



NCC RADIO TEST REPORT

Equipment : 802.11 a/b/g/n Module
Brand Name : Extreme Networks
Model Name : KHAP-800
Applicant : 香港商極進網路有限公司台灣分公司
臺北市松山區復勢里南京東路 4 段 126 號 5 樓
Manufacturer : Extreme Networks, Inc.
6480 Via Del Oro, San Jose, CA 95119
Standard : LP0002 Section 4.7 (2018-01-10)

The product was received on Jun. 16, 2017, and testing was started from May 26, 2018 and completed on Jun. 05, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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


Approved by: Cliff Chang

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



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



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	4.7.8	Antenna Requirement	PASS	-
3.1	2.3	AC Power-line Conducted Emissions	PASS	-
3.2	4.7.3	Emission Bandwidth	PASS	-
3.3	4.7.3	Maximum Conducted Output Power	PASS	-
3.4	4.7.3	Peak Power Spectral Density	PASS	-
3.5	4.7.4	Unwanted Emissions	PASS	-

Reviewed by: Sam Chen

Report Producer: Viola Huang

1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	3TX
5.15-5.25GHz	802.11n HT20	20	3TX
5.15-5.25GHz	802.11n HT40	40	3TX
5.725-5.85GHz	802.11a	20	3TX
5.725-5.85GHz	802.11n HT20	20	3TX
5.725-5.85GHz	802.11n HT40	40	3TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM 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	Port	Brand	Model Name	Antenna Type	Connector	Antenna Gain (dBi)
1	1	MOTOROLA	ML-2499-FHPA9-01R	Dipole	N-Male	See note 1
	2					
	3					
2	1	MOTOROLA	ML-5299-FHPA10-01R	Dipole	N-Male	
	2					
	3					
3	-	MOTOROLA	ML-2452-HPAG4A6-01	Dipole	N-Male	

Note 1:

Set	Antenna Gain (dBi)		Cable loss (dB)		True Gain (dBi)	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	10.5	-	1.9	-	8.6	-
2	-	10.5	-	3.5	-	7
3	4	7.3	1.9	3.5	2.1	3.8

Note 2: The EUT has 3 sets of antenna and there are three antennas for each set.

Set.1~Set.3 are the same type of antenna. Only the highest gain antenna 1 was selected to test and record in this report.

For IEEE 802.11b/g/n/a mode (3TX/3RX)

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.97	0.132	1.363m	1k
802.11n HT20	0.969	0.137	1.275m	1k
802.11n HT40	0.954	0.205	633.75u	3k

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
Test Software Version	artgui.exe			



1.2 Testing Applied Standards

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

- ♦ LP0002 Section 4.7 (2018-01-10)
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 789033 D02 v02r01
- ♦ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Paul Chen	25°C / 51%	May 30, 2018~Jun. 01, 2018
Radiated	03CH01-CB	Paul Chen & Gino Huang & RJ Huang & Welson Chen & Nyle Chang	22°C / 54%	May 26, 2018~Jun. 04, 2018
AC Conduction	CO02-CB	Wei Li	25°C / 59%	Jun. 05, 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	PowerSetting
802.11a_Nss1,(6Mbps)_3TX	-
5180MHz	15
5200MHz	19.5
5240MHz	19.5
5745MHz	31.5
5785MHz	31.5
5825MHz	31.5
802.11n HT20_Nss1,(MCS0)_3TX	-
5180MHz	15.5
5200MHz	19.5
5240MHz	19.5
5745MHz	31.5
5785MHz	31.5
5825MHz	31.5
802.11n HT40_Nss1,(MCS0)_3TX	-
5190MHz	10.5
5230MHz	20.5
5755MHz	22
5795MHz	27.5

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	Intentional - CTX
1	EUT + WLAN 2.4GHz + Ant. 1
2	EUT + WLAN 5GHz + Ant. 2
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode	Unintentional - CRX
1	EUT + WLAN 2.4GHz + Ant. 1
2	EUT + WLAN 5GHz + Ant. 2
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Intentional - CTX
1	EUT in Z axis + WLAN 2.4GHz + Ant. 1
2	EUT in Z axis + WLAN 5GHz + Ant. 2
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode < 1GHz	Unintentional - CRX
1	EUT in Z axis + WLAN 2.4GHz + Ant. 1
2	EUT in Z axis + WLAN 5GHz + Ant. 2
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz Unintentional 1GHz~5th	Unintentional - CRX
1	EUT in Z axis + WLAN 2.4GHz + Ant. 1
2	EUT in Z axis + WLAN 5GHz + Ant. 2
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz Intentional 1GHz~10th	Intentional - CTX
1	EUT in Z axis + Ant. 2

2.3 EUT Operation during Test

For CTX mode:

The EUT was programmed to be in continuously transmitting mode.

For CRX mode:

The EUT was programmed to be in continuously receiving mode.

2.4 Accessories

N/A



2.5 Support Equipment

For Test Site No: CO01-CB

For Intentional - CTX and Unintentional - CRX

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E6430	N/A
2	Earphone	e-Power	S90W	N/A
3	Mouse	Logitech	M-U0026	N/A
4	Fixture	N/A	N/A	N/A

For Test Site No: 03CH01-CB

For Intentional - CTX & Unintentional - CRX & Unintentional 1GHz~5th - CRX

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A
2	Earphone	SHYARO CHI	MIC-04	N/A
3	Mouse	Logitech	M-U0026	N/A
4	Fixture	N/A	N/A	N/A

For Test Site No: 03CH01-CB

For Intentional 1GHz~10th - CTX

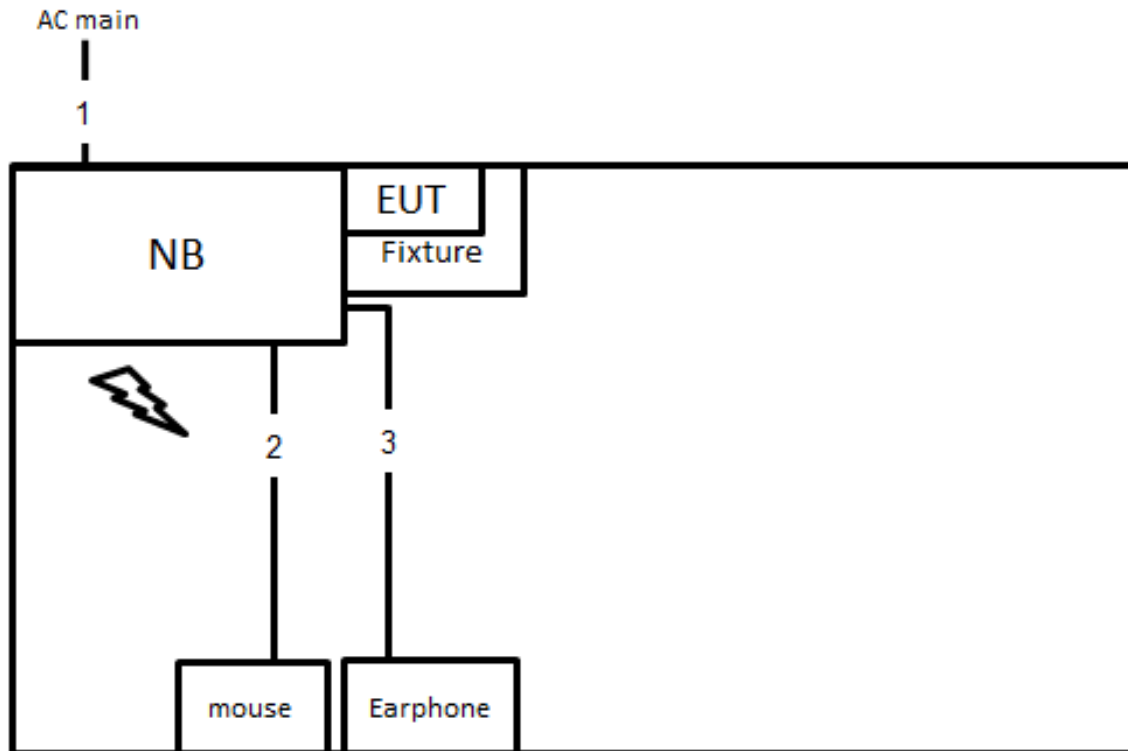
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A
2	Fixture	N/A	N/A	N/A

For Test Site No: TH01-CB

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

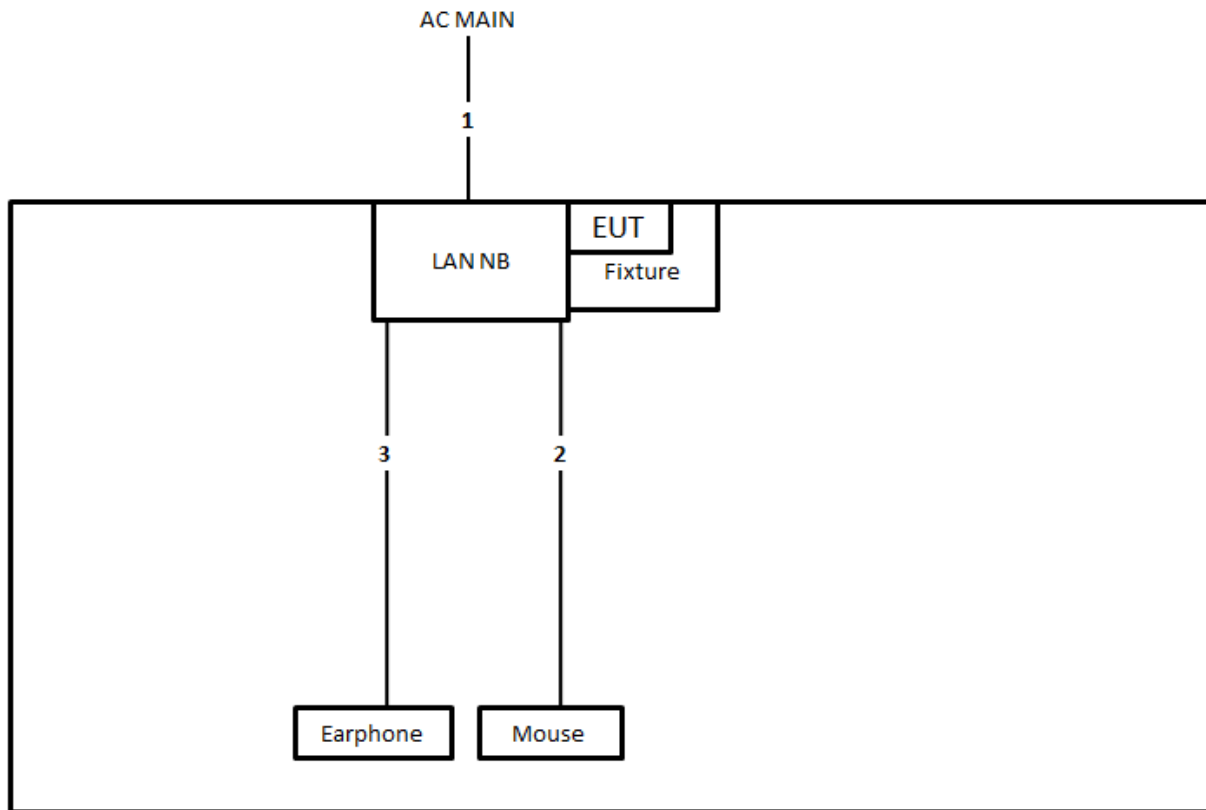
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test / Intentional - CTX and Unintentional - CRX

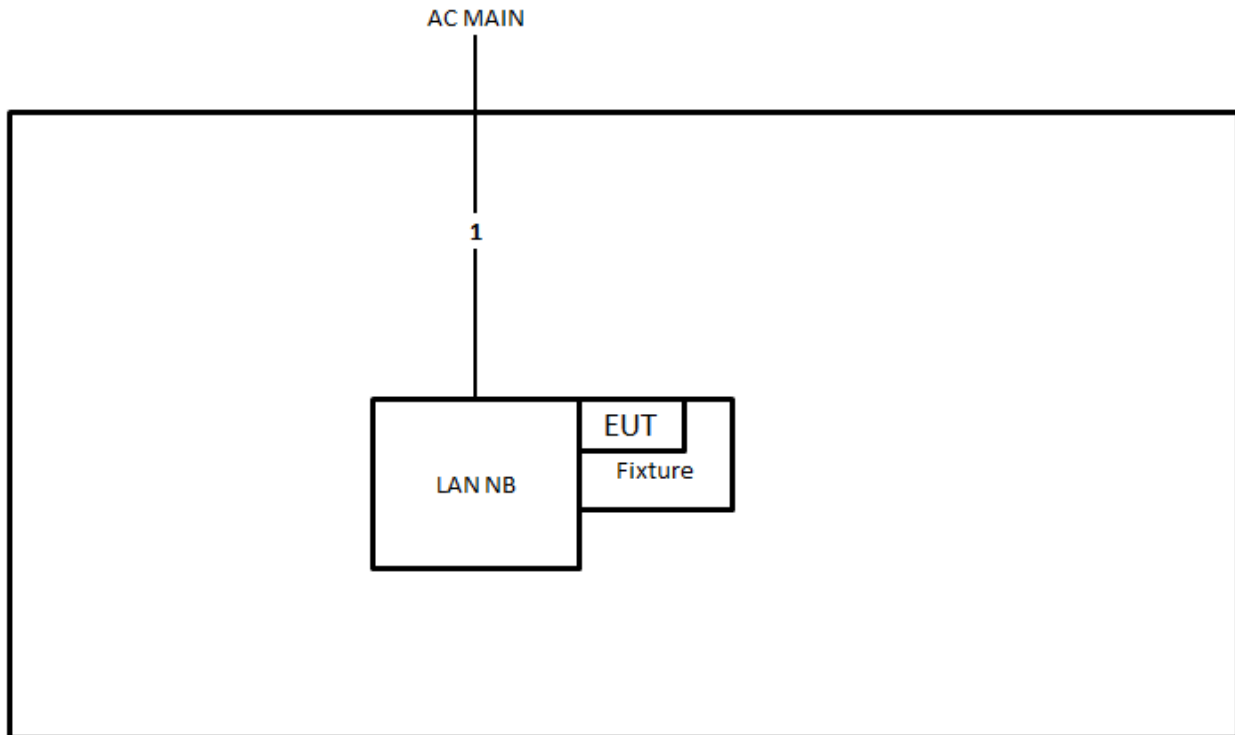


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB cable	Yes	1.8m
3	Audio cable	No	1.8m

Test Setup Diagram - Radiated Test / For Intentional - CTX & Unintentional - CRX & Unintentional 1GHz~5th - CRX



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1.8m
3	Audio cable	No	1.1m

Test Setup Diagram - Radiated Test / For Intentional 1GHz~10th - CTX


Item	Connection	Shielded	Length
1	Power cable	No	2.6m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

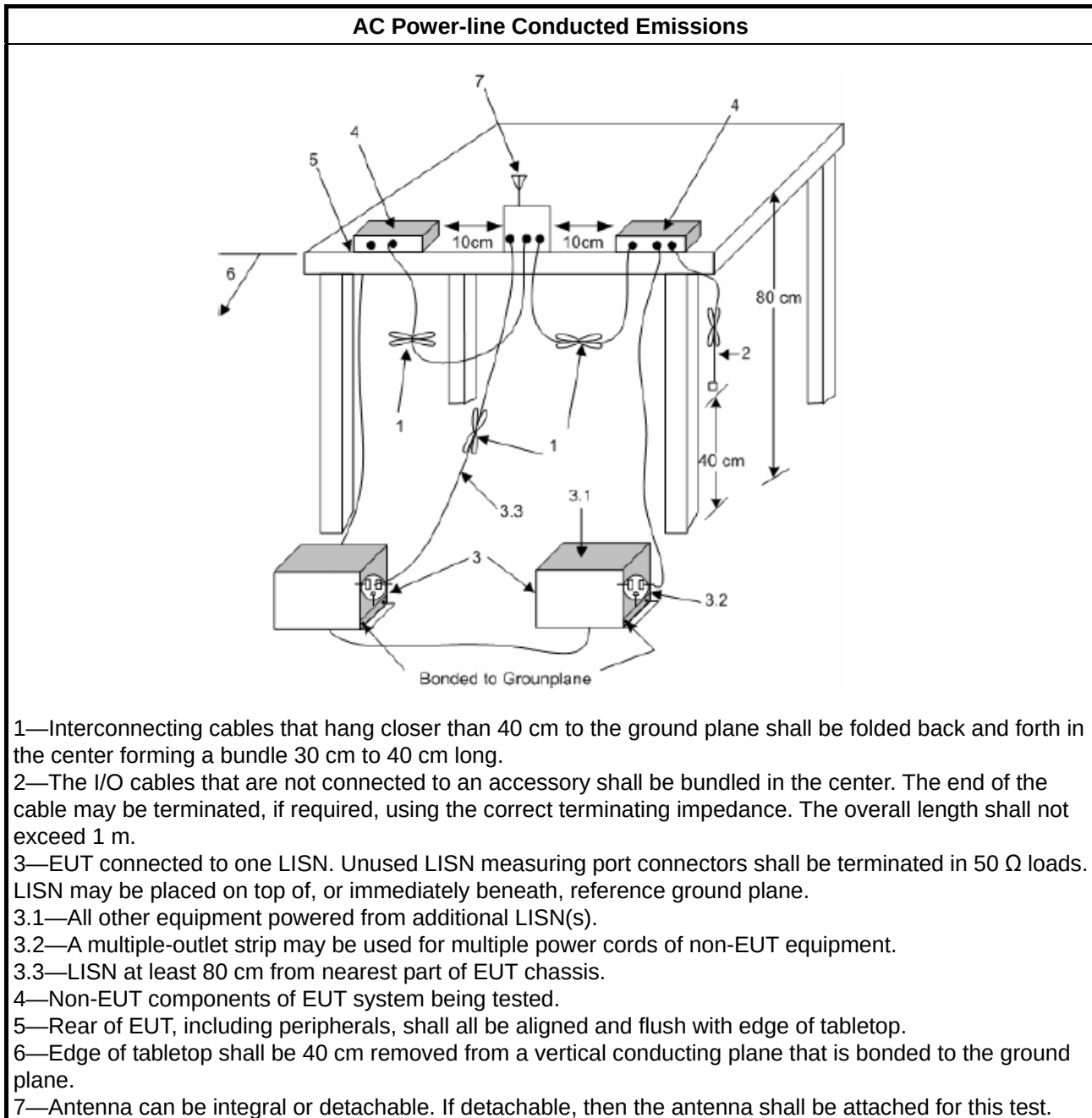
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$.

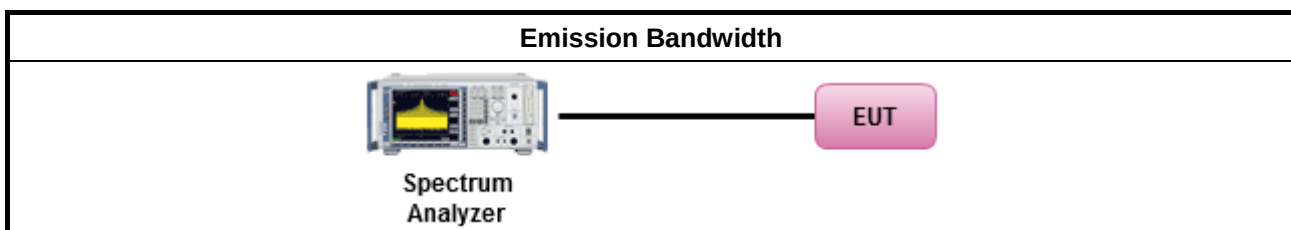
3.2.2 Measuring Instruments

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 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
☐	- Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm] - Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ - Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. - Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

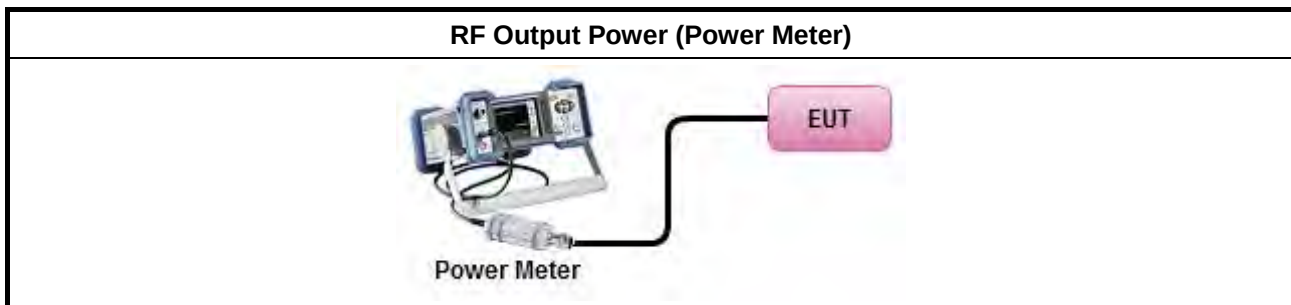
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Average over on/off periods with duty factor
☐	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	- Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. - Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-40) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
☐ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

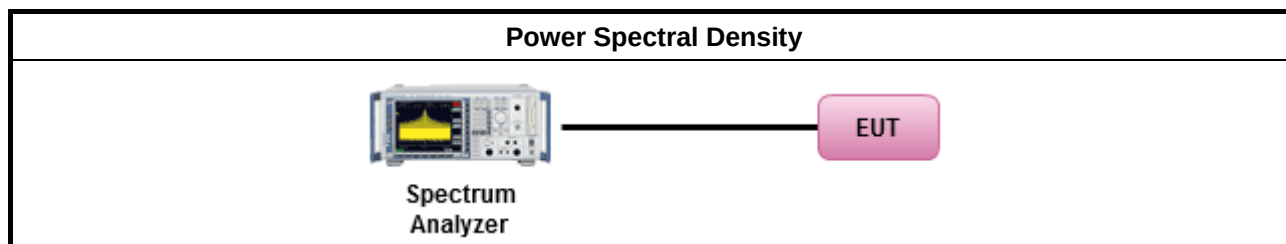
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐	Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
☒	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
☒ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☐ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☐ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

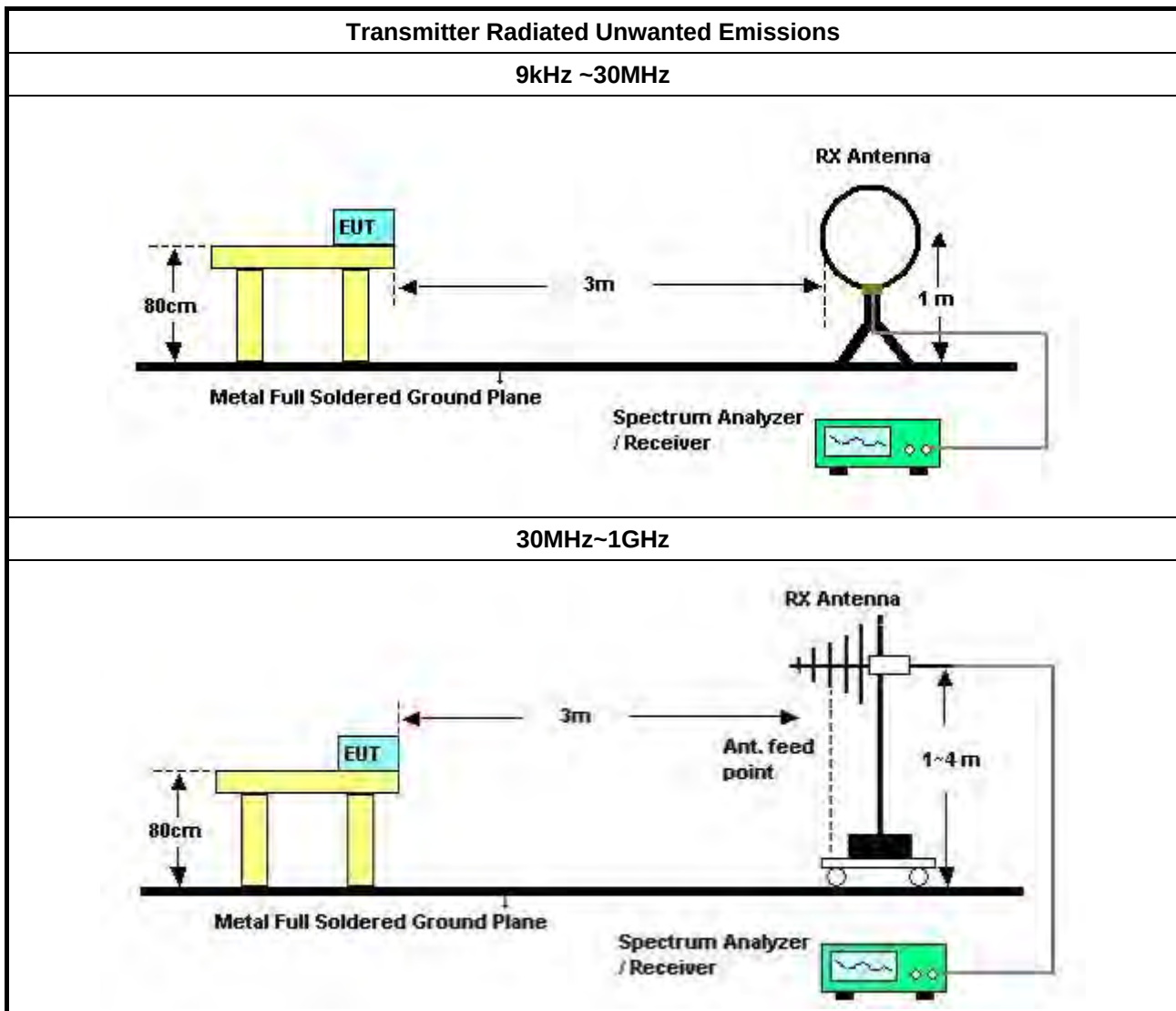
3.5.2 Measuring Instruments

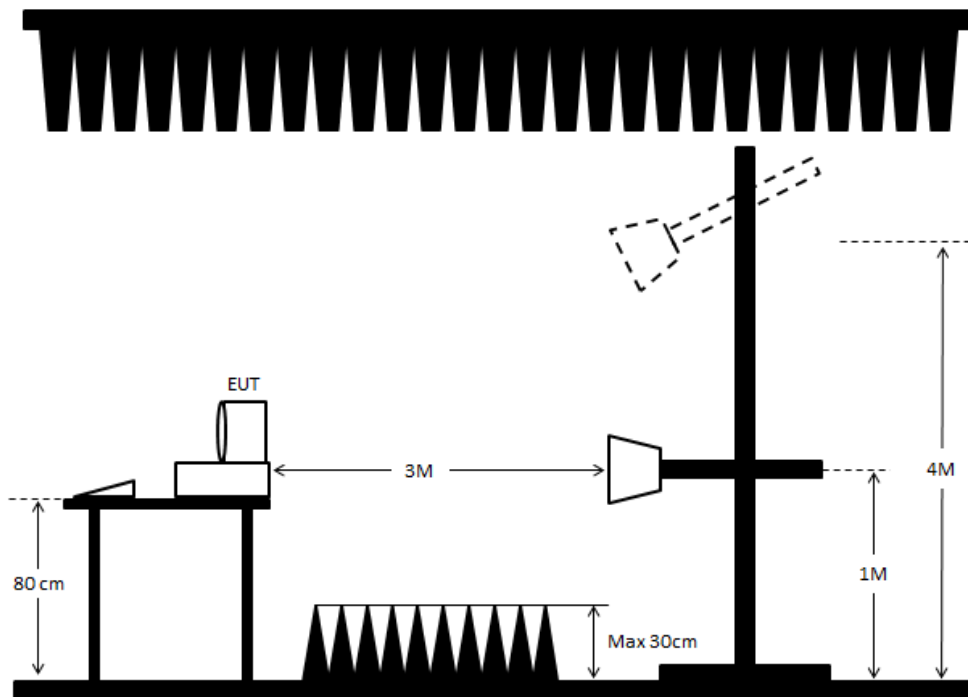
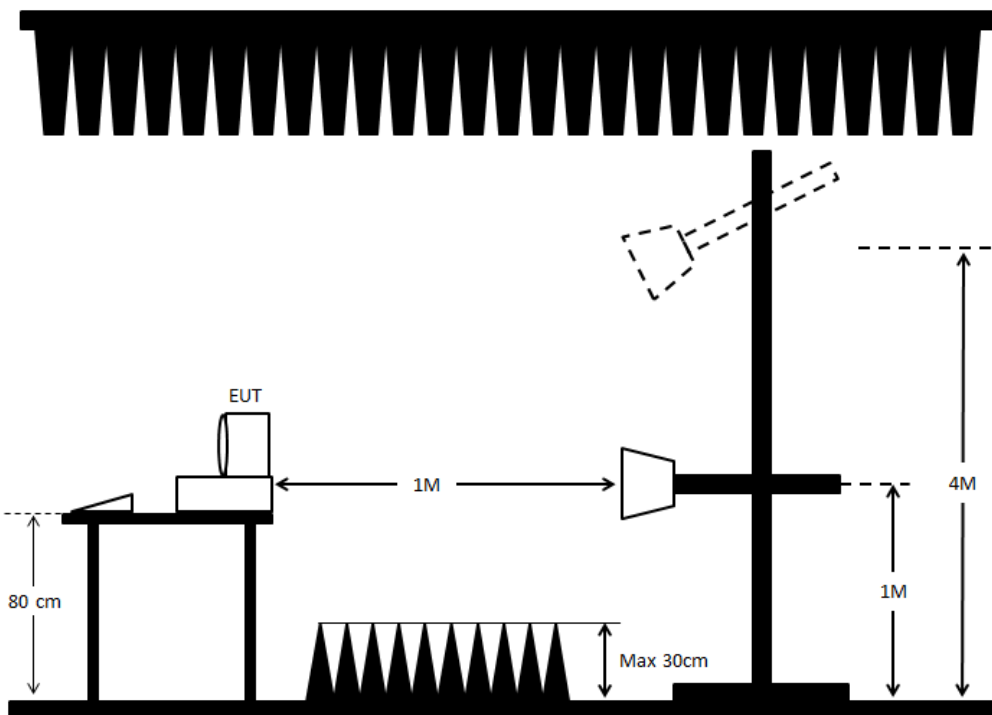
Refer a test equipment and calibration data table in this test report.

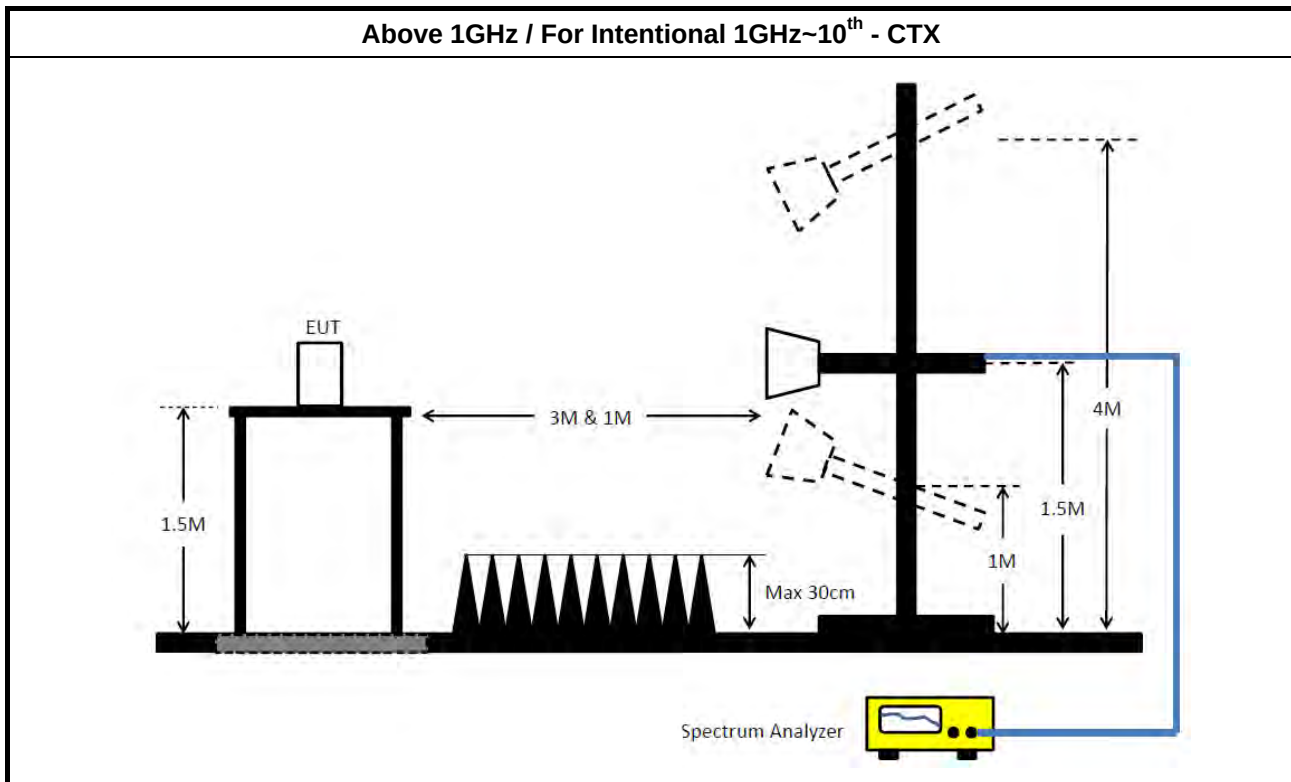
3.5.3 Test Procedures

Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq 1/T$, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.5.4 Test Setup



For Unintentional 1GHz~5th - CRX
1,000~18,000 MHz

18,000~30,000 MHz




3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

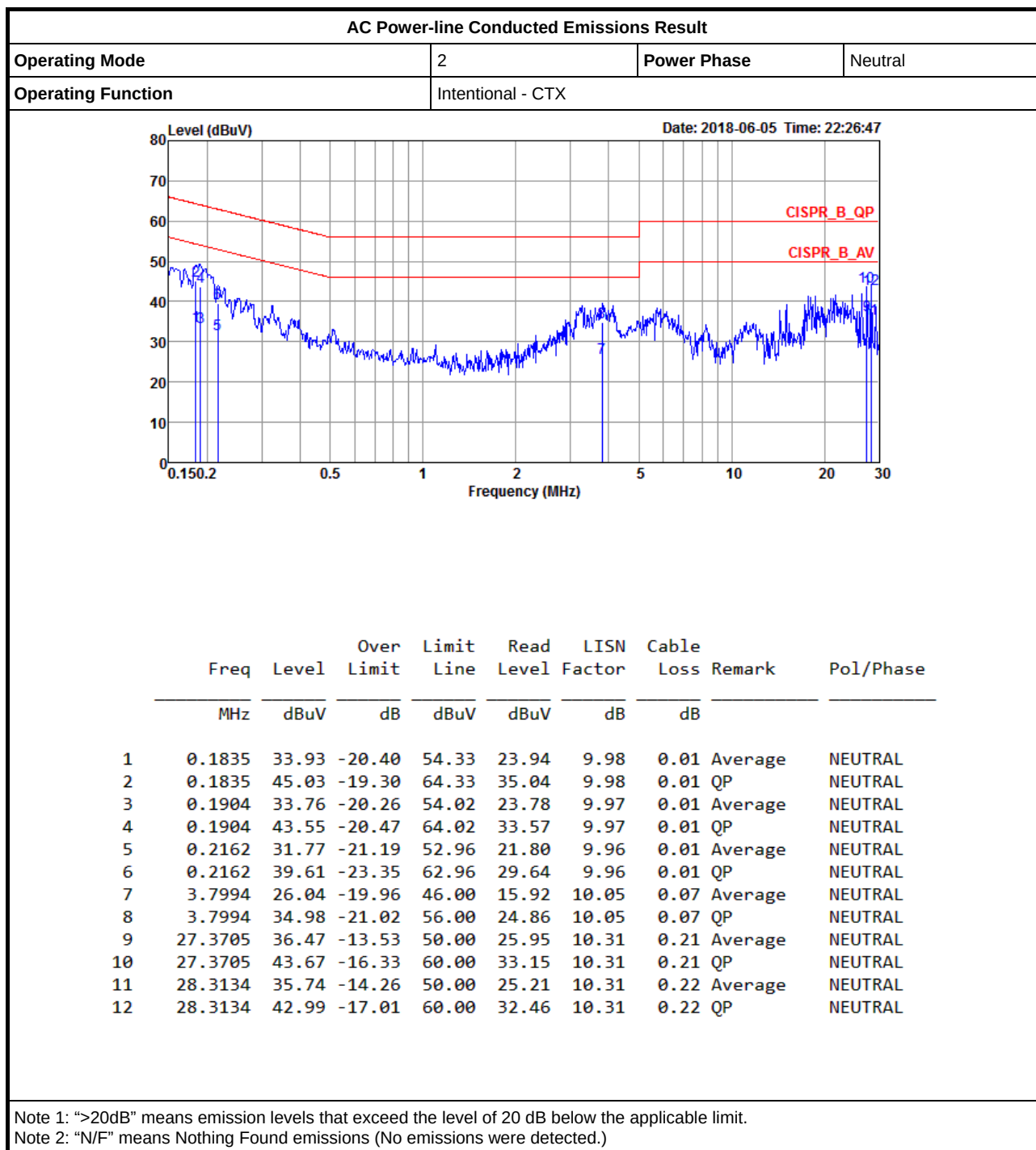
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 24, 2017	Nov. 23, 2018	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 13, 2017	Nov. 12, 2018	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 17, 2018	Jan. 16, 2019	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz~30MHz	Nov. 10, 2017	Nov. 09, 2018	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-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, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-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	100354	9kHz ~ 2.75GHz	Dec. 08, 2017	Dec. 07, 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)

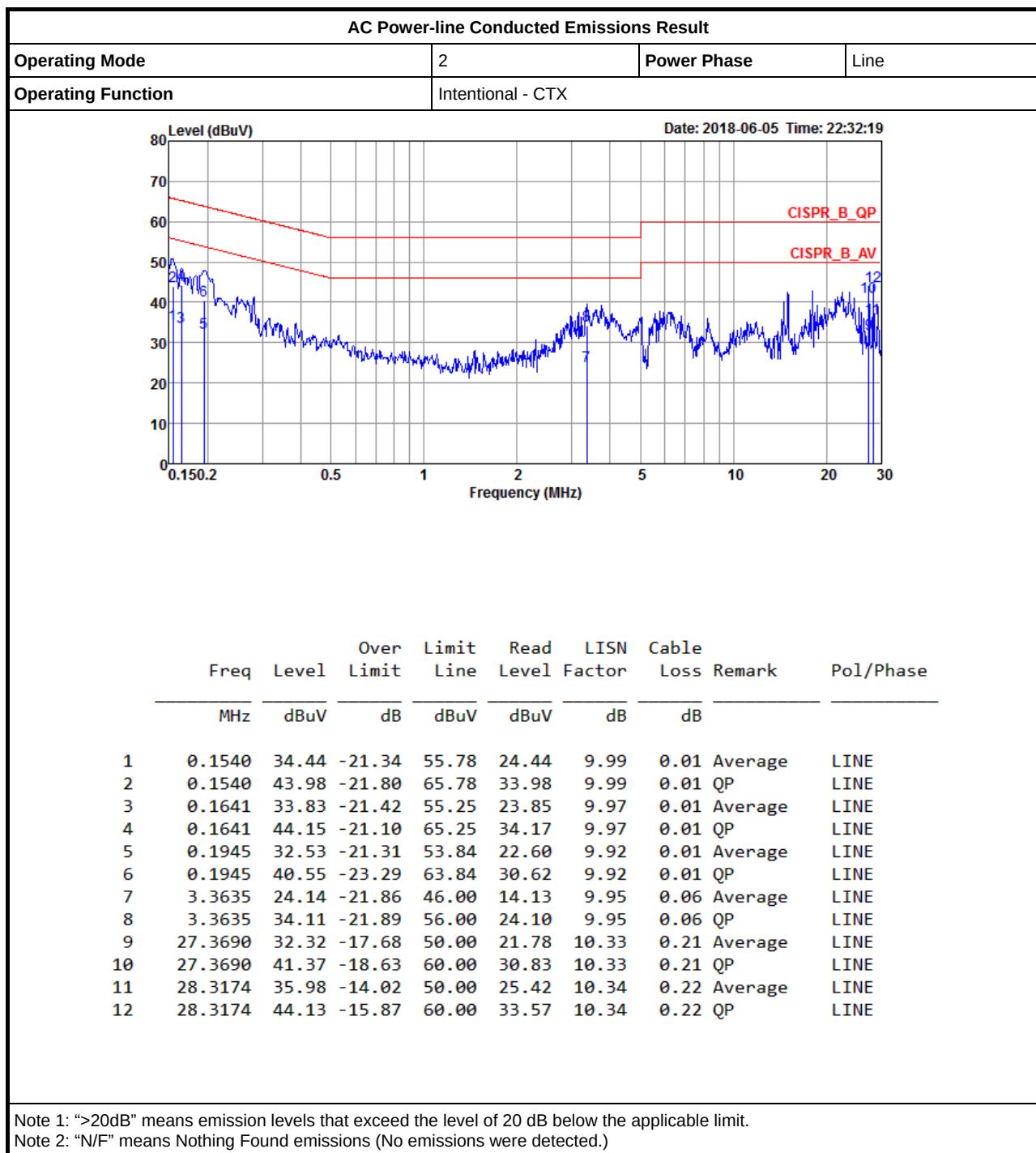


Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
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.

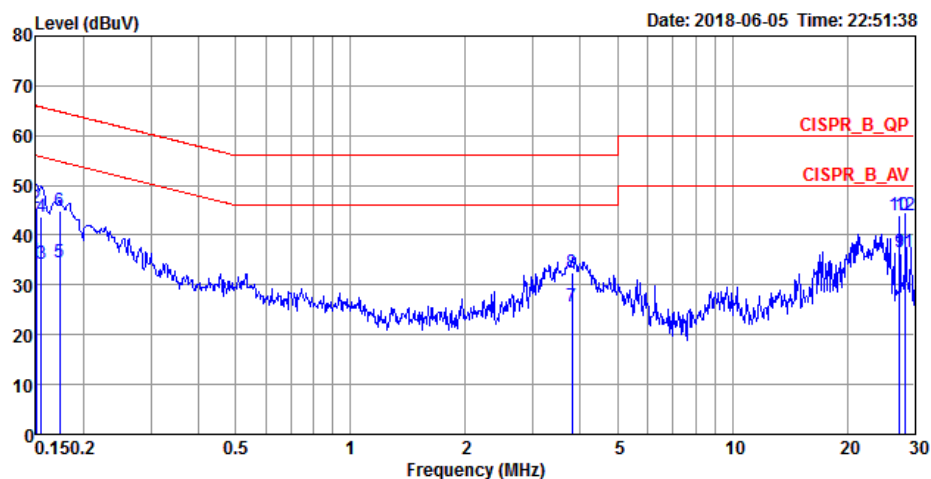
N.C.R. means Non-Calibration required.





AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Unintentional - CRX		



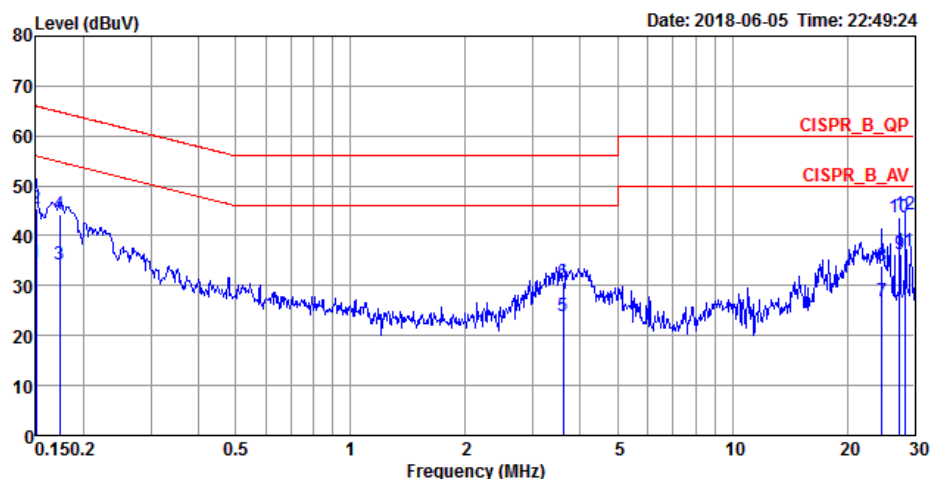
	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.1500	34.91	-21.09	56.00	24.86	10.04	0.01	Average	NEUTRAL
2	0.1500	45.41	-20.59	66.00	35.36	10.04	0.01	QP	NEUTRAL
3	0.1548	34.34	-21.40	55.74	24.30	10.03	0.01	Average	NEUTRAL
4	0.1548	43.72	-22.02	65.74	33.68	10.03	0.01	QP	NEUTRAL
5	0.1731	34.57	-20.24	54.81	24.56	10.00	0.01	Average	NEUTRAL
6	0.1731	44.96	-19.85	64.81	34.95	10.00	0.01	QP	NEUTRAL
7	3.7994	25.76	-20.24	46.00	15.64	10.05	0.07	Average	NEUTRAL
8	3.7994	32.33	-23.67	56.00	22.21	10.05	0.07	QP	NEUTRAL
9	27.3885	36.51	-13.49	50.00	25.99	10.31	0.21	Average	NEUTRAL
10	27.3885	43.84	-16.16	60.00	33.32	10.31	0.21	QP	NEUTRAL
11	28.3344	36.64	-13.36	50.00	26.11	10.31	0.22	Average	NEUTRAL
12	28.3344	43.86	-16.14	60.00	33.33	10.31	0.22	QP	NEUTRAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Unintentional - CRX		



	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.1500	34.66	-21.34	56.00	24.65	10.00	0.01	Average	LINE
2	0.1500	45.44	-20.56	66.00	35.43	10.00	0.01	QP	LINE
3	0.1731	34.28	-20.53	54.81	24.32	9.95	0.01	Average	LINE
4	0.1731	44.32	-20.49	64.81	34.36	9.95	0.01	QP	LINE
5	3.6034	23.88	-22.12	46.00	13.87	9.94	0.07	Average	LINE
6	3.6034	30.74	-25.26	56.00	20.73	9.94	0.07	QP	LINE
7	24.6584	26.83	-23.17	50.00	16.35	10.29	0.19	Average	LINE
8	24.6584	33.91	-26.09	60.00	23.43	10.29	0.19	QP	LINE
9	27.3865	36.28	-13.72	50.00	25.74	10.33	0.21	Average	LINE
10	27.3865	43.75	-16.25	60.00	33.21	10.33	0.21	QP	LINE
11	28.3314	36.92	-13.08	50.00	26.36	10.34	0.22	Average	LINE
12	28.3314	44.19	-15.81	60.00	33.63	10.34	0.22	QP	LINE

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	42.475M	18.166M	18M2D1D	24.575M	16.667M
802.11n HT20_Nss1,(MCS0)_3TX	46.25M	18.966M	19M0D1D	26.85M	17.816M
802.11n HT40_Nss1,(MCS0)_3TX	91.8M	39.08M	39M1D1D	49.25M	36.532M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	16.275M	35.982M	36M0D1D	15.475M	32.909M
802.11n HT20_Nss1,(MCS0)_3TX	17.475M	37.506M	37M5D1D	15.575M	34.833M
802.11n HT40_Nss1,(MCS0)_3TX	36.25M	70.365M	70M4D1D	35.45M	49.225M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

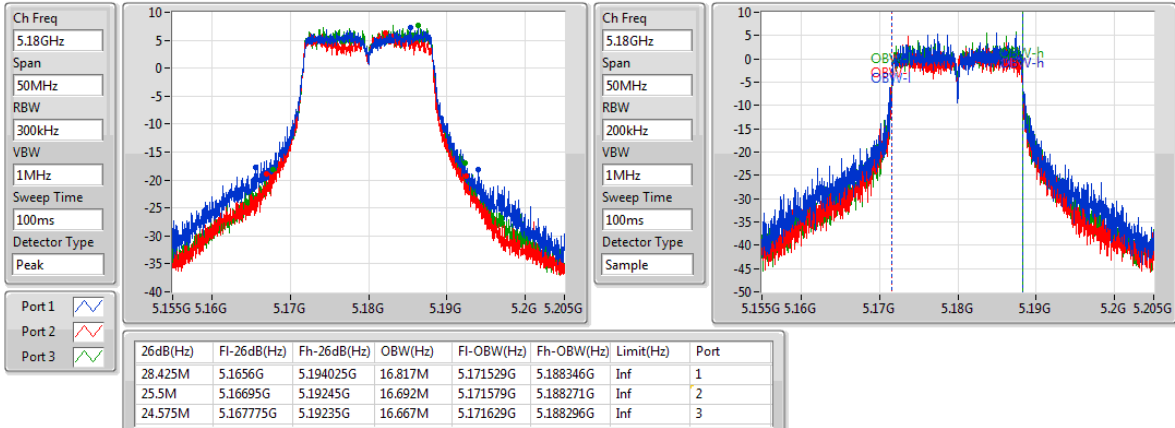
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	28.425M	16.817M	25.5M	16.692M	24.575M	16.667M
5200MHz	Pass	Inf	42.475M	18.166M	37.05M	16.867M	34.325M	16.792M
5240MHz	Pass	Inf	38.95M	17.116M	36.625M	16.842M	30.15M	16.767M
5745MHz	Pass	500k	15.675M	33.633M	16.275M	34.908M	15.925M	35.557M
5785MHz	Pass	500k	16.275M	34.683M	16.275M	34.933M	15.475M	35.982M
5825MHz	Pass	500k	16.275M	34.933M	16.275M	32.909M	16.275M	35.232M
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	30.825M	17.891M	27.5M	17.816M	26.85M	17.816M
5200MHz	Pass	Inf	46.25M	18.966M	35.85M	18.066M	34.925M	17.916M
5240MHz	Pass	Inf	44.325M	18.091M	37.225M	17.991M	30.05M	17.916M
5745MHz	Pass	500k	15.575M	34.833M	16.625M	35.582M	16.9M	37.056M
5785MHz	Pass	500k	15.625M	35.482M	15.7M	36.632M	16.3M	37.506M
5825MHz	Pass	500k	16.625M	36.107M	16.25M	35.182M	17.475M	37.281M
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	55M	36.682M	49.25M	36.532M	49.55M	36.582M
5230MHz	Pass	Inf	91.8M	39.08M	85.25M	37.681M	84.05M	37.131M
5755MHz	Pass	500k	35.45M	49.225M	35.7M	49.625M	35.6M	57.671M
5795MHz	Pass	500k	36.25M	66.767M	35.7M	67.366M	35.7M	70.365M

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

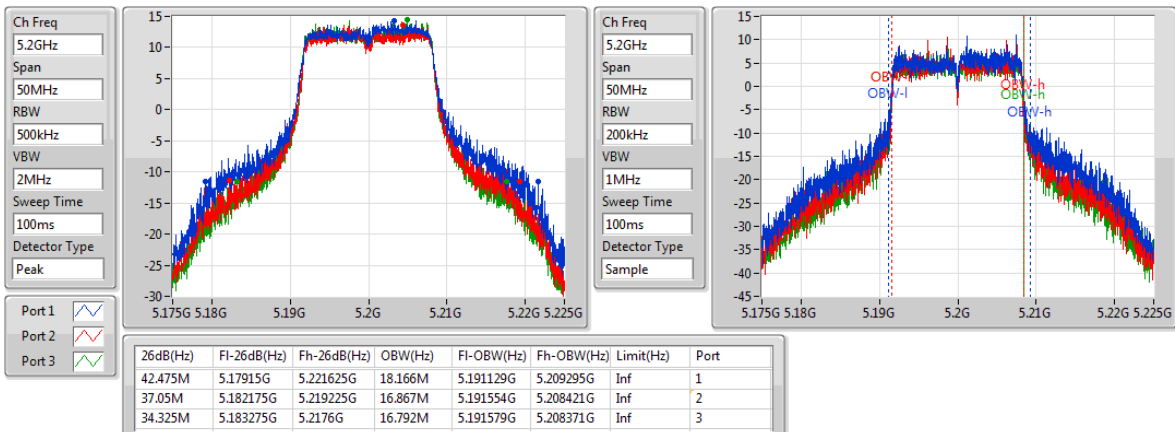
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_3TX
EBW
5180MHz

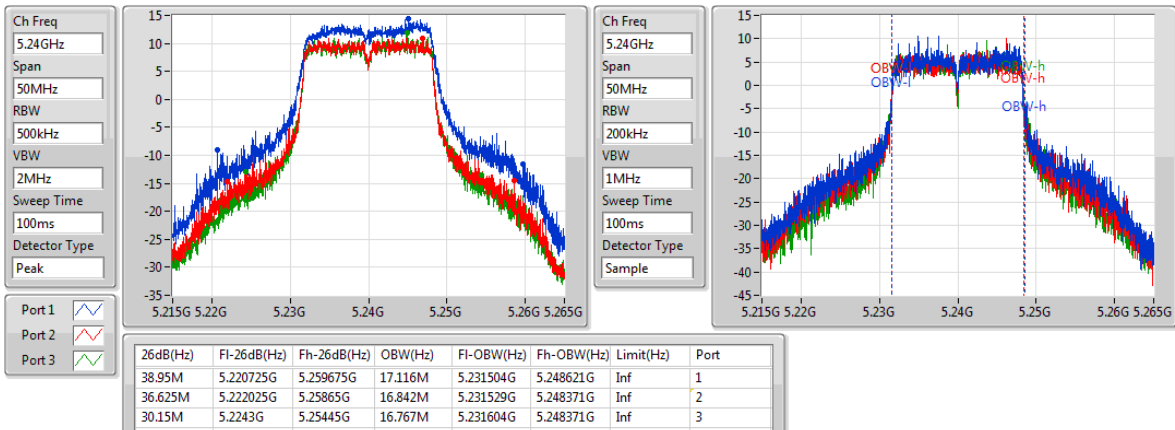
31/05/2018


802.11a_Nss1,(6Mbps)_3TX
EBW
5200MHz

31/05/2018

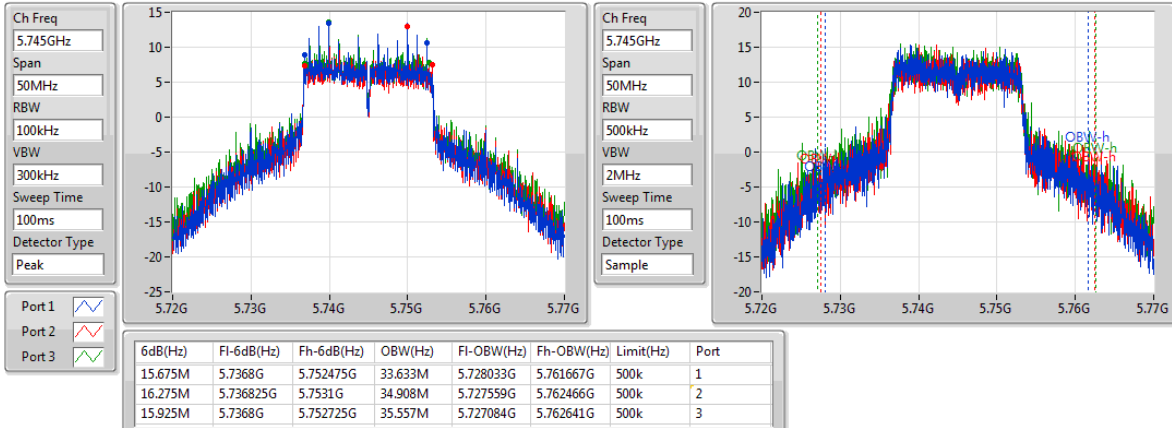

802.11a_Nss1,(6Mbps)_3TX
EBW
5240MHz

31/05/2018

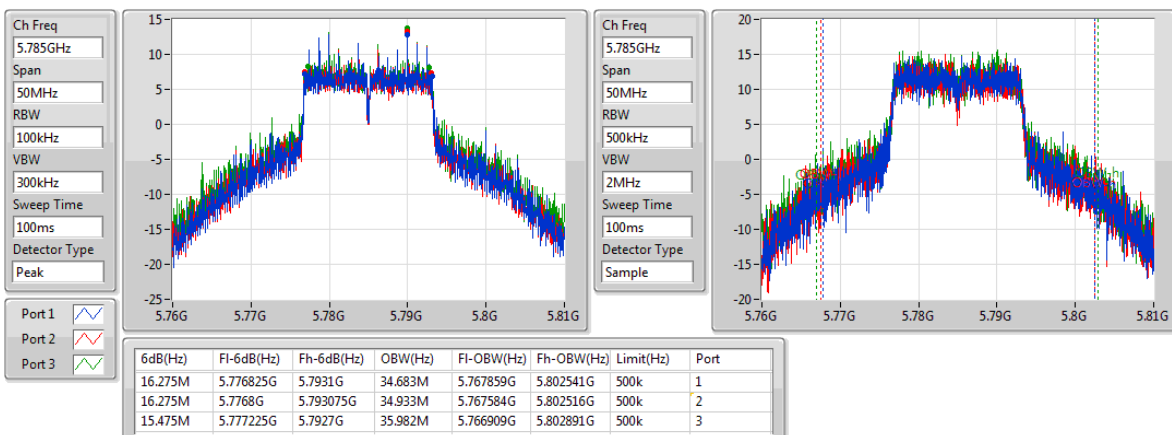


802.11a_Nss1,(6Mbps)_3TX
EBW
5745MHz

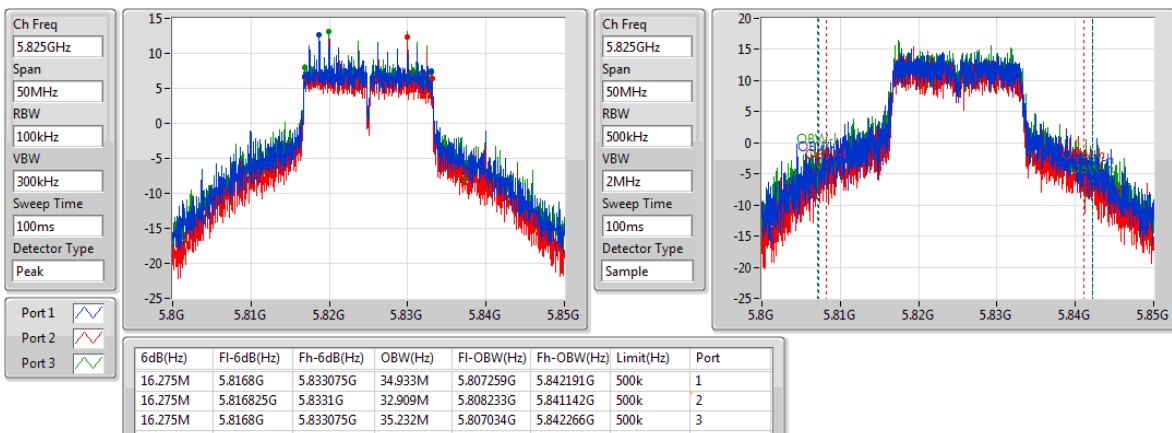
31/05/2018


802.11a_Nss1,(6Mbps)_3TX
EBW
5785MHz

31/05/2018

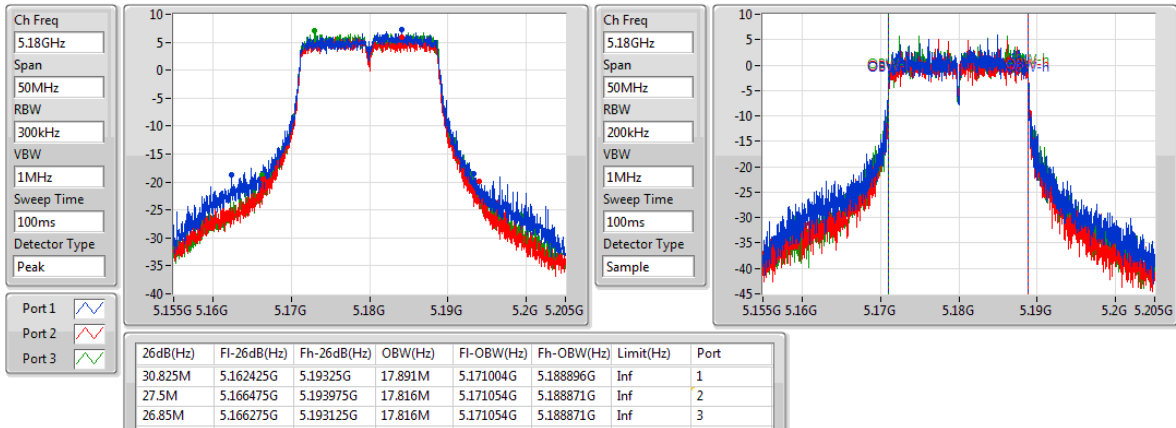

802.11a_Nss1,(6Mbps)_3TX
EBW
5825MHz

31/05/2018

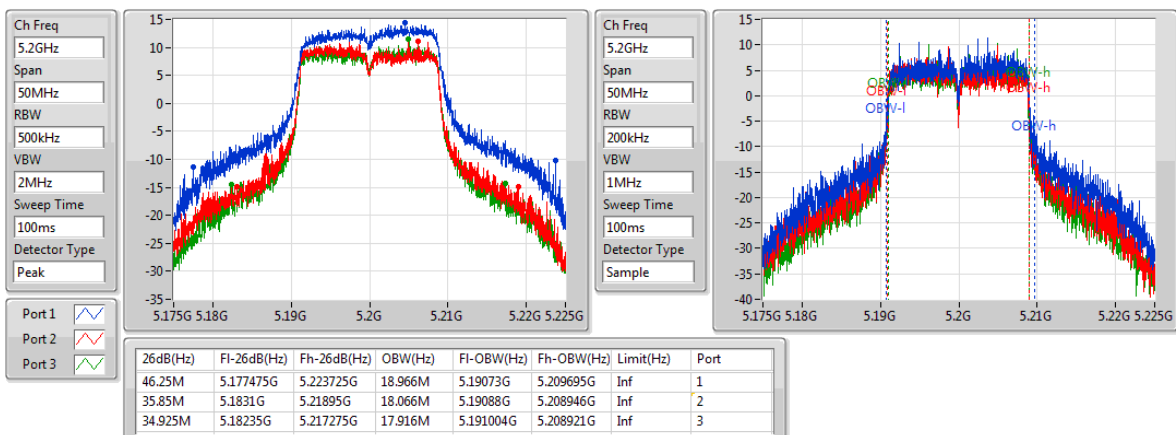


802.11n HT20_Nss1,(MCS0)_3TX
EBW
5180MHz

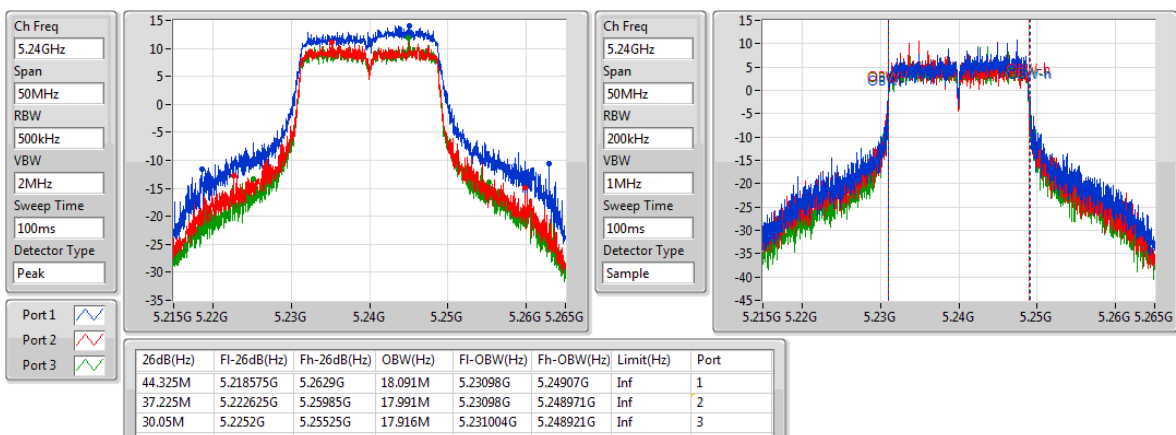
30/05/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
5200MHz

30/05/2018

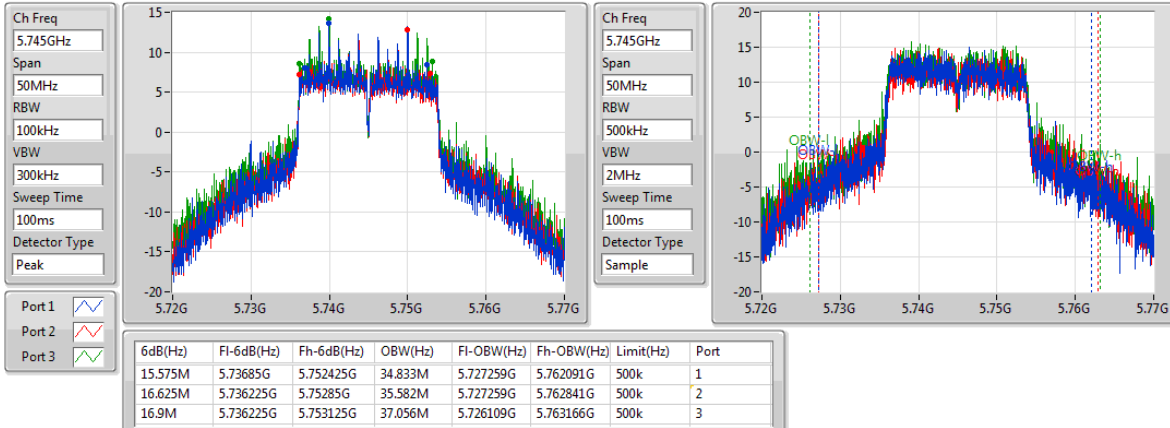

802.11n HT20_Nss1,(MCS0)_3TX
EBW
5240MHz

30/05/2018

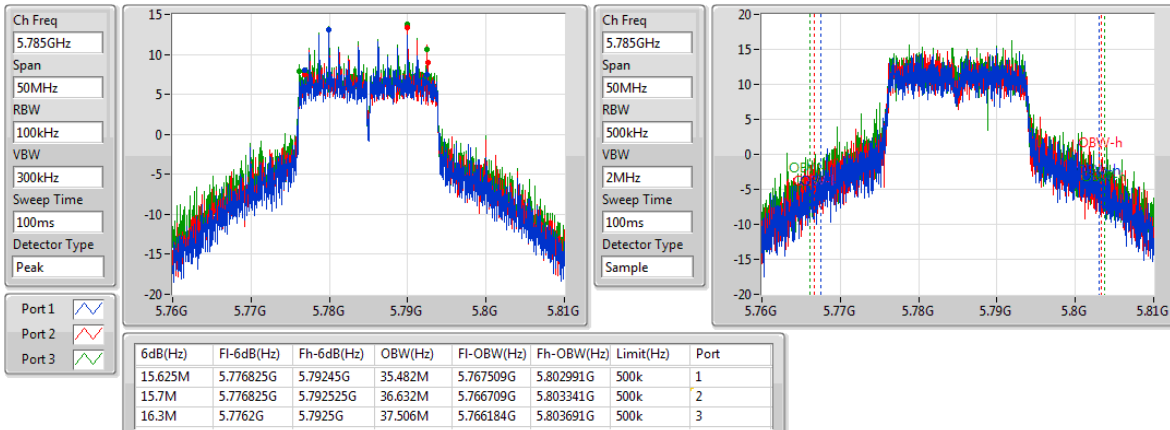


802.11n HT20_Nss1,(MCS0)_3TX
EBW
5745MHz

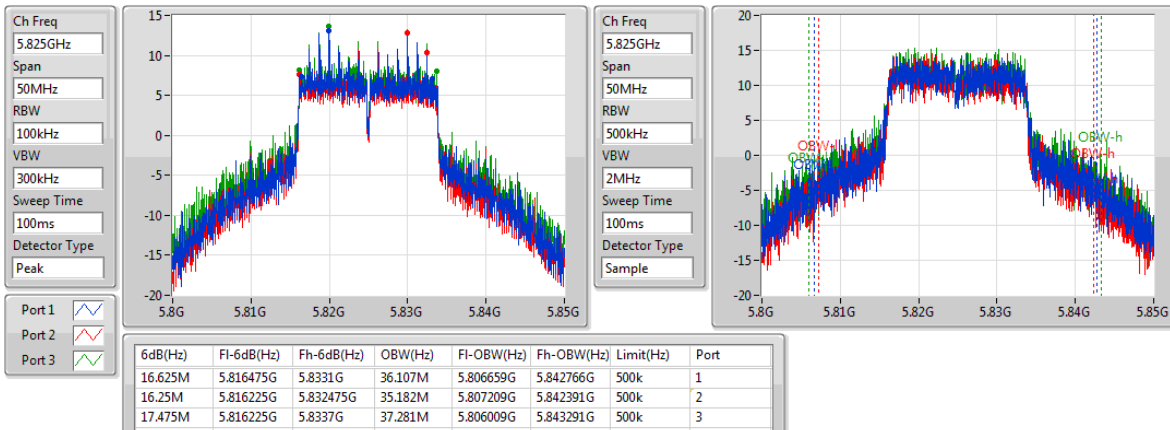
30/05/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
5785MHz

30/05/2018

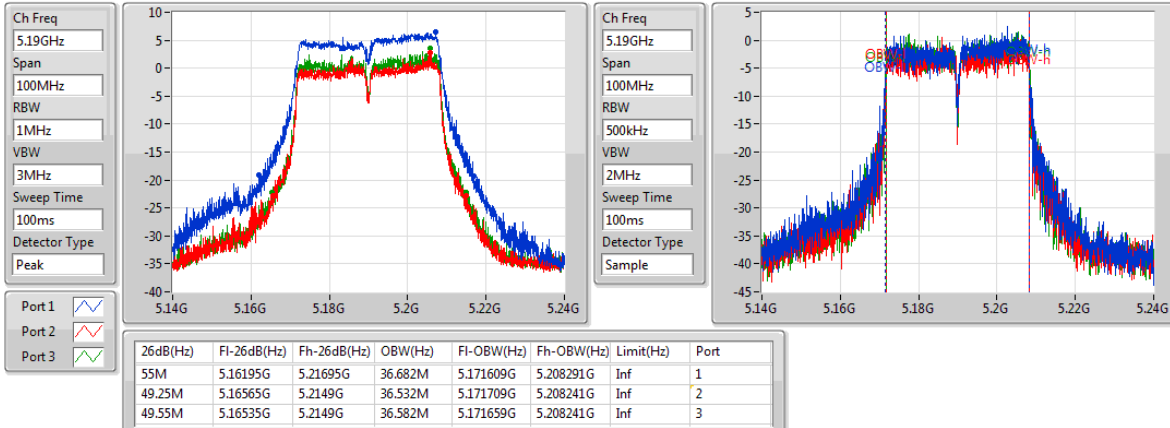

802.11n HT20_Nss1,(MCS0)_3TX
EBW
5825MHz

30/05/2018

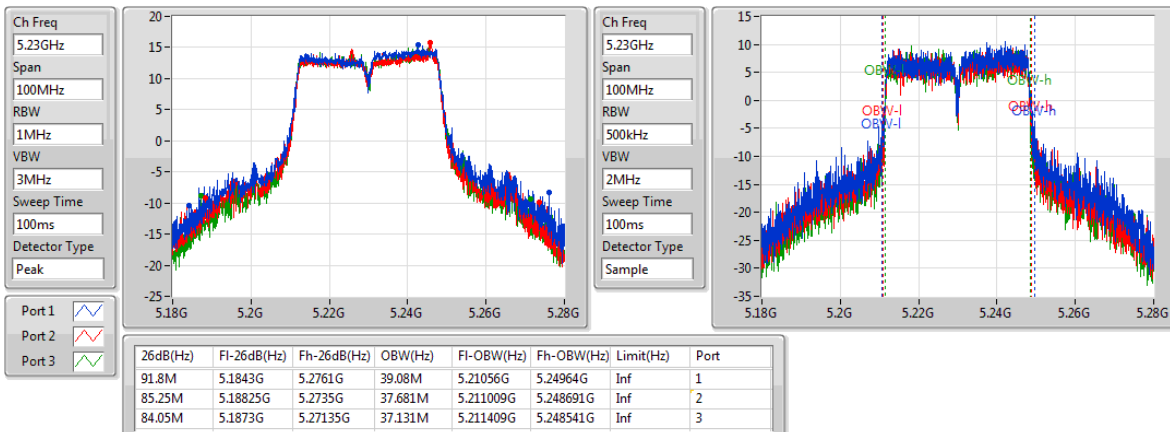


802.11n HT40_Nss1,(MCS0)_3TX
EBW
5190MHz

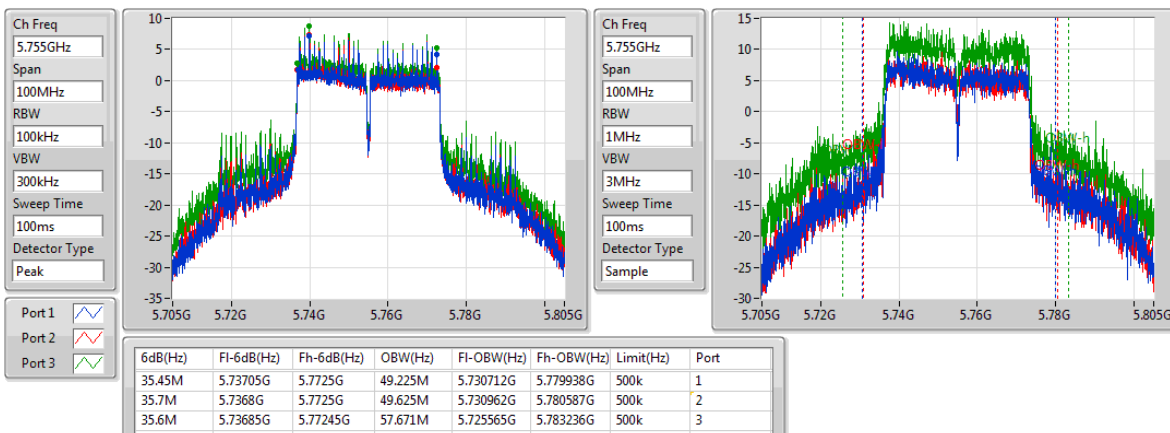
30/05/2018


802.11n HT40_Nss1,(MCS0)_3TX
EBW
5230MHz

31/05/2018


802.11n HT40_Nss1,(MCS0)_3TX
EBW
5755MHz

31/05/2018

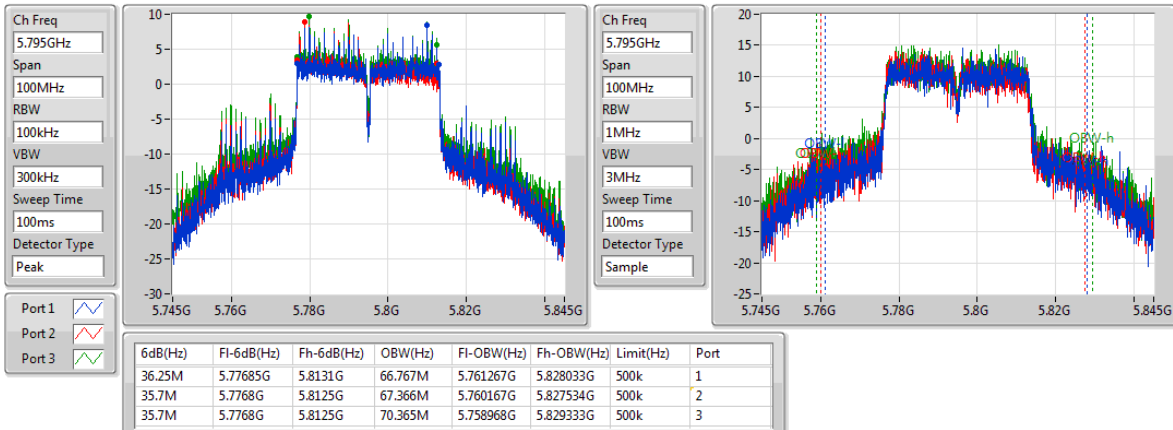


802.11n HT40_Nss1,(MCS0)_3TX

EBW

5795MHz

31/05/2018



**Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	24.31	0.26977
802.11n HT20_Nss1,(MCS0)_3TX	24.31	0.26977
802.11n HT40_Nss1,(MCS0)_3TX	25.06	0.32063
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	26.29	0.42560
802.11n HT20_Nss1,(MCS0)_3TX	26.36	0.43251
802.11n HT40_Nss1,(MCS0)_3TX	25.20	0.33113

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	7.00	16.24	15.12	16.16	20.64	29.00
5200MHz	Pass	7.00	20.04	19.25	19.22	24.29	29.00
5240MHz	Pass	7.00	20.01	19.32	19.24	24.31	29.00
5745MHz	Pass	7.00	22.08	21.14	21.27	26.29	29.00
5785MHz	Pass	7.00	21.15	20.71	20.98	25.72	29.00
5825MHz	Pass	7.00	21.57	20.34	20.83	25.71	29.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	7.00	16.42	15.64	16.35	20.92	29.00
5200MHz	Pass	7.00	20.21	19.26	19.02	24.30	29.00
5240MHz	Pass	7.00	20.02	19.42	19.14	24.31	29.00
5745MHz	Pass	7.00	21.97	21.34	21.42	26.36	29.00
5785MHz	Pass	7.00	21.23	20.59	21.04	25.73	29.00
5825MHz	Pass	7.00	21.67	20.45	20.96	25.83	29.00
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5190MHz	Pass	7.00	12.09	11.11	11.72	16.43	29.00
5230MHz	Pass	7.00	20.63	20.07	20.15	25.06	29.00
5755MHz	Pass	7.00	19.62	18.82	19.49	24.10	29.00
5795MHz	Pass	7.00	20.87	20.02	20.35	25.20	29.00

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

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_3TX	11.17
802.11n HT20_Nss1,(MCS0)_3TX	11.15
802.11n HT40_Nss1,(MCS0)_3TX	8.80
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_3TX	12.37
802.11n HT20_Nss1,(MCS0)_3TX	12.61
802.11n HT40_Nss1,(MCS0)_3TX	8.88

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	11.77	3.31	2.58	3.21	7.41	11.23
5200MHz	Pass	11.77	7.01	5.89	5.88	10.93	11.23
5240MHz	Pass	11.77	7.35	6.12	6.08	11.17	11.23
5745MHz	Pass	11.77	7.63	7.32	8.06	12.37	24.23
5785MHz	Pass	11.77	7.16	7.27	7.73	12.04	24.23
5825MHz	Pass	11.77	7.63	6.98	7.68	12.12	24.23
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	11.77	3.52	2.45	3.24	7.67	11.23
5200MHz	Pass	11.77	7.51	6.31	5.78	10.98	11.23
5240MHz	Pass	11.77	7.23	6.14	6.05	11.15	11.23
5745MHz	Pass	11.77	7.86	7.50	8.28	12.61	24.23
5785MHz	Pass	11.77	7.10	7.39	7.86	12.16	24.23
5825MHz	Pass	11.77	7.40	6.91	7.90	12.11	24.23
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5190MHz	Pass	11.77	-3.96	-5.20	-4.46	0.09	11.23
5230MHz	Pass	11.77	5.03	3.60	4.00	8.80	11.23
5755MHz	Pass	11.77	2.54	2.36	3.88	7.62	24.23
5795MHz	Pass	11.77	3.48	4.19	4.70	8.88	24.23

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

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

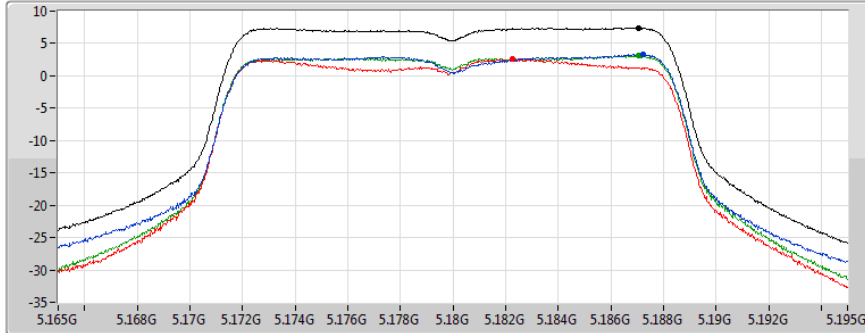
802.11a_Nss1,(6Mbps)_3TX

5180MHz

PSD

31/05/2018

Ch Freq
5.18GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.41	7.41	3.31	2.58	3.21

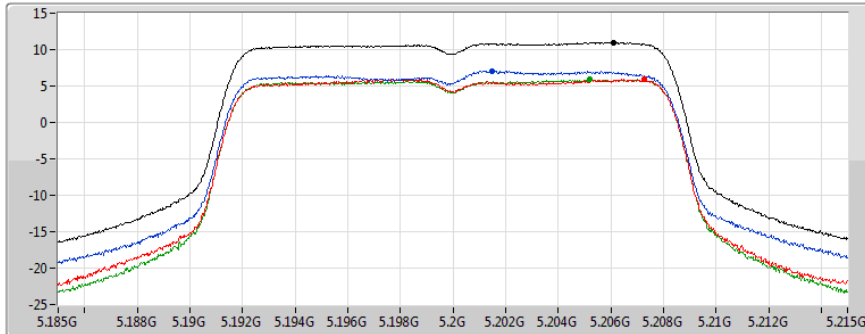
802.11a_Nss1,(6Mbps)_3TX

5200MHz

PSD

31/05/2018

Ch Freq
5.2GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.93	10.93	7.01	5.89	5.88

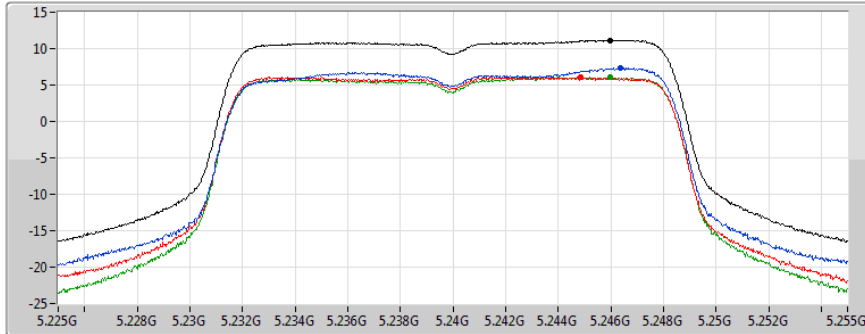
802.11a_Nss1,(6Mbps)_3TX

5240MHz

PSD

31/05/2018

Ch Freq
5.24GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.17	11.17	7.35	6.12	6.08

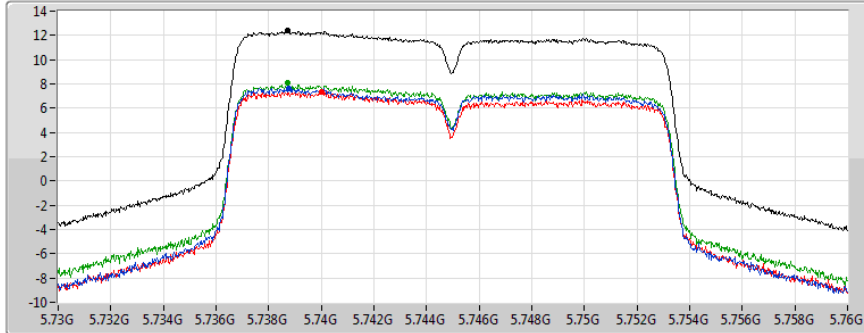
802.11a_Nss1,(6Mbps)_3TX

5745MHz

PSD

31/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.37	12.37	7.63	7.32	8.06

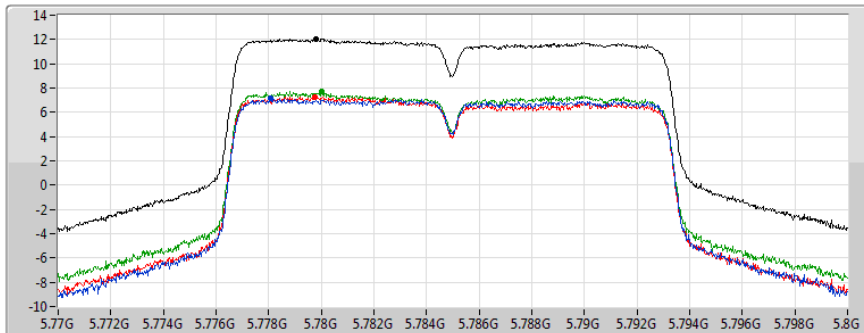
802.11a_Nss1,(6Mbps)_3TX

5785MHz

PSD

31/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.04	12.04	7.16	7.27	7.73

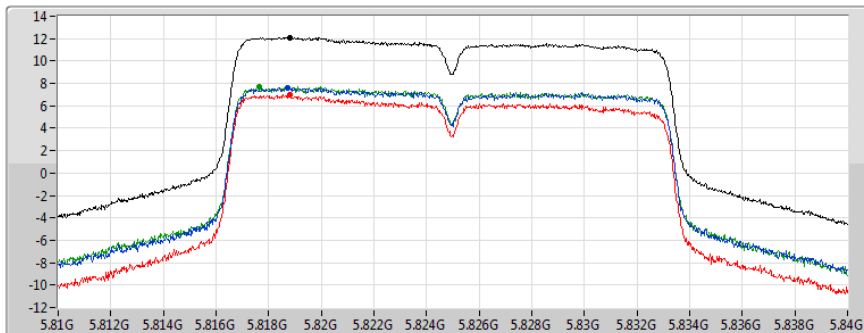
802.11a_Nss1,(6Mbps)_3TX

5825MHz

PSD

31/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

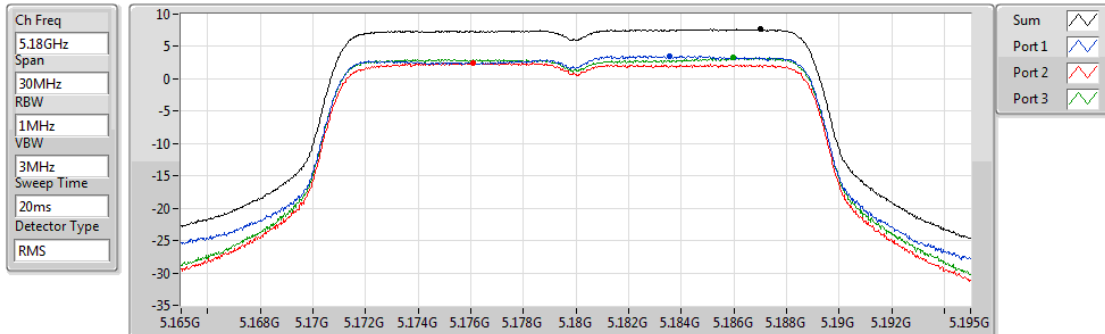
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.12	12.12	7.63	6.98	7.68

802.11n HT20_Nss1,(MCS0)_3TX

PSD

5180MHz

30/05/2018



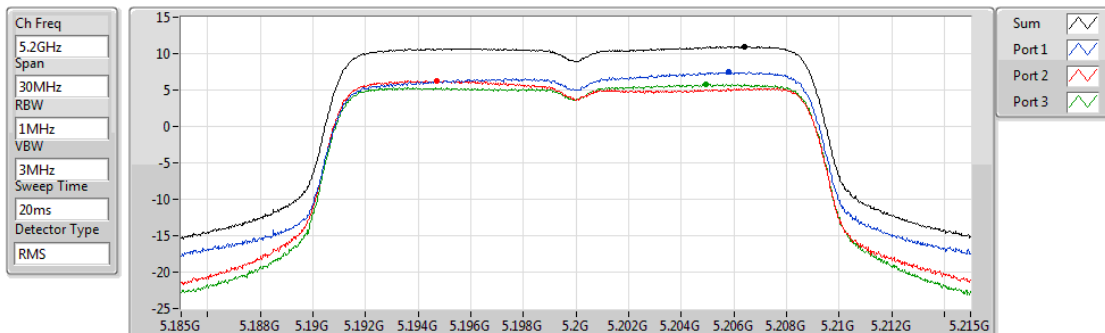
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.67	7.67	3.52	2.45	3.24

802.11n HT20_Nss1,(MCS0)_3TX

PSD

5200MHz

30/05/2018



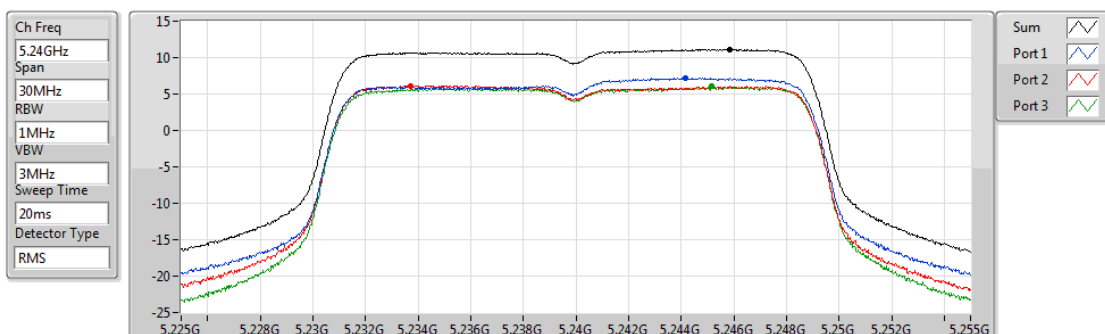
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.98	10.98	7.51	6.31	5.78

802.11n HT20_Nss1,(MCS0)_3TX

PSD

5240MHz

30/05/2018



Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.15	11.15	7.23	6.14	6.05

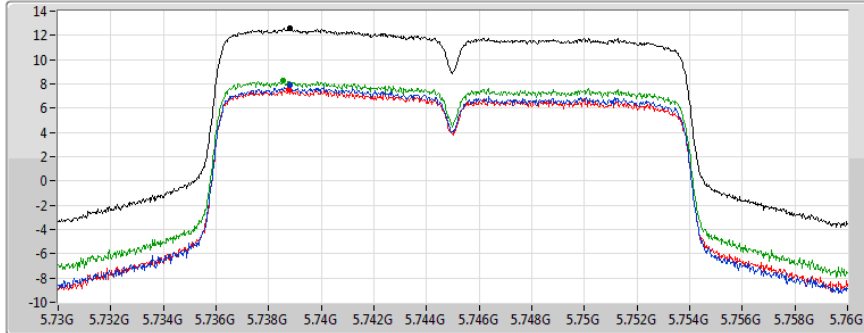
802.11n HT20_Nss1,(MCS0)_3TX

5745MHz

PSD

30/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.61	12.61	7.86	7.50	8.28

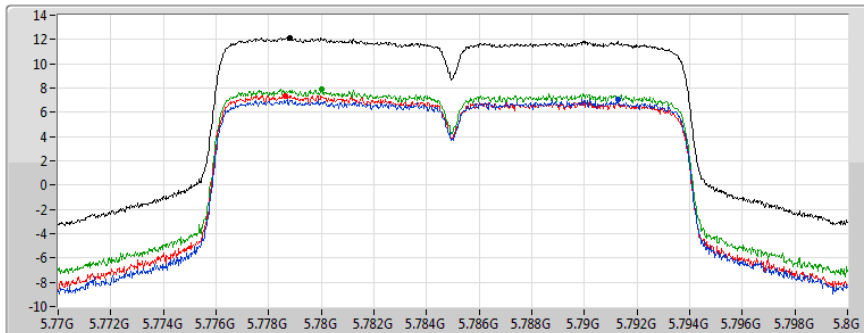
802.11n HT20_Nss1,(MCS0)_3TX

5785MHz

PSD

30/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.16	12.16	7.10	7.39	7.86

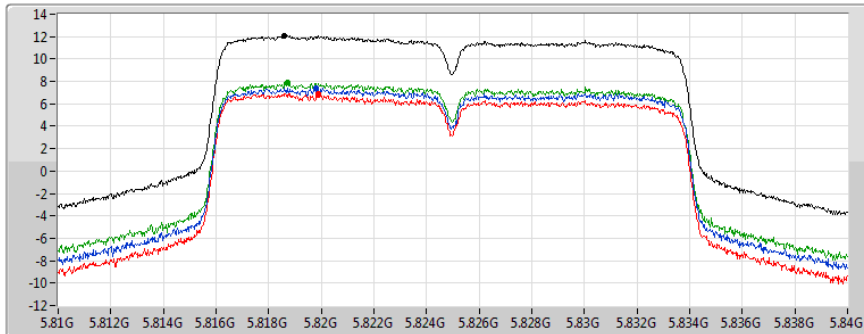
802.11n HT20_Nss1,(MCS0)_3TX

5825MHz

PSD

30/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.11	12.11	7.40	6.91	7.90

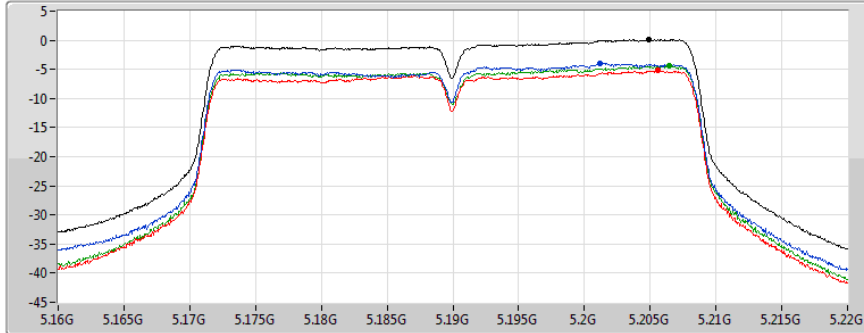
802.11n HT40_Nss1,(MCS0)_3TX

5190MHz

PSD

30/05/2018

Ch Freq
5.19GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.09	0.09	-3.96	-5.20	-4.46

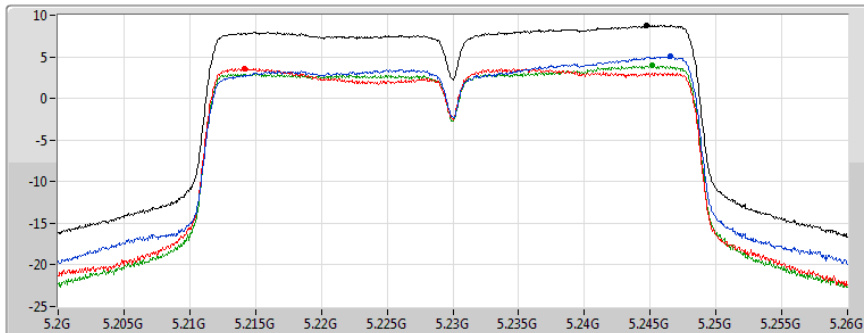
802.11n HT40_Nss1,(MCS0)_3TX

5230MHz

PSD

30/05/2018

Ch Freq
5.23GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.80	8.80	5.03	3.60	4.00

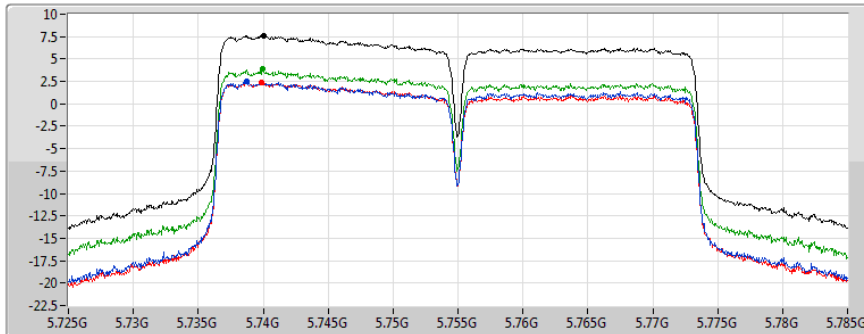
802.11n HT40_Nss1,(MCS0)_3TX

5755MHz

PSD

31/05/2018

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



Sum ☒
Port 1 ☐
Port 2 ☐
Port 3 ☐

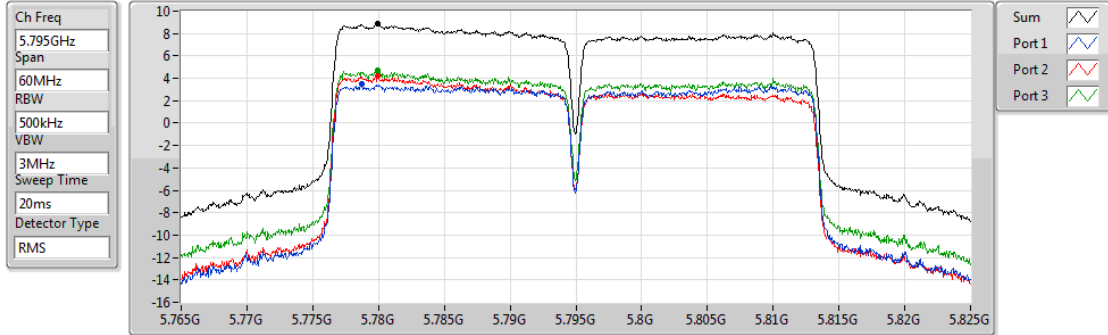
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.62	7.62	2.54	2.36	3.88

802.11n HT40_Nss1,(MCS0)_3TX

PSD

5795MHz

31/05/2018

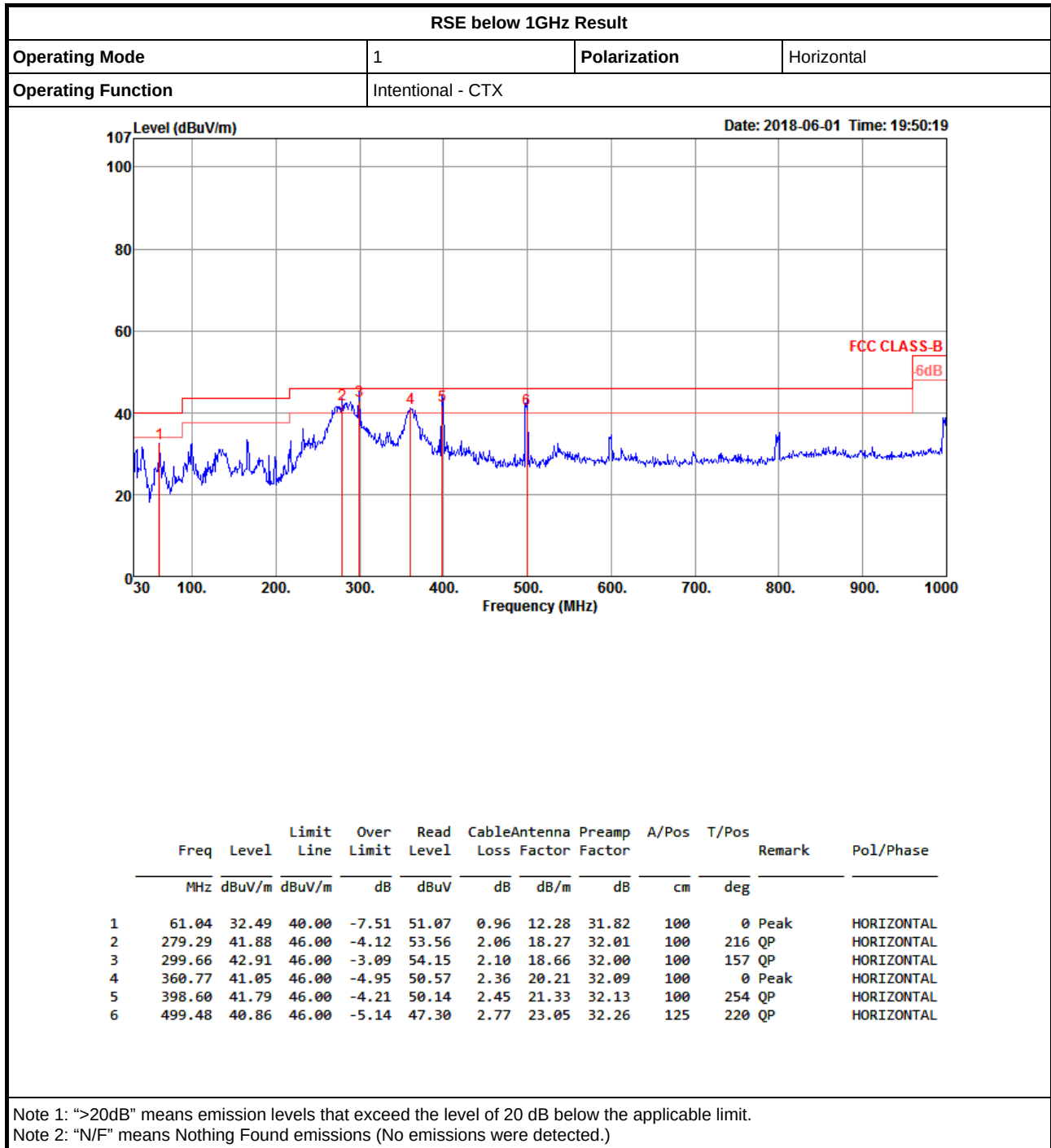


Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.88	8.88	3.48	4.19	4.70



RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

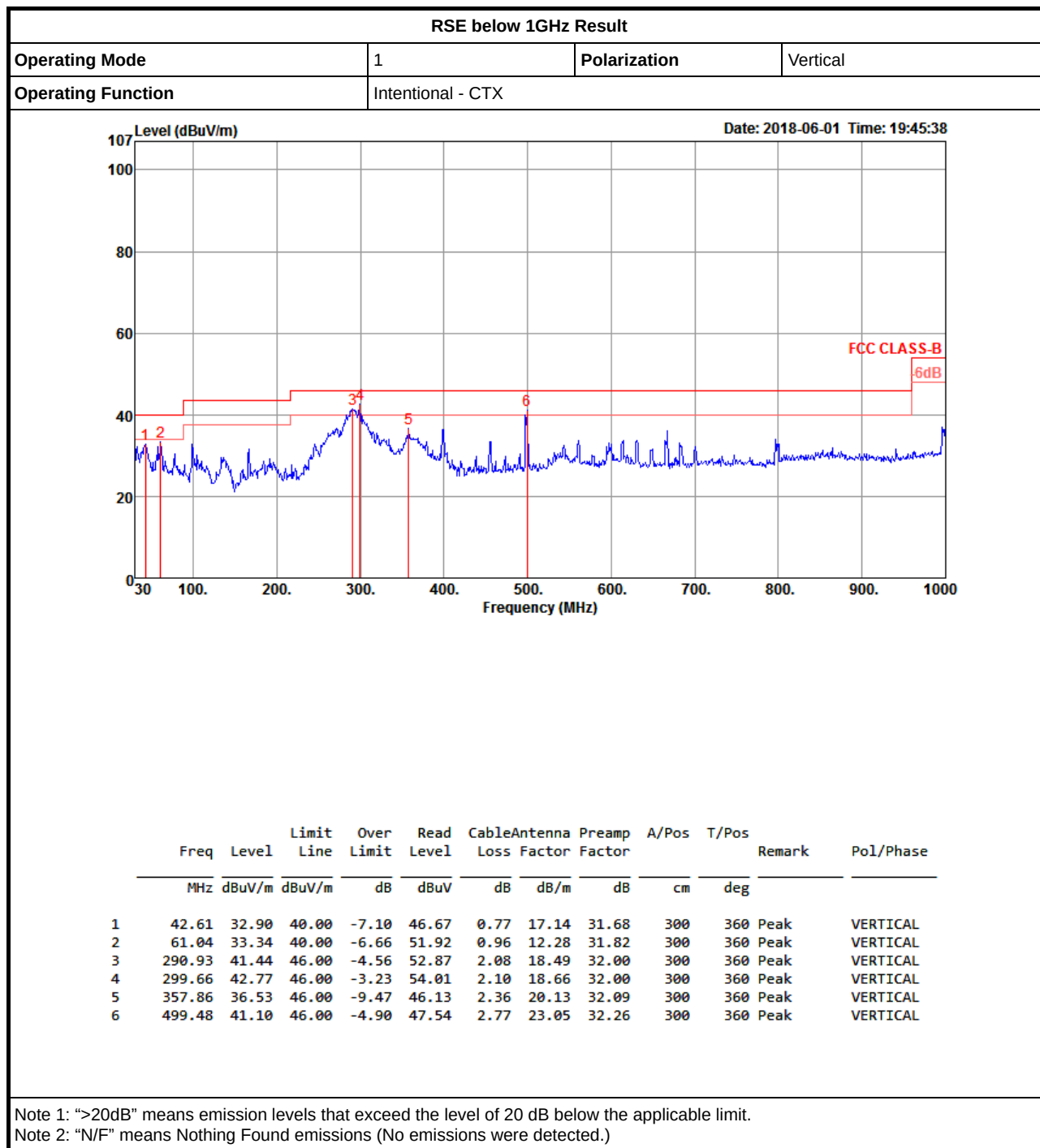
Appendix E.1





RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

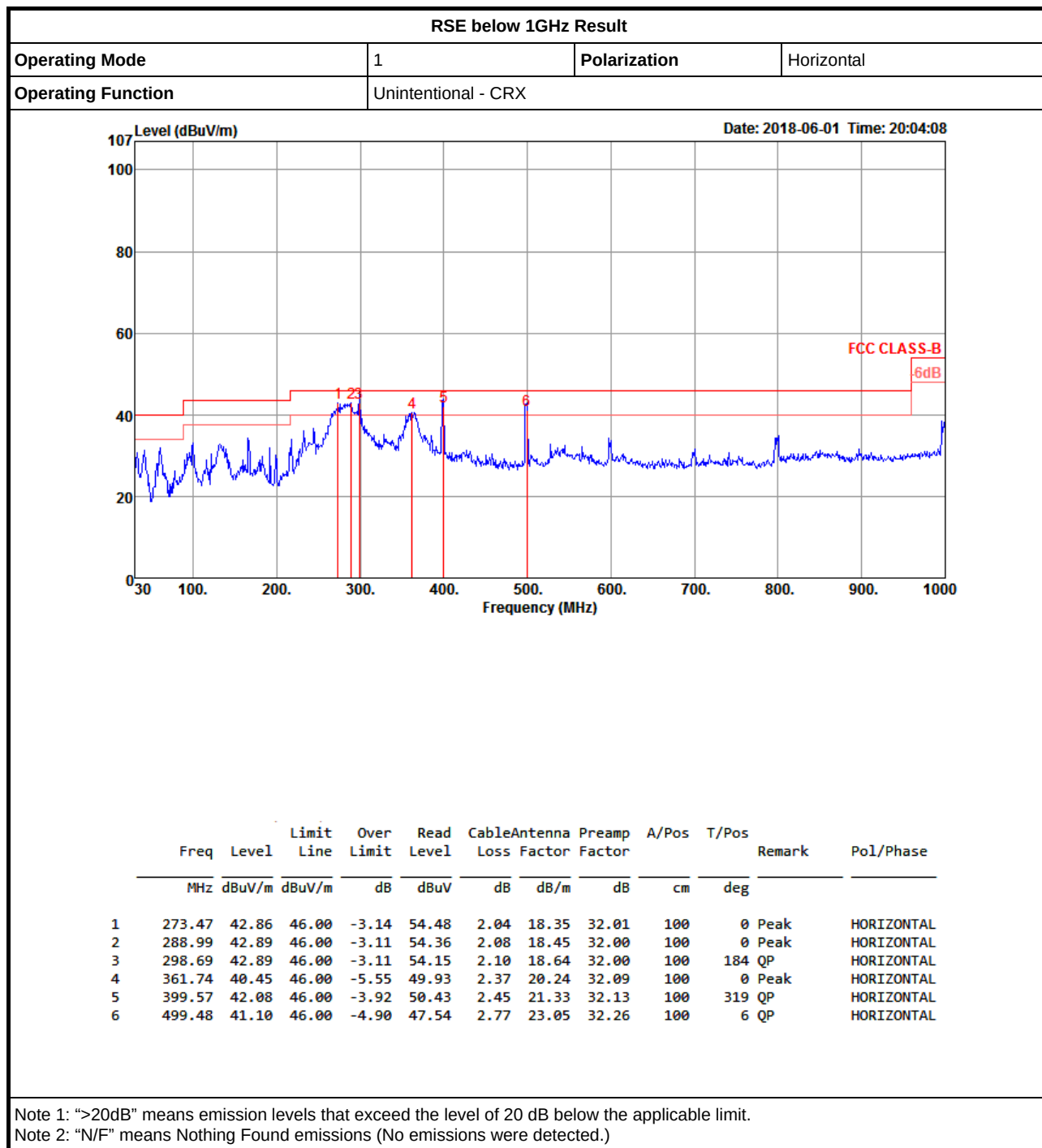
Appendix E.1





RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

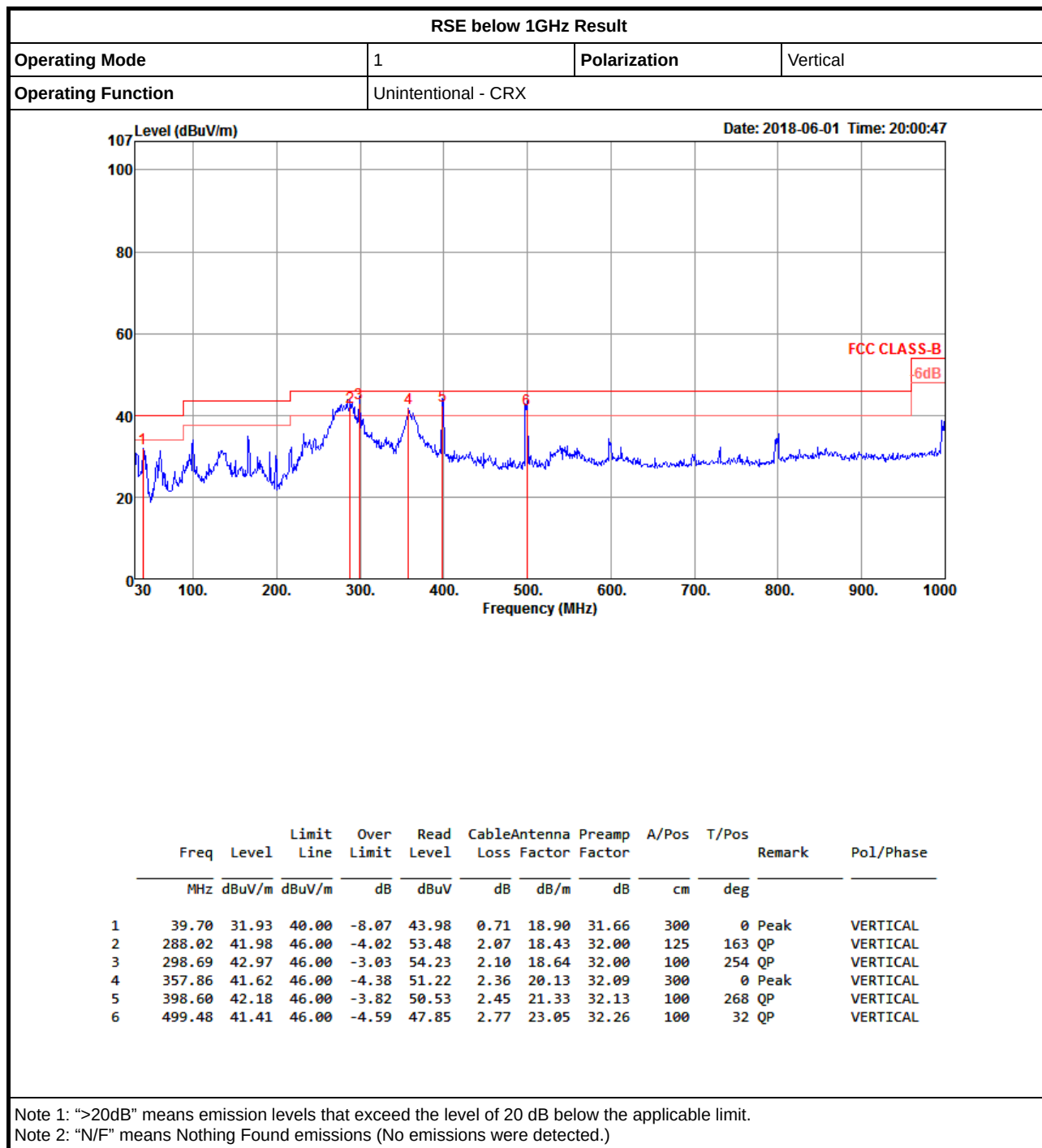
Appendix E.1





RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

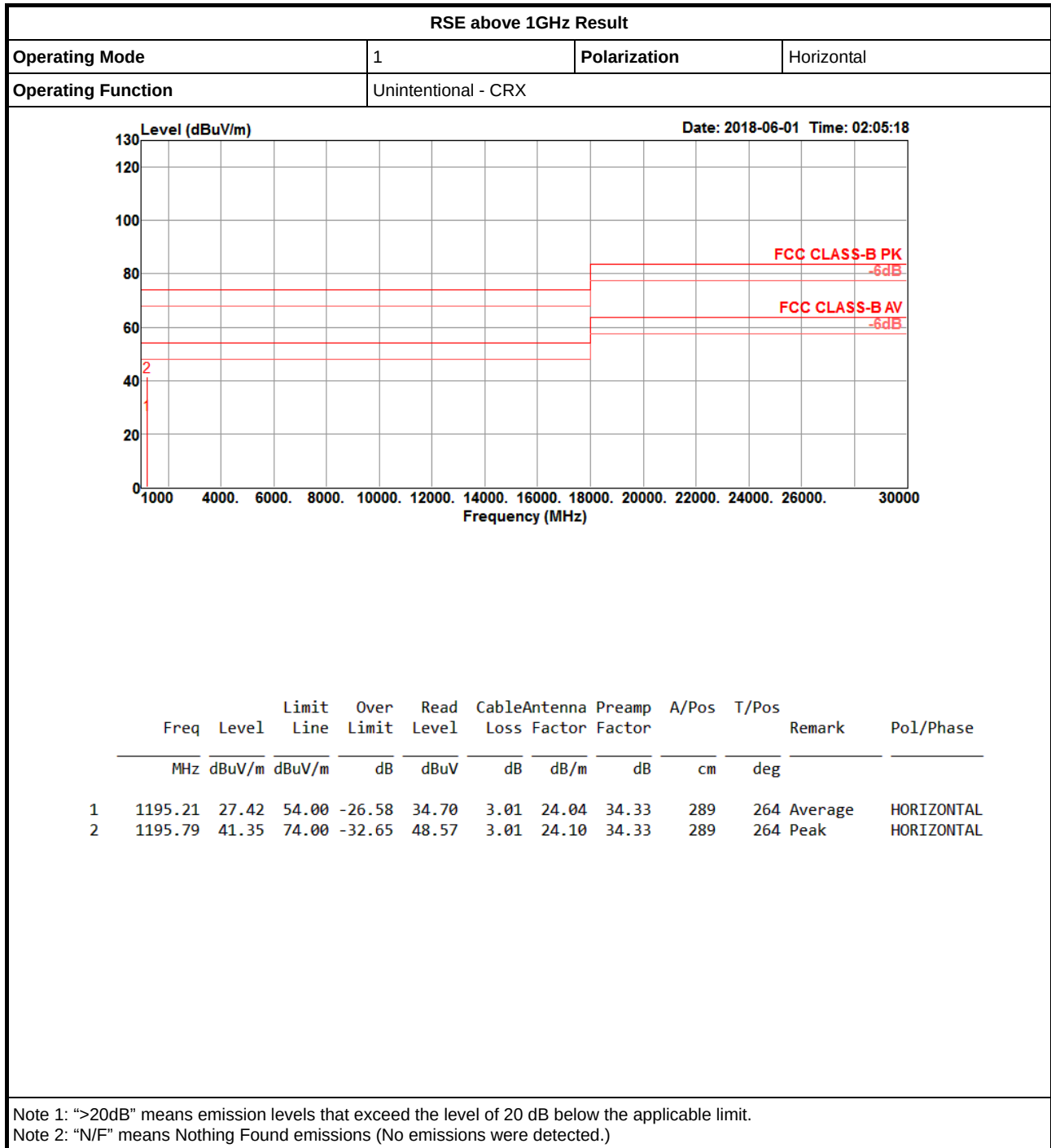
Appendix E.1





RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

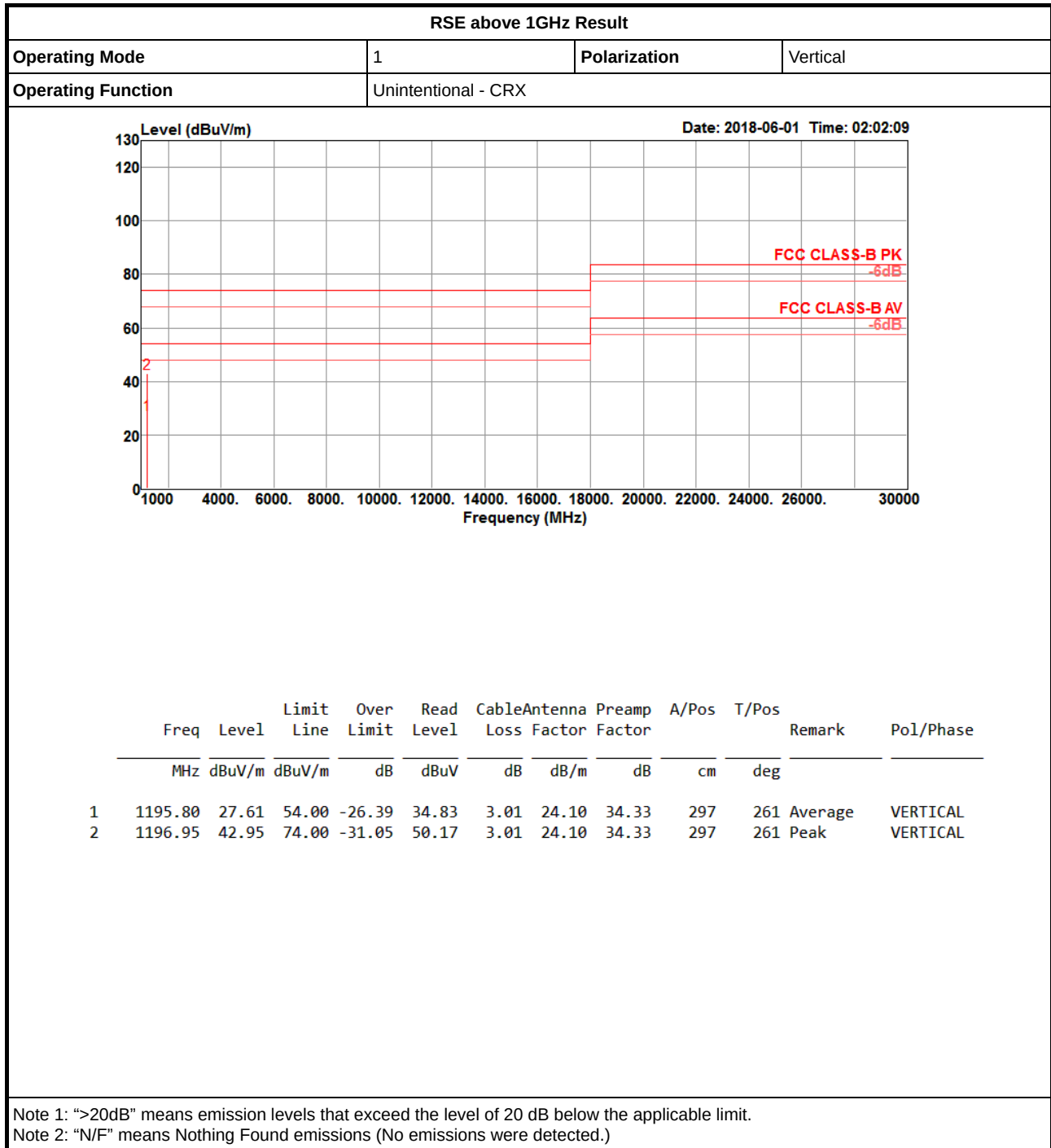
Appendix E.1





RSE below 1GHz Result and (Unintentional 1GHz~5th- CRX)

Appendix E.1





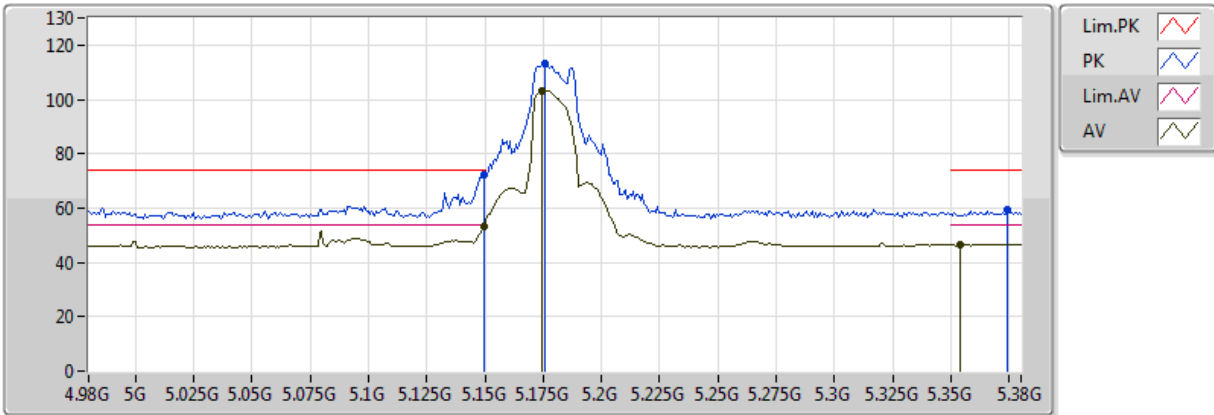
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_3TX	Pass	AV	5.1454G	53.88	54.00	-0.12	4.89	3	Vertical	215	1.50	-

802.11n HT20_Nss1,(MCS0)_3TX

5180MHz_TX

26/05/2018



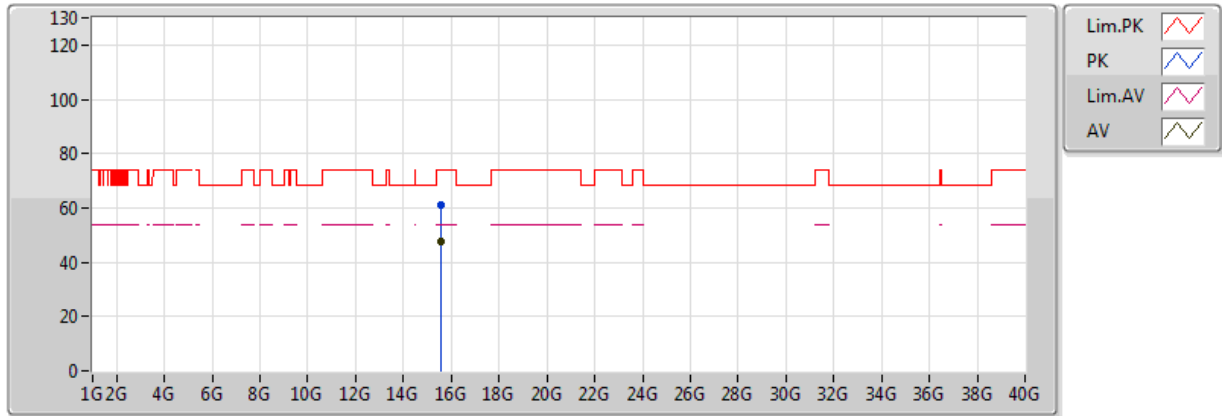
EUT Z_3TX_Dipole
Setting 15.5
01-C-5-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1496G	72.54	74.00	-1.46	4.90	3	Vertical	31	1.55	-
AV	5.1496G	53.51	54.00	-0.49	4.90	3	Vertical	31	1.55	-
PK	5.176G	113.39	Inf	-Inf	4.93	3	Vertical	31	1.55	-
AV	5.1744G	103.37	Inf	-Inf	4.93	3	Vertical	31	1.55	-
PK	5.3744G	59.26	74.00	-14.74	5.69	3	Vertical	31	1.55	-
AV	5.3536G	46.76	54.00	-7.24	5.62	3	Vertical	31	1.55	-

802.11n HT20_Nss1,(MCS0)_3TX

5180MHz_TX

26/05/2018



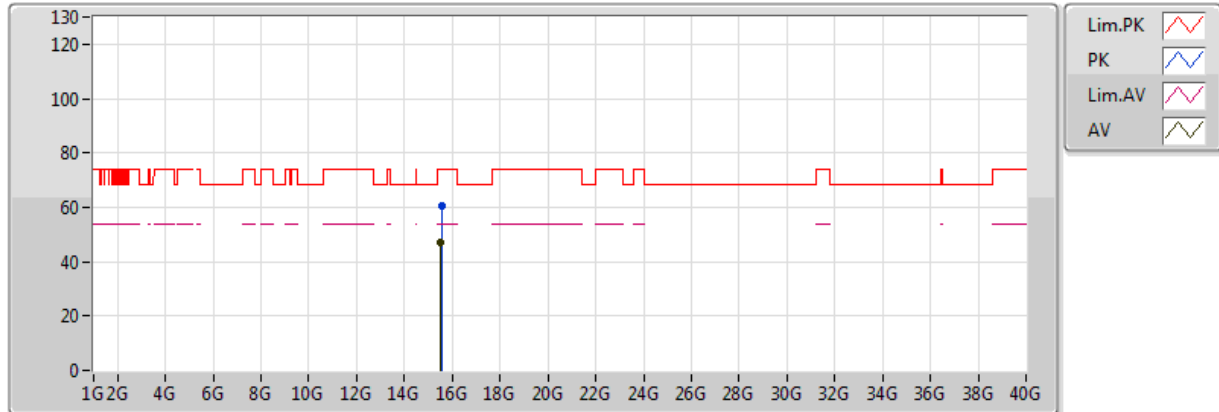
EUT Z_3TX_Dipole
Setting 15.5
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.5432G	61.32	74.00	-12.68	15.93	3	Vertical	183	2.38	-
AV	15.5386G	47.75	54.00	-6.25	15.93	3	Vertical	183	2.38	-

802.11n HT20_Nss1,(MCS0)_3TX

5180MHz_TX

26/05/2018



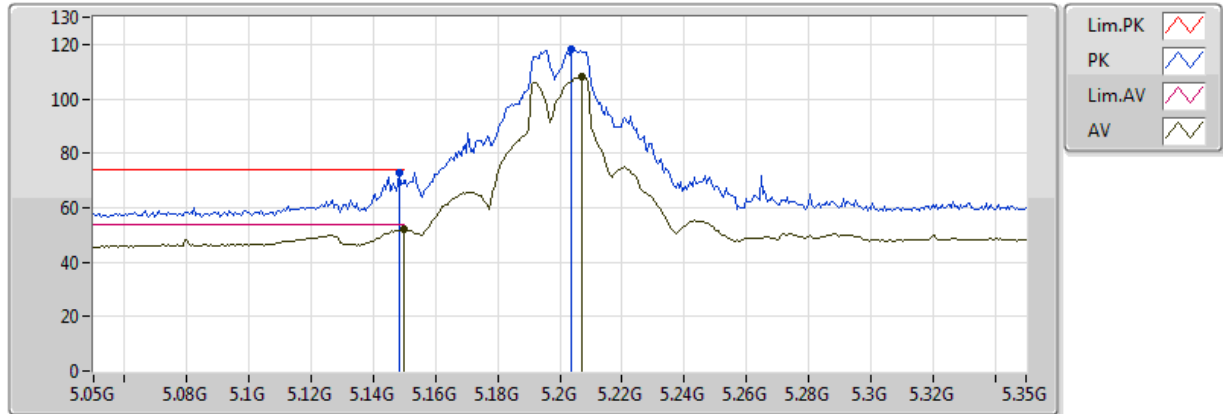
EUT_Z_3TX_Dipole
Setting 15.5
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.5405G	60.39	74.00	-13.61	15.93	3	Horizontal	165	2.03	-
AV	15.5326G	47.00	54.00	-7.00	15.94	3	Horizontal	165	2.03	-

802.11n HT20_Nss1,(MCS0)_3TX

5200MHz_TX

26/05/2018



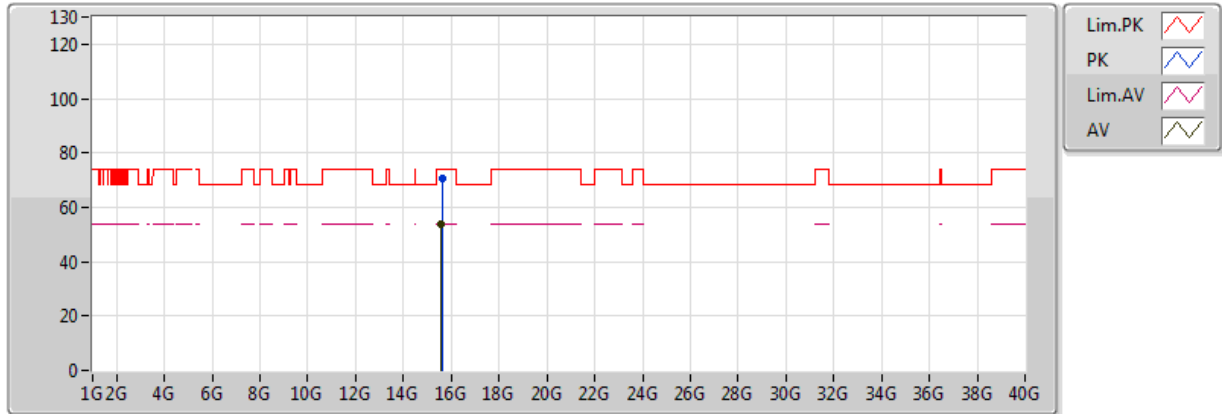
EUT Z_3TX_Dipole
Setting 22.5
01-C-5-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1484G	72.90	74.00	-1.10	4.90	3	Vertical	99	1.42	-
AV	5.149995G	52.13	54.00	-1.87	4.90	3	Vertical	99	1.42	-
PK	5.2036G	117.98	Inf	-Inf	4.98	3	Vertical	99	1.42	-
AV	5.2072G	108.21	Inf	-Inf	4.99	3	Vertical	99	1.42	-

802.11n HT20_Nss1,(MCS0)_3TX

5200MHz_TX

26/05/2018



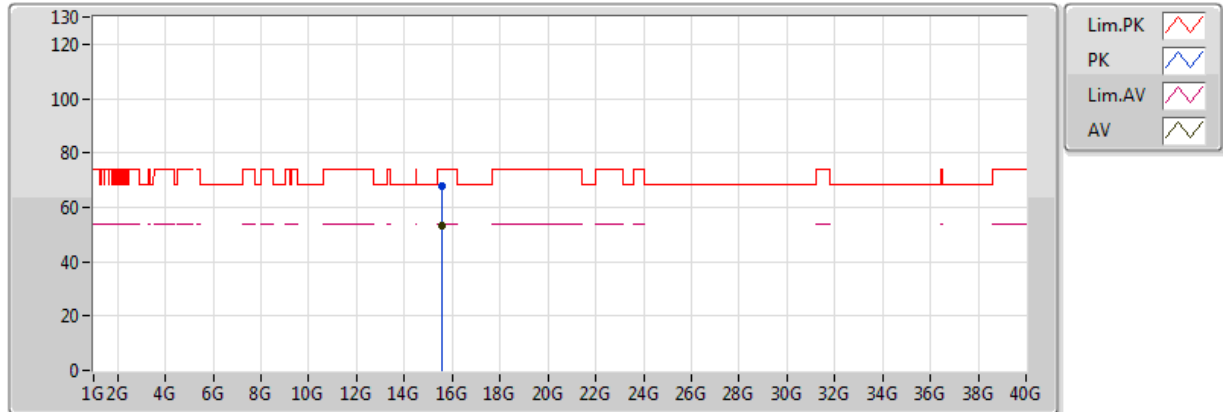
EUT Z_3TX_Dipole
Setting 22.5
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.6099G	70.73	74.00	-3.27	15.82	3	Vertical	43	2.08	-
AV	15.598G	53.87	54.00	-0.13	15.84	3	Vertical	43	2.08	-

802.11n HT20_Nss1,(MCS0)_3TX

5200MHz_TX

26/05/2018



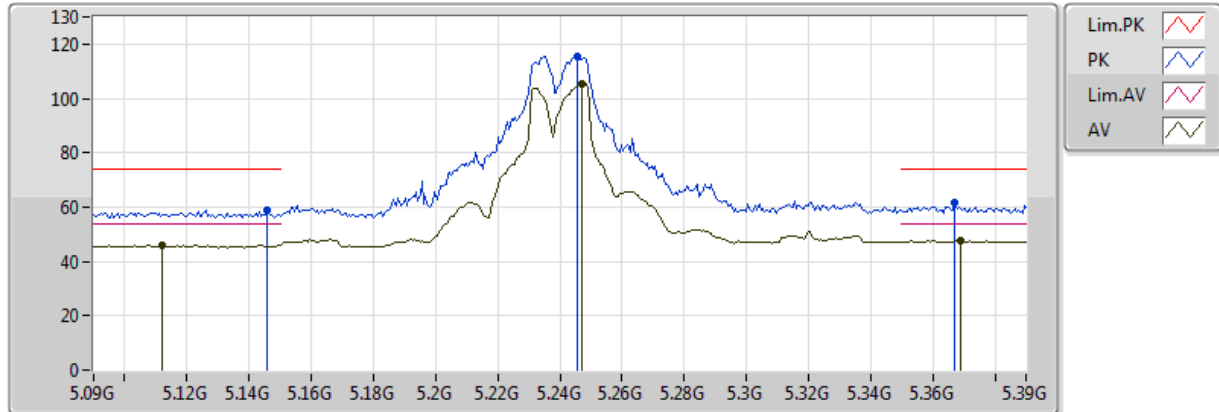
EUT Z_3TX_Dipole
Setting 22.5
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.5929G	67.96	74.00	-6.04	15.85	3	Horizontal	154	1.15	-
AV	15.5926G	53.42	54.00	-0.58	15.85	3	Horizontal	154	1.15	-

802.11n HT20_Nss1,(MCS0)_3TX

5240MHz_TX

26/05/2018



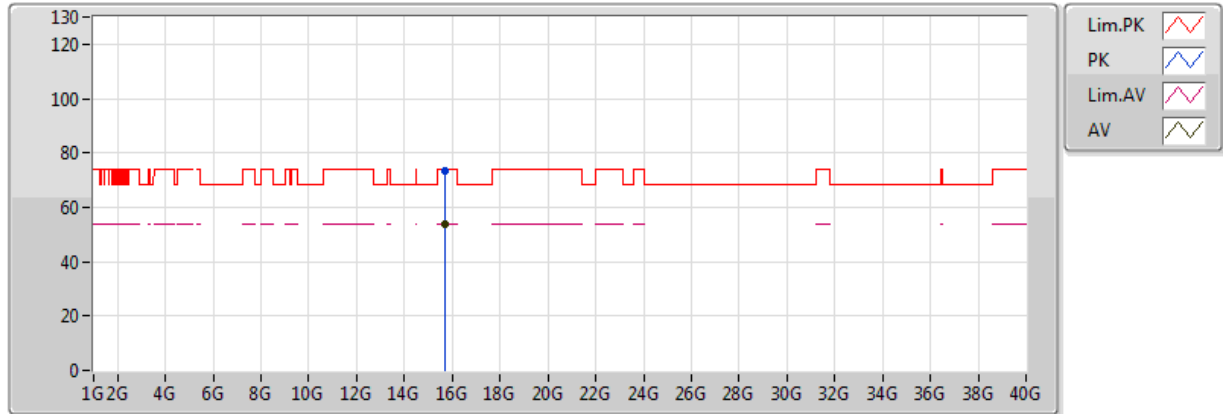
EUT Z_3TX_Dipole
Setting 21
01-C-5-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1458G	59.02	74.00	-14.98	4.89	3	Vertical	94	1.46	-
AV	5.1122G	45.81	54.00	-8.19	4.86	3	Vertical	94	1.46	-
PK	5.2454G	115.53	Inf	-Inf	5.16	3	Vertical	94	1.46	-
AV	5.2472G	105.60	Inf	-Inf	5.17	3	Vertical	94	1.46	-
PK	5.3672G	61.46	74.00	-12.54	5.67	3	Vertical	94	1.46	-
AV	5.369G	47.64	54.00	-6.36	5.67	3	Vertical	94	1.46	-

802.11n HT20_Nss1,(MCS0)_3TX

5240MHz_TX

26/05/2018



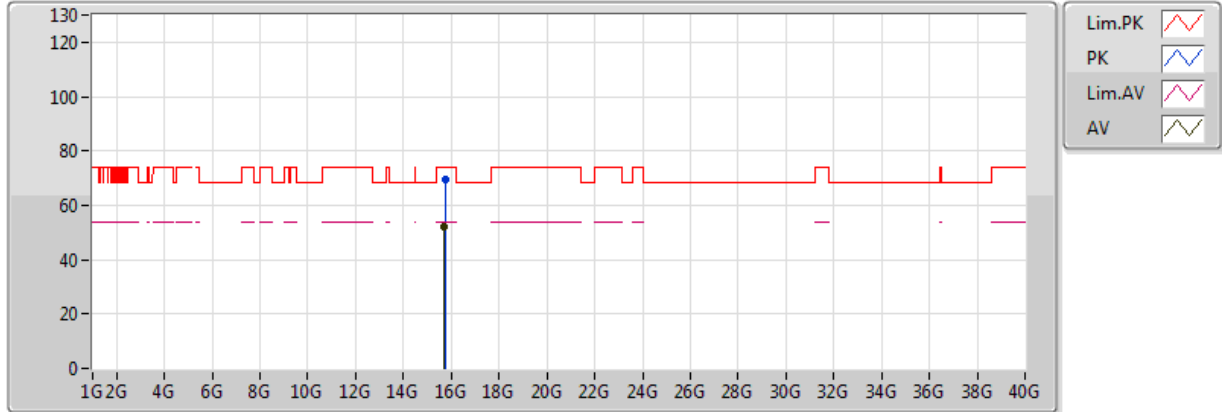
EUT Z_3TX_Dipole
Setting 21
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.7203G	73.25	74.00	-0.75	15.64	3	Vertical	68	2.52	-
AV	15.7201G	53.63	54.00	-0.37	15.65	3	Vertical	68	2.52	-

802.11n HT20_Nss1,(MCS0)_3TX

5240MHz_TX

26/05/2018



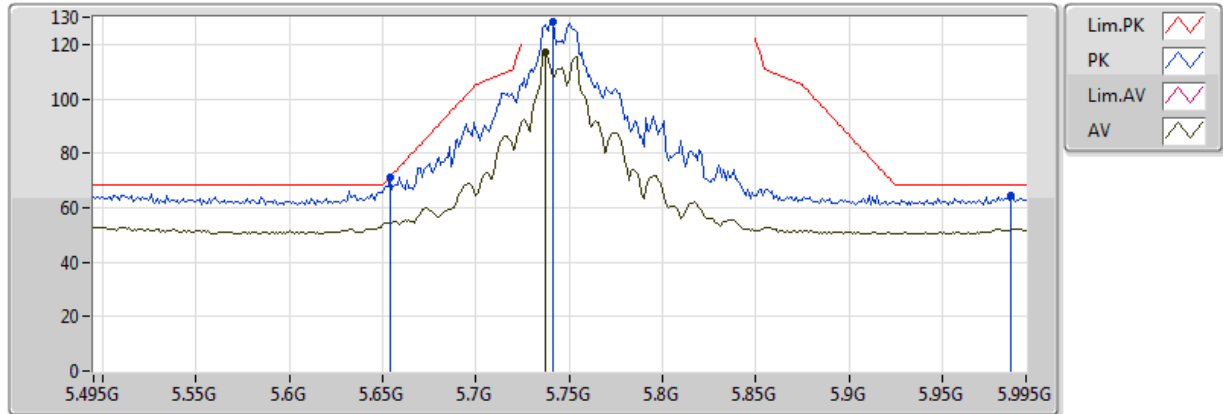
EUT_Z_3TX_Dipole
Setting 21
01-C-5
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.7284G	69.76	74.00	-4.24	15.63	3	Horizontal	151	1.29	-
AV	15.7184G	51.87	54.00	-2.13	15.65	3	Horizontal	151	1.29	-

802.11n HT20_Nss1,(MCS0)_3TX

5745MHz_TX

28/05/2018



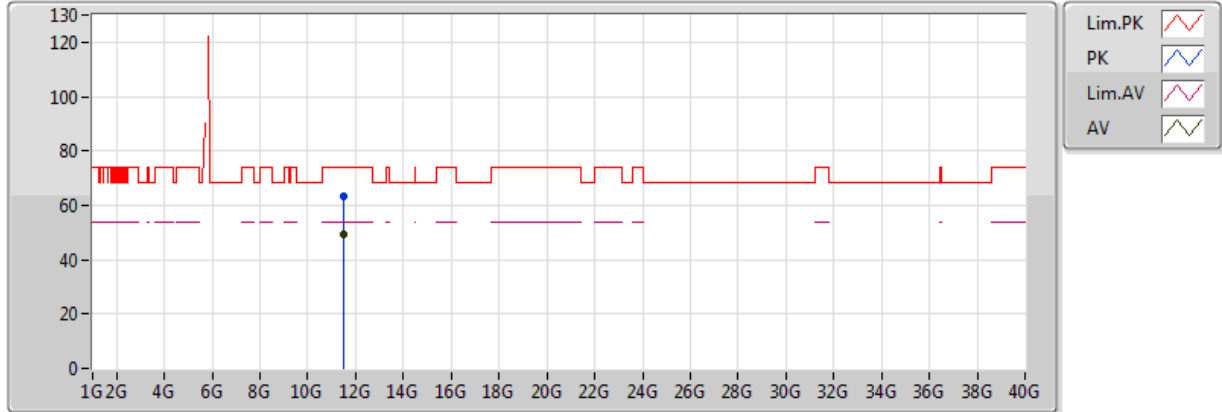
EUT Z_3TX_Dipole
Setting 31.5
01-C-4-13
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.654G	71.04	71.16	-0.12	6.49	3	Vertical	221	1.80	-
PK	5.741G	128.32	Inf	-Inf	6.85	3	Vertical	221	1.80	-
AV	5.737G	117.05	Inf	-Inf	6.84	3	Vertical	221	1.80	-
PK	5.987G	64.31	68.20	-3.89	7.45	3	Vertical	221	1.80	-

802.11n HT20_Nss1,(MCS0)_3TX

5745MHz_TX

28/05/2018



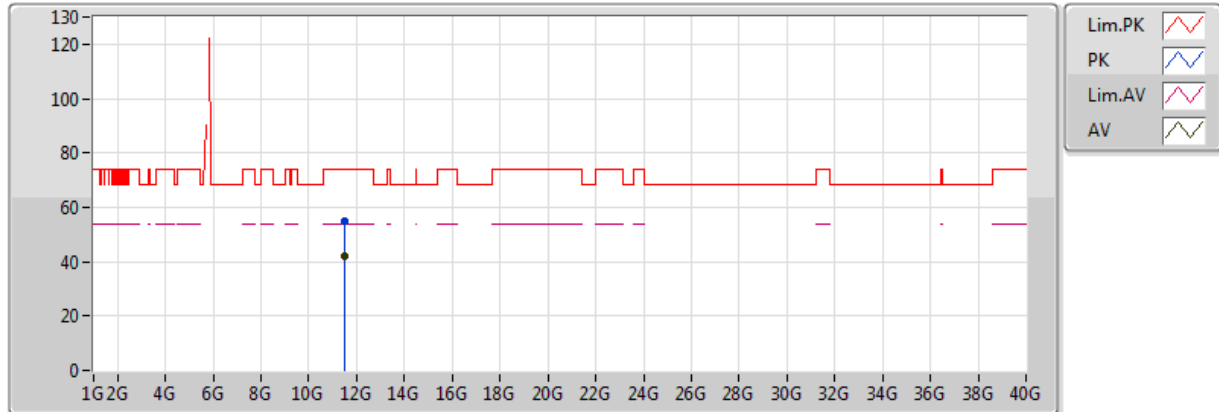
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.49012G	63.06	74.00	-10.94	13.32	3	Vertical	255	1.42	-
AV	11.48982G	49.50	54.00	-4.50	13.32	3	Vertical	255	1.42	-

802.11n HT20_Nss1,(MCS0)_3TX

5745MHz_TX

28/05/2018



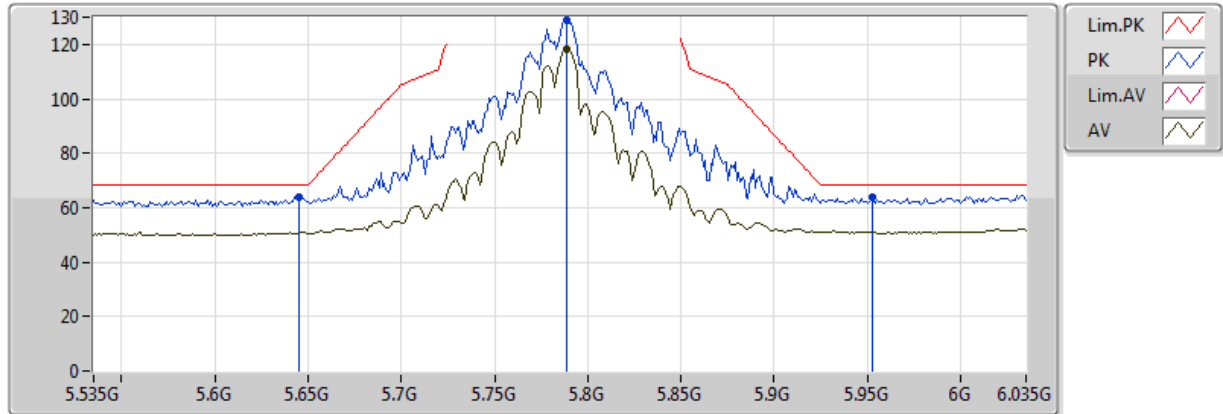
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.50392G	54.97	74.00	-19.03	13.33	3	Horizontal	36	1.79	-
AV	11.49546G	41.77	54.00	-12.23	13.32	3	Horizontal	36	1.79	-

802.11n HT20_Nss1,(MCS0)_3TX

5785MHz_TX

28/05/2018



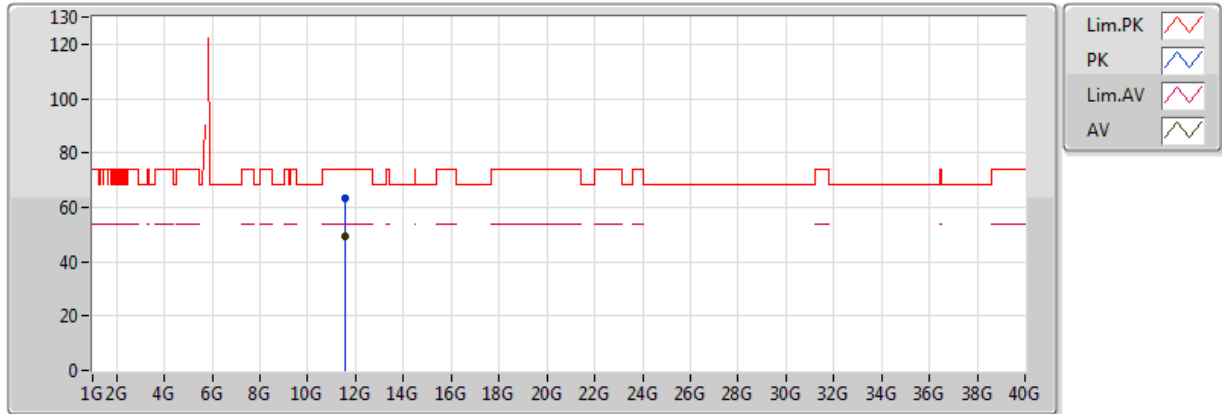
EUT Z_3TX_Dipole
Setting 31.5
01-C-4-13
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.645G	63.74	68.20	-4.46	6.46	3	Vertical	227	1.84	-
PK	5.789G	128.62	Inf	-Inf	7.05	3	Vertical	227	1.84	-
AV	5.789G	118.30	Inf	-Inf	7.05	3	Vertical	227	1.84	-
PK	5.953G	63.63	68.20	-4.57	7.39	3	Vertical	227	1.84	-

802.11n HT20_Nss1,(MCS0)_3TX

5785MHz_TX

28/05/2018



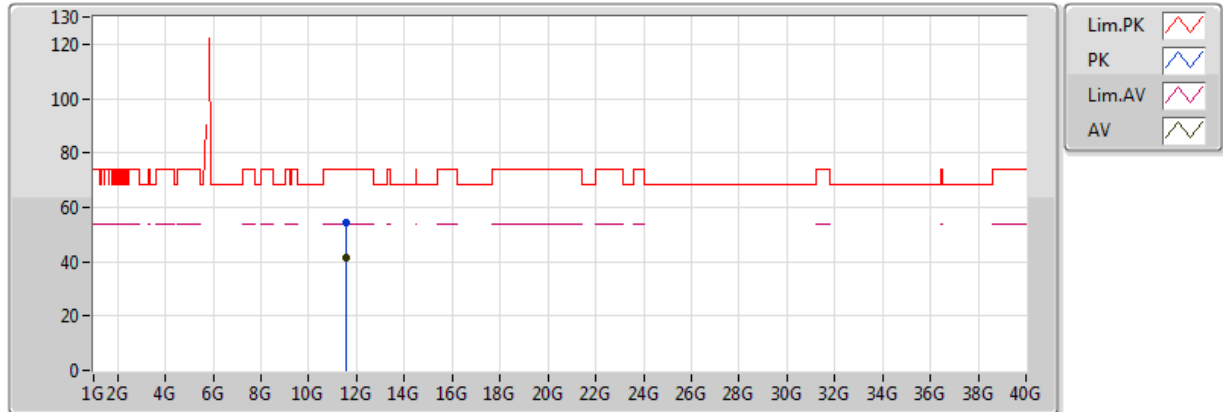
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.57136G	63.45	74.00	-10.55	13.33	3	Vertical	255	1.34	-
AV	11.57204G	49.26	54.00	-4.74	13.33	3	Vertical	255	1.34	-

802.11n HT20_Nss1,(MCS0)_3TX

5785MHz_TX

28/05/2018



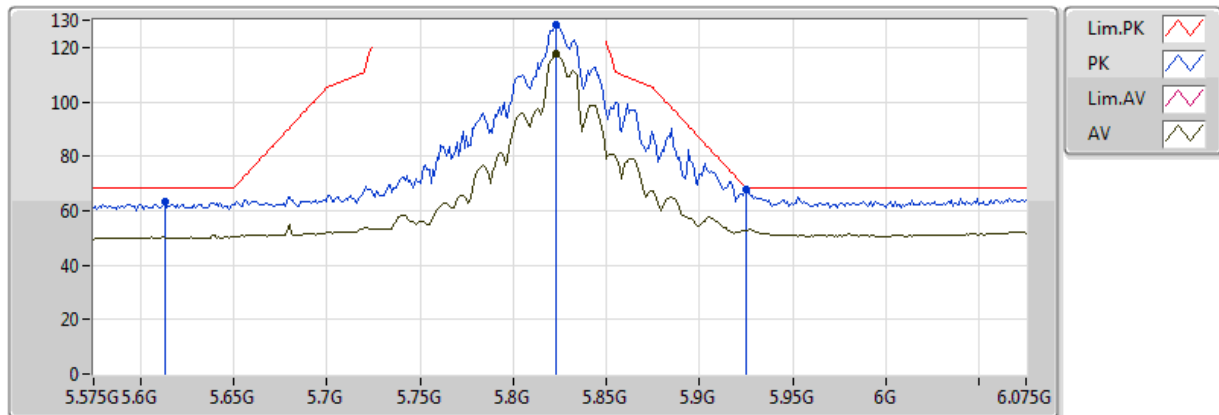
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.57956G	54.62	74.00	-19.38	13.33	3	Horizontal	358	1.70	-
AV	11.56648G	41.68	54.00	-12.32	13.33	3	Horizontal	358	1.70	-

802.11n HT20_Nss1,(MCS0)_3TX

5825MHz_TX

28/05/2018



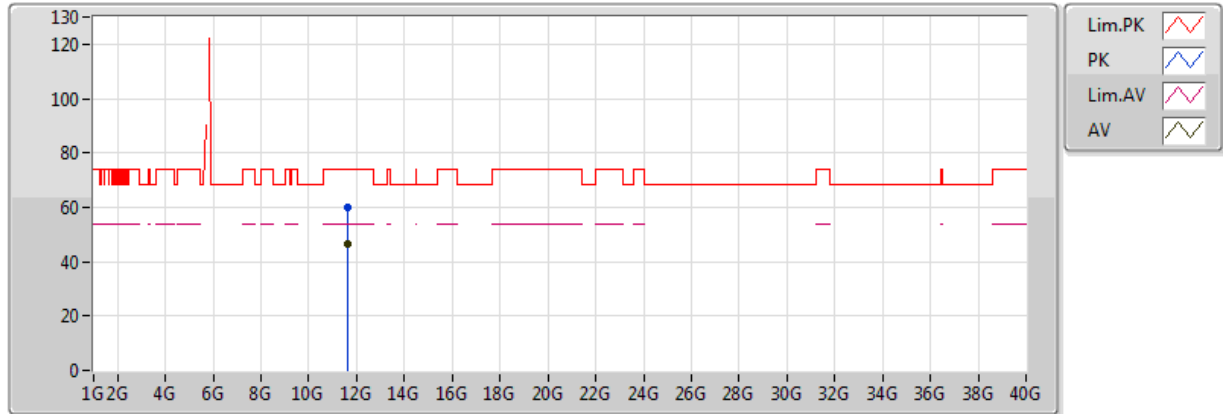
EUT Z_3TX_Dipole
Setting 31.5
01-C-4-13
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.613G	63.32	68.20	-4.88	6.33	3	Vertical	202	1.94	-
PK	5.823G	128.05	Inf	-Inf	7.14	3	Vertical	202	1.94	-
AV	5.823G	117.69	Inf	-Inf	7.14	3	Vertical	202	1.94	-
PK	5.924994G	68.04	68.20	-0.16	7.34	3	Vertical	202	1.94	-

802.11n HT20_Nss1,(MCS0)_3TX

5825MHz_TX

28/05/2018



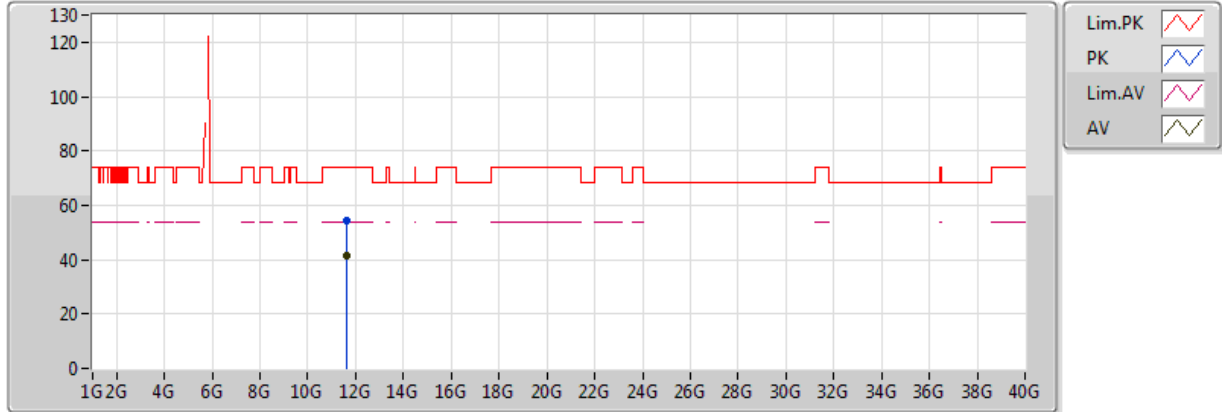
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.65006G	60.14	74.00	-13.86	13.34	3	Vertical	254	1.44	-
AV	11.65168G	46.33	54.00	-7.67	13.34	3	Vertical	254	1.44	-

802.11n HT20_Nss1,(MCS0)_3TX

5825MHz_TX

28/05/2018



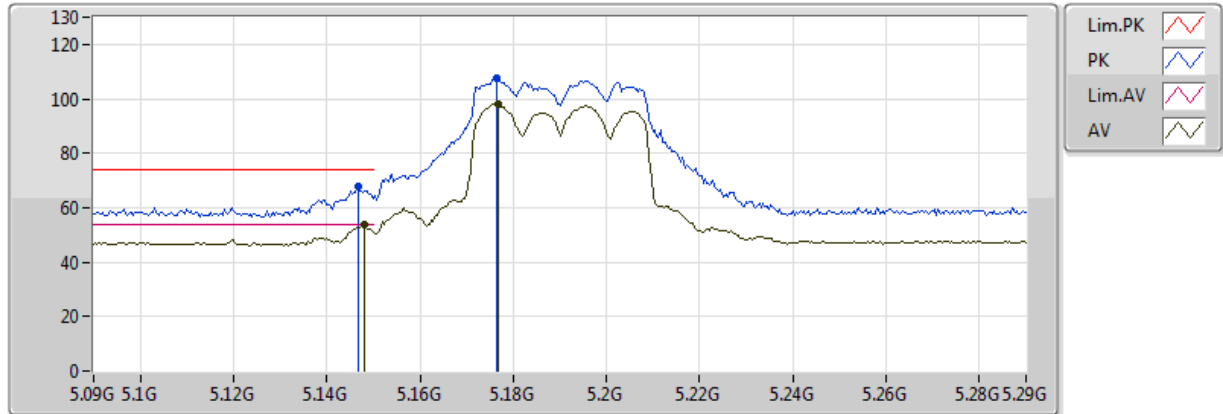
EUT Z_3TX_Dipole
Setting 31.5
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.65348G	54.57	74.00	-19.43	13.34	3	Horizontal	166	2.00	-
AV	11.65108G	41.64	54.00	-12.36	13.34	3	Horizontal	166	2.00	-

802.11n HT40_Nss1,(MCS0)_3TX

5190MHz_TX

29/05/2018



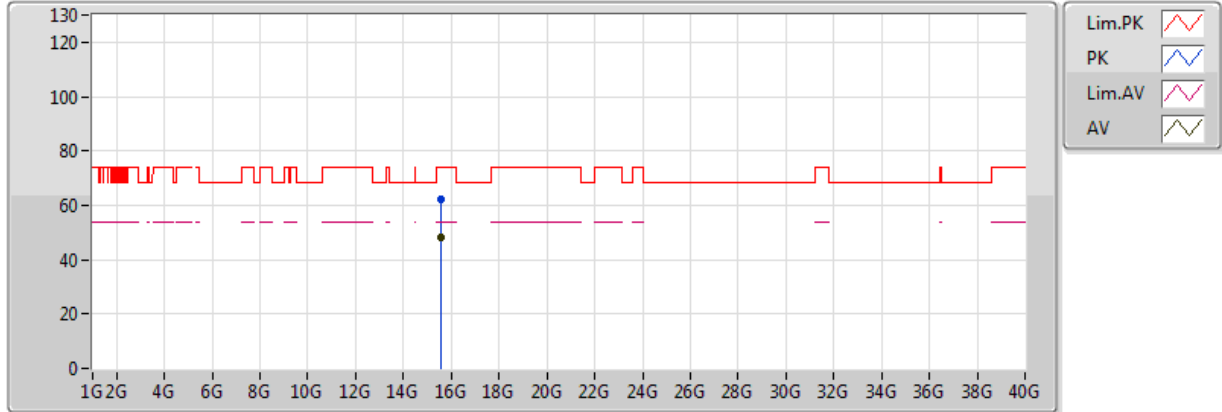
EUT_Z_3TX_Dipole
Setting 10.5
01-J-1-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1468G	67.73	74.00	-6.27	4.89	3	Vertical	219	1.44	-
AV	5.148G	53.57	54.00	-0.43	4.90	3	Vertical	219	1.44	-
PK	5.1764G	107.75	Inf	-Inf	4.93	3	Vertical	219	1.44	-
AV	5.1768G	98.04	Inf	-Inf	4.93	3	Vertical	219	1.44	-

802.11n HT40_Nss1,(MCS0)_3TX

5190MHz_TX

29/05/2018



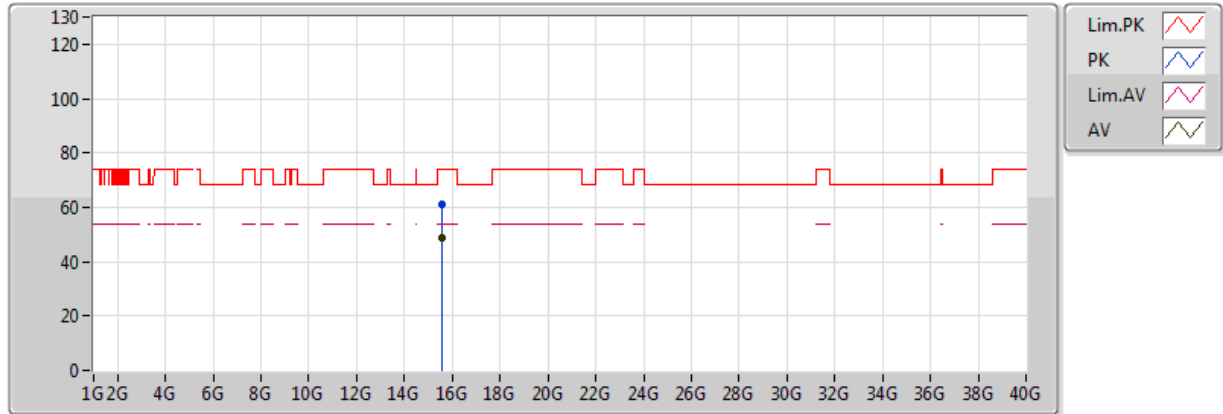
EUT Z_3TX_Dipole
Setting 10.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.5758G	61.92	74.00	-12.08	15.87	3	Vertical	170	2.40	-
AV	15.56308G	48.06	54.00	-5.94	15.89	3	Vertical	170	2.40	-

802.11n HT40_Nss1,(MCS0)_3TX

5190MHz_TX

29/05/2018



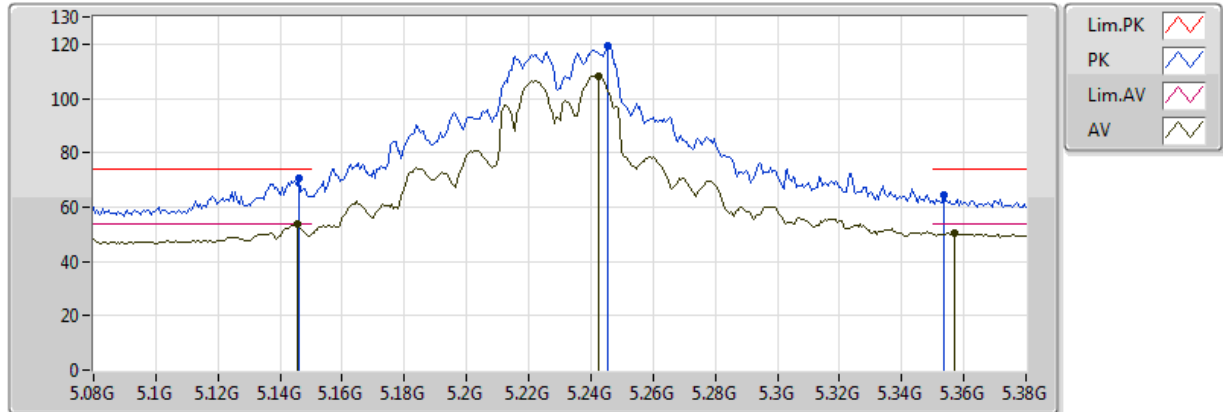
EUT Z_3TX_Dipole
Setting 10.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.56164G	61.01	74.00	-12.99	15.90	3	Horizontal	54	1.50	-
AV	15.56584G	48.51	54.00	-5.49	15.89	3	Horizontal	54	1.50	-

802.11n HT40_Nss1,(MCS0)_3TX

5230MHz_TX

29/05/2018



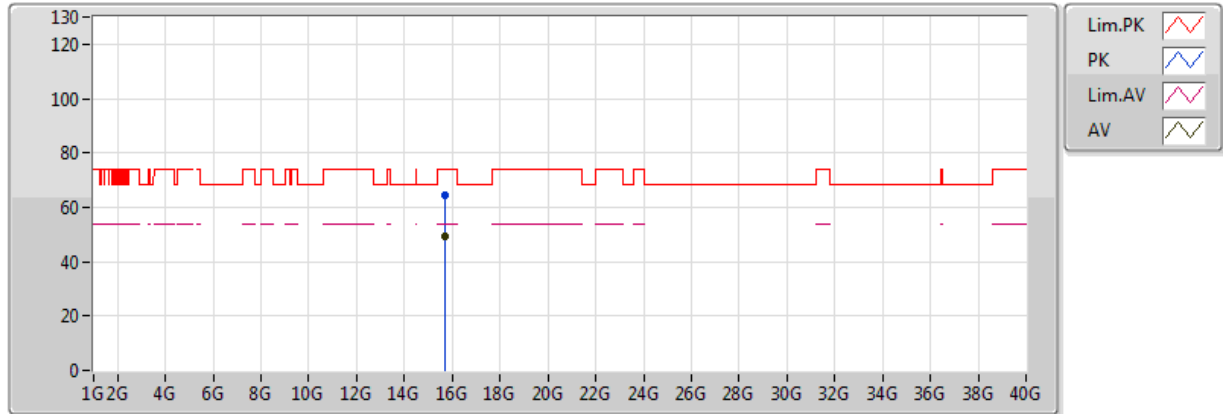
EUT Z_3TX_Dipole
Setting 20.5
01-J-1-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.146G	70.34	74.00	-3.66	4.89	3	Vertical	215	1.50	-
AV	5.1454G	53.88	54.00	-0.12	4.89	3	Vertical	215	1.50	-
PK	5.2456G	119.47	Inf	-Inf	5.17	3	Vertical	215	1.50	-
AV	5.2426G	108.21	Inf	-Inf	5.15	3	Vertical	215	1.50	-
PK	5.3536G	64.16	74.00	-9.84	5.62	3	Vertical	215	1.50	-
AV	5.3572G	50.39	54.00	-3.61	5.63	3	Vertical	215	1.50	-

802.11n HT40_Nss1,(MCS0)_3TX

5230MHz_TX

29/05/2018



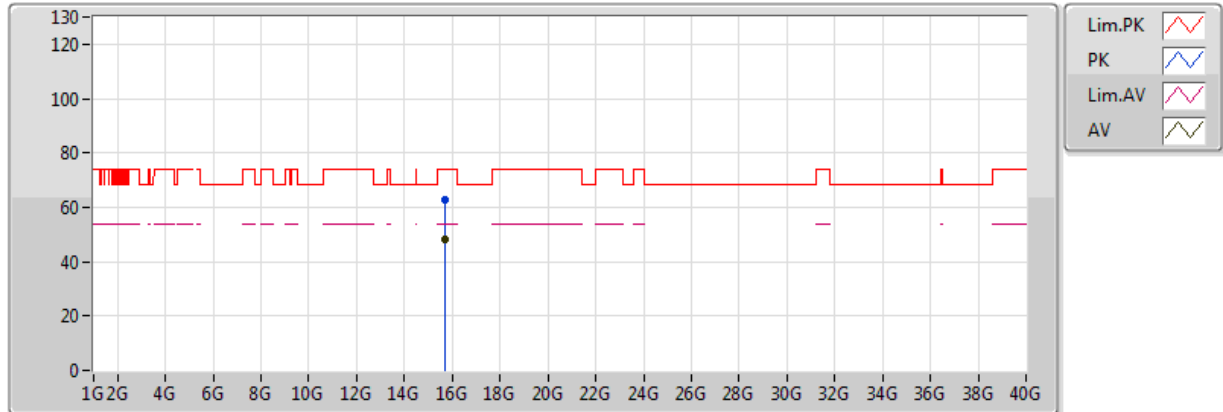
EUT_Z_3TX_Dipole
Setting 20.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.68072G	64.52	74.00	-9.48	15.71	3	Vertical	61	1.45	-
AV	15.6916G	49.29	54.00	-4.71	15.69	3	Vertical	61	1.45	-

802.11n HT40_Nss1,(MCS0)_3TX

5230MHz_TX

29/05/2018



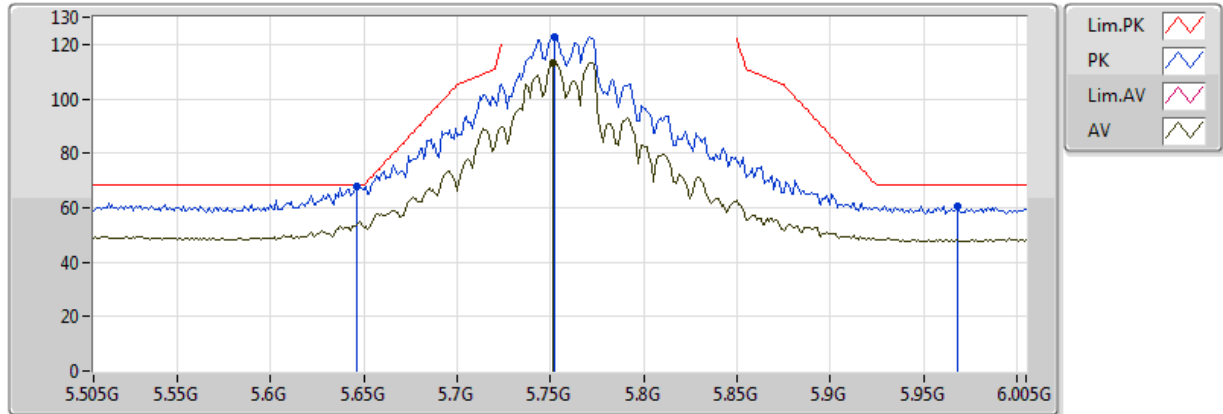
EUT Z_3TX_Dipole
Setting 20.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	15.68896G	62.67	74.00	-11.33	15.69	3	Horizontal	141	1.89	-
AV	15.68984G	48.46	54.00	-5.54	15.69	3	Horizontal	141	1.89	-

802.11n HT40_Nss1,(MCS0)_3TX

5755MHz_TX

30/05/2018



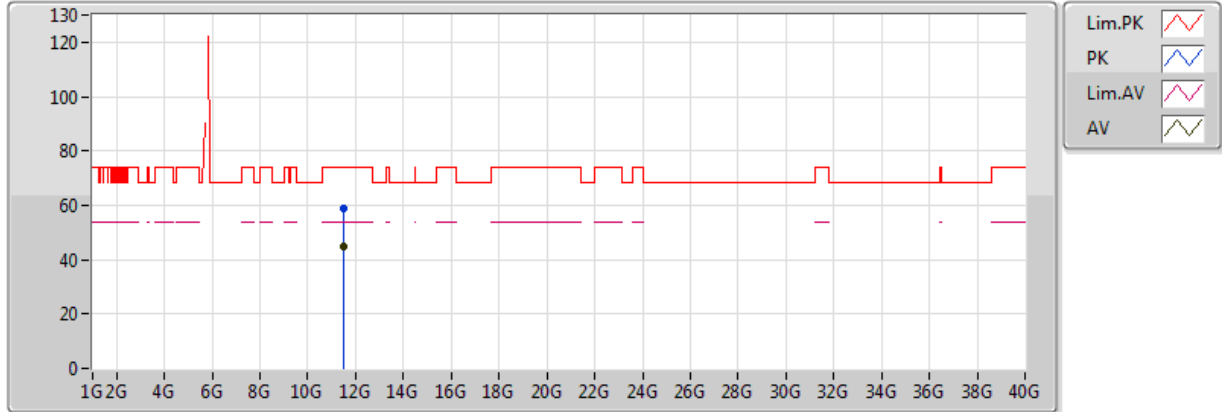
EUT_Z_3TX_Dipole
Setting 24.5
01-J-1-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.646G	68.00	68.20	-0.20	6.46	3	Vertical	321	1.71	-
PK	5.752G	122.69	Inf	-Inf	6.90	3	Vertical	321	1.71	-
AV	5.751G	113.37	Inf	-Inf	6.89	3	Vertical	321	1.71	-
PK	5.968G	60.48	68.20	-7.72	7.42	3	Vertical	321	1.71	-

802.11n HT40_Nss1,(MCS0)_3TX

5755MHz_TX

30/05/2018



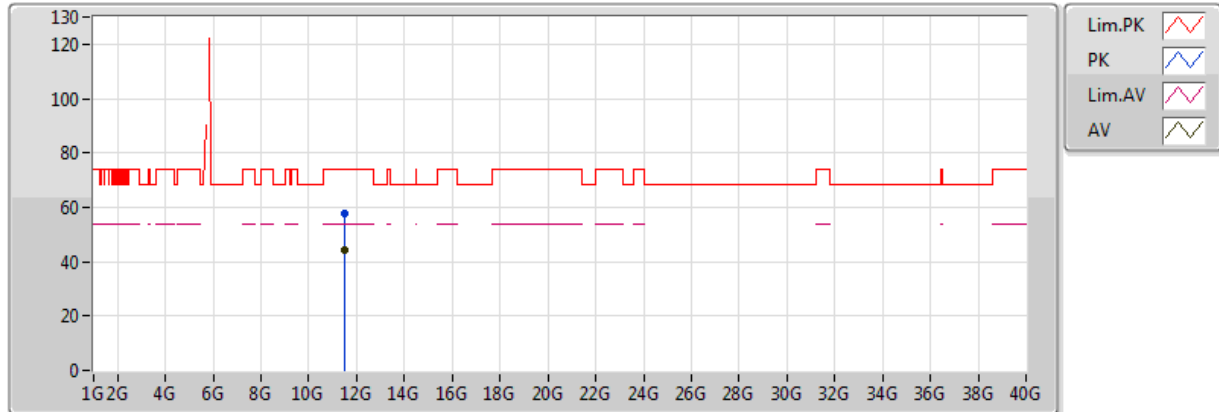
EUT Z_3TX_Dipole
Setting 24.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.51356G	58.78	74.00	-15.22	13.33	3	Vertical	17	2.16	-
AV	11.51736G	44.87	54.00	-9.13	13.33	3	Vertical	17	2.16	-

802.11n HT40_Nss1,(MCS0)_3TX

5755MHz_TX

30/05/2018



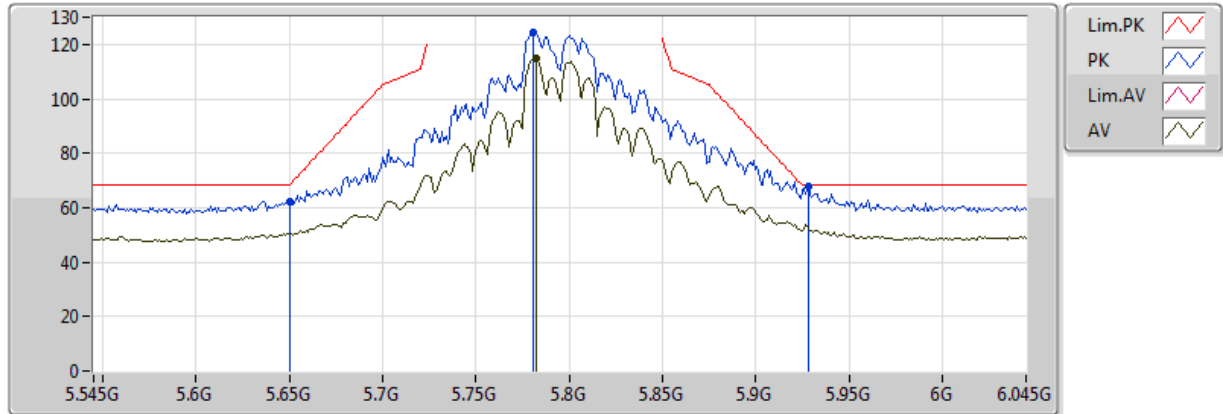
EUT Z_3TX_Dipole
Setting 24.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.50416G	57.69	74.00	-16.31	13.33	3	Horizontal	241	1.17	-
AV	11.51548G	44.01	54.00	-9.99	13.33	3	Horizontal	241	1.17	-

802.11n HT40_Nss1,(MCS0)_3TX

5795MHz_TX

30/05/2018



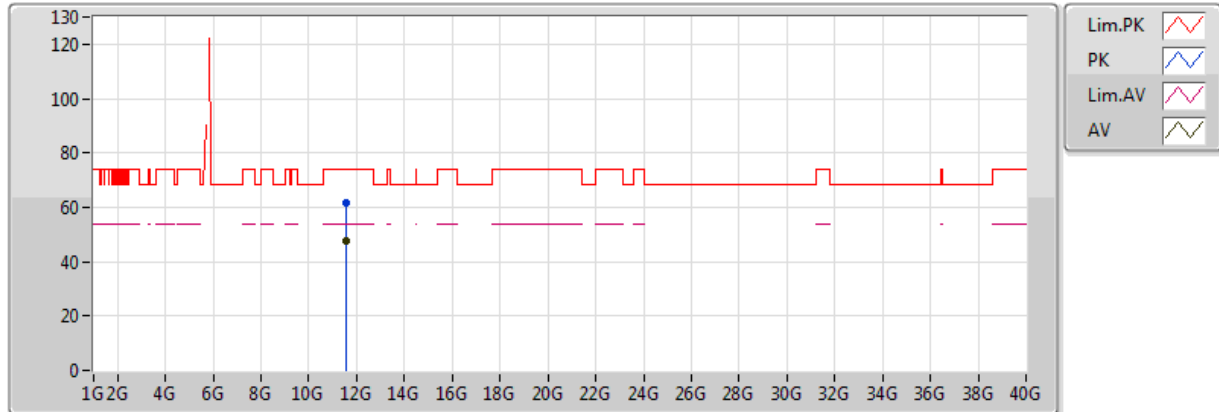
EUT_Z_3TX_Dipole
Setting 27.5
01-J-1-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.65G	62.40	68.20	-5.80	6.48	3	Vertical	321	1.77	-
PK	5.781G	124.42	Inf	-Inf	7.02	3	Vertical	321	1.77	-
AV	5.782G	114.99	Inf	-Inf	7.02	3	Vertical	321	1.77	-
PK	5.928G	67.94	68.20	-0.26	7.34	3	Vertical	321	1.77	-

802.11n HT40_Nss1,(MCS0)_3TX

5795MHz_TX

30/05/2018



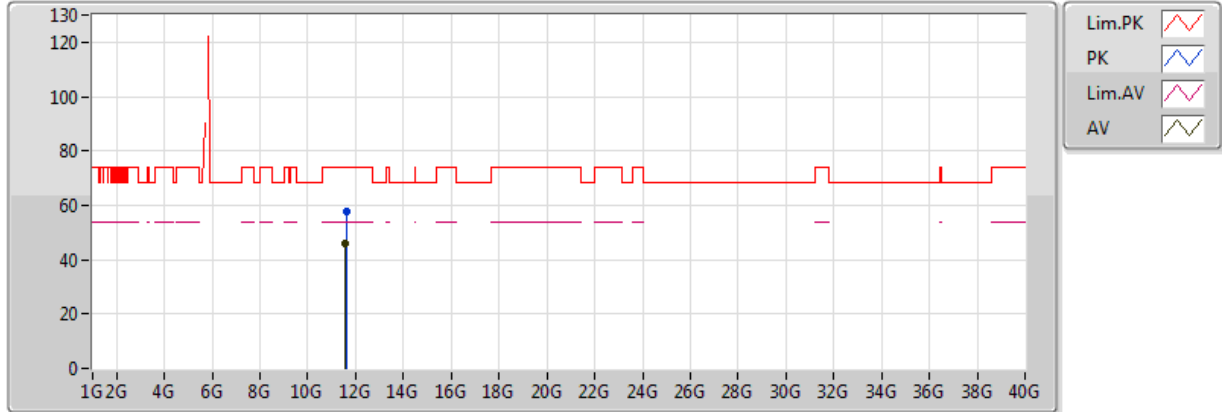
EUT Z_3TX_Dipole
Setting 27.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.58844G	61.43	74.00	-12.57	13.33	3	Vertical	205	2.46	-
AV	11.58868G	47.58	54.00	-6.42	13.33	3	Vertical	205	2.46	-

802.11n HT40_Nss1,(MCS0)_3TX

5795MHz_TX

30/05/2018



EUT Z_3TX_Dipole
Setting 27.5
01-J-1
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	11.59368G	57.79	74.00	-16.21	13.33	3	Horizontal	138	2.38	-
AV	11.591G	45.99	54.00	-8.01	13.33	3	Horizontal	138	2.38	-