



FCC RADIO TEST REPORT

FCC ID : MSQ-RTGZ00

Equipment : Wireless-AC5300 Tri-band Gigabit Router, ROG Rapture Tri-band Gaming Router, Extreme Gaming Router

Brand Name : ASUS

Model Name : RT-AC5300, RT-AC5300R, RT-AC5300W, RT-AC5300P, RT-AC95U, RT-AC96U, GT-AC5300, ROG Rapture GT-AC5300

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

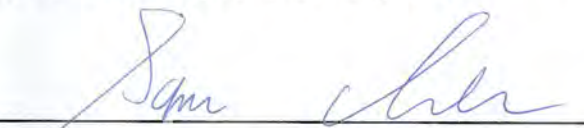
Manufacturer (3) : Arcadyan Technology (Vietnam) Co., Ltd.
Ba Thien Industrial Park, Ba Hien commune, Binh Xuyen district, Vinh Phuc Province, Viet Nam

Standard : 47 CFR FCC Part 15.407

The product was received on Sep. 25, 2019, and testing was started from Sep. 25, 2019 and completed on Jan. 16, 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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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	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Note: Reference to Sporton Project No.: 532637-18 and 982836.

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: Sam Chen

Report Producer: Cindy Peng



1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	3TX, 4TX
5.15-5.25GHz	802.11n HT20	20	3TX, 4TX
5.15-5.25GHz	802.11n HT20-BF	20	3TX, 4TX
5.15-5.25GHz	802.11ac VHT20	20	3TX, 4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	3TX, 4TX
5.15-5.25GHz	802.11n HT40	40	3TX, 4TX
5.15-5.25GHz	802.11n HT40-BF	40	3TX, 4TX
5.15-5.25GHz	802.11ac VHT40	40	3TX, 4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	3TX, 4TX
5.15-5.25GHz	802.11ac VHT80	80	3TX, 4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	3TX, 4TX
5.725-5.85GHz	802.11a	20	3TX, 4TX
5.725-5.85GHz	802.11n HT20	20	3TX, 4TX
5.725-5.85GHz	802.11n HT20-BF	20	3TX, 4TX
5.725-5.85GHz	802.11ac VHT20	20	3TX, 4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	3TX, 4TX
5.725-5.85GHz	802.11n HT40	40	3TX, 4TX
5.725-5.85GHz	802.11n HT40-BF	40	3TX, 4TX
5.725-5.85GHz	802.11ac VHT40	40	3TX, 4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	3TX, 4TX
5.725-5.85GHz	802.11ac VHT80	80	3TX, 4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	3TX, 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.
- ♦ 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	Brand	Part No.	Antenna Type	Connector
1	PSA	RFDPA131000SBLB805	Dipole Antenna	Reversed-SMA
2	PSA	RFDPA151000SBLB802	Dipole Antenna	Reversed-SMA
3	M.gear	C660-510368-A	Dipole Antenna	Reversed-SMA
4	M.gear	C660-510369-A	Dipole Antenna	Reversed-SMA
5	M.gear	C660-510370-A	Dipole Antenna	Reversed-SMA
6	M.gear	C660-510391-A	Dipole Antenna	Reversed-SMA
7	M.gear	C660-510392-A	Dipole Antenna	Reversed-SMA

Set	Gain (dBi)		Cable Loss		True Gain (dBi)	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	2.32	3.47	-	-	2.32	3.47
2	1.98	3.37	-	-	1.98	3.37
3	1.50	3.30	0.39	0.61	1.11	2.69
4	2.00	3.20	0.35	0.55	1.65	2.65
5	2.20	3.20	0.33	0.51	1.87	2.69
6	2.14	2.98	-	-	2.14	2.98
7	1.91	2.97	-	-	1.91	2.97

Note1: The above information was declared by manufacturer.

Note2: The EUT has seven set of antenna, and each set contains eight antennas.

Note3: Antennas above are the same type. Besides, only set 1 antenna was selected to perform the test and written in this report due to the highest gain.

For 2.4GHz and 5GHz (3TX/3RX) function:

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

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

For 2.4GHz and 5GHz (4TX/4RX) function:

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.947	0.24	2.065m	1k
802.11ac VHT20	0.951	0.22	1.921m	1k
802.11ac VHT20-BF	0.899	0.46	1.946m	1k
802.11ac VHT40	0.97	0.13	953.75u	3k
802.11ac VHT40-BF	0.931	0.31	3.695m	300
802.11ac VHT80	0.942	0.26	461.25u	3k
802.11ac VHT80-BF	0.495	3.05	256.875u	10k

Note:

- ◆ DC is Duty Cycle.
- ◆ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for n/VHT in 2.4GHz and n/ac in 5GHz.			
Function	<input type="checkbox"/>	Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
Test Software Version	Mtool 2.0.2.7			

Note: The above information was declared by manufacturer.



1.1.5 Table for Multiple Listing

1. The equipment names/model names in the following table are all refer to the identical product.

Equipment Name	Model Name	Description
Wireless-AC5300 Tri-band Gigabit Router, ROG Rapture Tri-band Gaming Router, Extreme Gaming Router	RT-AC5300	All the equipment names/model names are identical, the difference equipment names/model names served as marketing strategy.
	RT-AC5300R	
	RT-AC5300W	
	RT-AC5300P	
	RT-AC95U	
	RT-AC96U	
	GT-AC5300	
ROG Rapture GT-AC5300		

Note: Model: RT-AC5300 was selected as representative model for the test and its data was recorded in this report.

2. The EUT has three types, which are identical to each other in all aspects except for the following table:

EUT	LAN Port	EUT Version	Transformer	Resistance (Size)	Thickness of Heat sink (mm)	Pad (mm)	Fan
EUT 1	4	Version 2 (Rev 1.33)	SKU B	0402/0201	2mm	5mm	X
EUT 2	8	Version 2 (Rev 1.311)	SKU A	0402/0201	2mm	5mm	X
EUT 3	8	Version 2 (Rev1.411)	SKU A	0402/0201	2mm	5mm	X

Note1: The above information was declared by manufacturer.

Note2: V : With X :Without

3. The EUT Version 2 information as below:

Ant. Connector	Port		
	2.4GHz	5GHz Band 1	5GHz Band 4
1	4	1	-
2	3	2	-
3	2	3	-
4	1	4	-
5	-	-	4
6	-	-	3
7	-	-	2
8	-	-	1



4. The transformer information as below:

Transformer	Brand	LAN	LAN	WAN
SKU A	Mingtek	HN8011VG	HN8011VG	HN18101CG
SKU B	Mingtek	HN8014VG	HN8015VG	HN18101CG

5. The Version information as below:

Version		Rev 1.33	Rev 1.311	Rev 1.411	
RF	2G	Mainchip	BCM4366	BCM4366	
		TX	PA SE2623L	PA SE2623L	
		RX	RX FEM SKY85201	RX FEM SKY85201	Discrete RX BFP842 + RTC6619
	5G Low/High Band	Mainchip	BCM4366	BCM4366	BCM4366
		TX	PA RFPA5542	PA RFPA5542	PA RFPA5542
		RX	RX FEM SKY85605	RX FEM SKY85614	RX FEM SKY85614
BB	CPU	BCM4709C0	BCM4908	BCM4908	
	DDR	512MBx1	512MBx2	512MBx1	
	Gigabit switch	RTL8365MB (Reserved)	BCM53134S	BCM53134S	
	LAN port	4 (Reserved extra 4)	8	8	
	Flash	128MB	256MB	256MB	
	EMI Filter for low voltage	none	none	none	
	Power IC	RT8290A	RT8290A+RT6220+RT6217E	RT8290A+RT6220+RT6217E	
	USB	2.0x1/3.0x1	3.0x2	3.0x2	

1.1.6 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR532637-11AB

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

Modifications	Performance Checking
1. Updating the test rule of 5GHz band 4 to "15.407 (b)(4)(i)" from "15.407 (b)(4)(ii)" for EUT version 2.	1. Emission Bandwidth. 2. Maximum Conducted Output Power. 3. Peak Power Spectral Density. 4. Unwanted Emissions Above 1GHz.
2. Adding one adapter "model name: ADP-65GD D". 3. Adding one power cable.	1. AC Power-line Conducted Emissions. 2. Unwanted Emissions Below 1GHz.
4. Adding one manufacturer "Arcadyan Technology (Vietnam) Co., Ltd." and "Ba Thien Industrial Park, Ba Hien commune, Binh Xuyen district, Vinh Phuc Province, Viet Nam".	It does not affect the test result.



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		
<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	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 EUT	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	EUT 1 (Version 2 - Rev 1.33)	TH02-CB	Serway Li	23.1~23.9°C / 57~60%	Jan. 15, 2020~Jan. 16, 2020
Radiated Below 1GHz	EUT 1 (Version 2 - Rev 1.33)	03CH05-CB	Eason Chen	25.2~26.4°C / 49~54%	Sep. 25, 2019
Radiated Below 1GHz	EUT 2 (Version 2 - Rev 1.311) and EUT 3 (Version 2 - Rev 1.411)	03CH06-CB	Stim Sung	24.9~25.4°C / 58~61%	Oct. 04, 2019
Radiated Above 1GHz	EUT 1 (Version 2 - Rev 1.33)	03CH05-CB	Eason Chen	22.2~24.2°C / 58-62%	Oct. 12, 2019~Jan. 15, 2020
AC Conduction	EUT 1 (Version 2 - Rev 1.33)	CO01-CB	Peter Wu	24~25°C / 60~61%	Sep. 28, 2019
AC Conduction	EUT 2 (Version 2 - Rev 1.311) and EUT 3 (Version 2 - Rev 1.411)	CO01-CB	Peter Wu	25~26°C / 56~59%	Oct. 07, 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

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5745MHz	93
5785MHz	94
5825MHz	94
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5745MHz	94
5785MHz	94
5825MHz	94
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5755MHz	90
5795MHz	90
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5775MHz	90
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5745MHz	80
5785MHz	80
5825MHz	80
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-
5745MHz	92
5785MHz	92
5825MHz	92
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5755MHz	79
5795MHz	79
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-
5755MHz	85
5795MHz	92
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5775MHz	83
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-
5775MHz	91

Note:

- There are two functions of EUT, one is beamforming function, and the other is non-beamforming function for n/VHT in 2.4GHz and n/ac in 5GHz. All test results were recorded in the report.
- VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT 1 (Version 2 - Rev 1.33) + Adapter 7 + SKU B
2	EUT 2 (Version 2 - Rev 1.311) + Adapter 7 + SKU A
3	EUT 3 (Version 2 - Rev 1.411) + Adapter 7 + SKU A
For operating mode 1 is the worst case and it was record in this test report.	

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
Operating Mode	
1	EUT 1 (Version 2 - Rev 1.33)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 (Version 2 - Rev 1.33) + Adapter 7 + SKU B
2	EUT 2 (Version 2 - Rev 1.311) + Adapter 7 + SKU A
3	EUT 3 (Version 2 - Rev 1.411) + Adapter 7 + SKU A
For operating mode 3 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	EUT 1 (Version 2 - Rev 1.33)



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 + WLAN 5GHz Band 4
Refer to Sporton Test Report No.: FA532637-19 for Co-location RF Exposure Evaluation.	

Note: The EUT is used for laying only.

2.3 EUT Operation during Test

For CTX Mode:

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated 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 "Lantest.exe" to link with the remote workstation to transmit and receive packet by WLAN AP and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

Accessories					
No.	Equipment Name	Brand Name	Model Name	Rating	Remark
1	Adapter 1	ASUS	ADP-65DW B	Input: 100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.42A	-
2	Adapter 2	ASUS	AD887320	Input: 100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.42A	-
3	Adapter 3	ASUS	PA-1650-93	Input: 100-240Vac, 50-60Hz, 1.7A Output: 19Vdc, 3.42A	-
4	Adapter 4	ASUS	ADP-65DW B	Input: 100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.42A	-
5	Adapter 5	ASUS	PA-1650-63	Input: 100-240Vac, 50-60Hz, 1.7A Output: 19Vdc, 3.42A	-
6	Adapter 6	ASUS	AD887320	Input: 100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.42A	-
7	Adapter 7	ASUS	ADP-65GD D	Input:100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.42A	With the DC cable: Non-shielded, 1.8m
No.	Others				
8	Power cable*1: Non-shielded 0.9m only for adapter 7 use.				
9	RJ-45 cable*1: Shielded, 1.5m				

Note1: The difference between adapter 1(model: ADP-65DW B) and adapter 4 (model: ADP-65DW B) as below:

Adapter 1			
Design No	MFG TITLE	MFG PART	DESCRIPTION
Q1	AUK	SMK0760F	FET 600V 7A 1.2ohm TO-220F-3P
Q1	ST	STP6NK60ZFP	FET 600V 6A 1.2ohm TO-220FP-3P
Q1	TOSHIBA	TK10A60DR(STA4,X)	FET 600V 10A 750mohm TO-220SIS-3P
D101	ST	STPS20S100CT	DIO SBD 20A 100V TO-220AB-3P C.C.
D101	ST	STPS20SM100ST	DIO SBD 20A 100V TO-220AB-3P
D101	ST	STPS30SM100ST	DIO SBD 30A 100V TO-220AB-3P
IC31	ON	DAP022ASN65T1G	IC ASIC PWM CURRENT MODE TSOP-6P SMD
IC131	TI	TL432BIDBZR	IC VOL REF ADJ 2.495V 100mA 0.5%
IC131	NXP	TL431BMFDT	IC VOL REF ADJ 2.495V 100mA 0.5%
IC131	DIODES	AS431ANTR-G1	IC VOL REF ADJ 2.5V 100mA 0.5% SOT-23-3P
IC32	EVERLIGHT	EL816M(Y)(D)-VG	PHOTO TR 50mA 80V DIP-4P 150%-300%
IC32	SHARP	PC123Y92FZ0F	PHOTO TR 50mA 70V DIP-4P 160%-300%
IC32	Renesas	PS2561DL1-1Y-V-A(G)	EOL PHOTO TR 40mA 80V DIP-4P 150%-300%
CX1	EUROPTRONIC	MPX2224K30B15LXD20	CAP X2 MP PC 305VAC 0.22uF K S15
CX1	OKAYA	LE224-MX-30-C3.2	CAP X2 MP PC 300VAC 0.22uF K S15
CX1	HUA	MKP-224K0275AB115S-G	CAP X2 MP PC 275VAC 0.22uF K S15



FL1	DELTA	HFV-MP13202	LINE FILTER T14 14mH MIN
FL101	DELTA	LFV-MP13303	LINE FILTER T10 17uH MIN
T1	DELTA	MV-MP13167	TRANSFORMER MAIN RM10 1mH +/-5%
C1	NICHICON	UPT2G680MHD3	CAP AL 400V 68uF M 16*25 P7.5
C1	NCC	EKMG401ELL680ML25S	CAP AL 400V 68uF M 16*25 P7.5
C1	L-Tec	TYJ2GM680K25O	CAP AL 400V 68uF M 16*25 P7.5
CY1	MURATA	DE1B3KX221KNHAN99F	CAP Y1/X1 CD 250VAC 220pF K B TP VI10
CY1	TDK	CD70-B2GA221KYVK	CAP Y1/X1 CD 250VAC 220pF K B TP VI10
CY1	WALSIN	YP0AH221K061DASDAB	CAP Y1/X1 CD 250VAC 220pF K B TP VI10
Adapter 4			
Design No	MFG TITLE	MFG PART	DESCRIPTION
Q1	TOSHIBA	TK10A60DR(STA4,X)	FET 600V 10A 750mohm TO-220SIS-3P
Q1	FUJI	FMV11N60ES	FET 600V 11A 750mohm TO-220F-3P
D101	ST	STPS20S100CT	DIO SBD 20A 100V TO-220AB-3P C.C.
D101	ST	STPS20H100CT	DIO SBD 20A 100V TO-220AB-3P C.C.
D101	ST	STPS30H100CT	DIO SBD 30A 100V TO-220AB-3P C.C.
IC31	NeoEnergy	DAP022AT	IC ASIC PWM CURRENT MODE SOT-26-6P SMD
IC131	LITE-ON	LA431OCRPA	IC REGU ADJ 2.495V 100mA 0.4% SOT-23R-3P
IC131	TI	TL432BIDBZR	IC VOL REF ADJ 2.495V 100mA 0.5%
IC131	NXP	TL431BMFDT	IC VOL REF ADJ 2.495V 100mA 0.5%
IC32	EVERLIGHT	EL816M(Y)(D)-VG	PHOTO TR 50mA 80V DIP-4P 150%-300%
IC32	SHARP	PC123Y92FZ0F	PHOTO TR 50mA 70V DIP-4P 160%-300%
IC32	TOSHIBA	TLP785F(D4-GRH,F	PHOTO TR 60mA 80V DIP-4P 150%-300%
CX1	HUA	MKP-334K0275AB115S-G	CAP X2 MP PC 275VAC 0.33uF K S15
CX1	HUA	MKP-334K0275AB115S-P	CAP X2 MP PC 275VAC 0.33uF K S15
CX1	EUROPTRONIC	MPX2334K30B15LXD31	CAP X2 MP PC 305VAC 0.33uF K S15
FL1	DELTA	HFV-MP15027	LINE FILTER T16 12.7mH MIN
FL101	DELTA	LFV-MP13171	LINE FILTER T6 1.55uH MIN
T1	DELTA	MV-MP15037	TRANSFORMER MAIN RM10 1000uH +/-5%
C1	NCC	EKMG401ELL680ML25S	CAP AL 400V 68uF M 16*25 P7.5
CY1	MURATA	DE1B3KX221KNHAN99F	CAP Y1/X1 CD 250VAC 220pF K B TP VI10
CY1	WALSIN	YP0AH221K061DASDAB	CAP Y1/X1 CD 250VAC 220pF K B TP VI10

Note2: The difference between adapter 3 (model: PA-1650-93) and adapter 5 (model: PA-1650-63) as below:

Adapter 3	Adapter 5
Model: PA-1650-93	Model: PA-1650-63

Note3: The difference between adapter 2 (model: AD887320) and new adapter 6 (model: AD887320) as below:

Adapter 2	Adapter 6
Type: 010KLF BAH	Type: 010K-3LF



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

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	HDD3.0	WD	WDBACY5000AWT	N/A
G	HDD3.0	WD	WDBACY5000AWT	N/A

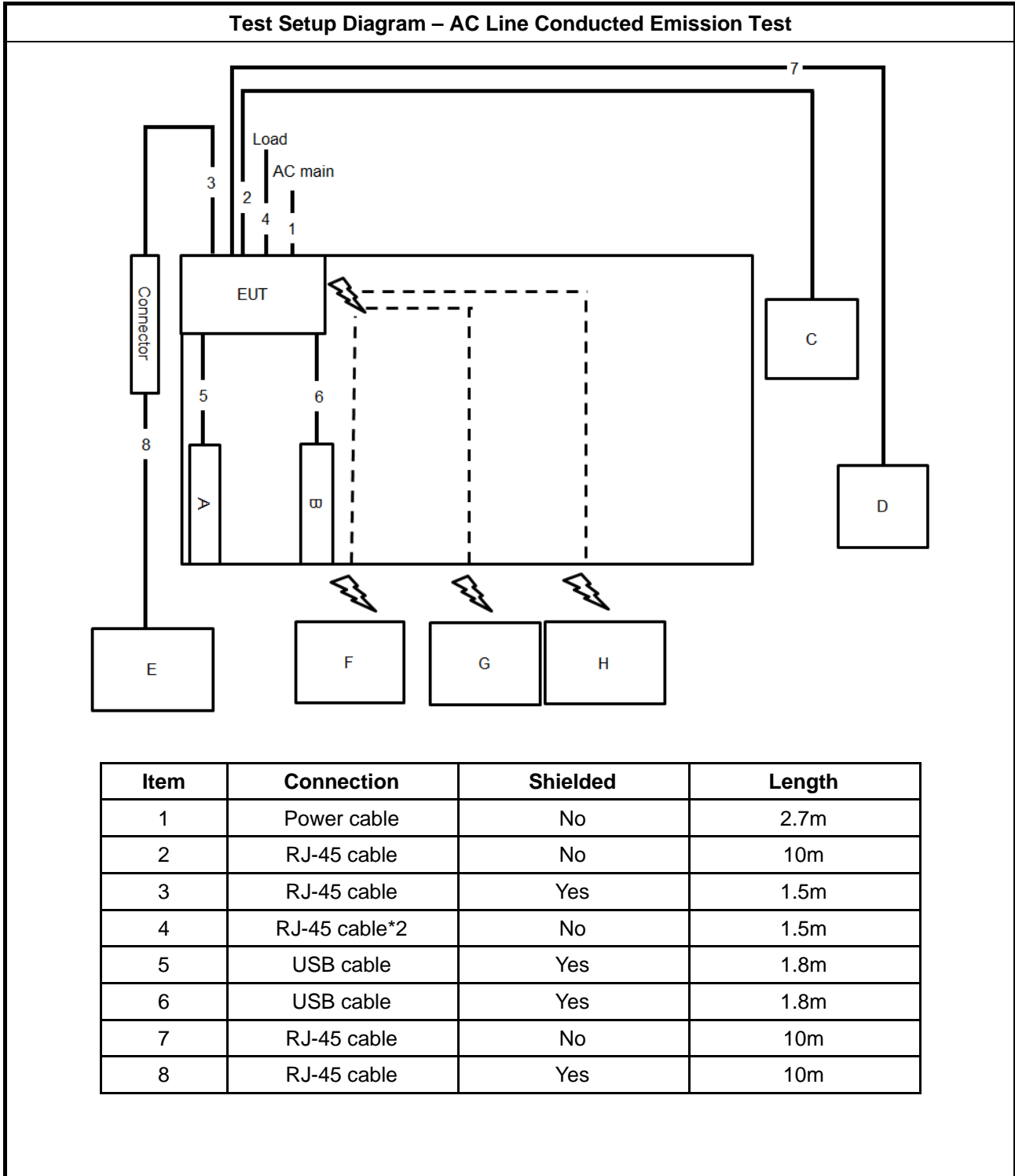
For Radiated (above 1GHz) for non-beamforming mode and RF Conducted:

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

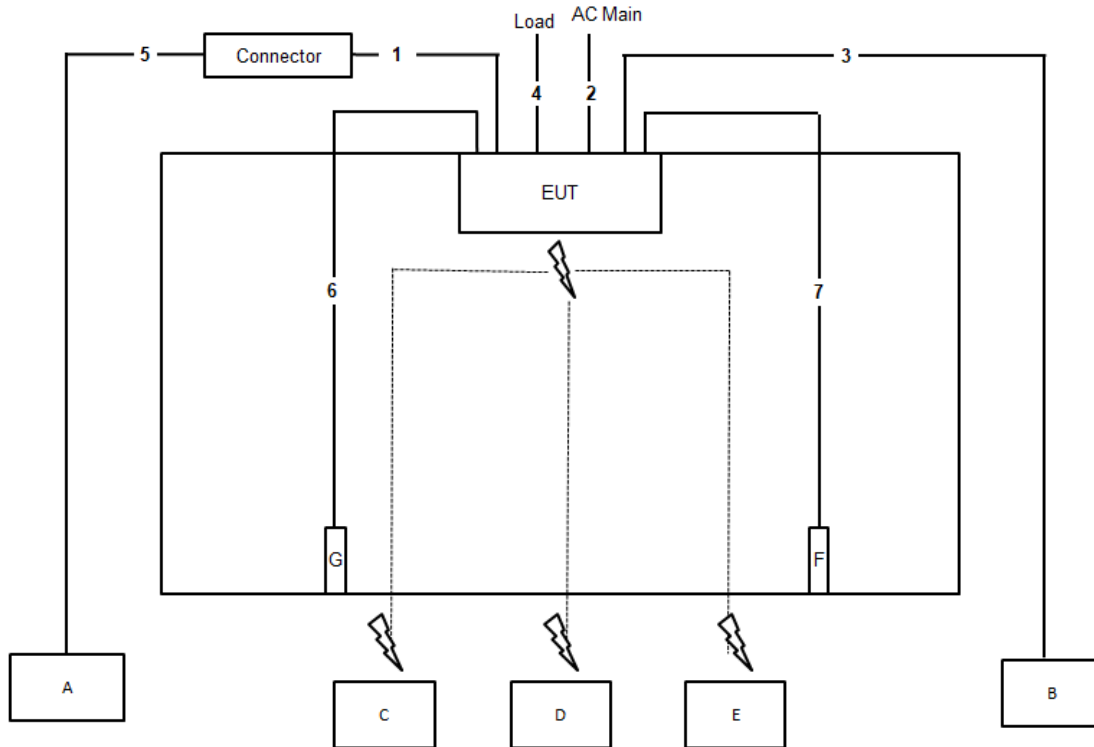
For Radiated (above 1GHz) for beamforming mode:

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

2.6 Test Setup Diagram



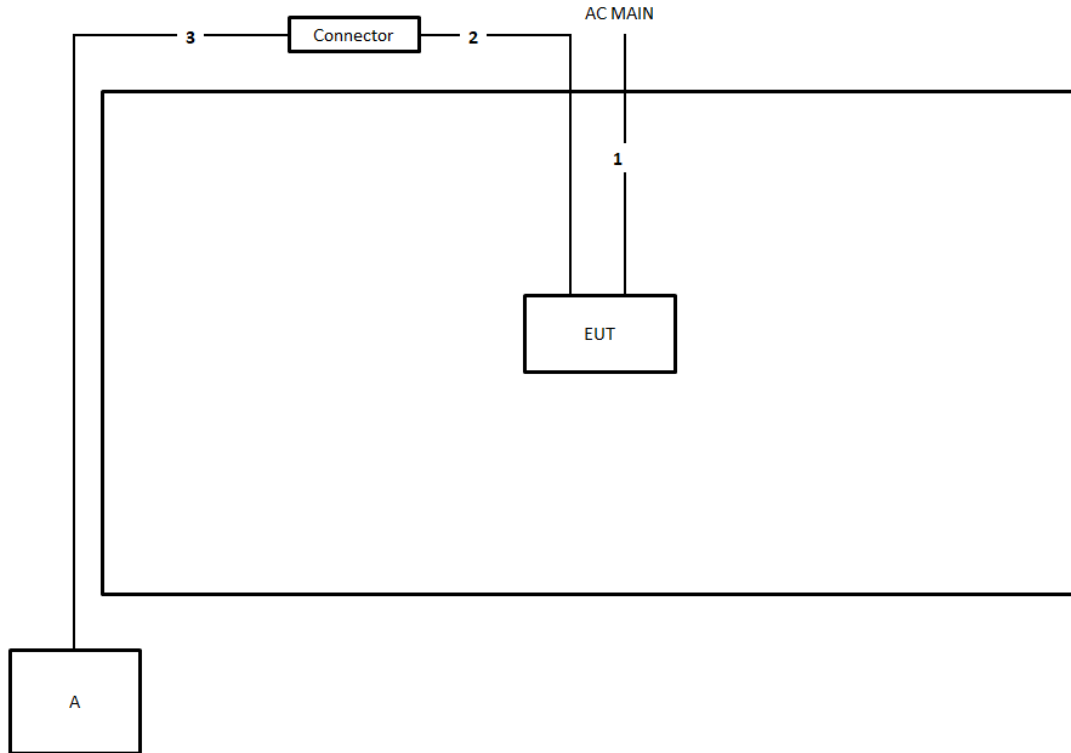
Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz

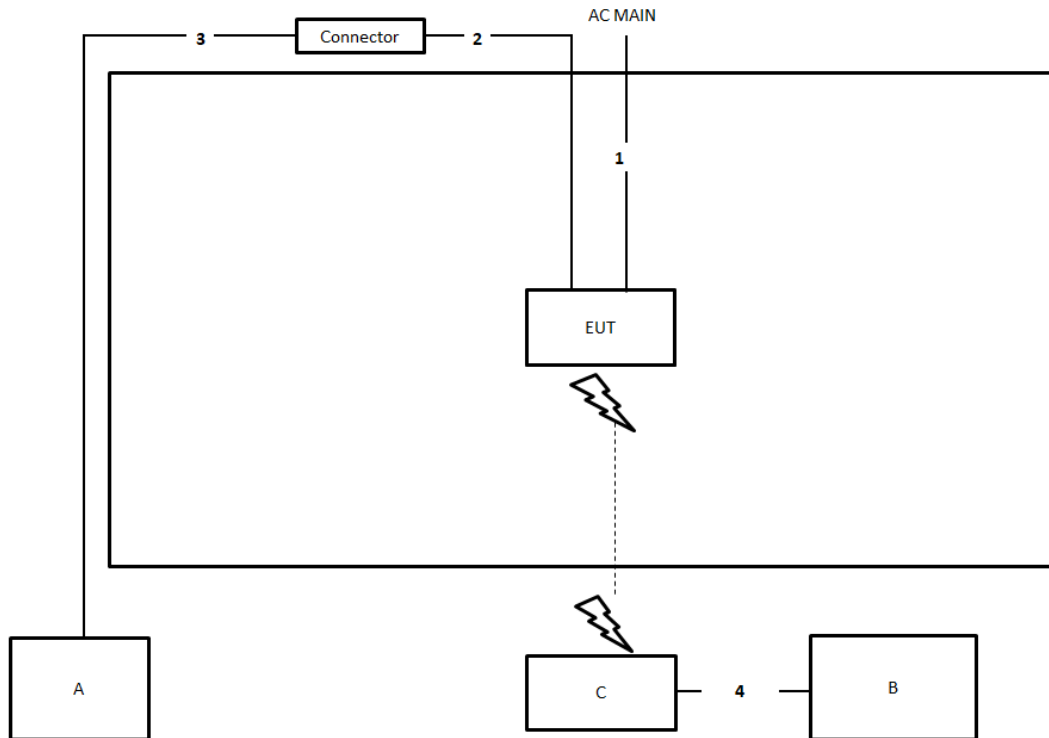
For non-beamforming mode:



Item	Connection	Shielded	Length
1	Power cable	No	2.2m
2	RJ-45 cable	Yes	1.5m
3	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



Item	Connection	Shielded	Length
1	Power cable	No	2.2m
2	RJ-45 cable	Yes	1.5m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	10m



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.

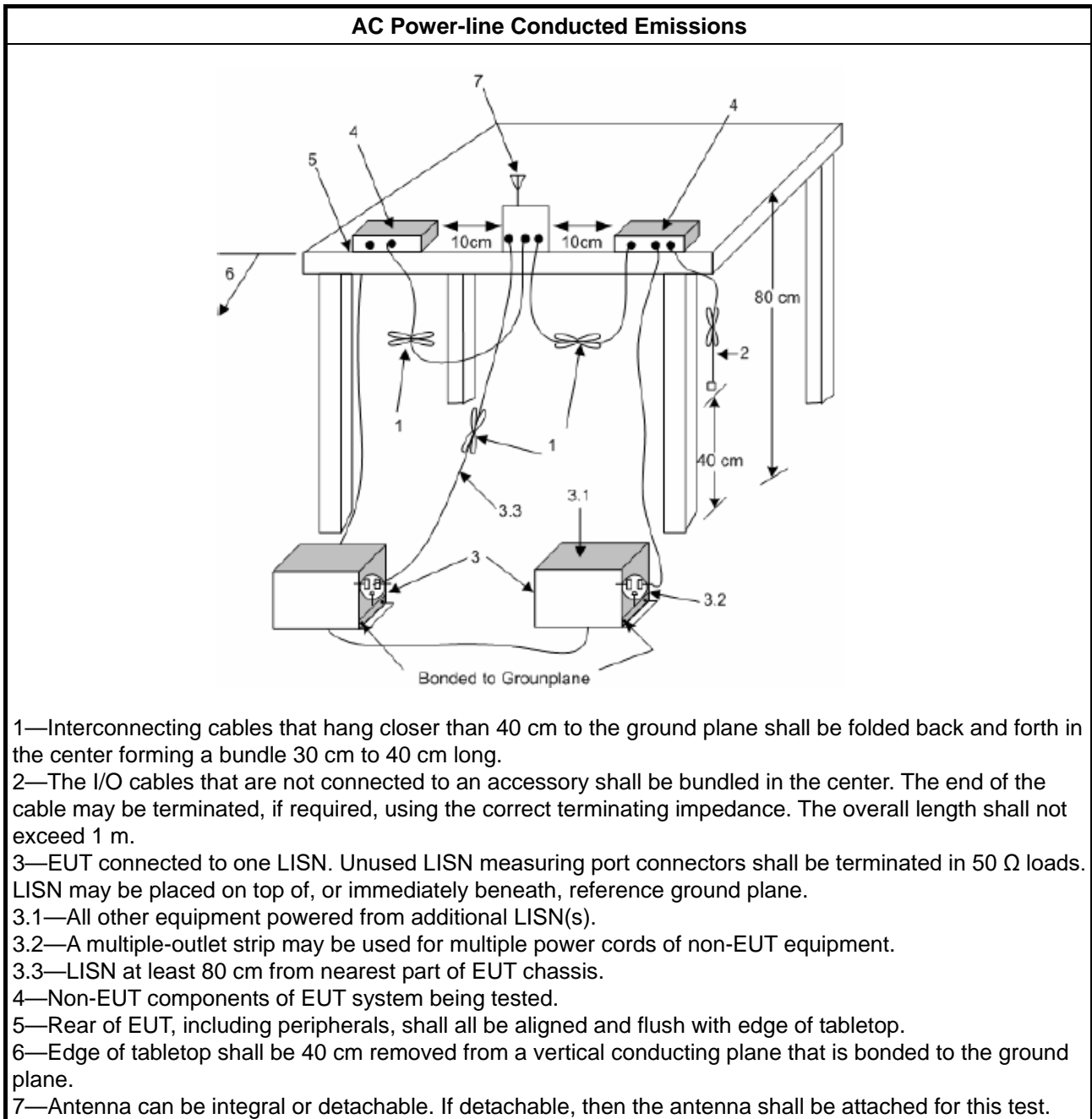
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> 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	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	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.
<input type="checkbox"/>	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
<input type="checkbox"/>	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
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.

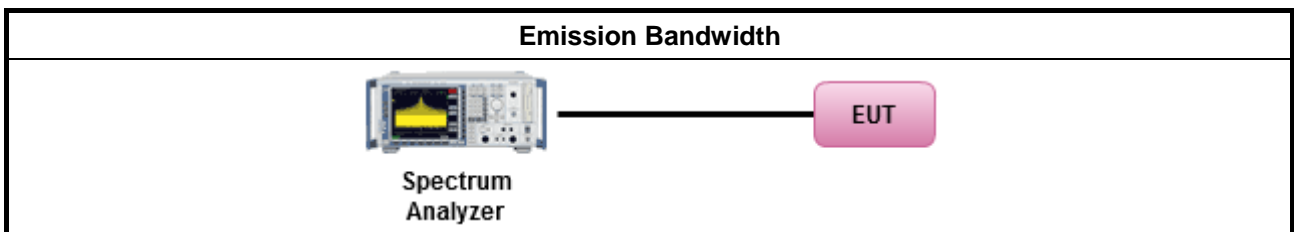
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method							
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.</td> </tr> </table> 		<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.	<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.						
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.						
<input type="checkbox"/>	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	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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 $\leq 125mW$ [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 $P_{Out} = 24 - (G_{TX} - 6)$.
<input type="checkbox"/> 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 $P_{Out} = 24 - (G_{TX} - 6)$.	
<input type="checkbox"/> 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 $P_{Out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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	
<input type="checkbox"/> 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	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 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.	

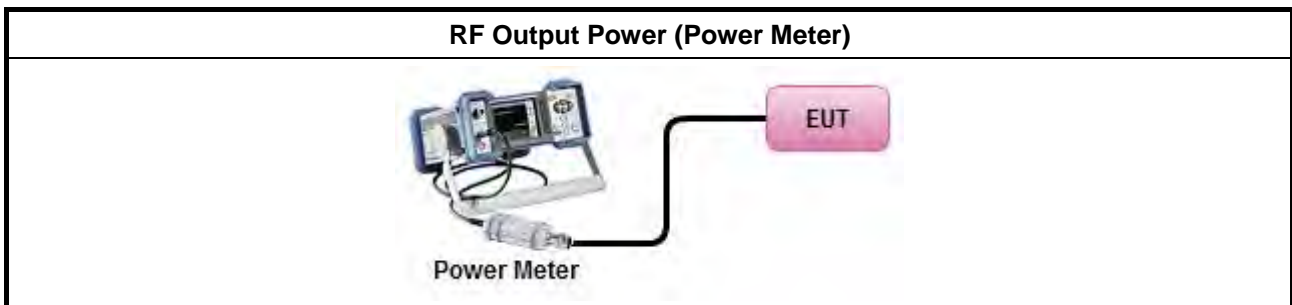
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
Average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ 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	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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 $PPSD = 11 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/>	<ul style="list-style-type: none"> 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 $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.4.2 Measuring Instruments

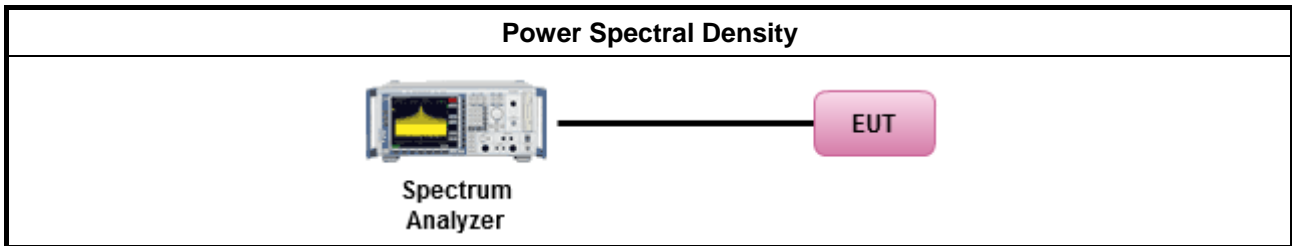
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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: 	
<input type="checkbox"/>	Refer as FCC KDB 789033, F5) 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]	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	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,
<input type="checkbox"/>	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.
<ul style="list-style-type: none"> ▪ 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
<input type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 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).

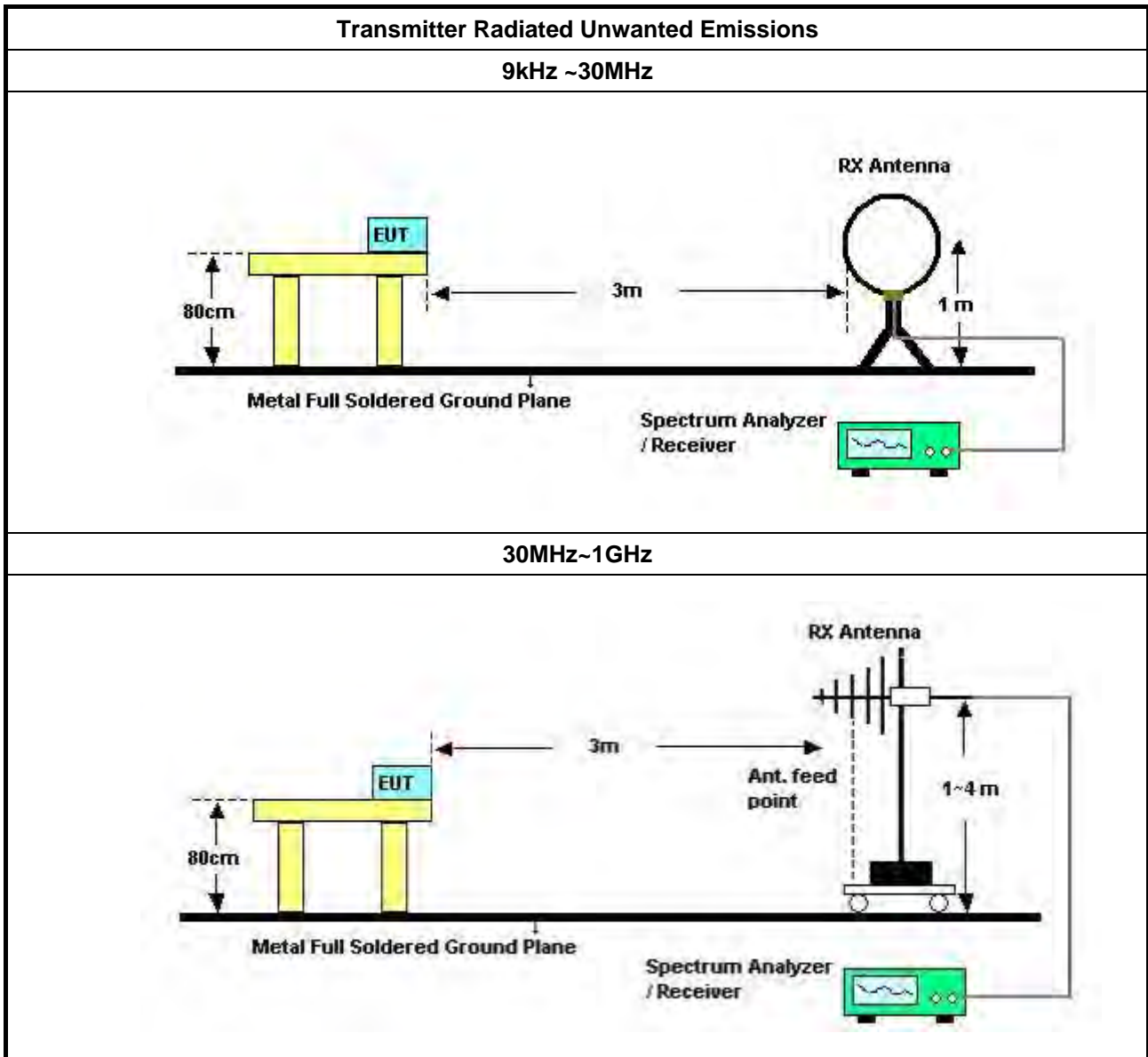
3.5.2 Measuring Instruments

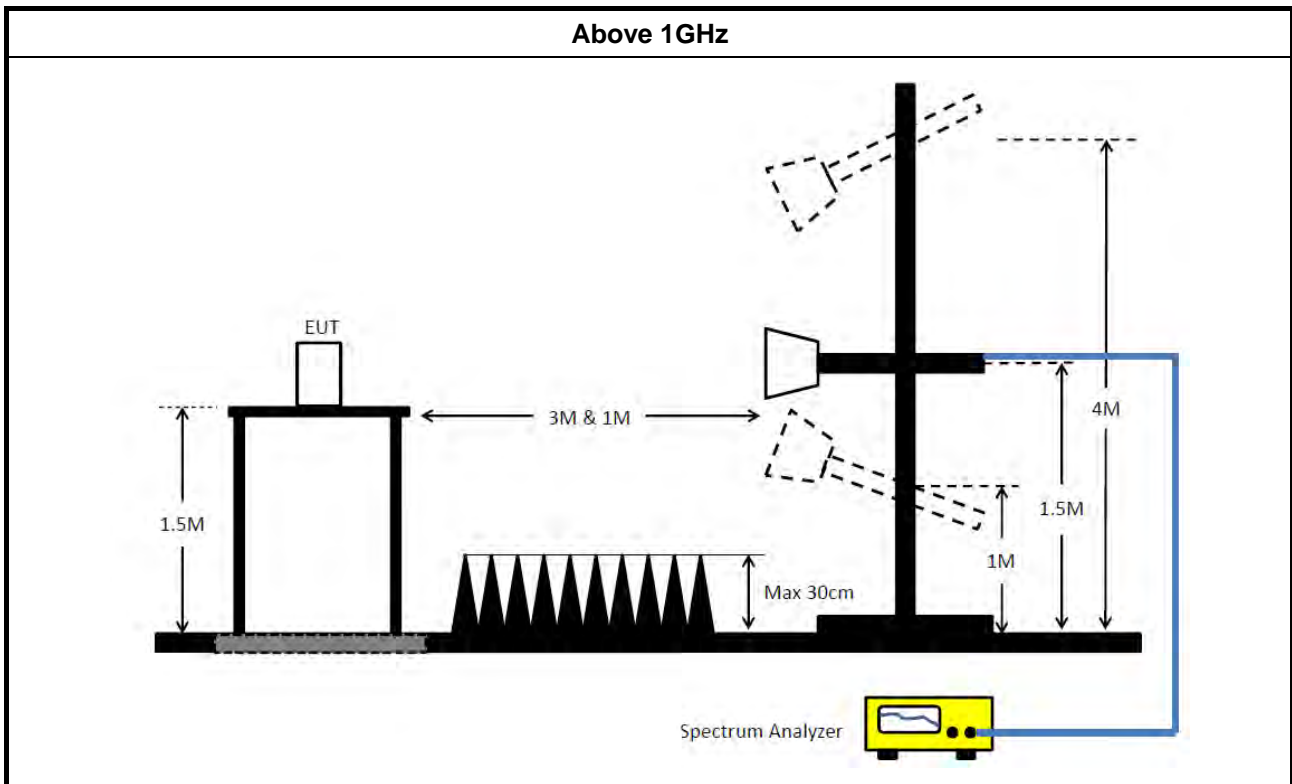
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ 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).
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> ▪ 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. <ul style="list-style-type: none"> <input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging). <input checked="" type="checkbox"/> Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW). <input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. <input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions. <input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit. <input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ For radiated measurement. <ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level.
	<ul style="list-style-type: none"> ▪ 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
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 21, 2019	May 20, 2020	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESE & EMC I	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 28, 2019	Mar. 27, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2019	May 01, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug, 15, 2019	Aug, 14, 2020	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMC I	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Aug. 03, 2019	Aug. 02, 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	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	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+SUHN ER	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120 D	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	EMC12630 SE	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)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)

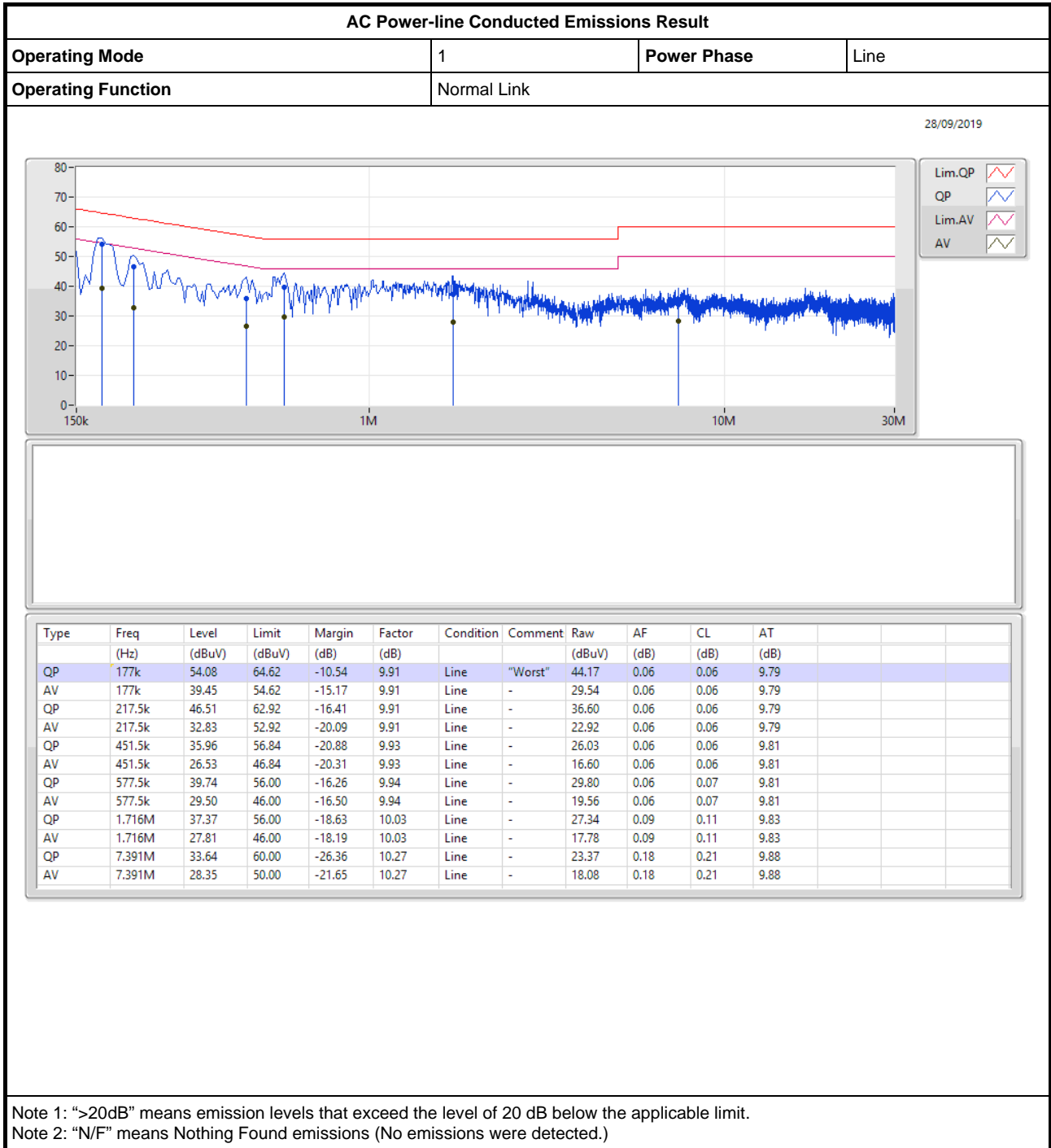
Note: Calibration Interval of instruments listed above is one year.

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



AC Power-line Conducted Emissions Result

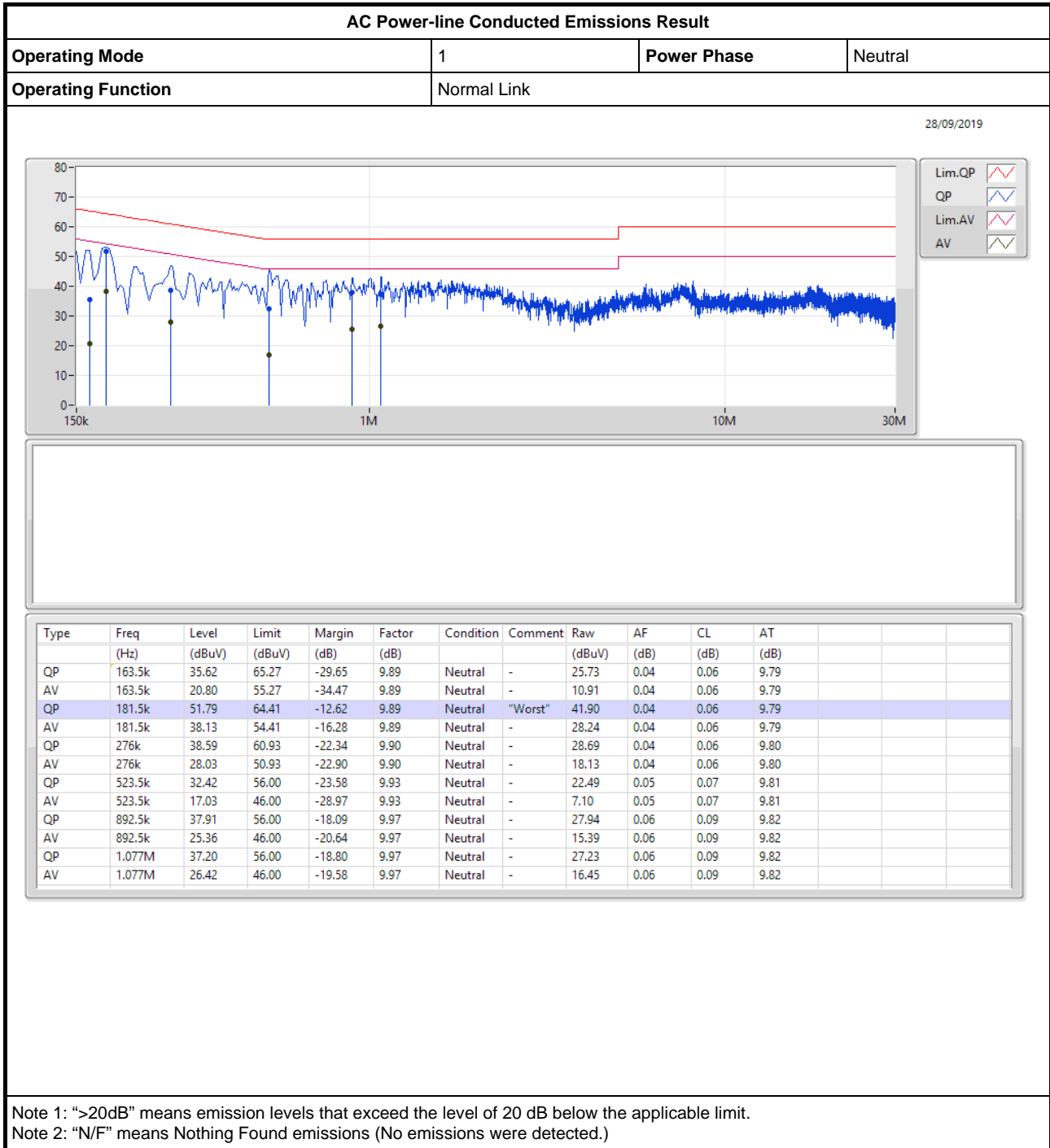
Appendix A





AC Power-line Conducted Emissions Result

Appendix A



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	16.38M	20.96M	21MOD1D	16.32M	16.792M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.61M	21.499M	21M5D1D	17.55M	17.901M
802.11ac VHT40_Nss1,(MCS0)_4TX	36.36M	38.861M	38M9D1D	36.36M	36.462M
802.11ac VHT80_Nss1,(MCS0)_4TX	76.44M	76.522M	76M5D1D	76.32M	76.042M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.61M	17.991M	18MOD1D	17.58M	17.841M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	17.61M	18.921M	18M9D1D	17.58M	17.871M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	36.36M	36.582M	36M6D1D	36.3M	36.342M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	36.36M	42.879M	42M9D1D	36.36M	36.402M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	76.44M	76.042M	76MOD1D	76.32M	75.922M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	76.44M	76.522M	76M5D1D	76.32M	75.922M

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	16.35M	17.091M	16.32M	17.661M	16.32M	16.852M	16.35M	16.792M
5785MHz	Pass	500k	16.35M	17.751M	16.35M	20.96M	16.32M	17.331M	16.38M	16.792M
5825MHz	Pass	500k	16.35M	19.31M	16.32M	19.13M	16.32M	18.321M	16.32M	16.822M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	17.61M	18.201M	17.61M	19.01M	17.61M	18.021M	17.61M	17.901M
5785MHz	Pass	500k	17.58M	18.351M	17.58M	21.499M	17.58M	18.171M	17.61M	17.901M
5825MHz	Pass	500k	17.55M	19.64M	17.55M	20.75M	17.58M	18.681M	17.58M	17.901M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	36.36M	36.582M	36.36M	37.721M	36.36M	36.462M	36.36M	36.462M
5795MHz	Pass	500k	36.36M	36.762M	36.36M	38.861M	36.36M	36.522M	36.36M	36.462M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.32M	76.042M	76.32M	76.522M	76.44M	76.042M	76.32M	76.042M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	17.58M	17.961M	17.61M	17.871M	17.61M	17.841M	17.58M	17.871M
5785MHz	Pass	500k	17.61M	17.961M	17.61M	17.901M	17.58M	17.871M	17.61M	17.871M
5825MHz	Pass	500k	17.58M	17.991M	17.61M	17.871M	17.61M	17.871M	17.58M	17.871M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	17.58M	18.021M	17.58M	18.201M	17.58M	17.901M	17.61M	17.871M
5785MHz	Pass	500k	17.58M	18.141M	17.58M	18.651M	17.58M	17.991M	17.58M	17.901M
5825MHz	Pass	500k	17.58M	18.621M	17.61M	18.921M	17.58M	18.231M	17.61M	17.901M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	36.36M	36.582M	36.36M	36.402M	36.3M	36.462M	36.36M	36.462M
5795MHz	Pass	500k	36.36M	36.582M	36.36M	36.342M	36.36M	36.462M	36.36M	36.402M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	36.36M	36.582M	36.36M	36.582M	36.36M	36.402M	36.36M	36.462M
5795MHz	Pass	500k	36.36M	36.822M	36.36M	42.879M	36.36M	36.582M	36.36M	36.462M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.44M	75.922M	76.32M	76.042M	76.32M	76.042M	76.32M	75.922M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.44M	76.042M	76.44M	76.522M	76.44M	76.162M	76.32M	75.922M

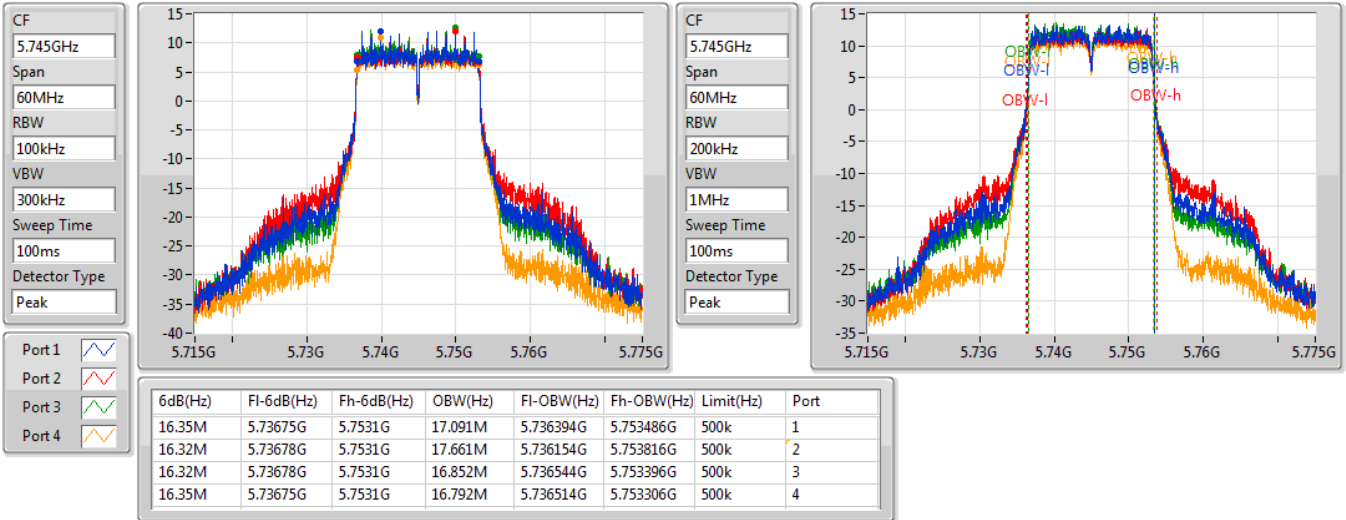
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

15/01/2020

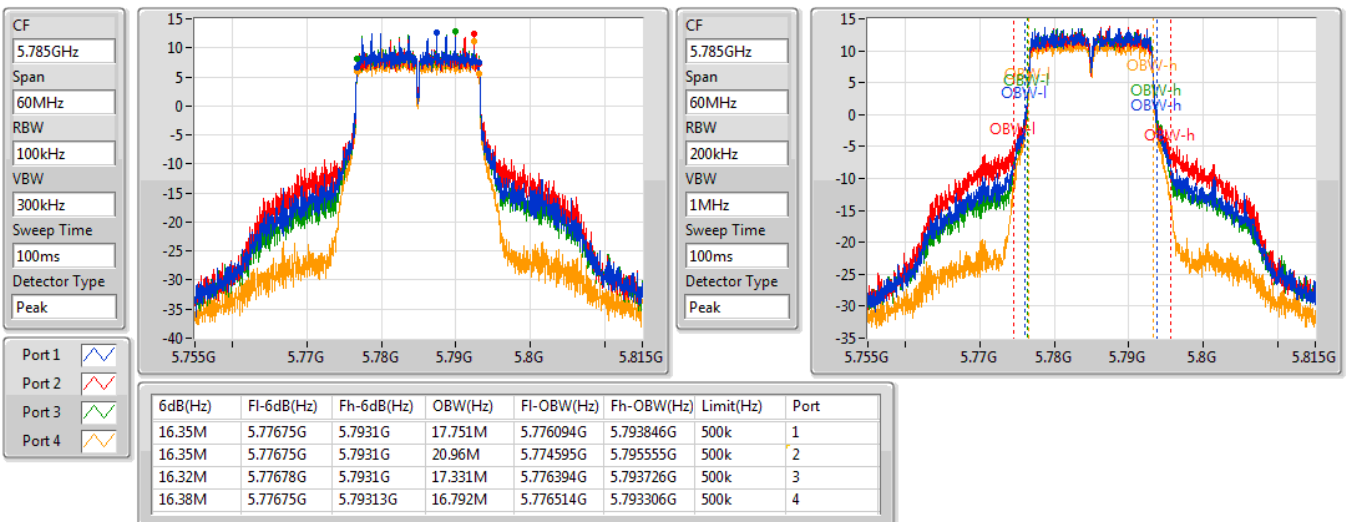


802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

15/01/2020



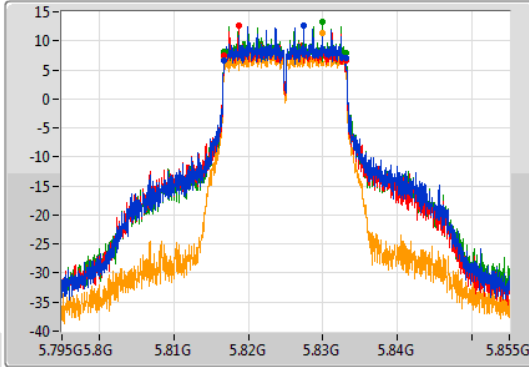
802.11a_Nss1,(6Mbps)_4TX

EBW

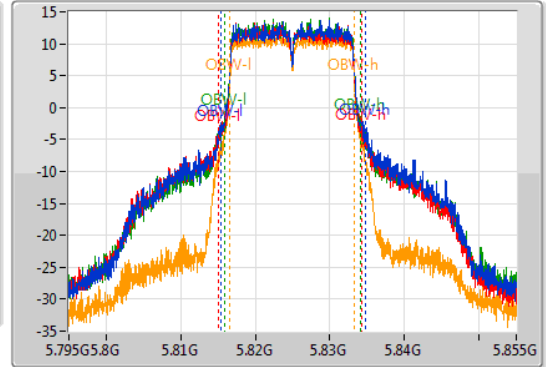
5825MHz

15/01/2020

CF
5.825GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.825GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.81675G	5.8331G	19.31M	5.815405G	5.834715G	500k	1
16.32M	5.81678G	5.8331G	19.13M	5.815105G	5.834235G	500k	2
16.32M	5.81678G	5.8331G	18.321M	5.815855G	5.834175G	500k	3
16.32M	5.81678G	5.8331G	16.822M	5.816514G	5.833336G	500k	4

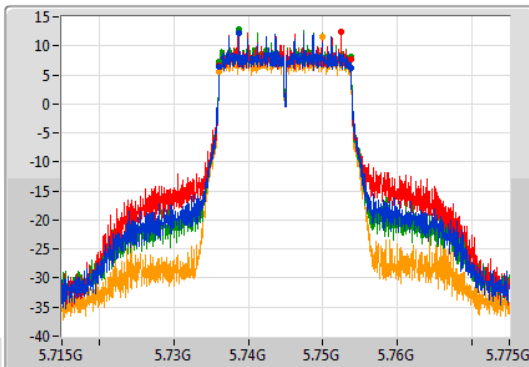
802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

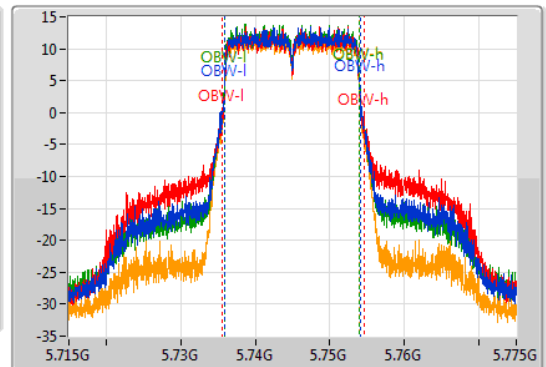
5745MHz

15/01/2020

CF
5.745GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.745GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.61M	5.73612G	5.75373G	18.201M	5.735825G	5.754025G	500k	1
17.61M	5.73612G	5.75373G	19.01M	5.735585G	5.754595G	500k	2
17.61M	5.73612G	5.75373G	18.021M	5.735915G	5.753936G	500k	3
17.61M	5.73612G	5.75373G	17.901M	5.735975G	5.753876G	500k	4

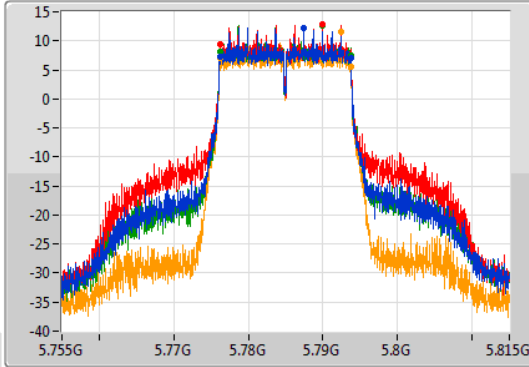
802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

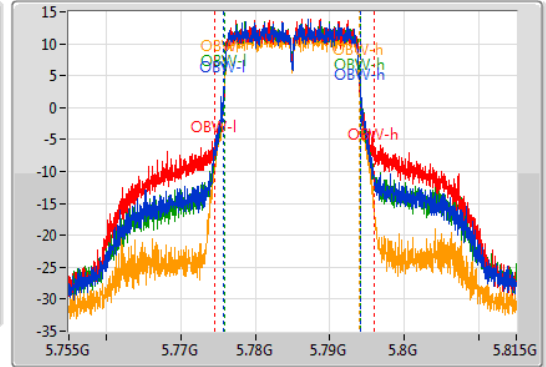
5785MHz

15/01/2020

CF
5.785GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.785GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.58M	5.77615G	5.79373G	18.351M	5.775795G	5.794145G	500k	1
17.58M	5.77615G	5.79373G	21.499M	5.774505G	5.796004G	500k	2
17.58M	5.77615G	5.79373G	18.171M	5.775885G	5.794055G	500k	3
17.61M	5.77615G	5.79376G	17.901M	5.775975G	5.793876G	500k	4

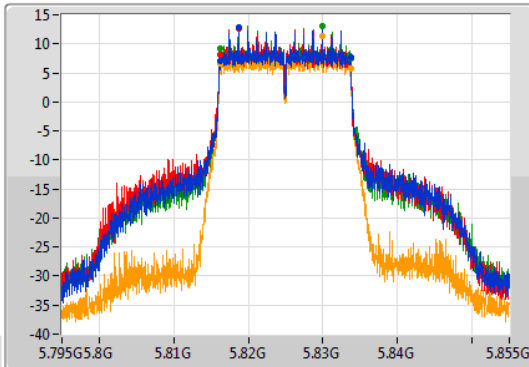
802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

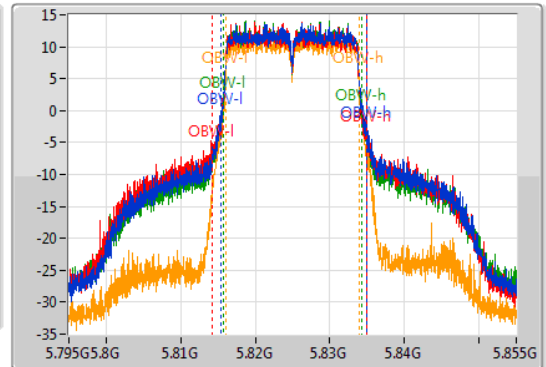
5825MHz

15/01/2020

CF
5.825GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.825GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.81615G	5.8337G	19.64M	5.815315G	5.834955G	500k	1
17.55M	5.81615G	5.8337G	20.75M	5.814235G	5.834985G	500k	2
17.58M	5.81615G	5.83373G	18.681M	5.815645G	5.834325G	500k	3
17.58M	5.81615G	5.83373G	17.901M	5.816004G	5.833906G	500k	4

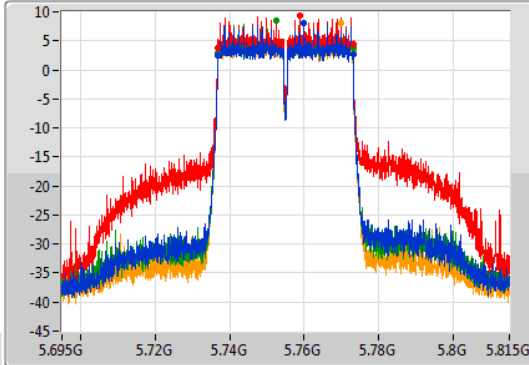
802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

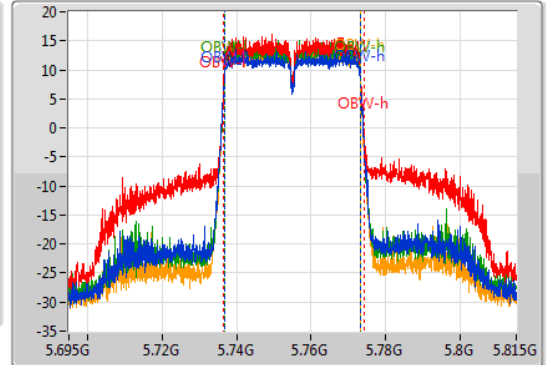
5755MHz

15/01/2020

CF
5.755GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.755GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.73676G	5.77312G	36.582M	5.736649G	5.773231G	500k	1
36.36M	5.73676G	5.77312G	37.721M	5.736469G	5.77419G	500k	2
36.36M	5.73676G	5.77312G	36.462M	5.736709G	5.773171G	500k	3
36.36M	5.73676G	5.77312G	36.462M	5.736709G	5.773171G	500k	4

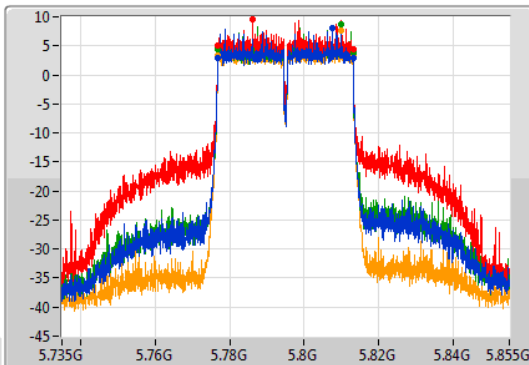
802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

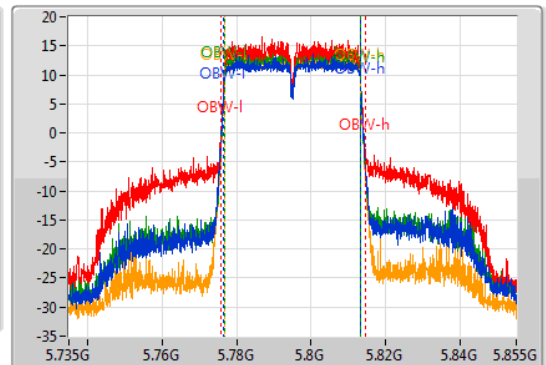
5795MHz

15/01/2020

CF
5.795GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.795GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



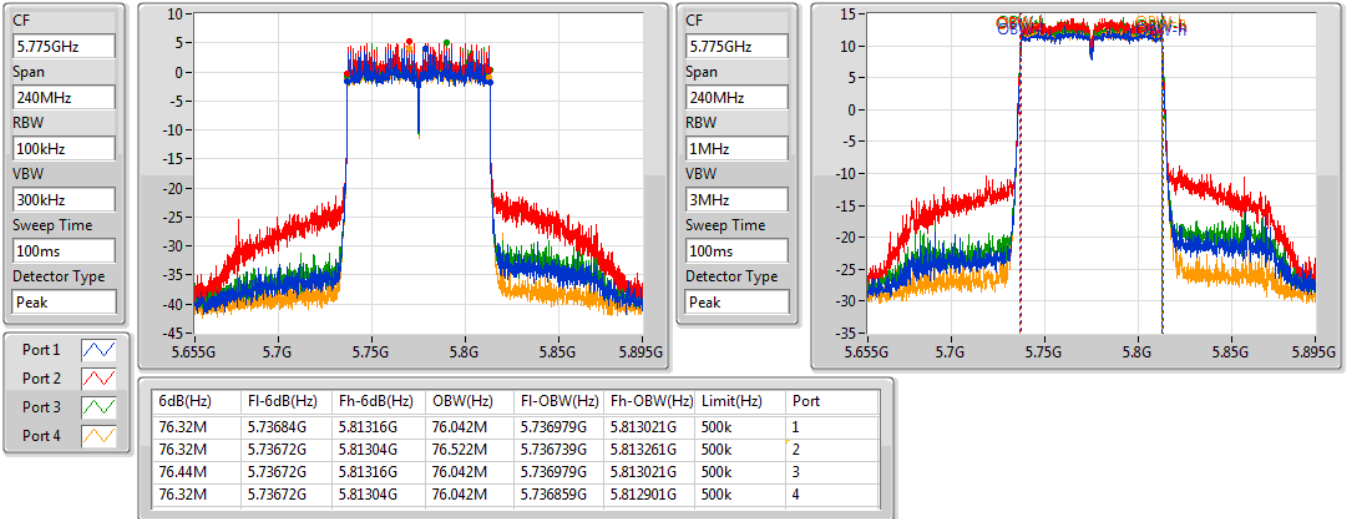
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.77676G	5.81312G	36.762M	5.776589G	5.813351G	500k	1
36.36M	5.77676G	5.81312G	38.861M	5.77575G	5.81461G	500k	2
36.36M	5.77676G	5.81312G	36.522M	5.776709G	5.813231G	500k	3
36.36M	5.77676G	5.81312G	36.462M	5.776709G	5.813171G	500k	4

802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5775MHz

15/01/2020

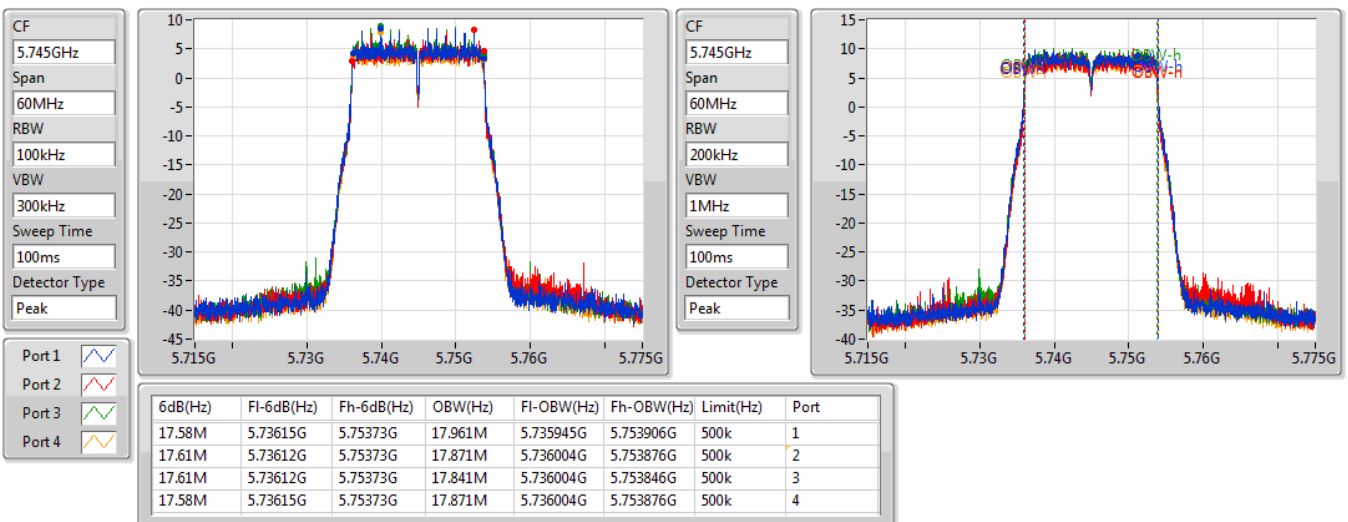


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

15/01/2020

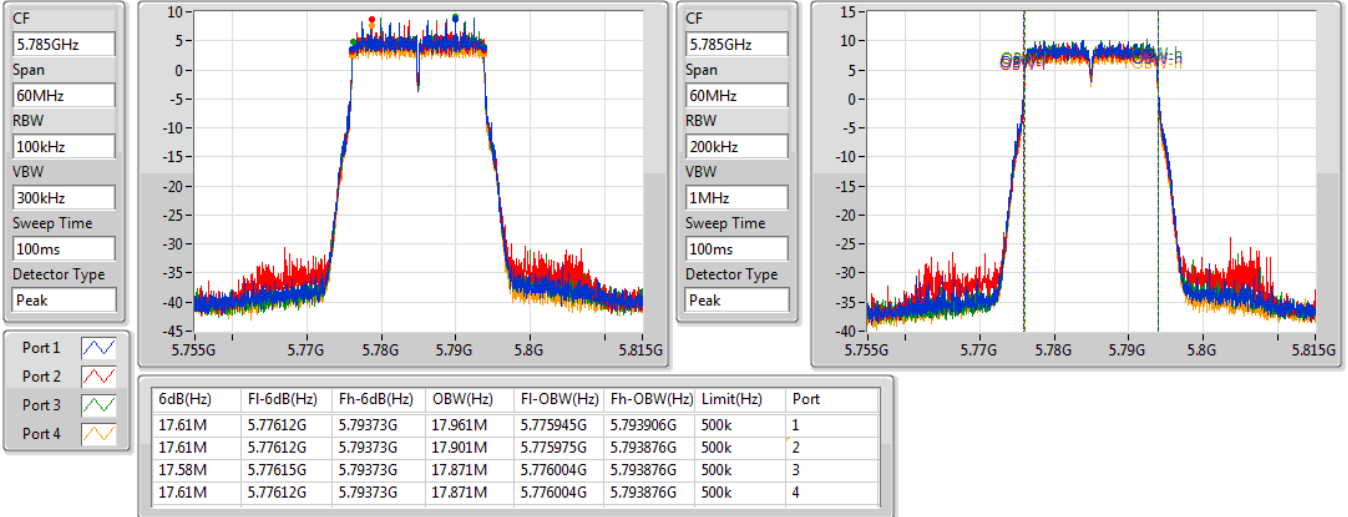


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

15/01/2020

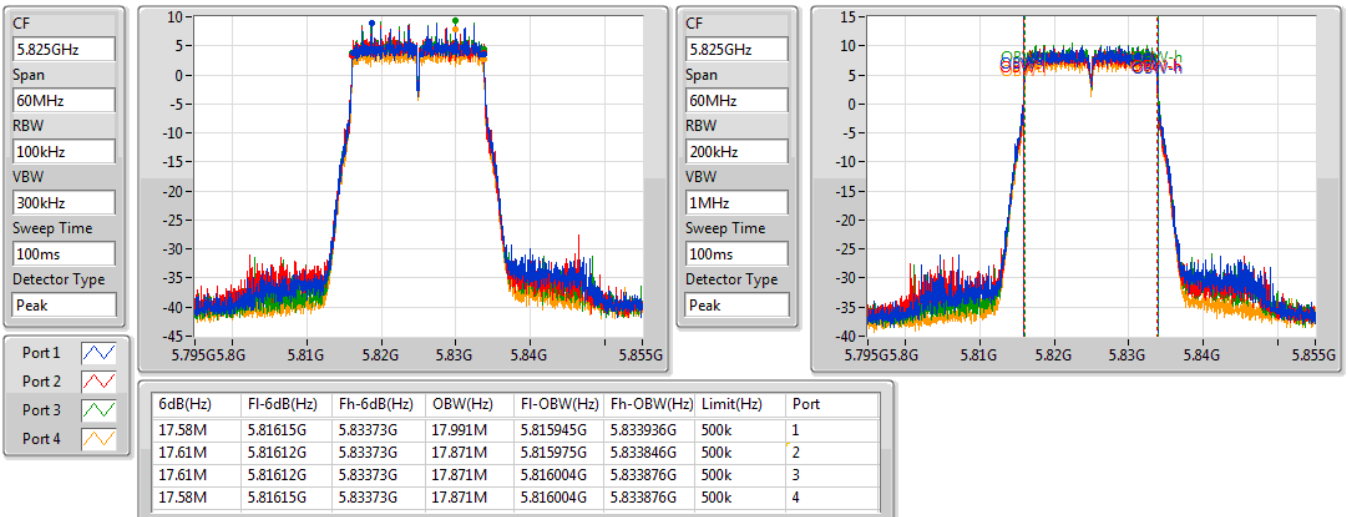


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

15/01/2020



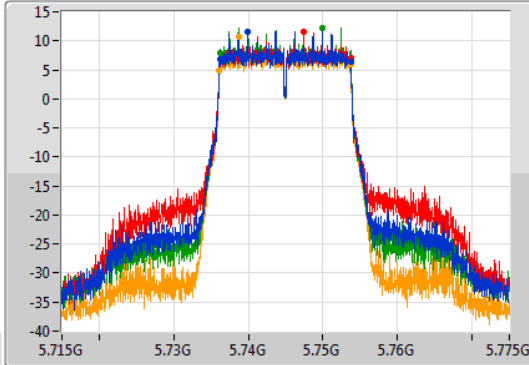
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

EBW

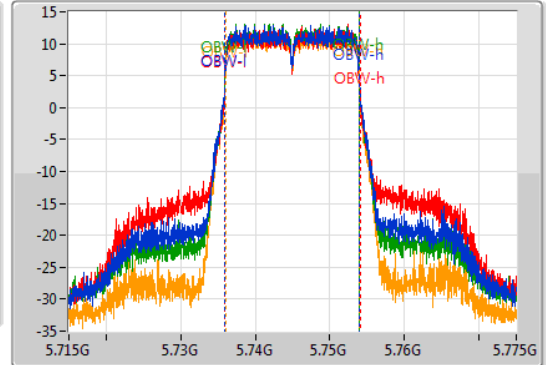
5745MHz

15/01/2020

CF
5.745GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.745GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.58M	5.73615G	5.75373G	18.021M	5.735915G	5.753936G	500k	1
17.58M	5.73615G	5.75373G	18.201M	5.735885G	5.754085G	500k	2
17.58M	5.73615G	5.75373G	17.901M	5.735975G	5.753876G	500k	3
17.61M	5.73612G	5.75373G	17.871M	5.736004G	5.753876G	500k	4

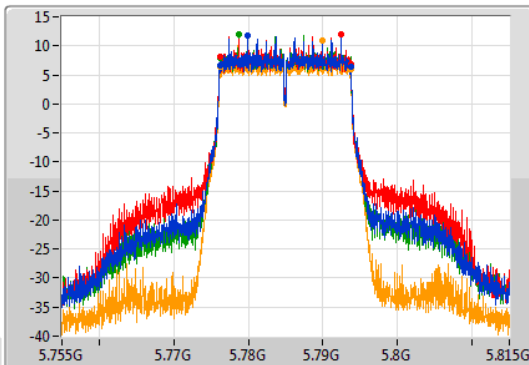
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

EBW

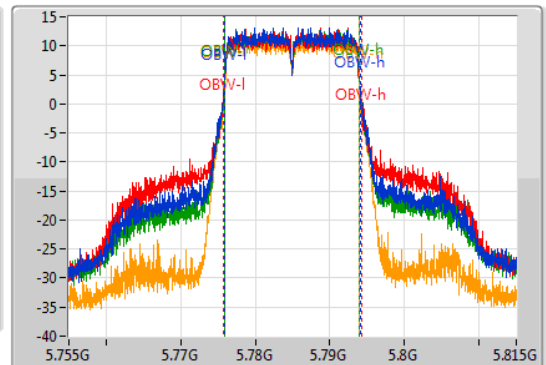
5785MHz

15/01/2020

CF
5.785GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.785GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.58M	5.77615G	5.79373G	18.141M	5.775885G	5.794025G	500k	1
17.58M	5.77615G	5.79373G	18.651M	5.775645G	5.794295G	500k	2
17.58M	5.77615G	5.79373G	17.991M	5.775945G	5.793936G	500k	3
17.58M	5.77615G	5.79373G	17.901M	5.775975G	5.793876G	500k	4

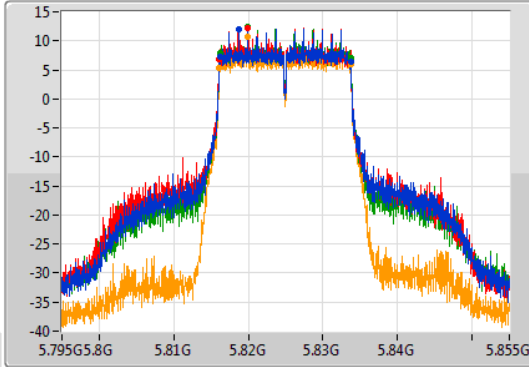
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

EBW

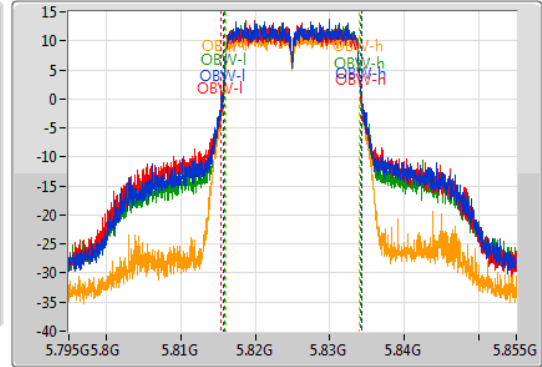
5825MHz

15/01/2020

CF
5.825GHz
Span
60MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.825GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.58M	5.81615G	5.83373G	18.621M	5.815675G	5.834295G	500k	1
17.61M	5.81612G	5.83373G	18.921M	5.815375G	5.834295G	500k	2
17.58M	5.81615G	5.83373G	18.231M	5.815825G	5.834055G	500k	3
17.61M	5.81612G	5.83373G	17.901M	5.816004G	5.833906G	500k	4

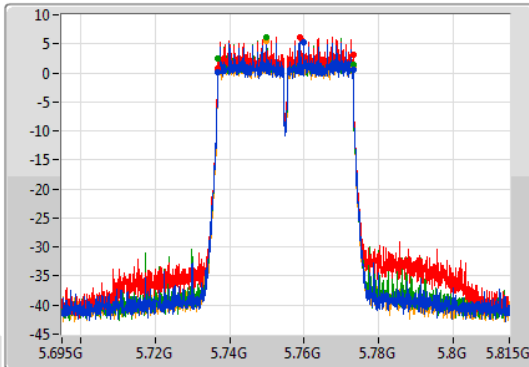
802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

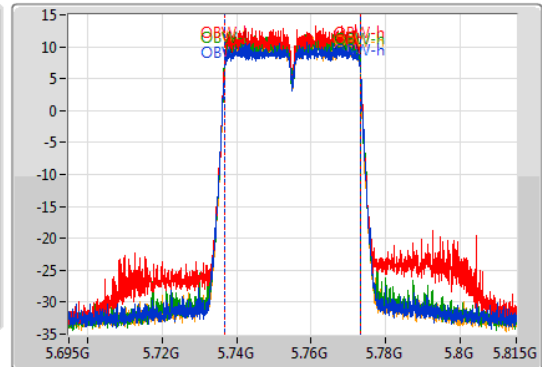
5755MHz

15/01/2020

CF
5.755GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.755GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.73676G	5.77312G	36.582M	5.736649G	5.773231G	500k	1
36.36M	5.73676G	5.77312G	36.402M	5.736769G	5.773171G	500k	2
36.3M	5.73682G	5.77312G	36.462M	5.736709G	5.773171G	500k	3
36.36M	5.73676G	5.77312G	36.462M	5.736709G	5.773171G	500k	4

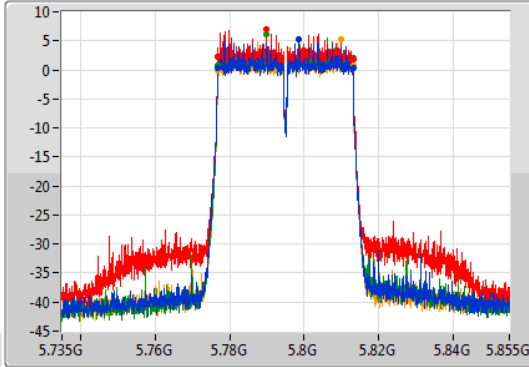
802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

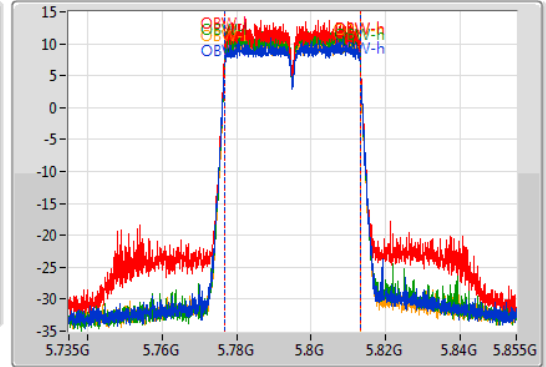
5795MHz

15/01/2020

CF
5.795GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.795GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.77676G	5.81312G	36.582M	5.776649G	5.813231G	500k	1
36.36M	5.77676G	5.81312G	36.342M	5.776769G	5.813111G	500k	2
36.36M	5.77676G	5.81312G	36.462M	5.776709G	5.813171G	500k	3
36.36M	5.77676G	5.81312G	36.402M	5.776709G	5.813111G	500k	4

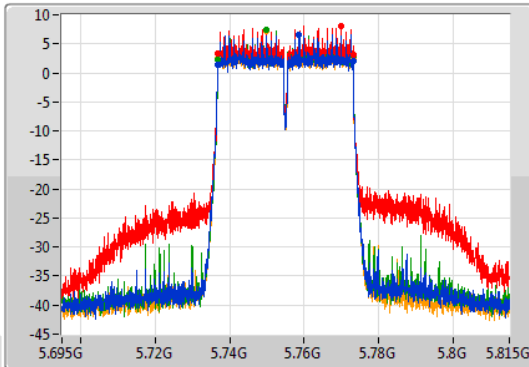
802.11ac VHT40-BF_Nss2,(MCS0)_4TX

EBW

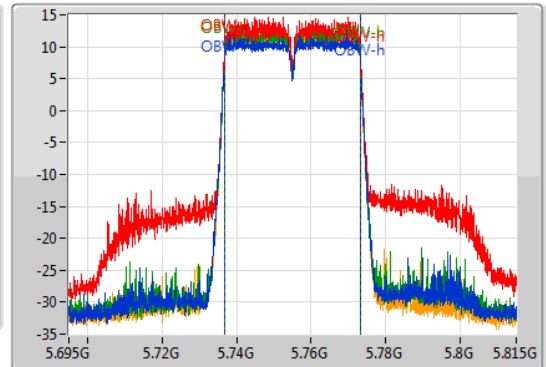
5755MHz

15/01/2020

CF
5.755GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.755GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.73676G	5.77312G	36.582M	5.736649G	5.773231G	500k	1
36.36M	5.73676G	5.77312G	36.582M	5.736709G	5.773291G	500k	2
36.36M	5.73676G	5.77312G	36.402M	5.736709G	5.773111G	500k	3
36.36M	5.73676G	5.77312G	36.462M	5.736709G	5.773171G	500k	4

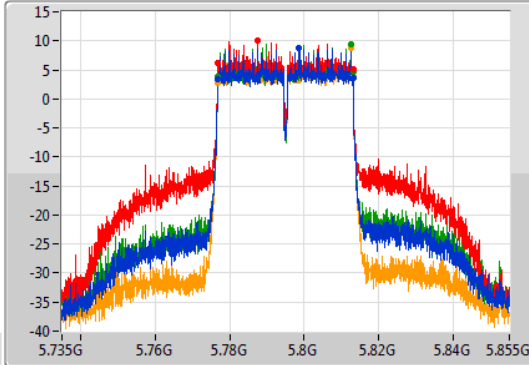
802.11ac VHT40-BF_Nss2,(MCS0)_4TX

EBW

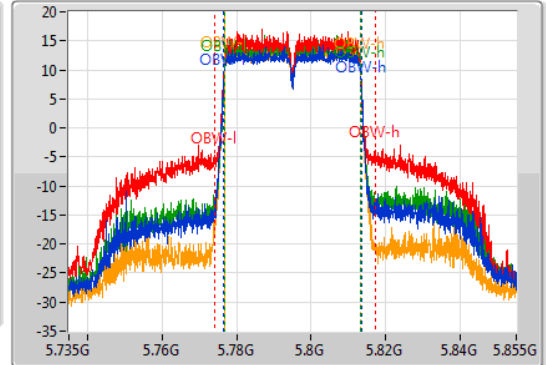
5795MHz

15/01/2020

CF
5.795GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.795GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.36M	5.77676G	5.81312G	36.822M	5.776589G	5.813411G	500k	1
36.36M	5.77676G	5.81312G	42.879M	5.77425G	5.817129G	500k	2
36.36M	5.77676G	5.81312G	36.582M	5.776709G	5.813291G	500k	3
36.36M	5.77676G	5.81312G	36.462M	5.776709G	5.813171G	500k	4

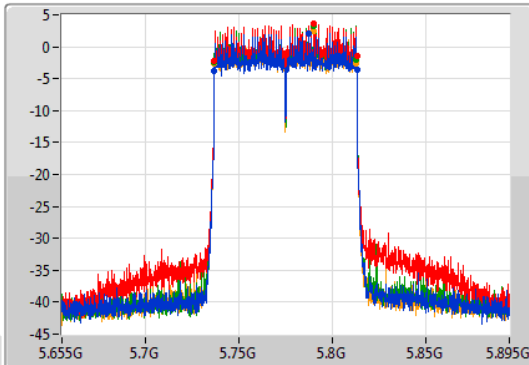
802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

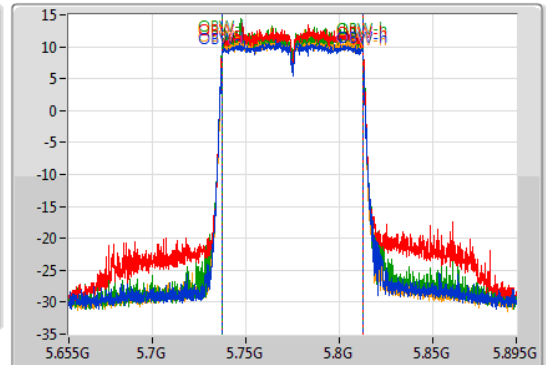
5775MHz

15/01/2020

CF
5.775GHz
Span
240MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.775GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.44M	5.73672G	5.81316G	75.922M	5.736979G	5.812901G	500k	1
76.32M	5.73684G	5.81316G	76.042M	5.736979G	5.813021G	500k	2
76.32M	5.73672G	5.81304G	76.042M	5.736979G	5.813021G	500k	3
76.32M	5.73672G	5.81304G	75.922M	5.736979G	5.812901G	500k	4

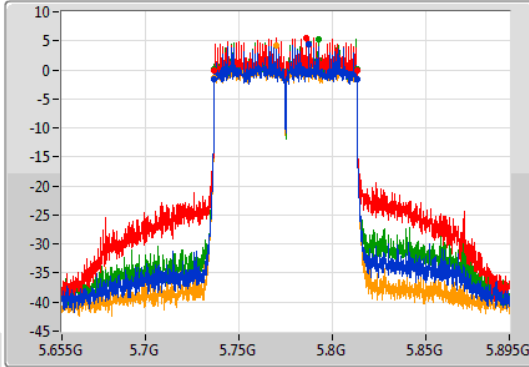
802.11ac VHT80-BF_Nss2,(MCS0)_4TX

EBW

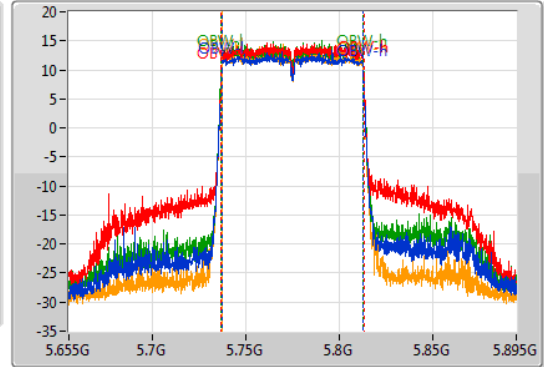
5775MHz

15/01/2020

CF
5.775GHz
Span
240MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.775GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.44M	5.73672G	5.81316G	76.042M	5.736979G	5.813021G	500k	1
76.44M	5.73672G	5.81316G	76.522M	5.736739G	5.813261G	500k	2
76.44M	5.73672G	5.81316G	76.162M	5.736859G	5.813021G	500k	3
76.32M	5.73684G	5.81316G	75.922M	5.736979G	5.812901G	500k	4



Average Power Result

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.90	0.97724
802.11ac VHT20_Nss1,(MCS0)_4TX	29.88	0.97275
802.11ac VHT40_Nss1,(MCS0)_4TX	29.06	0.80538
802.11ac VHT80_Nss1,(MCS0)_4TX	28.02	0.63387
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	26.38	0.43451
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	29.44	0.87902
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	26.46	0.44259
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	29.36	0.86298
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	26.45	0.44157
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	28.19	0.65917



Average Power Result

Appendix C

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	3.47	23.87	23.83	22.99	24.20	29.77	30.00
5785MHz	Pass	3.47	23.93	23.78	23.66	23.98	29.86	30.00
5825MHz	Pass	3.47	24.30	24.23	23.88	22.98	29.90	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	3.47	23.89	24.03	23.29	24.17	29.88	30.00
5785MHz	Pass	3.47	23.99	23.71	23.60	23.79	29.80	30.00
5825MHz	Pass	3.47	24.17	24.07	23.78	23.14	29.83	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	3.47	22.42	23.46	23.23	22.64	28.98	30.00
5795MHz	Pass	3.47	22.47	23.88	23.15	22.50	29.06	30.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	3.47	22.21	21.78	21.84	22.15	28.02	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	9.49	20.04	20.38	20.06	20.81	26.35	26.51
5785MHz	Pass	9.49	20.63	20.16	20.42	20.19	26.37	26.51
5825MHz	Pass	9.49	20.77	20.73	20.40	19.42	26.38	26.51
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	6.48	23.32	23.39	23.22	23.62	29.41	29.52
5785MHz	Pass	6.48	23.61	23.19	23.41	23.18	29.37	29.52
5825MHz	Pass	6.48	23.72	23.85	23.48	22.48	29.44	29.52
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	9.49	20.33	19.89	20.51	20.88	26.44	26.51
5795MHz	Pass	9.49	20.78	20.16	20.73	20.04	26.46	26.51
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	6.48	21.41	22.21	21.96	21.52	27.81	29.52
5795MHz	Pass	6.48	23.47	23.14	23.67	23.05	29.36	29.52
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	9.49	20.38	20.17	20.77	20.36	26.45	26.51
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	6.48	21.76	22.59	22.43	21.85	28.19	29.52

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



Summary

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.11
802.11ac VHT20_Nss1,(MCS0)_4TX	14.86
802.11ac VHT40_Nss1,(MCS0)_4TX	11.16
802.11ac VHT80_Nss1,(MCS0)_4TX	7.32
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	11.60
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	14.46
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	8.63
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	11.74
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	5.64
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	7.54

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

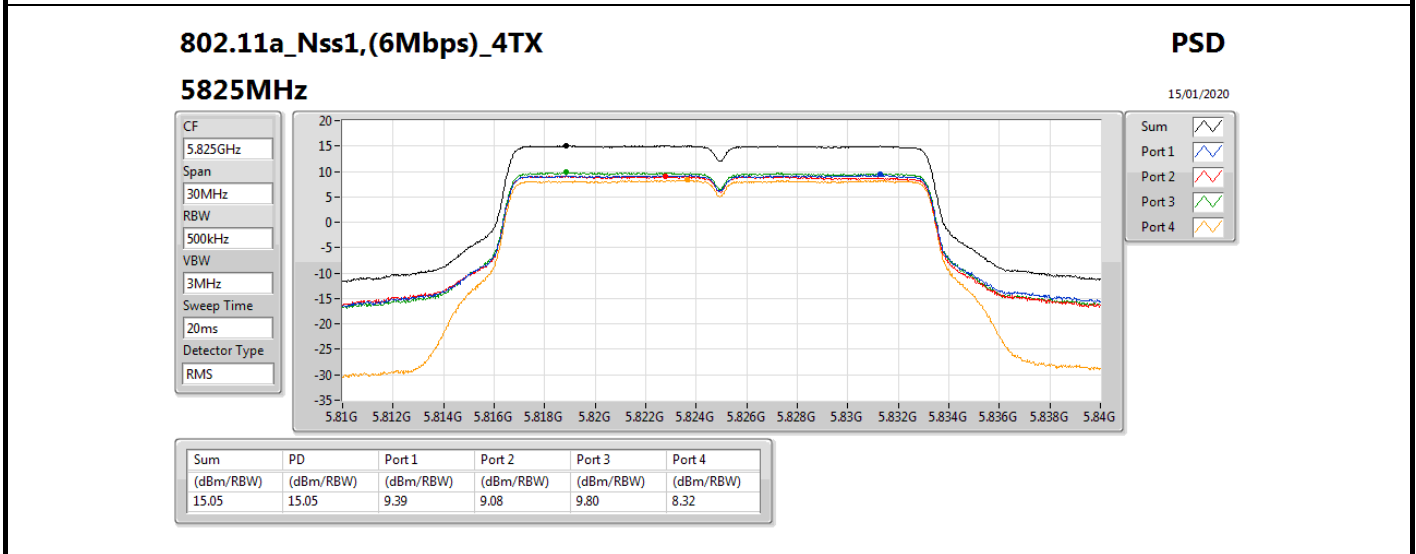
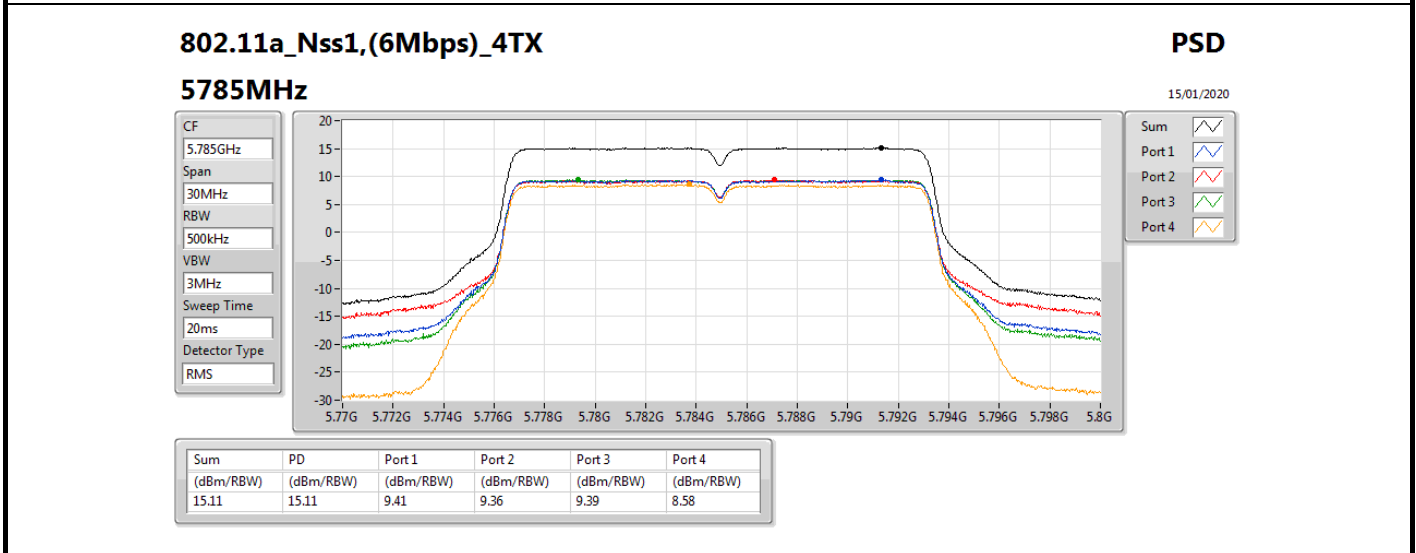
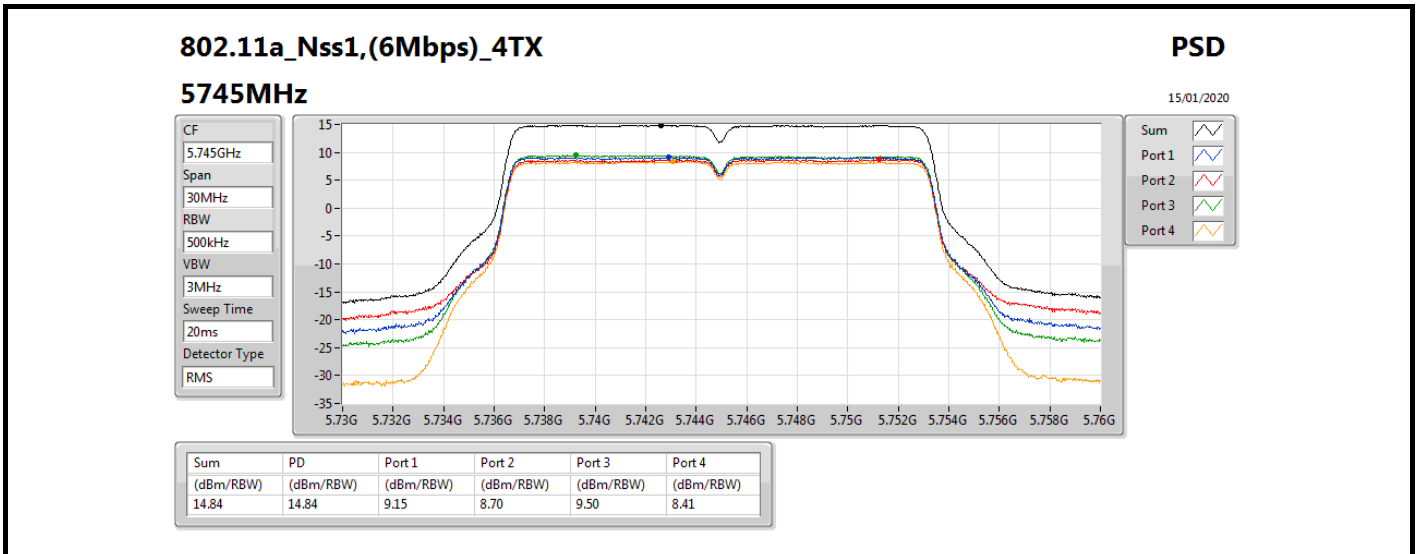


Result

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	9.49	9.15	8.70	9.50	8.41	14.84	26.51
5785MHz	Pass	9.49	9.41	9.36	9.39	8.58	15.11	26.51
5825MHz	Pass	9.49	9.39	9.08	9.80	8.32	15.05	26.51
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	9.49	8.86	8.85	9.50	8.21	14.81	26.51
5785MHz	Pass	9.49	9.02	9.03	9.33	8.29	14.86	26.51
5825MHz	Pass	9.49	8.89	9.05	9.48	8.01	14.76	26.51
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	9.49	4.67	5.85	5.44	4.86	11.15	26.51
5795MHz	Pass	9.49	4.80	6.10	5.44	4.73	11.16	26.51
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	9.49	0.88	2.19	1.58	0.94	7.32	26.51
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	9.49	5.73	5.66	6.18	5.00	11.59	26.51
5785MHz	Pass	9.49	5.62	5.90	6.04	4.76	11.55	26.51
5825MHz	Pass	9.49	5.83	5.82	6.34	4.76	11.60	26.51
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	6.48	8.60	8.32	8.91	7.81	14.36	29.52
5785MHz	Pass	6.48	8.69	8.66	8.90	7.77	14.45	29.52
5825MHz	Pass	6.48	8.52	8.70	9.05	7.74	14.46	29.52
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	9.49	2.34	3.46	2.86	2.31	8.63	26.51
5795MHz	Pass	9.49	2.18	3.59	2.98	2.12	8.60	26.51
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	6.48	3.65	4.92	4.37	3.73	10.12	29.52
5795MHz	Pass	6.48	5.37	6.61	6.15	5.25	11.74	29.52
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	9.49	-0.83	0.40	0.13	-0.86	5.64	26.51
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	6.48	1.06	2.12	2.07	0.95	7.54	29.52

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;

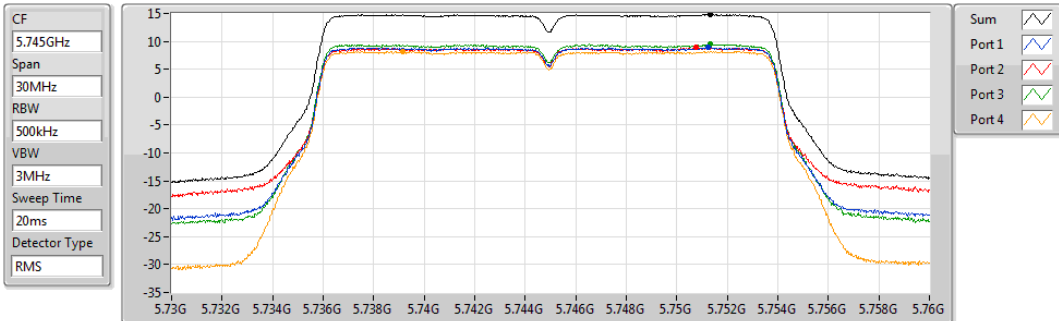


802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

5745MHz

15/01/2020



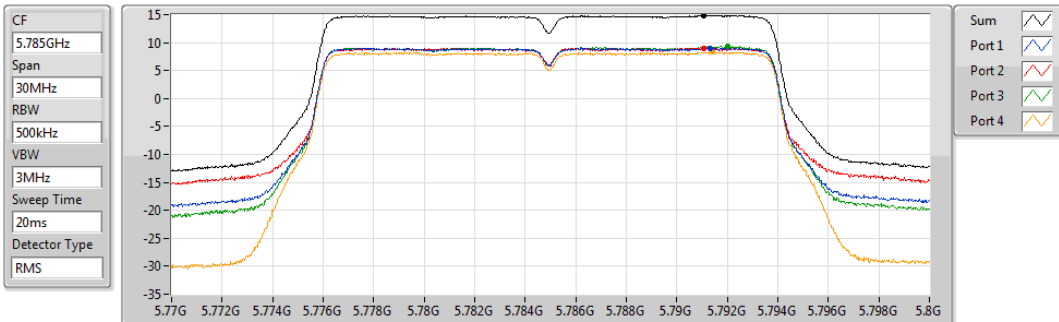
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.81	14.81	8.86	8.85	9.50	8.21

802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

5785MHz

15/01/2020



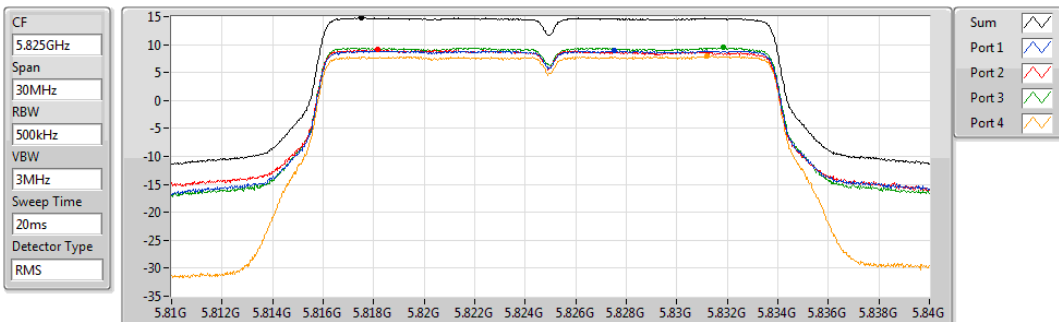
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.86	14.86	9.02	9.03	9.33	8.29

802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

5825MHz

15/01/2020



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.76	14.76	8.89	9.05	9.48	8.01

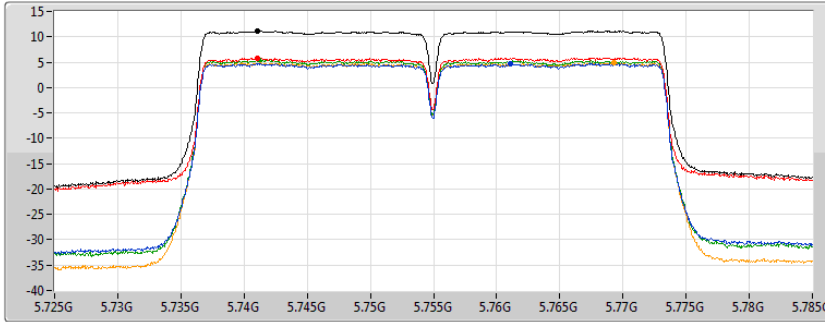
802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

5755MHz

15/01/2020

CF
5.755GHz
Span
60MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.15	11.15	4.67	5.85	5.44	4.86

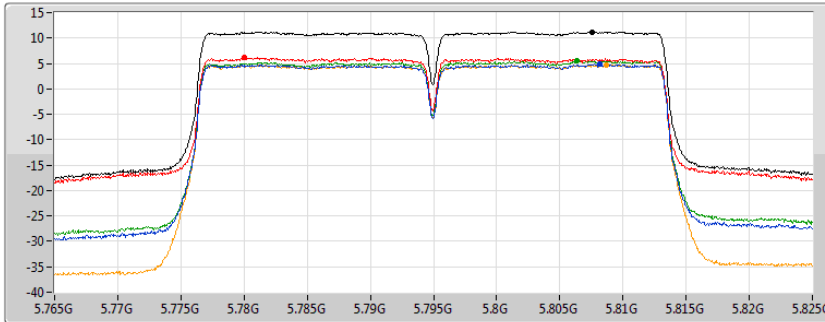
802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

5795MHz

15/01/2020

CF
5.795GHz
Span
60MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.16	11.16	4.80	6.10	5.44	4.73

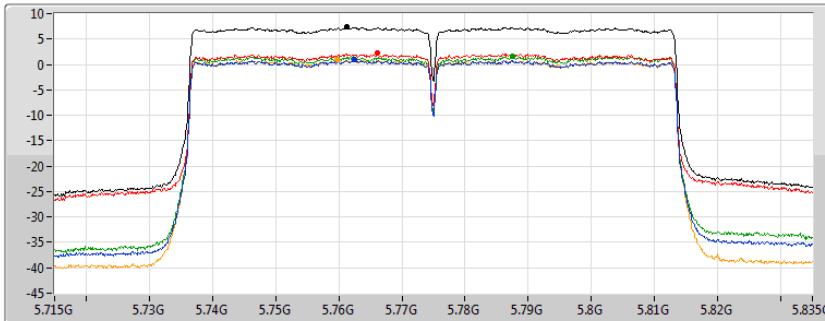
802.11ac VHT80_Nss1,(MCS0)_4TX

PSD

5775MHz

15/01/2020

CF
5.775GHz
Span
120MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.32	7.32	0.88	2.19	1.58	0.94

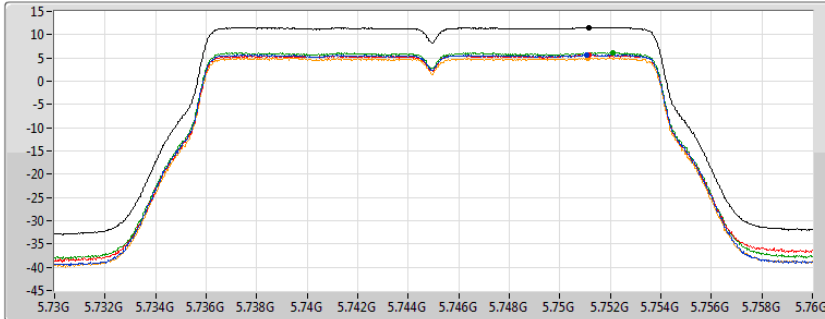
802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

5745MHz

15/01/2020

CF
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.59	11.59	5.73	5.66	6.18	5.00

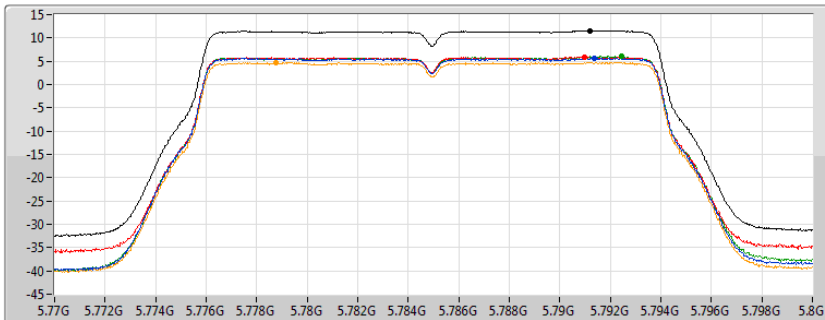
802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

5785MHz

15/01/2020

CF
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.55	11.55	5.62	5.90	6.04	4.76

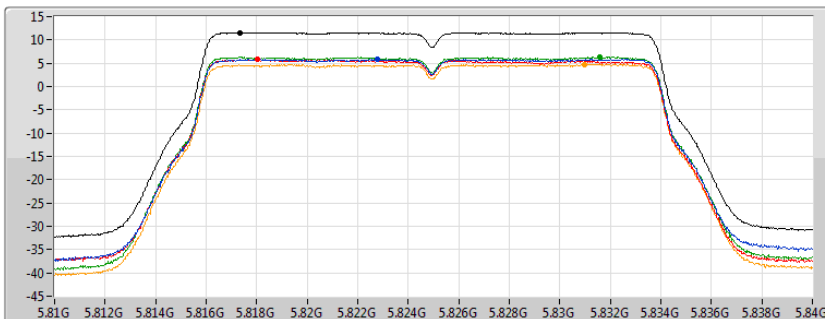
802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

5825MHz

15/01/2020

CF
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.60	11.60	5.83	5.82	6.34	4.76

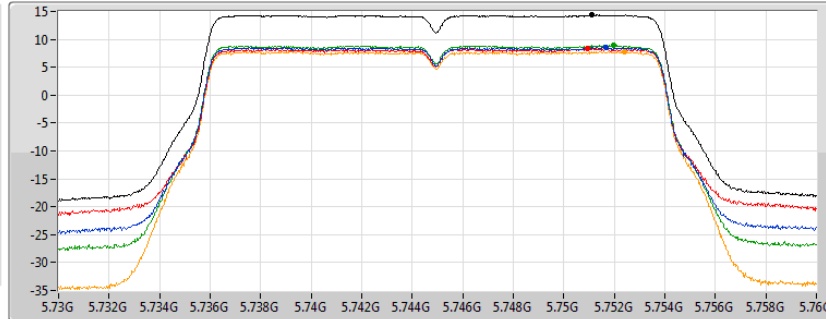
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

PSD

5745MHz

15/01/2020

CF
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.36	14.36	8.60	8.32	8.91	7.81

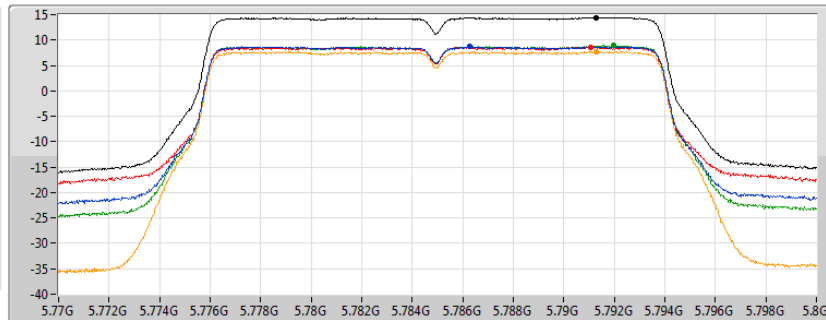
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

PSD

5785MHz

15/01/2020

CF
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.45	14.45	8.69	8.66	8.90	7.77

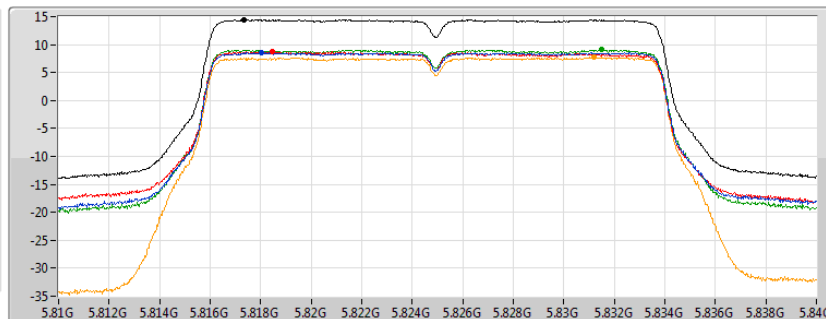
802.11ac VHT20-BF_Nss2,(MCS0)_4TX

PSD

5825MHz

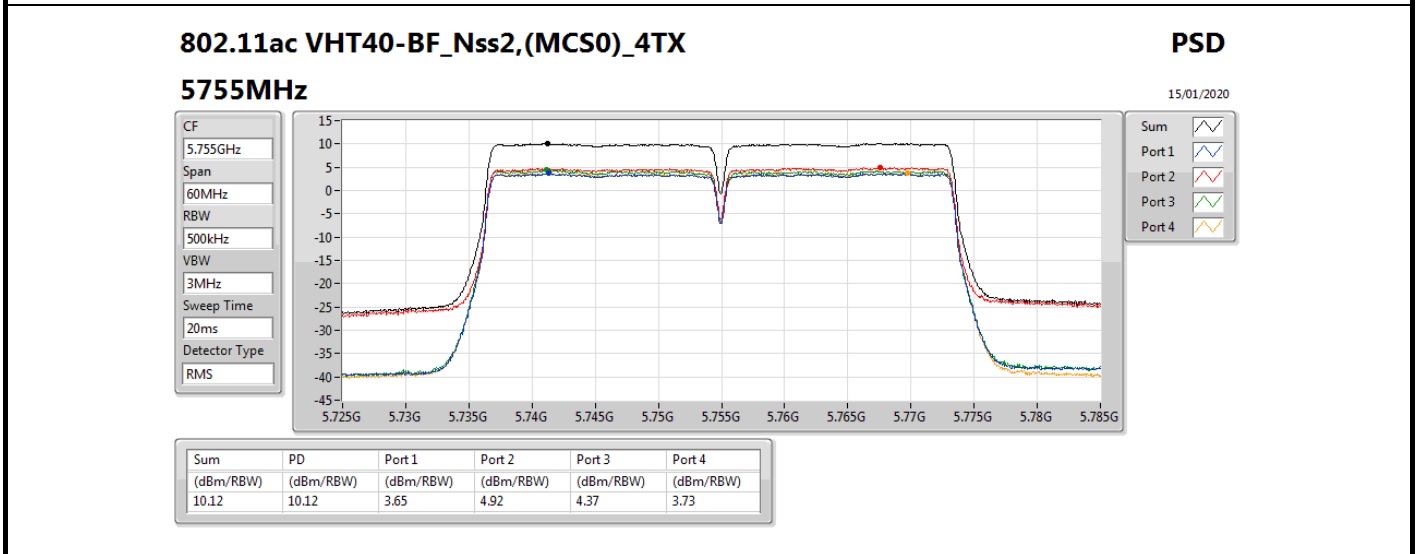
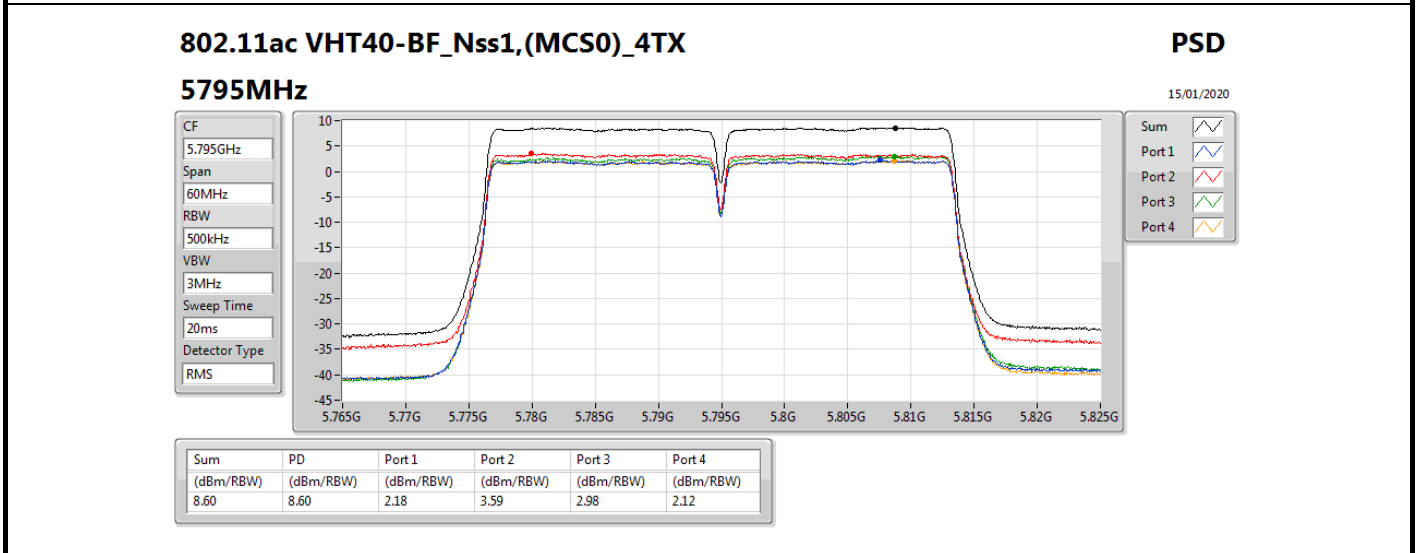
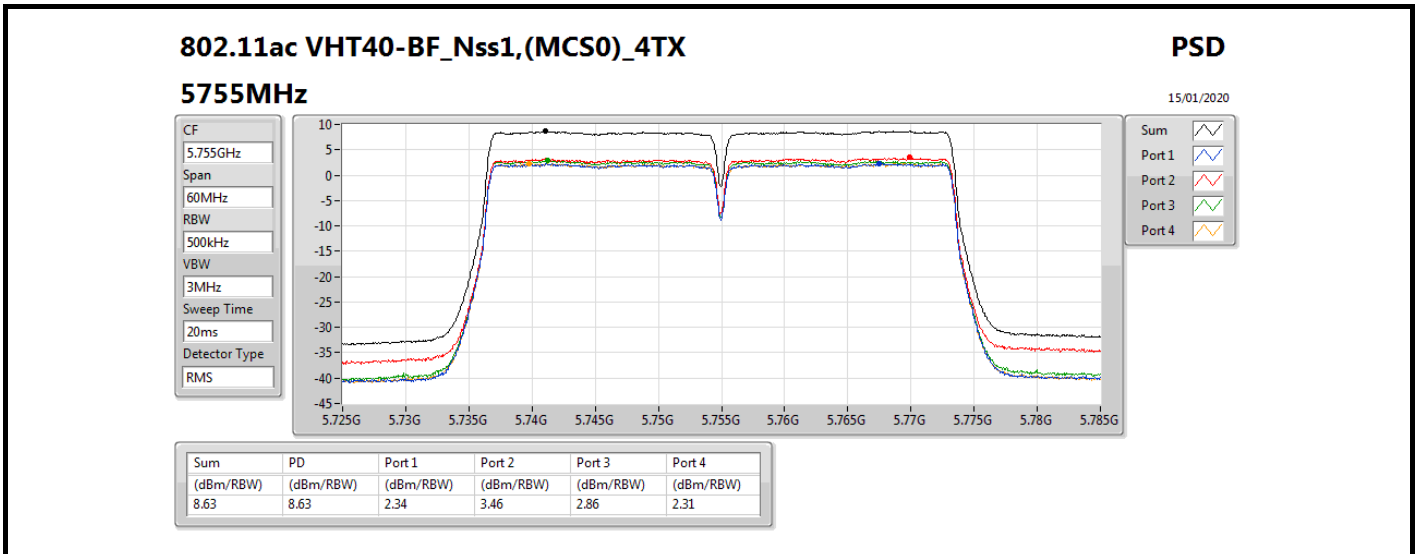
15/01/2020

CF
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2
Port 3
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.46	14.46	8.52	8.70	9.05	7.74

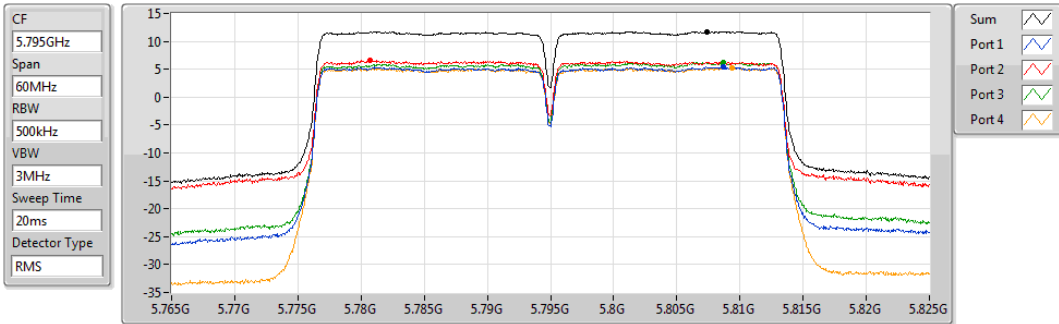


802.11ac VHT40-BF_Nss2,(MCS0)_4TX

PSD

5795MHz

15/01/2020



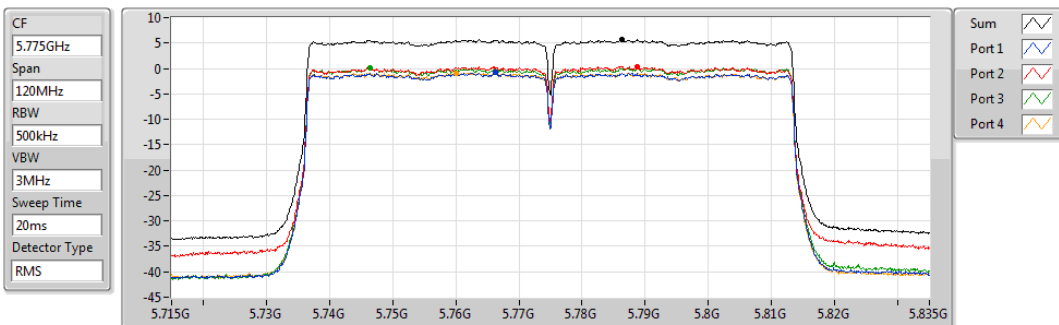
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.74	11.74	5.37	6.61	6.15	5.25

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

PSD

5775MHz

15/01/2020



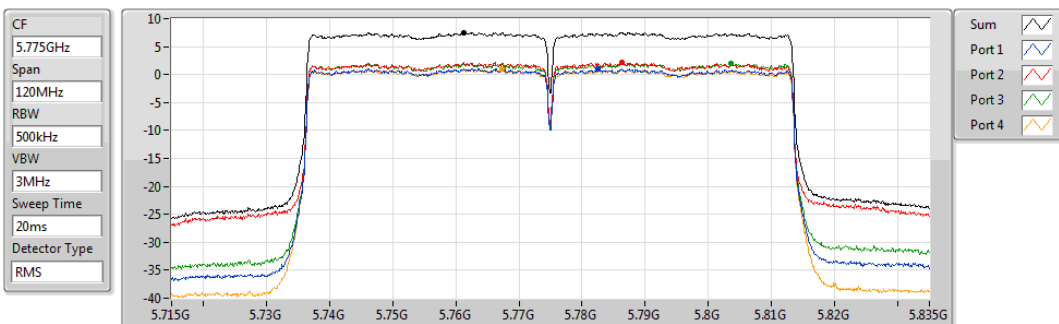
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.64	5.64	-0.83	0.40	0.13	-0.86

802.11ac VHT80-BF_Nss2,(MCS0)_4TX

PSD

5775MHz

15/01/2020



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.54	7.54	1.06	2.12	2.07	0.95



RSE below 1GHz Result																																																																																																			
Operating Mode	3	Polarization	Vertical																																																																																																
Operating Function	Normal Link																																																																																																		
<div style="display: flex; justify-content: space-between;"> <div>Level (dBuV/m)</div> <div>Date: 2019-10-04 Time: 13:47:42</div> </div>																																																																																																			
<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Over</th> <th>Read</th> <th>CableAntenna</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> <th>Pol/Phase</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>dB/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30.97</td> <td>33.66</td> <td>40.00</td> <td>-6.34</td> <td>38.98</td> <td>0.76</td> <td>25.40</td> <td>31.48</td> <td>100</td> <td>121 QP</td> <td>VERTICAL</td> </tr> <tr> <td>2</td> <td>55.22</td> <td>29.42</td> <td>40.00</td> <td>-10.58</td> <td>46.90</td> <td>0.99</td> <td>13.24</td> <td>31.71</td> <td>100</td> <td>117 QP</td> <td>VERTICAL</td> </tr> <tr> <td>3</td> <td>375.32</td> <td>41.24</td> <td>46.00</td> <td>-4.76</td> <td>49.51</td> <td>2.43</td> <td>21.32</td> <td>32.02</td> <td>300</td> <td>0 Peak</td> <td>VERTICAL</td> </tr> <tr> <td>4</td> <td>625.58</td> <td>41.46</td> <td>46.00</td> <td>-4.54</td> <td>45.40</td> <td>3.06</td> <td>25.30</td> <td>32.30</td> <td>119</td> <td>237 QP</td> <td>VERTICAL</td> </tr> <tr> <td>5</td> <td>875.84</td> <td>35.95</td> <td>46.00</td> <td>-10.05</td> <td>37.48</td> <td>3.54</td> <td>27.10</td> <td>32.17</td> <td>102</td> <td>110 QP</td> <td>VERTICAL</td> </tr> <tr> <td>6</td> <td>914.64</td> <td>41.28</td> <td>46.00</td> <td>-4.72</td> <td>42.55</td> <td>3.67</td> <td>27.10</td> <td>32.04</td> <td>300</td> <td>0 Peak</td> <td>VERTICAL</td> </tr> </tbody> </table>					Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	30.97	33.66	40.00	-6.34	38.98	0.76	25.40	31.48	100	121 QP	VERTICAL	2	55.22	29.42	40.00	-10.58	46.90	0.99	13.24	31.71	100	117 QP	VERTICAL	3	375.32	41.24	46.00	-4.76	49.51	2.43	21.32	32.02	300	0 Peak	VERTICAL	4	625.58	41.46	46.00	-4.54	45.40	3.06	25.30	32.30	119	237 QP	VERTICAL	5	875.84	35.95	46.00	-10.05	37.48	3.54	27.10	32.17	102	110 QP	VERTICAL	6	914.64	41.28	46.00	-4.72	42.55	3.67	27.10	32.04	300	0 Peak	VERTICAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																								
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<p>Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.</p> <p>Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</p>																																																																																																			



RSE below 1GHz Result

Appendix E.1

RSE below 1GHz Result																																																																																																			
Operating Mode	3	Polarization	Horizontal																																																																																																
Operating Function	Normal Link																																																																																																		
<table border="1"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Over</th> <th>Read</th> <th>CableAntenna</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> <th>Pol/Phase</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>dB/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>375.32</td> <td>41.73</td> <td>46.00</td> <td>-4.27</td> <td>50.00</td> <td>2.43</td> <td>21.32</td> <td>32.02</td> <td>100</td> <td>360 Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>2</td> <td>832.19</td> <td>38.52</td> <td>46.00</td> <td>-7.48</td> <td>40.61</td> <td>3.43</td> <td>26.70</td> <td>32.22</td> <td>100</td> <td>112 QP</td> <td>HORIZONTAL</td> </tr> <tr> <td>3</td> <td>895.24</td> <td>39.15</td> <td>46.00</td> <td>-6.85</td> <td>40.60</td> <td>3.60</td> <td>27.10</td> <td>32.15</td> <td>101</td> <td>221 QP</td> <td>HORIZONTAL</td> </tr> <tr> <td>4</td> <td>914.64</td> <td>38.83</td> <td>46.00</td> <td>-7.17</td> <td>40.10</td> <td>3.67</td> <td>27.10</td> <td>32.04</td> <td>102</td> <td>114 QP</td> <td>HORIZONTAL</td> </tr> <tr> <td>5</td> <td>934.04</td> <td>38.21</td> <td>46.00</td> <td>-7.79</td> <td>39.10</td> <td>3.74</td> <td>27.30</td> <td>31.93</td> <td>100</td> <td>142 QP</td> <td>HORIZONTAL</td> </tr> <tr> <td>6</td> <td>939.86</td> <td>38.34</td> <td>46.00</td> <td>-7.66</td> <td>39.10</td> <td>3.75</td> <td>27.40</td> <td>31.91</td> <td>100</td> <td>152 QP</td> <td>HORIZONTAL</td> </tr> </tbody> </table>					Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	375.32	41.73	46.00	-4.27	50.00	2.43	21.32	32.02	100	360 Peak	HORIZONTAL	2	832.19	38.52	46.00	-7.48	40.61	3.43	26.70	32.22	100	112 QP	HORIZONTAL	3	895.24	39.15	46.00	-6.85	40.60	3.60	27.10	32.15	101	221 QP	HORIZONTAL	4	914.64	38.83	46.00	-7.17	40.10	3.67	27.10	32.04	102	114 QP	HORIZONTAL	5	934.04	38.21	46.00	-7.79	39.10	3.74	27.30	31.93	100	142 QP	HORIZONTAL	6	939.86	38.34	46.00	-7.66	39.10	3.75	27.40	31.91	100	152 QP	HORIZONTAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																								
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5	934.04	38.21	46.00	-7.79	39.10	3.74	27.30	31.93	100	142 QP	HORIZONTAL																																																																																								
6	939.86	38.34	46.00	-7.66	39.10	3.75	27.40	31.91	100	152 QP	HORIZONTAL																																																																																								
<p>Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</p>																																																																																																			



Summary

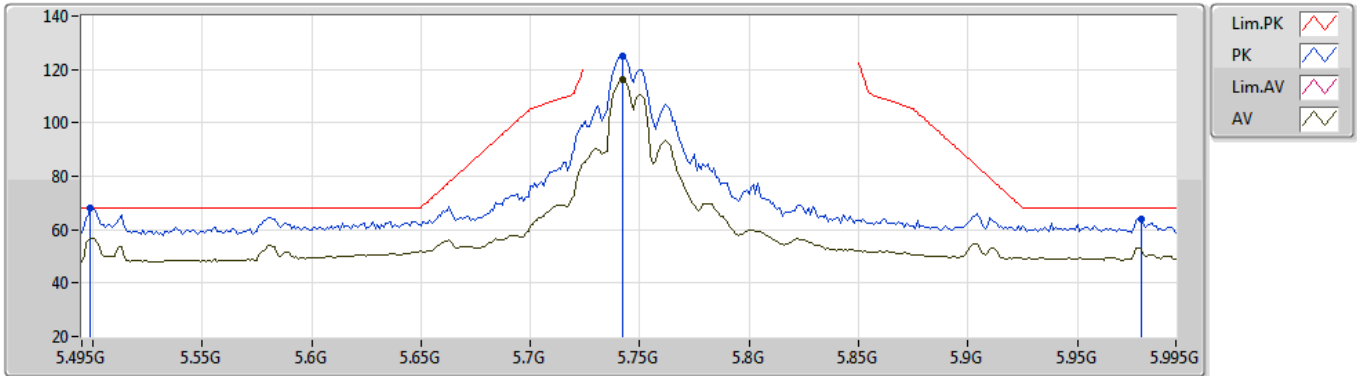
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40_Nss1,(MCS0)_4TX	Pass	PK	5.607G	68.12	68.20	-0.08	3	Vertical	191	2.04	-



802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5745MHz_TX



EUT_Z_4TX
Setting 102
04-F-M-1-13

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	5.499G	67.98	68.20	-0.22	62.96	3	Vertical	222	1.80	-	33.80	4.80	33.58
PK	5.742G	125.15	Inf	-Inf	119.68	3	Vertical	222	1.80	-	34.18	4.93	33.64
AV	5.742G	116.03	Inf	-Inf	110.56	3	Vertical	222	1.80	-	34.18	4.93	33.64
PK	5.979G	63.99	68.20	-4.21	57.48	3	Vertical	222	1.80	-	35.22	4.99	33.70

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5745MHz_TX



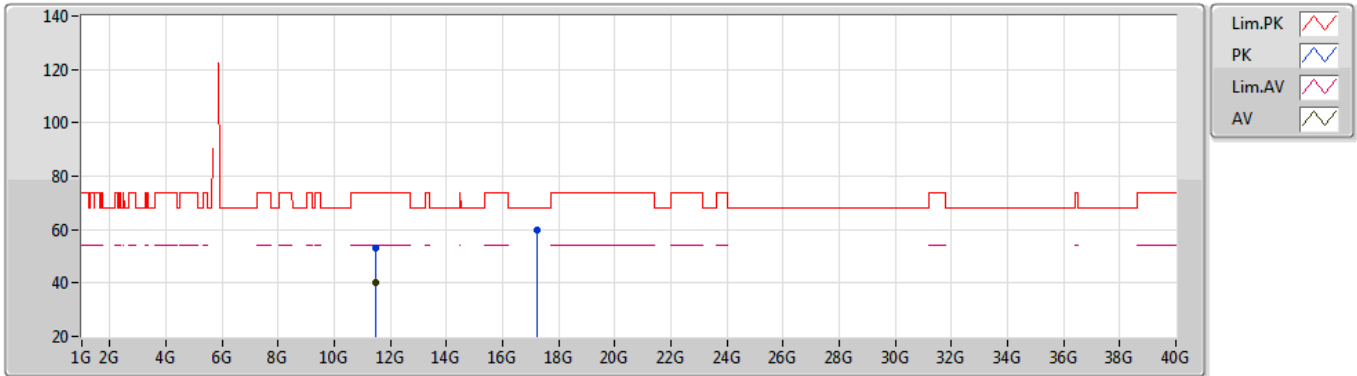
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.49003G	53.13	74.00	-20.87	41.50	3	Vertical	180	2.92	-	39.15	7.25	34.77
AV	11.49203G	40.08	54.00	-13.92	28.45	3	Vertical	180	2.92	-	39.15	7.25	34.77
PK	17.2337G	60.41	68.20	-7.79	45.01	3	Vertical	153	2.85	-	41.01	9.89	35.50

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5745MHz_TX



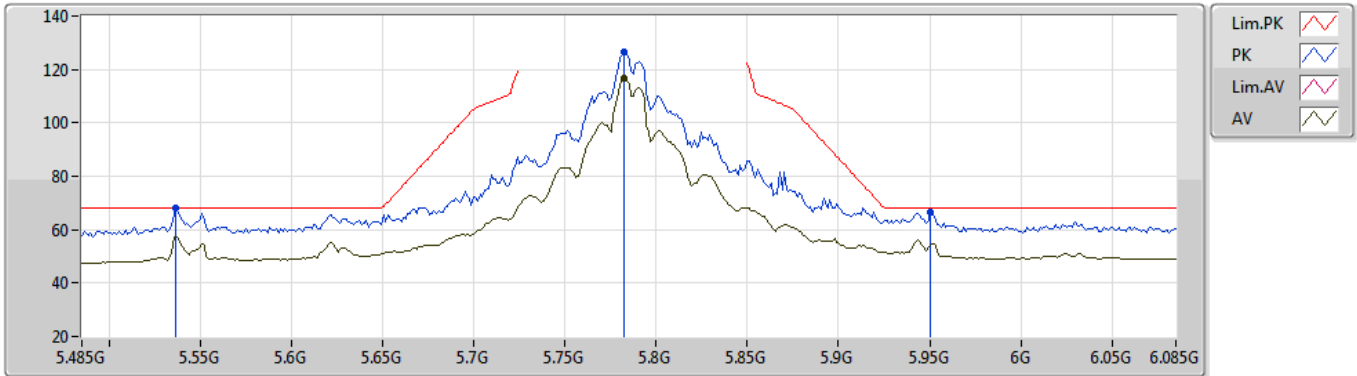
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.48935G	53.09	74.00	-20.91	41.45	3	Horizontal	288	1.03	-	39.16	7.25	34.77
AV	11.48836G	39.98	54.00	-14.02	28.34	3	Horizontal	288	1.03	-	39.16	7.25	34.77
PK	17.23355G	60.01	68.20	-8.19	44.61	3	Horizontal	67	1.58	-	41.01	9.89	35.50

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5785MHz_TX



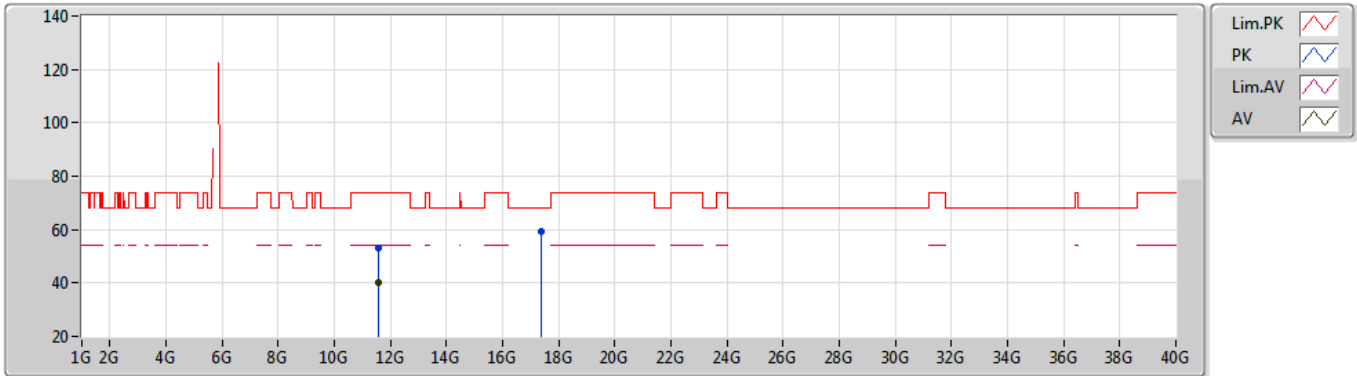
EUT_Z_4TX
Setting 104
04-F-M-1-13

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	5.5366G	67.95	68.20	-0.25	62.80	3	Vertical	224	1.80	-	33.87	4.87	33.59
PK	5.7826G	126.54	Inf	-Inf	121.01	3	Vertical	224	1.80	-	34.27	4.91	33.65
AV	5.7826G	116.74	Inf	-Inf	111.21	3	Vertical	224	1.80	-	34.27	4.91	33.65
PK	5.9506G	66.30	68.20	-1.90	59.92	3	Vertical	224	1.80	-	35.10	4.98	33.70

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5785MHz_TX



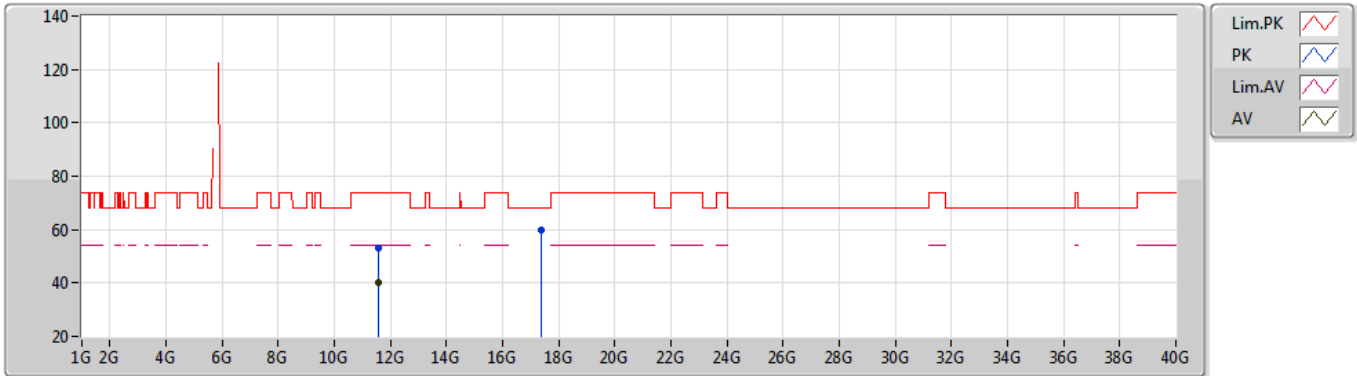
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Setting 104
04-F-M-1

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	11.5718G	53.29	74.00	-20.71	41.75	3	Vertical	99	2.01	-	39.11	7.26	34.83
AV	11.57074G	40.23	54.00	-13.77	28.69	3	Vertical	99	2.01	-	39.11	7.26	34.83
PK	17.3549G	59.30	68.20	-8.90	43.72	3	Vertical	228	2.73	-	41.12	9.94	35.48

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5785MHz_TX



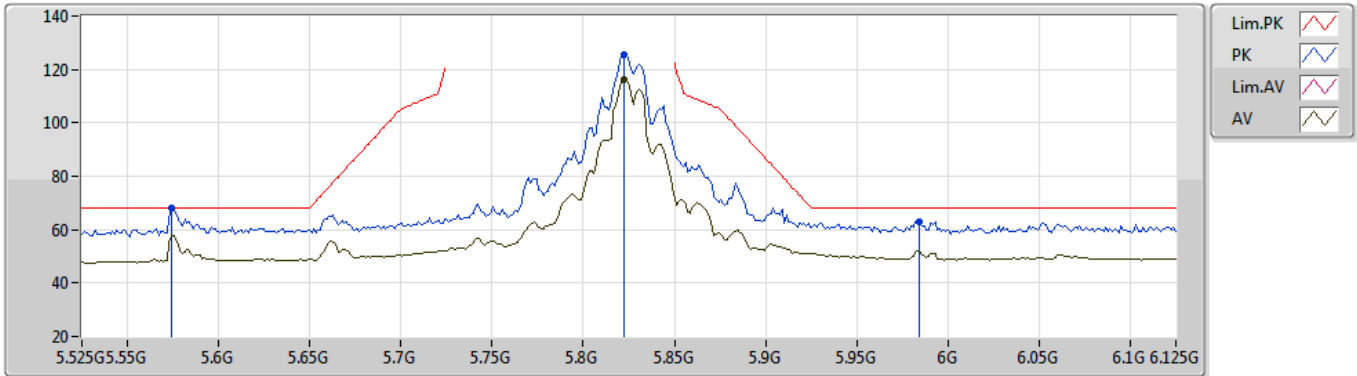
EUT_Z_4TX
Setting 104
04-F-M-1

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	11.56897G	53.11	74.00	-20.89	41.56	3	Horizontal	50	1.29	-	39.12	7.26	34.83
AV	11.57172G	40.29	54.00	-13.71	28.75	3	Horizontal	50	1.29	-	39.11	7.26	34.83
PK	17.35348G	59.95	68.20	-8.25	44.37	3	Horizontal	81	2.76	-	41.12	9.94	35.48

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5825MHz_TX



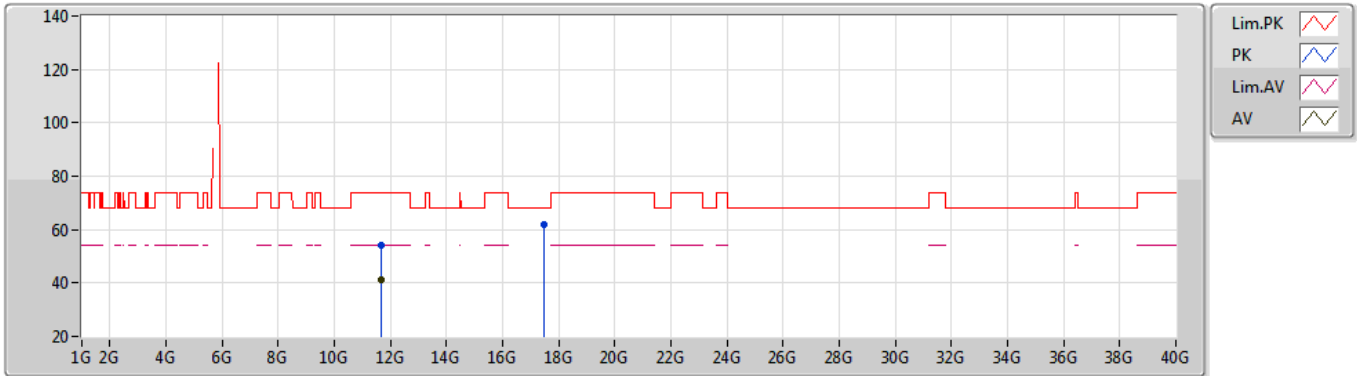
EUT_Z_4TX
Setting 101
04-F-M-1-13

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	5.5742G	67.98	68.20	-0.22	62.68	3	Vertical	223	1.95	-	33.95	4.95	33.60
PK	5.8226G	125.66	Inf	-Inf	119.97	3	Vertical	223	1.95	-	34.44	4.91	33.66
AV	5.8226G	116.32	Inf	-Inf	110.63	3	Vertical	223	1.95	-	34.44	4.91	33.66
PK	5.9846G	62.93	68.20	-5.27	56.41	3	Vertical	223	1.95	-	35.24	4.99	33.71

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5825MHz_TX



EUT_Z_4TX
Setting 101
04-F-M-1

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	11.64812G	54.04	74.00	-19.96	42.59	3	Vertical	34	1.80	-	39.08	7.26	34.89
AV	11.64832G	41.03	54.00	-12.97	29.58	3	Vertical	34	1.80	-	39.08	7.26	34.89
PK	17.46928G	61.72	68.20	-6.48	45.96	3	Vertical	259	1.09	-	41.22	9.99	35.45

802.11a_Nss1,(6Mbps)_4TX

10/12/2019

5825MHz_TX



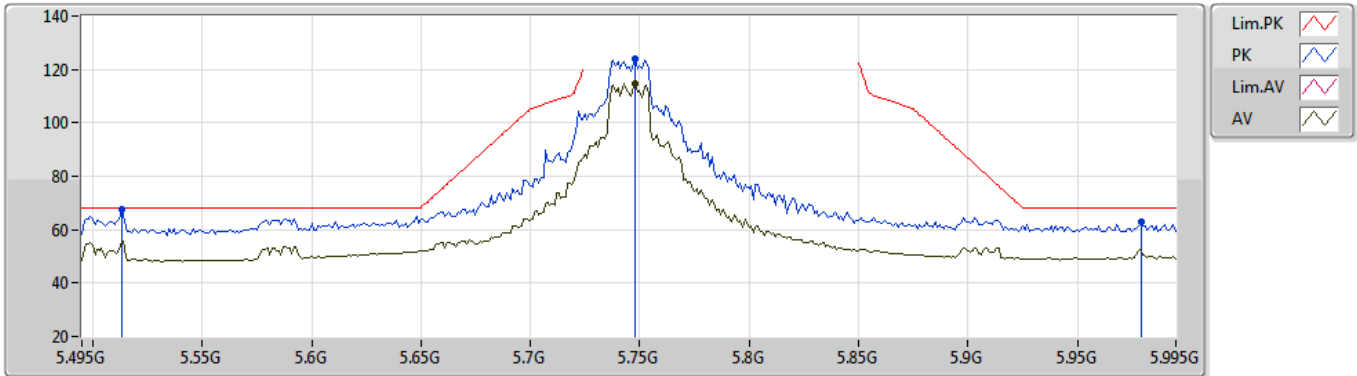
EUT_Z_4TX
Setting 101
04-F-M-1

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	11.64763G	54.11	74.00	-19.89	42.66	3	Horizontal	318	1.45	-	39.08	7.26	34.89
AV	11.64868G	39.95	54.00	-14.05	28.50	3	Horizontal	318	1.45	-	39.08	7.26	34.89
PK	17.47467G	60.61	68.20	-7.59	44.84	3	Horizontal	274	1.09	-	41.23	9.99	35.45

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



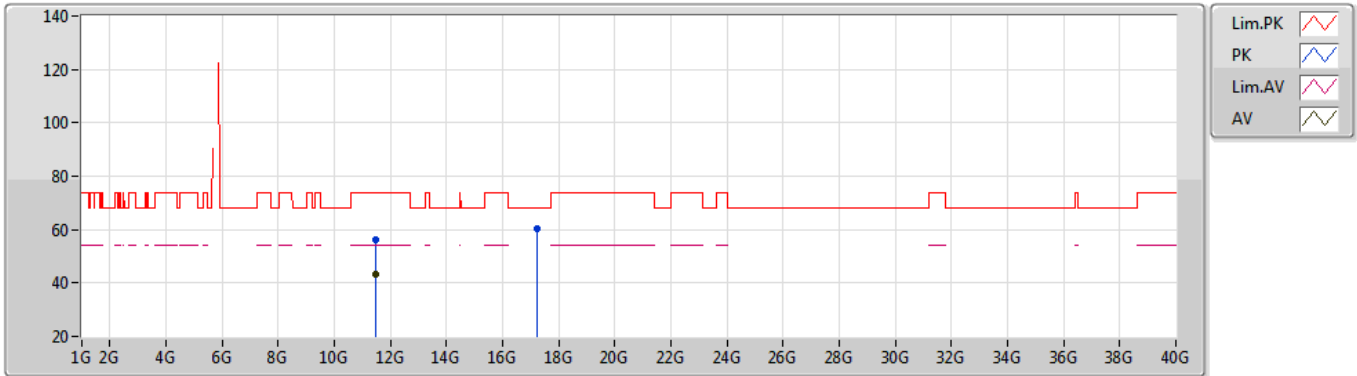
EUT_Z_4TX
Setting 102
04-F-M-1-13

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	5.513G	67.73	68.20	-0.47	62.65	3	Vertical	193	1.80	-	33.83	4.83	33.58
PK	5.748G	123.81	Inf	-Inf	118.32	3	Vertical	193	1.80	-	34.20	4.93	33.64
AV	5.748G	114.71	Inf	-Inf	109.22	3	Vertical	193	1.80	-	34.20	4.93	33.64
PK	5.979G	63.06	68.20	-5.14	56.55	3	Vertical	193	1.80	-	35.22	4.99	33.70

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



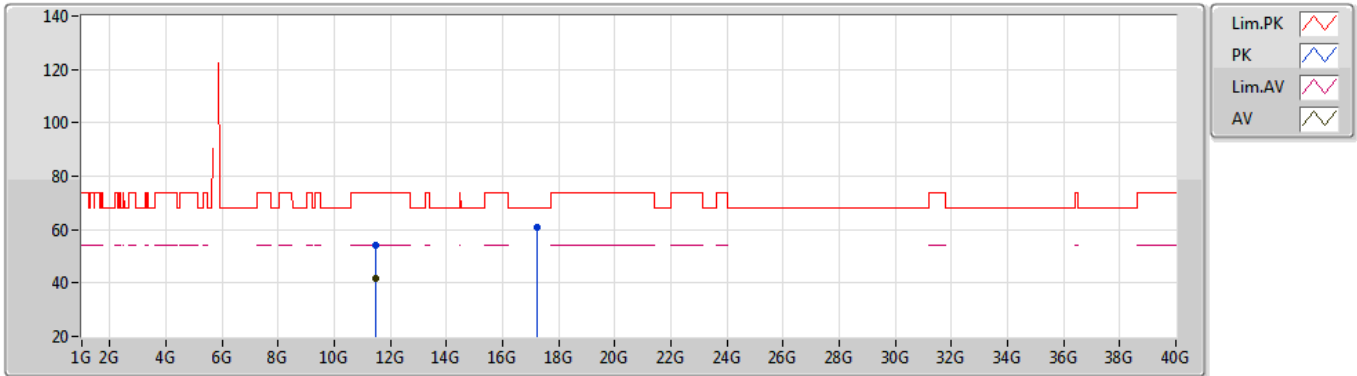
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.48914G	56.19	74.00	-17.81	44.55	3	Vertical	69	1.51	-	39.16	7.25	34.77
AV	11.48931G	43.48	54.00	-10.52	31.84	3	Vertical	69	1.51	-	39.16	7.25	34.77
PK	17.23469G	60.32	68.20	-7.88	44.92	3	Vertical	318	2.93	-	41.01	9.89	35.50

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



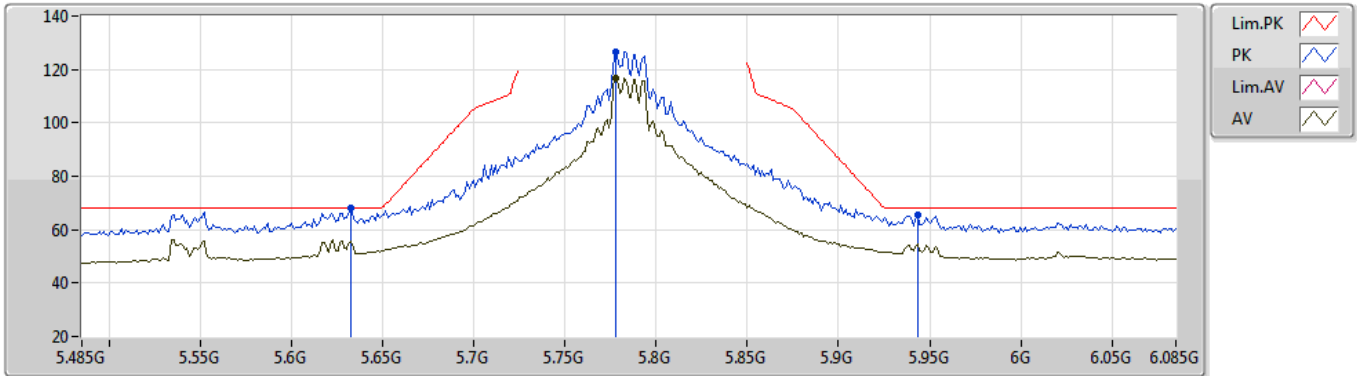
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.48814G	54.13	74.00	-19.87	42.49	3	Horizontal	263	1.85	-	39.16	7.25	34.77
AV	11.48791G	41.57	54.00	-12.43	29.93	3	Horizontal	263	1.85	-	39.16	7.25	34.77
PK	17.23353G	60.73	68.20	-7.47	45.33	3	Horizontal	110	1.73	-	41.01	9.89	35.50

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



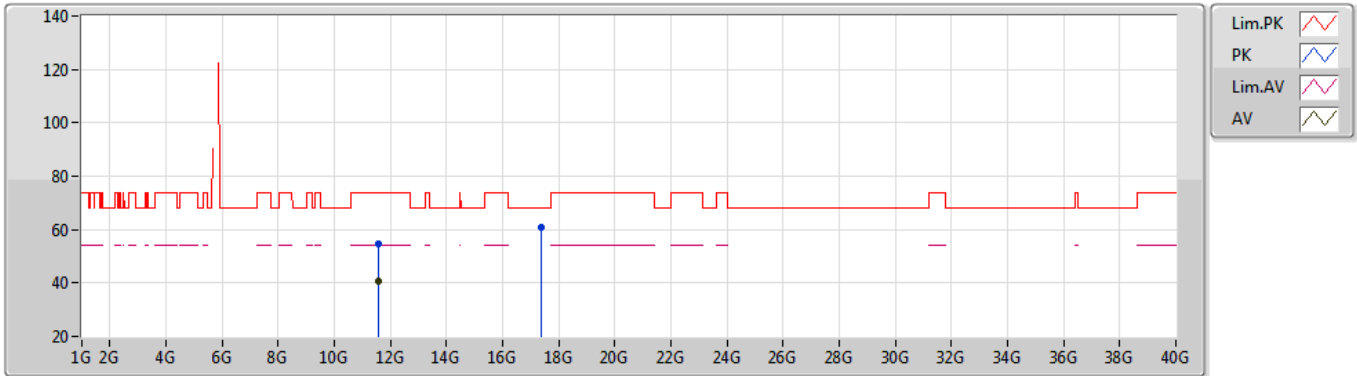
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Setting 103
04-F-M-1-13

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	5.6326G	67.94	68.20	-0.26	62.55	3	Vertical	193	1.80	-	34.03	4.98	33.62
PK	5.7778G	126.40	Inf	-Inf	120.88	3	Vertical	193	1.80	-	34.26	4.91	33.65
AV	5.7778G	116.91	Inf	-Inf	111.39	3	Vertical	193	1.80	-	34.26	4.91	33.65
PK	5.9434G	65.39	68.20	-2.81	59.04	3	Vertical	193	1.80	-	35.07	4.97	33.69

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



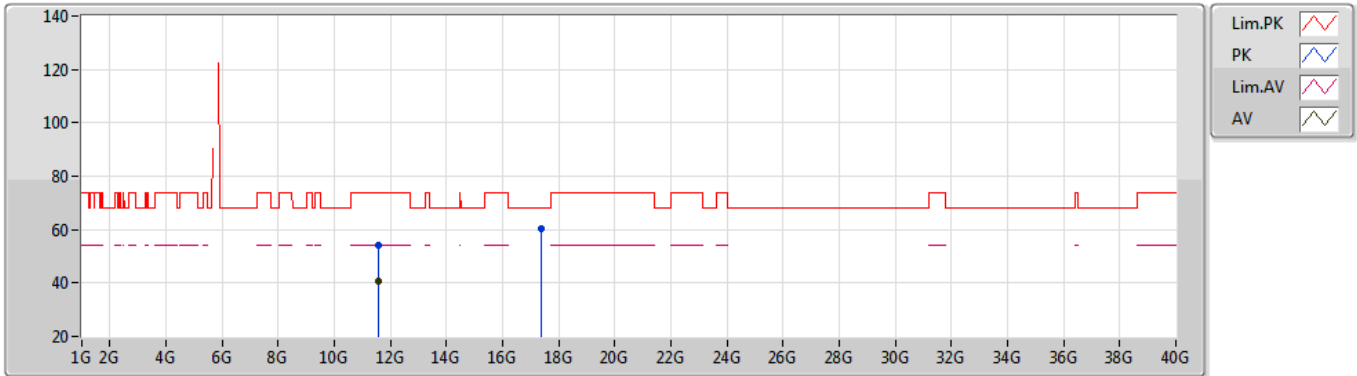
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Setting 103
04-F-M-1

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	11.57137G	54.49	74.00	-19.51	42.95	3	Vertical	305	1.82	-	39.11	7.26	34.83
AV	11.56886G	40.87	54.00	-13.13	29.32	3	Vertical	305	1.82	-	39.12	7.26	34.83
PK	17.35549G	61.08	68.20	-7.12	45.50	3	Vertical	0	1.23	-	41.12	9.94	35.48

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



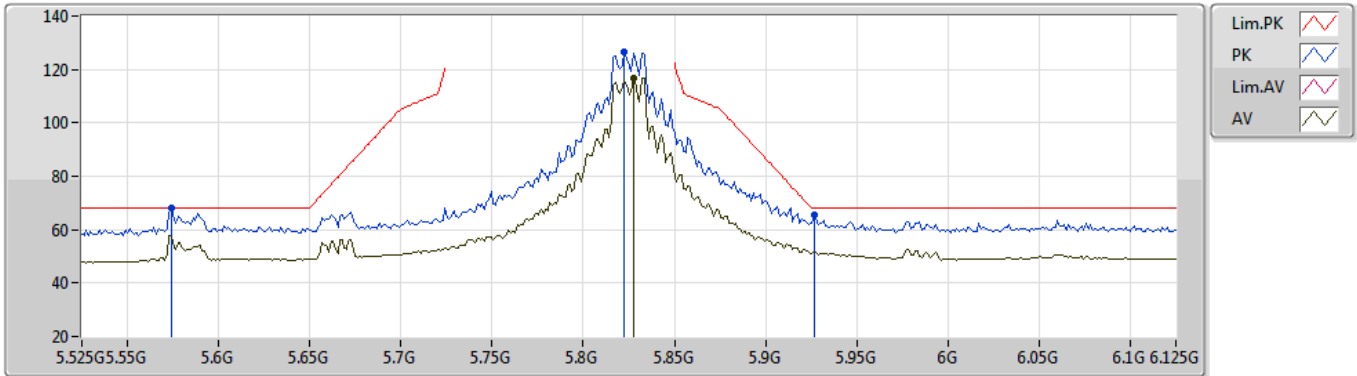
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Setting 103
04-F-M-1

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	11.56881G	54.34	74.00	-19.66	42.79	3	Horizontal	134	2.16	-	39.12	7.26	34.83
AV	11.56854G	40.91	54.00	-13.09	29.36	3	Horizontal	134	2.16	-	39.12	7.26	34.83
PK	17.35486G	60.10	68.20	-8.10	44.52	3	Horizontal	124	1.80	-	41.12	9.94	35.48

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



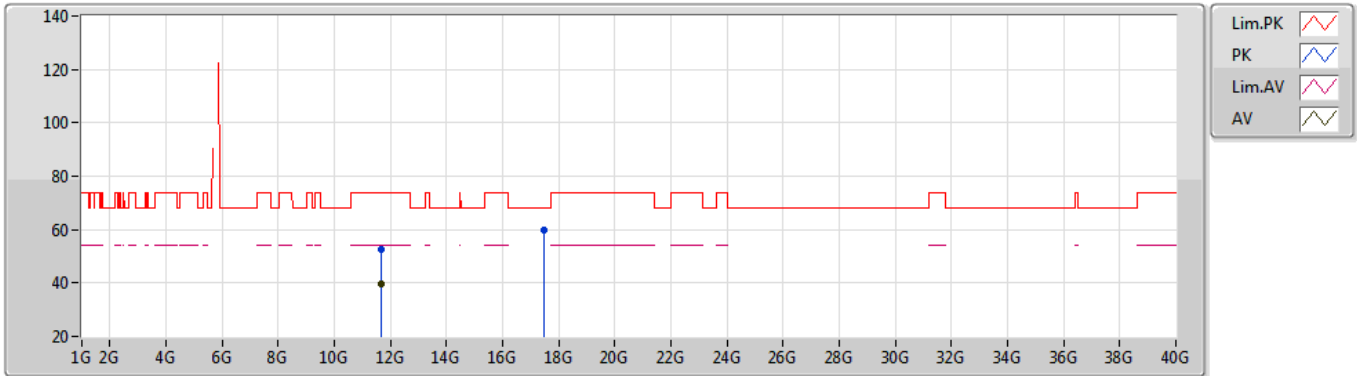
EUT_Z_4TX
Setting 103
04-F-M-1-13

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	5.5742G	68.01	68.20	-0.19	62.71	3	Vertical	192	1.93	-	33.95	4.95	33.60
PK	5.8226G	126.36	Inf	-Inf	120.67	3	Vertical	192	1.93	-	34.44	4.91	33.66
AV	5.8274G	116.76	Inf	-Inf	111.06	3	Vertical	192	1.93	-	34.46	4.91	33.67
PK	5.927G	65.30	68.20	-2.90	59.02	3	Vertical	192	1.93	-	35.01	4.96	33.69

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



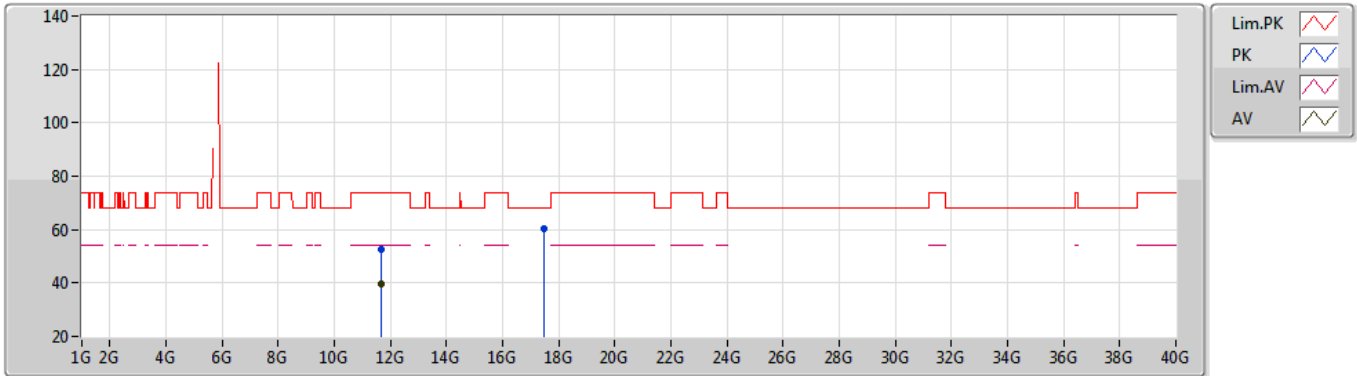
EUT_Z_4TX
Setting 103
04-F-M-1

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	11.64952G	52.50	74.00	-21.50	41.05	3	Vertical	35	2.36	-	39.08	7.26	34.89
AV	11.65177G	39.72	54.00	-14.28	28.27	3	Vertical	35	2.36	-	39.07	7.27	34.89
PK	17.47542G	59.96	68.20	-8.24	44.19	3	Vertical	265	2.85	-	41.23	9.99	35.45

802.11ac VHT20_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



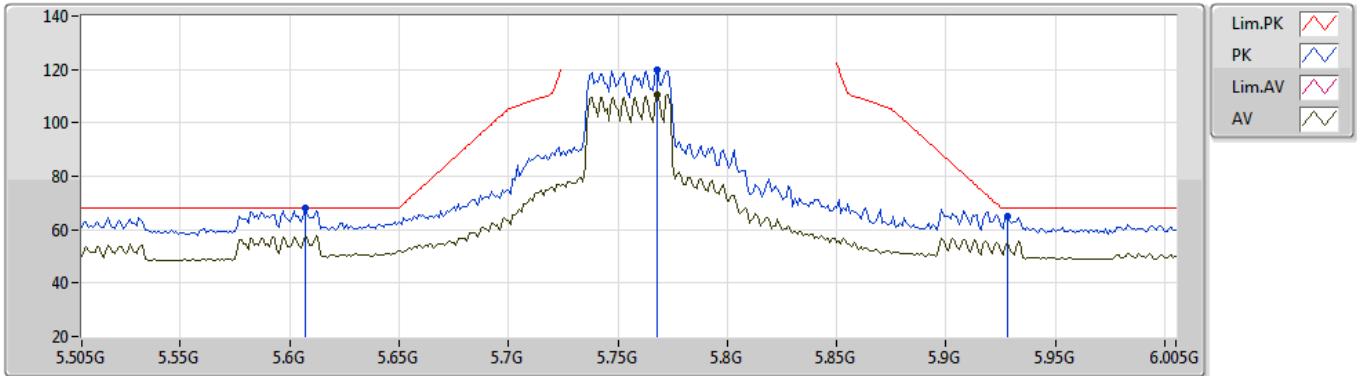
EUT_Z_4TX
Setting 103
04-F-M-1

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	11.65112G	52.48	74.00	-21.52	41.03	3	Horizontal	209	1.64	-	39.07	7.27	34.89
AV	11.65187G	39.76	54.00	-14.24	28.31	3	Horizontal	209	1.64	-	39.07	7.27	34.89
PK	17.47348G	60.32	68.20	-7.88	44.55	3	Horizontal	180	1.67	-	41.23	9.99	35.45

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



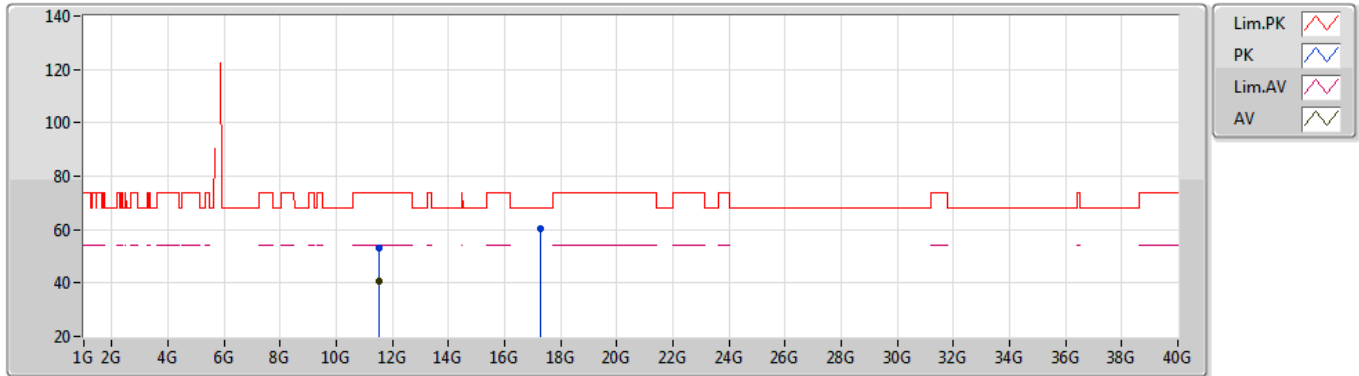
EUT_Z_4TX
Setting 90
04-F-M-1-13

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	5.607G	68.12	68.20	-0.08	62.72	3	Vertical	191	2.04	-	34.01	5.00	33.61
PK	5.768G	119.84	Inf	-Inf	114.33	3	Vertical	191	2.04	-	34.24	4.92	33.65
AV	5.768G	110.64	Inf	-Inf	105.13	3	Vertical	191	2.04	-	34.24	4.92	33.65
PK	5.928G	65.04	68.20	-3.16	58.76	3	Vertical	191	2.04	-	35.01	4.96	33.69

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



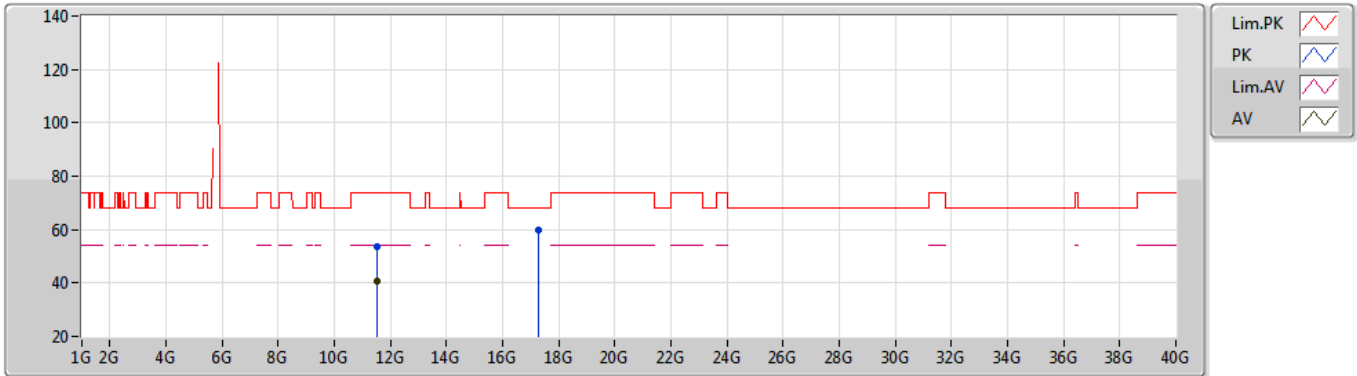
EUT Z_4TX
Setting 90
04-F-M-1

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	11.51231G	53.02	74.00	-20.98	41.42	3	Vertical	50	1.09	-	39.14	7.25	34.79
AV	11.50858G	40.85	54.00	-13.15	29.24	3	Vertical	50	1.09	-	39.15	7.25	34.79
PK	17.26641G	60.34	68.20	-7.86	44.88	3	Vertical	123	1.05	-	41.04	9.91	35.49

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



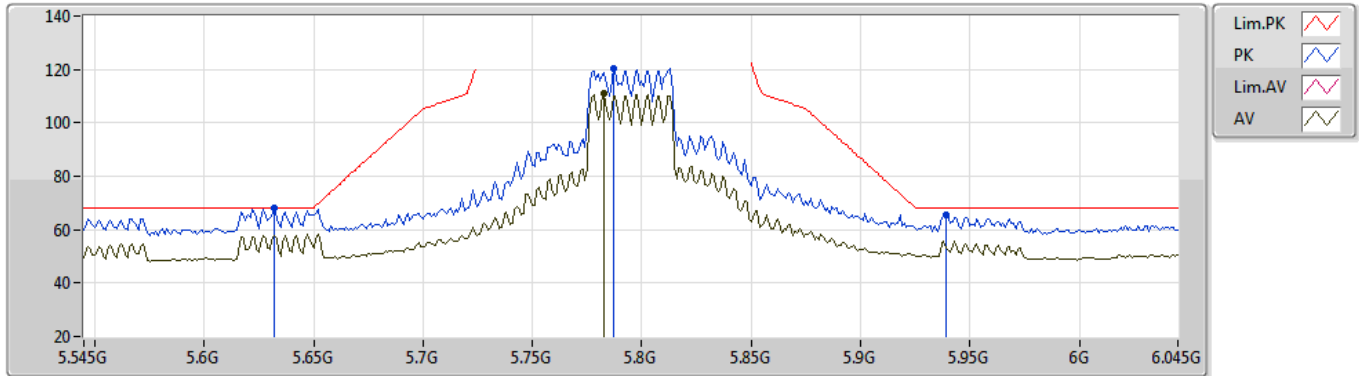
EUT Z_4TX
Setting 90
04-F-M-1

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	11.5113G	53.51	74.00	-20.49	41.91	3	Horizontal	306	2.24	-	39.14	7.25	34.79
AV	11.51074G	40.91	54.00	-13.09	29.31	3	Horizontal	306	2.24	-	39.14	7.25	34.79
PK	17.26412G	59.95	68.20	-8.25	44.49	3	Horizontal	330	2.91	-	41.04	9.91	35.49

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



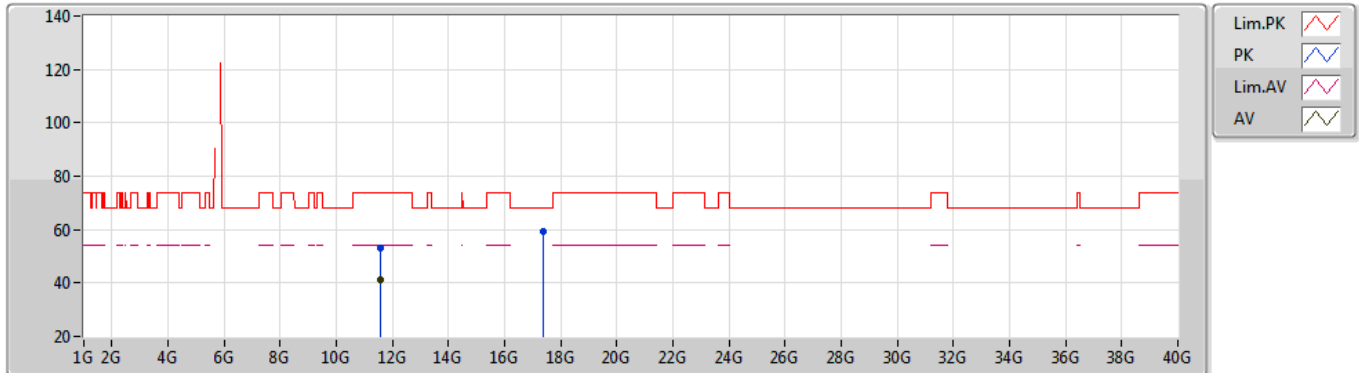
EUT_Z_4TX
Setting 90
04-F-M-1-13

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	5.632G	67.95	68.20	-0.25	62.56	3	Vertical	190	1.96	-	34.03	4.98	33.62
PK	5.787G	120.32	Inf	-Inf	114.80	3	Vertical	190	1.96	-	34.27	4.91	33.66
AV	5.783G	110.80	Inf	-Inf	105.27	3	Vertical	190	1.96	-	34.27	4.91	33.65
PK	5.939G	65.57	68.20	-2.63	59.23	3	Vertical	190	1.96	-	35.06	4.97	33.69

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



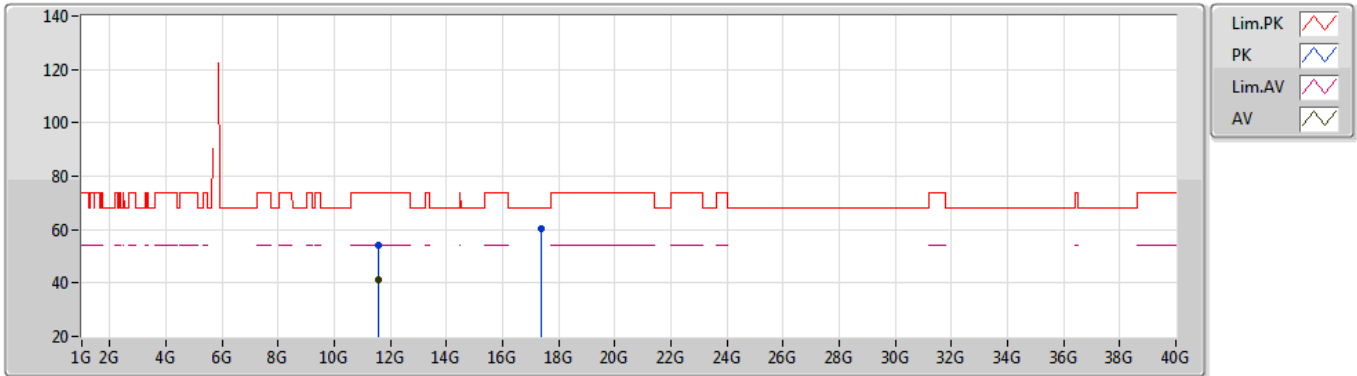
EUT Z_4TX
Setting 90
04-F-M-1

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	11.58774G	52.98	74.00	-21.02	41.45	3	Vertical	147	2.60	-	39.11	7.26	34.84
AV	11.58879G	41.02	54.00	-12.98	29.50	3	Vertical	147	2.60	-	39.11	7.26	34.85
PK	17.38438G	59.47	68.20	-8.73	43.84	3	Vertical	271	1.62	-	41.15	9.95	35.47

802.11ac VHT40_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



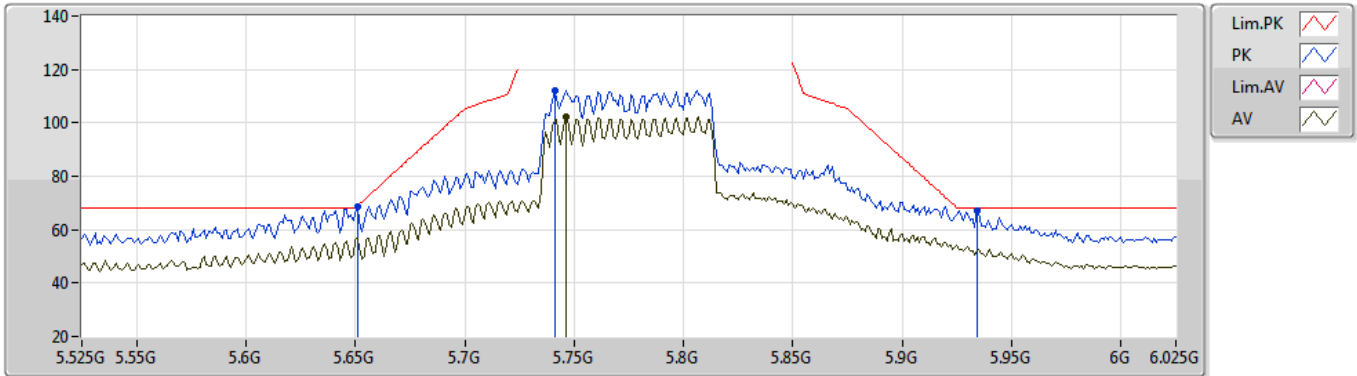
EUT Z_4TX
Setting 90
04-F-M-1

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	11.5917G	54.06	74.00	-19.94	42.55	3	Horizontal	40	2.33	-	39.10	7.26	34.85
AV	11.59004G	40.95	54.00	-13.05	29.44	3	Horizontal	40	2.33	-	39.10	7.26	34.85
PK	17.38643G	60.29	68.20	-7.91	44.66	3	Horizontal	77	2.61	-	41.15	9.95	35.47

802.11ac VHT80_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



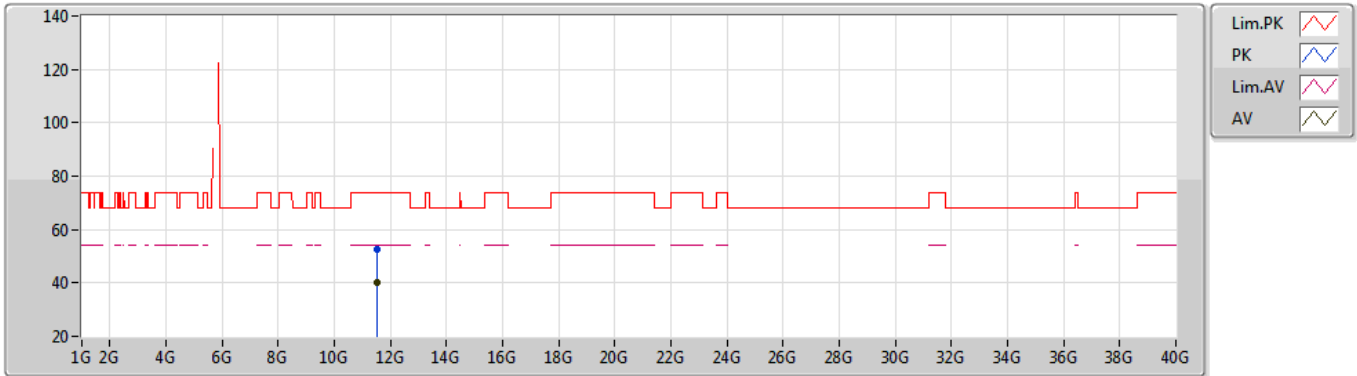
EUT_Z_4TX
Setting 93
04-F-Z-1-10

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	5.651G	68.76	68.94	-0.18	63.36	3	Vertical	188	1.80	-	34.05	4.97	33.62
PK	5.741G	112.07	Inf	-Inf	106.60	3	Vertical	188	1.80	-	34.18	4.93	33.64
AV	5.746G	102.27	Inf	-Inf	96.79	3	Vertical	188	1.80	-	34.19	4.93	33.64
PK	5.934G	67.27	68.20	-0.93	60.95	3	Vertical	188	1.80	-	35.04	4.97	33.69

802.11ac VHT80_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



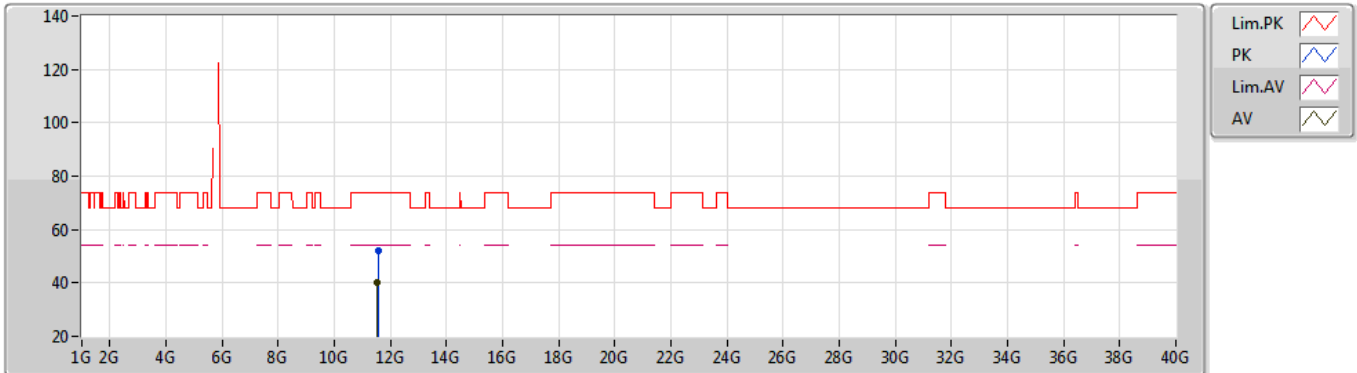
EUT Z_4TX
Setting 93
04-F-Z-1

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	11.54334G	52.57	74.00	-21.43	41.00	3	Vertical	79	1.80	-	39.13	7.25	34.81
AV	11.54076G	40.39	54.00	-13.61	28.82	3	Vertical	79	1.80	-	39.13	7.25	34.81

802.11ac VHT80_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



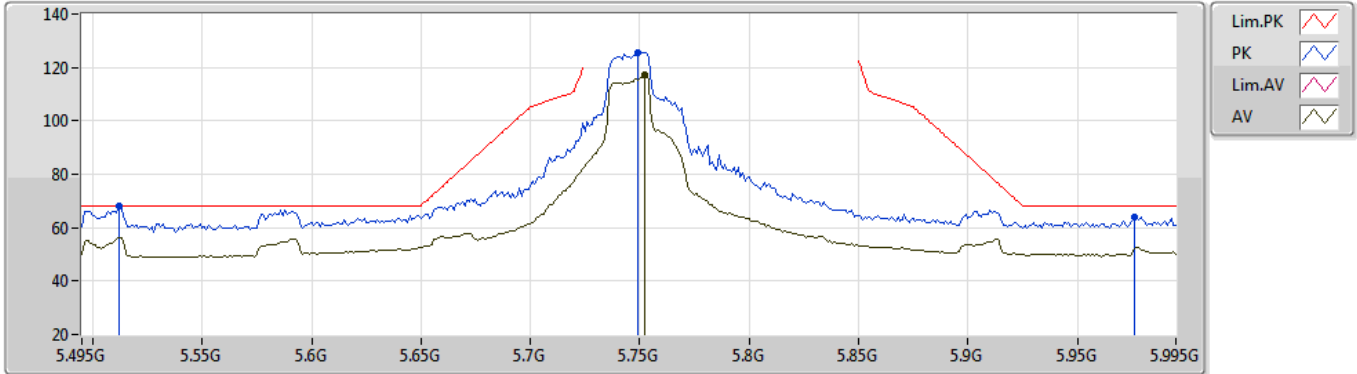
EUT Z_4TX
Setting 93
04-F-Z-1

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	11.55252G	52.21	74.00	-21.79	40.65	3	Horizontal	124	1.80	-	39.12	7.26	34.82
AV	11.54568G	40.30	54.00	-13.70	28.73	3	Horizontal	124	1.80	-	39.13	7.25	34.81

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



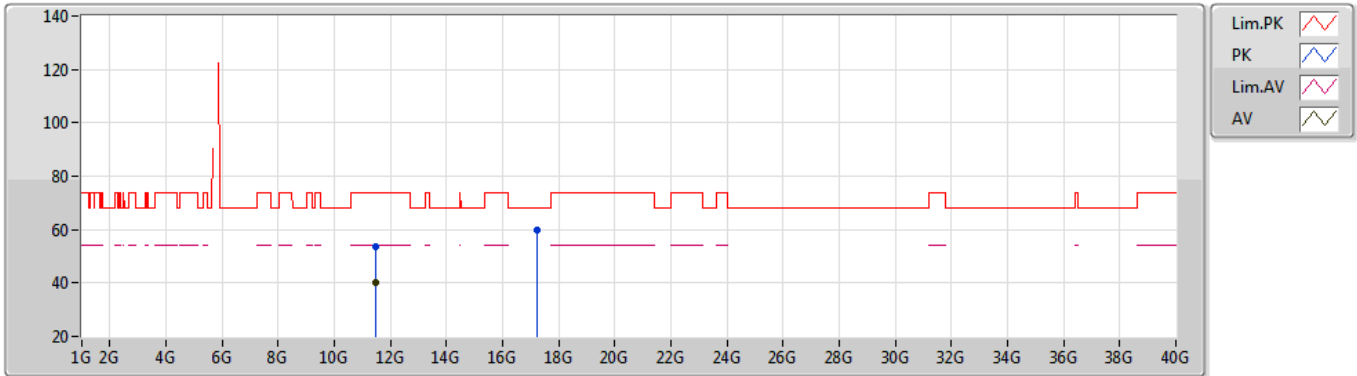
EUT_Z_4TX
Setting 102
04-F-M-1-13

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	5.512G	67.87	68.20	-0.33	62.81	3	Vertical	139	1.91	-	33.82	4.82	33.58
PK	5.749G	125.69	Inf	-Inf	120.20	3	Vertical	139	1.91	-	34.20	4.93	33.64
AV	5.752G	117.00	Inf	-Inf	111.53	3	Vertical	139	1.91	-	34.20	4.92	33.65
PK	5.976G	64.19	68.20	-4.01	57.70	3	Vertical	139	1.91	-	35.20	4.99	33.70

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



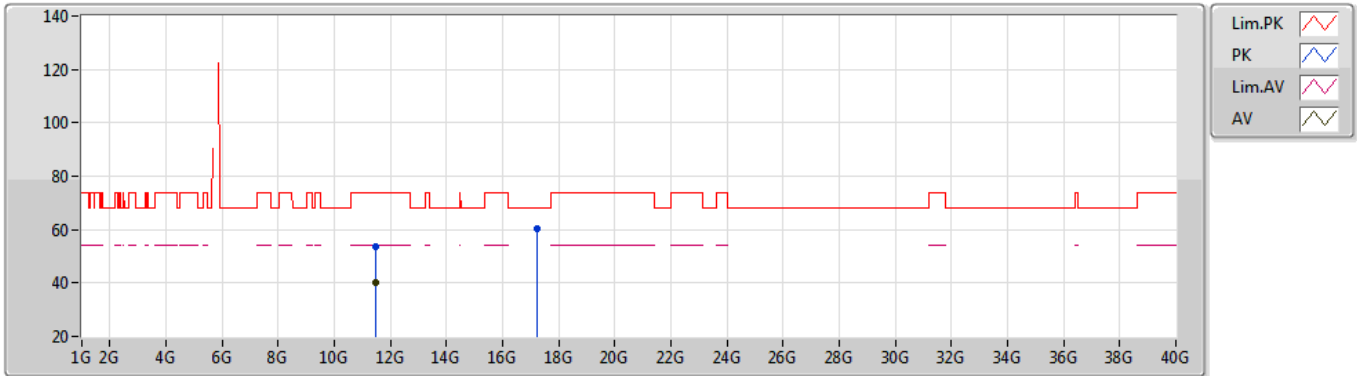
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.48929G	53.46	74.00	-20.54	41.82	3	Vertical	302	2.01	-	39.16	7.25	34.77
AV	11.49222G	40.26	54.00	-13.74	28.63	3	Vertical	302	2.01	-	39.15	7.25	34.77
PK	17.23335G	60.06	68.20	-8.14	44.66	3	Vertical	316	1.23	-	41.01	9.89	35.50

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5745MHz_TX



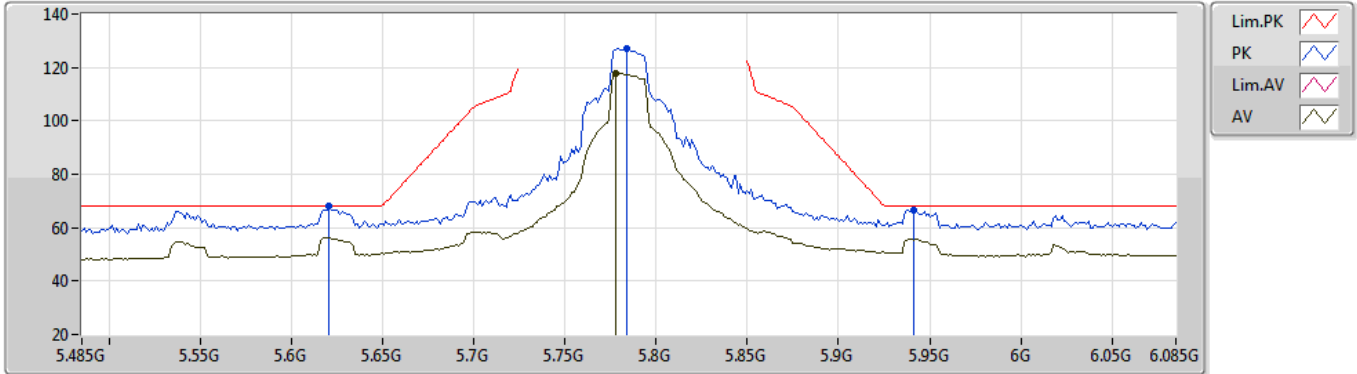
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.49111G	53.54	74.00	-20.46	41.91	3	Horizontal	192	1.00	-	39.15	7.25	34.77
AV	11.48789G	40.12	54.00	-13.88	28.48	3	Horizontal	192	1.00	-	39.16	7.25	34.77
PK	17.23635G	60.24	68.20	-7.96	44.84	3	Horizontal	66	1.12	-	41.01	9.89	35.50

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



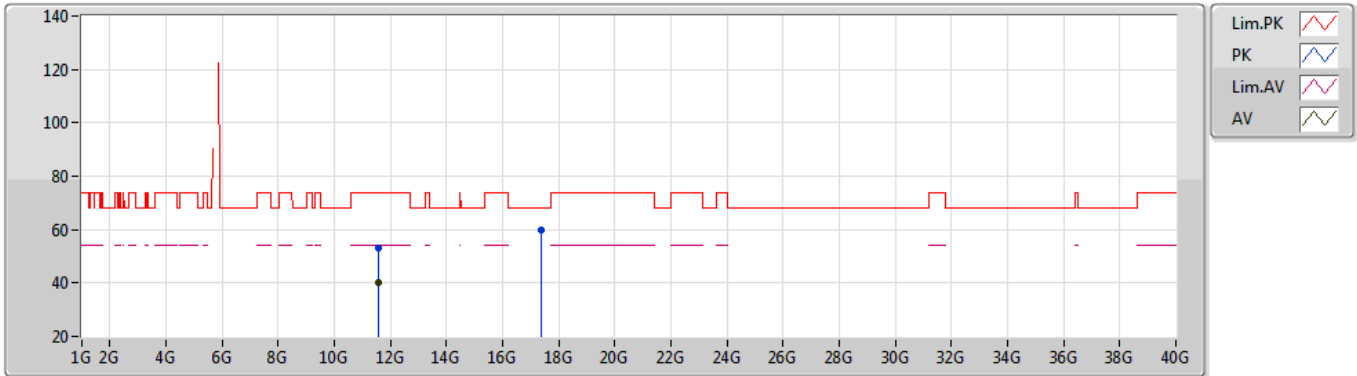
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Setting 102
04-F-M-1-13

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	5.6206G	67.88	68.20	-0.32	62.48	3	Vertical	137	1.92	-	34.02	4.99	33.61
PK	5.7838G	127.05	Inf	-Inf	121.53	3	Vertical	137	1.92	-	34.27	4.91	33.66
AV	5.7778G	117.72	Inf	-Inf	112.20	3	Vertical	137	1.92	-	34.26	4.91	33.65
PK	5.941G	66.66	68.20	-1.54	60.32	3	Vertical	137	1.92	-	35.06	4.97	33.69

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



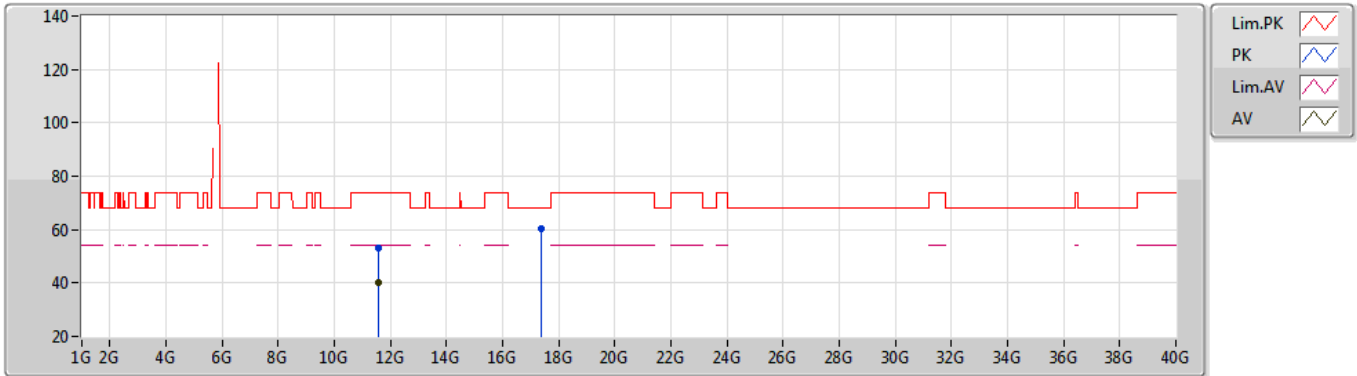
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.57041G	53.12	74.00	-20.88	41.58	3	Vertical	225	2.19	-	39.11	7.26	34.83
AV	11.56879G	40.17	54.00	-13.83	28.62	3	Vertical	225	2.19	-	39.12	7.26	34.83
PK	17.35487G	59.93	68.20	-8.27	44.35	3	Vertical	179	1.13	-	41.12	9.94	35.48

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5785MHz_TX



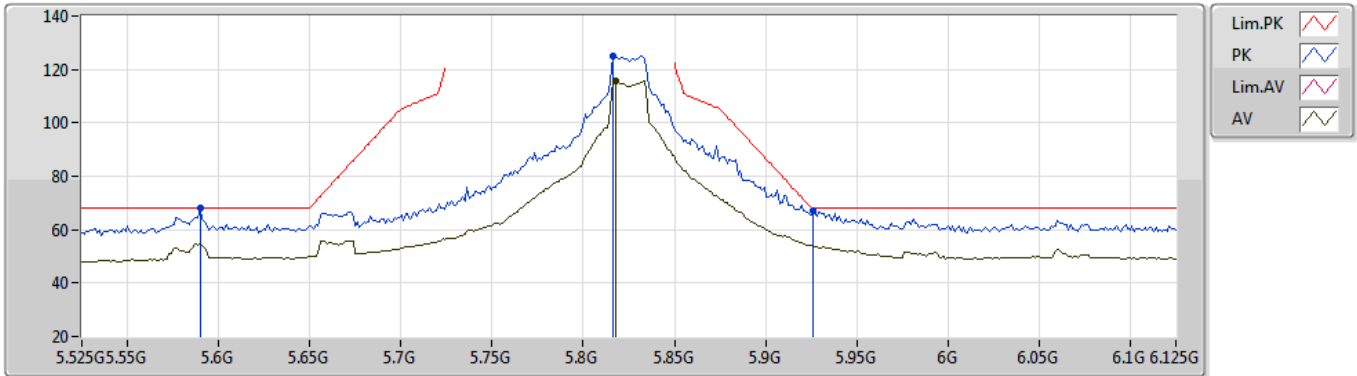
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.57209G	53.34	74.00	-20.66	41.80	3	Horizontal	307	1.37	-	39.11	7.26	34.83
AV	11.57114G	40.18	54.00	-13.82	28.64	3	Horizontal	307	1.37	-	39.11	7.26	34.83
PK	17.3547G	60.10	68.20	-8.10	44.52	3	Horizontal	350	1.25	-	41.12	9.94	35.48

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



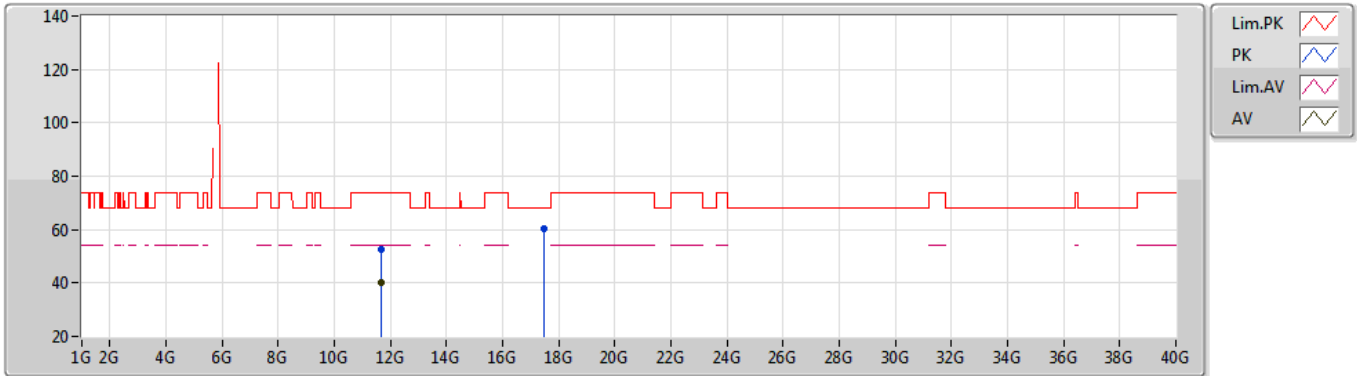
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Setting 104
04-F-M-1-13

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	5.5898G	67.90	68.20	-0.30	62.55	3	Vertical	114	1.80	-	33.98	4.98	33.61
PK	5.8166G	124.90	Inf	-Inf	119.25	3	Vertical	114	1.80	-	34.40	4.91	33.66
AV	5.8178G	115.69	Inf	-Inf	110.03	3	Vertical	114	1.80	-	34.41	4.91	33.66
PK	5.9258G	67.04	68.20	-1.16	60.77	3	Vertical	114	1.80	-	35.00	4.96	33.69

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



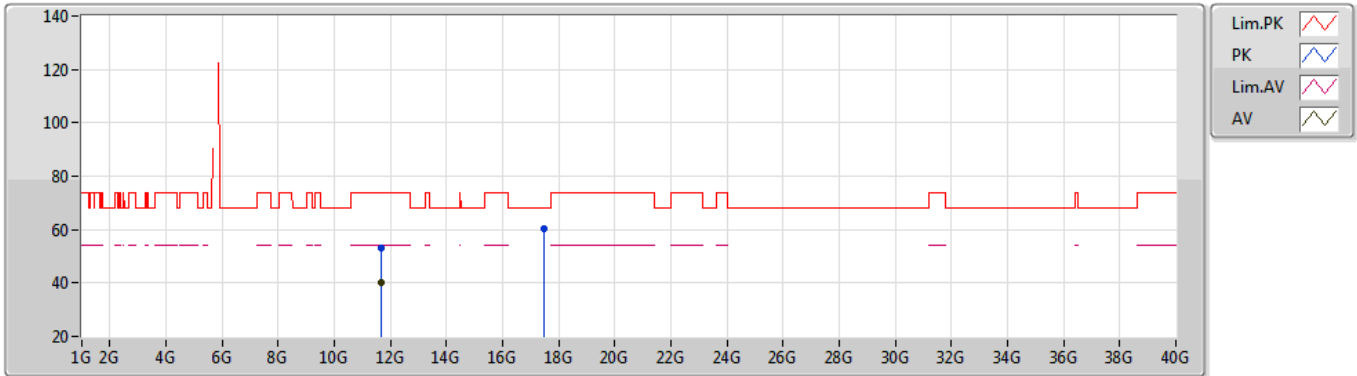
EUT_Z_4TX
Setting 104
04-F-M-1

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	11.65105G	52.63	74.00	-21.37	41.18	3	Vertical	255	2.74	-	39.07	7.27	34.89
AV	11.64862G	40.03	54.00	-13.97	28.58	3	Vertical	255	2.74	-	39.08	7.26	34.89
PK	17.47548G	60.39	68.20	-7.81	44.62	3	Vertical	356	1.31	-	41.23	9.99	35.45

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

10/12/2019

5825MHz_TX



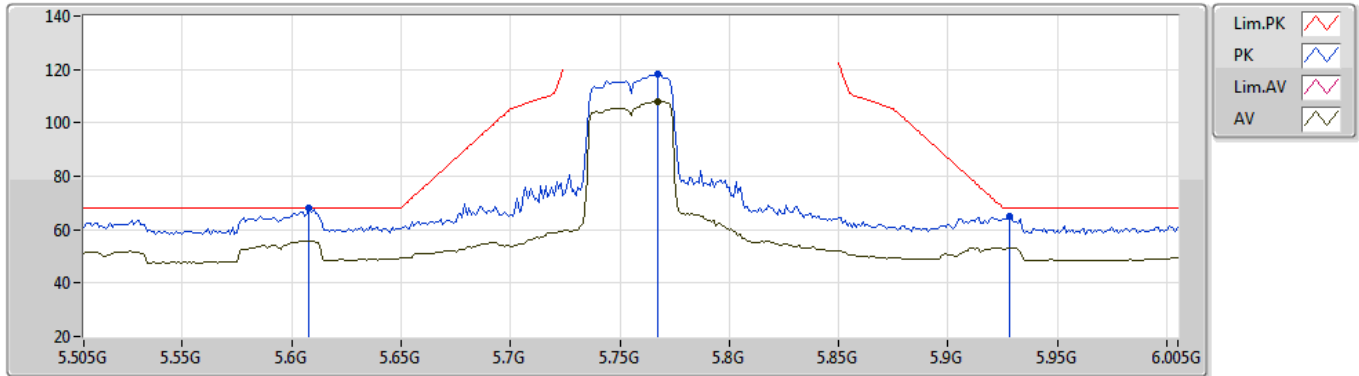
EUT_Z_4TX
Setting 104
04-F-M-1

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	11.6479G	52.97	74.00	-21.03	41.52	3	Horizontal	103	1.59	-	39.08	7.26	34.89
AV	11.6487G	39.94	54.00	-14.06	28.49	3	Horizontal	103	1.59	-	39.08	7.26	34.89
PK	17.47555G	60.23	68.20	-7.97	44.46	3	Horizontal	202	1.74	-	41.23	9.99	35.45

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



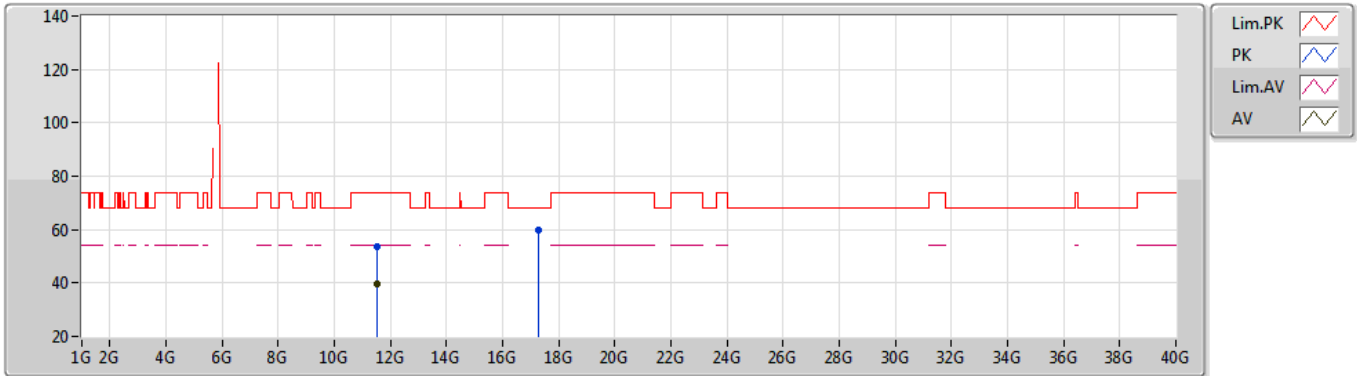
EUT_Z_4TX
Setting 80
04-F-M-1-13

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	5.608G	67.97	68.20	-0.23	62.57	3	Vertical	112	1.80	-	34.01	5.00	33.61
PK	5.767G	118.11	Inf	-Inf	112.61	3	Vertical	112	1.80	-	34.23	4.92	33.65
AV	5.767G	108.14	Inf	-Inf	102.64	3	Vertical	112	1.80	-	34.23	4.92	33.65
PK	5.928G	64.92	68.20	-3.28	58.64	3	Vertical	112	1.80	-	35.01	4.96	33.69

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



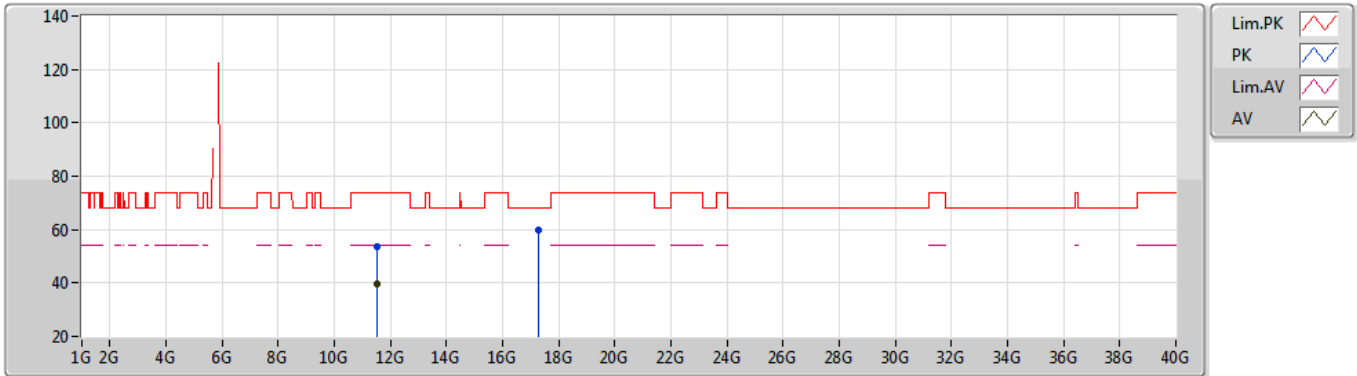
EUT_Z_4TX
Setting 80
04-F-M-1

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	11.50835G	53.65	74.00	-20.35	42.04	3	Vertical	46	2.20	-	39.15	7.25	34.79
AV	11.50823G	39.69	54.00	-14.31	28.08	3	Vertical	46	2.20	-	39.15	7.25	34.79
PK	17.26749G	60.08	68.20	-8.12	44.62	3	Vertical	80	2.64	-	41.04	9.91	35.49

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5755MHz_TX



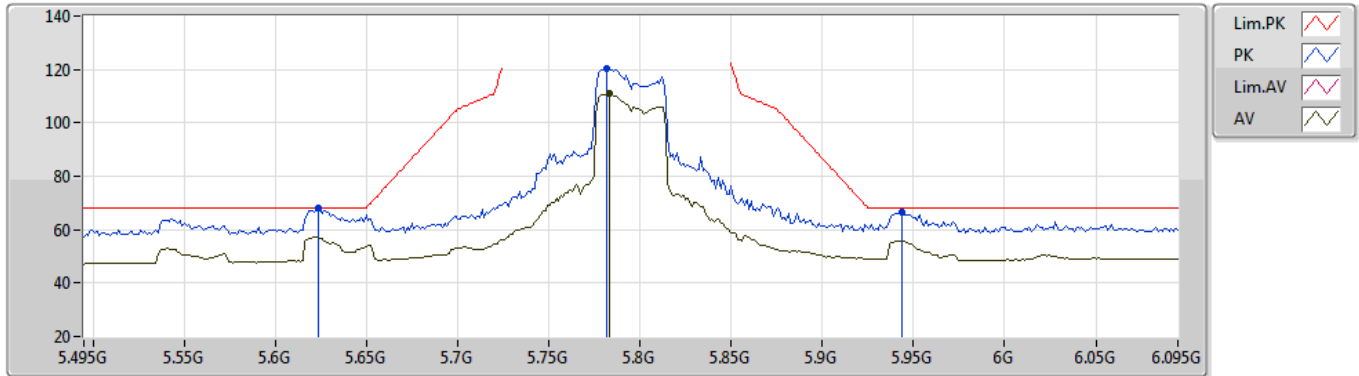
EUT Z_4TX
Setting 80
04-F-M-1

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	11.50992G	53.51	74.00	-20.49	41.90	3	Horizontal	2	2.56	-	39.15	7.25	34.79
AV	11.51155G	39.58	54.00	-14.42	27.98	3	Horizontal	2	2.56	-	39.14	7.25	34.79
PK	17.26343G	59.79	68.20	-8.41	44.33	3	Horizontal	122	1.99	-	41.04	9.91	35.49

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



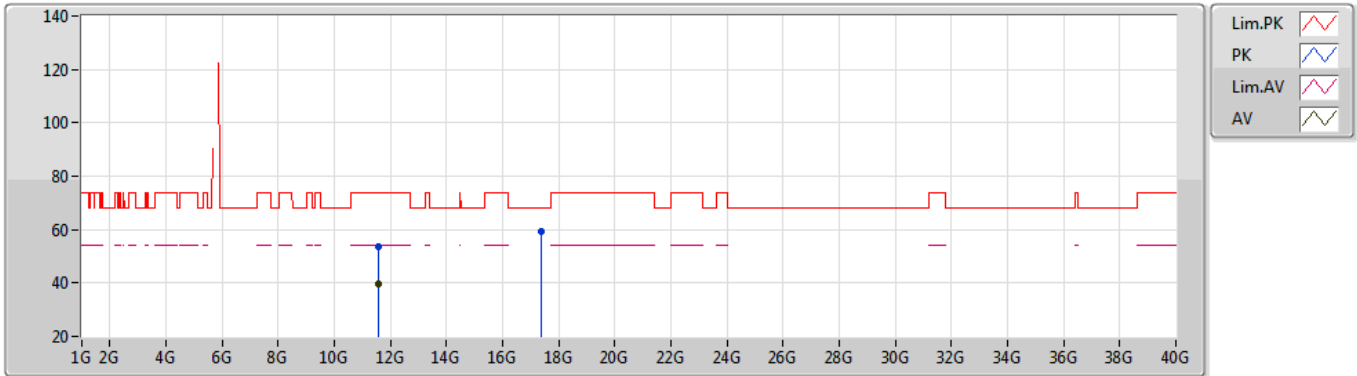
EUT_Z_4TX
Setting 86
04-F-M-1-13

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	5.6234G	67.89	68.20	-0.31	62.49	3	Vertical	139	2.12	-	34.02	4.99	33.61
PK	5.7818G	120.28	Inf	-Inf	114.76	3	Vertical	139	2.12	-	34.26	4.91	33.65
AV	5.783G	110.88	Inf	-Inf	105.35	3	Vertical	139	2.12	-	34.27	4.91	33.65
PK	5.9438G	66.47	68.20	-1.73	60.11	3	Vertical	139	2.12	-	35.08	4.97	33.69

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



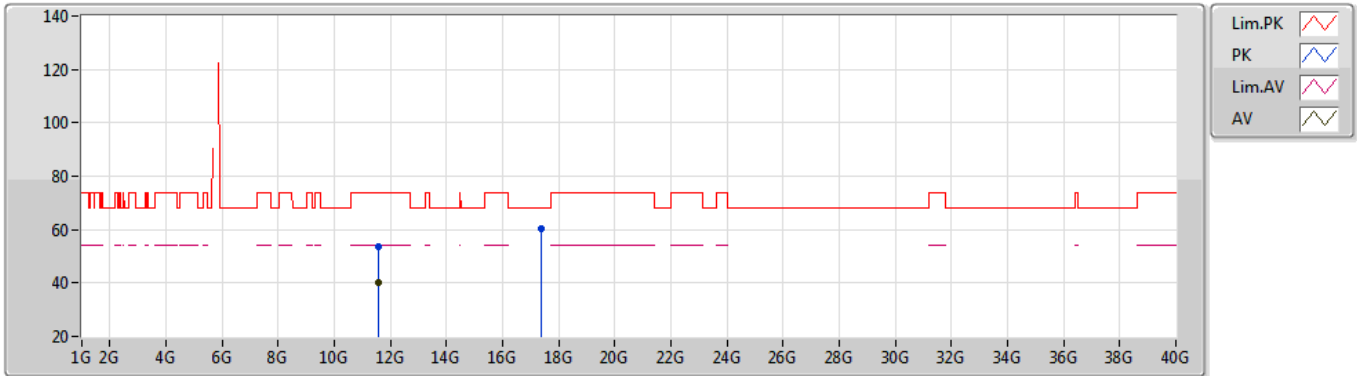
EUT_Z_4TX
Setting 86
04-F-M-1

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	11.59189G	53.43	74.00	-20.57	41.92	3	Vertical	166	2.09	-	39.10	7.26	34.85
AV	11.58884G	39.85	54.00	-14.15	28.33	3	Vertical	166	2.09	-	39.11	7.26	34.85
PK	17.38555G	59.55	68.20	-8.65	43.92	3	Vertical	342	1.05	-	41.15	9.95	35.47

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

10/12/2019

5795MHz_TX



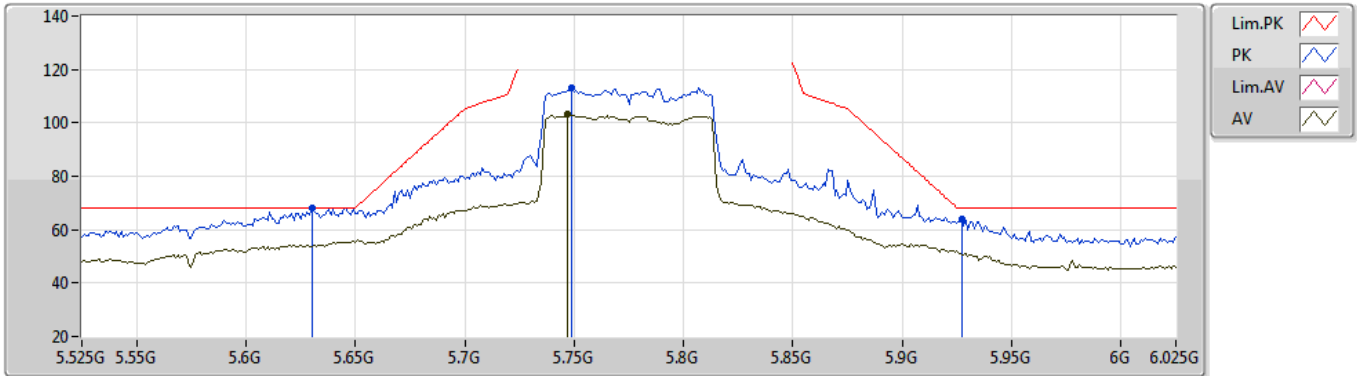
EUT_Z_4TX
Setting 86
04-F-M-1

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	11.58837G	53.45	74.00	-20.55	41.93	3	Horizontal	53	1.22	-	39.11	7.26	34.85
AV	11.59103G	40.34	54.00	-13.66	28.83	3	Horizontal	53	1.22	-	39.10	7.26	34.85
PK	17.38408G	60.12	68.20	-8.08	44.49	3	Horizontal	74	2.05	-	41.15	9.95	35.47

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



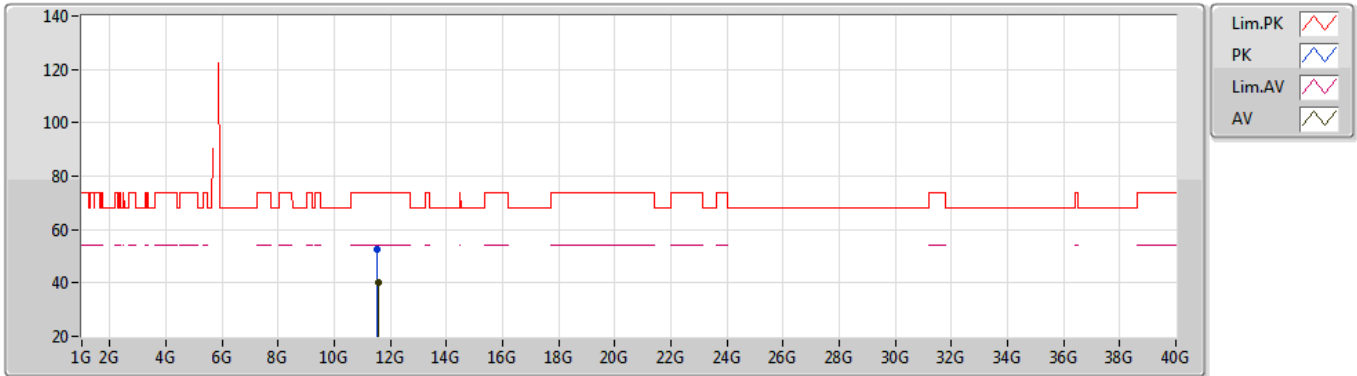
EUT_Z_4TX
Setting 91
04-F-Z-1-10

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	5.63G	68.08	68.20	-0.12	62.68	3	Vertical	57	2.58	-	34.03	4.99	33.62
PK	5.749G	113.19	Inf	-Inf	107.70	3	Vertical	57	2.58	-	34.20	4.93	33.64
AV	5.747G	103.17	Inf	-Inf	97.69	3	Vertical	57	2.58	-	34.19	4.93	33.64
PK	5.927G	63.96	68.20	-4.24	57.68	3	Vertical	57	2.58	-	35.01	4.96	33.69

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



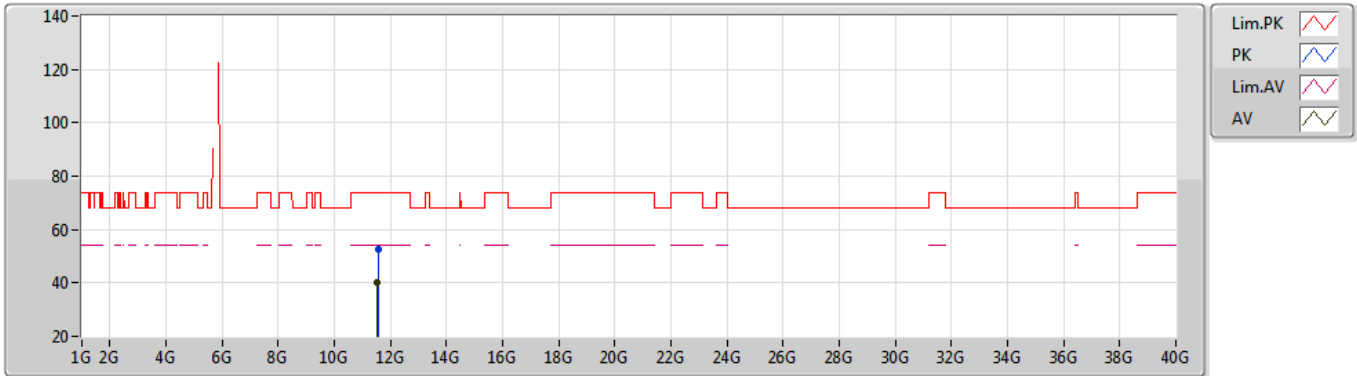
EUT_Z_4TX
Setting 91
04-F-Z-1

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	11.53926G	52.59	74.00	-21.41	41.02	3	Vertical	225	2.11	-	39.13	7.25	34.81
AV	11.54964G	40.32	54.00	-13.68	28.76	3	Vertical	225	2.11	-	39.13	7.25	34.82

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

10/12/2019

5775MHz_TX



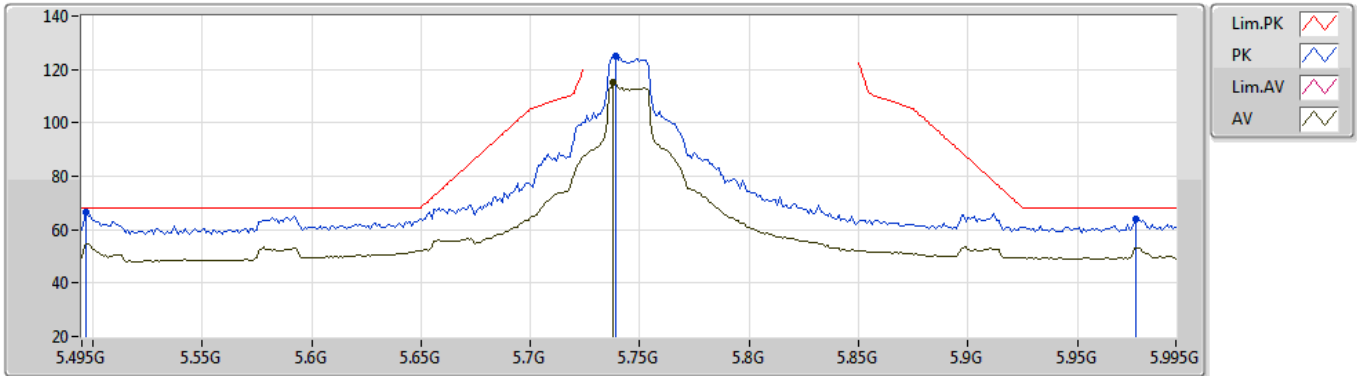
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Setting 91
04-F-Z-1

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	11.55798G	52.65	74.00	-21.35	41.09	3	Horizontal	360	1.80	-	39.12	7.26	34.82
AV	11.5476G	40.20	54.00	-13.80	28.64	3	Horizontal	360	1.80	-	39.13	7.25	34.82

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5745MHz_TX



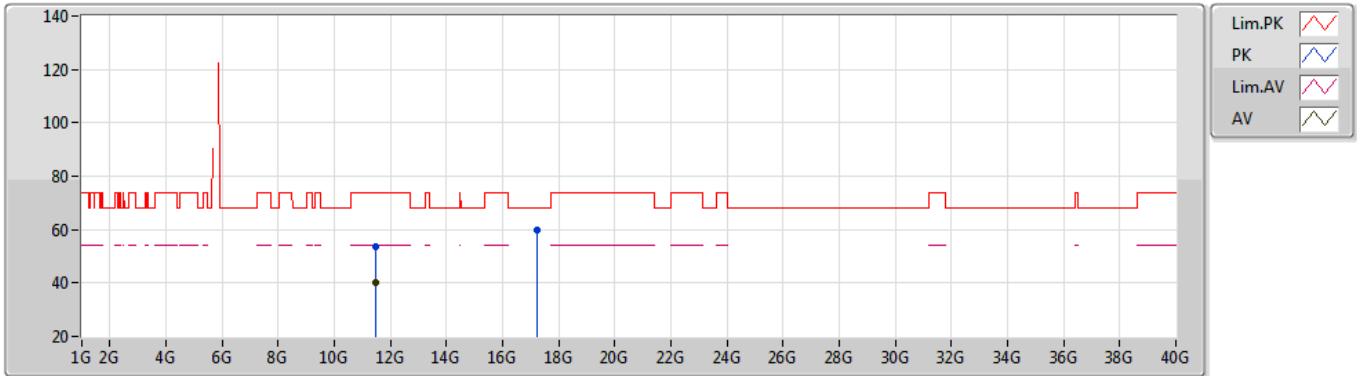
EUT_Z_4TX
Setting 103
04-F-M-1-13

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	5.497G	66.67	68.20	-1.53	61.66	3	Vertical	125	1.90	-	33.79	4.80	33.58
PK	5.739G	125.01	Inf	-Inf	119.54	3	Vertical	125	1.90	-	34.18	4.93	33.64
AV	5.738G	115.22	Inf	-Inf	109.75	3	Vertical	125	1.90	-	34.18	4.93	33.64
PK	5.977G	64.07	68.20	-4.13	57.57	3	Vertical	125	1.90	-	35.21	4.99	33.70

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5745MHz_TX



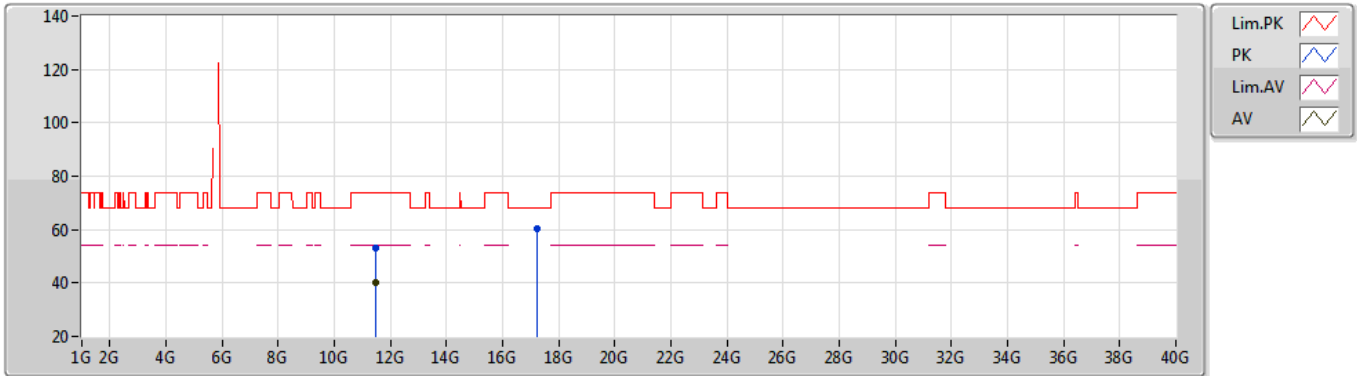
EUT_Z_4TX
Setting 103
04-F-M-1

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	11.49136G	53.65	74.00	-20.35	42.02	3	Vertical	31	1.16	-	39.15	7.25	34.77
AV	11.48992G	40.06	54.00	-13.94	28.42	3	Vertical	31	1.16	-	39.16	7.25	34.77
PK	17.23657G	60.03	68.20	-8.17	44.63	3	Vertical	213	2.99	-	41.01	9.89	35.50

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5745MHz_TX



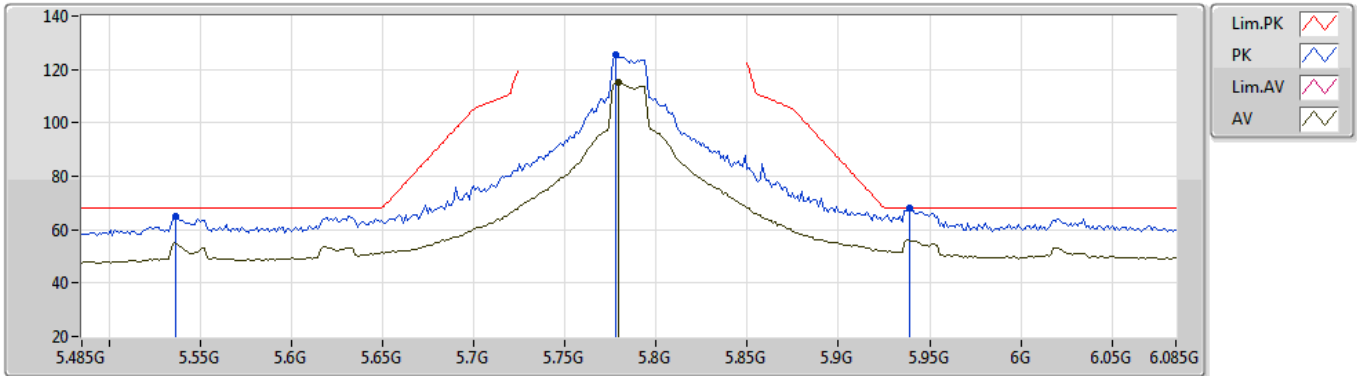
EUT_Z_4TX
Setting 103
04-F-M-1

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	11.4902G	53.30	74.00	-20.70	41.67	3	Horizontal	95	2.53	-	39.15	7.25	34.77
AV	11.49037G	40.15	54.00	-13.85	28.52	3	Horizontal	95	2.53	-	39.15	7.25	34.77
PK	17.23745G	60.26	68.20	-7.94	44.86	3	Horizontal	322	1.46	-	41.01	9.89	35.50

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5785MHz_TX



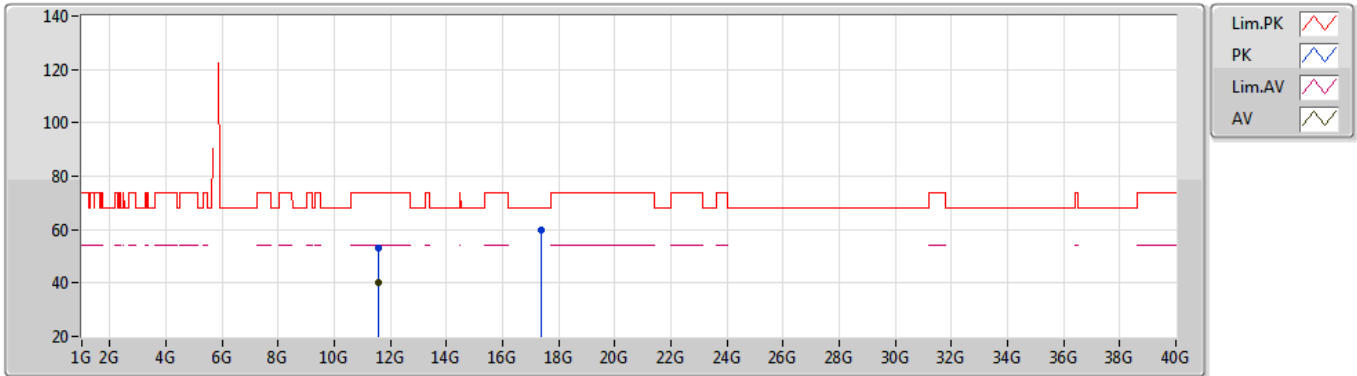
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Setting 105
04-F-M-1-13

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	5.5366G	64.86	68.20	-3.34	59.71	3	Vertical	156	1.80	-	33.87	4.87	33.59
PK	5.7778G	125.69	Inf	-Inf	120.17	3	Vertical	156	1.80	-	34.26	4.91	33.65
AV	5.779G	115.42	Inf	-Inf	109.90	3	Vertical	156	1.80	-	34.26	4.91	33.65
PK	5.9386G	67.93	68.20	-0.27	61.60	3	Vertical	156	1.80	-	35.05	4.97	33.69

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5785MHz_TX



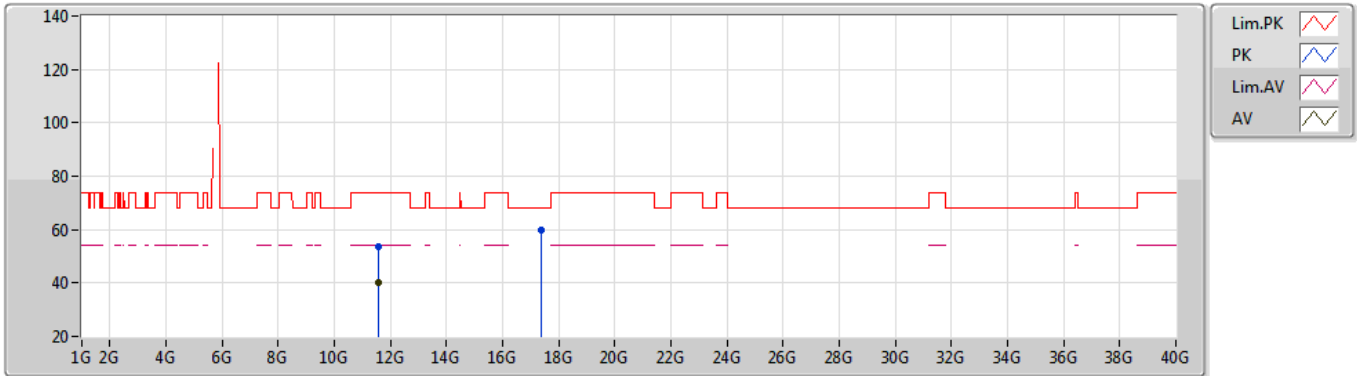
EUT_Z_4TX
Setting 105
04-F-M-1

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	11.56937G	53.16	74.00	-20.84	41.61	3	Vertical	255	2.98	-	39.12	7.26	34.83
AV	11.57185G	40.18	54.00	-13.82	28.64	3	Vertical	255	2.98	-	39.11	7.26	34.83
PK	17.35609G	59.71	68.20	-8.49	44.13	3	Vertical	223	1.55	-	41.12	9.94	35.48

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5785MHz_TX



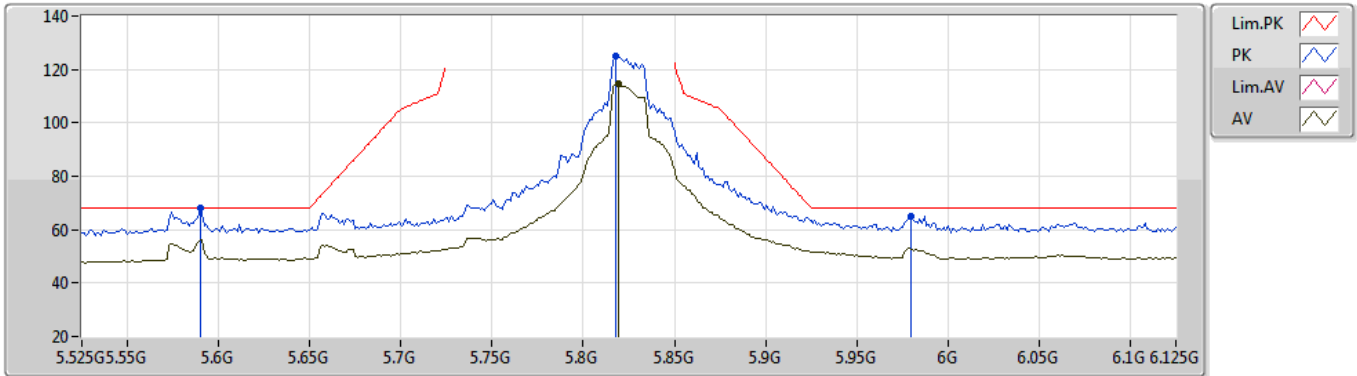
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Setting 105
04-F-M-1

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	11.56809G	53.44	74.00	-20.56	41.89	3	Horizontal	169	1.49	-	39.12	7.26	34.83
AV	11.57239G	40.37	54.00	-13.63	28.83	3	Horizontal	169	1.49	-	39.11	7.26	34.83
PK	17.35253G	59.96	68.20	-8.24	44.38	3	Horizontal	339	1.55	-	41.12	9.94	35.48

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5825MHz_TX



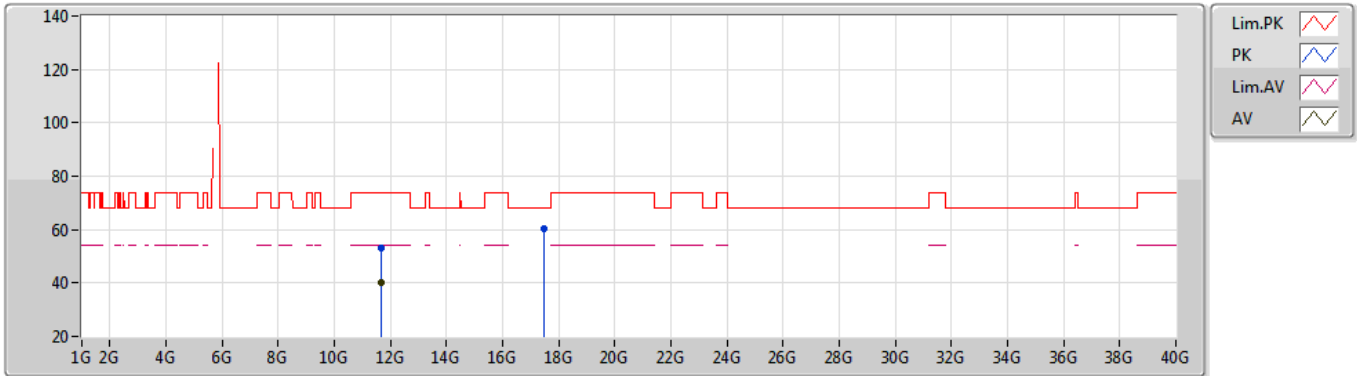
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Setting 102
04-F-M-1-13

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	5.5898G	68.08	68.20	-0.12	62.73	3	Vertical	156	2.20	-	33.98	4.98	33.61
PK	5.8178G	125.25	Inf	-Inf	119.59	3	Vertical	156	2.20	-	34.41	4.91	33.66
AV	5.819G	114.60	Inf	-Inf	108.94	3	Vertical	156	2.20	-	34.41	4.91	33.66
PK	5.9798G	64.97	68.20	-3.23	58.46	3	Vertical	156	2.20	-	35.22	4.99	33.70

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5825MHz_TX



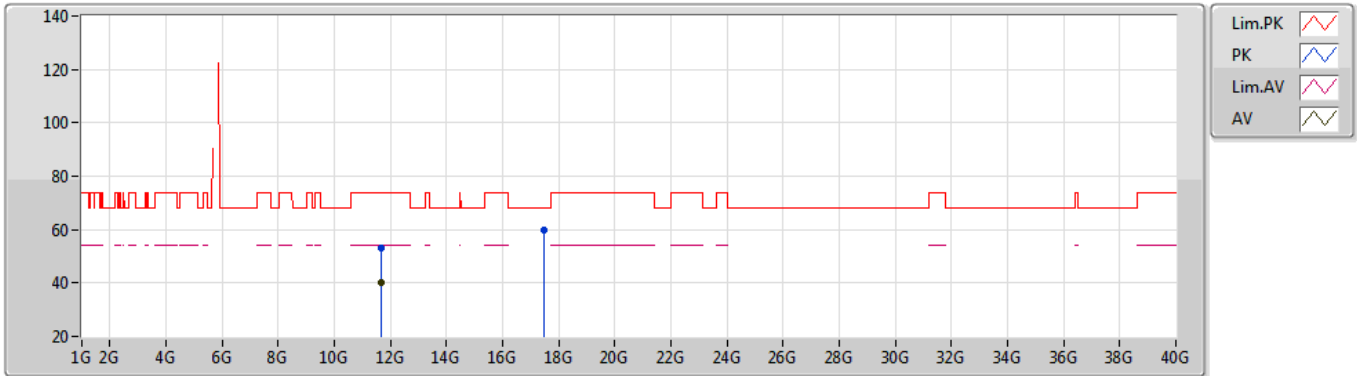
EUT_Z_4TX
Setting 102
04-F-M-1

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	11.64958G	53.06	74.00	-20.94	41.61	3	Vertical	174	1.27	-	39.08	7.26	34.89
AV	11.64898G	40.14	54.00	-13.86	28.69	3	Vertical	174	1.27	-	39.08	7.26	34.89
PK	17.47577G	60.31	68.20	-7.89	44.54	3	Vertical	264	2.26	-	41.23	9.99	35.45

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

10/12/2019

5825MHz_TX



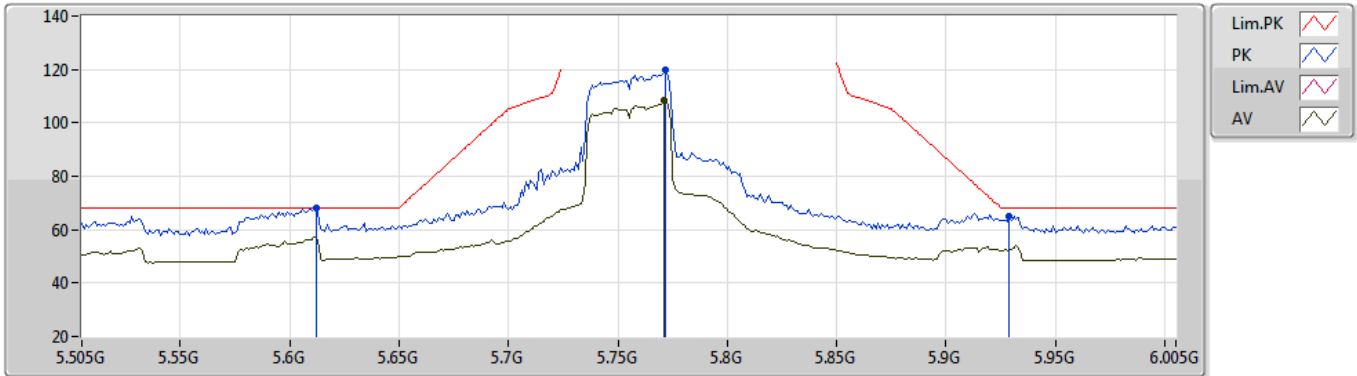
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Setting 102
04-F-M-1

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	11.6488G	53.12	74.00	-20.88	41.67	3	Horizontal	308	1.12	-	39.08	7.26	34.89
AV	11.64845G	40.05	54.00	-13.95	28.60	3	Horizontal	308	1.12	-	39.08	7.26	34.89
PK	17.47341G	60.03	68.20	-8.17	44.26	3	Horizontal	145	2.50	-	41.23	9.99	35.45

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5755MHz_TX



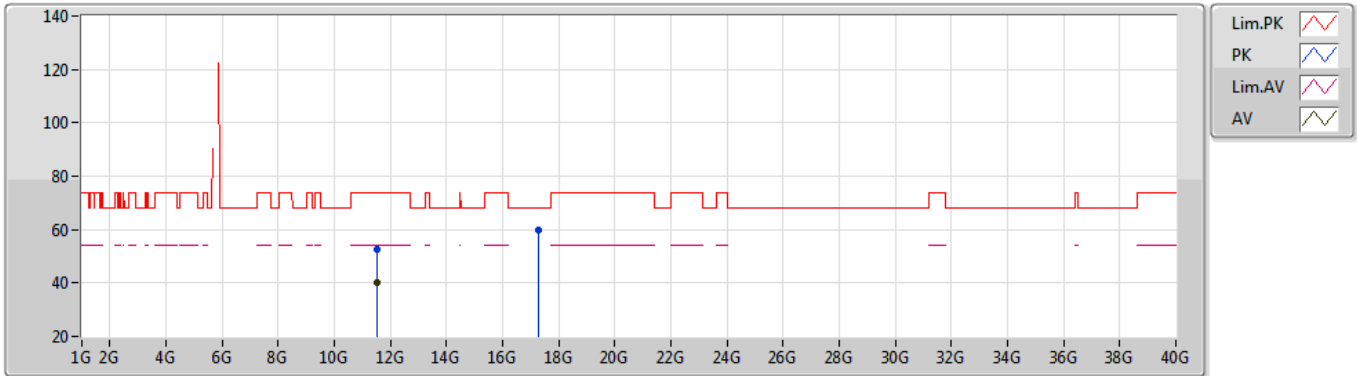
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Setting 85
04-F-M-1-13

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	5.612G	67.91	68.20	-0.29	62.52	3	Vertical	137	2.33	-	34.01	4.99	33.61
PK	5.772G	120.01	Inf	-Inf	114.51	3	Vertical	137	2.33	-	34.24	4.91	33.65
AV	5.771G	108.39	Inf	-Inf	102.89	3	Vertical	137	2.33	-	34.24	4.91	33.65
PK	5.929G	65.00	68.20	-3.20	58.71	3	Vertical	137	2.33	-	35.02	4.96	33.69

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5755MHz_TX



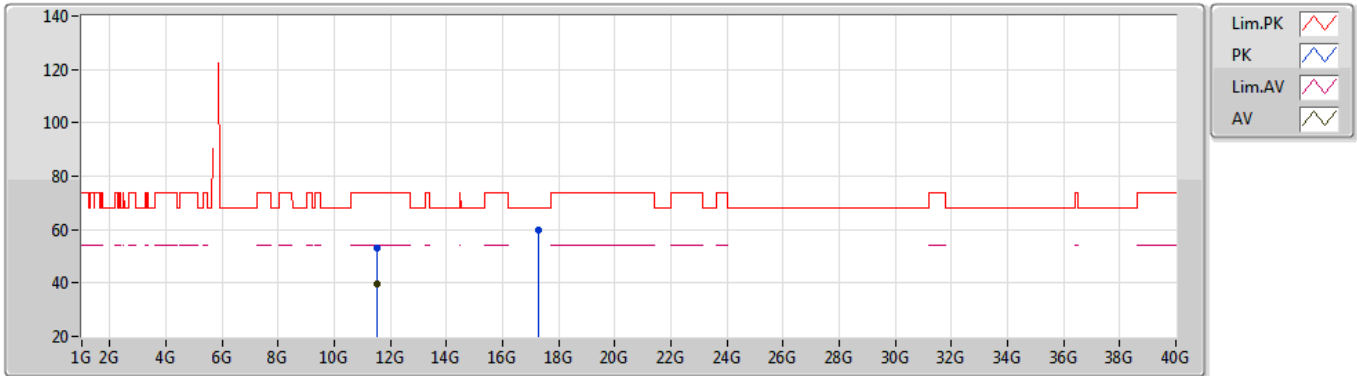
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Setting 85
04-F-M-1

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	11.51206G	52.68	74.00	-21.32	41.08	3	Vertical	62	1.12	-	39.14	7.25	34.79
AV	11.50891G	40.06	54.00	-13.94	28.45	3	Vertical	62	1.12	-	39.15	7.25	34.79
PK	17.2637G	59.84	68.20	-8.36	44.38	3	Vertical	29	1.92	-	41.04	9.91	35.49

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5755MHz_TX



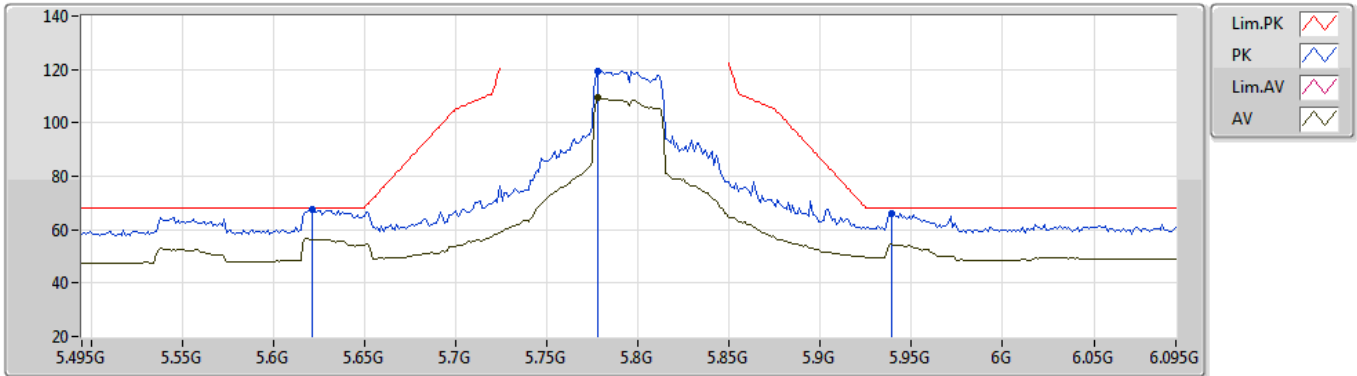
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Setting 85
04-F-M-1

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	11.51042G	53.23	74.00	-20.77	41.63	3	Horizontal	46	1.66	-	39.14	7.25	34.79
AV	11.5075G	39.60	54.00	-14.40	27.99	3	Horizontal	46	1.66	-	39.15	7.25	34.79
PK	17.26362G	59.92	68.20	-8.28	44.46	3	Horizontal	124	2.29	-	41.04	9.91	35.49

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5795MHz_TX



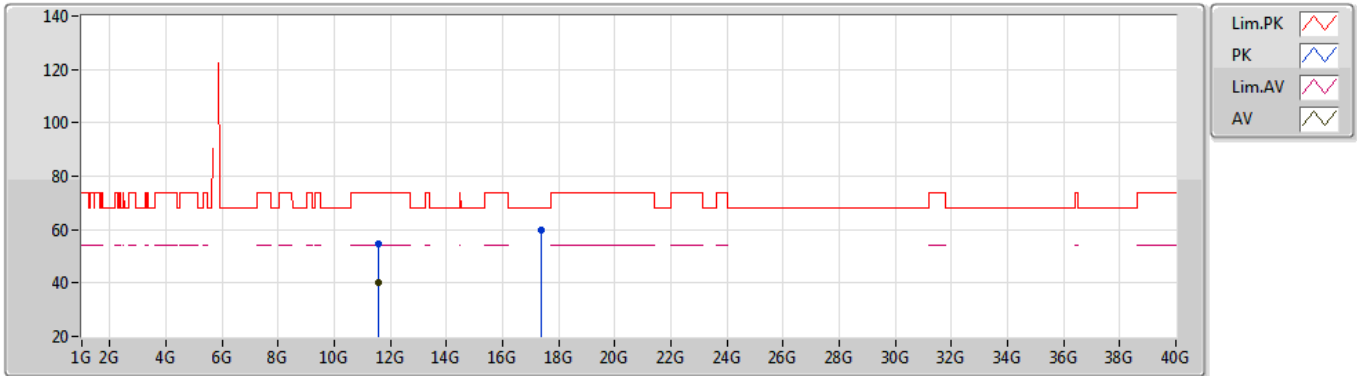
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Setting 92
04-F-M-1-13

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	5.621G	67.84	68.20	-0.36	62.44	3	Vertical	137	1.96	-	34.02	4.99	33.61
PK	5.7782G	119.51	Inf	-Inf	113.99	3	Vertical	137	1.96	-	34.26	4.91	33.65
AV	5.7782G	109.30	Inf	-Inf	103.78	3	Vertical	137	1.96	-	34.26	4.91	33.65
PK	5.939G	66.22	68.20	-1.98	59.88	3	Vertical	137	1.96	-	35.06	4.97	33.69

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5795MHz_TX



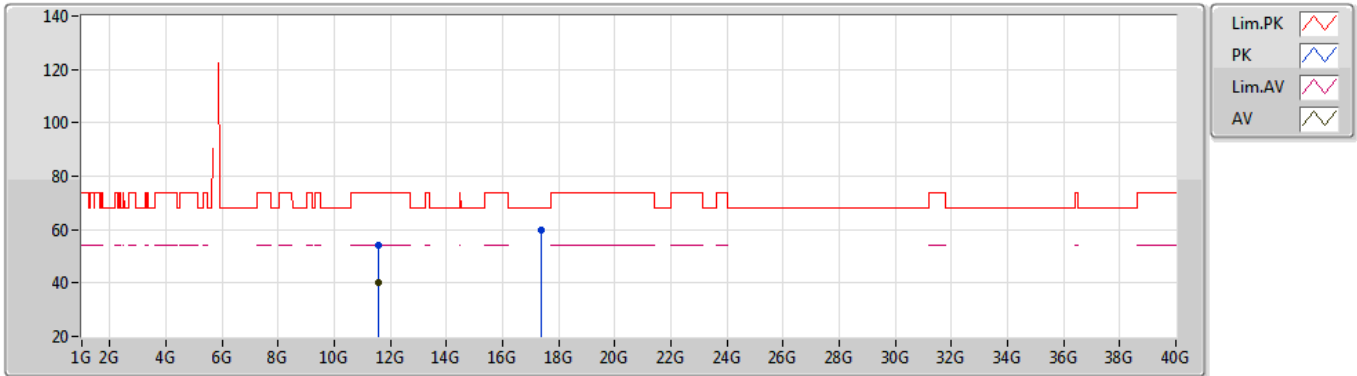
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Setting 92
04-F-M-1

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	11.58827G	54.47	74.00	-19.53	42.95	3	Vertical	7	1.00	-	39.11	7.26	34.85
AV	11.59034G	40.20	54.00	-13.80	28.69	3	Vertical	7	1.00	-	39.10	7.26	34.85
PK	17.38467G	59.66	68.20	-8.54	44.03	3	Vertical	55	2.83	-	41.15	9.95	35.47

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

10/12/2019

5795MHz_TX



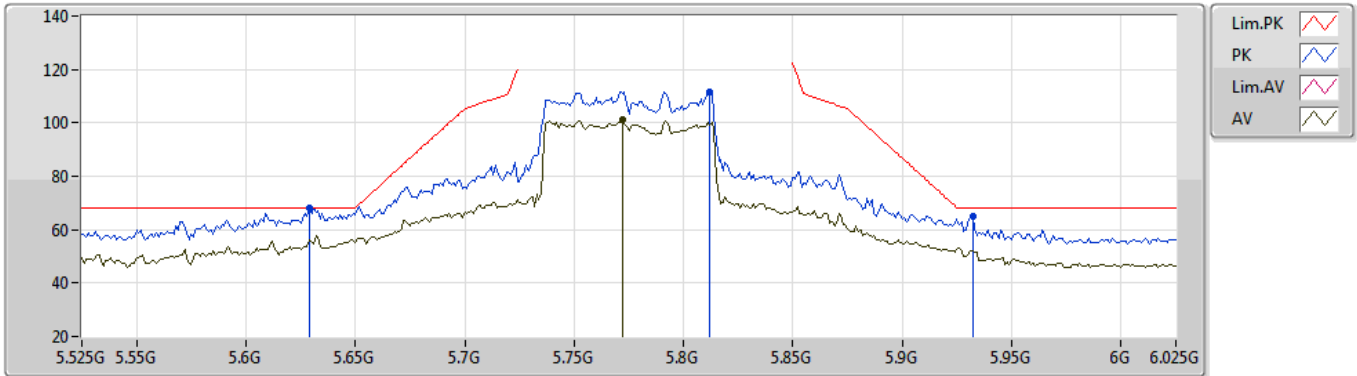
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Setting 92
04-F-M-1

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	11.58883G	54.33	74.00	-19.67	42.81	3	Horizontal	116	2.07	-	39.11	7.26	34.85
AV	11.58819G	39.92	54.00	-14.08	28.40	3	Horizontal	116	2.07	-	39.11	7.26	34.85
PK	17.38371G	59.78	68.20	-8.42	44.15	3	Horizontal	195	2.61	-	41.15	9.95	35.47

802.11ac VHT80-BF_Nss2,(MCS0)_4TX

10/12/2019

5775MHz_TX



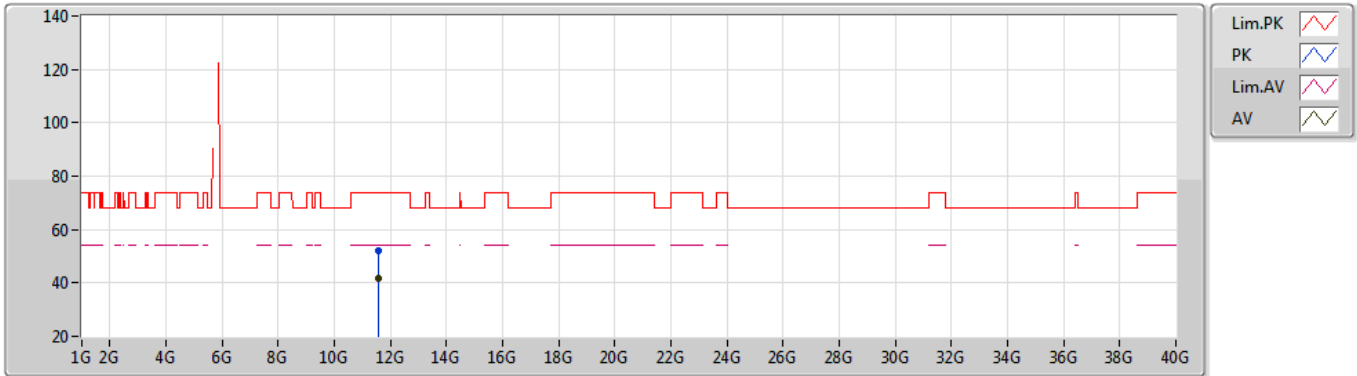
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Setting 91
04-F-Z-1-10

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	5.629G	67.85	68.20	-0.35	62.45	3	Vertical	49	2.86	-	34.03	4.99	33.62
PK	5.812G	111.71	Inf	-Inf	106.09	3	Vertical	49	2.86	-	34.37	4.91	33.66
AV	5.772G	101.45	Inf	-Inf	95.95	3	Vertical	49	2.86	-	34.24	4.91	33.65
PK	5.932G	65.23	68.20	-2.97	58.92	3	Vertical	49	2.86	-	35.03	4.97	33.69

802.11ac VHT80-BF_Nss2,(MCS0)_4TX

10/12/2019

5775MHz_TX



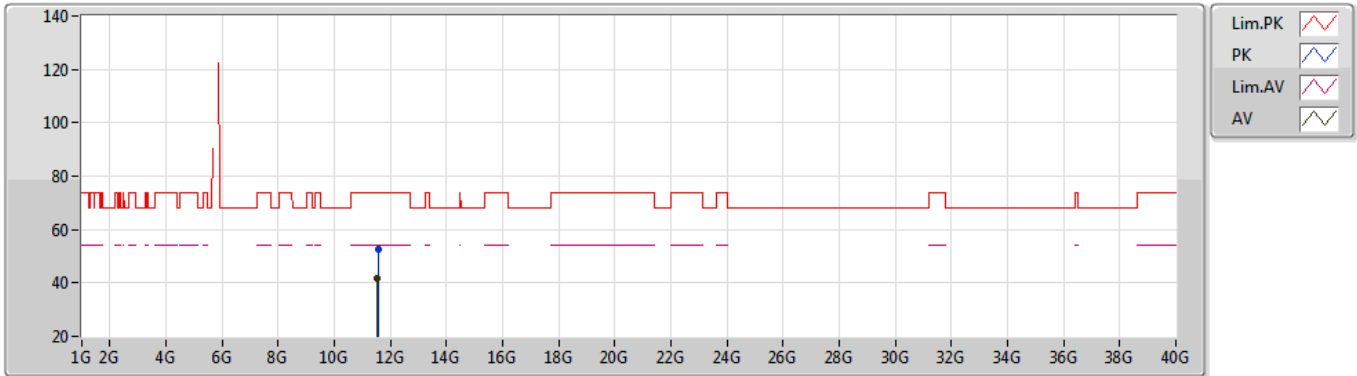
EUT_Z_4TX
Setting 91
04-F-Z-1

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	11.55204G	52.13	74.00	-21.87	40.57	3	Vertical	90	1.80	-	39.12	7.26	34.82
AV	11.55264G	41.83	54.00	-12.17	30.27	3	Vertical	90	1.80	-	39.12	7.26	34.82

802.11ac VHT80-BF_Nss2,(MCS0)_4TX

10/12/2019

5775MHz_TX



EUT_Z_4TX
Setting 91
04-F-Z-1

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	11.54982G	52.40	74.00	-21.60	40.84	3	Horizontal	354	1.80	-	39.13	7.25	34.82
AV	11.53824G	41.86	54.00	-12.14	30.29	3	Horizontal	354	1.80	-	39.13	7.25	34.81