




RADIO TEST REPORT

Equipment : Industrial Wireless Router
Brand Name : Atop
Model Name : AWR5805P/AWR5805
Applicant : Atop Technologies, Inc.
1F, No. 30 R&D Rd. II, Science-Based Industrial
Park, Hsinchu 30076, Tawian , R.O.C
Manufacturer : Atop Technologies, Inc.
1F, No. 30 R&D Rd. II, Science-Based Industrial
Park, Hsinchu 30076, Tawian , R.O.C
Standard : EN 300 328 V2.2.2 (2019-07)

The product was received on Aug. 23, 2022, and testing was started from Sep. 03, 2022 and completed on Oct. 14, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in EN 300 328 V2.2.2 (2019-07) and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
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Appendix G. Test Results of Adaptivity

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Appendix I. Test Photos

Photographs of EUT v01



TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-E5_3 Ver2.1



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	4.3.2.2	RF Output Power	PASS	-
3.2	4.3.2.3	Power Spectral Density	PASS	-
-	4.3.2.4	Duty cycle, Tx-sequence, Tx-gap	N/A	Adaptive Equipment w/o test
-	4.3.2.5	Medium Utilization(MU) factor	N/A	Adaptive Equipment w/o test
5.1	4.3.2.6	Adaptivity	PASS	-
3.3	4.3.2.7	Occupied Channel Bandwidth	PASS	-
3.4	4.3.2.8	Transmitter unwanted emissions in the out-of-band domain	PASS	-
3.5	4.3.2.9	Transmitter unwanted emissions in the spurious domain	PASS	-
4.1	4.3.2.10	Receiver spurious emissions	PASS	-
6.1	4.3.2.11	Receiver Blocking	PASS	-
1.1.7	4.3.2.12	Geo-location capability	N/A	Declared by manufacturer

Declaration of Conformity:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

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.

Reviewed by: Sam Chen

Report Producer: Sophia Shiung

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2472	1-13 [13]
2400-2483.5	n (HT40)	2422-2462	3-11 [9]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port		Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
	2.4GHz	5GHz					2.4GHz	5GHz
1	1	1	PSA	RFDPA141300SBLB301	Dipole	Reversed-SMA	4.35	6.59
2	2	2	PSA	RFDPA141300SBLB301	Dipole	Reversed-SMA	4.35	6.59

Note 1: The above information was declared by manufacturer.

Note 2: **For 2.4GHz function:**

For IEEE 802.11 b/g/n (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11a/n/ac (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

**1.1.3 Duty Cycle**

Mode	DC	DCF (dB)
802.11b	0.992	0.035
802.11g	0.962	0.168
802.11n HT20	0.982	0.079
802.11n HT40	0.965	0.155

1.1.4 EUT Information

EUT Power Type	For EUT 1 (AWR5805P): From DC internal power supply or PoE		
	For EUT 2 (AWR5805): From DC internal power supply		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/> Without beamforming	
Operational Voltage	<input checked="" type="checkbox"/> Vnom (230 Vac)		
Operational Temperature	<input checked="" type="checkbox"/> Tnom (20°C)	<input checked="" type="checkbox"/> Tmax (50°C)	<input checked="" type="checkbox"/> Tmin (-20°C)
Test Software Version	For Conducted measurement / Radiated measurement (CTX)		QSPR_V5.0-00188
	For Radiated measurement (CRX)		QRCT_V4.0.00166.0
Software / Firmware Version for Adaptivity & Receiver Blocking			AWR_1.0.1_CE02

1.1.5 Table for Multiple Listing

The difference for each model is show as below:

EUT	Model Name	PoE Function
1	AWR5805P	V
2	AWR5805	X

Note 1: From the above models, model: AWR5805P (EUT 1) was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

**1.1.6 Adaptive Equipment**

Adaptive Equipment	
<input type="checkbox"/>	non-Adaptive Equipment
<input checked="" type="checkbox"/>	Adaptive Equipment without the possibility to switch to a non-adaptive mode:
<input checked="" type="checkbox"/>	The equipment has implemented an LBT based DAA mechanism:
<input type="checkbox"/>	The equipment is Frame Based equipment
<input checked="" type="checkbox"/>	The equipment is Load Based equipment
<input type="checkbox"/>	The equipment can switch dynamically between Frame Based and Load Based equipment
<input type="checkbox"/>	The equipment has implemented an non-LBT based DAA mechanism
<input type="checkbox"/>	The equipment can operate in more than one adaptive mode
<input type="checkbox"/>	Adaptive Equipment which can also operate in a non-adaptive mode

1.1.7 Geo-location capability supported by the equipment

Geo-location capability supported by the equipment	
<input type="checkbox"/>	Yes
<input type="checkbox"/>	The geographical location determined by the equipment as defined in EN 300 328, clause 4.3.2.12.3 is not accessible to the user.
<input checked="" type="checkbox"/>	No

Note: The above information was declared by manufacturer.



1.2 Applicable Standards

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

- ♦ EN 300 328 V2.2.2 (2019-07)

1.3 Testing Location Information

Testing Location Information		
Test Lab. : Sporton International Inc. Hsinchu Laboratory		
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)	
(TAF: 3787)	TEL: 886-3-656-9065	FAX: 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted (Other Test Items)	TH02-CB	Sean Ku	22.2~24.4 / 53~58	Sep. 03, 2022
Radiated	05CH01-CB	KJ Chang	25.1~25.6 / 63~65	Sep. 03, 2022~ Sep. 05, 2022
RF Conducted (Adaptivity)	DF02-CB	Kevin Huang	25.1~26.8 / 61~66	Sep. 12, 2022~ Sep. 13, 2022
RF Conducted (Receiver Blocking)	DF02-CB	Kevin Huang	22.6~24.6 / 56~59	Sep. 14, 2022~ Oct. 14, 2022

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Parameter	Uncertainty	Remark
Occupied Bandwidth	2.0 %	Confidence levels of 95%
RF Power Conducted	0.8 dB	Confidence levels of 95%
RF Power Density Conducted	3.2 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 12.75GHz)	5.2 dB	Confidence levels of 95%
Temperature	1.2 °C	Confidence levels of 95%
Humidity	3.2 %	Confidence levels of 95%
Time	1.2 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	10.5
2442MHz	10
2472MHz	10.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	11.5
2442MHz	11
2472MHz	11
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	11.5
2442MHz	11
2472MHz	11
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	11.5
2442MHz	11.5
2462MHz	11

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Test Items	RF Output Power, Power Spectral Density Occupied Channel Bandwidth Transmitter unwanted emissions in the out-of-band domain
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Test Item	Transmitter Unwanted Emissions in The Spurious Domain Receiver Spurious Emissions
Test Condition	Radiated measurement
Test Mode	After evaluation, EUT in Y axis was the worst case at Radiated Emissions test, and it was tested and recorded in this report.
1	EUT 1 in Y axis_DC internal power supply



The Worst Case Mode for Following Conformance Tests	
Test Items	Adaptivity
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Test Items	Receiver Blocking
Test Condition	Conducted measurement at a receiver chain

2.3 EUT Operation during Test

During the test, "AWR_1.0.1_CE02" under WIN 7 was executed the test program to control the EUT continuously transmit/receive RF signal.

2.4 Accessories

DC jack*1



2.5 Support Equipment

For RF Conducted (Adaptivity test):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	WLAN module	Intel	AX210NGW	PD9AX210NG
D	DC Power Supply	MOTECH	LPS-305	N/A

For RF Conducted (Receiver Blocking test):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	DC Power Supply	MOTECH	LPS-305	N/A

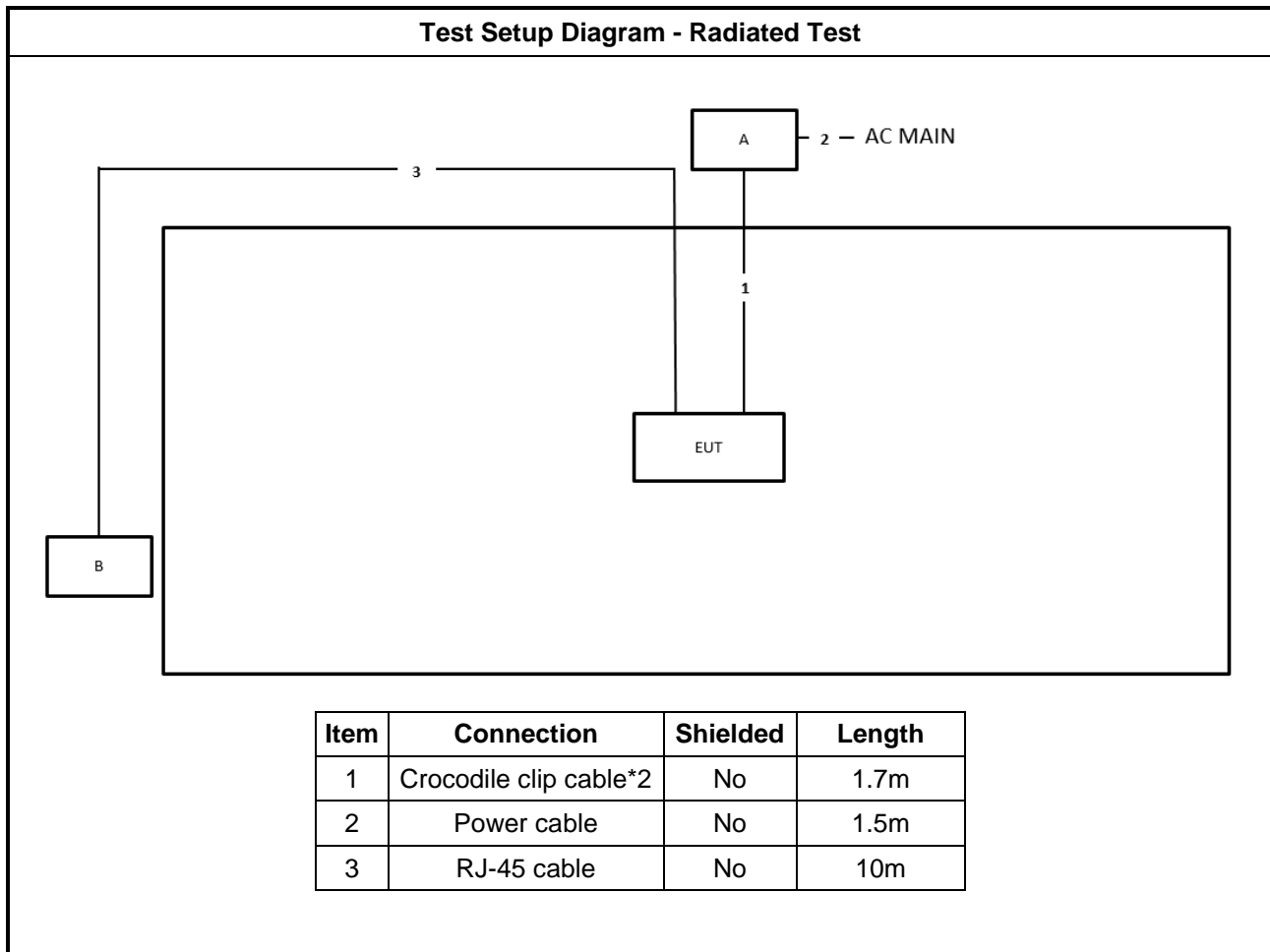
For RF Conducted (Other tests):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Power Supply	Advanced	LPS-305	N/A

For Radiated Emission:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	DC Power Supply	MOTECH	LPS-305	N/A
B	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram



3 Transmitter Test Result

3.1 RF Output Power

3.1.1 RF Output Power Limit

RF Output Power Limit	
<input checked="" type="checkbox"/>	Mean equivalent isotropic radiated power (e.i.r.p.) ≤ 20 dBm

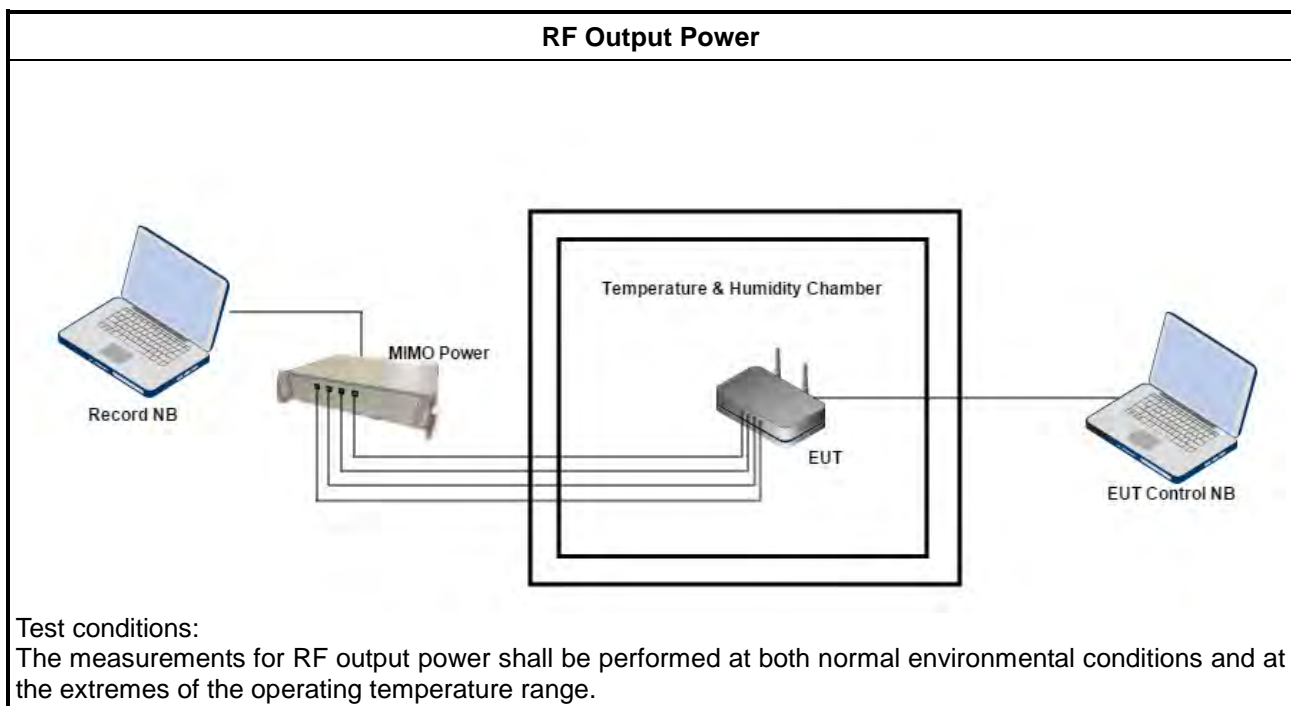
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	The measurements shall be performed at both normal environmental conditions and at the extremes of the operating temperature range.
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.2.2.1 for conducted measurement.
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.2.2.2 for radiated measurement.

3.1.4 Test Setup



3.1.5 Test Result of RF Output Power

Refer as Appendix A



3.2 Power Spectral Density

3.2.1 Power Spectral Density Limit

Power Spectral Density Limit	
<input checked="" type="checkbox"/>	Mean equivalent isotropic radiated power (e.i.r.p.) density ≤ 10 dBm/MHz

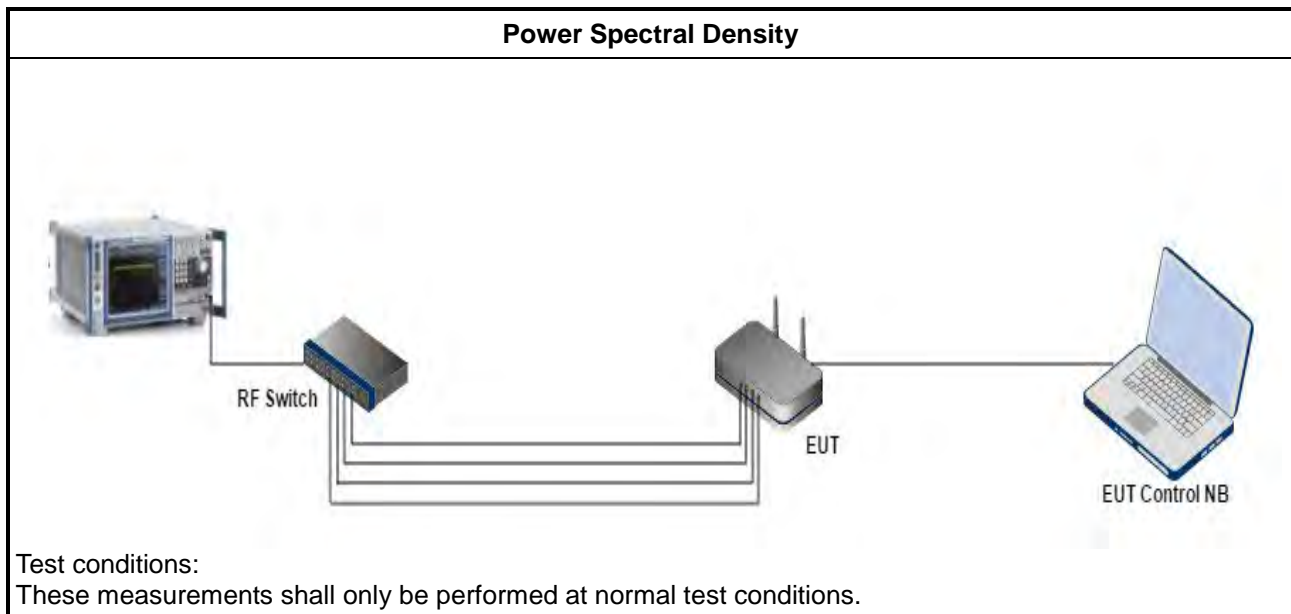
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Power spectral density shall be measured using one of the options below.
<input type="checkbox"/>	Option 1: For equipment with continuous and non-continuous transmissions. Refer as EN 300 328, clause 5.4.3.2.1.
<input checked="" type="checkbox"/>	Option 2: For equipment with continuous transmission capability or for equipment operating (or with the capability to operate) with a constant duty cycle (e.g. Frame Based equipment). Refer as EN 300 328, clause 5.4.3.2.1.
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.3.2.1 for conducted measurement.
<input type="checkbox"/>	Option 1: For equipment with continuous and non-continuous transmissions
<input checked="" type="checkbox"/>	Option 2: For equipment with continuous transmission capability or for equipment operating (or with the capability to operate) with a constant duty cycle (e.g. Frame Based equipment)
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.3.2.2 for radiated measurement.

3.2.4 Test Setup



3.2.5 Test Result of Power Spectral Density

Refer as Appendix B

3.3 Occupied Channel Bandwidth

3.3.1 Occupied Channel Bandwidth Limit

Occupied Channel Bandwidth Limit	
Type of Frequency Hopping Equipment:	
<input type="checkbox"/>	Occupied Channel Bandwidth for each hopping frequency fall completely within 2.4 GHz – 2.4835 GHz.
<input type="checkbox"/>	For non-adaptive equipment with e.i.r.p greater than 10 dBm, Occupied Channel Bandwidth \leq 5 MHz.
Type of Equipment Using Wide Band Modulations Other than FHSS:	
<input checked="" type="checkbox"/>	Occupied Channel Bandwidth fall completely within 2.4 GHz – 2.4835 GHz.
<input type="checkbox"/>	For non-adaptive equipment with e.i.r.p greater than 10 dBm, Occupied Channel Bandwidth \leq 20 MHz.

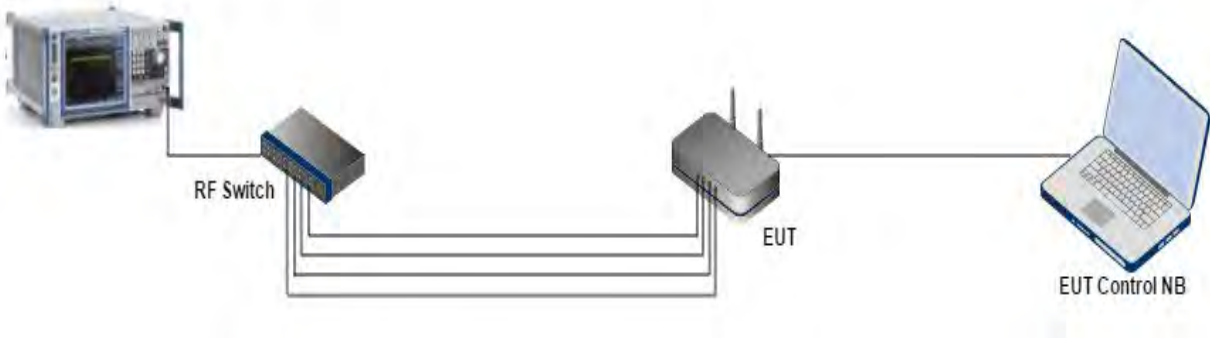
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.7.2.1 for conducted measurement.
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.7.2.2 for radiated measurement.

3.3.4 Test Setup

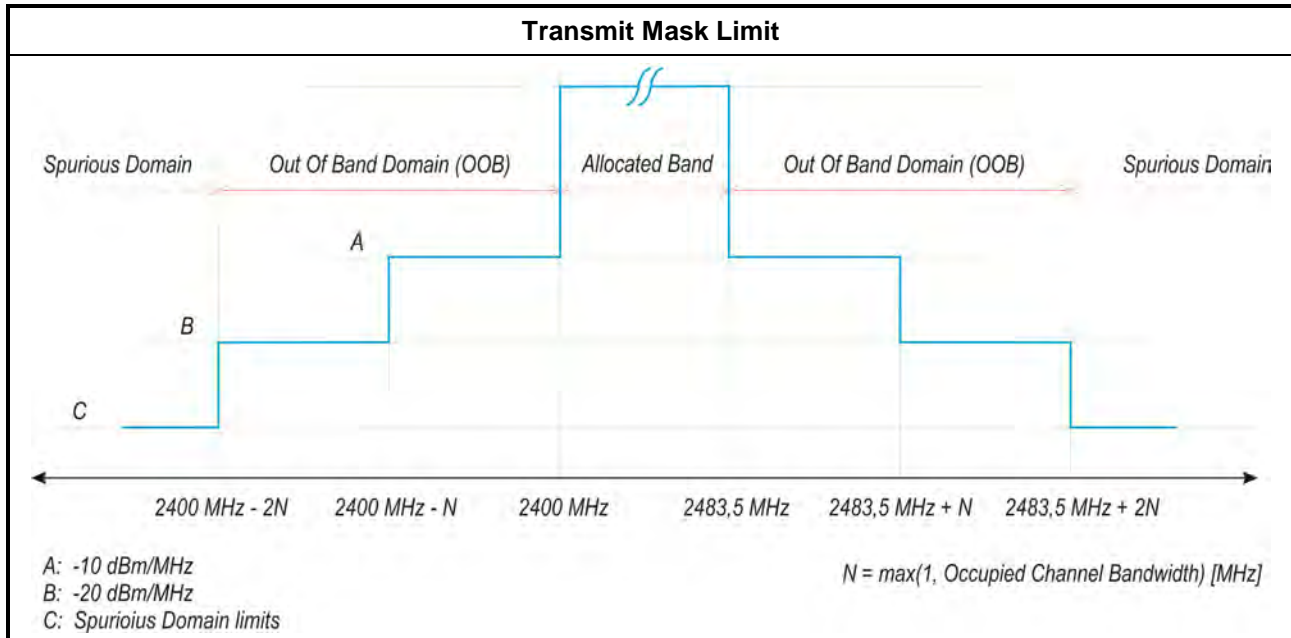
Emission Bandwidth
 <p>Test conditions: These measurements shall only be performed at normal test conditions. In case of conducted measurements on smart antenna systems (equipment with multiple transmit chains) measurements need only to be performed on one of the active transmit chains (antenna outputs).</p>

3.3.5 Test Result of Occupied Channel Bandwidth

Refer as Appendix C

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

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



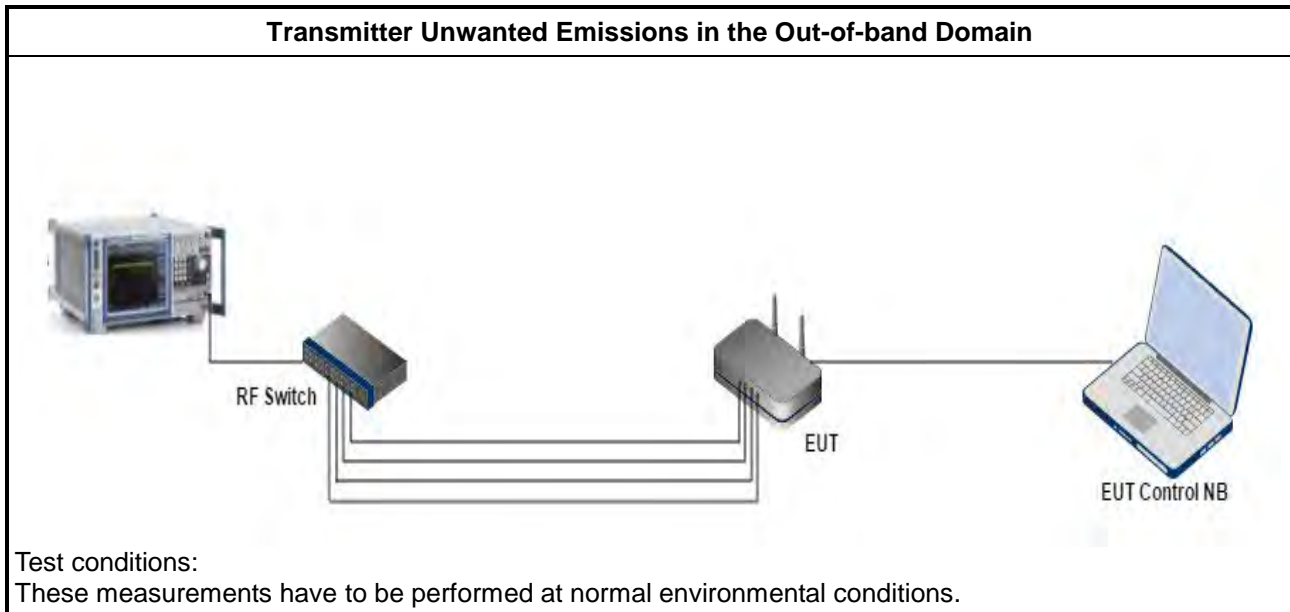
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	The measurements shall be performed at normal environmental condition.
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.8.2.1 for conducted measurement.
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.8.2.2 for radiated measurement.

3.4.4 Test Setup



3.4.5 Test Result of Transmitter Unwanted Emissions in the Out-of-band Domain

Refer as Appendix D

3.5 Transmitter Unwanted Emissions in the Spurious Domain

3.5.1 Transmitter Unwanted Emissions in the Spurious Domain Limit

Frequency Range	Maximum Power	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 694 MHz	-54 dBm	100 kHz
694 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz
Note 1: spurious domain $\leq (2400 \text{ MHz} - 2N)$ and spurious domain $\geq (2483.5 \text{ MHz} + 2N)$; N = MAX (1, Occupied Channel Bandwidth) MHz		

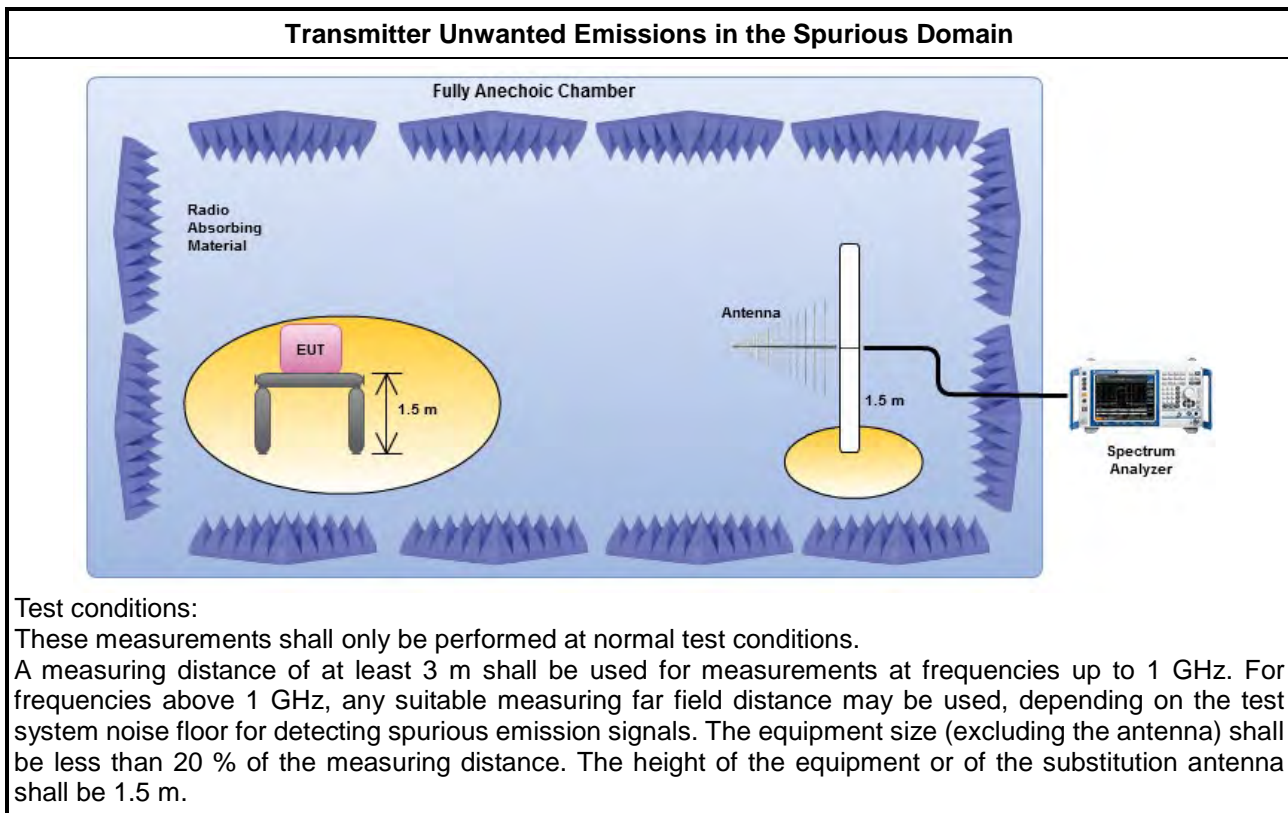
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.9.2.1 for conducted measurement. Conducted spurious emissions and radiated by the cabinet with the antenna connector(s) terminated by a specified load (cabinet radiation).
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.9.2.2 for radiated measurement.

3.5.4 Test Setup



3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.

3.5.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix E

4 Receiver Test Result

4.1 Receiver Spurious Emissions

4.1.1 Receiver Spurious Emissions Limit

Frequency Range	Maximum Power	Bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 12,75 GHz	-47 dBm	1 MHz

4.1.2 Measuring Instruments

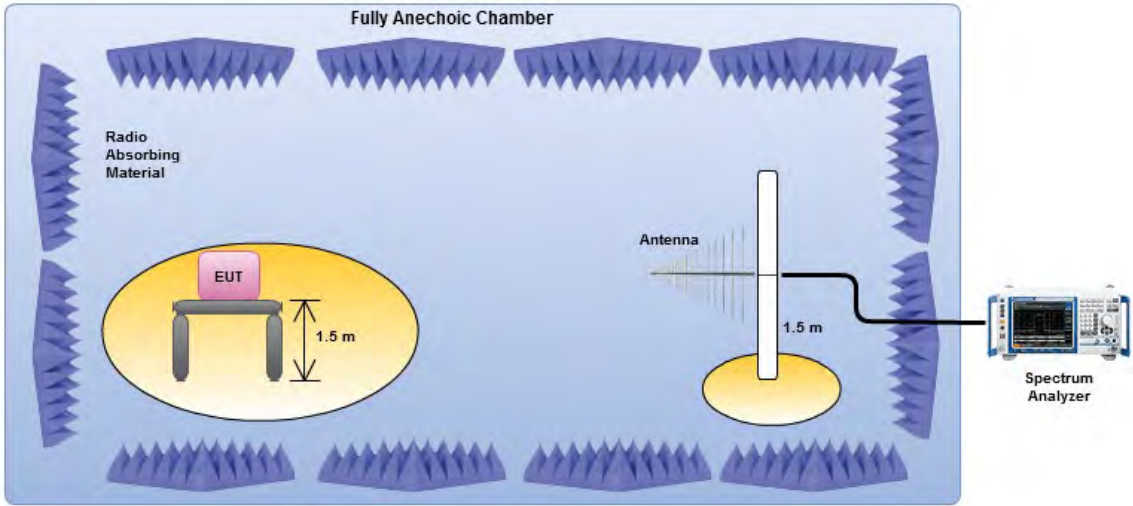
Refer a test equipment and calibration data table in this test report.

4.1.3 Test Procedures

Test Method
<input type="checkbox"/> Refer as EN 300 328, clause 5.4.10.2.1 for conducted measurement. Conducted spurious emissions and radiated by the cabinet with the antenna connector(s) terminated by a specified load (cabinet radiation).
<input checked="" type="checkbox"/> Refer as EN 300 328, clause 5.4.10.2.2 for radiated measurement.

4.1.4 Test Setup

Receiver Spurious Emissions



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



4.1.5 Measurement Results Calculation

The measured Level is calculated using:

Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.

4.1.6 Test Result of Receiver Radiated Spurious Emissions

Refer as Appendix F



5 Adaptivity Test Result

5.1 Adaptivity

5.1.1 Adaptivity Limit

Adaptivity Limit	
<input checked="" type="checkbox"/>	Only for adaptive systems and RF Output Power > 10 dBm
<input type="checkbox"/>	Non-LBT based Detect and Avoid: <ul style="list-style-type: none">♦ Minimum remain unavailable = 1sec;♦ Minimum Idle Period time = 100us;♦ Maximum COT = 40ms♦ i.e. COT [40ms] + Idle Period [2ms - 5% of COT]; N x [COT+Idle];♦ TL = -70 dBm/MHz + (20 dBm - Pout e.i.r.p.)/1 MHz (Pout in dBm).
<input type="checkbox"/>	LBT based Detect and Avoid (Frame Based Equipment): <ul style="list-style-type: none">♦ Minimum Clear Channel Assessment (CCA) time > 18 us;♦ Maximum COT = 1 ms to 10 ms♦ Minimum of Idle period Time > 5% of COT♦ e.g. CCA [120us] + COT [10ms] + Idle Period [0.5ms - 5% of COT];♦ TL = -70 dBm/MHz + (20 dBm - Pout e.i.r.p.)/1 MHz (Pout in dBm).
<input checked="" type="checkbox"/>	LBT based Detect and Avoid (Load Based Equipment with spectrum sharing mechanism IEEE Std.): <ul style="list-style-type: none">♦ LBT based spectrum sharing mechanism may implement IEEE 802.11TM-2016[i.3] clause 10, clause 11, clause 15, clause 16, clause 18 and clause 19 or in IEEE 802.15.4TM-2015[i.4], clause 5, clause 6 and clause 10TL = -70 dBm/MHz + (20 dBm - Pout e.i.r.p.)/1 MHz (Pout in dBm).
<input type="checkbox"/>	LBT based Detect and Avoid (Load Based Equipment): <ul style="list-style-type: none">♦ Minimum Clear Channel Assessment (CCA) time >18 us;♦ Maximum COT ≤ 13ms;♦ Minimum of Idle period Time >18 us;TL = -70 dBm/MHz + (20 dBm - Pout e.i.r.p.)/1 MHz (Pout in dBm).
<input checked="" type="checkbox"/>	Short Control Signaling Transmissions: <ul style="list-style-type: none">♦ Short Control Signaling 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 Signal Mean power (dBm)	Type of Interfering Signal
LBT	sufficient to maintain the link (see note 2)	2395 or 2488,5 (see note 1)	-35 (see note 3)	CW
Non-LBT	-30 dBm			
<p>Note 1: The highest frequency shall be used for testing operating channels within the range 2 400 MHz to 2 442 MHz, while the lowest frequency shall be used for testing operating channels within the range 2 442 MHz to 2 483,5 MHz.</p> <p>Note 2: A typical conducted value which can be used in most cases is -50 dBm/MHz.</p> <p>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 in front of the UUT antenna.</p>				

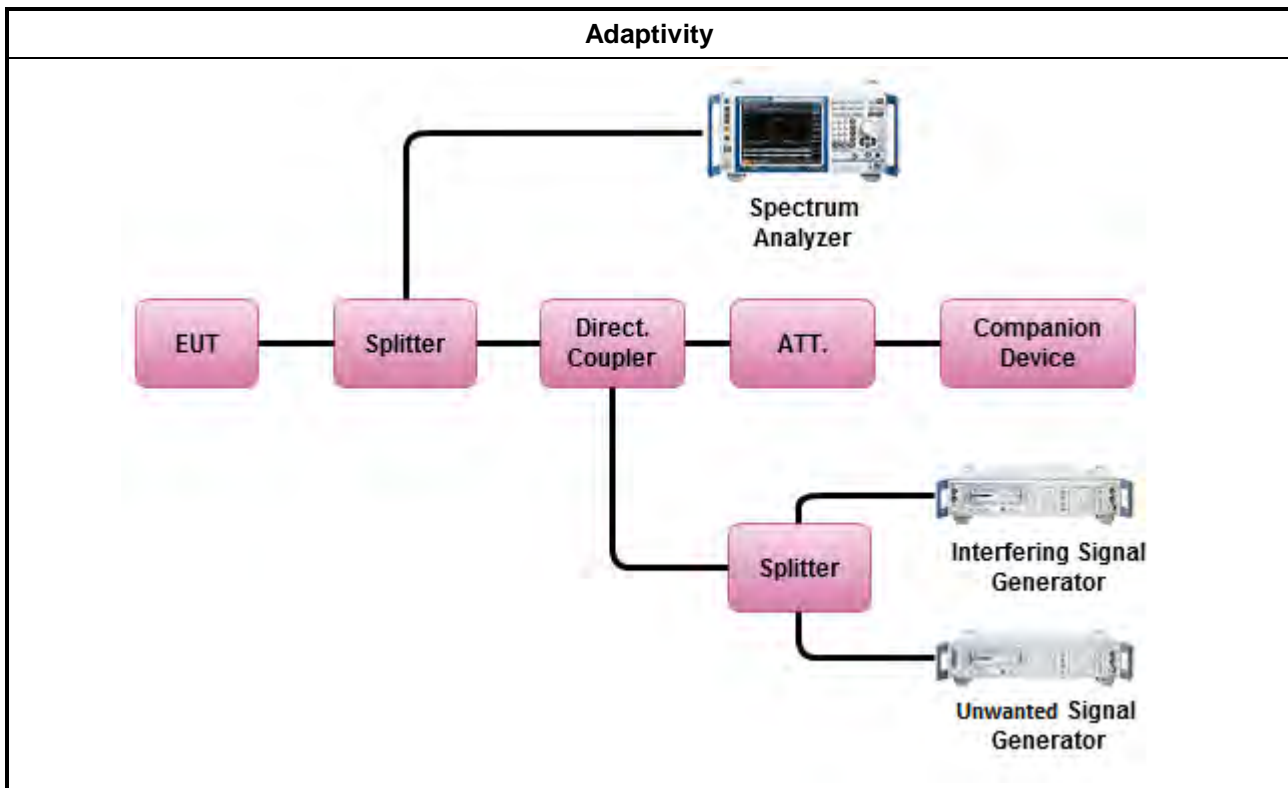
5.1.2 Measuring Instruments

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

5.1.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.6.2.1 for conducted measurement.
<input checked="" type="checkbox"/>	For conducted measurements on devices with multiple transmit chains and receive chains. The power splitter/combiner shall be used to combine all the transmit/receive chains (antenna outputs) into a single test point. The insertion loss of the power splitter/combiner shall be taken into account.
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.6.2.2 for radiated measurement.

5.1.4 Test Setup



5.1.5 Test Result of Adaptivity

Refer as Appendix G



6 Receiver Blocking Test Result

6.1 Receiver Blocking

6.1.1 Receiver Blocking Limit

Receiver Blocking Limit	
<input checked="" type="checkbox"/>	Receiver Category 1: Adaptive equipment with a maximum RF output power greater than 10 dBm e.i.r.p. shall be considered as receiver category 1 equipment.
<input type="checkbox"/>	Receiver Category 2: Non-adaptive equipment with a Medium Utilization (MU) factor greater than 1 % and less than or equal to 10 % or adaptive equipment with a maximum RF output power of 10 dBm e.i.r.p. shall be considered as receiver category 2 equipment.
<input type="checkbox"/>	Receiver Category 3: Non-adaptive equipment with a maximum Medium Utilization (MU) factor of 1 % or adaptive equipment with a maximum RF output power of 0 dBm e.i.r.p. shall be considered as receiver category 3 equipment.

Table 1: Receiver Blocking Parameters for Receiver Category 1 Equipment			
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 × log 10 (OCBW)) or -68 dBm whichever is less (see note 2)	2 380 2 504	-34	CW
(-139 dBm + 10 × log 10 (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 Pmin + 26 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria. 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 Pmin + 20 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria. 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.			

Table 2: Receiver Blocking Parameters for Receiver Category 2 Equipment

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 × log 10 (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.

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.

Table 3: Receiver Blocking Parameters for Receiver Category 3 Equipment

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 × log 10 (OCBW) + 20 dB) or (-74 dBm + 20 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 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.

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.

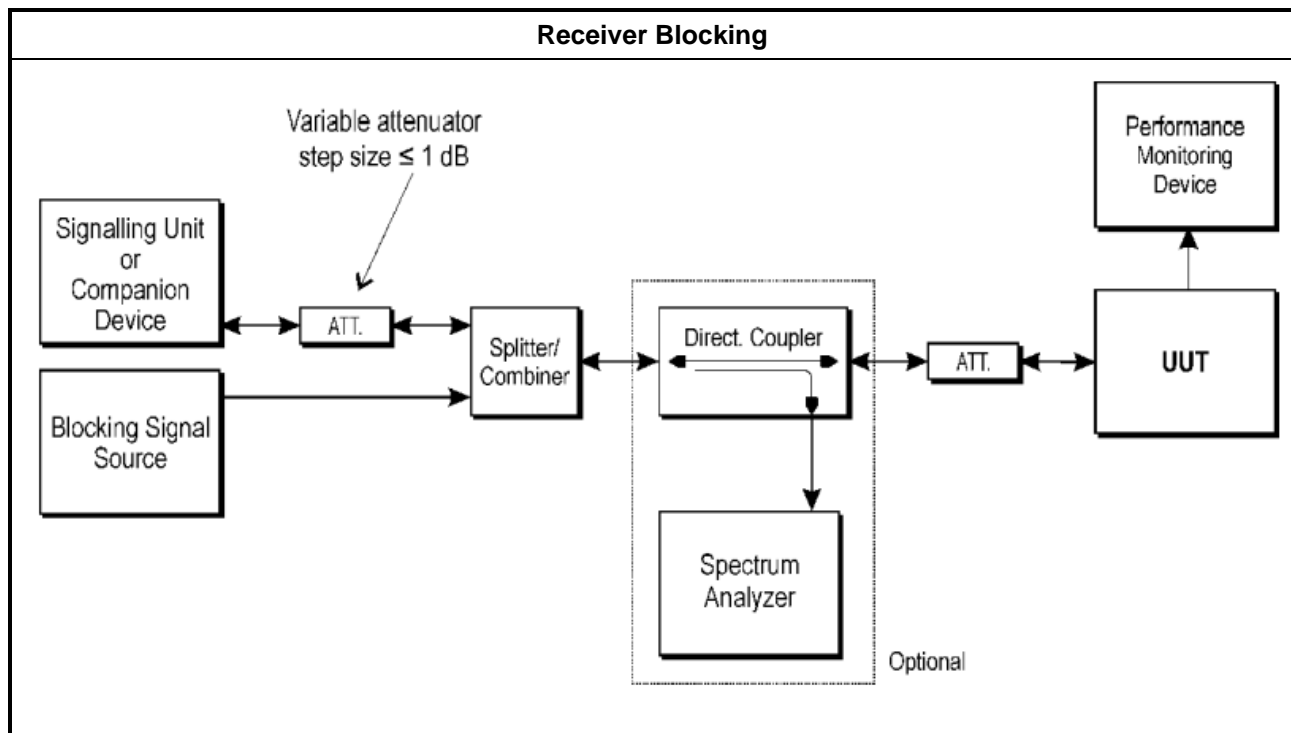
6.1.2 Measuring Instruments

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

6.1.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Refer as EN 300 328, clause 5.4.11.2.1 for conducted measurement.
<input checked="" type="checkbox"/>	For systems using multiple receive chains only one chain (antenna port) need to be tested. All other receiver inputs shall be terminated. For non-frequency hopping equipment, the UUT shall be set to the lowest operating channel.
<input type="checkbox"/>	Refer as EN 300 328, clause 5.4.11.2.2 for radiated measurement.

6.1.4 Test Setup



6.1.5 Test Result of Receiver Blocking

Refer as Appendix H



7 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101024	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 23, 2023	Radiation (05CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980537	25MHz~1GHz	Mar. 04, 2022	Mar. 03, 2023	Radiation (05CH01-CB)
Pre-Amplifier	EMCI	EMC012645SE	980341	1GHz ~ 26.5GHz	Dec. 09, 2021	Dec. 08, 2022	Radiation (05CH01-CB)
Bilog Antenna	Schaffner	CBL6112B	2894	25MHz ~ 1GHz	Feb. 08, 2022	Feb. 07, 2023	Radiation (05CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 27, 2021	Dec. 26, 2022	Radiation (05CH01-CB)
CABLE	Woken	N/A	Low Cable-06	25MHz ~ 1GHz	Mar. 04, 2022	Mar. 03, 2023	Radiation (05CH01-CB)
CABLE	Woken	N/A	High Cable-25+26	1GHz ~ 26.5GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (05CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (05CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 15, 2022	Aug. 14, 2023	Conducted (TH02-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-C2SP	TBN-101020 6	-20~100 degree	Feb. 18, 2022	Feb. 17, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2021	Nov. 04, 2022	Conducted (TH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Sensor	Agilent	U2021XA	MY53410002	50MHz~18GHz	Nov. 05, 2021	Nov. 04, 2022	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)
Spectrum Analyzer	R&S	FSV40	101025	9kHz ~ 40GHz	Nov. 06, 2021	Nov. 05, 2022	Conducted (DF02-CB)
Vector Signal generator	R&S	SMU200A	105352	25MHz-6GHz	Mar. 11, 2022	Mar. 10, 2023	Conducted (DF02-CB)
Signal generator	R&S	SMB100A	181239	1MHz-40GHz	Jan. 05, 2022	Jan. 04, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -07	1GHz ~ 8GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -07	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -08	1GHz ~ 8GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -08	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-02	1GHz ~ 6GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-02	1GHz ~ 6GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-04	1GHz ~ 6GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-04	1GHz ~ 6GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-05	1GHz ~ 6GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV-05	1GHz ~ 6GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)

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Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz –26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz –26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
Wireless Connectivity Tester	R&S	CMW270	100854	70MHz – 6 GHz	Dec. 22, 2021	Dec. 21, 2022	Conducted (DF02-CB)

Note: Calibration Interval of instruments listed above is one year.

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

Summary

Mode	EIRP (dBm)	EIRP (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	18.96	0.07870
802.11g_Nss1,(6Mbps)_2TX	19.97	0.09931
802.11n HT20_Nss1,(MCS0)_2TX	19.92	0.09817
802.11n HT40_Nss1,(MCS0)_2TX	19.89	0.09750

Result

Mode	Result	Gain (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	11.31	10.71	14.03	18.38	20.00
2412MHz_Tmin	Pass	4.35	11.32	11.47	14.41	18.76	20.00
2412MHz_Tmax	Pass	4.35	11.57	11.45	14.52	18.87	20.00
2442MHz_Tnom	Pass	4.35	11.19	11.13	14.17	18.52	20.00
2442MHz_Tmin	Pass	4.35	11.25	11.37	14.32	18.67	20.00
2442MHz_Tmax	Pass	4.35	11.27	11.54	14.42	18.77	20.00
2472MHz_Tnom	Pass	4.35	11.54	11.11	14.34	18.69	20.00
2472MHz_Tmin	Pass	4.35	11.31	11.56	14.45	18.80	20.00
2472MHz_Tmax	Pass	4.35	11.51	11.69	14.61	18.96	20.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	12.21	12.40	15.32	19.67	20.00
2412MHz_Tmin	Pass	4.35	12.33	12.34	15.35	19.70	20.00
2412MHz_Tmax	Pass	4.35	12.60	12.55	15.59	19.94	20.00
2442MHz_Tnom	Pass	4.35	12.30	12.19	15.26	19.61	20.00
2442MHz_Tmin	Pass	4.35	12.38	12.45	15.43	19.78	20.00
2442MHz_Tmax	Pass	4.35	12.52	12.69	15.62	19.97	20.00
2472MHz_Tnom	Pass	4.35	12.24	12.23	15.25	19.60	20.00
2472MHz_Tmin	Pass	4.35	12.30	12.29	15.31	19.66	20.00
2472MHz_Tmax	Pass	4.35	12.45	12.50	15.49	19.84	20.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	12.61	12.26	15.45	19.80	20.00
2412MHz_Tmin	Pass	4.35	12.43	12.51	15.48	19.83	20.00
2412MHz_Tmax	Pass	4.35	12.56	12.55	15.57	19.92	20.00
2442MHz_Tnom	Pass	4.35	12.10	12.23	15.18	19.53	20.00
2442MHz_Tmin	Pass	4.35	12.16	12.38	15.28	19.63	20.00
2442MHz_Tmax	Pass	4.35	12.33	12.45	15.40	19.75	20.00
2472MHz_Tnom	Pass	4.35	12.16	12.35	15.27	19.62	20.00
2472MHz_Tmin	Pass	4.35	12.43	12.35	15.40	19.75	20.00
2472MHz_Tmax	Pass	4.35	12.63	12.43	15.54	19.89	20.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_Tnom	Pass	4.35	12.32	12.12	15.23	19.58	20.00
2422MHz_Tmin	Pass	4.35	12.42	12.35	15.40	19.75	20.00
2422MHz_Tmax	Pass	4.35	12.47	12.45	15.47	19.82	20.00
2442MHz_Tnom	Pass	4.35	12.12	12.25	15.20	19.55	20.00
2442MHz_Tmin	Pass	4.35	12.21	12.35	15.29	19.64	20.00
2442MHz_Tmax	Pass	4.35	12.31	12.72	15.53	19.88	20.00
2462MHz_Tnom	Pass	4.35	12.02	12.14	15.09	19.44	20.00
2462MHz_Tmin	Pass	4.35	12.05	12.22	15.15	19.50	20.00
2462MHz_Tmax	Pass	4.35	12.33	12.73	15.54	19.89	20.00

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

Summary

Mode	EIRP PD (dBm/MHz)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	9.86
802.11g_Nss1,(6Mbps)_2TX	6.95
802.11n HT20_Nss1,(MCS0)_2TX	6.40
802.11n HT40_Nss1,(MCS0)_2TX	3.70

RBW=1MHz.

Result

Mode	Result	Gain (dBi)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	5.22	9.57	10.00
2442MHz_Tnom	Pass	4.35	5.15	9.50	10.00
2472MHz_Tnom	Pass	4.35	5.51	9.86	10.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	2.60	6.95	10.00
2442MHz_Tnom	Pass	4.35	2.44	6.79	10.00
2472MHz_Tnom	Pass	4.35	2.29	6.64	10.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	4.35	2.05	6.40	10.00
2442MHz_Tnom	Pass	4.35	1.95	6.30	10.00
2472MHz_Tnom	Pass	4.35	1.77	6.12	10.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2422MHz_Tnom	Pass	4.35	-0.65	3.70	10.00
2442MHz_Tnom	Pass	4.35	-0.73	3.62	10.00
2462MHz_Tnom	Pass	4.35	-0.84	3.51	10.00

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

Summary

Mode	OBW (Hz)	ITU-Code
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	12.85M	12M8G1D
802.11g_Nss1,(6Mbps)_2TX	16.593M	16M6D1D
802.11n HT20_Nss1,(MCS0)_2TX	17.807M	17M8D1D
802.11n HT40_Nss1,(MCS0)_2TX	36.246M	36M2D1D

OBW = 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.405592G	2.41839G	12.798M
2442MHz_Tnom	Pass	2.4-2.4835G	2.435584G	2.448425G	12.841M
2472MHz_Tnom	Pass	2.4-2.4835G	2.465622G	2.478472G	12.85M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.403701G	2.420283G	16.581M
2442MHz_Tnom	Pass	2.4-2.4835G	2.433693G	2.450292G	16.593M
2472MHz_Tnom	Pass	2.4-2.4835G	2.463713G	2.480299G	16.586M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2412MHz_Tnom	Pass	2.4-2.4835G	2.403097G	2.420895G	17.798M
2442MHz_Tnom	Pass	2.4-2.4835G	2.433091G	2.450897G	17.807M
2472MHz_Tnom	Pass	2.4-2.4835G	2.463115G	2.480911G	17.796M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2422MHz_Tnom	Pass	2.4-2.4835G	2.403878G	2.440066G	36.188M
2442MHz_Tnom	Pass	2.4-2.4835G	2.42386G	2.460132G	36.246M
2462MHz_Tnom	Pass	2.4-2.4835G	2.443941G	2.480154G	36.199M

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;

Summary

Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	-43.24	-10	-49.81	-20
802.11g_Nss1,(6Mbps)_2TX	-36.47	-10	-47.39	-20
802.11n HT20_Nss1,(MCS0)_2TX	-36.39	-10	-47.82	-20
802.11n HT40_Nss1,(MCS0)_2TX	-40.38	-10	-49.13	-20

Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.382702G	-49.81	-20	2.3985G	-43.24	-10
2412MHz_Tnom	Pass	2.496798G	-50.47	-20	2.495798G	-47.54	-10
2472MHz_Tnom	Pass	2.38565G	-53.76	-20	2.3995G	-51.25	-10
2472MHz_Tnom	Pass	2.49685G	-51.24	-20	2.486G	-47.29	-10
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.382919G	-48.05	-20	2.3995G	-36.47	-10
2412MHz_Tnom	Pass	2.504581G	-50.10	-20	2.496G	-47.20	-10
2472MHz_Tnom	Pass	2.382914G	-50.37	-20	2.3995G	-46.80	-10
2472MHz_Tnom	Pass	2.500586G	-47.39	-20	2.484G	-38.15	-10
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_Tnom	Pass	2.381702G	-48.18	-20	2.3995G	-36.42	-10
2412MHz_Tnom	Pass	2.501798G	-50.27	-20	2.496G	-47.31	-10
2472MHz_Tnom	Pass	2.379704G	-50.45	-20	2.3995G	-46.34	-10
2472MHz_Tnom	Pass	2.502796G	-47.82	-20	2.484G	-36.39	-10
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_Tnom	Pass	2.362312G	-51.54	-20	2.3995G	-40.38	-10
2422MHz_Tnom	Pass	2.520188G	-51.34	-20	2.496G	-46.45	-10
2462MHz_Tnom	Pass	2.363301G	-52.35	-20	2.3995G	-46.34	-10
2462MHz_Tnom	Pass	2.520199G	-49.13	-20	2.484G	-41.53	-10

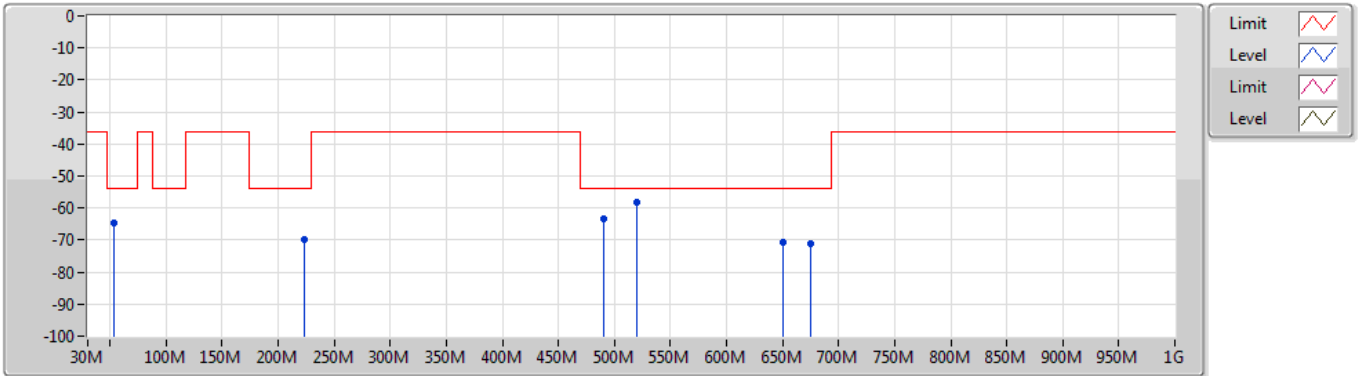
Summary

Mode	Result	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition
2.4-2.4835GHz	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_2TX	Pass	492.79M	-57.79	-54.00	-3.79	-0.70	Vertical

802.11g_Nss1,(6Mbps)_2TX

05/09/2022

2412MHz_TX



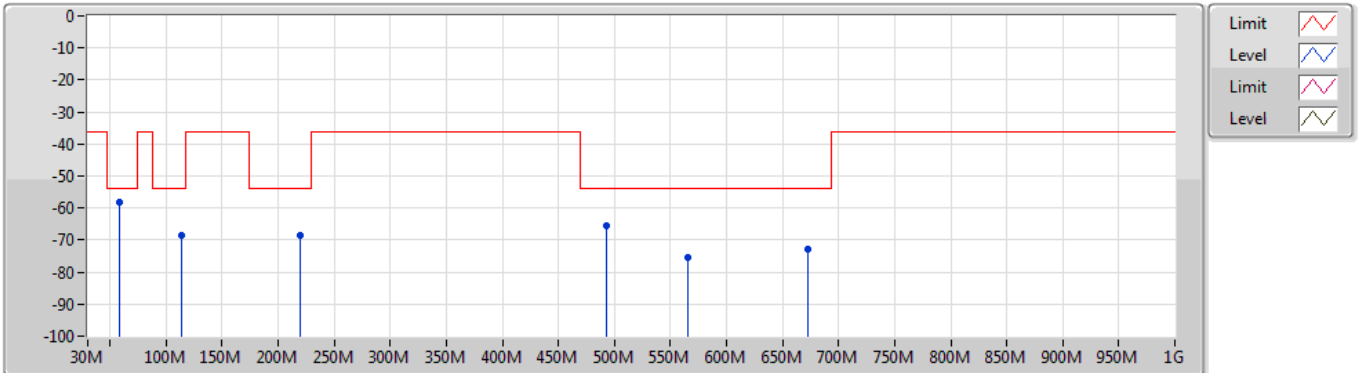
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Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)													
53.57M	-64.59	-54.00	-10.59	-11.48	Vertical	-53.11													
223.71M	-69.80	-54.00	-15.80	-8.37	Vertical	-61.43													
490.46M	-63.26	-54.00	-9.26	-0.75	Vertical	-62.51													
520.34M	-58.03	-54.00	-4.03	-0.17	Vertical	-57.86													
650.02M	-70.52	-54.00	-16.52	1.56	Vertical	-72.08													
675.05M	-71.02	-54.00	-17.02	1.72	Vertical	-72.74													

802.11g_Nss1,(6Mbps)_2TX

05/09/2022

2412MHz_TX



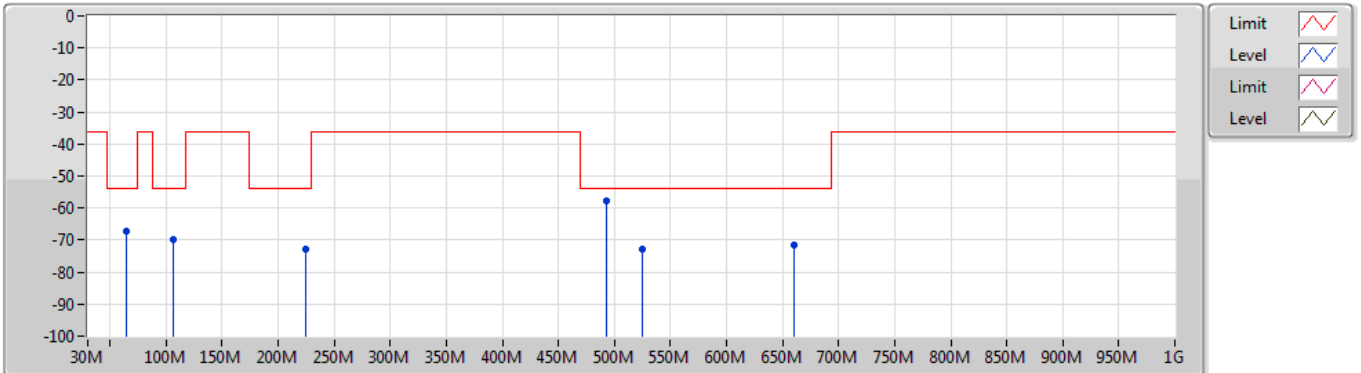
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
58.03M	-58.23	-54.00	-4.23	-13.69	Horizontal	-44.54									
114.2M	-68.73	-54.00	-14.73	-7.18	Horizontal	-61.55									
219.34M	-68.44	-54.00	-14.44	-7.25	Horizontal	-61.19									
492.5M	-65.64	-54.00	-11.64	-0.82	Horizontal	-64.82									
565.25M	-75.27	-54.00	-21.27	0.34	Horizontal	-75.61									
671.95M	-72.78	-54.00	-18.78	1.88	Horizontal	-74.66									

802.11g_Nss1,(6Mbps)_2TX

05/09/2022

2472MHz_TX



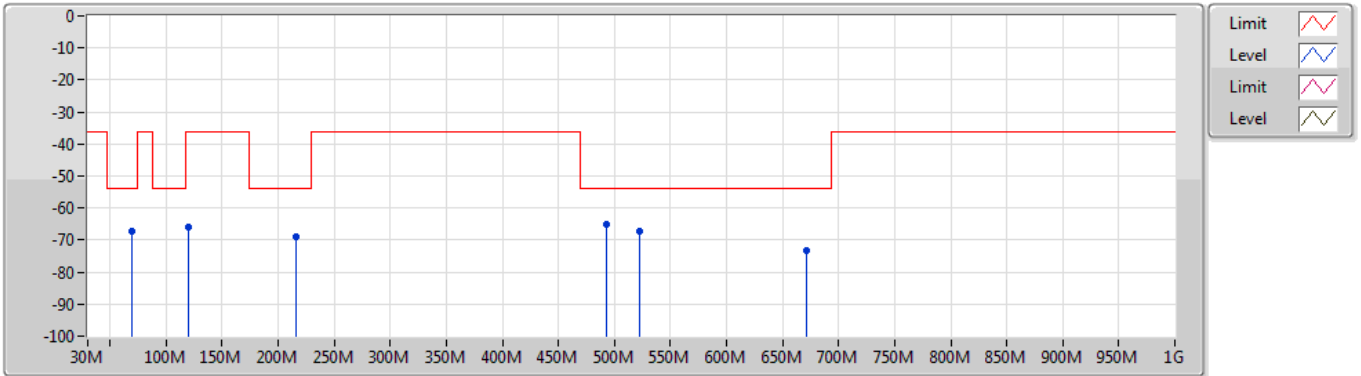
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)													
64.92M	-67.28	-54.00	-13.28	-13.57	Vertical	-53.71													
106.44M	-69.88	-54.00	-15.88	-7.45	Vertical	-62.43													
223.9M	-72.91	-54.00	-18.91	-8.36	Vertical	-64.55													
492.79M	-57.79	-54.00	-3.79	-0.70	Vertical	-57.09													
524.41M	-72.65	-54.00	-18.65	-0.10	Vertical	-72.55													
660.4M	-71.72	-54.00	-17.72	1.63	Vertical	-73.35													

802.11g_Nss1,(6Mbps)_2TX

05/09/2022

2472MHz_TX



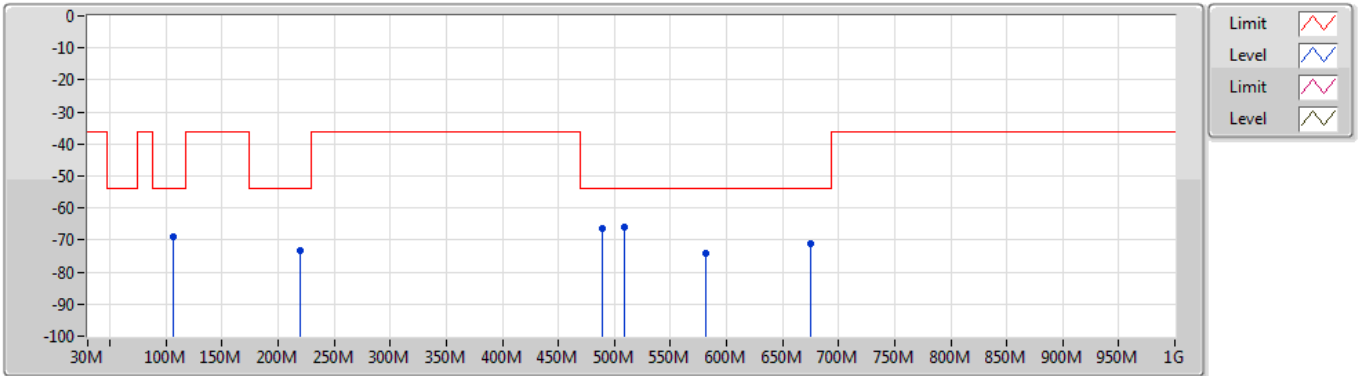
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)													
68.99M	-67.29	-54.00	-13.29	-14.26	Horizontal	-53.03													
119.92M	-65.78	-36.00	-29.78	-6.60	Horizontal	-59.18													
215.66M	-69.17	-54.00	-15.17	-7.44	Horizontal	-61.73													
492.98M	-65.15	-54.00	-11.15	-0.81	Horizontal	-64.34													
521.98M	-67.29	-54.00	-13.29	-0.29	Horizontal	-67.00													
671.85M	-73.21	-54.00	-19.21	1.88	Horizontal	-75.09													

802.11n HT40_Nss1,(MCS0)_2TX

05/09/2022

2422MHz_TX



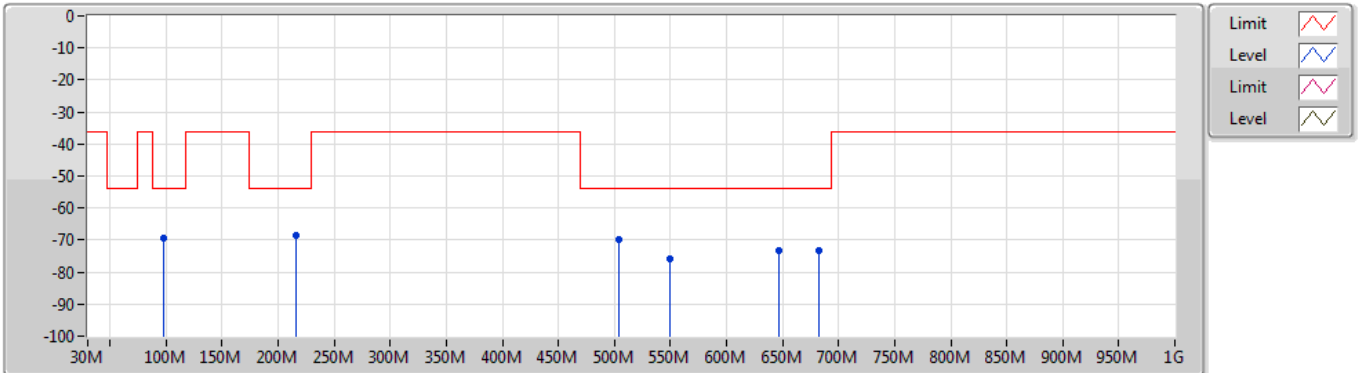
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
106.44M	-68.85	-54.00	-14.85	-7.45	Vertical	-61.40									
219.34M	-73.15	-54.00	-19.15	-8.60	Vertical	-64.55									
489.2M	-66.42	-54.00	-12.42	-0.78	Vertical	-65.64									
508.99M	-65.74	-54.00	-11.74	-0.37	Vertical	-65.37									
581.74M	-74.30	-54.00	-20.30	0.92	Vertical	-75.22									
675.05M	-70.94	-54.00	-16.94	1.72	Vertical	-72.66									

802.11n HT40_Nss1,(MCS0)_2TX

05/09/2022

2422MHz_TX



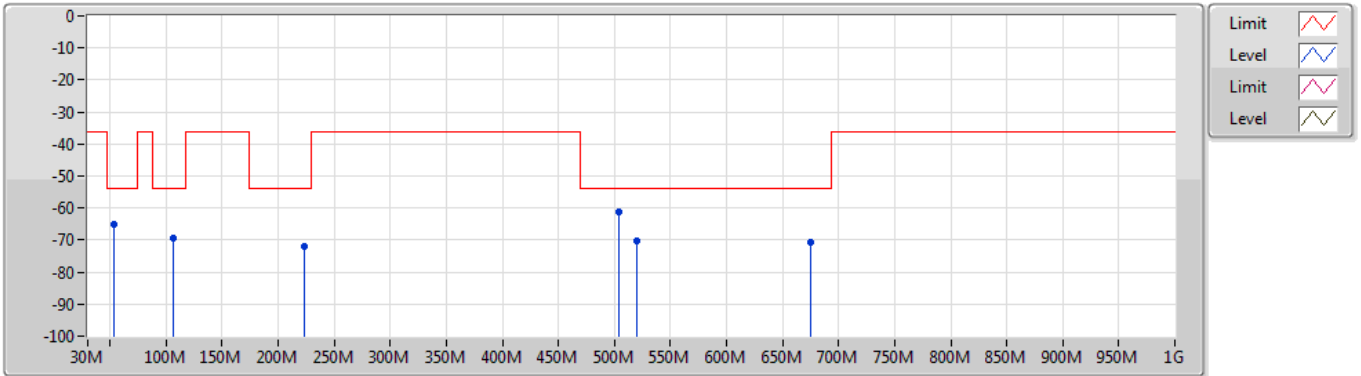
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
98.29M	-69.33	-54.00	-15.33	-8.84	Horizontal	-60.49									
215.66M	-68.58	-54.00	-14.58	-7.44	Horizontal	-61.14									
504.23M	-69.76	-54.00	-15.76	-0.55	Horizontal	-69.21									
548.95M	-75.81	-54.00	-21.81	0.10	Horizontal	-75.91									
647.21M	-73.12	-54.00	-19.12	1.52	Horizontal	-74.64									
681.94M	-73.13	-54.00	-19.13	2.03	Horizontal	-75.16									

802.11n HT40_Nss1,(MCS0)_2TX

05/09/2022

2462MHz_TX



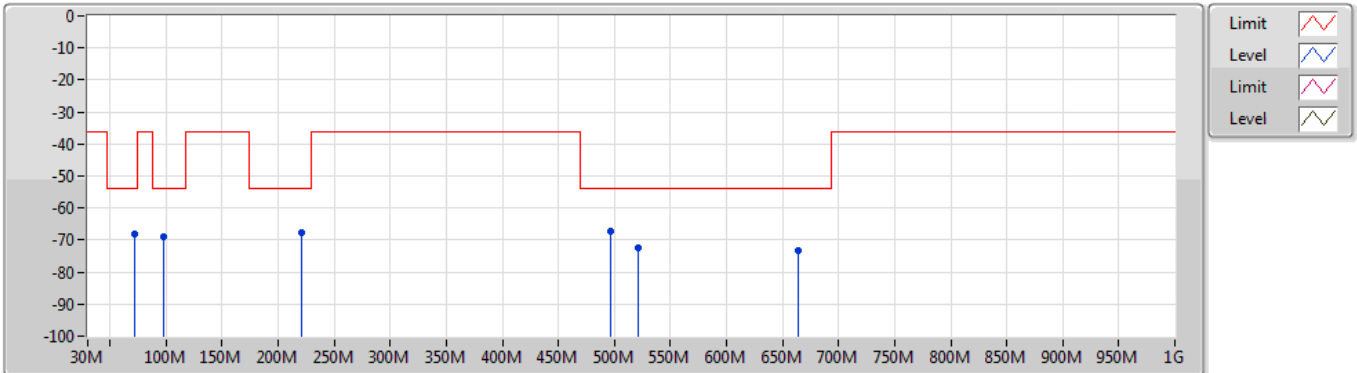
EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
53.57M	-65.20	-54.00	-11.20	-11.48	Vertical	-53.72									
106.44M	-69.50	-54.00	-15.50	-7.45	Vertical	-62.05									
223.71M	-71.79	-54.00	-17.79	-8.37	Vertical	-63.42									
503.94M	-61.07	-54.00	-7.07	-0.46	Vertical	-60.61									
519.66M	-70.11	-54.00	-16.11	-0.18	Vertical	-69.93									
675.05M	-70.83	-54.00	-16.83	1.72	Vertical	-72.55									

802.11n HT40_Nss1,(MCS0)_2TX

05/09/2022

2462MHz_TX



EUT Y_2TX
Setting 20
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
71.9M	-67.91	-54.00	-13.91	-13.90	Horizontal	-54.01									
98.29M	-69.16	-54.00	-15.16	-8.84	Horizontal	-60.32									
221.19M	-67.50	-54.00	-13.50	-7.16	Horizontal	-60.34									
497.06M	-67.10	-54.00	-13.10	-0.69	Horizontal	-66.41									
521.11M	-72.35	-54.00	-18.35	-0.30	Horizontal	-72.05									
663.6M	-73.20	-54.00	-19.20	1.76	Horizontal	-74.96									



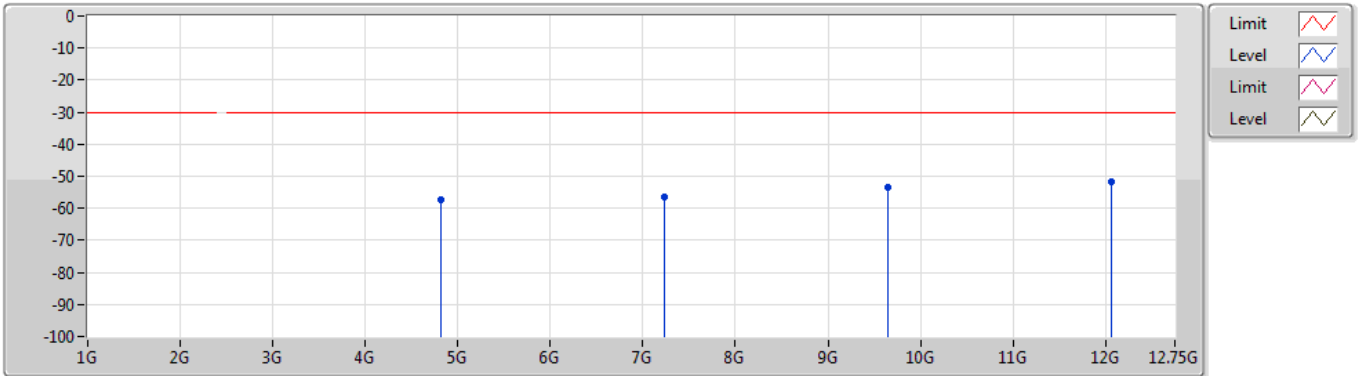
Summary

Mode	Result	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition
2.4-2.4835GHz	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	4.94405G	-46.90	-30.00	-16.90	-5.64	Horizontal

802.11b_Nss1,(1Mbps)_2TX

03/09/2022

2412MHz_TX



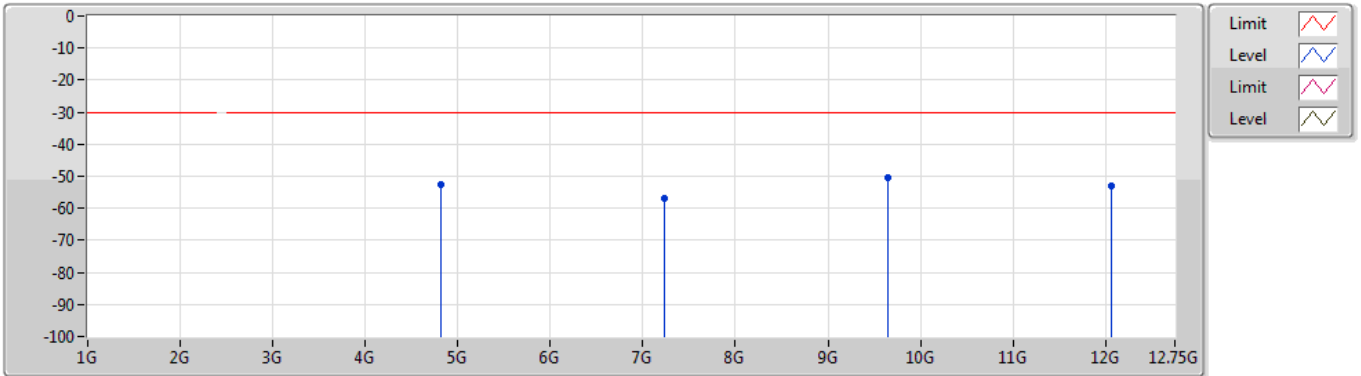
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82405G	-57.15	-30.00	-27.15	-6.23	Vertical	-50.92								
7.23735G	-56.35	-30.00	-26.35	1.37	Vertical	-57.72								
9.6507G	-53.50	-30.00	-23.50	6.39	Vertical	-59.89								
12.06033G	-51.71	-30.00	-21.71	7.55	Vertical	-59.26								

802.11b_Nss1,(1Mbps)_2TX

03/09/2022

2412MHz_TX



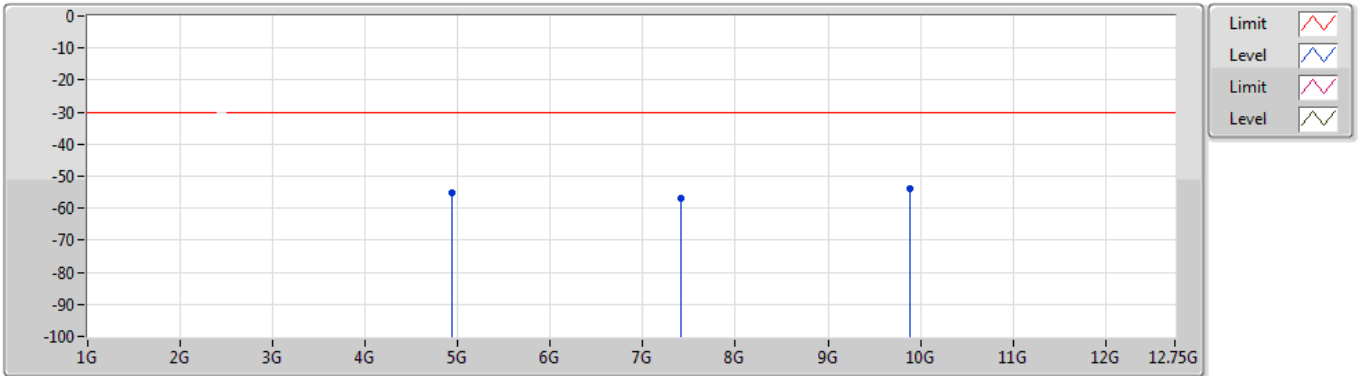
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82394G	-52.52	-30.00	-22.52	-5.88	Horizontal	-46.64								
7.23551G	-56.86	-30.00	-26.86	0.61	Horizontal	-57.47								
9.64791G	-50.45	-30.00	-20.45	5.55	Horizontal	-56.00								
12.05774G	-53.00	-30.00	-23.00	6.79	Horizontal	-59.79								

802.11b_Nss1,(1Mbps)_2TX

03/09/2022

2472MHz_TX



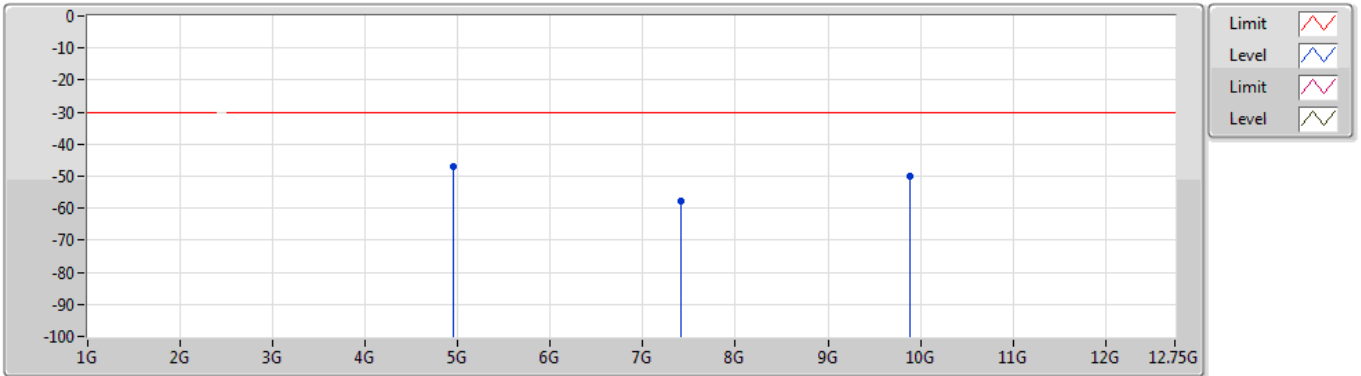
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.94396G	-55.33	-30.00	-25.33	-6.10	Vertical	-49.23								
7.41404G	-56.71	-30.00	-26.71	1.40	Vertical	-58.11								
9.88813G	-53.96	-30.00	-23.96	5.91	Vertical	-59.87								

802.11b_Nss1,(1Mbps)_2TX

03/09/2022

2472MHz_TX

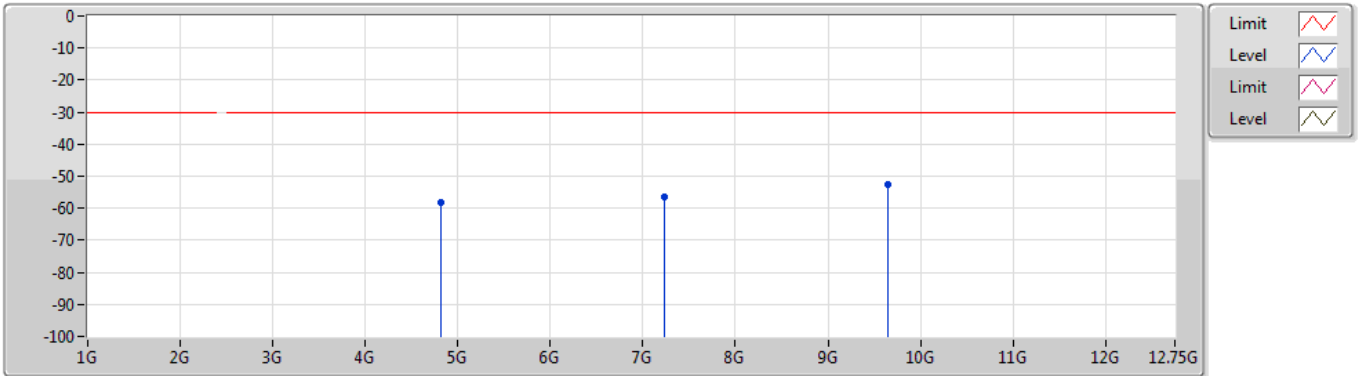

EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.94405G	-46.90	-30.00	-16.90	-5.64	Horizontal	-41.26								
7.41616G	-57.57	-30.00	-27.57	-0.07	Horizontal	-57.50								
9.88805G	-50.02	-30.00	-20.02	5.48	Horizontal	-55.50								

802.11g_Nss1,(6Mbps)_2TX

03/09/2022

2412MHz_TX



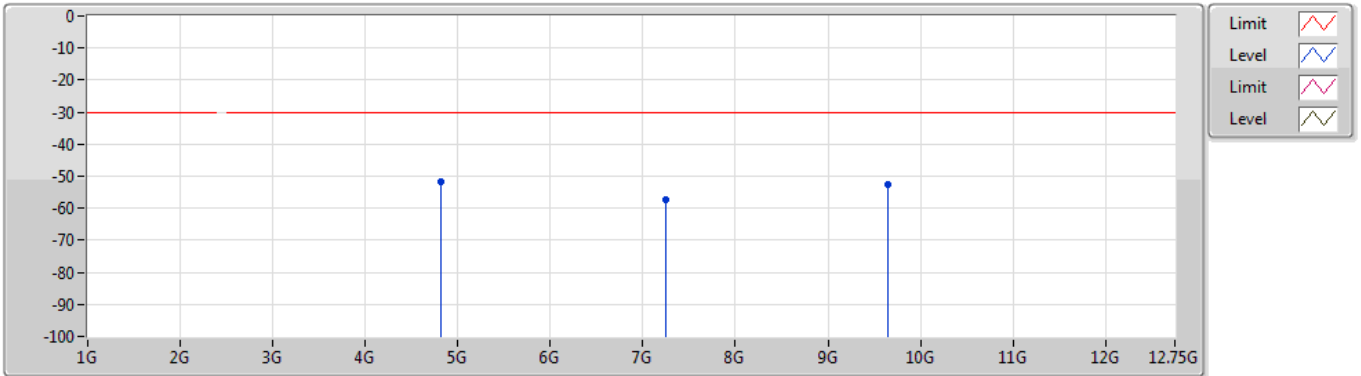
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82034G	-58.30	-30.00	-28.30	-6.23	Vertical	-52.07								
7.234G	-56.50	-30.00	-26.50	1.37	Vertical	-57.87								
9.64788G	-52.67	-30.00	-22.67	6.39	Vertical	-59.06								

802.11g_Nss1,(6Mbps)_2TX

03/09/2022

2412MHz_TX



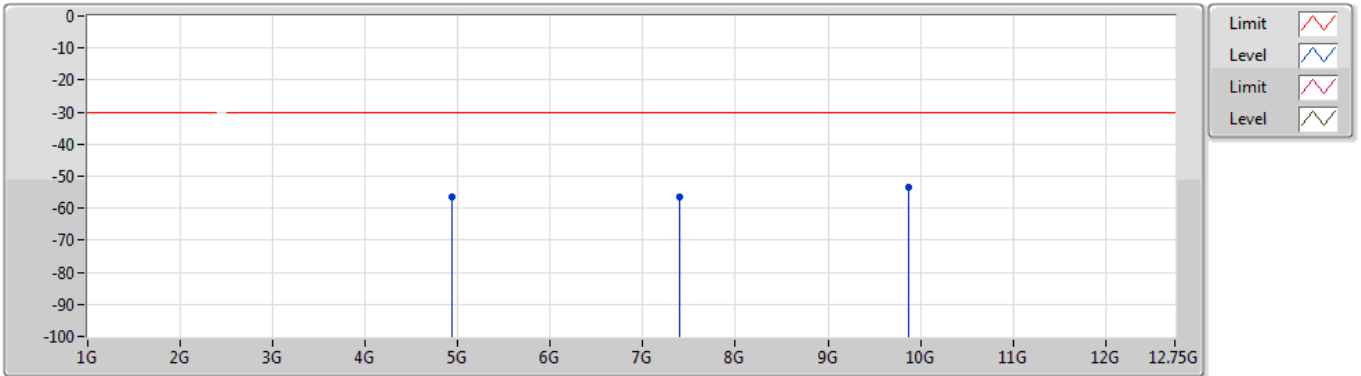
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82436G	-51.89	-30.00	-21.89	-5.87	Horizontal	-46.02								
7.24205G	-57.12	-30.00	-27.12	0.59	Horizontal	-57.71								
9.64824G	-52.55	-30.00	-22.55	5.55	Horizontal	-58.10								

802.11g_Nss1,(6Mbps)_2TX

03/09/2022

2472MHz_TX



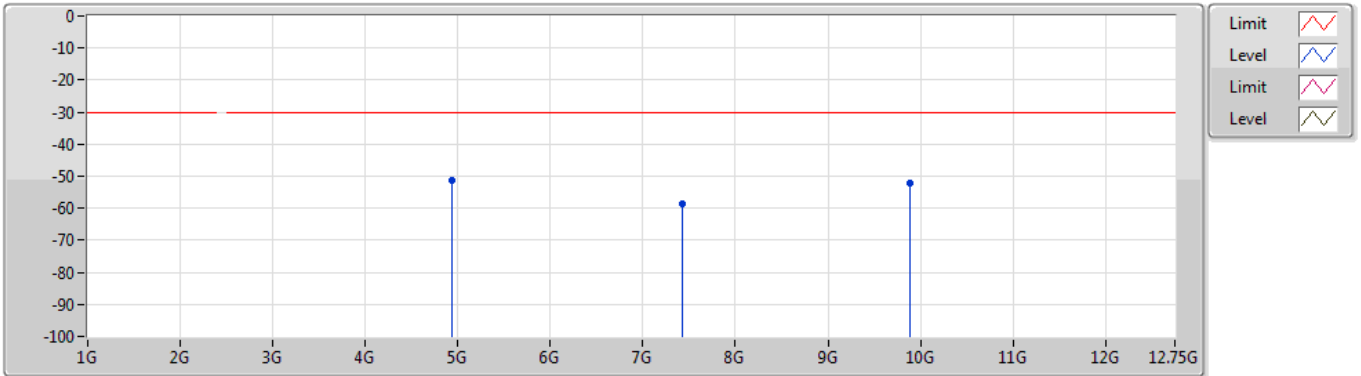
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.94029G	-56.45	-30.00	-26.45	-6.10	Vertical	-50.35								
7.40193G	-56.43	-30.00	-26.43	1.40	Vertical	-57.83								
9.87474G	-53.24	-30.00	-23.24	5.94	Vertical	-59.18								

802.11g_Nss1,(6Mbps)_2TX

03/09/2022

2472MHz_TX



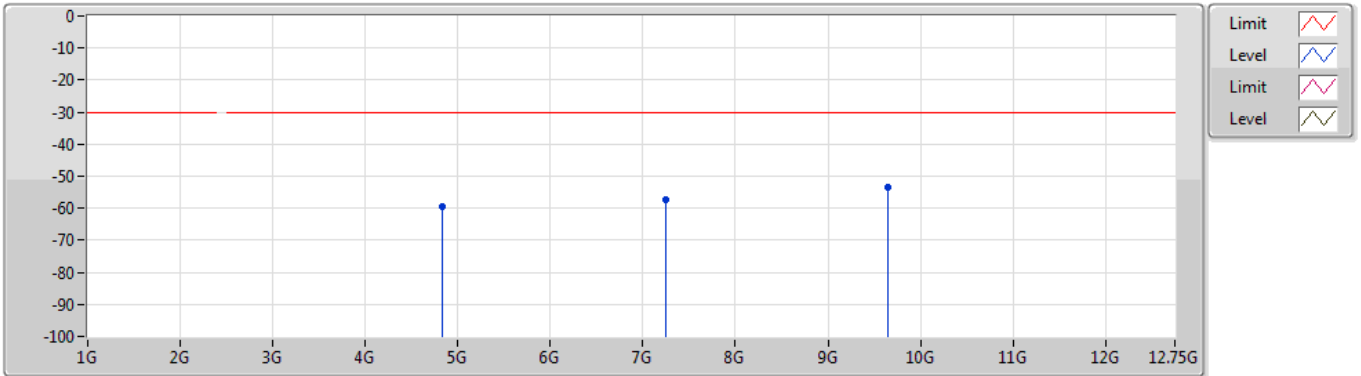
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.94061G	-51.16	-30.00	-21.16	-5.65	Horizontal	-45.51								
7.424G	-58.81	-30.00	-28.81	-0.10	Horizontal	-58.71								
9.88826G	-52.33	-30.00	-22.33	5.48	Horizontal	-57.81								

802.11n HT20_Nss1,(MCS0)_2TX

03/09/2022

2412MHz_TX



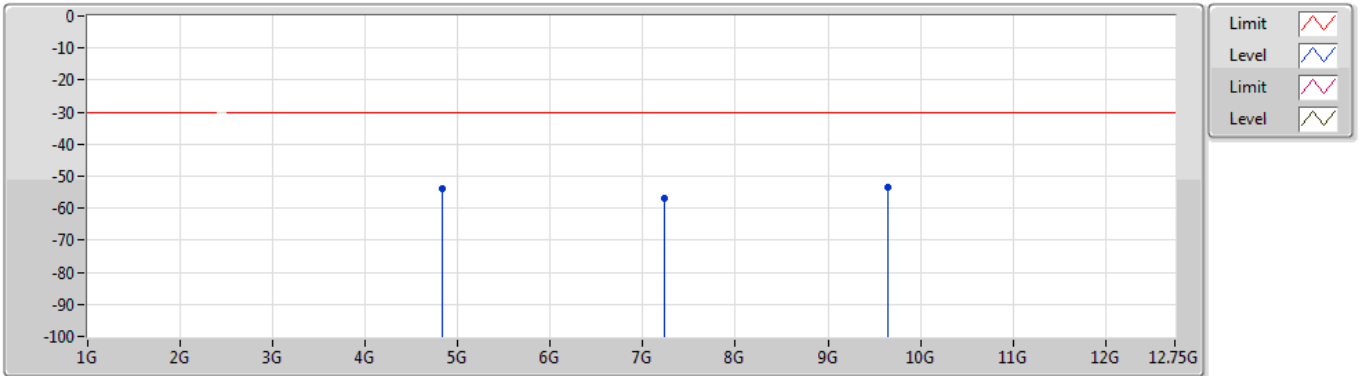
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82868G	-59.37	-30.00	-29.37	-6.23	Vertical	-53.14								
7.25504G	-57.22	-30.00	-27.22	1.37	Vertical	-58.59								
9.64792G	-53.50	-30.00	-23.50	6.39	Vertical	-59.89								

802.11n HT20_Nss1,(MCS0)_2TX

03/09/2022

2412MHz_TX



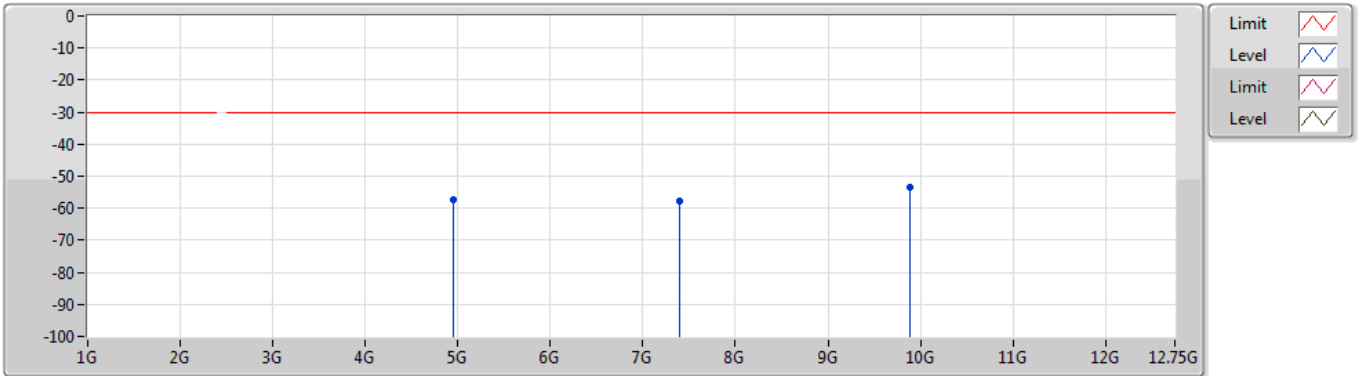
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.82659G	-53.87	-30.00	-23.87	-5.87	Horizontal	-48.00								
7.23606G	-56.91	-30.00	-26.91	0.61	Horizontal	-57.52								
9.6484G	-53.32	-30.00	-23.32	5.55	Horizontal	-58.87								

802.11n HT20_Nss1,(MCS0)_2TX

04/09/2022

2472MHz_TX



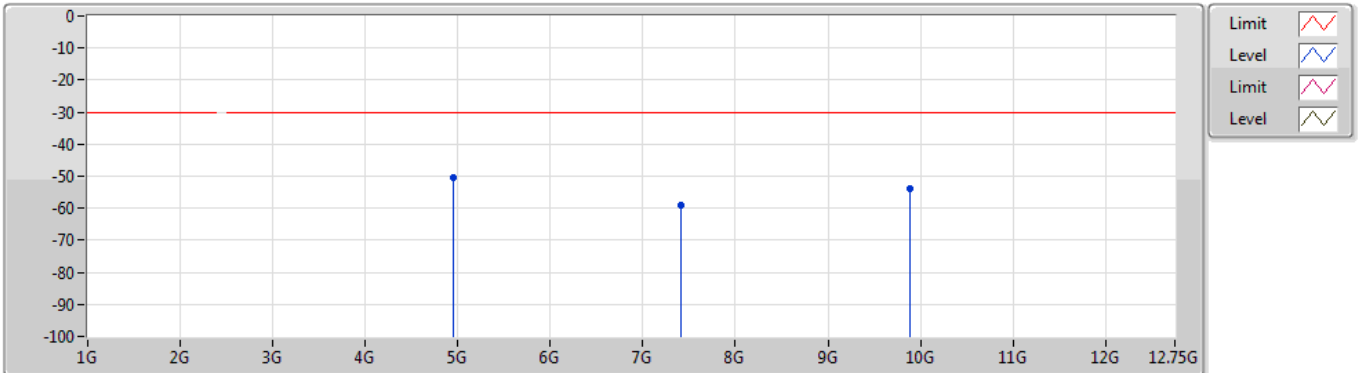
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.94749G	-57.17	-30.00	-27.17	-6.10	Vertical	-51.07								
7.39603G	-57.92	-30.00	-27.92	1.40	Vertical	-59.32								
9.88781G	-53.54	-30.00	-23.54	5.91	Vertical	-59.45								

802.11n HT20_Nss1,(MCS0)_2TX

04/09/2022

2472MHz_TX



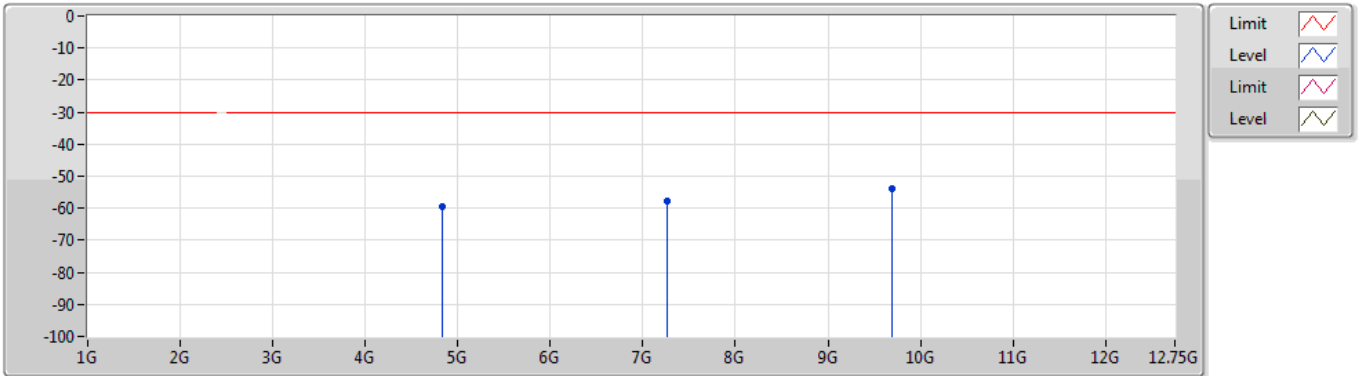
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
4.94767G	-50.52	-30.00	-20.52	-5.63	Horizontal	-44.89									
7.41177G	-59.12	-30.00	-29.12	-0.06	Horizontal	-59.06									
9.88792G	-53.76	-30.00	-23.76	5.48	Horizontal	-59.24									

802.11n HT40_Nss1,(MCS0)_2TX

04/09/2022

2422MHz_TX



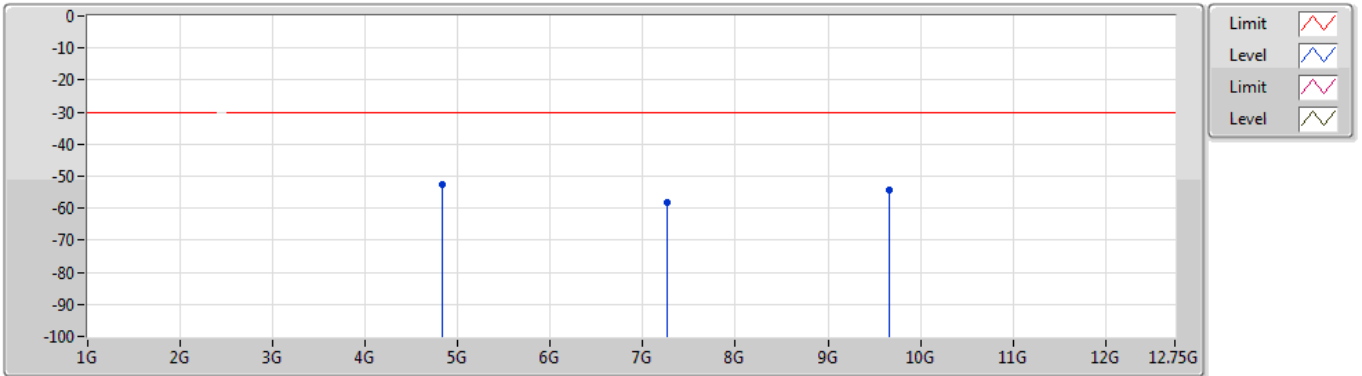
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
4.8295G	-59.35	-30.00	-29.35	-6.22	Vertical	-53.13								
7.26851G	-57.92	-30.00	-27.92	1.37	Vertical	-59.29								
9.68785G	-53.71	-30.00	-23.71	6.31	Vertical	-60.02								

802.11n HT40_Nss1,(MCS0)_2TX

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2422MHz_TX



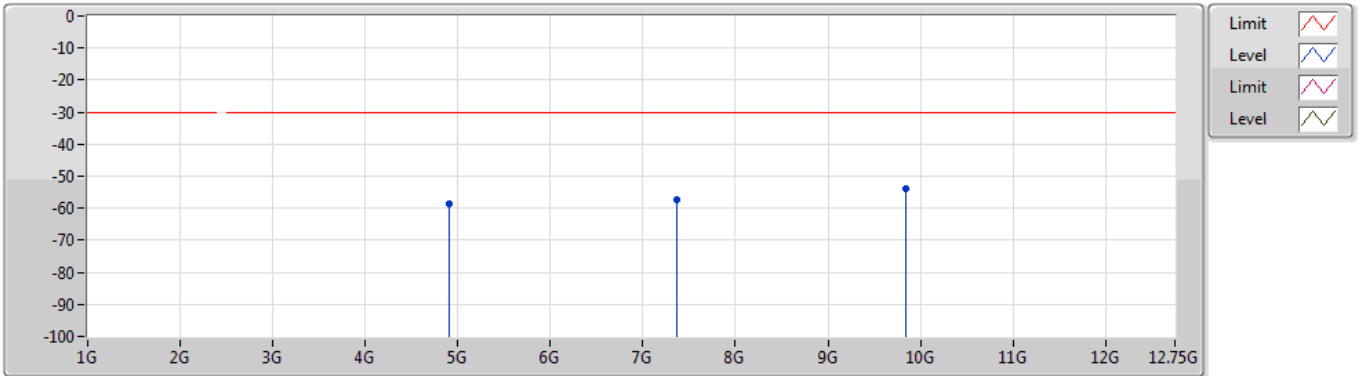
EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
4.82767G	-52.52	-30.00	-22.52	-5.87	Horizontal	-46.65									
7.26811G	-58.35	-30.00	-28.35	0.49	Horizontal	-58.84									
9.65817G	-54.14	-30.00	-24.14	5.55	Horizontal	-59.69									

802.11n HT40_Nss1,(MCS0)_2TX

04/09/2022

2462MHz_TX

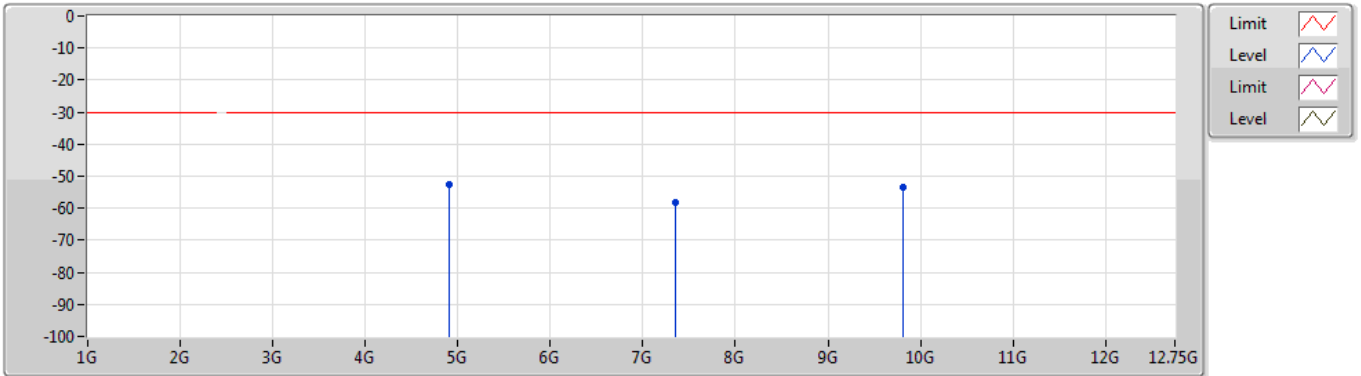

EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)							
4.9079G	-58.64	-30.00	-28.64	-6.14	Vertical	-52.50							
7.3633G	-57.48	-30.00	-27.48	1.39	Vertical	-58.87							
9.84772G	-53.77	-30.00	-23.77	5.99	Vertical	-59.76							

802.11n HT40_Nss1,(MCS0)_2TX

04/09/2022

2462MHz_TX



EUT Y_2TX
Setting 20
1277-J-K-5

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
4.90818G	-52.45	-30.00	-22.45	-5.71	Horizontal	-46.74									
7.35287G	-58.28	-30.00	-28.28	0.17	Horizontal	-58.45									
9.81255G	-53.64	-30.00	-23.64	5.50	Horizontal	-59.14									



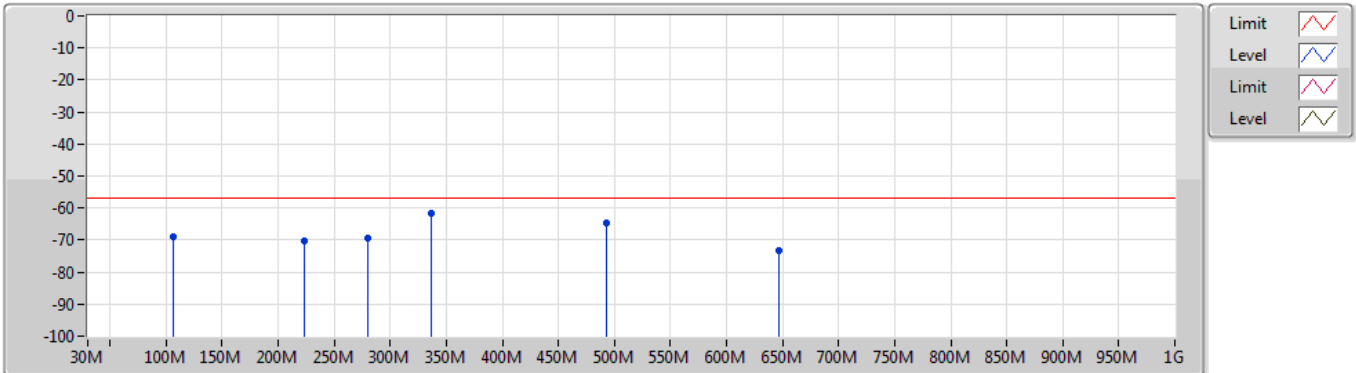
Summary

Mode	Result	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition
2.4-2.4835GHz	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_2TX	Pass	435.85M	-60.62	-57.00	-3.62	-2.02	Vertical

802.11n HT20_Nss1,(MCS0)_2RX

05/09/2022

2412MHz_RX

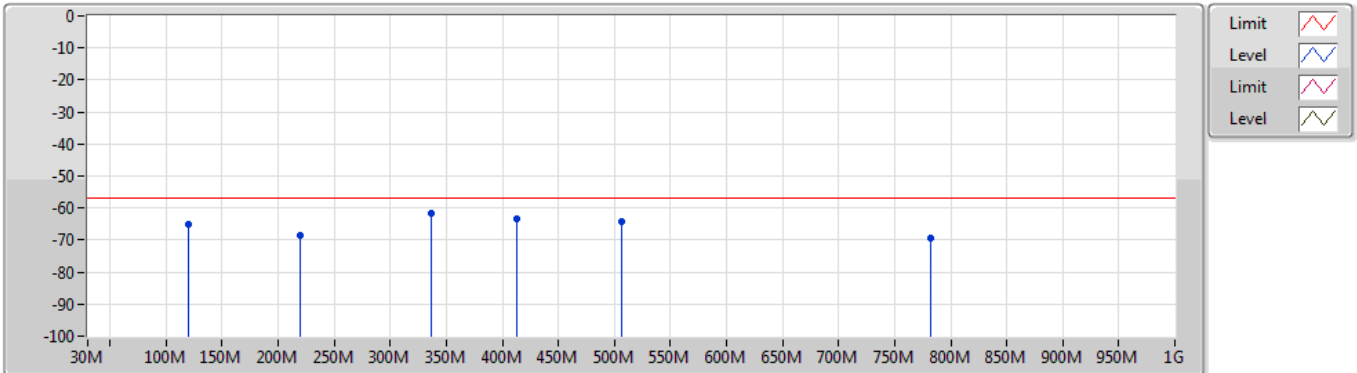

EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
106.44M	-69.09	-57.00	-12.09	-7.45	Vertical	-61.64									
223.71M	-70.44	-57.00	-13.44	-8.37	Vertical	-62.07									
279.97M	-69.61	-57.00	-12.61	-6.38	Vertical	-63.23									
337.01M	-61.78	-57.00	-4.78	-4.82	Vertical	-56.96									
493.18M	-64.52	-57.00	-7.52	-0.69	Vertical	-63.83									
647.21M	-73.38	-57.00	-16.38	1.54	Vertical	-74.92									

802.11n HT20_Nss1,(MCS0)_2RX

05/09/2022

2412MHz_RX



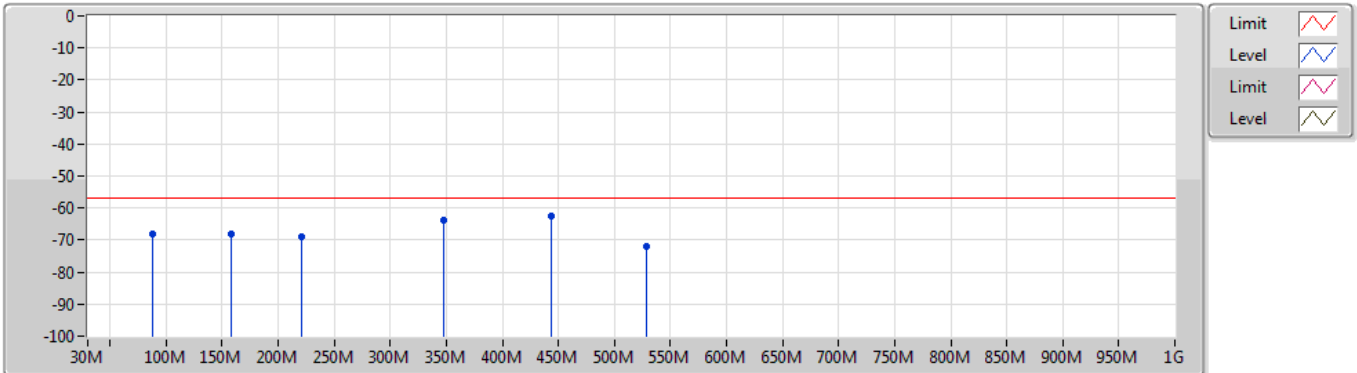
EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
120.02M	-64.89	-57.00	-7.89	-6.59	Horizontal	-58.30									
219.34M	-68.54	-57.00	-11.54	-7.25	Horizontal	-61.29									
335.94M	-61.77	-57.00	-4.77	-5.17	Horizontal	-56.60									
413.05M	-63.17	-57.00	-6.17	-3.06	Horizontal	-60.11									
506.85M	-64.31	-57.00	-7.31	-0.51	Horizontal	-63.80									
782.43M	-69.49	-57.00	-12.49	2.47	Horizontal	-71.96									

802.11n HT20_Nss1,(MCS0)_2RX

05/09/2022

2472MHz_RX



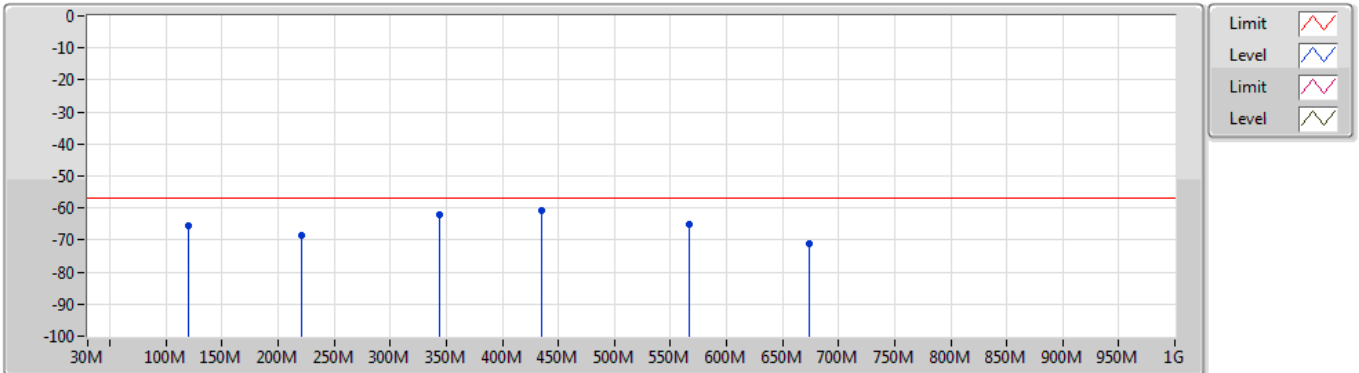
EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
88.39M	-68.24	-57.00	-11.24	-9.24	Vertical	-59.00									
158.53M	-68.03	-57.00	-11.03	-8.53	Vertical	-59.50									
221.19M	-68.89	-57.00	-11.89	-8.50	Vertical	-60.39									
347.97M	-63.97	-57.00	-6.97	-4.48	Vertical	-59.49									
443.71M	-62.40	-57.00	-5.40	-1.84	Vertical	-60.56									
529.07M	-72.15	-57.00	-15.15	-0.02	Vertical	-72.13									

802.11n HT20_Nss1,(MCS0)_2RX

05/09/2022

2472MHz_RX

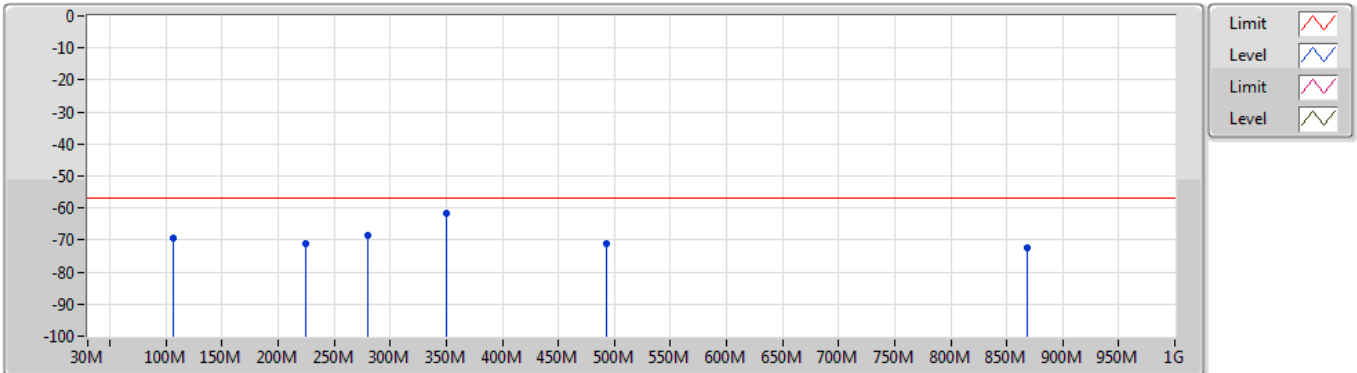

EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
119.34M	-65.66	-57.00	-8.66	-6.66	Horizontal	-59.00									
221.19M	-68.44	-57.00	-11.44	-7.16	Horizontal	-61.28									
344.09M	-61.99	-57.00	-4.99	-4.95	Horizontal	-57.04									
434.98M	-60.80	-57.00	-3.80	-2.44	Horizontal	-58.36									
566.7M	-64.97	-57.00	-7.97	0.36	Horizontal	-65.33									
673.79M	-71.25	-57.00	-14.25	1.91	Horizontal	-73.16									

802.11n HT40_Nss1,(MCS0)_2RX

05/09/2022

2422MHz_RX



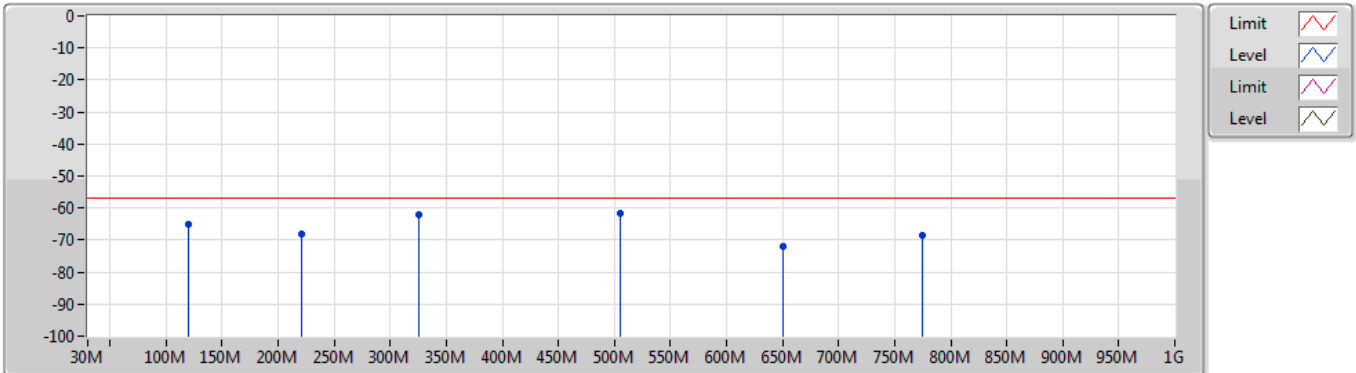
EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
106.44M	-69.26	-57.00	-12.26	-7.45	Vertical	-61.81									
223.9M	-70.95	-57.00	-13.95	-8.36	Vertical	-62.59									
279.97M	-68.50	-57.00	-11.50	-6.38	Vertical	-62.12									
349.81M	-61.80	-57.00	-4.80	-4.42	Vertical	-57.38									
492.88M	-70.99	-57.00	-13.99	-0.70	Vertical	-70.29									
868.76M	-72.36	-57.00	-15.36	3.55	Vertical	-75.91									

802.11n HT40_Nss1,(MCS0)_2RX

05/09/2022

2422MHz_RX



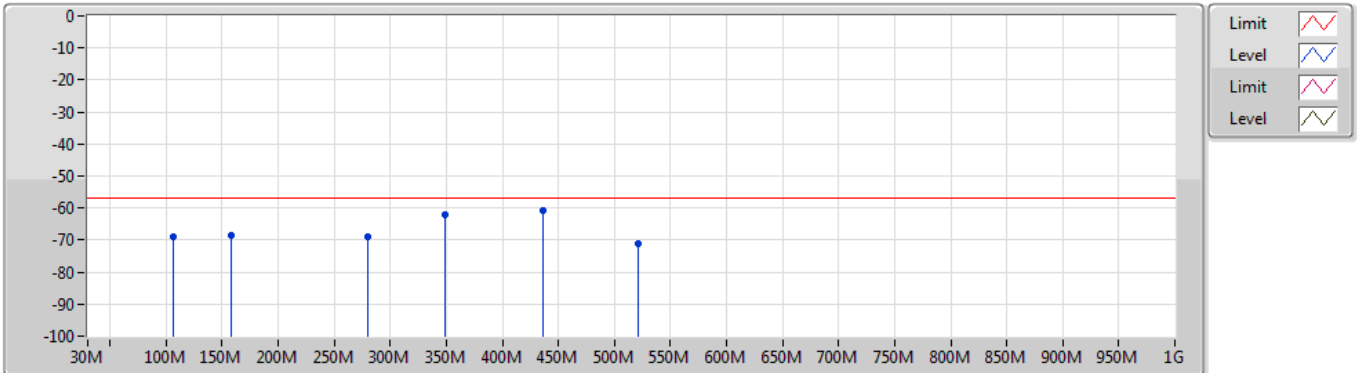
EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
120.02M	-65.09	-57.00	-8.09	-6.59	Horizontal	-58.50									
221.19M	-68.26	-57.00	-11.26	-7.16	Horizontal	-61.10									
325.27M	-61.94	-57.00	-4.94	-5.46	Horizontal	-56.48									
504.62M	-61.66	-57.00	-4.66	-0.54	Horizontal	-61.12									
650.02M	-71.90	-57.00	-14.90	1.57	Horizontal	-73.47									
775.06M	-68.64	-57.00	-11.64	2.46	Horizontal	-71.10									

802.11n HT40_Nss1,(MCS0)_2RX

05/09/2022

2462MHz_RX



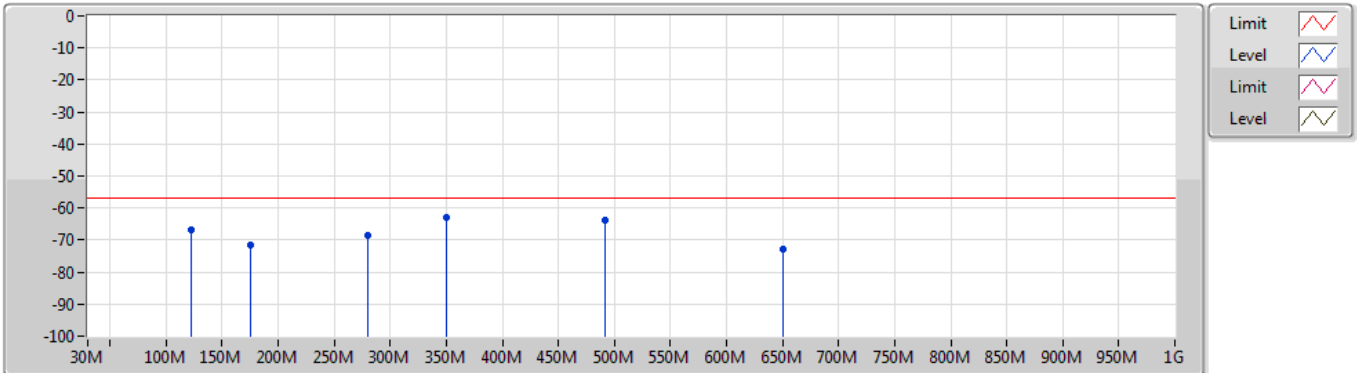
EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)									
106.44M	-69.03	-57.00	-12.03	-7.45	Vertical	-61.58									
158.53M	-68.41	-57.00	-11.41	-8.53	Vertical	-59.88									
279.97M	-68.98	-57.00	-11.98	-6.38	Vertical	-62.60									
349.13M	-62.28	-57.00	-5.28	-4.44	Vertical	-57.84									
435.85M	-60.62	-57.00	-3.62	-2.02	Vertical	-58.60									
521.11M	-71.13	-57.00	-14.13	-0.16	Vertical	-70.97									

802.11n HT40_Nss1,(MCS0)_2RX

05/09/2022

2462MHz_RX



EUT Y_2RX
Setting
1277-J-M-2

Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition	Raw (dBm)								
122.54M	-66.67	-57.00	-9.67	-6.73	Horizontal	-59.94								
175.11M	-71.35	-57.00	-14.35	-8.95	Horizontal	-62.40								
279.97M	-68.49	-57.00	-11.49	-5.96	Horizontal	-62.53								
349.52M	-62.78	-57.00	-5.78	-4.80	Horizontal	-57.98								
491.53M	-63.89	-57.00	-6.89	-0.85	Horizontal	-63.04								
650.02M	-72.72	-57.00	-15.72	1.57	Horizontal	-74.29								



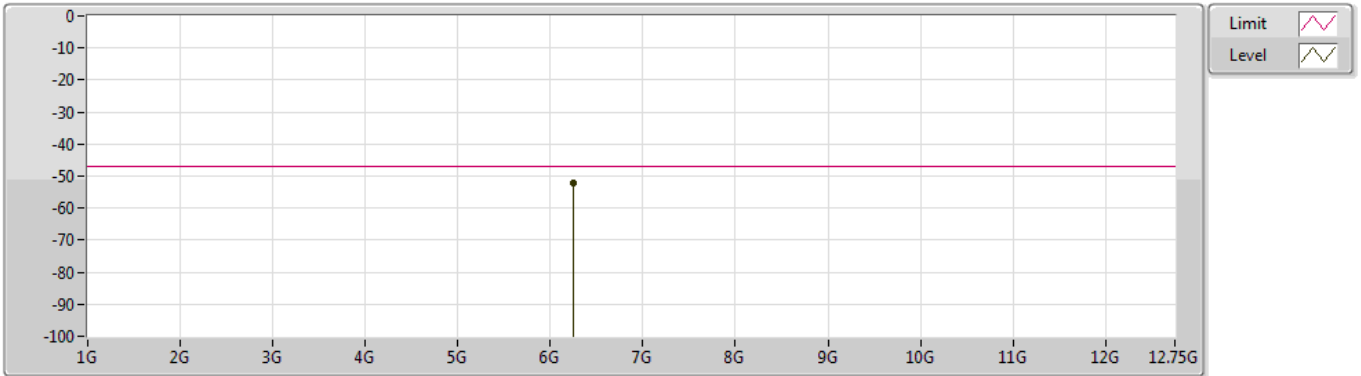
Summary

Mode	Result	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Condition
2.4-2.4835GHz	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_2TX	Pass	6.24996G	-49.35	-47.00	-2.35	-3.17	Horizontal

802.11n HT20_Nss1,(MCS0)_2RX

03/09/2022

2412MHz_RX



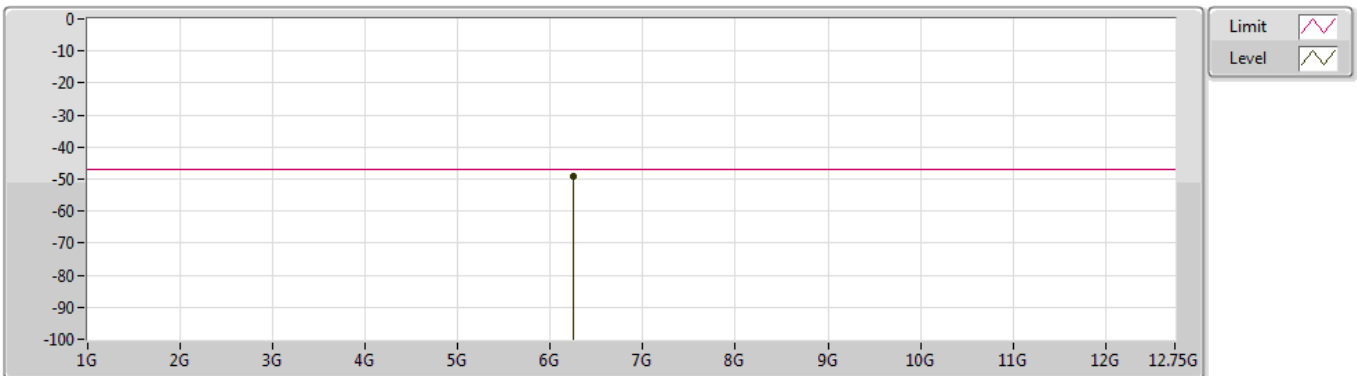
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.24986G	-52.29	-47.00	-5.29	-3.38	Vertical	-48.91								

802.11n HT20_Nss1,(MCS0)_2RX

03/09/2022

2412MHz_RX



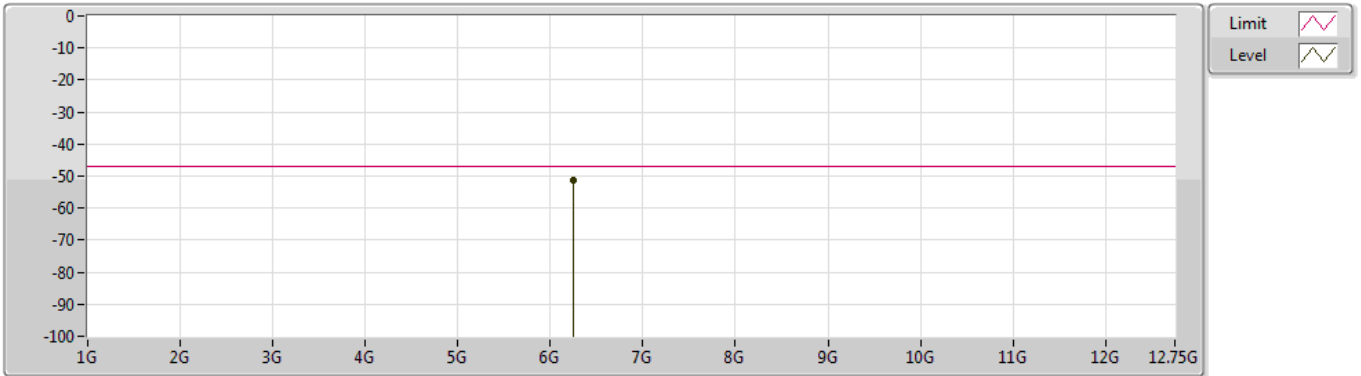
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.24996G	-49.35	-47.00	-2.35	-3.17	Horizontal	-46.18								

802.11n HT20_Nss1,(MCS0)_2RX

03/09/2022

2472MHz_RX



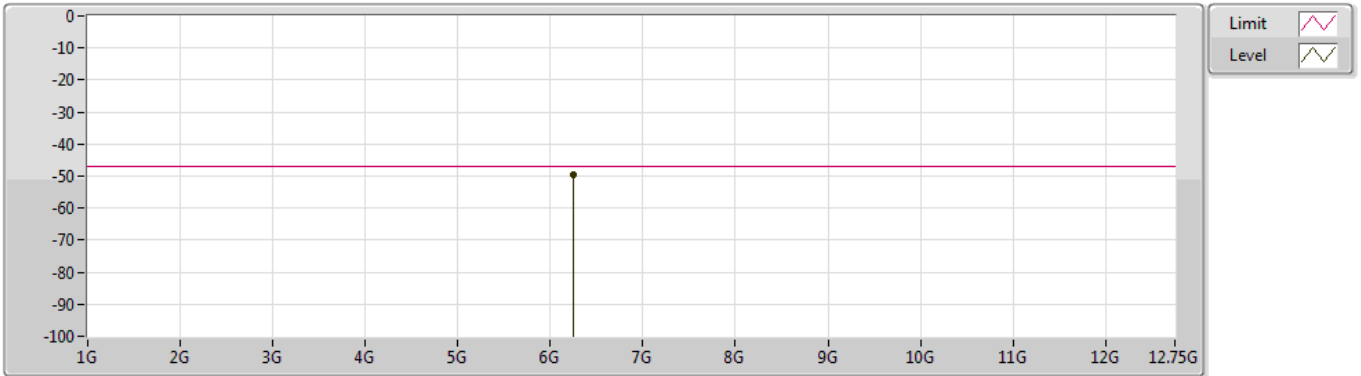
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.24998G	-51.34	-47.00	-4.34	-3.38	Vertical	-47.96								

802.11n HT20_Nss1,(MCS0)_2RX

03/09/2022

2472MHz_RX



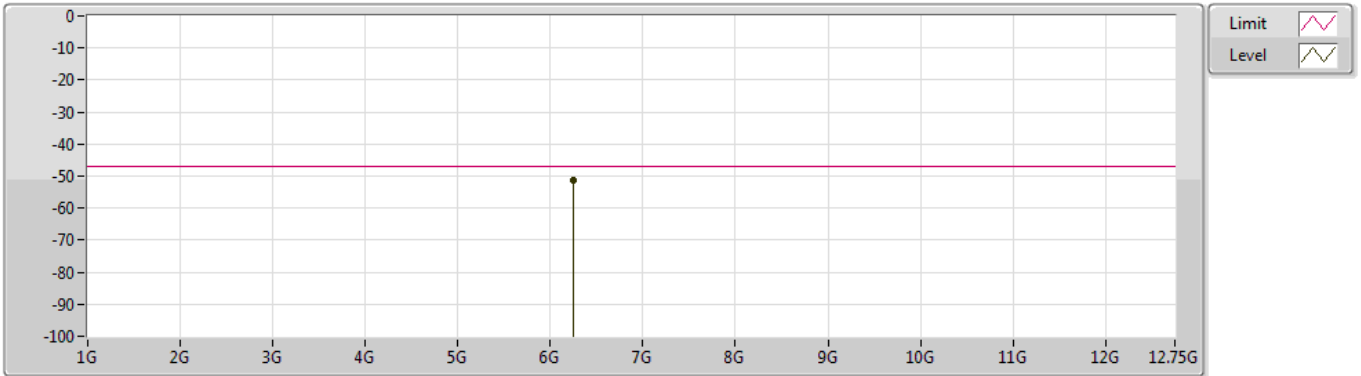
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.25002G	-49.68	-47.00	-2.68	-3.16	Horizontal	-46.52								

802.11n HT40_Nss1,(MCS0)_2RX

03/09/2022

2422MHz_RX



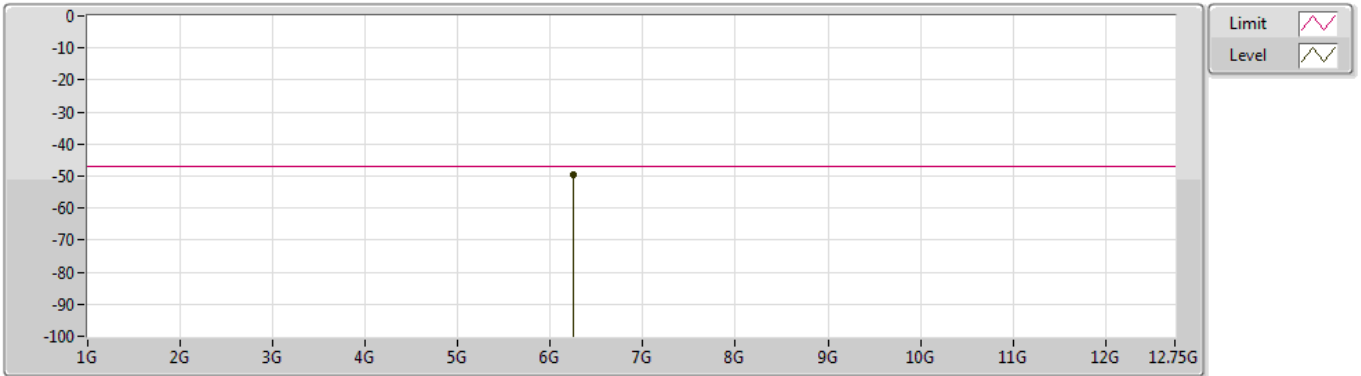
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.24995G	-51.35	-47.00	-4.35	-3.38	Vertical	-47.97								

802.11n HT40_Nss1,(MCS0)_2RX

03/09/2022

2422MHz_RX



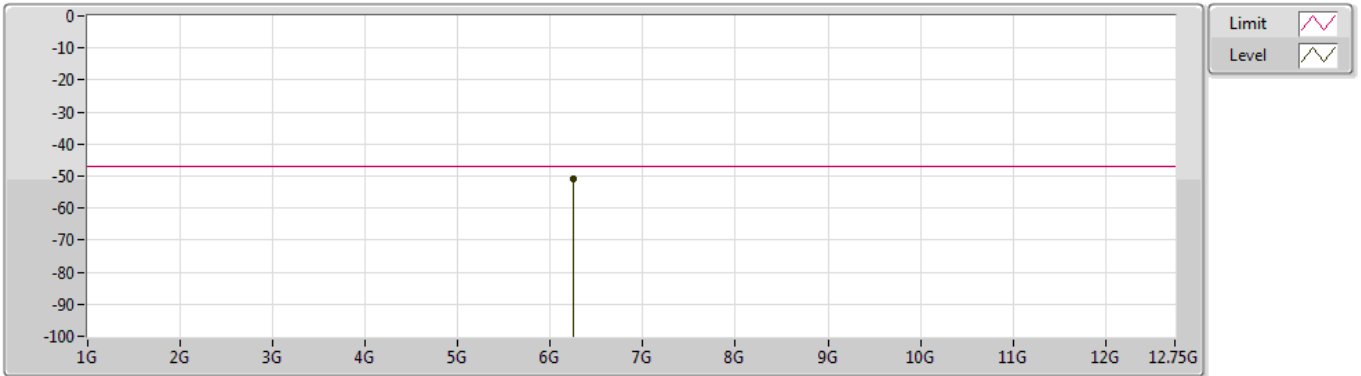
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.25001G	-49.58	-47.00	-2.58	-3.16	Horizontal	-46.42								

802.11n HT40_Nss1,(MCS0)_2RX

03/09/2022

2462MHz_RX



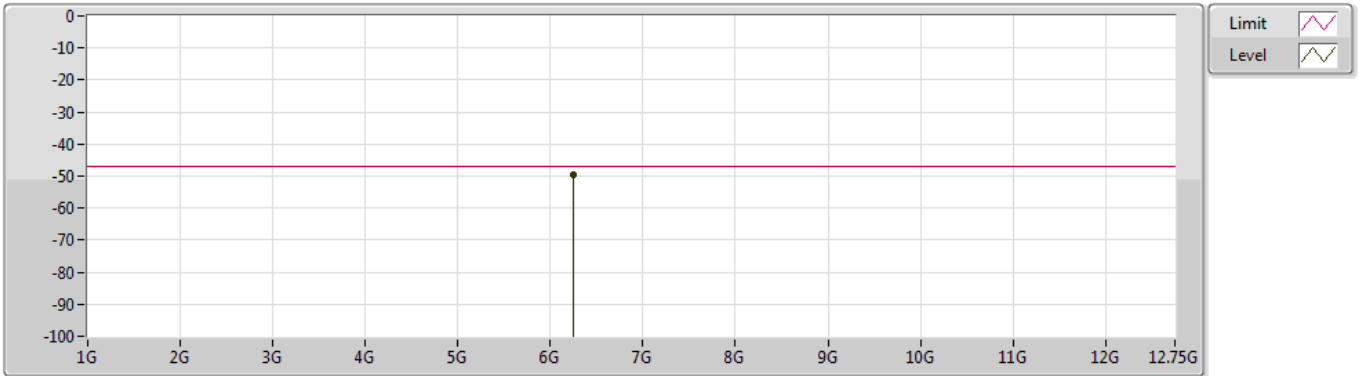
EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.25G	-50.86	-47.00	-3.86	-3.38	Vertical	-47.48								

802.11n HT40_Nss1,(MCS0)_2RX

03/09/2022

2462MHz_RX

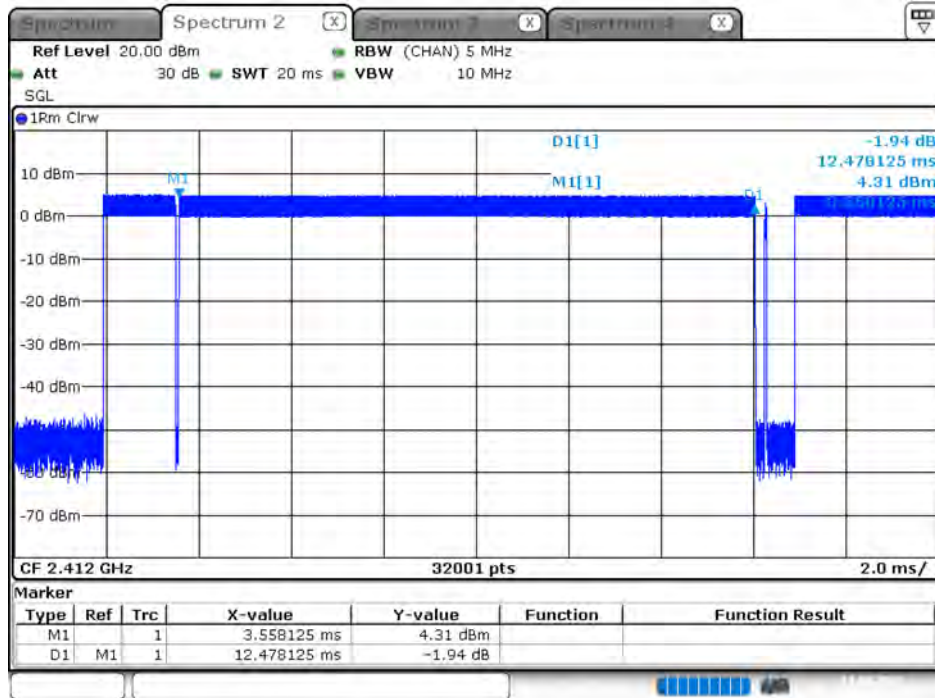

EUT Y_2RX
Setting
1277-J-K-5

Freq	Level	Limit	Margin	Factor	Condition	Raw								
(Hz)	(dBm)	(dBm)	(dB)	(dB)		(dBm)								
6.25002G	-49.60	-47.00	-2.60	-3.16	Horizontal	-46.44								

Adaptivity Result						
Adaptivity Detection Threshold Level		-70 dBm/MHz				
Unwanted Signal Level		-30.65 dBm				
Modulation Mode	Freq. (MHz)	Adaptivity	Unwanted Signal Test Status	Short Control Signaling Transmissions (ms)	Channel Occupancy Time (ms)	Idle Period (us)
802.11b	2412	Pass	Pass	0.000	12.478	73.906
802.11b	2472	Pass	Pass	0.000	12.477	72.969
802.11g	2412	Pass	Pass	3.112	2.071	74.062
802.11g	2472	Pass	Pass	0.000	2.071	74.125
802.11n (HT20)	2412	Pass	Pass	3.943	1.933	73.906
802.11n (HT20)	2472	Pass	Pass	0.000	1.933	74.000
802.11n (HT40)	2422	Pass	Pass	0.000	1.890	73.750
802.11n (HT40)	2462	Pass	Pass	0.000	1.846	73.937
Limit		N/A	N/A	5	N/A	N/A
Result		PASS				
Note: Note: Channel Occupancy Time and Idle Period Time follow as IEEE 802.11TM-2016[i.3] clause 10, clause 11, clause 15, clause 16, clause 18 and clause 19 specification without restriction.						

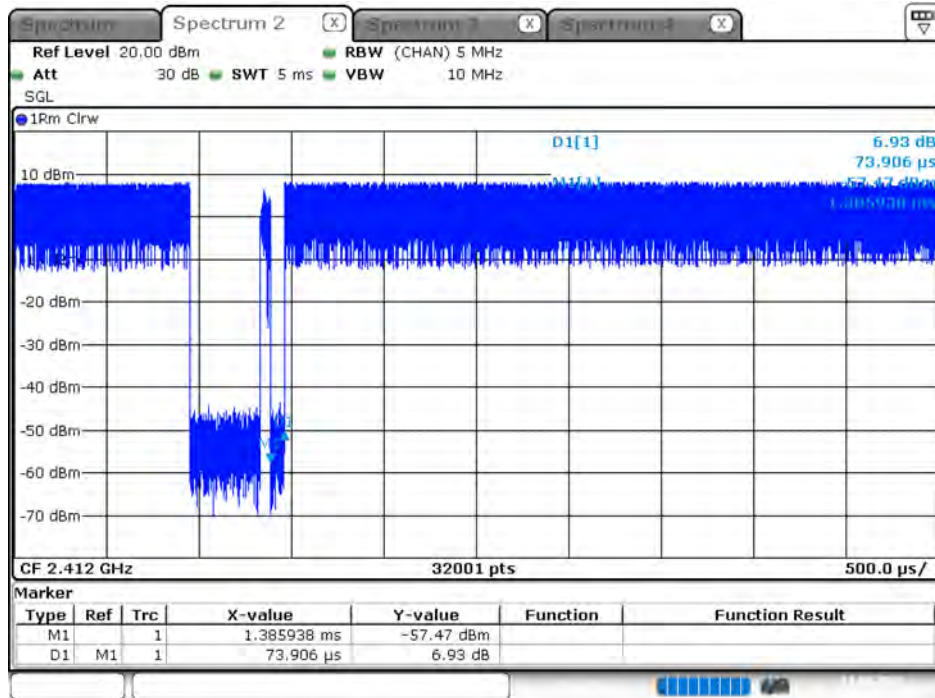
802.11b – 2412 MHz

Channel Occupancy Time



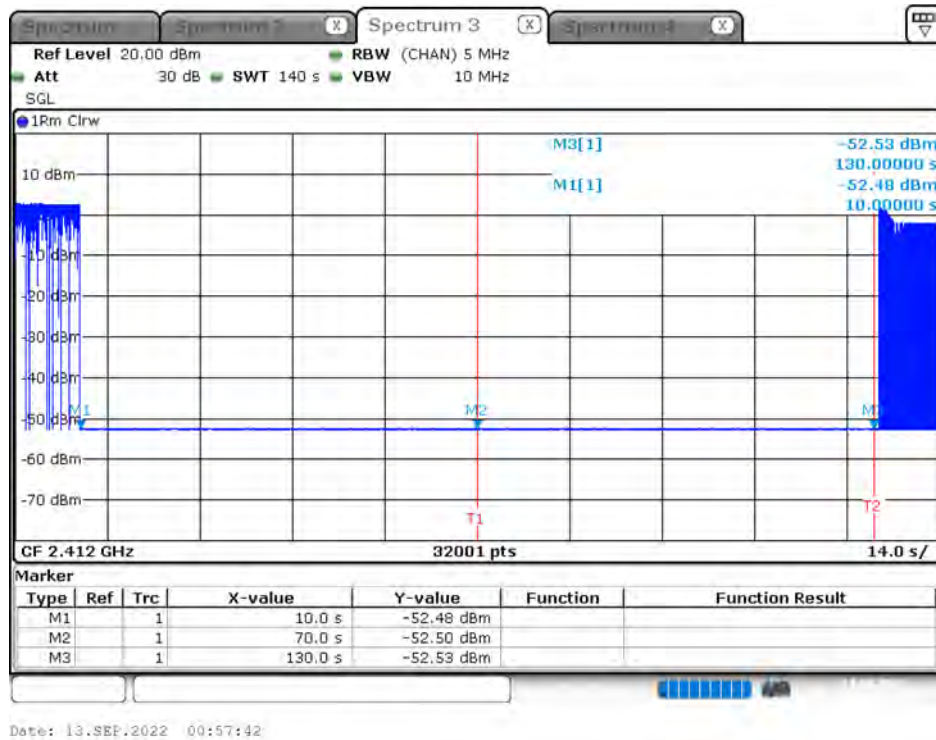
Date: 13.SEP.2022 00:48:34

Idle Period



Date: 13.SEP.2022 00:49:30

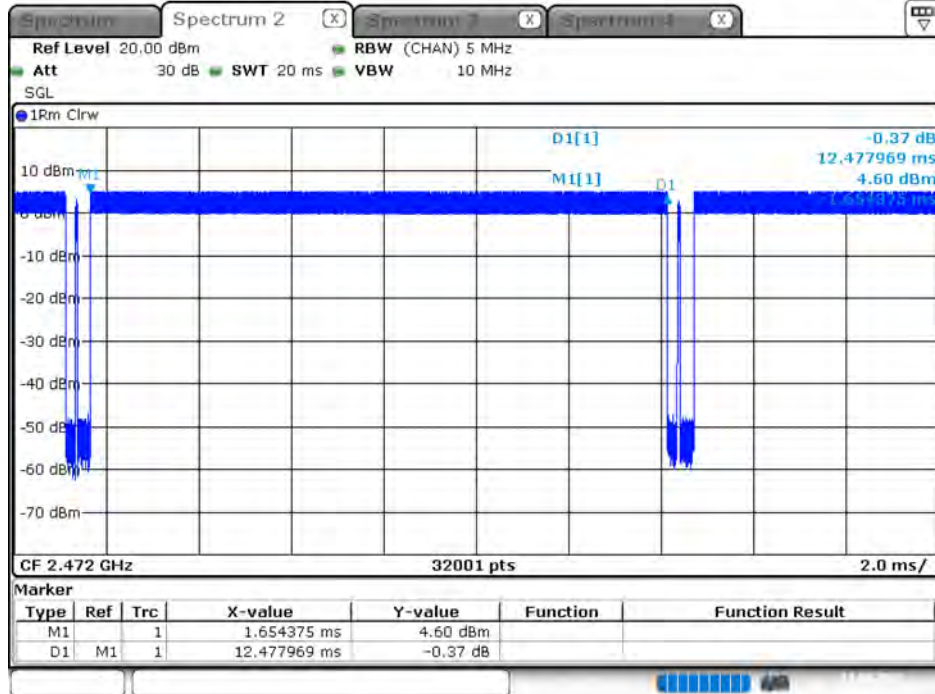
Adaptivity & Unwanted Signal Plots



- Marker 1: Adding the interference signal.
- Marker 2: Adding the unwanted signal on 2488.5 MHz.
- Marker 3: Removing the interference and unwanted signal.

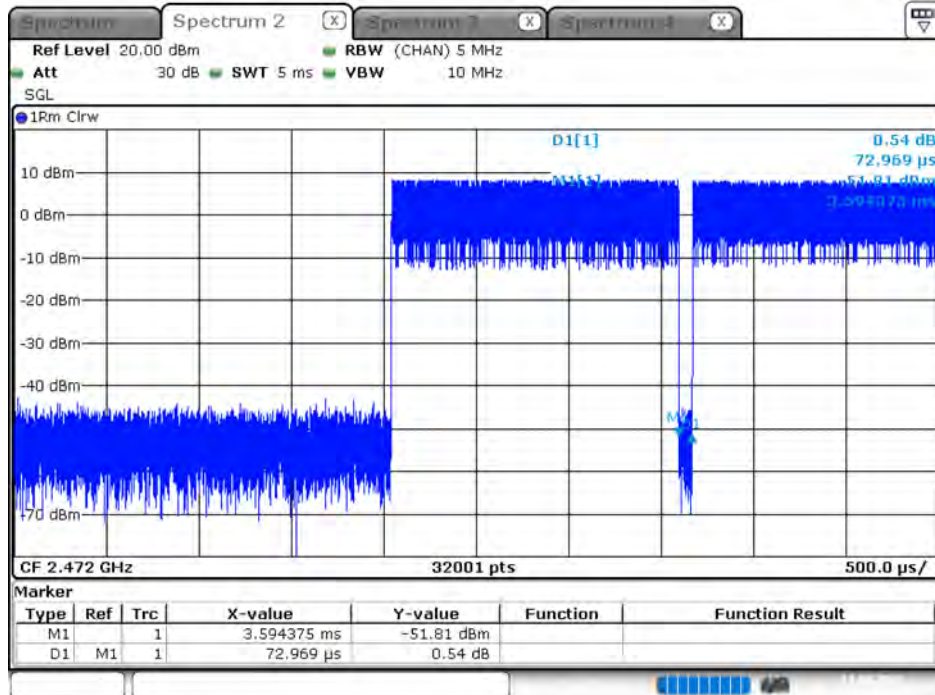
802.11b – 2472 MHz

Channel Occupancy Time



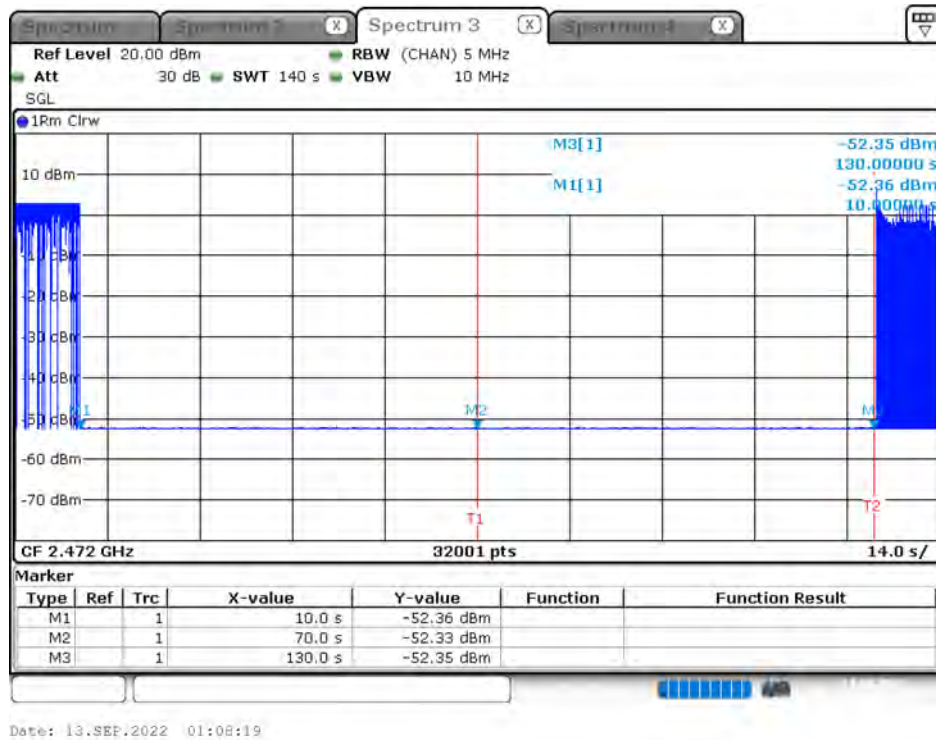
Date: 13.SEP.2022 01:03:15

Idle Period



Date: 13.SEP.2022 01:05:15

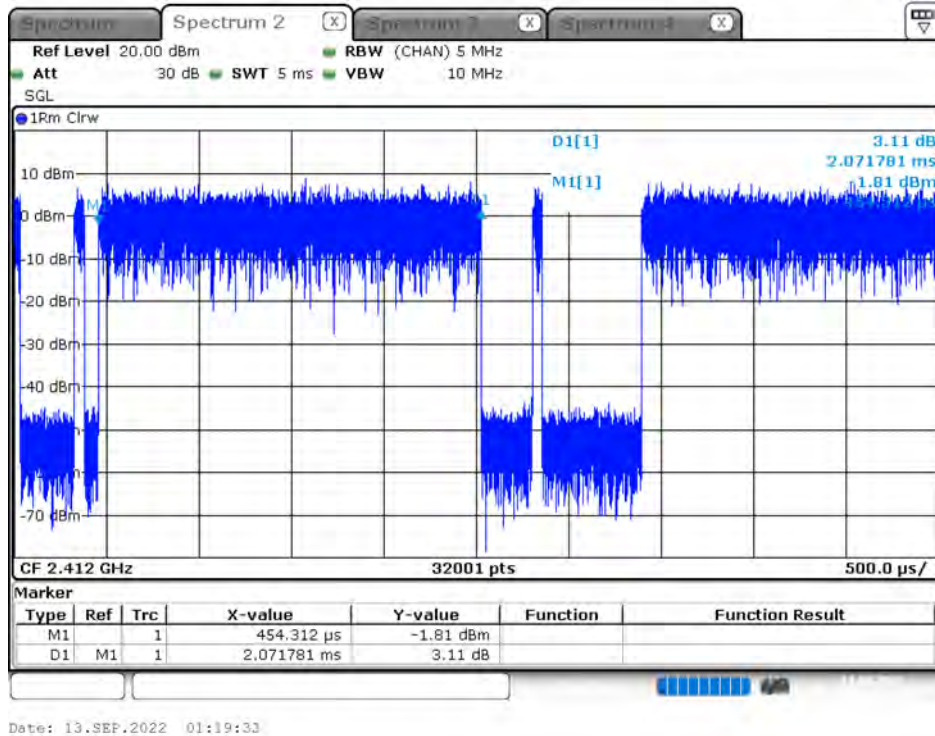
Adaptivity & Unwanted Signal Plots



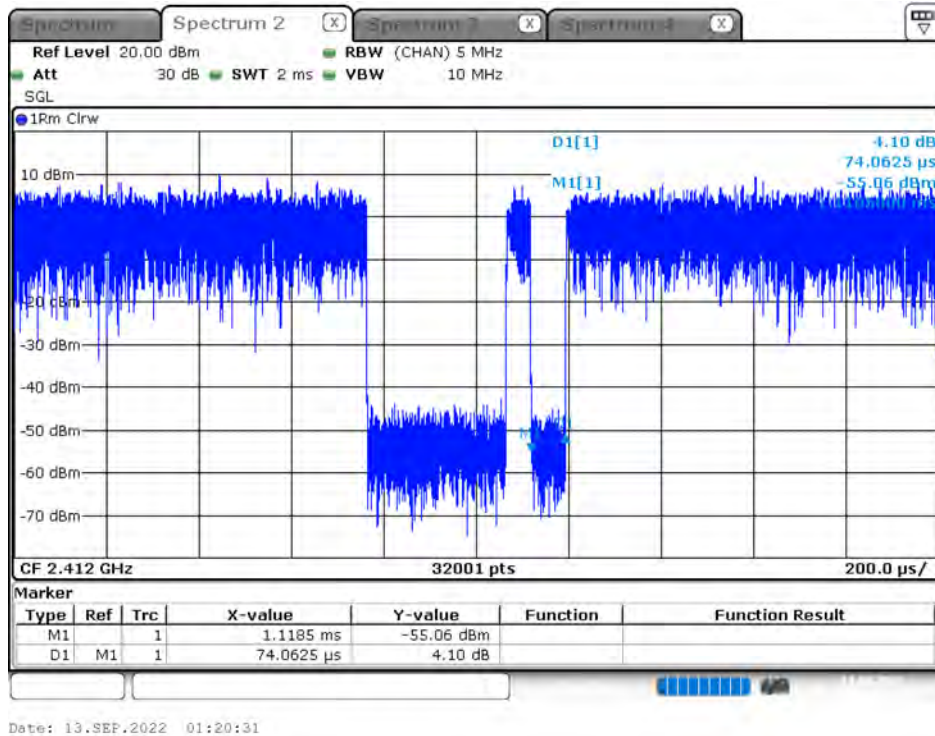
- Marker 1: Adding the interference signal.
- Marker 2: Adding the unwanted signal on 2395 MHz.
- Marker 3: Removing the interference and unwanted signal.

802.11g – 2412 MHz

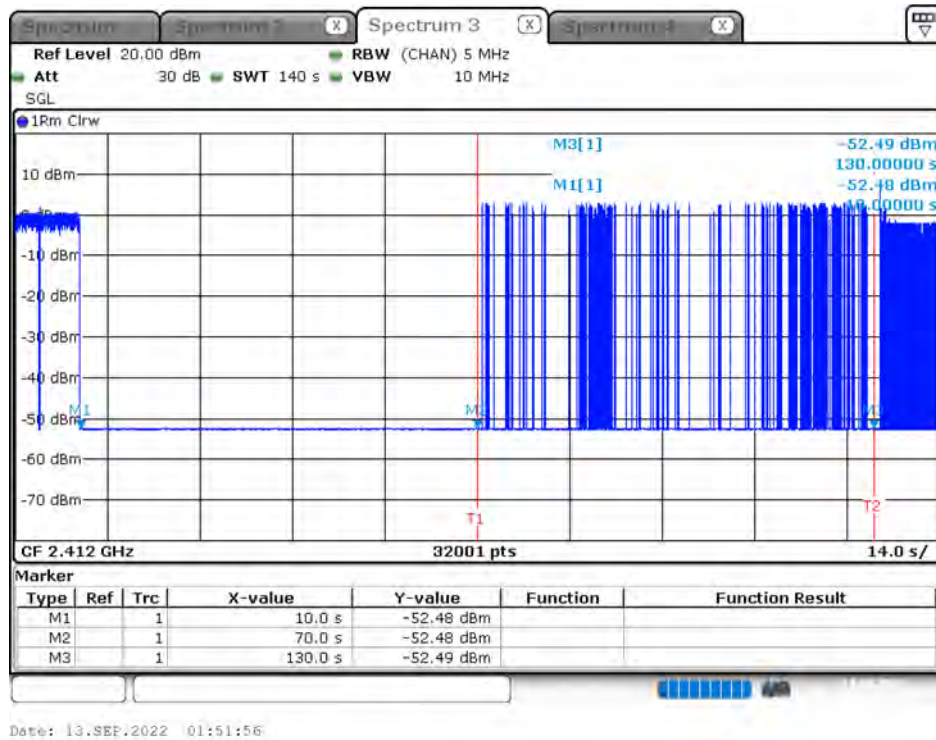
Channel Occupancy Time



Idle Period

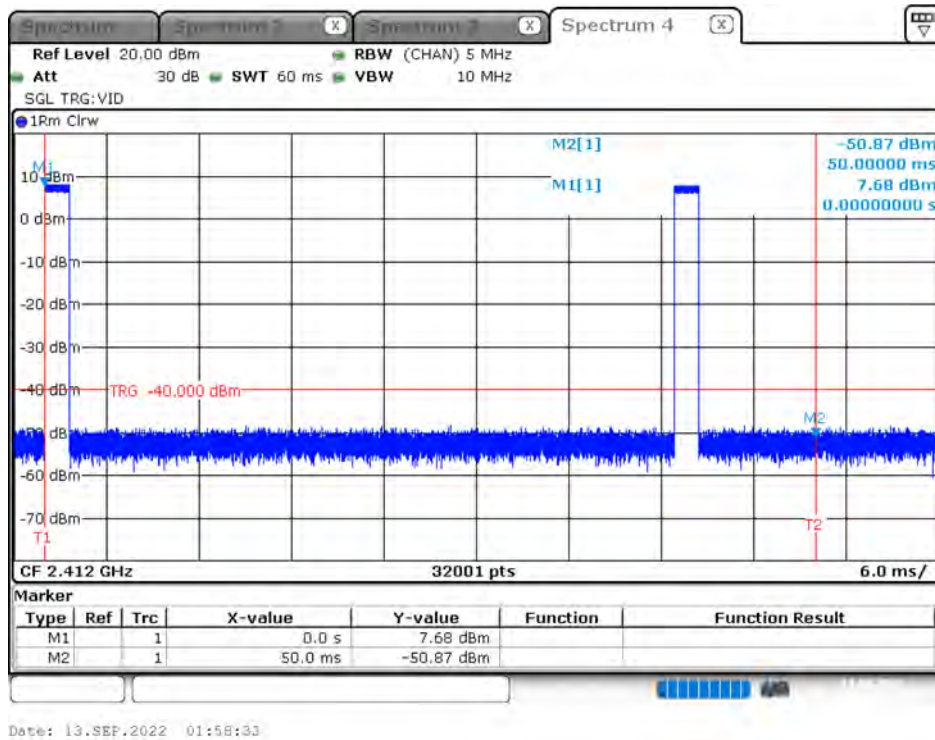


Adaptivity & Unwanted Signal Plots



Marker 1: Adding the interference signal.
 Marker 2: Adding the unwanted signal on 2488.5 MHz.
 Marker 3: Removing the interference and unwanted signal.

Short Control Signaling Transmissions Plots

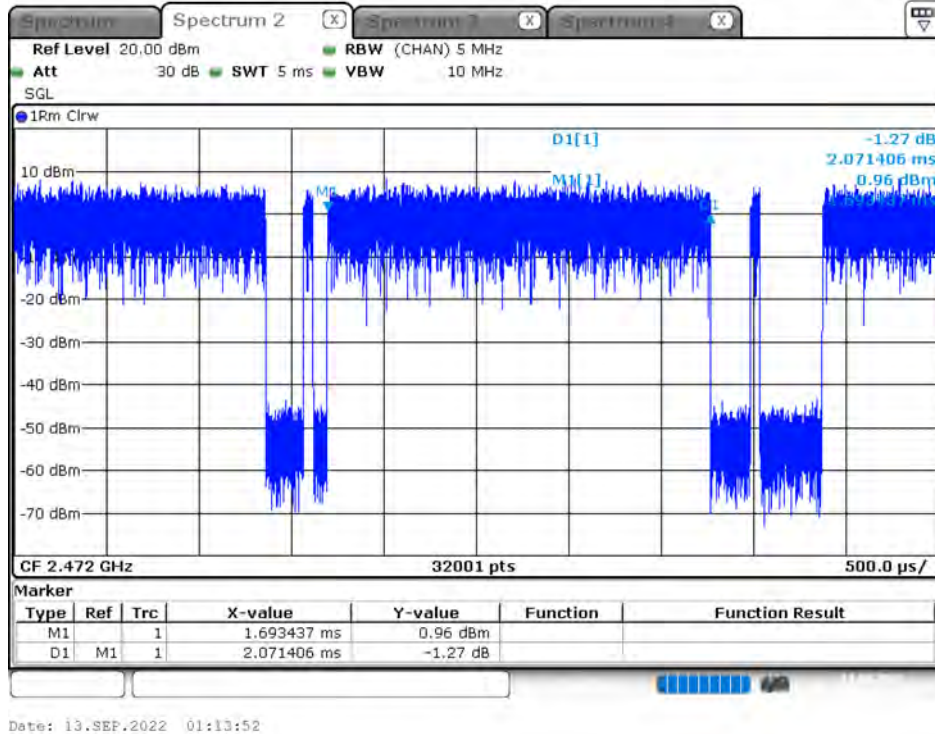


R&S Agilent

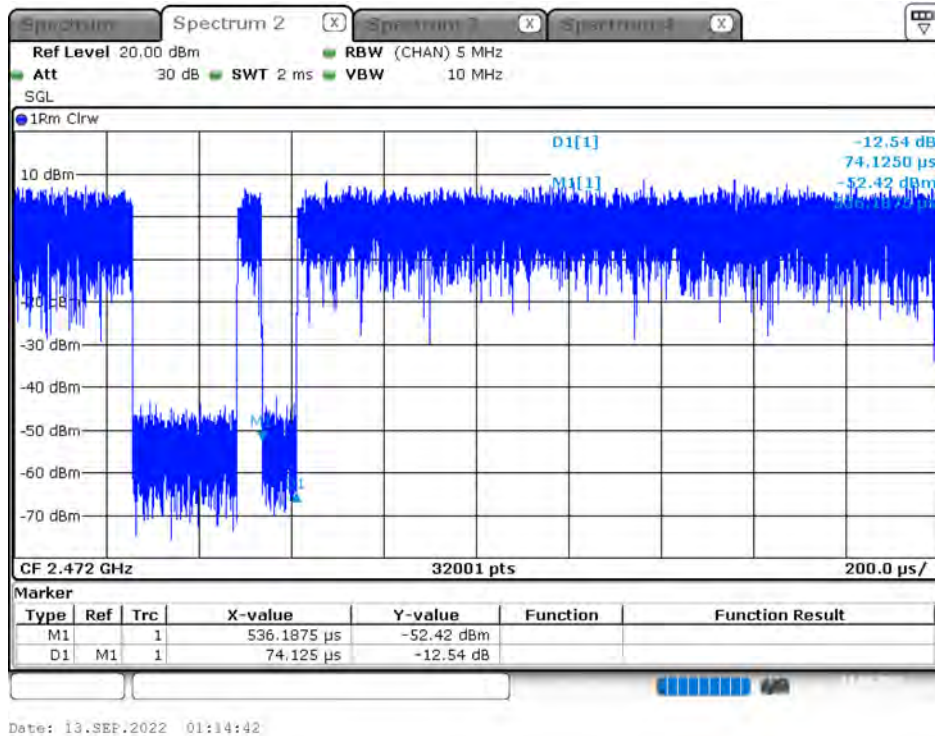
VISA session 1 GPIB0::20	Threshold (dBm) -40	Marker 1 (sec) 0	Space Time of Point 0.000002	No. of Pulse 1660
	Mean Level (dBm) 7.12	Marker 2 (sec) 0.05	Mark 1 Point 1	Close TX Time(sec) 3.1125m
	RMS Level (dBm) 7.15	Total Trace of Points 32001	Mark 2 Point 26668	Duty (%) 6.22

802.11g – 2472 MHz

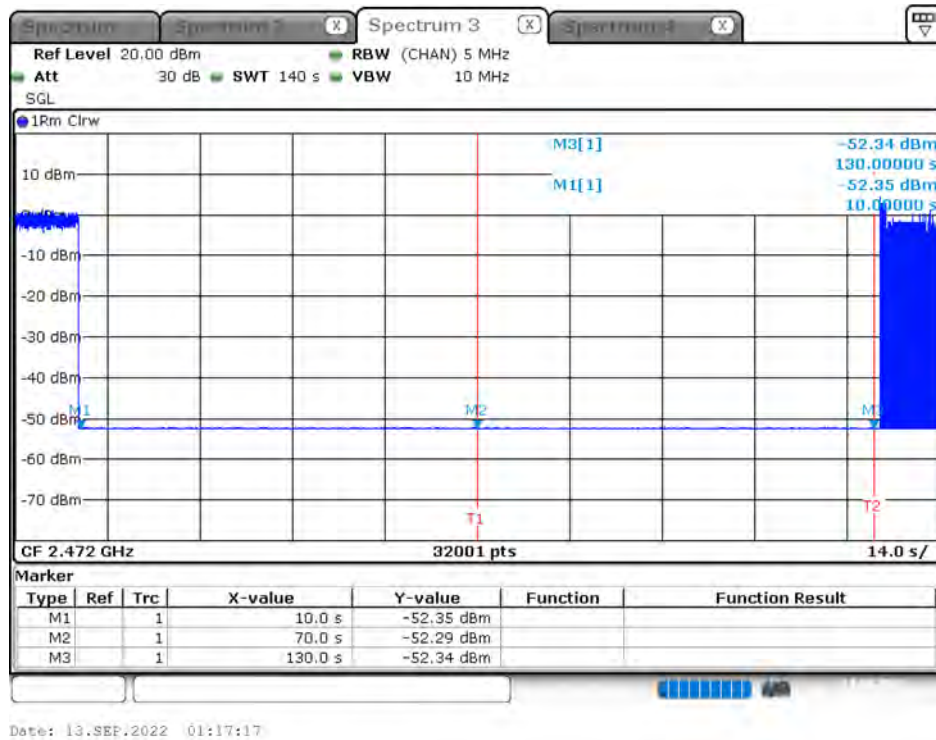
Channel Occupancy Time



Idle Period



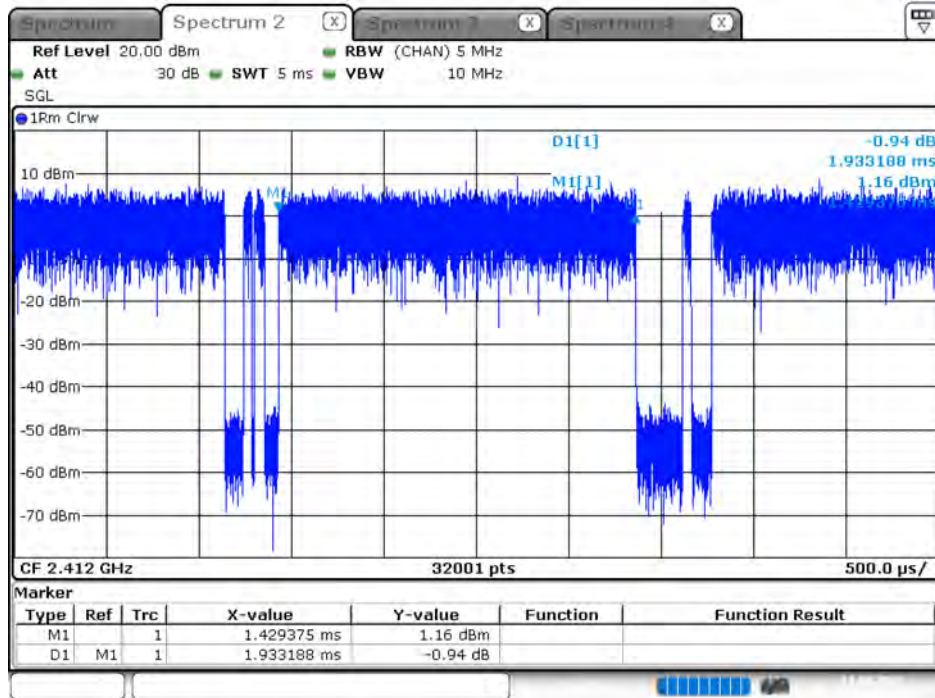
Adaptivity & Unwanted Signal Plots



- Marker 1: Adding the interference signal.
- Marker 2: Adding the unwanted signal on 2395 MHz.
- Marker 3: Removing the interference and unwanted signal.

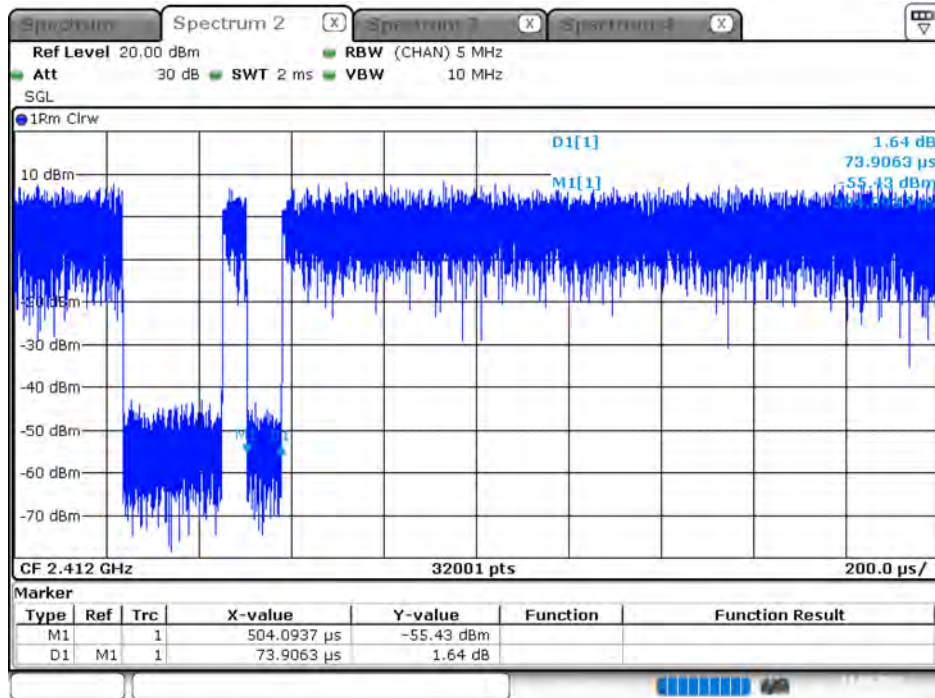
802.11n (HT20) – 2412 MHz

Channel Occupancy Time



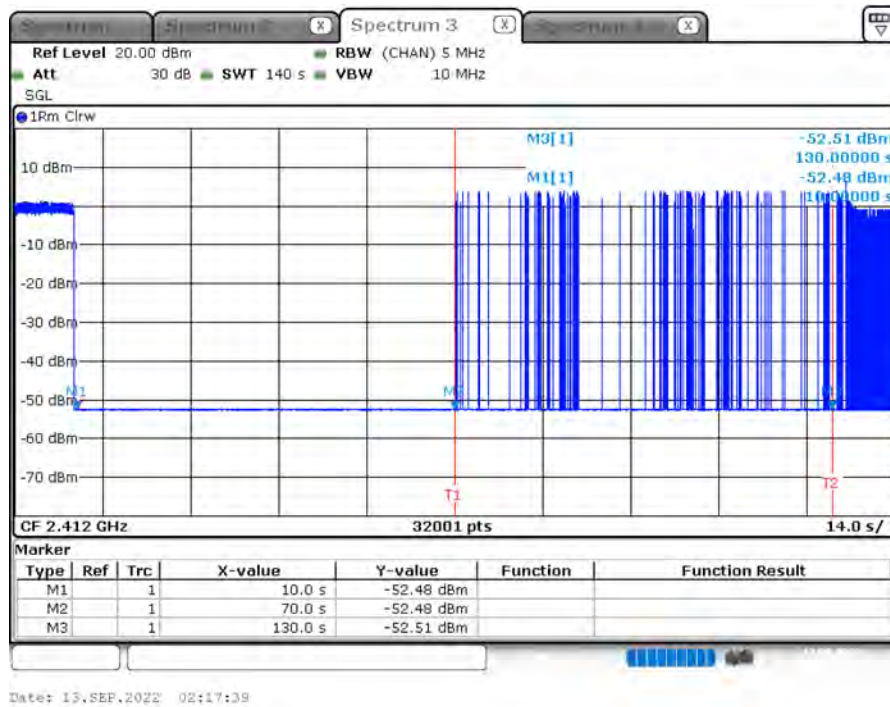
Date: 13.SEP.2022 02:06:42

Idle Period



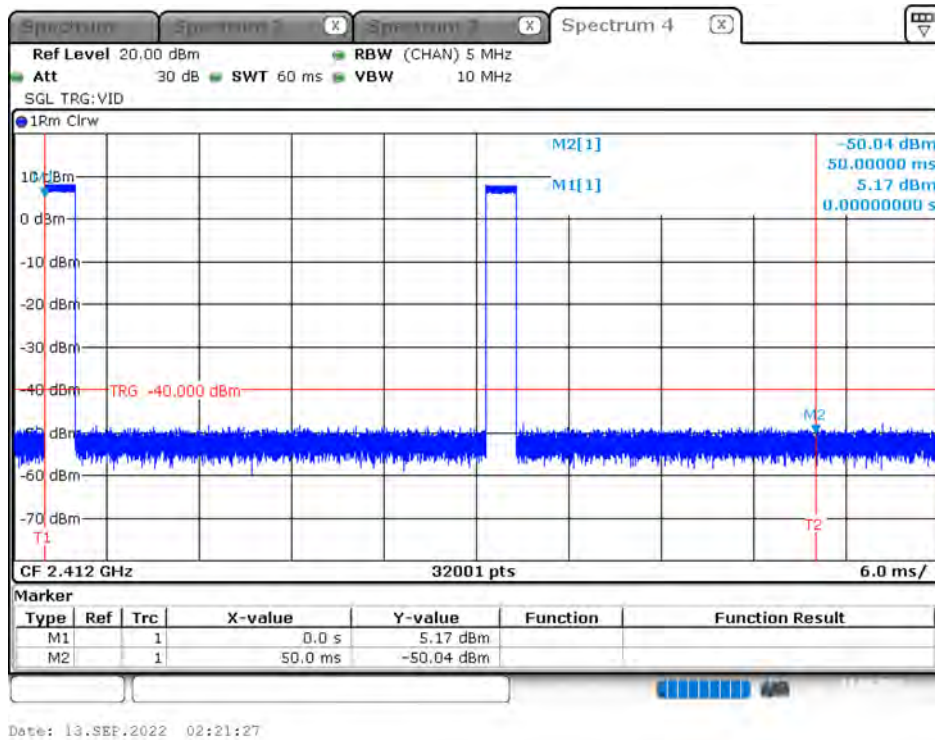
Date: 13.SEP.2022 02:08:59

Adaptivity & Unwanted Signal Plots



Marker 1: Adding the interference signal.
Marker 2: Adding the unwanted signal on 2488.5 MHz.
Marker 3: Removing the interference and unwanted signal.

Short Control Signaling Transmissions Plots

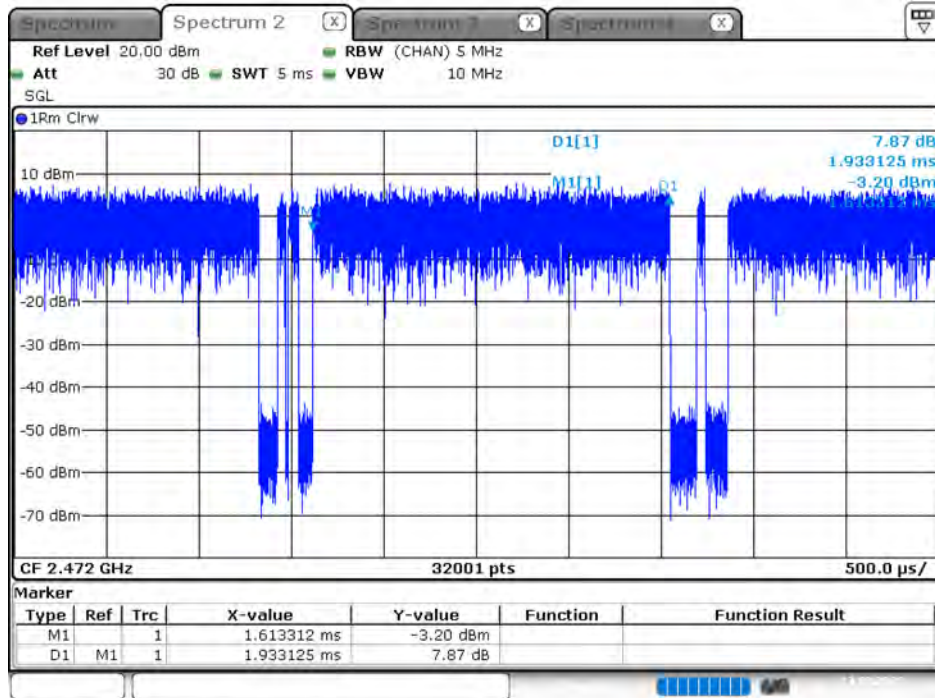


R&S Agilent

VISA session 1 GPIB0::20	Threshold (dBm) -30	Marker 1 (sec) 0	Space Time of Point 0.000002	No. of Pulse 2103
	Mean Level (dBm) 7.13	Marker 2 (sec) 0.05	Mark 1 Point 1	Close TX Time(sec) 3.943125m
	RMS Level (dBm) 7.15	Total Trace of Points 32001	Mark 2 Point 26668	Duty (%) 7.89

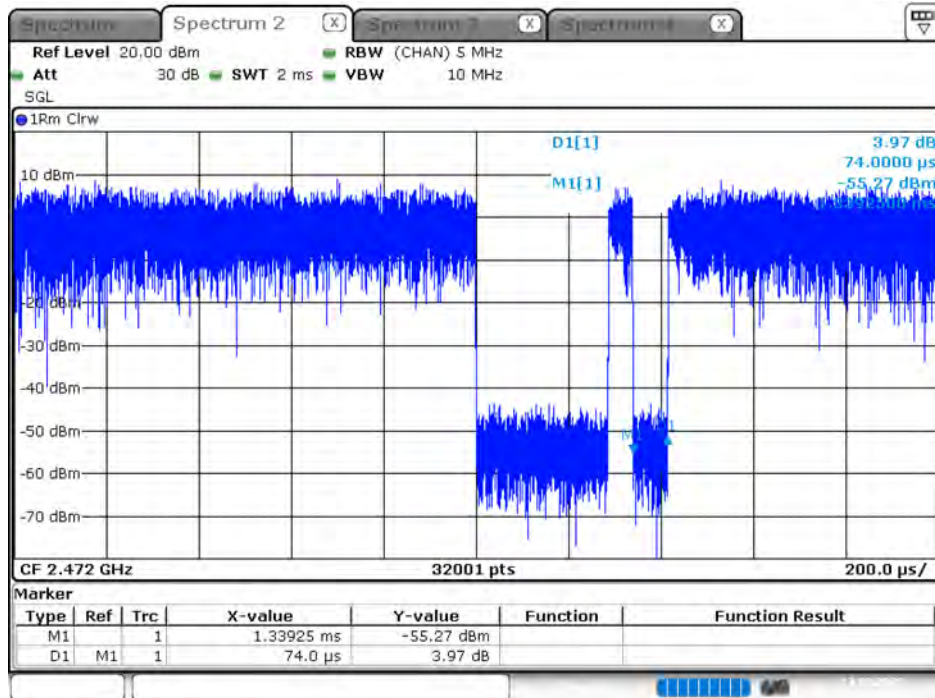
802.11n (HT20) – 2472 MHz

Channel Occupancy Time



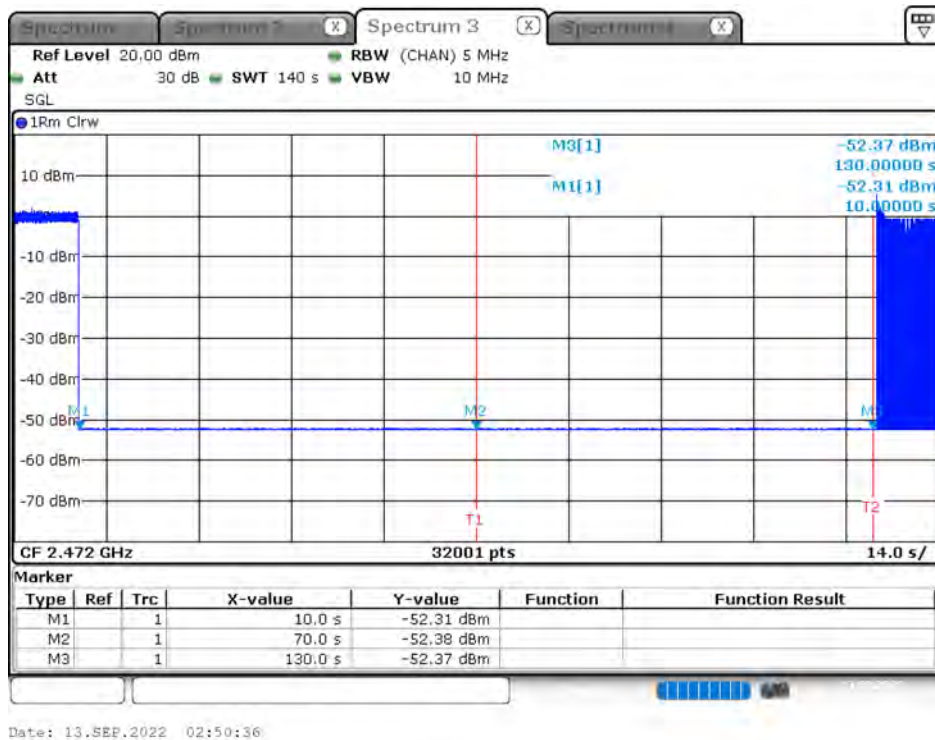
Date: 13.SEP.2022 02:27:01

Idle Period



Date: 13.SEP.2022 02:27:55

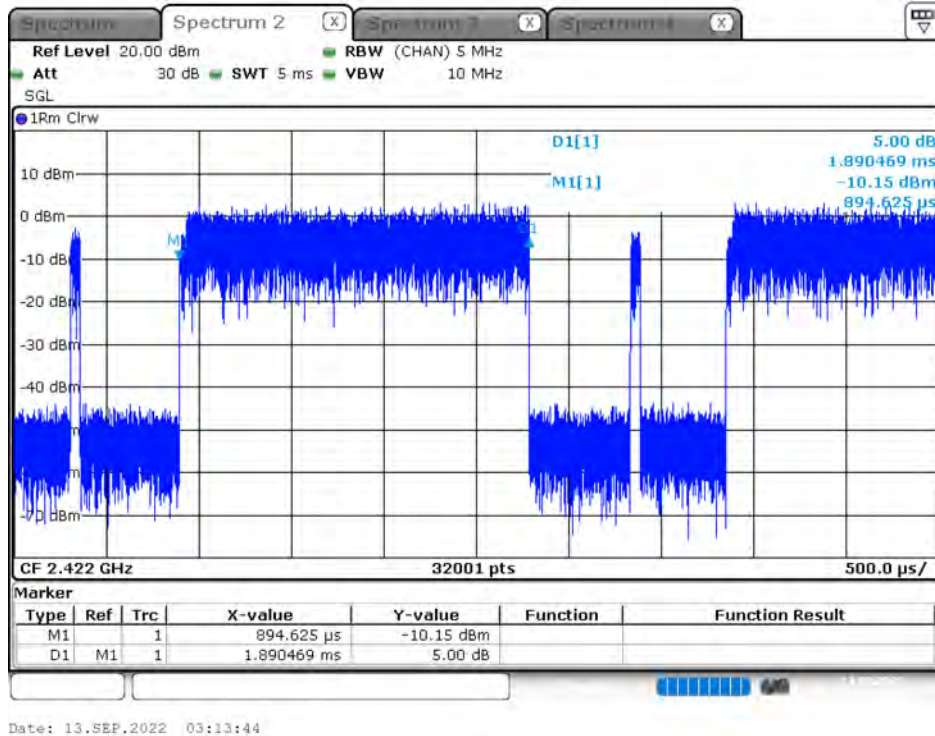
Adaptivity & Unwanted Signal Plots



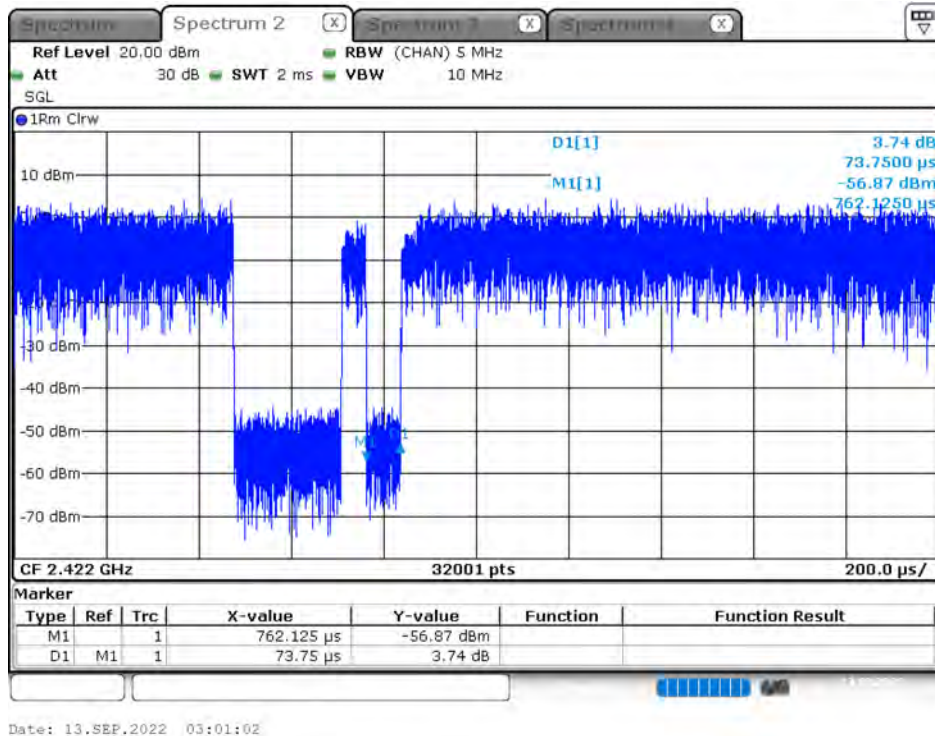
- Marker 1: Adding the interference signal.
- Marker 2: Adding the unwanted signal on 2395 MHz.
- Marker 3: Removing the interference and unwanted signal.

802.11n (HT40) – 2422 MHz

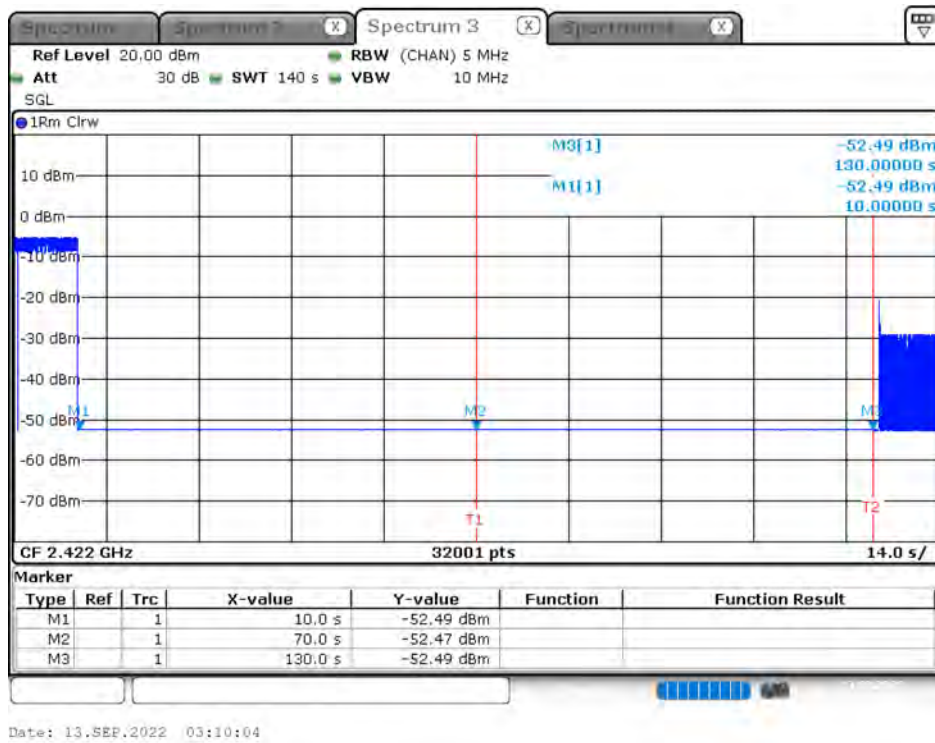
Channel Occupancy Time



Idle Period



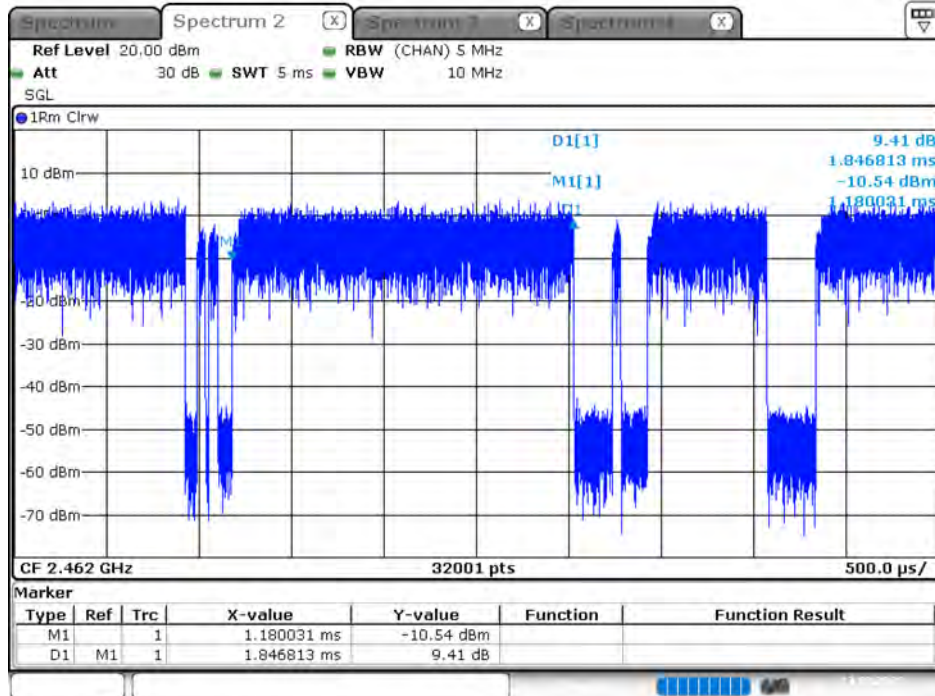
Adaptivity & Unwanted Signal Plots



Marker 1: Adding the interference signal.
 Marker 2: Adding the unwanted signal on 2488.5 MHz.
 Marker 3: Removing the interference and unwanted signal.

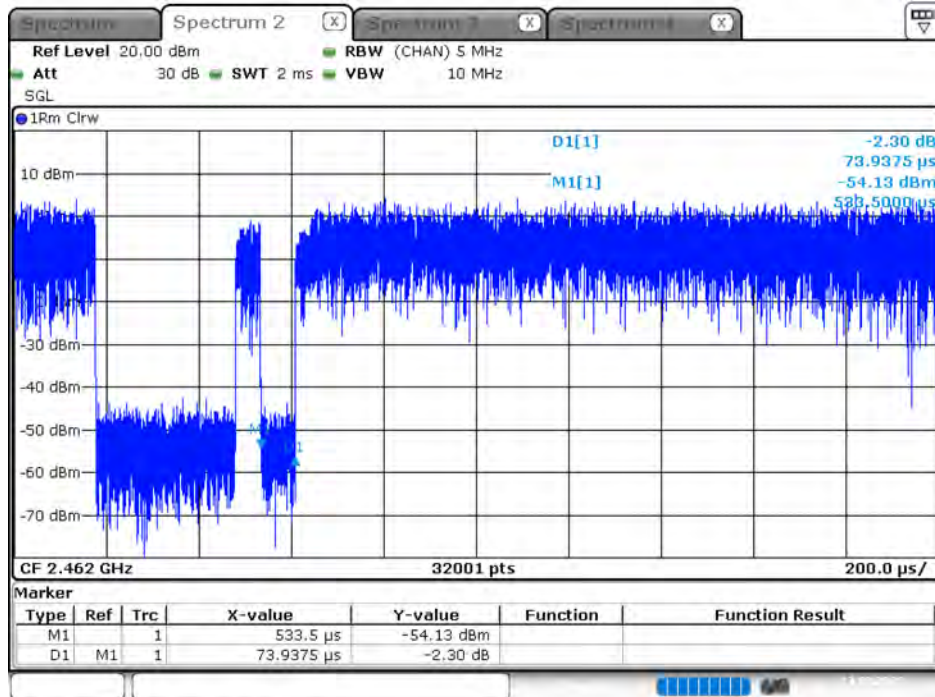
802.11n (HT40) – 2462 MHz

Channel Occupancy Time



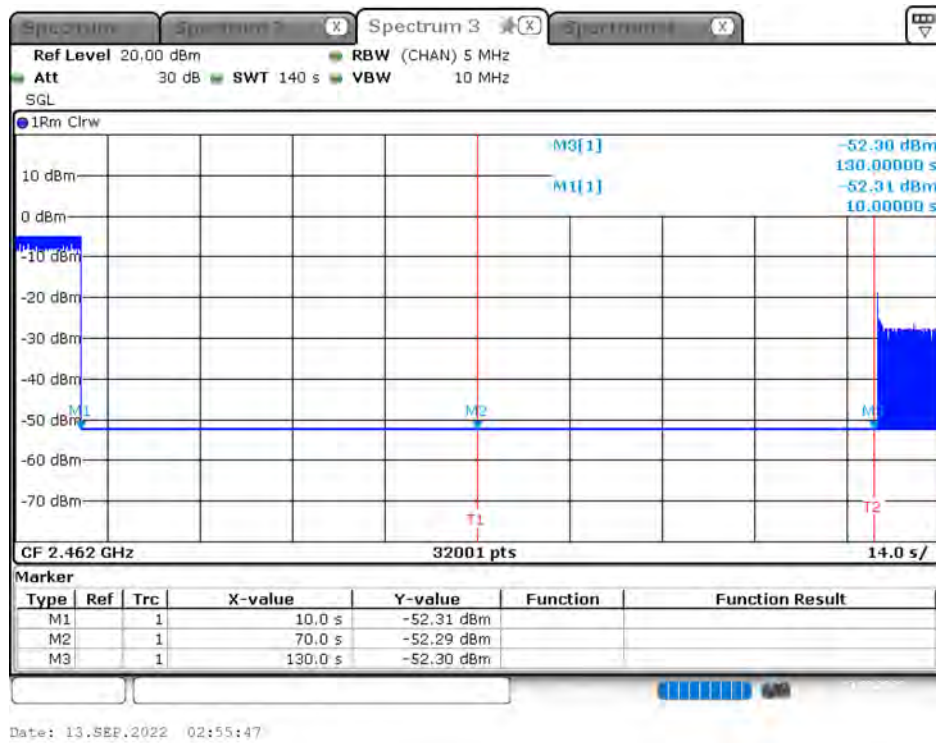
Date: 13.SEP.2022 02:57:39

Idle Period



Date: 13.SEP.2022 02:58:58

Adaptivity & Unwanted Signal Plots



- Marker 1: Adding the interference signal.
- Marker 2: Adding the unwanted signal on 2395 MHz.
- Marker 3: Removing the interference and unwanted signal.

Receiver Blocking Result						
P _{min} (dBm)	-90.88					
Modulation Mode	Operation Frequency (MHz)	Wanted signal mean power from companion device (dBm)	Receiver Blocking Power (dBm)	Blocking Signal Frequency (MHz)	Type of Blocking Signal	Test Result
802.11b	2412	-68.00	-29.65	2380	CW	Pass
		-74.00		2300	CW	Pass
		-74.00		2330	CW	Pass
		-74.00		2360	CW	Pass
Limit	PER(Packet Error Rate) ≤ 10%					
Result	PASS					

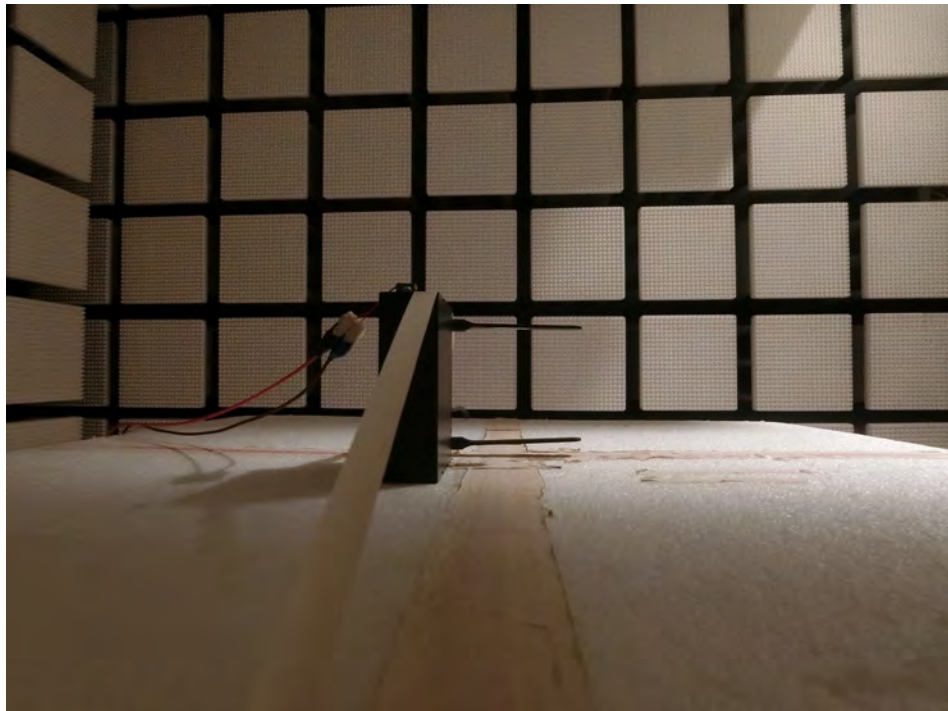
Receiver Blocking Result						
P _{min} (dBm)	-91.88					
Modulation Mode	Operation Frequency (MHz)	Wanted signal mean power from companion device (dBm)	Receiver Blocking Power (dBm)	Blocking Signal Frequency (MHz)	Type of Blocking Signal	Test Result
802.11b	2472	-68.00	-29.65	2504	CW	Pass
		-74.00		2524	CW	Pass
		-74.00		2584	CW	Pass
		-74.00		2674	CW	Pass
Limit	PER(Packet Error Rate) ≤ 10%					
Result	PASS					

Receiver Blocking Result						
P _{min} (dBm)	-89.88					
Modulation Mode	Operation Frequency (MHz)	Wanted signal mean power from companion device (dBm)	Receiver Blocking Power (dBm)	Blocking Signal Frequency (MHz)	Type of Blocking Signal	Test Result
802.11g	2412	-68.00	-29.65	2380	CW	Pass
		-74.00		2300	CW	Pass
		-74.00		2330	CW	Pass
		-74.00		2360	CW	Pass
Limit	PER(Packet Error Rate) ≤ 10%					
Result	PASS					

Receiver Blocking Result						
P _{min} (dBm)	-90.88					
Modulation Mode	Operation Frequency (MHz)	Wanted signal mean power from companion device (dBm)	Receiver Blocking Power (dBm)	Blocking Signal Frequency (MHz)	Type of Blocking Signal	Test Result
802.11g	2472	-68.00	-29.65	2504	CW	Pass
		-74.00		2524	CW	Pass
		-74.00		2584	CW	Pass
		-74.00		2674	CW	Pass
Limit	PER(Packet Error Rate) ≤ 10%					
Result	PASS					

1. Photographs of Test Configuration

FRONT VIEW



REAR VIEW



—THE END—