



FCC RADIO TEST REPORT

FCC ID : 2A15IMTBK
Equipment : MEATER Block
Brand Name : MEATER
Model Name : MT-BL01
Applicant : Apption Labs Limited
7-8 Westbridge Close, Leicester, LE3 5LW, United Kingdom
Manufacturer : Abocom Systems, Inc.
No.77, Yu-Yih Rd., Chu-Nan, Miao-Lih County 35059, Taiwan R.O.C.
Standard : 47 CFR FCC Part 15.247

The product was received on Sep. 19, 2017, and testing was started from Jun. 27, 2018 and completed on Jul. 17, 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: Sam Chen

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



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Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	Note
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Note:
For powered from battery mode, it was supplied power by battery for EUT; It's not necessary to apply to AC Power-line Conducted Emissions test.

Reviewed by: **Sam Chen**
Report Producer: **Cindy Peng**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g and HT20 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

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Remark
1	1	MEATER	N/A	Printed Antenna	N/A	1	2.4GHz WALN
2	1	MEATER	N/A	Printed Antenna	N/A	1	Bluetooth

Note: There are two antennas.

For 2.4GHz WALN function (1TX/1RX):

Only Ant. 1 (Port 1) could transmit/receive simultaneously.

For Bluetooth function (1TX/1RX):

Only Ant. 2 (Port 1) could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.998	0.009	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.988	0.052	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	0.997	0.013	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From 5Vdc (via USB cable) or AA battery*4 (6Vdc)		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/> Without beamforming	
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/> Point-to-point	
Test Software Version	Hyperterminal_6.1		



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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	25°C / 58%	Jul. 17, 2018
Radiated	03CH01-CB	Joy Lou, Lance Hsieh, Jeff Wu	22°C / 54%	Jun. 27, 2018~Jul. 17, 2018
AC Conduction	CO01-CB	Max Lin	24°C / 55%	Jul. 02, 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
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	8
2417MHz	7
2437MHz	7
2462MHz	7
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	7
2437MHz	7
2462MHz	7
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	7
2437MHz	7
2462MHz	7



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Link Mode - powered from adapter
2	Charge Mode - powered from adapter
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	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains.

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
There are two modes of EUT, one is Link Mode, the other is Charge Mode. The worst case was found at Link Mode. So the measurement will follow this same test configuration.	
1	Link Mode - EUT Y axis, powered from adapter
2	Link Mode - EUT Y axis, powered from battery
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	CTX - EUT Y axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + Bluetooth
Refer to Sporton Test Report No.: FA652509-01 for Co-location RF Exposure Evaluation.	



Note 1: The EUT can only be used at Y axis position.

Note 2: The EUT was powered by adapter, and the adapter was for measurement only, would not be marketed.

Equipment	Brand Name	Model Name	FCC ID
Adapter	Apple	A1357	N/A

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

N/A



2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	iPad	Apple	A1430	N/A
2	NB	DELL	E6430	N/A
3	AP Router	Planex	GW-AP54SGX	KA220030603014-1
4	MEATER Probe (Device)	Apption Labs	MT-PR00	2AI5IMTPR
5	Adapter	Apple	A1357	N/A

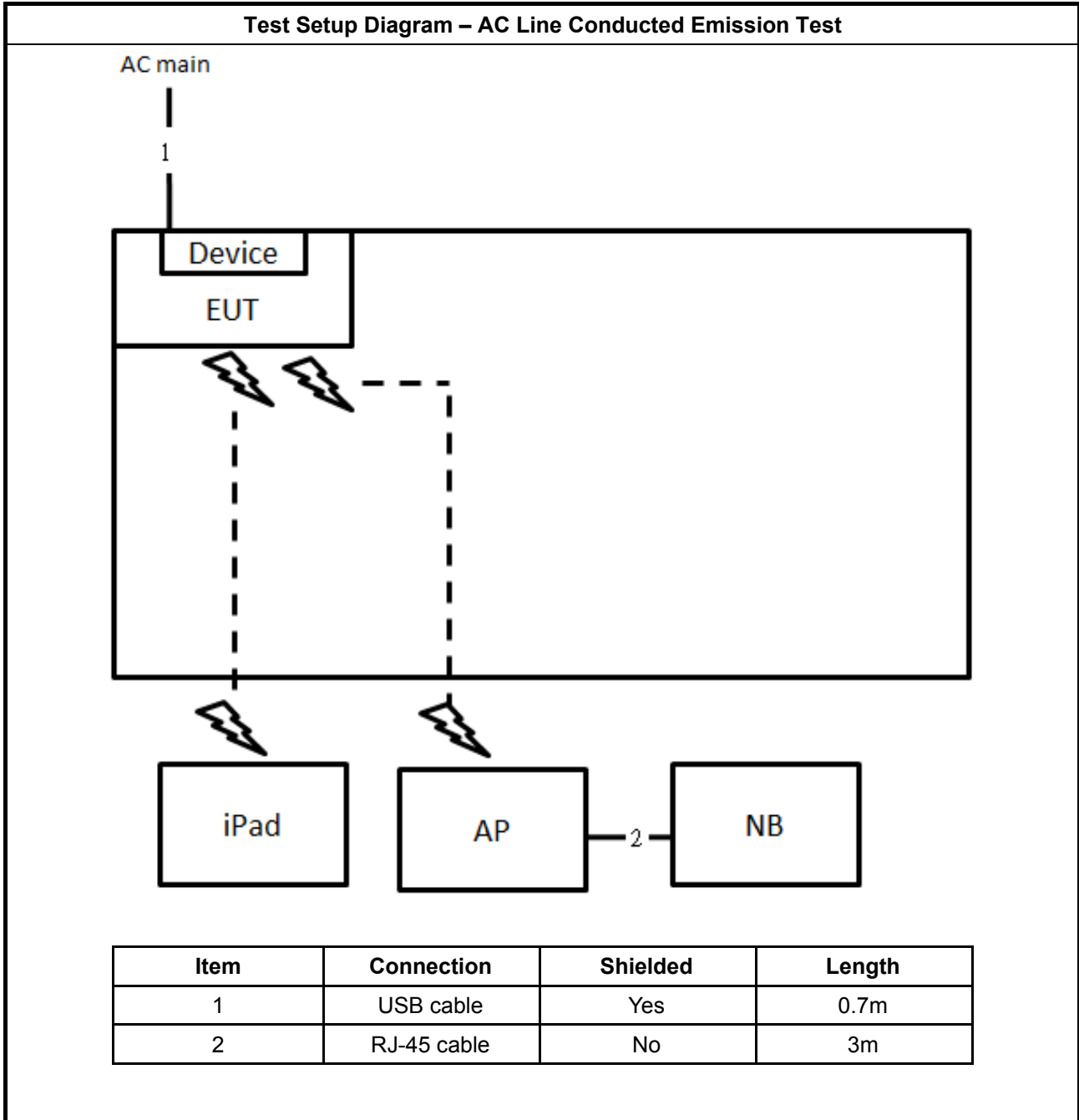
For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A
2	WLAN AP	NETGEAR	WNDR3300v2	PY309300116
3	iPad	Apple	A1430	N/A
4	MEATER Probe (Device)	Apption Labs	MT-PR00	2AI5IMTPR

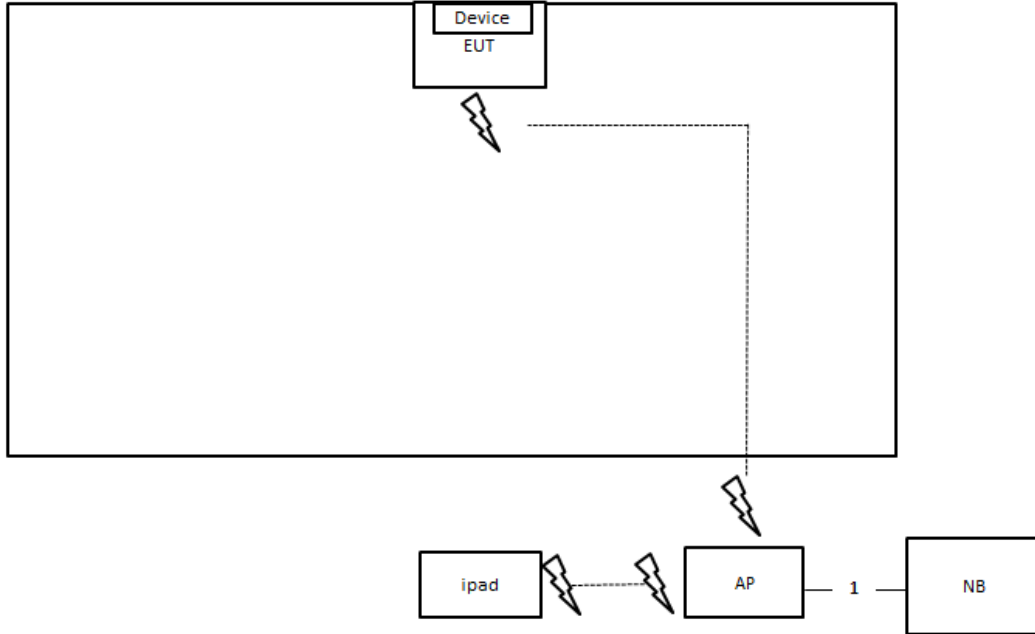
For Test Site No: 03CH01-CB (above 1GHz) and TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A
2	Test fixture	iComm	S274_ADB	N/A
3	MEATER Probe (Device)	Apption Labs	MT-PR00	2AI5IMTPR

2.6 Test Setup Diagram



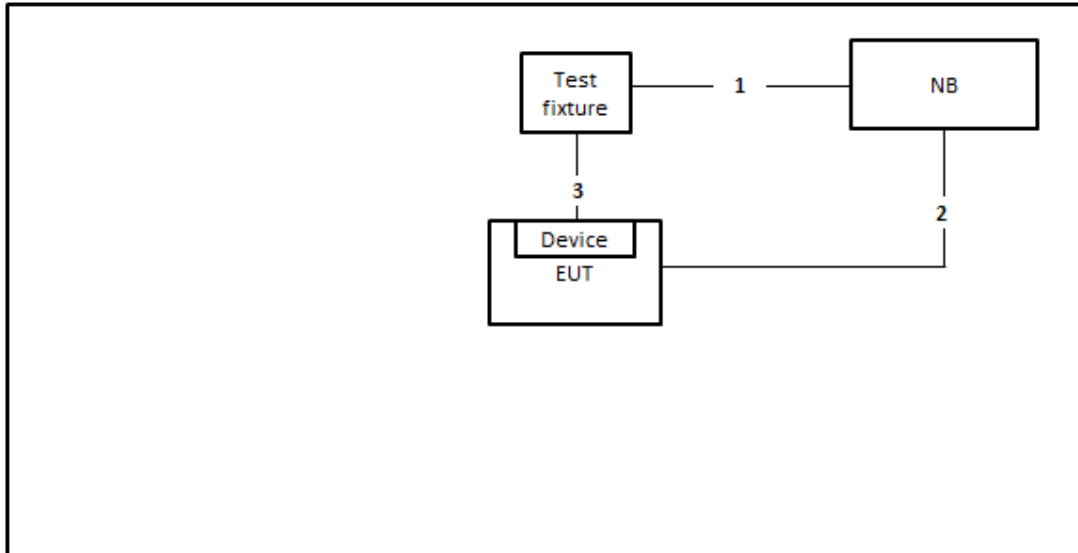
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	1.5m



Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	USB cable	No	2m
2	USB cable	No	1.5m
3	Console cable	No	0.1m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

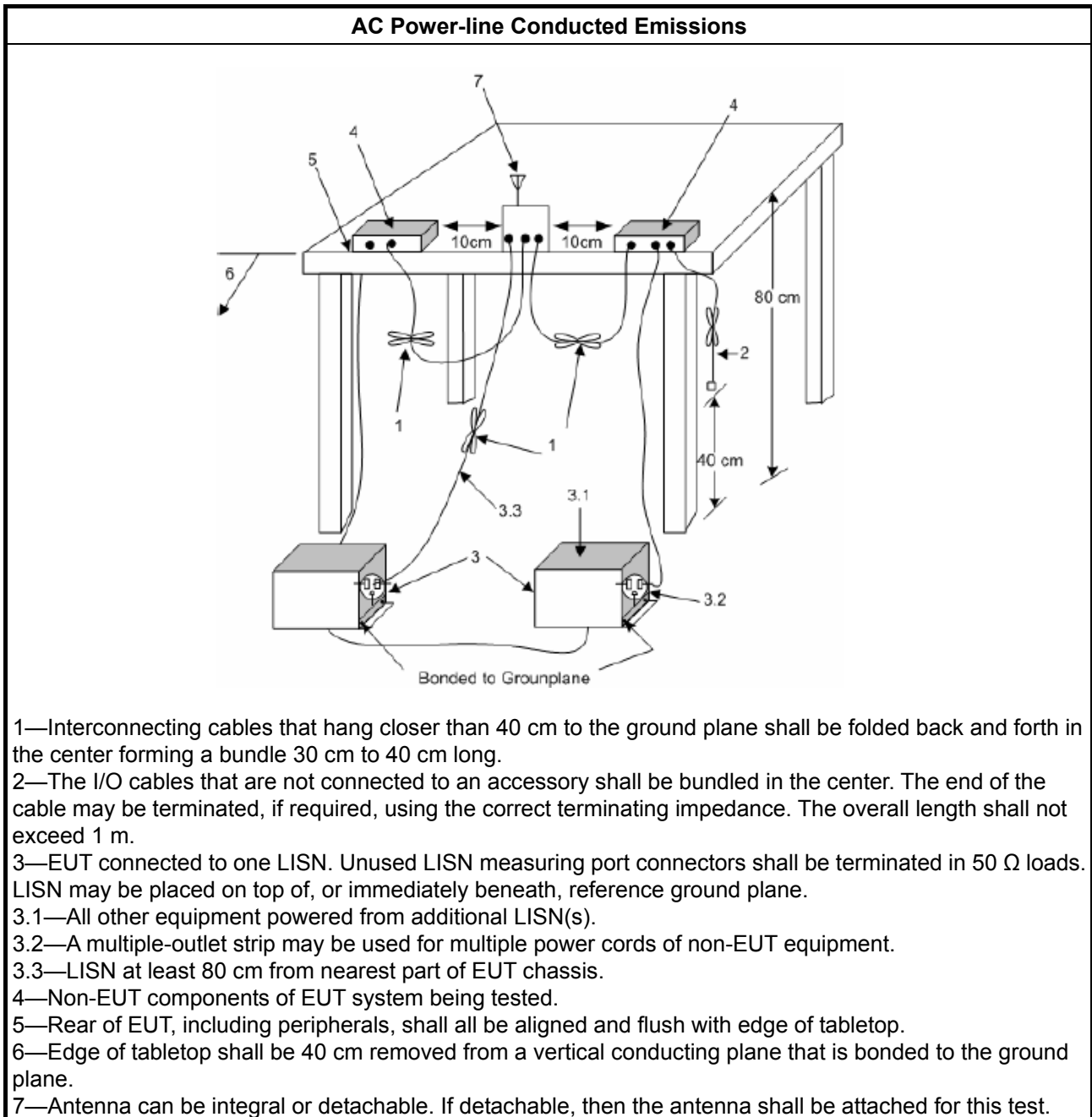
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> 6 dB bandwidth \geq 500 kHz.

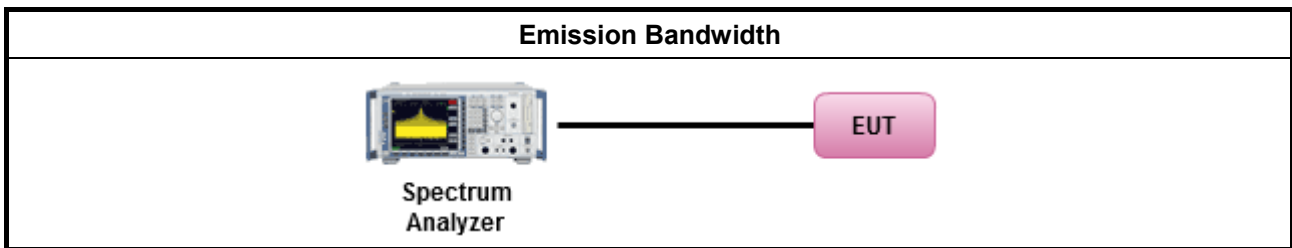
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> 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	
	<ul style="list-style-type: none">▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none">▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none">▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none">▪ Smart antenna system (SAS):
	<ul style="list-style-type: none">- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none">- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none">- 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.	

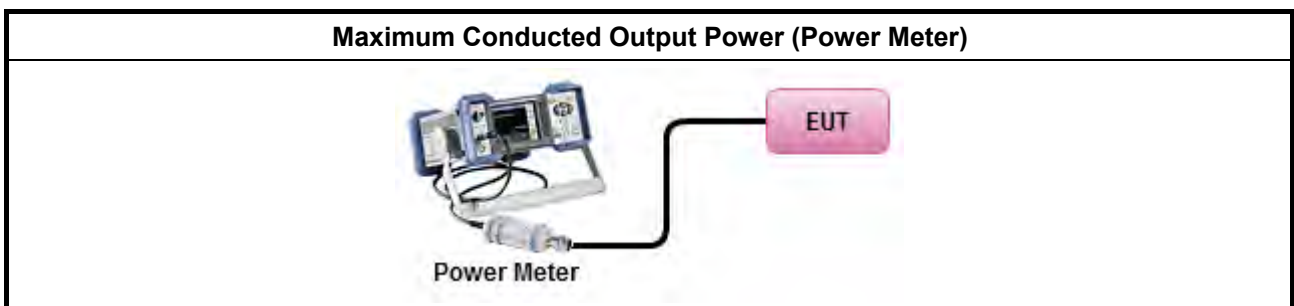
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.1.3 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
	<input type="checkbox"/> 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	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
Measurement using a power meter (PM)	
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM (using an RF average power meter).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) \leq 8 dBm/3kHz

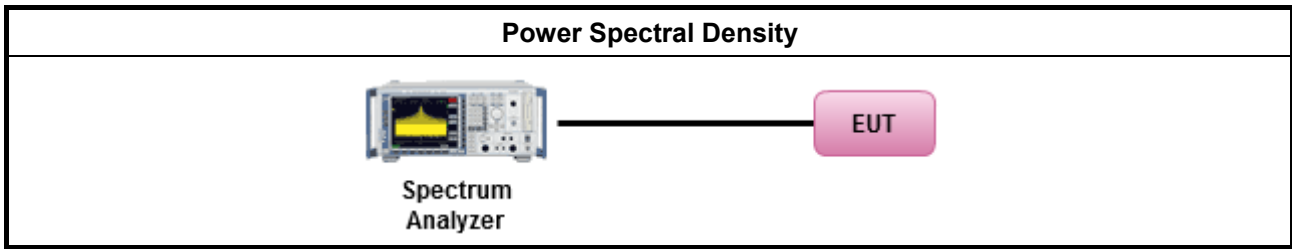
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> 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).
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle \geq 98% or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
<ul style="list-style-type: none"> For conducted measurement. <ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

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.

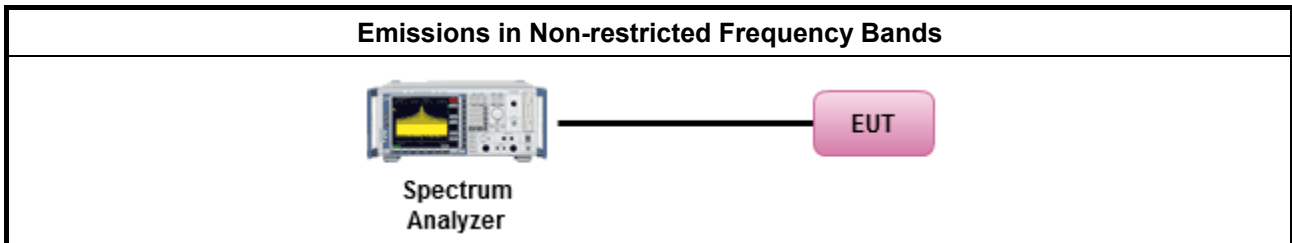
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> 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

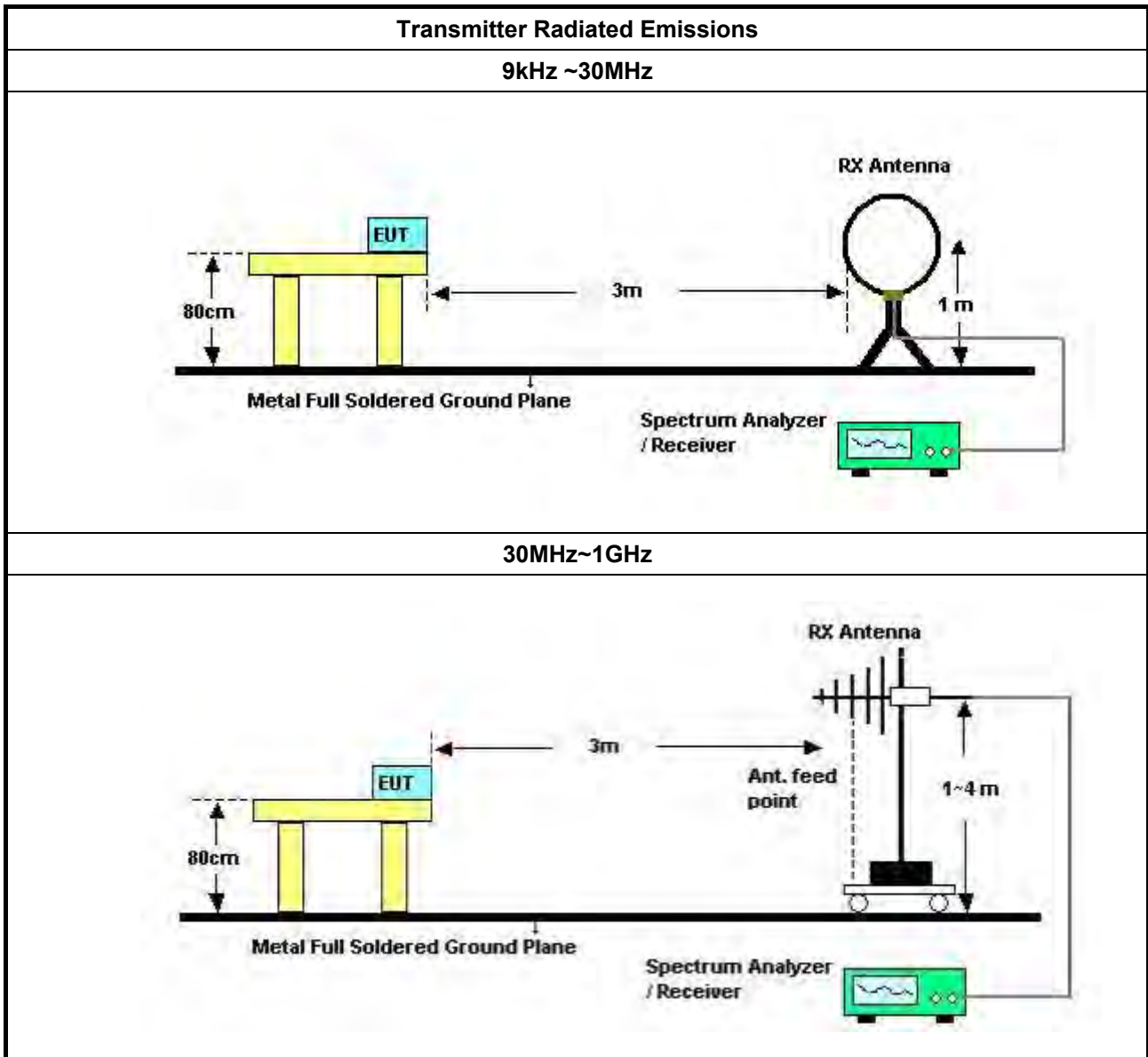
Refer a test equipment and calibration data table in this test report.

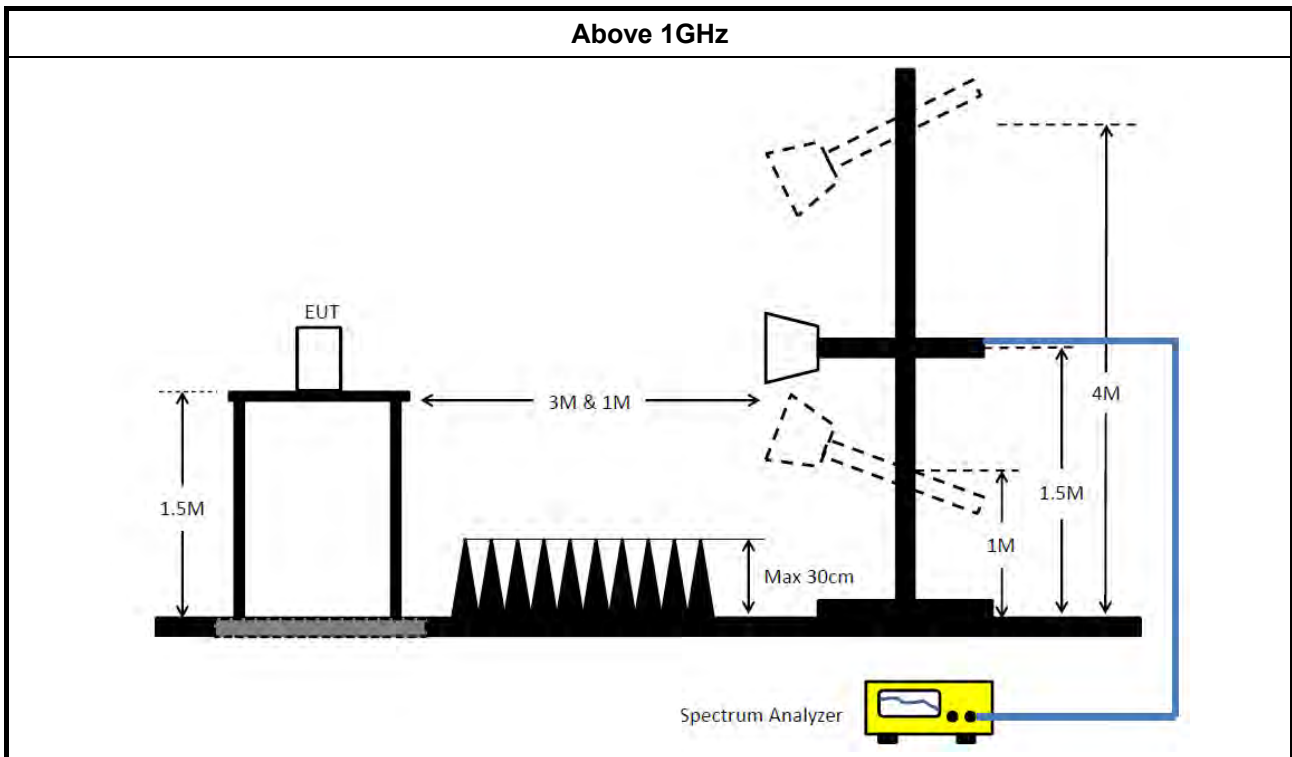


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle \geq 98%)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ 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).
<ul style="list-style-type: none"> ▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2. 	
	<ul style="list-style-type: none"> ▪ 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
	<ul style="list-style-type: none"> ▪ 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.

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.

3.6.6 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	My52260123	9kHz ~ 8.45GHz	Jan. 31, 2018	Jan. 30, 2019	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	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	Low cable-CO01	150kHz ~ 30MHz	May 22, 2018	May 21, 2019	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMC1	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 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	BBHA917025 2	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA917025 2	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	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)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
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)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
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

Appendix A

AC Power-line Conducted Emissions Result																																																																																																																																																																																								
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Operating Function	Normal Link																																																																																																																																																																																							
<p>The graph displays the AC power-line conducted emissions. The y-axis represents Level in dBuV (0 to 80), and the x-axis represents Frequency in MHz (0.1502 to 30). Two red lines indicate CISPR limits: CISPR_B_QP (upper) and CISPR_B_AV (lower). The blue line shows the measured emission spectrum with peaks at 0.1500, 0.2788, 0.4083, 0.5701, 0.8618, and 0.9282 MHz.</p>																																																																																																																																																																																								
	<table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> </tr> <tr> <th>Freq</th> <th>Level</th> <th>Over</th> <th>Limit</th> <th>read</th> <th>LISN</th> <th>Cable</th> <th>Remark</th> <th>Pol/Phase</th> <th colspan="3"></th> </tr> <tr> <th>MHz</th> <th>dBuV</th> <th>dB</th> <th>dBuV</th> <th>dBuV</th> <th>dB</th> <th>dB</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>0.1500</td> <td>34.17</td> <td>-21.83</td> <td>56.00</td> <td>24.10</td> <td>9.91</td> <td>0.16</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.1500</td> <td>41.11</td> <td>-24.89</td> <td>66.00</td> <td>31.04</td> <td>9.91</td> <td>0.16</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.2788</td> <td>33.80</td> <td>-17.05</td> <td>50.85</td> <td>23.76</td> <td>9.91</td> <td>0.13</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.2788</td> <td>40.79</td> <td>-20.06</td> <td>60.85</td> <td>30.75</td> <td>9.91</td> <td>0.13</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.4083</td> <td>31.56</td> <td>-16.12</td> <td>47.68</td> <td>21.53</td> <td>9.91</td> <td>0.12</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.4083</td> <td>38.19</td> <td>-19.49</td> <td>57.68</td> <td>28.16</td> <td>9.91</td> <td>0.12</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.5701</td> <td>28.33</td> <td>-17.67</td> <td>46.00</td> <td>18.26</td> <td>9.92</td> <td>0.15</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.5701</td> <td>35.40</td> <td>-20.60</td> <td>56.00</td> <td>25.33</td> <td>9.92</td> <td>0.15</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.8618</td> <td>30.19</td> <td>-15.81</td> <td>46.00</td> <td>20.07</td> <td>9.93</td> <td>0.19</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.8618</td> <td>38.48</td> <td>-17.52</td> <td>56.00</td> <td>28.36</td> <td>9.93</td> <td>0.19</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.9282</td> <td>29.14</td> <td>-16.86</td> <td>46.00</td> <td>19.02</td> <td>9.93</td> <td>0.19</td> <td>Average</td> <td>LINE</td> <td colspan="3"></td> </tr> <tr> <td>0.9282</td> <td>36.08</td> <td>-19.92</td> <td>56.00</td> <td>25.96</td> <td>9.93</td> <td>0.19</td> <td>QP</td> <td>LINE</td> <td colspan="3"></td> </tr> </tbody> </table>	1	2	3	4	5	6	7	8	9	10	11	12	Freq	Level	Over	Limit	read	LISN	Cable	Remark	Pol/Phase				MHz	dBuV	dB	dBuV	dBuV	dB	dB						0.1500	34.17	-21.83	56.00	24.10	9.91	0.16	Average	LINE				0.1500	41.11	-24.89	66.00	31.04	9.91	0.16	QP	LINE				0.2788	33.80	-17.05	50.85	23.76	9.91	0.13	Average	LINE				0.2788	40.79	-20.06	60.85	30.75	9.91	0.13	QP	LINE				0.4083	31.56	-16.12	47.68	21.53	9.91	0.12	Average	LINE				0.4083	38.19	-19.49	57.68	28.16	9.91	0.12	QP	LINE				0.5701	28.33	-17.67	46.00	18.26	9.92	0.15	Average	LINE				0.5701	35.40	-20.60	56.00	25.33	9.92	0.15	QP	LINE				0.8618	30.19	-15.81	46.00	20.07	9.93	0.19	Average	LINE				0.8618	38.48	-17.52	56.00	28.36	9.93	0.19	QP	LINE				0.9282	29.14	-16.86	46.00	19.02	9.93	0.19	Average	LINE				0.9282	36.08	-19.92	56.00	25.96	9.93	0.19	QP	LINE						
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AC Power-line Conducted Emissions Result

Appendix A

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	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase																																																																																																																																						
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9	0.8618	30.20	-15.80	46.00	20.08	9.93	0.19	Average	NEUTRAL																																																																																																																																						
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Summary

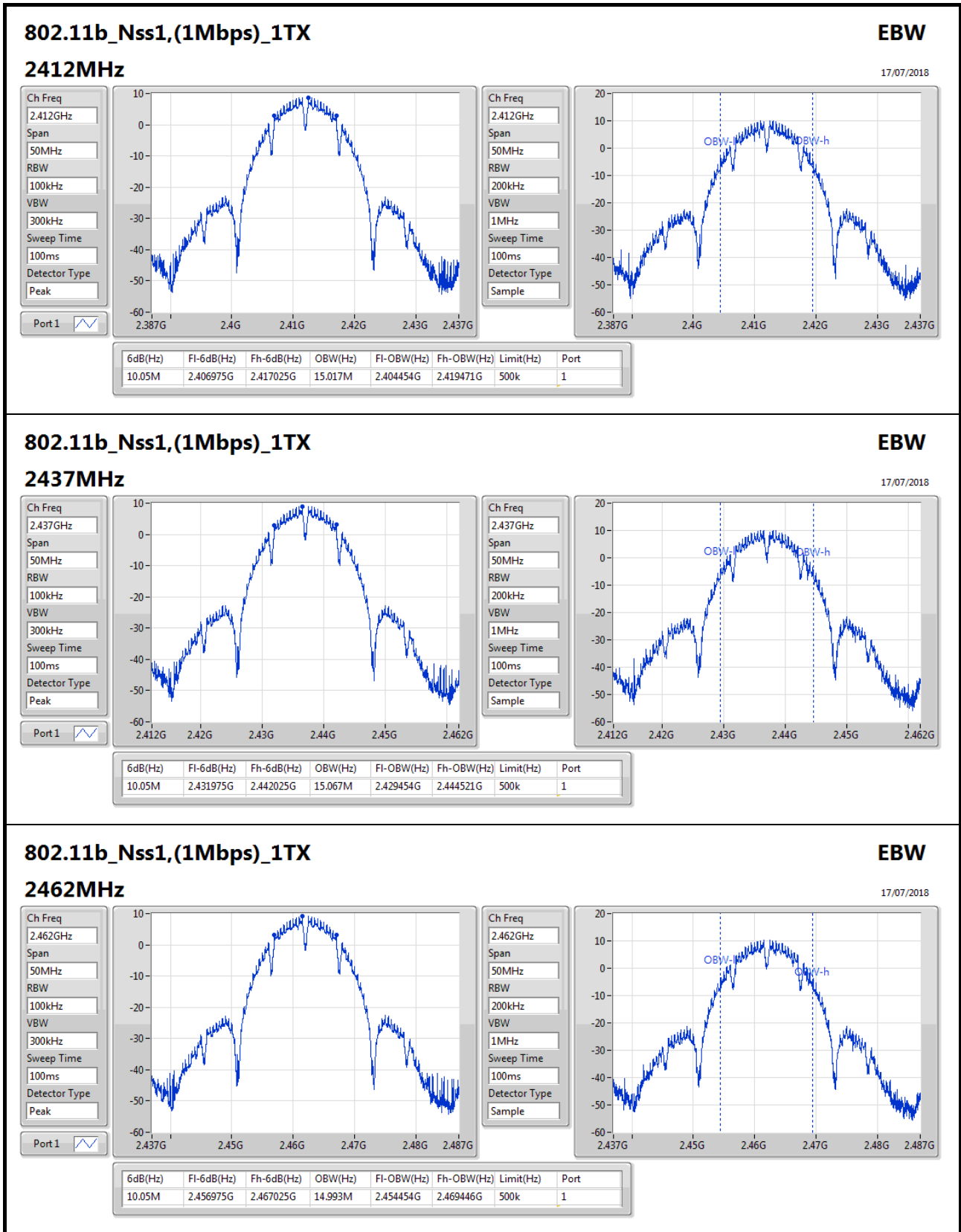
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	10.05M	15.067M	15M1G1D	10.05M	14.993M
802.11g_Nss1,(6Mbps)_1TX	16.35M	16.667M	16M7D1D	16.35M	16.592M
802.11n HT20_Nss1,(MCS0)_1TX	17.6M	17.866M	17M9D1D	17.55M	17.741M

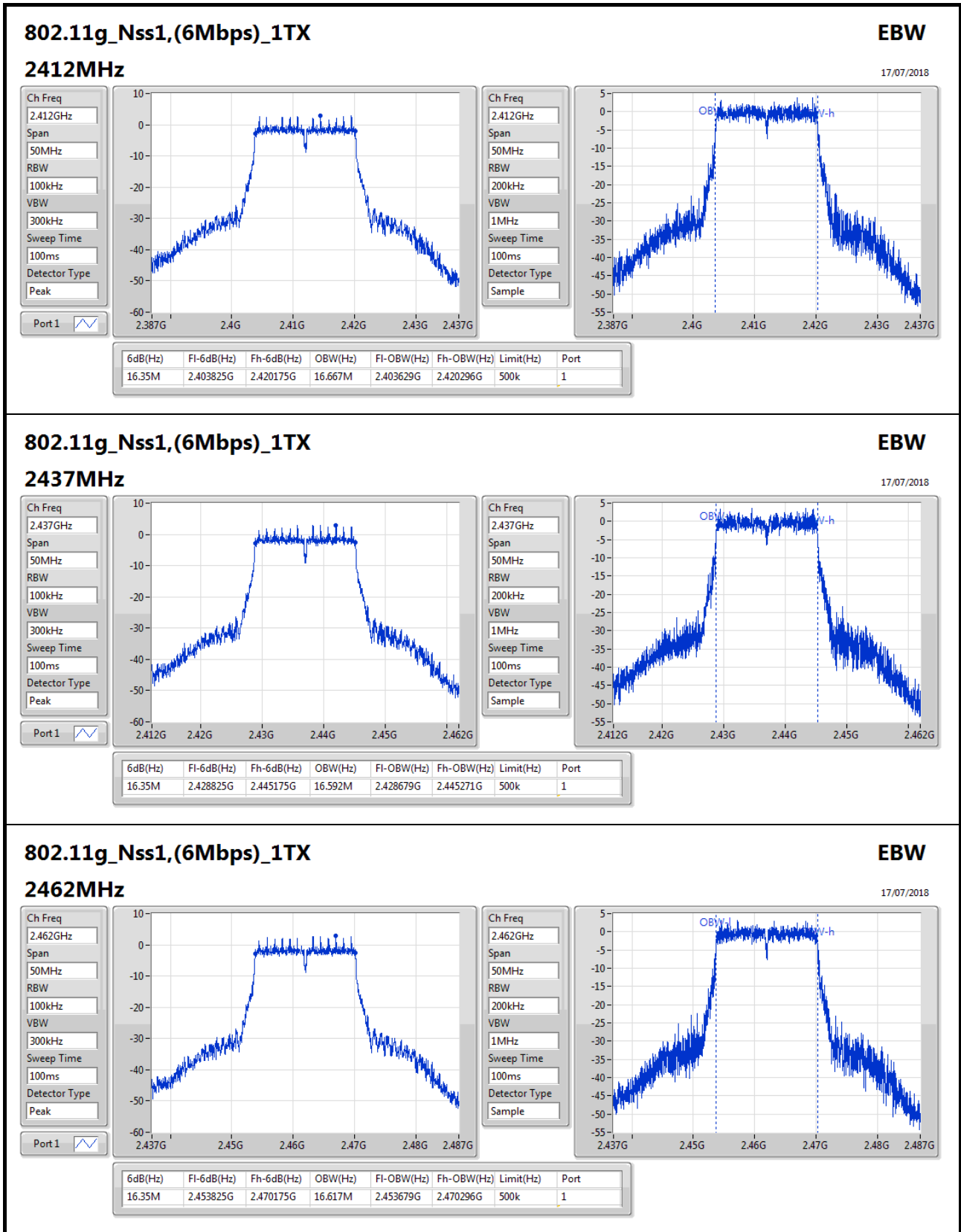
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

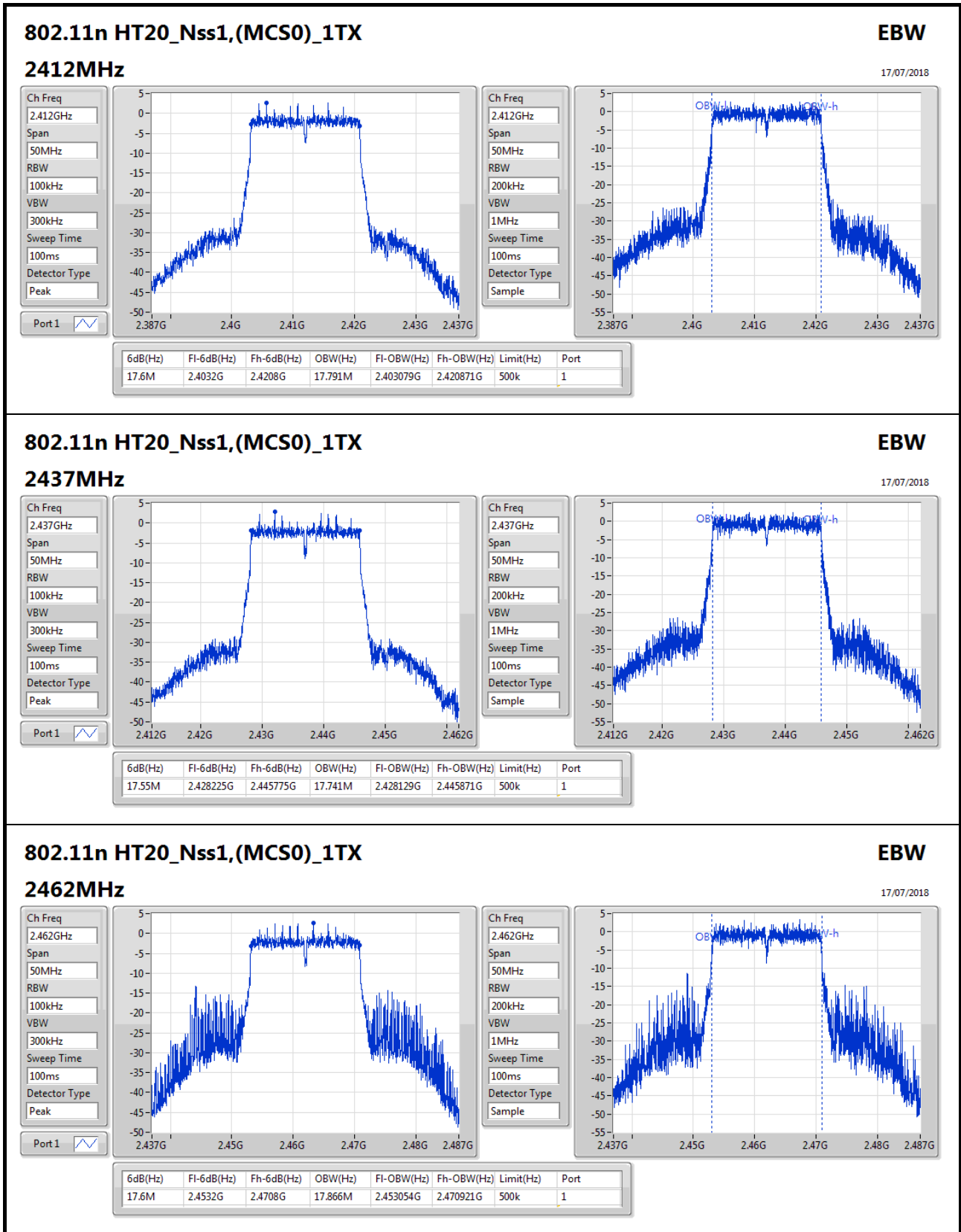
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	10.05M	15.017M
2437MHz	Pass	500k	10.05M	15.067M
2462MHz	Pass	500k	10.05M	14.993M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.35M	16.667M
2437MHz	Pass	500k	16.35M	16.592M
2462MHz	Pass	500k	16.35M	16.617M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.6M	17.791M
2437MHz	Pass	500k	17.55M	17.741M
2462MHz	Pass	500k	17.6M	17.866M

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









Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	18.67	0.07362
802.11g_Nss1,(6Mbps)_1TX	14.21	0.02636
802.11n HT20_Nss1,(MCS0)_1TX	14.23	0.02649

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	18.38	18.38	30.00
2417MHz	Pass	1.00	18.65	18.65	30.00
2437MHz	Pass	1.00	18.67	18.67	30.00
2462MHz	Pass	1.00	18.55	18.55	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	14.21	14.21	30.00
2437MHz	Pass	1.00	14.12	14.12	30.00
2462MHz	Pass	1.00	14.02	14.02	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	14.23	14.23	30.00
2437MHz	Pass	1.00	14.14	14.14	30.00
2462MHz	Pass	1.00	14.03	14.03	30.00

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

Note : Conducted average output power is for reference only



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-7.06
802.11g_Nss1,(6Mbps)_1TX	-12.47
802.11n HT20_Nss1,(MCS0)_1TX	-12.01

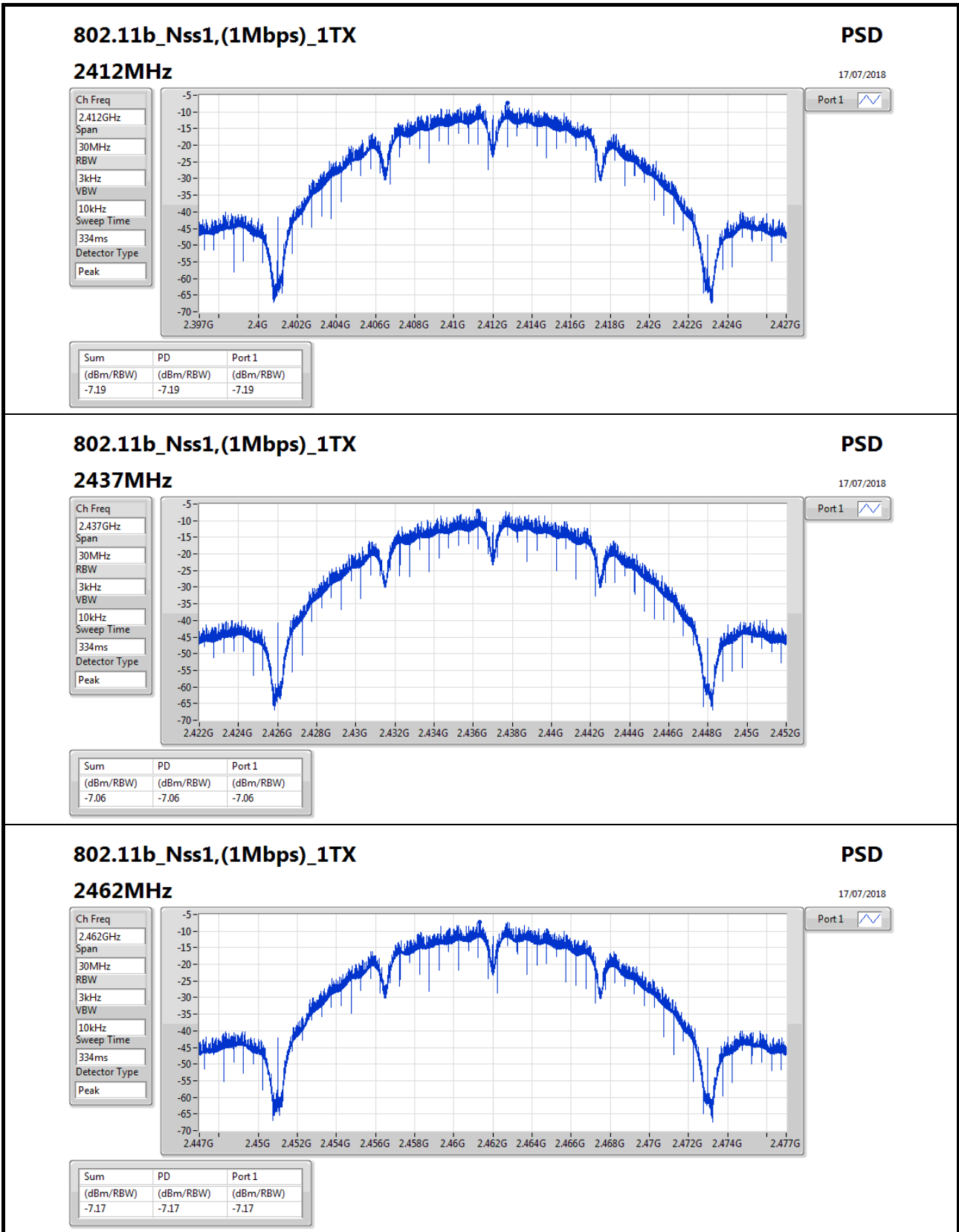
RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	-7.19	-7.19	8.00
2437MHz	Pass	1.00	-7.06	-7.06	8.00
2462MHz	Pass	1.00	-7.17	-7.17	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	-12.47	-12.47	8.00
2437MHz	Pass	1.00	-12.66	-12.66	8.00
2462MHz	Pass	1.00	-12.63	-12.63	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	1.00	-12.01	-12.01	8.00
2437MHz	Pass	1.00	-12.16	-12.16	8.00
2462MHz	Pass	1.00	-12.19	-12.19	8.00

DG = Directional Gain; RBW=3kHz;

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



802.11b_Nss1,(1Mbps)_1TX

2462MHz

PSD

17/07/2018

Ch Freq
2.462GHz

Span
30MHz

RBW
3kHz

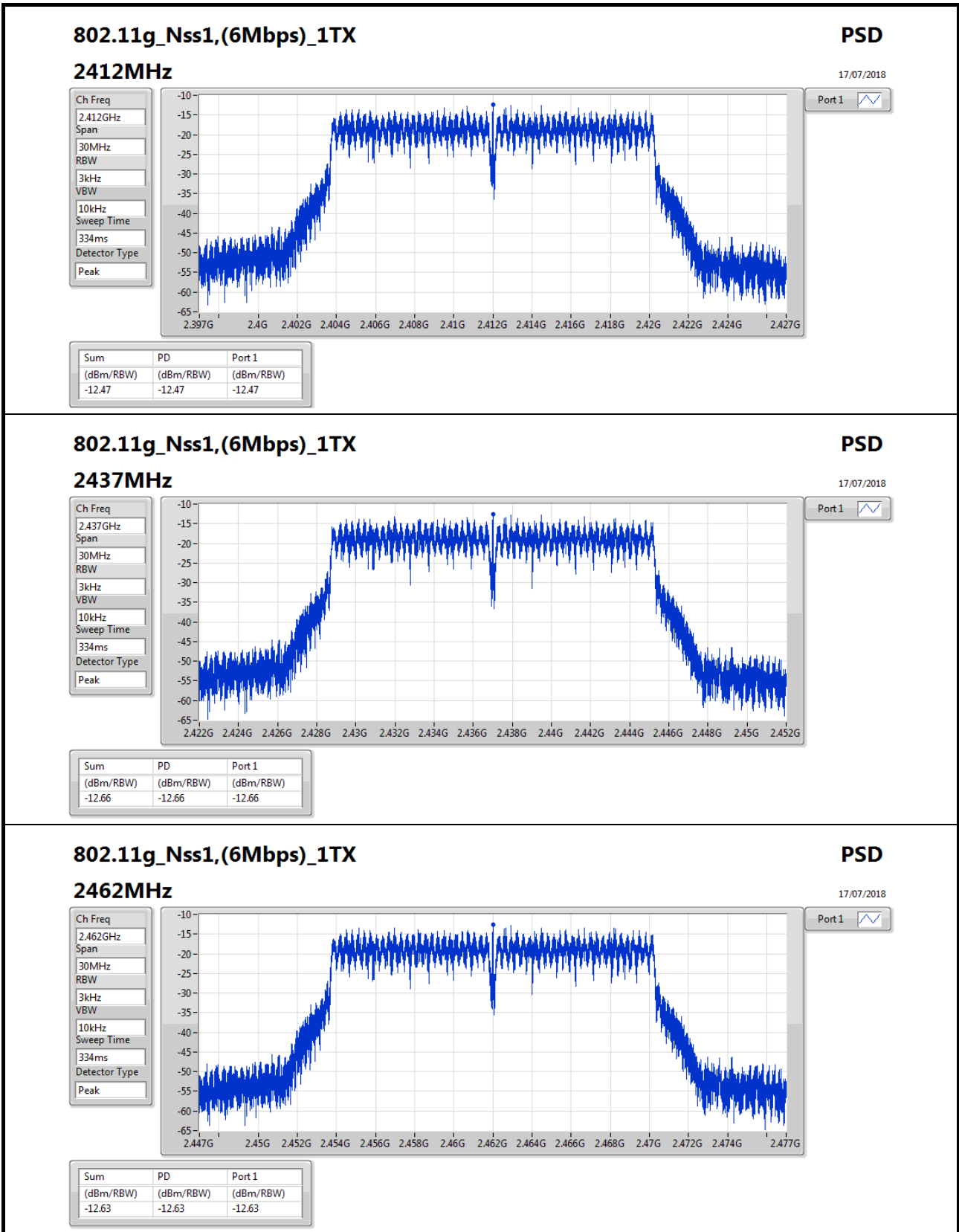
VBW
10kHz

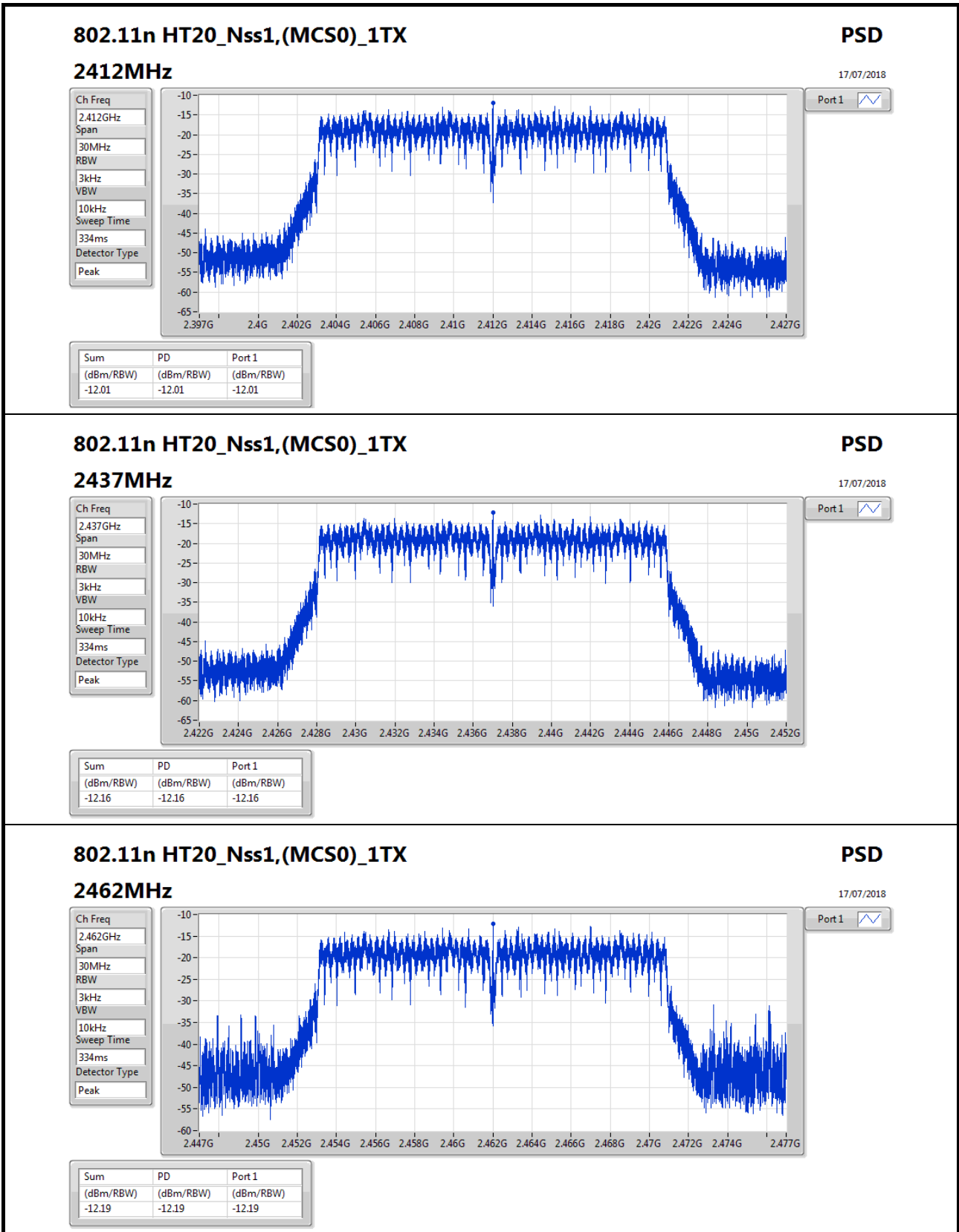
Sweep Time
334ms

Detector Type
Peak

Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.17	-7.17	-7.17





802.11n HT20_Nss1,(MCS0)_1TX

2462MHz

PSD

17/07/2018

Ch Freq
2.462GHz

Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
334ms

Detector Type
Peak

Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-12.19	-12.19	-12.19

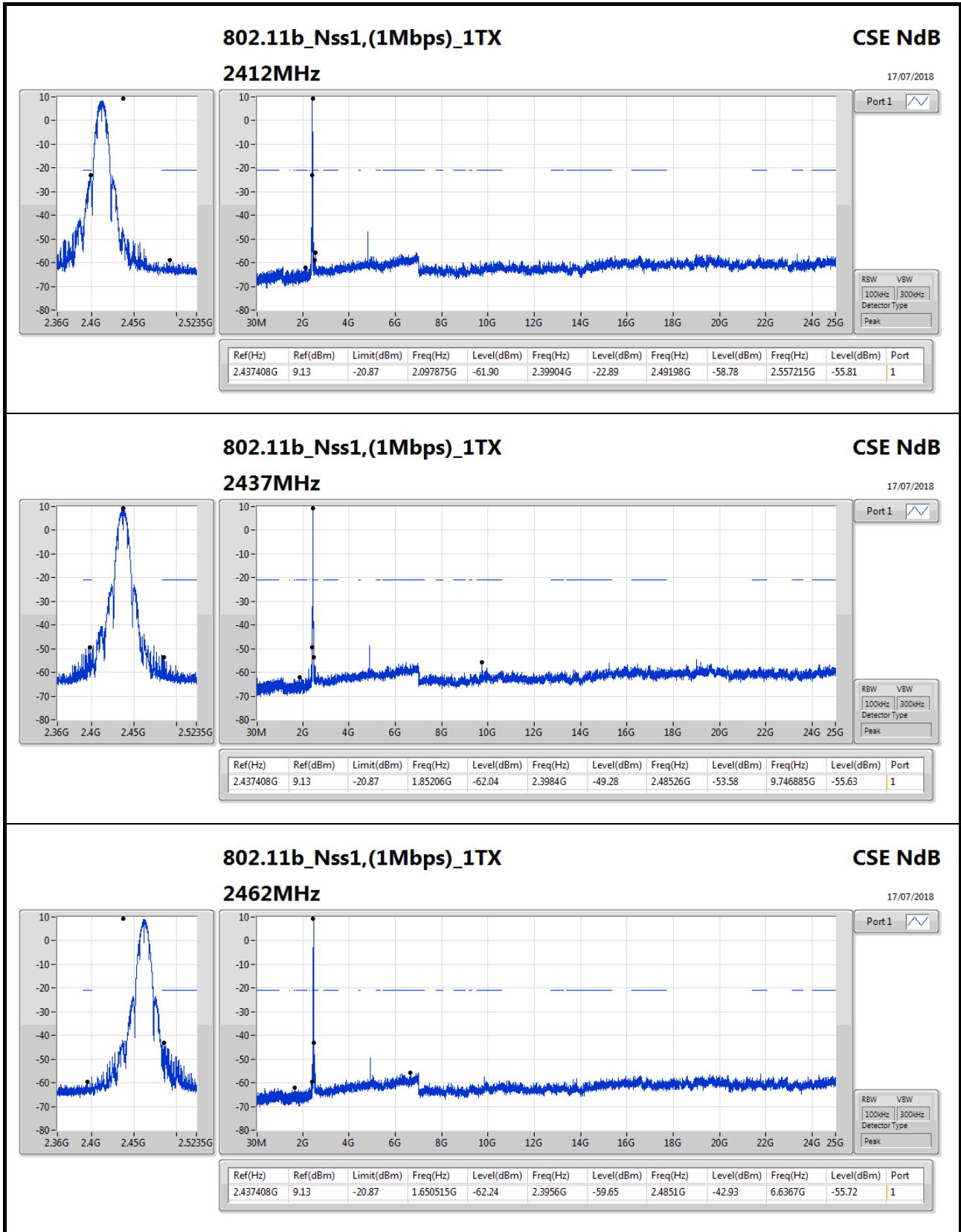


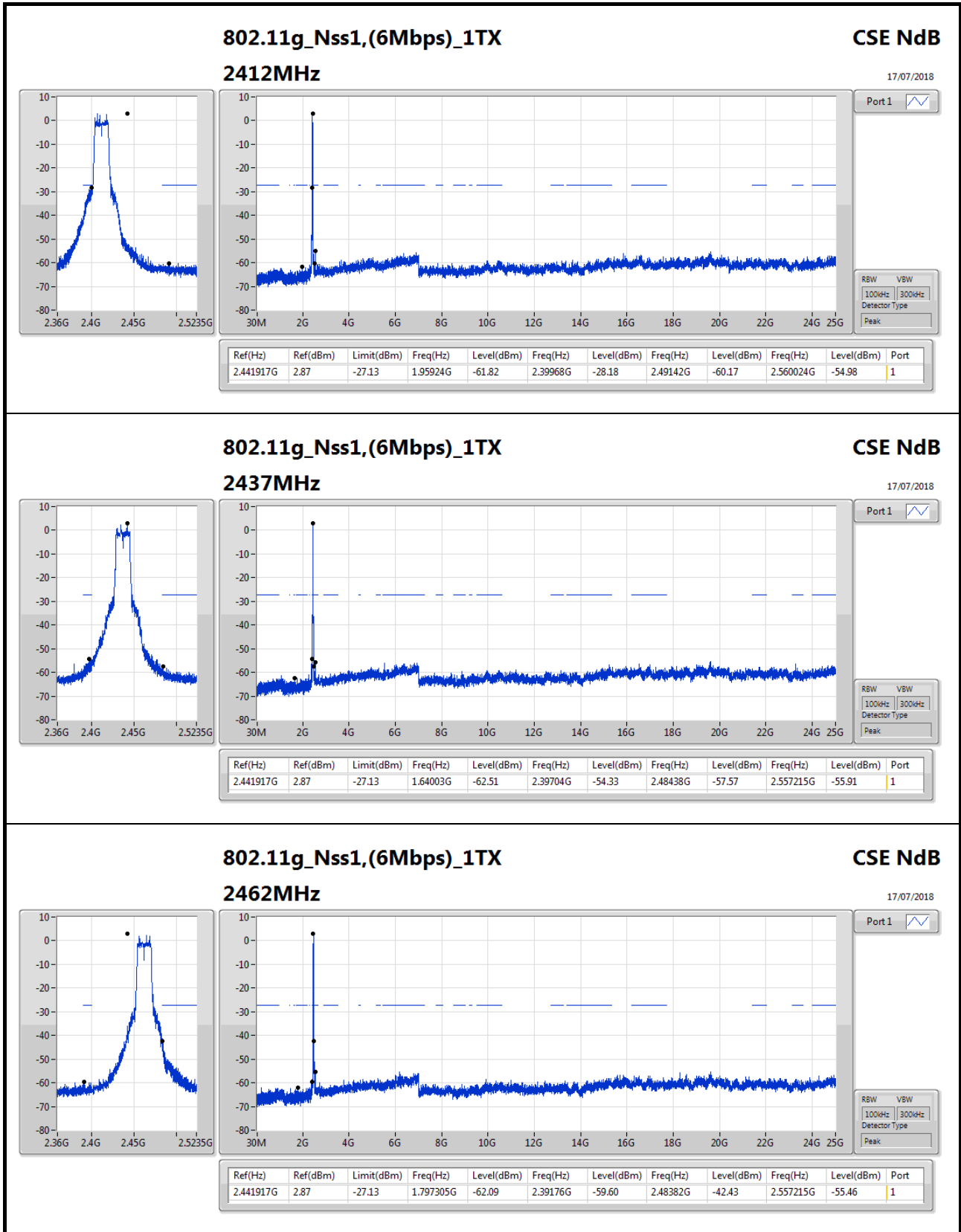
Summary

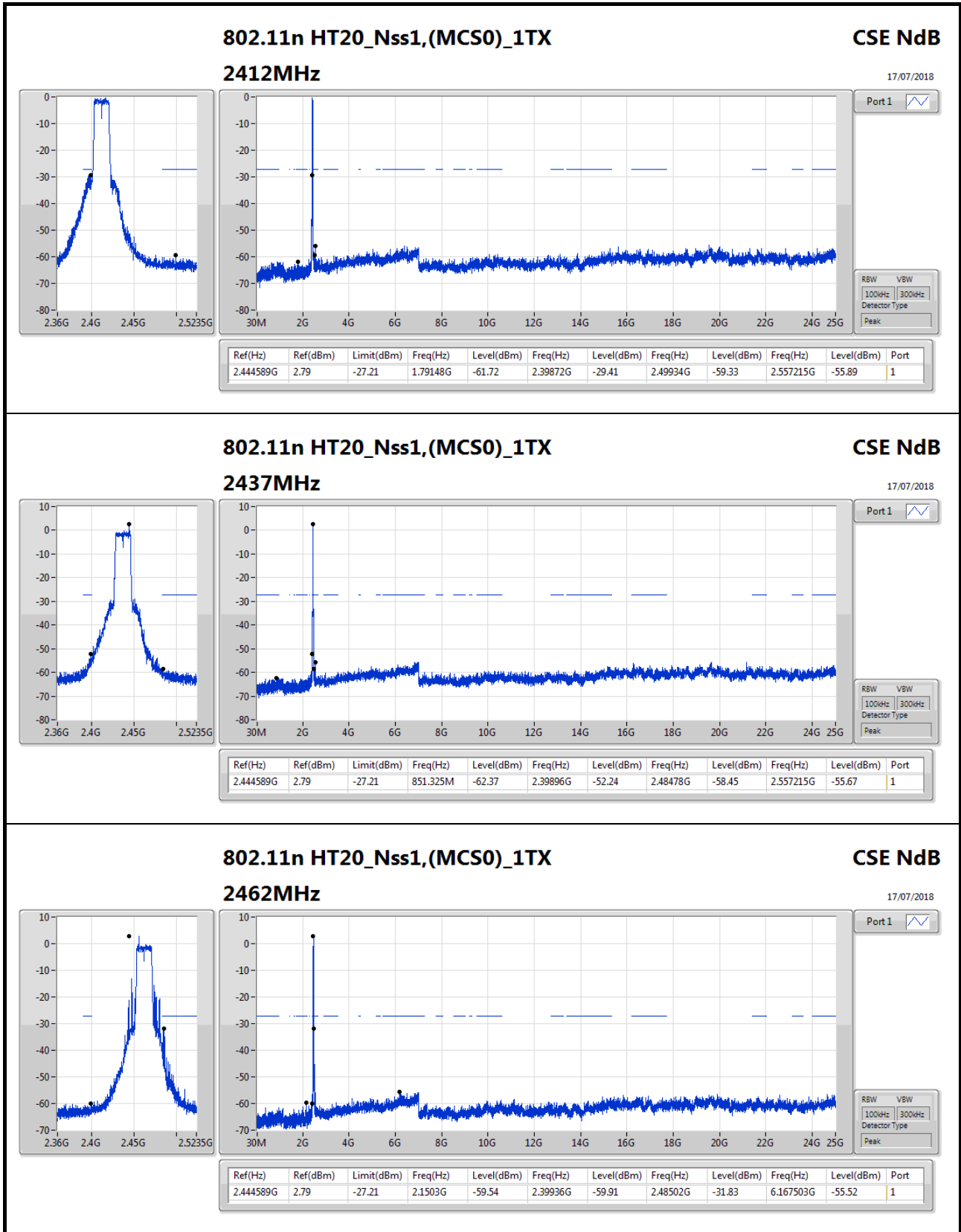
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.437408G	9.13	-20.87	2.097875G	-61.90	2.39904G	-22.89	2.49198G	-58.78	2.557215G	-55.81	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.441917G	2.87	-27.13	1.95924G	-61.82	2.39968G	-28.18	2.49142G	-60.17	2.560024G	-54.98	1
802.11n HT20_Nss1,(MCSO)_1TX	Pass	2.444589G	2.79	-27.21	1.79148G	-61.72	2.39872G	-29.41	2.49934G	-59.33	2.557215G	-55.89	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)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.437408G	9.13	-20.87	2.097875G	-61.90	2.39904G	-22.89	2.49198G	-58.78	2.557215G	-55.81	1
2437MHz	Pass	2.437408G	9.13	-20.87	1.85206G	-62.04	2.3984G	-49.28	2.48526G	-53.58	9.746885G	-55.63	1
2462MHz	Pass	2.437408G	9.13	-20.87	1.650515G	-62.24	2.3956G	-59.65	2.4851G	-42.93	6.6367G	-55.72	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.441917G	2.87	-27.13	1.95924G	-61.82	2.39968G	-28.18	2.49142G	-60.17	2.560024G	-54.98	1
2437MHz	Pass	2.441917G	2.87	-27.13	1.64003G	-62.51	2.39704G	-54.33	2.48438G	-57.57	2.557215G	-55.91	1
2462MHz	Pass	2.441917G	2.87	-27.13	1.797305G	-62.09	2.39176G	-59.60	2.48382G	-42.43	2.557215G	-55.46	1
802.11n HT20_Nss1,(MCSO)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.444589G	2.79	-27.21	1.79148G	-61.72	2.39872G	-29.41	2.49934G	-59.33	2.557215G	-55.89	1
2437MHz	Pass	2.444589G	2.79	-27.21	851.325M	-62.37	2.39896G	-52.24	2.48478G	-58.45	2.557215G	-55.67	1
2462MHz	Pass	2.444589G	2.79	-27.21	2.1503G	-59.54	2.39936G	-59.91	2.48502G	-31.83	6.167503G	-55.52	1









RSE below 1GHz Result

Appendix F.1

RSE below 1GHz Result																																																																																																									
Operating Mode	2	Polarization	Horizontal																																																																																																						
Operating Function	Normal Link																																																																																																								
<p>The graph displays the RSE below 1GHz result. The y-axis represents Level (dBUV/m) from 0 to 100, and the x-axis represents Frequency (MHz) from 30 to 1000. A red line indicates the FCC CLASS-B limit, which is 40 dBUV/m from 30 MHz to 100 MHz, 45 dBUV/m from 100 MHz to 300 MHz, and 50 dBUV/m from 300 MHz to 1000 MHz. The blue line represents the measured emission level, which is generally below the limit. Six peaks are marked with red vertical lines and numbered 1 through 6. The peak levels are: 1 (30.00 MHz, 30.70 dBUV/m), 2 (91.11 MHz, 27.78 dBUV/m), 3 (267.65 MHz, 30.67 dBUV/m), 4 (604.24 MHz, 30.45 dBUV/m), 5 (818.61 MHz, 31.85 dBUV/m), and 6 (870.99 MHz, 32.84 dBUV/m). All peaks are below the applicable limit.</p>																																																																																																									
<table border="1"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Over</th> <th>Read</th> <th>CableAntenna</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> <th>Pol/Phase</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>dB/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30.00</td> <td>30.70</td> <td>40.00</td> <td>-9.30</td> <td>38.35</td> <td>0.67</td> <td>24.29</td> <td>32.61</td> <td>125</td> <td>98</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>2</td> <td>91.11</td> <td>27.78</td> <td>43.50</td> <td>-15.72</td> <td>44.05</td> <td>1.32</td> <td>14.97</td> <td>32.56</td> <td>200</td> <td>211</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>3</td> <td>267.65</td> <td>30.67</td> <td>46.00</td> <td>-15.33</td> <td>41.00</td> <td>2.76</td> <td>19.36</td> <td>32.45</td> <td>300</td> <td>348</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>4</td> <td>604.24</td> <td>30.45</td> <td>46.00</td> <td>-15.55</td> <td>33.76</td> <td>4.70</td> <td>24.52</td> <td>32.53</td> <td>300</td> <td>301</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>5</td> <td>818.61</td> <td>31.85</td> <td>46.00</td> <td>-14.15</td> <td>32.50</td> <td>5.72</td> <td>25.87</td> <td>32.24</td> <td>150</td> <td>24</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> <tr> <td>6</td> <td>870.99</td> <td>32.84</td> <td>46.00</td> <td>-13.16</td> <td>32.39</td> <td>6.00</td> <td>26.42</td> <td>31.97</td> <td>125</td> <td>293</td> <td>Peak</td> <td>HORIZONTAL</td> </tr> </tbody> </table>					Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	30.00	30.70	40.00	-9.30	38.35	0.67	24.29	32.61	125	98	Peak	HORIZONTAL	2	91.11	27.78	43.50	-15.72	44.05	1.32	14.97	32.56	200	211	Peak	HORIZONTAL	3	267.65	30.67	46.00	-15.33	41.00	2.76	19.36	32.45	300	348	Peak	HORIZONTAL	4	604.24	30.45	46.00	-15.55	33.76	4.70	24.52	32.53	300	301	Peak	HORIZONTAL	5	818.61	31.85	46.00	-14.15	32.50	5.72	25.87	32.24	150	24	Peak	HORIZONTAL	6	870.99	32.84	46.00	-13.16	32.39	6.00	26.42	31.97	125	293	Peak	HORIZONTAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																														
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg																																																																																															
1	30.00	30.70	40.00	-9.30	38.35	0.67	24.29	32.61	125	98	Peak	HORIZONTAL																																																																																													
2	91.11	27.78	43.50	-15.72	44.05	1.32	14.97	32.56	200	211	Peak	HORIZONTAL																																																																																													
3	267.65	30.67	46.00	-15.33	41.00	2.76	19.36	32.45	300	348	Peak	HORIZONTAL																																																																																													
4	604.24	30.45	46.00	-15.55	33.76	4.70	24.52	32.53	300	301	Peak	HORIZONTAL																																																																																													
5	818.61	31.85	46.00	-14.15	32.50	5.72	25.87	32.24	150	24	Peak	HORIZONTAL																																																																																													
6	870.99	32.84	46.00	-13.16	32.39	6.00	26.42	31.97	125	293	Peak	HORIZONTAL																																																																																													
<p>Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</p>																																																																																																									



RSE below 1GHz Result

Appendix F.1

RSE below 1GHz Result																																																																																																									
Operating Mode	2	Polarization	Vertical																																																																																																						
Operating Function	Normal Link																																																																																																								
<p style="text-align: right;">Date: 2018-06-27 Time: 20:59:54</p>																																																																																																									
<table border="1"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Limit Line</th> <th>Over Limit</th> <th>Read Level</th> <th>CableAntenna Loss</th> <th>Preamp Factor</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> <th>Pol/Phase</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>dB/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30.00</td> <td>31.42</td> <td>40.00</td> <td>-8.58</td> <td>39.07</td> <td>0.67</td> <td>24.29</td> <td>32.61</td> <td>100</td> <td>200</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>2</td> <td>58.13</td> <td>35.82</td> <td>40.00</td> <td>-4.18</td> <td>54.82</td> <td>1.12</td> <td>12.46</td> <td>32.58</td> <td>100</td> <td>220</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>3</td> <td>88.20</td> <td>33.76</td> <td>43.50</td> <td>-9.74</td> <td>50.66</td> <td>1.27</td> <td>14.39</td> <td>32.56</td> <td>100</td> <td>234</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>4</td> <td>91.11</td> <td>33.47</td> <td>43.50</td> <td>-10.03</td> <td>49.74</td> <td>1.32</td> <td>14.97</td> <td>32.56</td> <td>100</td> <td>78</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>5</td> <td>112.45</td> <td>31.14</td> <td>43.50</td> <td>-12.36</td> <td>44.31</td> <td>1.62</td> <td>17.75</td> <td>32.54</td> <td>100</td> <td>38</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>6</td> <td>264.74</td> <td>30.11</td> <td>46.00</td> <td>-15.89</td> <td>40.31</td> <td>2.74</td> <td>19.51</td> <td>32.45</td> <td>200</td> <td>50</td> <td>Peak</td> <td>VERTICAL</td> </tr> </tbody> </table>					Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	30.00	31.42	40.00	-8.58	39.07	0.67	24.29	32.61	100	200	Peak	VERTICAL	2	58.13	35.82	40.00	-4.18	54.82	1.12	12.46	32.58	100	220	Peak	VERTICAL	3	88.20	33.76	43.50	-9.74	50.66	1.27	14.39	32.56	100	234	Peak	VERTICAL	4	91.11	33.47	43.50	-10.03	49.74	1.32	14.97	32.56	100	78	Peak	VERTICAL	5	112.45	31.14	43.50	-12.36	44.31	1.62	17.75	32.54	100	38	Peak	VERTICAL	6	264.74	30.11	46.00	-15.89	40.31	2.74	19.51	32.45	200	50	Peak	VERTICAL
	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase																																																																																														
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg																																																																																															
1	30.00	31.42	40.00	-8.58	39.07	0.67	24.29	32.61	100	200	Peak	VERTICAL																																																																																													
2	58.13	35.82	40.00	-4.18	54.82	1.12	12.46	32.58	100	220	Peak	VERTICAL																																																																																													
3	88.20	33.76	43.50	-9.74	50.66	1.27	14.39	32.56	100	234	Peak	VERTICAL																																																																																													
4	91.11	33.47	43.50	-10.03	49.74	1.32	14.97	32.56	100	78	Peak	VERTICAL																																																																																													
5	112.45	31.14	43.50	-12.36	44.31	1.62	17.75	32.54	100	38	Peak	VERTICAL																																																																																													
6	264.74	30.11	46.00	-15.89	40.31	2.74	19.51	32.45	200	50	Peak	VERTICAL																																																																																													
<p>Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</p>																																																																																																									



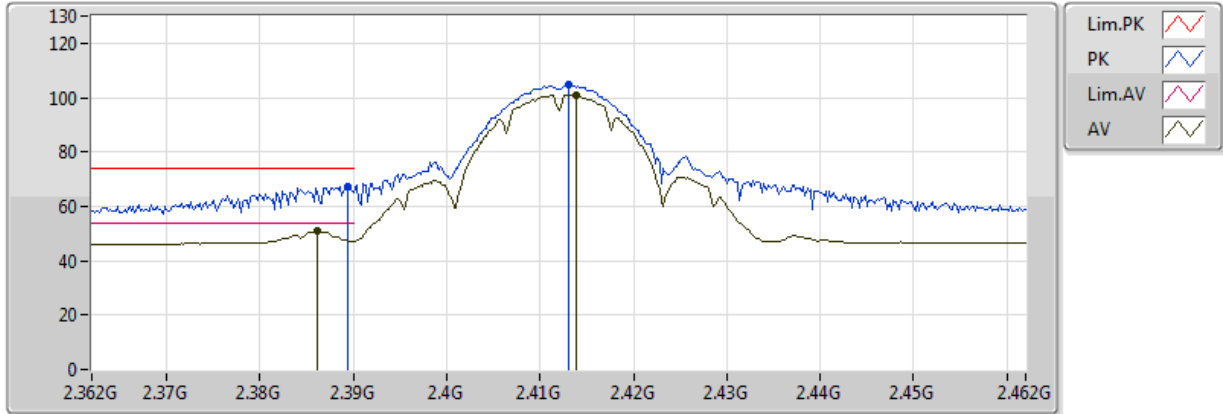
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	2.3862G	53.86	54.00	-0.14	31.49	3	Horizontal	187	2.03	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

17/07/2018



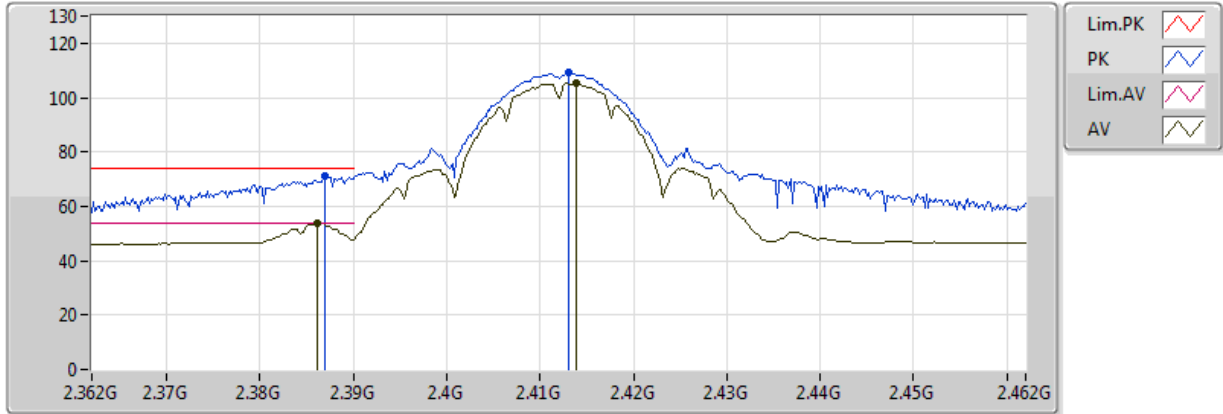
EUT Y_1TX
Setting : 8
02-R-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	67.29	74.00	-6.71	31.50	3	Vertical	182	1.22	-
AV	2.3862G	50.76	54.00	-3.24	31.49	3	Vertical	182	1.22	-
PK	2.413G	104.71	Inf	-Inf	31.56	3	Vertical	182	1.22	-
AV	2.4138G	100.80	Inf	-Inf	31.56	3	Vertical	182	1.22	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

17/07/2018



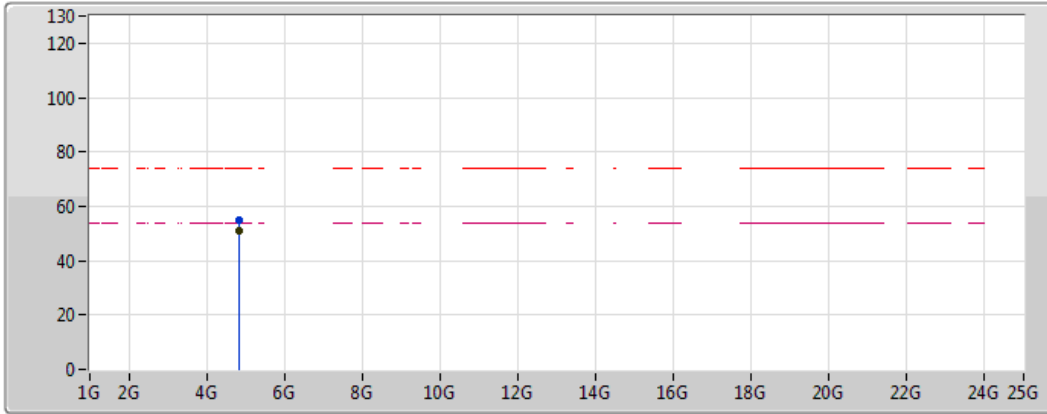
EUT Y_1TX
Setting : 8
02-R-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.387G	71.15	74.00	-2.85	31.49	3	Horizontal	187	2.03	-
AV	2.3862G	53.86	54.00	-0.14	31.49	3	Horizontal	187	2.03	-
PK	2.413G	109.05	Inf	-Inf	31.56	3	Horizontal	187	2.03	-
AV	2.4138G	105.09	Inf	-Inf	31.56	3	Horizontal	187	2.03	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

17/07/2018



Legend for the spectrum plot:

- Lim.PK: Red dashed line
- PK: Blue line with a peak marker
- Lim.AV: Magenta dashed line
- AV: Black line with a peak marker

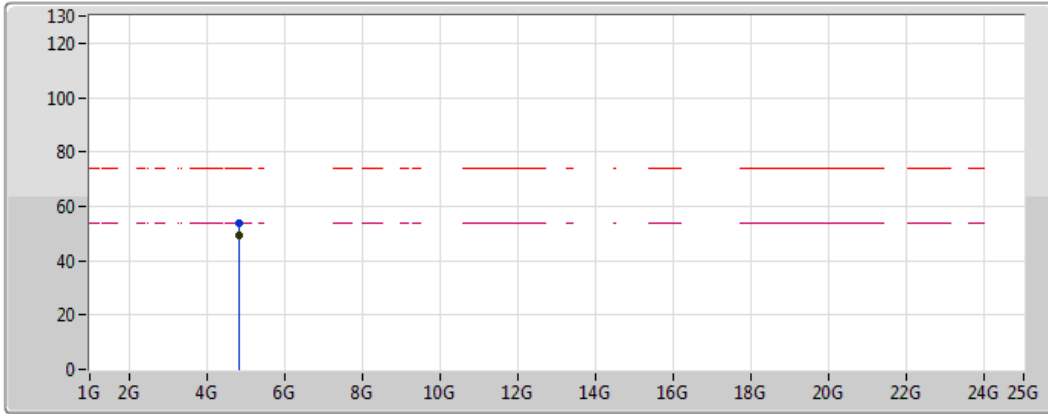
EUT Y_1TX
 Setting : 8
 02-R-4
 FSU





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82394G	54.93	74.00	-19.07	7.90	3	Vertical	323	2.04	-
AV	4.824G	50.85	54.00	-3.15	7.90	3	Vertical	323	2.04	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

17/07/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

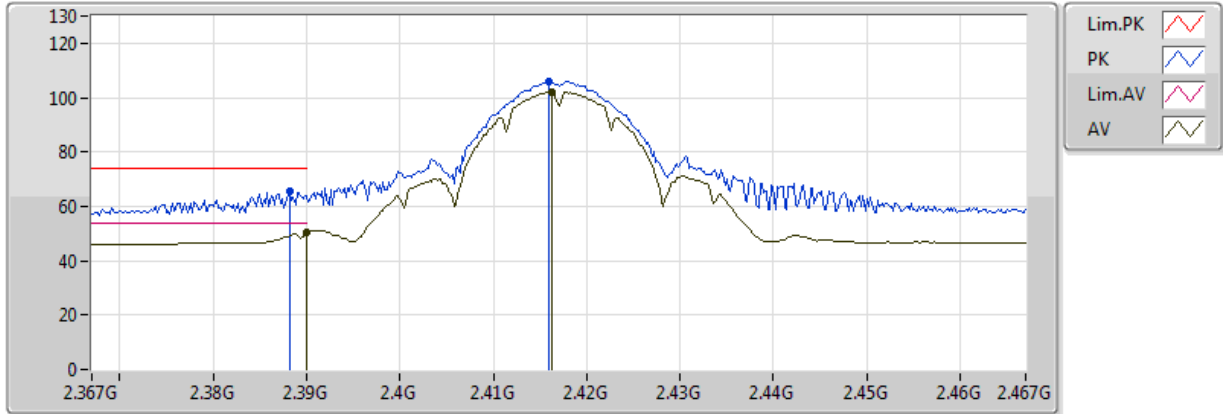
EUT Y_1TX
 Setting : 8
 02-R-4
 FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82398G	53.52	74.00	-20.48	7.90	3	Horizontal	80	2.30	-
AV	4.824G	49.19	54.00	-4.81	7.90	3	Horizontal	80	2.30	-

802.11b_Nss1,(1Mbps)_1TX

2417MHz_TX

17/07/2018



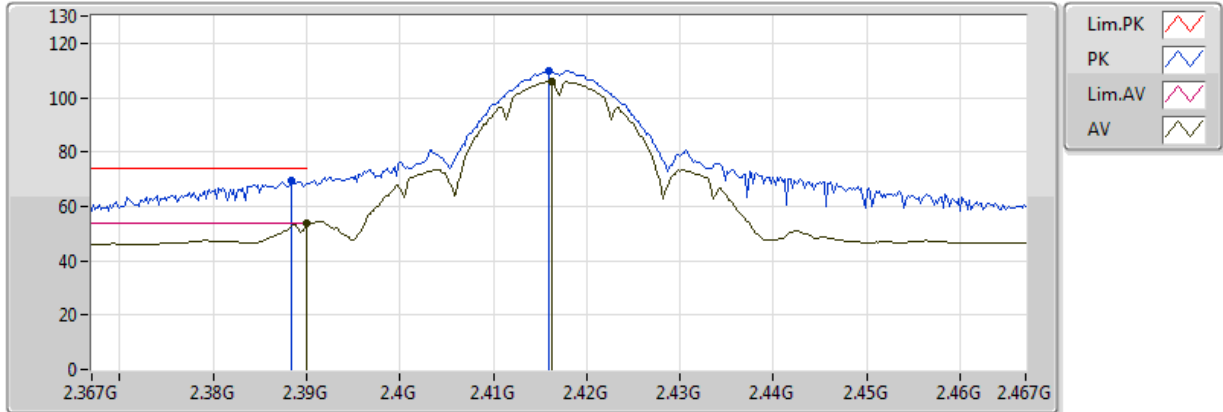
EUT Y_1TX
Setting : 7
02-R-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3882G	65.32	74.00	-8.68	31.50	3	Vertical	116	1.12	-
AV	2.389998G	50.44	54.00	-3.56	31.50	3	Vertical	116	1.12	-
PK	2.416G	105.90	Inf	-Inf	31.57	3	Vertical	116	1.12	-
AV	2.4162G	102.22	Inf	-Inf	31.57	3	Vertical	116	1.12	-

802.11b_Nss1,(1Mbps)_1TX

2417MHz_TX

17/07/2018



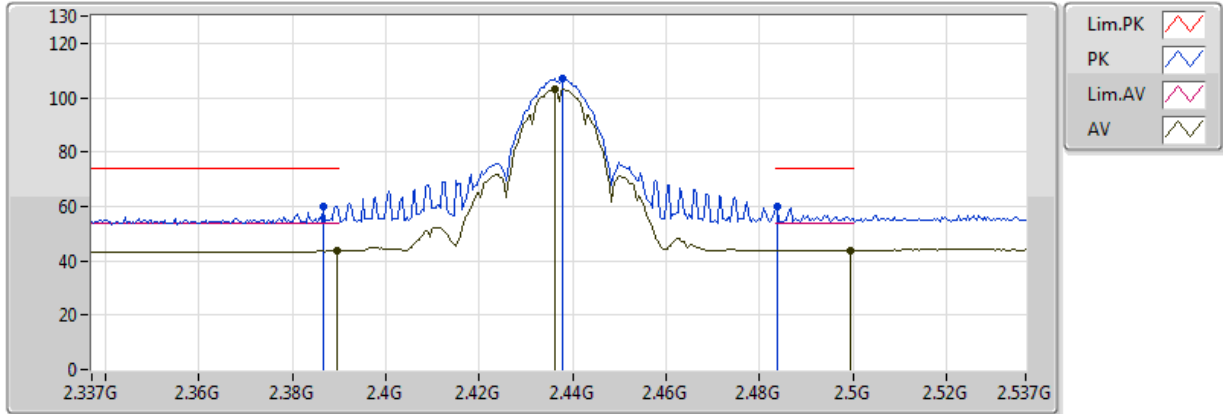
EUT Y_1TX
Setting : 7
02-R-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3884G	69.23	74.00	-4.77	31.50	3	Horizontal	187	1.85	-
AV	2.38998G	53.71	54.00	-0.29	31.50	3	Horizontal	187	1.85	-
PK	2.416G	109.76	Inf	-Inf	31.57	3	Horizontal	187	1.85	-
AV	2.4162G	106.07	Inf	-Inf	31.57	3	Horizontal	187	1.85	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

17/07/2018



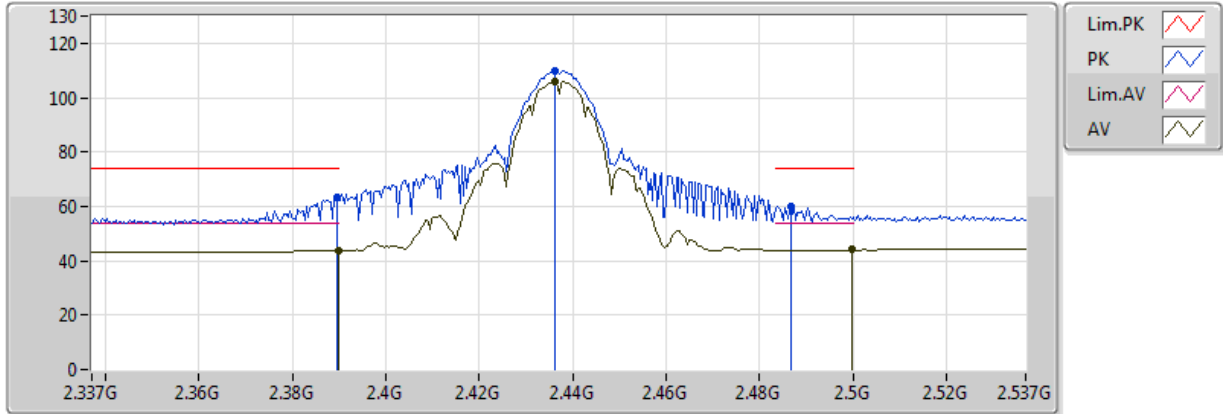
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3866G	59.89	74.00	-14.11	30.97	3	Vertical	158	1.65	-
AV	2.3894G	43.54	54.00	-10.46	30.97	3	Vertical	158	1.65	-
PK	2.4378G	106.99	Inf	-Inf	31.04	3	Vertical	158	1.65	-
AV	2.4362G	103.06	Inf	-Inf	31.03	3	Vertical	158	1.65	-
PK	2.4838G	59.78	74.00	-14.22	31.17	3	Vertical	158	1.65	-
AV	2.4994G	43.88	54.00	-10.12	31.22	3	Vertical	158	1.65	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

17/07/2018



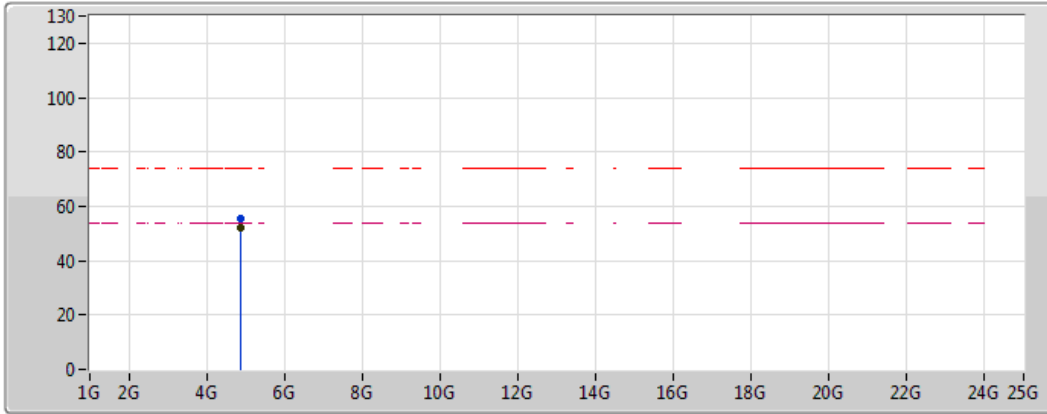
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3894G	63.36	74.00	-10.64	30.97	3	Horizontal	161	2.63	-
AV	2.3898G	43.91	54.00	-10.09	30.97	3	Horizontal	161	2.63	-
PK	2.4362G	109.91	Inf	-Inf	31.03	3	Horizontal	161	2.63	-
AV	2.4362G	106.10	Inf	-Inf	31.03	3	Horizontal	161	2.63	-
PK	2.4866G	60.20	74.00	-13.80	31.18	3	Horizontal	161	2.63	-
AV	2.4998G	44.00	54.00	-10.00	31.22	3	Horizontal	161	2.63	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

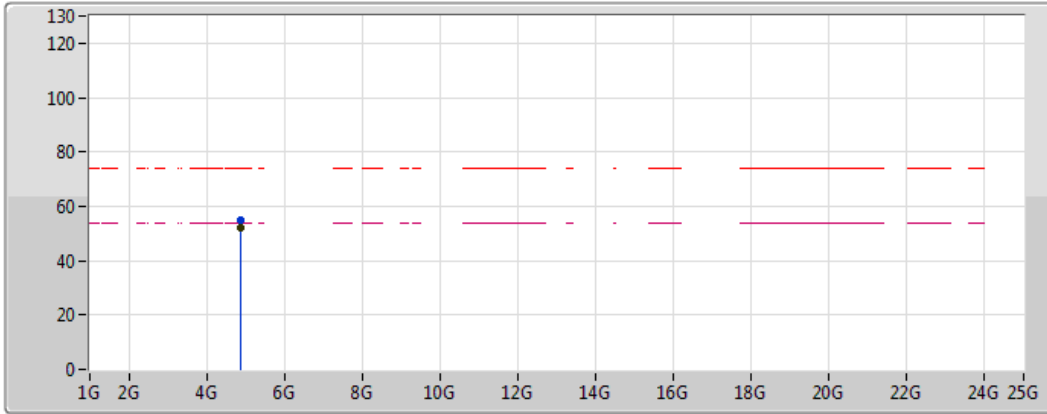
EUT Y_1TX
 Setting : 7
 01-C-4
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87404G	55.26	74.00	-18.74	4.20	3	Vertical	250	2.13	-
AV	4.874G	52.30	54.00	-1.70	4.20	3	Vertical	250	2.13	-





802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

17/07/2018



Legend:

- Lim.PK 
- PK 
- Lim.AV 
- AV 

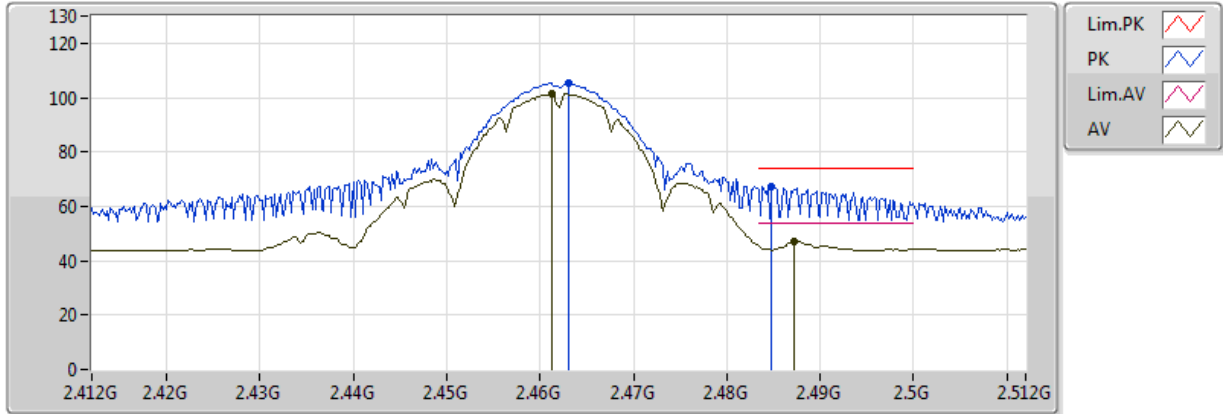
EUT Y_1TX
 Setting : 7
 01-C-4
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87397G	54.93	74.00	-19.07	4.20	3	Horizontal	160	1.93	-
AV	4.87402G	51.97	54.00	-2.03	4.20	3	Horizontal	160	1.93	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

17/07/2018



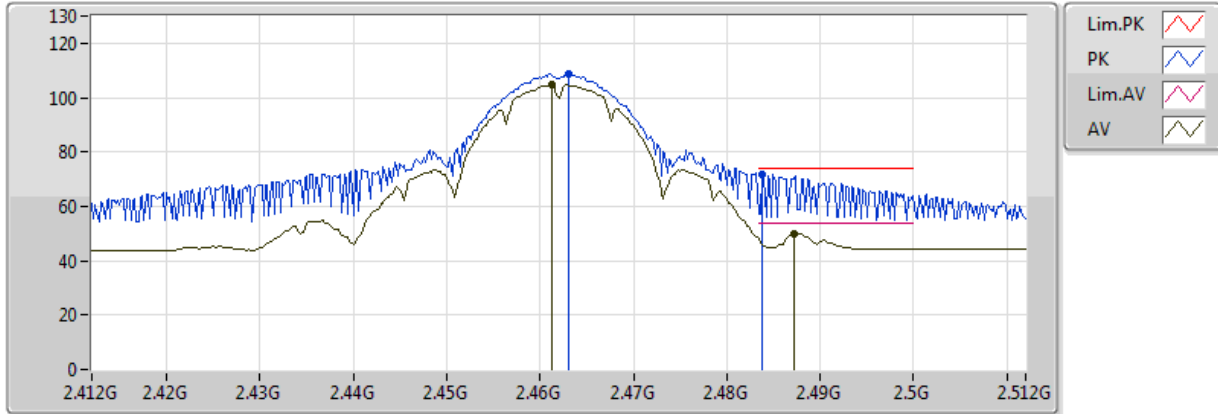
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.463G	105.30	Inf	-Inf	31.11	3	Vertical	203	1.37	-
AV	2.4612G	101.41	Inf	-Inf	31.11	3	Vertical	203	1.37	-
PK	2.4848G	67.45	74.00	-6.55	31.17	3	Vertical	203	1.37	-
AV	2.4872G	46.84	54.00	-7.16	31.18	3	Vertical	203	1.37	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

17/07/2018



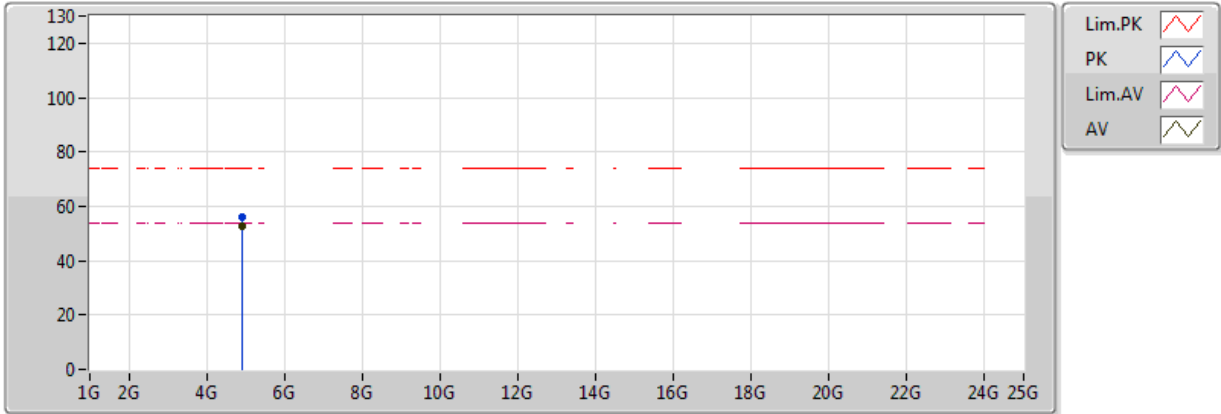
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.463G	108.66	Inf	-Inf	31.11	3	Horizontal	160	2.60	-
AV	2.4612G	104.64	Inf	-Inf	31.11	3	Horizontal	160	2.60	-
PK	2.4838G	71.72	74.00	-2.28	31.17	3	Horizontal	160	2.60	-
AV	2.4872G	49.93	54.00	-4.07	31.18	3	Horizontal	160	2.60	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

17/07/2018



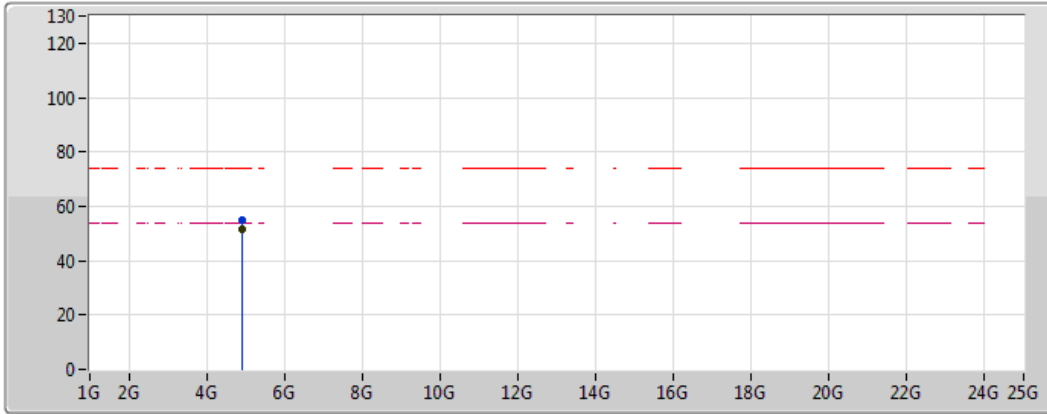
EUT Y_1TX
 Setting : 7
 01-C-4
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92404G	56.12	74.00	-17.88	4.40	3	Vertical	33	2.25	-
AV	4.924G	52.84	54.00	-1.16	4.40	3	Vertical	33	2.25	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

17/07/2018



Legend for the spectrum plot:

- Lim.PK: Red dashed line with a peak icon
- PK: Blue solid line with a peak icon
- Lim.AV: Magenta dashed line with a peak icon
- AV: Black solid line with a peak icon

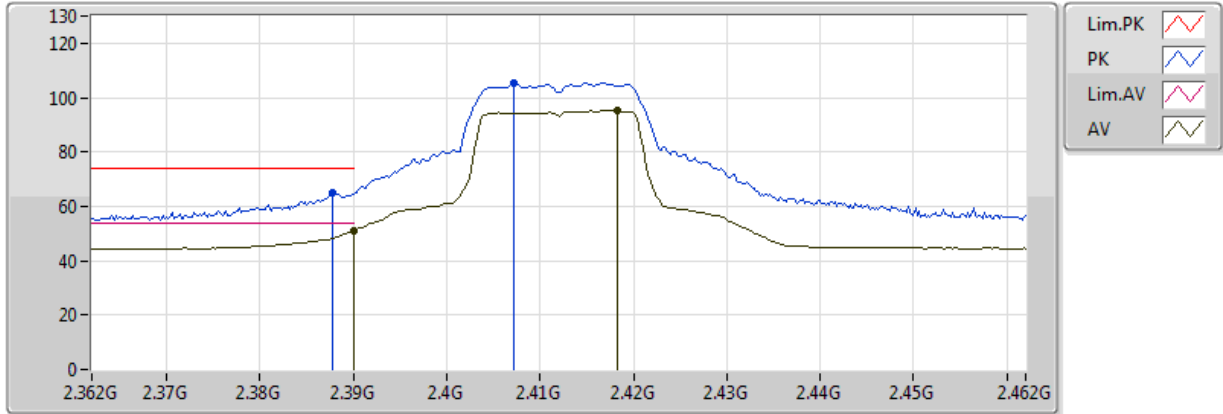
EUT Y_1TX
 Setting : 7
 01-C-4
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92399G	54.94	74.00	-19.06	4.40	3	Horizontal	327	1.18	-
AV	4.924G	51.34	54.00	-2.66	4.40	3	Horizontal	327	1.18	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

17/07/2018



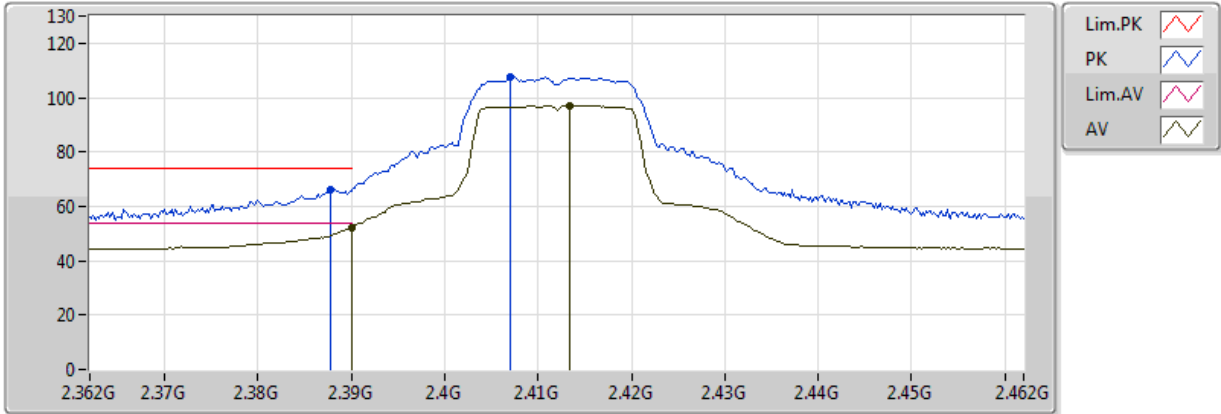
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3878G	65.15	74.00	-8.85	33.16	3	Vertical	195	1.23	-
AV	2.38998G	50.95	54.00	-3.05	33.17	3	Vertical	195	1.23	-
PK	2.4072G	105.56	Inf	-Inf	33.17	3	Vertical	195	1.23	-
AV	2.4182G	95.22	Inf	-Inf	33.17	3	Vertical	195	1.23	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

17/07/2018



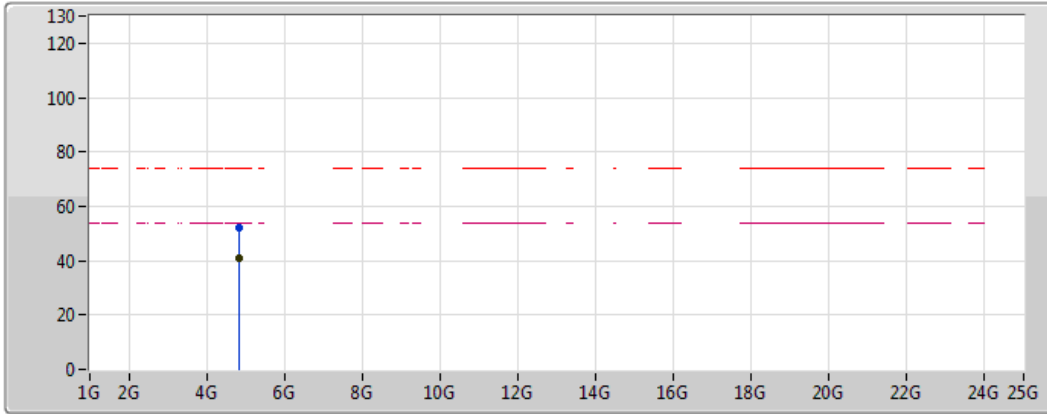
EUT Y_1TX
Setting : 7
04-E-2
FSP





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3878G	66.38	74.00	-7.62	33.16	3	Horizontal	144	2.49	-
AV	2.38998G	52.27	54.00	-1.73	33.17	3	Horizontal	144	2.49	-
PK	2.407G	107.82	Inf	-Inf	33.17	3	Horizontal	144	2.49	-
AV	2.4134G	97.12	Inf	-Inf	33.17	3	Horizontal	144	2.49	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

17/07/2018



Lim.PK	
PK	
Lim.AV	
AV	

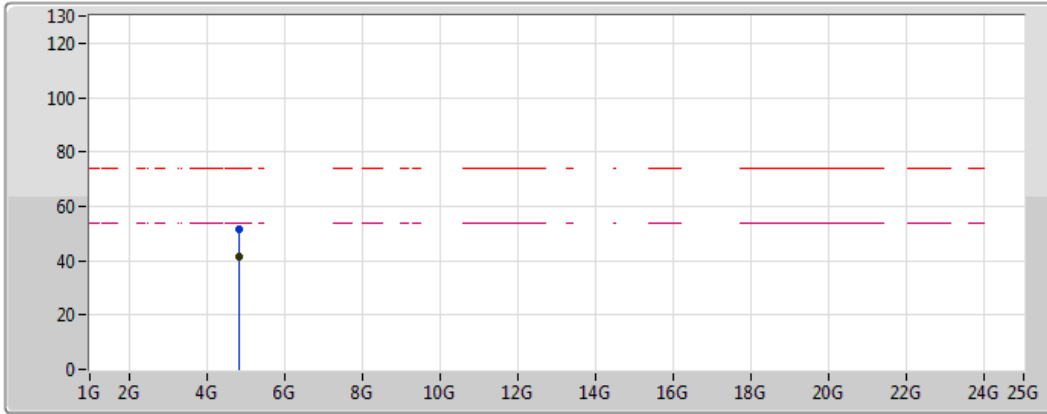
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82412G	51.90	74.00	-22.10	6.87	3	Vertical	110	2.13	-
AV	4.823996G	40.92	54.00	-13.08	6.87	3	Vertical	110	2.13	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

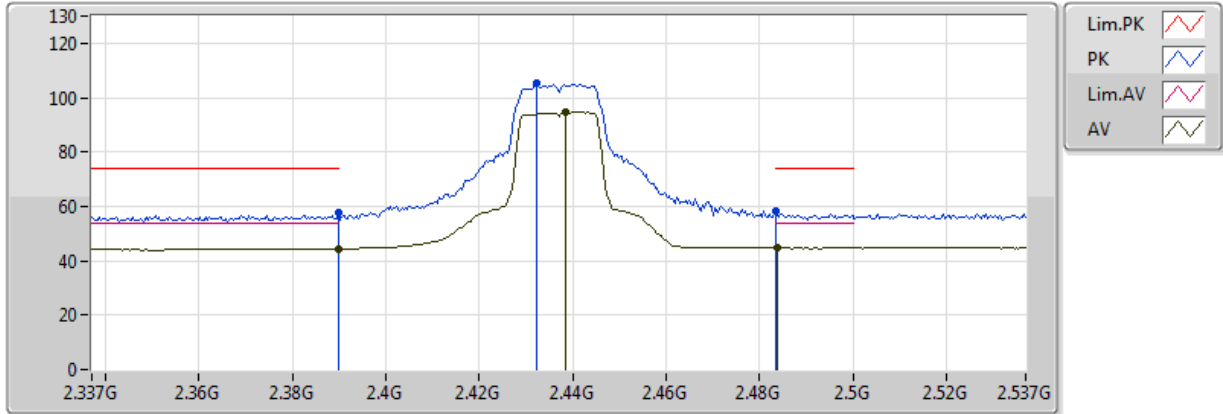
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82398G	51.37	74.00	-22.63	6.87	3	Horizontal	198	1.38	-
AV	4.82401G	41.42	54.00	-12.58	6.87	3	Horizontal	198	1.38	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

17/07/2018



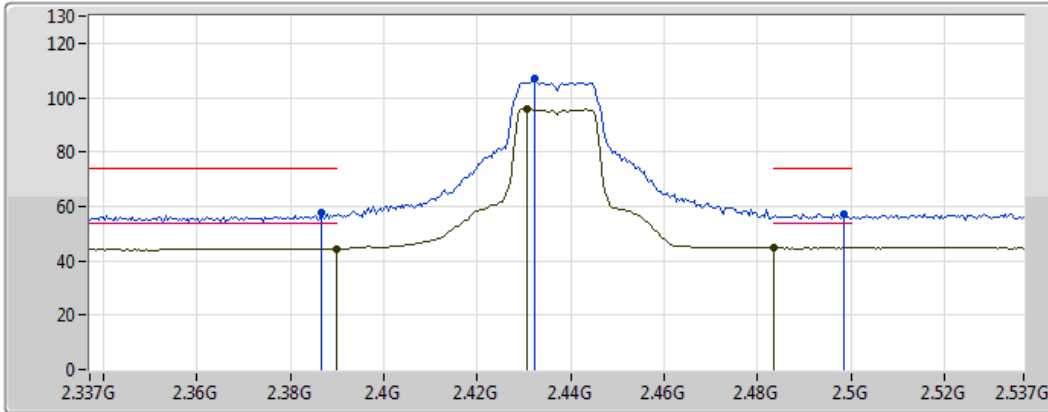
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3898G	57.57	74.00	-16.43	33.17	3	Vertical	195	1.38	-
AV	2.3898G	44.46	54.00	-9.54	33.17	3	Vertical	195	1.38	-
PK	2.4322G	105.19	Inf	-Inf	33.18	3	Vertical	195	1.38	-
AV	2.4386G	94.57	Inf	-Inf	33.18	3	Vertical	195	1.38	-
PK	2.483502G	58.02	74.00	-15.98	33.18	3	Vertical	195	1.38	-
AV	2.4838G	44.66	54.00	-9.34	33.18	3	Vertical	195	1.38	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

17/07/2018



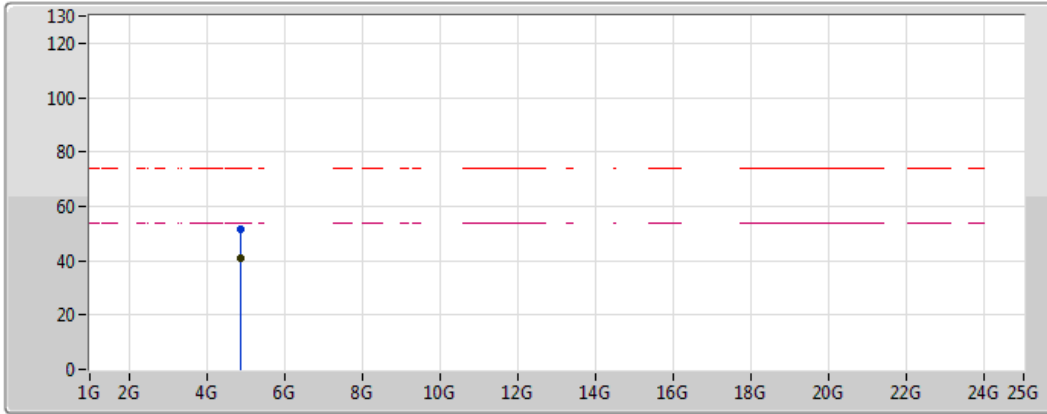
EUT Y_1TX
Setting : 7
04-E-2
FSP





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3866G	57.89	74.00	-16.11	33.16	3	Horizontal	148	2.44	-
AV	2.3898G	44.45	54.00	-9.55	33.17	3	Horizontal	148	2.44	-
PK	2.4322G	106.87	Inf	-Inf	33.18	3	Horizontal	148	2.44	-
AV	2.4306G	95.89	Inf	-Inf	33.18	3	Horizontal	148	2.44	-
PK	2.4986G	57.17	74.00	-16.83	33.19	3	Horizontal	148	2.44	-
AV	2.483502G	44.66	54.00	-9.34	33.18	3	Horizontal	148	2.44	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

17/07/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

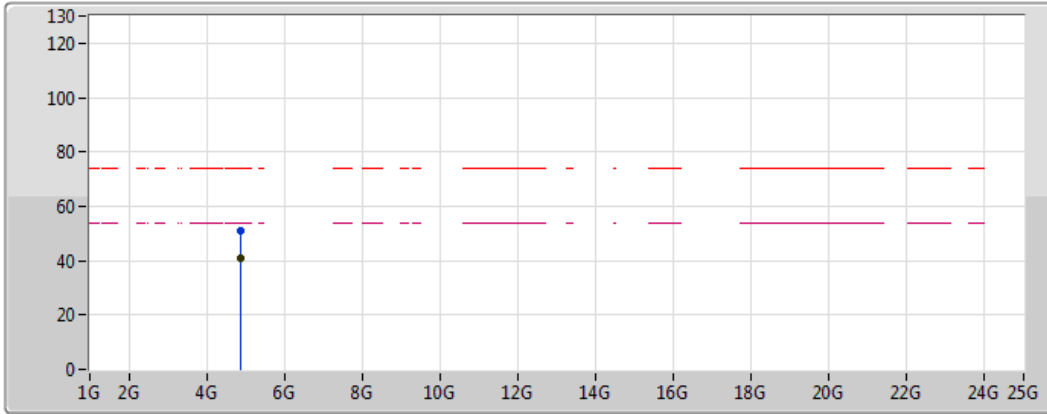
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87399G	51.81	74.00	-22.19	6.99	3	Vertical	204	1.31	-
AV	4.87401G	40.70	54.00	-13.30	6.99	3	Vertical	204	1.31	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

17/07/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

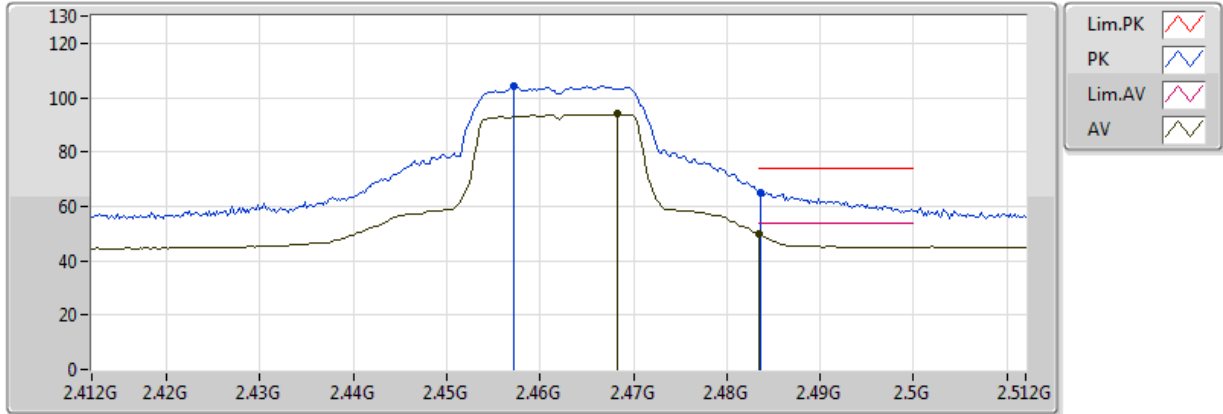
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87413G	51.07	74.00	-22.93	6.99	3	Horizontal	203	1.33	-
AV	4.87402G	40.84	54.00	-13.16	6.99	3	Horizontal	203	1.33	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

17/07/2018



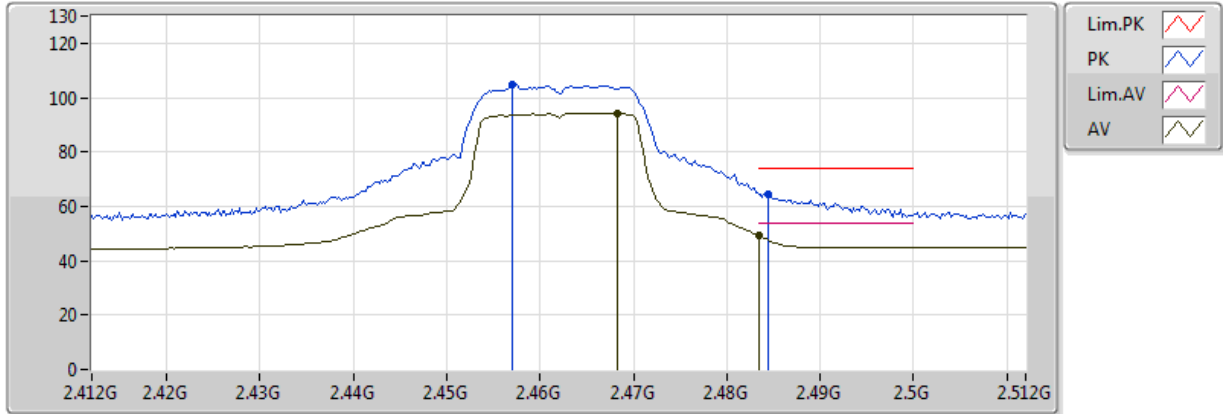
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4572G	104.13	Inf	-Inf	33.18	3	Vertical	196	1.16	-
AV	2.4682G	93.96	Inf	-Inf	33.18	3	Vertical	196	1.16	-
PK	2.4836G	64.86	74.00	-9.14	33.18	3	Vertical	196	1.16	-
AV	2.483502G	49.85	54.00	-4.15	33.18	3	Vertical	196	1.16	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

17/07/2018



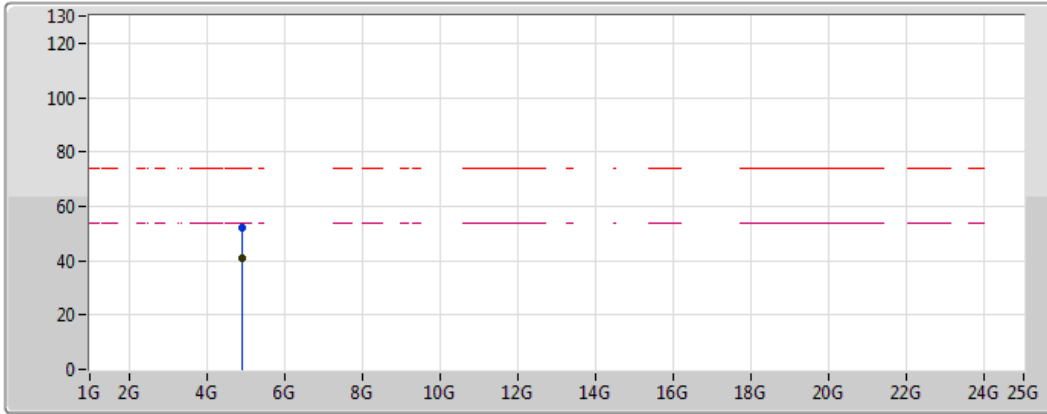
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.457G	104.77	Inf	-Inf	33.18	3	Horizontal	150	1.34	-
AV	2.4682G	94.17	Inf	-Inf	33.18	3	Horizontal	150	1.34	-
PK	2.4844G	64.61	74.00	-9.39	33.18	3	Horizontal	150	1.34	-
AV	2.483502G	49.09	54.00	-4.91	33.18	3	Horizontal	150	1.34	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

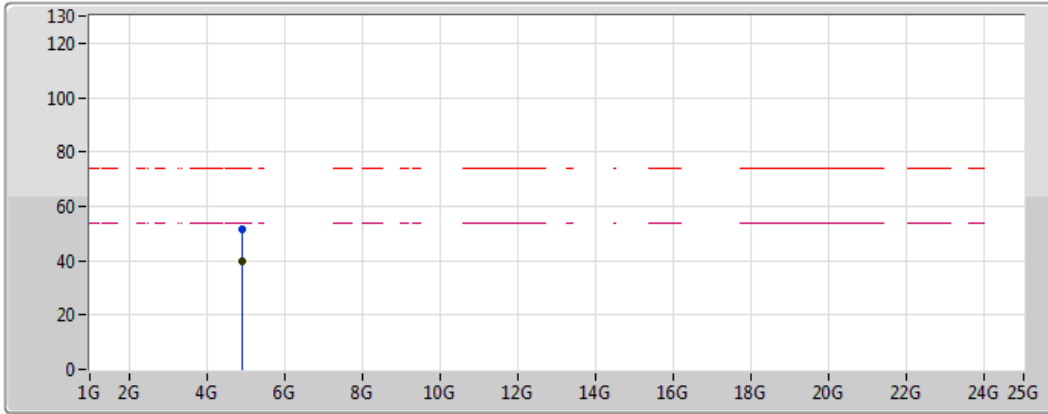
EUT Y_1TX
Setting : 7
04-E-2
FSP





Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.924184G	52.08	74.00	-21.92	7.11	3	Vertical	113	2.02	-
AV	4.923984G	41.13	54.00	-12.87	7.11	3	Vertical	113	2.02	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

17/07/2018



- Lim.PK 
- PK 
- Lim.AV 
- AV 

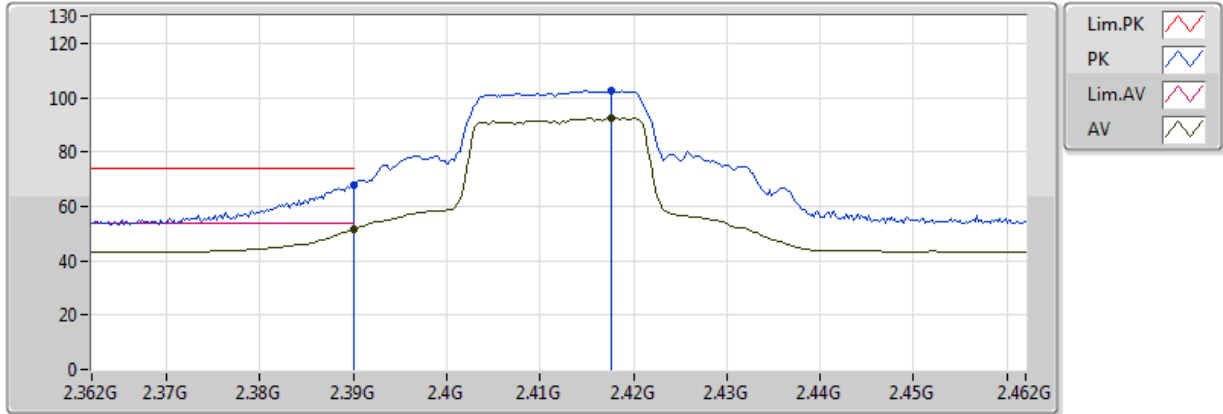
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92413G	51.45	74.00	-22.55	7.11	3	Horizontal	199	1.50	-
AV	4.923986G	39.75	54.00	-14.25	7.11	3	Horizontal	199	1.50	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

17/07/2018



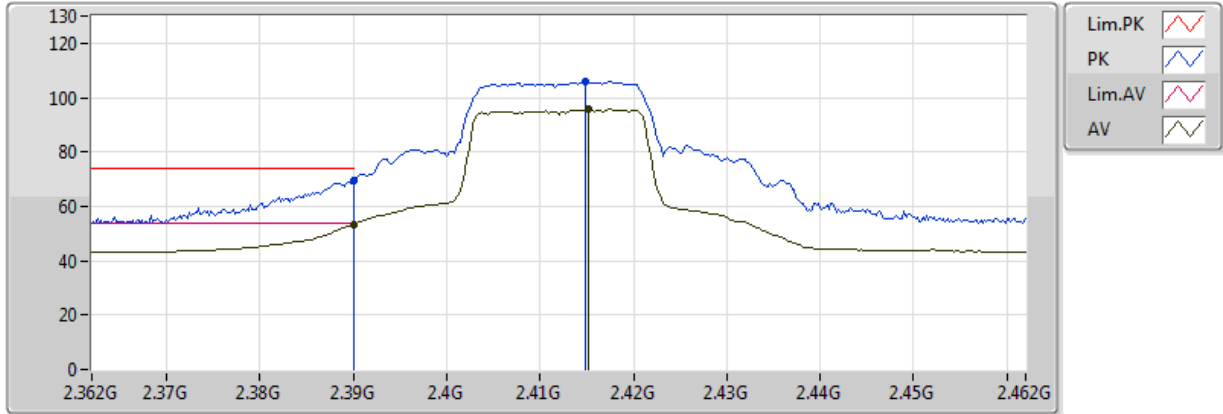
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	67.91	74.00	-6.09	30.97	3	Vertical	139	1.21	-
AV	2.389998G	51.53	54.00	-2.47	30.97	3	Vertical	139	1.21	-
PK	2.4176G	102.55	Inf	-Inf	30.98	3	Vertical	139	1.21	-
AV	2.4176G	92.38	Inf	-Inf	30.98	3	Vertical	139	1.21	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

17/07/2018



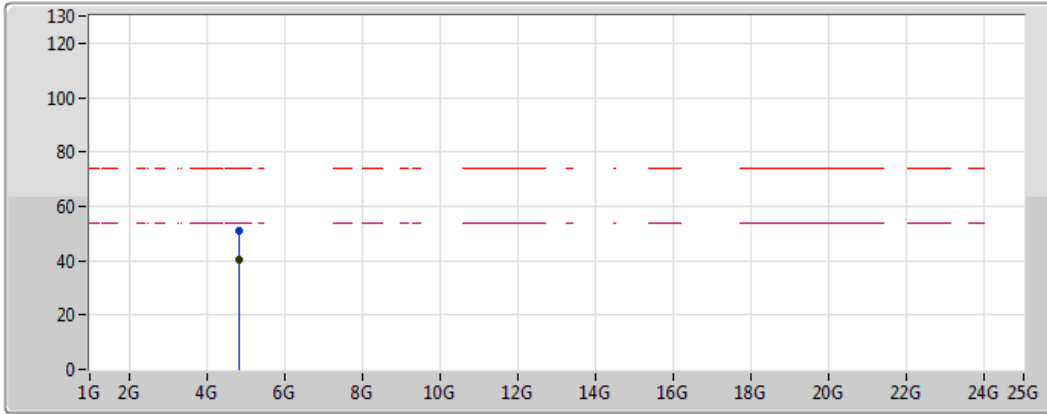
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.389998G	69.64	74.00	-4.36	30.97	3	Horizontal	166	2.49	-
AV	2.389998G	53.26	54.00	-0.74	30.97	3	Horizontal	166	2.49	-
PK	2.4148G	105.80	Inf	-Inf	30.97	3	Horizontal	166	2.49	-
AV	2.4152G	95.61	Inf	-Inf	30.97	3	Horizontal	166	2.49	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

17/07/2018



Legend for the plot:

- Lim.PK: Red dashed line with a peak icon
- PK: Blue solid line with a peak icon
- Lim.AV: Magenta dashed line with a peak icon
- AV: Black solid line with a peak icon

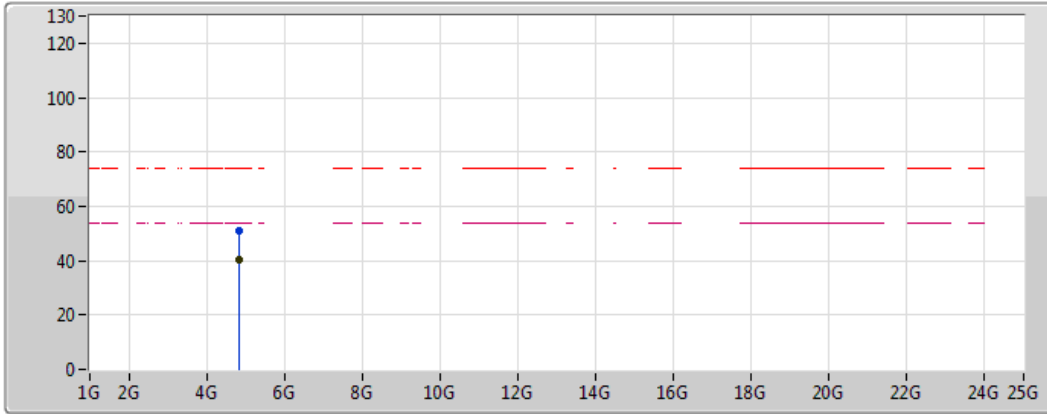
EUT Y_1TX
 Setting : 7
 01-C-4
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82386G	50.90	74.00	-23.10	6.87	3	Vertical	111	1.87	-
AV	4.82396G	40.19	54.00	-13.81	6.87	3	Vertical	111	1.87	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

17/07/2018



Legend for the plot:

- Lim.PK: Red dashed line with a red zigzag icon
- PK: Blue solid line with a blue zigzag icon
- Lim.AV: Magenta dashed line with a magenta zigzag icon
- AV: Black solid line with a black zigzag icon

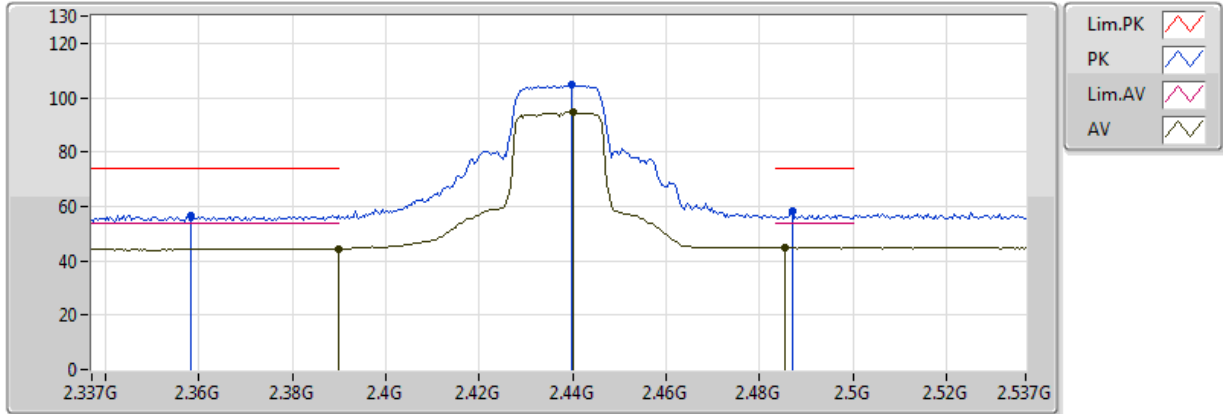
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.82405G	50.89	74.00	-23.11	6.87	3	Horizontal	200	1.48	-
AV	4.82399G	40.53	54.00	-13.47	6.87	3	Horizontal	200	1.48	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

17/07/2018



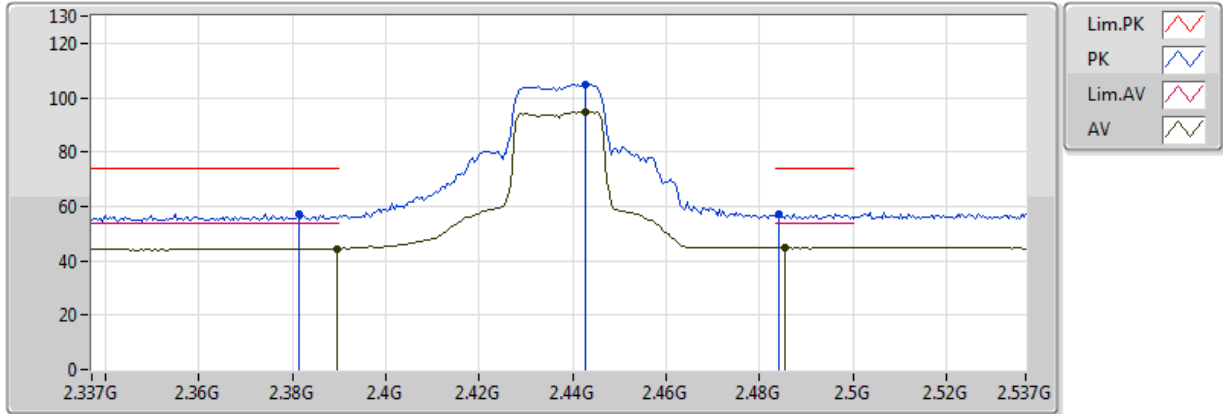
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3582G	56.66	74.00	-17.34	33.14	3	Vertical	194	1.36	-
AV	2.3898G	44.45	54.00	-9.55	33.17	3	Vertical	194	1.36	-
PK	2.4398G	104.80	Inf	-Inf	33.18	3	Vertical	194	1.36	-
AV	2.4402G	94.68	Inf	-Inf	33.18	3	Vertical	194	1.36	-
PK	2.487G	58.38	74.00	-15.62	33.19	3	Vertical	194	1.36	-
AV	2.4854G	44.68	54.00	-9.32	33.19	3	Vertical	194	1.36	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

17/07/2018



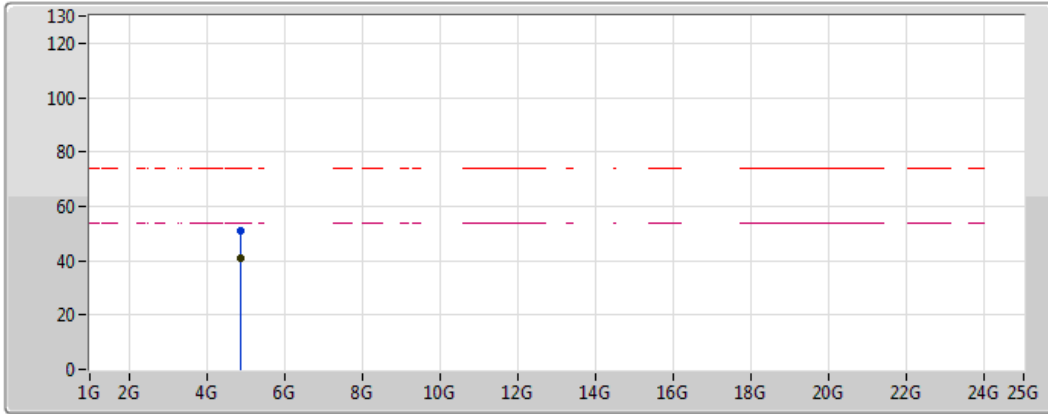
EUT Y_1TX
Setting : 7
04-E-2
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3814G	57.37	74.00	-16.63	33.16	3	Horizontal	149	2.38	-
AV	2.3894G	44.47	54.00	-9.53	33.17	3	Horizontal	149	2.38	-
PK	2.4426G	105.01	Inf	-Inf	33.18	3	Horizontal	149	2.38	-
AV	2.4426G	94.96	Inf	-Inf	33.18	3	Horizontal	149	2.38	-
PK	2.4842G	57.27	74.00	-16.73	33.18	3	Horizontal	149	2.38	-
AV	2.4854G	44.68	54.00	-9.32	33.19	3	Horizontal	149	2.38	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

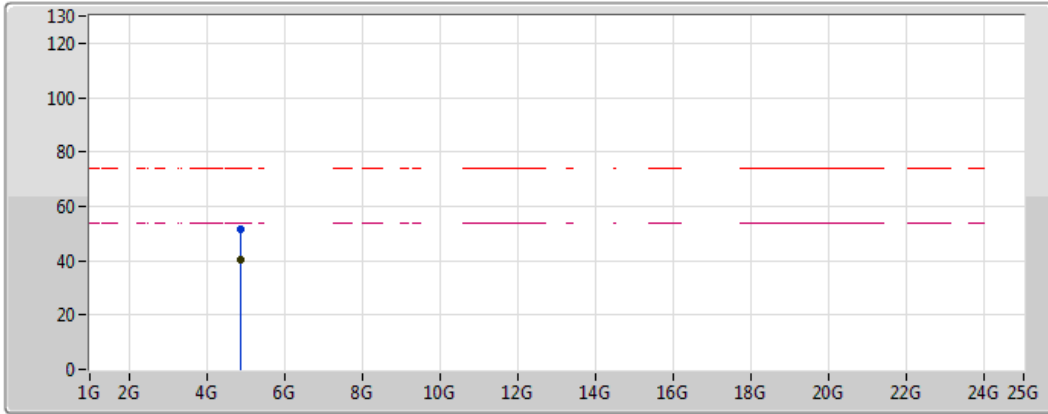
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.87414G	50.82	74.00	-23.18	6.99	3	Vertical	109	2.01	-
AV	4.87399G	40.68	54.00	-13.32	6.99	3	Vertical	109	2.01	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

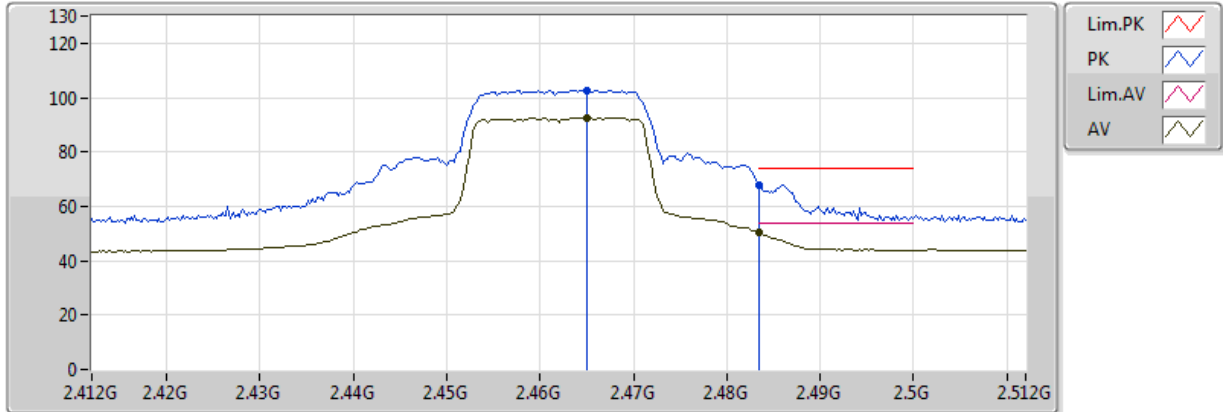
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.874076G	51.53	74.00	-22.47	6.99	3	Horizontal	201	1.46	-
AV	4.87402G	40.26	54.00	-13.74	6.99	3	Horizontal	201	1.46	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

17/07/2018



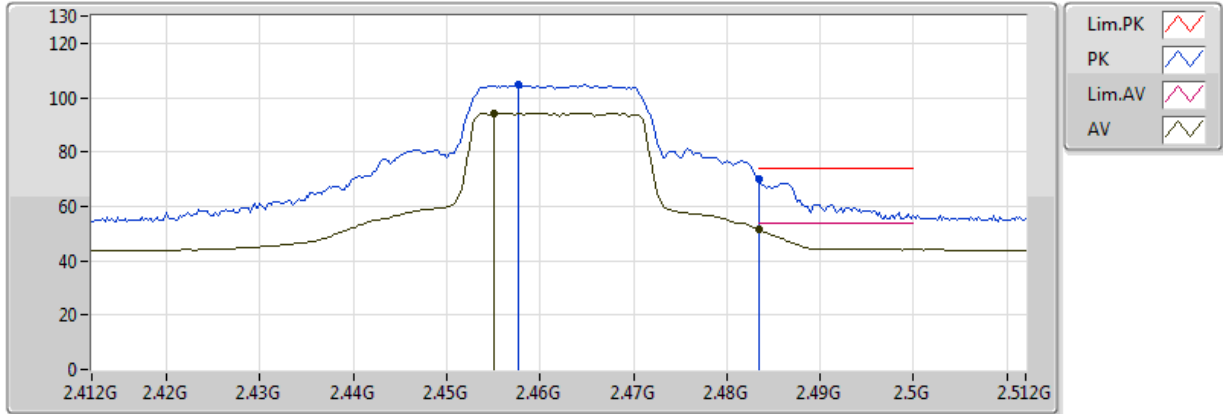
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.465G	102.76	Inf	-Inf	31.12	3	Vertical	139	1.02	-
AV	2.465G	92.62	Inf	-Inf	31.12	3	Vertical	139	1.02	-
PK	2.483502G	68.00	74.00	-6.00	31.17	3	Vertical	139	1.02	-
AV	2.483502G	50.23	54.00	-3.77	31.17	3	Vertical	139	1.02	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

17/07/2018



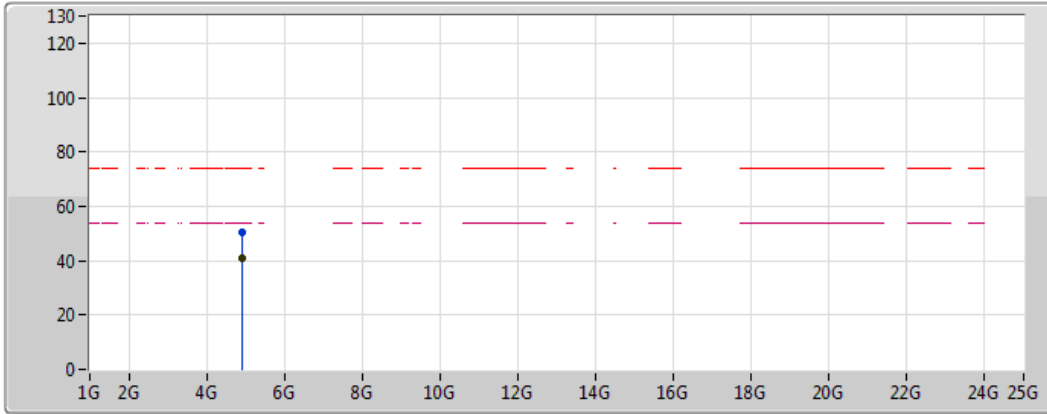
EUT Y_1TX
Setting : 7
01-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.4576G	104.77	Inf	-Inf	31.10	3	Horizontal	163	2.79	-
AV	2.455G	94.35	Inf	-Inf	31.09	3	Horizontal	163	2.79	-
PK	2.483502G	69.92	74.00	-4.08	31.17	3	Horizontal	163	2.79	-
AV	2.483502G	51.52	54.00	-2.48	31.17	3	Horizontal	163	2.79	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

17/07/2018



Legend:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Magenta line)

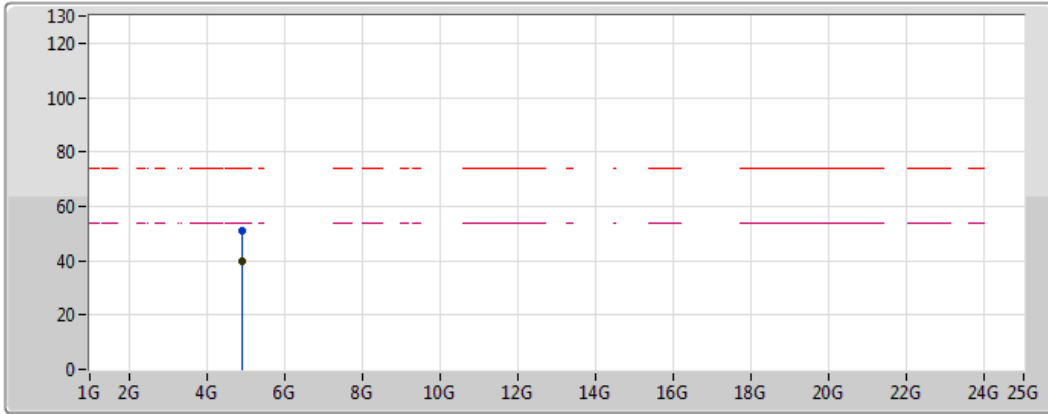
EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.92383G	50.68	74.00	-23.32	7.11	3	Vertical	112	2.08	-
AV	4.92397G	41.02	54.00	-12.98	7.11	3	Vertical	112	2.08	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

17/07/2018



Legend for the plot:

- Lim.PK: Red dashed line with a peak icon
- PK: Blue line with a peak icon
- Lim.AV: Magenta dashed line with a peak icon
- AV: Magenta line with a peak icon

EUT Y_1TX
 Setting : 7
 04-E-2
 FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	4.923712G	51.15	74.00	-22.85	7.11	3	Horizontal	202	1.32	-
AV	4.924G	39.95	54.00	-14.05	7.11	3	Horizontal	202	1.32	-