

FCC Test Report

Equipment : Wireless-AX6000 Dual Band Gigabit Router
Brand Name : ASUS
Model No. : RT-AX88U, RT-AX6000, RT-AX88P, RT-AX88R, RT-AX88A
FCC ID : MSQ-RTAXHP00
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant : ASUSTeK COMPUTER INC.
4F, No. 150, Li-Te Rd., Peitou, Taipei 112, Taiwan
Manufacturer (1) : Compal Networking (KunShan) Co., LTD.
No. 520, Nanbang Rd., Economic & Technical
Development Zone Kunshan, Jiangsu Province
China
Manufacturer (2) : ASKEY TECHNOLOGY (JIANG SU) LTD
NO1388, Jiao Tong Road, Wujiang Economic
Technological Development Area Jiangsu Province
215200 China

The product sample received on Dec. 18, 2017 and completely tested on Feb. 01, 2018. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	8
1.3	Testing Location Information	8
1.4	Measurement Uncertainty	8
2	TEST CONFIGURATION OF EUT	9
2.1	Test Channel Mode	9
2.2	The Worst Case Measurement Configuration.....	11
2.3	EUT Operation during Test	12
2.4	Accessories	13
2.5	Support Equipment.....	14
2.6	Test Setup Diagram	15
3	TRANSMITTER TEST RESULT	18
3.1	AC Power-line Conducted Emissions	18
3.2	DTS Bandwidth	20
3.3	Maximum Conducted Output Power	21
3.4	Power Spectral Density	24
3.5	Emissions in Non-restricted Frequency Bands	26
3.6	Emissions in Restricted Frequency Bands.....	27
4	TEST EQUIPMENT AND CALIBRATION DATA	31
APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS		
APPENDIX B. TEST RESULTS OF DTS BANDWIDTH		
APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER		
APPENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY		
APPENDIX E. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS		
APPENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS		
APPENDIX G. TEST RESULTS OF RADIATED EMISSION CO-LOCATION		
APPENDIX H. TEST PHOTOS		
PHOTOGRAPHS OF EUT V01		

Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
FAX : 886-3-3270973
FCC ID: MSQ-RTAXHP00

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), ax (HE20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40), ax (HE40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	4TX
2.4-2.4835GHz	802.11g	20	4TX
2.4-2.4835GHz	802.11n HT20	20	4TX
2.4-2.4835GHz	802.11ac VHT20	20	4TX
2.4-2.4835GHz	802.11ax HE20	20	4TX
2.4-2.4835GHz	802.11n HT40	40	4TX
2.4-2.4835GHz	802.11ac VHT40	40	4TX
2.4-2.4835GHz	802.11ax HE20	40	4TX

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.
- ♦ HE20, HE40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Set	2.4G Port	5G Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	2	M.gear	C660-510411-A	Dipole Antenna	Reverse SMA Plug	Note 1
	2	1					
	3	4					
	4	3					
2	-		PSA	RFDPA171300SBLB820	Dipole Antenna	Reverse SMA Plug	

Note1:

Set	2.4G Port	5G Port	Gain (dBi)		
			2.4GHz	5GHz Band 1	5GHz Band 4
1	1	2	1.94	2.33	1.94
	2	1			
	3	4			
	4	3			
2	-		1.85	2.24	1.86

Note2: The EUT has two sets of antennas because set 1 & set 2 are the same type antennas, only the higher gain antenna "set 1" was tested..

<For 2.4GHz Band>

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

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

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

<For 5GHz Band>

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

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.983	0.074	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.986	0.061	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT20	0.982	0.079	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40	0.983	0.074	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HE20	0.986	0.061	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HE40	0.983	0.074	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming 802.11n/ac/ax in 5GHz	☐	Without beamforming
Test Software Version	accessMTool_3_0_0_5			

1.1.5 Table for Multiple Listing

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

Model Name	Description
RT-AX88U	All the models are identical, the different model names served as marketing strategy.
RT-AX6000	
RT-AX88P	
RT-AX88R	
RT-AX88A	

From the above models, model: RT-AX88U was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for SKU information

EUT No.	SUK No. / Brand Name	P/N
1	SUK 1 / SWAPnet	NS604804
2	SUK 2 / Mingtek	HN4821CG

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

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 v04
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Stim Sung & Serway Lin	20°C / 50%	Feb. 01, 2018
Radiated below 1GHz	03CH01-CB	Cola Fan	22°C / 54%	Jan. 29, 2018
Radiated above 1GHz	03CH01-CB	Cola Fan	22°C / 54%	Dec. 18, 2017 ~ Jan. 31, 2018
AC Conduction	CO01-CB	Max Lin	21°C / 56%	Jan. 31, 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
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_4TX	-
2412MHz	86
2437MHz	87
2462MHz	88
802.11g_Nss1,(6Mbps)_4TX	-
2412MHz	90
2417MHz	92
2437MHz	95
2457MHz	96
2462MHz	88
802.11ac VHT20_Nss1,(MCS0)_4TX	-
2412MHz	72
2417MHz	86
2422MHz	94
2437MHz	96
2452MHz	96
2457MHz	88
2462MHz	84
802.11ac VHT40_Nss1,(MCS0)_4TX	-
2422MHz	67
2427MHz	67
2432MHz	74
2437MHz	80
2452MHz	78
HE20_Nss1,(MCS0)_4TX	-
2412MHz	74
2417MHz	86
2422MHz	92
2437MHz	95
2452MHz	95
2457MHz	92
2462MHz	84
HE40_Nss1,(MCS0)_4TX	-



Mode	Power Setting
2422MHz	64
2427MHz	68
2432MHz	68
2437MHz	77
2452MHz	78

Note:

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

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
	The EUT has two SKUs and equips with adapter 1 ~ adapter 4. After evaluated, EUT 1 (SKU1) + adapter 1 generated the worst test result, thus the measurement test will follow this same test
1	Master (AP) Mode - EUT 1 (SKU1) + Adapter 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
1	Master (AP) Mode - EUT 1 (SKU1) + Adapter 2

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	Normal Link
	The EUT has two SKUs and equips with adapter 1 ~ adapter 4. After evaluated, EUT 1 (SKU1) + adapter 3 generated the worst test result, thus the measurement test will follow this same test configuration.
1	Master (AP) Mode - EUT 1 (SKU1) + Adapter 3
Operating Mode > 1GHz	CTX
1	EUT 1 (SKU1) in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	EUT 1 (SKU1) in Z axis - WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1 (SKU1) - WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA780707 for Co-location RF Exposure Evaluation.	

Note:

1. The EUT supports master mode (AP mode) and only be used at Z axis.

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	type	Rating
Adapter 1	DELTA	ADP-45BW B	-	INPUT: 100-240V ~ 1.2A, 50-60Hz OUTPUT: 19V, 2.37A
Adapter 2	PI	AD883J20	010K-7LF	INPUT: 100-240V ~ 50/60Hz, 1.0A OUTPUT: 19V, 2.37A
Adapter 3	PI	AD2066320	010-1LF	INPUT: 100-240V ~ 50/60Hz, 1.0A OUTPUT: 19V, 2.37A
Adapter 4	DELTA	ADP-45BW Y	-	INPUT: 100-240V ~ 50-60Hz, 1.2A OUTPUT: 19V, 2.37A
Other				
RJ-45 cable*1, Non-shielded, 1.5m				

Note1: The power adapter does not affect the test result of RF tests, so DTS Bandwidth, Maximum Conducted Output Power, Power Spectral Density, Emissions in Non-restricted Frequency Bands and Radiated measurement above 1GHz only test adapter 2 and recorded in this report.

Note2: All adapters test for AC power-line conducted emissions and Radiated measurement below 1GHz.

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*5	DELL	E6430	DoC
2	Flash disk 3.0	Transcend	604108 8255	DoC
3	Flash disk 3.0	Transcend	604108 8255	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E4300	DoC
2	NB*2	Apple	Mac Book	DoC
3	Flash disk3.0	Silicon Power	B06	DoC
4	Flash disk3.0	Silicon Power	B06	DoC

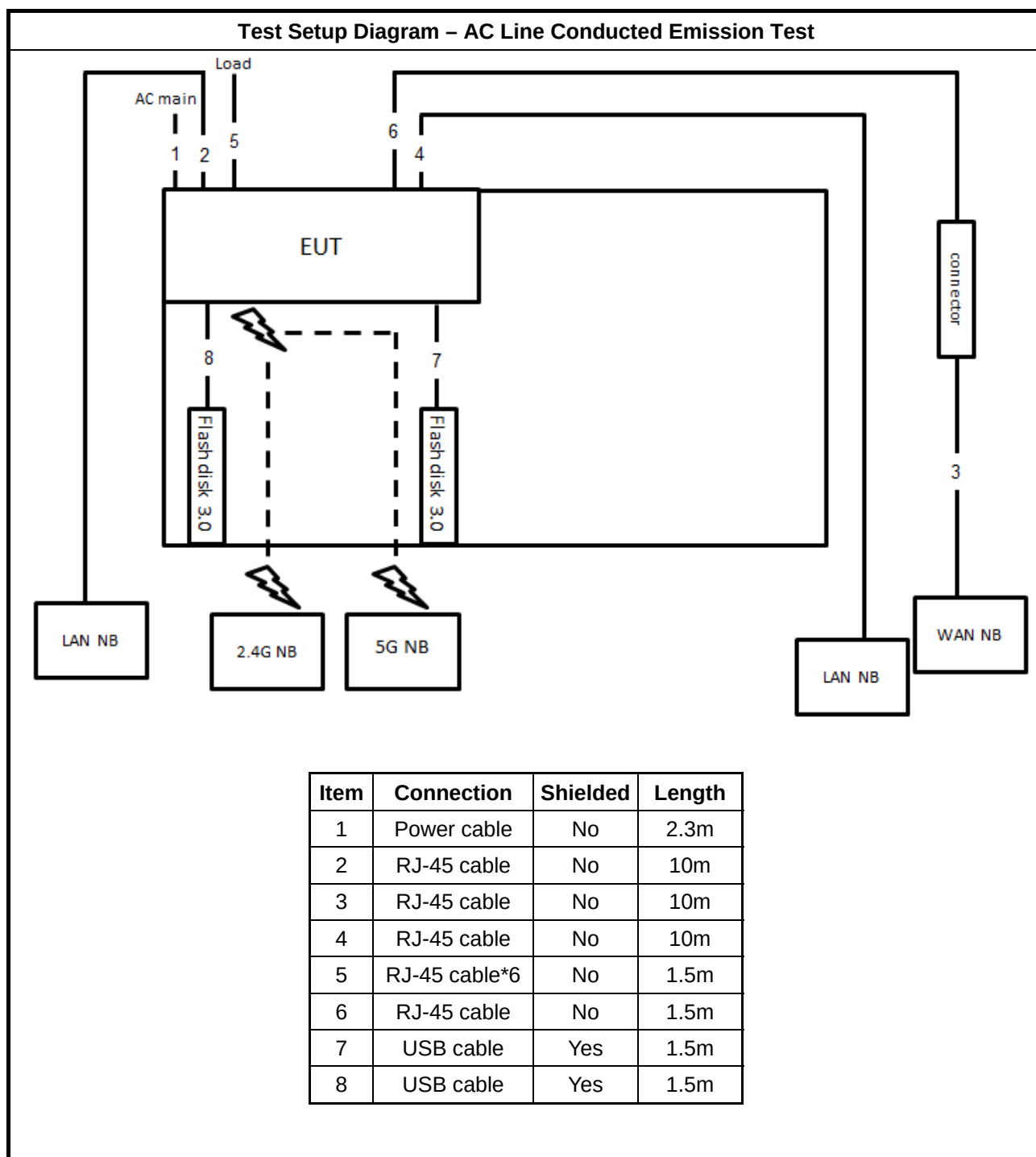
For Test Site No: 03CH01-CB (above 1GHz)

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

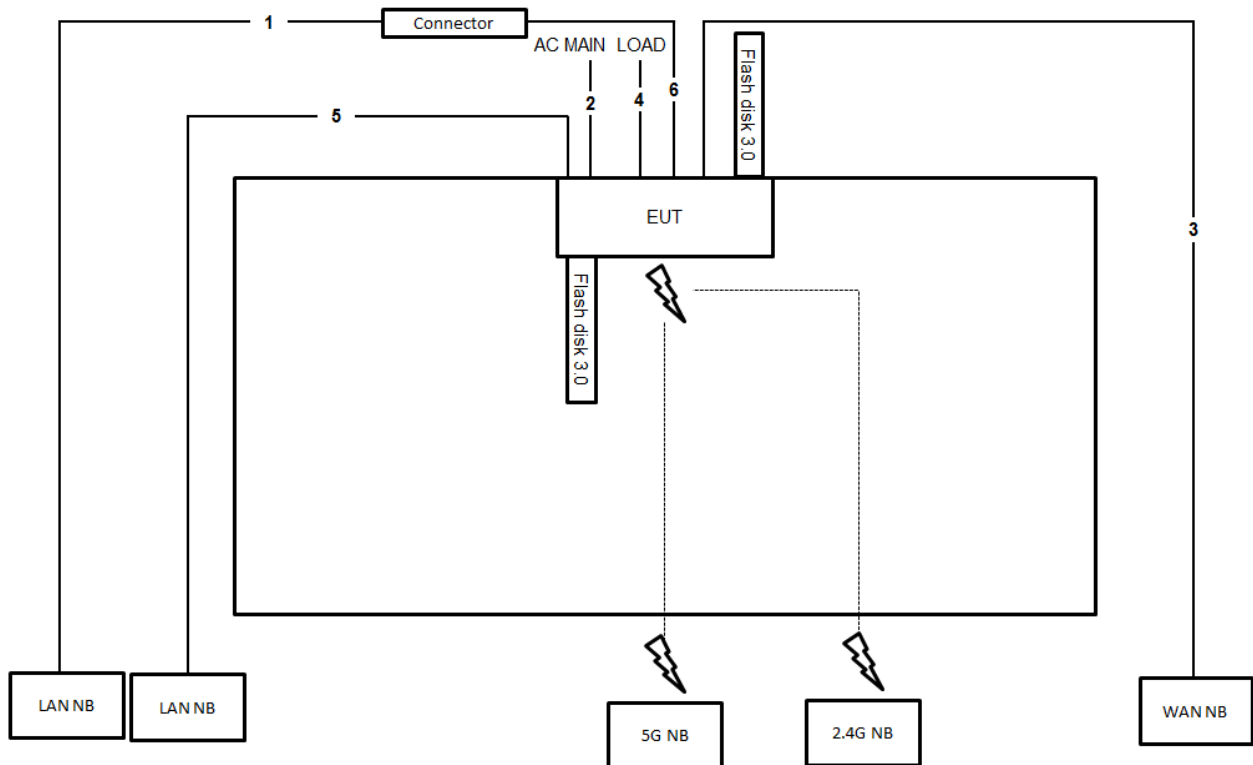
For Test Site No: TH01-CB

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

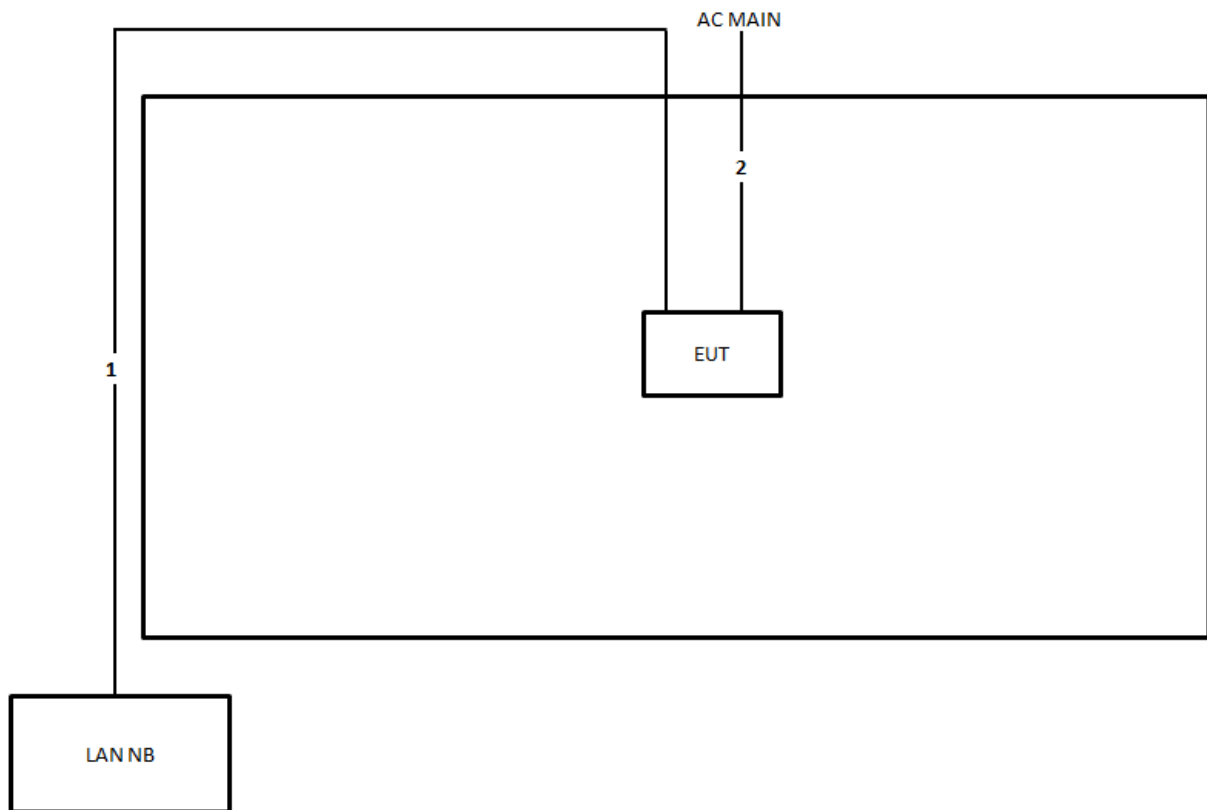
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.3m
3	RJ-45 cable	No	10m
4	RJ-45 cable*5	No	1.5m
5	RJ-45 cable	No	10m
6	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz


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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

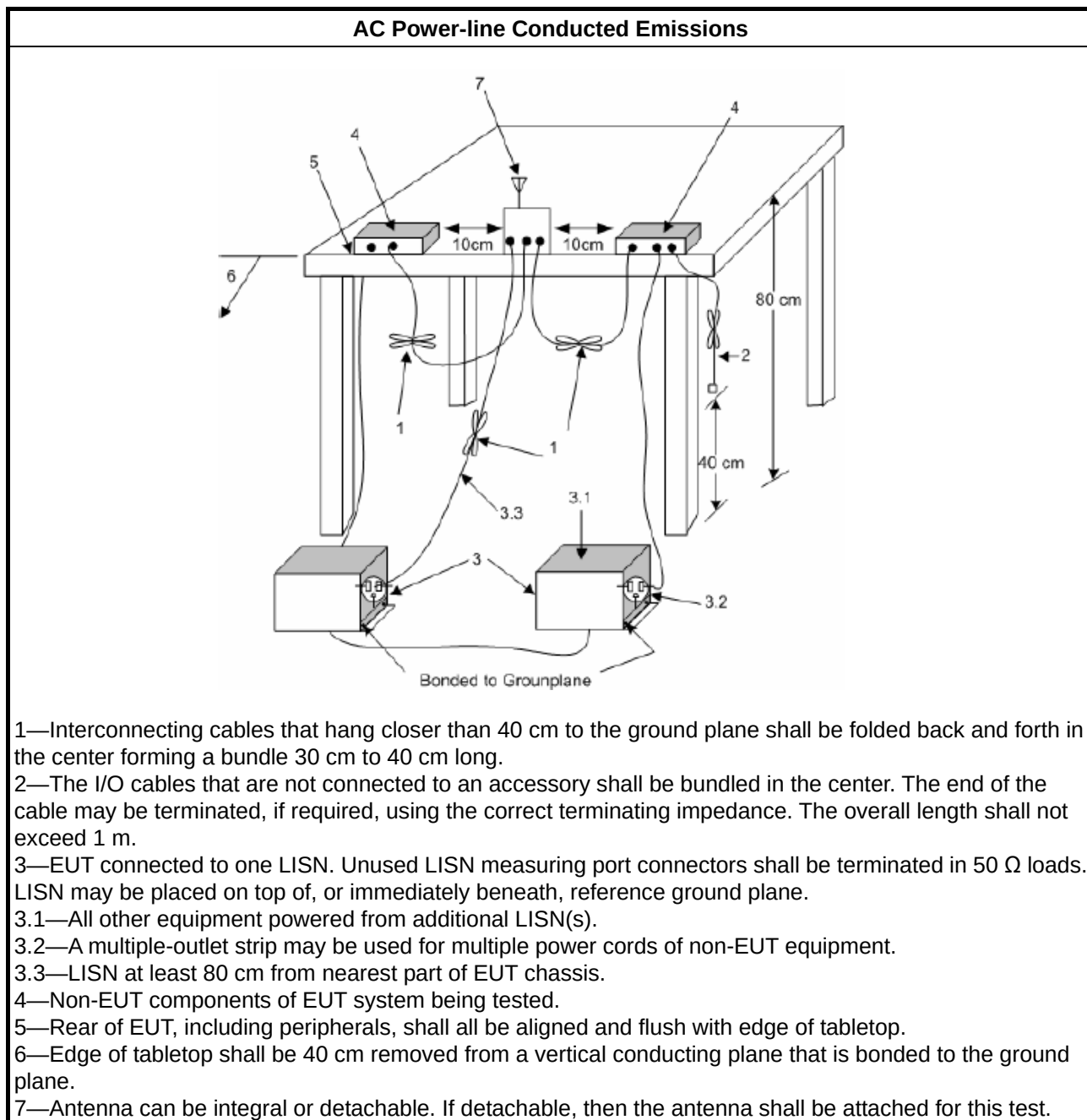
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

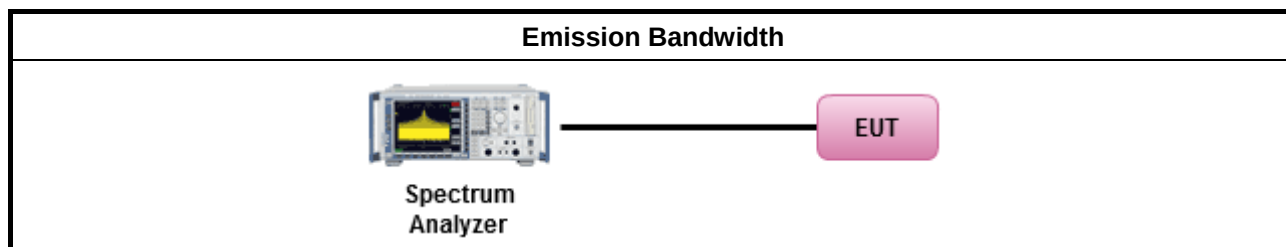
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ 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.	

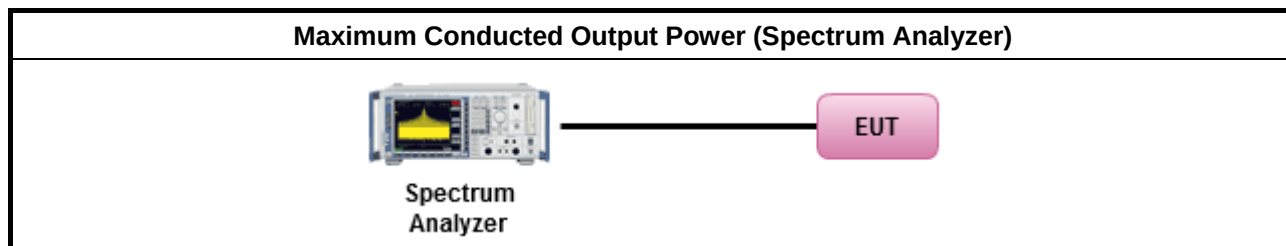
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
☒	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
☐	Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
Power Spectral Density (PSD) ≤ 8 dBm/3kHz

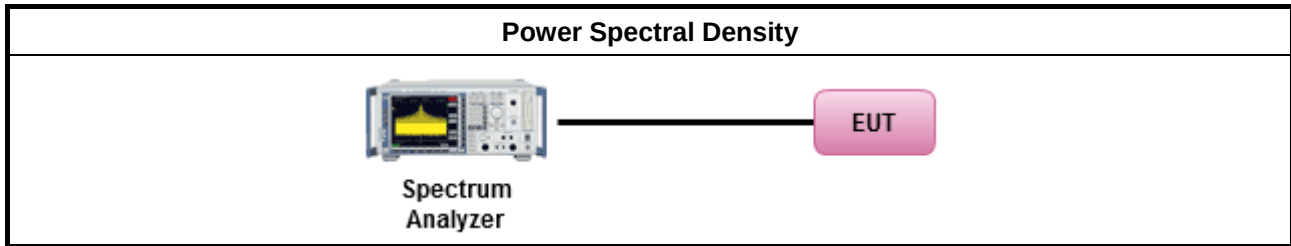
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method
Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒ Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle $\geq 98\%$ or external video / power trigger]
☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPS-1 (spectral trace averaging).
☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPS-2 (slow sweep speed)
duty cycle $< 98\%$ and average over on/off periods with duty factor
☐ Refer as FCC KDB 558074, clause 10.5 Method AVGPS-1 Alt (spectral trace averaging).
☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPS-2 Alt. (slow sweep speed)
For conducted measurement.
If The EUT supports multiple transmit chains using options given below:
☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

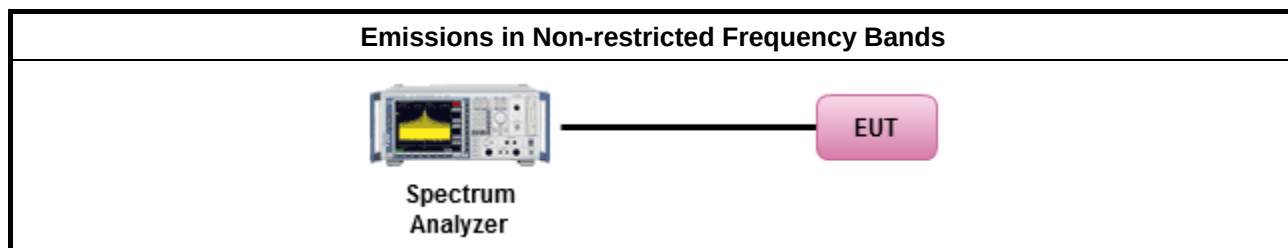
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 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.

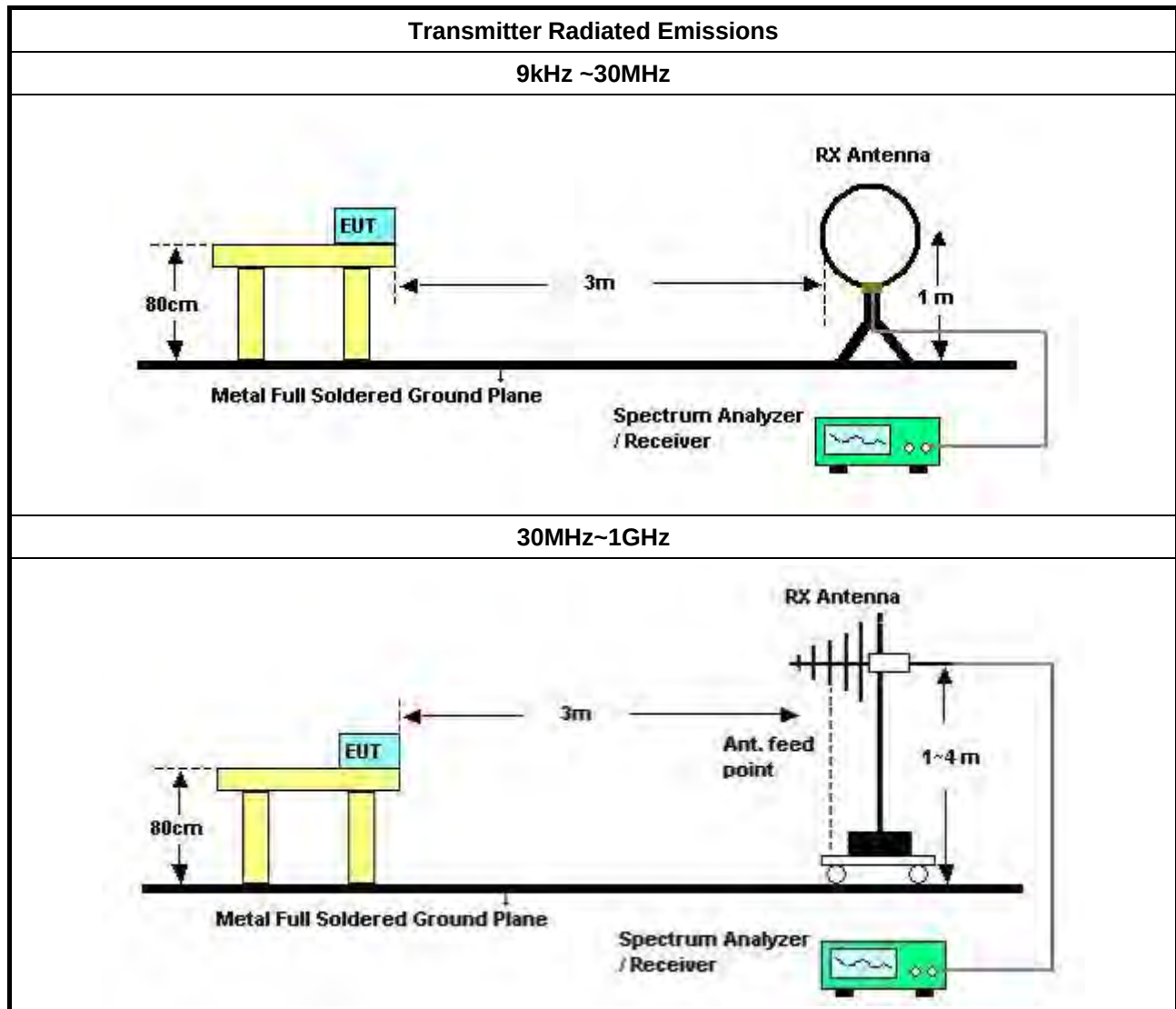
3.6.2 Measuring Instruments

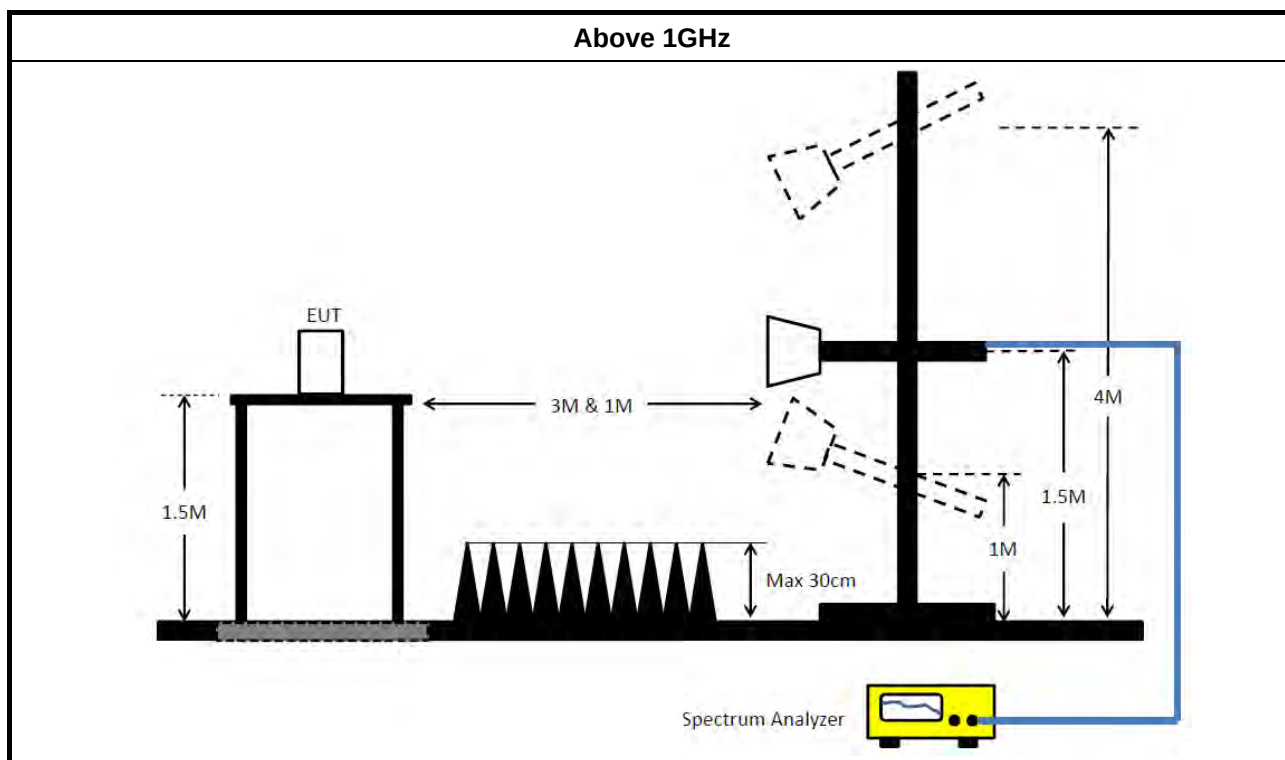
Refer a test equipment and calibration data table in this test report.

3.6.3 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 12 for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle $\geq 98\%$)
	☐ Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	☒ Refer as FCC KDB 558074, clause 12.2.5.3 Option 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 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 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 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.
	Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.	
	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.

3.6.4 Test Setup





3.6.5 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.

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 17, 2018	Jan. 16, 2019	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz ~ 100MHz	Dec. 20, 2017	Dec. 19, 2018	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 29, 2017	Dec. 28, 2018	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
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)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	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)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	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-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	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)
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)

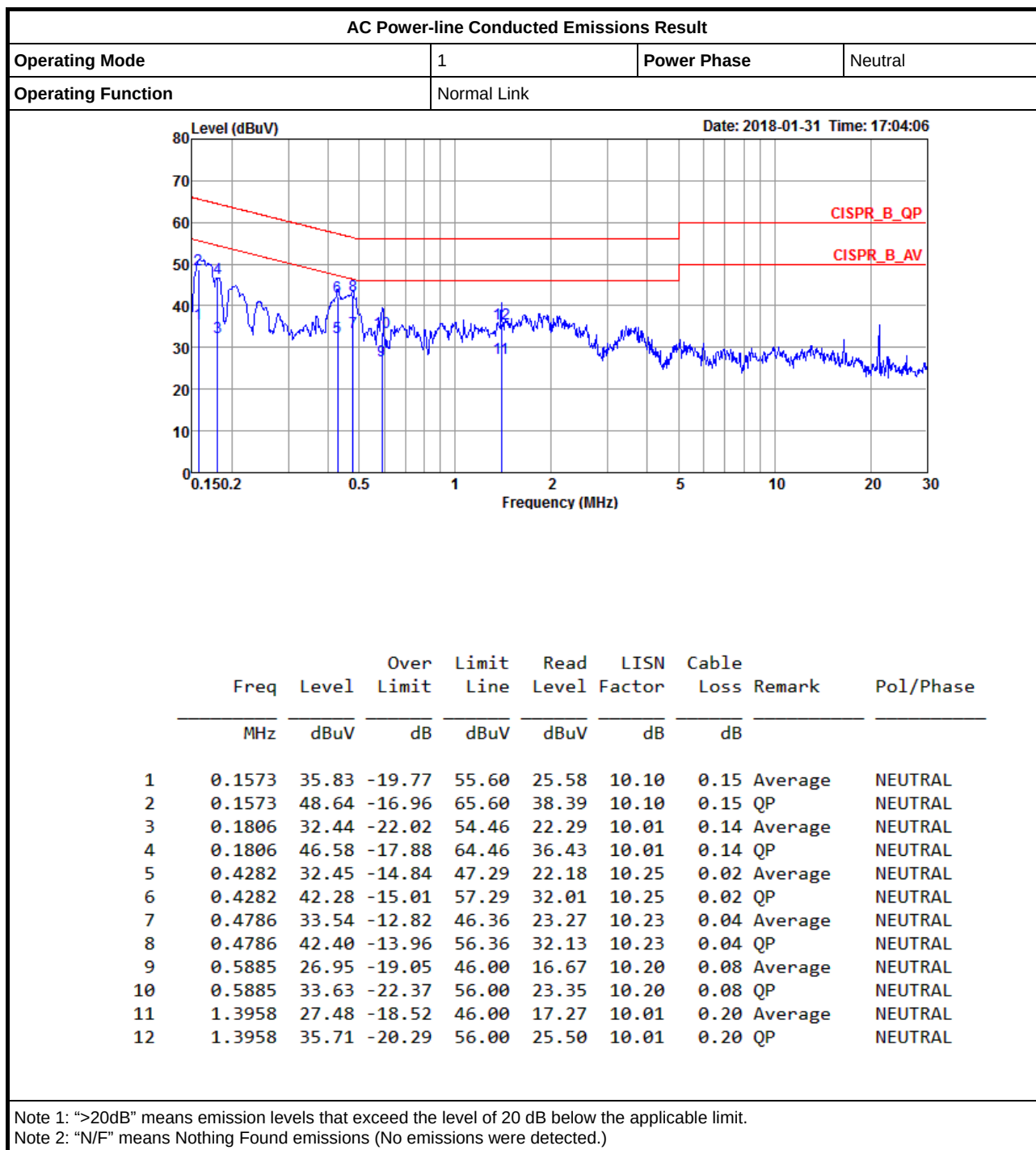


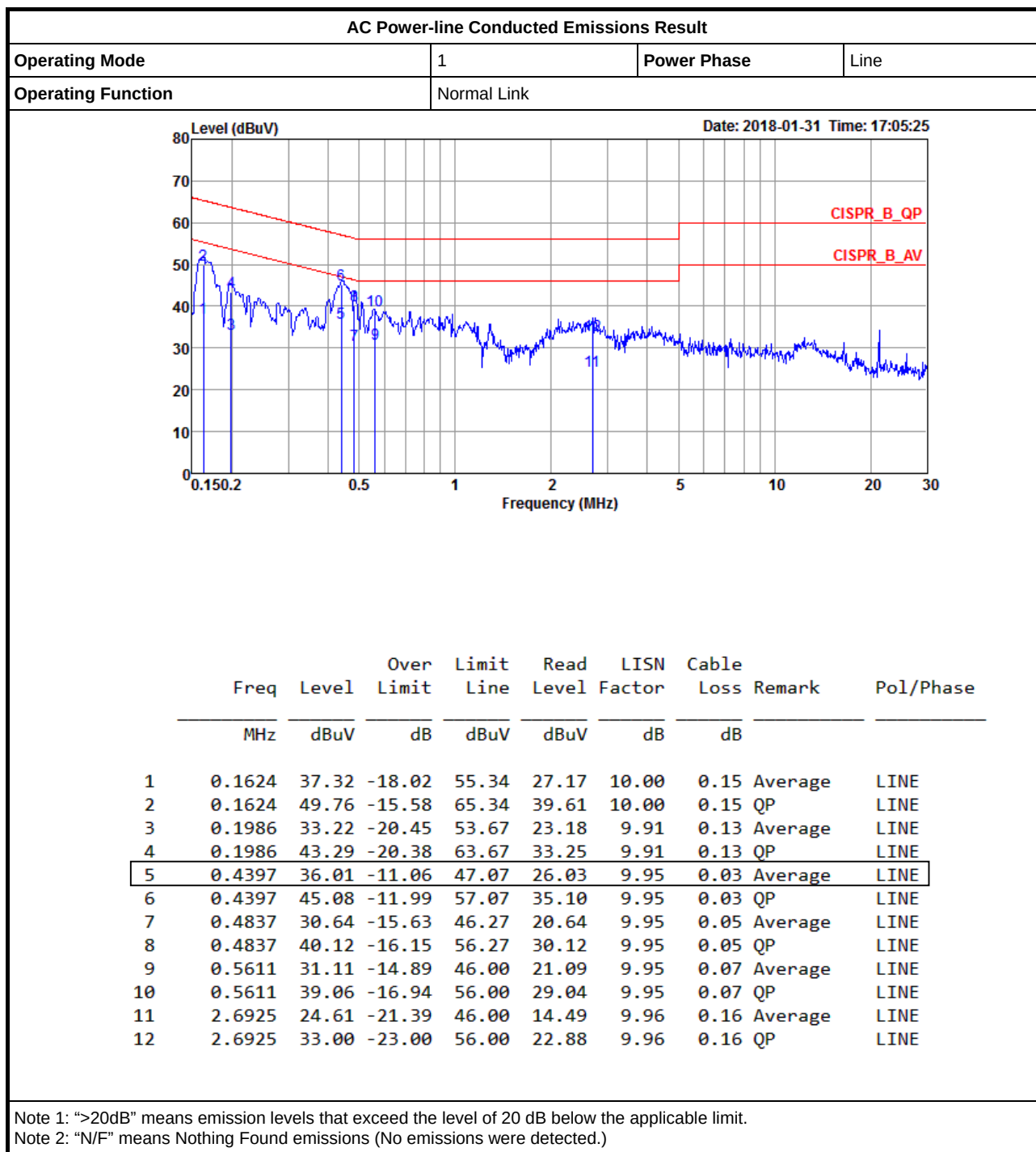
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (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)
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.

“*” Calibration Interval of instruments listed above is two years.

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





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	7.075M	10.27M	10M3G1D	6.525M	10.145M
802.11g_Nss1,(6Mbps)_4TX	16.375M	16.642M	16M6D1D	16.325M	16.517M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.6M	17.841M	17M8D1D	17.55M	17.716M
802.11ac VHT40_Nss1,(MCS0)_4TX	36.35M	36.282M	36M3D1D	35.7M	36.082M
HE20_Nss1,(MCS0)_4TX	19.05M	19.015M	19M0D1D	18.875M	18.941M
HE40_Nss1,(MCS0)_4TX	37.7M	37.631M	37M6D1D	36.5M	37.281M

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

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

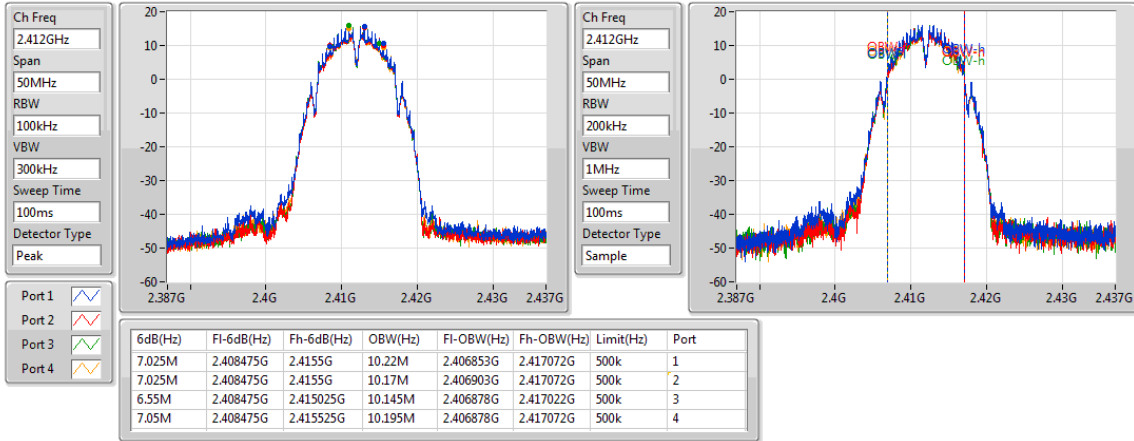
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.025M	10.22M	7.025M	10.17M	6.55M	10.145M	7.05M	10.195M
2437MHz	Pass	500k	7.025M	10.17M	7.05M	10.195M	6.575M	10.245M	6.575M	10.22M
2462MHz	Pass	500k	7.075M	10.245M	6.525M	10.245M	7.075M	10.22M	7.025M	10.27M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.375M	16.542M	16.325M	16.542M	16.325M	16.517M	16.325M	16.567M
2437MHz	Pass	500k	16.325M	16.567M	16.325M	16.617M	16.35M	16.642M	16.325M	16.567M
2462MHz	Pass	500k	16.35M	16.567M	16.35M	16.642M	16.35M	16.567M	16.35M	16.592M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.6M	17.791M	17.55M	17.741M	17.55M	17.716M	17.575M	17.716M
2437MHz	Pass	500k	17.6M	17.741M	17.575M	17.816M	17.6M	17.841M	17.6M	17.766M
2462MHz	Pass	500k	17.575M	17.816M	17.575M	17.766M	17.6M	17.741M	17.6M	17.791M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.282M	36.35M	36.182M	36.35M	36.232M	36.35M	36.232M
2437MHz	Pass	500k	36.3M	36.182M	36.3M	36.182M	36.35M	36.232M	36.35M	36.282M
2452MHz	Pass	500k	36.35M	36.232M	36M	36.082M	35.7M	36.132M	36.3M	36.182M
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.975M	18.941M	18.875M	18.966M	18.875M	18.941M	18.95M	18.941M
2437MHz	Pass	500k	18.9M	18.966M	18.975M	18.966M	18.875M	18.991M	19M	19.015M
2462MHz	Pass	500k	19.05M	19.015M	18.975M	18.966M	18.925M	18.966M	18.95M	18.991M
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	37.5M	37.581M	37.5M	37.581M	37.1M	37.531M	37.7M	37.581M
2437MHz	Pass	500k	36.7M	37.431M	37.55M	37.481M	37.5M	37.531M	37.5M	37.631M
2452MHz	Pass	500k	37.7M	37.531M	37.6M	37.581M	36.5M	37.281M	37.3M	37.481M

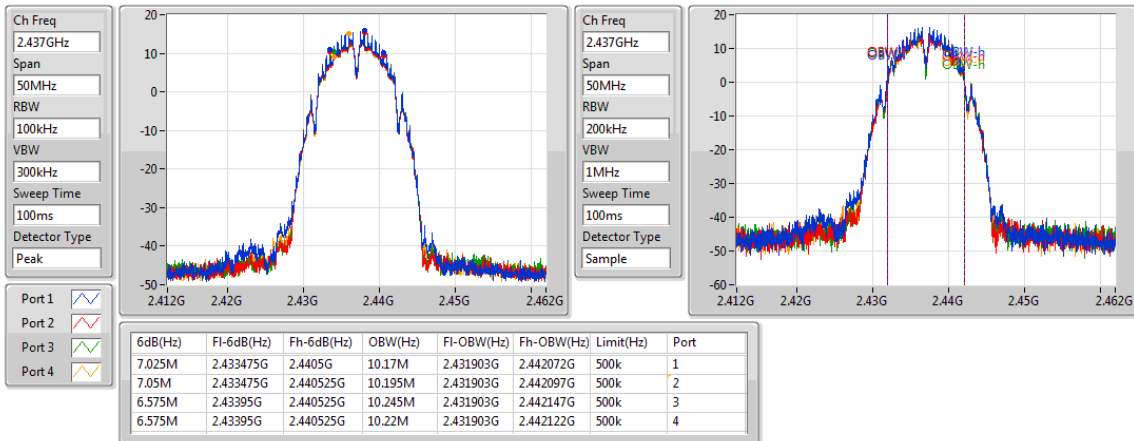
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_4TX
EBW
2412MHz

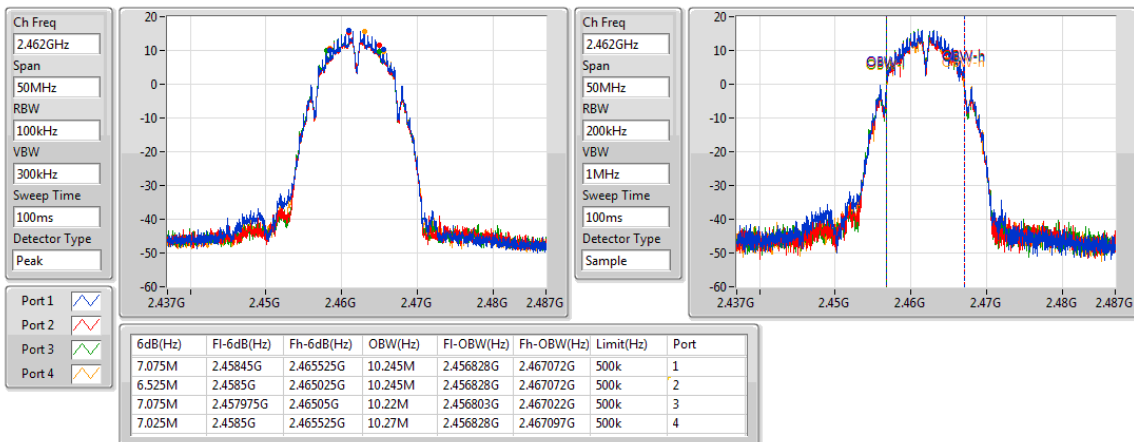
26/01/2018


802.11b_Nss1,(1Mbps)_4TX
EBW
2437MHz

26/01/2018

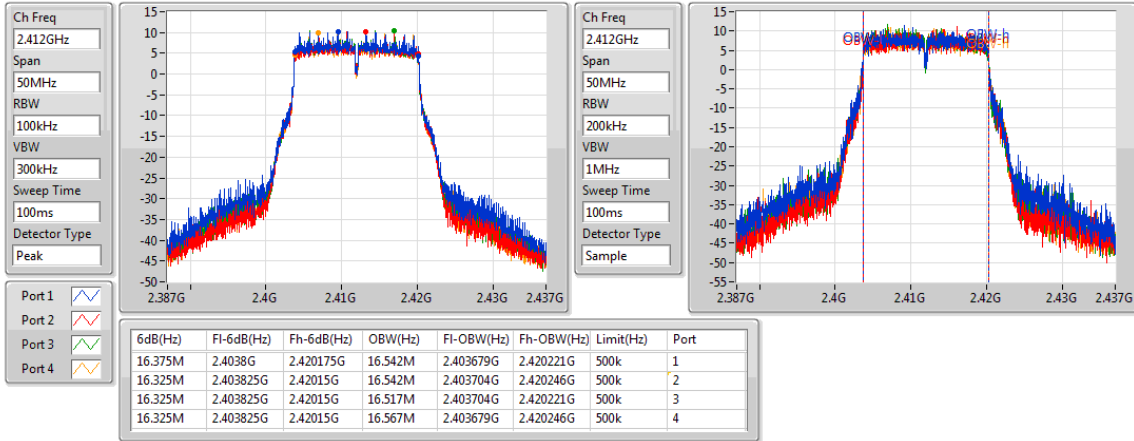

802.11b_Nss1,(1Mbps)_4TX
EBW
2462MHz

26/01/2018

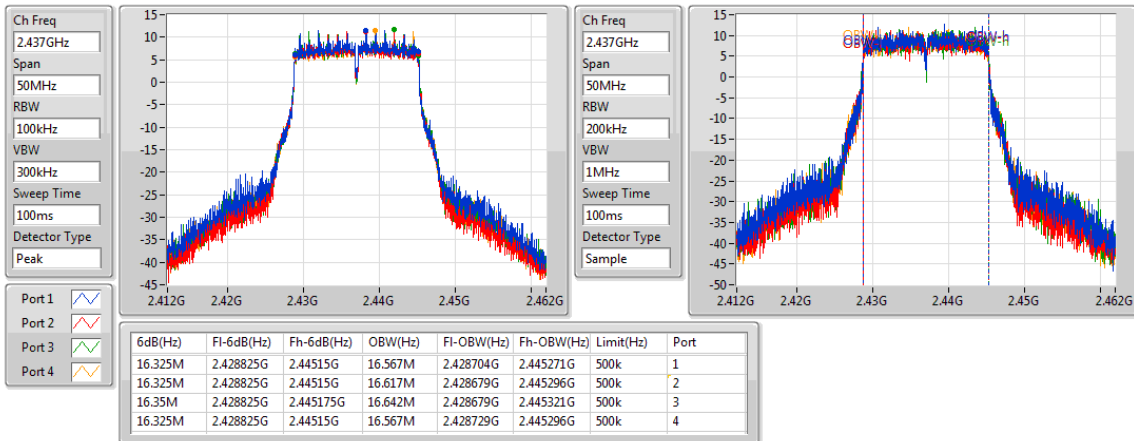


802.11g_Nss1,(6Mbps)_4TX
EBW
2412MHz

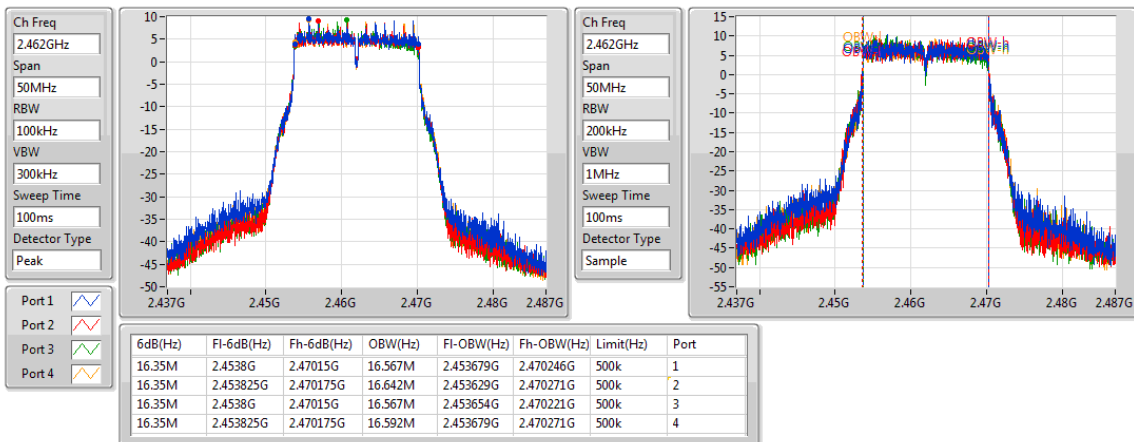
26/01/2018


802.11g_Nss1,(6Mbps)_4TX
EBW
2437MHz

26/01/2018

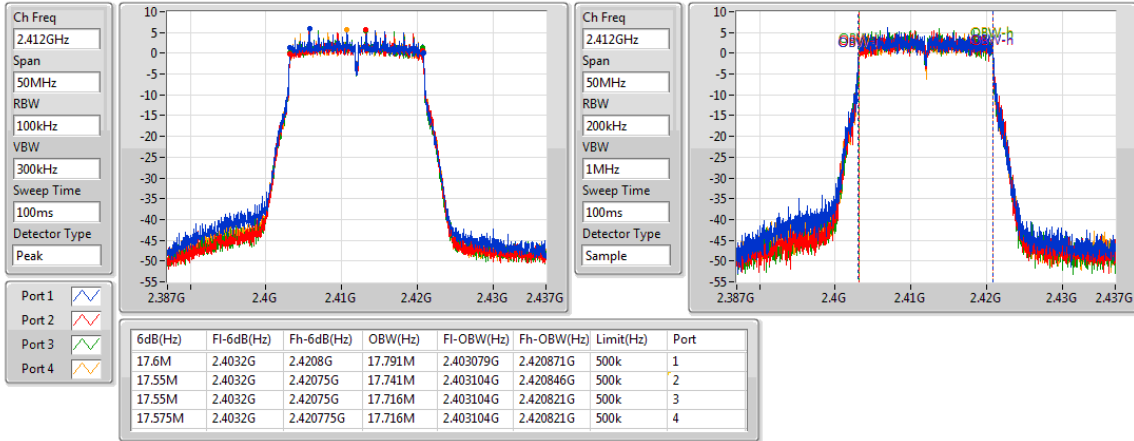

802.11g_Nss1,(6Mbps)_4TX
EBW
2462MHz

26/01/2018

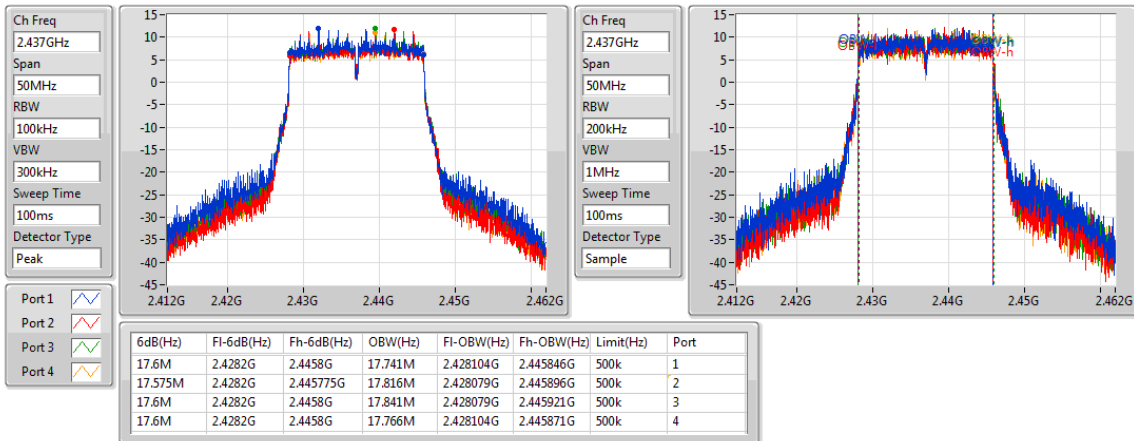


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2412MHz

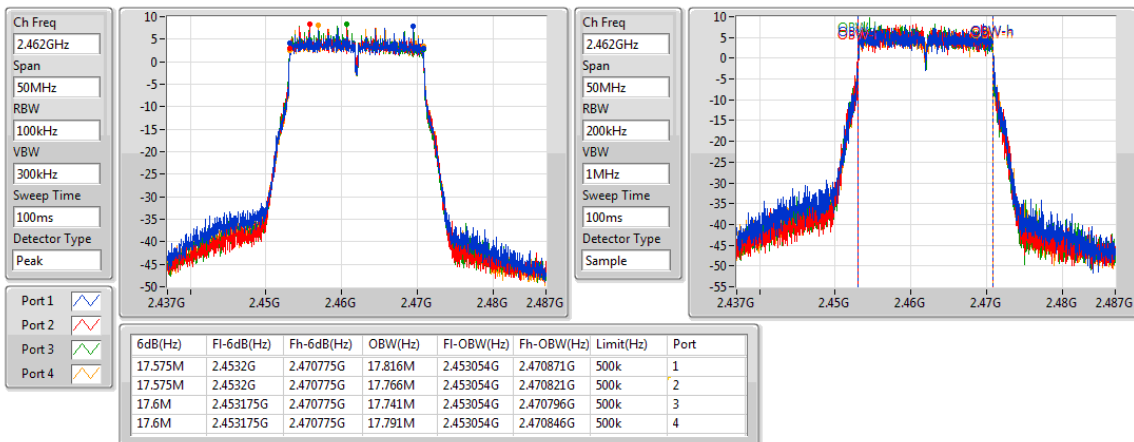
26/01/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2437MHz

26/01/2018

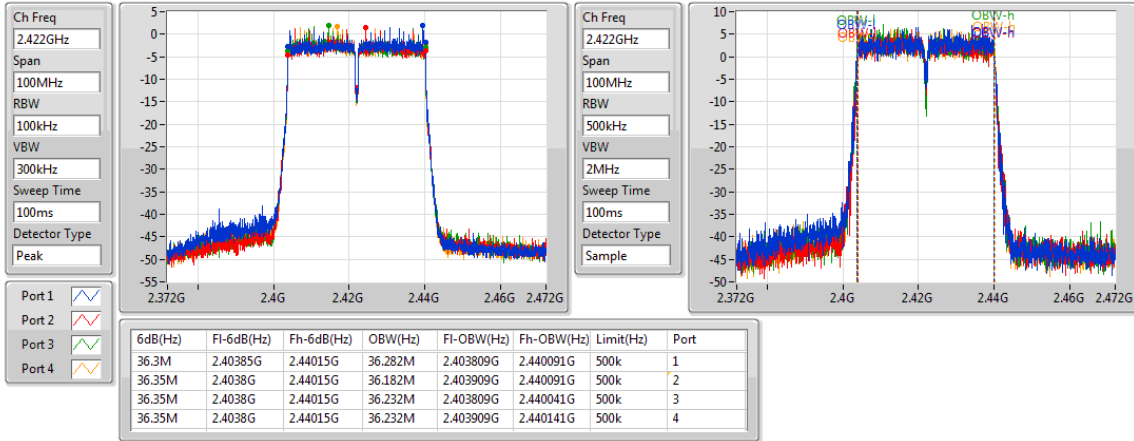

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2462MHz

26/01/2018

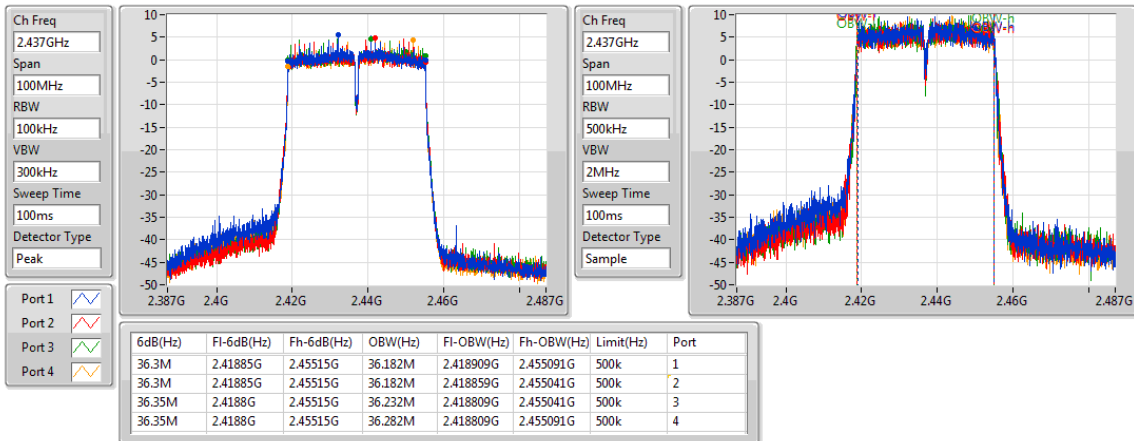


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2422MHz

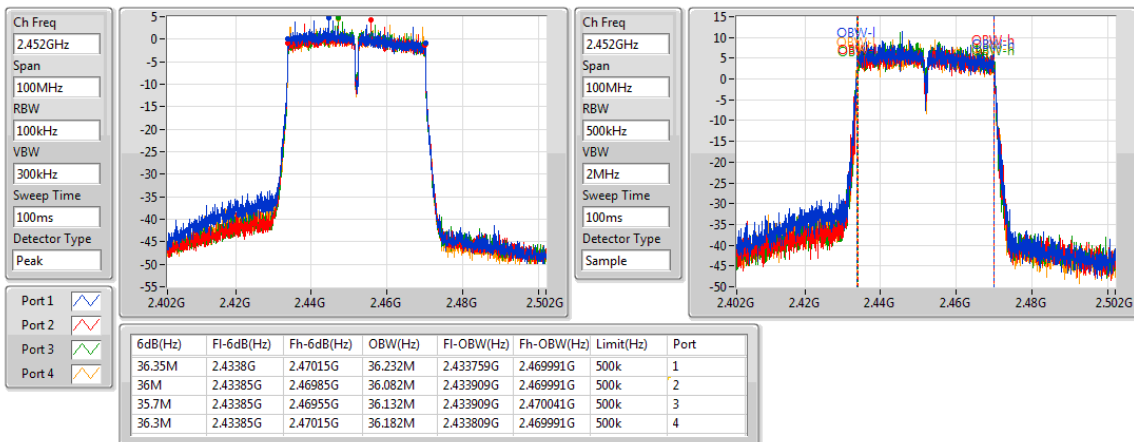
26/01/2018


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2437MHz

26/01/2018

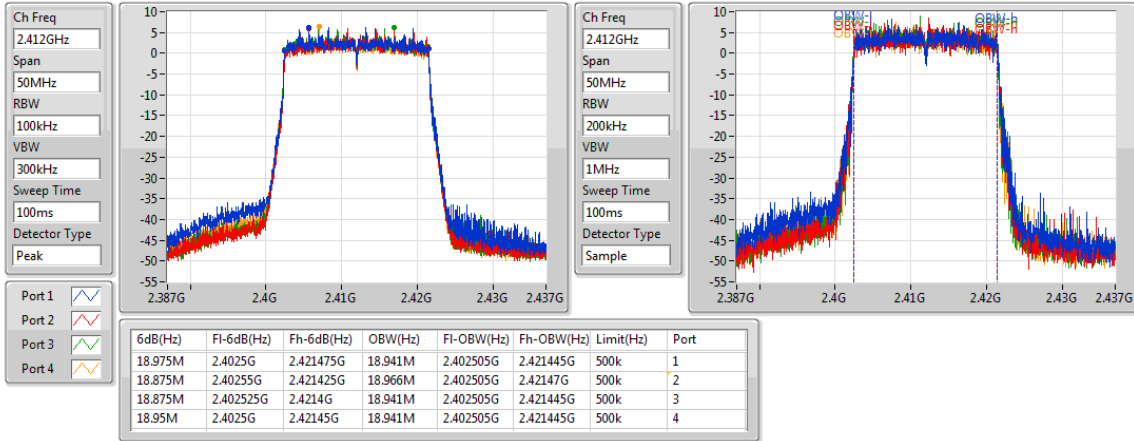

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2452MHz

26/01/2018

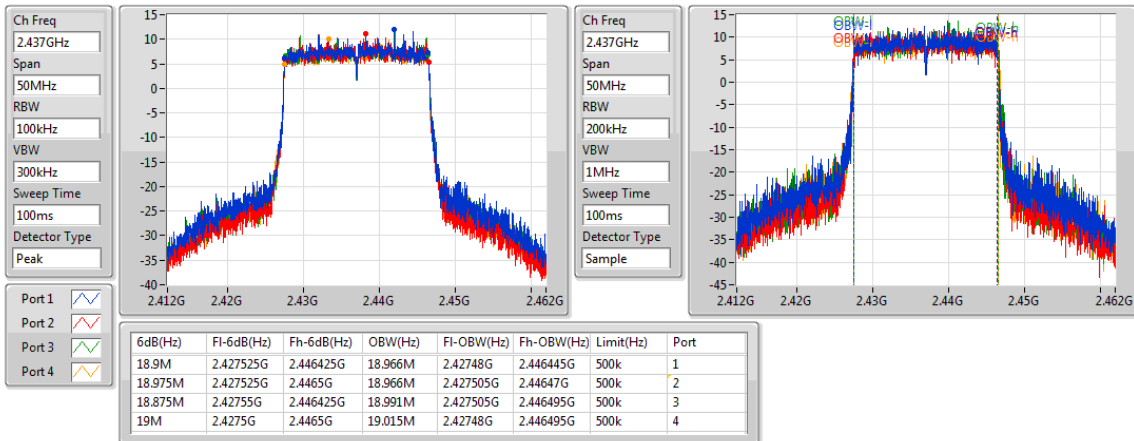


HE20_Nss1,(MCS0)_4TX
EBW
2412MHz

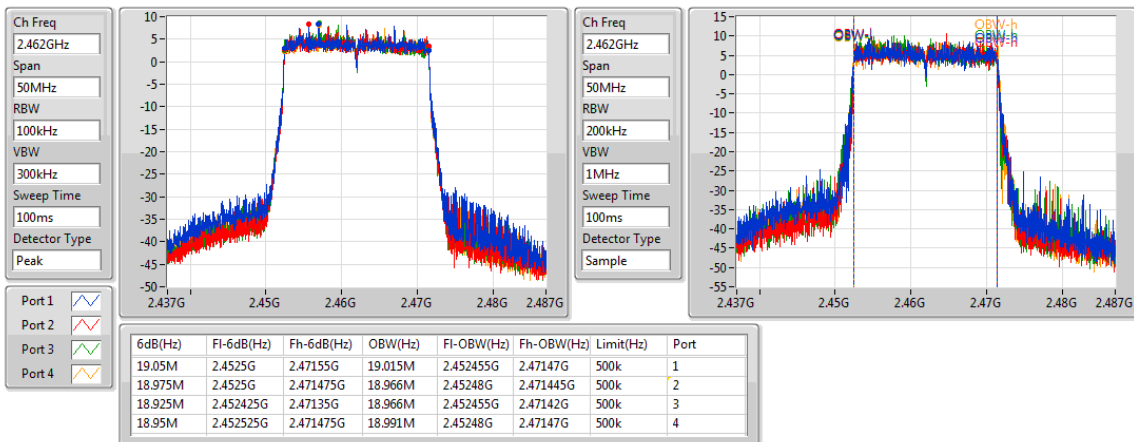
26/01/2018


HE20_Nss1,(MCS0)_4TX
EBW
2437MHz

26/01/2018

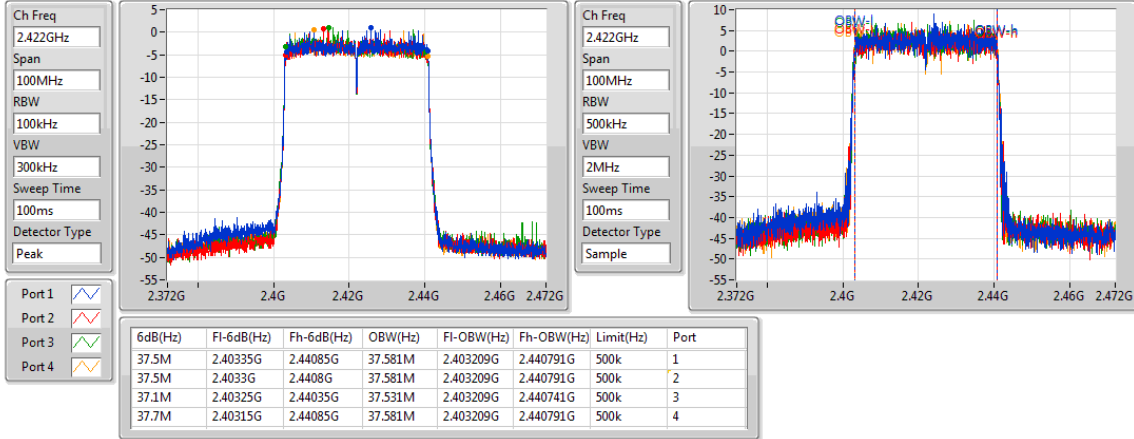

HE20_Nss1,(MCS0)_4TX
EBW
2462MHz

26/01/2018

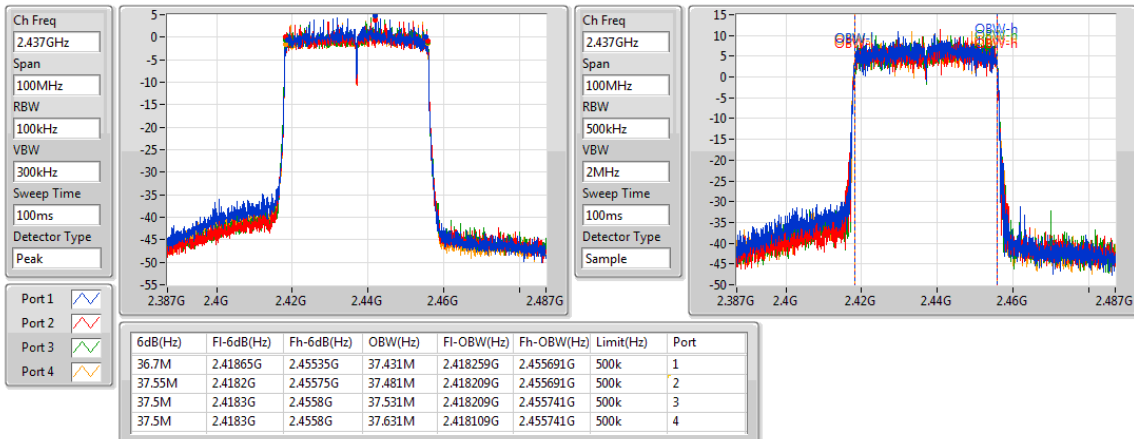


HE40_Nss1,(MCS0)_4TX
EBW
2422MHz

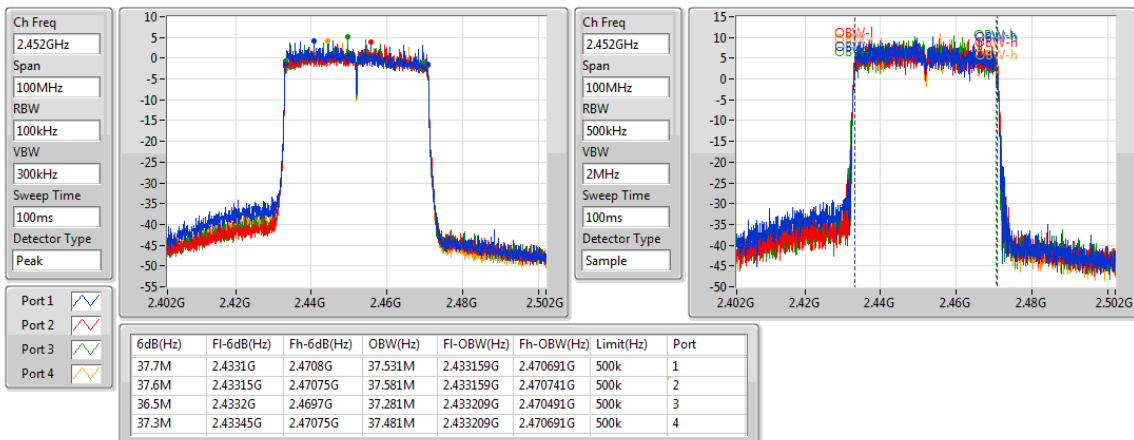
26/01/2018


HE40_Nss1,(MCS0)_4TX
EBW
2437MHz

26/01/2018


HE40_Nss1,(MCS0)_4TX
EBW
2452MHz

26/01/2018



**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	29.92	0.98175
802.11g_Nss1,(6Mbps)_4TX	29.78	0.95060
802.11ac_VHT20_Nss1,(MCS0)_4TX	29.90	0.97724
802.11ac_VHT40_Nss1,(MCS0)_4TX	25.89	0.38815
HE20_Nss1,(MCS0)_4TX	29.87	0.97051
HE40_Nss1,(MCS0)_4TX	25.50	0.35481

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	-	-	-	-	-	-	-	-
2412MHz	Pass	1.94	23.96	23.91	24.07	23.64	29.92	30.00
2437MHz	Pass	1.94	23.91	23.71	24.03	23.61	29.84	30.00
2462MHz	Pass	1.94	23.94	23.89	23.83	23.74	29.87	30.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.94	22.75	22.42	22.93	22.45	28.66	30.00
2417MHz	Pass	1.94	23.64	23.01	23.54	22.72	29.26	30.00
2437MHz	Pass	1.94	23.93	23.52	23.82	23.63	29.75	30.00
2457MHz	Pass	1.94	23.88	23.51	23.97	23.67	29.78	30.00
2462MHz	Pass	1.94	21.59	21.72	21.57	21.52	27.62	30.00
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.94	18.19	17.83	18.35	17.98	24.11	30.00
2417MHz	Pass	1.94	21.67	21.49	21.93	21.41	27.65	30.00
2422MHz	Pass	1.94	23.89	23.71	23.96	23.33	29.75	30.00
2437MHz	Pass	1.94	23.84	23.79	23.97	23.91	29.90	30.00
2452MHz	Pass	1.94	23.76	23.47	23.86	23.55	29.68	30.00
2457MHz	Pass	1.94	21.68	21.57	21.69	21.45	27.62	30.00
2462MHz	Pass	1.94	20.65	20.43	20.67	20.52	26.59	30.00
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	1.94	16.86	16.74	17.23	16.71	22.91	30.00
2437MHz	Pass	1.94	19.82	19.76	20.22	19.67	25.89	30.00
2452MHz	Pass	1.94	19.25	18.95	19.26	19.28	25.21	30.00
2427MHz	Pass	1.94	16.83	16.91	17.32	16.75	22.98	30.00
2432MHz	Pass	1.94	18.43	18.52	18.97	18.36	24.60	30.00
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.94	18.87	19.05	18.82	18.72	24.89	30.00
2417MHz	Pass	1.94	21.95	21.76	22.14	21.63	27.89	30.00
2422MHz	Pass	1.94	23.09	23.17	23.59	23.15	29.28	30.00
2437MHz	Pass	1.94	23.91	23.78	24.03	23.66	29.87	30.00
2452MHz	Pass	1.94	23.85	23.52	23.95	23.69	29.78	30.00
2457MHz	Pass	1.94	23.08	22.78	23.02	22.67	28.91	30.00
2462MHz	Pass	1.94	20.82	20.55	20.73	20.52	26.68	30.00
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	1.94	16.42	16.48	16.71	16.32	22.51	30.00



AV Power Result

Appendix C

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
2437MHz	Pass	1.94	19.65	19.37	19.53	19.36	25.50	30.00
2452MHz	Pass	1.94	19.52	19.23	19.51	19.25	25.40	30.00
2427MHz	Pass	1.94	17.41	17.34	17.55	17.18	23.39	30.00
2432MHz	Pass	1.94	17.17	17.21	17.58	17.07	23.28	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	5.47
802.11g_Nss1,(6Mbps)_4TX	3.36
802.11ac VHT20_Nss1,(MCS0)_4TX	4.02
802.11ac VHT40_Nss1,(MCS0)_4TX	-3.33
HE20_Nss1,(MCS0)_4TX	1.72
HE40_Nss1,(MCS0)_4TX	-3.25

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.96	2.25	1.07	1.57	1.18	5.30	6.04
2437MHz	Pass	7.96	1.84	0.85	1.24	2.06	5.44	6.04
2462MHz	Pass	7.96	1.17	1.08	2.46	1.63	5.47	6.04
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.96	-3.31	-3.00	-2.33	-2.79	1.06	6.04
2437MHz	Pass	7.96	-2.12	-2.52	-1.97	-2.63	3.36	6.04
2462MHz	Pass	7.96	-4.67	-3.83	-3.20	-3.65	1.34	6.04
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.96	-7.17	-7.51	-8.02	-7.62	-2.71	6.04
2437MHz	Pass	7.96	-1.27	-1.66	-1.12	-1.93	4.02	6.04
2462MHz	Pass	7.96	-4.22	-4.04	-4.96	-5.67	1.22	6.04
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.96	-11.75	-12.29	-11.05	-12.79	-6.23	6.04
2437MHz	Pass	7.96	-8.88	-9.06	-8.61	-9.03	-3.33	6.04
2452MHz	Pass	7.96	-9.01	-9.05	-8.50	-9.82	-4.31	6.04
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.96	-7.48	-8.26	-7.97	-8.23	-3.55	6.04
2437MHz	Pass	7.96	-2.08	-2.28	-2.83	-3.39	1.72	6.04
2462MHz	Pass	7.96	-4.00	-6.05	-5.59	-4.24	-0.26	6.04
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.96	-12.53	-13.36	-13.67	-13.72	-8.27	6.04
2437MHz	Pass	7.96	-10.08	-10.73	-9.57	-9.61	-4.28	6.04
2452MHz	Pass	7.96	-8.13	-9.21	-10.16	-8.75	-3.25	6.04

DG = Directional Gain; RBW=3kHz;

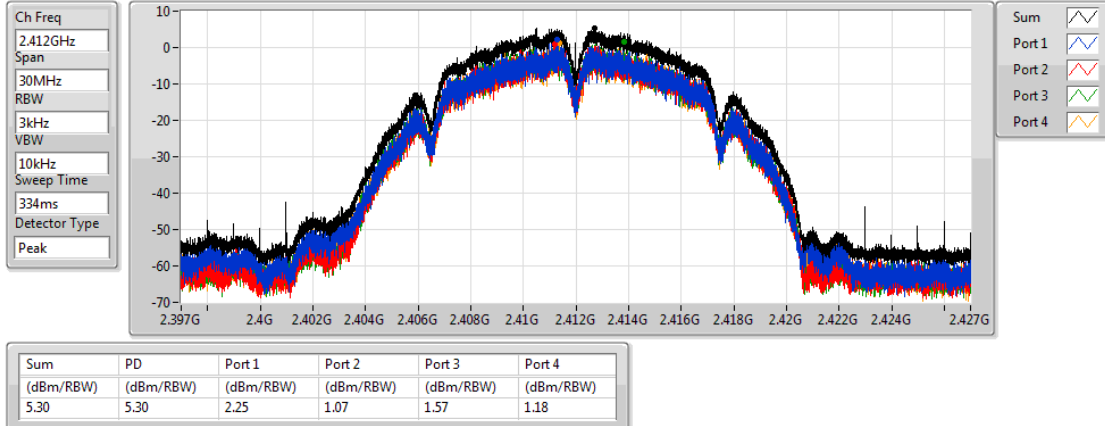
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_4TX

PSD

2412MHz

26/01/2018

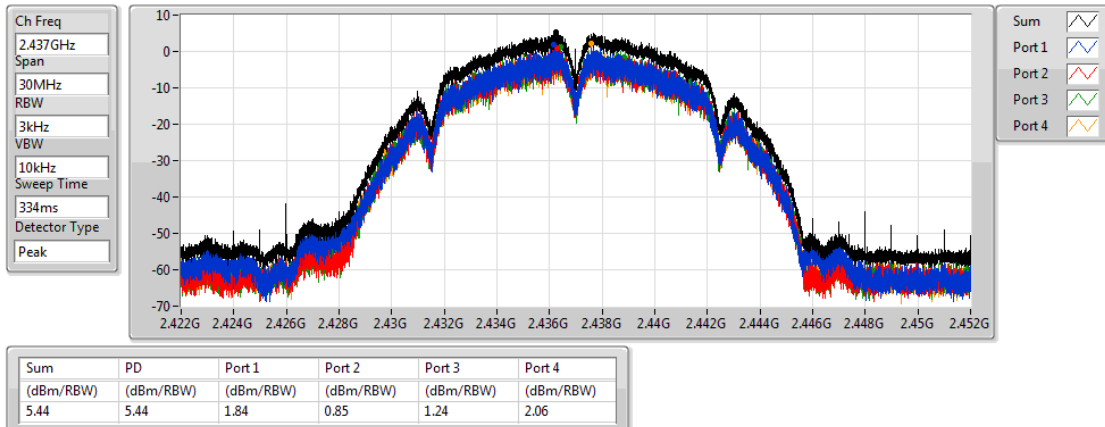


802.11b_Nss1,(1Mbps)_4TX

PSD

2437MHz

26/01/2018

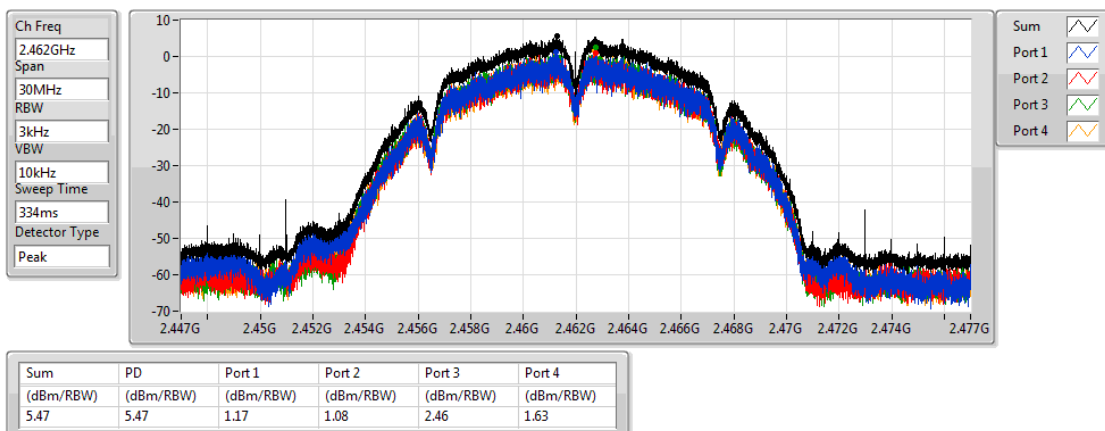


802.11b_Nss1,(1Mbps)_4TX

PSD

2462MHz

26/01/2018

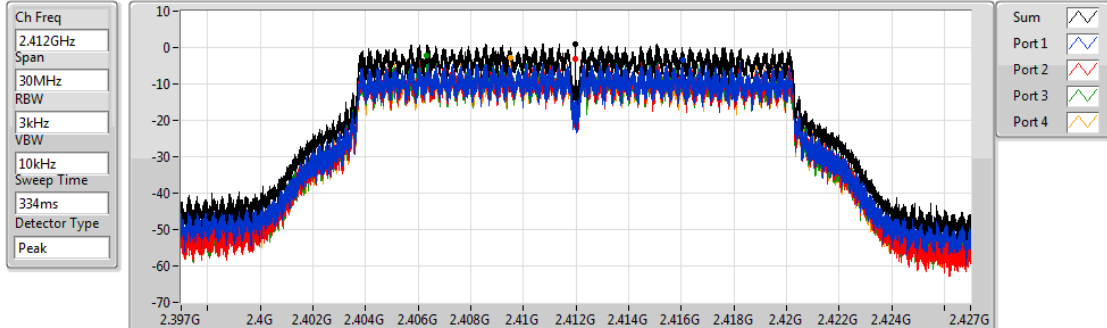


802.11g_Nss1,(6Mbps)_4TX

PSD

2412MHz

26/01/2018



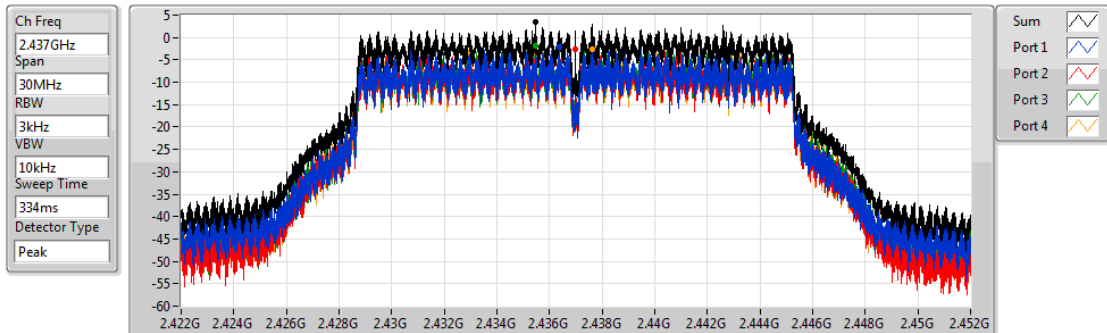
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.06	1.06	-3.31	-3.00	-2.33	-2.79

802.11g_Nss1,(6Mbps)_4TX

PSD

2437MHz

26/01/2018



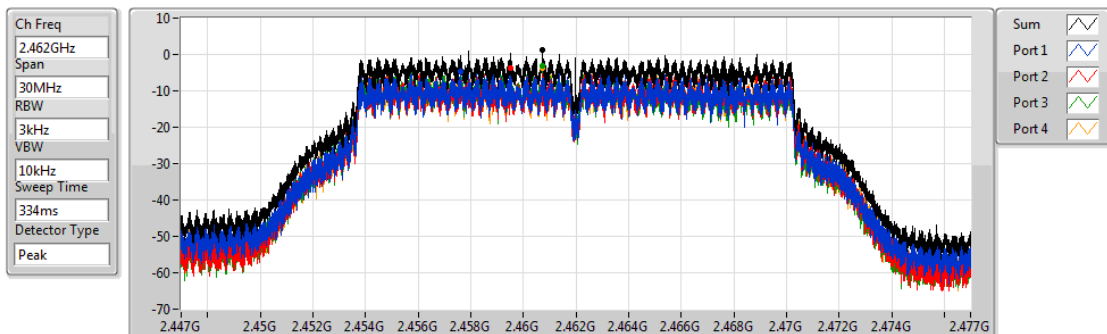
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.36	3.36	-2.12	-2.52	-1.97	-2.63

802.11g_Nss1,(6Mbps)_4TX

PSD

2462MHz

26/01/2018



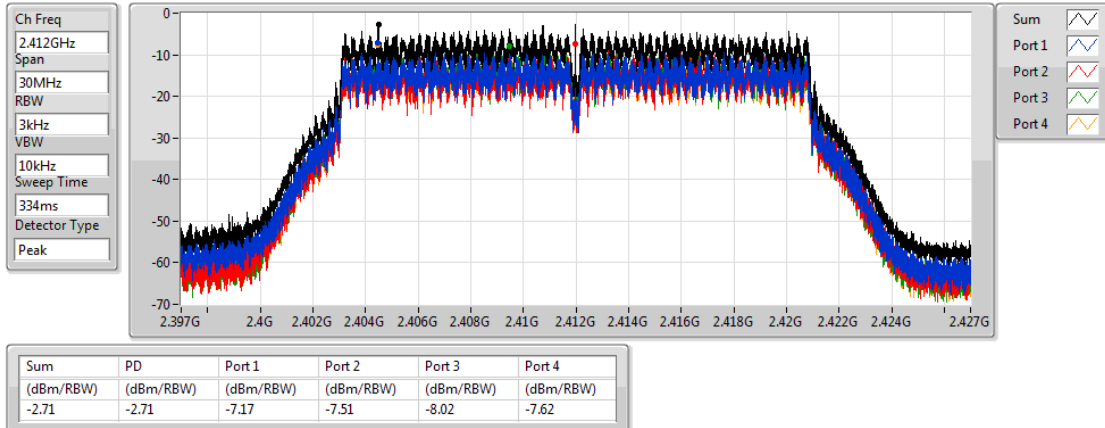
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.34	1.34	-4.67	-3.83	-3.20	-3.65

802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

2412MHz

26/01/2018

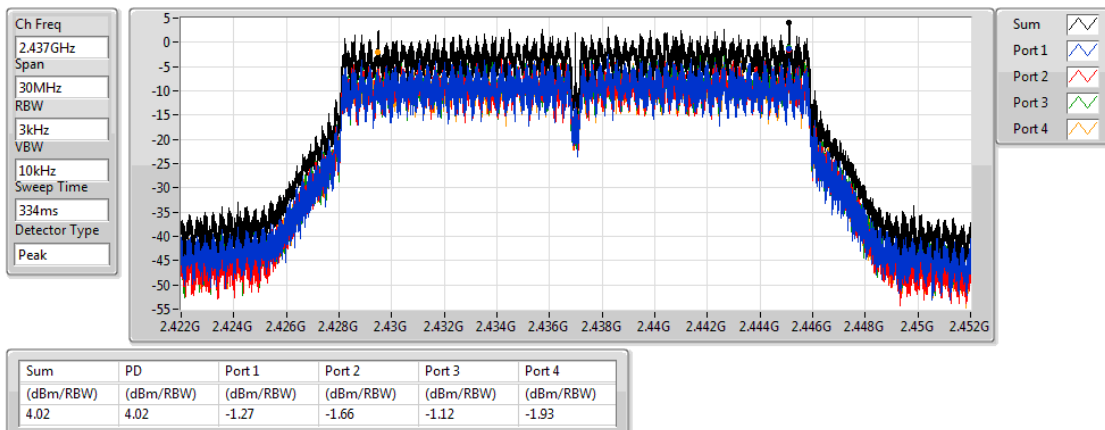


802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

2437MHz

26/01/2018

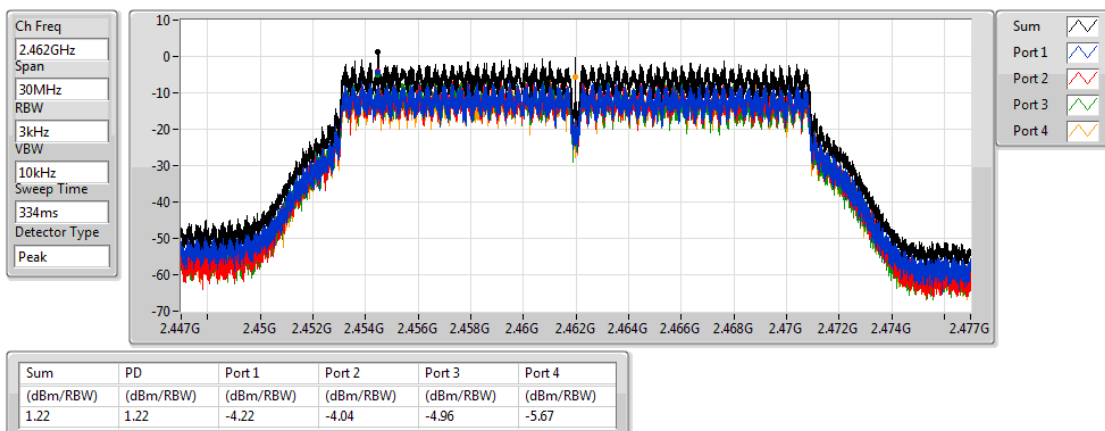


802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

2462MHz

26/01/2018

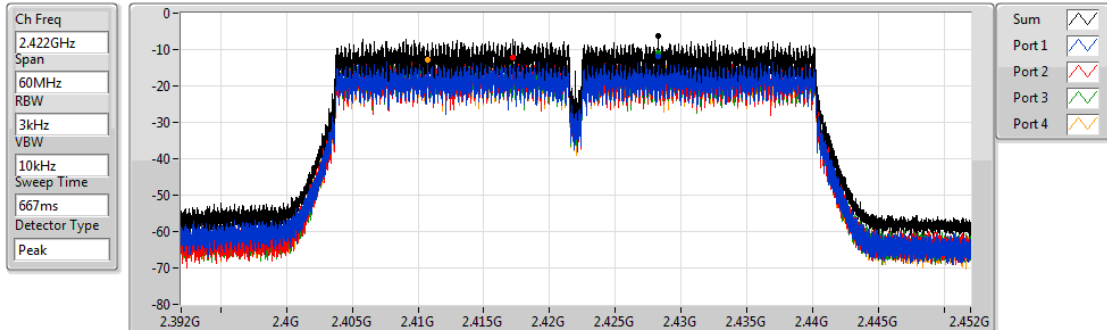


802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz

PSD

26/01/2018



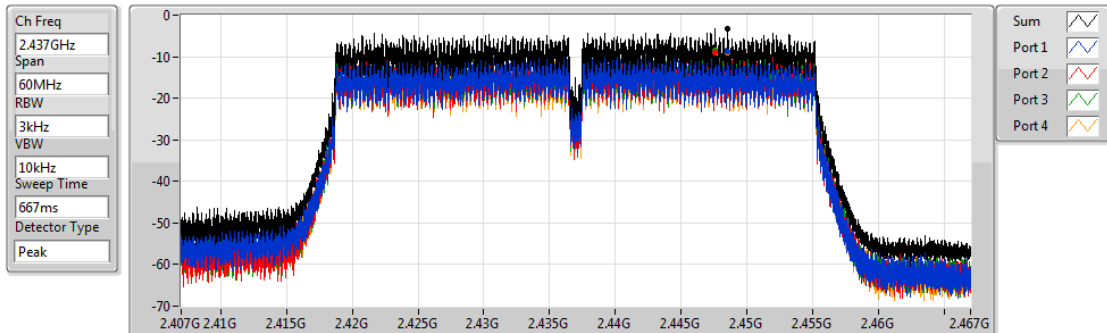
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-6.23	-6.23	-11.75	-12.29	-11.05	-12.79

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz

PSD

26/01/2018



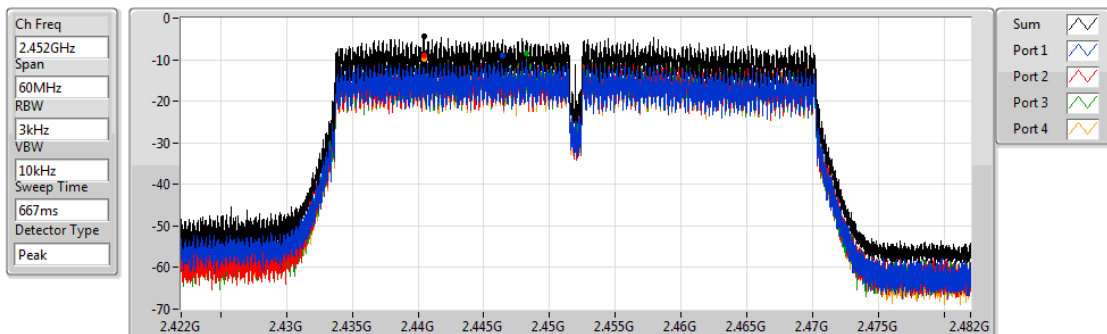
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.33	-3.33	-8.88	-9.06	-8.61	-9.03

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz

PSD

26/01/2018



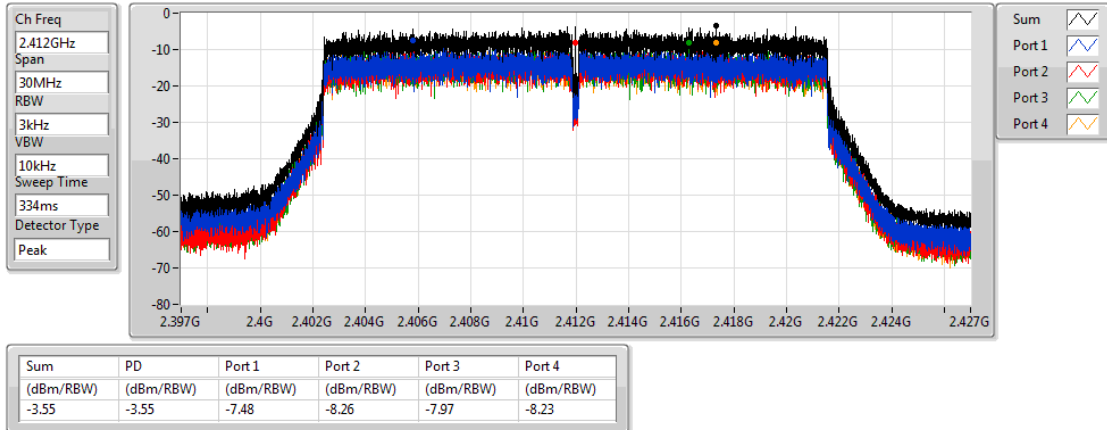
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-4.31	-4.31	-9.01	-9.05	-8.50	-9.82

HE20_Nss1,(MCS0)_4TX

2412MHz

PSD

26/01/2018

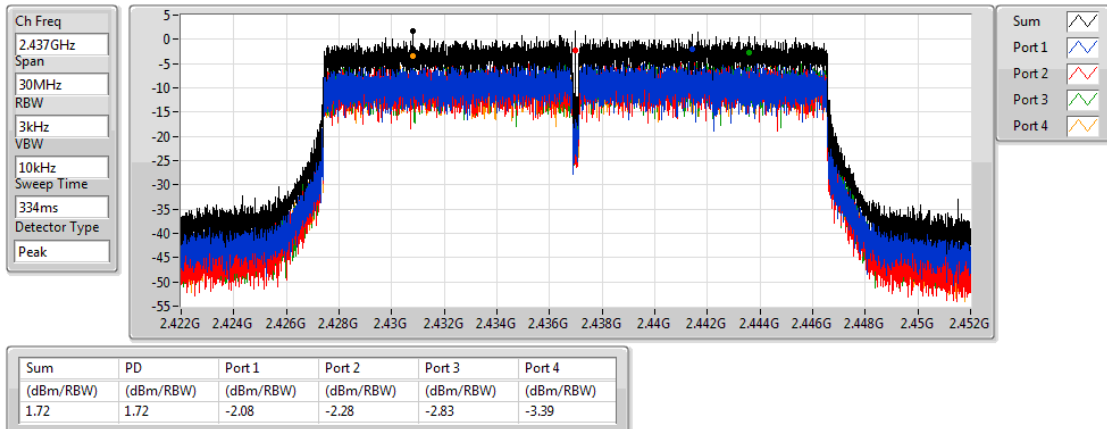


HE20_Nss1,(MCS0)_4TX

2437MHz

PSD

26/01/2018

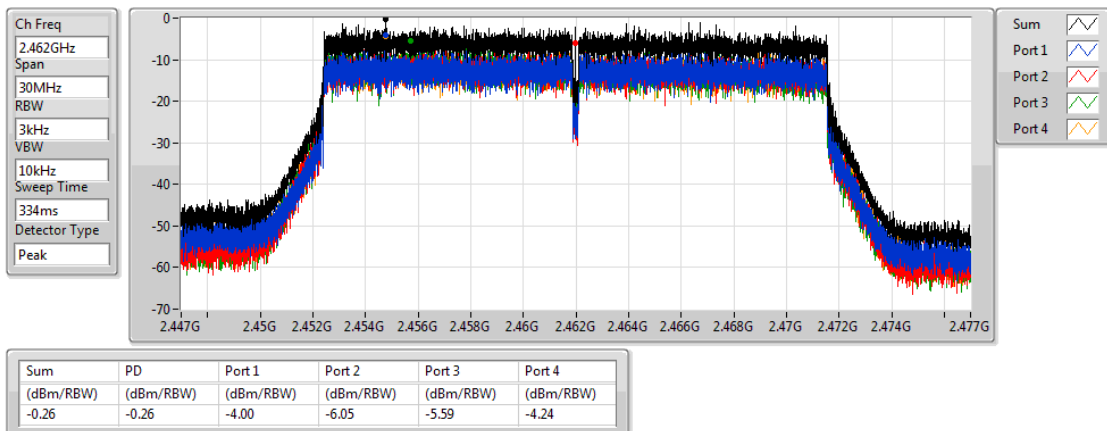


HE20_Nss1,(MCS0)_4TX

2462MHz

PSD

26/01/2018

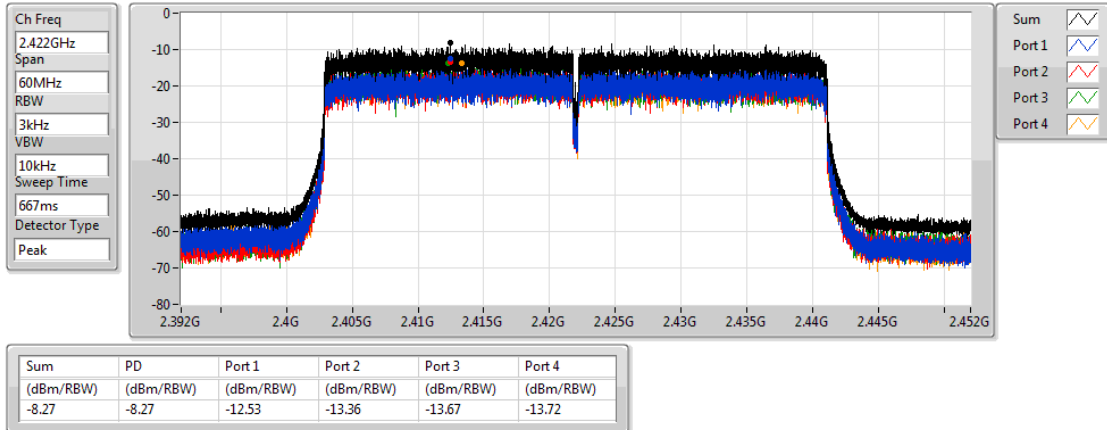


HE40_Nss1,(MCS0)_4TX

2422MHz

PSD

26/01/2018

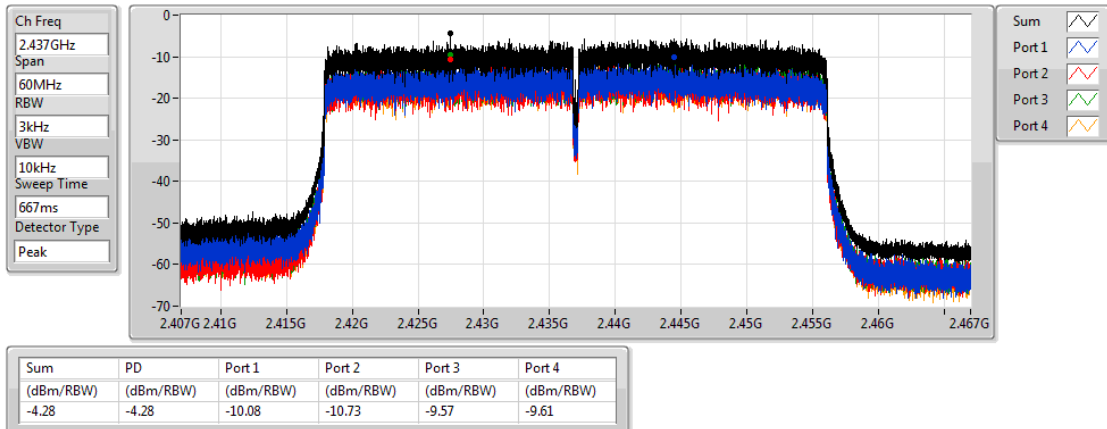


HE40_Nss1,(MCS0)_4TX

2437MHz

PSD

26/01/2018

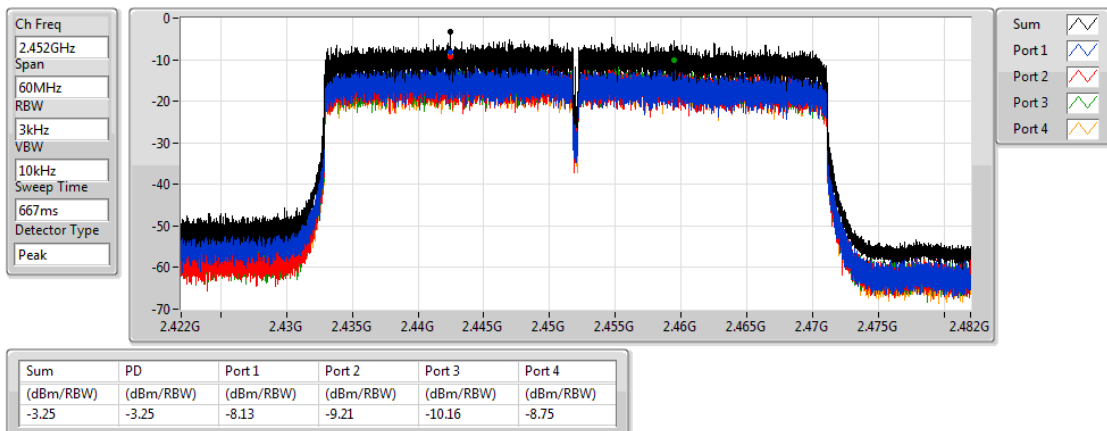


HE40_Nss1,(MCS0)_4TX

2452MHz

PSD

26/01/2018



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	Pass	2.437408G	14.56	-15.44	2.18758G	-57.00	2.39808G	-38.86	2.48638G	-51.79	6.987895G	-52.58	1
802.11g_Nss1,(6Mbps)_4TX	Pass	2.435738G	11.17	-18.83	521.63M	-56.81	2.39576G	-26.14	2.48494G	-52.39	6.220884G	-52.19	1
802.11ac VHT20_Nss1,(MCS0)_4TX	Pass	2.441917G	11.31	-18.69	910.74M	-56.76	2.39984G	-37.77	2.48558G	-53.92	6.985085G	-52.90	1
802.11ac VHT40_Nss1,(MCS0)_4TX	Pass	2.454442G	4.44	-25.56	924.245M	-56.66	2.39328G	-40.39	2.48478G	-49.63	16.401211G	-51.84	1
HE20_Nss1,(MCS0)_4TX	Pass	2.430728G	10.92	-19.08	675.41M	-57.83	2.39896G	-36.62	2.48566G	-52.99	6.973847G	-52.59	1
HE40_Nss1,(MCS0)_4TX	Pass	2.431897G	3.61	-26.39	763.945M	-57.01	2.3984G	-39.14	2.48526G	-49.65	24.00438G	-52.39	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.437408G	14.56	-15.44	2.18758G	-57.00	2.39808G	-38.86	2.48638G	-51.79	6.987895G	-52.58	1
2412MHz	Pass	2.437408G	14.56	-15.44	496M	-57.63	2.398G	-43.02	2.48534G	-52.78	24.35661G	-52.17	2
2412MHz	Pass	2.437408G	14.56	-15.44	2.307575G	-57.03	2.39904G	-41.56	2.48518G	-51.98	24.811759G	-52.29	3
2412MHz	Pass	2.437408G	14.56	-15.44	836.18M	-56.60	2.39904G	-42.51	2.4843G	-51.58	24.095321G	-52.28	4
2437MHz	Pass	2.437408G	14.56	-15.44	2.198065G	-57.10	2.39128G	-47.33	2.48494G	-51.66	24.370658G	-51.95	1
2437MHz	Pass	2.437408G	14.56	-15.44	2.309905G	-57.13	2.39136G	-47.05	2.48398G	-50.89	24.379087G	-52.37	2
2437MHz	Pass	2.437408G	14.56	-15.44	533.28M	-55.69	2.39864G	-48.10	2.48838G	-50.17	24.322895G	-52.59	3
2437MHz	Pass	2.437408G	14.56	-15.44	794.24M	-57.29	2.39144G	-48.67	2.48414G	-50.19	24.238609G	-53.04	4
2462MHz	Pass	2.437408G	14.56	-15.44	636.965M	-57.48	2.39576G	-48.96	2.48414G	-48.99	16.680885G	-52.59	1
2462MHz	Pass	2.437408G	14.56	-15.44	867.635M	-55.96	2.39488G	-49.37	2.48502G	-48.49	24.42123G	-53.16	2
2462MHz	Pass	2.437408G	14.56	-15.44	536.775M	-57.35	2.39968G	-50.48	2.48558G	-48.46	6.968228G	-51.25	3
2462MHz	Pass	2.437408G	14.56	-15.44	2.307575G	-56.82	2.39984G	-49.15	2.48414G	-48.29	24.418421G	-52.43	4
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	11.17	-18.83	521.63M	-56.81	2.39576G	-26.14	2.48494G	-52.39	6.220884G	-52.19	1
2412MHz	Pass	2.435738G	11.17	-18.83	514.64M	-57.06	2.39792G	-30.12	2.48606G	-52.29	6.445649G	-52.54	2
2412MHz	Pass	2.435738G	11.17	-18.83	864.14M	-57.75	2.3996G	-29.40	2.48518G	-53.05	24.224561G	-53.08	3
2412MHz	Pass	2.435738G	11.17	-18.83	534.445M	-56.68	2.39952G	-29.63	2.48694G	-52.62	6.985085G	-52.48	4
2437MHz	Pass	2.435738G	11.17	-18.83	518.135M	-55.32	2.39832G	-45.90	2.4855G	-49.75	6.906418G	-52.16	1
2437MHz	Pass	2.435738G	11.17	-18.83	909.575M	-56.02	2.396G	-47.30	2.48398G	-48.93	24.350991G	-52.32	2
2437MHz	Pass	2.435738G	11.17	-18.83	864.14M	-56.05	2.39936G	-47.47	2.48502G	-48.66	24.03913G	-52.56	3
2437MHz	Pass	2.435738G	11.17	-18.83	932.875M	-57.78	2.398G	-47.67	2.48678G	-50.93	24.342562G	-52.38	4
2462MHz	Pass	2.435738G	11.17	-18.83	607.84M	-57.38	2.39944G	-49.83	2.48358G	-40.51	24.353801G	-52.43	1
2462MHz	Pass	2.435738G	11.17	-18.83	536.775M	-56.71	2.39792G	-50.98	2.48422G	-44.61	24.671281G	-52.44	2
2462MHz	Pass	2.435738G	11.17	-18.83	872.295M	-57.30	2.39936G	-50.71	2.48414G	-42.43	15.169341G	-52.21	3
2462MHz	Pass	2.435738G	11.17	-18.83	784.92M	-58.03	2.39304G	-50.94	2.4839G	-42.06	6.906418G	-52.28	4
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.441917G	11.31	-18.69	910.74M	-56.76	2.39984G	-37.77	2.48558G	-53.92	6.985085G	-52.90	1
2412MHz	Pass	2.441917G	11.31	-18.69	647.45M	-57.80	2.39976G	-40.85	2.48694G	-55.72	6.147836G	-52.87	2
2412MHz	Pass	2.441917G	11.31	-18.69	1.96856G	-44.21	2.39912G	-41.40	2.48614G	-55.26	24.54766G	-52.74	3
2412MHz	Pass	2.441917G	11.31	-18.69	386.49M	-57.03	2.39952G	-39.09	2.48526G	-52.94	6.816512G	-53.21	4
2437MHz	Pass	2.441917G	11.31	-18.69	2.30175G	-56.55	2.39888G	-44.02	2.48406G	-49.08	6.982276G	-52.13	1
2437MHz	Pass	2.441917G	11.31	-18.69	866.47M	-56.50	2.39984G	-45.51	2.4839G	-50.07	6.931704G	-52.53	2
2437MHz	Pass	2.441917G	11.31	-18.69	556.58M	-56.26	2.39888G	-45.73	2.48646G	-48.79	24.752759G	-52.37	3
2437MHz	Pass	2.441917G	11.31	-18.69	2.17593G	-56.38	2.39896G	-45.97	2.48398G	-49.71	24.030701G	-52.87	4
2462MHz	Pass	2.441917G	11.31	-18.69	2.1969G	-57.28	2.39984G	-51.74	2.48366G	-42.94	24.99719G	-52.40	1
2462MHz	Pass	2.441917G	11.31	-18.69	694.05M	-55.38	2.398G	-51.25	2.48414G	-44.30	6.830559G	-53.27	2



CSE Non-restricted Band Result

Appendix E

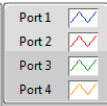
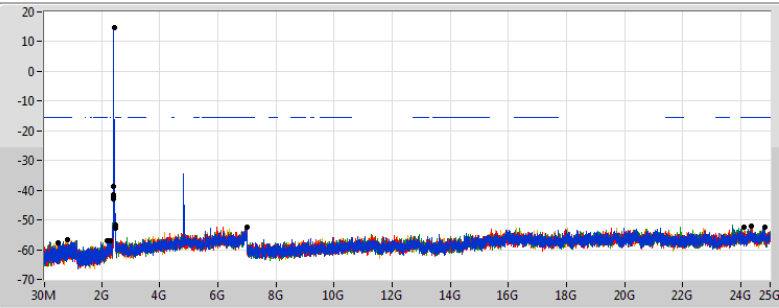
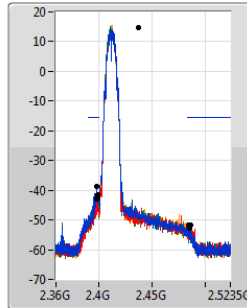
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2462MHz	Pass	2.441917G	11.31	-18.69	1.96856G	-56.67	2.39888G	-51.75	2.48382G	-44.30	6.934513G	-52.58	3
2462MHz	Pass	2.441917G	11.31	-18.69	908.41M	-57.34	2.39952G	-51.35	2.48438G	-46.66	16.58536G	-52.02	4
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.454442G	4.44	-25.56	545.25M	-56.10	2.39696G	-40.93	2.48574G	-53.74	24.332514G	-53.04	1
2422MHz	Pass	2.454442G	4.44	-25.56	913.94M	-58.20	2.39952G	-42.86	2.48526G	-53.07	24.357755G	-52.41	2
2422MHz	Pass	2.454442G	4.44	-25.56	415.865M	-57.76	2.39456G	-45.14	2.48574G	-54.10	24.382996G	-52.83	3
2422MHz	Pass	2.454442G	4.44	-25.56	546.395M	-57.02	2.39712G	-43.19	2.4867G	-53.96	16.437671G	-52.79	4
2437MHz	Pass	2.454442G	4.44	-25.56	924.245M	-56.66	2.39328G	-40.39	2.48478G	-49.63	16.401211G	-51.84	1
2437MHz	Pass	2.454442G	4.44	-25.56	872.72M	-57.23	2.39888G	-43.02	2.49454G	-47.29	24.315687G	-52.40	2
2437MHz	Pass	2.454442G	4.44	-25.56	30M	-55.90	2.39952G	-42.88	2.49438G	-45.93	24.04084G	-52.48	3
2437MHz	Pass	2.454442G	4.44	-25.56	861.27M	-56.28	2.39856G	-40.78	2.48654G	-49.55	24.399824G	-52.54	4
2452MHz	Pass	2.454442G	4.44	-25.56	30M	-57.21	2.39584G	-47.06	2.48814G	-46.42	24.276423G	-52.57	1
2452MHz	Pass	2.454442G	4.44	-25.56	909.36M	-56.48	2.39232G	-48.54	2.48526G	-47.69	24.057667G	-52.32	2
2452MHz	Pass	2.454442G	4.44	-25.56	540.67M	-57.37	2.39872G	-49.20	2.48942G	-43.69	24.988782G	-53.34	3
2452MHz	Pass	2.454442G	4.44	-25.56	2.18947G	-57.17	2.39936G	-49.60	2.48478G	-48.84	6.896549G	-52.57	4
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.430728G	10.92	-19.08	675.41M	-57.83	2.39896G	-36.62	2.48566G	-52.99	6.973847G	-52.59	1
2412MHz	Pass	2.430728G	10.92	-19.08	2.17826G	-56.88	2.39896G	-40.51	2.48366G	-55.66	17.481611G	-52.44	2
2412MHz	Pass	2.430728G	10.92	-19.08	745.31M	-57.62	2.39848G	-41.13	2.48478G	-54.76	6.95699G	-52.53	3
2412MHz	Pass	2.430728G	10.92	-19.08	888.605M	-55.79	2.39784G	-39.62	2.4839G	-53.35	24.370658G	-52.47	4
2437MHz	Pass	2.430728G	10.92	-19.08	885.11M	-57.31	2.39984G	-42.85	2.48502G	-49.58	6.95699G	-52.44	1
2437MHz	Pass	2.430728G	10.92	-19.08	843.17M	-56.15	2.39592G	-44.24	2.48574G	-49.85	24.190846G	-52.99	2
2437MHz	Pass	2.430728G	10.92	-19.08	505.32M	-56.44	2.39984G	-44.55	2.48518G	-49.54	24.727472G	-51.81	3
2437MHz	Pass	2.430728G	10.92	-19.08	892.1M	-57.50	2.39992G	-43.92	2.48638G	-49.11	24.373468G	-52.55	4
2462MHz	Pass	2.430728G	10.92	-19.08	935.205M	-58.17	2.39704G	-50.51	2.48366G	-39.06	16.770791G	-53.08	1
2462MHz	Pass	2.430728G	10.92	-19.08	2.307575G	-57.17	2.3976G	-51.59	2.48374G	-40.48	24.752759G	-52.26	2
2462MHz	Pass	2.430728G	10.92	-19.08	928.215M	-57.08	2.39784G	-51.59	2.48446G	-40.47	6.012977G	-52.49	3
2462MHz	Pass	2.430728G	10.92	-19.08	536.775M	-57.56	2.39808G	-50.99	2.48366G	-40.57	6.18717G	-52.31	4
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.431897G	3.61	-26.39	880.735M	-57.52	2.39904G	-42.53	2.4867G	-54.30	24.856967G	-52.72	1
2422MHz	Pass	2.431897G	3.61	-26.39	1.966195G	-57.15	2.39776G	-46.59	2.48494G	-53.32	6.977881G	-52.67	2
2422MHz	Pass	2.431897G	3.61	-26.39	497.16M	-56.26	2.39744G	-45.89	2.48526G	-54.00	24.338123G	-52.06	3
2422MHz	Pass	2.431897G	3.61	-26.39	517.77M	-57.10	2.39936G	-45.32	2.4851G	-54.06	24.068885G	-52.63	4
2437MHz	Pass	2.431897G	3.61	-26.39	763.945M	-57.01	2.3984G	-39.14	2.48526G	-49.65	24.00438G	-52.39	1
2437MHz	Pass	2.431897G	3.61	-26.39	816.615M	-56.59	2.39856G	-42.86	2.48398G	-48.44	24.402628G	-52.70	2
2437MHz	Pass	2.431897G	3.61	-26.39	30M	-56.78	2.39936G	-43.15	2.4851G	-48.56	6.803999G	-52.66	3
2437MHz	Pass	2.431897G	3.61	-26.39	651.735M	-57.37	2.3992G	-42.11	2.48798G	-50.01	24.352146G	-52.72	4
2452MHz	Pass	2.431897G	3.61	-26.39	1.99024G	-55.85	2.39984G	-45.98	2.48462G	-47.21	6.9891G	-52.68	1
2452MHz	Pass	2.431897G	3.61	-26.39	532.655M	-55.64	2.39872G	-48.21	2.48814G	-42.36	6.980686G	-53.18	2
2452MHz	Pass	2.431897G	3.61	-26.39	720.435M	-57.64	2.39872G	-48.17	2.48494G	-45.68	24.282032G	-52.93	3
2452MHz	Pass	2.431897G	3.61	-26.39	31.145M	-56.52	2.3992G	-47.01	2.48942G	-47.68	24.335319G	-52.57	4

802.11b_Nss1,(1Mbps)_4TX

CSE NdB

2412MHz

26/01/2018



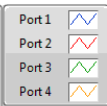
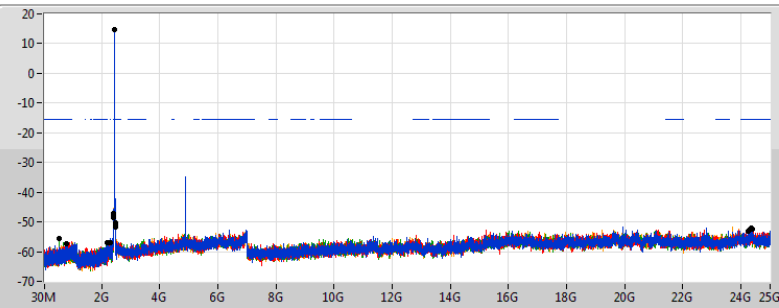
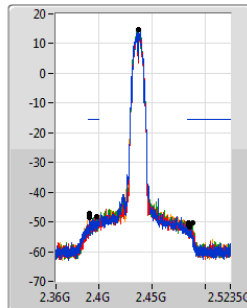
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.437408G	14.56	-15.44	2.18758G	-57.00	2.39808G	-38.86	2.48638G	-51.79	6.987895G	-52.58	1
2.437408G	14.56	-15.44	496M	-57.63	2.398G	-43.02	2.48534G	-52.78	24.35661G	-52.17	2
2.437408G	14.56	-15.44	2.307575G	-57.03	2.39904G	-41.56	2.48518G	-51.98	24.811759G	-52.29	3
2.437408G	14.56	-15.44	836.18M	-56.60	2.39904G	-42.51	2.4843G	-51.58	24.095321G	-52.28	4

802.11b_Nss1,(1Mbps)_4TX

CSE NdB

2437MHz

26/01/2018



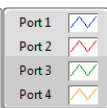
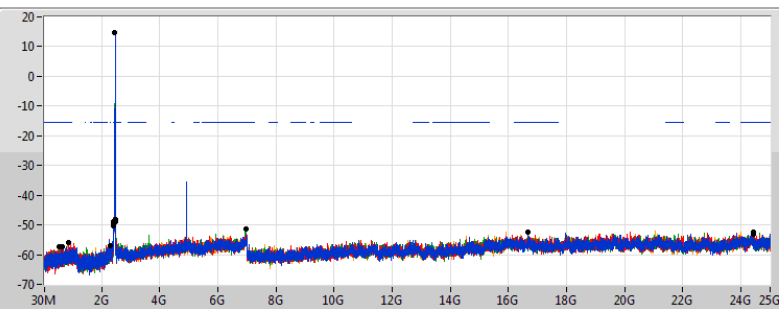
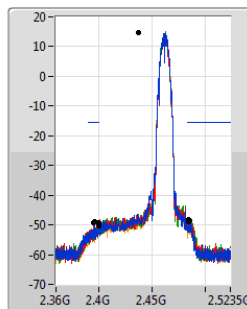
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.437408G	14.56	-15.44	2.198065G	-57.10	2.39128G	-47.33	2.48494G	-51.66	24.370658G	-51.95	1
2.437408G	14.56	-15.44	2.309905G	-57.13	2.39136G	-47.05	2.48398G	-50.89	24.379087G	-52.37	2
2.437408G	14.56	-15.44	533.28M	-55.69	2.39864G	-48.10	2.48838G	-50.17	24.322895G	-52.59	3
2.437408G	14.56	-15.44	794.24M	-57.29	2.39144G	-48.67	2.48414G	-50.19	24.238609G	-53.04	4

802.11b_Nss1,(1Mbps)_4TX

CSE NdB

2462MHz

26/01/2018



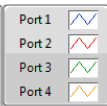
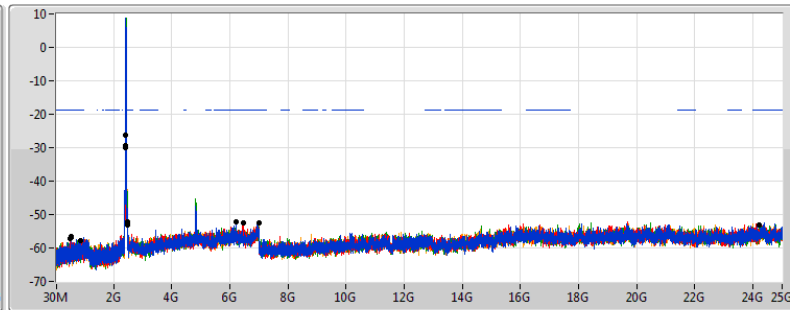
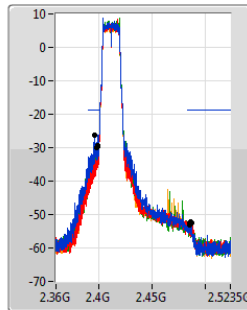
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.437408G	14.56	-15.44	636.965M	-57.48	2.39576G	-48.96	2.48414G	-48.99	16.680885G	-52.59	1
2.437408G	14.56	-15.44	867.635M	-55.96	2.39488G	-49.37	2.48502G	-48.49	24.42123G	-53.16	2
2.437408G	14.56	-15.44	536.775M	-57.35	2.39968G	-50.48	2.48558G	-48.46	6.968228G	-51.25	3
2.437408G	14.56	-15.44	2.307575G	-56.82	2.39984G	-49.15	2.48414G	-48.29	24.418421G	-52.43	4

802.11g_Nss1,(6Mbps)_4TX

CSE NdB

2412MHz

26/01/2018



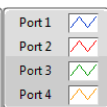
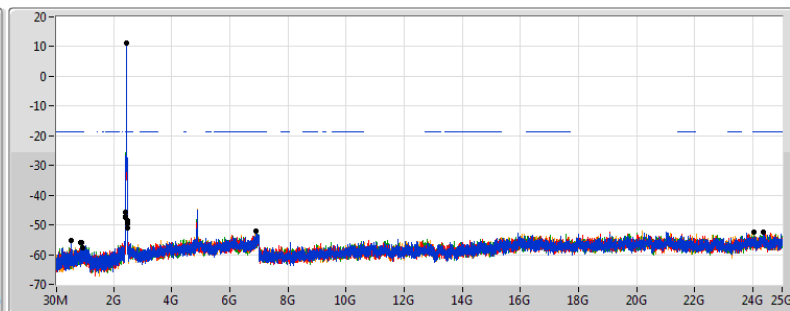
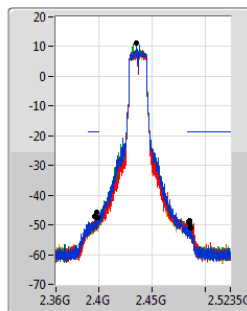
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	11.17	-18.83	521.63M	-56.81	2.39576G	-26.14	2.48494G	-52.39	6.220884G	-52.19	1
2.435738G	11.17	-18.83	514.64M	-57.06	2.39792G	-30.12	2.48606G	-52.29	6.445649G	-52.54	2
2.435738G	11.17	-18.83	864.14M	-57.75	2.3996G	-29.40	2.48518G	-53.05	24.224561G	-53.08	3
2.435738G	11.17	-18.83	534.445M	-56.68	2.39952G	-29.63	2.48694G	-52.62	6.985085G	-52.48	4

802.11g_Nss1,(6Mbps)_4TX

CSE NdB

2437MHz

26/01/2018



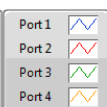
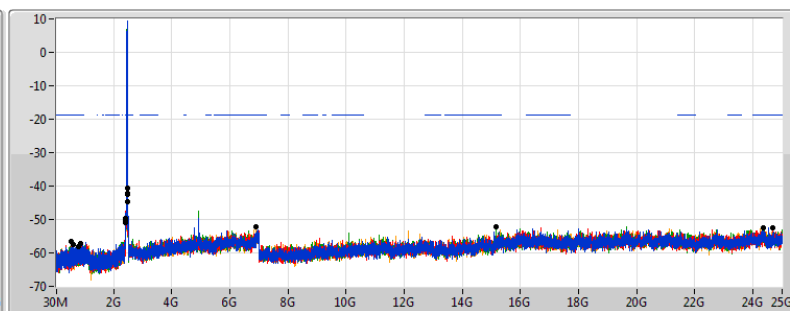
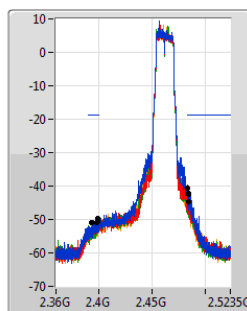
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	11.17	-18.83	518.135M	-55.32	2.39832G	-45.90	2.4855G	-49.75	6.906418G	-52.16	1
2.435738G	11.17	-18.83	909.575M	-56.02	2.396G	-47.30	2.48398G	-48.93	24.350991G	-52.32	2
2.435738G	11.17	-18.83	864.14M	-56.05	2.39936G	-47.47	2.48502G	-48.66	24.03913G	-52.56	3
2.435738G	11.17	-18.83	932.875M	-57.78	2.398G	-47.67	2.48678G	-50.93	24.342562G	-52.38	4

802.11g_Nss1,(6Mbps)_4TX

CSE NdB

2462MHz

26/01/2018



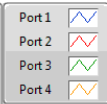
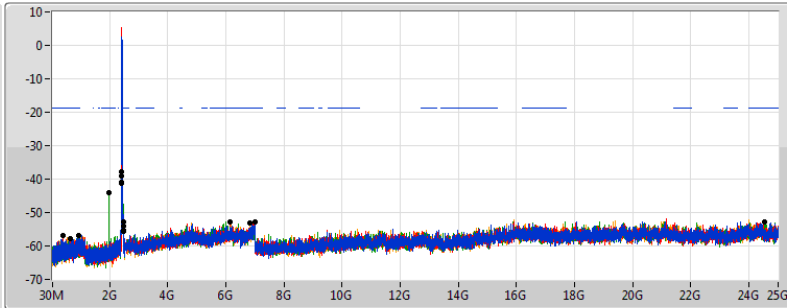
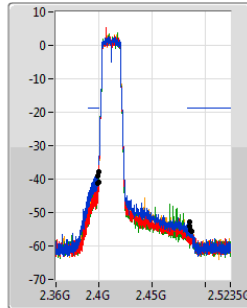
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	11.17	-18.83	607.84M	-57.38	2.39944G	-49.83	2.48358G	-40.51	24.353801G	-52.43	1
2.435738G	11.17	-18.83	536.775M	-56.71	2.39792G	-50.98	2.48422G	-44.61	24.671281G	-52.44	2
2.435738G	11.17	-18.83	872.295M	-57.30	2.39936G	-50.71	2.48414G	-42.43	15.169341G	-52.21	3
2.435738G	11.17	-18.83	784.92M	-58.03	2.39304G	-50.94	2.4839G	-42.06	6.906418G	-52.28	4

802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

2412MHz

26/01/2018



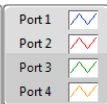
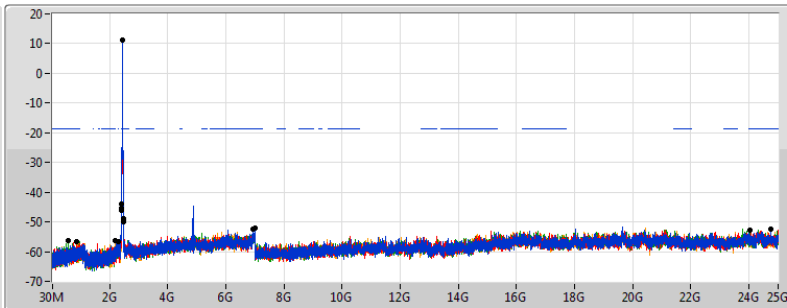
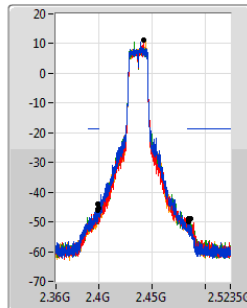
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	11.31	-18.69	910.74M	-56.76	2.39984G	-37.77	2.48558G	-53.92	6.985085G	-52.90	1
2.441917G	11.31	-18.69	647.45M	-57.80	2.39976G	-40.85	2.48694G	-55.72	6.147836G	-52.87	2
2.441917G	11.31	-18.69	1.96856G	-44.21	2.39912G	-41.40	2.48614G	-55.26	24.54766G	-52.74	3
2.441917G	11.31	-18.69	386.49M	-57.03	2.39952G	-39.09	2.48526G	-52.94	6.816512G	-53.21	4

802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

2437MHz

26/01/2018



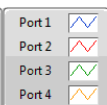
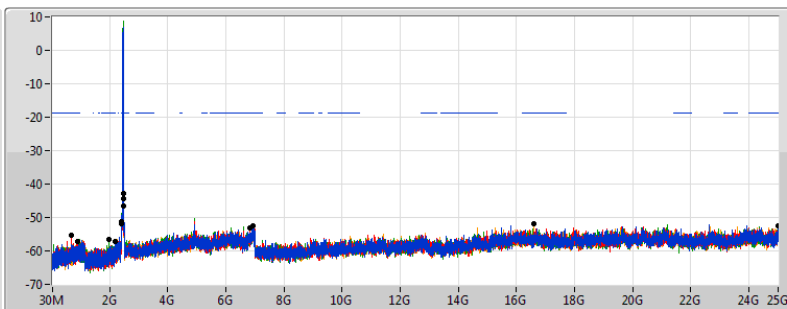
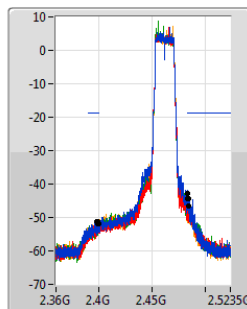
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	11.31	-18.69	2.30175G	-56.55	2.39888G	-44.02	2.48406G	-49.08	6.982276G	-52.13	1
2.441917G	11.31	-18.69	866.47M	-56.50	2.39984G	-45.51	2.4839G	-50.07	6.931704G	-52.53	2
2.441917G	11.31	-18.69	556.58M	-56.26	2.39888G	-45.73	2.48646G	-48.79	24.752759G	-52.37	3
2.441917G	11.31	-18.69	2.17593G	-56.38	2.39896G	-45.97	2.48398G	-49.71	24.030701G	-52.87	4

802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

2462MHz

26/01/2018



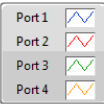
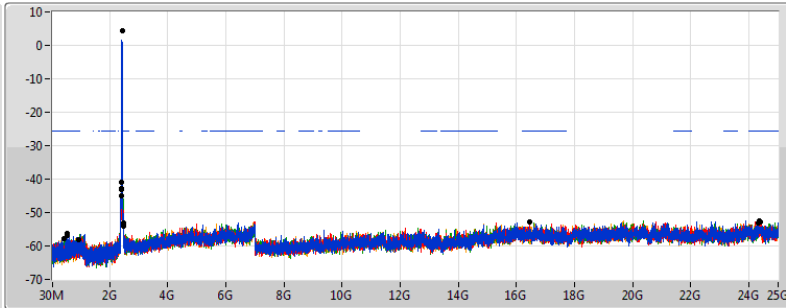
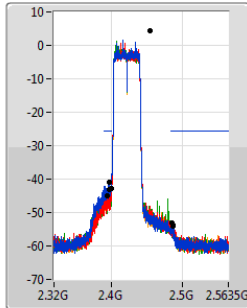
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	11.31	-18.69	2.1969G	-57.28	2.39984G	-51.74	2.48366G	-42.94	24.99719G	-52.40	1
2.441917G	11.31	-18.69	694.05M	-55.38	2.398G	-51.25	2.48414G	-44.30	6.830559G	-53.27	2
2.441917G	11.31	-18.69	1.96856G	-56.67	2.39888G	-51.75	2.48382G	-44.30	6.934513G	-52.58	3
2.441917G	11.31	-18.69	908.41M	-57.34	2.39952G	-51.35	2.48438G	-46.66	16.58536G	-52.02	4

802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

2422MHz

26/01/2018



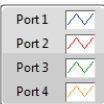
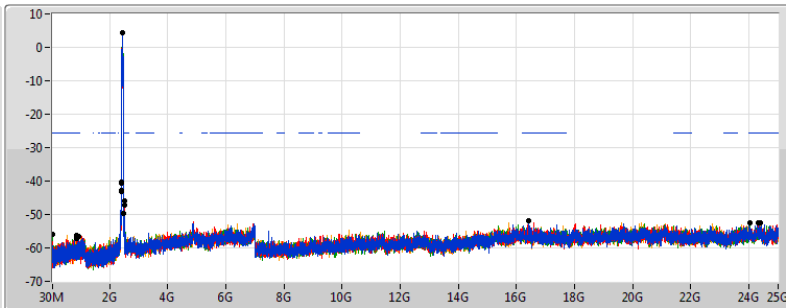
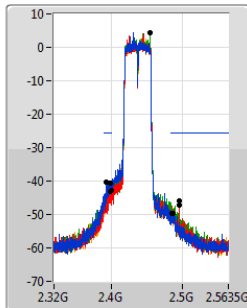
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.454442G	4.44	-25.56	545.25M	-56.10	2.39696G	-40.93	2.48574G	-53.74	24.332514G	-53.04	1
2.454442G	4.44	-25.56	913.94M	-58.20	2.39952G	-42.86	2.48526G	-53.07	24.357755G	-52.41	2
2.454442G	4.44	-25.56	415.865M	-57.76	2.39456G	-45.14	2.48574G	-54.10	24.382996G	-52.83	3
2.454442G	4.44	-25.56	546.395M	-57.02	2.39712G	-43.19	2.4867G	-53.96	16.437671G	-52.79	4

802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

2437MHz

26/01/2018



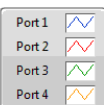
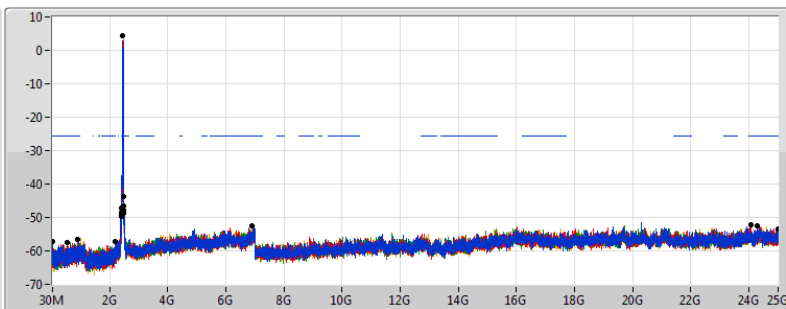
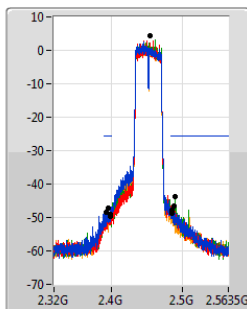
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.454442G	4.44	-25.56	924.245M	-56.66	2.39328G	-40.39	2.48478G	-49.63	16.401211G	-51.84	1
2.454442G	4.44	-25.56	872.72M	-57.23	2.39888G	-43.02	2.49454G	-47.29	24.315687G	-52.40	2
2.454442G	4.44	-25.56	30M	-55.90	2.39952G	-42.88	2.49438G	-45.93	24.04084G	-52.48	3
2.454442G	4.44	-25.56	861.27M	-56.28	2.39856G	-40.78	2.48654G	-49.55	24.399824G	-52.54	4

802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

2452MHz

26/01/2018



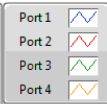
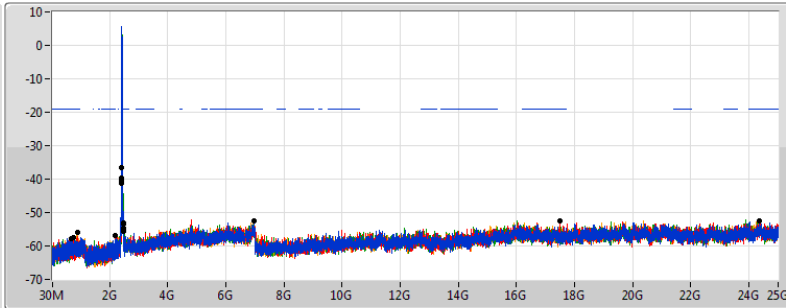
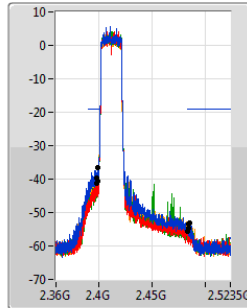
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.454442G	4.44	-25.56	30M	-57.21	2.39584G	-47.06	2.48814G	-46.42	24.276423G	-52.57	1
2.454442G	4.44	-25.56	909.36M	-56.48	2.39232G	-48.54	2.48526G	-47.69	24.057667G	-52.32	2
2.454442G	4.44	-25.56	540.67M	-57.37	2.39872G	-49.20	2.48942G	-43.69	24.988782G	-53.34	3
2.454442G	4.44	-25.56	2.18947G	-57.17	2.39936G	-49.60	2.48478G	-48.84	6.896549G	-52.57	4

HE20_Nss1,(MCS0)_4TX

CSE NdB

2412MHz

26/01/2018



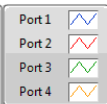
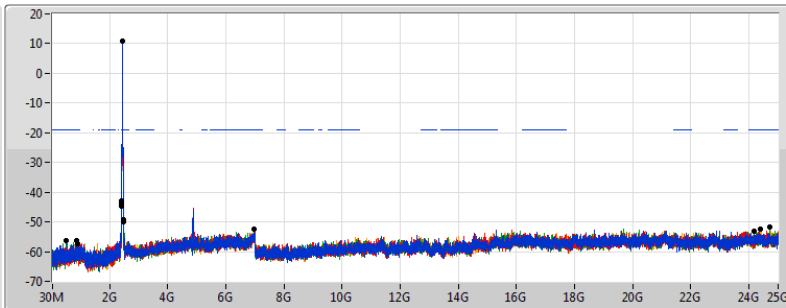
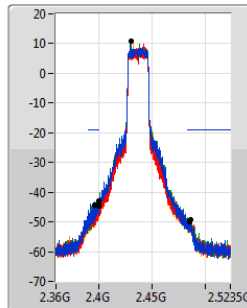
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	10.92	-19.08	675.41M	-57.83	2.39896G	-36.62	2.48566G	-52.99	6.973847G	-52.59	1
2.430728G	10.92	-19.08	2.17826G	-56.88	2.39896G	-40.51	2.48366G	-55.66	17.481611G	-52.44	2
2.430728G	10.92	-19.08	745.31M	-57.62	2.39848G	-41.13	2.48478G	-54.76	6.95699G	-52.53	3
2.430728G	10.92	-19.08	888.605M	-55.79	2.39784G	-39.62	2.4839G	-53.35	24.370658G	-52.47	4

HE20_Nss1,(MCS0)_4TX

CSE NdB

2437MHz

26/01/2018



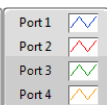
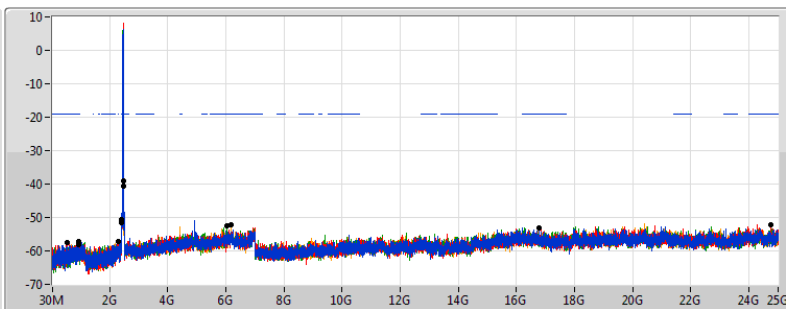
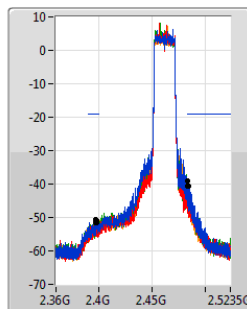
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	10.92	-19.08	885.11M	-57.31	2.39984G	-42.85	2.48502G	-49.58	6.95699G	-52.44	1
2.430728G	10.92	-19.08	843.17M	-56.15	2.39592G	-44.24	2.48574G	-49.85	24.190846G	-52.99	2
2.430728G	10.92	-19.08	505.32M	-56.44	2.39984G	-44.55	2.48518G	-49.54	24.727472G	-51.81	3
2.430728G	10.92	-19.08	892.1M	-57.50	2.39992G	-43.92	2.48638G	-49.11	24.373468G	-52.55	4

HE20_Nss1,(MCS0)_4TX

CSE NdB

2462MHz

26/01/2018



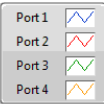
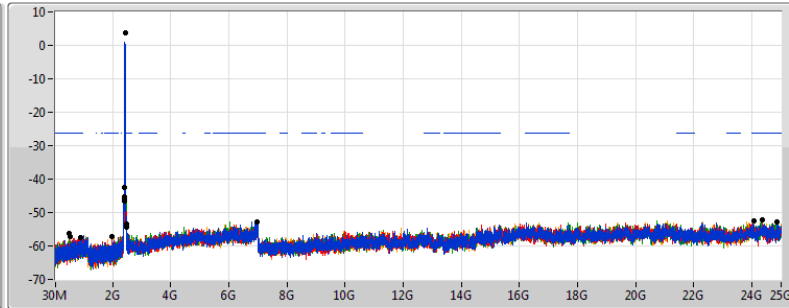
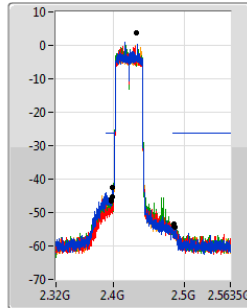
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	10.92	-19.08	935.205M	-58.17	2.39704G	-50.51	2.48366G	-39.06	16.770791G	-53.08	1
2.430728G	10.92	-19.08	2.307575G	-57.17	2.3976G	-51.59	2.48374G	-40.48	24.752759G	-52.26	2
2.430728G	10.92	-19.08	928.215M	-57.08	2.39784G	-51.59	2.48446G	-40.47	6.012977G	-52.49	3
2.430728G	10.92	-19.08	536.775M	-57.56	2.39808G	-50.99	2.48366G	-40.57	6.18717G	-52.31	4

HE40_Nss1,(MCS0)_4TX

CSE NdB

2422MHz

26/01/2018



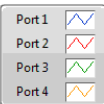
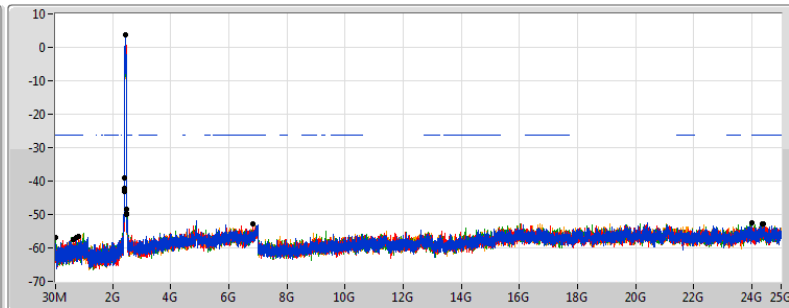
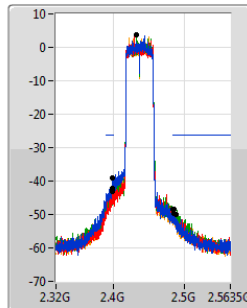
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.431897G	3.61	-26.39	880.735M	-57.52	2.39904G	-42.53	2.4867G	-54.30	24.856967G	-52.72	1
2.431897G	3.61	-26.39	1.966195G	-57.15	2.39776G	-46.59	2.48494G	-53.32	6.977881G	-52.67	2
2.431897G	3.61	-26.39	497.16M	-56.26	2.39744G	-45.89	2.48526G	-54.00	24.338123G	-52.06	3
2.431897G	3.61	-26.39	517.77M	-57.10	2.39936G	-45.32	2.4851G	-54.06	24.068885G	-52.63	4

HE40_Nss1,(MCS0)_4TX

CSE NdB

2437MHz

26/01/2018



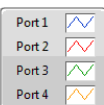
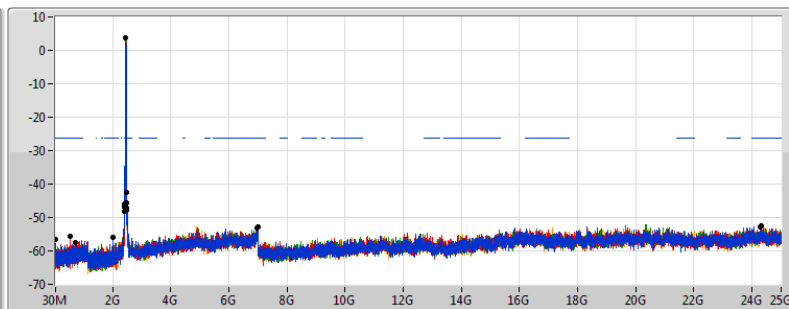
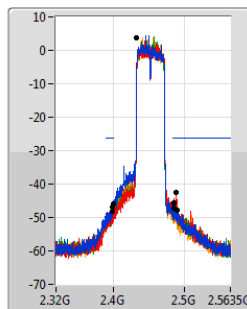
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.431897G	3.61	-26.39	763.945M	-57.01	2.3984G	-39.14	2.48526G	-49.65	24.00438G	-52.39	1
2.431897G	3.61	-26.39	816.615M	-56.59	2.39856G	-42.86	2.48398G	-48.44	24.402628G	-52.70	2
2.431897G	3.61	-26.39	30M	-56.78	2.39936G	-43.15	2.4851G	-48.56	6.803999G	-52.66	3
2.431897G	3.61	-26.39	651.735M	-57.37	2.3992G	-42.11	2.48798G	-50.01	24.352146G	-52.72	4

HE40_Nss1,(MCS0)_4TX

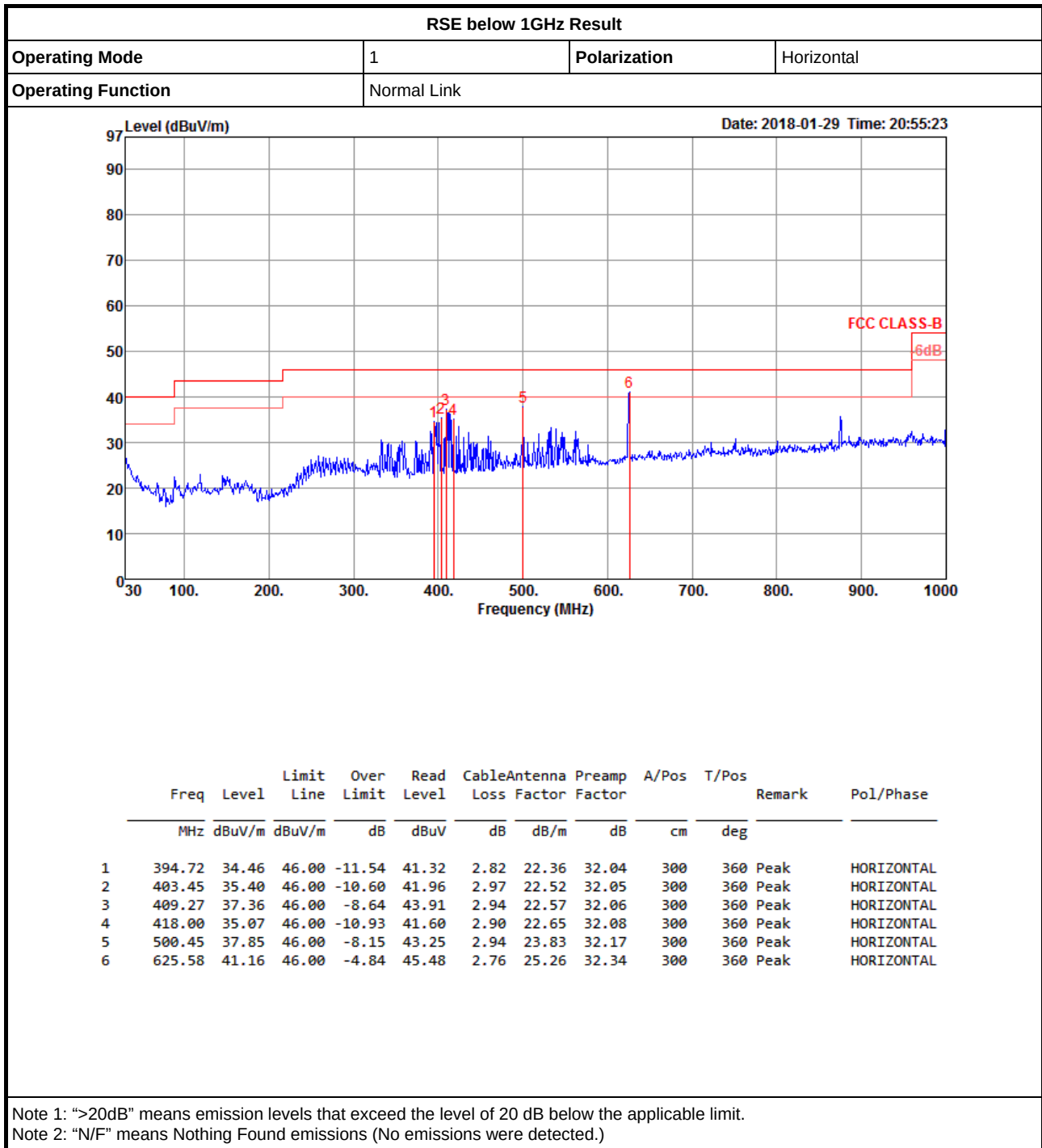
CSE NdB

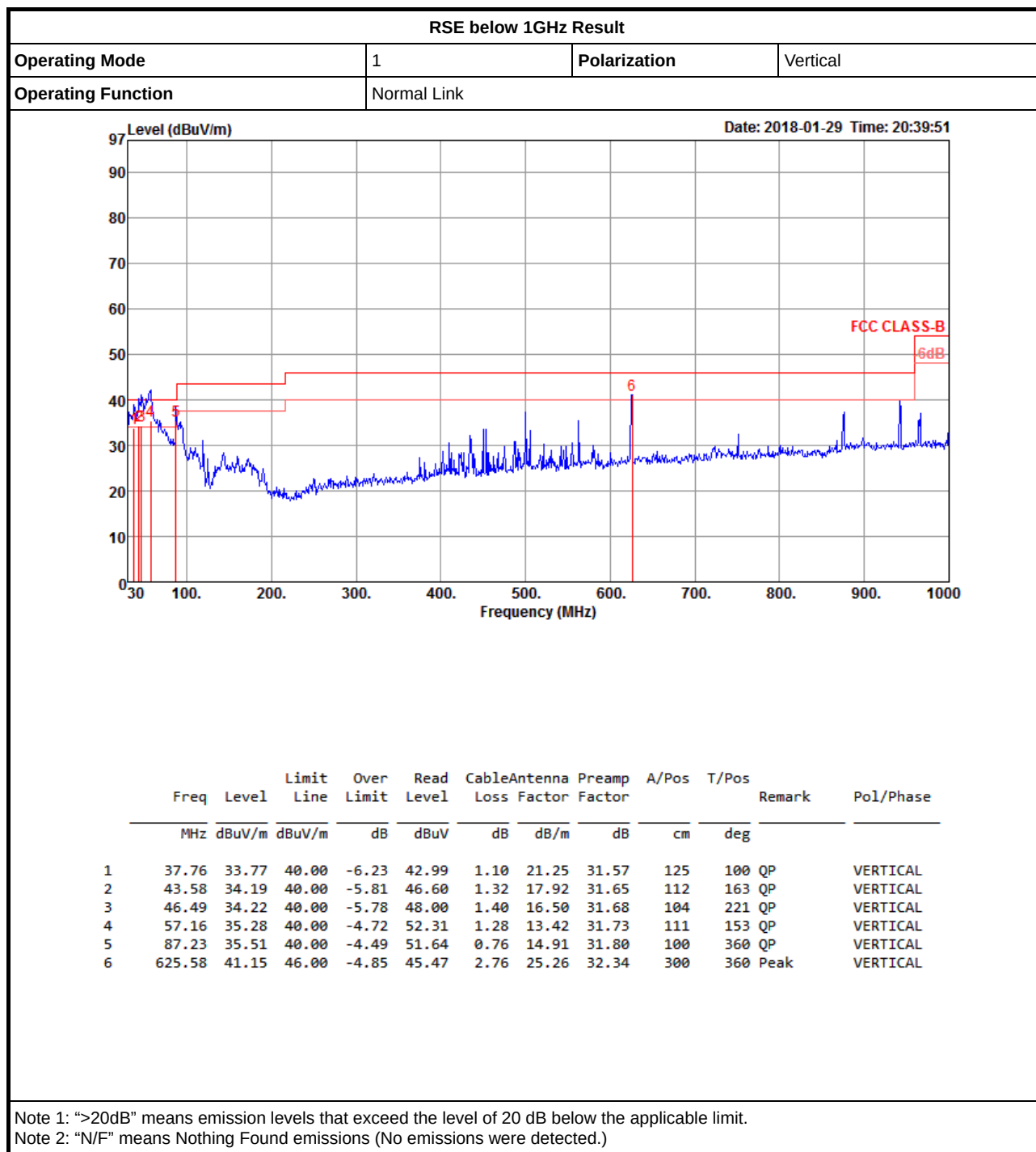
2452MHz

26/01/2018



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.431897G	3.61	-26.39	1.99024G	-55.85	2.39984G	-45.98	2.48462G	-47.21	6.9891G	-52.68	1
2.431897G	3.61	-26.39	532.655M	-55.64	2.39872G	-48.21	2.48814G	-42.36	6.980686G	-53.18	2
2.431897G	3.61	-26.39	720.435M	-57.64	2.39872G	-48.17	2.48494G	-45.68	24.282032G	-52.93	3
2.431897G	3.61	-26.39	31.145M	-56.52	2.3992G	-47.01	2.48942G	-47.68	24.335319G	-52.57	4





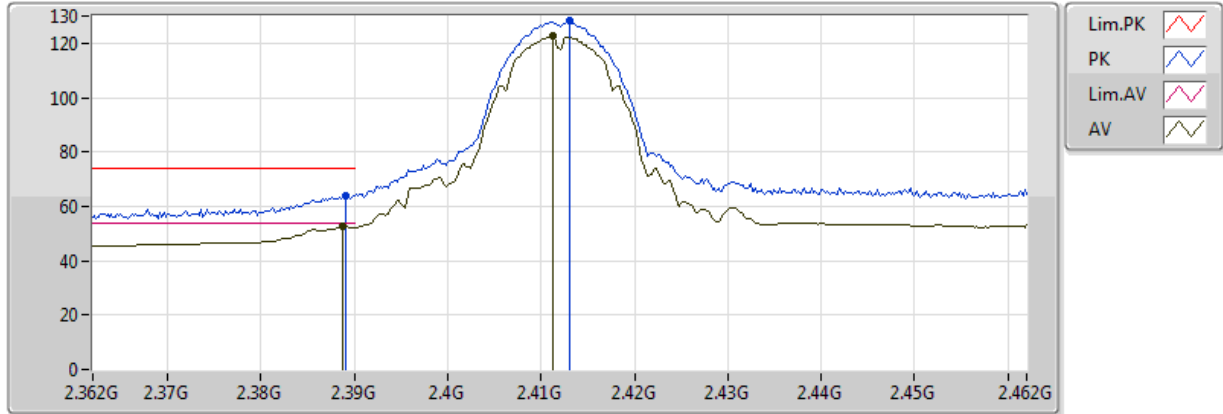
Summary

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	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_4TX	Pass	AV	2.3888G	52.58	54.00	-1.42	32.11	3	Vertical	306	1.83	-
802.11g_Nss1,(6Mbps)_4TX	Pass	AV	2.39G	53.62	54.00	-0.38	32.12	3	Vertical	327	1.80	-
802.11ac VHT20_Nss1,(MCS0)_4TX	Pass	PK	2.3892G	73.93	74.00	-0.07	32.12	3	Vertical	302	1.82	-
802.11ac VHT40_Nss1,(MCS0)_4TX	Pass	AV	2.3878G	53.82	54.00	-0.18	32.11	3	Vertical	294	1.99	-
HE20_Nss1,(MCS0)_4TX	Pass	AV	2.4854G	53.98	54.00	-0.02	32.42	3	Vertical	307	1.99	-
HE40_Nss1,(MCS0)_4TX	Pass	AV	2.486G	53.68	54.00	-0.32	32.43	3	Vertical	68	1.86	-

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

25/12/2017



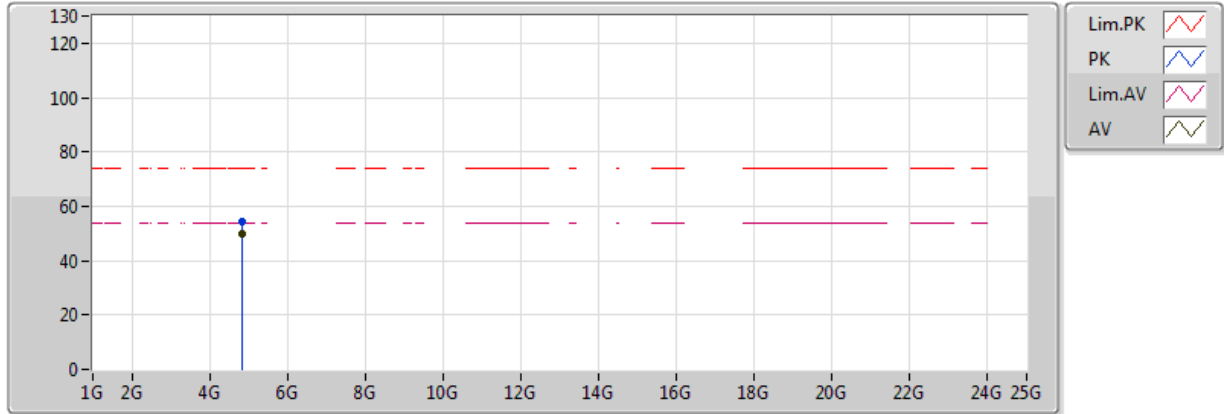
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3888G	52.58	54.00	-1.42	32.11	3	Vertical	306	1.83	-				
AV	2.4112G	122.64	Inf	-Inf	32.19	3	Vertical	306	1.83	-				
PK	2.389G	63.96	74.00	-10.04	32.11	3	Vertical	306	1.83	-				
PK	2.413G	128.06	Inf	-Inf	32.19	3	Vertical	306	1.83	-				

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

25/12/2017



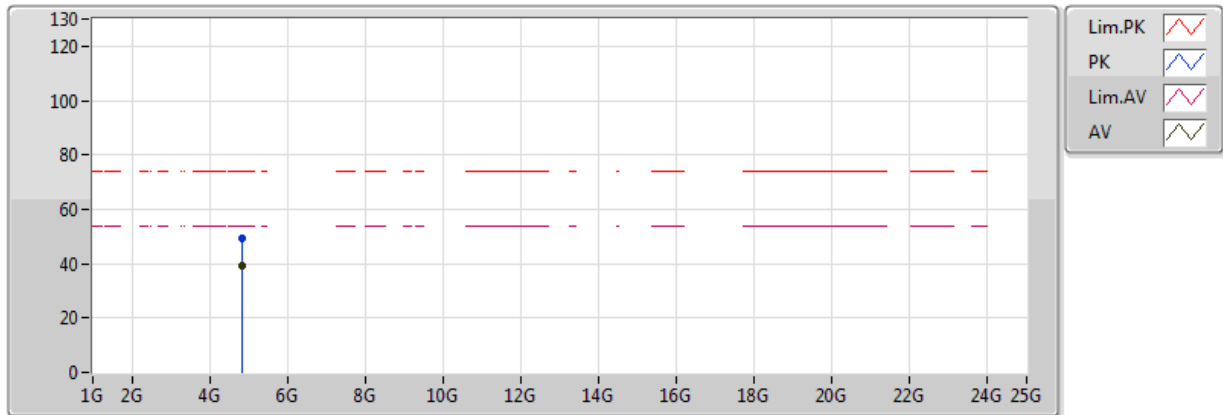
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.82398G	49.77	54.00	-4.23	6.70	3	Vertical	110	1.02	-				
PK	4.82385G	54.13	74.00	-19.87	6.70	3	Vertical	110	1.02	-				

802.11b_Nss1,(1Mbps)_4TX

2412MHz_TX

25/12/2017



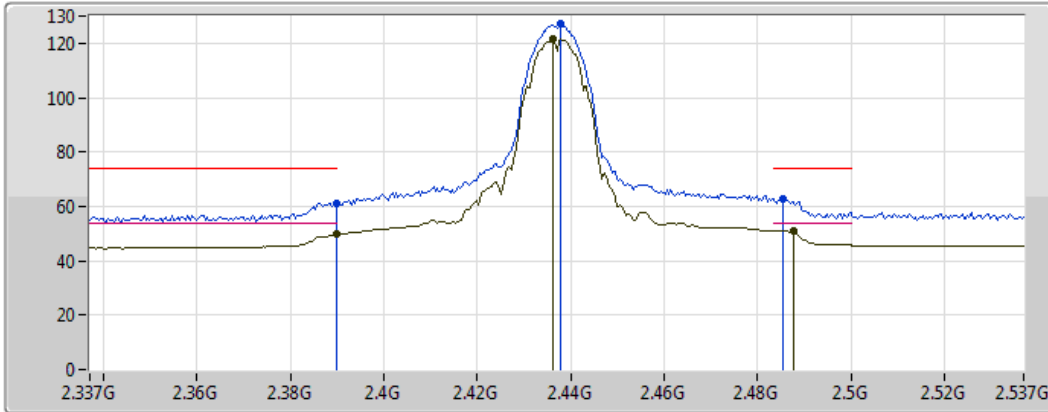
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.82402G	39.22	54.00	-14.78	6.70	3	Horizontal	134	2.19	-				
PK	4.8239G	49.41	74.00	-24.59	6.70	3	Horizontal	134	2.19	-				

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

25/12/2017



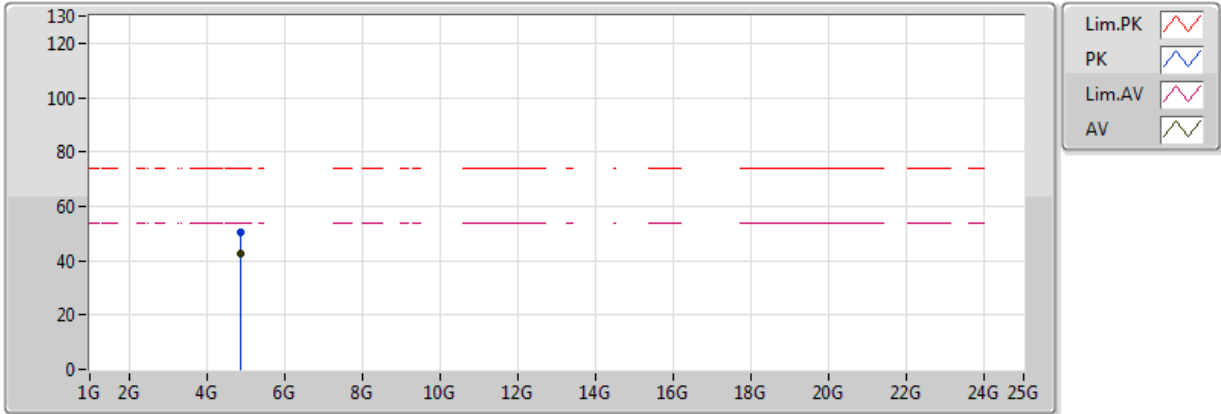
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.389998G	49.67	54.00	-4.33	32.12	3	Vertical	307	2.02	-				
AV	2.4362G	121.57	Inf	-Inf	32.27	3	Vertical	307	2.02	-				
AV	2.4878G	51.04	54.00	-2.96	32.44	3	Vertical	307	2.02	-				
PK	2.389998G	61.22	74.00	-12.78	32.12	3	Vertical	307	2.02	-				
PK	2.4378G	126.98	Inf	-Inf	32.27	3	Vertical	307	2.02	-				
PK	2.4854G	62.70	74.00	-11.30	32.43	3	Vertical	307	2.02	-				

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

25/12/2017



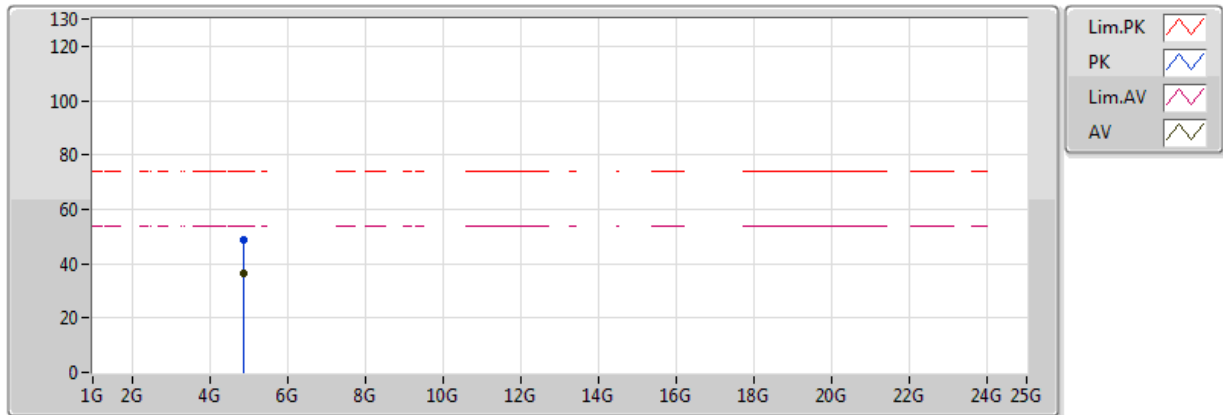
20171225
EUT_Z_4 TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.87395G	42.55	54.00	-11.45	6.84	3	Vertical	19	1.50	-				
PK	4.87417G	50.27	74.00	-23.73	6.84	3	Vertical	19	1.50	-				

802.11b_Nss1,(1Mbps)_4TX

2437MHz_TX

25/12/2017



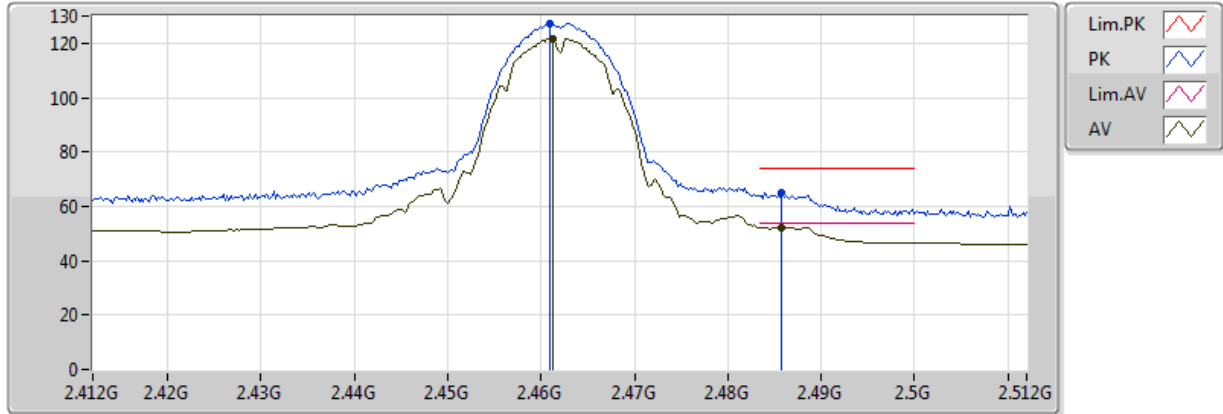
20171225
EUT_Z_4 TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.87395G	36.45	54.00	-17.55	6.84	3	Horizontal	284	1.20	-				
PK	4.87407G	48.94	74.00	-25.06	6.84	3	Horizontal	284	1.20	-				

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

25/12/2017



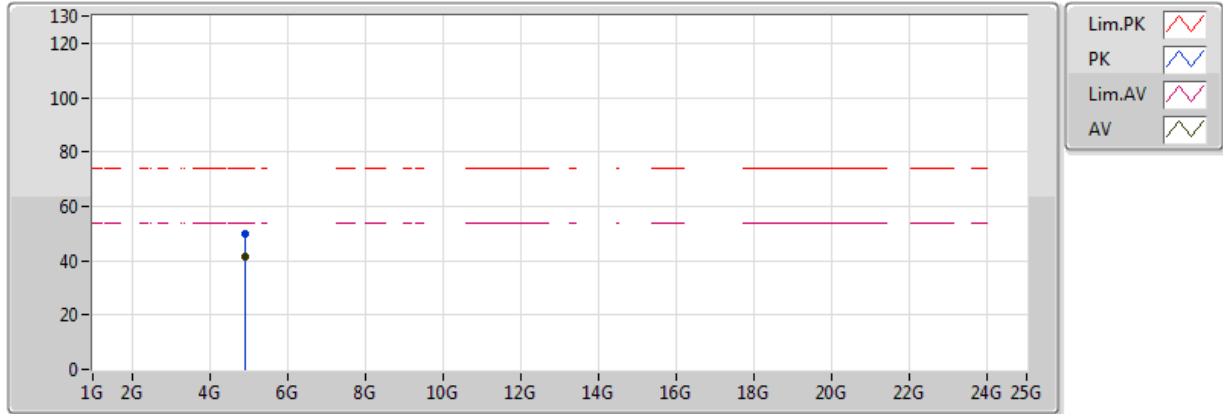
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.4612G	121.85	Inf	-Inf	32.35	3	Vertical	18	1.96	-				
AV	2.4858G	52.25	54.00	-1.75	32.43	3	Vertical	18	1.96	-				
PK	2.461G	127.41	Inf	-Inf	32.35	3	Vertical	18	1.96	-				
PK	2.4858G	64.87	74.00	-9.13	32.43	3	Vertical	18	1.96	-				

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

25/12/2017



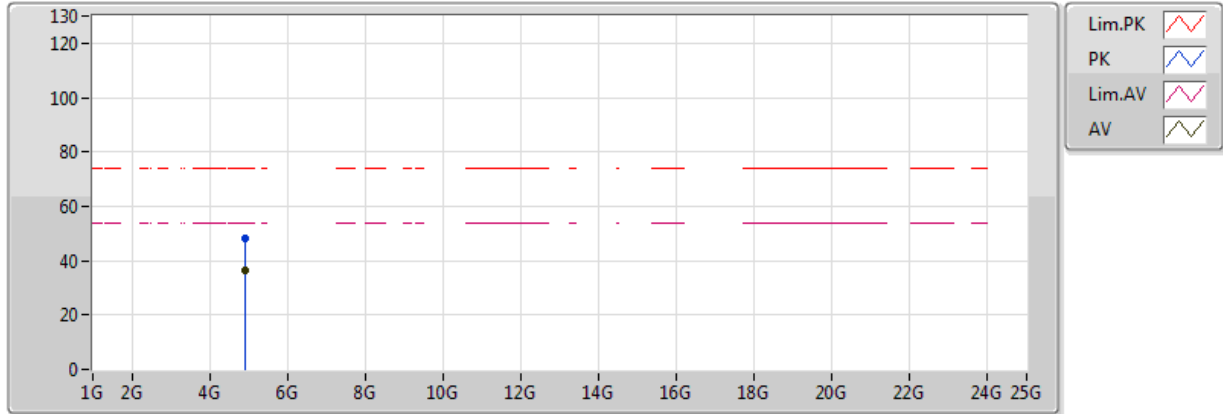
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.92398G	41.70	54.00	-12.30	6.98	3	Vertical	206	1.73	-				
PK	4.92409G	49.76	74.00	-24.24	6.98	3	Vertical	206	1.73	-				

802.11b_Nss1,(1Mbps)_4TX

2462MHz_TX

25/12/2017



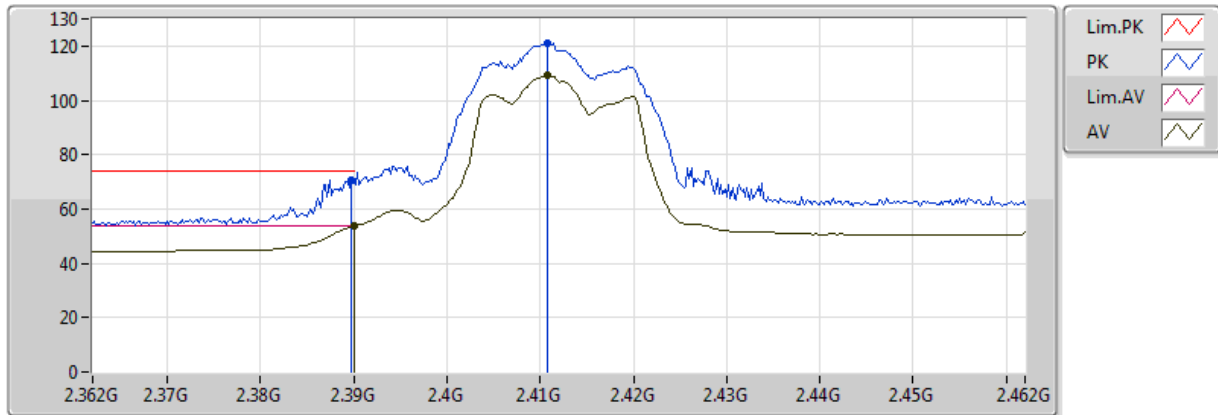
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.92398G	36.48	54.00	-17.52	6.98	3	Horizontal	333	2.45	-				
PK	4.92384G	48.20	74.00	-25.80	6.98	3	Horizontal	333	2.45	-				

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

01/02/2018



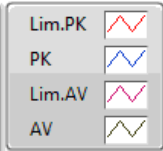
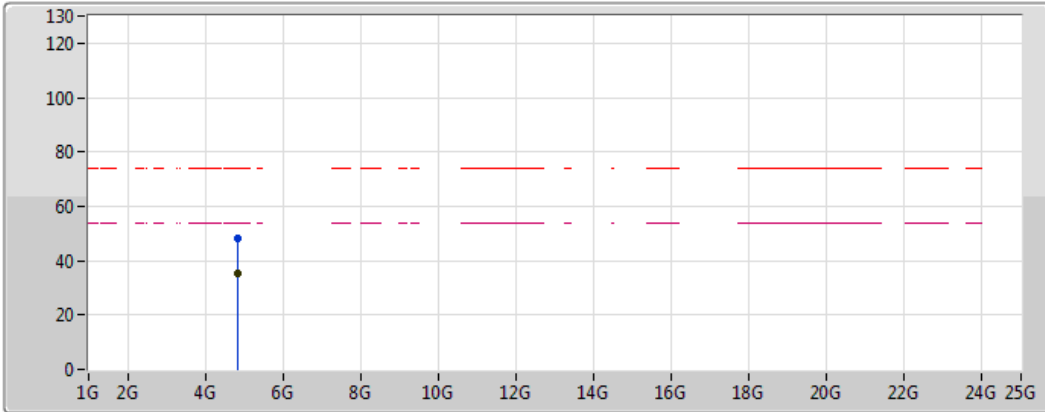
20171225
EUT_Z_4_TX_Dipole
Setting 90
06-L-3
FSP(100080)
rtax880Ur210#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.39G	53.62	54.00	-0.38	32.12	3	Vertical	327	1.80					
AV	2.4108G	109.10	Inf	-Inf	32.19	3	Vertical	327	1.80					
PK	2.3898G	70.68	74.00	-3.32	32.12	3	Vertical	327	1.80					
PK	2.4108G	121.16	Inf	-Inf	32.19	3	Vertical	327	1.80					

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

01/02/2018



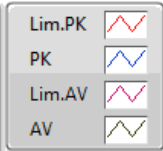
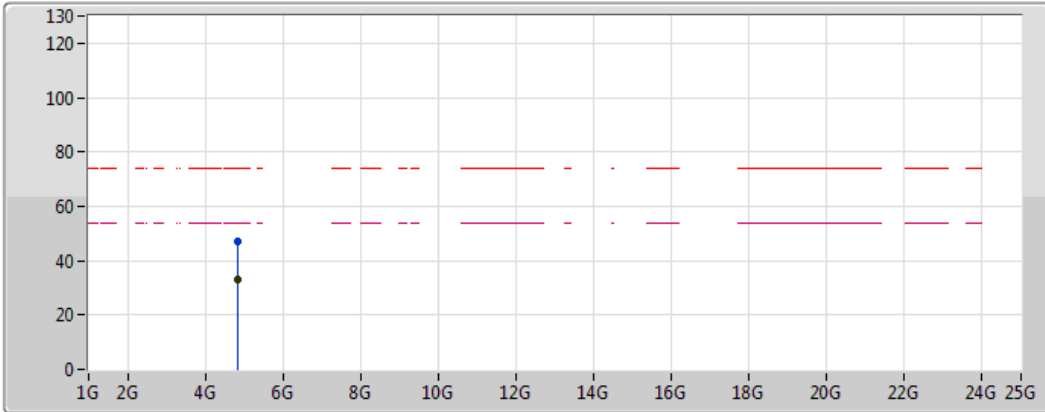
20171227
EUT_Z_4 TX_Dipole
Setting 90
05-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.825G	35.40	54.00	-18.60	6.77	3	Vertical	20	1.01					
PK	4.825G	48.26	74.00	-25.74	6.77	3	Vertical	20	1.01					

802.11g_Nss1,(6Mbps)_4TX

2412MHz_TX

01/02/2018



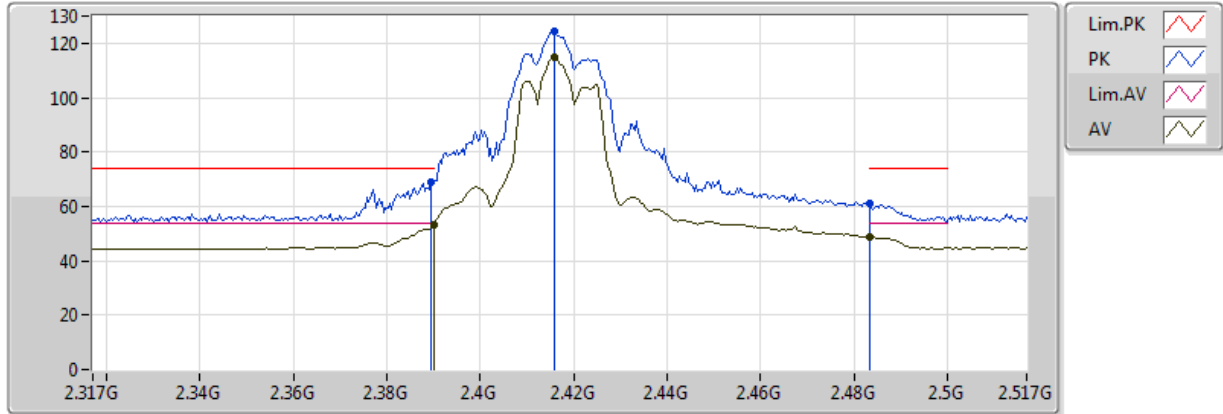
20171227
EUT_Z_4 TX_Dipole
Setting 90
05-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8314G	33.34	54.00	-20.66	6.78	3	Horizontal	295	1.50					
PK	4.8558G	46.90	74.00	-27.10	6.82	3	Horizontal	295	1.50					

802.11g_Nss1,(6Mbps)_4TX

2417MHz_TX

27/12/2017



20171227
EUT_Z_4_TX_Dipole
Setting 92
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.389998G	53.16	54.00	-0.84	32.72	3	Vertical	26	1.75					
AV	2.4158G	114.64	Inf	-Inf	32.78	3	Vertical	26	1.75					
AV	2.483502G	48.58	54.00	-5.42	32.94	3	Vertical	26	1.75					
PK	2.3894G	69.07	74.00	-4.93	32.72	3	Vertical	26	1.75					
PK	2.4158G	124.17	Inf	-Inf	32.78	3	Vertical	26	1.75					
PK	2.483502G	60.94	74.00	-13.06	32.94	3	Vertical	26	1.75					

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

25/12/2017



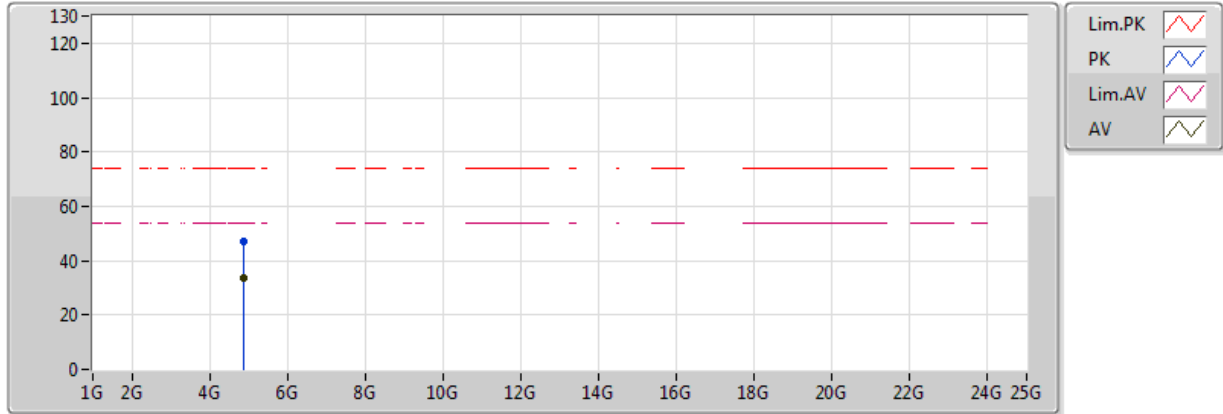
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389998G	50.01	54.00	-3.99	32.12	3	Vertical	41	1.82	-
AV	2.4378G	113.50	Inf	-Inf	32.27	3	Vertical	41	1.82	-
AV	2.4878G	50.79	54.00	-3.21	32.44	3	Vertical	41	1.82	-
PK	2.389G	62.13	74.00	-11.87	32.11	3	Vertical	41	1.82	-
PK	2.4382G	124.72	Inf	-Inf	32.27	3	Vertical	41	1.82	-
PK	2.4878G	62.93	74.00	-11.07	32.44	3	Vertical	41	1.82	-

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

27/12/2017



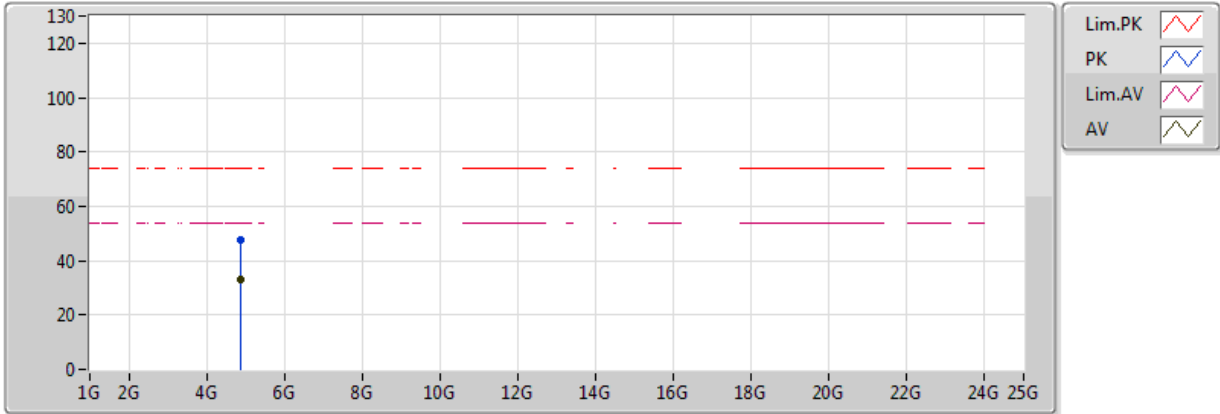
20171227
EUT_Z_4 TX_Dipole
Setting 96
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.87631G	33.44	54.00	-20.56	6.85	3	Vertical	201	1.50					
PK	4.8736G	47.19	74.00	-26.81	6.85	3	Vertical	201	1.50					

802.11g_Nss1,(6Mbps)_4TX

2437MHz_TX

27/12/2017



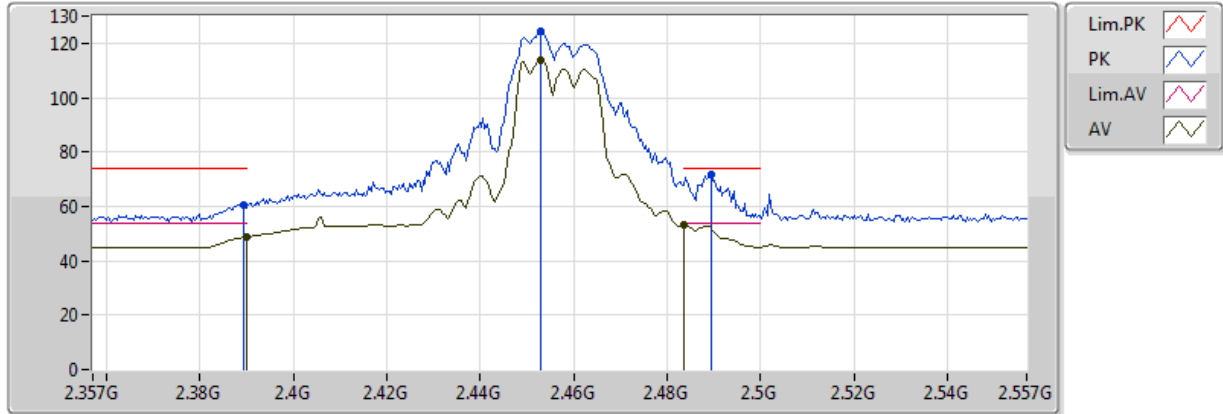
20171227
EUT_Z_4 TX_Dipole
Setting 96
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.87589G	33.03	54.00	-20.97	6.85	3	Horizontal	268	1.50					
PK	4.87317G	47.41	74.00	-26.59	6.85	3	Horizontal	268	1.50					

802.11g_Nss1,(6Mbps)_4TX

2457MHz_TX

17/01/2018



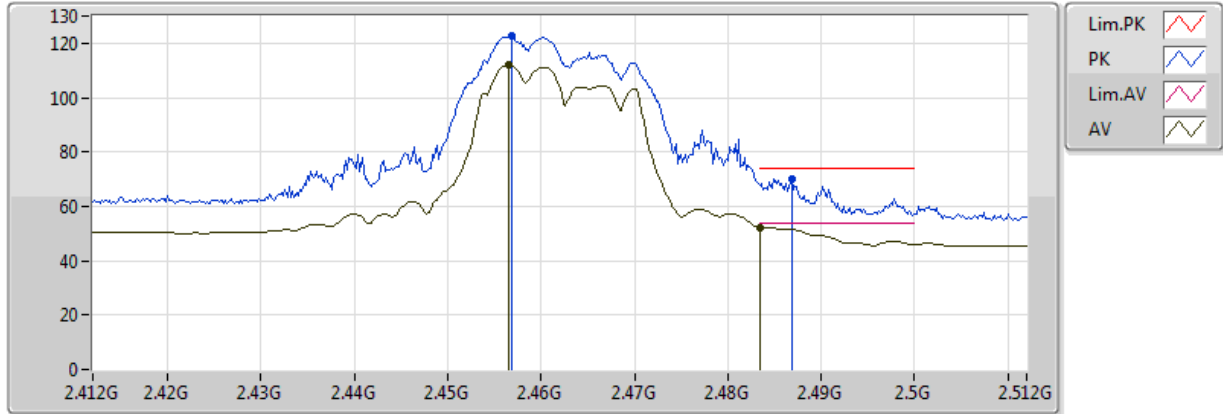
20171225
EUT_Z_4_TX_Dipole
Setting 96
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.389998G	48.73	54.00	-5.27	32.72	3	Vertical	300	1.85					
AV	2.453G	113.89	Inf	-Inf	32.87	3	Vertical	300	1.85					
AV	2.483502G	53.27	54.00	-0.73	32.94	3	Vertical	300	1.85					
PK	2.3894G	60.68	74.00	-13.32	32.72	3	Vertical	300	1.85					
PK	2.453G	124.50	Inf	-Inf	32.87	3	Vertical	300	1.85					
PK	2.4894G	71.80	74.00	-2.20	32.95	3	Vertical	300	1.85					

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

25/12/2017



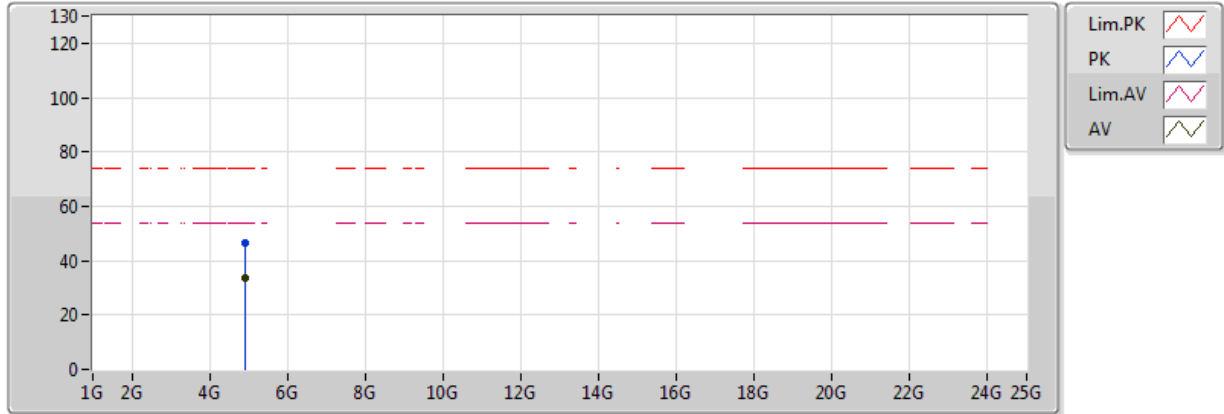
20171225
EUT_Z_4_TX_Dipole
Setting 88
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.4566G	111.88	Inf	-Inf	32.33	3	Vertical	11	1.97	-				
AV	2.483502G	52.09	54.00	-1.91	32.42	3	Vertical	11	1.97	-				
PK	2.4568G	122.44	Inf	-Inf	32.33	3	Vertical	11	1.97	-				
PK	2.4868G	70.15	74.00	-3.85	32.43	3	Vertical	11	1.97	-				

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

27/12/2017



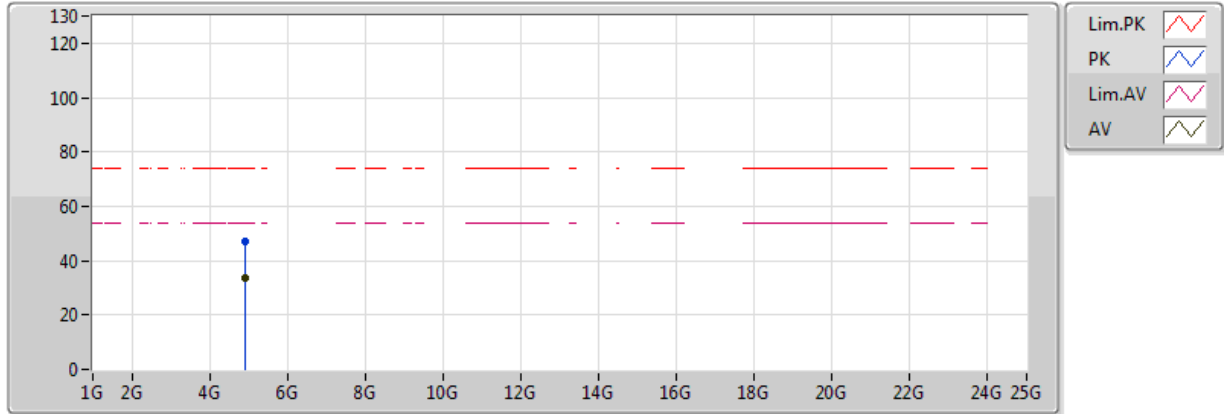
20171227
EUT_Z_4 TX_Dipole
Setting 88
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.9169G	33.44	54.00	-20.56	6.96	3	Vertical	222	2.33					
PK	4.9211G	46.71	74.00	-27.29	6.97	3	Vertical	222	2.33					

802.11g_Nss1,(6Mbps)_4TX

2462MHz_TX

27/12/2017



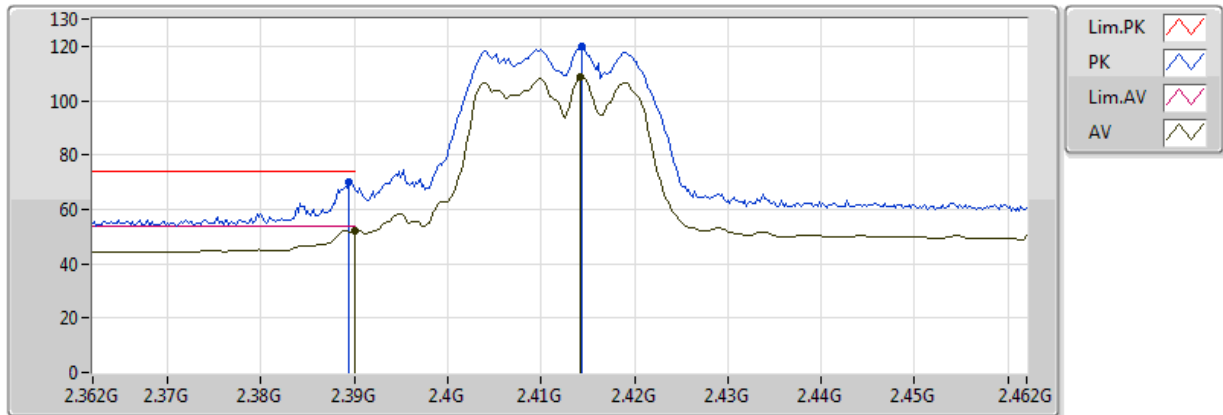
20171227
EUT_Z_4 TX_Dipole
Setting 88
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.9196G	33.37	54.00	-20.63	6.96	3	Horizontal	66	1.01					
PK	4.9241G	47.06	74.00	-26.94	6.98	3	Horizontal	66	1.01					

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

25/12/2017



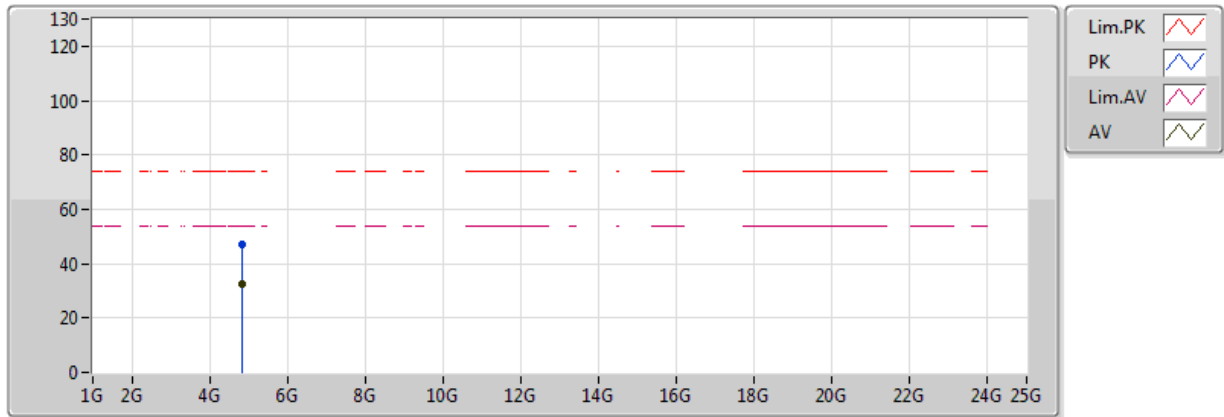
20171225
EUT_Z_4_TX_Dipole
Setting 72
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.39G	51.99	54.00	-2.01	32.12	3	Vertical	304	1.83	-				
AV	2.4142G	108.47	Inf	-Inf	32.20	3	Vertical	304	1.83	-				
PK	2.3894G	70.23	74.00	-3.77	32.12	3	Vertical	304	1.83	-				
PK	2.4144G	119.67	Inf	-Inf	32.20	3	Vertical	304	1.83	-				

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

27/12/2017



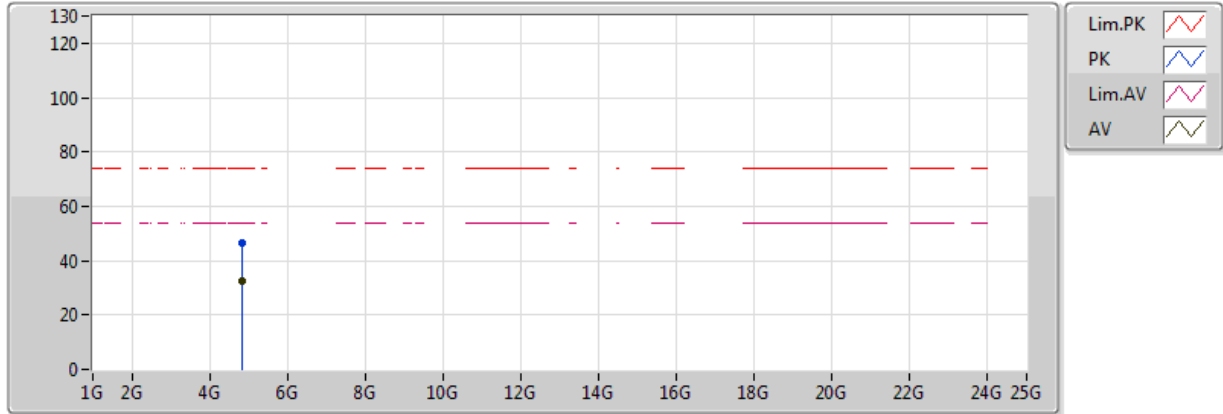
20171227
EUT_Z_4_TX_Dipole
Setting 72
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.82161G	32.35	54.00	-21.65	6.77	3	Vertical	355	1.50					
PK	4.82383G	47.03	74.00	-26.97	6.77	3	Vertical	355	1.50					

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

27/12/2017



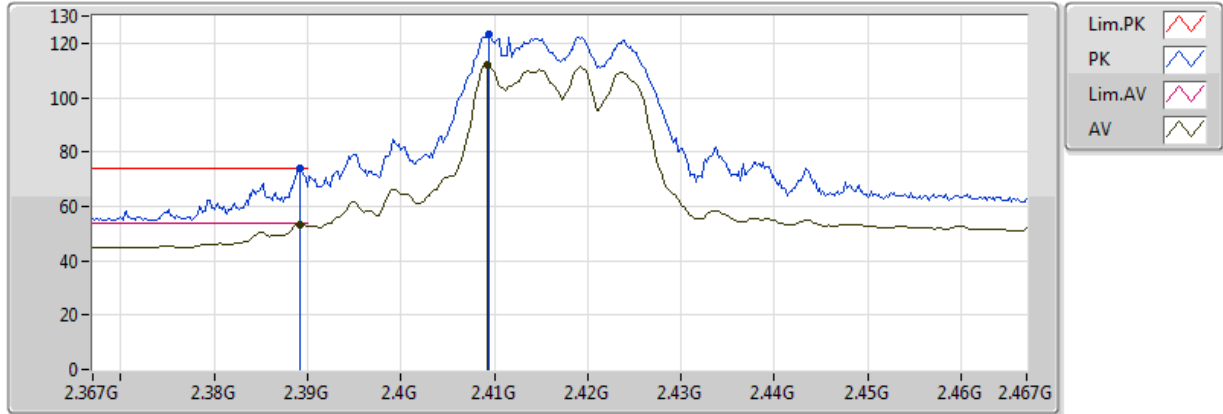
20171227
EUT_Z_4_TX_Dipole
Setting 72
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.82165G	32.44	54.00	-21.56	6.77	3	Horizontal	182	1.50					
PK	4.82177G	46.51	74.00	-27.49	6.77	3	Horizontal	182	1.50					

802.11ac VHT20_Nss1,(MCS0)_4TX

2417MHz_TX

17/01/2018



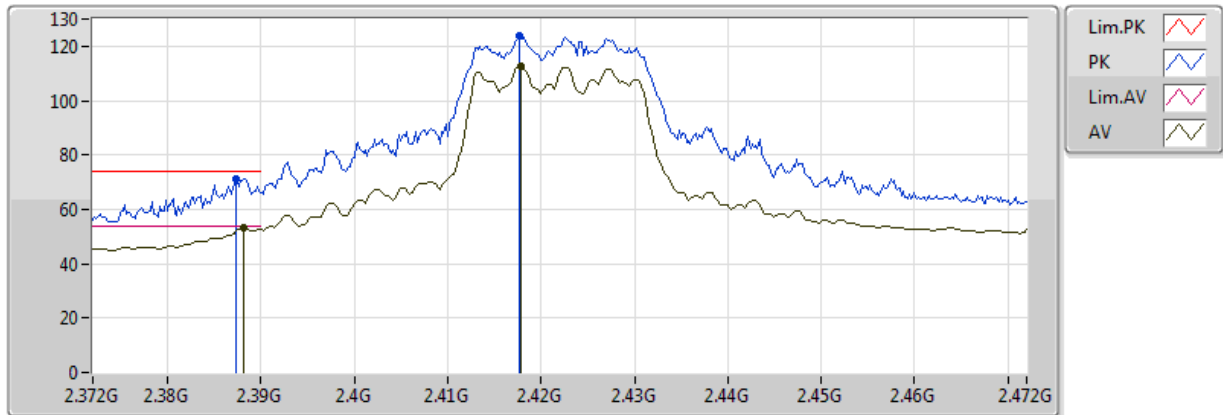
20171225
EUT_Z_4_TX_Dipole
Setting 86
06-L-3
FSP(100080)
rtax880Ur210#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.3892G	53.49	54.00	-0.51	32.12	3	Vertical	302	1.82					
AV	2.4092G	112.18	Inf	-Inf	32.18	3	Vertical	302	1.82					
PK	2.3892G	73.93	74.00	-0.07	32.12	3	Vertical	302	1.82					
PK	2.4094G	123.25	Inf	-Inf	32.18	3	Vertical	302	1.82					

802.11ac VHT20_Nss1,(MCS0)_4TX

2422MHz_TX

25/12/2017



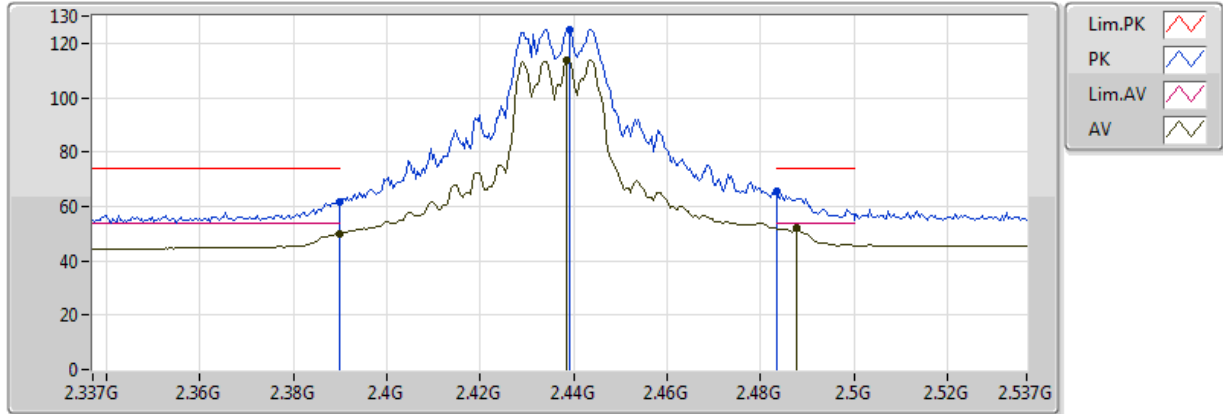
20171225
EUT_Z_4_TX_Dipole
Setting 94
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3882G	53.30	54.00	-0.70	32.11	3	Vertical	55	1.96	-				
AV	2.4178G	112.73	Inf	-Inf	32.21	3	Vertical	55	1.96	-				
PK	2.3874G	71.39	74.00	-2.61	32.11	3	Vertical	55	1.96	-				
PK	2.4176G	123.85	Inf	-Inf	32.21	3	Vertical	55	1.96	-				

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

25/12/2017



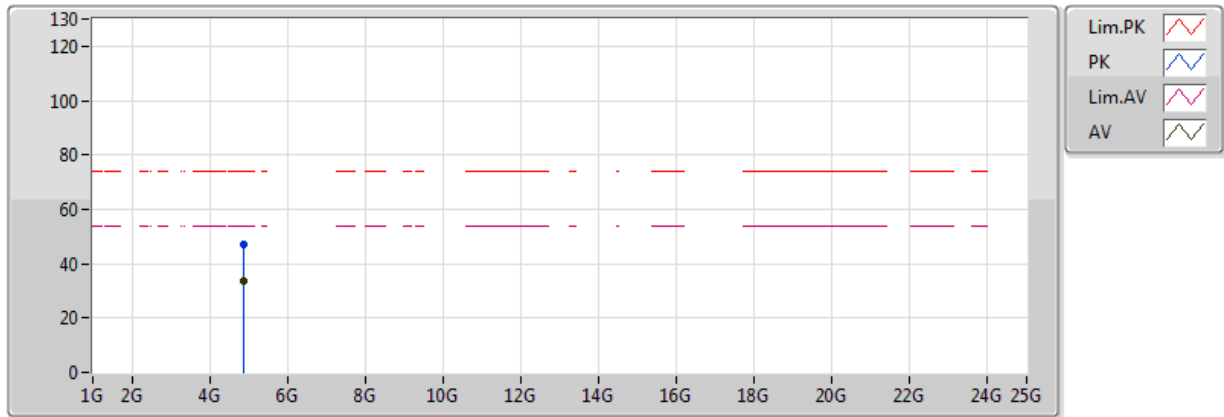
20171225
EUT_Z_4_TX_Dipole
Setting 96
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.389998G	49.97	54.00	-4.03	32.12	3	Vertical	299	1.82	-				
AV	2.4386G	113.85	Inf	-Inf	32.28	3	Vertical	299	1.82	-				
AV	2.4878G	52.07	54.00	-1.93	32.44	3	Vertical	299	1.82	-				
PK	2.389998G	61.36	74.00	-12.64	32.12	3	Vertical	299	1.82	-				
PK	2.439G	125.23	Inf	-Inf	32.28	3	Vertical	299	1.82	-				
PK	2.483502G	65.69	74.00	-8.31	32.42	3	Vertical	299	1.82	-				

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



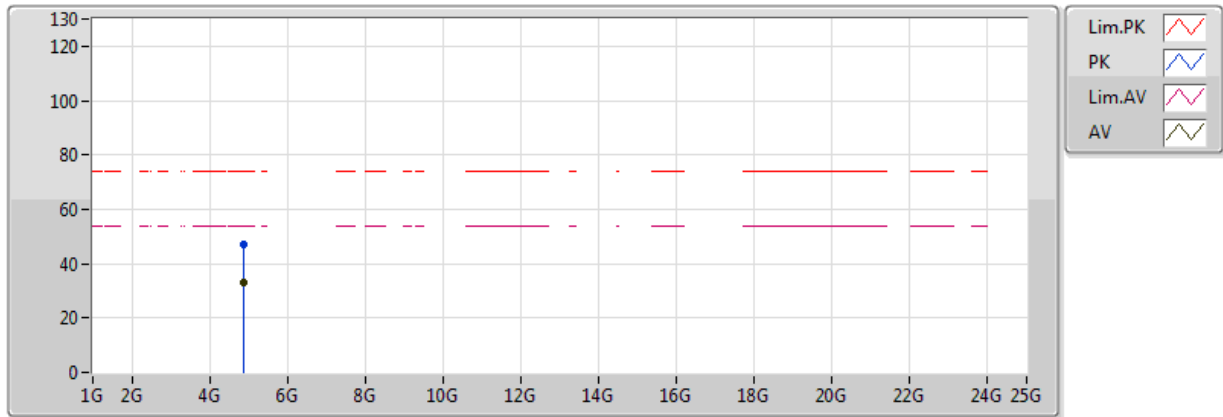
20171227
EUT_Z_4_TX_Dipole
Setting 96
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.87508G	33.89	54.00	-20.11	6.85	3	Vertical	135	1.01					
PK	4.8744G	47.11	74.00	-26.89	6.85	3	Vertical	135	1.01					

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



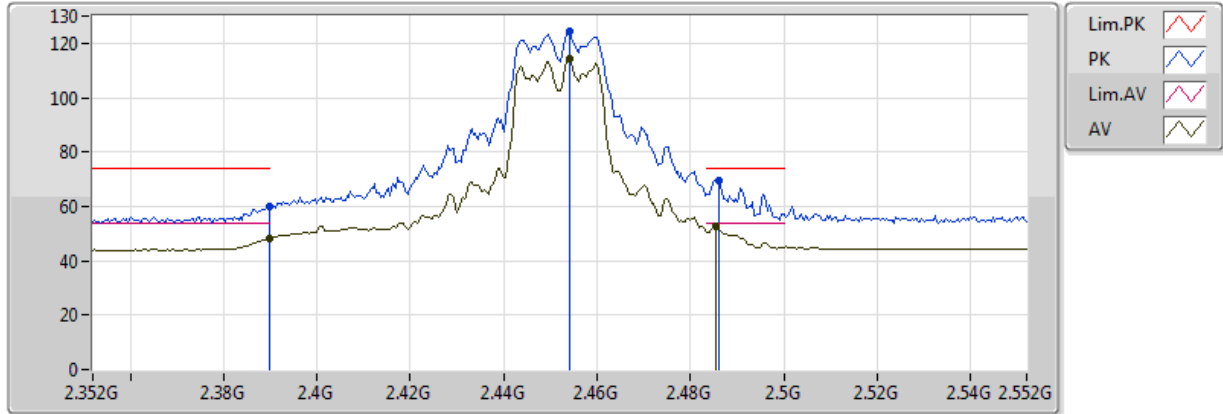
20171227
EUT_Z_4 TX_Dipole
Setting 96
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.88396G	33.07	54.00	-20.93	6.87	3	Horizontal	359	1.50					
PK	4.88216G	46.94	74.00	-27.06	6.86	3	Horizontal	359	1.50					

802.11ac VHT20_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



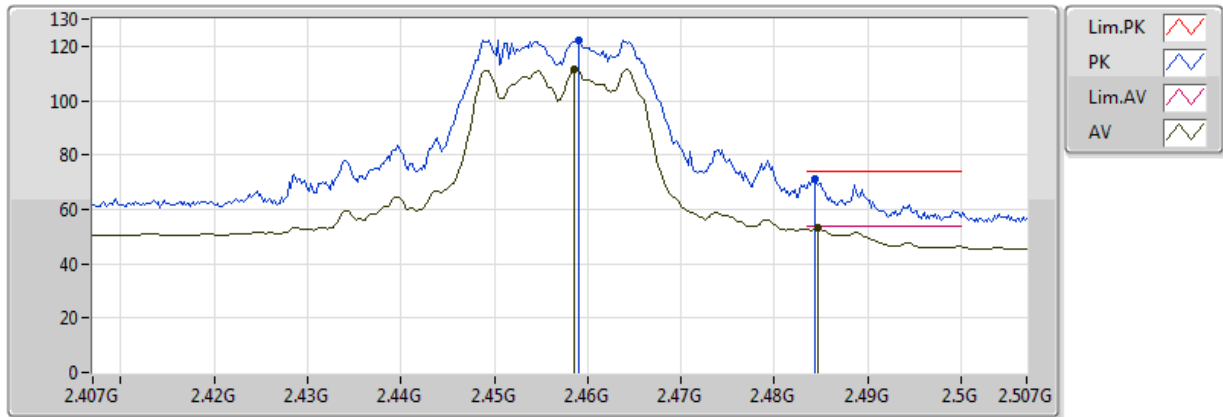
20171227
EUT_Z_4TX
Setting 96
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.39G	48.29	54.00	-5.71	32.18	3	Vertical	211	2.13					
AV	2.454G	114.06	Inf	-Inf	32.35	3	Vertical	211	2.13					
AV	2.4856G	52.95	54.00	-1.05	32.42	3	Vertical	211	2.13					
PK	2.39G	59.99	74.00	-14.01	32.18	3	Vertical	211	2.13					
PK	2.454G	124.48	Inf	-Inf	32.35	3	Vertical	211	2.13					
PK	2.486G	69.38	74.00	-4.62	32.42	3	Vertical	211	2.13					

802.11ac VHT20_Nss1,(MCS0)_4TX

2457MHz_TX

17/01/2018



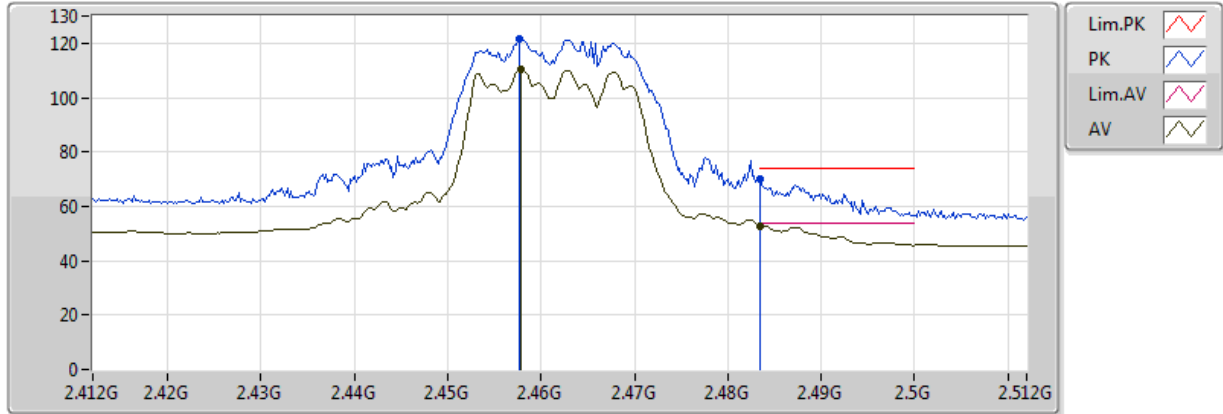
20171225
EUT_Z_4_TX_Dipole
Setting 88
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.4586G	111.48	Inf	-Inf	32.34	3	Vertical	27	1.97					
AV	2.4846G	53.01	54.00	-0.99	32.42	3	Vertical	27	1.97					
PK	2.459G	122.25	Inf	-Inf	32.34	3	Vertical	27	1.97					
PK	2.4844G	70.89	74.00	-3.11	32.42	3	Vertical	27	1.97					

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

25/12/2017



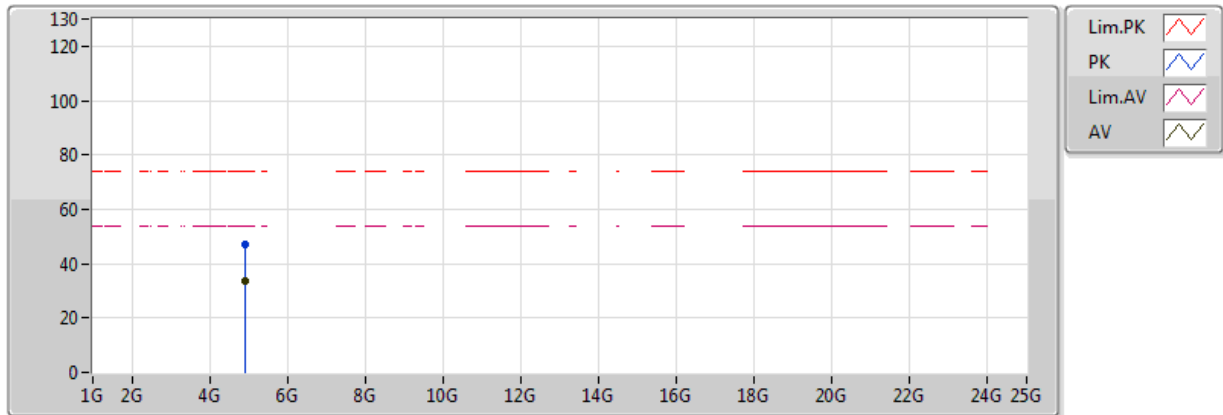
20171225
EUT_Z_4_TX_Dipole
Setting 84
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4578G	110.50	Inf	-Inf	32.34	3	Vertical	297	1.90	-
AV	2.483502G	52.63	54.00	-1.37	32.42	3	Vertical	297	1.90	-
PK	2.4576G	121.46	Inf	-Inf	32.34	3	Vertical	297	1.90	-
PK	2.483502G	69.85	74.00	-4.15	32.42	3	Vertical	297	1.90	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

27/12/2017



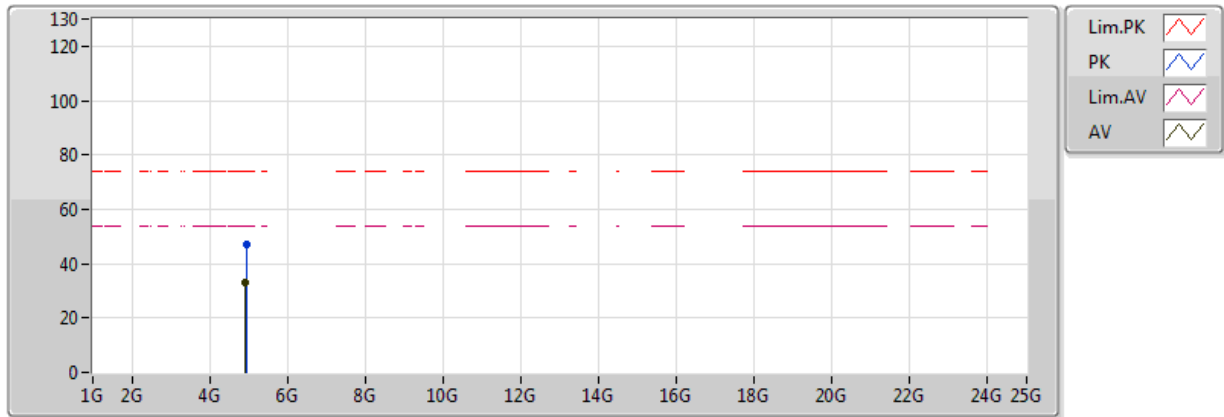
20171227
EUT_Z_4 TX_Dipole
Setting 84
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.9225G	33.47	54.00	-20.53	6.93	3	Vertical	175	2.17					
PK	4.9117G	47.29	74.00	-26.71	6.91	3	Vertical	175	2.17					

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

27/12/2017



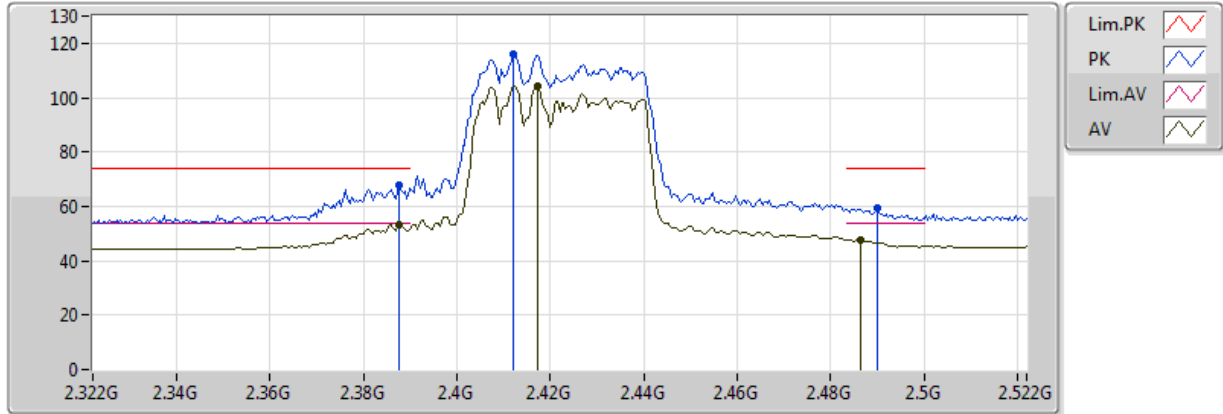
20171227
EUT_Z_4_TX_Dipole
Setting 84
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.9071G	33.34	54.00	-20.66	6.90	3	Horizontal	338	1.12					
PK	4.9389G	46.89	74.00	-27.11	6.96	3	Horizontal	338	1.12					

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

25/12/2017



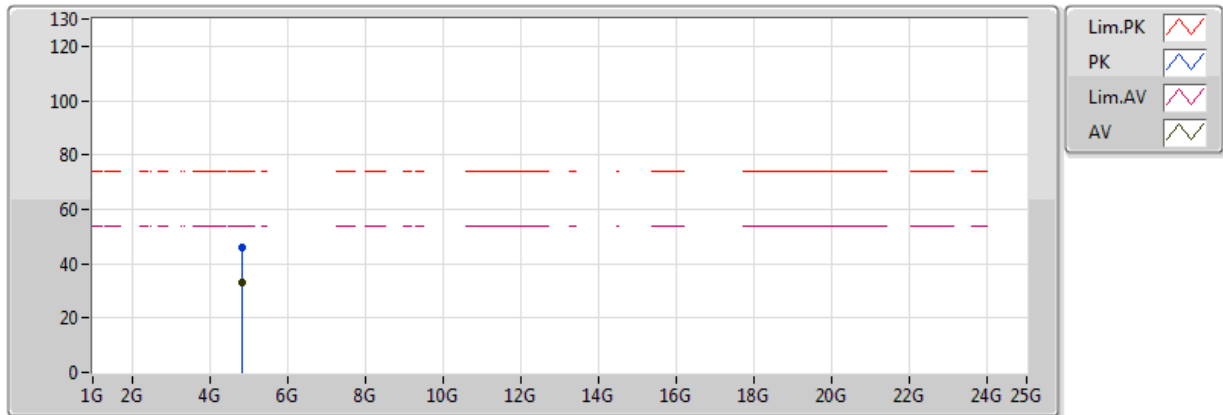
20171225
EUT_Z_4_TX_Dipole
Setting 67
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3876G	53.30	54.00	-0.70	32.11	3	Vertical	306	1.80	-				
AV	2.4172G	104.25	Inf	-Inf	32.21	3	Vertical	306	1.80	-				
AV	2.4864G	47.72	54.00	-6.28	32.43	3	Vertical	306	1.80	-				
PK	2.3876G	67.82	74.00	-6.18	32.11	3	Vertical	306	1.80	-				
PK	2.412G	115.89	Inf	-Inf	32.19	3	Vertical	306	1.80	-				
PK	2.49G	59.38	74.00	-14.62	32.44	3	Vertical	306	1.80	-				

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

27/12/2017



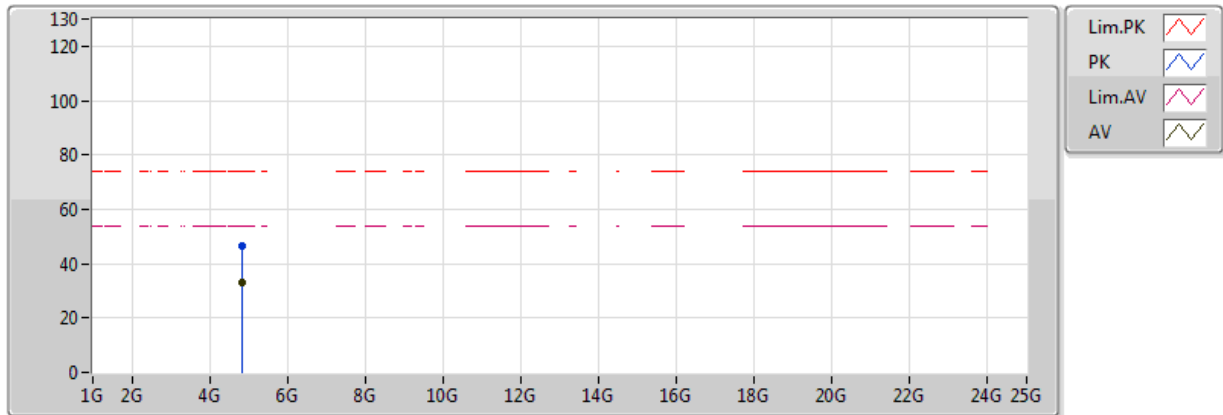
20171227
EUT_Z_4 TX_Dipole
Setting 67
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8328G	32.86	54.00	-21.14	6.79	3	Vertical	222	1.50					
PK	4.8284G	46.00	74.00	-28.00	6.78	3	Vertical	222	1.50					

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

27/12/2017



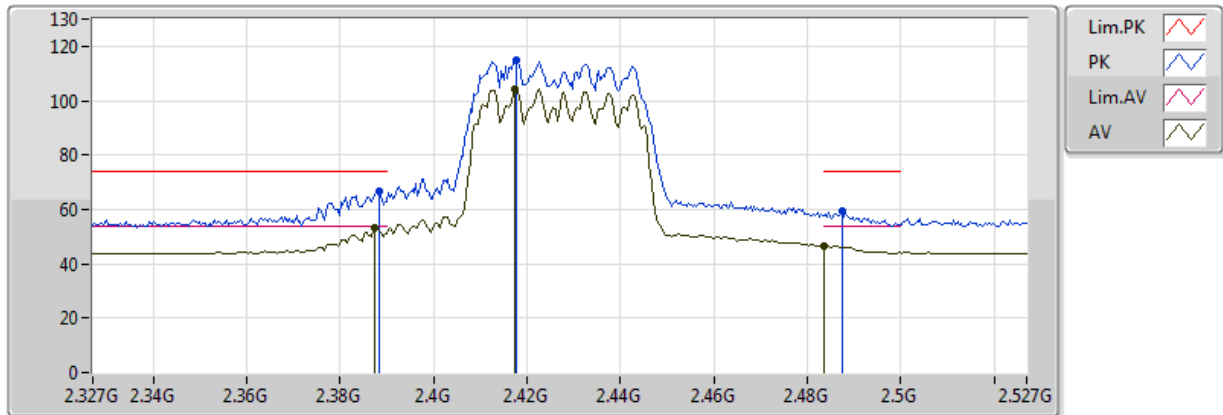
20171227
EUT_Z_4 TX_Dipole
Setting 67
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8335G	33.02	54.00	-20.98	6.79	3	Horizontal	345	1.50					
PK	4.8483G	46.44	74.00	-27.56	6.81	3	Horizontal	345	1.50					

802.11ac VHT40_Nss1,(MCS0)_4TX

2427MHz_TX

27/12/2017



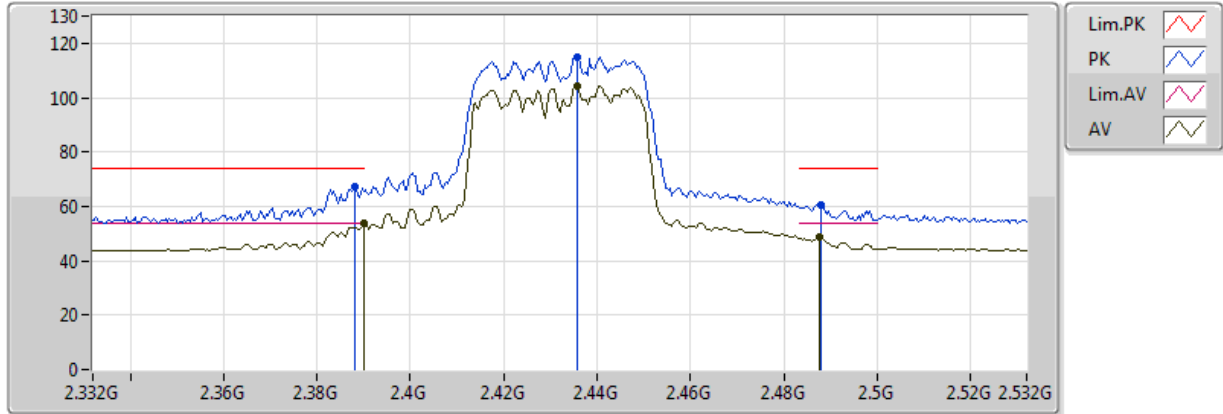
20171227
EUT_Z_4TX
Setting 67
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.3874G	53.02	54.00	-0.98	32.18	3	Vertical	53	2.09					
AV	2.4174G	104.33	Inf	-Inf	32.26	3	Vertical	53	2.09					
AV	2.483502G	46.45	54.00	-7.55	32.42	3	Vertical	53	2.09					
PK	2.3882G	66.42	74.00	-7.58	32.18	3	Vertical	53	2.09					
PK	2.4178G	114.65	Inf	-Inf	32.26	3	Vertical	53	2.09					
PK	2.4874G	59.45	74.00	-14.55	32.43	3	Vertical	53	2.09					

802.11ac VHT40_Nss1,(MCS0)_4TX

2432MHz_TX

27/12/2017



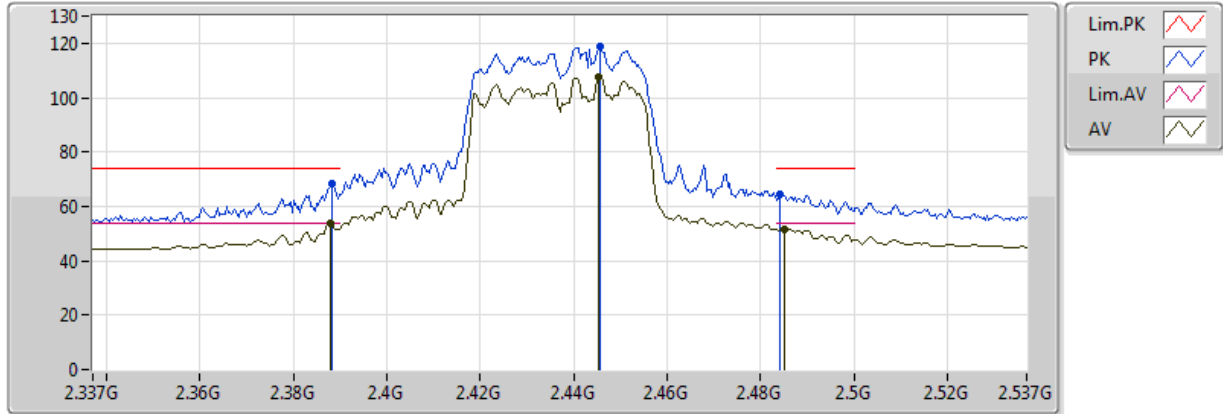
20171227
EUT_Z_4TX
Setting 74
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.39G	53.73	54.00	-0.27	32.18	3	Vertical	296	1.85					
AV	2.4356G	104.46	Inf	-Inf	32.30	3	Vertical	296	1.85					
AV	2.4876G	48.47	54.00	-5.53	32.43	3	Vertical	296	1.85					
PK	2.388G	67.02	74.00	-6.98	32.18	3	Vertical	296	1.85					
PK	2.4356G	115.12	Inf	-Inf	32.30	3	Vertical	296	1.85					
PK	2.488G	60.76	74.00	-13.24	32.43	3	Vertical	296	1.85					

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

25/12/2017



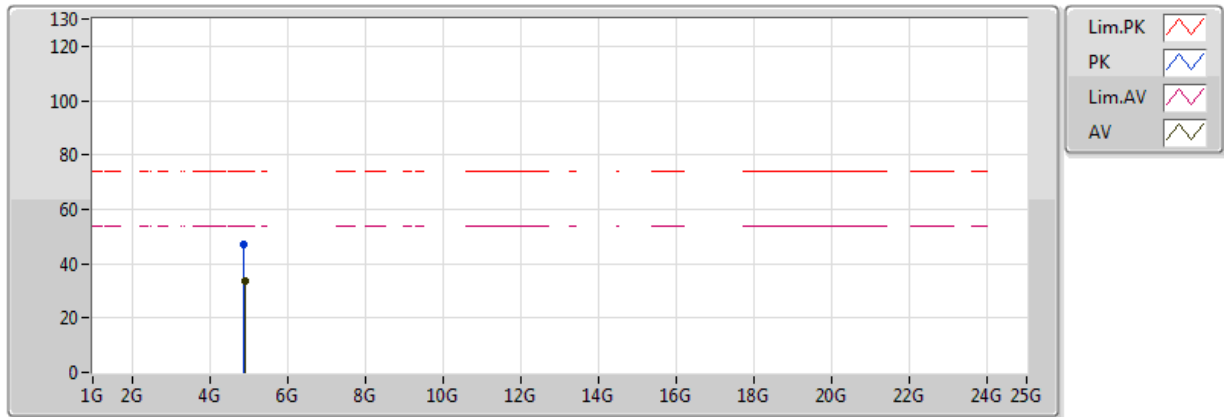
20171225
EUT_Z_4_TX_Dipole
Setting 80
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3878G	53.82	54.00	-0.18	32.11	3	Vertical	294	1.99	-
AV	2.4454G	107.39	Inf	-Inf	32.30	3	Vertical	294	1.99	-
AV	2.485G	51.62	54.00	-2.38	32.43	3	Vertical	294	1.99	-
PK	2.3882G	68.10	74.00	-5.90	32.11	3	Vertical	294	1.99	-
PK	2.4458G	118.63	Inf	-Inf	32.30	3	Vertical	294	1.99	-
PK	2.4842G	64.39	74.00	-9.61	32.42	3	Vertical	294	1.99	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



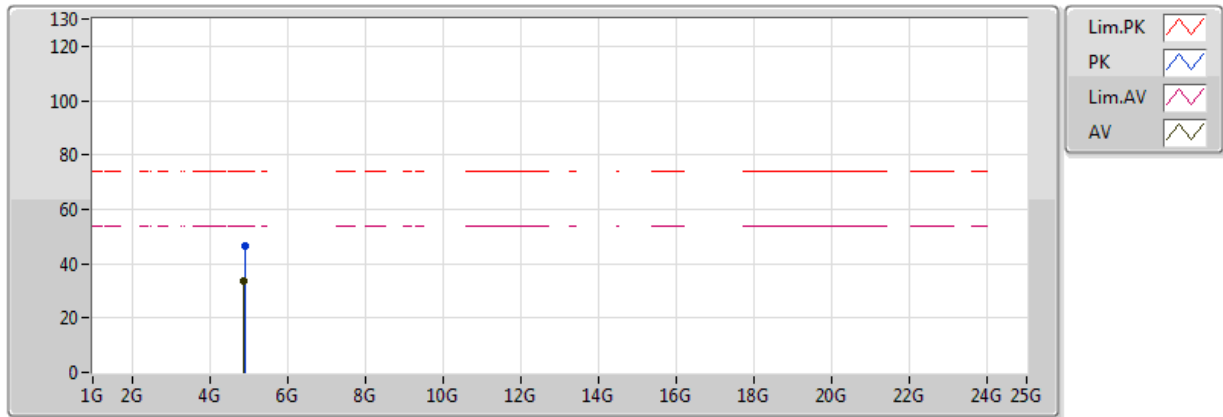
20171227
EUT_Z_4 TX_Dipole
Setting 80
03-C-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.8978G	33.44	54.00	-20.56	6.89	3	Vertical	55	1.50					
PK	4.887G	46.85	74.00	-27.15	6.87	3	Vertical	55	1.50					

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



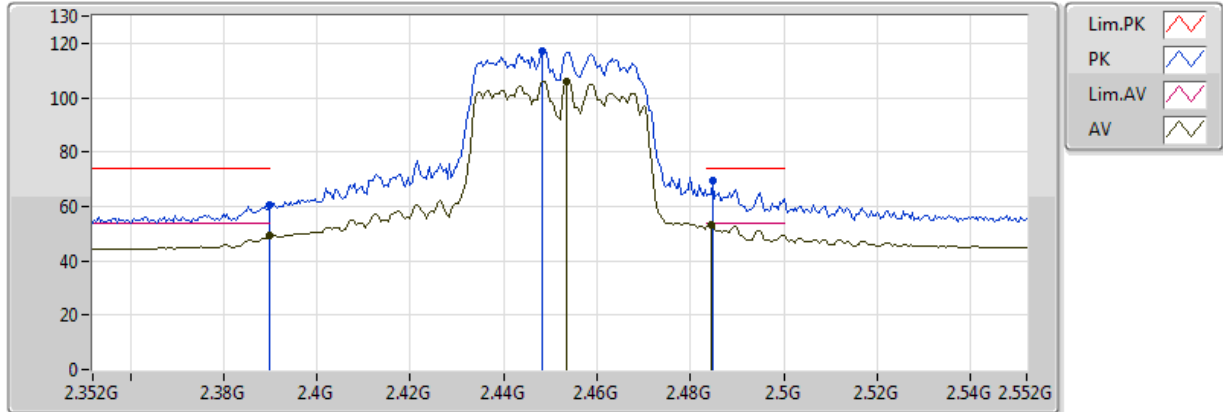
20171227
EUT_Z_4 TX_Dipole
Setting 80
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8842G	33.40	54.00	-20.60	6.87	3	Horizontal	228	1.88					
PK	4.8964G	46.59	74.00	-27.41	6.89	3	Horizontal	228	1.88					

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

25/12/2017



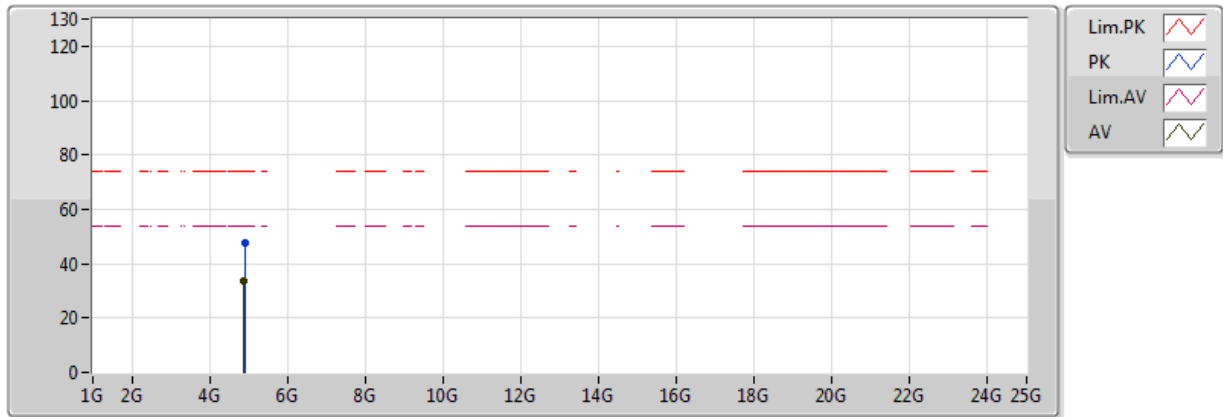
20171225
EUT_Z_4_TX_Dipole
Setting 78
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.39G	49.15	54.00	-4.85	32.12	3	Vertical	67	2.11	-				
AV	2.4536G	106.08	Inf	-Inf	32.32	3	Vertical	67	2.11	-				
AV	2.4844G	53.17	54.00	-0.83	32.42	3	Vertical	67	2.11	-				
PK	2.39G	60.41	74.00	-13.59	32.12	3	Vertical	67	2.11	-				
PK	2.4484G	116.87	Inf	-Inf	32.31	3	Vertical	67	2.11	-				
PK	2.4848G	69.22	74.00	-4.78	32.43	3	Vertical	67	2.11	-				

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



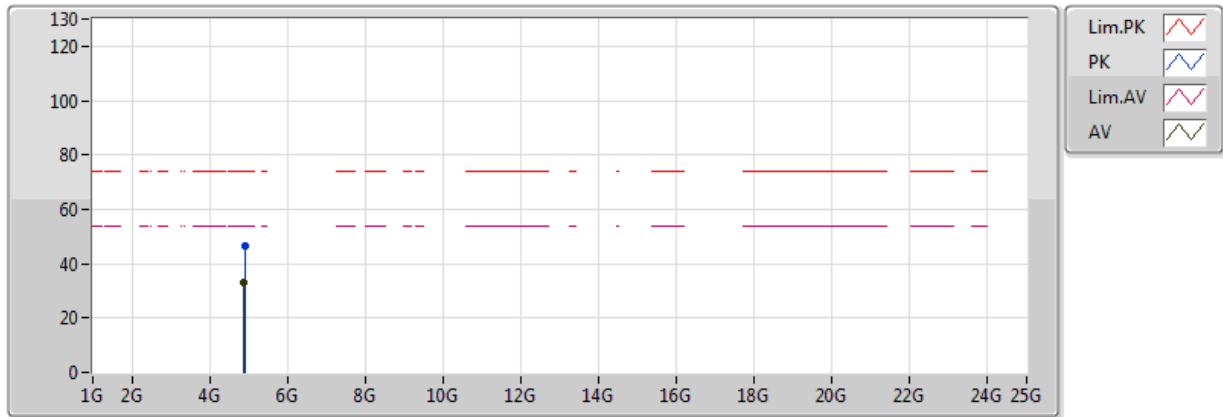
20171227
EUT_Z_4 TX_Dipole
Setting 78
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8871G	33.36	54.00	-20.64	6.87	3	Vertical	80	1.50					
PK	4.8964G	47.89	74.00	-26.11	6.89	3	Vertical	80	1.50					

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



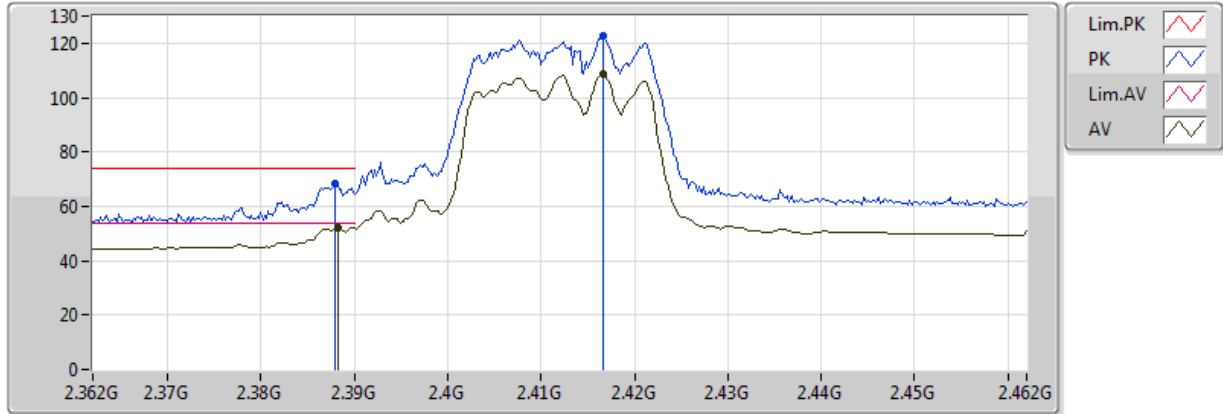
20171227
EUT_Z_4 TX_Dipole
Setting 78
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8876G	33.29	54.00	-20.71	6.87	3	Horizontal	259	2.25					
PK	4.9259G	46.76	74.00	-27.24	6.94	3	Horizontal	259	2.25					

HE20_Nss1,(MCS0)_4TX

2412MHz_TX

25/12/2017



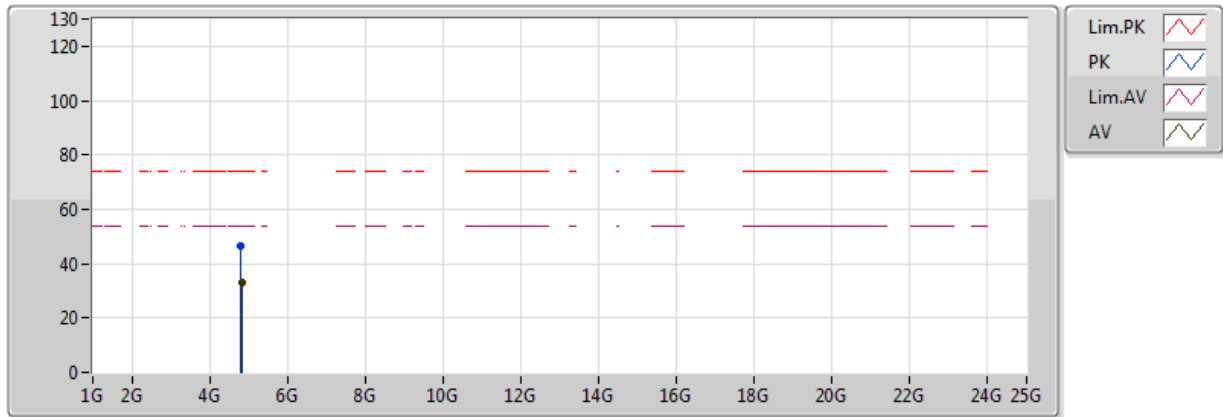
20171225
EUT_Z_4_TX_Dipole
Setting 74
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3882G	52.16	54.00	-1.84	32.11	3	Vertical	304	1.84	-				
AV	2.4166G	108.47	Inf	-Inf	32.20	3	Vertical	304	1.84	-				
PK	2.388G	68.14	74.00	-5.86	32.11	3	Vertical	304	1.84	-				
PK	2.4166G	122.55	Inf	-Inf	32.20	3	Vertical	304	1.84	-				

HE20_Nss1,(MCS0)_4TX

2412MHz_TX

27/12/2017



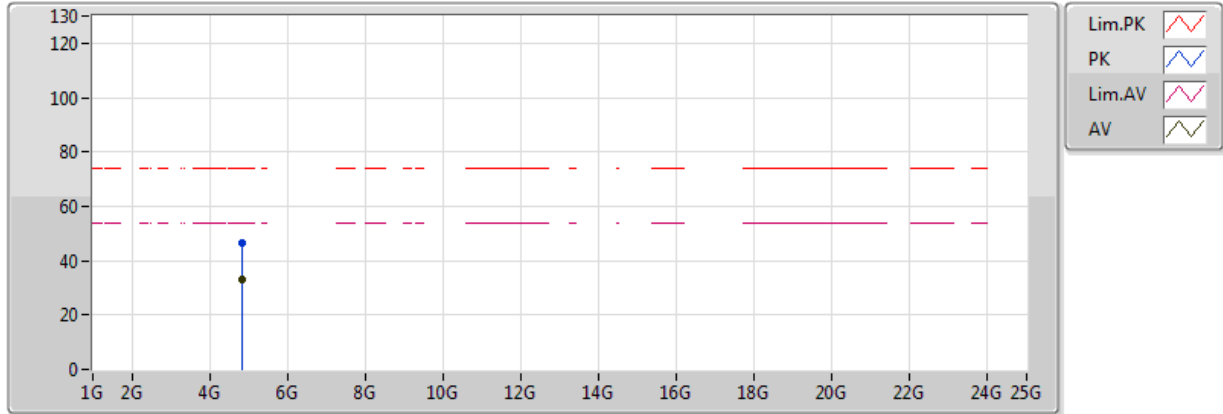
20171227
EUT_Z_4 TX_Dipole
Setting 74
03-C-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.8326G	33.05	54.00	-20.95	6.79	3	Vertical	275	1.50					
PK	4.8048G	46.51	74.00	-27.49	6.74	3	Vertical	275	1.50					

HE20_Nss1,(MCS0)_4TX

2412MHz_TX

27/12/2017



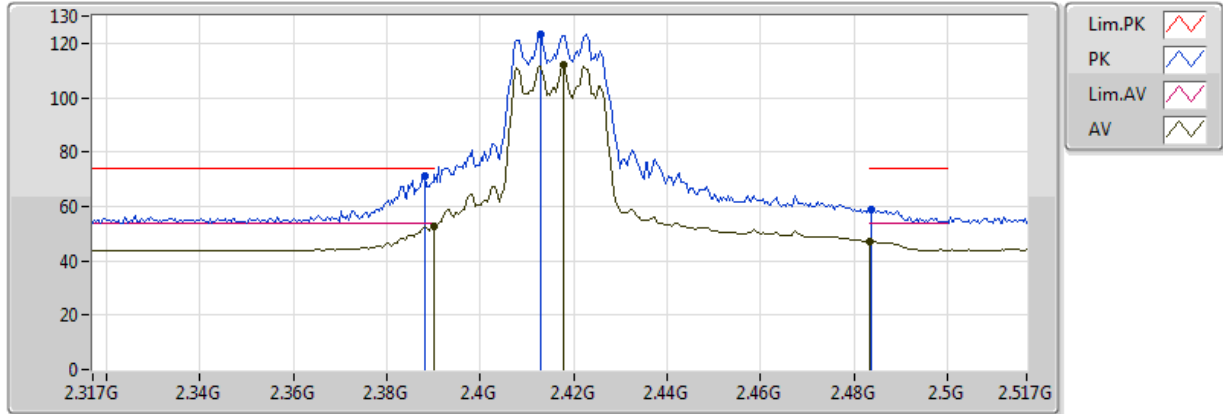
20171227
EUT_Z_4_TX_Dipole
Setting 74
03-C-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.8327G	32.97	54.00	-21.03	6.79	3	Horizontal	27	2.85					
PK	4.838G	46.60	74.00	-27.40	6.79	3	Horizontal	27	2.85					

HE20_Nss1,(MCS0)_4TX

2417MHz_TX

27/12/2017



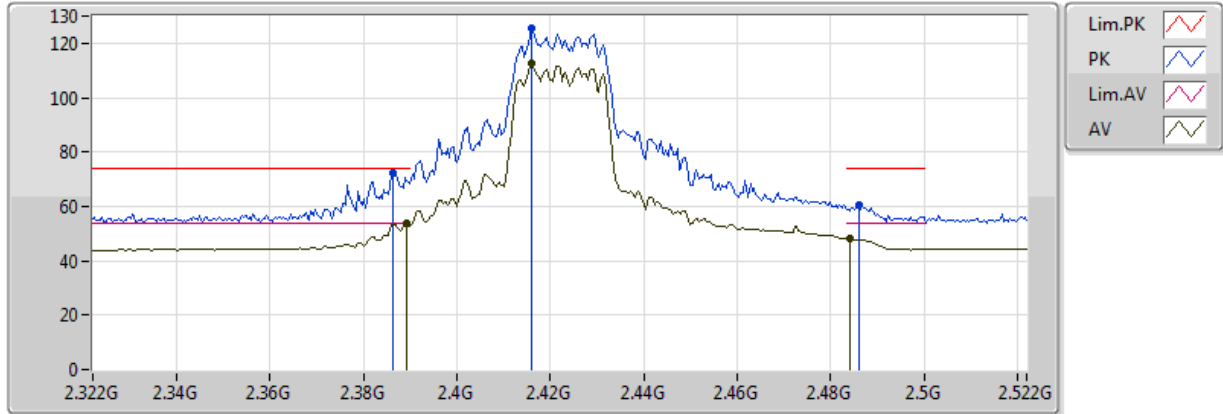
20171227
EUT_Z_4TX
Setting 86
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.389998G	52.81	54.00	-1.19	32.18	3	Vertical	55	2.03					
AV	2.4178G	112.03	Inf	-Inf	32.26	3	Vertical	55	2.03					
AV	2.483502G	46.95	54.00	-7.05	32.42	3	Vertical	55	2.03					
PK	2.3882G	70.97	74.00	-3.03	32.18	3	Vertical	55	2.03					
PK	2.413G	123.53	Inf	-Inf	32.25	3	Vertical	55	2.03					
PK	2.4838G	58.72	74.00	-15.28	32.42	3	Vertical	55	2.03					

HE20_Nss1,(MCS0)_4TX

2422MHz_TX

27/12/2017



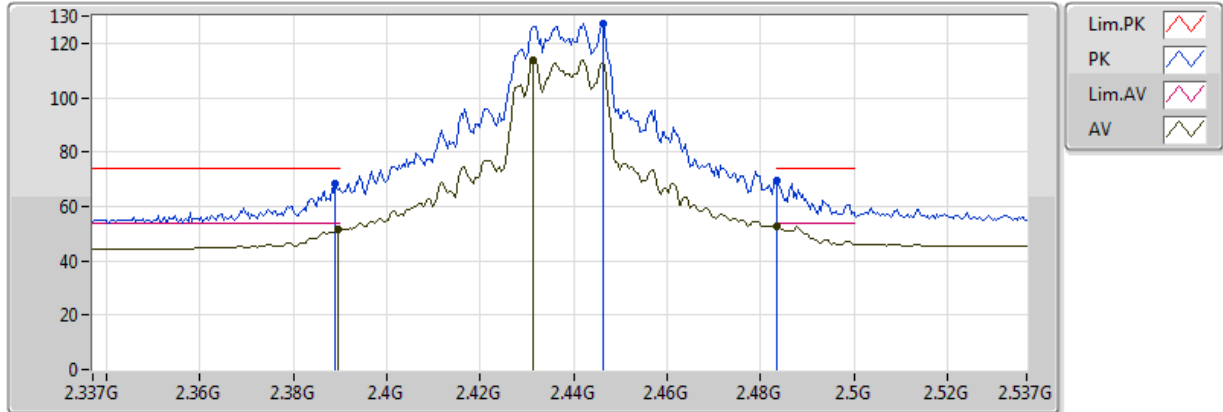
20171227
EUT_Z_4TX
Setting 92
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.3892G	53.97	54.00	-0.03	32.18	3	Vertical	54	2.05					
AV	2.416G	112.82	Inf	-Inf	32.25	3	Vertical	54	2.05					
AV	2.484G	48.08	54.00	-5.92	32.42	3	Vertical	54	2.05					
PK	2.3864G	72.49	74.00	-1.51	32.17	3	Vertical	54	2.05					
PK	2.416G	125.41	Inf	-Inf	32.25	3	Vertical	54	2.05					
PK	2.486G	60.65	74.00	-13.35	32.42	3	Vertical	54	2.05					

HE20_Nss1,(MCS0)_4TX

2437MHz_TX

25/12/2017



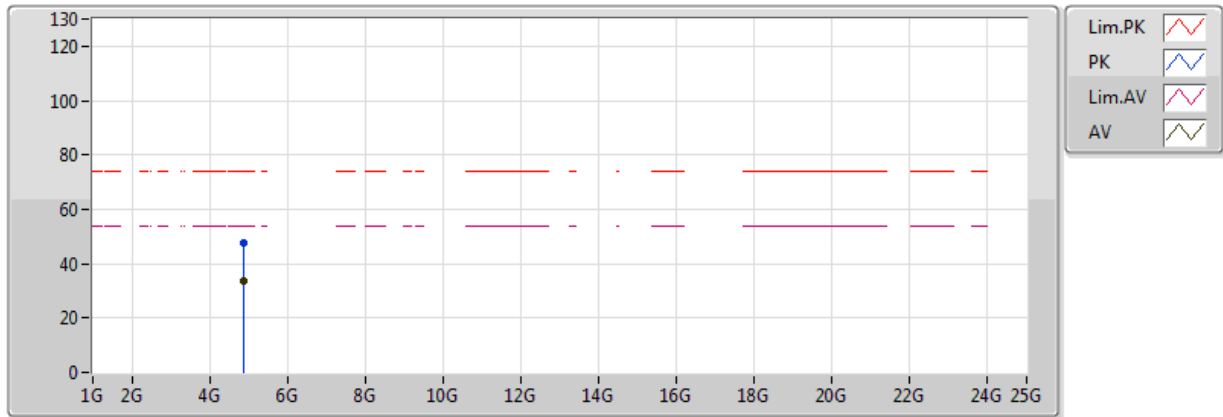
20171225
EUT_Z_4_TX_Dipole
Setting 100
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3894G	51.39	54.00	-2.61	32.12	3	Vertical	357	1.94	-				
AV	2.4314G	114.02	Inf	-Inf	32.25	3	Vertical	357	1.94	-				
AV	2.483502G	52.76	54.00	-1.24	32.42	3	Vertical	357	1.94	-				
PK	2.389G	68.48	74.00	-5.52	32.11	3	Vertical	357	1.94	-				
PK	2.4462G	127.44	Inf	-Inf	32.30	3	Vertical	357	1.94	-				
PK	2.483502G	69.61	74.00	-4.39	32.42	3	Vertical	357	1.94	-				

HE20_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



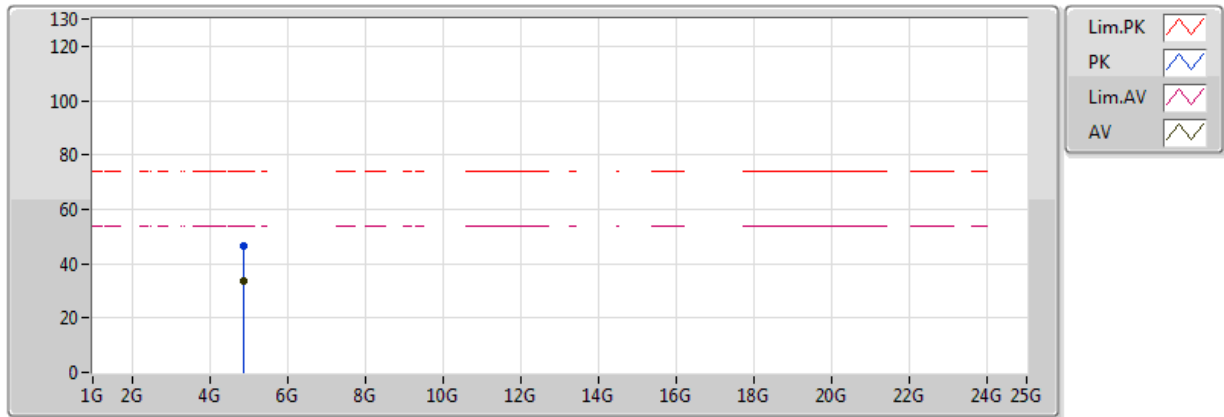
20171227
EUT_Z_4 TX_Dipole
Setting 100
03-C-5
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.8729G	33.76	54.00	-20.24	6.85	3	Vertical	0	1.02					
PK	4.8851G	47.64	74.00	-26.36	6.87	3	Vertical	0	1.02					

HE20_Nss1,(MCS0)_4TX

2437MHz_TX

27/12/2017



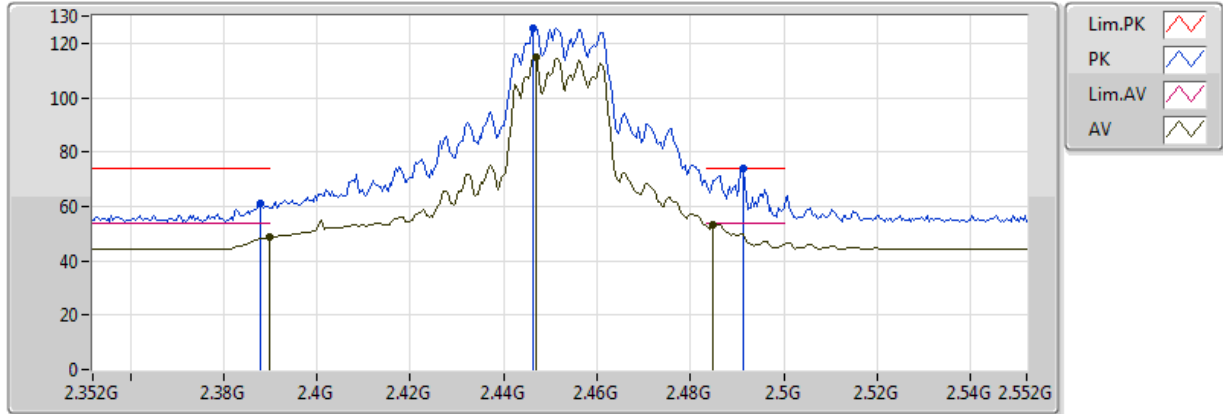
20171227
EUT_Z_4 TX_Dipole
Setting 100
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.8952G	33.36	54.00	-20.64	6.88	3	Horizontal	357	2.54					
PK	4.8729G	46.55	74.00	-27.45	6.85	3	Horizontal	357	2.54					

HE20_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



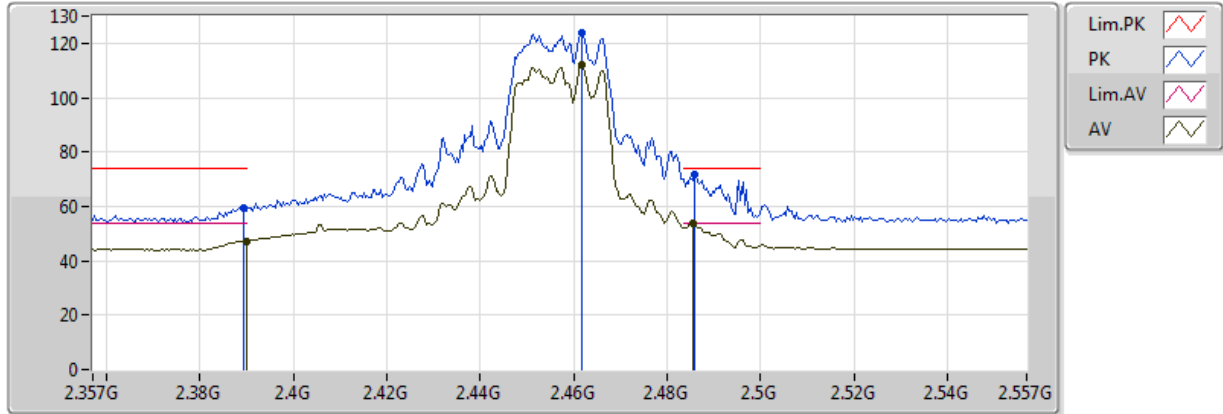
20171227
EUT_Z_4TX
Setting 96
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.39G	48.47	54.00	-5.53	32.18	3	Vertical	301	1.86					
AV	2.4468G	114.70	Inf	-Inf	32.33	3	Vertical	301	1.86					
AV	2.4848G	53.26	54.00	-0.74	32.42	3	Vertical	301	1.86					
PK	2.388G	61.11	74.00	-12.89	32.18	3	Vertical	301	1.86					
PK	2.4464G	125.66	Inf	-Inf	32.33	3	Vertical	301	1.86					
PK	2.4912G	73.91	74.00	-0.09	32.44	3	Vertical	301	1.86					

HE20_Nss1,(MCS0)_4TX

2457MHz_TX

27/12/2017



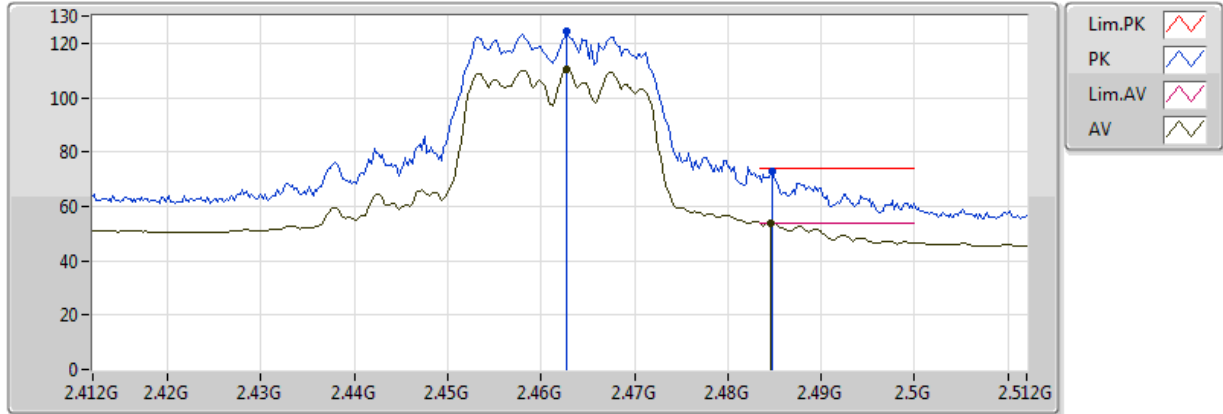
20171227
EUT_Z_4TX
Setting 92
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.389998G	47.31	54.00	-6.69	32.18	3	Vertical	307	1.99					
AV	2.4618G	112.12	Inf	-Inf	32.36	3	Vertical	307	1.99					
AV	2.4854G	53.98	54.00	-0.02	32.42	3	Vertical	307	1.99					
PK	2.3894G	59.40	74.00	-14.60	32.18	3	Vertical	307	1.99					
PK	2.4618G	123.78	Inf	-Inf	32.36	3	Vertical	307	1.99					
PK	2.4858G	71.67	74.00	-2.33	32.42	3	Vertical	307	1.99					

HE20_Nss1,(MCS0)_4TX

2462MHz_TX

25/12/2017



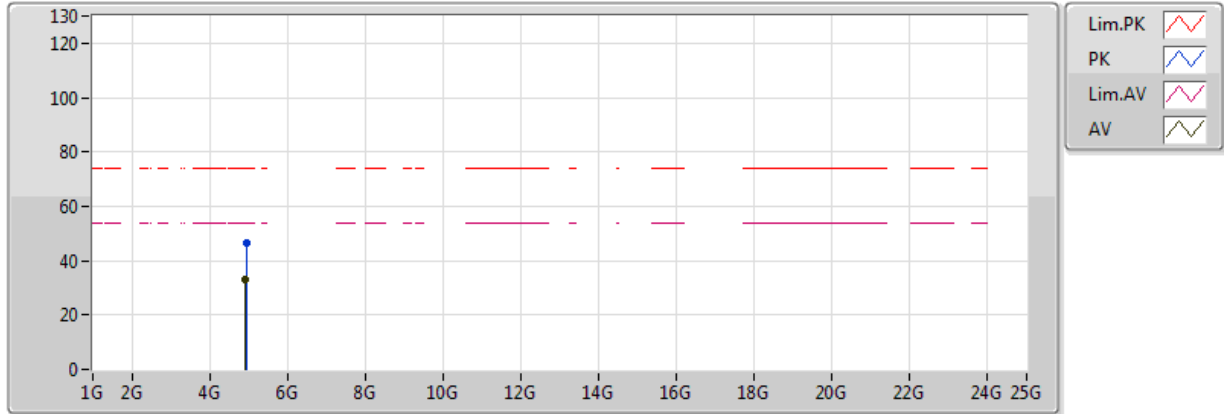
20171225
EUT_Z_4 TX_Dipole
Setting 84
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.4628G	110.34	Inf	-Inf	32.35	3	Vertical	299	1.96	-				
AV	2.4846G	53.96	54.00	-0.04	32.42	3	Vertical	299	1.96	-				
PK	2.4628G	124.34	Inf	-Inf	32.35	3	Vertical	299	1.96	-				
PK	2.4848G	72.81	74.00	-1.19	32.43	3	Vertical	299	1.96	-				

HE20_Nss1,(MCS0)_4TX

2462MHz_TX

27/12/2017



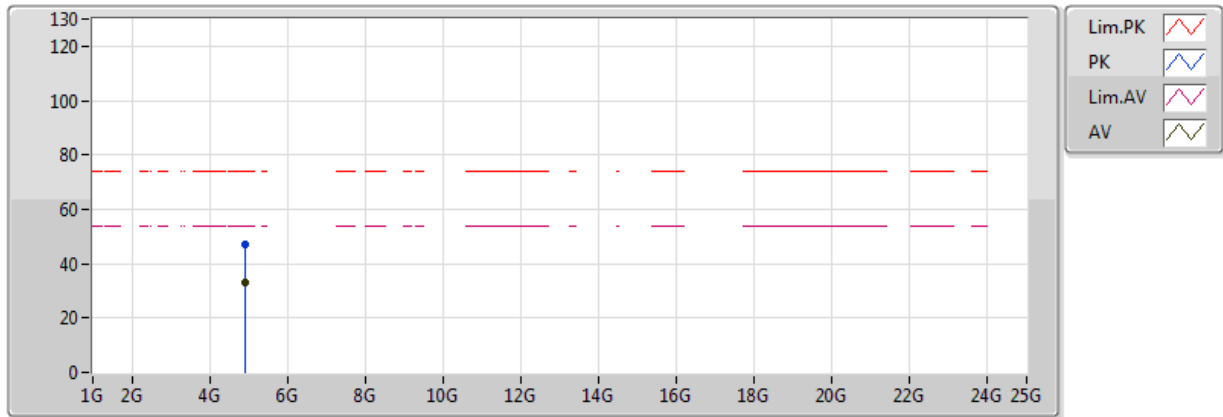
20171227
EUT_Z_4 TX_Dipole
Setting 84
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.899G	33.30	54.00	-20.70	6.89	3	Vertical	79	1.01					
PK	4.9398G	46.77	74.00	-27.23	6.96	3	Vertical	79	1.01					

HE20_Nss1,(MCS0)_4TX

2462MHz_TX

27/12/2017



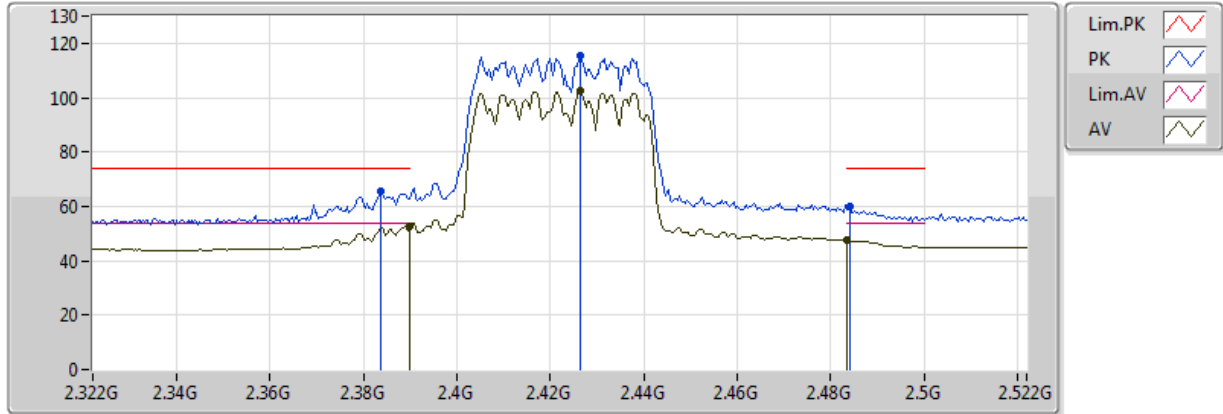
20171227
EUT_Z_4 TX_Dipole
Setting 84
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.9086G	33.32	54.00	-20.68	6.91	3	Horizontal	156	1.68					
PK	4.9069G	47.08	74.00	-26.92	6.90	3	Horizontal	156	1.68					

HE40_Nss1,(MCS0)_4TX

2422MHz_TX

25/12/2017



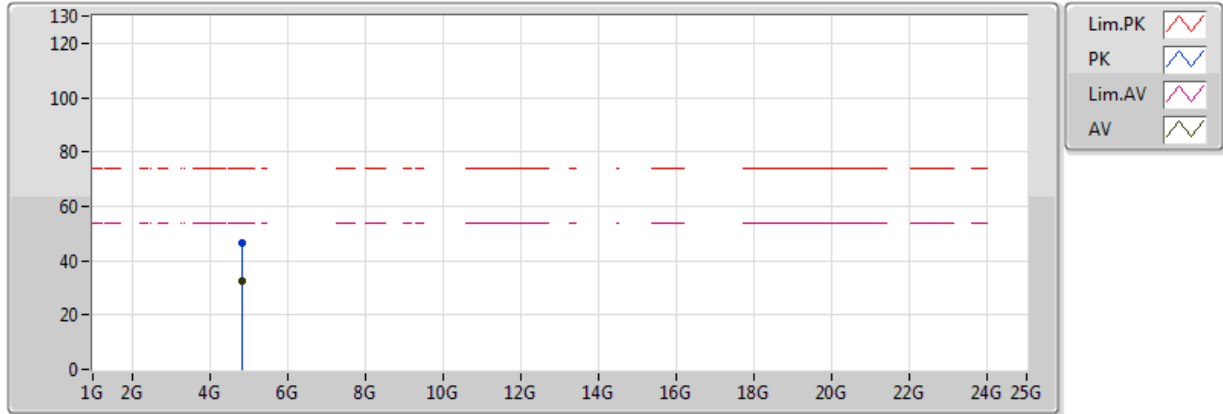
20171225
EUT_Z_4_TX_Dipole
Setting 64
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	52.52	54.00	-1.48	32.12	3	Vertical	357	2.20	-
AV	2.4264G	102.72	Inf	-Inf	32.24	3	Vertical	357	2.20	-
AV	2.4836G	47.49	54.00	-6.51	32.42	3	Vertical	357	2.20	-
PK	2.3836G	65.80	74.00	-8.20	32.10	3	Vertical	357	2.20	-
PK	2.4264G	115.23	Inf	-Inf	32.24	3	Vertical	357	2.20	-
PK	2.484G	59.99	74.00	-14.01	32.42	3	Vertical	357	2.20	-

HE40_Nss1,(MCS0)_4TX

2422MHz_TX

27/12/2017



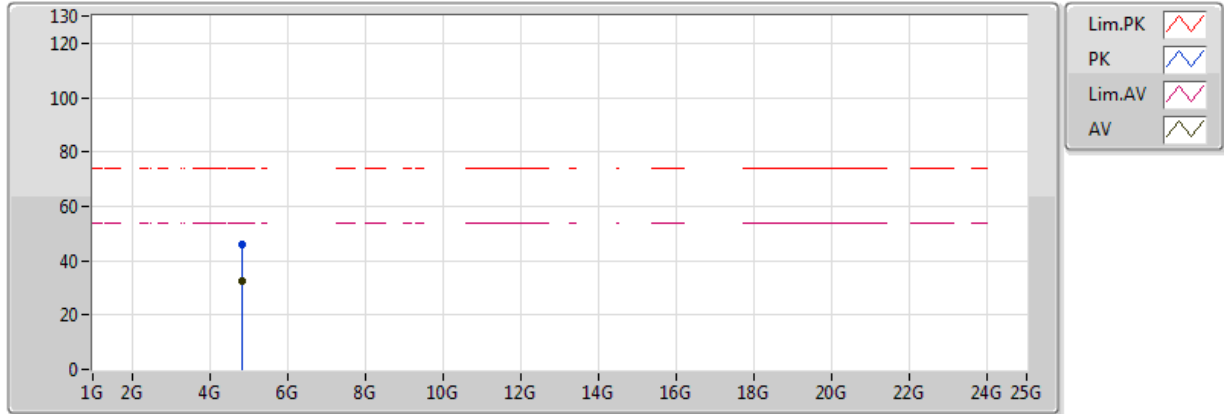
20171227
EUT_Z_4_TX_Dipole
Setting 64
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.84186G	32.42	54.00	-21.58	6.80	3	Vertical	106	1.68					
PK	4.84402G	46.54	74.00	-27.46	6.80	3	Vertical	106	1.68					

HE40_Nss1,(MCS0)_4TX

2422MHz_TX

27/12/2017



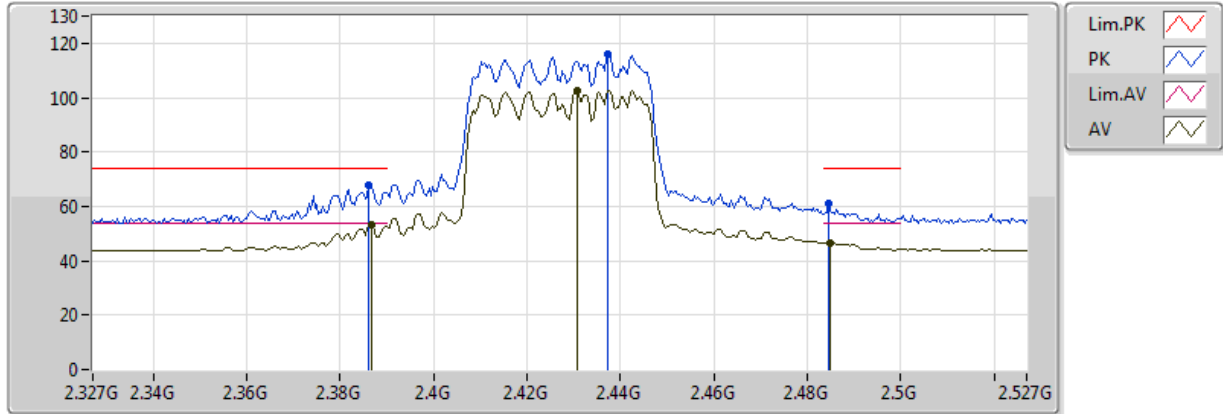
20171227
EUT_Z_4 TX_Dipole
Setting 64
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.84168G	32.37	54.00	-21.63	6.80	3	Horizontal	224	1.50					
PK	4.84455G	46.06	74.00	-27.94	6.80	3	Horizontal	224	1.50					

HE40_Nss1,(MCS0)_4TX

2427MHz_TX

27/12/2017



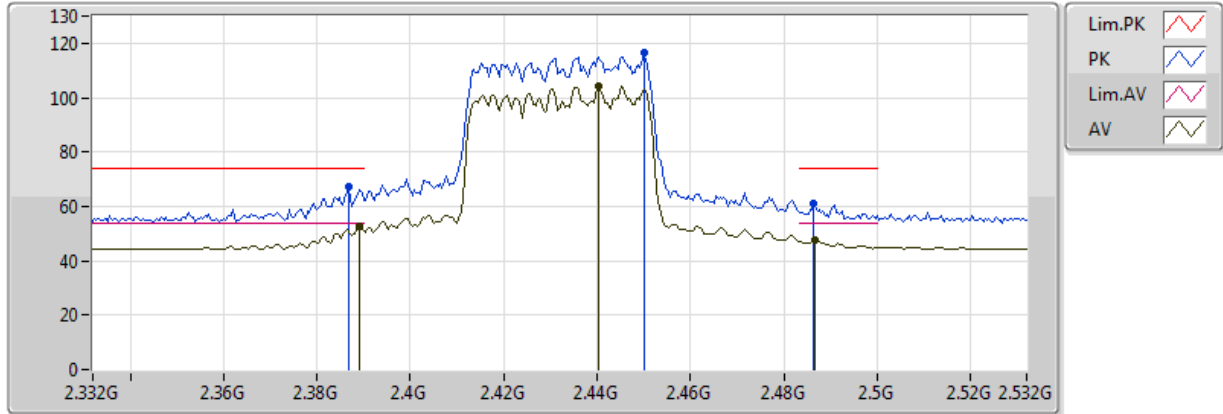
20171227
EUT_Z_4TX
Setting 68
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.3866G	53.42	54.00	-0.58	32.17	3	Vertical	294	1.84					
AV	2.4306G	102.55	Inf	-Inf	32.29	3	Vertical	294	1.84					
AV	2.485G	46.59	54.00	-7.41	32.42	3	Vertical	294	1.84					
PK	2.3862G	67.67	74.00	-6.33	32.17	3	Vertical	294	1.84					
PK	2.4374G	116.10	Inf	-Inf	32.31	3	Vertical	294	1.84					
PK	2.4846G	60.84	74.00	-13.16	32.42	3	Vertical	294	1.84					

HE40_Nss1,(MCS0)_4TX

2432MHz_TX

27/12/2017



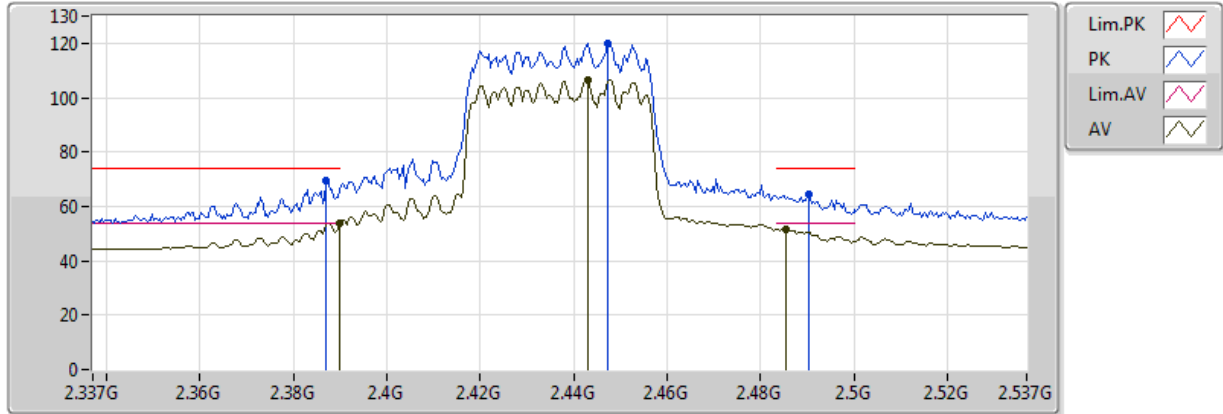
20171227
EUT_Z_4 TX_Dipole
Setting 68
03-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	2.3892G	52.62	54.00	-1.38	32.71	3	Vertical	294	1.82					
AV	2.4404G	104.06	Inf	-Inf	32.84	3	Vertical	294	1.82					
AV	2.4868G	47.72	54.00	-6.28	32.94	3	Vertical	294	1.82					
PK	2.3868G	67.12	74.00	-6.88	32.71	3	Vertical	294	1.82					
PK	2.45G	116.33	Inf	-Inf	32.86	3	Vertical	294	1.82					
PK	2.4864G	61.17	74.00	-12.83	32.94	3	Vertical	294	1.82					

HE40_Nss1,(MCS0)_4TX

2437MHz_TX

25/12/2017



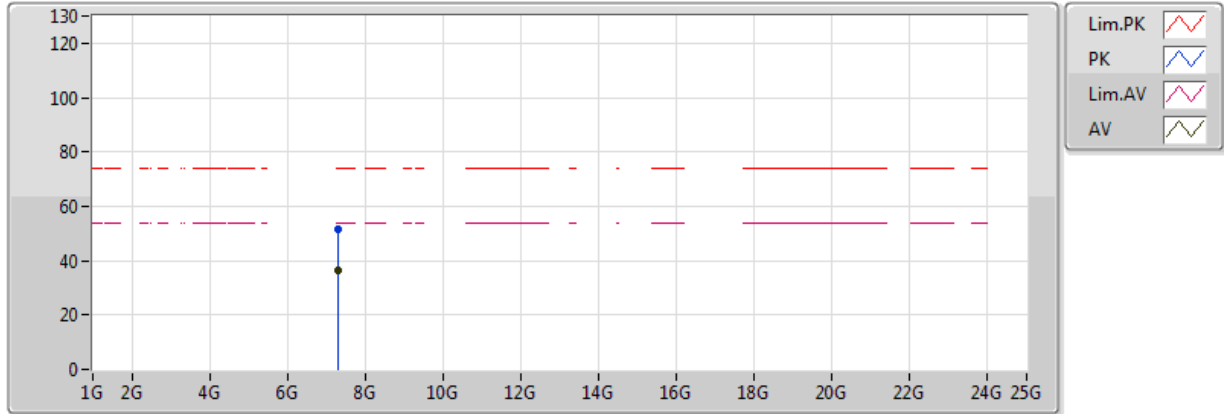
20171225
EUT_Z_4_TX_Dipole
Setting 77
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389998G	53.65	54.00	-0.35	32.12	3	Vertical	293	2.03	-
AV	2.443G	106.74	Inf	-Inf	32.29	3	Vertical	293	2.03	-
AV	2.4854G	51.61	54.00	-2.39	32.43	3	Vertical	293	2.03	-
PK	2.387G	69.72	74.00	-4.28	32.11	3	Vertical	293	2.03	-
PK	2.4474G	120.12	Inf	-Inf	32.30	3	Vertical	293	2.03	-
PK	2.4902G	64.46	74.00	-9.54	32.44	3	Vertical	293	2.03	-

HE40_Nss1,(MCS0)_4TX

2437MHz_TX

23/01/2018



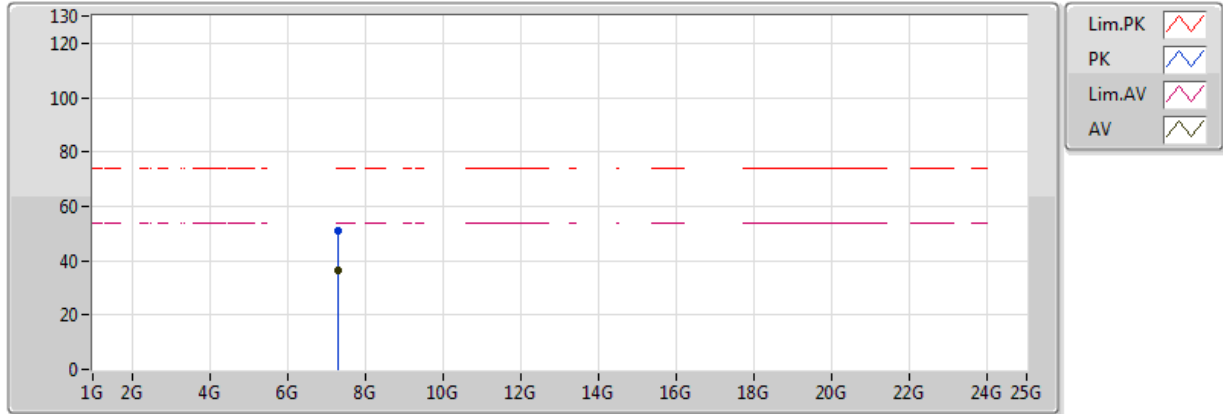
20180123
EUT_Z_4 TX_Dipole
Setting 77
01-J-1
FSP
rtax880Ur210#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	7.31574G	36.69	54.00	-17.31	9.66	3	Vertical	165	1.09					
PK	7.31046G	51.38	74.00	-22.62	9.66	3	Vertical	165	1.09					

HE40_Nss1,(MCS0)_4TX

2437MHz_TX

23/01/2018



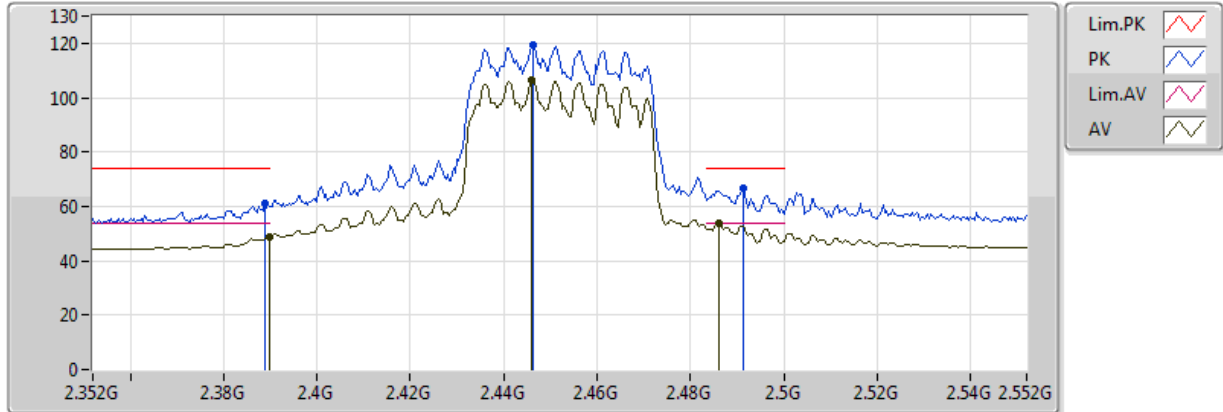
20180123
EUT_Z_4 TX_Dipole
Setting 77
01-J-1
FSP
rtax880Ur210#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	7.31592G	36.70	54.00	-17.30	9.66	3	Horizontal	59	1.12					
PK	7.31128G	51.22	74.00	-22.78	9.66	3	Horizontal	59	1.12					

HE40_Nss1,(MCS0)_4TX

2452MHz_TX

25/12/2017



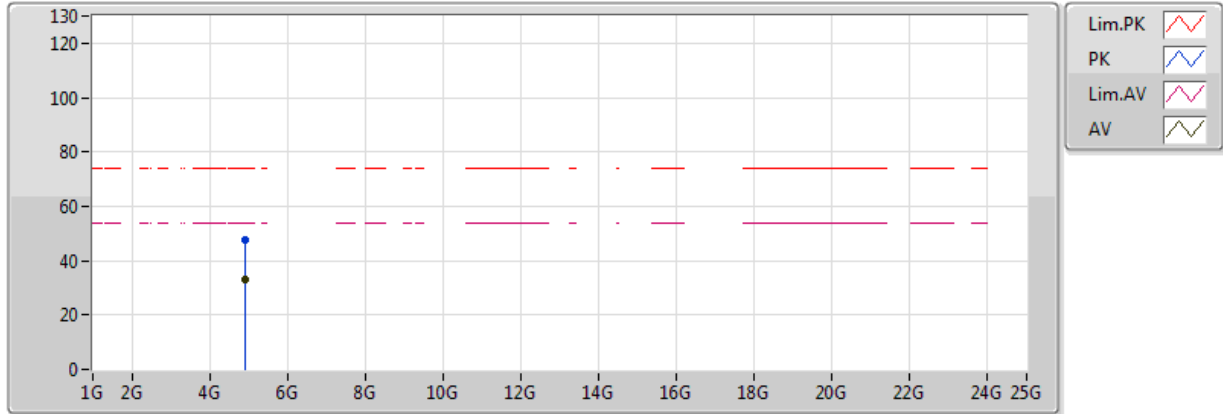
20171225
EUT_Z_4_TX_Dipole
Setting 78
06-L-3
FSP(100080)
rtax880Ur220#6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.39G	48.74	54.00	-5.26	32.12	3	Vertical	68	1.86	-				
AV	2.446G	106.35	Inf	-Inf	32.30	3	Vertical	68	1.86	-				
AV	2.486G	53.68	54.00	-0.32	32.43	3	Vertical	68	1.86	-				
PK	2.3888G	60.90	74.00	-13.10	32.11	3	Vertical	68	1.86	-				
PK	2.4464G	119.37	Inf	-Inf	32.30	3	Vertical	68	1.86	-				
PK	2.4912G	66.45	74.00	-7.55	32.45	3	Vertical	68	1.86	-				

HE40_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



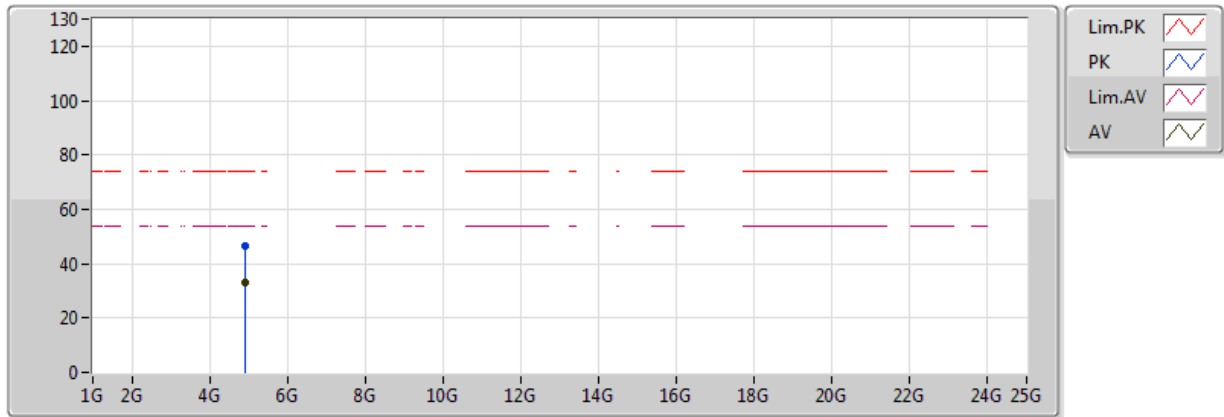
20171227
EUT_Z_4 TX_Dipole
Setting 78
03-J-1
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height					
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	4.8976G	33.27	54.00	-20.73	6.89	3	Vertical	243	1.55					
PK	4.9031G	47.54	74.00	-26.46	6.90	3	Vertical	243	1.55					

HE40_Nss1,(MCS0)_4TX

2452MHz_TX

27/12/2017



20171227
EUT_Z_4 TX_Dipole
Setting 78
03-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	4.906G	32.95	54.00	-21.05	6.90	3	Horizontal	58	1.47					
PK	4.90388G	46.67	74.00	-27.33	6.90	3	Horizontal	58	1.47					



RSE Co-location Result

Appendix G

