



FCC RADIO TEST REPORT

FCC ID : MSQ-RTHR00

Equipment : Wireless-AX11000 Tri-band Gigabit Router, ROG Rapture Tri-band Gaming Router

Brand Name : ASUS

Model Name : RT-AX95U, GT-AX11000

Applicant : ASUSTeK COMPUTER INC.
4F, No. 150, Li-Te Rd., Peitou, Taipei 112, Taiwan

Manufacturer (1) : ASKEY TECHNOLOGY (JIANG SU) LTD
NO1388, Jiao Tong Road, Wujiang Economic Technological Development Area Jiangsu Province 215200 China

Manufacturer (2) : Compal Networking (KunShan) Co., LTD.
No. 520, Nabbang Rd., Economic & Technical Development Zone Kunshan, Jiangsu Province China

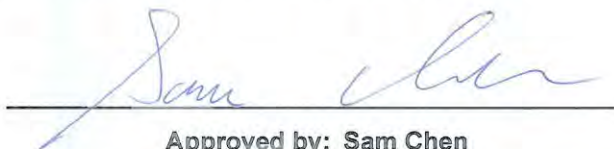
Manufacturer (3) : Arcadyan Technology (Vietnam) Co., Ltd.
Ba Thien Industrial Park, Ba Hien commune, Binh Xuyen district, Vinh Phuc Province, Viet Nam

Standard : 47 CFR FCC Part 15.407

The product was received on Jun. 05, 2018, and testing was started from Aug. 27, 2019 and completed on Feb. 17, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_1 Ver1.0



Summary of Test Result

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Cliff Chang

Report Producer: Emily Chen



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160), ax (HEW160)	5250	50 [1]
5470-5725		5570	114 [1]



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW20,BF	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11n HT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW40,BF	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ax HEW80	80	4TX
5.15-5.25GHz	802.11ax HEW80,BF	80	4TX
5.15-5.25GHz	802.11ac VHT160	160	4TX
5.15-5.25GHz	802.11ac VHT160-BF	160	4TX
5.15-5.25GHz	802.11ax HEW160	160	4TX
5.15-5.25GHz	802.11ax HEW160-BF	160	4TX
5.25-5.35GHz	802.11a	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11HEW20	20	4TX
5.25-5.35GHz	802.11HEW20,BF	20	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11n HT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11HEW40	40	4TX
5.25-5.35GHz	802.11HEW40,BF	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.25-5.35GHz	802.11HEW80	80	4TX
5.25-5.35GHz	802.11HEW80,BF	80	4TX



Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	802.11ax HEW160	160	4TX
5.25-5.35GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11HEW20	20	4TX
5.47-5.725GHz	802.11HEW20,BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11HEW40	40	4TX
5.47-5.725GHz	802.11HEW40,BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11HEW80	80	4TX
5.47-5.725GHz	802.11HEW80,BF	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ax HE20	20	4TX
5.725-5.85GHz	802.11ax HE20,BF	20	4TX
5.725-5.85GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ax HE40	40	4TX
5.725-5.85GHz	802.11ax HE40,BF	40	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ax HE80	80	4TX
5.725-5.85GHz	802.11ax HE80,BF	80	4TX
5.725-5.85GHz	802.11ac VHT160	160	4TX
5.725-5.85GHz	802.11ac VHT160-BF	160	4TX
5.725-5.85GHz	802.11ax HEW160	160	4TX
5.725-5.85GHz	802.11ax HEW160-BF	160	4TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM 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

Set	Ant.	Port				Brand	P/N	Type	Connector	Gain (dBi)			
		2.4GHz	5GHz B1/B2	5GHz B3	5GHz B4					2.4GHz	5GHz B1/B2	5GHz B3	5GHz B4
1	1	1	-	4	4	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	2	2	-	3	3	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	3	3	-	2	2	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	4	4	-	1	1	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	5	-	1	-	-	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	6	-	2	-	-	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	7	-	3	-	-	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	8	-	4	-	-	WHA YU	C660-510413-A	Dipole	Reverse SMA Plug	-	2.3	-	-
2	1	1	-	4	4	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	2	2	-	3	3	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	3	3	-	2	2	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	4	4	-	1	1	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	5	-	1	-	-	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	6	-	2	-	-	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	7	-	3	-	-	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	-	2.3	-	-
	8	-	4	-	-	WHA YU	C660-510431-A	Dipole	Reverse SMA Plug	-	2.3	-	-
3	1	1	-	4	4	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	2	2	-	3	3	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	3	3	-	2	2	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	4	4	-	1	1	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	5	-	1	-	-	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	-	2.3	-	-
	6	-	2	-	-	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	-	2.3	-	-
	7	-	3	-	-	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	-	2.3	-	-
	8	-	4	-	-	PSA	RFDPA161000SBLB801	Dipole	Reverse SMA Plug	-	2.3	-	-
4	1	1	-	4	4	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	2	2	-	3	3	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	3	3	-	2	2	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	4	4	-	1	1	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	1.9	-	2.3	1.9
	5	-	1	-	-	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	-	2.3	-	-
	6	-	2	-	-	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	-	2.3	-	-
	7	-	3	-	-	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	-	2.3	-	-
	8	-	4	-	-	Walsin	RFDPA161000SBLB802	Dipole	Reverse SMA Plug	-	2.3	-	-

Note: The above information was declared by manufacturer.

Note: B1 means Band1. The rule also applies to B2, B3, and B4.

Because WHA YU's antennas、PSA's antennas and Walsin's antennas are the same type antennas and same gain, only the WHA YU's set 1 antennas was tested and recorded in the report.

<For 2.4GHz Band>

For IEEE 802.11b/g/n/ac/ax mode <4TX/4RX>:

Ant.1 (Port 1), Ant.2 (Port 2), Ant.3 (Port 3) and Ant.4 (Port 4) will transmit/receive the same signal simultaneously.

Ant.1 (Port 1), Ant.2 (Port 2), Ant.3 (Port 3) and Ant.4 (Port 4) can be used as transmitting/receiving antennas.

**<For 5GHz Band>****For Band 1/2****For IEEE 802.11a/n/ac/ax mode <4TX/4RX>:**

Ant.5 (Port 1), Ant.6 (Port 2), Ant.7 (Port 3) and Ant.8 (Port 4) will transmit/receive the same signal simultaneously.

Ant.5 (Port 1), Ant.6 (Port 2), Ant.7 (Port 3) and Ant.8 (Port 4) can be used as transmitting/receiving antennas.

For Band 3/4**For IEEE 802.11a/n/ac/ax mode <4TX/4RX>:**

Ant.1 (Port 4), Ant.2 (Port 3), Ant.3 (Port 2) and Ant.4 (Port 1) will transmit/receive the same signal simultaneously.

Ant.1 (Port 4), Ant.2 (Port 3), Ant.3 (Port 2) and Ant.4 (Port 1) can be used as transmitting/receiving antennas.

1.1.3 Mode Test Duty Cycle**4T1S:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.953	0.21	2.068m	1k
802.11ax HEW20	0.989	0.05	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW20-BF	0.977	0.1	2.931m	1k
802.11ax HEW40	0.978	0.1	1.149m	1k
802.11ax HEW40-BF	0.945	0.25	2.931m	1k
802.11ax HEW80	0.957	0.19	580u	3k
802.11ax HEW80-BF	0.979	0.09	2.804m	1k

4T2S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF	0.97	0.13	2.939m	1k
802.11ax HEW40-BF	0.954	0.2	4.016m	300
802.11ax HEW80-BF	0.975	0.11	2.64m	1k

4T4S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW80	0.886	0.53	215u	10k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for 802.11n/ac/ax in 2.4GHz/5GHz			
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
TPC Function	☒	With TPC	☐	Without TPC
Test Software Version	Mtool 3.0.0.6			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

The difference for each equipment name and model name is shown as below:

Equipment Name	Model Name	Description
Wireless-AX11000 Tri-band Gigabit Router, ROG Rapture Tri-band Gaming Router	RT-AX95U, GT-AX11000	All the models/equipment names are identical; the different models/equipment names served as marketing strategy.

From the above models, model: RT-AX95U was selected as representative model for the test and its data was recorded in this report.

1.1.6 EUT Information

There are four EUT, the detail information as following:

EUT	SKU	LAN Transformer		Power IC		2.5G phy chip	
		Brand Name	P/N	Brand Name	P/N	Brand Name	P/N
1	1	SWAPnet	NS777202*1	Richtek	RT6220	Broadcom	BCM84880
		SWAPnet	NS771802*1	Richtek	RT6217		
2	2	Mingtek	HN8001VG*1	Richtek	RT6220	Broadcom	BCM84880
		Mingtek	HN18101HF*1	Richtek	RT6217		
3	3	SWAPnet	NS777202*1	MPS	MP8765	Broadcom	BCM54991
		SWAPnet	NS771802*1	MPS	MP2315		
4	4	Mingtek	HN8001VG*1	MPS	MP8765	Broadcom	BCM54991
		Mingtek	HN18101HF*1	MPS	MP2315		

1.1.7 EUT Function

The EUT supports below functions:

1	AP Router (Master)
2	Client without radar detection
3	Bridge (Client without radar detection)
4	Extender (Master)
5	Mesh (Client without radar detection)

1.1.8 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR812227-03AB

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding the second sources (EUT3 and EUT4). Please refer to section 1.1.6 for detail Information. 2. Adding a new adapter (Brand: DELTA, Model:ADP-65GD D)	1. AC Power Line Conducted Emissions 2. Unwanted Emissions below 1GHz
3. Update the test rule of 5GHz Band 4 to "15.407 (b)(4)(i)" from "15.407 (b)(4)(ii)".	All test items
4. Add a set of antennas (Brand:Walsin, P/N: RFDPA161000SBLB802) with the same type and same gain. 5. Adding Manufacturer " Arcadyan Technology (Vietnam) Co., Ltd." and " Ba Thien Industrial Park, Ba Hien commune, Binh Xuyen district, Vinh Phuc Province, Viet Nam"	Do not effect the test results



1.2 Applicable 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 v02r01
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location				
☐	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	TEL : 886-3-327-3456	FAX : 886-3-327-0973
☒	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 Wang	25~26.7°C / 53~54%	Nov. 12, 2019~ Feb. 17, 2020
Radiated below 1GHz	03CH06-CB	Eason Chen	24.2~25.5°C / 62~66%	Aug. 30, 2019
Radiated above 1GHz	03CH05-CB	Cola Fan	23.9~25°C / 57~60%	Nov. 08, 2019~ Feb. 14, 2020
AC Conduction	CO02-CB	Rick Yeh	25~26°C / 46~47%	Aug. 27, 2019

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)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

4T1S:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5745MHz	101
5785MHz	102
5825MHz	103
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5745MHz	99
5785MHz	100
5825MHz	101
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5755MHz	94
5795MHz	99
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5775MHz	88
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5745MHz	90
5785MHz	90
5825MHz	91
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5755MHz	89
5795MHz	90
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5775MHz	86

4T2S:

Mode	Power Setting
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	-
5745MHz	99
5785MHz	100
5825MHz	101
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	-
5755MHz	98
5795MHz	99
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	-
5775MHz	89

**4T4S:**

Mode	Power Setting
802.11ax HEW80_Nss4,(MCS0)_4TX	-
5775MHz	89

Note:

- ♦ There are two modes of EUT for 802.11n/ac/ax. one is beamforming mode, and the other is non-beamforming mode. Both modes have been tested and recorded in this test report.

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
The EUT has AP Router, Client without radar detection, Bridge, Extender and Mesh and four SKUs and equips with adapter 1 ~ adapter 4. After evaluated, EUT3 (SKU3) AP Router (Master) + adapter 2 generated the worst test result, thus the measurement test will follow this same test.	
1	EUT3 (SKU3) AP Router (Master) + adapter 2

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains
Test Mode	EUT 1 (SKU 1)

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
The EUT has AP Router, Client without radar detection, Bridge, Extender and Mesh and four SKUs and equips with adapter 1 ~ adapter 4. After evaluated, EUT1 (SKU1) AP Router (Master) + adapter 4 generated the worst test result, thus the measurement test will follow this same test.	
1	EUT1 (SKU1) AP Router (Master) + adapter 4
Operating Mode > 1GHz	CTX
1	EUT 1 (SKU 1)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz band 1, 2 + WLAN 5GHz band 3, 4
Refer to Sporton Test Report No.: FA812227-10 for Co-location RF Exposure Evaluation.	

Note: 1. The EUT only be used at Z axis.

2. This model supports full RU configuration only, and the model does not have adjustable power levels for each user.



2.3 EUT Operation during Test

For Normal Mode:

During the test, the EUT operation to normal function.

For Radiated:**For CTX Mode:****For non-beamforming mode:**

The EUT was programmed to be in continuously transmitting mode.

For beamforming mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed " Telnet " to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Conducted:

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

Accessories					
Equipment Name	Brand Name	Model Name	Type	Rating	Remark
Adapter 1	DELTA	ADP-65DW B	-	INPUT: 100-240V~50-60Hz, 1.5A OUTPUT: 19V, 3.42A	-
Adapter 2	DELTA	ADP-65DW Y	-	INPUT: 100-240V~50-60Hz, 1.5A OUTPUT: 19V, 3.42A	-
Adapter 3	PI	AD2087320	010-1LF	INPUT: 100-240V~50/60Hz, 1.5A OUTPUT: 19V, 3.42A	-
Adapter 4	DELTA	ADP-65GD D	-	INPUT: 100-240V~50/60Hz, 1.5A OUTPUT: 19V, 3.42A	DC Power Cable:Non-shielded, 1.8m
Others					
RJ-45 cable: Shielded, 1.5m					
Power cord*1: Non-shielded, 0.9m (for Adapter 4 use only)					



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	HDD3.0	WD	WDBACY5000AWT	N/A
B	HDD3.0	WD	WDBACY5000AWT	N/A
C	LAN1 NB	DELL	E6430	N/A
D	LAN4 NB	DELL	E6430	N/A
E	WAN NB	DELL	E6430	N/A
F	2.4G NB	DELL	E6430	N/A
G	5G-1 NB	DELL	E6430	N/A
H	5G-2 NB	DELL	E6430	N/A
I	2.5G PC	DELL	T3400	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	NB	DELL	E4300	N/A
D	NB	DELL	E4300	N/A
E	NB	DELL	E4300	N/A
F	NB	DELL	E4300	N/A
G	PC	DELL	OPTIPLEX 380	N/A
H	HDD3.0	WD	WDBACY5000AWT	N/A
I	HDD3.0	WD	WDBACY5000AWT	N/A

**For Radiated (above 1GHz)
Non-Beamforming Mode:**

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

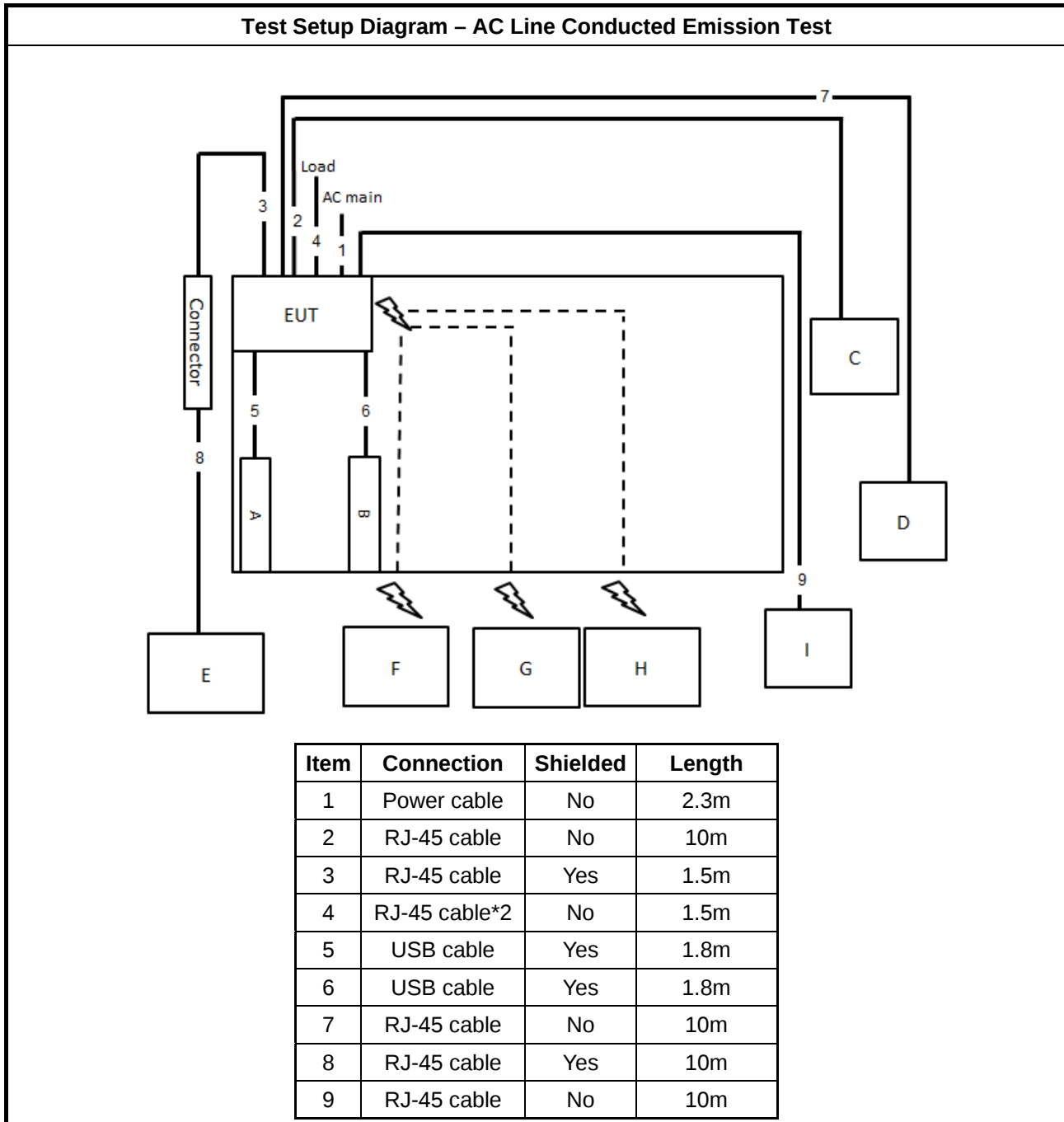
Beamforming Mode:

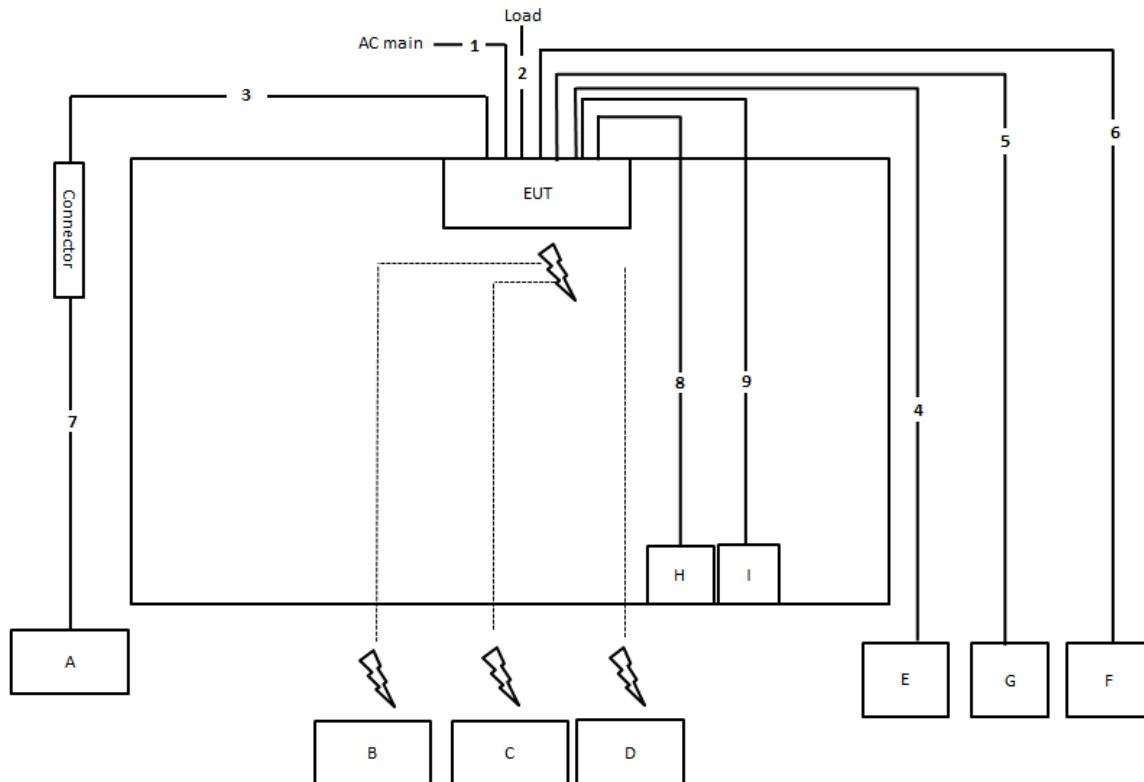
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	RX Device	ASUS	RT-AX88U	MSQ-RTAXHP00

For RF Conducted:

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

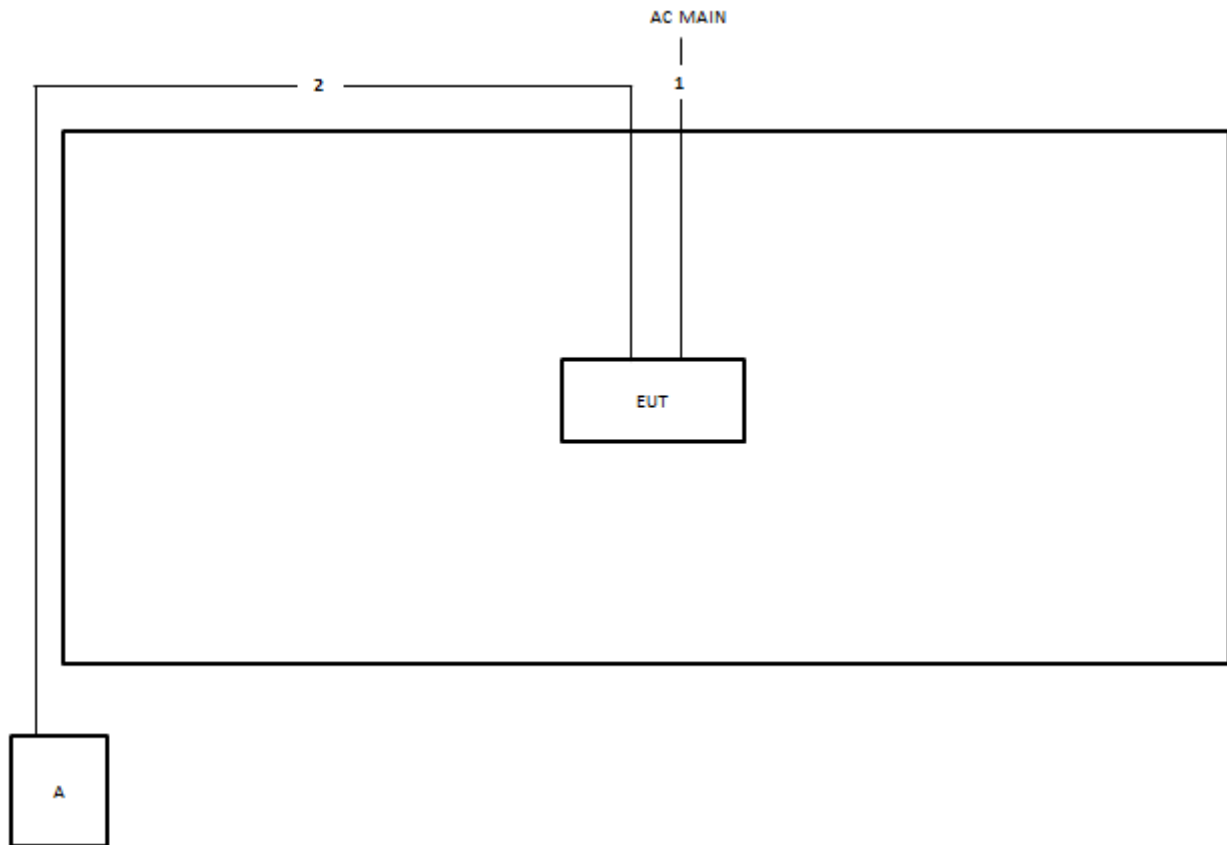
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test below 1GHz


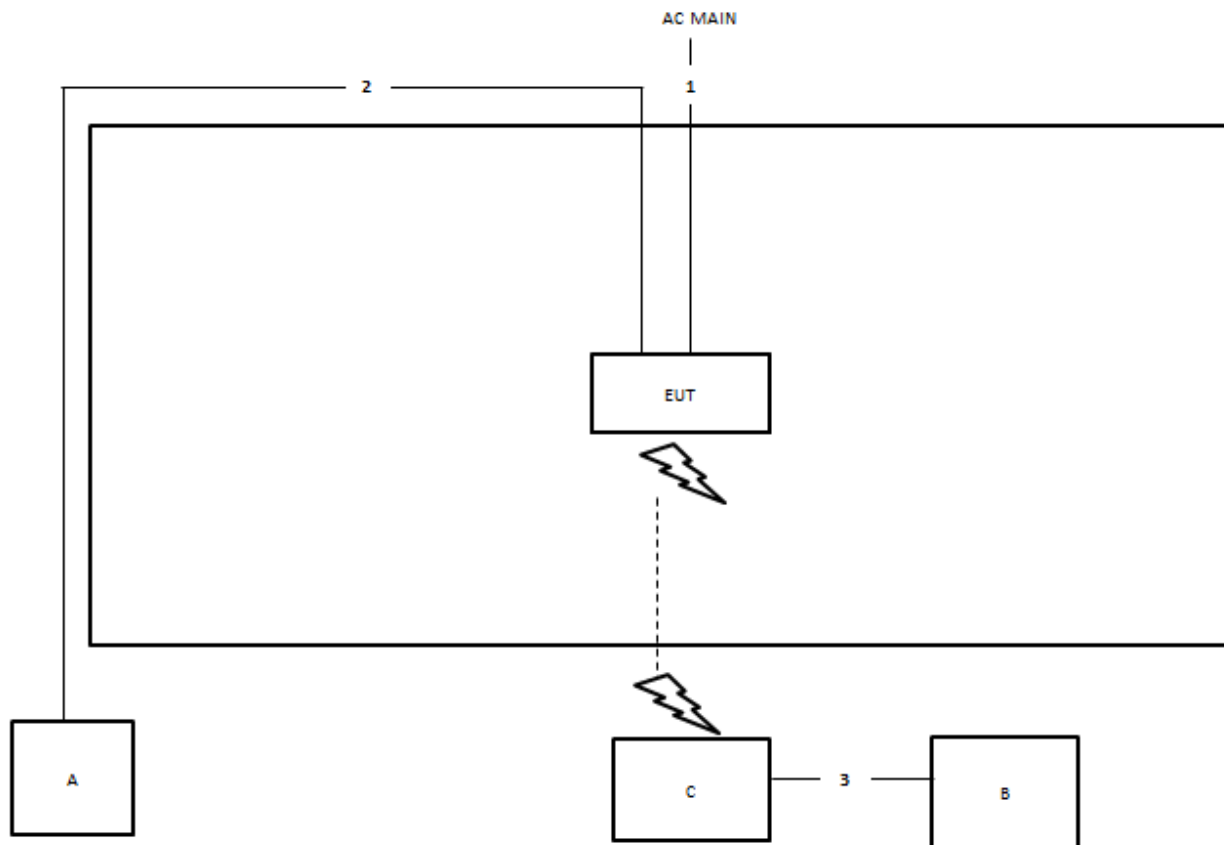
Item	Connection	Shielded	Length
1	Power cable	No	2.7m
2	RJ-45 cable*2	No	1.5m
3	RJ-45 cable	Yes	1.5m
4	RJ-45 cable	No	10m
5	RJ-45 cable	No	10m
6	RJ-45 cable	No	10m
7	RJ-45 cable	Yes	10m
8	USB cable	Yes	1.8m
9	USB cable	Yes	1.8m

**Test Setup Diagram - Radiated Test above 1GHz
<Non-Beamforming Mode>**



Item	Connection	Shielded	Length
1	Power cable	No	2.3m
2	RJ-45 cable	No	10m

**Test Setup Diagram - Radiated Test above 1GHz
<Beamforming Mode>**



Item	Connection	Shielded	Length
1	Power cable	No	2.3m
2	RJ-45 cable	No	10m
3	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.

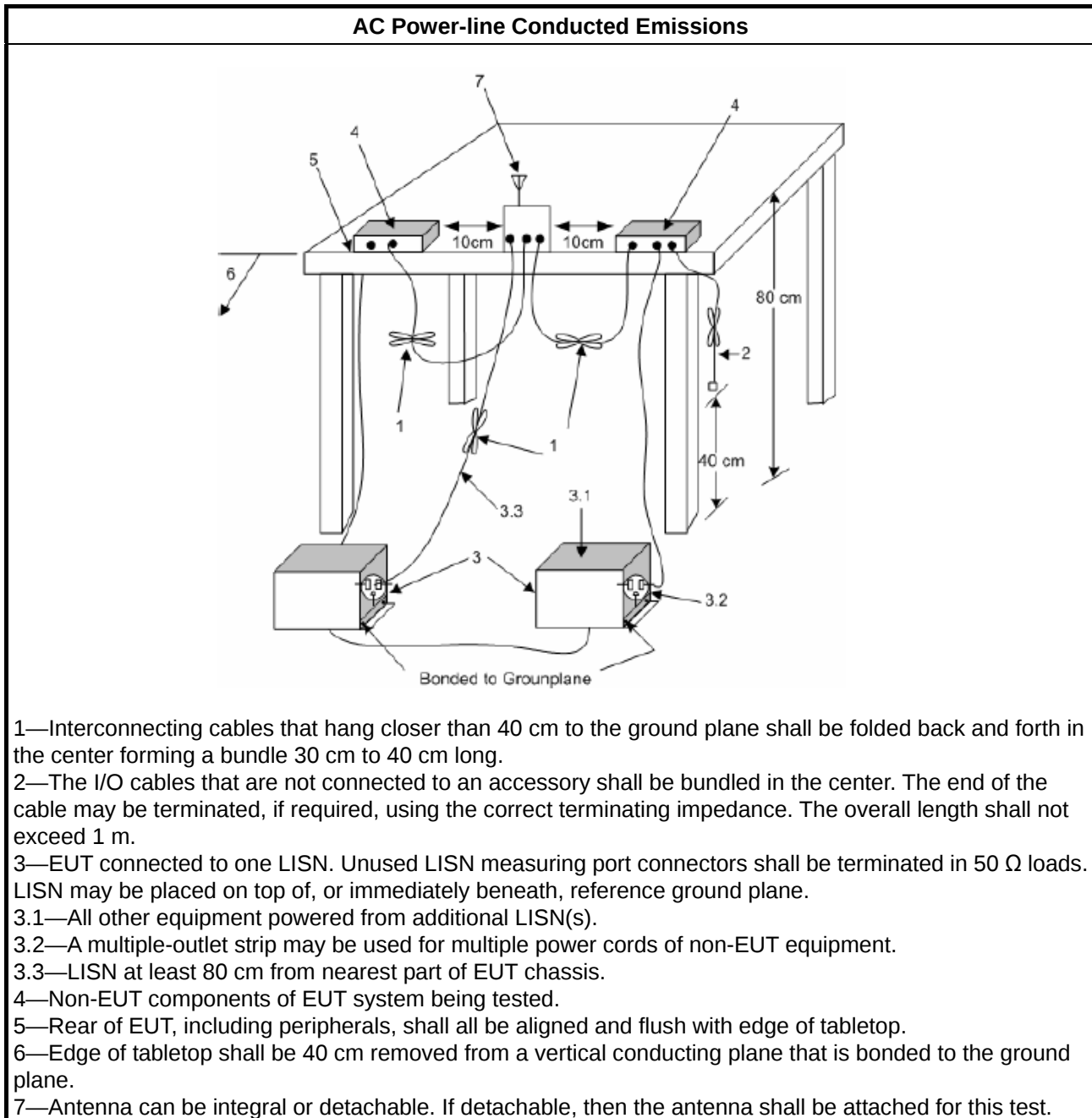
3.1.2 Measuring Instruments

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.

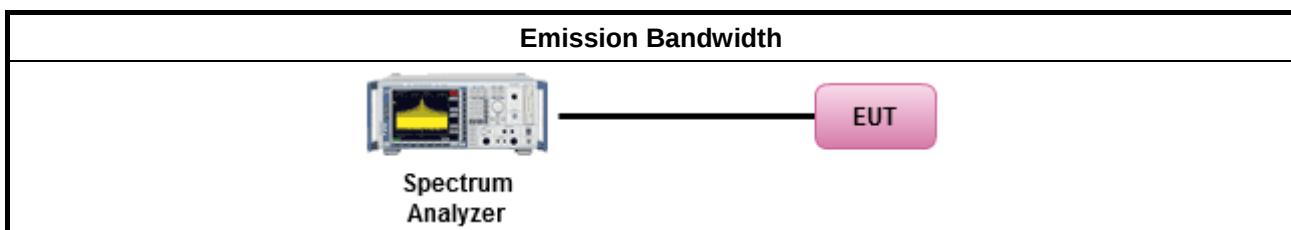
3.2.2 Measuring Instruments

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.	

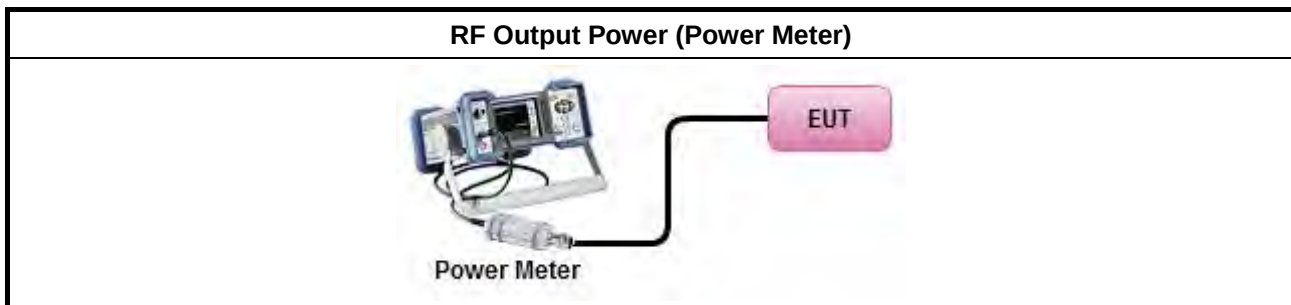
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	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 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.	
☐	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.	
☐ 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 the 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.	

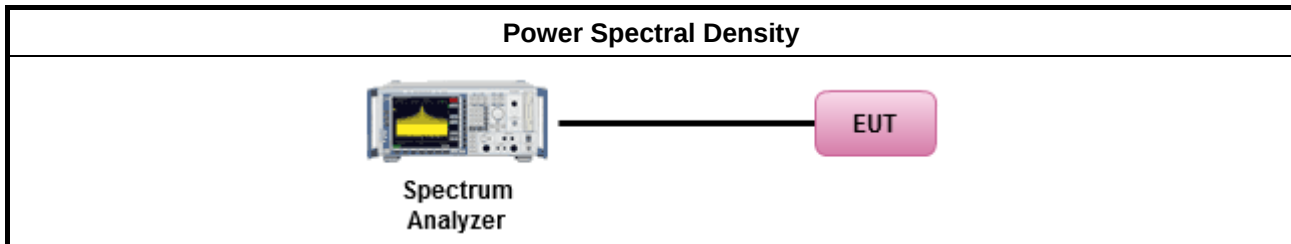
3.4.2 Measuring Instruments

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 Unwanted Emissions Limit

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

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

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

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
☐ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☐ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☐ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	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).

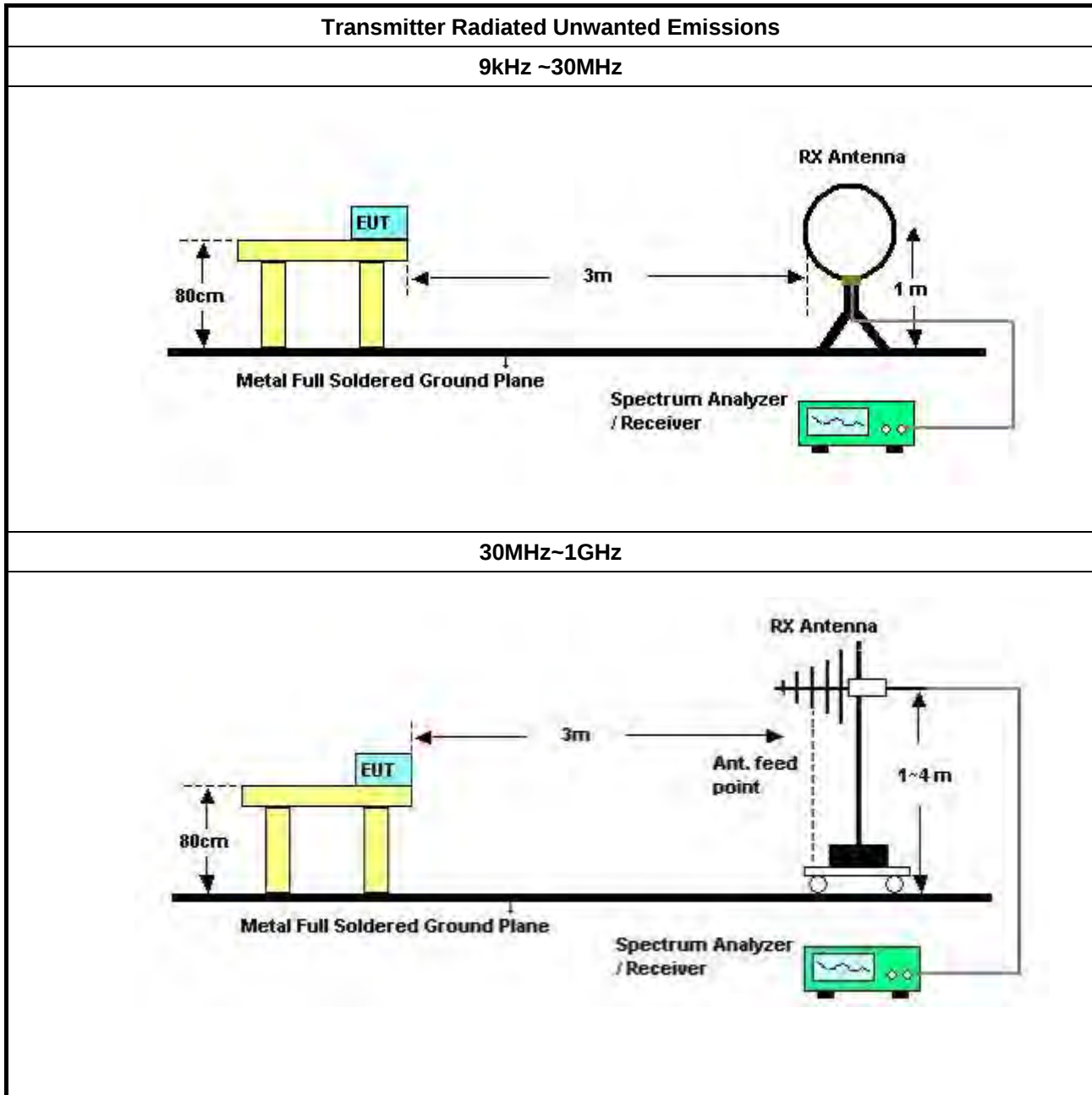
3.5.2 Measuring Instruments

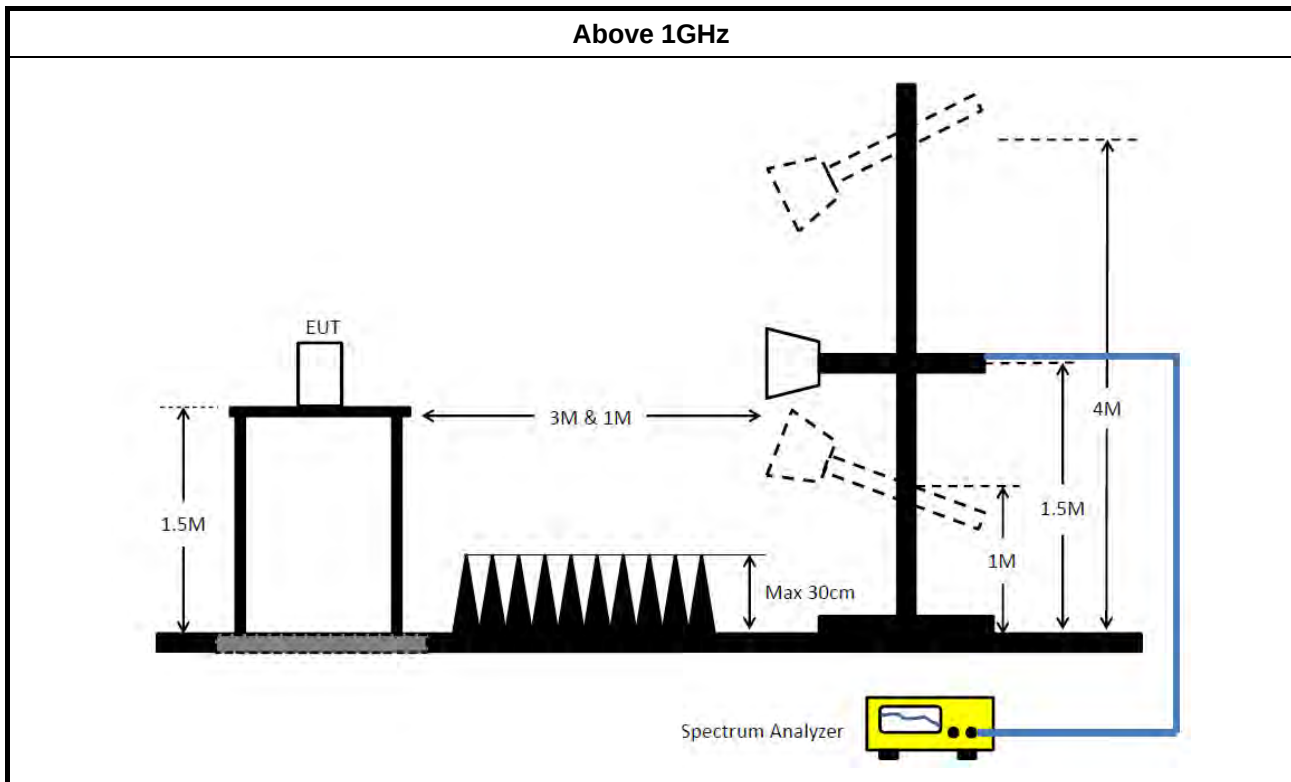
Refer a test equipment and calibration data table in this test report.

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 G)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.	
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
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 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

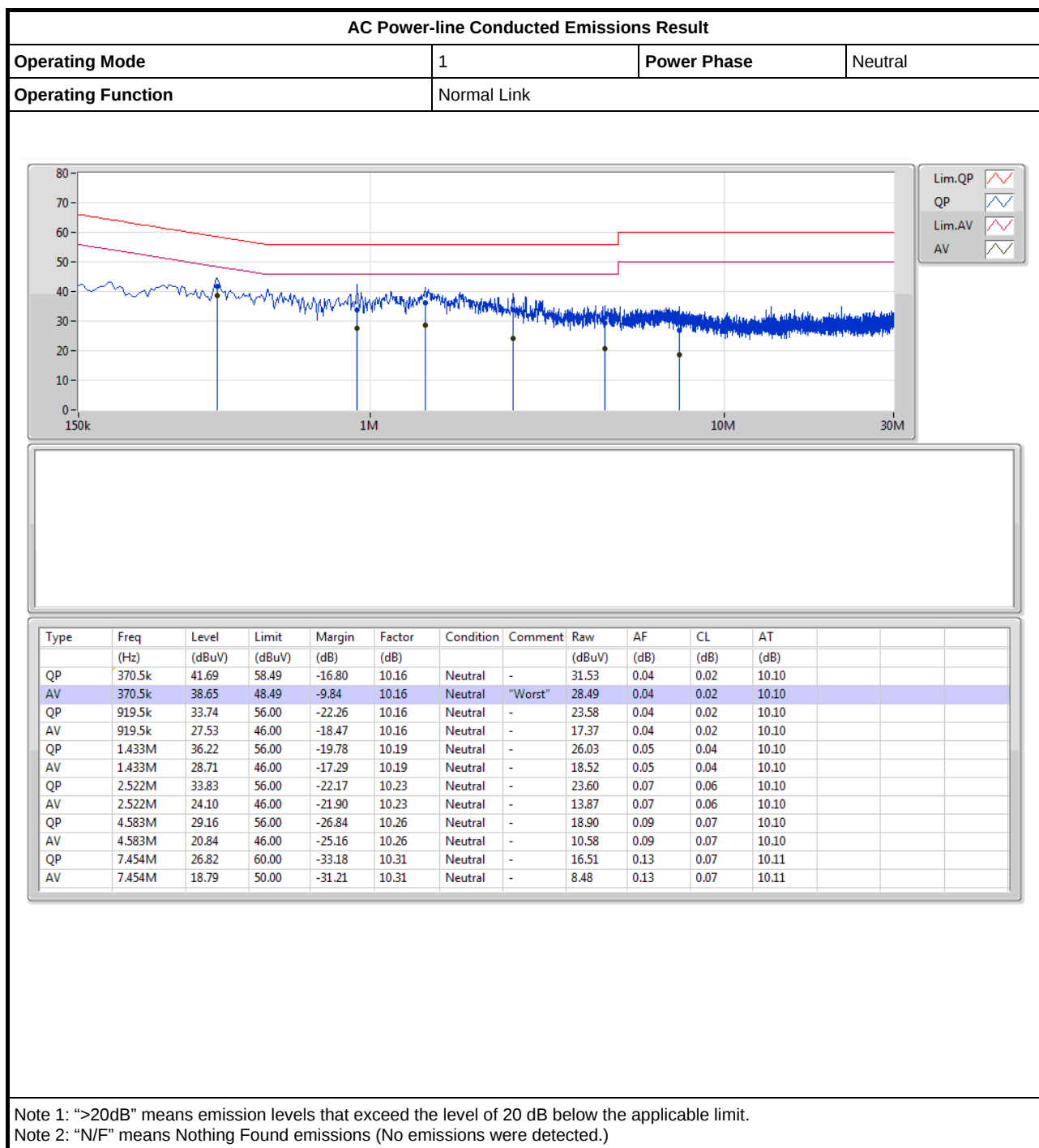
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 21, 2018	Nov. 20, 2019	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 05, 2018	Nov. 04, 2019	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 16, 2019	Jan. 15, 2020	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Nov. 06, 2018	Nov. 05, 2019	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Bilog Antenna with 6dB Attenuator	Schaffner & Woken	CBL6112B & N-6-06-06	2888 & AT-N0609	30MHz ~ 1GHz	Oct. 12, 2018	Oct. 11, 2019	Radiation (03CH06-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	May 07, 2019	May 06, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 03, 2018	Oct. 02, 2019	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH06-CB)
RF Cable-low	HUBER+SUHNER	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Apr. 16, 2019	Apr. 15, 2020	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)

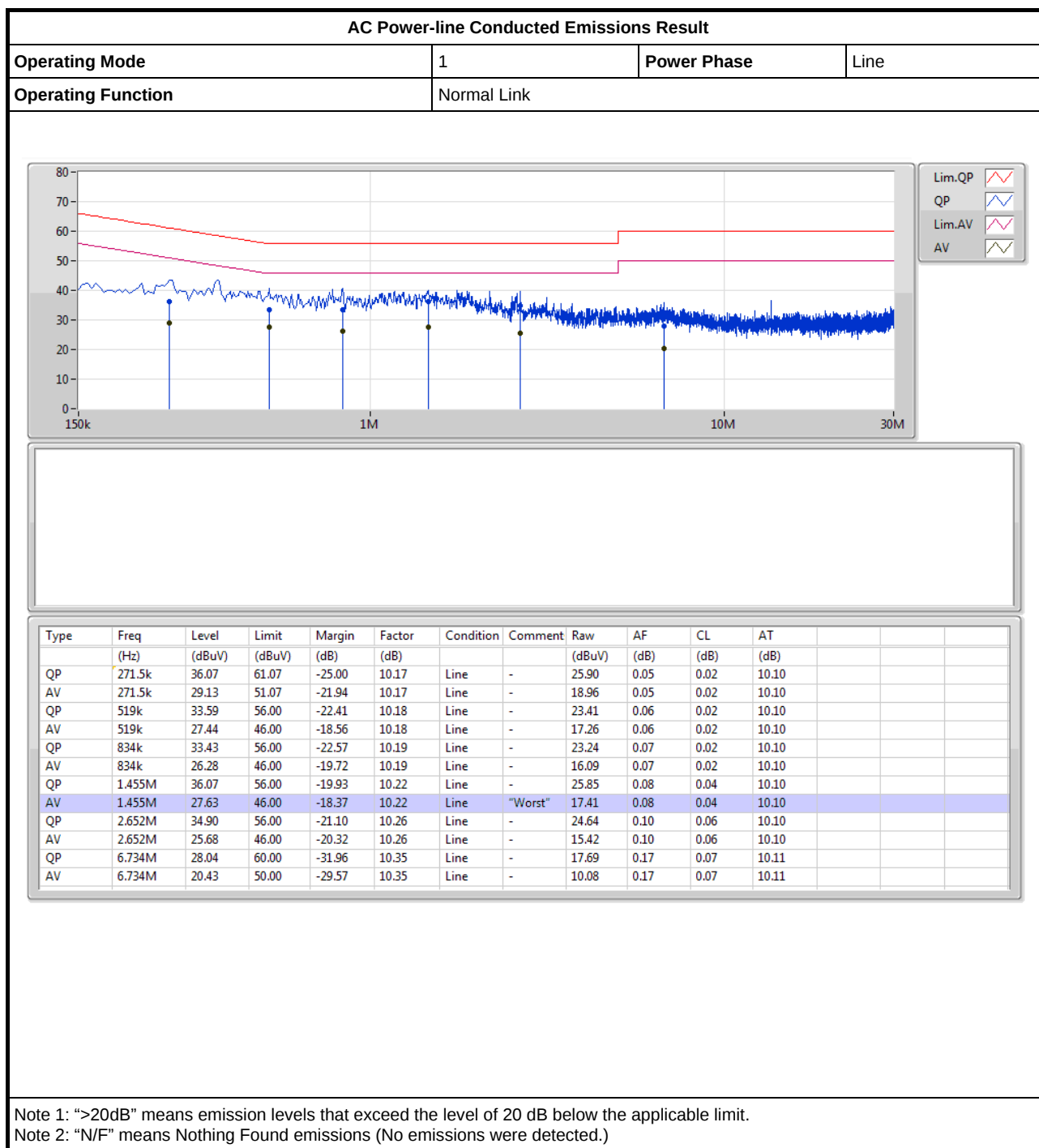


Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz ~26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz ~26.5 GHz	Nov. 18, 2019	Nov. 17, 2020	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH01-CB)

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

N.C.R. means Non-Calibration required.





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.56M	19.61M	19M6D1D	16.29M	16.972M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.99M	20.09M	20M1D1D	18.78M	19.07M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.68M	41.499M	41M5D1D	37.2M	37.661M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.52M	77.361M	77M4D1D	77.04M	77.121M
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	19.02M	19.04M	19M0D1D	18.81M	18.981M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	37.62M	37.901M	37M9D1D	37.32M	37.601M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	76.68M	77.121M	77M1D1D	75.48M	77.001M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

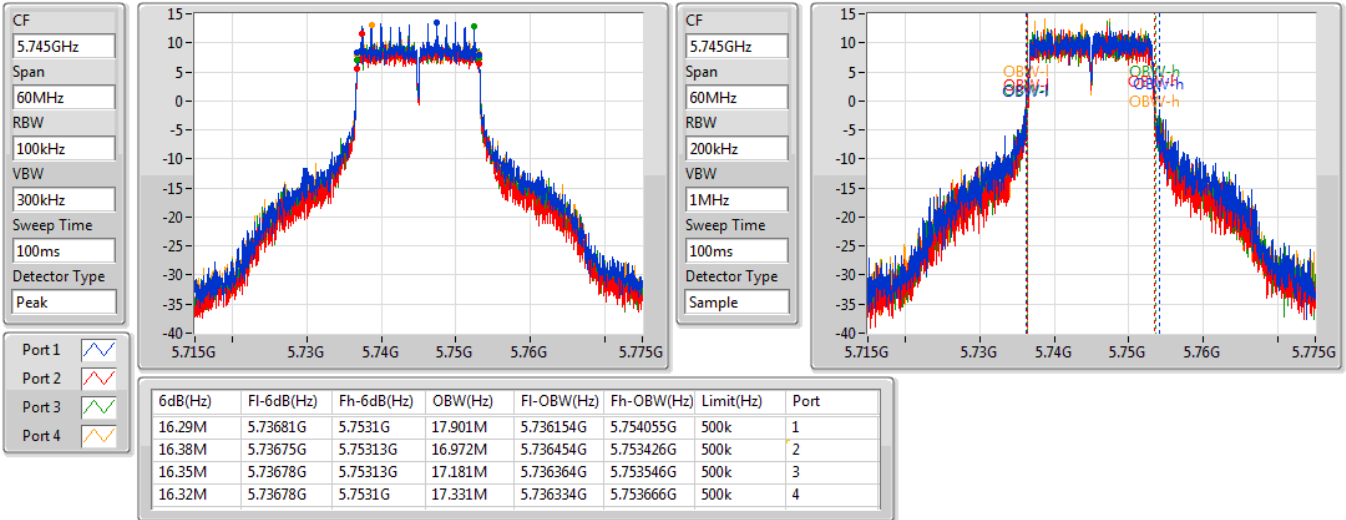
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	16.29M	17.901M	16.38M	16.972M	16.35M	17.181M	16.32M	17.331M
5785MHz	Pass	500k	16.32M	19.01M	16.29M	17.571M	16.32M	17.511M	16.5M	19.16M
5825MHz	Pass	500k	16.29M	19.61M	16.56M	19.31M	16.32M	17.931M	16.32M	19.01M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	18.9M	19.22M	18.84M	19.07M	18.93M	19.1M	18.84M	19.19M
5785MHz	Pass	500k	18.9M	19.43M	18.84M	19.22M	18.99M	19.13M	18.84M	19.49M
5825MHz	Pass	500k	18.9M	19.49M	18.78M	20.09M	18.84M	19.22M	18.81M	19.64M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.44M	37.781M	37.56M	37.721M	37.62M	37.661M	37.5M	37.781M
5795MHz	Pass	500k	37.2M	38.441M	37.56M	40.36M	37.68M	37.961M	37.56M	41.499M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	77.04M	77.241M	77.52M	77.121M	77.28M	77.121M	77.28M	77.361M
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	19.02M	19.01M	18.87M	19.01M	18.84M	18.981M	18.96M	19.04M
5785MHz	Pass	500k	18.93M	19.01M	18.9M	19.04M	18.99M	19.01M	18.93M	19.01M
5825MHz	Pass	500k	18.99M	19.01M	18.84M	19.04M	18.81M	18.981M	18.93M	19.01M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.32M	37.661M	37.62M	37.661M	37.56M	37.661M	37.5M	37.721M
5795MHz	Pass	500k	37.32M	37.661M	37.44M	37.901M	37.56M	37.601M	37.5M	37.781M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.68M	77.121M	76.44M	77.001M	76.56M	77.121M	75.48M	77.121M

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

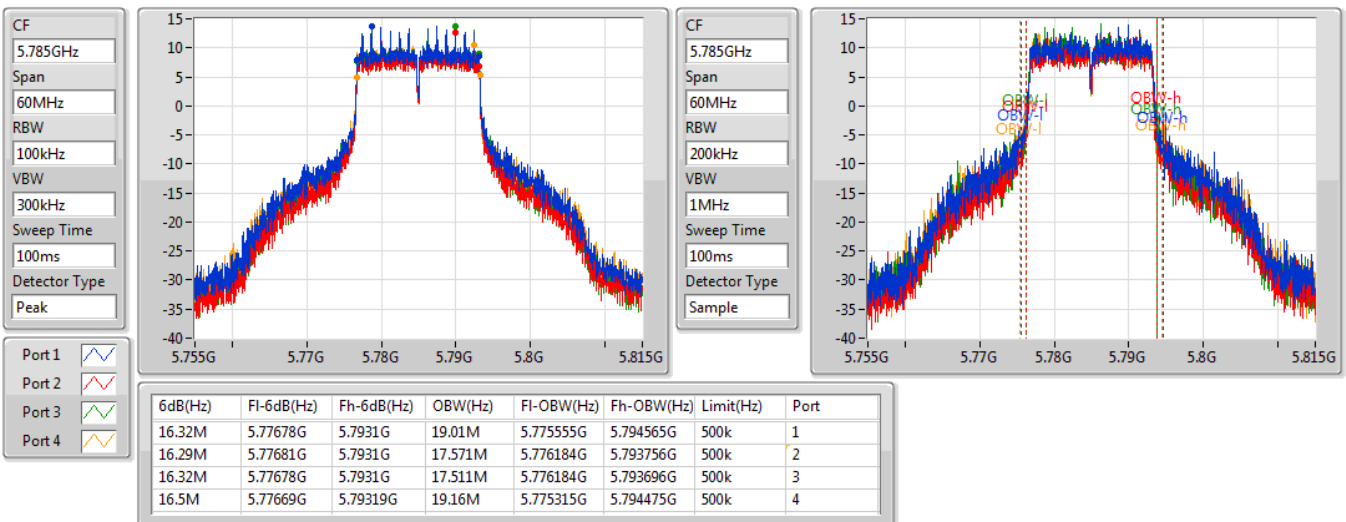
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

12/11/2019


802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

12/11/2019

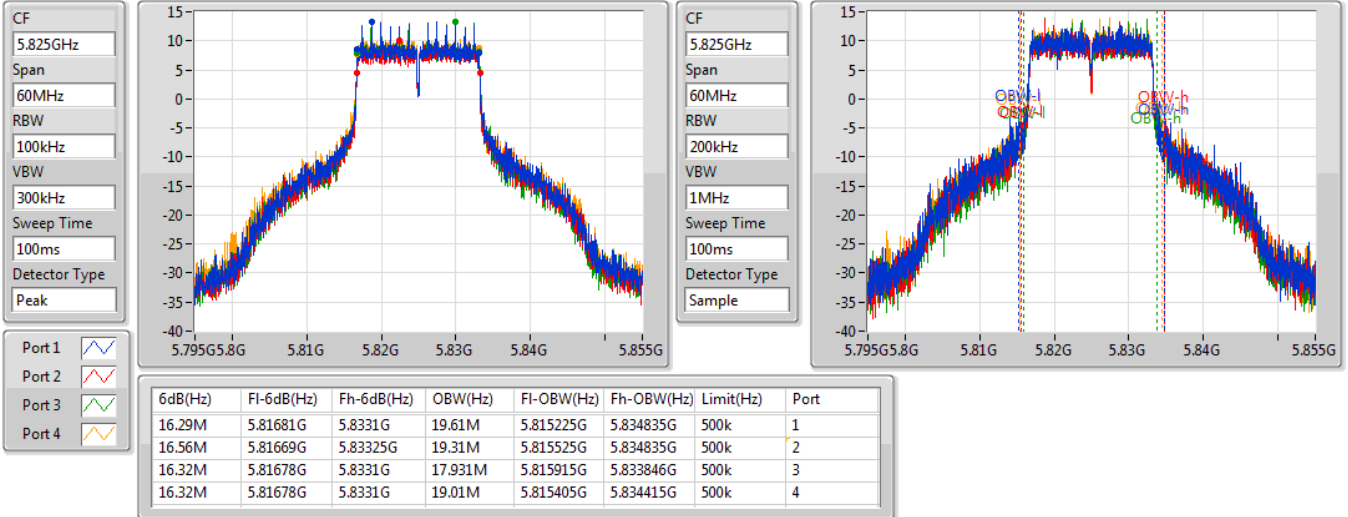


802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

12/11/2019

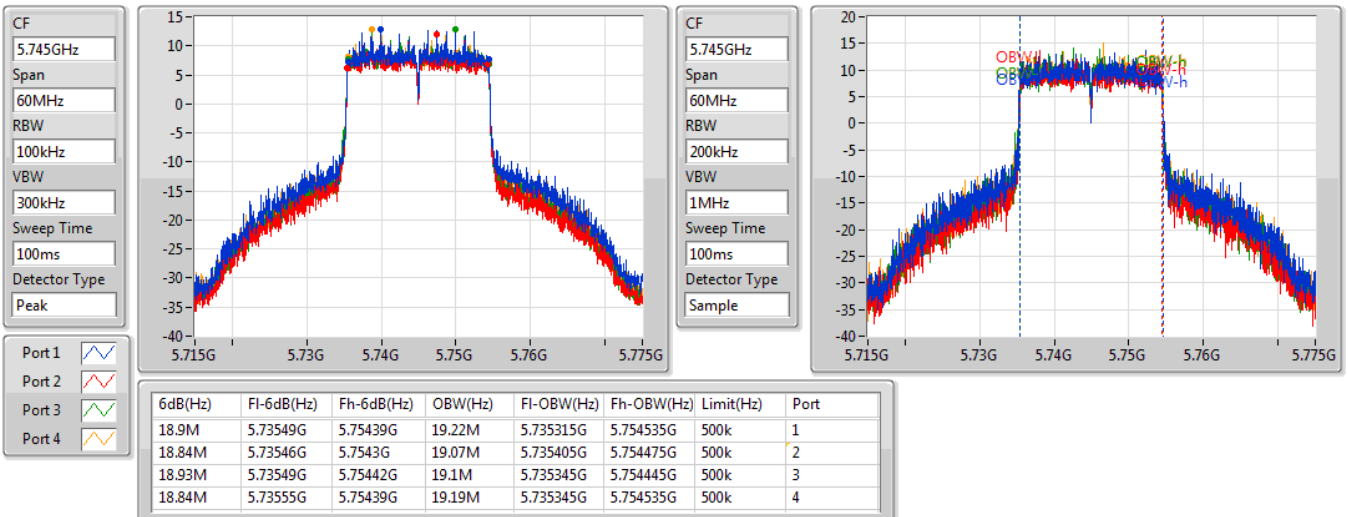


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

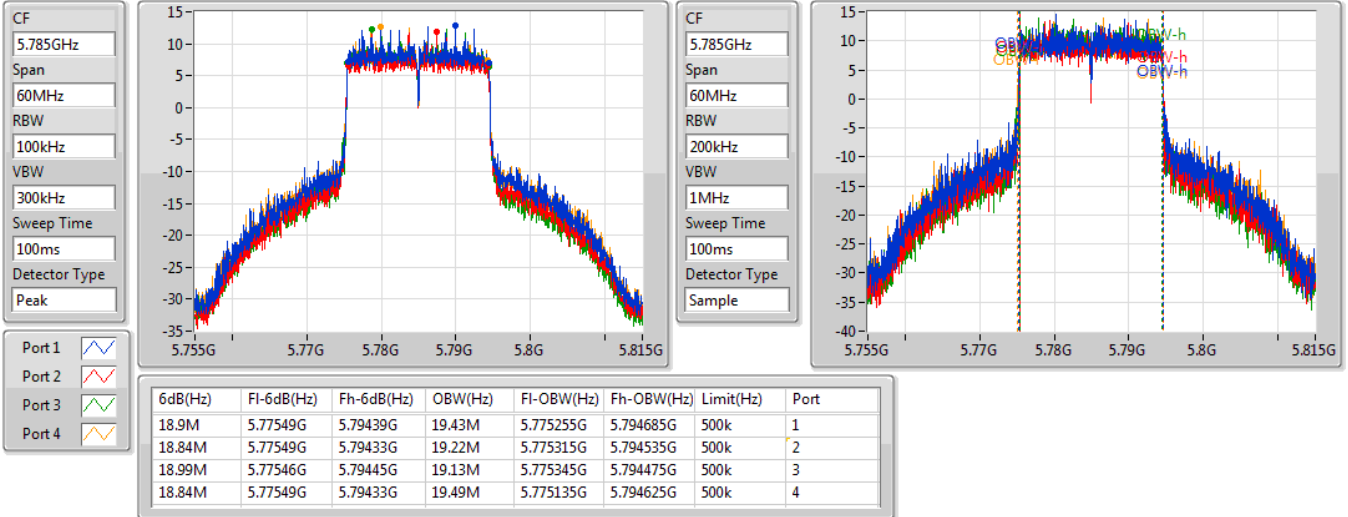
5745MHz

12/11/2019

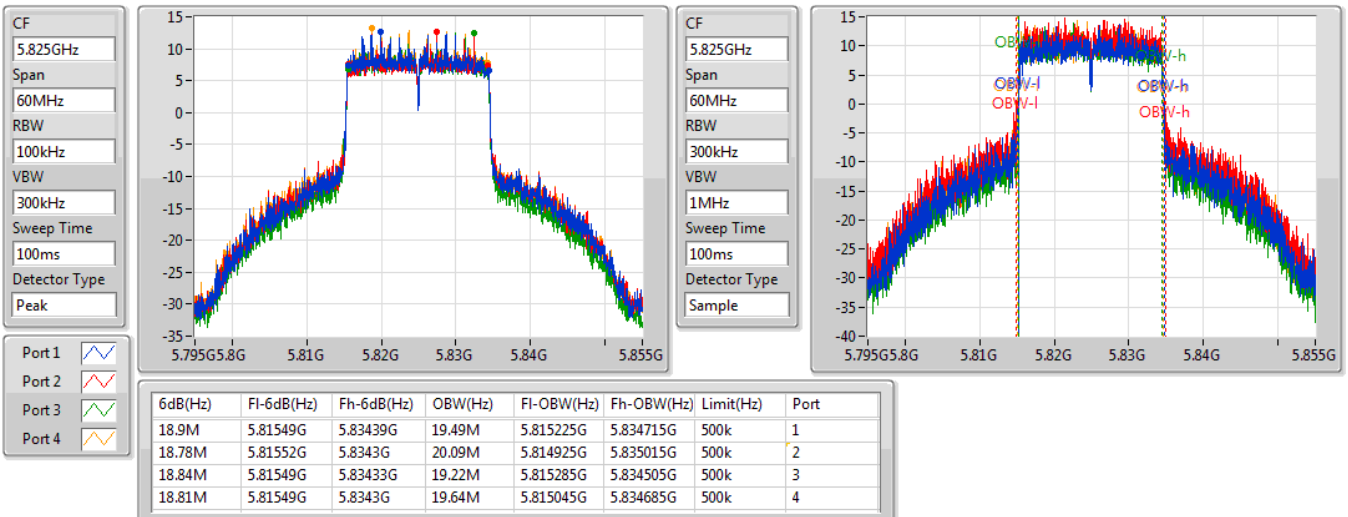


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5785MHz

12/11/2019

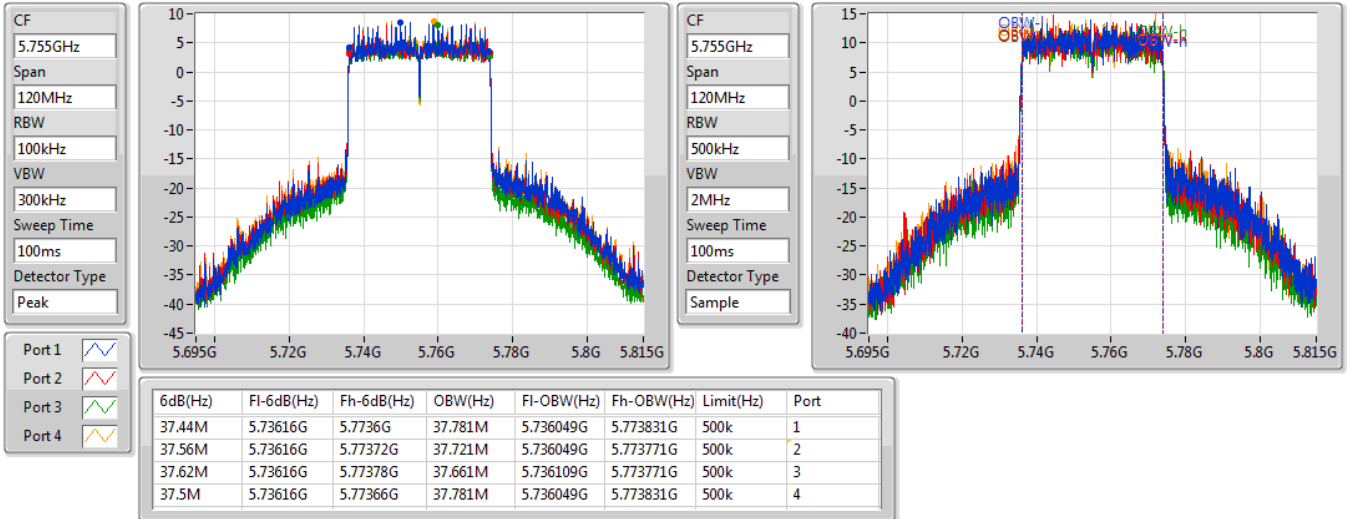

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5825MHz

12/11/2019

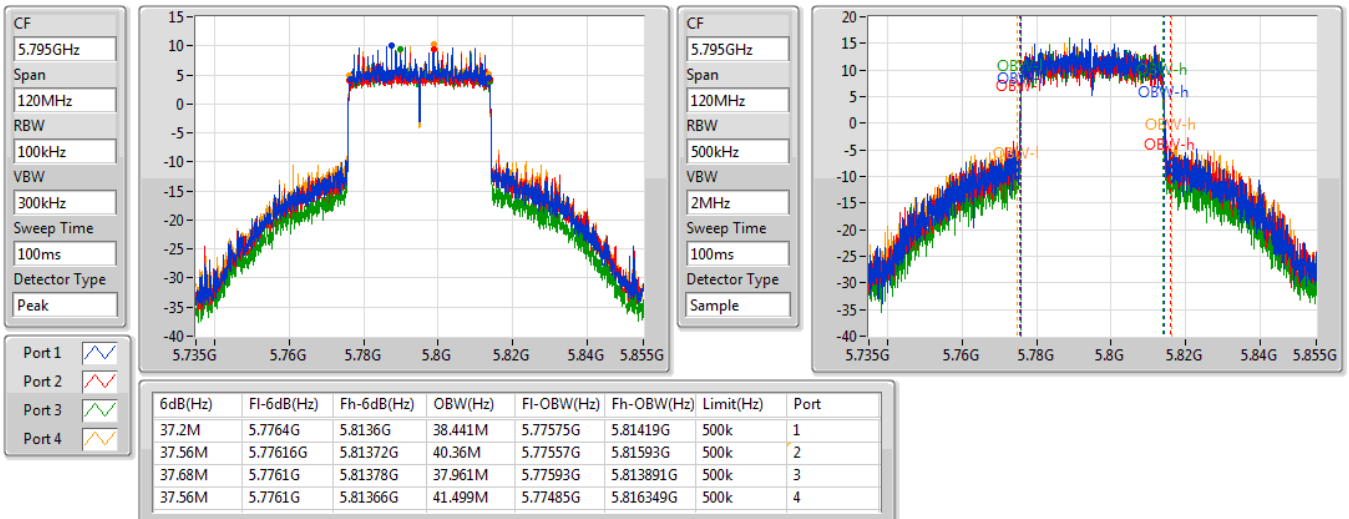


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5755MHz

12/11/2019

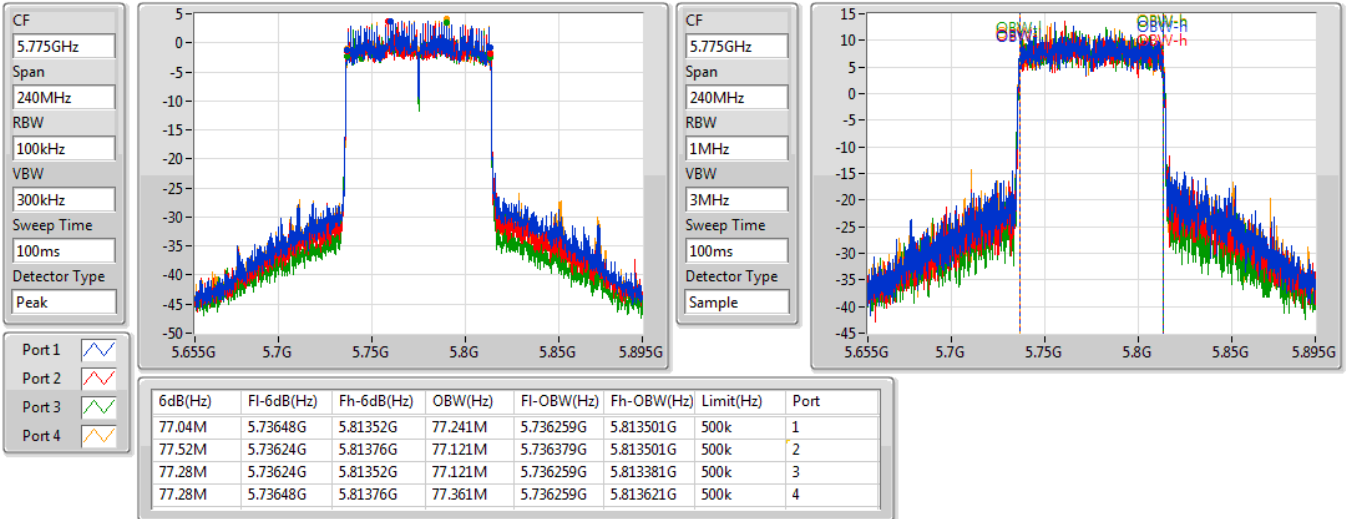

802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5795MHz

12/11/2019

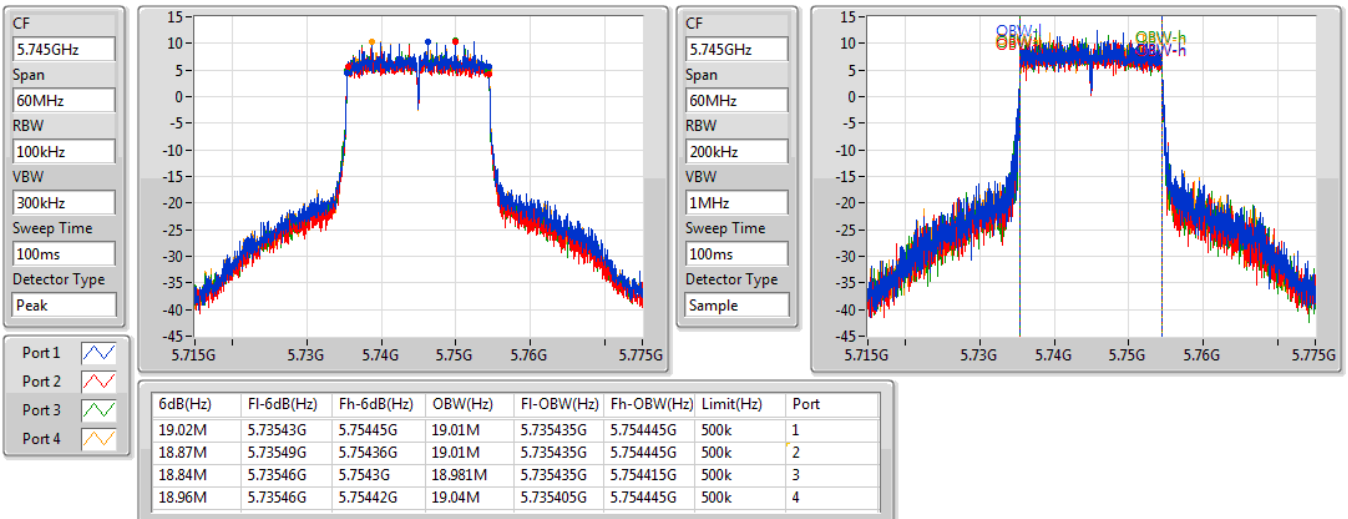


802.11ax HEW80_Nss1,(MCS0)_4TX
EBW
5775MHz

02/12/2019

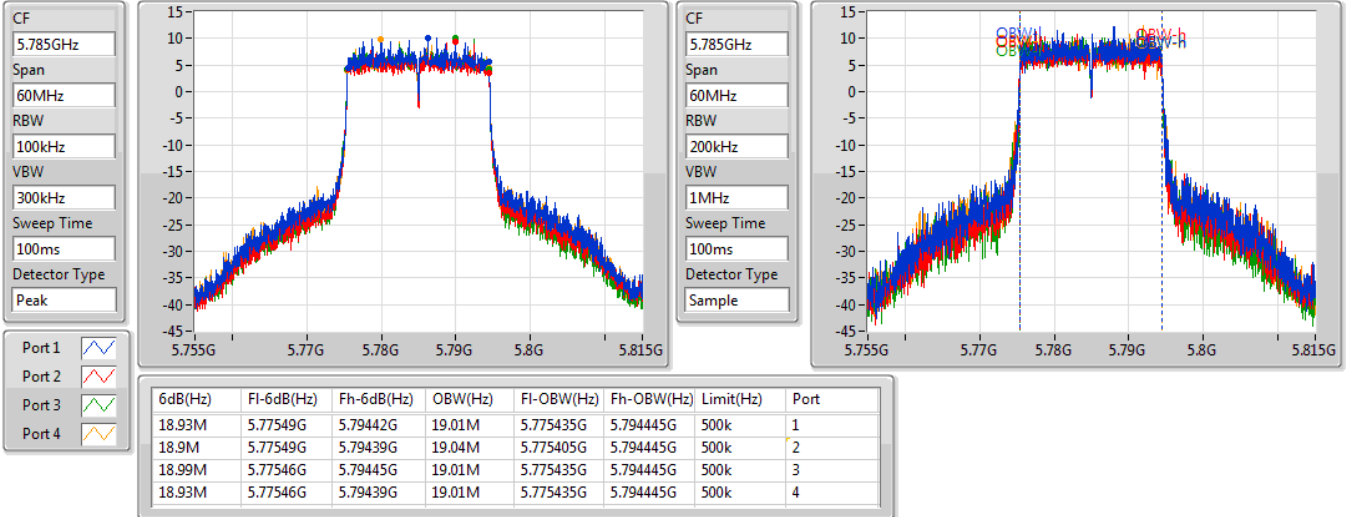

802.11ax HEW20-BF_Nss1,(MCS0)_4TX
EBW
5745MHz

12/11/2019

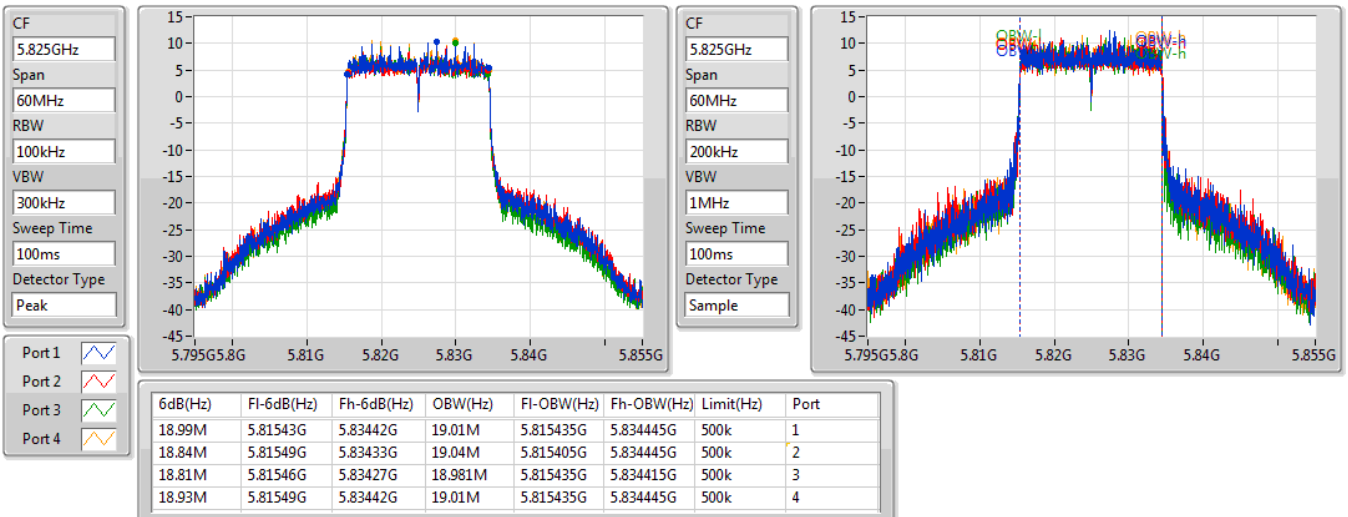


802.11ax HEW20-BF_Nss1,(MCS0)_4TX
EBW
5785MHz

12/11/2019

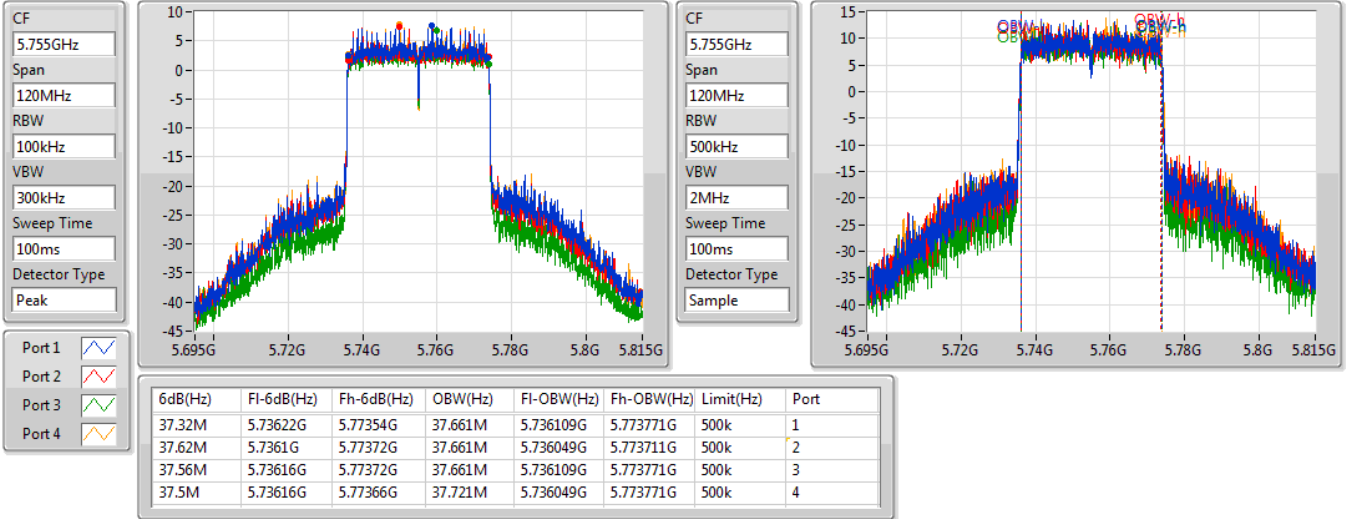

802.11ax HEW20-BF_Nss1,(MCS0)_4TX
EBW
5825MHz

12/11/2019

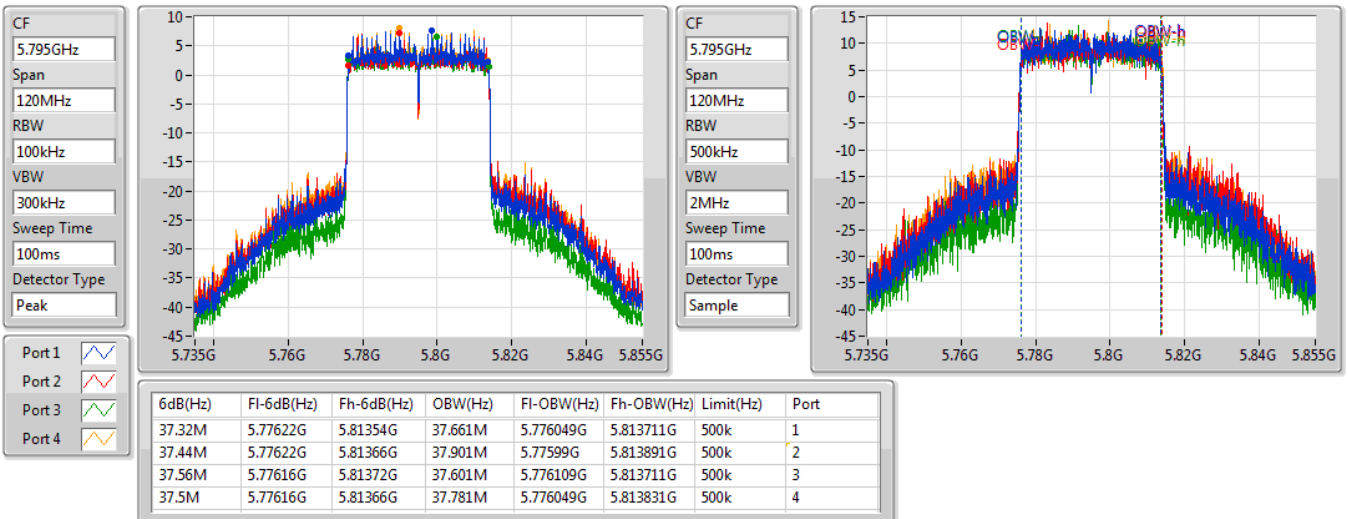


802.11ax HEW40-BF_Nss1,(MCS0)_4TX
EBW
5755MHz

12/11/2019


802.11ax HEW40-BF_Nss1,(MCS0)_4TX
EBW
5795MHz

12/11/2019

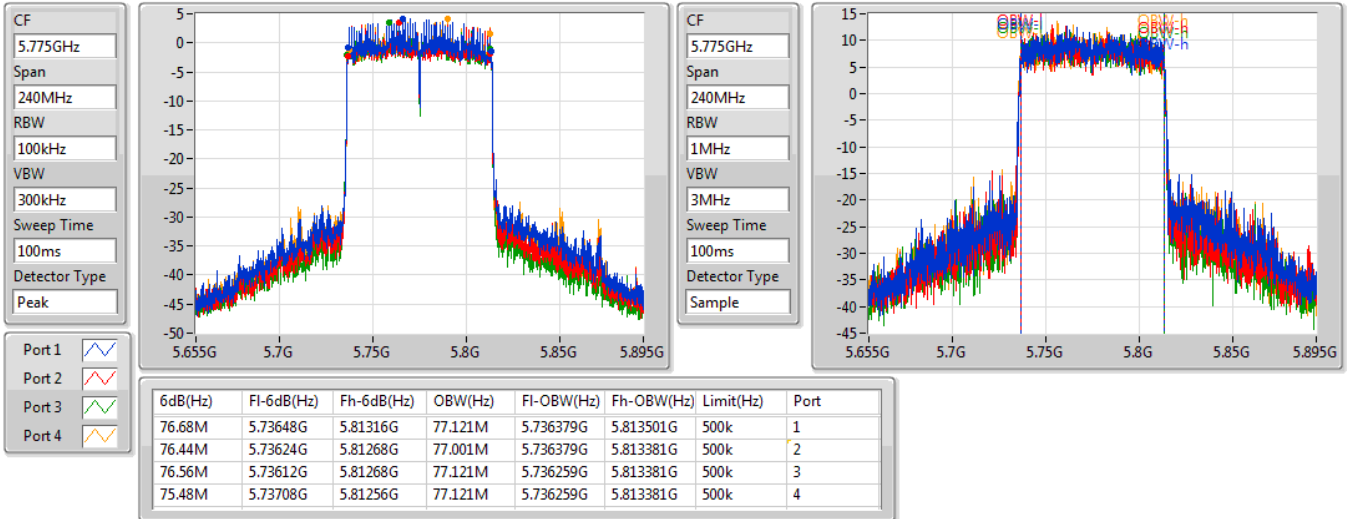


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz

09/01/2020



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	18.93M	20.75M	20M7D1D	18.66M	19.1M
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	37.56M	38.681M	38M7D1D	37.38M	37.781M
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	77.16M	77.361M	77M4D1D	75.48M	77.241M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

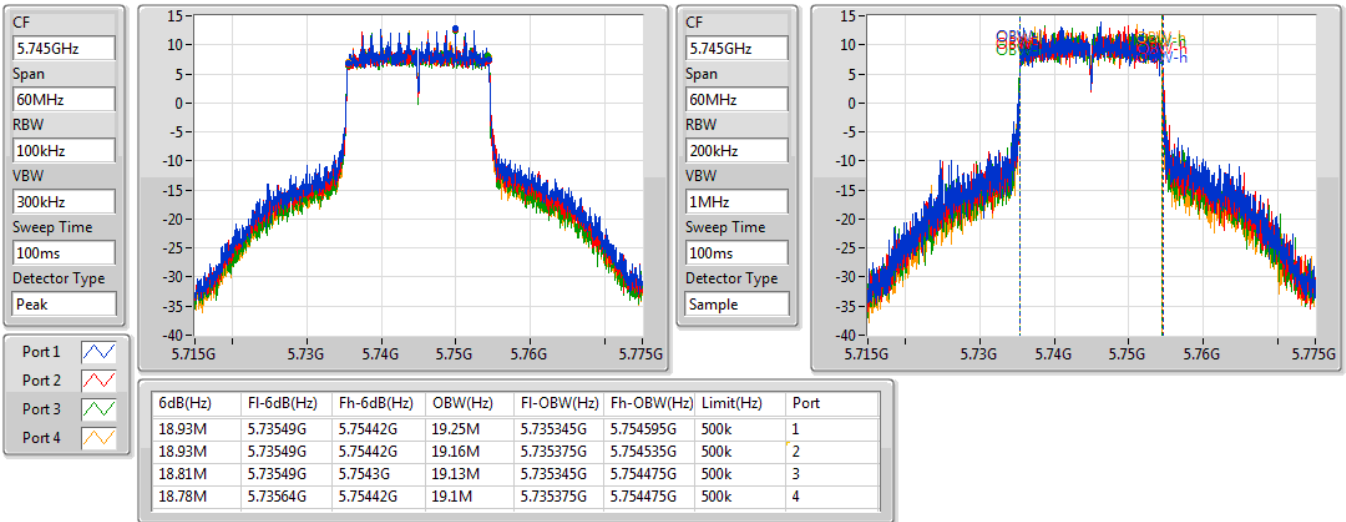
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	18.93M	19.25M	18.93M	19.16M	18.81M	19.13M	18.78M	19.1M
5785MHz	Pass	500k	18.87M	19.4M	18.78M	19.37M	18.66M	19.13M	18.87M	19.16M
5825MHz	Pass	500k	18.87M	19.52M	18.78M	19.94M	18.81M	19.31M	18.72M	20.75M
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.44M	38.201M	37.5M	38.141M	37.56M	37.781M	37.38M	38.021M
5795MHz	Pass	500k	37.5M	38.501M	37.56M	38.681M	37.5M	37.841M	37.38M	38.381M
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.68M	77.361M	76.44M	77.241M	77.16M	77.241M	75.48M	77.241M

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

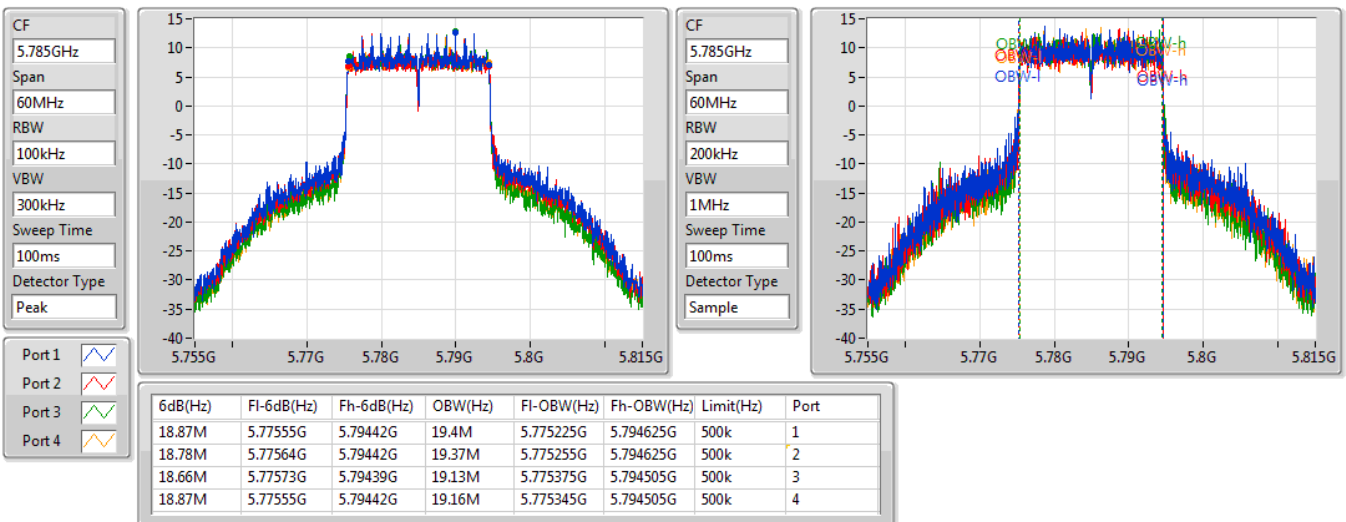
Port X-OBW = Port X 99% occupied bandwidth;

802.11ax HEW20-BF_Nss2,(MCS0)_4TX
EBW
5745MHz

14/11/2019

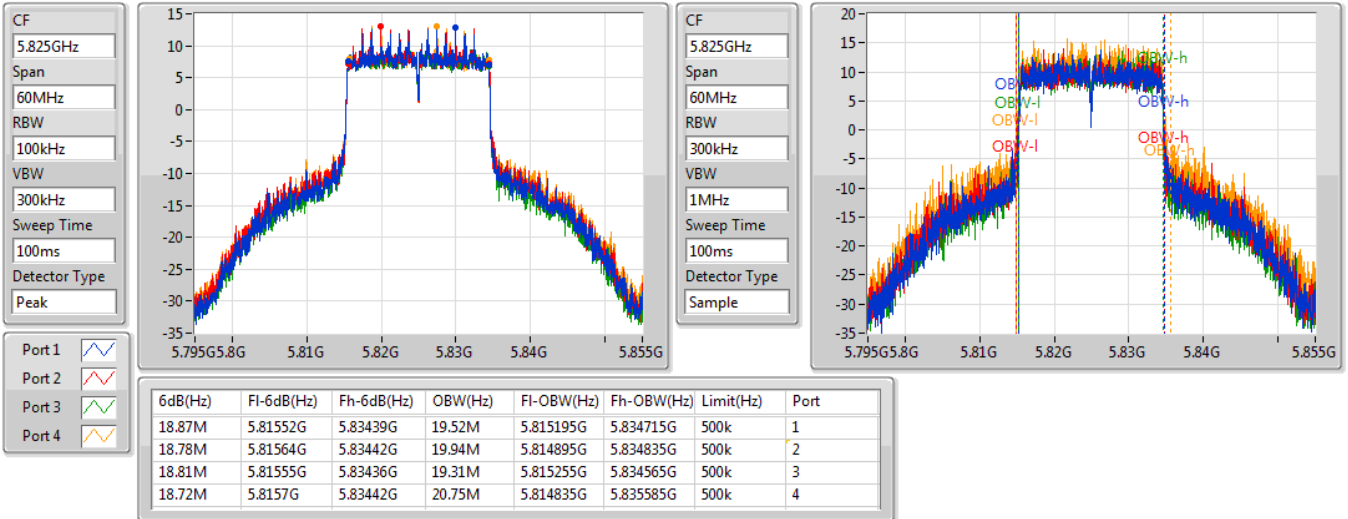

802.11ax HEW20-BF_Nss2,(MCS0)_4TX
EBW
5785MHz

14/11/2019

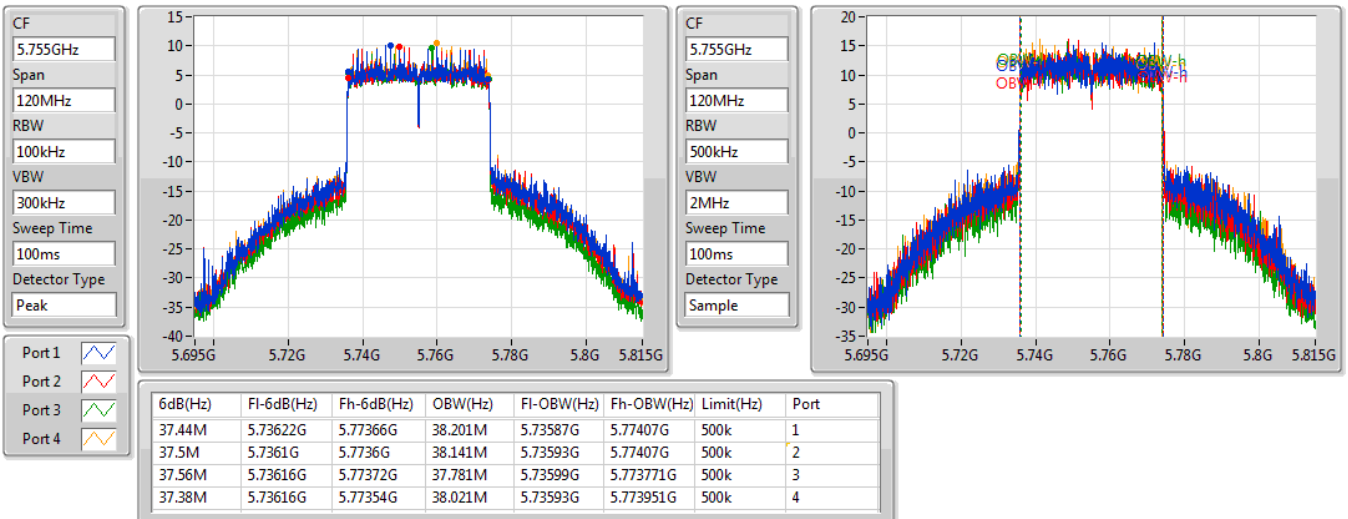


802.11ax HEW20-BF_Nss2,(MCS0)_4TX
EBW
5825MHz

14/11/2019


802.11ax HEW40-BF_Nss2,(MCS0)_4TX
EBW
5755MHz

14/11/2019

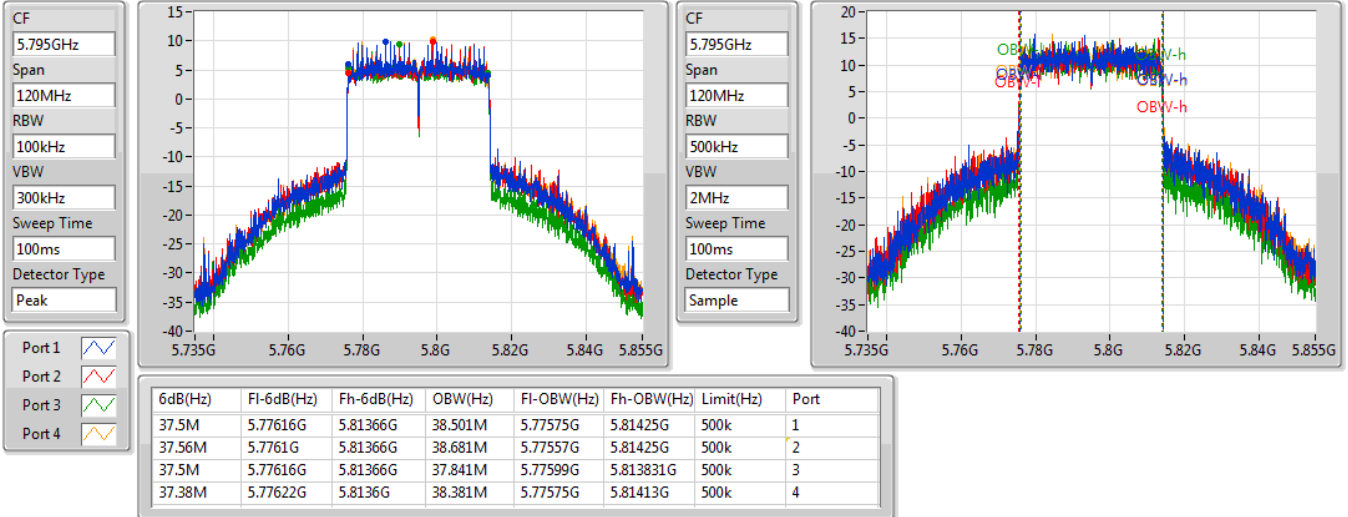


802.11ax HEW40-BF_Nss2,(MCS0)_4TX

EBW

5795MHz

14/11/2019

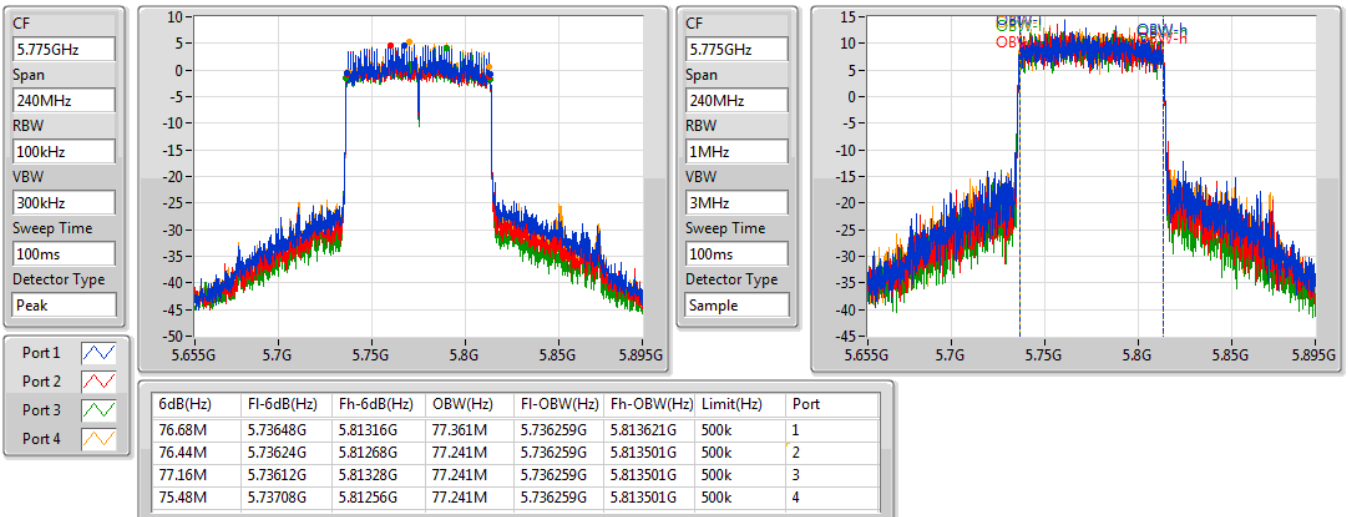


802.11ax HEW80-BF_Nss2,(MCS0)_4TX

EBW

5775MHz

09/01/2020



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW80_Nss4,(MCS0)_4TX	76.92M	77.4M	77M4D1D	76.32M	77.28M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW80_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.8M	77.28M	76.92M	77.4M	76.32M	77.4M	76.32M	77.28M

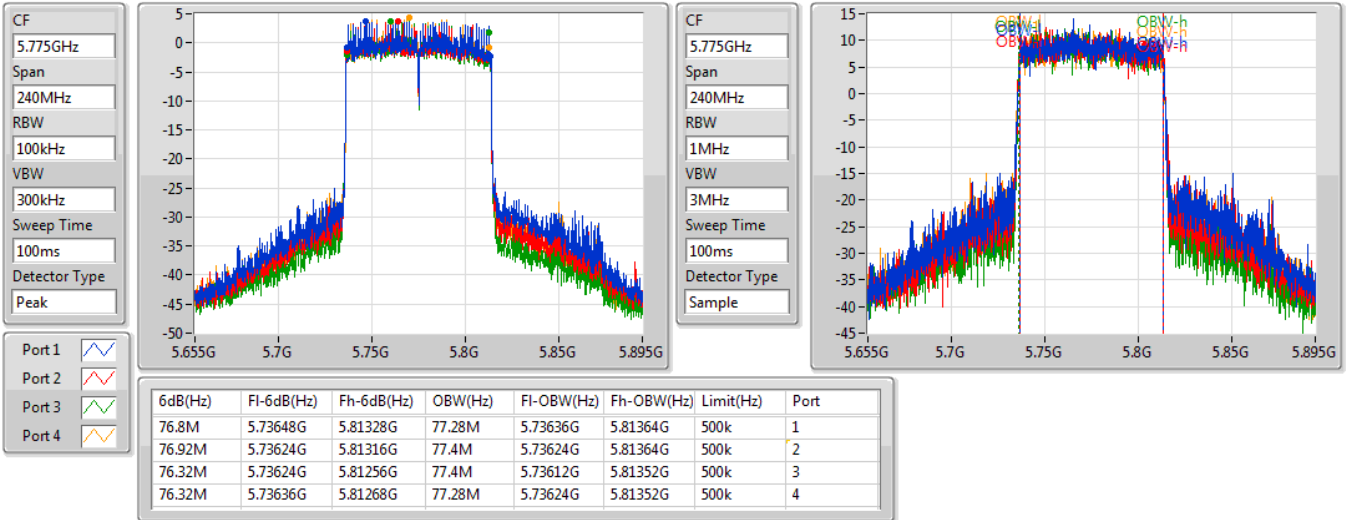
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11ax HEW80_Nss4,(MCS0)_4TX

EBW

5775MHz

17/02/2020





Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.85	0.96605
802.11ax HEW20_Nss1,(MCS0)_4TX	29.90	0.97724
802.11ax HEW40_Nss1,(MCS0)_4TX	29.82	0.95940
802.11ax HEW80_Nss1,(MCS0)_4TX	27.32	0.53951
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.99	0.62951
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	28.05	0.63826
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	26.94	0.49431

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	1.90	24.11	23.26	23.80	24.01	29.83	30.00
5785MHz	Pass	1.90	24.17	23.25	23.86	23.92	29.83	30.00
5825MHz	Pass	1.90	24.00	23.42	23.75	24.12	29.85	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	1.90	24.26	23.33	23.83	24.05	29.90	30.00
5785MHz	Pass	1.90	24.23	23.26	23.86	24.02	29.88	30.00
5825MHz	Pass	1.90	23.84	23.50	23.64	24.21	29.83	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	1.90	23.15	22.86	22.72	23.25	29.02	30.00
5795MHz	Pass	1.90	24.09	23.44	23.58	24.06	29.82	30.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	1.90	21.36	21.14	21.26	21.45	27.32	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	7.92	22.17	21.73	21.99	21.98	27.99	28.08
5785MHz	Pass	7.92	22.05	21.52	21.71	21.89	27.82	28.08
5825MHz	Pass	7.92	21.88	21.78	21.89	21.98	27.90	28.08
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	7.92	22.26	21.94	21.59	22.28	28.05	28.08
5795MHz	Pass	7.92	22.23	21.91	21.46	22.38	28.03	28.08
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	7.92	21.10	20.77	20.72	21.09	26.94	28.08

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



Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	29.94	0.98628
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	29.99	0.99770
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	27.77	0.59841



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	4.91	24.10	23.72	23.90	23.93	29.94	30.00
5785MHz	Pass	4.91	23.93	23.76	23.92	23.88	29.89	30.00
5825MHz	Pass	4.91	23.87	23.94	23.77	23.85	29.88	30.00
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	4.91	24.04	24.00	23.48	24.33	29.99	30.00
5795MHz	Pass	4.91	24.16	23.87	23.59	24.15	29.97	30.00
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	4.91	21.79	21.72	21.43	22.05	27.77	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ax HEW80_Nss4,(MCS0)_4TX	27.43	0.55335



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW80_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	1.90	21.57	21.24	21.32	21.51	27.43	30.00

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

Summary

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.47
802.11ax HEW20_Nss1,(MCS0)_4TX	14.92
802.11ax HEW40_Nss1,(MCS0)_4TX	12.02
802.11ax HEW80_Nss1,(MCS0)_4TX	6.69
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	13.17
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	10.45
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	6.56

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	7.92	9.76	9.23	9.42	9.74	15.47	28.08
5785MHz	Pass	7.92	9.89	8.88	9.39	9.60	15.38	28.08
5825MHz	Pass	7.92	9.73	9.16	9.40	9.87	15.41	28.08
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	7.92	9.23	8.49	9.08	9.20	14.90	28.08
5785MHz	Pass	7.92	9.15	8.36	9.05	9.03	14.85	28.08
5825MHz	Pass	7.92	8.97	8.67	8.96	9.30	14.92	28.08
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	7.92	5.39	5.16	5.07	5.51	11.21	28.08
5795MHz	Pass	7.92	6.43	5.68	5.80	6.31	12.02	28.08
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	7.92	0.76	0.60	0.73	0.99	6.69	28.08
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	7.92	7.38	7.02	7.38	7.30	13.17	28.08
5785MHz	Pass	7.92	7.13	6.39	6.90	6.92	12.80	28.08
5825MHz	Pass	7.92	6.99	6.88	7.01	7.16	12.93	28.08
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	7.92	4.62	4.37	4.04	4.79	10.40	28.08
5795MHz	Pass	7.92	4.70	4.32	4.24	4.79	10.45	28.08
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	7.92	0.88	0.58	0.50	0.77	6.56	28.08

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

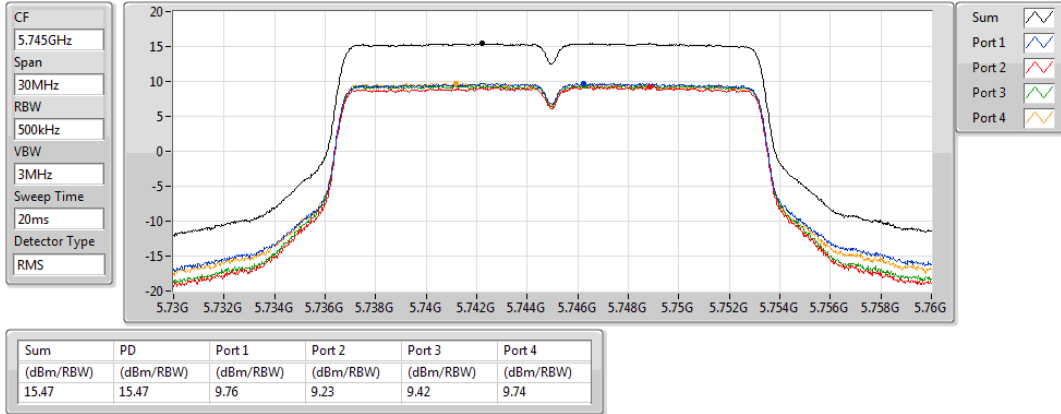
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11a_Nss1,(6Mbps)_4TX

PSD

5745MHz

12/11/2019

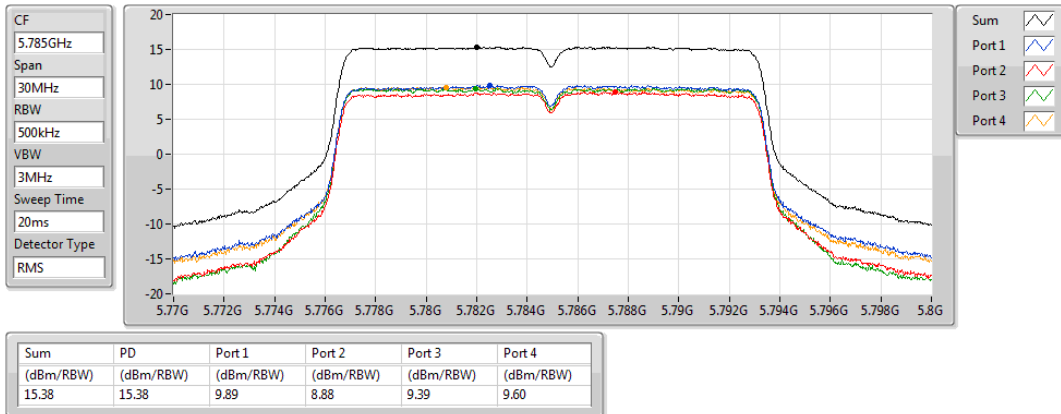


802.11a_Nss1,(6Mbps)_4TX

PSD

5785MHz

12/11/2019

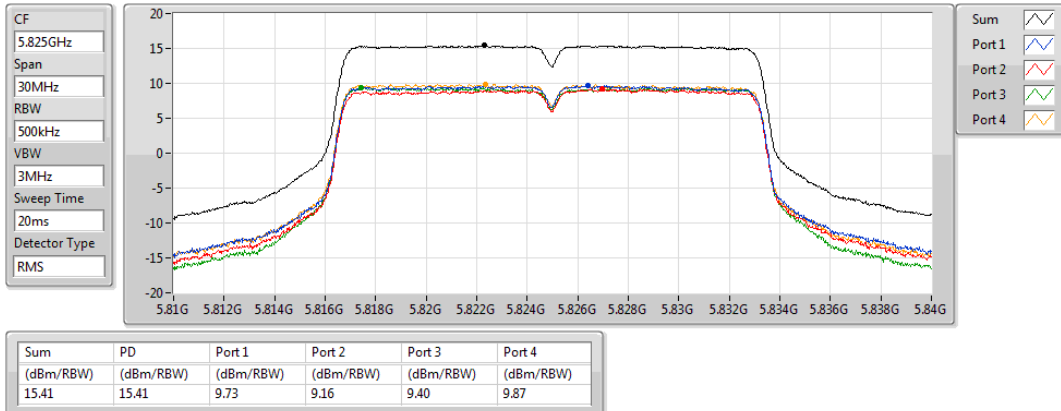


802.11a_Nss1,(6Mbps)_4TX

PSD

5825MHz

12/11/2019

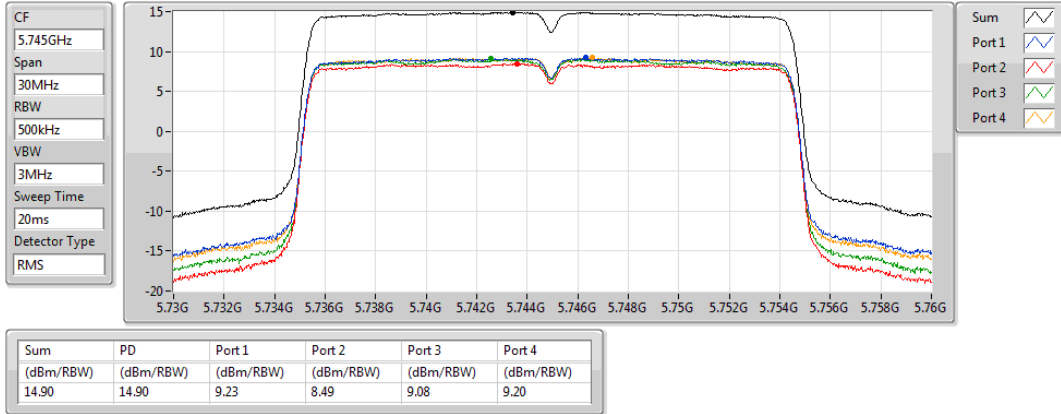


802.11ax HEW20_Nss1,(MCS0)_4TX

PSD

5745MHz

12/11/2019

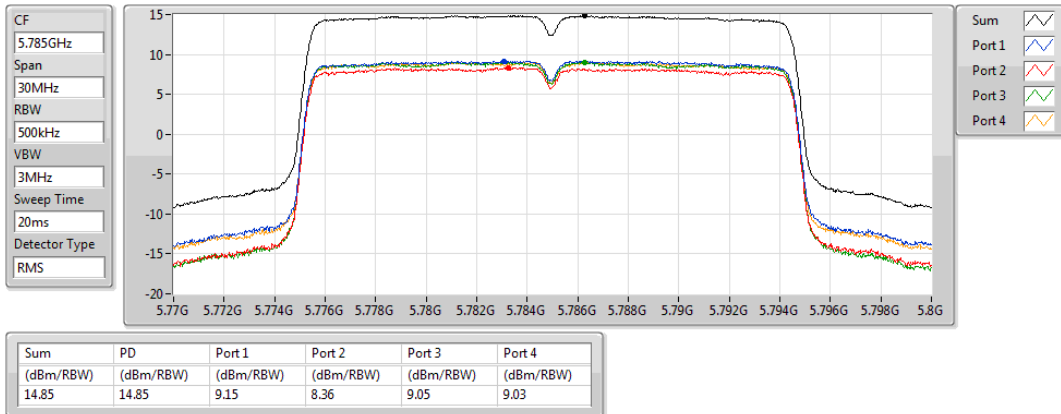


802.11ax HEW20_Nss1,(MCS0)_4TX

PSD

5785MHz

12/11/2019

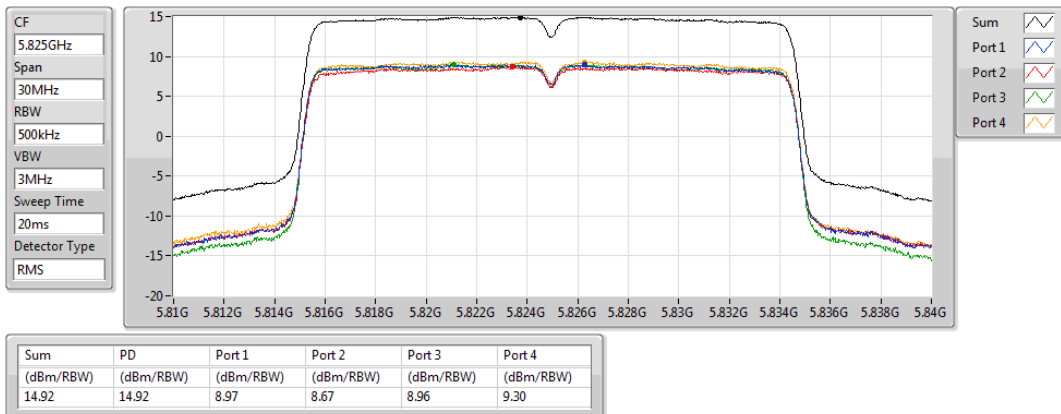


802.11ax HEW20_Nss1,(MCS0)_4TX

PSD

5825MHz

12/11/2019

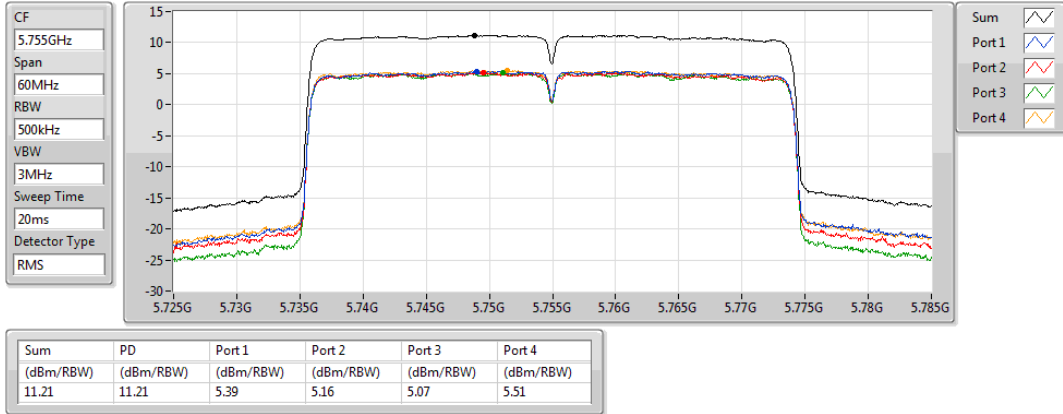


802.11ax HEW40_Nss1,(MCS0)_4TX

PSD

5755MHz

12/11/2019

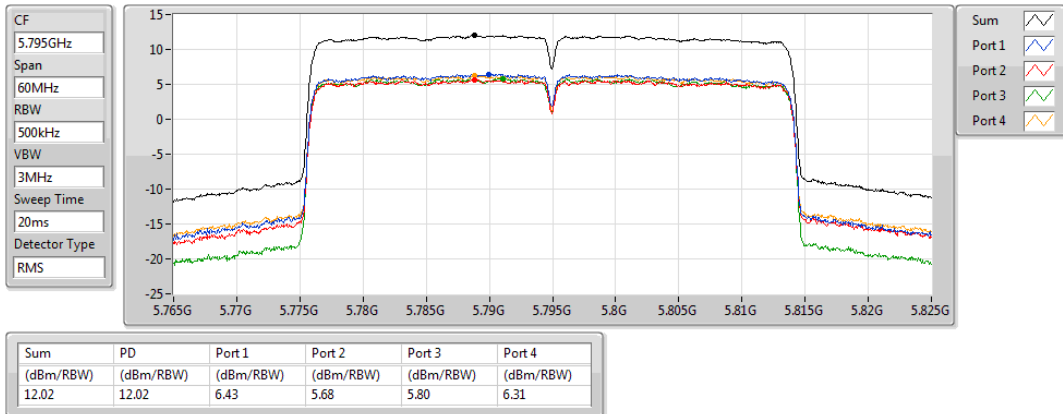


802.11ax HEW40_Nss1,(MCS0)_4TX

PSD

5795MHz

12/11/2019

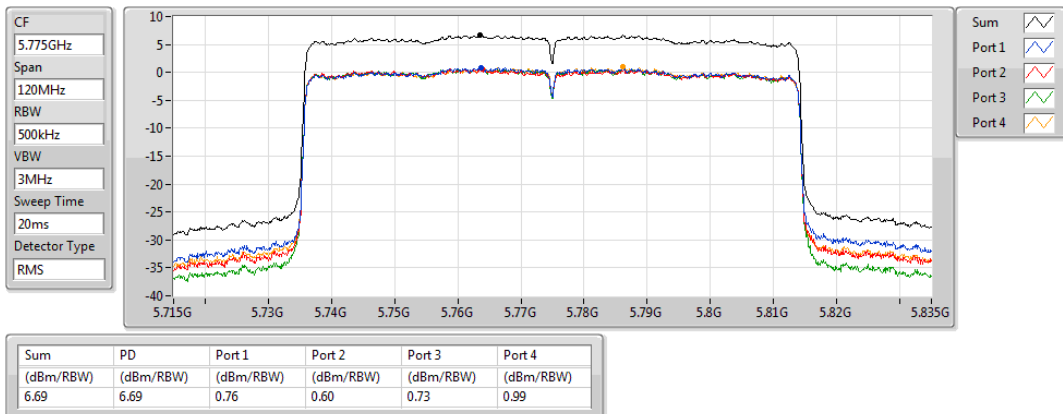


802.11ax HEW80_Nss1,(MCS0)_4TX

PSD

5775MHz

02/12/2019

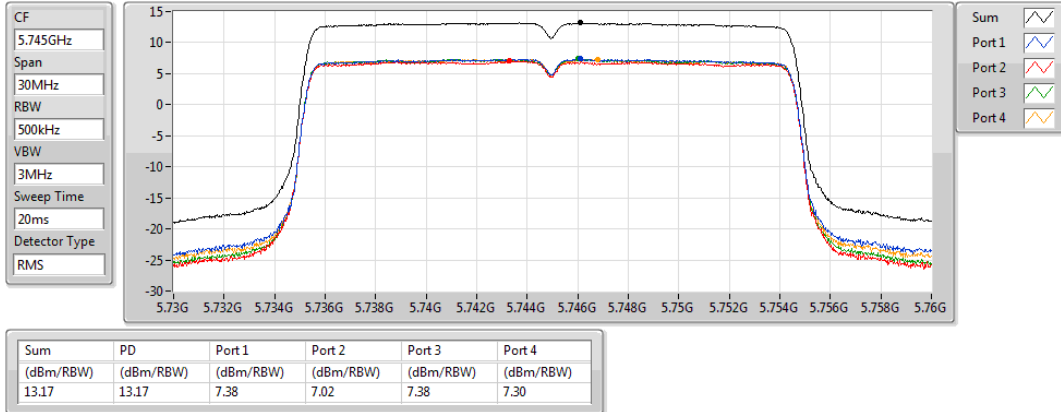


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5745MHz

12/11/2019

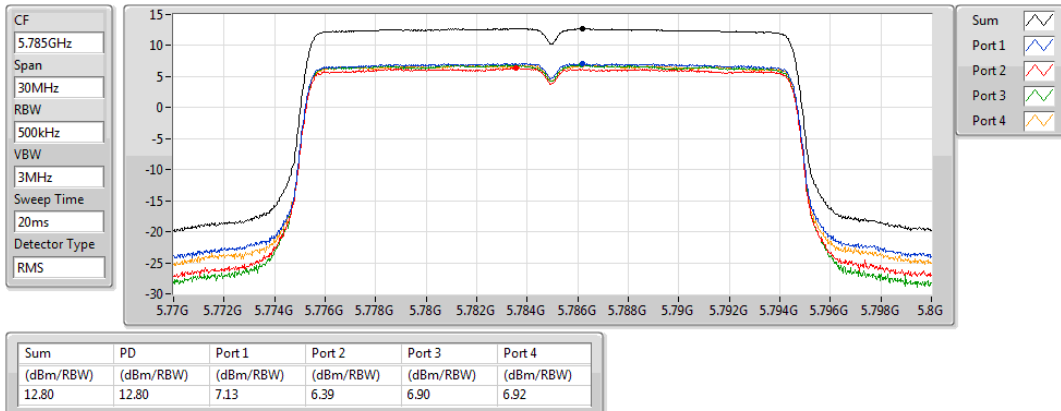


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5785MHz

12/11/2019

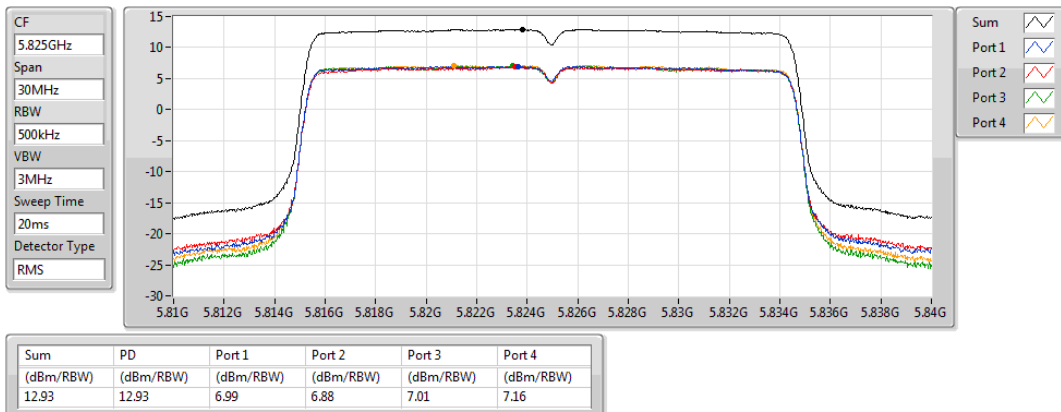


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5825MHz

12/11/2019

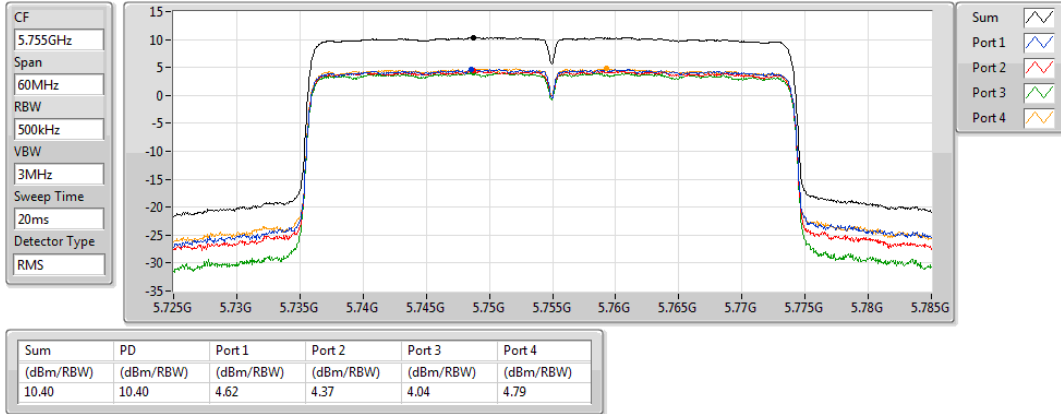


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

PSD

5755MHz

12/11/2019

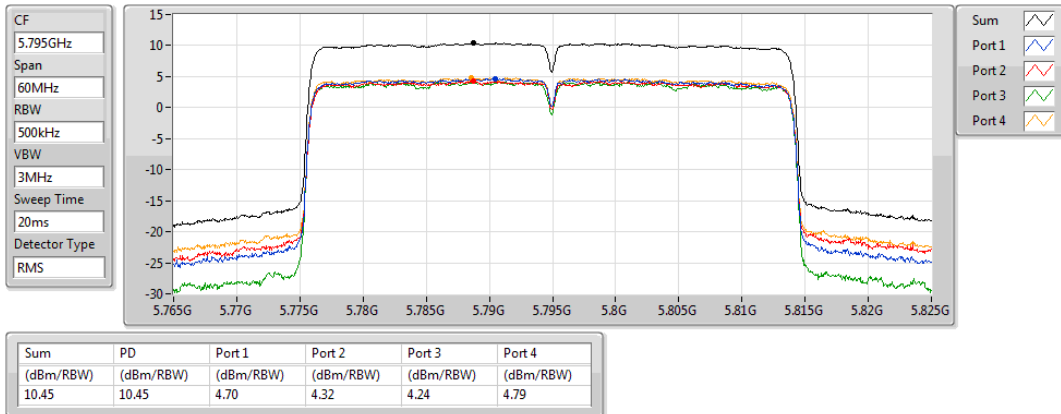


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

PSD

5795MHz

12/11/2019

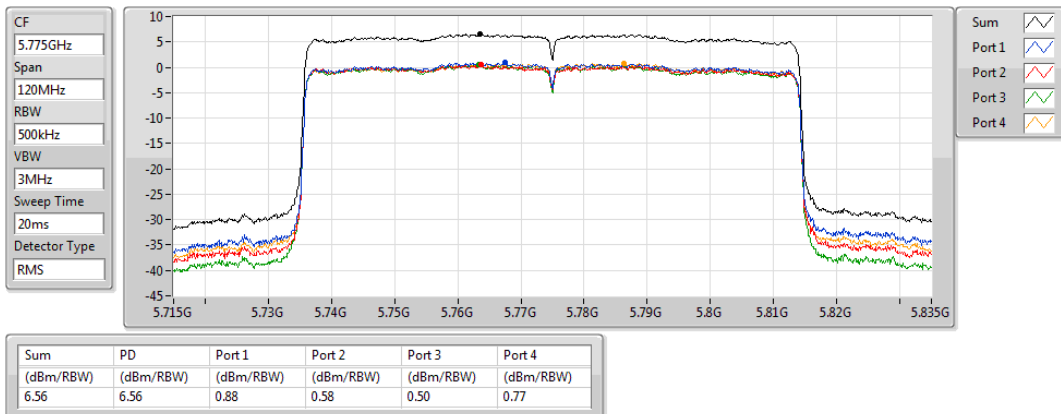


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

PSD

5775MHz

09/01/2020



Summary

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	15.20
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	12.58
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	7.44

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	4.91	9.34	9.14	9.24	9.23	15.20	30.00
5785MHz	Pass	4.91	9.03	8.69	9.11	9.09	14.90	30.00
5825MHz	Pass	4.91	9.24	9.28	9.15	9.14	15.17	30.00
802.11ax HEW40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	4.91	6.38	6.34	6.01	6.86	12.34	30.00
5795MHz	Pass	4.91	6.81	6.53	6.29	6.97	12.58	30.00
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	4.91	1.47	1.39	1.29	1.81	7.44	30.00

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

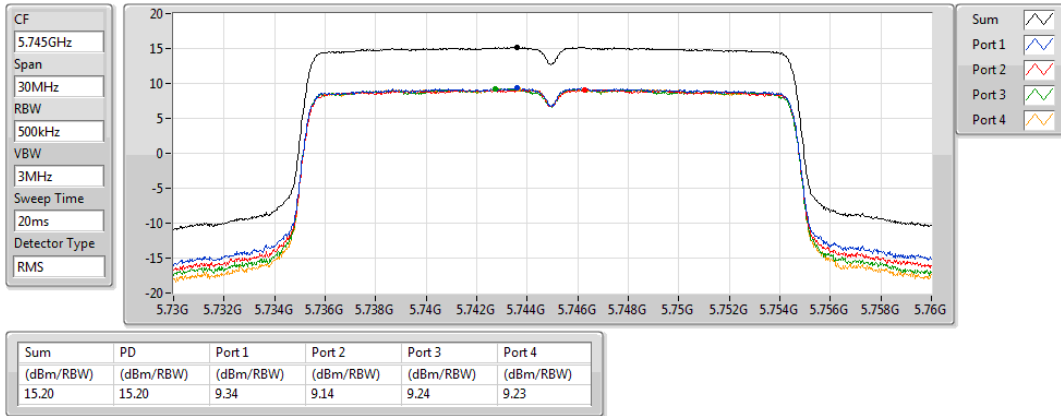
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

PSD

5745MHz

14/11/2019

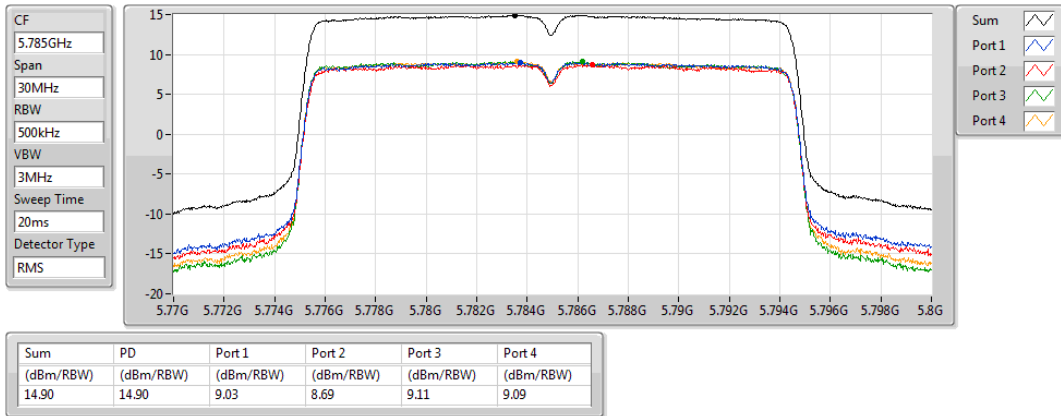


802.11ax HEW20-BF_Nss2,(MCS0)_4TX

PSD

5785MHz

14/11/2019

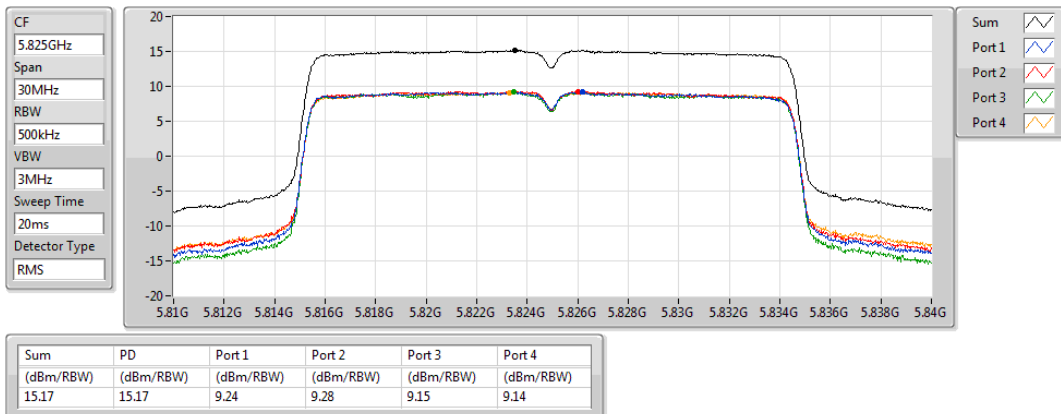


802.11ax HEW20-BF_Nss2,(MCS0)_4TX

PSD

5825MHz

14/11/2019

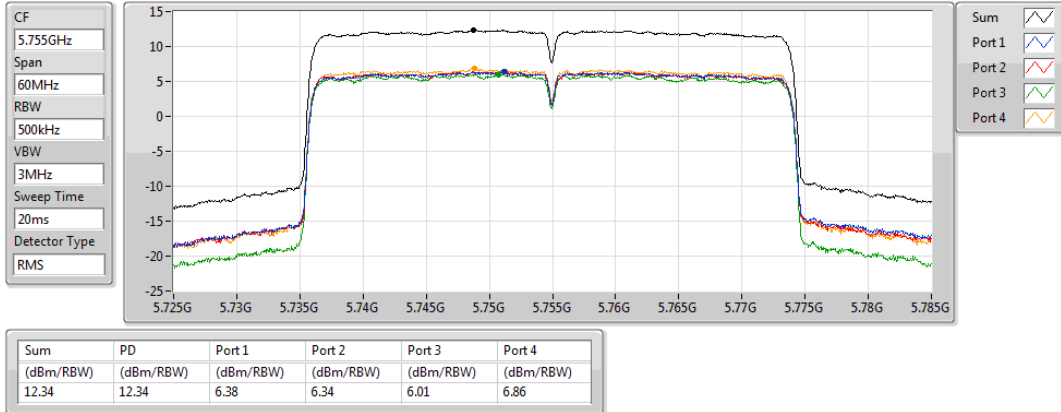


802.11ax HEW40-BF_Nss2,(MCS0)_4TX

PSD

5755MHz

14/11/2019

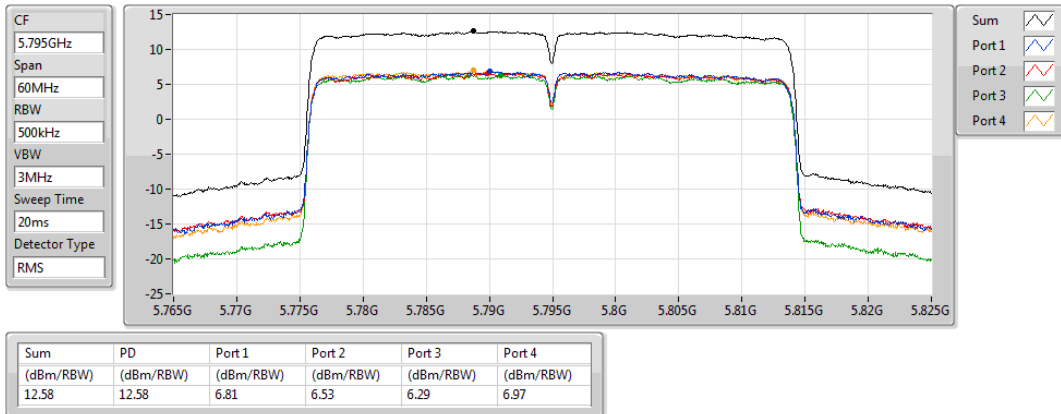


802.11ax HEW40-BF_Nss2,(MCS0)_4TX

PSD

5795MHz

14/11/2019

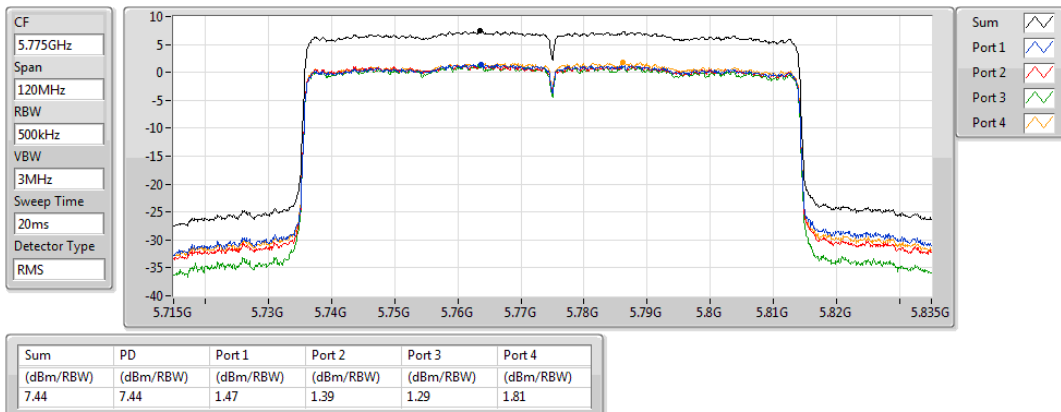


802.11ax HEW80-BF_Nss2,(MCS0)_4TX

PSD

5775MHz

09/01/2020



Summary

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11ax HEW80_Nss4,(MCS0)_4TX	7.42

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ax HEW80_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	1.90	1.33	1.24	1.73	1.34	7.42	30.00

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

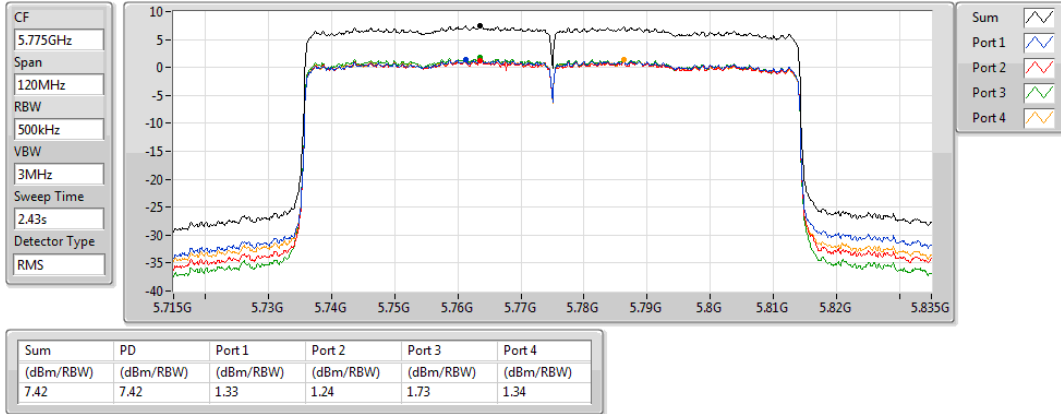
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

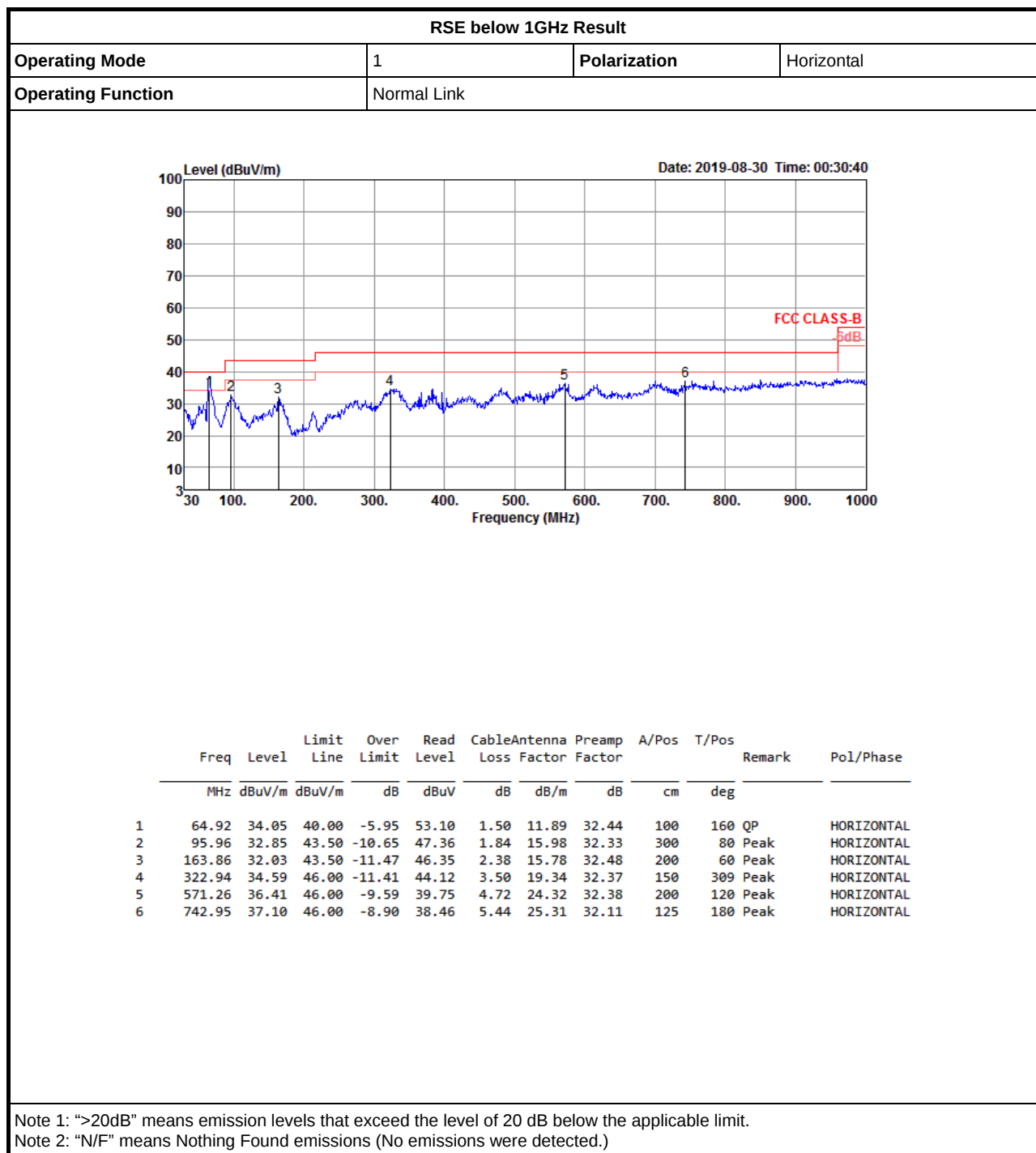
802.11ax HEW80_Nss4,(MCS0)_4TX

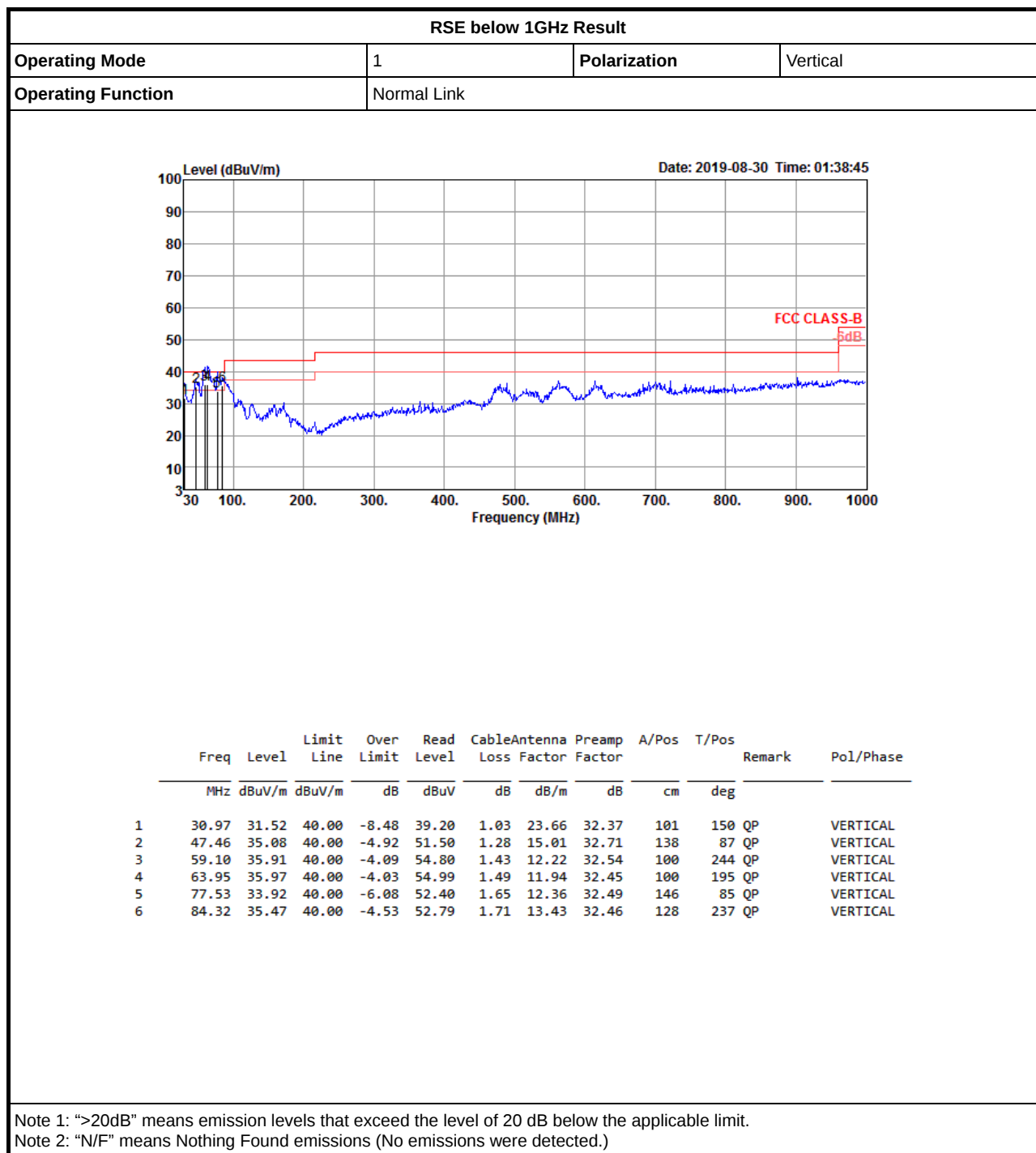
PSD

5775MHz

17/02/2020









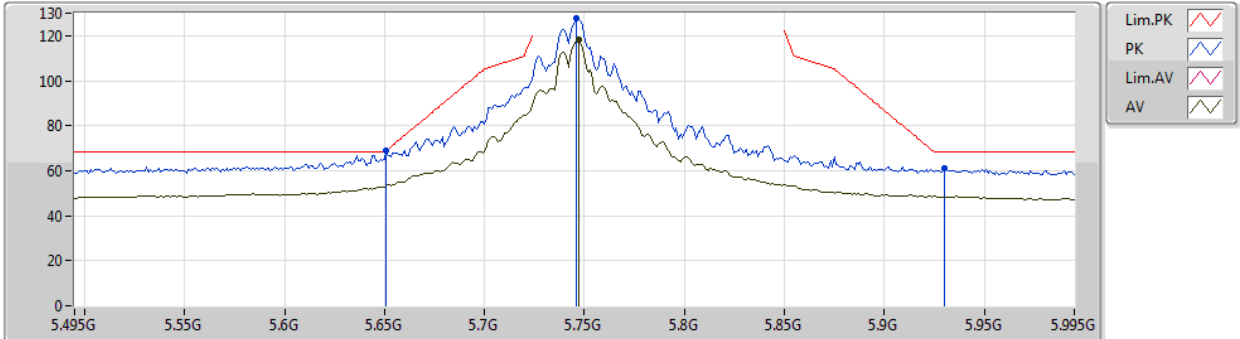
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40_Nss1,(MCS0)_4TX	Pass	PK	5.93G	68.14	68.20	-0.06	8.93	3	Vertical	186	2.54	-

802.11a_Nss1,(6Mbps)_4TX

5745MHz_TX

08/11/2019



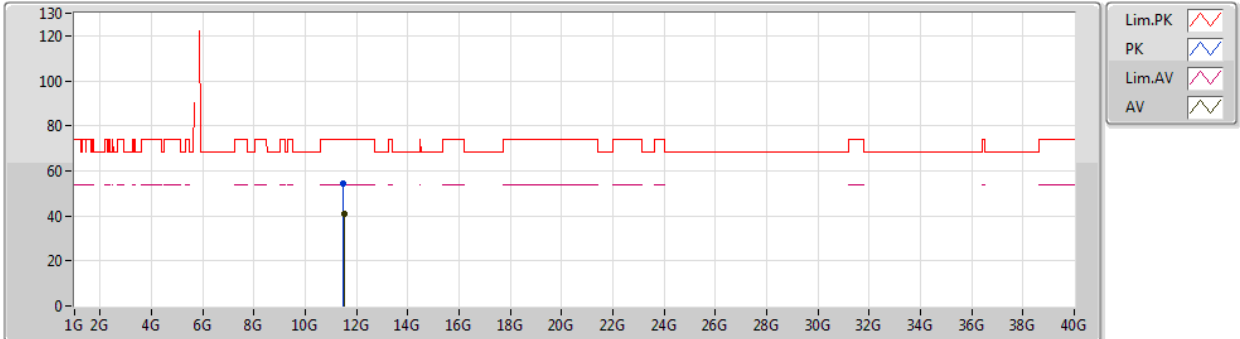
EUT_Z_4TX
Setting 111
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.651G	68.71	68.94	-0.23	8.66	3	Vertical	23	1.71	-	60.05			
PK	5.746G	127.50	Inf	-Inf	8.82	3	Vertical	23	1.71	-	118.68			
AV	5.747G	117.97	Inf	-Inf	8.82	3	Vertical	23	1.71	-	109.15			
PK	5.93G	61.08	68.20	-7.12	8.93	3	Vertical	23	1.71	-	52.15			

802.11a_Nss1,(6Mbps)_4TX

5745MHz_TX

08/11/2019



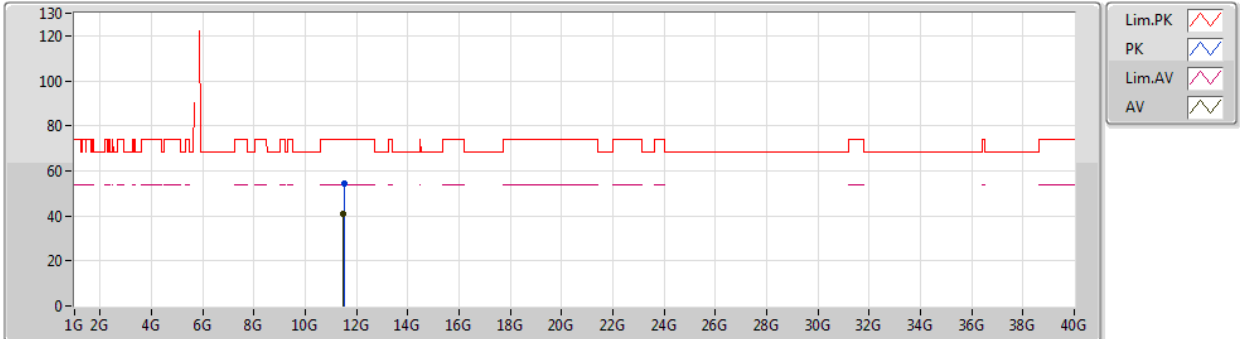
EUT_Z_4TX
Setting 111
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.4921G	54.57	74.00	-19.43	14.89	3	Vertical	197	1.27	-	39.68			
AV	11.50104G	40.83	54.00	-13.17	14.91	3	Vertical	197	1.27	-	25.92			

802.11a_Nss1,(6Mbps)_4TX

5745MHz_TX

08/11/2019



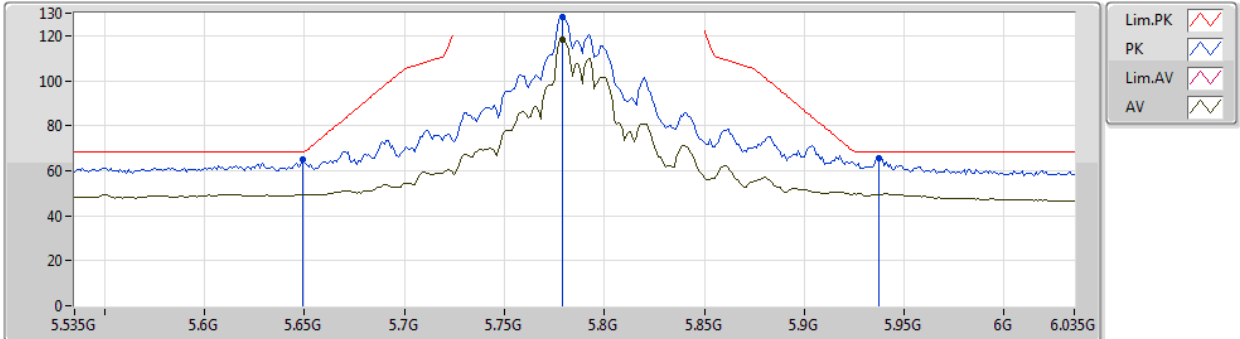
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Setting 111
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	11.50008G	54.08	74.00	-19.92	14.91	3	Horizontal	336	1.45	-	39.17
AV	11.49906G	40.71	54.00	-13.29	14.90	3	Horizontal	336	1.45	-	25.81

802.11a_Nss1,(6Mbps)_4TX

5785MHz_TX

08/11/2019



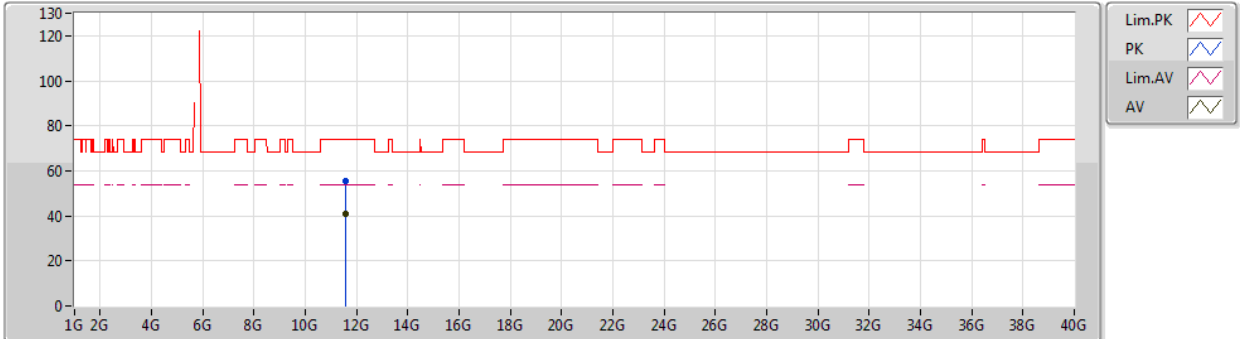
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Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.649G	64.75	68.20	-3.45	8.67	3	Vertical	17	2.42	-	56.08			
PK	5.779G	128.25	Inf	-Inf	8.87	3	Vertical	17	2.42	-	119.38			
AV	5.779G	118.02	Inf	-Inf	8.87	3	Vertical	17	2.42	-	109.15			
PK	5.937G	65.78	68.20	-2.42	8.93	3	Vertical	17	2.42	-	56.85			

802.11a_Nss1,(6Mbps)_4TX

5785MHz_TX

08/11/2019



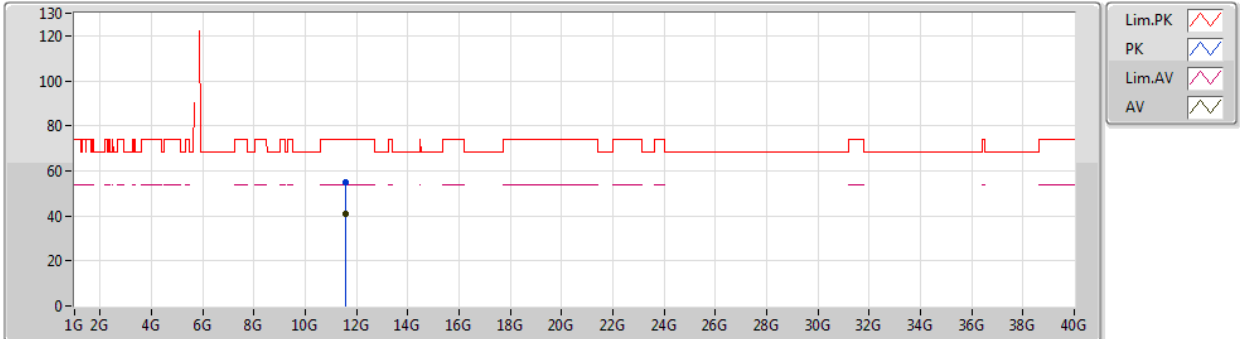
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.56088G	55.26	74.00	-18.74	14.99	3	Vertical	318	2.01	-	40.27			
AV	11.57624G	40.78	54.00	-13.22	15.01	3	Vertical	318	2.01	-	25.77			

802.11a_Nss1,(6Mbps)_4TX

5785MHz_TX

08/11/2019



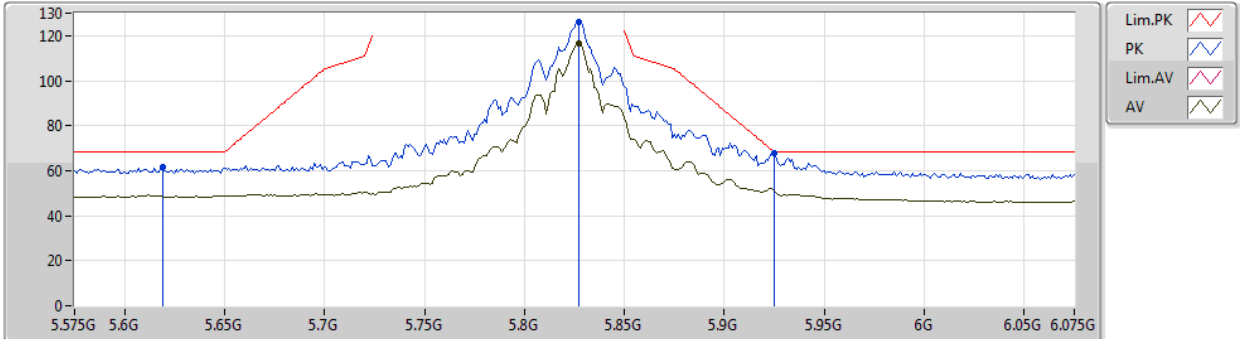
EUT_Z_4TX
Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.57246G	54.84	74.00	-19.16	15.00	3	Horizontal	201	1.14	-	39.84			
AV	11.57522G	40.75	54.00	-13.25	15.00	3	Horizontal	201	1.14	-	25.75			

802.11a_Nss1,(6Mbps)_4TX

5825MHz_TX

08/11/2019



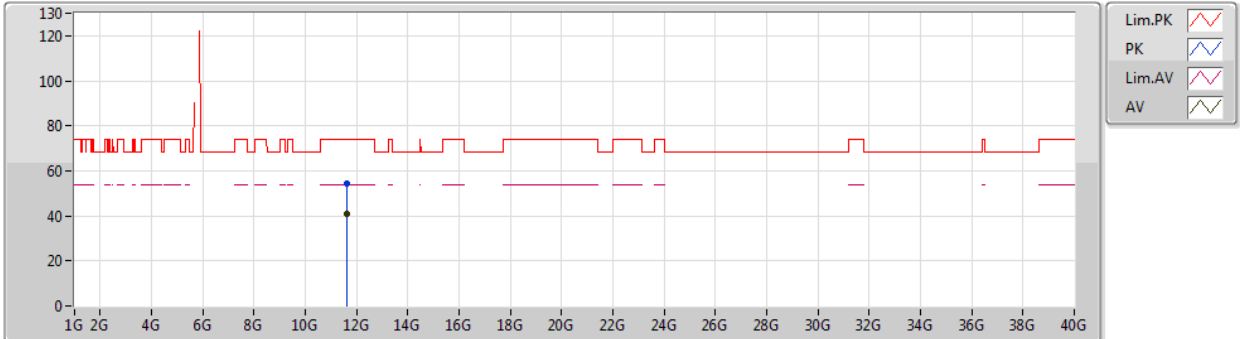
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Setting 109
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.619G	61.42	68.20	-6.78	8.61	3	Vertical	181	1.34	-	52.81			
PK	5.827G	126.16	Inf	-Inf	8.91	3	Vertical	181	1.34	-	117.25			
AV	5.827G	116.55	Inf	-Inf	8.91	3	Vertical	181	1.34	-	107.64			
PK	5.925G	67.97	68.20	-0.23	8.93	3	Vertical	181	1.34	-	59.04			

802.11a_Nss1,(6Mbps)_4TX

5825MHz_TX

08/11/2019



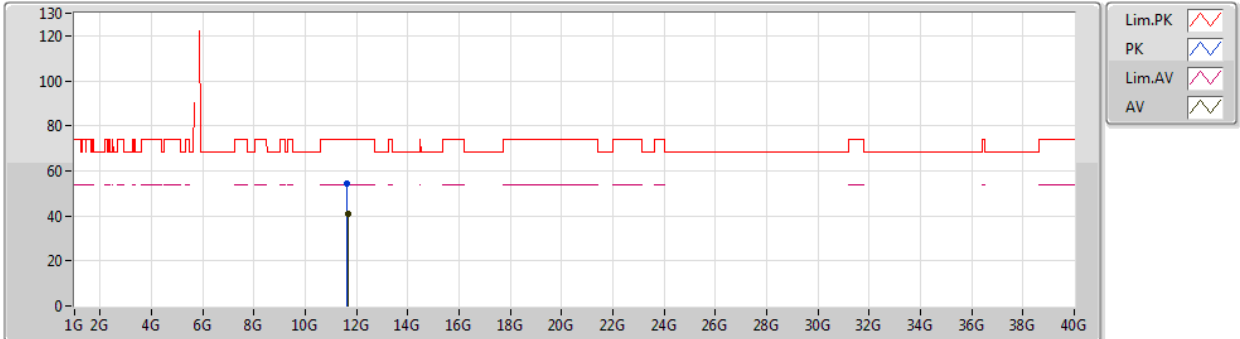
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Setting 109
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.6437G	54.16	74.00	-19.84	15.08	3	Vertical	337	1.72	-	39.08			
AV	11.6458G	40.65	54.00	-13.35	15.09	3	Vertical	337	1.72	-	25.56			

802.11a_Nss1,(6Mbps)_4TX

5825MHz_TX

08/11/2019



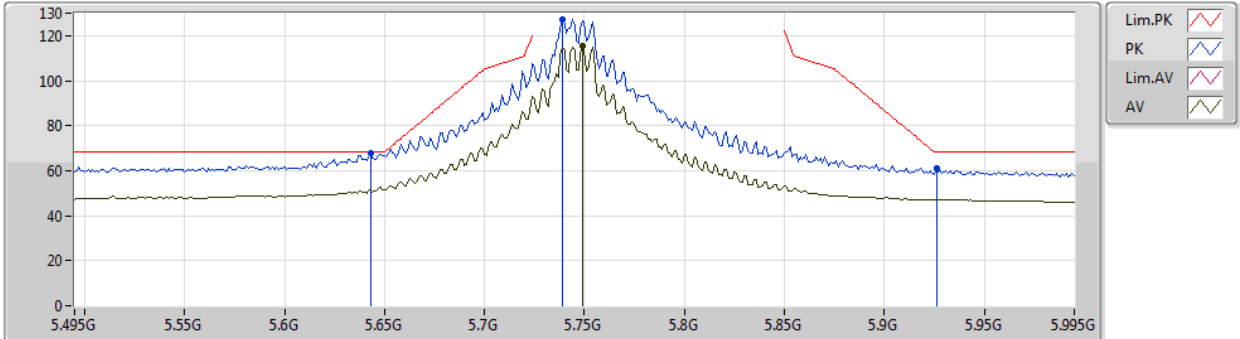
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Setting 109
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.64148G	54.40	74.00	-19.60	15.08	3	Horizontal	222	1.18	-	39.32			
AV	11.64994G	40.68	54.00	-13.32	15.09	3	Horizontal	222	1.18	-	25.59			

802.11ax HEW20_Nss1,(MCS0)_4TX

5745MHz_TX

08/11/2019



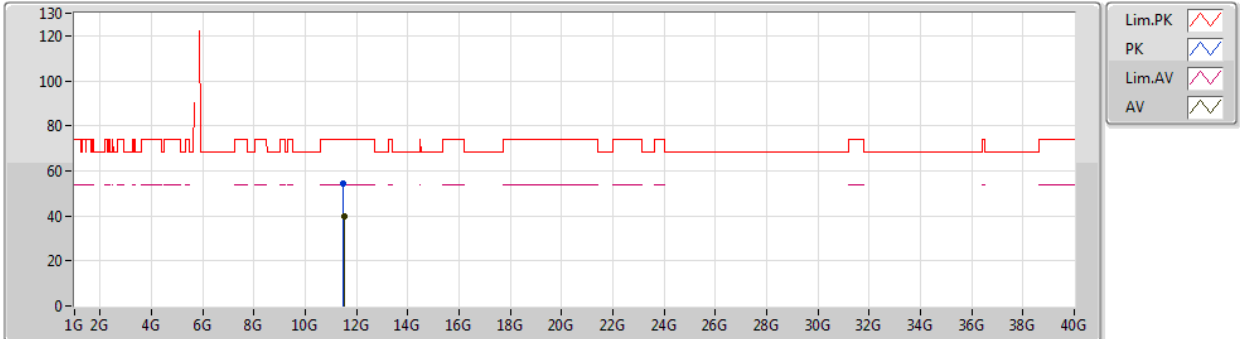
EUT_Z_4TX
Setting 109
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.643G	67.98	68.20	-0.22	8.66	3	Vertical	194	1.48	-	59.32
PK	5.739G	127.46	Inf	-Inf	8.80	3	Vertical	194	1.48	-	118.66
AV	5.749G	115.19	Inf	-Inf	8.82	3	Vertical	194	1.48	-	106.37
PK	5.926G	60.86	68.20	-7.34	8.93	3	Vertical	194	1.48	-	51.93

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5745MHz_TX



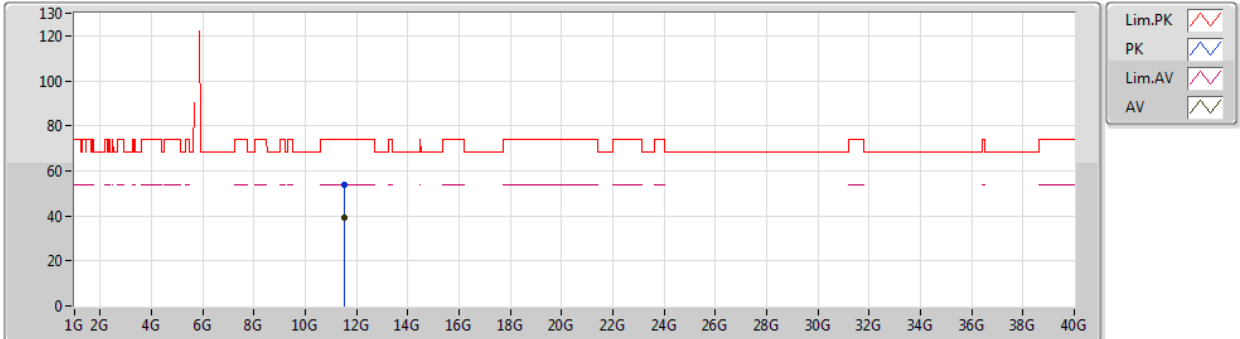
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Setting 109
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.48604G	54.18	74.00	-19.82	14.89	3	Vertical	173	2.51	-	39.29			
AV	11.50374G	39.52	54.00	-14.48	14.91	3	Vertical	173	2.51	-	24.61			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5745MHz_TX



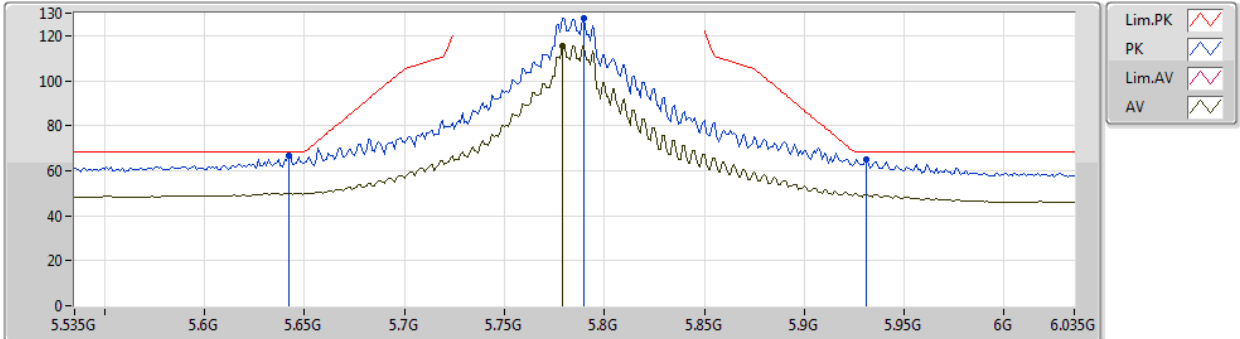
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Setting 109
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.50422G	53.93	74.00	-20.07	14.91	3	Horizontal	69	2.02	-	39.02			
AV	11.5032G	39.46	54.00	-14.54	14.91	3	Horizontal	69	2.02	-	24.55			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5785MHz_TX



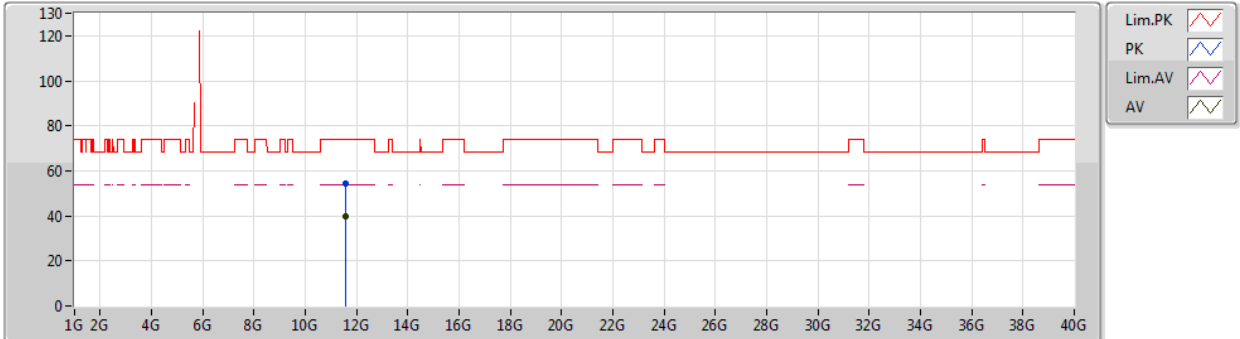
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Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.642G	66.65	68.20	-1.55	8.66	3	Vertical	192	1.37	-	57.99			
PK	5.79G	127.73	Inf	-Inf	8.88	3	Vertical	192	1.37	-	118.85			
AV	5.779G	115.56	Inf	-Inf	8.87	3	Vertical	192	1.37	-	106.69			
PK	5.931G	64.80	68.20	-3.40	8.93	3	Vertical	192	1.37	-	55.87			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5785MHz_TX



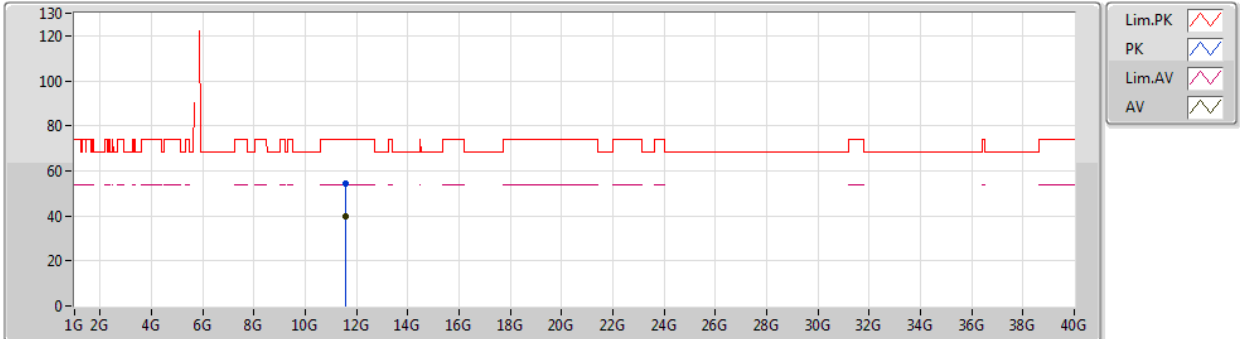
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.58098G	54.08	74.00	-19.92	15.01	3	Vertical	95	2.75	-	39.07			
AV	11.57342G	39.67	54.00	-14.33	15.00	3	Vertical	95	2.75	-	24.67			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5785MHz_TX



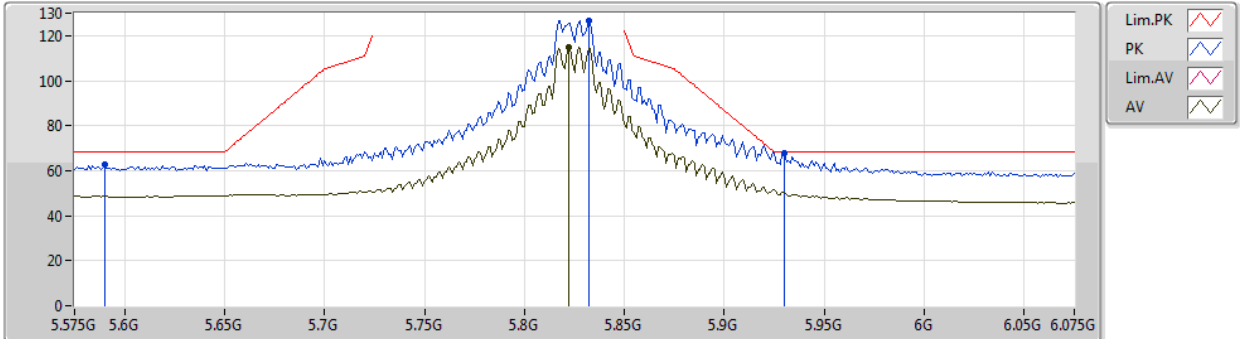
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.573G	54.32	74.00	-19.68	15.00	3	Horizontal	77	2.88	-	39.32			
AV	11.57924G	39.62	54.00	-14.38	15.01	3	Horizontal	77	2.88	-	24.61			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5825MHz_TX



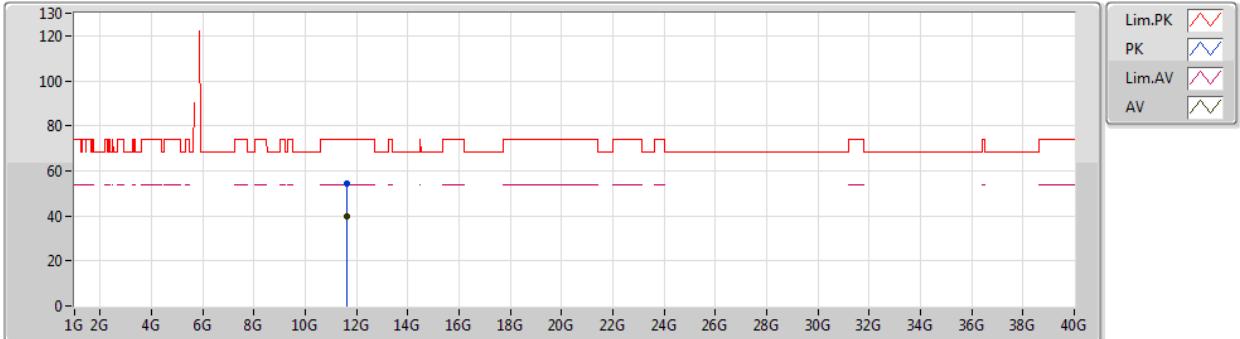
EUT_Z_4TX
Setting 108
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.59G	62.74	68.20	-5.46	8.57	3	Vertical	183	2.42	-	54.17			
PK	5.832G	126.88	Inf	-Inf	8.91	3	Vertical	183	2.42	-	117.97			
AV	5.822G	114.65	Inf	-Inf	8.90	3	Vertical	183	2.42	-	105.75			
PK	5.93G	67.96	68.20	-0.24	8.93	3	Vertical	183	2.42	-	59.03			

802.11ax HEW20_Nss1,(MCS0)_4TX

5825MHz_TX

08/11/2019



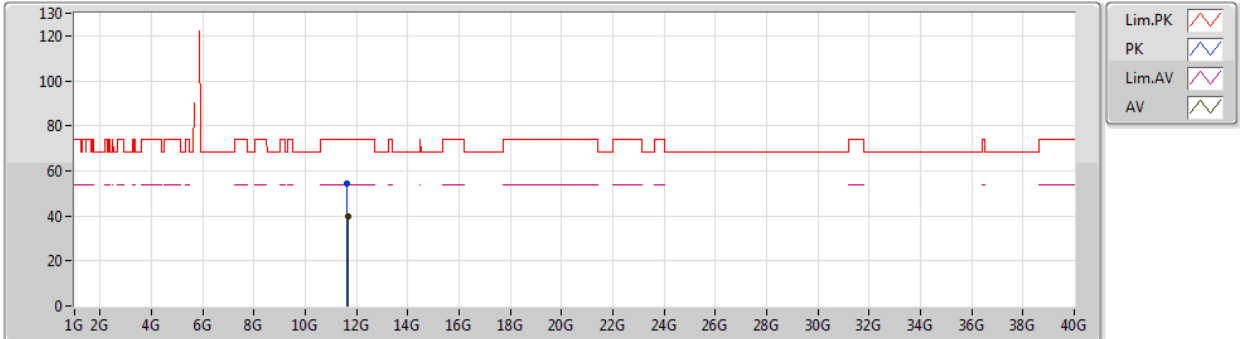
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Setting 108
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.6452G	54.14	74.00	-19.86	15.09	3	Vertical	249	1.38	-	39.05			
AV	11.64508G	39.68	54.00	-14.32	15.09	3	Vertical	249	1.38	-	24.59			

802.11ax HEW20_Nss1,(MCS0)_4TX

08/11/2019

5825MHz_TX



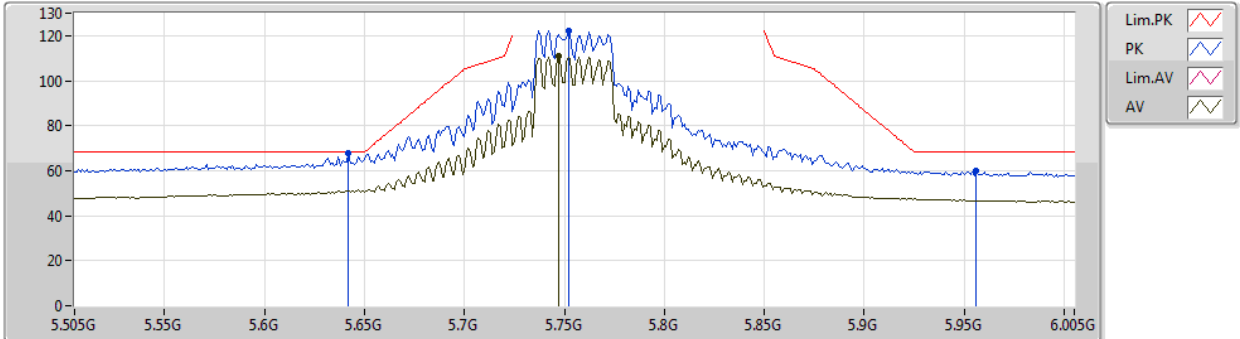
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Setting 108
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.6473G	54.26	74.00	-19.74	15.09	3	Horizontal	199	1.18	-	39.17			
AV	11.65702G	39.66	54.00	-14.34	15.11	3	Horizontal	199	1.18	-	24.55			

802.11ax HEW40_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



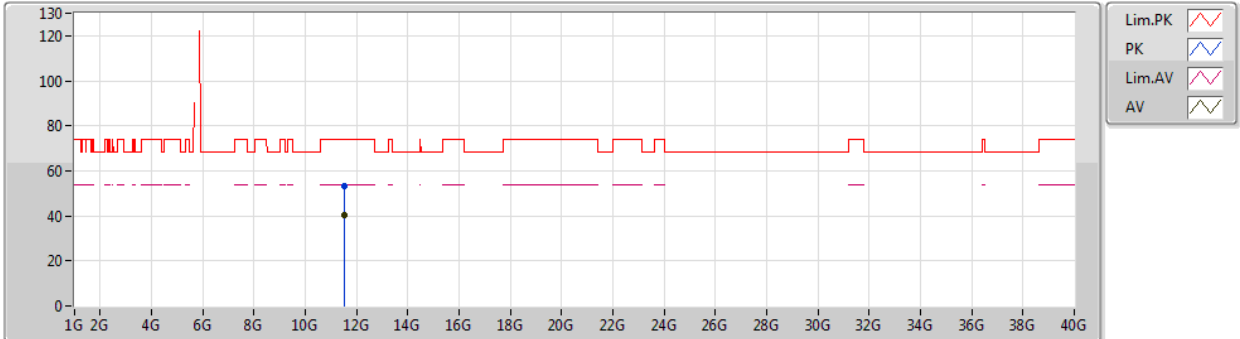
EUT_Z_4TX
Setting 94
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.642G	67.99	68.20	-0.21	8.66	3	Vertical	193	2.59	-	59.33			
PK	5.752G	122.32	Inf	-Inf	8.83	3	Vertical	193	2.59	-	113.49			
AV	5.747G	110.99	Inf	-Inf	8.82	3	Vertical	193	2.59	-	102.17			
PK	5.956G	59.87	68.20	-8.33	8.92	3	Vertical	193	2.59	-	50.95			

802.11ax HEW40_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



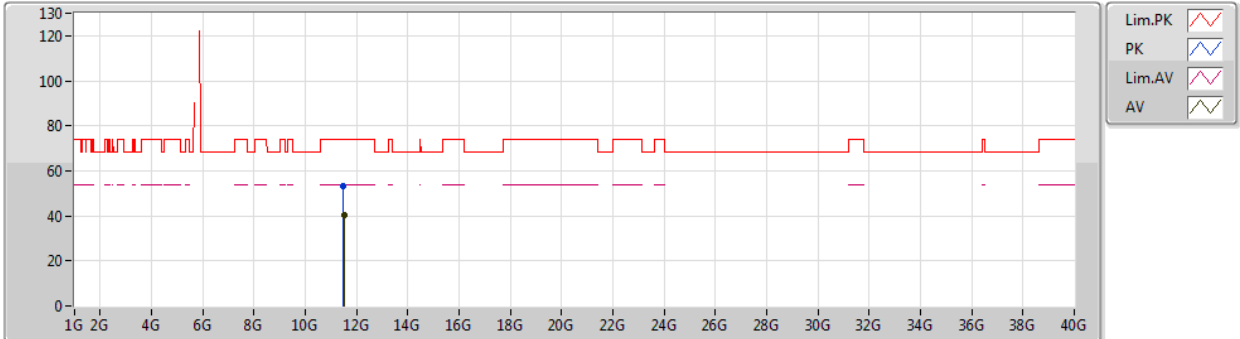
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Setting 94
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.51984G	53.43	74.00	-20.57	14.94	3	Vertical	74	1.10	-	38.49			
AV	11.5082G	40.51	54.00	-13.49	14.92	3	Vertical	74	1.10	-	25.59			

802.11ax HEW40_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



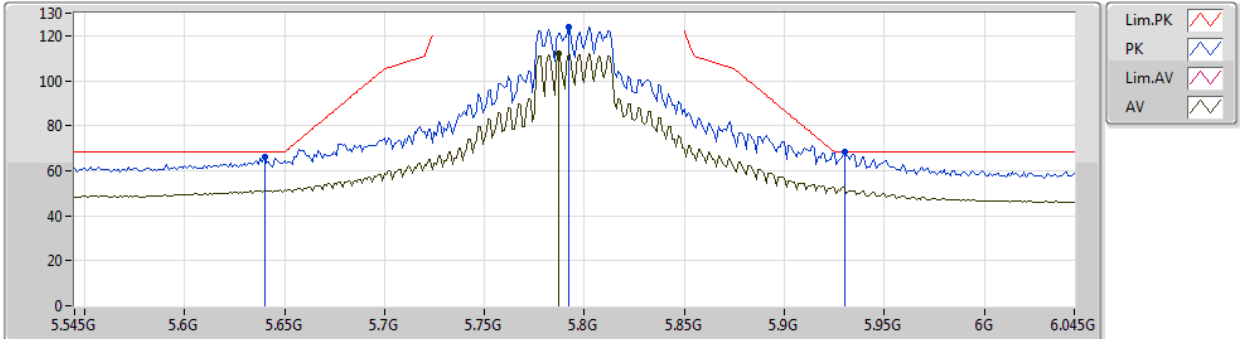
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Setting 94
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.49962G	53.16	74.00	-20.84	14.90	3	Horizontal	227	1.65	-	38.26			
AV	11.50496G	40.29	54.00	-13.71	14.91	3	Horizontal	227	1.65	-	25.38			

802.11ax HEW40_Nss1,(MCS0)_4TX

08/11/2019

5795MHz_TX



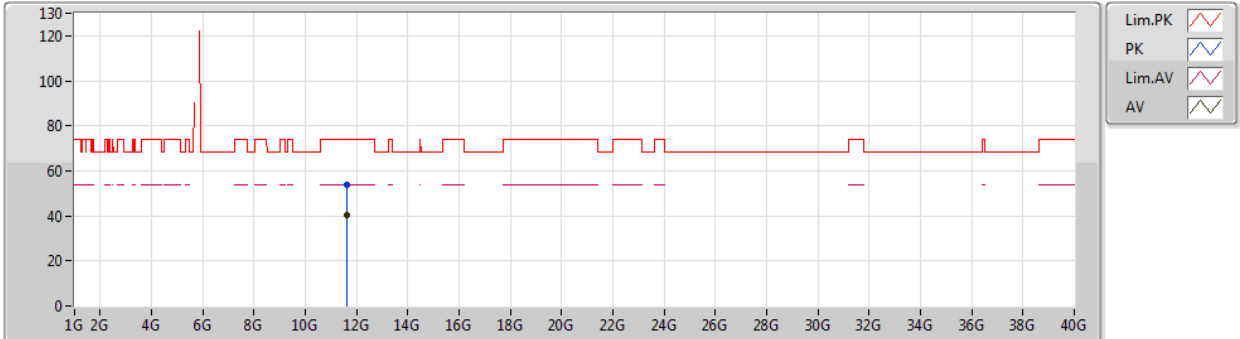
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Setting 100
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.64G	66.33	68.20	-1.87	8.65	3	Vertical	186	2.54	-	57.68			
PK	5.792G	123.97	Inf	-Inf	8.89	3	Vertical	186	2.54	-	115.08			
AV	5.787G	112.06	Inf	-Inf	8.88	3	Vertical	186	2.54	-	103.18			
PK	5.93G	68.14	68.20	-0.06	8.93	3	Vertical	186	2.54	-	59.21			

802.11ax HEW40_Nss1,(MCS0)_4TX

08/11/2019

5795MHz_TX



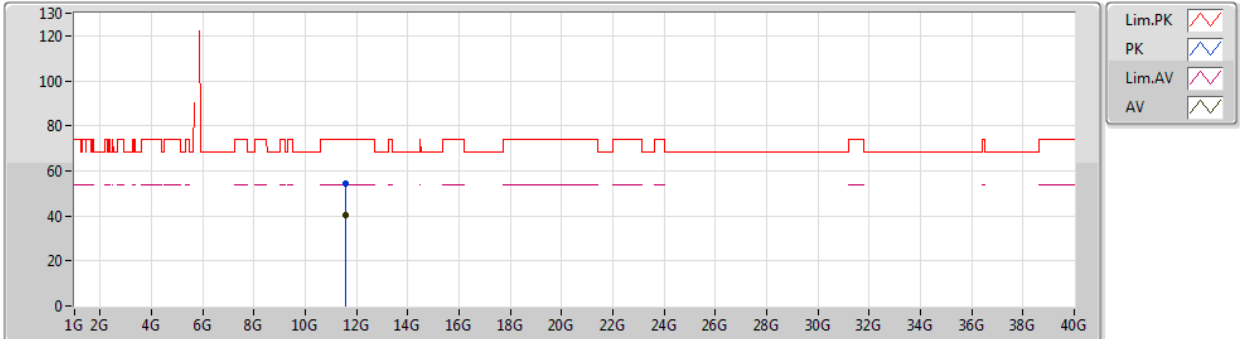
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Setting 100
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.60428G	53.91	74.00	-20.09	15.04	3	Vertical	125	2.81	-	38.87			
AV	11.60856G	40.54	54.00	-13.46	15.05	3	Vertical	125	2.81	-	25.49			

802.11ax HEW40_Nss1,(MCS0)_4TX

08/11/2019

5795MHz_TX



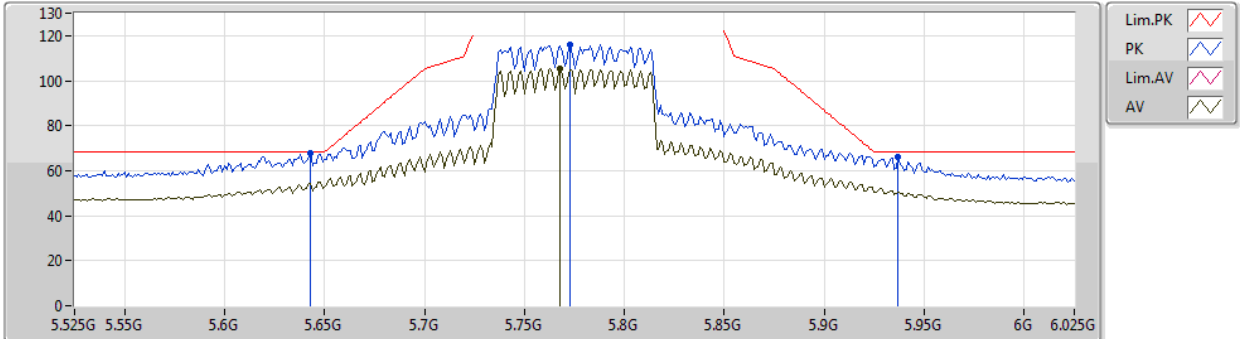
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Setting 100
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	11.59516G	54.48	74.00	-19.52	15.04	3	Horizontal	311	2.44	-	39.44
AV	11.58796G	40.43	54.00	-13.57	15.02	3	Horizontal	311	2.44	-	25.41

802.11ax HEW80_Nss1,(MCS0)_4TX

20/11/2019

5775MHz_TX



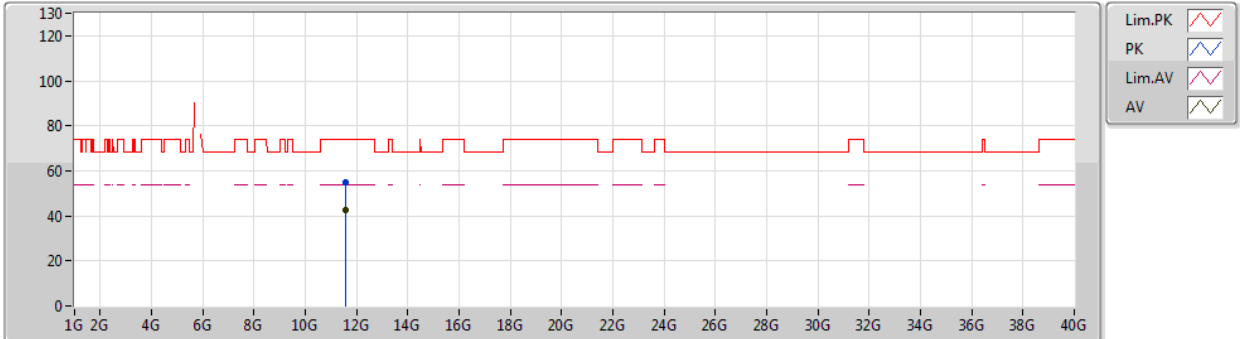
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Setting 88
06-S-5-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.643G	67.89	68.20	-0.31	4.96	3	Vertical	91	1.50	-	62.93			
PK	5.773G	115.84	Inf	-Inf	5.36	3	Vertical	91	1.50	-	110.48			
AV	5.768G	105.60	Inf	-Inf	5.34	3	Vertical	91	1.50	-	100.26			
PK	5.937G	65.94	68.20	-2.26	5.79	3	Vertical	91	1.50	-	60.15			

802.11ax HEW80_Nss1,(MCS0)_4TX

29/11/2019

5775MHz_TX



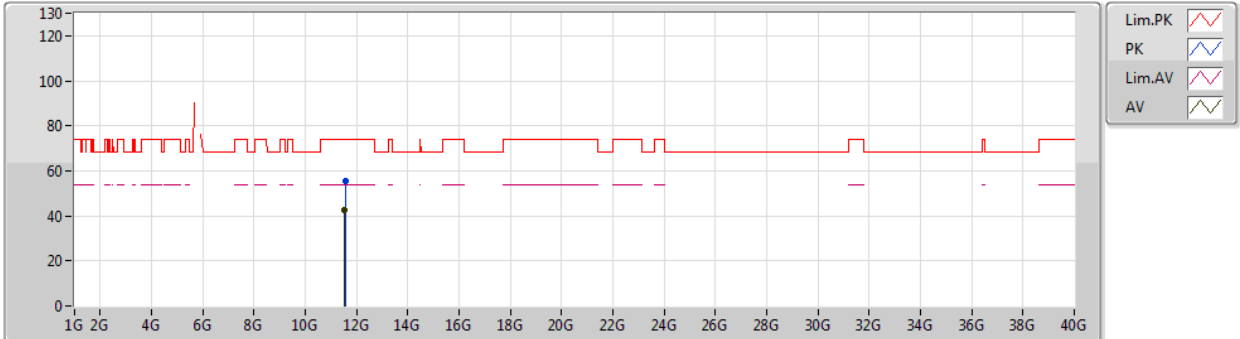
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Setting 88
03-C-P-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.55388G	54.97	74.00	-19.03	13.79	3	Vertical	250	1.30	-	41.18			
AV	11.5546G	42.57	54.00	-11.43	13.79	3	Vertical	250	1.30	-	28.78			

802.11ax HEW80_Nss1,(MCS0)_4TX

29/11/2019

5775MHz_TX



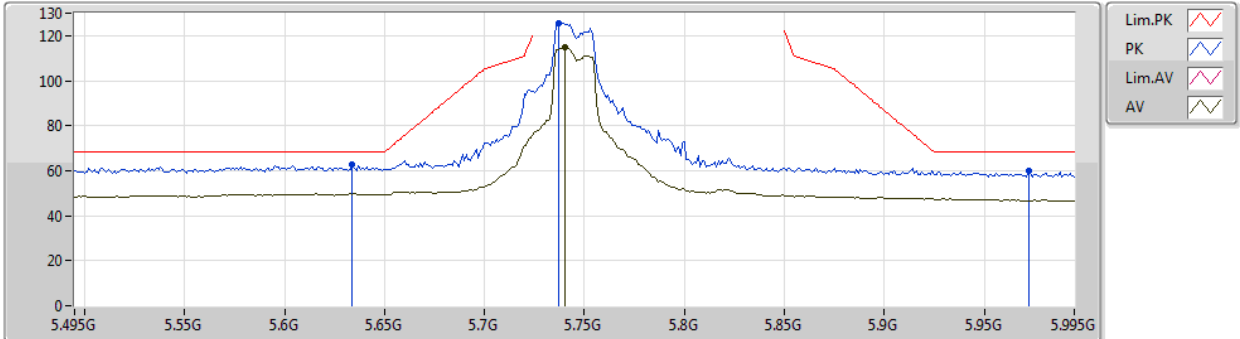
EUT_Z_4TX
Setting 88
03-C-P-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.5499G	55.66	74.00	-18.34	13.78	3	Horizontal	168	1.64	-	41.88			
AV	11.54534G	42.80	54.00	-11.20	13.78	3	Horizontal	168	1.64	-	29.02			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5745MHz_TX



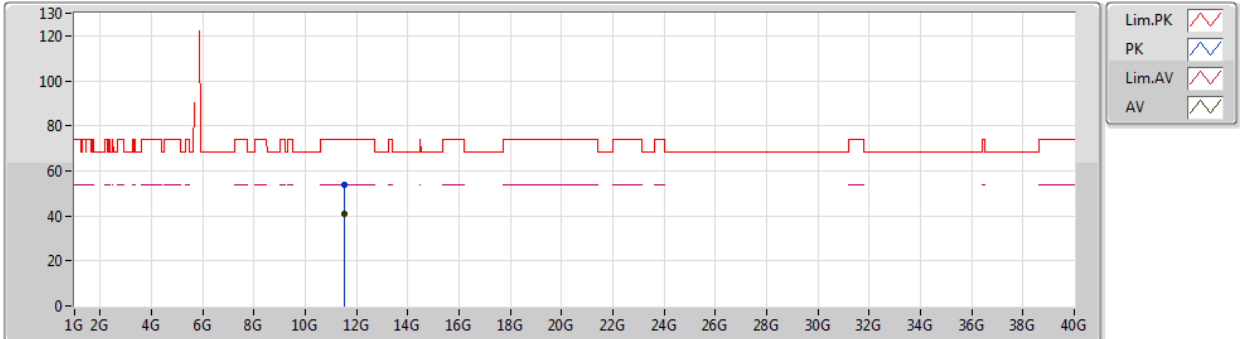
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Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.634G	62.75	68.20	-5.45	8.64	3	Vertical	285	1.51	-	54.11			
PK	5.737G	125.59	Inf	-Inf	8.81	3	Vertical	285	1.51	-	116.78			
AV	5.74G	114.68	Inf	-Inf	8.80	3	Vertical	285	1.51	-	105.88			
PK	5.972G	60.03	68.20	-8.17	8.93	3	Vertical	285	1.51	-	51.10			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5745MHz_TX



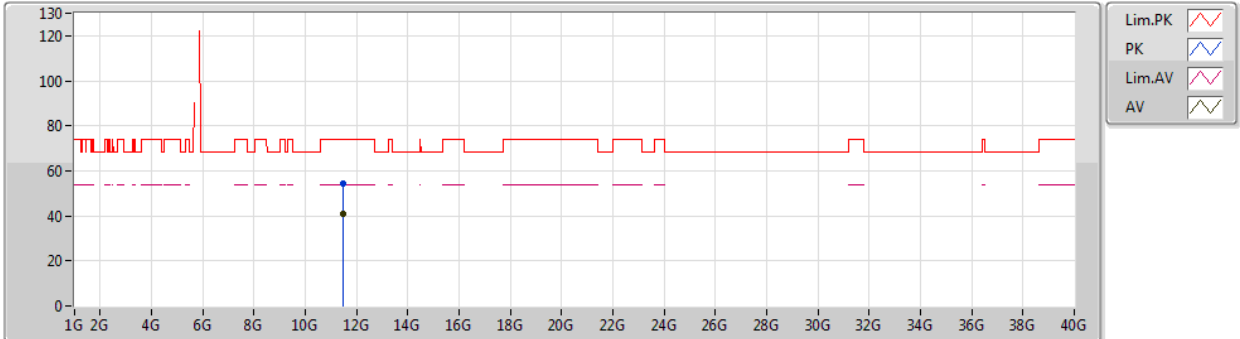
EUT_Z_4TX
Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.50236G	53.80	74.00	-20.20	14.91	3	Vertical	142	1.04	-	38.89			
AV	11.50332G	41.07	54.00	-12.93	14.91	3	Vertical	142	1.04	-	26.16			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5745MHz_TX



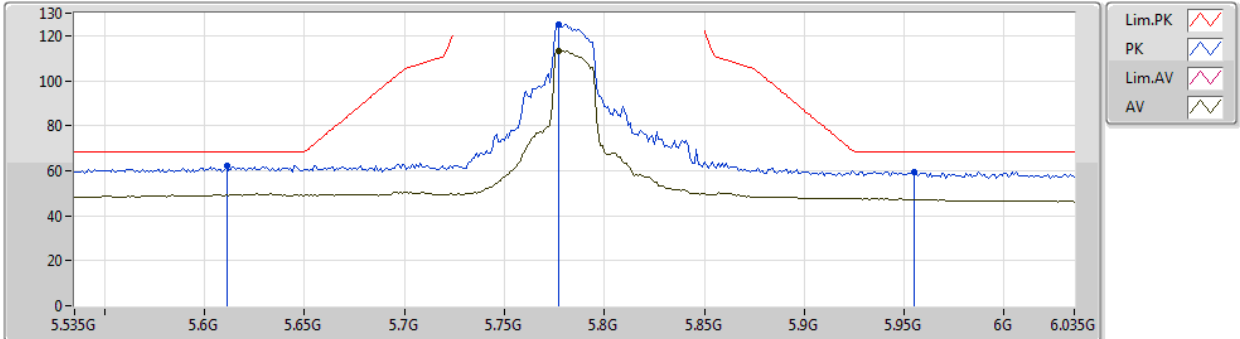
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.48394G	54.35	74.00	-19.65	14.89	3	Horizontal	273	1.20	-	39.46			
AV	11.48592G	40.86	54.00	-13.14	14.89	3	Horizontal	273	1.20	-	25.97			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5785MHz_TX



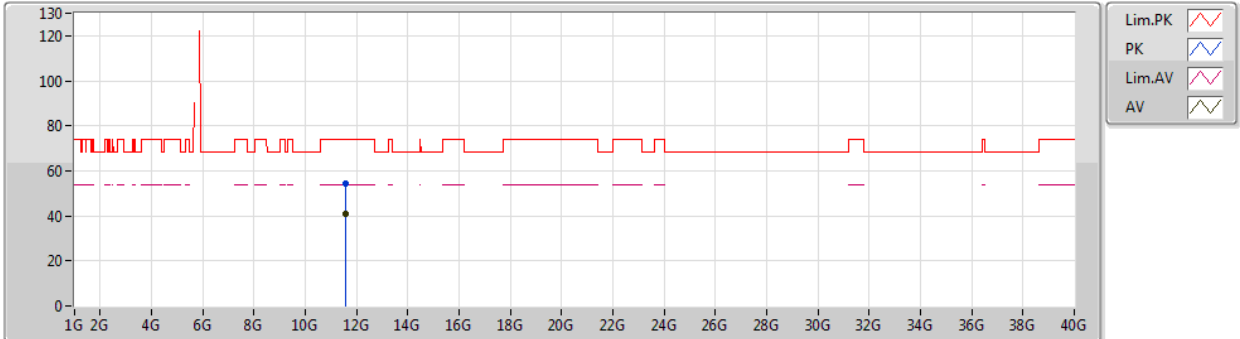
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Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.611G	62.17	68.20	-6.03	8.61	3	Vertical	280	1.61	-	53.56			
PK	5.777G	125.21	Inf	-Inf	8.87	3	Vertical	280	1.61	-	116.34			
AV	5.777G	113.28	Inf	-Inf	8.87	3	Vertical	280	1.61	-	104.41			
PK	5.955G	59.67	68.20	-8.53	8.92	3	Vertical	280	1.61	-	50.75			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5785MHz_TX



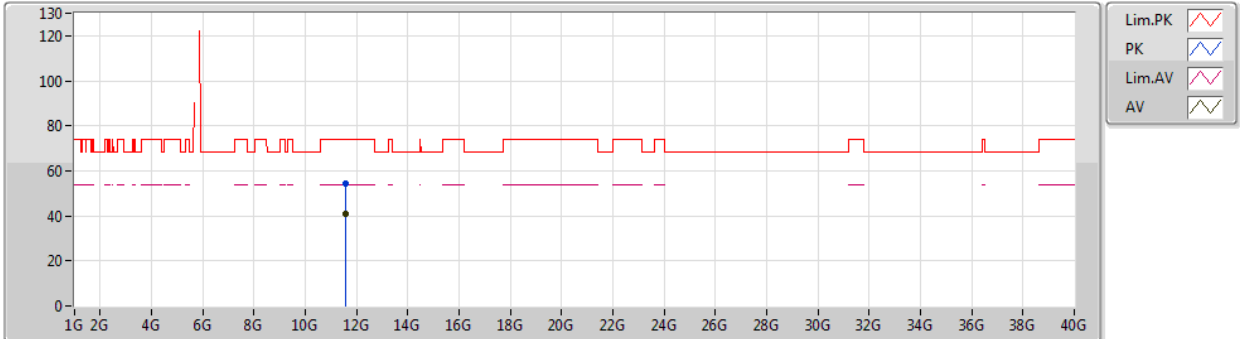
EUT_Z_4TX
Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.58278G	54.28	74.00	-19.72	15.02	3	Vertical	183	2.84	-	39.26			
AV	11.57756G	40.88	54.00	-13.12	15.01	3	Vertical	183	2.84	-	25.87			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5785MHz_TX



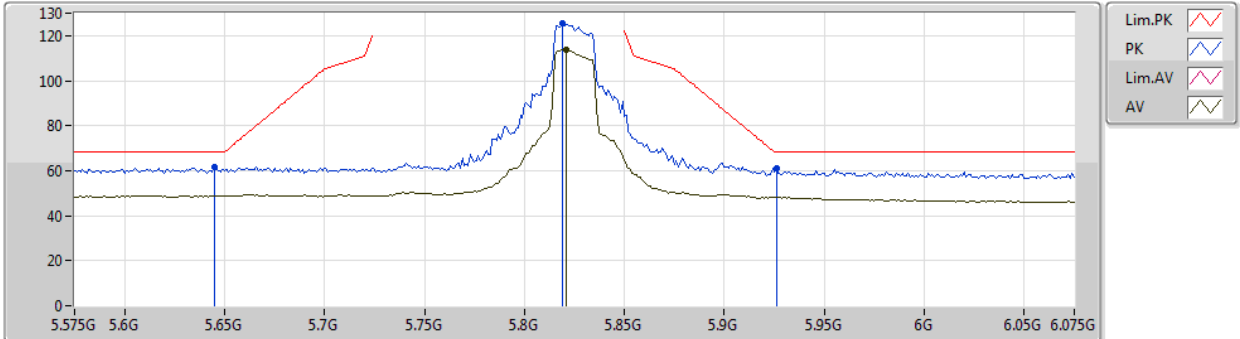
EUT_Z_4TX
Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.57624G	54.24	74.00	-19.76	15.01	3	Horizontal	325	1.20	-	39.23			
AV	11.58068G	40.84	54.00	-13.16	15.01	3	Horizontal	325	1.20	-	25.83			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5825MHz_TX



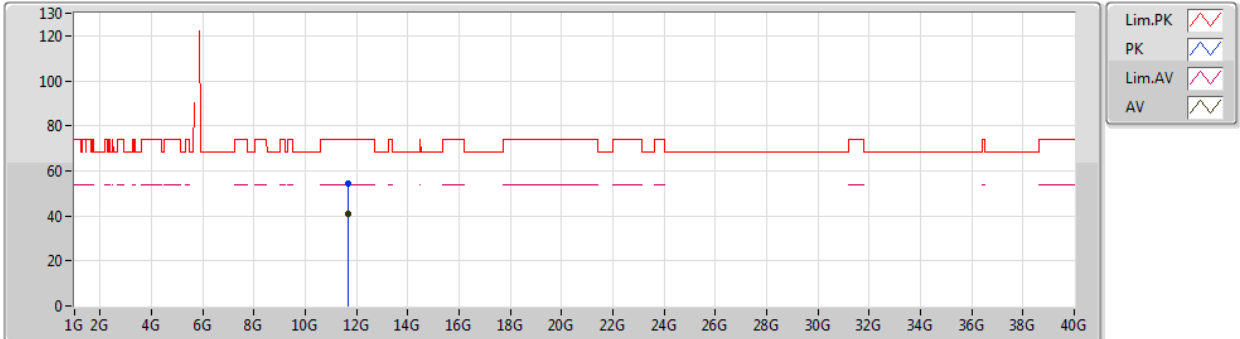
EUT_Z_4TX
Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.645G	61.70	68.20	-6.50	8.66	3	Vertical	279	1.49	-	53.04
PK	5.819G	125.35	Inf	-Inf	8.90	3	Vertical	279	1.49	-	116.45
AV	5.821G	113.80	Inf	-Inf	8.90	3	Vertical	279	1.49	-	104.90
PK	5.926G	61.05	68.20	-7.15	8.93	3	Vertical	279	1.49	-	52.12

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5825MHz_TX



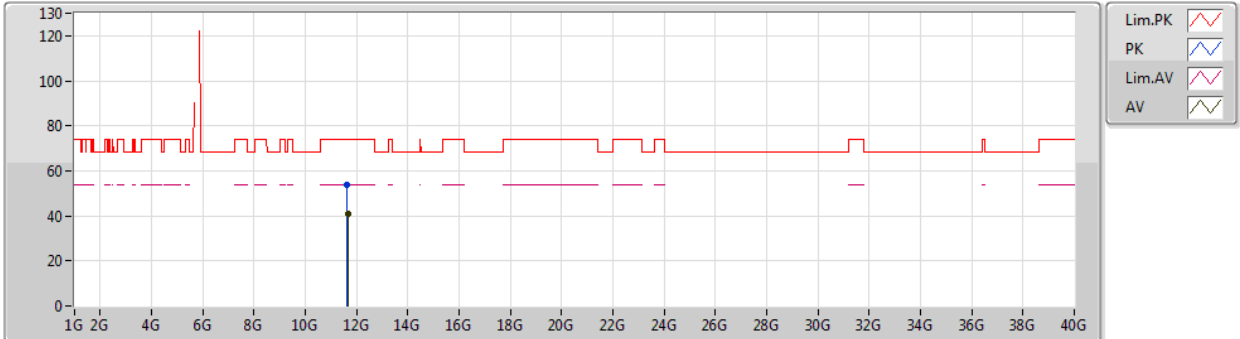
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.6524G	54.17	74.00	-19.83	15.10	3	Vertical	295	1.54	-	39.07			
AV	11.65012G	40.92	54.00	-13.08	15.09	3	Vertical	295	1.54	-	25.83			

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

09/11/2019

5825MHz_TX



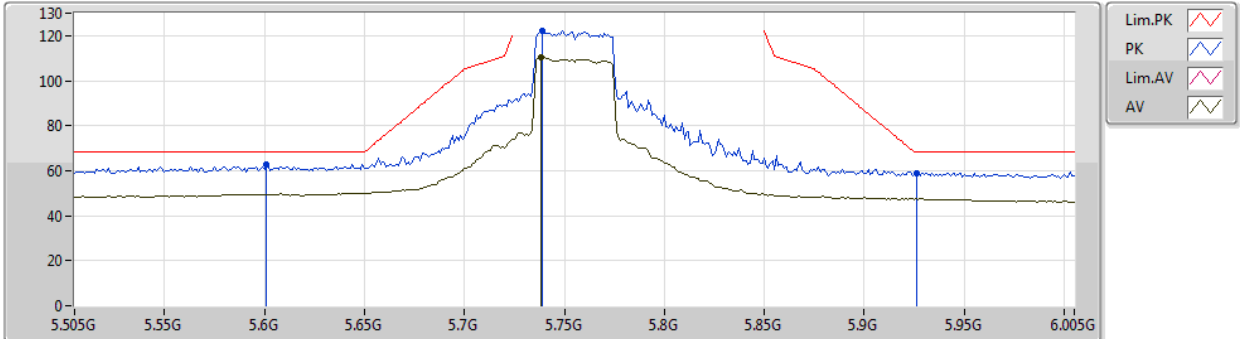
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.64334G	53.98	74.00	-20.02	15.08	3	Horizontal	204	2.90	-	38.90			
AV	11.65054G	40.78	54.00	-13.22	15.09	3	Horizontal	204	2.90	-	25.69			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



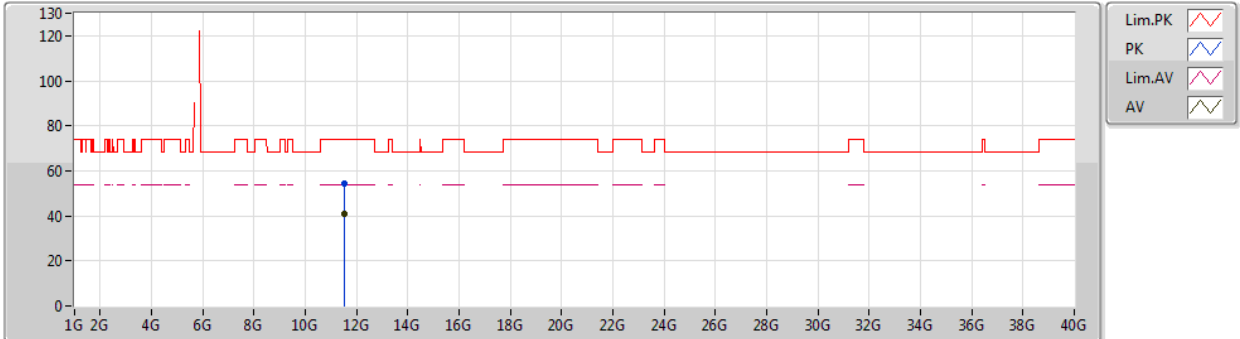
EUT_Z_4TX
Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.601G	63.01	68.20	-5.19	8.58	3	Vertical	248	1.76	-	54.43			
PK	5.739G	122.23	Inf	-Inf	8.80	3	Vertical	248	1.76	-	113.43			
AV	5.738G	110.31	Inf	-Inf	8.80	3	Vertical	248	1.76	-	101.51			
PK	5.926G	59.07	68.20	-9.13	8.93	3	Vertical	248	1.76	-	50.14			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



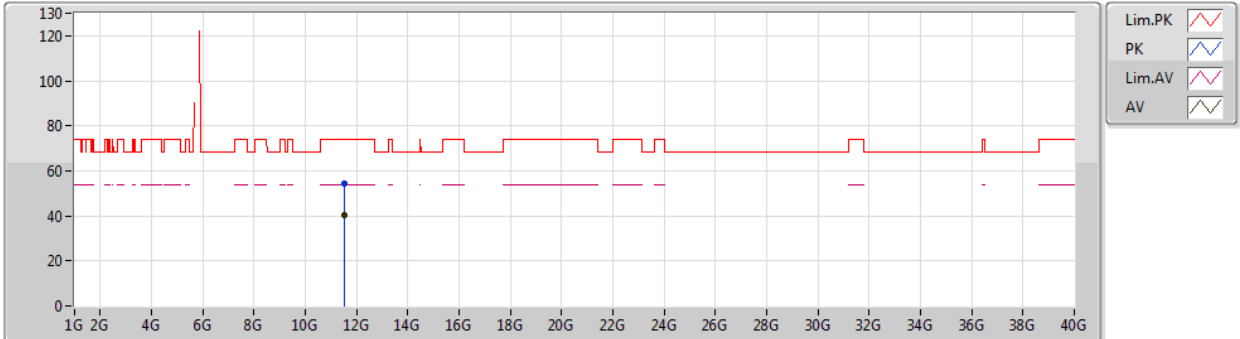
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.5112G	54.32	74.00	-19.68	14.92	3	Vertical	297	2.47	-	39.40			
AV	11.50394G	40.63	54.00	-13.37	14.91	3	Vertical	297	2.47	-	25.72			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5755MHz_TX



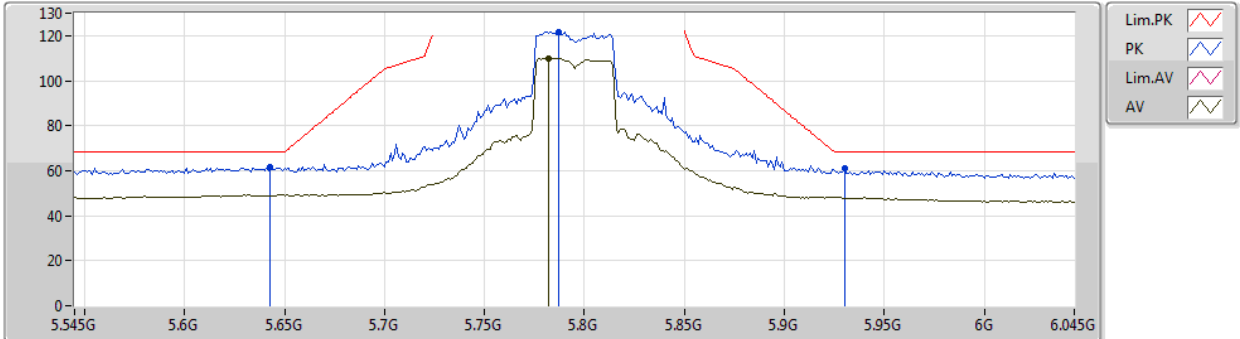
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.52266G	54.17	74.00	-19.83	14.94	3	Horizontal	249	2.68	-	39.23			
AV	11.51102G	40.51	54.00	-13.49	14.92	3	Horizontal	249	2.68	-	25.59			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5795MHz_TX



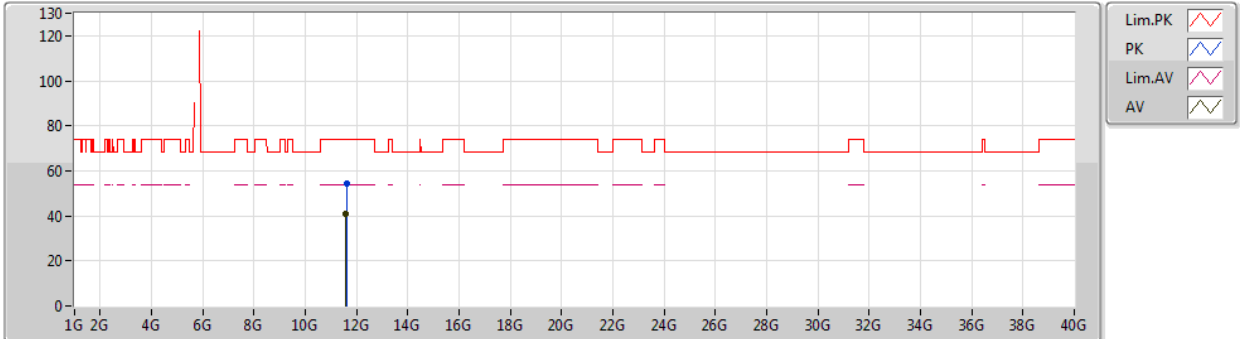
EUT_Z_4TX
Setting 120
02-C-4-10
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.643G	61.82	68.20	-6.38	8.66	3	Vertical	282	1.49	-	53.16			
PK	5.787G	121.66	Inf	-Inf	8.88	3	Vertical	282	1.49	-	112.78			
AV	5.782G	110.03	Inf	-Inf	8.88	3	Vertical	282	1.49	-	101.15			
PK	5.93G	60.90	68.20	-7.30	8.93	3	Vertical	282	1.49	-	51.97			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5795MHz_TX



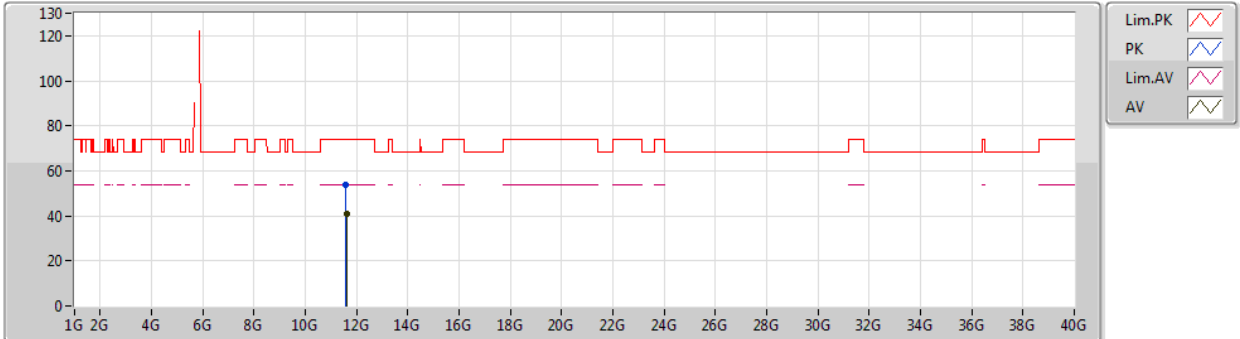
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Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.6035G	54.26	74.00	-19.74	15.04	3	Vertical	43	2.45	-	39.22			
AV	11.5954G	40.85	54.00	-13.15	15.04	3	Vertical	43	2.45	-	25.81			

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

09/11/2019

5795MHz_TX



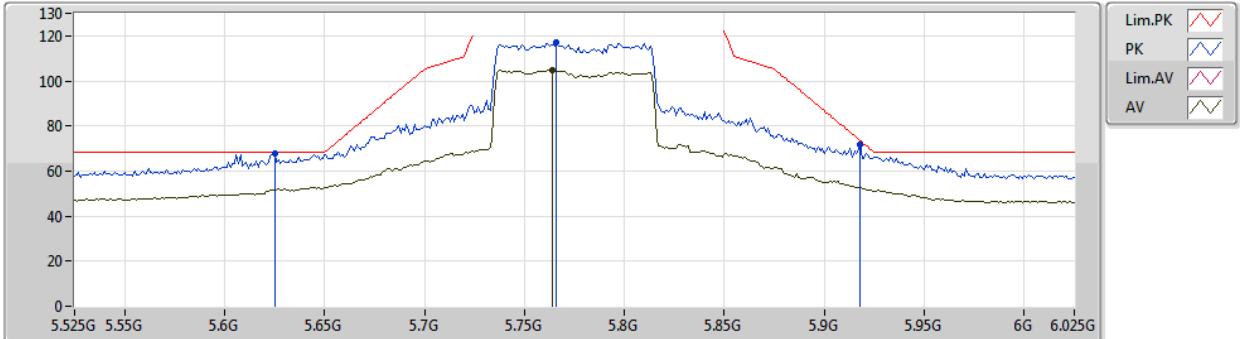
EUT_Z_4TX
Setting 120
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.59474G	53.98	74.00	-20.02	15.04	3	Horizontal	22	1.63	-	38.94			
AV	11.60008G	40.74	54.00	-13.26	15.04	3	Horizontal	22	1.63	-	25.70			

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

07/01/2020

5775MHz_TX



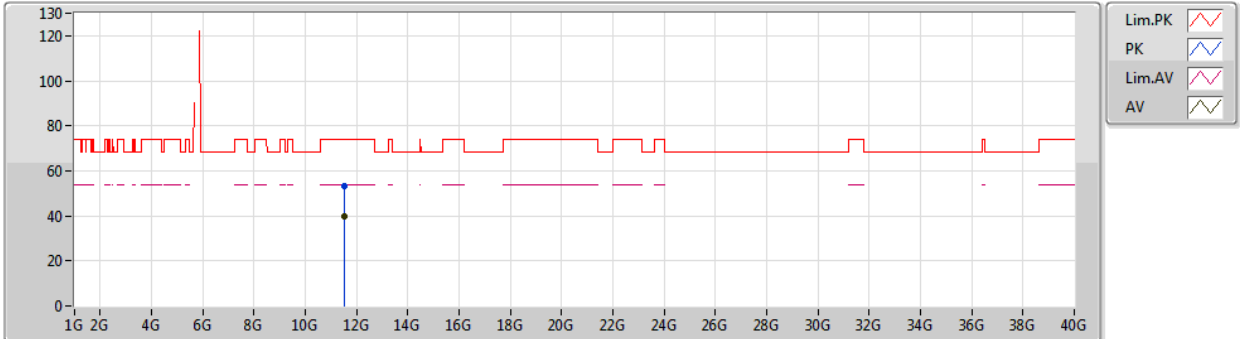
EUT Z_4TX
Setting 86
04-F-Z-1-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.625G	67.81	68.20	-0.39	5.39	3	Vertical	279	1.50	-	62.42			
PK	5.766G	117.04	Inf	-Inf	5.50	3	Vertical	279	1.50	-	111.54			
AV	5.764G	104.77	Inf	-Inf	5.50	3	Vertical	279	1.50	-	99.27			
PK	5.918G	71.54	73.38	-1.84	6.24	3	Vertical	279	1.50	-	65.30			

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

07/01/2020

5775MHz_TX



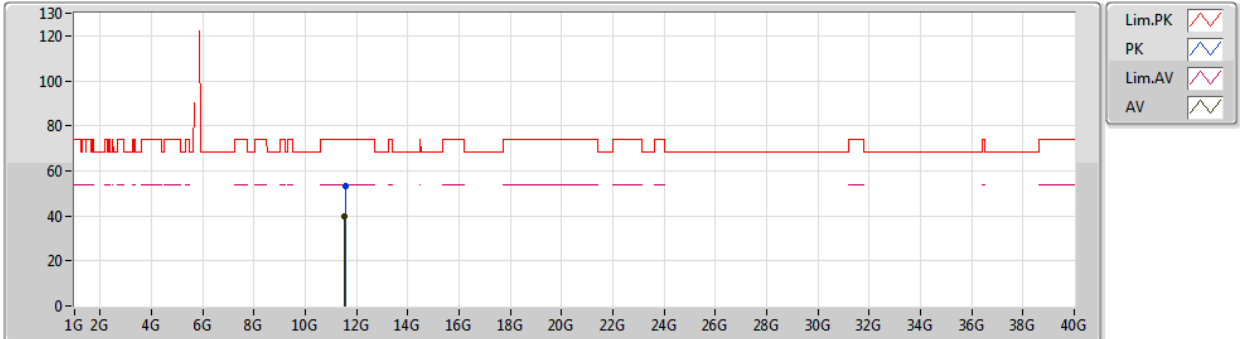
EUT_Z_4TX
Setting 86
04-F-Z-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.53506G	53.24	74.00	-20.76	11.57	3	Vertical	358	1.50	-	41.67			
AV	11.5407G	40.02	54.00	-13.98	11.57	3	Vertical	358	1.50	-	28.45			

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

07/01/2020

5775MHz_TX



EUT_Z_4TX
Setting 86
04-F-Z-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.5626G	53.11	74.00	-20.89	11.55	3	Horizontal	257	1.50	-	41.56			
AV	11.53512G	39.92	54.00	-14.08	11.57	3	Horizontal	257	1.50	-	28.35			



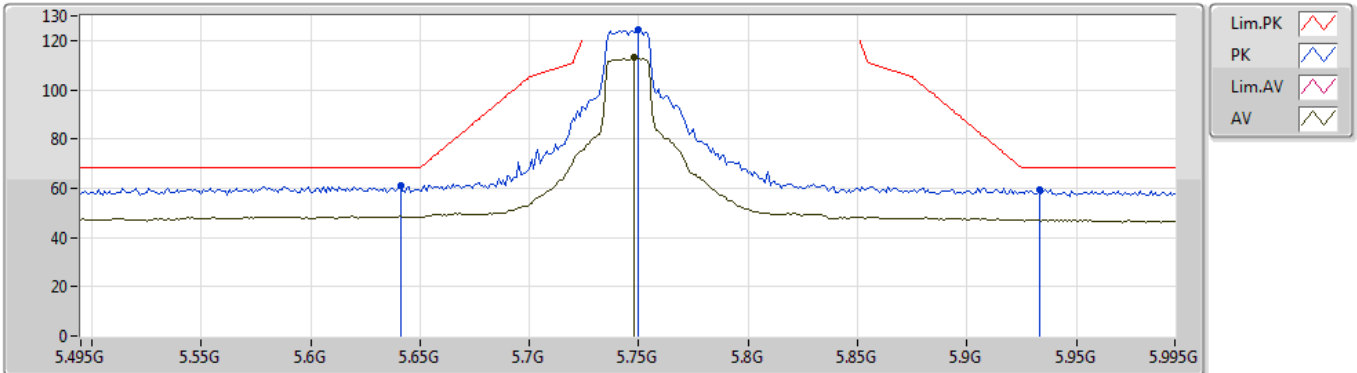
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW80-BF_Nss2,(MCS0)_4TX	Pass	PK	5.631G	67.85	68.20	-0.35	6.25	3	Vertical	249	2.31	-

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5745MHz_TX



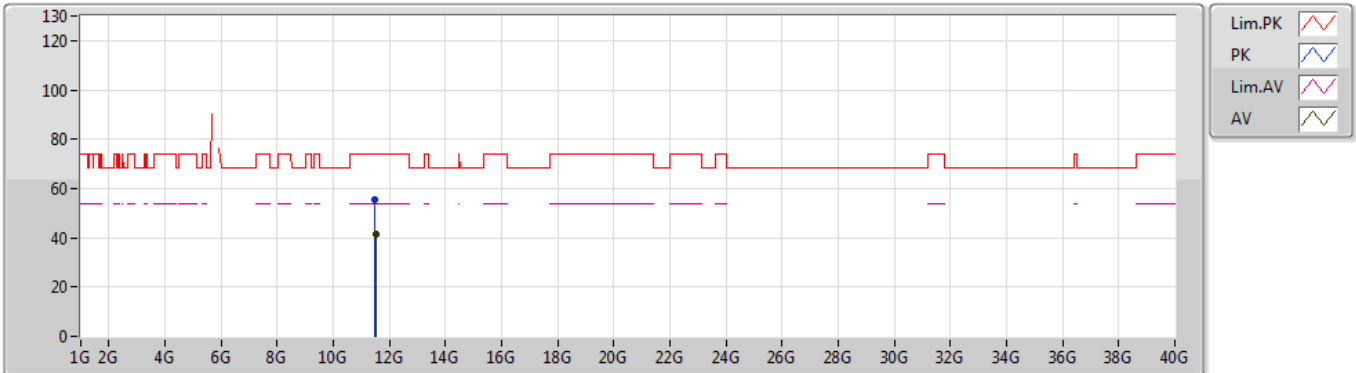
EUT_Z_4TX
Setting 120
03-C-4-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.641G	60.90	68.20	-7.30	6.24	3	Vertical	56	1.61	-	54.66
PK	5.75G	124.26	Inf	-Inf	6.10	3	Vertical	56	1.61	-	118.16
AV	5.748G	113.05	Inf	-Inf	6.11	3	Vertical	56	1.61	-	106.94
PK	5.933G	59.59	68.20	-8.61	6.43	3	Vertical	56	1.61	-	53.16

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5745MHz_TX



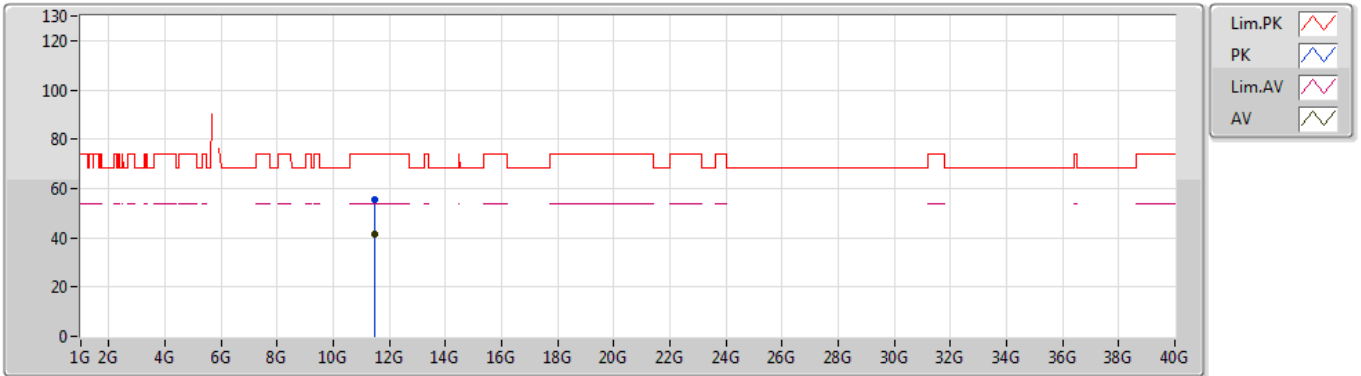
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.48394G	55.29	74.00	-18.71	13.74	3	Vertical	41	1.24	-	41.55			
AV	11.50062G	41.58	54.00	-12.42	13.75	3	Vertical	41	1.24	-	27.83			

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5745MHz_TX



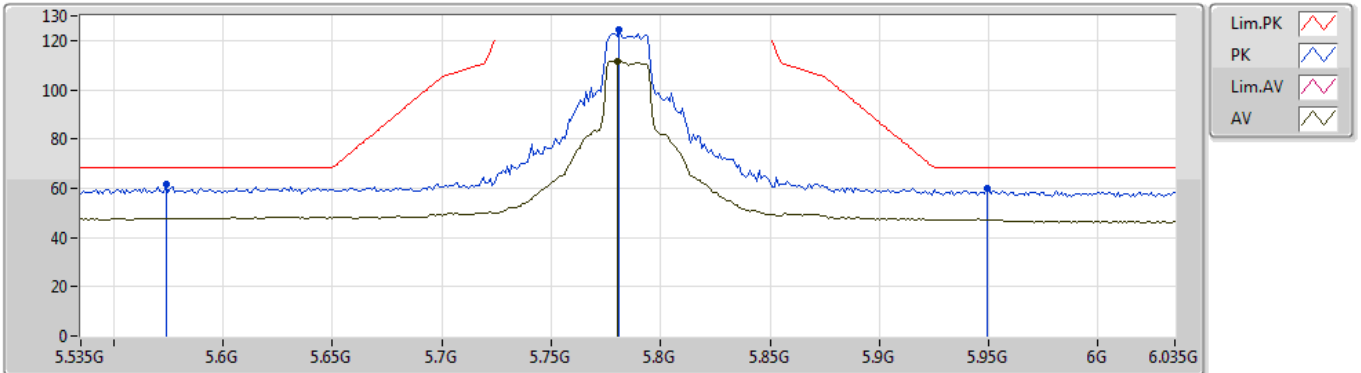
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	11.47662G	55.61	74.00	-18.39	13.72	3	Horizontal	320	2.41	-	41.89
AV	11.49816G	41.61	54.00	-12.39	13.75	3	Horizontal	320	2.41	-	27.86

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5785MHz_TX



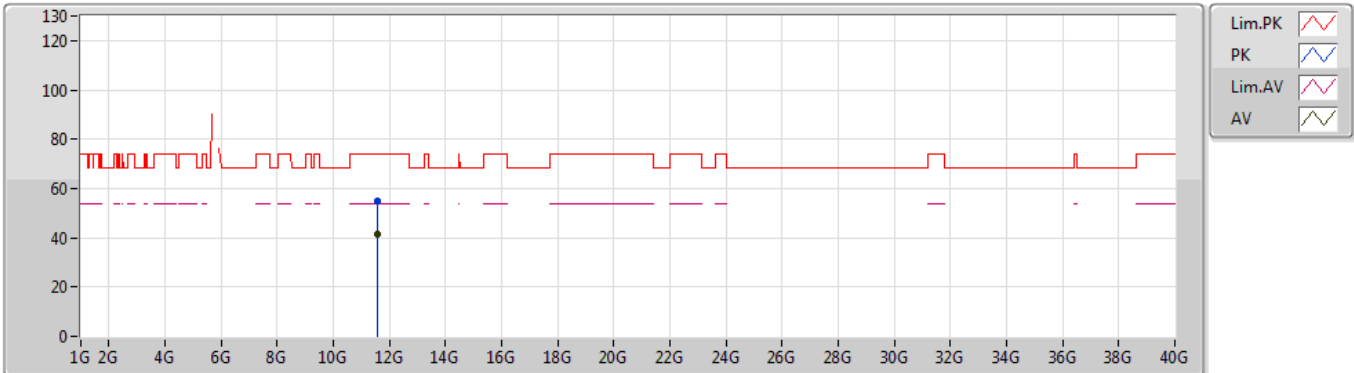
EUT_Z_4TX
Setting 120
03-C-4-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.574G	61.68	68.20	-6.52	6.29	3	Vertical	85	1.50	-	55.39
PK	5.781G	124.33	Inf	-Inf	6.08	3	Vertical	85	1.50	-	118.25
AV	5.78G	111.61	Inf	-Inf	6.08	3	Vertical	85	1.50	-	105.53
PK	5.949G	59.88	68.20	-8.32	6.48	3	Vertical	85	1.50	-	53.40

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5785MHz_TX



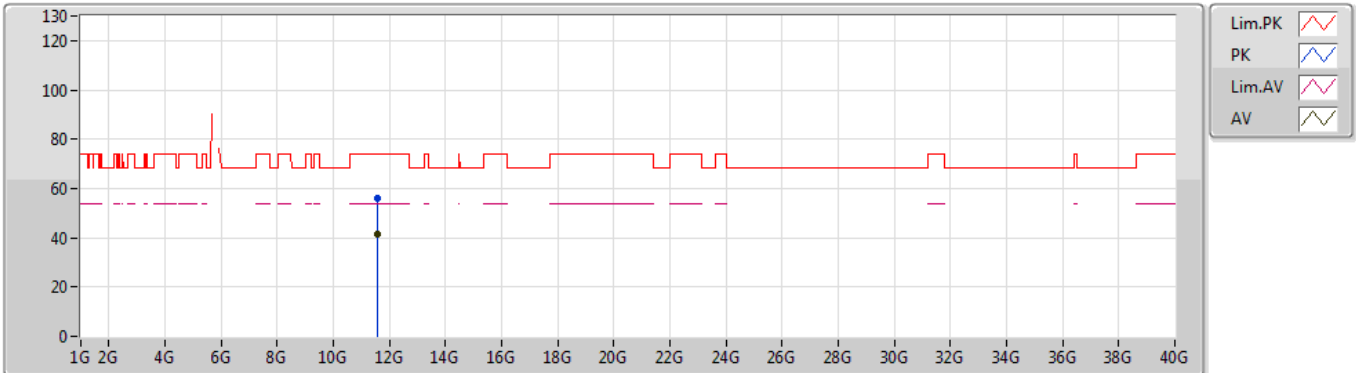
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.56874G	54.97	74.00	-19.03	13.81	3	Vertical	302	2.98	-	41.16			
AV	11.56718G	41.62	54.00	-12.38	13.81	3	Vertical	302	2.98	-	27.81			

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5785MHz_TX



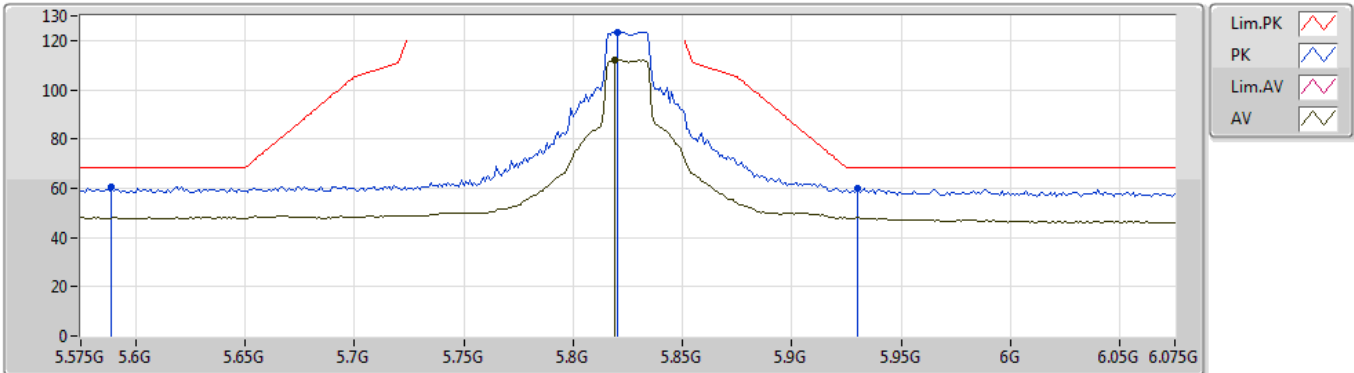
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Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.55908G	55.78	74.00	-18.22	13.79	3	Horizontal	204	1.88	-	41.99			
AV	11.56154G	41.60	54.00	-12.40	13.79	3	Horizontal	204	1.88	-	27.81			

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5825MHz_TX



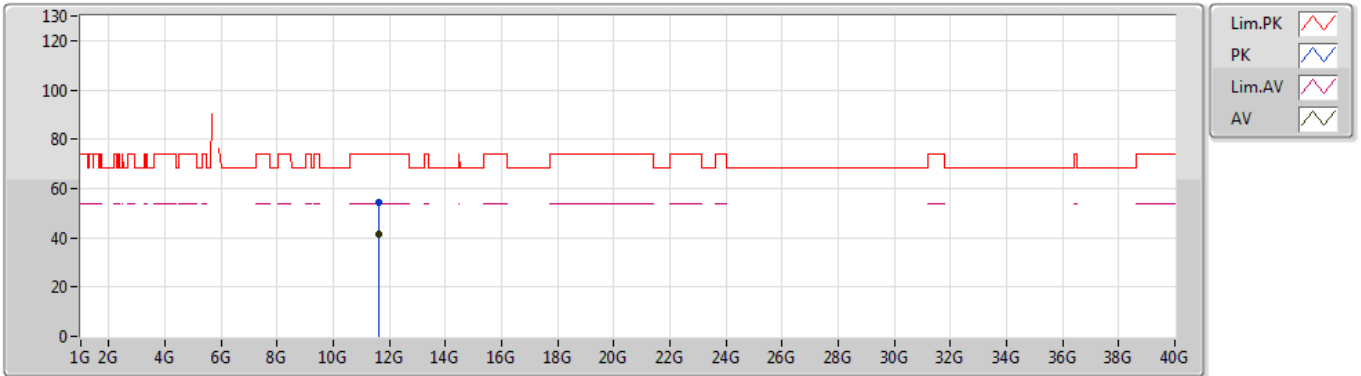
EUT_Z_4TX
Setting 120
03-C-4-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	5.589G	60.47	68.20	-7.73	6.29	3	Vertical	87	1.54	-	54.18			
PK	5.82G	123.51	Inf	-Inf	6.12	3	Vertical	87	1.54	-	117.39			
AV	5.819G	112.00	Inf	-Inf	6.12	3	Vertical	87	1.54	-	105.88			
PK	5.93G	60.10	68.20	-8.10	6.41	3	Vertical	87	1.54	-	53.69			

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5825MHz_TX



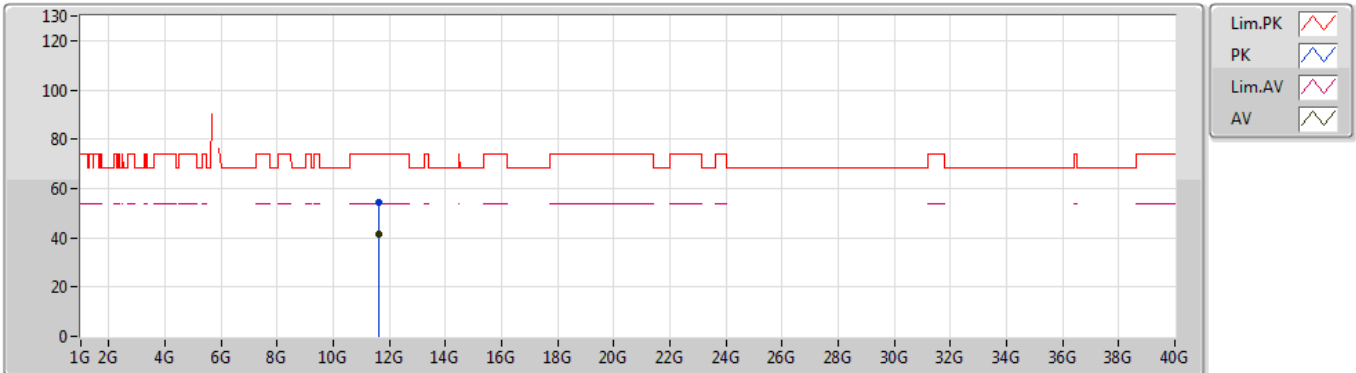
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.63602G	54.54	74.00	-19.46	13.86	3	Vertical	140	2.13	-	40.68			
AV	11.63716G	41.40	54.00	-12.60	13.86	3	Vertical	140	2.13	-	27.54			

802.11ax HEW20-BF_Nss2,(MCS0)_4TX

14/11/2019

5825MHz_TX



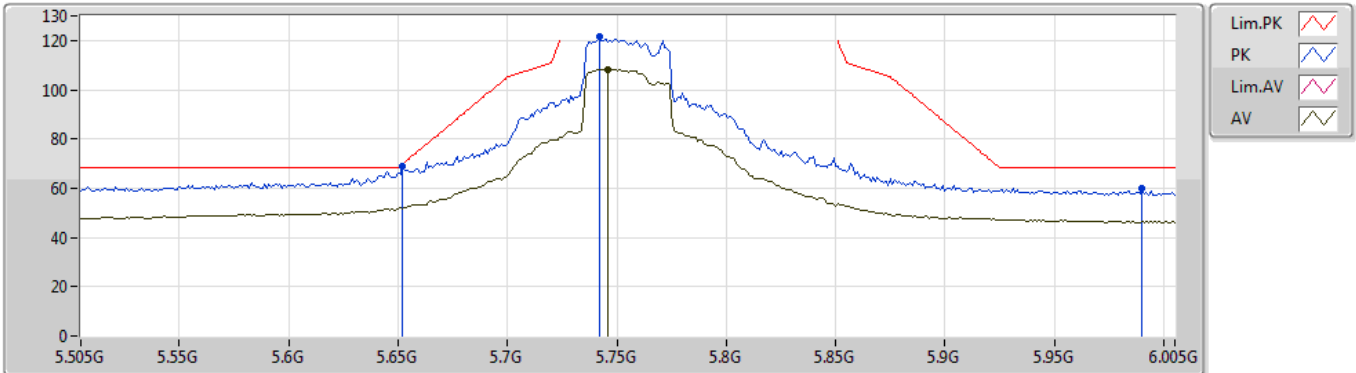
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.63968G	54.54	74.00	-19.46	13.86	3	Horizontal	310	2.17	-	40.68			
AV	11.63974G	41.39	54.00	-12.61	13.86	3	Horizontal	310	2.17	-	27.53			

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5755MHz_TX



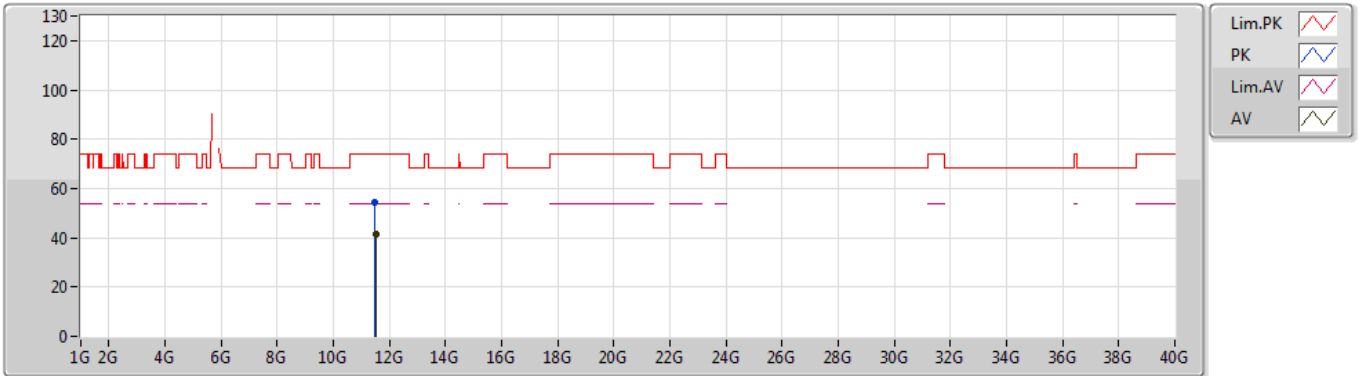
EUT_Z_4TX
Setting 120
03-C-4-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.652G	68.79	69.68	-0.89	6.21	3	Vertical	164	1.71	-	62.58
PK	5.742G	121.75	Inf	-Inf	6.11	3	Vertical	164	1.71	-	115.64
AV	5.746G	108.33	Inf	-Inf	6.11	3	Vertical	164	1.71	-	102.22
PK	5.99G	60.08	68.20	-8.12	6.62	3	Vertical	164	1.71	-	53.46

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5755MHz_TX



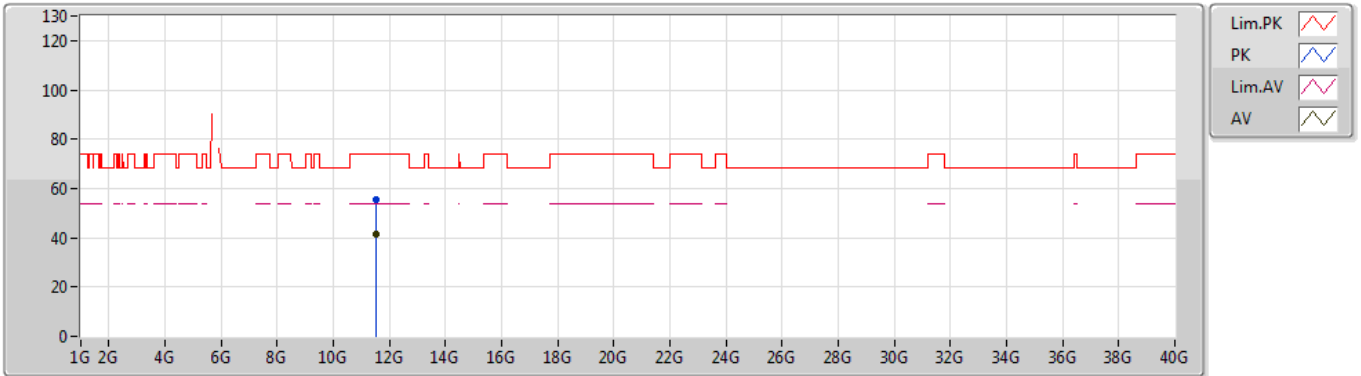
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.49632G	54.62	74.00	-19.38	13.75	3	Vertical	351	2.71	-	40.87			
AV	11.50826G	41.51	54.00	-12.49	13.76	3	Vertical	351	2.71	-	27.75			

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5755MHz_TX



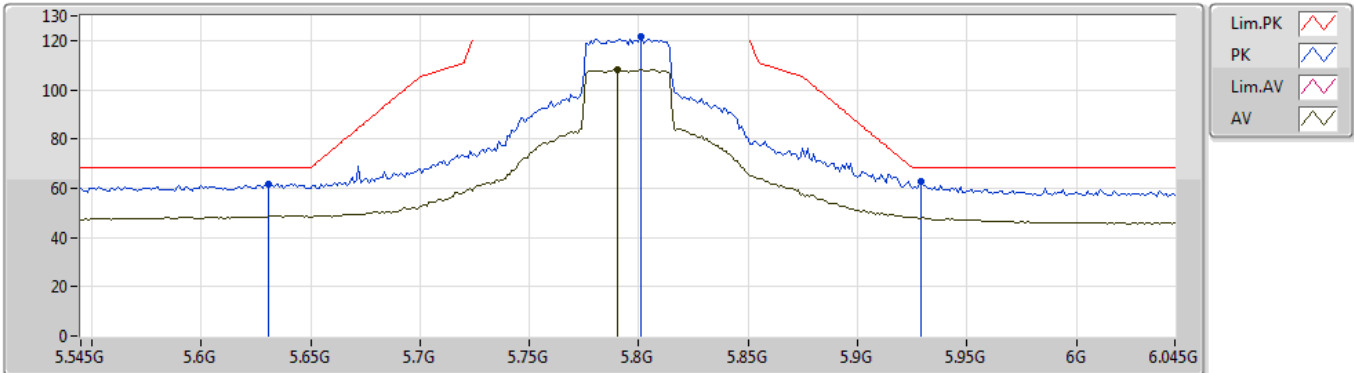
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.51618G	55.63	74.00	-18.37	13.76	3	Horizontal	275	1.29	-	41.87			
AV	11.51444G	41.52	54.00	-12.48	13.76	3	Horizontal	275	1.29	-	27.76			

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5795MHz_TX



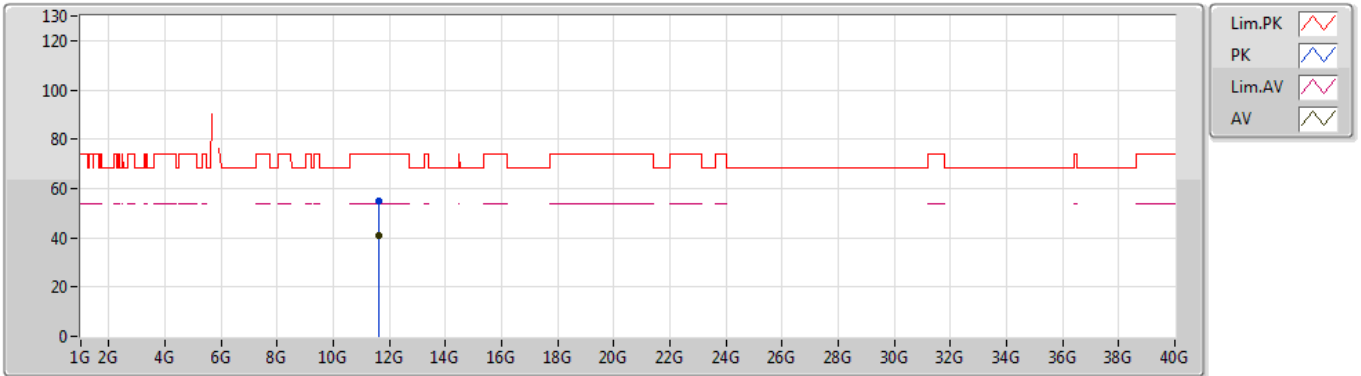
EUT_Z_4TX
Setting 120
03-C-4-10
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.631G	61.53	68.20	-6.67	6.25	3	Vertical	281	1.92	-	55.28
PK	5.801G	121.56	Inf	-Inf	6.07	3	Vertical	281	1.92	-	115.49
AV	5.79G	108.07	Inf	-Inf	6.07	3	Vertical	281	1.92	-	102.00
PK	5.929G	62.85	68.20	-5.35	6.41	3	Vertical	281	1.92	-	56.44

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5795MHz_TX



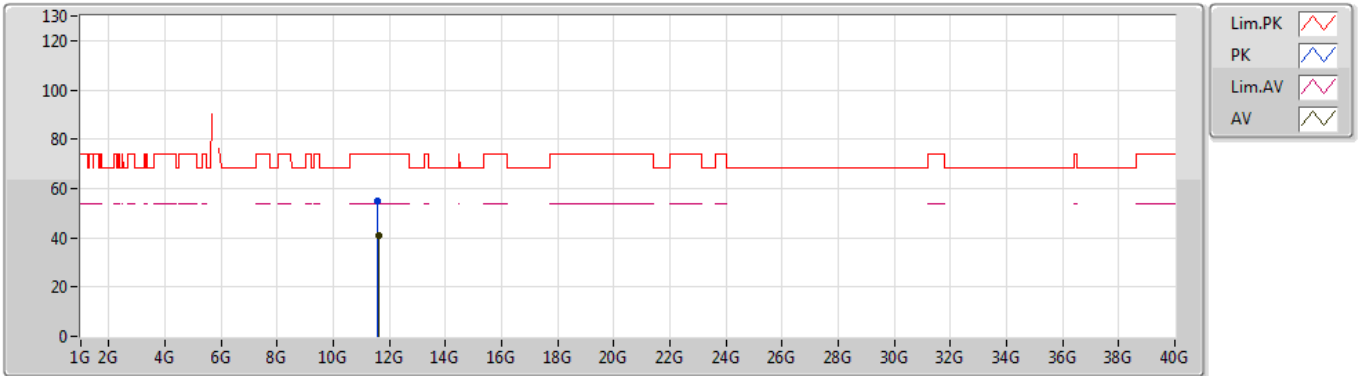
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.60308G	55.05	74.00	-18.95	13.82	3	Vertical	326	1.55	-	41.23			
AV	11.60008G	41.11	54.00	-12.89	13.82	3	Vertical	326	1.55	-	27.29			

802.11ax HEW40-BF_Nss2,(MCS0)_4TX

14/11/2019

5795MHz_TX



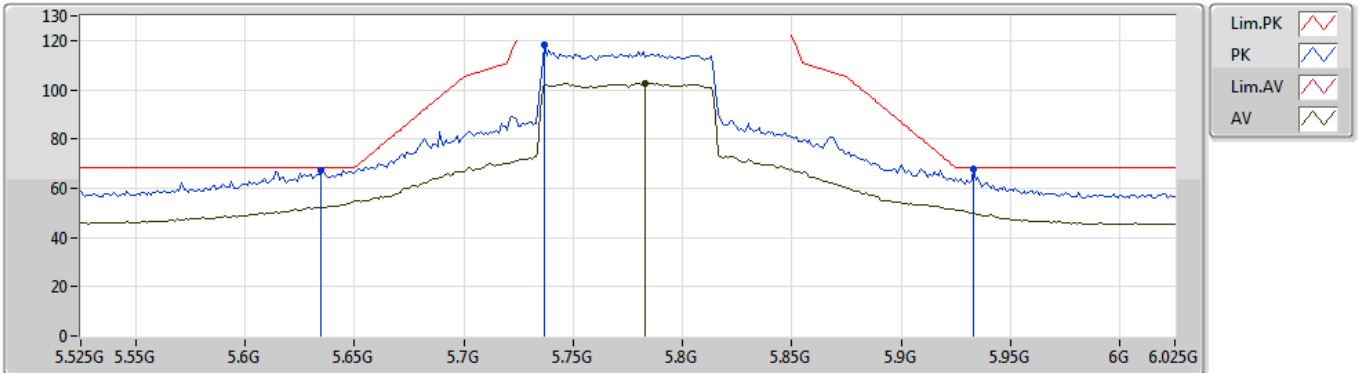
EUT_Z_4TX
Setting 120
03-C-4
FSP(100080)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.59402G	54.87	74.00	-19.13	13.82	3	Horizontal	29	2.49	-	41.05			
AV	11.60176G	41.15	54.00	-12.85	13.82	3	Horizontal	29	2.49	-	27.33			

802.11ax HEW80-BF_Nss2,(MCS0)_4TX

07/01/2020

5775MHz_TX



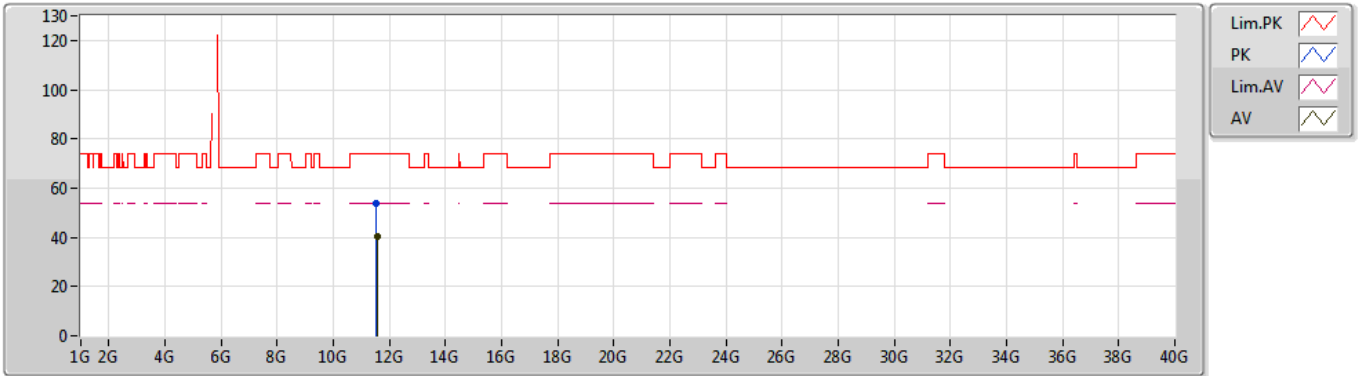
EUT_Z_4TX
Setting 89
04-F-Z-1-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	5.635G	67.12	68.20	-1.08	5.40	3	Vertical	95	1.50	-	61.72
PK	5.737G	117.99	Inf	-Inf	5.46	3	Vertical	95	1.50	-	112.53
AV	5.783G	102.65	Inf	-Inf	5.53	3	Vertical	95	1.50	-	97.12
PK	5.933G	67.60	68.20	-0.60	6.31	3	Vertical	95	1.50	-	61.29

802.11ax HEW80-BF_Nss2,(MCS0)_4TX

07/01/2020

5775MHz_TX



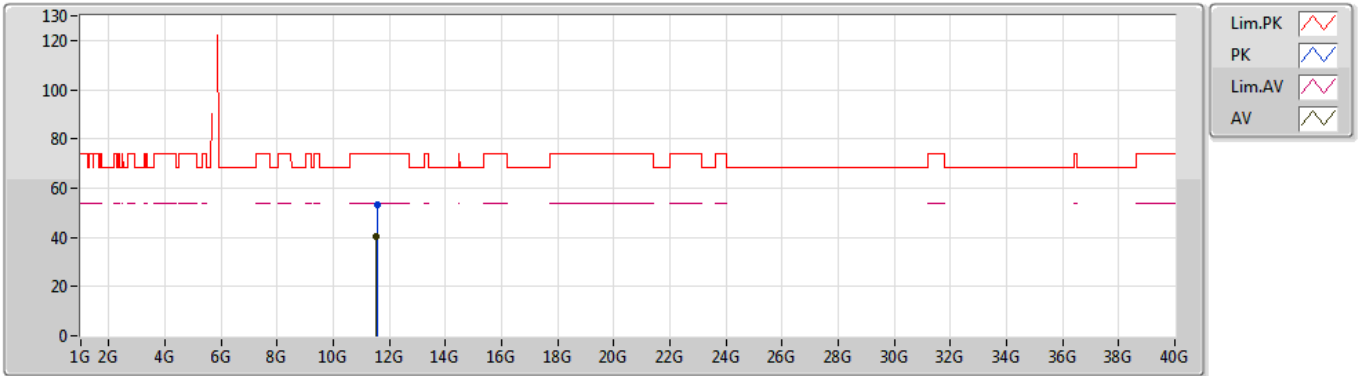
EUT_Z_4TX
Setting 89
04-F-Z-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.53722G	53.73	74.00	-20.27	11.57	3	Vertical	286	1.50	-	42.16			
AV	11.55696G	40.47	54.00	-13.53	11.56	3	Vertical	286	1.50	-	28.91			

802.11ax HEW80-BF_Nss2,(MCS0)_4TX

07/01/2020

5775MHz_TX



EUT_Z_4TX
Setting 89
04-F-Z-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	11.56284G	53.38	74.00	-20.62	11.55	3	Horizontal	359	1.50	-	41.83			
AV	11.53782G	40.24	54.00	-13.76	11.57	3	Horizontal	359	1.50	-	28.67			



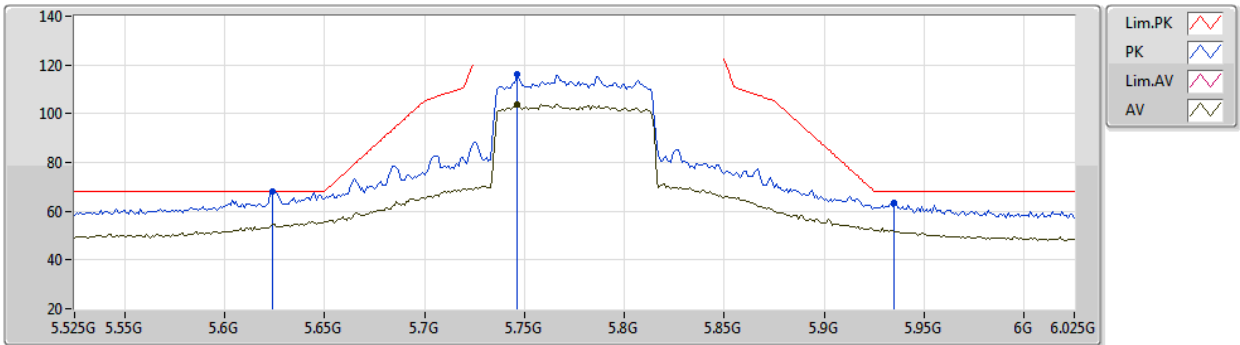
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW80_Nss4,(MCS0)_4TX	Pass	PK	5.624G	68.18	68.20	-0.02	3	Vertical	134	1.80	-

802.11ax HEW80_Nss4,(MCS0)_4TX

14/02/2020

5775MHz_TX



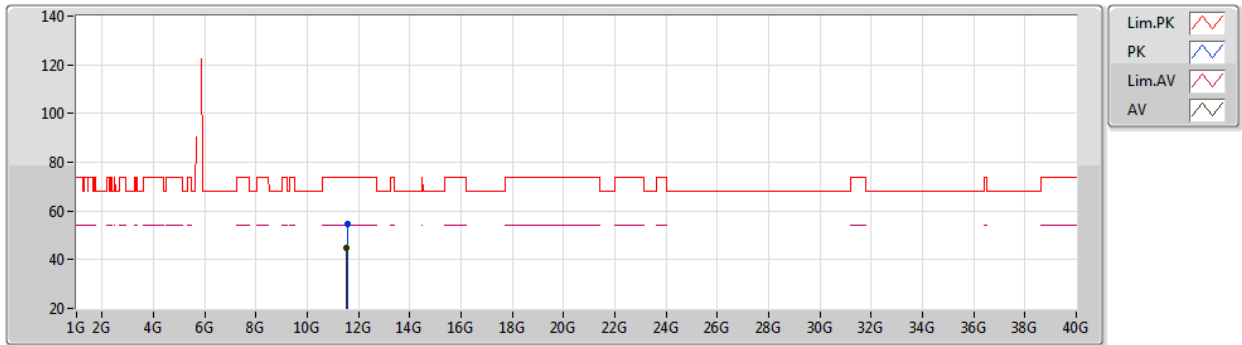
EUT_Z_4TX
Setting 89
04-C-K-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.624G	68.18	68.20	-0.02	62.39	3	Vertical	134	1.80	-	34.02	5.38	33.61
PK	5.746G	116.04	Inf	-Inf	110.02	3	Vertical	134	1.80	-	34.19	5.47	33.64
AV	5.746G	103.74	Inf	-Inf	97.72	3	Vertical	134	1.80	-	34.19	5.47	33.64
PK	5.935G	63.38	68.20	-4.82	56.42	3	Vertical	134	1.80	-	35.04	5.61	33.69

802.11ax HEW80_Nss4,(MCS0)_4TX

14/02/2020

5775MHz_TX



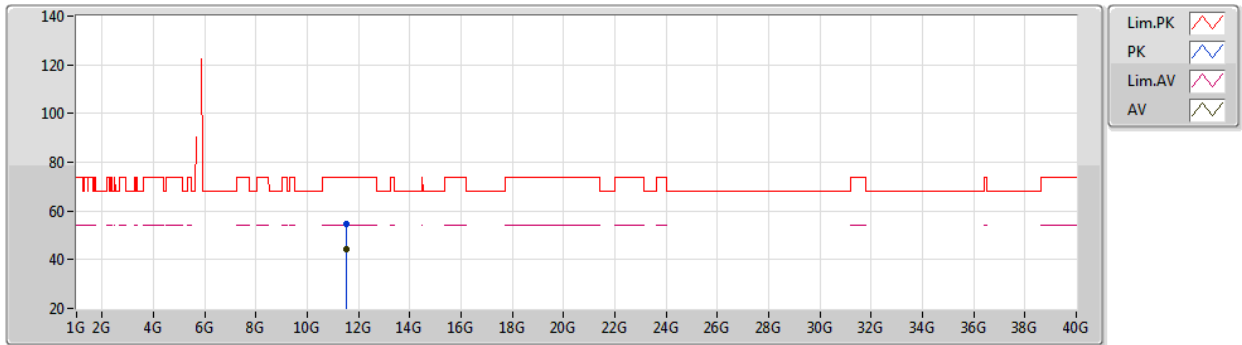
EUT_Z_4TX
Setting 89
04-C-K-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.5539G	54.47	74.00	-19.53	41.95	3	Vertical	175	2.00	-	39.12	8.22	34.82
AV	11.54642G	44.59	54.00	-9.41	32.05	3	Vertical	175	2.00	-	39.13	8.22	34.81

802.11ax HEW80_Nss4,(MCS0)_4TX

14/02/2020

5775MHz_TX



EUT_Z_4TX
Setting 89
04-C-K-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.54774G	54.84	74.00	-19.16	42.31	3	Horizontal	309	2.37	-	39.13	8.22	34.82
AV	11.54662G	44.46	54.00	-9.54	31.92	3	Horizontal	309	2.37	-	39.13	8.22	34.81