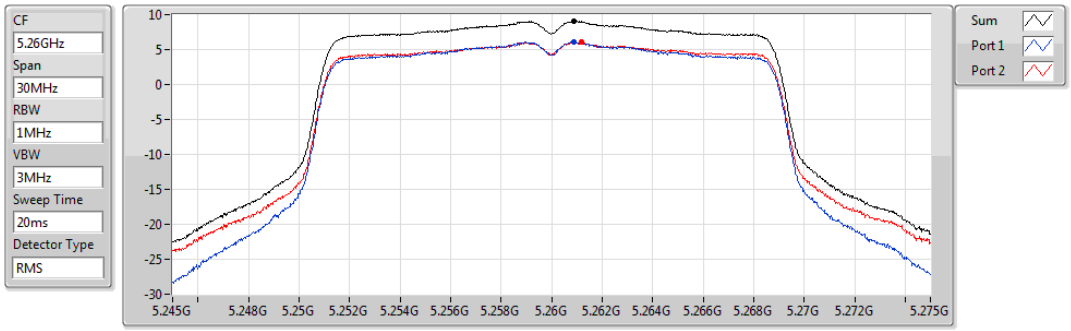
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.09	9.09	6.00	6.31

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5260MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.05	9.05	6.08	6.05