AS/NZS Test Report

Equipment	:	**802.11ac Professional Wi-Fi + BT5.0 Module**
Model No.	:	**SU60-SOMC (453-00003), SU60-SOMC-2G (453-00004) (please refer to section 1.1.1 for more details.)**
Brand Name	:	**Laird**
Applicant	:	**Laird Technologies**
Address	:	**W66N220 Commerce Court, Cedarburg, Wisconsin 53012, USA**
Standard	:	**AS/NZS 4268:2017**
Received Date	:	**Apr. 11, 2018**
Tested Date	:	**Sep. 19 ~ Oct. 03, 2018**

We, International Certification Corp., 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 may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: **Approved by:**

James Fan / Assistant Manager **Gary Chang / Manager**

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
AR841101AC	Rev. 01	Initial issue	Dec. 21, 2018

Summary of Test Results

Ref. Std. Clause (ACMA 4268)	Ref. Std. Clause (EN 300 328)	Test Items	Measured	Result
6.3	4.3.2.2	RF Output Power	19.09 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
6.5	4.3.2.7	Emission Bandwidth	Meet the requirement of limit.	Pass
6.6	4.3.2.7	Operating Frequencies	Meet the requirement of limit.	Pass
6.4	4.3.2.8	Transmitter unwanted emissions in the out of band domain	Meet the requirement of limit.	Pass
6.4	4.3.2.9	Transmitter unwanted emissions in the spurious domain	Meet the requirement of limit.	Pass
7.2	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 judgement of conformity in the report is based on the measurement results excluding the measurement uncertainty.
Comments and Explanations:
None

1 General Description

1.1 Information

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
Laird	SU60-SOMC (453-00003)	802.11ac Professional Wi-Fi + BT5.0 Module	2G/1G MCP
	SU60-SOMC-2G (453-00004)		4G/2G MCP
✦ The above models, both options were assessed and **SU60-SOMC-2G (453-00004)** was found to be worst case and was selected for the final testing.			

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
				2	1-11 Mbps
2400-2483.5	g	2412-2472	1-13 [13]	1	6-54 Mbps
				2	6-54 Mbps
2400-2483.5	n (HT20)	2412-2472	1-13 [13]	1	MCS 0-7
				2	MCS 0-7
				2	MCS 8-15
2400-2483.5	n (HT40)	2422-2462	3-11 [9]	1	MCS 0-7
				2	MCS 0-7
				2	MCS 8-15
Note 1: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation. Note 2: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation. Note 3: The device supports TX antenna diversity function. The conducted power of single chain is same for 1TX and 2TX operating mode. Therefore, Ant1 + Ant 2 configuration is chosen for final testing.					

1.1.3 Antenna Details

No.	Brand	Model	Type	Connector	Gain (dBi)
1	LSR	001-0009	Dipole	IPEX U.FL	2
2	Laird	NanoBlade-IP04	PCB Dipole	IPEX U.FL	2
3	Laird	MAF95310 Mini NanoBlade Flex	PCB Dipole	IPEX U.FL	2.79
4	LSR	FlexPIFA 001-0016	PIFA	IPEX U.FL	2.5
5	Ethertronics	WLAN_1000146	Magnetic Dipole	IPEX U.FL	2.5
6	Laird	MIMO FlexPIFA Antenna	PIFA	IPEX U.FL	2
7	LSR	001-0009 (with filter)	Dipole	IPEX U.FL	2

1.1.4 EUT Operational Condition

Power Supply Type	3.3 Vdc from host		
SW Version	6.0.0.x		
Operational Climatic	☒ Tnom (20°C)	☒ Tmax (85°C)	☒ Tmin (-30°C)

1.1.5 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC Adapter	Brand Name: I.T.E POWER SUPPLY Model Name: MU12AY120100-A1 Power Rating: I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 12Vdc, 1A Power Line: 1.48m non-shielded cable without core

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

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	10	2457
9	2452	11	2462
10	2457	---	---
11	2462	---	---
12	2467	---	---
13	2472	---	---

1.1.8 Test Tool and Duty Cycle

Test Tool	Test Command	
Modulation Mode	**Duty Cycle Of Test Signal (%)**	**Duty Factor (dB)**
b	100.00%	0
g	100.00%	0
n (HT20)	100.00%	0
n (HT40)	100.00%	0

1.1.9 Power Setting

Modulation Mode	Test Frequency (MHz)					
	b / g / n (HT20)			n (HT40)		
	2412	2442	2472	2422	2442	2462
b	Default	Default	Default	---	---	---
g	Default	Default	Default	---	---	---
n (HT20)	Default	Default	Default	---	---	---
n (HT40)	---	---	---	Default	Default	Default

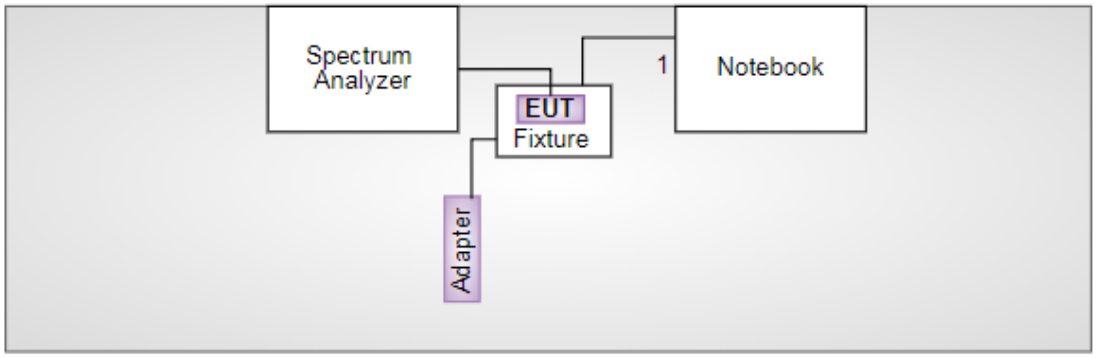
1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**S/N**	**Remarks**
1	Notebook	DELL	Latitude E6430	F2JB4X1	---
2	Notebook	DELL	Latitude E6430	D3LNYW1	---
3	Fixture	---	---	---	Provided by applicant.

Note: Fixture is provided by applicant.

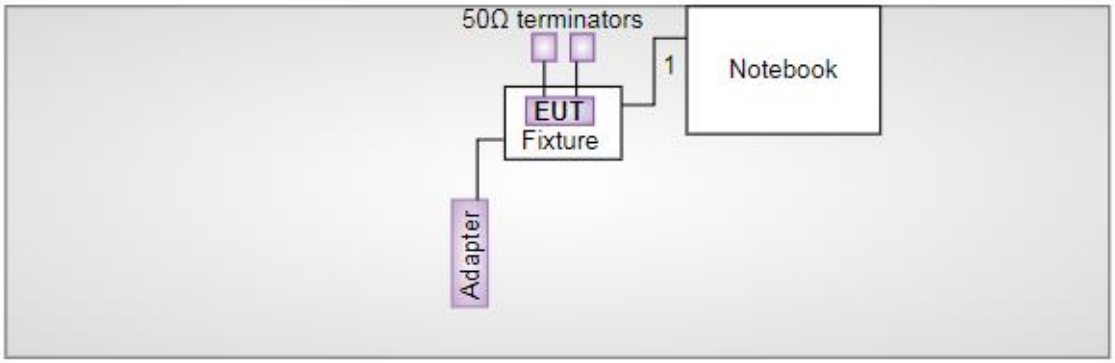
1.3 Test Setup Chart

Test Setup Diagram (Conducted)

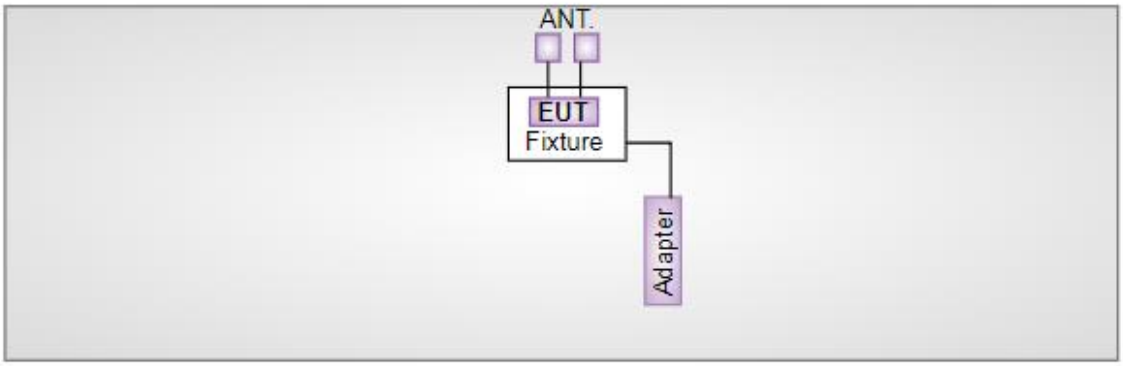


No.	Signal cable / Length (m)
1	USB, 1m shielded.

Test Setup Diagram (Radiated > 30 MHz)



No.	Signal cable / Length (m)
1	USB, 1m shielded.

Test Setup Diagram (Radiated ≤ 30 MHz)


1.4 Test Equipment List and Calibration Data

Test Item	Radiated Emissions				
Test Site	Fully-anechoic chamber 2 / (05CH02-WS)				
Tested Date	Sep. 20, 2018				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	Agilent	N9010A	MY52221474	Oct. 16, 2017	Oct. 15, 2018
Bilog Antenna 30-1000MHz	SCHWARZBECK	VULB9168	9168-563	Jan. 02, 2018	Jan. 01, 2019
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	9120D-1205	Jan. 11, 2018	Jan. 10, 2019
Preamplifier	Agilent	83017A	MY53270013	Dec. 26, 2017	Dec. 25, 2018
Preamplifier	EMC	EMC02325	980188	Dec. 12, 2017	Dec. 11, 2018
Preamplifier	EMC	EMC184045B	980192	Aug. 09, 2018	Aug. 08, 2019
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22622/4	Dec. 05, 2017	Dec. 04, 2018
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22623/4	Dec. 05, 2017	Dec. 04, 2018
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22621/4	Dec. 05, 2017	Dec. 04, 2018
RF cable-4M	HUBER+SUHNER	SUCOFLEX104	MY22579/4	Dec. 05, 2017	Dec. 04, 2018
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-002	Dec. 05, 2017	Dec. 04, 2018
LF cable-3M	EMC	EMC8D-NM-NM-3000	131102	Dec. 05, 2017	Dec. 04, 2018
LF cable-10M	EMC	EMC8D-NM-NM-10000	131101	Dec. 05, 2017	Dec. 04, 2018
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)				
Tested Date	Oct. 03, 2018				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101486	Nov. 21, 2017	Nov. 20, 2018
Power Sensor	Agilent	U2021XA	MY53480019	Jan. 29, 2018	Jan. 28, 2019
Power Sensor	Agilent	U2021XA	MY53510003	Jan. 29, 2018	Jan. 28, 2019
Power Sensor	Agilent	U2021XA	MY54070003	Feb. 08, 2018	Feb. 07, 2019
Power Sensor	Agilent	U2021XA	MY54060013	Feb. 08, 2018	Feb. 07, 2019
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 01, 2017	Nov. 30, 2018
Combiner(1X2)	woken	0120A02201801O	DOM2AEW1A23	Dec. 04, 2017	Dec. 03, 2018
Combiner(1X4)	woken	0120A04056002D	111204	Dec. 04, 2017	Dec. 03, 2018
Measurement Software	Sporton	Sporton_1	1.3.30	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	(TH01-WS)				
Tested Date	Sep. 26, 2018				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum	R&S	FSV-7	101607	Dec. 14, 2017	Dec. 13, 2018
Signal Generator	R&S	SMB 100A	175727	Oct. 26, 2017	Oct. 25, 2018
RF cable-4M	HUBER+SUHNER	SUCOFLEX_104	MY15686/4	Nov. 24, 2017	Nov. 23, 2018
RF cable-0.5M	HUBER+SUHNER	SUCOFLEX_104	296081/4	Dec. 07, 2017	Dec. 06, 2018
RF cable-0.2M	HUBER+SUHNER	SUCOFLEX_104	329023/4	Dec. 07, 2017	Dec. 06, 2018
RF cable-0.2M	HUBER+SUHNER	SUCOFLEX_104	329021/4	Dec. 07, 2017	Dec. 06, 2018
MXG-B RF Vector Signal Generator	Agilent	N5182B	MY53050081	Apr. 16, 2018	Apr. 15, 2019
Preamplifier	Burgeon	BPA-530	100219	Nov. 08, 2017	Nov. 07, 2018
Oscilloscope	National Instruments	USB-5133	F651FF	Jun. 19, 2018	Jun. 18, 2019
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	(05CH02-WS)				
Tested Date	Sep. 26, 2018				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Wireless connectivity tester	ROHDE&SCHWARZ	CMW270	100856	Nov. 13, 2017	Nov. 12, 2018
Signal Generator	R&S	SMB100A	175727	Oct. 26, 2017	Oct. 25, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX_104	500202/4	Dec. 07, 2017	Dec. 06, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX_104	296088/4	Dec. 07, 2017	Dec. 06, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX_104	329023/4	Dec. 07, 2017	Dec. 06, 2018
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emissions				
Test Site	(10CH01-HY)				
Tested Date	Sep. 26, 2018				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	102051	May 03, 2018	May 02, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2017	Nov. 12, 2018
RF Cable-R10m	Suhner Switzerland + Rosenberger	RG223/U + UAA220A-0	CB022-DOOR	Nov. 11, 2017	Nov. 10, 2018
Turn Table	HD	DT 60 RPS	1513/004/00	NA	NA
Software	AUDIX	e3	6.120210g	NA	NA
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:

AS/NZS 4268:2017
EN 300 328 V2.1.1 (2016-11)

1.6 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)

Measurement Uncertainty		
Parameters	**Uncertainty**	**Limit**
Occupied Channel Bandwidth	±0.0034 %	±5 %
RF output power, conducted	±0.537 dB	±1.5 dB
Power Spectral Density, conducted	±0.463 dB	±3 dB
Unwanted Emissions, conducted	±2.505 dB	±3 dB
All emissions, radiated	±3.401 dB	±6 dB
Temperature	±0.6 ^{o}C	±3 °C
Supply voltages	±0.16 %	±3 %
Time	±0.1 %	±5 %

2 Test Configuration

2.1 Testing Condition

Testing Location			
☒	ICC Lab	ADD : No.3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan (R.O.C.) TEL : 886-3-271-8666 FAX : 886-3-318-0155	
☒	Sporton Lab	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973	

Test Item	Test Site	Ambient Condition	Tested By
RF Conducted	TH01-WS	25°C / 65%	Ryan Lee
Radiated Emission > 30 MHz	05CH02-WS	24°C / 65%	Ryan Lee
Adaptivity	TH01-WS	25°C / 64%	Ryan Lee
Receiver Blocking	05CH02-WS	22.5°C / 64%	Ryan Lee
Radiated Emission ≤ 30 MHz	10CH01-HY*	22°C / 62%	Jack Li

Note: * ICC lab subcontracts this test item to Sporton Lab (TAF:1190).
Sporton Lab is a TAF accreditation test firm and also is an approved provider of ICC lab.

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
RF Output Power Power Spectral Density Transmitter unwanted emissions in the out of band domain Transmitter Spurious Emissions ≤ 30 MHz	11b 11g HT20 HT40	2412 / 2442 / 2472 2412 / 2442 / 2472 2412 / 2442 / 2472 2422 / 2442 / 2462	1 Mbps 6 Mbps MCS 0 MCS 0	1, 2, 3, 4
Emission Bandwidth and Operating frequencies Adaptivity	11b 11g HT20 HT40	2412 / 2472 2412 / 2472 2412 / 2472 2422 / 2462	1 Mbps 6 Mbps MCS 0 MCS 0	2
Transmitter Spurious Emissions ≤ 1GHz	11g HT40	2412 / 2472 2422 / 2462	6 Mbps MCS 0	2
Transmitter Spurious Emissions > 1GHz	11b 11g HT20 HT40	2412 / 2472 2412 / 2472 2412 / 2472 2422 / 2462	1 Mbps 6 Mbps MCS 0 MCS 0	2
Receiver Spurious Emissions	11g HT40	2412 / 2472 2422 / 2462	6 Mbps MCS 0	2
Receiver Blocking	11b	2412 / 2472	1 Mbps	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 **X-plane** result was found as the worst case and was shown in this report.
2. 4 types antenna are used for this device, highest gain antenna of each type is selected to perform test as below test configuration.

   Configuration 1 : Dipole antenna with 2 dBi gain

   Configuration 2 : PCB Dipole antenna with 2.79dBi gain

   Configuration 3 : PIFA antenna with 2.5dBi gain

   Configuration 4 : Magnetic Dipole with 2.5dBi gain
3. Two 50Ω terminators are connected to antenna port of EUT for radiated emission measurement.

3 Transmitter Test Results

3.1 RF Output Power

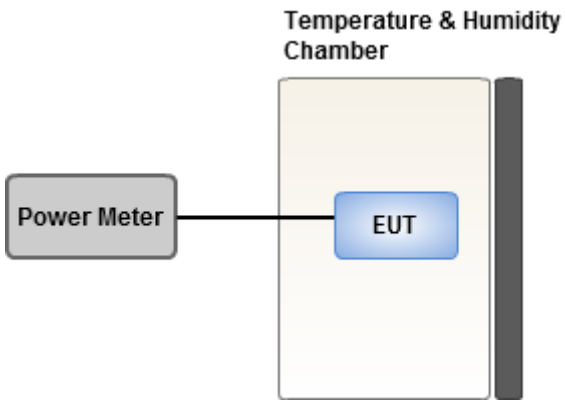
3.1.1 Limit of RF Output Power

For adaptive equipment using wide band modulations other than FHSS, the maximum RF output power shall be 20 dBm.

3.1.2 Test Procedures

Reference to clause 5.4.2.2 of ETSI EN 300 328 V2.1.1 (2016-11).

3.1.3 Test Setup



3.1.4 Test Result of RF Output Power

Test Configuration 1

RF Output Power (dBm)				
Modulation Mode	11b/1Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.33	20	Pass
$T_{min}V_{nom}$	2412	18.22	20	Pass
$T_{max}V_{nom}$	2412	16.34	20	Pass
$T_{nom}V_{nom}$	2442	17.16	20	Pass
$T_{min}V_{nom}$	2442	18.02	20	Pass
$T_{max}V_{nom}$	2442	16.19	20	Pass
$T_{nom}V_{nom}$	2472	17.12	20	Pass
$T_{min}V_{nom}$	2472	17.91	20	Pass
$T_{max}V_{nom}$	2472	16.16	20	Pass

RF Output Power (dBm)				
Modulation Mode	11g/6Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.25	20	Pass
$T_{min}V_{nom}$	2412	18.15	20	Pass
$T_{max}V_{nom}$	2412	16.30	20	Pass
$T_{nom}V_{nom}$	2442	17.11	20	Pass
$T_{min}V_{nom}$	2442	18.03	20	Pass
$T_{max}V_{nom}$	2442	16.16	20	Pass
$T_{nom}V_{nom}$	2472	17.06	20	Pass
$T_{min}V_{nom}$	2472	17.89	20	Pass
$T_{max}V_{nom}$	2472	16.12	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT20/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.45	20	Pass
$T_{min}V_{nom}$	2412	18.30	20	Pass
$T_{max}V_{nom}$	2412	16.52	20	Pass
$T_{nom}V_{nom}$	2442	17.31	20	Pass
$T_{min}V_{nom}$	2442	18.11	20	Pass
$T_{max}V_{nom}$	2442	16.31	20	Pass
$T_{nom}V_{nom}$	2472	17.24	20	Pass
$T_{min}V_{nom}$	2472	18.03	20	Pass
$T_{max}V_{nom}$	2472	16.23	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT40/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2422	17.27	20	Pass
$T_{min}V_{nom}$	2422	18.08	20	Pass
$T_{max}V_{nom}$	2422	16.26	20	Pass
$T_{nom}V_{nom}$	2442	17.19	20	Pass
$T_{min}V_{nom}$	2442	17.99	20	Pass
$T_{max}V_{nom}$	2442	16.19	20	Pass
$T_{nom}V_{nom}$	2462	17.15	20	Pass
$T_{min}V_{nom}$	2462	17.94	20	Pass
$T_{max}V_{nom}$	2462	16.17	20	Pass

Test Configuration 2

RF Output Power (dBm)				
Modulation Mode	11b/1Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	18.12	20	Pass
$T_{min}V_{nom}$	2412	19.01	20	Pass
$T_{max}V_{nom}$	2412	17.13	20	Pass
$T_{nom}V_{nom}$	2442	17.95	20	Pass
$T_{min}V_{nom}$	2442	18.81	20	Pass
$T_{max}V_{nom}$	2442	16.98	20	Pass
$T_{nom}V_{nom}$	2472	17.91	20	Pass
$T_{min}V_{nom}$	2472	18.70	20	Pass
$T_{max}V_{nom}$	2472	16.95	20	Pass

RF Output Power (dBm)				
Modulation Mode	11g/6Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	18.04	20	Pass
$T_{min}V_{nom}$	2412	18.94	20	Pass
$T_{max}V_{nom}$	2412	17.09	20	Pass
$T_{nom}V_{nom}$	2442	17.90	20	Pass
$T_{min}V_{nom}$	2442	18.82	20	Pass
$T_{max}V_{nom}$	2442	16.95	20	Pass
$T_{nom}V_{nom}$	2472	17.85	20	Pass
$T_{min}V_{nom}$	2472	18.68	20	Pass
$T_{max}V_{nom}$	2472	16.91	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT20/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	18.24	20	Pass
$T_{min}V_{nom}$	2412	**19.09**	20	Pass
$T_{max}V_{nom}$	2412	17.31	20	Pass
$T_{nom}V_{nom}$	2442	18.10	20	Pass
$T_{min}V_{nom}$	2442	18.90	20	Pass
$T_{max}V_{nom}$	2442	17.10	20	Pass
$T_{nom}V_{nom}$	2472	18.03	20	Pass
$T_{min}V_{nom}$	2472	18.82	20	Pass
$T_{max}V_{nom}$	2472	17.02	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT40/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2422	18.06	20	Pass
$T_{min}V_{nom}$	2422	18.87	20	Pass
$T_{max}V_{nom}$	2422	17.05	20	Pass
$T_{nom}V_{nom}$	2442	17.98	20	Pass
$T_{min}V_{nom}$	2442	18.78	20	Pass
$T_{max}V_{nom}$	2442	16.98	20	Pass
$T_{nom}V_{nom}$	2462	17.94	20	Pass
$T_{min}V_{nom}$	2462	18.73	20	Pass
$T_{max}V_{nom}$	2462	16.96	20	Pass

Test Configuration 3

RF Output Power (dBm)				
Modulation Mode	11b/1Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.83	20	Pass
$T_{min}V_{nom}$	2412	18.72	20	Pass
$T_{max}V_{nom}$	2412	16.84	20	Pass
$T_{nom}V_{nom}$	2442	17.66	20	Pass
$T_{min}V_{nom}$	2442	18.52	20	Pass
$T_{max}V_{nom}$	2442	16.69	20	Pass
$T_{nom}V_{nom}$	2472	17.62	20	Pass
$T_{min}V_{nom}$	2472	18.41	20	Pass
$T_{max}V_{nom}$	2472	16.66	20	Pass

RF Output Power (dBm)				
Modulation Mode	11g/6Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.75	20	Pass
$T_{min}V_{nom}$	2412	18.65	20	Pass
$T_{max}V_{nom}$	2412	16.80	20	Pass
$T_{nom}V_{nom}$	2442	17.61	20	Pass
$T_{min}V_{nom}$	2442	18.53	20	Pass
$T_{max}V_{nom}$	2442	16.66	20	Pass
$T_{nom}V_{nom}$	2472	17.56	20	Pass
$T_{min}V_{nom}$	2472	18.39	20	Pass
$T_{max}V_{nom}$	2472	16.62	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT20/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.95	20	Pass
$T_{min}V_{nom}$	2412	18.80	20	Pass
$T_{max}V_{nom}$	2412	17.02	20	Pass
$T_{nom}V_{nom}$	2442	17.81	20	Pass
$T_{min}V_{nom}$	2442	18.61	20	Pass
$T_{max}V_{nom}$	2442	16.81	20	Pass
$T_{nom}V_{nom}$	2472	17.74	20	Pass
$T_{min}V_{nom}$	2472	18.53	20	Pass
$T_{max}V_{nom}$	2472	16.73	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT40/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2422	17.77	20	Pass
$T_{min}V_{nom}$	2422	18.58	20	Pass
$T_{max}V_{nom}$	2422	16.76	20	Pass
$T_{nom}V_{nom}$	2442	17.69	20	Pass
$T_{min}V_{nom}$	2442	18.49	20	Pass
$T_{max}V_{nom}$	2442	16.69	20	Pass
$T_{nom}V_{nom}$	2462	17.65	20	Pass
$T_{min}V_{nom}$	2462	18.44	20	Pass
$T_{max}V_{nom}$	2462	16.67	20	Pass

Test Configuration 4

RF Output Power (dBm)				
Modulation Mode	11b/1Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.83	20	Pass
$T_{min}V_{nom}$	2412	18.72	20	Pass
$T_{max}V_{nom}$	2412	16.84	20	Pass
$T_{nom}V_{nom}$	2442	17.66	20	Pass
$T_{min}V_{nom}$	2442	18.52	20	Pass
$T_{max}V_{nom}$	2442	16.69	20	Pass
$T_{nom}V_{nom}$	2472	17.62	20	Pass
$T_{min}V_{nom}$	2472	18.41	20	Pass
$T_{max}V_{nom}$	2472	16.66	20	Pass

RF Output Power (dBm)				
Modulation Mode	11g/6Mbps			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.75	20	Pass
$T_{min}V_{nom}$	2412	18.65	20	Pass
$T_{max}V_{nom}$	2412	16.80	20	Pass
$T_{nom}V_{nom}$	2442	17.61	20	Pass
$T_{min}V_{nom}$	2442	18.53	20	Pass
$T_{max}V_{nom}$	2442	16.66	20	Pass
$T_{nom}V_{nom}$	2472	17.56	20	Pass
$T_{min}V_{nom}$	2472	18.39	20	Pass
$T_{max}V_{nom}$	2472	16.62	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT20/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2412	17.95	20	Pass
$T_{min}V_{nom}$	2412	18.80	20	Pass
$T_{max}V_{nom}$	2412	17.02	20	Pass
$T_{nom}V_{nom}$	2442	17.81	20	Pass
$T_{min}V_{nom}$	2442	18.61	20	Pass
$T_{max}V_{nom}$	2442	16.81	20	Pass
$T_{nom}V_{nom}$	2472	17.74	20	Pass
$T_{min}V_{nom}$	2472	18.53	20	Pass
$T_{max}V_{nom}$	2472	16.73	20	Pass

RF Output Power (dBm)				
Modulation Mode	HT40/MCS 0			
Condition	**Freq. (MHz)**	**EIRP Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	2422	17.77	20	Pass
$T_{min}V_{nom}$	2422	18.58	20	Pass
$T_{max}V_{nom}$	2422	16.76	20	Pass
$T_{nom}V_{nom}$	2442	17.69	20	Pass
$T_{min}V_{nom}$	2442	18.49	20	Pass
$T_{max}V_{nom}$	2442	16.69	20	Pass
$T_{nom}V_{nom}$	2462	17.65	20	Pass
$T_{min}V_{nom}$	2462	18.44	20	Pass
$T_{max}V_{nom}$	2462	16.67	20	Pass

3.2 Power Spectral Density

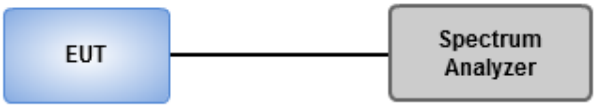
3.2.1 Limit of Power Spectral Density

For equipment using wide band modulations other than FHSS, 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 V2.1.1 (2016-11).

3.2.3 Test Setup



3.2.4 Test Result of Power Spectral Density

Test Configuration 1

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz)	Limit (dBm/1MHz)	Results
11b/1Mbps	2412	8.25	10	Pass
11b/1Mbps	2442	8.08	10	Pass
11b/1Mbps	2472	8.04	10	Pass
11g/6Mbps	2412	5.81	10	Pass
11g/6Mbps	2442	5.65	10	Pass
11g/6Mbps	2472	5.62	10	Pass
HT20/MCS 0	2412	5.82	10	Pass
HT20/MCS 0	2442	5.70	10	Pass
HT20/MCS 0	2472	5.63	10	Pass
HT40/MCS 0	2422	2.76	10	Pass
HT40/MCS 0	2442	2.71	10	Pass
HT40/MCS 0	2462	2.67	10	Pass

Test Configuration 2

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz)	Limit (dBm/1MHz)	Results
11b/1Mbps	2412	9.04	10	Pass
11b/1Mbps	2442	8.87	10	Pass
11b/1Mbps	2472	8.83	10	Pass
11g/6Mbps	2412	6.60	10	Pass
11g/6Mbps	2442	6.44	10	Pass
11g/6Mbps	2472	6.41	10	Pass
HT20/MCS 0	2412	6.61	10	Pass
HT20/MCS 0	2442	6.49	10	Pass
HT20/MCS 0	2472	6.42	10	Pass
HT40/MCS 0	2422	3.55	10	Pass
HT40/MCS 0	2442	3.50	10	Pass
HT40/MCS 0	2462	3.46	10	Pass

Test Configuration 3

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz)	Limit (dBm/1MHz)	Results
11b/1Mbps	2412	8.75	10	Pass
11b/1Mbps	2442	8.58	10	Pass
11b/1Mbps	2472	8.54	10	Pass
11g/6Mbps	2412	6.31	10	Pass
11g/6Mbps	2442	6.15	10	Pass
11g/6Mbps	2472	6.12	10	Pass
HT20/MCS 0	2412	6.32	10	Pass
HT20/MCS 0	2442	6.20	10	Pass
HT20/MCS 0	2472	6.13	10	Pass
HT40/MCS 0	2422	3.26	10	Pass
HT40/MCS 0	2442	3.21	10	Pass
HT40/MCS 0	2462	3.17	10	Pass

Test Configuration 4

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz)	Limit (dBm/1MHz)	Results
11b/1Mbps	2412	8.75	10	Pass
11b/1Mbps	2442	8.58	10	Pass
11b/1Mbps	2472	8.54	10	Pass
11g/6Mbps	2412	6.31	10	Pass
11g/6Mbps	2442	6.15	10	Pass
11g/6Mbps	2472	6.12	10	Pass
HT20/MCS 0	2412	6.32	10	Pass
HT20/MCS 0	2442	6.20	10	Pass
HT20/MCS 0	2472	6.13	10	Pass
HT40/MCS 0	2422	3.26	10	Pass
HT40/MCS 0	2442	3.21	10	Pass
HT40/MCS 0	2462	3.17	10	Pass

3.3 Emission Bandwidth and Operating Frequencies

3.3.1 Limit of Emission Bandwidth and Operating Frequencies

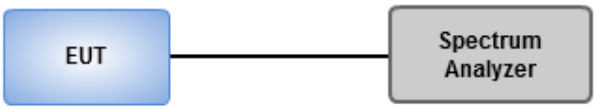
The Emission Bandwidth for each frequency shall fall completely within 2.4~2.4835 GHz.

For non-adaptive Frequency Hopping equipment with e.i.r.p greater than 10 dBm, the Emission Bandwidth for every occupied hopping frequency shall be equal to or less than the value declared by the supplier. This declared value shall not be greater than 5 MHz.

3.3.2 Test Procedures

Reference to clause 5.4.7.2 of ETSI EN 300 328 V2.1.1 (2016-11).

3.3.3 Test Setup



3.3.4 Test Result of Emission Bandwidth and Operating Frequencies

Test Configuration 2

Summary

Mode	OBW (Hz)	ITU-Code
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	13.593M	13M6G1D
802.11g_Nss1,(6Mbps)_2TX	16.712M	16M7D1D
802.11n HT20_Nss1,(MCS0)_2TX	17.791M	17M8D1D
802.11n HT40_Nss1,(MCS0)_2TX	36.462M	36M5D1D

OBW = 99% occupied bandwidth;

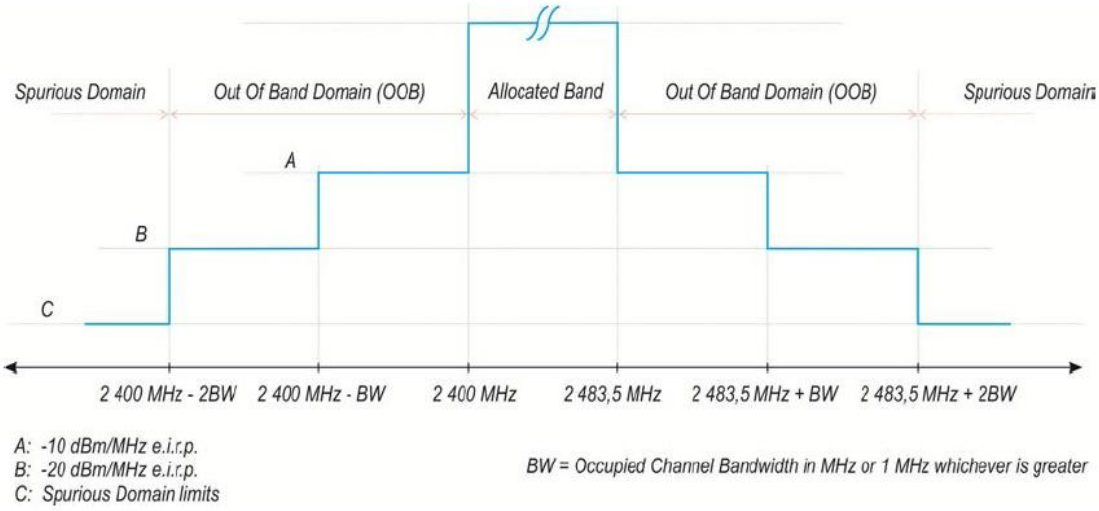
Result

Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)	N dB (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.4-2.4835G	2.405203G	2.418797G	13.593M	10.18M
2472MHz_TnomVnom	Pass	2.4-2.4835G	2.465203G	2.478777G	13.573M	10.2M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.4-2.4835G	2.403644G	2.420356G	16.712M	16.84M
2472MHz_TnomVnom	Pass	2.4-2.4835G	2.463644G	2.480356G	16.712M	16.84M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.4-2.4835G	2.403104G	2.420896G	17.791M	18M
2472MHz_TnomVnom	Pass	2.4-2.4835G	2.463104G	2.480896G	17.791M	18M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.4-2.4835G	2.403769G	2.440231G	36.462M	36.8M
2462MHz_TnomVnom	Pass	2.4-2.4835G	2.443769G	2.480191G	36.422M	36.8M

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;

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

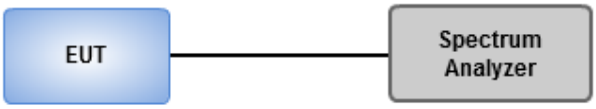
3.4.1 Limit of Transmitter Unwanted Emissions in the Out-Of-Band Domain



3.4.2 Test Procedures

Reference to clause 5.4.8.2 of ETSI EN 300 328 V2.1.1 (2016-11).

3.4.3 Test Setup



3.4.4 Test Result of Transmitter Unwanted Emissions in the Out-Of-Band Domain

Test Configuration 1

Summary

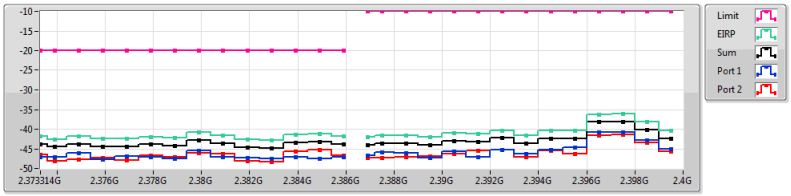
Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	-36.12	-10	-40.79	-20
802.11g_Nss1,(6Mbps)_2TX	-30.62	-10	-39.93	-20
802.11n HT20_Nss1,(MCS0)_2TX	-32.76	-10	-39.47	-20
802.11n HT40_Nss1,(MCS0)_2TX	-34.87	-10	-40.44	-20

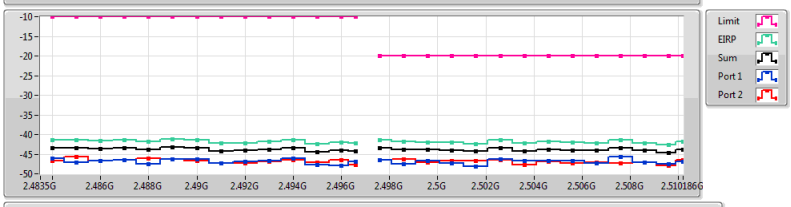
Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.379907G	-40.79	-20	2.3975G	-36.12	-10
2412MHz_TnomVnom	Pass	2.502593G	-41.38	-20	2.489G	-41.31	-10
2472MHz_TnomVnom	Pass	2.376927G	-41.58	-20	2.3935G	-41.46	-10
2472MHz_TnomVnom	Pass	2.506573G	-40.99	-20	2.487G	-37.25	-10
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.382788G	-40.36	-20	2.3975G	-30.62	-10
2412MHz_TnomVnom	Pass	2.509712G	-41.28	-20	2.491G	-40.75	-10
2472MHz_TnomVnom	Pass	2.375788G	-41.25	-20	2.3855G	-41.04	-10
2472MHz_TnomVnom	Pass	2.501712G	-39.93	-20	2.487G	-33.01	-10
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.377709G	-40.80	-20	2.3975G	-32.76	-10
2412MHz_TnomVnom	Pass	2.514791G	-41.07	-20	2.492G	-41.49	-10
2472MHz_TnomVnom	Pass	2.379709G	-41.26	-20	2.3985G	-41.60	-10
2472MHz_TnomVnom	Pass	2.501791G	-39.47	-20	2.486G	-34.51	-10
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.355038G	-40.44	-20	2.3935G	-34.87	-10
2422MHz_TnomVnom	Pass	2.536462G	-41.82	-20	2.488G	-41.31	-10
2462MHz_TnomVnom	Pass	2.340078G	-41.54	-20	2.3965G	-41.59	-10
2462MHz_TnomVnom	Pass	2.525422G	-41.11	-20	2.484G	-35.05	-10

802.11b_Nss1,(1Mbps)_2TX **Mask**

2412MHz_TnomVnom

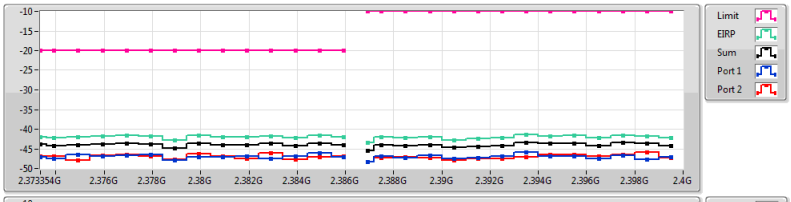


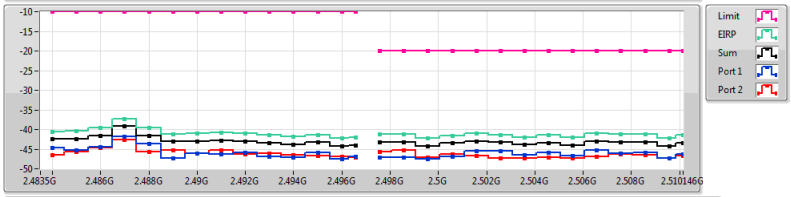


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.379907G	-40.79	-20	2.3975G	-36.12	-10	2.489G	-41.31	-10	2.502593G	-41.38	-20

802.11b_Nss1,(1Mbps)_2TX **Mask**

2472MHz_TnomVnom

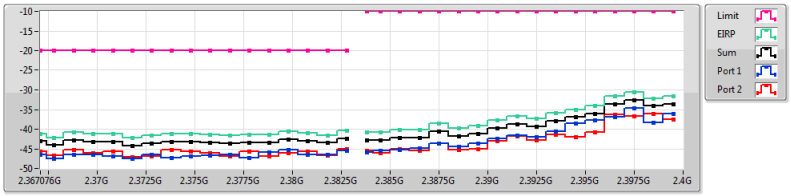


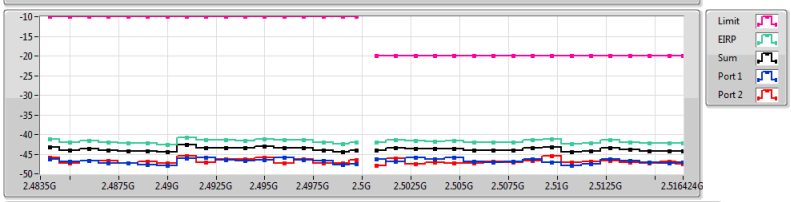


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.376927G	-41.58	-20	2.3935G	-41.46	-10	2.487G	-37.25	-10	2.506573G	-40.99	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2412MHz_TnomVnom

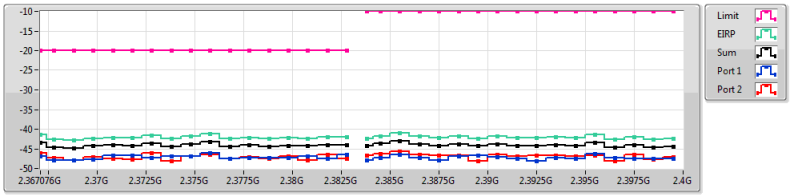


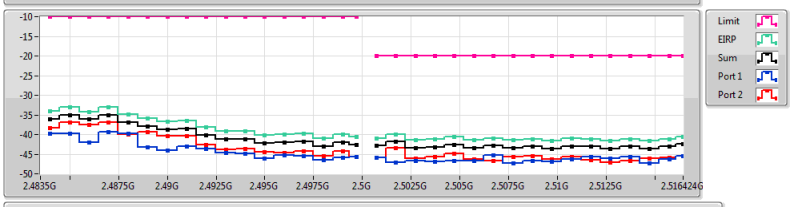


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.382788G	-40.36	-20	2.3975G	-30.62	-10	2.491G	-40.75	-10	2.509712G	-41.28	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2472MHz_TnomVnom

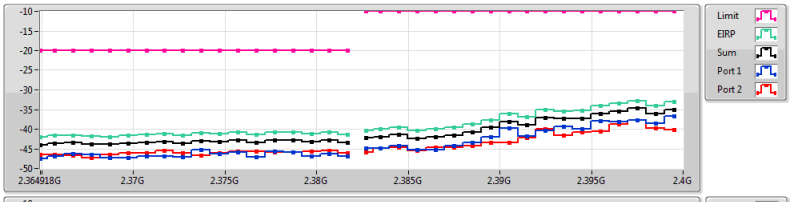


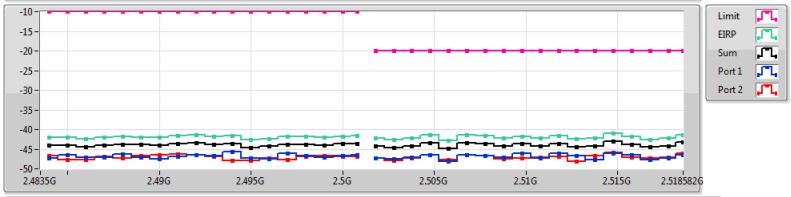


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.375788G	-41.25	-20	2.3855G	-41.04	-10	2.487G	-33.01	-10	2.501712G	-39.93	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2412MHz_TnomVnom

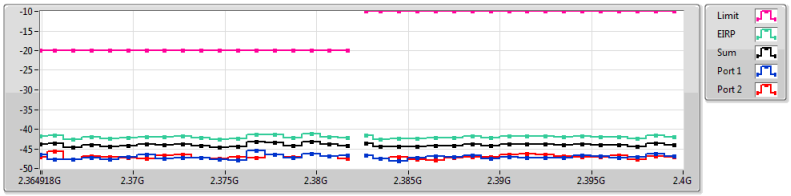


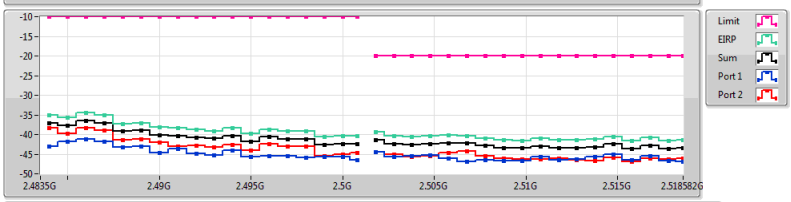


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.377709G	-40.80	-20	2.3975G	-32.76	-10	2.492G	-41.49	-10	2.514791G	-41.07	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2472MHz_TnomVnom

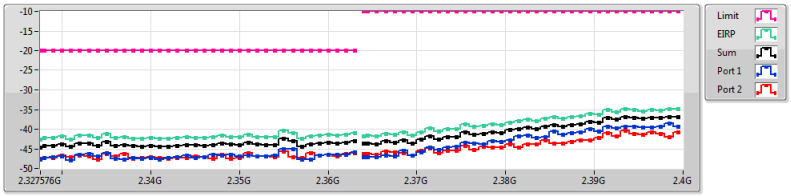


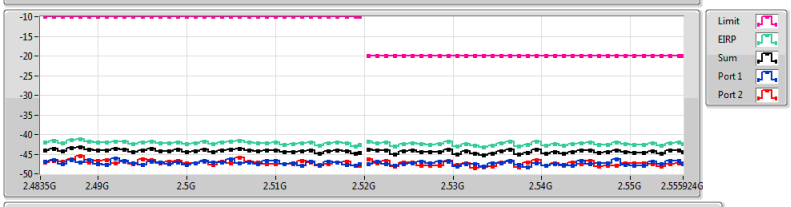


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.379709G	-41.26	-20	2.3985G	-41.60	-10	2.486G	-34.51	-10	2.501791G	-39.47	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2422MHz_TnomVnom

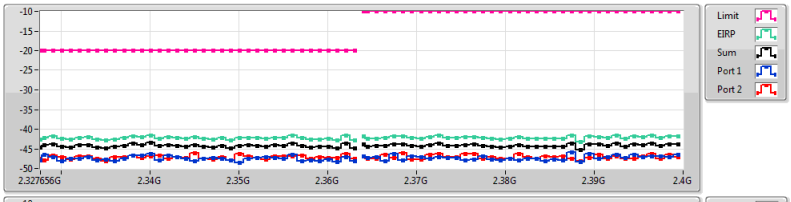


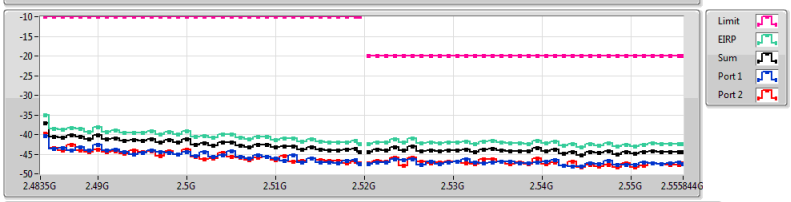


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.355038G	-40.44	-20	2.3935G	-34.87	-10	2.488G	-41.31	-10	2.536462G	-41.82	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2462MHz_TnomVnom





Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.340078G	-41.54	-20	2.3965G	-41.59	-10	2.484G	-35.05	-10	2.525422G	-41.11	-20

Test Configuration 2

Summary

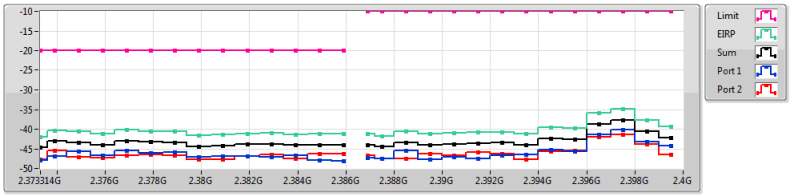
Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	-34.9	-10	-39.28	-20
802.11g_Nss1,(6Mbps)_2TX	-29.91	-10	-39.02	-20
802.11n HT20_Nss1,(MCS0)_2TX	-31.96	-10	-39.46	-20
802.11n HT40_Nss1,(MCS0)_2TX	-33.62	-10	-40.15	-20

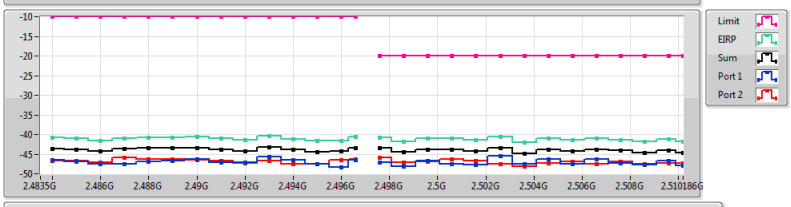
Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.376907G	-40.29	-20	2.3975G	-34.90	-10
2412MHz_TnomVnom	Pass	2.502593G	-40.63	-20	2.493G	-40.46	-10
2472MHz_TnomVnom	Pass	2.383927G	-40.76	-20	2.3925G	-40.61	-10
2472MHz_TnomVnom	Pass	2.498573G	-39.28	-20	2.487G	-36.89	-10
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.372788G	-39.42	-20	2.3975G	-29.91	-10
2412MHz_TnomVnom	Pass	2.504712G	-40.40	-20	2.496G	-40.27	-10
2472MHz_TnomVnom	Pass	2.373788G	-40.71	-20	2.3975G	-40.59	-10
2472MHz_TnomVnom	Pass	2.504712G	-39.02	-20	2.485G	-31.95	-10
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.381709G	-39.71	-20	2.3985G	-31.96	-10
2412MHz_TnomVnom	Pass	2.501791G	-40.53	-20	2.491G	-40.29	-10
2472MHz_TnomVnom	Pass	2.381709G	-40.87	-20	2.3995G	-40.73	-10
2472MHz_TnomVnom	Pass	2.505791G	-39.46	-20	2.484G	-33.83	-10
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.356038G	-40.15	-20	2.3975G	-33.62	-10
2422MHz_TnomVnom	Pass	2.533462G	-40.82	-20	2.49G	-40.86	-10
2462MHz_TnomVnom	Pass	2.331078G	-41.07	-20	2.3985G	-40.28	-10
2462MHz_TnomVnom	Pass	2.520422G	-40.52	-20	2.484G	-34.00	-10

802.11b_Nss1,(1Mbps)_2TX **Mask**

2412MHz_TnomVnom

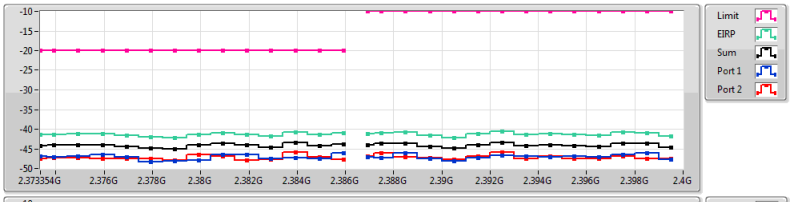


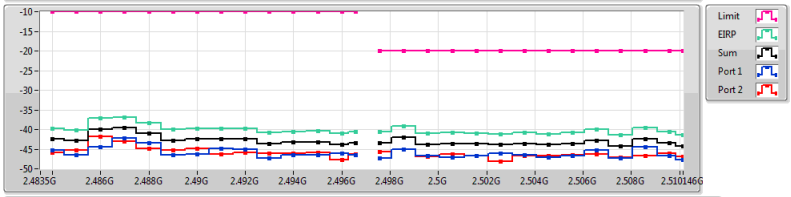


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.376907G	-40.29	-20	2.3975G	-34.90	-10	2.493G	-40.46	-10	2.502593G	-40.63	-20

802.11b_Nss1,(1Mbps)_2TX **Mask**

2472MHz_TnomVnom

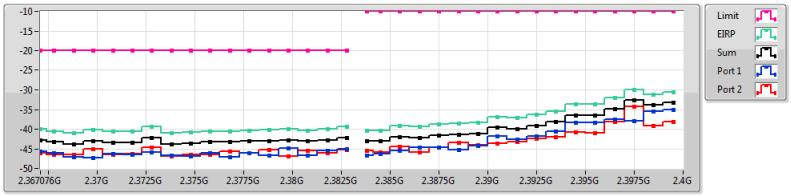


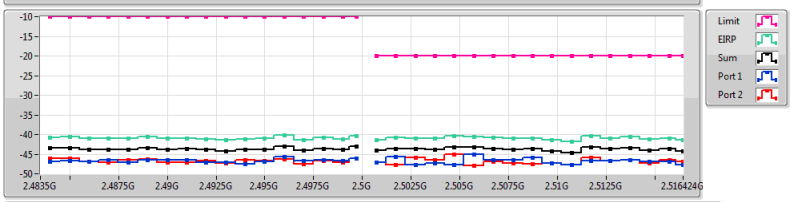


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.383927G	-40.76	-20	2.3925G	-40.61	-10	2.487G	-36.89	-10	2.498573G	-39.28	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2412MHz_TnomVnom

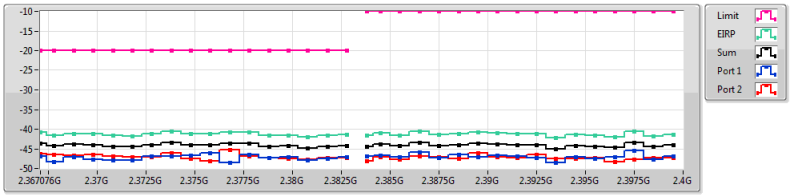


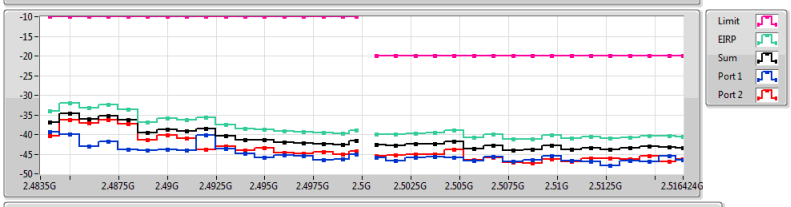


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.372788G	-39.42	-20	2.3975G	-29.91	-10	2.496G	-40.27	-10	2.504712G	-40.40	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2472MHz_TnomVnom

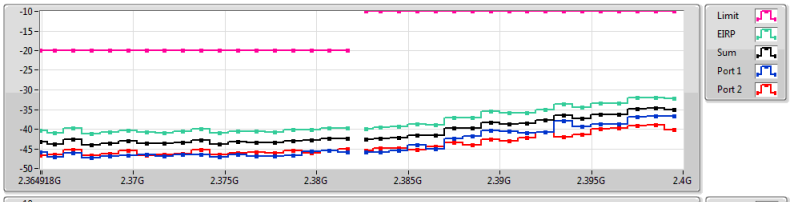


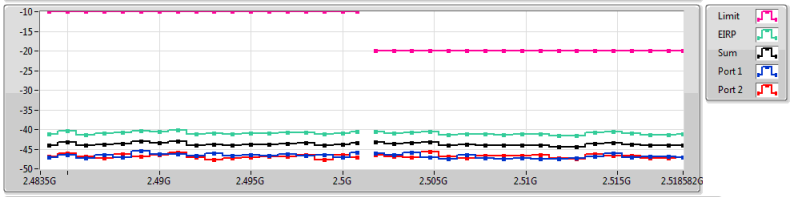


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.373788G	-40.71	-20	2.3975G	-40.59	-10	2.485G	-31.95	-10	2.504712G	-39.02	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2412MHz_TnomVnom

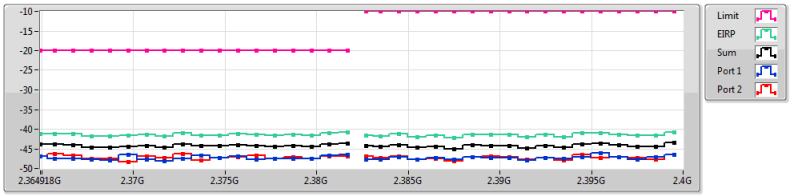


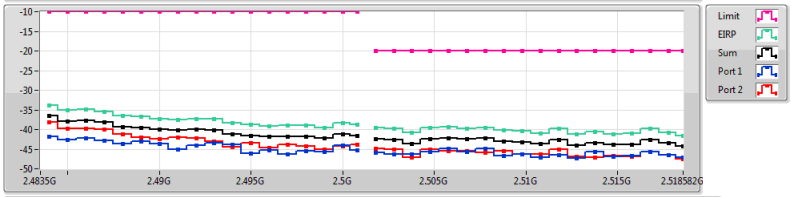


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.381709G	-39.71	-20	2.3985G	-31.96	-10	2.491G	-40.29	-10	2.501791G	-40.53	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2472MHz_TnomVnom

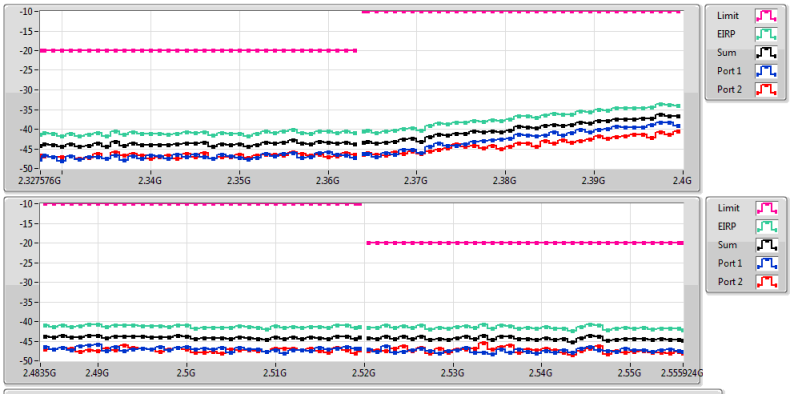




Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.381709G	-40.87	-20	2.3995G	-40.73	-10	2.484G	-33.83	-10	2.505791G	-39.46	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

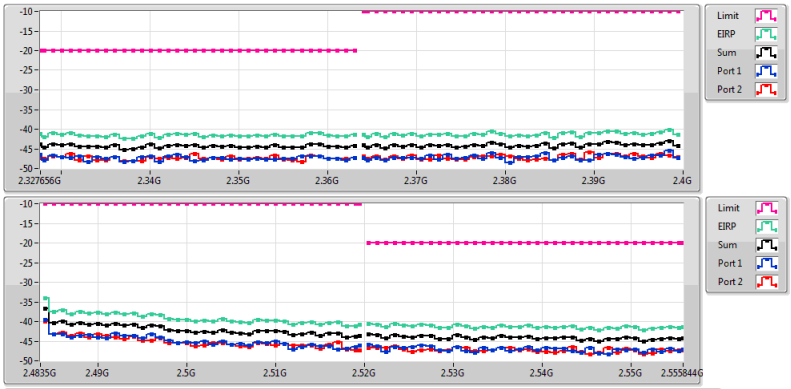
2422MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.356038G	-40.15	-20	2.3975G	-33.62	-10	2.49G	-40.86	-10	2.533462G	-40.82	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2462MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.331078G	-41.07	-20	2.3985G	-40.28	-10	2.484G	-34.00	-10	2.520422G	-40.52	-20

Test Configuration 3

Summary

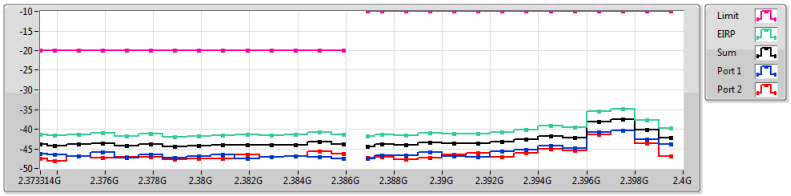
Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	-34.97	-10	-39.46	-20
802.11g_Nss1,(6Mbps)_2TX	-29.93	-10	-39.55	-20
802.11n HT20_Nss1,(MCS0)_2TX	-32.01	-10	-39.05	-20
802.11n HT40_Nss1,(MCS0)_2TX	-33.3	-10	-40.04	-20

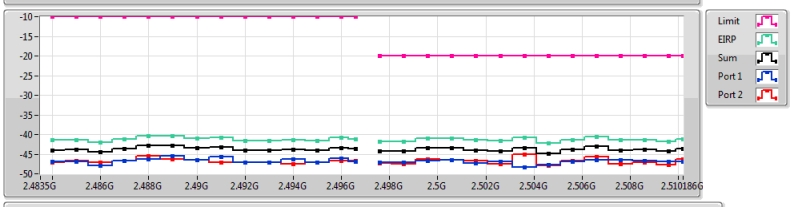
Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.384907G	-40.84	-20	2.3975G	-34.97	-10
2412MHz_TnomVnom	Pass	2.506593G	-40.58	-20	2.488G	-40.40	-10
2472MHz_TnomVnom	Pass	2.375927G	-40.57	-20	2.3915G	-40.97	-10
2472MHz_TnomVnom	Pass	2.498573G	-39.46	-20	2.487G	-36.23	-10
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.382788G	-39.69	-20	2.3985G	-29.93	-10
2412MHz_TnomVnom	Pass	2.502712G	-39.98	-20	2.487G	-40.35	-10
2472MHz_TnomVnom	Pass	2.373788G	-40.42	-20	2.3885G	-40.62	-10
2472MHz_TnomVnom	Pass	2.501712G	-39.55	-20	2.486G	-32.28	-10
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.378709G	-39.63	-20	2.3995G	-32.01	-10
2412MHz_TnomVnom	Pass	2.512791G	-40.66	-20	2.495G	-39.76	-10
2472MHz_TnomVnom	Pass	2.381709G	-41.00	-20	2.3905G	-41.03	-10
2472MHz_TnomVnom	Pass	2.506791G	-39.05	-20	2.484G	-34.15	-10
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.359038G	-40.04	-20	2.3945G	-33.97	-10
2422MHz_TnomVnom	Pass	2.531462G	-41.02	-20	2.5G	-40.15	-10
2462MHz_TnomVnom	Pass	2.357078G	-40.66	-20	2.3955G	-40.80	-10
2462MHz_TnomVnom	Pass	2.529422G	-40.47	-20	2.484G	-33.30	-10

802.11b_Nss1,(1Mbps)_2TX **Mask**

2412MHz_TnomVnom

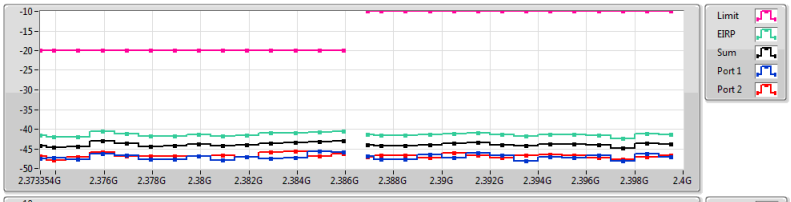


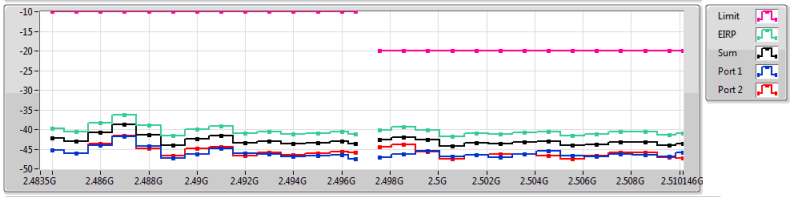


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.384907G	-40.84	-20	2.3975G	-34.97	-10	2.488G	-40.40	-10	2.506593G	-40.58	-20

802.11b_Nss1,(1Mbps)_2TX **Mask**

2472MHz_TnomVnom

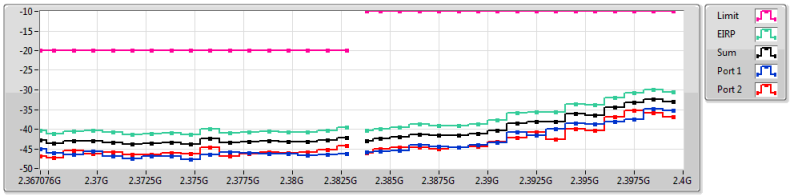


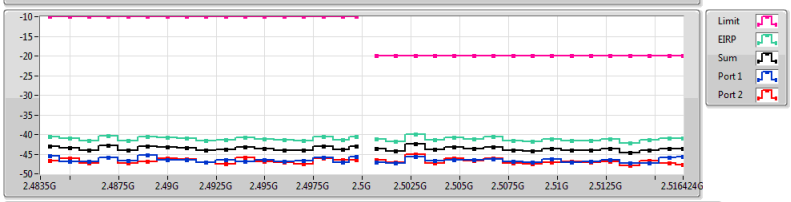


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.375927G	-40.57	-20	2.3915G	-40.97	-10	2.487G	-36.23	-10	2.498573G	-39.46	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2412MHz_TnomVnom

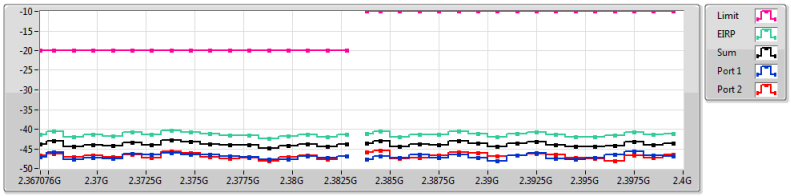


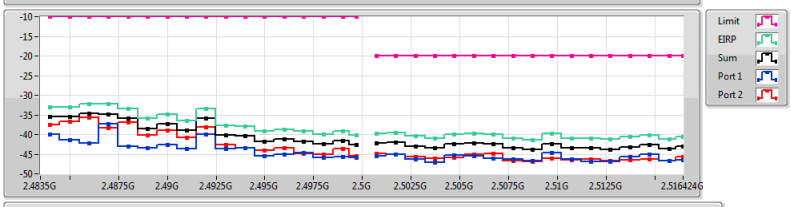


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.382788G	-39.69	-20	2.3985G	-29.93	-10	2.487G	-40.35	-10	2.502712G	-39.98	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

2472MHz_TnomVnom

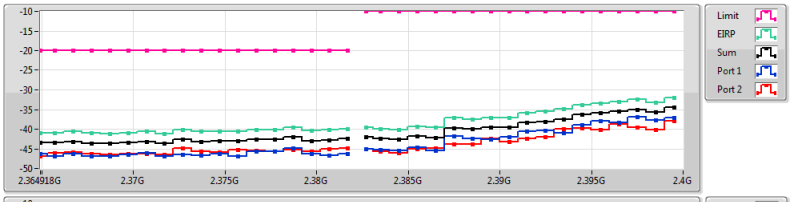


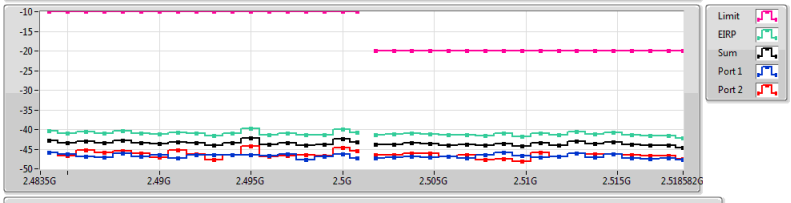


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.373788G	-40.42	-20	2.3885G	-40.62	-10	2.486G	-32.28	-10	2.501712G	-39.55	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2412MHz_TnomVnom

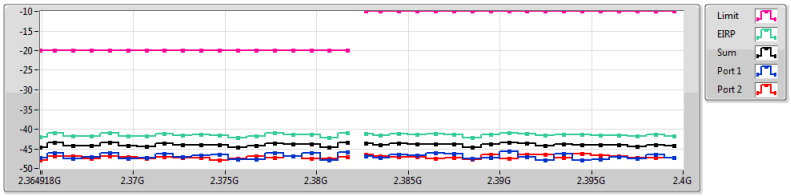


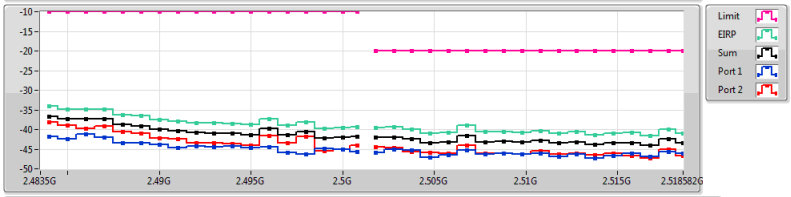


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.378709G	-39.63	-20	2.3995G	-32.01	-10	2.495G	-39.76	-10	2.512791G	-40.66	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2472MHz_TnomVnom

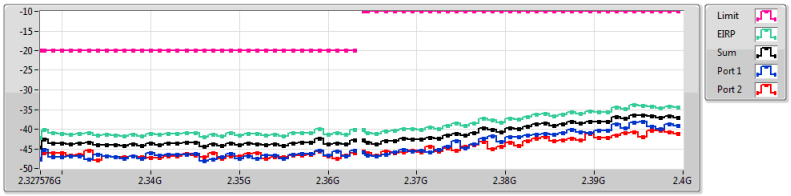


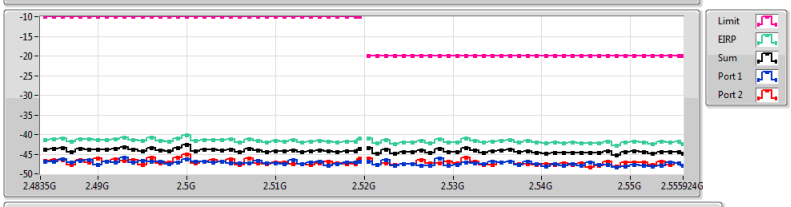


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.381709G	-41.00	-20	2.3905G	-41.03	-10	2.484G	-34.15	-10	2.506791G	-39.05	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2422MHz_TnomVnom

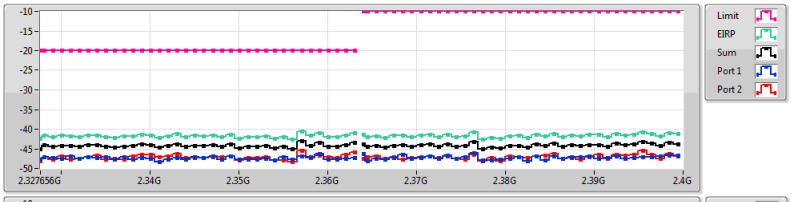


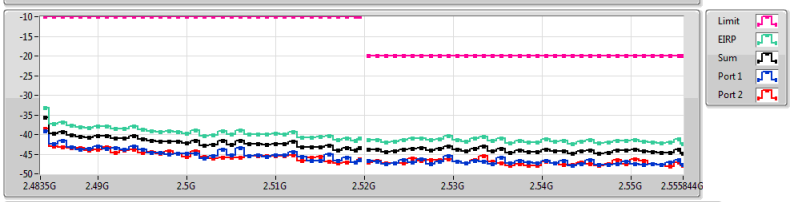


Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.359038G	-40.04	-20	2.3945G	-33.97	-10	2.5G	-40.15	-10	2.531462G	-41.02	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2462MHz_TnomVnom





Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.357078G	-40.66	-20	2.3955G	-40.80	-10	2.484G	-33.30	-10	2.529422G	-40.47	-20

Test Configuration 4

Summary

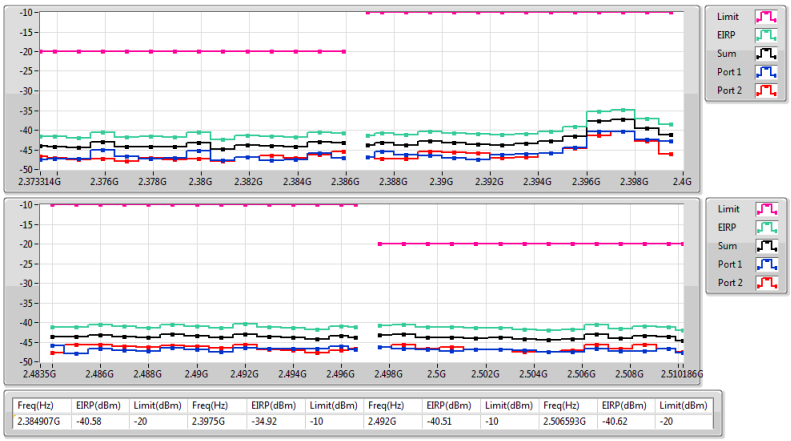
Mode	EIRP-A (dBm)	Limit-A (dBm)	EIRP-B (dBm)	Limit-B (dBm)
2.4-2.4835GHz	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	-34.92	-10	-40.29	-20
802.11g_Nss1,(6Mbps)_2TX	-29.26	-10	-39.5	-20
802.11n HT20_Nss1,(MCS0)_2TX	-31.82	-10	-39.07	-20
802.11n HT40_Nss1,(MCS0)_2TX	-33.31	-10	-40.39	-20

Result

Mode	Result	Freq (Hz)	EIRP (dBm)	Limit (dBm)	Freq (Hz)	EIRP (dBm)	Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.384907G	-40.58	-20	2.3975G	-34.92	-10
2412MHz_TnomVnom	Pass	2.506593G	-40.62	-20	2.492G	-40.51	-10
2472MHz_TnomVnom	Pass	2.376927G	-40.79	-20	2.3975G	-40.81	-10
2472MHz_TnomVnom	Pass	2.498573G	-40.29	-20	2.487G	-36.43	-10
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.381788G	-39.50	-20	2.3975G	-29.26	-10
2412MHz_TnomVnom	Pass	2.506712G	-40.10	-20	2.499712G	-40.18	-10
2472MHz_TnomVnom	Pass	2.373788G	-40.41	-20	2.3895G	-40.33	-10
2472MHz_TnomVnom	Pass	2.500712G	-39.55	-20	2.487G	-30.48	-10
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.381709G	-39.72	-20	2.3995G	-31.82	-10
2412MHz_TnomVnom	Pass	2.518582G	-39.66	-20	2.49G	-40.19	-10
2472MHz_TnomVnom	Pass	2.364918G	-41.08	-20	2.3875G	-40.65	-10
2472MHz_TnomVnom	Pass	2.501791G	-39.07	-20	2.487G	-33.77	-10
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.361038G	-40.39	-20	2.3965G	-33.31	-10
2422MHz_TnomVnom	Pass	2.526462G	-40.97	-20	2.485G	-40.71	-10
2462MHz_TnomVnom	Pass	2.359078G	-40.96	-20	2.3865G	-40.64	-10
2462MHz_TnomVnom	Pass	2.525422G	-40.69	-20	2.484G	-33.93	-10

802.11b_Nss1,(1Mbps)_2TX **Mask**

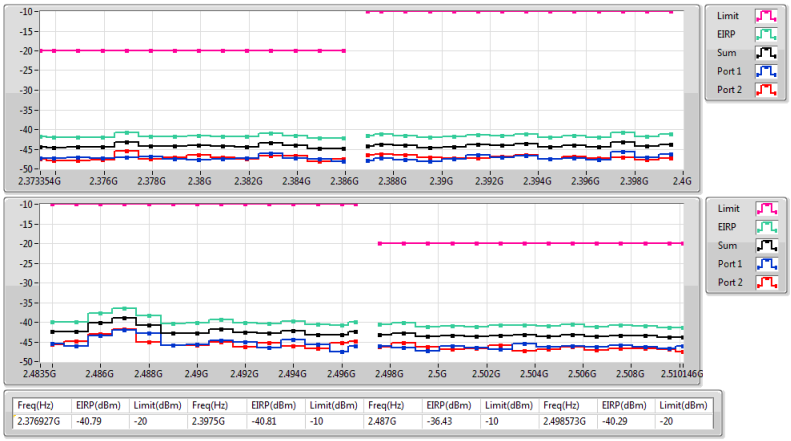
2412MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.384907G	-40.58	-20	2.3975G	-34.92	-10	2.492G	-40.51	-10	2.506593G	-40.62	-20

802.11b_Nss1,(1Mbps)_2TX **Mask**

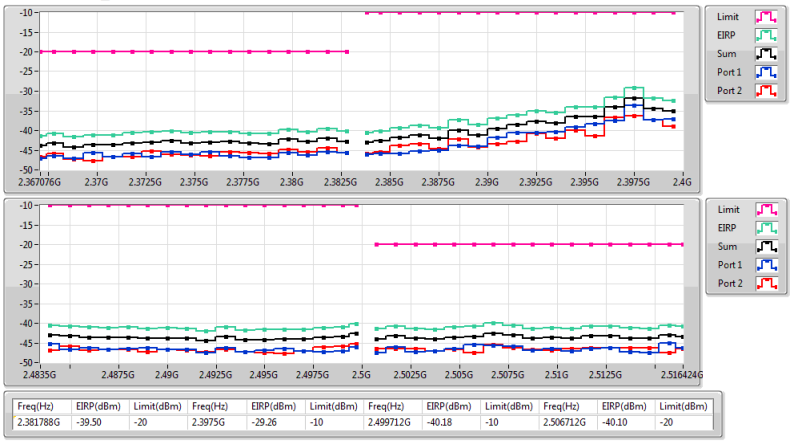
2472MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.376927G	-40.79	-20	2.3975G	-40.81	-10	2.487G	-36.43	-10	2.498573G	-40.29	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

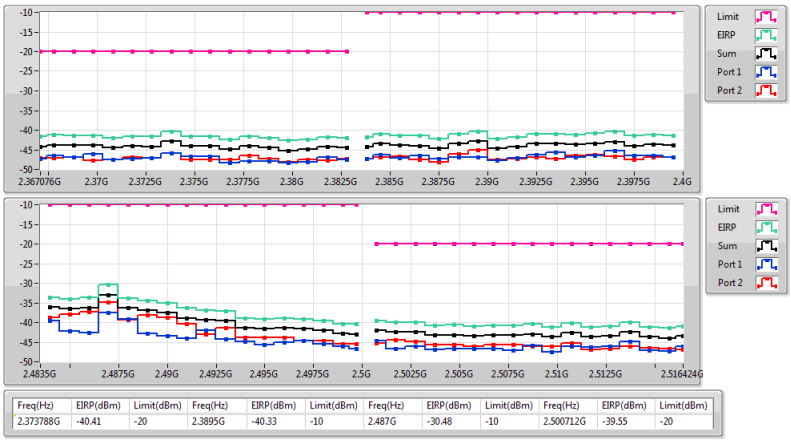
2412MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.381788G	-39.50	-20	2.3975G	-29.26	-10	2.499712G	-40.18	-10	2.506712G	-40.10	-20

802.11g_Nss1,(6Mbps)_2TX **Mask**

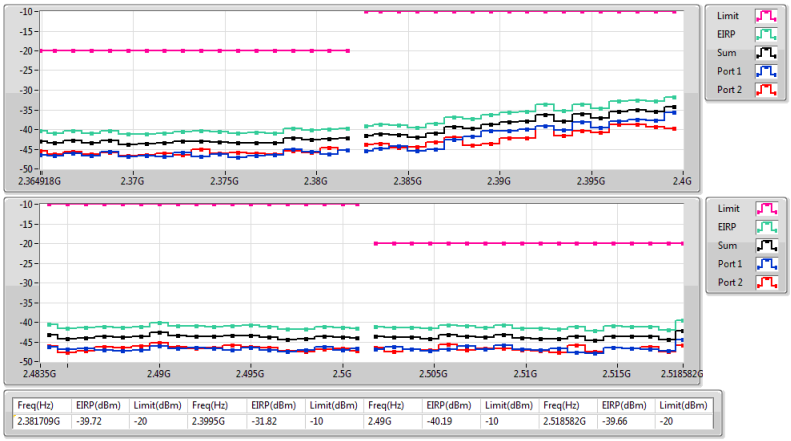
2472MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.373788G	-40.41	-20	2.3895G	-40.33	-10	2.487G	-30.48	-10	2.500712G	-39.55	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

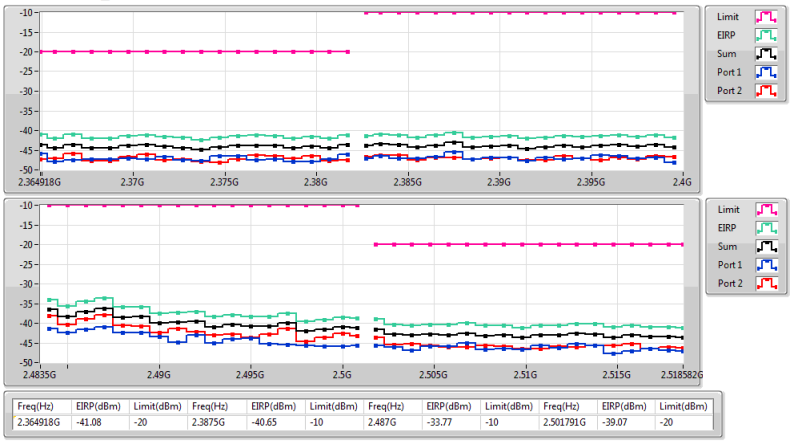
2412MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.381709G	-39.72	-20	2.3995G	-31.82	-10	2.49G	-40.19	-10	2.518582G	-39.66	-20

802.11n HT20_Nss1,(MCS0)_2TX **Mask**

2472MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.364918G	-41.08	-20	2.3875G	-40.65	-10	2.487G	-33.77	-10	2.501791G	-39.07	-20

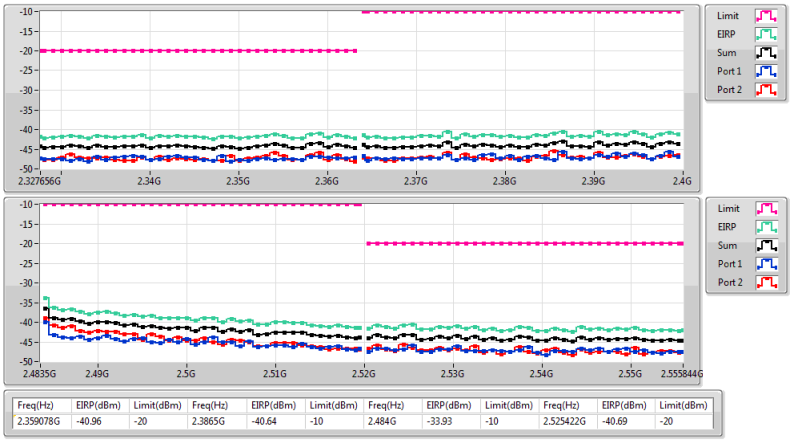
802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2422MHz_TnomVnom

Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.361038G	-40.39	-20	2.3965G	-33.31	-10	2.485G	-40.71	-10	2.526462G	-40.97	-20

802.11n HT40_Nss1,(MCS0)_2TX **Mask**

2462MHz_TnomVnom



Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Freq(Hz)	EIRP(dBm)	Limit(dBm)
2.359078G	-40.96	-20	2.3865G	-40.64	-10	2.484G	-33.93	-10	2.525422G	-40.69	-20

3.5 Transmitter Unwanted Emissions in the Spurious Domain

3.5.1 Limit of Transmitter Unwanted Emissions in the Spurious Domain

Spurious Emissions Limit (Peak Power)	Frequency Range	Measurement Bandwidth
-56 dBW (2.5μW) e.i.r.p (59 dBμV/m at 10 metres)	< 150 kHz	1 kHz
	150 kHz – 30 MHz	10 kHz

Limit for Radiated Spurious Emission

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 862	-54	100
862 to 1000	-36	100
1000 to 12750	-30	1000

Limit for Conducted Spurious Emission

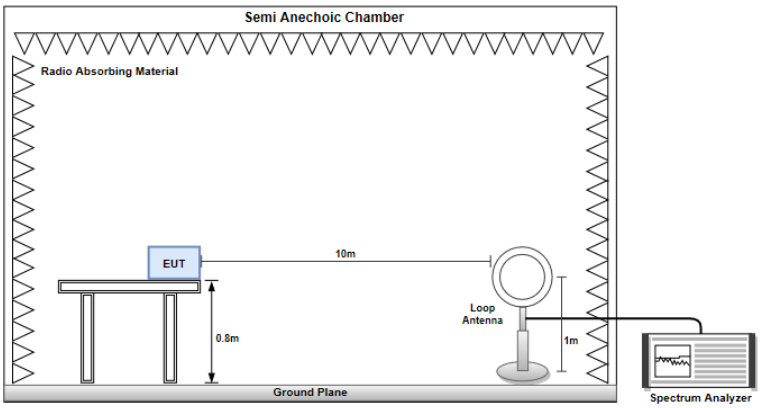
Frequency Range (MHz)	Maximum power (dBm)	Bandwidth (kHz)
30 to 47	-39.01	100
47 to 74	-57.01	100
74 to 87,5	-39.01	100
87,5 to 118	-57.01	100
118 to 174	-39.01	100
174 to 230	-57.01	100
230 to 470	-39.01	100
470 to 862	-57.01	100
862 to 1000	-39.01	100
1000 to 12750	-33.01	1000

3.5.2 Test Procedures

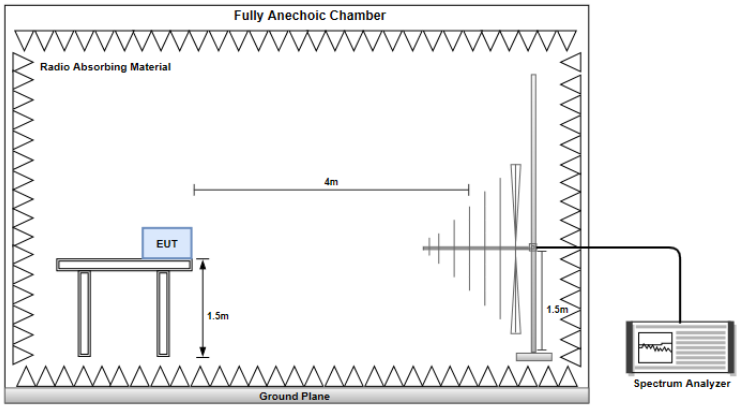
Reference to clause 5.4.9.2 of ETSI EN 300 328 V2.1.1 (2016-11).

3.5.3 Test Setup

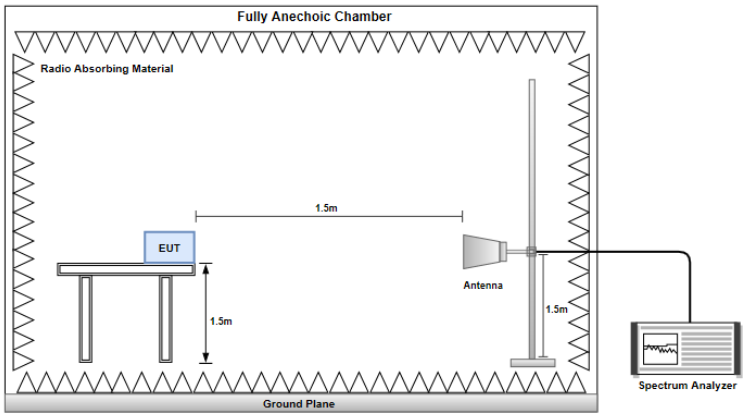
Below 30MHz



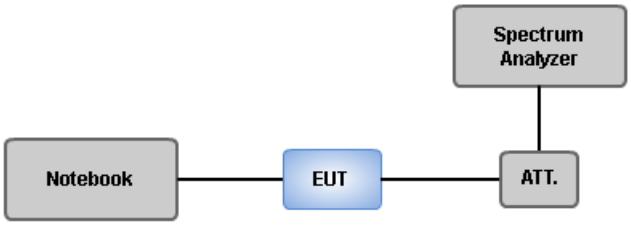
Below 1GHz



Above 1 GHz



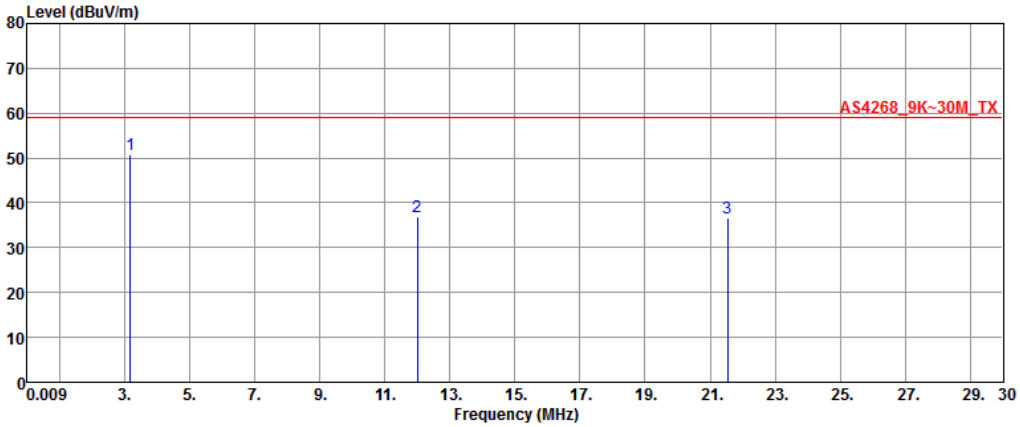
Conducted Emission



Test Configuration 1

3.5.4 Transmitter Radiated Unwanted Emissions (≤ 30MHz)

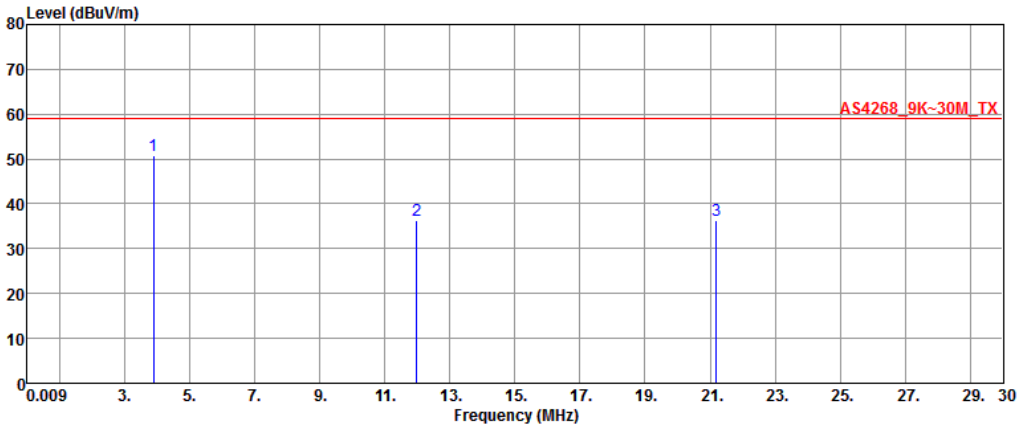
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.17	50.86	59.00	-8.14	19.64	31.22
2	11.99	36.86	59.00	-22.14	21.55	15.31
3	21.54	36.54	59.00	-22.46	22.55	13.99

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

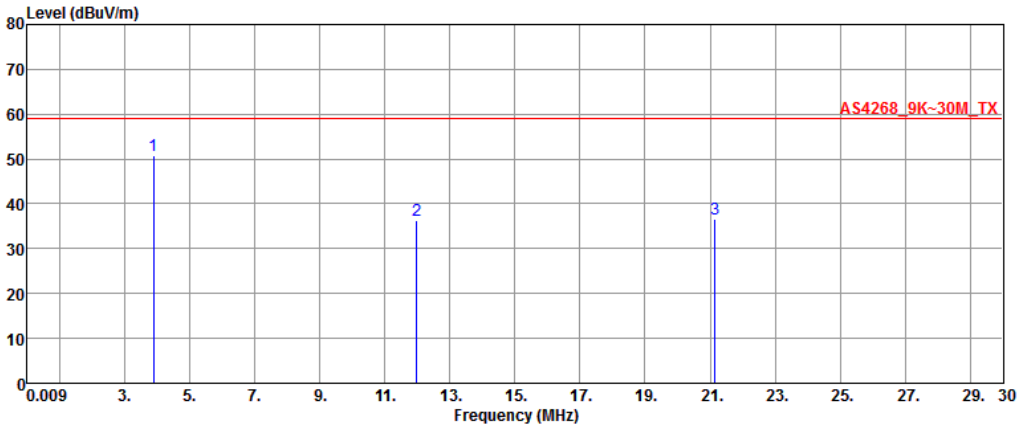
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.89	50.65	59.00	-8.35	20.05	30.60
2	11.97	36.44	59.00	-22.56	21.55	14.89
3	21.20	36.22	59.00	-22.78	22.54	13.68

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

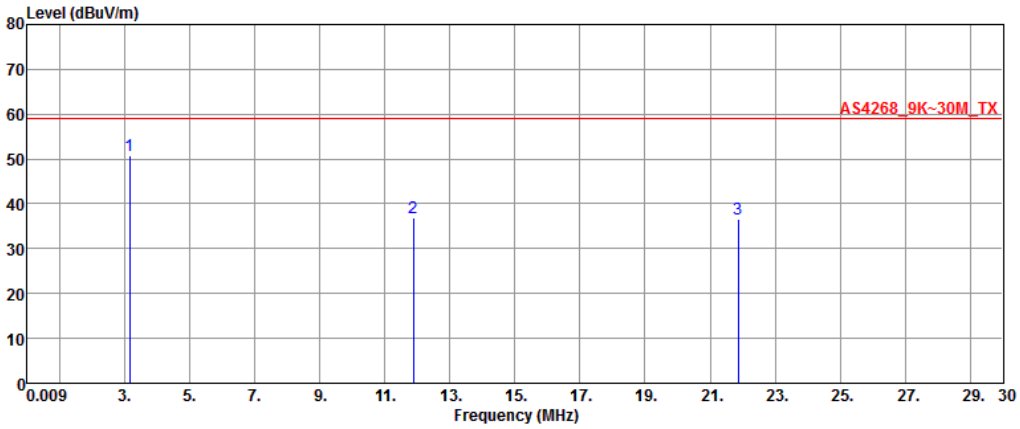
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.87	50.86	59.00	-8.14	20.04	30.82
2	11.98	36.44	59.00	-22.56	21.55	14.89
3	21.15	36.52	59.00	-22.48	22.54	13.98

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

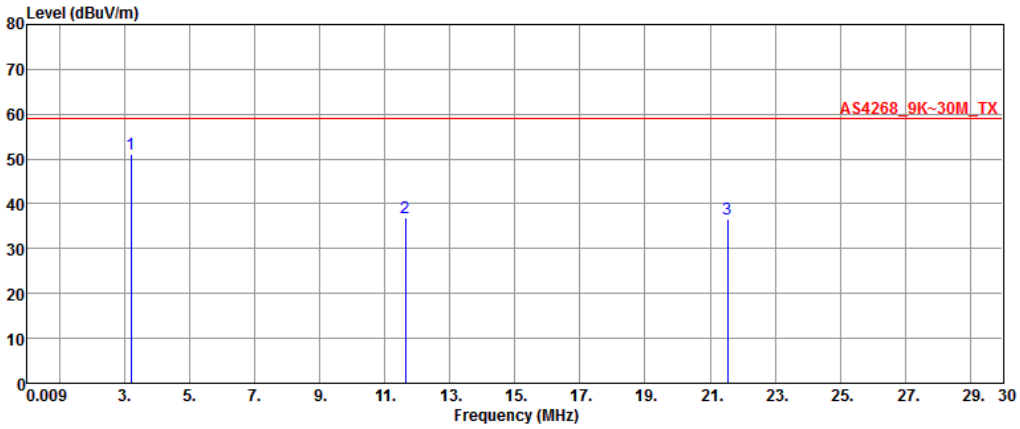
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.15	50.85	59.00	-8.15	19.62	31.23
2	11.87	36.85	59.00	-22.15	21.54	15.31
3	21.87	36.55	59.00	-22.45	22.55	14.00

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

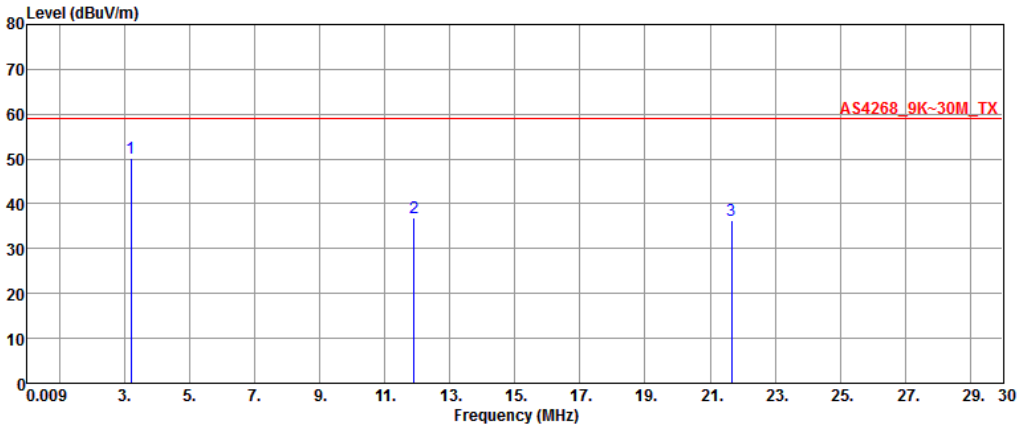
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	50.99	59.00	-8.01	19.65	31.34
2	11.64	36.99	59.00	-22.01	21.50	15.49
3	21.54	36.55	59.00	-22.45	22.55	14.00

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

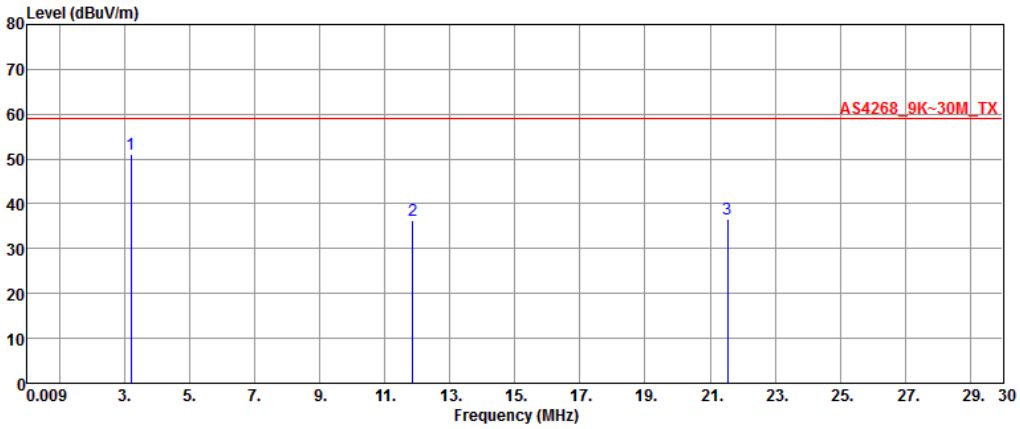
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	50.23	59.00	-8.77	19.65	30.58
2	11.90	36.94	59.00	-22.06	21.54	15.40
3	21.65	36.21	59.00	-22.79	22.55	13.66

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

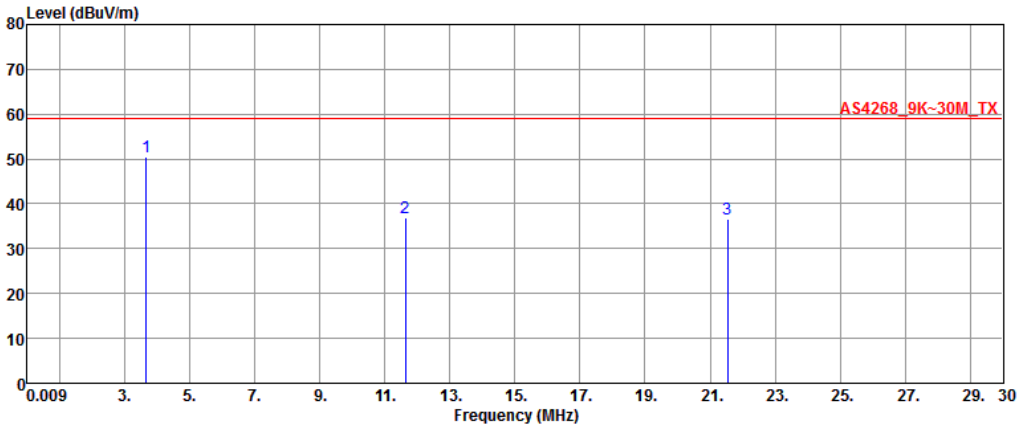
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	50.95	59.00	-8.05	19.65	31.30
2	11.85	36.44	59.00	-22.56	21.53	14.91
3	21.54	36.46	59.00	-22.54	22.55	13.91

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

Modulation	HT40	Test Freq. (MHz)	2462



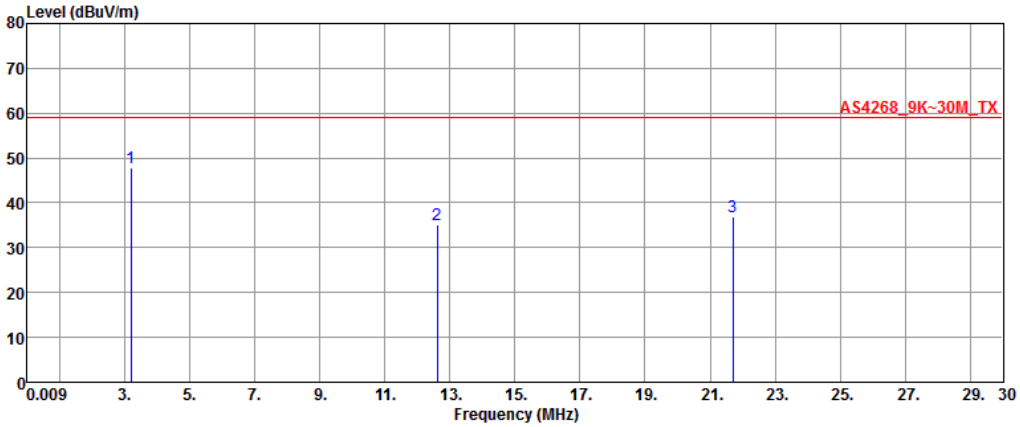
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.65	50.53	59.00	-8.47	19.92	30.61
2	11.64	36.87	59.00	-22.13	21.50	15.37
3	21.54	36.55	59.00	-22.45	22.55	14.00

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

Test Configuration 2

3.5.5 Transmitter Radiated Unwanted Emissions (≤ 30MHz)

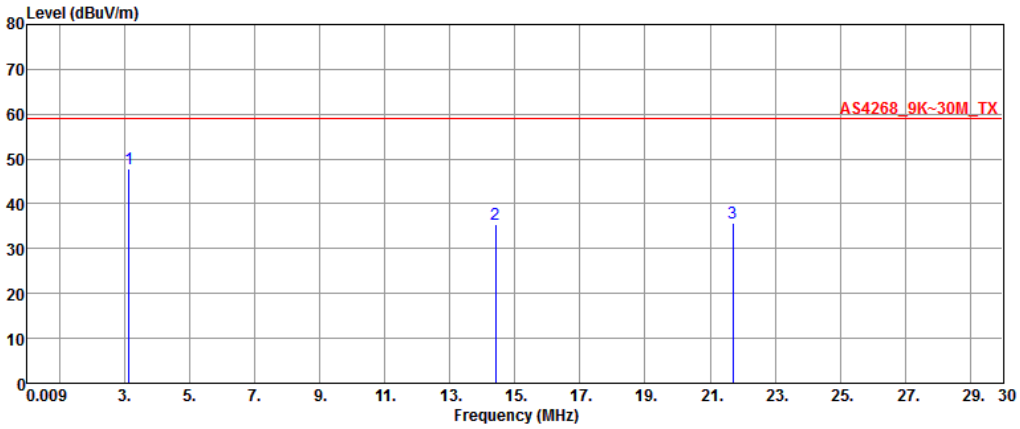
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	47.87	59.00	-11.13	19.65	28.22
2	12.61	35.12	59.00	-23.88	21.65	13.47
3	21.69	36.79	59.00	-22.21	22.55	14.24

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

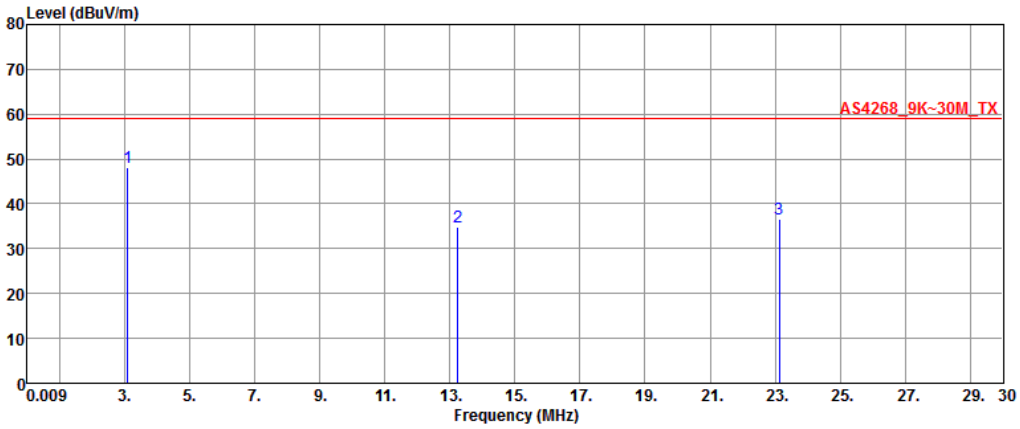
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	47.70	59.00	-11.30	19.61	28.09
2	14.40	35.53	59.00	-23.47	21.90	13.63
3	21.69	35.73	59.00	-23.27	22.55	13.18

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

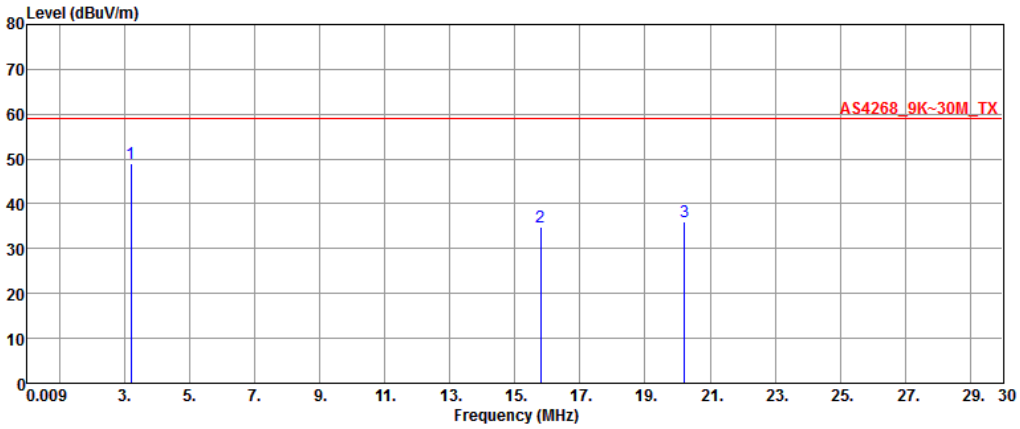
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.10	48.21	59.00	-10.79	19.59	28.62
2	13.24	34.95	59.00	-24.05	21.74	13.21
3	23.13	36.64	59.00	-22.36	22.59	14.05

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

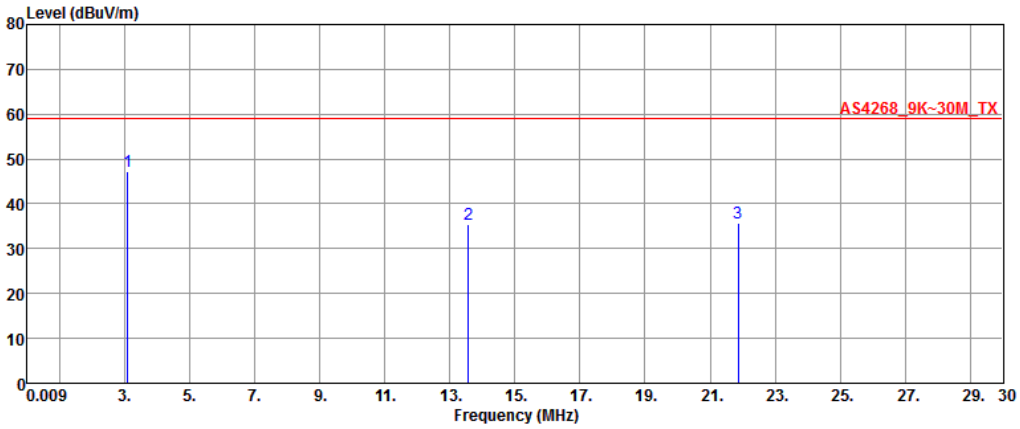
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	49.08	59.00	-9.92	19.65	29.43
2	15.78	34.85	59.00	-24.15	22.07	12.78
3	20.22	36.08	59.00	-22.92	22.52	13.56

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

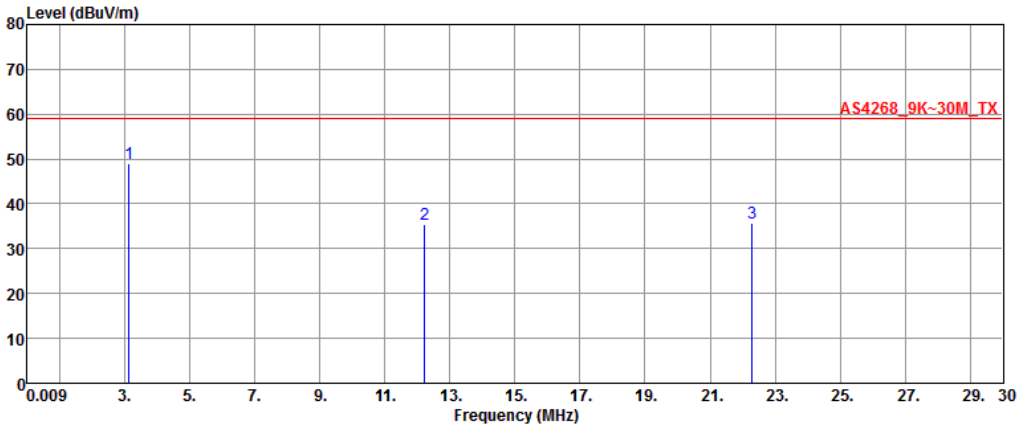
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.10	47.18	59.00	-11.82	19.59	27.59
2	13.56	35.35	59.00	-23.65	21.79	13.56
3	21.87	35.59	59.00	-23.41	22.55	13.04

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

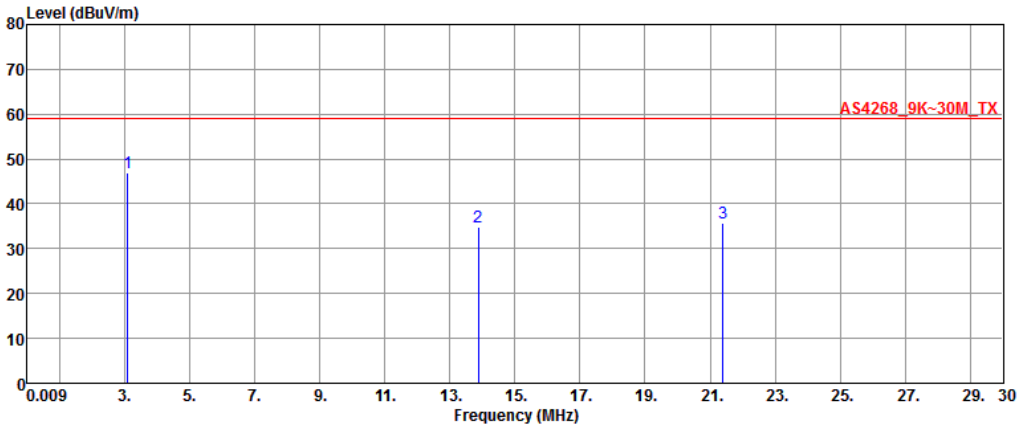
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	48.94	59.00	-10.06	19.61	29.33
2	12.22	35.53	59.00	-23.47	21.59	13.94
3	22.29	35.72	59.00	-23.28	22.56	13.16

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

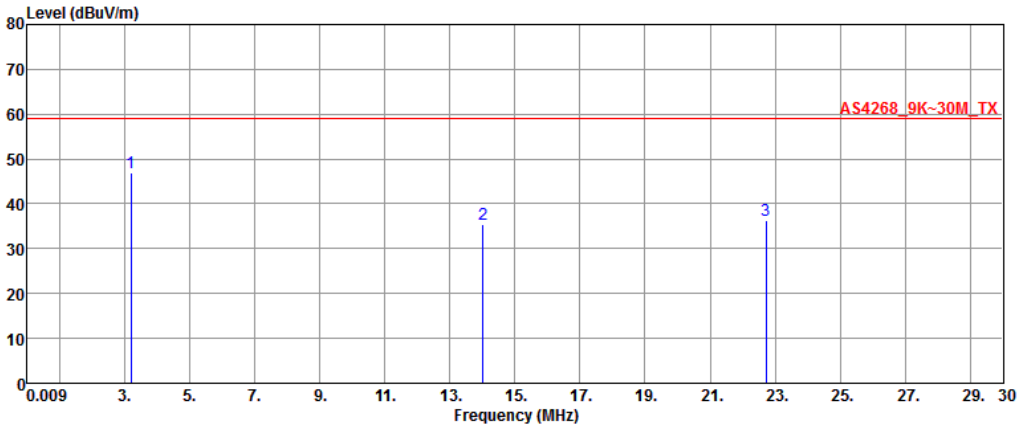
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.10	46.97	59.00	-12.03	19.59	27.38
2	13.86	34.97	59.00	-24.03	21.83	13.14
3	21.39	35.67	59.00	-23.33	22.54	13.13

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

Modulation	HT40	Test Freq. (MHz)	2462



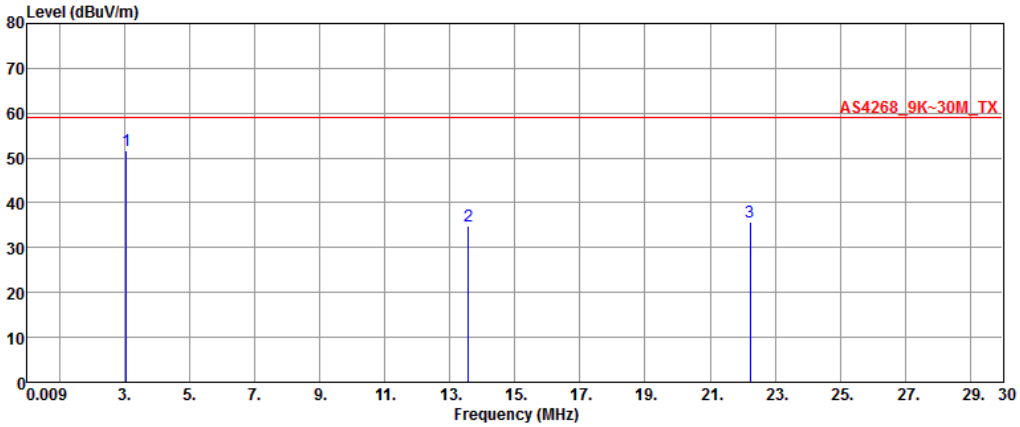
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	47.08	59.00	-11.92	19.65	27.43
2	14.01	35.33	59.00	-23.67	21.84	13.49
3	22.71	36.30	59.00	-22.70	22.58	13.72

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

Test Configuration 3

3.5.6 Transmitter Radiated Unwanted Emissions (≤ 30MHz)

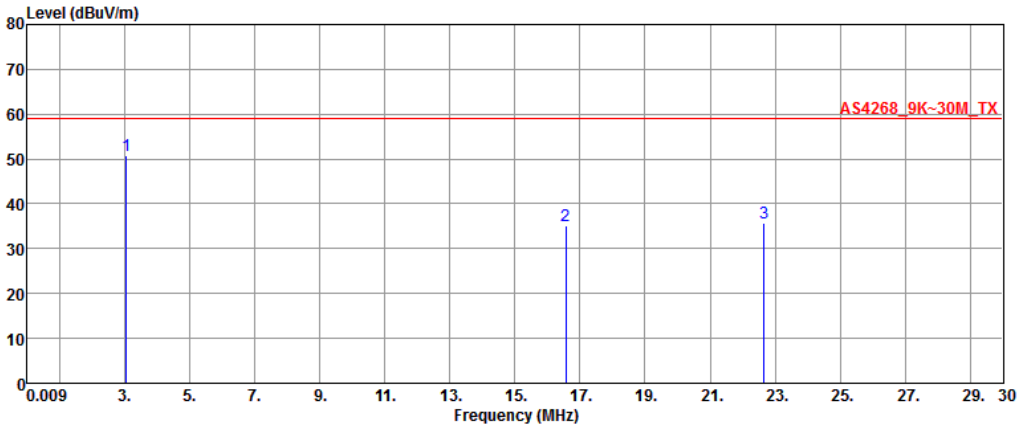
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	51.56	59.00	-7.44	19.55	32.01
2	13.56	34.93	59.00	-24.07	21.79	13.14
3	22.23	35.73	59.00	-23.27	22.56	13.17

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

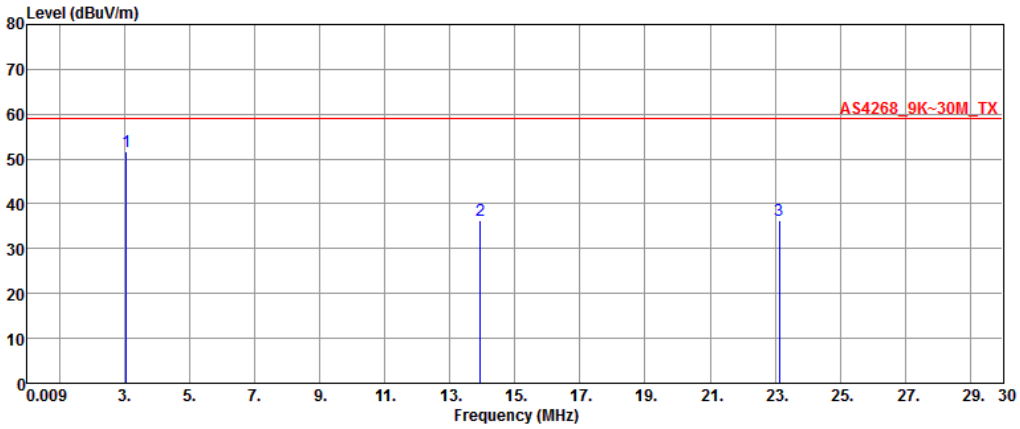
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	50.68	59.00	-8.32	19.55	31.13
2	16.56	35.10	59.00	-23.90	22.15	12.95
3	22.65	35.63	59.00	-23.37	22.58	13.05

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

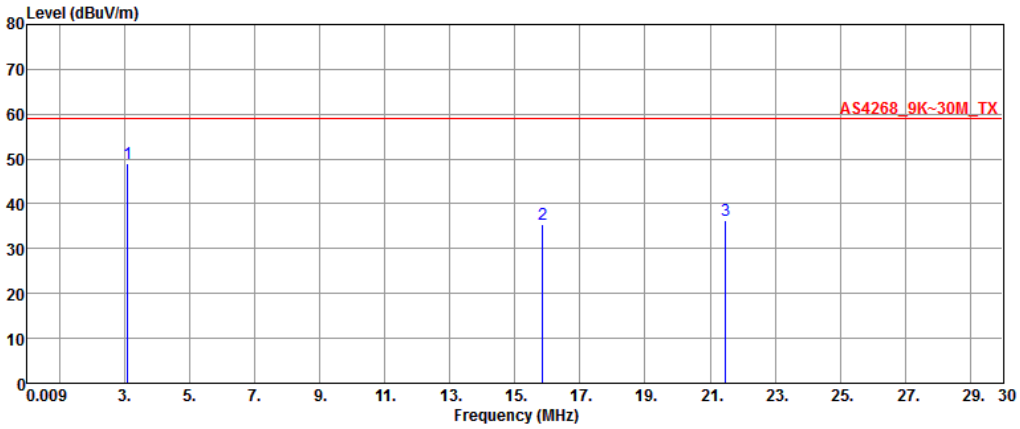
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	51.59	59.00	-7.41	19.55	32.04
2	13.92	36.45	59.00	-22.55	21.83	14.62
3	23.13	36.44	59.00	-22.56	22.59	13.85

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

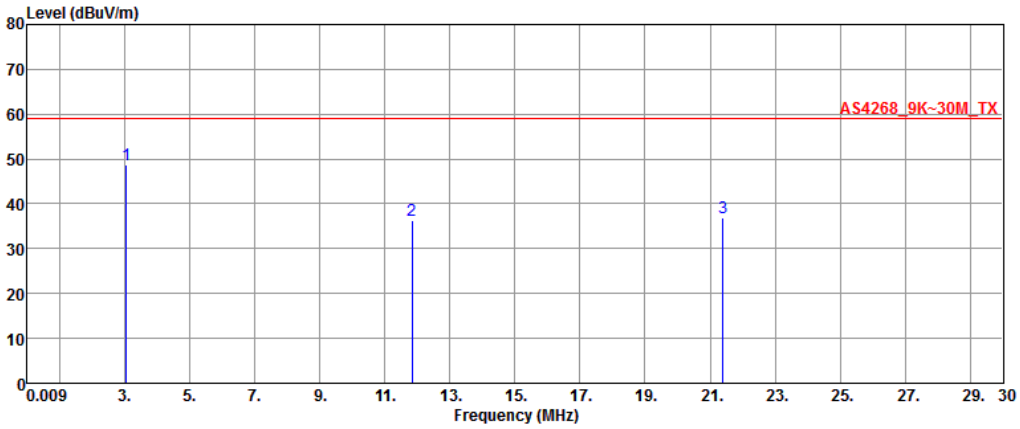
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.10	49.11	59.00	-9.89	19.59	29.52
2	15.84	35.43	59.00	-23.57	22.08	13.35
3	21.48	36.45	59.00	-22.55	22.55	13.90

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

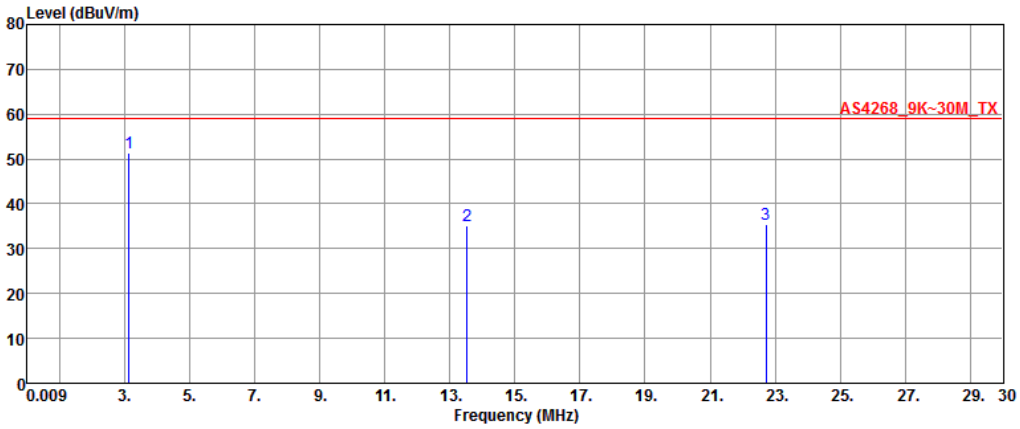
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.68	59.00	-10.32	19.55	29.13
2	11.83	36.38	59.00	-22.62	21.53	14.85
3	21.39	36.84	59.00	-22.16	22.54	14.30

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

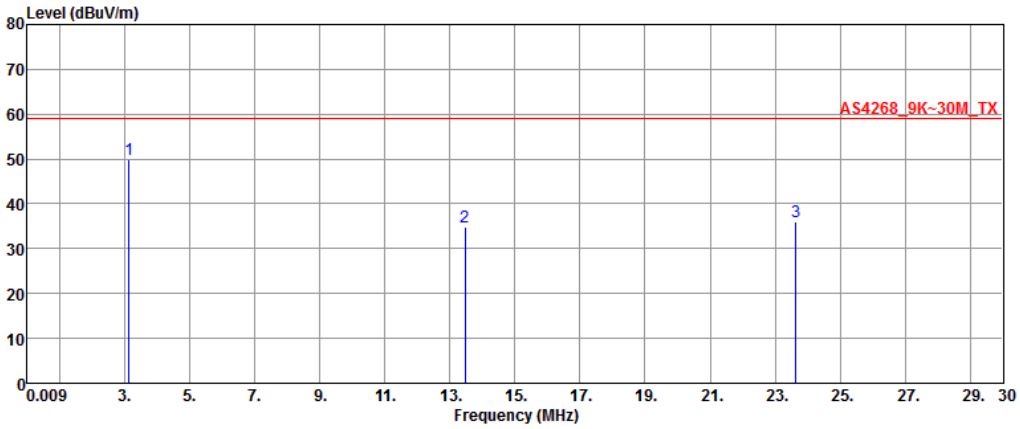
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	51.47	59.00	-7.53	19.61	31.86
2	13.53	35.23	59.00	-23.77	21.78	13.45
3	22.71	35.43	59.00	-23.57	22.58	12.85

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

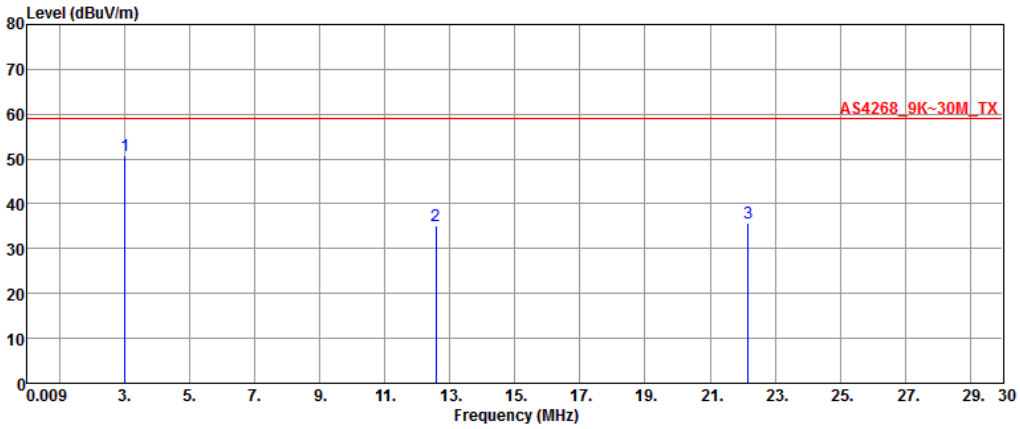
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	49.95	59.00	-9.05	19.61	30.34
2	13.47	34.83	59.00	-24.17	21.78	13.05
3	23.64	36.12	59.00	-22.88	22.60	13.52

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

Modulation	HT40	Test Freq. (MHz)	2462



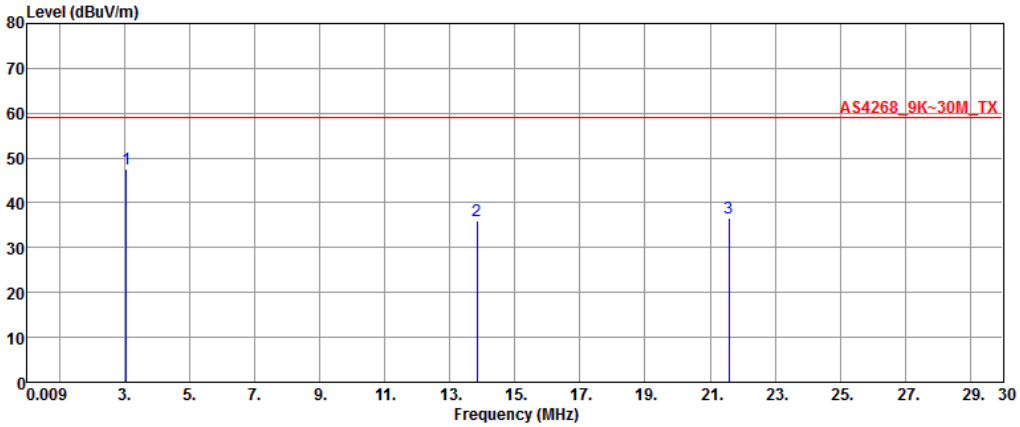
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.01	50.90	59.00	-8.10	19.54	31.36
2	12.58	35.02	59.00	-23.98	21.65	13.37
3	22.17	35.75	59.00	-23.25	22.56	13.19

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

Test Configuration 4

3.5.7 Transmitter Radiated Unwanted Emissions (≤ 30MHz)

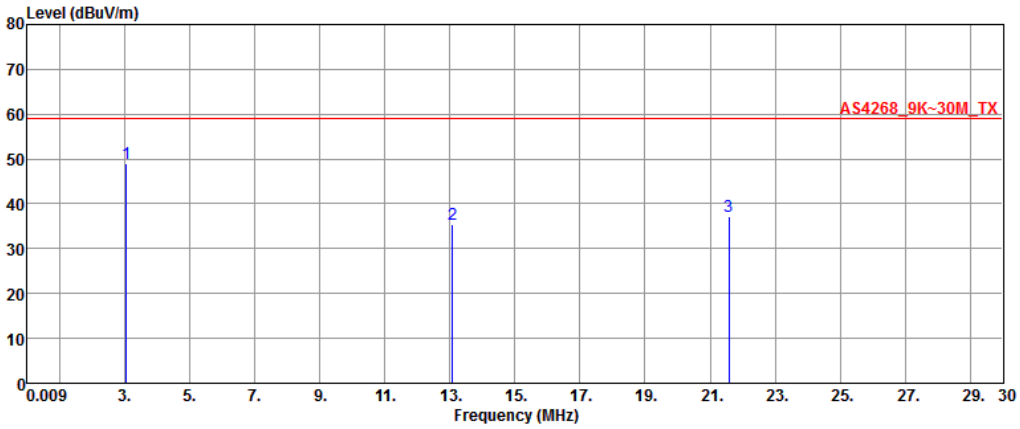
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	47.56	59.00	-11.44	19.55	28.01
2	13.83	35.96	59.00	-23.04	21.82	14.14
3	21.57	36.56	59.00	-22.44	22.55	14.01

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

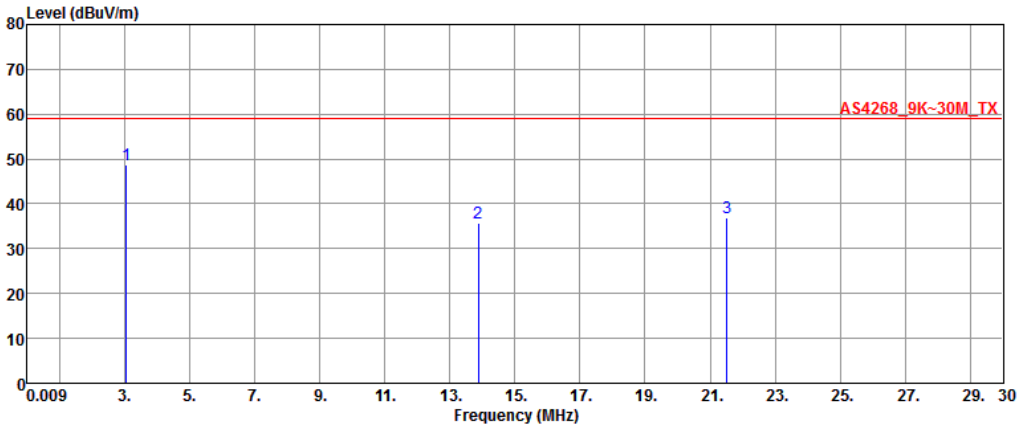
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	49.00	59.00	-10.00	19.55	29.45
2	13.09	35.46	59.00	-23.54	21.72	13.74
3	21.57	37.10	59.00	-21.90	22.55	14.55

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

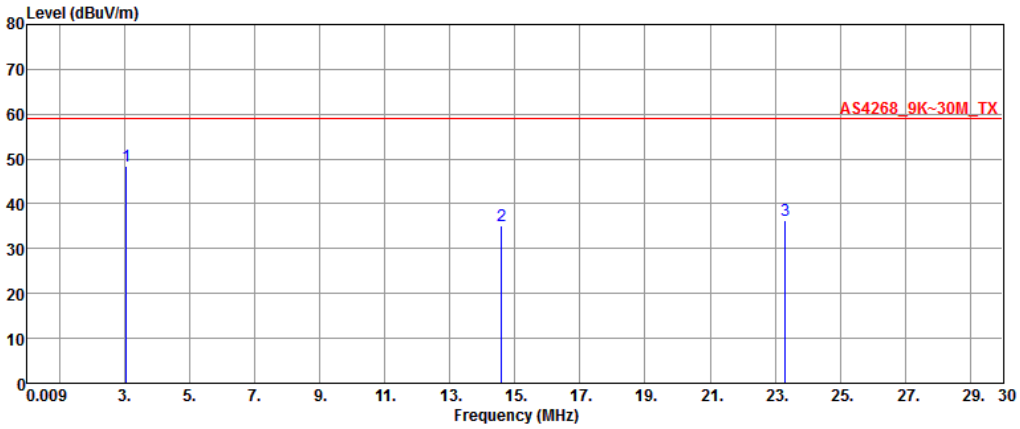
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.78	59.00	-10.22	19.55	29.23
2	13.86	35.79	59.00	-23.21	21.83	13.96
3	21.51	36.98	59.00	-22.02	22.55	14.43

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

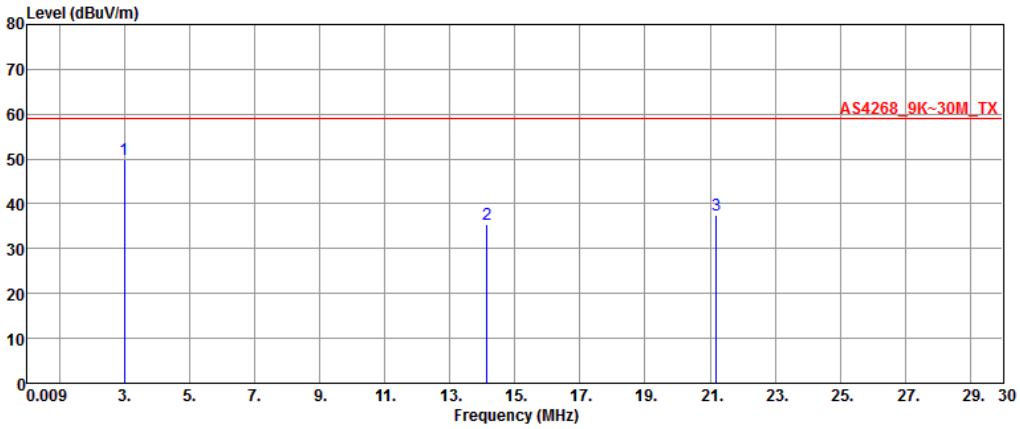
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.38	59.00	-10.62	19.55	28.83
2	14.58	35.24	59.00	-23.76	21.92	13.32
3	23.31	36.33	59.00	-22.67	22.60	13.73

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

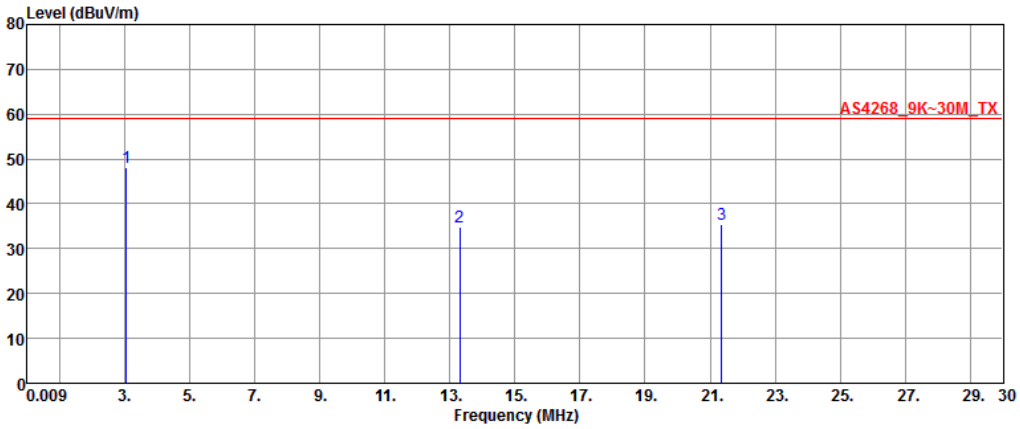
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	2.98	49.76	59.00	-9.24	19.54	30.22
2	14.13	35.39	59.00	-23.61	21.86	13.53
3	21.18	37.44	59.00	-21.56	22.54	14.90

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

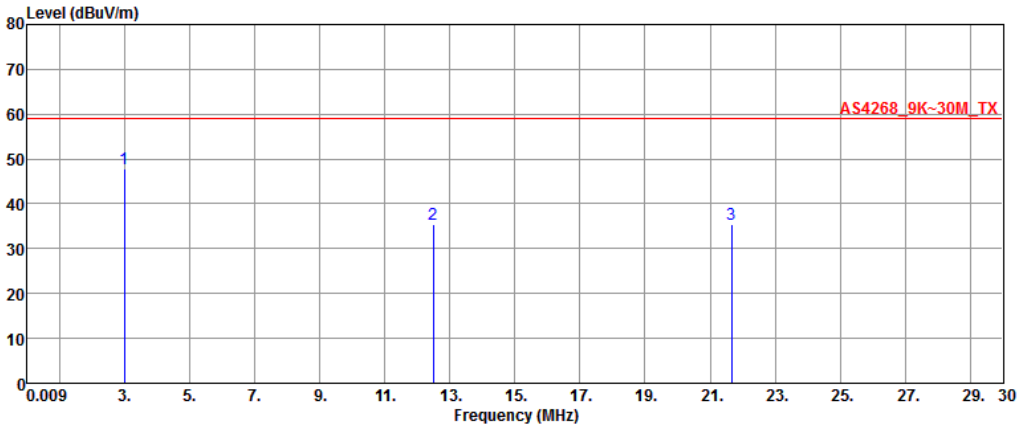
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.09	59.00	-10.91	19.55	28.54
2	13.30	34.69	59.00	-24.31	21.75	12.94
3	21.36	35.51	59.00	-23.49	22.54	12.97

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

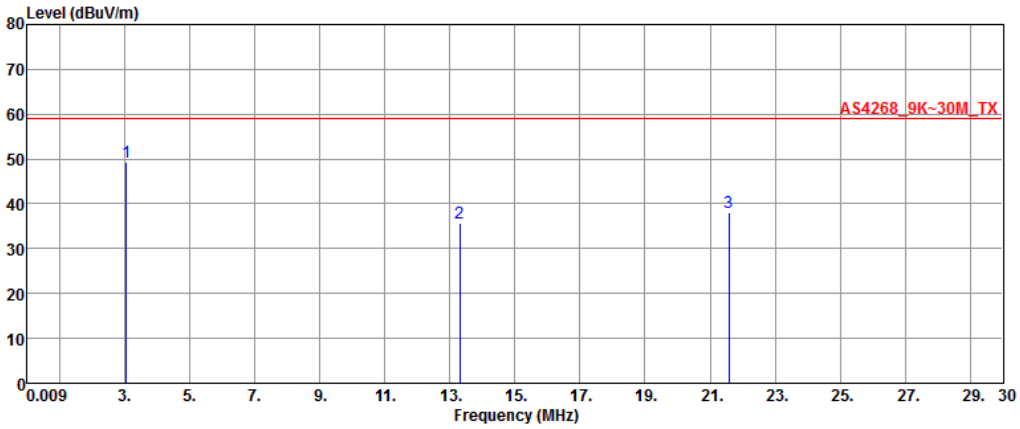
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	2.98	47.73	59.00	-11.27	19.54	28.19
2	12.49	35.39	59.00	-23.61	21.63	13.76
3	21.66	35.47	59.00	-23.53	22.55	12.92

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

Modulation	HT40	Test Freq. (MHz)	2462



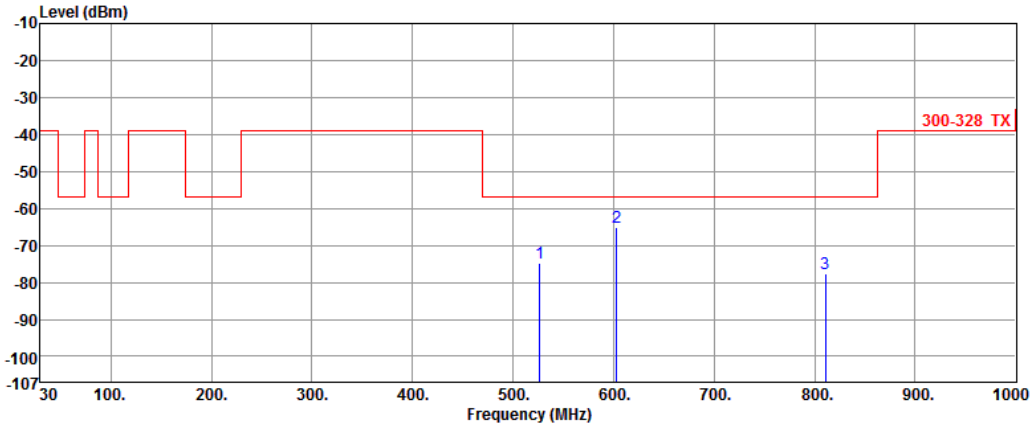
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	49.36	59.00	-9.64	19.55	29.81
2	13.30	35.80	59.00	-23.20	21.75	14.05
3	21.57	38.18	59.00	-20.82	22.55	15.63

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

Main Port

3.5.8 Transmitter Conducted Unwanted Emissions (Below 1GHz)

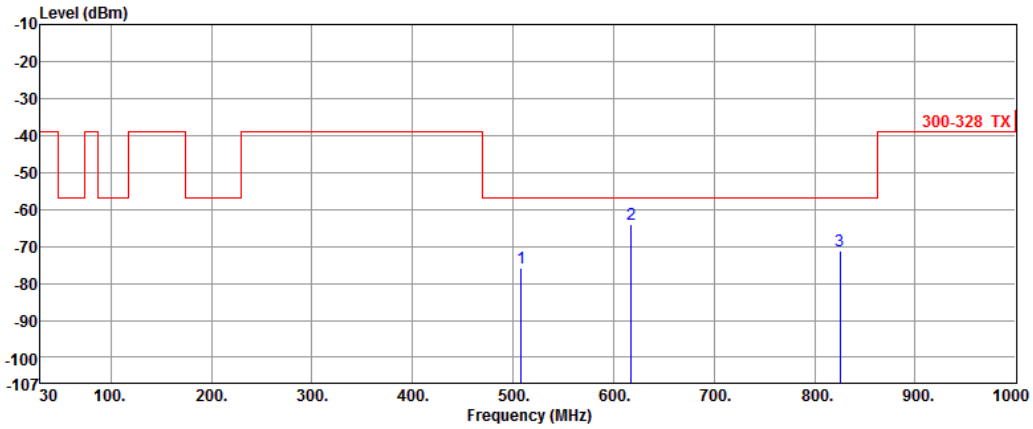
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	526.64	-74.81	-57.01	-17.80	0.00	-74.81
2	603.27	-64.94	-57.01	-7.93	0.00	-64.94
3	810.85	-77.79	-57.01	-20.78	0.00	-77.79

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

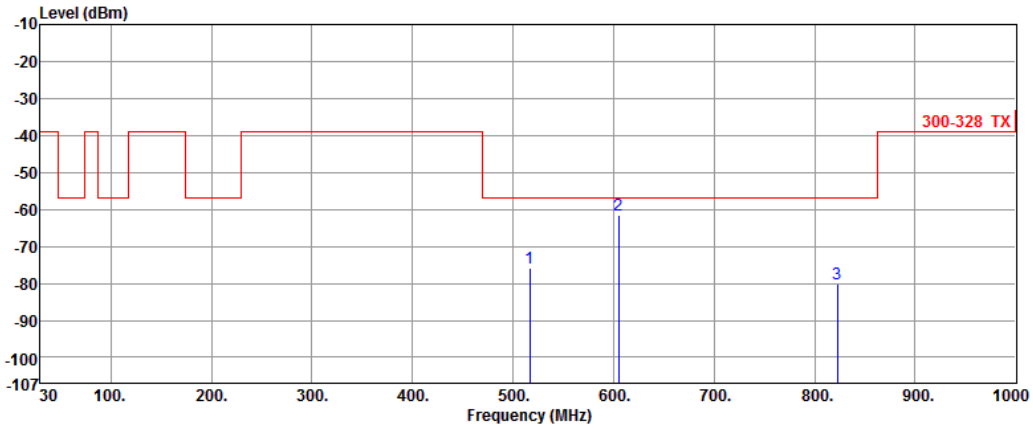
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	508.21	-75.84	-57.01	-18.83	0.00	-75.84
2	617.82	-64.20	-57.01	-7.19	0.00	-64.20
3	825.40	-71.38	-57.01	-14.37	0.00	-71.38

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

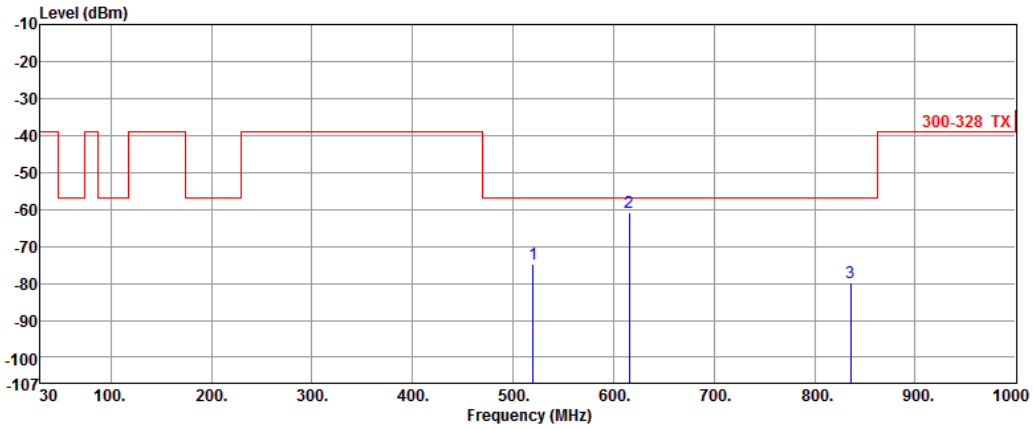
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	516.94	-75.76	-57.01	-18.75	0.00	-75.76
2	605.21	-61.41	-57.01	-4.40	0.00	-61.41
3	822.49	-80.08	-57.01	-23.07	0.00	-80.08

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

Modulation	HT40	Test Freq. (MHz)	2462

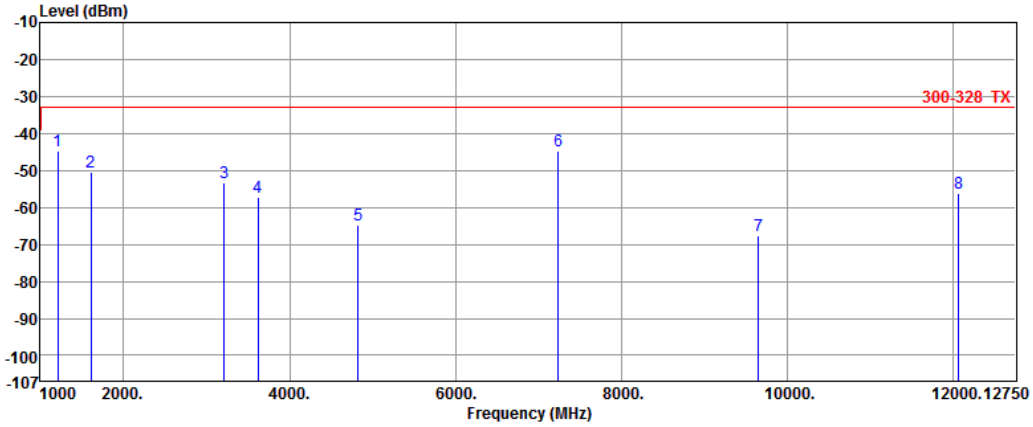


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	519.85	-74.78	-57.01	-17.77	0.00	-74.78
2	615.88	-60.74	-57.01	-3.73	0.00	-60.74
3	836.07	-79.93	-57.01	-22.92	0.00	-79.93

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

3.5.9 Transmitter Conducted Unwanted Emissions (Above 1GHz)

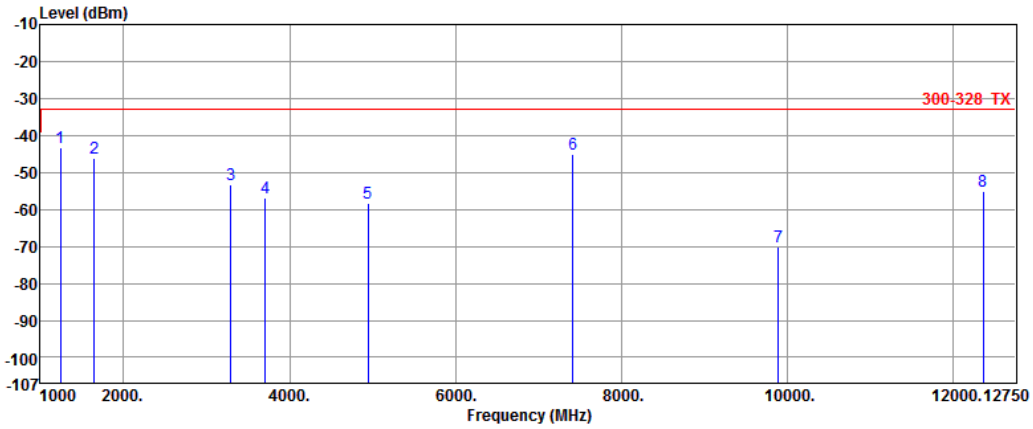
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1206.04	-44.60	-33.01	-11.59	0.00	-44.60
2	1608.10	-50.40	-33.01	-17.39	0.00	-50.40
3	3216.02	-53.19	-33.01	-20.18	0.00	-53.19
4	3618.10	-57.33	-33.01	-24.32	0.00	-57.33
5	4824.06	-64.88	-33.01	-31.87	0.00	-64.88
6	7236.68	-44.63	-33.01	-11.62	0.00	-44.63
7	9648.04	-67.63	-33.01	-34.62	0.00	-67.63
8	12060.16	-56.30	-33.01	-23.29	0.00	-56.30

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

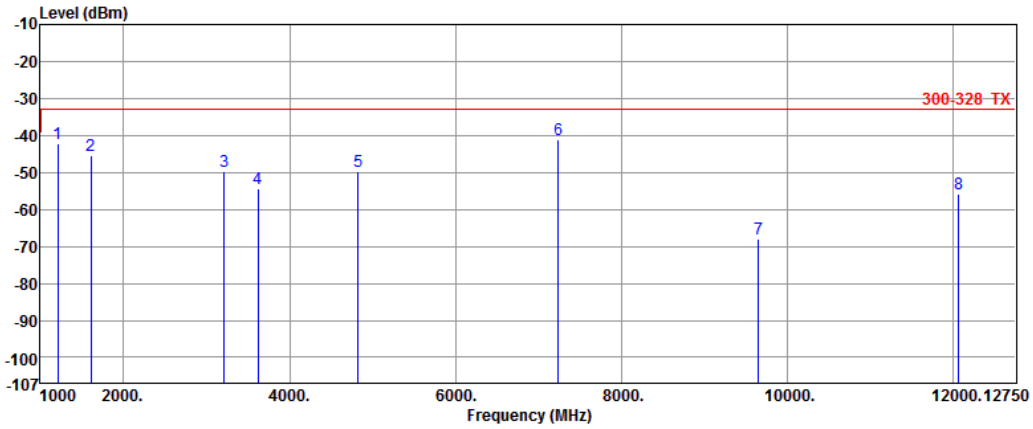
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1235.93	-43.36	-33.01	-10.35	0.00	-43.36
2	1648.14	-46.18	-33.01	-13.17	0.00	-46.18
3	3296.10	-53.43	-33.01	-20.42	0.00	-53.43
4	3707.96	-56.98	-33.01	-23.97	0.00	-56.98
5	4943.97	-58.15	-33.01	-25.14	0.00	-58.15
6	7416.58	-45.02	-33.01	-12.01	0.00	-45.02
7	9888.16	-70.05	-33.01	-37.04	0.00	-70.05
8	12360.73	-55.25	-33.01	-22.24	0.00	-55.25

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

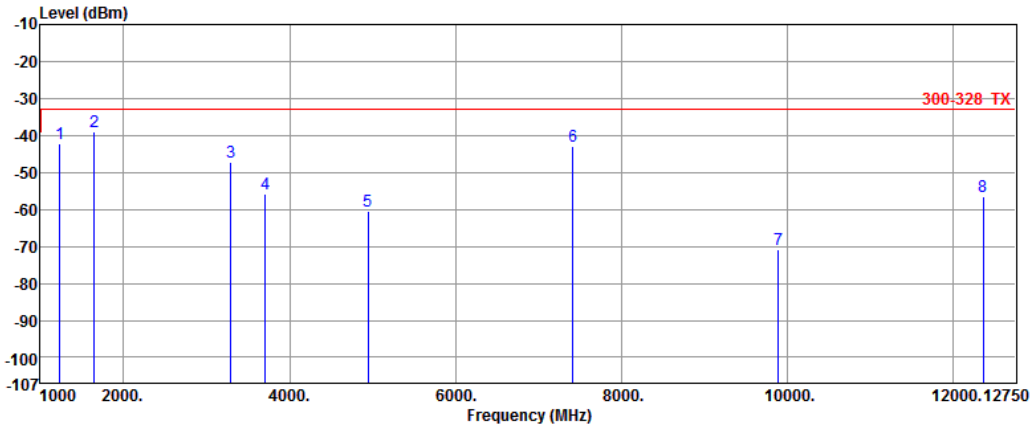
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1205.92	-42.37	-33.01	-9.36	0.00	-42.37
2	1607.85	-45.56	-33.01	-12.55	0.00	-45.56
3	3215.96	-49.62	-33.01	-16.61	0.00	-49.62
4	3618.90	-54.51	-33.01	-21.50	0.00	-54.51
5	4824.80	-49.83	-33.01	-16.82	0.00	-49.83
6	7236.40	-41.00	-33.01	-7.99	0.00	-41.00
7	9648.90	-67.93	-33.01	-34.92	0.00	-67.93
8	12060.20	-55.79	-33.01	-22.78	0.00	-55.79

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

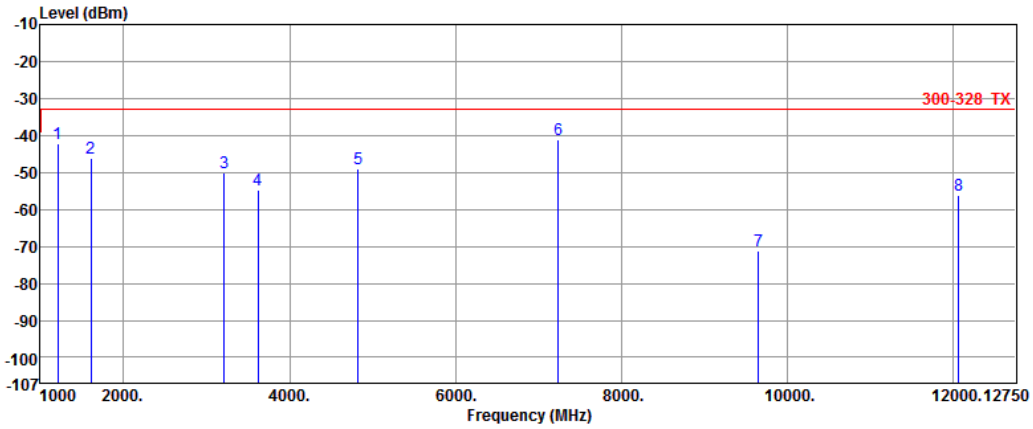
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1235.76	-42.07	-33.01	-9.06	0.00	-42.07
2	1648.75	-38.82	-33.01	-5.81	0.00	-38.82
3	3296.20	-47.10	-33.01	-14.09	0.00	-47.10
4	3708.20	-55.78	-33.01	-22.77	0.00	-55.78
5	4944.20	-60.40	-33.01	-27.39	0.00	-60.40
6	7416.90	-43.10	-33.01	-10.09	0.00	-43.10
7	9888.10	-70.95	-33.01	-37.94	0.00	-70.95
8	12360.10	-56.62	-33.01	-23.61	0.00	-56.62

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

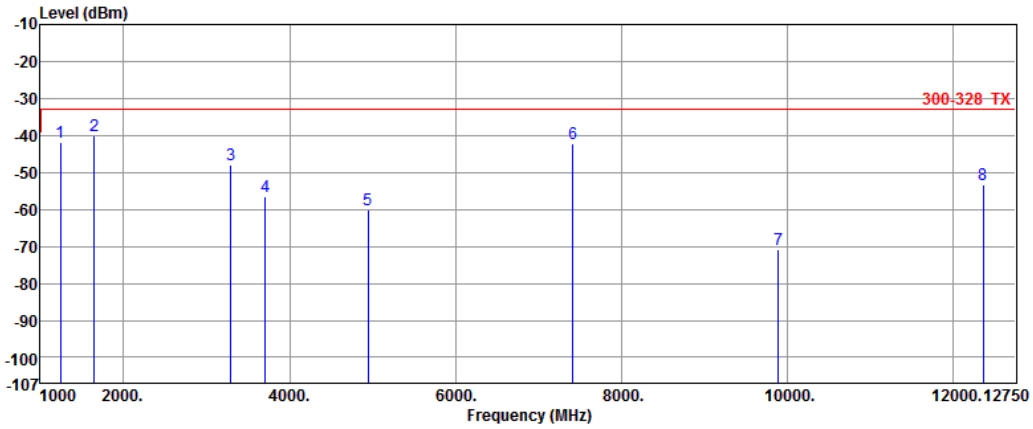
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1206.25	-42.32	-33.01	-9.31	0.00	-42.32
2	1607.45	-46.12	-33.01	-13.11	0.00	-46.12
3	3216.04	-49.93	-33.01	-16.92	0.00	-49.93
4	3618.30	-54.57	-33.01	-21.56	0.00	-54.57
5	4824.40	-49.06	-33.01	-16.05	0.00	-49.06
6	7236.90	-41.23	-33.01	-8.22	0.00	-41.23
7	9648.00	-71.29	-33.01	-38.28	0.00	-71.29
8	12060.10	-56.05	-33.01	-23.04	0.00	-56.05

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

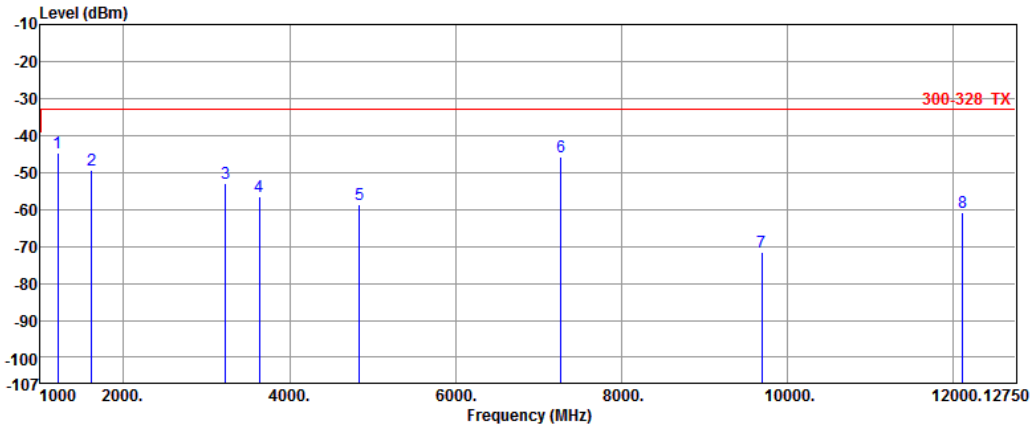
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1236.75	-41.70	-33.01	-8.69	0.00	-41.70
2	1648.65	-39.90	-33.01	-6.89	0.00	-39.90
3	3295.96	-47.87	-33.01	-14.86	0.00	-47.87
4	3708.98	-56.38	-33.01	-23.37	0.00	-56.38
5	4944.75	-60.20	-33.01	-27.19	0.00	-60.20
6	7416.20	-42.16	-33.01	-9.15	0.00	-42.16
7	9888.40	-71.00	-33.01	-37.99	0.00	-71.00
8	12360.75	-53.23	-33.01	-20.22	0.00	-53.23

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

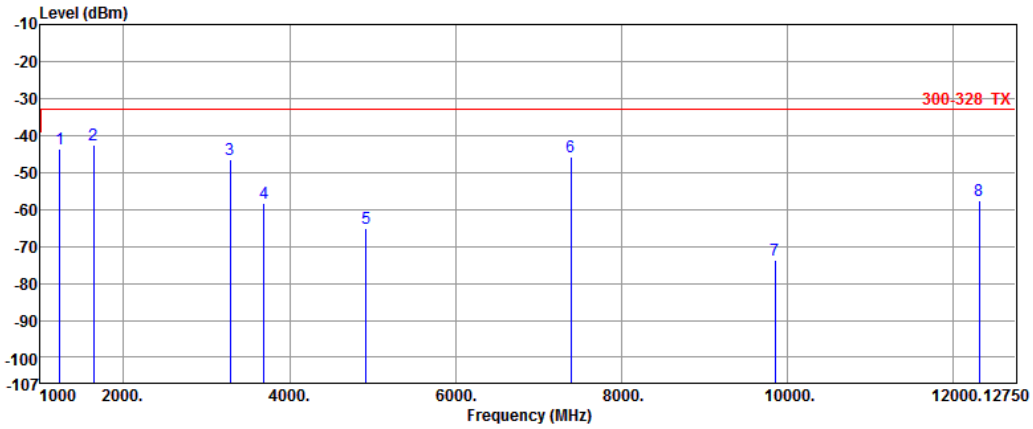
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1211.35	-44.55	-33.01	-11.54	0.00	-44.55
2	1614.42	-49.37	-33.01	-16.36	0.00	-49.37
3	3229.23	-52.98	-33.01	-19.97	0.00	-52.98
4	3633.60	-56.63	-33.01	-23.62	0.00	-56.63
5	4844.30	-58.63	-33.01	-25.62	0.00	-58.63
6	7266.90	-45.64	-33.01	-12.63	0.00	-45.64
7	9688.60	-71.44	-33.01	-38.43	0.00	-71.44
8	12110.20	-60.87	-33.01	-27.86	0.00	-60.87

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

Modulation	HT40	Test Freq. (MHz)	2462



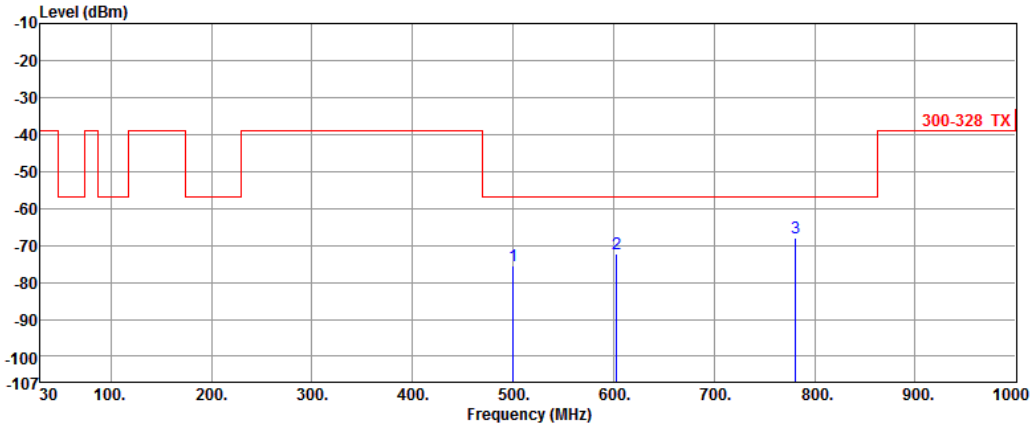
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1231.09	-43.67	-33.01	-10.66	0.00	-43.67
2	1641.37	-42.59	-33.01	-9.58	0.00	-42.59
3	3282.54	-46.40	-33.01	-13.39	0.00	-46.40
4	3693.95	-58.17	-33.01	-25.16	0.00	-58.17
5	4924.30	-65.12	-33.01	-32.11	0.00	-65.12
6	7386.40	-45.73	-33.01	-12.72	0.00	-45.73
7	9848.70	-73.58	-33.01	-40.57	0.00	-73.58
8	12310.20	-57.53	-33.01	-24.52	0.00	-57.53

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

Aux Port

3.5.10 Transmitter Conducted Unwanted Emissions (Below 1GHz)

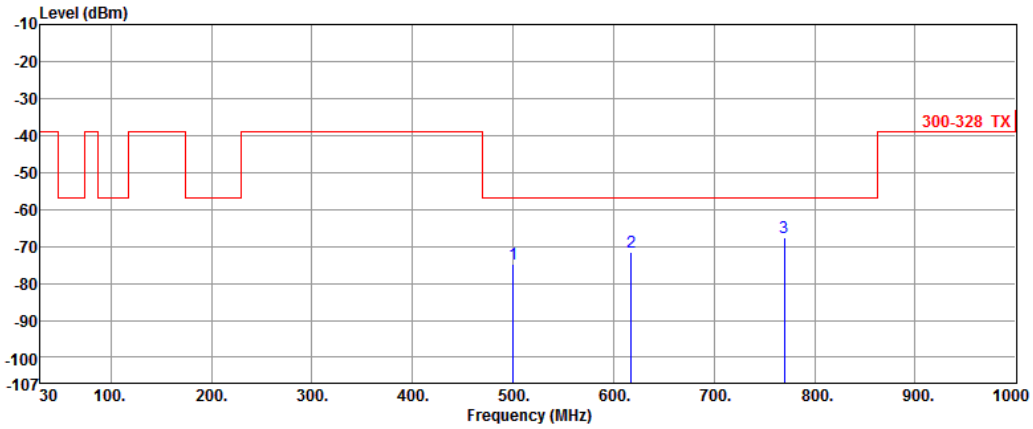
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-75.47	-57.01	-18.46	0.00	-75.47
2	603.27	-72.38	-57.01	-15.37	0.00	-72.38
3	780.78	-68.04	-57.01	-11.03	0.00	-68.04

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

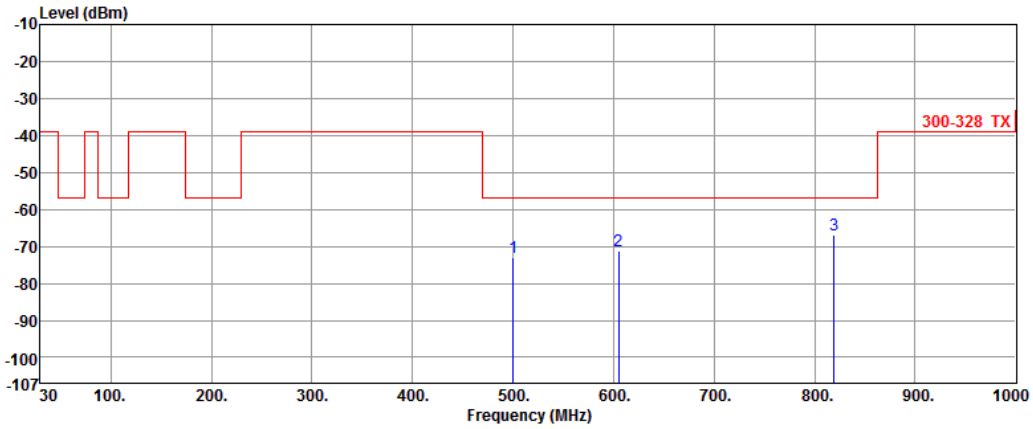
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-74.84	-57.01	-17.83	0.00	-74.84
2	617.82	-71.50	-57.01	-14.49	0.00	-71.50
3	770.11	-67.55	-57.01	-10.54	0.00	-67.55

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

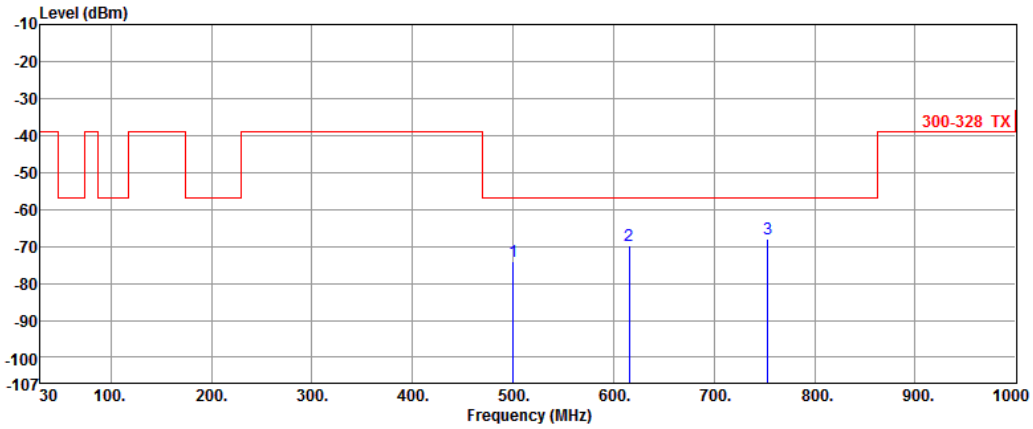
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-72.85	-57.01	-15.84	0.00	-72.85
2	605.21	-71.23	-57.01	-14.22	0.00	-71.23
3	819.58	-66.93	-57.01	-9.92	0.00	-66.93

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

Modulation	HT40	Test Freq. (MHz)	2462

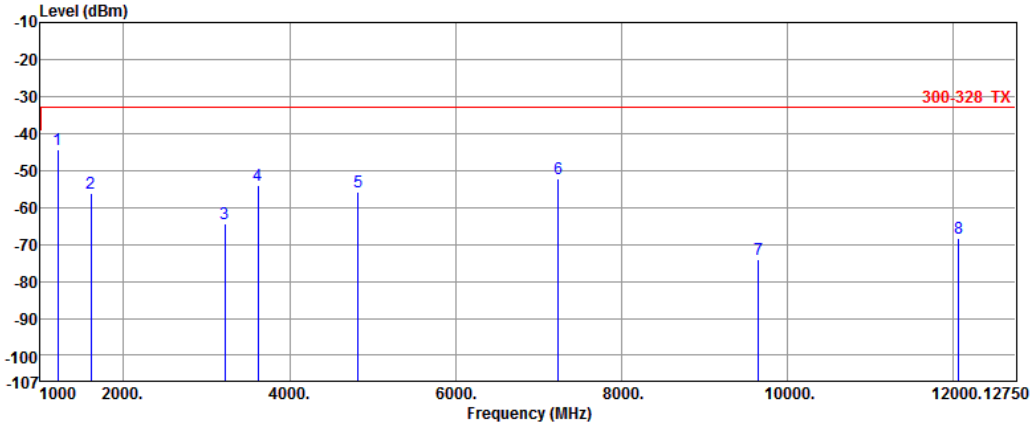


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-73.95	-57.01	-16.94	0.00	-73.95
2	615.88	-69.91	-57.01	-12.90	0.00	-69.91
3	753.62	-67.82	-57.01	-10.81	0.00	-67.82

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

3.5.11 Transmitter Conducted Unwanted Emissions (Above 1GHz)

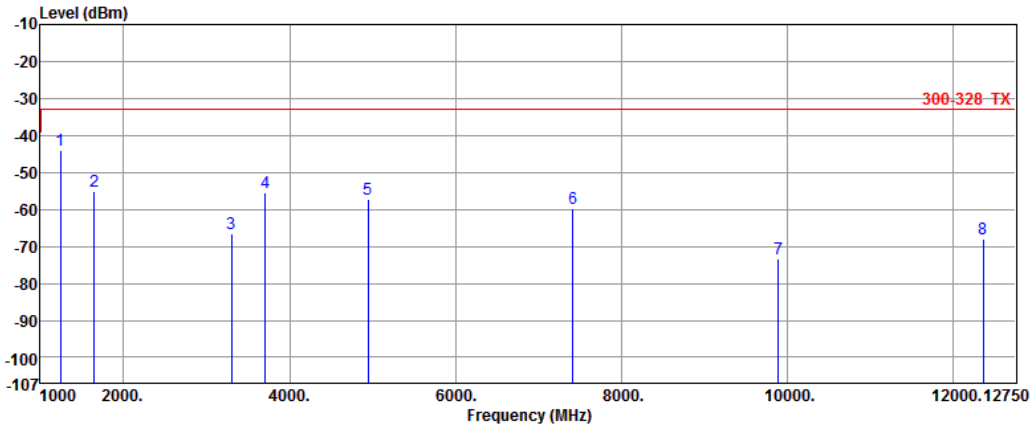
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1205.98	-44.21	-33.01	-11.20	0.00	-44.21
2	1607.20	-56.01	-33.01	-23.00	0.00	-56.01
3	3216.86	-64.31	-33.01	-31.30	0.00	-64.31
4	3618.07	-54.12	-33.01	-21.11	0.00	-54.12
5	4823.94	-55.93	-33.01	-22.92	0.00	-55.93
6	7236.45	-52.20	-33.01	-19.19	0.00	-52.20
7	9648.07	-74.03	-33.01	-41.02	0.00	-74.03
8	12060.03	-68.48	-33.01	-35.47	0.00	-68.48

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

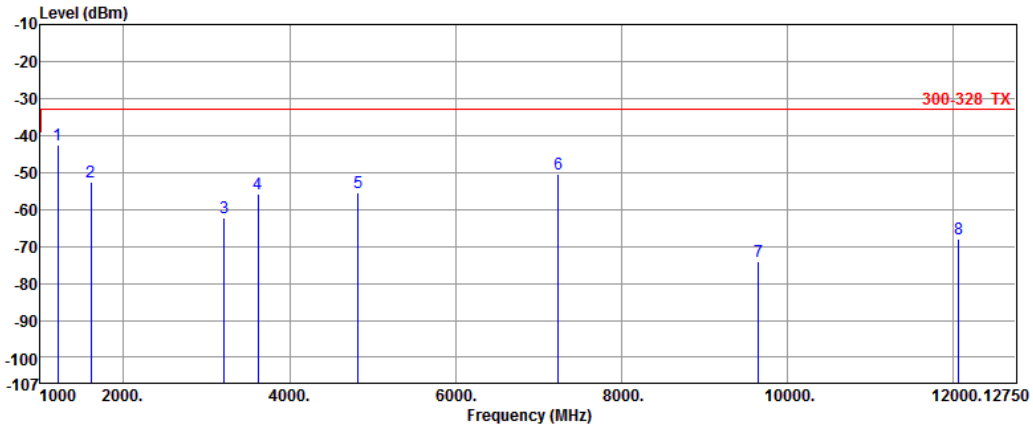
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1236.08	-43.92	-33.01	-10.91	0.00	-43.92
2	1648.28	-54.95	-33.01	-21.94	0.00	-54.95
3	3296.69	-66.69	-33.01	-33.68	0.00	-66.69
4	3708.95	-55.30	-33.01	-22.29	0.00	-55.30
5	4944.02	-57.17	-33.01	-24.16	0.00	-57.17
6	7416.22	-59.62	-33.01	-26.61	0.00	-59.62
7	9888.44	-73.29	-33.01	-40.28	0.00	-73.29
8	12360.35	-67.89	-33.01	-34.88	0.00	-67.89

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

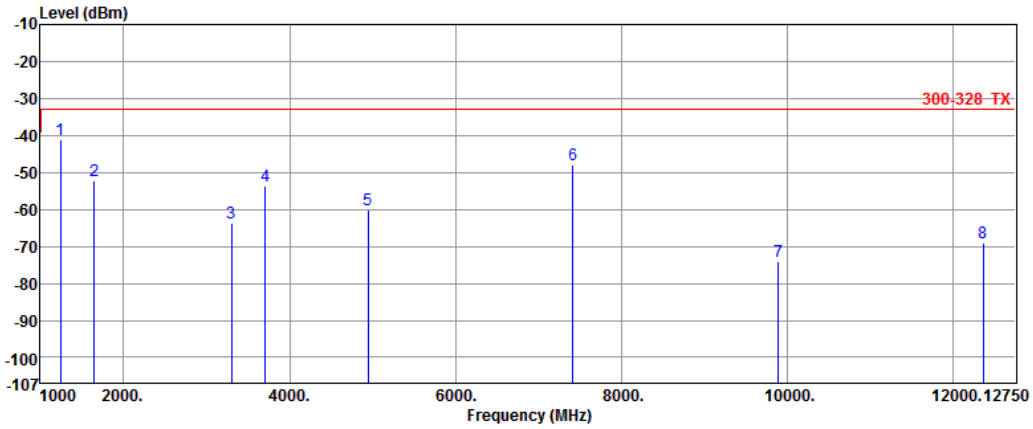
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1205.98	-42.54	-33.01	-9.53	0.00	-42.54
2	1607.45	-52.52	-33.01	-19.51	0.00	-52.52
3	3216.73	-62.22	-33.01	-29.21	0.00	-62.22
4	3618.30	-55.75	-33.01	-22.74	0.00	-55.75
5	4824.70	-55.28	-33.01	-22.27	0.00	-55.28
6	7236.10	-50.46	-33.01	-17.45	0.00	-50.46
7	9648.20	-74.13	-33.01	-41.12	0.00	-74.13
8	12060.55	-68.02	-33.01	-35.01	0.00	-68.02

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

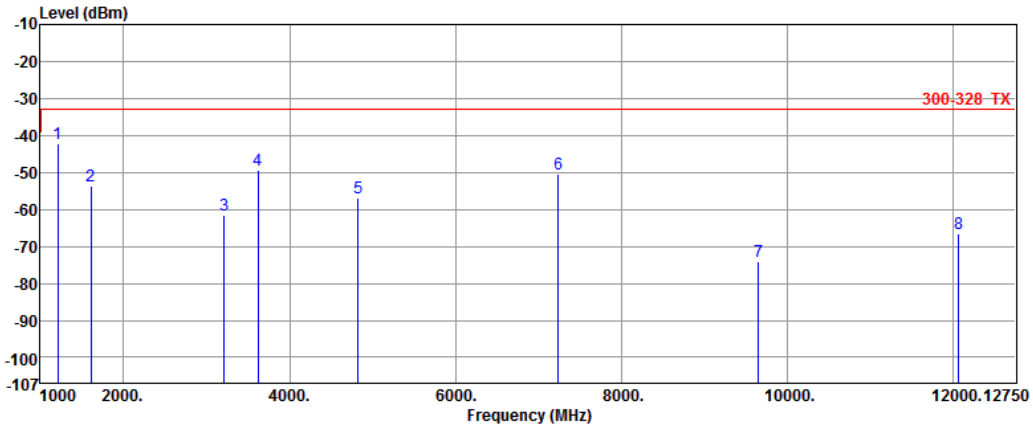
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1235.96	-41.18	-33.01	-8.17	0.00	-41.18
2	1648.03	-52.39	-33.01	-19.38	0.00	-52.39
3	3296.92	-63.70	-33.01	-30.69	0.00	-63.70
4	3708.04	-53.82	-33.01	-20.81	0.00	-53.82
5	4944.15	-60.17	-33.01	-27.16	0.00	-60.17
6	7416.75	-47.95	-33.01	-14.94	0.00	-47.95
7	9888.10	-74.15	-33.01	-41.14	0.00	-74.15
8	12360.40	-69.23	-33.01	-36.22	0.00	-69.23

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

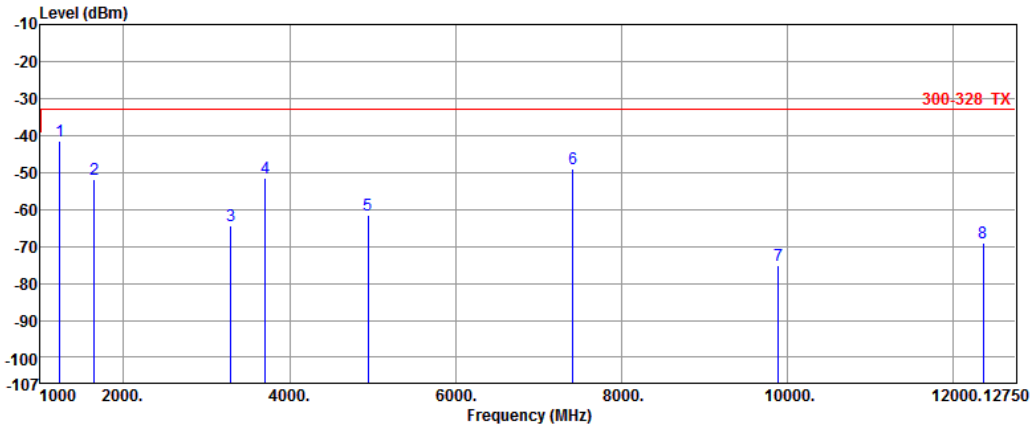
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1206.60	-42.30	-33.01	-9.29	0.00	-42.30
2	1607.95	-53.73	-33.01	-20.72	0.00	-53.73
3	3216.63	-61.62	-33.01	-28.61	0.00	-61.62
4	3618.95	-49.55	-33.01	-16.54	0.00	-49.55
5	4824.05	-56.99	-33.01	-23.98	0.00	-56.99
6	7236.15	-50.61	-33.01	-17.60	0.00	-50.61
7	9648.15	-73.91	-33.01	-40.90	0.00	-73.91
8	12060.30	-66.42	-33.01	-33.41	0.00	-66.42

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

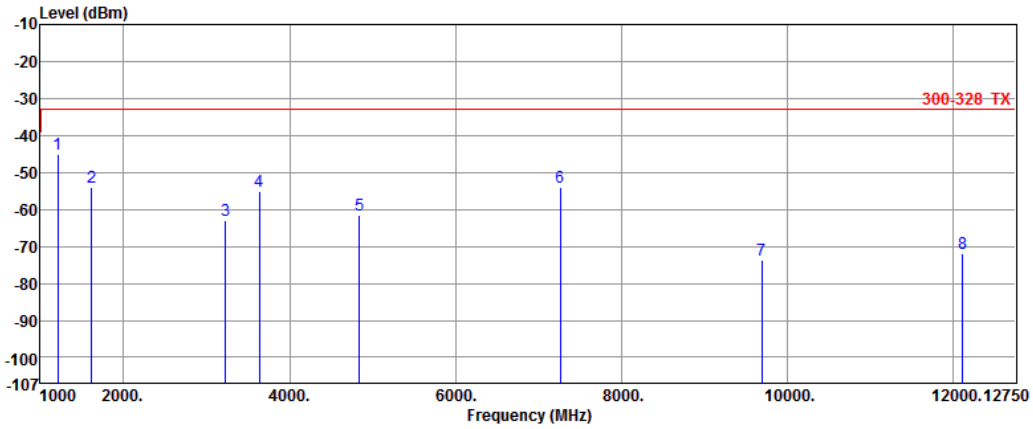
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1235.85	-41.47	-33.01	-8.46	0.00	-41.47
2	1648.50	-51.95	-33.01	-18.94	0.00	-51.95
3	3296.02	-64.27	-33.01	-31.26	0.00	-64.27
4	3708.60	-51.50	-33.01	-18.49	0.00	-51.50
5	4944.00	-61.54	-33.01	-28.53	0.00	-61.54
6	7416.30	-49.03	-33.01	-16.02	0.00	-49.03
7	9888.20	-75.24	-33.01	-42.23	0.00	-75.24
8	12360.60	-69.18	-33.01	-36.17	0.00	-69.18

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

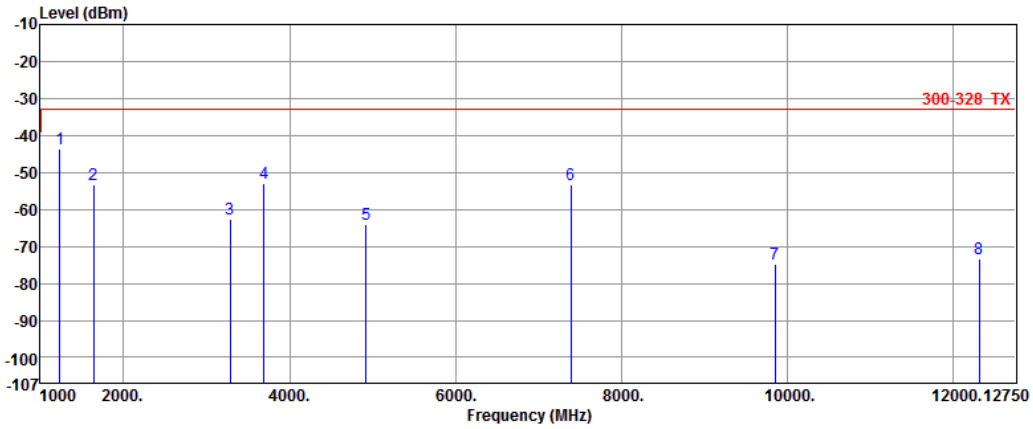
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1211.00	-45.05	-33.01	-12.04	0.00	-45.05
2	1614.47	-53.86	-33.01	-20.85	0.00	-53.86
3	3229.17	-62.82	-33.01	-29.81	0.00	-62.82
4	3633.90	-55.21	-33.01	-22.20	0.00	-55.21
5	4844.30	-61.71	-33.01	-28.70	0.00	-61.71
6	7266.20	-53.86	-33.01	-20.85	0.00	-53.86
7	9688.00	-73.86	-33.01	-40.85	0.00	-73.86
8	12110.50	-71.90	-33.01	-38.89	0.00	-71.90

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

Modulation	HT40	Test Freq. (MHz)	2462

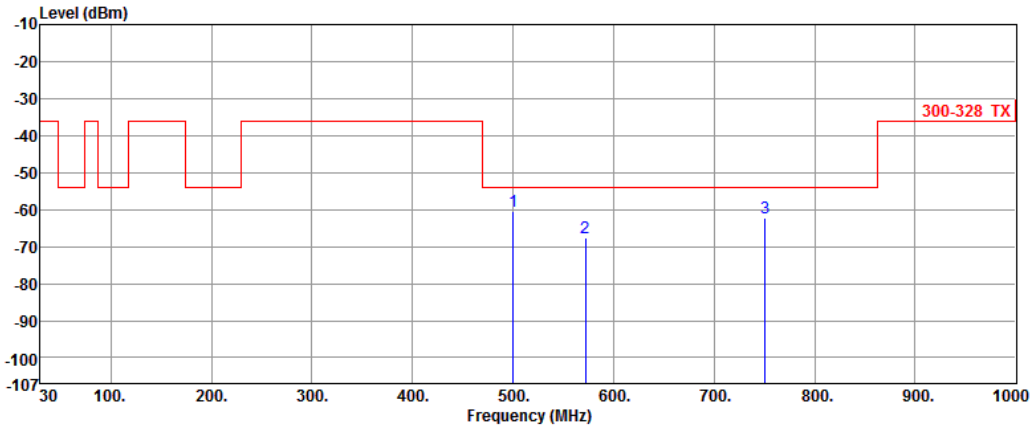


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1231.20	-43.80	-33.01	-10.79	0.00	-43.80
2	1641.90	-53.30	-33.01	-20.29	0.00	-53.30
3	3282.32	-62.70	-33.01	-29.69	0.00	-62.70
4	3693.85	-53.06	-33.01	-20.05	0.00	-53.06
5	4924.10	-63.98	-33.01	-30.97	0.00	-63.98
6	7386.70	-53.47	-33.01	-20.46	0.00	-53.47
7	9848.30	-74.66	-33.01	-41.65	0.00	-74.66
8	12310.10	-73.29	-33.01	-40.28	0.00	-73.29

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

3.5.12 Transmitter Radiated Unwanted Emissions (Below 1GHz)

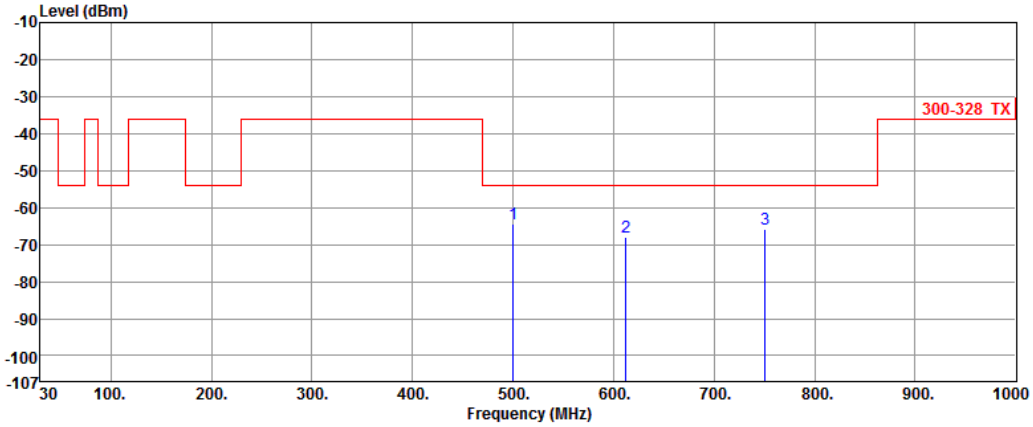
Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-60.52	-54.00	-6.52	3.46	-63.98
2	572.23	-67.53	-54.00	-13.53	5.02	-72.55
3	750.71	-62.37	-54.00	-8.37	7.95	-70.32

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

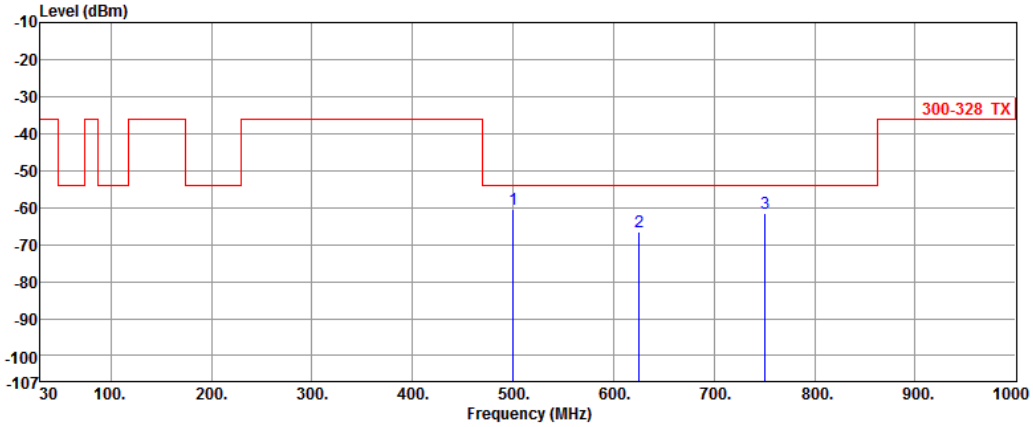
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-64.27	-54.00	-10.27	3.37	-67.64
2	612.00	-67.95	-54.00	-13.95	6.01	-73.96
3	750.71	-65.76	-54.00	-11.76	7.94	-73.70

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

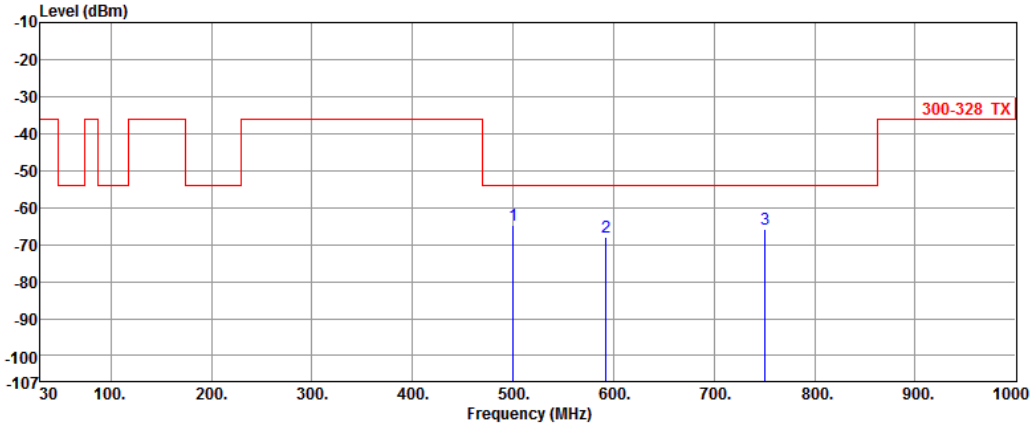
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-60.54	-54.00	-6.54	3.46	-64.00
2	625.58	-66.69	-54.00	-12.69	5.90	-72.59
3	750.71	-61.46	-54.00	-7.46	7.95	-69.41

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

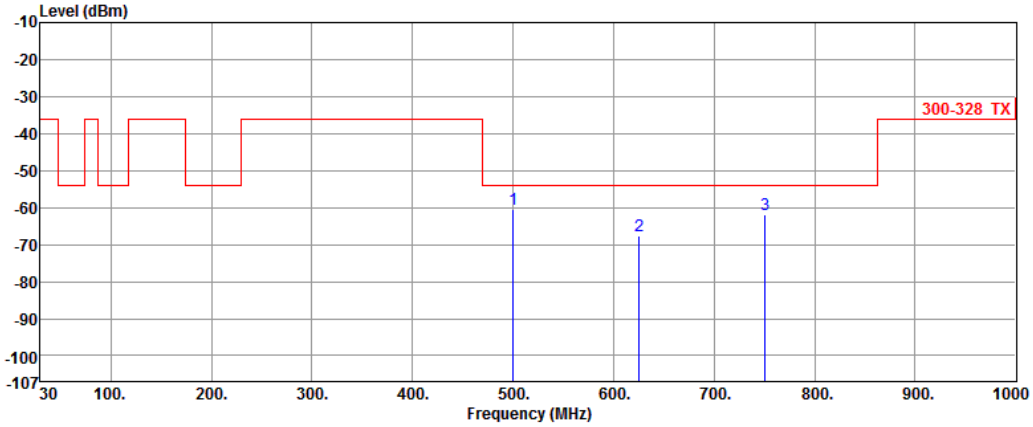
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-64.87	-54.00	-10.87	3.37	-68.24
2	592.60	-68.04	-54.00	-14.04	5.55	-73.59
3	750.71	-65.83	-54.00	-11.83	7.94	-73.77

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

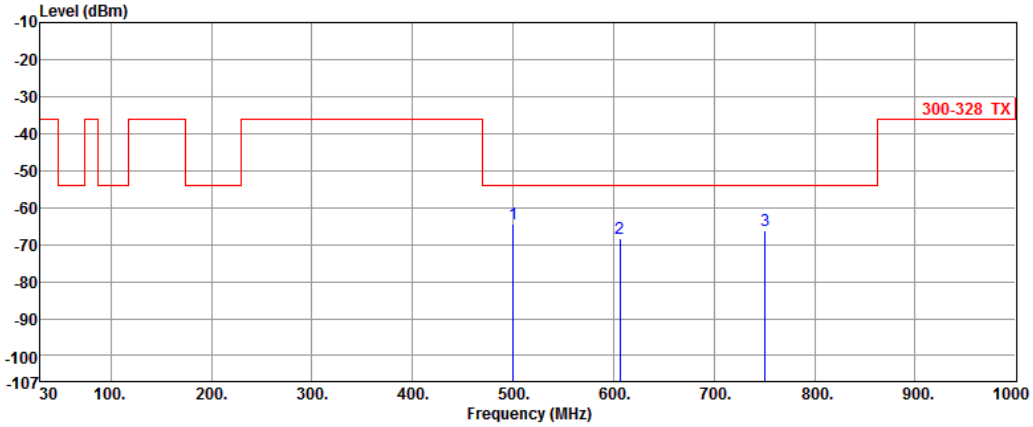
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-60.53	-54.00	-6.53	3.46	-63.99
2	625.58	-67.46	-54.00	-13.46	5.90	-73.36
3	750.71	-62.03	-54.00	-8.03	7.95	-69.98

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

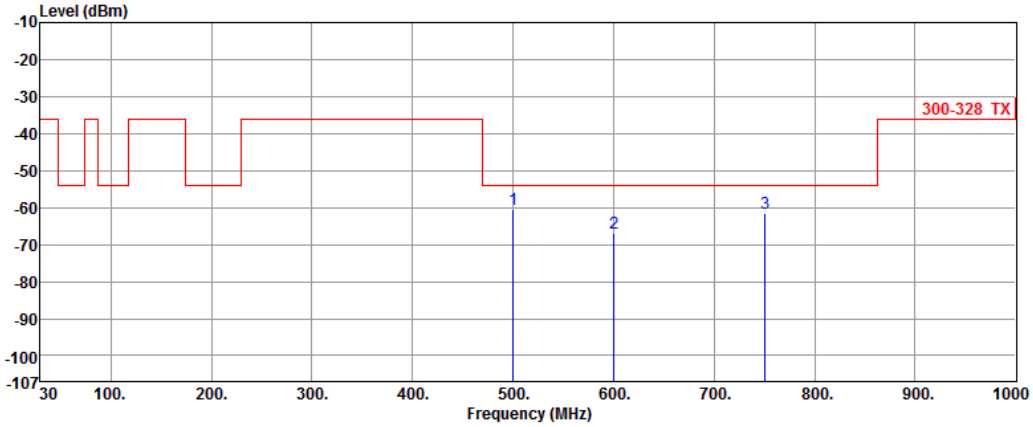
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-64.46	-54.00	-10.46	3.37	-67.83
2	606.18	-68.34	-54.00	-14.34	5.93	-74.27
3	750.71	-66.05	-54.00	-12.05	7.94	-73.99

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

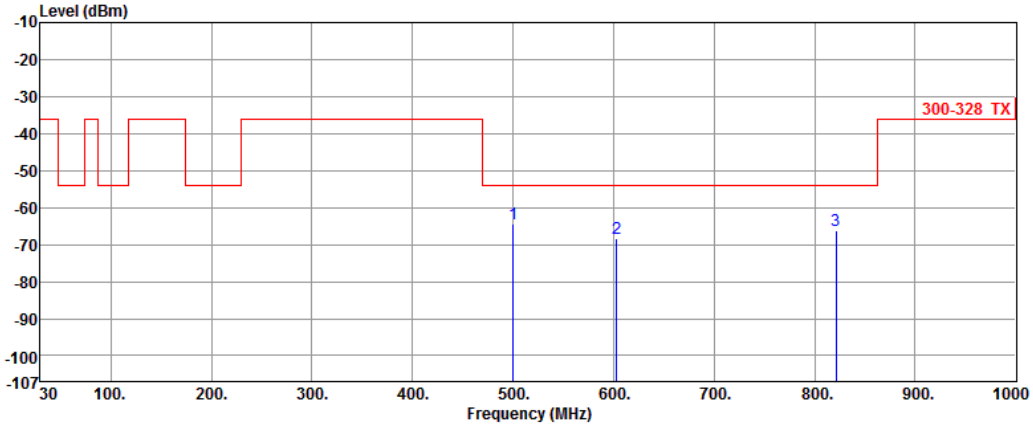
Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-60.55	-54.00	-6.55	3.46	-64.01
2	600.36	-66.93	-54.00	-12.93	5.73	-72.66
3	750.71	-61.65	-54.00	-7.65	7.95	-69.60

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

Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Vertical		

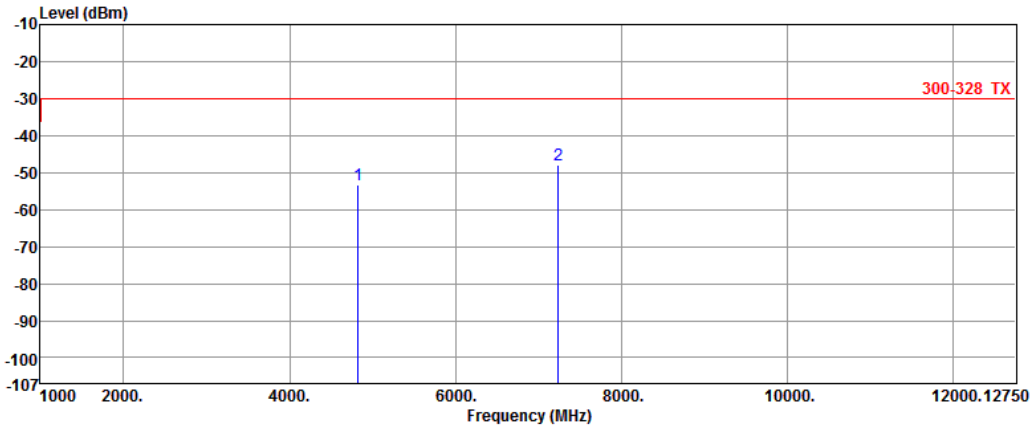


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	500.45	-64.40	-54.00	-10.40	3.37	-67.77
2	603.27	-68.51	-54.00	-14.51	5.83	-74.34
3	821.52	-66.08	-54.00	-12.08	8.82	-74.90

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

3.5.13 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 802.11b

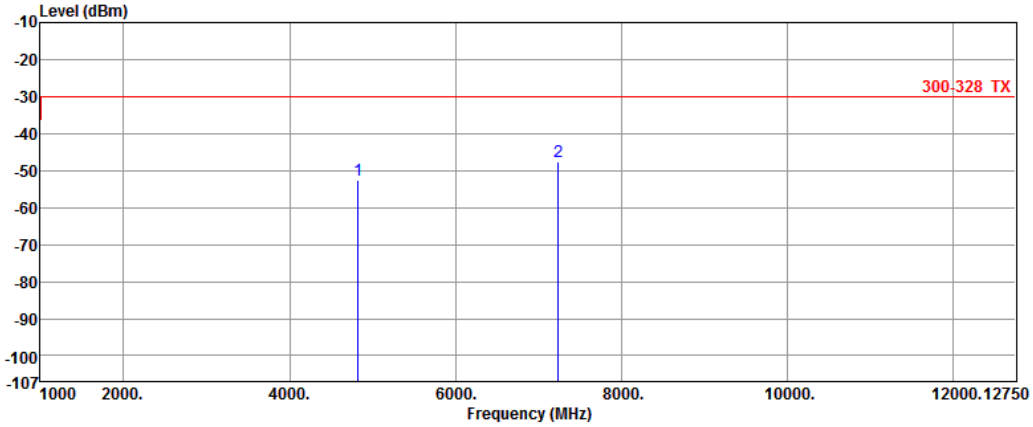
Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.39	-53.30	-30.00	-23.30	12.66	-65.96
2	7236.39	-47.76	-30.00	-17.76	17.25	-65.01

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

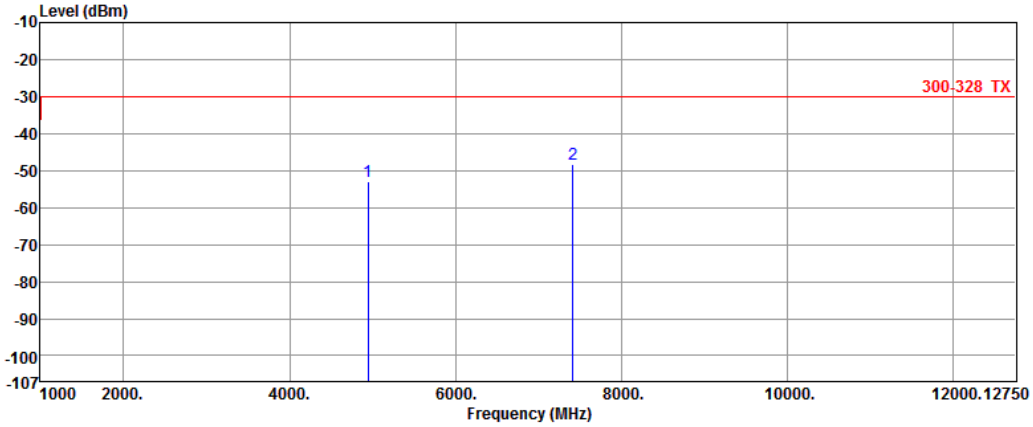
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.06	-52.71	-30.00	-22.71	12.65	-65.36
2	7236.84	-47.63	-30.00	-17.63	16.87	-64.50

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

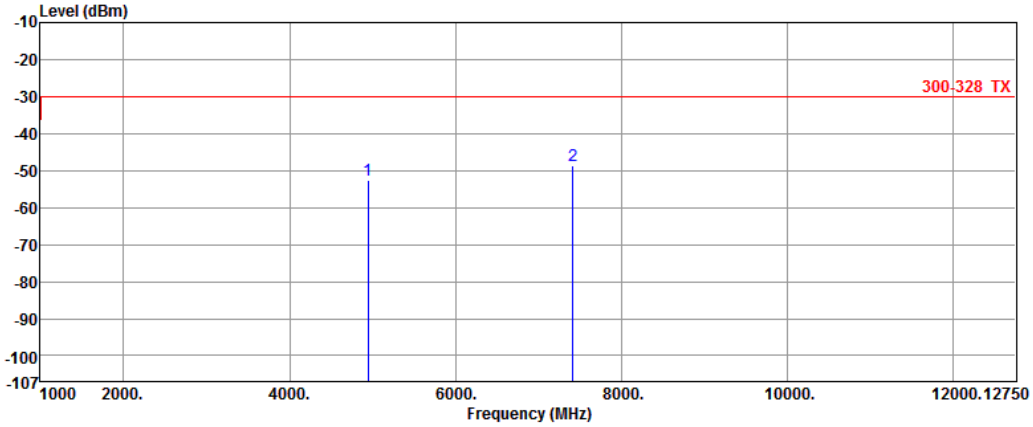
Modulation	11b	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.38	-52.78	-30.00	-22.78	12.59	-65.37
2	7416.97	-48.39	-30.00	-18.39	17.28	-65.67

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		

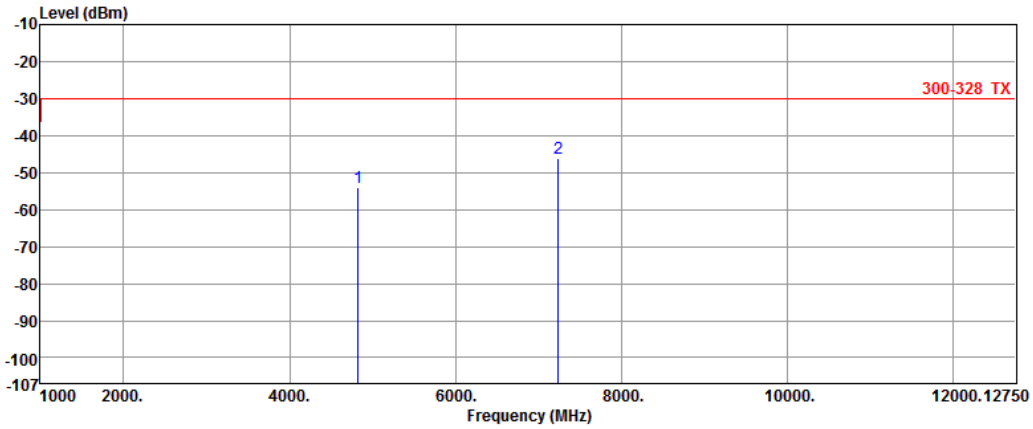


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.33	-52.75	-30.00	-22.75	12.84	-65.59
2	7416.75	-48.76	-30.00	-18.76	17.00	-65.76

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

3.5.14 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 802.11g

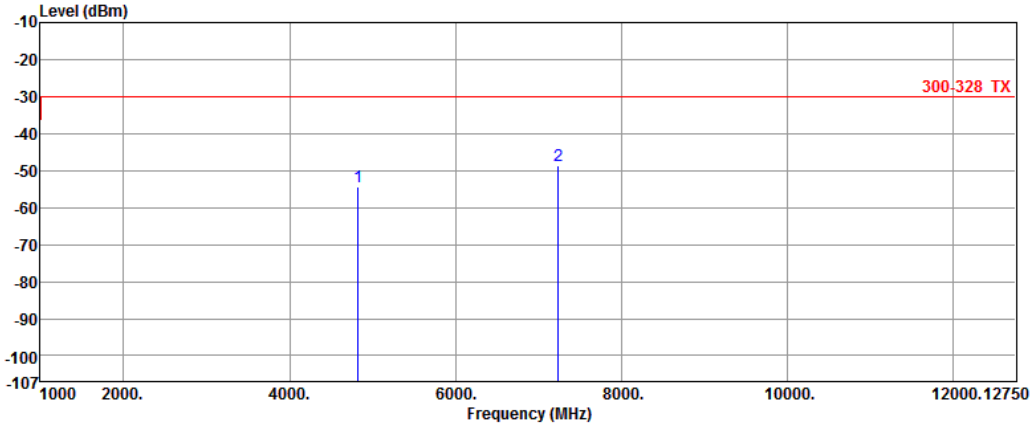
Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.04	-54.01	-30.00	-24.01	12.66	-66.67
2	7236.42	-46.22	-30.00	-16.22	17.25	-63.47

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

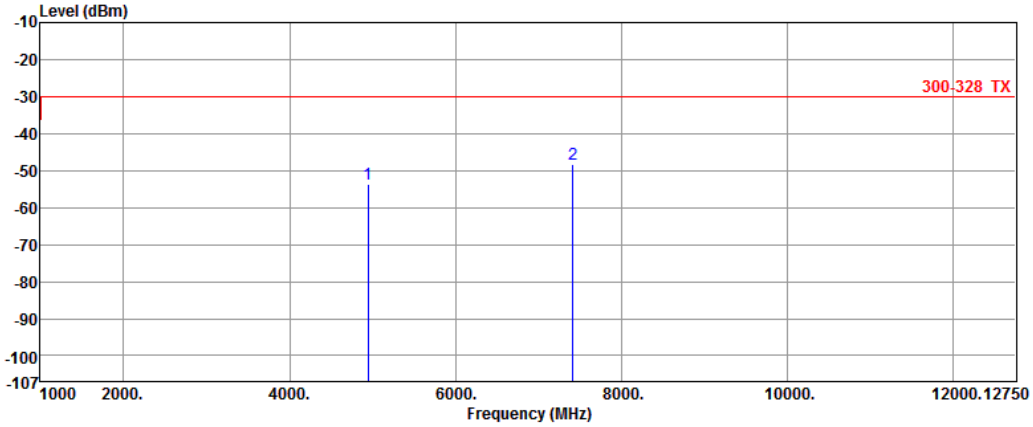
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.82	-54.37	-30.00	-24.37	12.65	-67.02
2	7236.10	-48.57	-30.00	-18.57	16.86	-65.43

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

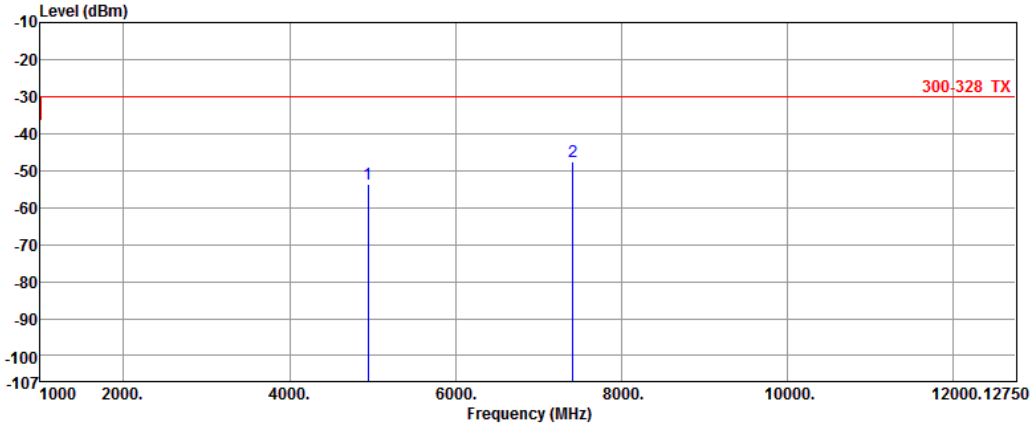
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.79	-53.69	-30.00	-23.69	12.59	-66.28
2	7416.01	-48.42	-30.00	-18.42	17.28	-65.70

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		

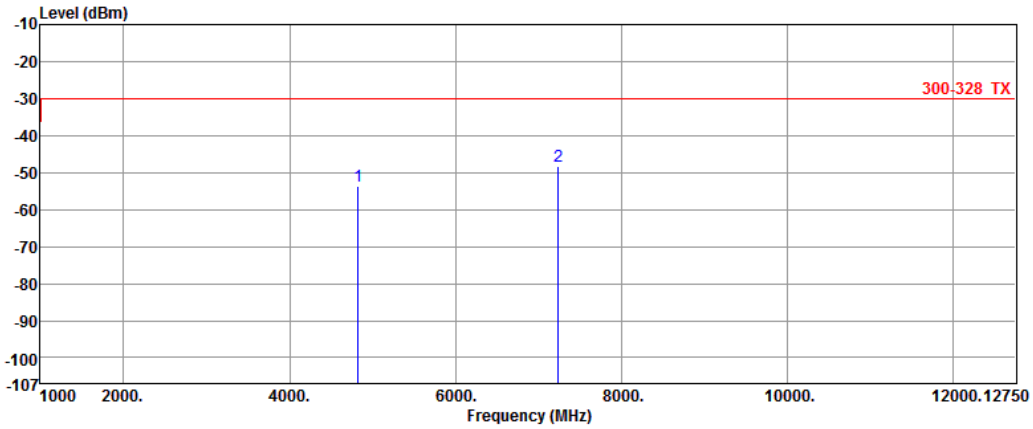


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.06	-53.58	-30.00	-23.58	12.84	-66.42
2	7416.96	-47.47	-30.00	-17.47	17.00	-64.47

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

3.5.15 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 802.11n HT20

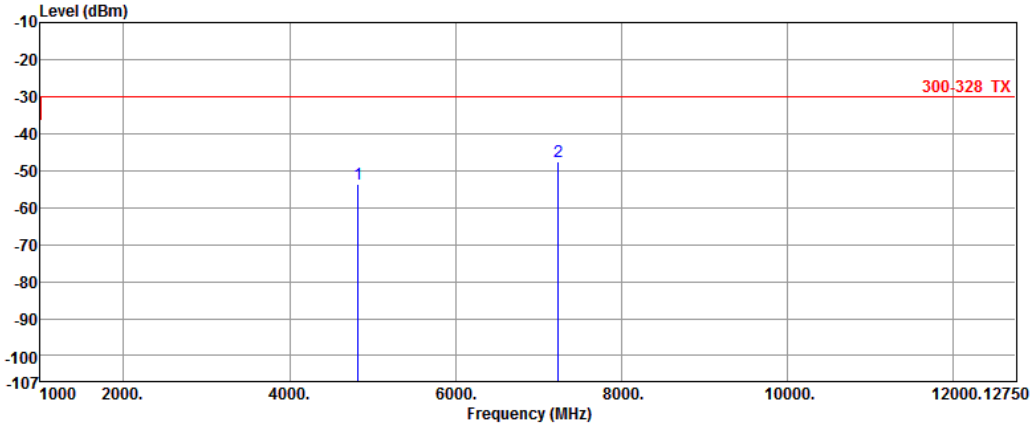
Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.59	-53.68	-30.00	-23.68	12.66	-66.34
2	7236.23	-48.39	-30.00	-18.39	17.25	-65.64

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

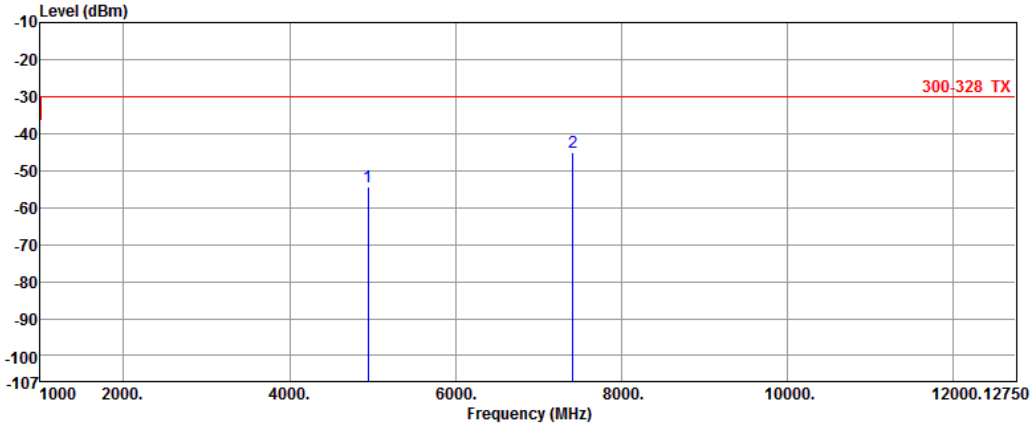
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4824.22	-53.70	-30.00	-23.70	12.65	-66.35
2	7236.68	-47.70	-30.00	-17.70	16.87	-64.57

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

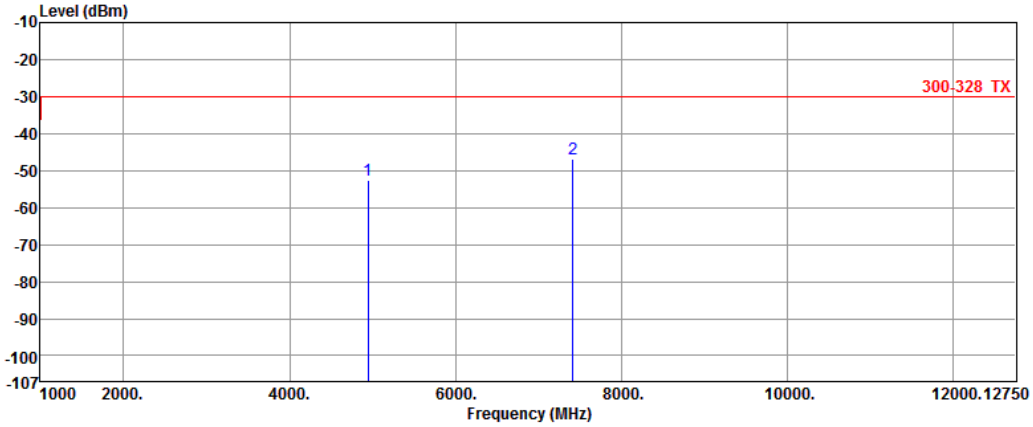
Modulation	HT20	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.46	-54.48	-30.00	-24.48	12.59	-67.07
2	7416.88	-45.23	-30.00	-15.23	17.28	-62.51

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

Modulation	HT20	Test Freq. (MHz)	2472
Polarization	Vertical		

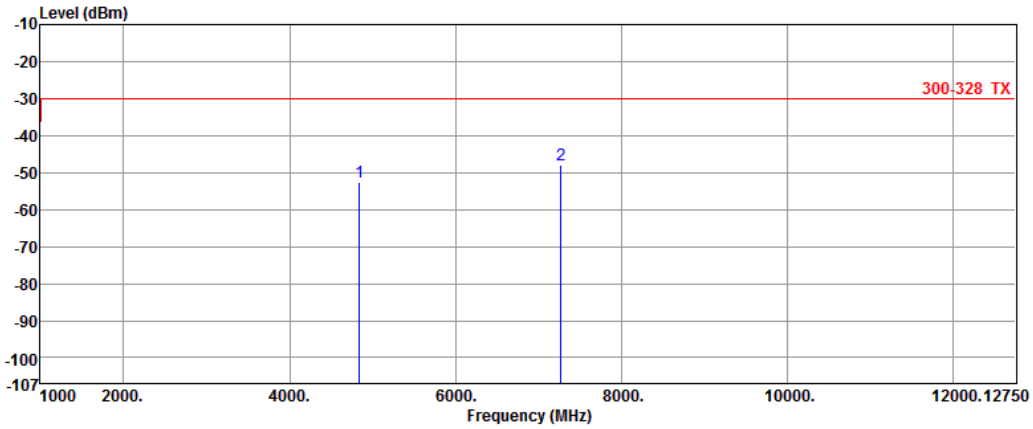


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4944.78	-52.52	-30.00	-22.52	12.84	-65.36
2	7416.30	-46.88	-30.00	-16.88	17.00	-63.88

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

3.5.16 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 802.11n HT40

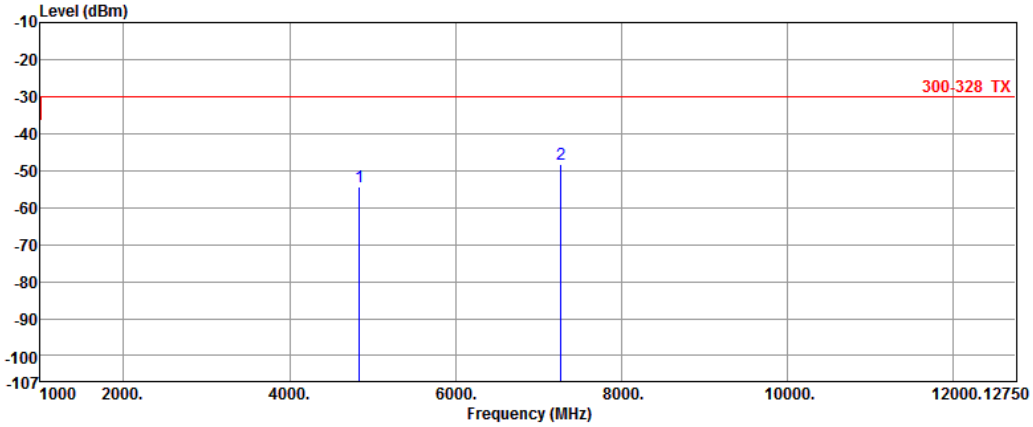
Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4844.23	-52.74	-30.00	-22.74	12.63	-65.37
2	7266.98	-47.90	-30.00	-17.90	17.24	-65.14

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

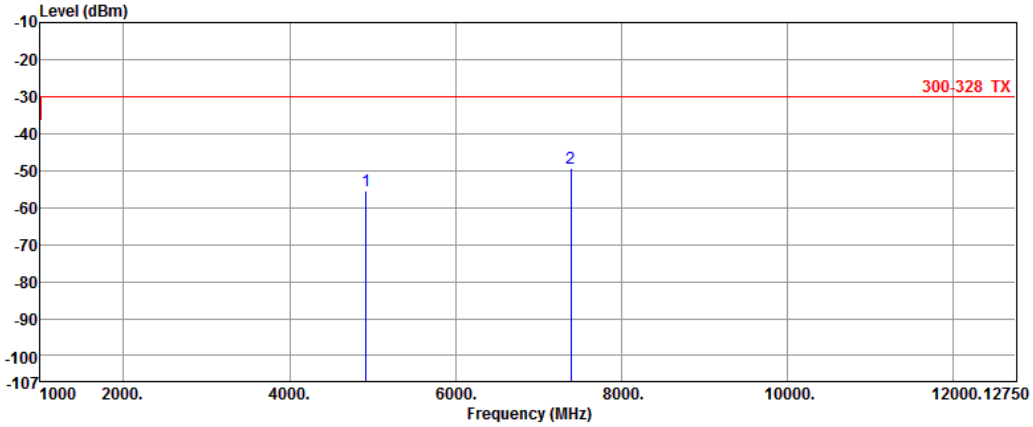
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4844.64	-54.41	-30.00	-24.41	12.63	-67.04
2	7266.83	-48.24	-30.00	-18.24	17.00	-65.24

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

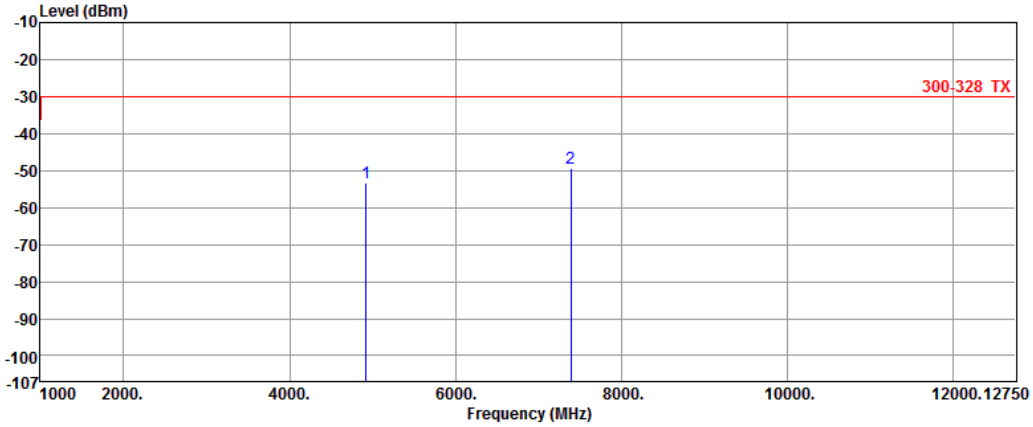
Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4924.16	-55.49	-30.00	-25.49	12.59	-68.08
2	7386.60	-49.30	-30.00	-19.30	17.27	-66.57

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

Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	4924.45	-53.45	-30.00	-23.45	12.73	-66.18
2	7386.48	-49.44	-30.00	-19.44	17.02	-66.46

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

4 Receiver Test Results

4.1 Receiver Spurious Emissions

4.1.1 Limit of Receiver Spurious Emissions

Spurious Emissions Limit (Peak Power)	Frequency Range	Measurement Bandwidth
-56 dBW (2.5μW) e.i.r.p (59 dBμV/m at 10 metres)	< 150 kHz	1 kHz
	150 kHz – 30 MHz	10 kHz

Limit for Radiated Spurious Emission

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

Limit for Conducted Spurious Emission

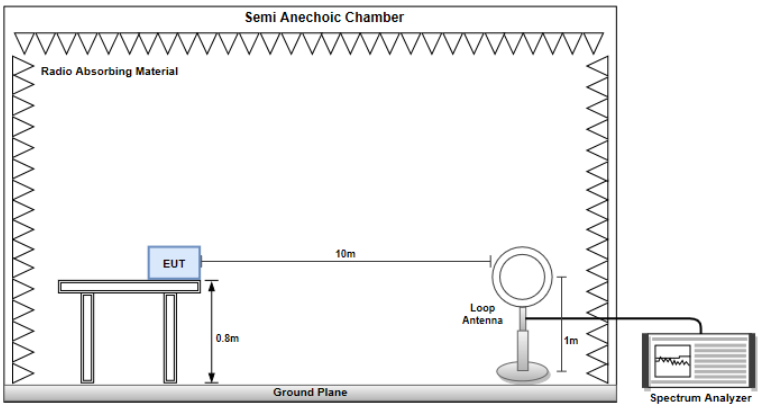
Frequency Range	Maximum power (dBm)	Measurement bandwidth (kHz)
30 MHz to 1 GHz	-60.01	100
Above 1 GHz to 12,75 GHz	-50.01	1000

4.1.2 Test Procedures

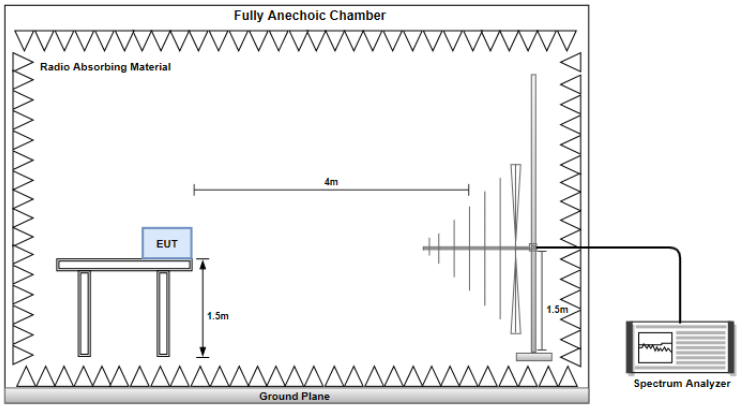
Reference to clause 5.4.10.2 of ETSI EN 300 328 V2.1.1 (2016-11).

4.1.3 Test Setup

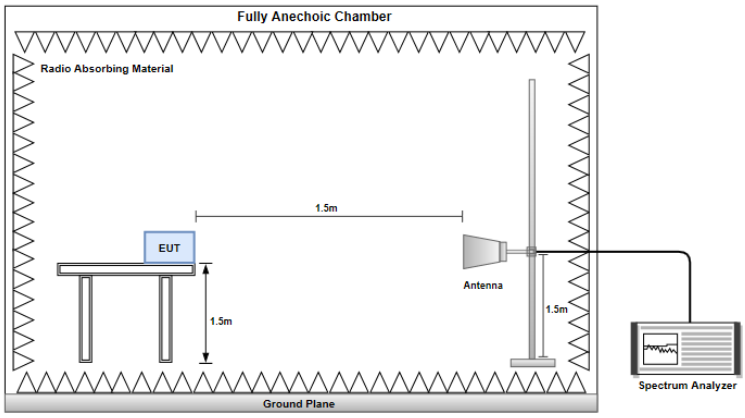
Below 30MHz



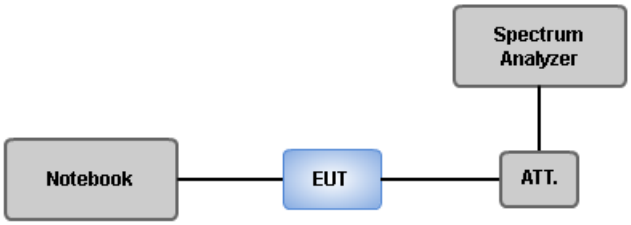
Below 1GHz



Above 1 GHz



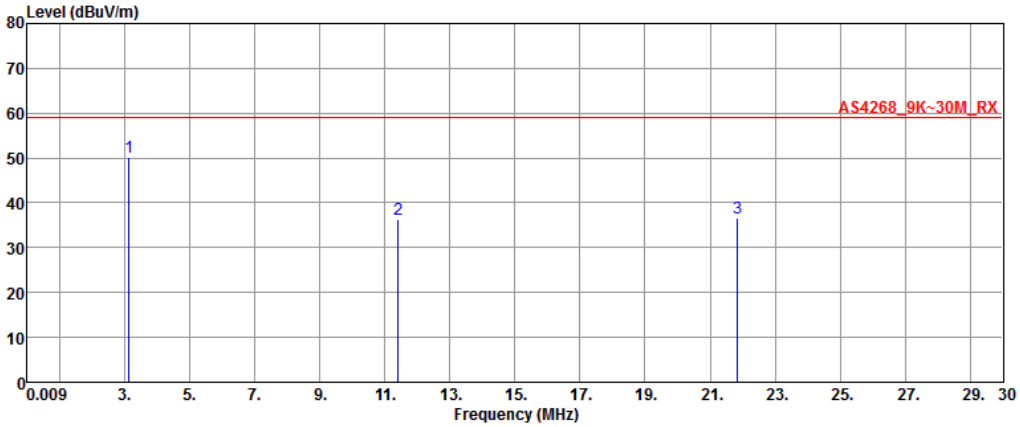
Conducted Emission



Test Configuration 1

4.1.4 Receiver Radiated Unwanted Emissions (≤ 30MHz)

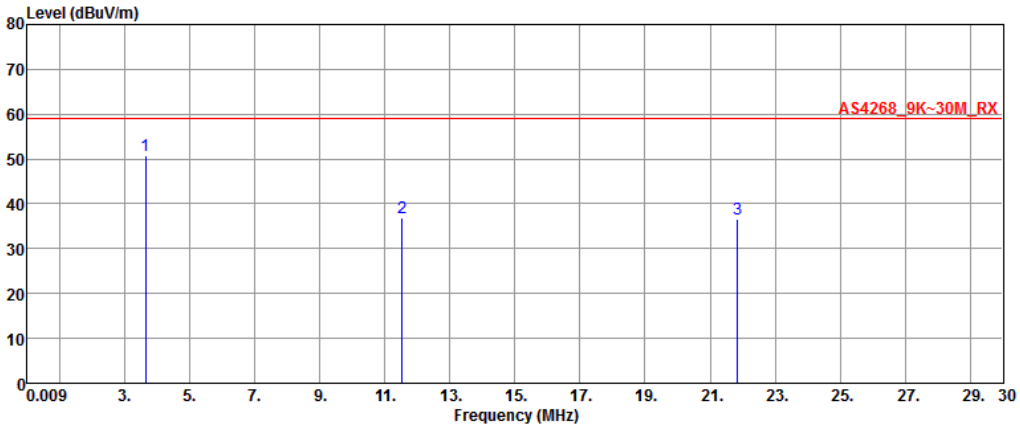
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	50.17	59.00	-8.83	19.61	30.56
2	11.41	36.24	59.00	-22.76	21.47	14.77
3	21.84	36.71	59.00	-22.29	22.55	14.16

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

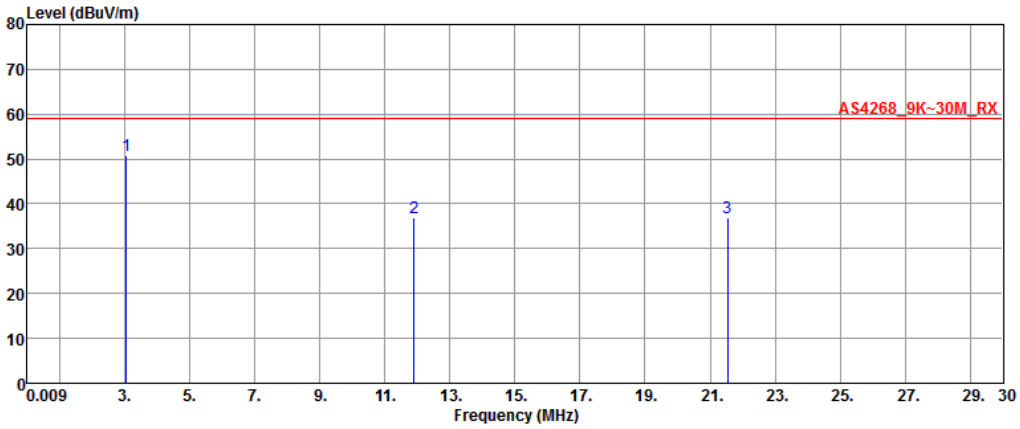
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.63	50.85	59.00	-8.15	19.91	30.94
2	11.52	36.90	59.00	-22.10	21.49	15.41
3	21.85	36.55	59.00	-22.45	22.55	14.00

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

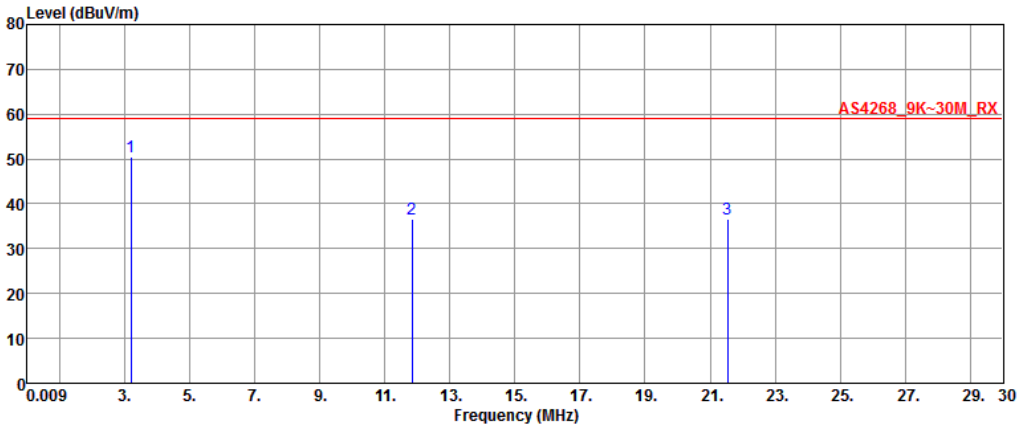
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	50.87	59.00	-8.13	19.56	31.31
2	11.90	36.87	59.00	-22.13	21.54	15.33
3	21.54	36.85	59.00	-22.15	22.55	14.30

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

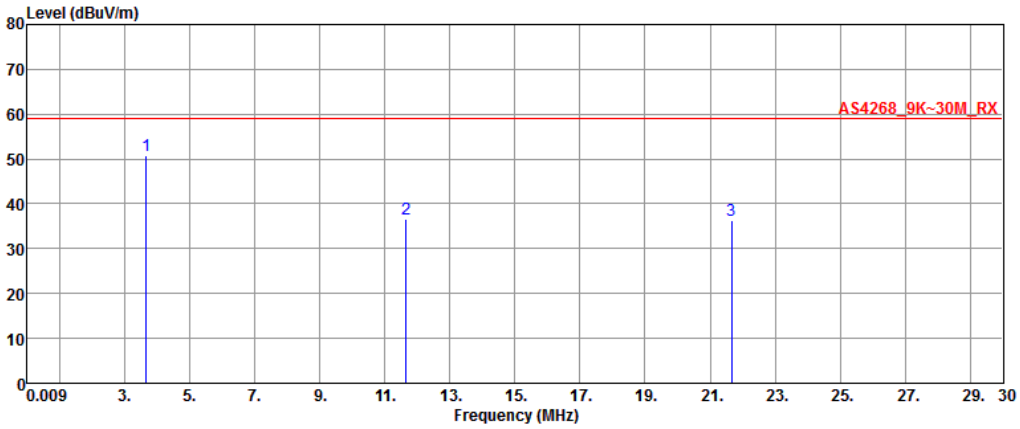
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	50.54	59.00	-8.46	19.65	30.89
2	11.84	36.54	59.00	-22.46	21.53	15.01
3	21.54	36.75	59.00	-22.25	22.55	14.20

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

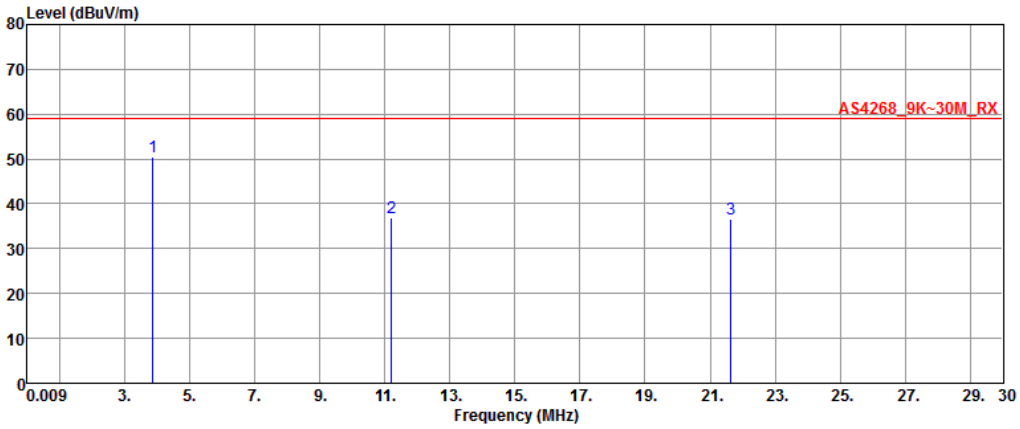
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.65	50.85	59.00	-8.15	19.92	30.93
2	11.65	36.54	59.00	-22.46	21.50	15.04
3	21.65	36.41	59.00	-22.59	22.55	13.86

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

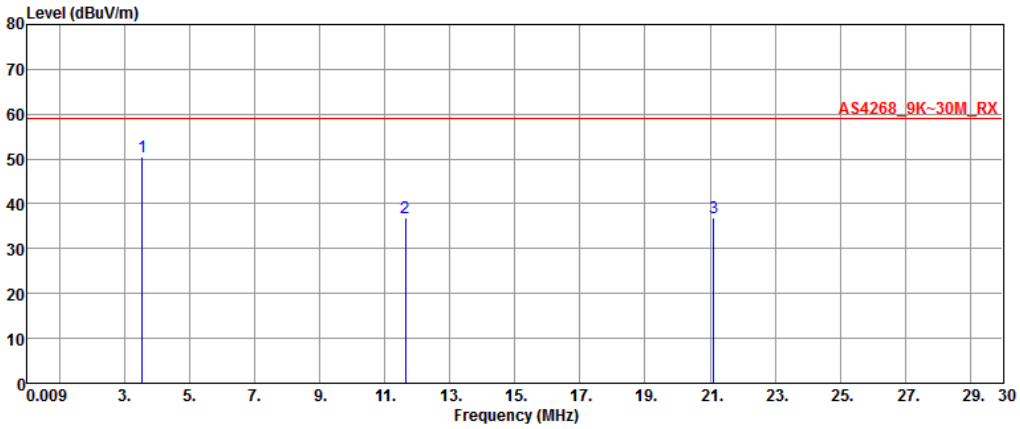
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.87	50.41	59.00	-8.59	20.04	30.37
2	11.21	36.84	59.00	-22.16	21.43	15.41
3	21.64	36.75	59.00	-22.25	22.55	14.20

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

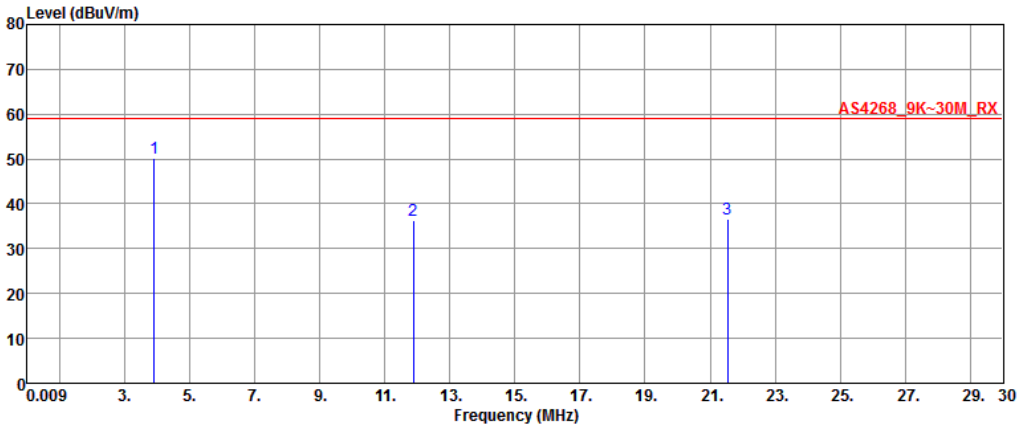
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.54	50.58	59.00	-8.42	19.86	30.72
2	11.64	36.87	59.00	-22.13	21.50	15.37
3	21.12	36.76	59.00	-22.24	22.54	14.22

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

Modulation	HT40	Test Freq. (MHz)	2462



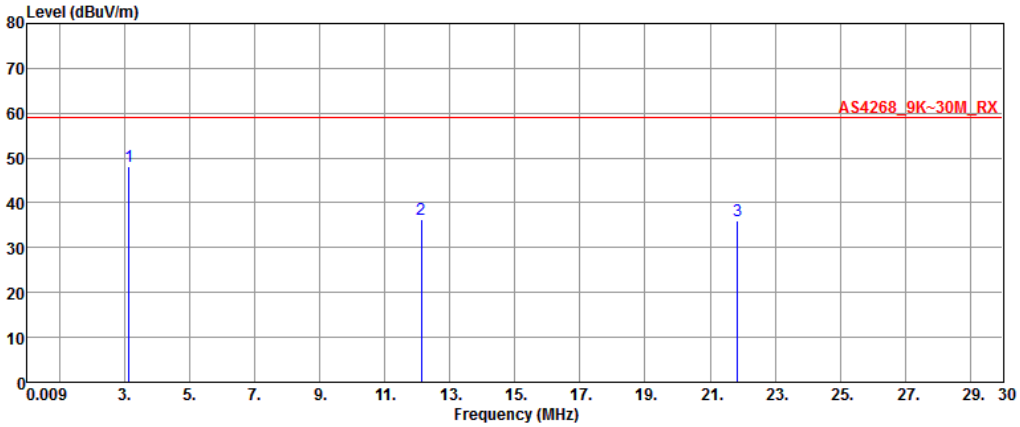
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.90	50.15	59.00	-8.85	20.05	30.10
2	11.87	36.44	59.00	-22.56	21.54	14.90
3	21.54	36.55	59.00	-22.45	22.55	14.00

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

Test Configuration 2

4.1.5 Receiver Radiated Unwanted Emissions (≤ 30MHz)

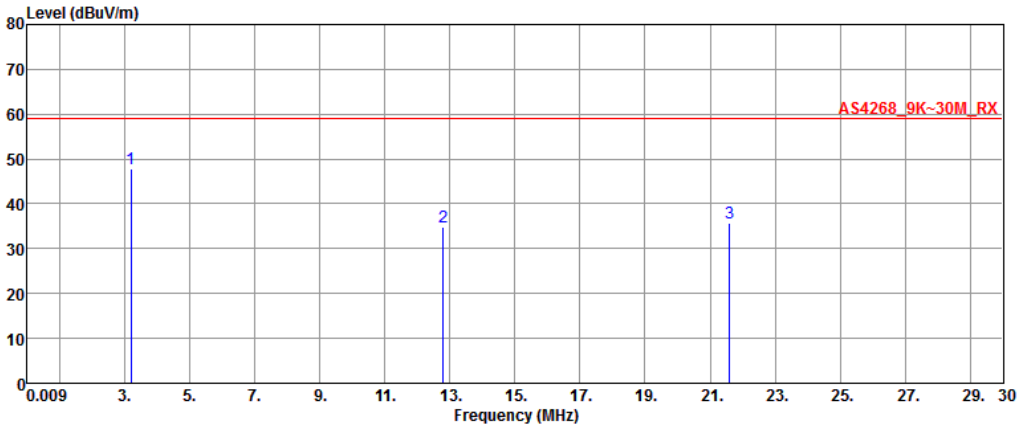
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	48.15	59.00	-10.85	19.61	28.54
2	12.13	36.30	59.00	-22.70	21.57	14.73
3	21.84	35.91	59.00	-23.09	22.55	13.36

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

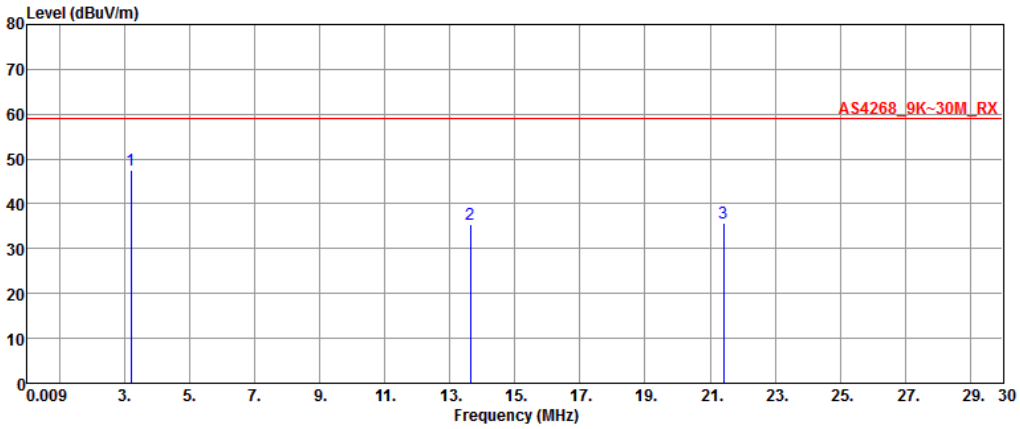
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	47.91	59.00	-11.09	19.65	28.26
2	12.79	34.83	59.00	-24.17	21.68	13.15
3	21.60	35.83	59.00	-23.17	22.55	13.28

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

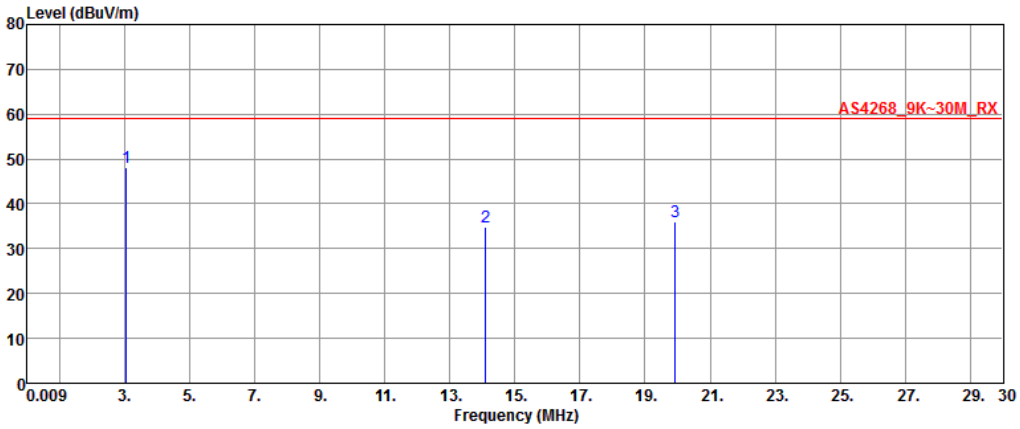
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	47.55	59.00	-11.45	19.65	27.90
2	13.62	35.38	59.00	-23.62	21.80	13.58
3	21.42	35.60	59.00	-23.40	22.54	13.06

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

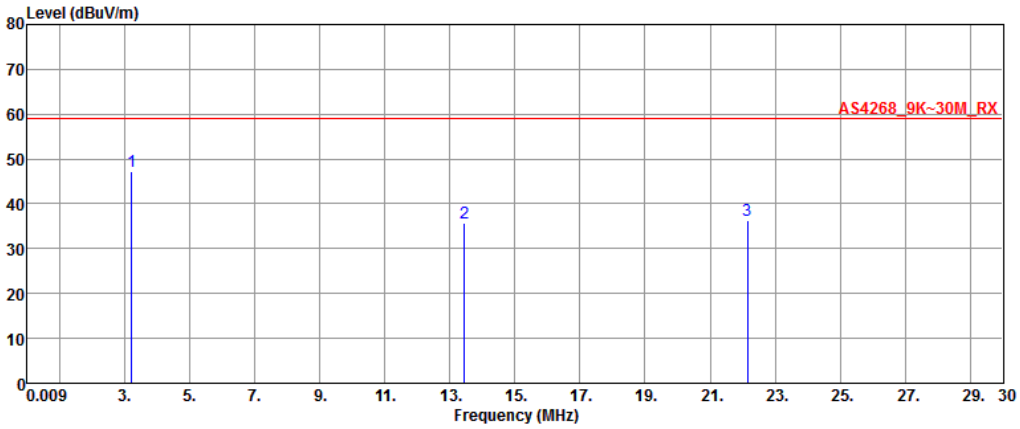
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.19	59.00	-10.81	19.55	28.64
2	14.10	34.88	59.00	-24.12	21.86	13.02
3	19.92	36.14	59.00	-22.86	22.50	13.64

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

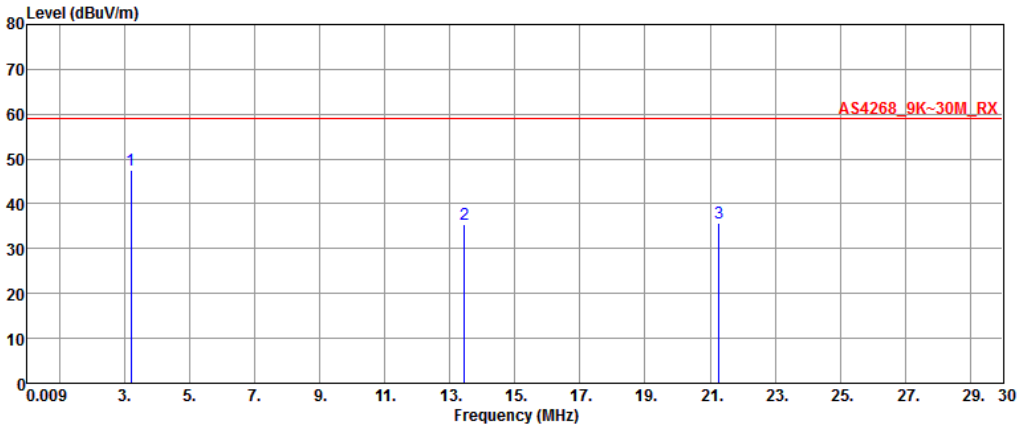
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.22	47.36	59.00	-11.64	19.67	27.69
2	13.44	35.63	59.00	-23.37	21.77	13.86
3	22.14	36.27	59.00	-22.73	22.56	13.71

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

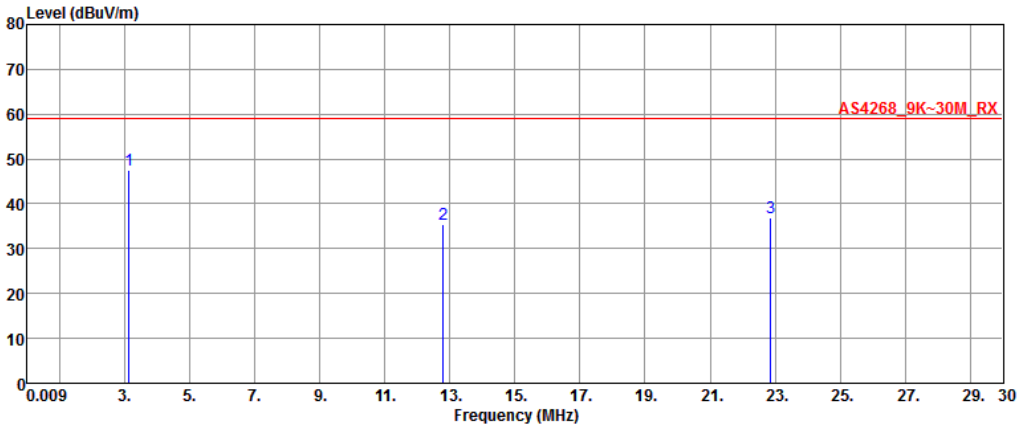
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	47.38	59.00	-11.62	19.65	27.73
2	13.44	35.33	59.00	-23.67	21.77	13.56
3	21.27	35.62	59.00	-23.38	22.54	13.08

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

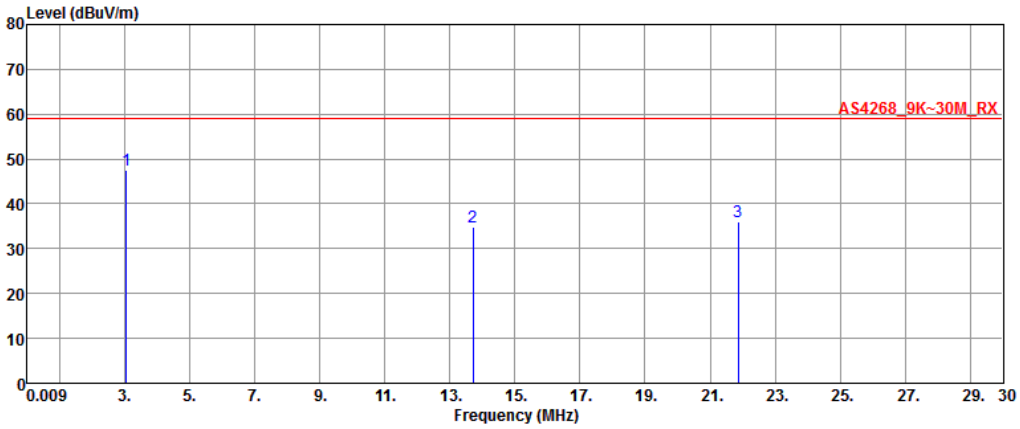
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	47.58	59.00	-11.42	19.61	27.97
2	12.79	35.32	59.00	-23.68	21.68	13.64
3	22.86	36.82	59.00	-22.18	22.59	14.23

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

Modulation	HT40	Test Freq. (MHz)	2462



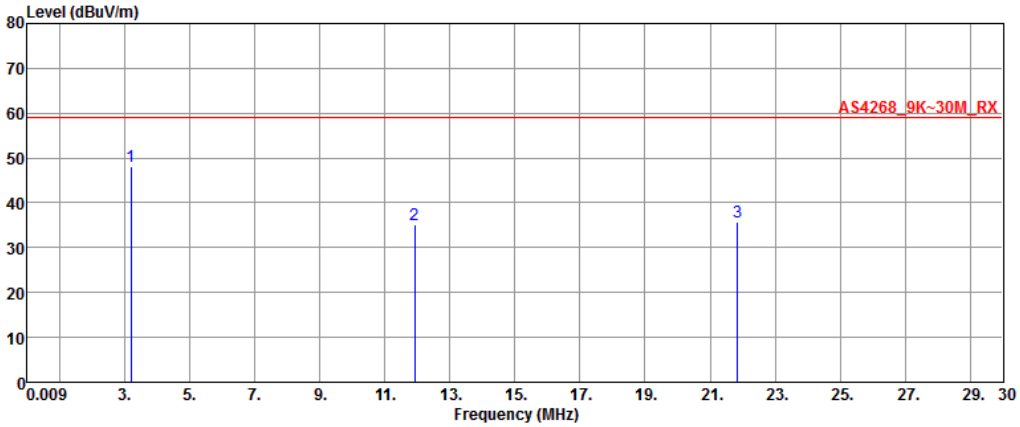
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	47.52	59.00	-11.48	19.55	27.97
2	13.71	34.91	59.00	-24.09	21.81	13.10
3	21.87	35.97	59.00	-23.03	22.55	13.42

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

Test Configuration 3

4.1.6 Receiver Radiated Unwanted Emissions (≤ 30MHz)

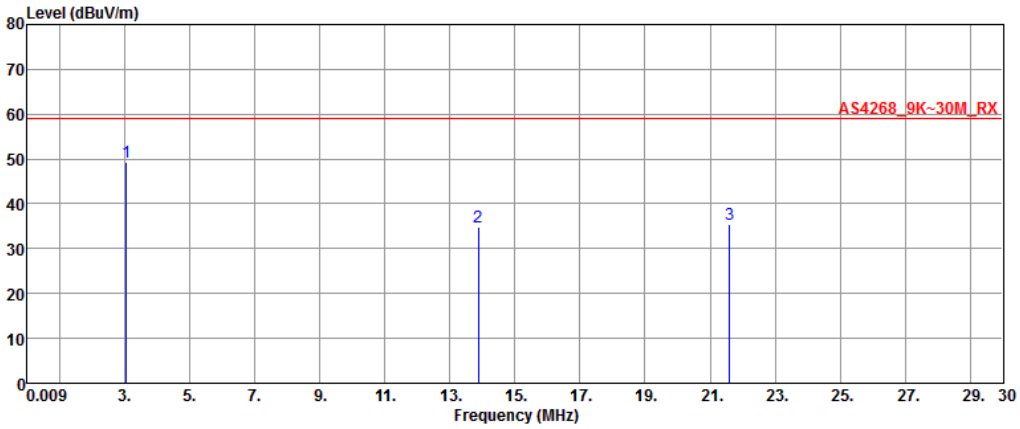
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.19	48.25	59.00	-10.75	19.65	28.60
2	11.92	34.98	59.00	-24.02	21.54	13.44
3	21.84	35.78	59.00	-23.22	22.55	13.23

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

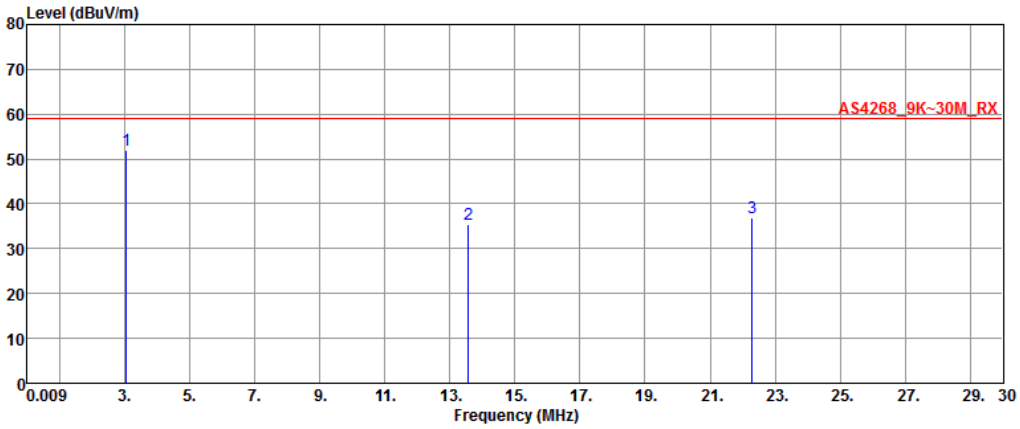
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	49.27	59.00	-9.73	19.55	29.72
2	13.86	34.88	59.00	-24.12	21.83	13.05
3	21.60	35.49	59.00	-23.51	22.55	12.94

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

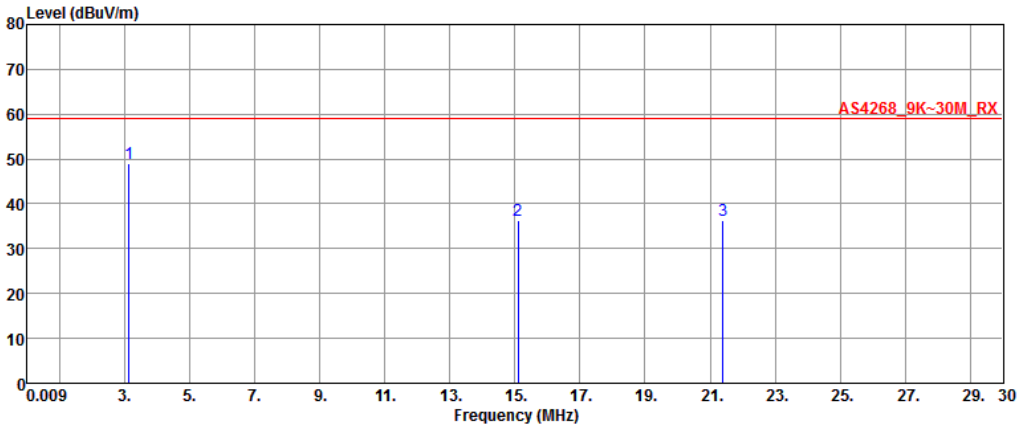
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	51.99	59.00	-7.01	19.55	32.44
2	13.56	35.37	59.00	-23.63	21.79	13.58
3	22.29	36.93	59.00	-22.07	22.56	14.37

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

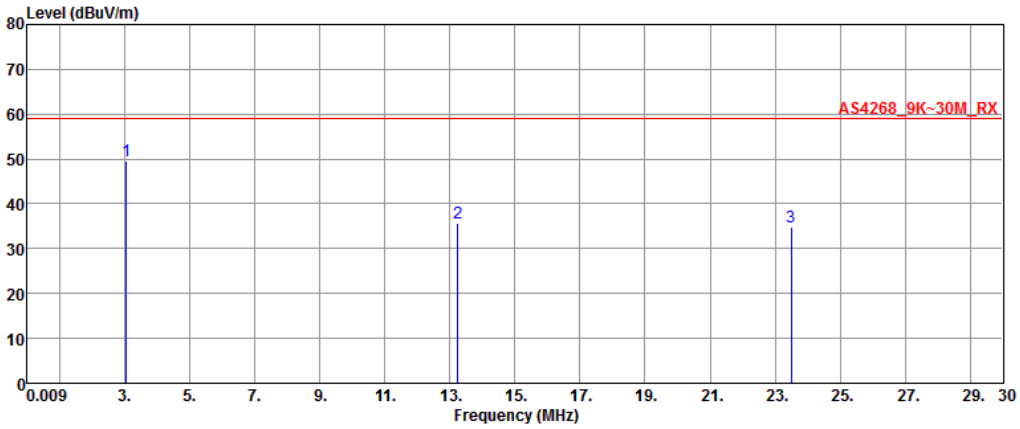
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	49.01	59.00	-9.99	19.61	29.40
2	15.09	36.45	59.00	-22.55	21.98	14.47
3	21.39	36.43	59.00	-22.57	22.54	13.89

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

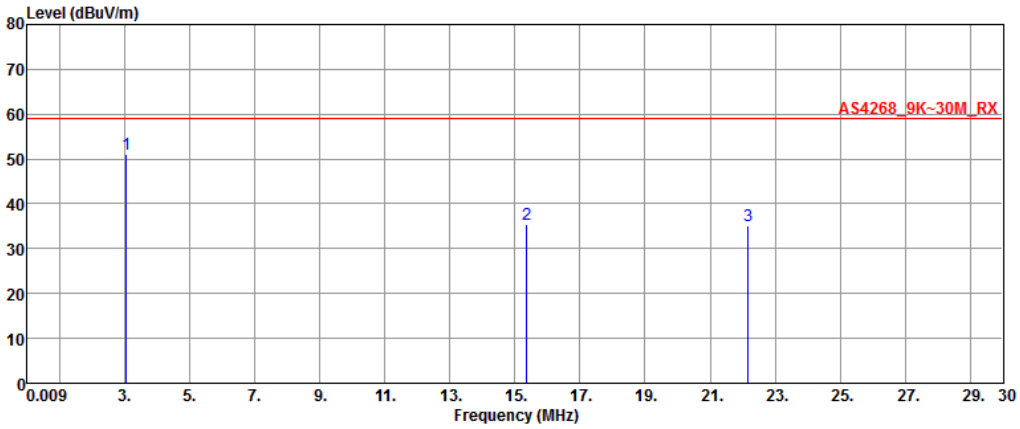
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	49.48	59.00	-9.52	19.55	29.93
2	13.24	35.59	59.00	-23.41	21.74	13.85
3	23.49	34.82	59.00	-24.18	22.60	12.22

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

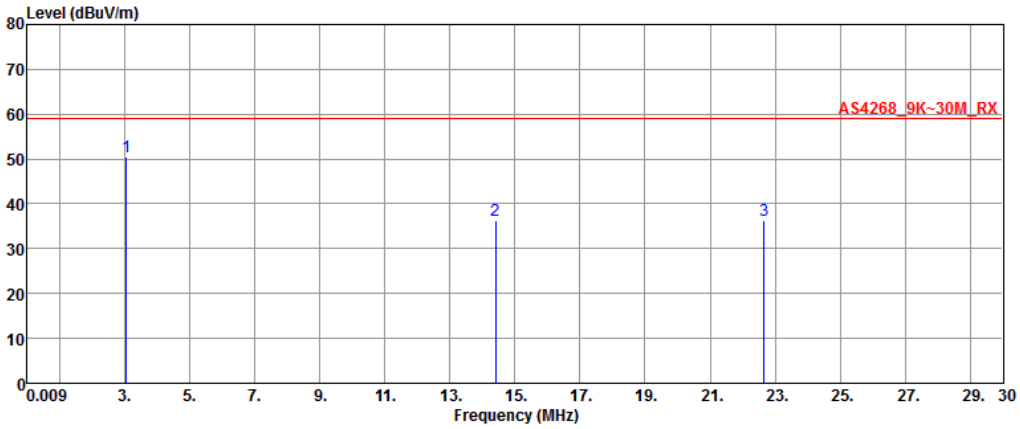
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	51.01	59.00	-7.99	19.55	31.46
2	15.36	35.38	59.00	-23.62	22.01	13.37
3	22.17	35.25	59.00	-23.75	22.56	12.69

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

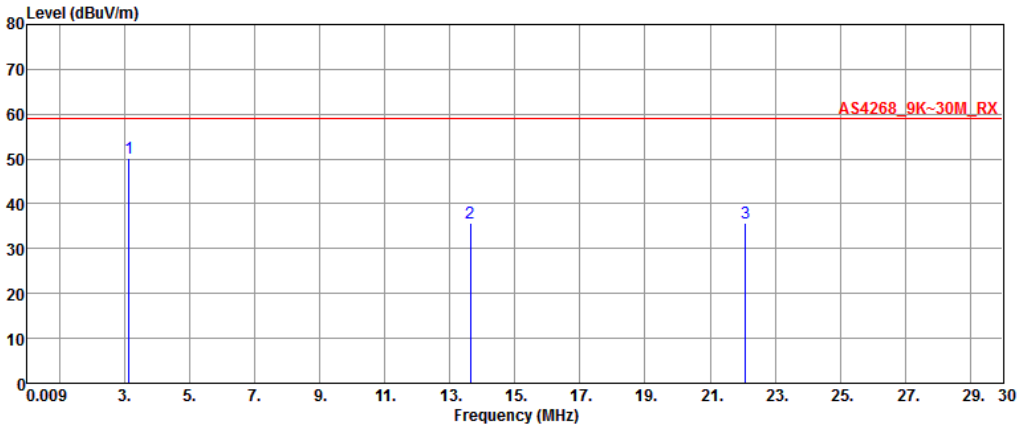
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	50.62	59.00	-8.38	19.55	31.07
2	14.40	36.29	59.00	-22.71	21.90	14.39
3	22.65	36.17	59.00	-22.83	22.58	13.59

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

Modulation	HT40	Test Freq. (MHz)	2462



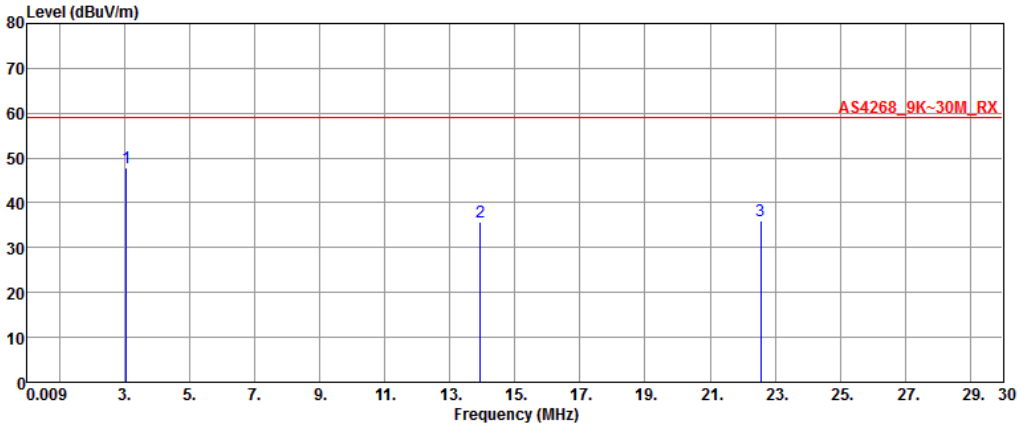
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.13	50.11	59.00	-8.89	19.61	30.50
2	13.62	35.63	59.00	-23.37	21.80	13.83
3	22.08	35.76	59.00	-23.24	22.56	13.20

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

Test Configuration 4

4.1.7 Receiver Radiated Unwanted Emissions (≤ 30MHz)

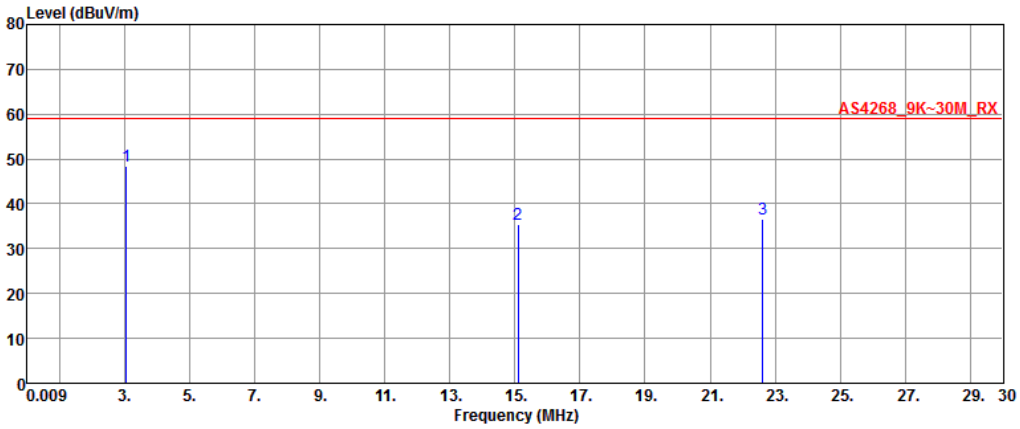
Modulation	11b	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	47.84	59.00	-11.16	19.55	28.29
2	13.92	35.75	59.00	-23.25	21.83	13.92
3	22.56	35.98	59.00	-23.02	22.58	13.40

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

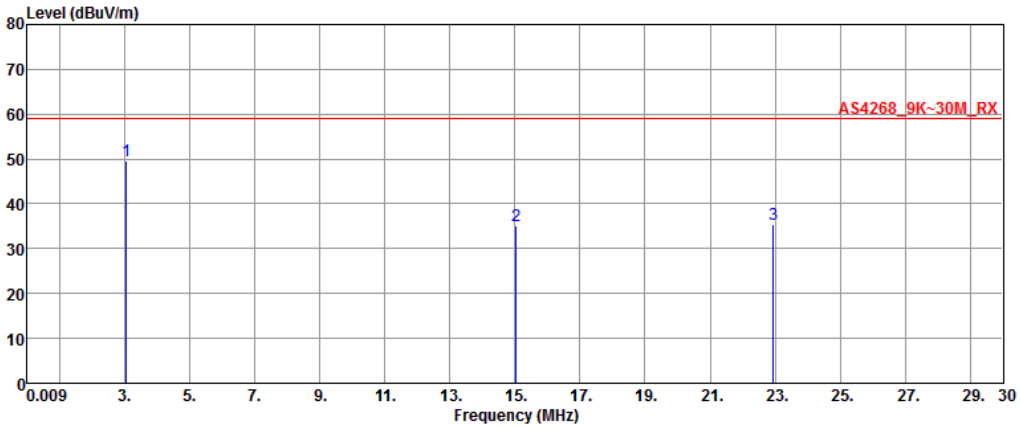
Modulation	11b	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.34	59.00	-10.66	19.55	28.79
2	15.09	35.29	59.00	-23.71	21.98	13.31
3	22.62	36.74	59.00	-22.26	22.58	14.16

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

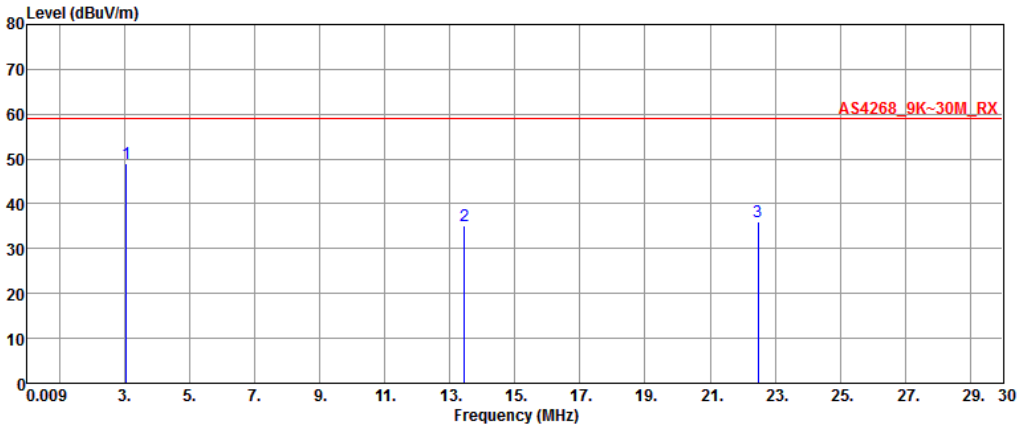
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	49.56	59.00	-9.44	19.55	30.01
2	15.03	35.26	59.00	-23.74	21.98	13.28
3	22.95	35.41	59.00	-23.59	22.59	12.82

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

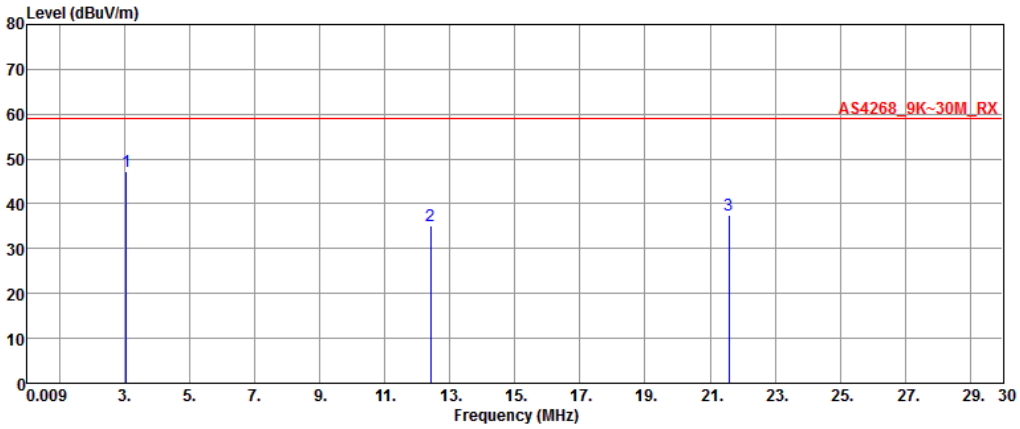
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.88	59.00	-10.12	19.55	29.33
2	13.44	35.27	59.00	-23.73	21.77	13.50
3	22.47	36.14	59.00	-22.86	22.58	13.56

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

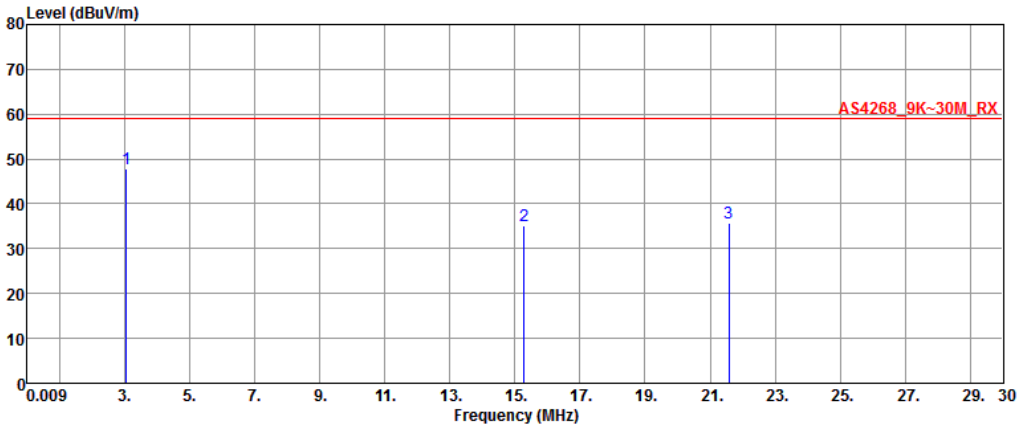
Modulation	HT20	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	47.32	59.00	-11.68	19.55	27.77
2	12.40	35.28	59.00	-23.72	21.62	13.66
3	21.57	37.35	59.00	-21.65	22.55	14.80

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

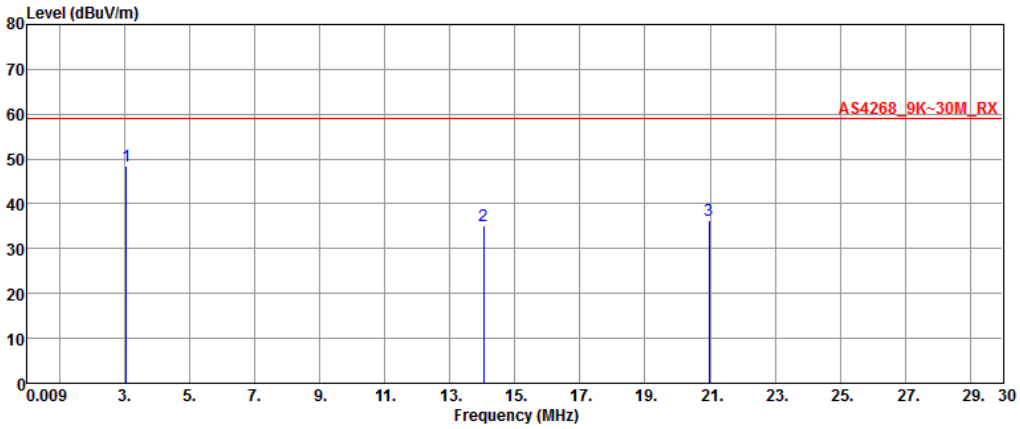
Modulation	HT20	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	47.68	59.00	-11.32	19.55	28.13
2	15.27	35.23	59.00	-23.77	22.00	13.23
3	21.57	35.74	59.00	-23.26	22.55	13.19

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

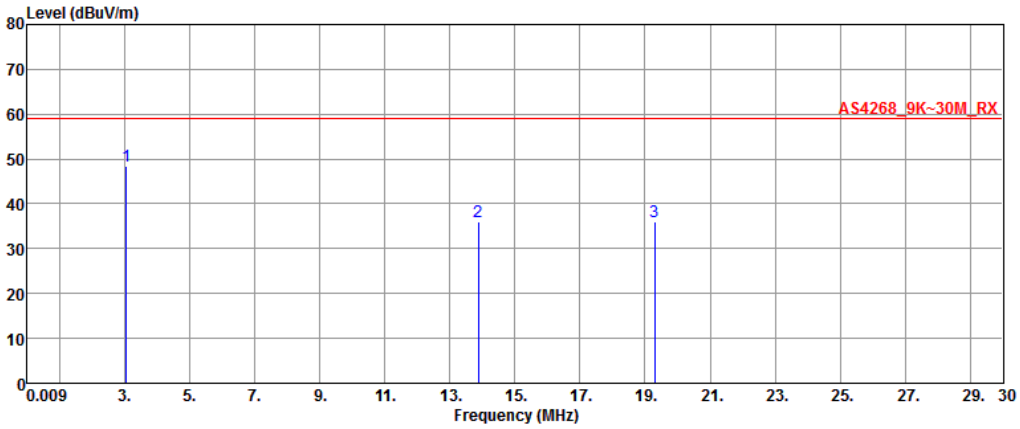
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.36	59.00	-10.64	19.55	28.81
2	14.04	35.08	59.00	-23.92	21.85	13.23
3	20.97	36.34	59.00	-22.66	22.53	13.81

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

Modulation	HT40	Test Freq. (MHz)	2462



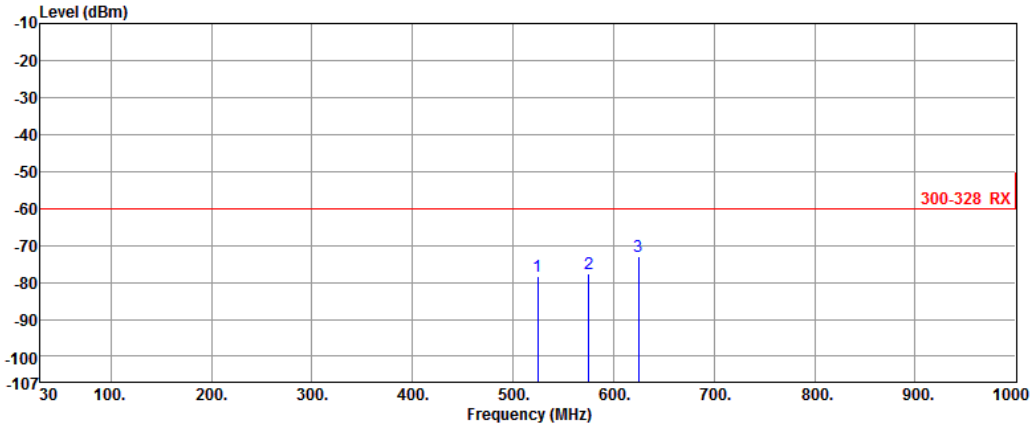
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	3.04	48.46	59.00	-10.54	19.55	28.91
2	13.86	35.87	59.00	-23.13	21.83	14.04
3	19.29	35.87	59.00	-23.13	22.44	13.43

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

Main Port

4.1.8 Receiver Conducted Spurious Emissions (Below 1GHz)

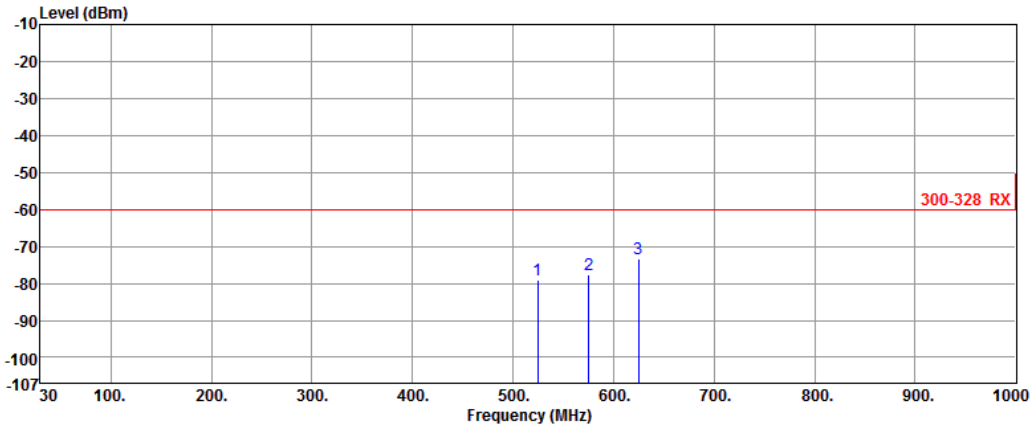
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	524.70	-78.44	-60.01	-18.43	0.00	-78.44
2	575.14	-77.48	-60.01	-17.47	0.00	-77.48
3	624.61	-72.85	-60.01	-12.84	0.00	-72.85

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

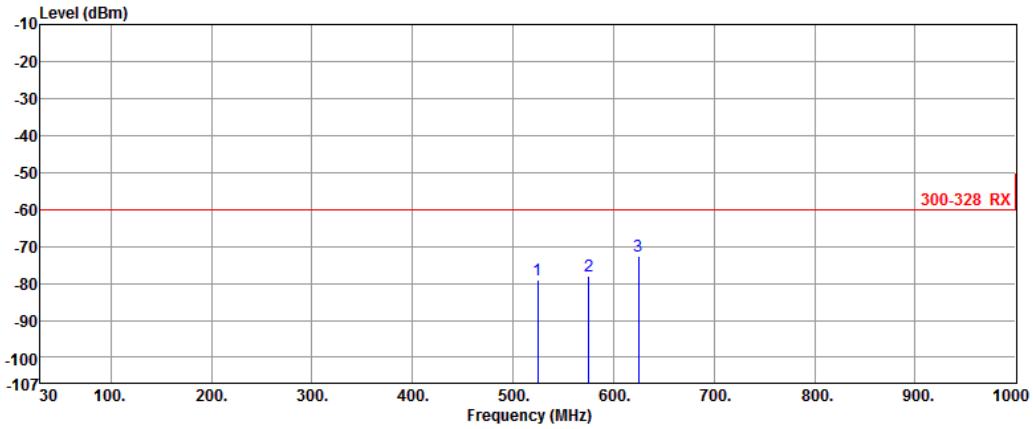
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	524.70	-79.04	-60.01	-19.03	0.00	-79.04
2	575.14	-77.51	-60.01	-17.50	0.00	-77.51
3	624.61	-73.37	-60.01	-13.36	0.00	-73.37

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

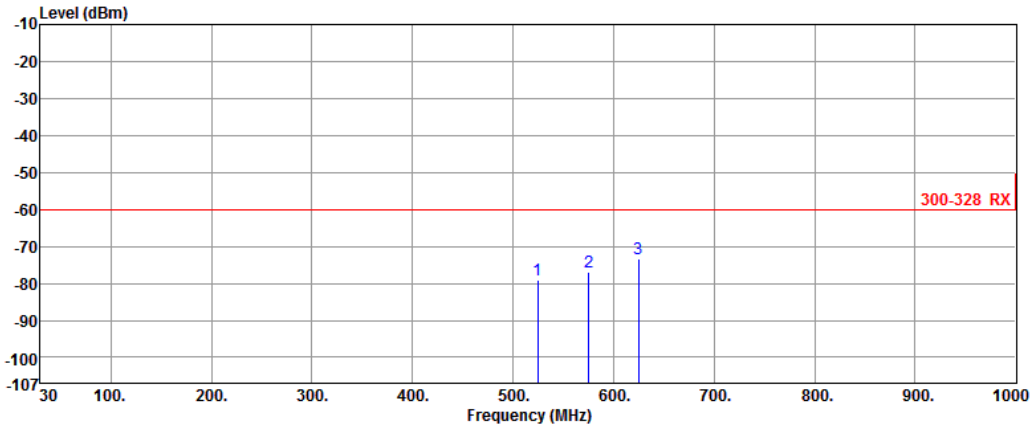
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	524.70	-78.94	-60.01	-18.93	0.00	-78.94
2	575.14	-78.08	-60.01	-18.07	0.00	-78.08
3	624.61	-72.52	-60.01	-12.51	0.00	-72.52

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

Modulation	HT40	Test Freq. (MHz)	2462

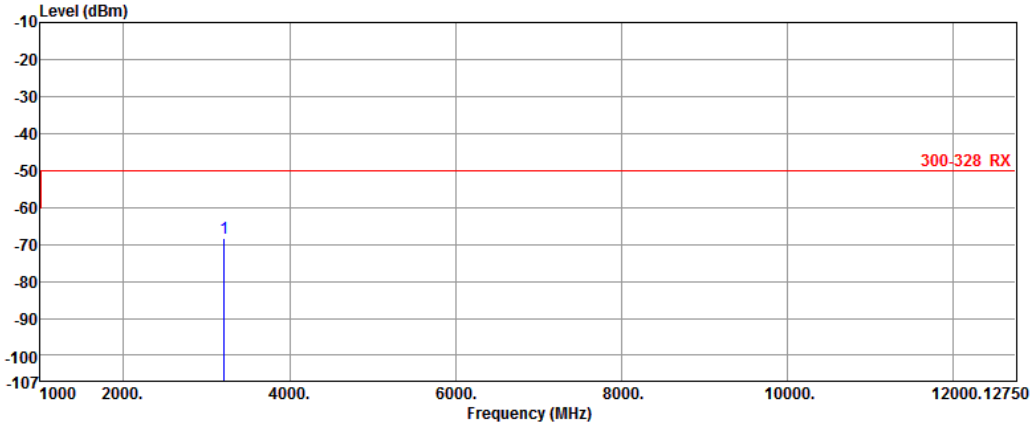


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	524.70	-79.02	-60.01	-19.01	0.00	-79.02
2	575.14	-77.11	-60.01	-17.10	0.00	-77.11
3	624.61	-73.19	-60.01	-13.18	0.00	-73.19

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

4.1.9 Receiver Conducted Spurious Emissions (Above 1GHz)

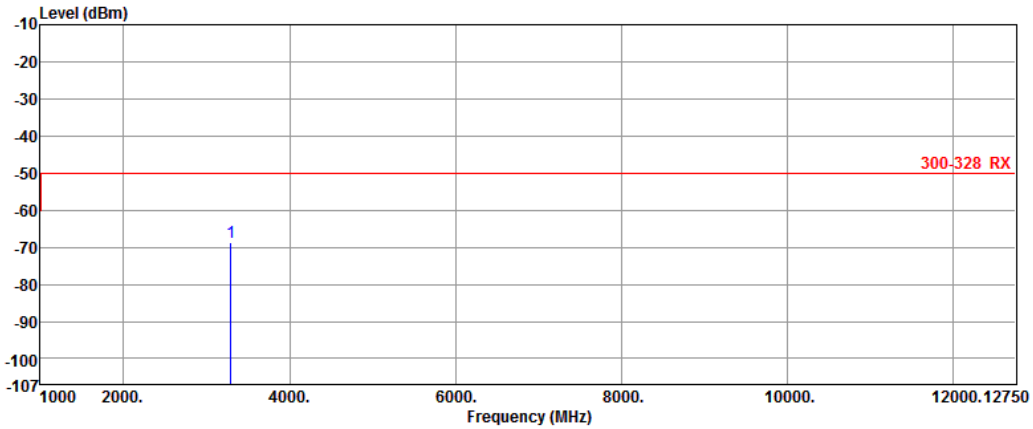
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3216.00	-68.18	-50.01	-18.17	0.00	-68.18

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

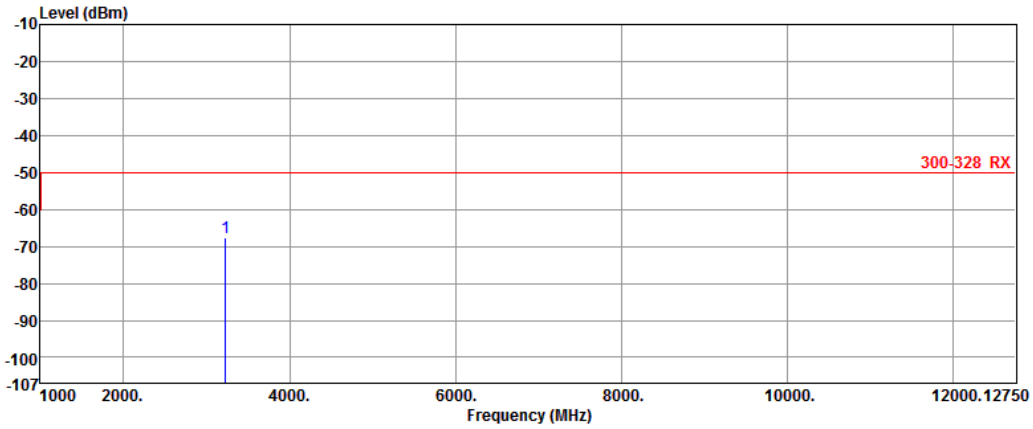
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3295.94	-68.75	-50.01	-18.74	0.00	-68.75

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

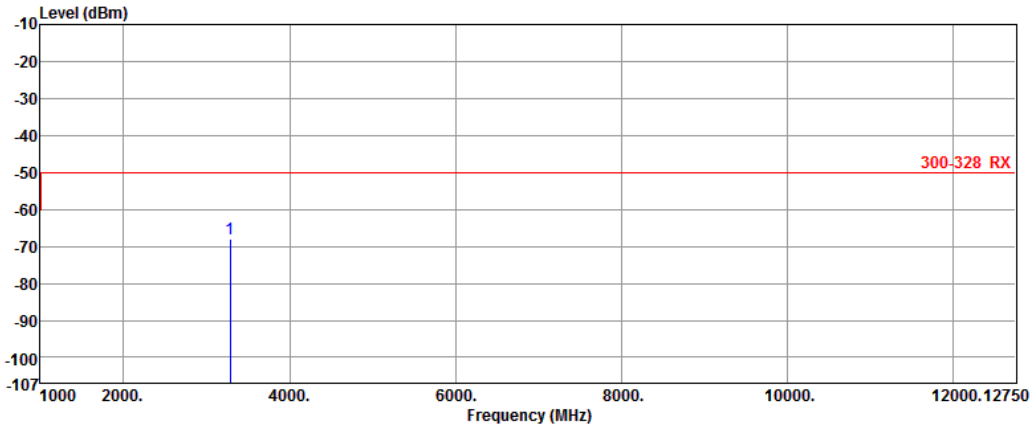
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3229.32	-67.72	-50.01	-17.71	0.00	-67.72

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

Modulation	HT40	Test Freq. (MHz)	2462



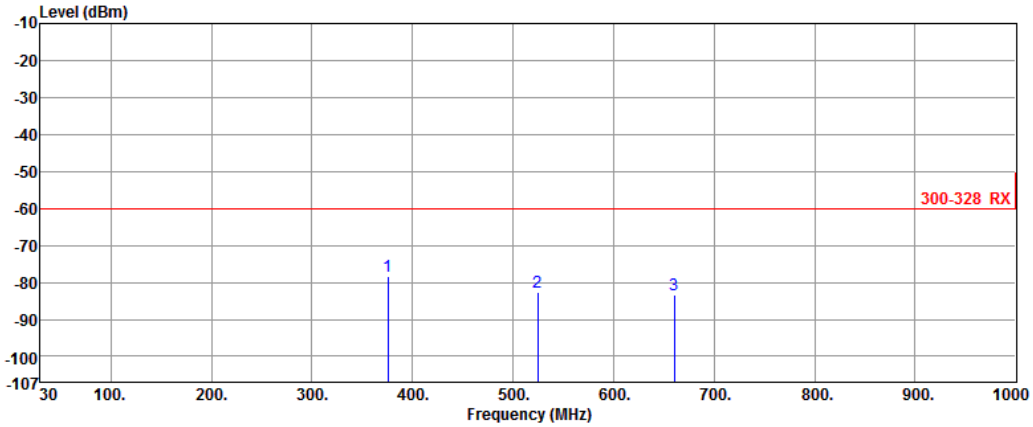
	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3282.70	-67.94	-50.01	-17.93	0.00	-67.94

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

Aux Port

4.1.10 Receiver Conducted Spurious Emissions (Below 1GHz)

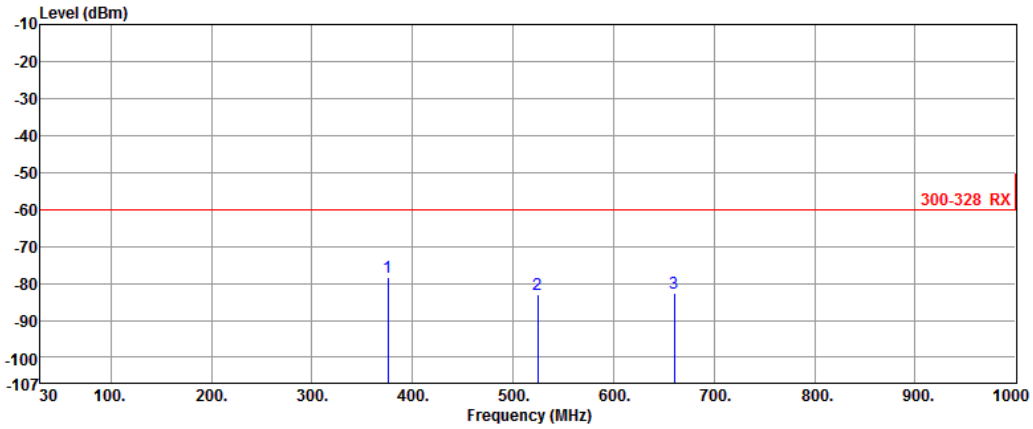
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.32	-78.26	-60.01	-18.25	0.00	-78.26
2	524.70	-82.62	-60.01	-22.61	0.00	-82.62
3	660.50	-83.22	-60.01	-23.21	0.00	-83.22

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

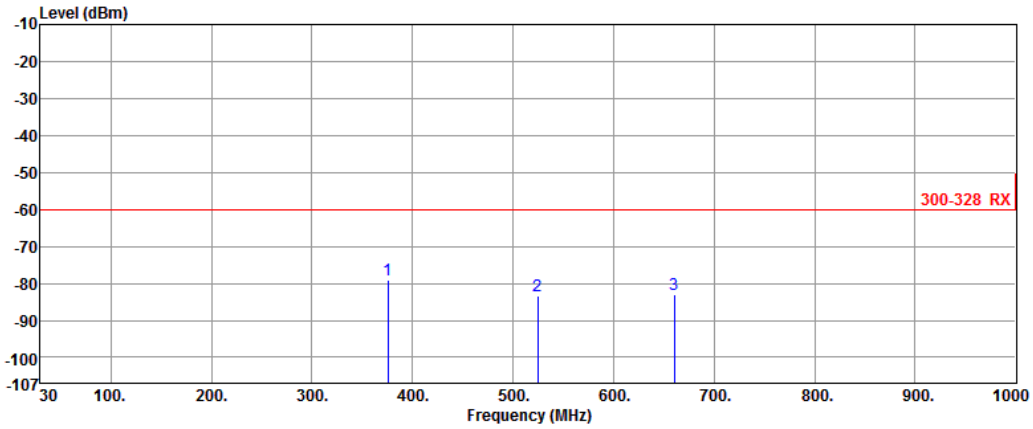
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.32	-78.40	-60.01	-18.39	0.00	-78.40
2	524.70	-82.89	-60.01	-22.88	0.00	-82.89
3	660.50	-82.83	-60.01	-22.82	0.00	-82.83

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

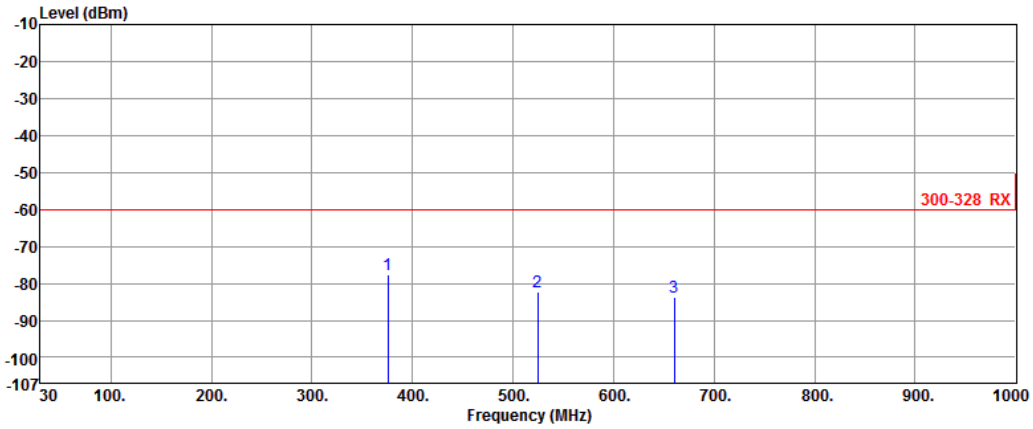
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.32	-78.91	-60.01	-18.90	0.00	-78.91
2	524.70	-83.43	-60.01	-23.42	0.00	-83.43
3	660.50	-83.12	-60.01	-23.11	0.00	-83.12

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

Modulation	HT40	Test Freq. (MHz)	2462

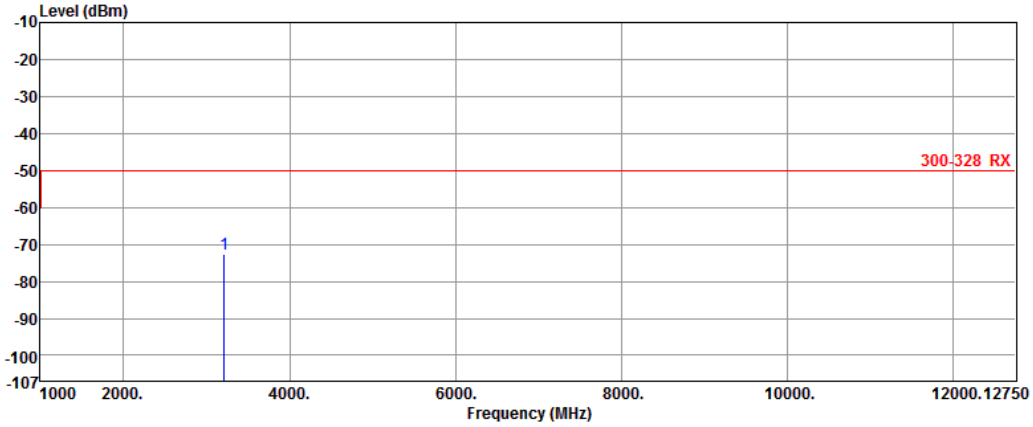


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.32	-77.77	-60.01	-17.76	0.00	-77.77
2	524.70	-82.39	-60.01	-22.38	0.00	-82.39
3	660.50	-83.86	-60.01	-23.85	0.00	-83.86

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

4.1.11 Receiver Conducted Spurious Emissions (Above 1GHz)

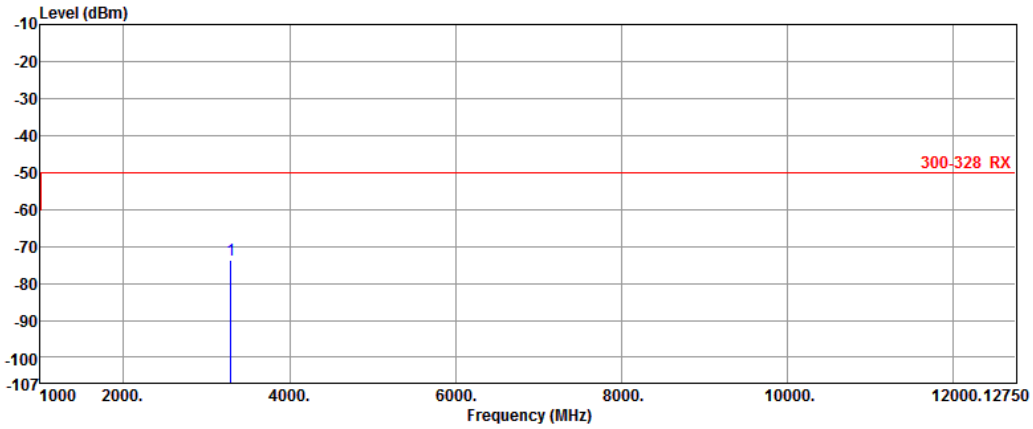
Modulation	11g	Test Freq. (MHz)	2412



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3215.93	-72.81	-50.01	-22.80	0.00	-72.81

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

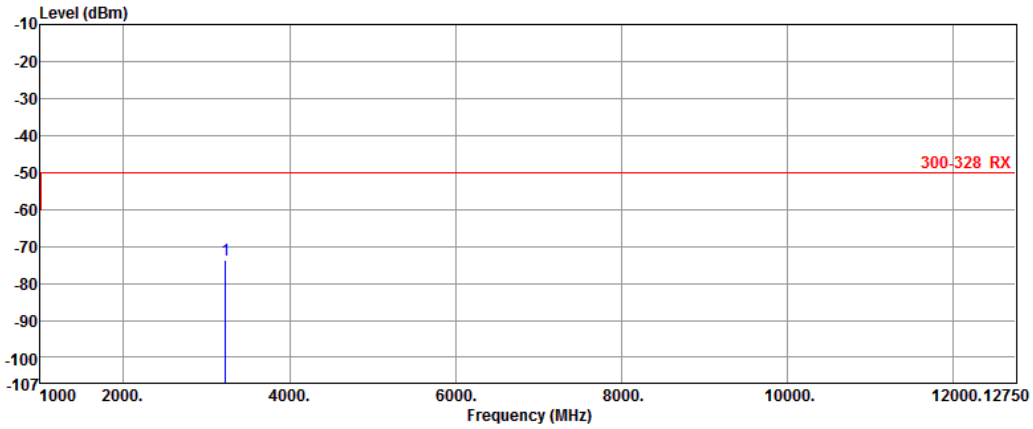
Modulation	11g	Test Freq. (MHz)	2472



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3295.94	-73.63	-50.01	-23.62	0.00	-73.63

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

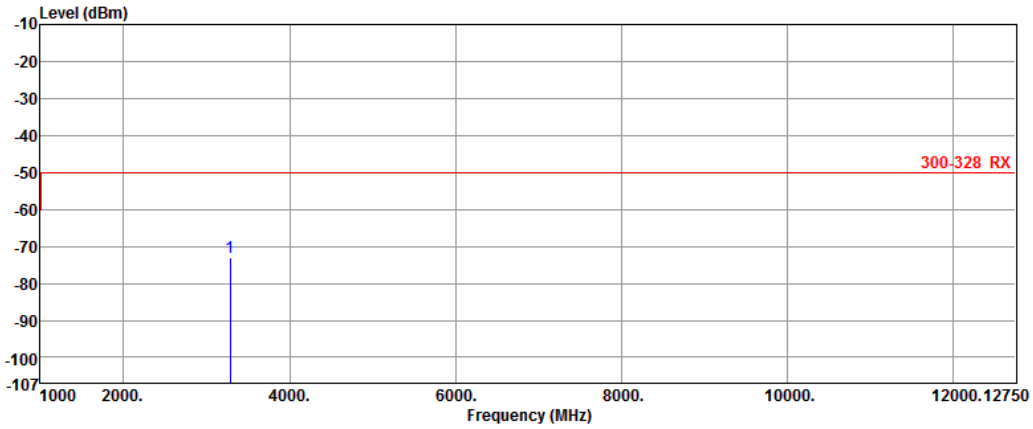
Modulation	HT40	Test Freq. (MHz)	2422



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3229.39	-73.70	-50.01	-23.69	0.00	-73.70

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

Modulation	HT40	Test Freq. (MHz)	2462

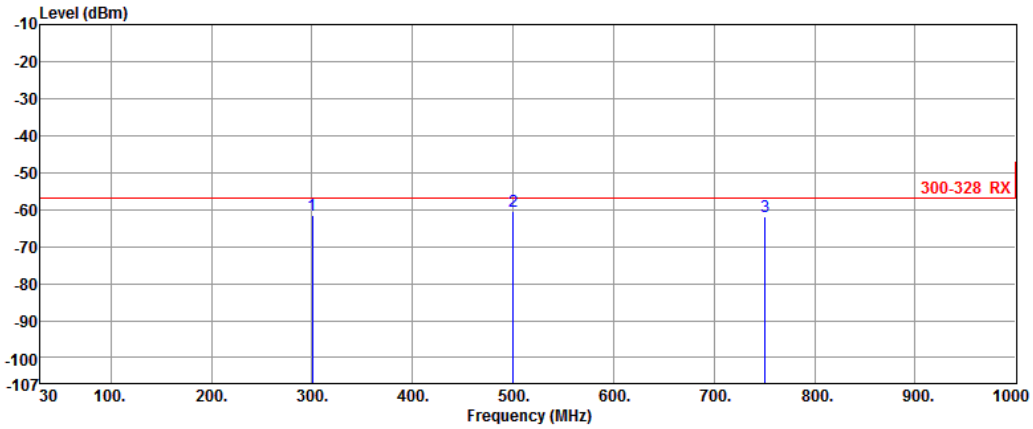


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3282.62	-73.03	-50.01	-23.02	0.00	-73.03

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

4.1.12 Receiver Radiated Unwanted Emissions (Below 1GHz)

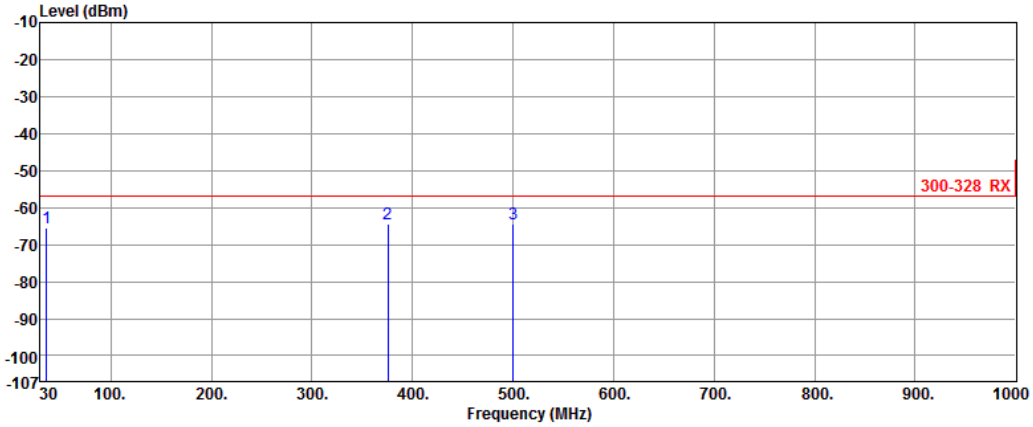
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	300.63	-61.70	-57.00	-4.70	-1.44	-60.26
2	500.45	-60.62	-57.00	-3.62	3.46	-64.08
3	750.71	-61.80	-57.00	-4.80	7.95	-69.75

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

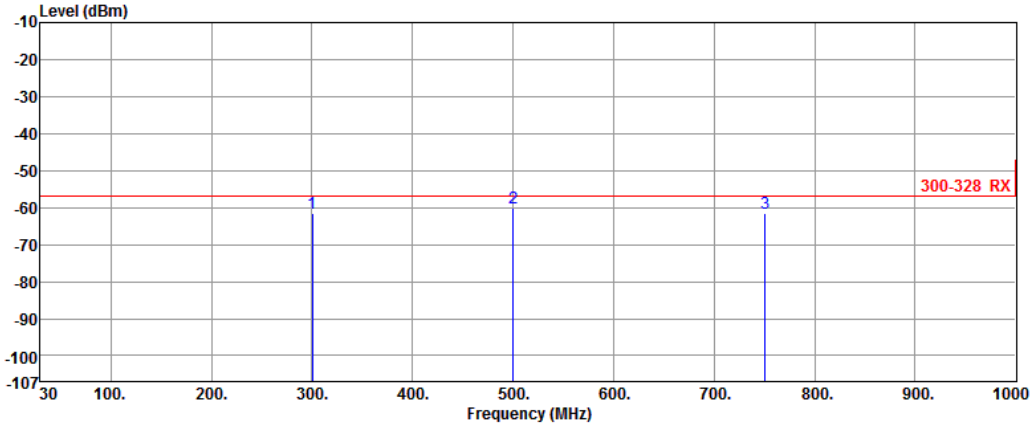
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	35.82	-65.52	-57.00	-8.52	-1.67	-63.85
2	375.32	-64.35	-57.00	-7.35	0.73	-65.08
3	500.45	-64.47	-57.00	-7.47	3.37	-67.84

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

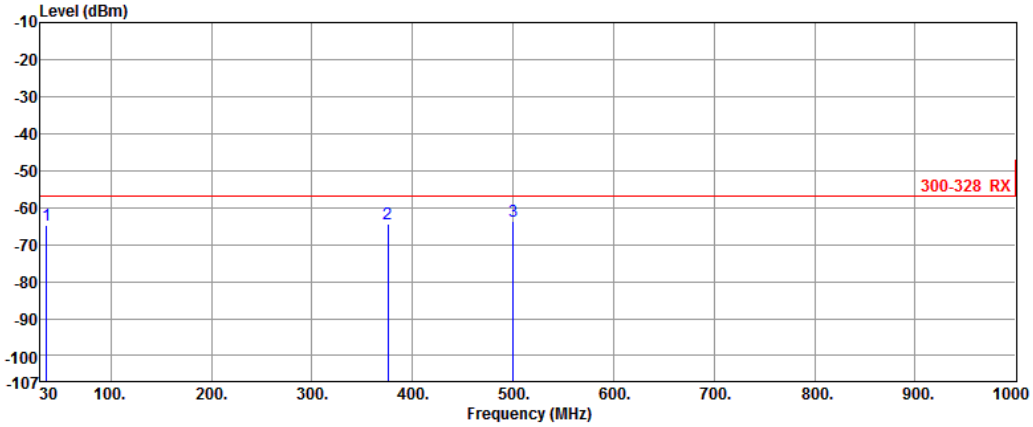
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	300.63	-61.67	-57.00	-4.67	-1.44	-60.23
2	500.45	-60.23	-57.00	-3.23	3.46	-63.69
3	750.71	-61.52	-57.00	-4.52	7.95	-69.47

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

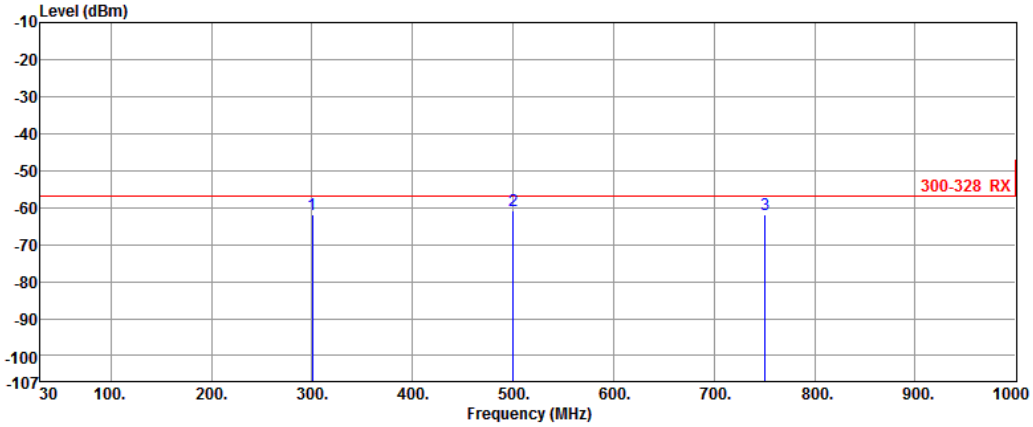
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	35.82	-64.79	-57.00	-7.79	-1.67	-63.12
2	375.32	-64.39	-57.00	-7.39	0.73	-65.12
3	500.45	-63.84	-57.00	-6.84	3.37	-67.21

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

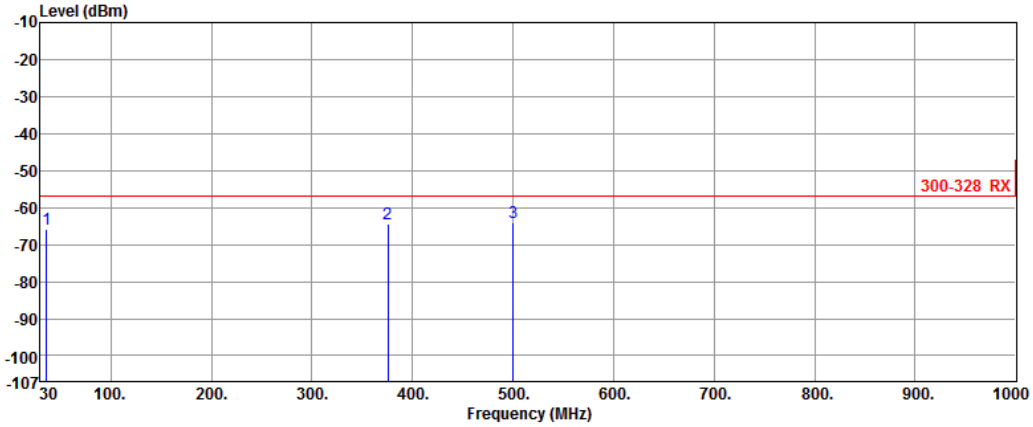
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	300.63	-62.05	-57.00	-5.05	-1.44	-60.61
2	500.45	-60.69	-57.00	-3.69	3.46	-64.15
3	750.71	-61.83	-57.00	-4.83	7.95	-69.78

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

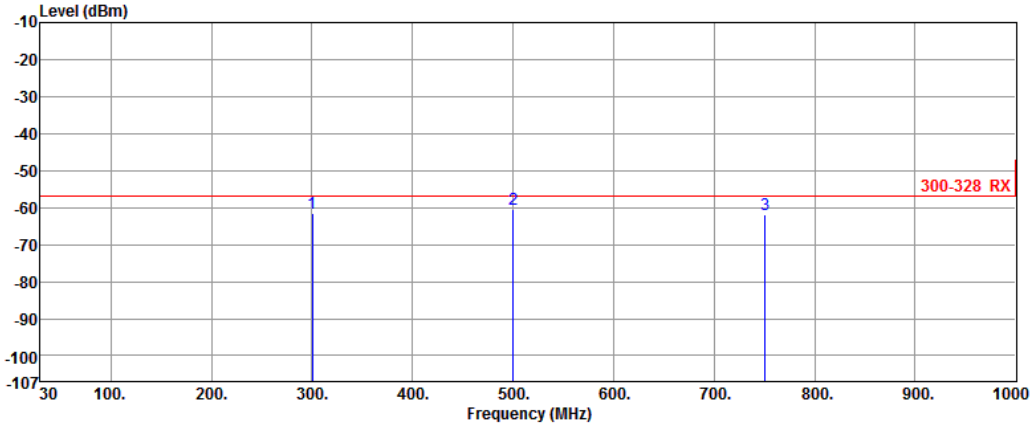
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	35.82	-65.86	-57.00	-8.86	-1.67	-64.19
2	375.32	-64.32	-57.00	-7.32	0.73	-65.05
3	500.45	-64.04	-57.00	-7.04	3.37	-67.41

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

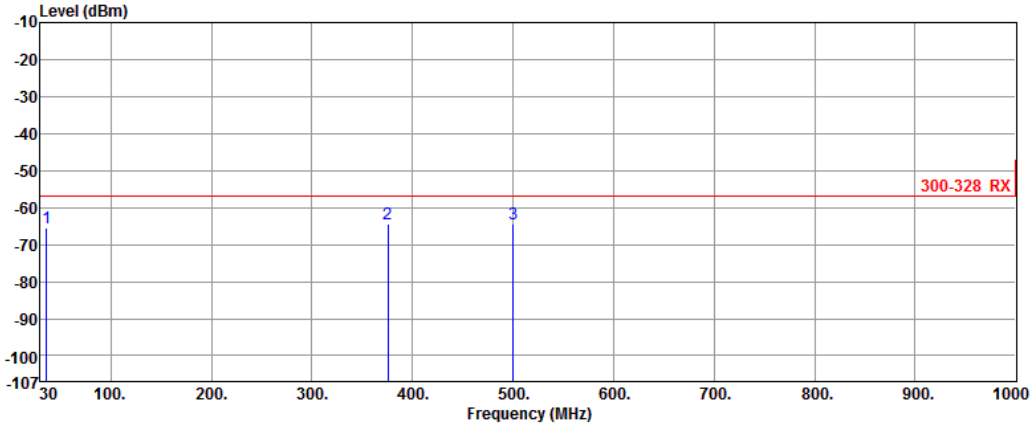
Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	300.63	-61.72	-57.00	-4.72	-1.44	-60.28
2	500.45	-60.31	-57.00	-3.31	3.46	-63.77
3	750.71	-61.95	-57.00	-4.95	7.95	-69.90

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

Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Vertical		

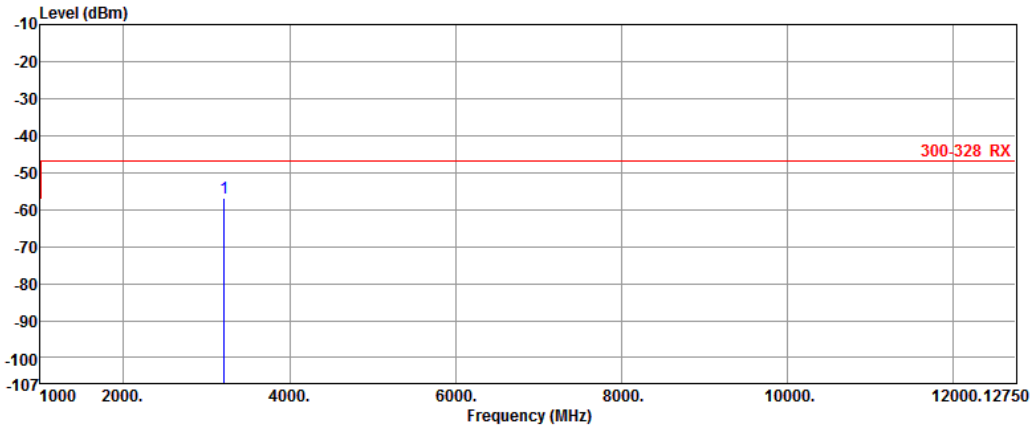


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	35.82	-65.60	-57.00	-8.60	-1.67	-63.93
2	375.32	-64.38	-57.00	-7.38	0.73	-65.11
3	500.45	-64.58	-57.00	-7.58	3.37	-67.95

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

4.1.13 Receiver Radiated Unwanted Emissions (Above 1GHz)

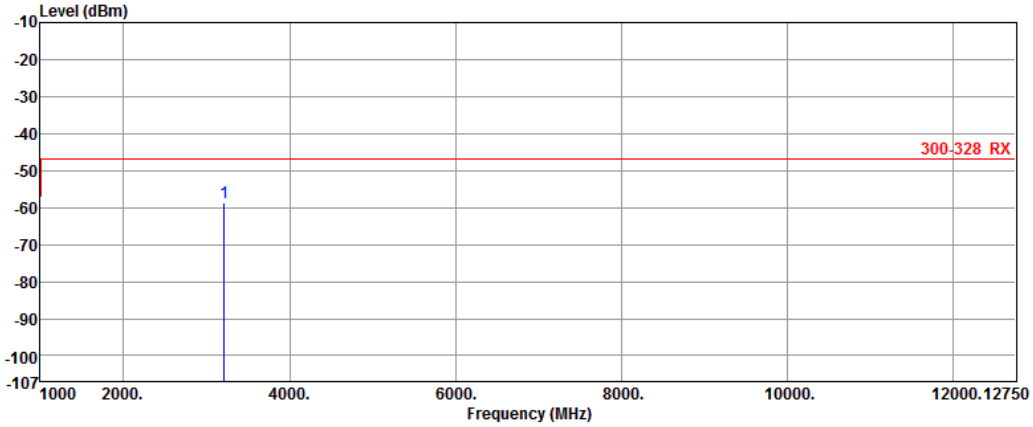
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3216.16	-56.72	-47.00	-9.72	8.08	-64.80

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

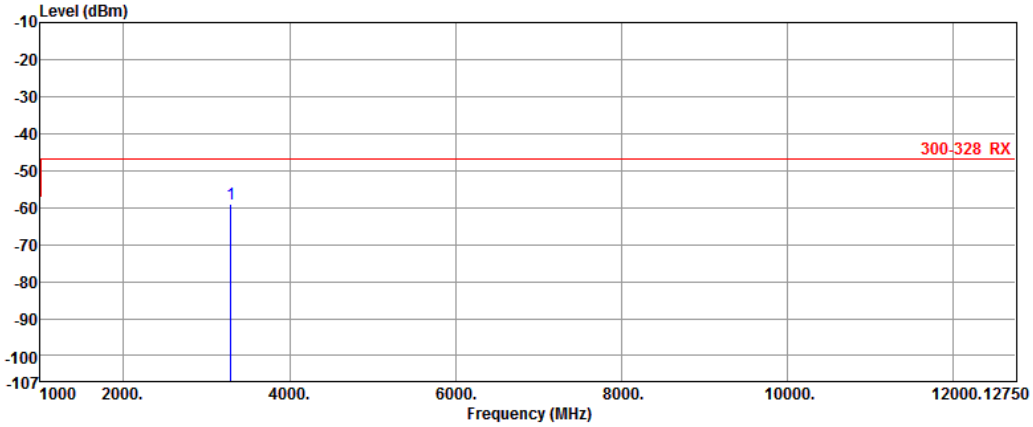
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3216.01	-58.64	-47.00	-11.64	7.33	-65.97

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

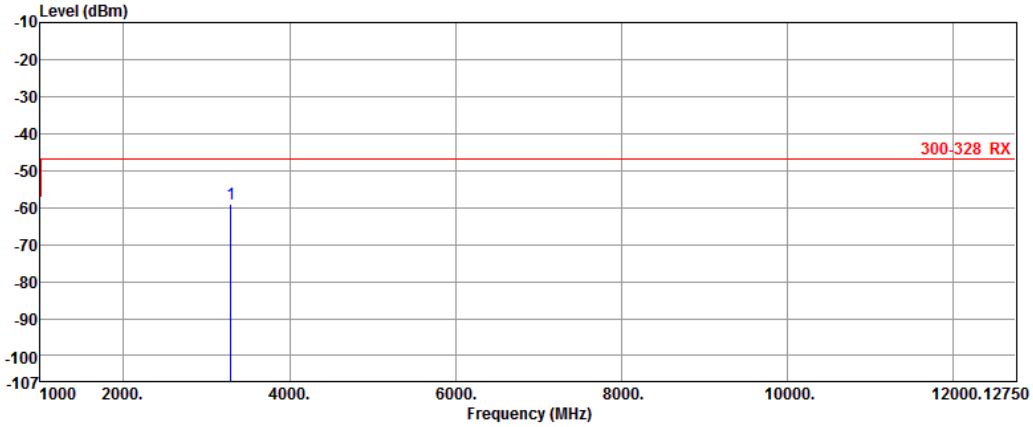
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3296.24	-58.86	-47.00	-11.86	7.03	-65.89

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

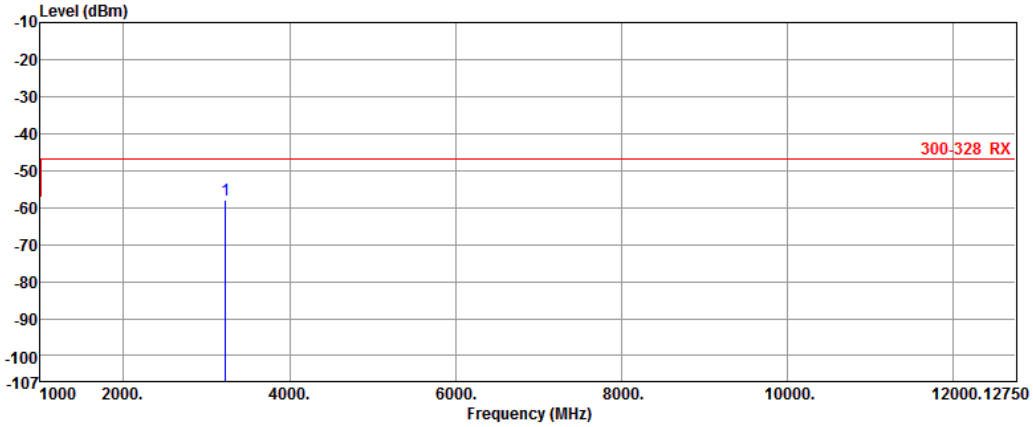
Modulation	11g	Test Freq. (MHz)	2472
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3296.09	-59.19	-47.00	-12.19	6.52	-65.71

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

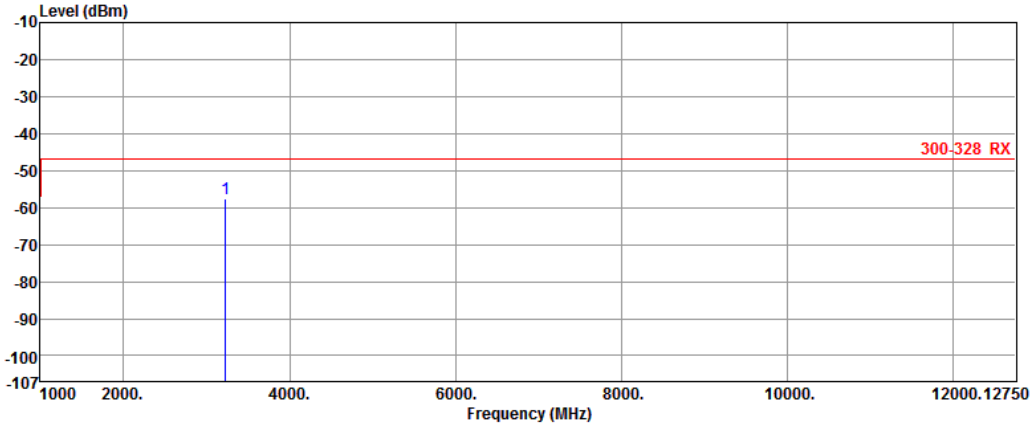
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3229.03	-58.11	-47.00	-11.11	7.91	-66.02

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

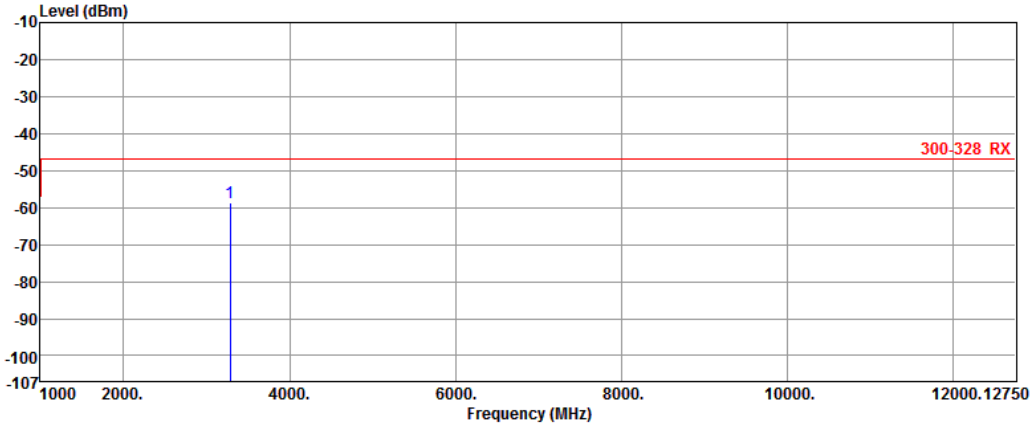
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3229.31	-57.76	-47.00	-10.76	7.19	-64.95

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

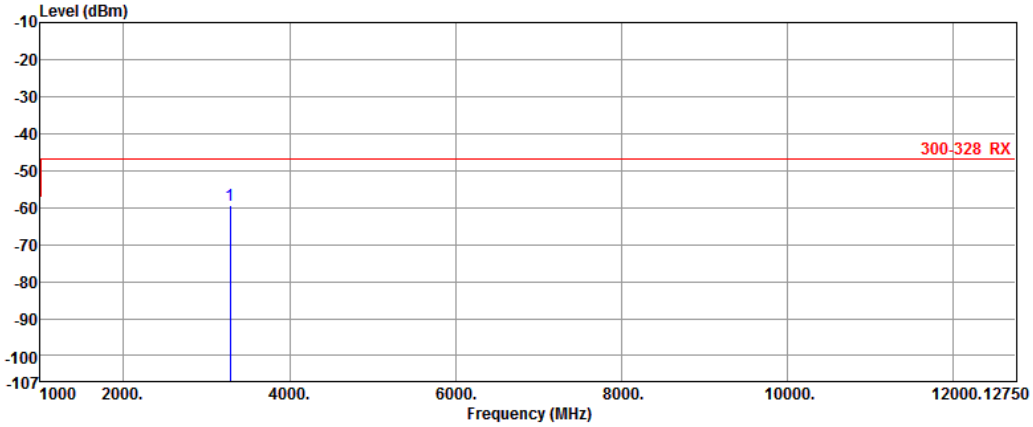
Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3282.66	-58.83	-47.00	-11.83	7.21	-66.04

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

Modulation	HT40	Test Freq. (MHz)	2462
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3282.68	-59.34	-47.00	-12.34	6.66	-66.00

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

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.

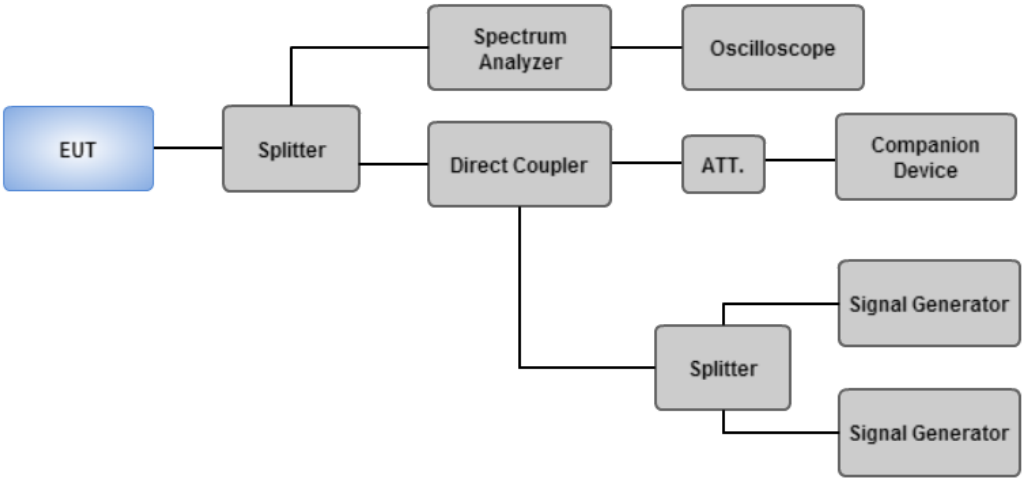
Unwanted Signal Parameters				
Equipment Type	**Wanted Signal Mean Power from Companion Device**	**Blocking Signal Frequency (MHz)**	**Blocking Signal Mean power (dBm)**	**Type of Interfering Signal**
LBT	sufficient to maintain the link (see note 2)	2395 or 2488,5 (see note 1)	-35 (see note 3)	CW
Non-LBT	-30 dBm			

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.
Note 2: A typical value which can be used in most cases is -50 dBm/MHz.
Note 3: The level specified is the level in front of the UUT antenna. In case of conducted measurements, this level has to be corrected by the actual antenna assembly gain.

5.1.2 Test Procedures

Reference to clause 5.4.6.2 of ETSI EN 300 328 V2.1.1 (2016-11).

5.1.3 Test Setup

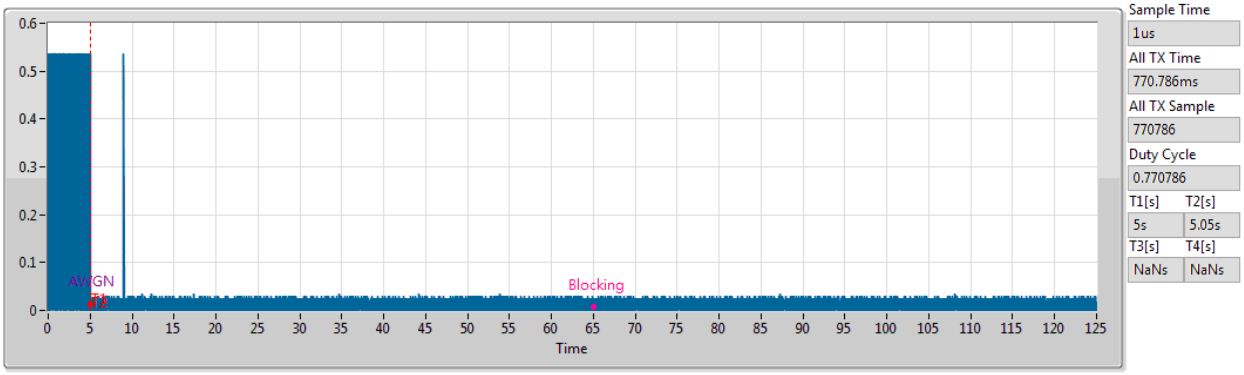


5.1.4 Test Result of Adaptivity、Unwanted Signal and Short Control Signalling Transmissions

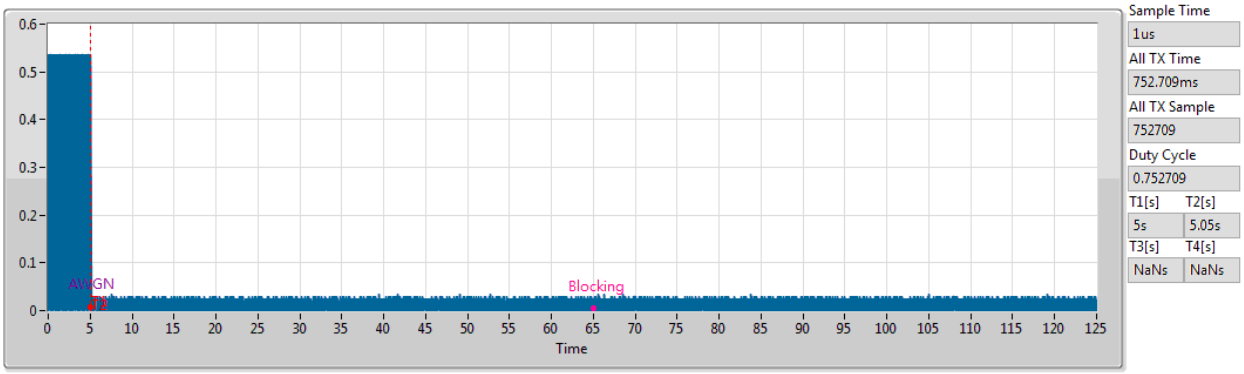
Adaptivity and Unwanted Signal Result						
EUT firmware / software version			6.0.0.x			
Adaptivity Detection Threshold Level (dBm)			-66.3			
Unwanted Signal Level (dBm)			-32.21			
Modulation Mode	**Freq. (MHz)**	**Short Control Signalling Transmissions (ms)**	**Channel Occupancy Time (ms)**	**Idle Period Time (μs)**	**Adaptivity**	**Unwanted Signal Test Status**
802.11b	2412	4.933	2.428	61	Pass	Pass
802.11b	2472	4.428	2.428	40		
802.11g	2412	3.1	0.366	60		
802.11g	2472	3.38	0.366	59		
802.11n (HT20)	2412	2.08	4.894	40		
802.11n (HT20)	2472	3.786	4.314	40		
802.11n (HT40)	2422	3.541	2.313	64		
802.11n (HT40)	2462	1.283	2.235	72		
Limit		< 5 ms	< 13 ms	>18μs		
Result		**Complied**				

5.1.5 Test Result of Adaptivity and Unwanted Signal Plots

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



Unwanted signal: 2395 MHz
802.11b - 2472MHz
Time Analysis

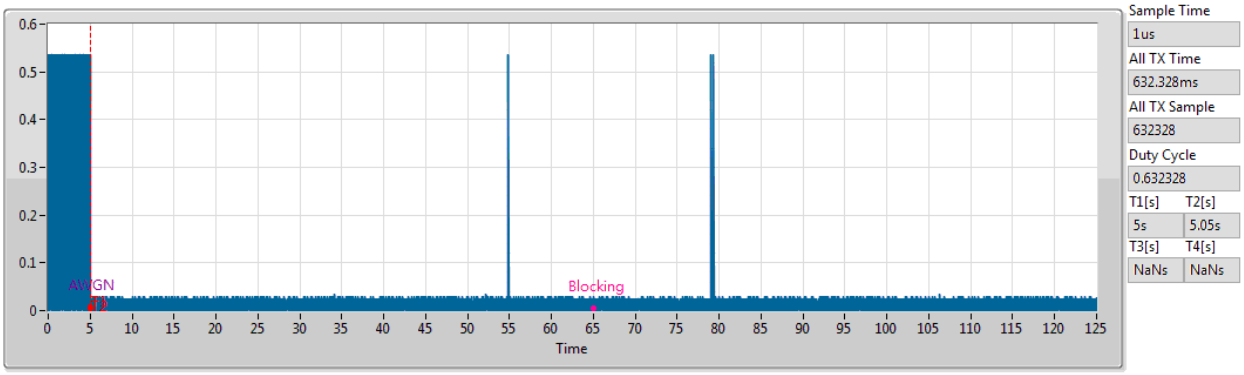


Adaptivity & Unwanted Signal Result Plots

Unwanted signal: 2488.5 MHz

802.11g - 2412MHz

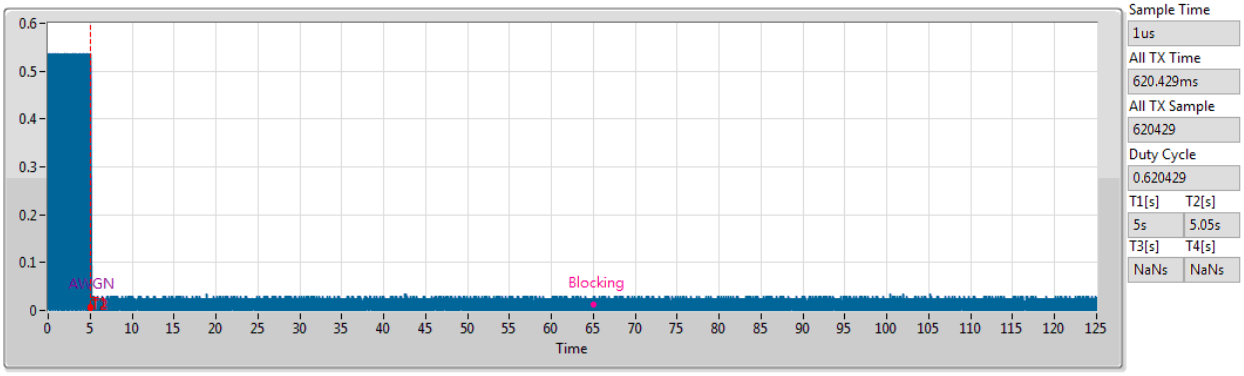
Time Analysis



Unwanted signal: 2395 MHz

802.11g - 2472MHz

Time Analysis

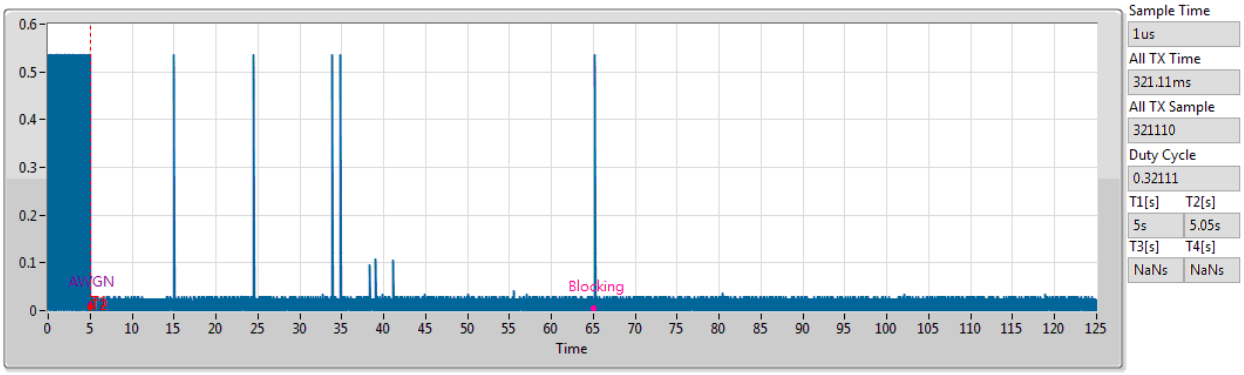


Adaptivity & Unwanted Signal Result Plots

Unwanted signal: 2488.5 MHz

802.11n (HT20) - 2412MHz

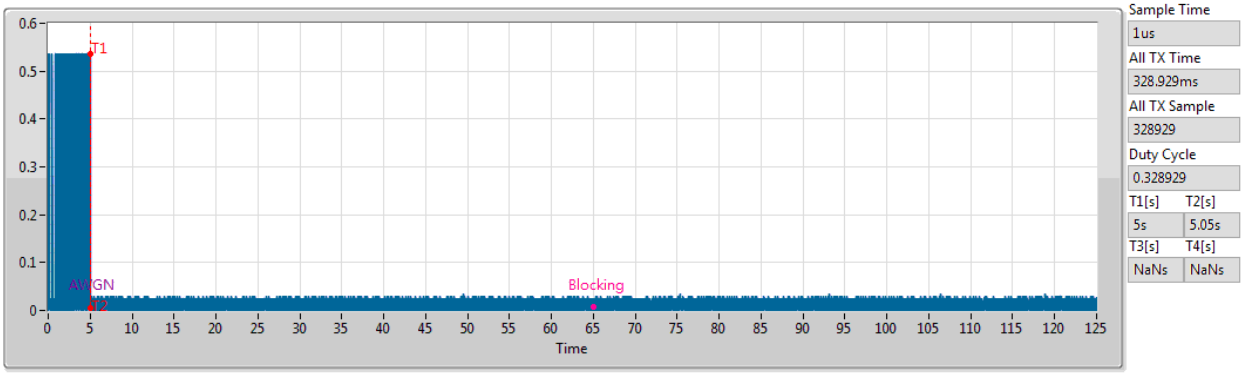
Time Analysis



Unwanted signal: 2395 MHz

802.11n (HT20) - 2472MHz

Time Analysis

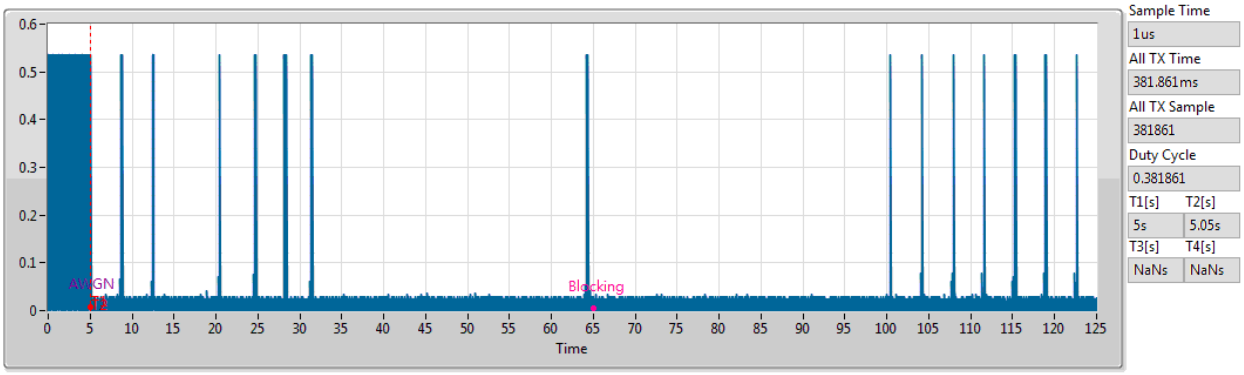


Adaptivity & Unwanted Signal Result Plots

Unwanted signal: 2488.5 MHz

802.11n (HT40) - 2422MHz

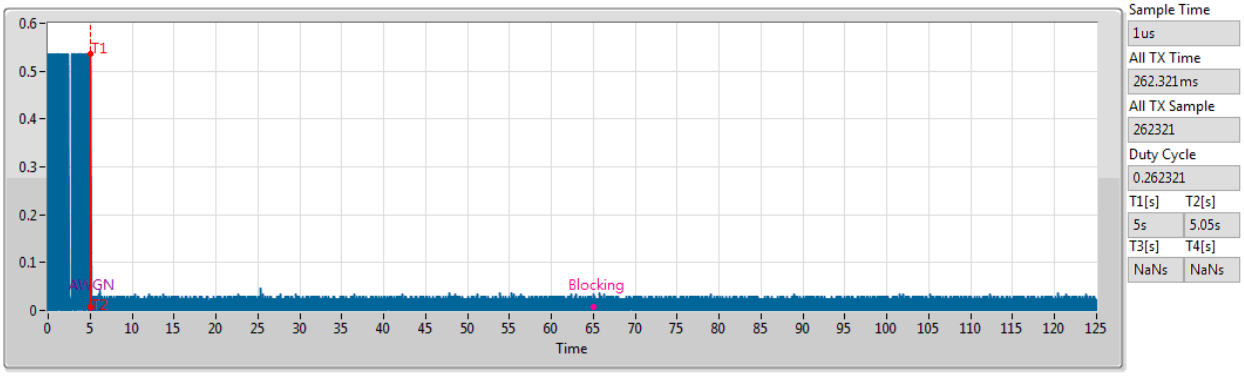
Time Analysis



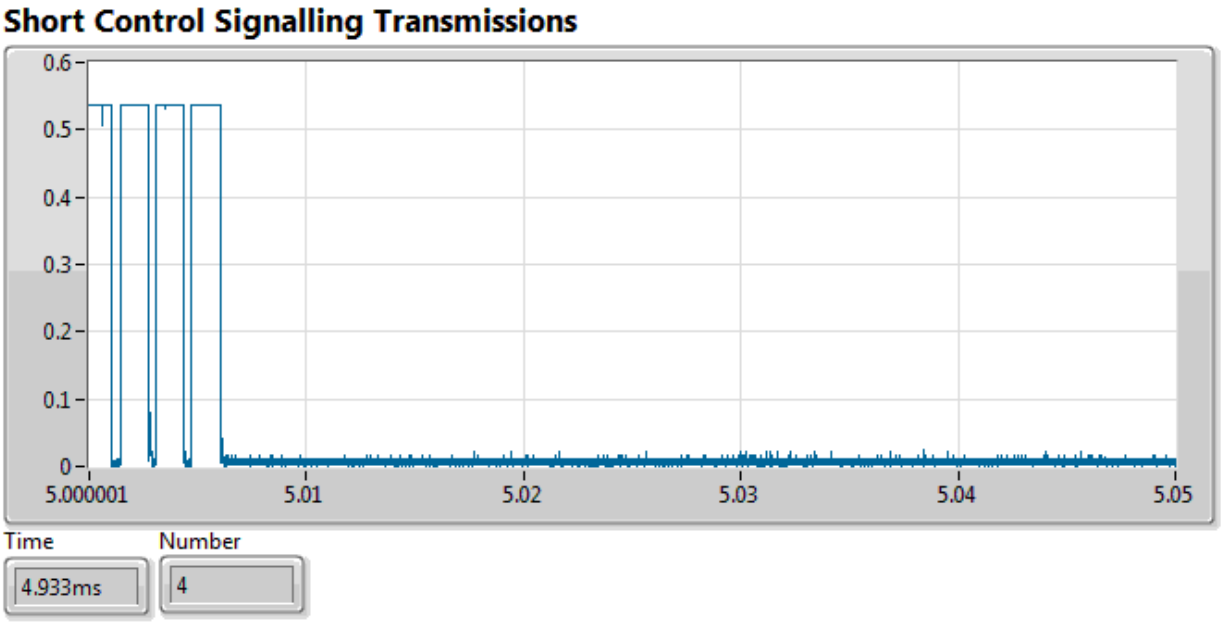
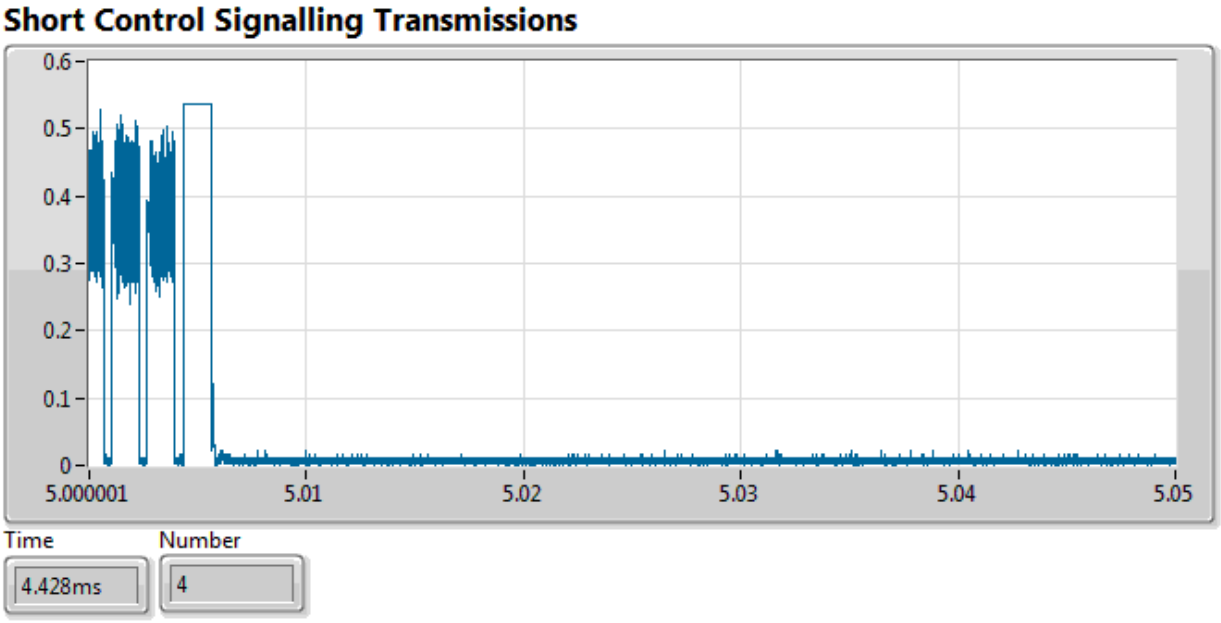
Unwanted signal: 2395 MHz

802.11n (HT40) - 2462MHz

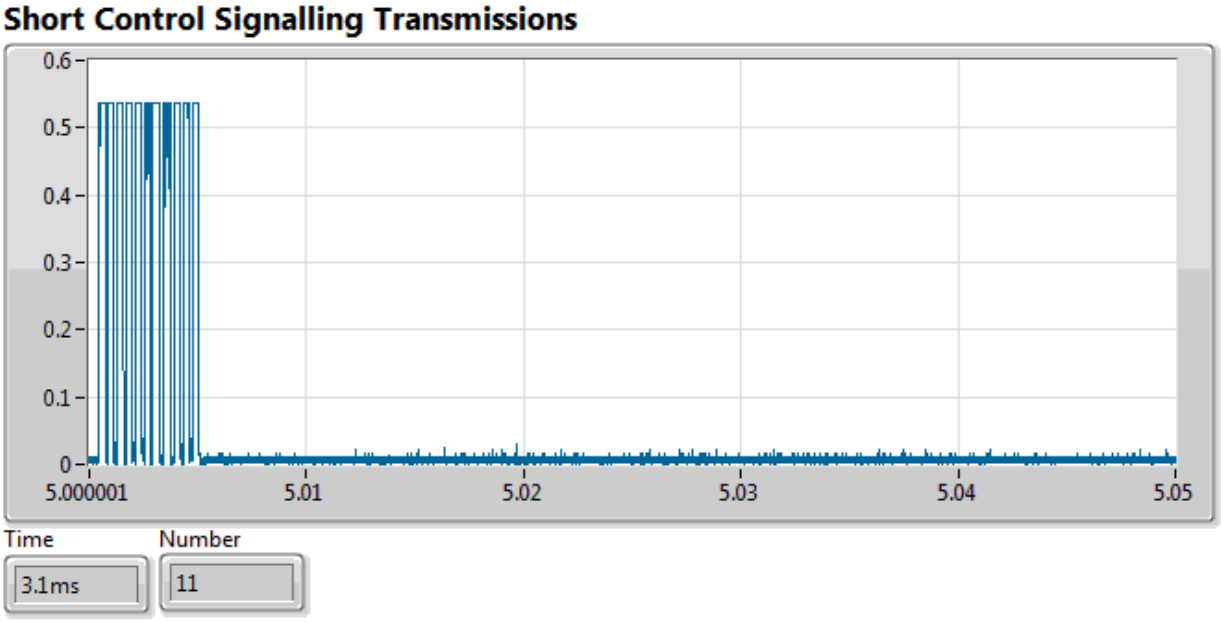
Time Analysis



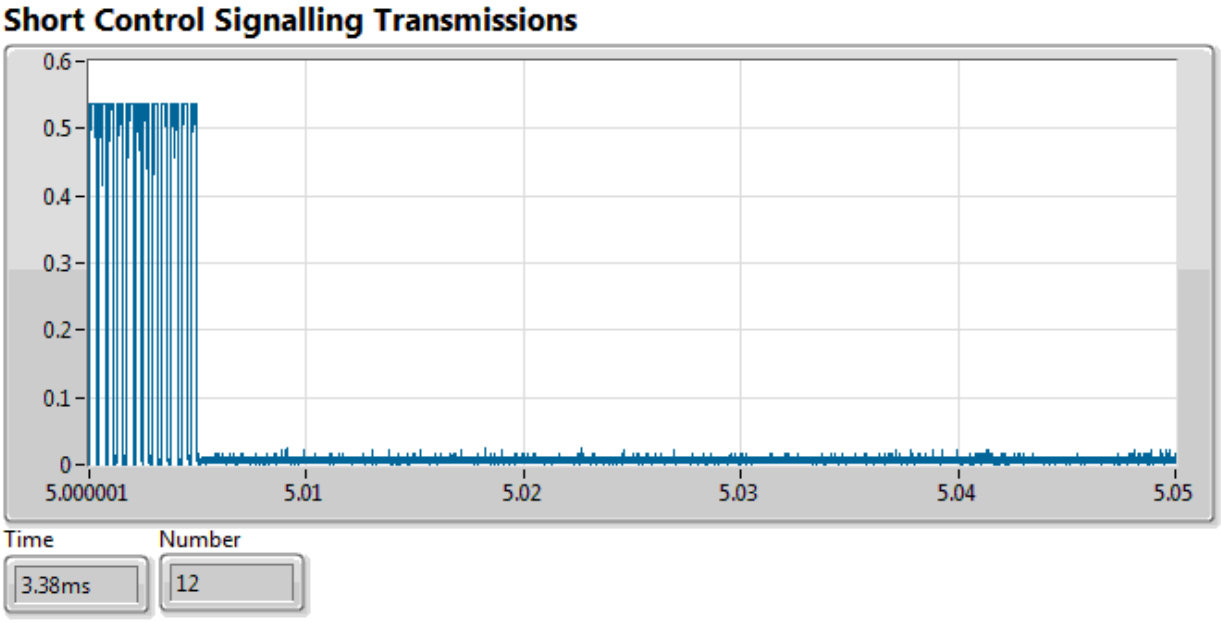
5.1.6 Test Result of Short Control Signalling Transmissions Plots

Short Control Signalling Transmissions Plots
802.11b - 2412MHz

802.11b - 2472MHz


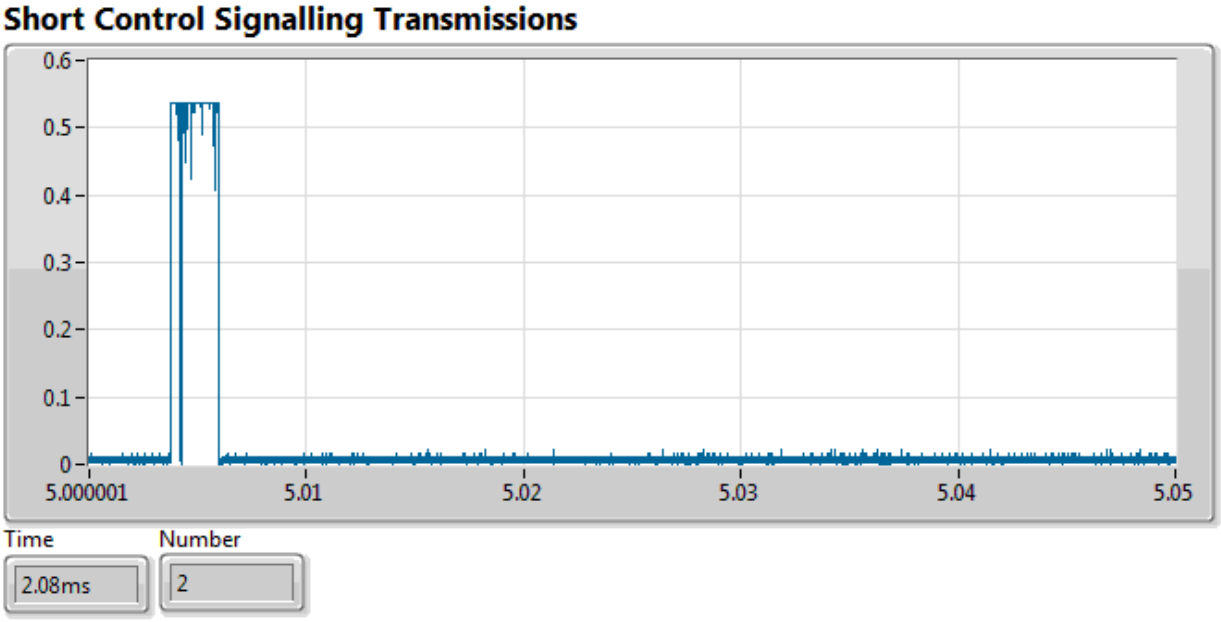
Short Control Signalling Transmissions Plots
802.11g - 2412MHz



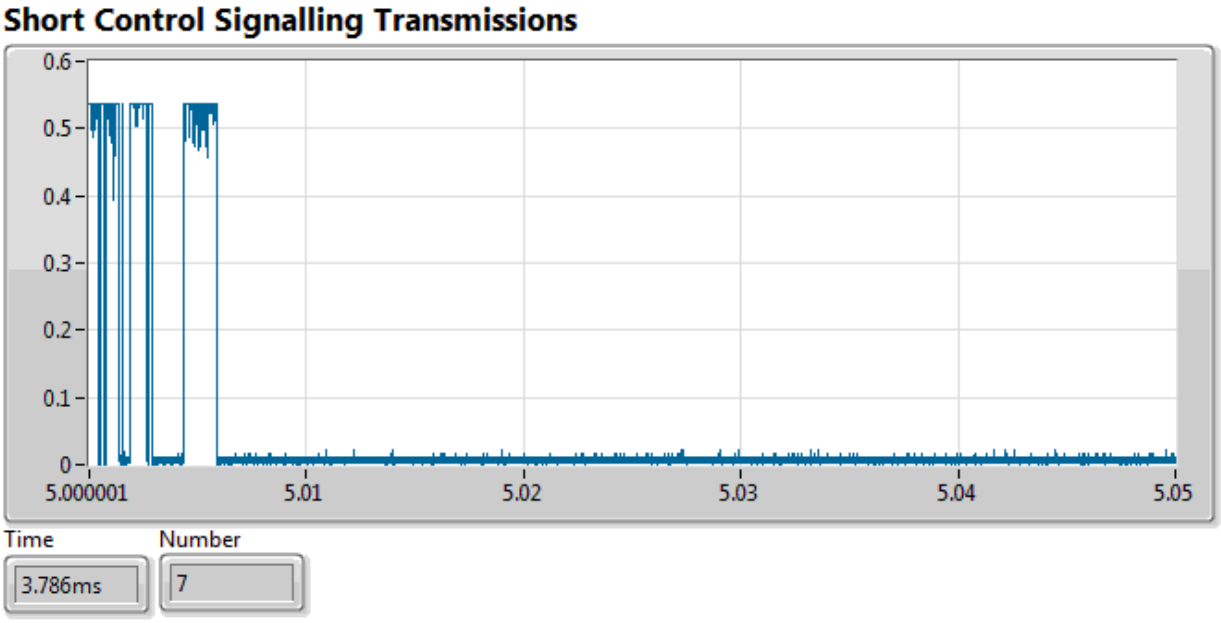
802.11g - 2472MHz



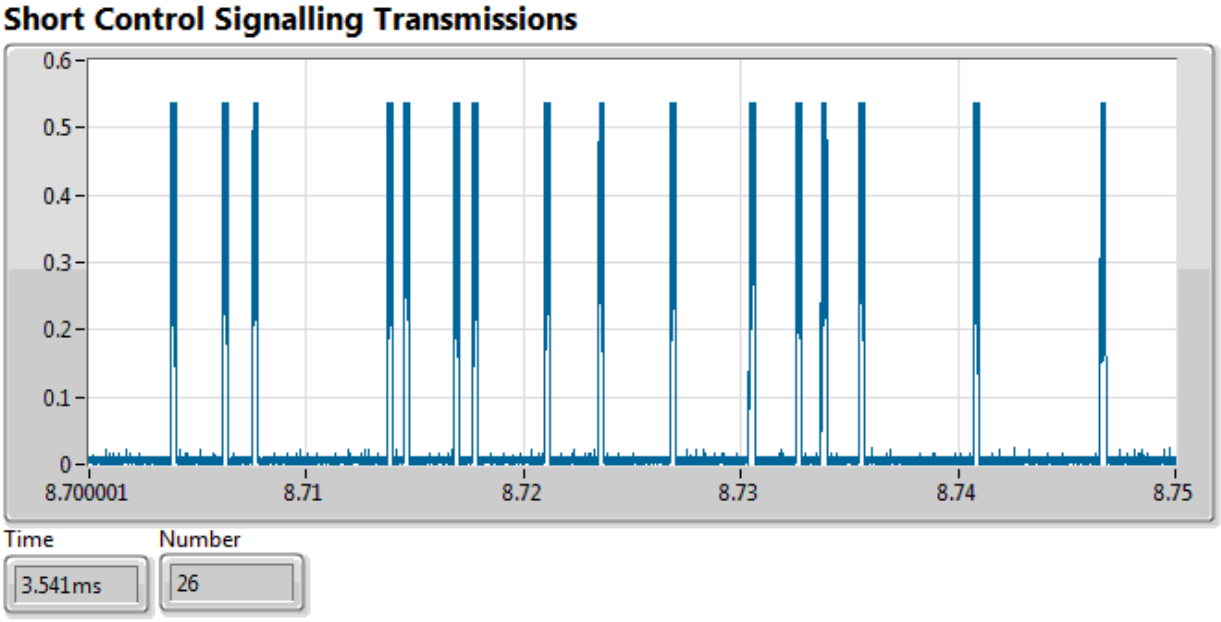
Short Control Signalling Transmissions Plots
802.11n (HT20) - 2412MHz



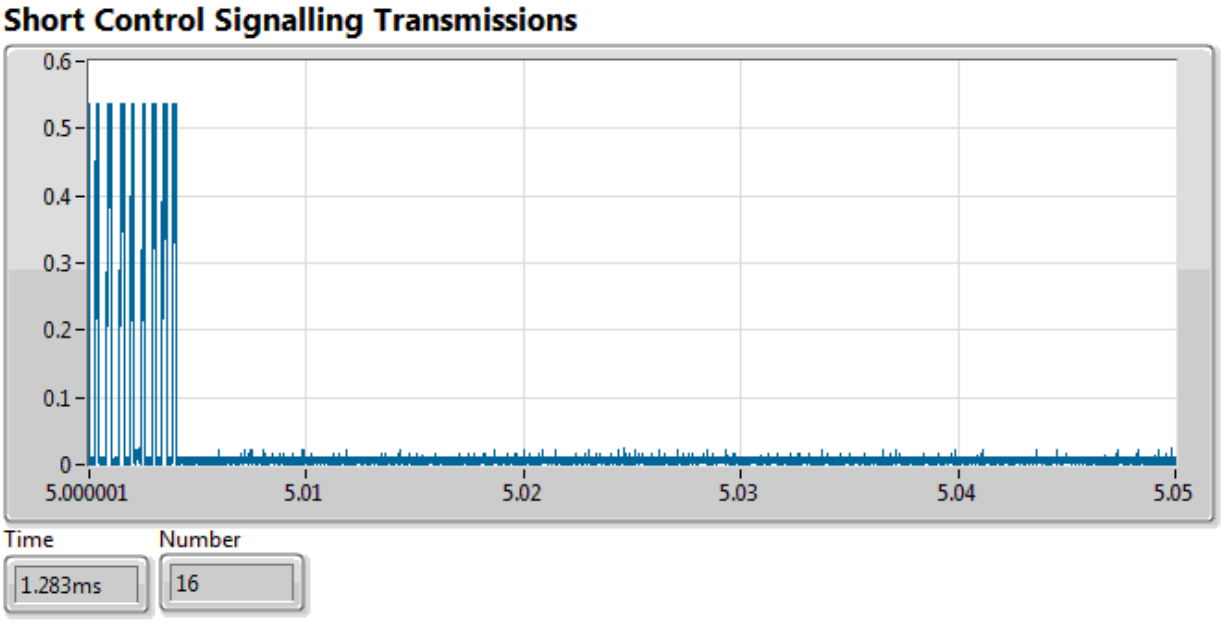
802.11n (HT20) - 2472MHz



Short Control Signalling Transmissions Plots
802.11n (HT40) - 2422MHz

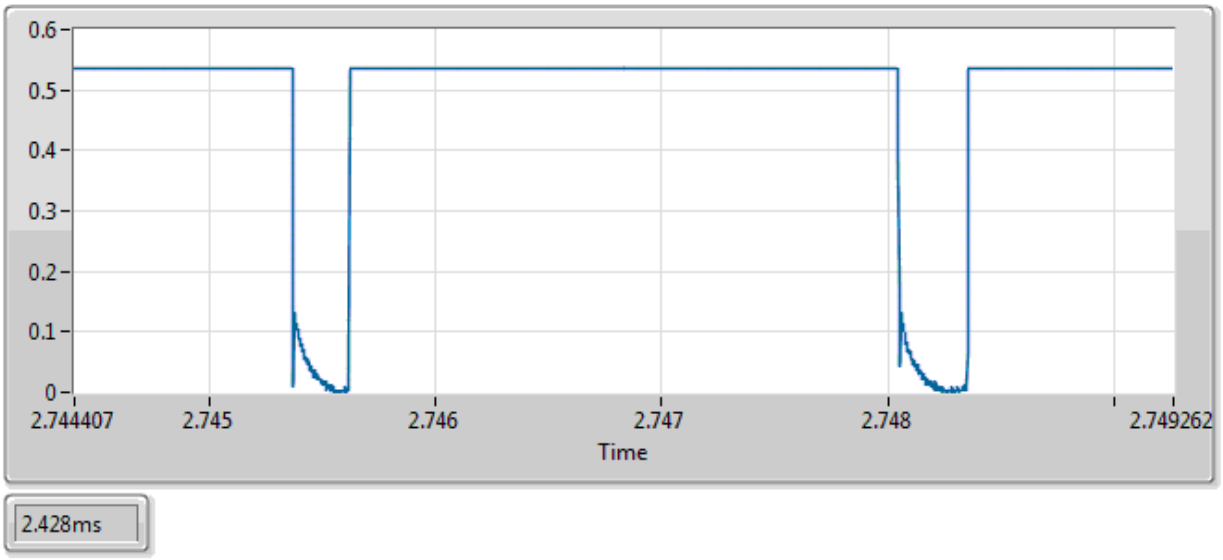


802.11n (HT40) - 2462MHz



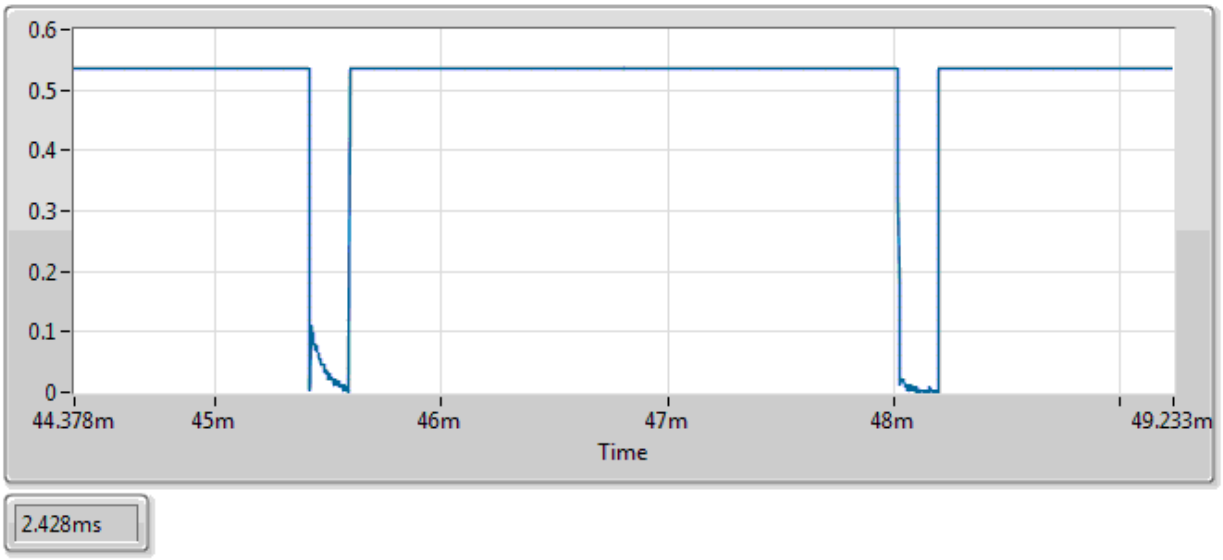
Channel Occupancy Time
802.11b - 2412MHz

Max On Time



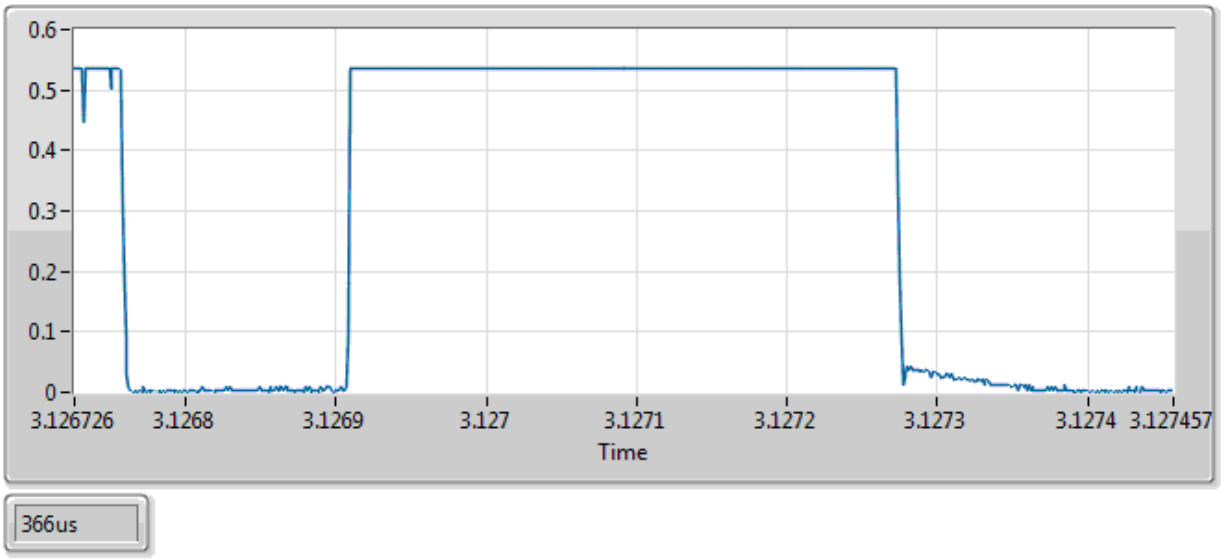
802.11b - 2472MHz

Max On Time



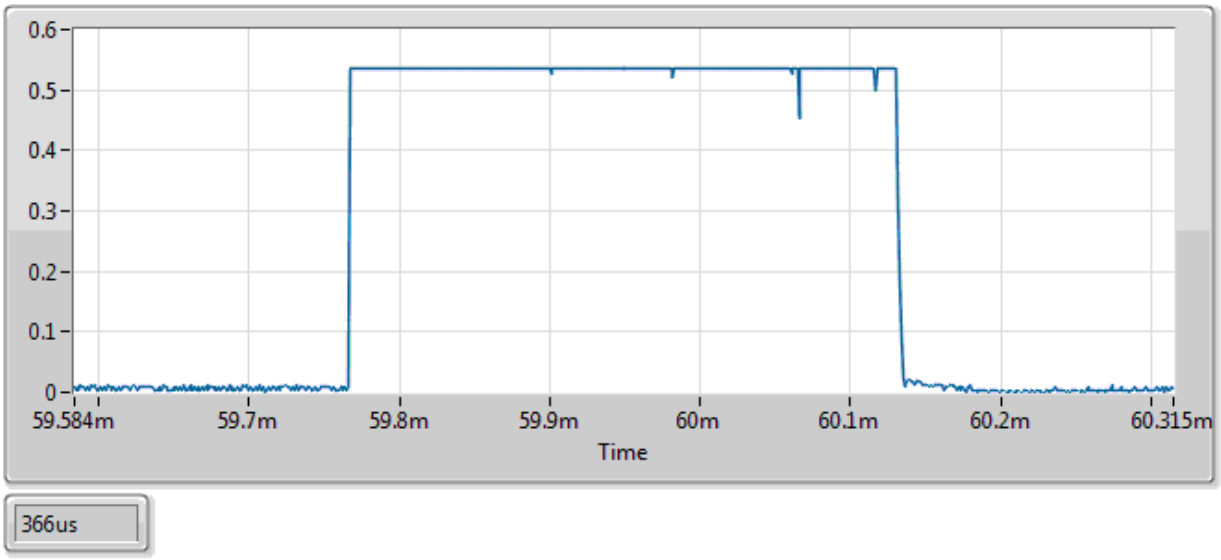
Channel Occupancy Time
802.11g - 2412MHz

Max On Time



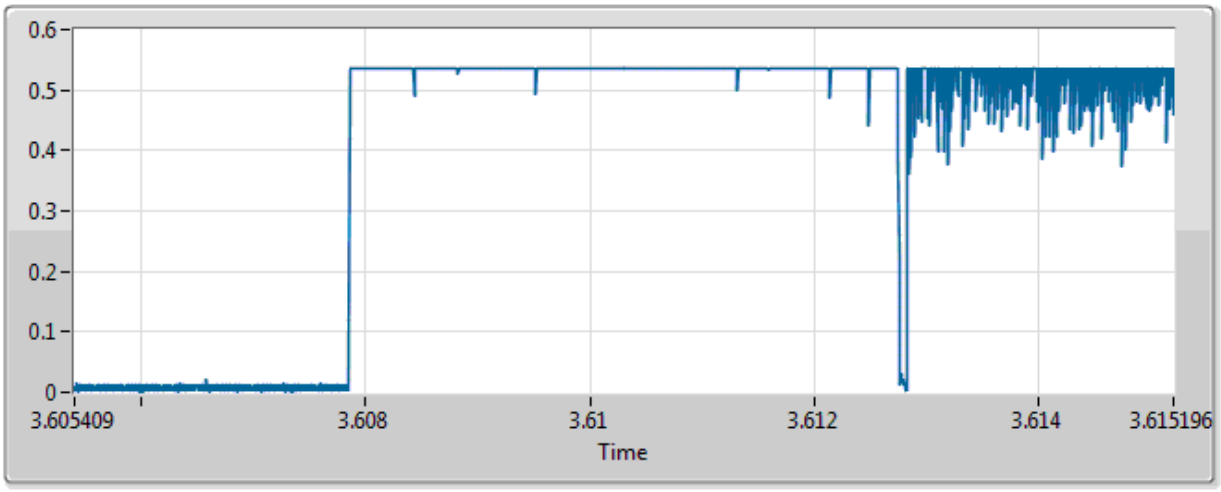
802.11g - 2472MHz

Max On Time



Channel Occupancy Time
802.11n (HT20) - 2412MHz

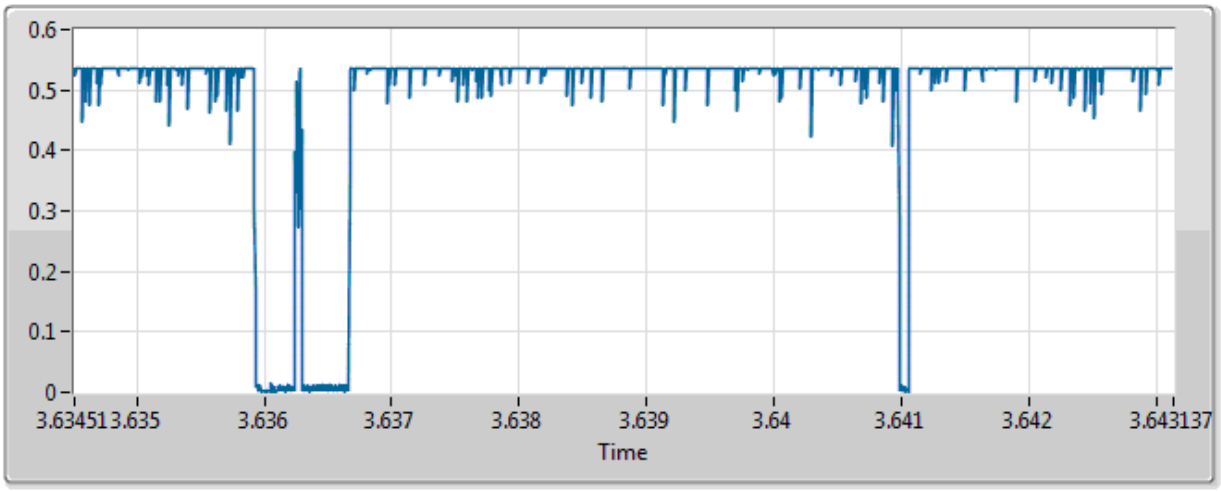
Max On Time



4.894ms

802.11n (HT20) - 2472MHz

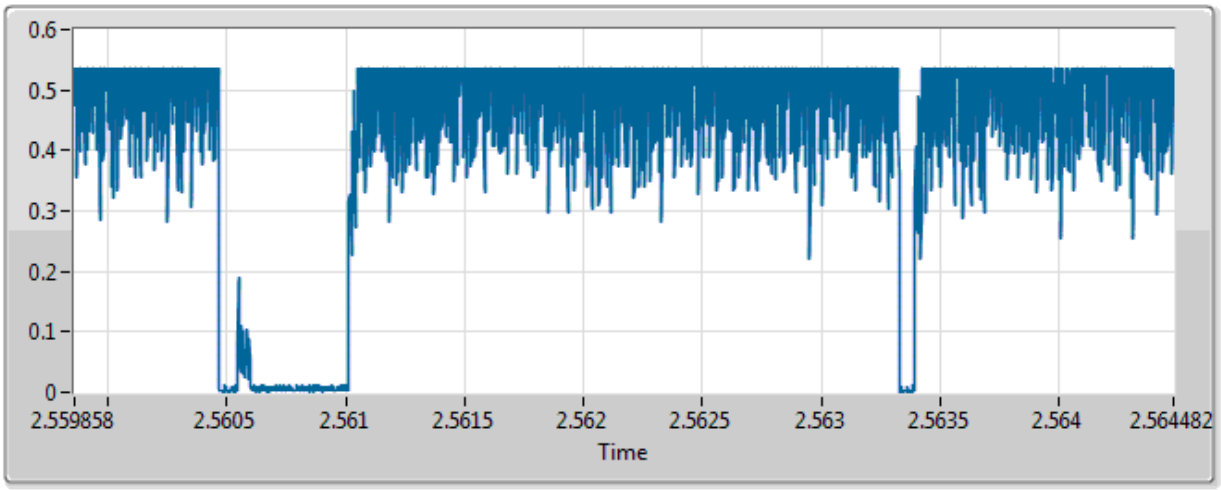
Max On Time



4.314ms

Channel Occupancy Time
802.11n (HT40) - 2422MHz

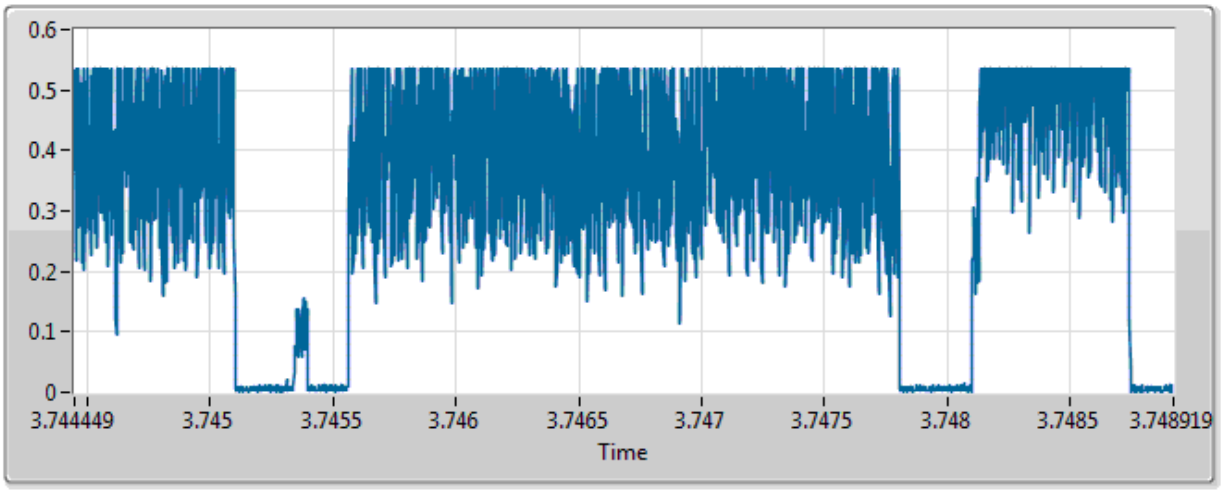
Max On Time



2.313ms

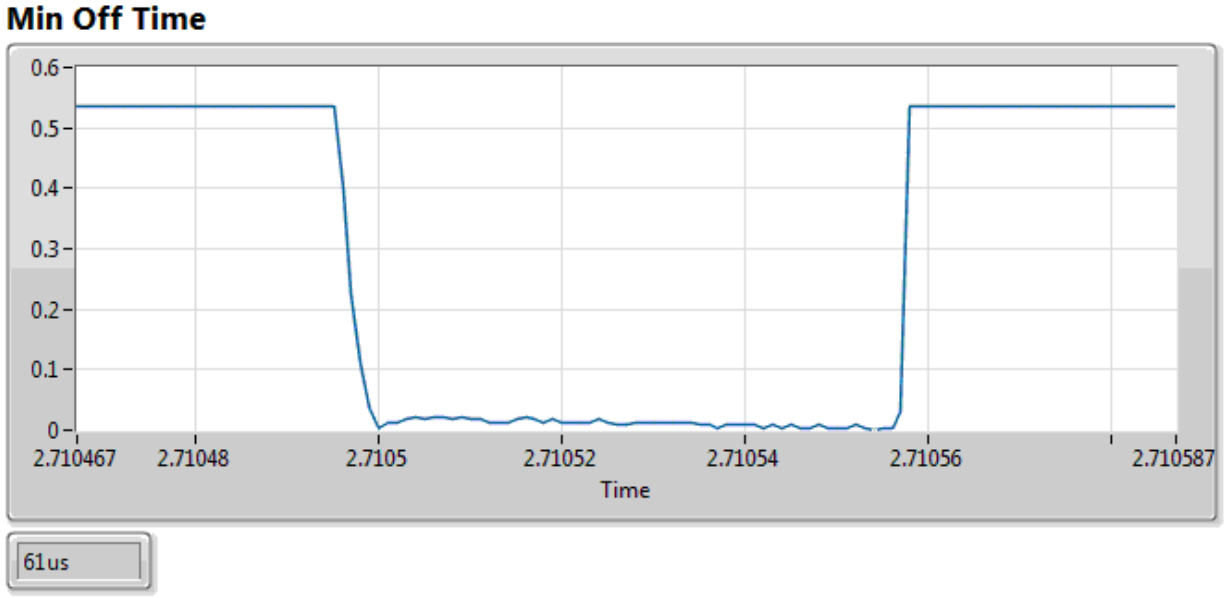
802.11n (HT40) - 2462MHz

Max On Time

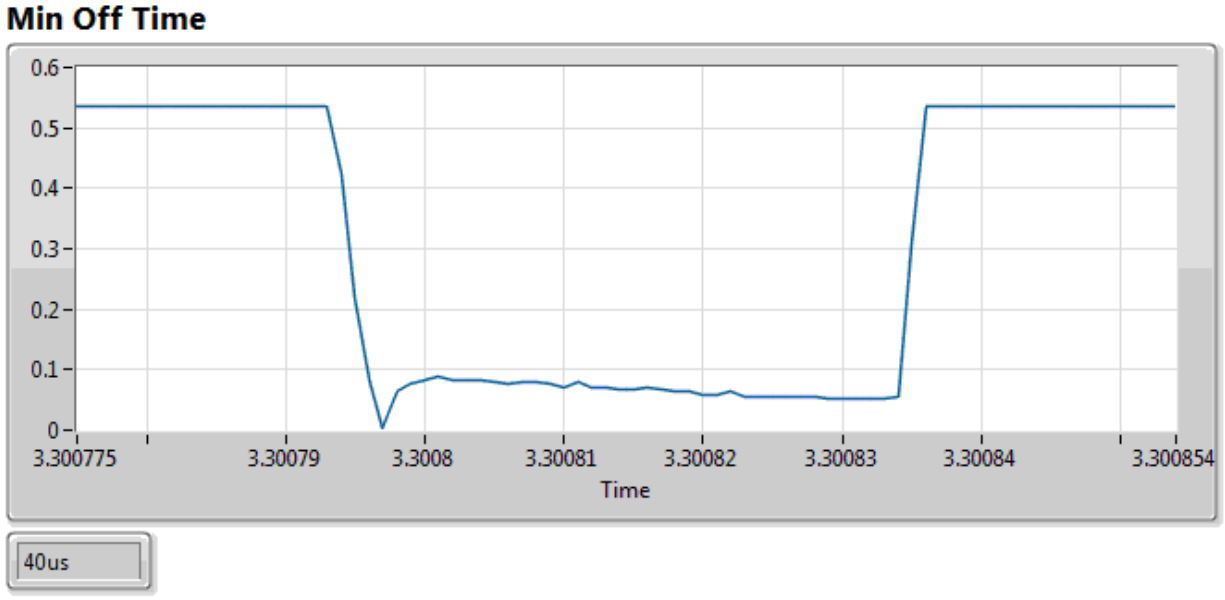


2.235ms

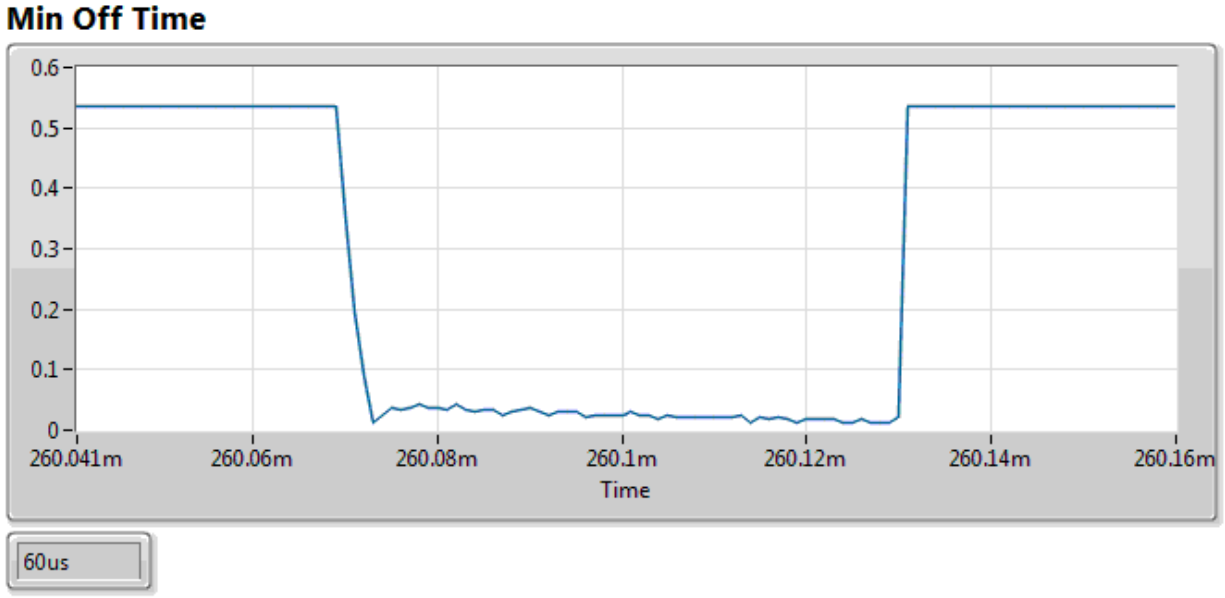
Idle Period Time
802.11b - 2412MHz



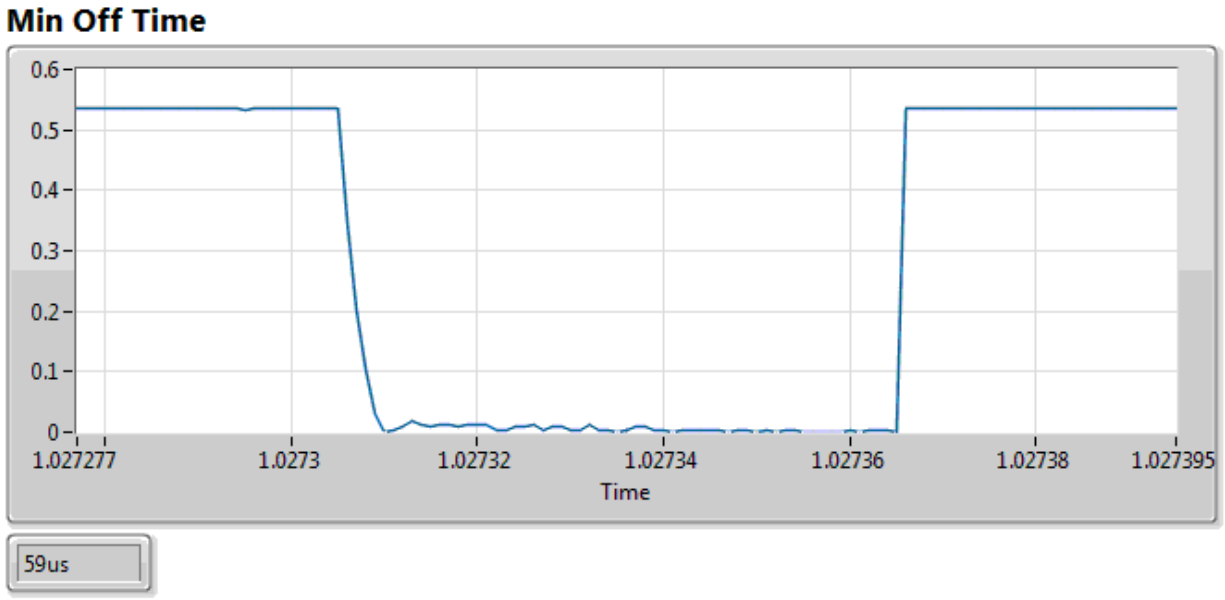
802.11b - 2472MHz



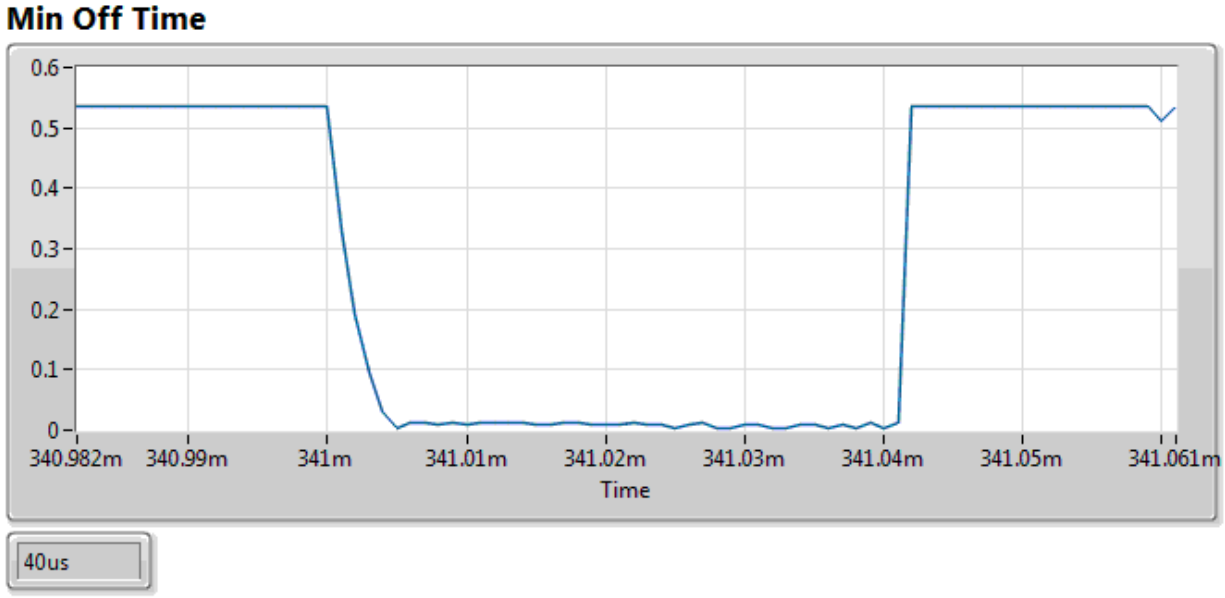
Idle Period Time
802.11g - 2412MHz



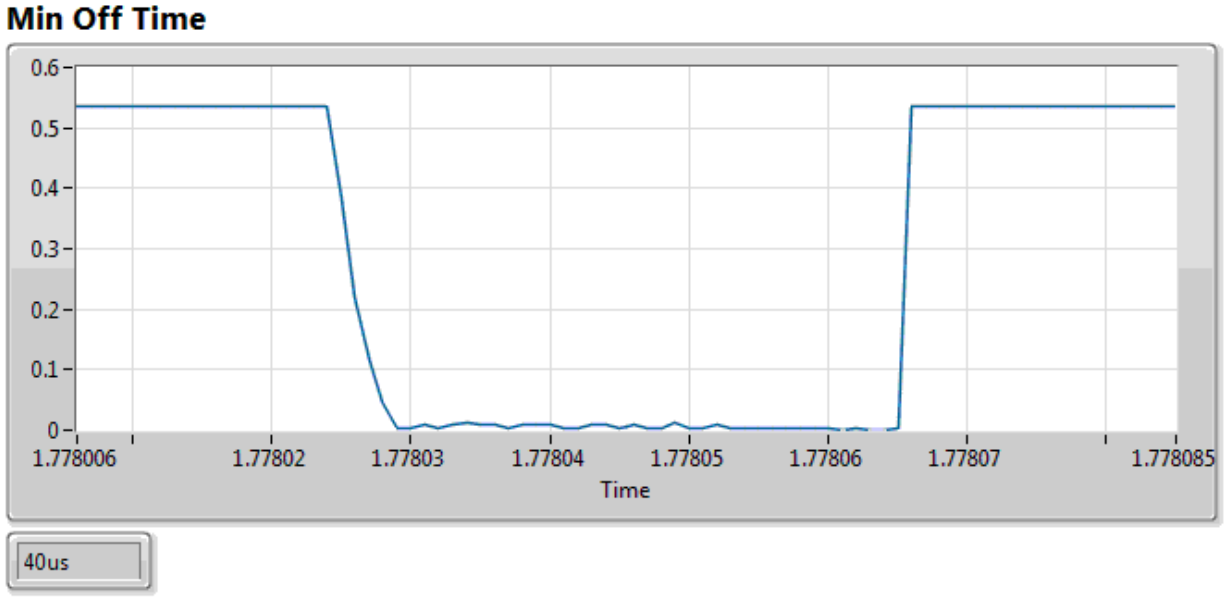
802.11g - 2472MHz



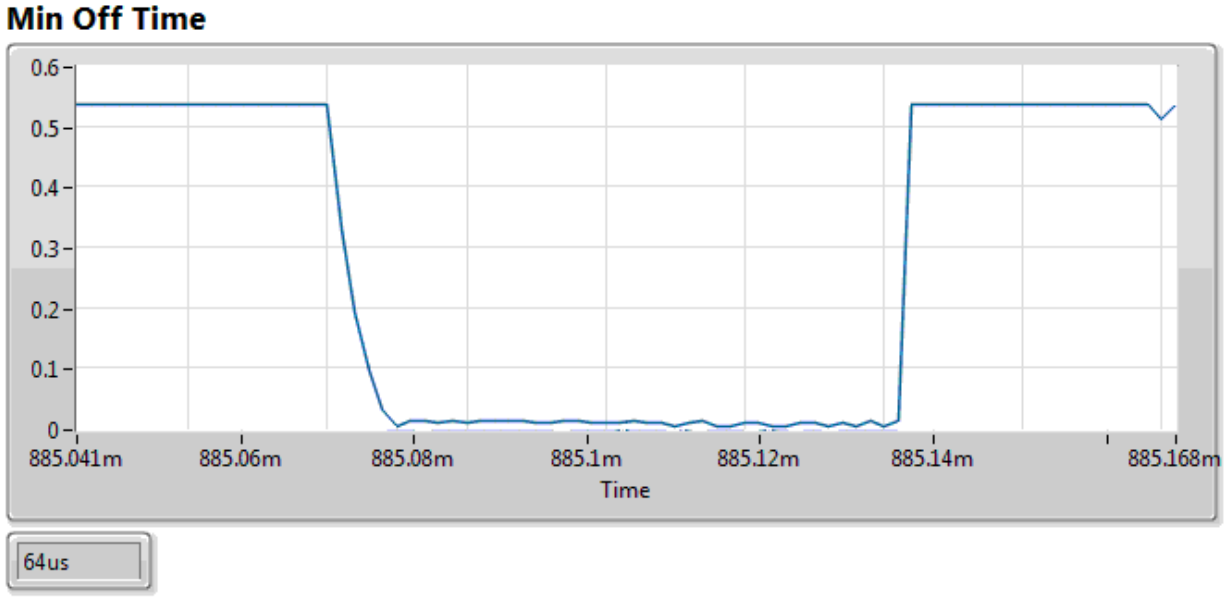
Idle Period Time
802.11n (HT20) - 2412MHz



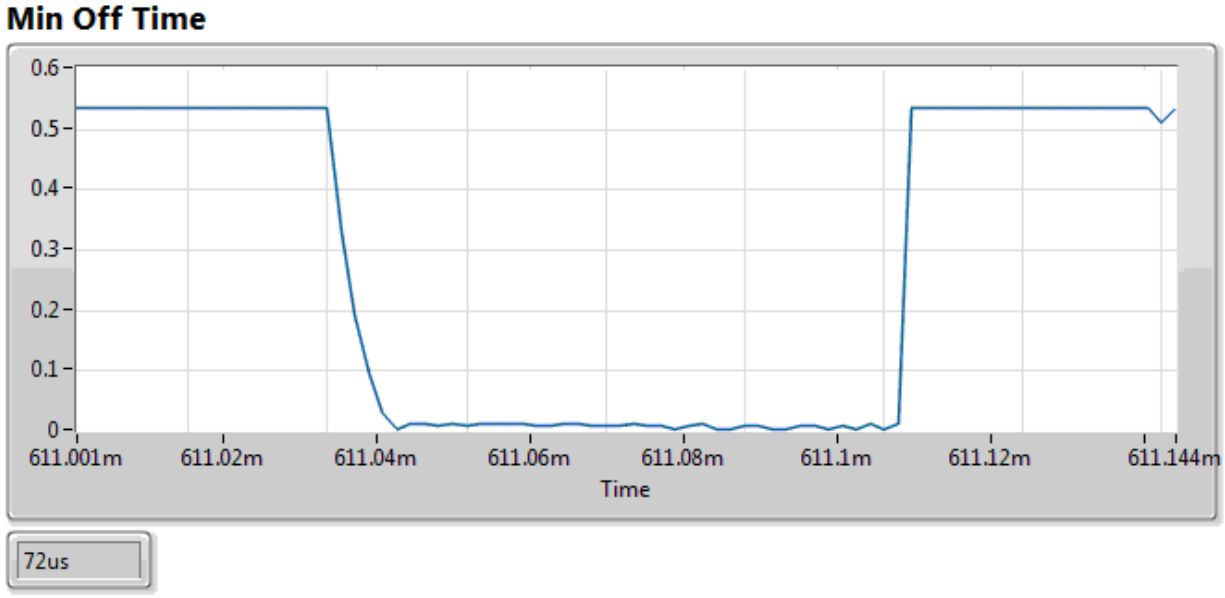
802.11n (HT20) - 2472MHz



Idle Period Time
802.11n (HT40) - 2422MHz



802.11n (HT40) - 2462MHz



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)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see Note 2)**	**Type of Blocking Signal**
P_{min} + 6 dB	2 380 2 503,5	-53	CW
P_{min} + 6 dB	2 300 2 330 2 360	-47	CW
P_{min} + 6 dB	2 523,5 2 553,5 2 583,5 2 613,5 2 643,5 2 673,5	-47	CW
Note 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria (The minimum performance criterion shall be a PER less than or equal to 10 %) in the absence of any blocking signal. Note 2: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.			

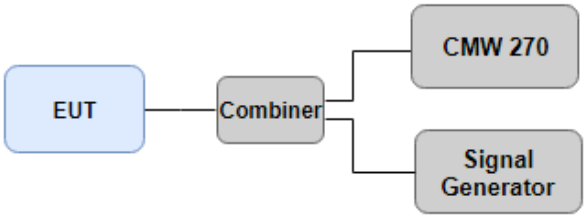
Receiver Blocking Parameters for Receiver Category 2 Equipment Limit			
Wanted Signal Mean Power from Companion Device (dBm)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see Note 2)**	**Type of Blocking Signal**
P_{min} + 6 dB	2 380 2 503,5	-57	CW
P_{min} + 6 dB	2 300 2 583,5	-47	CW
Note 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria (The minimum performance criterion shall be a PER less than or equal to 10 %) in the absence of any blocking signal. Note 2: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.			

Receiver Blocking Parameters for Receiver Category 3 Equipment Limit			
Wanted Signal Mean Power from Companion Device (dBm)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (see Note 2)**	**Type of Blocking Signal**
P_{min} + 12 dB	2 380 2 503,5	-57	CW
P_{min} + 12 dB	2 300 2 583,5	-47	CW
Note 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria (The minimum performance criterion shall be a PER less than or equal to 10 %) in the absence of any blocking signal. Note 2: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.			

6.1.2 Test Procedures

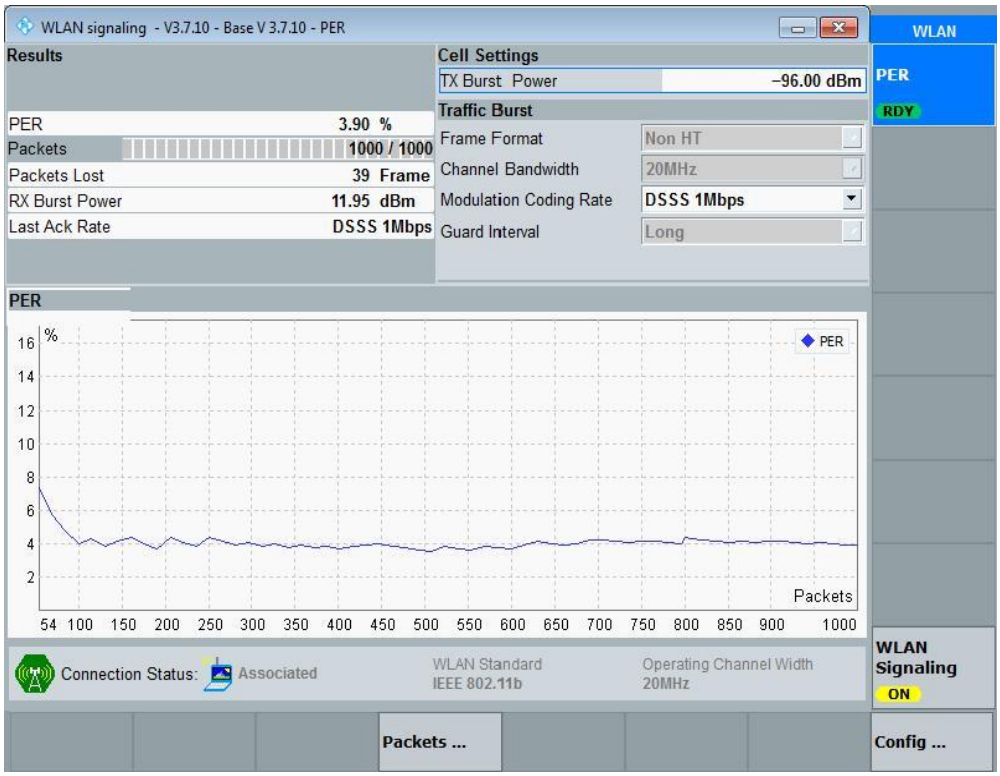
Reference to clause 5.4.11.2 of ETSI EN 300 328 V2.1.1 (2016-11).

6.1.3 Test Setup



6.1.4 Test Result of Receiver Blocking

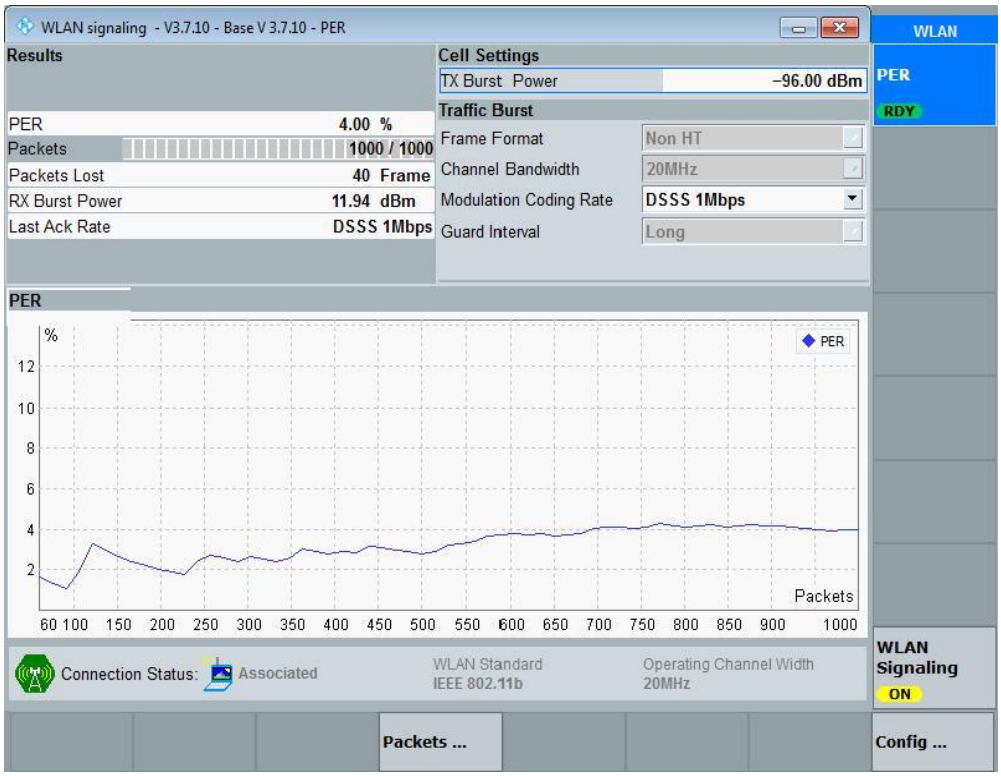
11b / 2412 MHz
Without Interference Signal Sensitivity Level



Receiver Category	1		
Sensitivity Level (dBm)	-96		
Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)	Test Result
-90	2380.0	-50.21	Pass
-90	2503.5		Pass
-90	2300.0	-44.21	Pass
-90	2330.0		Pass
-90	2360.0		Pass
-90	2523.5	-44.21	Pass
-90	2553.5		Pass
-90	2583.5		Pass
-90	2613.5		Pass
-90	2643.5		Pass
-90	2673.5		Pass

11b / 2472 MHz

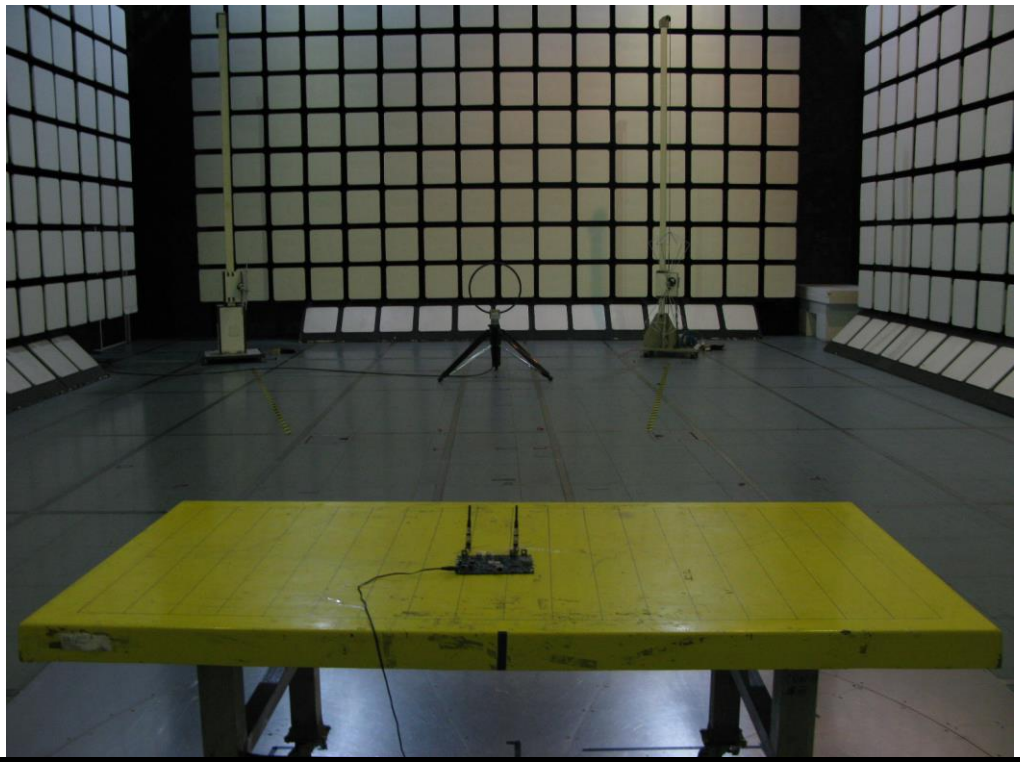
Without Interference Signal Sensitivity Level

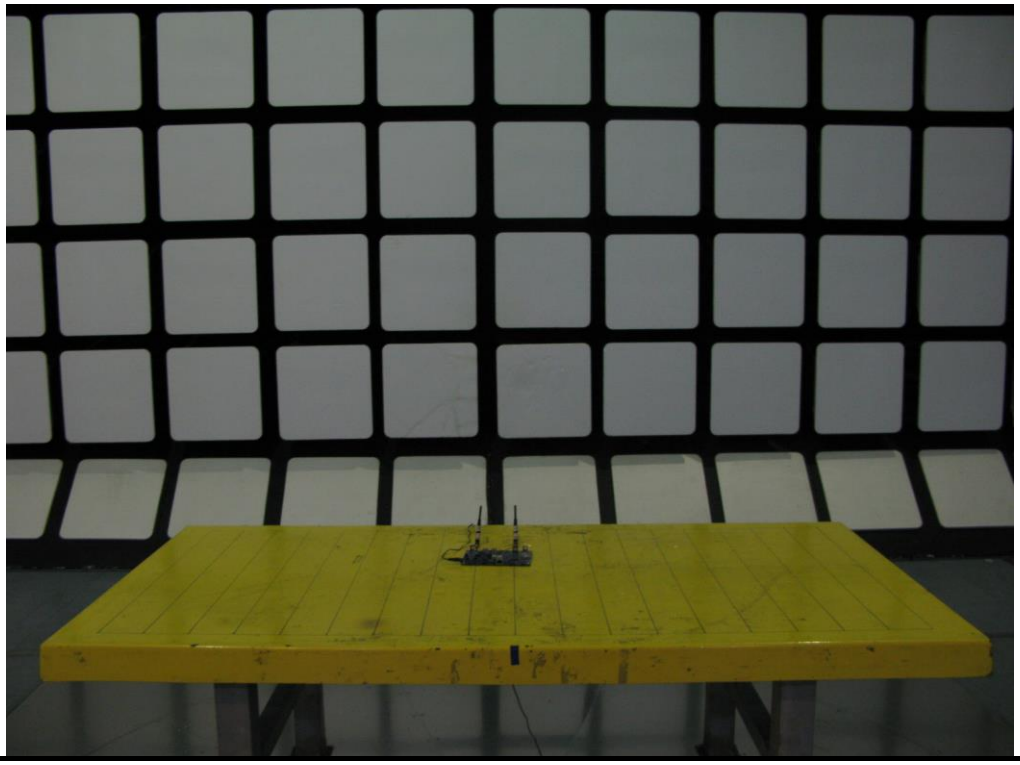


Receiver Category	1		
Sensitivity Level (dBm)	-96		
Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)	Test Result
-90	2380.0	-50.21	Pass
-90	2503.5		Pass
-90	2300.0	-44.21	Pass
-90	2330.0		Pass
-90	2360.0		Pass
-90	2523.5	-44.21	Pass
-90	2553.5		Pass
-90	2583.5		Pass
-90	2613.5		Pass
-90	2643.5		Pass
-90	2673.5		Pass

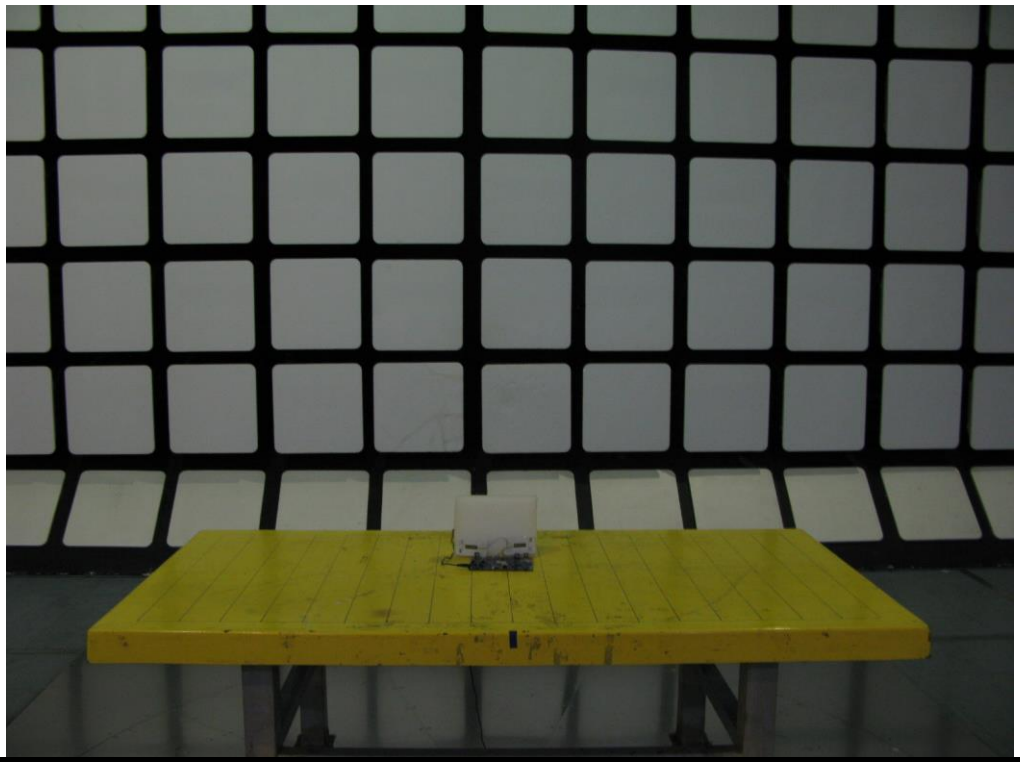
7 Photographs of the Test Configuration

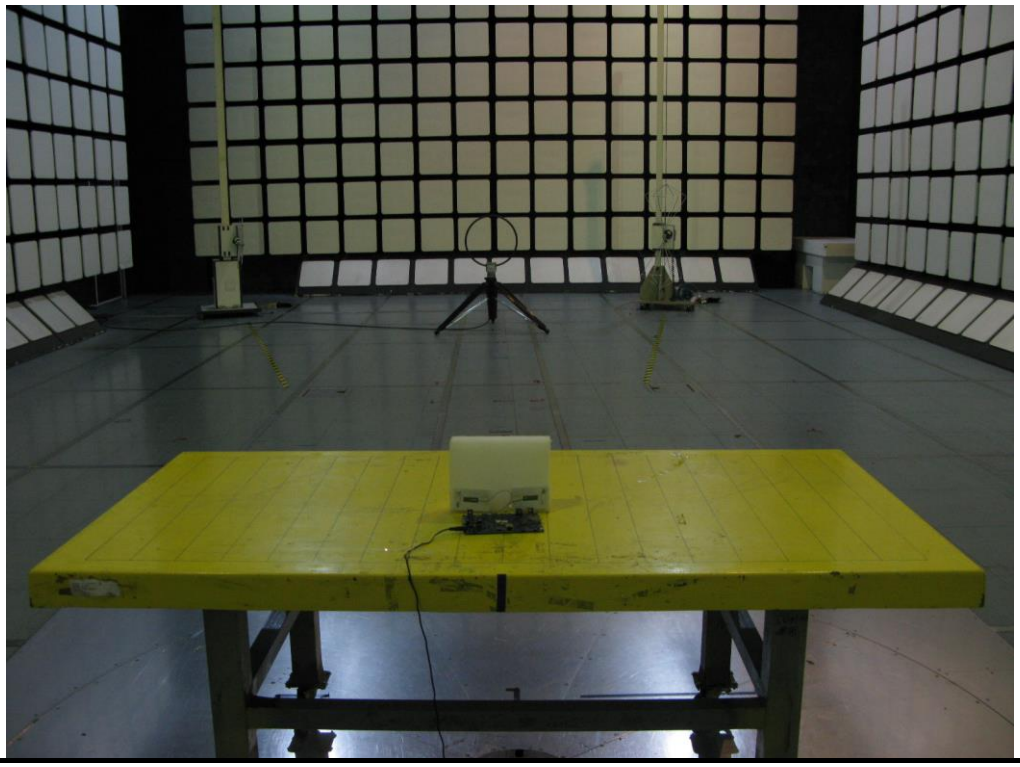
Spurious Emission Test below 30MHz (Dipole antenna)



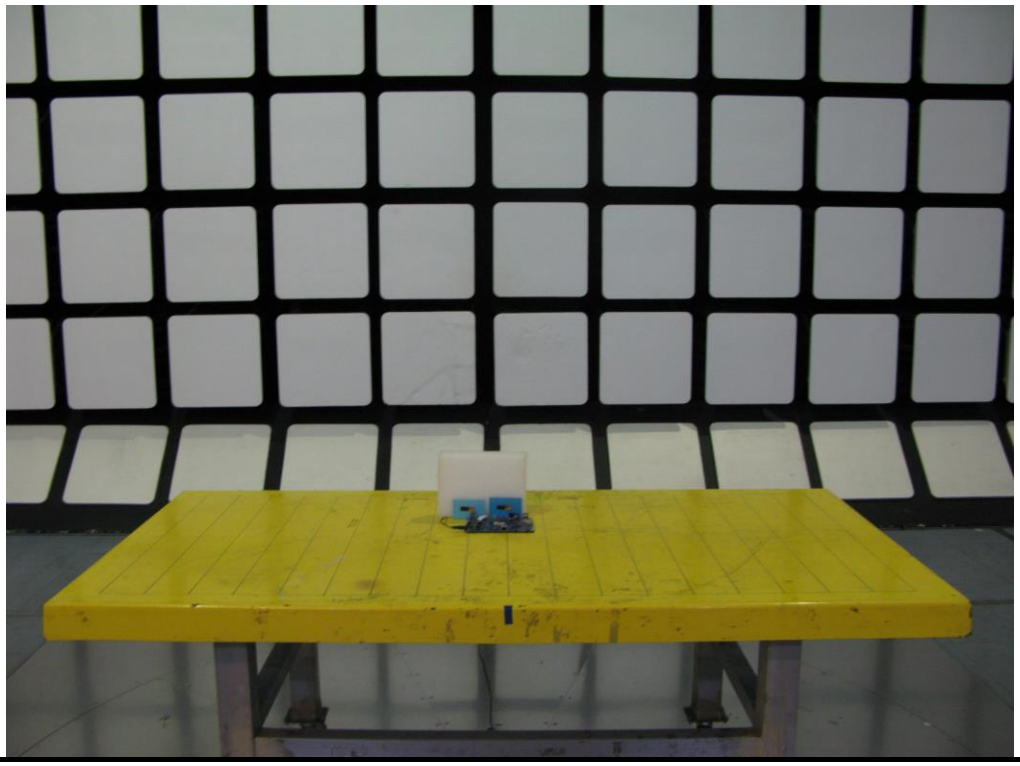


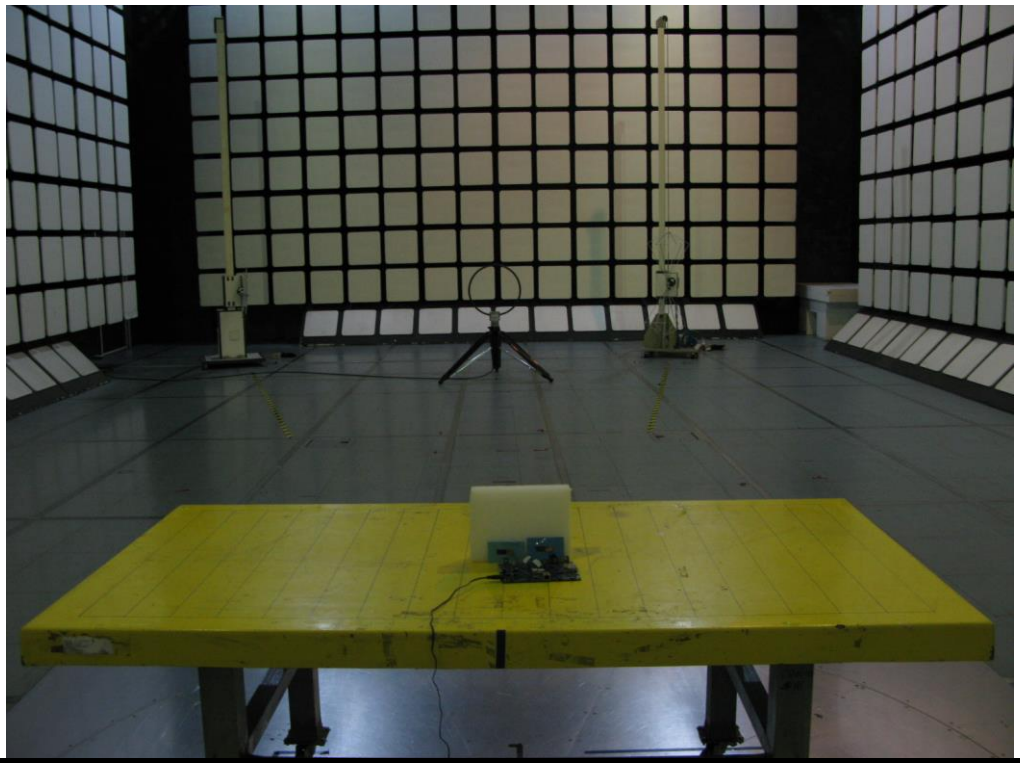
Spurious Emission Test below 30MHz (PCB Dipole antenna)



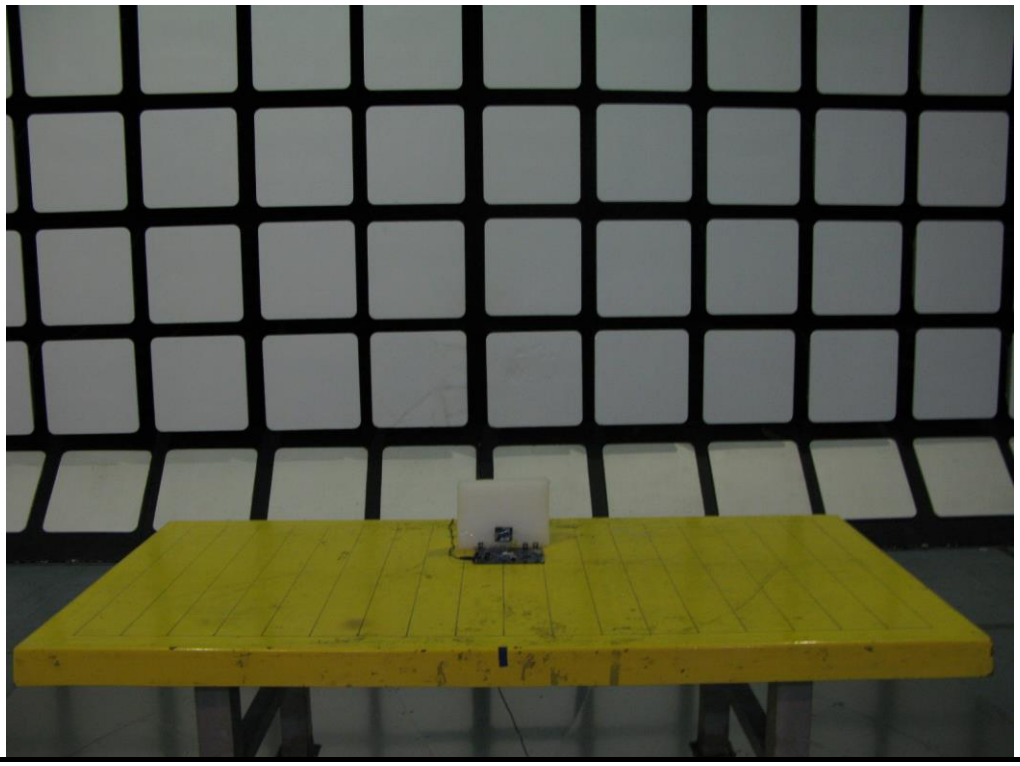


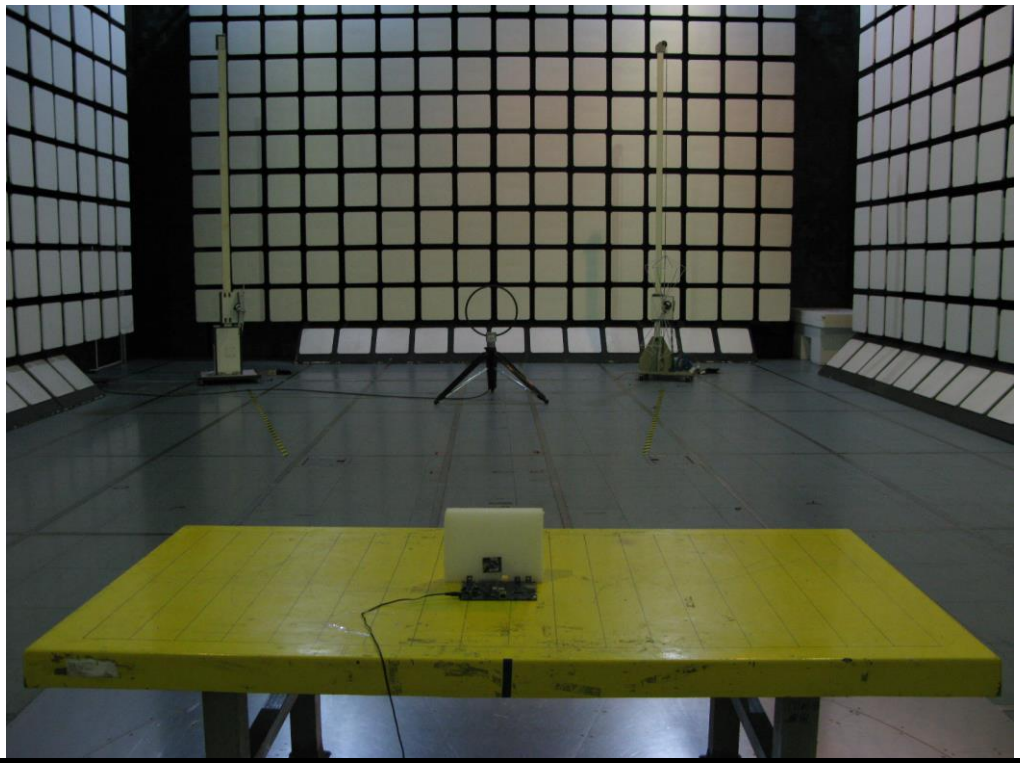
Spurious Emission Test below 30MHz (PIFA antenna)



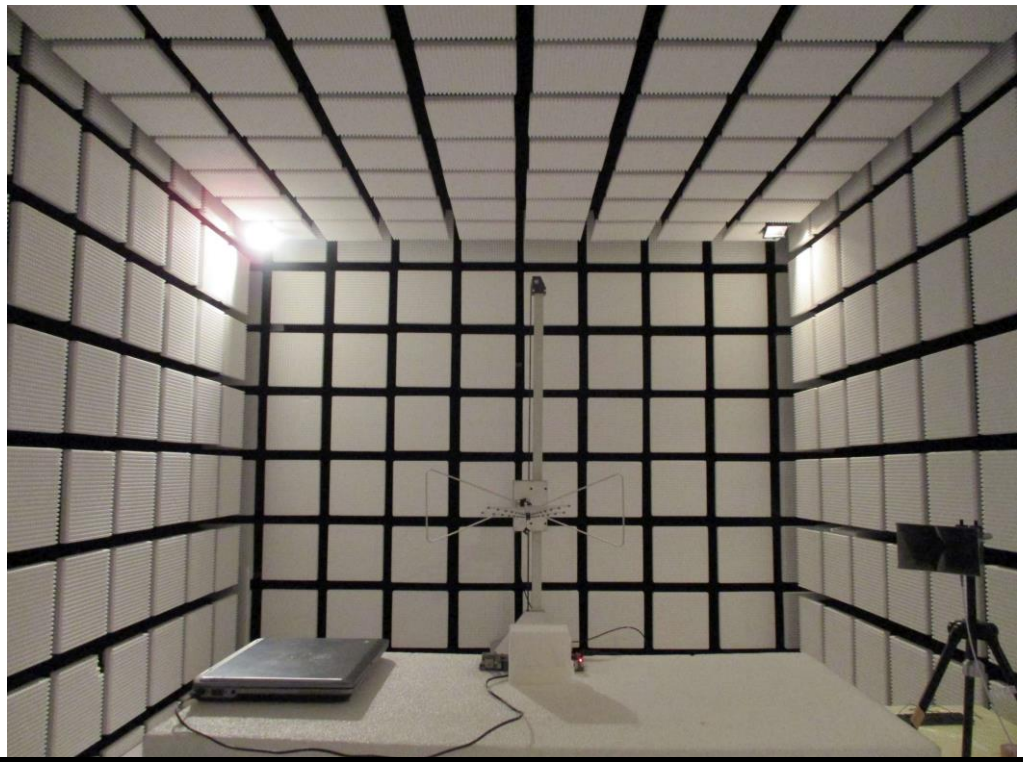


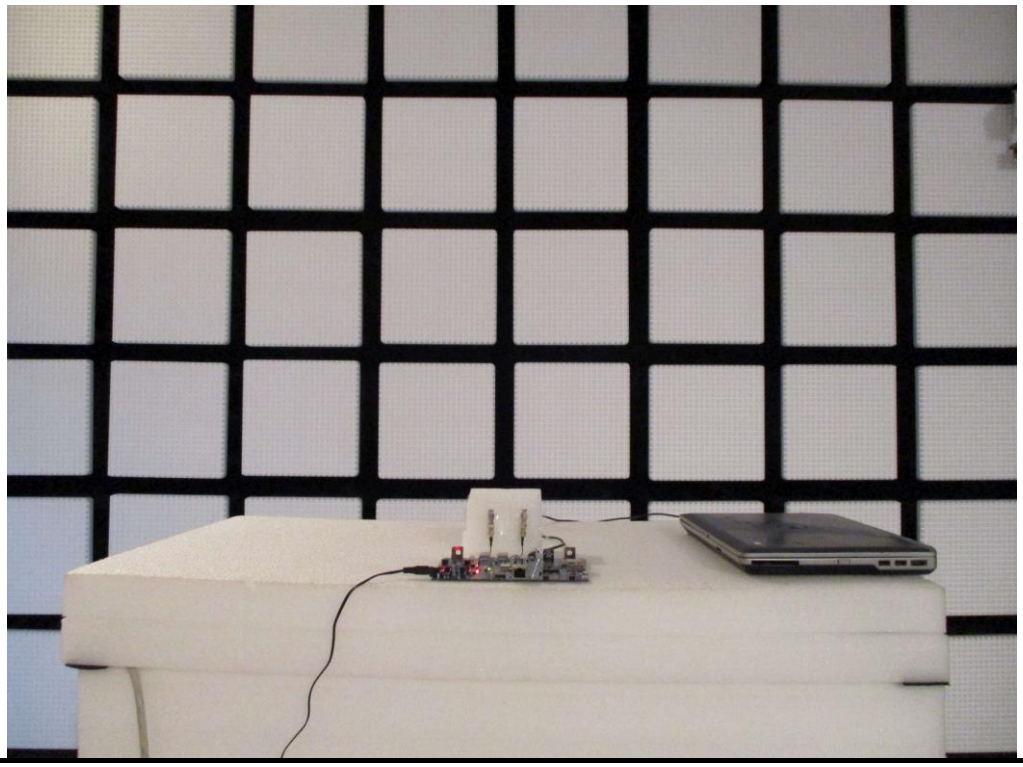
Spurious Emission Test below 30MHz (Magnetic Dipolewith)



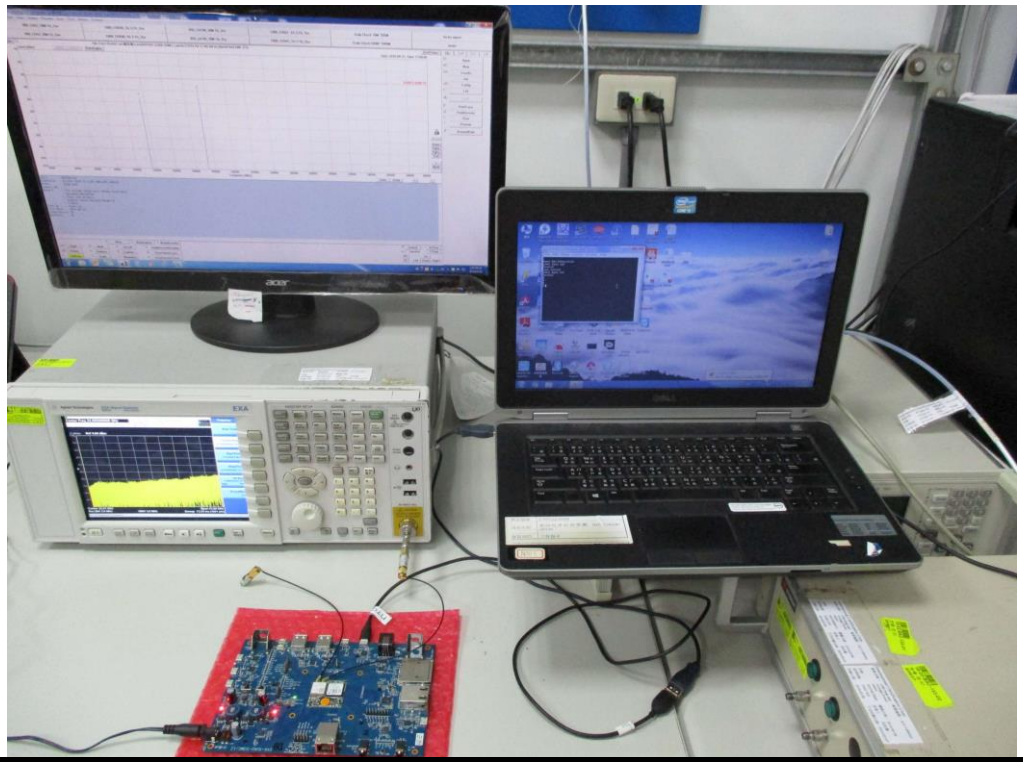


Radiated Spurious Emission Test above 30MHz



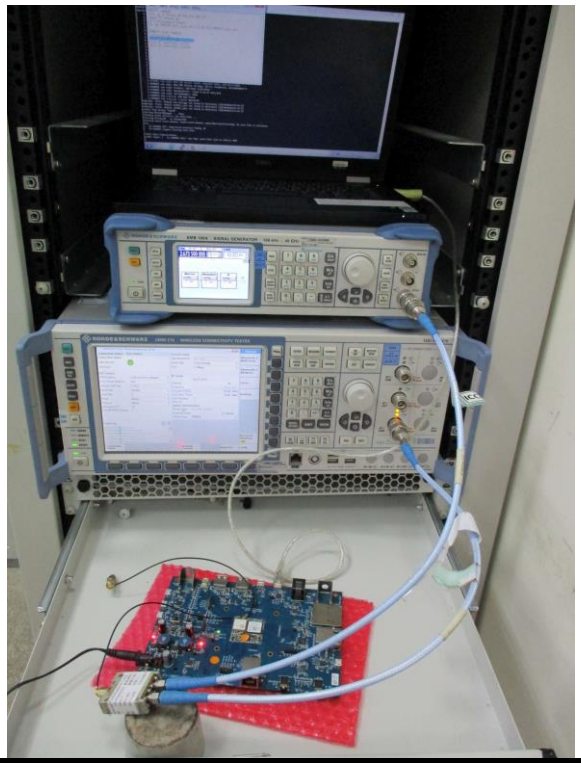


Conducted Spurious Emission Test



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 Corp (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 http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C..

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

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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