



FCC Test Report

Equipment : AC1200 Wi-Fi Range Extender,AV1200 Passthrough Powerline Edition

Brand Name : TP-Link

Model No. : TL-WPA8630P

FCC ID : TE7WPA8630P

Standard : 47 CFR FCC Part 15.407

Operating Band : 5150 MHz – 5250 MHz
5725 MHz – 5850 MHz

Applicant : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Nanshan, Shenzhen,518057,China

Manufacturer : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen City,Guangdong Province,P.R. China

Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client

The product sample received on Jul. 17, 2016 and completely tested on Sep. 16, 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.


Sam Chen
SPORTON INTERNATIONAL INC.



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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



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
FAX : 886-3-3270973
FCC ID: TE7WPA8630P

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	2
5.8G	11a	20	2
5.2G	HT20	20	2
5.8G	HT20	20	2
5.2G	VHT20	20	2
5.8G	VHT20	20	2
5.2G	HT40	40	2
5.8G	HT40	40	2
5.2G	VHT40	40	2
5.8G	VHT40	40	2
5.2G	VHT80	80	2
5.8G	VHT80	80	2

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	Model Name	Antenna Type	Connector	Gain (dBi)	Remark
1	TP-LINK	3101500886	Dipole Antenna	I-PEX	1.96	2.4GHz TX/RX
2	TP-LINK	3101500887	Dipole Antenna	I-PEX	2.10	2.4GHz TX/RX
3	TP-LINK	3101500857	Dipole Antenna	I-PEX	5.28	5GHz TX/RX
4	TP-LINK	3101500857	Dipole Antenna	I-PEX	5.28	5GHz TX/RX

Note: 1. The EUT has four antennas.

2. For 2.4GHz WLAN function (2TX/2RX):

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

3. For 5GHz WLAN function (2TX/2RX):

Ant. 3 and Ant. 4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	T(s)	VBW(Hz) $\geq 1/T$
11a	0.997	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
VHT20	0.997	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
VHT40	0.993	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
VHT80	0.987	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

1.1.4 EUT Operational Condition

EUT Power Type	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	Serway Li	20°C / 50%	Aug. 19, 2016~Aug. 20, 2016
Radiated	03CH01-CB	Zero Chen, Eason Chen	22°C / 54%	Aug. 20, 2016~Sep. 16, 2016
AC Conduction	CO02-CB	Hank Yang	23°C / 59%	Sep. 13, 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	2	5180	L	18
5.2G	11a	20	1	2	5200	M	17.5
5.2G	11a	20	1	2	5240	H	18.5
5.8G	11a	20	1	2	5745	L	31.5
5.8G	11a	20	1	2	5785	M	31.5
5.8G	11a	20	1	2	5825	H	31.5
5.2G	VHT20	20	1,(M0)	2	5180	L	17.5
5.2G	VHT20	20	1,(M0)	2	5200	M	18
5.2G	VHT20	20	1,(M0)	2	5240	H	18.5
5.8G	VHT20	20	1,(M0)	2	5745	L	31.5
5.8G	VHT20	20	1,(M0)	2	5785	M	31.5
5.8G	VHT20	20	1,(M0)	2	5825	H	31.5
5.2G	VHT40	40	1,(M0)	2	5190	L	16
5.2G	VHT40	40	1,(M0)	2	5230	H	20
5.8G	VHT40	40	1,(M0)	2	5755	L	30
5.8G	VHT40	40	1,(M0)	2	5795	H	30.5
5.2G	VHT80	80	1,(M0)	2	5210	S	12.5
5.8G	VHT80	80	1,(M0)	2	5775	S	24

Note:

- ♦ Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch.) and C (Straddle Band Ch.).
- ♦ 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	CTX
1	CTX mode

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	EUT Y axis
2	EUT Z axis
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	EUT Y axis
2	EUT Z axis
Mode 2 has been evaluated to be the worst case after evaluating. Consequently, measurement will follow this same test mode.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	
1	2.4GHz WLAN + 5GHz WLAN
Refer to Sporton Test Report No.: FA672231 for Co-location RF Exposure Evaluation.	

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

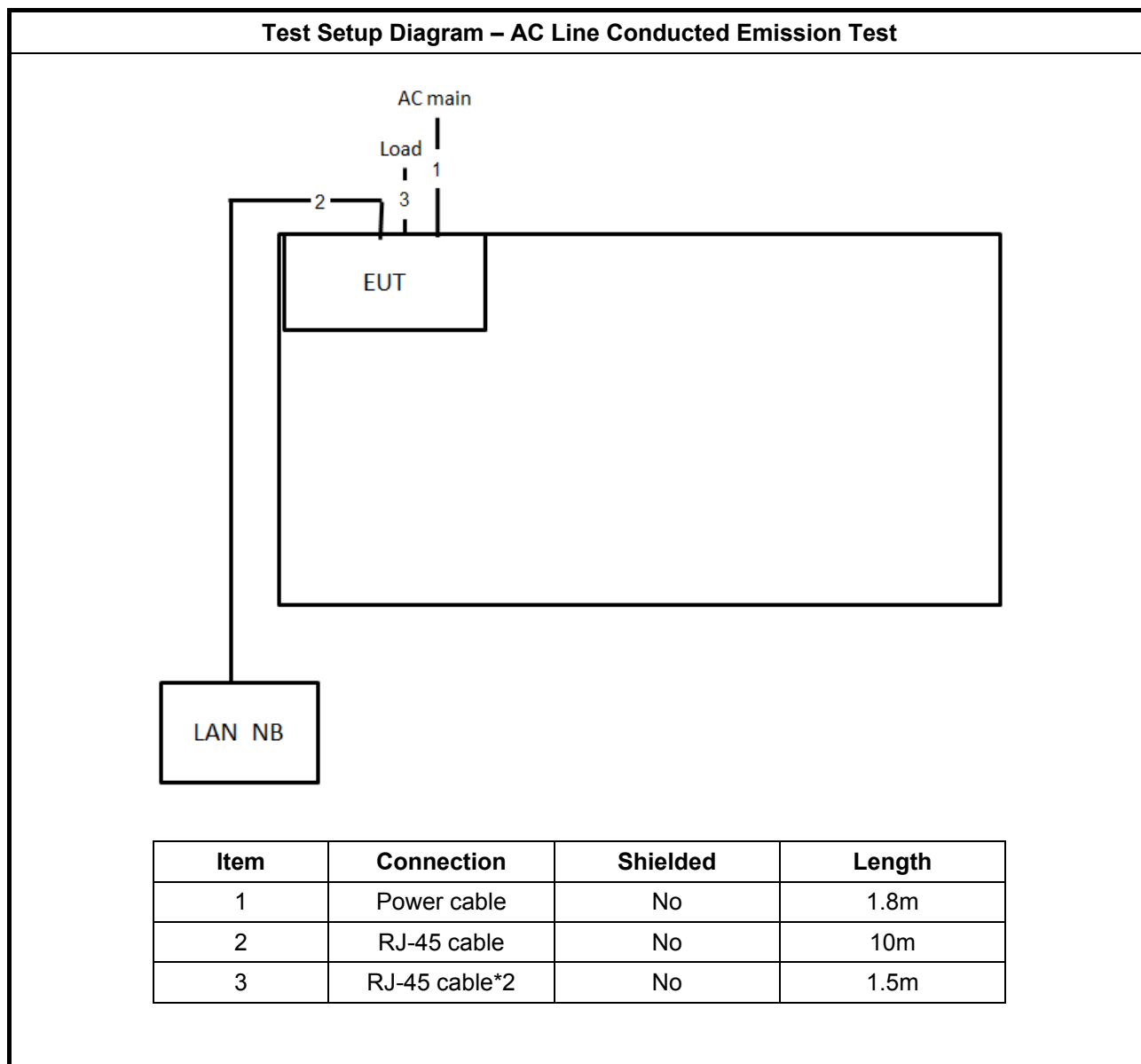
For Test Site No: CO02-CB

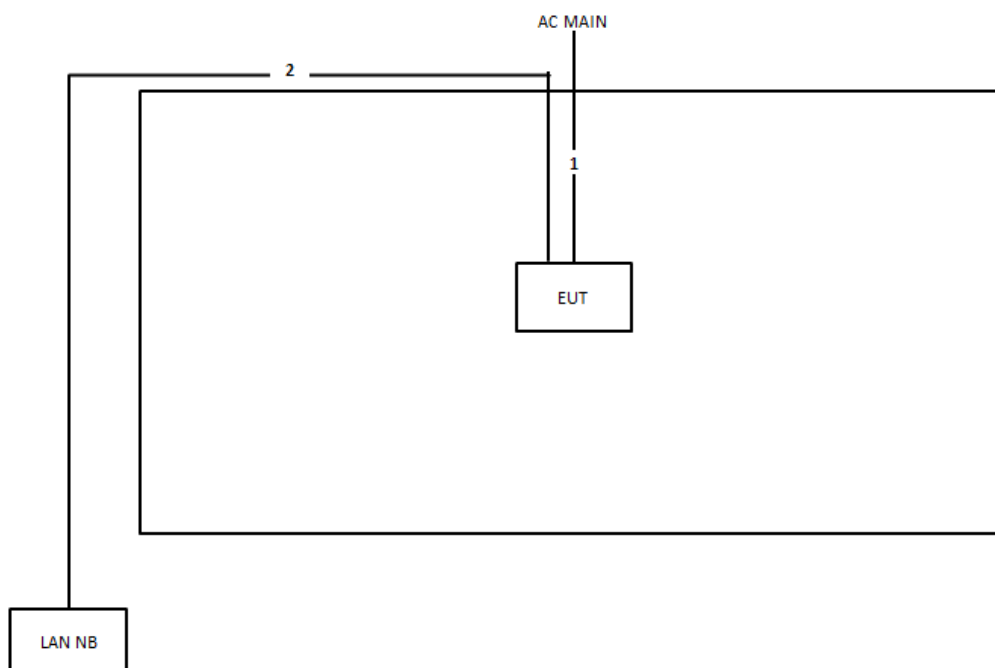
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E6430	DoC

For Test Site No: 03CH01-CB and 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 - Radiated Test


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	1.5m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

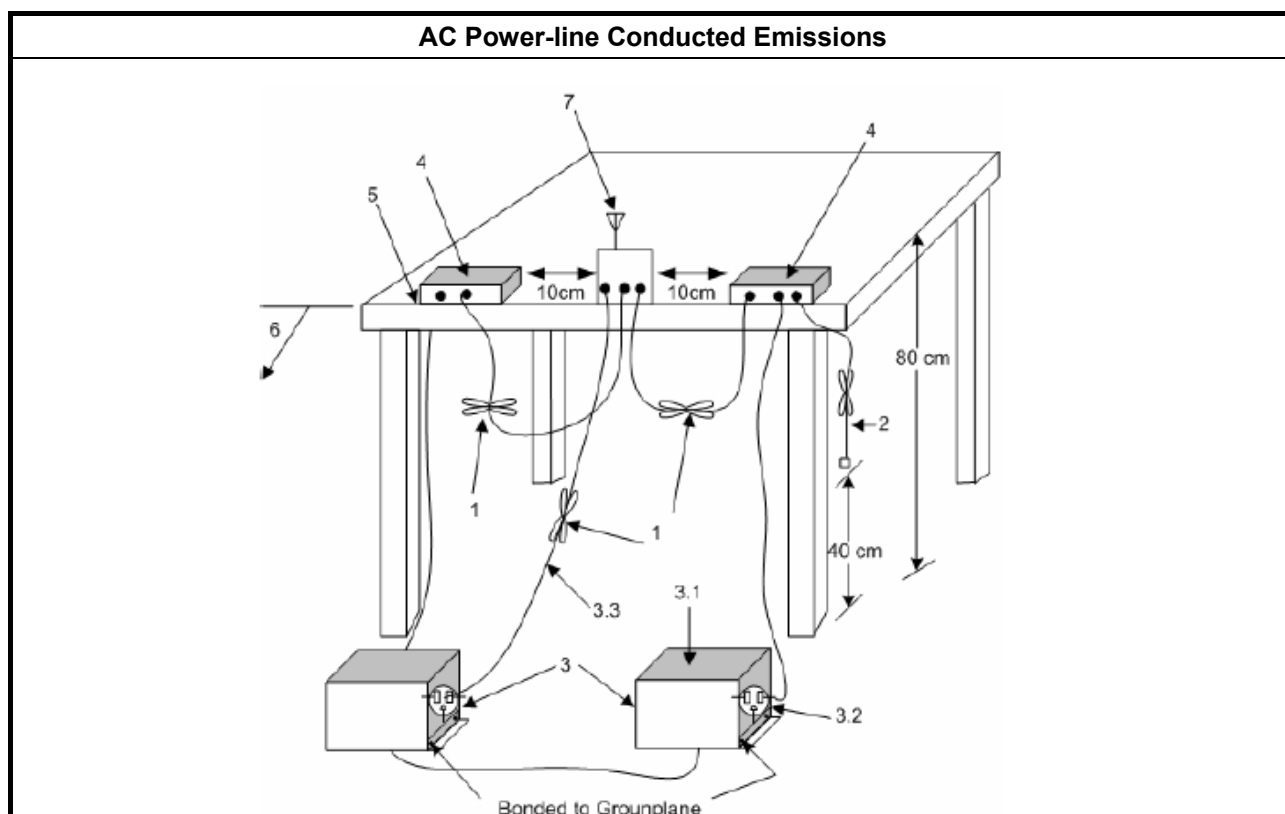
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

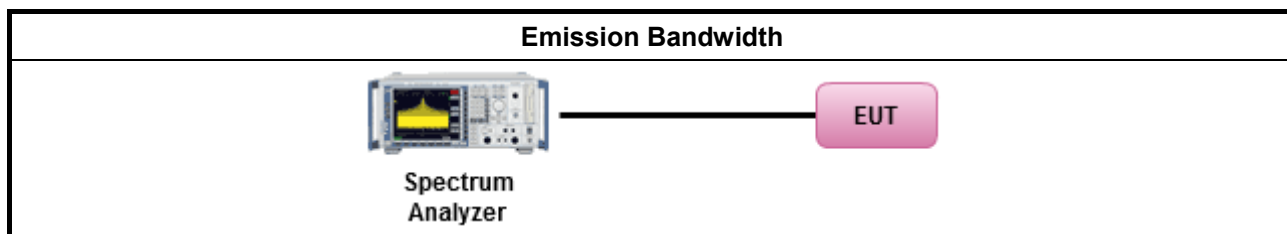
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as 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



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.	

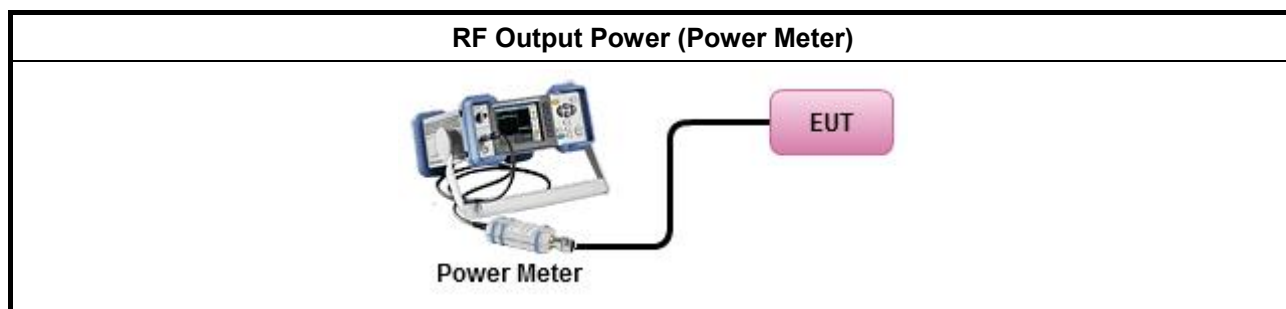
3.3.2 Measuring Instruments

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 $\geq$ 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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	- Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. - Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
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 $0^\circ \leq \theta < 8^\circ$; $-13 - 0.716 (\theta - 8)$ dBW/MHz for $8^\circ \leq \theta < 40^\circ$; $-35.9 - 1.22 (\theta - 40)$ dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ 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.	

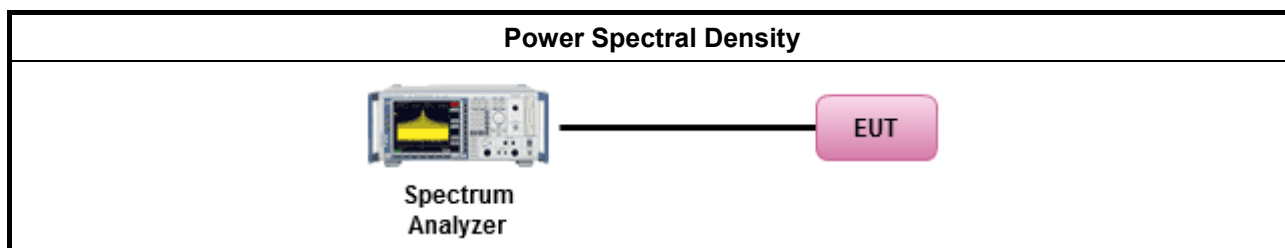
3.4.2 Measuring Instruments

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

3.4.4 Test Setup





3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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).

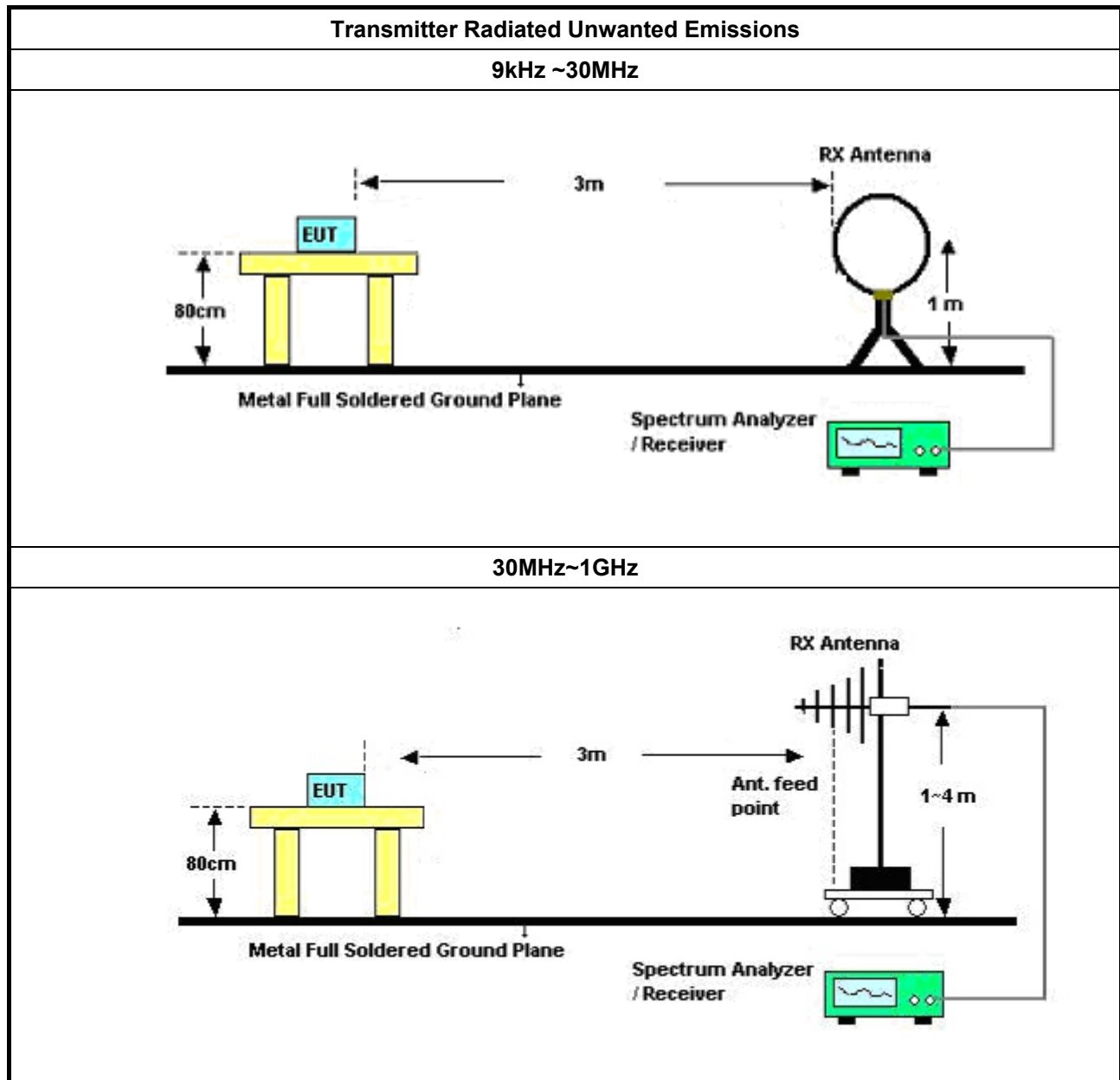
3.5.2 Measuring Instruments

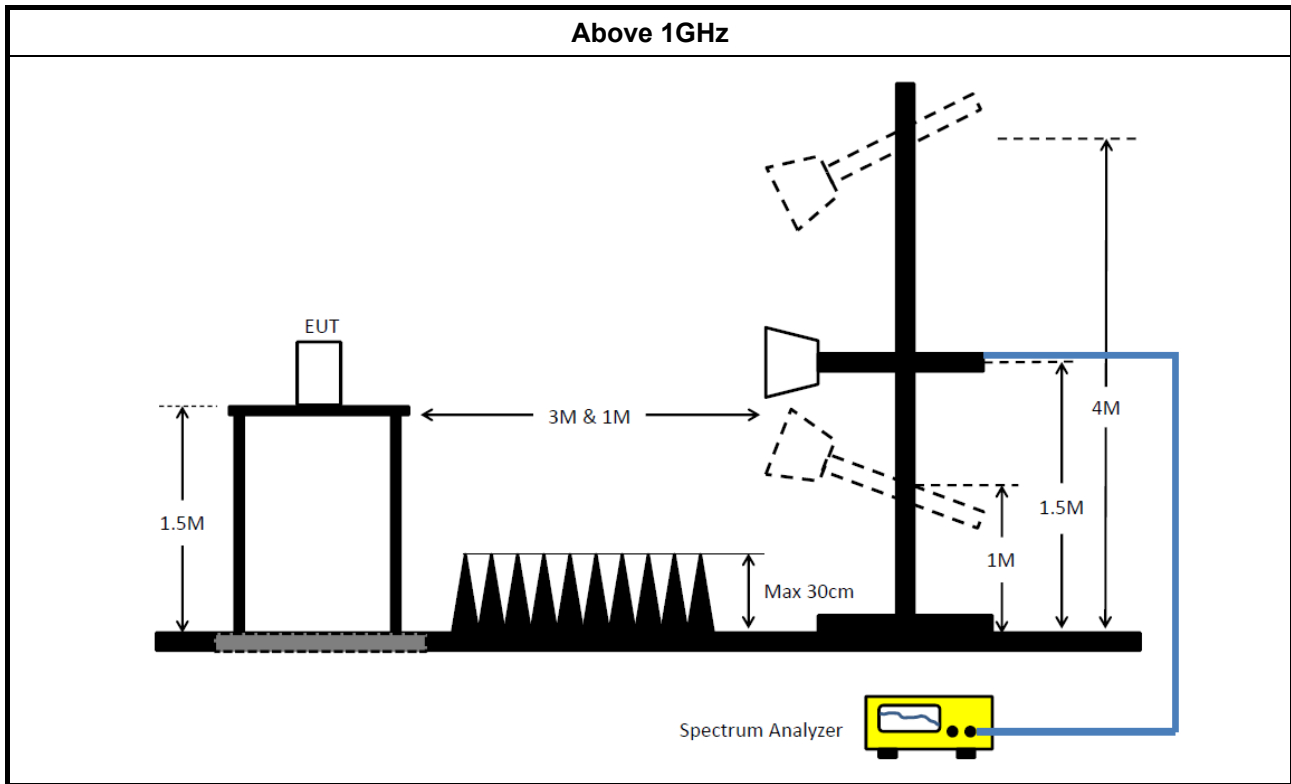
Refer a test equipment and calibration data table in this test report.

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 $\geq$ 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 $\geq$ 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







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.

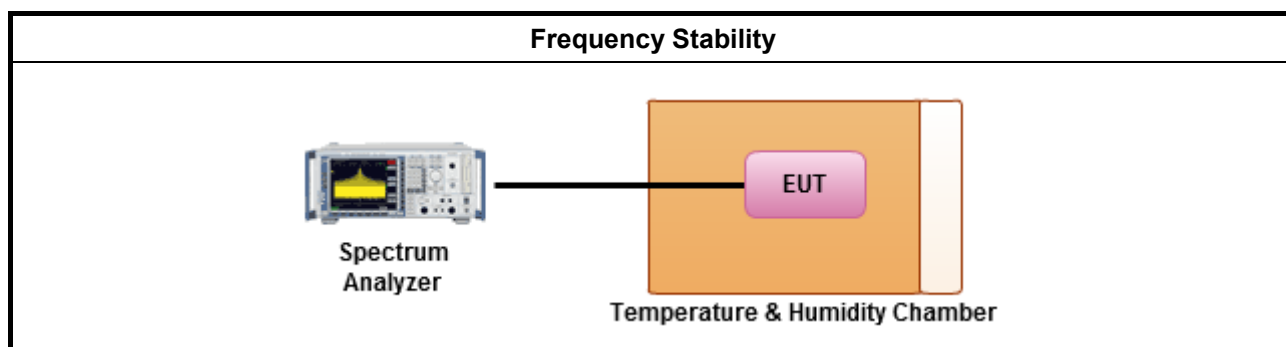
3.6.2 Measuring Instruments

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°C~40°C.

3.6.4 Test Setup





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
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 16, 2015	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 13, 2015	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 18, 2016	Conduction (CO02-CB)
COND Cable	Woken	Cable	01	0.15MHz ~ 30MHz	Dec. 01, 2015	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F	9561-F073	9kHz ~ 30MHz	Sep. 30, 2015	Conduction (CO02-CB)
Bilog Antenna	SCHAFFNER	CBL 6112B	2888	30MHz ~ 1GHz	Nov. 17, 2015	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. 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)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz ~ 1 GHz	Nov. 02, 2015	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)
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-I0-7	N/A	N/A	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	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)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
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	CTX		

Level (dBuV)

Date: 2016-09-13 Time: 16:47:09

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.1965	23.30	-30.46	53.76	13.16	9.96	0.18	Average	NEUTRAL
2	0.1965	30.16	-33.60	63.76	20.02	9.96	0.18	QP	NEUTRAL
3	0.4328	24.42	-22.78	47.20	14.25	9.97	0.20	Average	NEUTRAL
4	0.4328	30.84	-26.36	57.20	20.67	9.97	0.20	QP	NEUTRAL
5	1.2688	31.69	-14.31	46.00	21.50	9.98	0.21	Average	NEUTRAL
6	1.2688	34.26	-21.74	56.00	24.07	9.98	0.21	QP	NEUTRAL
7	2.5400	16.54	-29.46	46.00	6.26	10.00	0.28	Average	NEUTRAL
8	2.5400	22.49	-33.51	56.00	12.21	10.00	0.28	QP	NEUTRAL
9	4.3838	14.20	-31.80	46.00	3.84	10.03	0.33	Average	NEUTRAL
10	4.3838	20.70	-35.30	56.00	10.34	10.03	0.33	QP	NEUTRAL
11	27.2711	13.43	-36.57	50.00	2.55	10.33	0.55	Average	NEUTRAL
12	27.2711	20.64	-39.36	60.00	9.76	10.33	0.55	QP	NEUTRAL

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	CTX		

Level (dBuV)

Date: 2016-09-13 Time: 16:45:10

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.2072	21.76	-31.56	53.32	11.63	9.95	0.18	Average	LINE
2	0.2072	28.70	-34.62	63.32	18.57	9.95	0.18	QP	LINE
3	0.3955	22.42	-25.53	47.95	12.21	10.01	0.20	Average	LINE
4	0.3955	29.58	-28.37	57.95	19.37	10.01	0.20	QP	LINE
5	0.6173	19.98	-26.02	46.00	9.75	10.03	0.20	Average	LINE
6	0.6173	26.95	-29.05	56.00	16.72	10.03	0.20	QP	LINE
7	1.2688	26.52	-19.48	46.00	16.25	10.06	0.21	Average	LINE
8	1.2688	29.41	-26.59	56.00	19.14	10.06	0.21	QP	LINE
9	3.9014	12.33	-33.67	46.00	1.89	10.11	0.33	Average	LINE
10	3.9014	19.16	-36.84	56.00	8.72	10.11	0.33	QP	LINE
11	27.5616	14.59	-35.41	50.00	3.69	10.34	0.56	Average	LINE
12	27.5616	21.98	-38.02	60.00	11.08	10.34	0.56	QP	LINE

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.)



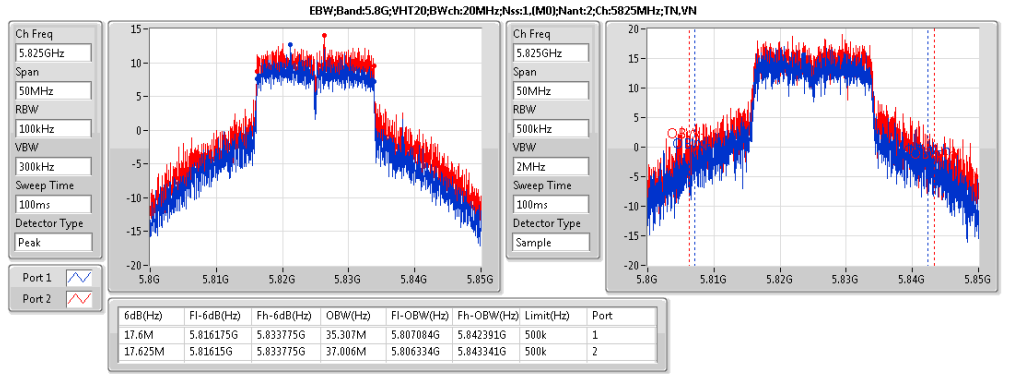
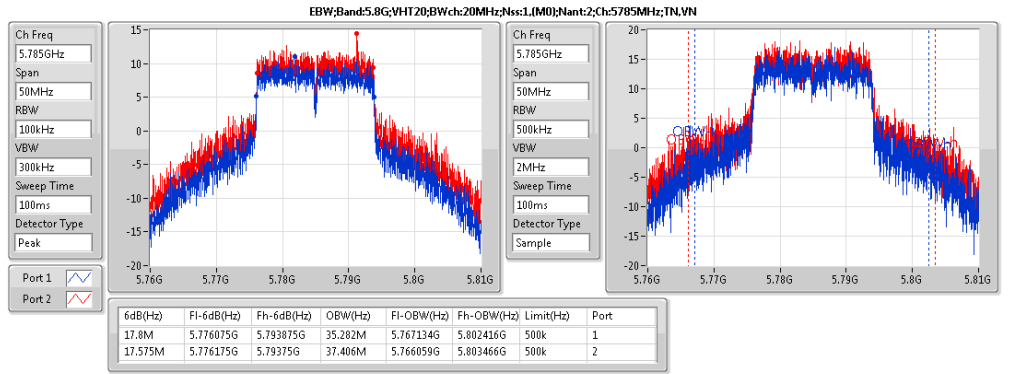
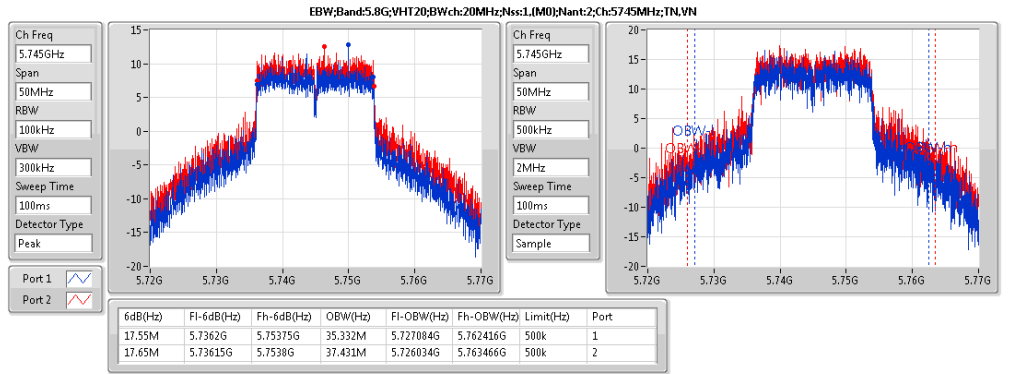
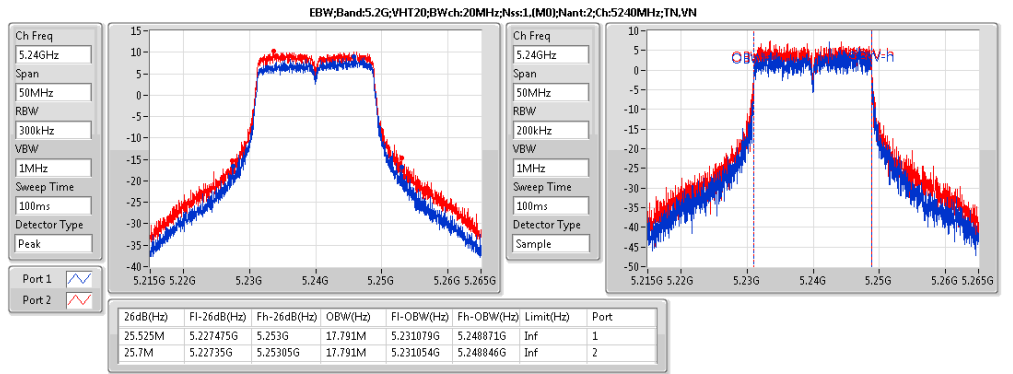
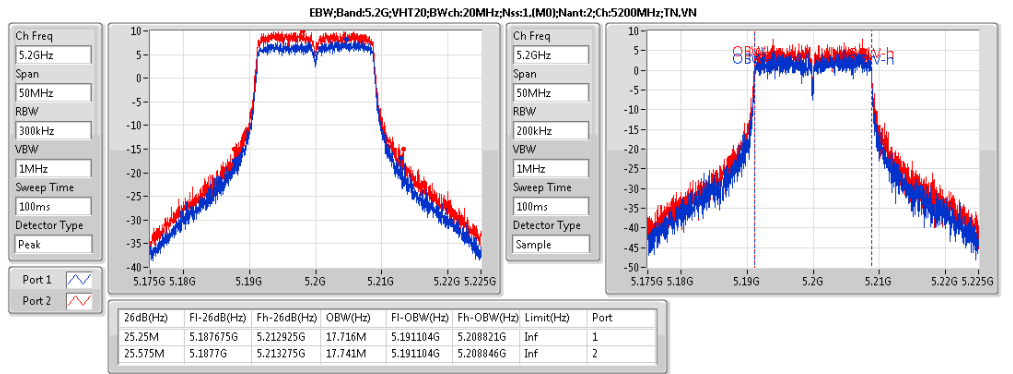
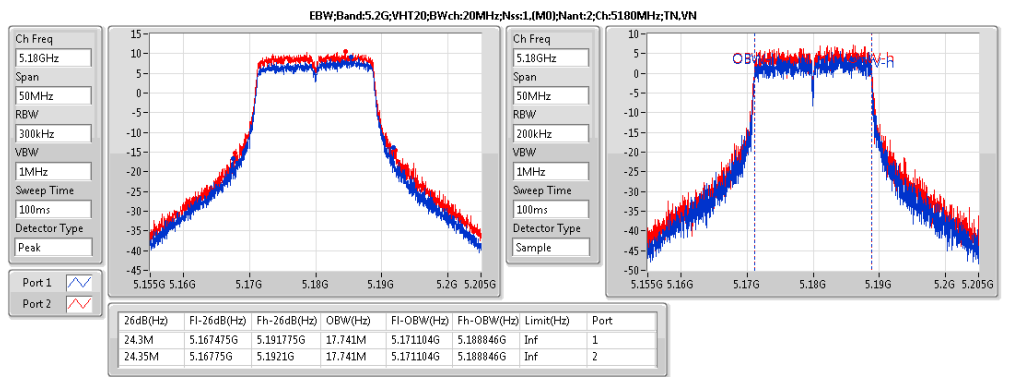
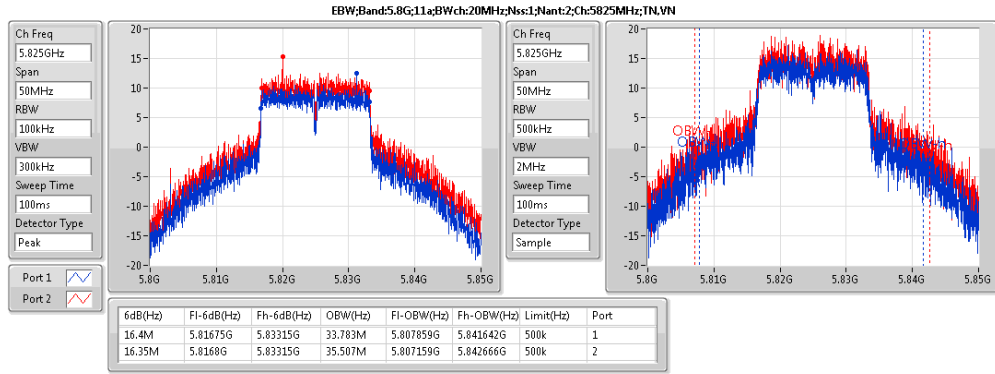
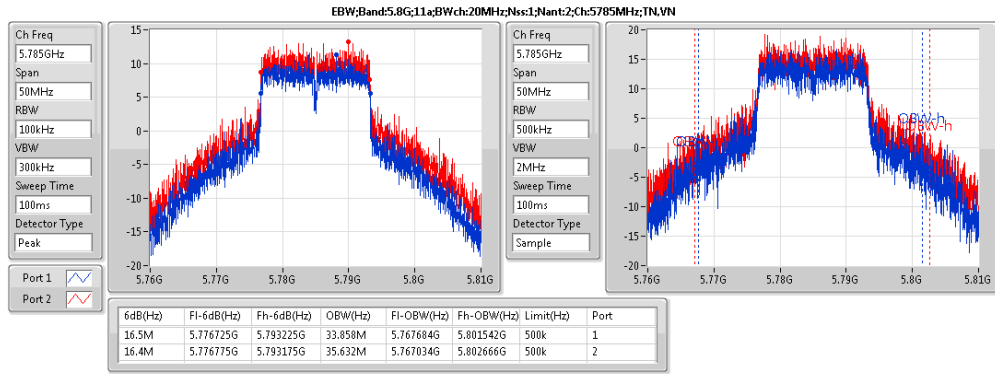
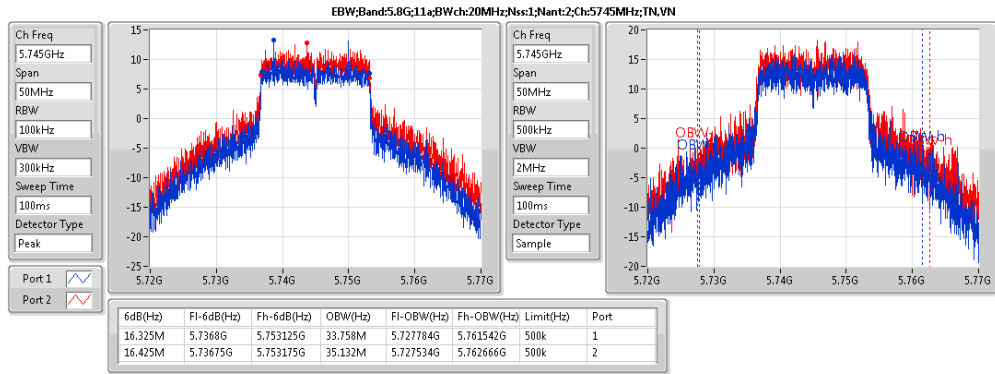
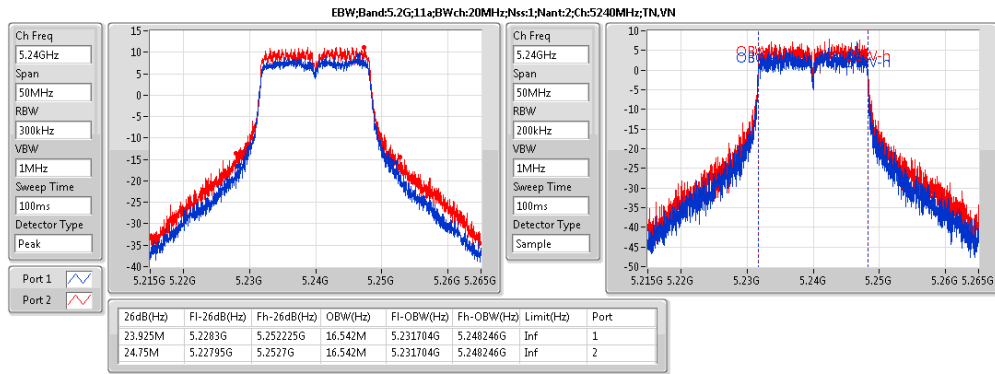
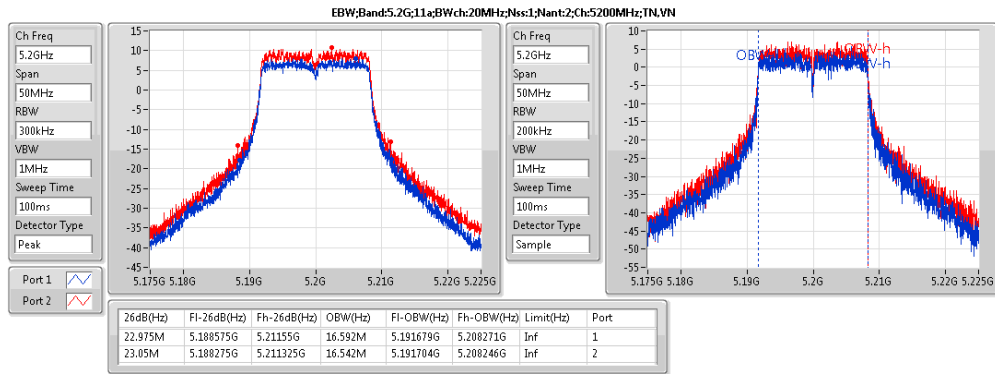
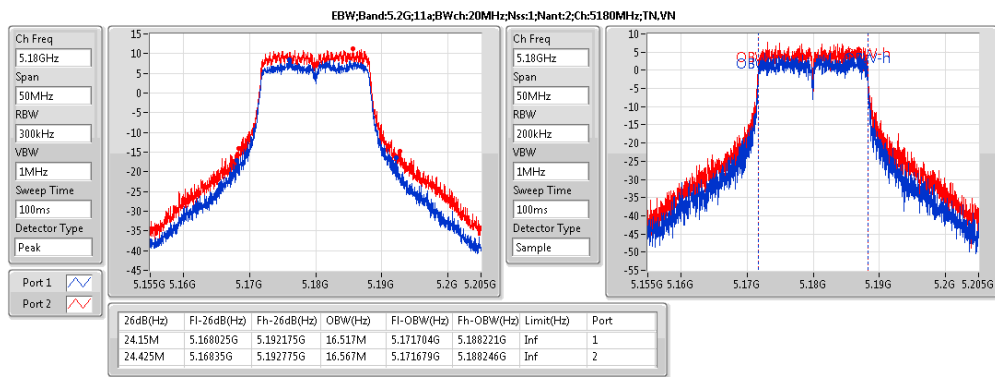
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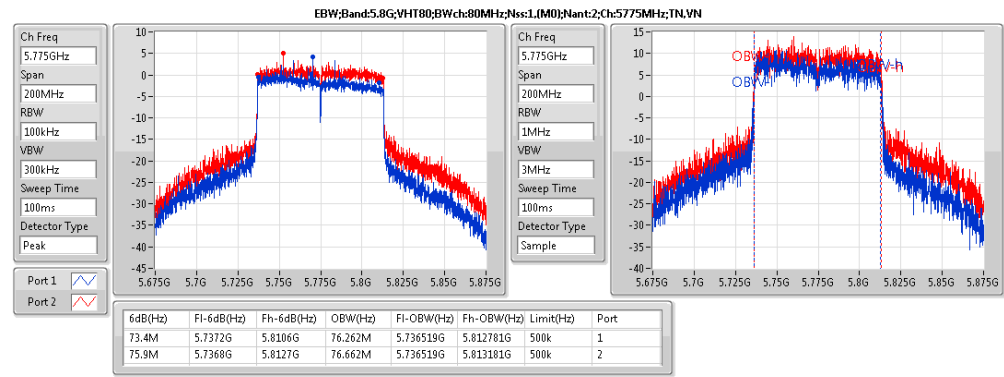
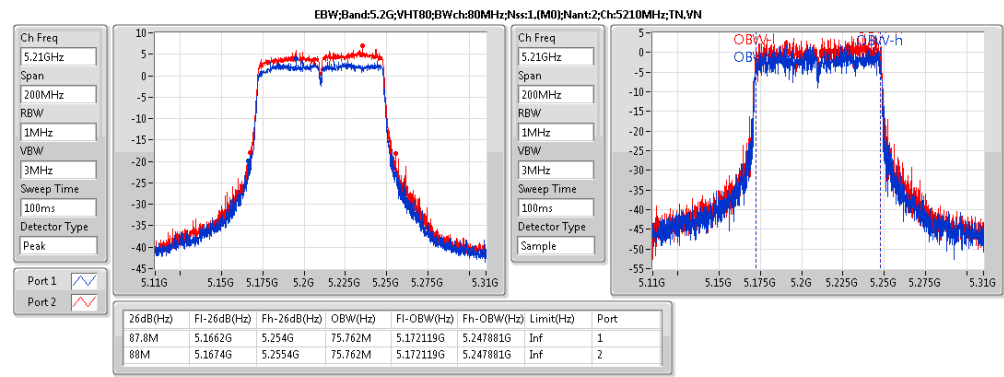
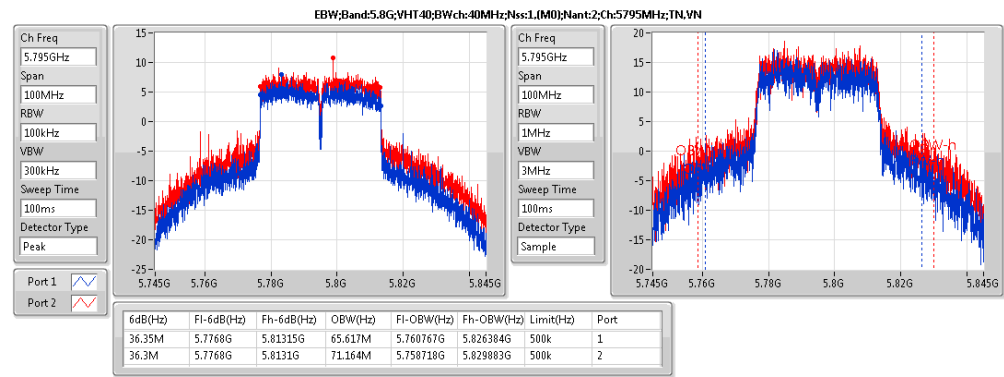
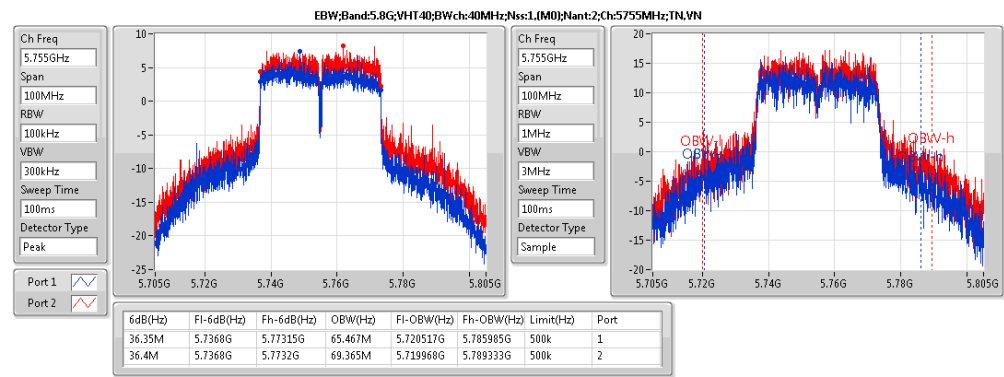
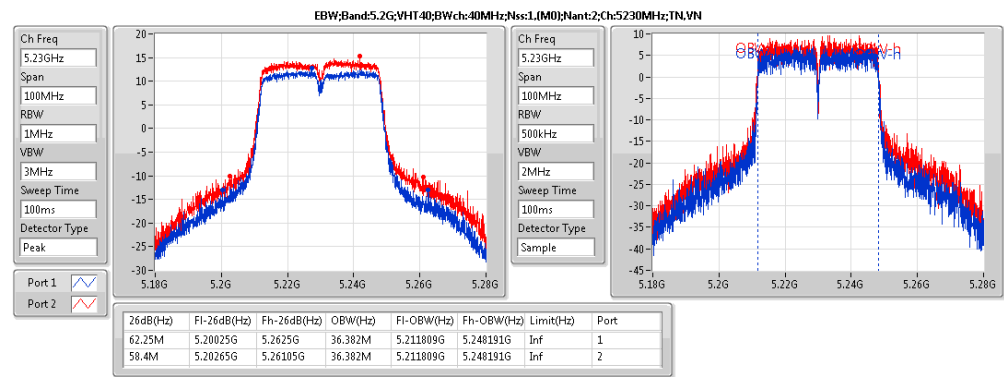
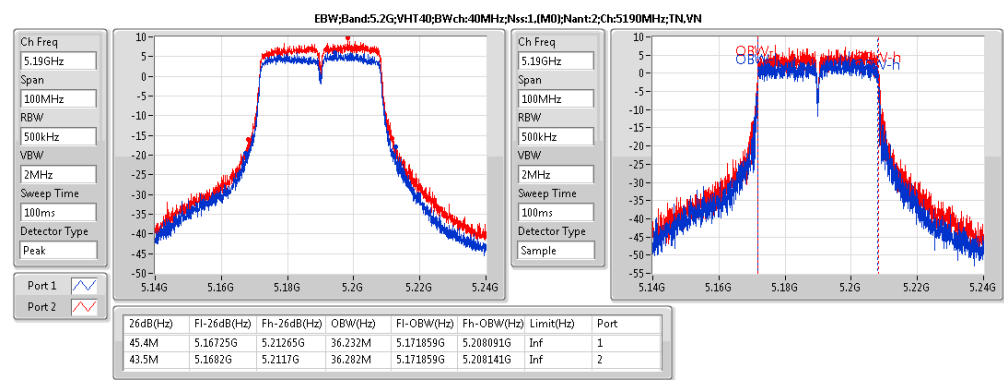
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.2G;11a;Nss1;Ntx2	24.75M	16.592M	16M6D1D	22.975M	16.517M
5.8G;11a;Nss1;Ntx2	16.5M	35.632M	35M6D1D	16.325M	33.758M
5.2G;VHT20;Nss1,(M0);Ntx2	25.7M	17.791M	17M8D1D	24.3M	17.716M
5.8G;VHT20;Nss1,(M0);Ntx2	17.8M	37.431M	37M4D1D	17.55M	35.282M
5.2G;VHT40;Nss1,(M0);Ntx2	62.25M	36.382M	36M4D1D	43.5M	36.232M
5.8G;VHT40;Nss1,(M0);Ntx2	36.4M	71.164M	71M2D1D	36.3M	65.467M
5.2G;VHT80;Nss1,(M0);Ntx2	88M	75.762M	75M8D1D	87.8M	75.762M
5.8G;VHT80;Nss1,(M0);Ntx2	75.9M	76.662M	76M7D1D	73.4M	76.262M



Result

Mode	Result	Limit	P1-N dB (Hz)	P1-OBW (Hz)	P2-N dB (Hz)	P2-OBW (Hz)
5.2G;11a;Nss1;Ntx2;5180;TN,VN	Pass	Inf	24.15M	16.517M	24.425M	16.567M
5.2G;11a;Nss1;Ntx2;5200;TN,VN	Pass	Inf	22.975M	16.592M	23.05M	16.542M
5.2G;11a;Nss1;Ntx2;5240;TN,VN	Pass	Inf	23.925M	16.542M	24.75M	16.542M
5.8G;11a;Nss1;Ntx2;5745;TN,VN	Pass	500k	16.325M	33.758M	16.425M	35.132M
5.8G;11a;Nss1;Ntx2;5785;TN,VN	Pass	500k	16.5M	33.858M	16.4M	35.632M
5.8G;11a;Nss1;Ntx2;5825;TN,VN	Pass	500k	16.4M	33.783M	16.35M	35.507M
5.2G;VHT20;Nss1,(M0);Ntx2;5180;TN,VN	Pass	Inf	24.3M	17.741M	24.35M	17.741M
5.2G;VHT20;Nss1,(M0);Ntx2;5200;TN,VN	Pass	Inf	25.25M	17.716M	25.575M	17.741M
5.2G;VHT20;Nss1,(M0);Ntx2;5240;TN,VN	Pass	Inf	25.525M	17.791M	25.7M	17.791M
5.8G;VHT20;Nss1,(M0);Ntx2;5745;TN,VN	Pass	500k	17.55M	35.332M	17.65M	37.431M
5.8G;VHT20;Nss1,(M0);Ntx2;5785;TN,VN	Pass	500k	17.8M	35.282M	17.575M	37.406M
5.8G;VHT20;Nss1,(M0);Ntx2;5825;TN,VN	Pass	500k	17.6M	35.307M	17.625M	37.006M
5.2G;VHT40;Nss1,(M0);Ntx2;5190;TN,VN	Pass	Inf	45.4M	36.232M	43.5M	36.282M
5.2G;VHT40;Nss1,(M0);Ntx2;5230;TN,VN	Pass	Inf	62.25M	36.382M	58.4M	36.382M
5.8G;VHT40;Nss1,(M0);Ntx2;5755;TN,VN	Pass	500k	36.35M	65.467M	36.4M	69.365M
5.8G;VHT40;Nss1,(M0);Ntx2;5795;TN,VN	Pass	500k	36.35M	65.617M	36.3M	71.164M
5.2G;VHT80;Nss1,(M0);Ntx2;5210;TN,VN	Pass	Inf	87.8M	75.762M	88M	75.762M
5.8G;VHT80;Nss1,(M0);Ntx2;5775;TN,VN	Pass	500k	73.4M	76.262M	75.9M	76.662M







Summary

Mode	Sum (dBm)	Sum (W)	EIRP (dBm)	EIRP (W)
5.2G;11a;Nss1;Ntx2	20.50	0.1122	25.78	0.37844
5.8G;11a;Nss1;Ntx2	26.86	0.48529	32.14	1.63682
5.2G;VHT20;Nss1,(M0);Ntx2	20.49	0.11194	25.77	0.37757
5.8G;VHT20;Nss1,(M0);Ntx2	26.97	0.49774	32.25	1.6788
5.2G;VHT40;Nss1,(M0);Ntx2	21.39	0.13772	26.67	0.46452
5.8G;VHT40;Nss1,(M0);Ntx2	26.86	0.48529	32.14	1.63682
5.2G;VHT80;Nss1,(M0);Ntx2	13.95	0.02483	19.23	0.08375
5.8G;VHT80;Nss1,(M0);Ntx2	23.54	0.22594	28.82	0.76208



Result

Mode	Result	DG (dBi)	EIRP (dBm)	EIRP Lim. (dBm)	Sum (dBm)	Sum Lim. (dBm)	P1 (dBm)	P2 (dBm)
5.2G;11a;Nss1;Ntx2;5180;TN,VN	Pass	5.28	25.33	36.00	20.05	30.00	16.55	17.48
5.2G;11a;Nss1;Ntx2;5200;TN,VN	Pass	5.28	25.00	36.00	19.72	30.00	16.32	17.07
5.2G;11a;Nss1;Ntx2;5240;TN,VN	Pass	5.28	25.78	36.00	20.50	30.00	17.16	17.79
5.8G;11a;Nss1;Ntx2;5745;TN,VN	Pass	5.28	32.00	36.00	26.72	30.00	23.06	24.27
5.8G;11a;Nss1;Ntx2;5785;TN,VN	Pass	5.28	32.14	36.00	26.86	30.00	23.54	24.14
5.8G;11a;Nss1;Ntx2;5825;TN,VN	Pass	5.28	31.95	36.00	26.67	30.00	23.33	23.97
5.2G;VHT20;Nss1,(M0);Ntx2;5180;TN,VN	Pass	5.28	25.05	36.00	19.77	30.00	16.19	17.26
5.2G;VHT20;Nss1,(M0);Ntx2;5200;TN,VN	Pass	5.28	25.45	36.00	20.17	30.00	16.48	17.74
5.2G;VHT20;Nss1,(M0);Ntx2;5240;TN,VN	Pass	5.28	25.77	36.00	20.49	30.00	16.81	18.06
5.8G;VHT20;Nss1,(M0);Ntx2;5745;TN,VN	Pass	5.28	32.13	36.00	26.85	30.00	23.23	24.38
5.8G;VHT20;Nss1,(M0);Ntx2;5785;TN,VN	Pass	5.28	32.25	36.00	26.97	30.00	23.54	24.34
5.8G;VHT20;Nss1,(M0);Ntx2;5825;TN,VN	Pass	5.28	32.15	36.00	26.87	30.00	23.43	24.25
5.2G;VHT40;Nss1,(M0);Ntx2;5190;TN,VN	Pass	5.28	23.01	36.00	17.73	30.00	13.95	15.37
5.2G;VHT40;Nss1,(M0);Ntx2;5230;TN,VN	Pass	5.28	26.67	36.00	21.39	30.00	17.64	19.01
5.8G;VHT40;Nss1,(M0);Ntx2;5755;TN,VN	Pass	5.28	31.65	36.00	26.37	30.00	22.69	23.94
5.8G;VHT40;Nss1,(M0);Ntx2;5795;TN,VN	Pass	5.28	32.14	36.00	26.86	30.00	23.38	24.27
5.2G;VHT80;Nss1,(M0);Ntx2;5210;TN,VN	Pass	5.28	19.23	36.00	13.95	30.00	9.97	11.74
5.8G;VHT80;Nss1,(M0);Ntx2;5775;TN,VN	Pass	5.28	28.82	36.00	23.54	30.00	19.57	21.31



Summary

Mode	PD (dBm/RBW)	EIRP.PD (dBm/RBW)
5.2G;11a;Nss1;Ntx2	7.35	15.64
5.8G;11a;Nss1;Ntx2	13.67	21.96
5.2G;VHT20;Nss1,(M0);Ntx2	7.45	15.74
5.8G;VHT20;Nss1,(M0);Ntx2	13.78	22.07
5.2G;VHT40;Nss1,(M0);Ntx2	5.25	13.54
5.8G;VHT40;Nss1,(M0);Ntx2	10.62	18.91
5.2G;VHT80;Nss1,(M0);Ntx2	-5.17	3.12
5.8G;VHT80;Nss1,(M0);Ntx2	4.53	12.82



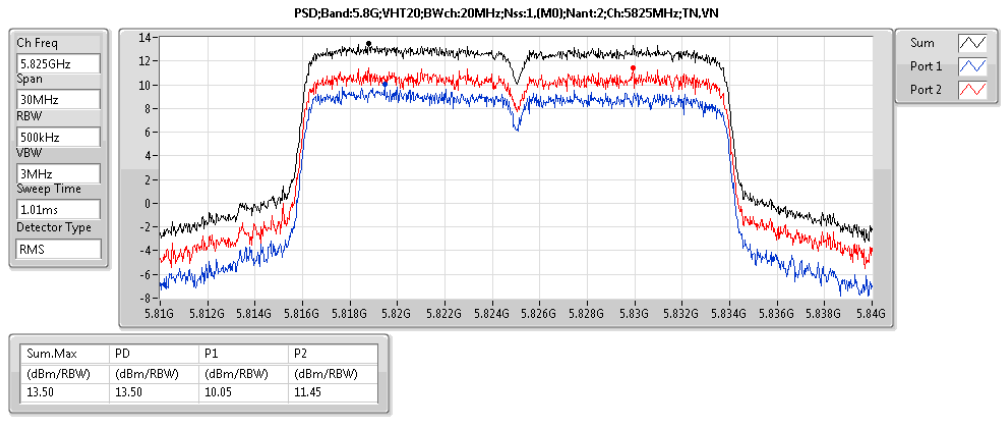
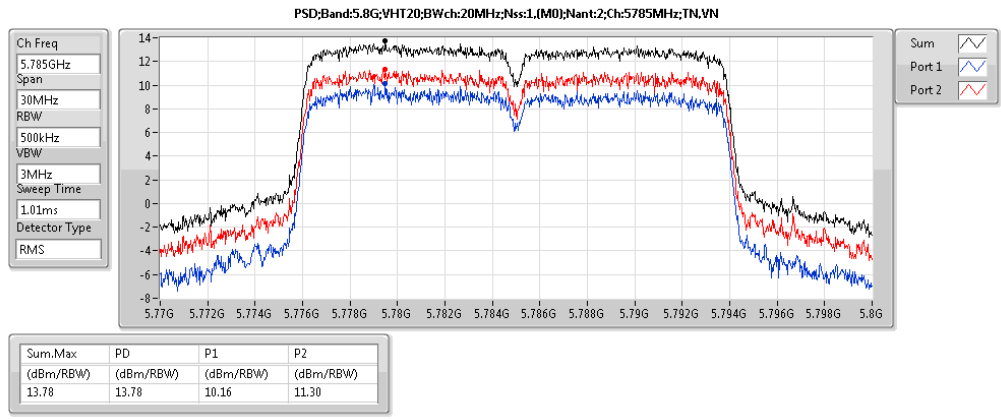
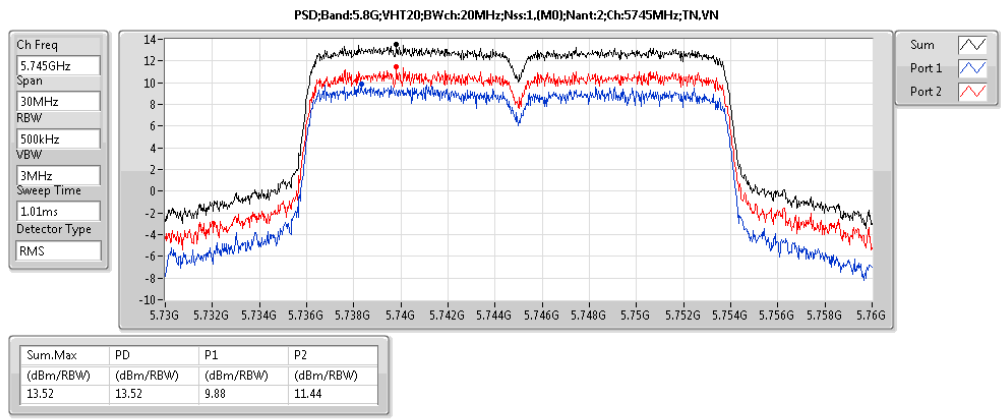
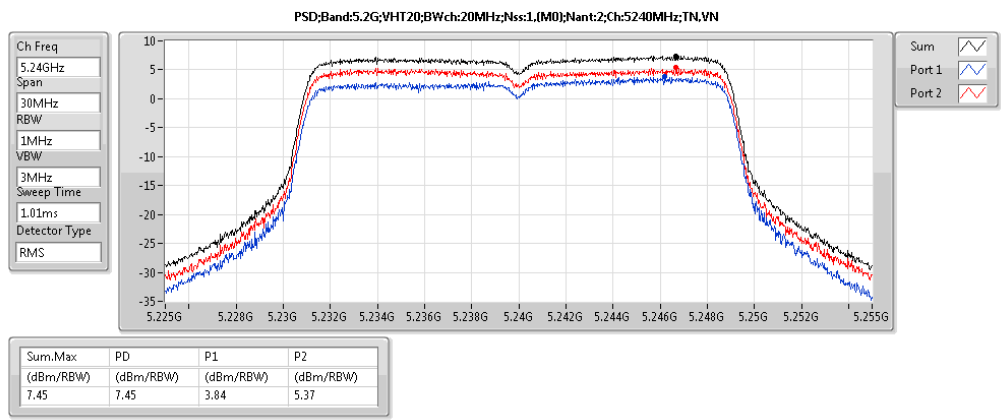
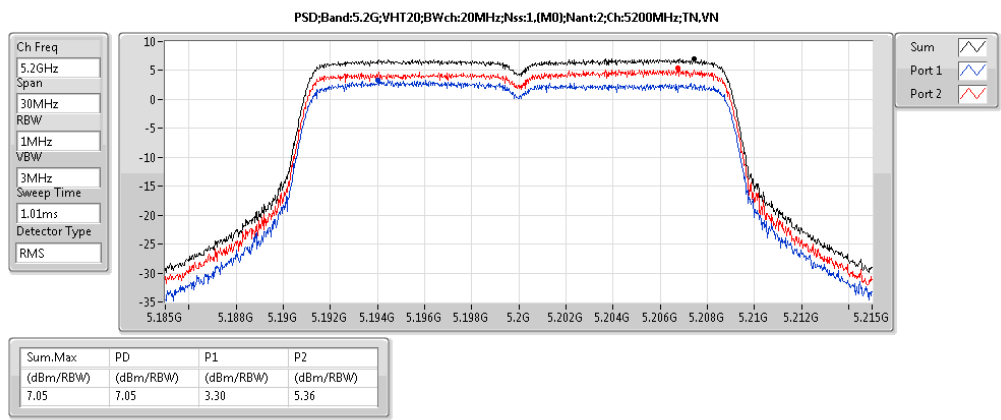
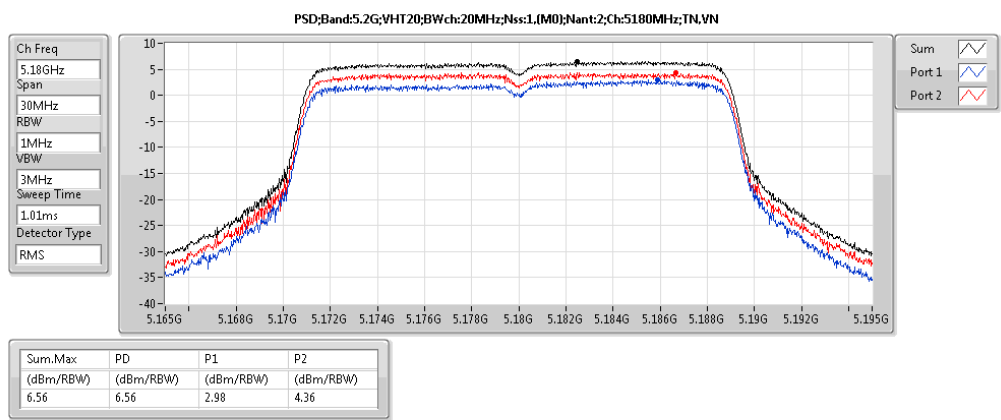
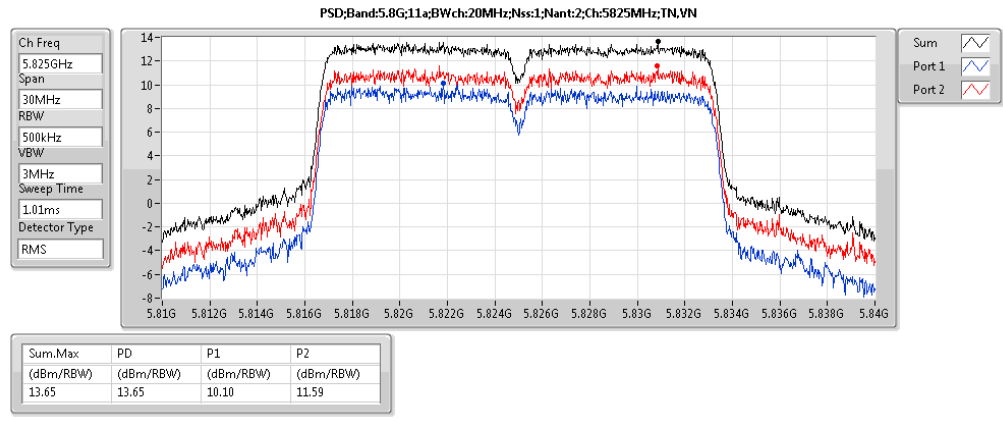
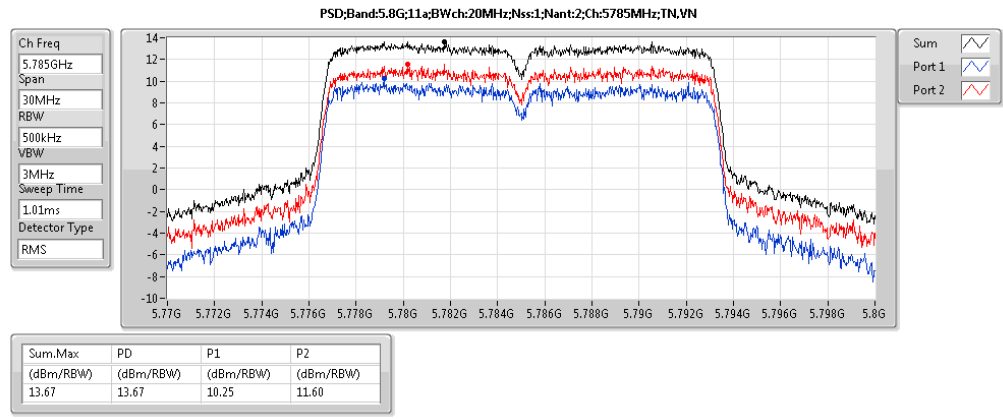
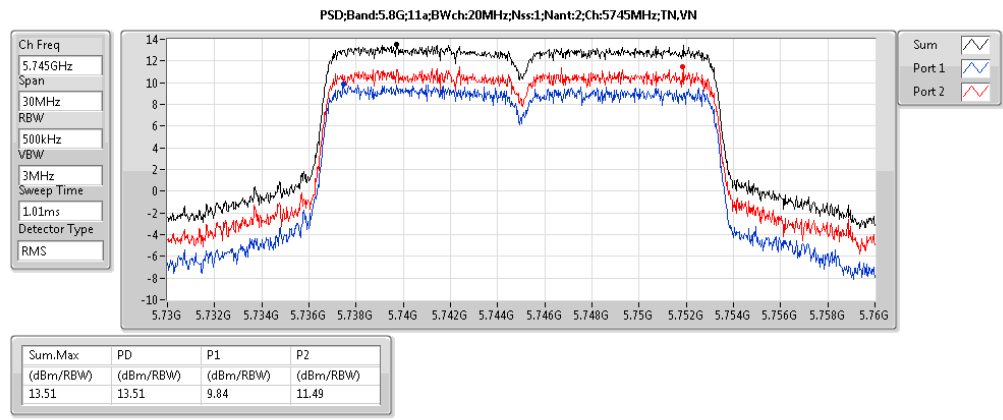
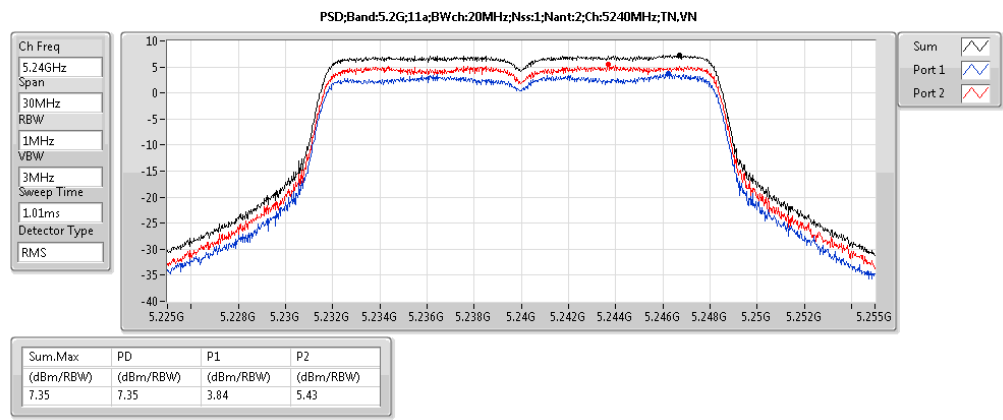
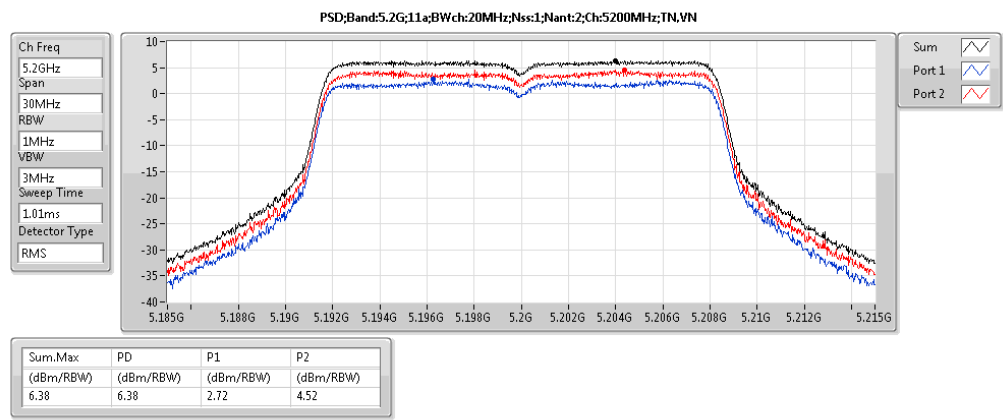
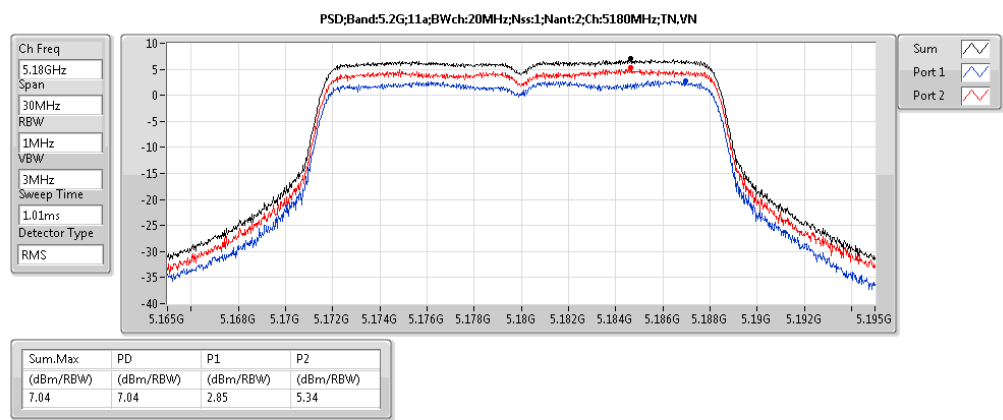
Result

Mode	Result	Meas.RBW (Hz)	Lim.RBW (Hz)	BWCF (dB)	DG (dBi)	PD (dBm/RBW)	PD.Limit (dBm/RBW)	EIRP.PD (dBm/RBW)	EIRP.PD.Li m (dBm/RBW)	P1 (dBm/RBW)	P2 (dBm/RBW)
5.2G;11a;Nss1;Ntx2;5180;TN,VN	Pass	1M	1M	0.00	8.29	7.04	14.71	15.33	Inf	2.85	5.34
5.2G;11a;Nss1;Ntx2;5200;TN,VN	Pass	1M	1M	0.00	8.29	6.38	14.71	14.67	Inf	2.72	4.52
5.2G;11a;Nss1;Ntx2;5240;TN,VN	Pass	1M	1M	0.00	8.29	7.35	14.71	15.64	Inf	3.84	5.43
5.8G;11a;Nss1;Ntx2;5745;TN,VN	Pass	500k	500k	0.00	8.29	13.51	27.71	21.80	33.71	9.84	11.49
5.8G;11a;Nss1;Ntx2;5785;TN,VN	Pass	500k	500k	0.00	8.29	13.67	27.71	21.96	33.71	10.25	11.60
5.8G;11a;Nss1;Ntx2;5825;TN,VN	Pass	500k	500k	0.00	8.29	13.65	27.71	21.94	33.71	10.10	11.59
5.2G;VHT20;Nss1,(M0);Ntx2;5180;TN,VN	Pass	1M	1M	0.00	8.29	6.56	14.71	14.85	Inf	2.98	4.36
5.2G;VHT20;Nss1,(M0);Ntx2;5200;TN,VN	Pass	1M	1M	0.00	8.29	7.05	14.71	15.34	Inf	3.30	5.36
5.2G;VHT20;Nss1,(M0);Ntx2;5240;TN,VN	Pass	1M	1M	0.00	8.29	7.45	14.71	15.74	Inf	3.84	5.37
5.8G;VHT20;Nss1,(M0);Ntx2;5745;TN,VN	Pass	500k	500k	0.00	8.29	13.52	27.71	21.81	33.71	9.88	11.44
5.8G;VHT20;Nss1,(M0);Ntx2;5785;TN,VN	Pass	500k	500k	0.00	8.29	13.78	27.71	22.07	33.71	10.16	11.30
5.8G;VHT20;Nss1,(M0);Ntx2;5825;TN,VN	Pass	500k	500k	0.00	8.29	13.50	27.71	21.79	33.71	10.05	11.45
5.2G;VHT40;Nss1,(M0);Ntx2;5190;TN,VN	Pass	1M	1M	0.00	8.29	1.45	14.71	9.74	Inf	-2.55	-0.43
5.2G;VHT40;Nss1,(M0);Ntx2;5230;TN,VN	Pass	1M	1M	0.00	8.29	5.25	14.71	13.54	Inf	1.56	3.26
5.8G;VHT40;Nss1,(M0);Ntx2;5755;TN,VN	Pass	500k	500k	0.00	8.29	10.18	27.71	18.47	33.71	6.56	7.77
5.8G;VHT40;Nss1,(M0);Ntx2;5795;TN,VN	Pass	500k	500k	0.00	8.29	10.62	27.71	18.91	33.71	7.24	8.47
5.2G;VHT80;Nss1,(M0);Ntx2;5210;TN,VN	Pass	1M	1M	0.00	8.29	-5.17	14.71	3.12	Inf	-9.41	-6.74
5.8G;VHT80;Nss1,(M0);Ntx2;5775;TN,VN	Pass	500k	500k	0.00	8.29	4.53	27.71	12.82	33.71	0.94	2.45



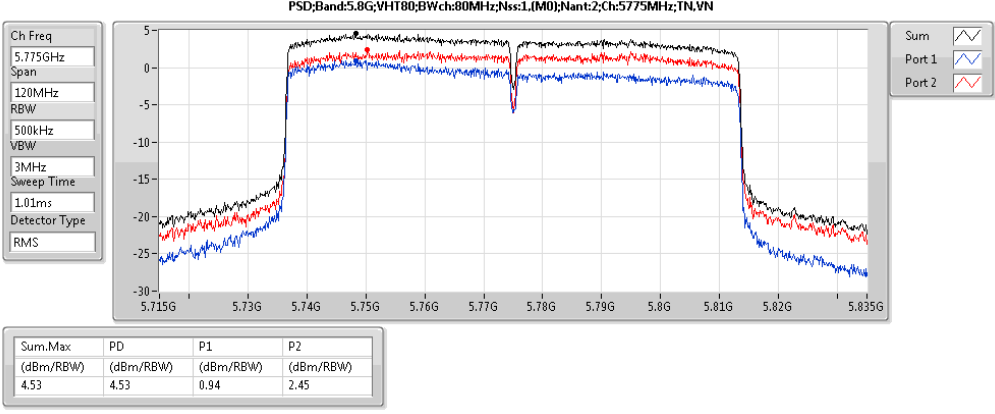
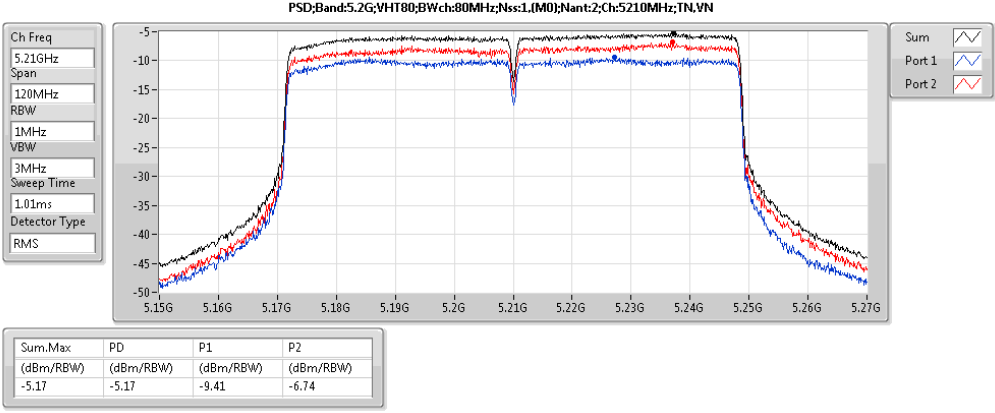
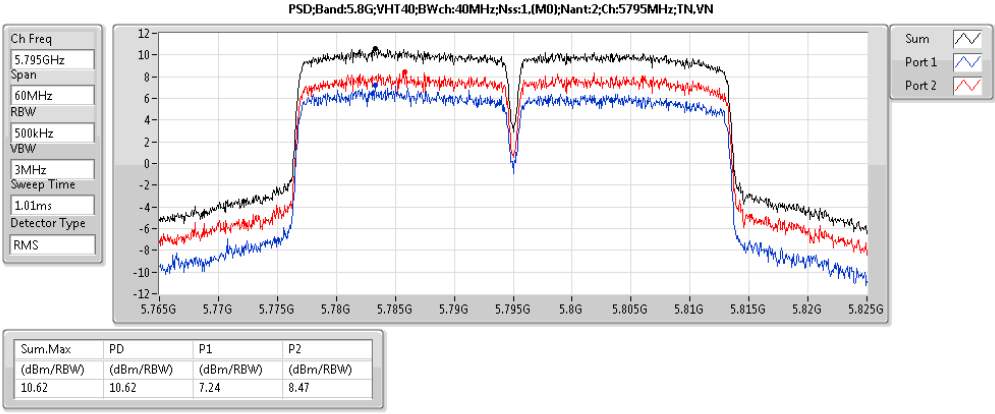
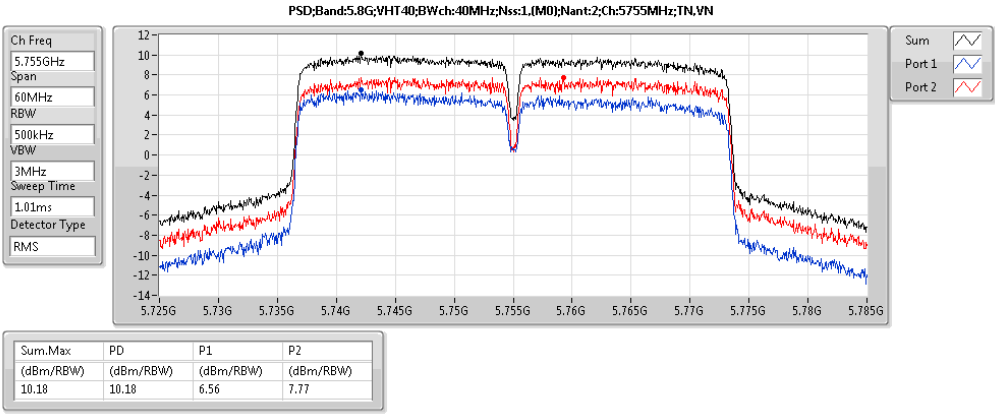
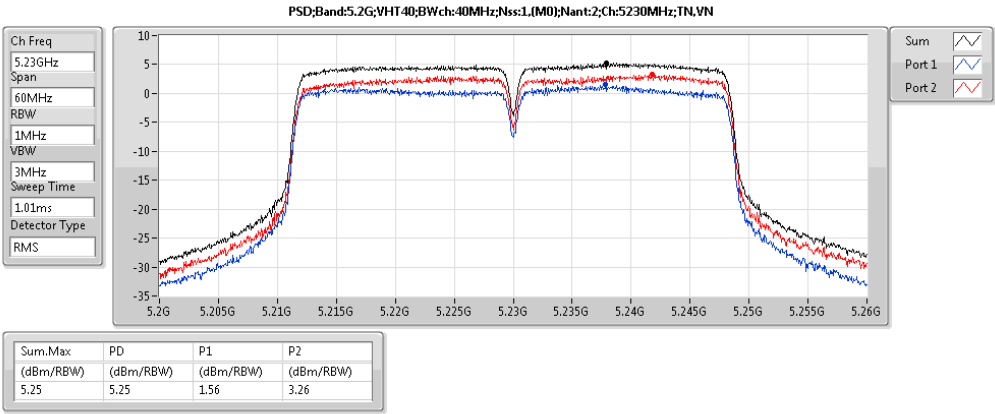
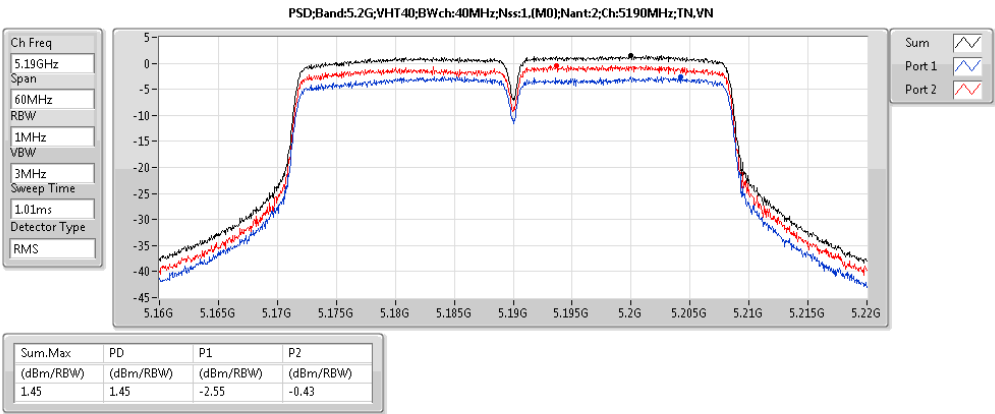
PSD Result

Appendix D





PSD Result





RSE below 1GHz Result												
Operating Mode	1				Polarization				Horizontal			
Operating Function	CTX											
Level (dBuV/m) Date: 2016-08-23 Time: 22:15:02												
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	34.55	40.00	-5.45	42.20	0.51	24.24	32.40	100	265 Peak	HORIZONTAL	
2	324.88	33.72	46.00	-12.28	43.76	1.55	20.70	32.29	100	224 Peak	HORIZONTAL	
3	375.32	35.59	46.00	-10.41	44.16	1.67	22.08	32.32	125	187 Peak	HORIZONTAL	
4	649.83	38.99	46.00	-7.01	43.08	2.20	26.10	32.39	125	226 Peak	HORIZONTAL	
5	750.71	34.77	46.00	-11.23	38.30	2.37	26.40	32.30	100	224 Peak	HORIZONTAL	
6	975.75	47.20	54.00	-6.80	47.14	2.72	28.37	31.03	100	163 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	CTX																																																																																																											
Level (dBuV/m) Date: 2016-08-23 Time: 22:15:16 <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>CableAntenna</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB/m</th><th>dB</th><th>cm</th><th>deg</th><th></th></tr><tr><td>1</td><td>44.55</td><td>30.06</td><td>40.00</td><td>-9.94</td><td>44.51</td><td>0.59</td><td>17.37</td><td>32.41</td><td>100</td><td>353 Peak</td><td>VERTICAL</td></tr><tr><td>2</td><td>69.77</td><td>28.98</td><td>40.00</td><td>-11.02</td><td>47.74</td><td>0.72</td><td>12.92</td><td>32.40</td><td>150</td><td>243 Peak</td><td>VERTICAL</td></tr><tr><td>3</td><td>375.32</td><td>35.99</td><td>46.00</td><td>-10.01</td><td>44.56</td><td>1.67</td><td>22.08</td><td>32.32</td><td>150</td><td>346 Peak</td><td>VERTICAL</td></tr><tr><td>4</td><td>649.83</td><td>41.23</td><td>46.00</td><td>-4.77</td><td>45.32</td><td>2.20</td><td>26.10</td><td>32.39</td><td>100</td><td>7 Peak</td><td>VERTICAL</td></tr><tr><td>5</td><td>916.58</td><td>37.86</td><td>46.00</td><td>-8.14</td><td>39.01</td><td>2.60</td><td>27.83</td><td>31.58</td><td>100</td><td>4 Peak</td><td>VERTICAL</td></tr><tr><td>6</td><td>975.75</td><td>47.92</td><td>54.00</td><td>-6.08</td><td>47.86</td><td>2.72</td><td>28.37</td><td>31.03</td><td>125</td><td>26 Peak</td><td>VERTICAL</td></tr></table>														Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	44.55	30.06	40.00	-9.94	44.51	0.59	17.37	32.41	100	353 Peak	VERTICAL	2	69.77	28.98	40.00	-11.02	47.74	0.72	12.92	32.40	150	243 Peak	VERTICAL	3	375.32	35.99	46.00	-10.01	44.56	1.67	22.08	32.32	150	346 Peak	VERTICAL	4	649.83	41.23	46.00	-4.77	45.32	2.20	26.10	32.39	100	7 Peak	VERTICAL	5	916.58	37.86	46.00	-8.14	39.01	2.60	27.83	31.58	100	4 Peak	VERTICAL	6	975.75	47.92	54.00	-6.08	47.86	2.72	28.37	31.03	125	26 Peak	VERTICAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																																	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg																																																																																																		
1	44.55	30.06	40.00	-9.94	44.51	0.59	17.37	32.41	100	353 Peak	VERTICAL																																																																																																	
2	69.77	28.98	40.00	-11.02	47.74	0.72	12.92	32.40	150	243 Peak	VERTICAL																																																																																																	
3	375.32	35.99	46.00	-10.01	44.56	1.67	22.08	32.32	150	346 Peak	VERTICAL																																																																																																	
4	649.83	41.23	46.00	-4.77	45.32	2.20	26.10	32.39	100	7 Peak	VERTICAL																																																																																																	
5	916.58	37.86	46.00	-8.14	39.01	2.60	27.83	31.58	100	4 Peak	VERTICAL																																																																																																	
6	975.75	47.92	54.00	-6.08	47.86	2.72	28.37	31.03	125	26 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. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15536.60	53.39	54.00	-0.61	36.70	13.38	38.45	35.14	202	59 Average	HORIZONTAL
2	15541.96	66.74	74.00	-7.26	50.05	13.38	38.45	35.14	202	59 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15534.20	67.02	74.00	-6.98	50.33	13.38	38.45	35.14	197	134 Peak	VERTICAL
2	15542.72	52.95	54.00	-1.05	36.26	13.38	38.45	35.14	197	134 Average	VERTICAL

Configurations	IEEE 802.11a CH 40 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15601.64	67.27	74.00	-6.73	50.74	13.38	38.34	35.19	200	60 Peak	HORIZONTAL
2	15602.24	53.50	54.00	-0.50	36.97	13.38	38.34	35.19	200	60 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15591.60	67.15	74.00	-6.85	50.54	13.38	38.39	35.16	198	133 Peak	VERTICAL
2	15600.68	53.93	54.00	-0.07	37.40	13.38	38.34	35.19	198	133 Average	VERTICAL

Configurations	IEEE 802.11a CH 48 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15718.00	66.63	74.00	-7.37	50.25	13.39	38.23	35.24	196	207 Peak	HORIZONTAL
2	15718.52	52.16	54.00	-1.84	35.78	13.39	38.23	35.24	196	207 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15720.44	53.63	54.00	-0.37	37.25	13.39	38.23	35.24	196	132 Average	VERTICAL
2	15729.80	66.73	74.00	-7.27	50.35	13.39	38.23	35.24	196	132 Peak	VERTICAL

Configurations	IEEE 802.11a CH 149 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11449.32	49.96	54.00	-4.04	34.34	10.74	39.62	34.74	224	298 Average	HORIZONTAL
2	11449.36	62.68	74.00	-11.32	47.06	10.74	39.62	34.74	224	298 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11449.00	64.97	74.00	-9.03	49.35	10.74	39.62	34.74	224	78 Peak	VERTICAL
2	11449.20	51.90	54.00	-2.10	36.28	10.74	39.62	34.74	224	78 Average	VERTICAL

Configurations	IEEE 802.11a CH 157 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11568.56	52.21	54.00	-1.79	36.56	10.76	39.65	34.76	222	293 Average	HORIZONTAL
2	11568.96	64.54	74.00	-9.46	48.89	10.76	39.65	34.76	222	293 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11569.28	53.33	54.00	-0.67	37.68	10.76	39.65	34.76	257	56 Average	VERTICAL
2	11573.68	66.48	74.00	-7.52	50.83	10.76	39.65	34.76	257	56 Peak	VERTICAL

Configurations	IEEE 802.11a CH 165 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11643.32	65.73	74.00	-8.27	50.14	10.77	39.59	34.77	222	294 Peak	HORIZONTAL
2	11648.08	52.69	54.00	-1.31	37.10	10.77	39.59	34.77	222	294 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11648.16	66.15	74.00	-7.85	50.56	10.77	39.59	34.77	247	58 Peak	VERTICAL
2	11648.40	52.98	54.00	-1.02	37.39	10.77	39.59	34.77	247	58 Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15536.12	67.83	74.00	-6.17	51.14	13.38	38.45	35.14	199	60 Peak	HORIZONTAL
2	15539.00	53.39	54.00	-0.61	36.70	13.38	38.45	35.14	199	60 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15535.32	52.05	54.00	-1.95	35.36	13.38	38.45	35.14	194	132 Average	VERTICAL
2	15536.84	65.70	74.00	-8.30	49.01	13.38	38.45	35.14	194	132 Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15596.36	53.91	54.00	-0.09	37.30	13.38	38.39	35.16	198	60 Average	HORIZONTAL
2	15598.68	67.82	74.00	-6.18	51.21	13.38	38.39	35.16	198	60 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15592.24	67.29	74.00	-6.71	50.68	13.38	38.39	35.16	195	134 Peak	VERTICAL
2	15593.52	53.18	54.00	-0.82	36.57	13.38	38.39	35.16	195	134 Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15722.44	67.65	74.00	-6.35	51.27	13.39	38.23	35.24	200	58 Peak	HORIZONTAL
2	15726.00	53.56	54.00	-0.44	37.18	13.39	38.23	35.24	200	58 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15719.20	53.26	54.00	-0.74	36.88	13.39	38.23	35.24	199	288 Average	VERTICAL
2	15719.76	67.38	74.00	-6.62	51.00	13.39	38.23	35.24	199	288 Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11445.08	62.09	74.00	-11.91	46.47	10.74	39.62	34.74	223	297	Peak
2	11447.80	49.82	54.00	-4.18	34.20	10.74	39.62	34.74	223	297	Average

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11449.40	51.84	54.00	-2.16	36.22	10.74	39.62	34.74	260	53	Average
2	11450.48	65.35	74.00	-8.65	49.69	10.74	39.66	34.74	260	53	Peak

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11566.44	50.84	54.00	-3.16	35.19	10.76	39.65	34.76	222	292	Average
2	11566.76	64.14	74.00	-9.86	48.49	10.76	39.65	34.76	222	292	Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11569.20	66.76	74.00	-7.24	51.11	10.76	39.65	34.76	252	53	Peak
2	11569.88	53.16	54.00	-0.84	37.51	10.76	39.65	34.76	252	53	Average

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11641.60	64.96	74.00	-9.04	49.37	10.77	39.59	34.77	224	297	Peak
2	11645.88	51.75	54.00	-2.25	36.16	10.77	39.59	34.77	224	297	Average

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11654.44	52.93	54.00	-1.07	37.37	10.77	39.57	34.78	217	147	Average
2	11656.36	66.68	74.00	-7.32	51.12	10.77	39.57	34.78	217	147	Peak

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15550.64	46.37	54.00	-7.63	29.68	13.38	38.45	35.14	208	200	Average	HORIZONTAL
2	15557.36	59.58	74.00	-14.42	42.97	13.38	38.39	35.16	208	200	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15552.48	59.79	74.00	-14.21	43.10	13.38	38.45	35.14	167	167	Peak	VERTICAL
2	15586.96	46.50	54.00	-7.50	29.89	13.38	38.39	35.16	167	167	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15696.16	51.26	54.00	-2.74	34.88	13.39	38.23	35.24	238	226	Average	HORIZONTAL
2	15700.00	64.47	74.00	-9.53	48.09	13.39	38.23	35.24	238	226	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15687.84	66.74	74.00	-7.26	50.28	13.39	38.28	35.21	197	287	Peak	VERTICAL
2	15692.00	53.73	54.00	-0.27	37.35	13.39	38.23	35.24	197	287	Average	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11505.92	58.36	74.00	-15.64	42.66	10.75	39.70	34.75	262	270	Peak
2	11506.16	46.32	54.00	-7.68	30.62	10.75	39.70	34.75	262	270	Average

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11506.24	59.40	74.00	-14.60	43.70	10.75	39.70	34.75	300	149	Peak
2	11515.20	46.91	54.00	-7.09	31.21	10.75	39.70	34.75	300	149	Average

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11588.08	61.10	74.00	-12.90	45.49	10.76	39.62	34.77	300	89	Peak
2	11589.52	48.34	54.00	-5.66	32.73	10.76	39.62	34.77	300	89	Average

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11591.12	49.89	54.00	-4.11	34.28	10.76	39.62	34.77	300	136	Average
2	11591.92	62.36	74.00	-11.64	46.75	10.76	39.62	34.77	300	136	Peak

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	15614.32	47.10	54.00	-6.90	30.57	13.38	38.34	35.19	242	230	Average	HORIZONTAL
2	15645.36	61.66	74.00	-12.34	45.13	13.38	38.34	35.19	242	230	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	15623.60	47.29	54.00	-6.71	30.76	13.38	38.34	35.19	183	192	Average	VERTICAL
2	15656.24	59.92	74.00	-14.08	43.46	13.39	38.28	35.21	183	192	Peak	VERTICAL

Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Ant. 3 + Ant. 4
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Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	11536.24	55.85	74.00	-18.15	40.19	10.75	39.67	34.76	235	155	Peak	HORIZONTAL
2	11581.36	43.96	54.00	-10.04	28.31	10.76	39.65	34.76	235	155	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna 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	11537.52	44.79	54.00	-9.21	29.13	10.75	39.67	34.76	188	144	Average	VERTICAL
2	11554.96	57.45	74.00	-16.55	41.80	10.76	39.65	34.76	188	144	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).

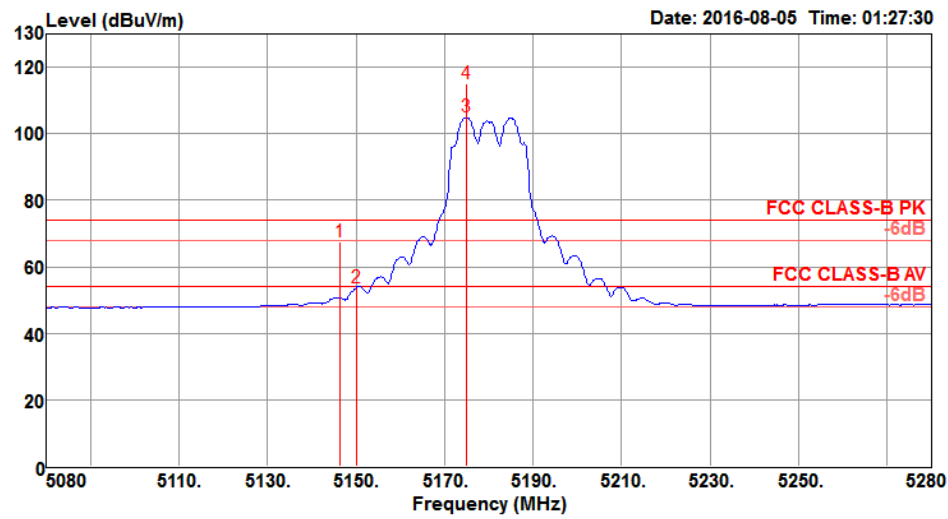
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.



Band Edge Emissions

Configurations	IEEE 802.11a CH 36, 40, 48 / Ant. 3 + Ant. 4
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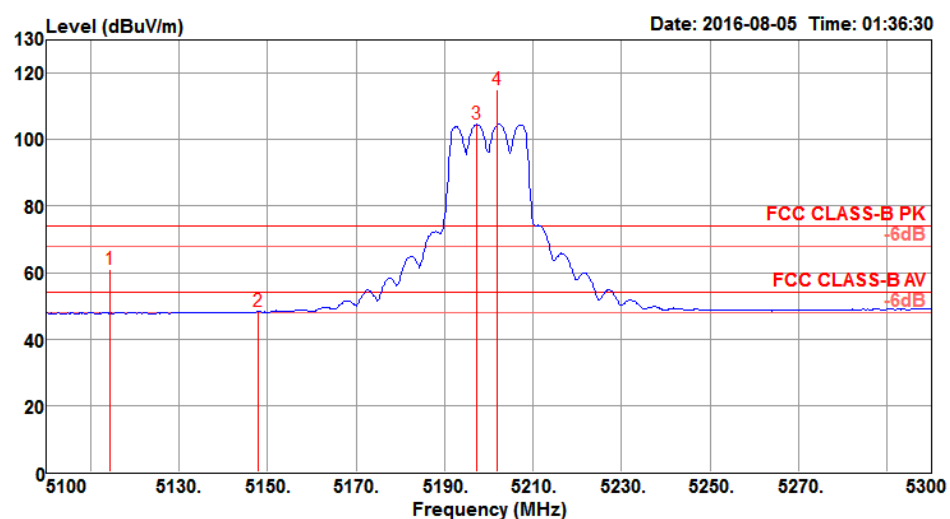
Channel 36



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5146.40	67.39	74.00	-6.61	59.97	7.48	34.85	34.91	220	282	Peak	HORIZONTAL
2	5150.00	53.69	54.00	-0.31	46.27	7.48	34.85	34.91	220	282	Average	HORIZONTAL
3	5174.80	104.93			97.48	7.48	34.88	34.91	220	282	Average	HORIZONTAL
4	5174.80	115.06			107.61	7.48	34.88	34.91	220	282	Peak	HORIZONTAL

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

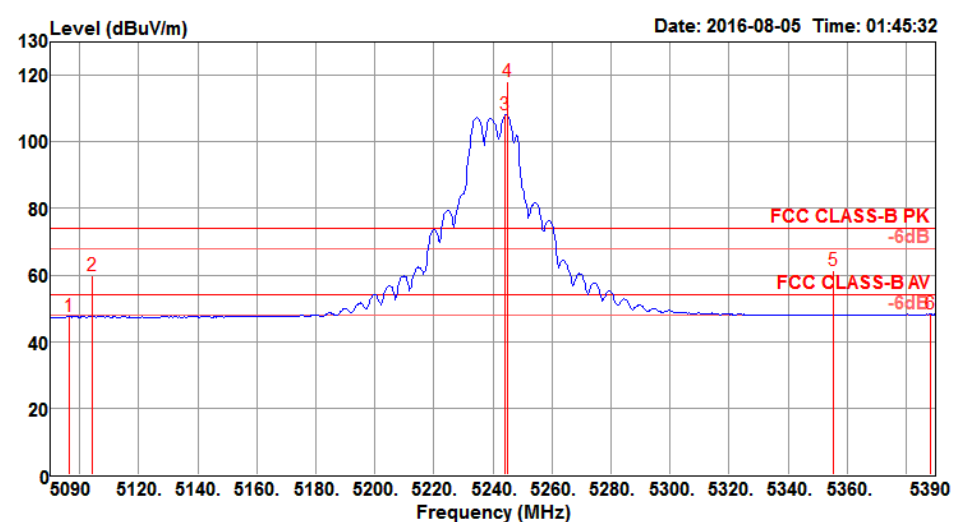
Channel 40



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5114.40	61.10	74.00	-12.90	53.70	7.48	34.82	34.90	230	259 Peak	HORIZONTAL
2	5148.00	48.27	54.00	-5.73	40.85	7.48	34.85	34.91	230	259 Average	HORIZONTAL
3	5197.20	104.53			97.06	7.48	34.90	34.91	230	259 Average	HORIZONTAL
4	5202.00	115.03			107.54	7.49	34.91	34.91	230	259 Peak	HORIZONTAL

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

Channel 48



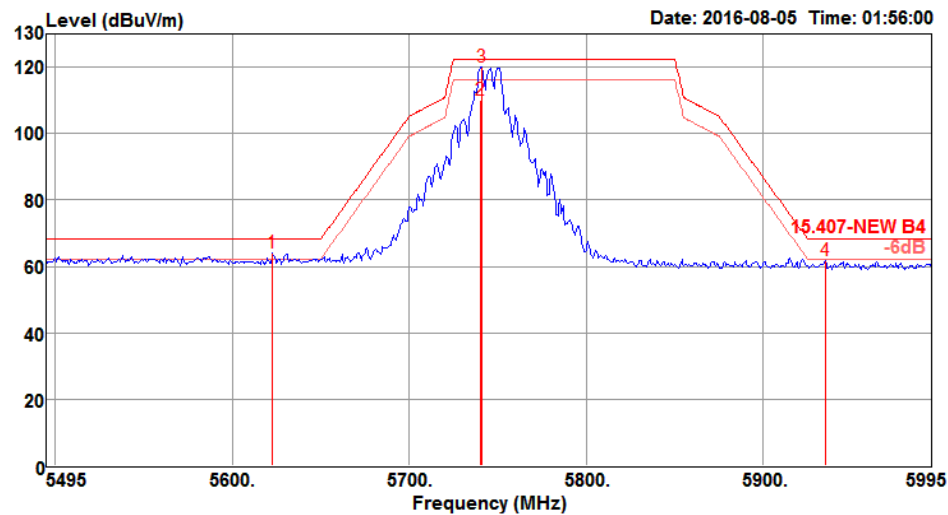
	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5096.60	47.47	54.00	-6.53	40.10	7.48	34.79	34.90	248	258	Average	HORIZONTAL
2	5104.40	59.74	74.00	-14.26	52.35	7.48	34.81	34.90	248	258	Peak	HORIZONTAL
3	5244.20	108.13			100.60	7.50	34.94	34.91	248	258	Average	HORIZONTAL
4	5244.80	118.16			110.63	7.50	34.94	34.91	248	258	Peak	HORIZONTAL
5	5355.20	61.39	74.00	-12.61	53.68	7.56	35.06	34.91	248	258	Peak	HORIZONTAL
6	5388.20	48.18	54.00	-5.82	40.43	7.58	35.09	34.92	248	258	Average	HORIZONTAL

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



Configurations	IEEE 802.11a CH 149, 157, 165 / Ant. 3 + Ant. 4
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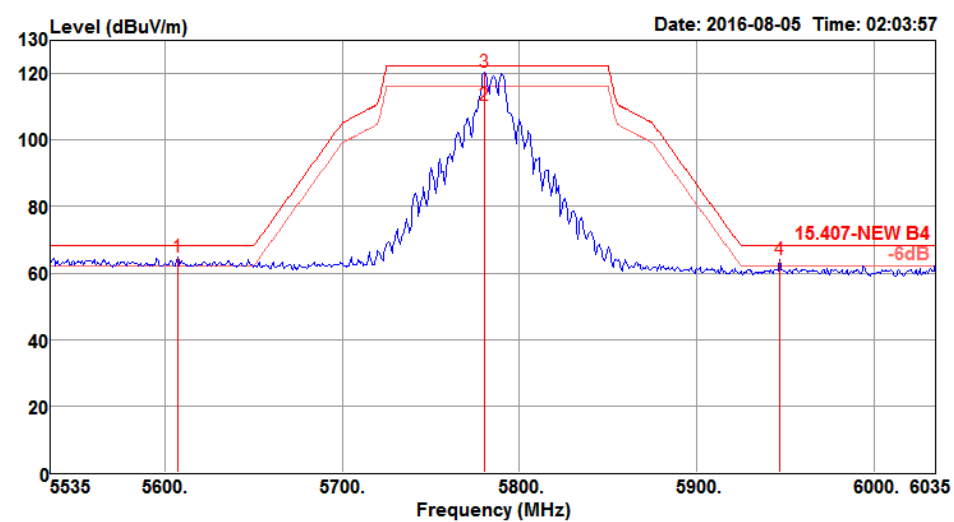
Channel 149



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5623.00	63.87	68.20	-4.33	55.66	7.92	35.22	34.93	225	278	Peak
2	5740.00	109.99			101.91	7.77	35.25	34.94	225	278	Average
3	5741.00	120.21			112.13	7.77	35.25	34.94	225	278	Peak
4	5935.00	61.67	68.20	-6.53	53.40	7.94	35.29	34.96	225	278	Peak

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

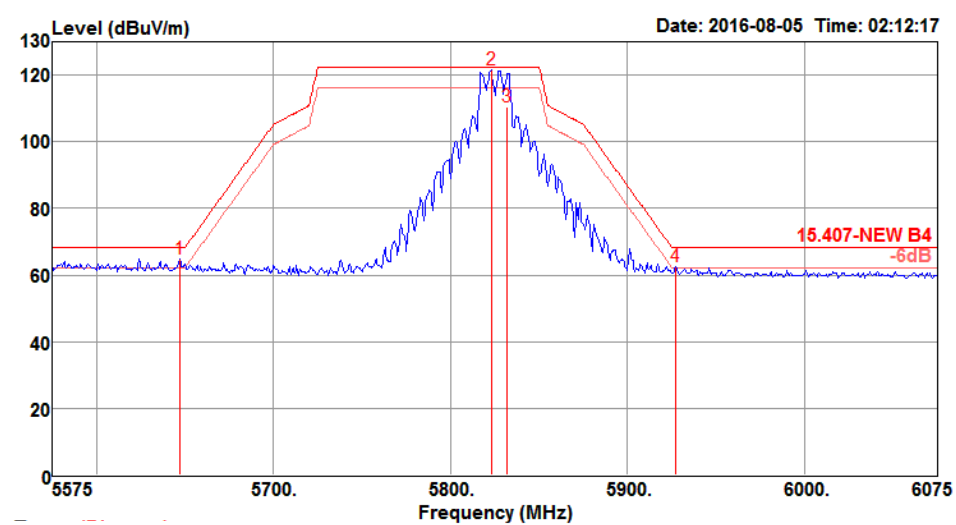
Channel 157



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5607.00	64.90	68.20	-3.30	56.67	7.94	35.22	34.93	202	279	Peak	HORIZONTAL
2	5780.00	110.57			102.53	7.73	35.26	34.95	202	279	Average	HORIZONTAL
3	5780.00	120.50			112.46	7.73	35.26	34.95	202	279	Peak	HORIZONTAL
4	5947.00	63.87	68.20	-4.33	55.58	7.97	35.29	34.97	202	279	Peak	HORIZONTAL

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

Channel 165



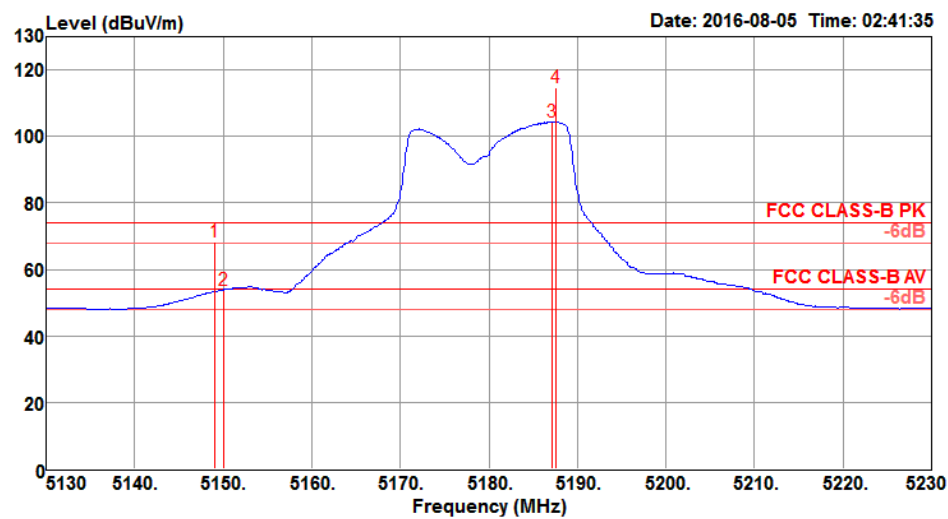
	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5647.00	64.89	68.20	-3.31	56.71	7.88	35.23	34.93	221	277	Peak	HORIZONTAL
2	5823.00	121.67			113.58	7.77	35.27	34.95	221	277	Peak	HORIZONTAL
3	5832.00	110.53			102.44	7.77	35.27	34.95	221	277	Average	HORIZONTAL
4	5927.00	62.52	68.20	-5.68	54.25	7.94	35.29	34.96	221	277	Peak	HORIZONTAL

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



Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36, 40, 48 / Ant. 3 + Ant. 4
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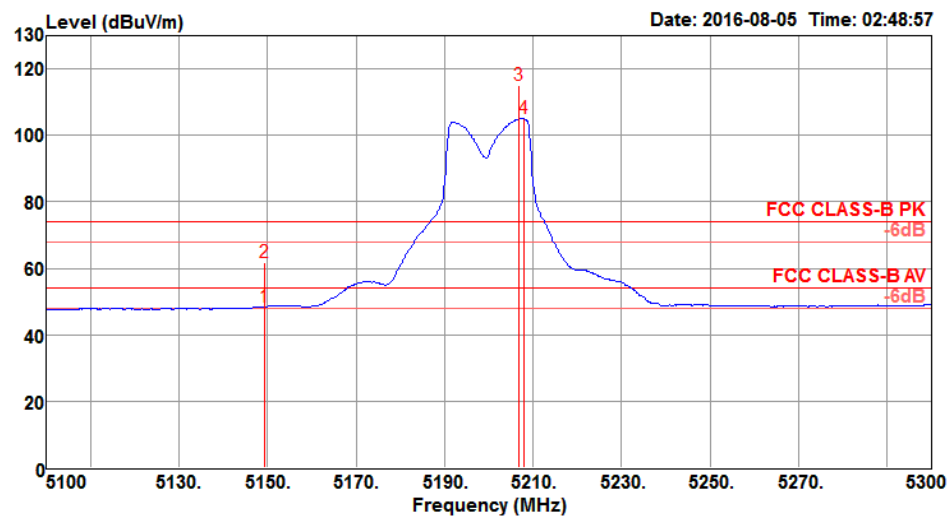
Channel 36



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBUV/m	dBUV/m	dB	dBUV	dB	dB/m	dB	cm	deg	
1	5149.00	68.21	74.00	-5.79	60.79	7.48	34.85	34.91	215	267 Peak	HORIZONTAL
2	5150.00	53.84	54.00	-0.16	46.42	7.48	34.85	34.91	215	267 Average	HORIZONTAL
3	5187.20	104.30			96.83	7.48	34.90	34.91	215	267 Average	HORIZONTAL
4	5187.60	114.59			107.12	7.48	34.90	34.91	215	267 Peak	HORIZONTAL

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

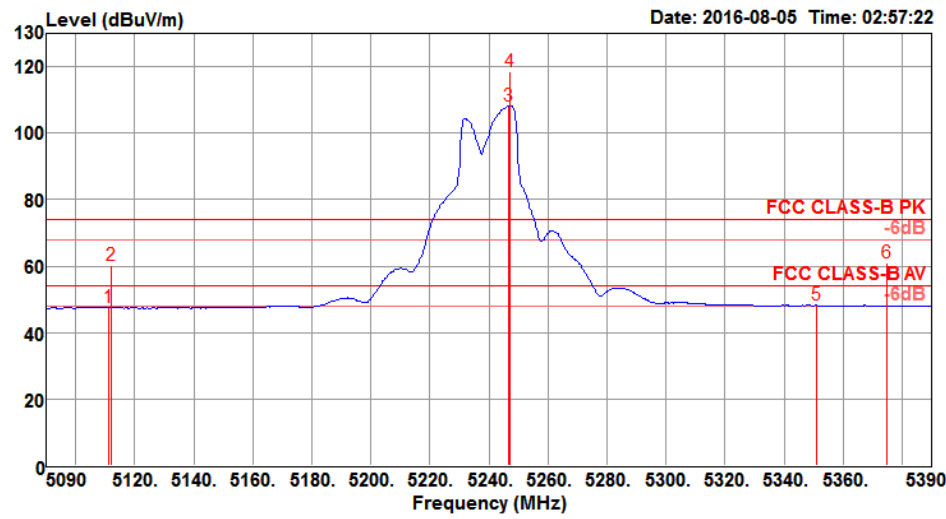
Channel 40



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5149.20	48.51	54.00	-5.49	41.09	7.48	34.85	34.91	224	260	Average	HORIZONTAL
2	5149.20	61.94	74.00	-12.06	54.52	7.48	34.85	34.91	224	260	Peak	HORIZONTAL
3	5206.80	114.88			107.39	7.49	34.91	34.91	224	260	Peak	HORIZONTAL
4	5208.00	105.06			97.57	7.49	34.91	34.91	224	260	Average	HORIZONTAL

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

Channel 48

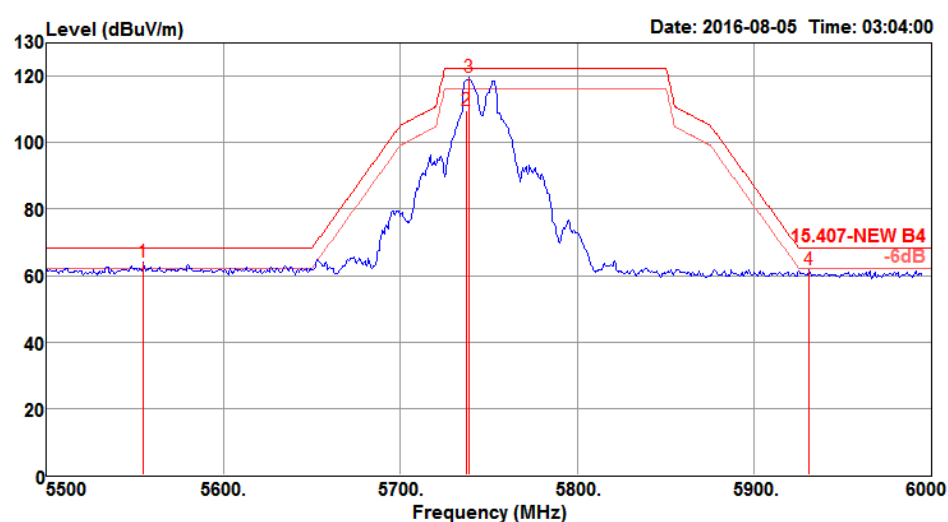


	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5111.00	47.58	54.00	-6.42	40.19	7.48	34.81	34.90	237	266	Average	HORIZONTAL
2	5112.20	60.32	74.00	-13.68	52.92	7.48	34.82	34.90	237	266	Peak	HORIZONTAL
3	5246.60	107.99			100.46	7.50	34.94	34.91	237	266	Average	HORIZONTAL
4	5247.20	118.37			110.81	7.51	34.96	34.91	237	266	Peak	HORIZONTAL
5	5351.00	48.21	54.00	-5.79	40.51	7.56	35.05	34.91	237	266	Average	HORIZONTAL
6	5375.00	60.90	74.00	-13.10	53.17	7.57	35.08	34.92	237	266	Peak	HORIZONTAL

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

Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149, 157, 165 / Ant. 3 + Ant. 4
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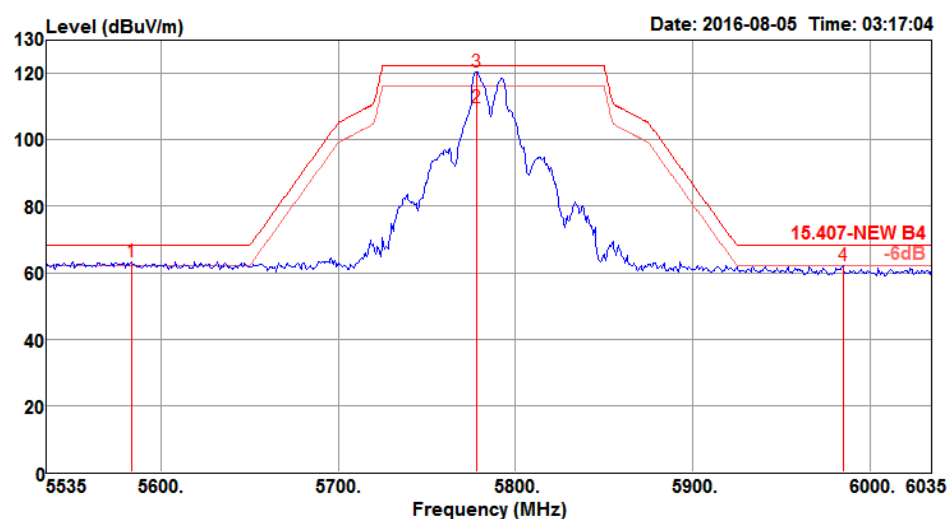
Channel 149



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5555.00	63.92	68.20	-4.28	55.77	7.86	35.21	34.92	226	275	Peak
2	5737.00	109.63			101.53	7.79	35.25	34.94	226	275	Average
3	5739.00	119.56			111.48	7.77	35.25	34.94	226	275	Peak
4	5931.00	61.94	68.20	-6.26	53.67	7.94	35.29	34.96	226	275	Peak

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

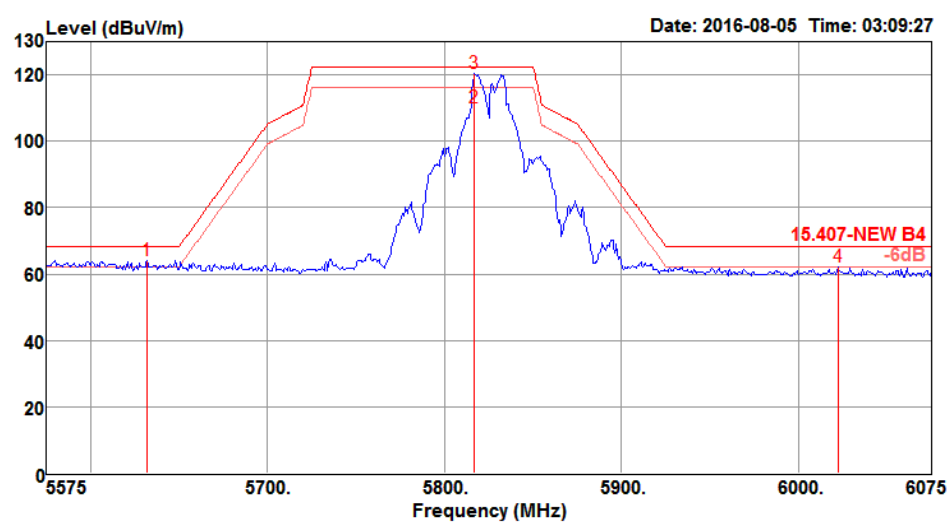
Channel 157



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5583.00	63.39	68.20	-4.81	55.19	7.91	35.22	34.93	227	275	Peak	HORIZONTAL
2	5778.00	109.85			101.81	7.73	35.26	34.95	227	275	Average	HORIZONTAL
3	5778.00	120.56			112.52	7.73	35.26	34.95	227	275	Peak	HORIZONTAL
4	5985.00	61.99	68.20	-6.21	53.64	8.02	35.30	34.97	227	275	Peak	HORIZONTAL

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

Channel 165



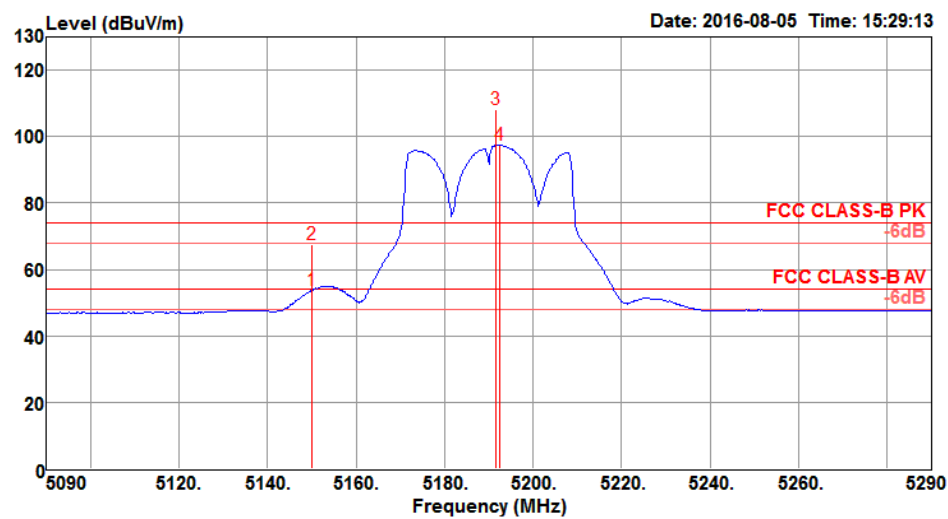
	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5632.00	64.20	68.20	-4.00	56.00	7.90	35.23	34.93	220	278	Peak	HORIZONTAL
2	5817.00	110.26			102.21	7.74	35.26	34.95	220	278	Average	HORIZONTAL
3	5817.00	120.27			112.22	7.74	35.26	34.95	220	278	Peak	HORIZONTAL
4	6022.00	62.04	68.20	-6.16	53.63	8.07	35.31	34.97	220	278	Peak	HORIZONTAL

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



Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38, 46 / Ant. 3 + Ant. 4
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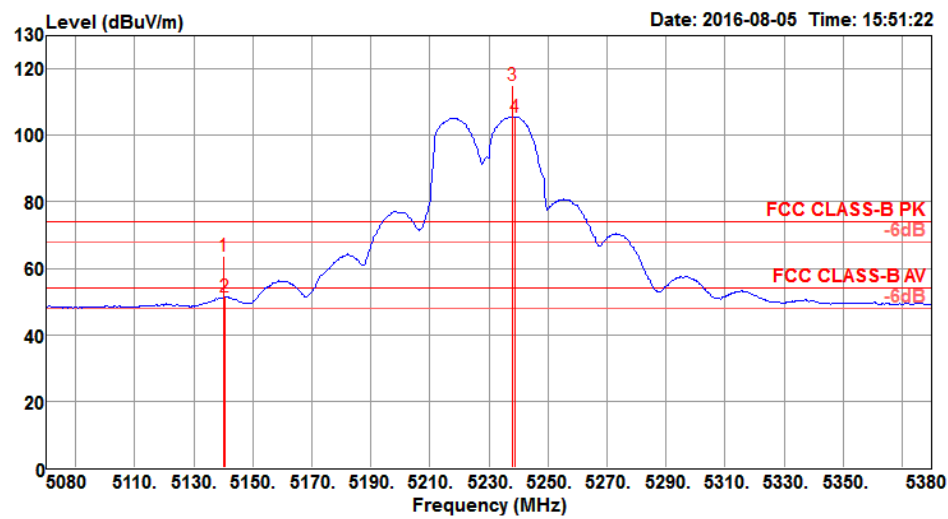
Channel 38



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	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	53.67	54.00	-0.33	46.25	7.48	34.85	34.91	294	183	Average	VERTICAL
2	5150.00	67.42	74.00	-6.58	60.00	7.48	34.85	34.91	294	183	Peak	VERTICAL
3	5191.60	108.11			100.64	7.48	34.90	34.91	294	183	Peak	VERTICAL
4	5192.40	97.39			89.92	7.48	34.90	34.91	294	183	Average	VERTICAL

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

Channel 46

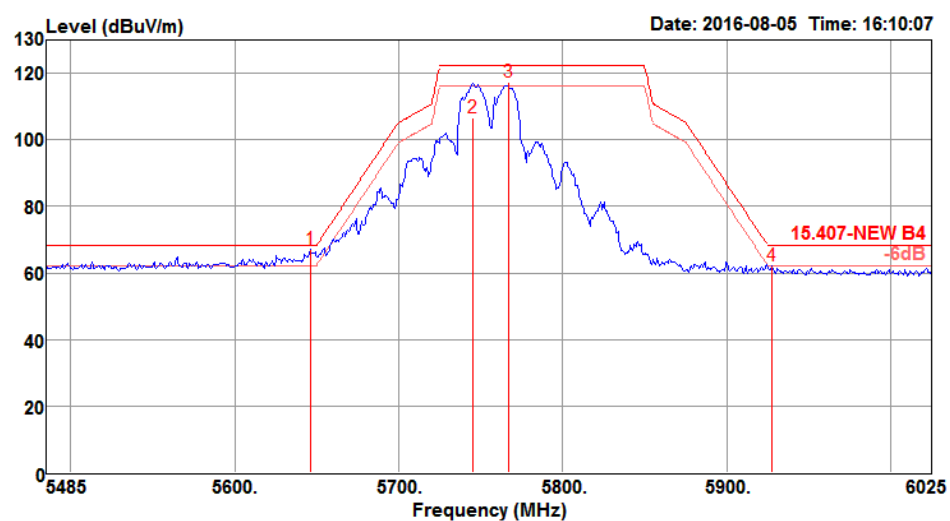


	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5140.00	63.77	74.00	-10.23	56.36	7.48	34.84	34.91	194	262	Peak	HORIZONTAL
2	5140.60	51.46	54.00	-2.54	44.05	7.48	34.84	34.91	194	262	Average	HORIZONTAL
3	5237.80	115.00			107.47	7.50	34.94	34.91	194	262	Peak	HORIZONTAL
4	5239.00	105.65			98.12	7.50	34.94	34.91	194	262	Average	HORIZONTAL

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

Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151, 159 / Ant. 3 + Ant. 4
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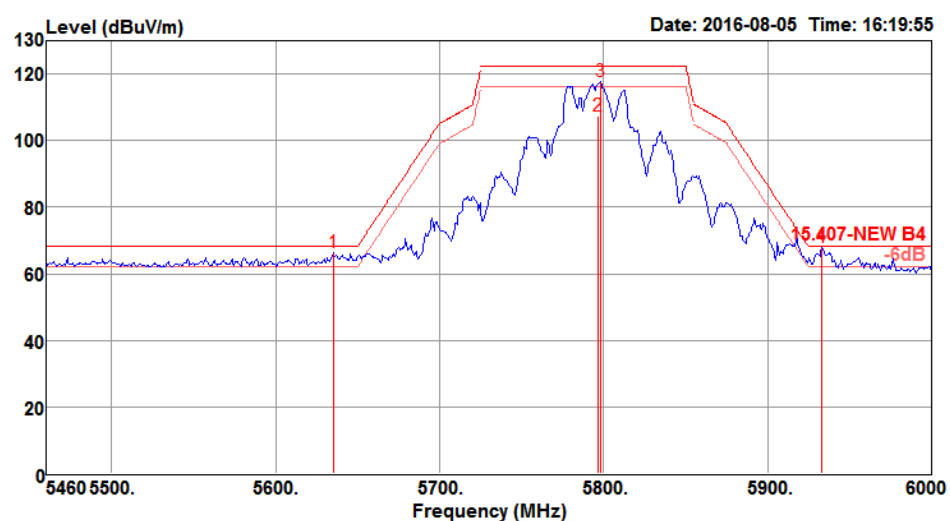
Channel 151



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5645.92	67.27	68.20	-0.93	59.09	7.88	35.23	34.93	202	278 Peak	HORIZONTAL
2	5745.28	106.72			98.64	7.77	35.25	34.94	202	278 Average	HORIZONTAL
3	5766.88	117.26			109.21	7.75	35.25	34.95	202	278 Peak	HORIZONTAL
4	5927.80	62.25	68.20	-5.95	53.98	7.94	35.29	34.96	202	278 Peak	HORIZONTAL

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

Channel 159



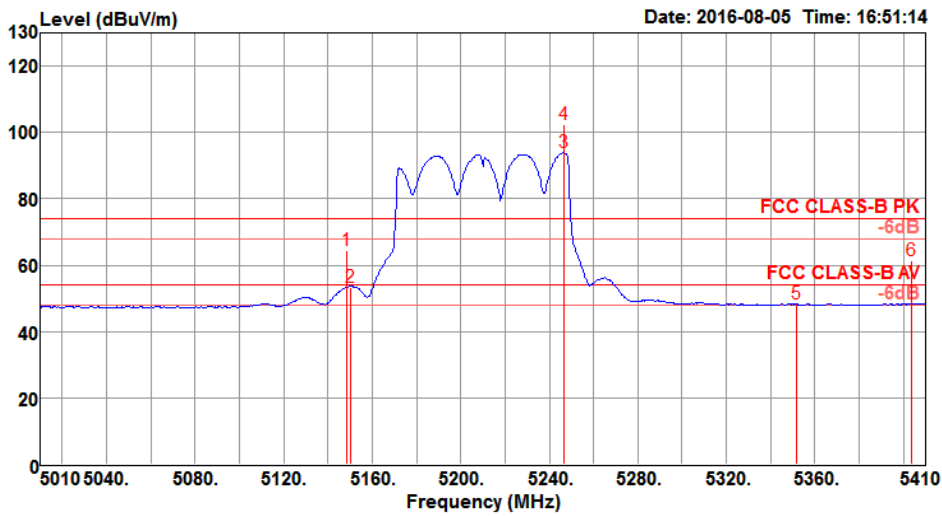
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5634.96	66.40	68.20	-1.80	58.20	7.90	35.23	34.93	197	273	Peak
2	5796.96	107.23			99.21	7.71	35.26	34.95	197	273	Average
3	5798.04	117.66			109.64	7.71	35.26	34.95	197	273	Peak
4	5933.04	67.73	68.20	-0.47	59.46	7.94	35.29	34.96	197	273	Peak

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



Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42, 155 / Ant. 3 + Ant. 4
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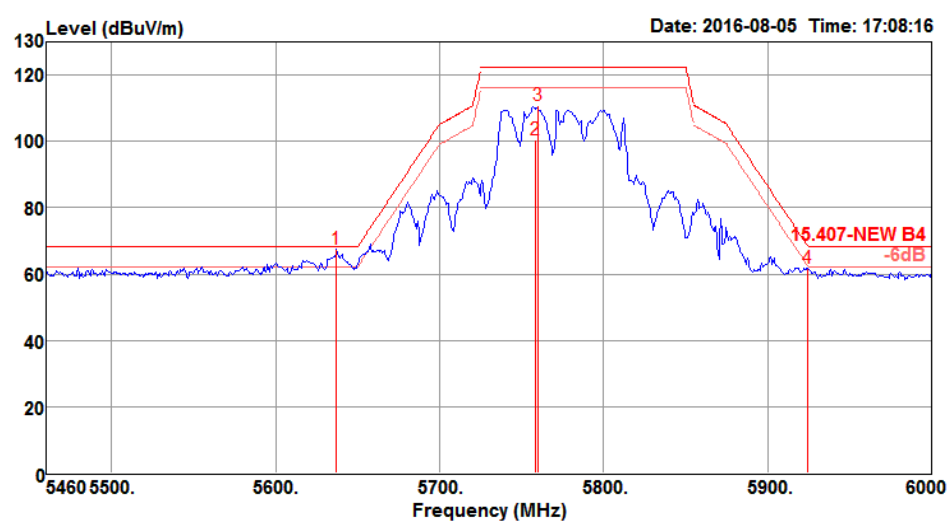
Channel 42



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5148.40	64.30	74.00	-9.70	56.88	7.48	34.85	34.91	212	263	Peak
2	5150.00	53.50	54.00	-0.50	46.08	7.48	34.85	34.91	212	263	Average
3	5246.80	93.78			86.25	7.50	34.94	34.91	212	263	Average
4	5246.80	102.57			95.04	7.50	34.94	34.91	212	263	Peak
5	5351.60	48.37	54.00	-5.63	40.67	7.56	35.05	34.91	212	263	Average
6	5403.60	61.51	74.00	-12.49	53.71	7.61	35.11	34.92	212	263	Peak

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

Channel 155



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5637.12	67.42	68.20	-0.78	59.22	7.90	35.23	34.93	213	125	Peak	HORIZONTAL
2	5758.08	100.55			92.50	7.75	35.25	34.95	213	125	Average	HORIZONTAL
3	5760.24	110.67			102.62	7.75	35.25	34.95	213	125	Peak	HORIZONTAL
4	5924.40	61.85	68.64	-6.79	53.58	7.94	35.29	34.96	213	125	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. 4

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9670	5199.9669	5199.9661	5199.9655
110.00	5199.9661	5199.9653	5199.9652	5199.9645
93.50	5199.9657	5199.9652	5199.9648	5199.9643
Max. Deviation (MHz)	0.0343	0.0348	0.0352	0.0357
Max. Deviation (ppm)	6.60	6.69	6.77	6.87
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9678	5199.9674	5199.9665	5199.9663
10	5199.9674	5199.9669	5199.9667	5199.9662
20	5199.9661	5199.9654	5199.9647	5199.9637
30	5199.9658	5199.9649	5199.9641	5199.9640
40	5199.9640	5199.9633	5199.9630	5199.9622
Max. Deviation (MHz)	0.0372	0.0382	0.0388	0.0390
Max. Deviation (ppm)	7.15	7.35	7.46	7.50
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9662	5784.9654	5784.9646	5784.9641
110.00	5784.9661	5784.9651	5784.9644	5784.9637
93.50	5784.9656	5784.9652	5784.9650	5784.9644
Max. Deviation (MHz)	0.0344	0.0349	0.0356	0.0363
Max. Deviation (ppm)	5.95	6.03	6.15	6.27
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9680	5784.9675	5784.9666	5784.9665
10	5784.9671	5784.9667	5784.9666	5784.9659
20	5784.9661	5784.9652	5784.9644	5784.9634
30	5784.9658	5784.9655	5784.9650	5784.9646
40	5784.9645	5784.9637	5784.9633	5784.9629
Max. Deviation (MHz)	0.0367	0.0373	0.0380	0.0381
Max. Deviation (ppm)	6.34	6.45	6.57	6.59
Result	Pass			

Mode: 40 MHz / Ant. 4

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9664	5189.9660	5189.9650	5189.9644
110.00	5189.9661	5189.9652	5189.9648	5189.9638
93.50	5189.9654	5189.9645	5189.9641	5189.9632
Max. Deviation (MHz)	0.0346	0.0355	0.0359	0.0368
Max. Deviation (ppm)	6.67	6.84	6.92	7.09
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9670	5189.9663	5189.9656	5189.9649
10	5189.9666	5189.9662	5189.9652	5189.9651
20	5189.9661	5189.9656	5189.9647	5189.9638
30	5189.9658	5189.9656	5189.9647	5189.9645
40	5189.9650	5189.9640	5189.9632	5189.9627
Max. Deviation (MHz)	0.0369	0.0371	0.0381	0.0385
Max. Deviation (ppm)	7.11	7.15	7.34	7.42
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9669	5754.9663	5754.9654	5754.9644
110.00	5754.9661	5754.9653	5754.9649	5754.9648
93.50	5754.9651	5754.9650	5754.9646	5754.9641
Max. Deviation (MHz)	0.0349	0.0350	0.0354	0.0359
Max. Deviation (ppm)	6.06	6.08	6.15	6.24
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9685	5754.9676	5754.9672	5754.9665
10	5754.9666	5754.9663	5754.9655	5754.9646
20	5754.9661	5754.9659	5754.9649	5754.9648
30	5754.9658	5754.9650	5754.9640	5754.9633
40	5754.9641	5754.9634	5754.9629	5754.9624
Max. Deviation (MHz)	0.0364	0.0370	0.0377	0.0381
Max. Deviation (ppm)	6.32	6.43	6.55	6.62
Result	Pass			

Mode: 80 MHz / Ant. 4
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9671	5209.9665	5209.9658	5209.9651
110.00	5209.9661	5209.9656	5209.9647	5209.9638
93.50	5209.9654	5209.9644	5209.9637	5209.9627
Max. Deviation (MHz)	0.0346	0.0356	0.0363	0.0373
Max. Deviation (ppm)	6.64	6.83	6.97	7.16
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9684	5209.9679	5209.9669	5209.9660
10	5209.9681	5209.9675	5209.9668	5209.9658
20	5209.9661	5209.9658	5209.9657	5209.9655
30	5209.9658	5209.9653	5209.9652	5209.9647
40	5209.9650	5209.9649	5209.9640	5209.9632
Max. Deviation (MHz)	0.0361	0.0368	0.0375	0.0383
Max. Deviation (ppm)	6.93	7.06	7.20	7.35
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9662	5774.9655	5774.9651	5774.9650
110.00	5774.9661	5774.9651	5774.9648	5774.9647
93.50	5774.9658	5774.9651	5774.9648	5774.9645
Max. Deviation (MHz)	0.0342	0.0349	0.0352	0.0355
Max. Deviation (ppm)	5.92	6.04	6.10	6.15
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9686	5774.9679	5774.9670	5774.9668
10	5774.9678	5774.9669	5774.9667	5774.9660
20	5774.9661	5774.9652	5774.9643	5774.9641
30	5774.9658	5774.9655	5774.9651	5774.9642
40	5774.9655	5774.9648	5774.9645	5774.9641
Max. Deviation (MHz)	0.0348	0.0352	0.0357	0.0365
Max. Deviation (ppm)	6.03	6.10	6.18	6.32
Result	Pass			