CE Test Report

Equipment	:	**802.11ax Wi-Fi 6E + BT5.4 Module**
Model No.	:	**Veda IF913**
Brand Name	:	**Ezurio**
Applicant	:	**Ezurio LLC**
Address	:	**W66N220 Commerce Court, Cedarburg, WI 53012 United States Of America**
Standard	:	**EN 300 328 V2.2.2 (2019-07)**
Received Date	:	**Jan. 12, 2026**
Tested Date	:	**Jan. 28 ~ Jul. 31, 2026**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:	**Approved by:**
Alex Huang	Gary Chang
Alex Huang / Supervisor	**Gary Chang / Manager**

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Local Support Equipment List 9
1.3 Test Setup Chart 9
1.4 Test Equipment List and Calibration Data 10
1.5 Testing Applied Standards 12
1.6 Deviation from Test Standard and Measurement Procedure 12
1.7 Measurement Uncertainty 12

2 TEST CONFIGURATION 13

2.1 Testing Facility 13
2.2 The Worst Test Modes and Channel Details 13

3 TRANSMITTER TEST RESULTS 15

3.1 RF Output Power (EIRP) 15
3.2 Power Spectral Density 16
3.3 Occupied Channel Bandwidth 17
3.4 Transmitter Unwanted Emissions in the Out-Of-Band Domain 18
3.5 Transmitter Unwanted Emissions in the Spurious Domain 19

4 RECEIVER TEST RESULTS 21

4.1 Receiver Spurious Emissions 21

5 ADAPTIVITY TEST RESULTS 23

5.1 Adaptivity and Unwanted Signal Parameters 23

6 RECEIVER BLOCKING TEST RESULTS 25

6.1 Receiver Blocking 25

7 PHOTOGRAPHS OF THE TEST CONFIGURATION 28

8 TEST LABORATORY INFORMATION 31

Appendix A. RF Output Power (EIRP)

Appendix B. Power Spectral Density

Appendix C. Occupied Channel Bandwidth

Appendix D. Transmitter Unwanted Emissions In The Out-Of-Band Domain

Appendix E. Transmitter Spurious Emissions

Appendix F. Receiver Spurious Emissions

Appendix G. Adaptivity And Unwanted Signal Parameters

Appendix H. Receiver Blocking

Release Record

Report No.	Version	Description	Issued Date
ER611202AC	Rev. 01	Initial issue	Aug. 18, 2026

Summary of Test Results

Ref. Std. Clause	Test Items	Measured	Result
4.3.2.2	RF Output Power (EIRP)	19.62 dBm.	Pass
4.3.2.3	Power Spectral Density	Meet the requirement of limit.	Pass
4.3.2.4	Duty Cycle, Tx-sequence, Tx-gap	Only for non-adaptive equipment.	N/A
4.3.2.5	Medium Utilisation (MU) factor	Only for non-adaptive equipment.	N/A
4.3.2.6	Adaptivity	Meet the requirement of limit.	Pass
4.3.2.7	Occupied Channel Bandwidth	Meet the requirement of limit.	Pass
4.3.2.8	Transmitter unwanted emissions in the out of band domain	Meet the requirement of limit.	Pass
4.3.2.9	Transmitter unwanted emissions in the spurious domain	Meet the requirement of limit.	Pass
4.3.2.10	Receiver spurious emissions	Meet the requirement of limit.	Pass
4.3.2.11	Receiver Blocking	Meet the requirement of limit.	Pass
4.3.2.12	Geo-location Capability	The device has no this capability.	N/A

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 declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Product Details

Model Name	Part No.	Product Name	Description
Veda IF913	453-00400	802.11ax Wi-Fi 6E + BT5.4 Module	Module, Veda IF913, SIP, Tri Band, No Embedded Memory, RF Trace Pin
	453-00401		Module, Veda IF913, SIP, Tri Band, Embedded Ext. Memory, 8M PSRAM, 8M Flash, RF Trace Pin

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N_{TX})	Data Rate / MCS
2400-2483.5	b	2412-2472	1-13 [13]	1	1-11 Mbps
2400-2483.5	g	2412-2472	1-13 [13]	1	6-54 Mbps
2400-2483.5	n (HT20)	2412-2472	1-13 [13]	1	MCS 0-7
2400-2483.5	ax (HE20)	2412-2472	1-13 [13]	1	MCS 0-11
Note 1: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation. Note 2: 802.11g/n/ax uses a combination of OFDM/OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation.					

1.1.3 Antenna Details

Integrated Antenna

Brand / Model	Part Number	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
Yageo / Chip Antenna	ANT1608LL14R2460A	Chip	NA	2.3	0.1	0.1	1.8	2.5

Brand / Model	Part Number	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)
				5925~6425
Yageo / Chip Antenna	ANT1608LL14R2460A	Chip	NA	2.7

External Antenna

Brand / Model	Part Number	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
Ezurio / FlexMIMO 6E	EFD2471A3S -10MH4L	PIFA	MHF4L	2.2	3.8	3.8	3.8	3.8
Ezurio / FlexPIFA 6E	EFB2471A3S -10MH4L	PIFA	MHF4L	2.2	3.9	3.9	3.9	3.9
Ezurio / Mini NanoBlade Flex 6GHz	EMF2471A3 S-10MH4L	PCB Dipole	MHF4L	2.4	4.4	4.4	4.4	4.4
Joymax Electronics / Dipole 6E	TWX-100BR S3B	Dipole	RP-SMA	2	4	4	4	4
Ezurio / FlexPIFA Dual Band	001-0021	PIFA	IPEX MHF4L	2.5	3	3	3	3
Ezurio / FlexPIFA Dual Band	EFB2455A3S -15MH4L	PIFA	MHF1	2.5	3	3	3	3

Brand / Model	Part Number	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)
				5925~6425
Ezurio / FlexMIMO 6E	EFD2471A3S-10MH4L	PIFA	MHF4L	3.3
Ezurio / FlexPIFA 6E	EFB2471A3S-10MH4L	PIFA	MHF4L	3.8
Ezurio / Mini NanoBlade Flex 6GHz	EMF2471A3S-10MH4L	PCB Dipole	MHF4L	5.2
Joymax Electronics / Dipole 6E	TWX-100BRS3B	Dipole	RP-SMA	4

1.1.4 EUT Operational Condition

Power Supply Type	3.3Vdc from host		
SW Version	IFX_Ezurio-H1CP-04022026-2		
Operational Climatic	☒ Tnom (20°C)	☒ Tmax (85°C)	☒ Tmin (-40°C)
Beamforming	☐ Support	☒ Not support	
RU Configuration	☒ Full RU	☒ Partial RU	

1.1.5 Accessories

N/A

1.1.6 Adaptive Equipment

Adaptive Equipment		
☐	non-Adaptive Equipment:	
	The maximum RF Output Power (e.i.r.p.): dBm	
	The maximum (corresponding) Duty Cycle: %	
☒	Adaptive Equipment without the possibility to switch to a non-adaptive mode:	
	☒	The equipment has implemented an LBT based DAA mechanism:
		☐ The equipment is Frame Based equipment
		☒ The equipment is Load Based equipment
		☐ The equipment can switch dynamically between Frame Based and Load Based equipment
	☐	The equipment has implemented an non-LBT based DAA mechanism
	☐	The equipment can operate in more than one adaptive mode
	☐	Adaptive Frequency Hopping using other forms of DAA (non-LBT based)/without Short Control Signaling Transmissions
☐	Adaptive Equipment which can also operate in a non-adaptive mode	

1.1.7 Channel List

Channel	Frequency(MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462
12	2467
13	2472

1.1.8 Test Tool and Duty Cycle

full RU configuration

Test Tool	Command	
Modulation Mode	**Duty Cycle Of Test Signal (%)**	**Duty Factor (dB)**
11b	99.83%	0.01
11g	98.70%	0.06
ax HE20_OFDMA	98.17%	0.08

partial RU configuration

Test Tool	Command, Version: 28.10.400.1	
Modulation Mode	**Duty Cycle Of Test Signal (%)**	**Duty Factor (dB)**
ax HE20_OFDMA_RU26	99.18%	0.04
ax HE20_OFDMA_RU52	99.26%	0.03
ax HE20_OFDMA_RU106	98.41%	0.07

1.1.9 Power Index of Test Tool

full RU configuration

Modulation Mode	Test Frequency (MHz)		
	2412	**2442**	**2472**
11b	56	56	56
11g	65	65	66
ax HE20_OFDMA	65	65	65

partial RU configuration

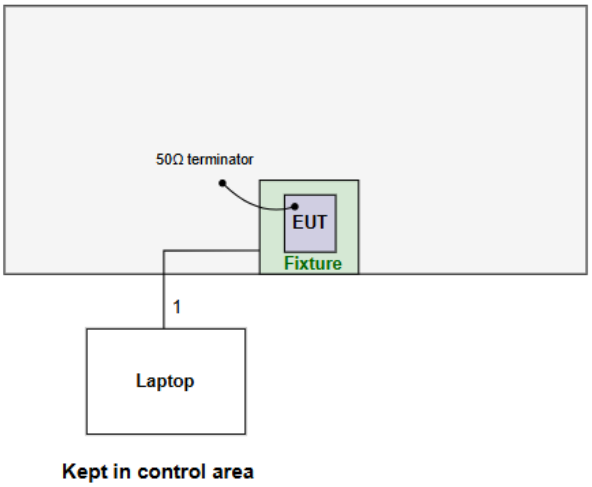
Modulation Mode	Test Frequency (MHz)		
	2412	**2442**	**2472**
ax HE20_OFDMA_RU26	38	39	39
ax HE20_OFDMA_RU52	50	51	51
ax HE20_OFDMA_RU106	61	62	62

1.2 Local Support Equipment List

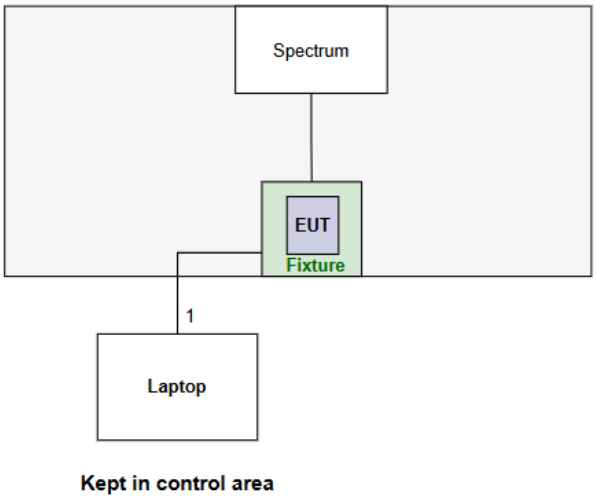
Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**S/N**	**Remarks**
1	Laptop	Lenovo	TP00003B	R9-L1LRK	Provided by applicant.
2	Fixture	---	---	---	Provided by applicant.
3	50Ω terminator	---	---	---	---

1.3 Test Setup Chart

Test Setup Diagram (Radiated Test)



Test Setup Diagram (Conducted Test)



No.	Signal cable / Length (m)
1	Type-C USB, 1.3m shielded.

1.4 Test Equipment List and Calibration Data

Test Item	Radiated Emissions				
Test Site	Fully-anechoic chamber 1 / (05CH01-WS)				
Test Date	Feb. 06 ~ Feb. 09, 2026				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	Agilent	N9010A	MY54200247	Nov. 25, 2025	Nov. 24, 2026
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Jan. 15, 2026	Jan. 14, 2027
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1094	Nov. 28, 2025	Nov. 27, 2026
Preamplifier	Agilent	83017A	MY39501308	Nov. 24, 2025	Nov. 23, 2026
Preamplifier	EMC	EMC02325	980146	Oct. 23, 2025	Oct. 22, 2026
RF Cable-1M	EMC	EMC104-35M-35M-1000	S/N:210904	Oct. 07, 2025	Oct. 06, 2026
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16609/4	Oct. 07, 2025	Oct. 06, 2026
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY15686/4	Oct. 07, 2025	Oct. 06, 2026
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-005	Oct. 07, 2025	Oct. 06, 2026
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-006	Oct. 07, 2025	Oct. 06, 2026
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Test Date	Jan. 28 ~ Feb. 03, 2026				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101486	Mar. 03, 2025	Mar. 02, 2026
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Jun. 26, 2025	Jun. 25, 2026
Power Sensor	Agilent	U2021XA	MY54070003	Mar. 19, 2025	Mar. 18, 2026
RF Cable-1M	EMC	EMC104-35M-35M-1000	S/N:210928	Oct. 11, 2025	Oct. 10, 2026
Measurement Software	Sporton	SENSE-300328_DTS	5.11.6.0	NA	NA
Measurement Software	Agilent	EN RF test	1.1501125	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Adaptivity				
Test Site	DF01-WS				
Test Date	Jul. 29, 2026				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV-7	101607	Feb. 06, 2026	Feb. 05, 2027
RF Cable	EMC	EMC105SFF-SM-SM-2000	210816	Oct. 09, 2025	Oct. 08, 2026
RF Cable	woken	woken-S05	S05-141231-102	Oct. 09, 2025	Oct. 08, 2026
RF Cable	woken	woken-S05	S05-141231-105	Oct. 09, 2025	Oct. 08, 2026
RF Cable	woken	woken-S05	S05-141231-106	Oct. 09, 2025	Oct. 08, 2026
RF Cable	woken	woken-S05	S05-141231-108	Oct. 09, 2025	Oct. 08, 2026
RF Cable	woken	woken-S05	S05-141231-109	Oct. 09, 2025	Oct. 08, 2026
Vector Signal Generator	R&S	SMW200A	109619	Aug. 04, 2025	Aug. 03, 2026
Signal Generator	R&S	SMB100A	175727	May. 26, 2026	May. 25, 2027
Oscilloscope	National Instruments	USB-5133	F651FF	Aug. 18, 2025	Aug. 17, 2026
Preamplifier	Burgeon	BPA-530	100219	Dec. 15, 2025	Dec. 14, 2026
Combiner(1X2)	woken	0120A02201801O	DOM2AEW1A22	Oct. 11, 2025	Oct. 10, 2026
Combiner(1X2)	woken	0120A02201801O	DOM2AEW1A23	Oct. 11, 2025	Oct. 10, 2026
Combiner(1X4)	WOKEN	4WAYDIV	0120A042011010	Oct. 09, 2025	Oct. 08, 2026
Direction Coupler	Marvelous Microwave	MVE4514-20	20	Oct. 09, 2025	Oct. 08, 2026
30dB Attenuator	MVE	MVE2462-30	16050401	Oct. 11, 2025	Oct. 10, 2026
Measurement Software	Sporton	Sporton_3	2.2.0.0	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Receiver Blocking				
Test Site	DF01-WS				
Test Date	Jul. 31, 2026				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Wireless connectivity tester	R&S	CMW270	100856	Jan. 06, 2026	Jan. 05, 2027
Vector Signal Generator	R&S	SMW200A	109619	Aug. 04, 2025	Aug. 03, 2026
RF cable-0.5M	HUBER+SUHNER	SUCOFLEX_104	500202/4	Oct. 09, 2025	Oct. 08, 2026
RF cable-0.5M	HUBER+SUHNER	SUCOFLEX_104	296088/4	Oct. 09, 2025	Oct. 08, 2026
RF Cable	EMC	EMC105SFF-SM-SM-2000	210816	Oct. 09, 2025	Oct. 08, 2026
Combiner(1X2)	WOKEN	2WAYDIV	12101200003	Oct. 09, 2025	Oct. 08, 2026
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

EN 300 328 V2.2.2 (2019-07)

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty		
Parameters	**Uncertainty**	**Limit**
Occupied Channel Bandwidth	±0.0034 %	±5 %
RF output power (EIRP), conducted	±0.592 dB	±1.5 dB
Power Spectral Density, conducted	±0.583 dB	±3 dB
Unwanted Emissions, conducted	±2.715 dB	±3 dB
All emissions, radiated	±3.14 dB	±6 dB
Temperature	±0.4 ºC	±3 °C
Supply voltages	±0.15 %	±3 %
Time	±0.1 %	±5 %

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	TH01-WS, 05CH01-WS, DF01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

2.2 The Worst Test Modes and Channel Details

Full RU configuration						
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test method**	**Mode**	**Note**
RF Output Power Power Spectral Density Occupied Channel Bandwidth	11b 11g ax HE20_OFDMA	2412 / 2442 / 2472 2412 / 2442 / 2472 2412 / 2442 / 2472	1 Mbps 6 Mbps MCS 0	Conducted	1TX	---
Transmitter Emissions ≤ 1GHz	11g ax HE20_OFDMA	2412 / 2472 2412 / 2472	6 Mbps MCS 0	Conducted	1TX	---
				Radiated		Note 2
Transmitter Emissions >1GHz	11b 11g ax HE20_OFDMA	2412 / 2472 2412 / 2472 2412 / 2472	6 Mbps MCS 0 MCS 0	Conducted	1TX	---
				Radiated		Note 2
Receiver Emissions ≤ 1GHz Receiver Emissions >1GHz	11g ax HE20_OFDMA	2412 / 2472 2412 / 2472	6 Mbps MCS 0	Conducted	1RX	---
				Radiated		Note 2
Transmitter unwanted emissions in the out of band domain Adaptivity	11b 11g ax HE20_OFDMA	2412 / 2472 2412 / 2472 2412 / 2472	1 Mbps 6 Mbps MCS 0	Conducted	1TX	---
Receiver Blocking	11b	2412 / 2472	1 Mbps	Conducted	1RX	---

NOTE:
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** result was found as the worst case and was shown in this report.
2. The 50Ω terminator is connected to antenna port of EUT for radiated emission measurement.
3. Two skus had been covered during the pretest and found that **Part No. 453-00401** was the worst case and was selected for the final test. (sku 1: Part No. 453-00400, sku 2: Part No. 453-00401)

Partial RU configuration					
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Mode**	**Note**
RF Output Power Power Spectral Density	ax HE20 OFDMA RU26 ax HE20_OFDMA_RU52 ax HE20_OFDMA_RU106	2412 / 2442 / 2472 2412 / 2442 / 2472 2412 / 2442 / 2472	MCS 0 MCS 0 MCS 0	1TX	---
Transmitter Emissions ≤ 1GHz	ax HE20_OFDMA_RU106	2412 / 2472	MCS 0	1TX	---
Transmitter Emissions >1GHz					Note 2

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** result was found as the worst case and was shown in this report.
2. The 50Ω terminator is connected to antenna port of EUT for radiated emission measurement.
3. Two skus had been covered during the pretest and found that **Part No. 453-00401** was the worst case and was selected for the final test. (sku 1: Part No. 453-00400, sku 2: Part No. 453-00401)

3 Transmitter Test Results

3.1 RF Output Power (EIRP)

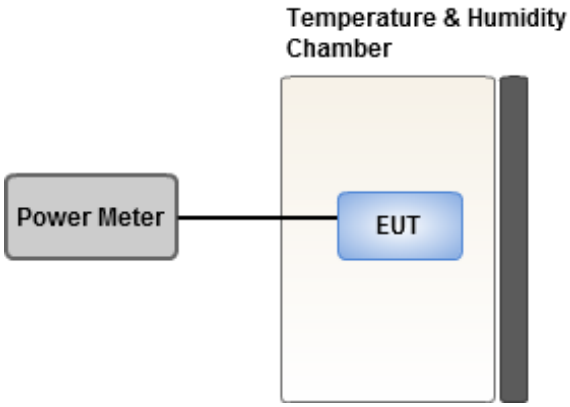
3.1.1 Limit of RF Output Power (EIRP)

The maximum RF output power (EIRP) shall be 20 dBm.

3.1.2 Test Procedures

Reference to clause 5.4.2.2 of ETSI EN 300 328 V2.2.2 (2019-07).

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	25°C / 65%	**Tested By**	Ryan Lee

Refer to Appendix A.

3.2 Power Spectral Density

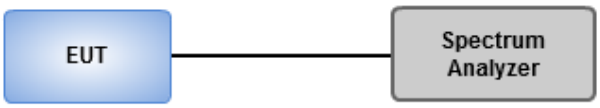
3.2.1 Limit of Power Spectral Density

The maximum Power Spectral Density is limited to 10 dBm per MHz.

3.2.2 Test Procedures

Reference to clause 5.4.3.2 of ETSI EN 300 328 V2.2.2 (2019-07).

3.2.3 Test Setup



3.2.4 Test Results

Ambient Condition	25°C / 65%	**Tested By**	Ryan Lee

Refer to Appendix B.

3.3 Occupied Channel Bandwidth

3.3.1 Limit of Occupied Channel Bandwidth

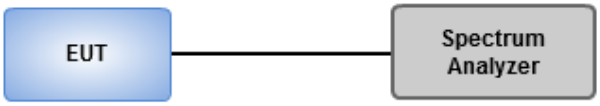
The Occupied Channel Bandwidth shall fall completely within 2.4~2.4835 GHz.

In addition, for non-adaptive equipment using wide band modulations other than FHSS and with e.i.r.p greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

3.3.2 Test Procedures

Reference to clause 5.4.7.2 of ETSI EN 300 328 V2.2.2 (2019-07).

3.3.3 Test Setup



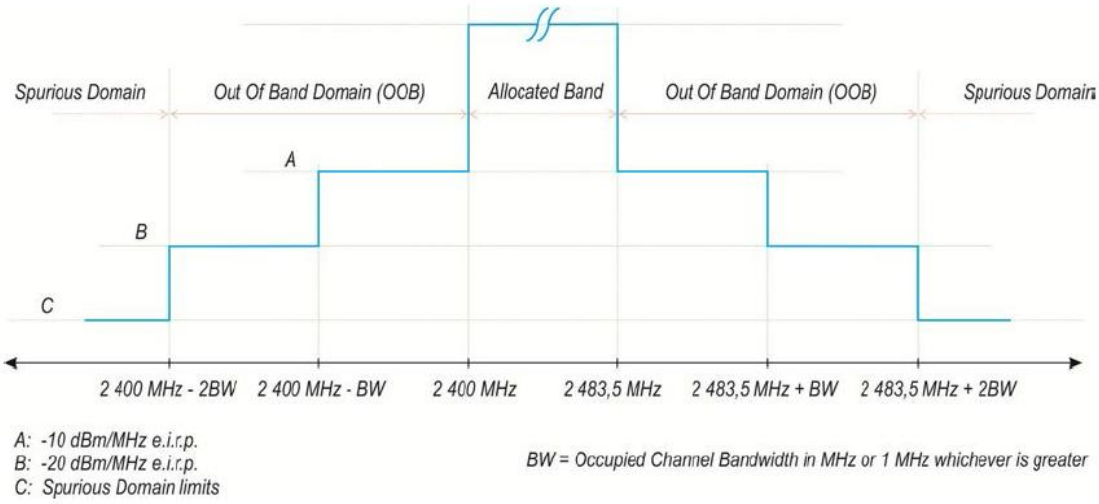
3.3.4 Test Results

Ambient Condition	25°C / 65%	**Tested By**	Ryan Lee

Refer to Appendix C.

3.4 Transmitter Unwanted Emissions in the Out-Of-Band Domain

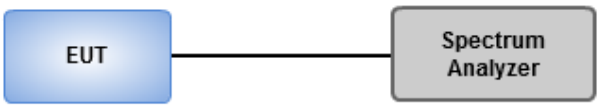
3.4.1 Limit of Transmitter Unwanted Emissions in the Out-Of-Band Domain



3.4.2 Test Procedures

Reference to clause 5.4.8.2 of ETSI EN 300 328 V2.2.2 (2019-07).

3.4.3 Test Setup



3.4.4 Test Results

Ambient Condition	25°C / 65%	**Tested By**	Ryan Lee

Refer to Appendix D.

3.5 Transmitter Unwanted Emissions in the Spurious Domain

3.5.1 Limit of Transmitter Unwanted Emissions in the Spurious Domain

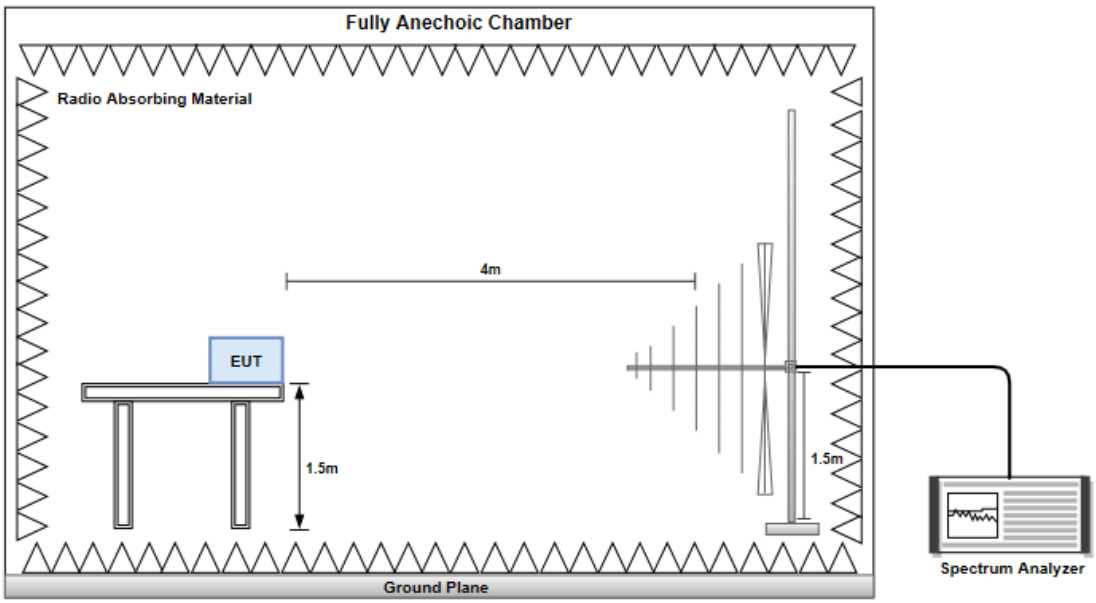
Frequency Range (MHz)	Maximum power (dBm)	Bandwidth (kHz)
30 to 47	-36	100
47 to 74	-54	100
74 to 87,5	-36	100
87,5 to 118	-54	100
118 to 174	-36	100
174 to 230	-54	100
230 to 470	-36	100
470 to 694	-54	100
694 to 1000	-36	100
1000 to 12750	-30	1000

3.5.2 Test Procedures

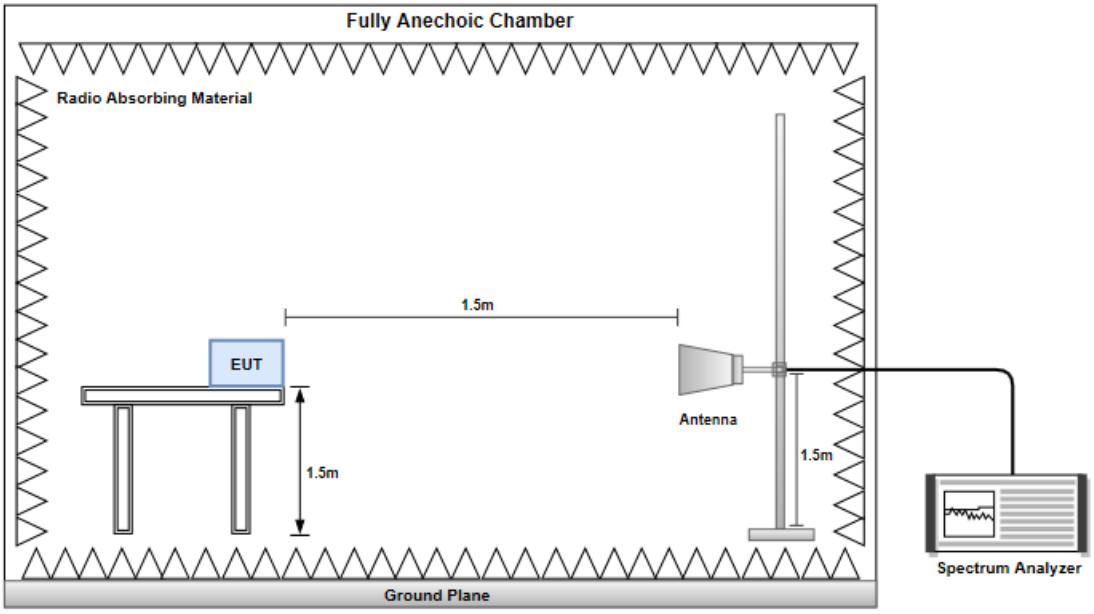
Reference to clause 5.4.9.2 of ETSI EN 300 328 V2.2.2 (2019-07).

3.5.3 Test Setup

Below 1GHz



Above 1 GHz



3.5.4 Test Results

Refer to Appendix E.

4 Receiver Test Results

4.1 Receiver Spurious Emissions

4.1.1 Limit of Receiver Spurious Emissions

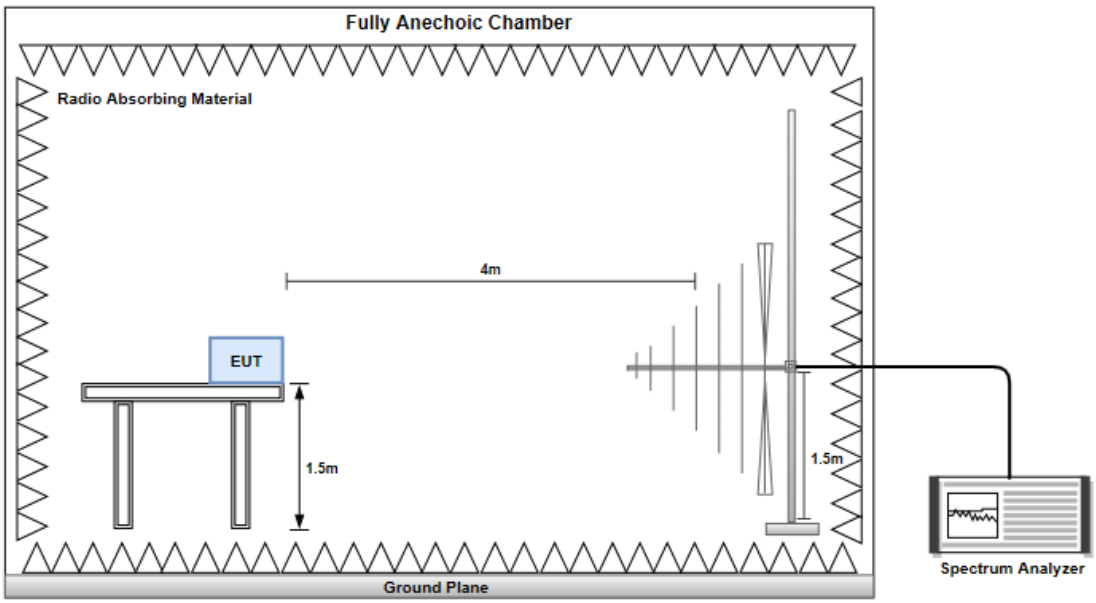
Frequency Range	Maximum power (dBm)	Measurement bandwidth (kHz)
30 MHz to 1 GHz	-57	100
Above 1 GHz to 12,75 GHz	-47	1000

4.1.2 Test Procedures

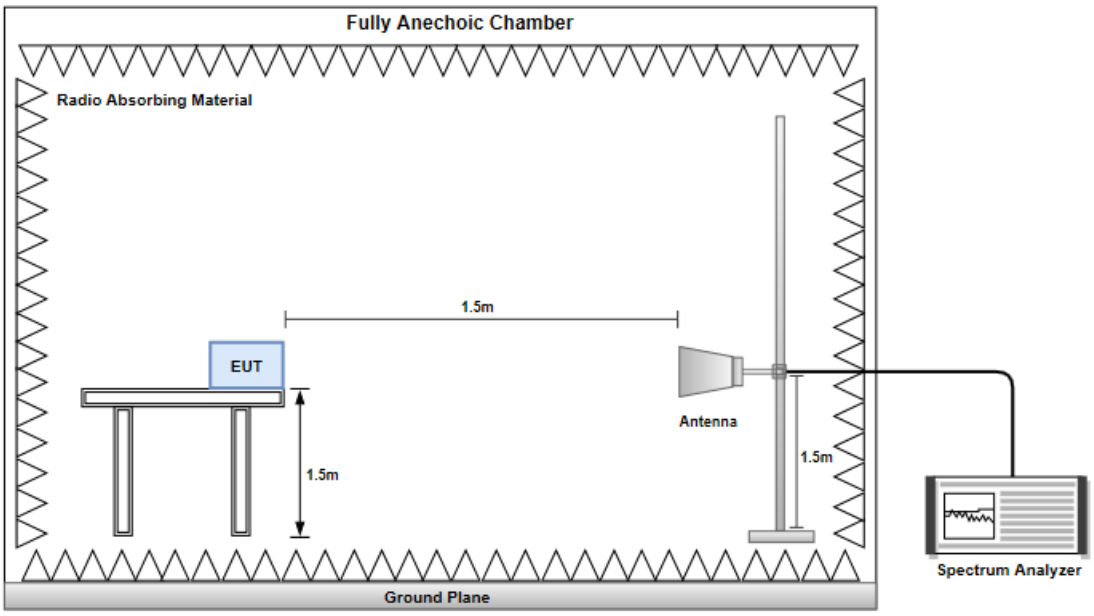
Reference to clause 5.4.10.2 of ETSI EN 300 328 V2.2.2 (2019-07).

4.1.3 Test Setup

Below 1GHz



Above 1 GHz



4.1.4 Test Results

Refer to Appendix F.

5 Adaptivity Test Results

5.1 Adaptivity and Unwanted Signal Parameters

5.1.1 Limit of Adaptivity and Unwanted Signal Parameters

Adaptivity and Unwanted Signal Limit	
☒	Only for adaptive systems and RF Output Power > 10 dBm
☐	Non-LBT based Detect and Avoid: ◆ minimum remain unavailable = 1sec; ◆ minimum Idle Period time = 100us; ◆ maximum Channel Occupancy Time (COT) = 40ms ◆ detection threshold level = -70 dBm/MHz + 10 x $\log_{10}$(100mW / Pout) (Pout in mW e.i.r.p);
☐	LBT based Detect and Avoid (Frame Based Equipment): ◆ minimum Clear Channel Assessment (CCA) time = 18 us; ◆ COT = 1 ms to 10 ms ◆ Idle Period = 5% of COT ◆ detection threshold level = -70 dBm/MHz + 10 x $\log_{10}$(100mW / Pout) (Pout in mW e.i.r.p);
☒	LBT based Detect and Avoid (Load Based Equipment with spectrum sharing mechanism IEEE Std.): ◆ LBT based spectrum sharing mechanism may implement IEEE 802.11™-2012 [i.3] clause 9, clause 10, clause 16,clause 17, clause 19 and clause 20, or in IEEE 802.15.4™-2011 [i.4], clause 4, clause 5 and clause 8 ◆ detection threshold level = -70 dBm/MHz + 10 x $\log_{10}$(100mW / Pout) (Pout in mW e.i.r.p);
☒	Short Control Signalling Transmissions: ◆ Short Control Signalling Transmissions shall have a maximum duty cycle of 10 % within an observation period of 50 ms.

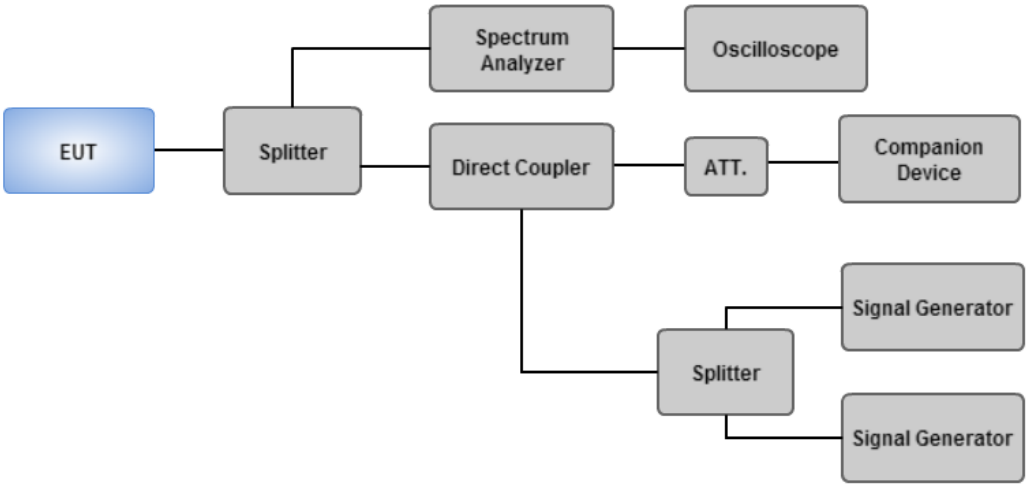
Unwanted Signal Parameters			
Equipment Type	**Wanted Signal Mean Power from Companion Device**	**Unwanted signal frequency (MHz)**	**Unwanted CW signal power (dBm)**
non-FHSS using LBT	sufficient to maintain the link (see note 3)	2395 or 2488,5 (see note 1)	-35 (see note 2)
non-FHSS using DAA	-30 dBm(see note 2)		

Note 1: The highest frequency shall be used for testing operating channels within the range 2 400 MHz to 2 442MHz, while the lowest frequency shall be used fortesting operating channels within the range 2 442 MHz to 2 483,5 MHz.
Note 2: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density in front of the UUT antenna
Note 3: A typical conducted value which can be used in most cases is -50 dBm/MHz

5.1.2 Test Procedures

Reference to clause 5.4.6.2 of ETSI EN 300 328 V2.2.2 (2019-07).

5.1.3 Test Setup



5.1.4 Test Results

Ambient Condition	25°C / 64%	**Tested By**	Jack Li

Refer to Appendix G.

6 Receiver Blocking Test Results

6.1 Receiver Blocking

6.1.1 Limit of Receiver Blocking

Receiver Blocking Parameters for Receiver Category 1 Equipment Limit			
Wanted Signal Mean Power from Companion Device (dBm) (see notes 1 and 4)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see note 4)**	**Type of Blocking Signal**
(-133 dBm + 10 × log10(OCBW)) or -68 dBm whichever is less (see note 2)	2 380 2 504	-34	CW
(-139 dBm + 10 × log10(OCBW)) or -74 dBm whichever is less (see note 3)	2 300 2 330 2 360 2 524 2 584 2 674		

Note 1: OCBW is in Hz.
Note 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 26 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.
Note 3: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 20 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.
Note 4: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned.

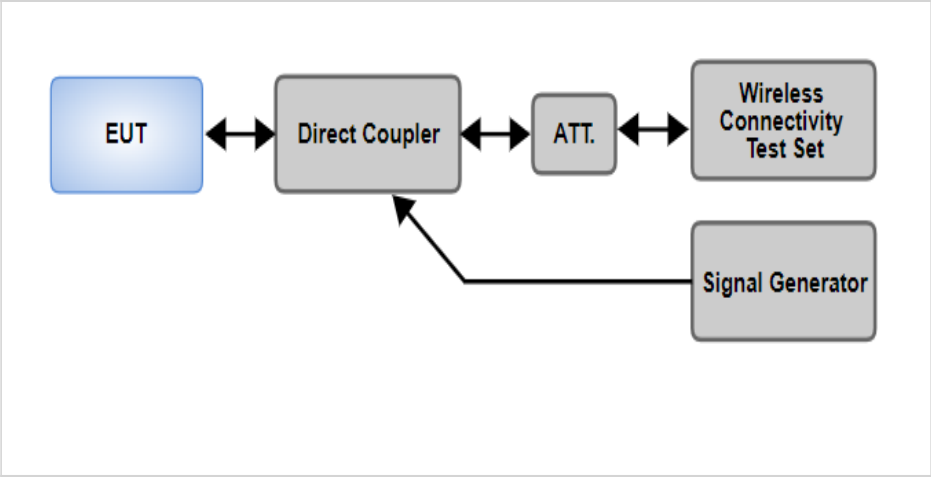
Receiver Blocking Parameters for Receiver Category 2 Equipment Limit			
Wanted Signal Mean Power from Companion Device (dBm) (see notes 1 and 3)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see note 3)**	**Type of Blocking Signal**
(-139 dBm + 10 × log10(OCBW) + 10 dB) or (-74 dBm + 10 dB) whichever is less (see note 2)	2 380 2 504 2 300 2 584	-34	CW
Note 1: OCBW is in Hz. Note 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 26 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. Note 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned.			

Receiver Blocking Parameters for Receiver Category 3 Equipment Limit			
Wanted Signal Mean Power from Companion Device (dBm) (see notes 1 and 3)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see note 3)**	**Type of Blocking Signal**
(-139 dBm + 10 × log10(OCBW) + 20 dB) or (-74 dBm + 20 dB) whichever is less	2 380 2 504 2 300 2 584	-34	CW
Note 1: OCBW is in Hz. Note 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative the test may be performed using a wanted signal up to P_{min} + 30 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal Note 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned.			

6.1.2 Test Procedures

Reference to clause 5.4.11.2 of ETSI EN 300 328 V2.2.2 (2019-07).

6.1.3 Test Setup



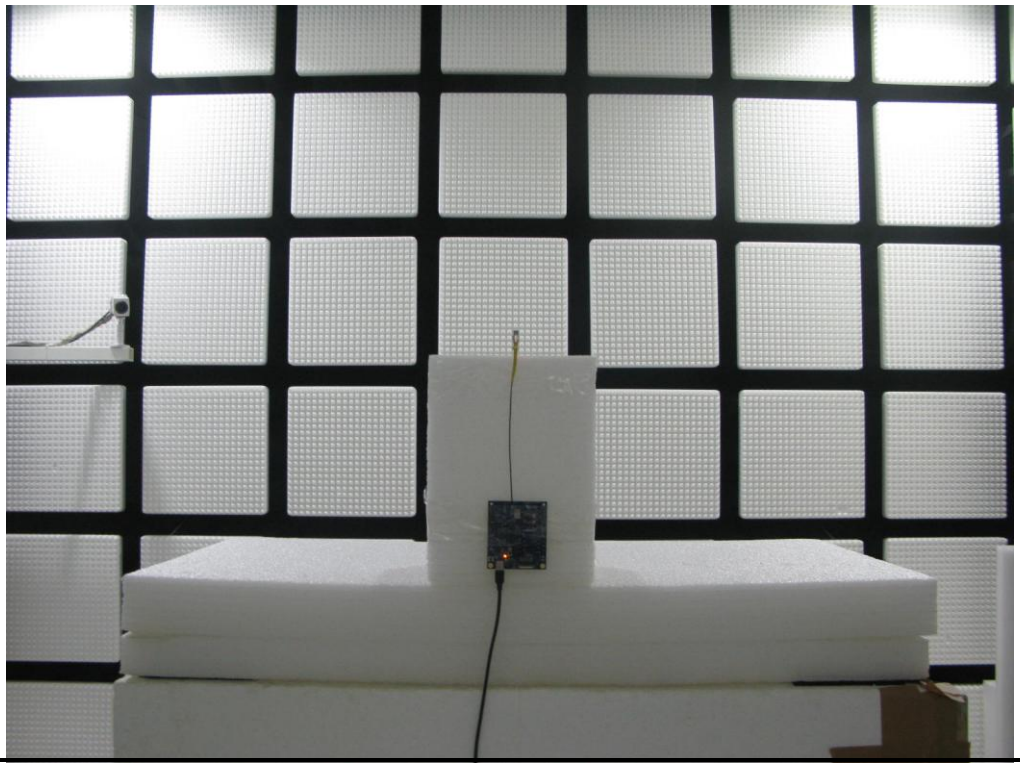
6.1.4 Test Results

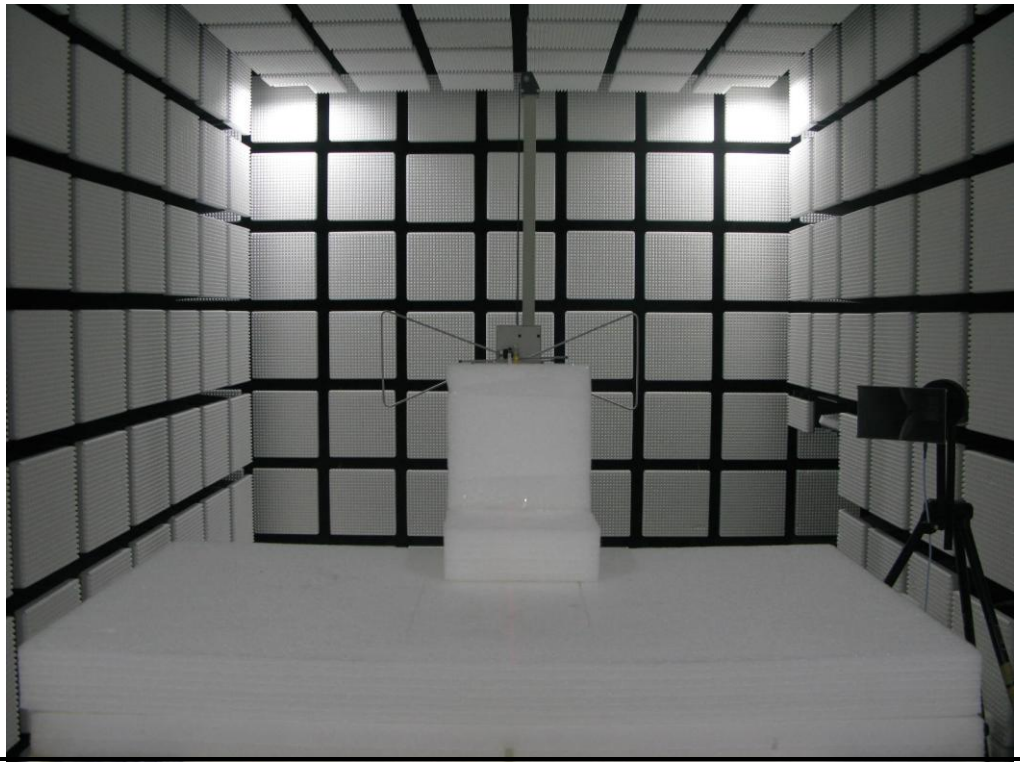
Ambient Condition	25°C / 65%	**Tested By**	Jack Li

Refer to Appendix H.

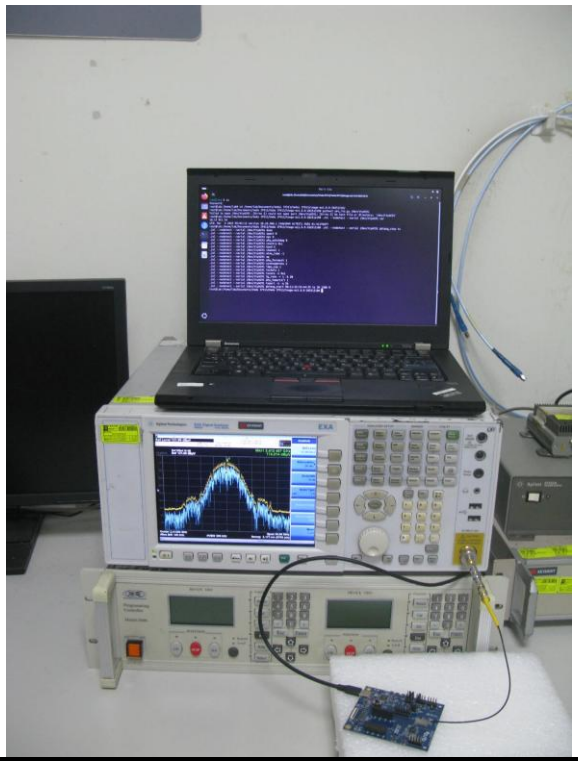
7 Photographs of the Test Configuration

Spurious Emission Test (Radiated Test)

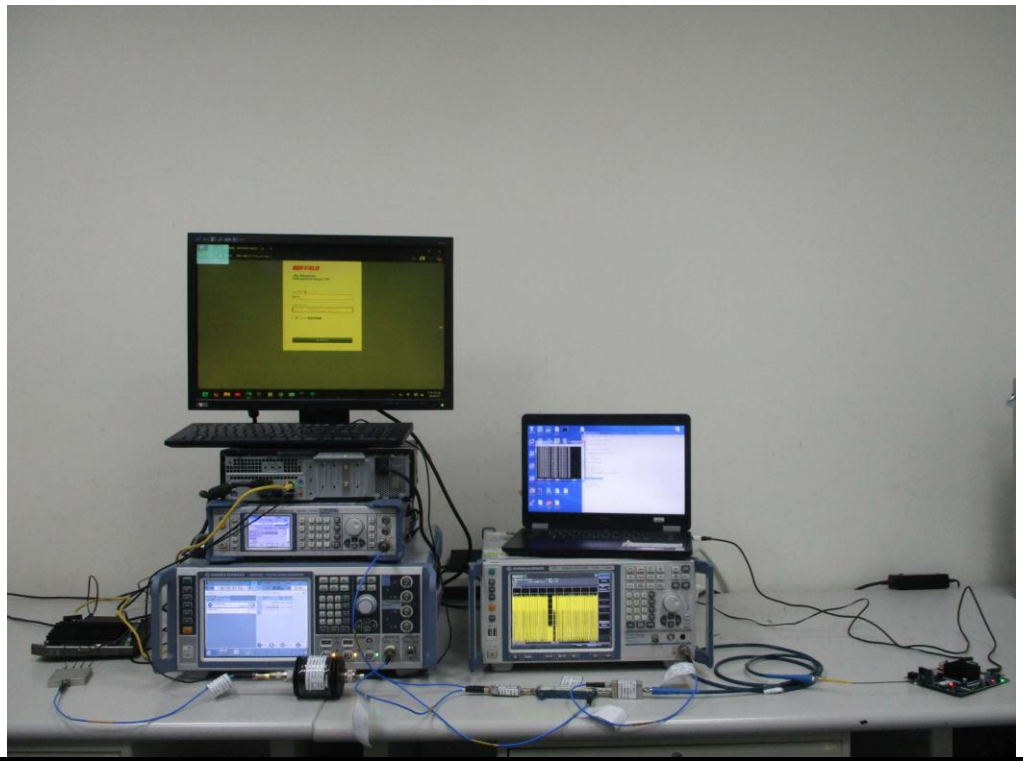




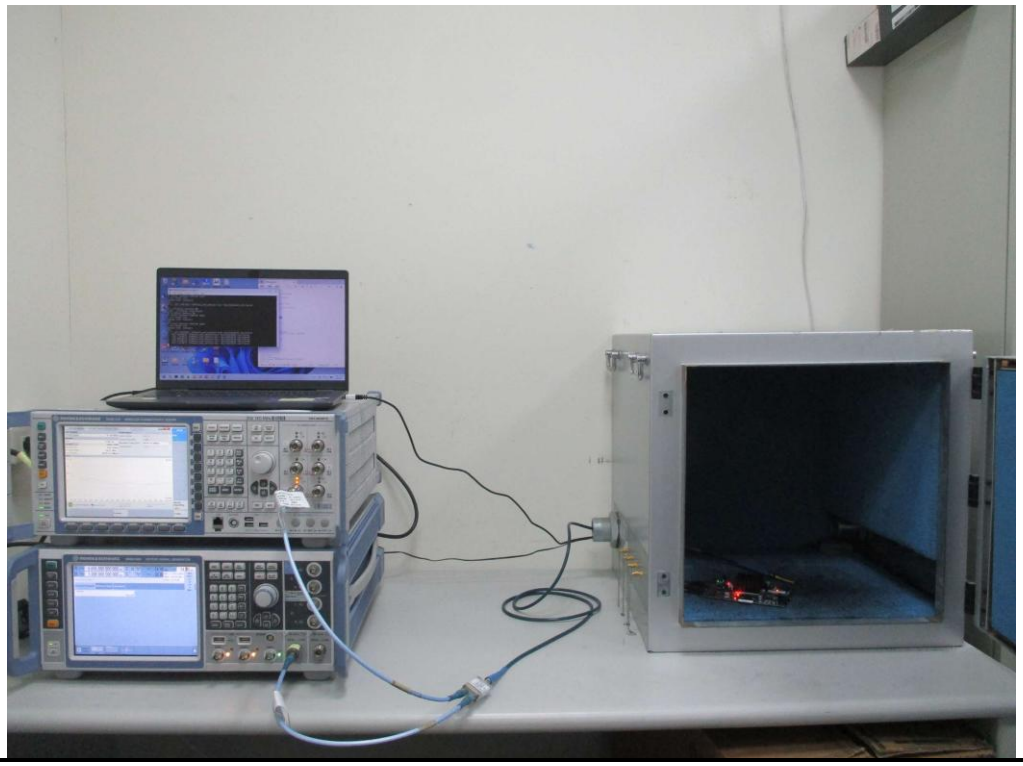
Spurious Emission Test (Conducted Test)



Adaptivity, Unwanted Signal and Short Control Signalling Transmissions Test



Receiver Blocking Test



8 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website https://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Zhonghe

Tel: 886-2-2222-0288

1F, No. 6, Jiankang Road, Zhonghe District, New Taipei City 235045, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

═END═

full RU configuration

Condition	Freq. (MHz)	EIRP Power (dBm)			Limit (dBm)	Results
		11b	11g	ax HE20-OFDMA		
$T_{nom}V_{nom}$	2412	17.58	19.14	19.10	20	Pass
$T_{min}V_{nom}$	2412	17.39	18.93	18.87	20	Pass
$T_{max}V_{nom}$	2412	17.72	19.62	19.51	20	Pass
$T_{nom}V_{nom}$	2442	17.49	19.02	18.84	20	Pass
$T_{min}V_{nom}$	2442	17.25	18.56	18.52	20	Pass
$T_{max}V_{nom}$	2442	17.63	19.25	19.28	20	Pass
$T_{nom}V_{nom}$	2472	17.37	19.09	18.87	20	Pass
$T_{min}V_{nom}$	2472	17.12	18.74	18.44	20	Pass
$T_{max}V_{nom}$	2472	17.50	19.52	19.30	20	Pass

Note:
1) Test method is conducted.
2) EIRP = Measured conducted power + Antenna gain. (2.5dBi)

partial RU configuration

Condition	Freq. (MHz)	EIRP Power (dBm) ax HE20-OFDMA			Limit (dBm)	Results
		RU26	RU52	RU106		
$T_{nom}V_{nom}$	2412	12.97	15.92	18.72	20	Pass
$T_{min}V_{nom}$	2412	13.06	15.77	18.47	20	Pass
$T_{max}V_{nom}$	2412	13.16	16.17	18.94	20	Pass
$T_{nom}V_{nom}$	2442	13.05	15.95	18.59	20	Pass
$T_{min}V_{nom}$	2442	12.89	15.73	18.19	20	Pass
$T_{max}V_{nom}$	2442	13.12	16.18	18.87	20	Pass
$T_{nom}V_{nom}$	2472	12.88	15.76	18.59	20	Pass
$T_{min}V_{nom}$	2472	12.79	15.46	18.31	20	Pass
$T_{max}V_{nom}$	2472	13.19	16.00	18.71	20	Pass

Note:
1) Test method is conducted.
2) EIRP = Measured conducted power + Antenna gain. (2.5dBi)

full RU configuration

Summary

Mode	EIRP PD (dBm/MHz)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	9.93
802.11g_Nss1,(6Mbps)_1TX	8.95
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	8.41

RBW=1MHz

Result

Mode	Result	Gain (dBi)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	7.39	9.89	10.00
2442MHz_Tnom	Pass	2.50	7.43	9.93	10.00
2472MHz_Tnom	Pass	2.50	7.21	9.71	10.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	6.45	8.95	10.00
2442MHz_Tnom	Pass	2.50	6.31	8.81	10.00
2472MHz_Tnom	Pass	2.50	6.36	8.86	10.00
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	5.91	8.41	10.00
2442MHz_Tnom	Pass	2.50	5.66	8.16	10.00
2472MHz_Tnom	Pass	2.50	5.72	8.22	10.00

RBW=1MHz;

partial RU configuration

Summary

Mode	EIRP PD (dBm/MHz)
2.4-2.4835GHz	-
802.11ax HEW20 OFDMA RU106 Index53_Nss1,(MCS0)_1TX	9.93
802.11ax HEW20 OFDMA RU26 Index3_Nss1,(MCS0)_1TX	9.99
802.11ax HEW20 OFDMA RU52 Index38_Nss1,(MCS0)_1TX	9.95

RBW=1MHz

Result

Mode	Result	Gain (dBi)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
802.11ax HEW20 OFDMA RU26 Index3_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	7.42	9.92	10.00
2442MHz_Tnom	Pass	2.50	7.49	9.99	10.00
2472MHz_Tnom	Pass	2.50	7.34	9.84	10.00
802.11ax HEW20 OFDMA RU52 Index38_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	7.42	9.92	10.00
2442MHz_Tnom	Pass	2.50	7.45	9.95	10.00
2472MHz_Tnom	Pass	2.50	7.31	9.81	10.00
802.11ax HEW20 OFDMA RU106 Index53_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.50	7.43	9.93	10.00
2442MHz_Tnom	Pass	2.50	7.37	9.87	10.00
2472MHz_Tnom	Pass	2.50	7.30	9.80	10.00

RBW=1MHz;

Summary

Mode	OBW (Hz)	ITU-Code
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	11.411M	11M4G1D
802.11g_Nss1,(6Mbps)_1TX	16.601M	16M6D1D
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	19.027M	19M0D1D

OBW = 99% occupied bandwidth

Result

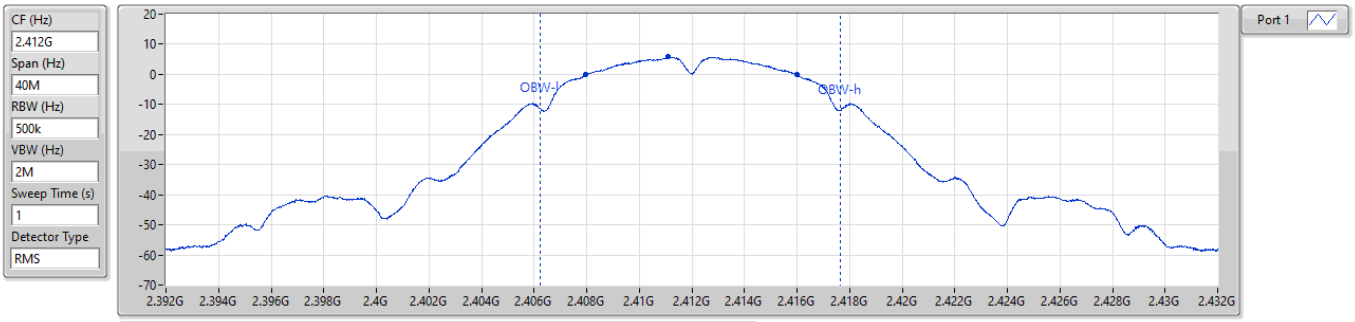
Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.406247G	2.417654G	11.407M
2442MHz_Tnom	Pass	2.4-2.4835G	2.436238G	2.447648G	11.411M
2472MHz_Tnom	Pass	2.4-2.4835G	2.466288G	2.477598G	11.31M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.403685G	2.420285G	16.6M
2442MHz_Tnom	Pass	2.4-2.4835G	2.433681G	2.450282G	16.601M
2472MHz_Tnom	Pass	2.4-2.4835G	2.463681G	2.480282G	16.601M
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.402474G	2.421498G	19.025M
2442MHz_Tnom	Pass	2.4-2.4835G	2.432471G	2.451497G	19.027M
2472MHz_Tnom	Pass	2.4-2.4835G	2.462477G	2.481497G	19.02M

fl-OBW = fl lower edge 99% occupied bandwidth; fh-OBW = fh higher edge 99% occupied bandwidth; OBW = 99% occupied bandwidth;
N dB = 6dB down bandwidth

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX **EBW**

2412MHz

28/01/2026

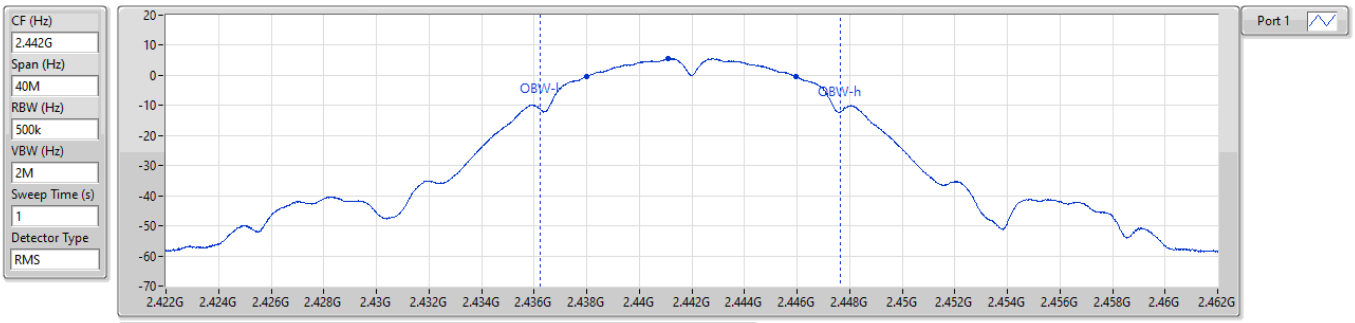


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.06M	2.40794G	2.416G	11.407M	2.406247G	2.417654G	2.4-2.4835G	1

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX **EBW**

2442MHz

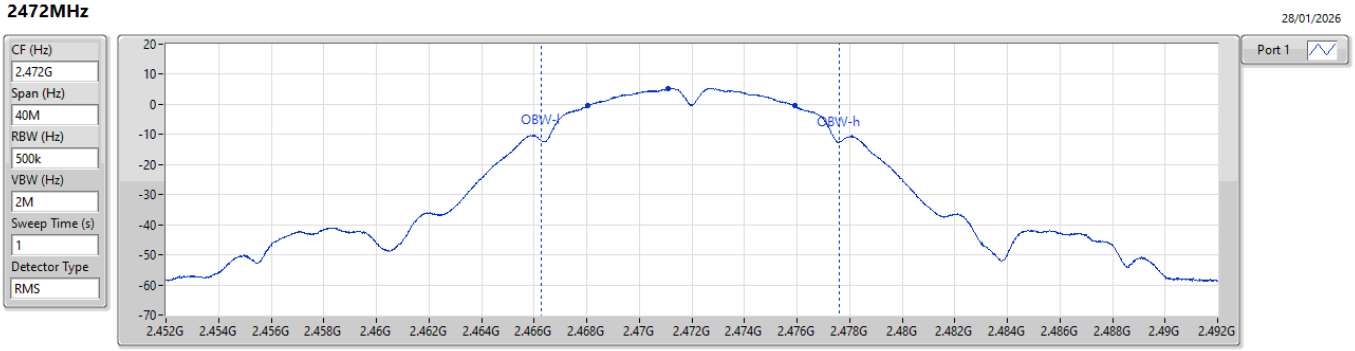
28/01/2026



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.96M	2.43798G	2.44594G	11.411M	2.436238G	2.447648G	2.4-2.4835G	1

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX **EBW**

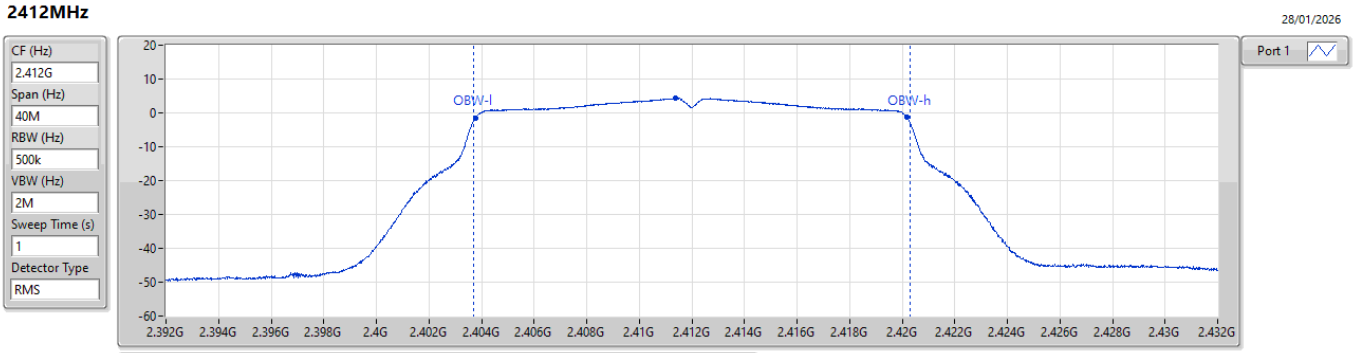
2472MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.86M	2.46804G	2.4759G	11.31M	2.466288G	2.477598G	2.4-2.4835G	1

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX **EBW**

2412MHz

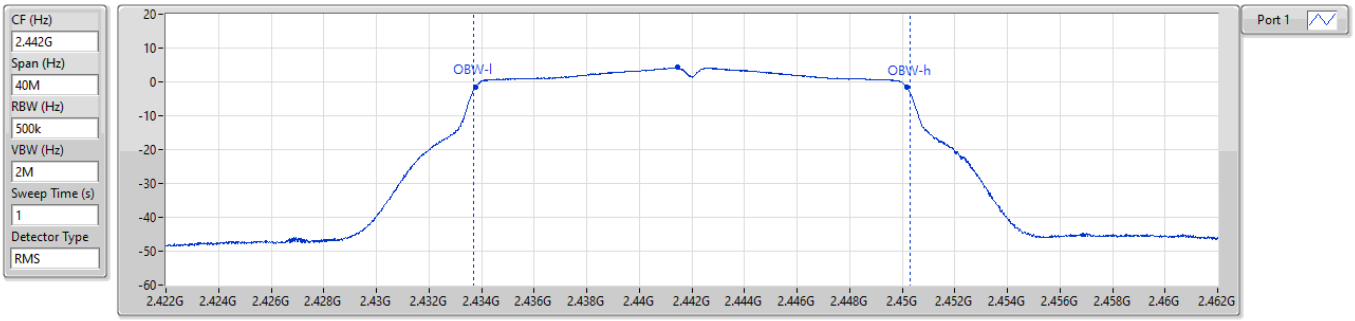


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.44M	2.40376G	2.4202G	16.6M	2.403685G	2.420285G	2.4-2.4835G	1

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX **EBW**

2442MHz

28/01/2026

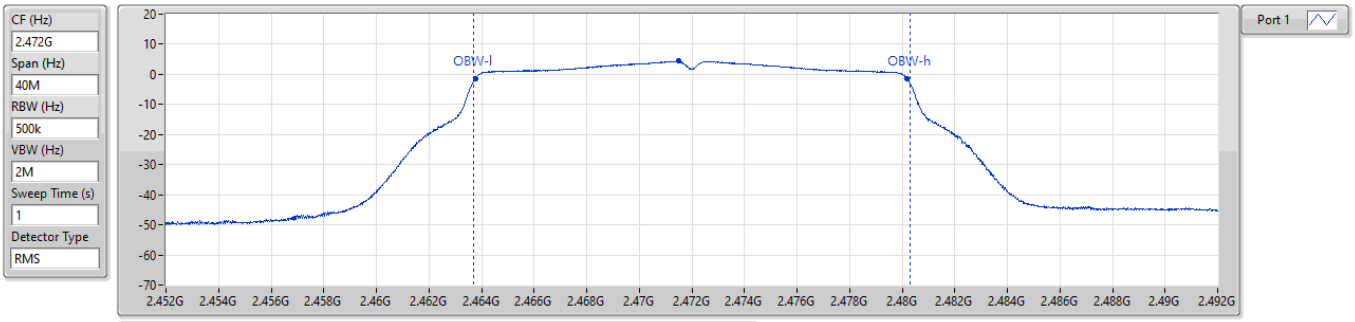


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.44M	2.43376G	2.4502G	16.601M	2.433681G	2.450282G	2.4-2.4835G	1

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX **EBW**

2472MHz

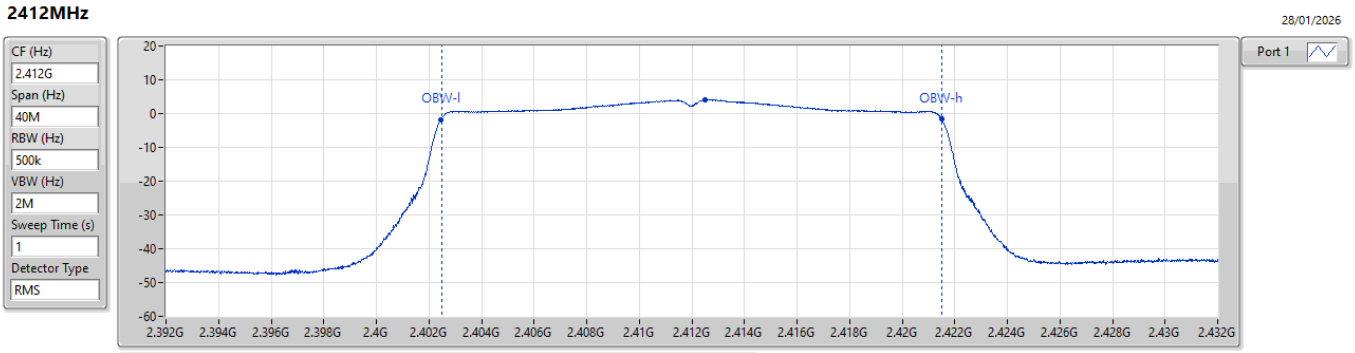
28/01/2026



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.44M	2.46376G	2.4802G	16.601M	2.463681G	2.480282G	2.4-2.4835G	1

2.4-2.4835GHz_802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX **EBW**

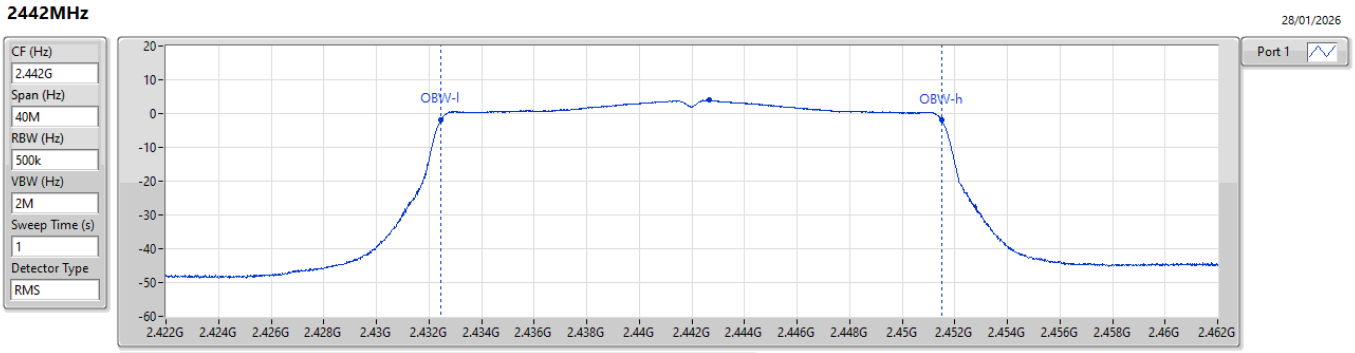
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.04M	2.40246G	2.4215G	19.025M	2.402474G	2.421498G	2.4-2.4835G	1

2.4-2.4835GHz_802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX **EBW**

2442MHz

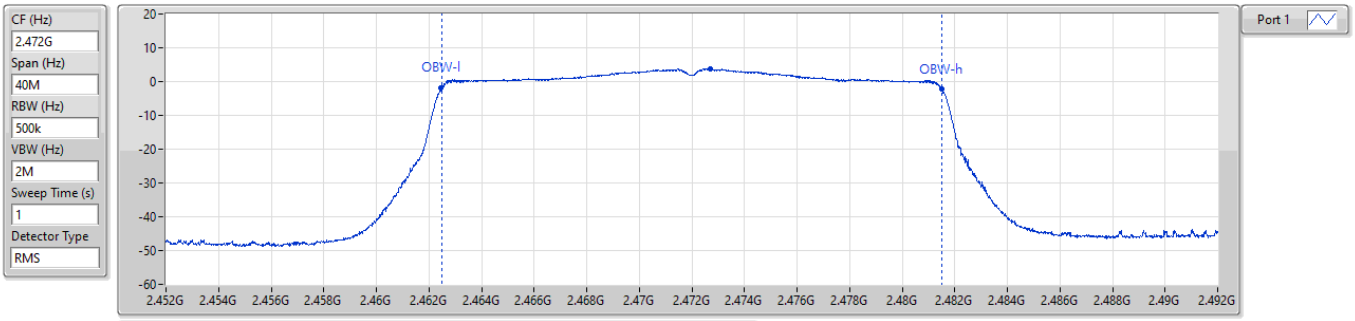


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.08M	2.43244G	2.45152G	19.027M	2.432471G	2.451497G	2.4-2.4835G	1

2.4-2.4835GHz_802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX **EBW**

2472MHz

28/01/2026



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.06M	2.46246G	2.48152G	19.02M	2.462477G	2.481497G	2.4-2.4835G	1

Summary

Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	-31.65	-10	-44.35	-20
802.11g_Nss1,(6Mbps)_1TX	-19.56	-10	-33.98	-20
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	-17.27	-10	-34.73	-20

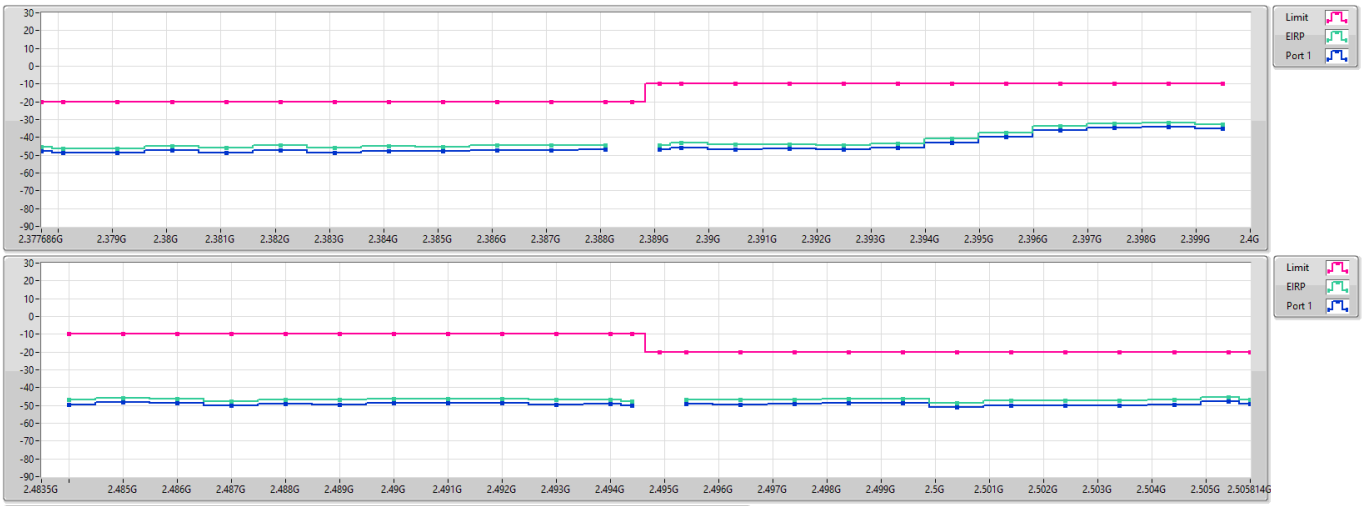
Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.388093G	-44.46	-20	2.3985G	-31.65	-10
2412MHz_Tnom	Pass	2.505407G	-45.44	-20	2.485G	-45.73	-10
2472MHz_Tnom	Pass	2.38319G	-45.34	-20	2.3895G	-45.51	-10
2472MHz_Tnom	Pass	2.49931G	-44.35	-20	2.485G	-32.84	-10
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.3779G	-38.93	-20	2.3975G	-25.92	-10
2412MHz_Tnom	Pass	2.5056G	-45.03	-20	2.484G	-44.21	-10
2472MHz_Tnom	Pass	2.376899G	-44.86	-20	2.3995G	-43.63	-10
2472MHz_Tnom	Pass	2.500601G	-33.98	-20	2.484G	-19.56	-10
802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.378475G	-37.00	-20	2.3995G	-25.45	-10
2412MHz_Tnom	Pass	2.517025G	-45.30	-20	2.486G	-43.97	-10
2472MHz_Tnom	Pass	2.37248G	-44.02	-20	2.3965G	-44.12	-10
2472MHz_Tnom	Pass	2.50302G	-34.73	-20	2.484G	-17.27	-10

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX **MASK-DTS**

2412MHz_Tnom

28/01/2026

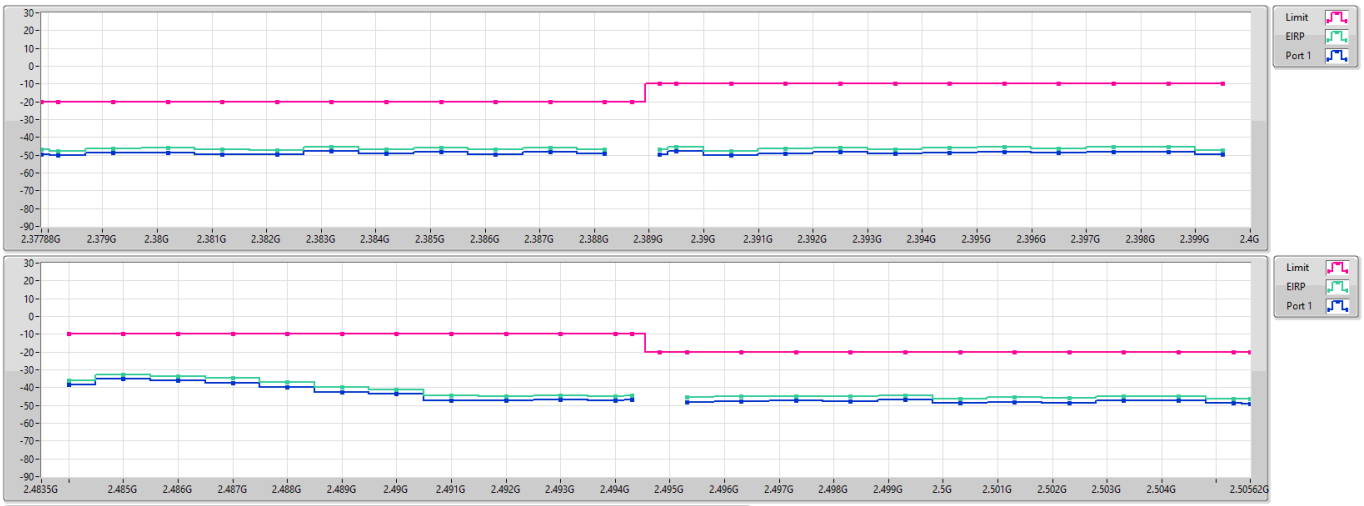


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.388093G	-44.46	-20	2.3985G	-31.65	-10	2.485G	-45.73	-10	2.505407G	-45.44	-20

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX **MASK-DTS**

2472MHz_Tnom

28/01/2026

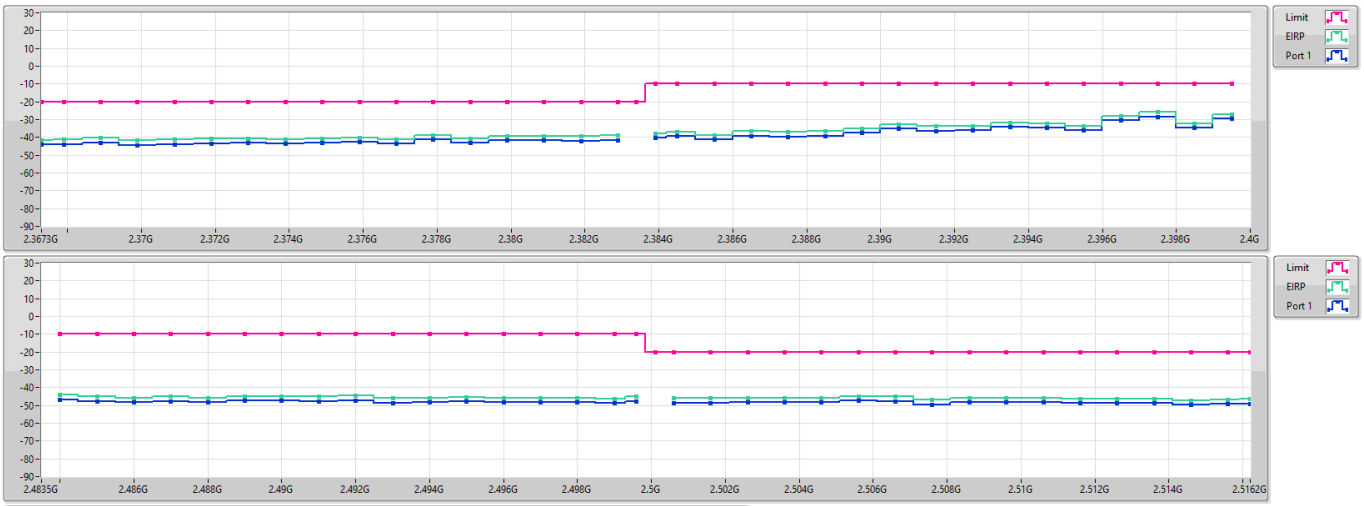


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.38319G	-45.34	-20	2.3895G	-45.51	-10	2.485G	-32.84	-10	2.49931G	-44.35	-20

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX **MASK-DTS**

2412MHz_Tnom

28/01/2026

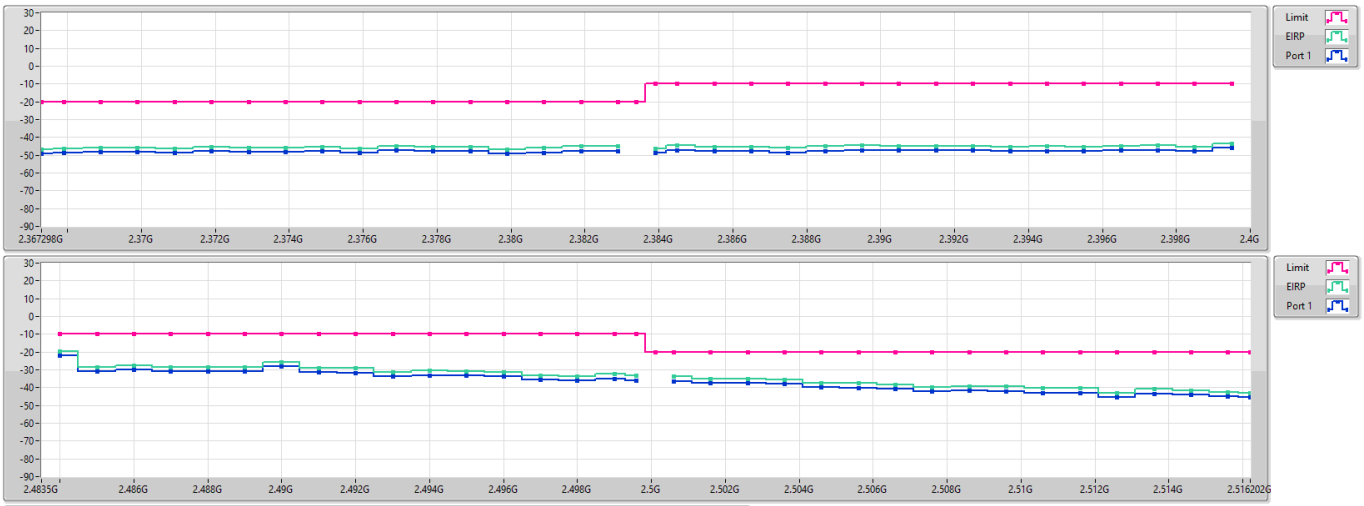


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.3779G	-38.93	-20	2.3975G	-25.92	-10	2.484G	-44.21	-10	2.5056G	-45.03	-20

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX **MASK-DTS**

2472MHz_Tnom

28/01/2026

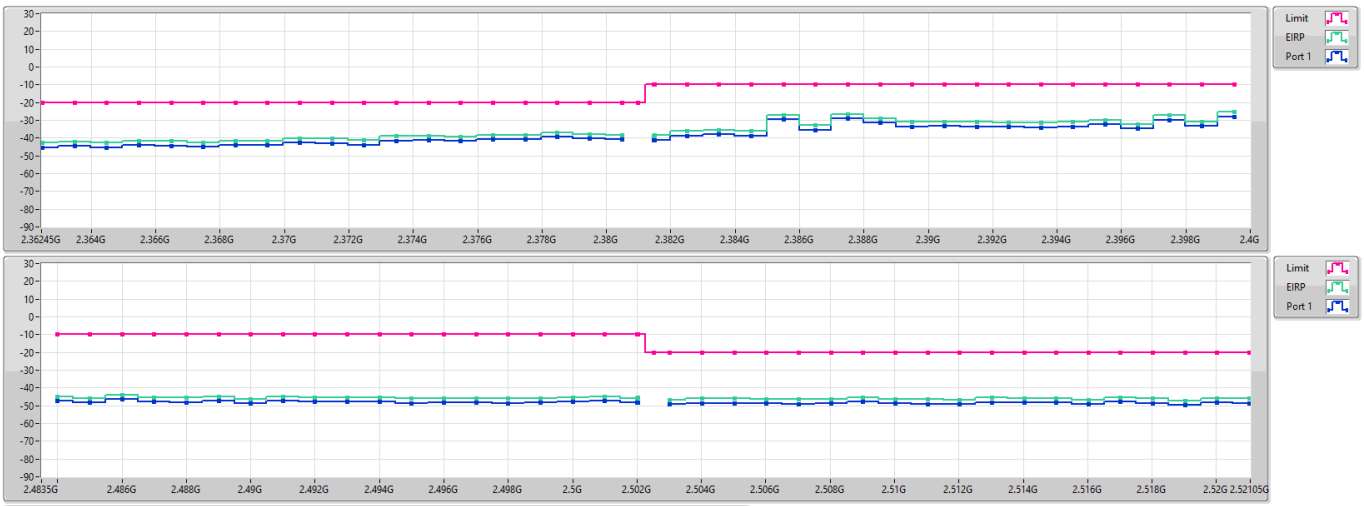


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.376899G	-44.86	-20	2.3995G	-43.63	-10	2.484G	-19.56	-10	2.500601G	-33.98	-20

2.4-2.4835GHz_802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX **MASK-DTS**

2412MHz_Tnom

28/01/2026

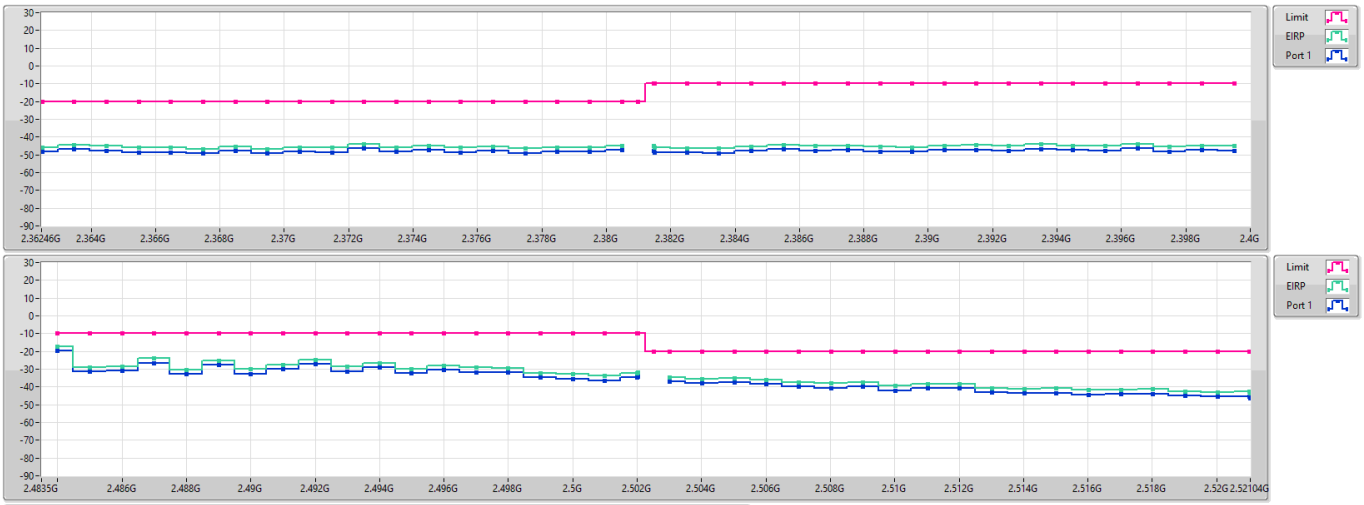


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.378475G	-37.00	-20	2.3995G	-25.45	-10	2.486G	-43.97	-10	2.517025G	-45.30	-20

2.4-2.4835GHz_802.11ax HEW20 OFDMA_Nss1,(MCS0)_1TX **MASK-DTS**

2472MHz_Tnom

28/01/2026



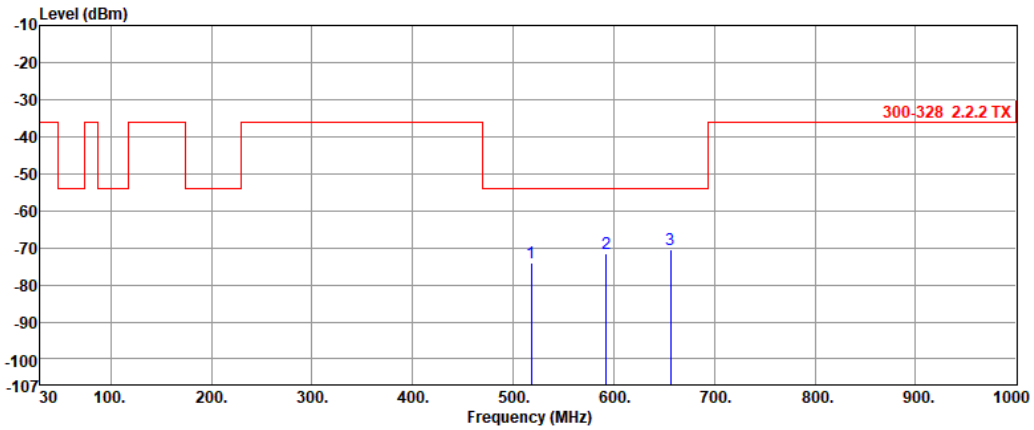
Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.37248G	-44.02	-20	2.3965G	-44.12	-10	2.484G	-17.27	-10	2.50302G	-34.73	-20

full RU configuration

Emissions (Below 1GHz)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

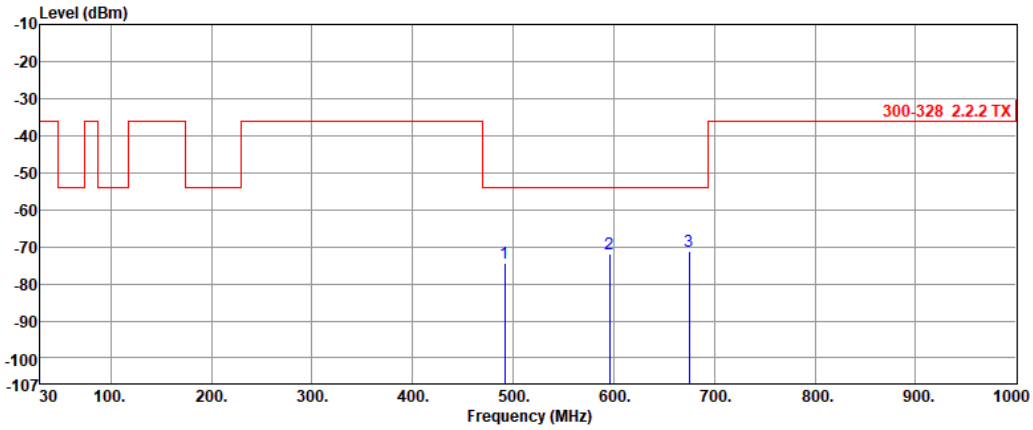


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.91	-73.95	-54.00	-19.95	3.24	-77.19
2	592.60	-71.45	-54.00	-17.45	4.88	-76.33
3	656.62	-70.55	-54.00	-16.55	5.78	-76.33

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

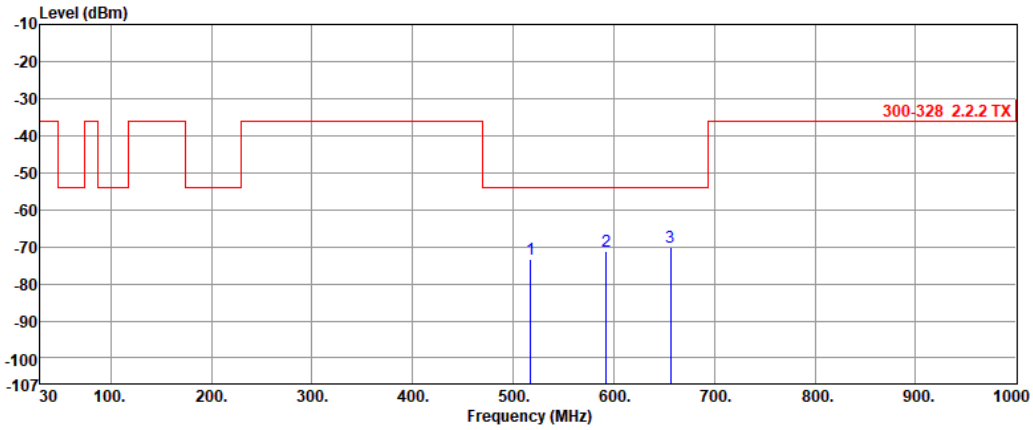


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.72	-74.48	-54.00	-20.48	2.51	-76.99
2	595.51	-72.03	-54.00	-18.03	4.84	-76.87
3	675.05	-71.26	-54.00	-17.26	5.80	-77.06

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

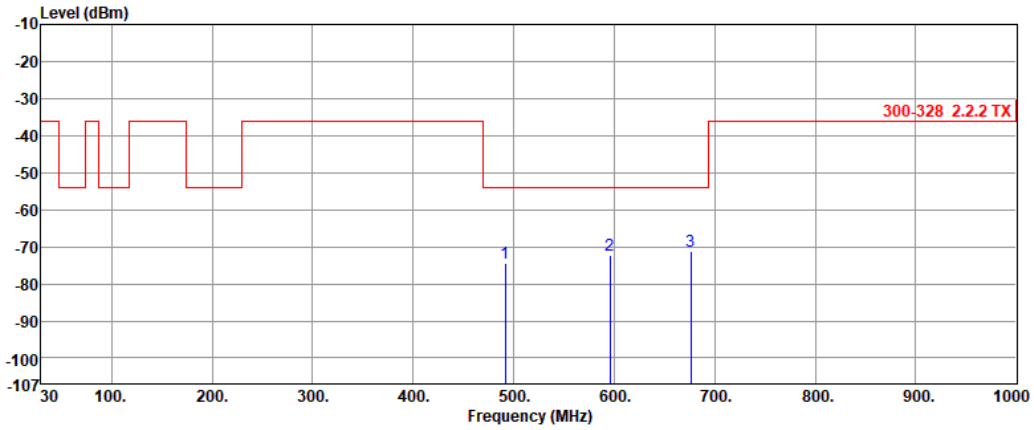


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.00	-73.45	-54.00	-19.45	3.16	-76.61
2	592.65	-71.32	-54.00	-17.32	4.88	-76.20
3	656.25	-70.11	-54.00	-16.11	5.78	-75.89

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

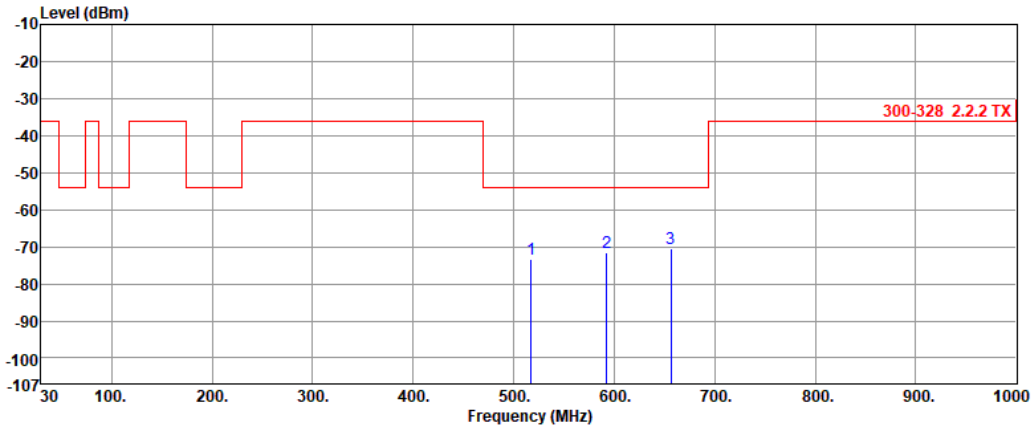


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.52	-74.45	-54.00	-20.45	2.50	-76.95
2	595.51	-72.13	-54.00	-18.13	4.84	-76.97
3	675.90	-71.23	-54.00	-17.23	5.85	-77.08

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

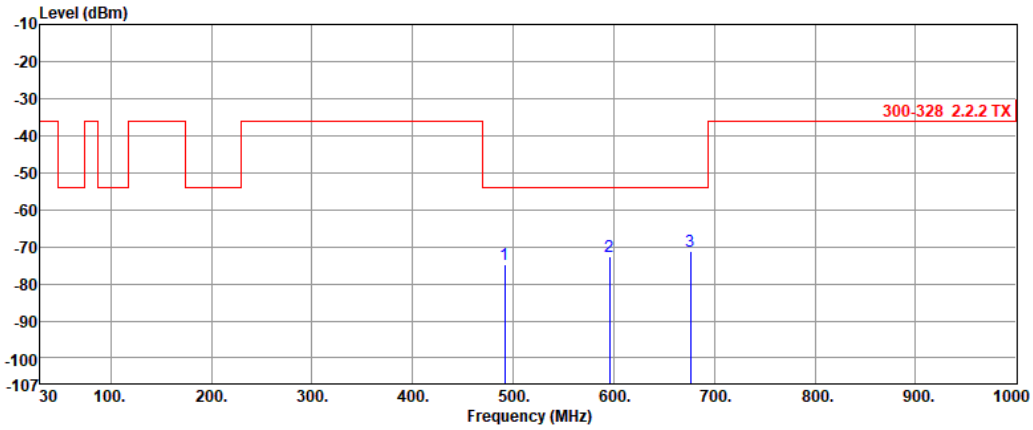


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.32	-73.42	-54.00	-19.42	3.19	-76.61
2	592.52	-71.57	-54.00	-17.57	4.88	-76.45
3	656.35	-70.65	-54.00	-16.65	5.78	-76.43

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

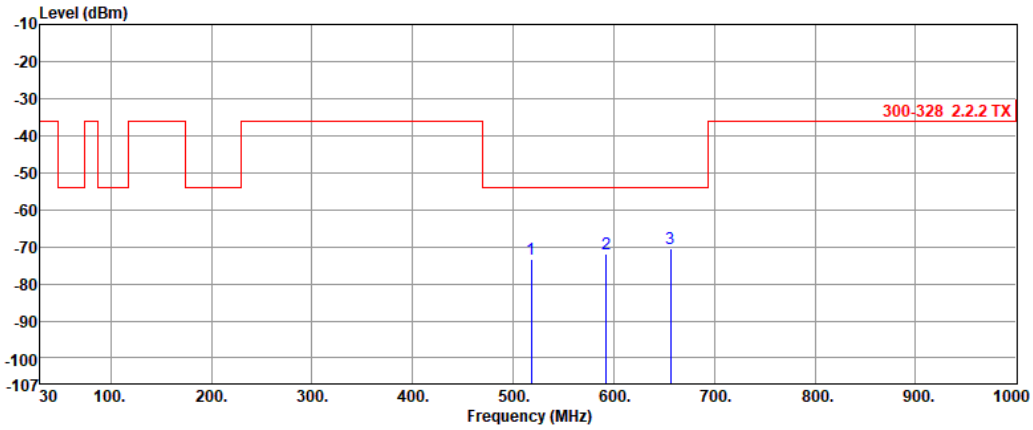


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.34	-74.78	-54.00	-20.78	2.49	-77.27
2	595.45	-72.54	-54.00	-18.54	4.83	-77.37
3	675.90	-71.22	-54.00	-17.22	5.85	-77.07

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

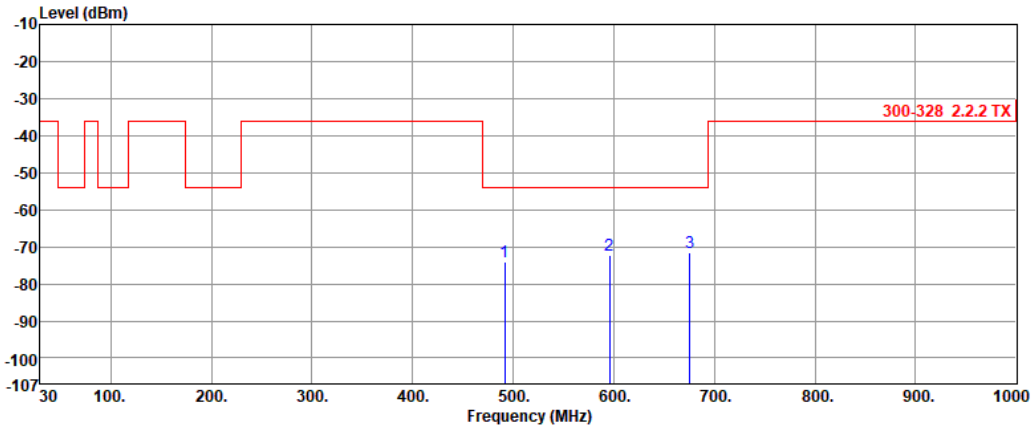


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.65	-73.24	-54.00	-19.24	3.22	-76.46
2	592.24	-71.89	-54.00	-17.89	4.88	-76.77
3	656.54	-70.35	-54.00	-16.35	5.78	-76.13

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



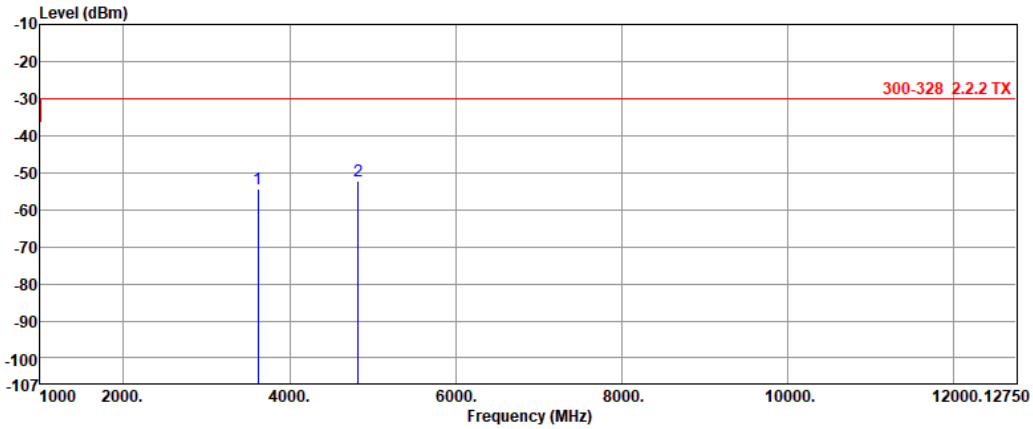
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.65	-74.25	-54.00	-20.25	2.50	-76.75
2	595.54	-72.23	-54.00	-18.23	4.84	-77.07
3	675.58	-71.67	-54.00	-17.67	5.83	-77.50

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for 802.11b

Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

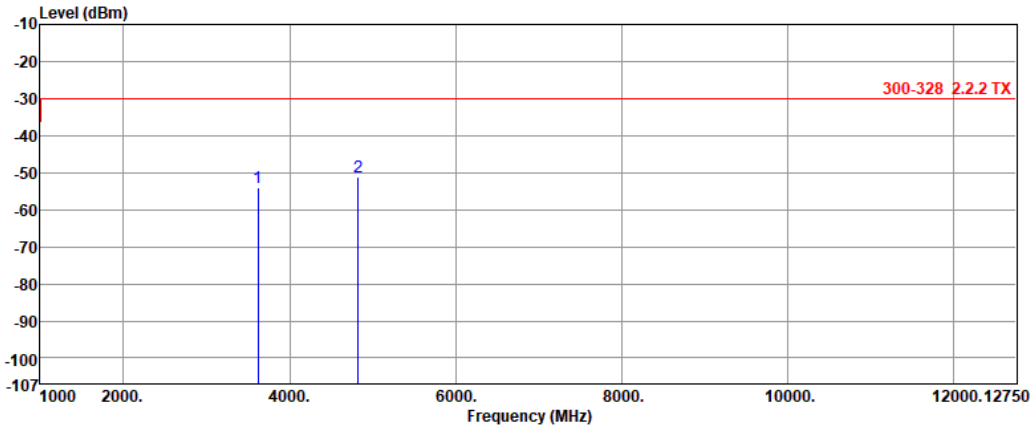


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.89	-54.50	-30.00	-24.50	7.22	-61.72
2	4824.59	-52.28	-30.00	-22.28	10.43	-62.71

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

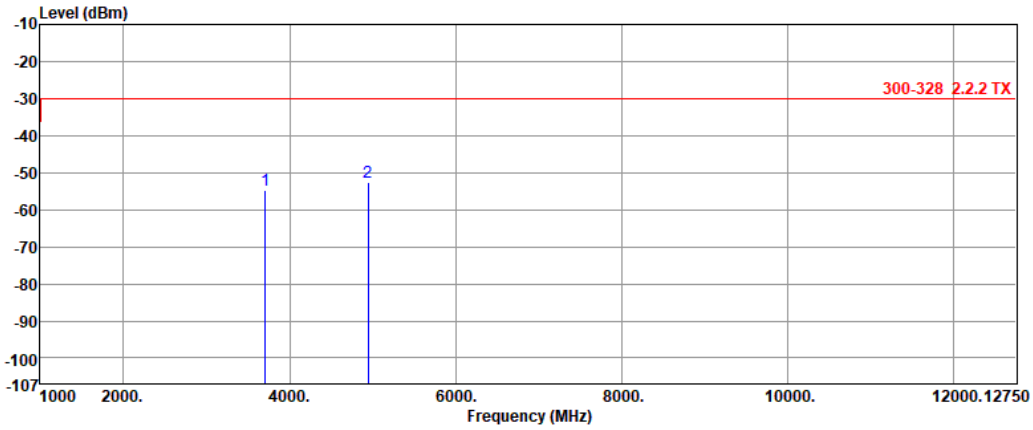


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.25	-54.05	-30.00	-24.05	7.13	-61.18
2	4823.87	-51.09	-30.00	-21.09	11.00	-62.09

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11b	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

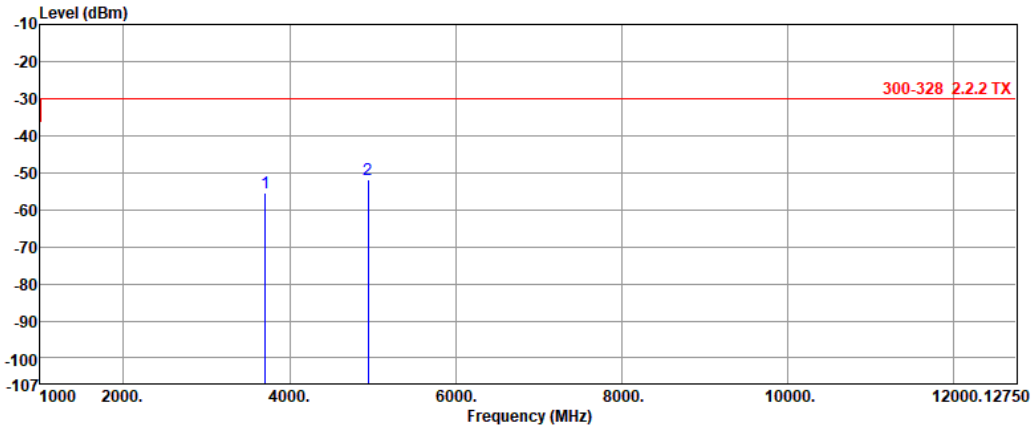


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.53	-54.69	-30.00	-24.69	7.33	-62.02
2	4944.21	-52.61	-30.00	-22.61	11.20	-63.81

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11b	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



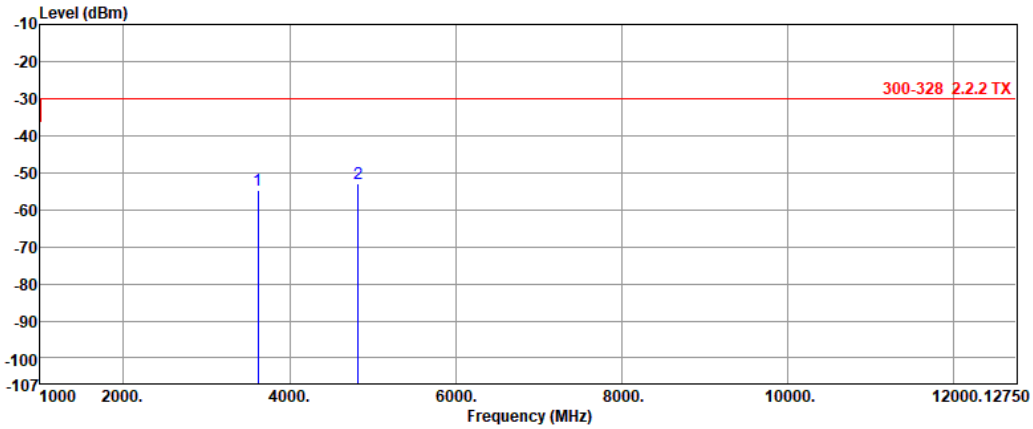
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.64	-55.52	-30.00	-25.52	7.27	-62.79
2	4944.62	-51.91	-30.00	-21.91	11.61	-63.52

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for 802.11g

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

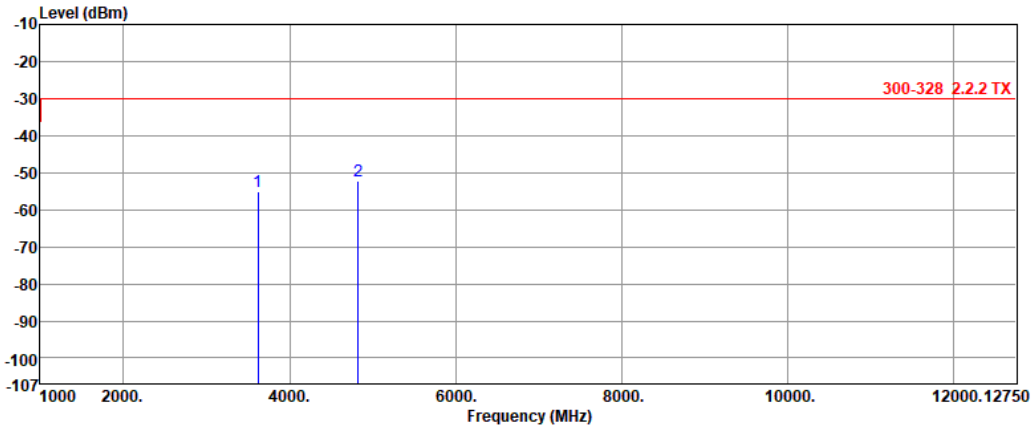


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.86	-54.62	-30.00	-24.62	7.22	-61.84
2	4824.07	-52.85	-30.00	-22.85	10.43	-63.28

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

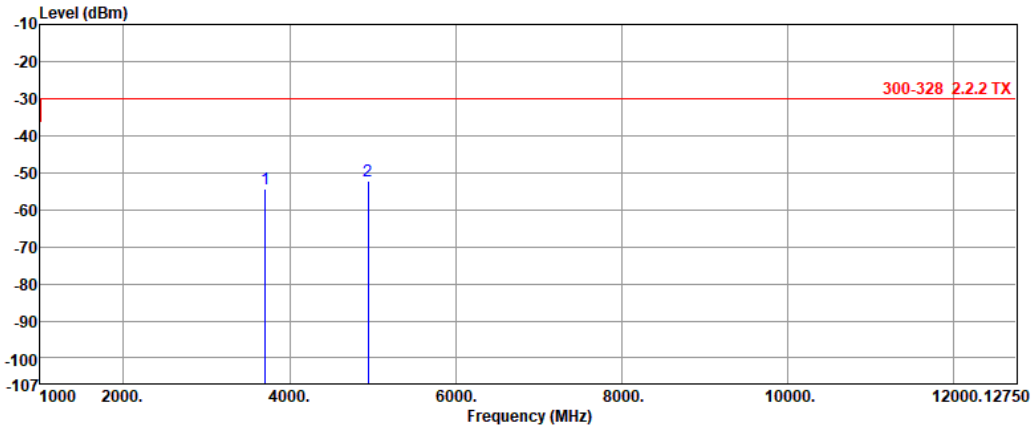


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.42	-55.15	-30.00	-25.15	7.13	-62.28
2	4823.12	-52.30	-30.00	-22.30	11.00	-63.30

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

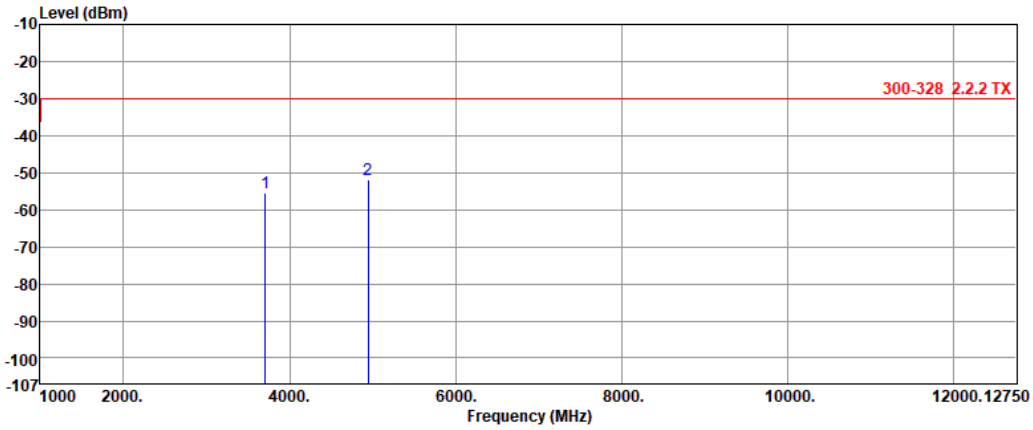


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.97	-54.48	-30.00	-24.48	7.33	-61.81
2	4944.85	-52.41	-30.00	-22.41	11.21	-63.62

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



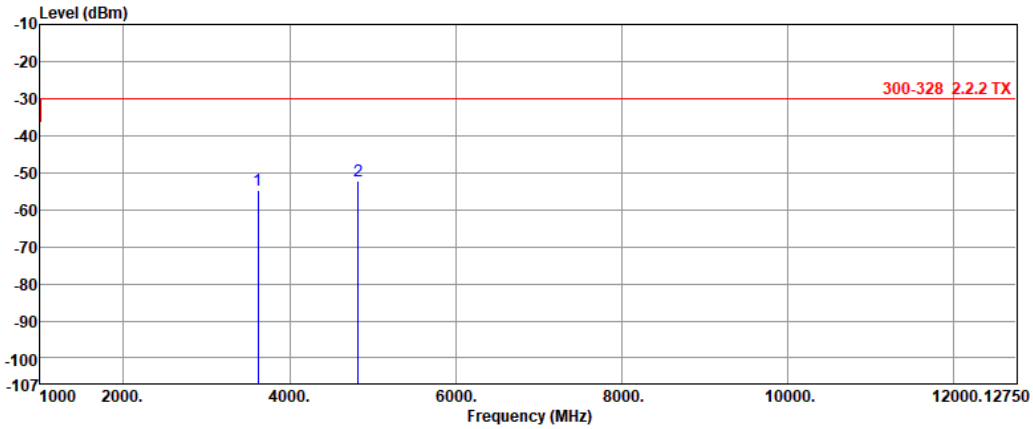
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.54	-55.42	-30.00	-25.42	7.27	-62.69
2	4944.35	-51.85	-30.00	-21.85	11.61	-63.46

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for ax HE20-OFDMA

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

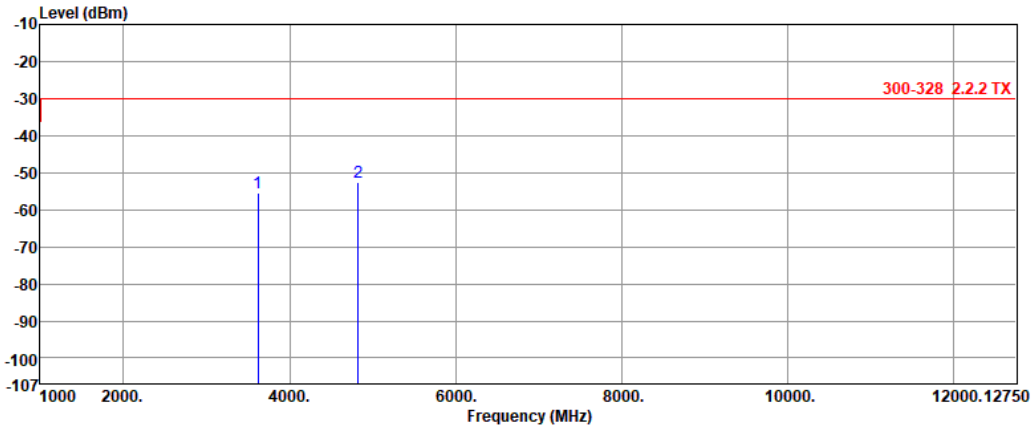


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.25	-54.74	-30.00	-24.74	7.22	-61.96
2	4824.65	-52.25	-30.00	-22.25	10.43	-62.68

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

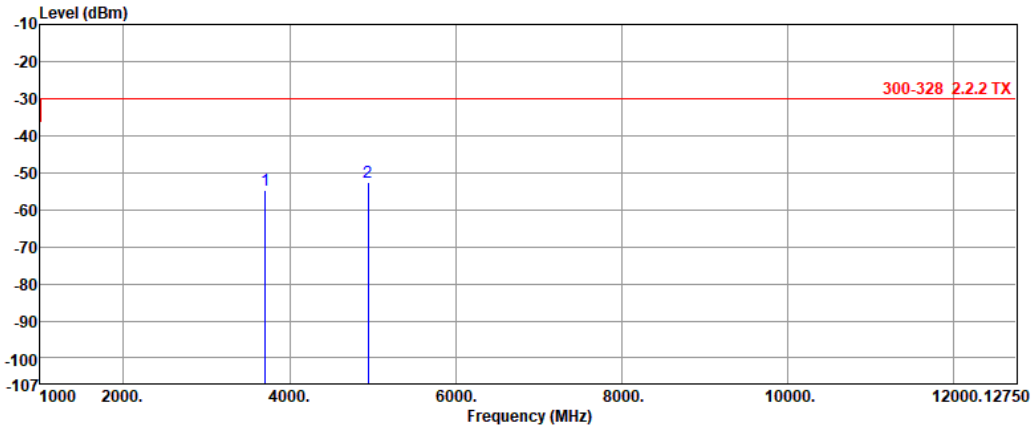


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.64	-55.47	-30.00	-25.47	7.13	-62.60
2	4823.54	-52.51	-30.00	-22.51	11.00	-63.51

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

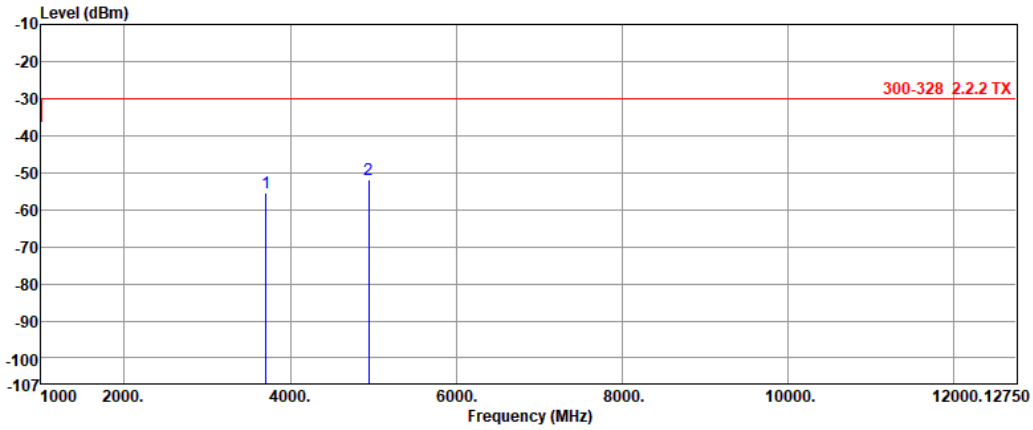


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.54	-54.75	-30.00	-24.75	7.33	-62.08
2	4944.15	-52.47	-30.00	-22.47	11.20	-63.67

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.54	-55.35	-30.00	-25.35	7.27	-62.62
2	4944.54	-51.75	-30.00	-21.75	11.61	-63.36

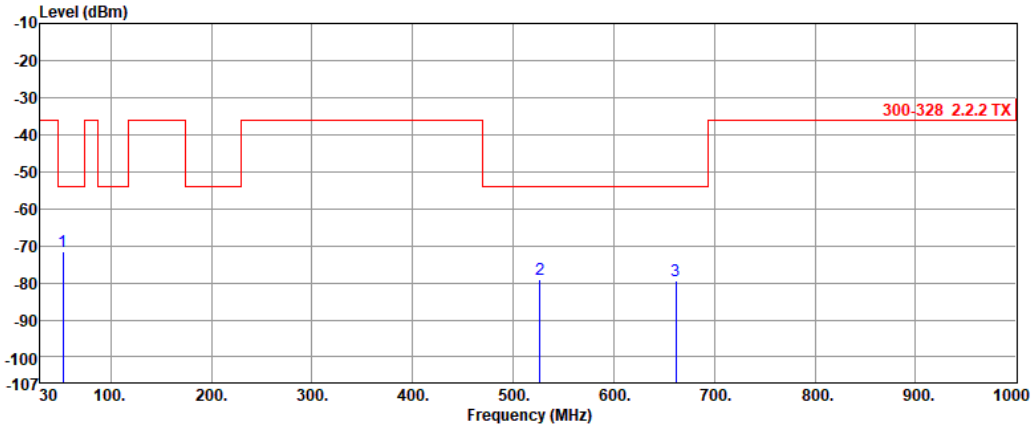
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

full RU configuration

Emissions (Below 1GHz)

Modulation	11g
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

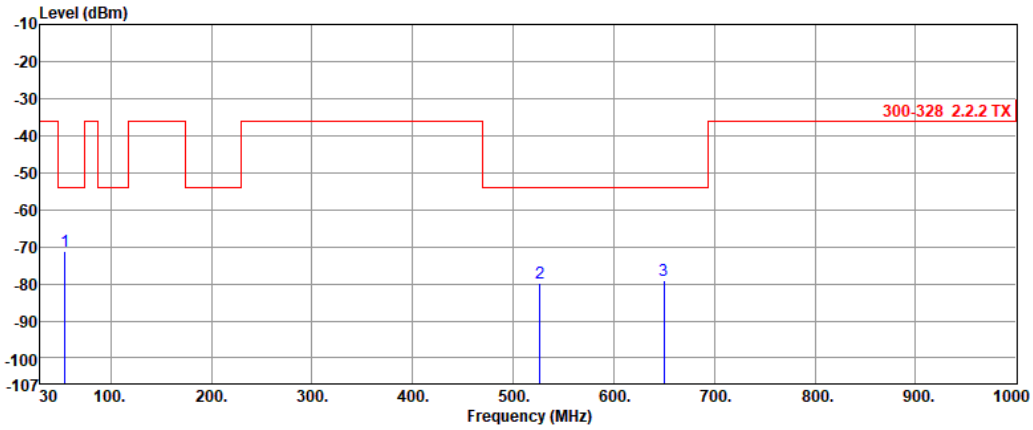


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	52.31	-71.39	-54.00	-17.39	0.00	-71.39
2	526.64	-78.95	-54.00	-24.95	0.00	-78.95
3	661.47	-79.39	-54.00	-25.39	0.00	-79.39

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64

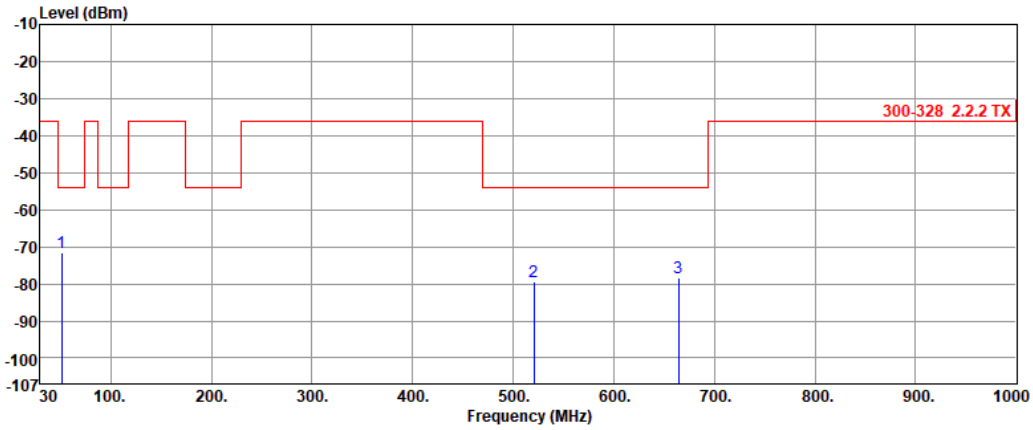


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	54.25	-71.26	-54.00	-17.26	0.00	-71.26
2	526.64	-79.90	-54.00	-25.90	0.00	-79.90
3	649.83	-79.07	-54.00	-25.07	0.00	-79.07

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

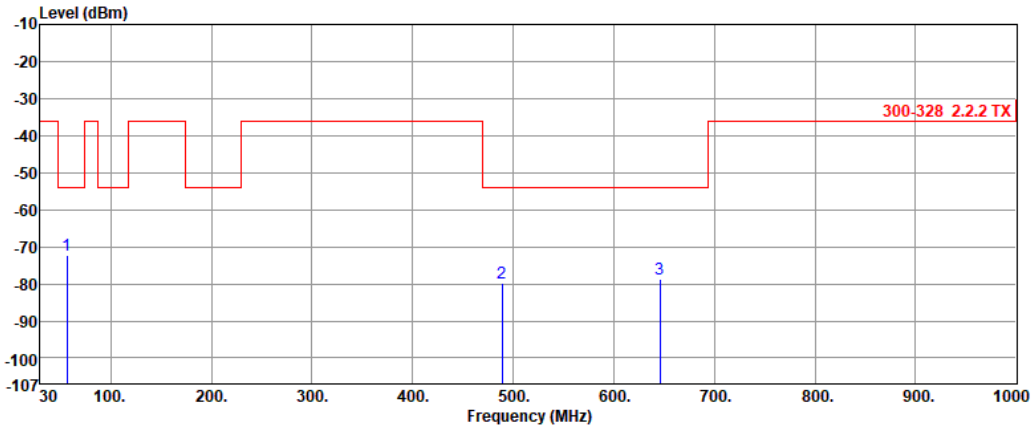


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	51.34	-71.41	-54.00	-17.41	0.00	-71.41
2	520.82	-79.46	-54.00	-25.46	0.00	-79.46
3	664.38	-78.35	-54.00	-24.35	0.00	-78.35

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



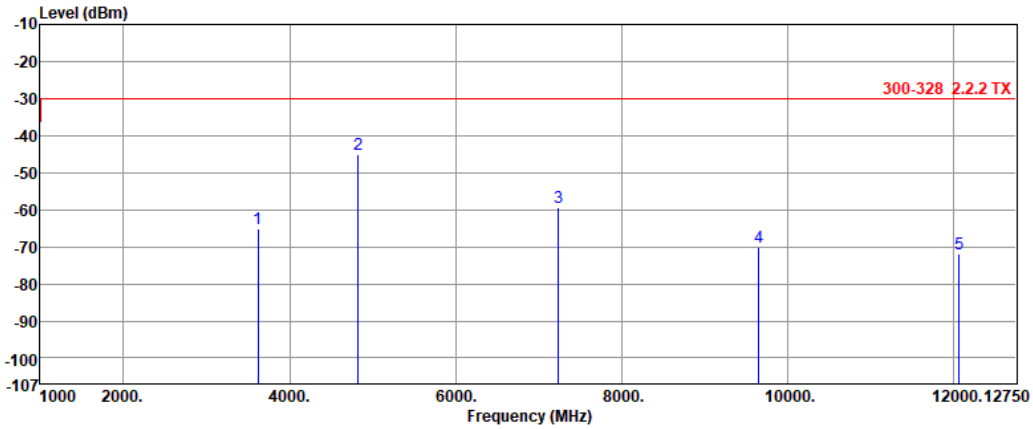
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	56.19	-72.44	-54.00	-18.44	0.00	-72.44
2	488.81	-79.89	-54.00	-25.89	0.00	-79.89
3	645.95	-78.74	-54.00	-24.74	0.00	-78.74

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for 802.11b

Modulation	11b
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

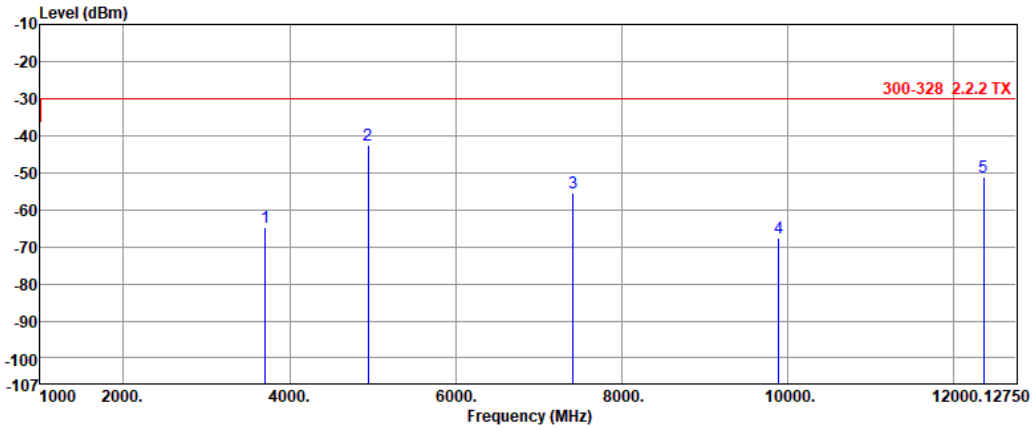


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.12	-65.05	-30.00	-35.05	0.00	-65.05
2	4824.02	-45.08	-30.00	-15.08	0.00	-45.08
3	7236.00	-59.37	-30.00	-29.37	0.00	-59.37
4	9647.86	-70.06	-30.00	-40.06	0.00	-70.06
5	12061.20	-71.98	-30.00	-41.98	0.00	-71.98

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11b
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



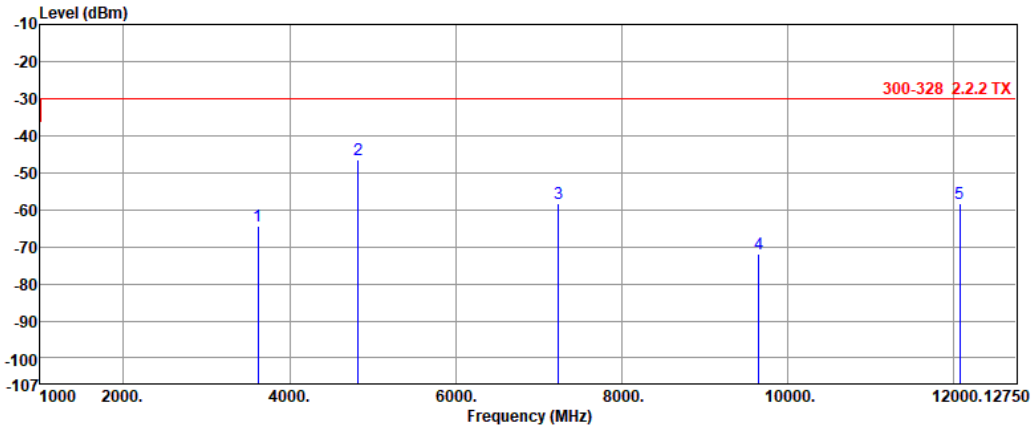
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.93	-64.74	-30.00	-34.74	0.00	-64.74
2	4943.92	-42.58	-30.00	-12.58	0.00	-42.58
3	7417.44	-55.49	-30.00	-25.49	0.00	-55.49
4	9888.19	-67.75	-30.00	-37.75	0.00	-67.75
5	12361.34	-51.05	-30.00	-21.05	0.00	-51.05

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for 802.11g

Modulation	11g
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

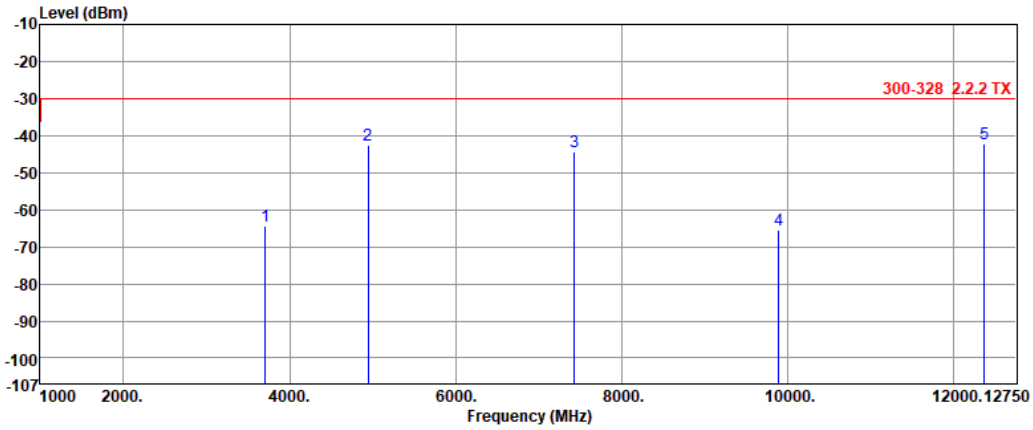


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.05	-64.53	-30.00	-34.53	0.00	-64.53
2	4826.15	-46.37	-30.00	-16.37	0.00	-46.37
3	7235.55	-58.28	-30.00	-28.28	0.00	-58.28
4	9647.94	-71.78	-30.00	-41.78	0.00	-71.78
5	12072.40	-58.27	-30.00	-28.27	0.00	-58.27

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



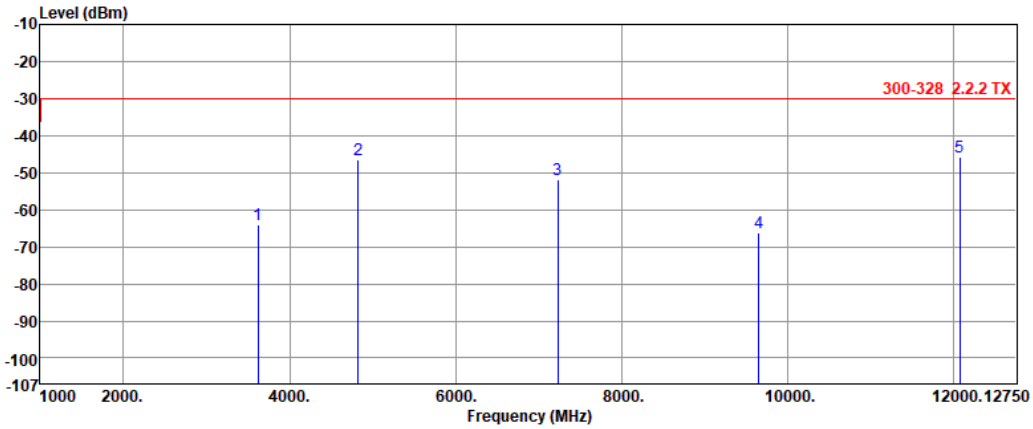
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.03	-64.35	-30.00	-34.35	0.00	-64.35
2	4946.10	-42.48	-30.00	-12.48	0.00	-42.48
3	7426.55	-44.43	-30.00	-14.43	0.00	-44.43
4	9887.60	-65.46	-30.00	-35.46	0.00	-65.46
5	12364.90	-42.11	-30.00	-12.11	0.00	-42.11

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz) for ax HE20-OFDMA

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

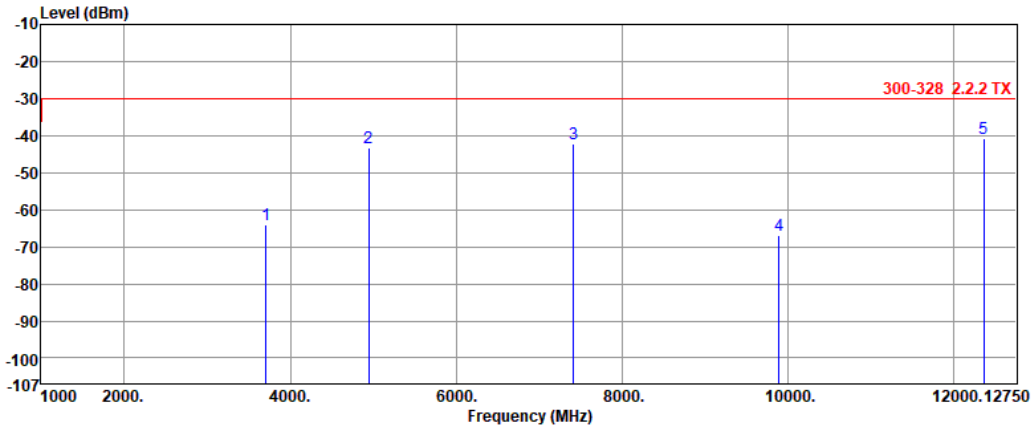


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.88	-64.11	-30.00	-34.11	0.00	-64.11
2	4823.50	-46.48	-30.00	-16.48	0.00	-46.48
3	7234.40	-51.80	-30.00	-21.80	0.00	-51.80
4	9646.77	-66.22	-30.00	-36.22	0.00	-66.22
5	12068.80	-45.79	-30.00	-15.79	0.00	-45.79

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.93	-63.98	-30.00	-33.98	0.00	-63.98
2	4943.40	-43.25	-30.00	-13.25	0.00	-43.25
3	7415.20	-42.27	-30.00	-12.27	0.00	-42.27
4	9891.10	-66.88	-30.00	-36.88	0.00	-66.88
5	12359.00	-40.91	-30.00	-10.91	0.00	-40.91

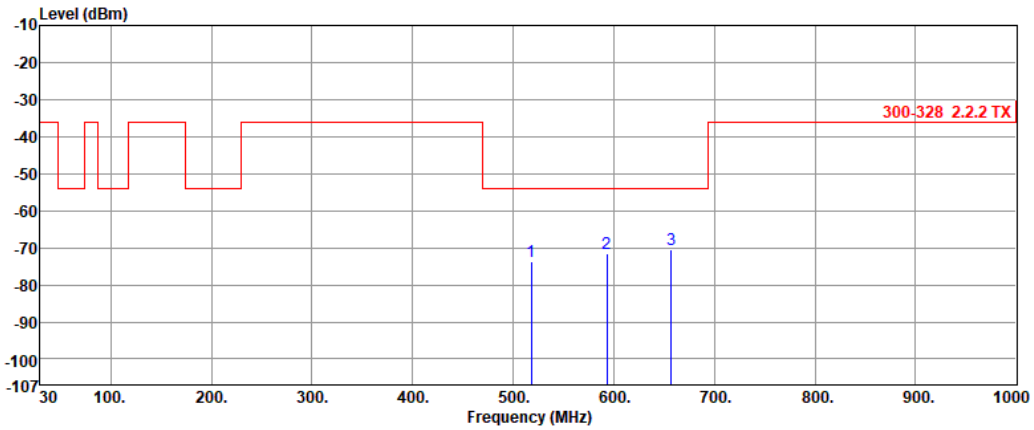
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

partial RU configuration

Emissions (Below 1GHz)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

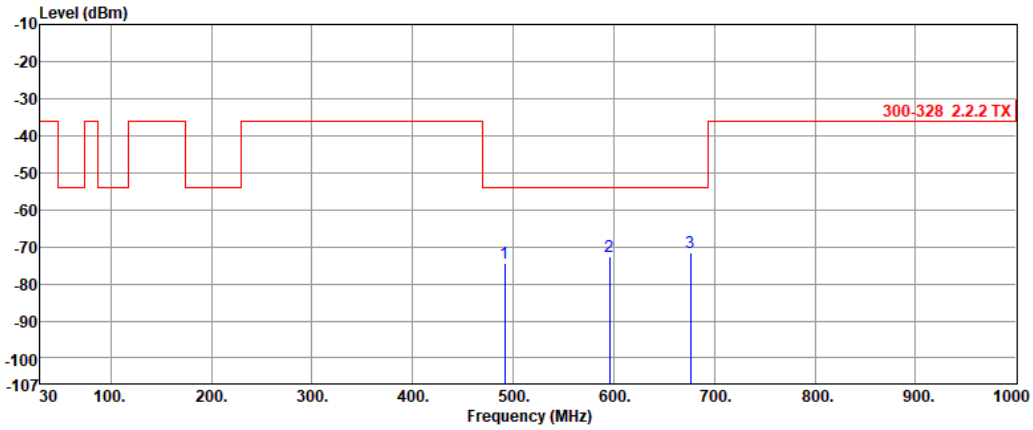


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.79	-73.85	-54.00	-19.85	3.23	-77.08
2	592.87	-71.41	-54.00	-17.41	4.88	-76.29
3	656.85	-70.65	-54.00	-16.65	5.78	-76.43

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

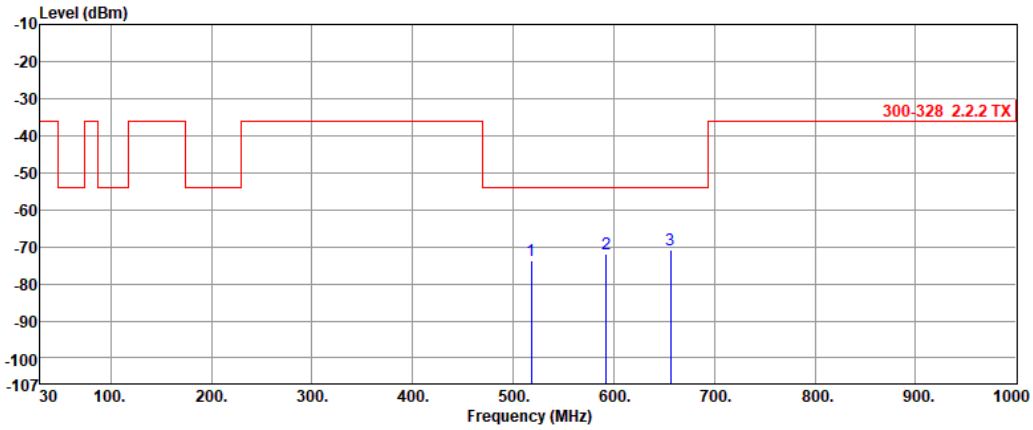


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.84	-74.45	-54.00	-20.45	2.51	-76.96
2	595.98	-72.48	-54.00	-18.48	4.88	-77.36
3	675.94	-71.58	-54.00	-17.58	5.86	-77.44

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

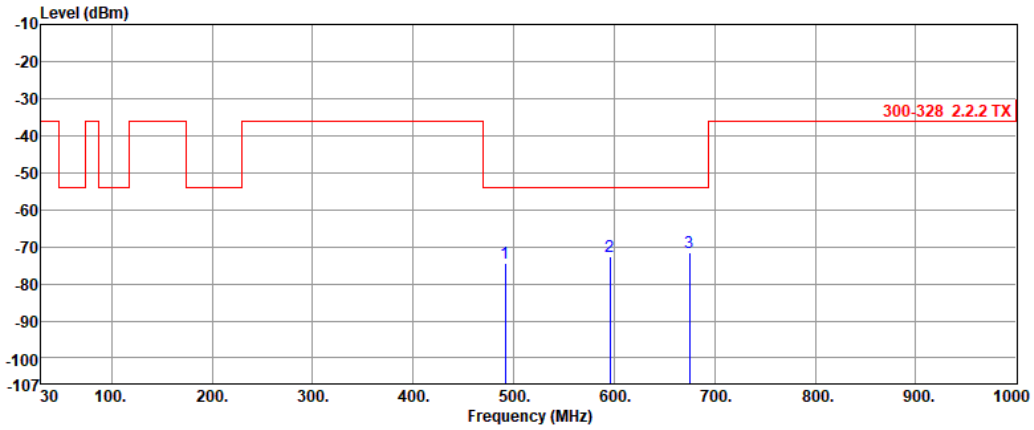


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	517.84	-73.78	-54.00	-19.78	3.23	-77.01
2	592.65	-71.90	-54.00	-17.90	4.88	-76.78
3	656.45	-70.85	-54.00	-16.85	5.78	-76.63

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



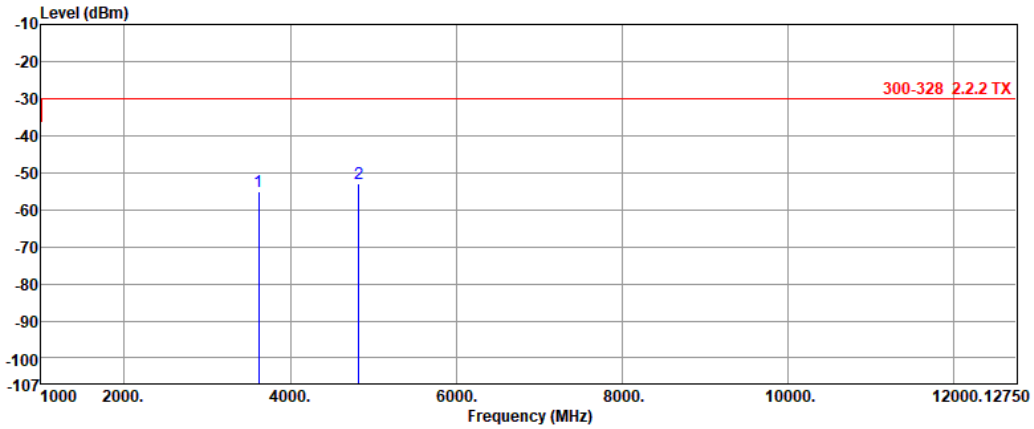
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	491.47	-74.25	-54.00	-20.25	2.50	-76.75
2	595.95	-72.56	-54.00	-18.56	4.88	-77.44
3	675.14	-71.46	-54.00	-17.46	5.81	-77.27

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

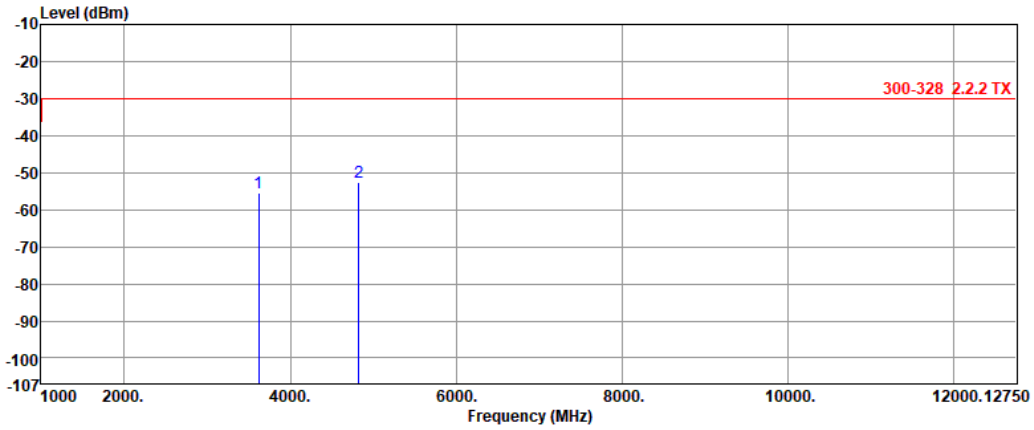


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.85	-54.98	-30.00	-24.98	7.22	-62.20
2	4824.02	-52.85	-30.00	-22.85	10.43	-63.28

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

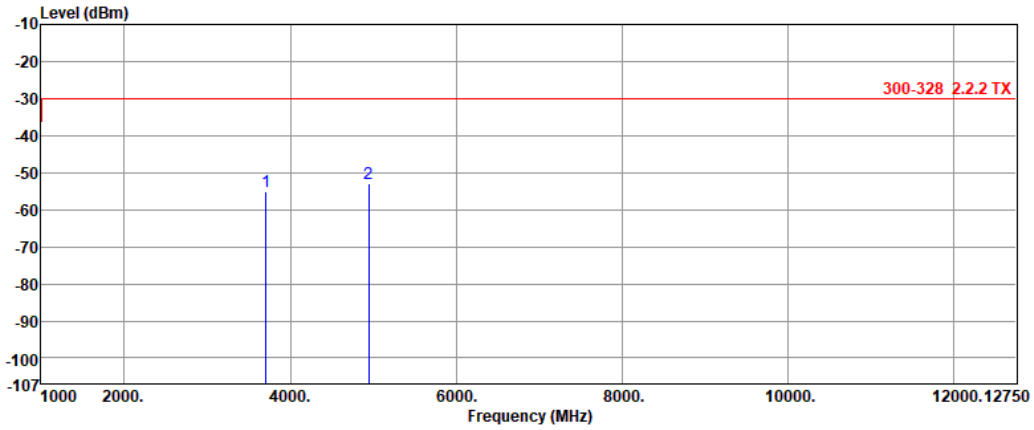


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.45	-55.54	-30.00	-25.54	7.13	-62.67
2	4824.04	-52.57	-30.00	-22.57	11.00	-63.57

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

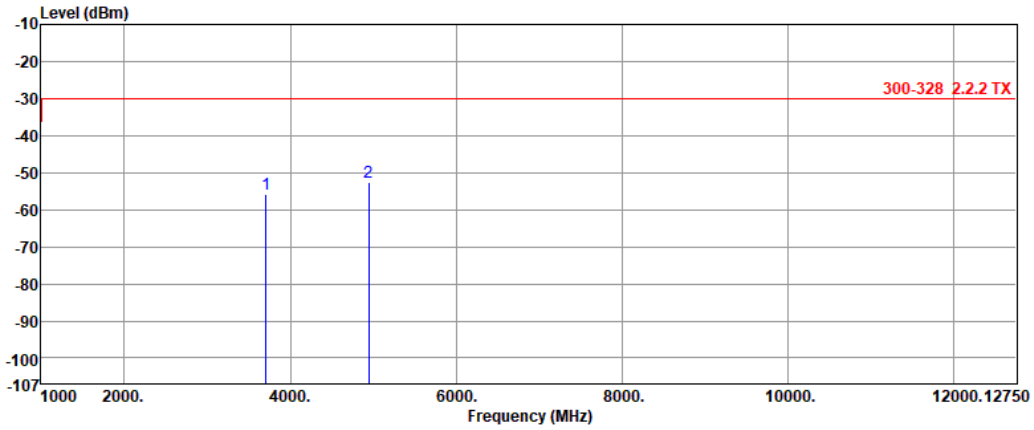


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.74	-54.94	-30.00	-24.94	7.33	-62.27
2	4944.30	-52.89	-30.00	-22.89	11.20	-64.09

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.81	-55.74	-30.00	-25.74	7.27	-63.01
2	4943.80	-52.77	-30.00	-22.77	11.61	-64.38

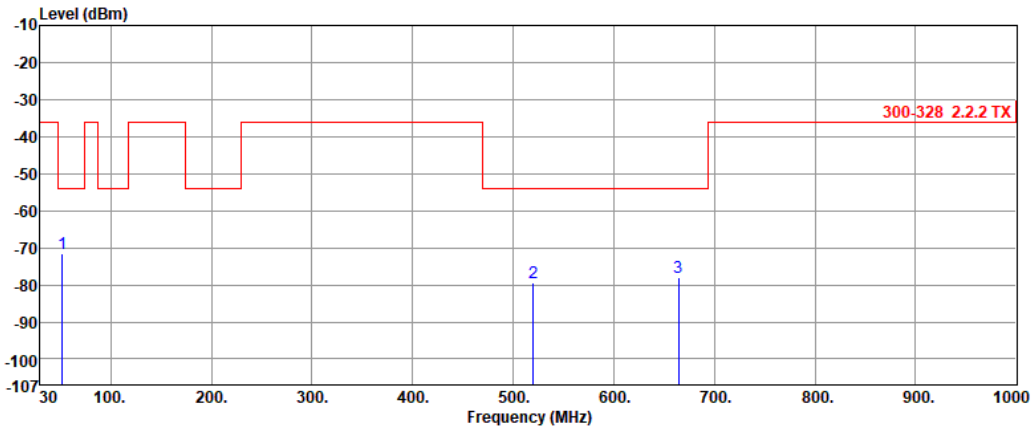
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

partial RU configuration

Emissions (Below 1GHz)

Modulation	ax HE20-OFDMA RU106
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

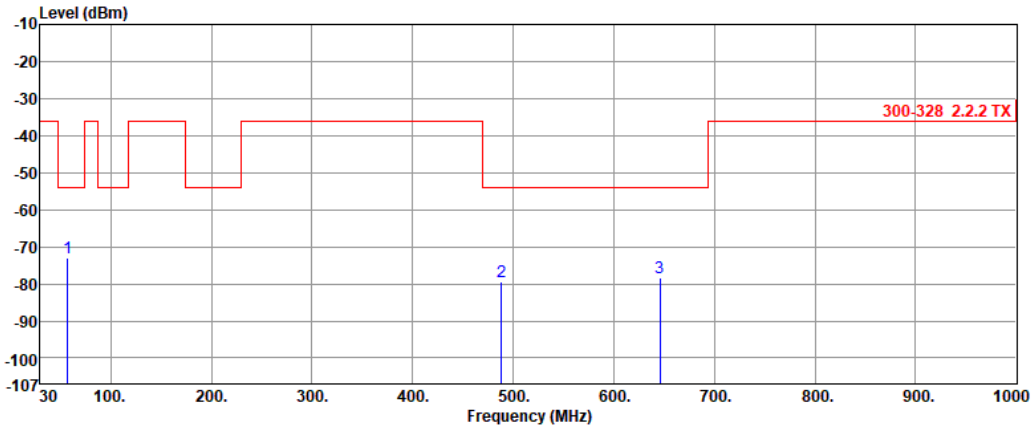


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	51.56	-71.42	-54.00	-17.42	0.00	-71.42
2	520.15	-79.48	-54.00	-25.48	0.00	-79.48
3	664.51	-78.11	-54.00	-24.11	0.00	-78.11

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



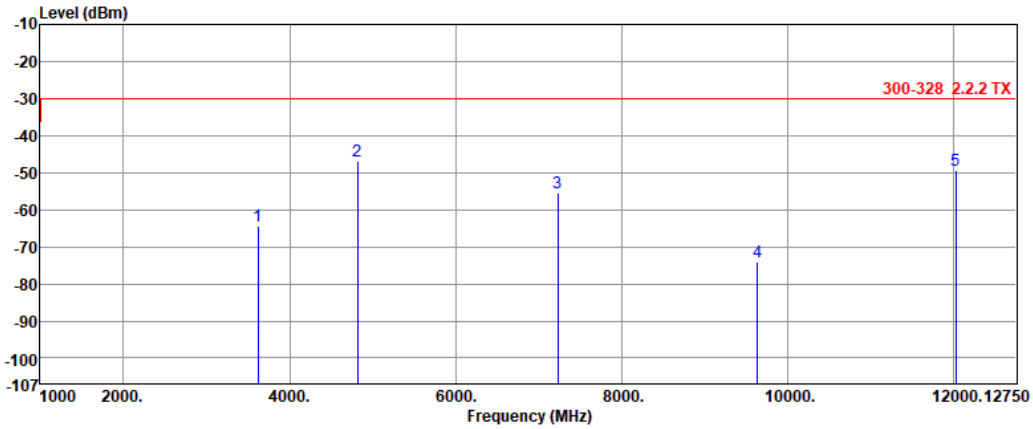
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	56.84	-72.87	-54.00	-18.87	0.00	-72.87
2	488.54	-79.56	-54.00	-25.56	0.00	-79.56
3	645.81	-78.46	-54.00	-24.46	0.00	-78.46

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz)

Modulation	ax HE20-OFDMA RU106
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

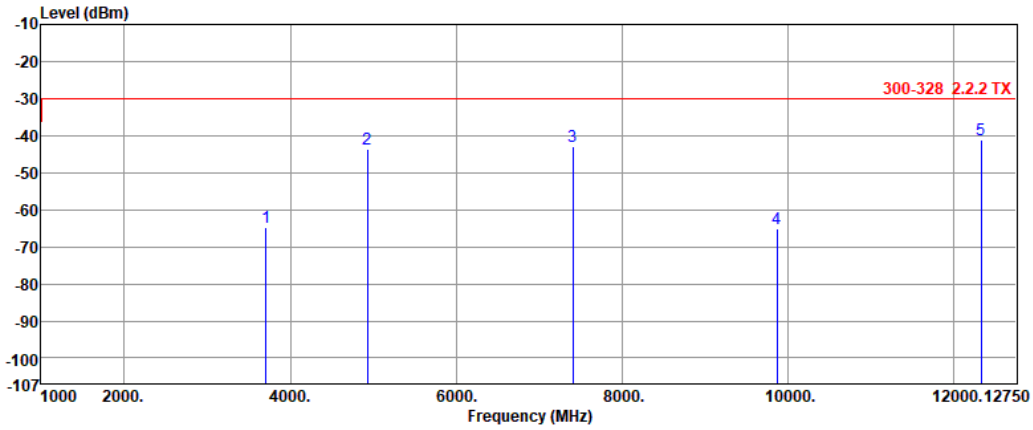


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.07	-64.57	-30.00	-34.57	0.00	-64.57
2	4814.30	-46.88	-30.00	-16.88	0.00	-46.88
3	7228.60	-55.54	-30.00	-25.54	0.00	-55.54
4	9631.00	-74.00	-30.00	-44.00	0.00	-74.00
5	12025.70	-49.50	-30.00	-19.50	0.00	-49.50

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA RU106
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3708.04	-64.71	-30.00	-34.71	0.00	-64.71
2	4933.10	-43.74	-30.00	-13.74	0.00	-43.74
3	7402.50	-42.88	-30.00	-12.88	0.00	-42.88
4	9868.00	-65.04	-30.00	-35.04	0.00	-65.04
5	12330.30	-41.30	-30.00	-11.30	0.00	-41.30

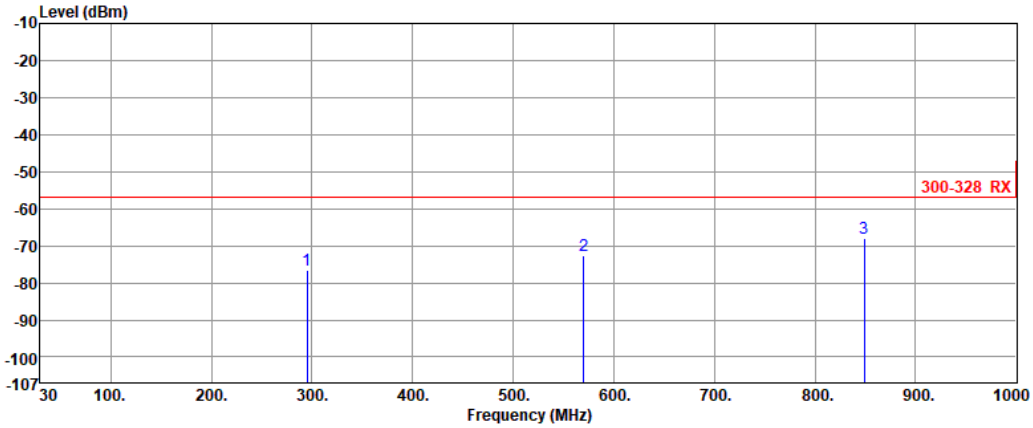
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

full RU configuration

Emissions (Below 1GHz)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

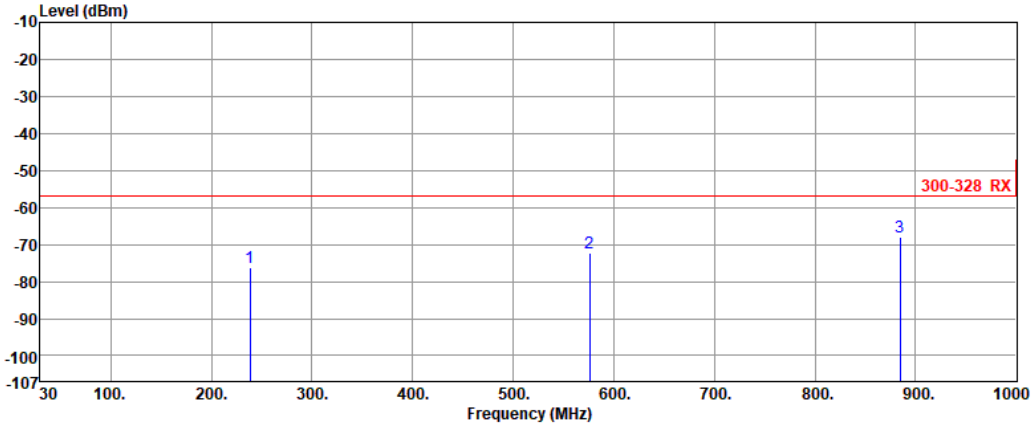


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	294.81	-76.72	-57.00	-19.72	-2.42	-74.30
2	570.29	-72.73	-57.00	-15.73	4.12	-76.85
3	848.68	-67.93	-57.00	-10.93	8.67	-76.60

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

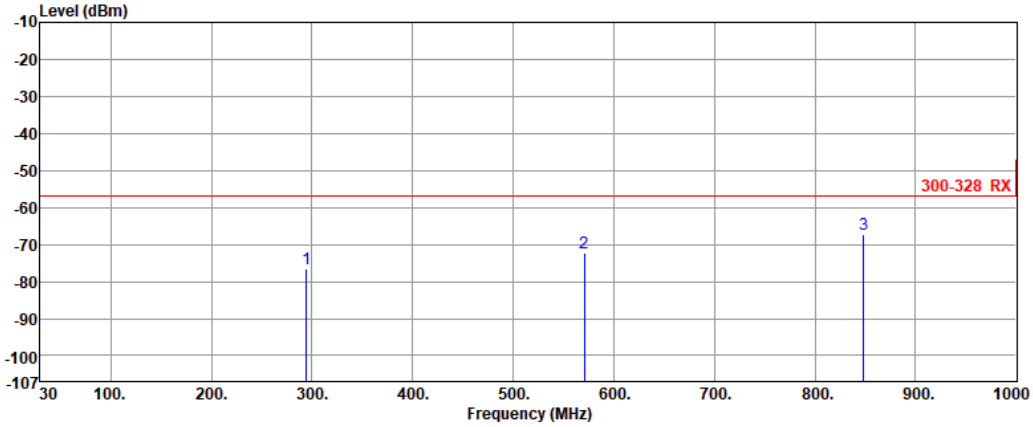


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	238.55	-76.05	-57.00	-19.05	-4.23	-71.82
2	576.11	-72.12	-57.00	-15.12	4.64	-76.76
3	884.57	-67.86	-57.00	-10.86	9.21	-77.07

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

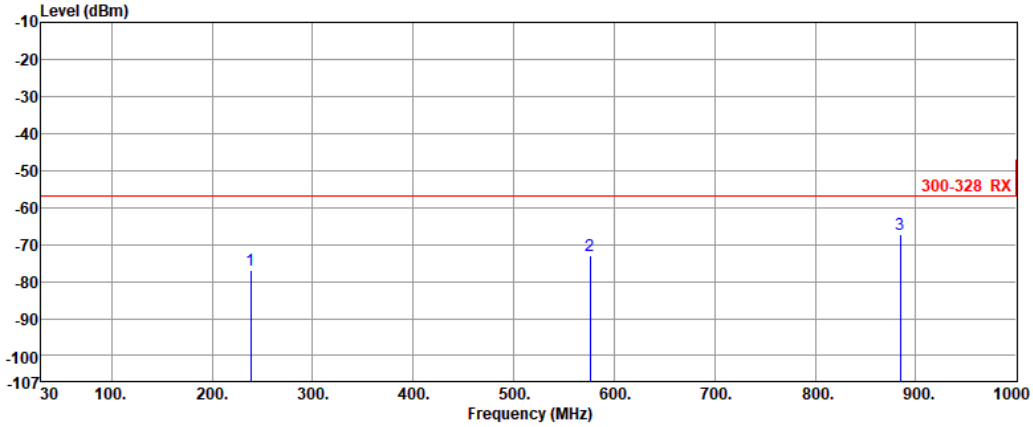


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	294.51	-76.74	-57.00	-19.74	-2.42	-74.32
2	570.45	-72.45	-57.00	-15.45	4.14	-76.59
3	848.51	-67.25	-57.00	-10.25	8.66	-75.91

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

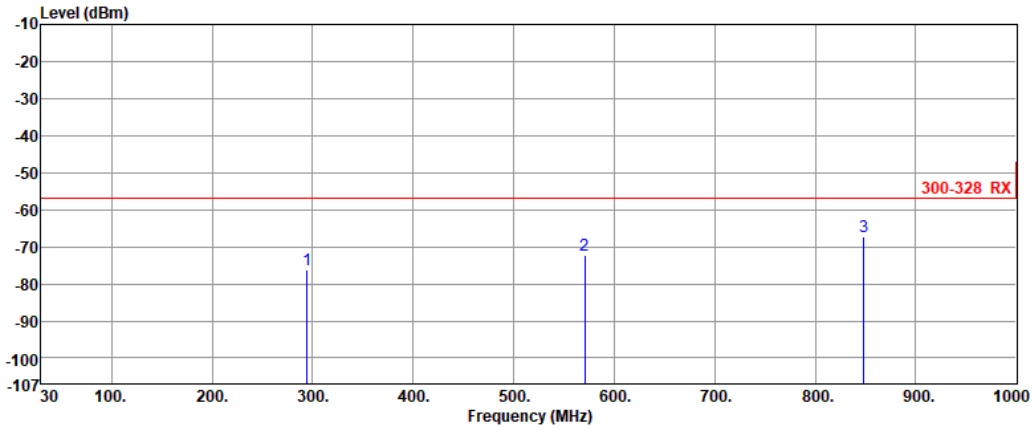


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	238.65	-76.88	-57.00	-19.88	-4.23	-72.65
2	576.18	-72.85	-57.00	-15.85	4.64	-77.49
3	884.56	-67.15	-57.00	-10.15	9.21	-76.36

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

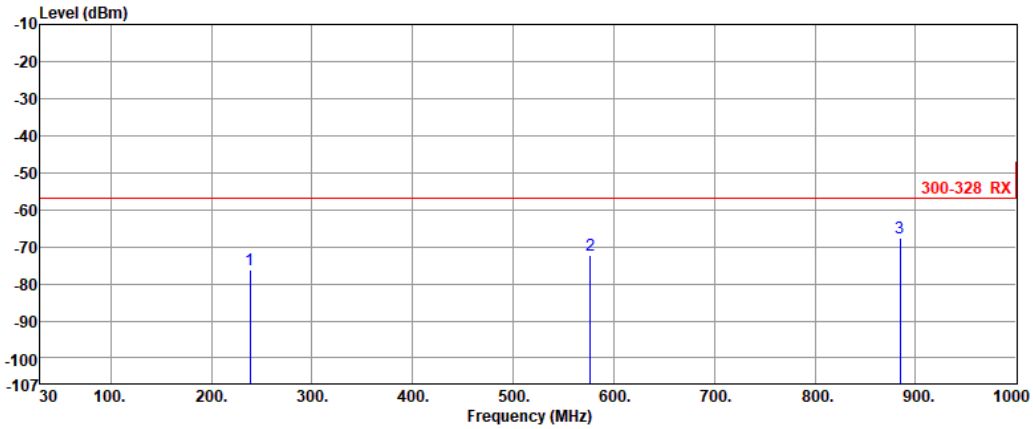


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	294.56	-76.25	-57.00	-19.25	-2.42	-73.83
2	570.84	-72.41	-57.00	-15.41	4.18	-76.59
3	848.51	-67.32	-57.00	-10.32	8.66	-75.98

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

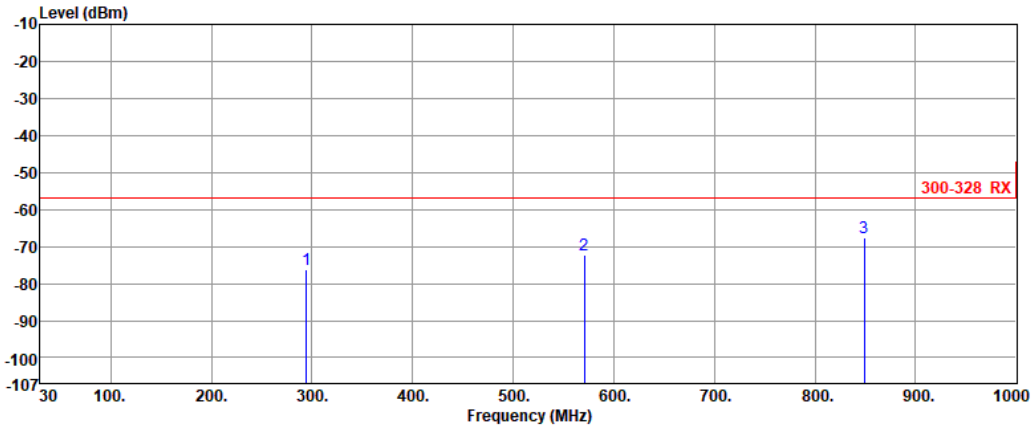


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	238.54	-76.22	-57.00	-19.22	-4.24	-71.98
2	576.85	-72.35	-57.00	-15.35	4.65	-77.00
3	884.51	-67.51	-57.00	-10.51	9.22	-76.73

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

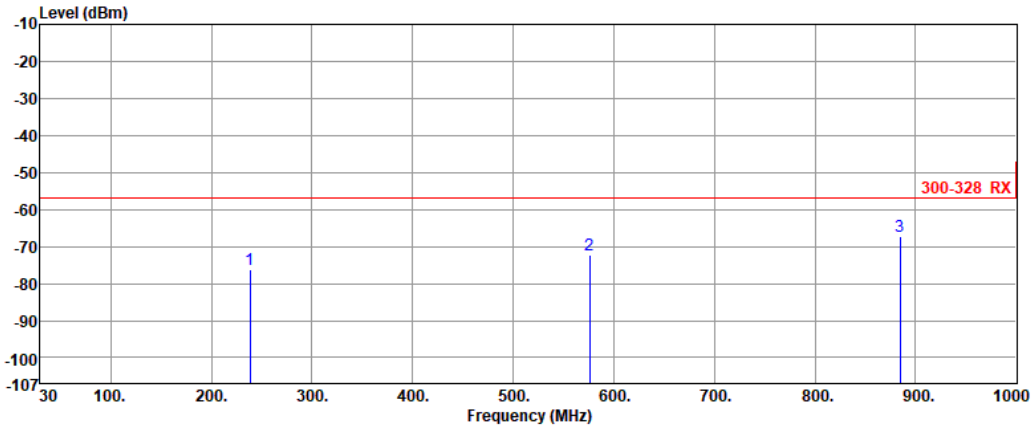


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	294.65	-76.35	-57.00	-19.35	-2.42	-73.93
2	570.58	-72.45	-57.00	-15.45	4.15	-76.60
3	848.75	-67.52	-57.00	-10.52	8.67	-76.19

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



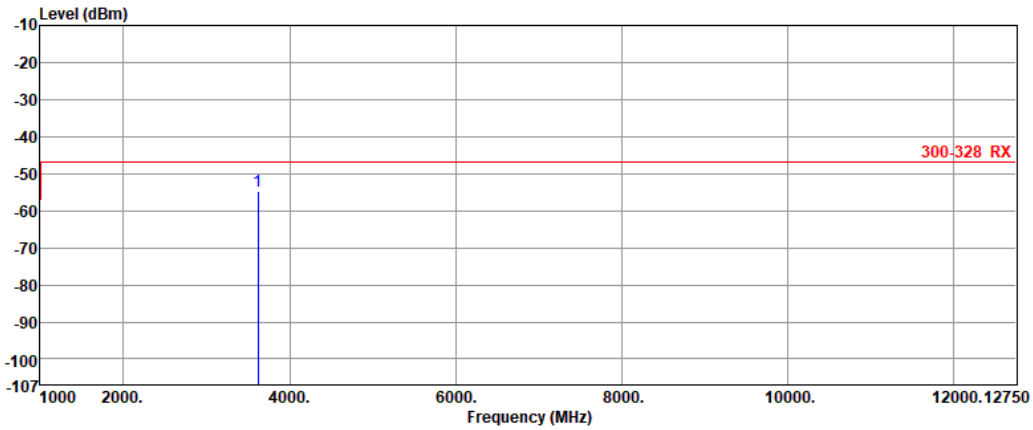
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	238.54	-76.15	-57.00	-19.15	-4.24	-71.91
2	576.21	-72.41	-57.00	-15.41	4.64	-77.05
3	884.84	-67.42	-57.00	-10.42	9.21	-76.63

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

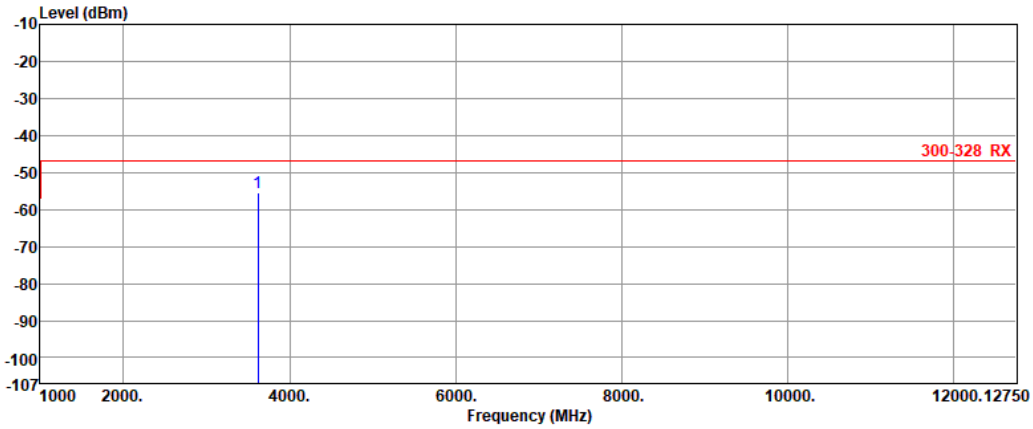


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.28	-54.66	-47.00	-7.66	7.22	-61.88

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

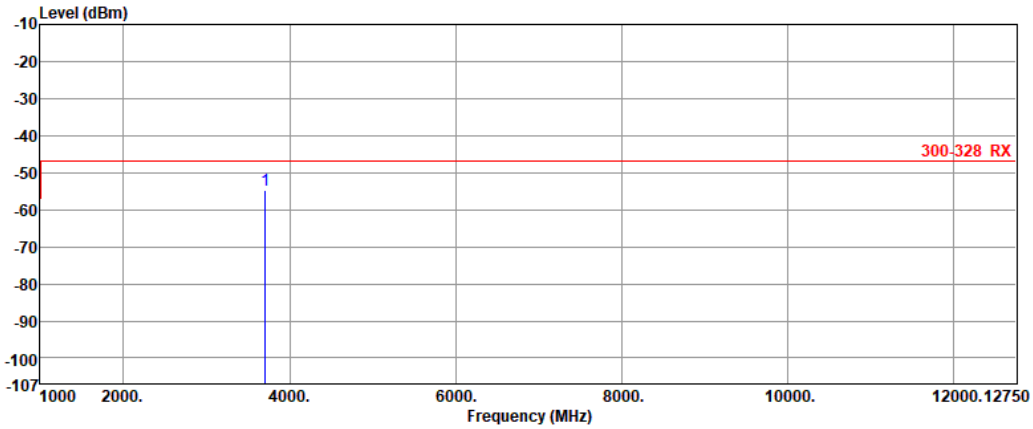


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.27	-55.43	-47.00	-8.43	7.13	-62.56

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

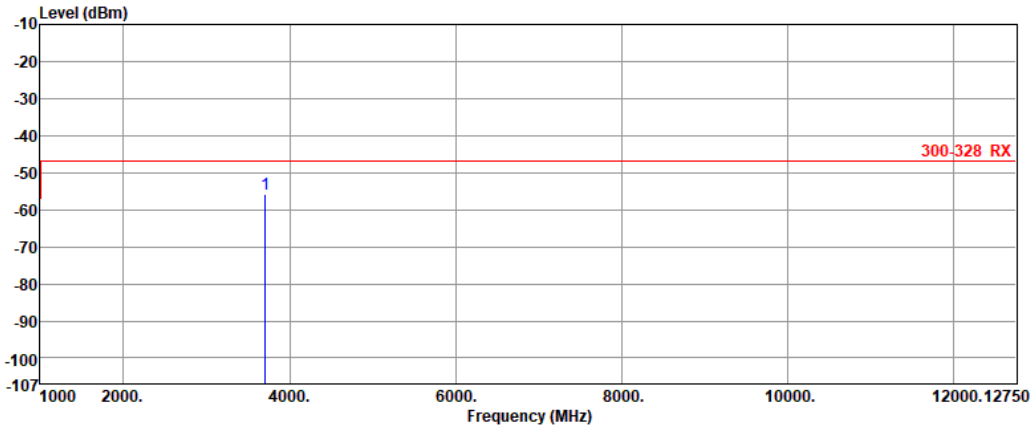


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.82	-54.77	-47.00	-7.77	7.34	-62.11

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

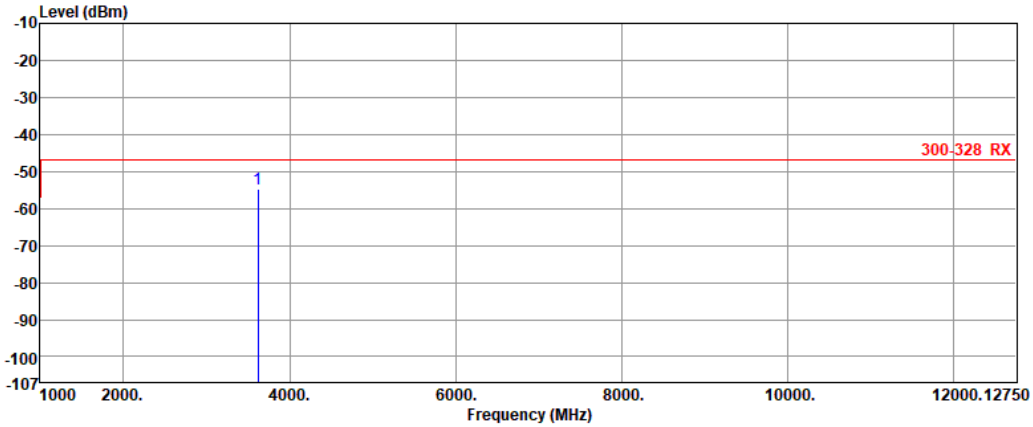


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.93	-55.82	-47.00	-8.82	7.27	-63.09

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	2412
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

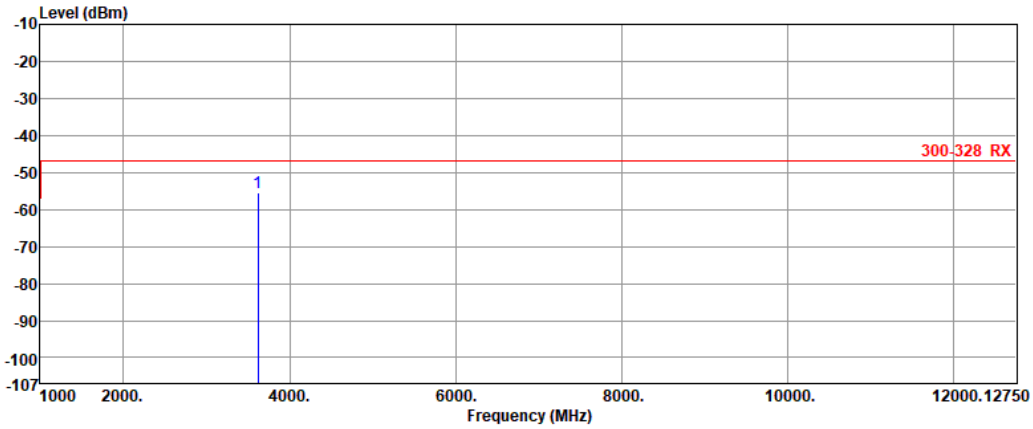


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.56	-54.85	-47.00	-7.85	7.22	-62.07

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2412
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64

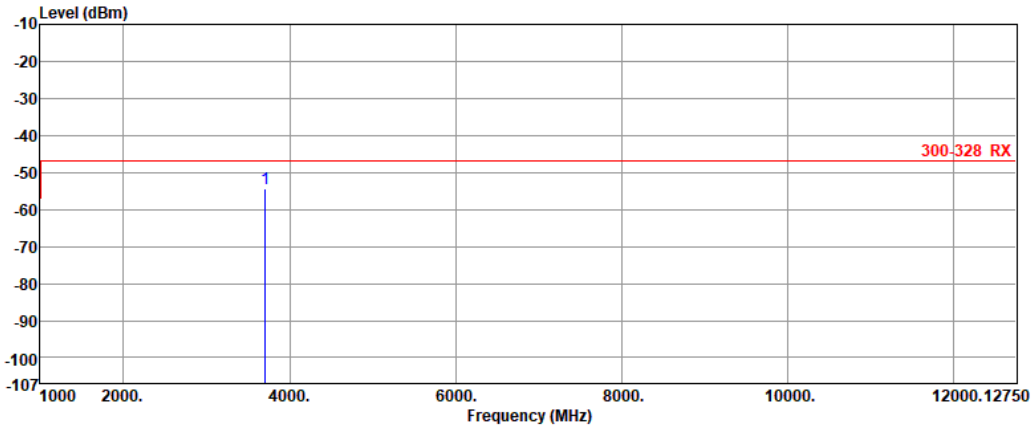


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3618.87	-55.54	-47.00	-8.54	7.13	-62.67

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	2472
Polarization	Horizontal		

Test By :Ryan Lee Temperature:23 Humidity(%):64

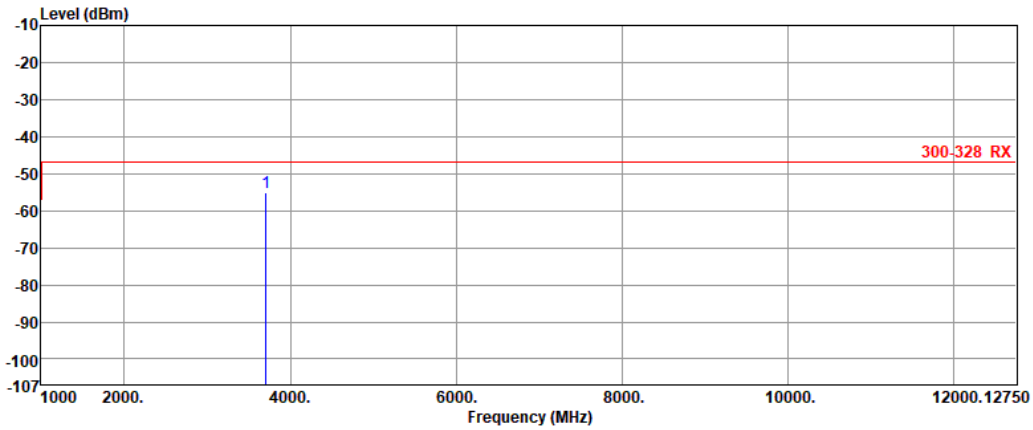


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.54	-54.42	-47.00	-7.42	7.34	-61.76

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	2472
Polarization	Vertical		

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.87	-55.13	-47.00	-8.13	7.27	-62.40

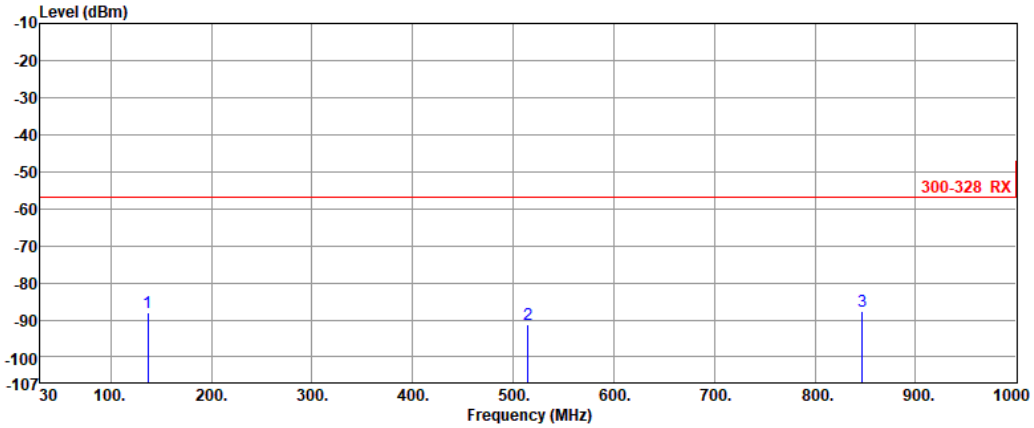
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

full RU configuration

Emissions (Below 1GHz)

Modulation	11g
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

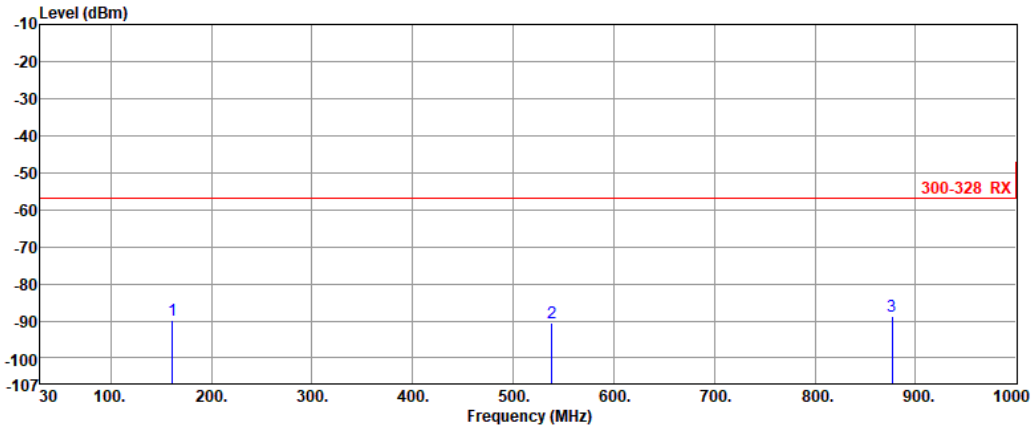


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	136.70	-88.02	-57.00	-31.02	0.00	-88.02
2	515.00	-91.13	-57.00	-34.13	0.00	-91.13
3	846.74	-87.68	-57.00	-30.68	0.00	-87.68

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64

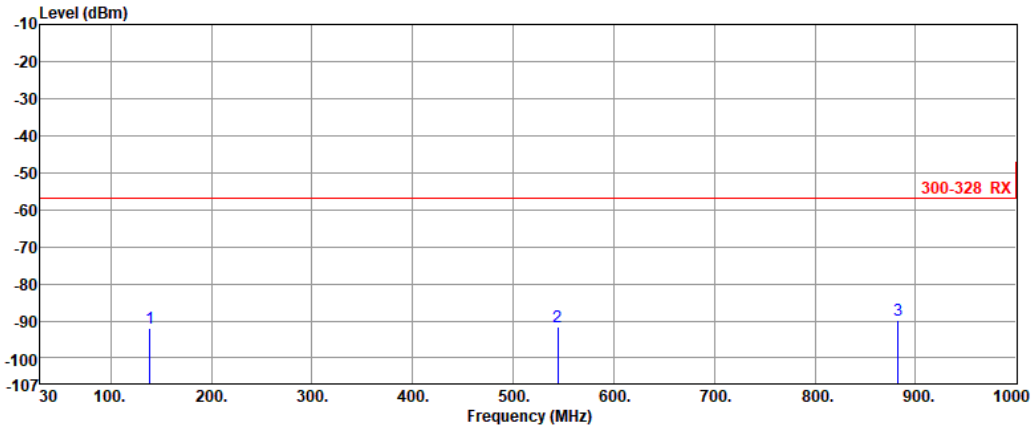


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	160.95	-89.81	-57.00	-32.81	0.00	-89.81
2	538.28	-90.69	-57.00	-33.69	0.00	-90.69
3	876.81	-88.86	-57.00	-31.86	0.00	-88.86

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

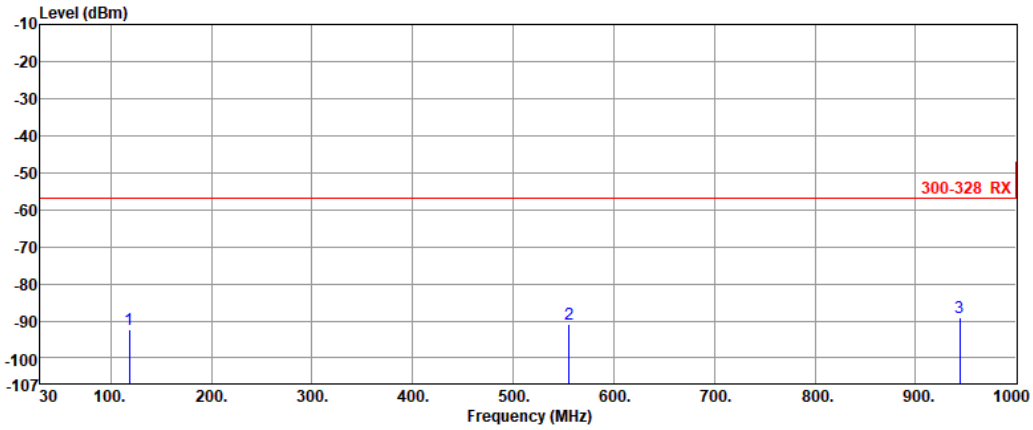


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	138.64	-91.95	-57.00	-34.95	0.00	-91.95
2	544.10	-91.47	-57.00	-34.47	0.00	-91.47
3	882.63	-89.89	-57.00	-32.89	0.00	-89.89

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



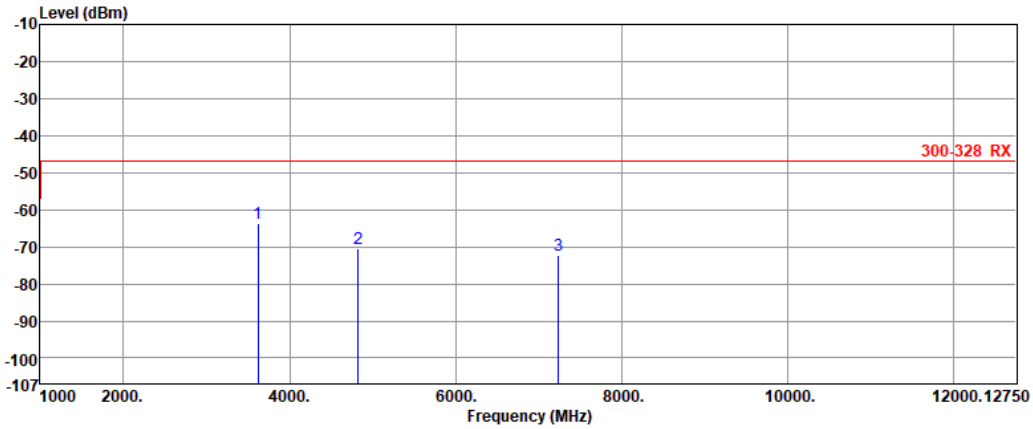
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	118.27	-92.15	-57.00	-35.15	0.00	-92.15
2	555.74	-90.83	-57.00	-33.83	0.00	-90.83
3	943.74	-89.27	-57.00	-32.27	0.00	-89.27

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Emissions (Above 1GHz)

Modulation	11g
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

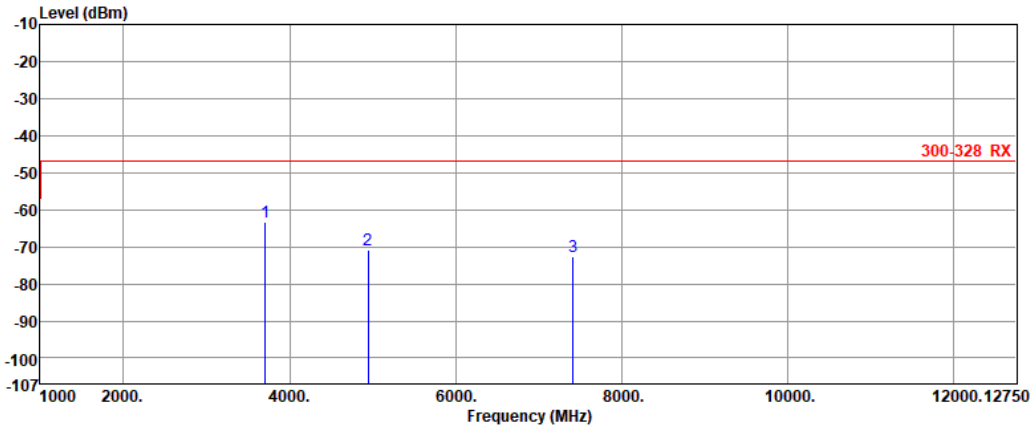


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.93	-63.78	-47.00	-16.78	0.00	-63.78
2	4823.89	-70.34	-47.00	-23.34	0.00	-70.34
3	7236.11	-72.13	-47.00	-25.13	0.00	-72.13

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	11g
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64

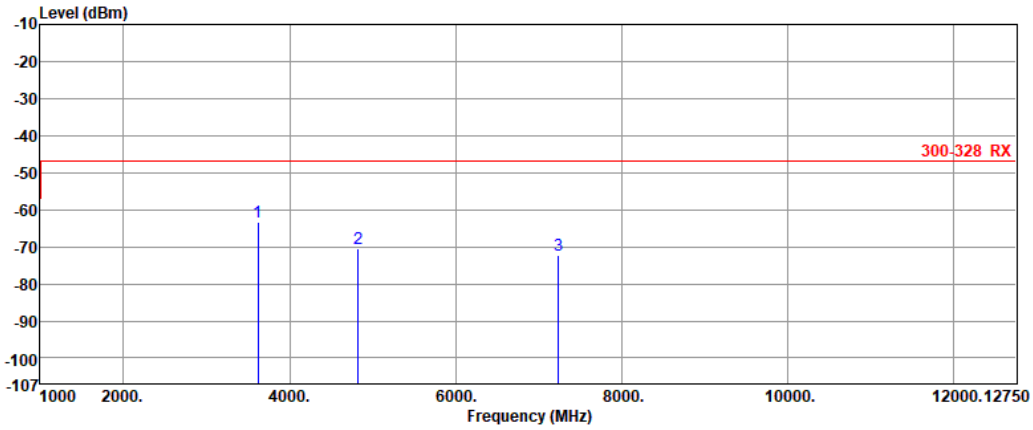


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.96	-63.18	-47.00	-16.18	0.00	-63.18
2	4943.88	-70.91	-47.00	-23.91	0.00	-70.91
3	7415.61	-72.66	-47.00	-25.66	0.00	-72.66

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2412

Test By :Ryan Lee Temperature:23 Humidity(%):64

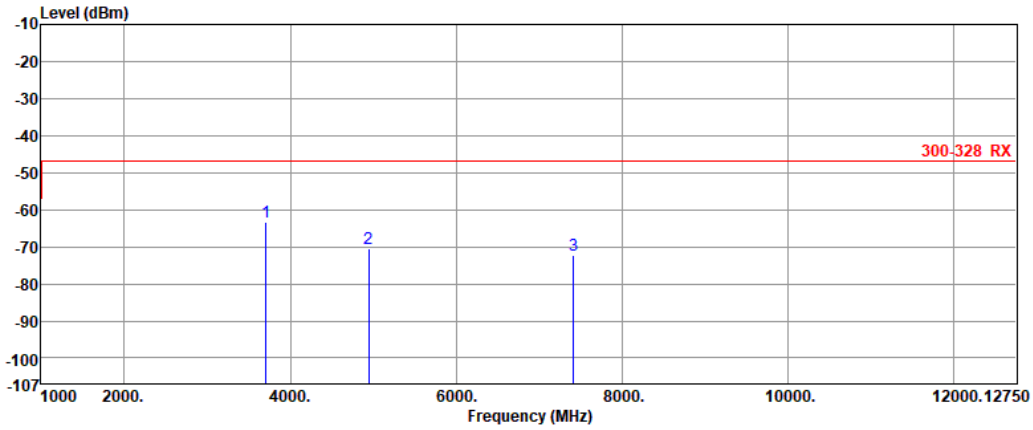


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3617.95	-63.45	-47.00	-16.45	0.00	-63.45
2	4823.99	-70.41	-47.00	-23.41	0.00	-70.41
3	7236.12	-72.43	-47.00	-25.43	0.00	-72.43

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	ax HE20-OFDMA
Test Freq. (MHz)	2472

Test By :Ryan Lee Temperature:23 Humidity(%):64



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3707.90	-63.42	-47.00	-16.42	0.00	-63.42
2	4943.94	-70.47	-47.00	-23.47	0.00	-70.47
3	7415.54	-72.41	-47.00	-25.41	0.00	-72.41

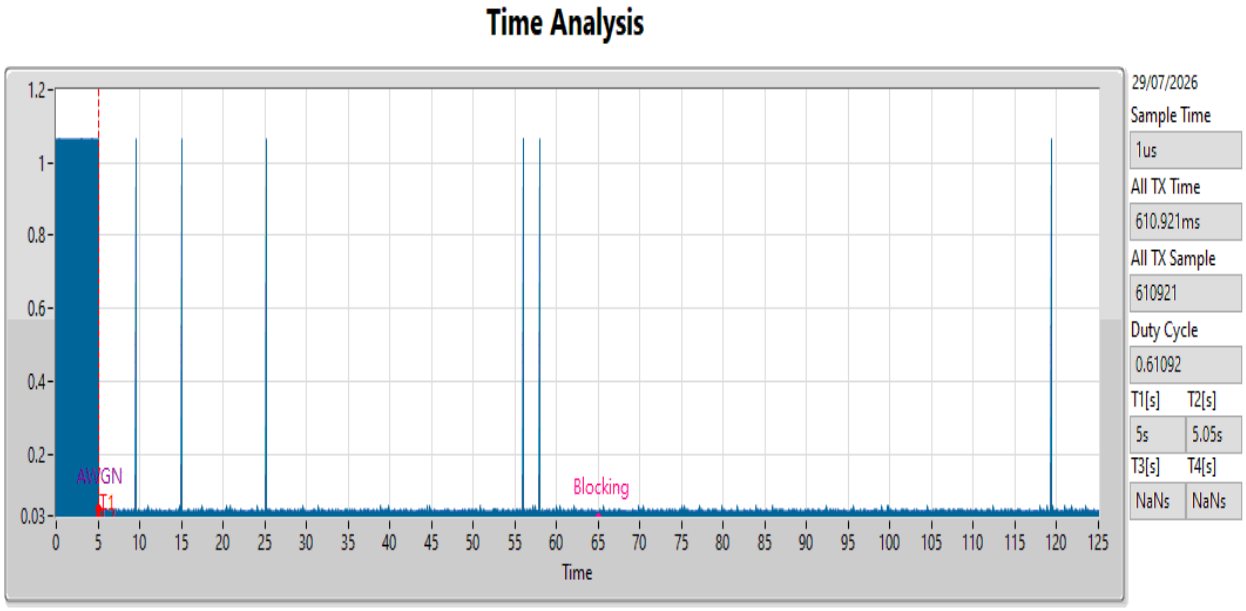
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Test Result of Adaptivity & Unwanted Signal

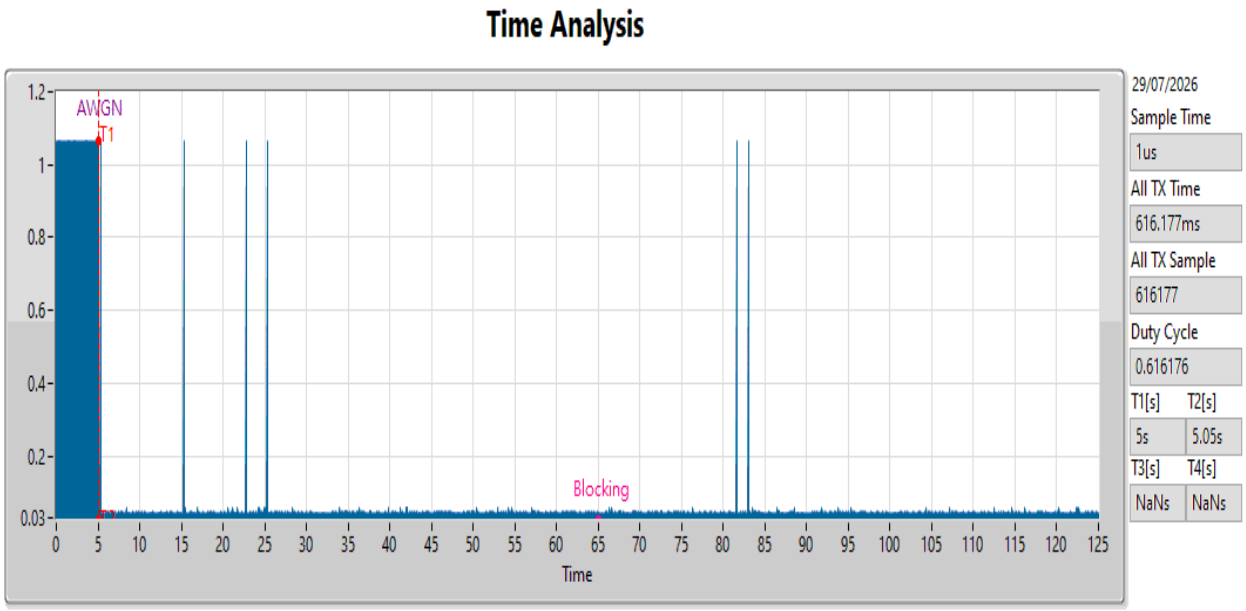
Adaptivity & Unwanted Signal Result.						
Adaptivity Detection Threshold Level (dBm)			-67.62			
Unwanted Signal Level (dBm)			-32.5			
Modulation Mode	**Freq. (MHz)**	**Short Control Signalling Transmissions (ms)**	**Channel Occupancy Time (ms)**	**Idle Period Time (μs)**	**Adaptivity**	**Unwanted Signal Test Status**
802.11b	2412	1.111	1.327	36	Pass	Pass
802.11b	2472	1.312	1.329	36		
802.11g	2412	0.486	0.704	33		
802.11g	2472	0.483	0.365	44		
802.11ax (HE20)	2412	0.405	5.156	46		
802.11ax (HE20)	2472	0.539	3.447	46		
Limit		< 5 ms	< 13 ms	>18μs		
Result		**Complied**				

Test Result of Adaptivity and Unwanted Signal Plots

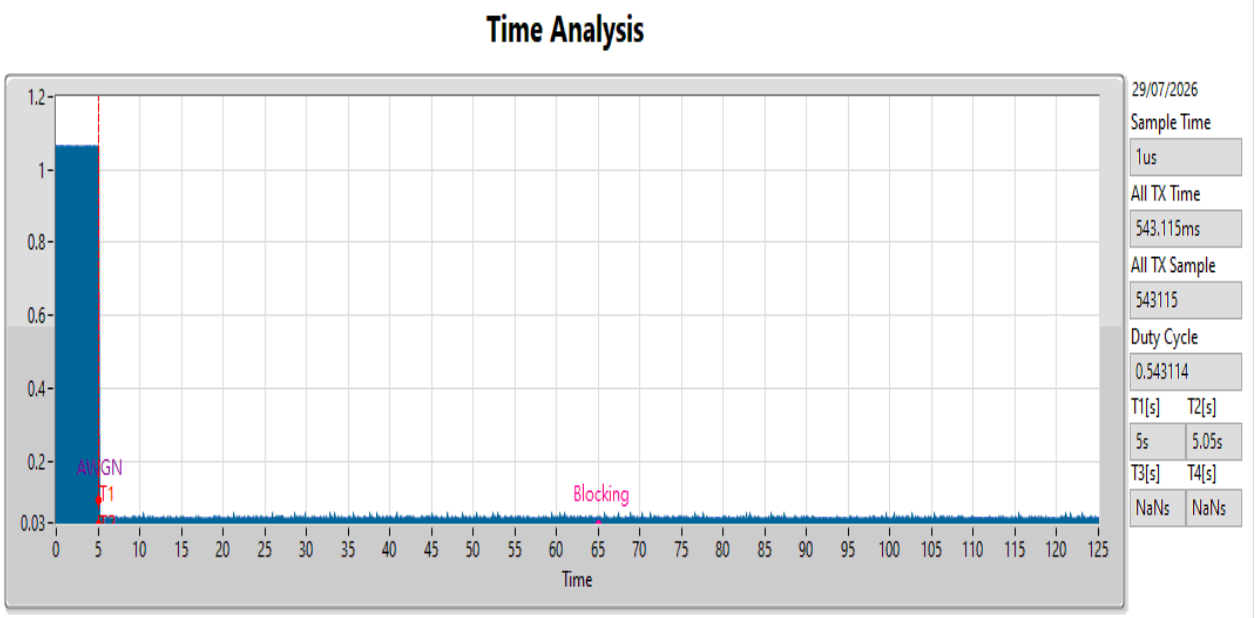
Adaptivity & Unwanted Signal Result Plots
Unwanted signal: 2488.5 MHz
802.11b - 2412MHz



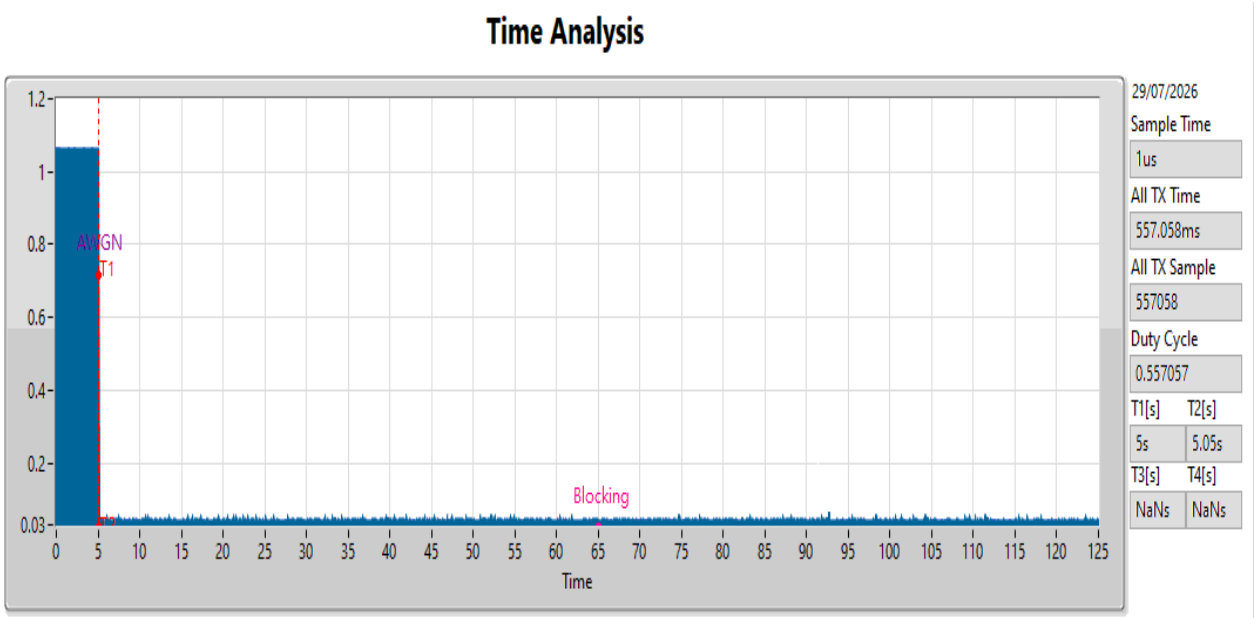
Unwanted signal: 2395 MHz
802.11b - 2472MHz



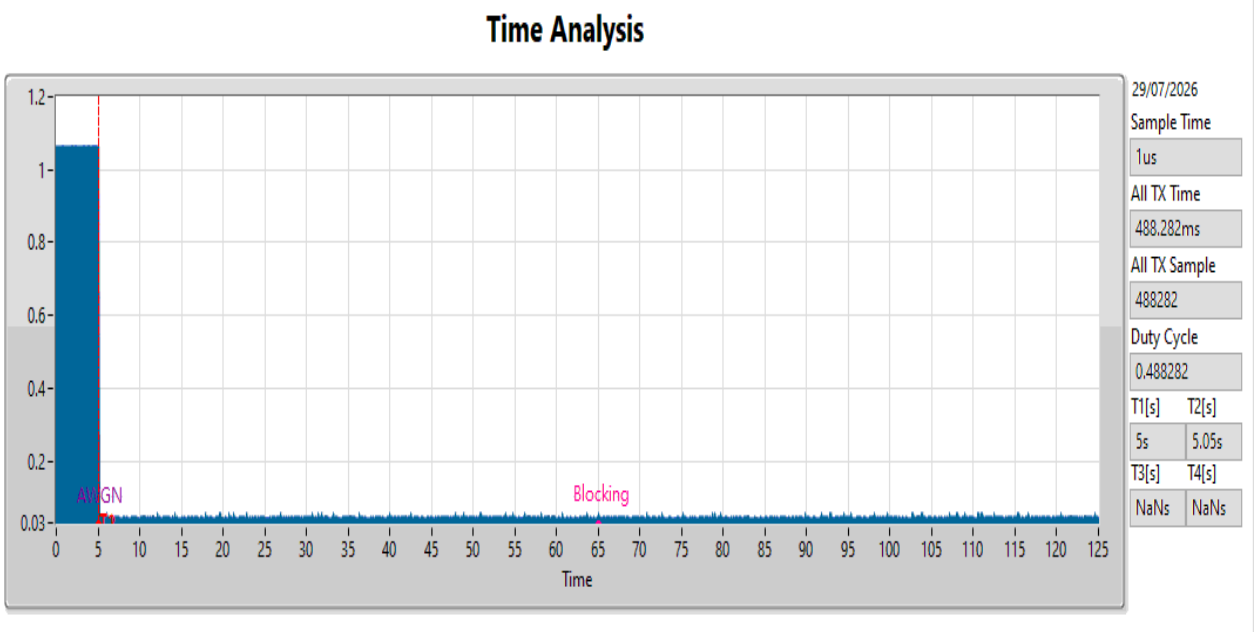
Adaptivity & Unwanted Signal Result Plots
Unwanted signal: 2488.5 MHz
802.11g - 2412MHz



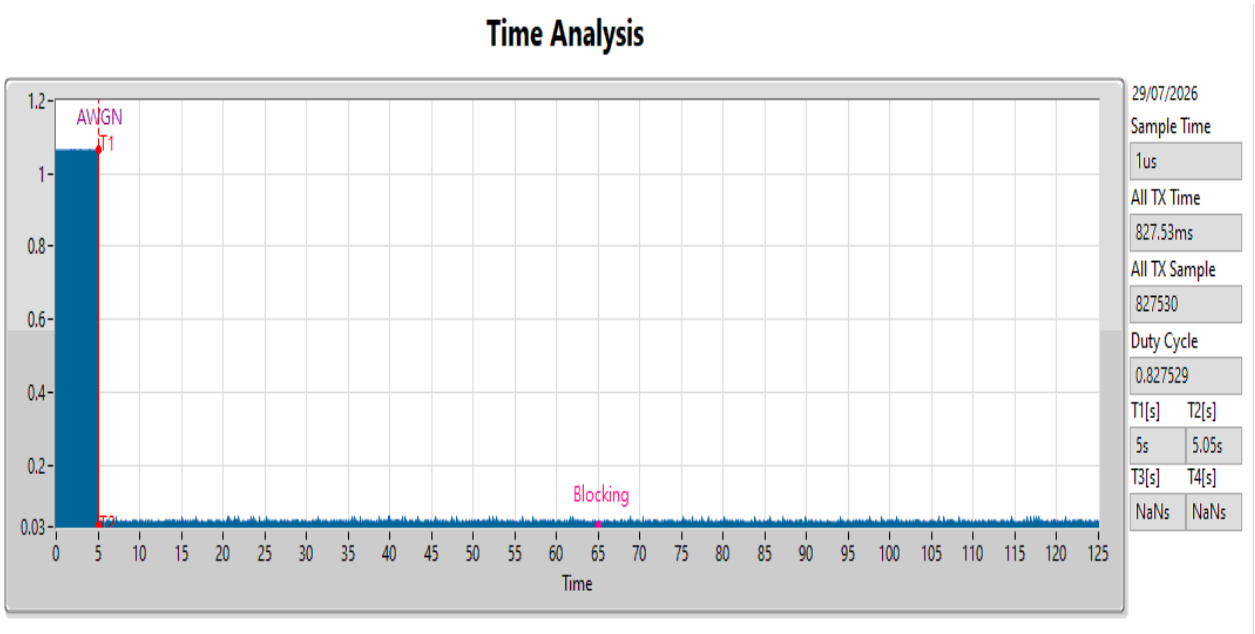
Unwanted signal: 2395 MHz
802.11g - 2472MHz



Adaptivity & Unwanted Signal Result Plots
Unwanted signal: 2488.5 MHz
802.11ax (HE20) - 2412MHz



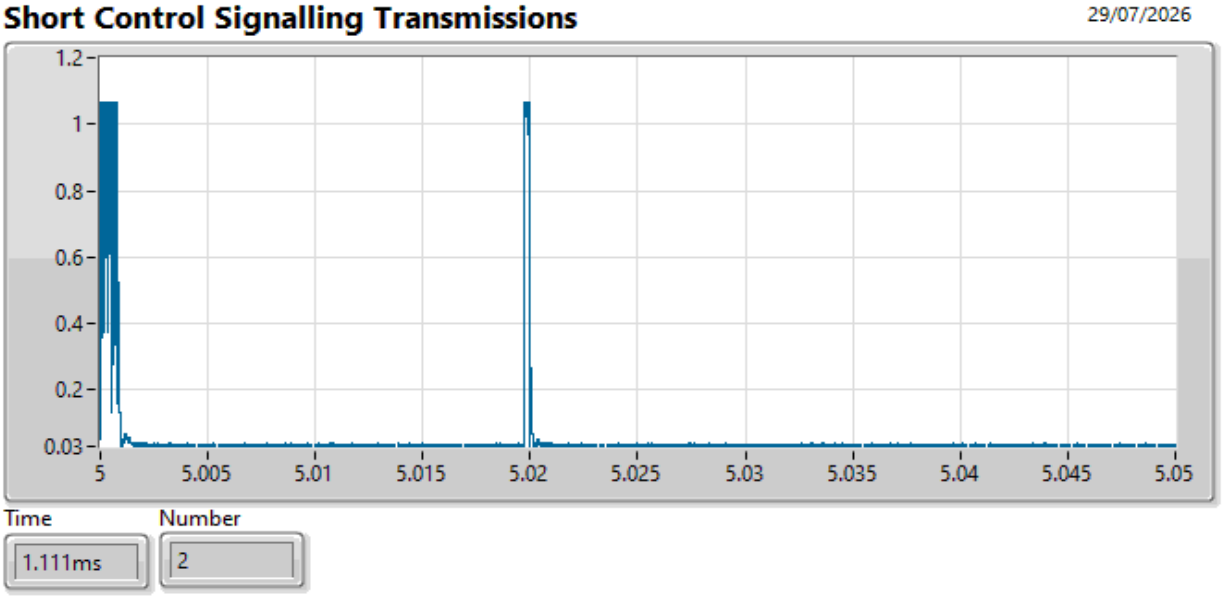
Unwanted signal: 2395 MHz
802.11ax (HE20) - 2472MHz



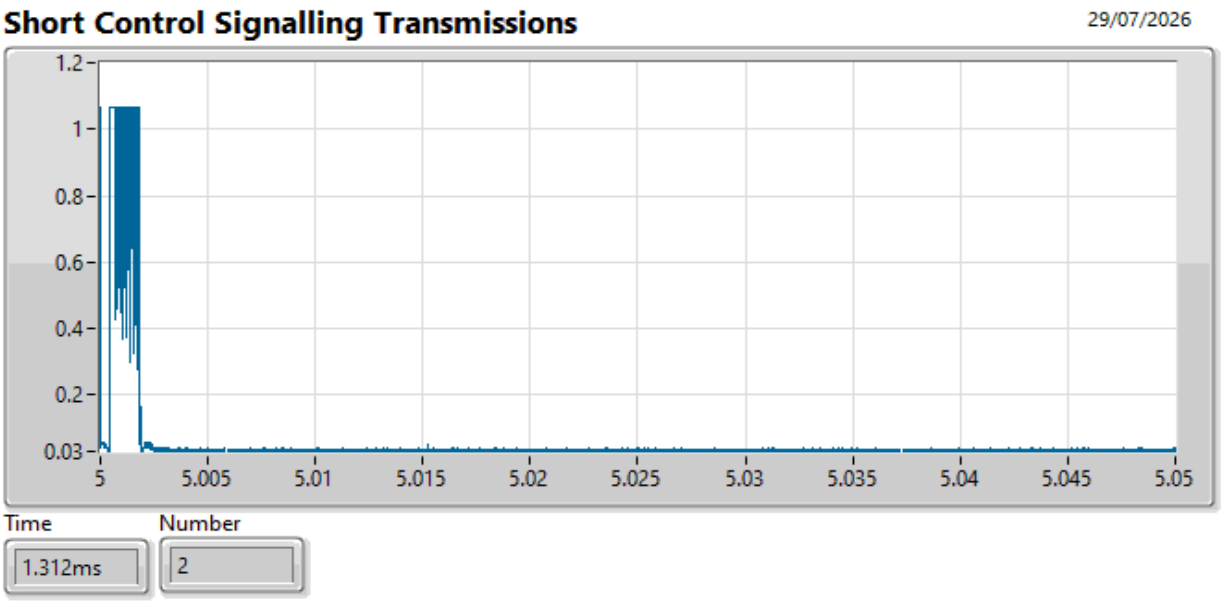
Test Result of Short Control Signalling Transmissions Plots

Short Control Signalling Transmissions Plots

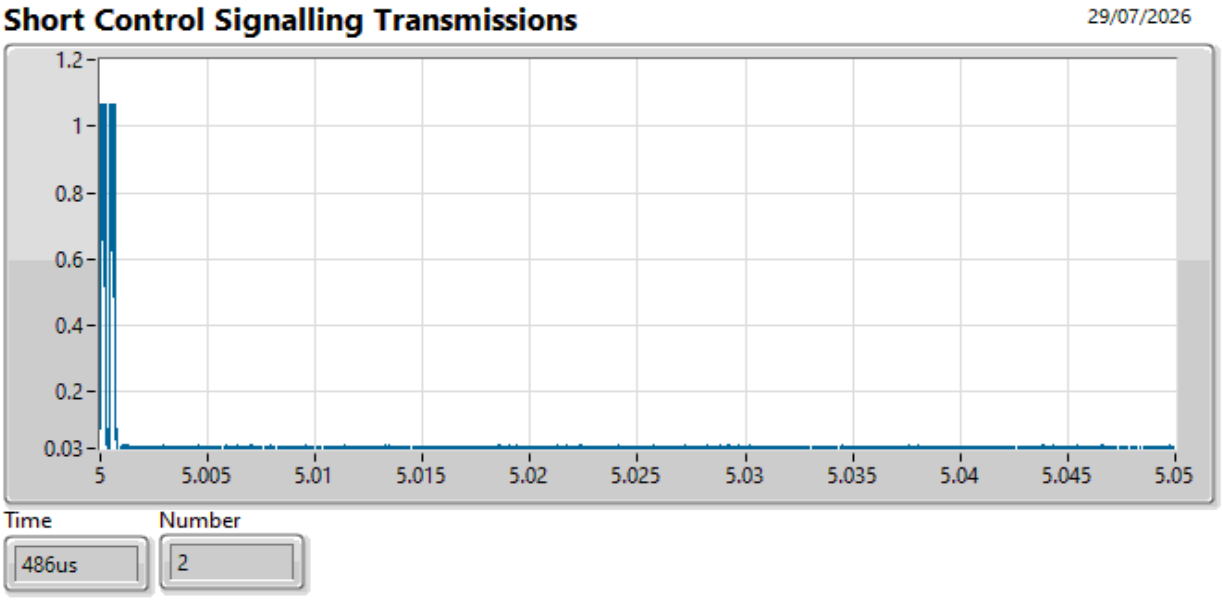
802.11b - 2412MHz



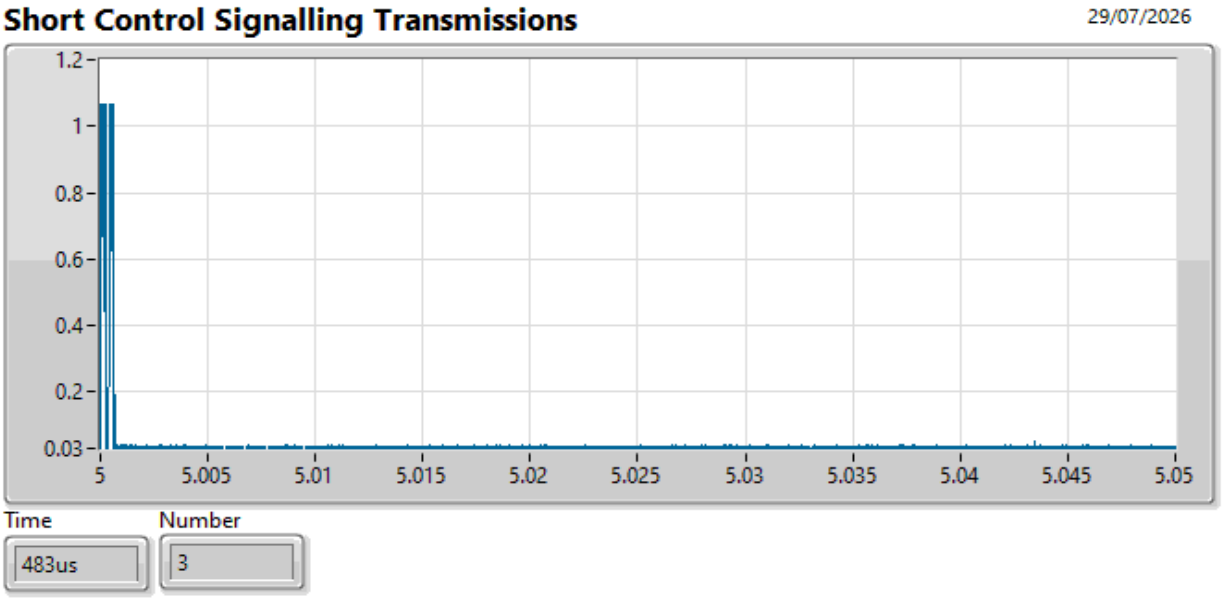
802.11b - 2472MHz



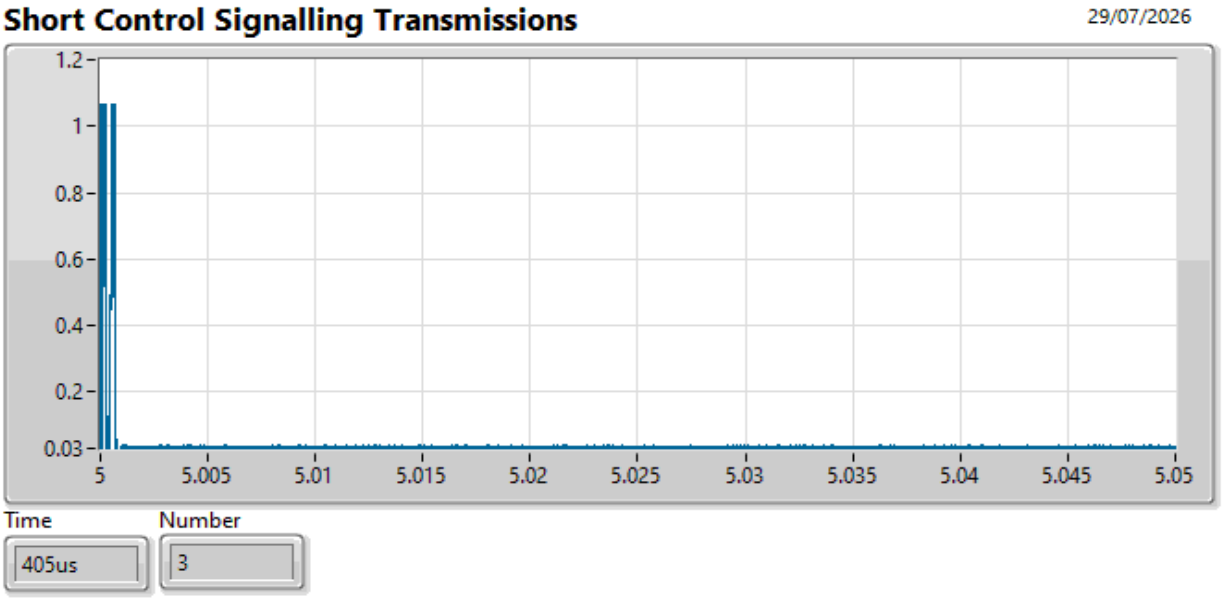
Short Control Signalling Transmissions Plots
802.11g - 2412MHz



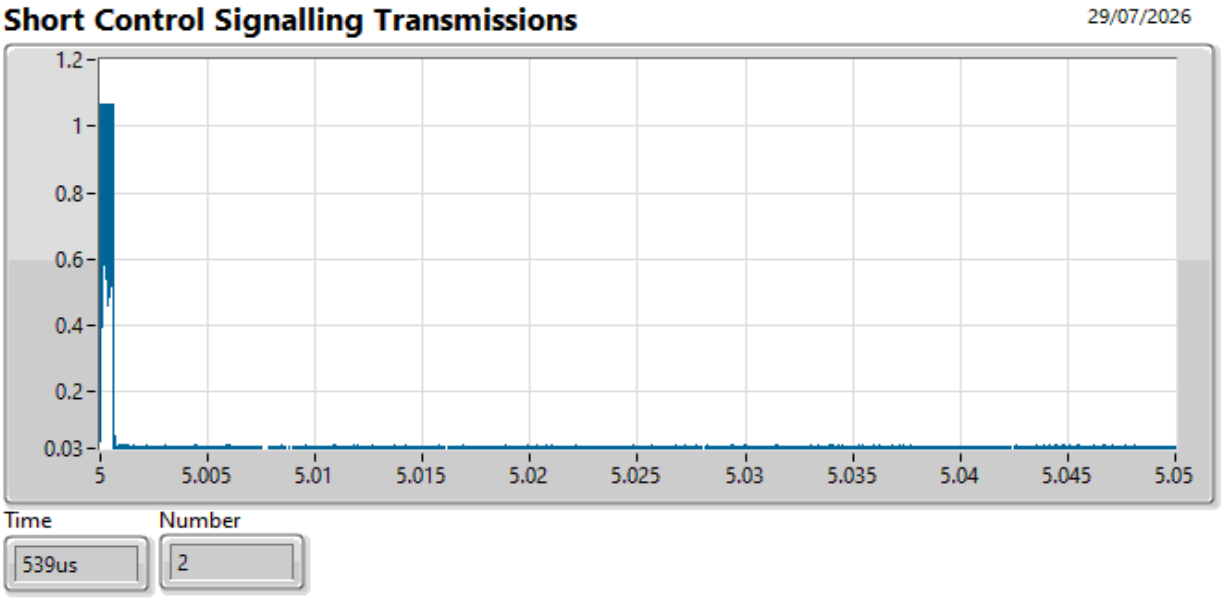
802.11g - 2472MHz



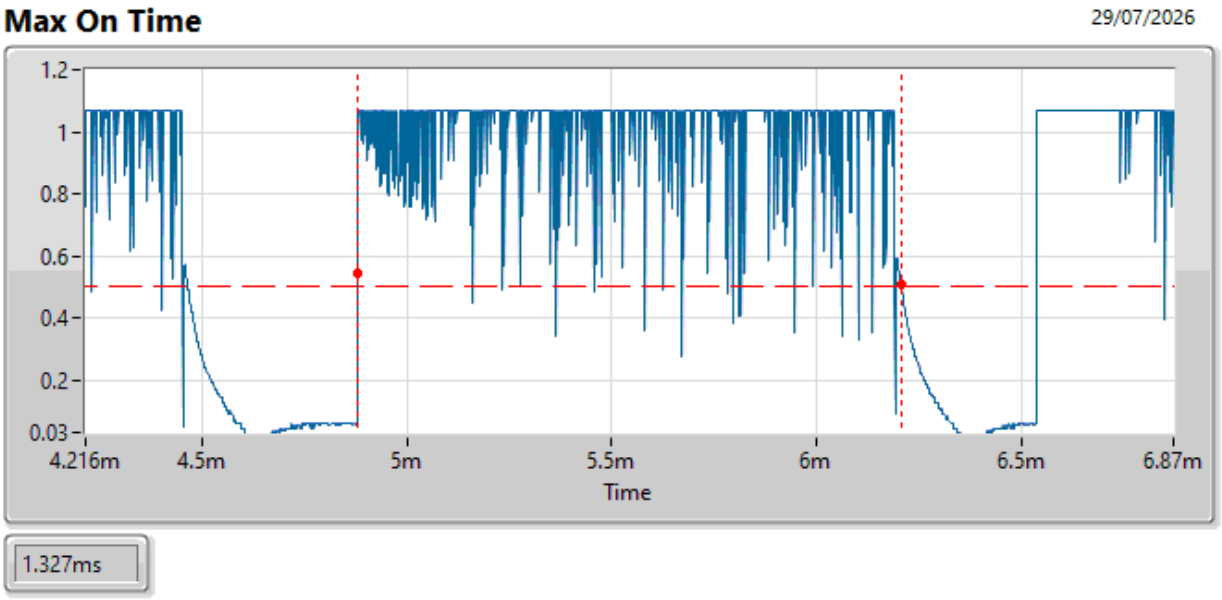
Short Control Signalling Transmissions Plots
802.11ax (HE20) - 2412MHz



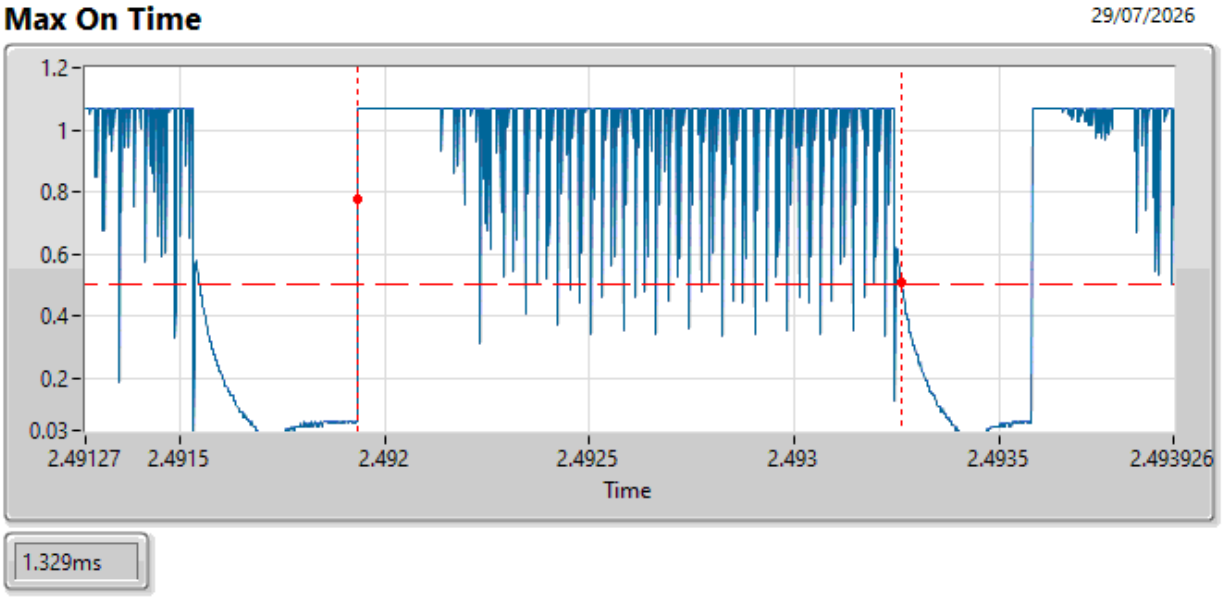
802.11ax (HE20) - 2472MHz



Channel Occupancy Time
802.11b - 2412MHz

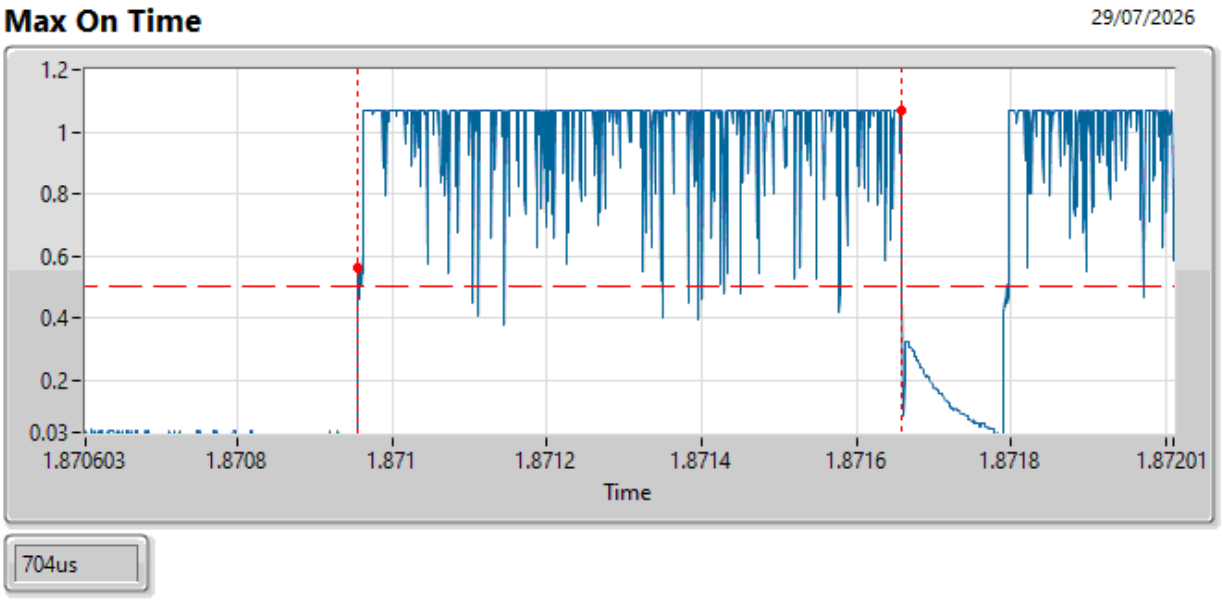


802.11b - 2472MHz

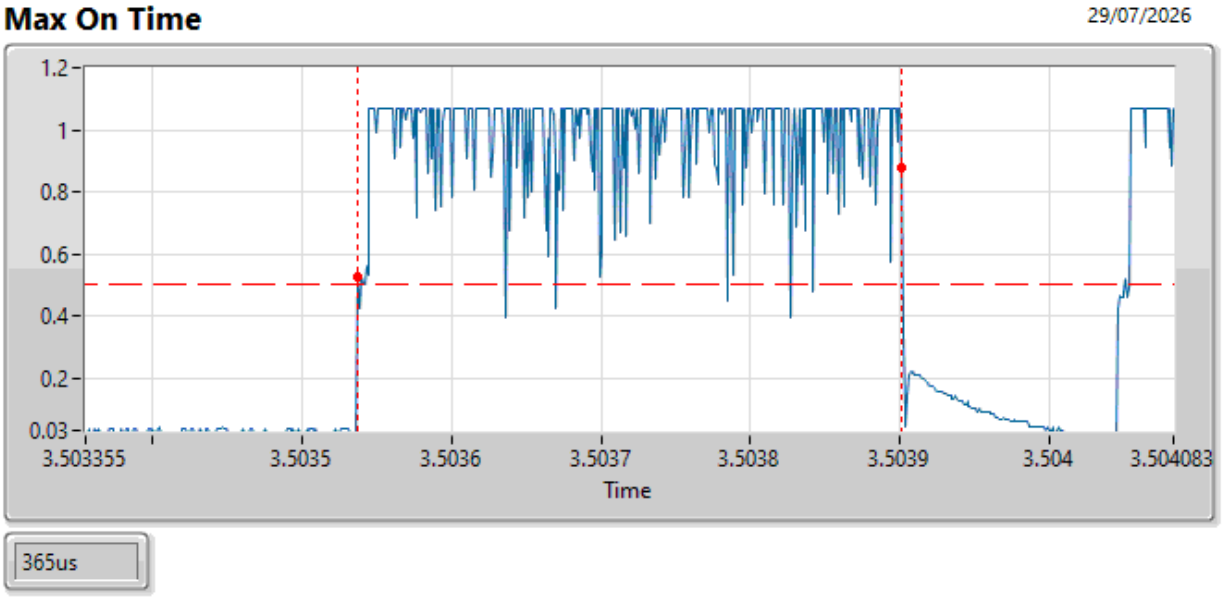


Channel Occupancy Time

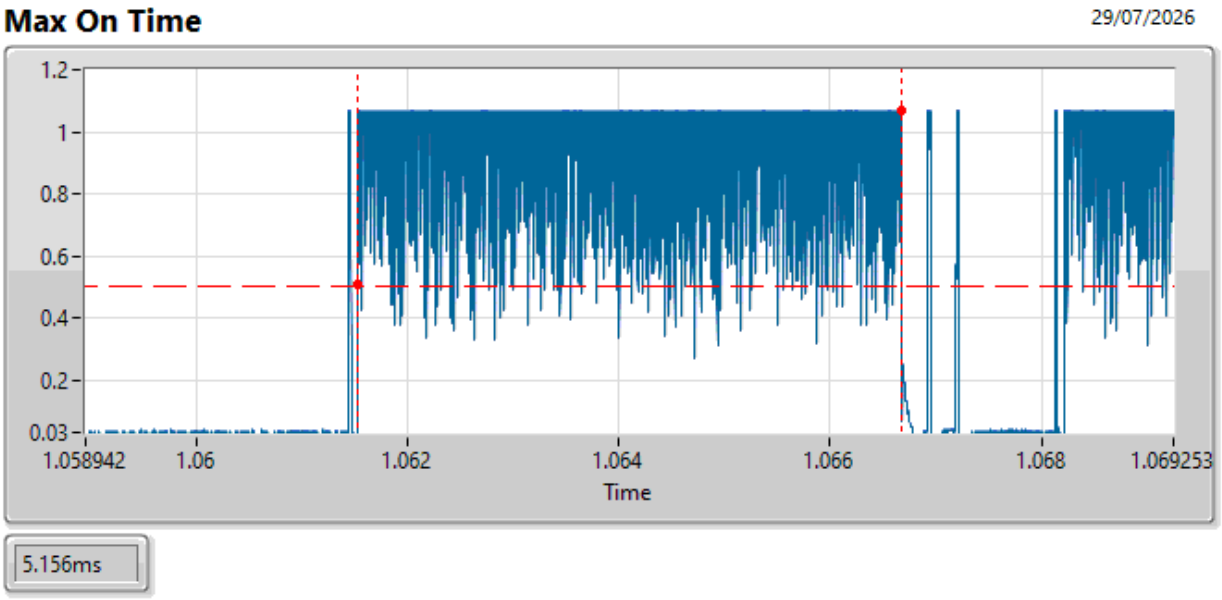
802.11g - 2412MHz



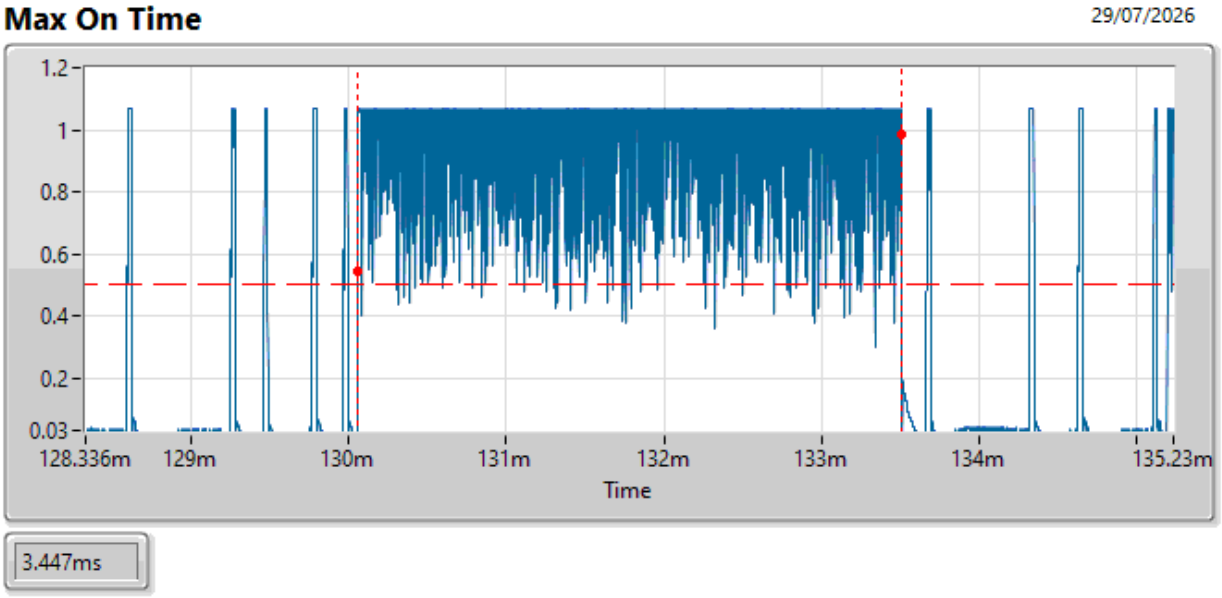
802.11g - 2472MHz



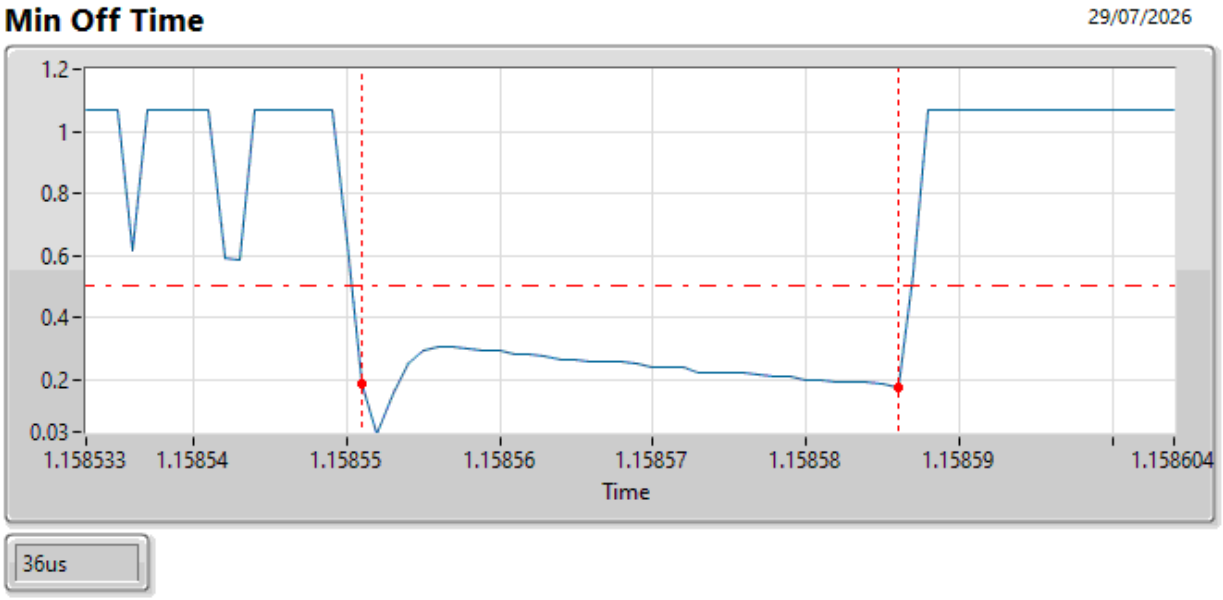
Channel Occupancy Time
802.11ax (HE20) - 2412MHz



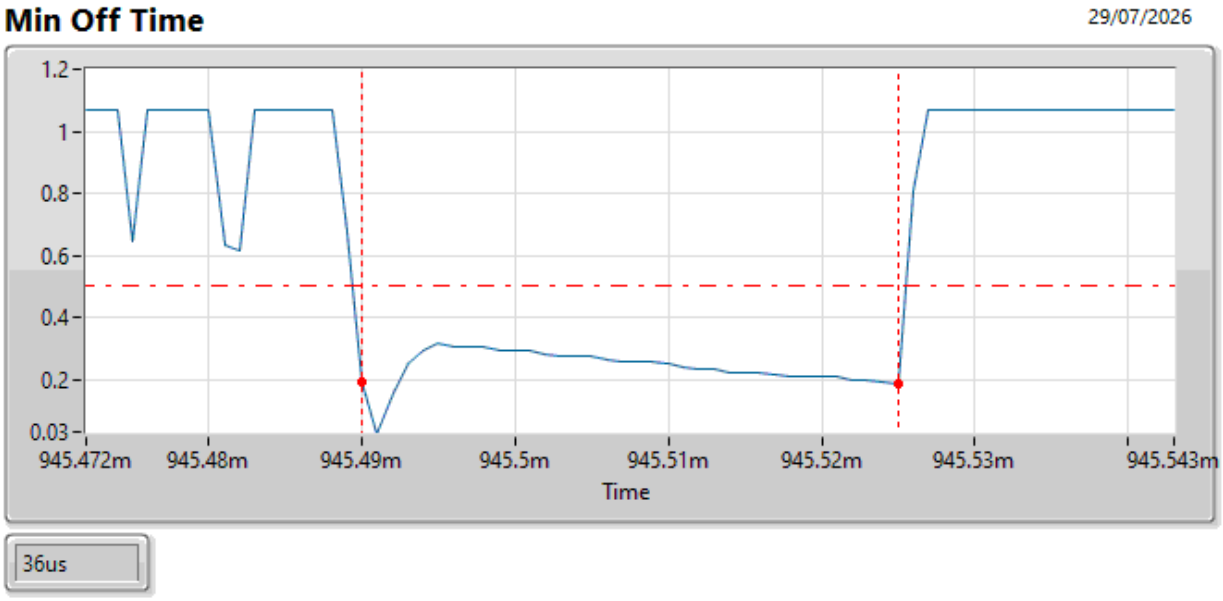
802.11ax (HE20) - 2472MHz



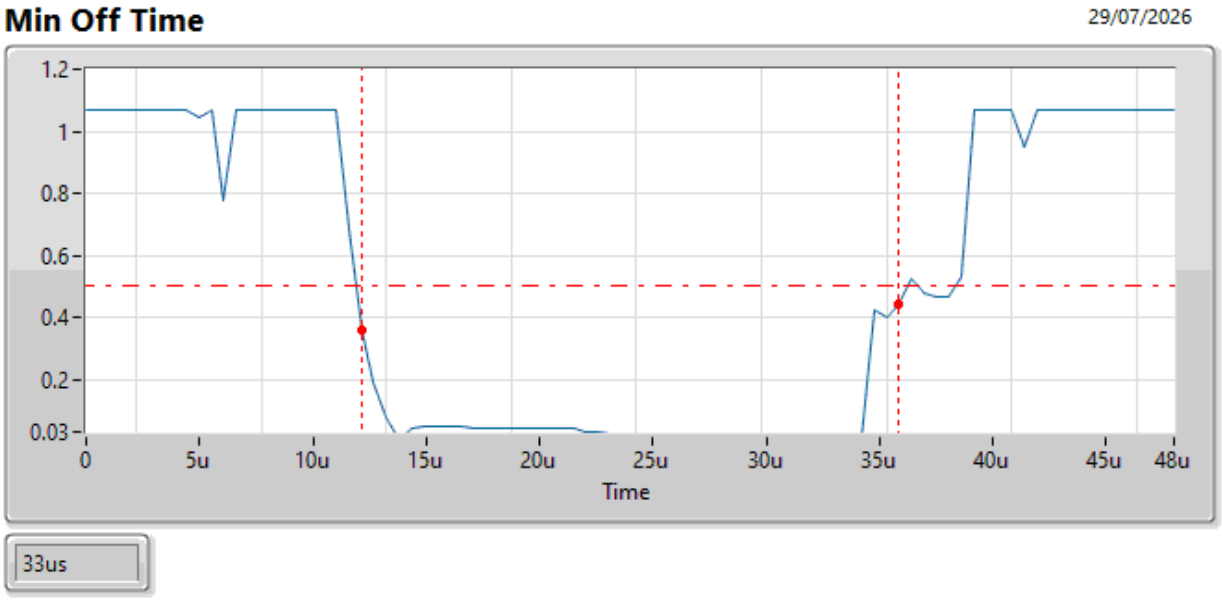
Idle Period Time
802.11b - 2412MHz



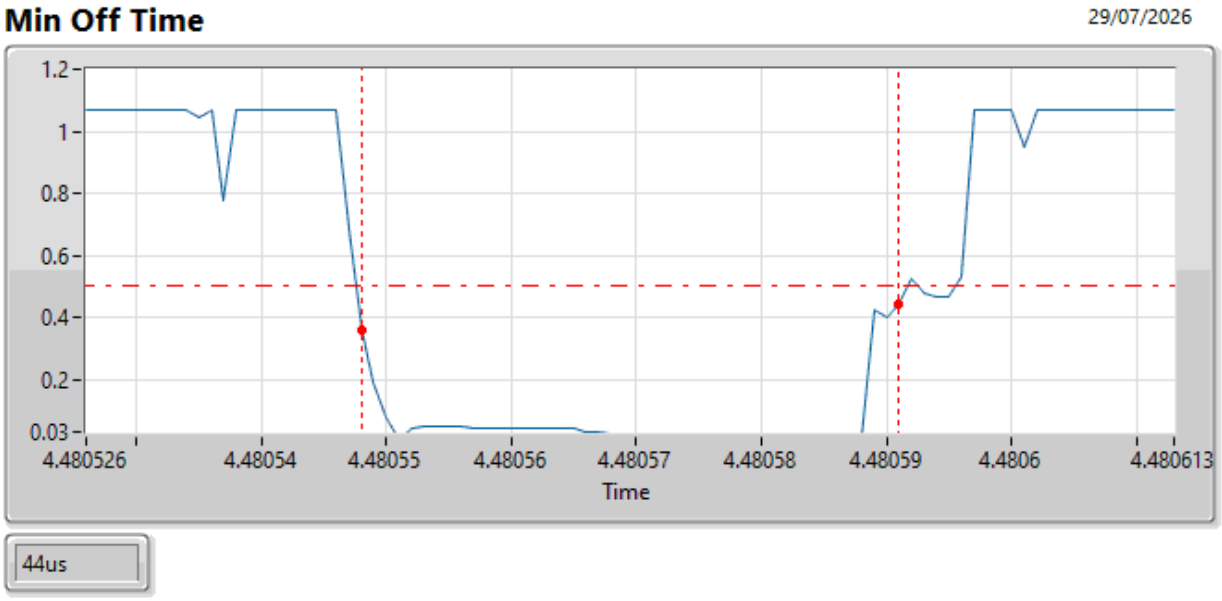
802.11b - 2472MHz



Idle Period Time
802.11g - 2412MHz

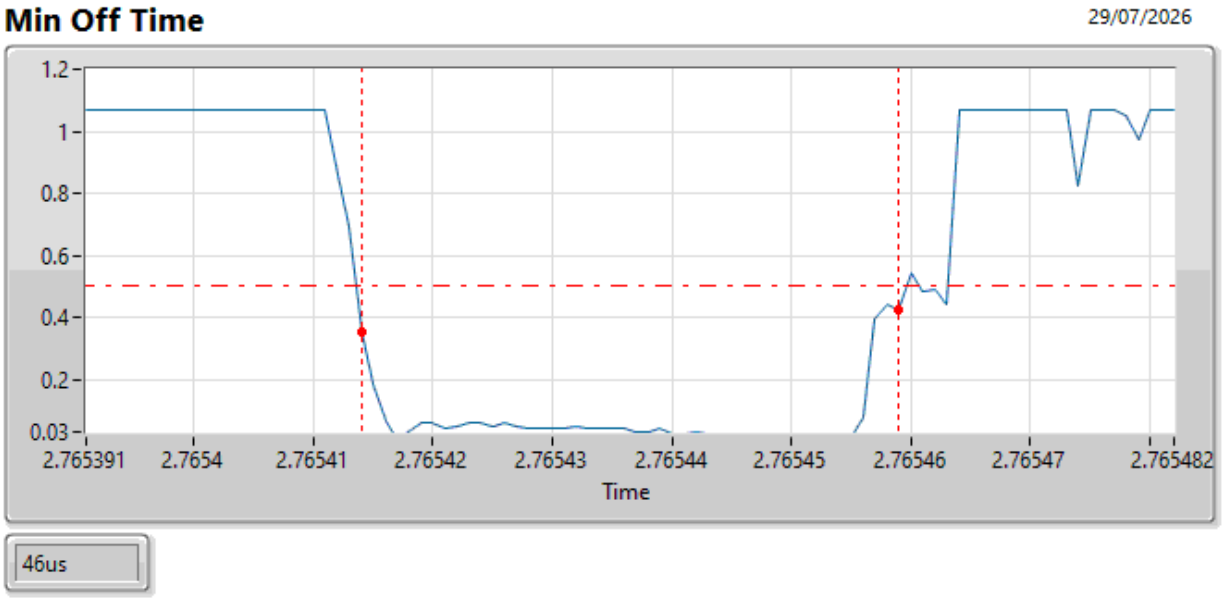


802.11g - 2472MHz

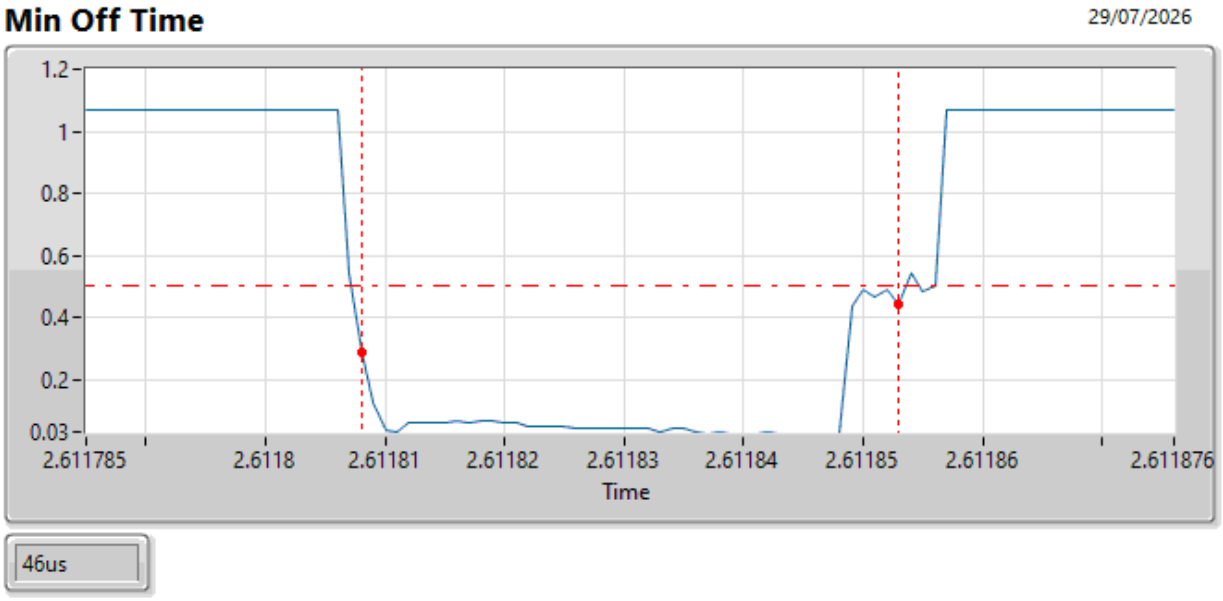


Idle Period Time

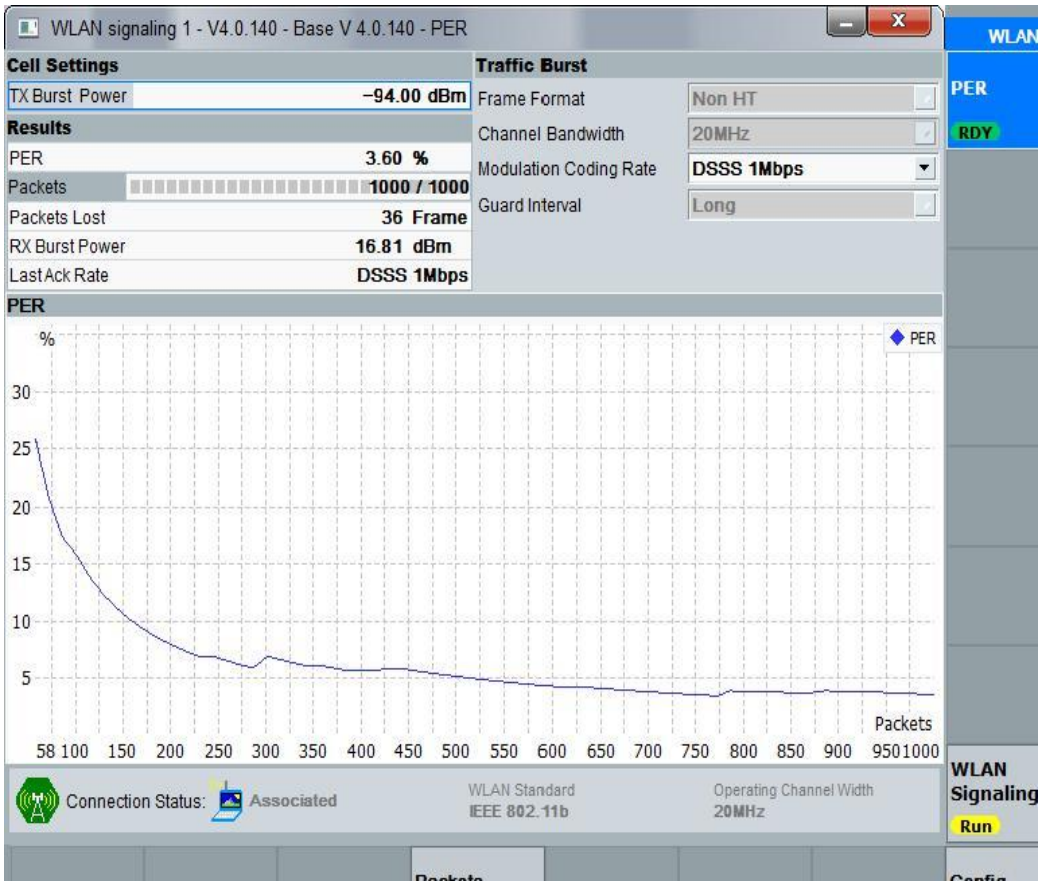
802.11ax (HE20) - 2412MHz



802.11ax (HE20) - 2472MHz



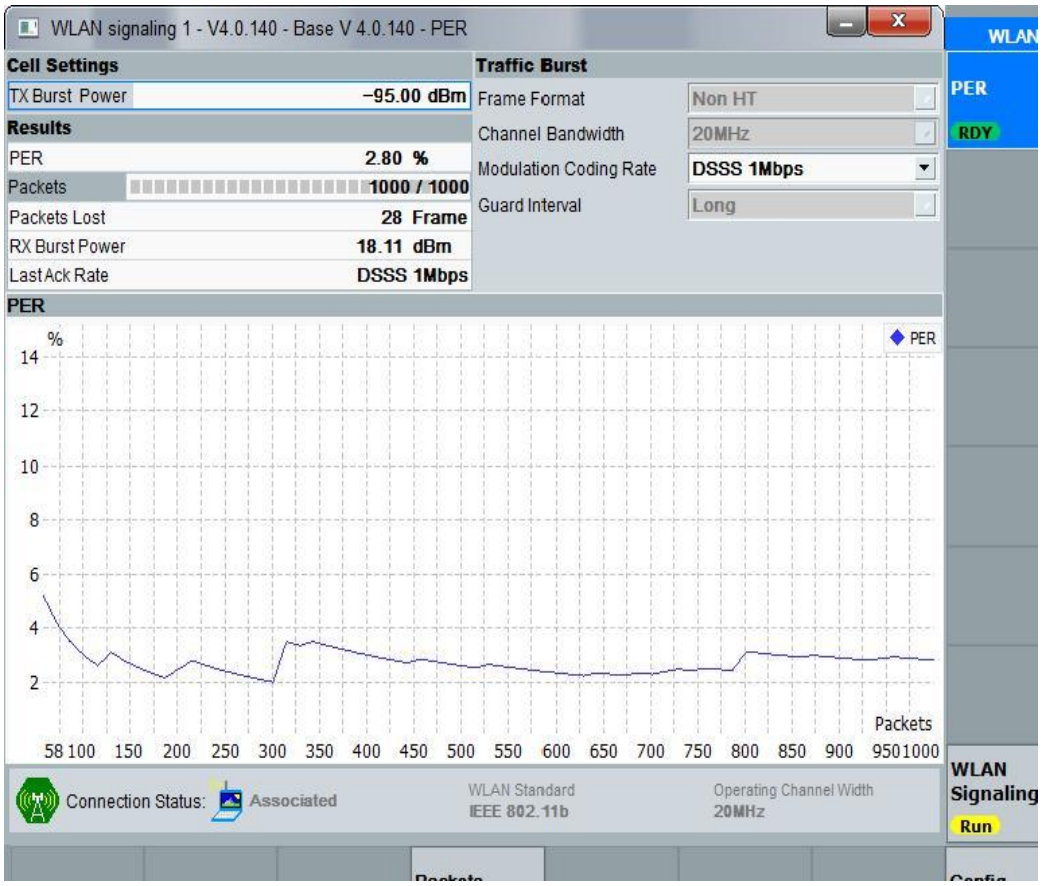
11b / 2412 MHz	
Without Interference Signal Sensitivity Level	



Packet Sent Numbers	1000
Packet Received Numbers	964
PER(%)	3.6

Receiver Category	1		
Performance Criteria Limit	PER ≤ 10 %		
Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)	Test Result
-65.50	2380	-31.5	Pass
-71.50	2300	-31.5	Pass
-71.50	2330	-31.5	Pass
-71.50	2360	-31.5	Pass

11b / 2472 MHz	
Without Interference Signal Sensitivity Level	



Packet Sent Numbers	1000
Packet Received Numbers	972
PER(%)	2.8

Receiver Category	1		
Performance Criteria Limit	PER ≤ 10 %		
Wanted Signal Mean Power from Companion Device (dBm)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm)**	**Test Result**
-65.50	2504	-31.5	Pass
-71.50	2524	-31.5	Pass
-71.50	2584	-31.5	Pass
-71.50	2674	-31.5	Pass