

NCC Test Report

Equipment : WI-FI 無線模組

Brand Name : BOAZ SMART 

Model Name : TYWE3S

Applicant : 波阿斯居家智慧股份有限公司
臺中市潭子區頭家里和平路 41 號

Manufacturer : 杭州塗鴉信息技術有限公司
杭州市西湖區浙商財富中心 3 幢 701 室

Standard : LP0002 Section 3.10 (2018-01-10)

The product was received on Sep. 26, 2019, and testing was started from Oct. 05, 2019 and completed on Oct. 24, 2019. 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: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

[illegible]

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	3.10.1.4	Antenna Requirement	PASS	-
3.1	2.3	AC Power-line Conducted Emissions	PASS	-
3.2	3.10.1.6	DTS Bandwidth	PASS	-
3.3	3.10.1.2	Maximum Conducted Output Power	PASS	-
3.4	3.10.1.6	Power Spectral Density	PASS	-
3.5	3.10.1.5	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	3.10.1.5	Emissions in Restricted Frequency Bands	PASS	-
3.7	2.11	Receiver Radiated Unwanted Emissions	PASS	-

Declaration of Conformity:

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

Comments and explanations:

None

Reviewed by: Jackson Tsai

Report Producer: Kate Lo

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.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	-	PCB	N/A	2.41

For 2.4GHz function:

For IEEE 802.11 b/g mode (1TX/1RX)

Support diversity function and pre-tested on each single chain, Ant. 1 (port 1) can be used as transmitting/receiving antenna.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From Switching Power Supply / From host system(NB)			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☐	With beamforming	☒	Without beamforming
Type of EUT				
☐	Stand-alone			
☐	Combined (EUT where the radio part is fully integrated within another device)			
	Combined Equipment – Equipment / Brand Name / Model No.:		1. Wi-Fi 無線智慧開關 II / BOAZ SMART / B120-02	
			2. Wi-Fi 智慧型紅外線萬用遙控 / BOAZ SMART / C068	
			3. Wi-Fi 無線智慧開關 II / BOAZ SMART / B120-01	
			4. Wi-Fi 智慧延長線 / BOAZ SMART / H255	
			5. Wi-Fi 智慧型紅外線萬用遙控 / BOAZ SMART / C096	
			6. Wi-Fi 智慧型紅外線萬用遙控 / BOAZ SMART / C075	
Note: The EUT had six host systems. No.2, No.5 and No.6 were identical, the difference was appearance color. And No.2 was measured during the test.				

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.896	0.48	4.193m	300
802.11g	0.871	0.6	693.125u	3k
802.11n HT20	0.868	0.61	656.875u	3k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

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

- ♦ LP0002 (2018-01-10)
- ♦ ANSI C63.10-2013
- ♦ KDB 558074 D01 v05r02
- ♦ ANSI C63.4-2014
- ♦ KDB 414788 D01 v01r01

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, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, 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	TH07-HY	Raven	23.5~24.8°C / 65~67%	14/Oct/2019
Radiated (Mode 1 & 2)	03CH02-HY	Edward	23.2~24.5°C / 59.4~63.2%	06/Oct/2019~07/Oct/2019
Radiated (Mode 3 & 4)	03CH01-HY	Edward	21.5~23.6°C / 58.1~62.3%	24/Oct/2019
AC Conduction	CO04-HY	Edward	21.2~23.2°C / 58.4~62.2%	05/Oct/2019~23/Oct/2019

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	110V

2.2 Test Channel Mode

Test Software	Dos
---------------	-----

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	10
2437MHz	12
2457MHz	12
2462MHz	15
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	0
2437MHz	0
2462MHz	0
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	0
2437MHz	0
2462MHz	0

2.3 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	1. Switching Power Supply mode; B120-02; CTX/CRX
	2. USB mode; C068; CTX
	3. Switching Power Supply mode; B120-01; CTX
	4. Switching Power Supply mode; H255; CTX

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 Receiver Radiated Spurious 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	1. Switching Power Supply mode; B120-02; CTX/CRX		
	2. USB mode; C068; CTX		
	3. Switching Power Supply mode; B120-01; CTX		
	4. Switching Power Supply mode; H255; CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V (Mode 2)		V (Mode 1 & 2 & 4)

2.4 Accessories and Support Equipment

Accessories				
USB Cable for C068	Brand Name	BOAZ SMART	Model Name	C068-0010
	Signal Line	0.72 meter, shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	AC Power Cable (for NB Adapter)	Power sync	PW-GPC180-3	-
2	AC Adapter (for NB)	DELL	LA90PM111	-
3	Notebook	DELL	E4300	-
4	Fixture	-	-	-
5	AC Power Cable	BOAZ SMART	B120	-
6	USB cable	BOAZ SMART	C068-0010	-

Note: Support equipment No.4, No.5 and No.6 were provided by customer.

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	R33002
2	Adapter for NB	DELL	HA65NM130	R35737

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	AC Power Cable (for NB Adapter)	Power sync	PW-GPC180-3	-
2	AC Adapter (for NB)	DELL	LA90PM111	-
3	Notebook	DELL	E4300	-
4	Fixture	-	-	-
5	AC Power Cable	BOAZ SMART	B120	-
6	USB cable	BOAZ SMART	C068-0010	-

Note: Support equipment No.4, No.5 and No.6 were provided by customer.

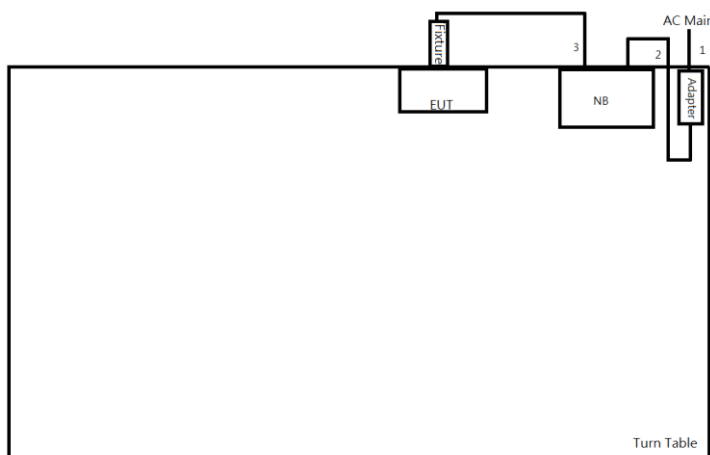
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test_ Mode 1



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	No	0.72	-

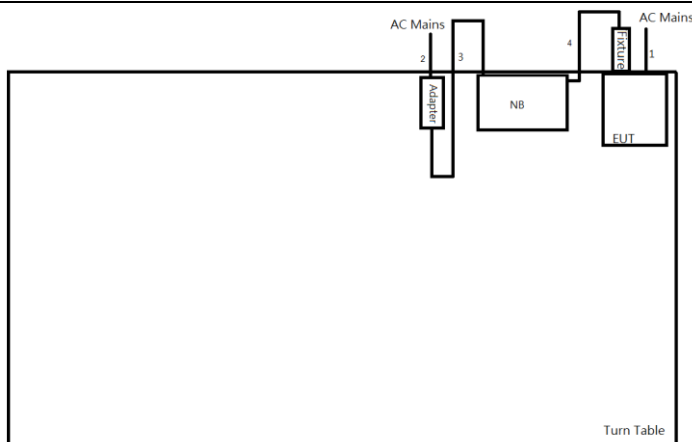
Test Setup Diagram – AC Line Conducted Emission Test_ Mode 2



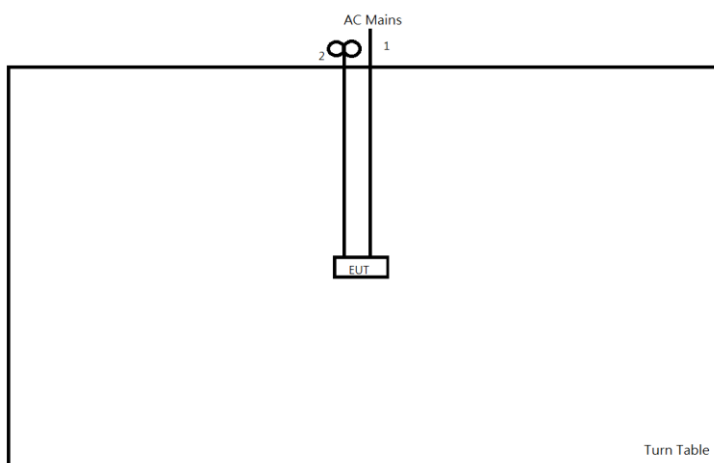
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.5	-
3	USB cable	No	0.72	-

Test Setup Diagram – AC Line Conducted Emission Test_ Mode 3

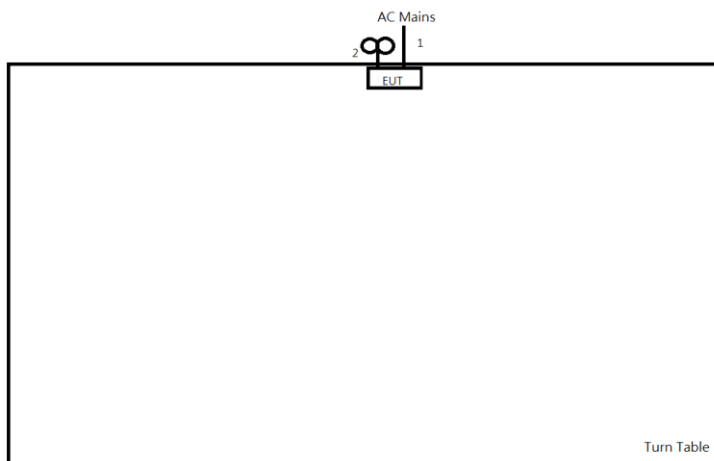

Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	No	0.72	-

Test Setup Diagram – AC Line Conducted Emission Test_ Mode 4


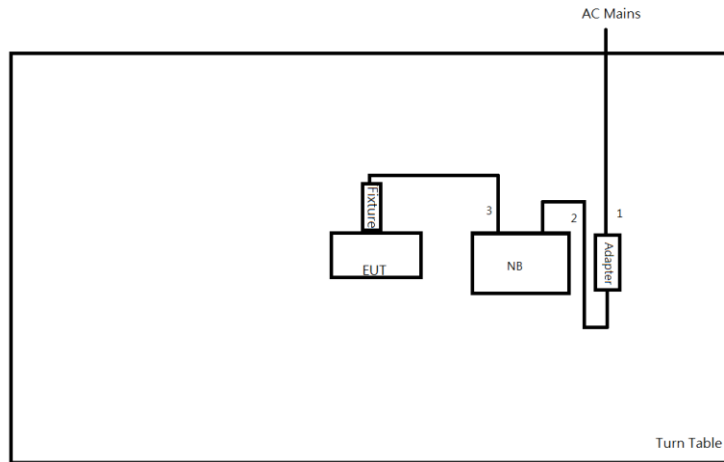
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.8	-
3	DC Power cable	No	1.5	-
4	USB cable	No	0.72	-

Test Setup Diagram - Radiated Test _ Mode 1 (TX)


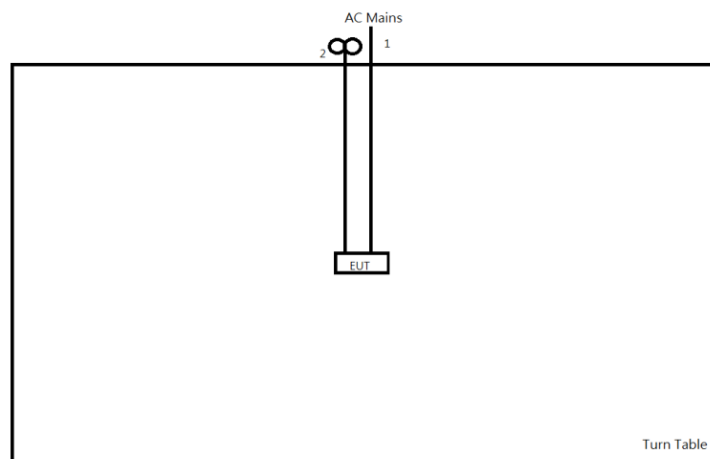
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	No	0.72	-

Test Setup Diagram - Radiated Test _ Mode 1 (RX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	No	0.72	-

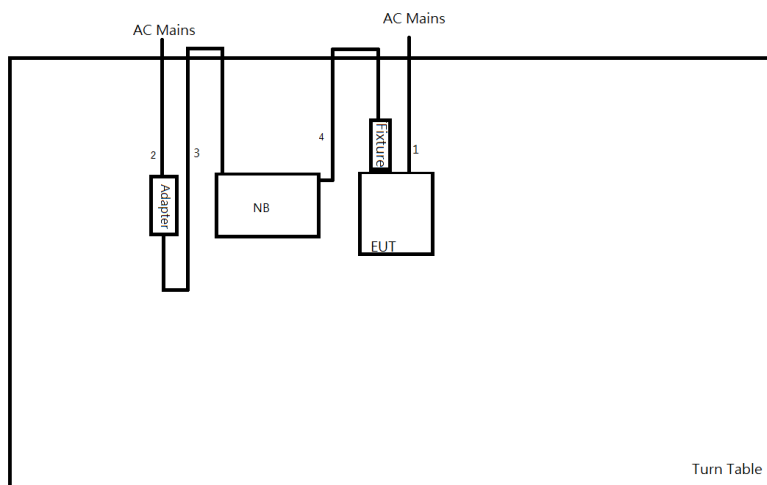
Test Setup Diagram - Radiated Test _ Mode 2 (TX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.5	-
3	USB cable	No	0.72	-

Test Setup Diagram - Radiated Test _ Mode 3 (TX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	No	0.72	-

Test Setup Diagram - Radiated Test _ Mode 4 (TX)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.8	-
3	DC Power cable	No	1.5	-
4	USB cable	No	1.0	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

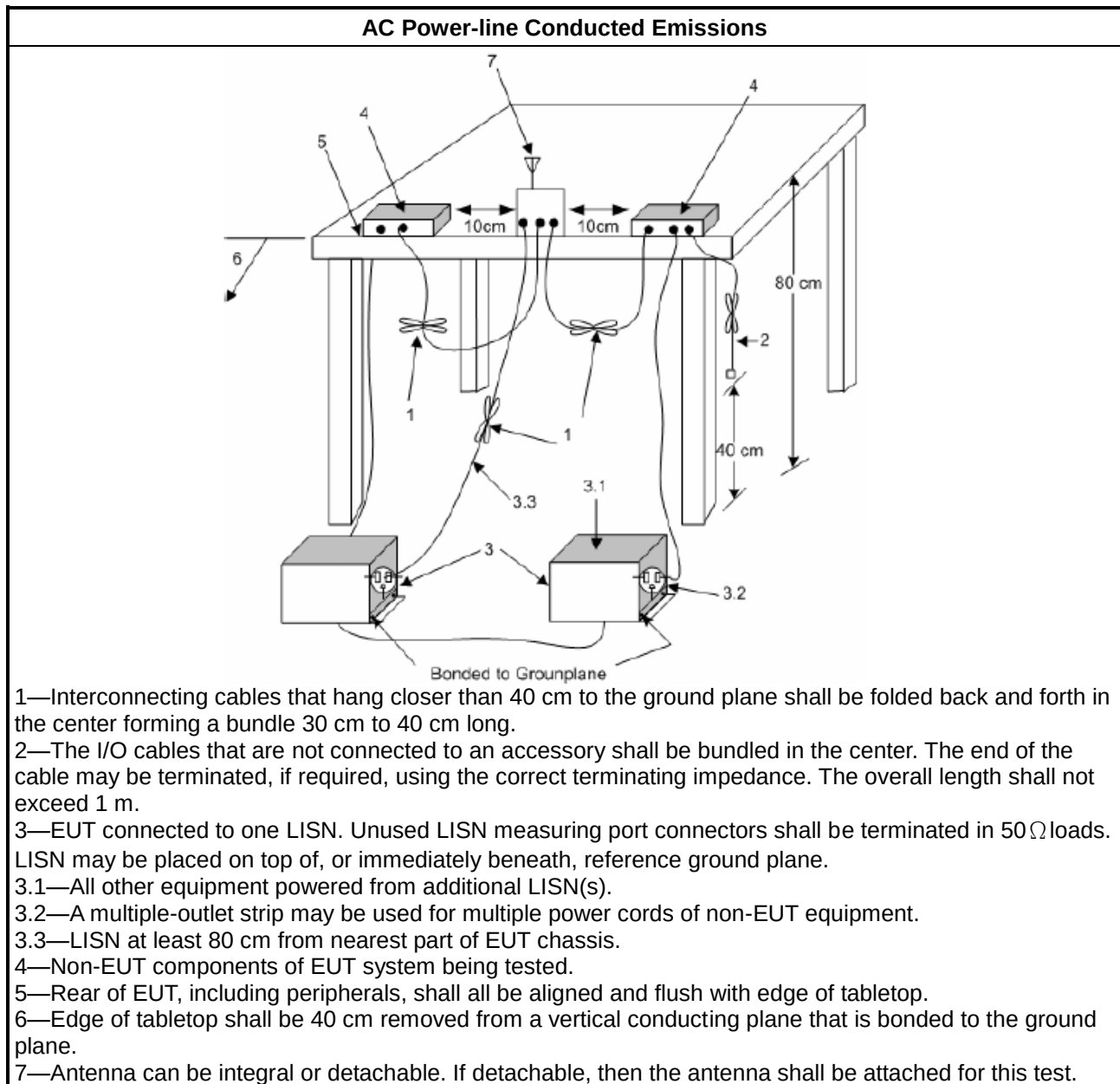
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

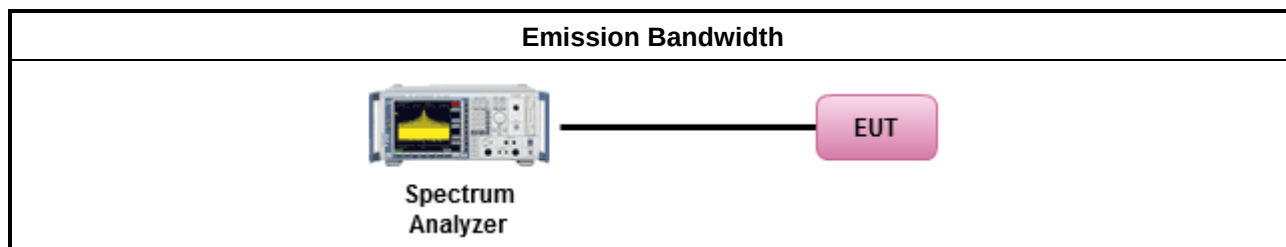
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
For the emission bandwidth shall be measured using one of the options below:
☒ Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
☐ Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm	
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm	
	Smart antenna system (SAS):	
	-	Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	-	Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	-	Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:		
	2400-2483.5 MHz Band	
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)	
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm	
	Smart antenna system (SAS)	
	-	Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.		

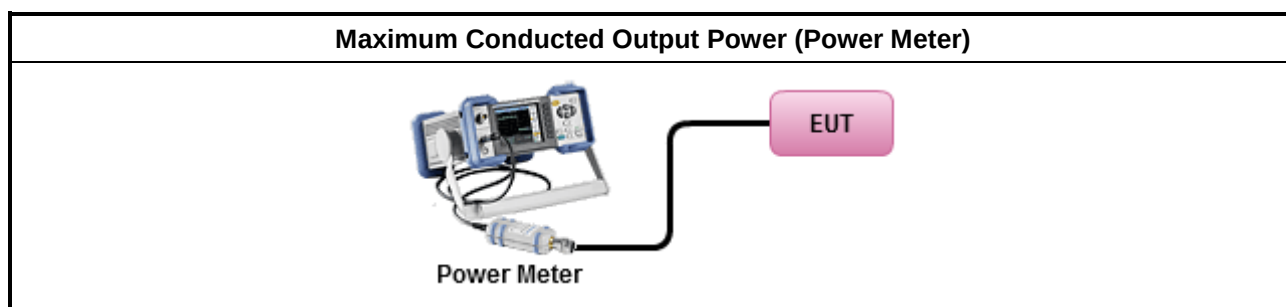
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

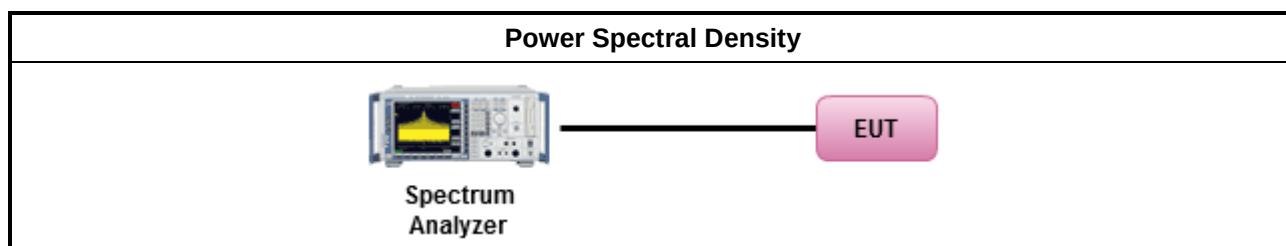
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	Measure and sum the spectra across the outputs. Refer as 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.

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 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 level.	

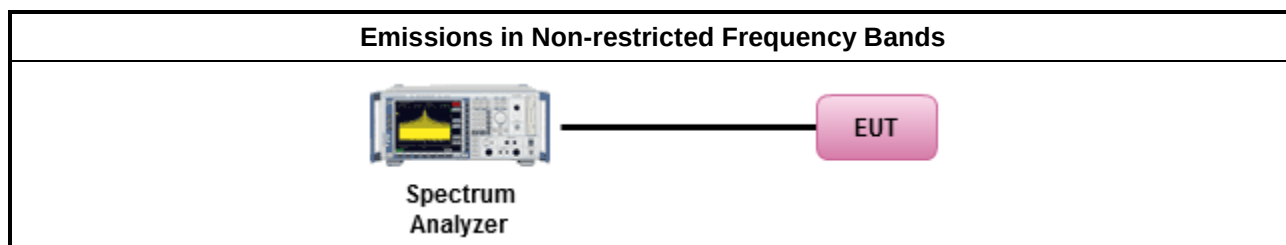
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

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

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

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

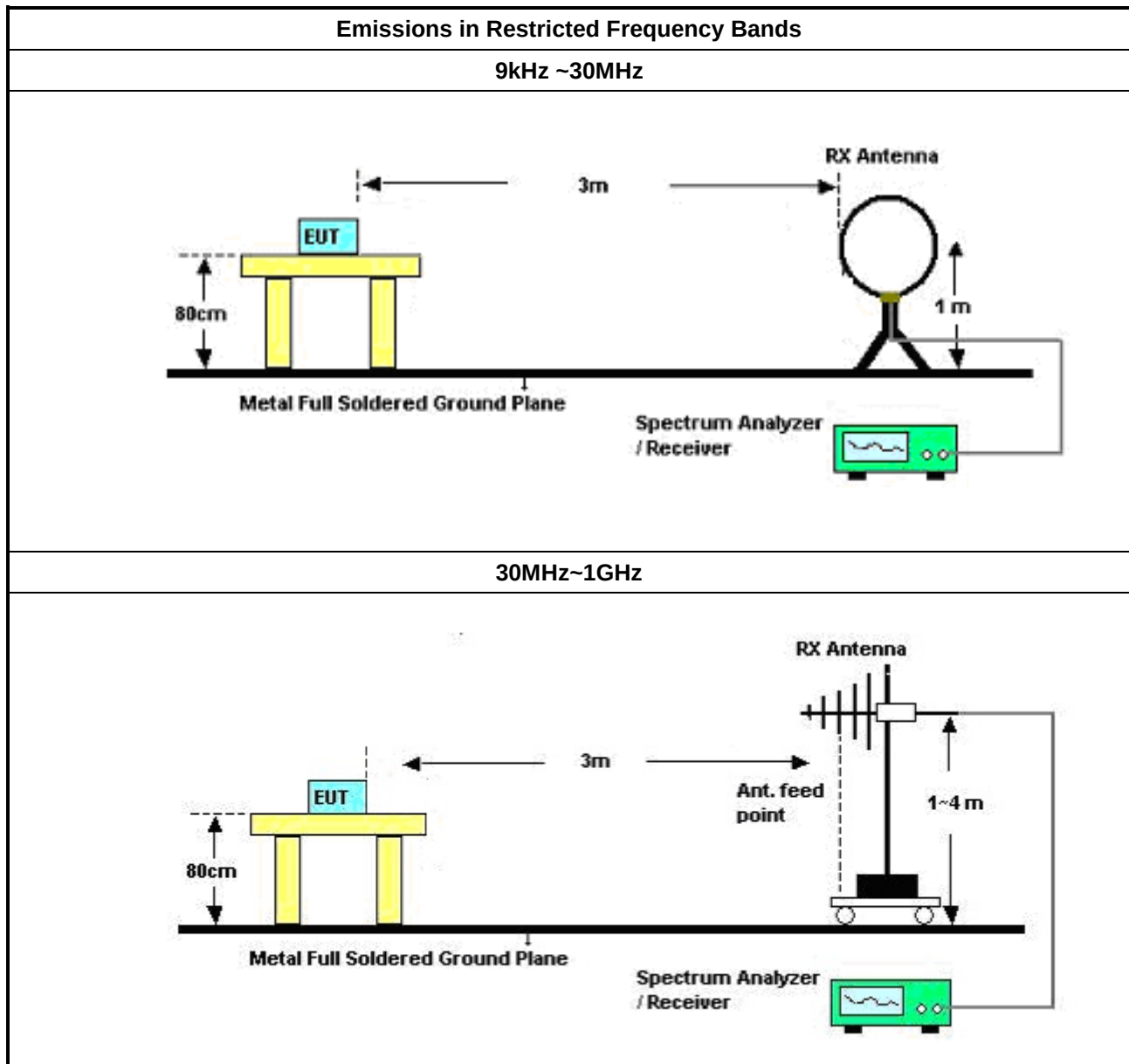
3.6.2 Measuring Instruments

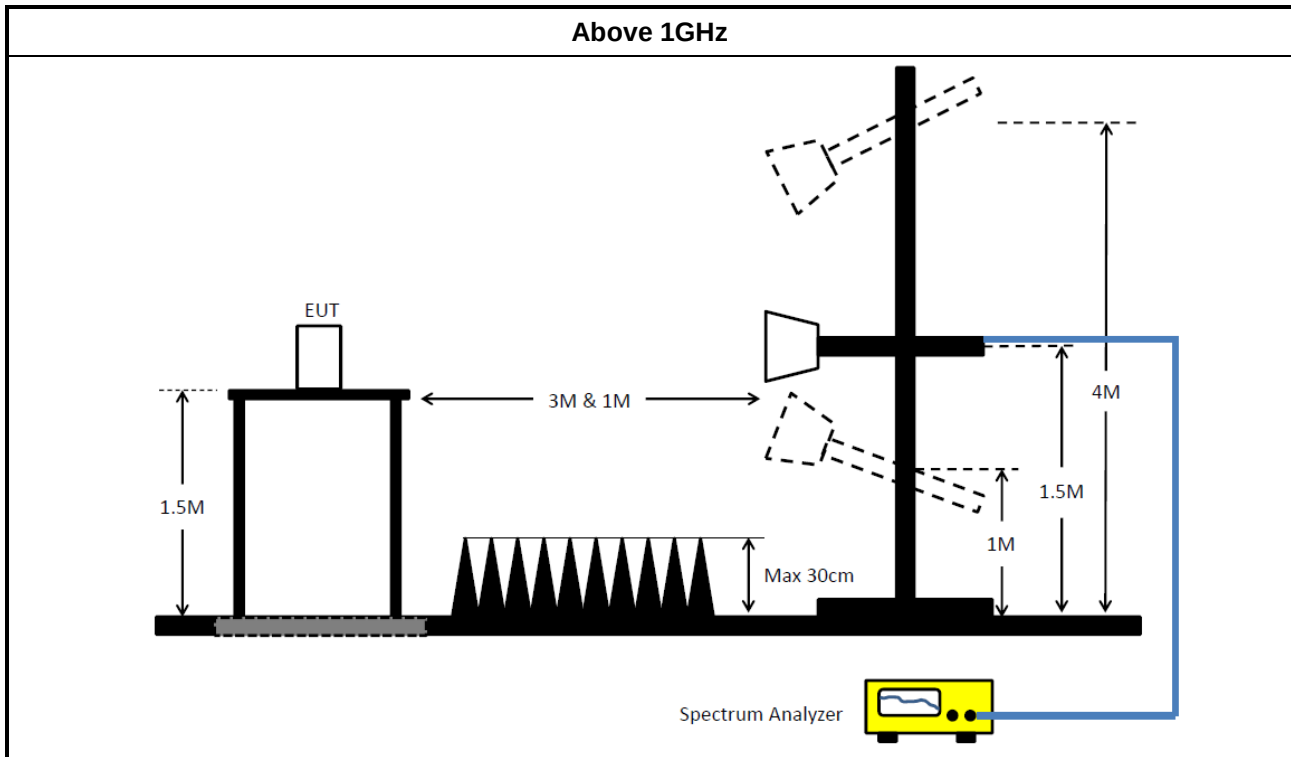
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

3.6.4 Test Setup





3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

3.7 Receiver Radiated Spurious Emissions

3.7.1 Receiver in Radiated Spurious Emissions Limit

Restricted Spurious 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.

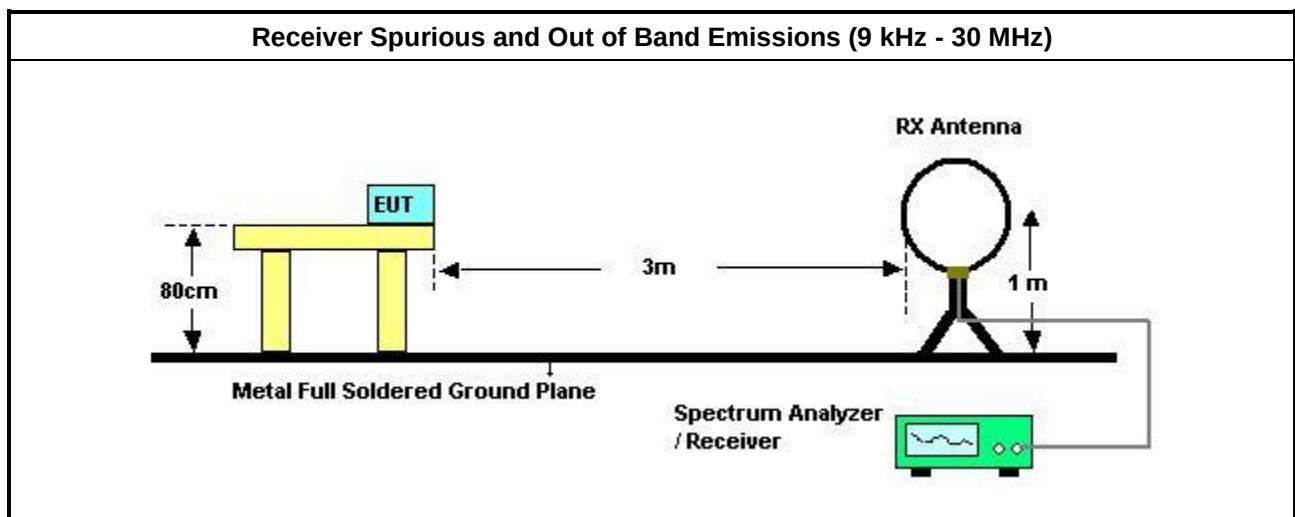
3.7.2 Measuring Instruments

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

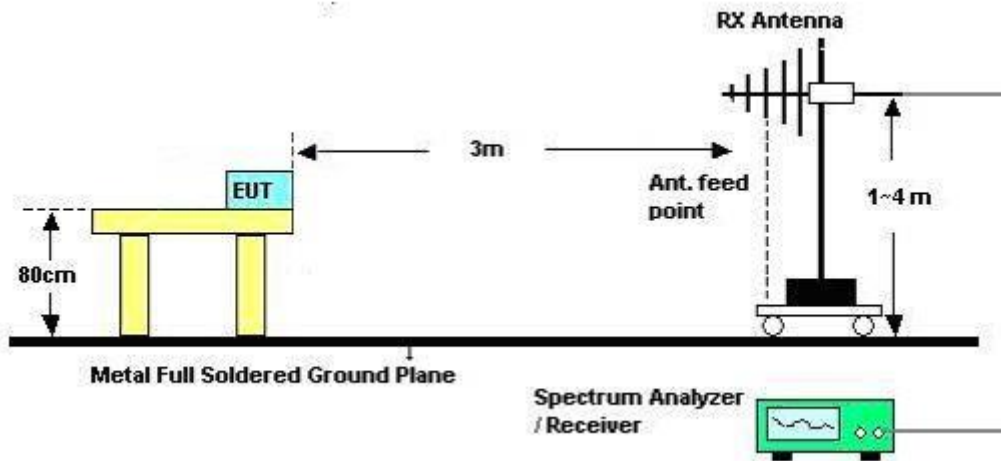
3.7.3 Test Procedures

Test Method	
☒	The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.
☒	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).
☒	For radiated measurement, refer as ANSI C63.4, clause 8.3.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from 30 MHz-1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the QP-Limit so that the QP level does not need to be reported in addition.
☒	Refer as ANSI C63.4, clause 8.3.1.2 and 8.3.2.2 for radiated emissions from above 1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
☒	All amplitude of spurious emissions that are attenuated by more than 30 dB below the permissible value has no need to be reported.

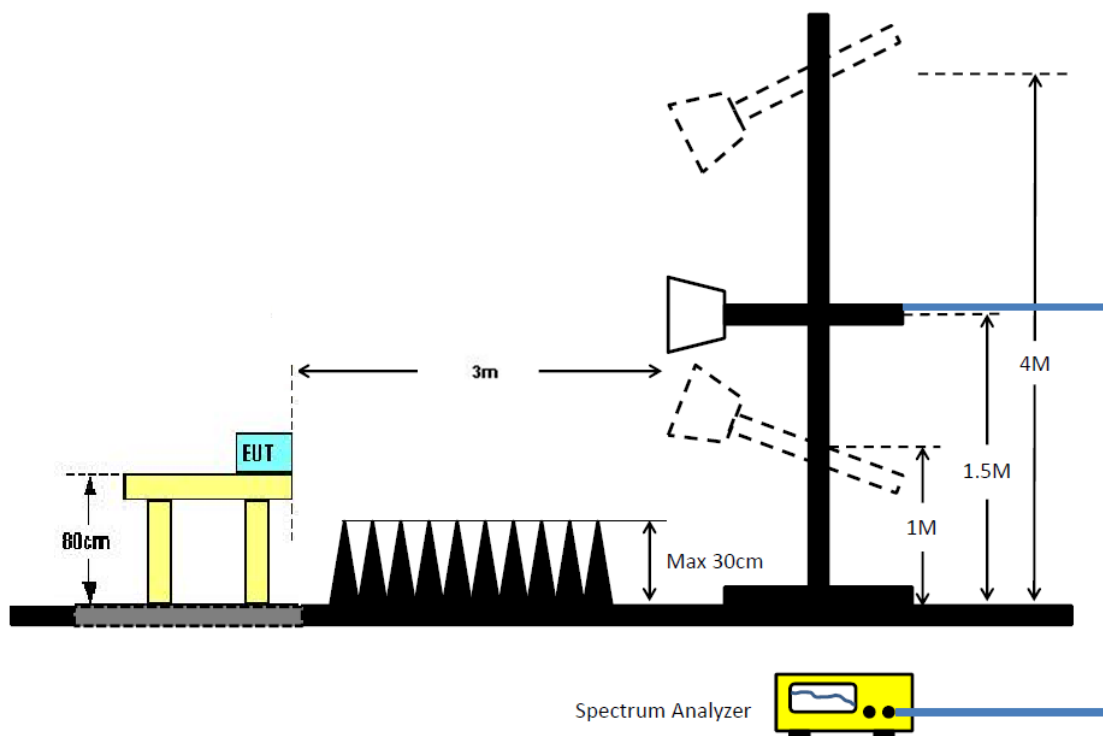
3.7.4 Test Setup



Receiver Radiated Unwanted Emissions (below 1GHz)



Receiver Radiated Unwanted Emissions (above 1GHz)



3.7.5 Receiver Radiated Unwanted Emissions (Below 30MHz)

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

3.7.6 Test Result of Receiver Radiated Unwanted Emissions

Refer as Appendix G

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz~30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz~200MHz	12/Sep/2019	11/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz~30MHz	24/Sep/2019	23/Sep/2020

NCR : Non-Calibration Require

Instrument for Radiated Test Mode 1 & 2

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	02Jul/2019	01/Jul/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	23/Oct/2018	22/Oct/2019
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz~40GHz	27/Dec/2018	26/Dec/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~1GHz	26/Mar/2019	25/Mar/2020
RF Cable-high 6m	SUHNER	SUCOFLEX104	10567868 / SN805193/4	1GHz~40GHz	9/Apr/2019	8/Apr/2020
RF Cable-high 7m	SUHNER	SUCOFLEX104	10567868 / SN805192/4	1GHz~40GHz	9/Apr/2019	8/Apr/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112D / MTJ6102-05	2678 / 001	30MHz~2GHz	06/Jul/2019	05/Jul/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	22/Mar/2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k~30MHz	15/Mar/2019	14/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	03/Jun/2019	02/Jun/2020

Instrument for Radiated Test_ Mode 3 & 4

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	Riken	SAC-3M	03CH01-HY	30MHz~1GHz 3m	11/Jan/2019	10/Jan/2020
PreAmplifier	COM-POWER	PA-103	161050	1 MHz~1.0GHz	17/Jul/2019	16/Jul/2020
Spectrum Analyzer	R&S	FSV40	101407	10Hz~40GHz	10/Sep/2019	09/Sep/2020
RF Cable-R03m	Jye Bao	RG142	CB019	9kHz~1GHz	14/Dec/2018	13/Dec/2019
Bilog Antenna & 5db Attenuator	SCHAFFNER/MTJ	CBL6112D / MTJ6102-05	2678 / 001	30MHz~2GHz	06/Jul/2019	05/Jul/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k~30MHz	15/Mar/2019	14/Mar/2020

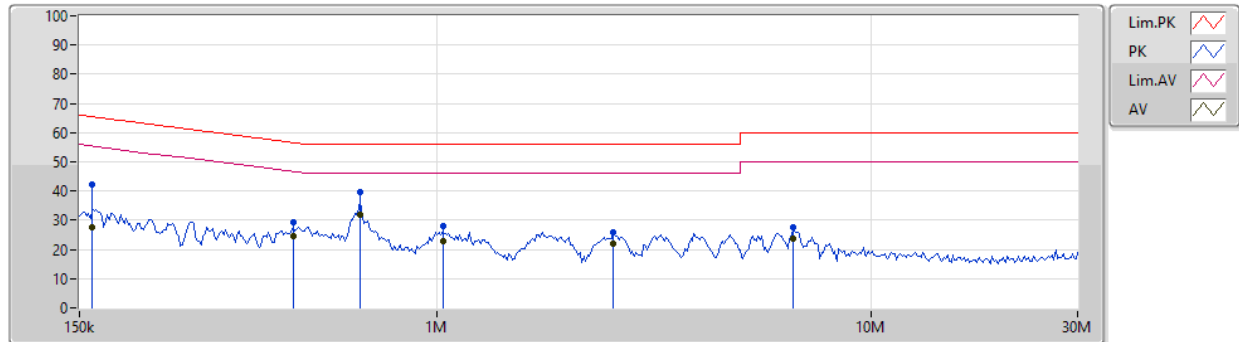
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	19/Feb/2019	18/Feb/2020
Power Meter	Anritsu	ML2495A	0949003	300MHz~ 40GHz	19/Feb/2019	18/Feb/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Switching Power Supply mode (TX)		

05/10/2019

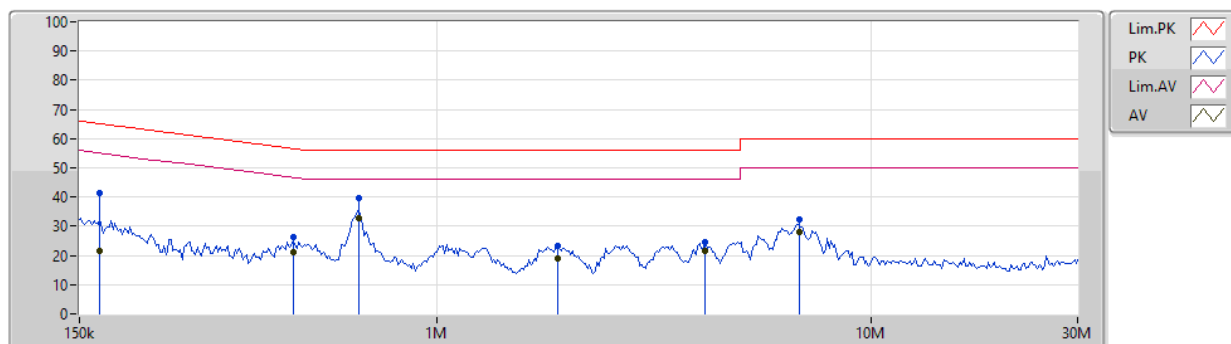


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	160.82k	42.31	65.43	-23.12	19.48	Neutral	-	22.83	9.60	0.01	9.87			
AV	160.82k	27.64	55.43	-27.79	19.48	Neutral	-	8.16	9.60	0.01	9.87			
QP	466.367k	29.44	56.57	-27.13	19.48	Neutral	-	9.96	9.59	0.01	9.88			
AV	466.367k	24.48	46.57	-22.09	19.48	Neutral	-	5.00	9.59	0.01	9.88			
QP	667.263k	39.53	56.00	-16.47	19.48	Neutral	-	20.05	9.59	0.01	9.88			
AV	667.263k	31.95	46.00	-14.05	19.48	Neutral	"Worst"	12.47	9.59	0.01	9.88			
QP	1.034M	27.82	56.00	-28.18	19.49	Neutral	-	8.33	9.59	0.02	9.88			
AV	1.034M	23.04	46.00	-22.96	19.49	Neutral	-	3.55	9.59	0.02	9.88			
QP	2.557M	25.77	56.00	-30.23	19.54	Neutral	-	6.23	9.61	0.04	9.89			
AV	2.557M	21.90	46.00	-24.10	19.54	Neutral	-	2.36	9.61	0.04	9.89			
QP	6.646M	27.60	60.00	-32.40	19.59	Neutral	-	8.01	9.64	0.06	9.89			
AV	6.646M	23.68	50.00	-26.32	19.59	Neutral	-	4.09	9.64	0.06	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Switching Power Supply mode (TX)		

05/10/2019

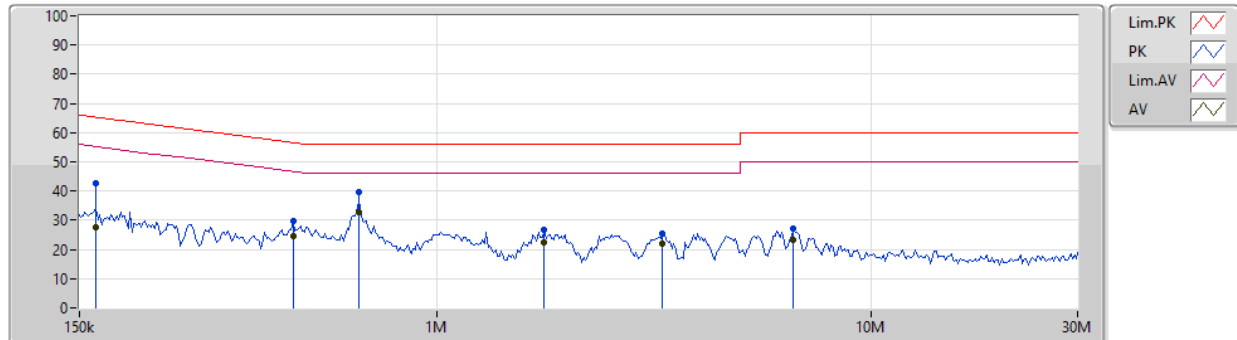


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	167.35k	41.35	65.08	-23.73	19.48	Line	-	21.87	9.60	0.01	9.87			
AV	167.35k	21.70	55.08	-33.38	19.48	Line	-	2.22	9.60	0.01	9.87			
QP	466.367k	26.30	56.57	-30.27	19.48	Line	-	6.82	9.59	0.01	9.88			
AV	466.367k	21.31	46.57	-25.26	19.48	Line	-	1.83	9.59	0.01	9.88			
QP	660.657k	39.46	56.00	-16.54	19.49	Line	-	19.97	9.60	0.01	9.88			
AV	660.657k	32.97	46.00	-13.03	19.49	Line	"Worst"	13.48	9.60	0.01	9.88			
QP	1.897M	23.28	56.00	-32.72	19.54	Line	-	3.74	9.62	0.03	9.89			
AV	1.897M	19.18	46.00	-26.82	19.54	Line	-	-0.36	9.62	0.03	9.89			
QP	4.163M	24.78	56.00	-31.22	19.57	Line	-	5.21	9.63	0.05	9.89			
AV	4.163M	21.52	46.00	-24.48	19.57	Line	-	1.95	9.63	0.05	9.89			
QP	6.847M	32.32	60.00	-27.68	19.60	Line	-	12.72	9.65	0.06	9.89			
AV	6.847M	28.15	50.00	-21.85	19.60	Line	-	8.55	9.65	0.06	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Switching Power Supply mode (RX)		

05/10/2019

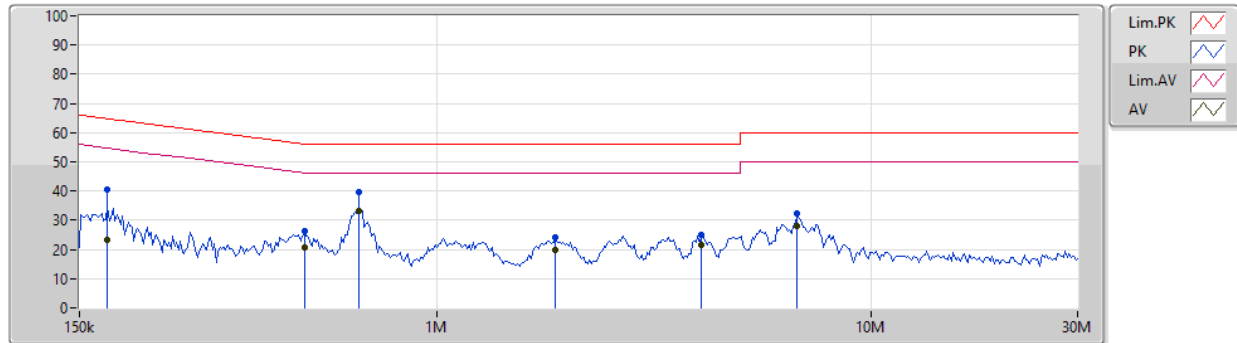


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	164.053k	42.48	65.25	-22.77	19.48	Neutral	-	23.00	9.60	0.01	9.87			
AV	164.053k	27.44	55.25	-27.81	19.48	Neutral	-	7.96	9.60	0.01	9.87			
QP	466.367k	29.83	56.57	-26.74	19.48	Neutral	-	10.35	9.59	0.01	9.88			
AV	466.367k	24.61	46.57	-21.96	19.48	Neutral	-	5.13	9.59	0.01	9.88			
QP	660.657k	39.86	56.00	-16.14	19.48	Neutral	-	20.38	9.59	0.01	9.88			
AV	660.657k	32.78	46.00	-13.22	19.48	Neutral	"Worst"	13.30	9.59	0.01	9.88			
QP	1.769M	26.67	56.00	-29.33	19.53	Neutral	-	7.14	9.61	0.03	9.89			
AV	1.769M	22.44	46.00	-23.56	19.53	Neutral	-	2.91	9.61	0.03	9.89			
QP	3.312M	25.31	56.00	-30.69	19.54	Neutral	-	5.77	9.61	0.04	9.89			
AV	3.312M	21.94	46.00	-24.06	19.54	Neutral	-	2.40	9.61	0.04	9.89			
QP	6.646M	27.34	60.00	-32.66	19.59	Neutral	-	7.75	9.64	0.06	9.89			
AV	6.646M	23.40	50.00	-26.60	19.59	Neutral	-	3.81	9.64	0.06	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Switching Power Supply mode (RX)		

05/10/2019

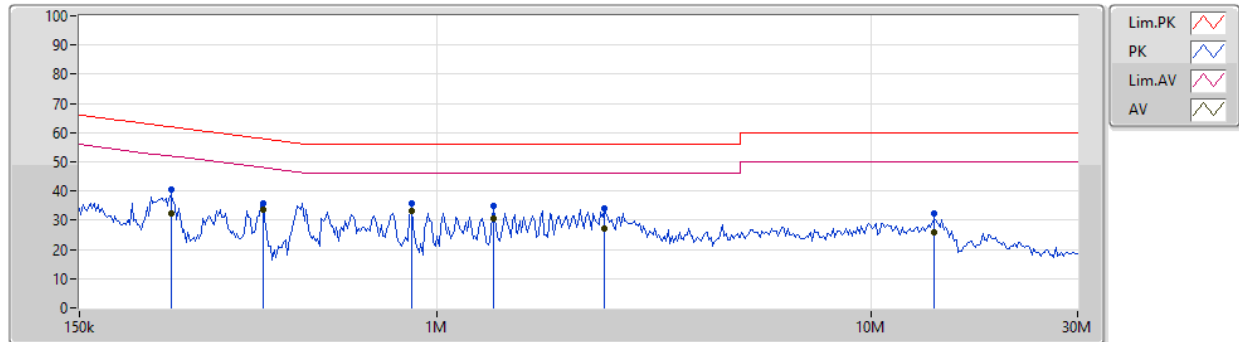


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	174.145k	40.62	64.76	-24.14	19.48	Line	-	21.14	9.60	0.01	9.87			
AV	174.145k	23.43	54.76	-31.33	19.48	Line	-	3.95	9.60	0.01	9.87			
QP	495.058k	26.20	56.08	-29.88	19.48	Line	-	6.72	9.59	0.01	9.88			
AV	495.058k	20.80	46.08	-25.28	19.48	Line	-	1.32	9.59	0.01	9.88			
QP	660.657k	39.53	56.00	-16.47	19.49	Line	-	20.04	9.60	0.01	9.88			
AV	660.657k	33.28	46.00	-12.72	19.49	Line	"Worst"	13.79	9.60	0.01	9.88			
QP	1.878M	23.94	56.00	-32.06	19.54	Line	-	4.40	9.62	0.03	9.89			
AV	1.878M	19.95	46.00	-26.05	19.54	Line	-	0.41	9.62	0.03	9.89			
QP	4.081M	25.00	56.00	-31.00	19.57	Line	-	5.43	9.63	0.05	9.89			
AV	4.081M	21.53	46.00	-24.47	19.57	Line	-	1.96	9.63	0.05	9.89			
QP	6.779M	32.33	60.00	-27.67	19.60	Line	-	12.73	9.65	0.06	9.89			
AV	6.779M	28.02	50.00	-21.98	19.60	Line	-	8.42	9.65	0.06	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Neutral
Operating Function	USB mode (TX)		

05/10/2019

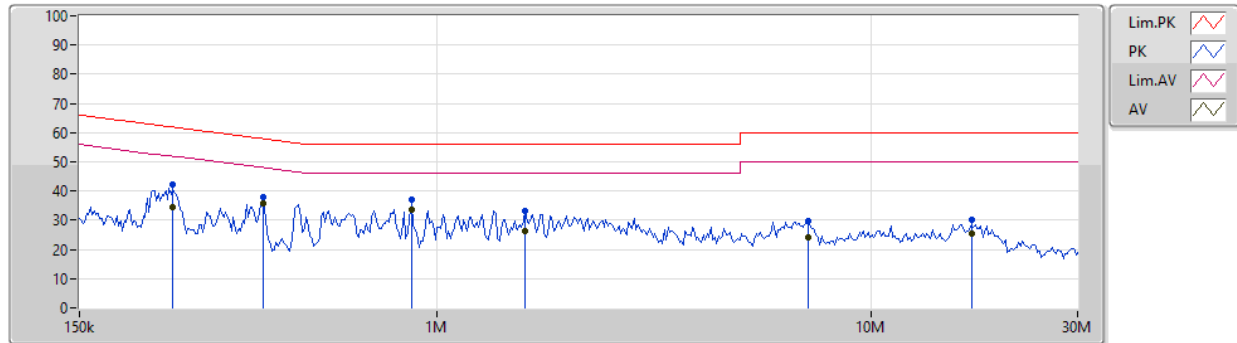


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	244.252k	40.45	61.95	-21.50	19.47	Neutral	-	20.98	9.59	0.01	9.87			
AV	244.252k	32.22	51.95	-19.73	19.47	Neutral	-	12.75	9.59	0.01	9.87			
QP	397.728k	35.75	57.89	-22.14	19.48	Neutral	-	16.27	9.59	0.01	9.88			
AV	397.728k	33.44	47.89	-14.45	19.48	Neutral	-	13.96	9.59	0.01	9.88			
QP	872.92k	35.88	56.00	-20.12	19.49	Neutral	-	16.39	9.59	0.02	9.88			
AV	872.92k	33.16	46.00	-12.84	19.49	Neutral	"Worst"	13.67	9.59	0.02	9.88			
QP	1.352M	34.79	56.00	-21.21	19.51	Neutral	-	15.28	9.60	0.03	9.88			
AV	1.352M	30.49	46.00	-15.51	19.51	Neutral	-	10.98	9.60	0.03	9.88			
QP	2.433M	33.93	56.00	-22.07	19.54	Neutral	-	14.39	9.61	0.04	9.89			
AV	2.433M	27.02	46.00	-18.98	19.54	Neutral	-	7.48	9.61	0.04	9.89			
QP	14.016M	32.52	60.00	-27.48	19.66	Neutral	-	12.86	9.67	0.09	9.90			
AV	14.016M	25.97	50.00	-24.03	19.66	Neutral	-	6.31	9.67	0.09	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Line
Operating Function	USB mode (TX)		

05/10/2019

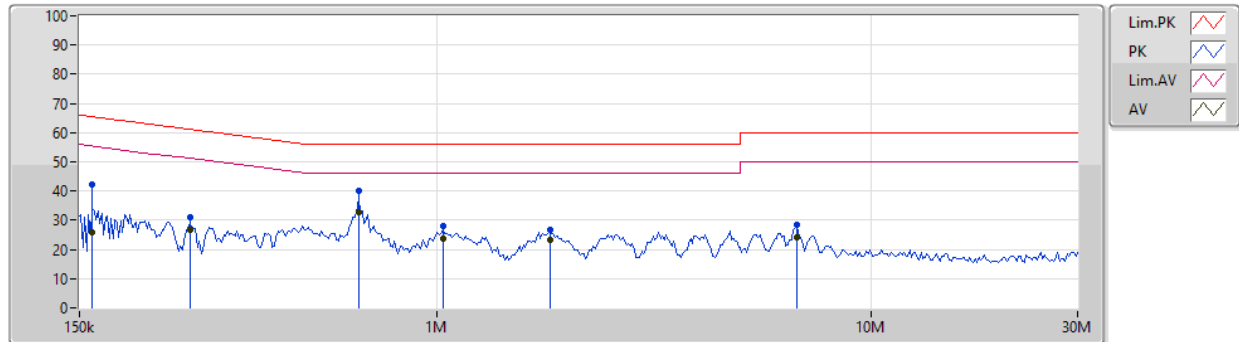


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	246.695k	42.42	61.87	-19.45	19.48	Line	-	22.94	9.60	0.01	9.87			
AV	246.695k	34.60	51.87	-17.27	19.48	Line	-	15.12	9.60	0.01	9.87			
QP	397.728k	37.78	57.89	-20.11	19.48	Line	-	18.30	9.59	0.01	9.88			
AV	397.728k	35.90	47.89	-11.99	19.48	Line	"Worst"	16.42	9.59	0.01	9.88			
QP	872.92k	37.27	56.00	-18.73	19.50	Line	-	17.77	9.60	0.02	9.88			
AV	872.92k	33.56	46.00	-12.44	19.50	Line	-	14.06	9.60	0.02	9.88			
QP	1.602M	33.12	56.00	-22.88	19.53	Line	-	13.59	9.61	0.03	9.89			
AV	1.602M	26.31	46.00	-19.69	19.53	Line	-	6.78	9.61	0.03	9.89			
QP	7.196M	29.54	60.00	-30.46	19.61	Line	-	9.93	9.66	0.06	9.89			
AV	7.196M	24.16	50.00	-25.84	19.61	Line	-	4.55	9.66	0.06	9.89			
QP	17.103M	30.29	60.00	-29.71	19.64	Line	-	10.65	9.64	0.10	9.90			
AV	17.103M	25.24	50.00	-24.76	19.64	Line	-	5.60	9.64	0.10	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	3	Power Phase	Neutral
Operating Function	Switching Power Supply mode (TX)		

23/10/2019

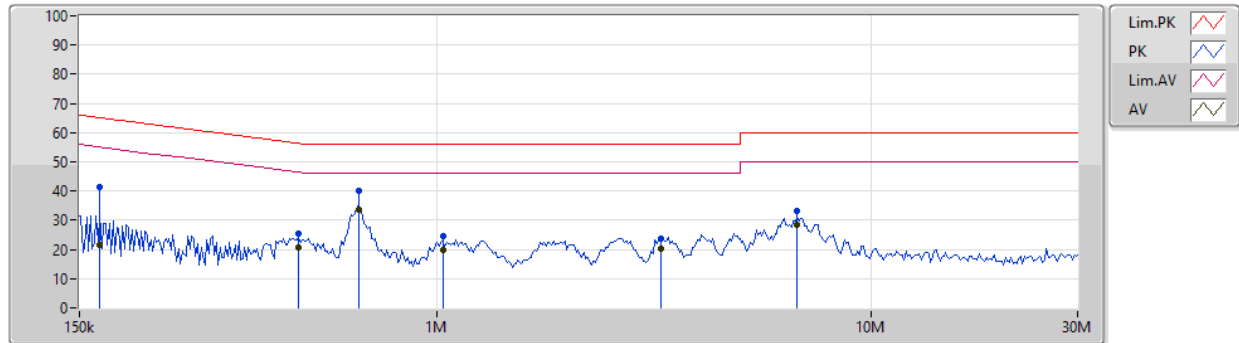


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	160.82k	42.08	65.43	-23.35	19.58	Neutral	-	22.50	9.60	0.11	9.87			
AV	160.82k	25.82	55.43	-29.61	19.58	Neutral	-	6.24	9.60	0.11	9.87			
QP	269.806k	31.20	61.12	-29.92	19.58	Neutral	-	11.62	9.59	0.12	9.87			
AV	269.806k	26.90	51.12	-24.22	19.58	Neutral	-	7.32	9.59	0.12	9.87			
QP	660.657k	40.11	56.00	-15.89	19.59	Neutral	-	20.52	9.59	0.12	9.88			
AV	660.657k	32.82	46.00	-13.18	19.59	Neutral	"Worst"	13.23	9.59	0.12	9.88			
QP	1.034M	28.19	56.00	-27.81	19.58	Neutral	-	8.61	9.59	0.11	9.88			
AV	1.034M	23.76	46.00	-22.24	19.58	Neutral	-	4.18	9.59	0.11	9.88			
QP	1.823M	26.91	56.00	-29.09	19.64	Neutral	-	7.27	9.61	0.14	9.89			
AV	1.823M	23.13	46.00	-22.87	19.64	Neutral	-	3.49	9.61	0.14	9.89			
QP	6.779M	28.43	60.00	-31.57	19.76	Neutral	-	8.67	9.64	0.23	9.89			
AV	6.779M	24.17	50.00	-25.83	19.76	Neutral	-	4.41	9.64	0.23	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	3	Power Phase	Line
Operating Function	Switching Power Supply mode (TX)		

23/10/2019

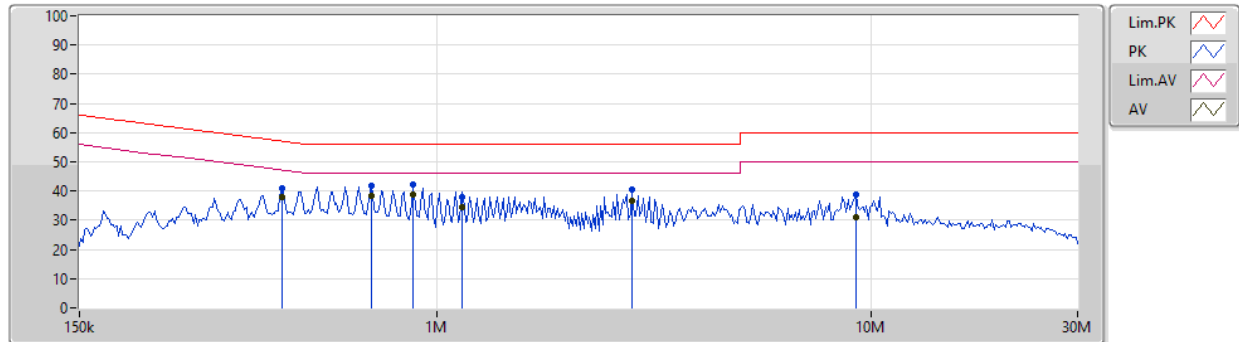


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	167.35k	41.31	65.08	-23.77	19.58	Line	-	21.73	9.60	0.11	9.87			
AV	167.35k	21.60	55.08	-33.48	19.58	Line	-	2.02	9.60	0.11	9.87			
QP	480.498k	25.47	56.33	-30.86	19.60	Line	-	5.87	9.59	0.13	9.88			
AV	480.498k	20.82	46.33	-25.51	19.60	Line	-	1.22	9.59	0.13	9.88			
QP	660.657k	40.09	56.00	-15.91	19.60	Line	-	20.49	9.60	0.12	9.88			
AV	660.657k	33.47	46.00	-12.53	19.60	Line	"Worst"	13.87	9.60	0.12	9.88			
QP	1.034M	24.47	56.00	-31.53	19.59	Line	-	4.88	9.60	0.11	9.88			
AV	1.034M	20.01	46.00	-25.99	19.59	Line	-	0.42	9.60	0.11	9.88			
QP	3.279M	23.67	56.00	-32.33	19.70	Line	-	3.97	9.63	0.18	9.89			
AV	3.279M	20.14	46.00	-25.86	19.70	Line	-	0.44	9.63	0.18	9.89			
QP	6.779M	33.11	60.00	-26.89	19.77	Line	-	13.34	9.65	0.23	9.89			
AV	6.779M	28.60	50.00	-21.40	19.77	Line	-	8.83	9.65	0.23	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	4	Power Phase	Neutral
Operating Function	Switching Power Supply mode (TX)		

23/10/2019

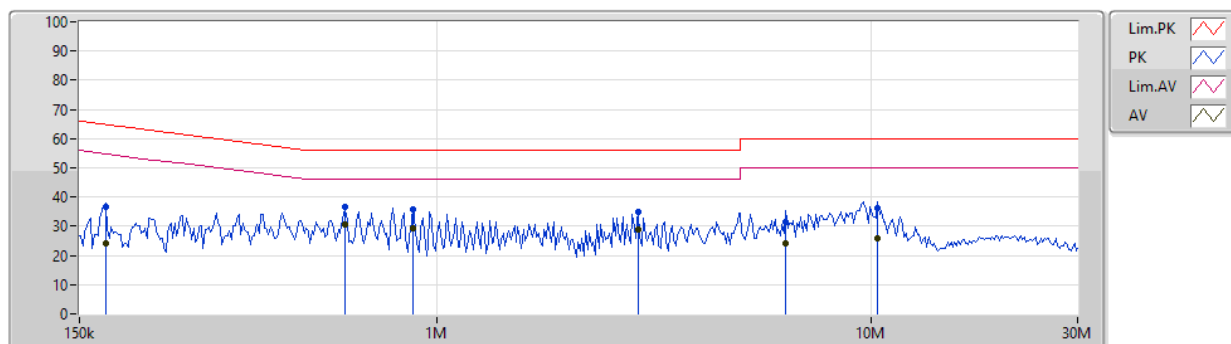


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	439.339k	40.98	57.07	-16.09	19.60	Neutral	-	21.38	9.59	0.13	9.88			
AV	439.339k	37.91	47.07	-9.16	19.60	Neutral	-	18.31	9.59	0.13	9.88			
QP	708.314k	41.81	56.00	-14.19	19.59	Neutral	-	22.22	9.59	0.12	9.88			
AV	708.314k	38.38	46.00	-7.62	19.59	Neutral	-	18.79	9.59	0.12	9.88			
QP	881.649k	42.07	56.00	-13.93	19.58	Neutral	-	22.49	9.59	0.11	9.88			
AV	881.649k	38.88	46.00	-7.12	19.58	Neutral	"Worst"	19.30	9.59	0.11	9.88			
QP	1.142M	38.03	56.00	-17.97	19.59	Neutral	-	18.44	9.59	0.12	9.88			
AV	1.142M	34.64	46.00	-11.36	19.59	Neutral	-	15.05	9.59	0.12	9.88			
QP	2.824M	40.32	56.00	-15.68	19.67	Neutral	-	20.65	9.61	0.17	9.89			
AV	2.824M	36.47	46.00	-9.53	19.67	Neutral	-	16.80	9.61	0.17	9.89			
QP	9.229M	38.58	60.00	-21.42	19.81	Neutral	-	18.77	9.66	0.26	9.89			
AV	9.229M	30.98	50.00	-19.02	19.81	Neutral	-	11.17	9.66	0.26	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	4	Power Phase	Line
Operating Function	Switching Power Supply mode (TX)		

23/10/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	172.421k	36.73	64.83	-28.10	19.58	Line	-	17.15	9.60	0.11	9.87			
AV	172.421k	24.04	54.83	-30.79	19.58	Line	-	4.46	9.60	0.11	9.87			
QP	616.207k	36.46	56.00	-19.54	19.59	Line	-	16.87	9.59	0.12	9.88			
AV	616.207k	30.47	46.00	-15.53	19.59	Line	"Worst"	10.88	9.59	0.12	9.88			
QP	881.649k	35.77	56.00	-20.23	19.59	Line	-	16.18	9.60	0.11	9.88			
AV	881.649k	29.48	46.00	-16.52	19.59	Line	-	9.89	9.60	0.11	9.88			
QP	2.91M	34.82	56.00	-21.18	19.69	Line	-	15.13	9.63	0.17	9.89			
AV	2.91M	28.87	46.00	-17.13	19.69	Line	-	9.18	9.63	0.17	9.89			
QP	6.386M	31.49	60.00	-28.51	19.76	Line	-	11.73	9.65	0.22	9.89			
AV	6.386M	23.97	50.00	-26.03	19.76	Line	-	4.21	9.65	0.22	9.89			
QP	10.399M	36.05	60.00	-23.95	19.83	Line	-	16.22	9.67	0.27	9.89			
AV	10.399M	25.83	50.00	-24.17	19.83	Line	-	6.00	9.67	0.27	9.89			

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	8.075M	10.545M	10M5G1D	8.025M	10.47M
802.11g_Nss1,(6Mbps)_1TX	16.325M	16.442M	16M4D1D	16.3M	16.417M
802.11n HT20_Nss1,(MCS0)_1TX	16.925M	17.516M	17M5D1D	16.55M	17.491M

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;

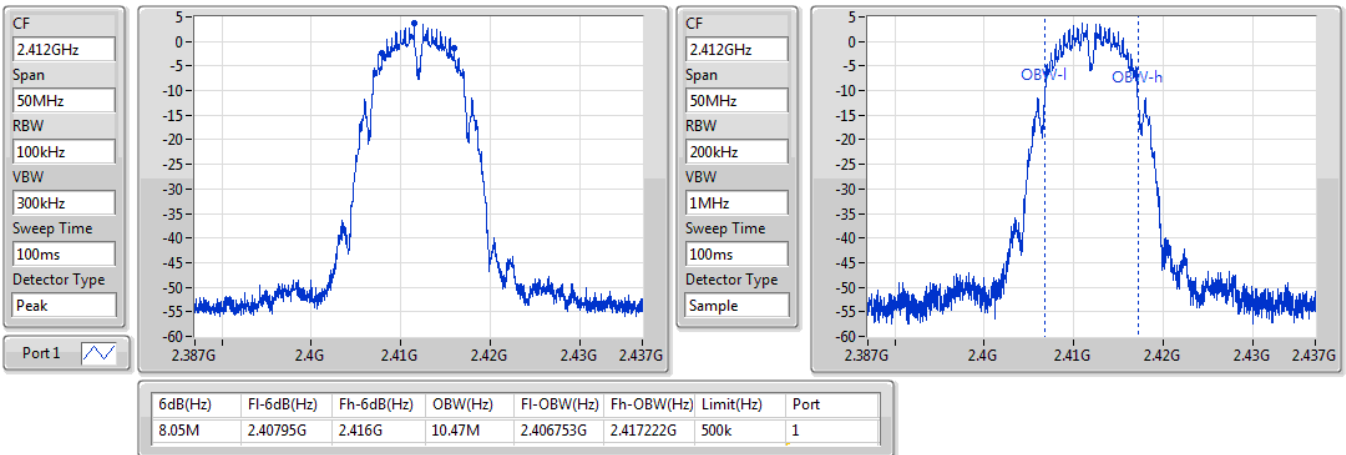
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8.05M	10.47M
2437MHz	Pass	500k	8.025M	10.545M
2462MHz	Pass	500k	8.075M	10.52M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M
2437MHz	Pass	500k	16.3M	16.417M
2462MHz	Pass	500k	16.3M	16.442M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	16.55M	17.516M
2437MHz	Pass	500k	16.925M	17.491M
2462MHz	Pass	500k	16.9M	17.491M

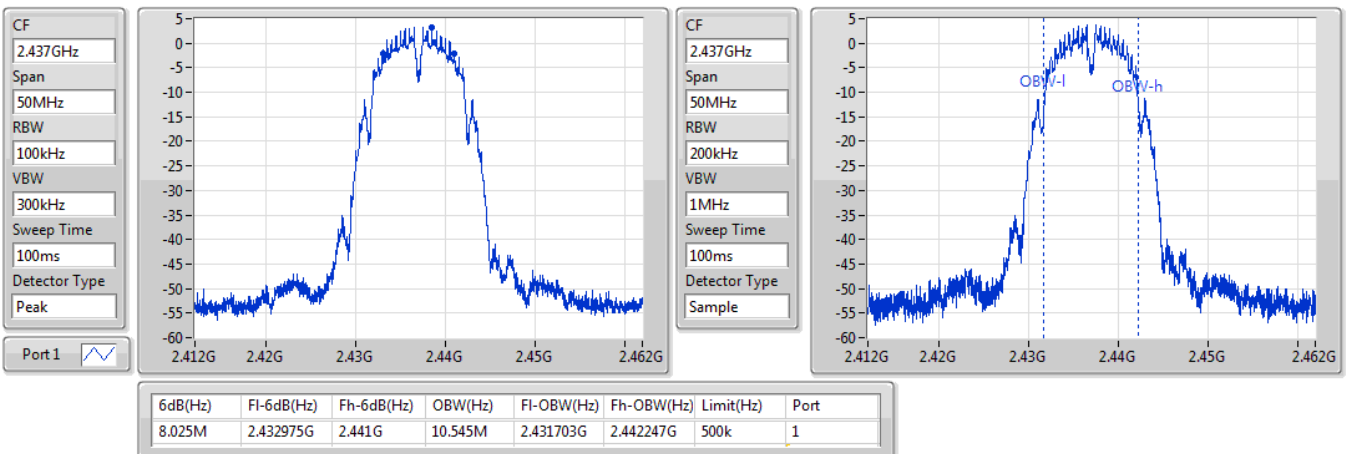
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX
EBW
2412MHz

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802.11b_Nss1,(1Mbps)_1TX
EBW
2437MHz

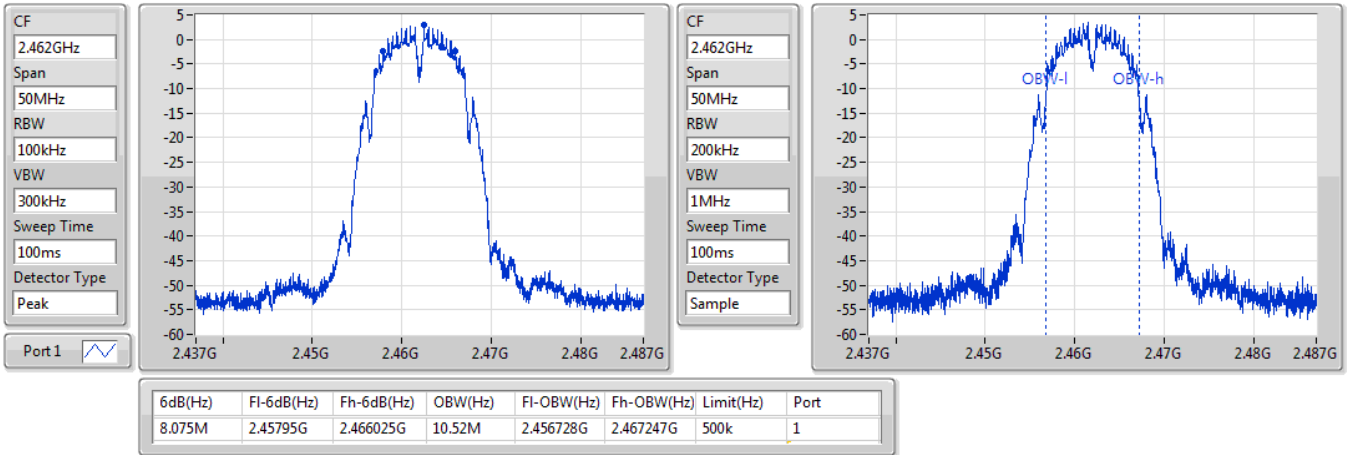
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802.11b_Nss1,(1Mbps)_1TX

EBW
2462MHz

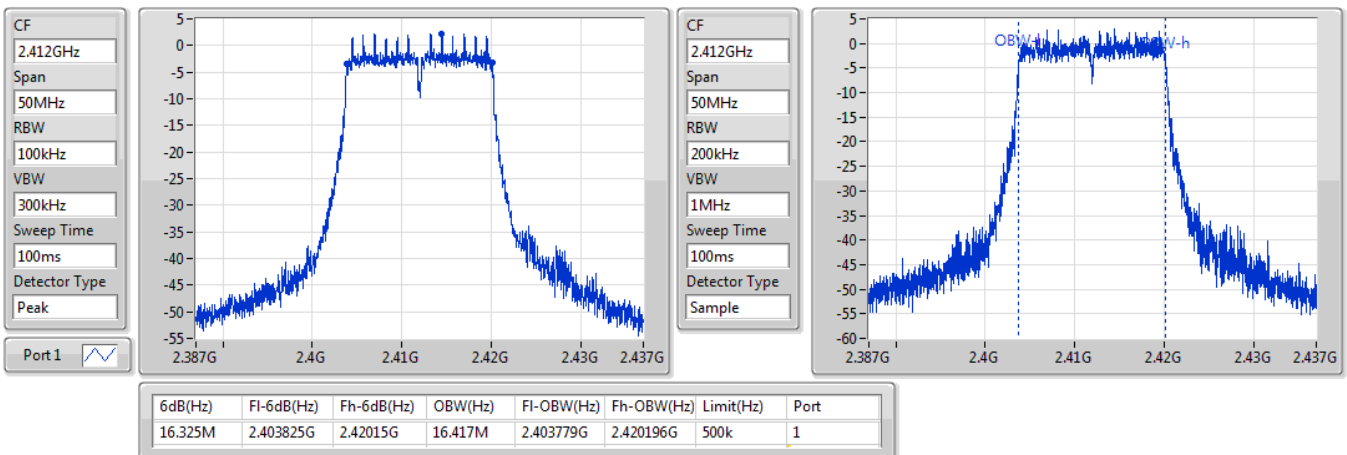
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802.11g_Nss1,(6Mbps)_1TX

EBW
2412MHz

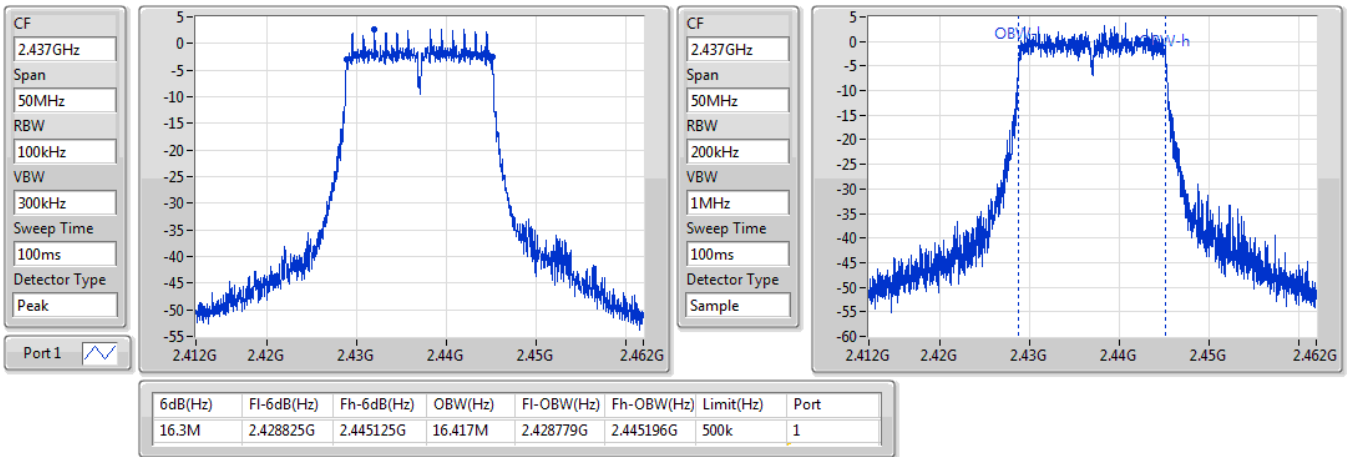
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802.11g_Nss1,(6Mbps)_1TX

EBW
2437MHz

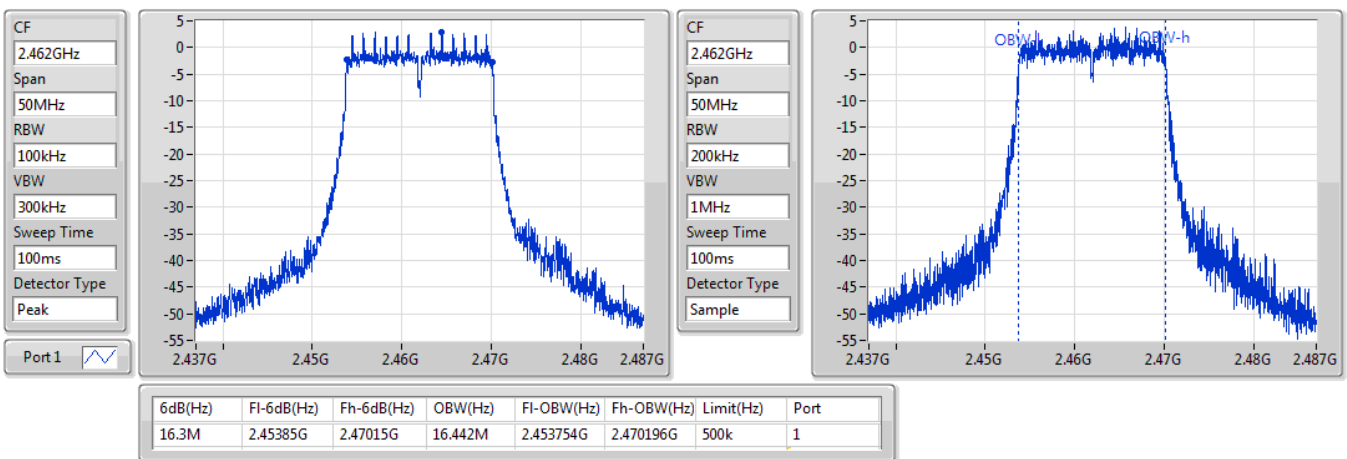
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802.11g_Nss1,(6Mbps)_1TX

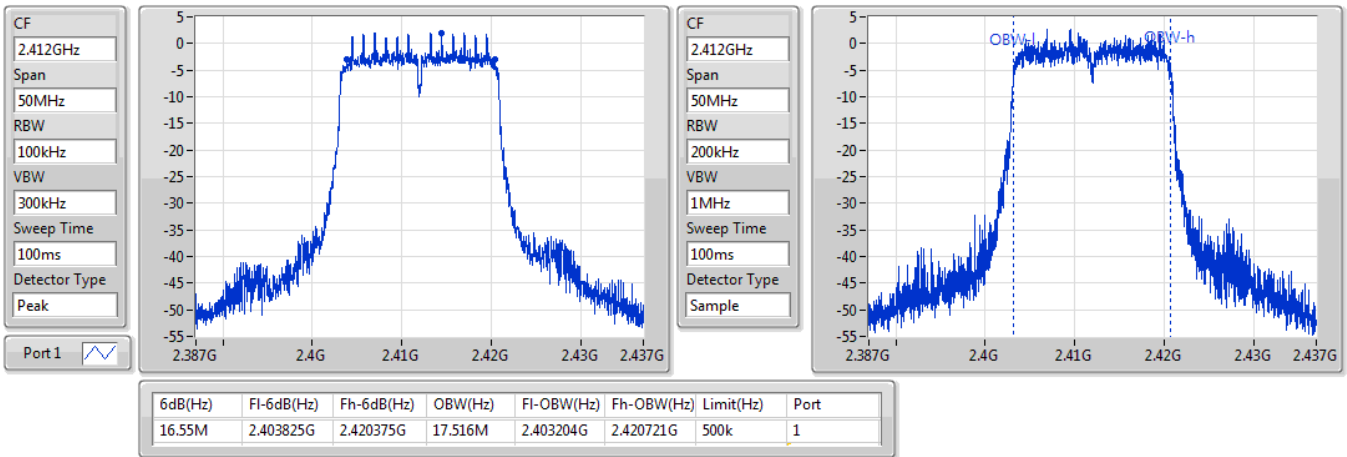
EBW
2462MHz

14/10/2019

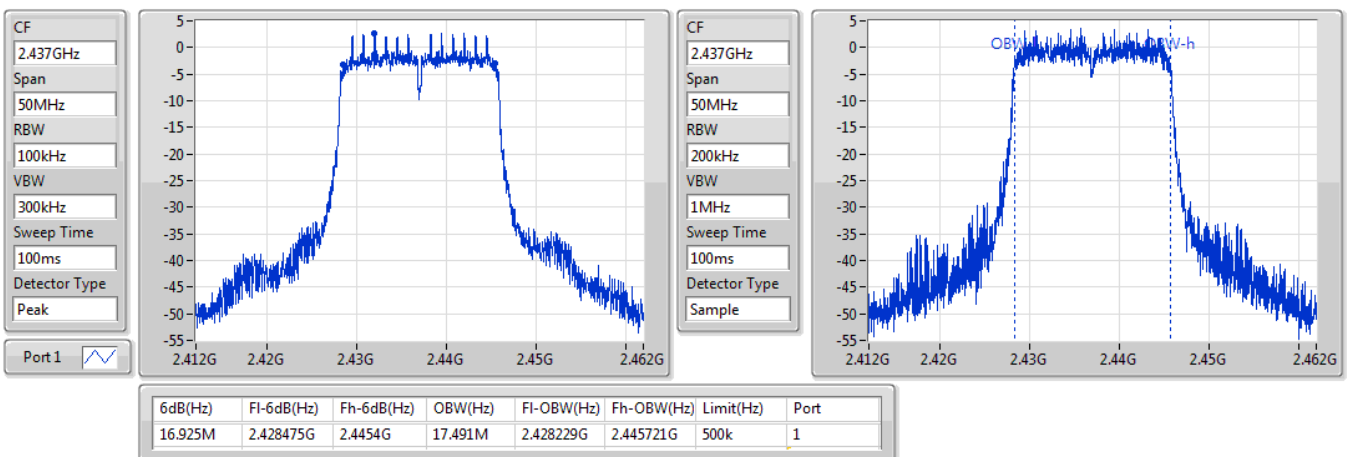


802.11n HT20_Nss1,(MCS0)_1TX
EBW
2412MHz

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802.11n HT20_Nss1,(MCS0)_1TX
EBW
2437MHz

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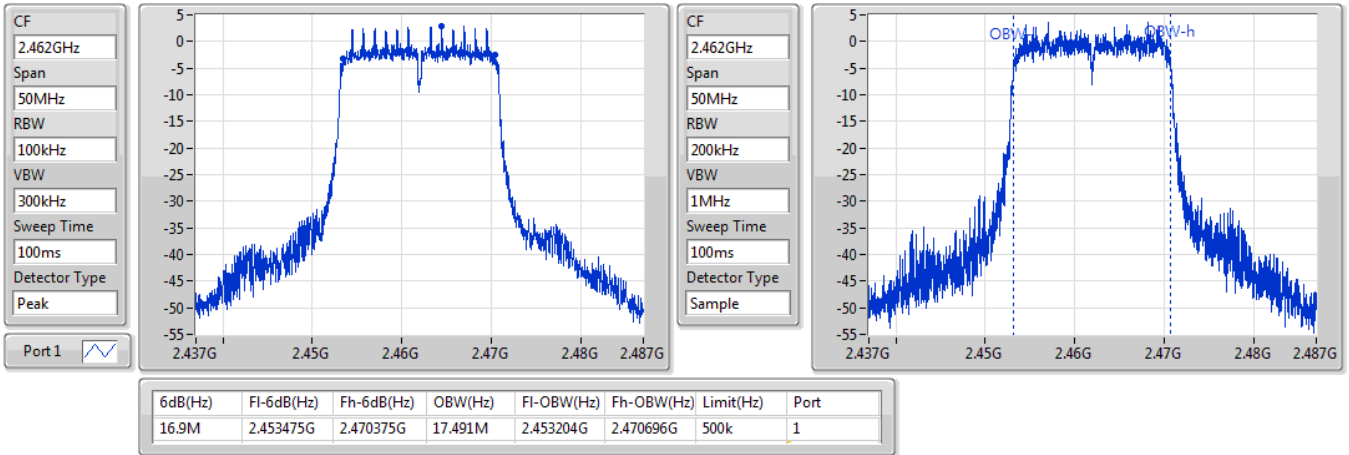


802.11n HT20_Nss1,(MCS0)_1TX

EBW

2462MHz

14/10/2019





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	12.63	0.01832
802.11g_Nss1,(6Mbps)_1TX	14.16	0.02606
802.11n HT20_Nss1,(MCS0)_1TX	14.02	0.02523



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	11.92	11.92	30.00
2437MHz	Pass	2.41	11.92	11.92	30.00
2457MHz	Pass	2.41	12.63	12.63	30.00
2462MHz	Pass	2.41	11.67	11.67	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	13.51	13.51	30.00
2437MHz	Pass	2.41	14.02	14.02	30.00
2462MHz	Pass	2.41	14.16	14.16	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	13.08	13.08	30.00
2437MHz	Pass	2.41	13.86	13.86	30.00
2462MHz	Pass	2.41	14.02	14.02	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-11.63
802.11g_Nss1,(6Mbps)_1TX	-11.87
802.11n HT20_Nss1,(MCS0)_1TX	-11.90

RBW=3 kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	-12.12	-12.12	8.00
2437MHz	Pass	2.41	-12.58	-12.58	8.00
2462MHz	Pass	2.41	-11.63	-11.63	8.00
2457MHz					
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	-12.47	-12.47	8.00
2437MHz	Pass	2.41	-12.09	-12.09	8.00
2462MHz	Pass	2.41	-11.87	-11.87	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.41	-13.01	-13.01	8.00
2437MHz	Pass	2.41	-11.90	-11.90	8.00
2462MHz	Pass	2.41	-12.06	-12.06	8.00

DG = Directional Gain; RBW=3 kHz;

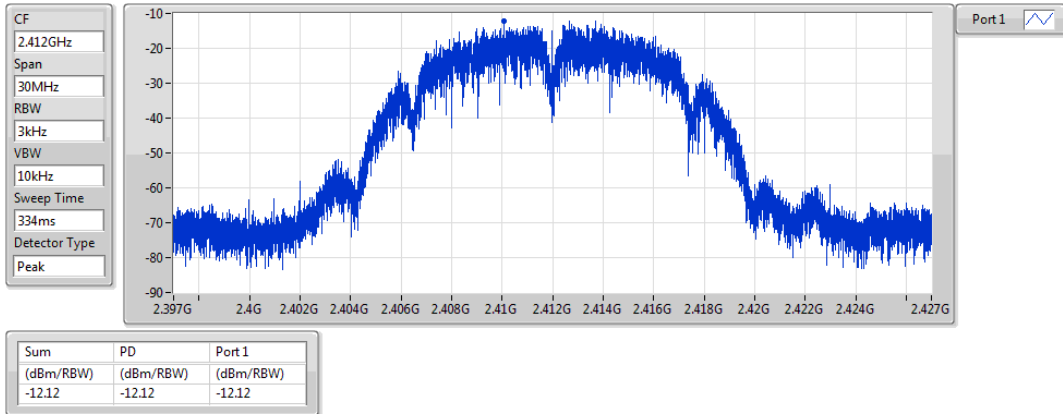
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

14/10/2019

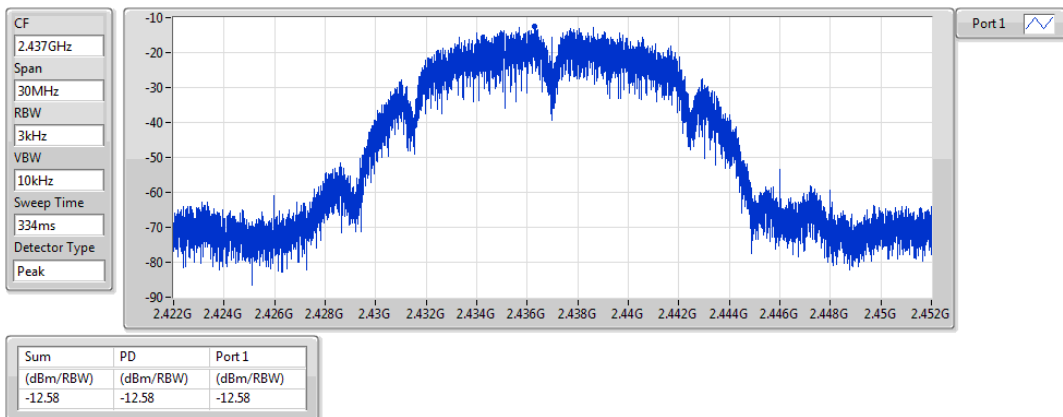


802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

14/10/2019

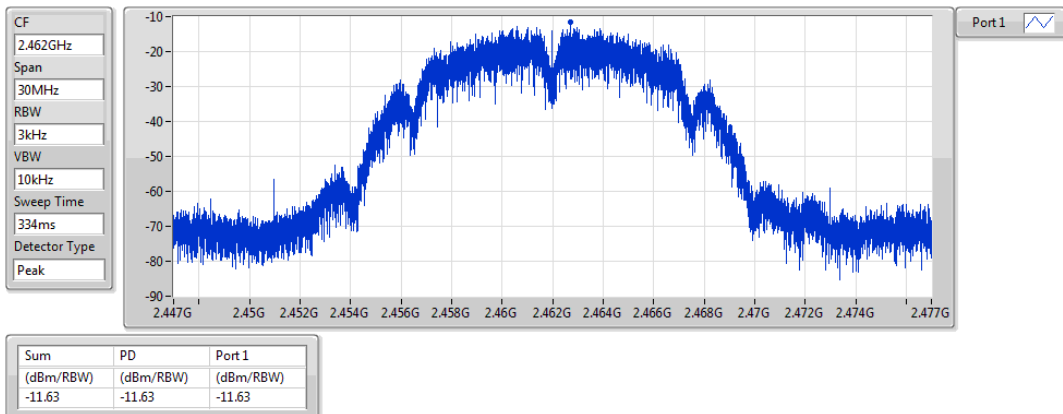


802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

14/10/2019

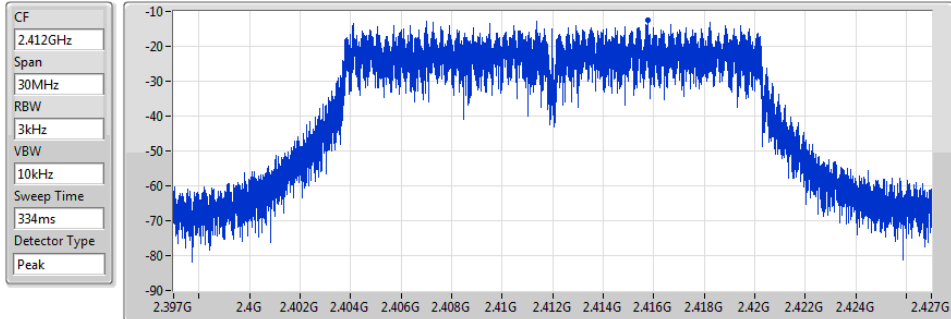


802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

14/10/2019



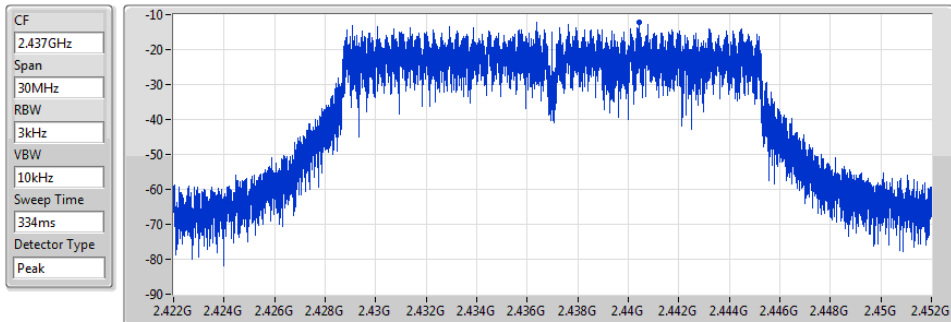
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-12.47	-12.47	-12.47

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

14/10/2019



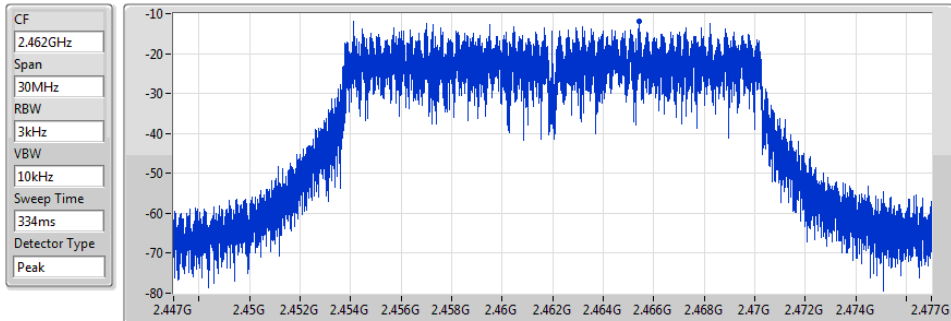
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-12.09	-12.09	-12.09

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

14/10/2019



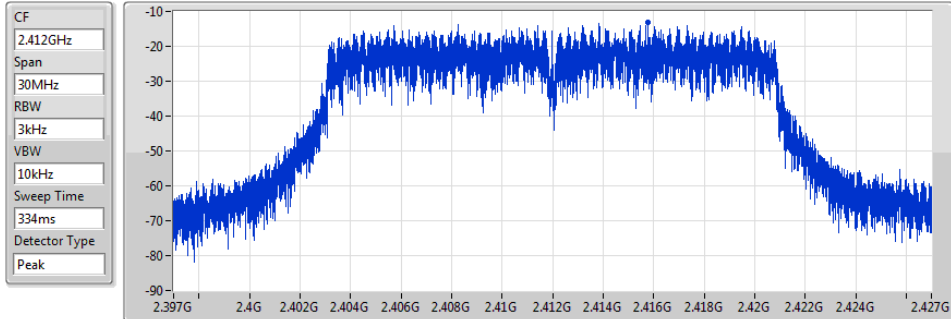
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-11.87	-11.87	-11.87

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2412MHz

14/10/2019

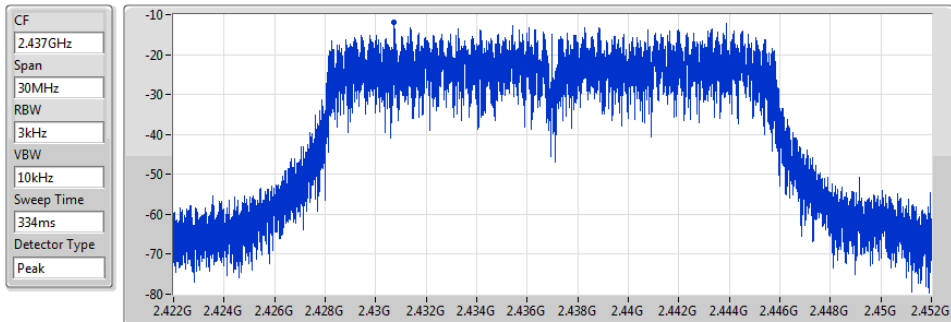


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

14/10/2019

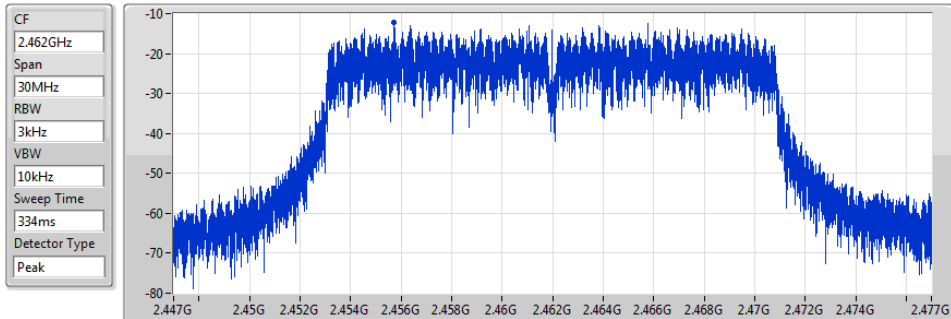


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2462MHz

14/10/2019





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	2.4605G	2.72	-27.28	2.16224G	-54.68	2.39652G	-51.30	2.4906G	-51.03	15.30701G	-40.64	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.45699G	2.66	-27.34	2.18205G	-54.77	2.3995G	-38.34	2.48762G	-50.52	15.31825G	-40.66	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.4645G	2.63	-27.37	2.19777G	-53.81	2.39886G	-36.14	2.52164G	-50.84	24.78085G	-41.56	1

Result

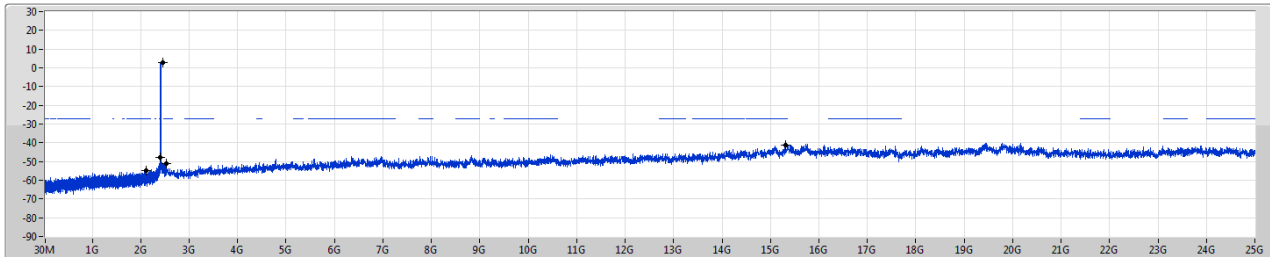
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4605G	2.72	-27.28	2.10807G	-54.97	2.398G	-47.85	2.5203G	-51.08	15.32106G	-41.02	1
2437MHz	Pass	2.4605G	2.72	-27.28	2.16748G	-54.36	2.3926G	-52.45	2.50606G	-51.44	24.4128G	-40.74	1
2462MHz	Pass	2.4605G	2.72	-27.28	2.16224G	-54.68	2.39652G	-51.30	2.4906G	-51.03	15.30701G	-40.64	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.45699G	2.66	-27.34	2.18205G	-54.77	2.3995G	-38.34	2.48762G	-50.52	15.31825G	-40.66	1
2437MHz	Pass	2.45699G	2.66	-27.34	2.30612G	-54.65	2.39796G	-51.63	2.5199G	-51.76	16.98151G	-41.42	1
2462MHz	Pass	2.45699G	2.66	-27.34	2.17331G	-53.80	2.39782G	-52.75	2.48572G	-47.24	15.09067G	-41.39	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4645G	2.63	-27.37	2.19777G	-53.81	2.39886G	-36.14	2.52164G	-50.84	24.78085G	-41.56	1
2437MHz	Pass	2.4645G	2.63	-27.37	2.30525G	-54.81	2.39886G	-51.95	2.48568G	-51.08	15.12439G	-40.31	1
2462MHz	Pass	2.4645G	2.63	-27.37	2.30088G	-54.81	2.39992G	-52.14	2.48388G	-44.02	24.3538G	-40.70	1

802.11b_Nss1,(1Mbps)_1TX

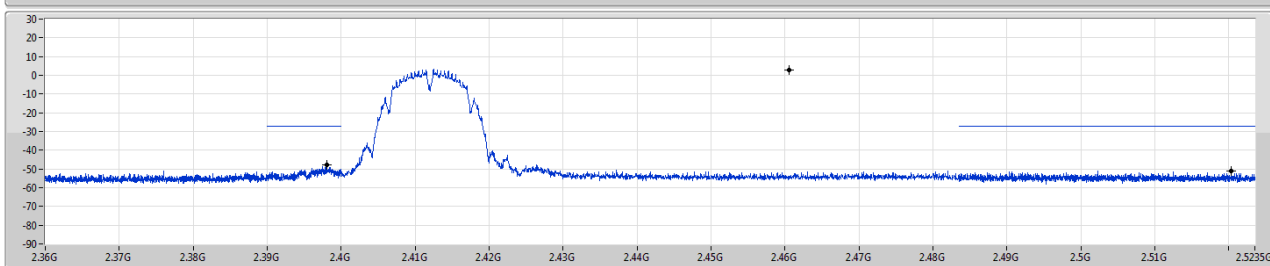
CSE NdB

2412MHz

14/10/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

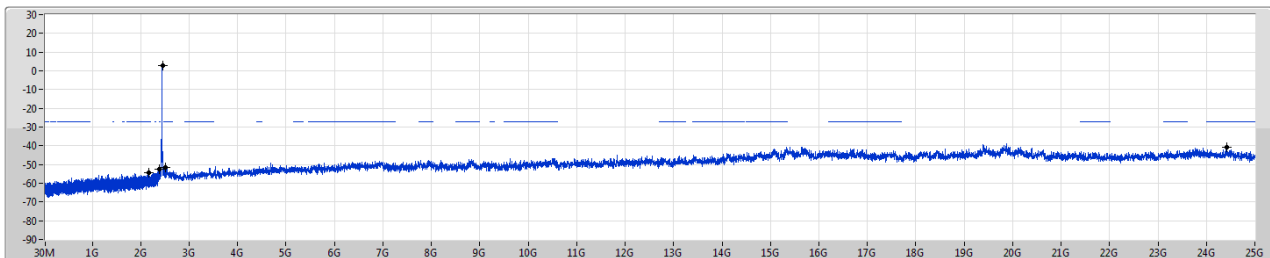
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4605G	2.72	-27.28	2.10807G	-54.97	2.398G	-47.85	2.5203G	-51.08	15.32106G	-41.02	1

802.11b_Nss1,(1Mbps)_1TX

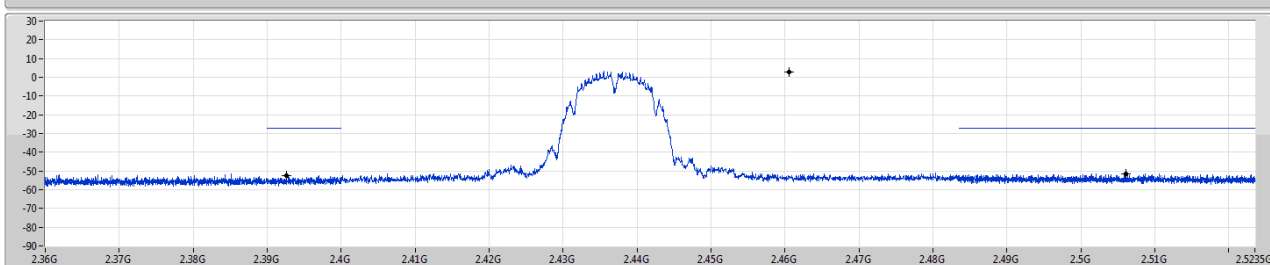
CSE NdB

2437MHz

14/10/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4605G	2.72	-27.28	2.16748G	-54.36	2.3926G	-52.45	2.50606G	-51.44	24.4128G	-40.74	1

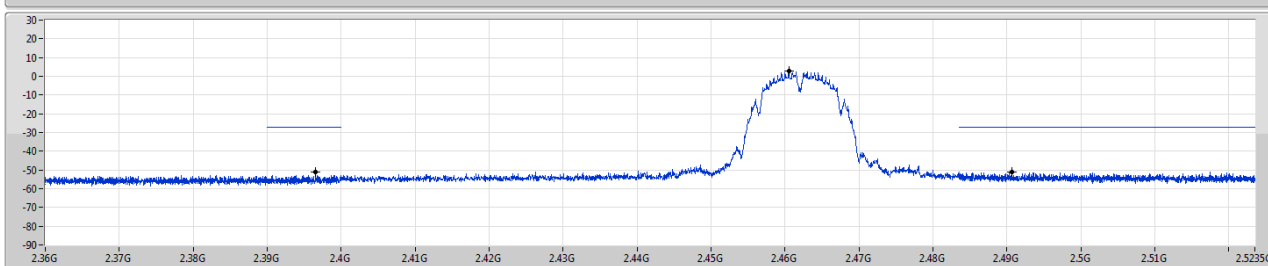
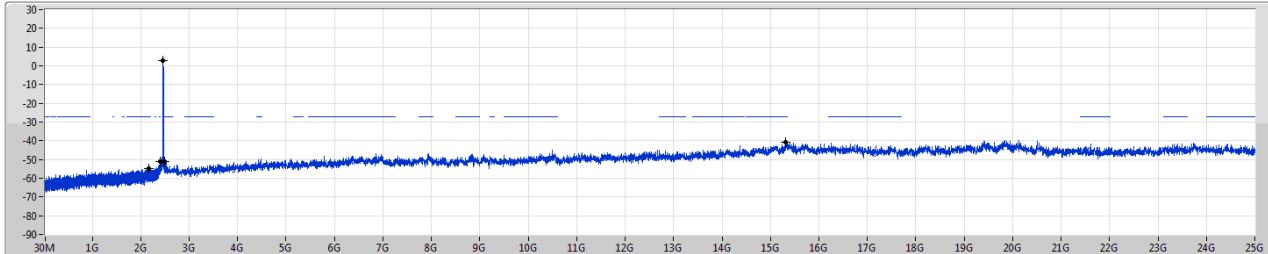
802.11b_Nss1,(1Mbps)_1TX

2462MHz

CSE NdB

14/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4605G	2.72	-27.28	2.16224G	-54.68	2.39652G	-51.30	2.4906G	-51.03	15.30701G	-40.64	1

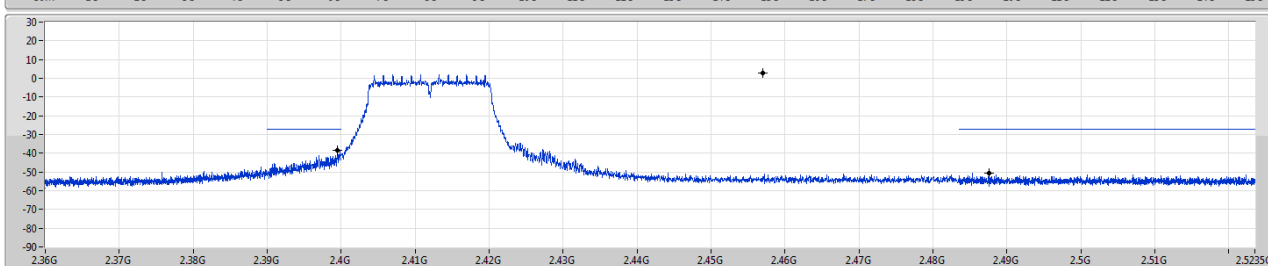
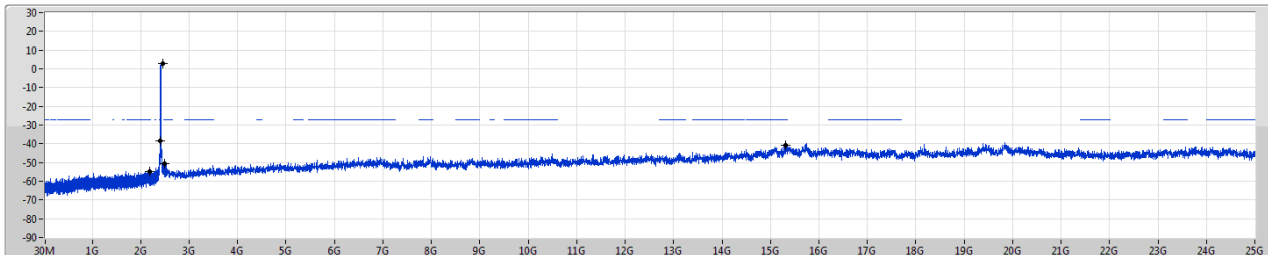
802.11g_Nss1,(6Mbps)_1TX

2412MHz

CSE NdB

14/10/2019

Port1



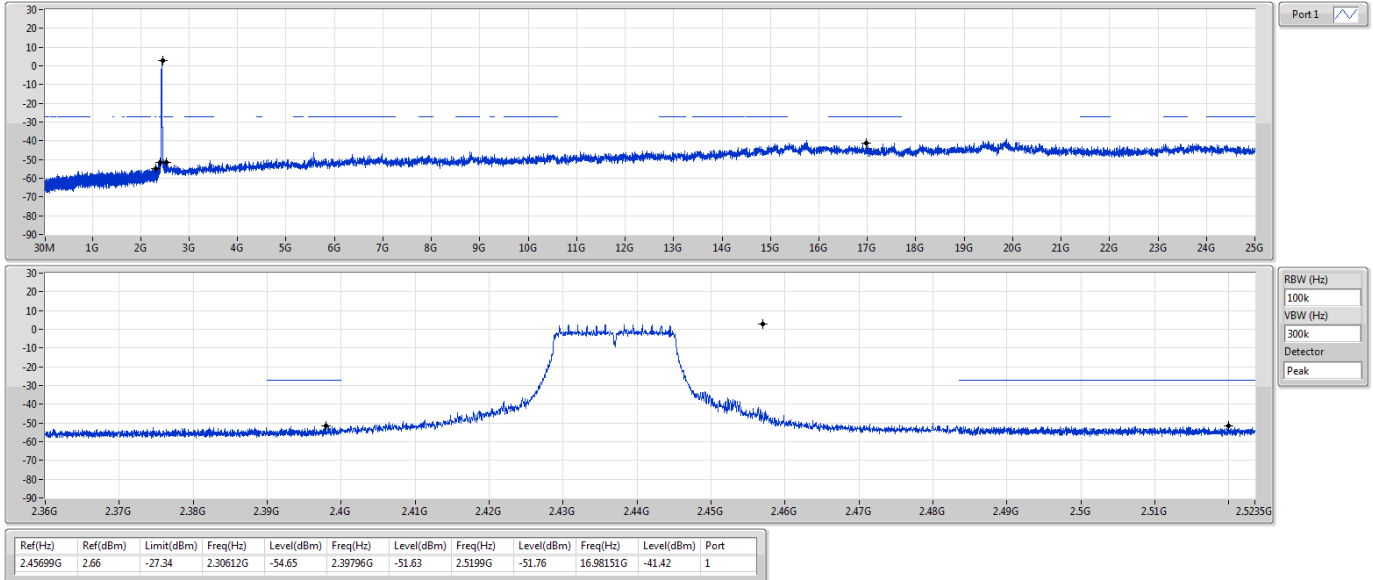
RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45699G	2.66	-27.34	2.18205G	-54.77	2.3995G	-38.34	2.48762G	-50.52	15.31825G	-40.66	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

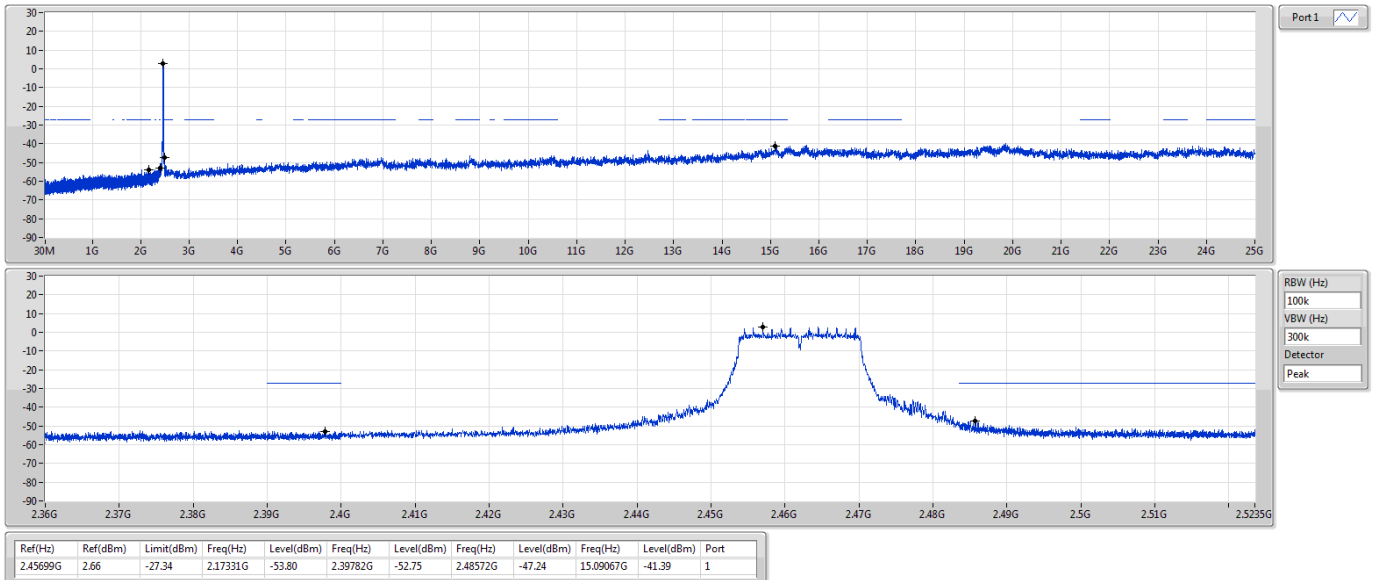
2437MHz



802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2462MHz

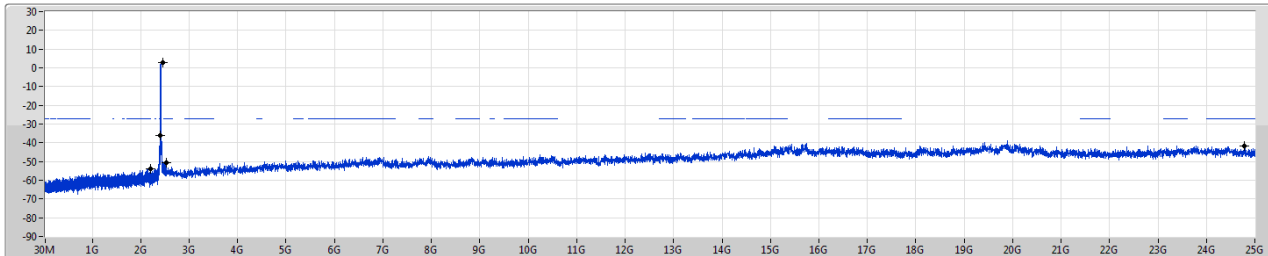


802.11n HT20_Nss1,(MCS0)_1TX

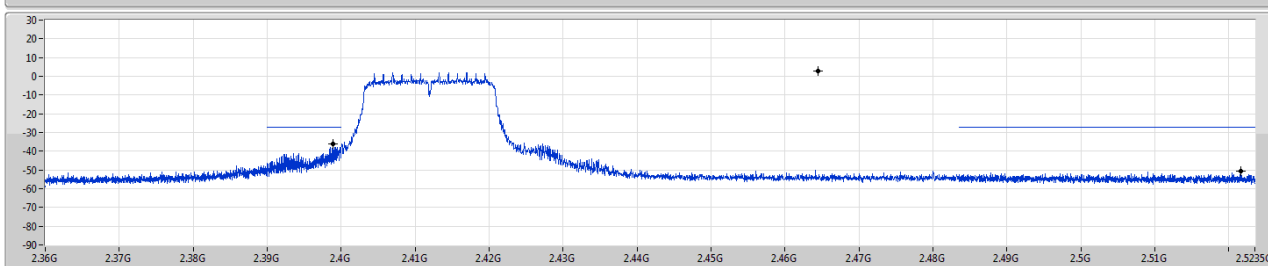
CSE NdB

2412MHz

14/10/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

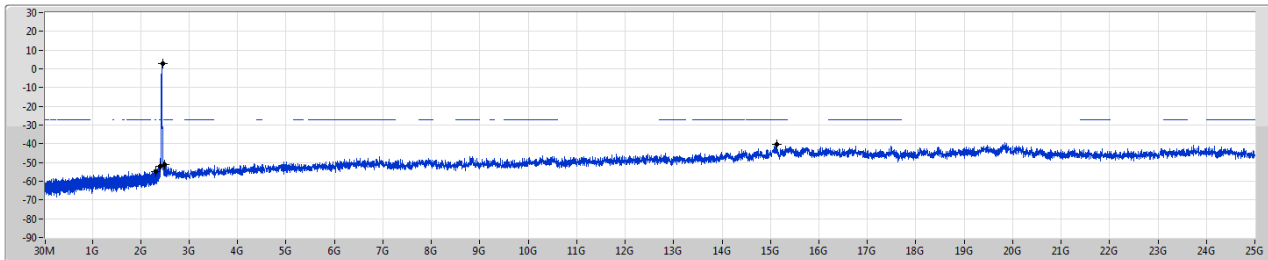
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4645G	2.63	-27.37	2.19777G	-53.81	2.39886G	-36.14	2.52164G	-50.84	24.78085G	-41.56	1

802.11n HT20_Nss1,(MCS0)_1TX

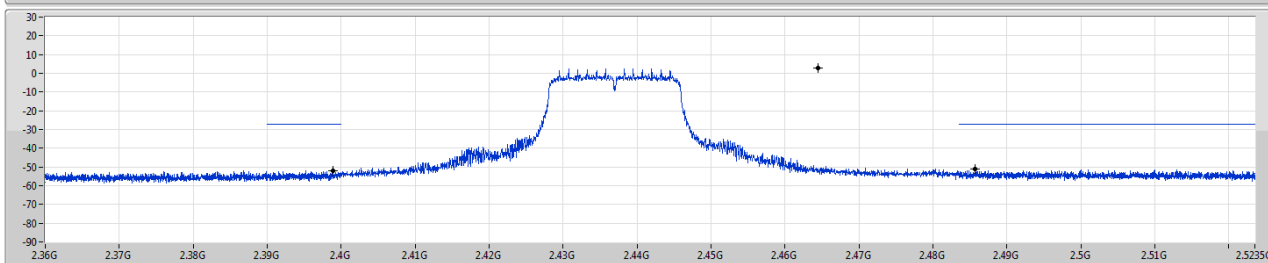
CSE NdB

2437MHz

14/10/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

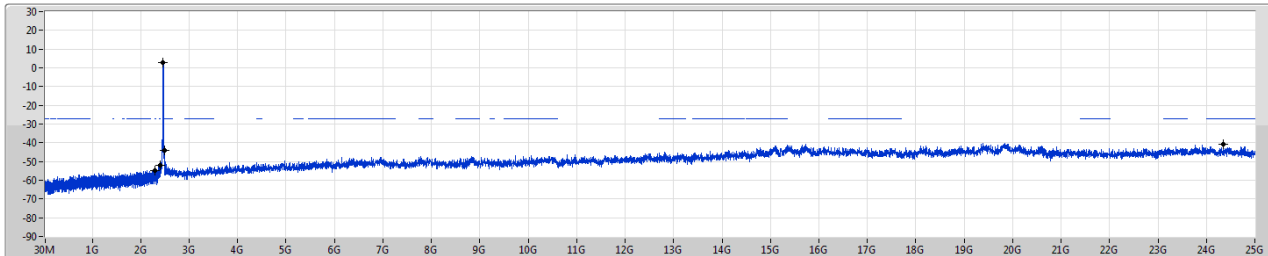
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4645G	2.63	-27.37	2.30525G	-54.81	2.39886G	-51.95	2.48568G	-51.08	15.12439G	-40.31	1

802.11n HT20_Nss1,(MCS0)_1TX

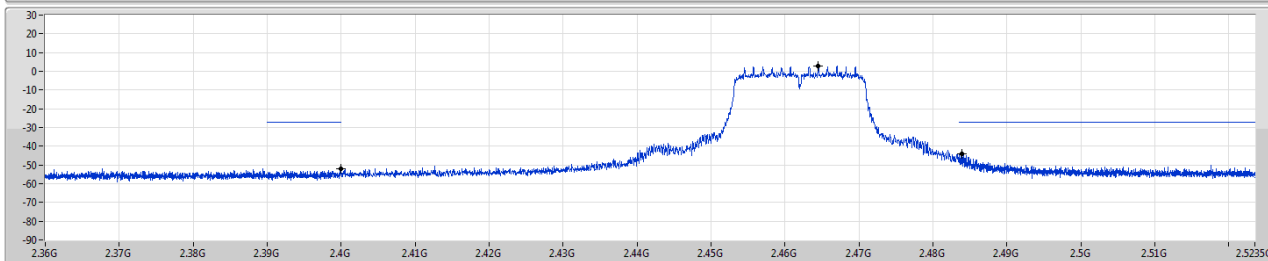
CSE NdB

2462MHz

14/10/2019



Port 1

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4645G	2.63	-27.37	2.30088G	-54.81	2.39992G	-52.14	2.48388G	-44.02	24.3538G	-40.70	1



Summary

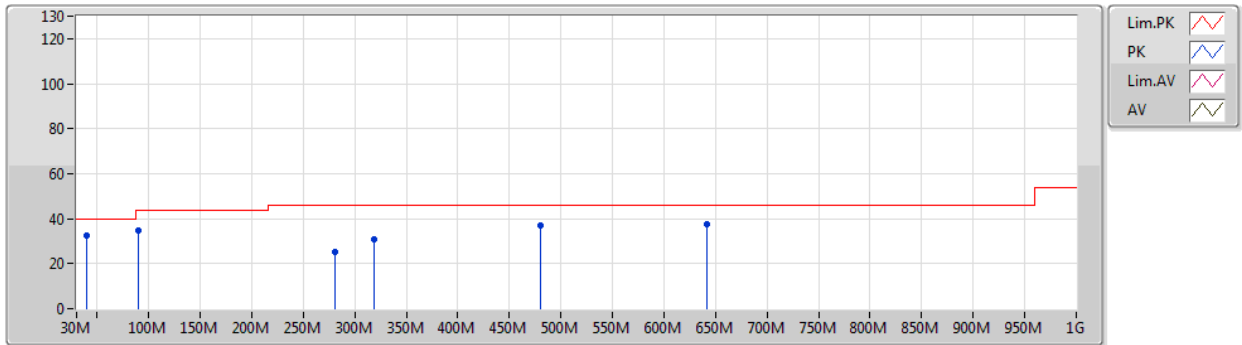
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	480.08M	41.11	46.00	-4.89	3	Horizontal	360	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	39.7M	32.40	40.00	-7.60	3	Vertical	0	1.00	-
2437MHz	Pass	PK	90.14M	34.84	43.50	-8.66	3	Vertical	0	1.00	-
2437MHz	Pass	PK	280.26M	25.27	46.00	-20.73	3	Vertical	0	1.00	-
2437MHz	Pass	PK	319.06M	30.69	46.00	-15.31	3	Vertical	0	1.00	-
2437MHz	Pass	PK	480.08M	36.91	46.00	-9.09	3	Vertical	0	1.00	-
2437MHz	Pass	PK	641.1M	37.48	46.00	-8.52	3	Vertical	0	1.00	-
2437MHz	Pass	PK	90.14M	25.81	43.50	-17.69	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	198.78M	27.25	43.50	-16.25	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	280.26M	27.43	46.00	-18.57	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	319.06M	35.01	46.00	-10.99	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	480.08M	41.11	46.00	-4.89	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	641.1M	40.56	46.00	-5.44	3	Horizontal	360	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX 2437MHz_Switching Power Supply

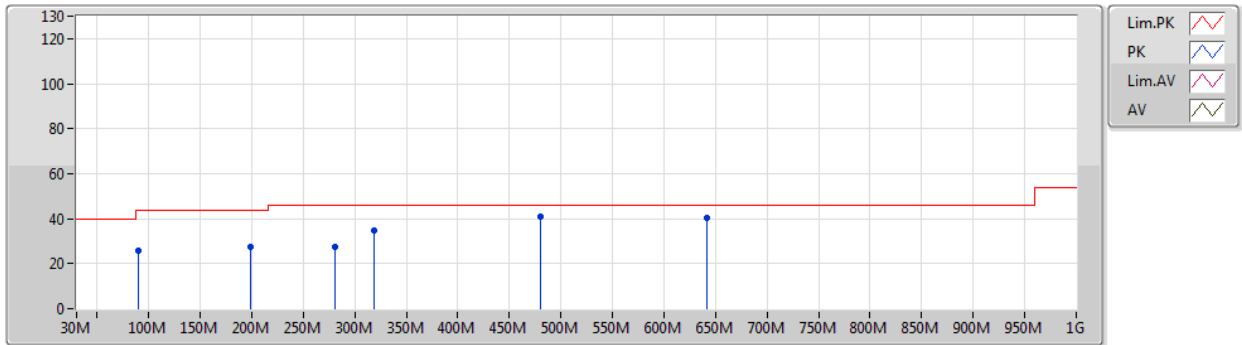
07/10/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	39.7M	32.40	40.00	-7.60	-9.42	3	Vertical	0	1.00	-	41.82	17.62	0.64	27.68
PK	90.14M	34.84	43.50	-8.66	-12.52	3	Vertical	0	1.00	-	47.36	13.84	1.39	27.75
PK	280.26M	25.27	46.00	-20.73	-6.32	3	Vertical	0	1.00	-	31.59	17.97	2.88	27.17
PK	319.06M	30.69	46.00	-15.31	-5.55	3	Vertical	0	1.00	-	36.24	18.70	3.04	27.29
PK	480.08M	36.91	46.00	-9.09	-2.44	3	Vertical	0	1.00	-	39.35	22.65	3.28	28.37
PK	641.1M	37.48	46.00	-8.52	-0.50	3	Vertical	0	1.00	-	37.98	24.26	3.77	28.53

802.11n HT20_Nss1,(MCS0)_1TX 2437MHz_Switching Power Supply

07/10/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	90.14M	25.81	43.50	-17.69	-12.52	3	Horizontal	360	1.00	-	38.33	13.84	1.39	27.75
PK	198.78M	27.25	43.50	-16.25	-10.66	3	Horizontal	360	1.00	-	37.91	14.43	2.30	27.39
PK	280.26M	27.43	46.00	-18.57	-6.32	3	Horizontal	360	1.00	-	33.75	17.97	2.88	27.17
PK	319.06M	35.01	46.00	-10.99	-5.55	3	Horizontal	360	1.00	-	40.56	18.70	3.04	27.29
PK	480.08M	41.11	46.00	-4.89	-2.44	3	Horizontal	360	1.00	-	43.55	22.65	3.28	28.37
PK	641.1M	40.56	46.00	-5.44	-0.50	3	Horizontal	360	1.00	-	41.06	24.26	3.77	28.53

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	4.924G	53.74	54.00	-0.26	3	Horizontal	148	1.00	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	2.3898G	47.09	54.00	-6.91	3	Horizontal	175	1.56	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	2.39G	47.71	54.00	-6.29	3	Vertical	176	1.83	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3872G	43.99	54.00	-10.01	3	Vertical	240	1.19	-
2412MHz	Pass	AV	2.4128G	90.29	Inf	-Inf	3	Vertical	240	1.19	-
2412MHz	Pass	PK	2.3636G	55.95	74.00	-18.05	3	Vertical	240	1.19	-
2412MHz	Pass	PK	2.413G	94.97	Inf	-Inf	3	Vertical	240	1.19	-
2412MHz	Pass	AV	2.3872G	44.58	54.00	-9.42	3	Horizontal	176	1.69	-
2412MHz	Pass	AV	2.4128G	96.02	Inf	-Inf	3	Horizontal	176	1.69	-
2412MHz	Pass	PK	2.3894G	56.65	74.00	-17.35	3	Horizontal	176	1.69	-
2412MHz	Pass	PK	2.413G	100.71	Inf	-Inf	3	Horizontal	176	1.69	-
2412MHz	Pass	AV	4.82395G	50.97	54.00	-3.03	3	Vertical	226	1.41	-
2412MHz	Pass	PK	4.82394G	54.11	74.00	-19.89	3	Vertical	226	1.41	-
2412MHz	Pass	AV	4.82397G	53.70	54.00	-0.30	3	Horizontal	137	1.04	-
2412MHz	Pass	PK	4.82399G	56.46	74.00	-17.54	3	Horizontal	137	1.04	-
2437MHz	Pass	AV	2.3598G	43.93	54.00	-10.07	3	Vertical	139	1.00	-
2437MHz	Pass	AV	2.4378G	87.55	Inf	-Inf	3	Vertical	139	1.00	-
2437MHz	Pass	AV	2.4922G	44.35	54.00	-9.65	3	Vertical	139	1.00	-
2437MHz	Pass	PK	2.3862G	56.65	74.00	-17.35	3	Vertical	139	1.00	-
2437MHz	Pass	PK	2.4378G	92.39	Inf	-Inf	3	Vertical	139	1.00	-
2437MHz	Pass	PK	2.4882G	56.69	74.00	-17.31	3	Vertical	139	1.00	-
2437MHz	Pass	AV	2.389G	44.06	54.00	-9.94	3	Horizontal	177	1.79	-
2437MHz	Pass	AV	2.4378G	93.51	Inf	-Inf	3	Horizontal	177	1.79	-
2437MHz	Pass	AV	2.4962G	44.65	54.00	-9.35	3	Horizontal	177	1.79	-
2437MHz	Pass	PK	2.3514G	56.44	74.00	-17.56	3	Horizontal	177	1.79	-
2437MHz	Pass	PK	2.4378G	98.07	Inf	-Inf	3	Horizontal	177	1.79	-
2437MHz	Pass	PK	2.4902G	56.57	74.00	-17.43	3	Horizontal	177	1.79	-
2437MHz	Pass	AV	4.87397G	50.23	54.00	-3.77	3	Vertical	225	1.50	-
2437MHz	Pass	PK	4.874G	53.54	74.00	-20.46	3	Vertical	225	1.50	-
2437MHz	Pass	AV	4.87397G	53.70	54.00	-0.30	3	Horizontal	142	2.49	-
2437MHz	Pass	PK	4.87398G	56.44	74.00	-17.56	3	Horizontal	142	2.49	-
2457MHz	Pass	AV	2.4576G	86.14	Inf	-Inf	3	Vertical	139	1.00	-
2457MHz	Pass	AV	2.4998G	44.30	54.00	-9.70	3	Vertical	139	1.00	-
2457MHz	Pass	PK	2.458G	93.31	Inf	-Inf	3	Vertical	139	1.00	-
2457MHz	Pass	PK	2.4868G	57.07	74.00	-16.93	3	Vertical	139	1.00	-
2457MHz	Pass	AV	2.4562G	90.82	Inf	-Inf	3	Horizontal	175	1.72	-
2457MHz	Pass	AV	2.4984G	44.57	54.00	-9.43	3	Horizontal	175	1.72	-
2457MHz	Pass	PK	2.458G	98.17	Inf	-Inf	3	Horizontal	175	1.72	-
2457MHz	Pass	PK	2.4944G	56.82	74.00	-17.18	3	Horizontal	175	1.72	-
2462MHz	Pass	AV	2.4612G	87.73	Inf	-Inf	3	Vertical	140	1.00	-
2462MHz	Pass	AV	2.4992G	44.39	54.00	-9.61	3	Vertical	140	1.00	-
2462MHz	Pass	PK	2.461G	92.44	Inf	-Inf	3	Vertical	140	1.00	-
2462MHz	Pass	PK	2.4902G	57.52	74.00	-16.48	3	Vertical	140	1.00	-
2462MHz	Pass	AV	2.4628G	93.18	Inf	-Inf	3	Horizontal	175	1.76	-
2462MHz	Pass	AV	2.4986G	44.70	54.00	-9.30	3	Horizontal	175	1.76	-
2462MHz	Pass	PK	2.463G	97.91	Inf	-Inf	3	Horizontal	175	1.76	-
2462MHz	Pass	PK	2.498G	57.05	74.00	-16.95	3	Horizontal	175	1.76	-
2462MHz	Pass	AV	4.92397G	48.17	54.00	-5.83	3	Vertical	226	1.49	-
2462MHz	Pass	PK	4.92398G	52.03	74.00	-21.97	3	Vertical	226	1.49	-
2462MHz	Pass	AV	4.924G	53.74	54.00	-0.26	3	Horizontal	148	1.00	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	PK	4.92393G	56.54	74.00	-17.46	3	Horizontal	148	1.00	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	45.40	54.00	-8.60	3	Vertical	239	1.19	-
2412MHz	Pass	AV	2.4128G	86.04	Inf	-Inf	3	Vertical	239	1.19	-
2412MHz	Pass	PK	2.3878G	57.04	74.00	-16.96	3	Vertical	239	1.19	-
2412MHz	Pass	PK	2.418G	94.97	Inf	-Inf	3	Vertical	239	1.19	-
2412MHz	Pass	AV	2.3898G	47.09	54.00	-6.91	3	Horizontal	175	1.56	-
2412MHz	Pass	AV	2.415G	91.55	Inf	-Inf	3	Horizontal	175	1.56	-
2412MHz	Pass	PK	2.3862G	59.03	74.00	-14.97	3	Horizontal	175	1.56	-
2412MHz	Pass	PK	2.418G	101.18	Inf	-Inf	3	Horizontal	175	1.56	-
2412MHz	Pass	AV	4.82538G	42.27	54.00	-11.73	3	Vertical	226	1.44	-
2412MHz	Pass	PK	4.82532G	54.60	74.00	-19.40	3	Vertical	226	1.44	-
2412MHz	Pass	AV	4.82256G	45.25	54.00	-8.75	3	Horizontal	127	1.00	-
2412MHz	Pass	PK	4.82034G	57.68	74.00	-16.32	3	Horizontal	127	1.00	-
2437MHz	Pass	AV	2.3454G	44.95	54.00	-9.05	3	Vertical	141	1.00	-
2437MHz	Pass	AV	2.4378G	86.23	Inf	-Inf	3	Vertical	141	1.00	-
2437MHz	Pass	AV	2.4966G	45.49	54.00	-8.51	3	Vertical	141	1.00	-
2437MHz	Pass	PK	2.381G	56.66	74.00	-17.34	3	Vertical	141	1.00	-
2437MHz	Pass	PK	2.443G	95.31	Inf	-Inf	3	Vertical	141	1.00	-
2437MHz	Pass	PK	2.491G	56.62	74.00	-17.38	3	Vertical	141	1.00	-
2437MHz	Pass	AV	2.3522G	44.93	54.00	-9.07	3	Horizontal	177	1.80	-
2437MHz	Pass	AV	2.4378G	92.16	Inf	-Inf	3	Horizontal	177	1.80	-
2437MHz	Pass	AV	2.4874G	45.51	54.00	-8.49	3	Horizontal	177	1.80	-
2437MHz	Pass	PK	2.383G	56.45	74.00	-17.55	3	Horizontal	177	1.80	-
2437MHz	Pass	PK	2.443G	101.51	Inf	-Inf	3	Horizontal	177	1.80	-
2437MHz	Pass	PK	2.4954G	56.27	74.00	-17.73	3	Horizontal	177	1.80	-
2437MHz	Pass	AV	4.87556G	41.82	54.00	-12.18	3	Vertical	225	1.48	-
2437MHz	Pass	PK	4.87052G	54.14	74.00	-19.86	3	Vertical	225	1.48	-
2437MHz	Pass	AV	4.87268G	44.91	54.00	-9.09	3	Horizontal	142	2.48	-
2437MHz	Pass	PK	4.8704G	57.57	74.00	-16.43	3	Horizontal	142	2.48	-
2462MHz	Pass	AV	2.457G	86.81	Inf	-Inf	3	Vertical	141	1.00	-
2462MHz	Pass	AV	2.4864G	45.63	54.00	-8.37	3	Vertical	141	1.00	-
2462MHz	Pass	PK	2.4586G	95.89	Inf	-Inf	3	Vertical	141	1.00	-
2462MHz	Pass	PK	2.4856G	56.32	74.00	-17.68	3	Vertical	141	1.00	-
2462MHz	Pass	AV	2.4626G	92.40	Inf	-Inf	3	Horizontal	178	1.77	-
2462MHz	Pass	AV	2.4835G	46.55	54.00	-7.45	3	Horizontal	178	1.77	-
2462MHz	Pass	PK	2.4678G	101.70	Inf	-Inf	3	Horizontal	178	1.77	-
2462MHz	Pass	PK	2.4836G	58.54	74.00	-15.46	3	Horizontal	178	1.77	-
2462MHz	Pass	AV	4.92568G	40.57	54.00	-13.43	3	Vertical	227	1.47	-
2462MHz	Pass	PK	4.92028G	53.41	74.00	-20.59	3	Vertical	227	1.47	-
2462MHz	Pass	AV	4.9255G	46.07	54.00	-7.93	3	Horizontal	148	1.00	-
2462MHz	Pass	PK	4.9252G	58.28	74.00	-15.72	3	Horizontal	148	1.00	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	47.71	54.00	-6.29	3	Vertical	176	1.83	-
2412MHz	Pass	AV	2.4144G	91.12	Inf	-Inf	3	Vertical	176	1.83	-
2412MHz	Pass	PK	2.3898G	60.91	74.00	-13.09	3	Vertical	176	1.83	-
2412MHz	Pass	PK	2.4072G	100.98	Inf	-Inf	3	Vertical	176	1.83	-
2412MHz	Pass	AV	2.39G	47.15	54.00	-6.85	3	Horizontal	174	1.57	-
2412MHz	Pass	AV	2.416G	91.48	Inf	-Inf	3	Horizontal	174	1.57	-



RSE TX above 1GHz_ Mode 1

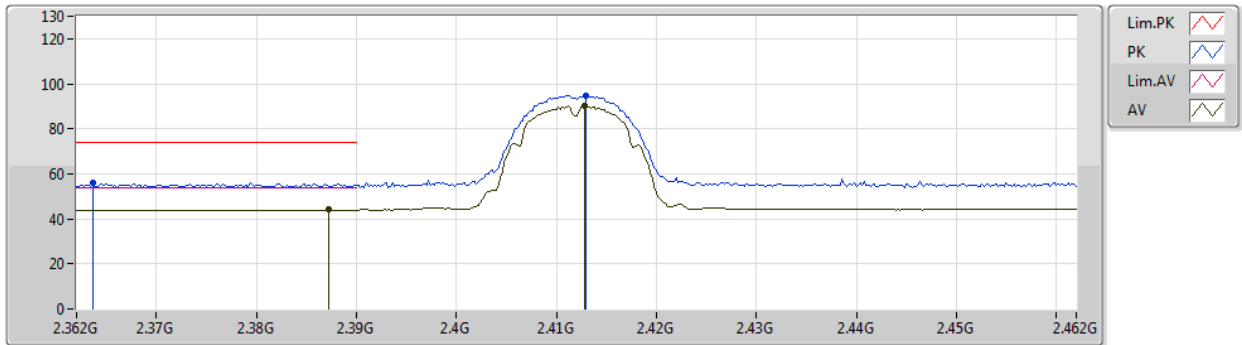
Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	PK	2.39G	60.62	74.00	-13.38	3	Horizontal	174	1.57	-
2412MHz	Pass	PK	2.4072G	100.54	Inf	-Inf	3	Horizontal	174	1.57	-
2412MHz	Pass	AV	4.82226G	42.42	54.00	-11.58	3	Vertical	225	1.43	-
2412MHz	Pass	PK	4.8222G	56.02	74.00	-17.98	3	Vertical	225	1.43	-
2412MHz	Pass	PK	4.82226G	58.14	74.00	-15.86	3	Horizontal	139	2.53	-
2412MHz	Pass	AV	4.82808G	44.53	54.00	-9.47	3	Horizontal	139	2.53	-
2437MHz	Pass	AV	2.3774G	44.95	54.00	-9.05	3	Vertical	139	1.58	-
2437MHz	Pass	AV	2.4394G	85.27	Inf	-Inf	3	Vertical	139	1.58	-
2437MHz	Pass	AV	2.499G	45.21	54.00	-8.79	3	Vertical	139	1.58	-
2437MHz	Pass	PK	2.3658G	56.32	74.00	-17.68	3	Vertical	139	1.58	-
2437MHz	Pass	PK	2.4322G	94.72	Inf	-Inf	3	Vertical	139	1.58	-
2437MHz	Pass	PK	2.4846G	56.71	74.00	-17.29	3	Vertical	139	1.58	-
2437MHz	Pass	AV	2.359G	44.98	54.00	-9.02	3	Horizontal	176	1.83	-
2437MHz	Pass	AV	2.4394G	91.74	Inf	-Inf	3	Horizontal	176	1.83	-
2437MHz	Pass	AV	2.4958G	45.65	54.00	-8.35	3	Horizontal	176	1.83	-
2437MHz	Pass	PK	2.3686G	56.55	74.00	-17.45	3	Horizontal	176	1.83	-
2437MHz	Pass	PK	2.4322G	101.27	Inf	-Inf	3	Horizontal	176	1.83	-
2437MHz	Pass	PK	2.499G	56.47	74.00	-17.53	3	Horizontal	176	1.83	-
2437MHz	Pass	AV	4.87208G	41.71	54.00	-12.29	3	Vertical	225	1.42	-
2437MHz	Pass	PK	4.87208G	55.15	74.00	-18.85	3	Vertical	225	1.42	-
2437MHz	Pass	AV	4.87232G	44.21	54.00	-9.79	3	Horizontal	145	1.01	-
2437MHz	Pass	PK	4.8722G	57.63	74.00	-16.37	3	Horizontal	145	1.01	-
2462MHz	Pass	AV	2.4558G	86.47	Inf	-Inf	3	Vertical	141	1.00	-
2462MHz	Pass	AV	2.4856G	45.61	54.00	-8.39	3	Vertical	141	1.00	-
2462MHz	Pass	PK	2.4572G	96.56	Inf	-Inf	3	Vertical	141	1.00	-
2462MHz	Pass	PK	2.4846G	57.83	74.00	-16.17	3	Vertical	141	1.00	-
2462MHz	Pass	AV	2.4644G	92.20	Inf	-Inf	3	Horizontal	176	1.78	-
2462MHz	Pass	AV	2.4842G	46.56	54.00	-7.44	3	Horizontal	176	1.78	-
2462MHz	Pass	PK	2.4572G	101.23	Inf	-Inf	3	Horizontal	176	1.78	-
2462MHz	Pass	PK	2.4848G	61.85	74.00	-12.15	3	Horizontal	176	1.78	-
2462MHz	Pass	AV	4.92226G	40.71	54.00	-13.29	3	Vertical	227	1.50	-
2462MHz	Pass	PK	4.92226G	54.40	74.00	-19.60	3	Vertical	227	1.50	-
2462MHz	Pass	AV	4.92814G	45.72	54.00	-8.28	3	Horizontal	150	1.12	-
2462MHz	Pass	PK	4.9222G	59.38	74.00	-14.62	3	Horizontal	150	1.12	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2412MHz_TX

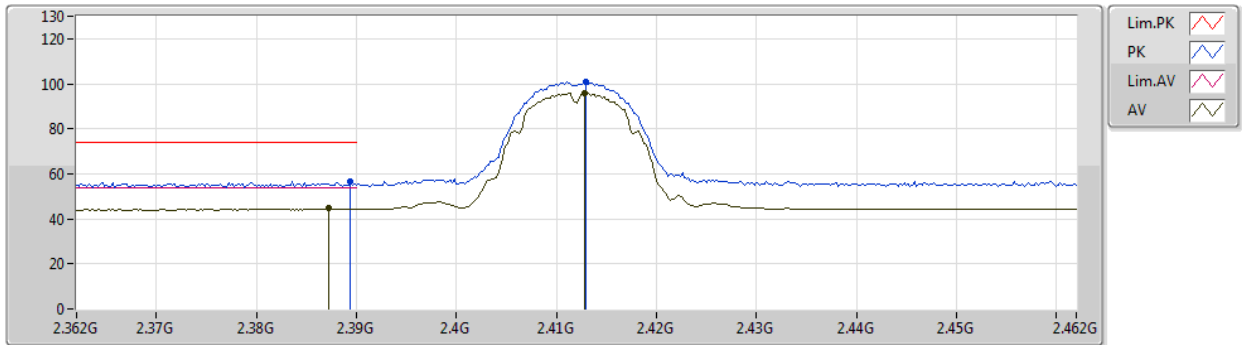


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3872G	43.99	54.00	-10.01	32.08	3	Vertical	240	1.19	-	11.91	27.36	4.72	-
AV	2.4128G	90.29	Inf	-Inf	32.18	3	Vertical	240	1.19	-	58.11	27.44	4.74	-
PK	2.3636G	55.95	74.00	-18.05	31.98	3	Vertical	240	1.19	-	23.97	27.29	4.69	-
PK	2.413G	94.97	Inf	-Inf	32.19	3	Vertical	240	1.19	-	62.78	27.44	4.75	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2412MHz_TX

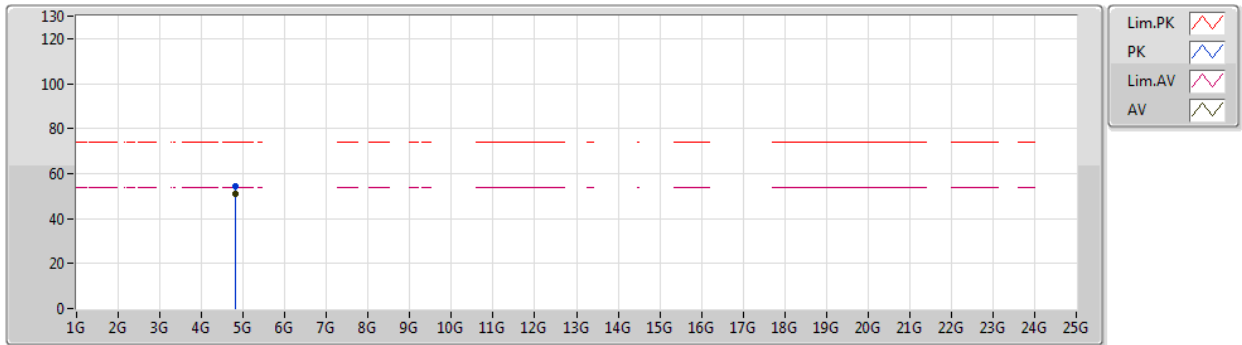


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3872G	44.58	54.00	-9.42	32.08	3	Horizontal	176	1.69	-	12.50	27.36	4.72	-
AV	2.4128G	96.02	Inf	-Inf	32.18	3	Horizontal	176	1.69	-	63.84	27.44	4.74	-
PK	2.3894G	56.65	74.00	-17.35	32.09	3	Horizontal	176	1.69	-	24.56	27.37	4.72	-
PK	2.413G	100.71	Inf	-Inf	32.19	3	Horizontal	176	1.69	-	68.52	27.44	4.75	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2412MHz_TX

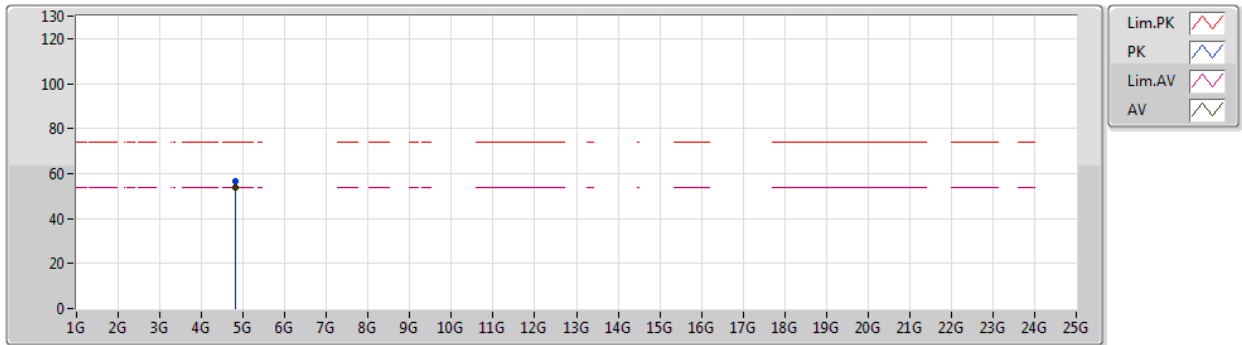


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82395G	50.97	54.00	-3.03	3.69	3	Vertical	226	1.41	-	47.28	31.38	6.79	34.48
PK	4.82394G	54.11	74.00	-19.89	3.69	3	Vertical	226	1.41	-	50.42	31.38	6.79	34.48

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2412MHz_TX

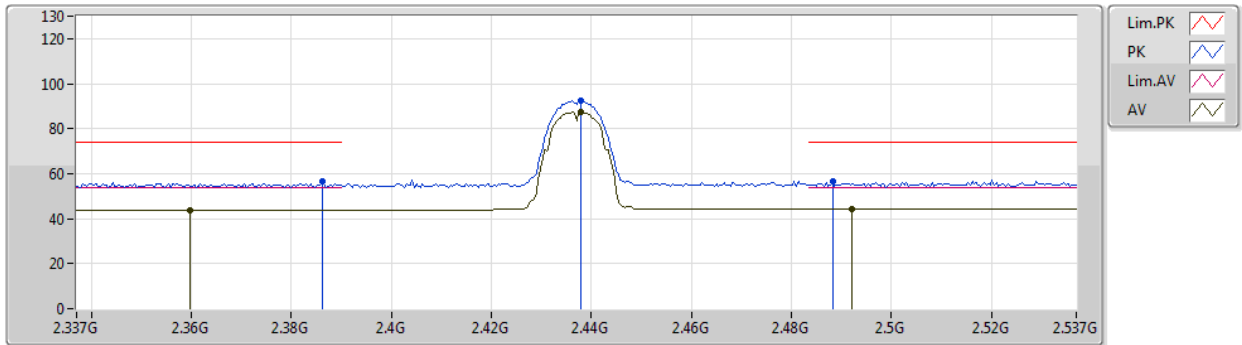


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82397G	53.70	54.00	-0.30	3.69	3	Horizontal	137	1.04	-	50.01	31.38	6.79	34.48
PK	4.82399G	56.46	74.00	-17.54	3.69	3	Horizontal	137	1.04	-	52.77	31.38	6.79	34.48

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2437MHz_TX

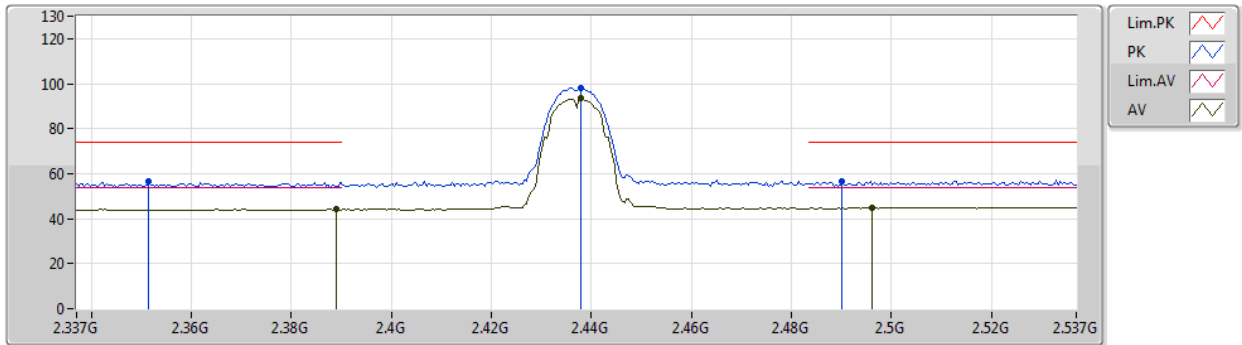


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3598G	43.93	54.00	-10.07	31.96	3	Vertical	139	1.00	-	11.97	27.28	4.68	-
AV	2.4378G	87.55	Inf	-Inf	32.28	3	Vertical	139	1.00	-	55.27	27.51	4.77	-
AV	2.4922G	44.35	54.00	-9.65	32.52	3	Vertical	139	1.00	-	11.83	27.68	4.84	-
PK	2.3862G	56.65	74.00	-17.35	32.07	3	Vertical	139	1.00	-	24.58	27.36	4.71	-
PK	2.4378G	92.39	Inf	-Inf	32.28	3	Vertical	139	1.00	-	60.11	27.51	4.77	-
PK	2.4882G	56.69	74.00	-17.31	32.49	3	Vertical	139	1.00	-	24.20	27.66	4.83	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2437MHz_TX

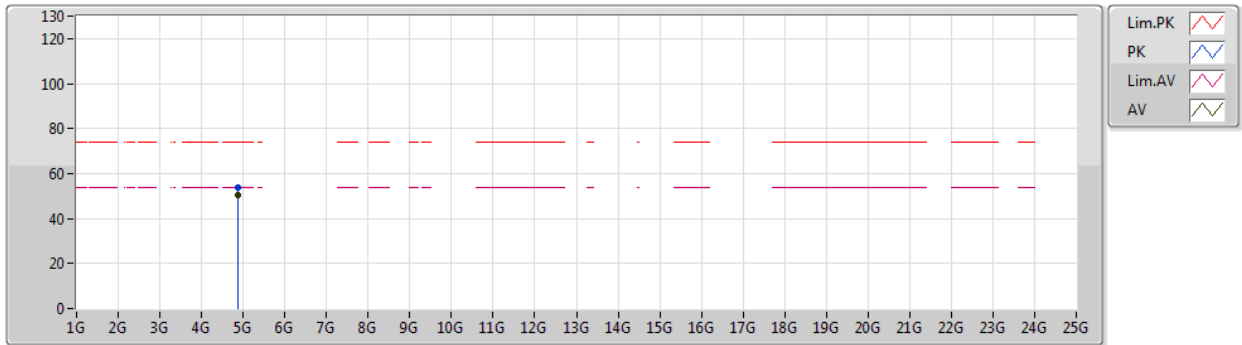


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389G	44.06	54.00	-9.94	32.09	3	Horizontal	177	1.79	-	11.97	27.37	4.72	-
AV	2.4378G	93.51	Inf	-Inf	32.28	3	Horizontal	177	1.79	-	61.23	27.51	4.77	-
AV	2.4962G	44.65	54.00	-9.35	32.53	3	Horizontal	177	1.79	-	12.12	27.69	4.84	-
PK	2.3514G	56.44	74.00	-17.56	31.92	3	Horizontal	177	1.79	-	24.52	27.25	4.67	-
PK	2.4378G	98.07	Inf	-Inf	32.28	3	Horizontal	177	1.79	-	65.79	27.51	4.77	-
PK	2.4902G	56.57	74.00	-17.43	32.51	3	Horizontal	177	1.79	-	24.06	27.67	4.84	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2437MHz_TX

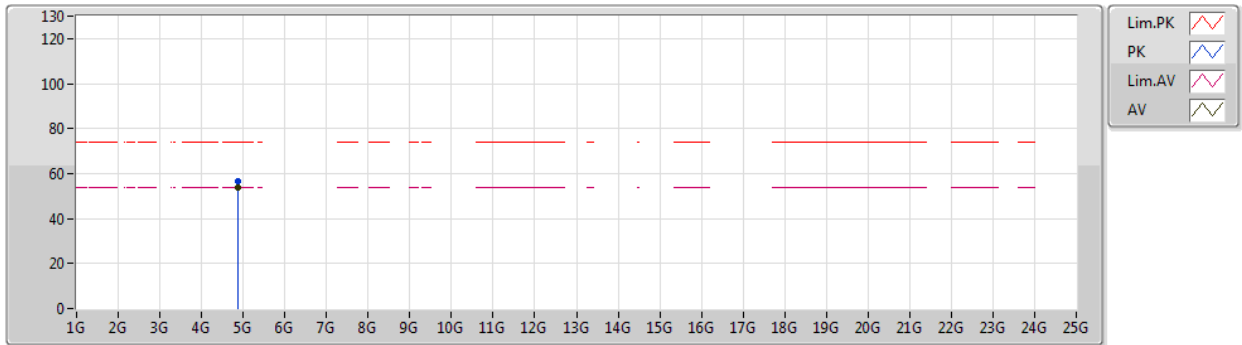


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87397G	50.23	54.00	-3.77	3.81	3	Vertical	225	1.50	-	46.42	31.47	6.81	34.47
PK	4.874G	53.54	74.00	-20.46	3.81	3	Vertical	225	1.50	-	49.73	31.47	6.81	34.47

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2437MHz_TX

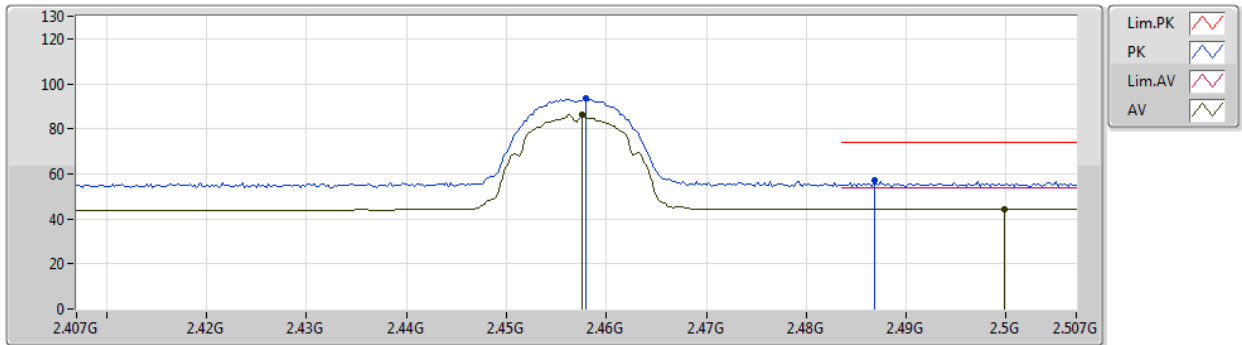


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87397G	53.70	54.00	-0.30	3.81	3	Horizontal	142	2.49	-	49.89	31.47	6.81	34.47
PK	4.87398G	56.44	74.00	-17.56	3.81	3	Horizontal	142	2.49	-	52.63	31.47	6.81	34.47

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2457MHz_TX

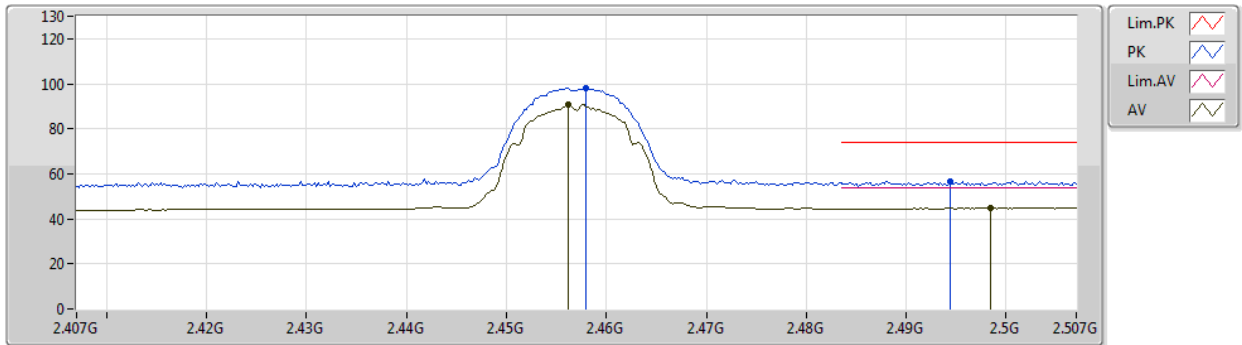


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4576G	86.14	Inf	-Inf	32.37	3	Vertical	139	1.00	-	53.77	27.57	4.80	-
AV	2.4998G	44.30	54.00	-9.70	32.55	3	Vertical	139	1.00	-	11.75	27.70	4.85	-
PK	2.458G	93.31	Inf	-Inf	32.37	3	Vertical	139	1.00	-	60.94	27.57	4.80	-
PK	2.4868G	57.07	74.00	-16.93	32.49	3	Vertical	139	1.00	-	24.58	27.66	4.83	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2457MHz_TX

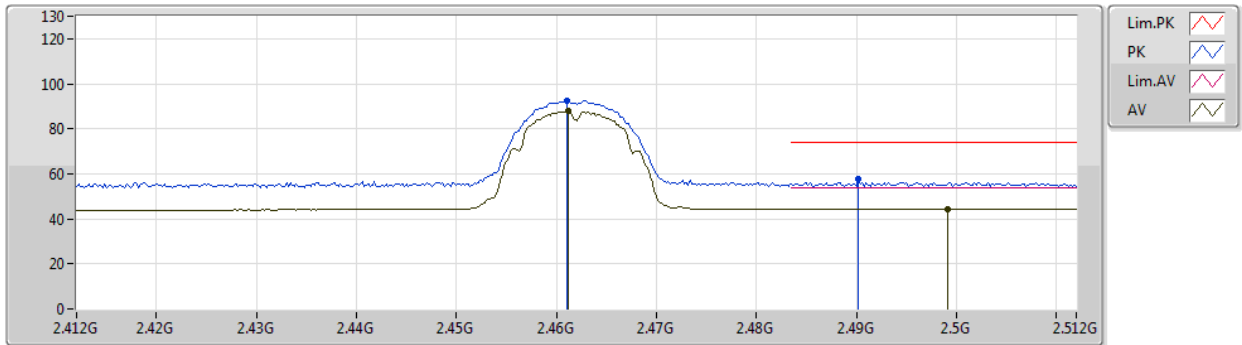


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4562G	90.82	Inf	-Inf	32.37	3	Horizontal	175	1.72	-	58.45	27.57	4.80	-
AV	2.4984G	44.57	54.00	-9.43	32.55	3	Horizontal	175	1.72	-	12.02	27.70	4.85	-
PK	2.458G	98.17	Inf	-Inf	32.37	3	Horizontal	175	1.72	-	65.80	27.57	4.80	-
PK	2.4944G	56.82	74.00	-17.18	32.52	3	Horizontal	175	1.72	-	24.30	27.68	4.84	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2462MHz_TX

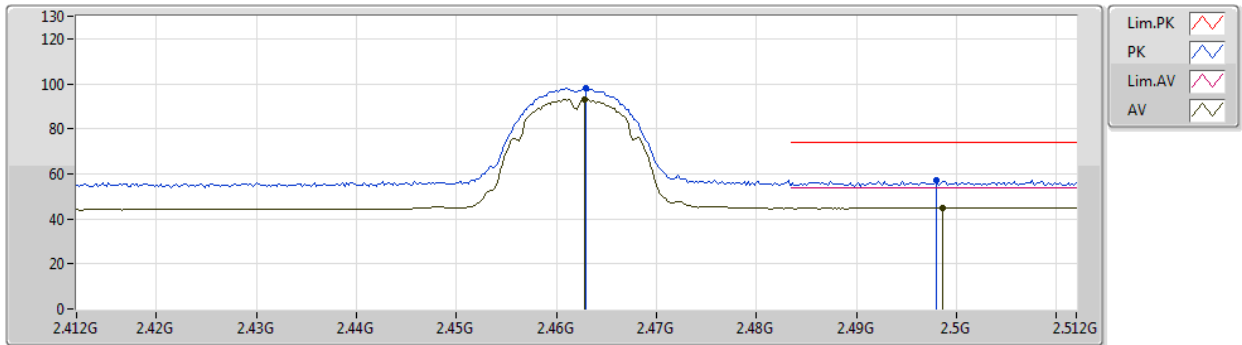


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4612G	87.73	Inf	-Inf	32.38	3	Vertical	140	1.00	-	55.35	27.58	4.80	-
AV	2.4992G	44.39	54.00	-9.61	32.55	3	Vertical	140	1.00	-	11.84	27.70	4.85	-
PK	2.461G	92.44	Inf	-Inf	32.38	3	Vertical	140	1.00	-	60.06	27.58	4.80	-
PK	2.4902G	57.52	74.00	-16.48	32.51	3	Vertical	140	1.00	-	25.01	27.67	4.84	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2462MHz_TX

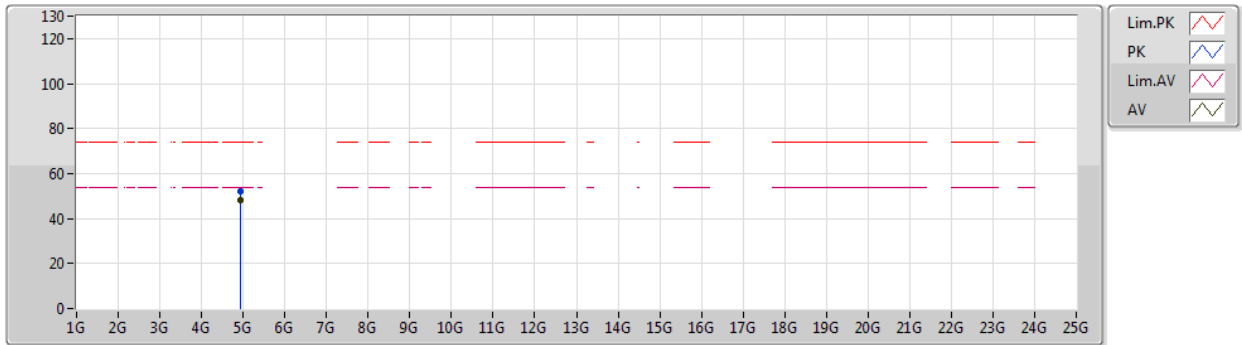


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4628G	93.18	Inf	-Inf	32.39	3	Horizontal	175	1.76	-	60.79	27.59	4.80	-
AV	2.4986G	44.70	54.00	-9.30	32.55	3	Horizontal	175	1.76	-	12.15	27.70	4.85	-
PK	2.463G	97.91	Inf	-Inf	32.39	3	Horizontal	175	1.76	-	65.52	27.59	4.80	-
PK	2.498G	57.05	74.00	-16.95	32.53	3	Horizontal	175	1.76	-	24.52	27.69	4.84	-

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2462MHz_TX

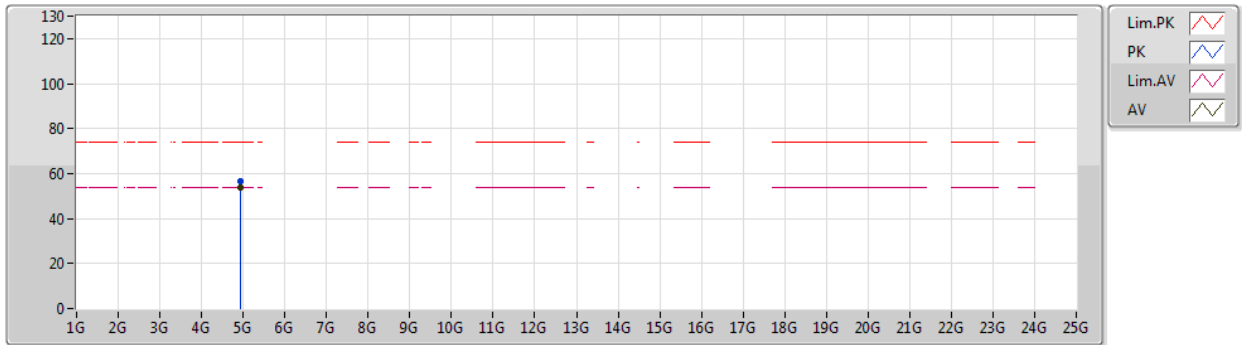


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92397G	48.17	54.00	-5.83	3.93	3	Vertical	226	1.49	-	44.24	31.56	6.82	34.45
PK	4.92398G	52.03	74.00	-21.97	3.93	3	Vertical	226	1.49	-	48.10	31.56	6.82	34.45

802.11b_Nss1,(1Mbps)_1TX

06/10/2019

2462MHz_TX

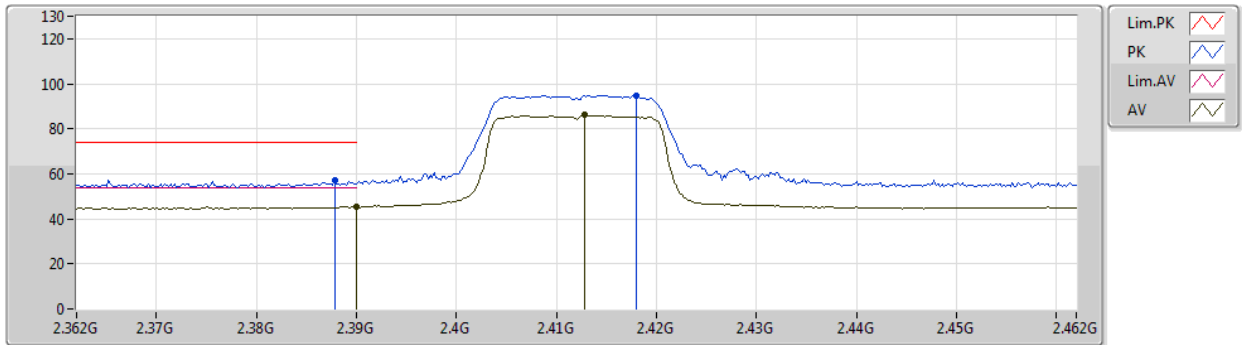


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.924G	53.74	54.00	-0.26	3.93	3	Horizontal	148	1.00	-	49.81	31.56	6.82	34.45
PK	4.92393G	56.54	74.00	-17.46	3.93	3	Horizontal	148	1.00	-	52.61	31.56	6.82	34.45

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2412MHz_TX

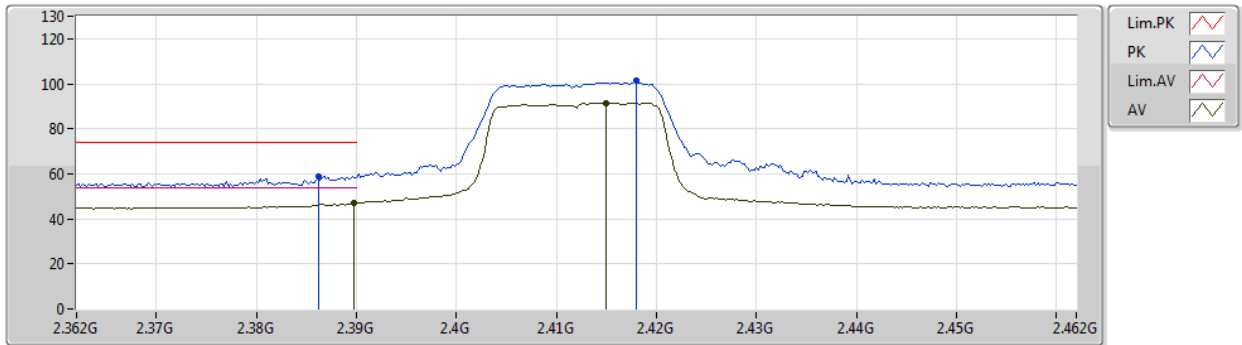


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	45.40	54.00	-8.60	32.09	3	Vertical	239	1.19	-	13.31	27.37	4.72	-
AV	2.4128G	86.04	Inf	-Inf	32.18	3	Vertical	239	1.19	-	53.86	27.44	4.74	-
PK	2.3878G	57.04	74.00	-16.96	32.08	3	Vertical	239	1.19	-	24.96	27.36	4.72	-
PK	2.418G	94.97	Inf	-Inf	32.20	3	Vertical	239	1.19	-	62.77	27.45	4.75	-

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2412MHz_TX

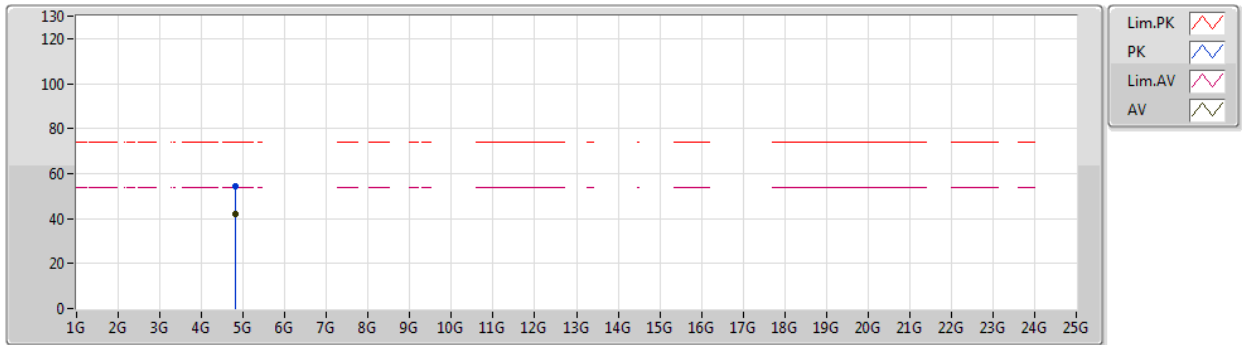


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3898G	47.09	54.00	-6.91	32.09	3	Horizontal	175	1.56	-	15.00	27.37	4.72	-
AV	2.415G	91.55	Inf	-Inf	32.20	3	Horizontal	175	1.56	-	59.35	27.45	4.75	-
PK	2.3862G	59.03	74.00	-14.97	32.07	3	Horizontal	175	1.56	-	26.96	27.36	4.71	-
PK	2.418G	101.18	Inf	-Inf	32.20	3	Horizontal	175	1.56	-	68.98	27.45	4.75	-

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2412MHz_TX

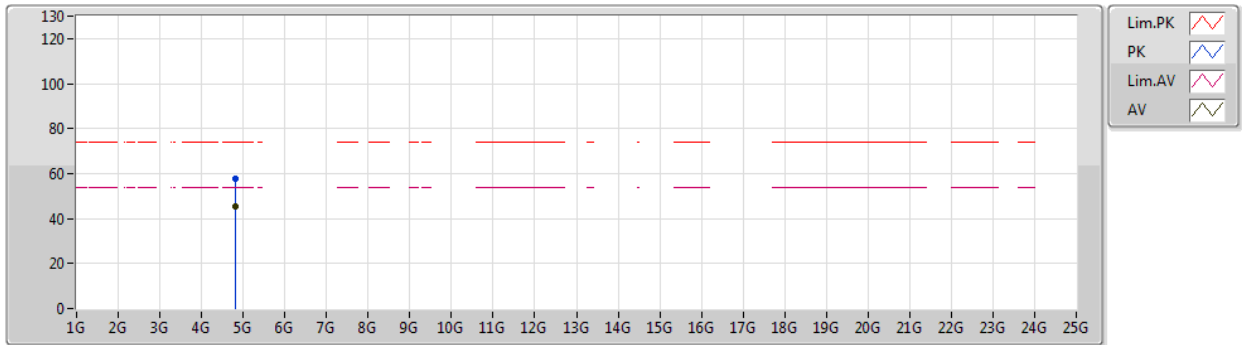


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82538G	42.27	54.00	-11.73	3.70	3	Vertical	226	1.44	-	38.57	31.39	6.79	34.48
PK	4.82532G	54.60	74.00	-19.40	3.70	3	Vertical	226	1.44	-	50.90	31.39	6.79	34.48

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2412MHz_TX

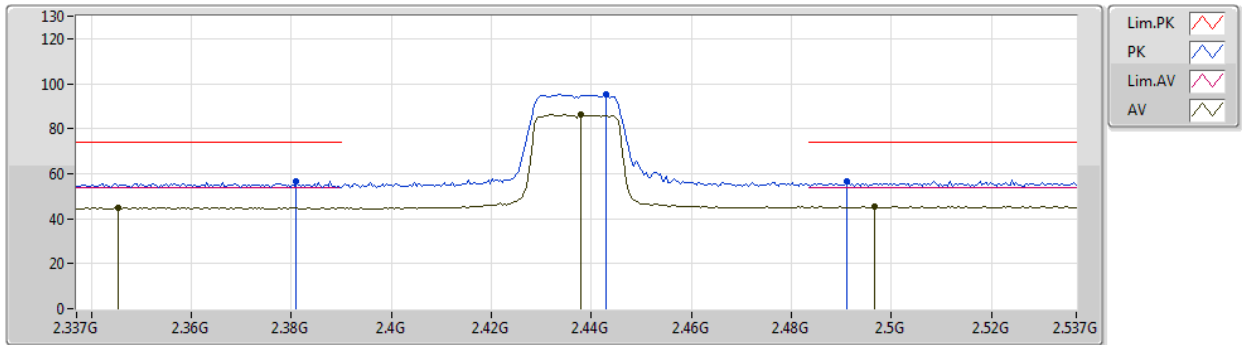


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82256G	45.25	54.00	-8.75	3.69	3	Horizontal	127	1.00	-	41.56	31.38	6.79	34.48
PK	4.82034G	57.68	74.00	-16.32	3.69	3	Horizontal	127	1.00	-	53.99	31.38	6.79	34.48

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2437MHz_TX

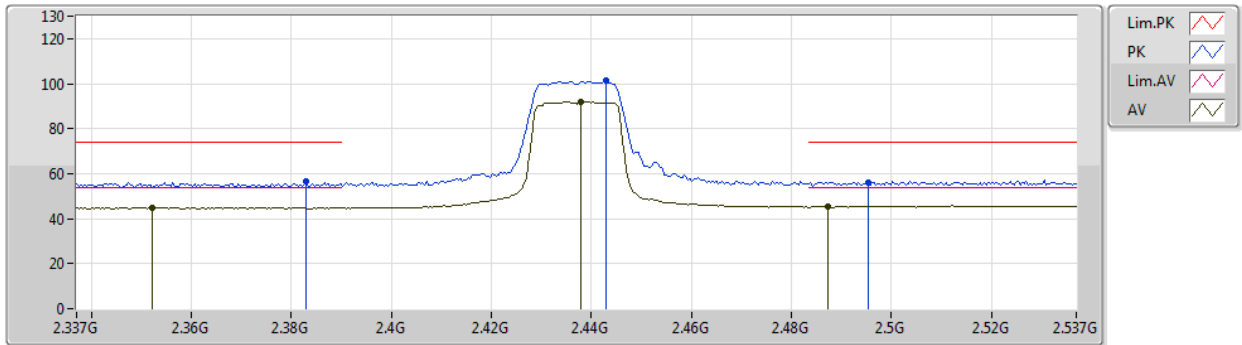


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3454G	44.95	54.00	-9.05	31.91	3	Vertical	141	1.00	-	13.04	27.24	4.67	-
AV	2.4378G	86.23	Inf	-Inf	32.28	3	Vertical	141	1.00	-	53.95	27.51	4.77	-
AV	2.4966G	45.49	54.00	-8.51	32.53	3	Vertical	141	1.00	-	12.96	27.69	4.84	-
PK	2.381G	56.66	74.00	-17.34	32.05	3	Vertical	141	1.00	-	24.61	27.34	4.71	-
PK	2.443G	95.31	Inf	-Inf	32.31	3	Vertical	141	1.00	-	63.00	27.53	4.78	-
PK	2.491G	56.62	74.00	-17.38	32.51	3	Vertical	141	1.00	-	24.11	27.67	4.84	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

06/10/2019

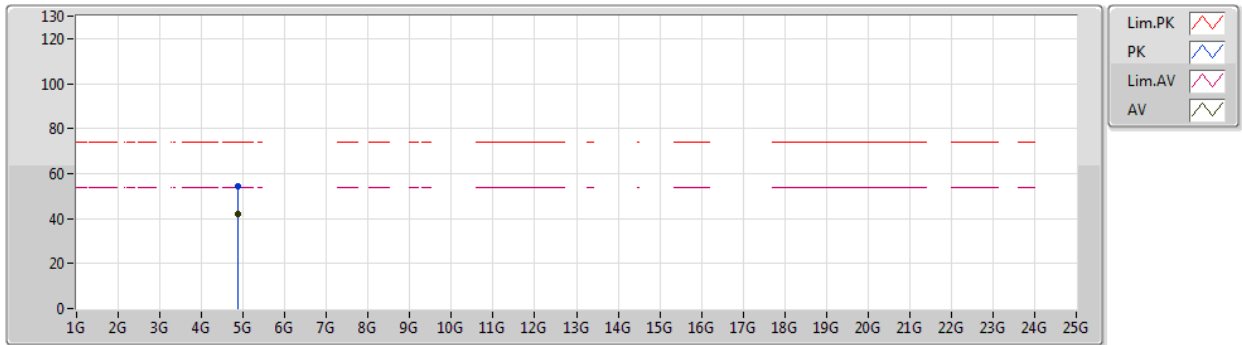


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3522G	44.93	54.00	-9.07	31.93	3	Horizontal	177	1.80	-	13.00	27.26	4.67	-
AV	2.4378G	92.16	Inf	-Inf	32.28	3	Horizontal	177	1.80	-	59.88	27.51	4.77	-
AV	2.4874G	45.51	54.00	-8.49	32.49	3	Horizontal	177	1.80	-	13.02	27.66	4.83	-
PK	2.383G	56.45	74.00	-17.55	32.06	3	Horizontal	177	1.80	-	24.39	27.35	4.71	-
PK	2.443G	101.51	Inf	-Inf	32.31	3	Horizontal	177	1.80	-	69.20	27.53	4.78	-
PK	2.4954G	56.27	74.00	-17.73	32.53	3	Horizontal	177	1.80	-	23.74	27.69	4.84	-

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2437MHz_TX

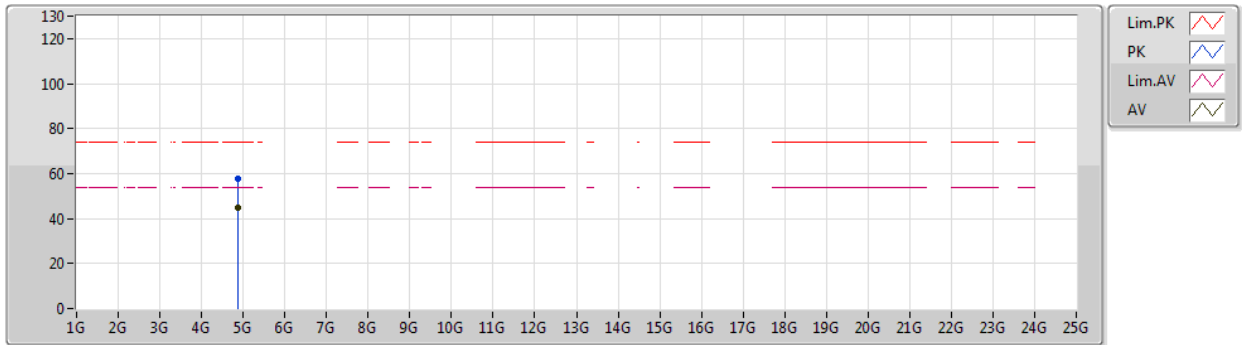


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87556G	41.82	54.00	-12.18	3.82	3	Vertical	225	1.48	-	38.00	31.48	6.81	34.47
PK	4.87052G	54.14	74.00	-19.86	3.81	3	Vertical	225	1.48	-	50.33	31.47	6.81	34.47

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2437MHz_TX

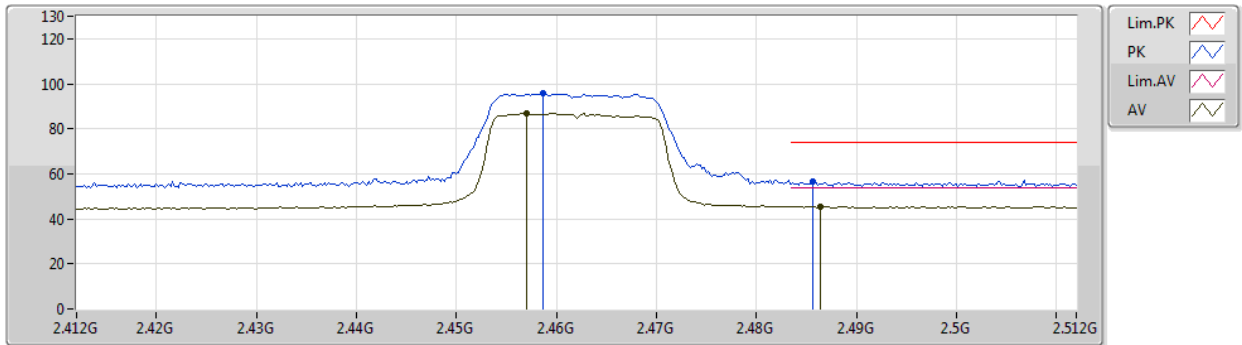


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87268G	44.91	54.00	-9.09	3.81	3	Horizontal	142	2.48	-	41.10	31.47	6.81	34.47
PK	4.8704G	57.57	74.00	-16.43	3.81	3	Horizontal	142	2.48	-	53.76	31.47	6.81	34.47

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2462MHz_TX

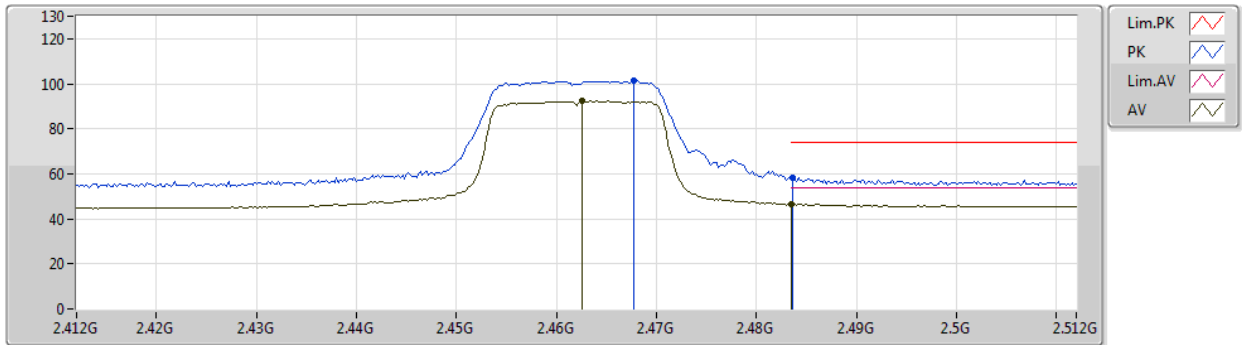


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.457G	86.81	Inf	-Inf	32.37	3	Vertical	141	1.00	-	54.44	27.57	4.80	-
AV	2.4864G	45.63	54.00	-8.37	32.49	3	Vertical	141	1.00	-	13.14	27.66	4.83	-
PK	2.4586G	95.89	Inf	-Inf	32.38	3	Vertical	141	1.00	-	63.51	27.58	4.80	-
PK	2.4856G	56.32	74.00	-17.68	32.49	3	Vertical	141	1.00	-	23.83	27.66	4.83	-

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2462MHz_TX

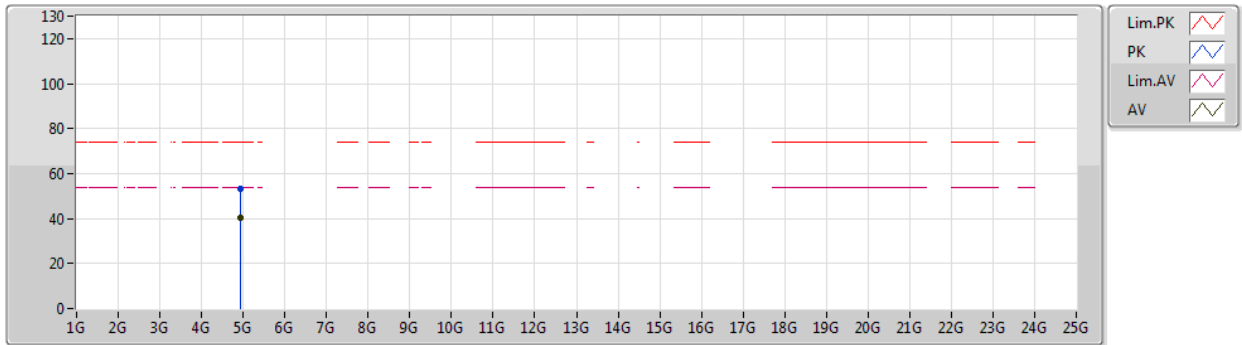


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4626G	92.40	Inf	-Inf	32.39	3	Horizontal	178	1.77	-	60.01	27.59	4.80	-
AV	2.4835G	46.55	54.00	-7.45	32.48	3	Horizontal	178	1.77	-	14.07	27.65	4.83	-
PK	2.4678G	101.70	Inf	-Inf	32.41	3	Horizontal	178	1.77	-	69.29	27.60	4.81	-
PK	2.4836G	58.54	74.00	-15.46	32.48	3	Horizontal	178	1.77	-	26.06	27.65	4.83	-

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2462MHz_TX

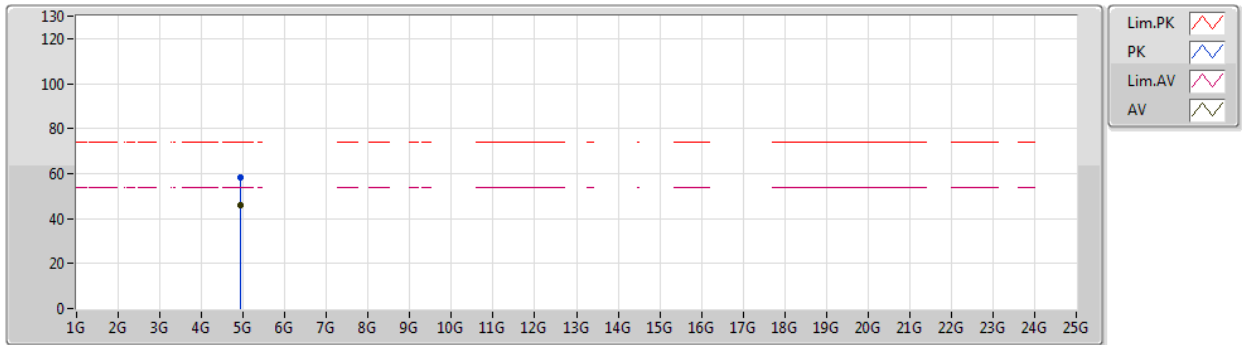


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92568G	40.57	54.00	-13.43	3.94	3	Vertical	227	1.47	-	36.63	31.57	6.82	34.45
PK	4.92028G	53.41	74.00	-20.59	3.93	3	Vertical	227	1.47	-	49.48	31.56	6.82	34.45

802.11g_Nss1,(6Mbps)_1TX

06/10/2019

2462MHz_TX

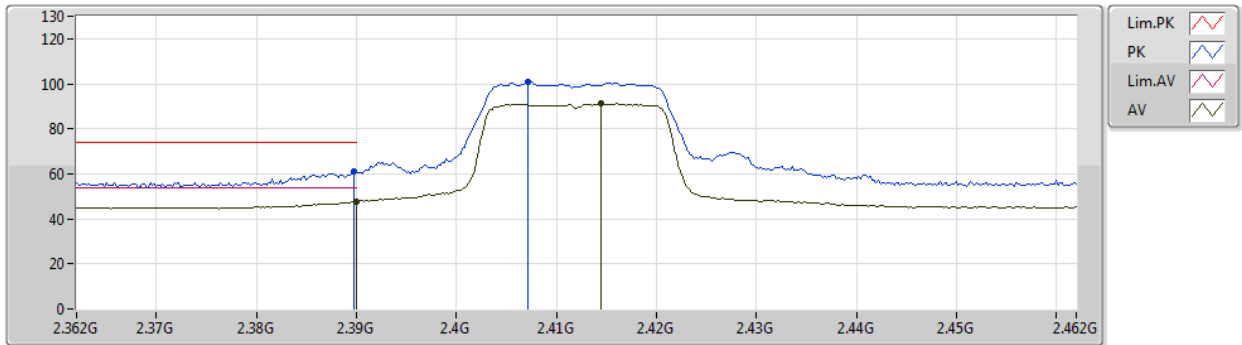


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9255G	46.07	54.00	-7.93	3.94	3	Horizontal	148	1.00	-	42.13	31.57	6.82	34.45
PK	4.9252G	58.28	74.00	-15.72	3.94	3	Horizontal	148	1.00	-	54.34	31.57	6.82	34.45

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2412MHz_TX

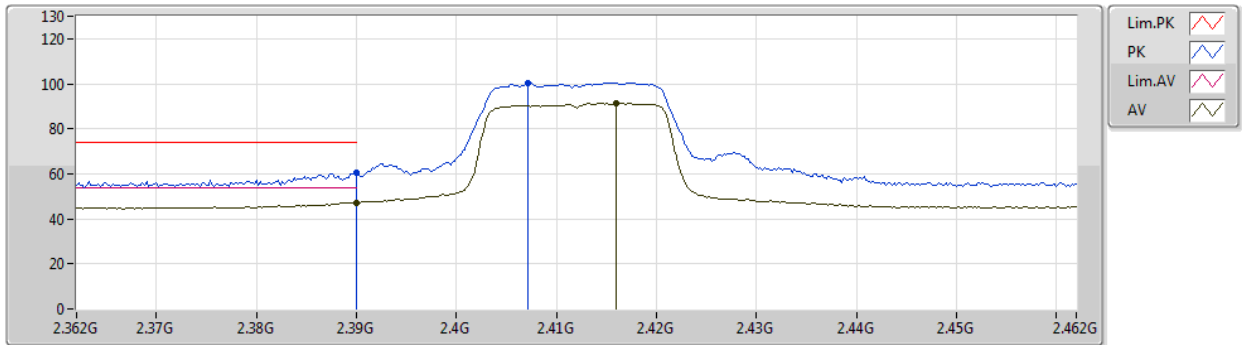


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	47.71	54.00	-6.29	32.09	3	Vertical	176	1.83	-	15.62	27.37	4.72	-
AV	2.4144G	91.12	Inf	-Inf	32.19	3	Vertical	176	1.83	-	58.93	27.44	4.75	-
PK	2.3898G	60.91	74.00	-13.09	32.09	3	Vertical	176	1.83	-	28.82	27.37	4.72	-
PK	2.4072G	100.98	Inf	-Inf	32.16	3	Vertical	176	1.83	-	68.82	27.42	4.74	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2412MHz_TX

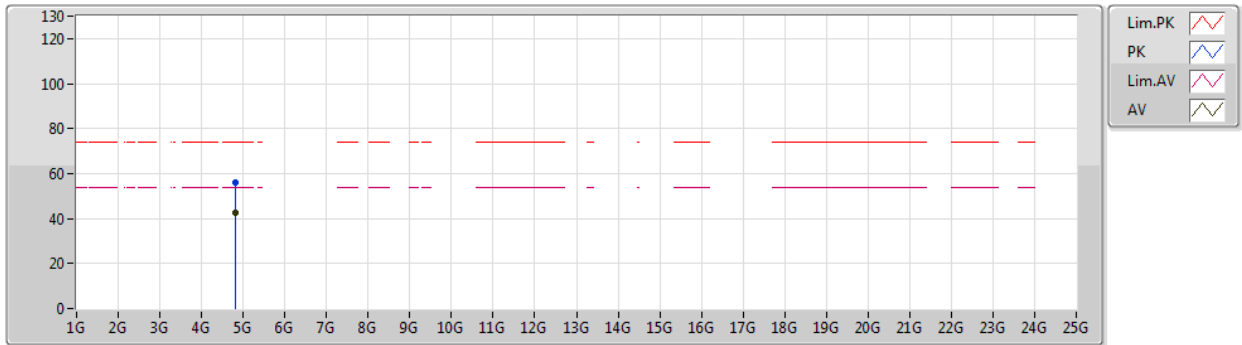


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	47.15	54.00	-6.85	32.09	3	Horizontal	174	1.57	-	15.06	27.37	4.72	-
AV	2.416G	91.48	Inf	-Inf	32.20	3	Horizontal	174	1.57	-	59.28	27.45	4.75	-
PK	2.39G	60.62	74.00	-13.38	32.09	3	Horizontal	174	1.57	-	28.53	27.37	4.72	-
PK	2.4072G	100.54	Inf	-Inf	32.16	3	Horizontal	174	1.57	-	68.38	27.42	4.74	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2412MHz_TX

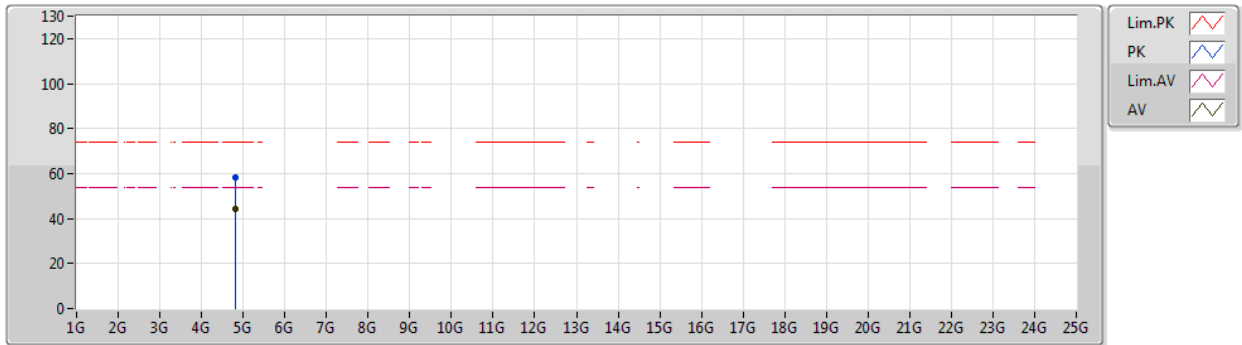


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82226G	42.42	54.00	-11.58	3.69	3	Vertical	225	1.43	-	38.73	31.38	6.79	34.48
PK	4.8222G	56.02	74.00	-17.98	3.69	3	Vertical	225	1.43	-	52.33	31.38	6.79	34.48

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2412MHz_TX

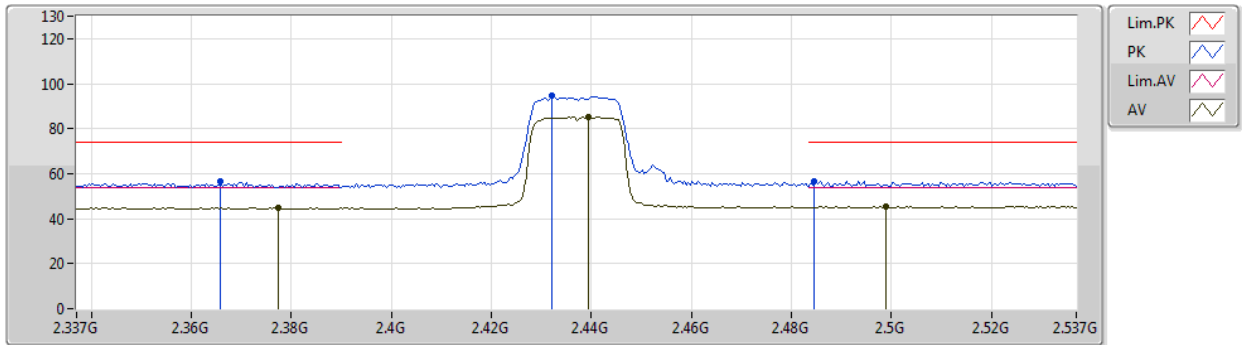


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	4.82226G	58.14	74.00	-15.86	3.69	3	Horizontal	139	2.53	-	54.45	31.38	6.79	34.48
AV	4.82808G	44.53	54.00	-9.47	3.70	3	Horizontal	139	2.53	-	40.83	31.39	6.79	34.48

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2437MHz_TX

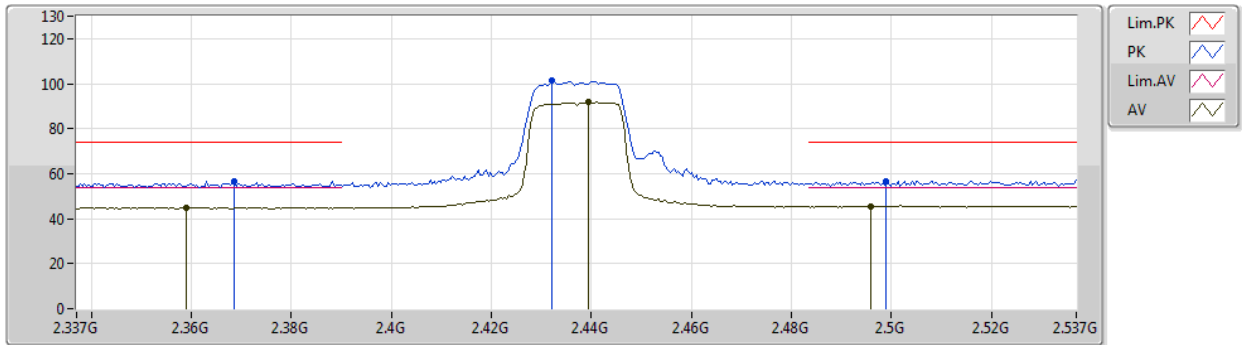


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3774G	44.95	54.00	-9.05	32.03	3	Vertical	139	1.58	-	12.92	27.33	4.70	-
AV	2.4394G	85.27	Inf	-Inf	32.30	3	Vertical	139	1.58	-	52.97	27.52	4.78	-
AV	2.499G	45.21	54.00	-8.79	32.55	3	Vertical	139	1.58	-	12.66	27.70	4.85	-
PK	2.3658G	56.32	74.00	-17.68	31.99	3	Vertical	139	1.58	-	24.33	27.30	4.69	-
PK	2.4322G	94.72	Inf	-Inf	32.27	3	Vertical	139	1.58	-	62.45	27.50	4.77	-
PK	2.4846G	56.71	74.00	-17.29	32.48	3	Vertical	139	1.58	-	24.23	27.65	4.83	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2437MHz_TX

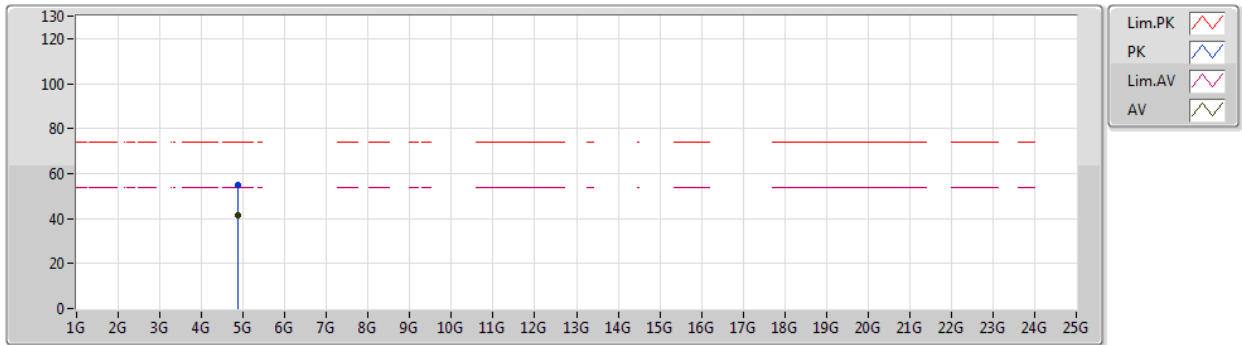


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.359G	44.98	54.00	-9.02	31.96	3	Horizontal	176	1.83	-	13.02	27.28	4.68	-
AV	2.4394G	91.74	Inf	-Inf	32.30	3	Horizontal	176	1.83	-	59.44	27.52	4.78	-
AV	2.4958G	45.65	54.00	-8.35	32.53	3	Horizontal	176	1.83	-	13.12	27.69	4.84	-
PK	2.3686G	56.55	74.00	-17.45	32.00	3	Horizontal	176	1.83	-	24.55	27.31	4.69	-
PK	2.4322G	101.27	Inf	-Inf	32.27	3	Horizontal	176	1.83	-	69.00	27.50	4.77	-
PK	2.499G	56.47	74.00	-17.53	32.55	3	Horizontal	176	1.83	-	23.92	27.70	4.85	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2437MHz_TX

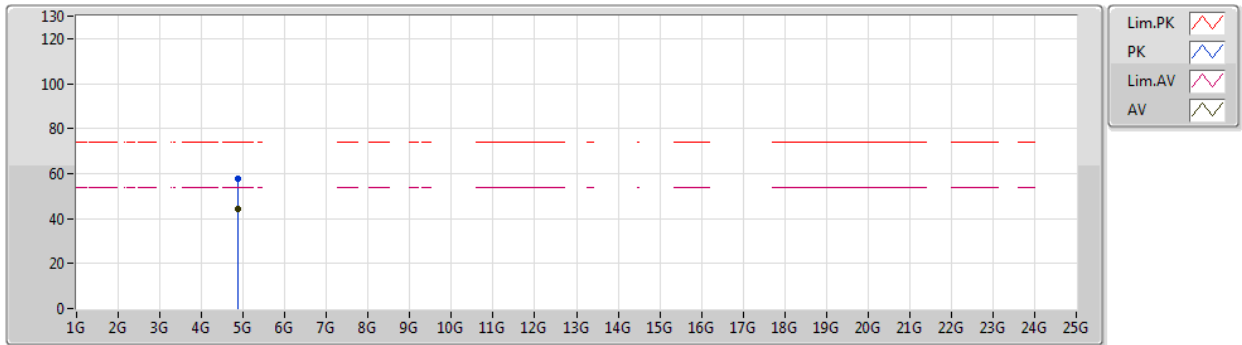


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87208G	41.71	54.00	-12.29	3.81	3	Vertical	225	1.42	-	37.90	31.47	6.81	34.47
PK	4.87208G	55.15	74.00	-18.85	3.81	3	Vertical	225	1.42	-	51.34	31.47	6.81	34.47

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2437MHz_TX

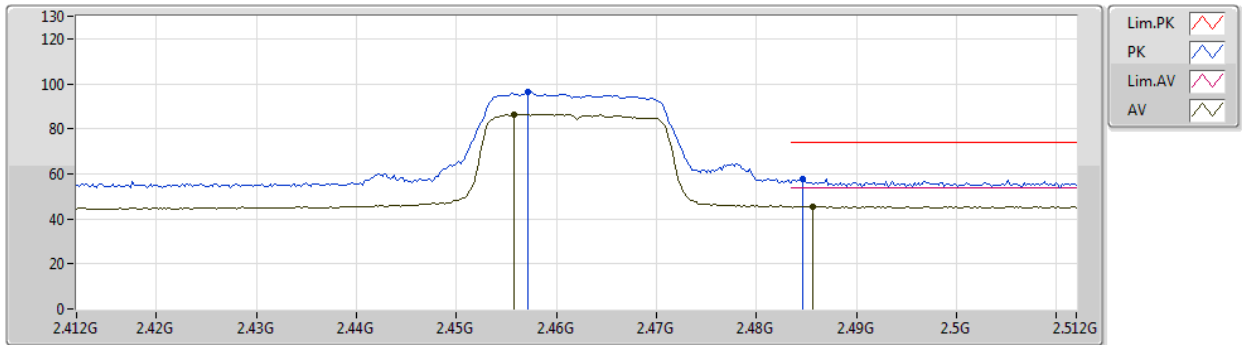


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87232G	44.21	54.00	-9.79	3.81	3	Horizontal	145	1.01	-	40.40	31.47	6.81	34.47
PK	4.8722G	57.63	74.00	-16.37	3.81	3	Horizontal	145	1.01	-	53.82	31.47	6.81	34.47

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2462MHz_TX

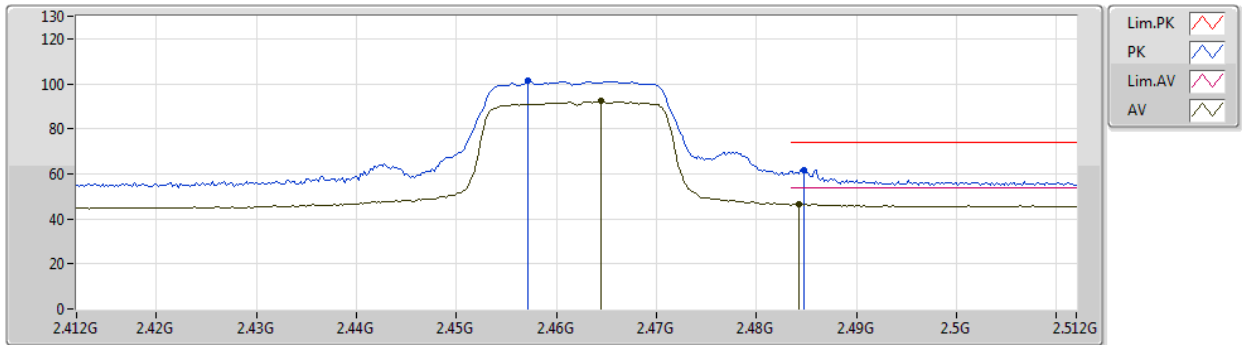


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4558G	86.47	Inf	-Inf	32.37	3	Vertical	141	1.00	-	54.10	27.57	4.80	-
AV	2.4856G	45.61	54.00	-8.39	32.49	3	Vertical	141	1.00	-	13.12	27.66	4.83	-
PK	2.4572G	96.56	Inf	-Inf	32.37	3	Vertical	141	1.00	-	64.19	27.57	4.80	-
PK	2.4846G	57.83	74.00	-16.17	32.48	3	Vertical	141	1.00	-	25.35	27.65	4.83	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2462MHz_TX

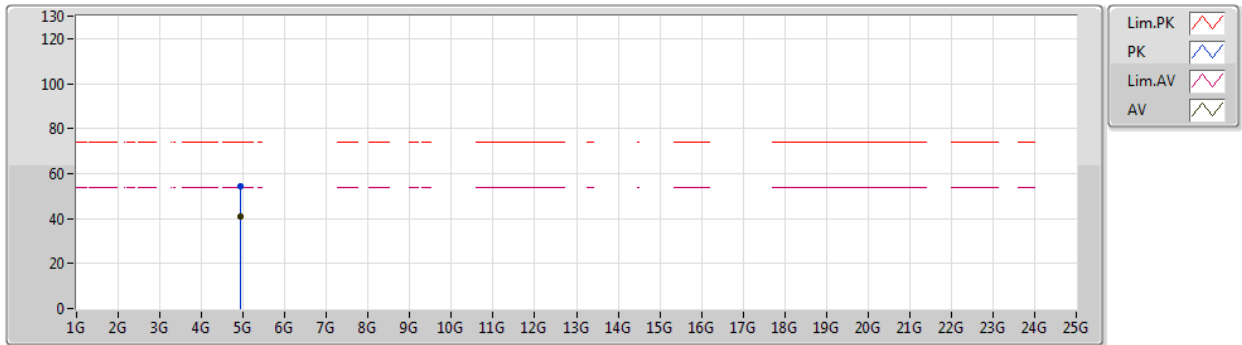


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4644G	92.20	Inf	-Inf	32.40	3	Horizontal	176	1.78	-	59.80	27.59	4.81	-
AV	2.4842G	46.56	54.00	-7.44	32.48	3	Horizontal	176	1.78	-	14.08	27.65	4.83	-
PK	2.4572G	101.23	Inf	-Inf	32.37	3	Horizontal	176	1.78	-	68.86	27.57	4.80	-
PK	2.4848G	61.85	74.00	-12.15	32.48	3	Horizontal	176	1.78	-	29.37	27.65	4.83	-

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2462MHz_TX

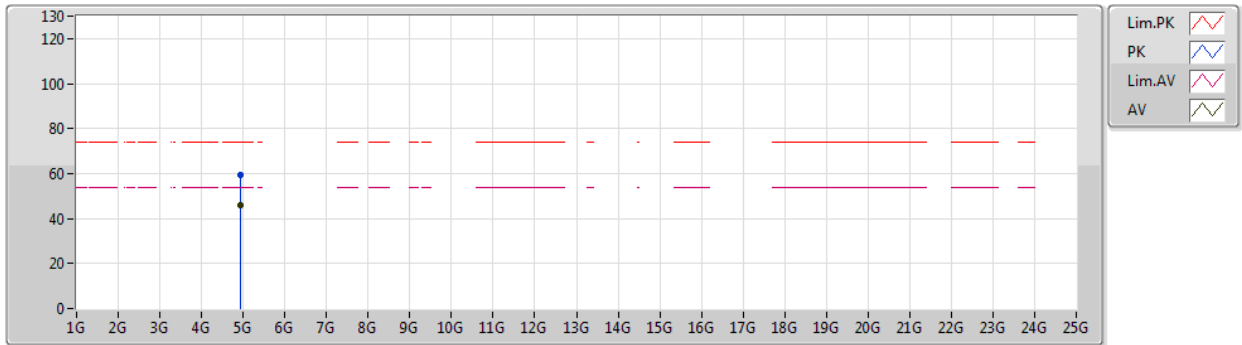


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92226G	40.71	54.00	-13.29	3.93	3	Vertical	227	1.50	-	36.78	31.56	6.82	34.45
PK	4.92226G	54.40	74.00	-19.60	3.93	3	Vertical	227	1.50	-	50.47	31.56	6.82	34.45

802.11n HT20_Nss1,(MCS0)_1TX

06/10/2019

2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92814G	45.72	54.00	-8.28	3.94	3	Horizontal	150	1.12	-	41.78	31.57	6.82	34.45
PK	4.9222G	59.38	74.00	-14.62	3.93	3	Horizontal	150	1.12	-	55.45	31.56	6.82	34.45



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	258.92M	39.40	46.00	-6.60	3	Horizontal	0	1.00	-

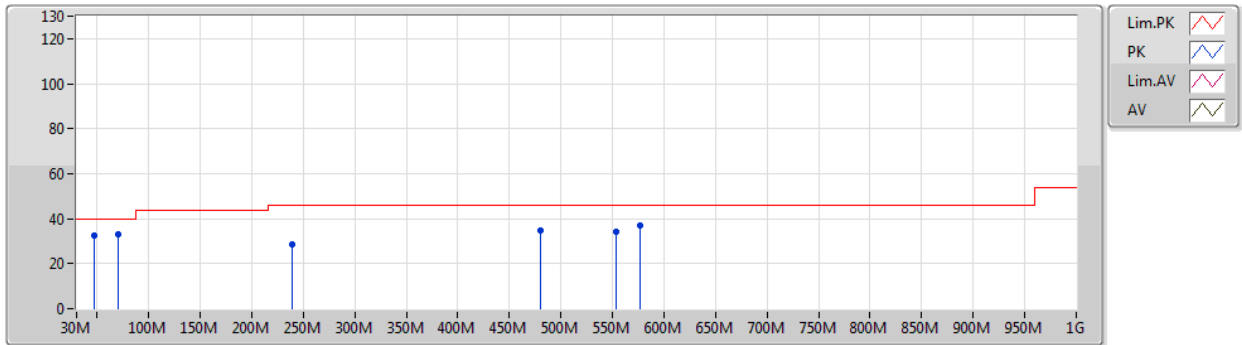
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	47.46M	32.77	40.00	-7.23	3	Vertical	360	1.00	-
2437MHz	Pass	PK	70.74M	33.11	40.00	-6.89	3	Vertical	360	1.00	-
2437MHz	Pass	PK	239.52M	28.34	46.00	-17.66	3	Vertical	360	1.00	-
2437MHz	Pass	PK	480.08M	35.01	46.00	-10.99	3	Vertical	360	1.00	-
2437MHz	Pass	PK	553.8M	34.36	46.00	-11.64	3	Vertical	360	1.00	-
2437MHz	Pass	PK	577.08M	36.75	46.00	-9.25	3	Vertical	360	1.00	-
2437MHz	Pass	PK	159.98M	35.29	43.50	-8.21	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	258.92M	39.40	46.00	-6.60	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	385.02M	31.75	46.00	-14.25	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	480.08M	38.44	46.00	-7.56	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	577.08M	35.08	46.00	-10.92	3	Horizontal	0	1.00	-
2437MHz	Pass	QP	74.62M	25.05	40.00	-14.95	3	Horizontal	0	2.01	-

802.11n HT20_Nss1,(MCS0)_1TX

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2437MHz_USB

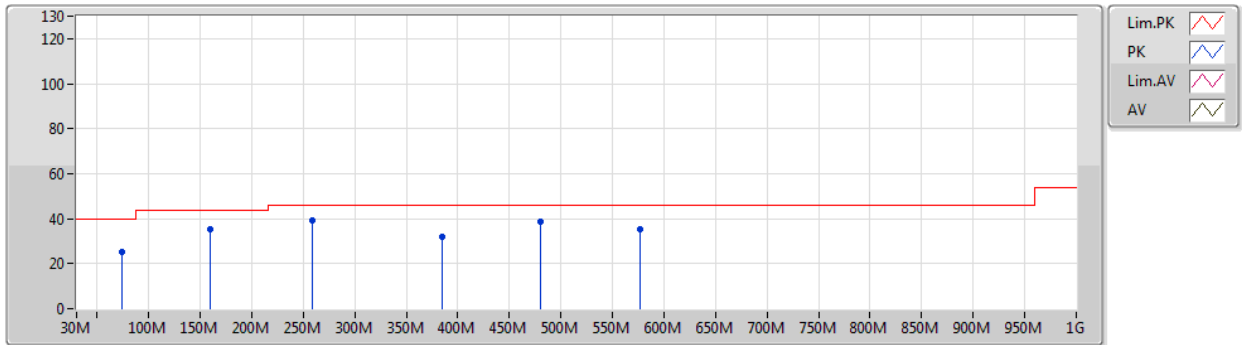


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	47.46M	32.77	40.00	-7.23	-12.78	3	Vertical	360	1.00	-	45.55	14.11	0.79	27.68
PK	70.74M	33.11	40.00	-6.89	-15.24	3	Vertical	360	1.00	-	48.35	11.40	1.08	27.72
PK	239.52M	28.34	46.00	-17.66	-8.17	3	Vertical	360	1.00	-	36.51	16.37	2.68	27.22
PK	480.08M	35.01	46.00	-10.99	-2.44	3	Vertical	360	1.00	-	37.45	22.65	3.28	28.37
PK	553.8M	34.36	46.00	-11.64	-1.24	3	Vertical	360	1.00	-	35.60	23.79	3.60	28.63
PK	577.08M	36.75	46.00	-9.25	-1.50	3	Vertical	360	1.00	-	38.25	23.44	3.63	28.57

802.11n HT20_Nss1,(MCS0)_1TX

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2437MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	159.98M	35.29	43.50	-8.21	-10.59	3	Horizontal	0	1.00	-	45.88	15.03	1.96	27.58
PK	258.92M	39.40	46.00	-6.60	-5.85	3	Horizontal	0	1.00	-	45.25	18.57	2.76	27.18
PK	385.02M	31.75	46.00	-14.25	-4.32	3	Horizontal	0	1.00	-	36.07	20.28	3.16	27.76
PK	480.08M	38.44	46.00	-7.56	-2.44	3	Horizontal	0	1.00	-	40.88	22.65	3.28	28.37
PK	577.08M	35.08	46.00	-10.92	-1.50	3	Horizontal	0	1.00	-	36.58	23.44	3.63	28.57
QP	74.62M	25.05	40.00	-14.95	-15.28	3	Horizontal	0	2.01	-	40.33	11.30	1.15	27.73



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	QP	319.59M	45.06	46.00	-0.94	3	Horizontal	287	1.00	-

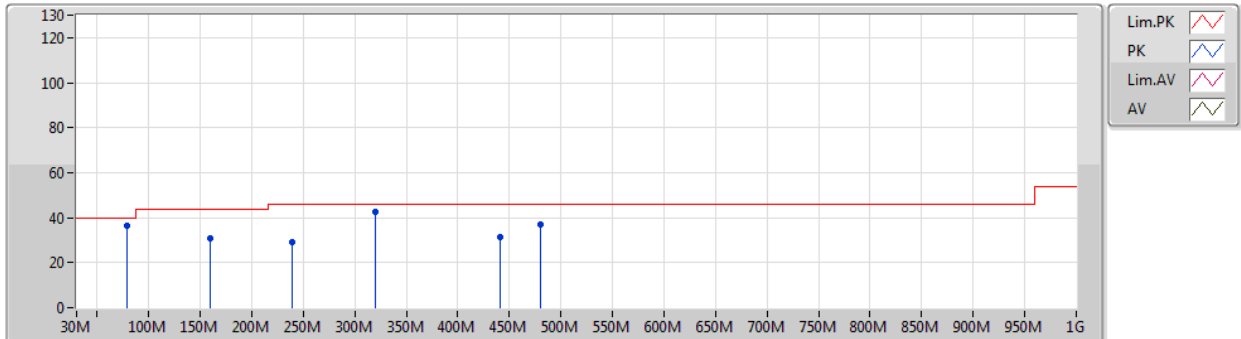
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	79.2M	36.57	40.00	-3.43	3	Vertical	0	1.00	-
2437MHz	Pass	PK	159.33M	30.78	43.50	-12.72	3	Vertical	0	1.00	-
2437MHz	Pass	PK	239.46M	29.36	46.00	-16.64	3	Vertical	0	1.00	-
2437MHz	Pass	PK	319.59M	42.67	46.00	-3.33	3	Vertical	0	1.00	-
2437MHz	Pass	PK	440.49M	31.18	46.00	-14.82	3	Vertical	0	1.00	-
2437MHz	Pass	PK	479.86M	36.86	46.00	-9.14	3	Vertical	0	1.00	-
2437MHz	Pass	PK	79.2M	35.32	40.00	-4.68	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	159.33M	38.71	43.50	-4.79	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	239.46M	33.84	46.00	-12.16	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	440.49M	35.69	46.00	-10.31	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	479.86M	37.74	46.00	-8.26	3	Horizontal	360	1.00	-
2437MHz	Pass	QP	319.59M	45.06	46.00	-0.94	3	Horizontal	287	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Switching Power Supply

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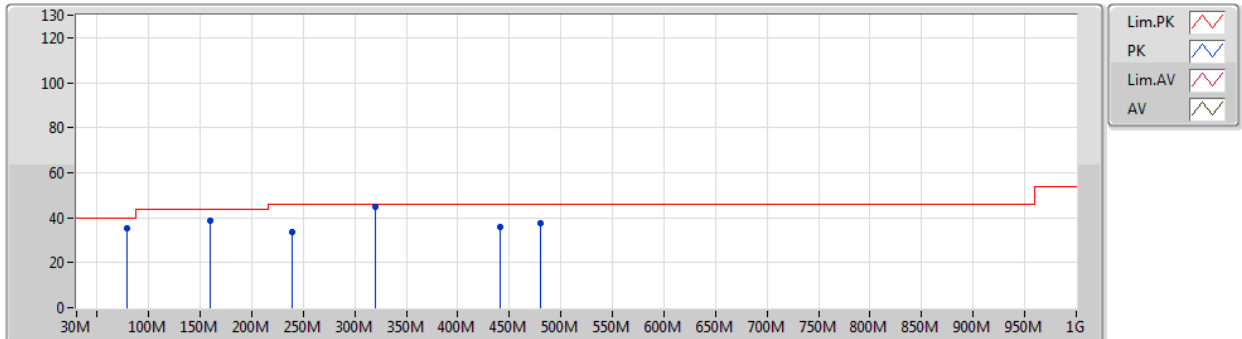


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	79.2M	36.57	40.00	-3.43	-16.92	3	Vertical	0	1.00	-	53.49	12.17	1.40	30.49
PK	159.33M	30.78	43.50	-12.72	-13.32	3	Vertical	0	1.00	-	44.10	15.25	1.84	30.41
PK	239.46M	29.36	46.00	-16.64	-11.83	3	Vertical	0	1.00	-	41.19	16.37	2.11	30.31
PK	319.59M	42.67	46.00	-3.33	-9.05	3	Vertical	0	1.00	-	51.72	18.68	2.45	30.18
PK	440.49M	31.18	46.00	-14.82	-5.22	3	Vertical	0	1.00	-	36.40	21.84	2.91	29.97
PK	479.86M	36.86	46.00	-9.14	-4.16	3	Vertical	0	1.00	-	41.02	22.61	3.12	29.89

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Switching Power Supply

24/10/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	79.2M	35.32	40.00	-4.68	-16.92	3	Horizontal	360	1.00	-	52.24	12.17	1.40	30.49
PK	159.33M	38.71	43.50	-4.79	-13.32	3	Horizontal	360	1.00	-	52.03	15.25	1.84	30.41
PK	239.46M	33.84	46.00	-12.16	-11.83	3	Horizontal	360	1.00	-	45.67	16.37	2.11	30.31
PK	440.49M	35.69	46.00	-10.31	-5.22	3	Horizontal	360	1.00	-	40.91	21.84	2.91	29.97
PK	479.86M	37.74	46.00	-8.26	-4.16	3	Horizontal	360	1.00	-	41.90	22.61	3.12	29.89
QP	319.59M	45.06	46.00	-0.94	-9.05	3	Horizontal	287	1.00	-	54.11	18.68	2.45	30.18



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	QP	46.87M	37.00	40.00	-3.00	3	Horizontal	186	2.84	-

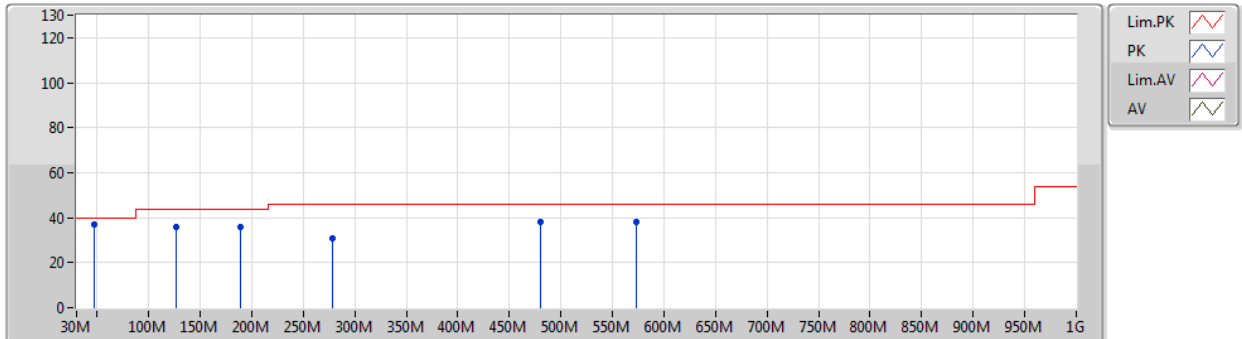
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	127M	35.99	43.50	-7.51	3	Vertical	360	1.00	-
2437MHz	Pass	PK	188.86M	35.74	43.50	-7.76	3	Vertical	360	1.00	-
2437MHz	Pass	PK	278.83M	30.92	46.00	-15.08	3	Vertical	360	1.00	-
2437MHz	Pass	PK	479.86M	38.20	46.00	-7.80	3	Vertical	360	1.00	-
2437MHz	Pass	PK	572.64M	38.02	46.00	-7.98	3	Vertical	360	1.00	-
2437MHz	Pass	QP	46.87M	36.88	40.00	-3.12	3	Vertical	152	1.62	-
2437MHz	Pass	PK	142.46M	33.36	43.50	-10.14	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	190.26M	33.64	43.50	-9.86	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	382.86M	32.04	46.00	-13.96	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	479.86M	38.48	46.00	-7.52	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	671.04M	37.01	46.00	-8.99	3	Horizontal	0	1.00	-
2437MHz	Pass	QP	46.87M	37.00	40.00	-3.00	3	Horizontal	186	2.84	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Switching Power Supply

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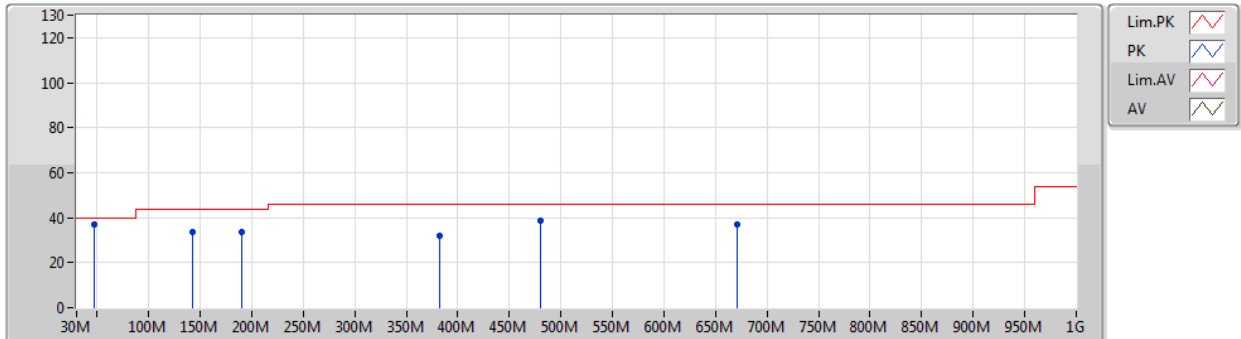


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	127M	35.99	43.50	-7.51	-11.72	3	Vertical	360	1.00	-	47.71	17.00	1.72	30.44
PK	188.86M	35.74	43.50	-7.76	-14.41	3	Vertical	360	1.00	-	50.15	14.04	1.94	30.39
PK	278.83M	30.92	46.00	-15.08	-9.95	3	Vertical	360	1.00	-	40.87	18.02	2.28	30.25
PK	479.86M	38.20	46.00	-7.80	-4.16	3	Vertical	360	1.00	-	42.36	22.61	3.12	29.89
PK	572.64M	38.02	46.00	-7.98	-2.57	3	Vertical	360	1.00	-	40.59	23.81	3.35	29.73
QP	46.87M	36.88	40.00	-3.12	-14.74	3	Vertical	152	1.62	-	51.62	14.55	1.25	30.54

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Switching Power Supply

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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	142.46M	33.36	43.50	-10.14	-12.54	3	Horizontal	0	1.00	-	45.90	16.14	1.75	30.43
PK	190.26M	33.64	43.50	-9.86	-14.42	3	Horizontal	0	1.00	-	48.06	14.03	1.94	30.39
PK	382.86M	32.04	46.00	-13.96	-7.18	3	Horizontal	0	1.00	-	39.22	20.19	2.70	30.07
PK	479.86M	38.48	46.00	-7.52	-4.16	3	Horizontal	0	1.00	-	42.64	22.61	3.12	29.89
PK	671.04M	37.01	46.00	-8.99	-1.75	3	Horizontal	0	1.00	-	38.76	24.03	3.78	29.56
QP	46.87M	37.00	40.00	-3.00	-14.74	3	Horizontal	186	2.84	-	51.74	14.55	1.25	30.54



Summary

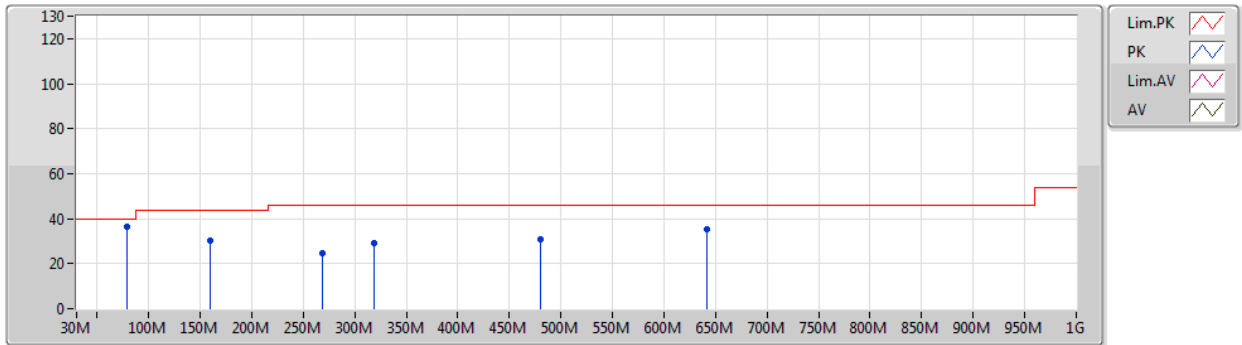
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	QP	78.5M	36.56	40.00	-3.44	3	Vertical	358	1.19	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	159.98M	30.39	43.50	-13.11	3	Vertical	360	1.00	-
2437MHz	Pass	PK	268.62M	24.67	46.00	-21.33	3	Vertical	360	1.00	-
2437MHz	Pass	PK	319.06M	29.40	46.00	-16.60	3	Vertical	360	1.00	-
2437MHz	Pass	PK	480.08M	30.84	46.00	-15.16	3	Vertical	360	1.00	-
2437MHz	Pass	PK	641.1M	35.36	46.00	-10.64	3	Vertical	360	1.00	-
2437MHz	Pass	QP	78.5M	36.56	40.00	-3.44	3	Vertical	358	1.19	-
2437MHz	Pass	PK	78.5M	29.31	40.00	-10.69	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	159.98M	25.39	43.50	-18.11	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	268.62M	24.45	46.00	-21.55	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	480.08M	33.58	46.00	-12.42	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	641.1M	38.07	46.00	-7.93	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	800.18M	33.32	46.00	-12.68	3	Horizontal	0	1.00	-

802.11n HT20_Nss1,(MCS0)_1RX 2437MHz_Switching Power Supply

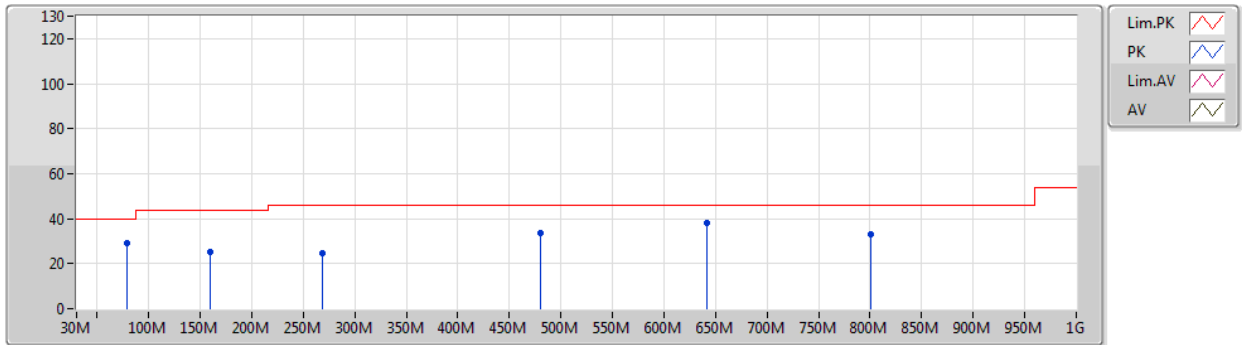
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	159.98M	30.39	43.50	-13.11	-10.59	3	Vertical	360	1.00	-	40.98	15.03	1.96	27.58
PK	268.62M	24.67	46.00	-21.33	-6.01	3	Vertical	360	1.00	-	30.68	18.38	2.79	27.18
PK	319.06M	29.40	46.00	-16.60	-5.55	3	Vertical	360	1.00	-	34.95	18.70	3.04	27.29
PK	480.08M	30.84	46.00	-15.16	-2.44	3	Vertical	360	1.00	-	33.28	22.65	3.28	28.37
PK	641.1M	35.36	46.00	-10.64	-0.50	3	Vertical	360	1.00	-	35.86	24.26	3.77	28.53
QP	78.5M	36.56	40.00	-3.44	-14.87	3	Vertical	358	1.19	-	51.43	11.66	1.21	27.74

802.11n HT20_Nss1,(MCS0)_1RX 2437MHz_Switching Power Supply

07/10/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	78.5M	29.31	40.00	-10.69	-14.87	3	Horizontal	0	1.00	-	44.18	11.66	1.21	27.74
PK	159.98M	25.39	43.50	-18.11	-10.59	3	Horizontal	0	1.00	-	35.98	15.03	1.96	27.58
PK	268.62M	24.45	46.00	-21.55	-6.01	3	Horizontal	0	1.00	-	30.46	18.38	2.79	27.18
PK	480.08M	33.58	46.00	-12.42	-2.44	3	Horizontal	0	1.00	-	36.02	22.65	3.28	28.37
PK	641.1M	38.07	46.00	-7.93	-0.50	3	Horizontal	0	1.00	-	38.57	24.26	3.77	28.53
PK	800.18M	33.32	46.00	-12.68	1.03	3	Horizontal	0	1.00	-	32.29	25.01	4.17	28.15



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	3.248G	46.40	54.00	-7.60	3	Horizontal	96	1.14	-



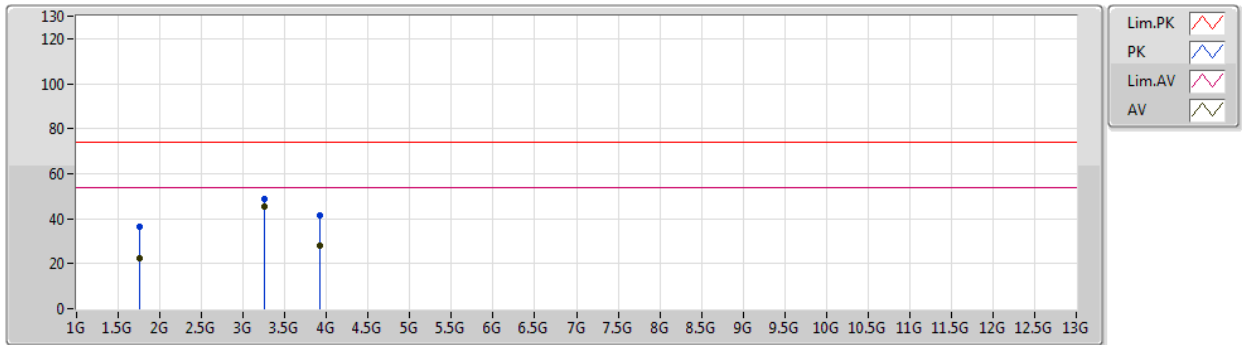
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	AV	1.76G	22.65	54.00	-31.35	3	Vertical	360	1.00	-
2437MHz	Pass	AV	3.248G	45.42	54.00	-8.58	3	Vertical	150	1.32	-
2437MHz	Pass	AV	3.928G	27.93	54.00	-26.07	3	Vertical	360	1.00	-
2437MHz	Pass	PK	1.76G	36.21	74.00	-37.79	3	Vertical	360	1.00	-
2437MHz	Pass	PK	3.248G	48.55	74.00	-25.45	3	Vertical	150	1.32	-
2437MHz	Pass	PK	3.928G	41.38	74.00	-32.62	3	Vertical	360	1.00	-
2437MHz	Pass	AV	1.864G	22.89	54.00	-31.11	3	Horizontal	0	1.00	-
2437MHz	Pass	AV	3.248G	46.40	54.00	-7.60	3	Horizontal	96	1.14	-
2437MHz	Pass	AV	3.888G	27.45	54.00	-26.55	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	1.864G	36.31	74.00	-37.69	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	3.248G	48.91	74.00	-25.09	3	Horizontal	96	1.14	-
2437MHz	Pass	PK	3.888G	40.65	74.00	-33.35	3	Horizontal	0	1.00	-

802.11n HT20_Nss1,(MCS0)_1RX

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2437MHz_RX

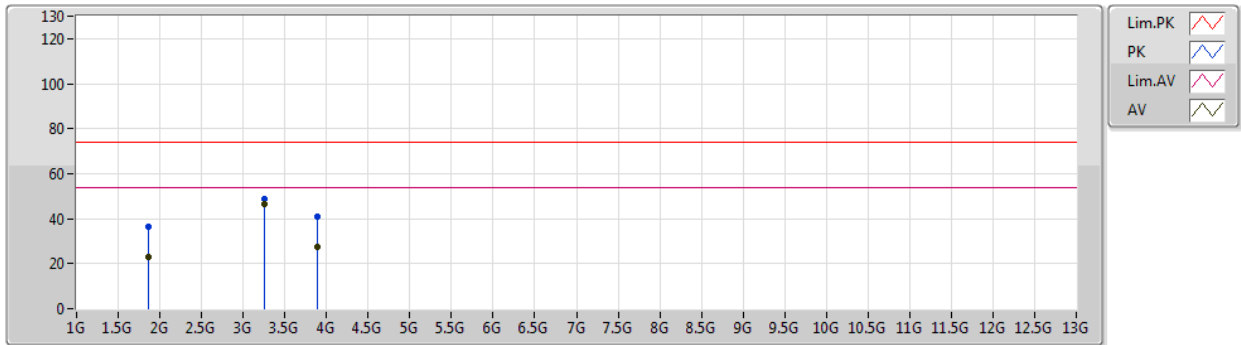


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.76G	22.65	54.00	-31.35	-4.42	3	Vertical	360	1.00	-	27.07	25.96	4.04	34.42
AV	3.248G	45.42	54.00	-8.58	-0.48	3	Vertical	150	1.32	-	45.90	28.65	5.56	34.69
AV	3.928G	27.93	54.00	-26.07	1.63	3	Vertical	360	1.00	-	26.30	29.57	6.64	34.58
PK	1.76G	36.21	74.00	-37.79	-4.42	3	Vertical	360	1.00	-	40.63	25.96	4.04	34.42
PK	3.248G	48.55	74.00	-25.45	-0.48	3	Vertical	150	1.32	-	49.03	28.65	5.56	34.69
PK	3.928G	41.38	74.00	-32.62	1.63	3	Vertical	360	1.00	-	39.75	29.57	6.64	34.58

802.11n HT20_Nss1,(MCS0)_1RX

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2437MHz_RX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.864G	22.89	54.00	-31.11	-4.18	3	Horizontal	0	1.00	-	27.07	26.06	4.14	34.38
AV	3.248G	46.40	54.00	-7.60	-0.48	3	Horizontal	96	1.14	-	46.88	28.65	5.56	34.69
AV	3.888G	27.45	54.00	-26.55	1.46	3	Horizontal	0	1.00	-	25.99	29.50	6.54	34.58
PK	1.864G	36.31	74.00	-37.69	-4.18	3	Horizontal	0	1.00	-	40.49	26.06	4.14	34.38
PK	3.248G	48.91	74.00	-25.09	-0.48	3	Horizontal	96	1.14	-	49.39	28.65	5.56	34.69
PK	3.888G	40.65	74.00	-33.35	1.46	3	Horizontal	0	1.00	-	39.19	29.50	6.54	34.58

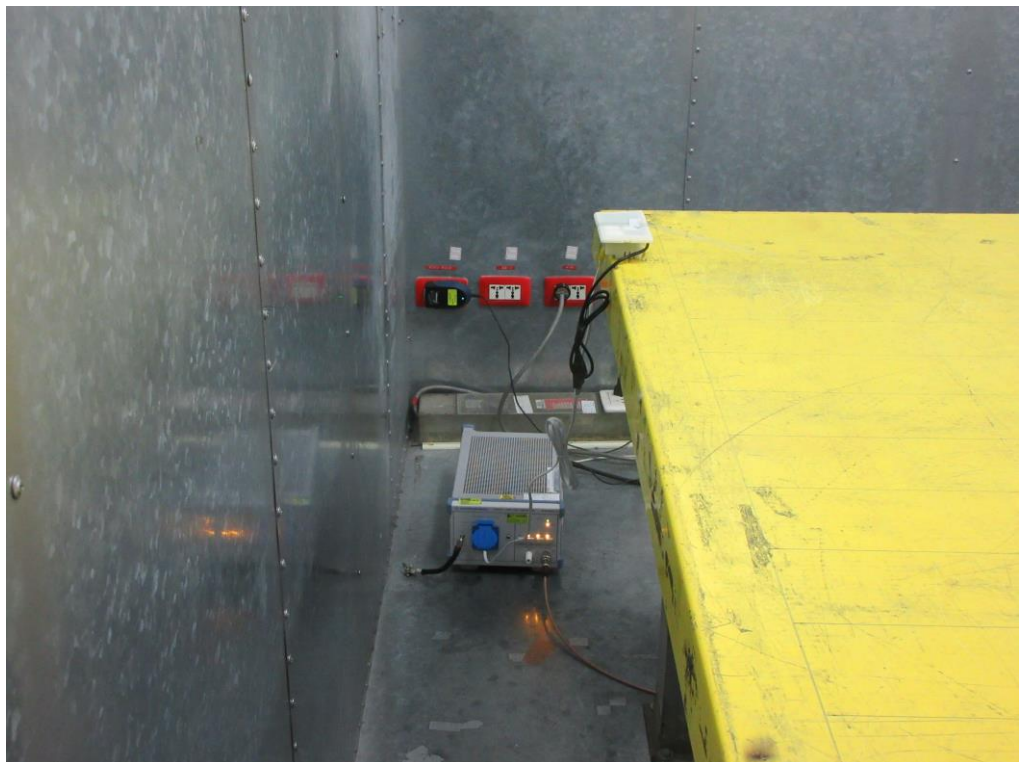
1. Photographs of Conducted Emissions Test Configuration

Mode 1

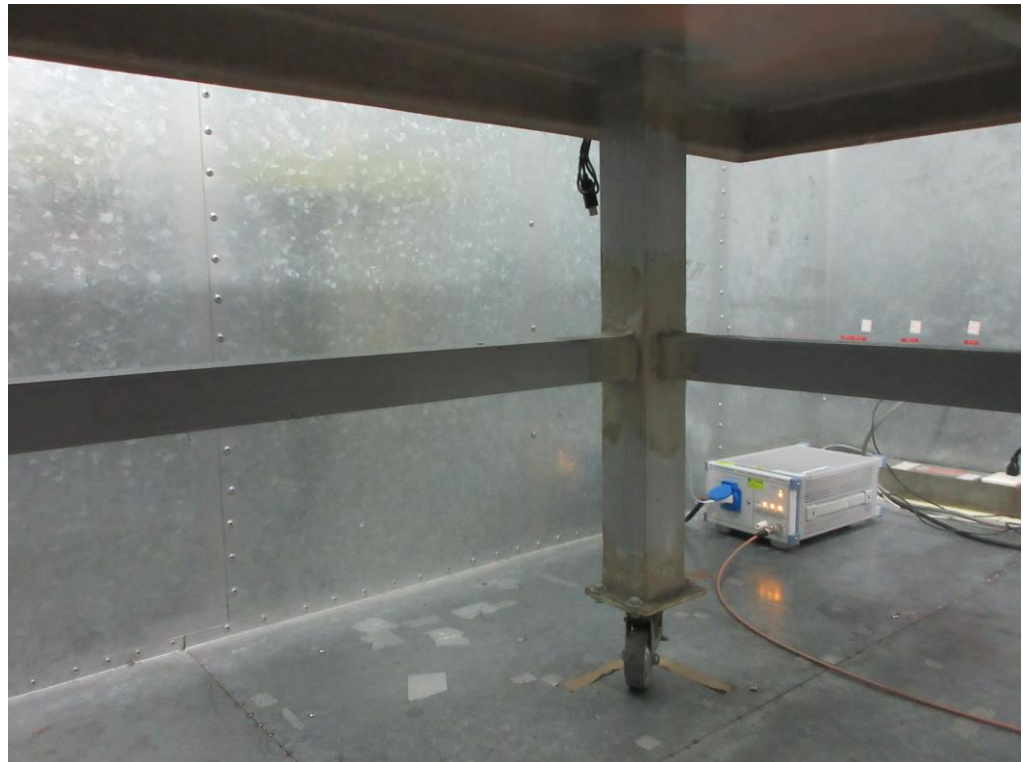
Front view



Side view

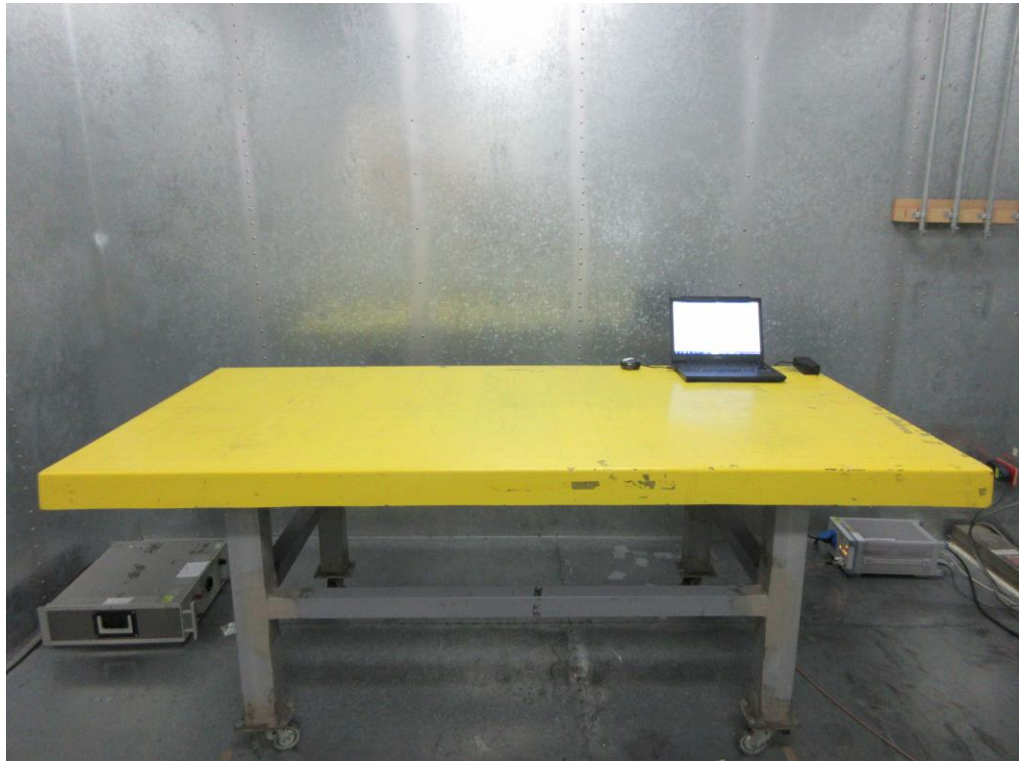


Under table view

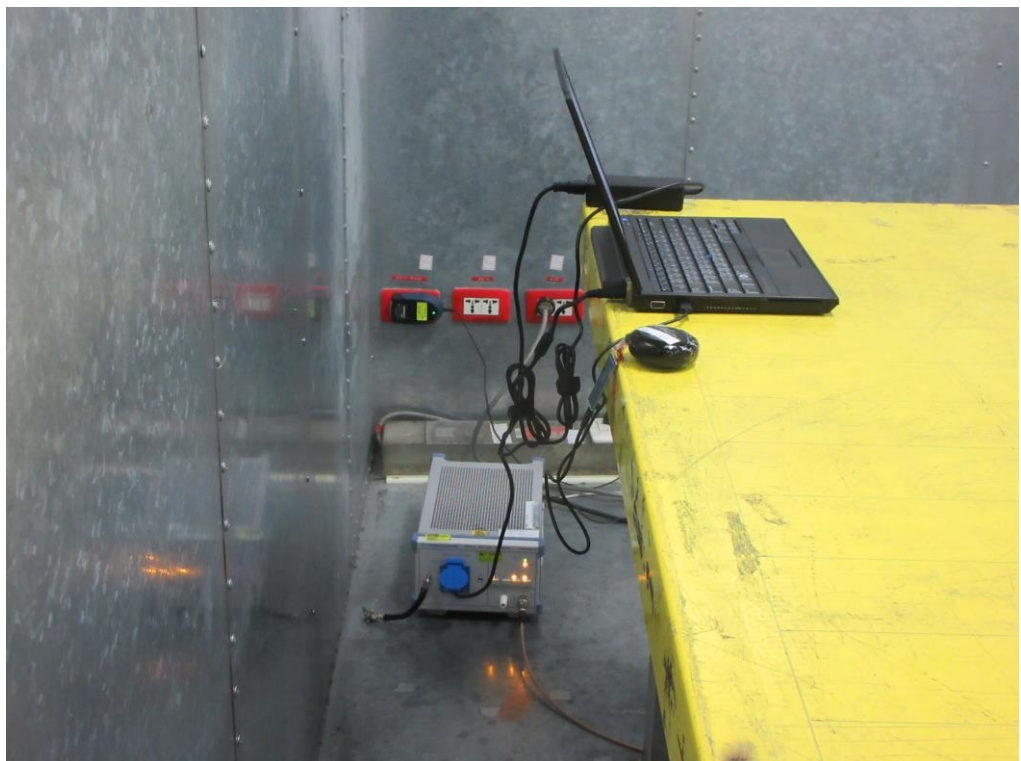


Mode 2

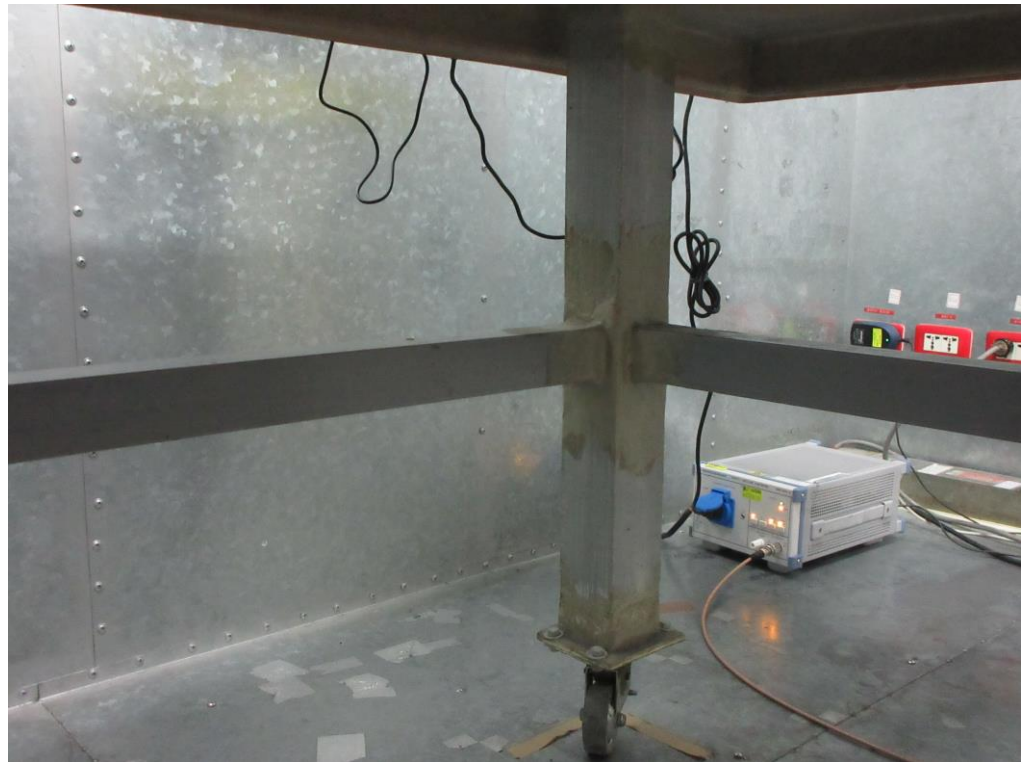
Front view



Side view



Under table view

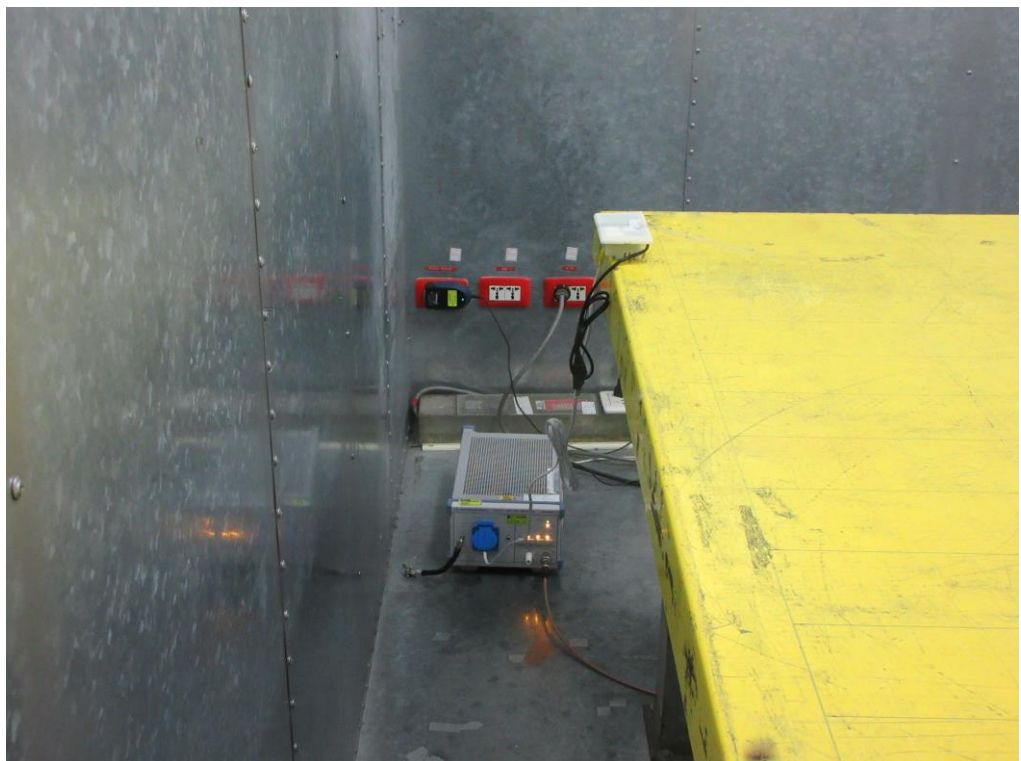


Mode 3

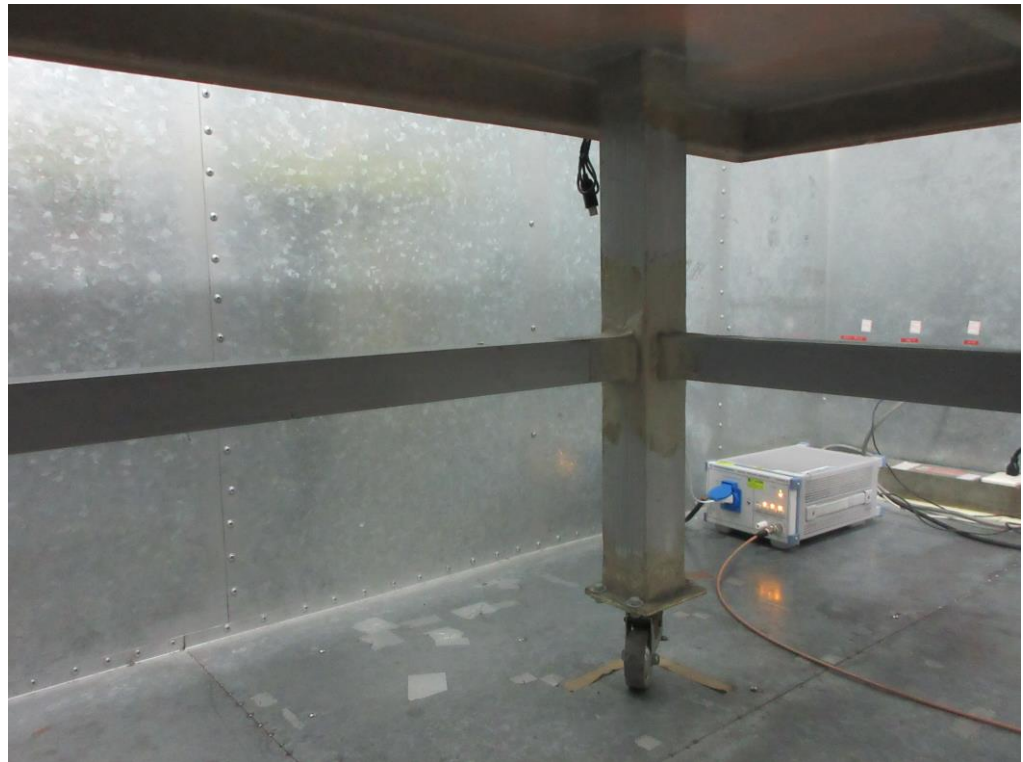
Front view



Side view



Under table view



Mode 4

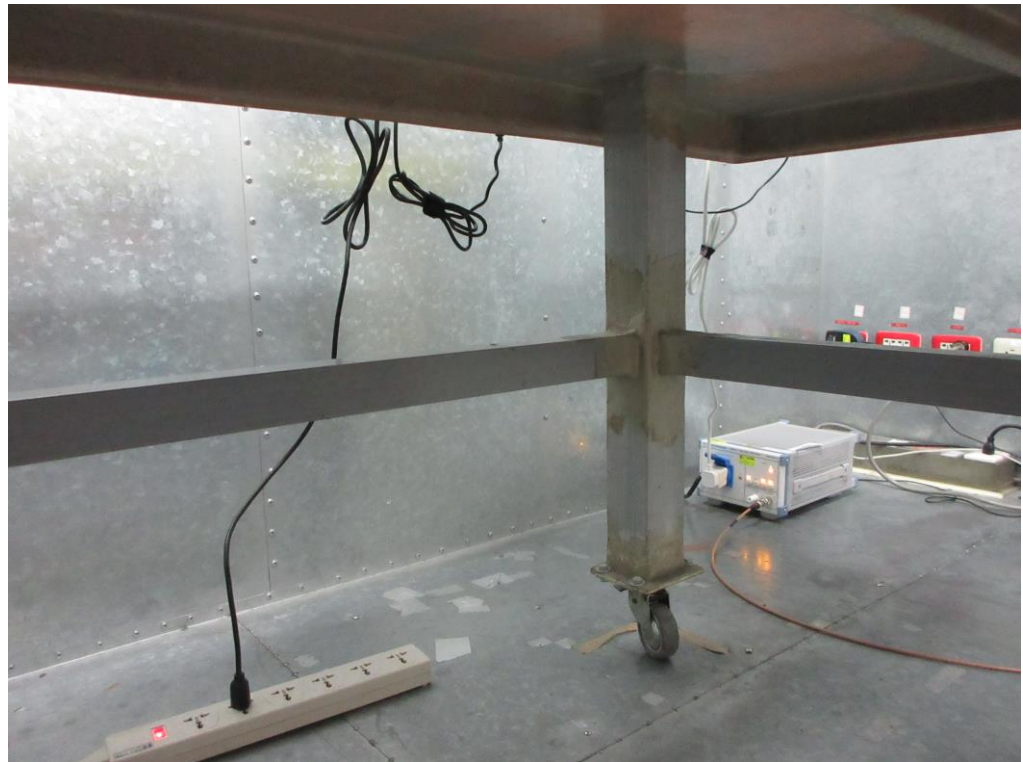
Front view



Side view



Under table view

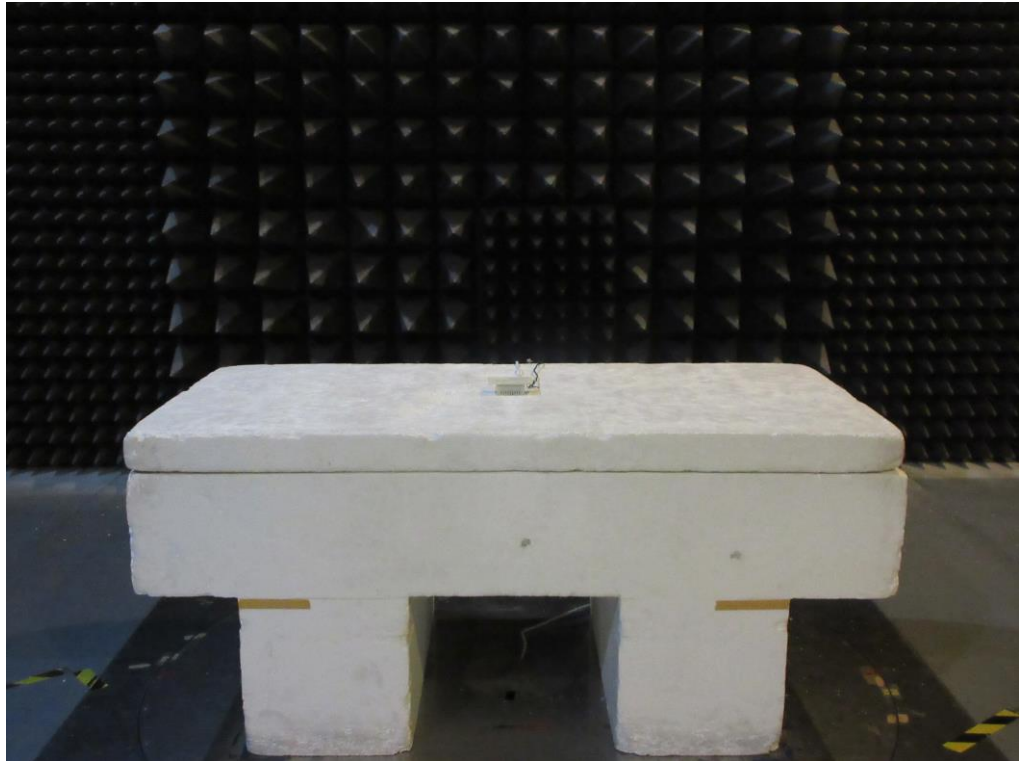


2. Photographs of Radiated Emissions Test Configuration

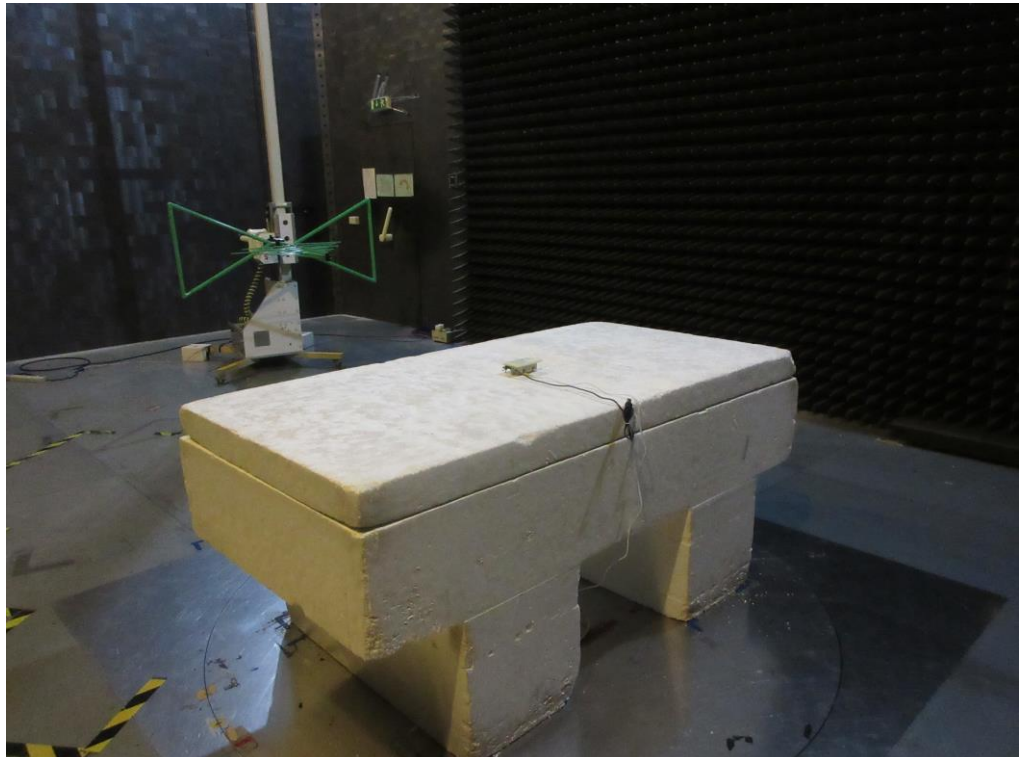
For radiated emissions 30MHz~1GHz

Mode 1 (TX)

Front view



Rear view



Mode 1 (RX)

Front view

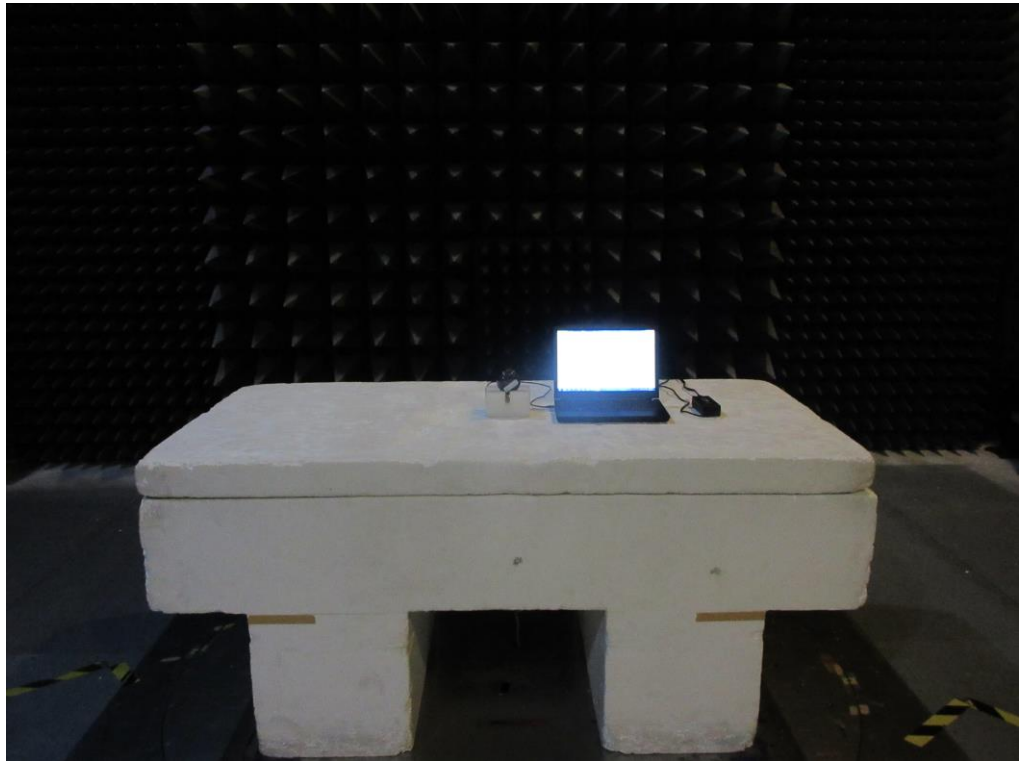


Rear view

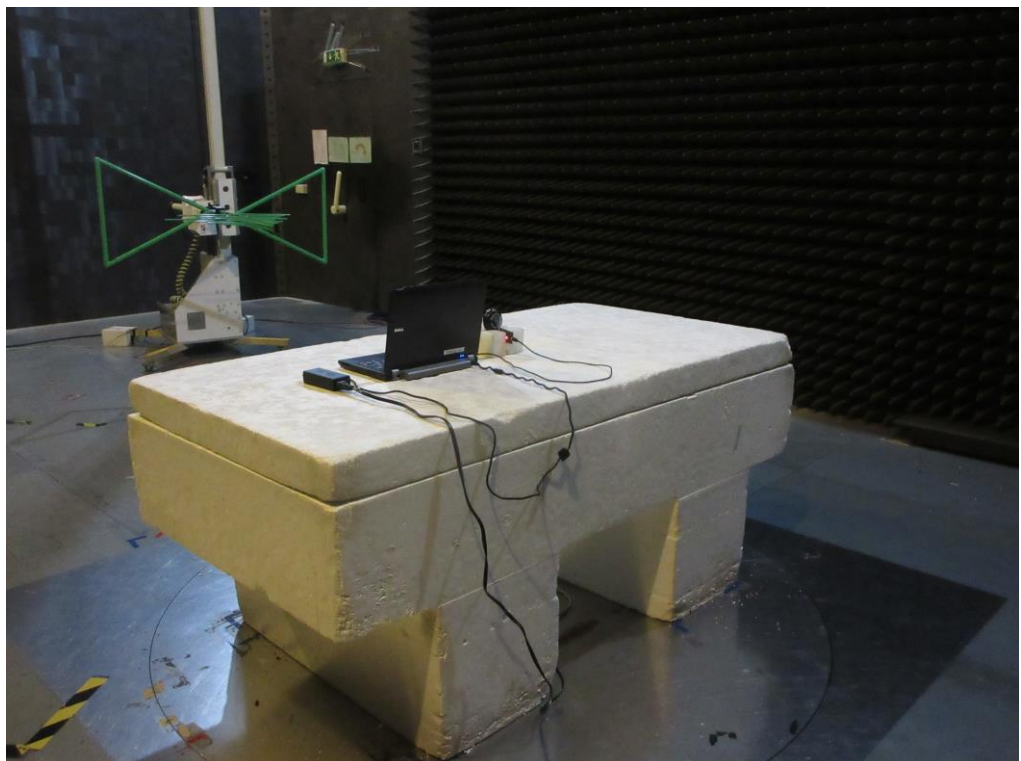


Mode 2 (TX)

Front view



Rear view

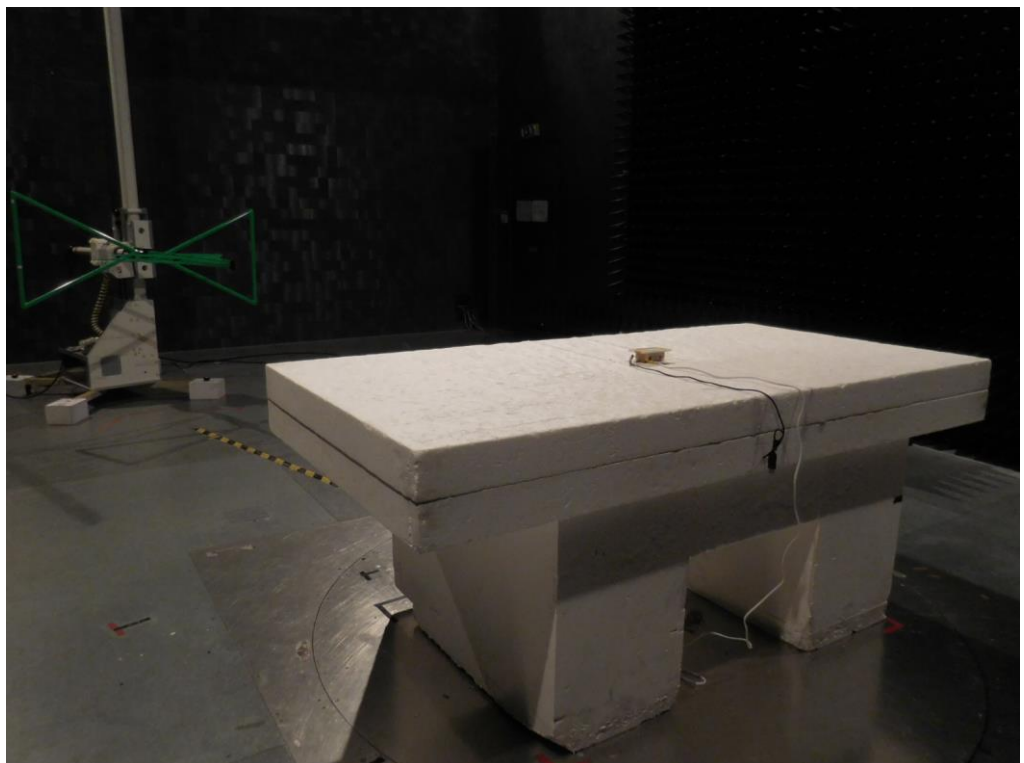


Mode 3 (TX)

Front view

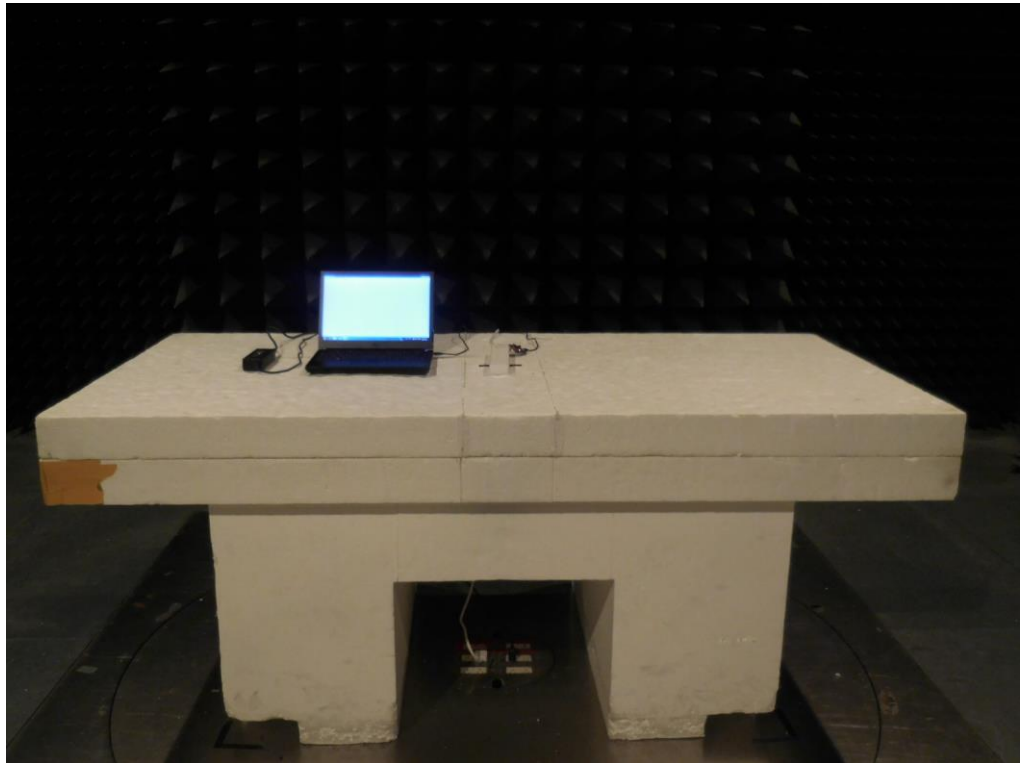


Rear view

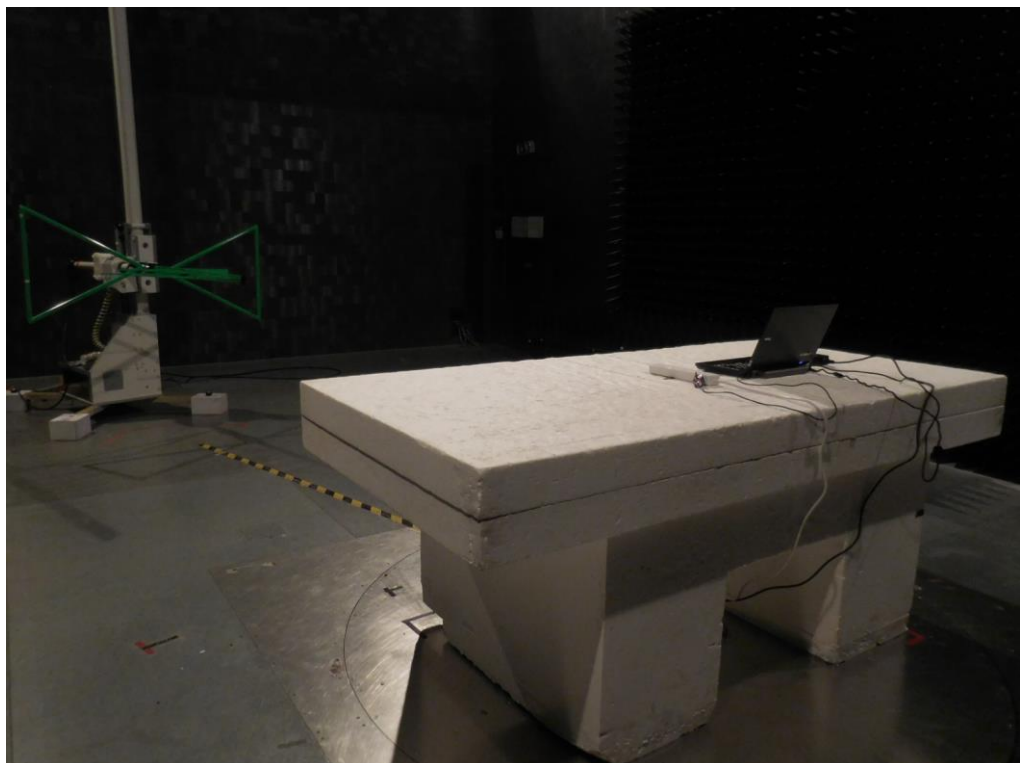


Mode 4 (TX)

Front view

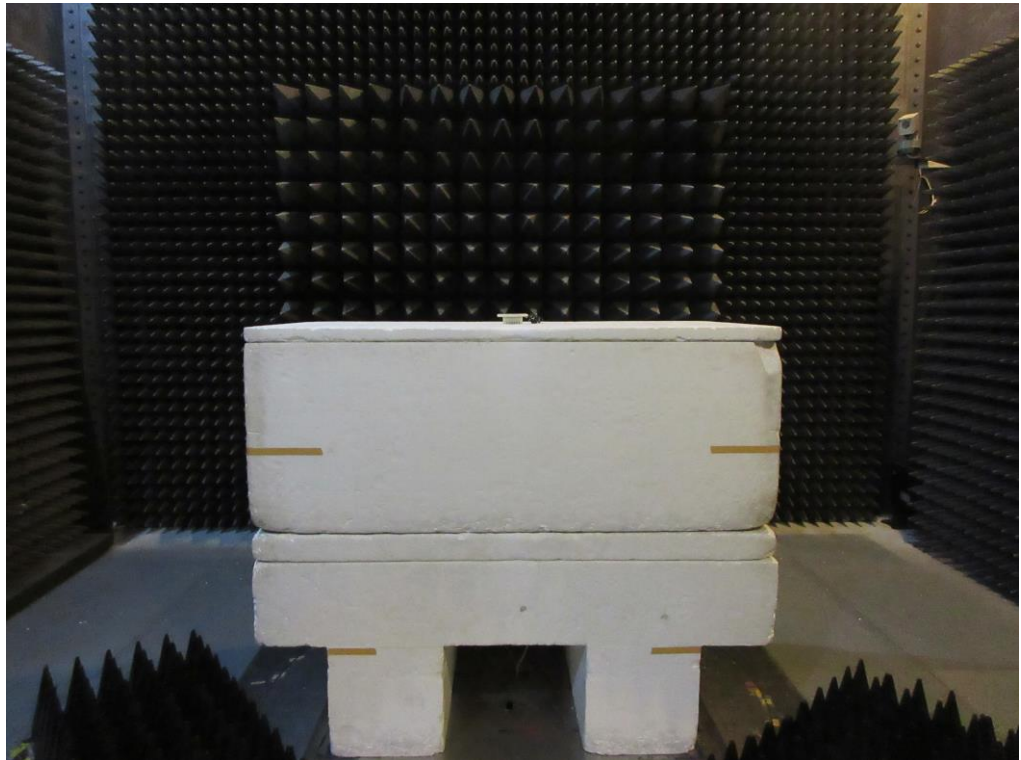


Rear view



For radiated emissions above 1GHz
Mode 1 (TX)

Front view

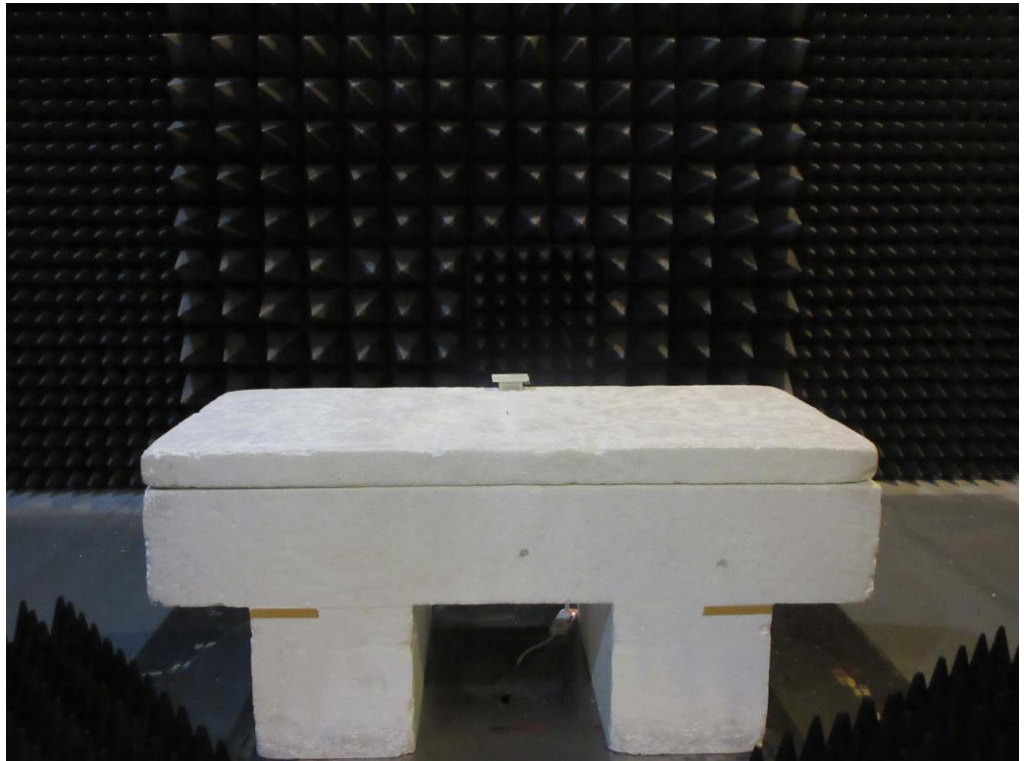


Rear view



Mode 1 (RX)

Front view



Rear view



————THE END————