RadioTest Report

Equipment	:	**WiFi 6E mini PCIe module**
Brand Name	:	**AsiaRF Co., Ltd.**
Model Name	:	**AW7916-NPD, AW7916-AED**
Applicant	:	**AsiaRF Co., Ltd. 1F, 7, Houde Street, Yonghe Dist. New Taipei City Taiwan 23455**
Manufacturer	:	**AsiaRF Co., Ltd. 1F, 7, Houde Street, Yonghe Dist. New Taipei City Taiwan 23455**
Standard	:	**EN 303 687 V1.1.1 (2023-06)**

The product was received on Apr. 07, 2023, and testing was started from Jun. 08, 2023 and completed on Nov. 13, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in EN 303 687 V1.1.1 (2023-06) and shown compliance with the applicable technical standards.

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

Jordan Hsiao

Approved by: Jordan Hsiao

Sporton International Inc. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
ER2D0804-01AE	01	Initial issue of report	Apr. 29, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	4.3.1	Nominal Centre Frequency	PASS	-
3.2	4.3.2	RF Output Power	PASS	-
3.3	4.3.3	Power Density	PASS	-
3.4	4.3.4.1	Transmitter Unwanted Emissions in the out-of-band Domain	PASS	-
3.5	4.3.4.2	Transmitter Unwanted Emissions in the Spurious Domain	PASS	-
3.6	4.3.4.3	Transmitter Unwanted Emissions within the 6 GHz RLAN Band	PASS	-
4.1	4.3.5	Receiver Spurious Emissions	PASS	-
5.1	4.3.6	Channel Access Mechanism	PASS	-
6.1	4.3.7	Receiver Blocking	PASS	-
7.1	4.3.8	Receiver Selectivity	PASS	-
-	4.3.9	Mechanical and electrical design	N/A	Not applicable for Low Power Indoor Client
8	4.3.10	User Access Restrictions	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

Reviewed by: Barry Hsiao

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5945~6425	ax (HEW20)	5955-6415	1-93 [24]
5945~6425	ax (HEW40)	5965-6405	3-91 [12]
5945~6425	ax (HEW80)	5985-6385	7-87 [6]
5945~6425	ax (HEW160)	6025-6345	15-79 [3]

<Non-Beamforming>

Band	Mode	BWch (MHz)	Nant
5.945-6.425GHz	802.11ax HEW20	20	2TX
5.945-6.425GHz	802.11ax HEW40	40	2TX
5.945-6.425GHz	802.11ax HEW80	80	2TX
5.945-6.425GHz	802.11ax HEW160	160	2TX

<Beamforming>

Band	Mode	BWch (MHz)	Nant
5.945-6.425GHz	802.11ax HEW20-BF	20	2TX
5.945-6.425GHz	802.11ax HEW40-BF	40	2TX
5.945-6.425GHz	802.11ax HEW80-BF	80	2TX
5.945-6.425GHz	802.11ax HEW160-BF	160	2TX

Note:
- HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX
2	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX
3	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX

Ant.	Port	Gain (dBi)		
		2.4G	5G	6G
1	1	5	5	5
2	2	5	5	5
3	3	-	5	5

Note 1: The EUT has three antennas.

Note 2: The Ant. 3 is only for DFS RX and MRC function.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (2TX/3RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit simultaneously.

Ant. 1 (port 1) and Ant. 2 (port 2) and Ant.3 (port 3) could receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax mode (2TX/3RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit simultaneously.

Ant. 1 (port 1) and Ant. 2 (port 2) and Ant.3 (port 3) could receive simultaneously.

1.1.3 Duty Cycle

<Non-Beamforming>

Mode	DC	DCF (dB)
802.11ax HEW20_Nss1,(MCS0)_2TX	0.943	0.25
802.11ax HEW40_Nss1,(MCS0)_2TX	0.847	0.72
802.11ax HEW80_Nss1,(MCS0)_2TX	0.839	0.76
802.11ax HEW160_Nss1,(MCS0)_2TX	0.842	0.75

<Beamforming>

Mode	DC	DCF (dB)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.943	0.25
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.847	0.72
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.839	0.76
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	0.842	0.75

1.1.4 EUT Information

EUT Power Type	From Test fixture				
Device Types (Adaptivity)	☐	Initiating Device			
	☐	Responding Device			
	☒	Supervised Device, which implements:			
		☒	Priority class 1	☒	Priority class 2
		☐	Priority class 1 implements EN 301 893 Table 7 Note1		
		☐	Priority class 2 implements EN 301 893 Table 7 Note1		
		☒	Priority class 3	☒	Priority class 4
	☐	Supervising Device, which implements:			
		☐	Priority class 1	☐	Priority class 2
		☐	Priority class 1 implements EN 301 893 Table 8 Note1		
		☐	Priority class 2 implements EN 301 893 Table 8 Note1		
		☐	Priority class 2 implements EN 301 893 Table 8 Note2		
		☐	Priority class 3	☐	Priority class 4
Communication Mode	☒	Load Based		☐	Frame Based
Beamforming Function	☒	With beamforming		☐	Without beamforming
Device Type	☐	Low Power Indoor AP/bridge		☐	Very Low Power
	☒	Low Power Indoor client		☐	Very Low Power NB
Multi-channel Operation in Adjacent Channels	☐	Support		☒	N/A
Resource Unit(802.11ax)	☒	Full RU		☐	Partial RU
Software / Firmware Version for Channel Access Mechanism & Receiver Blocking & Receiver Selectivity					OpenWrt 21.02-SNAPSHOT r16859-7576fe5669 / LuCI Master git-23.139.28955-5d7f46c

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

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

Model Name	Description
AW7916-NPD, AW7916-AED	AW7916-AED is M.2 AE key interface module and AW7619-NPD is Mini PCIe interface module.

1.1.6 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: ER2D0804AE.

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

Modifications	Performance Checking
1. Add Model Name. (AW7916-AED) 2. Photographs Of EUT was update.	The worst case of Radiated Unwanted Emissions was evaluated, and the test result of original report was found to be the worst case scenario.

1.1.7 Adaptive Equipment

Adaptive Equipment		
Channel Access Mechanism:		
	Procedure to verify the Channel Access Mechanism. The test procedure which defined in clause 5.4.8.3.2.4 should be verified.	
Maximum Channel Occupancy Time(s):		
	Procedure to verify the maximum Channel Occupancy Time(s) The test procedure which defined in clause 5.4.8.3.2.5 should be verified.	
Channel Operation Mode:		
☒	Single Channel Operation	
☒	Multi-channel Operation	
	☐	Option 1: LBE may use any combination/grouping of channels out of the list of channels (nominal centre frequencies) provided in clause 4.3.1, if it satisfies the channel access requirements (channel access mechanism) for an initiating device as described in clause 4.3.6.3.2.5 on each such channel.
	☒	Option 2: EN 303 687 Figure 6 defines groups of adjacent channels with a total bandwidth of 40 MHz, 80 MHz or 160 MHz (see also clause 4.3.1.3 for the channel number). LBE that uses a combination/grouping of adjacent channels that is a subset of the 40 MHz, 80 MHz or 160 MHz groups of adjacent channels in figure 6 may transmit on any of the channels

Note: The above information was declared by manufacturer.

1.2 Applicable Standards

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

- EN 303 687 V1.1.1 (2023-06)

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
RF Conducted	TH01-HY	Johnny Yu	22.3~22.6°C / 54~58%	13/Jun/2023
Radiated	05CH01-HY	Wayne Chiu	22.5~23.3°C / 55~57%	08/Jun/2023
Channel Access Mechanism	DFS01-HY	Wayne Lin	21.8~24.5°C / 50~61 %	30/Jun/2023~13/Nov/2023
Receiver blocking & Receiver Selectivity	DFS03-HY	CHUN-YI WU	22.7~24.6°C / 51~54%	11/Aug/2023~12/Aug/2023
☐ Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	

Note：The tested sample of the new test item was received on 21/Mar/2024.

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)

Parameter	Uncertainty	Remark
Nominal Centre Frequency	0.4 MHz	Conifidence levels of 95%
RF Output Power	1.2 dB	Conifidence levels of 95%
Power Density	1.2 dB	Conifidence levels of 95%
Transmitter Unwanted Emissions within the 6 GHz RLAN Band	1.2 dB	Conifidence levels of 95%
Channel Access Mechanism	1%	Conifidence levels of 95%
Receiver Blocking	1%	Conifidence levels of 95%
Receiver Selectivity	1%	Conifidence levels of 95%
Radiated Spurious Emissions	4.8 dB	Conifidence levels of 95%
Humidity	2.3 %	Conifidence levels of 95%
Temperature	0.7 ℃	Conifidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
Tnom	Tnom	20°C
Tmin	Tmin	0°C
Tmax	Tmax	70°C
-	Vnom	230V

2.2 Test Channel Mode

Test Software Version	QATool_Dbg V 0.0.2.73

<Non-Beamforming>

Mode	PowerSetting
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5955MHz	18.5
6415MHz	17.5
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5965MHz	18.5
6405MHz	18
802.11ax HEW80_Nss1,(MCS0)_2TX	-
6065MHz	19
6385MHz	19
802.11ax HEW160_Nss1,(MCS0)_2TX	-
6025MHz	21.5
6345MHz	21.5

<Beamforming>

Mode	PowerSetting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5955MHz	15.5
6415MHz	14.5
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5965MHz	15.5
6405MHz	15
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
6065MHz	16
6385MHz	16
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-
6025MHz	18.8
6345MHz	18.5

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Test Item	Nominal Centre Frequencies
Test Condition	Conducted measurement One of the declared channel.

The Worst Case Mode for Following Conformance Tests	
Test Item	RF Output Power Power Density Transmitter Unwanted Emissions in the out-of-band Domain Transmitter Unwanted Emissions within the 6GHz RLAN Band
Test Condition	Conducted measurement The lowest and highest declared channel for every declared Nominal Channel Bandwidth.

The Worst Case Mode for Following Conformance Tests		
Test Item	Transmitter Unwanted Emissions in the Spurious Domain Receiver Spurious Emissions	
Test Condition	Radiated measurement One of the declared channel.	
Test Mode	1	Adapter Mode

The Worst Case Mode for Following Conformance Tests	
Test Item	Channel Access Mechanism
Test Condition	Conducted measurement at transmit chains. One channel out of the declared channel

The Worst Case Mode for Following Conformance Tests	
Test Item	Receiver blocking Receiver Selectivity
Test Condition	Conducted measurement at one receiver chain. One channel with the lowest data rate out of the declared channels for each sub-band.

2.4 Support Equipment

Support Equipment - RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**Remark**
1	Notebook	DELL	E5410	-
2	Adapter for NB	DELL	HA65NM130	-
3	Adapter	iDRC	CW1201000	Provided by Customer
4	PCB fixture	N/A	N/A	Provided by Customer

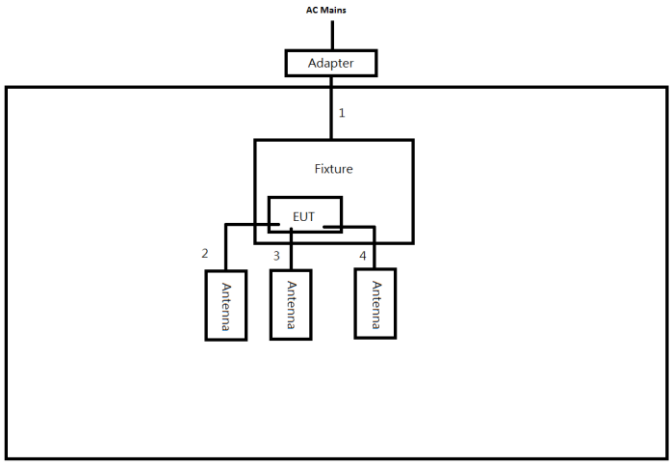
Support Equipment - Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**Remark**
1	Adapter	iDRC	CW1201000	Provided by Customer
2	PCB fixture	N/A	N/A	Provided by Customer
3	Antenna*3	AsiaRF Co., Ltd.	ANTS0WF602M02001	Provided by Customer

Support Equipment - Channel Access Mechanism				
No.	**Equipment**	**Brand Name**	**Model Name**	**Remark**
1	AP (Master)	ADTRAN	834-V6	-
2	Notebook	DELL	Latitude E5550	-
3	Notebook	DELL	Latitude E5560	-
4	Adapter	iDRC	CW1201000	Provided by Customer
5	Adapter	Sunny	SYS1620-3012-W2E	-

Support Equipment - Receiver Blocking				
No.	**Equipment**	**Brand Name**	**Model Name**	**Remark**
1	Notebook	Lenovo	ThinkBook15 G4 IAP	-
2	Sheilding Box	EMEC	EM-SHB-650550250-M	-
3	Adapter	iDRC	CW1201000	Provided by Customer

2.5 Test Setup Diagram

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	ADC Power cable	No	2.0	-
2	DC Power cable	No	1.5	-
3	Antenna Cable	No	0.1	-
4	Antenna Cable	No	0.1	-
5	Antenna Cable	No	0.1	-

3 Transmitter Test Result

3.1 Nominal Centre Frequency

3.1.1 Nominal Centre Frequencies Limit

Nominal Centre Frequency Limit
The actual centre frequency for any given channel declared by the manufacturer shall be maintained within the range f_c ± 20 ppm.

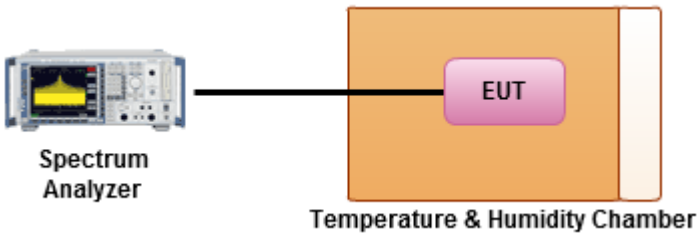
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
☒	Refer as EN 303 687, clause 5.4.2 for the carrier frequencies shall be measured using one of the options below.
	☒ Refer as EN 303 687, clause 5.4.2.2.1.1 for equipment operating without modulation method
	☐ Refer as EN 303 687, clause 5.4.2.2.1.2 for equipment operating with modulation method
☒	Refer as EN 303 687, clause 5.4.2.2.1 for conducted measurement.
	☒ Refer as EN 303 687, clause 5.4.2.1 for conducted measurements on smart antenna systems (equipment with multiple transmit chains) measurements need only to be performed on one of the active transmit chains (antenna outputs).
☐	Refer as EN 303 687, clause 5.4.2.2.2 for radiated measurement.
☐	Refer as EN 303 687, clause 5.4.2.2.3 for test fixture measurement.

3.1.4 Test Setup

Nominal Centre Frequency


3.1.5 Test Result of Nominal Centre Frequency

Refer as Appendix A

3.2 RF Output Power

3.2.1 RF Output Power Limit

Frequency Range (MHz)	Mean e.i.r.p. Limit (dBm)	
	LPI usage	VLP usage
5945 ~ 6425	23	14

3.2.2 Measuring Instruments

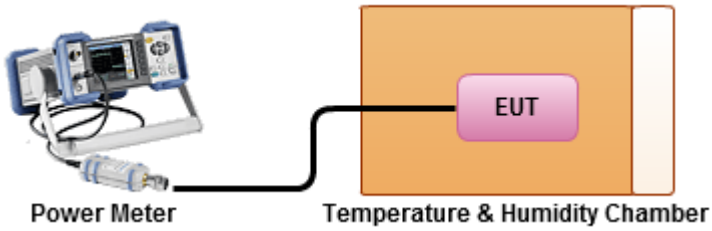
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
☒	The measurements shall be performed at both normal environmental conditions and at the extremes of the operating temperature range.
☒	The EUT shall be configured to operate at the maximum stated transmitter output power level.
☒	Refer as EN 303 687, clause 5.4.3.2 for the RF output power shall be measured using below options:
☒	Procedure 1: For equipment that can be configured to operate in a continuous transmit mode or with a constant duty cycle (x). Refer as EN 303 687, clause 5.4.3.2.1.2.
☐	Procedure 2: For equipment that has non-continuous transmissions and cannot be configured to transmit continuously or with a constant duty cycle (x). Refer as EN 303 687, clause 5.4.3.2.1.3.
☒	Refer as EN 303 687, clause 5.4.3.2.1 for conducted measurement.
☐	Refer as EN 303 687, clause 5.4.3.2.2 for radiated measurement.
☐	Refer as EN 303 687, clause 5.4.3.2.3 for test fixture measurement.

3.2.4 Test Setup

RF Output Power



3.2.5 Test Result of RF Output Power

Refer as Appendix B

3.3 Power Density

3.3.1 Power Density Limit

Frequency Range (MHz)	Mean e.i.r.p. Density Limit (dBm/MHz)		
	LPI usage	VLP usage	VLP NB usage
5945 ~ 6425	10	1	10

Note:
1. VLP NB means narrowband (NB) transmissions by a VLP device.
2. The duty cycle of narrowband (NB) transmissions by a VLP device with a PSD above 1 dBm/MHz shall not exceed 1/15 on any transmission frequency.
3. NB devices require a frequency hopping mechanism based on at least 15 hop channels and meet the above duty cycle to operate at a PSD value above 1 dBm/MHz.

3.3.2 Measuring Instruments

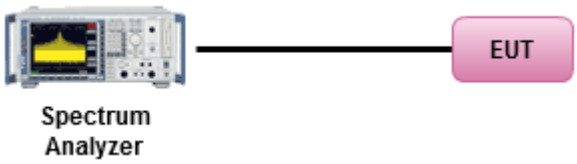
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
☒	The measurements shall be performed at normal environmental conditions.
☒	The EUT shall be configured to operate at the maximum stated transmitter output power level.
☒	Power density shall be measured using one of the options below.
☒	Procedure 1: For equipment that can be configured to operate in a continuous transmit mode or with a constant duty cycle (x). Refer as EN 303 687, clause 5.4.4.2.1.2
☐	Procedure 2: For equipment that has non-continuous transmissions and cannot be configured to transmit continuously or with a constant duty cycle (x). Refer as EN 303 687, clause 5.4.4.2.1.3
☒	Refer as EN 303 687, clause 5.4.4.2.1 for conducted measurement.
☐	Refer as EN 303 687, clause 5.4.4.2.2 for radiated measurement.
☐	Refer as EN 303 687, clause 5.4.4.2.3 for test fixture measurement.

3.3.4 Test Setup

Power Density



3.3.5 Test Result of Power Density

Refer as Appendix C

3.4 Transmitter Unwanted Emissions in the out-of-band Domain

3.4.1 Transmitter Unwanted Emissions in the out-of-band Domain Limit

Equipment	Frequency (MHz)	Limit	Out-of-band/spurious domain boundary separation from f_c (where applicable)	
			N <100MHz	N≥ 100MHz
LPI	< 5 935	-22dBm/MHz	±250 % × N	±150 % × N + 100 MHz
	> 6 425	Spectral power mask as defined by application of figure 1 and figure 2 (as applicable) in clause 4.3.4.3.2.		
VLP	< 5 935	-45 dBm/MHz		
	> 6 425	Spectral power mask as defined by application of figure 1 and figure 2 (as applicable) in clause 4.3.4.3.2.		

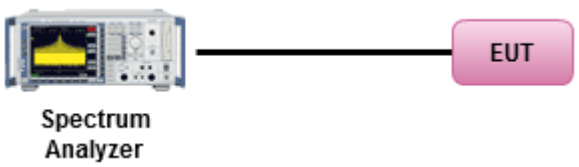
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method			
☒	Refer as EN 303 687, clause 5.4.5.2.1 for conducted measurement. Conducted spurious emissions and radiated by the cabinet with the antenna connector(s) terminated by a specified load (cabinet radiation).		
	☒	The EUT supports multiple transmit chains using options given below:	
		☒	Option 1: The results for each of the transmit chains for the corresponding 1 MHz segments shall be added and compared with the transmitter spurious emissions limit.
		☐	Option 2: the results for each of the transmit chains shall be individually compared with the transmitter spurious emissions limit. After that these limits have been reduced with 10 x $\log_{10}$ (T_{ch}). (Number of active transmit chains).
☐	Refer as EN 303 687, clause 5.4.5.2.2 for radiated measurement.		
☐	Refer as EN 303 687, clause 5.4.5.2.3 for test fixture measurement.		

3.4.4 Test Setup

Transmitter Unwanted Emissions in the out-of-band Domain


3.4.5 Test result of Transmitter Unwanted Emissions in the out-of-band Domain

Refer as Appendix D

3.5 Transmitter Unwanted Emissions in the Spurious Domain

3.5.1 Transmitter Unwanted Emissions in the Spurious Domain Limit

Frequency Range	Maximum Power	Bandwidth
30 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 694 MHz	-54 dBm	100 kHz
694 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 26 GHz	-30 dBm	1 MHz

3.5.2 Measuring Instruments

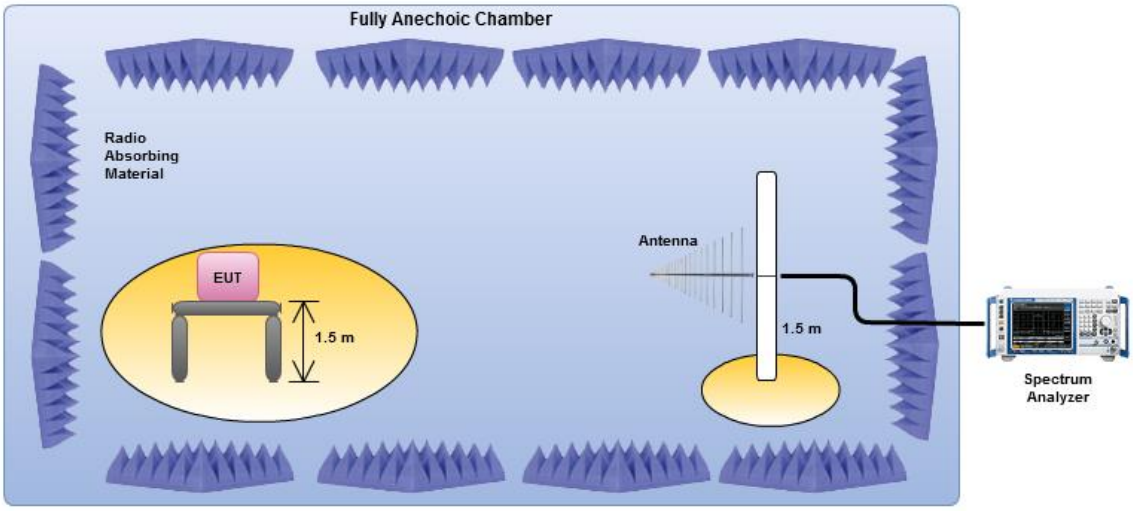
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method			
☐	Refer as EN 303 687, clause 5.4.5.2.1 for conducted measurement. Conducted spurious emissions and radiated by the cabinet with the antenna connector(s) terminated by a specified load (cabinet radiation).		
	☐	The EUT supports multiple transmit chains using options given below:	
		☐	Option 1: The results for each of the transmit chains for the corresponding 1 MHz segments shall be added and compared with the transmitter spurious emissions limit.
		☐	Option 2: the results for each of the transmit chains shall be individually compared with the transmitter spurious emissions limit. After that these limits have been reduced with 10 x $\log_{10}$ (T_{ch}). (Number of active transmit chains).
☒	Refer as EN 303 687, clause 5.4.5.2.2 for radiated measurement.		
☐	Refer as EN 303 687, clause 5.4.5.2.3 for test fixture measurement.		

3.5.4 Test Setup

Transmitter Unwanted Emissions in the Spurious Domain



A measuring distance of at least 3 m shall be used for measurements at frequencies up to 1 GHz. For frequencies above 1 GHz, any suitable measuring far field distance may be used, depending on the test system noise floor for detecting spurious emission signals. The equipment size (excluding the antenna) shall be less than 20 % of the measuring distance. The height of the equipment or of the substitution antenna shall be 1.5 m.

3.5.5 Measurement Results Calculation

The measured Level is calculated using:
Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.

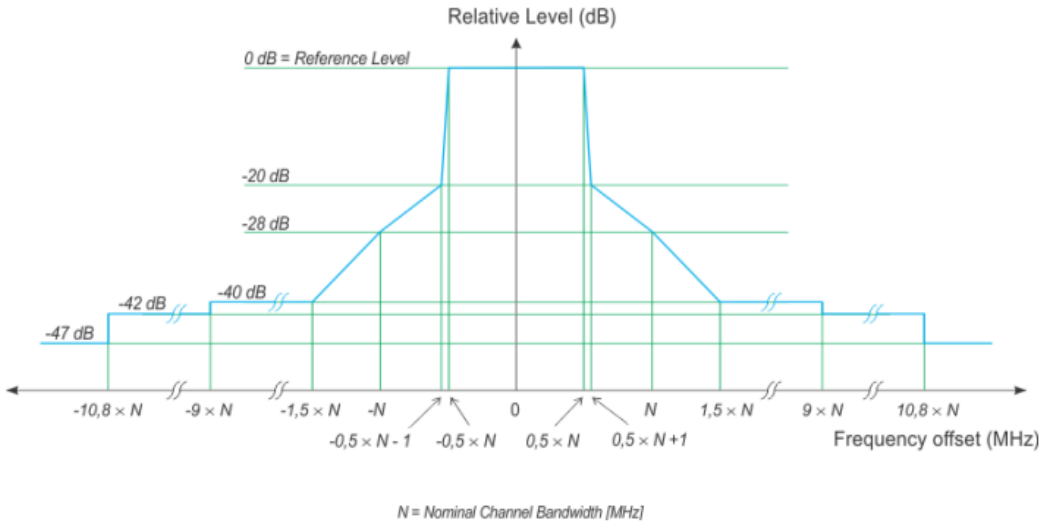
3.5.6 Test result of Transmitter Unwanted Emissions in the Spurious Domain

Refer as Appendix E

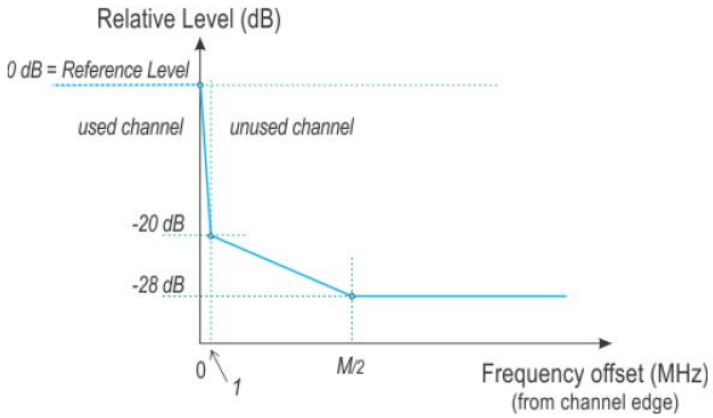
3.6 Transmitter Unwanted Emissions within the 6GHz RLAN Band

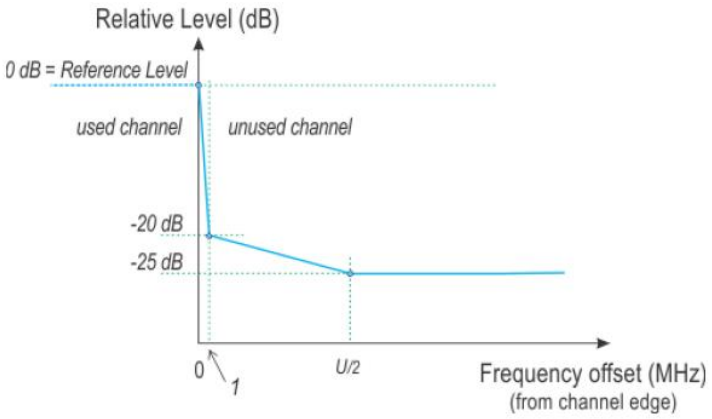
3.6.1 Transmitter Unwanted Emissions within the 6GHz RLAN Band Limit

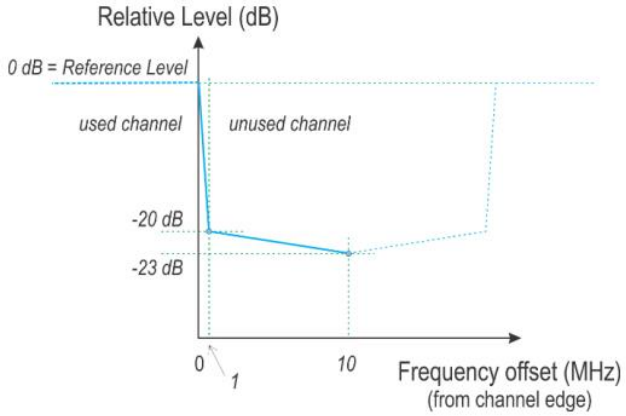
Transmit Spectral Power Mask Limit



Multi-channel operation in adjacent channels-Case 1 Mask Limit



Multi-channel operation in adjacent channels-Case 2 Mask Limit


Multi-channel operation in adjacent channels-Case 3 Mask Limit


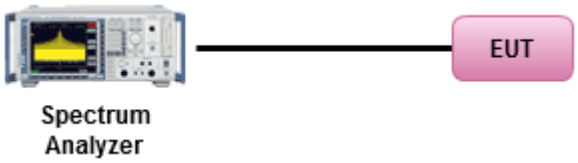
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method	
☒	The measurements shall be performed at both normal environmental conditions.
☒	Refer as EN 303 687, clause 5.4.6 for the transmit spectral power mask shall be measured using one of the options below:
☐	Option 1: For equipment with continuous transmission capability (duty cycle equal to 100 %)
☒	Option 2: For equipment without continuous transmission capability (duty cycle < 100 %)
☐	Option 3: For additional measurements using an alternative 100 kHz RBW measurement procedure.
☒	Refer as EN 303 687, clause 5.4.6.2.1 for conducted measurement.

3.6.4 Test Setup

Transmitter Unwanted Emissions within the 6GHz RLAN Band


3.6.5 Test Result of Transmitter Unwanted Emissions within the 6GHz RLAN Band

Refer as Appendix D

4 Receiver Test Result

4.1 Receiver Spurious Emissions

4.1.1 Receiver Spurious Emissions Limit

Frequency Range	Maximum Power	Measurement Bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 26 GHz	-47 dBm	1 MHz

4.1.2 Measuring Instruments

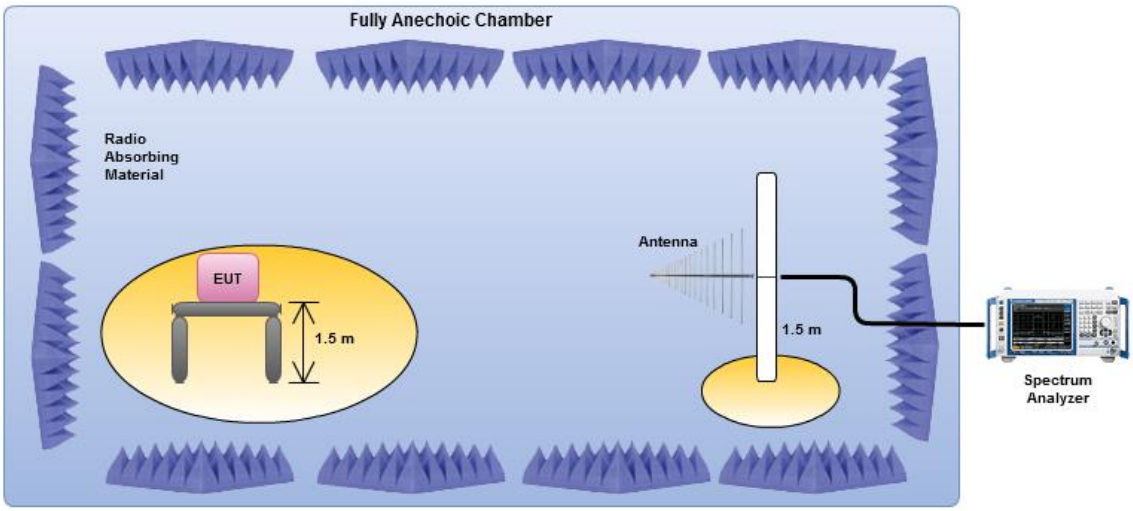
Refer a test equipment and calibration data table in this test report.

4.1.3 Test Procedures

Test Method	
☐	Refer as EN 303 687, clause 5.4.7.2.1 for conducted measurement. Conducted spurious emissions and radiated by the cabinet with the antenna connector(s) terminated by a specified load (cabinet radiation).
☒	Refer as EN 303 687, clause 5.4.7.2.2 for radiated measurement.
☐	Refer as EN 303 687, clause 5.4.7.2.3 for radiated measurement.

4.1.4 Test Setup

Receiver Spurious Emissions



A measuring distance of at least 3 m shall be used for measurements at frequencies up to 1 GHz. For frequencies above 1 GHz, any suitable measuring far field distance may be used, depending on the test system noise floor for detecting spurious emission signals. The equipment size (excluding the antenna) shall be less than 20 % of the measuring distance. The height of the equipment or of the substitution antenna shall be 1.5 m.

4.1.5 Measurement Results Calculation

The measured Level is calculated using:
Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.

4.1.6 Receiver Radiated Spurious Emissions

Refer as Appendix F

5 Channel Access Mechanism Test Result

5.1 Channel Access Mechanism

5.1.1 Channel Access Mechanism Limit

Channel Access Mechanism Limit

☐ Priority Class dependent Channel Access parameters for Supervising Devices:

Class #	p_0	CW_{min}	CW_{max}	Maximum Channel Occupancy Time (COT)
4	1	3	7	2 ms
3	1	7	15	4 ms
2	3	15	63	6 ms (see note 1 and note 2)
1	7	15	1 023	6 ms (see note 1)

NOTE 1: The maximum COT of 6 ms may be increased to 8 ms by inserting one or more pauses. The minimum duration of a pause shall be 100 µs. The maximum duration (channel occupancy) before including any such pause shall be 6 ms. Pause duration is not included in the COT.

NOTE 2: The maximum COT of 6 ms may be increased to 10 ms by extending CW to CW × 2 + 1 when selecting the random number q for any backoff(s) that precede the channel occupancy that may exceed 6 ms or which follow the channel occupancy that exceeded 6 ms. The choice between preceding or following a channel occupancy shall remain unchanged during the operation time of the device.

NOTE 3: The values for p_0, CW_{min}, CW_{max} are minimum values. Greater values are allowed.

☒ Priority Class dependent Channel Access parameters for Supervised Devices:

Class #	p_0	CW_{min}	CW_{max}	Maximum Channel Occupancy Time (COT)
4	2	3	7	2 ms
3	2	7	15	4 ms
2	3	15	1 023	6 ms (see note 1)
1	7	15	1 023	6 ms (see note 1)

NOTE 1: The maximum COT of 6 ms may be increased to 8 ms by inserting one or more pauses. The minimum duration of a pause shall be 100 µs. The maximum duration (channel occupancy) before including any such pause shall be 6 ms. Pause duration is not included in the COT.

NOTE 2: The values for p_0, CW_{min}, CW_{max} are minimum values. Greater values are allowed.

Energy Detect Threshold (ED Threshold):

For Pmax ≦14 dBm: TL= -75 dBm/MHz

For 14 dBm < Pmax < 24 dBm: TL= -85 dBm/MHz + (24 dBm - Pmax)

For Pmax ≧ 24 dBm: TL= -85 dBm/MHz

☒ Multi-channel Operation:

Option 1: Load Based Equipment may use any combination/grouping of 20 MHz channels out of the list of channels (Nominal Centre Frequencies).

Option 2: Channel bonded 40 MHz, 80 MHz or 160 MHz channels (see also clause 4.3.1.3 for the channel number). Load Based Equipment that uses a combination/grouping of 20 MHz channels that is a subset of bonded 40 MHz, 80 MHz or 160 MHz channels, may transmit on any of the 20 MHz channel.

☒ Short Control Signalling Transmissions:

- Within an observation period of 50 ms, the number of Short Control Signalling Transmissions by the equipment shall be equal to or less than 50.
- The total duration of the equipment's Short Control Signalling Transmissions shall be less than 2 500 µs within said observation period.

5.1.2 Measuring Instruments

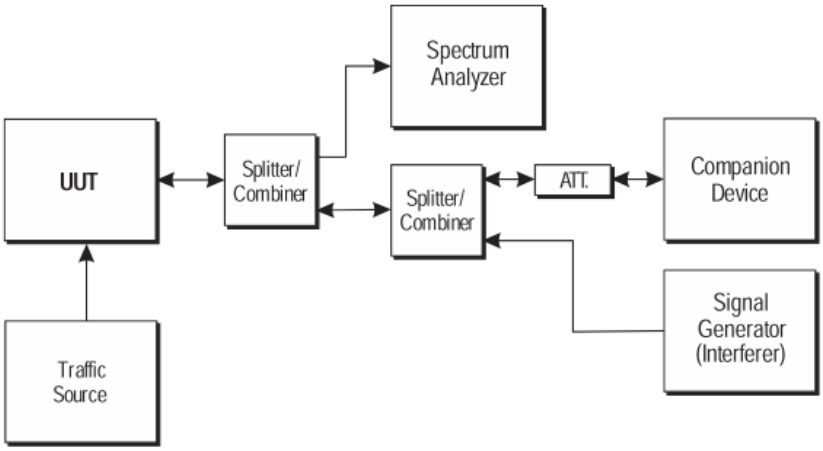
Refer a test equipment and calibration data table in this test report.

5.1.3 Test Procedures

Test Method	
☐	Refer as EN 303 687, clause 5.4.8.2.2 for conducted measurement. (Frame Based Equipment)
☒	Refer as EN 303 687, clause 5.4.8.3.2 for conducted measurement.(Load Based Equipment)
☐	Refer as EN 303 687, clause 5.4.8.2.4 for radiated measurement. (Frame Based Equipment)
☐	Refer as EN 303 687, clause 5.4.8.3.4 for radiated measurement. (Load Based Equipment)
☐	Refer as EN 303 687, clause 5.4.8.2.5 for test fixture measurement.(Frame Based Equipment)
☐	Refer as EN 303 687, clause 5.4.8.3.5 for test fixture measurement.(Load Based Equipment)

5.1.4 Test Setup

Channel Access Mechanism



5.1.5 Test Result of Channel Access Mechanism

Refer as Appendix G

6 Receiver Blocking Test Result

6.1 Receiver Blocking

6.1.1 Receiver Blocking Limit

6.1.2 LPI Receiver Blocking Limit

Wanted signal mean power from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 2)	Type of blocking signal
P_{min} + 6 dB	[5895] (See note 3) 6475	-53	Continuous Wave
P_{min} + 6 dB	[5695] (See note 3) [5795] (See note 3) 6575 6675	-47	Continuous Wave

NOTE 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined clause 4.2.7.2 in the absence of any blocking signal.

NOTE 2: The levels are specified at the UUT antenna connector(s). In case of radiated measurements on a UUT with an integral antenna equipment without external (temporary) antenna connector(s) provided, the equivalent power flux density (PFD) at the UUT is the ratio of the level specified and the antenna area of the UUT antenna. In case of radiated measurements with a substitution antenna, the equivalent PFD at the said antenna is the ratio of the level specified and the antenna area of the substitution antenna.

NOTE 3: Where the equipment also supports RLAN operation in the 5 GHz bands compliant with EN 301 893, this frequency is not to be tested.

6.1.3 VLP Receiver Blocking Limit

Wanted signal mean power from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 2)	Type of blocking signal
P_{min} + 6 dB	[5895] (See note 3) 6475	-58	Continuous Wave
P_{min} + 6 dB	[5695] (See note 3) [5795] (See note 3) 6575 6675		Continuous Wave

NOTE 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined clause 4.2.7.2 in the absence of any blocking signal.

NOTE 2: The levels are specified at the UUT antenna connector(s). In case of radiated measurements on a UUT with an integral antenna equipment without external (temporary) antenna connector(s) provided, the equivalent power flux density (PFD) at the UUT is the ratio of the level specified and the antenna area of the UUT antenna. In case of radiated measurements with a substitution antenna, the equivalent PFD at the said antenna is the ratio of the level specified and the antenna area of the substitution antenna.

NOTE 3: Where the equipment also supports RLAN operation in the 5 GHz bands compliant with EN 301 893, this frequency is not to be tested.

6.1.4 Measuring Instruments

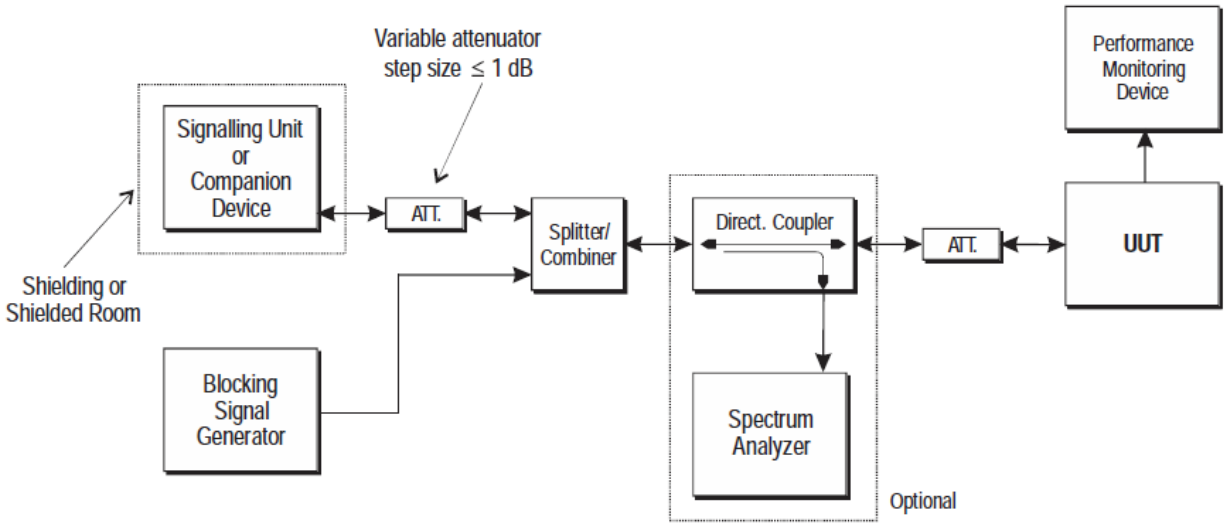
Refer a test equipment and calibration data table in this test report.

6.1.5 Test Procedures

Test Method
☒ Refer as EN 303 687, clause 5.4.9.2.1 for conducted measurement.
☐ Refer as EN 303 687, clause 5.4.9.2.2 for radiated measurement.

6.1.6 Test Setup

Receiver Blocking



6.1.7 Test Result of Receiver Blocking

Refer as Appendix H

7 Receiver Selectivity Test Result

7.1 Receiver Selectivity

7.1.1 Receiver Selectivity Limit

Wanted signal mean power from companion device (dBm)	Interferer signal frequency offset range (MHz)	Interferer signal power (dBm) (see note 2 and note 3)	Type of interferer signal
P_{min} + 10 dB	20 (see note 4)	P_{min} + 26 dB	Same as the wanted signal with an equivalent nominal bandwidth
P_{min} + 10 dB	40 (see note 4)	P_{min} + 32 dB	Same as the wanted signal with an equivalent nominal bandwidth

NOTE 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined clause 4.3.8.2 in the absence of any interfering signal.

NOTE 2: The levels are specified at the UUT antenna connector(s). In case of radiated measurements on a UUT with an integral antenna equipment without external (temporary) antenna connector(s) provided, the equivalent power flux density (PFD) at the UUT is the ratio of the level specified and the antenna area of the UUT antenna. In case of radiated measurements with a substitution antenna, the equivalent PFD at the said antenna is the ratio of the level specified and the antenna area of the substitution antenna.

NOTE 3: The level specified for the interferer signal applies at the lowest data rate.

NOTE 4: The requirement applies with one interferer signal confined within the range 5 945 MHz to 6 425 MHz for interferer frequencies on either side of the wanted signal. The interferer signal frequency offset is the absolute value of the frequency separation between the interferer centre frequency and the nominal centre frequency of the wanted signal. If the manufacturer decides to make use of the permitted frequency offset of the nominal centre frequency of the wanted signal as specified in clause 4.3.1.3, a maximum offset of the interferer centre frequency offset of ±200 kHz from the said nominal centre frequencies and a resulting offset of the interferer signal frequency offset of up to ±400 kHz are also permitted.

7.1.2 Measuring Instruments

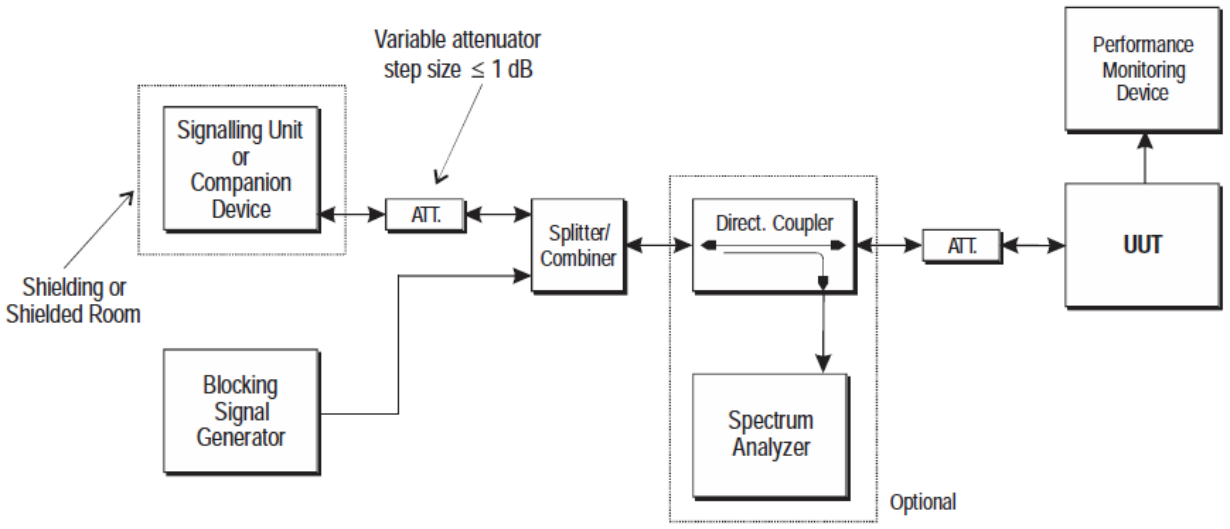
Refer a test equipment and calibration data table in this test report.

7.1.3 Test Procedures

Test Method
☒ Refer as EN 303 687, clause 5.4.10.2.1 for conducted measurement.
☐ Refer as EN 303 687, clause 5.4.10.2.2 for radiated measurement.

7.1.4 Test Setup

Receiver Selectivity



7.1.5 Test Result of Receiver Selectivity

Refer as Appendix I

8 User Access Restrictions

User Access Restrictions
☒ The UUT settings (hardware and/or software) are NOT accessible to the user (either directly or indirectly) that the defined value or range of values, settings and functions for the identified parameters cannot be altered by any software or hardware element in the field by the user.

9 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	10/Apr/2023	09/Apr/2024
Programmable Temp. & Humi. Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20~100℃	17/May/2023	16/May/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
USB Wideband Power Sensor	Agilent	U2021XA	MY54320011	50MHz~18GHz	17/Aug/2022	16/Aug/2023
USB Wideband Power Sensor	Agilent	U2021XA	MY54320013	50MHz~18GHz	17/Aug/2022	16/Aug/2023
SENSE-301893_NII	Sporton	V5.11.3	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101514	10Hz~40GHz	26/Apr/2023	25/Apr/2024
Amplifier	Agilent	8447D	2944A11146	100kHz~1.3GHz	01/Sep/2022	31/Aug/2023
Microwave Preamplifier	EMC INSTRUMENT	EMC051845BE	980241	1GHz~18GHz	12/Dec/2022	11/Dec/2023
Bilog Antenna & 6dB Attenuator	SCHAFFNER	CBL6111C & N-6-06	2737 & AT-N0603	30MHz~1GHz	28/Aug/2022	27/Aug/2023
Double Ridged Guide Horn Antenna	ETS·LINDGREN	3117	00091920	1GHz~18GHz	15/Dec/2022	14/Dec/2023
RF Cable	HUBER+SUHNER	SUOFLEX 104	05CH01-cable-01	1GHz ~ 40GHz	17/Jan/2023	16/Jan/2024
RF Cable	Jye Bao	SUOFLEX 104	05CH01-cable-02	25MHz ~ 1GHz	06/Sep/2022	05/Sep/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	25/Mar/2023	24/Mar/2024
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	25/Mar/2023	24/Mar/2024
SENSE-301893_NII	Sporton	V5.11.4	N/A	N/A	N/A	N/A

Instrument for Channel Access Mechanism Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Generator	Keysight	N5171B	MY53051240	9kHz~6GHz	24/Nov/2022	23/Nov/2023
Vector Signal Generator	Keysight	N5182B	MY53051912	9kHz~6GHz	18/Mar/2023	17/Mar/2024
Spectrum Analyzer	R&S	FSP30	100793	9 kHz ~ 30GHz	14/Jun/2023	13/Jun/2024
DFS-Adaptivity	Sporton	Ver 2.7	N/A	N/A	N/A	N/A
Adaptivity Analysis-5G	Sporton	Ver 2.8	N/A	N/A	N/A	N/A

Instrument for Receiver Blocking Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Wireless connectivity tester	R&S	CMW270+CMW-Z800A	102633+100394	70MHz ~7.125GHz	22/Mar/2022	21/Mar/2024
Vector Signal Generator	R&S	SMW200A	111529	100kHz~7.5GHz	20/Mar/2023	19/Mar/2024

———THE END———

Summary

Mode	Result	Ch (Hz)	Center (Hz)	ppm	Limit (ppm)	Port
5.945-6.425GHz	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	5.955G	5.955107G	17.9449	20	1

Result

Mode	Result	Ch (Hz)	Center (Hz)	ppm	Limit (ppm)	Port
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5955MHz_Tnom	Pass	5.955G	5.955032G	5.352	20	1
5955MHz_Tmin	Pass	5.955G	5.955054G	9.1298	20	1
5955MHz_Tmax	Pass	5.955G	5.955107G	17.9449	20	1

Summary

Mode	EIRP (dBm)	EIRP (W)
5.945-6.425GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	22.80	0.19055
802.11ax HEW40_Nss1,(MCS0)_2TX	22.87	0.19364
802.11ax HEW80_Nss1,(MCS0)_2TX	22.72	0.18707
802.11ax HEW160_Nss1,(MCS0)_2TX	22.96	0.19770

Result

Mode	Result	Gain (dBi)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Port 1 (dBm)	Port 2 (dBm)
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5955MHz_Tnom	Pass	5.00	17.27	22.27	23.00	14.12	14.39
5955MHz_Tmin	Pass	5.00	16.81	21.81	23.00	13.64	13.96
5955MHz_Tmax	Pass	5.00	17.80	22.80	23.00	14.71	14.87
6415MHz_Tnom	Pass	5.00	17.05	22.05	23.00	13.95	14.13
6415MHz_Tmin	Pass	5.00	16.85	21.85	23.00	13.78	13.90
6415MHz_Tmax	Pass	5.00	17.17	22.17	23.00	14.02	14.29
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5965MHz_Tnom	Pass	5.00	17.62	22.62	23.00	14.46	14.75
5965MHz_Tmin	Pass	5.00	17.57	22.57	23.00	14.47	14.64
5965MHz_Tmax	Pass	5.00	17.87	22.87	23.00	14.67	15.05
6405MHz_Tnom	Pass	5.00	17.31	22.31	23.00	14.20	14.40
6405MHz_Tmin	Pass	5.00	17.47	22.47	23.00	14.31	14.60
6405MHz_Tmax	Pass	5.00	17.64	22.64	23.00	14.61	14.64
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
6065MHz_Tnom	Pass	5.00	17.36	22.36	23.00	14.24	14.45
6065MHz_Tmin	Pass	5.00	17.67	22.67	23.00	14.57	14.74
6065MHz_Tmax	Pass	5.00	17.60	22.60	23.00	14.53	14.65
6385MHz_Tnom	Pass	5.00	17.39	22.39	23.00	14.17	14.58
6385MHz_Tmin	Pass	5.00	17.72	22.72	23.00	14.60	14.81
6385MHz_Tmax	Pass	5.00	17.65	22.65	23.00	14.59	14.69
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
6025MHz_Tnom	Pass	5.00	17.37	22.37	23.00	14.22	14.50
6025MHz_Tmin	Pass	5.00	17.78	22.78	23.00	14.64	14.89
6025MHz_Tmax	Pass	5.00	17.69	22.69	23.00	14.61	14.75
6345MHz_Tnom	Pass	5.00	17.57	22.57	23.00	14.35	14.76
6345MHz_Tmin	Pass	5.00	17.96	22.96	23.00	14.83	15.07
6345MHz_Tmax	Pass	5.00	17.81	22.81	23.00	14.74	14.85

Port X = Port X output power; Total Power = Total power measure all transmit ports simultaneously.

Summary

Mode	EIRP (dBm)	EIRP (W)
5.945-6.425GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	22.74	0.18793
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.83	0.19187
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	22.64	0.18365
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	22.90	0.19498

Result

Mode	Result	Gain (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5955MHz_Tnom	Pass	8.01	11.07	11.34	14.22	22.23	23.00
5955MHz_Tmin	Pass	8.01	10.60	10.92	13.77	21.78	23.00
5955MHz_Tmax	Pass	8.01	11.64	11.80	14.73	22.74	23.00
6415MHz_Tnom	Pass	8.01	10.89	11.07	13.99	22.00	23.00
6415MHz_Tmin	Pass	8.01	10.75	10.87	13.82	21.83	23.00
6415MHz_Tmax	Pass	8.01	10.98	11.25	14.13	22.14	23.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5965MHz_Tnom	Pass	8.01	11.39	11.68	14.55	22.56	23.00
5965MHz_Tmin	Pass	8.01	11.40	11.57	14.50	22.51	23.00
5965MHz_Tmax	Pass	8.01	11.62	12.00	14.82	22.83	23.00
6405MHz_Tnom	Pass	8.01	11.16	11.36	14.27	22.28	23.00
6405MHz_Tmin	Pass	8.01	11.26	11.55	14.42	22.43	23.00
6405MHz_Tmax	Pass	8.01	11.56	11.59	14.59	22.60	23.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
6065MHz_Tnom	Pass	8.01	11.19	11.40	14.31	22.32	23.00
6065MHz_Tmin	Pass	8.01	11.53	11.70	14.63	22.64	23.00
6065MHz_Tmax	Pass	8.01	11.47	11.59	14.54	22.55	23.00
6385MHz_Tnom	Pass	8.01	11.09	11.50	14.31	22.32	23.00
6385MHz_Tmin	Pass	8.01	11.51	11.72	14.63	22.64	23.00
6385MHz_Tmax	Pass	8.01	11.49	11.59	14.55	22.56	23.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
6025MHz_Tnom	Pass	8.01	11.14	11.42	14.29	22.30	23.00
6025MHz_Tmin	Pass	8.01	11.57	11.82	14.71	22.72	23.00
6025MHz_Tmax	Pass	8.01	11.54	11.68	14.62	22.63	23.00
6345MHz_Tnom	Pass	8.01	11.30	11.71	14.52	22.53	23.00
6345MHz_Tmin	Pass	8.01	11.76	12.00	14.89	22.90	23.00
6345MHz_Tmax	Pass	8.01	11.70	11.81	14.77	22.78	23.00

Port X = Port X output power; Total Power = Total power measure all transmit ports simultaneously.

Summary

Mode	EIRP PD (dBm/MHz)
5.945-6.425GHz	-
802.11ax HEW20_Nss1,(MCS0)_2TX	9.54

RBW=1MHz

Result

Mode	Result	Gain (dBi)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-
5955MHz_Tnom	Pass	5.00	4.51	9.51	10.00
6415MHz_Tnom	Pass	5.00	4.54	9.54	10.00

RBW=1MHz;
Port X = Port X power density;

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port
5.945-6.425GHz	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	5.953646G	3.13	5.97377G	-30.04	-23.78	-6.26	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	5.966102G	1.46	5.99121G	-27.38	-20.73	-6.65	2
802.11ax HEW80_Nss1,(MCS0)_2TX	Pass	6.388928G	-1.24	6.46735G	-42.23	-29.46	-12.77	2
802.11ax HEW160_Nss1,(MCS0)_2TX	Pass	6.027531G	-4.37	6.18265G	-35.99	-32.13	-3.86	2

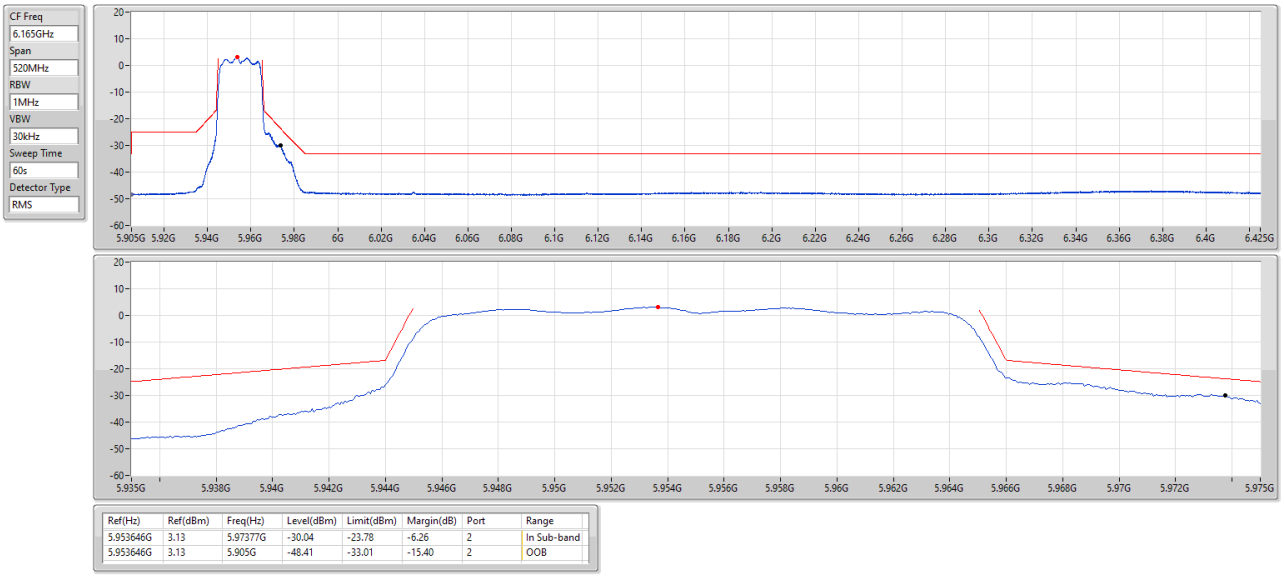
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5955MHz_Tnom	Pass	5.953646G	3.13	5.97377G	-30.04	-23.78	-6.26	2
5955MHz_Tnom	Pass	5.953646G	3.13	5.905G	-48.41	-33.01	-15.40	2
6415MHz_Tnom	Pass	6.41608G	3.28	6.404713G	-12.73	-2.47	-10.26	2
6415MHz_Tnom	Pass	6.41608G	3.28	6.425979G	-25.87	-16.29	-9.58	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5965MHz_Tnom	Pass	5.966102G	1.46	5.99121G	-27.38	-20.73	-6.65	2
5965MHz_Tnom	Pass	5.966102G	1.46	5.865G	-48.11	-33.01	-15.10	2
6405MHz_Tnom	Pass	6.40366G	1.40	6.344118G	-45.69	-33.01	-12.68	2
6405MHz_Tnom	Pass	6.40366G	1.40	6.466596G	-46.26	-33.01	-13.25	2
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
6065MHz_Tnom	Pass	6.0678G	-1.76	6.16222G	-44.24	-31.16	-13.08	2
6065MHz_Tnom	Pass	6.0678G	-1.76	5.865G	-48.54	-33.01	-15.53	2
6385MHz_Tnom	Pass	6.388928G	-1.24	6.30485G	-42.17	-29.25	-12.92	2
6385MHz_Tnom	Pass	6.388928G	-1.24	6.46735G	-42.23	-29.46	-12.77	2
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
6025MHz_Tnom	Pass	6.027531G	-4.37	6.18265G	-35.99	-32.13	-3.86	2
6025MHz_Tnom	Pass	6.027531G	-4.37	5.685G	-48.13	-33.01	-15.12	2
6345MHz_Tnom	Pass	6.348995G	-4.06	6.186906G	-44.06	-31.87	-12.19	2
6345MHz_Tnom	Pass	6.348995G	-4.06	6.502281G	-41.41	-31.78	-9.63	2

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX **MASK**

5955MHz_Tnom

13/06/2023

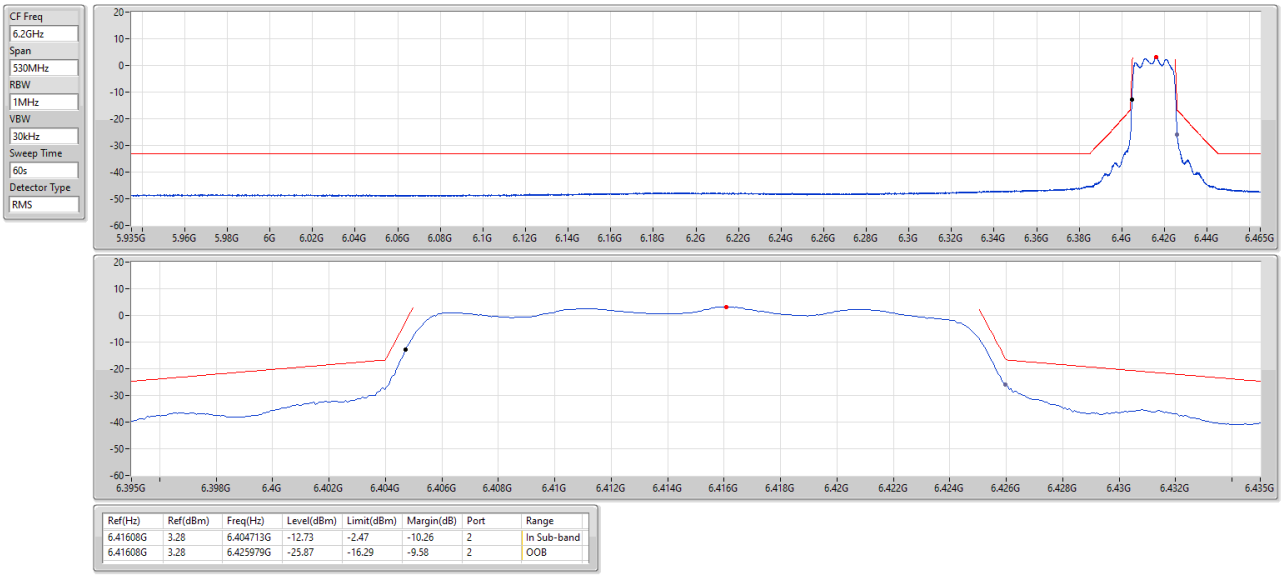


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
5.953646G	3.13	5.97377G	-30.04	-23.78	-6.26	2	In Sub-band
5.953646G	3.13	5.905G	-48.41	-33.01	-15.40	2	OOB

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX **MASK**

6415MHz_Tnom

13/06/2023

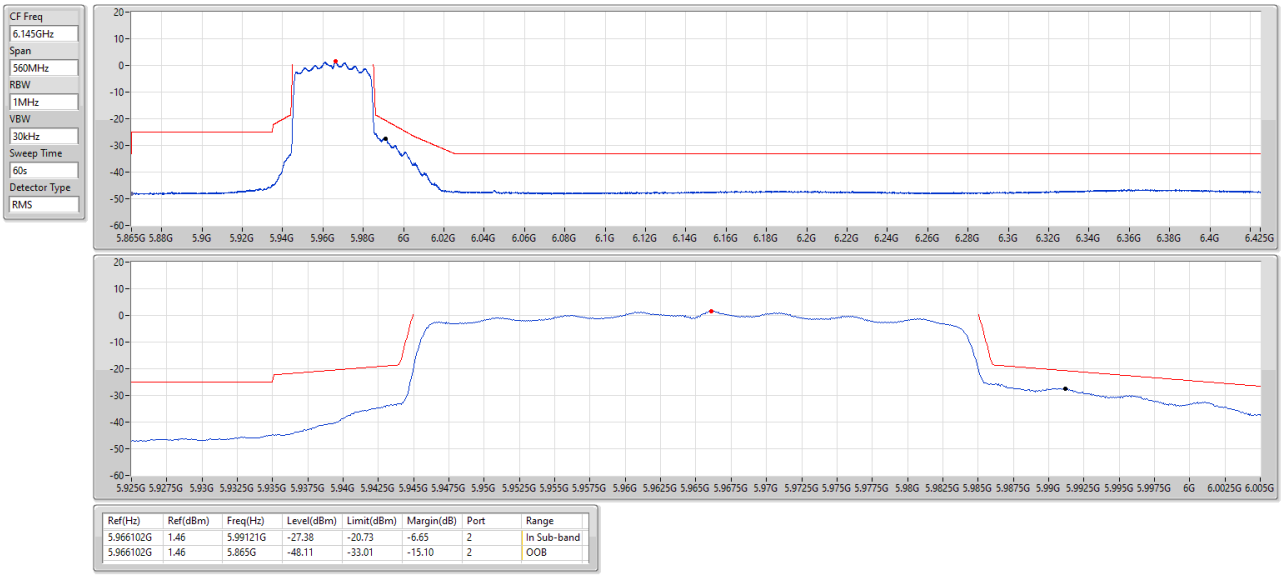


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.41608G	3.28	6.404713G	-12.73	-2.47	-10.26	2	In Sub-band
6.41608G	3.28	6.425979G	-25.87	-16.29	-9.58	2	OOB

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX **MASK**

5965MHz_Tnom

13/06/2023

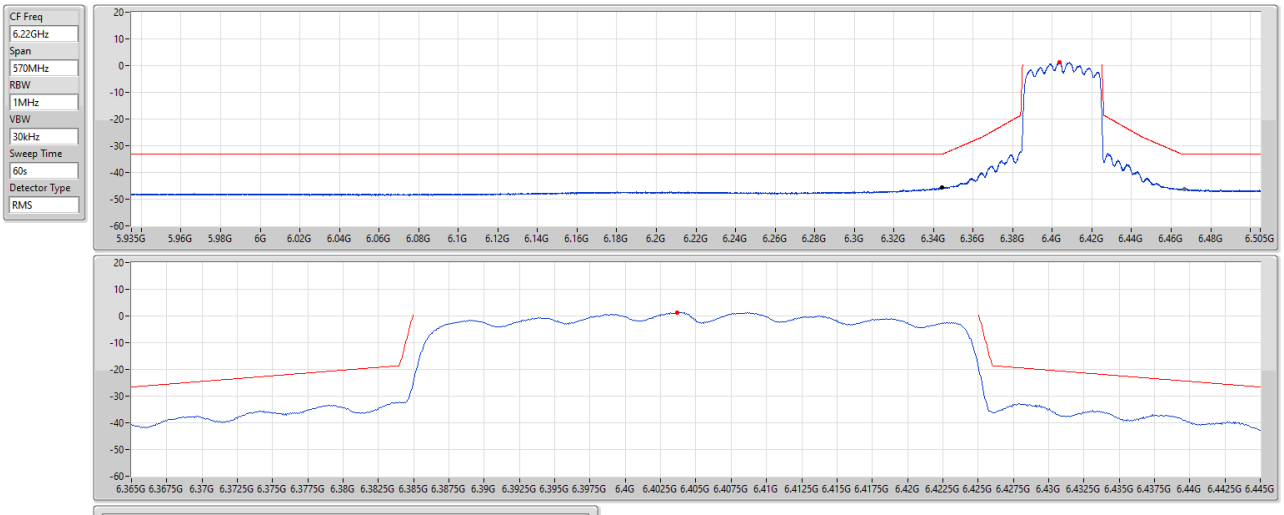


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
5.966102G	1.46	5.99121G	-27.38	-20.73	-6.65	2	In Sub-band
5.966102G	1.46	5.865G	-48.11	-33.01	-15.10	2	OOB

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX **MASK**

6405MHz_Tnom

13/06/2023

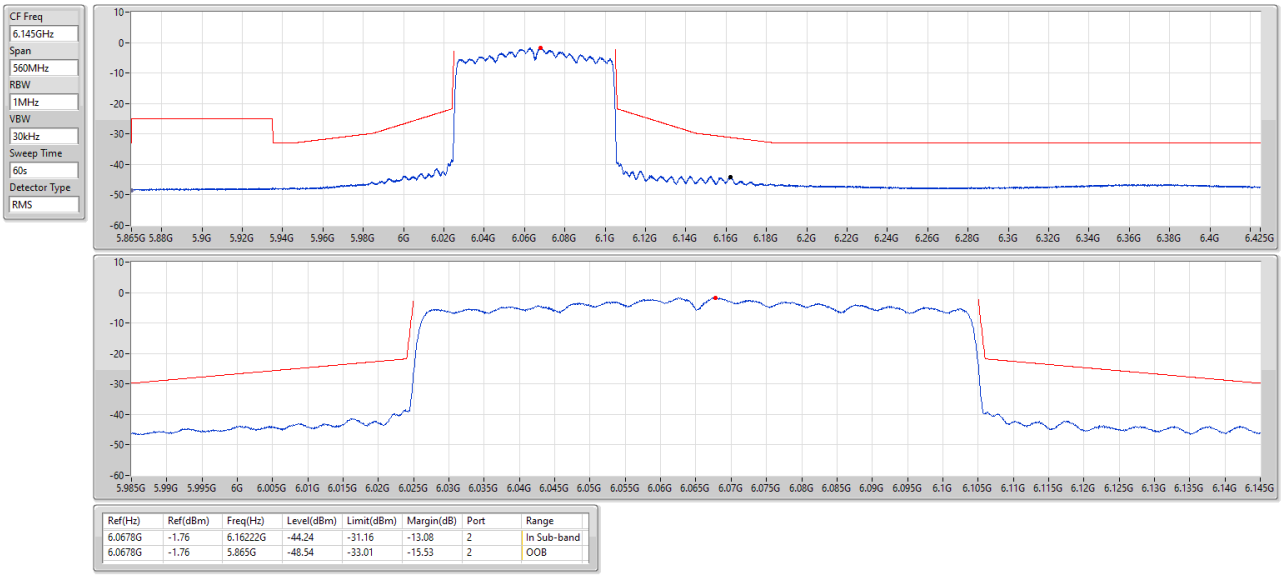


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.40366G	1.40	6.344118G	-45.69	-33.01	-12.68	2	In Sub-band
6.40366G	1.40	6.466596G	-46.26	-33.01	-13.25	2	OOB

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX **MASK**

6065MHz_Tnom

13/06/2023

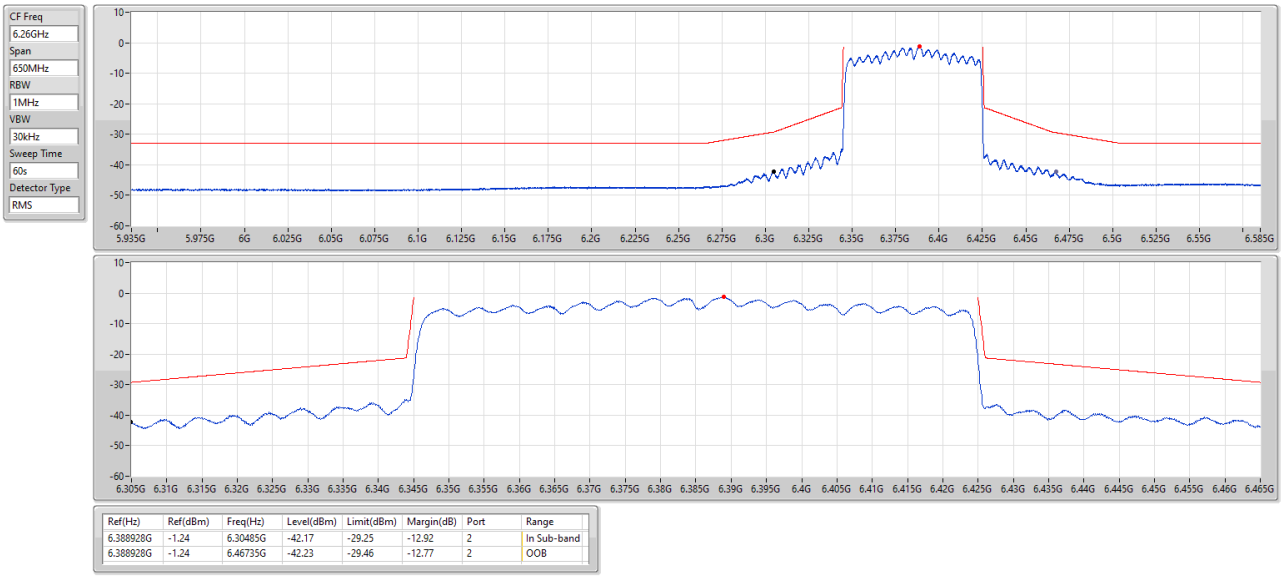


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.0678G	-1.76	6.16222G	-44.24	-31.16	-13.08	2	In Sub-band
6.0678G	-1.76	5.865G	-48.54	-33.01	-15.53	2	OOB

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX **MASK**

6385MHz_Tnom

13/06/2023

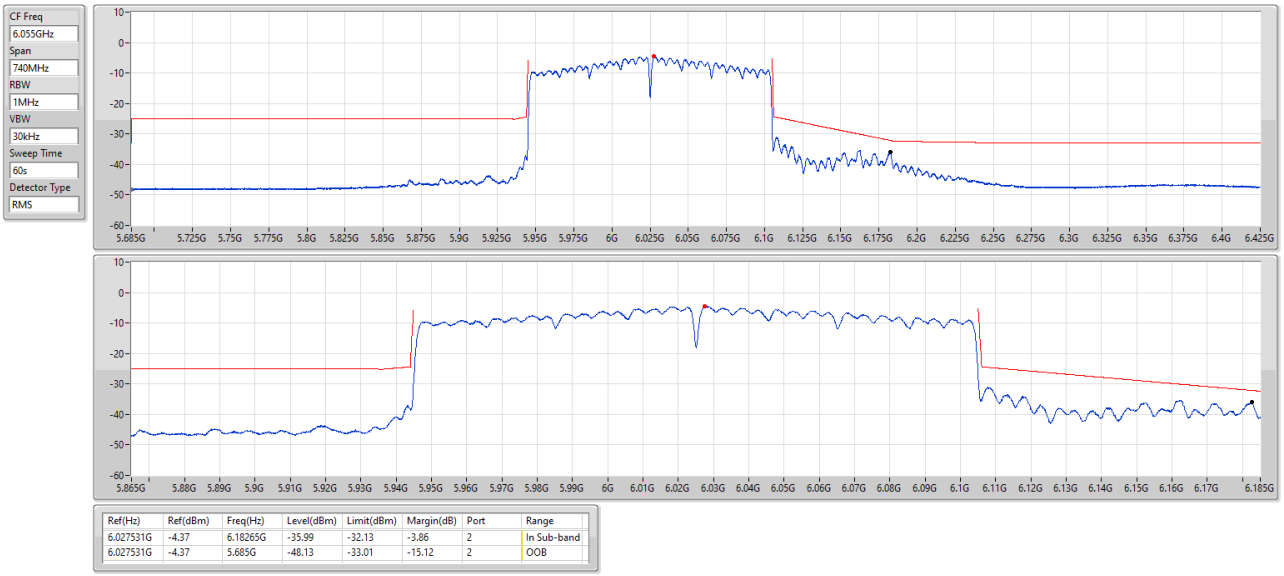


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.388928G	-1.24	6.30485G	-42.17	-29.25	-12.92	2	In Sub-band
6.388928G	-1.24	6.46735G	-42.23	-29.46	-12.77	2	OOB

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX **MASK**

6025MHz_Tnom

13/06/2023

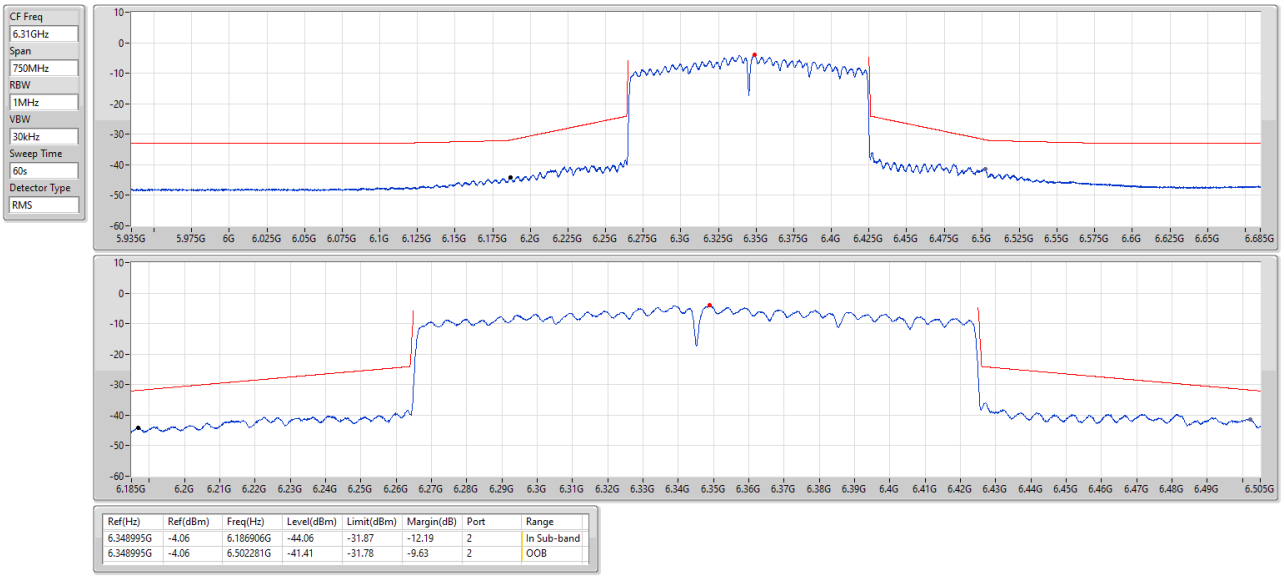


Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.027531G	-4.37	6.18265G	-35.99	-32.13	-3.86	2	In Sub-band
6.027531G	-4.37	5.685G	-48.13	-33.01	-15.12	2	OOB

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX **MASK**

6345MHz_Tnom

13/06/2023



Ref(Hz)	Ref(dBm)	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Range
6.348995G	-4.06	6.186906G	-44.06	-31.87	-12.19	2	In Sub-band
6.348995G	-4.06	6.502281G	-41.41	-31.78	-9.63	2	OOB

Summary

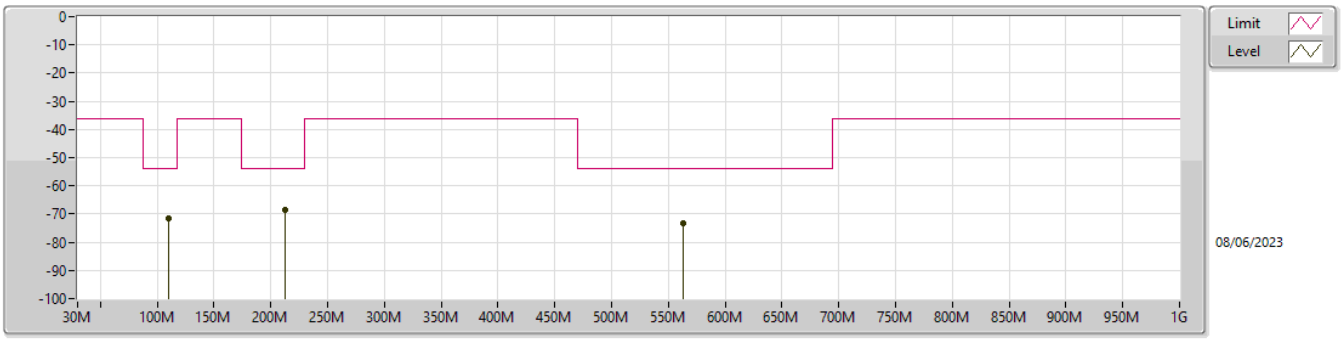
Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.945-6.425GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW160_Nss1,(MCS0)_2TX	Pass	AV	213.22M	-66.10	-54.00	-12.10	0.14	3	Horizontal	360	1.5	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
6345MHz_TX	Pass	AV	110.41M	-71.54	-54.00	-17.54	1.87	3	Vertical	0	1.5	-
6345MHz_TX	Pass	AV	212.52M	-68.64	-54.00	-14.64	-0.87	3	Vertical	0	1.5	-
6345MHz_TX	Pass	AV	563.25M	-73.28	-54.00	-19.28	7.36	3	Vertical	0	1.5	-
6345MHz_TX	Pass	AV	108.31M	-72.25	-54.00	-18.25	1.14	3	Horizontal	360	1.5	-
6345MHz_TX	Pass	AV	213.22M	-66.10	-54.00	-12.10	0.14	3	Horizontal	360	1.5	-
6345MHz_TX	Pass	AV	616.86M	-71.22	-54.00	-17.22	9.32	3	Horizontal	360	1.5	-

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

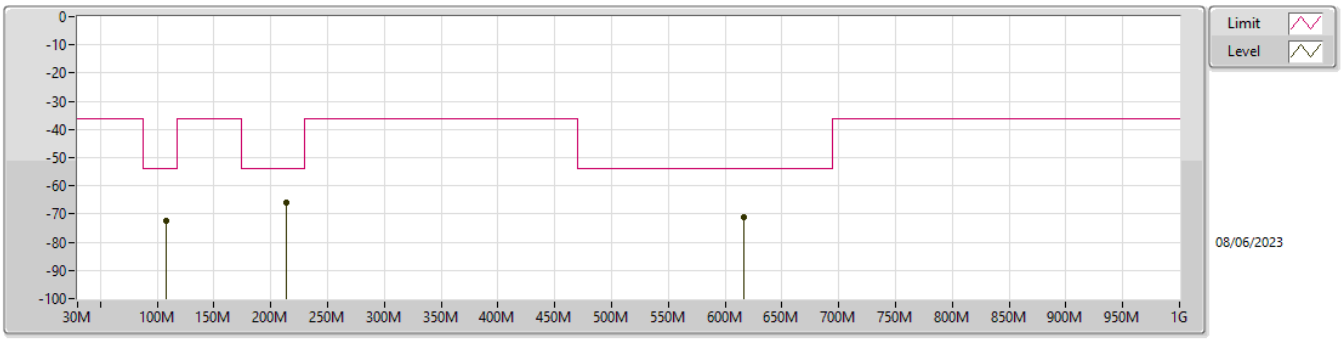
6345MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
110.41M	-71.54	-54.00	-17.54	1.87	Vertical	-73.41
212.52M	-68.64	-54.00	-14.64	-0.87	Vertical	-67.77
563.25M	-73.28	-54.00	-19.28	7.36	Vertical	-80.64

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

6345MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
108.31M	-72.25	-54.00	-18.25	1.14	Horizontal	-73.39
213.22M	-66.10	-54.00	-12.10	0.14	Horizontal	-66.24
616.86M	-71.22	-54.00	-17.22	9.32	Horizontal	-80.54

Summary

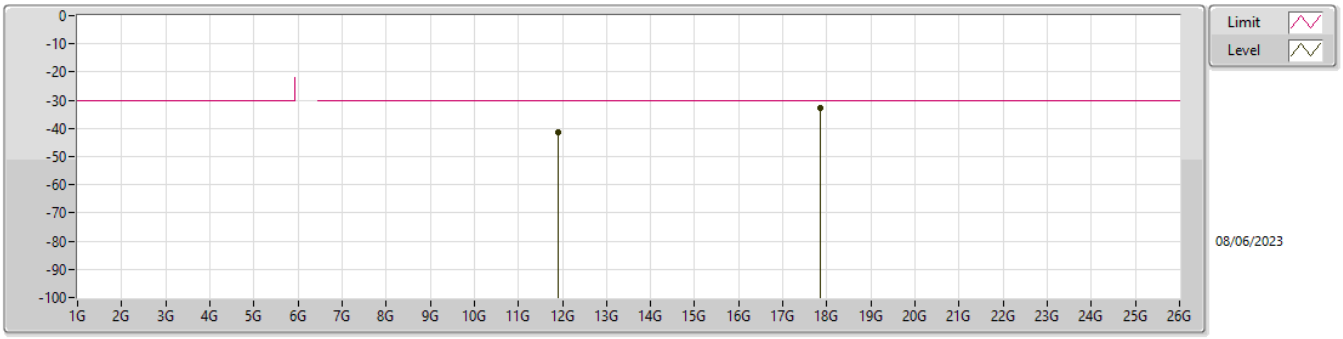
Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.945-6.425GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	AV	17.86931G	-30.38	-30.00	-0.38	17.43	3	Horizontal	7	1.5	TDP
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	AV	11.92958G	-33.13	-30.00	-3.13	7.66	3	Horizontal	360	1.5	-
802.11ax HEW80_Nss1,(MCS0)_2TX	Pass	AV	12.09201G	-39.97	-30.00	-9.97	7.95	3	Horizontal	360	1.5	-
802.11ax HEW160_Nss1,(MCS0)_2TX	Pass	AV	12.06936G	-40.40	-30.00	-10.40	7.89	3	Horizontal	0	1.5	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5955MHz_TX	Pass	AV	11.91211G	-41.27	-30.00	-11.27	7.66	3	Vertical	360	1.5	-
5955MHz_TX	Pass	AV	17.86234G	-32.85	-30.00	-2.85	17.39	3	Vertical	12	1.5	TDP
5955MHz_TX	Pass	AV	11.90823G	-34.47	-30.00	-4.47	7.65	3	Horizontal	0	1.5	-
5955MHz_TX	Pass	AV	17.86931G	-30.38	-30.00	-0.38	17.43	3	Horizontal	7	1.5	TDP
6415MHz_TX	Pass	AV	12.82646G	-41.50	-30.00	-11.50	9.47	3	Vertical	360	1.5	-
6415MHz_TX	Pass	AV	12.84134G	-38.39	-30.00	-8.39	9.49	3	Horizontal	0	1.5	-
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5965MHz_TX	Pass	AV	11.93217G	-44.93	-30.00	-14.93	7.67	3	Vertical	0	1.5	-
5965MHz_TX	Pass	AV	17.88861G	-35.38	-30.00	-5.38	17.53	3	Vertical	12	1.5	TDP
5965MHz_TX	Pass	AV	11.92958G	-33.13	-30.00	-3.13	7.66	3	Horizontal	360	1.5	-
5965MHz_TX	Pass	AV	17.89483G	-33.21	-30.00	-3.21	17.57	3	Horizontal	4	1.5	TDP
6405MHz_TX	Pass	AV	12.80964G	-43.23	-30.00	-13.23	9.45	3	Vertical	360	1.5	-
6405MHz_TX	Pass	AV	12.8187G	-41.17	-30.00	-11.17	9.46	3	Horizontal	0	1.5	-
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
6065MHz_TX	Pass	AV	12.1386G	-49.19	-30.00	-19.19	8.08	3	Vertical	0	1.5	-
6065MHz_TX	Pass	AV	12.09201G	-39.97	-30.00	-9.97	7.95	3	Horizontal	360	1.5	-
6385MHz_TX	Pass	AV	12.78958G	-48.45	-30.00	-18.45	9.42	3	Vertical	0	1.5	-
6385MHz_TX	Pass	AV	12.79734G	-44.25	-30.00	-14.25	9.43	3	Horizontal	360	1.5	-
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
6025MHz_TX	Pass	AV	12.07195G	-44.49	-30.00	-14.49	7.90	3	Vertical	360	1.5	-
6025MHz_TX	Pass	AV	12.06936G	-40.40	-30.00	-10.40	7.89	3	Horizontal	0	1.5	-
6345MHz_TX	Pass	AV	12.58315G	-51.30	-30.00	-21.30	9.16	3	Vertical	0	1.5	-
6345MHz_TX	Pass	AV	12.71192G	-47.65	-30.00	-17.65	9.33	3	Horizontal	360	1.5	-

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

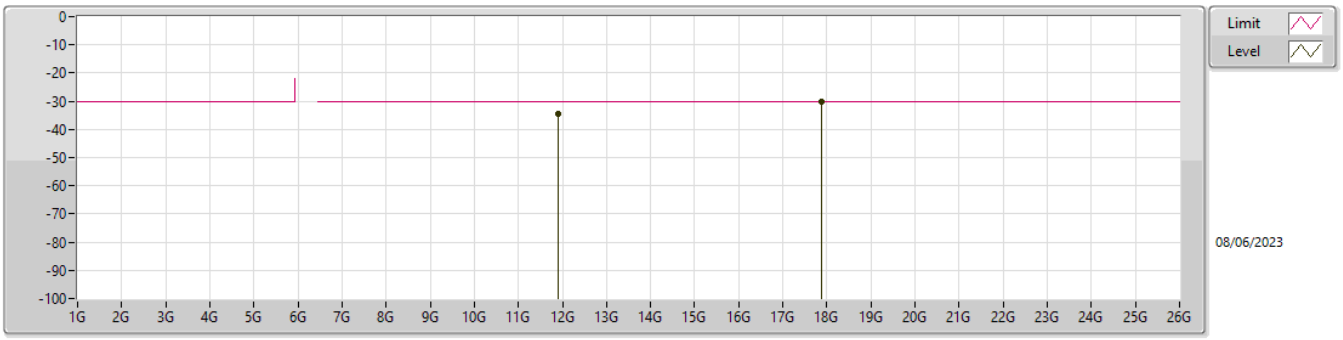
5955MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
11.91211G	-41.27	-30.00	-11.27	7.66	Vertical	-48.93
17.86234G	-32.85	-30.00	-2.85	17.39	Vertical	-50.24

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

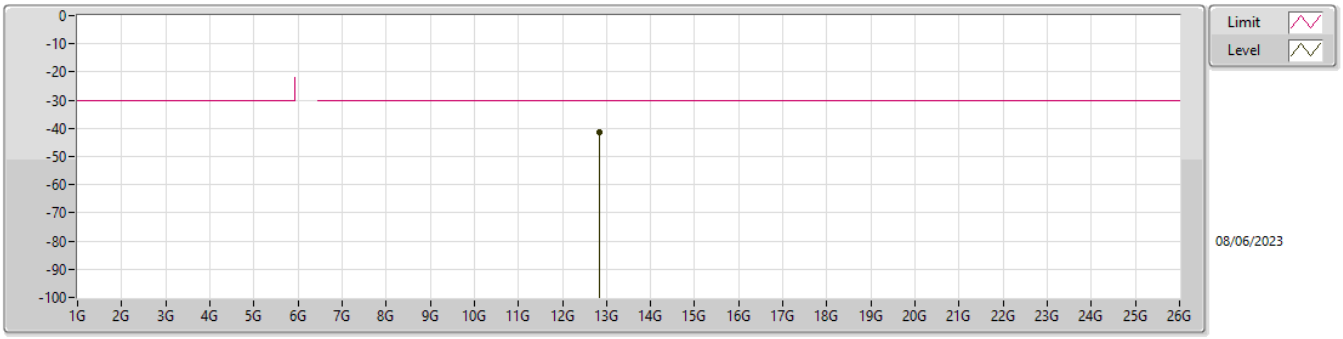
5955MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
11.90823G	-34.47	-30.00	-4.47	7.65	Horizontal	-42.12
17.86931G	-30.38	-30.00	-0.38	17.43	Horizontal	-47.81

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

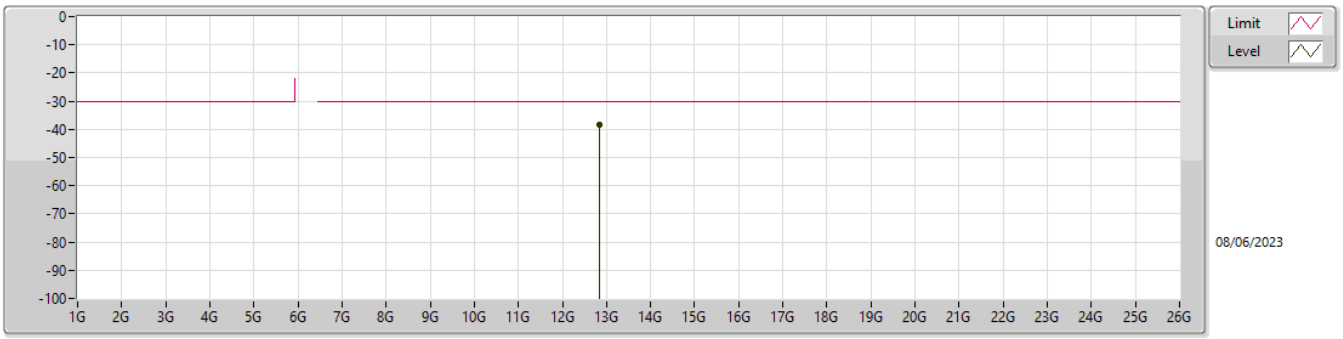
6415MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.82646G	-41.50	-30.00	-11.50	9.47	Vertical	-50.97

5.945-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

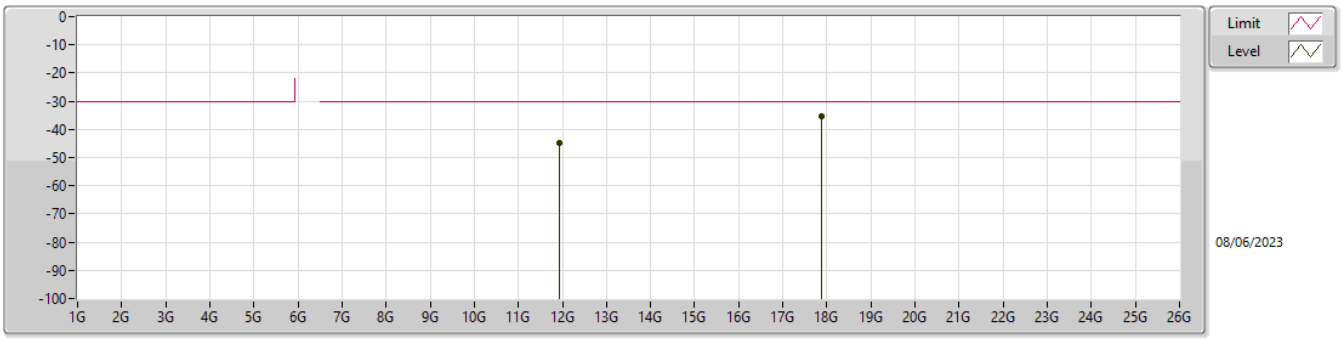
6415MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.84134G	-38.39	-30.00	-8.39	9.49	Horizontal	-47.88

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

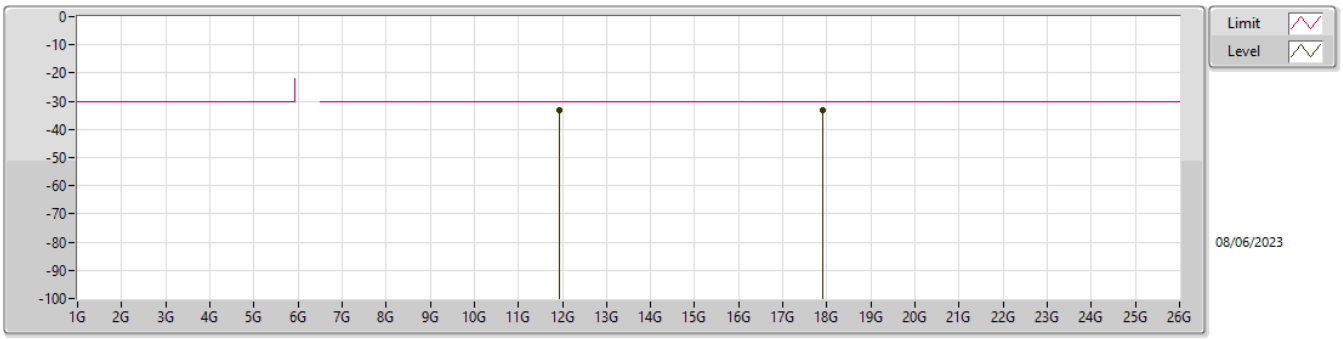
5965MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
11.93217G	-44.93	-30.00	-14.93	7.67	Vertical	-52.60
17.88861G	-35.38	-30.00	-5.38	17.53	Vertical	-52.91

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

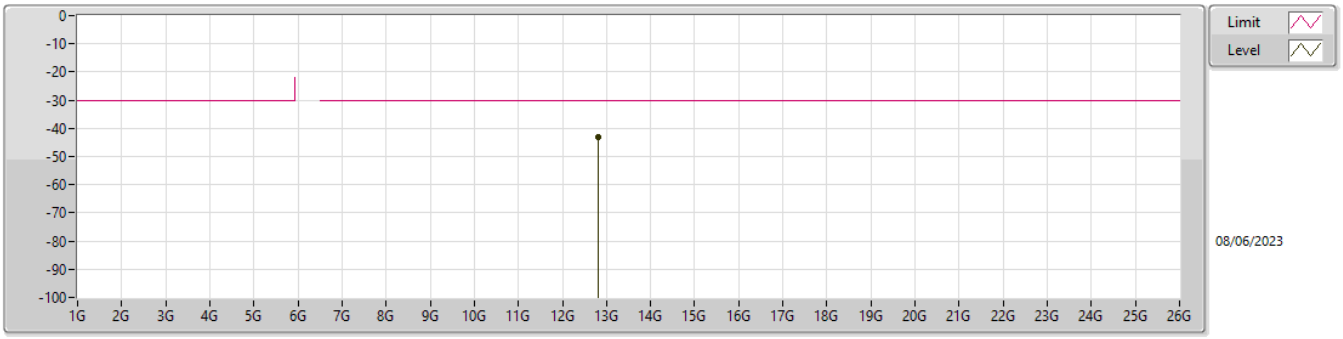
5965MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
11.92958G	-33.13	-30.00	-3.13	7.66	Horizontal	-40.79
17.89483G	-33.21	-30.00	-3.21	17.57	Horizontal	-50.78

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

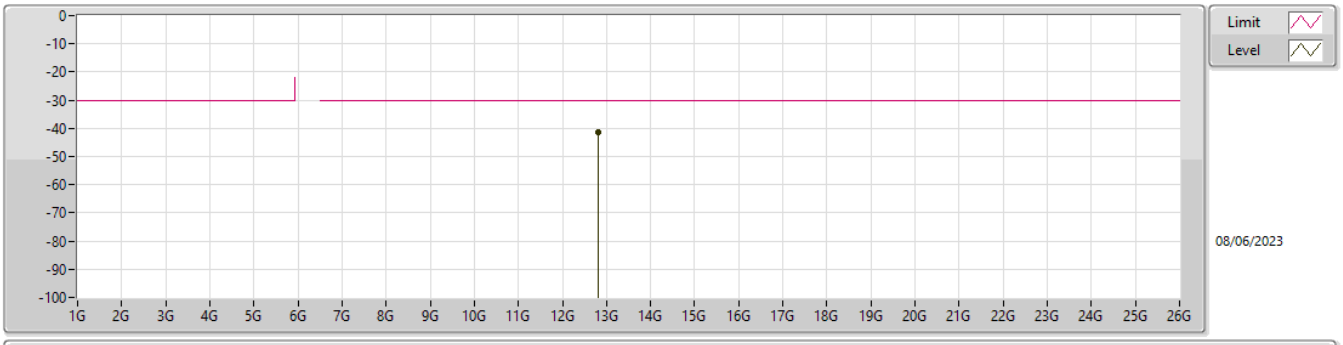
6405MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.80964G	-43.23	-30.00	-13.23	9.45	Vertical	-52.68

5.945-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

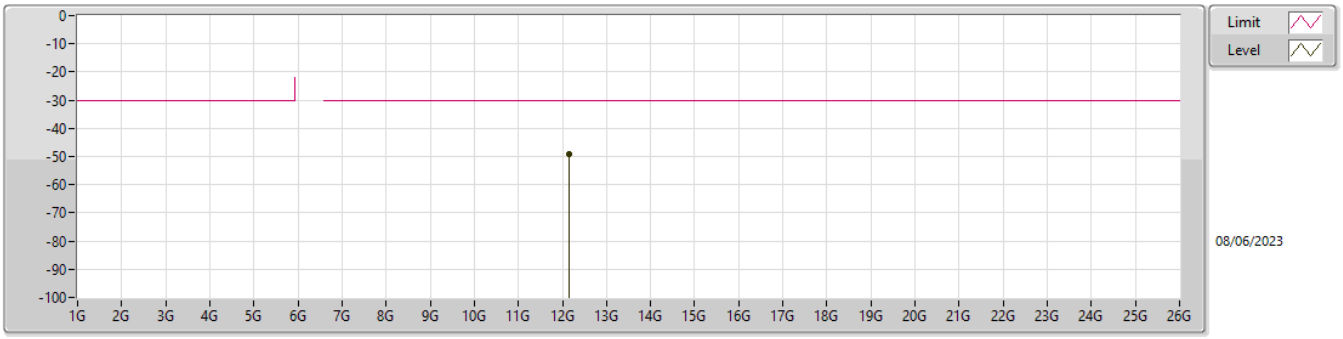
6405MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.8187G	-41.17	-30.00	-11.17	9.46	Horizontal	-50.63

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

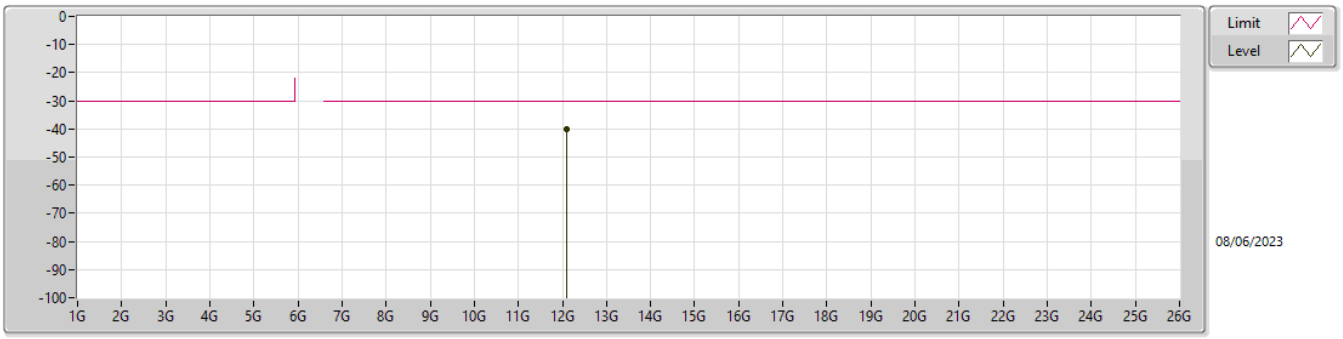
6065MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.1386G	-49.19	-30.00	-19.19	8.08	Vertical	-57.27

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

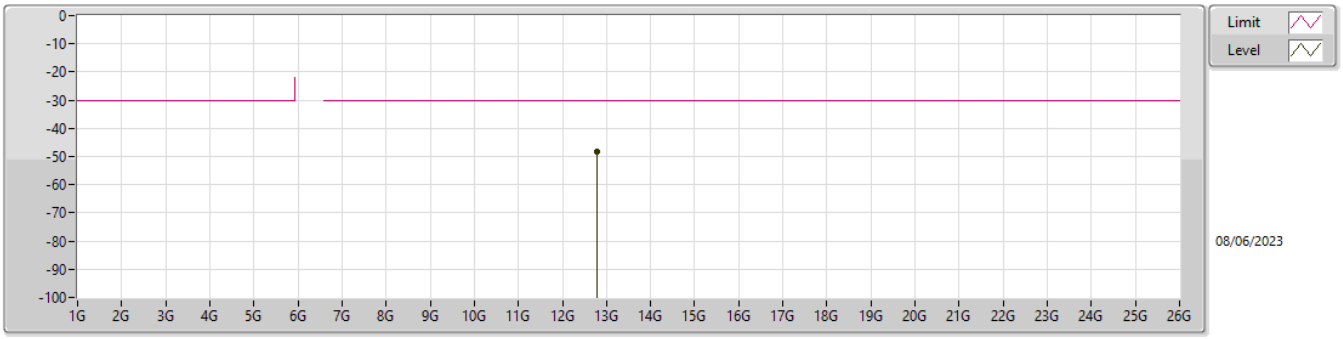
6065MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.09201G	-39.97	-30.00	-9.97	7.95	Horizontal	-47.92

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

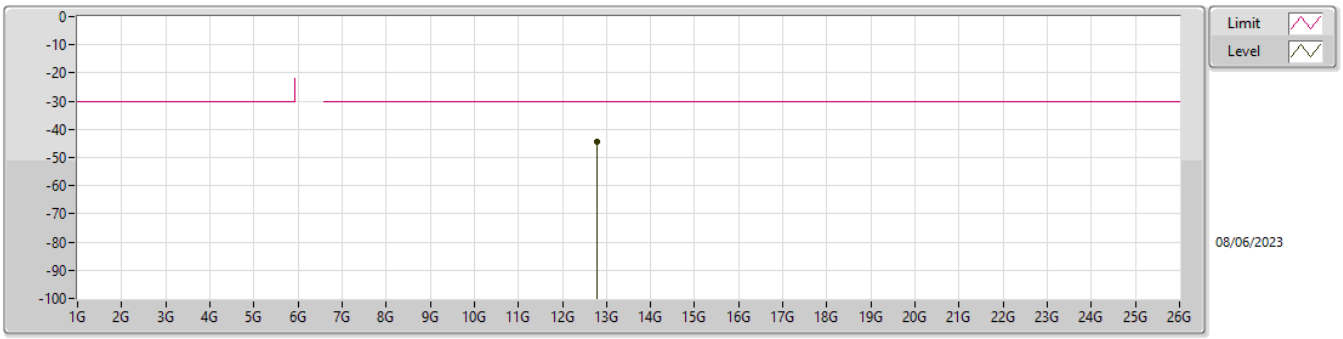
6385MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.78958G	-48.45	-30.00	-18.45	9.42	Vertical	-57.87

5.945-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

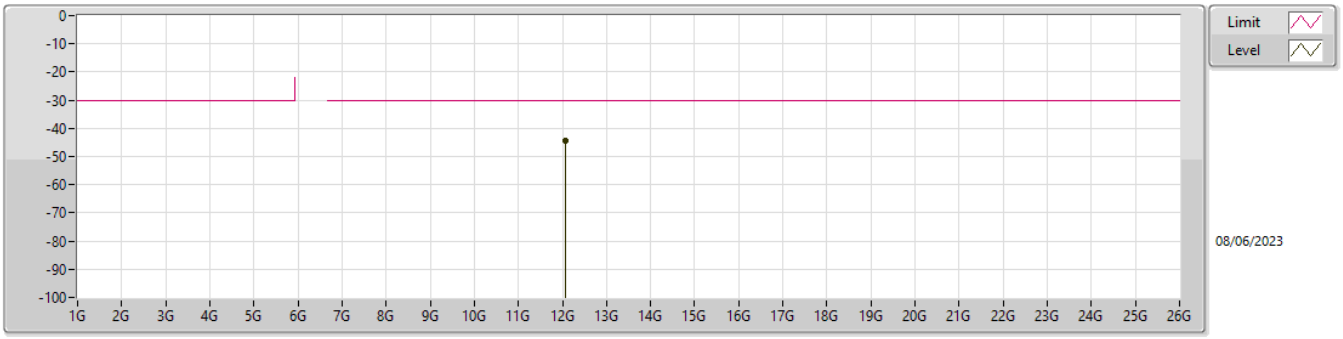
6385MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.79734G	-44.25	-30.00	-14.25	9.43	Horizontal	-53.68

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

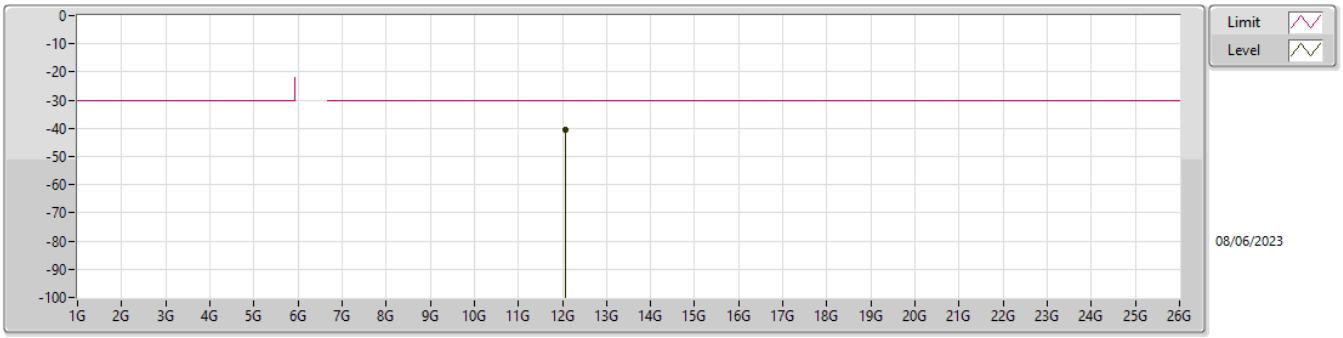
6025MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.07195G	-44.49	-30.00	-14.49	7.90	Vertical	-52.39

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

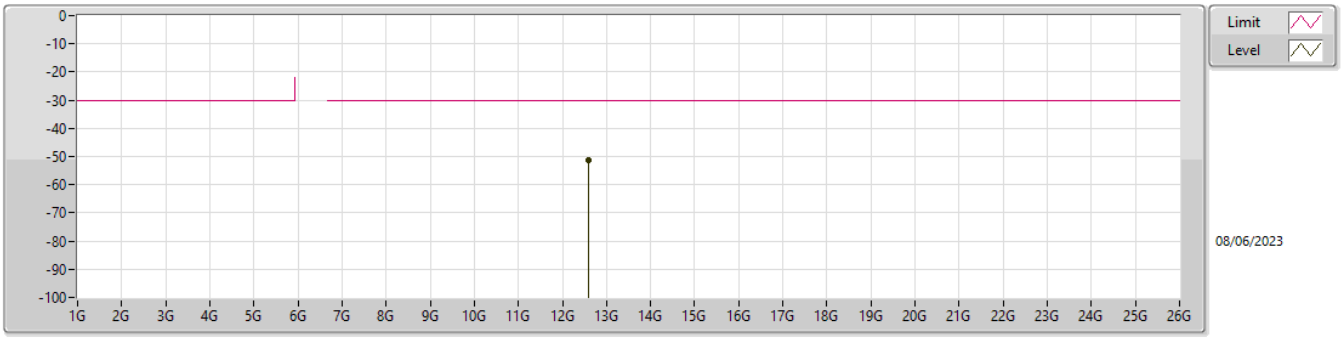
6025MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.06936G	-40.40	-30.00	-10.40	7.89	Horizontal	-48.29

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

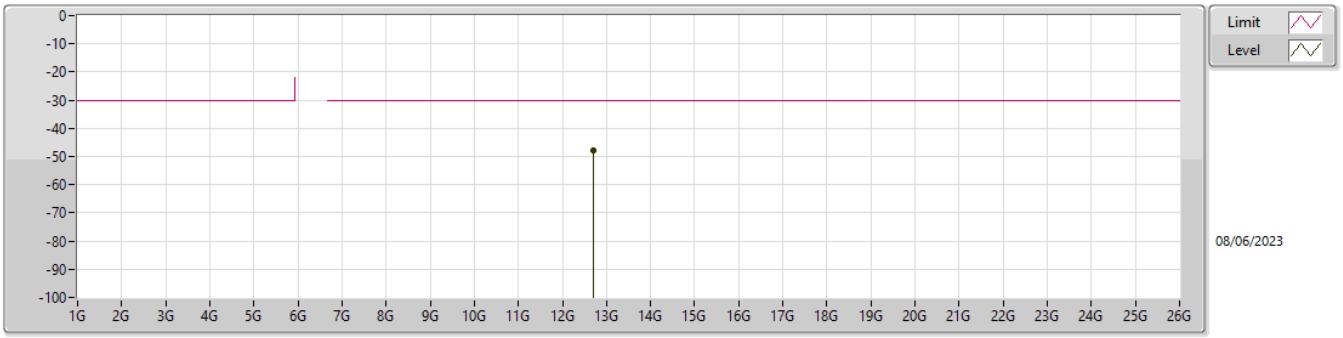
6345MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.58315G	-51.30	-30.00	-21.30	9.16	Vertical	-60.46

5.945-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

6345MHz_TX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
12.71192G	-47.65	-30.00	-17.65	9.33	Horizontal	-56.98

Summary

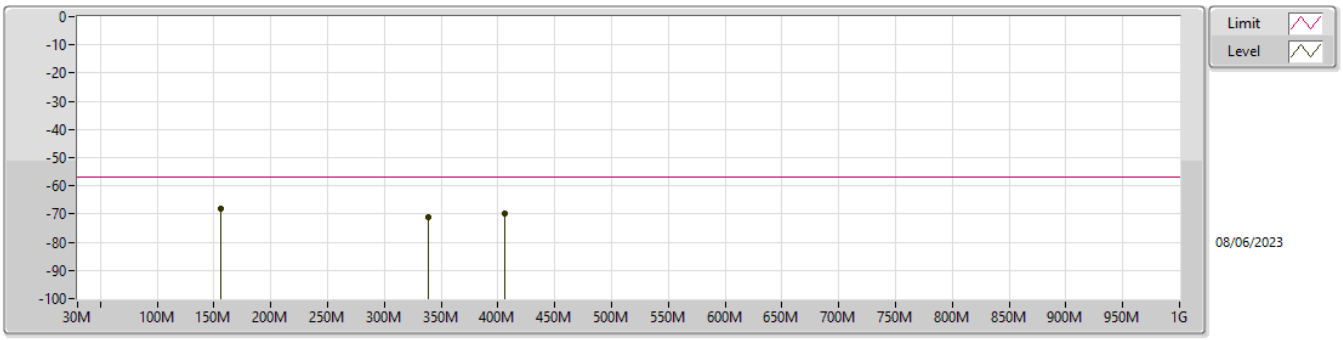
Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.945-6.425GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW160_(MCS0)_RX	Pass	AV	401.64M	-65.82	-57.00	-8.82	5.11	3	Horizontal	0	1.5	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ax HEW160_(MCS0)_RX	-	-	-	-	-	-	-	-	-	-	-	-
6345MHz_RX	Pass	AV	156.21M	-68.04	-57.00	-11.04	0.61	3	Vertical	360	1.5	-
6345MHz_RX	Pass	AV	338.43M	-71.07	-57.00	-14.07	3.55	3	Vertical	360	1.5	-
6345MHz_RX	Pass	AV	405.94M	-70.03	-57.00	-13.03	4.65	3	Vertical	360	1.5	-
6345MHz_RX	Pass	AV	218.72M	-68.13	-57.00	-11.13	0.35	3	Horizontal	0	1.5	-
6345MHz_RX	Pass	AV	323.53M	-66.33	-57.00	-9.33	3.82	3	Horizontal	0	1.5	-
6345MHz_RX	Pass	AV	401.64M	-65.82	-57.00	-8.82	5.11	3	Horizontal	0	1.5	-

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

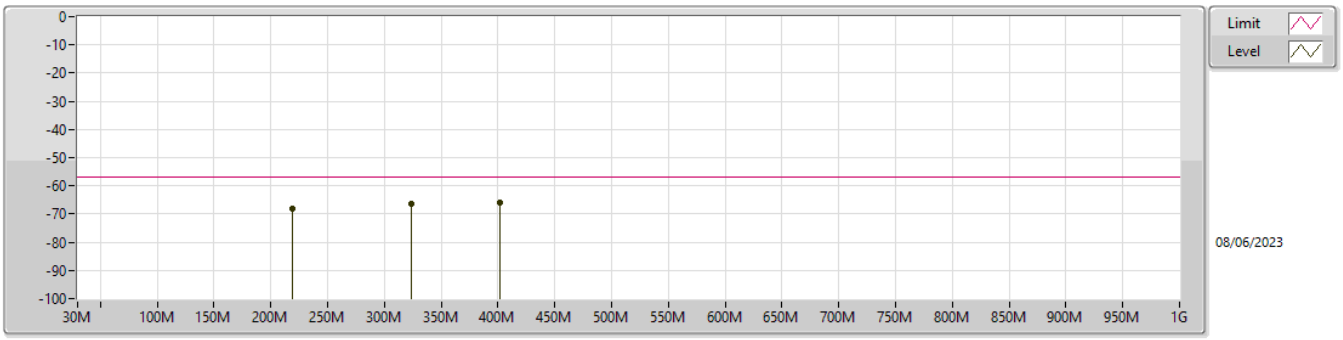
6345MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
156.21M	-68.04	-57.00	-11.04	0.61	Vertical	-68.65
338.43M	-71.07	-57.00	-14.07	3.55	Vertical	-74.62
405.94M	-70.03	-57.00	-13.03	4.65	Vertical	-74.68

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

6345MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
218.72M	-68.13	-57.00	-11.13	0.35	Horizontal	-68.48
323.53M	-66.33	-57.00	-9.33	3.82	Horizontal	-70.15
401.64M	-65.82	-57.00	-8.82	5.11	Horizontal	-70.93

Summary

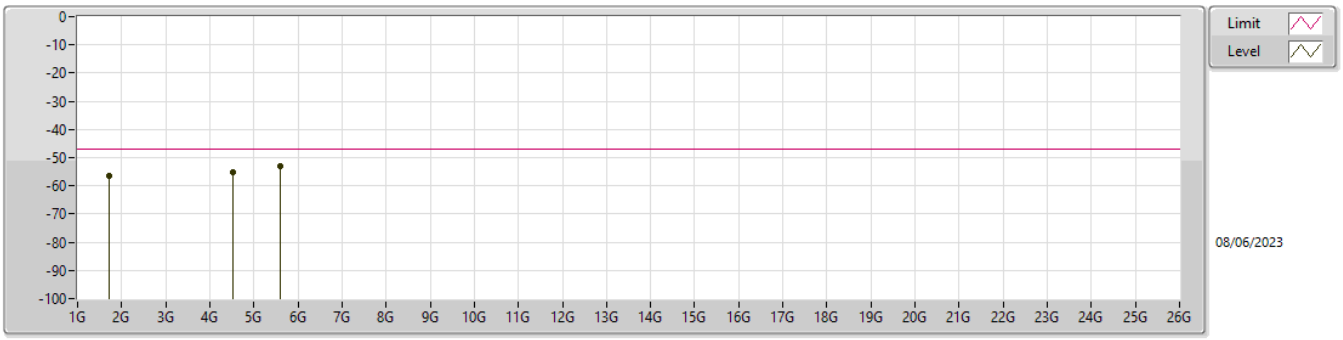
Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.945-6.425GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_(MCS0)_RX	Pass	AV	5.59989G	-52.64	-47.00	-5.64	4.00	3	Vertical	12	1.5	TDP
802.11ax HEW160_(MCS0)_RX	Pass	AV	5.59991G	-52.76	-47.00	-5.76	4.00	3	Vertical	9	1.5	TDP

Result

Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ax HEW20_(MCS0)_RX	-	-	-	-	-	-	-	-	-	-	-	-
5955MHz_RX	Pass	AV	1.71804G	-56.33	-47.00	-9.33	-5.21	3	Vertical	360	1.5	-
5955MHz_RX	Pass	AV	4.53121G	-55.34	-47.00	-8.34	2.76	3	Vertical	360	1.5	-
5955MHz_RX	Pass	AV	5.59966G	-53.15	-47.00	-6.15	4.00	3	Vertical	11	1.5	TDP
5955MHz_RX	Pass	AV	1.71804G	-57.39	-47.00	-10.39	-5.21	3	Horizontal	0	1.5	-
5955MHz_RX	Pass	AV	4.53121G	-56.88	-47.00	-9.88	2.76	3	Horizontal	0	1.5	-
5955MHz_RX	Pass	AV	6.75934G	-55.77	-47.00	-8.77	4.09	3	Horizontal	0	1.5	-
6415MHz_RX	Pass	AV	1.71804G	-57.13	-47.00	-10.13	-5.21	3	Vertical	0	1.5	-
6415MHz_RX	Pass	AV	4.53121G	-54.29	-47.00	-7.29	2.76	3	Vertical	0	1.5	-
6415MHz_RX	Pass	AV	5.59989G	-52.64	-47.00	-5.64	4.00	3	Vertical	12	1.5	TDP
6415MHz_RX	Pass	AV	1.71804G	-57.79	-47.00	-10.79	-5.21	3	Horizontal	360	1.5	-
6415MHz_RX	Pass	AV	6.54533G	-53.88	-47.00	-6.88	4.23	3	Horizontal	360	1.5	-
6415MHz_RX	Pass	AV	8.13142G	-55.25	-47.00	-8.25	2.49	3	Horizontal	360	1.5	-
802.11ax HEW160_(MCS0)_RX	-	-	-	-	-	-	-	-	-	-	-	-
6025MHz_RX	Pass	AV	1.71804G	-56.74	-47.00	-9.74	-5.21	3	Vertical	0	1.5	-
6025MHz_RX	Pass	AV	5.5999G	-52.87	-47.00	-5.87	4.00	3	Vertical	16	1.5	TDP
6025MHz_RX	Pass	AV	9.65651G	-55.14	-47.00	-8.14	3.41	3	Vertical	0	1.5	-
6025MHz_RX	Pass	AV	1.71804G	-58.53	-47.00	-11.53	-5.21	3	Horizontal	360	1.5	-
6025MHz_RX	Pass	AV	5.66027G	-55.57	-47.00	-8.57	4.05	3	Horizontal	360	1.5	-
6025MHz_RX	Pass	AV	8.26443G	-55.95	-47.00	-8.95	2.53	3	Horizontal	360	1.5	-
6345MHz_RX	Pass	AV	1.71804G	-56.43	-47.00	-9.43	-5.21	3	Vertical	360	1.5	-
6345MHz_RX	Pass	AV	4.53121G	-54.07	-47.00	-7.07	2.76	3	Vertical	360	1.5	-
6345MHz_RX	Pass	AV	5.59991G	-52.76	-47.00	-5.76	4.00	3	Vertical	9	1.5	TDP
6345MHz_RX	Pass	AV	1.71804G	-58.14	-47.00	-11.14	-5.21	3	Horizontal	0	1.5	-
6345MHz_RX	Pass	AV	4.53121G	-56.55	-47.00	-9.55	2.76	3	Horizontal	0	1.5	-
6345MHz_RX	Pass	AV	9.24549G	-55.69	-47.00	-8.69	3.19	3	Horizontal	0	1.5	-

5.945-6.425GHz_802.11ax HEW20_(MCS0)_RX

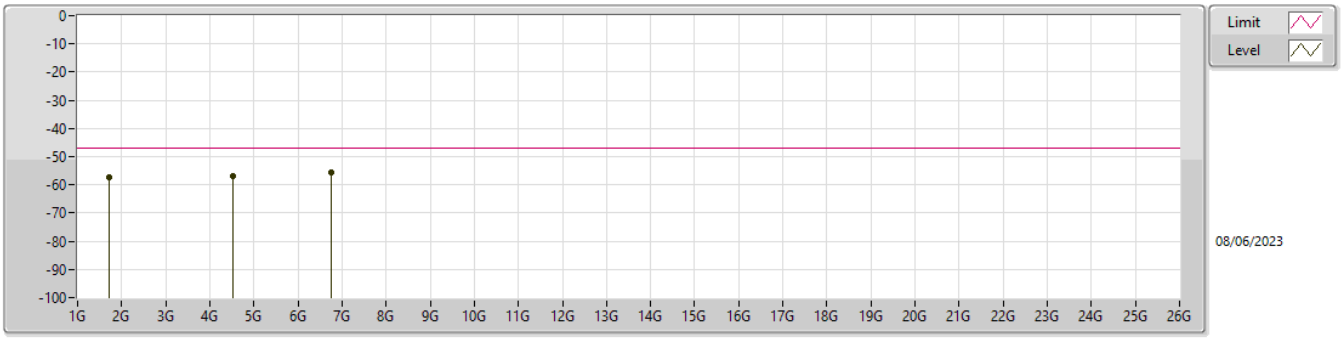
5955MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-56.33	-47.00	-9.33	-5.21	Vertical	-51.12
4.53121G	-55.34	-47.00	-8.34	2.76	Vertical	-58.10
5.59966G	-53.15	-47.00	-6.15	4.00	Vertical	-57.15

5.945-6.425GHz_802.11ax HEW20_(MCS0)_RX

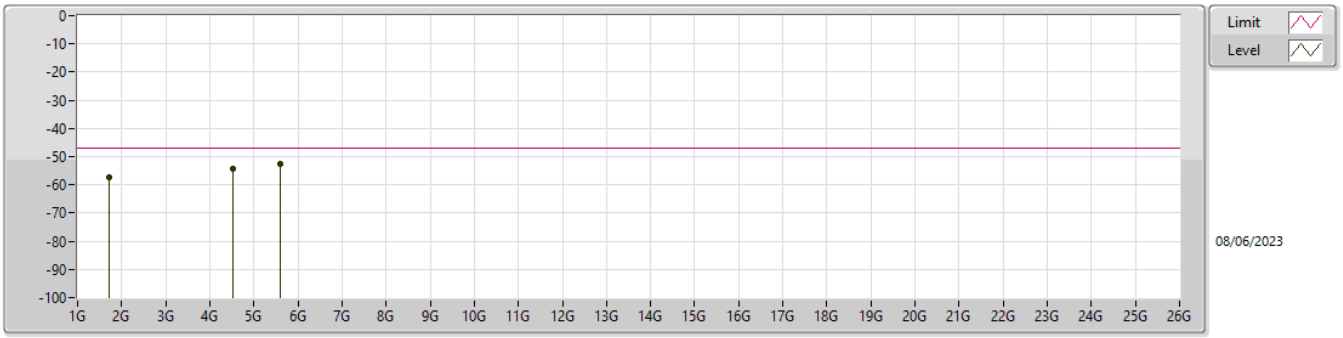
5955MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-57.39	-47.00	-10.39	-5.21	Horizontal	-52.18
4.53121G	-56.88	-47.00	-9.88	2.76	Horizontal	-59.64
6.75934G	-55.77	-47.00	-8.77	4.09	Horizontal	-59.86

5.945-6.425GHz_802.11ax HEW20_(MCS0)_RX

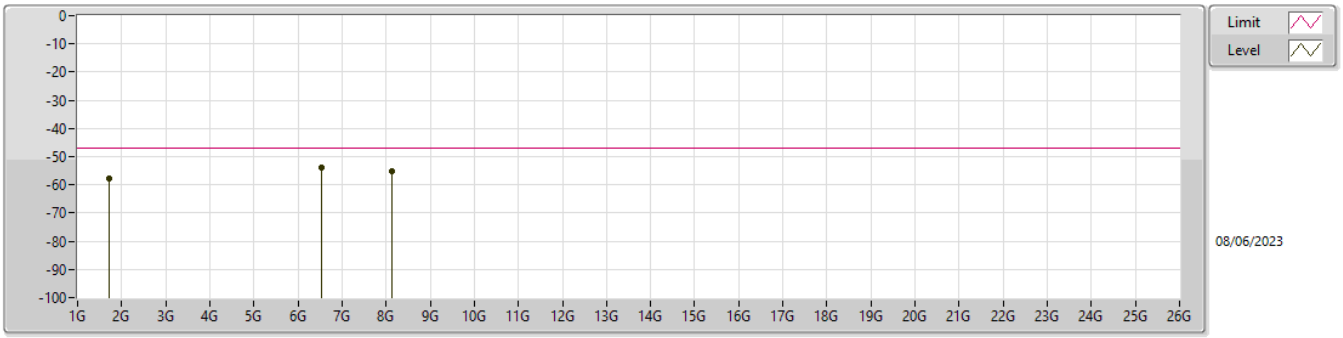
6415MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-57.13	-47.00	-10.13	-5.21	Vertical	-51.92
4.53121G	-54.29	-47.00	-7.29	2.76	Vertical	-57.05
5.59989G	-52.64	-47.00	-5.64	4.00	Vertical	-56.64

5.945-6.425GHz_802.11ax HEW20_(MCS0)_RX

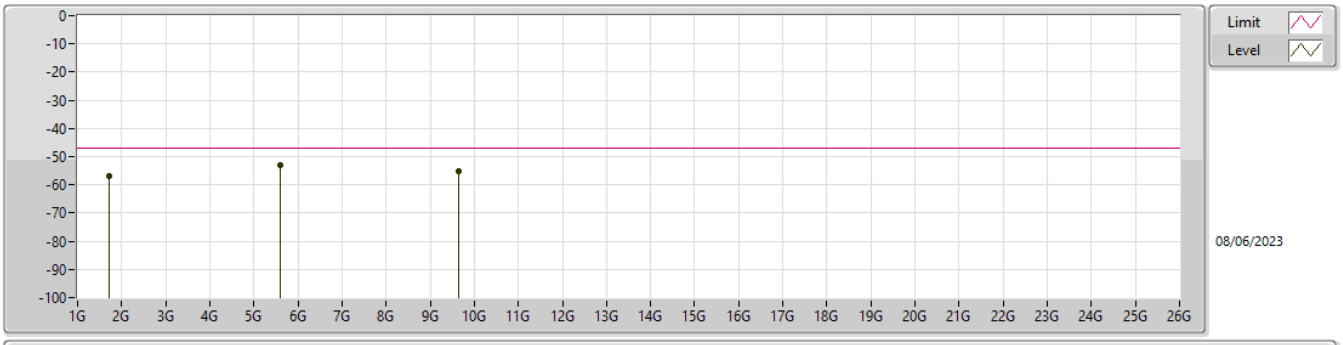
6415MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-57.79	-47.00	-10.79	-5.21	Horizontal	-52.58
6.54533G	-53.88	-47.00	-6.88	4.23	Horizontal	-58.11
8.13142G	-55.25	-47.00	-8.25	2.49	Horizontal	-57.74

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

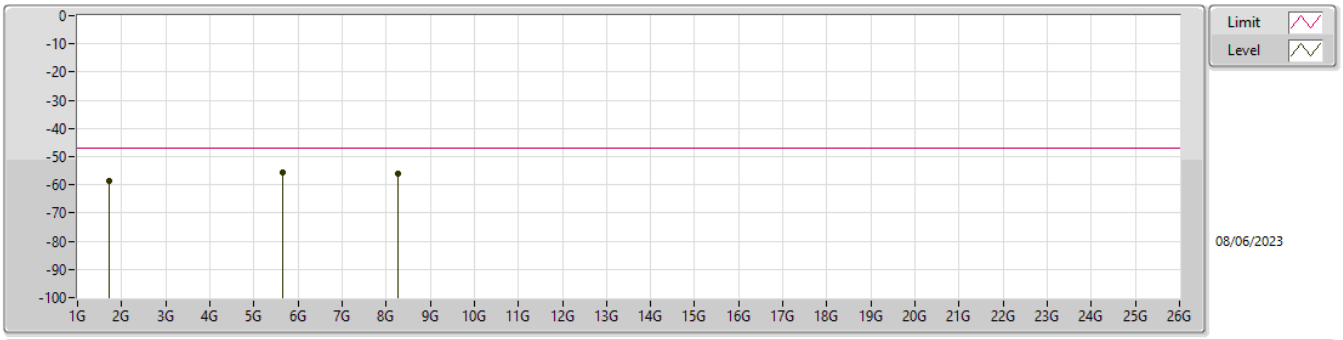
6025MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-56.74	-47.00	-9.74	-5.21	Vertical	-51.53
5.5999G	-52.87	-47.00	-5.87	4.00	Vertical	-56.87
9.65651G	-55.14	-47.00	-8.14	3.41	Vertical	-58.55

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

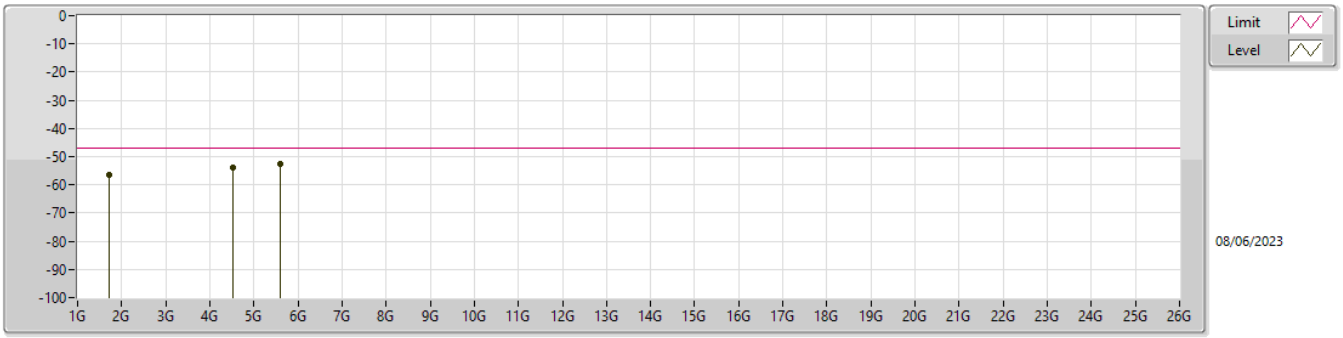
6025MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-58.53	-47.00	-11.53	-5.21	Horizontal	-53.32
5.66027G	-55.57	-47.00	-8.57	4.05	Horizontal	-59.62
8.26443G	-55.95	-47.00	-8.95	2.53	Horizontal	-58.48

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

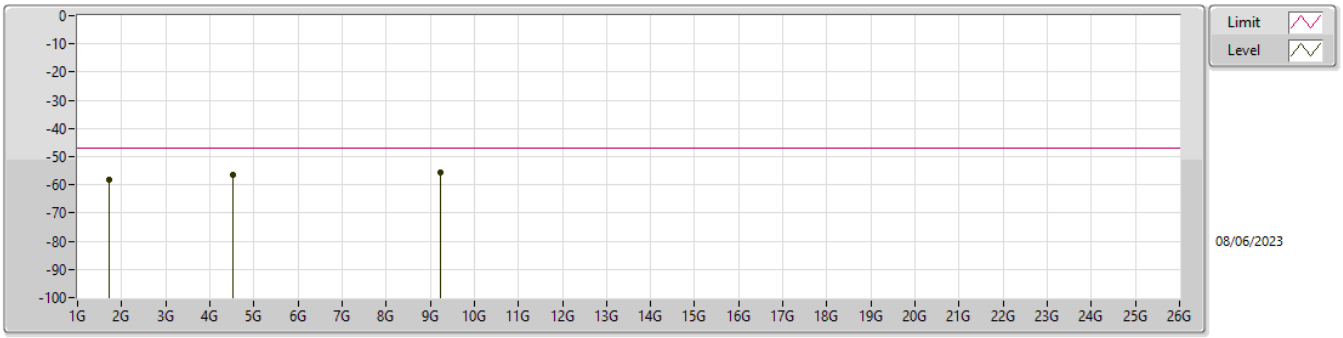
6345MHz_RX



Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-56.43	-47.00	-9.43	-5.21	Vertical	-51.22
4.53121G	-54.07	-47.00	-7.07	2.76	Vertical	-56.83
5.59991G	-52.76	-47.00	-5.76	4.00	Vertical	-56.76

5.945-6.425GHz_802.11ax HEW160_(MCS0)_RX

6345MHz_RX



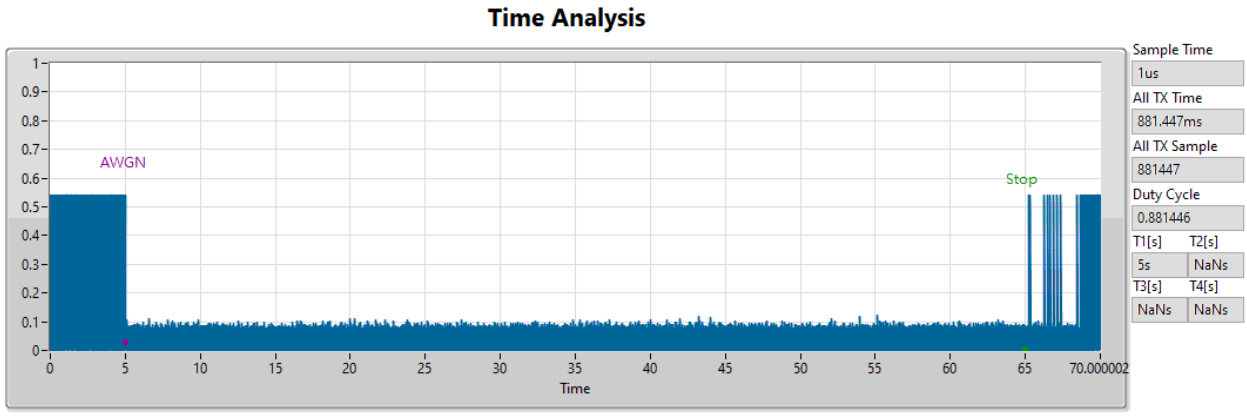
Freq	Level	Limit	Margin	Factor	Condition	Raw
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)
1.71804G	-58.14	-47.00	-11.14	-5.21	Horizontal	-52.93
4.53121G	-56.55	-47.00	-9.55	2.76	Horizontal	-59.31
9.24549G	-55.69	-47.00	-8.69	3.19	Horizontal	-58.88

Adaptivity Result				
Detection Threshold Level		**-84 dBm/MHz**		
Modulation Mode	**Freq. (MHz)**	**Adaptivity Interference Signals**		
		AWGN	**OFDM**	**OFDM 2**
802.11ax 20M	6135	Pass	Pass	Pass
Result	**Complied**			

Short Control Signal Transmissions Result									
Modulation Mode	**Freq. (MHz)**	**Adaptivity Interference Signals**							
		AWGN	**OFDM**	**OFDM 2**	**Limit (ms)**	**AWGN**	**OFDM**	**OFDM 2**	**Limit**
		SCST (ms)				**Number of SCST**			
802.11ax 20M	6135	0.000	0.385	0.116	2.5	0	1	2	50
Result	**Complied**								

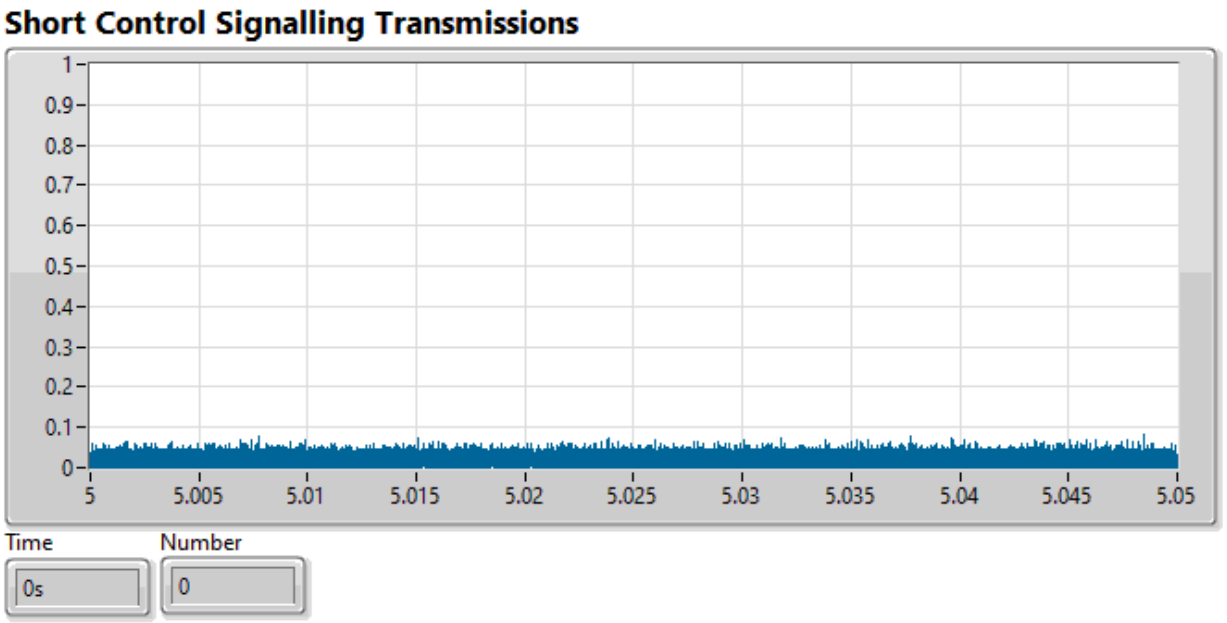
Medium Access Mechanism & Maximum Channel Occupancy Time(s) Result					
Modulation Mode	**Freq. (MHz)**	**Measured Data**			
		Channel Occupancy Time(ms)		**Idle Periods(us)**	
		Result (ms)	**Limit**	**Result**	**Limit**
802.11ax 20M	6135	5.601	Class 2	Pass	Class 2
Result	**Complied**				

802.11ax 20M – 6135MHz
Adaptivity Result - AWGN

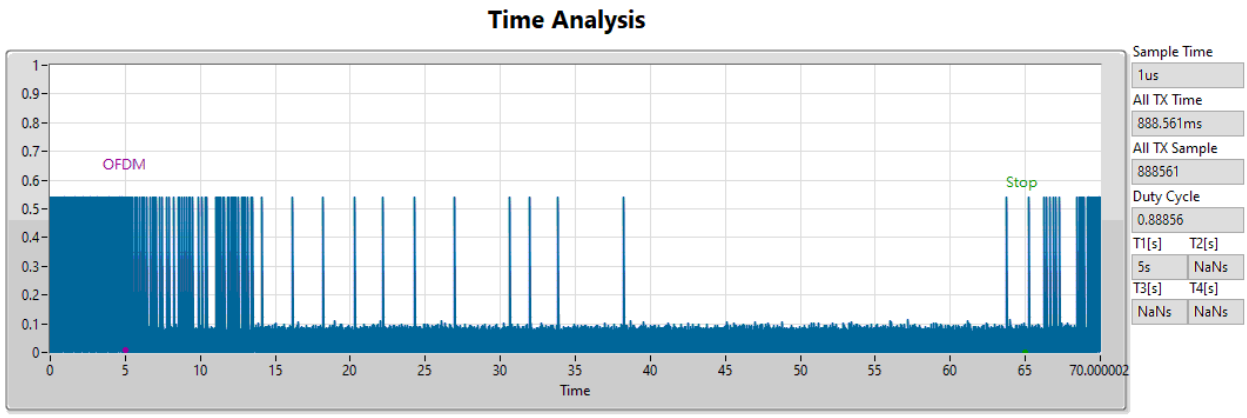


AWGN: Adding the interference signal.

Short Control Signalling Transmissions - AWGN

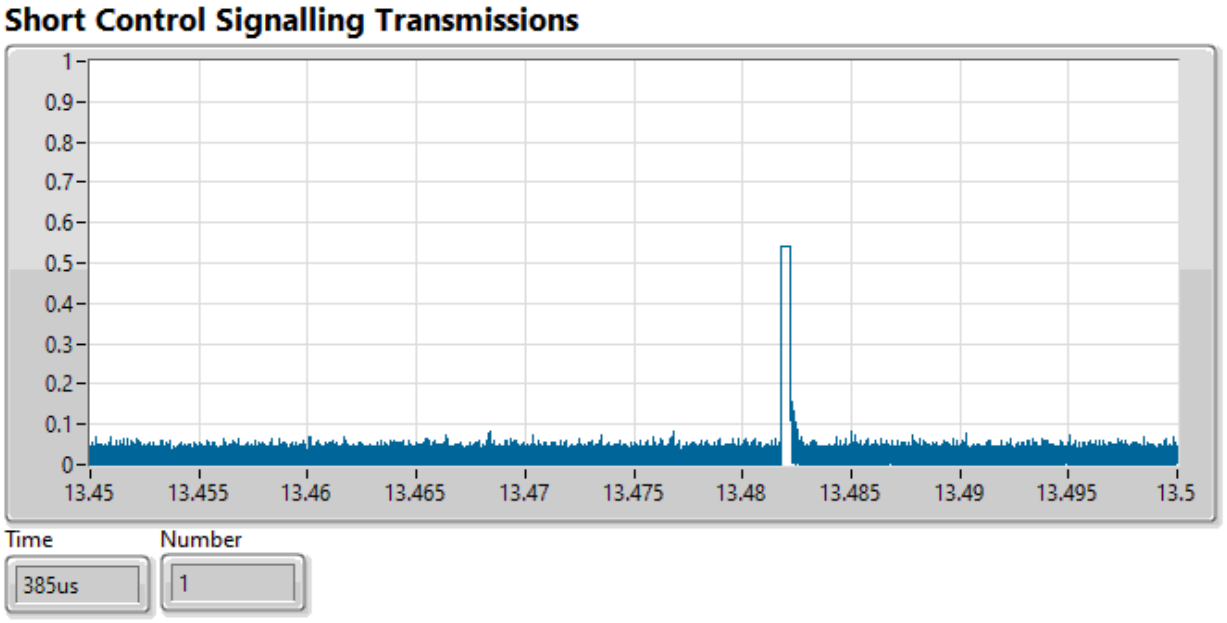


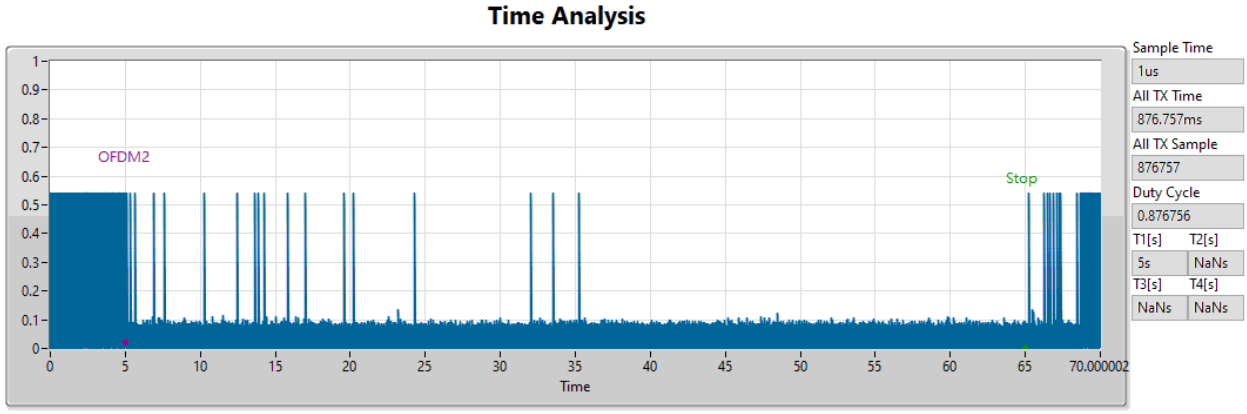
Adaptivity Result – OFDM



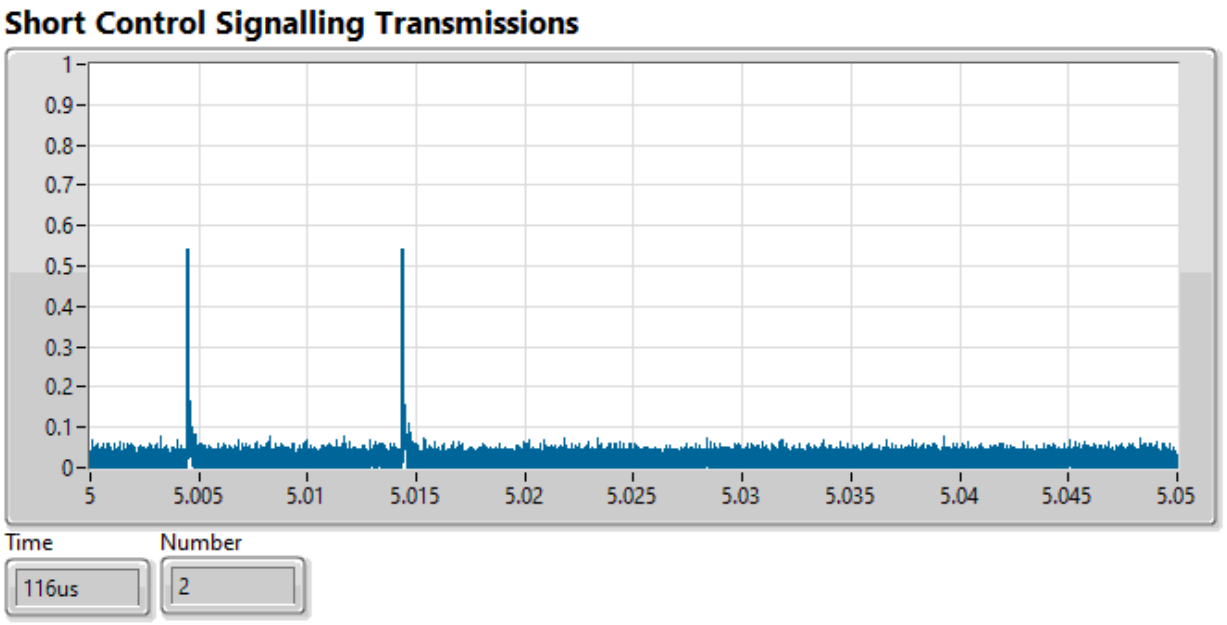
OFDM: Adding the interference signal.

Short Control Signalling Transmissions – OFDM

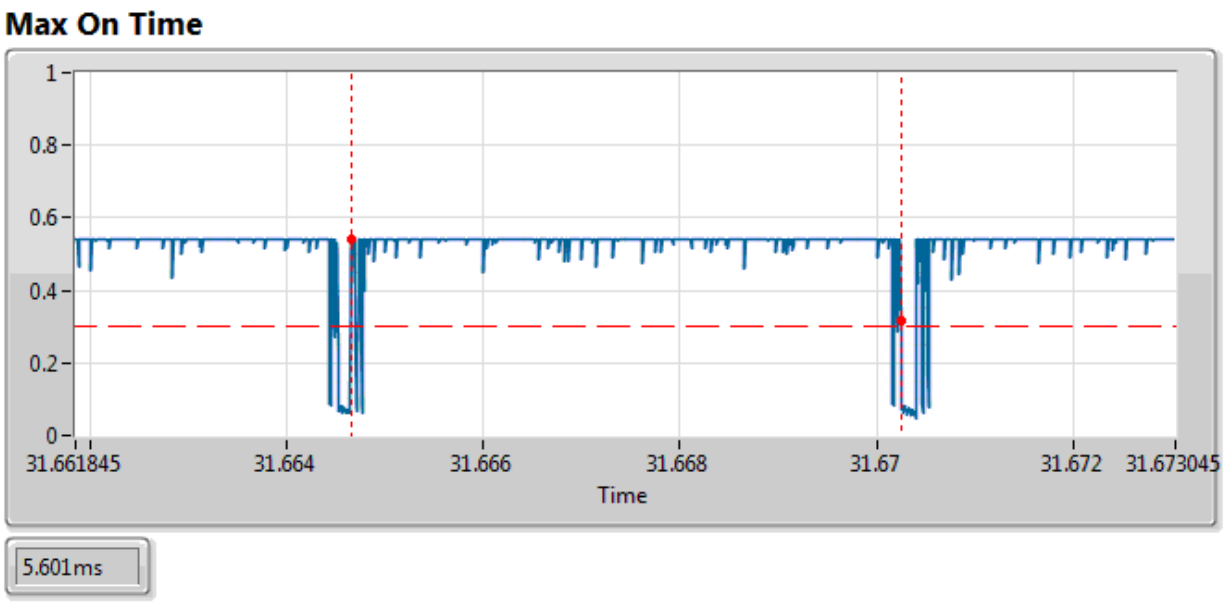


Adaptivity Result – OFDM 2


OFDM 2: Adding the interference signal.

Short Control Signalling Transmissions – OFDM 2


Max. Channel Occupancy Time



Priority Class	Class 2
Operating Type	Supervised Device

n	H(Bn)	Pn	Pn Limit	Result
0	303	0.02898	0.05000	Pass
1	686	0.09460	0.12000	Pass
2	657	0.15745	0.18250	Pass
3	652	0.21982	0.24500	Pass
4	655	0.28248	0.30750	Pass
5	626	0.34236	0.37000	Pass
6	635	0.40310	0.43250	Pass
7	646	0.46489	0.49500	Pass
8	582	0.52057	0.55750	Pass
9	635	0.58131	0.62000	Pass
10	617	0.64033	0.68250	Pass
11	657	0.70318	0.74500	Pass
12	572	0.75789	0.80750	Pass
13	619	0.81710	0.87000	Pass
14	592	0.87373	0.93250	Pass
15	534	0.92481	0.99500	Pass
16	786	1.00000	1.00000	Pass

Receiver Blocking Result							
P_{min}(dBm)	-90						
Modulation Mode	**Operation Frequency (MHz)**	**Wanted Signal Mean Power from Companion Device (dBm) Pmin + 6 dB**	**Receiver Blocking Power (dBm)**	**Blocking Signal Frequency (MHz)**	**Type of Blocking Signal**	**Test Result**	**The highest level at which the performance criteria are met (dBm)**
802.11ax20	5955	-84	-53	6475	CW	Pass	-12
	5955	-84	-47	6575	CW	Pass	-8
	5955	-84	-47	6675	CW	Pass	-5
Limit	PER(Packet Error Rate) ≦ 10%						
Result	**Complied**						

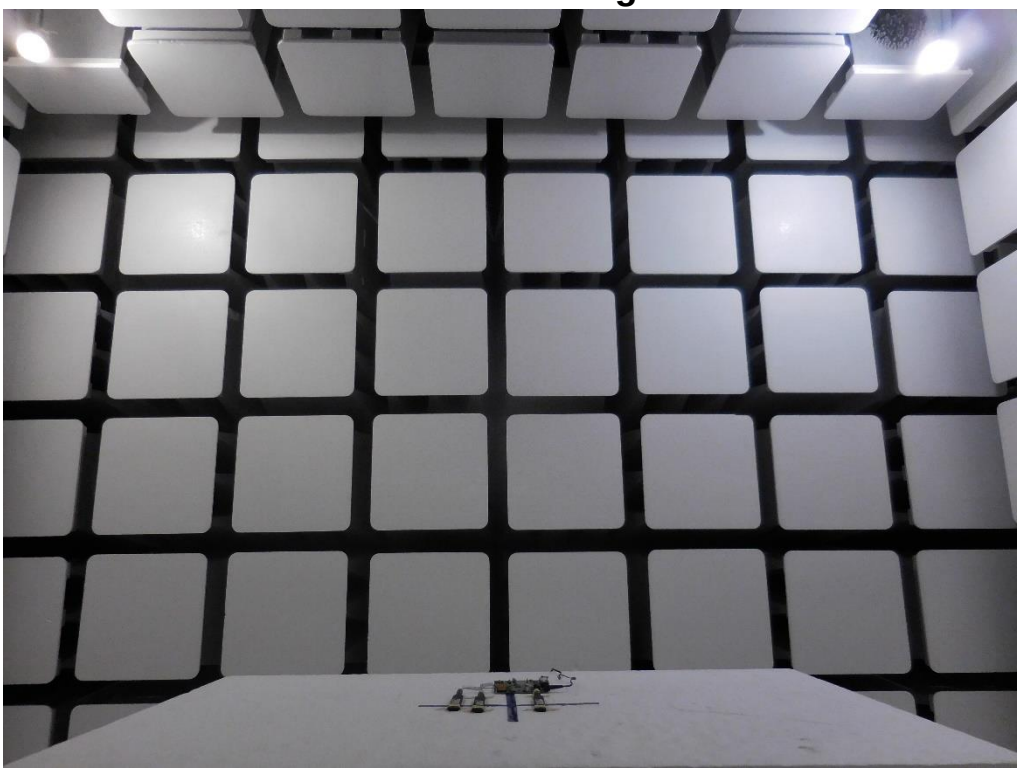
Receiver Blocking Result							
P_{min}(dBm)	-91						
Modulation Mode	**Operation Frequency (MHz)**	**Wanted Signal Mean Power from Companion Device (dBm) Pmin + 6 dB**	**Receiver Blocking Power (dBm)**	**Blocking Signal Frequency (MHz)**	**Type of Blocking Signal**	**Test Result**	**The highest level at which the performance criteria are met (dBm)**
802.11ax20	6415	-85	-53	6475	CW	Pass	-10
	6415	-85	-47	6575	CW	Pass	-8
	6415	-85	-47	6675	CW	Pass	-3
Limit	PER(Packet Error Rate) ≦ 10%						
Result	**Complied**						

Receiver Adjacent Channel Selectivity Result							
P_{min}(dBm)	-91						
Modulation Mode	**Operation Frequency (MHz)**	**Wanted Signal Mean Power from Companion Device (dBm) Pmin + 10dB**	**Interference Signal Power (dBm)**	**Interference Signal Frequency (MHz)**	**Type of Blocking Signal**	**Test Result**	**The highest level at which the performance criteria are met (dBm)**
802.11ax20	5955	-81	-65	5975	AX(20MHz)	Pass	-60
	5955	-83	-65	6015	AX(20MHz)	Pass	-60
	5955	-83	-59	5955	AX(20MHz)	Pass	-54
	5955	-83	-59	6035	AX(20MHz)	Pass	-55
Limit	PER(Packet Error Rate) ≦ 10%						
Result	**Complied**						

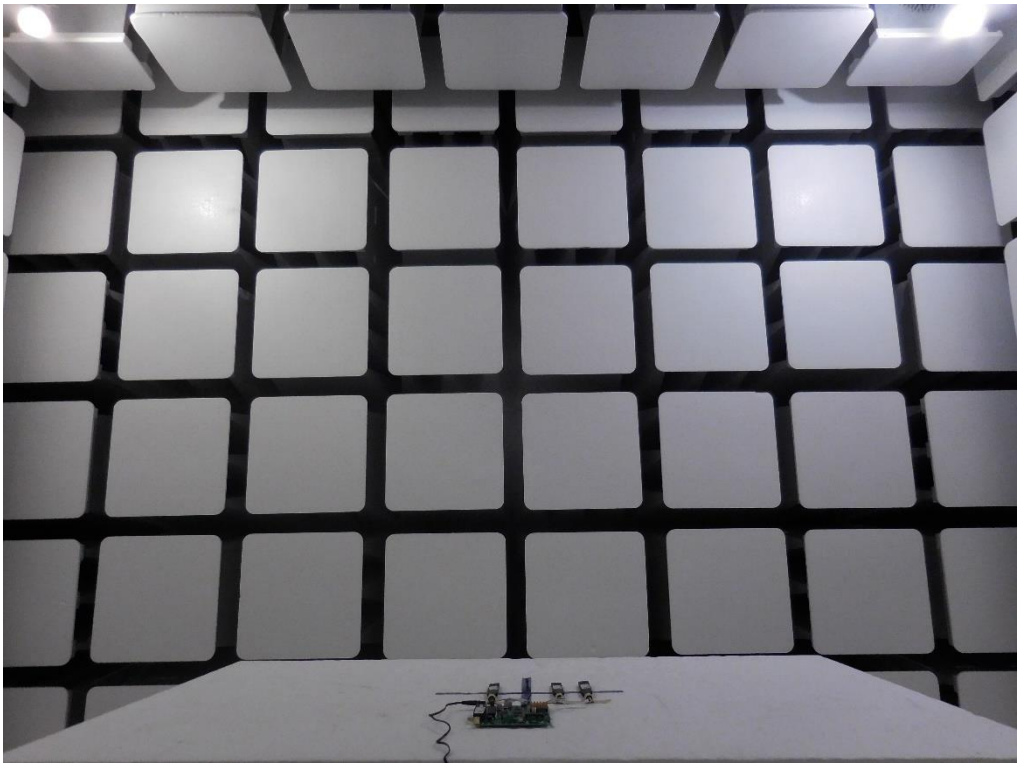
Receiver Adjacent Channel Selectivity Result							
P_{min}(dBm)	-91						
Modulation Mode	**Operation Frequency (MHz)**	**Wanted Signal Mean Power from Companion Device (dBm) Pmin + 10dB**	**Interference Signal Power (dBm)**	**Interference Signal Frequency (MHz)**	**Type of Blocking Signal**	**Test Result**	**The highest level at which the performance criteria are met (dBm)**
802.11ax20	6375	-81	-65	6355	AX(20MHz)	Pass	-59
	6375	-81	-65	6395	AX(20MHz)	Pass	-58
	6375	-81	-59	6335	AX(20MHz)	Pass	-55
	6375	-81	-59	6415	AX(20MHz)	Pass	-52
Limit	PER(Packet Error Rate) ≦ 10%						
Result	**Complied**						

1. Photographs of Radiated Emissions Test Configuration

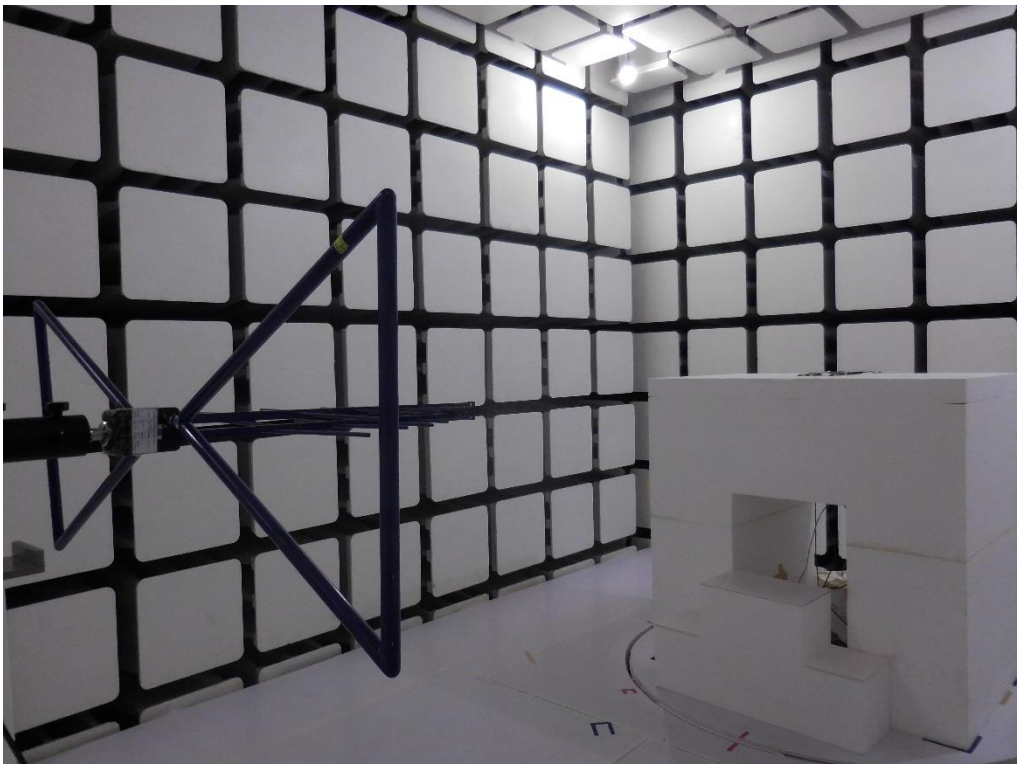
Front view



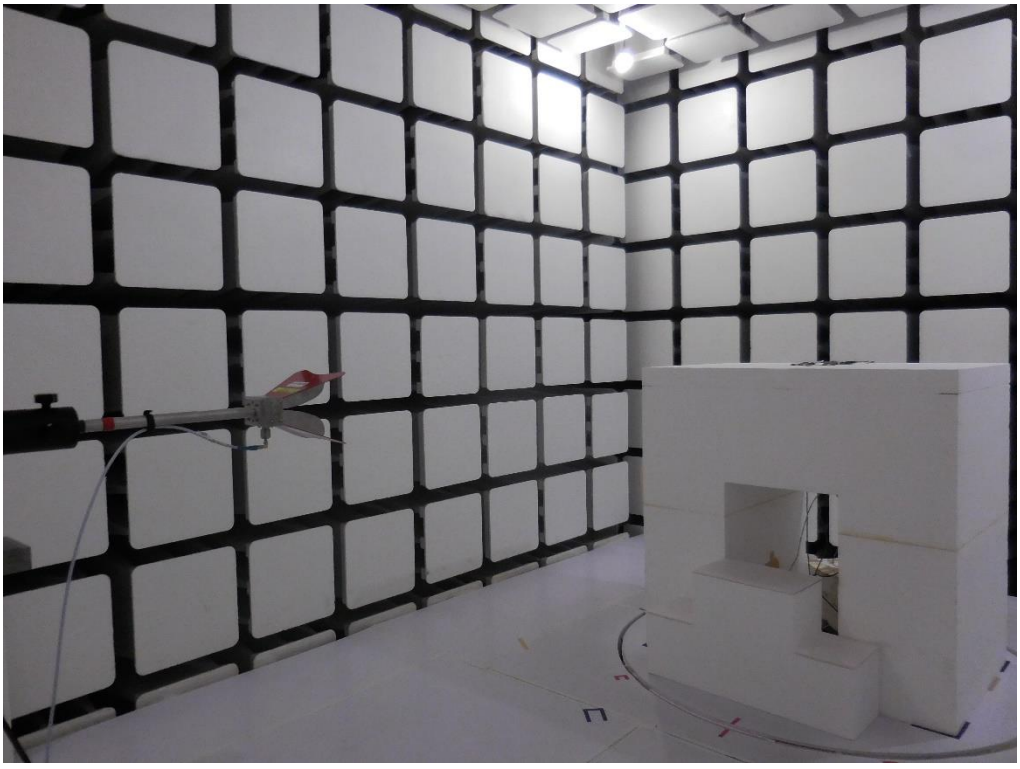
Rear view



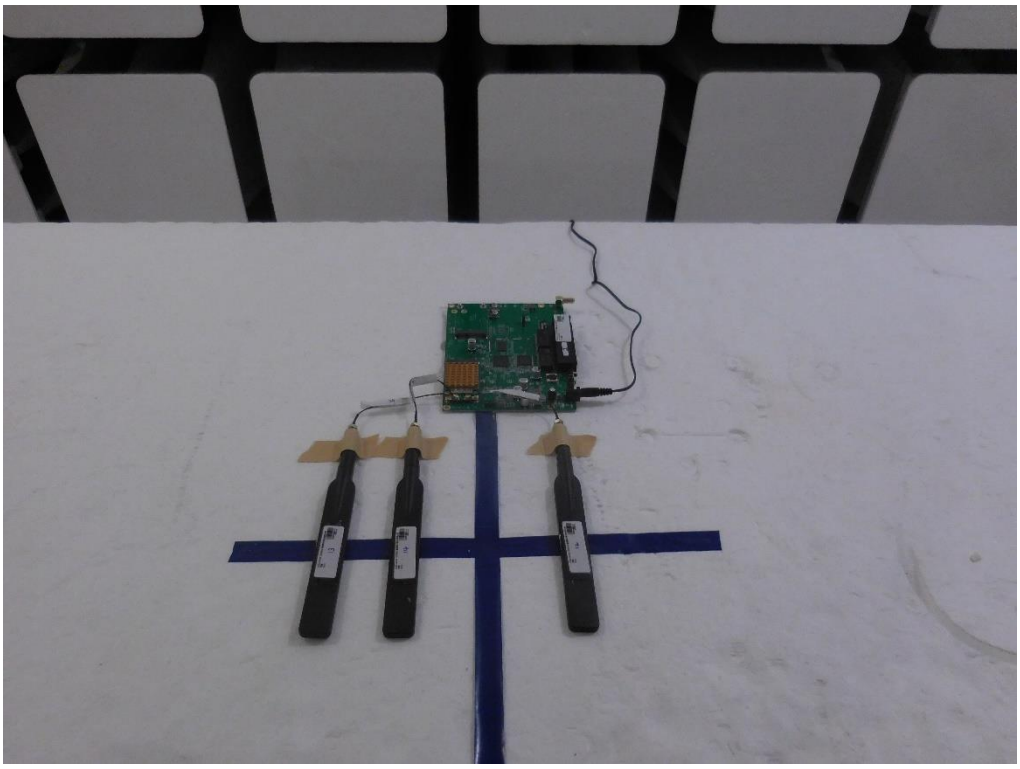
Bilog Antenna



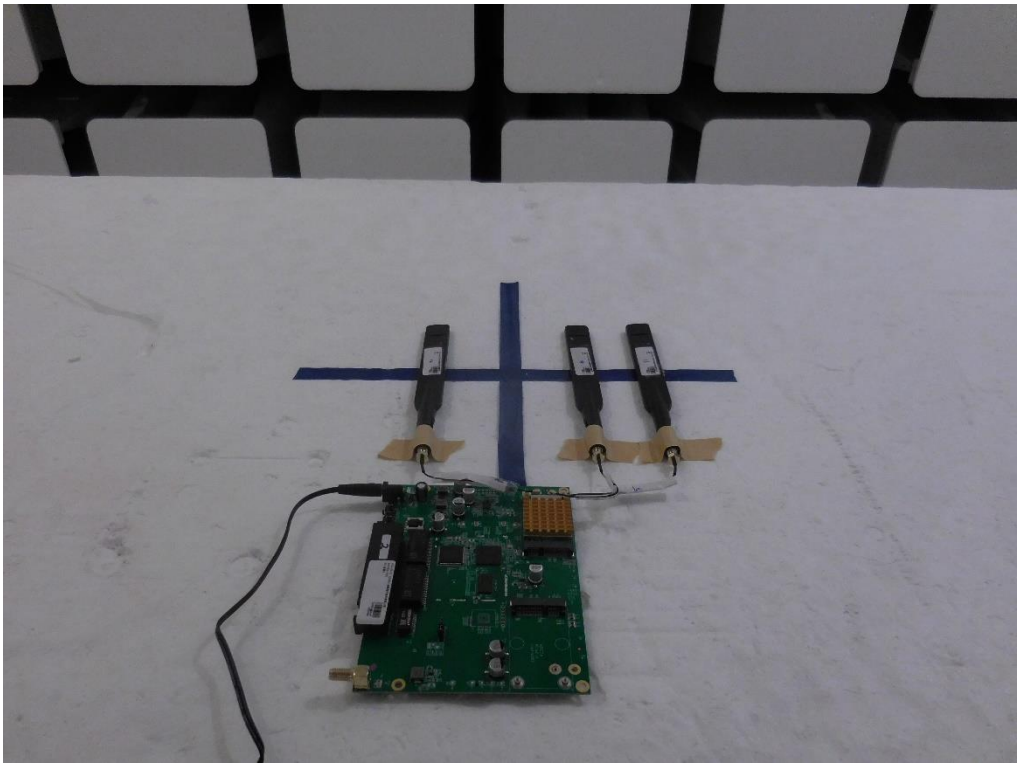
Horn Antenna



EUT take a close-up

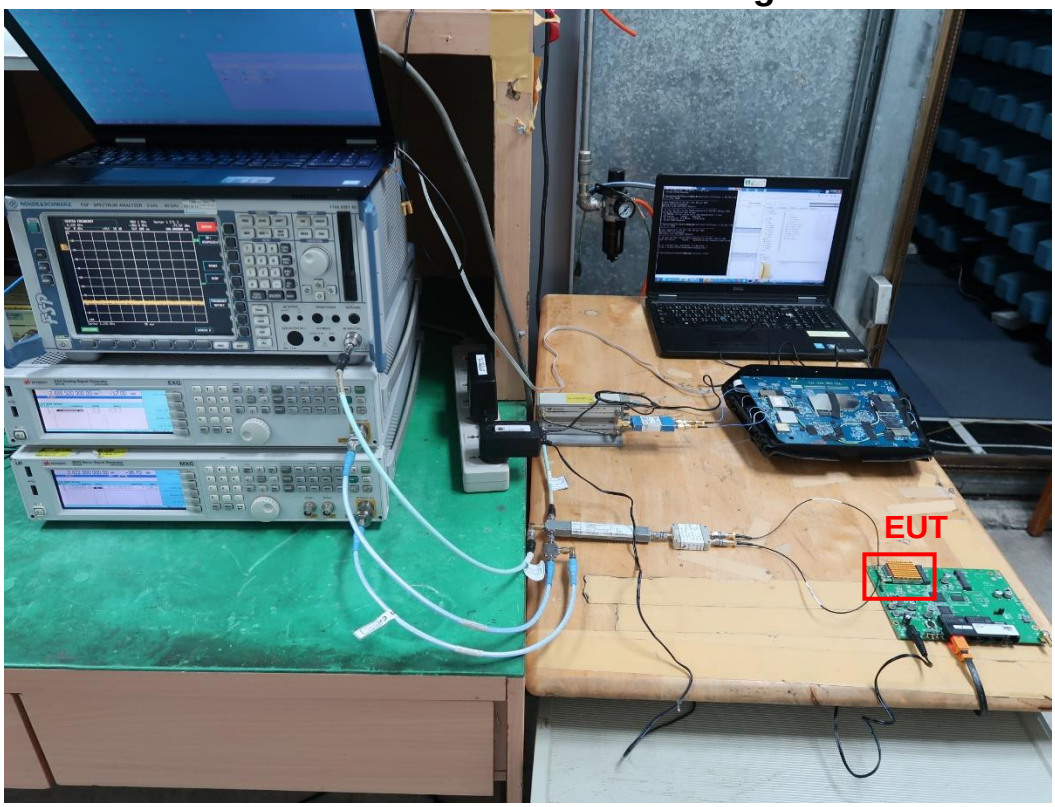


EUT take a close-up



2. Photographs of Channel Access Mechanism Test Configuration

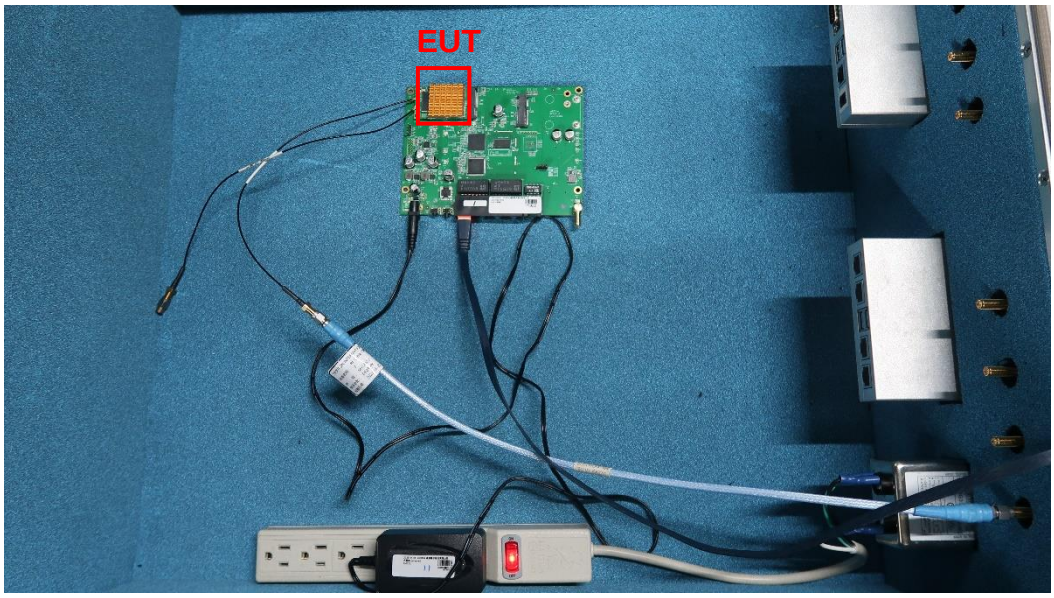
Front view



3. Photographs of Receiver blocking &Receiver Selectivity Test Configuration

Front view

EUT take a close-up



————————THE END————————