FCC Test Report

Equipment	:	AC1750 Wi-Fi Range Extender
Brand Name	:	D-Link
Model No.	:	DAP-1720
FCC ID	:	KA2AP1720A1
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant	:	D-Link Corporation No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.
Function	:	☐ Outdoor; ☒ Indoor; ☐ Fixed P2P ☐ Client

The product sample received on Jun. 01, 2016 and completely tested on Dec. 13, 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.

Cliff Chang
SPORTON INTERNATIONAL INC.

Testing Laboratory
1190

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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
3.6	15.407(g)	Frequency Stability	Complied

Revision History

Report No.	Version	Description	Issued Date
FR680111AB	Rev. 01	Initial issue of report	Dec. 29, 2016

1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
5.2G	11a	20	3
5.8G	11a	20	3
5.2G	HT20	20	3
5.8G	HT20	20	3
5.2G	VHT20	20	3
5.8G	VHT20	20	3
5.2G	HT40	40	3
5.8G	HT40	40	3
5.2G	VHT40	40	3
5.8G	VHT40	40	3
5.2G	VHT80	80	3
5.8G	VHT80	80	3

Note:
- 5.2G/5.2G-I(IC) is the 5.2GHz Band (5.15-5.25GHz).
- 5.8G/5.8G-I(IC) 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

Ant.	Brand Holder	P/N	Antenna Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	HONGXIN INTERNATIONAL LIMITED	290-20290	Dipole	I-PEX	2.67	3.94
2	HONGXIN INTERNATIONAL LIMITED	290-20291	Dipole	I-PEX	2.42	4.06
3	HONGXIN INTERNATIONAL LIMITED	290-20292	Dipole	I-PEX	2.94	3.66

Note: The EUT has three antennas.

<For 2.4GHz Band>

For IEEE 802.11b/g/n mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antenna.

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antenna.

Ant. 1, Ant. 2 and Ant. 3 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) ≥ 1/T
11a	0.9486	0.0020	500
VHT20	0.9641	0.0018	1000
VHT40	0.91	0.0009	3000
VHT80	0.8014	0.0004	3000

1.1.4 EUT Operational Condition

EUT Power Type	From Internal Power Supply			
Beamforming Function	☐	With beamforming	☒	Without beamforming

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 KDB 644545 D03 v01
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location							
☐	HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.			
		TEL	:	886-3-327-3456	FAX	:	886-3-318-0055
☒	JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.			
		TEL	:	886-3-656-9065	FAX	:	886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Eddie Weng	25°C / 42%	Sep. 14, 2016
Radiated	03CH01-CB	Peter Wu/Steven Liang	22°C / 54%	Jun. 01, 2016~Sep. 19, 2016
AC Conduction	CO01-CB	Edison Lin	23°C / 60%	Sep. 02, 2016

Test site Designation No. TW0006 with FCC
Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Band	Mode	BWch (MHz)	Nss-Min	Nant	Ch. (MHz)	Range	Power Setting
5.2G	11a	20	1	3	5180	L	19
5.2G	11a	20	1	3	5200	M	23
5.2G	11a	20	1	3	5240	H	21
5.8G	11a	20	1	3	5745	L	25
5.8G	11a	20	1	3	5785	M	25
5.8G	11a	20	1	3	5825	H	25
5.2G	VHT20	20	1,(M0)	3	5180	L	18.5
5.2G	VHT20	20	1,(M0)	3	5200	M	22.5
5.2G	VHT20	20	1,(M0)	3	5240	H	20.5
5.8G	VHT20	20	1,(M0)	3	5745	L	25
5.8G	VHT20	20	1,(M0)	3	5785	M	25
5.8G	VHT20	20	1,(M0)	3	5825	H	25
5.2G	VHT40	40	1,(M0)	3	5190	L	15.5
5.2G	VHT40	40	1,(M0)	3	5230	H	20.5
5.8G	VHT40	40	1,(M0)	3	5755	L	23.5
5.8G	VHT40	40	1,(M0)	3	5795	H	25
5.2G	VHT80	80	1,(M0)	3	5210	S	15.5
5.8G	VHT80	80	1,(M0)	3	5775	S	15.5

Note:
- Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch.) and C (Straddle Band Ch.).

Note: VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT at Y-axis

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	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT at Y-axis
Operating Mode > 1GHz	CTX
1	EUT at Y-axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA680111 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

Note: The EUT can be used at Y-axis only.

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E6430	DoC
2	NB	DELL	E6430	DoC
3	NB	DELL	E6430	DoC

For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	NB	Apple	Mac Book	DoC
3	NB	Apple	Mac Book	DoC

For Test Site No: 03CH01-CB (above 1GHz)

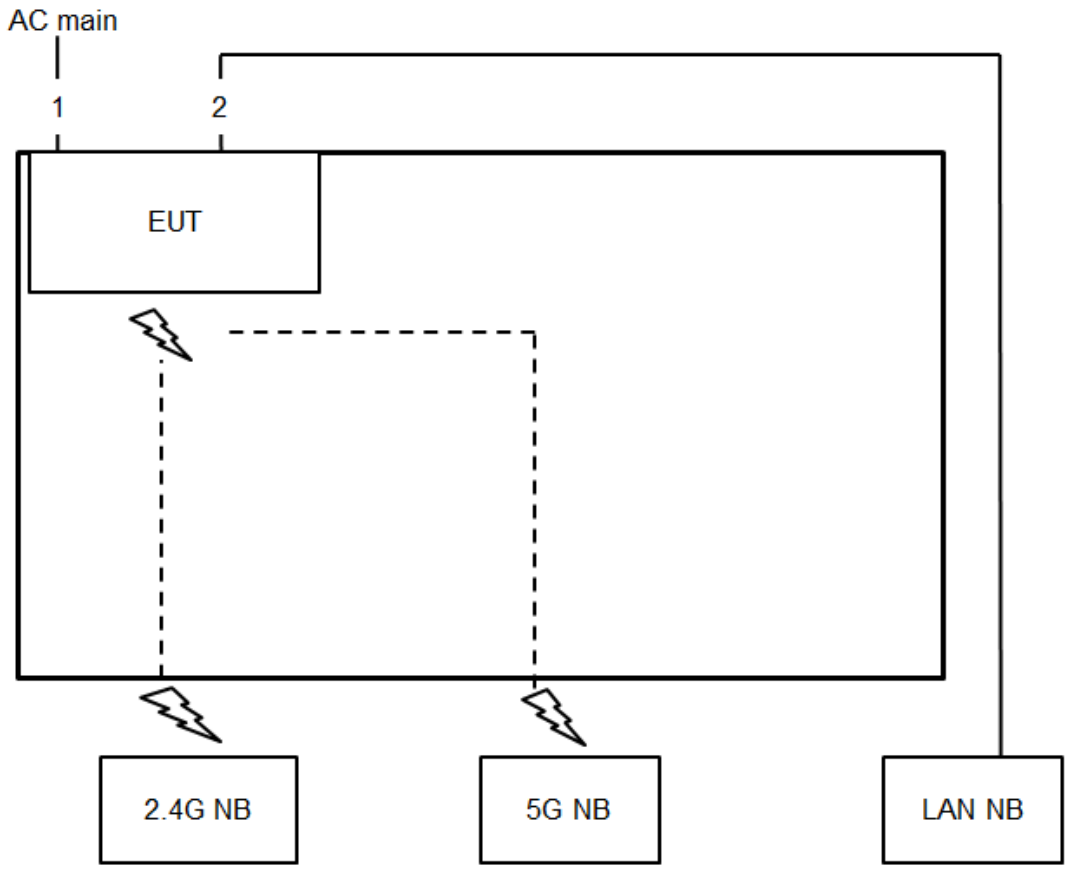
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC

For Test Site No: TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC

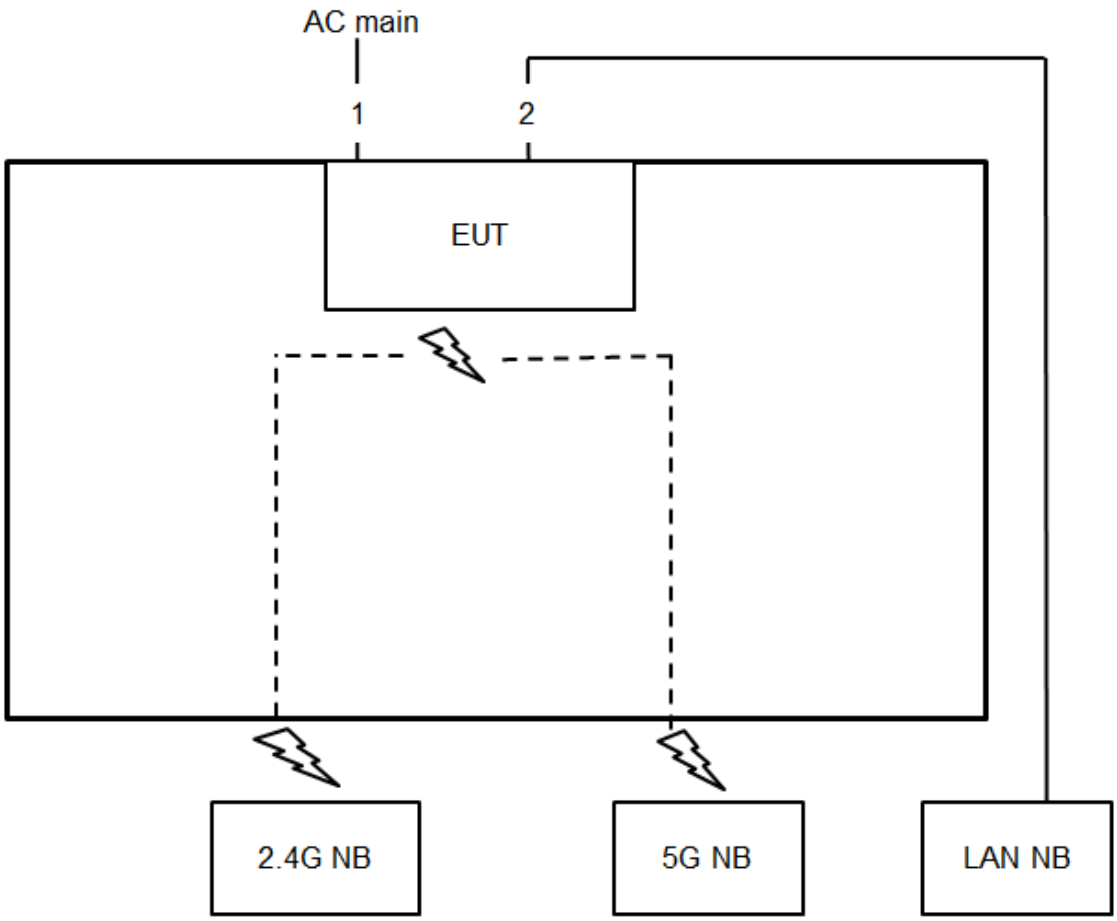
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



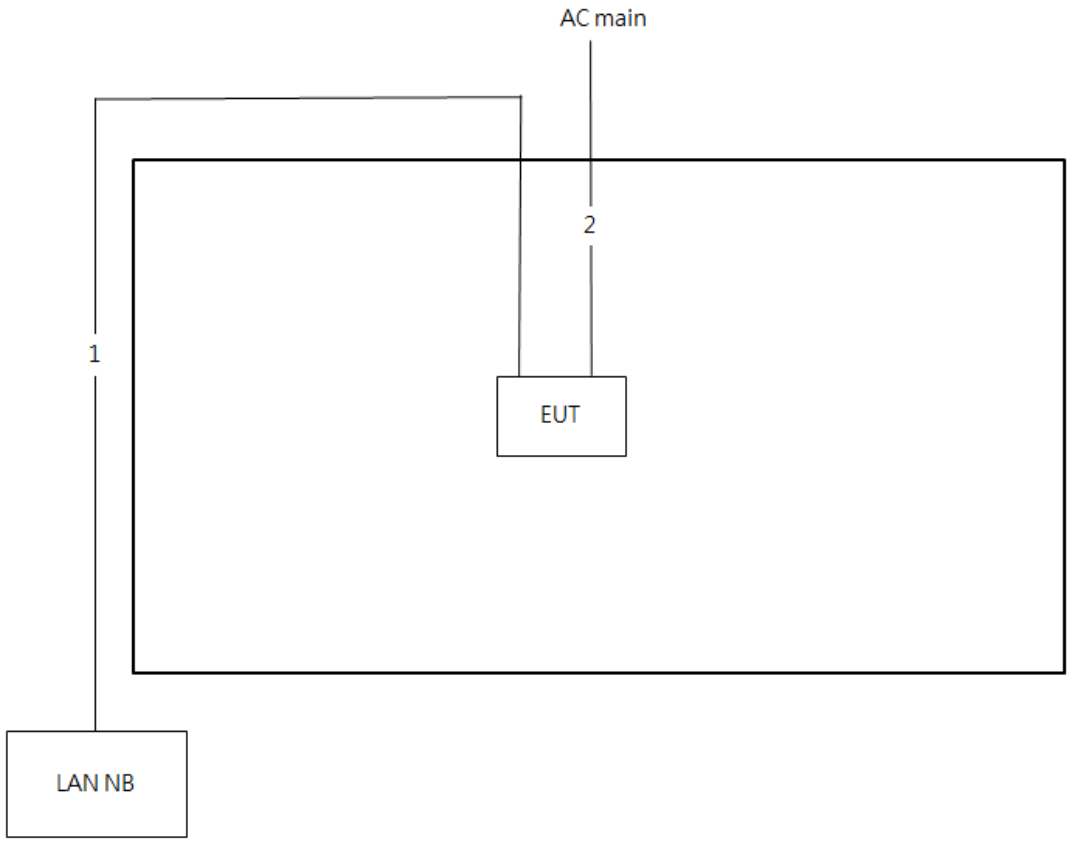
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.8m

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

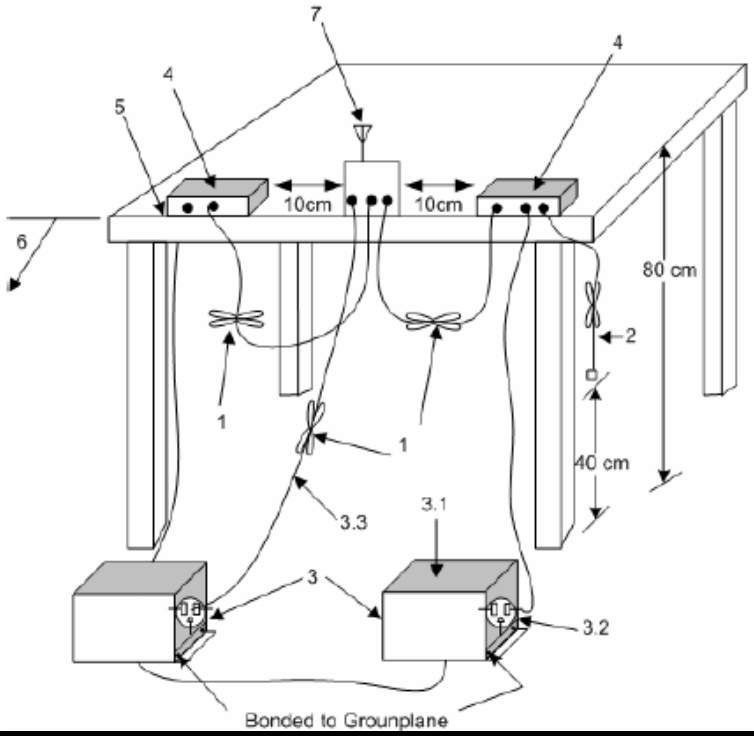
Refer a test equipment and calibration data table in this test report.

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 A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

3.2.2 Measuring Instruments

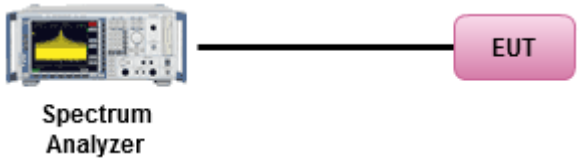
Refer a test equipment and calibration data table in this test report.

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 B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	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.	

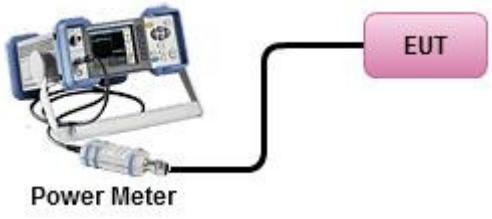
3.3.2 Measuring Instruments

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-1 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-1 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-G (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 (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☐	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
	▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for 0° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
☐	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.	

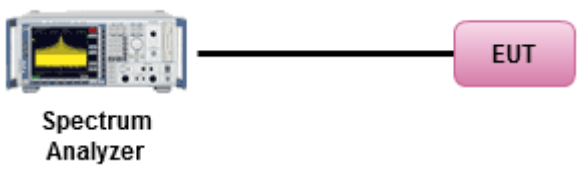
3.4.2 Measuring Instruments

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-1 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-1 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 NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
	☐ 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 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

3.5.2 Measuring Instruments

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

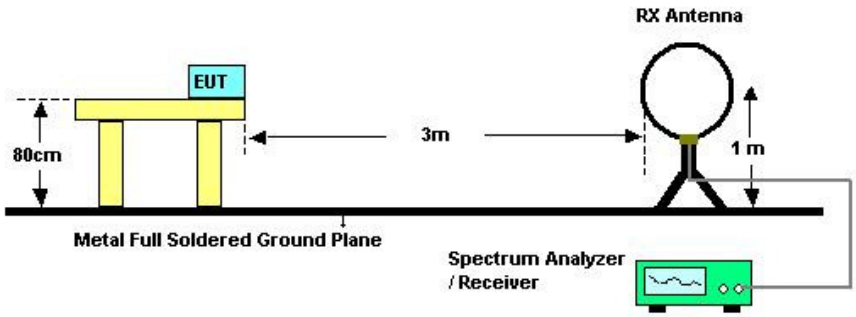
3.5.3 Test Procedures

Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.	
	▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
		☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
▪ For radiated measurement.		
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
▪ The any unwanted emissions level shall not exceed the fundamental emission level.		
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.		

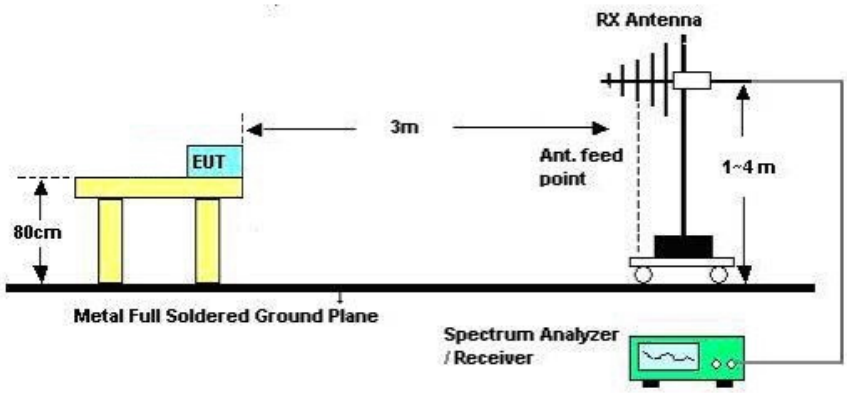
3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions

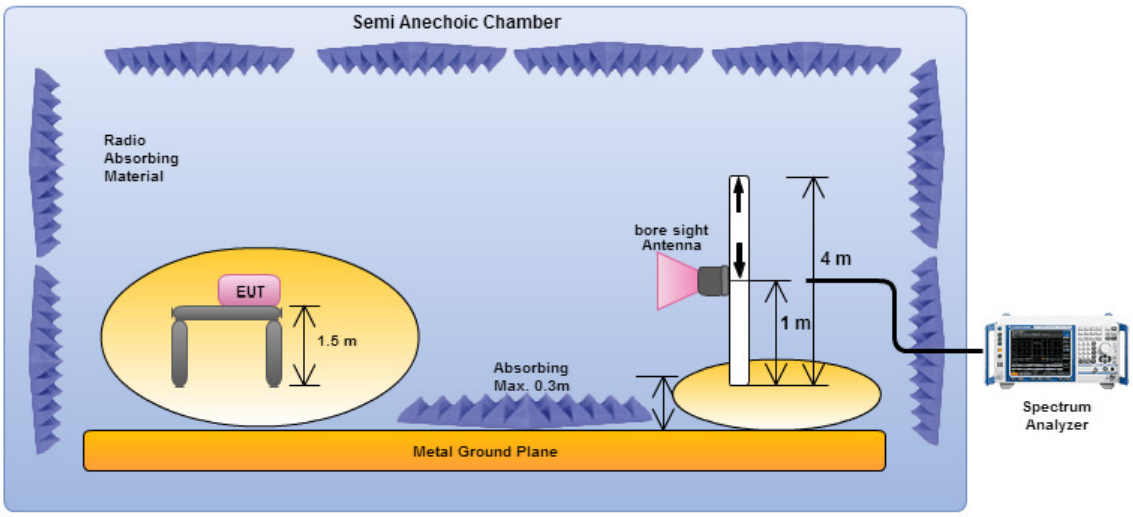
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 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.
LE-LAN Devices
▪ N/A
IEEE Std. 802.11
▪ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

3.6.2 Measuring Instruments

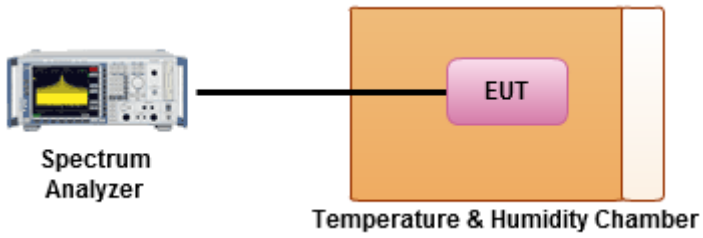
Refer a test equipment and calibration data table in this test report.

3.6.3 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
	▪ Extreme temperature is 0℃~40℃.

3.6.4 Test Setup

Frequency Stability



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 27, 0216	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 08, 2015	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 23, 2015	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 24, 2016	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
BILOG ANTENNA	TESEQ	CBL6112D	37880	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 22, 2015	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2015	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 15, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 18, 2016	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 13, 2015	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Oct. 27, 2015	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)

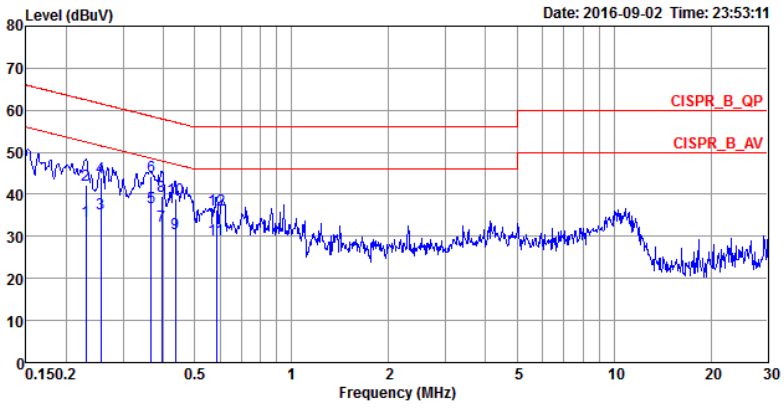
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 09, 2015	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Nov. 02, 2015	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 02, 2015	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

"*" Calibration Interval of instruments listed above is two years.

N.C.R means Non-Calibration required.

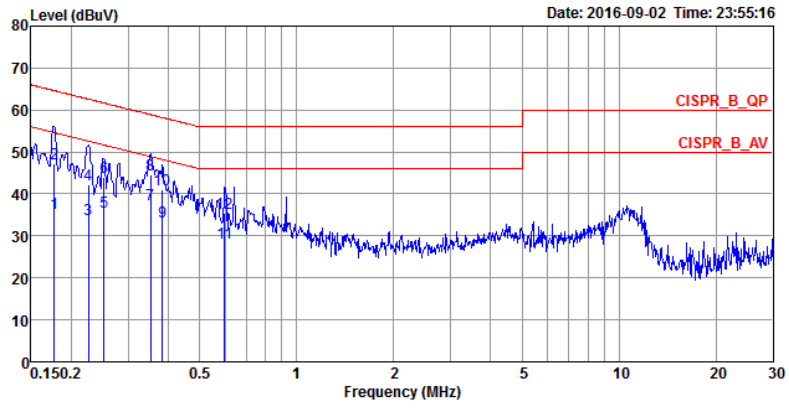
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.2304	33.57	-18.87	52.44	23.50	9.92	0.15	NEUTRAL	Average
2	0.2304	42.18	-20.26	62.44	32.11	9.92	0.15	NEUTRAL	QP
3	0.2562	35.37	-16.19	51.56	25.32	9.92	0.13	NEUTRAL	Average
4	0.2562	43.96	-17.60	61.56	33.91	9.92	0.13	NEUTRAL	QP
5	0.3673	37.04	-11.52	48.56	27.09	9.92	0.03	NEUTRAL	Average
6	0.3673	44.21	-14.35	58.56	34.26	9.92	0.03	NEUTRAL	QP
7	0.3955	32.59	-15.36	47.95	22.66	9.92	0.01	NEUTRAL	Average
8	0.3955	39.63	-18.32	57.95	29.70	9.92	0.01	NEUTRAL	QP
9	0.4351	30.58	-16.57	47.15	20.59	9.92	0.07	NEUTRAL	Average
10	0.4351	39.01	-18.14	57.15	29.02	9.92	0.07	NEUTRAL	QP
11	0.5854	29.33	-16.67	46.00	19.09	9.93	0.31	NEUTRAL	Average
12	0.5854	36.27	-19.73	56.00	26.03	9.93	0.31	NEUTRAL	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	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1768	35.55	-19.09	54.64	25.45	9.92	0.18	LINE	Average
2	0.1768	47.13	-17.51	64.64	37.03	9.92	0.18	LINE	QP
3	0.2256	33.81	-18.80	52.61	23.73	9.92	0.16	LINE	Average
4	0.2256	42.16	-20.45	62.61	32.08	9.92	0.16	LINE	QP
5	0.2521	35.86	-15.83	51.69	25.81	9.92	0.13	LINE	Average
6	0.2521	43.97	-17.72	61.69	33.92	9.92	0.13	LINE	QP
7	0.3520	37.57	-11.34	48.91	27.61	9.92	0.04	LINE	Average
8	0.3520	44.55	-14.36	58.91	34.59	9.92	0.04	LINE	QP
9	0.3832	33.36	-14.85	48.21	23.42	9.92	0.02	LINE	Average
10	0.3832	41.03	-17.18	58.21	31.09	9.92	0.02	LINE	QP
11	0.5979	28.47	-17.53	46.00	18.21	9.93	0.33	LINE	Average
12	0.5979	35.48	-20.52	56.00	25.22	9.93	0.33	LINE	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.)

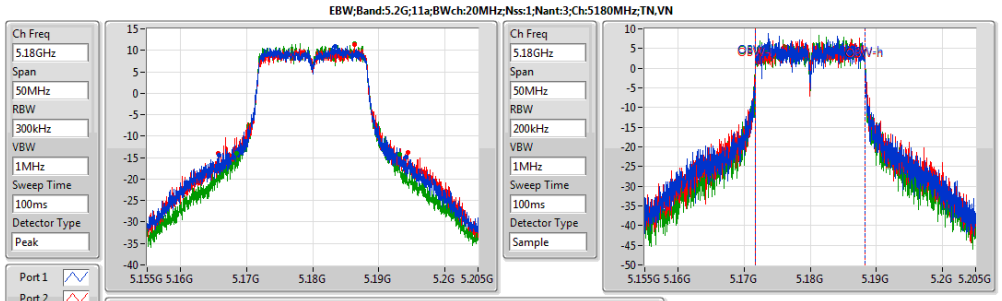
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.2G;11a;Nss1;Ntx3	44.975M	25.662M	25M7D1D	24.65M	16.567M
5.8G;11a;Nss1;Ntx3	16.325M	32.084M	32M1D1D	15.625M	26.312M
5.2G;VHT20;Nss1,(M0);Ntx3	45.025M	22.789M	22M8D1D	24.875M	17.741M
5.8G;VHT20;Nss1,(M0);Ntx3	17.55M	33.508M	33M5D1D	15.625M	27.786M
5.2G;VHT40;Nss1,(M0);Ntx3	64.35M	36.382M	36M4D1D	44.25M	36.182M
5.8G;VHT40;Nss1,(M0);Ntx3	36.35M	59.62M	59M6D1D	35.05M	41.679M
5.2G;VHT80;Nss1,(M0);Ntx3	87.5M	75.762M	75M8D1D	85.7M	75.562M
5.8G;VHT80;Nss1,(M0);Ntx3	75.1M	75.662M	75M7D1D	72.6M	75.562M

Result

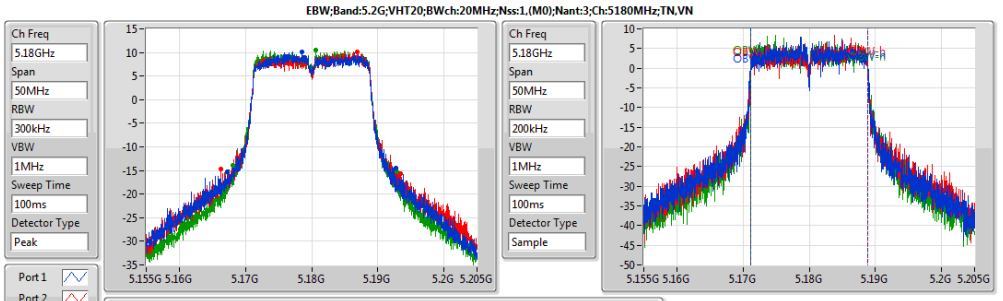
Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)	P3-N dB (Hz)	P3-OBW (Hz)
5.2G;11a;Nss1;Ntx3;5180	Pass	Inf	28.4M	16.617M	28.75M	16.667M	24.65M	16.567M
5.2G;11a;Nss1;Ntx3;5200	Pass	Inf	44.975M	24.238M	44.75M	25.662M	43.925M	21.614M
5.2G;11a;Nss1;Ntx3;5240	Pass	Inf	38.275M	16.942M	40M	17.491M	33.625M	16.767M
5.8G;11a;Nss1;Ntx3;5745	Pass	500k	16.275M	32.009M	16.275M	26.312M	16.25M	29.81M
5.8G;11a;Nss1;Ntx3;5785	Pass	500k	15.625M	30.41M	16.275M	27.186M	16.325M	29.06M
5.8G;11a;Nss1;Ntx3;5825	Pass	500k	16.3M	30.785M	15.9M	32.084M	16.3M	29.66M
5.2G;VHT20;Nss1,(M0);Ntx3;5180	Pass	Inf	25.475M	17.766M	27.225M	17.791M	24.875M	17.741M
5.2G;VHT20;Nss1,(M0);Ntx3;5200	Pass	Inf	45.025M	20.44M	44.9M	22.789M	39.1M	18.141M
5.2G;VHT20;Nss1,(M0);Ntx3;5240	Pass	Inf	29.5M	17.791M	36.825M	17.891M	27.55M	17.791M
5.8G;VHT20;Nss1,(M0);Ntx3;5745	Pass	500k	17.55M	33.333M	16.275M	27.786M	16.9M	30.385M
5.8G;VHT20;Nss1,(M0);Ntx3;5785	Pass	500k	17.275M	31.759M	17.275M	28.061M	17.3M	30.11M
5.8G;VHT20;Nss1,(M0);Ntx3;5825	Pass	500k	17.525M	31.959M	15.625M	33.508M	16.025M	31.209M
5.2G;VHT40;Nss1,(M0);Ntx3;5190	Pass	Inf	44.25M	36.282M	44.25M	36.182M	44.9M	36.182M
5.2G;VHT40;Nss1,(M0);Ntx3;5230	Pass	Inf	59.1M	36.332M	64.35M	36.382M	45.85M	36.232M
5.8G;VHT40;Nss1,(M0);Ntx3;5755	Pass	500k	36.05M	56.922M	35.65M	48.026M	36.35M	41.679M
5.8G;VHT40;Nss1,(M0);Ntx3;5795	Pass	500k	36.3M	59.62M	35.05M	59.27M	35.1M	49.525M
5.2G;VHT80;Nss1,(M0);Ntx3;5210	Pass	Inf	85.7M	75.562M	87.5M	75.762M	86.2M	75.662M
5.8G;VHT80;Nss1,(M0);Ntx3;5775	Pass	500k	75M	75.662M	75.1M	75.662M	72.6M	75.562M

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5180MHz;TN,VN



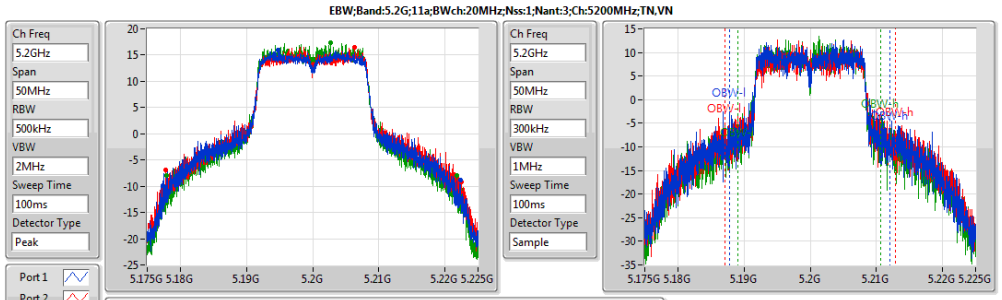
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
28.4M	5.1658G	5.1942G	16.617M	5.171704G	5.188321G	Inf	1
28.75M	5.1657G	5.19445G	16.667M	5.171679G	5.188346G	Inf	2
24.65M	5.168475G	5.193125G	16.567M	5.171729G	5.188296G	Inf	3

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5180MHz;TN,VN



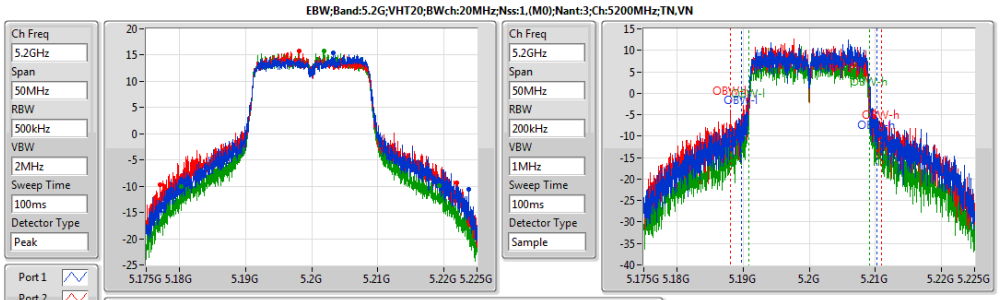
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.475M	5.167275G	5.19275G	17.766M	5.171129G	5.188896G	Inf	1
27.225M	5.166275G	5.1935G	17.791M	5.171104G	5.188896G	Inf	2
24.875M	5.168025G	5.1929G	17.741M	5.171154G	5.188896G	Inf	3

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5200MHz;TN,VN



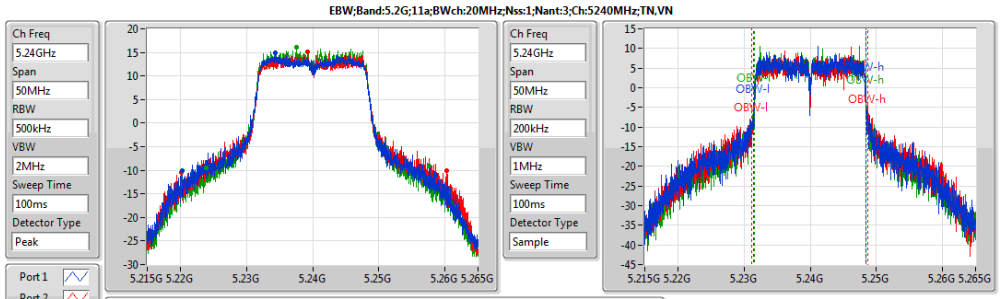
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.975M	5.177325G	5.2223G	24.238M	5.187756G	5.211994G	Inf	1
44.75M	5.17775G	5.2225G	25.662M	5.187156G	5.212819G	Inf	2
43.925M	5.177925G	5.22185G	21.614M	5.189055G	5.21067G	Inf	3

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5200MHz;TN,VN



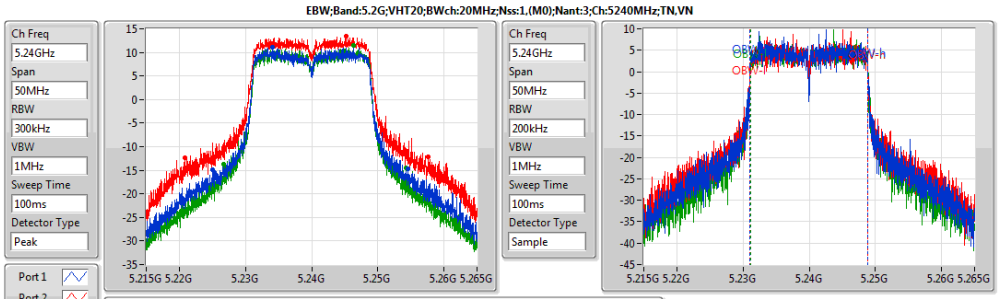
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
45.025M	5.17875G	5.223775G	20.44M	5.189755G	5.210195G	Inf	1
44.9M	5.1771G	5.222G	22.789M	5.188081G	5.21087G	Inf	2
39.1M	5.18025G	5.21935G	18.141M	5.19093G	5.20907G	Inf	3

EBW;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5240MHz;TN,VN



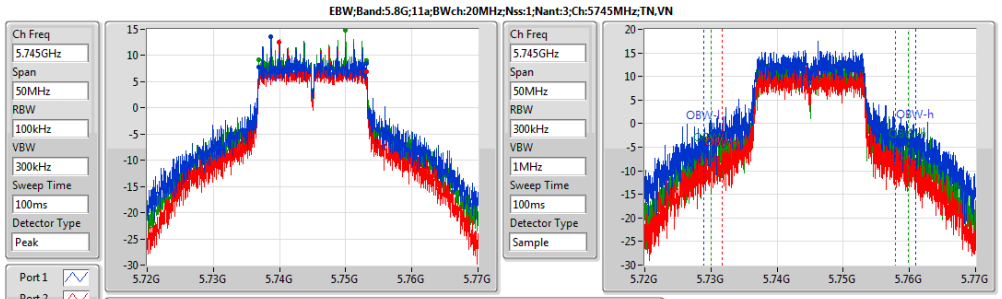
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
38.275M	5.220275G	5.25855G	16.942M	5.231479G	5.248421G	Inf	1
40M	5.2202G	5.2602G	17.491M	5.231179G	5.248671G	Inf	2
33.625M	5.223925G	5.25755G	16.767M	5.231604G	5.248371G	Inf	3

EBW;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5240MHz;TN,VN



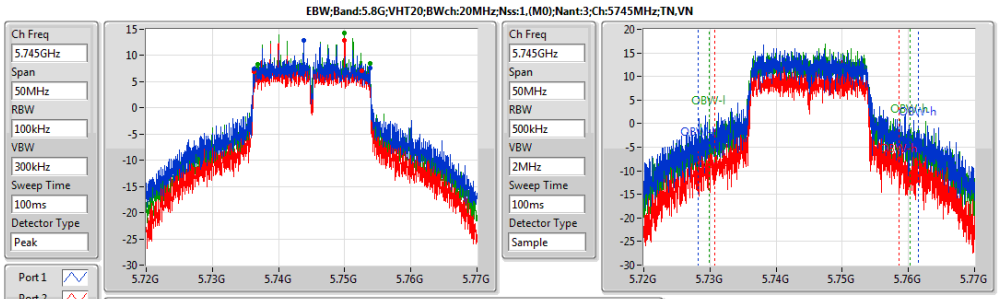
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
29.5M	5.225075G	5.254575G	17.791M	5.231079G	5.248871G	Inf	1
36.825M	5.2208G	5.257625G	17.891M	5.231004G	5.248896G	Inf	2
27.55M	5.22675G	5.2543G	17.791M	5.231104G	5.248896G	Inf	3

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5745MHz;TN,VN



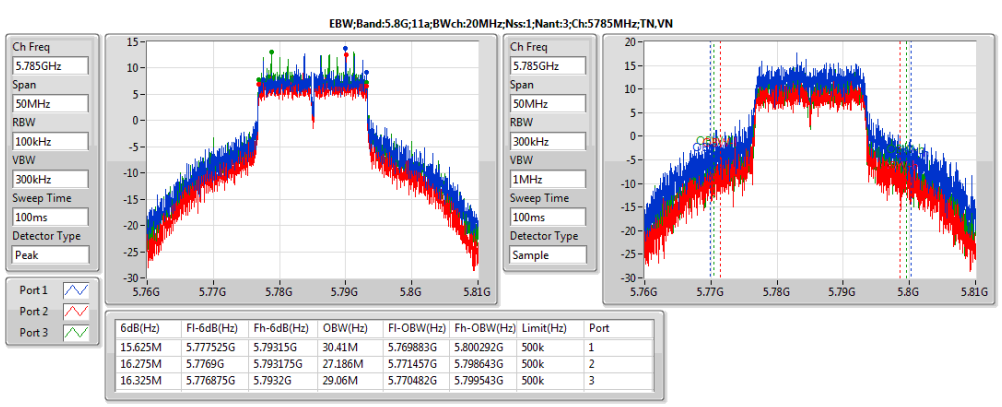
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	5.73685G	5.753125G	32.009M	5.728983G	5.760992G	500k	1
16.275M	5.736875G	5.75315G	26.312M	5.731632G	5.757944G	500k	2
16.25M	5.736875G	5.753125G	29.81M	5.730032G	5.759843G	500k	3

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5745MHz;TN,VN



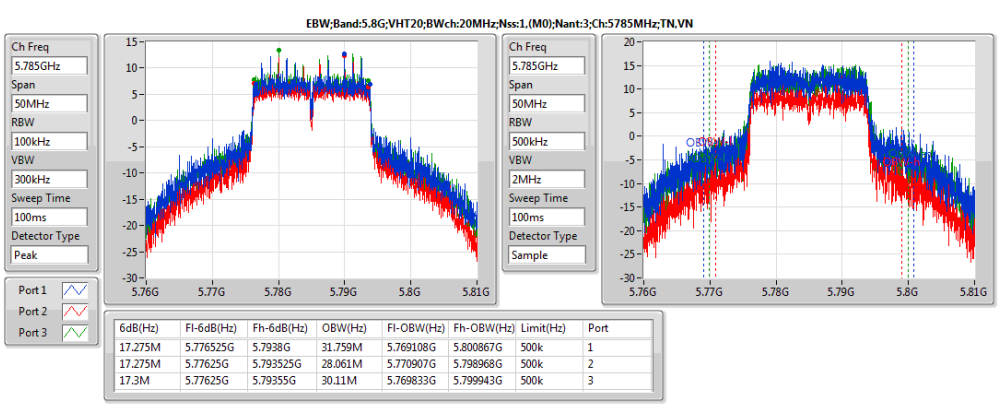
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.73625G	5.7538G	33.333M	5.728233G	5.761567G	500k	1
16.275M	5.736275G	5.75255G	27.786M	5.730782G	5.758568G	500k	2
16.9M	5.736875G	5.753775G	30.385M	5.729933G	5.760317G	500k	3

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5785MHz;TN,VN



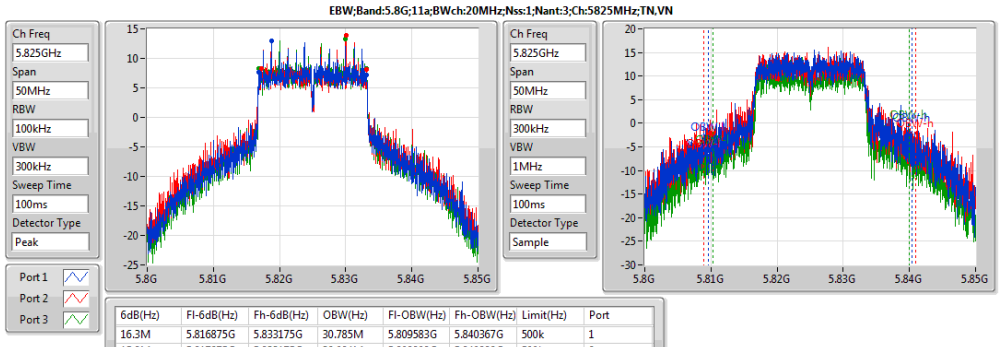
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.625M	5.777525G	5.79315G	30.41M	5.769883G	5.800292G	500k	1
16.275M	5.7769G	5.793175G	27.186M	5.771457G	5.798643G	500k	2
16.325M	5.776875G	5.7932G	29.06M	5.770482G	5.799543G	500k	3

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5785MHz;TN,VN



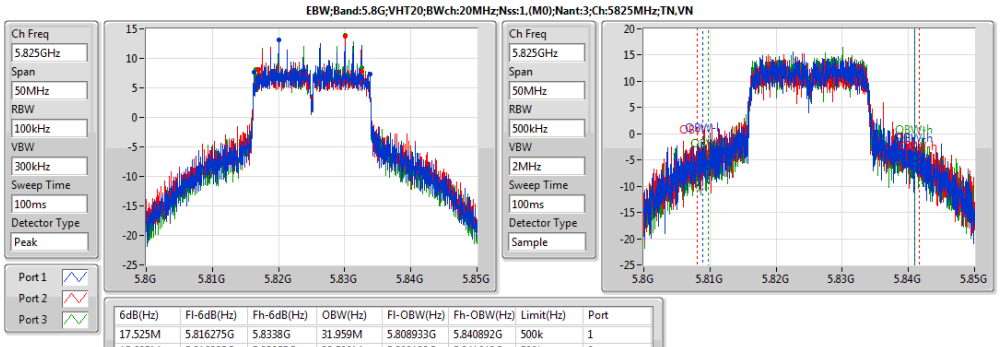
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.275M	5.776525G	5.7938G	31.759M	5.769108G	5.800867G	500k	1
17.275M	5.77625G	5.793525G	28.061M	5.770907G	5.798968G	500k	2
17.3M	5.77625G	5.79355G	30.11M	5.769833G	5.799943G	500k	3

EBW;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5825MHz;TN,VN



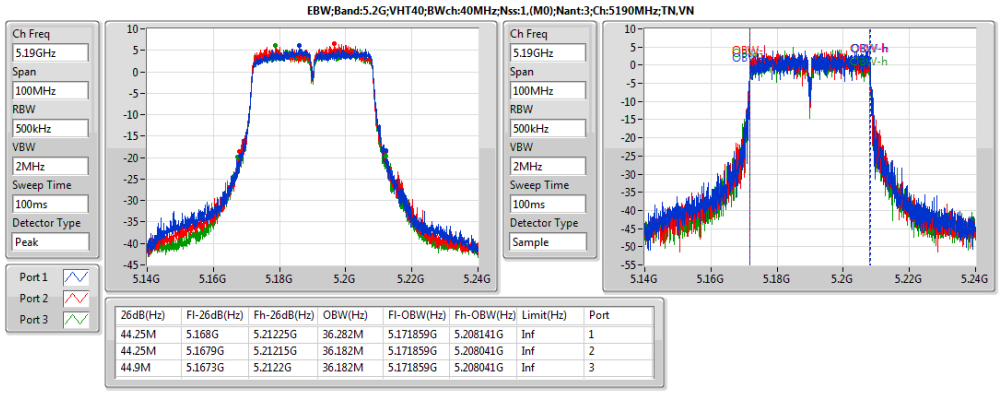
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	5.816875G	5.833175G	30.785M	5.809583G	5.840367G	500k	1
15.9M	5.817275G	5.833175G	32.084M	5.808908G	5.840992G	500k	2
16.3M	5.816875G	5.833175G	29.66M	5.810282G	5.839943G	500k	3

EBW;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5825MHz;TN,VN



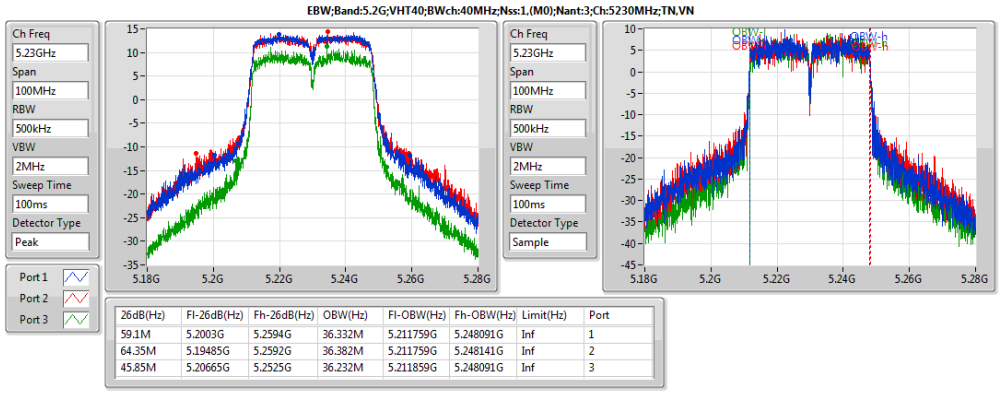
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	5.816275G	5.8338G	31.959M	5.808933G	5.840892G	500k	1
15.625M	5.816925G	5.83255G	33.508M	5.808133G	5.841642G	500k	2
16.025M	5.816525G	5.83255G	31.209M	5.809708G	5.840917G	500k	3

EBW;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5190MHz;TN,VN



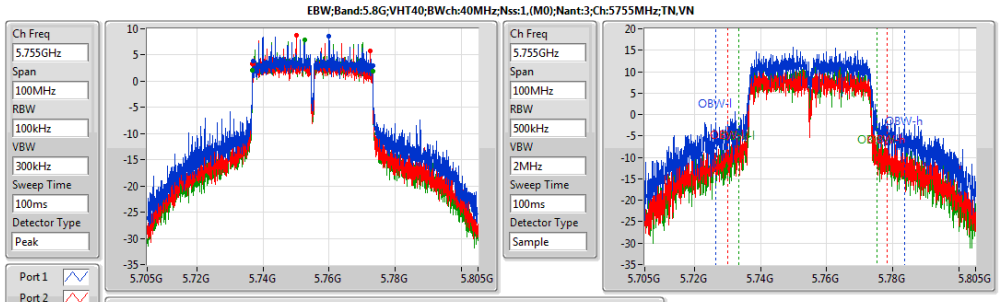
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.25M	5.168G	5.21225G	36.282M	5.171859G	5.208141G	Inf	1
44.25M	5.1679G	5.21215G	36.182M	5.171859G	5.208041G	Inf	2
44.9M	5.1673G	5.2122G	36.182M	5.171859G	5.208041G	Inf	3

EBW;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5230MHz;TN,VN



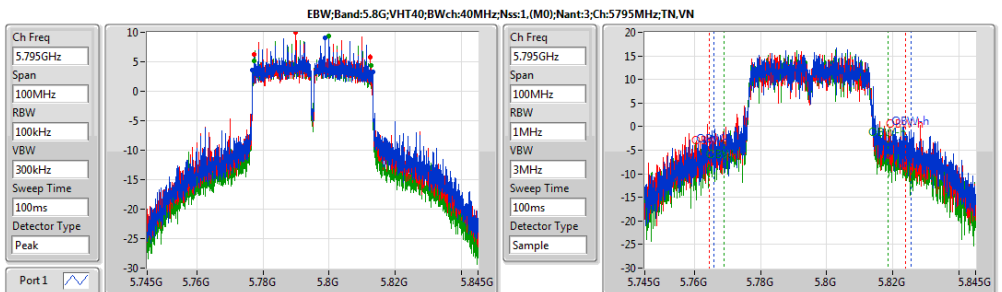
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
59.1M	5.2003G	5.2594G	36.332M	5.211759G	5.248091G	Inf	1
64.35M	5.19485G	5.2592G	36.382M	5.211759G	5.248141G	Inf	2
45.85M	5.20665G	5.2525G	36.232M	5.211859G	5.248091G	Inf	3

EBW;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5755MHz;TN,VN



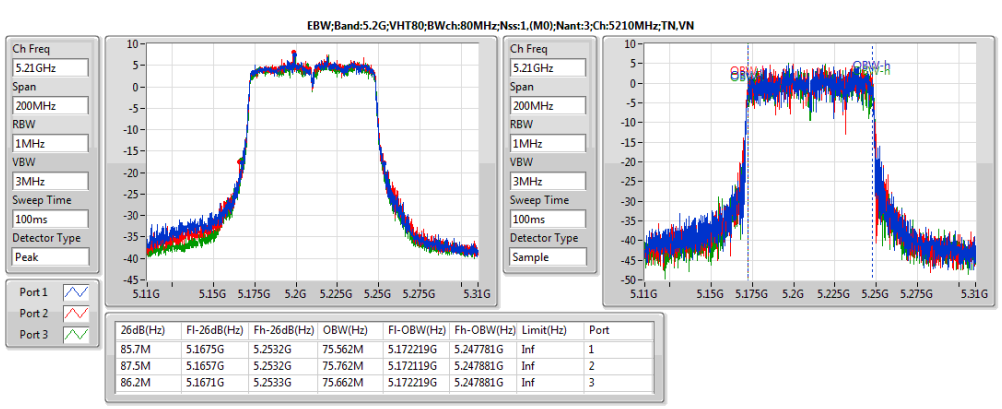
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.05M	5.7371G	5.77315G	56.922M	5.726564G	5.783486G	500k	1
35.65M	5.73685G	5.7725G	48.026M	5.730162G	5.778188G	500k	2
36.35M	5.7368G	5.77315G	41.679M	5.733511G	5.77519G	500k	3

EBW;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5795MHz;TN,VN



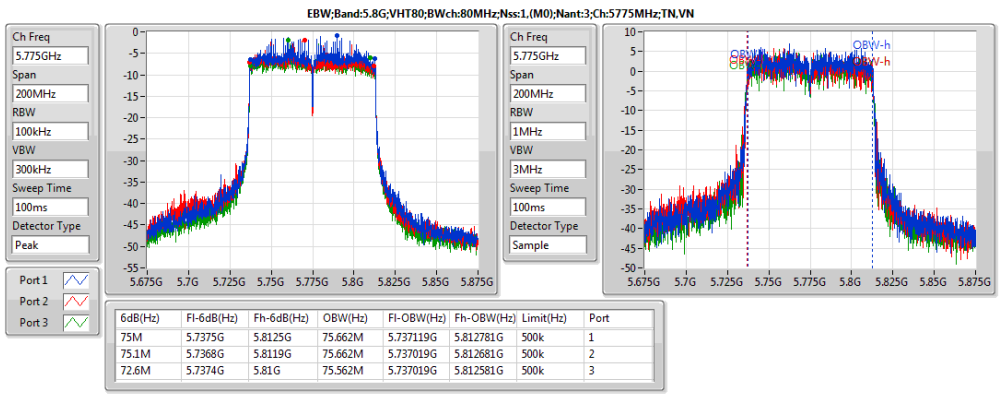
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	5.77685G	5.81315G	59.62M	5.765765G	5.825385G	500k	1
35.05M	5.77745G	5.8125G	59.27M	5.764515G	5.823786G	500k	2
35.1M	5.77745G	5.81255G	49.525M	5.769063G	5.818588G	500k	3

EBW;Band:5.2G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:3;Ch:5210MHz;TN,VN



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
85.7M	5.1675G	5.2532G	75.562M	5.172219G	5.247781G	Inf	1
87.5M	5.1657G	5.2532G	75.762M	5.172119G	5.247881G	Inf	2
86.2M	5.1671G	5.2533G	75.662M	5.172219G	5.247881G	Inf	3

EBW;Band:5.8G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:3;Ch:5775MHz;TN,VN



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75M	5.7375G	5.8125G	75.662M	5.737119G	5.812781G	500k	1
75.1M	5.7368G	5.8119G	75.662M	5.737019G	5.812681G	500k	2
72.6M	5.7374G	5.81G	75.562M	5.737019G	5.812581G	500k	3

Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.2G;11a;Nss1;Ntx3	27.44	0.55463	31.50	1.41254
5.8G;11a;Nss1;Ntx3	28.39	0.69024	32.45	1.75792
5.2G;VHT20;Nss1,(M0);Ntx3	27.12	0.51523	31.18	1.3122
5.8G;VHT20;Nss1,(M0);Ntx3	28.39	0.69024	32.45	1.75792
5.2G;VHT40;Nss1,(M0);Ntx3	25.11	0.32434	29.17	0.82604
5.8G;VHT40;Nss1,(M0);Ntx3	28.39	0.69024	32.45	1.75792
5.2G;VHT80;Nss1,(M0);Ntx3	20.01	0.10023	24.07	0.25527
5.8G;VHT80;Nss1,(M0);Ntx3	20.22	0.1052	24.28	0.26792

Result

Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)	P2 (dBm)	P3 (dBm)
5.2G;11a;Nss1;Ntx3;5180	Pass	4.06	28.40	36.00	24.34	30.00	19.28	19.65	19.77
5.2G;11a;Nss1;Ntx3;5200	Pass	4.06	31.50	36.00	27.44	30.00	22.63	22.72	22.65
5.2G;11a;Nss1;Ntx3;5240	Pass	4.06	29.97	36.00	25.91	30.00	20.92	21.32	21.17
5.8G;11a;Nss1;Ntx3;5745	Pass	4.06	32.45	36.00	28.39	30.00	23.71	23.67	23.48
5.8G;11a;Nss1;Ntx3;5785	Pass	4.06	32.36	36.00	28.30	30.00	23.53	23.73	23.31
5.8G;11a;Nss1;Ntx3;5825	Pass	4.06	32.17	36.00	28.11	30.00	23.46	23.37	23.18
5.2G;VHT20;Nss1,(M0);Ntx3;5180	Pass	4.06	27.83	36.00	23.77	30.00	18.72	19.09	19.18
5.2G;VHT20;Nss1,(M0);Ntx3;5200	Pass	4.06	31.18	36.00	27.12	30.00	22.23	22.4	22.42
5.2G;VHT20;Nss1,(M0);Ntx3;5240	Pass	4.06	29.55	36.00	25.49	30.00	20.42	20.88	20.85
5.8G;VHT20;Nss1,(M0);Ntx3;5745	Pass	4.06	32.45	36.00	28.39	30.00	23.77	23.68	23.41
5.8G;VHT20;Nss1,(M0);Ntx3;5785	Pass	4.06	32.36	36.00	28.30	30.00	23.6	23.66	23.32
5.8G;VHT20;Nss1,(M0);Ntx3;5825	Pass	4.06	32.11	36.00	28.05	30.00	23.26	23.5	23.08
5.2G;VHT40;Nss1,(M0);Ntx3;5190	Pass	4.06	24.21	36.00	20.15	30.00	15.17	15.62	15.32
5.2G;VHT40;Nss1,(M0);Ntx3;5230	Pass	4.06	29.17	36.00	25.11	30.00	20.11	20.52	20.37
5.8G;VHT40;Nss1,(M0);Ntx3;5755	Pass	4.06	31.73	36.00	27.67	30.00	22.96	22.98	22.76
5.8G;VHT40;Nss1,(M0);Ntx3;5795	Pass	4.06	32.45	36.00	28.39	30.00	23.57	23.71	23.58
5.2G;VHT80;Nss1,(M0);Ntx3;5210	Pass	4.06	24.07	36.00	20.01	30.00	15.02	15.48	15.19
5.8G;VHT80;Nss1,(M0);Ntx3;5775	Pass	4.06	24.28	36.00	20.22	30.00	15.47	15.65	15.2

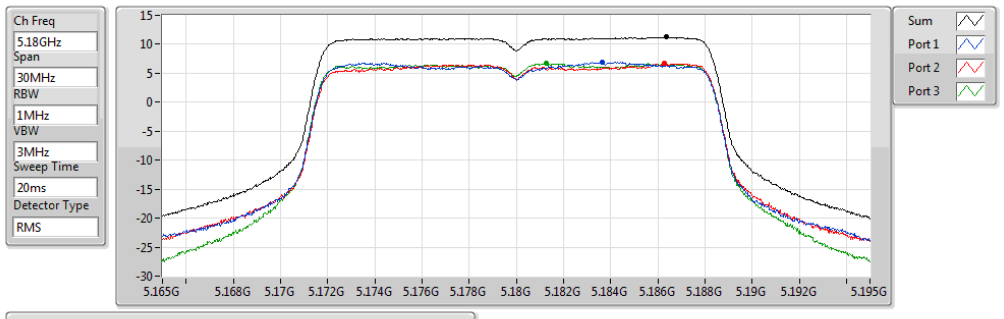
Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
5.2G;11a;Nss1;Ntx3	14.31	22.97
5.8G;11a;Nss1;Ntx3	13.29	21.95
5.2G;VHT20;Nss1,(M0);Ntx3	13.75	22.41
5.8G;VHT20;Nss1,(M0);Ntx3	12.89	21.55
5.2G;VHT40;Nss1,(M0);Ntx3	9.72	18.38
5.8G;VHT40;Nss1,(M0);Ntx3	9.99	18.65
5.2G;VHT80;Nss1,(M0);Ntx3	1.01	9.67
5.8G;VHT80;Nss1,(M0);Ntx3	0.11	8.77

Result

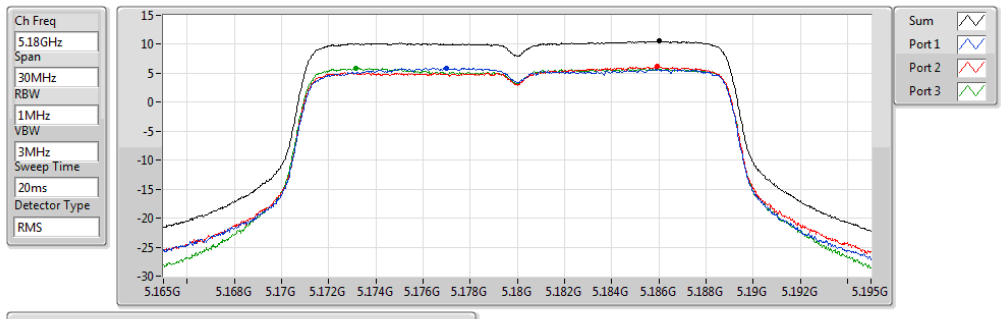
Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	Sum.Max (dBm/RBW)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Lim (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)	P3 (dBm/RBW)
5.2G;11a;Nss1;Ntx3;5180	Pass	1M	1M	0.00	8.66	11.33	11.33	14.34	19.99	Inf	6.95	6.68	6.71
5.2G;11a;Nss1;Ntx3;5200	Pass	1M	1M	0.00	8.66	14.31	14.31	14.34	22.97	Inf	9.63	9.17	10.07
5.2G;11a;Nss1;Ntx3;5240	Pass	1M	1M	0.00	8.66	12.48	12.48	14.34	21.14	Inf	8.28	7.65	8.12
5.8G;11a;Nss1;Ntx3;5745	Pass	500k	500k	0.00	8.66	13.29	13.29	27.34	21.95	33.34	8.91	7.80	9.24
5.8G;11a;Nss1;Ntx3;5785	Pass	500k	500k	0.00	8.66	12.96	12.96	27.34	21.62	33.34	8.74	7.65	8.84
5.8G;11a;Nss1;Ntx3;5825	Pass	500k	500k	0.00	8.66	12.99	12.99	27.34	21.65	33.34	8.47	8.35	8.46
5.2G;VHT20;Nss1,(M0);Ntx3;5180	Pass	1M	1M	0.00	8.66	10.55	10.55	14.34	19.21	Inf	5.92	6.13	5.92
5.2G;VHT20;Nss1,(M0);Ntx3;5200	Pass	1M	1M	0.00	8.66	13.75	13.75	14.34	22.41	Inf	9.20	8.97	9.13
5.2G;VHT20;Nss1,(M0);Ntx3;5240	Pass	1M	1M	0.00	8.66	11.59	11.59	14.34	20.25	Inf	7.12	6.61	7.10
5.8G;VHT20;Nss1,(M0);Ntx3;5745	Pass	500k	500k	0.00	8.66	12.89	12.89	27.34	21.55	33.34	8.57	7.55	8.54
5.8G;VHT20;Nss1,(M0);Ntx3;5785	Pass	500k	500k	0.00	8.66	12.52	12.52	27.34	21.18	33.34	8.16	7.08	8.38
5.8G;VHT20;Nss1,(M0);Ntx3;5825	Pass	500k	500k	0.00	8.66	12.69	12.69	27.34	21.35	33.34	7.99	7.94	8.40
5.2G;VHT40;Nss1,(M0);Ntx3;5190	Pass	1M	1M	0.00	8.66	4.92	4.92	14.34	13.58	Inf	0.73	0.77	0.09
5.2G;VHT40;Nss1,(M0);Ntx3;5230	Pass	1M	1M	0.00	8.66	9.72	9.72	14.34	18.38	Inf	5.41	5.12	5.04
5.8G;VHT40;Nss1,(M0);Ntx3;5755	Pass	500k	500k	0.00	8.66	9.36	9.36	27.34	18.02	33.34	5.16	4.33	4.72
5.8G;VHT40;Nss1,(M0);Ntx3;5795	Pass	500k	500k	0.00	8.66	9.99	9.99	27.34	18.65	33.34	5.51	5.22	5.23
5.2G;VHT80;Nss1,(M0);Ntx3;5210	Pass	1M	1M	0.00	8.66	1.01	1.01	14.34	9.67	Inf	-3.40	-3.34	-3.27
5.8G;VHT80;Nss1,(M0);Ntx3;5775	Pass	500k	500k	0.00	8.66	0.11	0.11	27.34	8.77	33.34	-3.79	-4.41	-5.14

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5180MHz;TN,VN



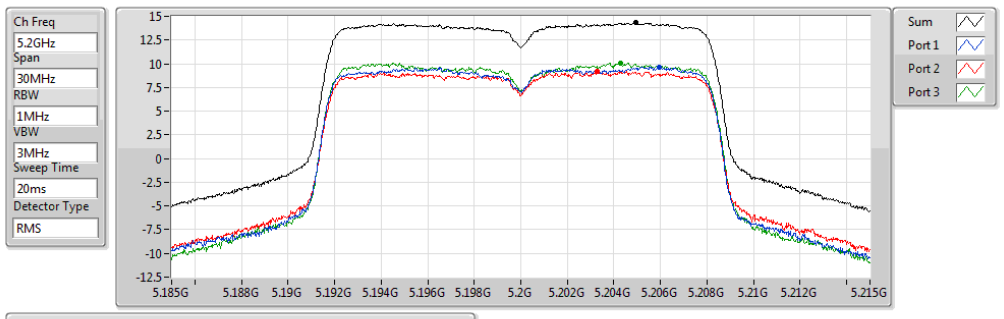
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.33	11.33	6.95	6.68	6.71

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5180MHz;TN,VN



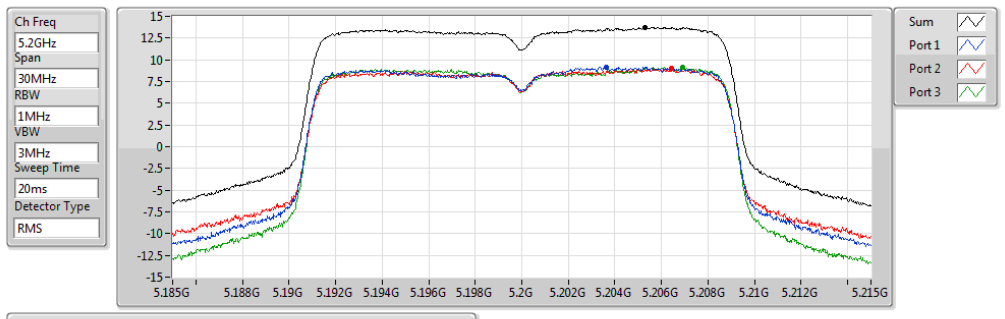
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.55	10.55	5.92	6.13	5.92

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5200MHz;TN,VN



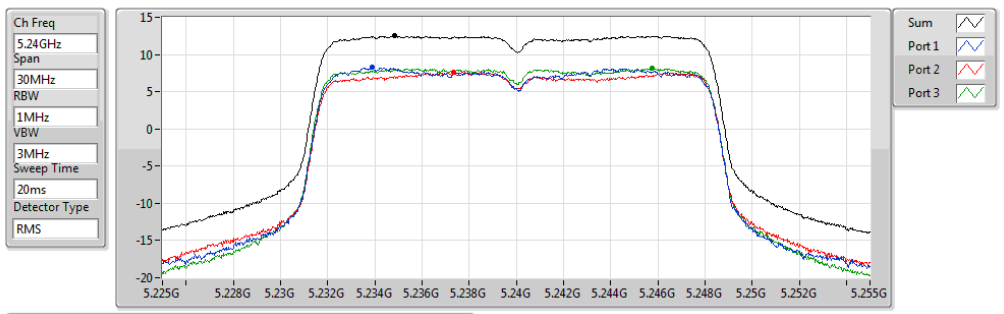
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.31	14.31	9.63	9.17	10.07

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5200MHz;TN,VN



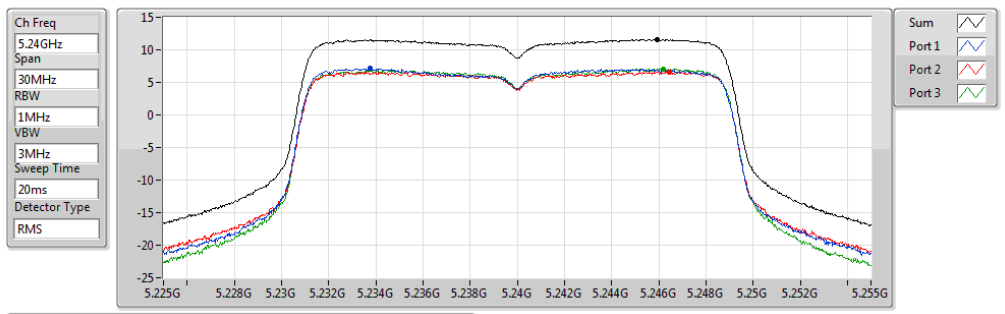
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.75	13.75	9.20	8.97	9.13

PSD;Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5240MHz;TN,VN



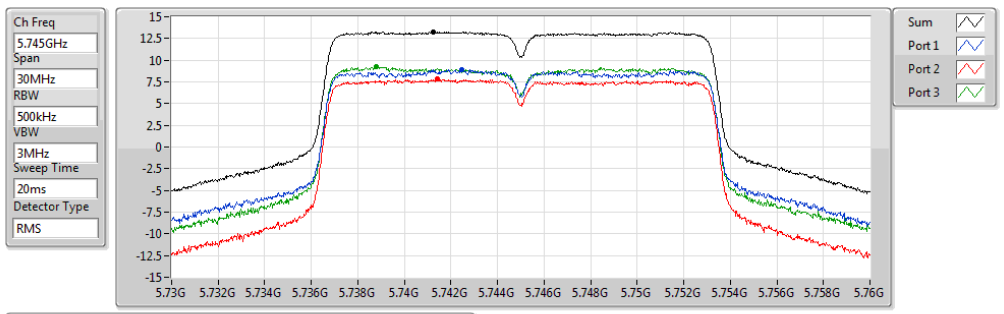
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.48	12.48	8.28	7.65	8.12

PSD;Band:5.2G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5240MHz;TN,VN



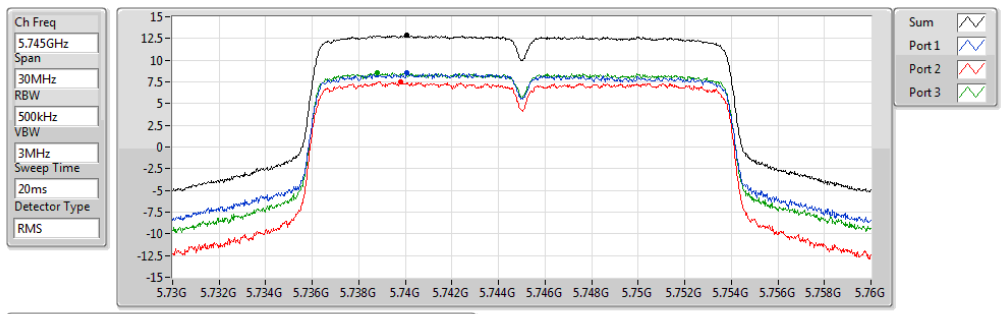
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.59	11.59	7.12	6.61	7.10

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5745MHz;TN,VN



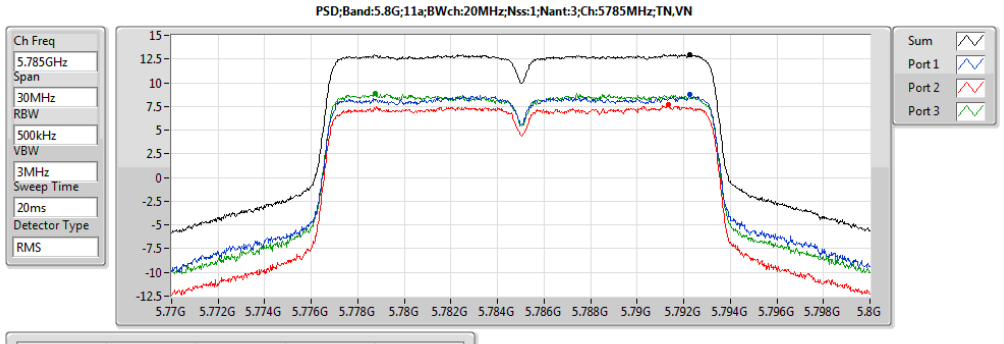
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.29	13.29	8.91	7.80	9.24

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5745MHz;TN,VN



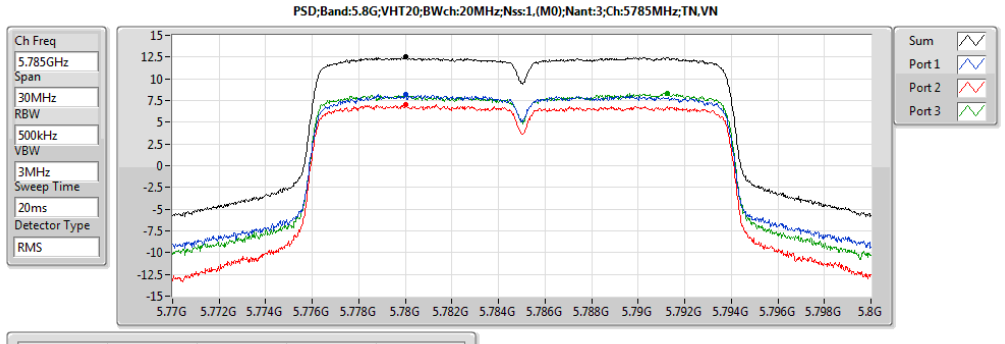
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.89	12.89	8.57	7.55	8.54

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5785MHz;TN,VN



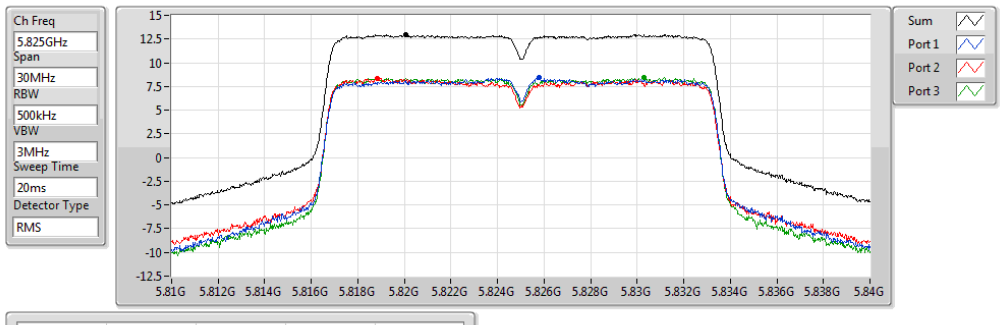
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.96	12.96	8.74	7.65	8.84

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5785MHz;TN,VN



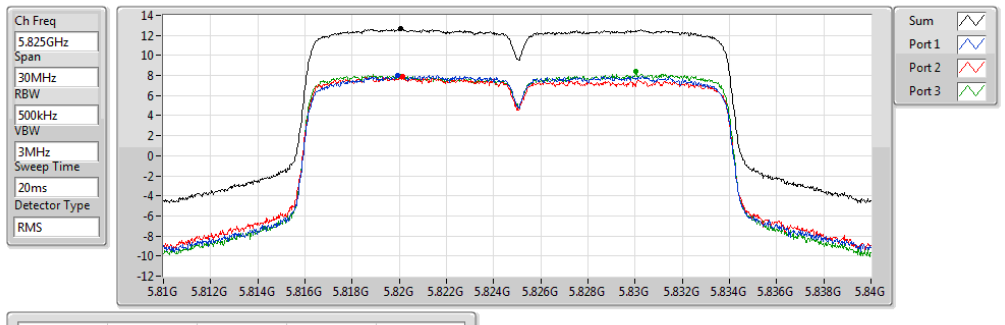
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.52	12.52	8.16	7.08	8.38

PSD;Band:5.8G;11a;BWch:20MHz;Nss:1;Nant:3;Ch:5825MHz;TN,VN



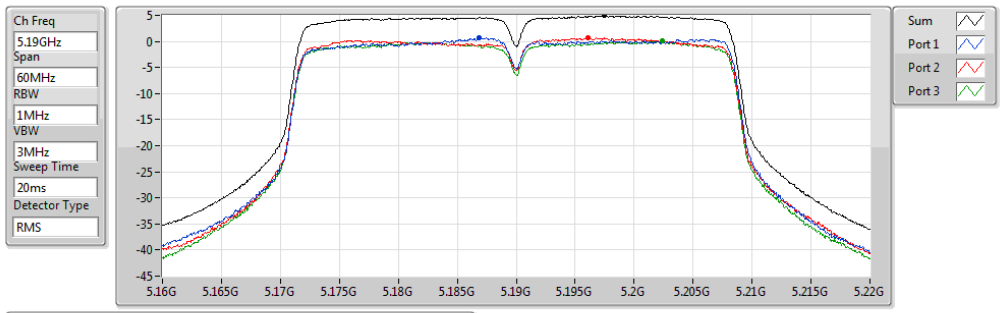
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.99	12.99	8.47	8.35	8.46

PSD;Band:5.8G;VHT20;BWch:20MHz;Nss:1,(M0);Nant:3;Ch:5825MHz;TN,VN



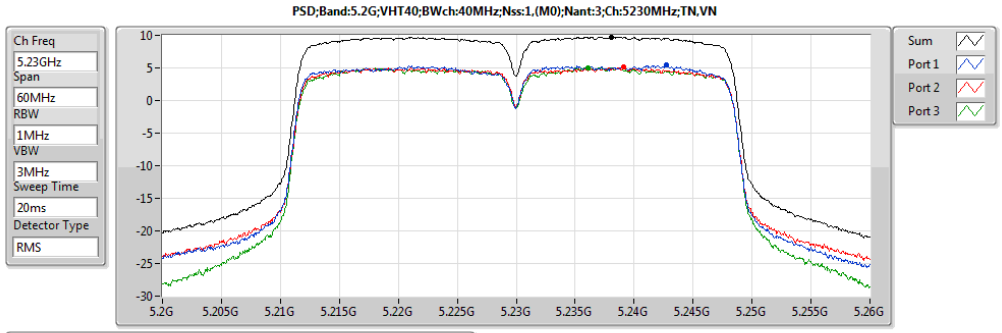
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.69	12.69	7.99	7.94	8.40

PSD;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5190MHz;TN,VN



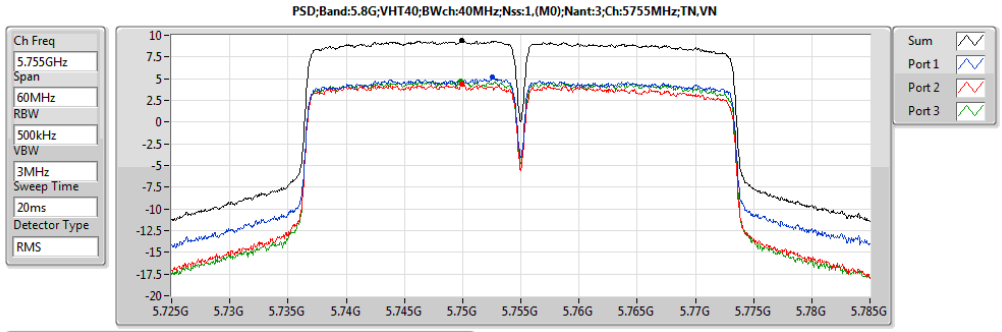
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.92	4.92	0.73	0.77	0.09

PSD;Band:5.2G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5230MHz;TN,VN



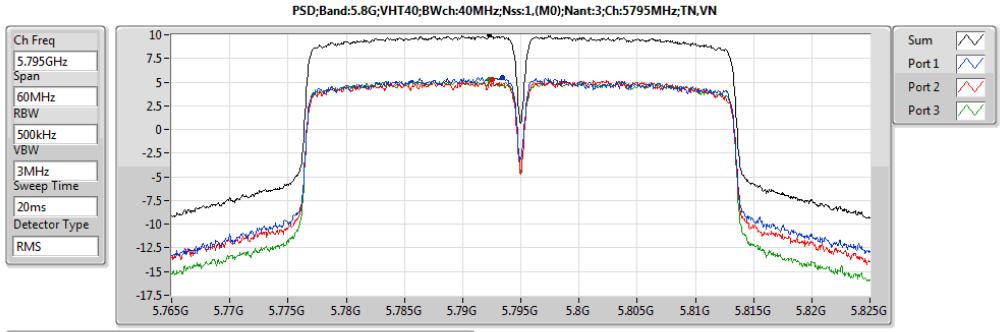
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.72	9.72	5.41	5.12	5.04

PSD;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5755MHz;TN,VN



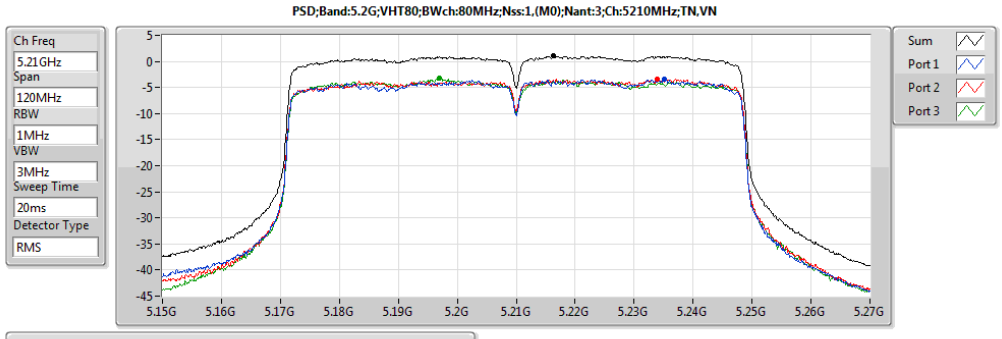
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.36	9.36	5.16	4.33	4.72

PSD;Band:5.8G;VHT40;BWch:40MHz;Nss:1,(M0);Nant:3;Ch:5795MHz;TN,VN



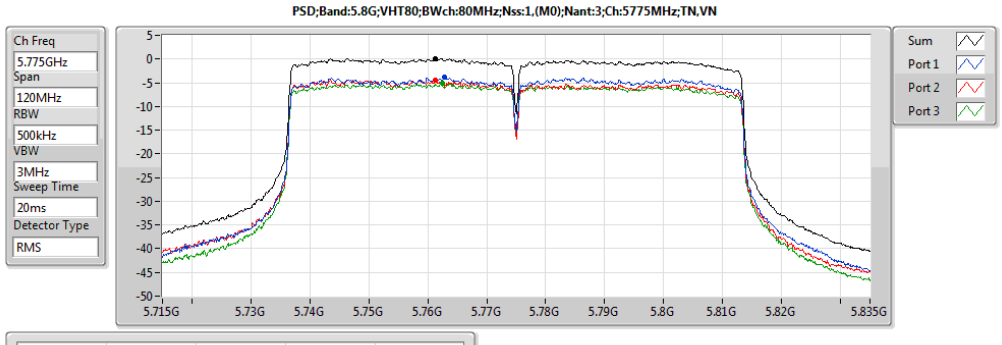
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.99	9.99	5.51	5.22	5.23

PSD;Band:5.2G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:3;Ch:5210MHz;TN,VN



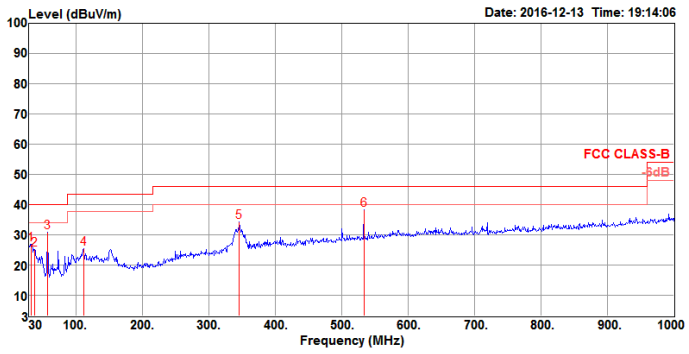
Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.01	1.01	-3.40	-3.34	-3.27

PSD;Band:5.8G;VHT80;BWch:80MHz;Nss:1,(M0);Nant:3;Ch:5775MHz;TN,VN



Sum.Max	PD	P1	P2	P3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.11	0.11	-3.79	-4.41	-5.14

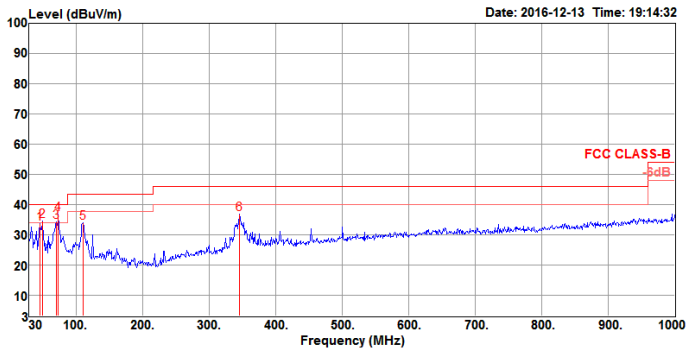
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	26.90	40.00	-13.10	34.93	0.64	24.24	32.91	200	192	Peak	HORIZONTAL
2	37.76	25.16	40.00	-14.84	35.70	0.68	21.51	32.73	200	20	Peak	HORIZONTAL
3	57.16	30.69	40.00	-9.31	48.22	0.84	14.02	32.39	125	171	Peak	HORIZONTAL
4	111.48	25.30	43.50	-18.20	37.70	1.19	18.84	32.43	150	290	Peak	HORIZONTAL
5	346.22	34.13	46.00	-11.87	43.02	2.13	21.30	32.32	100	48	Peak	HORIZONTAL
6	533.43	38.30	46.00	-7.70	43.45	2.65	24.54	32.34	300	1	Peak	HORIZONTAL

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.)

RSE below 1GHz Result			
Operating Mode	1	**Power Phase**	Vertical
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	45.52	33.77	40.00	-6.23	48.64	0.75	16.88	32.50	100	121	Peak	VERTICAL
2	50.37	34.51	40.00	-5.49	51.24	0.80	14.85	32.38	200	183	Peak	VERTICAL
3	70.74	34.30	40.00	-5.70	52.83	0.93	12.96	32.42	150	0	Peak	VERTICAL
4	73.65	36.88	40.00	-3.12	55.19	0.95	13.16	32.42	150	310	Peak	VERTICAL
5	110.51	34.03	43.50	-9.47	46.47	1.18	18.81	32.43	100	154	Peak	VERTICAL
6	346.22	36.71	46.00	-9.29	45.60	2.13	21.30	32.32	150	183	Peak	VERTICAL

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.)

Radiated Emissions (1GHz~40GHz)

Configurations	IEEE 802.11a CH 36 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15530.32	44.02	54.00	-9.98	26.69	12.95	38.25	33.87	248	189	Average	HORIZONTAL
2	15543.52	57.04	74.00	-16.96	39.71	12.95	38.25	33.87	248	189	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15536.08	57.24	74.00	-16.76	39.91	12.95	38.25	33.87	206	190	Peak	VERTICAL
2	15546.28	44.17	54.00	-9.83	26.84	12.95	38.25	33.87	206	190	Average	VERTICAL

Configurations	IEEE 802.11a CH 40 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15591.12	60.25	74.00	-13.75	43.64	13.38	38.39	35.16	198	225	Peak	HORIZONTAL
2	15597.16	47.49	54.00	-6.51	30.88	13.38	38.39	35.16	198	225	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15599.33	60.73	74.00	-13.27	44.12	13.38	38.39	35.16	132	203	Peak	VERTICAL
2	15600.52	47.86	54.00	-6.14	31.33	13.38	38.34	35.19	132	203	Average	VERTICAL

Configurations	IEEE 802.11a CH 48 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15713.76	61.54	74.00	-12.46	44.38	13.03	38.03	33.90	104	176	Peak	HORIZONTAL
2	15726.24	48.84	54.00	-5.16	31.68	13.03	38.03	33.90	104	176	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15716.36	61.56	74.00	-12.44	44.40	13.03	38.03	33.90	181	227	Peak	VERTICAL
2	15723.60	48.81	54.00	-5.19	31.65	13.03	38.03	33.90	181	227	Average	VERTICAL

Configurations	IEEE 802.11a CH 149 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11487.80	59.71	74.00	-14.29	42.37	11.18	40.00	33.84	149	117	Peak	HORIZONTAL
2	11488.12	47.32	54.00	-6.68	29.98	11.18	40.00	33.84	149	117	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11489.00	61.49	74.00	-12.51	44.15	11.18	40.00	33.84	200	334	Peak	VERTICAL
2	11489.48	49.02	54.00	-4.98	31.68	11.18	40.00	33.84	200	334	Average	VERTICAL

Configurations	IEEE 802.11a CH 157 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11569.56	47.54	54.00	-6.46	30.30	11.21	39.87	33.84	190	130	Average	HORIZONTAL
2	11569.96	60.37	74.00	-13.63	43.13	11.21	39.87	33.84	190	130	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11569.80	49.30	54.00	-4.70	32.06	11.21	39.87	33.84	201	335	Average	VERTICAL
2	11569.84	61.83	74.00	-12.17	44.59	11.21	39.87	33.84	201	335	Peak	VERTICAL

Configurations	IEEE 802.11a CH 165 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11650.08	61.44	74.00	-12.56	44.31	11.24	39.73	33.84	136	132	Peak	HORIZONTAL
2	11650.76	48.72	54.00	-5.28	31.63	11.26	39.67	33.84	136	132	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11648.68	62.47	74.00	-11.53	45.34	11.24	39.73	33.84	265	329	Peak	VERTICAL
2	11650.32	50.07	54.00	-3.93	32.94	11.24	39.73	33.84	265	329	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15531.56	62.09	74.00	-11.91	44.76	12.95	38.25	33.87	179	217	Peak	HORIZONTAL
2	15532.00	49.37	54.00	-4.63	32.04	12.95	38.25	33.87	179	217	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15530.12	49.32	54.00	-4.68	31.99	12.95	38.25	33.87	123	160	Average	VERTICAL
2	15539.48	62.00	74.00	-12.00	44.67	12.95	38.25	33.87	123	160	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15593.40	48.91	54.00	-5.09	31.63	12.97	38.19	33.88	236	245	Average	HORIZONTAL
2	15593.92	61.57	74.00	-12.43	44.29	12.97	38.19	33.88	236	245	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15594.60	62.08	74.00	-11.92	44.80	12.97	38.19	33.88	240	71	Peak	VERTICAL
2	15598.60	48.79	54.00	-5.21	31.51	12.97	38.19	33.88	240	71	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15712.96	61.62	74.00	-12.38	44.46	13.03	38.03	33.90	293	30	Peak	HORIZONTAL
2	15722.28	48.61	54.00	-5.39	31.45	13.03	38.03	33.90	293	30	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15716.40	48.74	54.00	-5.26	31.58	13.03	38.03	33.90	143	360	Average	VERTICAL
2	15723.72	61.14	74.00	-12.86	43.98	13.03	38.03	33.90	143	360	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11489.68	50.12	54.00	-3.88	34.52	12.33	39.20	35.93	156	288	Average	HORIZONTAL
2	11491.12	64.17	74.00	-9.83	48.57	12.33	39.20	35.93	156	288	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11488.04	63.44	74.00	-10.56	47.84	12.33	39.20	35.93	267	332	Peak	VERTICAL
2	11489.32	49.89	54.00	-4.11	34.29	12.33	39.20	35.93	267	332	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11570.60	51.58	54.00	-2.42	35.99	12.36	39.15	35.92	162	286	Average	HORIZONTAL
2	11571.80	65.62	74.00	-8.38	50.03	12.36	39.15	35.92	162	286	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11570.80	49.73	54.00	-4.27	34.14	12.36	39.15	35.92	152	200	Average	VERTICAL
2	11571.32	64.24	74.00	-9.76	48.65	12.36	39.15	35.92	152	200	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11651.30	51.69	54.00	-2.31	36.13	12.40	39.07	35.91	170	283	Average	HORIZONTAL
2	11652.10	65.37	74.00	-8.63	49.81	12.40	39.07	35.91	170	283	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11651.26	52.53	54.00	-1.47	36.97	12.40	39.07	35.91	205	332	Average	VERTICAL
2	11651.26	67.25	74.00	-6.75	51.69	12.40	39.07	35.91	205	332	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15561.56	48.46	54.00	-5.54	32.37	13.57	38.38	35.86	165	166	Average	HORIZONTAL
2	15577.12	61.45	74.00	-12.55	45.36	13.57	38.38	35.86	165	166	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15567.28	61.92	74.00	-12.08	45.83	13.57	38.38	35.86	228	189	Peak	VERTICAL
2	15568.12	48.57	54.00	-5.43	32.48	13.57	38.38	35.86	228	189	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15684.28	61.99	74.00	-12.01	45.89	13.60	38.36	35.86	173	245	Peak	HORIZONTAL
2	15685.00	48.62	54.00	-5.38	32.52	13.60	38.36	35.86	173	245	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15688.12	61.62	74.00	-12.38	45.52	13.60	38.36	35.86	199	205	Peak	VERTICAL
2	15688.68	48.64	54.00	-5.36	32.54	13.60	38.36	35.86	199	205	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11510.00	46.77	54.00	-7.23	31.16	12.33	39.20	35.92	166	289	Average	HORIZONTAL
2	11511.28	60.55	74.00	-13.45	44.94	12.33	39.20	35.92	166	289	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11501.16	58.83	74.00	-15.17	43.23	12.33	39.20	35.93	163	196	Peak	VERTICAL
2	11501.88	45.41	54.00	-8.59	29.81	12.33	39.20	35.93	163	196	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11591.30	63.47	74.00	-10.53	47.89	12.37	39.12	35.91	145	288	Peak	HORIZONTAL
2	11592.30	48.67	54.00	-5.33	33.09	12.37	39.12	35.91	145	288	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11591.00	48.76	54.00	-5.24	33.18	12.37	39.12	35.91	177	333	Average	VERTICAL
2	11591.40	62.93	74.00	-11.07	47.35	12.37	39.12	35.91	177	333	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15630.08	49.50	54.00	-4.50	33.40	13.59	38.37	35.86	266	168	Average	HORIZONTAL
2	15639.76	62.19	74.00	-11.81	46.09	13.59	38.37	35.86	266	168	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15623.52	61.92	74.00	-12.08	45.82	13.59	38.37	35.86	122	296	Peak	VERTICAL
2	15627.52	49.49	54.00	-4.51	33.39	13.59	38.37	35.86	122	296	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Ant. 1 + Ant. 2 + Ant. 3

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11578.40	45.57	54.00	-8.43	29.98	12.36	39.15	35.92	133	226	Average	HORIZONTAL
2	11586.00	57.48	74.00	-16.52	41.90	12.37	39.12	35.91	133	226	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11553.80	45.71	54.00	-8.29	30.12	12.36	39.15	35.92	118	116	Average	VERTICAL
2	11554.00	57.46	74.00	-16.54	41.87	12.36	39.15	35.92	118	116	Peak	VERTICAL

Note:

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

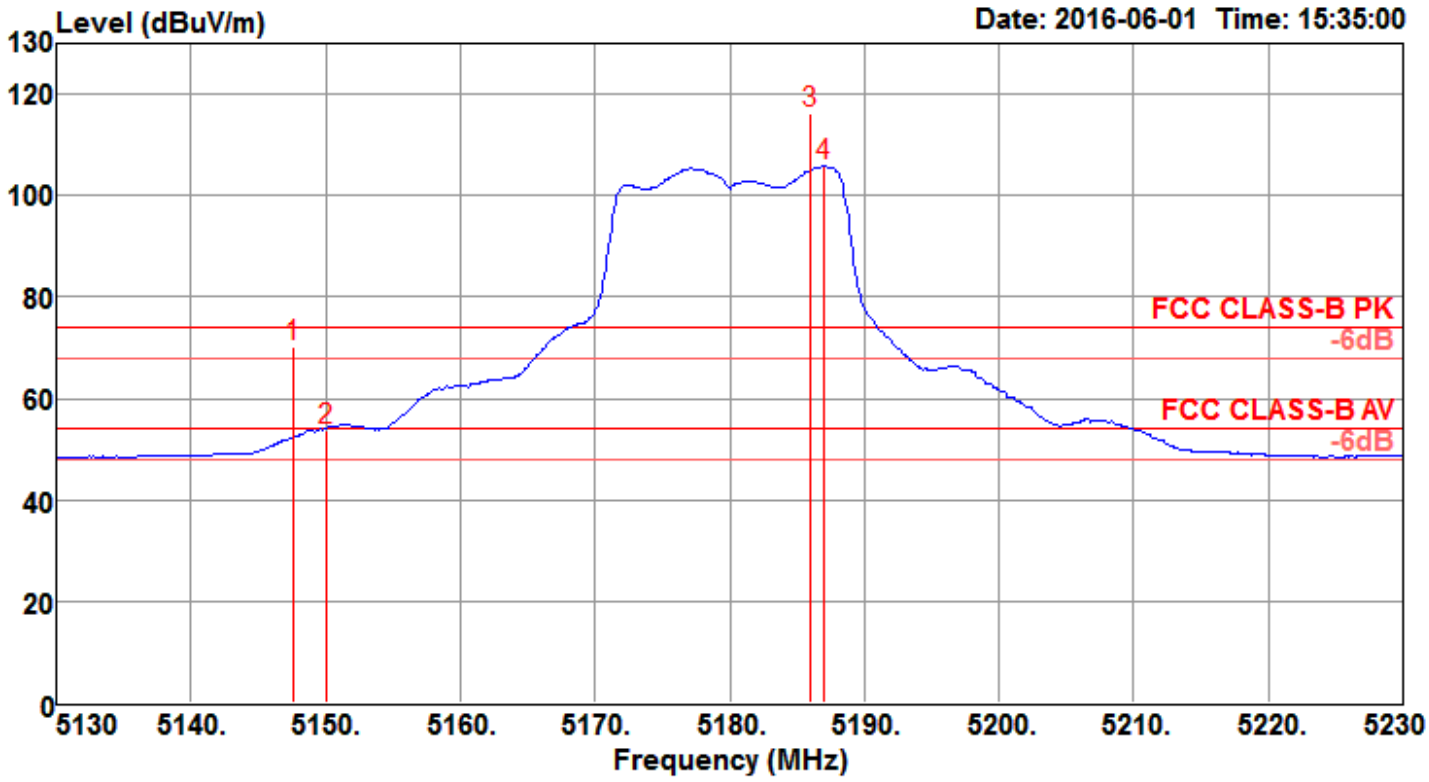
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Band Edge Emissions

Configurations	IEEE 802.11a CH 36, 40, 48 / Ant. 1 + Ant. 2 + Ant. 3

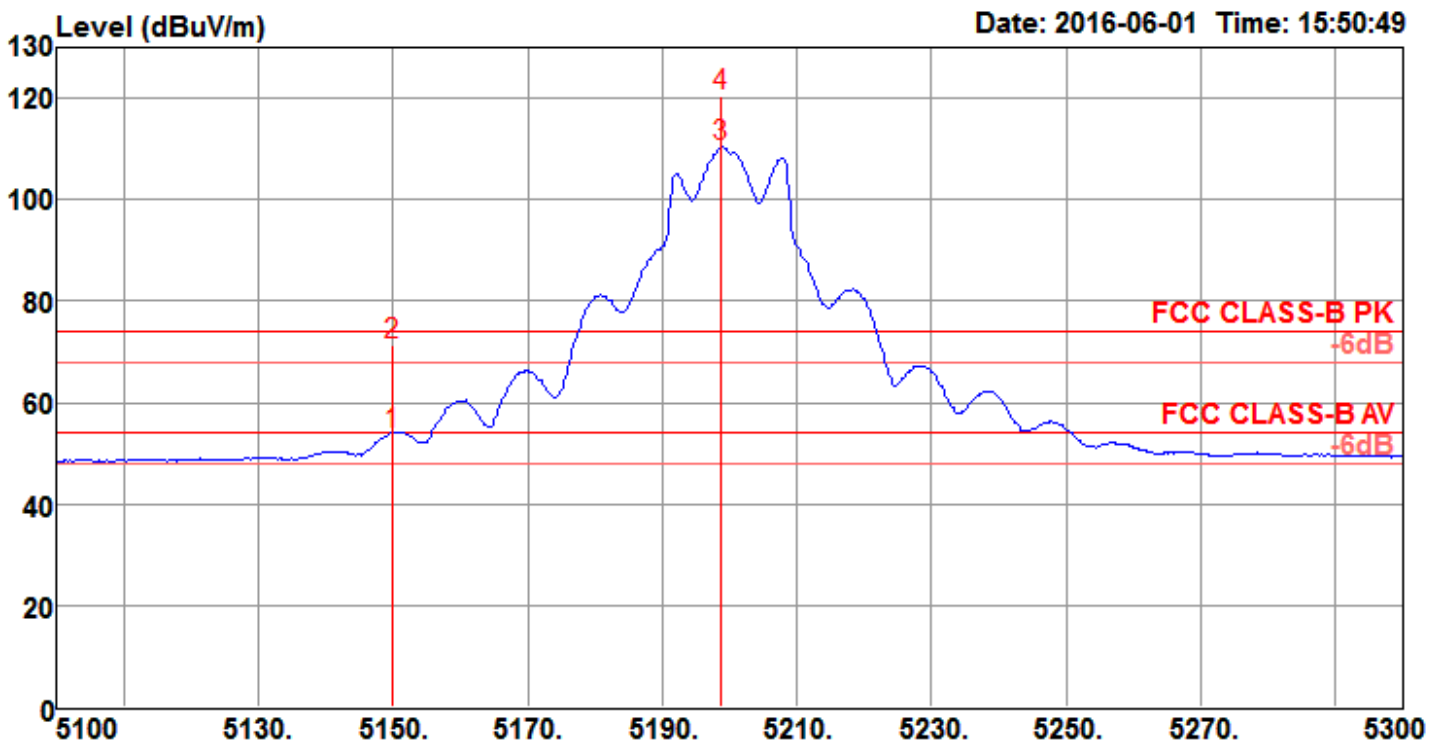
Channel 36



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5147.60	70.35	74.00	-3.65	62.93	7.48	34.85	34.91	180	204	Peak	HORIZONTAL
2	5150.00	53.84	54.00	-0.16	46.42	7.48	34.85	34.91	180	204	Average	HORIZONTAL
3	5186.00	116.10			108.65	7.48	34.88	34.91	180	204	Peak	HORIZONTAL
4	5187.00	105.78			98.31	7.48	34.90	34.91	180	204	Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

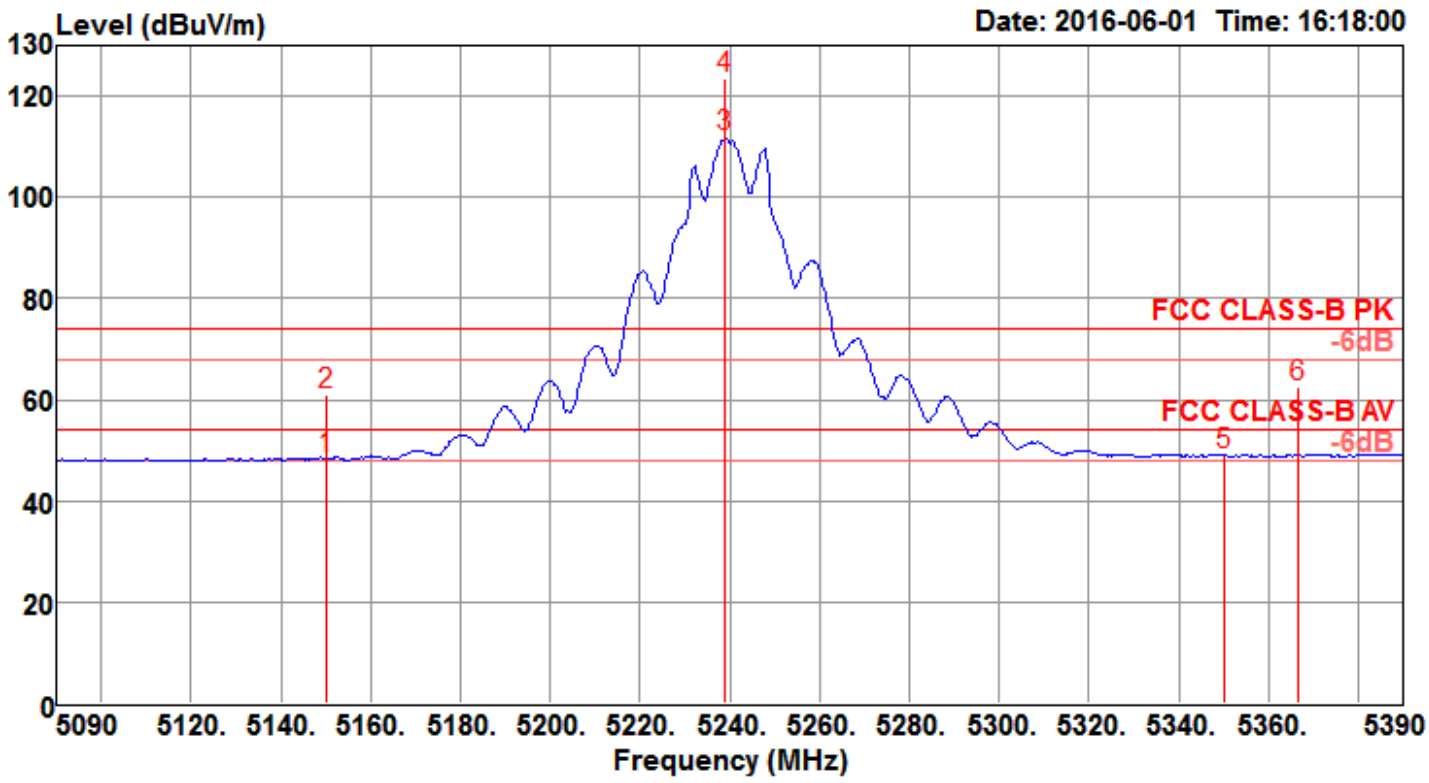
Channel 40



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5150.00	53.88	54.00	-0.12	46.46	7.48	34.85	34.91	187	203	Average	HORIZONTAL
2	5150.00	71.38	74.00	-2.62	63.96	7.48	34.85	34.91	187	203	Peak	HORIZONTAL
3	5198.80	110.37			102.90	7.48	34.90	34.91	187	203	Average	HORIZONTAL
4	5198.80	120.53			113.06	7.48	34.90	34.91	187	203	Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

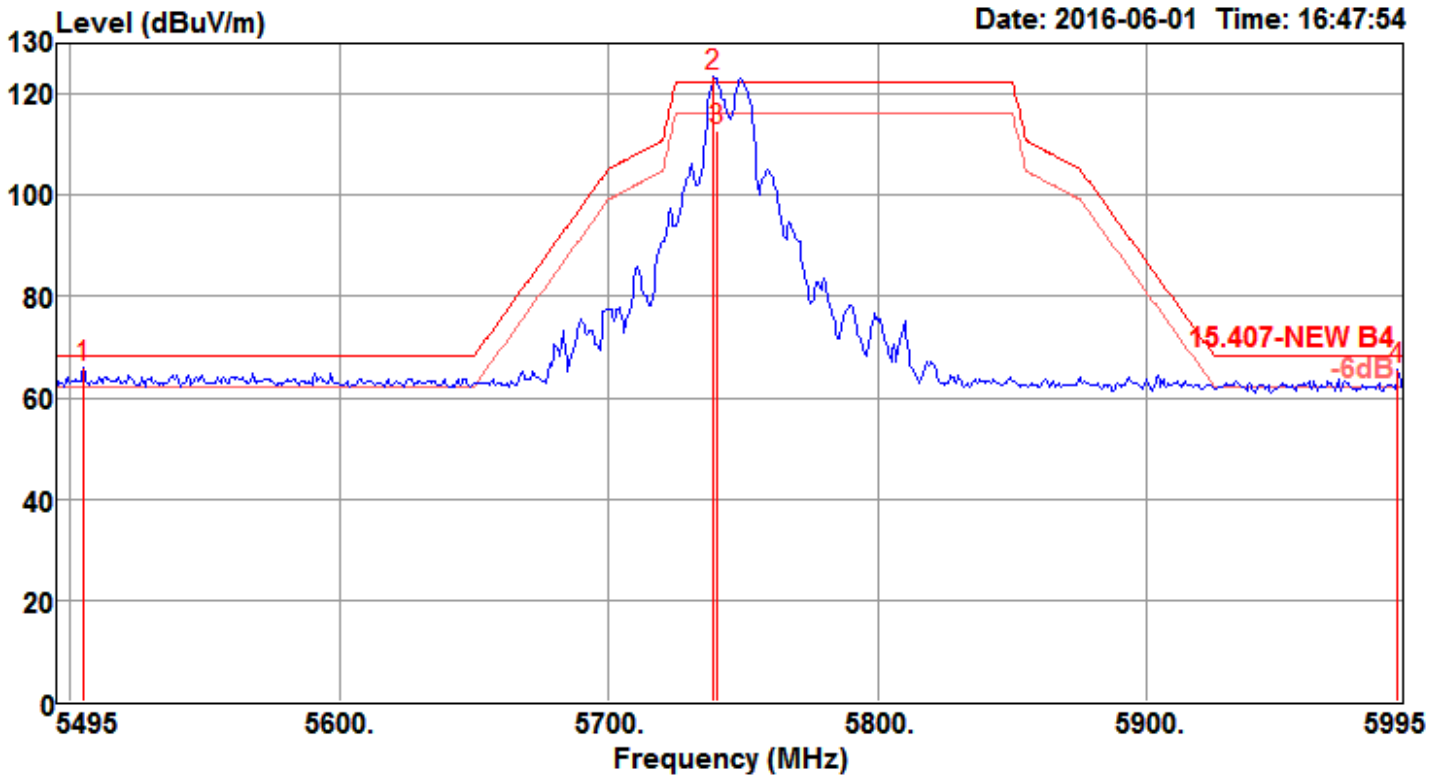


	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5150.00	48.40	54.00	-5.60	40.98	7.48	34.85	34.91	194	202	Average	HORIZONTAL
2	5150.00	60.81	74.00	-13.19	53.39	7.48	34.85	34.91	194	202	Peak	HORIZONTAL
3	5238.80	111.86			104.33	7.50	34.94	34.91	194	202	Average	HORIZONTAL
4	5238.80	123.36			115.83	7.50	34.94	34.91	194	202	Peak	HORIZONTAL
5	5350.00	49.00	54.00	-5.00	41.30	7.56	35.05	34.91	194	202	Average	HORIZONTAL
6	5366.60	62.71	74.00	-11.29	55.00	7.56	35.06	34.91	194	202	Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Configurations	IEEE 802.11a CH 149, 157, 165 / Ant. 1 + Ant. 2 + Ant. 3

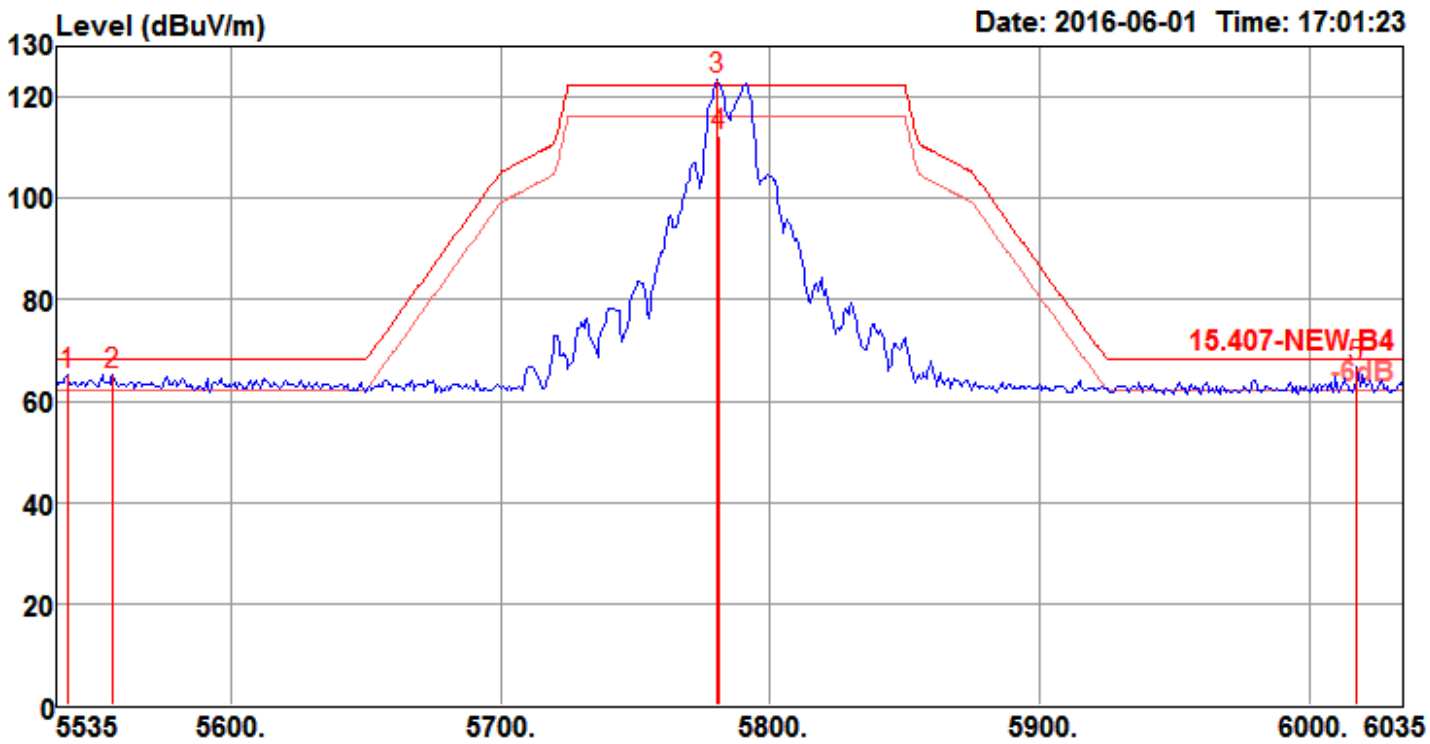
Channel 149



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5505.00	66.01	68.20	-2.19	57.96	7.77	35.20	34.92	230	186	Peak	HORIZONTAL
2	5739.00	123.39			115.31	7.77	35.25	34.94	230	186	Peak	HORIZONTAL
3	5740.00	112.73			104.65	7.77	35.25	34.94	230	186	Average	HORIZONTAL
4	5993.00	65.70	68.20	-2.50	57.32	8.05	35.30	34.97	230	186	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5745 MHz.

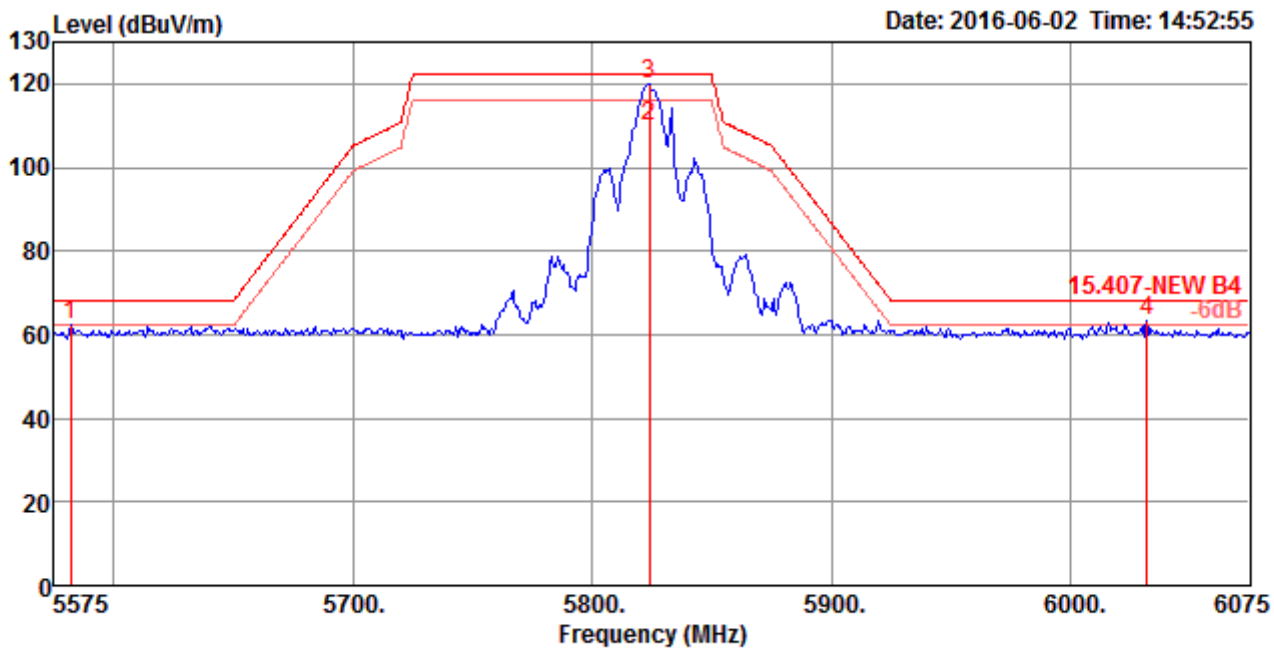
Channel 157



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5539.00	65.38	68.20	-2.82	57.26	7.83	35.21	34.92	216	187	Peak	HORIZONTAL
2	5556.00	65.36	68.20	-2.84	57.21	7.86	35.21	34.92	216	187	Peak	HORIZONTAL
3	5780.00	123.42			115.38	7.73	35.26	34.95	216	187	Peak	HORIZONTAL
4	5781.00	112.45			104.41	7.73	35.26	34.95	216	187	Average	HORIZONTAL
5	6018.00	66.71	68.20	-1.49	58.30	8.07	35.31	34.97	216	187	Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5785 MHz.

Channel 165

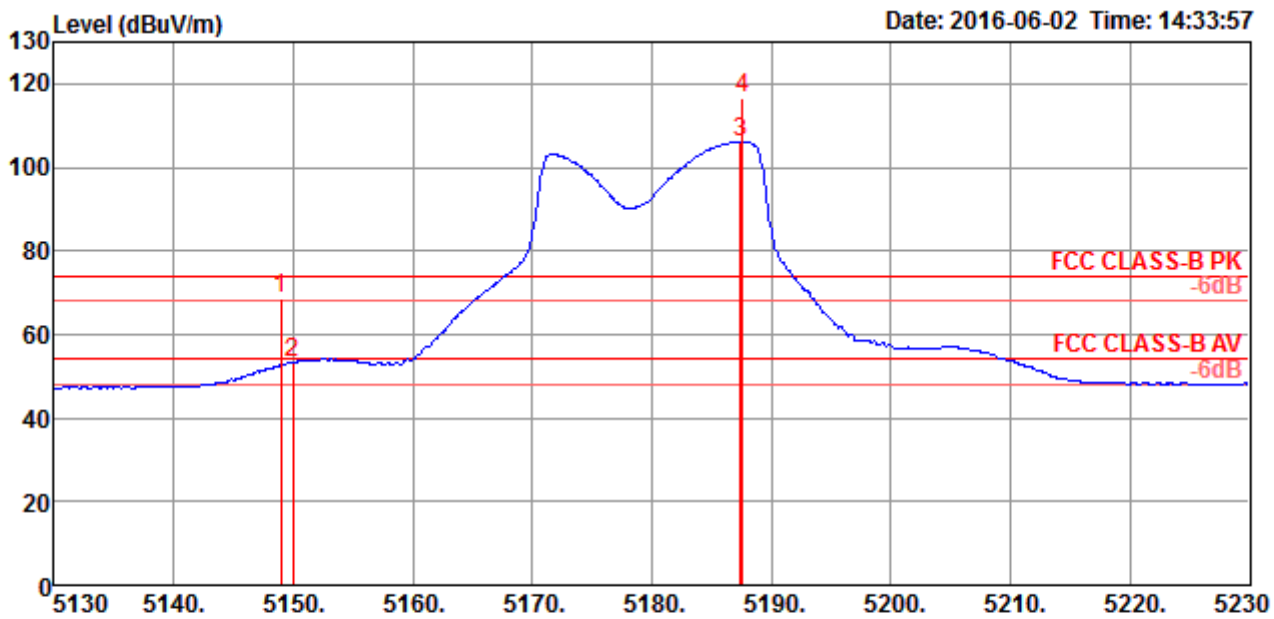


	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5582.00	62.29	68.20	-5.91	54.43	7.61	31.90	31.65	208	266	Peak	VERTICAL
2	5824.00	109.98			101.69	7.83	32.20	31.74	208	266	Average	VERTICAL
3	5824.00	119.83			111.54	7.83	32.20	31.74	208	266	Peak	VERTICAL
4	6032.00	63.47	68.20	-4.73	54.83	7.95	32.52	31.83	208	266	Peak	VERTICAL

Item 2, 3 are the fundamental frequency at 5825 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36, 40, 48 / Ant. 1 + Ant. 2 + Ant. 3

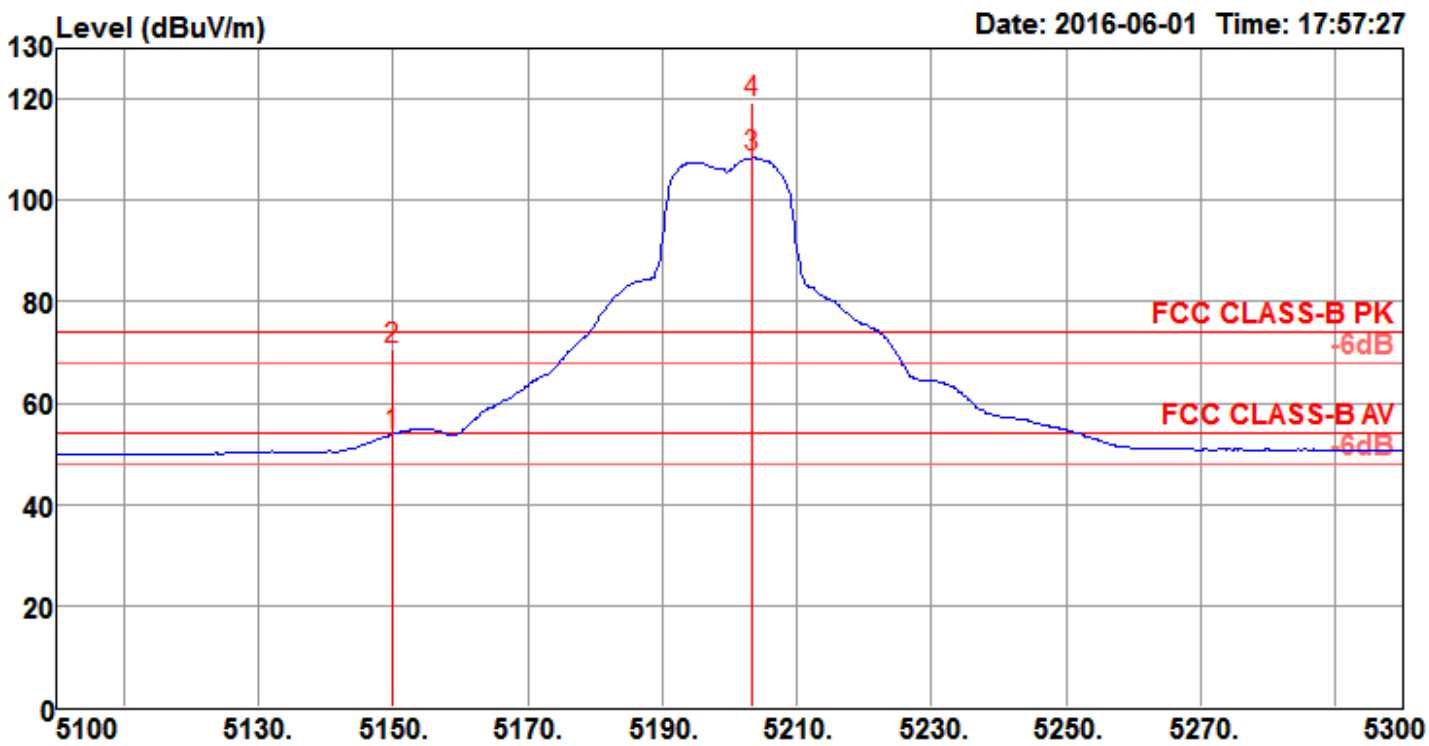
Channel 36



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5149.00	68.41	74.00	-5.59	61.19	7.34	31.52	31.64	171	204	Peak	HORIZONTAL
2	5150.00	53.38	54.00	-0.62	46.16	7.34	31.52	31.64	171	204	Average	HORIZONTAL
3 0	5187.40	106.12			98.81	7.39	31.56	31.64	171	204	Average	HORIZONTAL
4 0	5187.60	116.50			109.19	7.39	31.56	31.64	171	204	Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

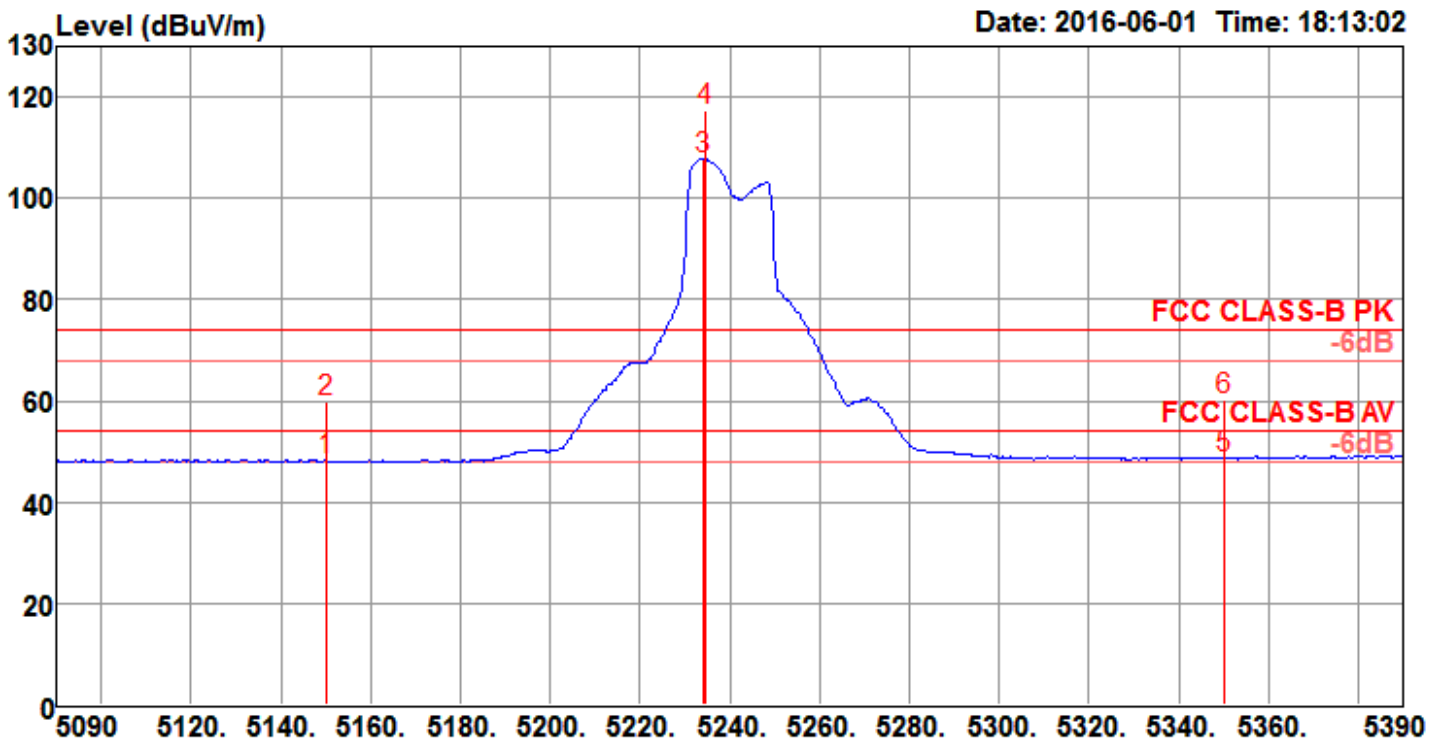
Channel 40



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5150.00	53.80	54.00	-0.20	46.38	7.48	34.85	34.91	206	106	Average	VERTICAL
2	5150.00	70.68	74.00	-3.32	63.26	7.48	34.85	34.91	206	106	Peak	VERTICAL
3	5203.20	108.35			100.86	7.49	34.91	34.91	206	106	Average	VERTICAL
4	5203.20	119.28			111.79	7.49	34.91	34.91	206	106	Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

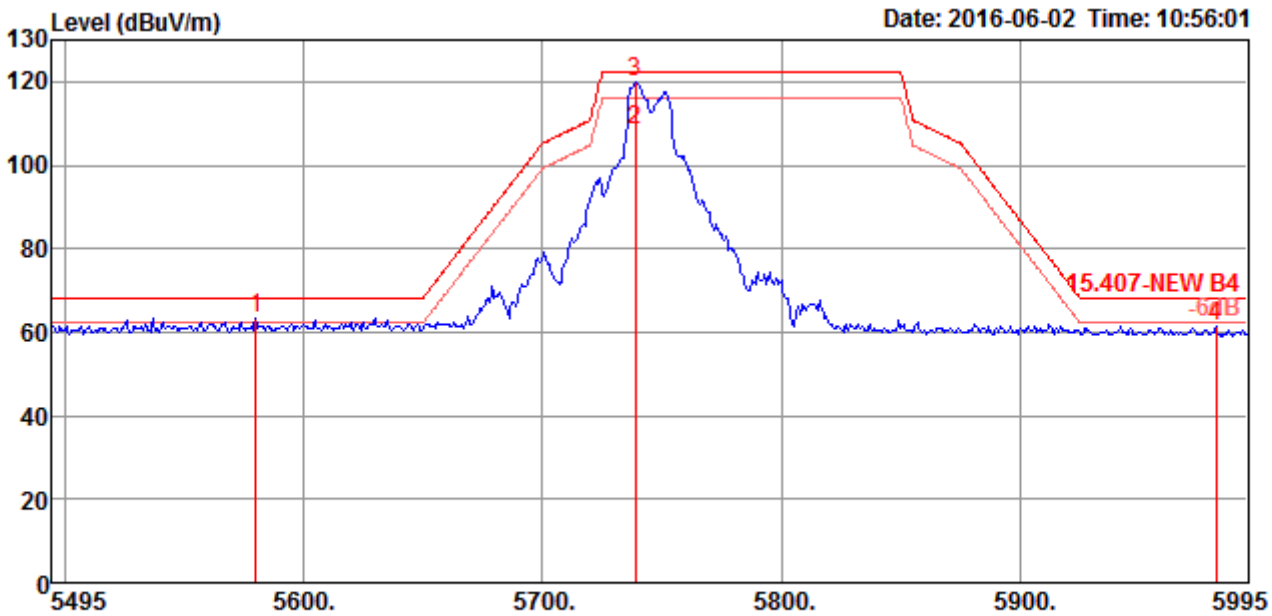


	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5150.00	48.27	54.00	-5.73	40.85	7.48	34.85	34.91	193	191	Average	HORIZONTAL
2	5150.00	59.76	74.00	-14.24	52.34	7.48	34.85	34.91	193	191	Peak	HORIZONTAL
3	5234.00	107.73			100.20	7.50	34.94	34.91	193	191	Average	HORIZONTAL
4	5234.60	117.48			109.95	7.50	34.94	34.91	193	191	Peak	HORIZONTAL
5	5350.00	48.63	54.00	-5.37	40.93	7.56	35.05	34.91	193	191	Average	HORIZONTAL
6	5350.00	60.17	74.00	-13.83	52.47	7.56	35.05	34.91	193	191	Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149, 157, 165 / Ant. 1 + Ant. 2 + Ant. 3

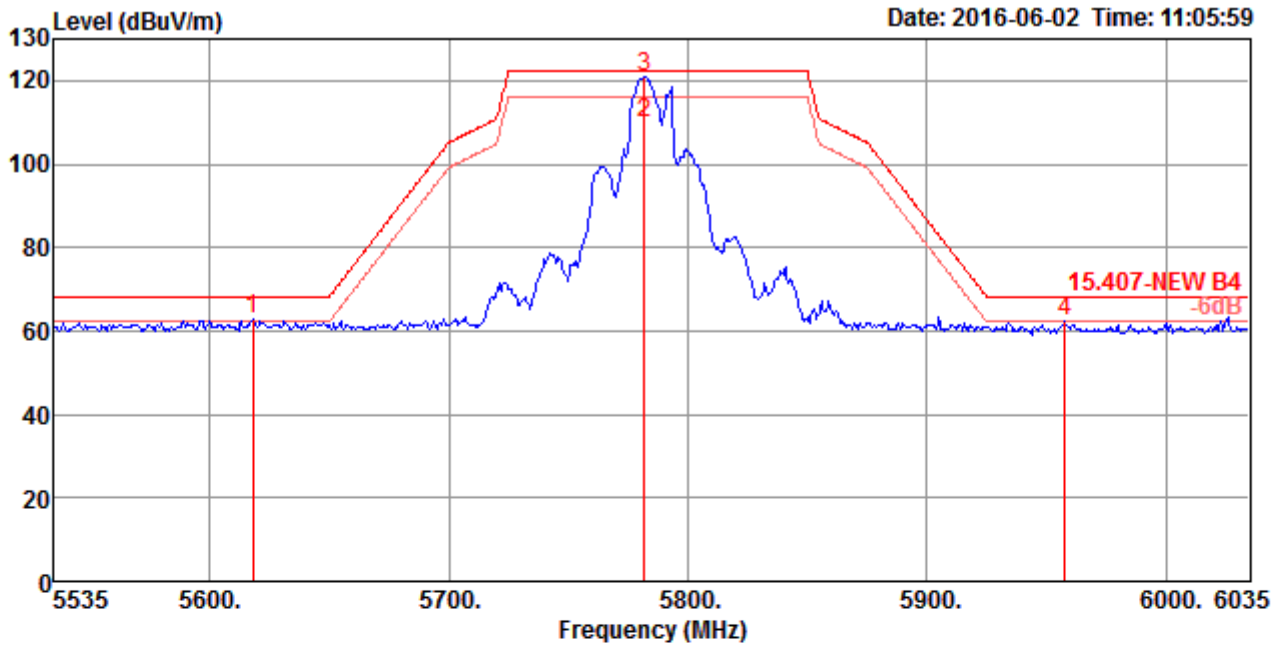
Channel 149



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5580.00	63.38	68.20	-4.82	55.52	7.61	31.90	31.65	155	201	Peak	HORIZONTAL
2	5739.00	108.56			100.41	7.76	32.10	31.71	155	201	Average	HORIZONTAL
3	5739.00	119.97			111.82	7.76	32.10	31.71	155	201	Peak	HORIZONTAL
4	5982.00	61.29	68.20	-6.91	52.79	7.92	32.38	31.80	155	201	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5745 MHz.

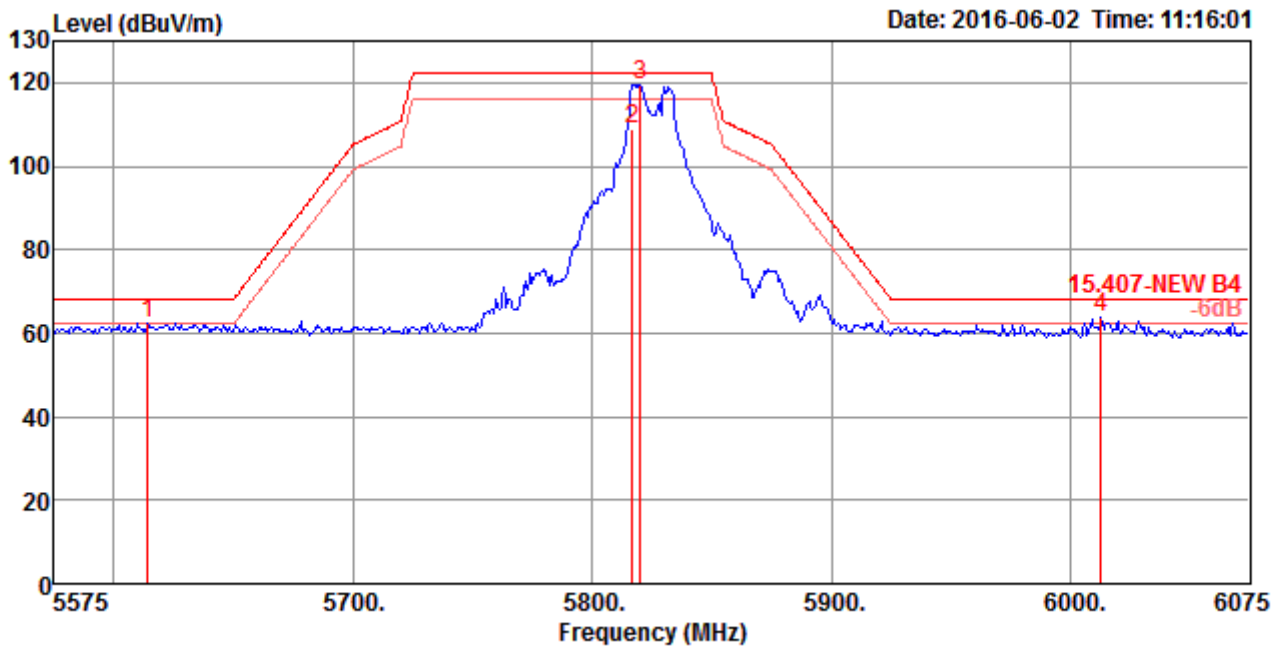
Channel 157



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5618.00	62.84	68.20	-5.36	54.93	7.63	31.94	31.66	154	190	Peak	HORIZONTAL
2	5782.00	110.03			101.82	7.79	32.14	31.72	154	190	Average	HORIZONTAL
3	5782.00	120.98			112.77	7.79	32.14	31.72	154	190	Peak	HORIZONTAL
4	5958.00	62.13	68.20	-6.07	53.69	7.90	32.34	31.80	154	190	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5785 MHz.

Channel 165

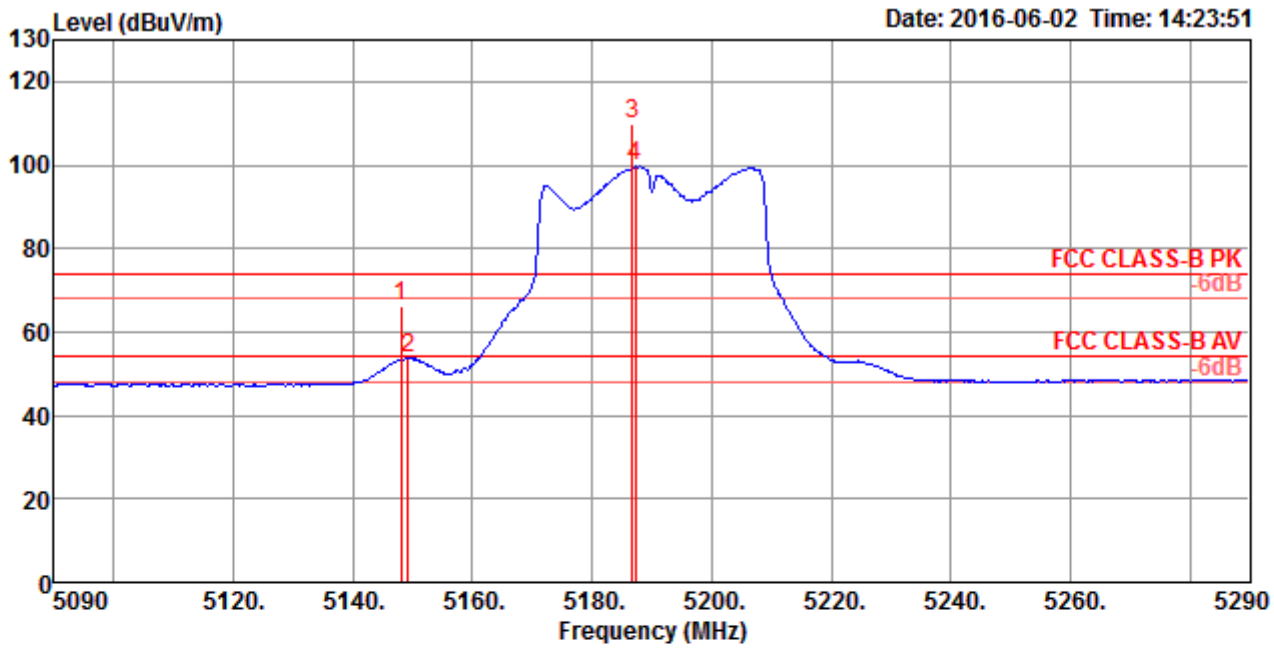


	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5614.00	62.31	68.20	-5.89	54.39	7.63	31.94	31.65	146	193	Peak	HORIZONTAL
2	5817.00	109.02			100.76	7.82	32.18	31.74	146	193	Average	HORIZONTAL
3	5820.00	119.69			111.43	7.82	32.18	31.74	146	193	Peak	HORIZONTAL
4	6013.00	63.77	68.20	-4.43	55.18	7.94	32.46	31.81	146	193	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5825 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38, 46 / Ant. 1 + Ant. 2 + Ant. 3

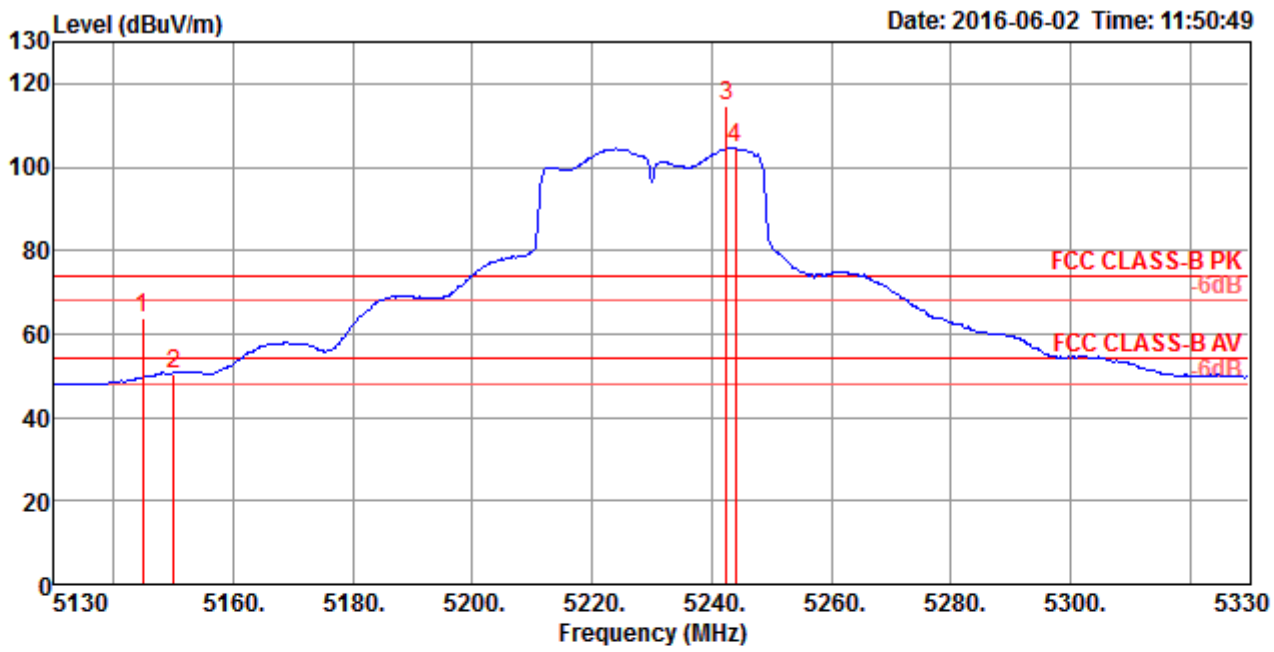
Channel 38



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5148.00	66.23	74.00	-7.77	59.01	7.34	31.52	31.64	165	209	Peak	HORIZONTAL
2	5149.20	53.60	54.00	-0.40	46.38	7.34	31.52	31.64	165	209	Average	HORIZONTAL
3 0	5186.80	109.96			102.65	7.39	31.56	31.64	165	209	Peak	HORIZONTAL
4 0	5187.20	99.56			92.25	7.39	31.56	31.64	165	209	Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

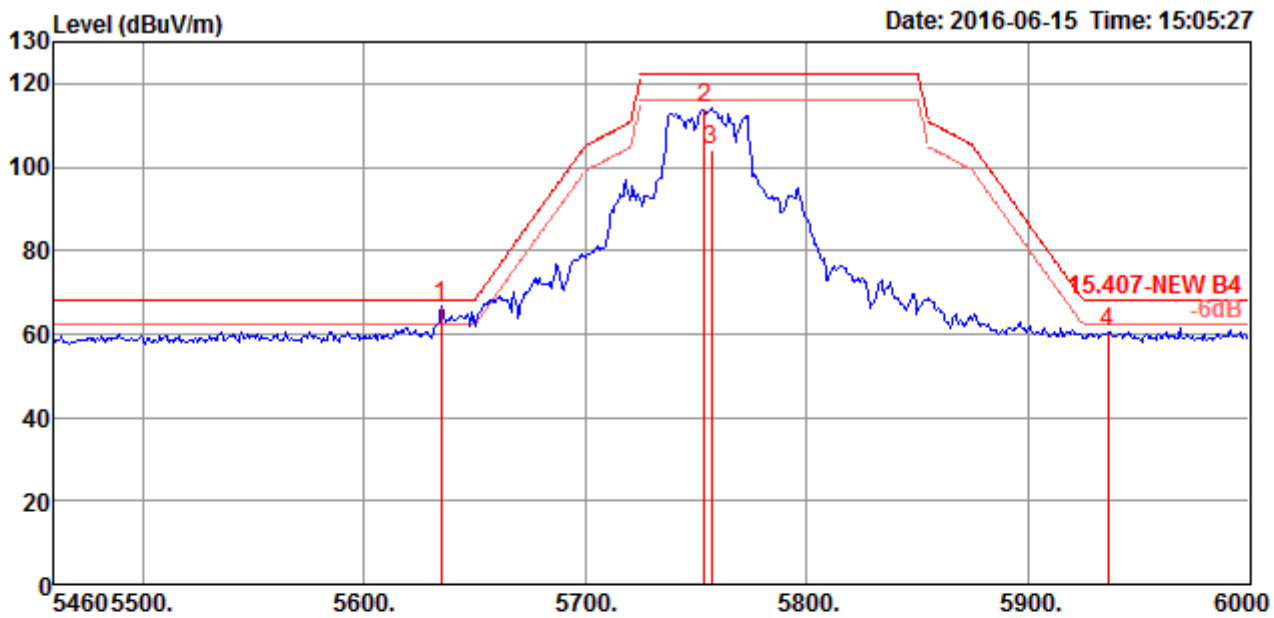


		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1		5144.80	63.97	74.00	-10.03	56.75	7.34	31.52	31.64	164	205	Peak	HORIZONTAL
2		5150.00	50.61	54.00	-3.39	43.39	7.34	31.52	31.64	164	205	Average	HORIZONTAL
3	0	5242.40	114.54			107.13	7.45	31.59	31.63	164	205	Peak	HORIZONTAL
4	0	5244.00	104.43			97.02	7.45	31.59	31.63	164	205	Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151, 159 / Ant. 1 + Ant. 2 + Ant. 3

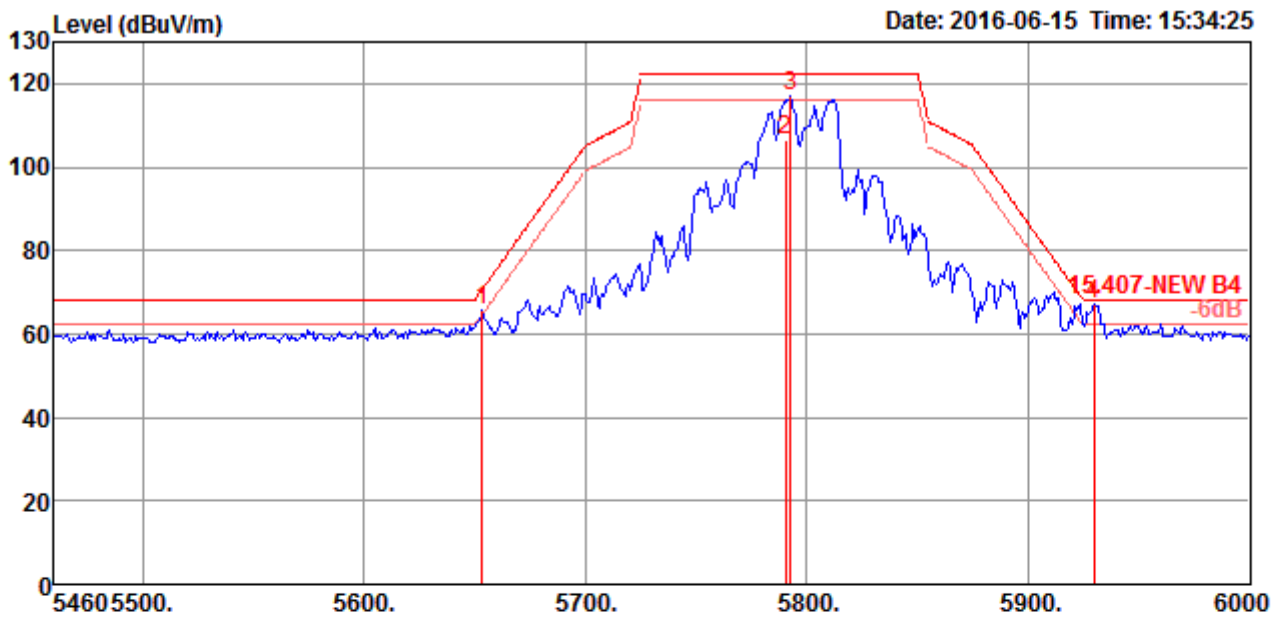
Channel 151



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5634.96	66.58	68.20	-1.62	58.65	7.64	31.96	31.67	252	181	Peak	HORIZONTAL
2	5753.76	114.24			106.09	7.76	32.10	31.71	252	181	Peak	HORIZONTAL
3	5757.00	104.17			95.98	7.78	32.12	31.71	252	181	Average	HORIZONTAL
4	5936.28	60.51	68.20	-7.69	52.08	7.89	32.32	31.78	252	181	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5755 MHz.

Channel 159

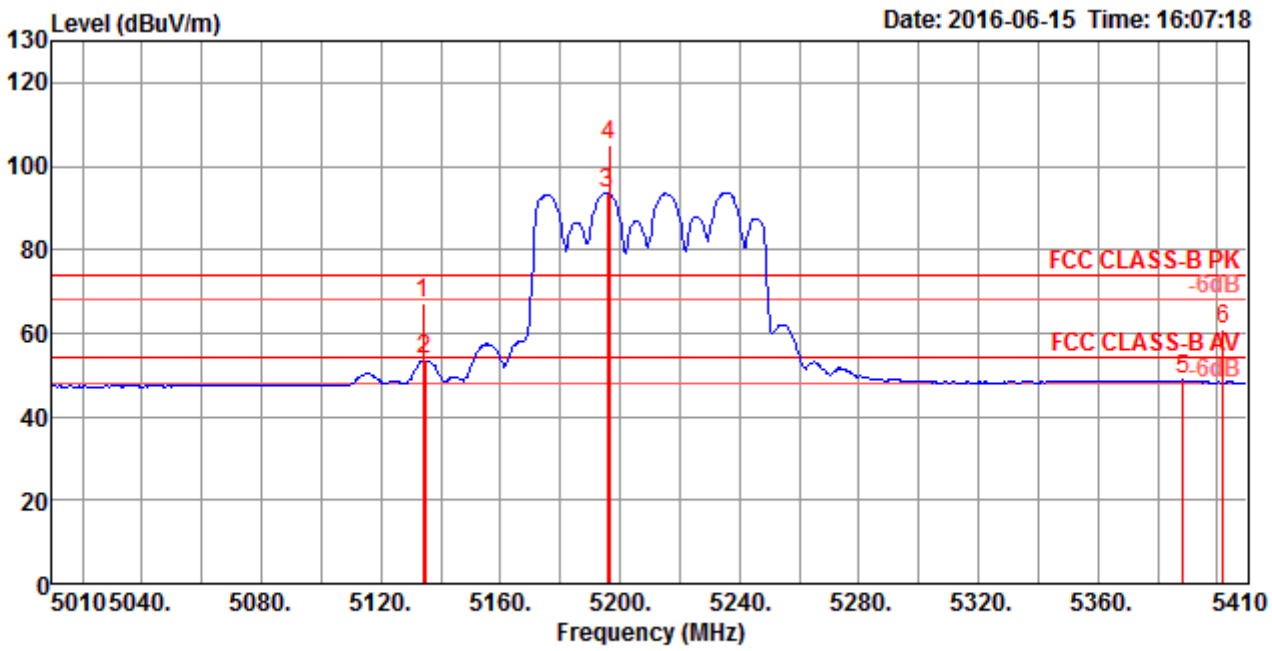


	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5653.32	65.68	70.67	-4.99	57.72	7.66	31.98	31.68	142	205	Peak	VERTICAL
2	5790.48	106.56			98.32	7.81	32.16	31.73	142	205	Average	VERTICAL
3	5792.64	116.93			108.69	7.81	32.16	31.73	142	205	Peak	VERTICAL
4	5929.80	67.23	68.20	-0.97	58.80	7.89	32.32	31.78	142	205	Peak	VERTICAL

Item 2, 3 are the fundamental frequency at 5795 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Ant. 1 + Ant. 2 + Ant. 3

Channel 42

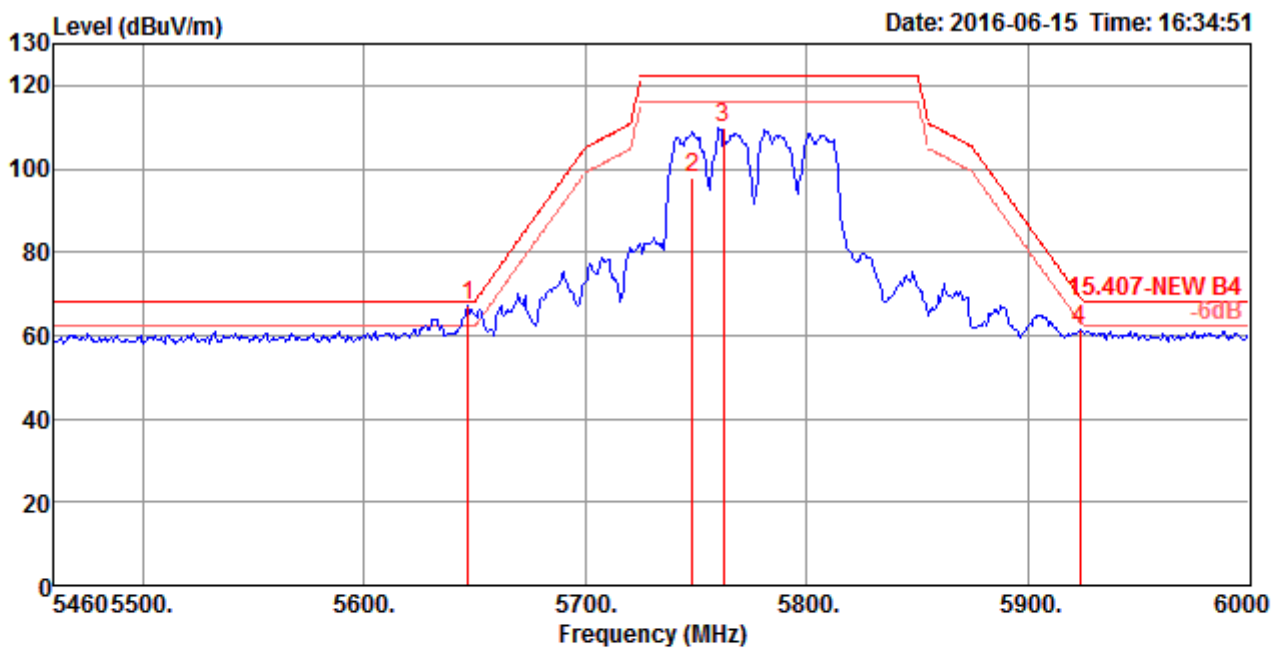


		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1		5134.00	67.22	74.00	-6.78	60.04	7.32	31.51	31.65	152	139	Peak	VERTICAL
2		5134.80	53.58	54.00	-0.42	46.40	7.32	31.51	31.65	152	139	Average	VERTICAL
3	0	5195.60	93.62			86.31	7.39	31.56	31.64	152	139	Average	VERTICAL
4	0	5196.40	104.93			97.62	7.39	31.56	31.64	152	139	Peak	VERTICAL
5		5388.40	48.77	54.00	-5.23	41.01	7.66	31.72	31.62	152	139	Average	VERTICAL
6		5402.00	60.78	74.00	-13.22	53.01	7.66	31.73	31.62	152	139	Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Ant. 1 + Ant. 2 + Ant. 3

Channel 155



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5646.84	66.94	68.20	-1.26	58.97	7.66	31.98	31.67	251	182	Peak	HORIZONTAL
2	5748.36	97.95			89.80	7.76	32.10	31.71	251	182	Average	HORIZONTAL
3	5762.40	109.72			101.53	7.78	32.12	31.71	251	182	Peak	HORIZONTAL
4	5923.32	61.21	69.44	-8.23	52.81	7.88	32.30	31.78	251	182	Peak	HORIZONTAL

Item 2, 3 are the fundamental frequency at 5775 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Mode: 20 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5200.0169	5200.0165	5200.0162	5200.0157
110.00	5200.0165	5200.0155	5200.0151	5200.0148
93.50	5200.0161	5200.0160	5200.0158	5200.0155
Max. Deviation (MHz)	0.0169	0.0165	0.0162	0.0157
Max. Deviation (ppm)	3.25	3.17	3.12	3.02
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5200.0147	5200.0137	5200.0135	5200.0133
10	5200.0156	5200.0146	5200.0136	5200.0134
20	5200.0165	5200.0164	5200.0160	5200.0153
30	5200.0168	5200.0166	5200.0164	5200.0157
40	5200.0169	5200.0165	5200.0155	5200.0149
Max. Deviation (MHz)	0.0187	0.0184	0.0181	0.0175
Max. Deviation (ppm)	3.60	3.54	3.48	3.37
Result	Pass			

Mode: 40 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5190.0170	5190.0165	5190.0159	5190.0152
110.00	5190.0165	5190.0159	5190.0157	5190.0151
93.50	5190.0156	5190.0149	5190.0148	5190.0140
Max. Deviation (MHz)	0.0170	0.0165	0.0159	0.0152
Max. Deviation (ppm)	3.28	3.18	3.06	2.93
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5190.0136	5190.0133	5190.0126	5190.0118
10	5190.0156	5190.0153	5190.0151	5190.0146
20	5190.0165	5190.0160	5190.0159	5190.0158
30	5190.0168	5190.0165	5190.0160	5190.0153
40	5190.0169	5190.0161	5190.0153	5190.0150
Max. Deviation (MHz)	0.0178	0.0170	0.0164	0.0159
Max. Deviation (ppm)	3.43	3.28	3.16	3.06
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5785.0170	5785.0165	5785.0160	5785.0150
110.00	5785.0165	5785.0162	5785.0154	5785.0151
93.50	5785.0155	5785.0146	5785.0140	5785.0134
Max. Deviation (MHz)	0.0170	0.0165	0.0160	0.0151
Max. Deviation (ppm)	2.94	2.85	2.77	2.61
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5785.0155	5785.0148	5785.0139	5785.0136
10	5785.0163	5785.0156	5785.0150	5785.0142
20	5785.0165	5785.0162	5785.0159	5785.0153
30	5785.0168	5785.0165	5785.0161	5785.0159
40	5785.0181	5785.0177	5785.0171	5785.0168
Max. Deviation (MHz)	0.0188	0.0182	0.0178	0.0176
Max. Deviation (ppm)	3.25	3.15	3.08	3.04
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5755.0169	5755.0160	5755.0158	5755.0152
110.00	5755.0165	5755.0157	5755.0151	5755.0147
93.50	5755.0156	5755.0146	5755.0140	5755.0133
Max. Deviation (MHz)	0.0169	0.0160	0.0158	0.0152
Max. Deviation (ppm)	2.94	2.78	2.75	2.64
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5755.0147	5755.0143	5755.0136	5755.0129
10	5755.0156	5755.0150	5755.0144	5755.0142
20	5755.0165	5755.0163	5755.0156	5755.0151
30	5755.0168	5755.0161	5755.0151	5755.0149
40	5755.0169	5755.0160	5755.0159	5755.0150
Max. Deviation (MHz)	0.0180	0.0174	0.0173	0.0164
Max. Deviation (ppm)	3.13	3.02	3.01	2.85
Result	Pass			

Mode: 80 MHz / Ant. 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5210.0174	5210.0170	5210.0166	5210.0161
110.00	5210.0165	5210.0163	5210.0157	5210.0149
93.50	5210.0159	5210.0153	5210.0147	5210.0141
Max. Deviation (MHz)	0.0174	0.0170	0.0166	0.0161
Max. Deviation (ppm)	3.34	3.26	3.19	3.09
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5210.0140	5210.0139	5210.0138	5210.0133
10	5210.0151	5210.0142	5210.0141	5210.0136
20	5210.0165	5210.0157	5210.0152	5210.0151
30	5210.0168	5210.0167	5210.0160	5210.0152
40	5210.0171	5210.0166	5210.0156	5210.0147
Max. Deviation (MHz)	0.0179	0.0169	0.0160	0.0156
Max. Deviation (ppm)	3.44	3.24	3.07	2.99
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5775.0170	5775.0160	5775.0151	5775.0149
110.00	5775.0165	5775.0163	5775.0158	5775.0155
93.50	5775.0162	5775.0156	5775.0153	5775.0146
Max. Deviation (MHz)	0.0170	0.0163	0.0158	0.0155
Max. Deviation (ppm)	2.94	2.82	2.74	2.68
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5775.0149	5775.0144	5775.0139	5775.0134
10	5775.0154	5775.0144	5775.0139	5775.0129
20	5775.0165	5775.0164	5775.0157	5775.0153
30	5775.0168	5775.0160	5775.0159	5775.0158
40	5775.0181	5775.0174	5775.0173	5775.0165
Max. Deviation (MHz)	0.0181	0.0179	0.0175	0.0169
Max. Deviation (ppm)	3.13	3.10	3.03	2.93
Result	Pass			