FCC Test Report

Equipment	:	**AC1350 Wireless Dual Band Router**
Brand Name	:	**TP-LINK**
Model No.	:	**Archer C59**
FCC ID	:	**TE7C59**
Standard	:	**47 CFR FCC Part 15.407**
Frequency	:	**5150 MHz – 5250 MHz** **5725 MHz – 5850 MHz**
FCC Classification	:	**NII**
Applicant / Manufacturer	:	**TP-LINK TECHNOLOGIES CO., LTD.** Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China

The product sample received on May 20, 2016 and completely tested on Sep. 05 2016. We, SPORTON, 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., the test report shall not be reproduced except in full.

Reviewed by:

Kevin Liang / Assistant Manager

Testing Laboratory
1190

Table of Contents

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 The Worst Case Modulation Configuration 10
2.3 Test Channel Mode 10
2.4 The Worst Case Measurement Configuration 13
2.5 Accessories and Support Equipment 14
2.6 Test Setup Diagram 15

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 Transmitter Bandedge Emissions 24
3.6 Transmitter Unwanted Emissions 28
3.7 Frequency Stability 32

4 TEST EQUIPMENT AND CALIBRATION DATA 33

Appendix I. Test Result of AC Power-line Conducted Emissions

Appendix A. Test Result of Emission Bandwidth

Appendix B. Test Result of Maximum Conducted Output Power

Appendix C. Test Result of Power Spectral Density

Appendix D. Transmitter Bandedge Emissions

Appendix E. Transmitter Unwanted Emissions

Appendix F. Frequency Stability

Appendix G. Test Photos

Appendix H. Photographs of EUT

Summary of Test Result

Conformance Test Specifications			
Report Clause	**Ref. Std. Clause**	**Description**	**Result**
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	Maximum Conducted Output Power	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Unwanted Emissions	Complied
3.7	15.407(g)	Frequency Stability	Complied

Revision History

Report No.	Version	Description	Issued Date
FR651919AN	Rev. 01	Initial issue of report	Sep. 19, 2016
FR651919AN	Rev. 02	mark antenna port in the EP.	Oct. 26, 2016

1 General Description

1.1 Information

1.1.1 RF General Information

Band	Mode	BWch (MHz)	Channel Number	Nss-Min	Nant
5.2G	11a	20	36-48 [4]	1	2
5.2G	HT20	20	36-48 [4]	1,(M0-15)	2
5.2G	HT40	40	38-46 [2]	1,(M0-15)	2
5.2G	VHT20	20	36-48 [4]	1,(M0-8)	2
5.2G	VHT40	40	38-46 [2]	1,(M0-9)	2
5.2G	VHT80	80	42 [1]	1,(M0-9)	2
5.8G	11a	20	149-165 [5]	1	2
5.8G	HT20	20	149-165 [5]	1,(M0-15)	2
5.8G	HT40	40	151-159 [2]	1,(M0-15)	2
5.8G	VHT20	20	149-165 [5]	1,(M0-8)	2
5.8G	VHT40	40	151-159 [2]	1,(M0-9)	2
5.8G	VHT80	80	155 [1]	1,(M0-9)	2

Note:
- 5.2G is the 5.2GHz Band (5.15-5.25GHz).
- 5.8G is the 5.8GHz Band (5.725-5.850GHz).
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Antenna Category	
☐	Equipment placed on the market without antennas
☐	Integral antenna (antenna permanently attached)
	☐ Temporary RF connector provided
	☐ No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
☒	External antenna (dedicated antennas)
	☒ Single power level with corresponding antenna(s).
	☐ Multiple power level and corresponding antenna(s).

Antenna General Information				
No.	Ant. Cat.	Ant. Type	Gain (dBi)	Frequency Band
A	External	Dipole	4.80	5G
B	External	Dipole	4.69	5G

Note : also mark antenna port in the EP.

1.1.3 Type of EUT

Identify EUT	
EUT Serial Number	N/A
Presentation of Equipment	☒ Production ; ☐ Pre-Production ; ☐ Prototype
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

Operated Mode for Worst Duty Cycle	
☒ Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	**Power Duty Factor [dB] – (10 log 1/x)**
☒ 96.70% - IEEE 802.11n (11a)	0.15
☒ 96.40% - IEEE 802.11n (HT20)	0.16
☒ 93.10% - IEEE 802.11n (HT40)	0.31
☒ 96.40% - IEEE 802.11ac (VHT20)	0.16
☒ 93.10% - IEEE 802.11ac (VHT40)	0.31
☒ 87.10% - IEEE 802.11ac (VHT80)	0.60

Mode	DC	T(s)	VBW(Hz) ≥ 1/T
11a	0.967	2.065m	1k
HT20	0.964	1.925m	1k
HT40	0.931	948.75u	3k
VHT20	0.964	1.933m	1k
VHT40	0.931	953.125u	3k
VHT80	0.871	465u	3k

1.1.5 EUT Operational Condition

Supply Voltage	☒ AC mains	☐ DC	
Type of DC Source	☒ External AC adapter	☐ From Host System	☐ Battery
Test Voltage	☒ Vnom (110 V)	☒ Vmax (126.5 V)	☒ Vmin (93.5 V)
Test Climatic	☒ Tnom (20℃)	☒ Tmax (35℃)	☒ Tmin (0℃)

1.1.6 EUT Operate Information

Items	Description			
Communication Mode	☒	IP Based (Load Based)	☐	Frame Based
TPC Function	☐	With TPC	☒	Without TPC
TDWR Band (5600~5650MHz)	☐	With 5600~5650MHz	☒	Without 5600~5650MHz
Beamforming Function	☐	With beamforming	☒	Without beamforming
Operate Condition	☒	Indoor	☐	Outdoor
	☐	Fixed P2P	☐	Portable Client
Operate Mode	☒	Master		

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
- FCC KDB 789033 D02 v01r03
- FCC-16-24-UNII
- FCC KDB 662911 D01 v02r01
- FCC KDB 644545 D03 v01

1.3 Testing Location Information

Testing Location						
☒	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.			
		TEL :	886-3-327-3456	FAX :	886-3-327-0973	
Test Condition		Test Site No.	Test Engineer	Test Environment	Test Date	
AC Conduction		CO01-HY	Joe	23.5°C / 63.7%	24/08/2016	
RF Conducted		TH01-HY	Gary	23.8°C / 65%	05/09/2016	
Radiated		03CH09-HY	Thor	23.5°C / 63.7%	01/09/2016	

Test site registered number [553509] with FCC.

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)

Measurement Uncertainty		
Test Item		**Uncertainty**
AC power-line conducted emissions		±2.26 dB
Emission bandwidth, 26dB bandwidth		±1.42 %
RF output power, conducted		±0.63 dB
Power density, conducted		±0.81 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.38 dB
	0.15 – 30 MHz	±0.42 dB
	30 – 1000 MHz	±0.51 dB
	1 – 18 GHz	±0.67 dB
	18 – 40 GHz	±0.83 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.49 dB
	0.15 – 30 MHz	±2.28 dB
	30 – 1000 MHz	±2.56 dB
	1 – 18 GHz	±3.59 dB
	18 – 40 GHz	±3.82 dB
	40 – 200 GHz	N/A
Temperature		±0.8 ℃
Humidity		±3 %
DC and low frequency voltages		±3 %
Time		±1.42 %
Duty Cycle		±1.42 %

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TN,VN	TN	20°C
-	VN	110V
Radiated EMI	Remark	-
AC Adapter	T120150-2B1	-
Radiated RF	Remark	-
TX	T120150-2B1	-
Radiated Cabinet	Remark	-
Freq. Stability	Abbreviation	Remark
TN,VN	-	110V
TN,VL	-	93.5
TN,VH	-	126.5
T35,VN	-	35°C
T30,VN	-	30°C
T20,VN	-	20°C
T10,VN	-	10°C
T0,VN	-	0°C

2.2 The Worst Case Modulation Configuration

Worst Modulation Used for Conformance Testing			
Modulation Mode	**Transmit Chains (N_{TX})**	**Data Rate / MCS**	**Worst Data Rate / MCS**
11a	2	6-54Mbps	6 Mbps
HT20	2	MCS 0-15	MCS 0
HT40	2	MCS 0-15	MCS 0
VHT20	2	MCS 0-8	MCS 0
VHT40	2	MCS 0-9	MCS 0
VHT80	2	MCS 0-9	MCS 0

2.3 Test Channel Mode

Test Software Version	QCARCT V3.0.144.0

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
5.2G	11a	20	1	2	5180	L	20

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
5.2G	11a	20	1	2	5200	M	24
5.2G	11a	20	1	2	5240	H	23.5
5.2G	HT20	20	1,(M0-15)	2	5180	L	18.5
5.2G	HT20	20	1,(M0-15)	2	5200	M	24
5.2G	HT20	20	1,(M0-15)	2	5240	H	24
5.2G	VHT20	20	1,(M0-8)	2	5180	L	18.5
5.2G	VHT20	20	1,(M0-8)	2	5200	M	24
5.2G	VHT20	20	1,(M0-8)	2	5240	H	24
5.2G	HT40	40	1,(M0-15)	2	5190	L	14.5
5.2G	HT40	40	1,(M0-15)	2	5230	H	23.5
5.2G	VHT40	40	1,(M0-9)	2	5190	L	14.5
5.2G	VHT40	40	1,(M0-9)	2	5230	H	23.5
5.2G	VHT80	80	1,(M0-9)	2	5210	S	12.5

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
5.8G	11a	20	1	2	5745	L	23
5.8G	11a	20	1	2	5785	M	23
5.8G	11a	20	1	2	5825	H	28
5.8G	HT20	20	1,(M0-15)	2	5745	L	23
5.8G	HT20	20	1,(M0-15)	2	5785	M	23
5.8G	HT20	20	1,(M0-15)	2	5825	H	28
5.8G	VHT20	20	1,(M0-8)	2	5745	L	23
5.8G	VHT20	20	1,(M0-8)	2	5785	M	23
5.8G	VHT20	20	1,(M0-8)	2	5825	H	28
5.8G	HT40	40	1,(M0-15)	2	5755	L	22
5.8G	HT40	40	1,(M0-15)	2	5795	H	26
5.8G	VHT40	40	1,(M0-9)	2	5755	L	22
5.8G	VHT40	40	1,(M0-9)	2	5795	H	26
5.8G	VHT80	80	1,(M0-9)	2	5775	S	19.5

Abbreviation Explanation

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Test Cond.	Abbreviation
5.2G	VHT40	40	1,(M0-9)	2	5190	L	TN,VN	5.2G;VHT40;40;2,(M0-9);2;5190;L;TN,VN
5.2G	VHT80	80	1,(M0-9)	2	5210	S	TN,VN	5.2G;VHT80;80;2,(M0-9);2;5210;S;TN,VN

Note:
- Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch. or Intra- band Ch.) and C (Inter-band Ch.).

2.4 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 Test Voltage: 120Vac / 60Hz
Operating Mode	Operating Mode Description
1	Adapter Mode

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

The Worst Case Mode for Following Conformance Tests			
Tests Item	Transmitter Bandedge Emissions , Transmitter 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.		
User Position	☐ EUT will be placed in fixed position.		
	☒ EUT will be placed in mobile position and operating multiple positions.		
	☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode < 1GHz	☒ 1. Adapter Mode		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
Worst Planes of EUT	V		
Worst Planes of Ant.			V

Note : Based on 802.11ac EIRP power was the worst case. Therefore only 802.11ac was tested.

2.5 Accessories and Support Equipment

Accessories				
AC Adapter	Brand Name	TP-LINK	Model Name	T120150-2B1
	Power Rating	I/P: 100 – 240 Vac, 600 mA, O/P: 12 Vdc, 1500mA		

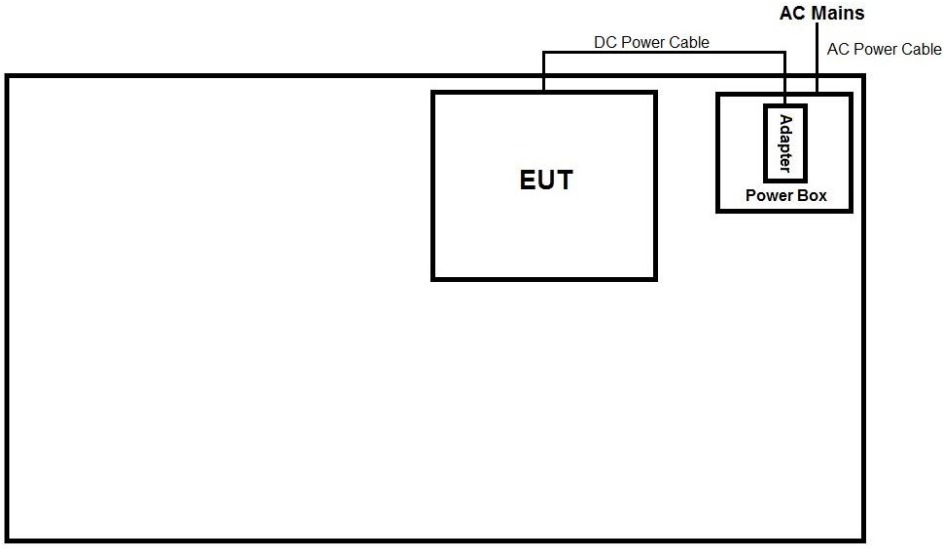
Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment - RF Conducted			
No.	**Equipment**	**Brand Name**	**Model Name**
1	Notebook	DELL	5540
2	AC Adapter for Notebook	DELL	HA65NM130

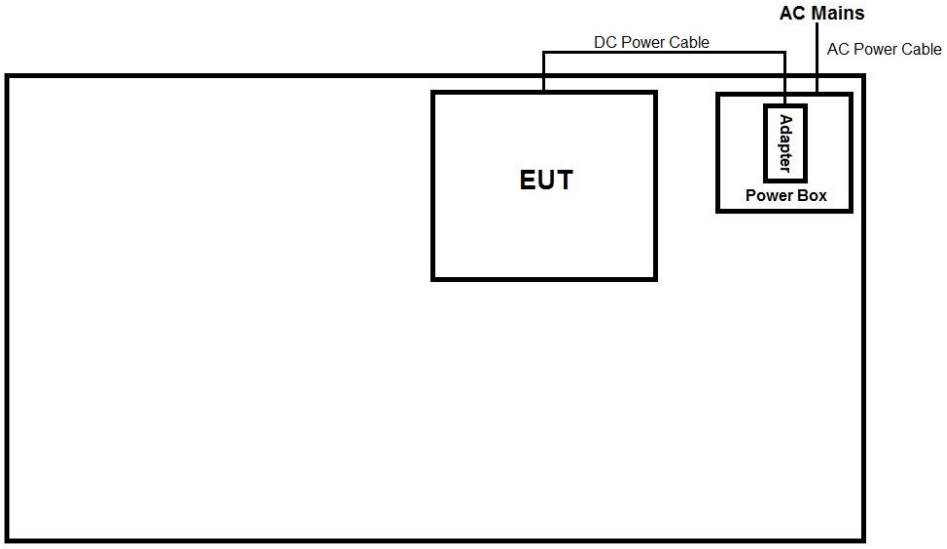
Support Equipment - AC Conduction and Radiated Emission			
No.	**Equipment**	**Brand Name**	**Model Name**
1	-	-	-

2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Test Setup Diagram – Radiated Emission Test



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

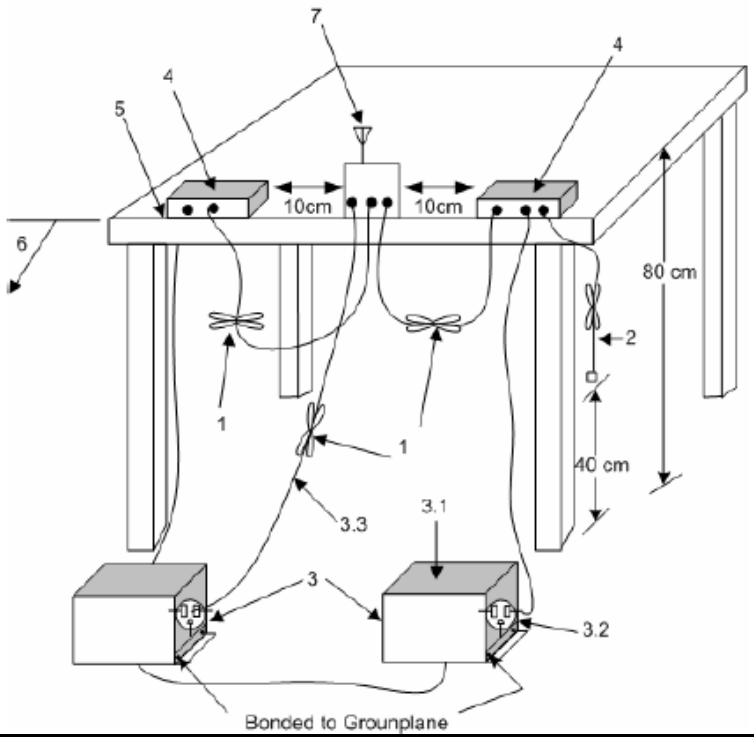
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix I

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

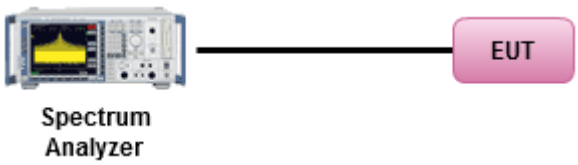
3.2.2 Measuring Instruments

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 FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
	☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
	☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

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.	

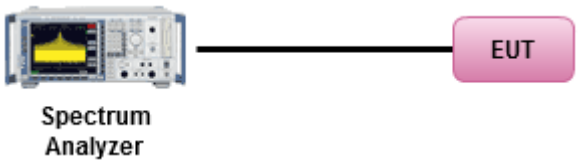
3.3.2 Measuring Instruments

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% or external video / power trigger]
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☒ Refer as FCC 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 FCC 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 FCC 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)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

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.	

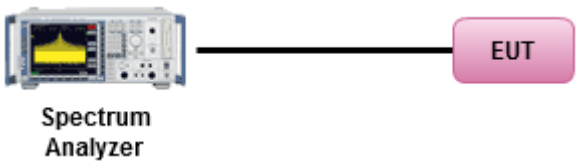
3.4.2 Measuring Instruments

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 FCC 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% or external video / power trigger]		
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).		
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)		
	duty cycle < 98% and average over on/off periods with duty factor		
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).		
	☒ Refer as FCC 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:		
		☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC 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 N_{TX} 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.	
		☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	
		☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.	
	▪	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 Directional Gain for Power Spectral Density Measurement

Directional Gain (DG) Result					
Transmit Chains No.		1	2	-	-
Maximum G_{ANT} (dBi)		4.80	4.69	-	-
Modulation Mode	**DG (dBi)**	**N_{TX}**	**N_{SS}**	**STBC**	**Array Gain (dB)**
11a,6-54Mbps	7.76	2	1	-	3.01
HT20,M0-15	7.76	2	1	-	3.01
HT40,M0-15	7.76	2	1	-	3.01
VHT20,M0-8	7.76	2	1	-	3.01
VHT40,M0-9	7.76	2	1	-	3.01
VHT80,M0-9	7.76	2	1	-	3.01

Note 1: For all transmitter outputs with equal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain = $G_{ANT} + 10 \log(N_{TX})$
All transmit signals are completely uncorrelated, Directional Gain = G_{ANT}
Note 2: For all transmitter outputs with unequal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain $=10 \log[(10^{G1/20} +\ldots + 10^{GN/20})^2 /N_{TX}]$
All transmit signals are completely uncorrelated, Directional Gain $= 10 \log[(10^{G1/10} +\ldots + 10^{GN/10)}/N_{TX}]$
Note 3: For Spatial Multiplexing, Directional Gain (DG) = $G_{ANT} + 10 \log(N_{TX}/N_{SS})$,
where Nss = the number of independent spatial streams data.
Note 4: For CDD transmissions, directional gain is calculated as power spectral density measurements:
Directional Gain (DG) = G_{ANT} + Array Gain, where Array Gain is as follows:
Array Gain = $10 \log(N_{TX}/N_{SS})$;

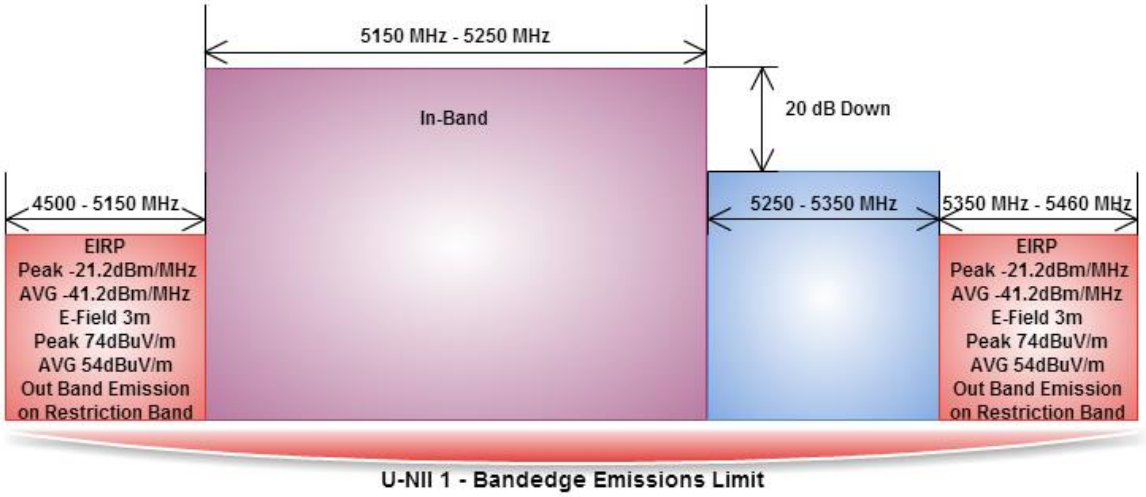
3.4.6 Test Result of Peak Power Spectral Density

Refer as Appendix C

3.5 Transmitter Bandedge Emissions

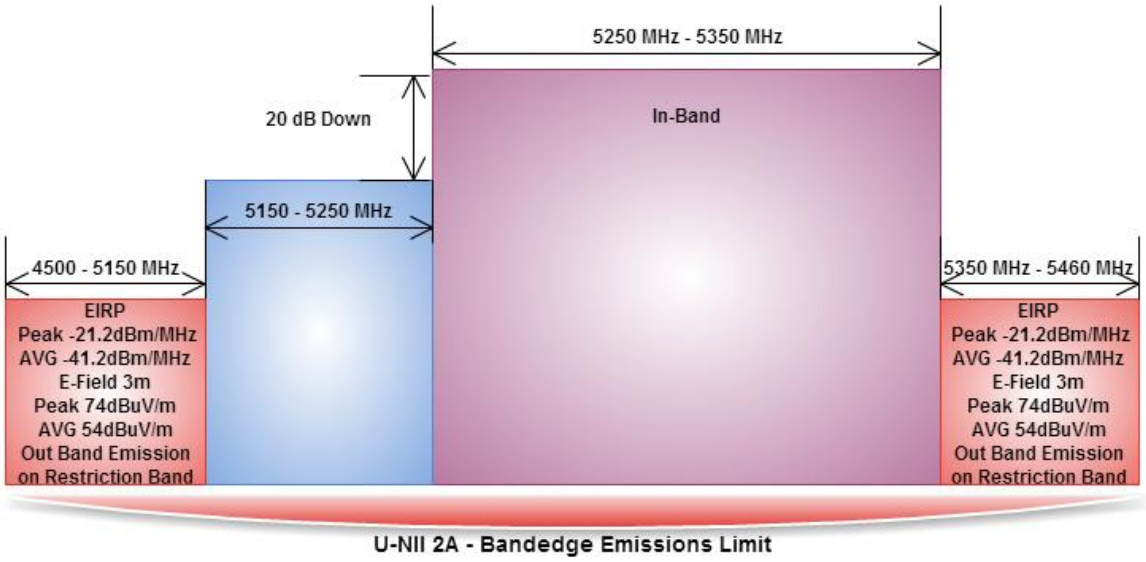
3.5.1 Transmitter Radiated Bandedge Emissions Limit

Transmitter Radiated Bandedge Emissions Limit: 5.15-5.25 GHz band



Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

Transmitter Radiated Bandedge Emissions Limit: 5.25-5.35 GHz band

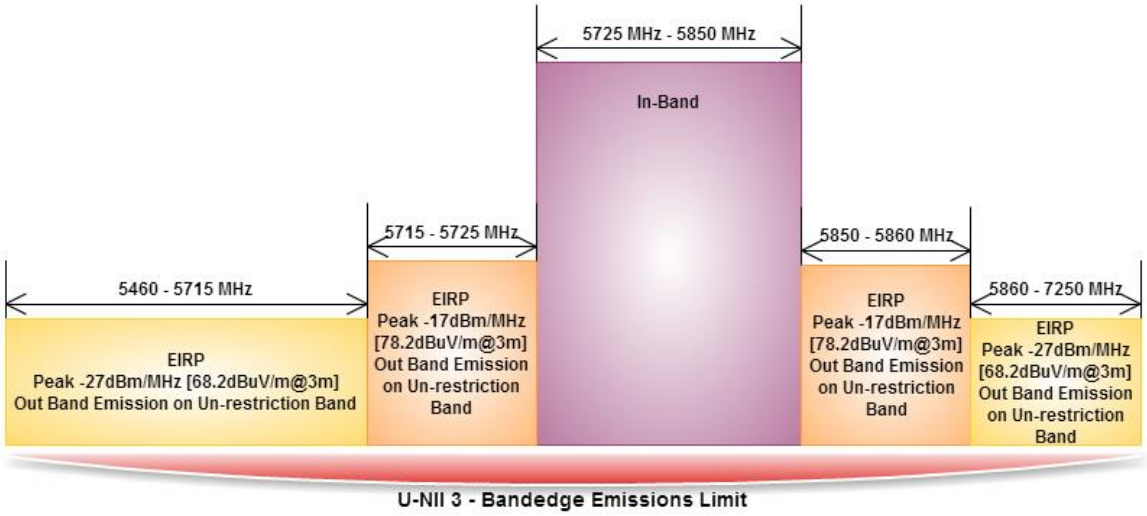


Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

Transmitter Radiated Bandedge Emissions Limit: 5.47-5.725 GHz band

Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

Transmitter Radiated Bandedge Emissions Limit for 5.8GHz band: 5.725-5.85 GHz band



Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

3.5.2 Measuring Instruments

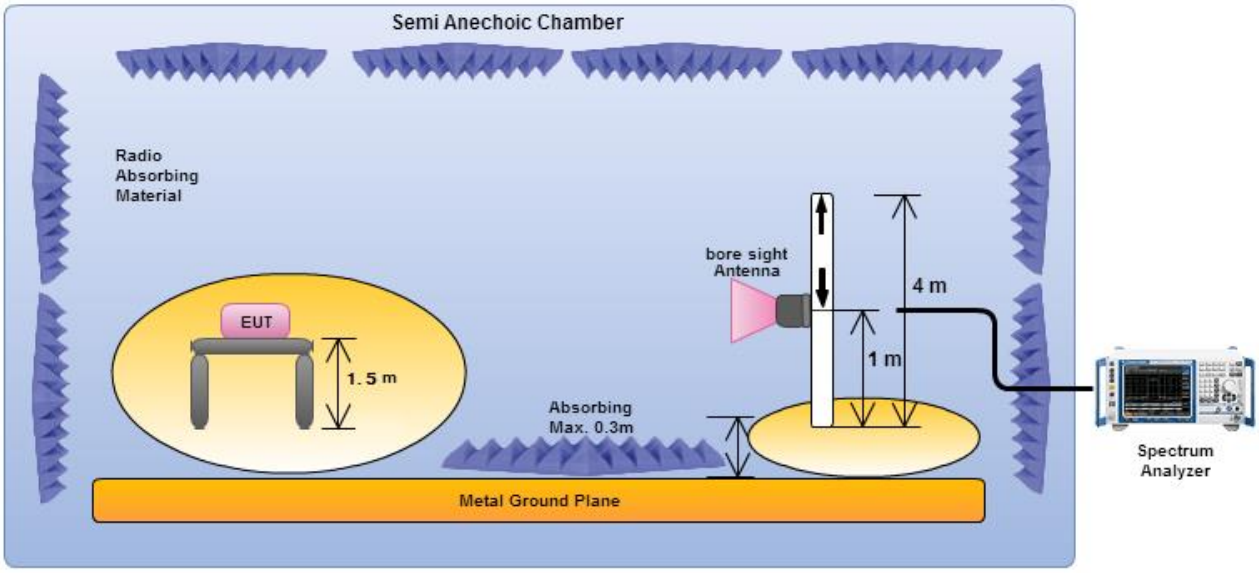
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method			
☒	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
☒	Refer as ANSI C63.10, clause 6.10 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.		
☐	If EUT operate in adjacent contiguous bands, bandedge testing performed at the lowest frequency channel at lower-band and highest frequency channel at higher-band. Transmitter in-band emissions will consist of adjacent contiguous bands (e.g., IEEE 802.11ac VHT160 The lowest frequency channel at lower-band and highest frequency channel at higher-band in-band emissions will consist of two adjacent contiguous bands.)		
	☐	Operating in 5.15-5.25 GHz band (lower-band) and 5.25-5.35 GHz band (higher-band).	
	☐	Operating in 5.47-5.725 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).	
☐	If EUT operate in individual non-contiguous bands, bandedge testing performed at the lowest frequency channel and highest frequency channel within lower-band and higher-band. (e.g., (e.g., IEEE 802.11ac VHT160)		
	☐	Operating in 5.25-5.35 GHz band (lower-band) and 5.47-5.725 GHz band (higher-band).	
	☐	Operating in 5.15-5.25 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).	
☒	For the transmitter unwanted emissions shall be measured using following options below:		
	☒	Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.	
	☒	Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.	
		☐	Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
		☐	Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
		☒	Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.
		☒	Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
		☐	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
☒	For the transmitter bandedge emissions shall be measured using following options below:		
	☐	Refer as FCC KDB 789033, clause G)3)d) for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).	
	☒	Refer as ANSI C63.10, clause 6.10 for band-edge testing.	
	☐	Refer as ANSI C63.10, clause 6.10.6.2 for marker-delta method for band-edge measurements.	
☒	For radiated measurement, refer as ANSI C63.10, clause 6.6. Test distance is 3m.		
☒	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). Measurements in the bandedge are typically made at a closer distance 3m, because the instrumentation noise floor is typically close to the radiated emission limit.		

3.5.4 Test Setup

Transmitter Radiated Bandedge Emissions



Electric field tests shall be performed in transmitter bandedge emissions using a calibrated horn antenna.

3.5.5 Transmitter Radiated Bandedge Emissions

Refer as Appendix D

3.6 Transmitter Unwanted Emissions

3.6.1 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.

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]

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).

3.6.2 Measuring Instruments

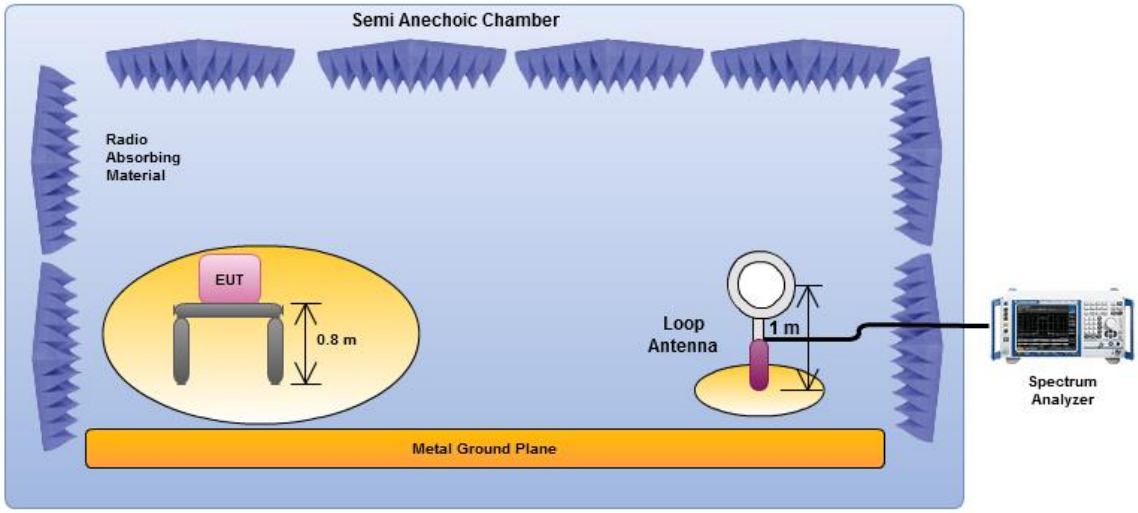
Refer a test equipment and calibration data table in this test report.

3.6.3 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 FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.	
	☒	Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.	
		☐	Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
		☐	Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
		☒	Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.
		☒	Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
		☐	Refer as 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. For 1 GHz to 5 GHz, test distance is 3m; For 5 GHz to 40 GHz, test distance is 3m.	
☒	The any unwanted emissions level shall not exceed the fundamental emission level.		
☒	All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.		

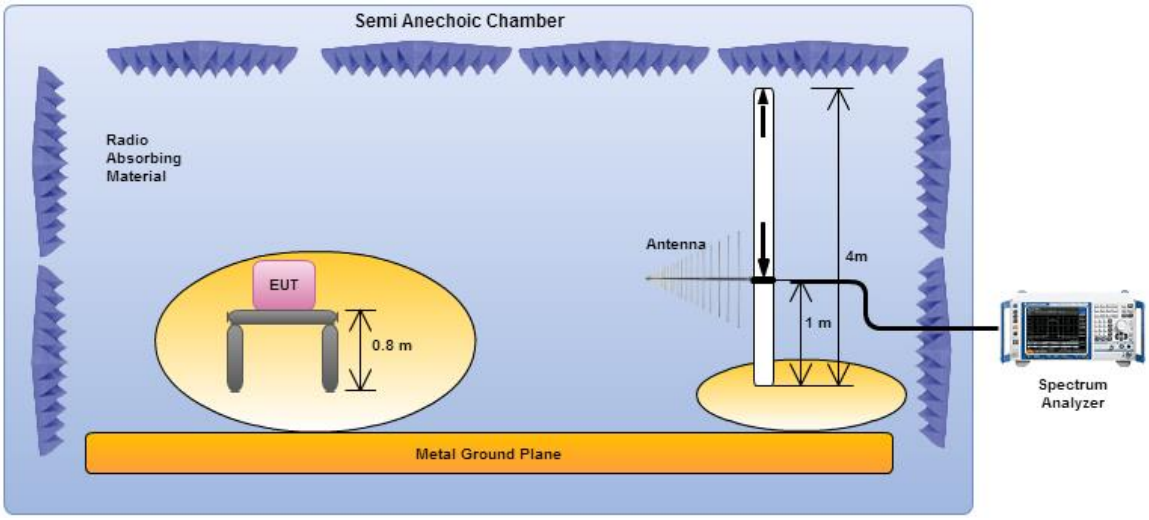
3.6.4 Test Setup

Transmitter Spurious and Out of Band Emissions (9 kHz - 30 MHz)



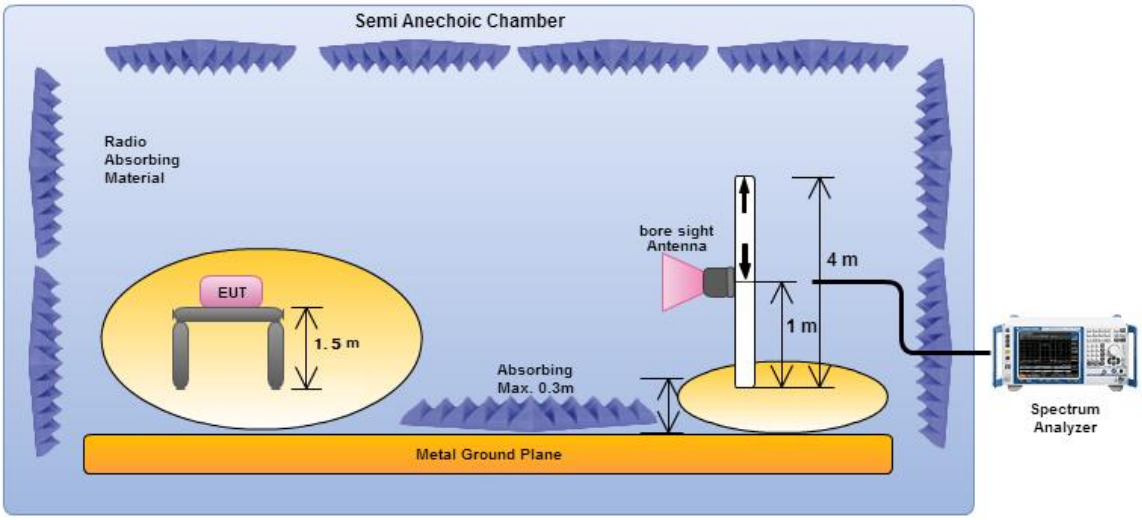
Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna.

Transmitter Radiated Unwanted Emissions (below 1GHz)



Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

Transmitter Radiated Unwanted Emissions (above 1GHz)



Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

3.6.5 Transmitter Radiated Unwanted Emissions-with Antenna (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. Any spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix E

3.7 Frequency Stability

3.7.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
▪ In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
IEEE Std. 802.11
▪ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz.

3.7.2 Measuring Instruments

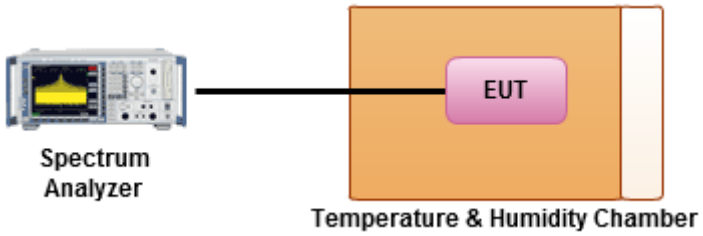
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	▪ Frequency stability with respect to ambient temperature
	▪ Frequency stability when varying supply voltage

3.7.4 Test Setup

Frequency Stability



3.7.5 Test Result of Frequency Stability

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
EMC Receiver	R&S	ESR-3	102051	9 kHz ~ 3.6 GHz	19/04/2016	18/04/2017
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127-477	9 kHz ~ 30 MHz	26/01/2016	25/01/2017
LISN (Support Unit)	R&S	ENV216	101295	9 kHz ~ 30 MHz	04/11/2015	03/11/2016
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9 kHz ~ 3 0MHz	30/10/2015	29/10/2016
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	NCR	NCR

NCR : Non-Calibration Require

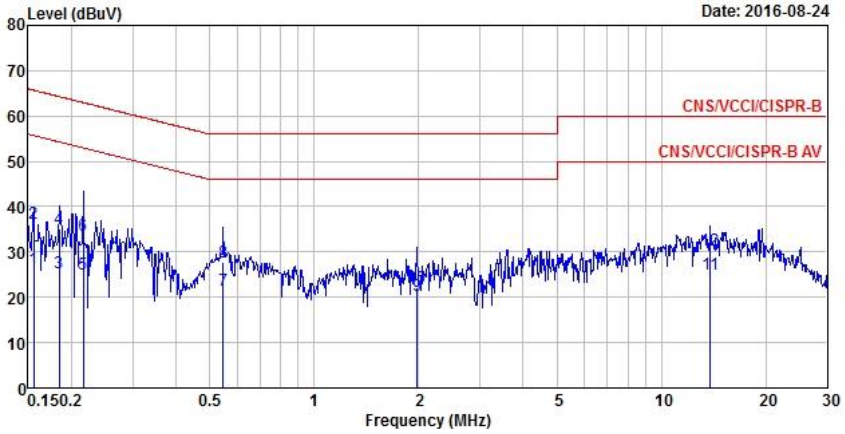
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101500	9 kHz ~ 40 GHz	12/05/2016	11/05/ 2017
Power Sensor	Anritsu	MA2411B	917017	300 MHz ~ 40 GHz	04/02/2016	03/02/2017
Power Meter	Anritsu	ML2495A	949003	300 MHz ~ 40 GHz	04/02/2016	03/02/2017
Signal Generator	R&S	SMR40	100116	10 MHz ~ 40 GHz	21/07/2016	20/07/2017
AC Power Source	G.W	APS-9102	EL920581	AC 0V ~ 300V	04/06/2016	03/06/2017
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	-20 ~ 100℃	25/04/2016	24/06/2017

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30 MHz ~ 1 GHz 3m	25/04/2016	24/04/2017
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1 GHz ~ 18 GHz 3m	30/06/2016	29/06/2017
Amplifier	EMC	EMC9135	980232	9 kHz ~ 1 GHz	29/01/2016	28/01/2017
Amplifier	Agilent	8449B	3008A02096	1 GHz ~ 26.5 GHz	11/04/2016	10/04/2017
Amplifier	MITEQ	JS44-18004000-33-8P	1840917	18 GHz ~ 40 GHz	02/06/2015	01/06/2017
Spectrum	KEYSIGHT	N9010A	MY54200885	10 Hz ~ 44 GHz	04/07/2016	03/07/2017
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL 6111D & MTJ6102	35418	30 MHz ~ 1 GHz	31/03/2016	30/03/2017
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA 9120D 1534	1 GHz ~ 18 GHz	22/04/2016	21/04/2017
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170614	18 GHz ~ 40 GHz	04/01/2016	03/01/2017
Loop Antenna	ROHDE&SCHWARZ	HFH2-Z2	100330	9 kHz ~30 MHz	10/11/2014	09/11/2016

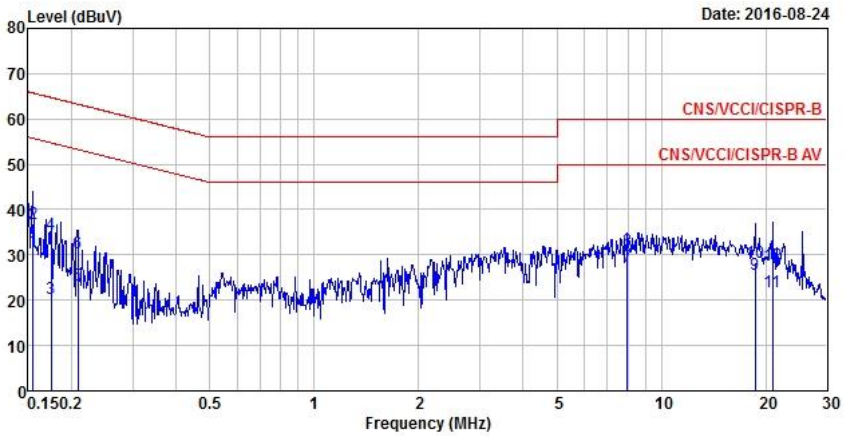
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Adapter		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Aux Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.16	26.34	-29.35	55.69	16.28	0.10	0.10	9.86	Average
2	0.16	36.37	-29.32	65.69	26.31	0.10	0.10	9.86	QP
3	0.18	25.34	-28.94	54.28	15.29	0.09	0.10	9.86	Average
4	0.18	35.27	-29.01	64.28	25.22	0.09	0.10	9.86	QP
5	0.22	25.14	-27.82	52.96	15.09	0.09	0.10	9.86	Average
6	0.22	33.73	-29.23	62.96	23.68	0.09	0.10	9.86	QP
7	0.55	21.59	-24.41	46.00	11.52	0.11	0.10	9.86	Average
8	0.55	27.75	-28.25	56.00	17.68	0.11	0.10	9.86	QP
9	1.98	20.25	-25.75	46.00	10.13	0.15	0.10	9.87	Average
10	1.98	22.05	-33.95	56.00	11.93	0.15	0.10	9.87	QP
11	13.84	25.13	-24.87	50.00	14.56	0.54	0.10	9.93	Average
12	13.84	30.45	-29.55	60.00	19.88	0.54	0.10	9.93	QP

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

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Adapter		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Aux Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.15	31.02	-24.72	55.74	20.94	0.12	0.10	9.86	Average
2	0.15	36.79	-28.95	65.74	26.71	0.12	0.10	9.86	QP
3	0.17	20.42	-34.30	54.72	10.34	0.12	0.10	9.86	Average
4	0.17	34.66	-30.06	64.72	24.58	0.12	0.10	9.86	QP
5	0.21	23.27	-30.00	53.27	13.19	0.12	0.10	9.86	Average
6	0.21	30.45	-32.82	63.27	20.37	0.12	0.10	9.86	QP
7	7.98	27.42	-22.58	50.00	17.06	0.37	0.10	9.89	Average
8	7.98	31.00	-29.00	60.00	20.64	0.37	0.10	9.89	QP
9	18.62	25.63	-24.37	50.00	14.84	0.67	0.17	9.95	Average
10	18.62	28.48	-31.52	60.00	17.69	0.67	0.17	9.95	QP
11	20.92	21.94	-28.06	50.00	10.90	0.88	0.20	9.96	Average
12	20.92	27.62	-32.38	60.00	16.58	0.88	0.20	9.96	QP

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

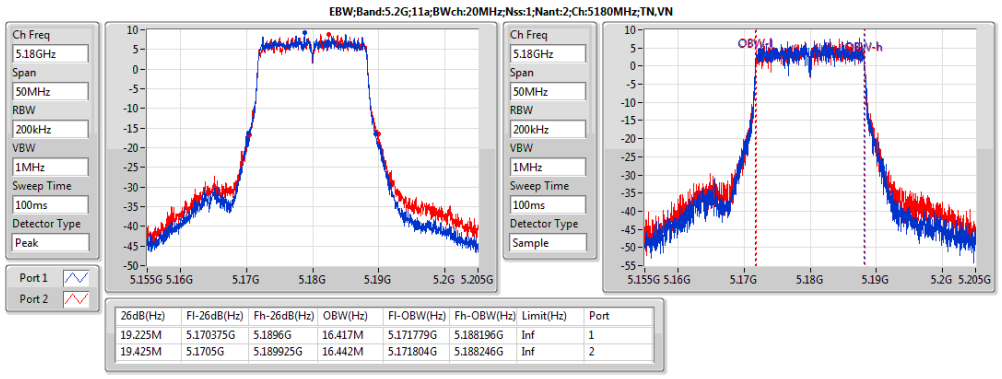
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.2G;11a;20;1;2	20.325M	16.442M	16M4D1D	19.225M	16.417M
5.2G;VHT20;20;1,(M0);2	21.55M	17.666M	17M7D1D	20.65M	17.591M
5.2G;VHT40;40;1,(M0);2	40.15M	36.032M	36M0D1D	39.7M	35.932M
5.2G;VHT80;80;1,(M0);2	83.5M	75.862M	75M9D1D	83.2M	75.762M
5.8G;11a;20;1;2	16.325M	20.465M	20M5D1D	15.65M	16.392M
5.8G;VHT20;20;1,(M0);2	17.575M	20.265M	20M3D1D	16.525M	17.616M
5.8G;VHT40;40;1,(M0);2	35.05M	36.482M	36M5D1D	33.8M	35.982M
5.8G;VHT80;80;1,(M0);2	75.7M	75.962M	76M0D1D	75.6M	75.962M

Result

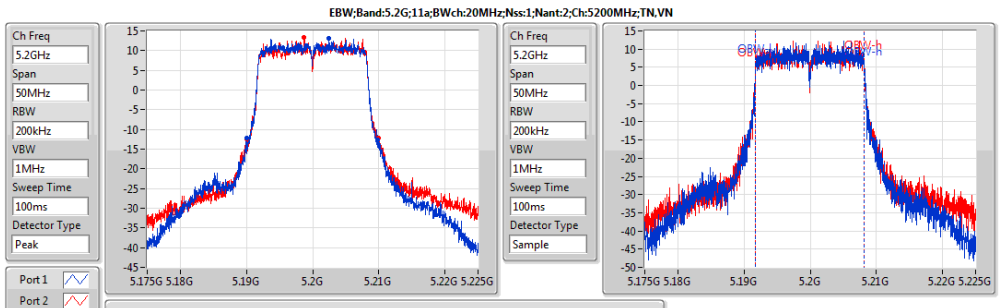
Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)
5.2G;11a;20;1;2;5180;L;TN,VN	Pass	Inf	19.225M	16.417M	19.425M	16.442M
5.2G;11a;20;1;2;5200;M;TN,VN	Pass	Inf	19.775M	16.417M	19.95M	16.417M
5.2G;11a;20;1;2;5240;H;TN,VN	Pass	Inf	19.675M	16.417M	20.325M	16.442M
5.2G;VHT20;20;1,(M0);2;5180;L;TN,VN	Pass	Inf	20.65M	17.616M	20.925M	17.641M
5.2G;VHT20;20;1,(M0);2;5200;M;TN,VN	Pass	Inf	20.725M	17.616M	20.825M	17.591M
5.2G;VHT20;20;1,(M0);2;5240;H;TN,VN	Pass	Inf	21.1M	17.666M	21.55M	17.641M
5.2G;VHT40;40;1,(M0);2;5190;L;TN,VN	Pass	Inf	40M	35.932M	39.7M	36.032M
5.2G;VHT40;40;1,(M0);2;5230;H;TN,VN	Pass	Inf	40.15M	35.982M	39.95M	36.032M
5.2G;VHT80;80;1,(M0);2;5210;S;TN,VN	Pass	Inf	83.5M	75.762M	83.2M	75.862M
5.8G;11a;20;1;2;5745;L;TN,VN	Pass	500k	16.3M	16.417M	16.325M	16.417M
5.8G;11a;20;1;2;5785;M;TN,VN	Pass	500k	15.9M	16.417M	16.025M	16.392M
5.8G;11a;20;1;2;5825;H;TN,VN	Pass	500k	16.275M	20.465M	15.65M	19.365M
5.8G;VHT20;20;1,(M0);2;5745;L;TN,VN	Pass	500k	16.525M	17.641M	16.925M	17.616M
5.8G;VHT20;20;1,(M0);2;5785;M;TN,VN	Pass	500k	17.525M	17.616M	17.5M	17.616M
5.8G;VHT20;20;1,(M0);2;5825;H;TN,VN	Pass	500k	17.575M	19.815M	17.55M	20.265M
5.8G;VHT40;40;1,(M0);2;5755;L;TN,VN	Pass	500k	35.05M	36.032M	33.8M	35.982M
5.8G;VHT40;40;1,(M0);2;5795;H;TN,VN	Pass	500k	35M	36.182M	33.8M	36.482M
5.8G;VHT80;80;1,(M0);2;5775;S;TN,VN	Pass	500k	75.7M	75.962M	75.6M	75.962M

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5180MHz;TN,VN



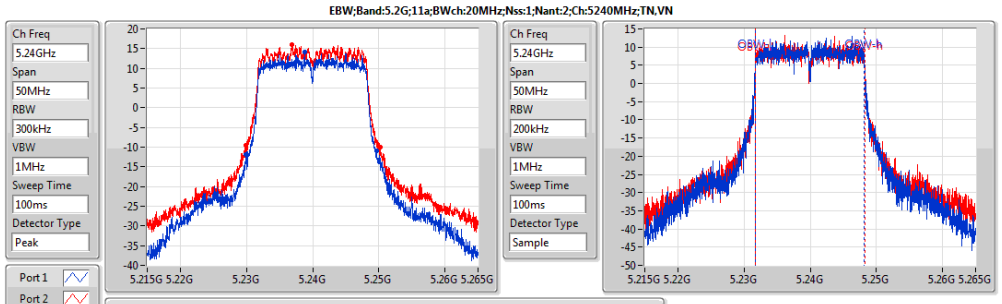
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.225M	5.170375G	5.1896G	16.417M	5.171779G	5.188196G	Inf	1
19.425M	5.1705G	5.189925G	16.442M	5.171804G	5.188246G	Inf	2

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5200MHz;TN,VN



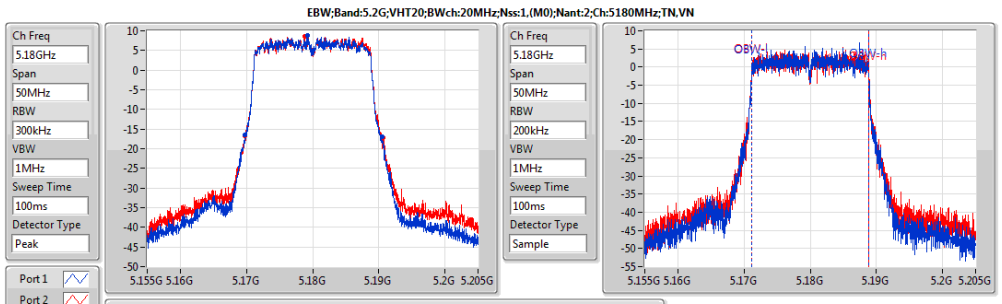
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.775M	5.189975G	5.20975G	16.417M	5.191779G	5.208196G	Inf	1
19.95M	5.190075G	5.210025G	16.417M	5.191779G	5.208196G	Inf	2

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5240MHz;TN,VN



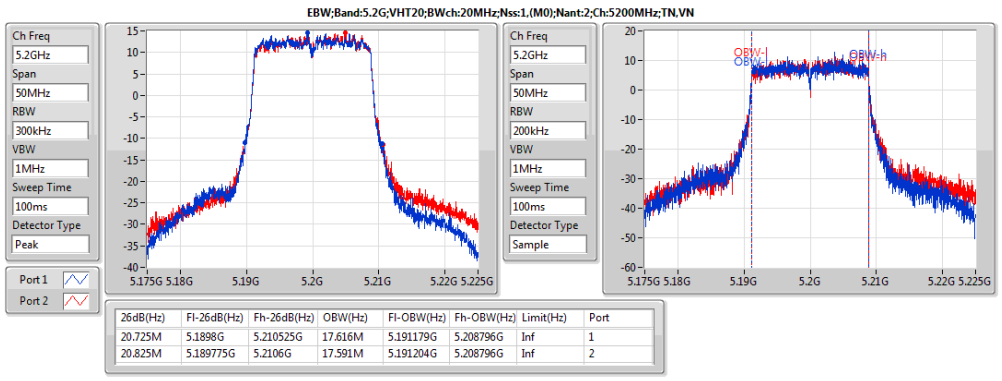
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.675M	5.22995G	5.249625G	16.417M	5.231779G	5.248196G	Inf	1
20.325M	5.2299G	5.250225G	16.442M	5.231779G	5.248221G	Inf	2

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5180MHz;TN,VN



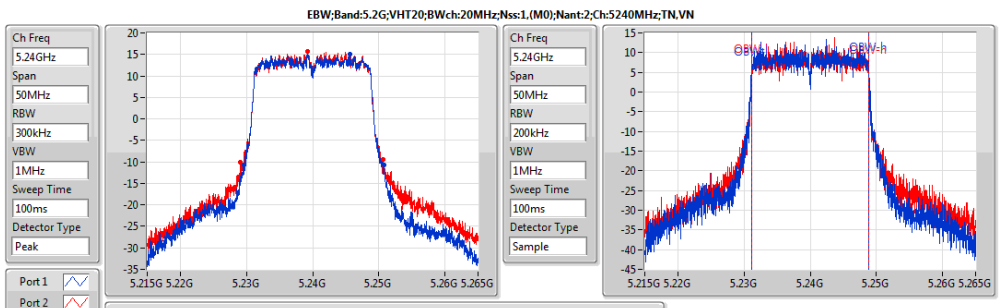
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.65M	5.169825G	5.190475G	17.616M	5.171179G	5.188796G	Inf	1
20.925M	5.169775G	5.1907G	17.641M	5.171179G	5.188821G	Inf	2

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5200MHz;TN,VN



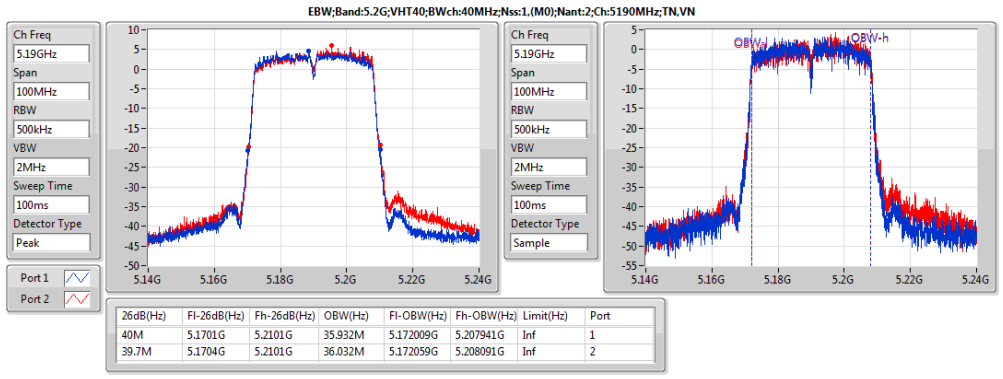
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.725M	5.1898G	5.210525G	17.616M	5.191179G	5.208796G	Inf	1
20.825M	5.189775G	5.2106G	17.591M	5.191204G	5.208796G	Inf	2

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5240MHz;TN,VN



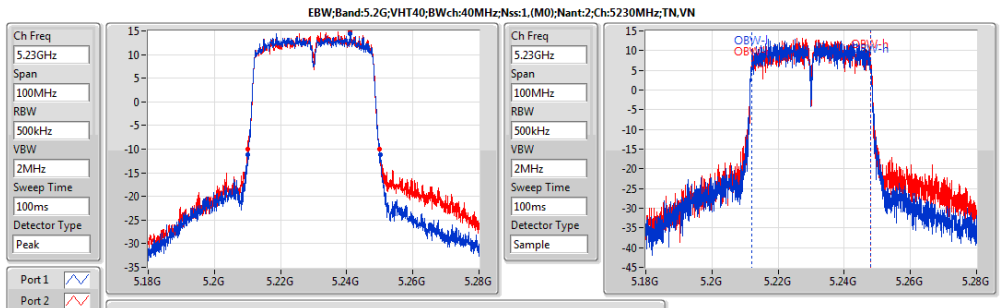
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.1M	5.229675G	5.250775G	17.666M	5.231154G	5.248821G	Inf	1
21.55M	5.229075G	5.250625G	17.641M	5.231179G	5.248821G	Inf	2

EBW;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5190MHz;TN,VN



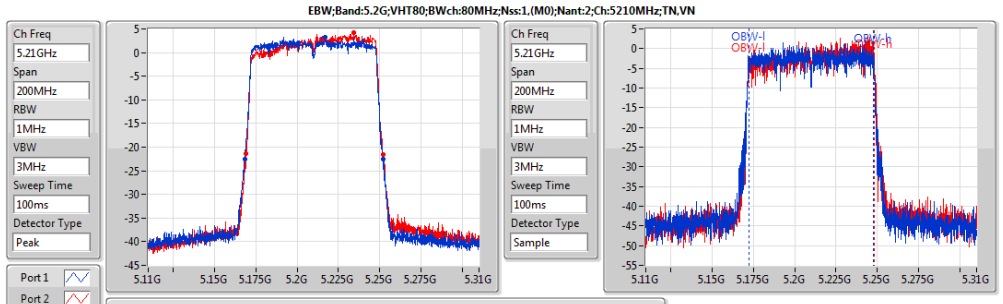
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40M	5.1701G	5.2101G	35.932M	5.172009G	5.207941G	Inf	1
39.7M	5.1704G	5.2101G	36.032M	5.172059G	5.208091G	Inf	2

EBW;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5230MHz;TN,VN



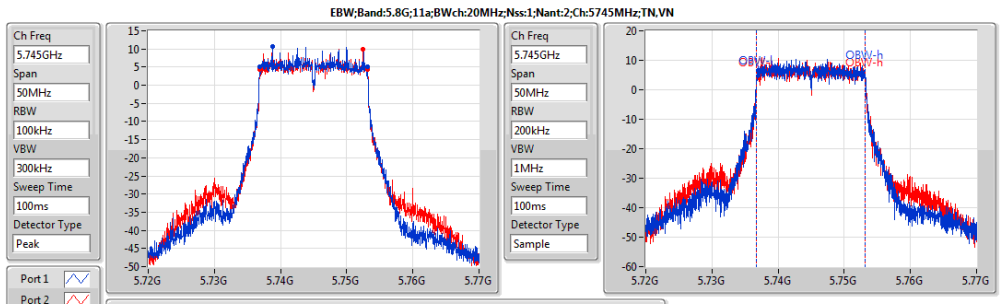
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.15M	5.2101G	5.25025G	35.982M	5.212009G	5.247991G	Inf	1
39.95M	5.20995G	5.2499G	36.032M	5.212009G	5.248041G	Inf	2

EBW;Band:5.2G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5210MHz;TN,VN



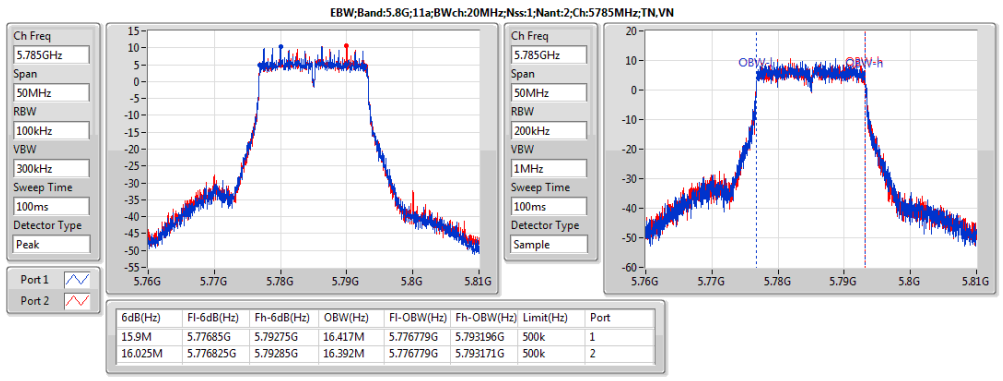
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.5M	5.1683G	5.2518G	75.762M	5.172119G	5.247881G	Inf	1
83.2M	5.1691G	5.2523G	75.862M	5.172219G	5.248081G	Inf	2

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5745MHz;TN,VN



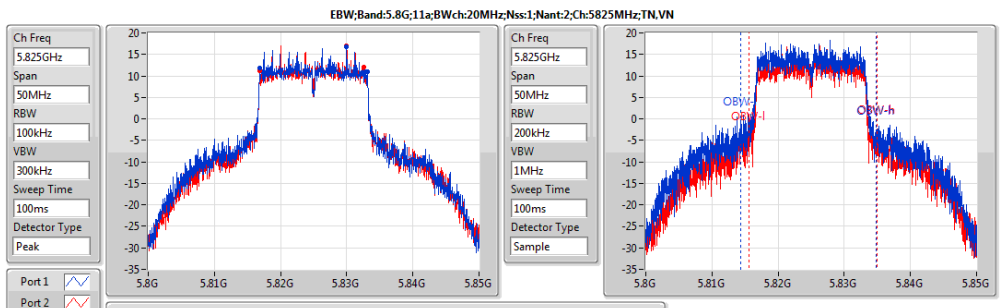
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	5.73685G	5.75315G	16.417M	5.736779G	5.753196G	500k	1
16.325M	5.73685G	5.753175G	16.417M	5.736779G	5.753196G	500k	2

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5785MHz;TN,VN



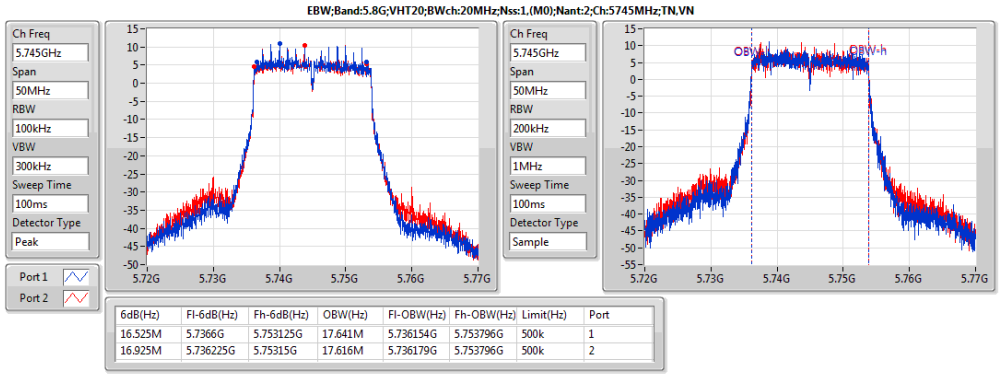
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.9M	5.77685G	5.79275G	16.417M	5.776779G	5.793196G	500k	1
16.025M	5.776825G	5.79285G	16.392M	5.776779G	5.793171G	500k	2

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5825MHz;TN,VN



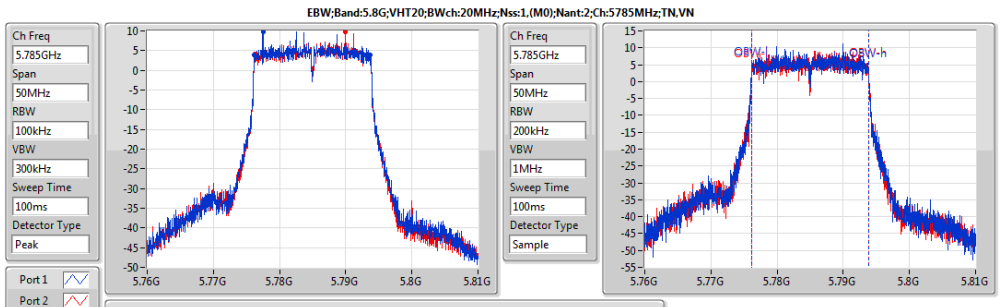
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	5.81685G	5.833125G	20.465M	5.814355G	5.83482G	500k	1
15.65M	5.816875G	5.832525G	19.365M	5.815555G	5.83492G	500k	2

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5745MHz;TN,VN



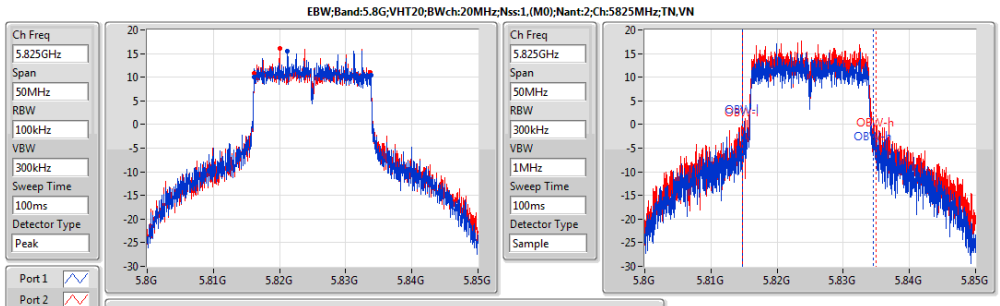
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.525M	5.7366G	5.753125G	17.641M	5.736154G	5.753796G	500k	1
16.925M	5.736225G	5.75315G	17.616M	5.736179G	5.753796G	500k	2

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5785MHz;TN,VN



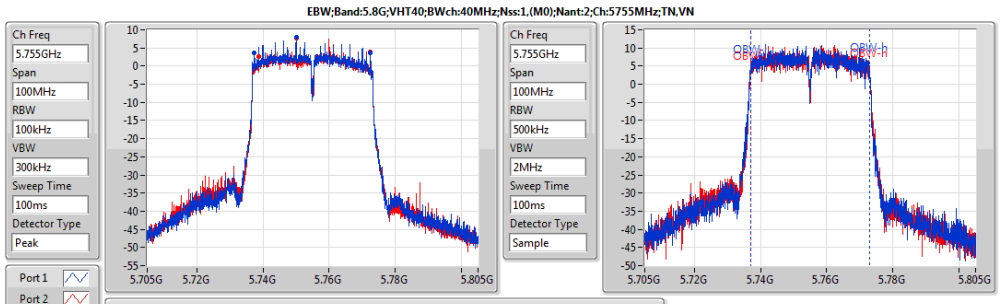
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	5.776225G	5.79375G	17.616M	5.776179G	5.793796G	500k	1
17.5M	5.77625G	5.79375G	17.616M	5.776179G	5.793796G	500k	2

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5825MHz;TN,VN



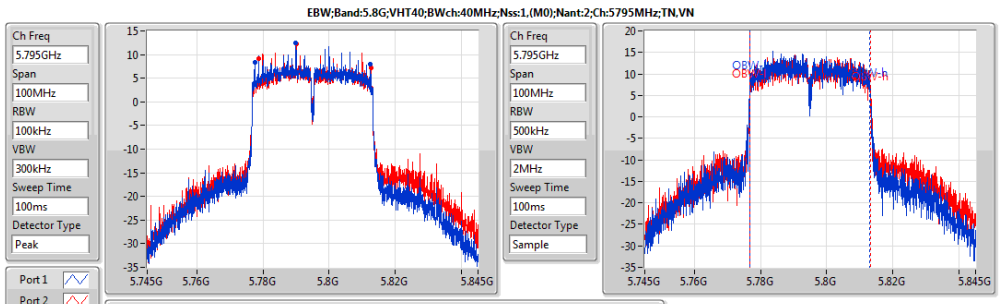
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	5.8162G	5.833775G	19.815M	5.814755G	5.83457G	500k	1
17.55M	5.8162G	5.83375G	20.265M	5.814755G	5.83502G	500k	2

EBW;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5755MHz;TN,VN



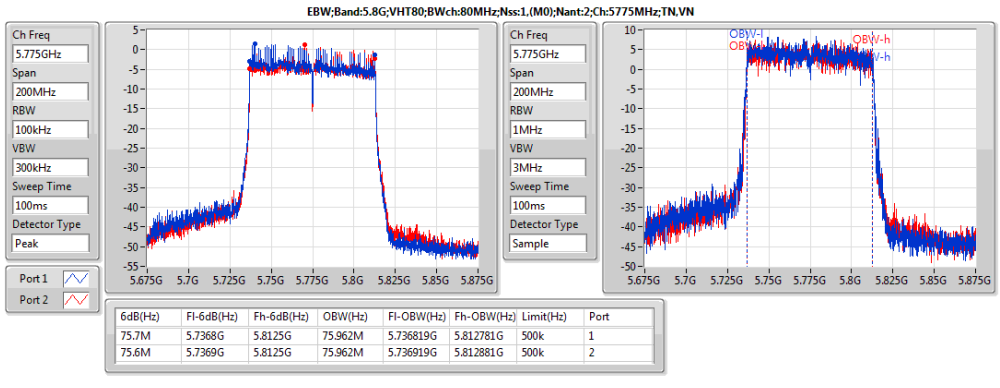
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	5.73745G	5.7725G	36.032M	5.736909G	5.772941G	500k	1
33.8M	5.7387G	5.7725G	35.982M	5.736959G	5.772941G	500k	2

EBW;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5795MHz;TN,VN



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	5.7775G	5.8125G	36.182M	5.776859G	5.813041G	500k	1
33.8M	5.77875G	5.81255G	36.482M	5.776759G	5.813241G	500k	2

EBW;Band:5.8G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5775MHz;TN,VN



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.7M	5.7368G	5.8125G	75.962M	5.736819G	5.812781G	500k	1
75.6M	5.7369G	5.8125G	75.962M	5.736919G	5.812881G	500k	2

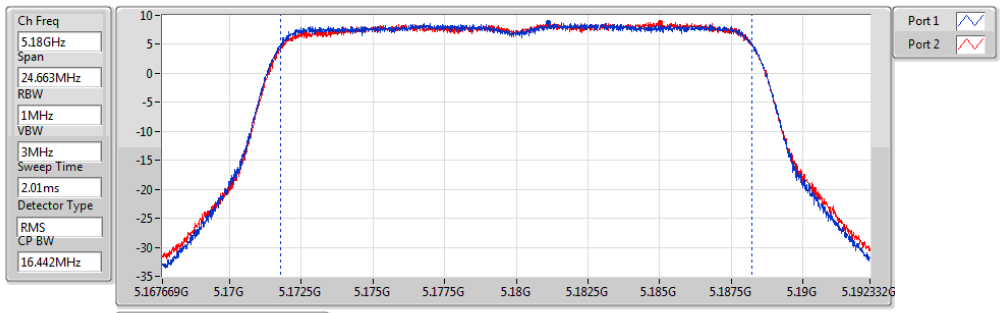
Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.2G;11a;20;1;2	26.61	0.45814	31.41	1.38357
5.2G;HT20;20;1,(M0);2	26.64	0.46132	31.44	1.39316
5.2G;HT40;40;1,(M0);2	27.18	0.5224	31.98	1.57761
5.2G;VHT20;20;1,(M0);2	26.72	0.46989	31.52	1.41906
5.2G;VHT40;40;1,(M0);2	27.23	0.52845	32.03	1.59588
5.2G;VHT80;80;1,(M0);2	16.13	0.04102	20.93	0.12388
5.8G;11a;20;1;2	29.92	0.98175	34.72	2.96483
5.8G;HT20;20;1,(M0);2	29.89	0.97499	34.69	2.94442
5.8G;HT40;40;1,(M0);2	28.52	0.71121	33.32	2.14783
5.8G;VHT20;20;1,(M0);2	29.94	0.98628	34.74	2.97852
5.8G;VHT40;40;1,(M0);2	28.59	0.72277	33.39	2.18273
5.8G;VHT80;80;1,(M0);2	21.81	0.15171	26.61	0.45814

Result

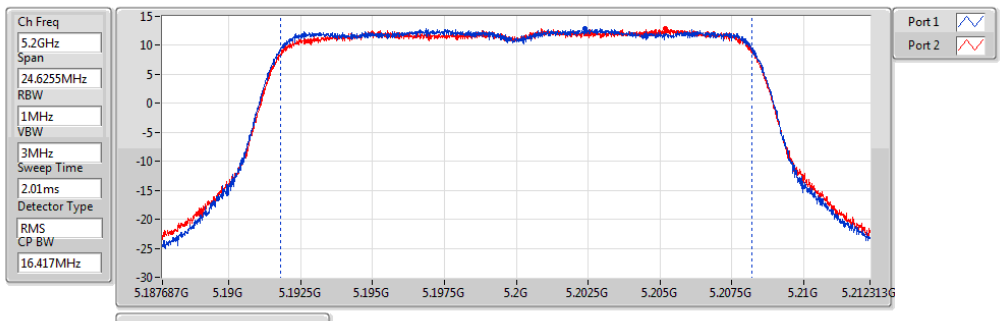
Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)	P2 (dBm)
5.2G;11a;20;1;2;5180;L;TN,VN	Pass	4.80	27.31	36.00	22.51	30.00	19.51	19.49
5.2G;11a;20;1;2;5200;M;TN,VN	Pass	4.80	31.41	36.00	26.61	30.00	23.69	23.52
5.2G;11a;20;1;2;5240;H;TN,VN	Pass	4.80	31.20	36.00	26.40	30.00	23.58	23.19
5.2G;HT20;20;1,(M0);2;5180;L;TN,VN	Pass	4.80	25.47	36.00	20.67	30.00	17.63	17.70
5.2G;HT20;20;1,(M0);2;5200;M;TN,VN	Pass	4.80	31.19	36.00	26.39	30.00	23.44	23.33
5.2G;HT20;20;1,(M0);2;5240;H;TN,VN	Pass	4.80	31.44	36.00	26.64	30.00	23.66	23.59
5.2G;HT40;40;1,(M0);2;5190;L;TN,VN	Pass	4.80	22.45	36.00	17.65	30.00	14.74	14.54
5.2G;HT40;40;1,(M0);2;5230;H;TN,VN	Pass	4.80	31.98	36.00	27.18	30.00	24.37	23.96
5.2G;VHT20;20;1,(M0);2;5180;L;TN,VN	Pass	4.80	25.53	36.00	20.73	30.00	17.80	17.63
5.2G;VHT20;20;1,(M0);2;5200;M;TN,VN	Pass	4.80	31.23	36.00	26.43	30.00	23.61	23.22
5.2G;VHT20;20;1,(M0);2;5240;H;TN,VN	Pass	4.80	31.52	36.00	26.72	30.00	23.93	23.49
5.2G;VHT40;40;1,(M0);2;5190;L;TN,VN	Pass	4.80	22.57	36.00	17.77	30.00	14.89	14.63
5.2G;VHT40;40;1,(M0);2;5230;H;TN,VN	Pass	4.80	32.03	36.00	27.23	30.00	24.39	24.04
5.2G;VHT80;80;1,(M0);2;5210;S;TN,VN	Pass	4.80	20.93	36.00	16.13	30.00	13.19	13.05
5.8G;11a;20;1;2;5745;L;TN,VN	Pass	4.80	29.47	36.00	24.67	30.00	21.78	21.55
5.8G;11a;20;1;2;5785;M;TN,VN	Pass	4.80	29.24	36.00	24.44	30.00	21.43	21.44
5.8G;11a;20;1;2;5825;H;TN,VN	Pass	4.80	34.72	36.00	29.92	30.00	27.07	26.75
5.8G;HT20;20;1,(M0);2;5745;L;TN,VN	Pass	4.80	29.20	36.00	24.40	30.00	21.52	21.26
5.8G;HT20;20;1,(M0);2;5785;M;TN,VN	Pass	4.80	29.10	36.00	24.30	30.00	21.32	21.26
5.8G;HT20;20;1,(M0);2;5825;H;TN,VN	Pass	4.80	34.69	36.00	29.89	30.00	26.96	26.80
5.8G;HT40;40;1,(M0);2;5755;L;TN,VN	Pass	4.80	29.05	36.00	24.25	30.00	21.39	21.09
5.8G;HT40;40;1,(M0);2;5795;H;TN,VN	Pass	4.80	33.32	36.00	28.52	30.00	25.58	25.44
5.8G;VHT20;20;1,(M0);2;5745;L;TN,VN	Pass	4.80	29.29	36.00	24.49	30.00	21.59	21.36
5.8G;VHT20;20;1,(M0);2;5785;M;TN,VN	Pass	4.80	29.13	36.00	24.33	30.00	21.35	21.30
5.8G;VHT20;20;1,(M0);2;5825;H;TN,VN	Pass	4.80	34.74	36.00	29.94	30.00	27.00	26.86
5.8G;VHT40;40;1,(M0);2;5755;L;TN,VN	Pass	4.80	29.16	36.00	24.36	30.00	21.50	21.19
5.8G;VHT40;40;1,(M0);2;5795;H;TN,VN	Pass	4.80	33.39	36.00	28.59	30.00	25.64	25.52
5.8G;VHT80;80;1,(M0);2;5775;S;TN,VN	Pass	4.80	26.61	36.00	21.81	30.00	18.97	18.62

PowerAV;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5180MHz;TN,VN



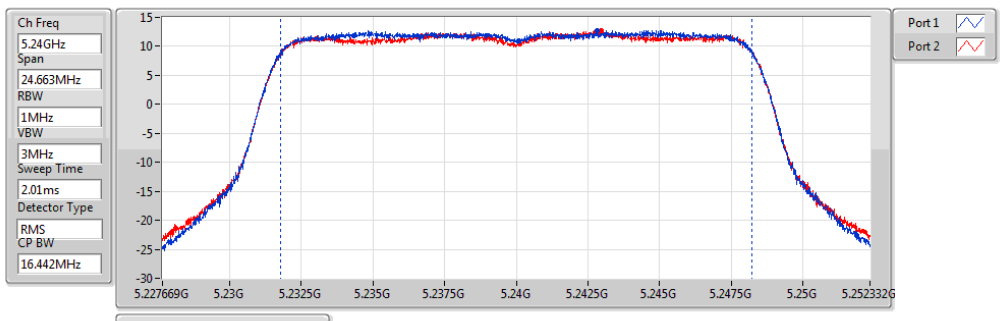
Sum(dBm)	P1(dBm)	P2(dBm)
22.51	19.51	19.49

PowerAV;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5200MHz;TN,VN



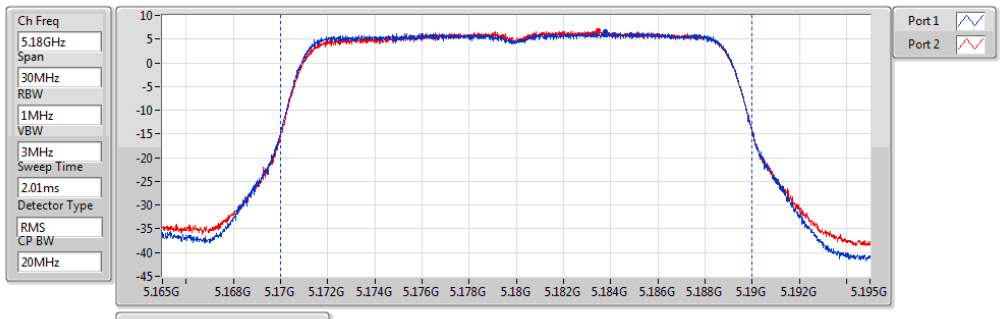
Sum(dBm)	P1(dBm)	P2(dBm)
26.61	23.69	23.52

PowerAV;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5240MHz;TN,VN



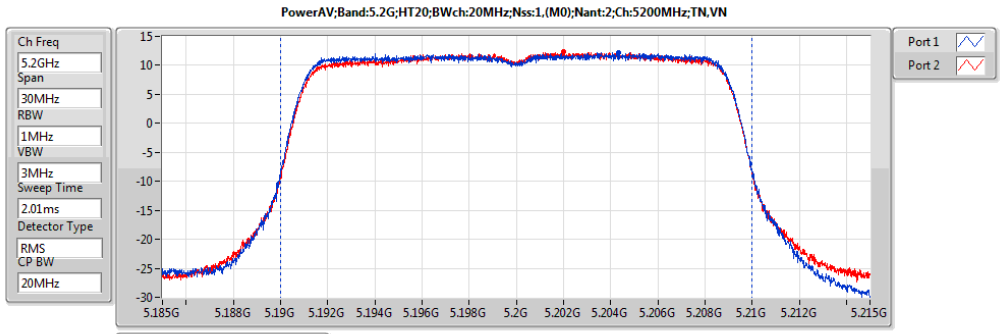
Sum(dBm)	P1(dBm)	P2(dBm)
26.40	23.58	23.19

PowerAV;Band:5.2G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5180MHz;TN,VN



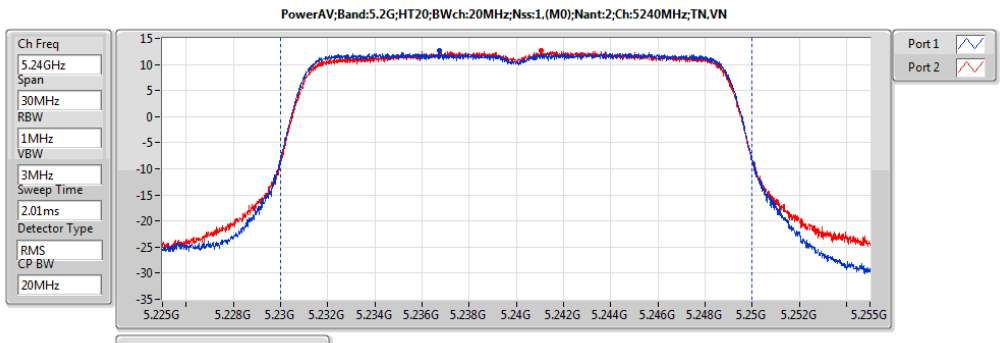
Sum(dBm)	P1(dBm)	P2(dBm)
20.67	17.63	17.70

PowerAV;Band:5.2G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5200MHz;TN,VN



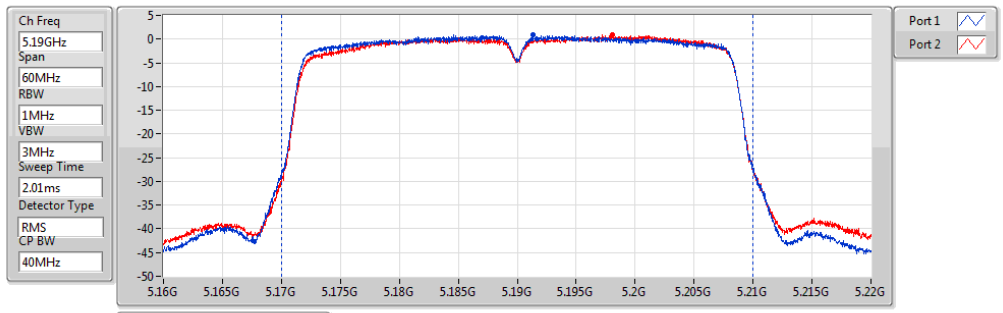
Sum(dBm)	P1(dBm)	P2(dBm)
26.39	23.44	23.33

PowerAV;Band:5.2G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5240MHz;TN,VN



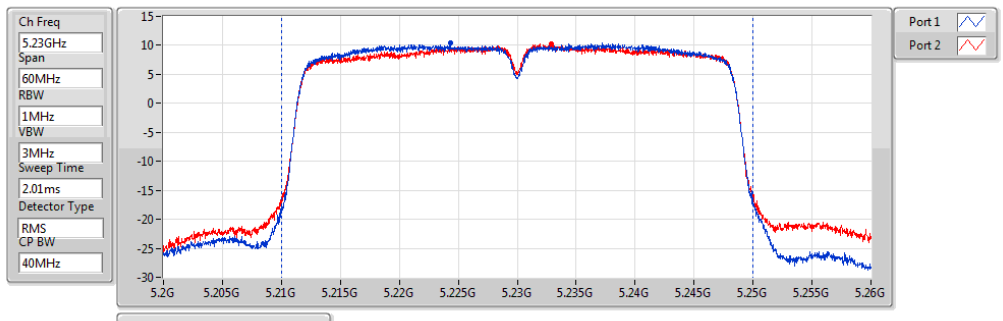
Sum(dBm)	P1(dBm)	P2(dBm)
26.64	23.66	23.59

PowerAV;Band:5.2G;HT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5190MHz;TN,VN



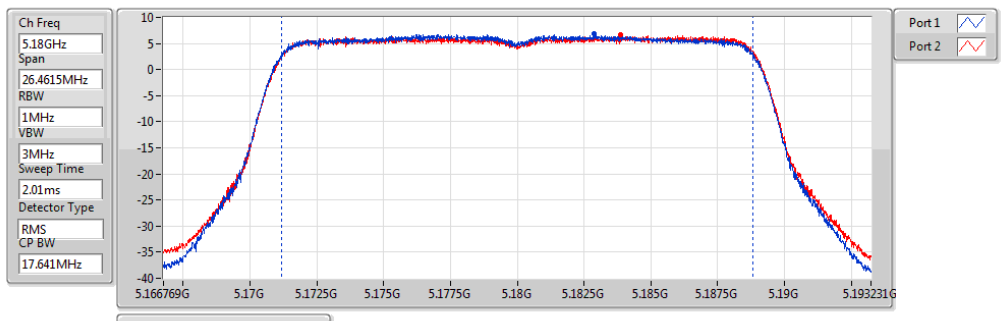
Sum(dBm)	P1(dBm)	P2(dBm)
17.65	14.74	14.54

PowerAV;Band:5.2G;HT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5230MHz;TN,VN



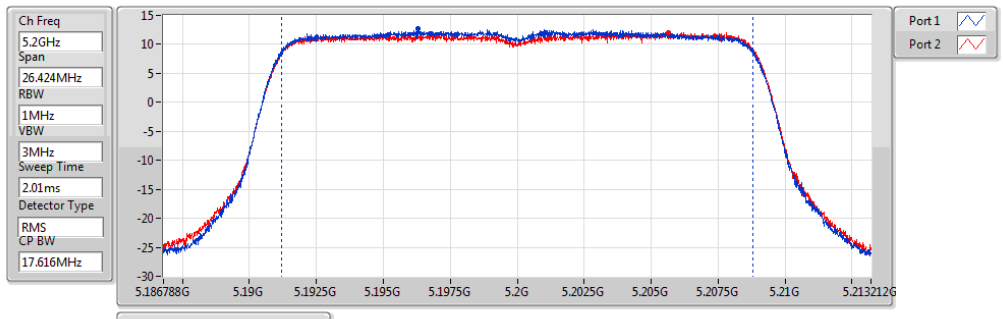
Sum(dBm)	P1(dBm)	P2(dBm)
27.18	24.37	23.96

PowerAV;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5180MHz;TN,VN



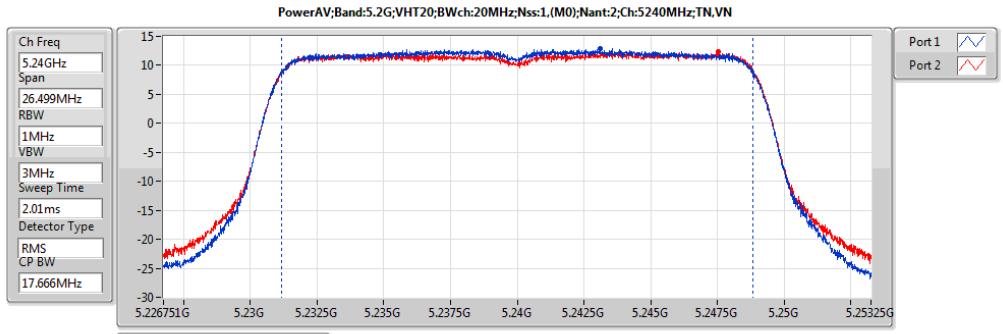
Sum(dBm)	P1(dBm)	P2(dBm)
20.73	17.80	17.63

PowerAV;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5200MHz;TN,VN



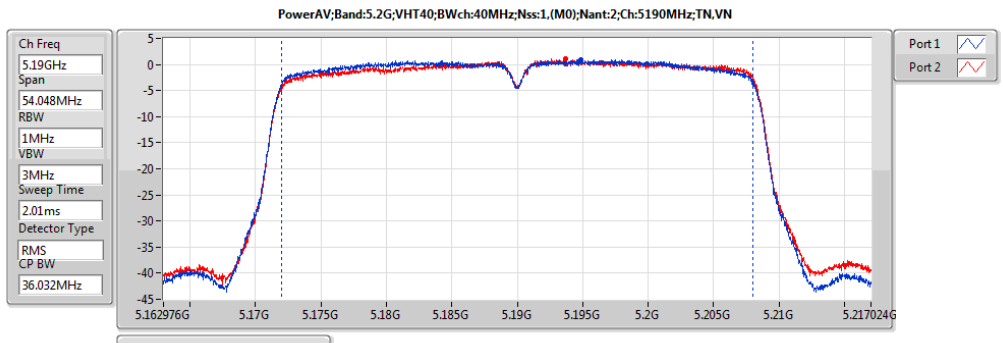
Sum(dBm)	P1(dBm)	P2(dBm)
26.43	23.61	23.22

PowerAV;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5240MHz;TN,VN



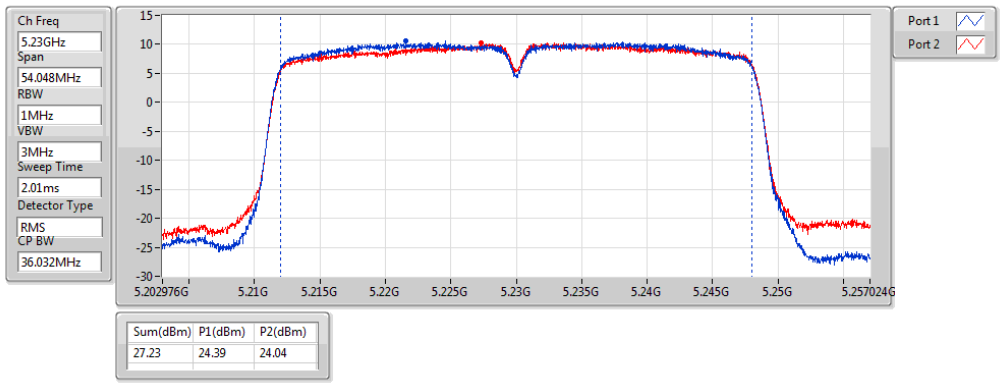
Sum(dBm)	P1(dBm)	P2(dBm)
26.72	23.93	23.49

PowerAV;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5190MHz;TN,VN

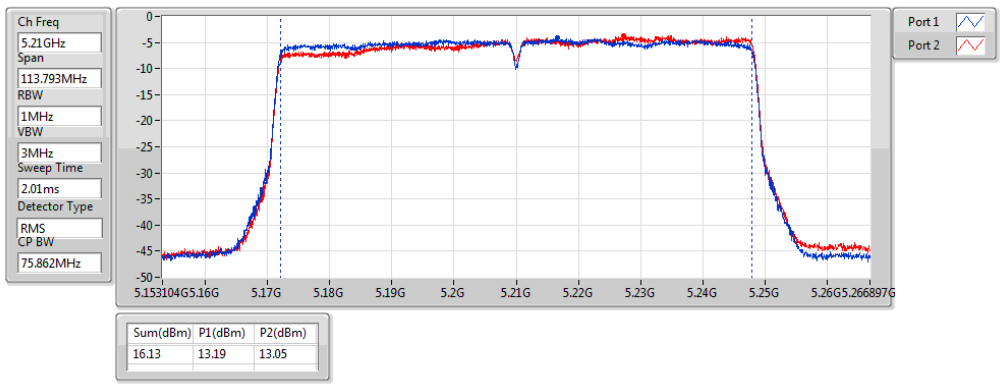


Sum(dBm)	P1(dBm)	P2(dBm)
17.77	14.89	14.63

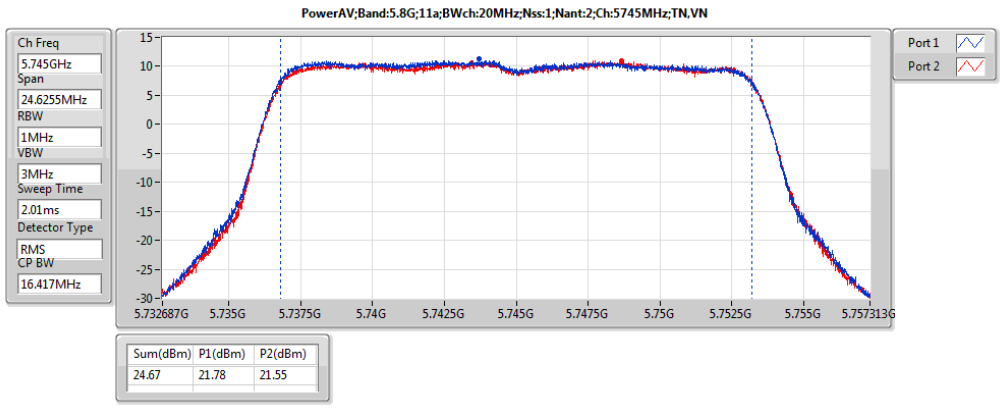
PowerAV;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5230MHz;TN,VN



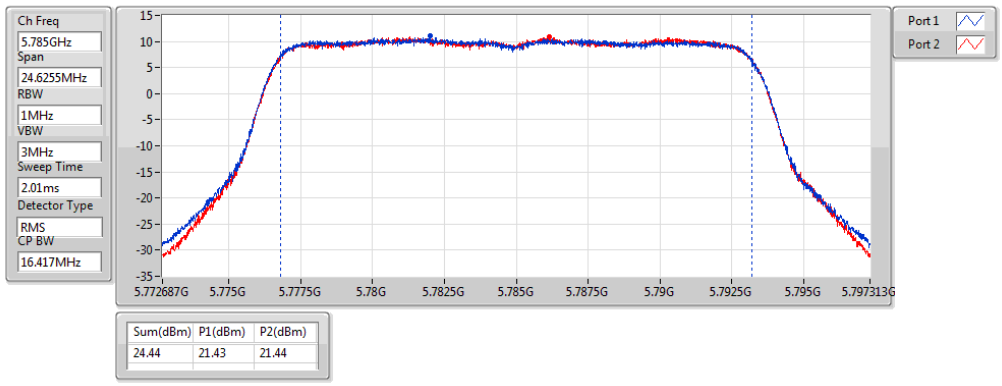
PowerAV;Band:5.2G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5210MHz;TN,VN



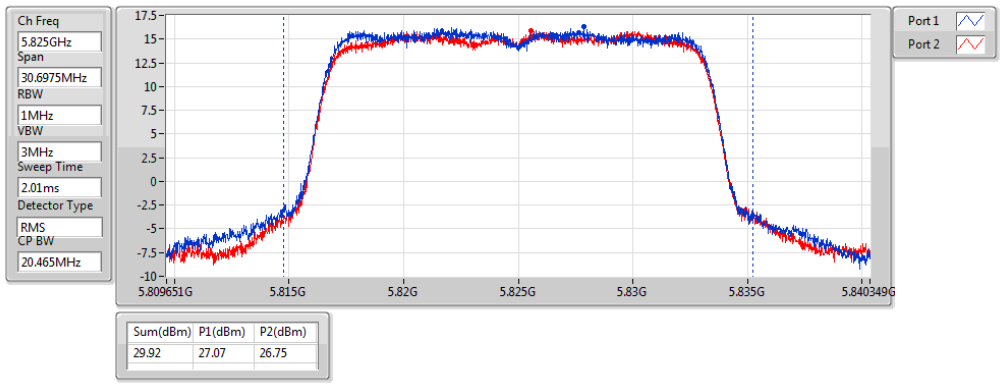
PowerAV;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5745MHz;TN,VN



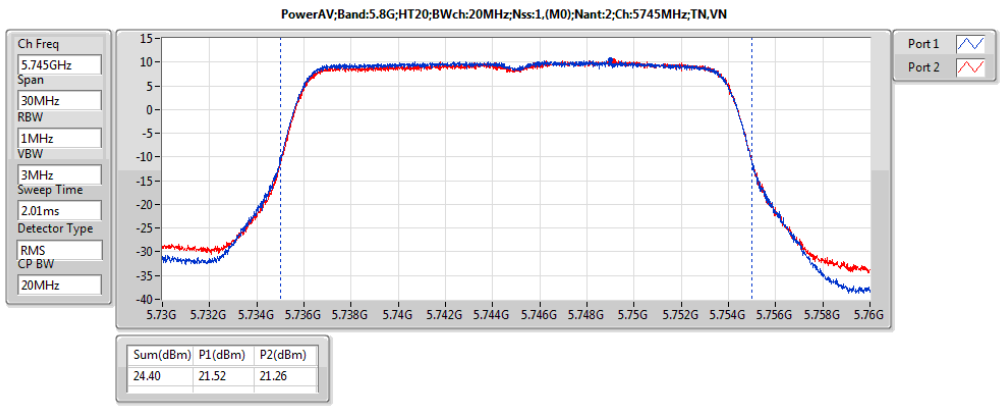
PowerAV;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5785MHz;TN,VN



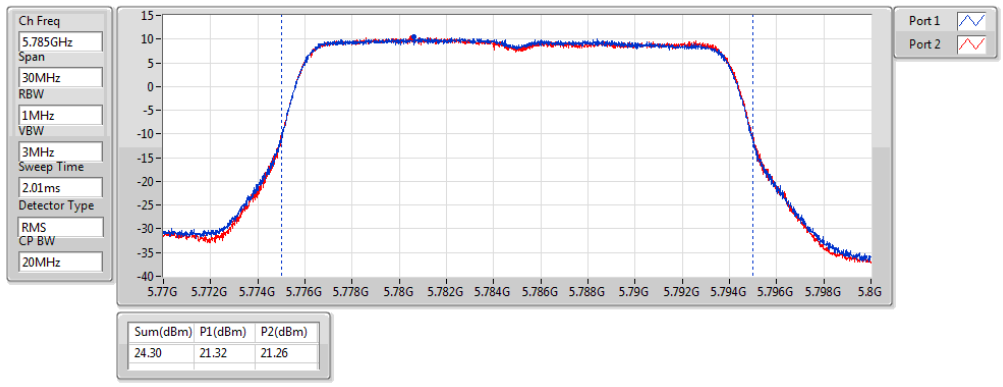
PowerAV;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5825MHz;TN,VN



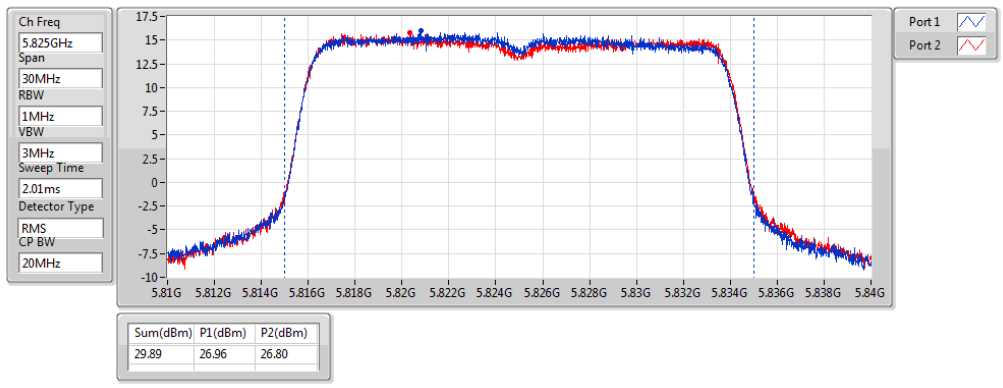
PowerAV;Band:5.8G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5745MHz;TN,VN



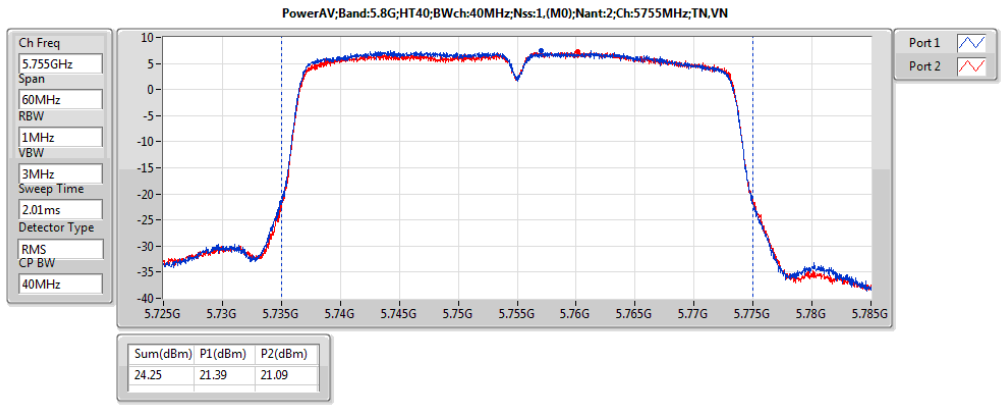
PowerAV;Band:5.8G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5785MHz;TN,VN



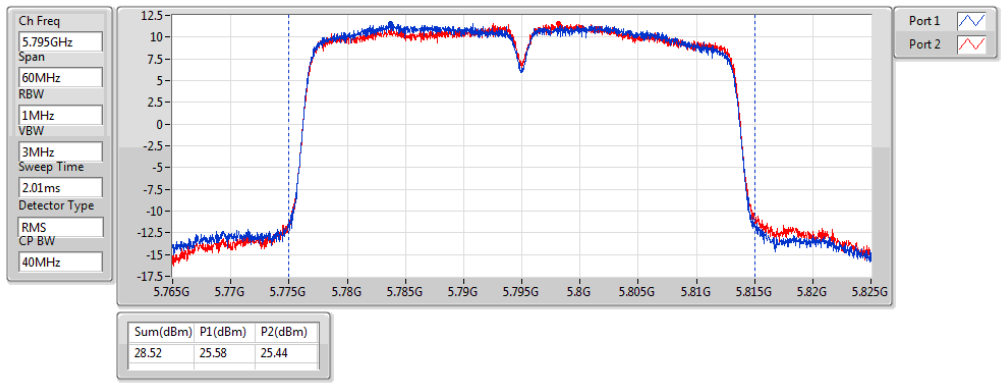
PowerAV;Band:5.8G;HT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5825MHz;TN,VN



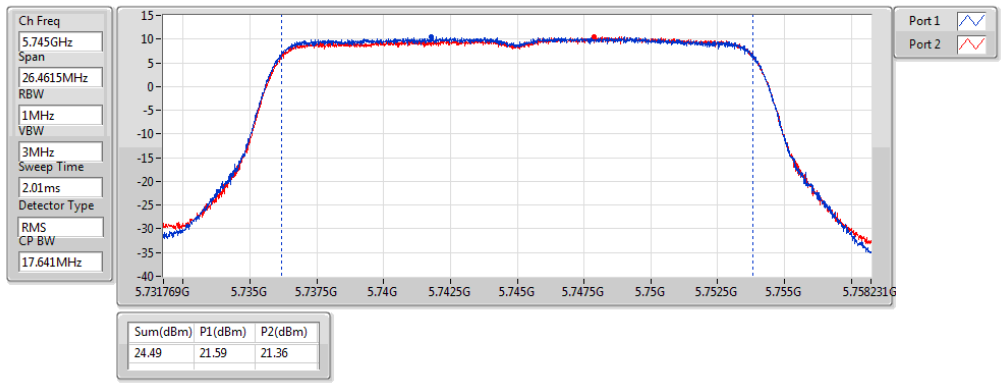
PowerAV;Band:5.8G;HT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5755MHz;TN,VN



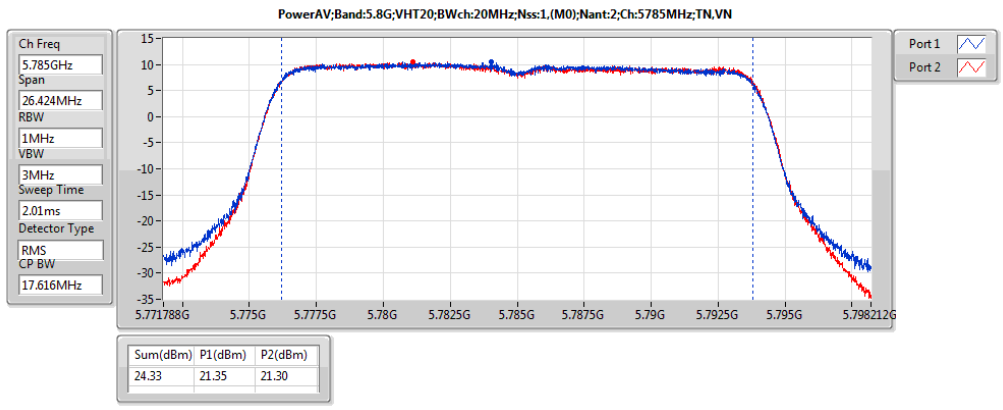
PowerAV;Band:5.8G;HT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5795MHz;TN,VN

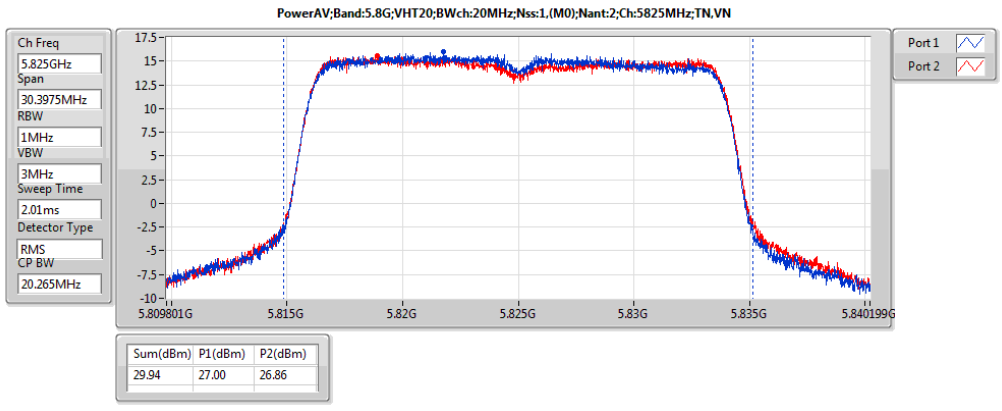


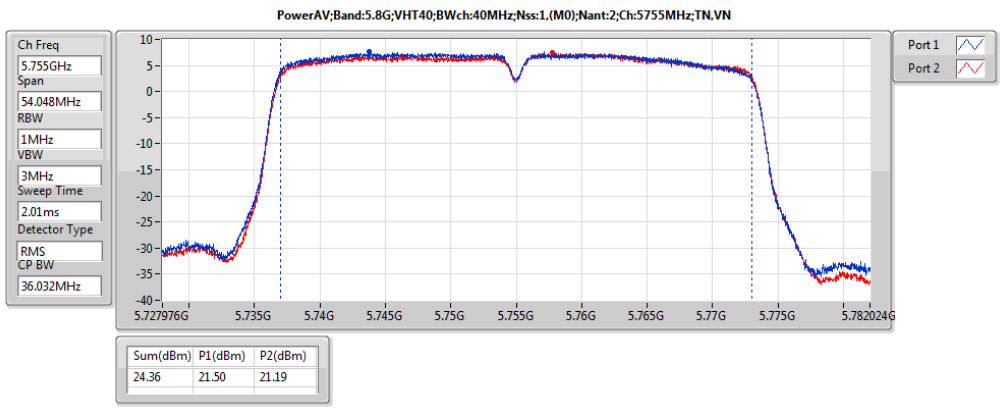
PowerAV;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5745MHz;TN,VN

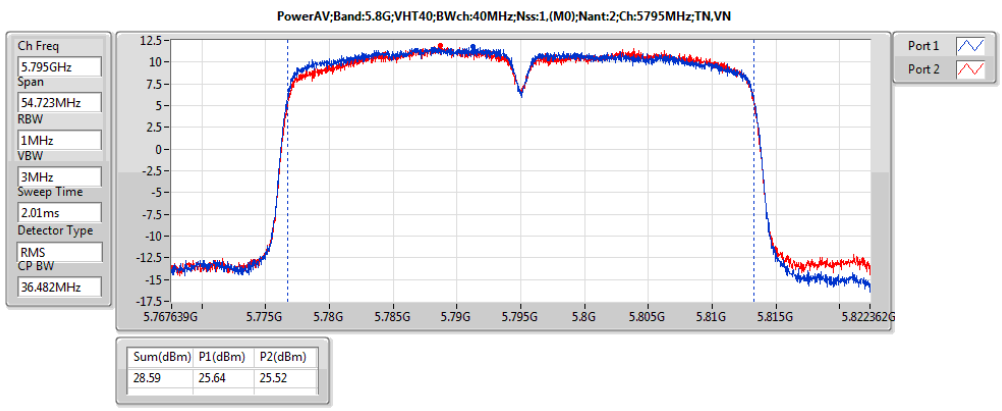


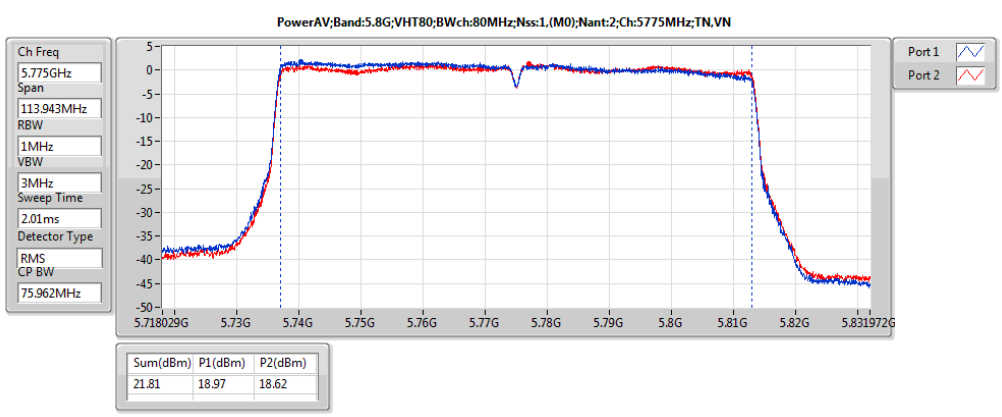
PowerAV;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5785MHz;TN,VN




PowerAV;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5825MHz;TN,VN
Ch Freq
5.825GHz
Span
30.3975MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
20.265MHz
Port 1
Port 2
17.5
15
12.5
10
7.5
5
2.5
0
-2.5
-5
-7.5
-10
5.809801G
5.815G
5.82G
5.825G
5.83G
5.835G
5.840199G
Sum(dBm) P1(dBm) P2(dBm)
29.94 27.00 26.86


PowerAV;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5755MHz;TN,VN
Ch Freq
5.755GHz
Span
54.048MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
36.032MHz
Port 1
Port 2
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
5.727976G
5.735G
5.74G
5.745G
5.75G
5.755G
5.76G
5.765G
5.77G
5.775G
5.782024G
Sum(dBm) P1(dBm) P2(dBm)
24.36 21.50 21.19


PowerAV;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5795MHz;TN,VN
Ch Freq
5.795GHz
Span
54.723MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
36.482MHz
Port 1
Port 2
12.5
10
7.5
5
2.5
0
-2.5
-5
-7.5
-10
-12.5
-15
-17.5
5.767639G
5.775G
5.78G
5.785G
5.79G
5.795G
5.8G
5.805G
5.81G
5.815G
5.822362G
Sum(dBm) P1(dBm) P2(dBm)
28.59 25.64 25.52


PowerAV;Band:5.8G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5775MHz;TN,VN
Ch Freq
5.775GHz
Span
113.943MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
75.962MHz
Port 1
Port 2
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
5.718029G
5.73G
5.74G
5.75G
5.76G
5.77G
5.78G
5.79G
5.8G
5.81G
5.82G
5.831972G
Sum(dBm) P1(dBm) P2(dBm)
21.81 18.97 18.62

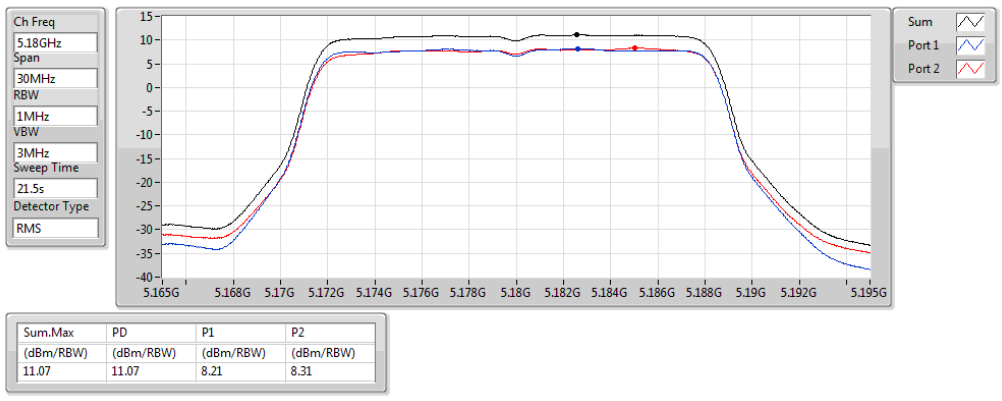
Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
5.2G;11a;20;1;2	15.18	22.93
5.2G;VHT20;20;1,(M0);2	14.93	22.69
5.2G;VHT40;40;1,(M0);2	12.61	20.37
5.2G;VHT80;80;1,(M0);2	-1.66	6.10
5.8G;11a;20;1;2	15.48	23.24
5.8G;VHT20;20;1,(M0);2	15.13	22.88
5.8G;VHT40;40;1,(M0);2	11.35	19.11
5.8G;VHT80;80;1,(M0);2	1.18	8.93

Result

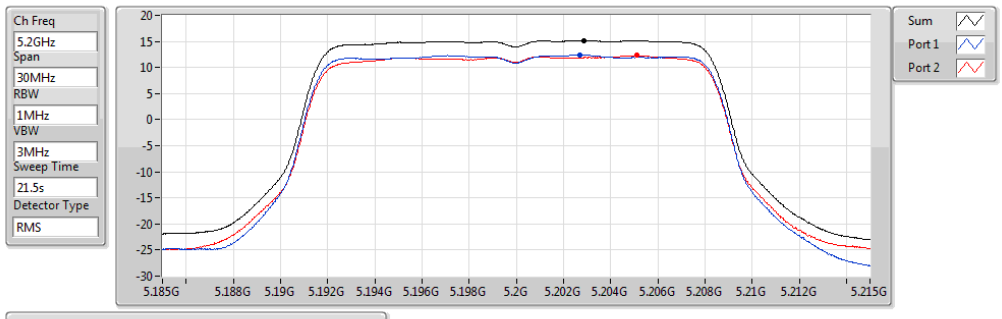
Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	Sum.Max (dBm/RBW)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Lim (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)
5.2G;11a;20;1;2;5180;L;TN,VN	Pass	1M	1M	0.00	7.76	11.07	11.07	15.24	18.82	Inf	8.21	8.31
5.2G;11a;20;1;2;5200;M;TN,VN	Pass	1M	1M	0.00	7.76	15.18	15.18	15.24	22.93	Inf	12.42	12.30
5.2G;11a;20;1;2;5240;H;TN,VN	Pass	1M	1M	0.00	7.76	15.00	15.00	15.24	22.75	Inf	12.09	12.02
5.2G;VHT20;20;1,(M0);2;5180;L;TN,VN	Pass	1M	1M	0.00	7.76	8.91	8.91	15.24	16.67	Inf	6.14	5.82
5.2G;VHT20;20;1,(M0);2;5200;M;TN,VN	Pass	1M	1M	0.00	7.76	14.64	14.64	15.24	22.40	Inf	11.91	11.45
5.2G;VHT20;20;1,(M0);2;5240;H;TN,VN	Pass	1M	1M	0.00	7.76	14.93	14.93	15.24	22.69	Inf	12.21	11.68
5.2G;VHT40;40;1,(M0);2;5190;L;TN,VN	Pass	1M	1M	0.00	7.76	3.42	3.42	15.24	11.17	Inf	0.50	0.46
5.2G;VHT40;40;1,(M0);2;5230;H;TN,VN	Pass	1M	1M	0.00	7.76	12.61	12.61	15.24	20.37	Inf	9.84	9.69
5.2G;VHT80;80;1,(M0);2;5210;S;TN,VN	Pass	1M	1M	0.00	7.76	-1.66	-1.66	15.24	6.10	Inf	-4.62	-4.29
5.8G;11a;20;1;2;5745;L;TN,VN	Pass	500k	500k	0.00	7.76	10.47	10.47	28.24	18.23	34.24	7.54	7.42
5.8G;11a;20;1;2;5785;M;TN,VN	Pass	500k	500k	0.00	7.76	10.25	10.25	28.24	18.00	34.24	7.18	7.43
5.8G;11a;20;1;2;5825;H;TN,VN	Pass	500k	500k	0.00	7.76	15.48	15.48	28.24	23.24	34.24	12.66	12.64
5.8G;VHT20;20;1,(M0);2;5745;L;TN,VN	Pass	500k	500k	0.00	7.76	9.82	9.82	28.24	17.57	34.24	6.83	6.87
5.8G;VHT20;20;1,(M0);2;5785;M;TN,VN	Pass	500k	500k	0.00	7.76	9.82	9.82	28.24	17.57	34.24	6.80	6.89
5.8G;VHT20;20;1,(M0);2;5825;H;TN,VN	Pass	500k	500k	0.00	7.76	15.13	15.13	28.24	22.88	34.24	12.33	12.15
5.8G;VHT40;40;1,(M0);2;5755;L;TN,VN	Pass	500k	500k	0.00	7.76	6.96	6.96	28.24	14.71	34.24	3.99	3.96
5.8G;VHT40;40;1,(M0);2;5795;H;TN,VN	Pass	500k	500k	0.00	7.76	11.35	11.35	28.24	19.11	34.24	8.33	8.35
5.8G;VHT80;80;1,(M0);2;5775;S;TN,VN	Pass	500k	500k	0.00	7.76	1.18	1.18	28.24	8.93	34.24	-1.42	-1.99

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5180MHz;TN,VN



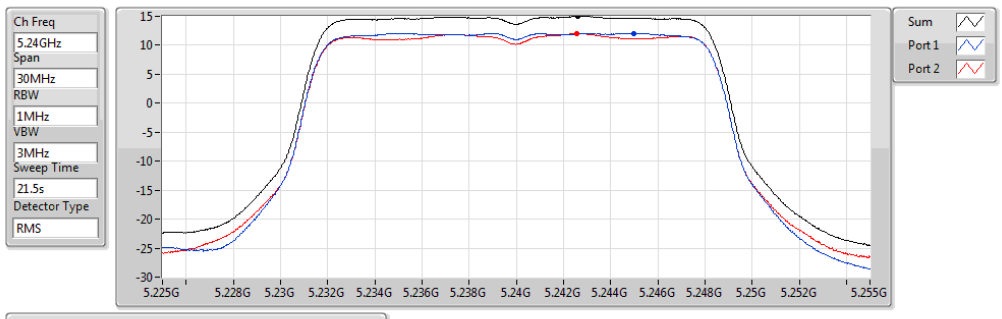
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.07	11.07	8.21	8.31

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5200MHz;TN,VN



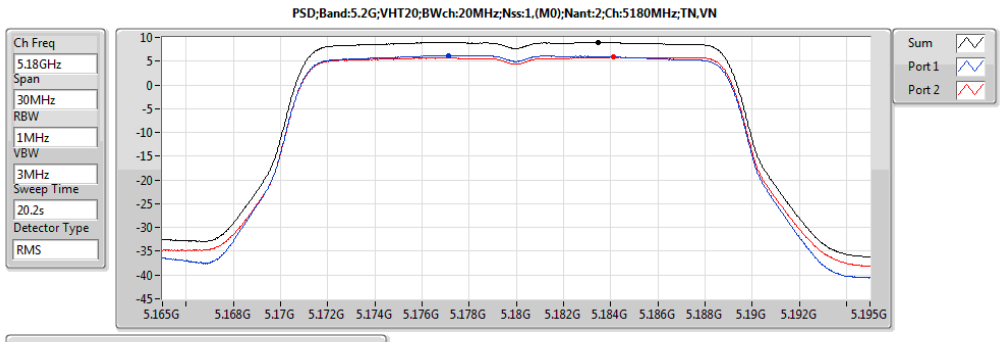
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.18	15.18	12.42	12.30

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5240MHz;TN,VN



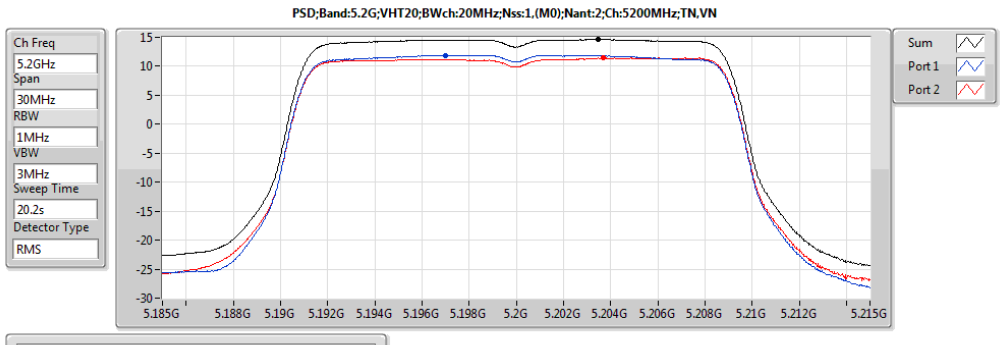
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.00	15.00	12.09	12.02

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5180MHz;TN,VN



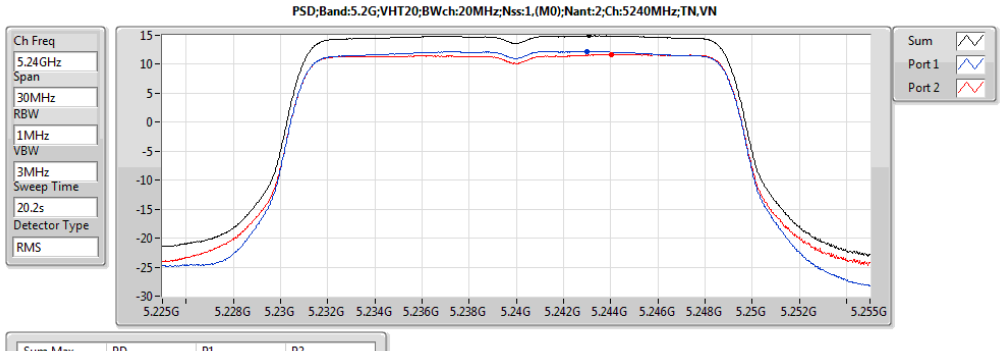
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.91	8.91	6.14	5.82

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5200MHz;TN,VN



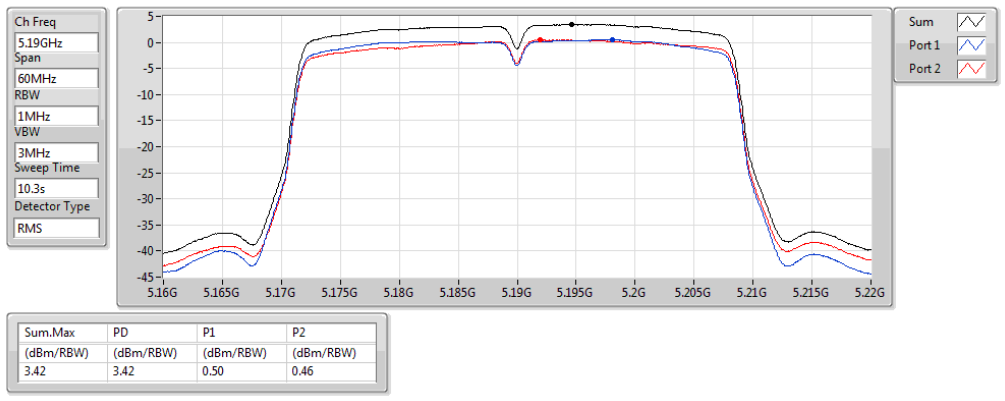
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.64	14.64	11.91	11.45

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5240MHz;TN,VN



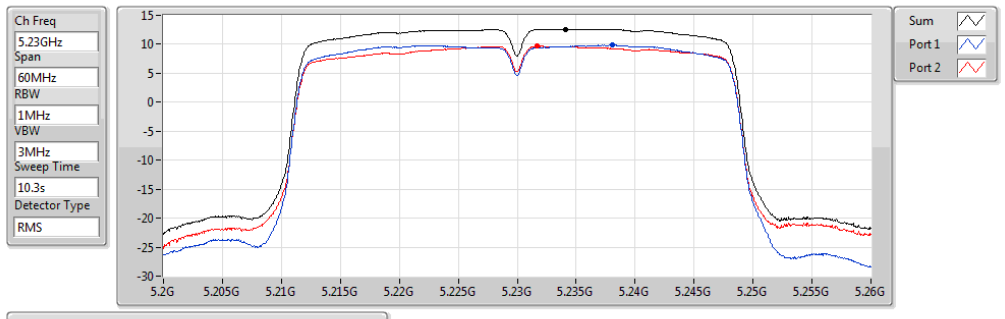
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.93	14.93	12.21	11.68

PSD;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5190MHz;TN,VN



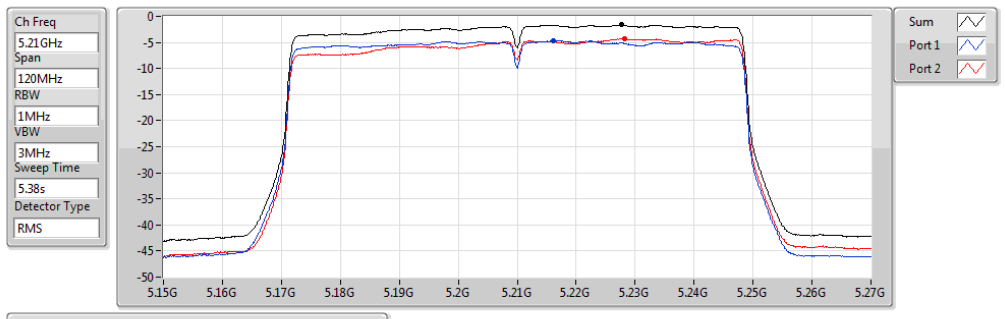
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.42	3.42	0.50	0.46

PSD;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5230MHz;TN,VN



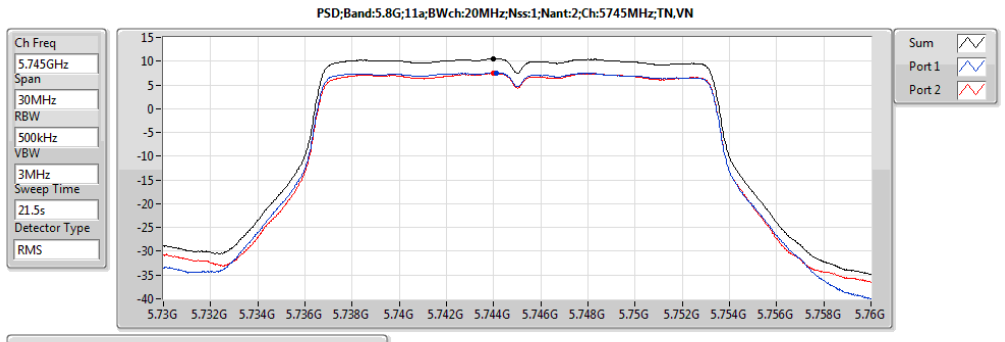
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.61	12.61	9.84	9.69

PSD;Band:5.2G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5210MHz;TN,VN



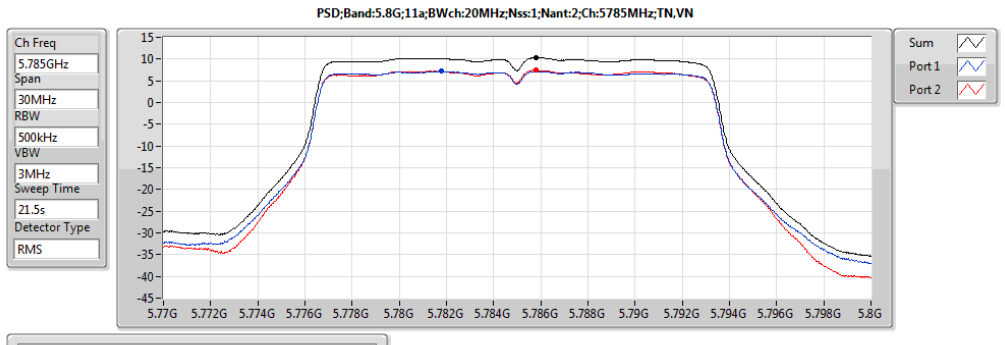
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.66	-1.66	-4.62	-4.29

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5745MHz;TN,VN



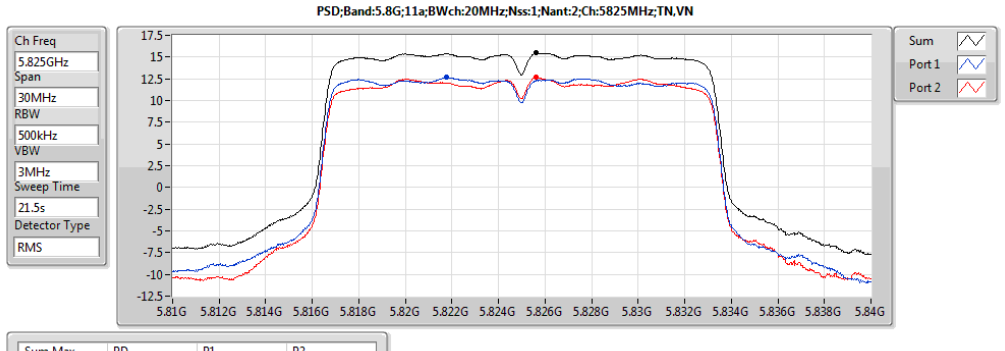
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.47	10.47	7.54	7.42

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5785MHz;TN,VN



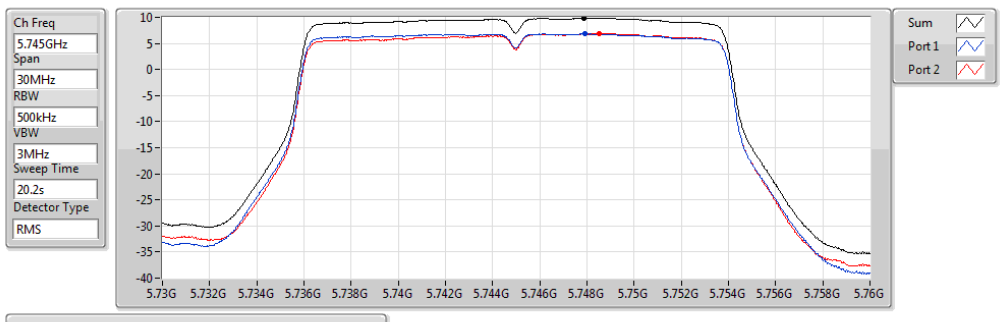
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.25	10.25	7.18	7.43

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5825MHz;TN,VN



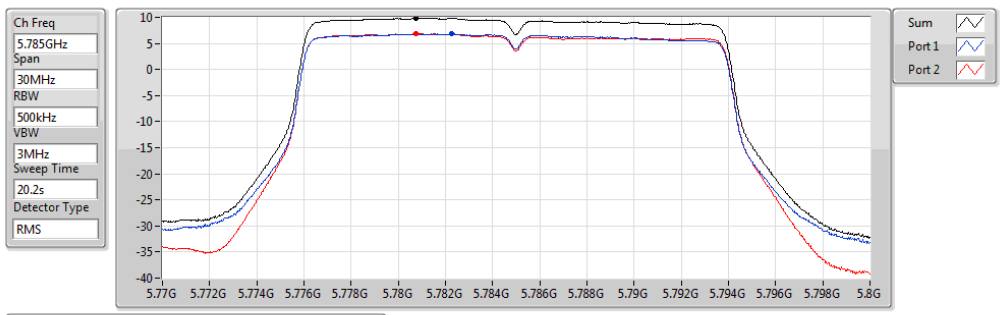
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.48	15.48	12.66	12.64

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5745MHz;TN,VN



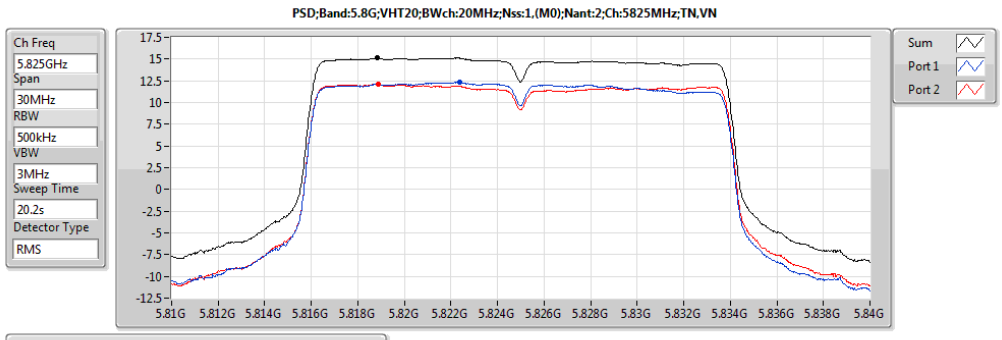
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.82	9.82	6.83	6.87

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5785MHz;TN,VN



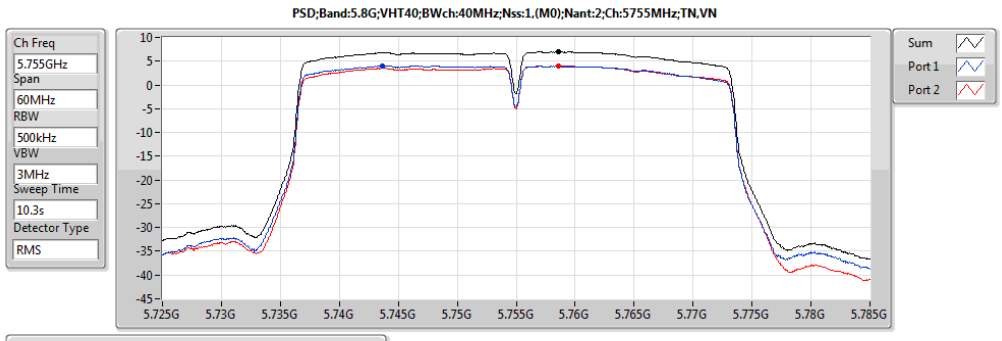
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.82	9.82	6.80	6.89

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:2;Ch:5825MHz;TN,VN



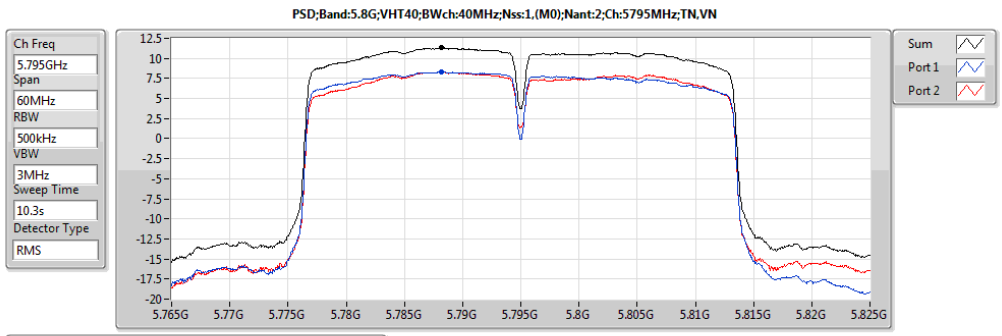
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.13	15.13	12.33	12.15

PSD;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5755MHz;TN,VN



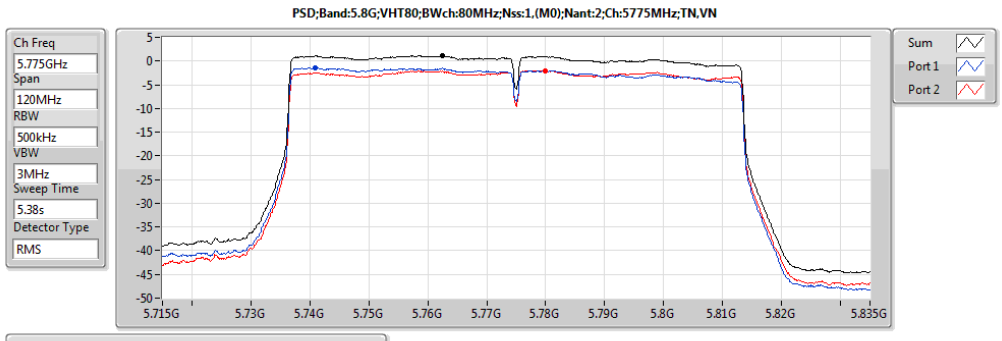
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.96	6.96	3.99	3.96

PSD;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:2;Ch:5795MHz;TN,VN



Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.35	11.35	8.33	8.35

PSD;Band:5.8G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:2;Ch:5775MHz;TN,VN



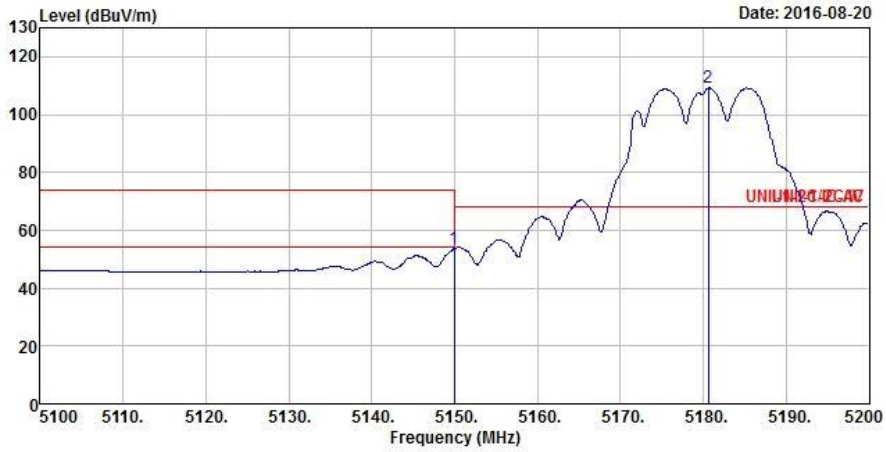
Sum.Max	PD	P1	P2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.18	1.18	-1.42	-1.99

Transmitter Radiated Bandedge Emissions (with Antenna)

U-NII 5150-5250MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	N_{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Freq. (MHz) AV	Level (dBuV/m) AV	Limit (dBuV/m) AV	Pol.
11a	2	5180	3	5149.600	65.86	74	5150.000	53.86	54	V
11a	2	5240	3	5398.080	58.24	74	5396.640	48.51	54	V
VHT20	2	5180	3	5149.200	64.29	74	5150.000	53.42	54	V
VHT20	2	5240	3	5447.760	58.35	74	5401.680	47.68	54	V
VHT40	2	5190	3	5147.960	65.26	74	5149.940	53.43	54	V
VHT40	2	5230	3	5149.800	64.09	74	5149.200	53.67	54	V
VHT80	2	5210	3	5145.600	63.71	74	5145.000	53.38	54	V
Note 1: Measurement worst emissions of receive antenna polarization.										

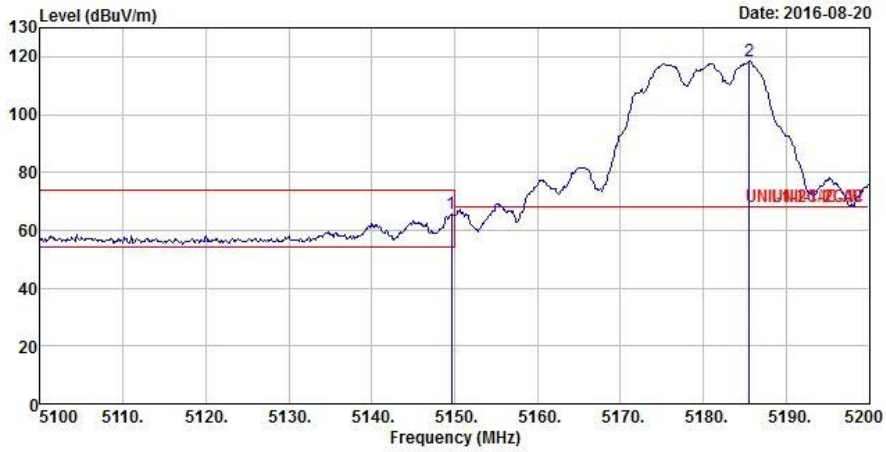
U-NII 5725-5850MHz Transmitter Radiated Bandedge (with Antenna)							
Modulation Mode	N_{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Pol.
11a	2	5745	3	5621.830	59.10	68.2	V
11a	2	5825	3	5512.600	66.80	68.2	V
VHT20	2	5745	3	5581.120	59.37	68.2	V
VHT20	2	5825	3	5509.360	67.91	68.2	V
VHT40	2	5755	3	5566.140	59.75	68.2	V
VHT40	2	5795	3	5481.000	64.58	68.2	V
VHT80	2	5775	3	5649.700	67.60	68.2	V
Note 1: Measurement worst emissions of receive antenna polarization.							

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Average



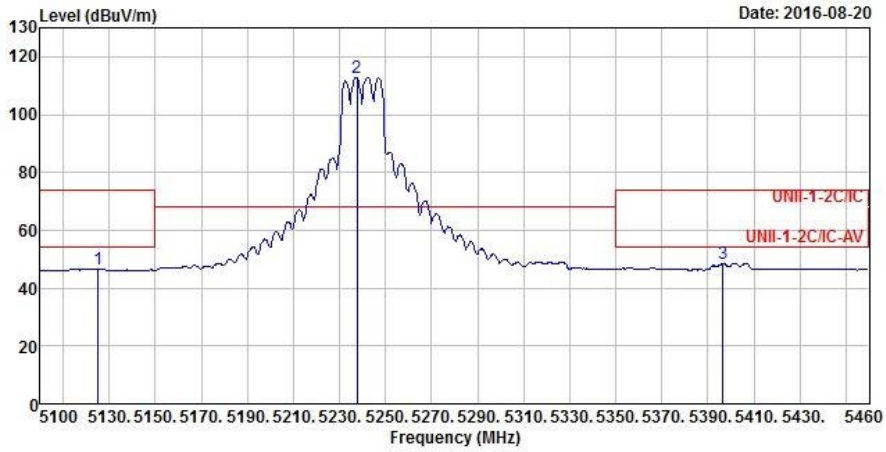
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5150.000	53.86	-0.14	54.00	51.16	31.55	6.30	35.15	Average
2	5180.600	109.16			106.41	31.58	6.32	35.15	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Peak



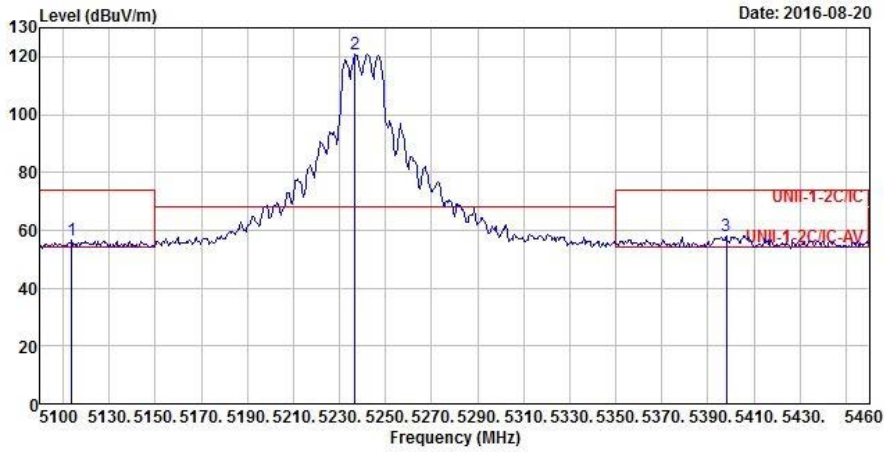
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.600	65.86	-8.14	74.00	63.16	31.55	6.30	35.15	Peak
2	5185.600	118.44			115.68	31.59	6.32	35.15	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Average



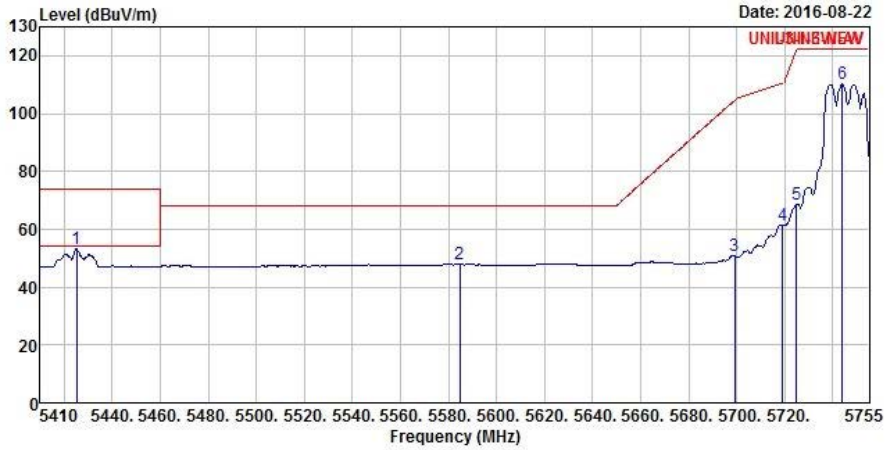
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5125.200	46.55	-7.45	54.00	43.87	31.53	6.30	35.15	Average
2	5237.520	112.86			109.99	31.64	6.38	35.15	Average
3	5396.640	48.51	-5.49	54.00	45.38	31.80	6.49	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Peak



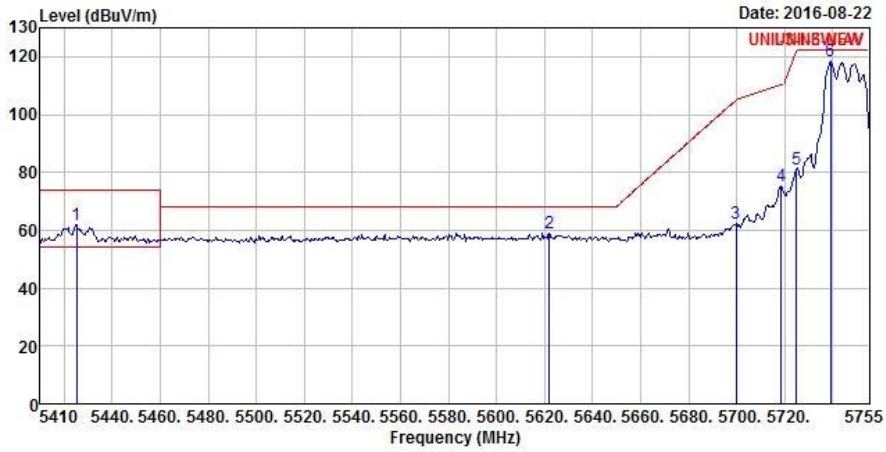
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5113.680	56.40	-17.60	74.00	53.77	31.51	6.27	35.15	Peak
2	5236.800	120.91			118.04	31.64	6.38	35.15	Peak
3	5398.080	58.24	-15.76	74.00	55.11	31.80	6.49	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Average



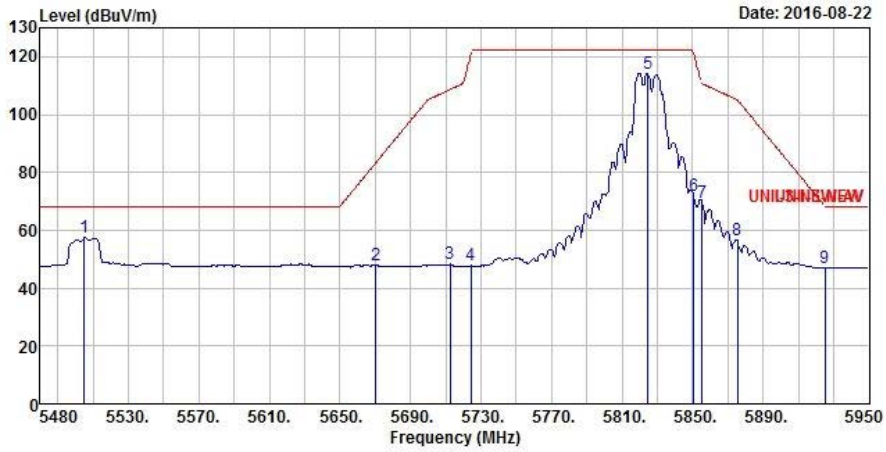
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5425.180	53.22	-0.78	54.00	50.06	31.83	6.49	35.16	Average
2	5584.570	48.14	-20.06	68.20	44.70	32.00	6.60	35.16	Average
3	5699.110	50.86	-53.68	104.54	47.25	32.14	6.63	35.16	Average
4	5719.120	61.25	-49.30	110.55	57.61	32.16	6.64	35.16	Average
5	5724.985	68.59	-53.58	122.17	64.94	32.17	6.64	35.16	Average
6	5743.960	110.18			106.49	32.19	6.66	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Peak



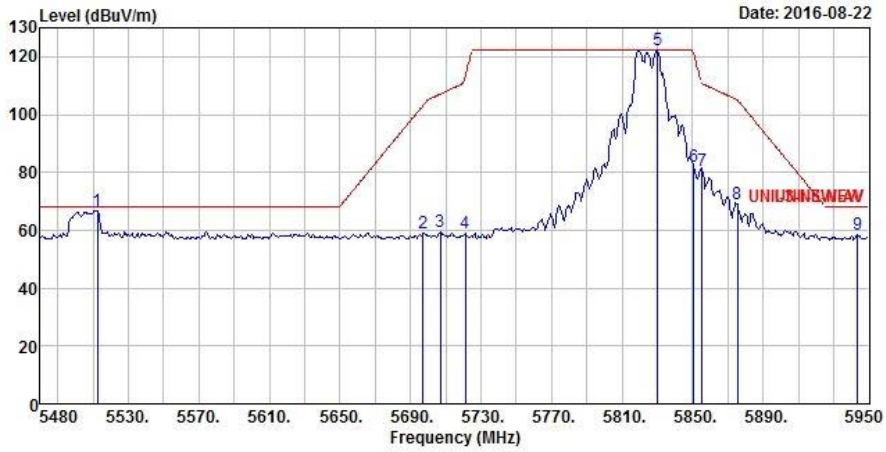
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5425.180	61.84	-12.16	74.00	58.68	31.83	6.49	35.16	Peak
2	5621.830	59.10	-9.10	68.20	55.60	32.05	6.61	35.16	Peak
3	5699.800	62.41	-42.64	105.05	58.79	32.14	6.64	35.16	Peak
4	5718.430	75.10	-35.26	110.36	71.46	32.16	6.64	35.16	Peak
5	5724.985	81.02	-41.15	122.17	77.37	32.17	6.64	35.16	Peak
6	5739.130	118.27			114.58	32.19	6.66	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Average



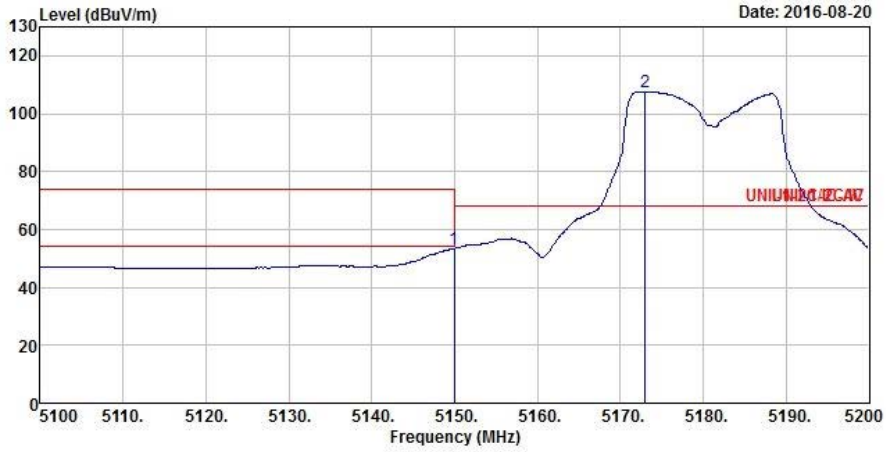
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5505.040	57.38	-10.82	68.20	54.06	31.91	6.57	35.16	Average
2	5670.280	48.14	-35.11	83.25	44.57	32.10	6.63	35.16	Average
3	5712.400	48.22	-60.45	108.67	44.59	32.15	6.64	35.16	Average
4	5724.280	47.76	-72.80	120.56	44.11	32.17	6.64	35.16	Average
5	5824.720	114.11			110.29	32.29	6.69	35.16	Average
6	5850.640	71.80	-48.94	120.74	67.95	32.32	6.69	35.16	Average
7	5855.500	69.62	-41.04	110.66	65.76	32.33	6.69	35.16	Average
8	5875.480	56.53	-48.31	104.84	52.64	32.35	6.70	35.16	Average
9	5925.160	47.15	-21.05	68.20	43.18	32.41	6.72	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Peak



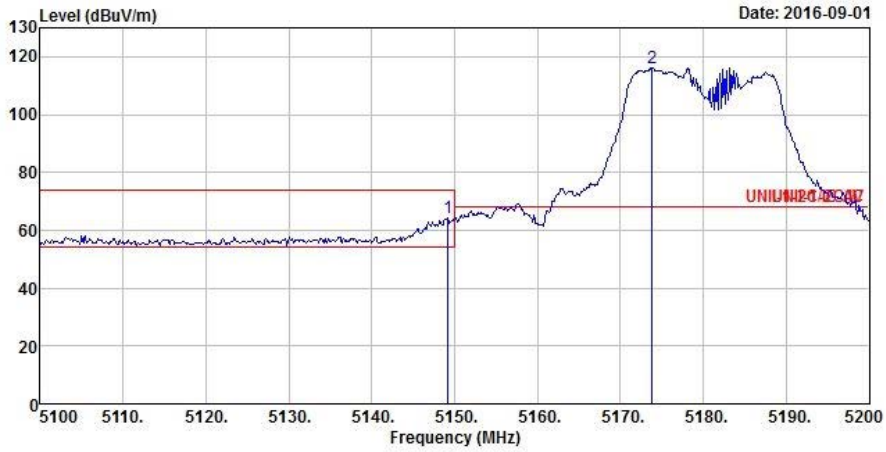
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5512.600	66.80	-1.40	68.20	63.47	31.92	6.57	35.16	Peak
2	5697.280	59.08	-44.12	103.20	55.47	32.14	6.63	35.16	Peak
3	5707.000	59.27	-47.89	107.16	55.64	32.15	6.64	35.16	Peak
4	5721.040	59.03	-54.14	113.17	55.38	32.17	6.64	35.16	Peak
5	5830.120	122.32			118.49	32.30	6.69	35.16	Peak
6	5850.640	82.23	-38.51	120.74	78.38	32.32	6.69	35.16	Peak
7	5855.500	80.82	-29.84	110.66	76.96	32.33	6.69	35.16	Peak
8	5875.480	68.92	-35.92	104.84	65.03	32.35	6.70	35.16	Peak
9	5943.520	58.56	-9.64	68.20	54.56	32.43	6.73	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Average



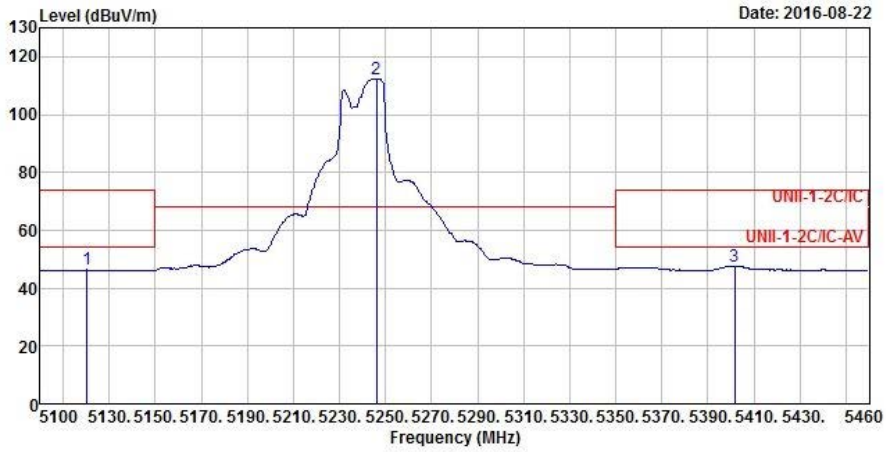
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5150.000	53.42	-0.58	54.00	50.72	31.55	6.30	35.15	Average
2	5173.000	107.63			104.89	31.57	6.32	35.15	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Peak



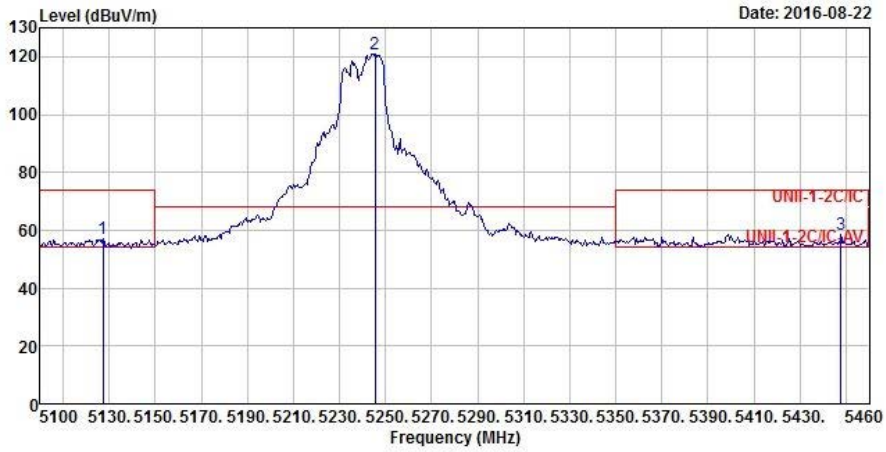
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.200	64.29	-9.71	74.00	61.59	31.55	6.30	35.15	Peak
2	5173.800	116.05			113.31	31.57	6.32	35.15	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Average



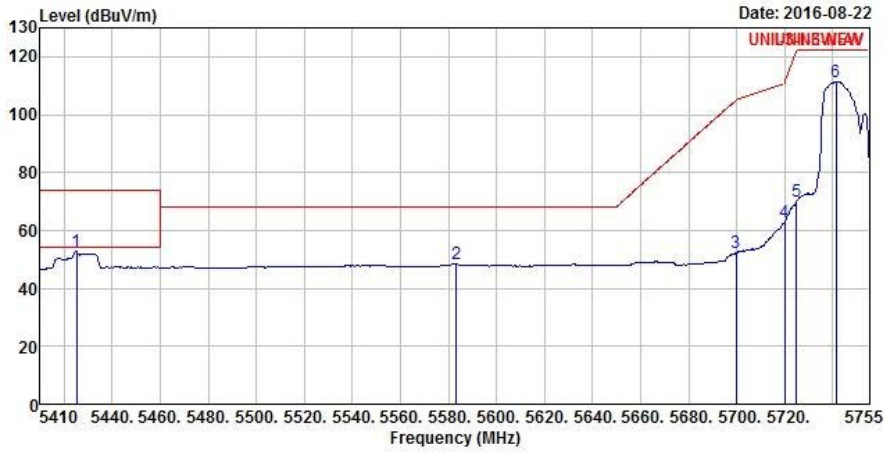
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5120.160	46.30	-7.70	54.00	43.63	31.52	6.30	35.15	Average
2	5246.160	112.48			109.60	31.65	6.38	35.15	Average
3	5401.680	47.68	-6.32	54.00	44.55	31.80	6.49	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Peak



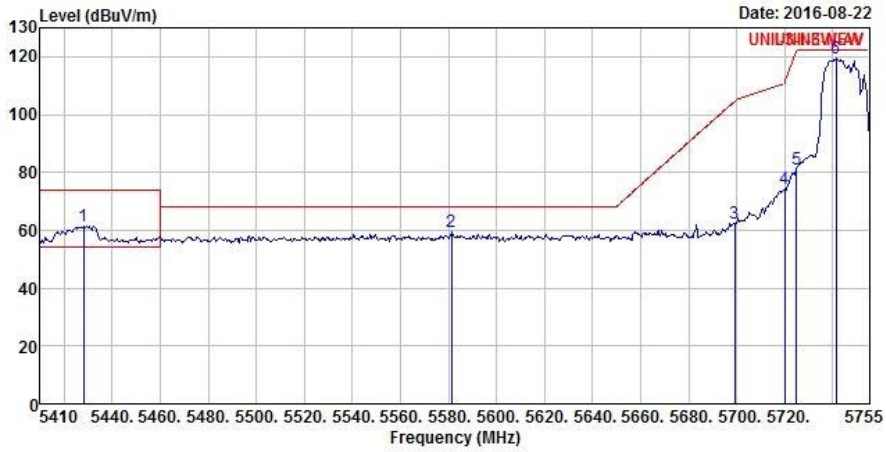
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5127.360	56.99	-17.01	74.00	54.31	31.53	6.30	35.15	Peak
2	5245.440	121.03			118.15	31.65	6.38	35.15	Peak
3	5447.760	58.35	-15.65	74.00	55.14	31.85	6.52	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Average



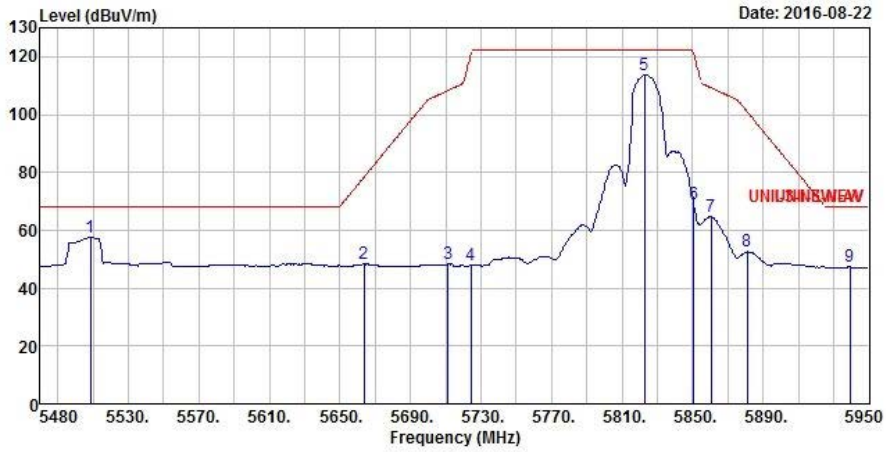
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5425.180	52.76	-1.24	54.00	49.60	31.83	6.49	35.16	Average
2	5583.190	48.25	-19.95	68.20	44.81	32.00	6.60	35.16	Average
3	5699.800	52.27	-52.78	105.05	48.65	32.14	6.64	35.16	Average
4	5719.810	62.88	-47.87	110.75	59.24	32.16	6.64	35.16	Average
5	5724.985	70.12	-52.05	122.17	66.47	32.17	6.64	35.16	Average
6	5741.200	111.29			107.60	32.19	6.66	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Peak



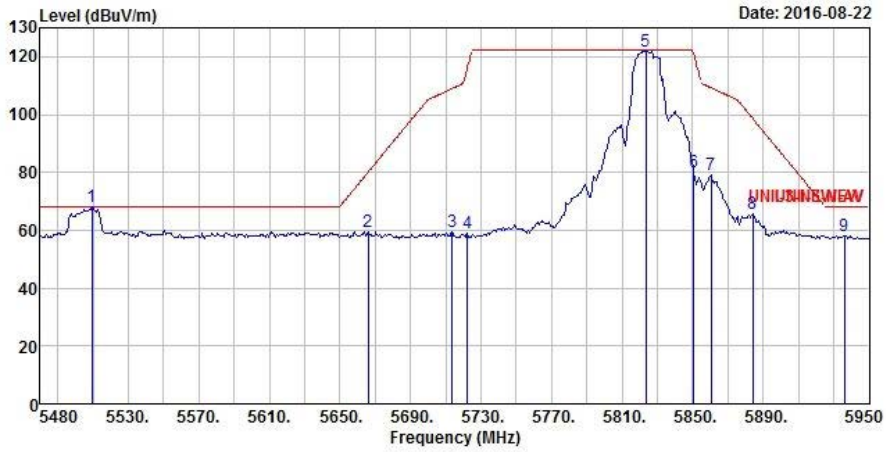
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5427.940	61.32	-12.68	74.00	58.13	31.83	6.52	35.16	Peak
2	5581.120	59.37	-8.83	68.20	55.95	32.00	6.58	35.16	Peak
3	5699.110	62.52	-42.02	104.54	58.91	32.14	6.63	35.16	Peak
4	5719.810	74.36	-36.39	110.75	70.72	32.16	6.64	35.16	Peak
5	5724.985	81.24	-40.93	122.17	77.59	32.17	6.64	35.16	Peak
6	5741.200	119.50			115.81	32.19	6.66	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Average



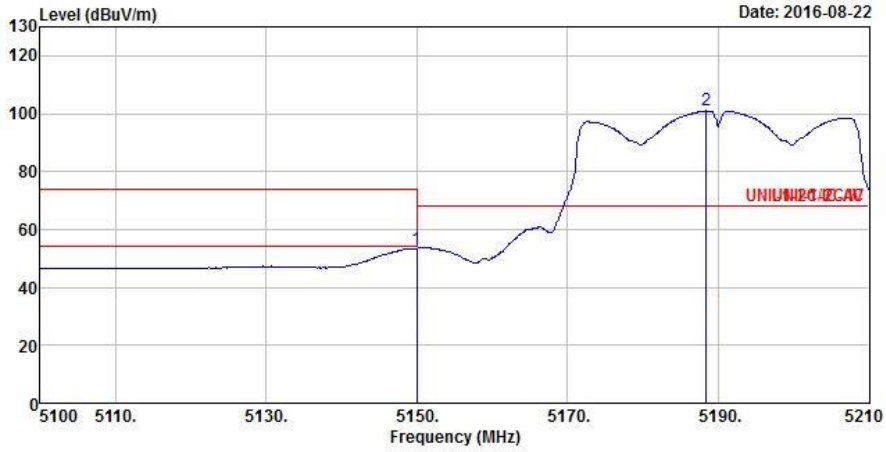
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5508.280	57.51	-10.69	68.20	54.19	31.91	6.57	35.16	Average
2	5663.800	48.32	-30.12	78.44	44.75	32.10	6.63	35.16	Average
3	5711.320	48.28	-60.09	108.37	44.65	32.15	6.64	35.16	Average
4	5724.280	47.85	-72.71	120.56	44.20	32.17	6.64	35.16	Average
5	5822.560	113.56			109.74	32.29	6.69	35.16	Average
6	5850.640	69.05	-51.69	120.74	65.20	32.32	6.69	35.16	Average
7	5860.360	64.72	-44.58	109.30	60.85	32.33	6.70	35.16	Average
8	5880.880	52.62	-48.21	100.83	48.72	32.36	6.70	35.16	Average
9	5939.200	47.33	-20.87	68.20	43.33	32.43	6.73	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Peak



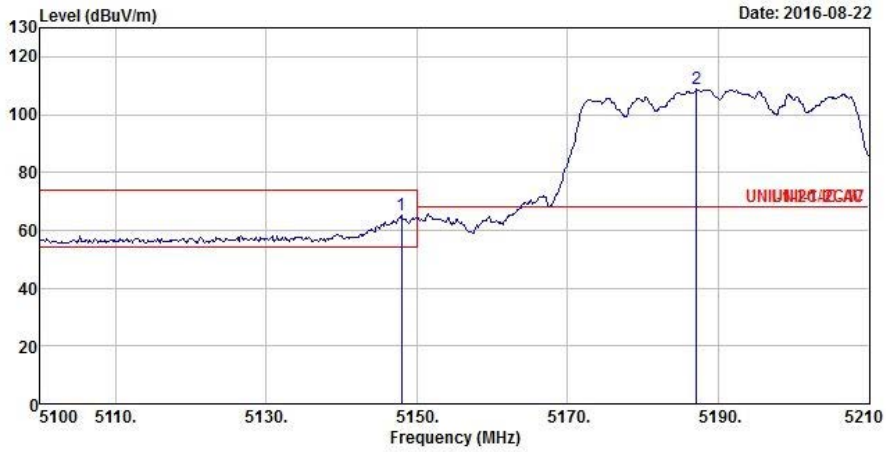
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5509.360	67.91	-0.29	68.20	64.59	31.91	6.57	35.16	Peak
2	5665.960	59.43	-20.62	80.05	55.86	32.10	6.63	35.16	Peak
3	5713.480	59.45	-49.53	108.98	55.81	32.16	6.64	35.16	Peak
4	5722.120	58.83	-56.81	115.64	55.18	32.17	6.64	35.16	Peak
5	5823.640	122.08			118.26	32.29	6.69	35.16	Peak
6	5850.640	80.27	-40.47	120.74	76.42	32.32	6.69	35.16	Peak
7	5860.360	79.10	-30.20	109.30	75.23	32.33	6.70	35.16	Peak
8	5884.120	65.72	-32.71	98.43	61.82	32.36	6.70	35.16	Peak
9	5935.960	57.87	-10.33	68.20	53.88	32.42	6.73	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Remark**	Average



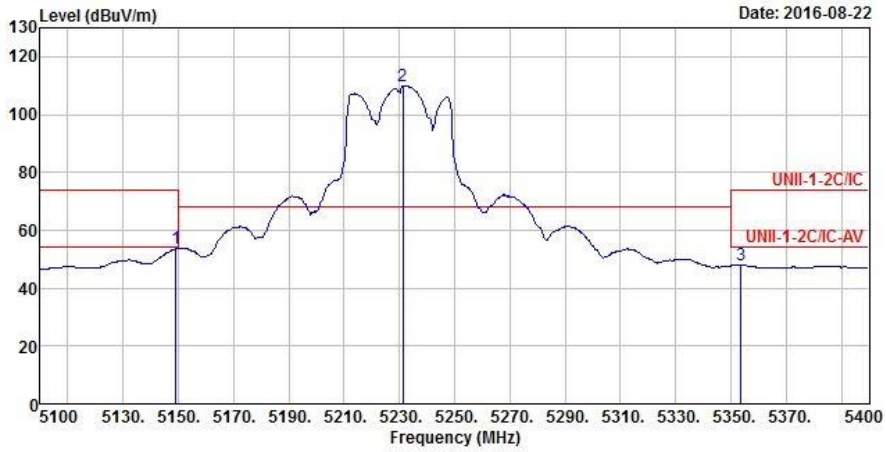
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.940	53.43	-0.57	54.00	50.73	31.55	6.30	35.15	Average
2	5188.440	100.98			98.22	31.59	6.32	35.15	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Remark**	Peak



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5147.960	65.26	-8.74	74.00	62.56	31.55	6.30	35.15	Peak
2	5187.120	108.67			105.91	31.59	6.32	35.15	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Remark**	Average

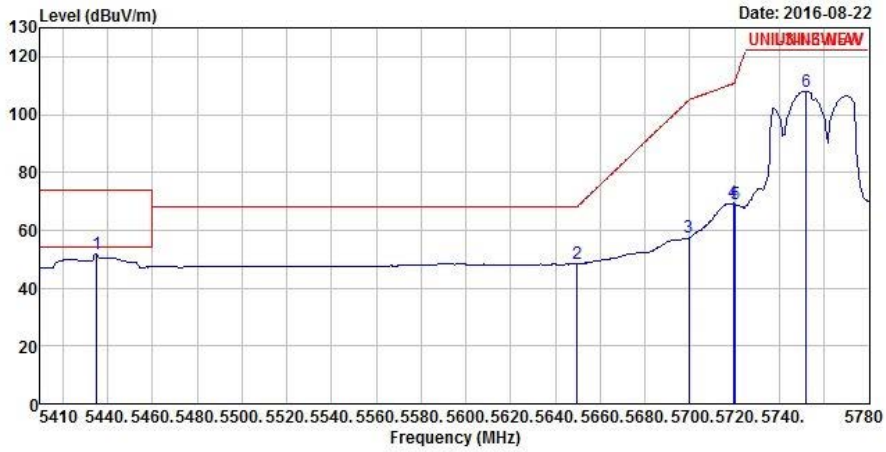


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.200	53.67	-0.33	54.00	50.97	31.55	6.30	35.15	Average
2	5231.400	109.93	-----	-----	107.10	31.63	6.35	35.15	Average
3	5353.800	47.77	-6.23	54.00	44.71	31.75	6.47	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Remark**	Peak

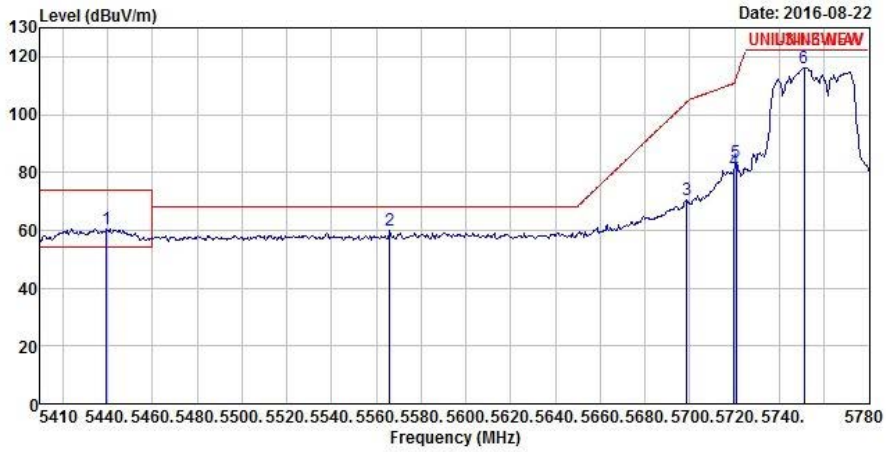
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.800	64.09	-9.91	74.00	61.39	31.55	6.30	35.15	Peak
2	5231.400	117.67			114.84	31.63	6.35	35.15	Peak
3	5361.000	58.31	-15.69	74.00	55.24	31.76	6.47	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Remark**	Average



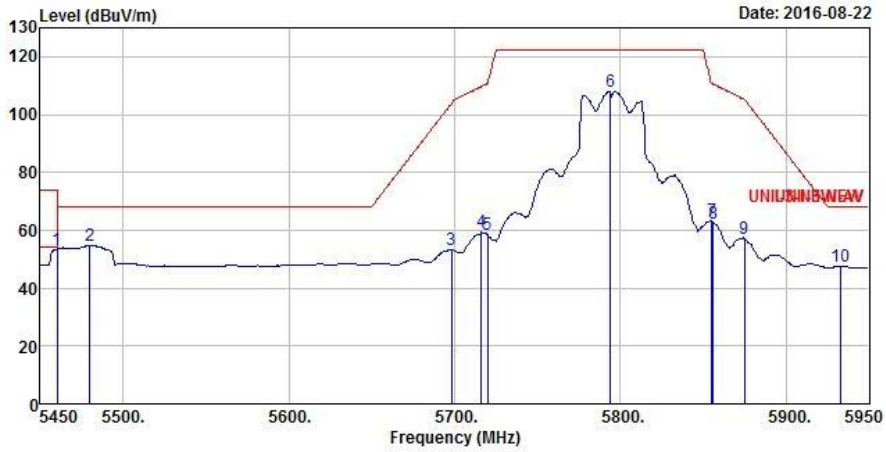
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5435.160	51.83	-2.17	54.00	48.63	31.84	6.52	35.16	Average
2	5649.760	48.53	-19.67	68.20	45.00	32.08	6.61	35.16	Average
3	5699.710	57.37	-47.62	104.99	53.75	32.14	6.64	35.16	Average
4	5719.320	69.32	-41.29	110.61	65.68	32.16	6.64	35.16	Average
5	5720.430	68.95	-42.83	111.78	65.31	32.16	6.64	35.16	Average
6	5751.880	107.89			104.19	32.20	6.66	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Remark**	Peak



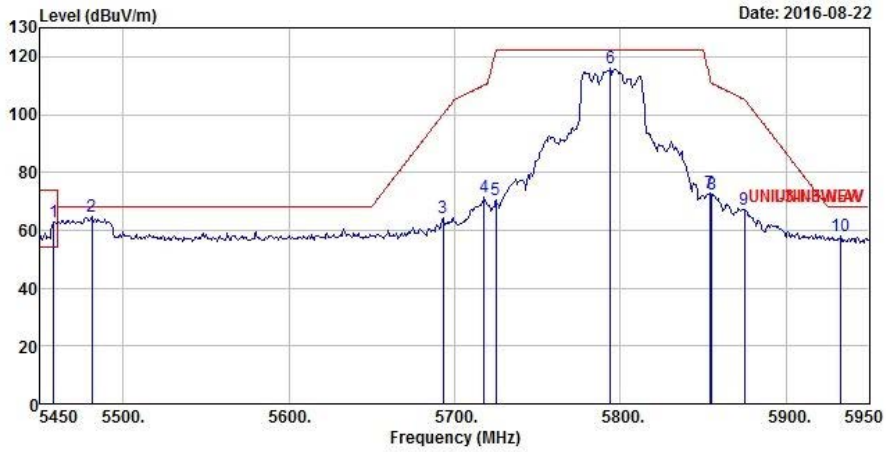
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5439.600	60.50	-13.50	74.00	57.30	31.84	6.52	35.16	Peak
2	5566.140	59.75	-8.45	68.20	56.35	31.98	6.58	35.16	Peak
3	5698.600	70.51	-33.66	104.17	66.90	32.14	6.63	35.16	Peak
4	5719.690	80.67	-30.04	110.71	77.03	32.16	6.64	35.16	Peak
5	5720.800	83.29	-29.33	112.62	79.65	32.16	6.64	35.16	Peak
6	5751.140	116.24			112.54	32.20	6.66	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Remark**	Average



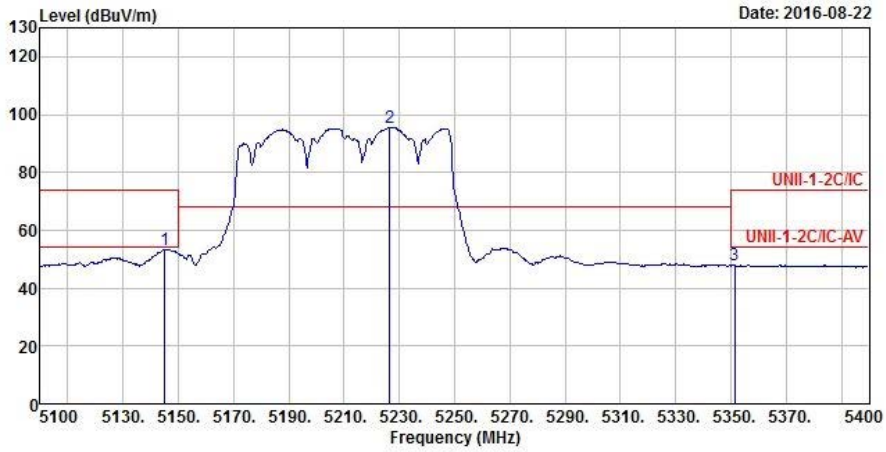
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5460.000	53.45	-0.55	54.00	50.23	31.86	6.52	35.16	Average
2	5480.000	54.68	-13.52	68.20	51.41	31.88	6.55	35.16	Average
3	5698.000	53.38	-50.35	103.73	49.77	32.14	6.63	35.16	Average
4	5716.000	59.37	-50.31	109.68	55.73	32.16	6.64	35.16	Average
5	5720.000	58.38	-52.42	110.80	54.74	32.16	6.64	35.16	Average
6	5794.000	108.01			104.25	32.25	6.67	35.16	Peak
7	5855.000	63.17	-47.63	110.80	59.31	32.33	6.69	35.16	Average
8	5856.000	62.59	-47.93	110.52	58.72	32.33	6.70	35.16	Average
9	5875.000	56.95	-48.25	105.20	53.06	32.35	6.70	35.16	Average
10	5933.000	47.42	-20.78	68.20	43.44	32.42	6.72	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Remark**	Peak



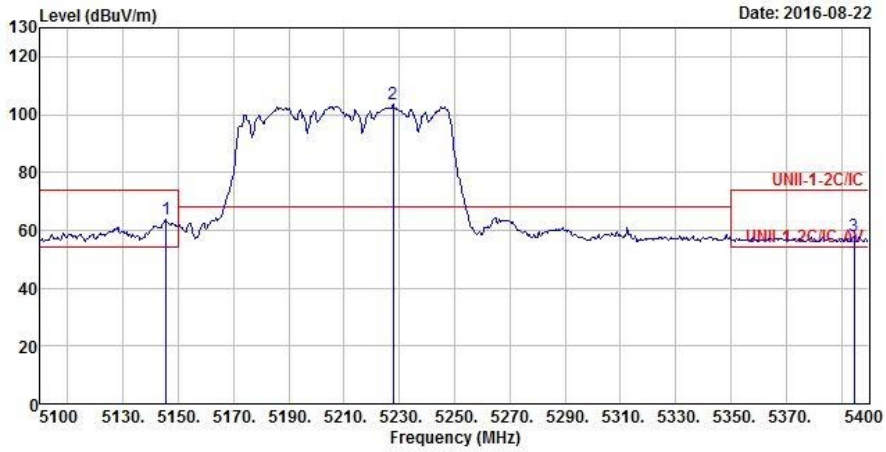
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5458.000	62.89	-11.11	74.00	59.67	31.86	6.52	35.16	Peak
2	5481.000	64.58	-3.62	68.20	61.31	31.88	6.55	35.16	Peak
3	5693.000	64.39	-35.65	100.04	60.79	32.13	6.63	35.16	Peak
4	5718.000	71.51	-38.73	110.24	67.87	32.16	6.64	35.16	Peak
5	5725.000	70.72	-51.48	122.20	67.07	32.17	6.64	35.16	Peak
6	5794.000	115.92			112.16	32.25	6.67	35.16	Peak
7	5854.000	72.74	-40.34	113.08	68.89	32.32	6.69	35.16	Peak
8	5855.000	72.65	-38.15	110.80	68.79	32.33	6.69	35.16	Peak
9	5875.000	67.02	-38.18	105.20	63.13	32.35	6.70	35.16	Peak
10	5933.000	57.93	-10.27	68.20	53.95	32.42	6.72	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT80	**Test Freq. (MHz)**	5210
N_{TX}	2	**Remark**	Average



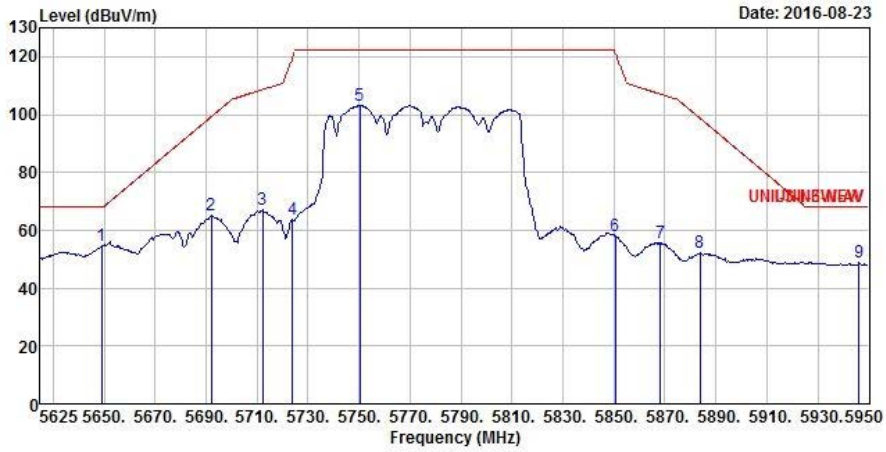
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5145.000	53.38	-0.62	54.00	50.68	31.55	6.30	35.15	Average
2	5226.600	95.53			92.70	31.63	6.35	35.15	Average
3	5351.400	47.99	-6.01	54.00	44.93	31.75	6.47	35.16	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT80	**Test Freq. (MHz)**	5210
N_{TX}	2	**Remark**	Peak



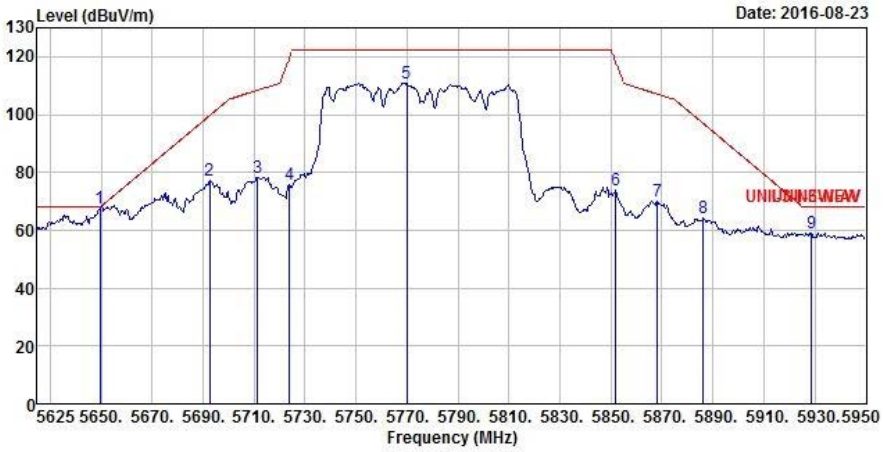
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5145.600	63.71	-10.29	74.00	61.01	31.55	6.30	35.15	Peak
2	5227.800	103.41			100.58	31.63	6.35	35.15	Peak
3	5394.600	58.17	-15.83	74.00	55.05	31.79	6.49	35.16	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT80	**Test Freq. (MHz)**	5775
N_{TX}	2	**Remark**	Average



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5649.050	54.71	-13.49	68.20	51.18	32.08	6.61	35.16	Average
2	5691.950	65.02	-34.24	99.26	61.42	32.13	6.63	35.16	Average
3	5712.100	66.99	-41.60	108.59	63.36	32.15	6.64	35.16	Average
4	5723.800	63.82	-55.64	119.46	60.17	32.17	6.64	35.16	Average
5	5750.450	103.08			99.38	32.20	6.66	35.16	Average
6	5850.550	58.19	-62.76	120.95	54.34	32.32	6.69	35.16	Average
7	5868.100	55.66	-51.47	107.13	51.78	32.34	6.70	35.16	Average
8	5883.700	52.05	-46.69	98.74	48.15	32.36	6.70	35.16	Average
9	5946.100	48.97	-19.23	68.20	44.96	32.44	6.73	35.16	Average

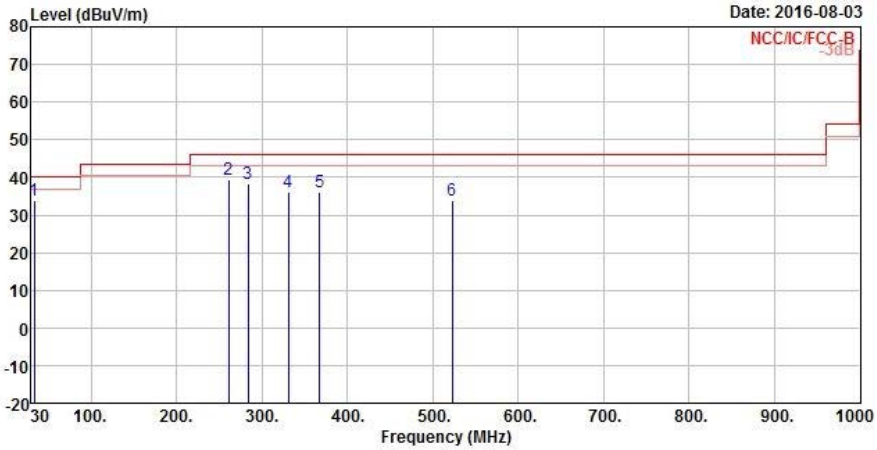
Transmitter Radiated Bandedge Emissions			
Modulation Mode	VHT80	**Test Freq. (MHz)**	5775
N_{TX}	2	**Remark**	Peak



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5649.700	67.60	-0.60	68.20	64.07	32.08	6.61	35.16	Peak
2	5692.600	77.10	-22.64	99.74	73.50	32.13	6.63	35.16	Peak
3	5711.450	78.13	-30.28	108.41	74.50	32.15	6.64	35.16	Peak
4	5723.800	75.78	-43.68	119.46	72.13	32.17	6.64	35.16	Peak
5	5769.950	111.05			107.33	32.22	6.66	35.16	Peak
6	5851.850	73.71	-44.27	117.98	69.86	32.32	6.69	35.16	Peak
7	5868.100	70.14	-36.99	107.13	66.26	32.34	6.70	35.16	Peak
8	5886.300	64.16	-32.65	96.81	60.26	32.36	6.70	35.16	Peak
9	5928.550	59.15	-9.05	68.20	55.18	32.41	6.72	35.16	Peak

Transmitter Radiated Unwanted Emissions (Below 1GHz)

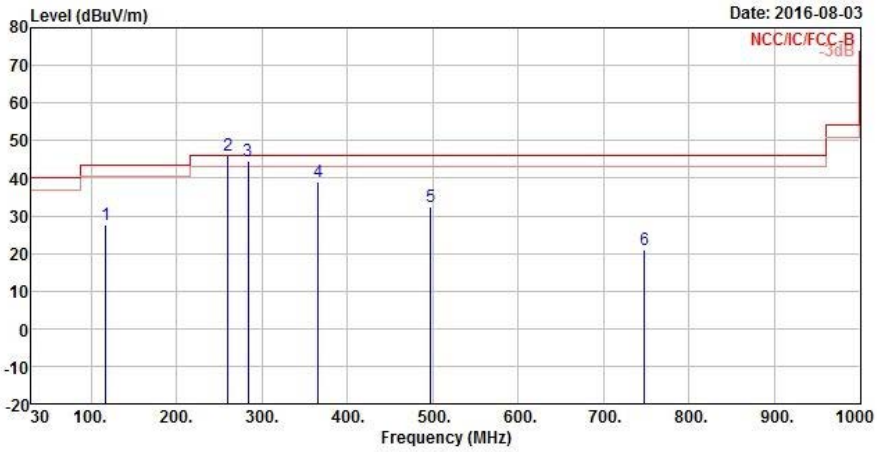
Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	V
Operating Function	Adapter mode		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	33.880	33.97	-6.03	40.00	48.20	22.80	0.34	37.37	Peak
2	260.860	39.56	-6.44	46.00	56.09	18.97	0.90	36.40	Peak
3	284.140	38.15	-7.85	46.00	55.13	18.48	0.94	36.40	Peak
4	330.700	36.16	-9.84	46.00	51.90	19.72	1.02	36.48	Peak
5	367.560	36.19	-9.81	46.00	50.97	20.72	1.07	36.57	Peak
6	522.760	33.71	-12.29	46.00	45.87	23.57	1.32	37.05	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	H
Operating Function	Adapter mode		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	117.300	27.46	-16.04	43.50	46.88	16.74	0.59	36.75	Peak
2	259.890	45.89	-0.11	46.00	62.40	18.99	0.90	36.40	QP
3	284.140	44.43	-1.57	46.00	61.41	18.48	0.94	36.40	QP
4	365.620	39.02	-6.98	46.00	53.85	20.67	1.07	36.57	Peak
5	497.540	32.29	-13.71	46.00	44.71	23.26	1.29	36.97	Peak
6	747.800	20.95	-25.05	46.00	30.00	26.86	1.60	37.51	QP

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.