



FCC RADIO TEST REPORT

FCC ID : MSQ-RTGW00
Equipment : Wireless-AC3100 Dual Band Gigabit Router
Brand Name : ASUS
Model Name : RT-AC3100,RT-AC88R,RT-AC88U
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
Standard : 47 CFR FCC Part 15.247

The product was received on Apr. 10, 2015, and testing was started from Jun. 23, 2018 and completed on Oct. 01, 2018. 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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History of this test report

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

Page Number : 3 of 28
Issued Date : Jan. 02, 2019
Report Version : 01



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	4.3.2.2	RF Output Power	PASS	-
3.2	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Sandy Chuang



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

<For 3TX>

Band	Mode	BWch (MHz)	Nant
2.4G	11b	20	3
2.4G	11g	20	3
2.4G	n (HT20)	20	3
2.4G	n (HT20)-BF	20	3
2.4G	ac (VHT20)	20	3
2.4G	ac (VHT20)-BF	20	3
2.4G	n (HT40)	40	3
2.4G	n (HT40)-BF	40	3
2.4G	ac (VHT40)	40	3
2.4G	ac (VHT40)-BF	40	3

<For 4TX>

Band	Mode	BWch (MHz)	Nant
2.4G	11b	20	4
2.4G	11g	20	4
2.4G	n (HT20)	20	4
2.4G	n (HT20)-BF	20	4
2.4G	ac (VHT20)	20	4
2.4G	ac (VHT20)-BF	20	4
2.4G	n (HT40)	40	4
2.4G	n (HT40)-BF	40	4
2.4G	ac (VHT40)	40	4
2.4G	ac (VHT40)-BF	40	4

**Note:**

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 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	P/N	Antenna Type	Connector	Gain (dBi)		Color Ring
					2.4GHz	5GHz	
1	PSA	RFDPA171300SBLB809	Dipole Antenna	Reversed-SMA	2.25	3.37	Red
2	PSA	RFDPA171300SBLB810	Dipole Antenna	Reversed-SMA	2.25	3.37	Black
3	PSA	RFDPA171300SBLB811	Dipole Antenna	Reversed-SMA	2.20	3.36	Black
4	PSA	RFDPA171300SBLB812	Dipole Antenna	Reversed-SMA	2.18	3.19	Black
5	PSA	RFDPA171300SBLB813	Dipole Antenna	Reversed-SMA	2.20	3.36	Red
6	PSA	RFDPA171300SBLB814	Dipole Antenna	Reversed-SMA	2.18	3.19	Red
7	WHA YU	C660-510345-A(SRF2015719)	Dipole Antenna	Reversed-SMA	2.25	3.20	Red
8	WHA YU	C660-510346-A(SRF2015720)	Dipole Antenna	Reversed-SMA	2.25	3.20	Black
9	WHA YU	C660-510364-A(SRF20151386)	Dipole Antenna	Reversed-SMA	1.9	3.3	Black
10	WHA YU	C660-510365-A(SRF20151717)	Dipole Antenna	Reversed-SMA	1.9	3.3	Red

Note1: 1. The EUT has ten sets of antenna and there are four antennas for each set.

2. Both 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 IEEE 802.11a/b/g/n/ac mode:**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.

Note2: The above information was declared by manufacturer.



1.1.3 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	☒ With beamforming	☐ Without beamforming	
	Note: The product has beamforming function for 802.11n/ac in 2.4GHz/5GHz		
Function	☒ Point-to-multipoint	☐ Point-to-point	

Note: The above information was declared by manufacturer.

1.1.4 Table for Multiple Listing

The EUT has three model numbers which are identical to each other in all aspects except for the following table:

Model No.	LAN Port	Heat sink color
RT-AC88U	8 LAN ports	Silver, Red
RT-AC3100	4 LAN ports	Silver, Black
RT-AC88R	8 LAN ports	Silver, Red

From the above models, model: RT-AC88U was selected as representative model for the test and its data was recorded in this report.

1.1.5 Table for Adapter detail

(1) The difference between adapter 1 and adapter 4 as below:

Adapter1 (model: ADP-45BW B)			
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
Adapter4 (model: ADP-45BW B)			
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

(2) The difference between adapter 2 and adapter 5 as below:

Adapter 2 (model: AD883J20)	Adapter 5 (model: AD883J20)
Type: 010KLF BAH	Type: 010K-3LF



(3) The difference between adapter 3 and adapter 6 as below:

Adapter 3 (model: ADP-65DW B)			
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 6 (model: ADP-65DW B)			
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



1.1.6 Table for Class II Change

This product is an extension of original one reported under Sporton project number:

FR531828AA and FR531828-03AA

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

Modifications	Performance Checking
Adding second source 2.4G PA and 5G PA for Rev 5.20 (SKU B) EUT only.	1. Maximum Conducted Output Power After evaluating, the tests below were verified: For 3TX: 802.11ac VHT20: 2417MHz/2422MHz/2427MHz/2432MHz/2452MHz/2457MHz For 4TX: 802.11b/g: 2417MHz/2457MHz 802.11ac VHT20_Nss1: 2417MHz/2422MHz/2452MHz/2457MHz 802.11ac VHT40_Nss1: 2422MHz/2427MHz/2432MHz/2437MHz/2442MHz/2447MHz 802.11ac VHT20-BF_Nss1: 2417MHz/2457MHz 802.11ac VHT40-BF_Nss1: 2422MHz/2427MHz/2432MHz/2442MHz/2447MHz 2. Emissions in Restricted Frequency Bands After evaluating, the tests below were verified: For 3TX: Radiated emission (Above 1GHz) 802.11ac VHT20_Nss1: 2412MHz/2437MHz/2462MHz Band Edge 802.11ac VHT20_Nss1: 2412MHz/2417MHz/2422MHz/2427MHz/2432MHz /2437MHz/2452 MHz/2457MHz/2462MHz



	For 4TX: (1) Radiated emission (Below 1GHz) (2) Radiated emission (Above 1GHz 802.11b/g/VHT20_Nss1: 2412MHz/2437MHz /2462MHz 802.11ac VHT40_Nss1: 2422MHz/2437MHz/2452MHz 802.11ac VHT20-BF_Nss1: 2412MHz/2437MHz/2462MHz 802.11ac VHT40-BF_Nss1: 2422MHz/2437MHz/2452MHz 802.11ac VHT20-BF_Nss2: 2437MHz 802.11ac VHT40-BF_Nss2: 2437MHz (3) Band Edge 802.11b/11g: 2412MHz/2417MHz/2437MHz/2457MHz/2462MHz 802.11ac VHT20_Nss1: 2412MHz/2417MHz/2422MHz/2437MHz/2452MHz/2457MHz/2462MHz 802.11ac VHT40_Nss1: 2422MHz/2427MHz/2432MHz/2437MHz/2442MHz/2447MHz/2452MHz 802.11ac VHT20-BF_Nss1: 2412MHz/2417MHz/2437MHz/2457MHz/2462MHz 802.11ac VHT40-BF_Nss1: 2422MHz/2427MHz/2432MHz/2437MHz/2442MHz/2447MHz/2452MHz 802.11ac VHT20-BF_Nss2: 2437MHz 802.11ac VHT40-BF_Nss2: 2437MHz
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1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 558074 D01 v05
- ♦ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location				
☐	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	TEL : 886-3-327-3456	FAX : 886-3-327-0973
☒	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.	TEL : 886-3-656-9065	FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Owen Hsu	23°C / 53%	Jun. 23, 2018~ Sep. 21, 2018
Radiated	03CH01-CB	Cola Fan	22°C / 54%	Jun. 23, 2018~ Oct. 01, 2018

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
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests		
Tests Item	Maximum Conducted Output Power	
Test Condition	Conducted measurement at transmit chains	
Operating Mode	CTX	
Test Mode	1	3TX
	2	4TX

The Worst Case Mode for Following Conformance Tests		
Tests Item	Emissions in Restricted Frequency Bands	
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.	
Operating Mode < 1GHz	CTX	
Test Mode	There are six adapters, after evaluating, Adapter 1 has been evaluated to be the worst case among Adapter 1~6, thus measurement will follow this same test configuration.	
	1	WLAN 5GHz + EUT With Adapter 1
	2	WLAN 2.4GHz + EUT With Adapter 1
	Mode 1 generated the worst test result, so it was recorded in this report.	
Operating Mode > 1GHz	CTX	
Test Mode	1	3TX
	2	4TX

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
Refer to Sporton Test Report No.: FA531828-13 for Co-location RF Exposure Evaluation.	

Note1: The EUT can only be used in Z-axis position.

Note2: 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.

Note3: There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11ac. All test results were recorded in the report.



2.2 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

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 XP 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 DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

2.3 Accessories

Power	Brand	Model	Rating
Adapter 1	ASUS	ADP-45BW B	Input: 100-240V ~ 50-60Hz, 1.2A Output: 19V, 2.37A
Adapter 2	ASUS	AD883J20	Input: 100-240V ~ 50-60Hz, 1.0A Output: 19V, 2.37A
Adapter 3	ASUS	ADP-65DW B	Input: 100-240V ~ 50-60Hz, 1.5A Output: 19V, 3.42A
Adapter 4	ASUS	ADP-45BW B	Input: 100-240V ~ 50-60Hz, 1.2A Output: 19V, 2.37A
Adapter 5	ASUS	AD883J20	Input: 100-240V ~ 50-60Hz, 1.0A Output: 19V, 2.37A
Adapter 6	ASUS	ADP-65DW B	Input: 100-240V ~ 50-60Hz, 1.5A Output: 19V, 3.42A
Other			
RJ-45 Cable*1: Non-Shielded, 1.5m			

Note: The power adapter does not affect the test result of RF tests, so only adapter 1 was tested and recorded in this report.



2.4 Support Equipment

For Test Site No: TH01-CB

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

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

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

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

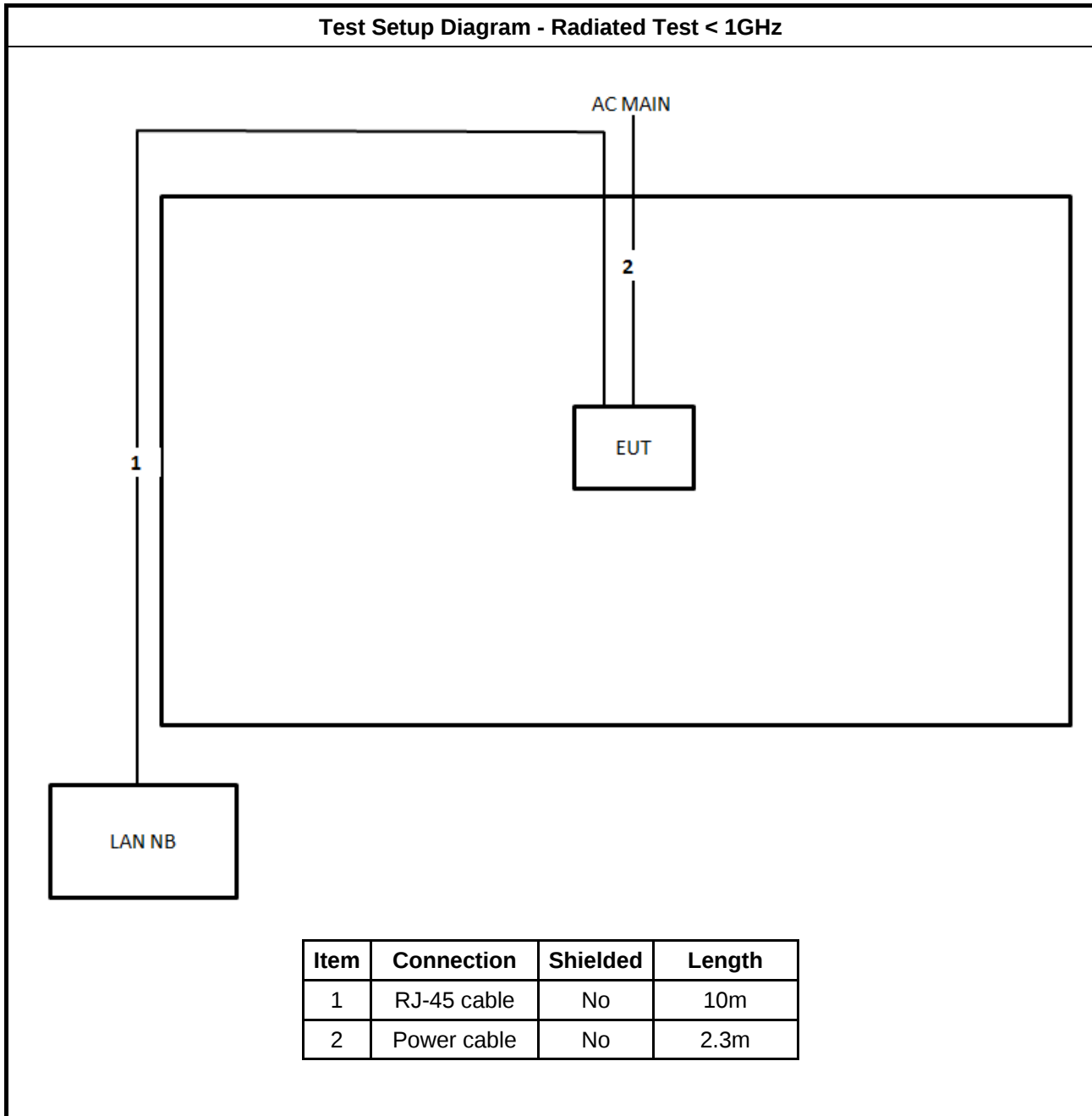
<Non-beamforming mode>

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

<beamforming mode>

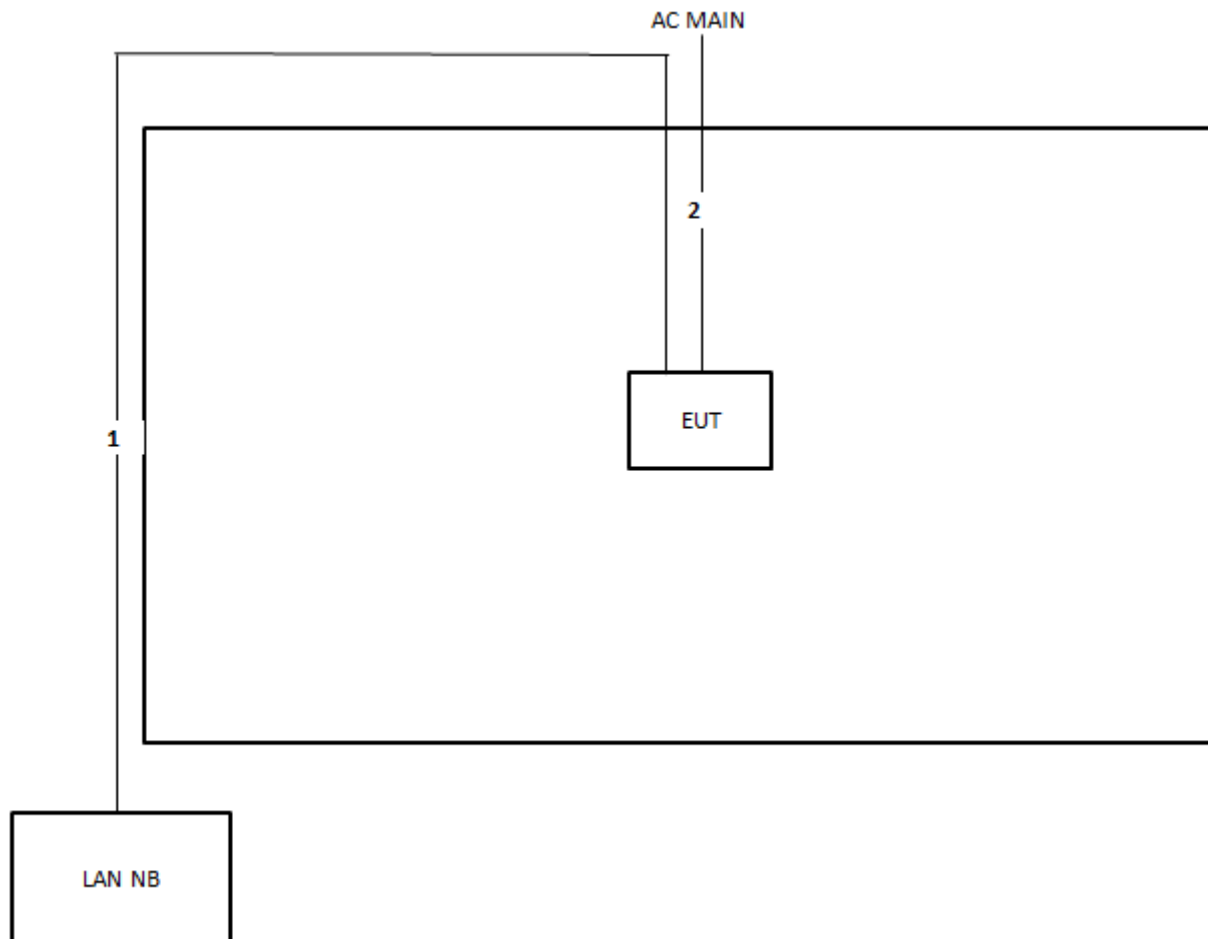
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	N/A
2	Notebook	DELL	E4300	N/A
3	WLAN Card	ASUS	PCE-AC88	MSQ-PCIE0U00

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz

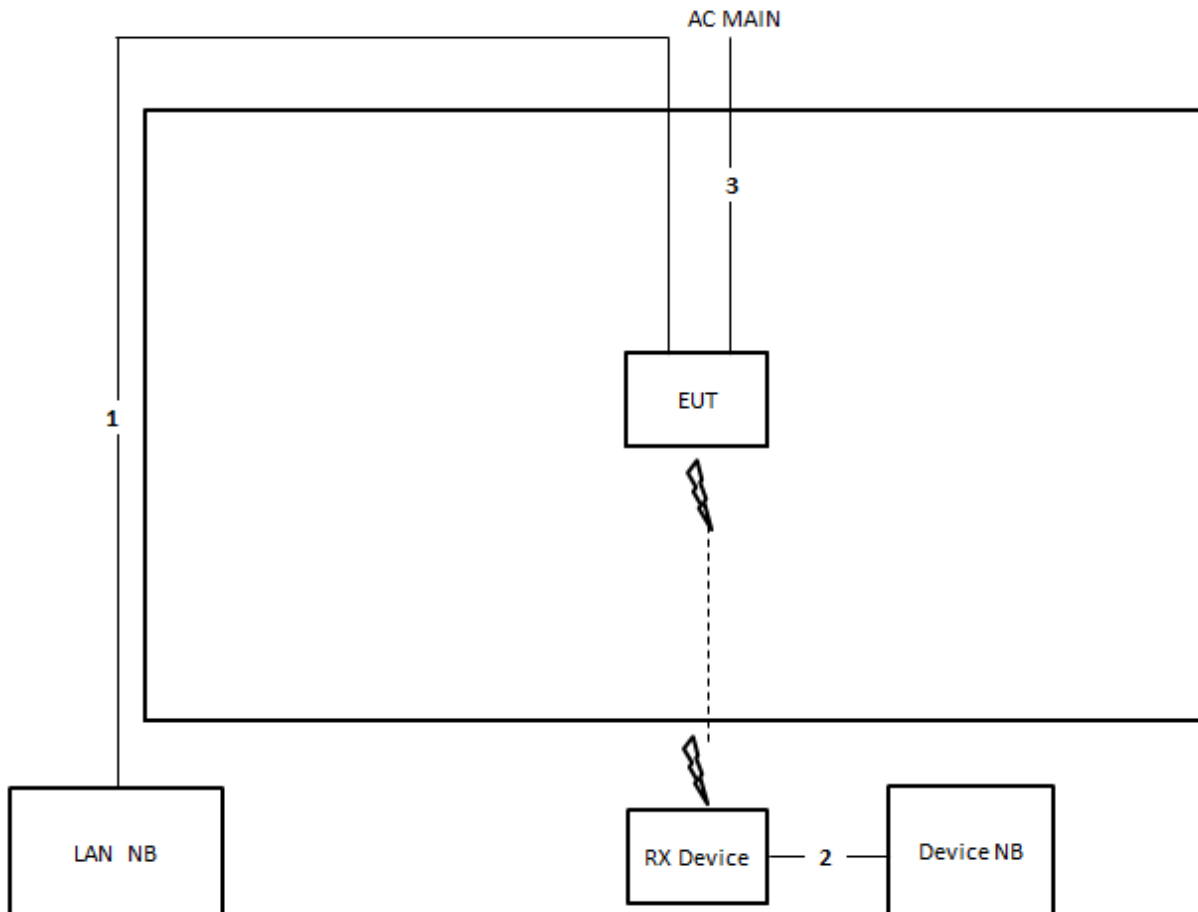
<Non-beamforming mode>



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

Test Setup Diagram - Radiated Test > 1GHz

<beamforming mode>



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	1.5m
3	Power cable	No	2.3m

3 Transmitter Test Result

3.1 Maximum Conducted Output Power

3.1.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

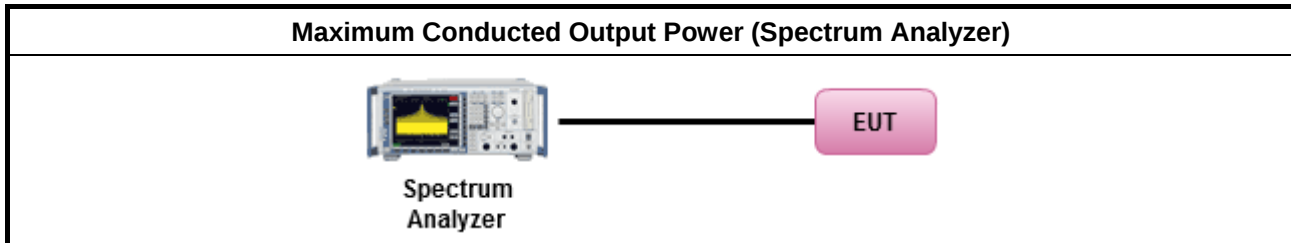
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
☒	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
☐	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.1.4 Test Setup



3.1.5 Test Result of Maximum Conducted Output Power

Refer as Appendix A

3.2 Emissions in Restricted Frequency Bands

3.2.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions 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.

3.2.2 Measuring Instruments

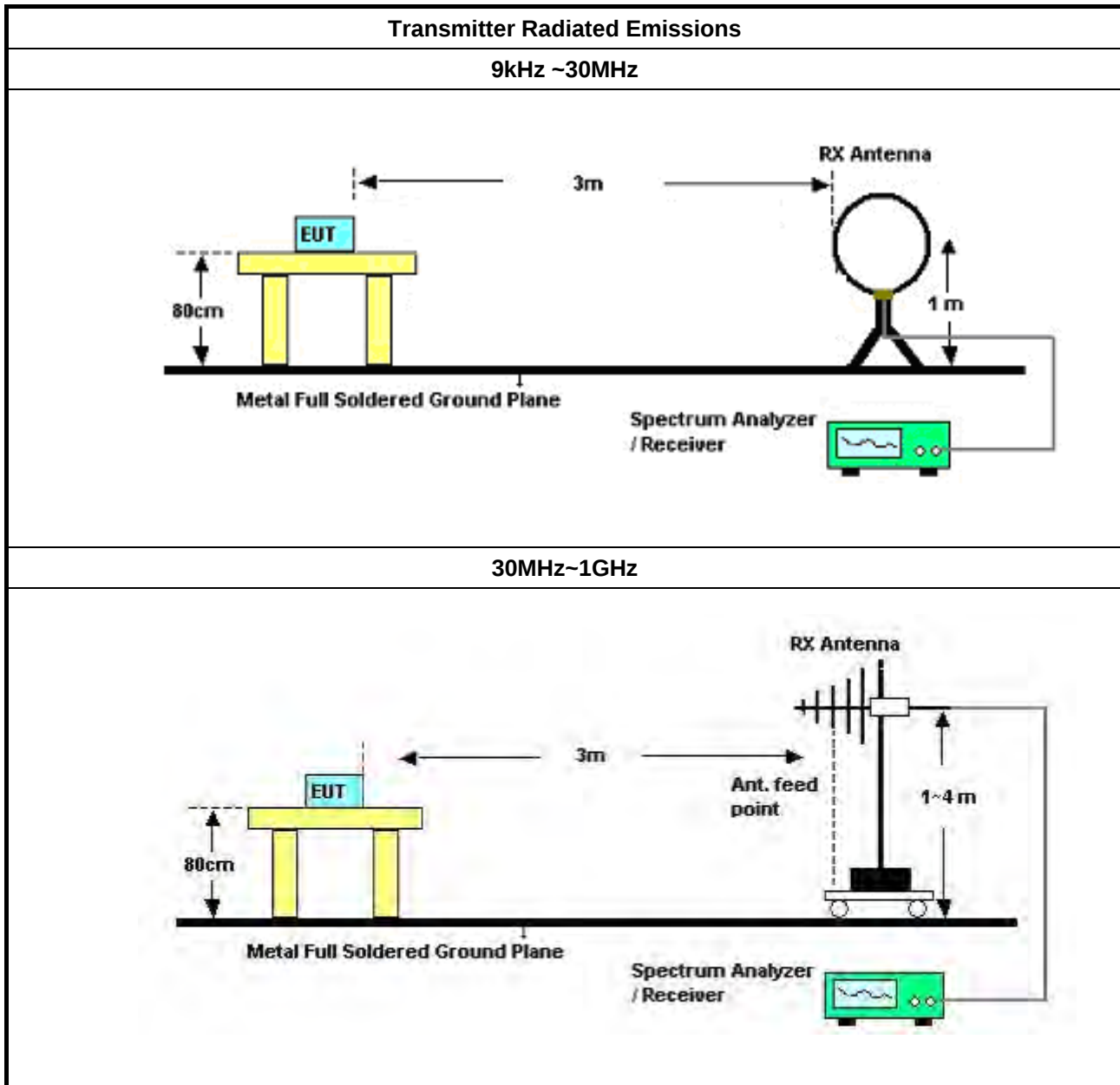
Refer a test equipment and calibration data table in this test report.

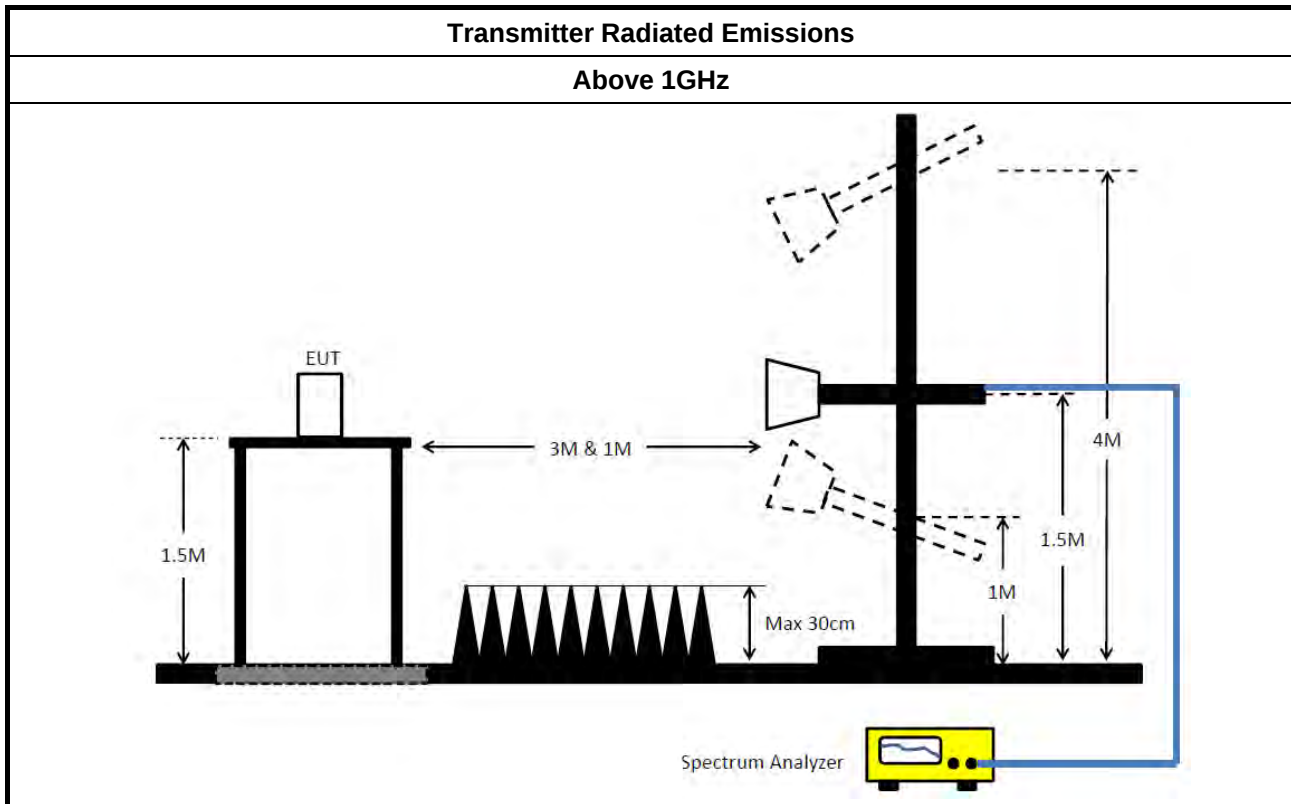


3.2.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq 98\%$).
	☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq 1/T$, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.2.4 Test Setup





3.2.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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

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.

3.2.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix B



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 27, 2018	Aug. 26, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)



FCC RADIO TEST REPORT

Report No. : FR531828-13AA

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Cable	Marvelous Microwave	n/a	Cable-REF-1	9k-1GHz	Oct. 25, 2017	Oct. 24, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

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

NCR means Non-Calibration required.



<For 3TX>

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ac VHT20_Nss1,(MCS0)_3TX	29.95	0.98855

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2417MHz	Pass	2.25	22.31	22.72	22.33	27.23	30.00
2422MHz	Pass	2.25	22.87	23.25	22.81	27.75	30.00
2427MHz	Pass	2.25	24.36	24.28	24.29	29.08	30.00
2432MHz	Pass	2.25	25.20	25.34	24.98	29.95	30.00
2452MHz	Pass	2.25	25.21	25.28	24.95	29.92	30.00
2457MHz	Pass	2.25	23.22	23.54	23.36	28.15	30.00

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

Note : Conducted average output power is for reference only

<For 4TX>
Summary

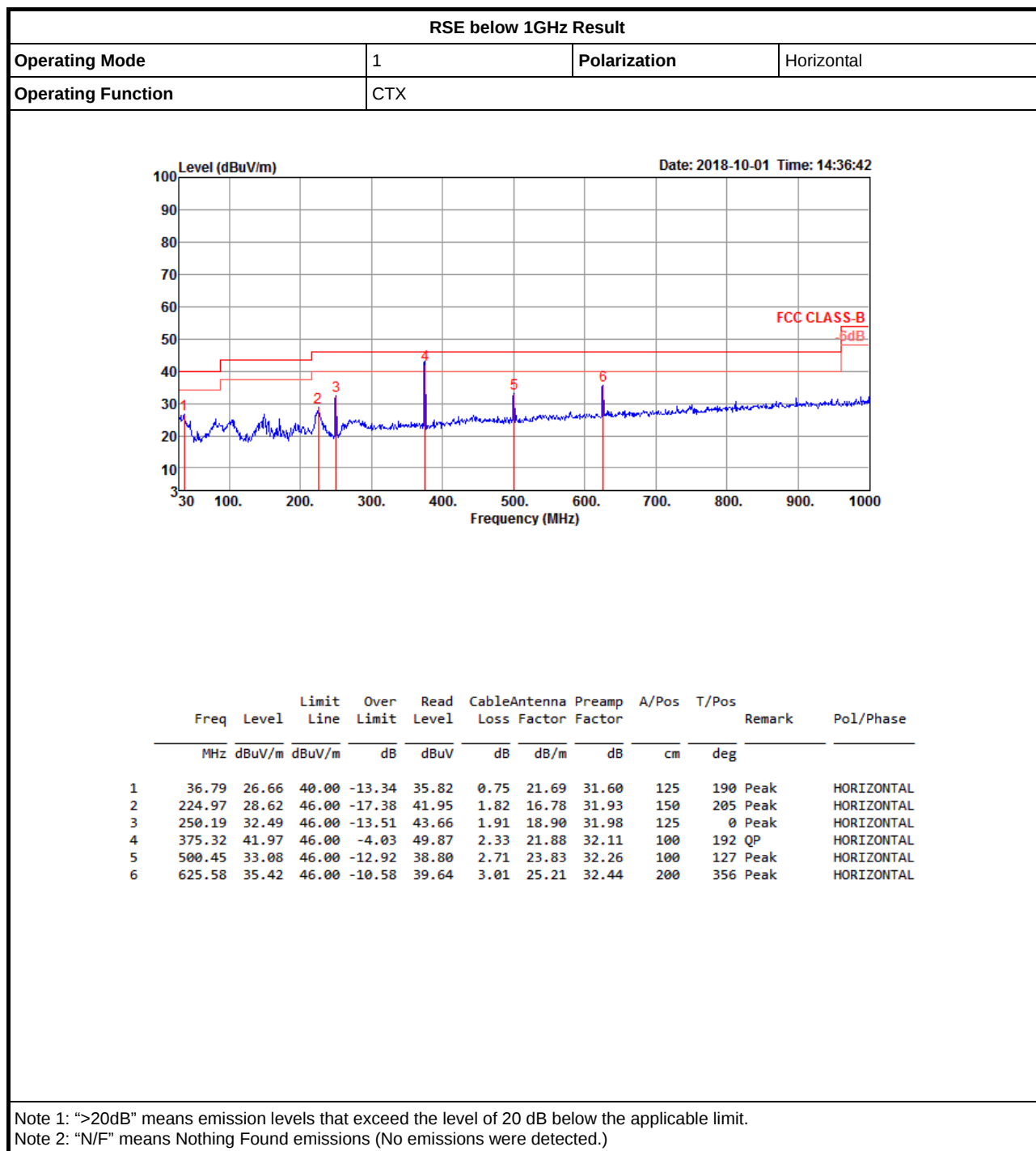
Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.82	0.95940
802.11g_Nss1,(6Mbps)_4TX	29.63	0.91833
802.11ac VHT20_Nss1,(MCS0)_4TX	29.93	0.98401
802.11ac VHT40_Nss1,(MCS0)_4TX	22.09	0.16181
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	27.49	0.56105
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	23.21	0.20941

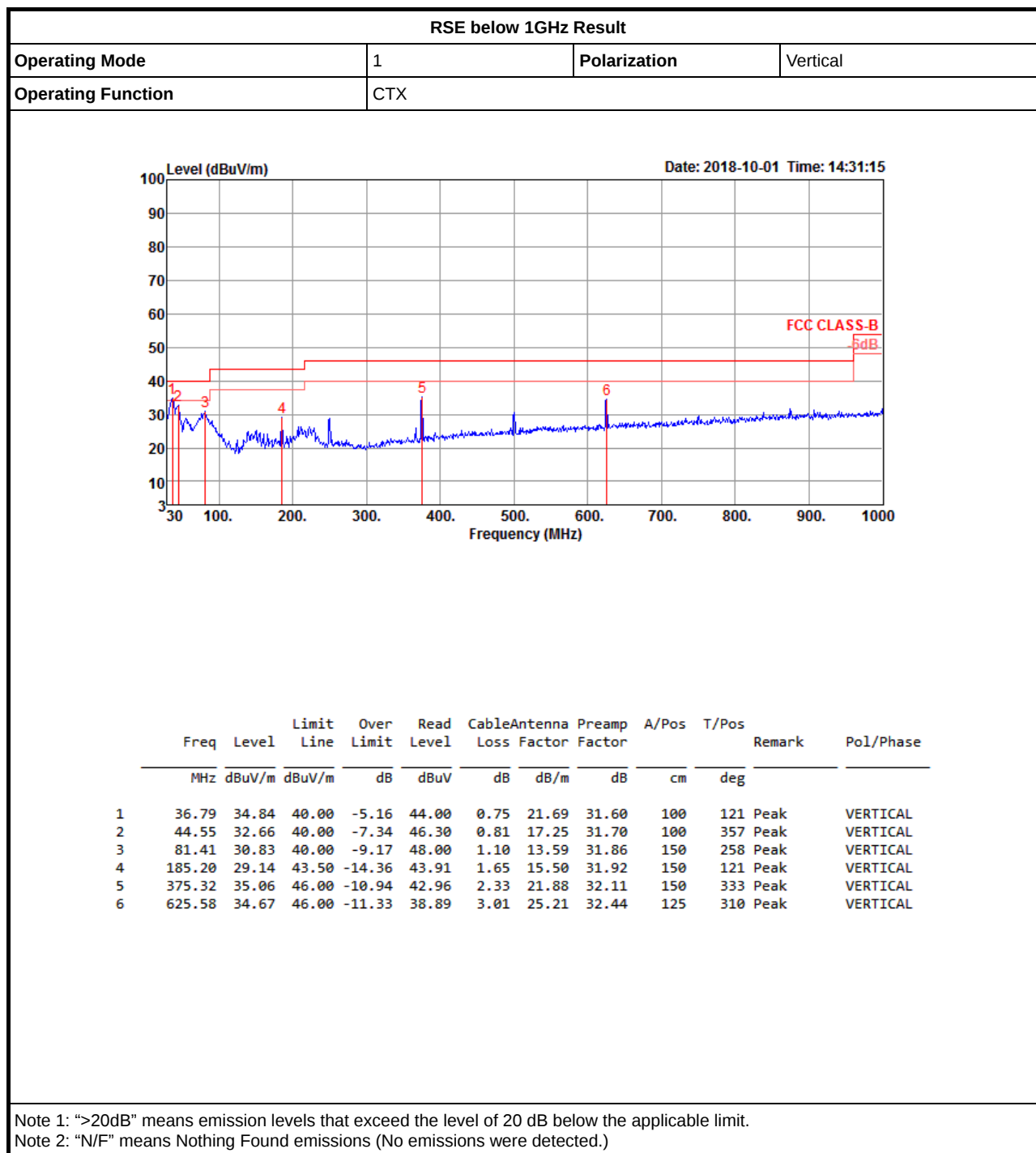
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2417MHz	Pass	2.25	23.77	23.76	23.73	23.91	29.81	30.00
2457MHz	Pass	2.25	23.75	23.78	23.79	23.86	29.82	30.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2417MHz	Pass	2.25	23.58	23.62	23.73	23.52	29.63	30.00
2457MHz	Pass	2.25	23.58	23.70	23.68	23.48	29.63	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2417MHz	Pass	2.25	21.65	21.56	21.48	21.44	27.55	30.00
2422MHz	Pass	2.25	23.80	23.94	23.98	23.83	29.91	30.00
2452MHz	Pass	2.25	23.91	23.95	23.94	23.83	29.93	30.00
2457MHz	Pass	2.25	23.35	23.22	23.33	23.08	29.27	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	2.25	14.47	14.08	14.15	13.89	20.17	30.00
2427MHz	Pass	2.25	14.54	14.17	14.15	13.81	20.20	30.00
2432MHz	Pass	2.25	14.84	14.28	14.44	14.14	20.45	30.00
2437MHz	Pass	2.25	16.45	15.91	15.99	15.89	22.09	30.00
2442MHz	Pass	2.25	16.40	15.92	16.01	15.88	22.08	30.00
2447MHz	Pass	2.25	16.01	15.45	15.65	15.56	21.69	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2417MHz	Pass	8.27	21.42	21.61	21.45	21.19	27.44	27.73
2457MHz	Pass	8.27	21.50	21.60	21.59	21.17	27.49	27.73
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	8.27	12.65	12.90	12.85	12.92	18.85	27.73
2427MHz	Pass	8.27	15.70	15.79	16.10	16.01	21.92	27.73
2432MHz	Pass	8.27	15.87	15.74	16.02	16.06	21.94	27.73
2442MHz	Pass	8.27	17.22	17.29	17.11	17.12	23.21	27.73
2447MHz	Pass	8.27	15.88	15.89	16.01	16.09	21.99	27.73

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

Note : Conducted average output power is for reference only







RSE TX above 1GHz Result

Appendix B.2

<For 3TX>

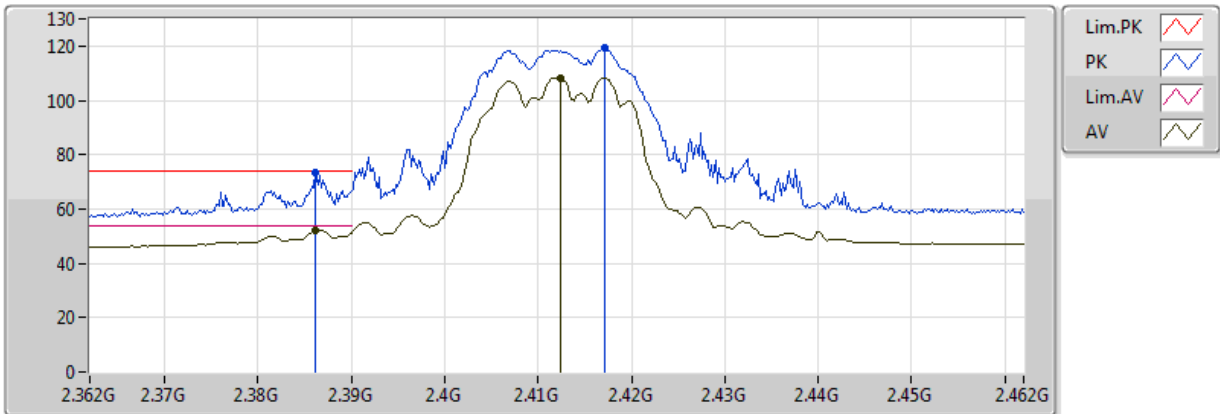
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT20_Nss1.(MCS0)_3TX	Pass	PK	2.4876G	73.96	74.00	-0.04	31.74	3	Vertical	232	1.45	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2412MHz_TX

10/08/2018



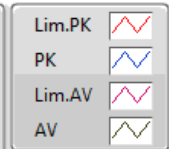
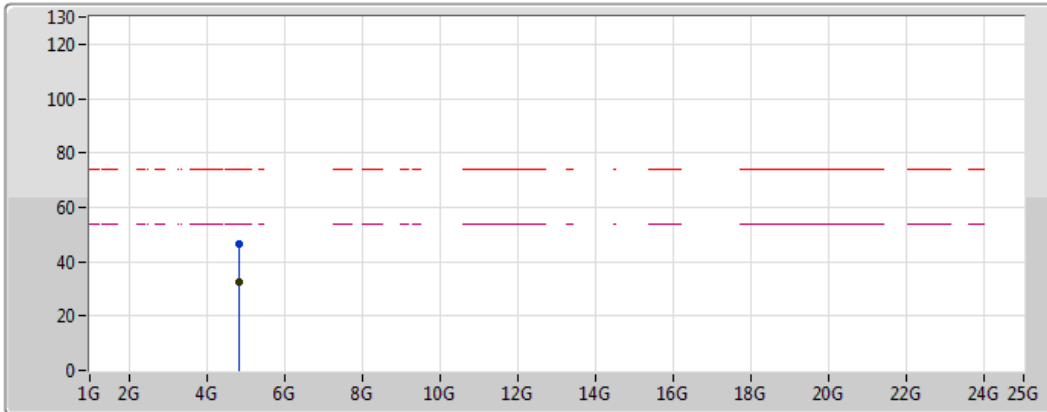
EUT_Z_3TX Dipole
Setting 81
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3862G	73.16	74.00	-0.84	31.49	3	Vertical	219	1.52	-
AV	2.3862G	52.21	54.00	-1.79	31.49	3	Vertical	219	1.52	-
PK	2.4172G	119.22	Inf	-Inf	31.57	3	Vertical	219	1.52	-
AV	2.4124G	108.39	Inf	-Inf	31.56	3	Vertical	219	1.52	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2412MHz_TX

10/08/2018



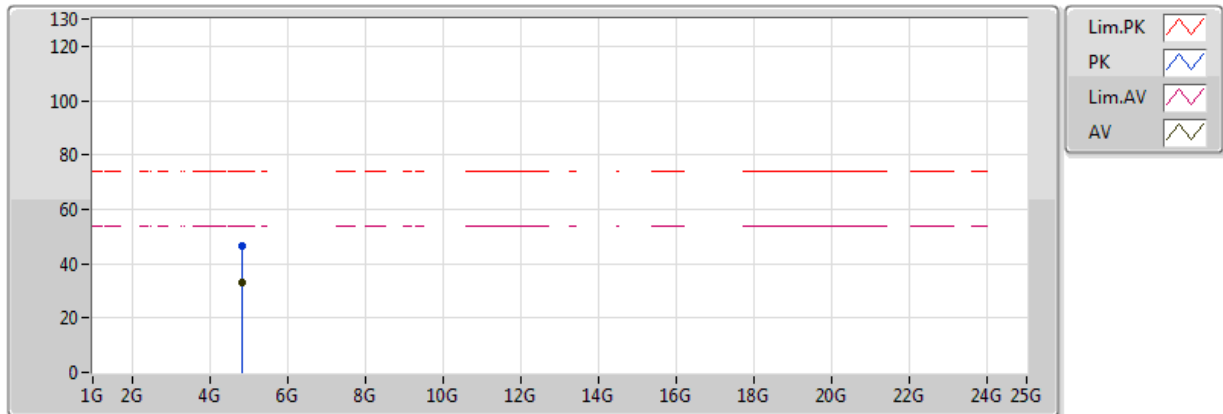
EUT Z_3TX Dipole
Setting 81
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82164G	46.59	74.00	-27.41	7.90	3	Vertical	201	1.01	-
AV	4.8226G	32.65	54.00	-21.35	7.90	3	Vertical	201	1.01	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2412MHz_TX

10/08/2018



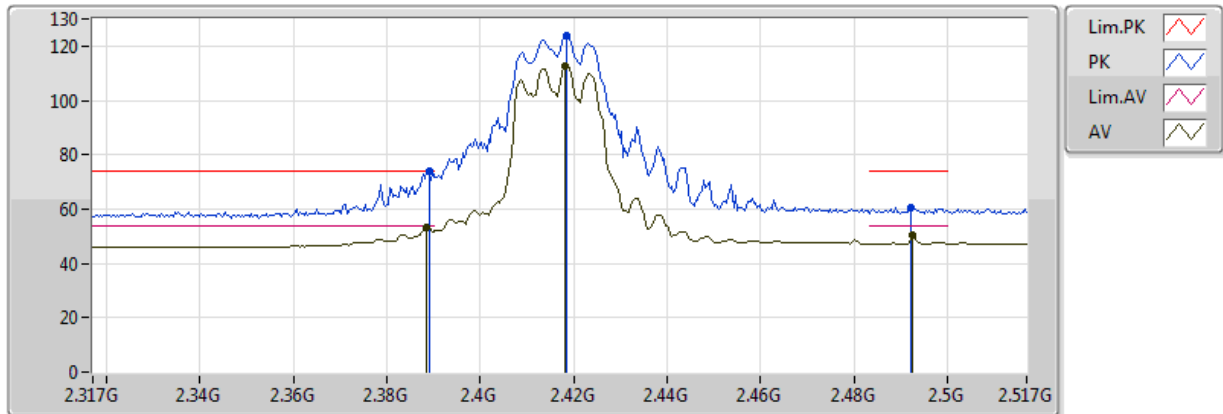
EUT Z_3TX Dipole
Setting 81
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82445G	46.27	74.00	-27.73	7.90	3	Horizontal	111	1.50	-
AV	4.82384G	32.81	54.00	-21.19	7.90	3	Horizontal	111	1.50	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2417MHz_TX

13/08/2018



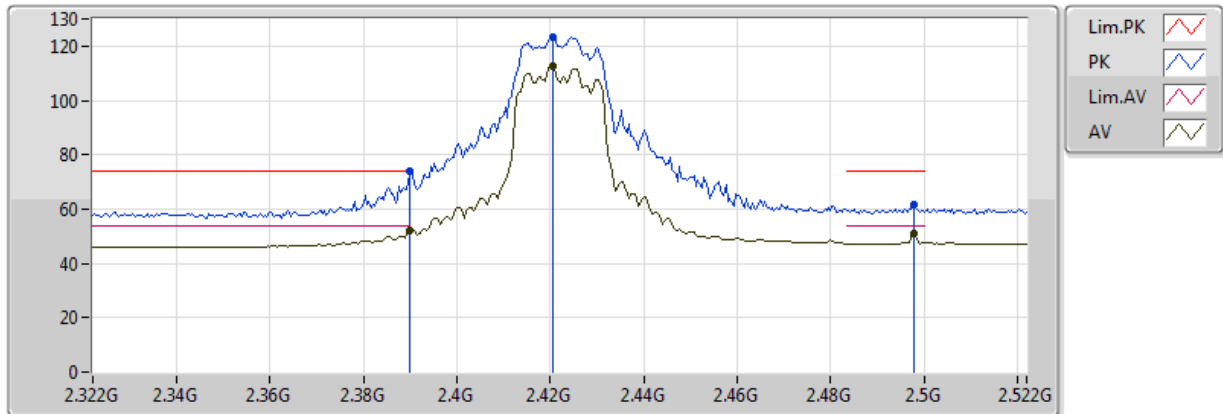
EUT Z_3TX Dipole
Setting 90
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389G	73.87	74.00	-0.13	31.50	3	Vertical	203	1.50	-
AV	2.3886G	53.28	54.00	-0.72	31.50	3	Vertical	203	1.50	-
PK	2.4186G	123.78	Inf	-Inf	31.57	3	Vertical	203	1.50	-
AV	2.4182G	112.72	Inf	-Inf	31.57	3	Vertical	203	1.50	-
PK	2.4922G	60.59	74.00	-13.41	31.75	3	Vertical	203	1.50	-
AV	2.4926G	50.60	54.00	-3.40	31.75	3	Vertical	203	1.50	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2422MHz_TX

13/08/2018



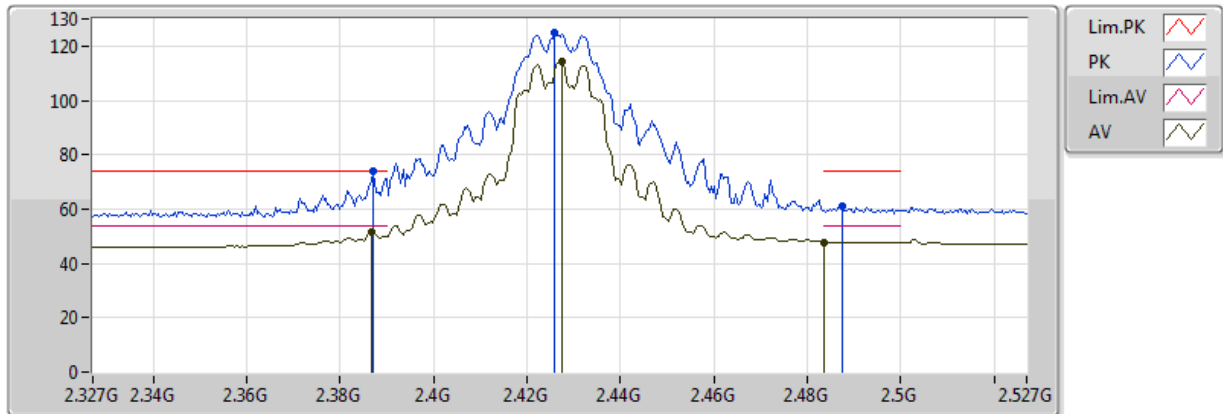
EUT Z_3TX Dipole
Setting 92
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	73.79	74.00	-0.21	31.50	3	Vertical	237	1.23	-
AV	2.389998G	52.21	54.00	-1.79	31.50	3	Vertical	237	1.23	-
PK	2.4204G	123.37	Inf	-Inf	31.58	3	Vertical	237	1.23	-
AV	2.4204G	112.56	Inf	-Inf	31.58	3	Vertical	237	1.23	-
PK	2.498G	61.52	74.00	-12.48	31.77	3	Vertical	237	1.23	-
AV	2.498G	51.06	54.00	-2.94	31.77	3	Vertical	237	1.23	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2427MHz_TX

13/08/2018



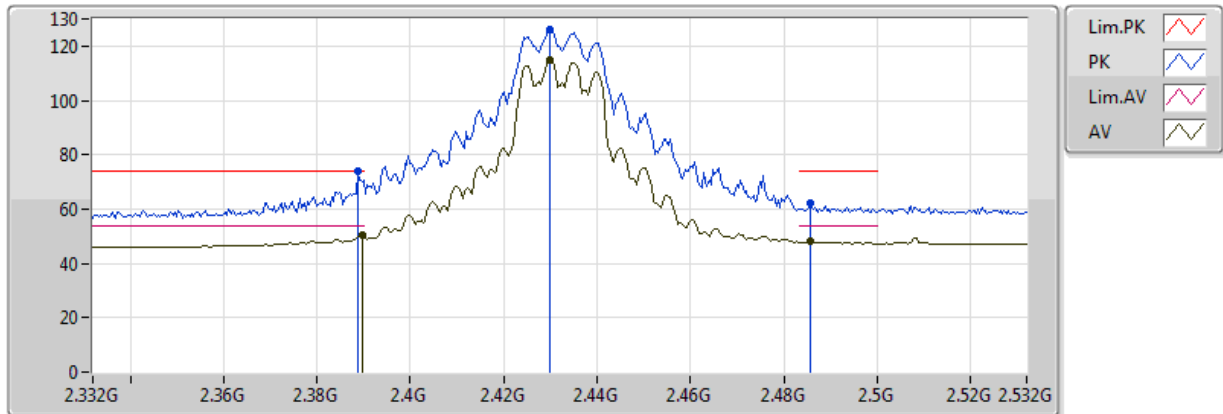
EUT Z_3TX Dipole
Setting 97
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.387G	73.82	74.00	-0.18	31.50	3	Vertical	229	1.34	-
AV	2.3866G	51.42	54.00	-2.58	31.50	3	Vertical	229	1.34	-
PK	2.4258G	124.83	Inf	-Inf	31.59	3	Vertical	229	1.34	-
AV	2.4274G	114.07	Inf	-Inf	31.60	3	Vertical	229	1.34	-
PK	2.4874G	61.02	74.00	-12.98	31.74	3	Vertical	229	1.34	-
AV	2.483502G	47.82	54.00	-6.18	31.73	3	Vertical	229	1.34	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2432MHz_TX

13/08/2018



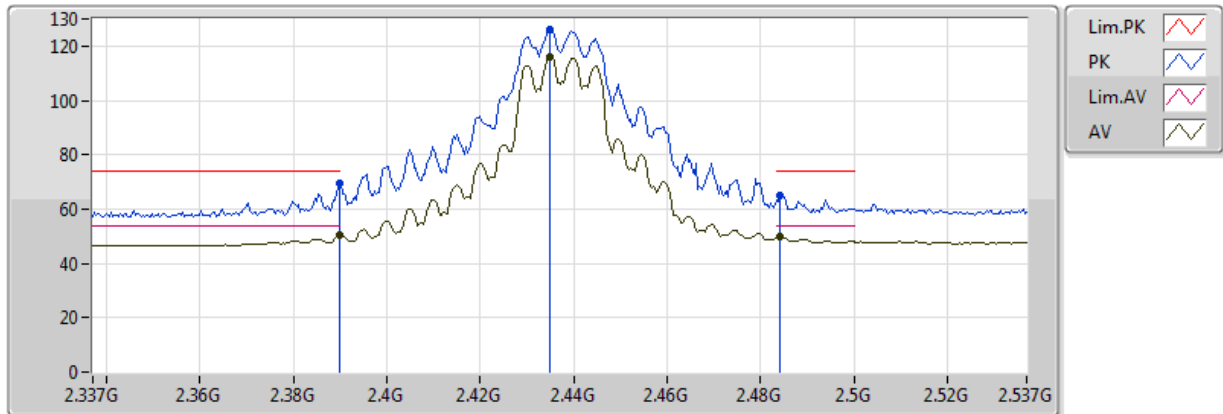
EUT Z_3TX Dipole
Setting 101
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3888G	73.87	74.00	-0.13	31.50	3	Vertical	191	1.35	-
AV	2.3896G	50.42	54.00	-3.58	31.50	3	Vertical	191	1.35	-
PK	2.43G	126.01	Inf	-Inf	31.60	3	Vertical	191	1.35	-
AV	2.43G	114.95	Inf	-Inf	31.60	3	Vertical	191	1.35	-
PK	2.4856G	62.03	74.00	-11.97	31.74	3	Vertical	191	1.35	-
AV	2.4856G	47.91	54.00	-6.09	31.74	3	Vertical	191	1.35	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2437MHz_TX

10/08/2018



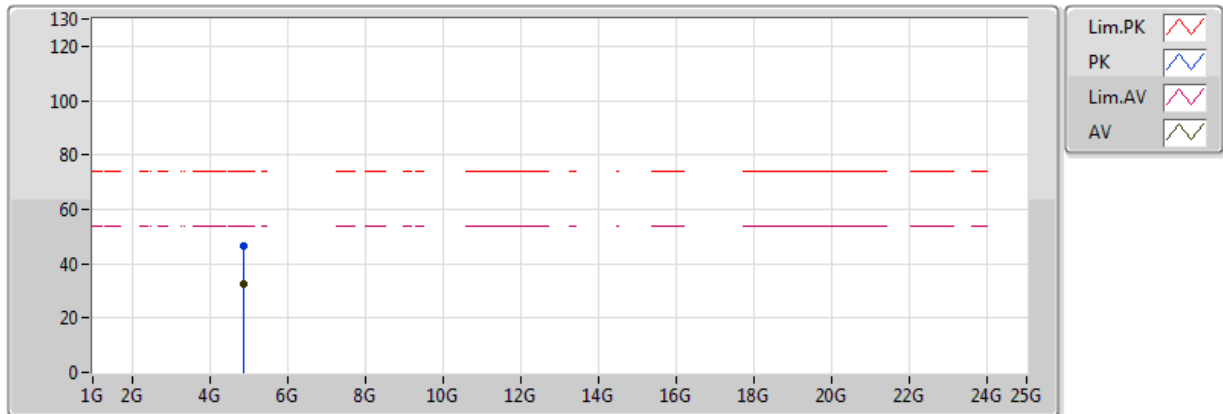
EUT Z_3TX Dipole
Setting 101
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	69.55	74.00	-4.45	31.50	3	Vertical	177	1.33	-
AV	2.3898G	50.34	54.00	-3.66	31.50	3	Vertical	177	1.33	-
PK	2.435G	126.24	Inf	-Inf	31.61	3	Vertical	177	1.33	-
AV	2.435G	116.10	Inf	-Inf	31.61	3	Vertical	177	1.33	-
PK	2.4842G	65.23	74.00	-8.77	31.73	3	Vertical	177	1.33	-
AV	2.4842G	49.70	54.00	-4.30	31.73	3	Vertical	177	1.33	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2437MHz_TX

10/08/2018



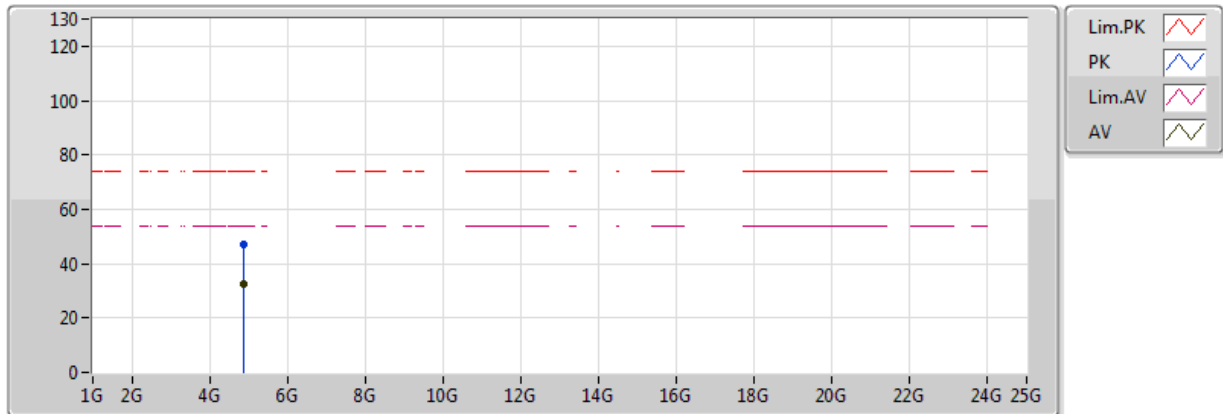
EUT Z_3TX Dipole
Setting 101
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87452G	46.24	74.00	-27.76	8.01	3	Vertical	149	2.63	-
AV	4.87593G	32.75	54.00	-21.25	8.02	3	Vertical	149	2.63	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2437MHz_TX

10/08/2018



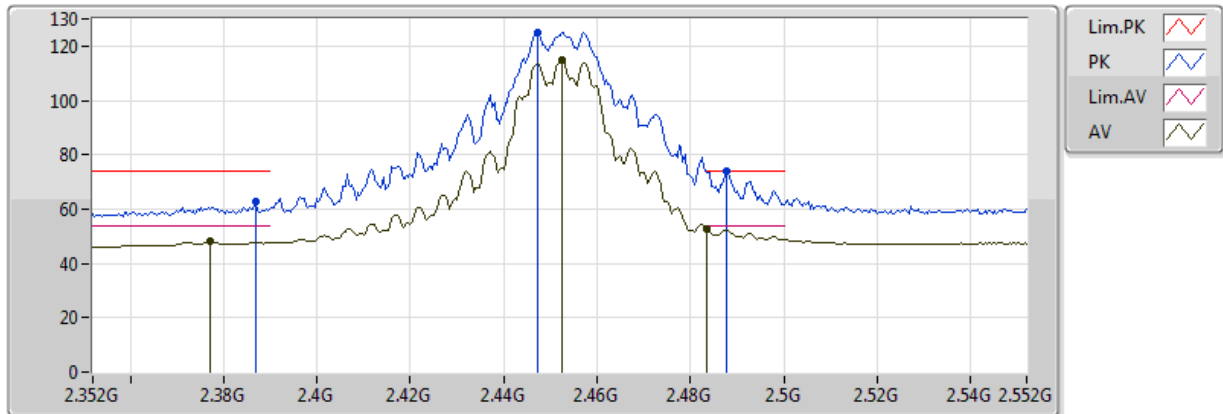
EUT_Z_3TX Dipole
Setting 101
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87193G	47.11	74.00	-26.89	8.01	3	Horizontal	173	1.49	-
AV	4.87481G	32.49	54.00	-21.51	8.01	3	Horizontal	173	1.49	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2452MHz_TX

13/08/2018



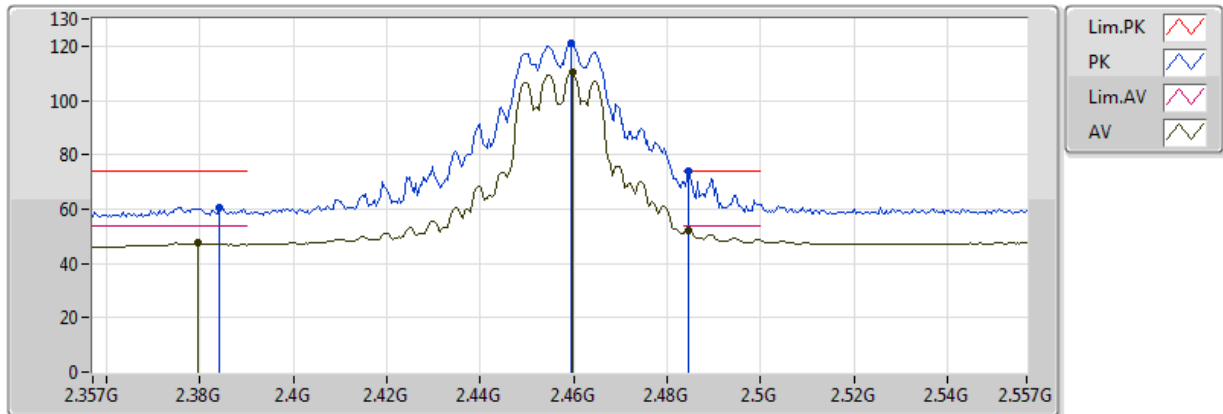
EUT Z_3TX Dipole
Setting 101
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3868G	62.94	74.00	-11.06	31.49	3	Vertical	232	1.45	-
AV	2.3772G	48.24	54.00	-5.76	31.47	3	Vertical	232	1.45	-
PK	2.4472G	125.06	Inf	-Inf	31.64	3	Vertical	232	1.45	-
AV	2.4524G	114.84	Inf	-Inf	31.66	3	Vertical	232	1.45	-
PK	2.4876G	73.96	74.00	-0.04	31.74	3	Vertical	232	1.45	-
AV	2.483502G	52.52	54.00	-1.48	31.73	3	Vertical	232	1.45	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2457MHz_TX

13/08/2018



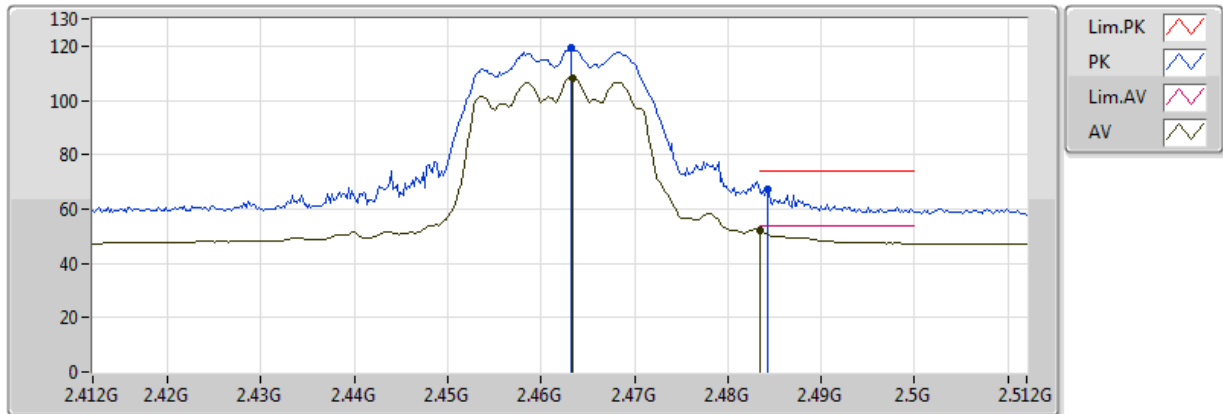
EUT Z_3TX Dipole
Setting 94
02-L-2
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3842G	60.72	74.00	-13.28	31.49	3	Vertical	61	1.48	-
AV	2.3794G	47.76	54.00	-6.24	31.48	3	Vertical	61	1.48	-
PK	2.4594G	121.02	Inf	-Inf	31.67	3	Vertical	61	1.48	-
AV	2.4598G	110.18	Inf	-Inf	31.67	3	Vertical	61	1.48	-
PK	2.4846G	73.77	74.00	-0.23	31.73	3	Vertical	61	1.48	-
AV	2.4846G	52.30	54.00	-1.70	31.73	3	Vertical	61	1.48	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2462MHz_TX

10/08/2018



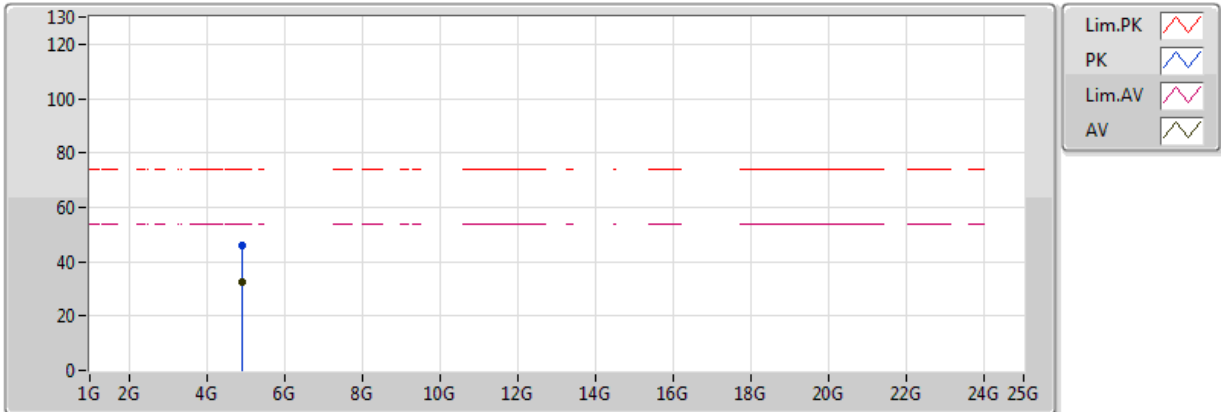
EUT Z_3TX Dipole
Setting 74
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4632G	119.35	Inf	-Inf	31.68	3	Vertical	201	1.49	-
AV	2.4634G	108.28	Inf	-Inf	31.68	3	Vertical	201	1.49	-
PK	2.4842G	67.43	74.00	-6.57	31.73	3	Vertical	201	1.49	-
AV	2.483502G	52.07	54.00	-1.93	31.73	3	Vertical	201	1.49	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2462MHz_TX

10/08/2018



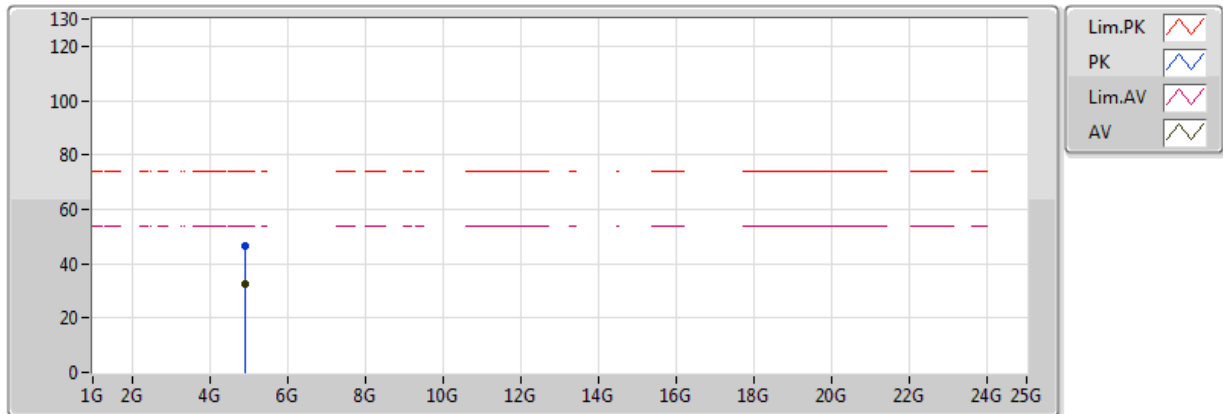
EUT Z_3TX Dipole
Setting 74
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92784G	46.08	74.00	-27.92	8.13	3	Vertical	324	1.50	-
AV	4.932G	32.59	54.00	-21.41	8.14	3	Vertical	324	1.50	-

802.11ac VHT20_Nss1,(MCS0)_3TX

2462MHz_TX

10/08/2018



EUT Z_3TX Dipole
Setting 74
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92708G	46.65	74.00	-27.35	8.13	3	Horizontal	91	2.52	-
AV	4.93396G	32.54	54.00	-21.46	8.14	3	Horizontal	91	2.52	-



RSE TX above 1GHz Result

Appendix B.3

<For 4TX>

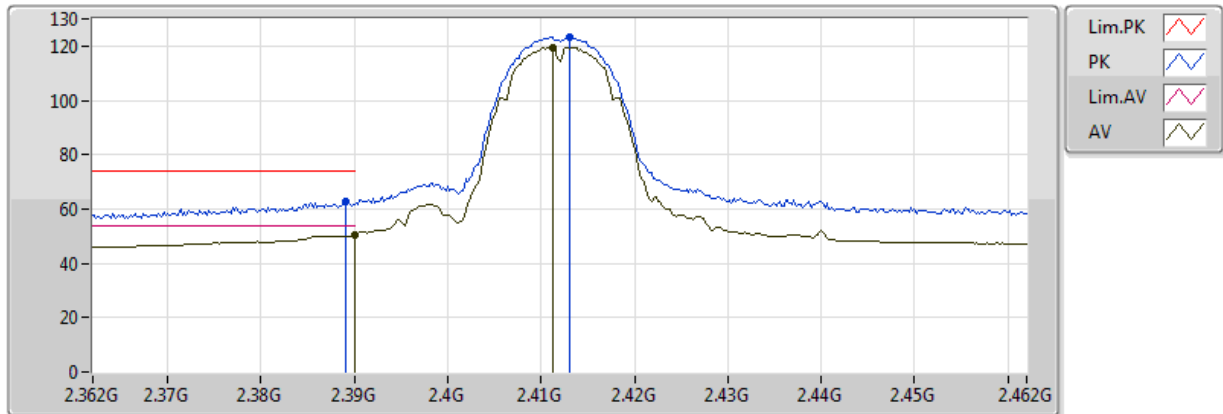
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40_Nss1,(MCS0)_4TX	Pass	AV	2.389G	53.97	54.00	-0.03	31.50	3	Vertical	278	1.38	-

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

02/08/2018



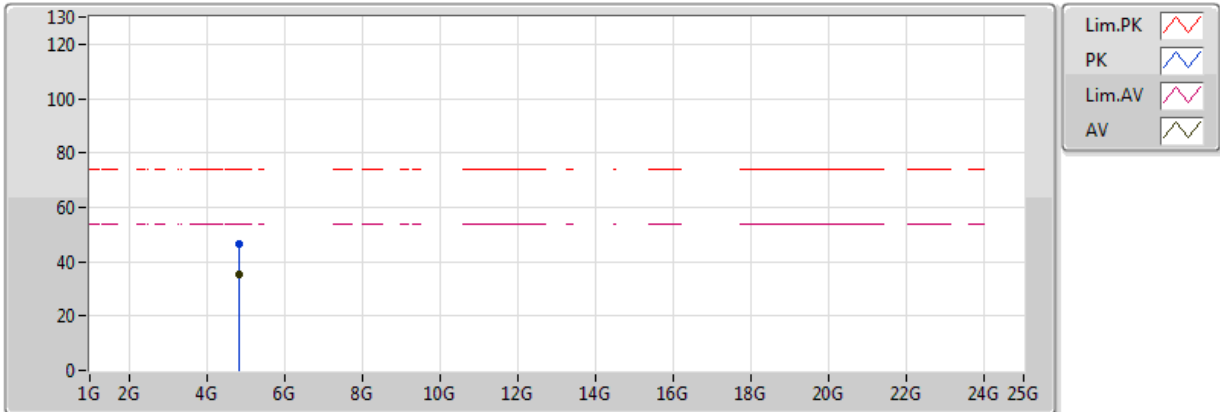
EUT_Z_4TX Dipole
Setting 93
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389G	62.59	74.00	-11.41	31.50	3	Vertical	223	2.23	-
AV	2.389998G	50.27	54.00	-3.73	31.50	3	Vertical	223	2.23	-
PK	2.413G	123.39	Inf	-Inf	31.56	3	Vertical	223	2.23	-
AV	2.4112G	119.55	Inf	-Inf	31.56	3	Vertical	223	2.23	-

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

02/08/2018



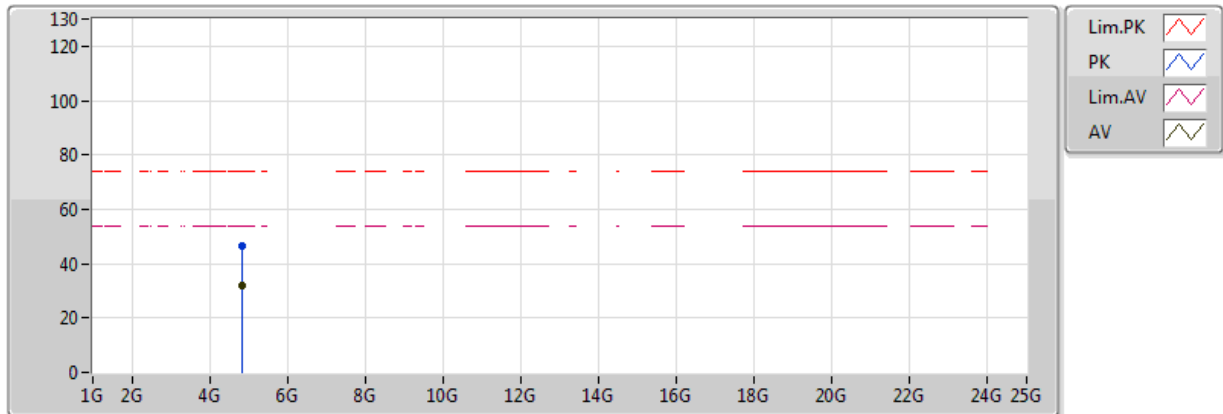
EUT_Z_4TX Dipole
Setting 93
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82688G	46.71	74.00	-27.29	7.91	3	Vertical	245	1.50	-
AV	4.82392G	35.21	54.00	-18.79	7.90	3	Vertical	245	1.50	-

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

02/08/2018



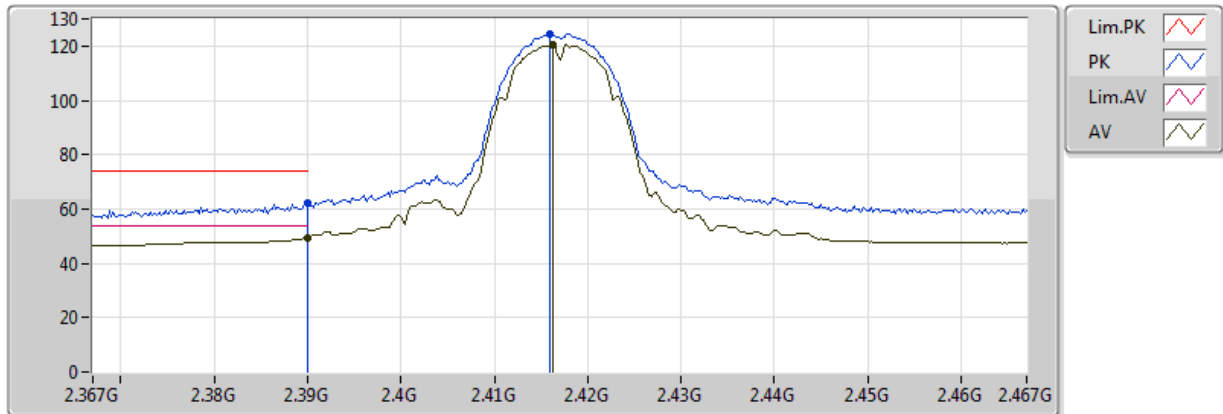
EUT_Z_4TX Dipole
Setting 93
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82272G	46.27	74.00	-27.73	7.90	3	Horizontal	128	1.76	-
AV	4.82288G	32.14	54.00	-21.86	7.90	3	Horizontal	128	1.76	-

802.11b_Nss1,(1Mbps)_4TX

2417MHz_TX

10/08/2018



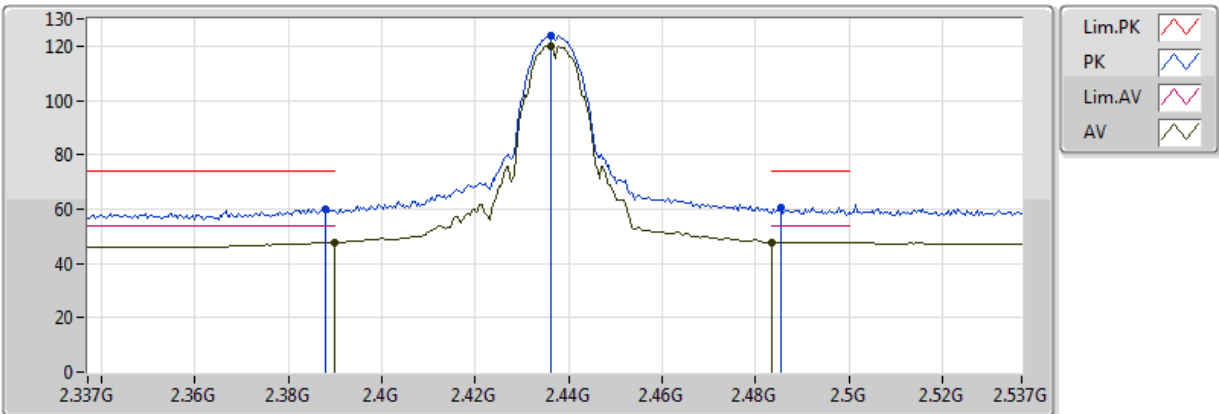
EUT_Z_4TX Dipole
Setting 94
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	62.22	74.00	-11.78	31.50	3	Vertical	67	1.36	-
AV	2.389998G	49.54	54.00	-4.46	31.50	3	Vertical	67	1.36	-
PK	2.416G	124.37	Inf	-Inf	31.57	3	Vertical	67	1.36	-
AV	2.4162G	120.49	Inf	-Inf	31.57	3	Vertical	67	1.36	-

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

02/08/2018



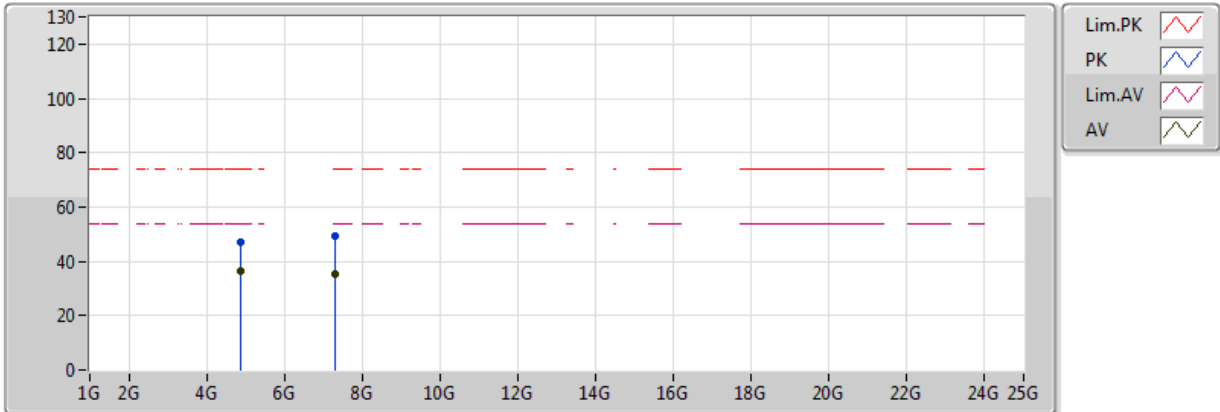
EUT Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3878G	59.85	74.00	-14.15	31.50	3	Vertical	216	2.59	-
AV	2.3898G	47.63	54.00	-6.37	31.50	3	Vertical	216	2.59	-
PK	2.4362G	123.87	Inf	-Inf	31.62	3	Vertical	216	2.59	-
AV	2.4362G	120.17	Inf	-Inf	31.62	3	Vertical	216	2.59	-
PK	2.4854G	60.34	74.00	-13.66	31.73	3	Vertical	216	2.59	-
AV	2.483502G	47.64	54.00	-6.36	31.73	3	Vertical	216	2.59	-

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

02/08/2018



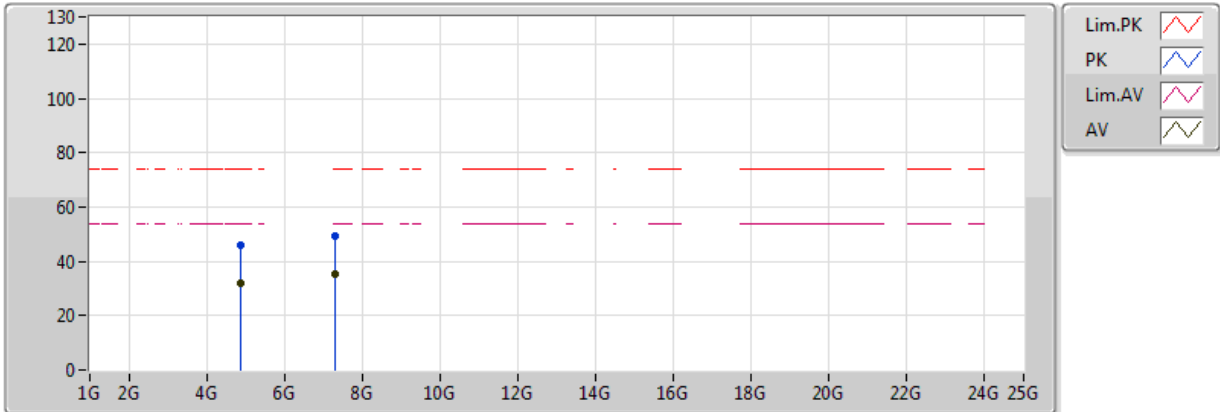
EUT_Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.8738G	46.85	74.00	-27.15	8.01	3	Vertical	118	2.68	-
AV	4.87392G	36.64	54.00	-17.36	8.01	3	Vertical	118	2.68	-
PK	7.31002G	49.38	74.00	-24.62	11.01	3	Vertical	108	1.63	-
AV	7.31574G	35.41	54.00	-18.59	11.02	3	Vertical	108	1.63	-

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

02/08/2018



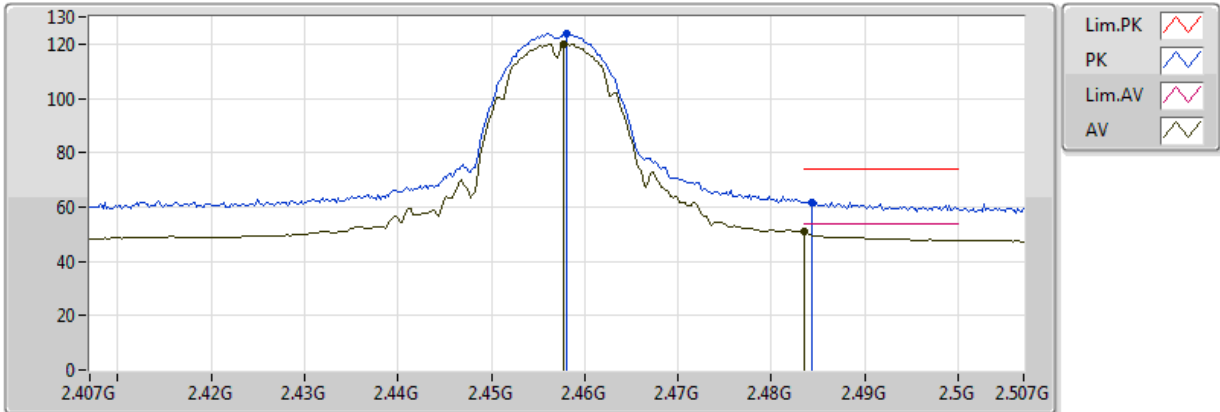
EUT_Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.86938G	45.76	74.00	-28.24	8.00	3	Horizontal	173	1.93	-
AV	4.87518G	31.80	54.00	-22.20	8.02	3	Horizontal	173	1.93	-
PK	7.31094G	49.51	74.00	-24.49	11.01	3	Horizontal	51	1.25	-
AV	7.31144G	35.43	54.00	-18.57	11.01	3	Horizontal	51	1.25	-

802.11b_Nss1,(1Mbps)_4TX

2457MHz_TX

10/08/2018



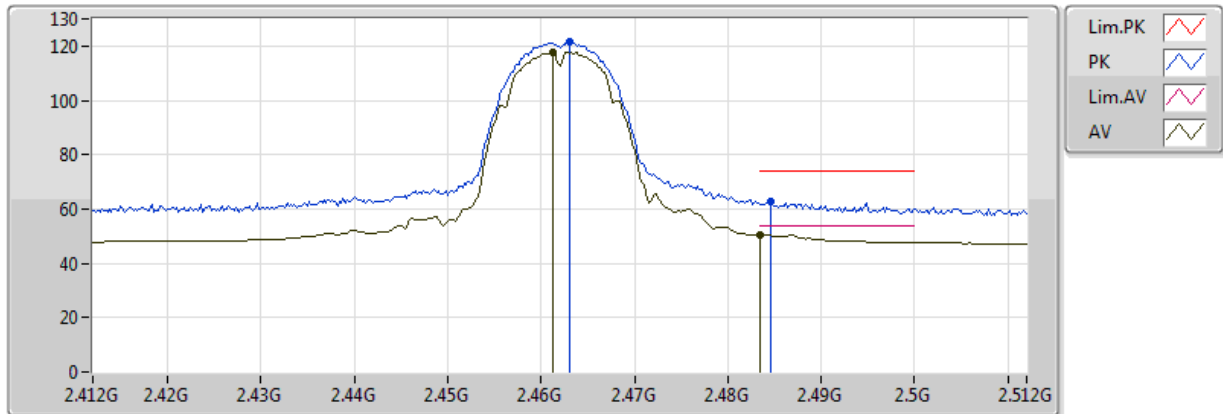
EUT_Z_4TX Dipole
Setting 94
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.458G	124.02	Inf	-Inf	31.67	3	Vertical	68	1.47	-
AV	2.4578G	119.88	Inf	-Inf	31.67	3	Vertical	68	1.47	-
PK	2.4844G	61.77	74.00	-12.23	31.73	3	Vertical	68	1.47	-
AV	2.483502G	50.78	54.00	-3.22	31.73	3	Vertical	68	1.47	-

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

02/08/2018



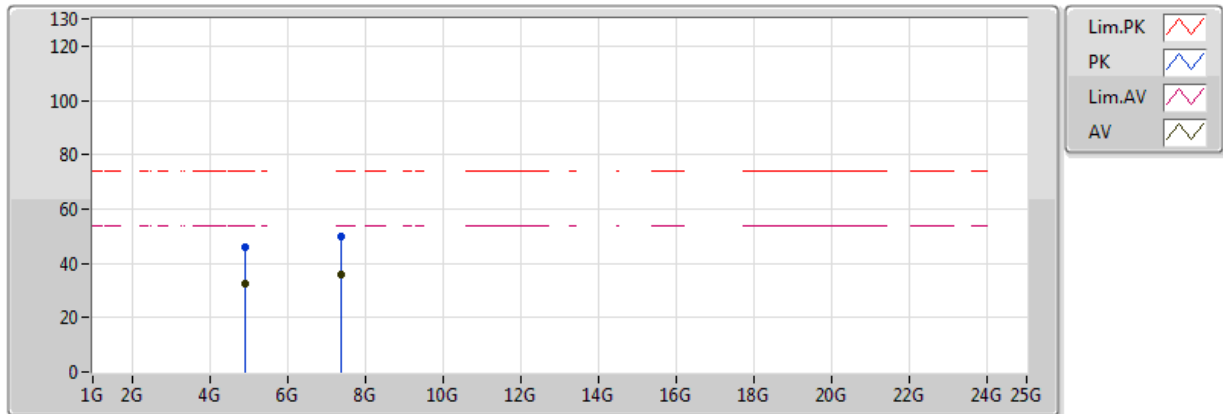
EUT_Z_4TX Dipole
Setting 87
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.463G	121.50	Inf	-Inf	31.68	3	Vertical	58	1.16	-
AV	2.4612G	117.62	Inf	-Inf	31.68	3	Vertical	58	1.16	-
PK	2.4846G	62.63	74.00	-11.37	31.73	3	Vertical	58	1.16	-
AV	2.483502G	50.54	54.00	-3.46	31.73	3	Vertical	58	1.16	-

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

02/08/2018



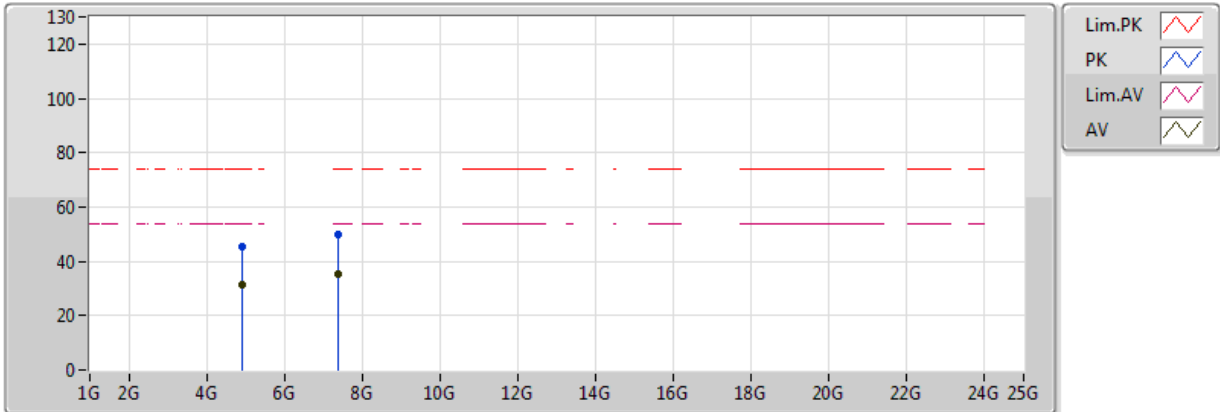
EUT_Z_4TX Dipole
Setting 87
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92208G	45.93	74.00	-28.07	8.12	3	Vertical	133	1.11	-
AV	4.92406G	32.50	54.00	-21.50	8.12	3	Vertical	133	1.11	-
PK	7.38616G	50.01	74.00	-23.99	11.15	3	Vertical	215	2.01	-
AV	7.38596G	35.77	54.00	-18.23	11.15	3	Vertical	215	2.01	-

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

02/08/2018



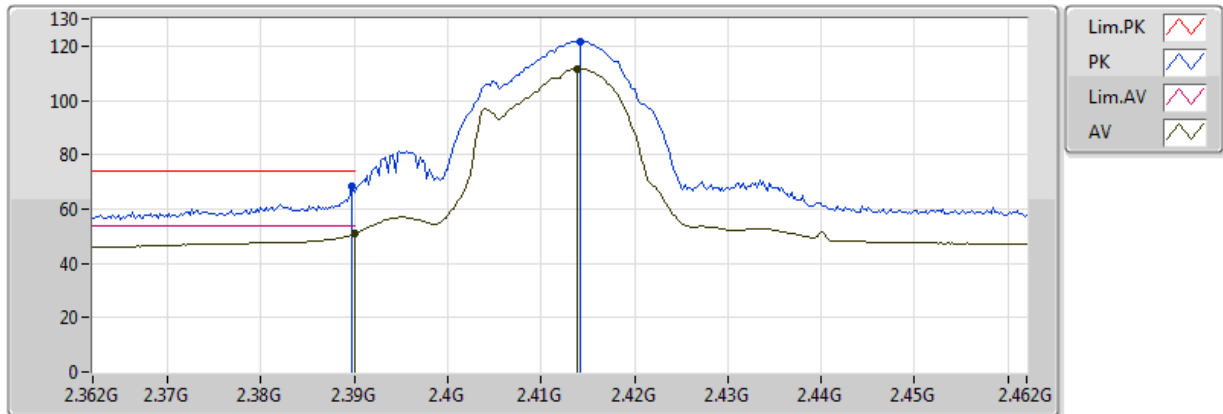
EUT_Z_4TX Dipole
Setting 87
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92598G	45.64	74.00	-28.36	8.13	3	Horizontal	190	1.49	-
AV	4.92602G	31.37	54.00	-22.63	8.13	3	Horizontal	190	1.49	-
PK	7.38952G	49.85	74.00	-24.15	11.16	3	Horizontal	307	1.84	-
AV	7.38592G	35.43	54.00	-18.57	11.15	3	Horizontal	307	1.84	-

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

02/08/2018



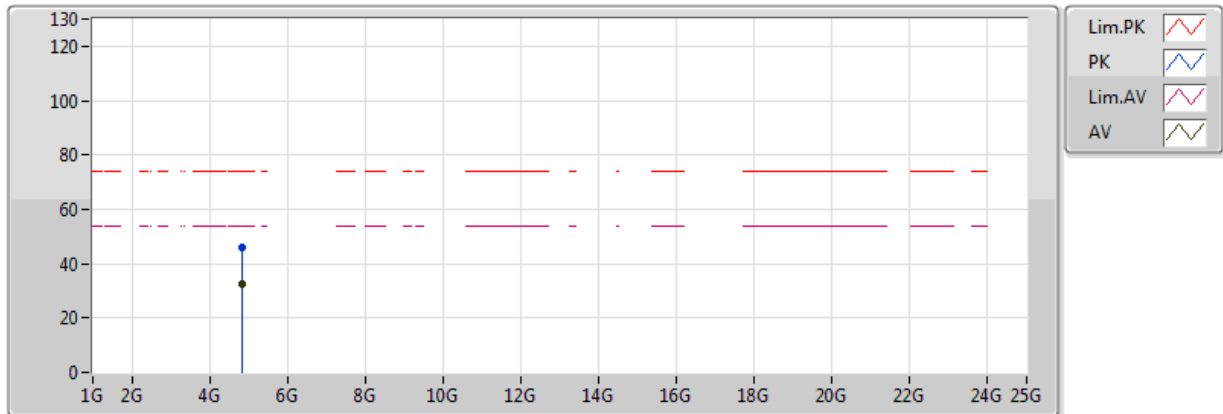
EUT_Z_4TX Dipole
Setting 81
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	68.25	74.00	-5.75	31.50	3	Vertical	235	2.32	-
AV	2.389998G	50.86	54.00	-3.14	31.50	3	Vertical	235	2.32	-
PK	2.4142G	121.85	Inf	-Inf	31.56	3	Vertical	235	2.32	-
AV	2.4138G	111.51	Inf	-Inf	31.56	3	Vertical	235	2.32	-

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

02/08/2018



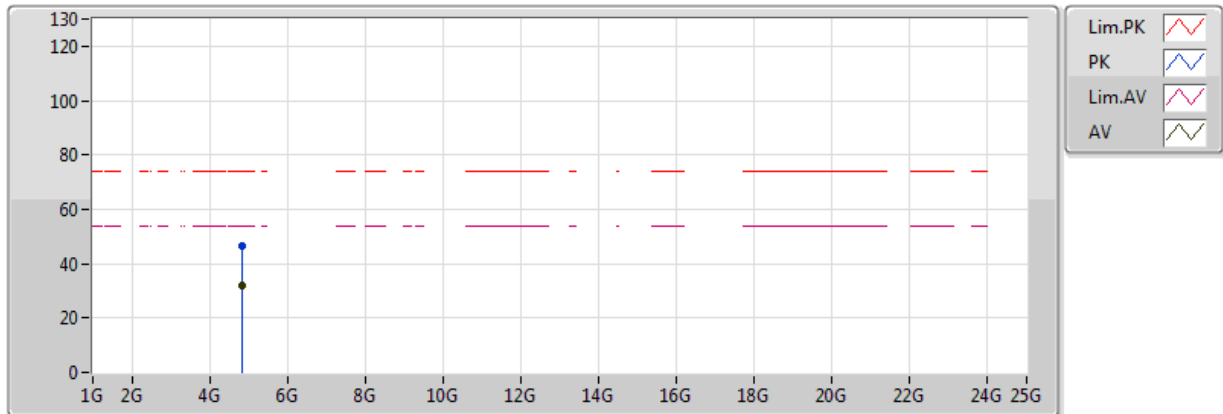
EUT_Z_4TX Dipole
Setting 81
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82206G	46.21	74.00	-27.79	7.90	3	Vertical	248	1.29	-
AV	4.82418G	32.28	54.00	-21.72	7.90	3	Vertical	248	1.29	-

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

02/08/2018



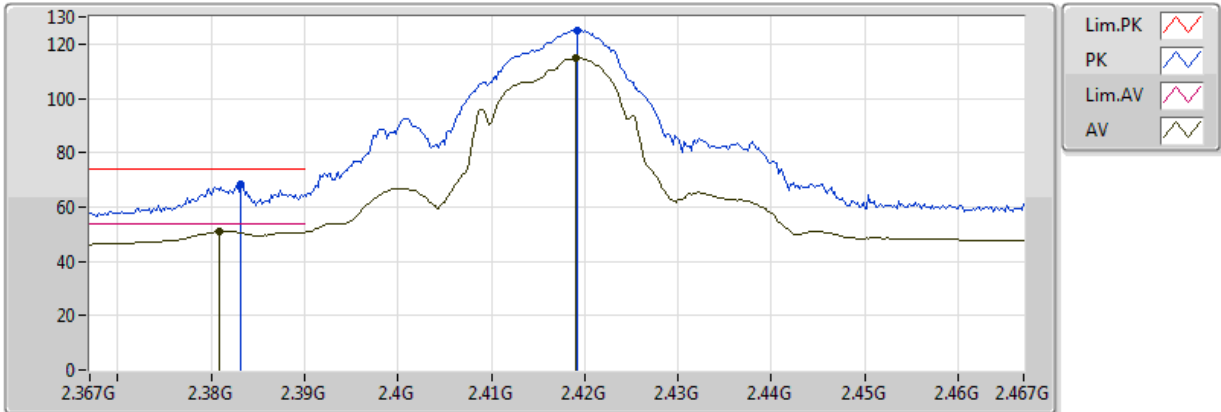
EUT_Z_4TX Dipole
Setting 81
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82272G	46.48	74.00	-27.52	7.90	3	Horizontal	171	1.70	-
AV	4.82442G	32.08	54.00	-21.92	7.90	3	Horizontal	171	1.70	-

802.11g_Nss1,(6Mbps)_4TX

2417MHz_TX

10/08/2018



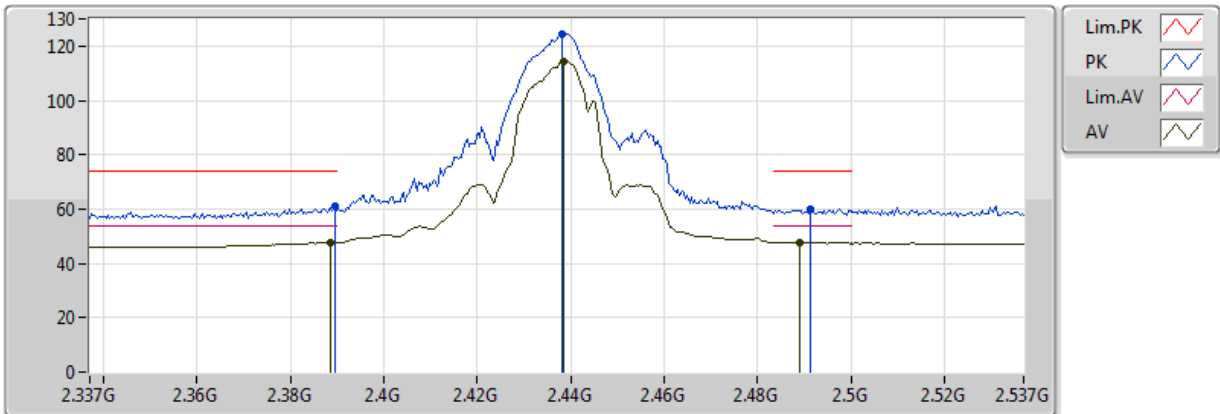
EUT_Z_4TX Dipole
Setting 92
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3832G	68.47	74.00	-5.53	31.49	3	Vertical	229	1.48	-
AV	2.3808G	51.14	54.00	-2.86	31.48	3	Vertical	229	1.48	-
PK	2.4192G	125.11	Inf	-Inf	31.58	3	Vertical	229	1.48	-
AV	2.419G	114.65	Inf	-Inf	31.58	3	Vertical	229	1.48	-

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

02/08/2018



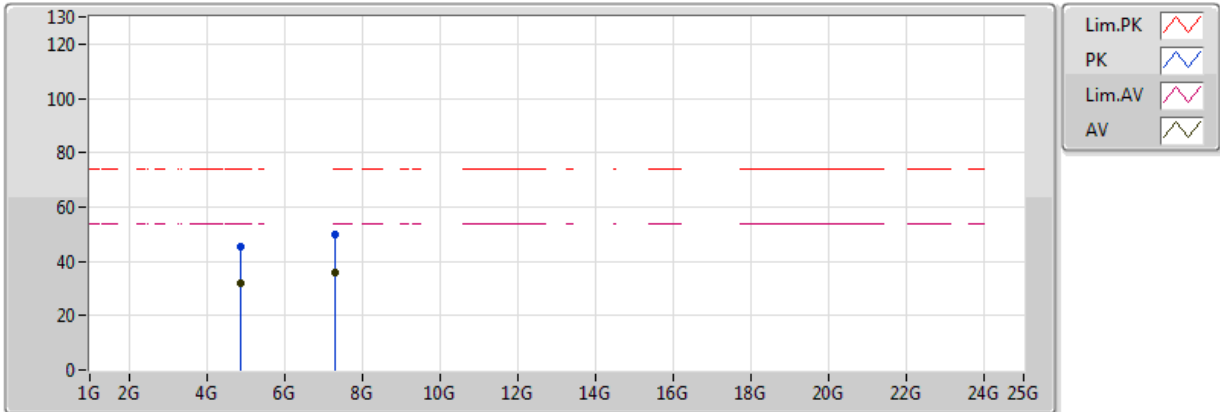
EUT Z_4TX Dipole
Setting 92
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	61.04	74.00	-12.96	31.50	3	Vertical	226	1.30	-
AV	2.3886G	47.63	54.00	-6.37	31.50	3	Vertical	226	1.30	-
PK	2.4382G	124.66	Inf	-Inf	31.62	3	Vertical	226	1.30	-
AV	2.4386G	114.49	Inf	-Inf	31.62	3	Vertical	226	1.30	-
PK	2.4914G	59.97	74.00	-14.03	31.74	3	Vertical	226	1.30	-
AV	2.489G	47.73	54.00	-6.27	31.74	3	Vertical	226	1.30	-

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

02/08/2018



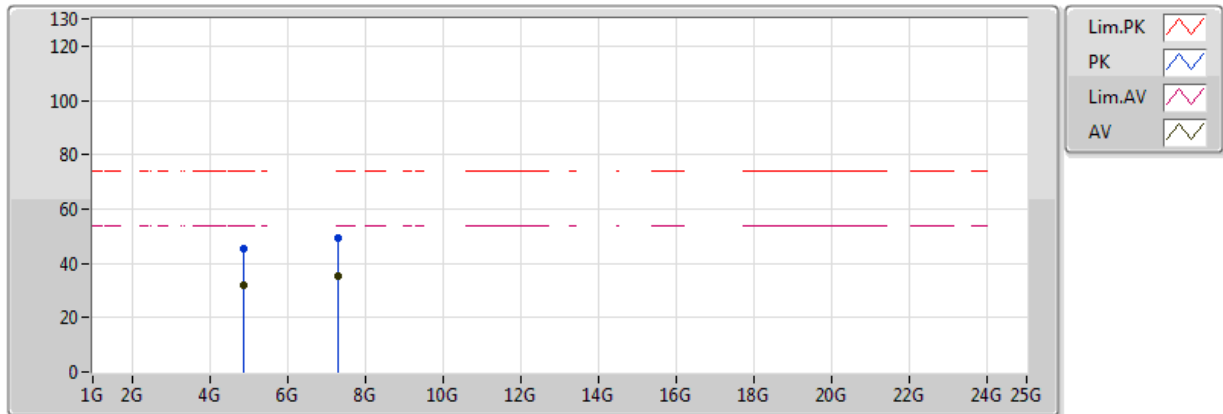
EUT_Z_4TX Dipole
Setting 92
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87624G	45.59	74.00	-28.41	8.02	3	Vertical	27	2.07	-
AV	4.87522G	31.70	54.00	-22.30	8.02	3	Vertical	27	2.07	-
PK	7.31558G	50.08	74.00	-23.92	11.02	3	Vertical	1	1.33	-
AV	7.31094G	35.73	54.00	-18.27	11.01	3	Vertical	1	1.33	-

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

02/08/2018



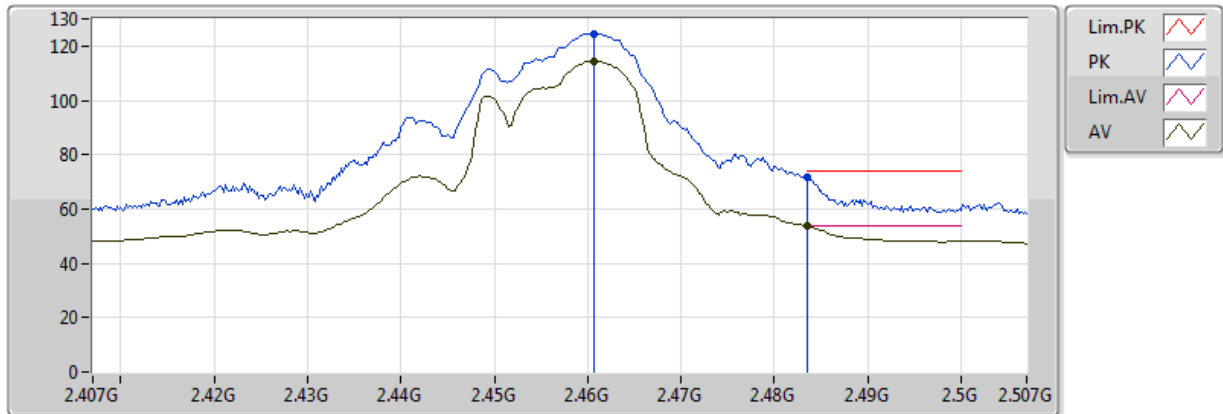
EUT_Z_4TX Dipole
Setting 92
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87566G	45.52	74.00	-28.48	8.02	3	Horizontal	117	1.32	-
AV	4.8748G	31.71	54.00	-22.29	8.01	3	Horizontal	117	1.32	-
PK	7.31304G	49.52	74.00	-24.48	11.01	3	Horizontal	160	1.61	-
AV	7.31236G	35.35	54.00	-18.65	11.01	3	Horizontal	160	1.61	-

802.11g_Nss1,(6Mbps)_4TX

2457MHz_TX

10/08/2018



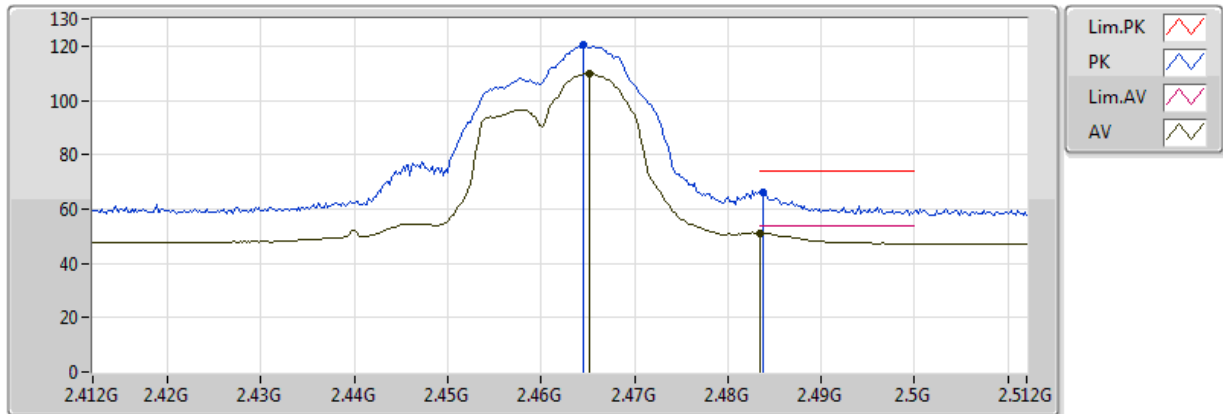
EUT_Z_4TX Dipole
Setting 92
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4606G	124.64	Inf	-Inf	31.68	3	Vertical	230	1.52	-
AV	2.4606G	114.46	Inf	-Inf	31.68	3	Vertical	230	1.52	-
PK	2.483502G	71.48	74.00	-2.52	31.73	3	Vertical	230	1.52	-
AV	2.483502G	53.84	54.00	-0.16	31.73	3	Vertical	230	1.52	-

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

02/08/2018



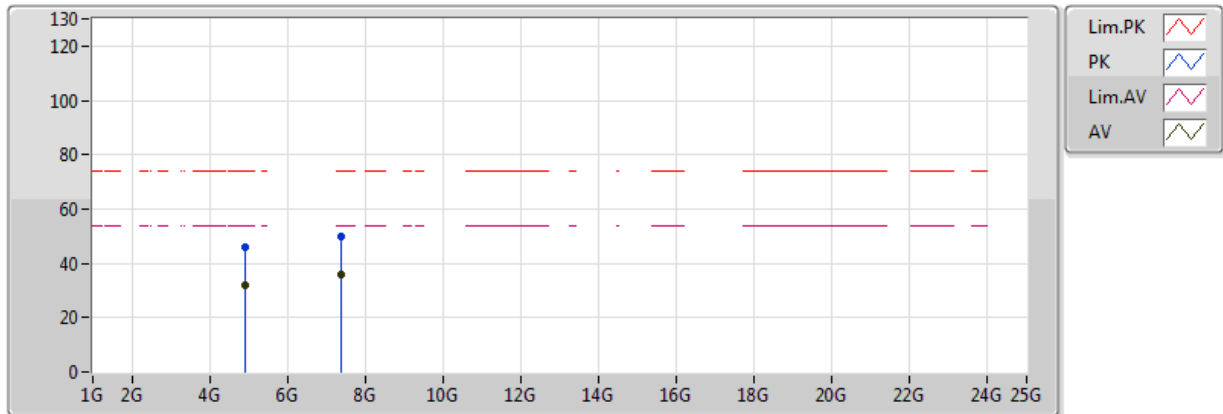
EUT_Z_4TX Dipole
Setting 73
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4646G	120.20	Inf	-Inf	31.69	3	Vertical	237	2.45	-
AV	2.4652G	109.95	Inf	-Inf	31.69	3	Vertical	237	2.45	-
PK	2.4838G	66.11	74.00	-7.89	31.73	3	Vertical	237	2.45	-
AV	2.483502G	51.26	54.00	-2.74	31.73	3	Vertical	237	2.45	-

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

02/08/2018



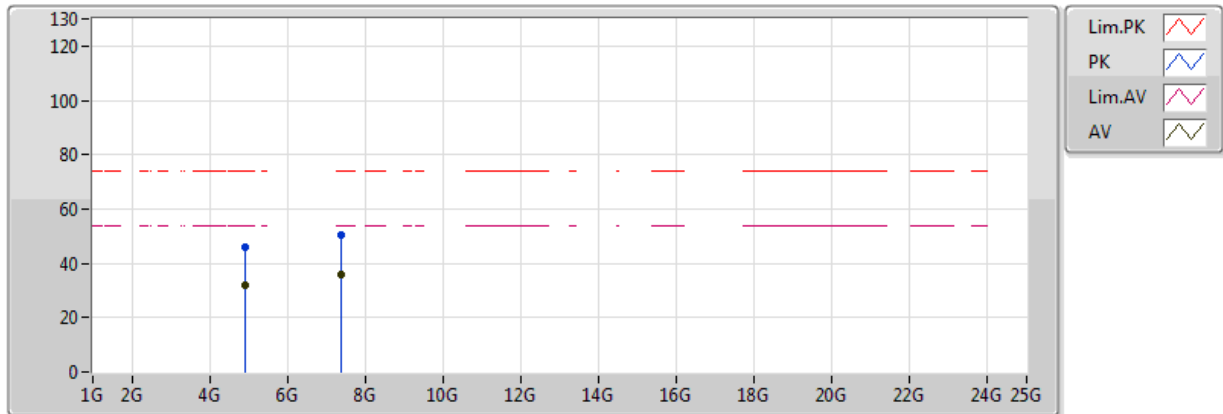
EUT_Z_4TX Dipole
Setting 73
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92692G	46.17	74.00	-27.83	8.13	3	Vertical	135	1.37	-
AV	4.9261G	31.89	54.00	-22.11	8.13	3	Vertical	135	1.37	-
PK	7.38566G	50.04	74.00	-23.96	11.15	3	Vertical	250	2.10	-
AV	7.3859G	36.02	54.00	-17.98	11.15	3	Vertical	250	2.10	-

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

02/08/2018



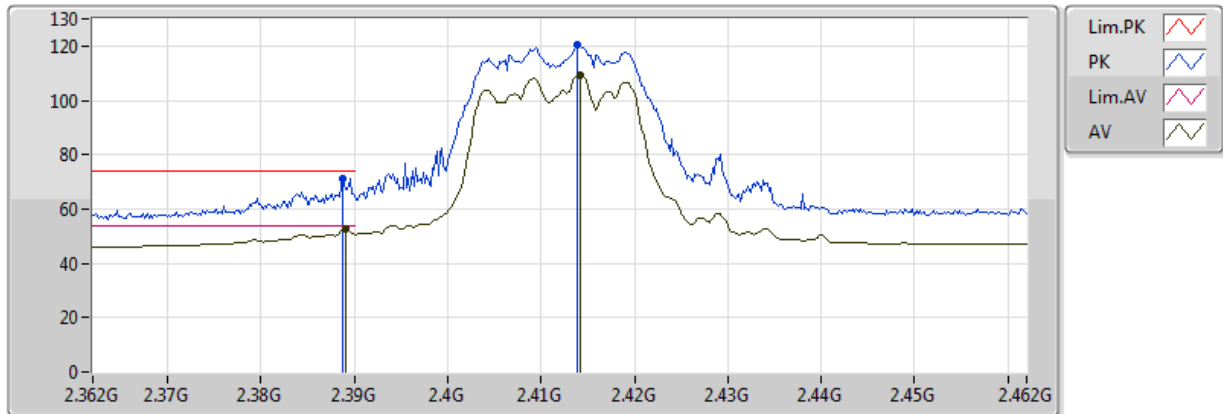
EUT_Z_4TX Dipole
Setting 73
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.9246G	46.20	74.00	-27.80	8.12	3	Horizontal	218	1.63	-
AV	4.92648G	31.81	54.00	-22.19	8.13	3	Horizontal	218	1.63	-
PK	7.38396G	50.71	74.00	-23.29	11.15	3	Horizontal	172	1.21	-
AV	7.38562G	35.98	54.00	-18.02	11.15	3	Horizontal	172	1.21	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

02/08/2018



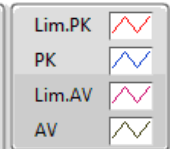
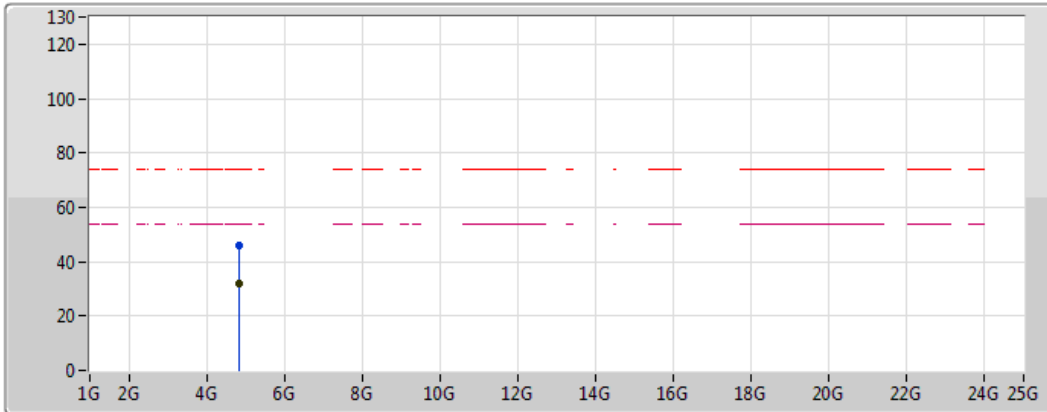
EUT_Z_4TX Dipole
Setting 79
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3888G	71.44	74.00	-2.56	31.50	3	Vertical	277	1.50	-
AV	2.389G	52.53	54.00	-1.47	31.50	3	Vertical	277	1.50	-
PK	2.4138G	120.39	Inf	-Inf	31.56	3	Vertical	277	1.50	-
AV	2.4142G	109.50	Inf	-Inf	31.56	3	Vertical	277	1.50	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

02/08/2018



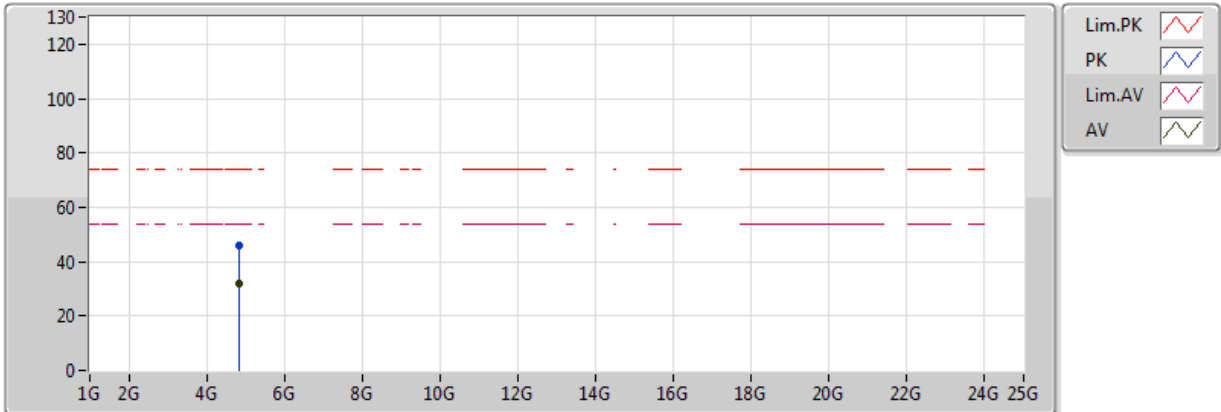
EUT_Z_4TX Dipole
Setting 79
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82234G	46.05	74.00	-27.95	7.90	3	Vertical	338	1.78	-
AV	4.82398G	31.81	54.00	-22.19	7.90	3	Vertical	338	1.78	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

02/08/2018



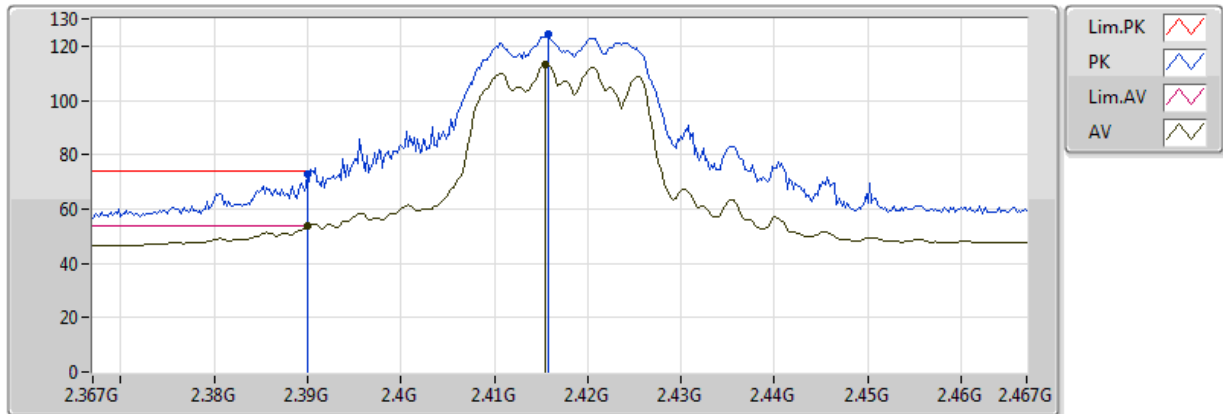
EUT_Z_4TX Dipole
Setting 79
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82668G	45.90	74.00	-28.10	7.91	3	Horizontal	126	1.35	-
AV	4.82426G	31.79	54.00	-22.21	7.90	3	Horizontal	126	1.35	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2417MHz_TX

09/08/2018



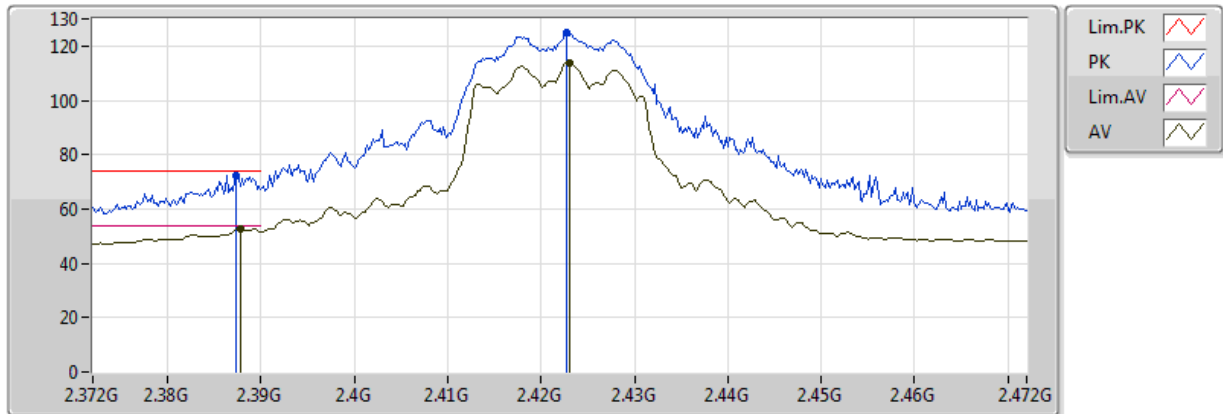
EUT_Z_4TX Dipole
Setting 86
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	72.61	74.00	-1.39	31.50	3	Vertical	359	1.09	-
AV	2.389998G	53.67	54.00	-0.33	31.50	3	Vertical	359	1.09	-
PK	2.4158G	124.35	Inf	-Inf	31.57	3	Vertical	359	1.09	-
AV	2.4154G	113.17	Inf	-Inf	31.57	3	Vertical	359	1.09	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2422MHz_TX

09/08/2018



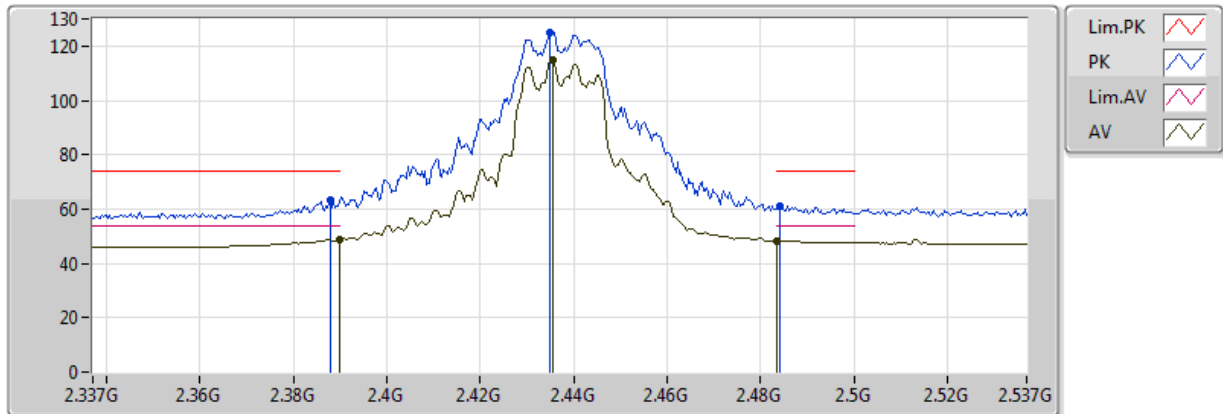
EUT_Z_4TX Dipole
Setting 94
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3874G	72.45	74.00	-1.55	31.49	3	Vertical	207	1.58	-
AV	2.3878G	52.84	54.00	-1.16	31.50	3	Vertical	207	1.58	-
PK	2.4228G	124.89	Inf	-Inf	31.58	3	Vertical	207	1.58	-
AV	2.423G	114.01	Inf	-Inf	31.59	3	Vertical	207	1.58	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

02/08/2018



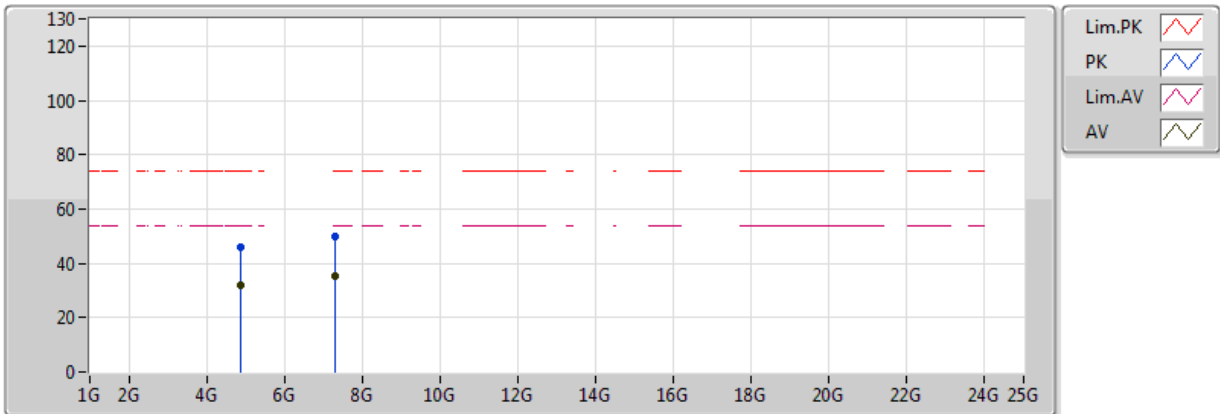
EUT Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3878G	63.05	74.00	-10.95	31.50	3	Vertical	358	1.07	-
AV	2.3898G	48.81	54.00	-5.19	31.50	3	Vertical	358	1.07	-
PK	2.435G	125.23	Inf	-Inf	31.61	3	Vertical	358	1.07	-
AV	2.4354G	114.74	Inf	-Inf	31.61	3	Vertical	358	1.07	-
PK	2.4842G	61.00	74.00	-13.00	31.73	3	Vertical	358	1.07	-
AV	2.483502G	48.23	54.00	-5.77	31.73	3	Vertical	358	1.07	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

02/08/2018



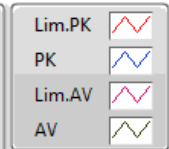
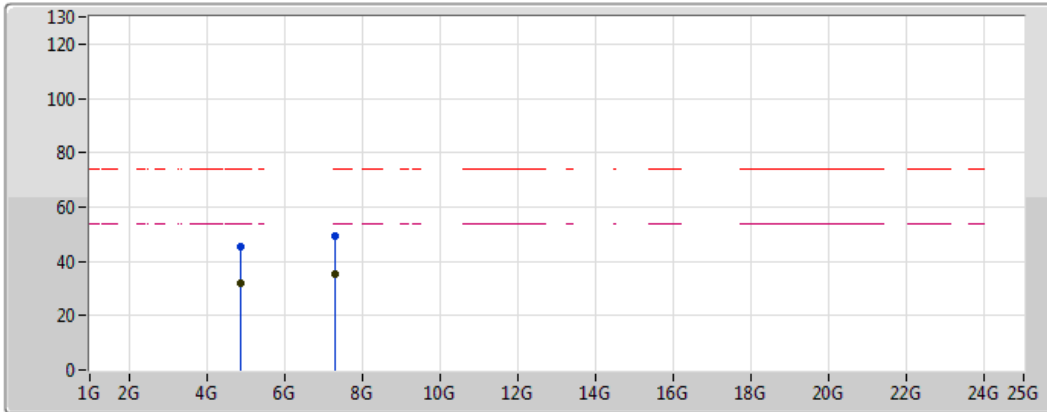
EUT_Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.8766G	46.04	74.00	-27.96	8.02	3	Vertical	96	1.69	-
AV	4.8752G	31.99	54.00	-22.01	8.02	3	Vertical	96	1.69	-
PK	7.31102G	50.14	74.00	-23.86	11.01	3	Vertical	309	1.37	-
AV	7.31192G	35.52	54.00	-18.48	11.01	3	Vertical	309	1.37	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

02/08/2018



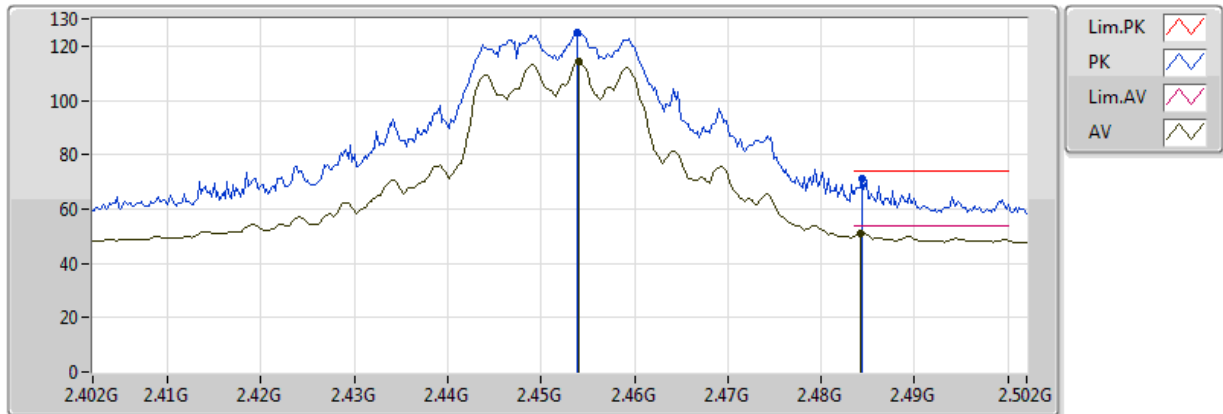
EUT_Z_4TX Dipole
Setting 94
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.86958G	45.42	74.00	-28.58	8.00	3	Horizontal	247	1.10	-
AV	4.87512G	31.68	54.00	-22.32	8.02	3	Horizontal	247	1.10	-
PK	7.30722G	49.19	74.00	-24.81	11.00	3	Horizontal	25	2.20	-
AV	7.31278G	35.46	54.00	-18.54	11.01	3	Horizontal	25	2.20	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2452MHz_TX

10/08/2018



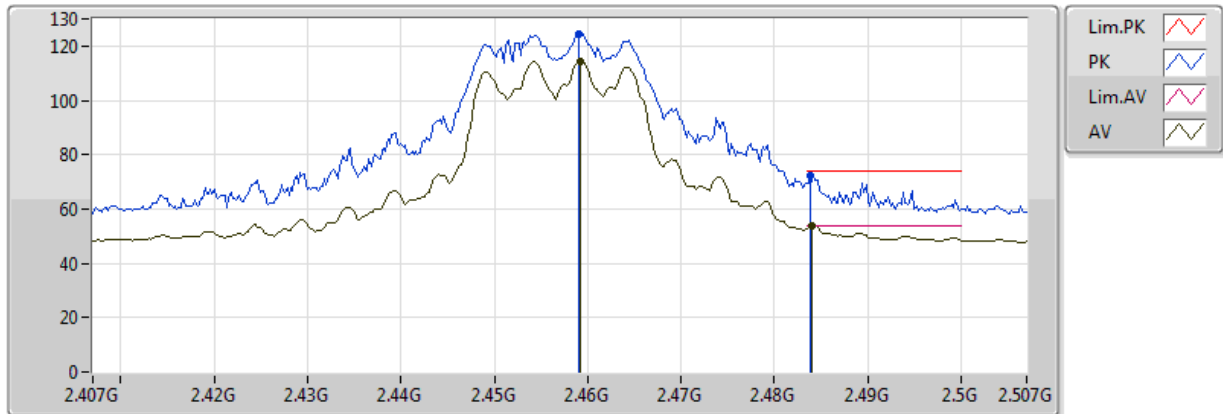
EUT_Z_4TX Dipole
Setting 94
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4538G	124.90	Inf	-Inf	31.66	3	Vertical	276	1.47	-
AV	2.454G	114.10	Inf	-Inf	31.66	3	Vertical	276	1.47	-
PK	2.4844G	71.37	74.00	-2.63	31.73	3	Vertical	276	1.47	-
AV	2.4842G	51.16	54.00	-2.84	31.73	3	Vertical	276	1.47	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2457MHz_TX

10/08/2018



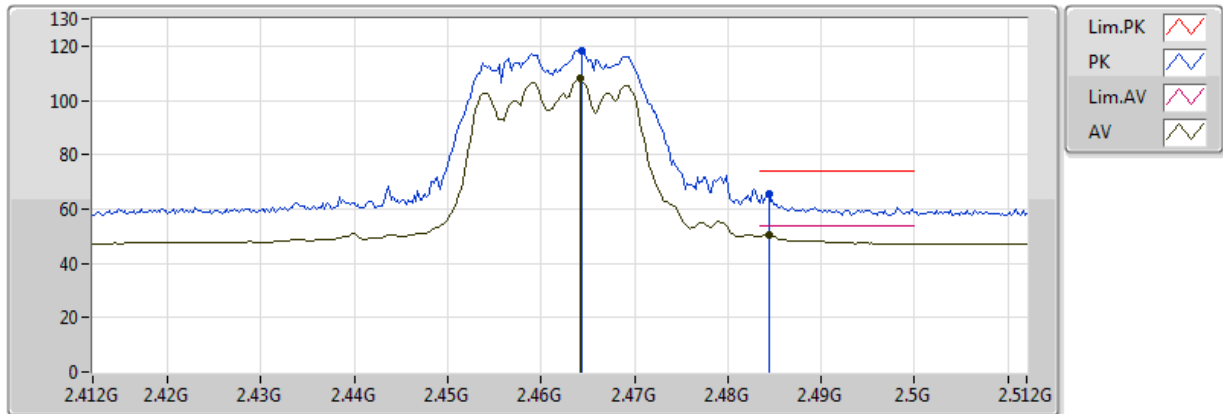
EUT_Z_4TX Dipole
Setting 91
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.459G	124.56	Inf	-Inf	31.67	3	Vertical	274	1.45	-
AV	2.4592G	114.57	Inf	-Inf	31.67	3	Vertical	274	1.45	-
PK	2.4838G	72.33	74.00	-1.67	31.73	3	Vertical	274	1.45	-
AV	2.484G	53.84	54.00	-0.16	31.73	3	Vertical	274	1.45	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

02/08/2018



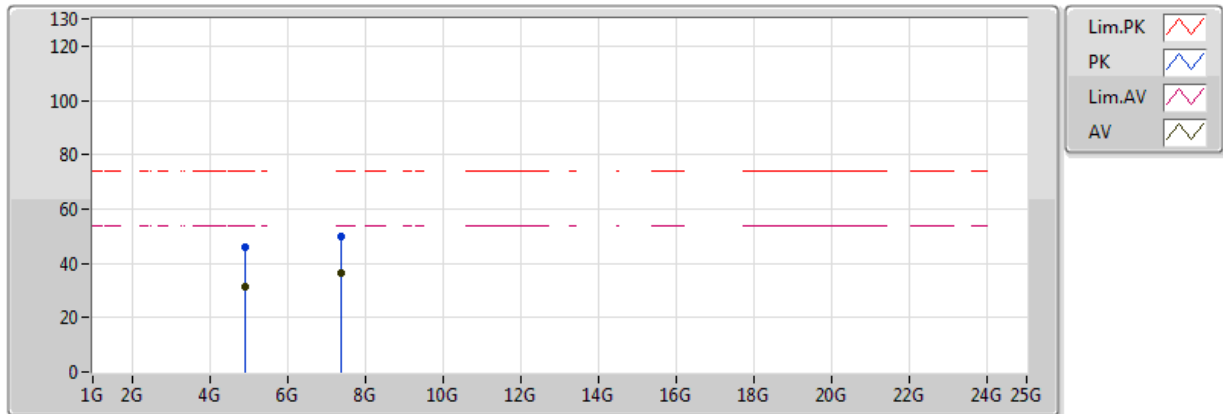
EUT_Z_4TX Dipole
Setting 71
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4644G	118.36	Inf	-Inf	31.68	3	Vertical	276	1.45	-
AV	2.4642G	107.93	Inf	-Inf	31.68	3	Vertical	276	1.45	-
PK	2.4844G	65.63	74.00	-8.37	31.73	3	Vertical	276	1.45	-
AV	2.4844G	50.66	54.00	-3.34	31.73	3	Vertical	276	1.45	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

02/08/2018



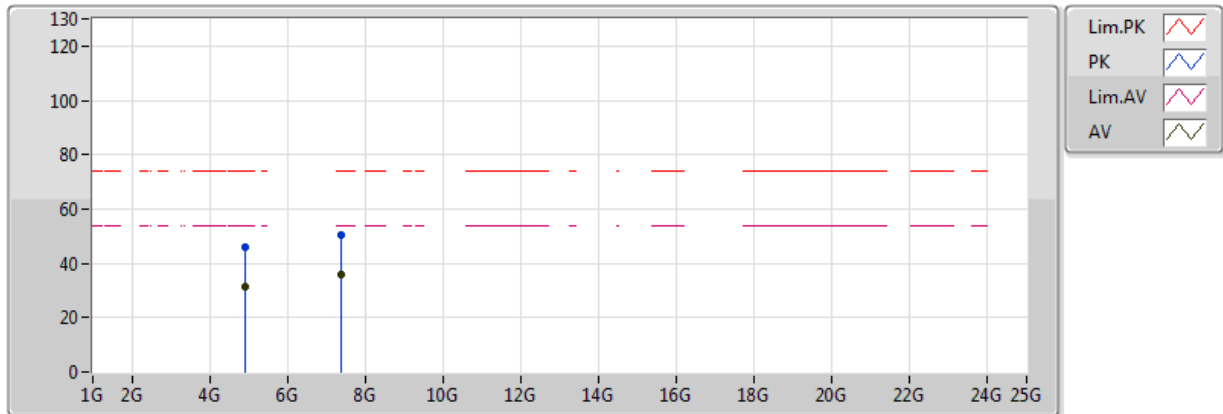
EUT_Z_4TX Dipole
Setting 71
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92898G	45.85	74.00	-28.15	8.13	3	Vertical	112	1.55	-
AV	4.92634G	31.50	54.00	-22.50	8.13	3	Vertical	112	1.55	-
PK	7.3874G	49.88	74.00	-24.12	11.16	3	Vertical	173	2.01	-
AV	7.3859G	36.19	54.00	-17.81	11.15	3	Vertical	173	2.01	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

02/08/2018



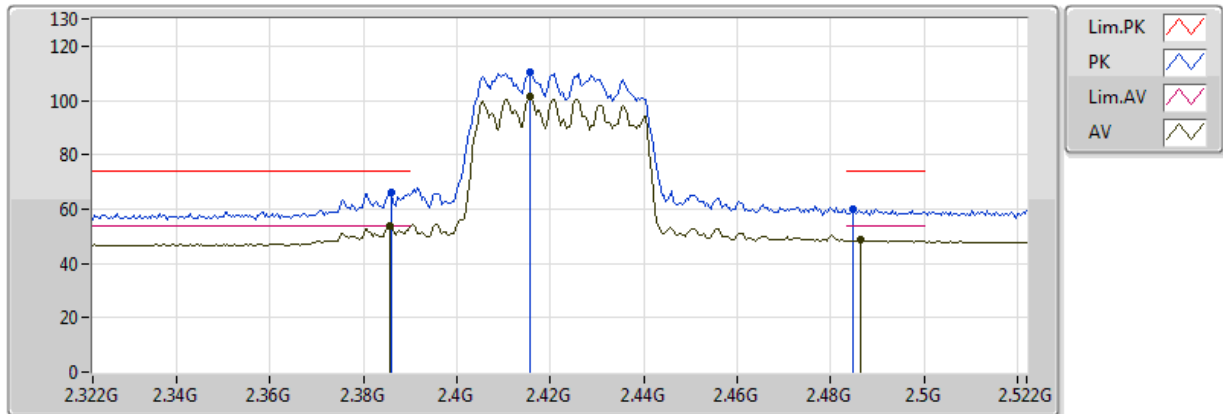
EUT_Z_4TX Dipole
Setting 71
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.9267G	46.09	74.00	-27.91	8.13	3	Horizontal	29	2.55	-
AV	4.92616G	31.51	54.00	-22.49	8.13	3	Horizontal	29	2.55	-
PK	7.3856G	50.65	74.00	-23.35	11.15	3	Horizontal	70	1.81	-
AV	7.38596G	35.85	54.00	-18.15	11.15	3	Horizontal	70	1.81	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

13/08/2018



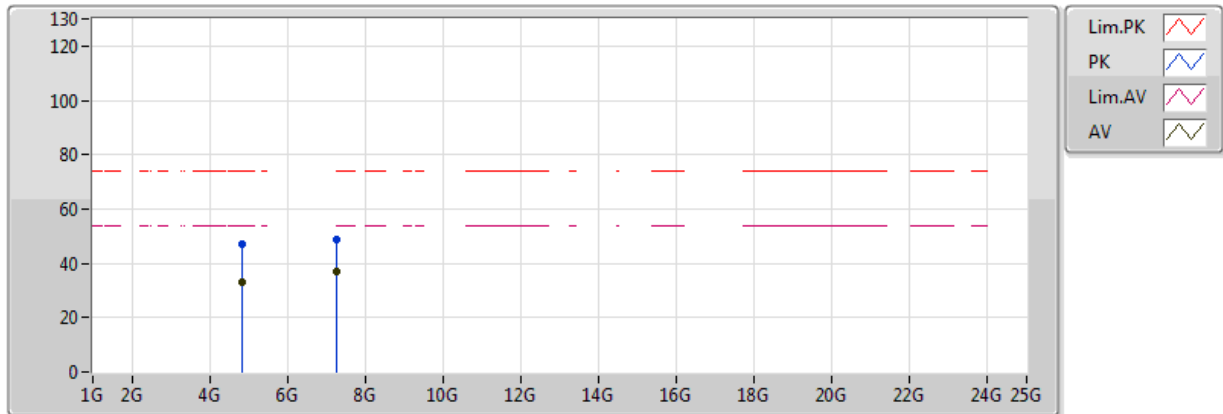
EUT_Z_4TX Dipole
Setting 54
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.386G	65.97	74.00	-8.03	31.49	3	Vertical	107	1.28	-
AV	2.3856G	53.95	54.00	-0.05	31.49	3	Vertical	107	1.28	-
PK	2.4156G	110.56	Inf	-Inf	31.57	3	Vertical	107	1.28	-
AV	2.4156G	101.28	Inf	-Inf	31.57	3	Vertical	107	1.28	-
PK	2.4848G	60.14	74.00	-13.86	31.73	3	Vertical	107	1.28	-
AV	2.4864G	48.53	54.00	-5.47	31.74	3	Vertical	107	1.28	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

15/08/2018



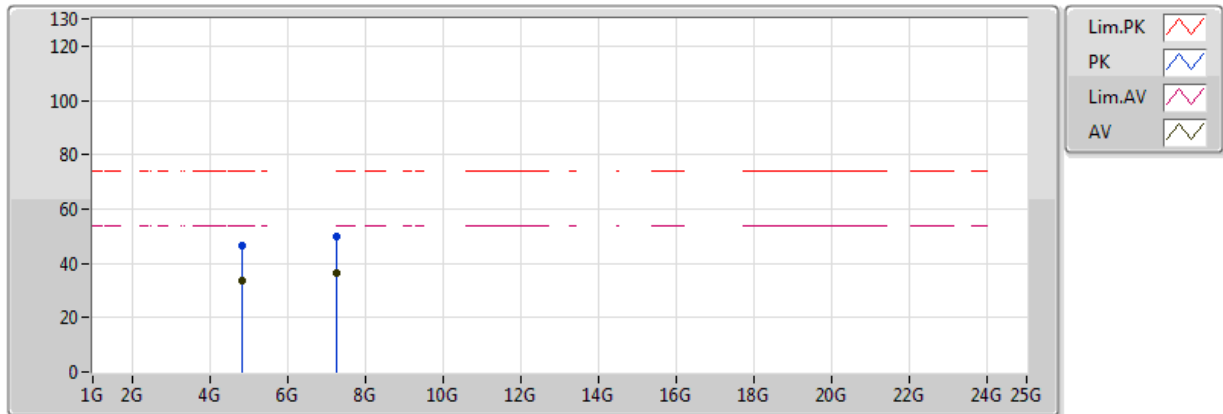
EUT_Z_4TX Dipole
Setting 54
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.8465G	47.31	74.00	-26.69	7.95	3	Vertical	246	1.58	-
AV	4.84253G	33.19	54.00	-20.81	7.94	3	Vertical	246	1.58	-
PK	7.26354G	48.95	74.00	-25.05	10.90	3	Vertical	285	1.03	-
AV	7.26436G	37.09	54.00	-16.91	10.90	3	Vertical	285	1.03	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

15/08/2018



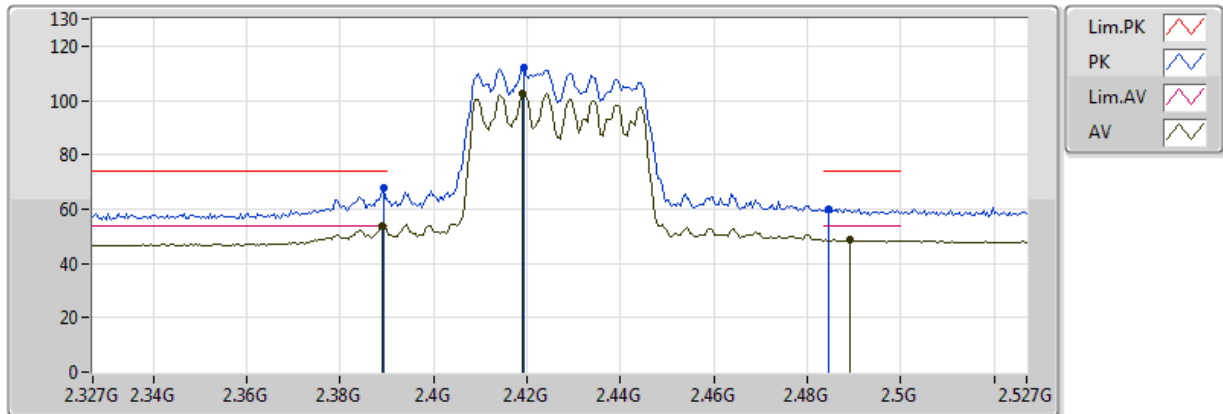
EUT_Z_4TX Dipole
Setting 54
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.84318G	46.27	74.00	-27.73	7.94	3	Horizontal	58	2.10	-
AV	4.84186G	33.57	54.00	-20.43	7.94	3	Horizontal	58	2.10	-
PK	7.2667G	49.69	74.00	-24.31	10.91	3	Horizontal	174	1.73	-
AV	7.2649G	36.17	54.00	-17.83	10.90	3	Horizontal	174	1.73	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2427MHz_TX

10/08/2018



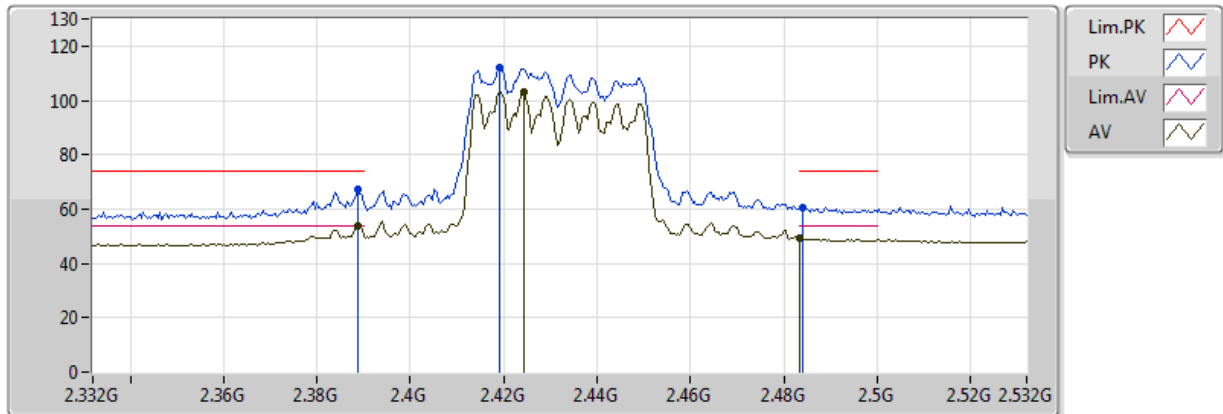
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Setting 54
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	67.58	74.00	-6.42	31.50	3	Vertical	278	1.38	-
AV	2.389G	53.97	54.00	-0.03	31.50	3	Vertical	278	1.38	-
PK	2.4194G	111.79	Inf	-Inf	31.58	3	Vertical	278	1.38	-
AV	2.419G	102.38	Inf	-Inf	31.58	3	Vertical	278	1.38	-
PK	2.4846G	59.98	74.00	-14.02	31.73	3	Vertical	278	1.38	-
AV	2.489G	48.69	54.00	-5.31	31.74	3	Vertical	278	1.38	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2432MHz_TX

10/08/2018



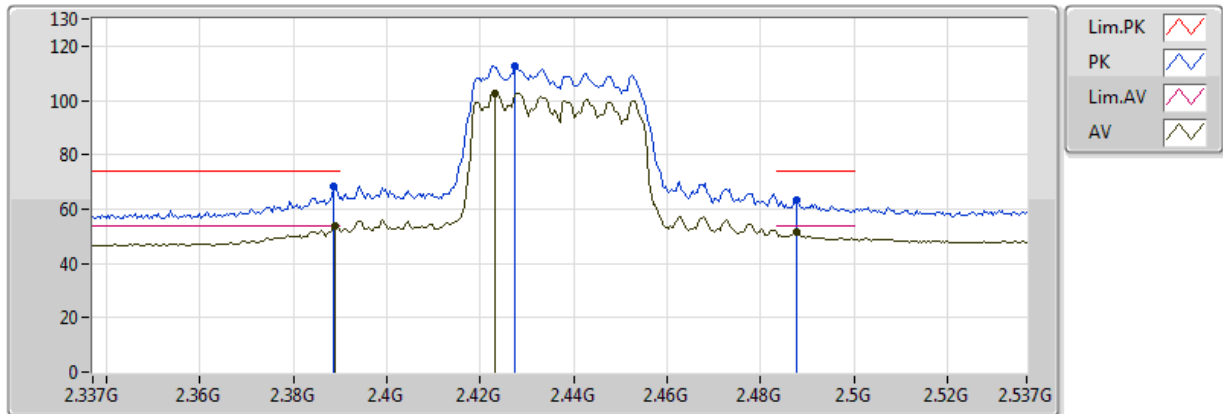
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Setting 55
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3888G	67.00	74.00	-7.00	31.50	3	Vertical	279	1.40	-
AV	2.3888G	53.86	54.00	-0.14	31.50	3	Vertical	279	1.40	-
PK	2.4192G	112.04	Inf	-Inf	31.58	3	Vertical	279	1.40	-
AV	2.4244G	103.21	Inf	-Inf	31.59	3	Vertical	279	1.40	-
PK	2.484G	60.75	74.00	-13.25	31.73	3	Vertical	279	1.40	-
AV	2.483502G	49.41	54.00	-4.59	31.73	3	Vertical	279	1.40	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

13/08/2018



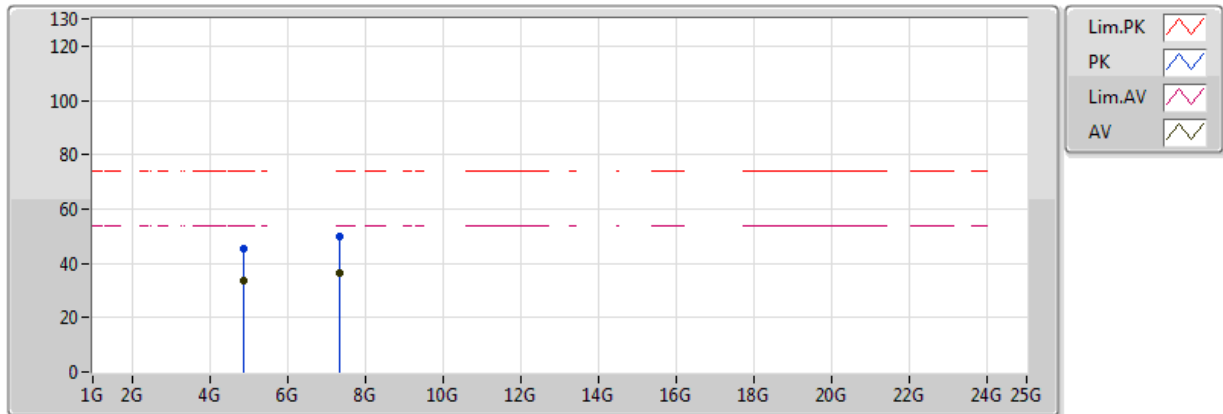
EUT_Z_4TX Dipole
Setting 63
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3886G	68.26	74.00	-5.74	31.50	3	Vertical	205	1.51	-
AV	2.389G	53.76	54.00	-0.24	31.50	3	Vertical	205	1.51	-
PK	2.4274G	112.51	Inf	-Inf	31.60	3	Vertical	205	1.51	-
AV	2.423G	102.74	Inf	-Inf	31.59	3	Vertical	205	1.51	-
PK	2.4878G	63.53	74.00	-10.47	31.74	3	Vertical	205	1.51	-
AV	2.4878G	51.36	54.00	-2.64	31.74	3	Vertical	205	1.51	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

15/08/2018



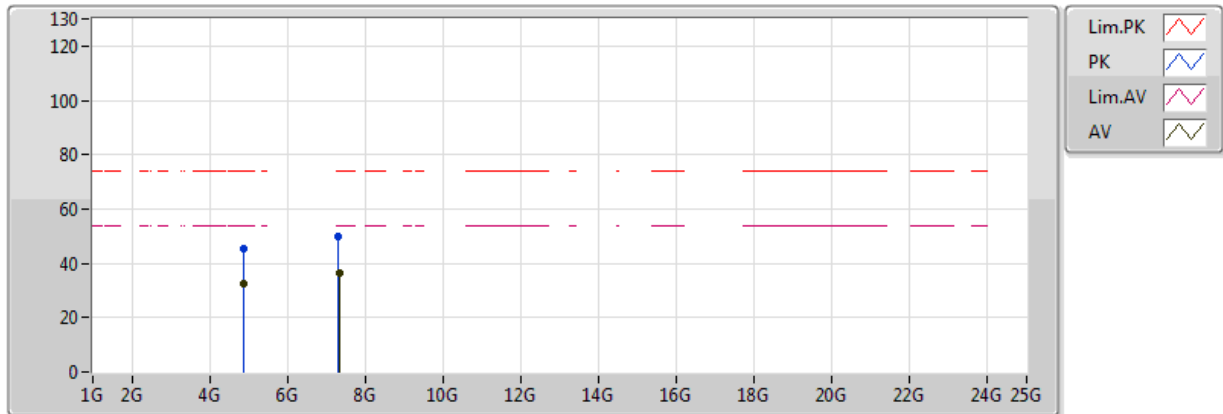
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Setting 63
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87952G	45.28	74.00	-28.72	8.02	3	Vertical	114	2.21	-
AV	4.87325G	33.51	54.00	-20.49	8.01	3	Vertical	114	2.21	-
PK	7.33691G	49.86	74.00	-24.14	11.06	3	Vertical	30	1.61	-
AV	7.32957G	36.67	54.00	-17.33	11.05	3	Vertical	30	1.61	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

15/08/2018



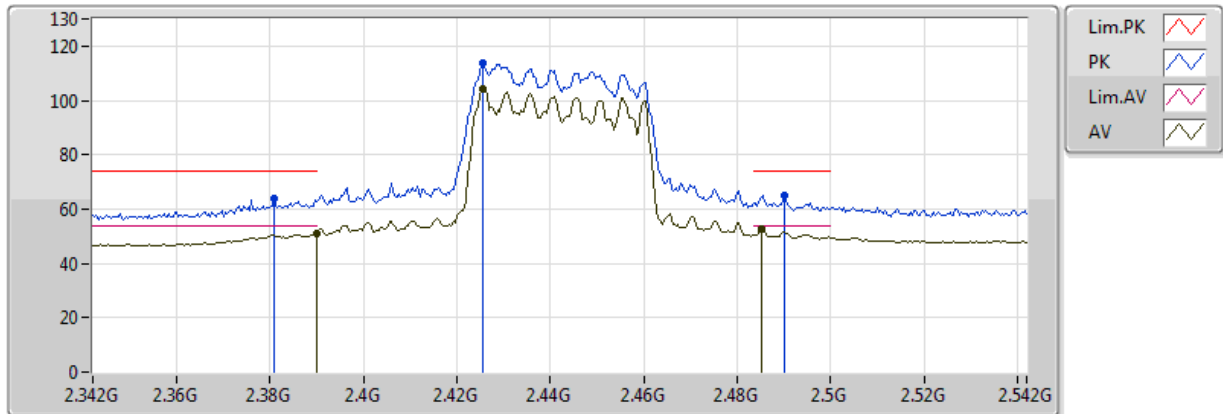
EUT_Z_4TX Dipole
Setting 63
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.89344G	45.65	74.00	-28.35	8.06	3	Horizontal	99	1.16	-
AV	4.8856G	32.28	54.00	-21.72	8.04	3	Horizontal	99	1.16	-
PK	7.31369G	49.63	74.00	-24.37	11.02	3	Horizontal	37	1.66	-
AV	7.3376G	36.53	54.00	-17.47	11.06	3	Horizontal	37	1.66	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2442MHz_TX

10/08/2018



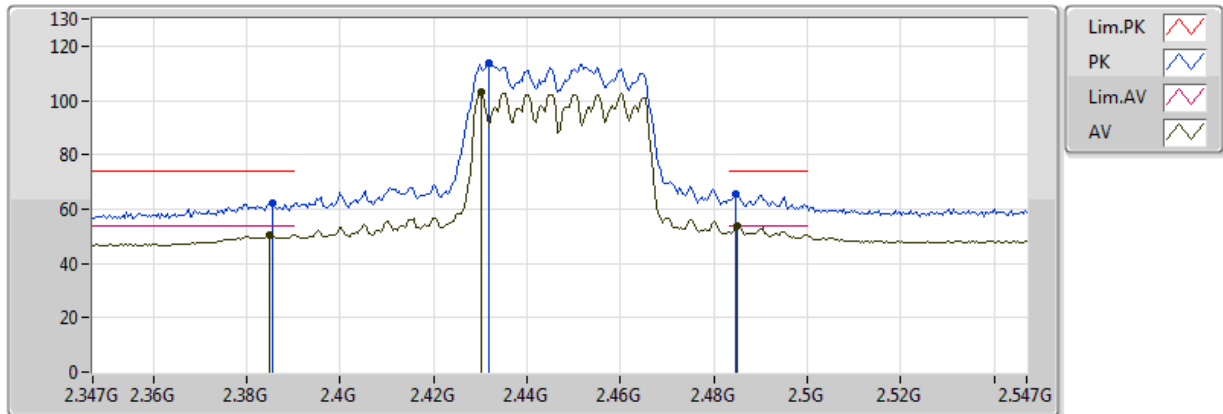
EUT_Z_4TX Dipole
Setting 63
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3808G	63.78	74.00	-10.22	31.48	3	Vertical	118	1.50	-
AV	2.389998G	50.89	54.00	-3.11	31.50	3	Vertical	118	1.50	-
PK	2.4256G	113.67	Inf	-Inf	31.59	3	Vertical	118	1.50	-
AV	2.4256G	104.19	Inf	-Inf	31.59	3	Vertical	118	1.50	-
PK	2.49G	64.82	74.00	-9.18	31.74	3	Vertical	118	1.50	-
AV	2.4852G	52.72	54.00	-1.28	31.73	3	Vertical	118	1.50	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2447MHz_TX

10/08/2018



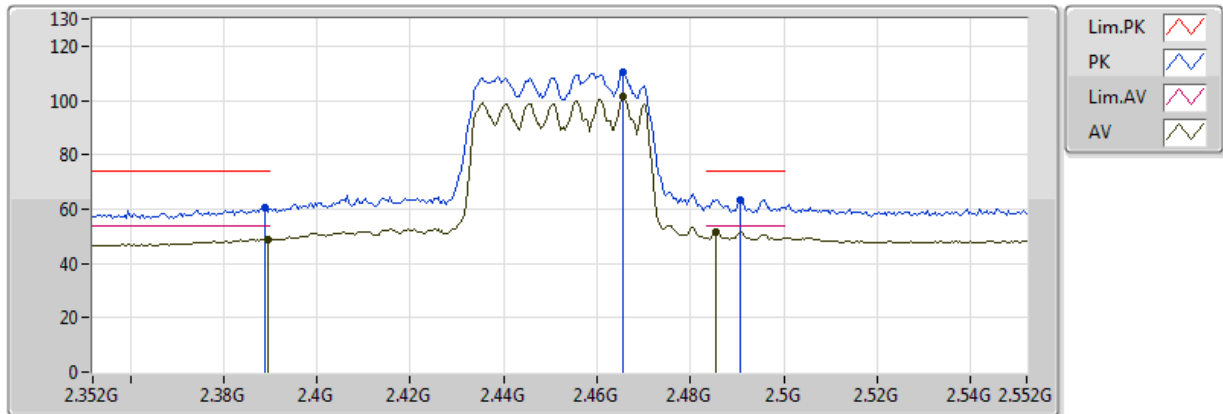
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Setting 61
02-K-3
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3854G	62.20	74.00	-11.80	31.49	3	Vertical	237	1.38	-
AV	2.385G	50.54	54.00	-3.46	31.49	3	Vertical	237	1.38	-
PK	2.4318G	113.59	Inf	-Inf	31.61	3	Vertical	237	1.38	-
AV	2.4302G	103.15	Inf	-Inf	31.60	3	Vertical	237	1.38	-
PK	2.4846G	65.76	74.00	-8.24	31.73	3	Vertical	237	1.38	-
AV	2.485G	53.97	54.00	-0.03	31.73	3	Vertical	237	1.38	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

02/08/2018



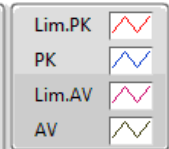
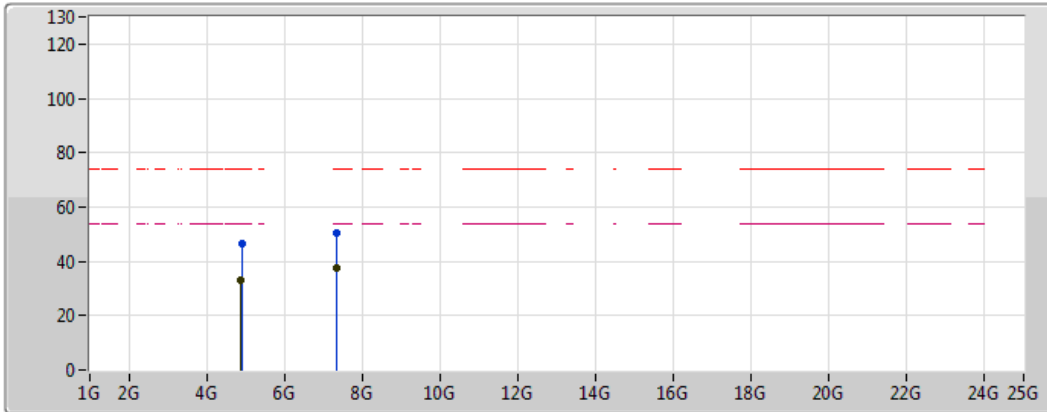
EUT_Z_4TX Dipole
Setting 53
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3888G	60.66	74.00	-13.34	31.50	3	Vertical	356	1.14	-
AV	2.3896G	48.93	54.00	-5.07	31.50	3	Vertical	356	1.14	-
PK	2.4656G	110.22	Inf	-Inf	31.69	3	Vertical	356	1.14	-
AV	2.4656G	101.28	Inf	-Inf	31.69	3	Vertical	356	1.14	-
PK	2.4908G	63.58	74.00	-10.42	31.74	3	Vertical	356	1.14	-
AV	2.4856G	51.71	54.00	-2.29	31.73	3	Vertical	356	1.14	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

02/08/2018



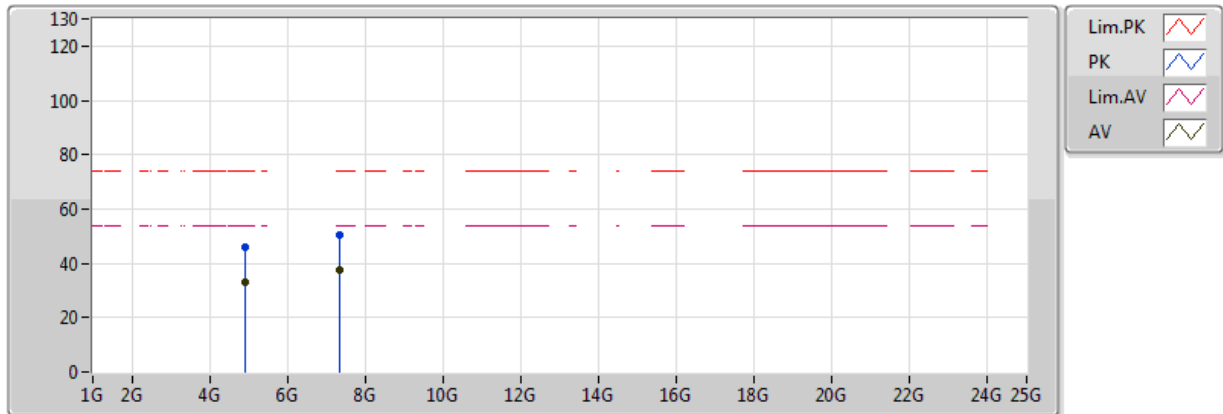
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Setting 53
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.91244G	46.40	74.00	-27.60	8.10	3	Vertical	240	1.96	-
AV	4.89428G	33.14	54.00	-20.86	8.06	3	Vertical	240	1.96	-
PK	7.34724G	50.71	74.00	-23.29	11.08	3	Vertical	166	1.54	-
AV	7.34732G	37.41	54.00	-16.59	11.08	3	Vertical	166	1.54	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

02/08/2018



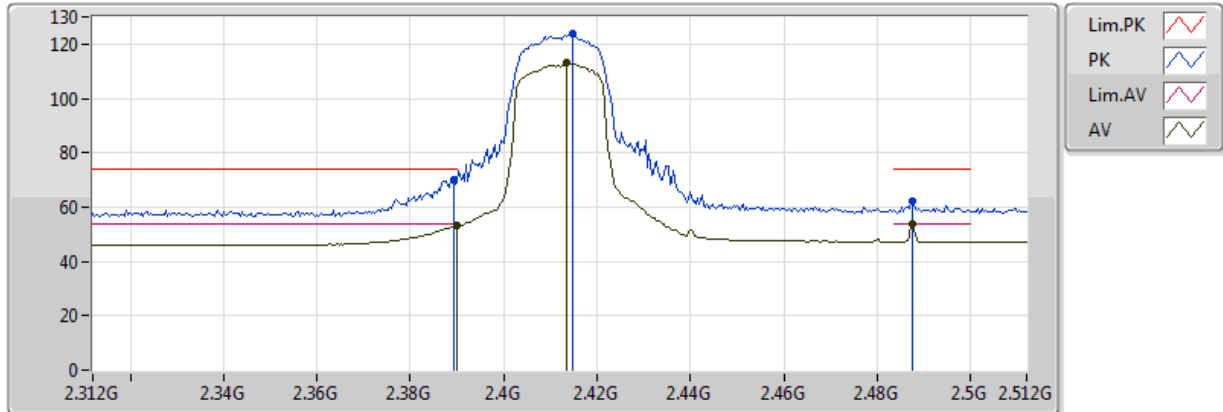
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Setting 53
02-R-5
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.90156G	46.07	74.00	-27.93	8.07	3	Horizontal	219	1.06	-
AV	4.91304G	33.00	54.00	-21.00	8.10	3	Horizontal	219	1.06	-
PK	7.34688G	50.37	74.00	-23.63	11.08	3	Horizontal	295	1.33	-
AV	7.35584G	37.64	54.00	-16.36	11.10	3	Horizontal	295	1.33	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

10/08/2018



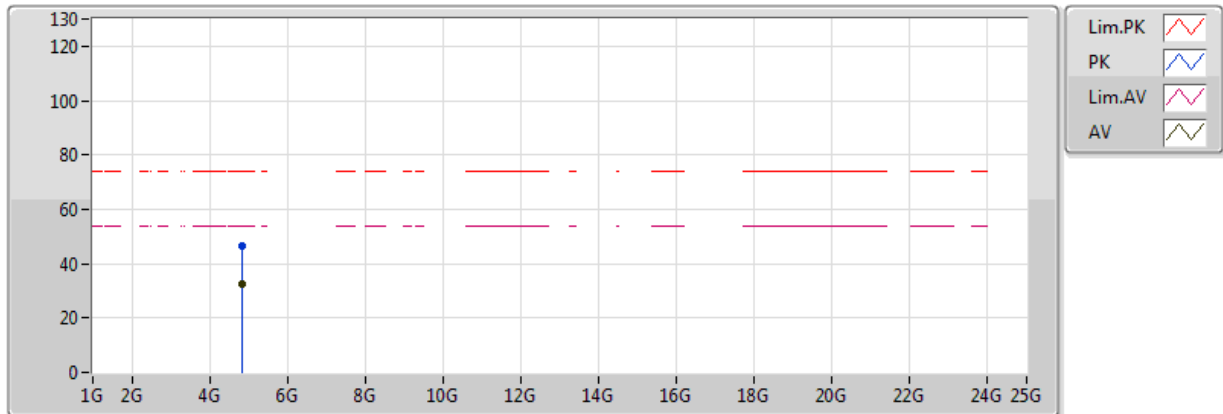
EUT Z_4TX Dipole
Setting 81
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3892G	69.94	74.00	-4.06	31.50	3	Vertical	234	1.50	-
AV	2.389998G	53.22	54.00	-0.78	31.50	3	Vertical	234	1.50	-
PK	2.4148G	123.68	Inf	-Inf	31.57	3	Vertical	234	1.50	-
AV	2.4136G	112.91	Inf	-Inf	31.56	3	Vertical	234	1.50	-
PK	2.4876G	62.02	74.00	-11.98	31.74	3	Vertical	234	1.50	-
AV	2.4876G	53.86	54.00	-0.14	31.74	3	Vertical	234	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

10/08/2018



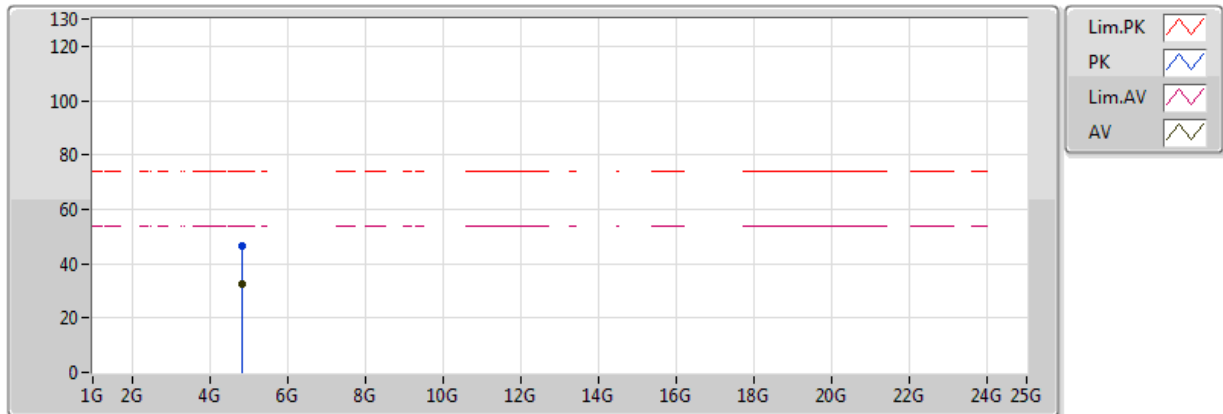
EUT_Z_4TX Dipole
Setting 81
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.83212G	46.59	74.00	-27.41	7.92	3	Vertical	248	2.95	-
AV	4.82396G	32.46	54.00	-21.54	7.90	3	Vertical	248	2.95	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

10/08/2018



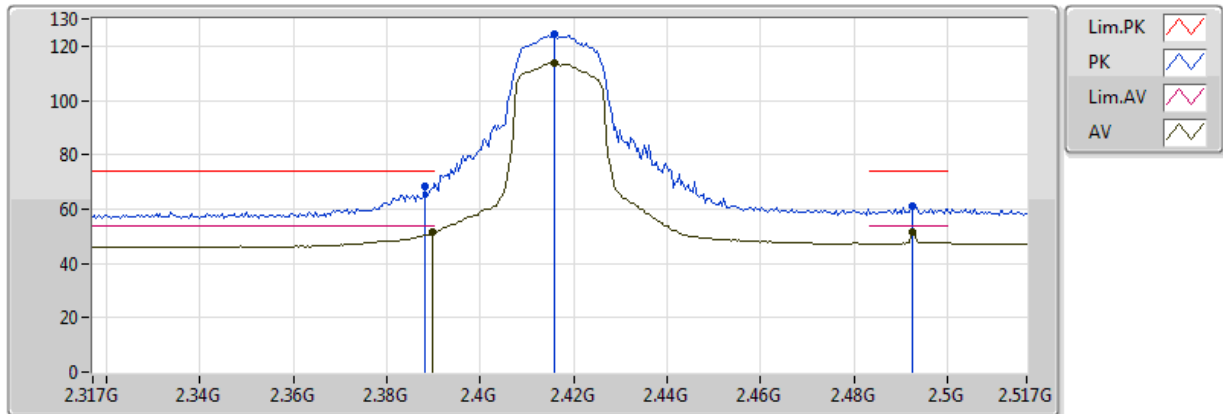
EUT_Z_4TX Dipole
Setting 81
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82132G	46.68	74.00	-27.32	7.90	3	Horizontal	217	1.50	-
AV	4.82608G	32.30	54.00	-21.70	7.91	3	Horizontal	217	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2417MHz_TX

10/08/2018



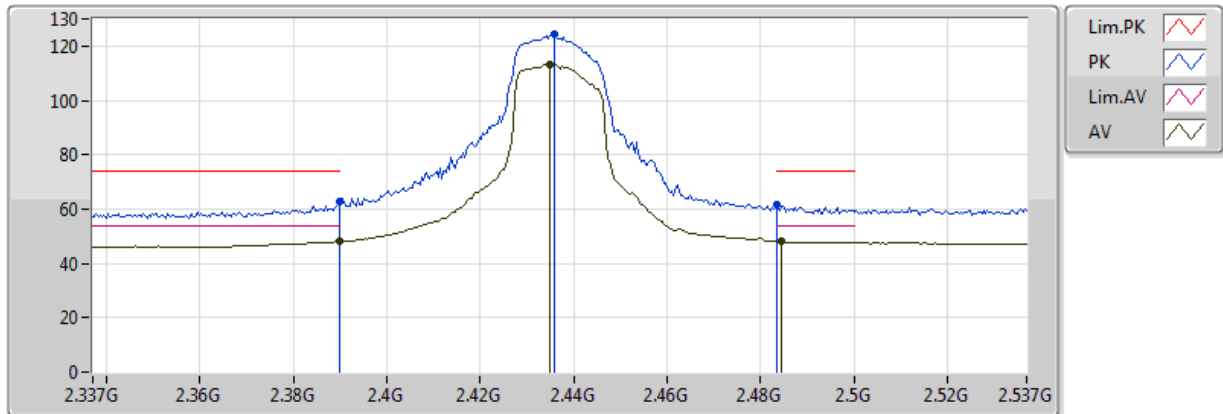
EUT_Z_4TX Dipole
Setting 85
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3882G	68.25	74.00	-5.75	31.50	3	Vertical	235	1.49	-
AV	2.3898G	51.66	54.00	-2.34	31.50	3	Vertical	235	1.49	-
PK	2.4158G	124.38	Inf	-Inf	31.57	3	Vertical	235	1.49	-
AV	2.4158G	113.84	Inf	-Inf	31.57	3	Vertical	235	1.49	-
PK	2.4926G	60.84	74.00	-13.16	31.76	3	Vertical	235	1.49	-
AV	2.4926G	51.77	54.00	-2.23	31.76	3	Vertical	235	1.49	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



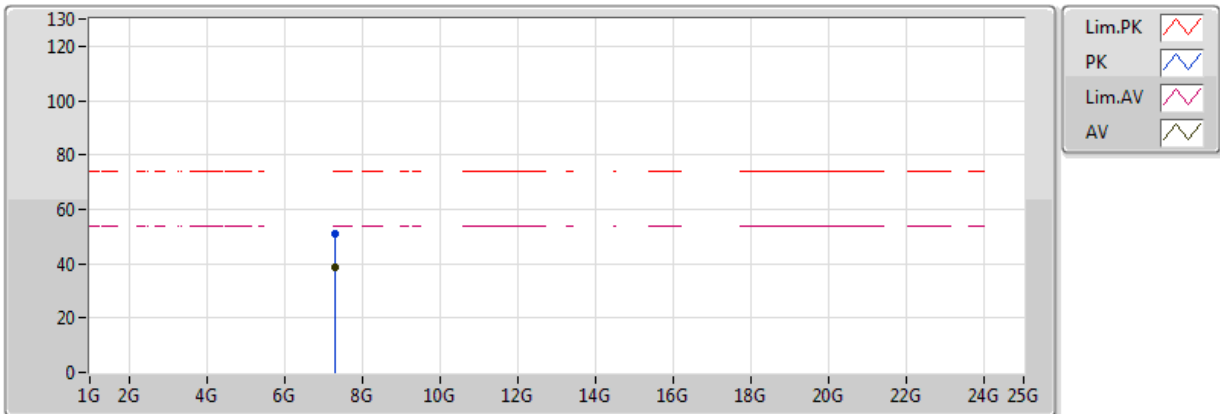
EUT_Z_4TX Dipole
Setting 85
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	62.51	74.00	-11.49	31.50	3	Vertical	205	1.50	-
AV	2.3898G	48.03	54.00	-5.97	31.50	3	Vertical	205	1.50	-
PK	2.4358G	124.39	Inf	-Inf	31.62	3	Vertical	205	1.50	-
AV	2.435G	113.44	Inf	-Inf	31.61	3	Vertical	205	1.50	-
PK	2.483502G	61.39	74.00	-12.61	31.73	3	Vertical	205	1.50	-
AV	2.4846G	47.99	54.00	-6.01	31.73	3	Vertical	205	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



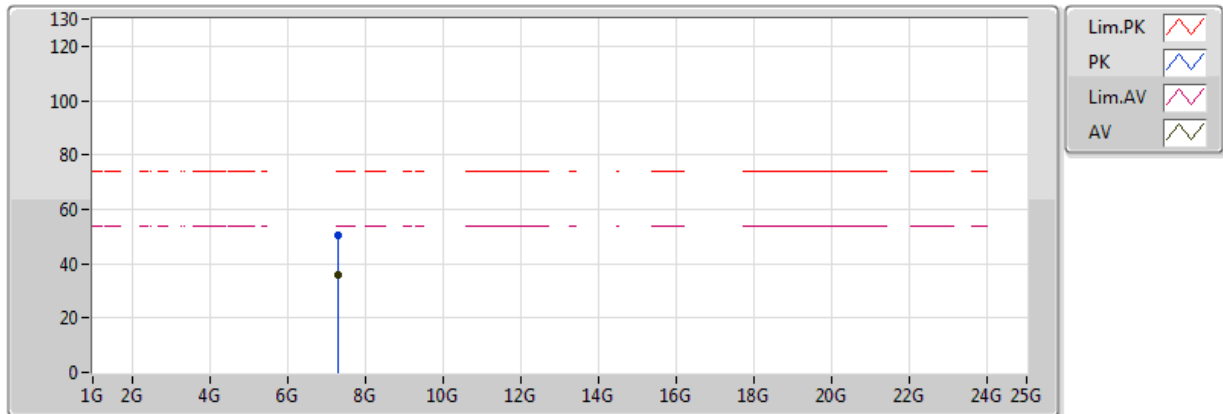
EUT_Z_4TX Dipole
Setting 85
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.31112G	50.80	74.00	-23.20	11.01	3	Vertical	311	2.46	-
AV	7.31092G	38.65	54.00	-15.35	11.01	3	Vertical	311	2.46	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



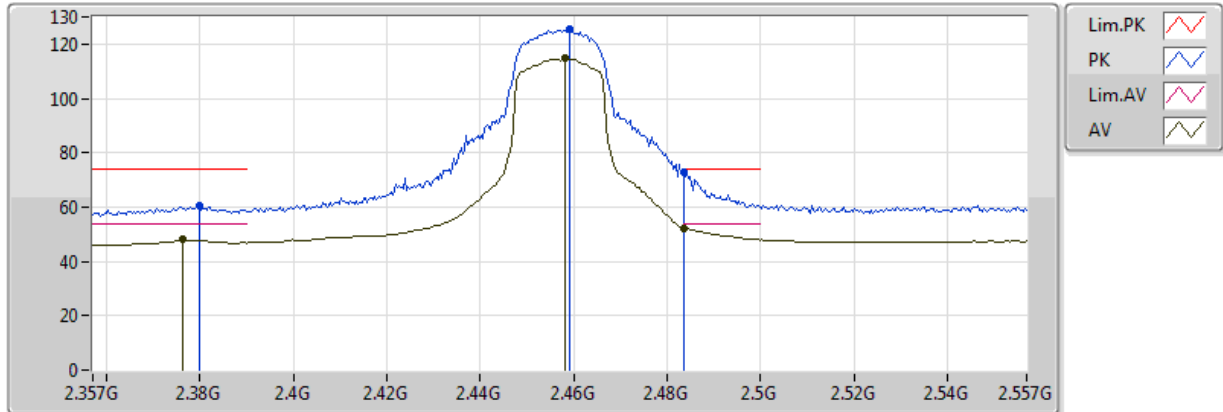
EUT_Z_4TX Dipole
Setting 85
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.31876G	50.17	74.00	-23.83	11.03	3	Horizontal	298	1.50	-
AV	7.31092G	35.84	54.00	-18.16	11.01	3	Horizontal	298	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2457MHz_TX

10/08/2018



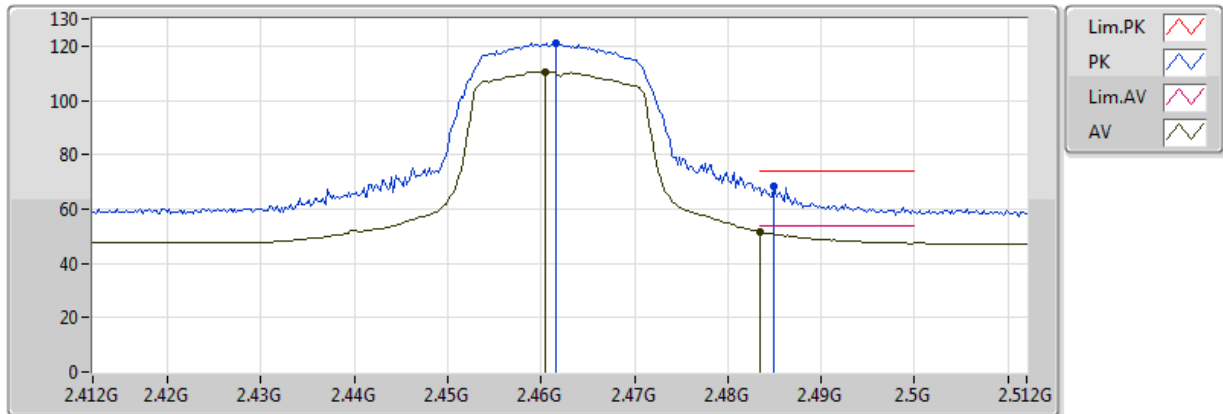
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Setting 85
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3798G	60.67	74.00	-13.33	31.48	3	Vertical	80	1.49	-
AV	2.3762G	47.94	54.00	-6.06	31.47	3	Vertical	80	1.49	-
PK	2.459G	125.32	Inf	-Inf	31.67	3	Vertical	80	1.49	-
AV	2.4582G	114.91	Inf	-Inf	31.67	3	Vertical	80	1.49	-
PK	2.483502G	73.06	74.00	-0.94	31.73	3	Vertical	80	1.49	-
AV	2.483502G	52.38	54.00	-1.62	31.73	3	Vertical	80	1.49	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

10/08/2018



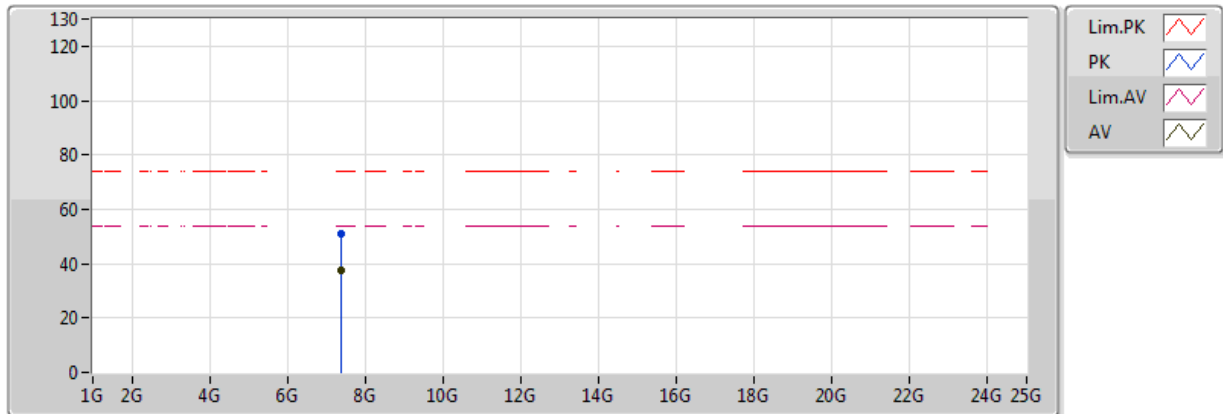
EUT_Z_4TX Dipole
Setting 70
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4616G	120.92	Inf	-Inf	31.68	3	Vertical	80	1.48	-
AV	2.4604G	110.55	Inf	-Inf	31.67	3	Vertical	80	1.48	-
PK	2.485G	68.18	74.00	-5.82	31.73	3	Vertical	80	1.48	-
AV	2.483502G	51.68	54.00	-2.32	31.73	3	Vertical	80	1.48	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

10/08/2018



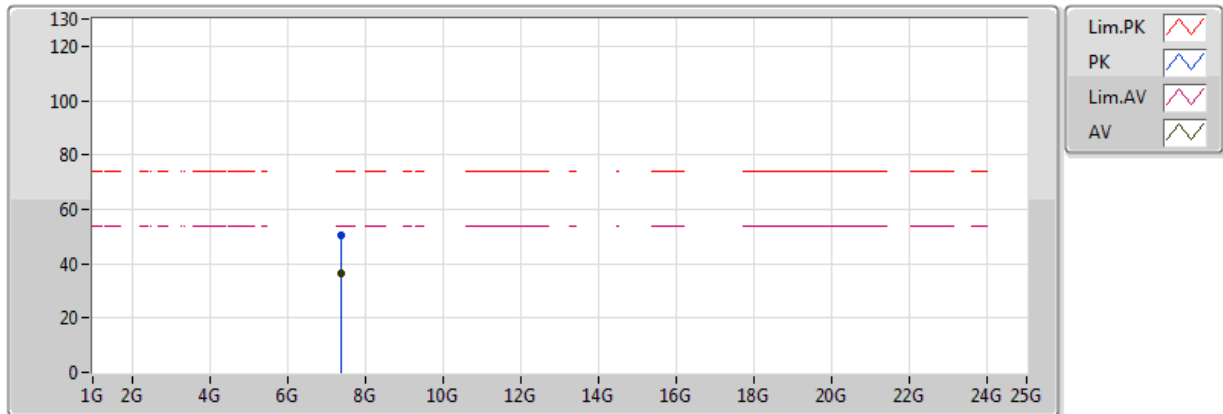
EUT_Z_4TX Dipole
Setting 70
02-R-4
FSU(100050)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	7.38568G	50.90	74.00	-23.10	11.15	3	Vertical	25	2.34	-
AV	7.38584G	37.47	54.00	-16.53	11.15	3	Vertical	25	2.34	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

10/08/2018



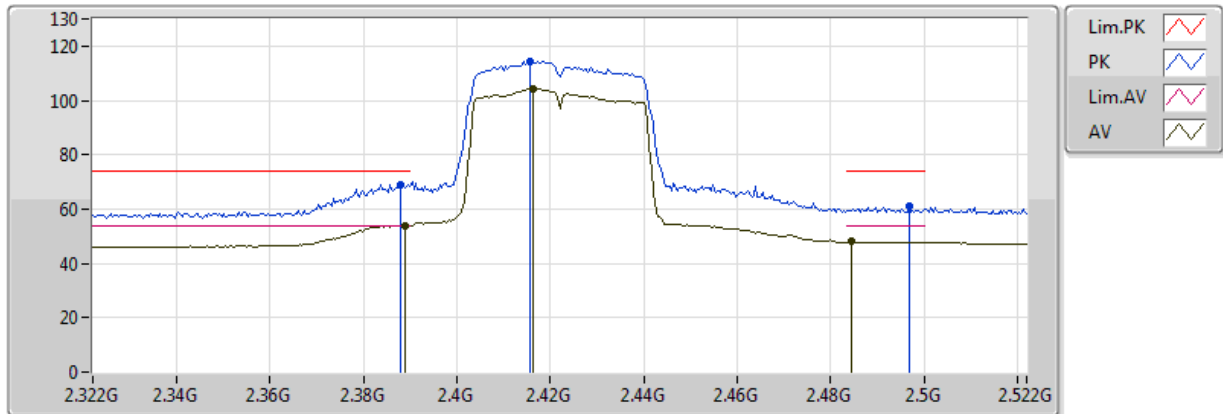
EUT_Z_4TX Dipole
Setting 70
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.3798G	50.48	74.00	-23.52	11.14	3	Horizontal	328	1.50	-
AV	7.39528G	36.17	54.00	-17.83	11.17	3	Horizontal	328	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

15/08/2018



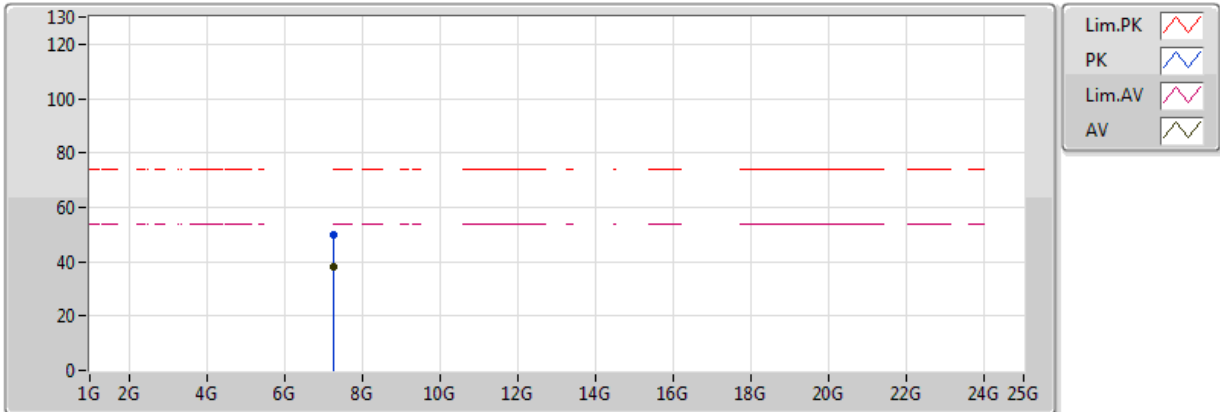
EUT_Z_4TX Dipole
Setting 52
02-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.388G	69.16	74.00	-4.84	31.50	3	Vertical	285	1.00	-
AV	2.3888G	53.94	54.00	-0.06	31.50	3	Vertical	285	1.00	-
PK	2.4156G	114.43	Inf	-Inf	31.57	3	Vertical	285	1.00	-
AV	2.4164G	104.25	Inf	-Inf	31.57	3	Vertical	285	1.00	-
PK	2.4968G	60.96	74.00	-13.04	31.76	3	Vertical	285	1.00	-
AV	2.4844G	47.99	54.00	-6.01	31.73	3	Vertical	285	1.00	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

15/08/2018



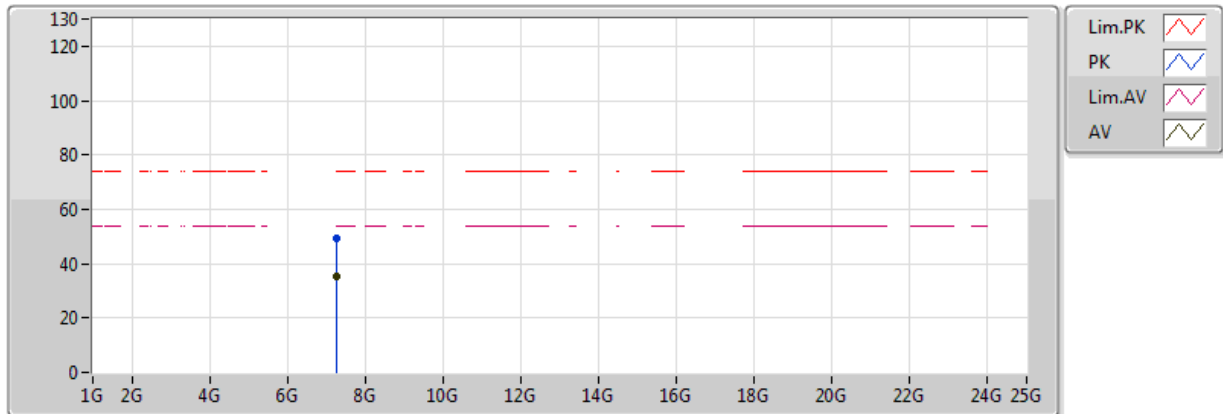
EUT_Z_4TX Dipole
Setting 52
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.26622G	49.93	74.00	-24.07	10.91	3	Vertical	313	2.33	-
AV	7.2659G	38.31	54.00	-15.69	10.90	3	Vertical	313	2.33	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

15/08/2018



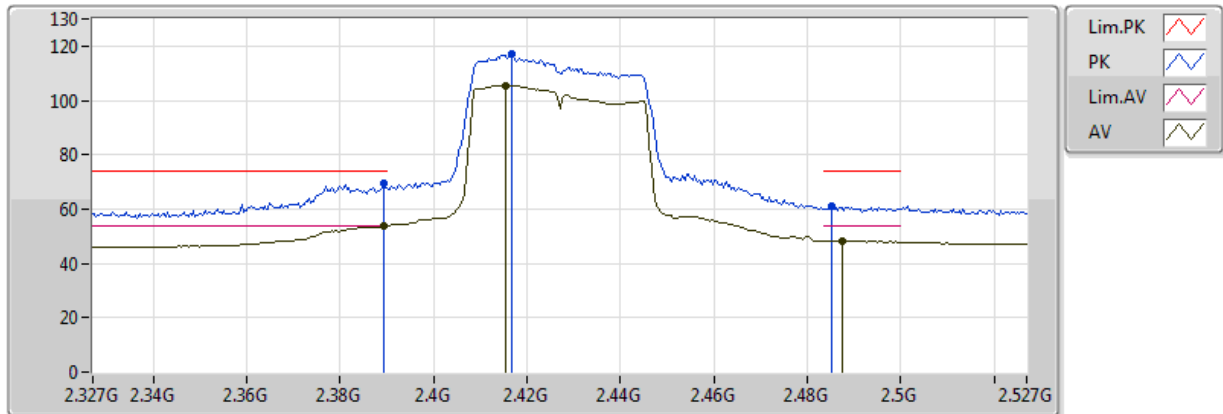
EUT_Z_4TX Dipole
Setting 52
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.26234G	49.39	74.00	-24.61	10.90	3	Horizontal	308	1.50	-
AV	7.26586G	35.25	54.00	-18.75	10.90	3	Horizontal	308	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2427MHz_TX

10/08/2018



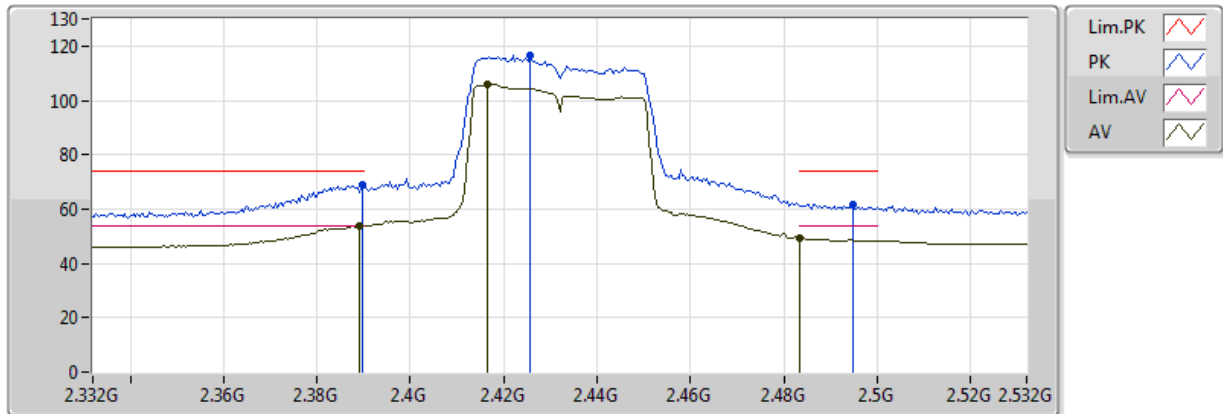
EUT_Z_4TX Dipole
Setting 62
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	69.21	74.00	-4.79	31.50	3	Vertical	234	1.47	-
AV	2.3894G	53.92	54.00	-0.08	31.50	3	Vertical	234	1.47	-
PK	2.4166G	116.91	Inf	-Inf	31.57	3	Vertical	234	1.47	-
AV	2.4154G	105.54	Inf	-Inf	31.57	3	Vertical	234	1.47	-
PK	2.4854G	61.25	74.00	-12.75	31.73	3	Vertical	234	1.47	-
AV	2.4874G	48.30	54.00	-5.70	31.74	3	Vertical	234	1.47	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2432MHz_TX

10/08/2018



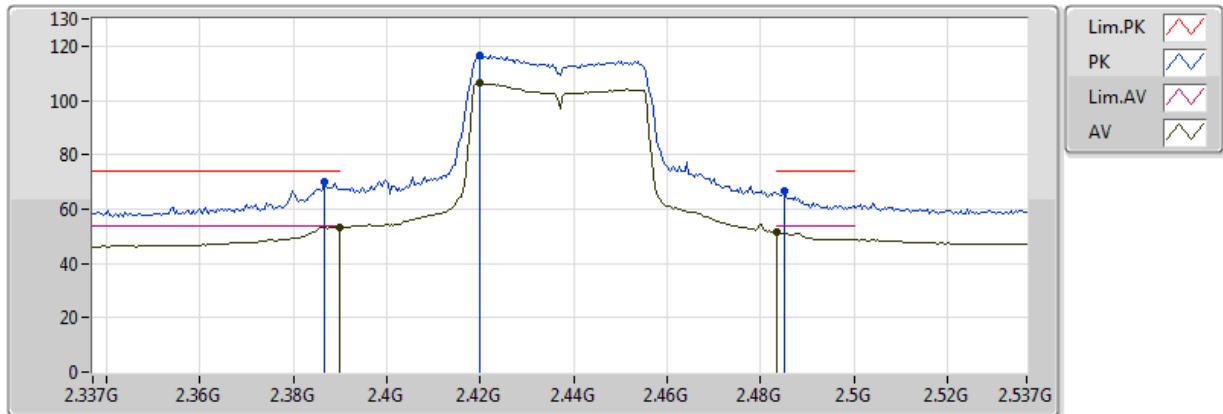
EUT_Z_4TX Dipole
Setting 62
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3896G	68.78	74.00	-5.22	31.50	3	Vertical	238	1.88	-
AV	2.3892G	53.81	54.00	-0.19	31.50	3	Vertical	238	1.88	-
PK	2.4256G	116.59	Inf	-Inf	31.59	3	Vertical	238	1.88	-
AV	2.4164G	105.87	Inf	-Inf	31.57	3	Vertical	238	1.88	-
PK	2.4948G	61.71	74.00	-12.29	31.76	3	Vertical	238	1.88	-
AV	2.483502G	49.35	54.00	-4.65	31.73	3	Vertical	238	1.88	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



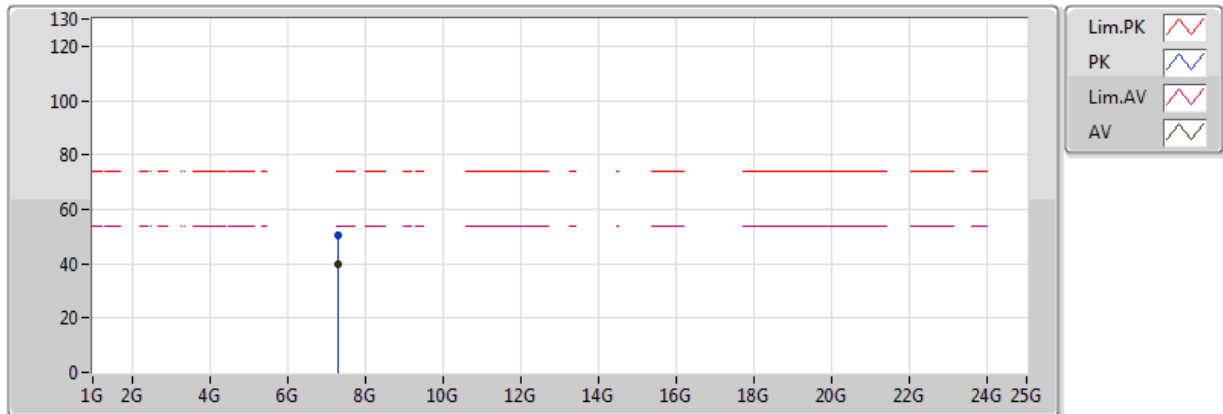
EUT_Z_4TX Dipole
Setting 68
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3866G	69.78	74.00	-4.22	31.49	3	Vertical	277	1.50	-
AV	2.3898G	53.38	54.00	-0.62	31.50	3	Vertical	277	1.50	-
PK	2.4198G	116.64	Inf	-Inf	31.58	3	Vertical	277	1.50	-
AV	2.4198G	106.33	Inf	-Inf	31.58	3	Vertical	277	1.50	-
PK	2.485G	66.60	74.00	-7.40	31.73	3	Vertical	277	1.50	-
AV	2.483502G	51.37	54.00	-2.63	31.73	3	Vertical	277	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



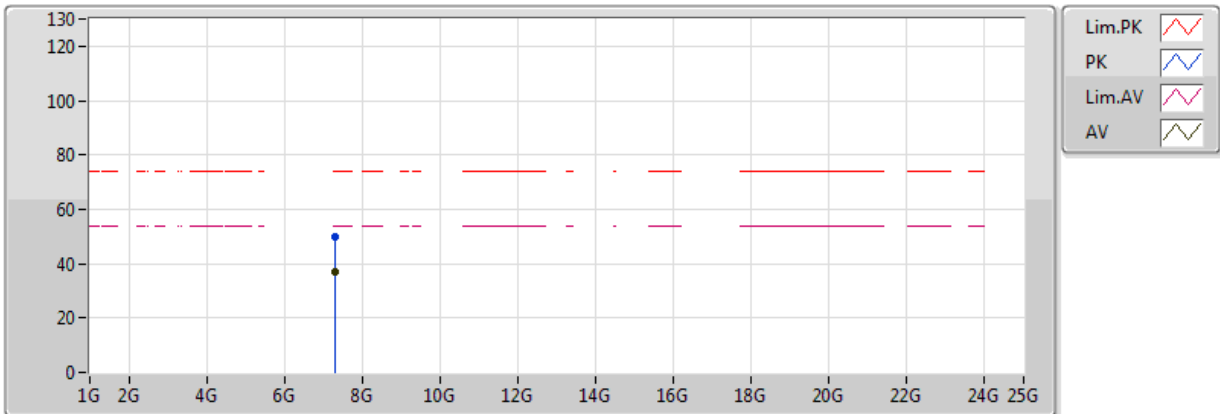
EUT_Z_4TX Dipole
Setting 68
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.31088G	50.67	74.00	-23.33	11.01	3	Vertical	313	2.56	-
AV	7.31092G	39.64	54.00	-14.36	11.01	3	Vertical	313	2.56	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

10/08/2018



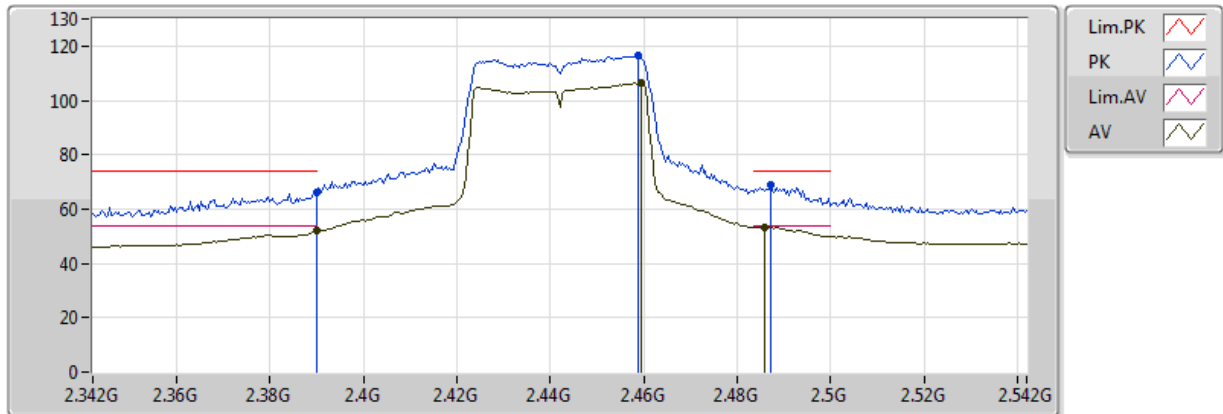
EUT_Z_4TX Dipole
Setting 68
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.30828G	50.05	74.00	-23.95	11.01	3	Horizontal	306	2.33	-
AV	7.31096G	36.88	54.00	-17.12	11.01	3	Horizontal	306	2.33	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2442MHz_TX

10/08/2018



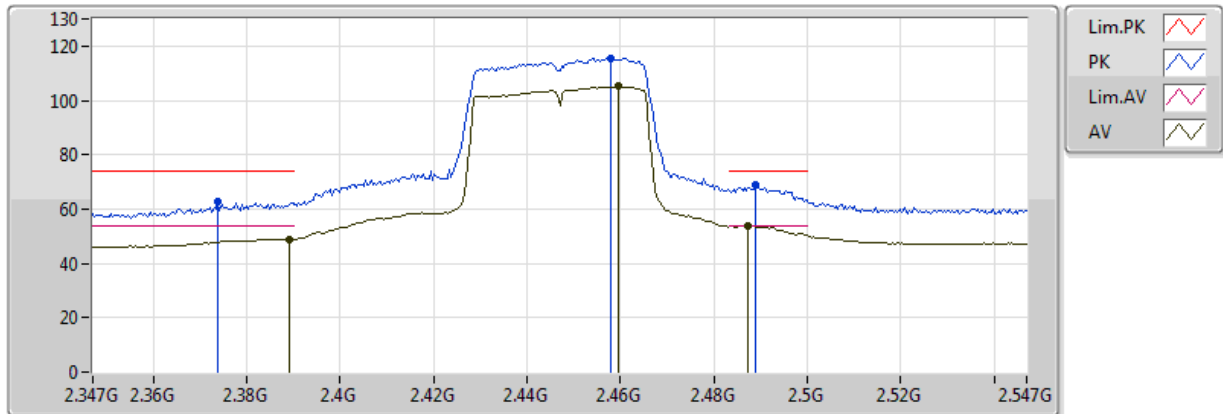
EUT_Z_4TX Dipole
Setting 68
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	66.14	74.00	-7.86	31.50	3	Vertical	82	1.46	-
AV	2.389998G	51.97	54.00	-2.03	31.50	3	Vertical	82	1.46	-
PK	2.4588G	116.63	Inf	-Inf	31.67	3	Vertical	82	1.46	-
AV	2.4596G	106.26	Inf	-Inf	31.67	3	Vertical	82	1.46	-
PK	2.4872G	69.01	74.00	-4.99	31.74	3	Vertical	82	1.46	-
AV	2.486G	53.39	54.00	-0.61	31.73	3	Vertical	82	1.46	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2447MHz_TX

10/08/2018



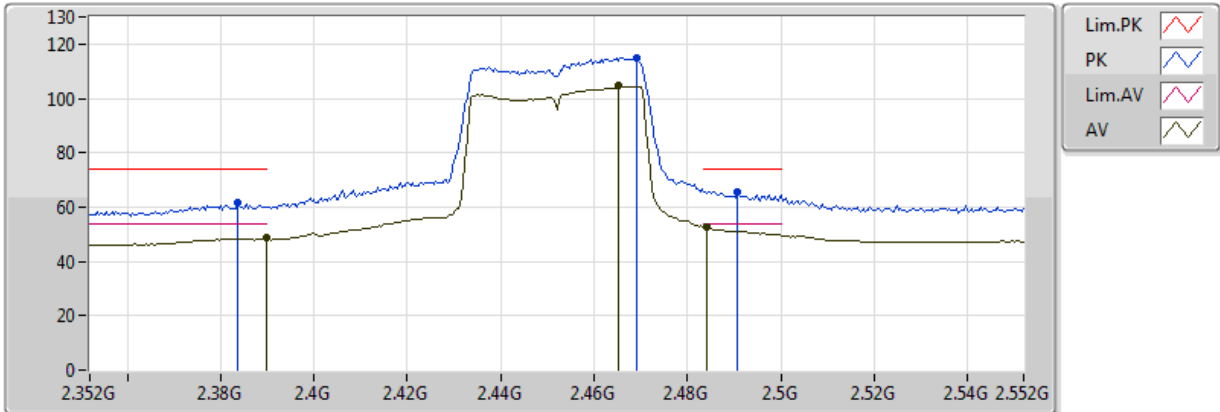
EUT_Z_4TX Dipole
Setting 63
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3738G	62.61	74.00	-11.39	31.46	3	Vertical	84	1.49	-
AV	2.389G	48.83	54.00	-5.17	31.50	3	Vertical	84	1.49	-
PK	2.4578G	115.67	Inf	-Inf	31.67	3	Vertical	84	1.49	-
AV	2.4594G	105.10	Inf	-Inf	31.67	3	Vertical	84	1.49	-
PK	2.489G	68.91	74.00	-5.09	31.74	3	Vertical	84	1.49	-
AV	2.4874G	53.80	54.00	-0.20	31.74	3	Vertical	84	1.49	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX

10/08/2018



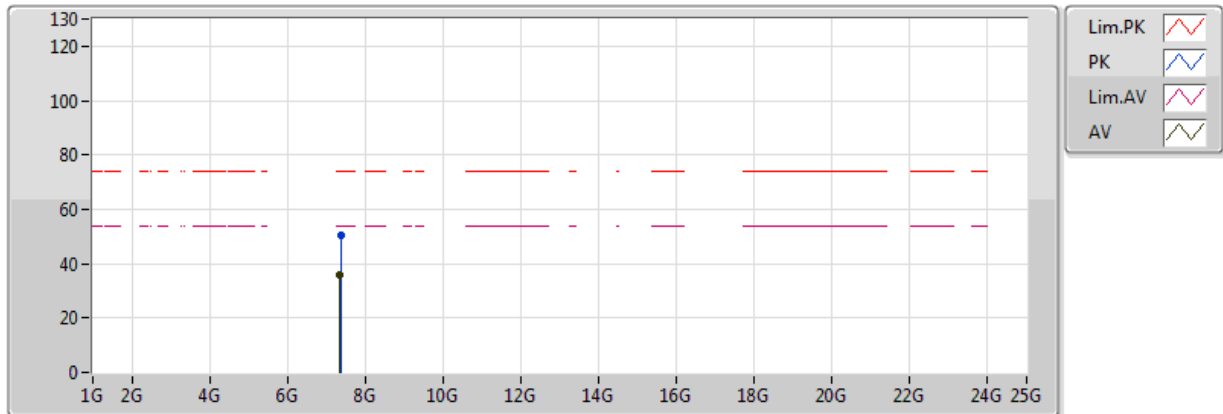
EUT_Z_4TX Dipole
Setting 57
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3836G	61.50	74.00	-12.50	31.49	3	Vertical	81	1.08	-
AV	2.389998G	48.48	54.00	-5.52	31.50	3	Vertical	81	1.08	-
PK	2.4692G	115.03	Inf	-Inf	31.70	3	Vertical	81	1.08	-
AV	2.4652G	104.52	Inf	-Inf	31.69	3	Vertical	81	1.08	-
PK	2.4908G	65.76	74.00	-8.24	31.74	3	Vertical	81	1.08	-
AV	2.484G	52.49	54.00	-1.51	31.73	3	Vertical	81	1.08	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX

10/08/2018



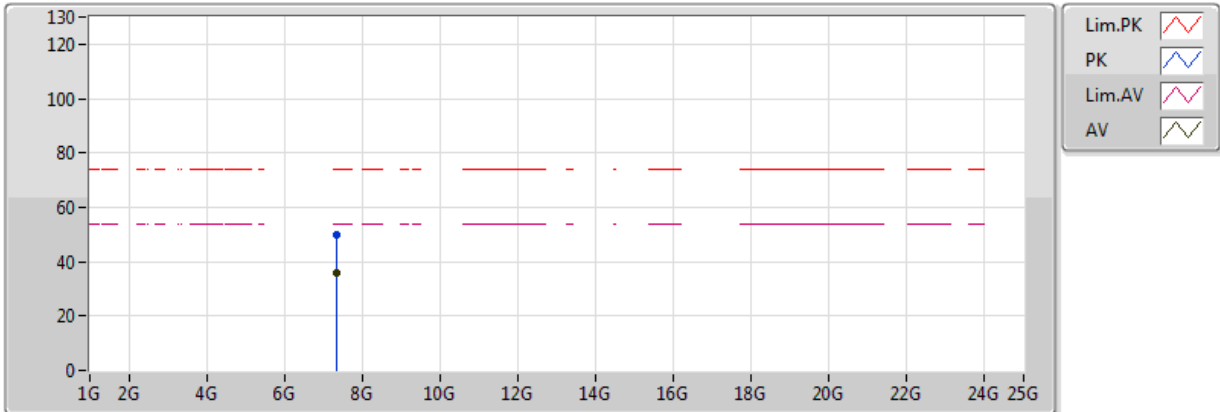
EUT_Z_4TX Dipole
Setting 57
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.36536G	50.23	74.00	-23.77	11.11	3	Vertical	34	1.50	-
AV	7.34792G	35.89	54.00	-18.11	11.08	3	Vertical	34	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX

10/08/2018



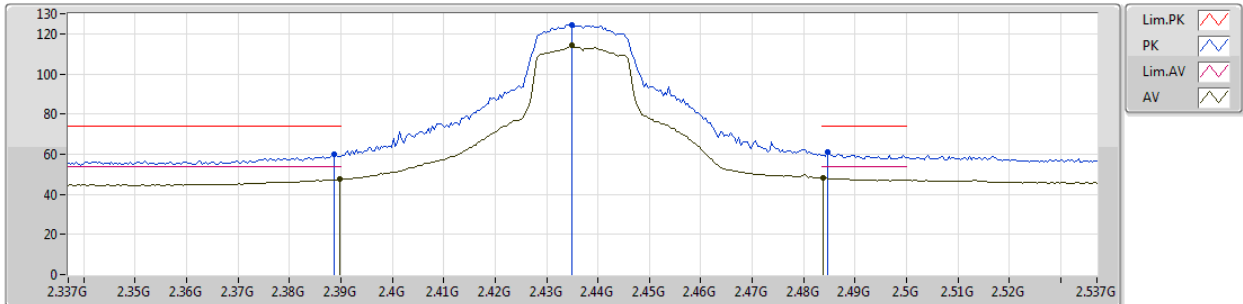
EUT_Z_4TX Dipole
Setting 57
02-R-4
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	7.35052G	49.86	74.00	-24.14	11.09	3	Horizontal	100	1.72	-
AV	7.35936G	35.90	54.00	-18.10	11.10	3	Horizontal	100	1.72	-

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



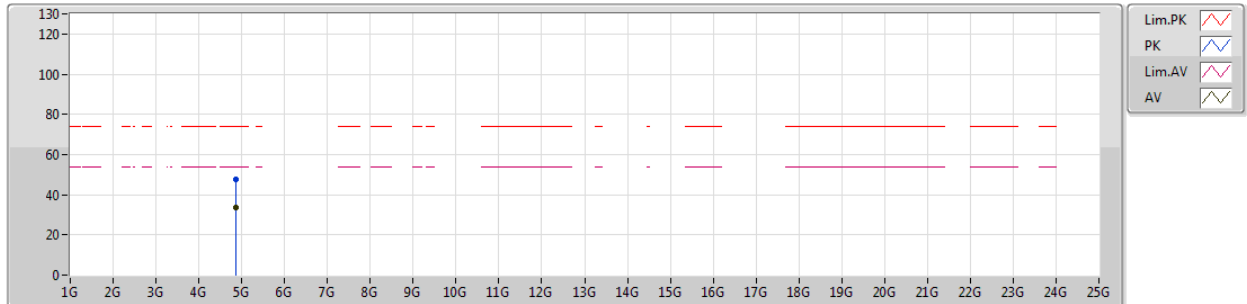
EUT Z_4TX Dipole
Setting 93
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3886G	59.94	74.00	-14.06	32.13	3	Vertical	220	1.02	-
AV	2.3898G	47.52	54.00	-6.48	32.13	3	Vertical	220	1.02	-
PK	2.435G	124.56	Inf	-Inf	32.26	3	Vertical	220	1.02	-
AV	2.435G	114.27	Inf	-Inf	32.26	3	Vertical	220	1.02	-
PK	2.4846G	61.31	74.00	-12.69	32.42	3	Vertical	220	1.02	-
AV	2.4838G	48.06	54.00	-5.94	32.42	3	Vertical	220	1.02	-

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



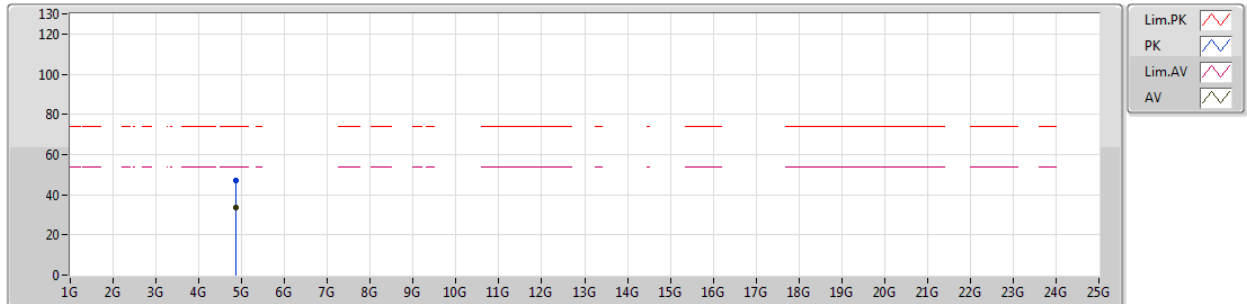
EUT_Z_4TX Dipole
Setting 93
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	4.87503G	47.88	74.00	-26.12	5.35	3	Vertical	258	1.97	-						
AV	4.87321G	33.84	54.00	-20.16	5.34	3	Vertical	258	1.97	-						

802.11ac VHT20-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



EUT_Z_4TX Dipole
Setting 93
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	4.87474G	47.32	74.00	-26.68	5.35	3	Horizontal	232	1.02	-						
AV	4.87233G	33.72	54.00	-20.28	5.33	3	Horizontal	232	1.02	-						



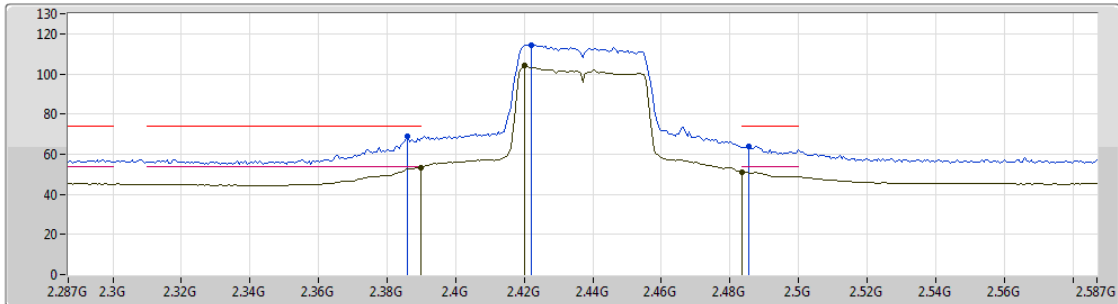
RSE TX above 1GHz Result

Appendix B.3

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



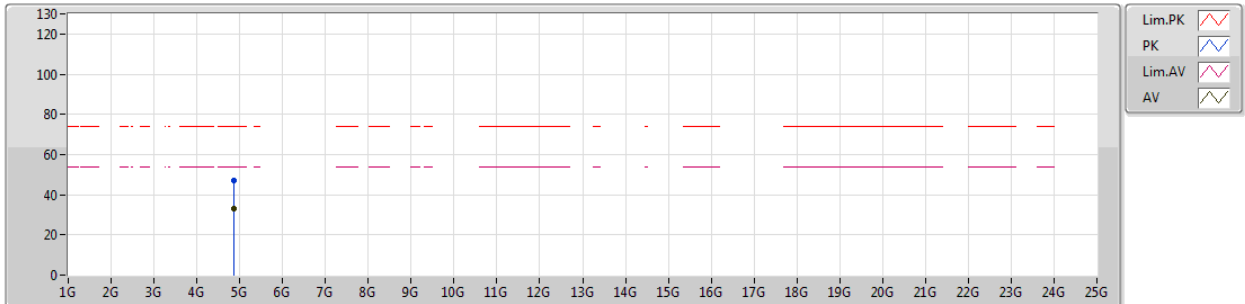
EUT Z_4TX Dipole
Setting 77
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.386G	68.87	74.00	-5.13	32.11	3	Vertical	121	1.00	-
AV	2.39G	53.50	54.00	-0.50	32.13	3	Vertical	121	1.00	-
PK	2.422G	114.20	Inf	-Inf	32.23	3	Vertical	121	1.00	-
AV	2.4202G	104.04	Inf	-Inf	32.22	3	Vertical	121	1.00	-
PK	2.4856G	63.69	74.00	-10.31	32.42	3	Vertical	121	1.00	-
AV	2.4835G	51.24	54.00	-2.76	32.42	3	Vertical	121	1.00	-

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



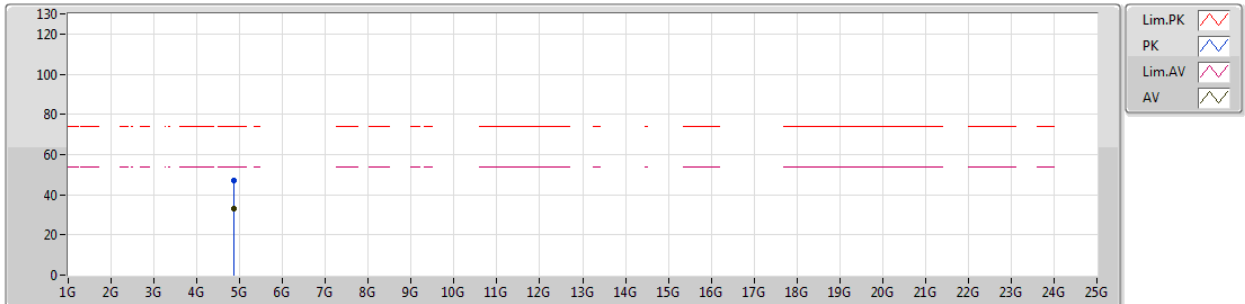
EUT Z_4TX Dipole
Setting 77
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	4.87165G	46.95	74.00	-27.05	5.33	3	Vertical	20	1.55	-						
AV	4.87249G	33.21	54.00	-20.79	5.33	3	Vertical	20	1.55	-						

802.11ac VHT40-BF_Nss2,(MCS0)_4TX

26/09/2018

2437MHz_TX



EUT Z_4TX Dipole
Setting 77
03-M-1
FSU(100050)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	4.87473G	47.21	74.00	-26.79	5.35	3	Horizontal	0	1.46	-						
AV	4.87187G	33.22	54.00	-20.78	5.33	3	Horizontal	0	1.46	-						