CE 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 Connectivity, Inc**
Address	:	**W66N220 Commerce Court, Cedarburg, Wisconsin 53012, USA**
Standard	:	**EN 300 440 V2.1.1 (2017-03)**
Received Date	:	**Aug. 14, 2019**
Tested Date	:	**Aug. 15 ~ Sep. 18, 2019**

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
EQ841101-01	Rev. 01	Initial issue	Oct. 02, 2019

Summary of Test Results

Ref. Std. Clause	Test Items	Measured	Result
4.2.2	Equivalent Isotropically Radiated Power	13.75 dBm	Pass
4.2.3	Permitted Range of Operating Frequencies	Meet the requirement of limit.	Pass
4.2.4	Unwanted Emissions in the Spurious Domain	Meet the requirement of limit.	Pass
4.2.5.4	Duty Cycle	w/o test (No Restriction)	N/A
4.2.6	Additional Requirements for FHSS Equipment	N/A	N/A
4.3.3	Adjacent Channel Selectivity	Meet the requirement of limit.	Pass
4.3.4	Blocking or Desensitization	Meet the requirement of limit.	Pass
4.3.5	Receiver Spurious Radiation	Meet the requirement of limit.	Pass
4.4	Spectrum Access Techniques	N/A	N/A
4.6.4	GBSAR Antenna Pattern	N/A	N/A
ANNEX F	Limits for GBSAR	N/A	N/A

Note: N/A means not applicable.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Product Details

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**
5725-5850	a	5745-5825	149-165 [5]	1	6-54 Mbps
				2	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	1	MCS 0-7
				2	MCS 0-7
				2	MCS 8-15
5725-5850	n (HT40)	5755-5795	151-159 [2]	1	MCS 0-7
				2	MCS 0-7
				2	MCS 8-15
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	1	MCS 0-9
				2	
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	1	MCS 0-9
				2	
5725-5850	ac (VHT80)	5775	155 [1]	1	MCS 0-9
				2	
Note 1: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation. Note 2: 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

Brand	Model	Type	Connector	Operating Frequency (MHz) / Gain (dBi)			
				2400~2483.5	5150~5250	5250~5350	5470~5725
LSR	001-0009	Dipole	IPEX U.FL	2	2		
Laird	NanoBlade-IP04	PCB Dipole	IPEX U.FL	2	3.9	3.9	4
Laird	MAF95310 Mini NanoBlade Flex	PCB Dipole	IPEX U.FL	2.79	3.38		
LSR	FlexPIFA 001-0016	PIFA	IPEX U.FL	2.5	3		
Ethertronics	WLAN_1000146	Magnetic Dipole	IPEX U.FL	2.5	3.5	3.5	3.5
Laird	MIMO FlexPIFA Antenna	PIFA	IPEX U.FL	2	3		
LSR	001-0009 (with filter)	Dipole	IPEX U.FL	2	2		

1.1.4 EUT Operational Condition

Power Supply Type	3.3 Vdc from host		
SW Version	6.0.0.x		
Operational Voltage	☒ Vnom (3.30 V)	☒ Vmax (3.63 V)	☒ Vmin (2.97V)
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 Receiver Category

Receiver Category		Risk Assessment Of Receiver Performance
☒	1	Highly reliable SRD communication media; e.g. serving human life inherent systems (may result in a physical risk to a person).
☐	2	Medium reliable SRD communication media e.g. causing Inconvenience to persons, which cannot simply be overcome by other means.
☐	3	Standard reliable SRD communication media e.g. Inconvenience to persons, which can simply be overcome by other means (e.g. manual).

1.1.7 Channel List

Frequency band (MHz)		5725~5850	
802.11 a / n HT20 / ac VHT20		802.11n HT40 / ac VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	802.11ac VHT80	
161	5805	155	5775
165	5825	---	---

1.1.8 Test Tool and Duty Cycle

Test Tool	Test command	
Modulation Mode	Duty Cycle Of Test Signal (%)	Duty Factor (dB)
a	100.00	0
ac (VHT20)	100.00	0
ac (VHT40)	100.00	0
ac (VHT80)	100.00	0

1.1.9 Power Index of Test Tool

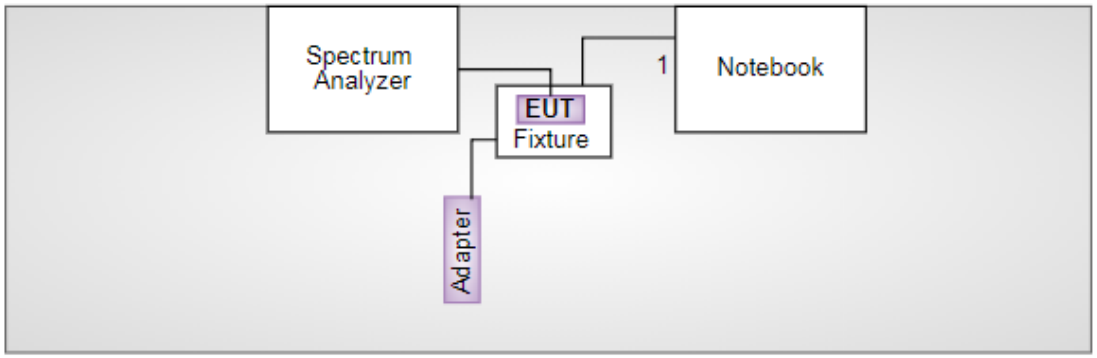
Modulation Mode	Test Frequency (MHz)					
	a / VHT20			VHT40		VHT80
	5745	5785	5825	5755	5795	5775
a	Default - 3	Default - 3	Default - 3	---	---	---
ac (VHT20)	Default - 3	Default - 3	Default - 3	---	---	---
ac (VHT40)	---	---	---	Default - 3	Default - 3	---
ac (VHT80)	---	---	--	---	---	Default - 3

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.

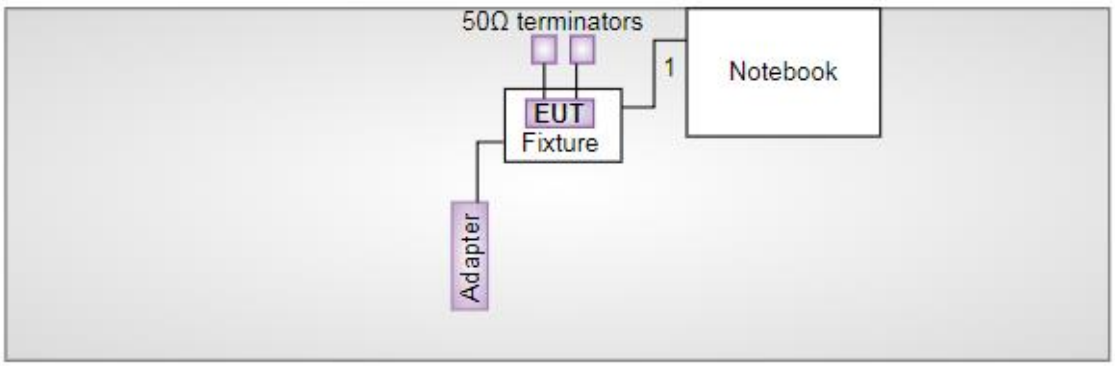
1.3 Test Setup Chart

Test Setup Diagram (Conducted)



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

Test Setup Diagram (Radiated)



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

1.4 Test Equipment and Calibration Data

Test Item	Radiated Emissions				
Test Site	Fully-anechoic chamber 1 / (05CH01-WS)				
Tested Date	Aug. 15, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	Agilent	N9010A	MY54200247	Sep. 17, 2018	Sep. 16, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Oct. 09, 2018	Oct. 08, 2019
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1094	Oct. 26, 2018	Oct. 25, 2019
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Dec. 22, 2018	Dec. 21, 2019
Preamplifier	Agilent	83017A	MY39501310	Nov. 29, 2018	Nov. 28, 2019
Preamplifier	EMC	EMC02325	980146	Oct. 11, 2018	Oct. 10, 2019
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY22626/4	Oct. 15, 2018	Oct. 14, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16608/4	Oct. 15, 2018	Oct. 14, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY15686/4	Oct. 15, 2018	Oct. 14, 2019
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-005	Oct. 15, 2018	Oct. 14, 2019
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-006	Oct. 15, 2018	Oct. 14, 2019
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	Sep. 16 ~ Sep. 18, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101486	Jan. 08, 2019	Jan. 07, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 05, 2018	Dec. 04, 2019
Power Sensor	Agilent	U2021XA	MY53480019	Jan. 30, 2019	Jan. 29, 2020
Power Sensor	Agilent	U2021XA	MY53510003	Jan. 30, 2019	Jan. 29, 2020
Power Sensor	Agilent	U2021XA	MY54070003	Feb. 11, 2019	Feb. 10, 2020
Power Sensor	Agilent	U2021XA	MY54060013	Feb. 11, 2019	Feb. 10, 2020
DC POWER SOURCE	GW INSTEK	GPC-6030D	EM892433	Oct. 25, 2018	Oct. 24, 2019
AC POWER SOURCE	APC	AFC-500W	F312060012	Nov. 29, 2018	Nov. 28, 2019
Combiner(1X2)	woken	0120A02201801O	DOM2AEW1A23	Oct. 18, 2018	Oct. 17, 2019
Combiner(1X4)	WOKEN	4WAYDIV	0120A042011010	Oct. 17, 2018	Oct. 16, 2019
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	Receiver Blocking				
Test Site	(05CH02-WS)				
Tested Date	Sep. 18, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Wireless connectivity tester	ROHDE&SCHWARZ	CMW270	100856	Oct. 17, 2018	Oct. 16, 2019
Signal Generator	ROHDE&SCHWARZ	SMB100A	175727	Dec. 24, 2018	Dec. 23, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX_104	500202/4	Oct. 17, 2018	Oct. 16, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX_104	296088/4	Oct. 17, 2018	Oct. 16, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX_104	329023/4	Oct. 17, 2018	Oct. 16, 2019
Combiner(1X2)	WOKEN	2WAYDIV	12101200003	Oct. 17, 2018	Oct. 16, 2019
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

EN 300 440 V2.1.1 (2017-03)

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 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**
Radio Frequency	±0.059 x 10^{-7}	±1 × 10^{-7}
RF power (conducted)	±0.685 dB	±2,5 dB
Radiated emission of transmitter, valid up to 40 GHz	±3.40 dB	±8 dB
Radiated emission of receiver, valid up to 40 GHz	±3.40 dB	±8 dB
Temperature	±0.4 °C	±1 °C
Humidity	±3.3 %	±5 %
Voltage (DC)	±0.15 %	±1 %
Voltage (AC, < 10kHz)	±0.15 %	±2 %

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
RF Conducted	TH01-WS	25°C / 62%	Ryan Lee
Radiated Emission	05CH01-WS	24°C / 65%	Birkin Cheng
Receiver Blocking	05CH02-WS	22.5°C / 64%	Ryan Lee

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Equivalent Isotropic Radiated Power Permitted Range of Operating Frequencies	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	1, 2, 3, 4
Transmitter Unwanted Emissions	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	2
Receiver Spurious Emissions	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	2
Receiver Blocking Adjacent Channel Selectivity	11a	5745 / 5825	6 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** results were found as the worst case and were shown in this report.
2. The device can be operated under adapter mode and charging mode. Each mode was selected for related test items as below configuration.

   Configuration 1 : Dipole antenna with 2 dBi gain

   Configuration 2 : PCB Dipole antenna with 4dBi gain

   Configuration 3 : PIFA antenna with 3dBi gain

   Configuration 4 : Magnetic Dipole with 3.5dBi gain
3. Conducted emission is only measured for configuration 1 which has maximum conducted power.
4. 50Ω terminators are connected to antenna port of EUT for radiated emission measurement.

3 Transmitter Test Results

3.1 Equivalent Isotropically Radiated Power (e.i.r.p.)

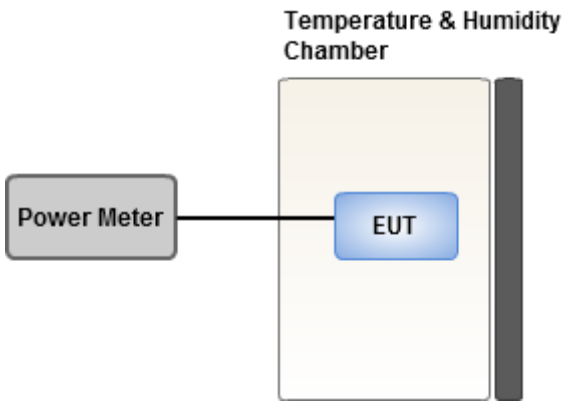
3.1.1 Limit of Equivalent Isotropically Radiated Power

Frequency Bands	Power	Applications
5 725 MHz to 5 875 MHz	25 mW (14dBm) e.i.r.p.	Non-specific short range devices

3.1.2 Test Procedures

Reference to clause 4.2.2.3 of EN 300 440 V2.1.1 (2017-03).

3.1.3 Test Setup



3.1.4 Test Result of Equivalent Isotropically Radiated Power

Configuration 1 : Dipole Antenna

Maximum Transmit Power (dBm)				
Modulation Mode	11a			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	10.78	14	Pass
$T_{min}V_{max}$	5745	11.50	14	Pass
$T_{min}V_{min}$	5745	11.52	14	Pass
$T_{max}V_{max}$	5745	9.87	14	Pass
$T_{max}V_{min}$	5745	9.84	14	Pass
$T_{nom}V_{nom}$	5785	10.56	14	Pass
$T_{min}V_{max}$	5785	11.32	14	Pass
$T_{min}V_{min}$	5785	11.35	14	Pass
$T_{max}V_{max}$	5785	9.69	14	Pass
$T_{max}V_{min}$	5785	9.67	14	Pass
$T_{nom}V_{nom}$	5825	10.13	14	Pass
$T_{min}V_{max}$	5825	10.80	14	Pass
$T_{min}V_{min}$	5825	10.83	14	Pass
$T_{max}V_{max}$	5825	9.05	14	Pass
$T_{max}V_{min}$	5825	9.03	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT20			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	10.89	14	Pass
$T_{min}V_{max}$	5745	11.65	14	Pass
$T_{min}V_{min}$	5745	11.67	14	Pass
$T_{max}V_{max}$	5745	9.91	14	Pass
$T_{max}V_{min}$	5745	9.89	14	Pass
$T_{nom}V_{nom}$	5785	10.65	14	Pass
$T_{min}V_{max}$	5785	11.53	14	Pass
$T_{min}V_{min}$	5785	11.55	14	Pass
$T_{max}V_{max}$	5785	9.72	14	Pass
$T_{max}V_{min}$	5785	9.70	14	Pass
$T_{nom}V_{nom}$	5825	10.26	14	Pass
$T_{min}V_{max}$	5825	10.99	14	Pass
$T_{min}V_{min}$	5825	11.01	14	Pass
$T_{max}V_{max}$	5825	9.24	14	Pass
$T_{max}V_{min}$	5825	9.22	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT40			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5755	10.75	14	Pass
$T_{min}V_{max}$	5755	11.47	14	Pass
$T_{min}V_{min}$	5755	11.50	14	Pass
$T_{max}V_{max}$	5755	9.79	14	Pass
$T_{max}V_{min}$	5755	9.77	14	Pass
$T_{nom}V_{nom}$	5795	10.47	14	Pass
$T_{min}V_{max}$	5795	11.18	14	Pass
$T_{min}V_{min}$	5795	11.20	14	Pass
$T_{max}V_{max}$	5795	9.50	14	Pass
$T_{max}V_{min}$	5795	9.47	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT80			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5775	10.95	14	Pass
$T_{min}V_{max}$	5775	11.72	14	Pass
$T_{min}V_{min}$	5775	11.75	14	Pass
$T_{max}V_{max}$	5775	9.98	14	Pass
$T_{max}V_{min}$	5775	9.96	14	Pass

Configuration 2 : PCB Dipole Antenna

Maximum Transmit Power (dBm)				
Modulation Mode	11a			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	12.78	14	Pass
$T_{min}V_{max}$	5745	13.50	14	Pass
$T_{min}V_{min}$	5745	13.52	14	Pass
$T_{max}V_{max}$	5745	11.87	14	Pass
$T_{max}V_{min}$	5745	11.84	14	Pass
$T_{nom}V_{nom}$	5785	12.56	14	Pass
$T_{min}V_{max}$	5785	13.32	14	Pass
$T_{min}V_{min}$	5785	13.35	14	Pass
$T_{max}V_{max}$	5785	11.69	14	Pass
$T_{max}V_{min}$	5785	11.67	14	Pass
$T_{nom}V_{nom}$	5825	12.13	14	Pass
$T_{min}V_{max}$	5825	12.80	14	Pass
$T_{min}V_{min}$	5825	12.83	14	Pass
$T_{max}V_{max}$	5825	11.05	14	Pass
$T_{max}V_{min}$	5825	11.03	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT20			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	12.89	14	Pass
$T_{min}V_{max}$	5745	13.65	14	Pass
$T_{min}V_{min}$	5745	13.67	14	Pass
$T_{max}V_{max}$	5745	11.91	14	Pass
$T_{max}V_{min}$	5745	11.89	14	Pass
$T_{nom}V_{nom}$	5785	12.65	14	Pass
$T_{min}V_{max}$	5785	13.53	14	Pass
$T_{min}V_{min}$	5785	13.55	14	Pass
$T_{max}V_{max}$	5785	11.72	14	Pass
$T_{max}V_{min}$	5785	11.70	14	Pass
$T_{nom}V_{nom}$	5825	12.26	14	Pass
$T_{min}V_{max}$	5825	12.99	14	Pass
$T_{min}V_{min}$	5825	13.01	14	Pass
$T_{max}V_{max}$	5825	11.24	14	Pass
$T_{max}V_{min}$	5825	11.22	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT40			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5755	12.75	14	Pass
$T_{min}V_{max}$	5755	13.47	14	Pass
$T_{min}V_{min}$	5755	13.50	14	Pass
$T_{max}V_{max}$	5755	11.79	14	Pass
$T_{max}V_{min}$	5755	11.77	14	Pass
$T_{nom}V_{nom}$	5795	12.47	14	Pass
$T_{min}V_{max}$	5795	13.18	14	Pass
$T_{min}V_{min}$	5795	13.20	14	Pass
$T_{max}V_{max}$	5795	11.50	14	Pass
$T_{max}V_{min}$	5795	11.47	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT80			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5775	12.95	14	Pass
$T_{min}V_{max}$	5775	13.72	14	Pass
$T_{min}V_{min}$	5775	**13.75**	14	Pass
$T_{max}V_{max}$	5775	11.98	14	Pass
$T_{max}V_{min}$	5775	11.96	14	Pass

Configuration 3 : PIFA Antenna

Maximum Transmit Power (dBm)				
Modulation Mode	11a			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	11.78	14	Pass
$T_{min}V_{max}$	5745	12.50	14	Pass
$T_{min}V_{min}$	5745	12.52	14	Pass
$T_{max}V_{max}$	5745	10.87	14	Pass
$T_{max}V_{min}$	5745	10.84	14	Pass
$T_{nom}V_{nom}$	5785	11.56	14	Pass
$T_{min}V_{max}$	5785	12.32	14	Pass
$T_{min}V_{min}$	5785	12.35	14	Pass
$T_{max}V_{max}$	5785	10.69	14	Pass
$T_{max}V_{min}$	5785	10.67	14	Pass
$T_{nom}V_{nom}$	5825	11.13	14	Pass
$T_{min}V_{max}$	5825	11.80	14	Pass
$T_{min}V_{min}$	5825	11.83	14	Pass
$T_{max}V_{max}$	5825	10.05	14	Pass
$T_{max}V_{min}$	5825	10.03	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT20			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	11.89	14	Pass
$T_{min}V_{max}$	5745	12.65	14	Pass
$T_{min}V_{min}$	5745	12.67	14	Pass
$T_{max}V_{max}$	5745	10.91	14	Pass
$T_{max}V_{min}$	5745	10.89	14	Pass
$T_{nom}V_{nom}$	5785	11.65	14	Pass
$T_{min}V_{max}$	5785	12.53	14	Pass
$T_{min}V_{min}$	5785	12.55	14	Pass
$T_{max}V_{max}$	5785	10.72	14	Pass
$T_{max}V_{min}$	5785	10.70	14	Pass
$T_{nom}V_{nom}$	5825	11.26	14	Pass
$T_{min}V_{max}$	5825	11.99	14	Pass
$T_{min}V_{min}$	5825	12.01	14	Pass
$T_{max}V_{max}$	5825	10.24	14	Pass
$T_{max}V_{min}$	5825	10.22	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT40			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5755	11.75	14	Pass
$T_{min}V_{max}$	5755	12.47	14	Pass
$T_{min}V_{min}$	5755	12.50	14	Pass
$T_{max}V_{max}$	5755	10.79	14	Pass
$T_{max}V_{min}$	5755	10.77	14	Pass
$T_{nom}V_{nom}$	5795	11.47	14	Pass
$T_{min}V_{max}$	5795	12.18	14	Pass
$T_{min}V_{min}$	5795	12.20	14	Pass
$T_{max}V_{max}$	5795	10.50	14	Pass
$T_{max}V_{min}$	5795	10.47	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT80			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5775	11.95	14	Pass
$T_{min}V_{max}$	5775	12.72	14	Pass
$T_{min}V_{min}$	5775	12.75	14	Pass
$T_{max}V_{max}$	5775	10.98	14	Pass
$T_{max}V_{min}$	5775	10.96	14	Pass

Configuration 4:* Magnetic Dipole *Antenna

Maximum Transmit Power (dBm)				
Modulation Mode	11a			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	12.28	14	Pass
$T_{min}V_{max}$	5745	13.00	14	Pass
$T_{min}V_{min}$	5745	13.02	14	Pass
$T_{max}V_{max}$	5745	11.37	14	Pass
$T_{max}V_{min}$	5745	11.34	14	Pass
$T_{nom}V_{nom}$	5785	12.06	14	Pass
$T_{min}V_{max}$	5785	12.82	14	Pass
$T_{min}V_{min}$	5785	12.85	14	Pass
$T_{max}V_{max}$	5785	11.19	14	Pass
$T_{max}V_{min}$	5785	11.17	14	Pass
$T_{nom}V_{nom}$	5825	11.63	14	Pass
$T_{min}V_{max}$	5825	12.30	14	Pass
$T_{min}V_{min}$	5825	12.33	14	Pass
$T_{max}V_{max}$	5825	10.55	14	Pass
$T_{max}V_{min}$	5825	10.53	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT20			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	12.39	14	Pass
$T_{min}V_{max}$	5745	13.15	14	Pass
$T_{min}V_{min}$	5745	13.17	14	Pass
$T_{max}V_{max}$	5745	11.41	14	Pass
$T_{max}V_{min}$	5745	11.39	14	Pass
$T_{nom}V_{nom}$	5785	12.15	14	Pass
$T_{min}V_{max}$	5785	13.03	14	Pass
$T_{min}V_{min}$	5785	13.05	14	Pass
$T_{max}V_{max}$	5785	11.22	14	Pass
$T_{max}V_{min}$	5785	11.20	14	Pass
$T_{nom}V_{nom}$	5825	11.76	14	Pass
$T_{min}V_{max}$	5825	12.49	14	Pass
$T_{min}V_{min}$	5825	12.51	14	Pass
$T_{max}V_{max}$	5825	10.74	14	Pass
$T_{max}V_{min}$	5825	10.72	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT40			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5755	12.25	14	Pass
$T_{min}V_{max}$	5755	12.97	14	Pass
$T_{min}V_{min}$	5755	13.00	14	Pass
$T_{max}V_{max}$	5755	11.29	14	Pass
$T_{max}V_{min}$	5755	11.27	14	Pass
$T_{nom}V_{nom}$	5795	11.97	14	Pass
$T_{min}V_{max}$	5795	12.68	14	Pass
$T_{min}V_{min}$	5795	12.70	14	Pass
$T_{max}V_{max}$	5795	11.00	14	Pass
$T_{max}V_{min}$	5795	10.97	14	Pass

Maximum Transmit Power (dBm)				
Modulation Mode	VHT80			
Condition	**Freq. (MHz)**	**EIRP Power (dBm)**	**EIRP Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5775	12.45	14	Pass
$T_{min}V_{max}$	5775	13.22	14	Pass
$T_{min}V_{min}$	5775	13.25	14	Pass
$T_{max}V_{max}$	5775	11.48	14	Pass
$T_{max}V_{min}$	5775	11.46	14	Pass

3.2 Permitted Range of Operating Frequencies

3.2.1 Limit of Permitted Range of Operating Frequencies

The width of the power spectrum envelope is f_H -f_L for a given operating frequency. In equipment that allows adjustment or selection of different operating frequencies, the power envelope takes up different positions in the allowed band. The frequency range is determined by the lowest value of f_L and the highest value of f_H resulting from the adjustment of the equipment to the lowest and highest operating frequencies.

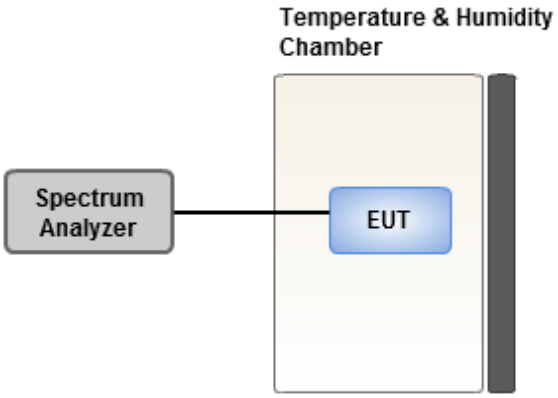
The occupied bandwidth (i.e. the bandwidth in which 99 % of the wanted emission is contained) and the necessary bandwidth of the transmitter shall fall within the assigned frequency band.

For all equipment the frequency range shall lie within the frequency band given by clause 4.2.2.4, table 2. For non-harmonized frequency bands the available frequency range may differ between national administrations.

3.2.2 Test Procedures

Reference to clause 4.2.3.3 of EN 300 440 V2.1.1 (2017-03).

3.2.3 Test Setup



3.2.4 Test Result of Permitted Range of Operating Frequencies

Configuration 1 : Dipole Antenna

Frequency Range (MHz)						
Modulation Mode	11a					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5736.32	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5736.31	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5736.31	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5736.33	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5736.33	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5833.60	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5833.62	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5833.62	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5833.59	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5833.59	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT20					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5735.92	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5735.91	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5735.91	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5735.93	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5735.93	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5834.12	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5834.14	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5834.14	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5834.11	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5834.11	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT40					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5755	5736.68	-	5725	5875	Pass
$T_{min}V_{max}$	5755	5736.66	-	5725	5875	Pass
$T_{min}V_{min}$	5755	5736.66	-	5725	5875	Pass
$T_{max}V_{max}$	5755	5736.70	-	5725	5875	Pass
$T_{max}V_{min}$	5755	5736.70	-	5725	5875	Pass
$T_{nom}V_{nom}$	5795	-	5813.48	5725	5875	Pass
$T_{min}V_{max}$	5795	-	5813.50	5725	5875	Pass
$T_{min}V_{min}$	5795	-	5813.50	5725	5875	Pass
$T_{max}V_{max}$	5795	-	5813.47	5725	5875	Pass
$T_{max}V_{min}$	5795	-	5813.47	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT80					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5775	5736.70	-	5725	5875	Pass
$T_{min}V_{max}$	5775	5736.68	-	5725	5875	Pass
$T_{min}V_{min}$	5775	5736.68	-	5725	5875	Pass
$T_{max}V_{max}$	5775	5736.71	-	5725	5875	Pass
$T_{max}V_{min}$	5775	5736.71	-	5725	5875	Pass

Configuration 2 : PCB Dipole Antenna

Frequency Range (MHz)						
Modulation Mode	11a					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5736.28	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5736.26	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5736.26	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5736.29	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5736.29	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5833.82	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5833.83	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5833.83	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5833.80	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5833.80	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT20					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5735.88	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5735.87	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5735.87	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5635.89	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5635.89	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5834.20	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5834.22	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5834.22	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5834.19	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5834.19	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT40					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5755	5736.68	-	5725	5875	Pass
$T_{min}V_{max}$	5755	5736.66	-	5725	5875	Pass
$T_{min}V_{min}$	5755	5736.66	-	5725	5875	Pass
$T_{max}V_{max}$	5755	5736.69	-	5725	5875	Pass
$T_{max}V_{min}$	5755	5736.69	-	5725	5875	Pass
$T_{nom}V_{nom}$	5795	-	5813.40	5725	5875	Pass
$T_{min}V_{max}$	5795	-	5813.42	5725	5875	Pass
$T_{min}V_{min}$	5795	-	5813.42	5725	5875	Pass
$T_{max}V_{max}$	5795	-	5813.39	5725	5875	Pass
$T_{max}V_{min}$	5795	-	5813.39	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT80					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5775	5736.60	-	5725	5875	Pass
$T_{min}V_{max}$	5775	5736.58	-	5725	5875	Pass
$T_{min}V_{min}$	5775	5736.58	-	5725	5875	Pass
$T_{max}V_{max}$	5775	5736.61	-	5725	5875	Pass
$T_{max}V_{min}$	5775	5736.61	-	5725	5875	Pass

Configuration 3 : PIFA Antenna

Frequency Range (MHz)						
Modulation Mode	11a					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5736.52	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5736.50	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5736.50	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5736.53	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5736.53	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5833.36	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5833.38	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5833.38	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5833.35	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5833.35	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT20					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5735.88	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5735.90	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5735.90	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5735.87	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5735.87	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5834.20	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5834.22	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5834.22	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5834.19	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5834.19	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT40					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5755	5736.68	-	5725	5875	Pass
$T_{min}V_{max}$	5755	5736.66	-	5725	5875	Pass
$T_{min}V_{min}$	5755	5736.66	-	5725	5875	Pass
$T_{max}V_{max}$	5755	5736.69	-	5725	5875	Pass
$T_{max}V_{min}$	5755	5736.69	-	5725	5875	Pass
$T_{nom}V_{nom}$	5795	-	5813.40	5725	5875	Pass
$T_{min}V_{max}$	5795	-	5814.42	5725	5875	Pass
$T_{min}V_{min}$	5795	-	5814.42	5725	5875	Pass
$T_{max}V_{max}$	5795	-	5813.39	5725	5875	Pass
$T_{max}V_{min}$	5795	-	5813.39	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT80					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5775	5736.70	-	5725	5875	Pass
$T_{min}V_{max}$	5775	5736.68	-	5725	5875	Pass
$T_{min}V_{min}$	5775	5736.68	-	5725	5875	Pass
$T_{max}V_{max}$	5775	5736.71	-	5725	5875	Pass
$T_{max}V_{min}$	5775	5736.71	-	5725	5875	Pass

Configuration 4: Isolated Magnetic Dipole Antenna

Frequency Range (MHz)						
Modulation Mode	11a					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5736.28	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5736.27	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5736.27	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5736.30	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5736.30	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5833.76	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5833.77	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5833.77	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5833.75	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5833.75	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT20					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5745	5735.88	-	5725	5875	Pass
$T_{min}V_{max}$	5745	5735.86	-	5725	5875	Pass
$T_{min}V_{min}$	5745	5735.86	-	5725	5875	Pass
$T_{max}V_{max}$	5745	5735.89	-	5725	5875	Pass
$T_{max}V_{min}$	5745	5735.89	-	5725	5875	Pass
$T_{nom}V_{nom}$	5825	-	5834.20	5725	5875	Pass
$T_{min}V_{max}$	5825	-	5834.22	5725	5875	Pass
$T_{min}V_{min}$	5825	-	5834.22	5725	5875	Pass
$T_{max}V_{max}$	5825	-	5834.19	5725	5875	Pass
$T_{max}V_{min}$	5825	-	5834.19	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT40					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5755	5736.68	-	5725	5875	Pass
$T_{min}V_{max}$	5755	5736.66	-	5725	5875	Pass
$T_{min}V_{min}$	5755	5736.66	-	5725	5875	Pass
$T_{max}V_{max}$	5755	5736.70	-	5725	5875	Pass
$T_{max}V_{min}$	5755	5736.70	-	5725	5875	Pass
$T_{nom}V_{nom}$	5795	-	5813.40	5725	5875	Pass
$T_{min}V_{max}$	5795	-	5813.42	5725	5875	Pass
$T_{min}V_{min}$	5795	-	5813.38	5725	5875	Pass
$T_{max}V_{max}$	5795	-	5813.38	5725	5875	Pass
$T_{max}V_{min}$	5795	-	5813.38	5725	5875	Pass

Frequency Range (MHz)						
Modulation Mode	VHT80					
Condition	**Freq. (MHz)**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**	**Results**
$T_{nom}V_{nom}$	5775	5736.70	-	5725	5875	Pass
$T_{min}V_{max}$	5775	5736.68	-	5725	5875	Pass
$T_{min}V_{min}$	5775	5736.68	-	5725	5875	Pass
$T_{max}V_{max}$	5775	5736.71	-	5725	5875	Pass
$T_{max}V_{min}$	5775	5736.71	-	5725	5875	Pass

Summary

Mode	OBW (Hz)	ITU-Code
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	16.439M	16M4D1D
802.11ac VHT20_Nss1,(MCS0)_2TX	17.619M	17M6D1D
802.11ac VHT40_Nss1,(MCS0)_2TX	36.162M	36M1D1D
802.11ac VHT80_Nss1,(MCS0)_2TX	75.809M	75M8D1D

OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)	N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz_TnomVnom	Pass	16M~20M	5.736777G	5.753216G	16.438M	16.55M
5785MHz_TnomVnom	Pass	16M~20M	5.77678G	5.793219G	16.439M	16.56M
5825MHz_TnomVnom	Pass	16M~20M	5.816782G	5.833219G	16.437M	16.56M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz_TnomVnom	Pass	16M~20M	5.73619G	5.753809G	17.619M	17.77M
5785MHz_TnomVnom	Pass	16M~20M	5.77619G	5.793809G	17.619M	17.76M
5825MHz_TnomVnom	Pass	16M~20M	5.816188G	5.833808G	17.619M	17.77M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz_TnomVnom	Pass	32M~40M	5.736919G	5.77308G	36.16M	36.48M
5795MHz_TnomVnom	Pass	32M~40M	5.776923G	5.813086G	36.162M	36.48M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz_TnomVnom	Pass	64M~80M	5.737101G	5.812917G	75.809M	76.48M

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;

3.3 Transmitter Unwanted Emissions in the Spurious Domain

3.3.1 Limit of Transmitter Unwanted Emissions in the Spurious Domain

Limit for Radiated Spurious Emission

Frequency ranges / State	47 MHz to 74 MHz 87,5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤1 000 MHz	Frequencies > 1 000 MHz
Operating	-54 dBm	-36 dBm	-30 dBm
Standby	-57 dBm	-57 dBm	-47 dBm

Limit for Conducted Spurious Emission

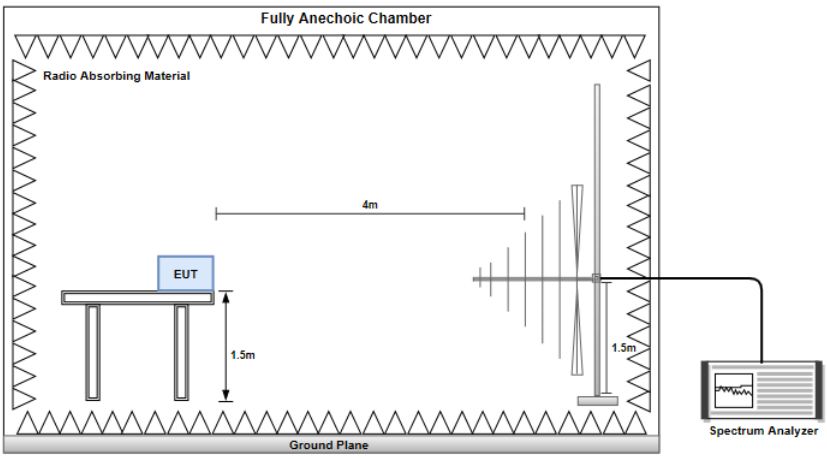
Frequency ranges / State	47 MHz to 74 MHz 87,5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤1 000 MHz	Frequencies > 1 000 MHz
Operating	-57.01 dBm	-39.01 dBm	-33.01 dBm
Standby	-60.01 dBm	-60.01 dBm	-50.01 dBm

3.3.2 Test Procedures

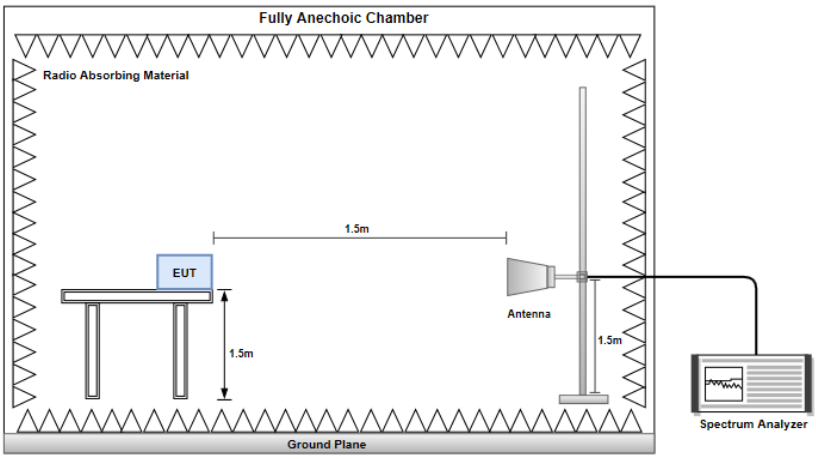
Reference to 4.2.4.3 of EN 300 440 V2.1.1 (2017-03).

3.3.3 Test Setup

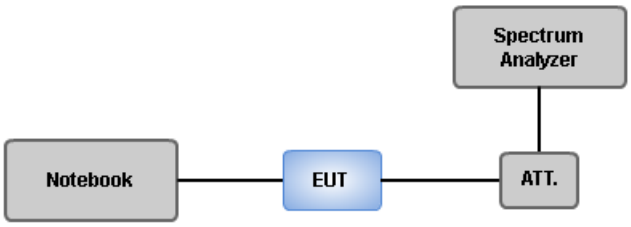
Below 1GHz



Above 1 GHz

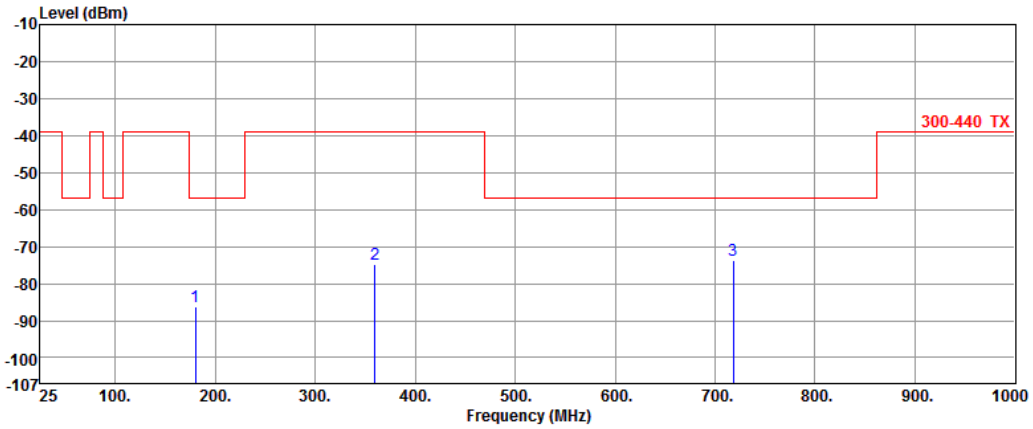


Conducted Emission



3.3.4 Transmitter Conducted Unwanted Emissions (Below 1GHz)

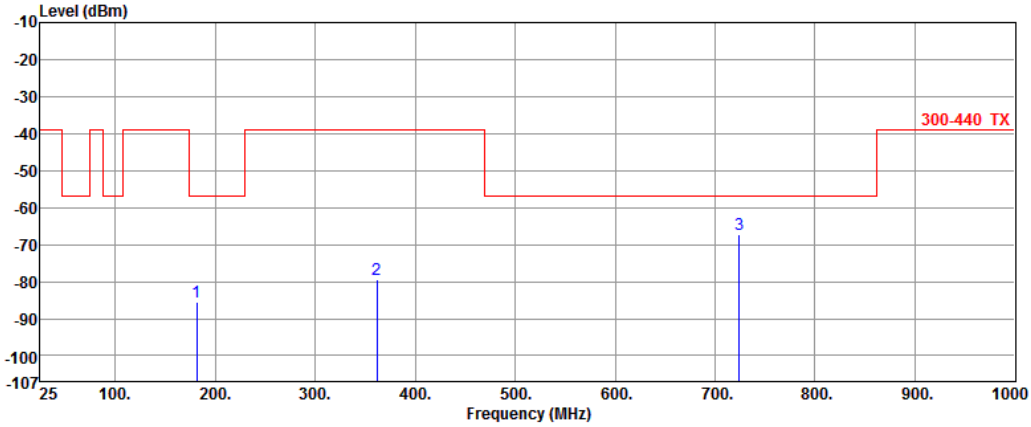
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.33	-86.19	-57.01	-29.18	0.00	-86.19
2	359.53	-74.90	-39.01	-35.89	0.00	-74.90
3	718.63	-73.63	-57.01	-16.62	0.00	-73.63

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

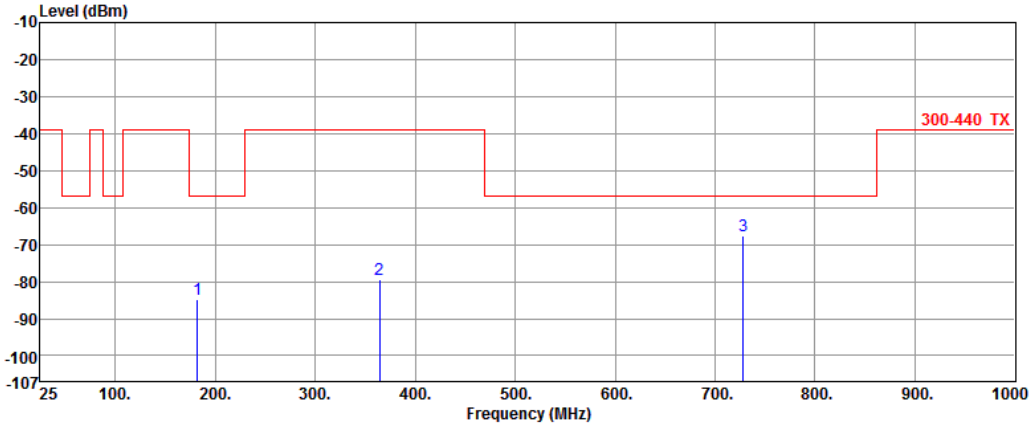
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.40	-85.39	-57.01	-28.38	0.00	-85.39
2	361.48	-79.51	-39.01	-40.50	0.00	-79.51
3	724.10	-67.26	-57.01	-10.25	0.00	-67.26

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

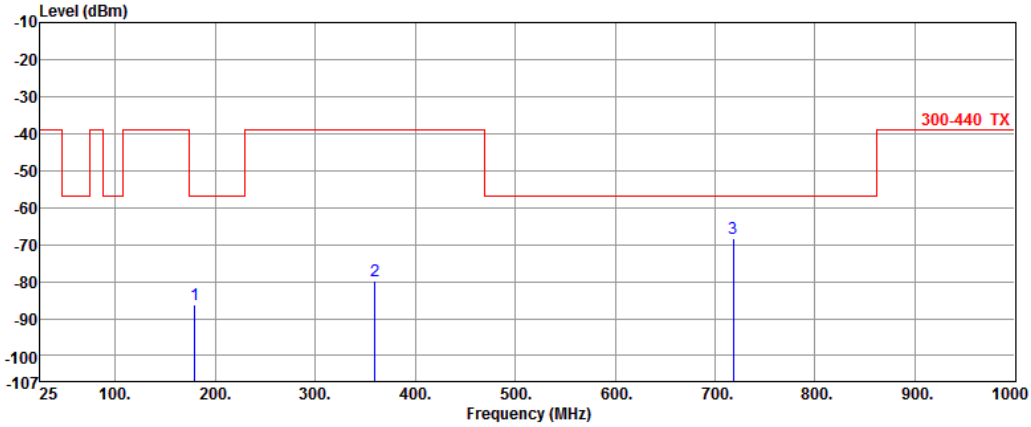
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.98	-84.69	-57.01	-27.68	0.00	-84.69
2	364.30	-79.34	-39.01	-40.33	0.00	-79.34
3	727.98	-67.65	-57.01	-10.64	0.00	-67.65

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

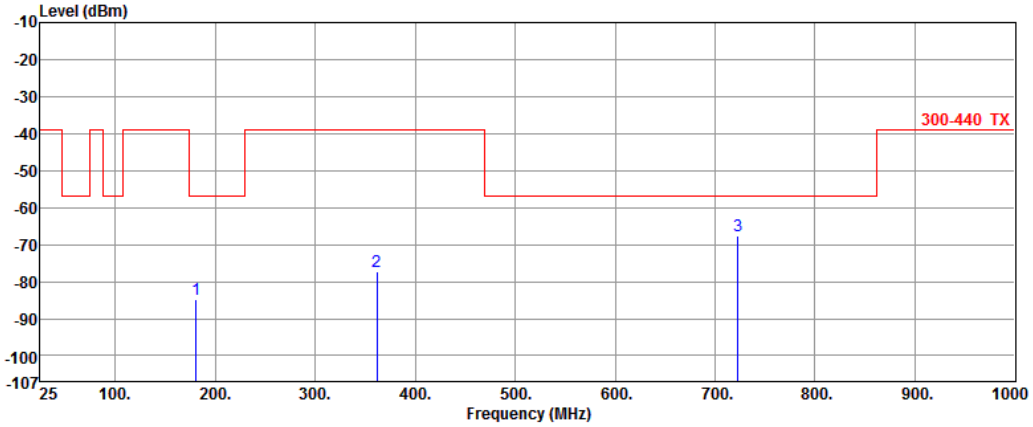
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	179.13	-86.27	-57.01	-29.26	0.00	-86.27
2	359.63	-79.83	-39.01	-40.82	0.00	-79.83
3	718.23	-68.40	-57.01	-11.39	0.00	-68.40

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

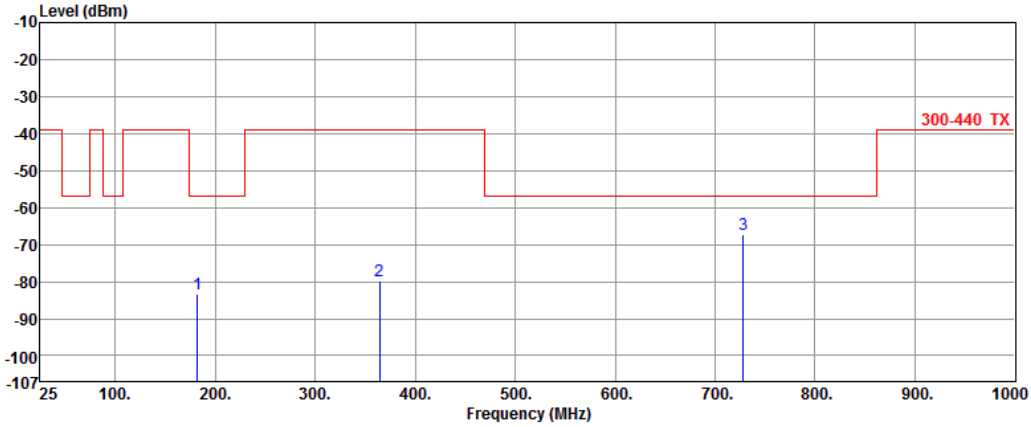
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.00	-84.89	-57.01	-27.88	0.00	-84.89
2	361.43	-77.26	-39.01	-38.25	0.00	-77.26
3	723.10	-67.51	-57.01	-10.50	0.00	-67.51

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

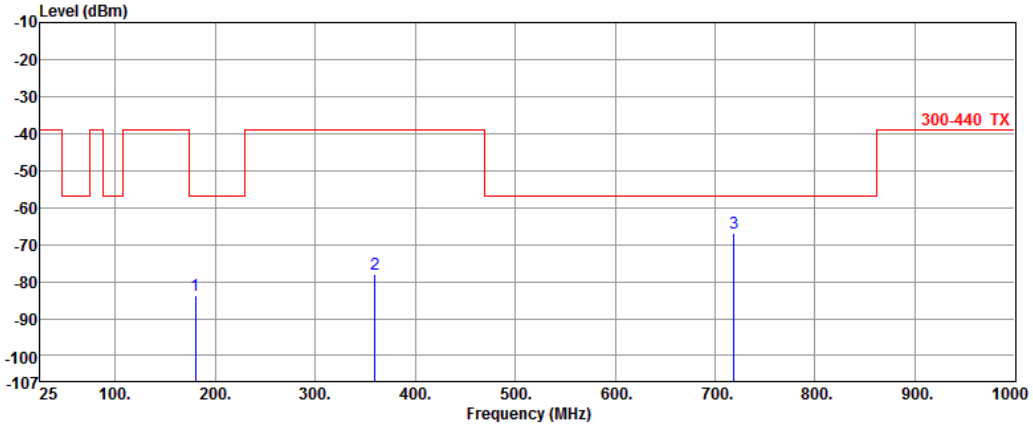
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.98	-83.43	-57.01	-26.42	0.00	-83.43
2	364.30	-79.66	-39.01	-40.65	0.00	-79.66
3	727.98	-67.29	-57.01	-10.28	0.00	-67.29

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

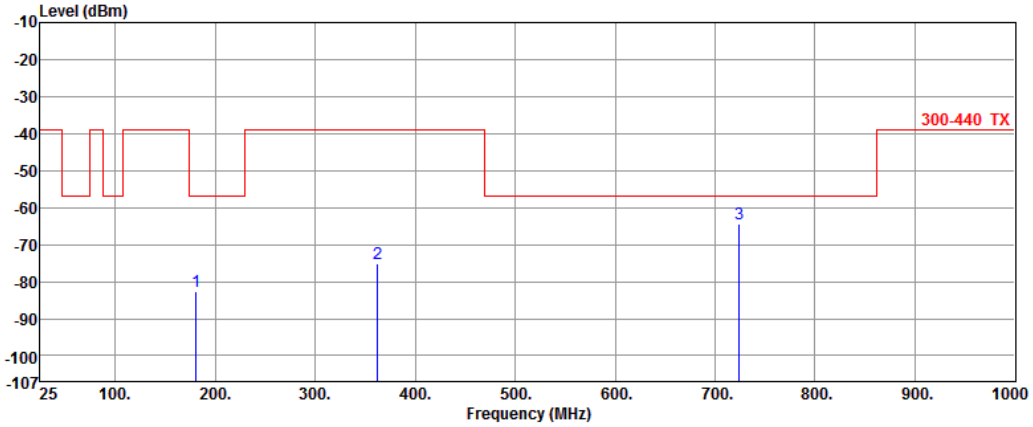
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.33	-83.78	-57.01	-26.77	0.00	-83.78
2	359.53	-77.92	-39.01	-38.91	0.00	-77.92
3	719.10	-66.81	-57.01	-9.80	0.00	-66.81

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

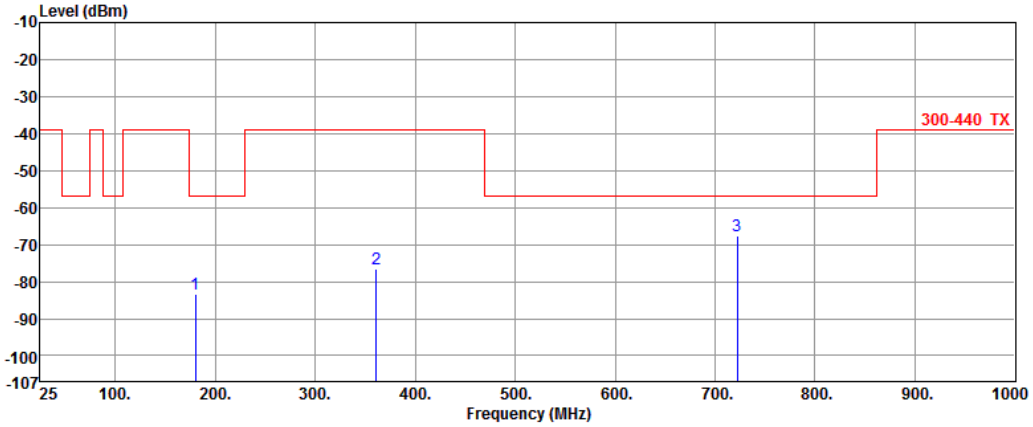
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.00	-82.63	-57.01	-25.62	0.00	-82.63
2	362.25	-75.09	-39.01	-36.08	0.00	-75.09
3	724.08	-64.53	-57.01	-7.52	0.00	-64.53

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

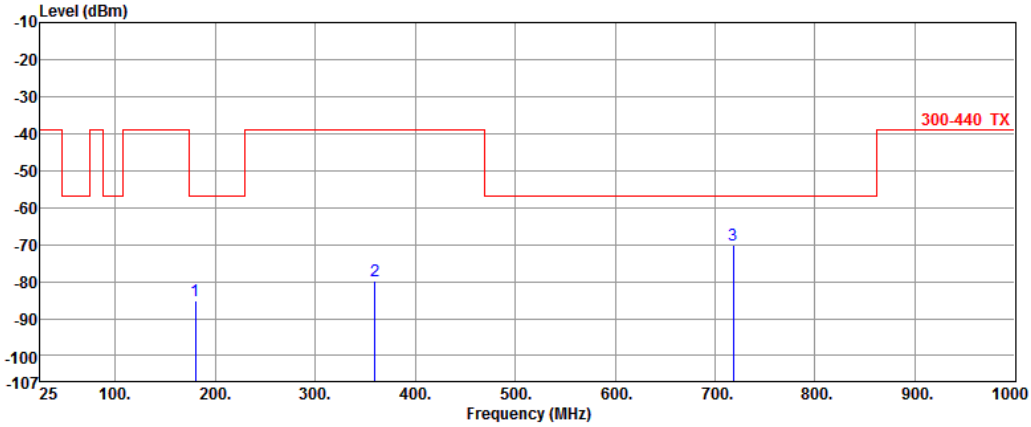
Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.13	-83.26	-57.01	-26.25	0.00	-83.26
2	361.38	-76.54	-39.01	-37.53	0.00	-76.54
3	722.33	-67.49	-57.01	-10.48	0.00	-67.49

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

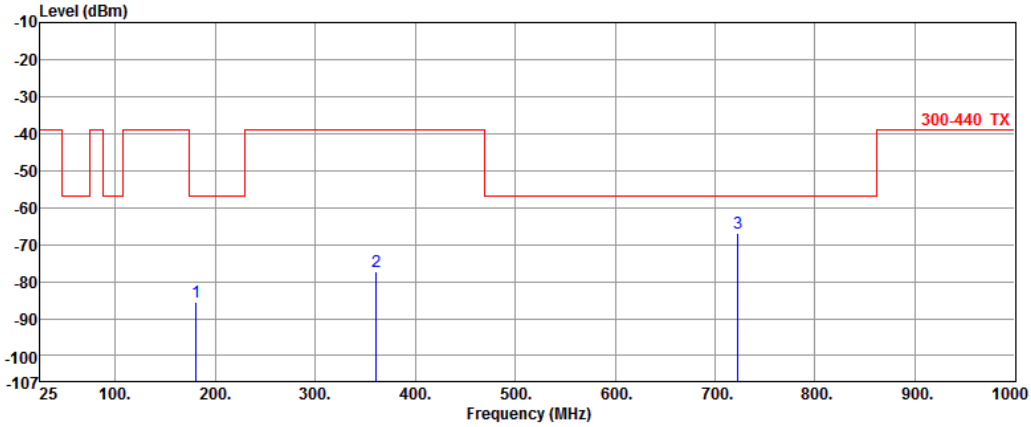
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.03	-85.25	-57.01	-28.24	0.00	-85.25
2	359.43	-79.80	-39.01	-40.79	0.00	-79.80
3	718.23	-70.21	-57.01	-13.20	0.00	-70.21

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

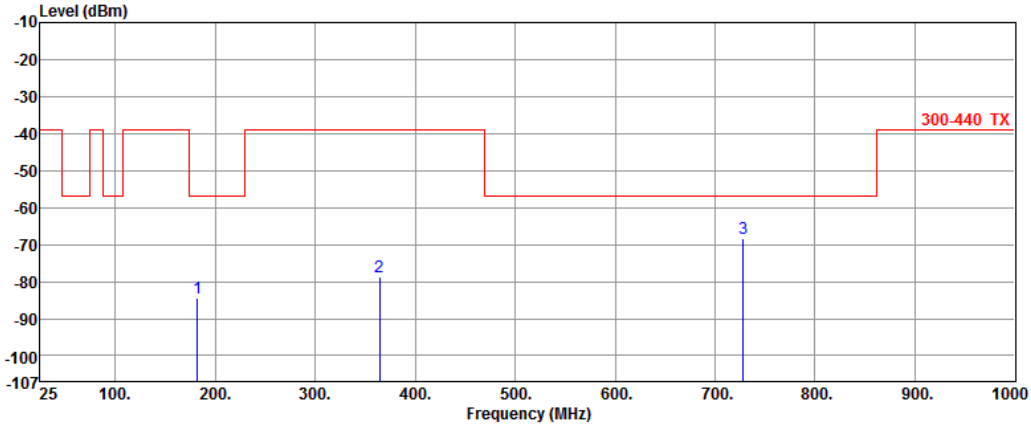
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.00	-85.35	-57.01	-28.34	0.00	-85.35
2	361.38	-77.30	-39.01	-38.29	0.00	-77.30
3	723.10	-67.01	-57.01	-10.00	0.00	-67.01

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

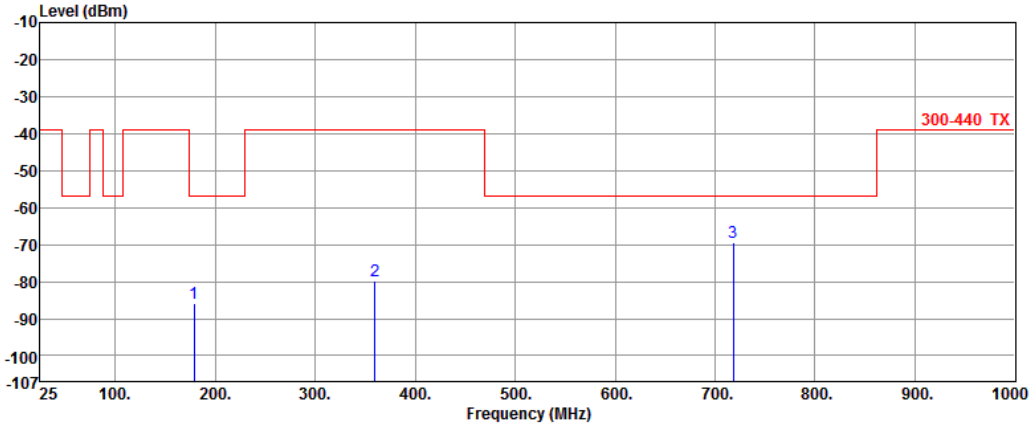
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.98	-84.54	-57.01	-27.53	0.00	-84.54
2	364.30	-78.82	-39.01	-39.81	0.00	-78.82
3	727.98	-68.18	-57.01	-11.17	0.00	-68.18

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

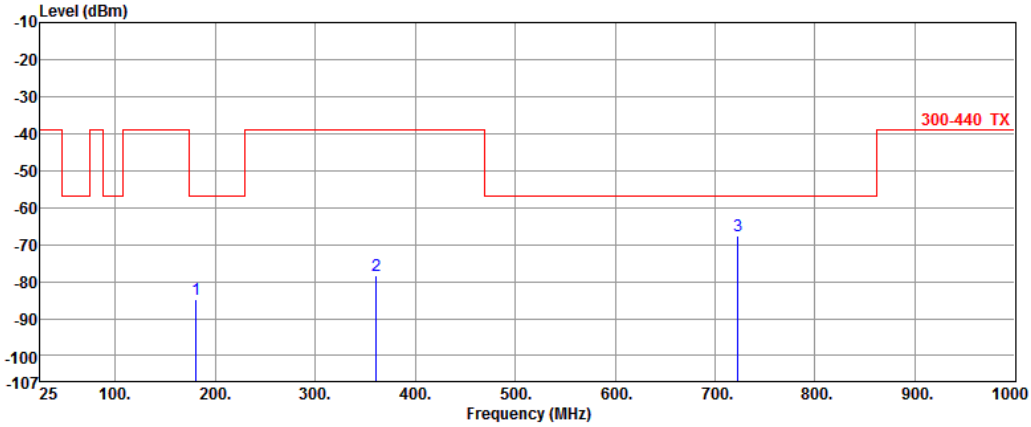
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	179.05	-85.72	-57.01	-28.71	0.00	-85.72
2	359.43	-79.95	-39.01	-40.94	0.00	-79.95
3	718.23	-69.39	-57.01	-12.38	0.00	-69.39

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

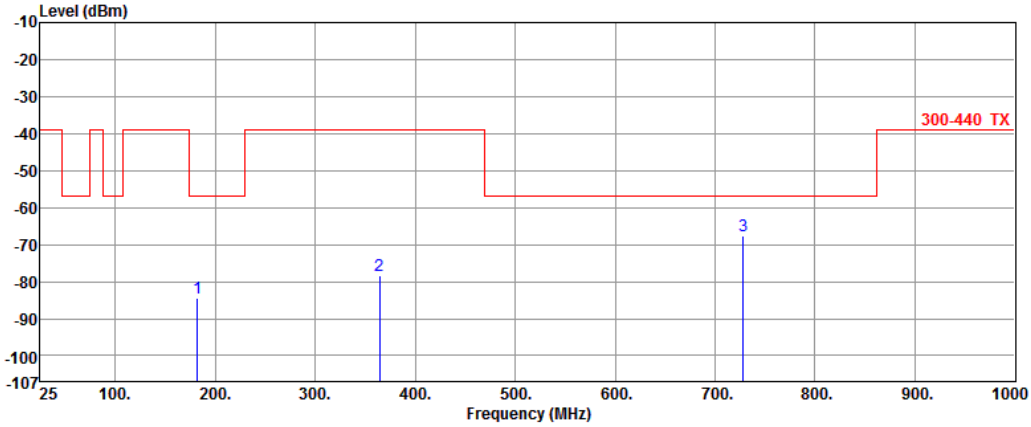
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.00	-84.87	-57.01	-27.86	0.00	-84.87
2	361.38	-78.38	-39.01	-39.37	0.00	-78.38
3	723.10	-67.51	-57.01	-10.50	0.00	-67.51

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

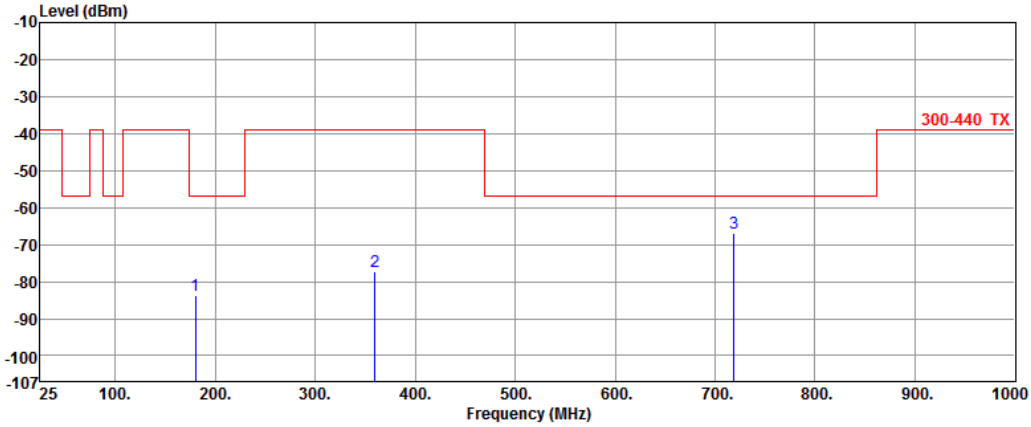
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.98	-84.58	-57.01	-27.57	0.00	-84.58
2	364.30	-78.28	-39.01	-39.27	0.00	-78.28
3	727.98	-67.72	-57.01	-10.71	0.00	-67.72

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

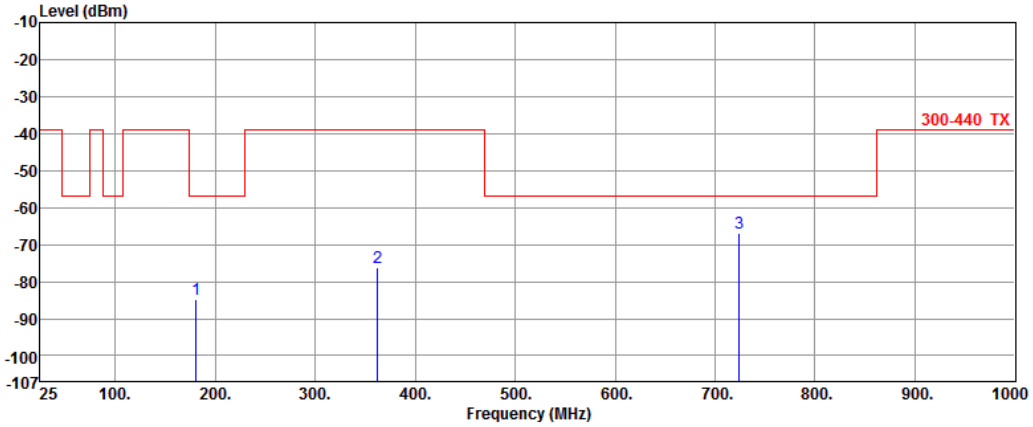
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.03	-83.86	-57.01	-26.85	0.00	-83.86
2	359.43	-77.24	-39.01	-38.23	0.00	-77.24
3	719.20	-66.97	-57.01	-9.96	0.00	-66.97

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

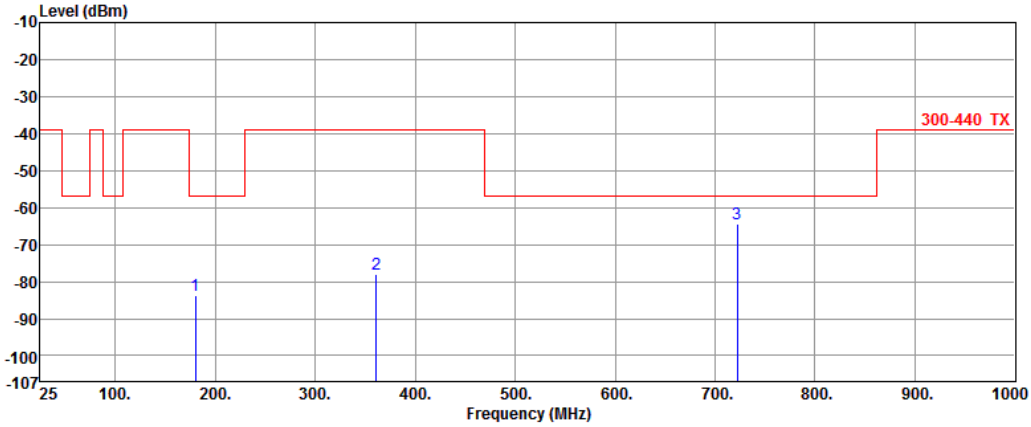
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	181.00	-84.76	-57.01	-27.75	0.00	-84.76
2	362.35	-76.36	-39.01	-37.35	0.00	-76.36
3	724.08	-66.98	-57.01	-9.97	0.00	-66.98

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

Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	1		

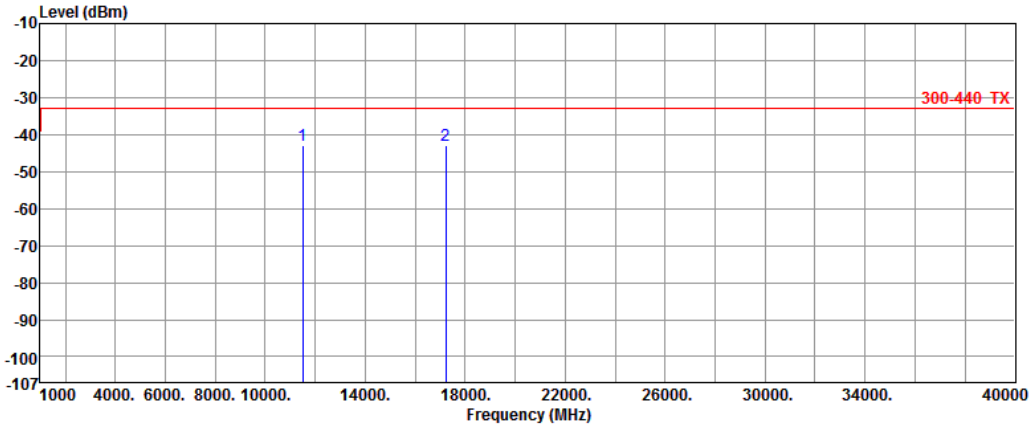


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	180.03	-83.87	-57.01	-26.86	0.00	-83.87
2	361.38	-78.12	-39.01	-39.11	0.00	-78.12
3	722.13	-64.46	-57.01	-7.45	0.00	-64.46

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

3.3.5 Transmitter Conducted Unwanted Emissions (Above 1GHz)

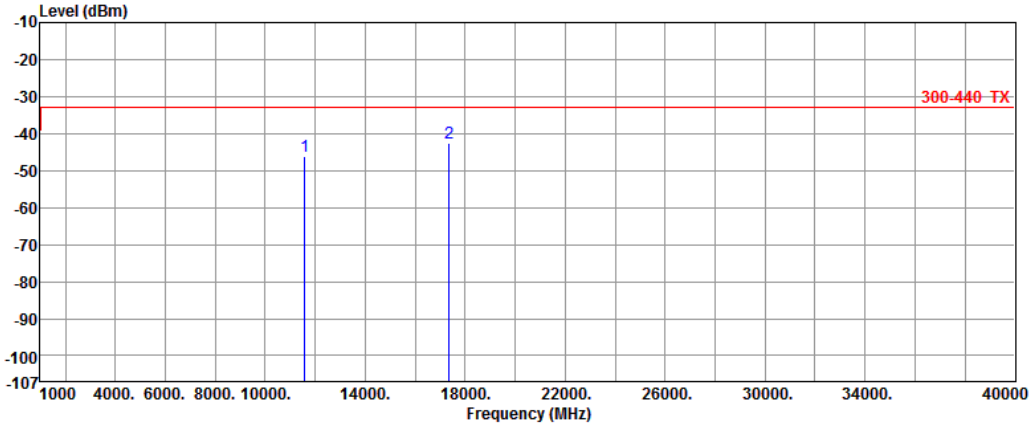
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11486.20	-42.91	-33.01	-9.90	0.00	-42.91
2	17238.95	-42.85	-33.01	-9.84	0.00	-42.85

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

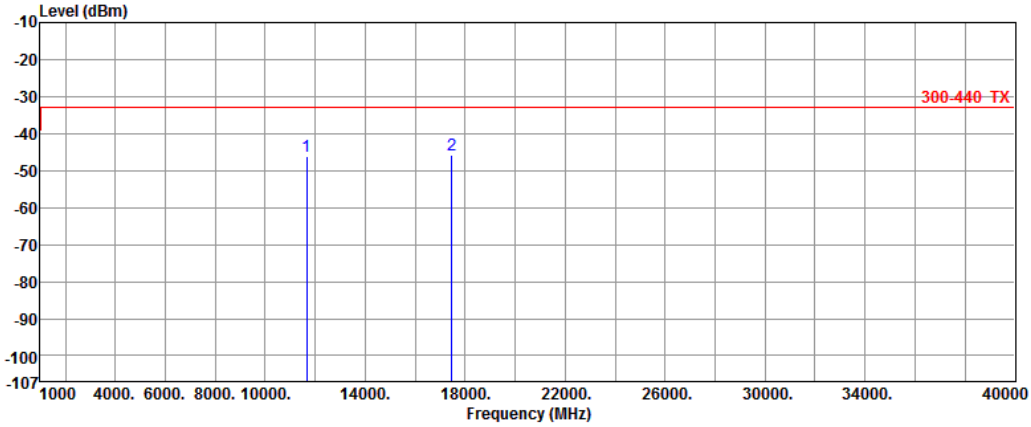
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11566.40	-45.99	-33.01	-12.98	0.00	-45.99
2	17356.85	-42.72	-33.01	-9.71	0.00	-42.72

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

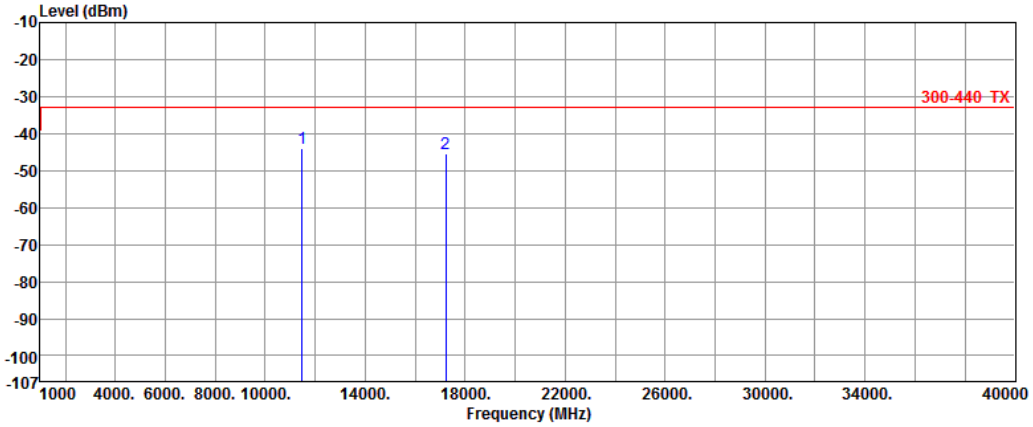
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11652.75	-46.18	-33.01	-13.17	0.00	-46.18
2	17475.55	-45.67	-33.01	-12.66	0.00	-45.67

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

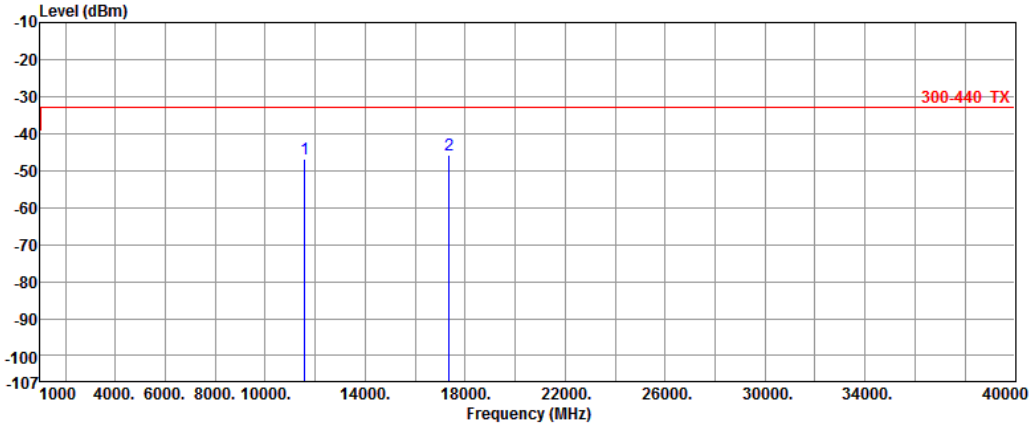
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11484.10	-44.03	-33.01	-11.02	0.00	-44.03
2	17238.45	-45.32	-33.01	-12.31	0.00	-45.32

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

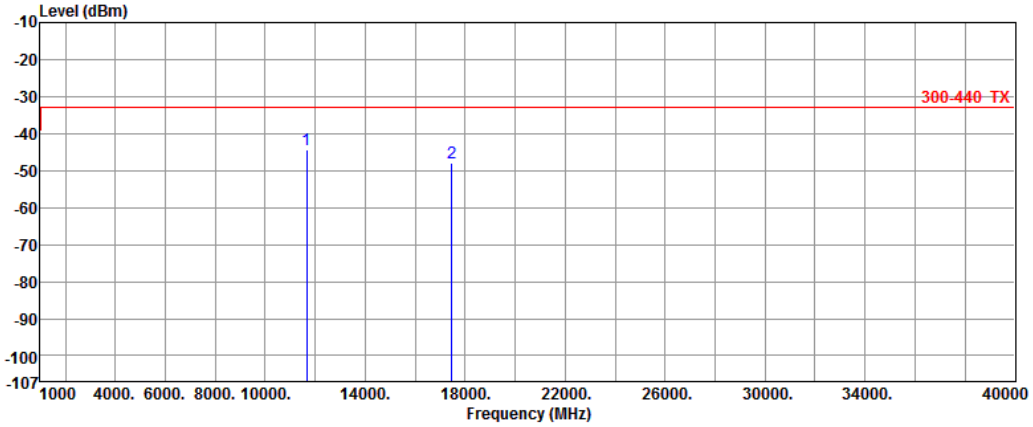
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11567.90	-46.72	-33.01	-13.71	0.00	-46.72
2	17347.80	-45.63	-33.01	-12.62	0.00	-45.63

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

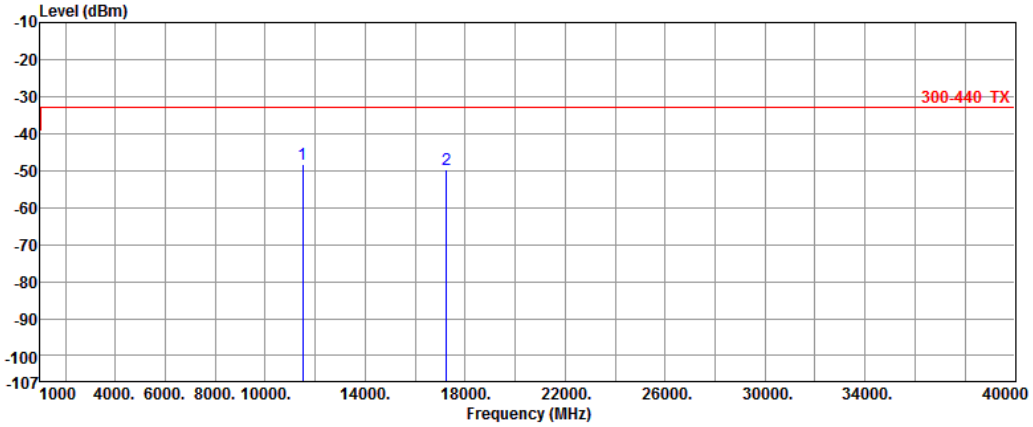
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11660.40	-44.29	-33.01	-11.28	0.00	-44.29
2	17466.30	-47.80	-33.01	-14.79	0.00	-47.80

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

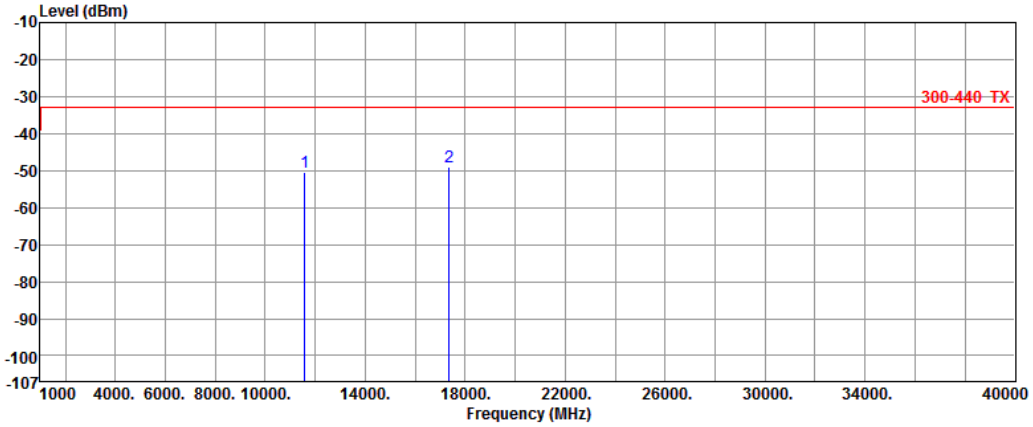
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11507.35	-48.15	-33.01	-15.14	0.00	-48.15
2	17254.55	-49.76	-33.01	-16.75	0.00	-49.76

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

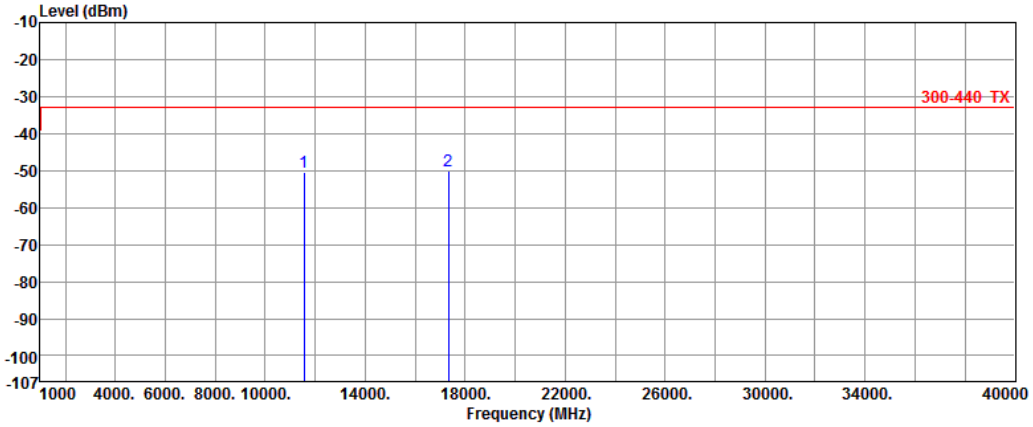
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11590.00	-50.36	-33.01	-17.35	0.00	-50.36
2	17367.95	-48.93	-33.01	-15.92	0.00	-48.93

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

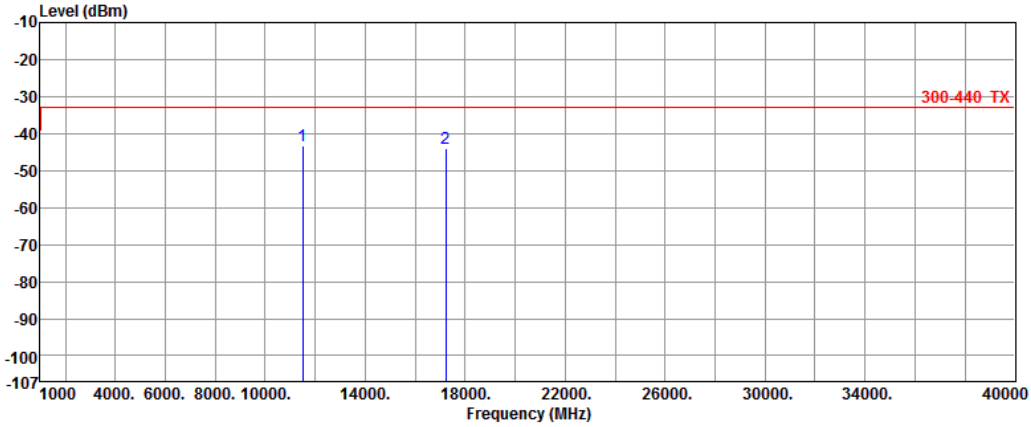
Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11552.10	-50.46	-33.01	-17.45	0.00	-50.46
2	17332.60	-50.13	-33.01	-17.12	0.00	-50.13

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

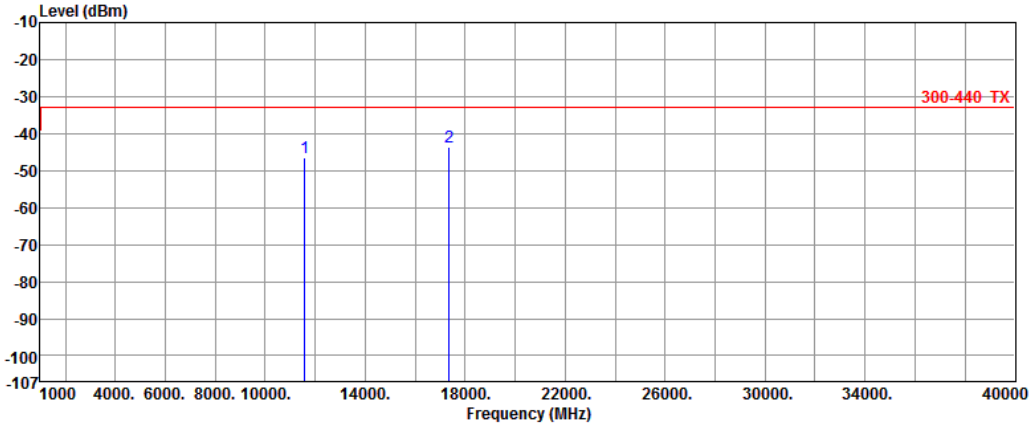
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11486.40	-43.36	-33.01	-10.35	0.00	-43.36
2	17238.90	-43.83	-33.01	-10.82	0.00	-43.83

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

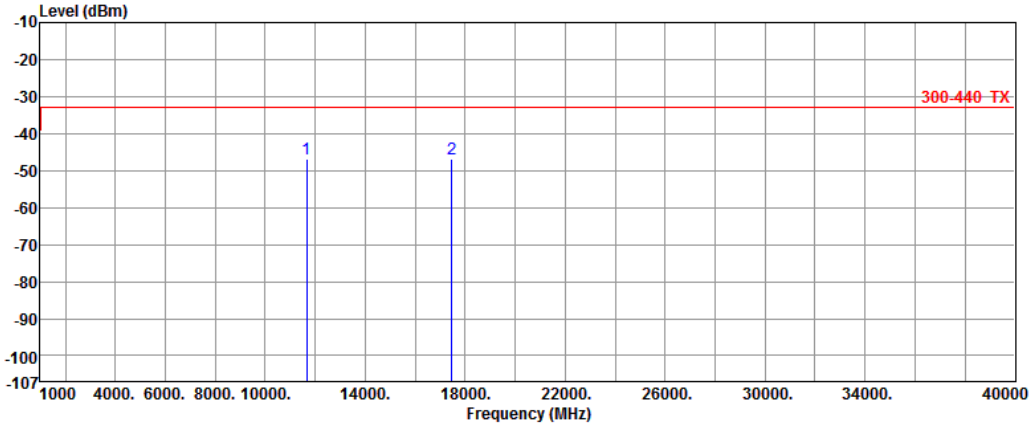
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11566.40	-46.44	-33.01	-13.43	0.00	-46.44
2	17356.85	-43.63	-33.01	-10.62	0.00	-43.63

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

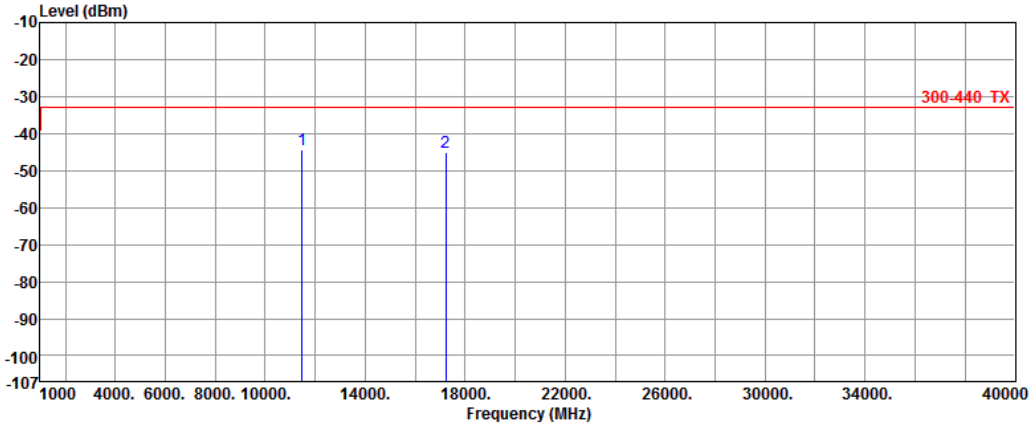
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11652.80	-46.76	-33.01	-13.75	0.00	-46.76
2	17475.35	-46.88	-33.01	-13.87	0.00	-46.88

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

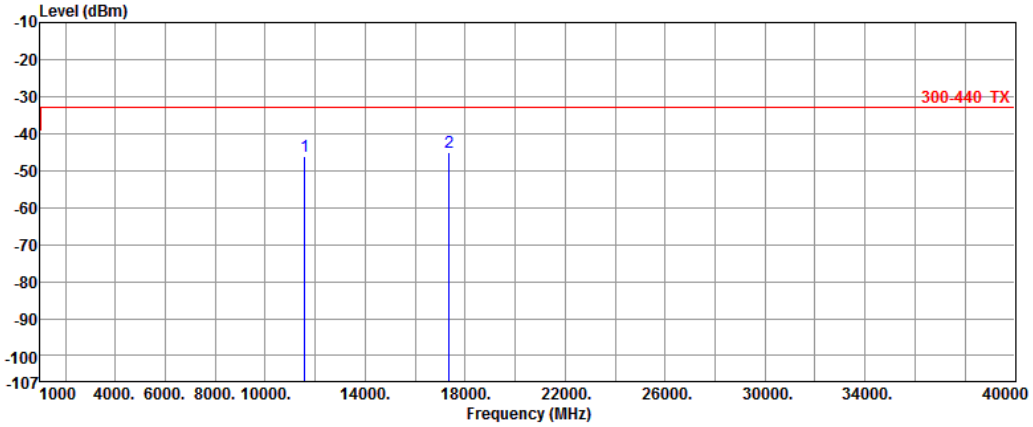
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11484.20	-44.46	-33.01	-11.45	0.00	-44.46
2	17238.45	-45.05	-33.01	-12.04	0.00	-45.05

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

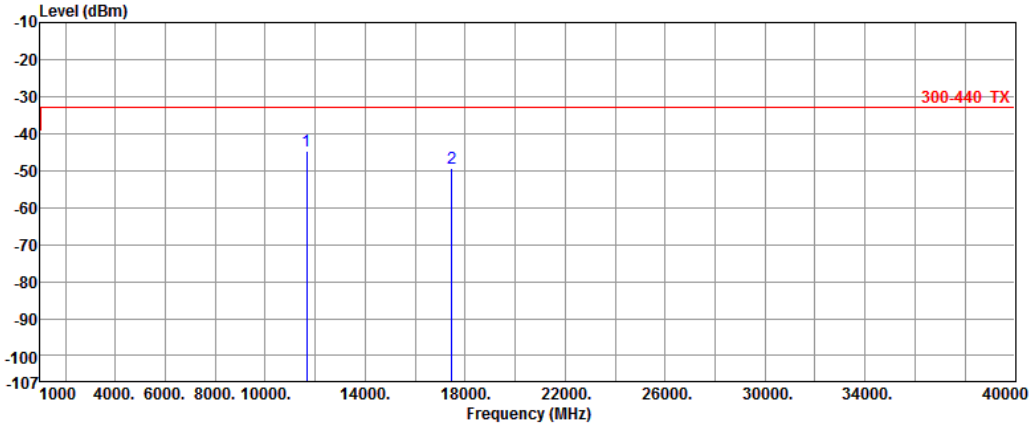
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11567.80	-46.32	-33.01	-13.31	0.00	-46.32
2	17347.95	-45.04	-33.01	-12.03	0.00	-45.04

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

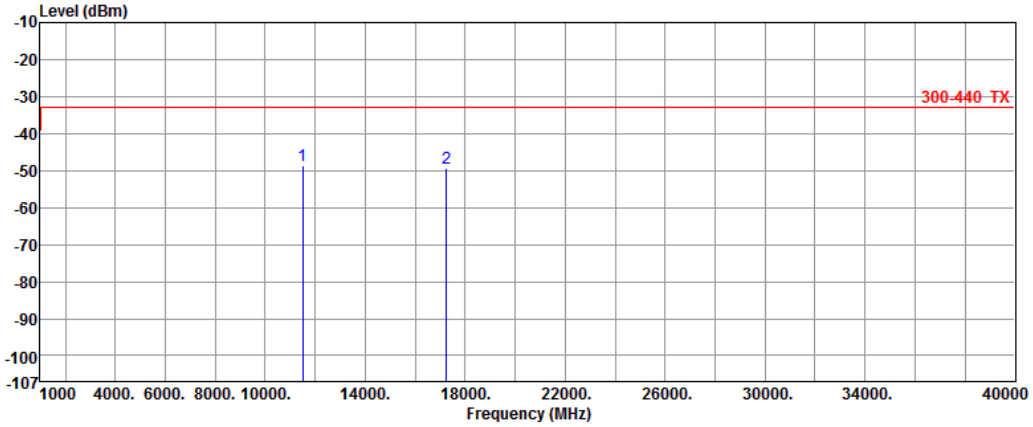
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11660.40	-44.74	-33.01	-11.73	0.00	-44.74
2	17466.30	-49.30	-33.01	-16.29	0.00	-49.30

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

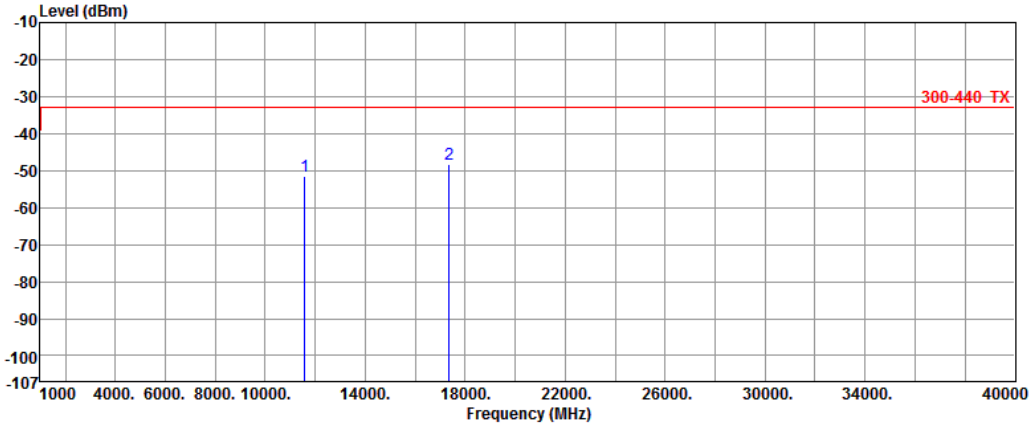
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11507.25	-48.54	-33.01	-15.53	0.00	-48.54
2	17254.85	-49.21	-33.01	-16.20	0.00	-49.21

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

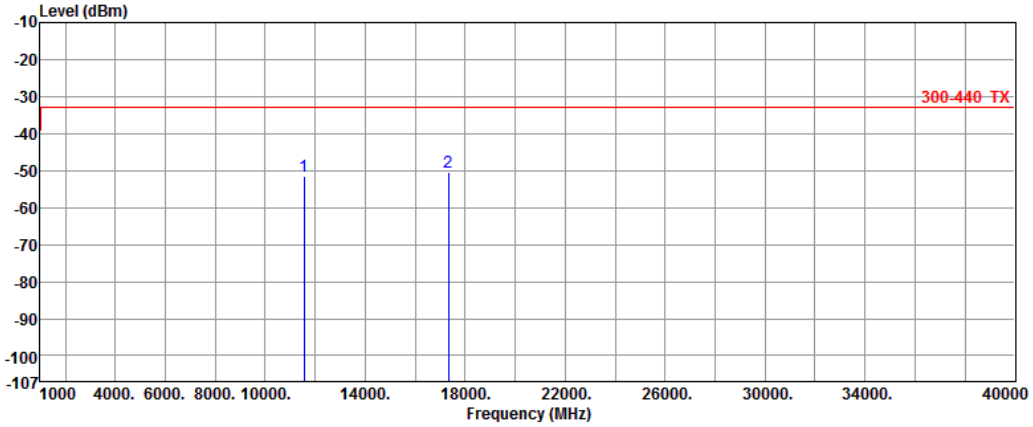
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11590.60	-51.46	-33.01	-18.45	0.00	-51.46
2	17367.90	-48.47	-33.01	-15.46	0.00	-48.47

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

Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	1		

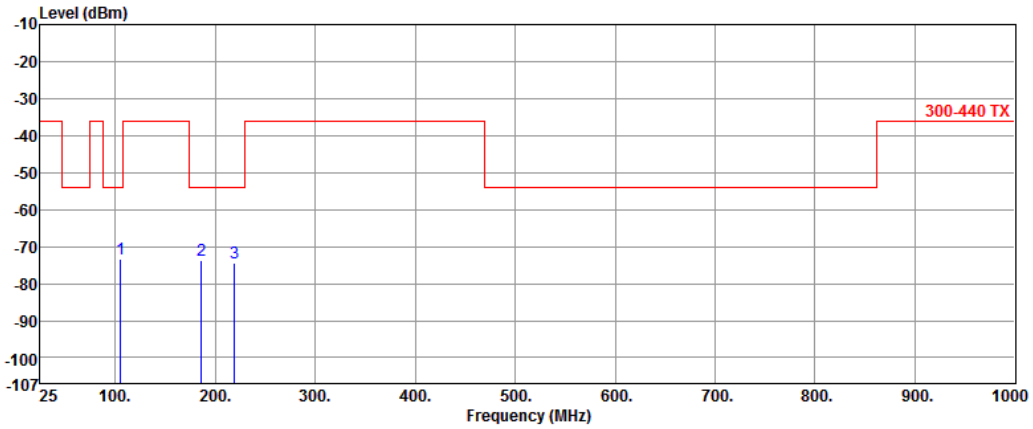


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11551.80	-51.58	-33.01	-18.57	0.00	-51.58
2	17332.20	-50.52	-33.01	-17.51	0.00	-50.52

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

3.3.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)

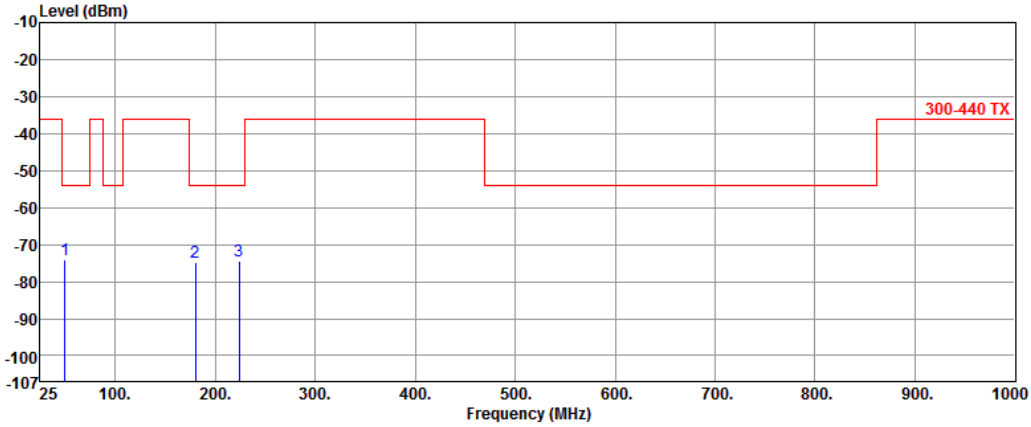
Modulation	11a	**Test Freq. (MHz)**	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	104.95	-73.49	-54.00	-19.49	-5.97	-67.52
2	185.88	-73.87	-54.00	-19.87	-4.38	-69.49
3	219.03	-74.32	-54.00	-20.32	-4.81	-69.51

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

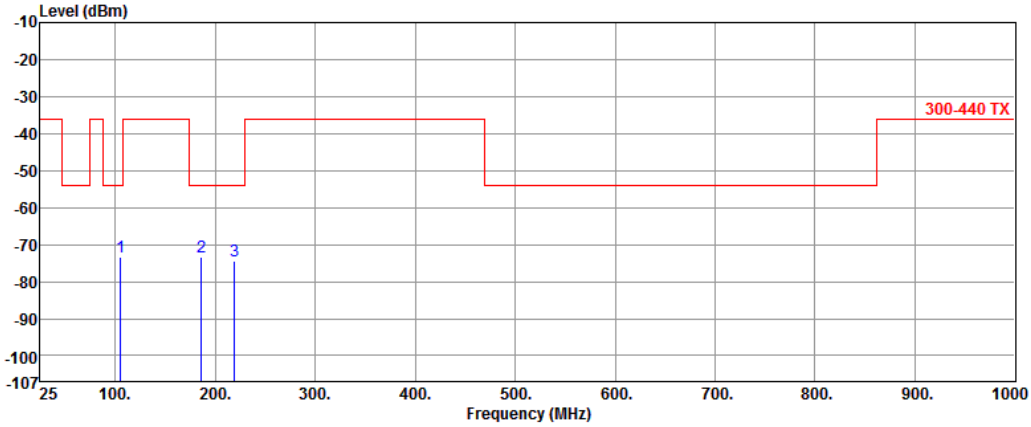
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	49.38	-74.19	-54.00	-20.19	0.03	-74.22
2	180.03	-74.74	-54.00	-20.74	-2.58	-72.16
3	223.90	-74.28	-54.00	-20.28	-4.59	-69.69

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

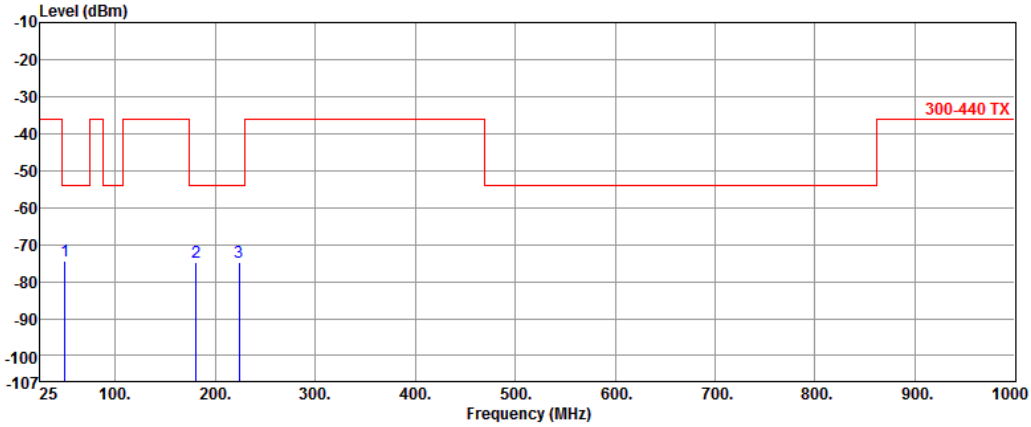
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	104.95	-73.36	-54.00	-19.36	-5.97	-67.39
2	185.88	-73.43	-54.00	-19.43	-4.38	-69.05
3	219.03	-74.29	-54.00	-20.29	-4.81	-69.48

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

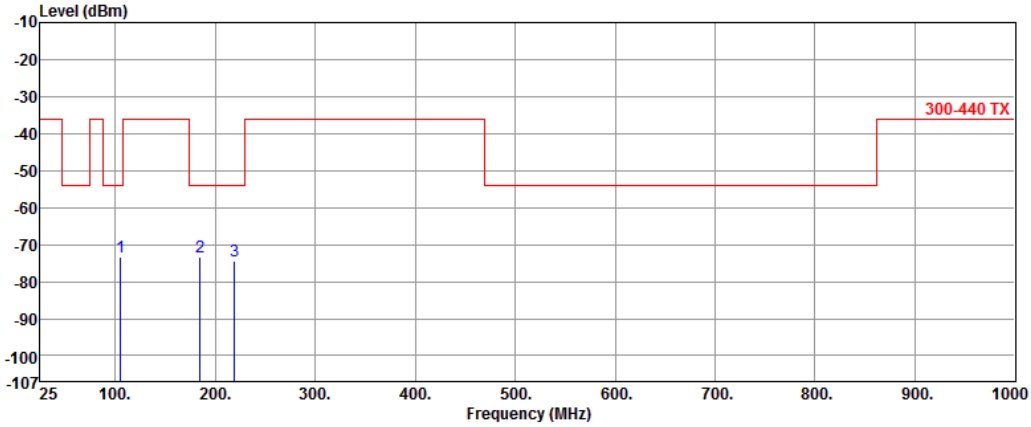
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	49.38	-74.53	-54.00	-20.53	0.03	-74.56
2	181.00	-74.71	-54.00	-20.71	-2.85	-71.86
3	223.90	-74.83	-54.00	-20.83	-4.59	-70.24

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

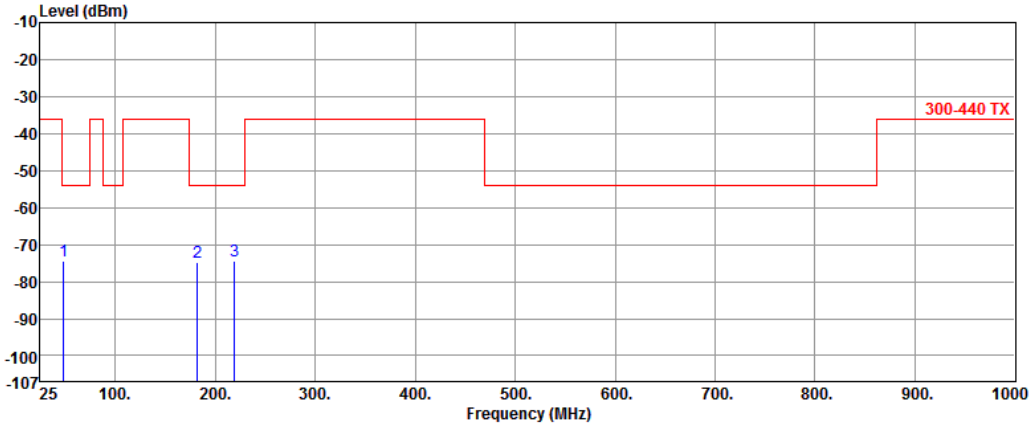
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	104.95	-73.46	-54.00	-19.46	-5.97	-67.49
2	184.90	-73.37	-54.00	-19.37	-4.32	-69.05
3	219.03	-74.49	-54.00	-20.49	-4.81	-69.68

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

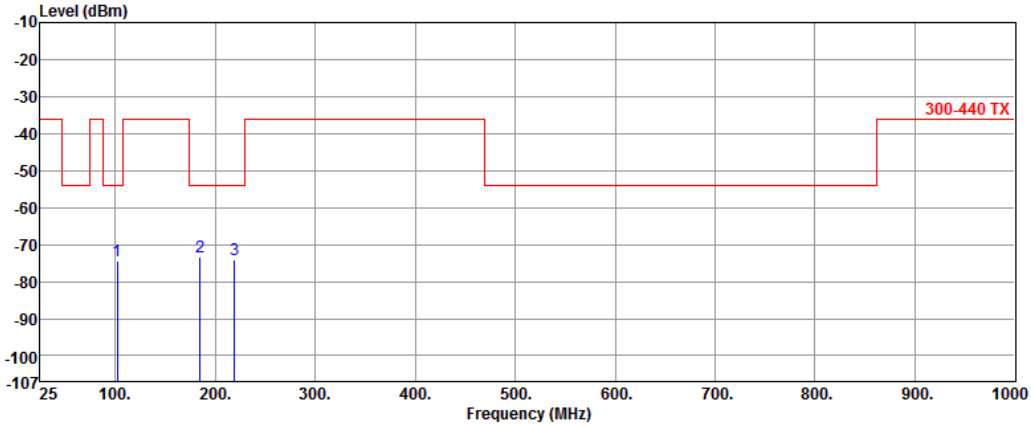
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	48.40	-74.31	-54.00	-20.31	-0.17	-74.14
2	181.98	-74.91	-54.00	-20.91	-3.12	-71.79
3	219.03	-74.26	-54.00	-20.26	-4.61	-69.65

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

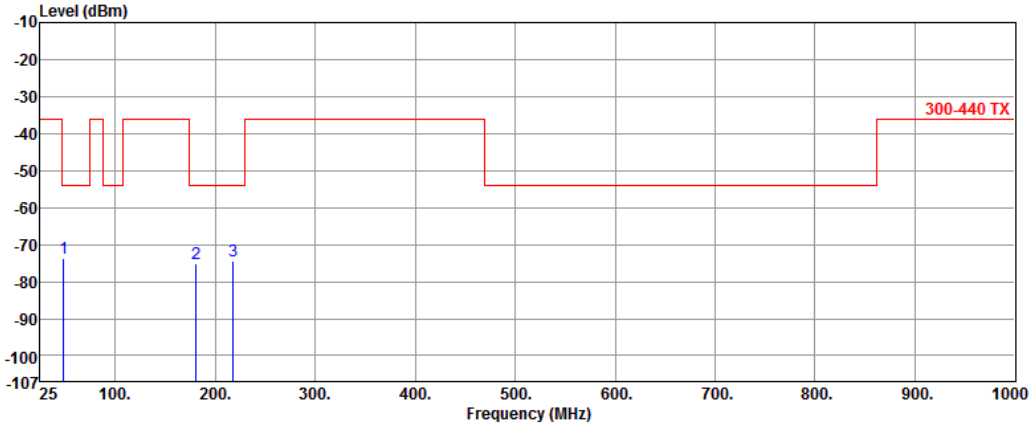
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	102.03	-74.59	-54.00	-20.59	-6.61	-67.98
2	184.90	-73.24	-54.00	-19.24	-4.32	-68.92
3	219.03	-74.18	-54.00	-20.18	-4.81	-69.37

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

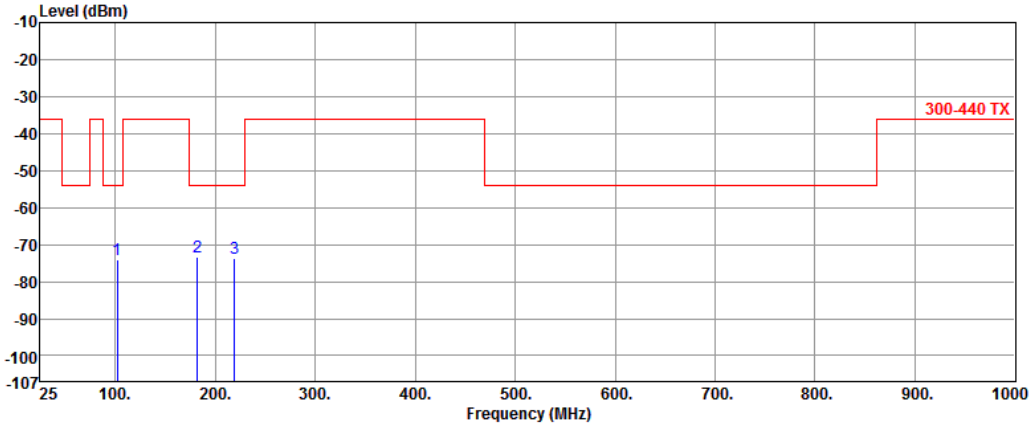
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	48.40	-73.81	-54.00	-19.81	-0.17	-73.64
2	181.00	-75.11	-54.00	-21.11	-2.85	-72.26
3	218.05	-74.37	-54.00	-20.37	-4.63	-69.74

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

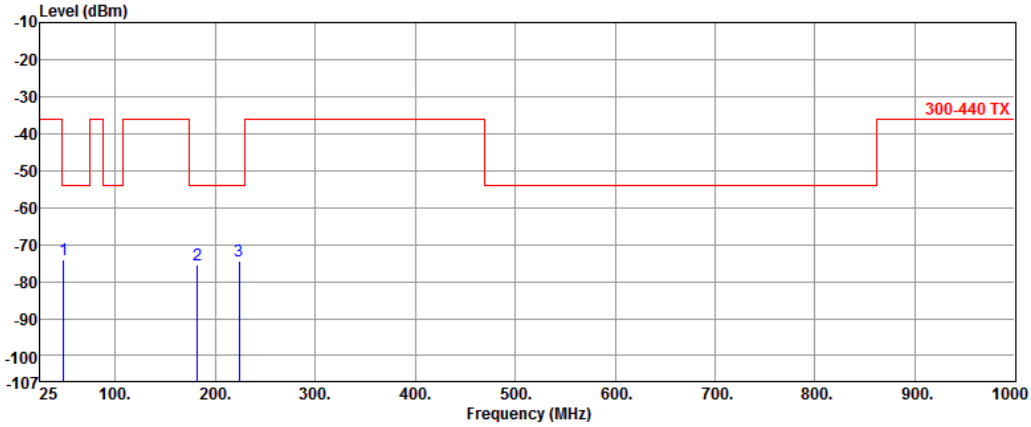
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	102.03	-74.14	-54.00	-20.14	-6.61	-67.53
2	181.98	-73.28	-54.00	-19.28	-3.50	-69.78
3	219.03	-73.61	-54.00	-19.61	-4.81	-68.80

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

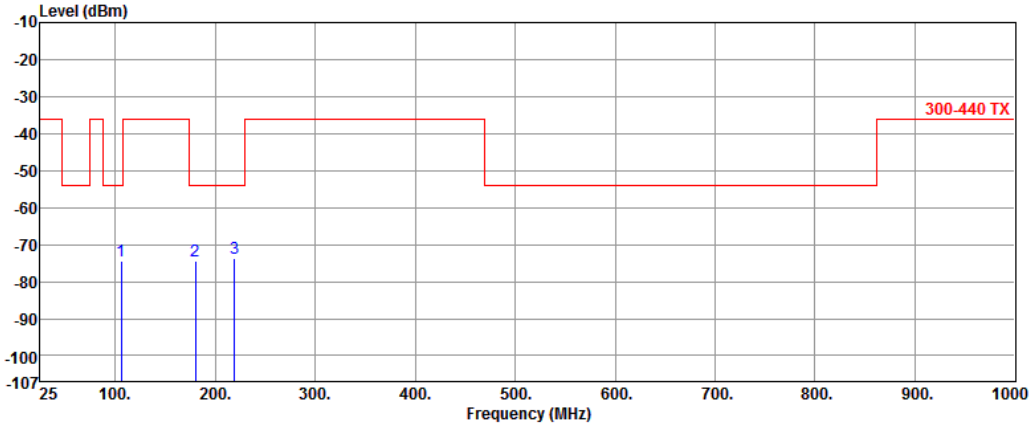
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	48.40	-73.91	-54.00	-19.91	-0.17	-73.74
2	181.98	-75.57	-54.00	-21.57	-3.12	-72.45
3	223.90	-74.47	-54.00	-20.47	-4.59	-69.88

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

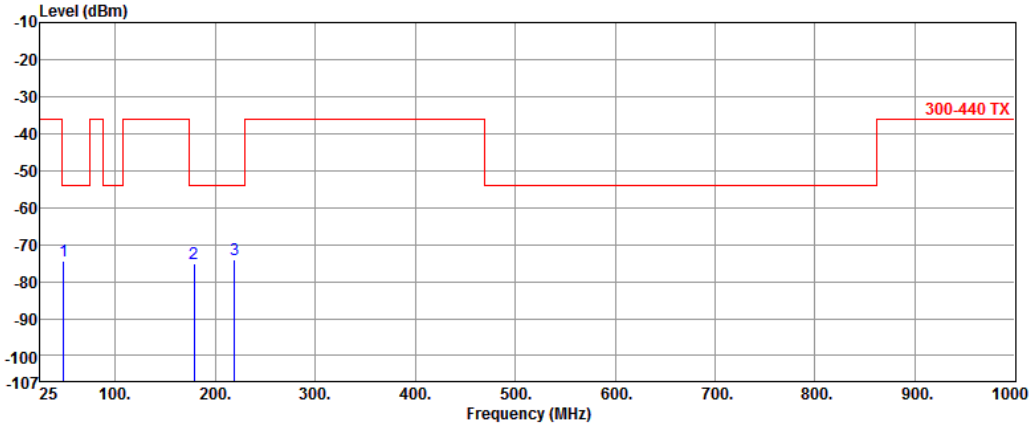
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	105.93	-74.60	-54.00	-20.60	-5.84	-68.76
2	180.03	-74.29	-54.00	-20.29	-2.95	-71.34
3	219.03	-73.86	-54.00	-19.86	-4.81	-69.05

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

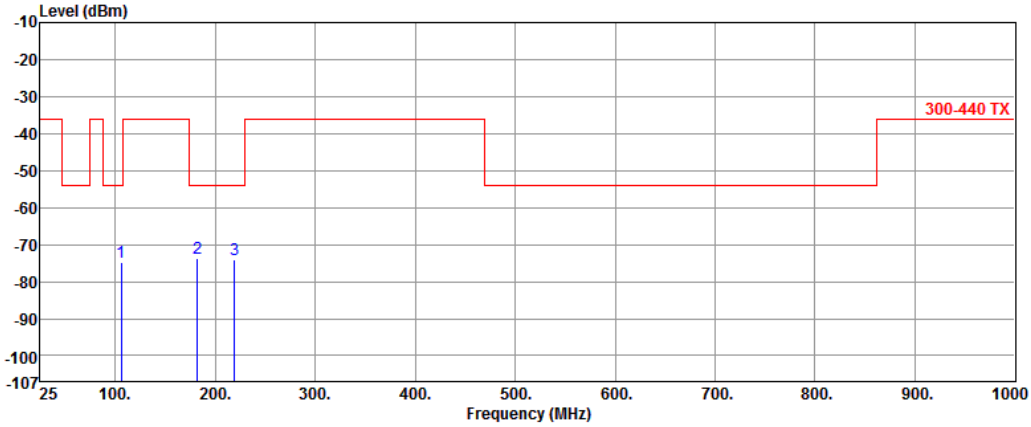
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	48.40	-74.28	-54.00	-20.28	-0.17	-74.11
2	179.05	-75.00	-54.00	-21.00	-2.46	-72.54
3	219.03	-74.17	-54.00	-20.17	-4.61	-69.56

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

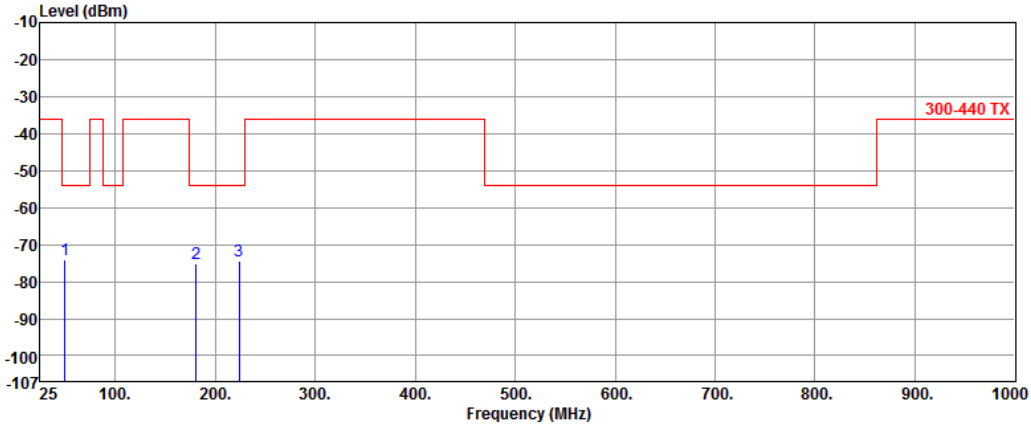
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	105.93	-74.63	-54.00	-20.63	-5.84	-68.79
2	181.98	-73.81	-54.00	-19.81	-3.50	-70.31
3	219.03	-74.16	-54.00	-20.16	-4.81	-69.35

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

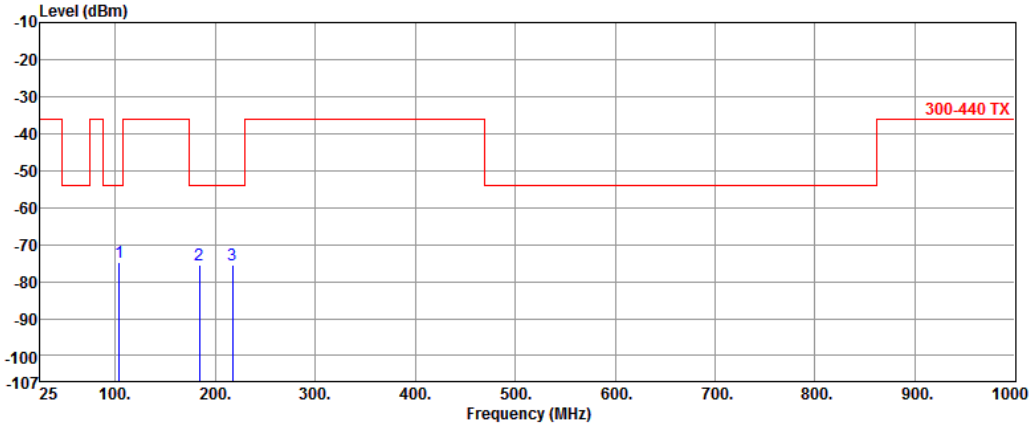
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	49.38	-74.22	-54.00	-20.22	0.03	-74.25
2	181.00	-75.19	-54.00	-21.19	-2.85	-72.34
3	223.90	-74.32	-54.00	-20.32	-4.59	-69.73

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

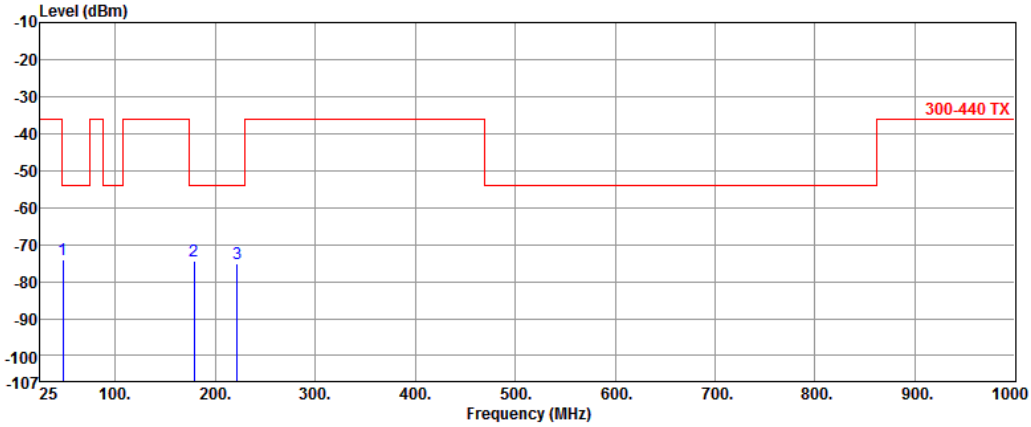
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	103.98	-74.76	-54.00	-20.76	-6.18	-68.58
2	183.93	-75.51	-54.00	-21.51	-4.05	-71.46
3	217.08	-75.34	-54.00	-21.34	-4.79	-70.55

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

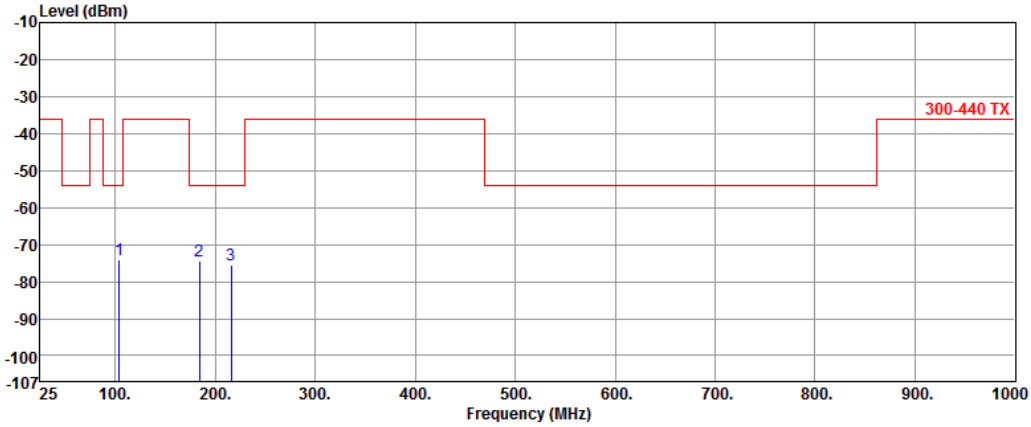
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	47.43	-74.16	-54.00	-20.16	-0.38	-73.78
2	179.05	-74.46	-54.00	-20.46	-2.46	-72.00
3	221.95	-75.04	-54.00	-21.04	-4.59	-70.45

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

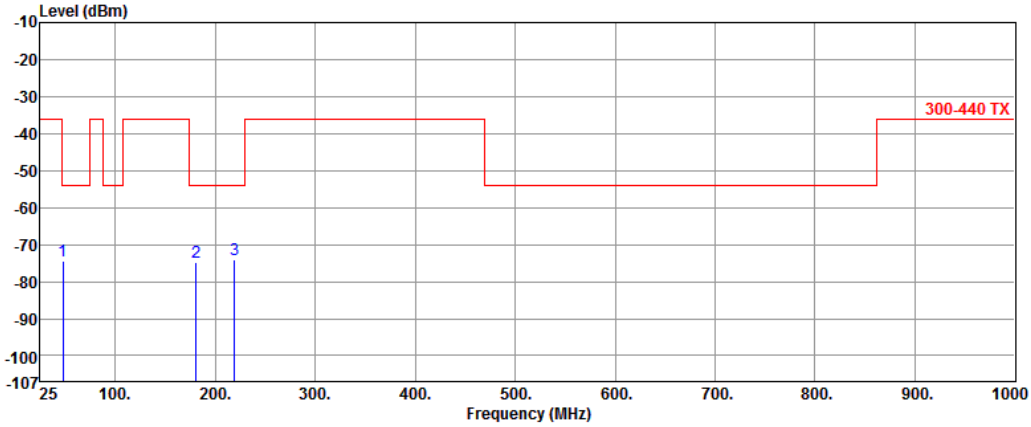
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	103.98	-74.13	-54.00	-20.13	-6.18	-67.95
2	183.93	-74.28	-54.00	-20.28	-4.05	-70.23
3	216.10	-75.57	-54.00	-21.57	-4.78	-70.79

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		

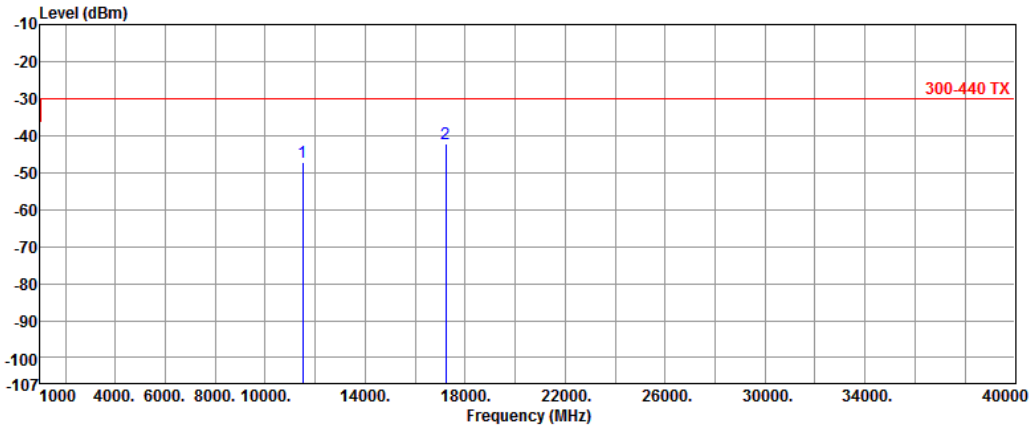


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	47.43	-74.30	-54.00	-20.30	-0.38	-73.92
2	181.00	-74.69	-54.00	-20.69	-2.85	-71.84
3	219.03	-73.95	-54.00	-19.95	-4.61	-69.34

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

3.3.1 Transmitter Radiated Unwanted Emissions (Above 1GHz)

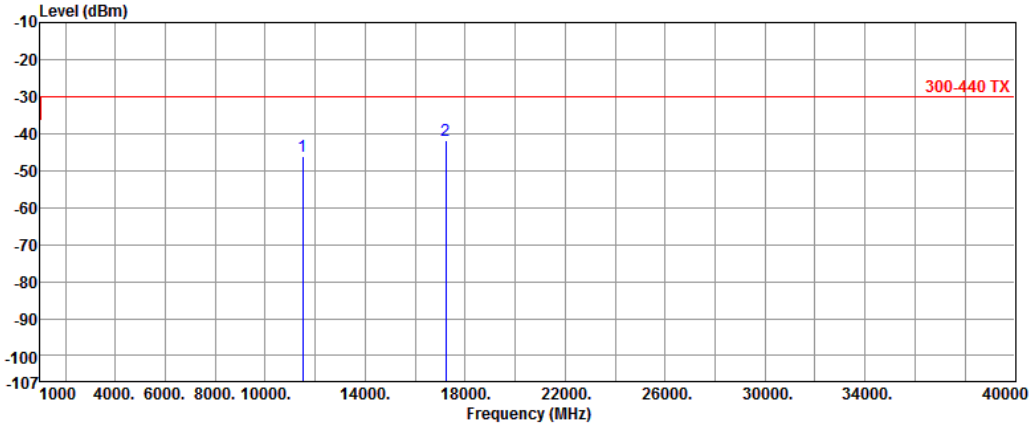
Modulation	11a	**Test Freq. (MHz)**	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11490.05	-47.12	-30.00	-17.12	19.63	-66.75
2	17235.02	-42.18	-30.00	-12.18	23.91	-66.09

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

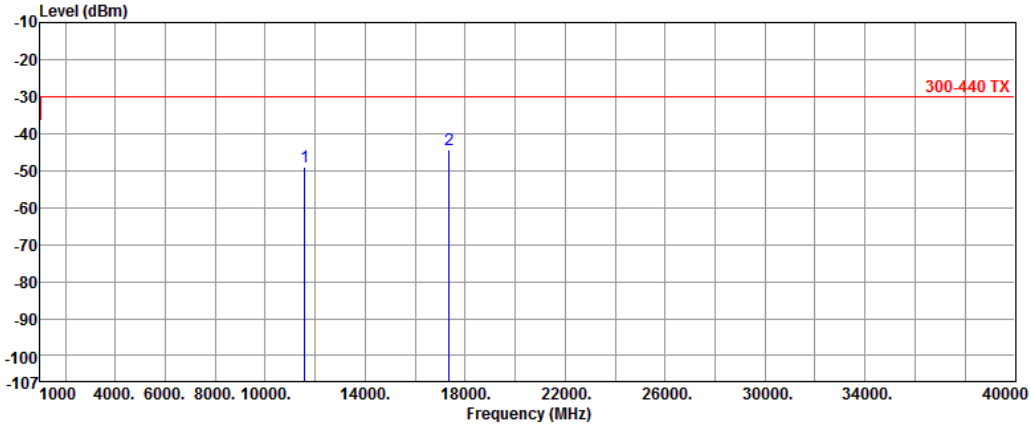
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11490.60	-46.29	-30.00	-16.29	19.85	-66.14
2	17235.03	-41.97	-30.00	-11.97	23.74	-65.71

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

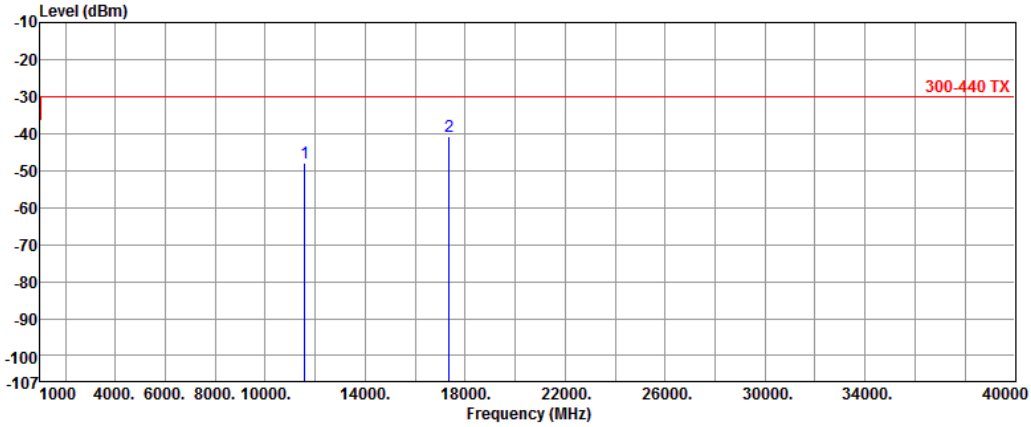
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11570.01	-49.12	-30.00	-19.12	19.29	-68.41
2	17355.00	-44.32	-30.00	-14.32	25.25	-69.57

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

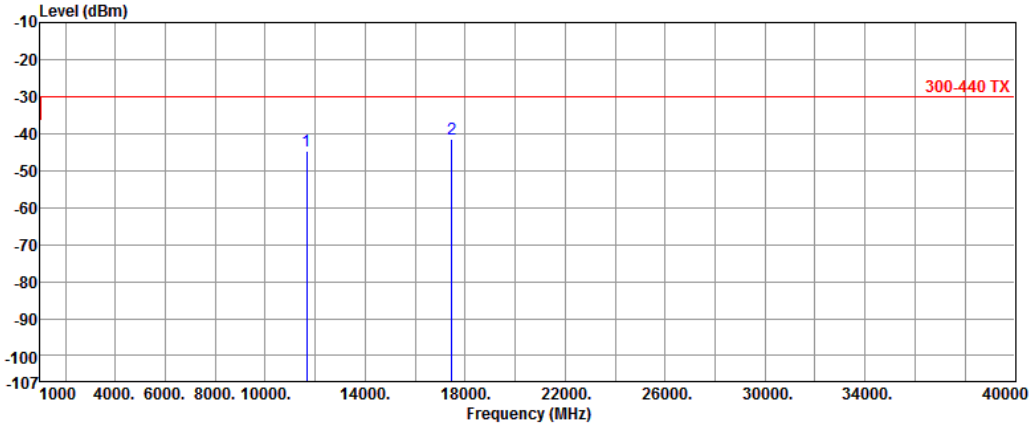
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11570.02	-47.82	-30.00	-17.82	19.61	-67.43
2	17354.96	-40.76	-30.00	-10.76	24.84	-65.60

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

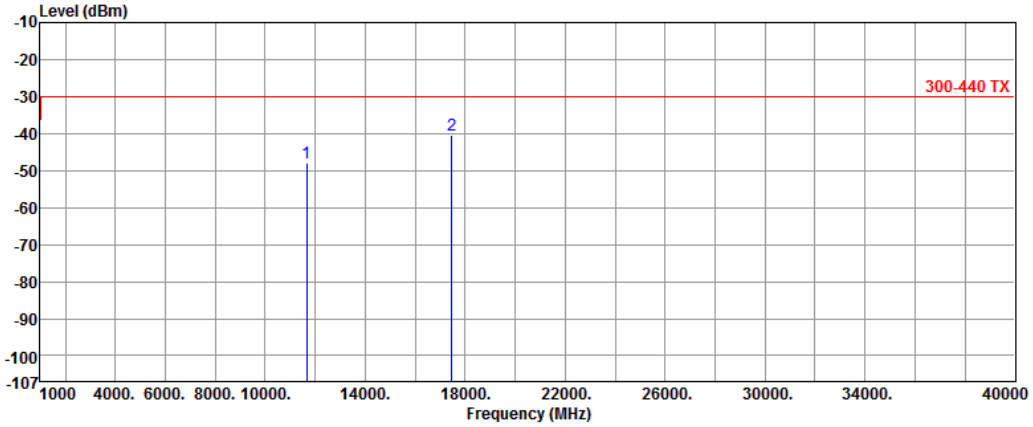
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11650.12	-44.72	-30.00	-14.72	18.93	-63.65
2	17475.00	-41.60	-30.00	-11.60	26.64	-68.24

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

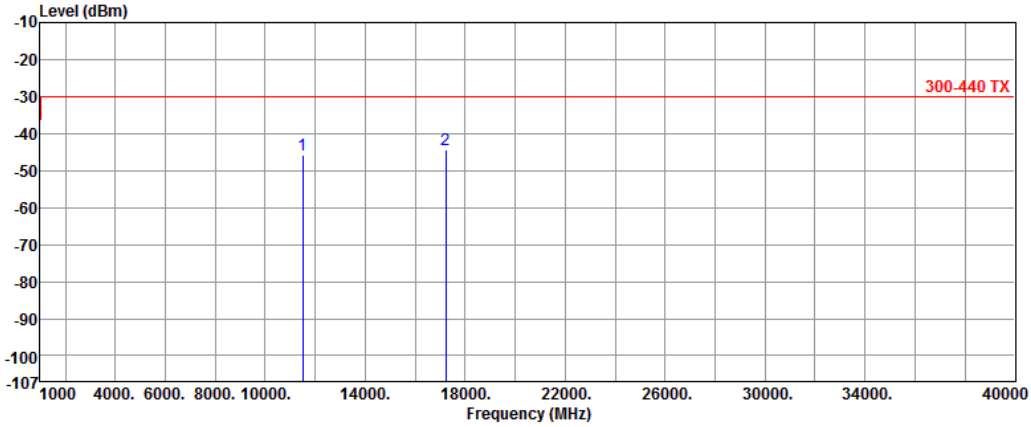
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11650.00	-48.01	-30.00	-18.01	19.14	-67.15
2	17474.98	-40.30	-30.00	-10.30	26.38	-66.68

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

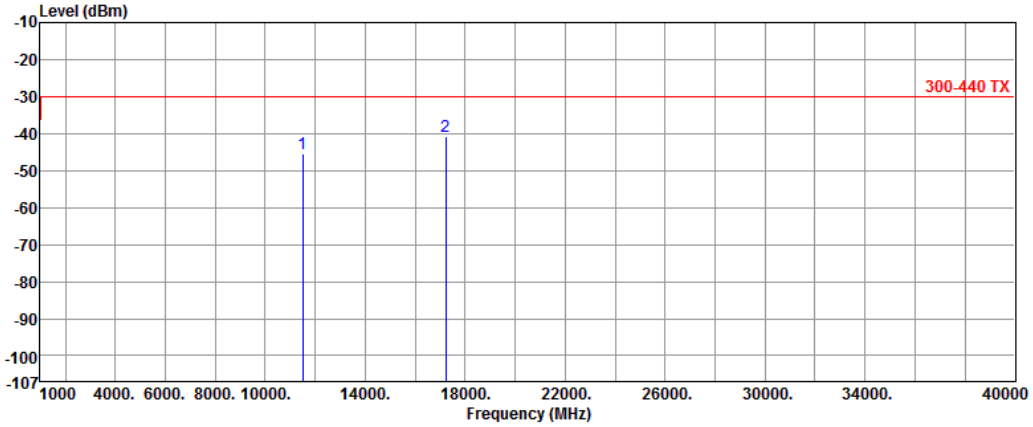
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11490.00	-45.74	-30.00	-15.74	19.63	-65.37
2	17235.00	-44.22	-30.00	-14.22	23.91	-68.13

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

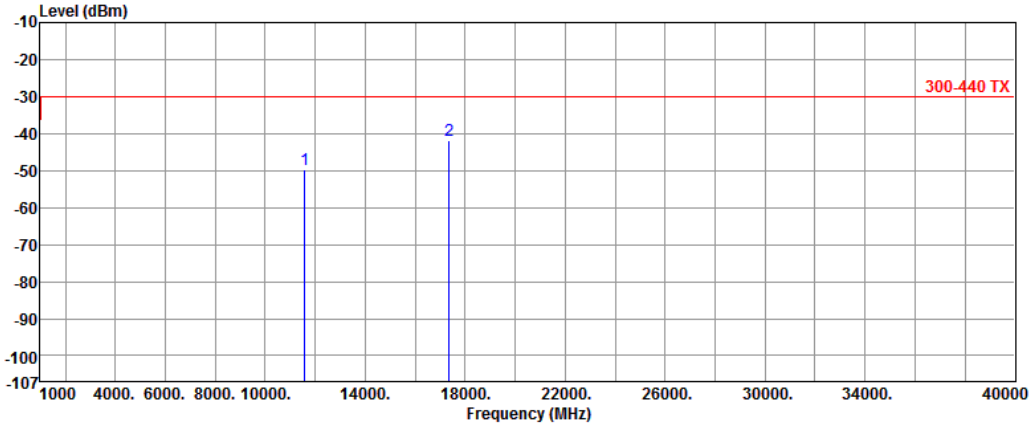
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11490.10	-45.55	-30.00	-15.55	19.85	-65.40
2	17235.00	-40.86	-30.00	-10.86	23.74	-64.60

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

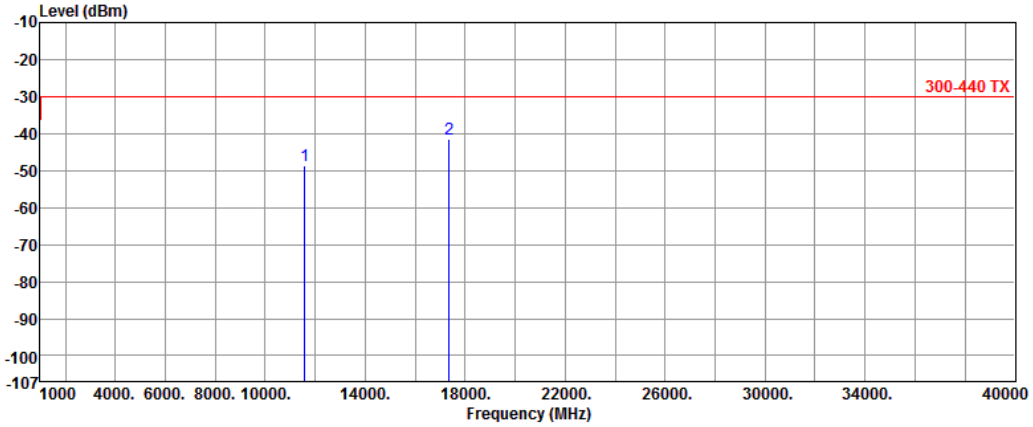
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11570.00	-49.58	-30.00	-19.58	19.29	-68.87
2	17355.04	-42.03	-30.00	-12.03	25.25	-67.28

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

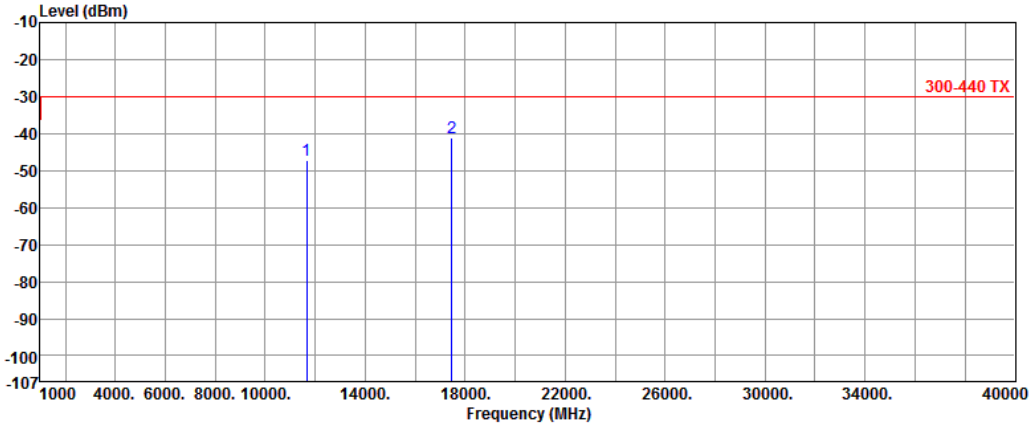
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11570.00	-48.51	-30.00	-18.51	19.61	-68.12
2	17355.02	-41.65	-30.00	-11.65	24.84	-66.49

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

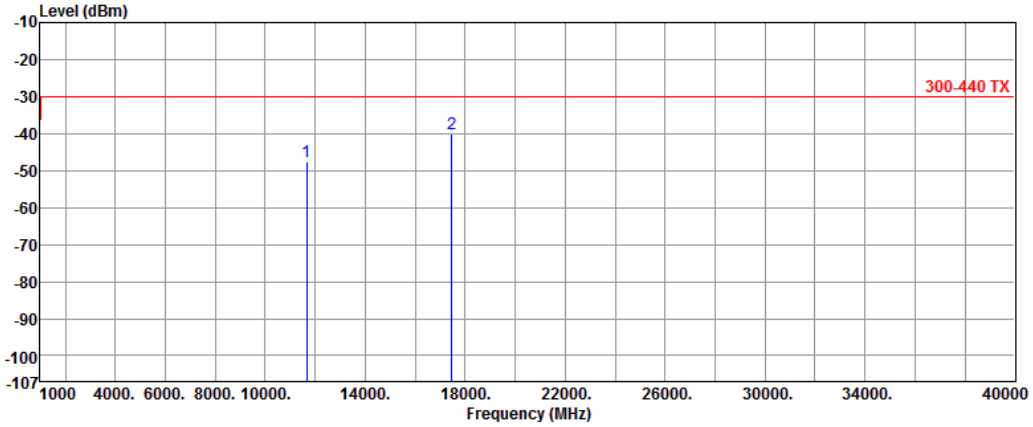
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11650.04	-47.18	-30.00	-17.18	18.93	-66.11
2	17475.02	-41.15	-30.00	-11.15	26.64	-67.79

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

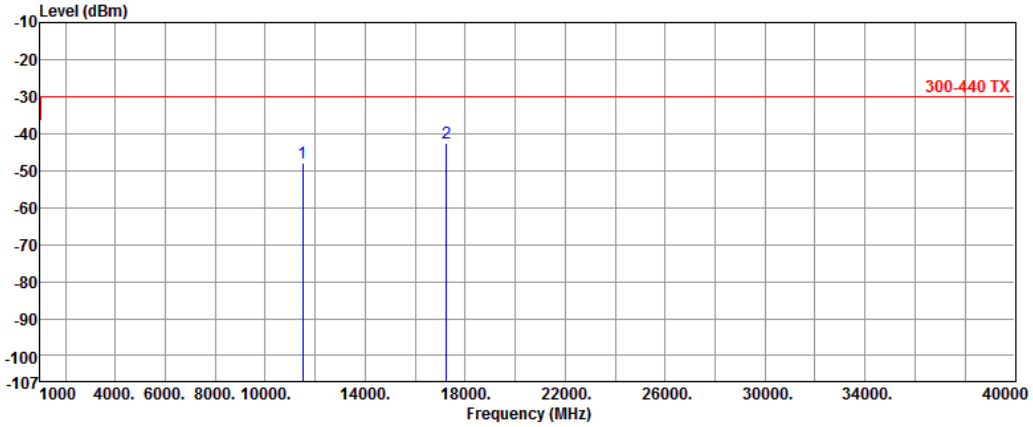
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11650.06	-47.53	-30.00	-17.53	19.14	-66.67
2	17475.10	-40.08	-30.00	-10.08	26.38	-66.46

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

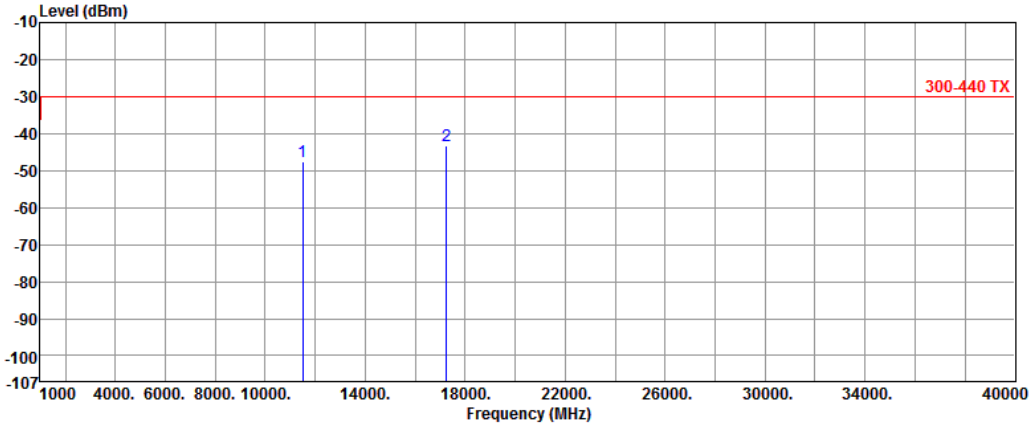
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11510.00	-48.04	-30.00	-18.04	19.58	-67.62
2	17265.15	-42.64	-30.00	-12.64	24.17	-66.81

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

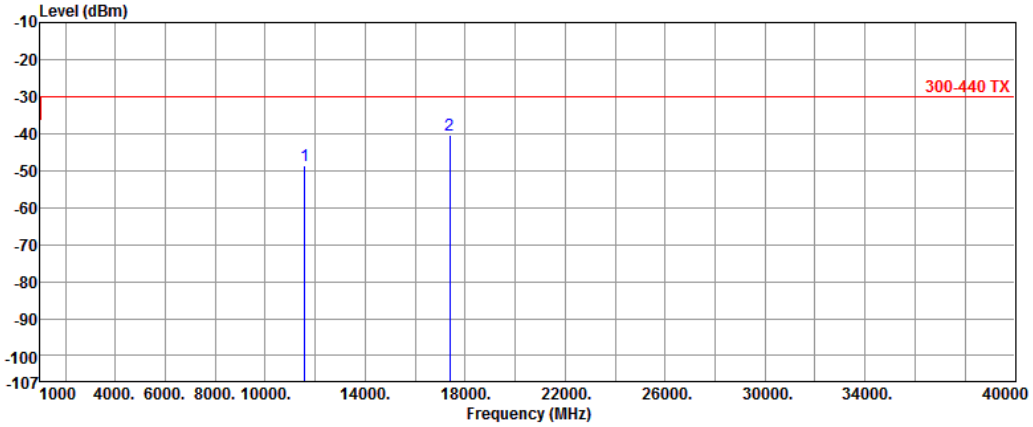
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11510.20	-47.53	-30.00	-17.53	19.81	-67.34
2	17265.10	-43.39	-30.00	-13.39	23.95	-67.34

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

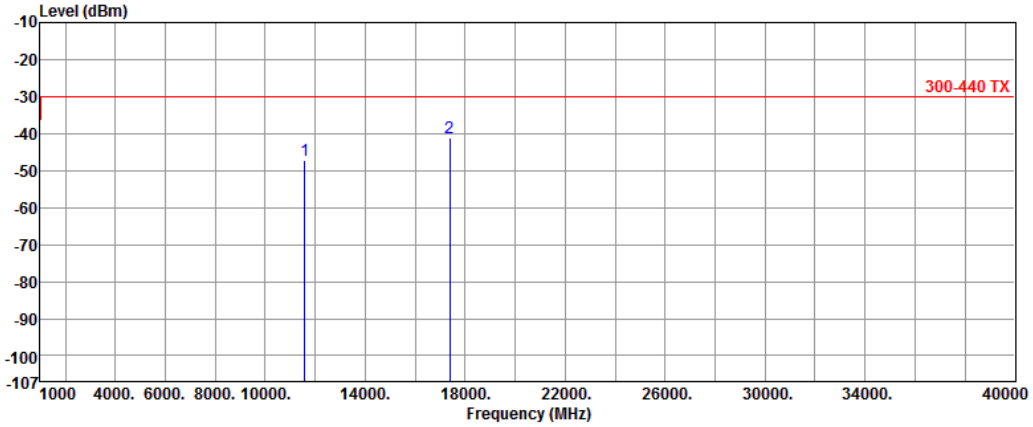
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11590.05	-48.74	-30.00	-18.74	19.19	-67.93
2	17385.15	-40.54	-30.00	-10.54	25.68	-66.22

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

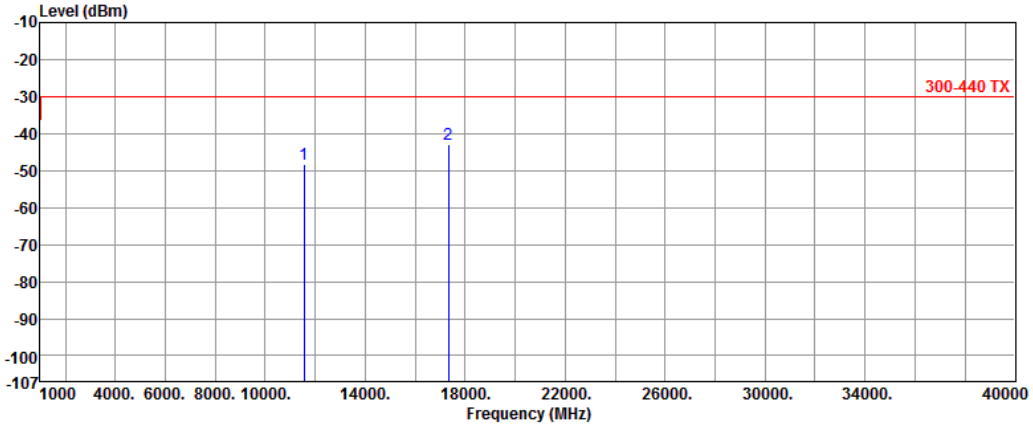
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11589.85	-47.11	-30.00	-17.11	19.54	-66.65
2	17385.25	-41.21	-30.00	-11.21	25.18	-66.39

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

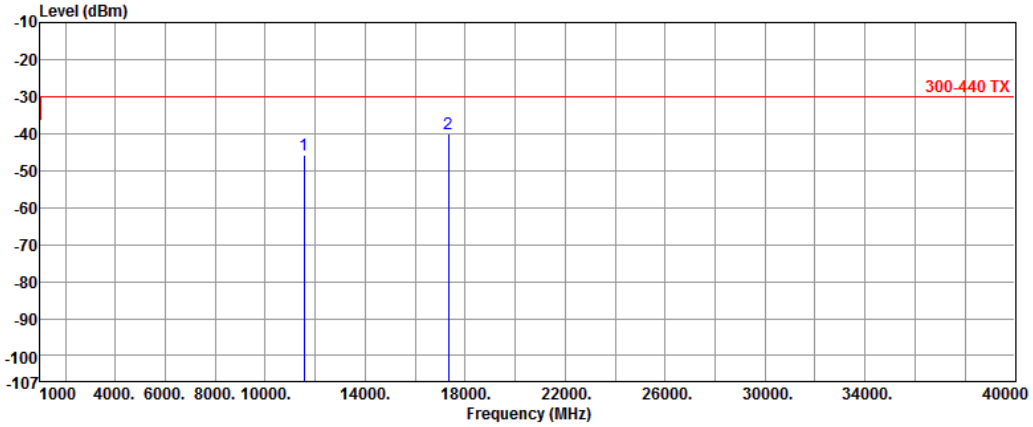
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11550.00	-48.40	-30.00	-18.40	19.38	-67.78
2	17325.00	-42.80	-30.00	-12.80	24.83	-67.63

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	11550.15	-45.85	-30.00	-15.85	19.67	-65.52
2	17325.00	-40.14	-30.00	-10.14	24.49	-64.63

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

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

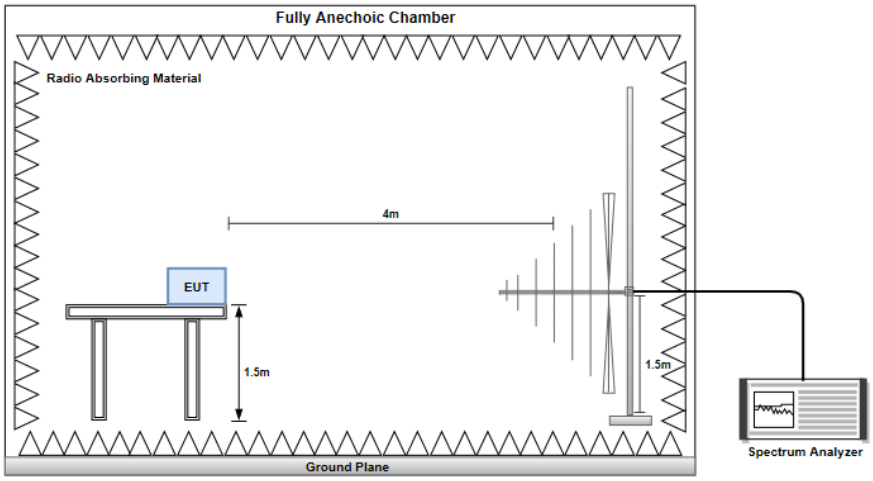
Frequency Range	Maximum power (dBm)	Measurement bandwidth (kHz)
30 MHz to 1 GHz	-60.01	100
Above 1 GHz to 12,75 GHz	-50.01	1000

4.1.2 Test Procedures

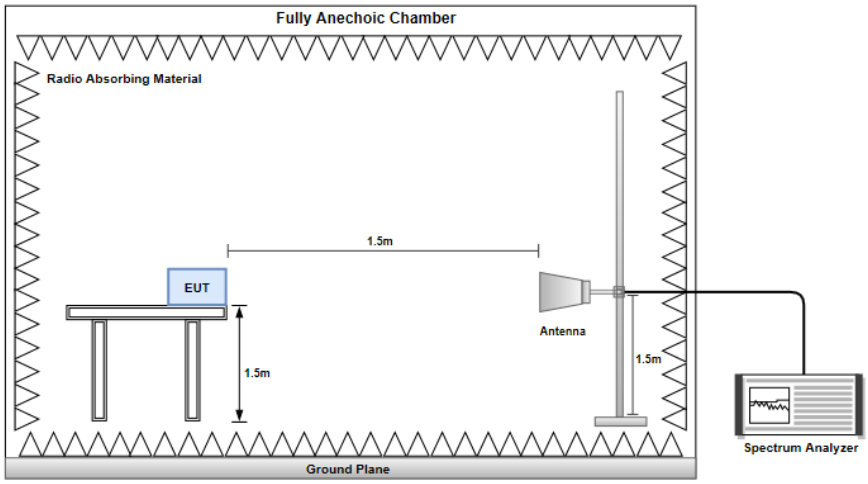
Reference to clause 4.3.5.3 of EN 300 440 V2.1.1 (2017-03).

4.1.3 Test Setup

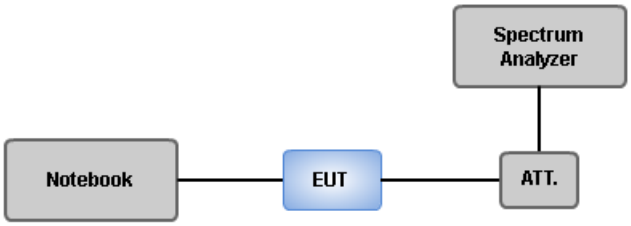
Below 1GHz



Above 1 GHz

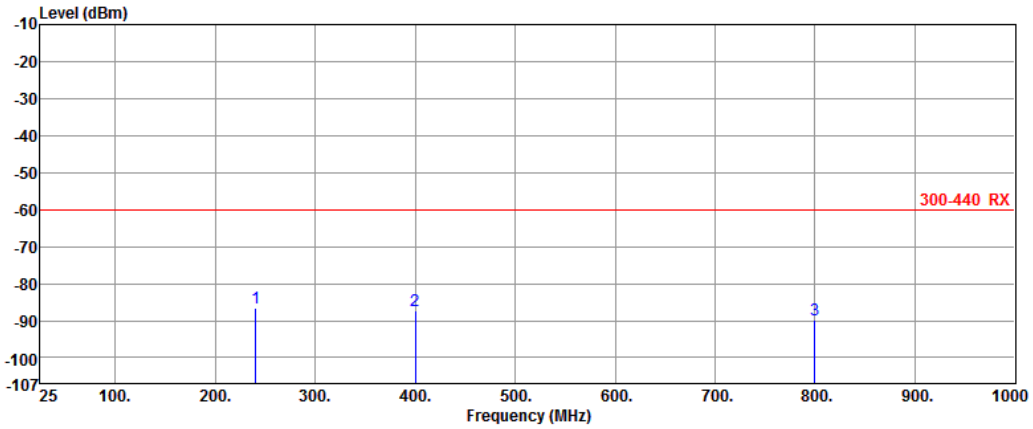


Conducted Emission



4.1.4 Receiver Conducted Unwanted Emissions (Below 1GHz)

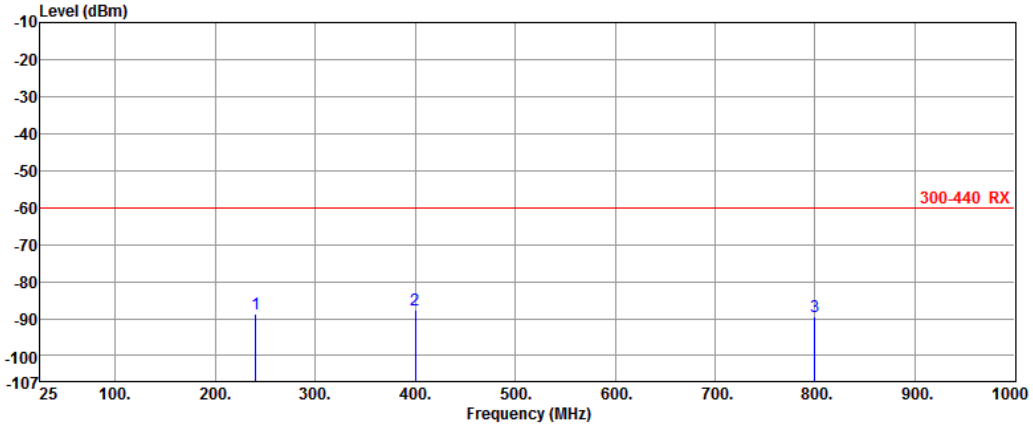
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-86.45	-60.01	-26.44	0.00	-86.45
2	400.28	-87.16	-60.01	-27.15	0.00	-87.16
3	800.13	-89.92	-60.01	-29.91	0.00	-89.92

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

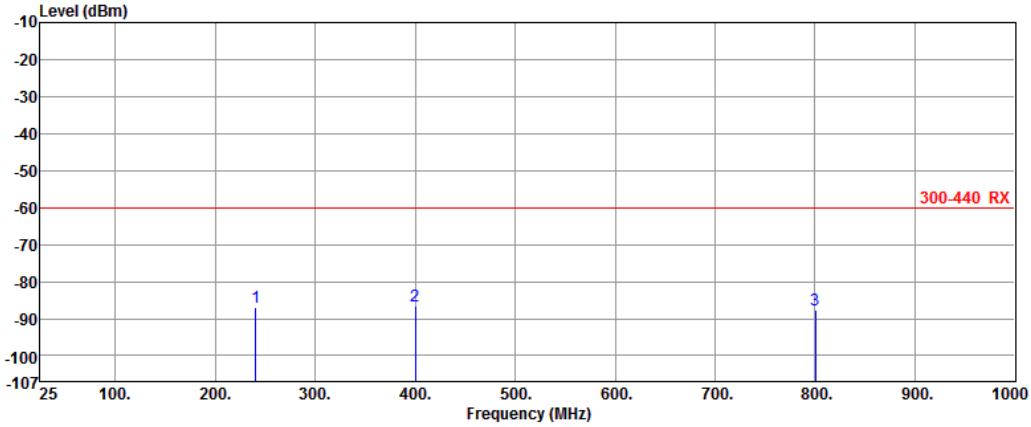
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-88.64	-60.01	-28.63	0.00	-88.64
2	400.38	-87.56	-60.01	-27.55	0.00	-87.56
3	800.13	-89.51	-60.01	-29.50	0.00	-89.51

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

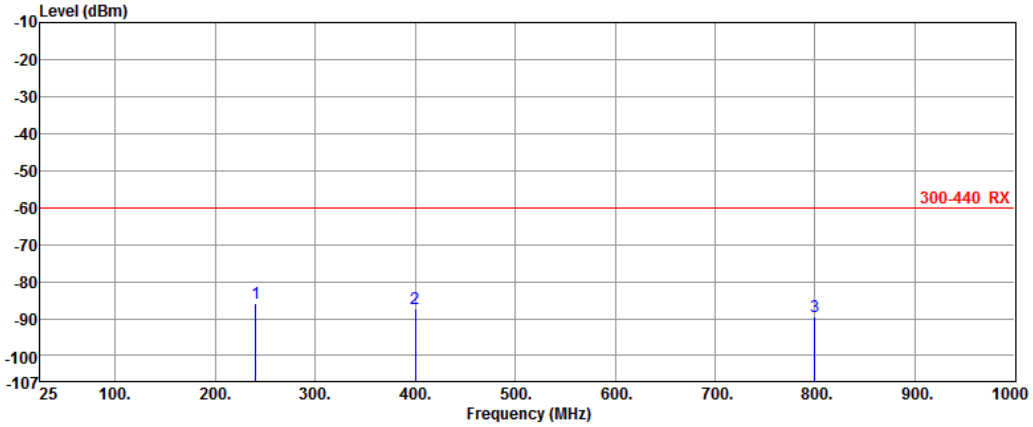
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.43	-86.89	-60.01	-26.88	0.00	-86.89
2	400.38	-86.48	-60.01	-26.47	0.00	-86.48
3	800.23	-87.79	-60.01	-27.78	0.00	-87.79

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

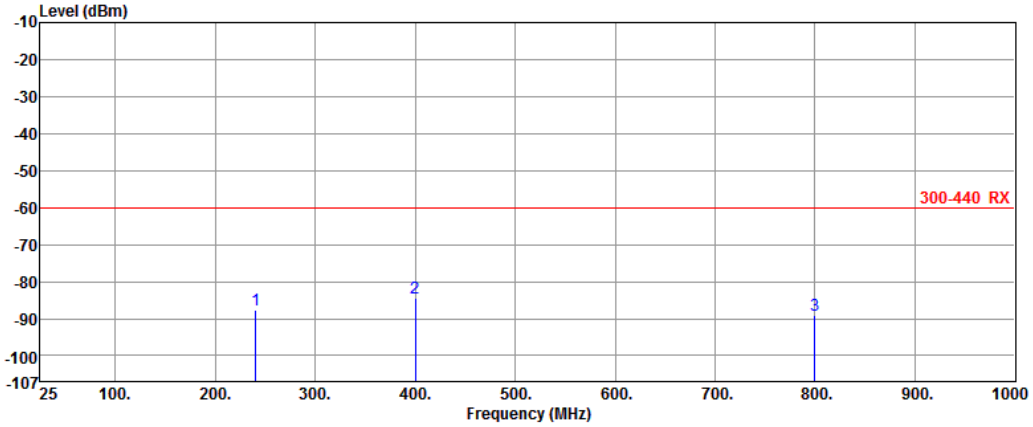
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-85.93	-60.01	-25.92	0.00	-85.93
2	400.38	-87.14	-60.01	-27.13	0.00	-87.14
3	800.13	-89.59	-60.01	-29.58	0.00	-89.59

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

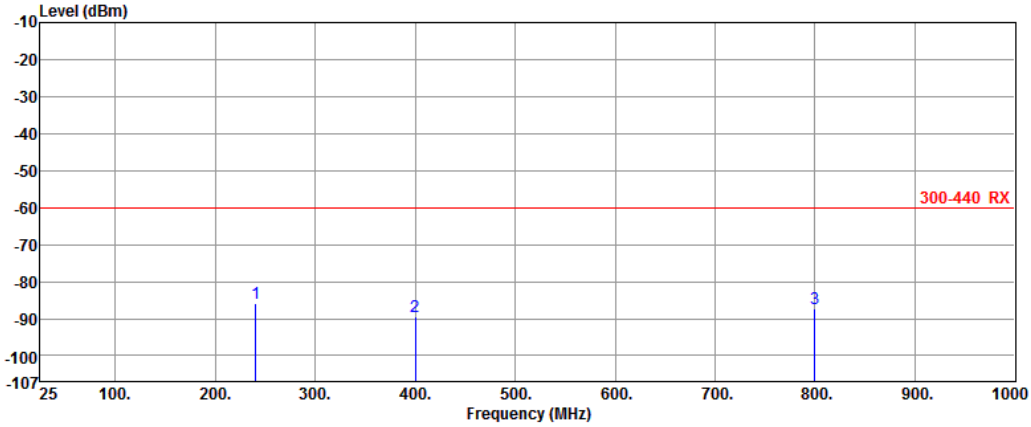
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-87.62	-60.01	-27.61	0.00	-87.62
2	400.38	-84.60	-60.01	-24.59	0.00	-84.60
3	800.13	-89.26	-60.01	-29.25	0.00	-89.26

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

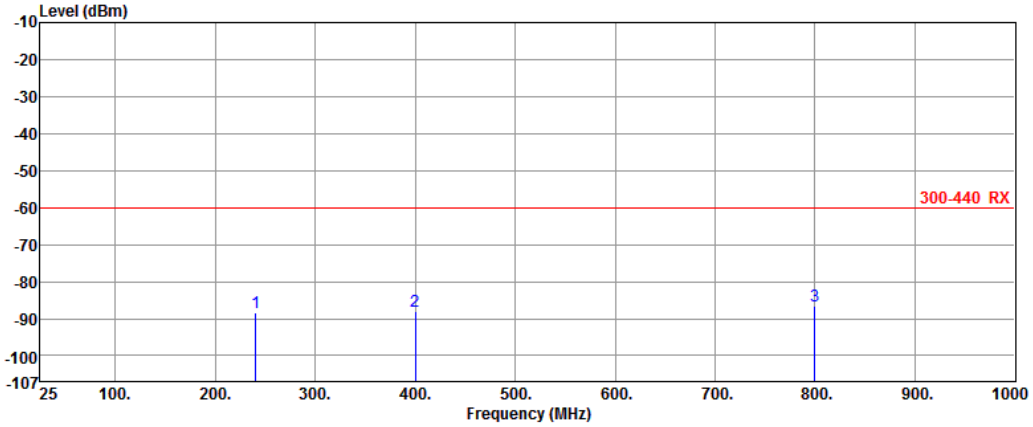
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.38	-85.93	-60.01	-25.92	0.00	-85.93
2	400.38	-89.41	-60.01	-29.40	0.00	-89.41
3	800.13	-87.26	-60.01	-27.25	0.00	-87.26

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

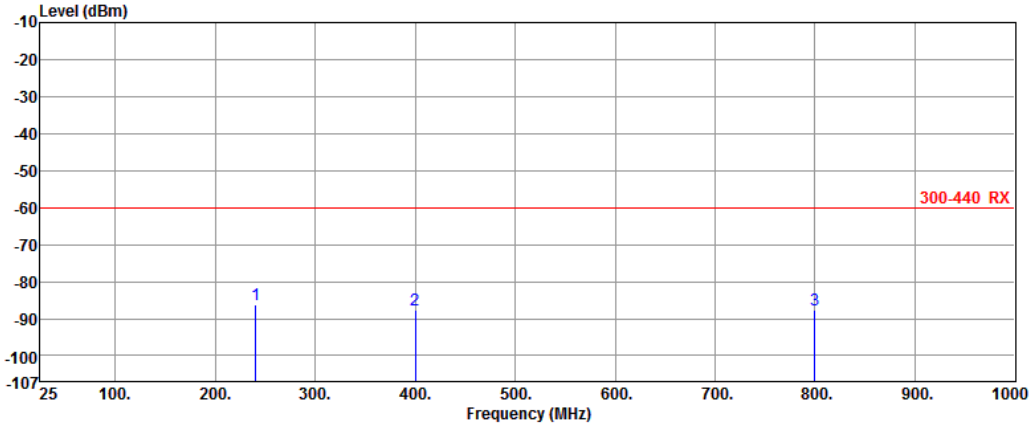
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-88.36	-60.01	-28.35	0.00	-88.36
2	400.38	-88.15	-60.01	-28.14	0.00	-88.15
3	800.13	-86.72	-60.01	-26.71	0.00	-86.72

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

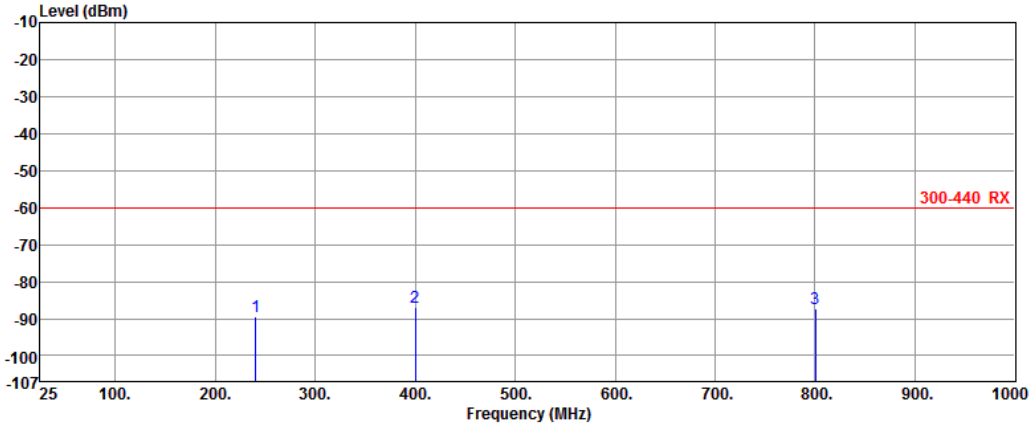
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-86.29	-60.01	-26.28	0.00	-86.29
2	400.38	-87.54	-60.01	-27.53	0.00	-87.54
3	800.13	-87.76	-60.01	-27.75	0.00	-87.76

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

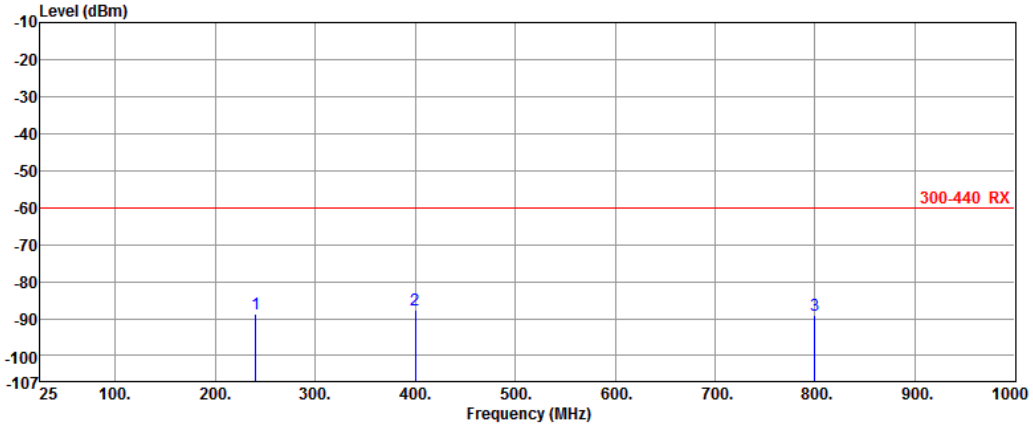
Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-89.48	-60.01	-29.47	0.00	-89.48
2	400.38	-86.88	-60.01	-26.87	0.00	-86.88
3	800.23	-87.26	-60.01	-27.25	0.00	-87.26

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

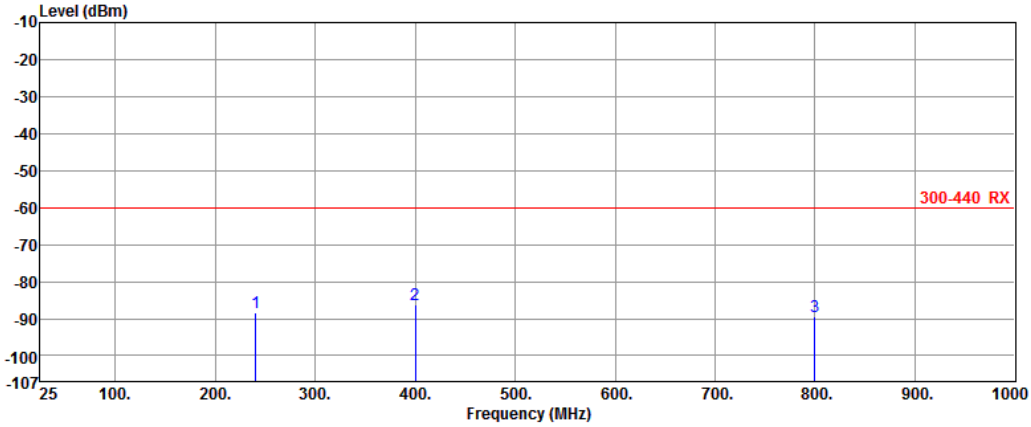
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-88.78	-60.01	-28.77	0.00	-88.78
2	400.38	-87.76	-60.01	-27.75	0.00	-87.76
3	800.13	-89.08	-60.01	-29.07	0.00	-89.08

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

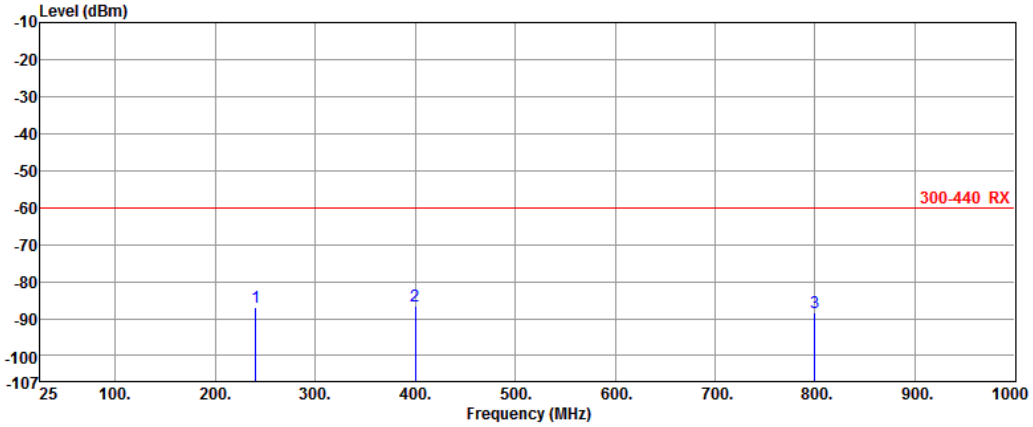
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-88.55	-60.01	-28.54	0.00	-88.55
2	400.38	-86.29	-60.01	-26.28	0.00	-86.29
3	800.13	-89.59	-60.01	-29.58	0.00	-89.59

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

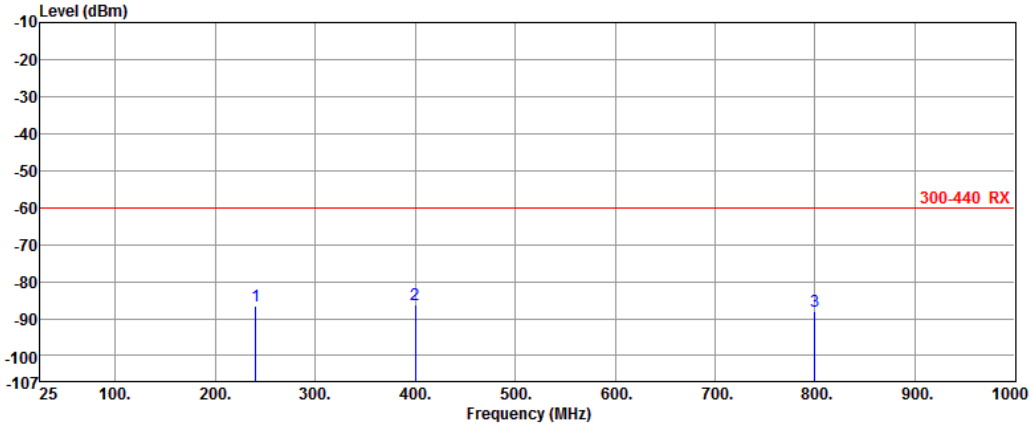
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-86.99	-60.01	-26.98	0.00	-86.99
2	400.38	-86.63	-60.01	-26.62	0.00	-86.63
3	800.13	-88.52	-60.01	-28.51	0.00	-88.52

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

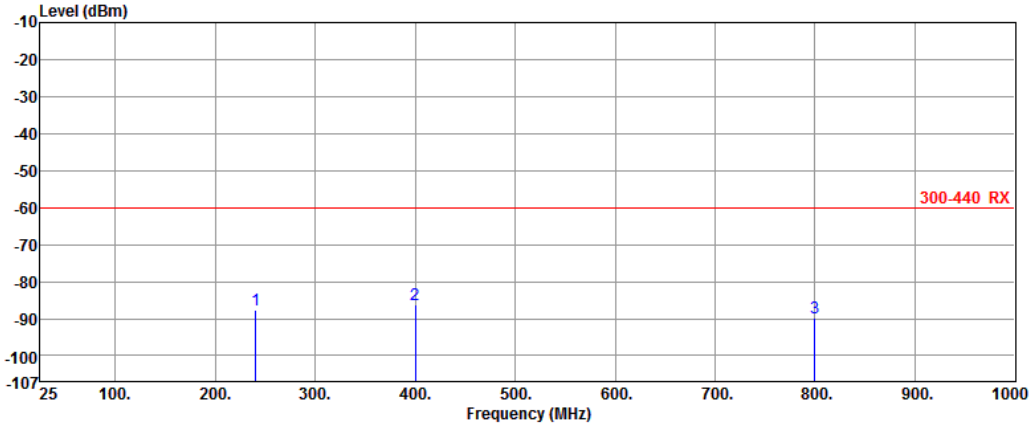
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-86.53	-60.01	-26.52	0.00	-86.53
2	400.38	-86.20	-60.01	-26.19	0.00	-86.20
3	800.13	-88.00	-60.01	-27.99	0.00	-88.00

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

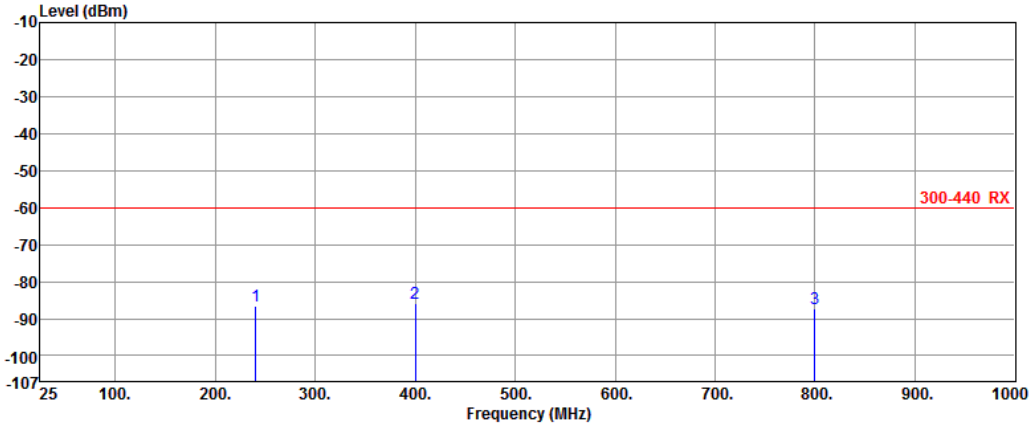
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-87.56	-60.01	-27.55	0.00	-87.56
2	400.38	-86.17	-60.01	-26.16	0.00	-86.17
3	800.13	-89.92	-60.01	-29.91	0.00	-89.92

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

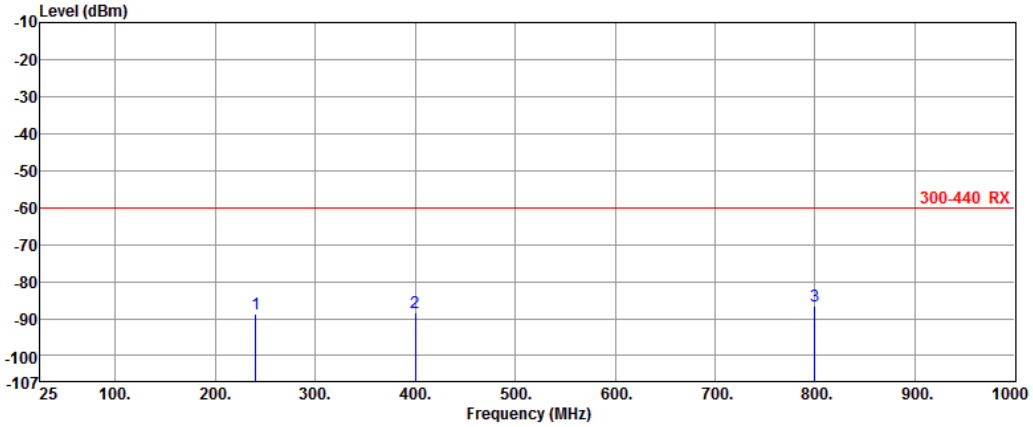
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-86.65	-60.01	-26.64	0.00	-86.65
2	400.38	-85.76	-60.01	-25.75	0.00	-85.76
3	800.13	-87.14	-60.01	-27.13	0.00	-87.14

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

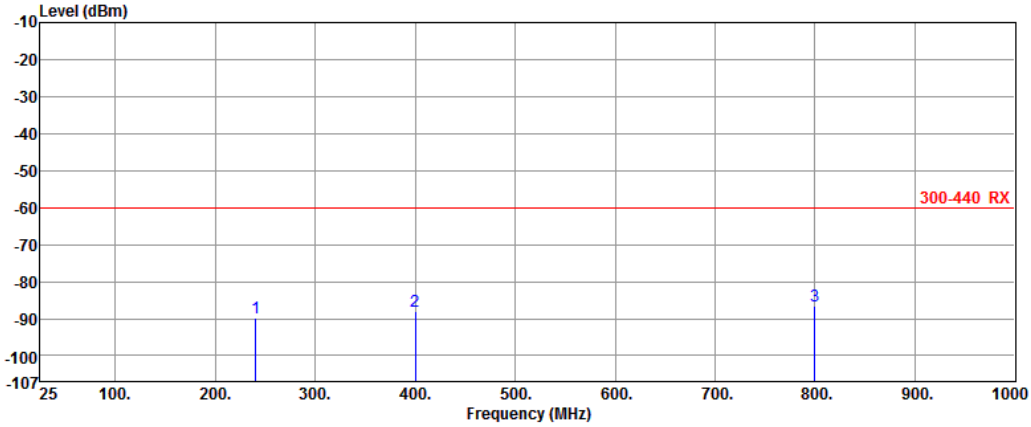
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-88.67	-60.01	-28.66	0.00	-88.67
2	400.38	-88.22	-60.01	-28.21	0.00	-88.22
3	800.13	-86.77	-60.01	-26.76	0.00	-86.77

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

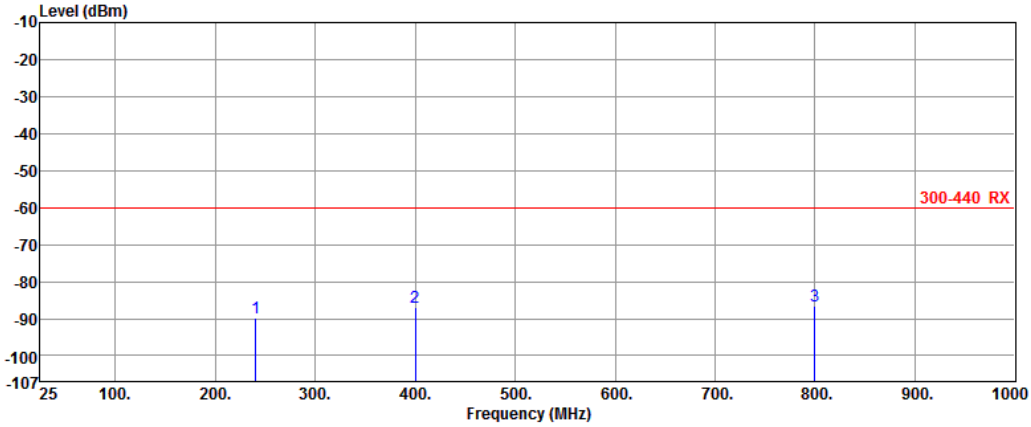
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-89.92	-60.01	-29.91	0.00	-89.92
2	400.38	-87.87	-60.01	-27.86	0.00	-87.87
3	800.13	-86.50	-60.01	-26.49	0.00	-86.50

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

Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	1		

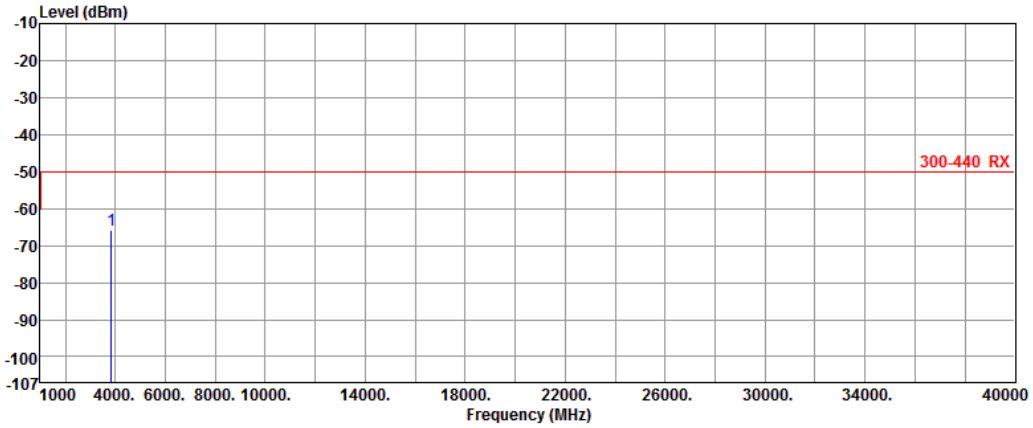


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	240.48	-89.86	-60.01	-29.85	0.00	-89.86
2	400.38	-86.83	-60.01	-26.82	0.00	-86.83
3	800.13	-86.45	-60.01	-26.44	0.00	-86.45

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

4.1.5 Receiver Conducted Unwanted Emissions (Above 1GHz)

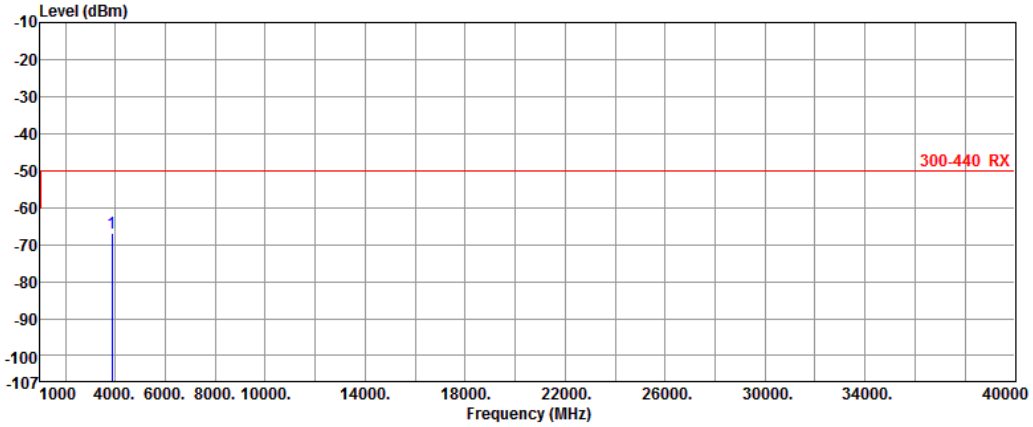
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.02	-65.99	-50.01	-15.98	0.00	-65.99

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

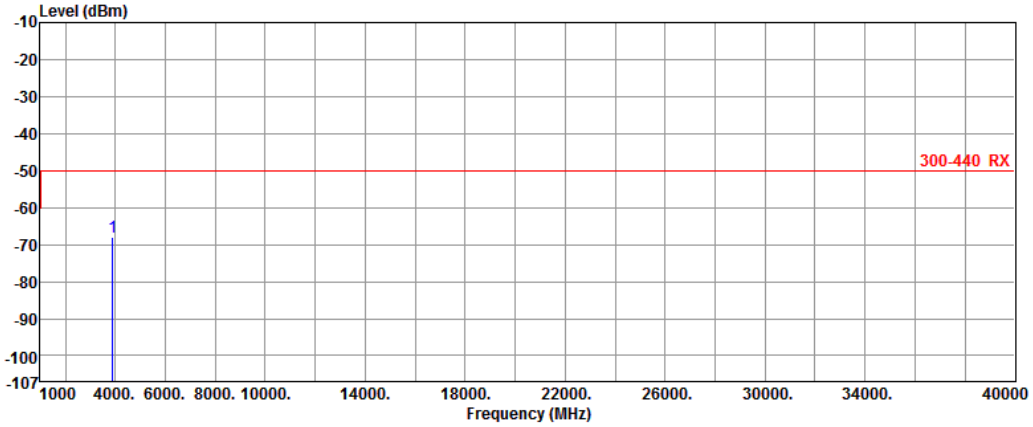
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.17	-66.83	-50.01	-16.82	0.00	-66.83

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

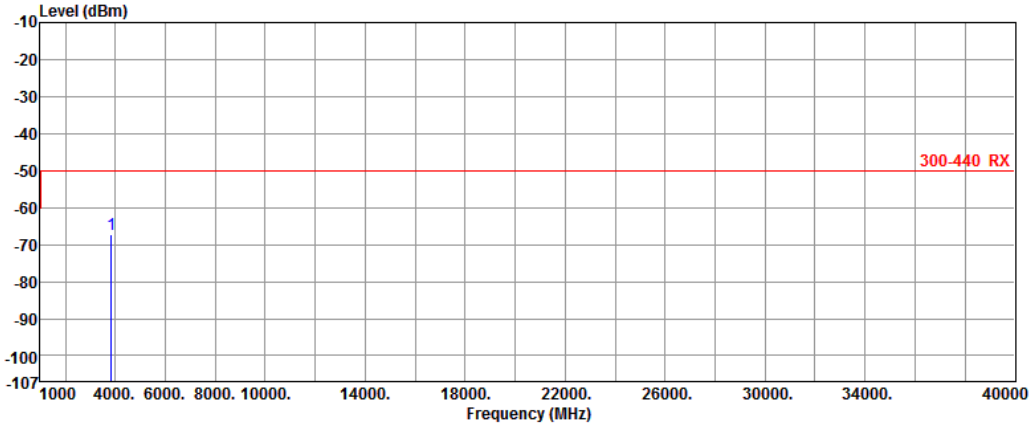
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3882.36	-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)

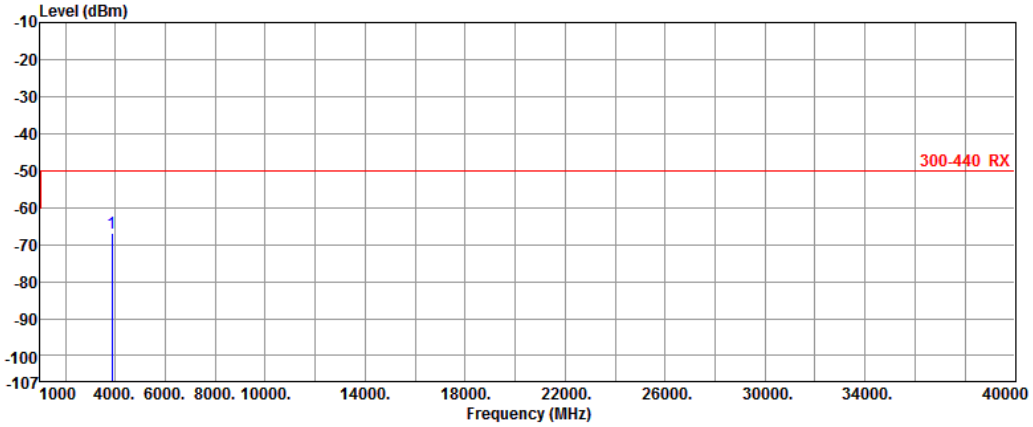
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3829.48	-67.26	-50.01	-17.25	0.00	-67.26

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

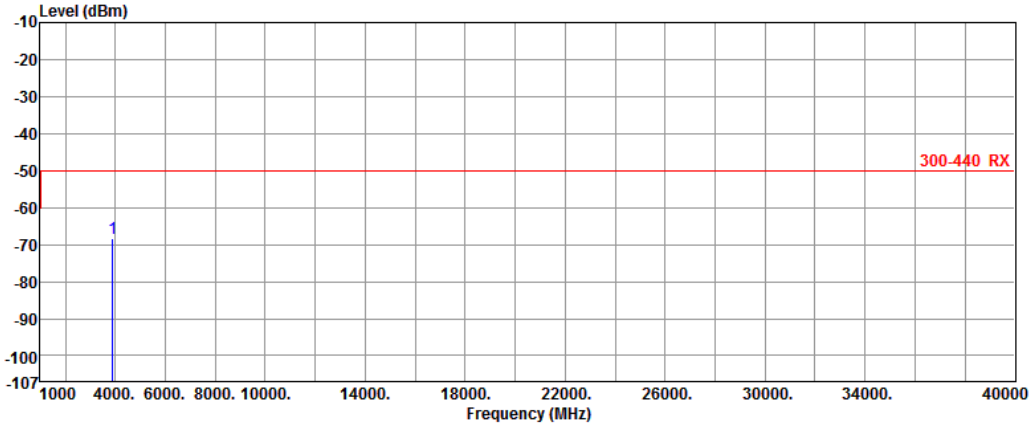
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3855.54	-66.88	-50.01	-16.87	0.00	-66.88

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

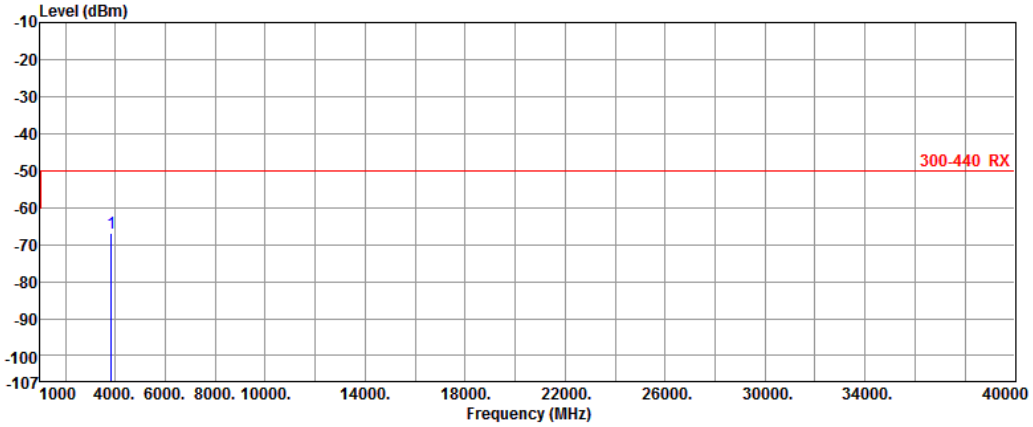
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.41	-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)

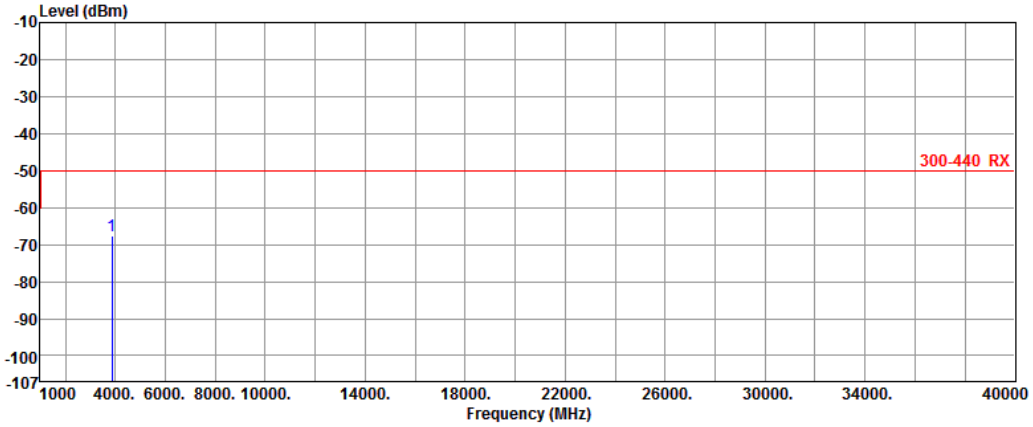
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3836.66	-66.86	-50.01	-16.85	0.00	-66.86

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

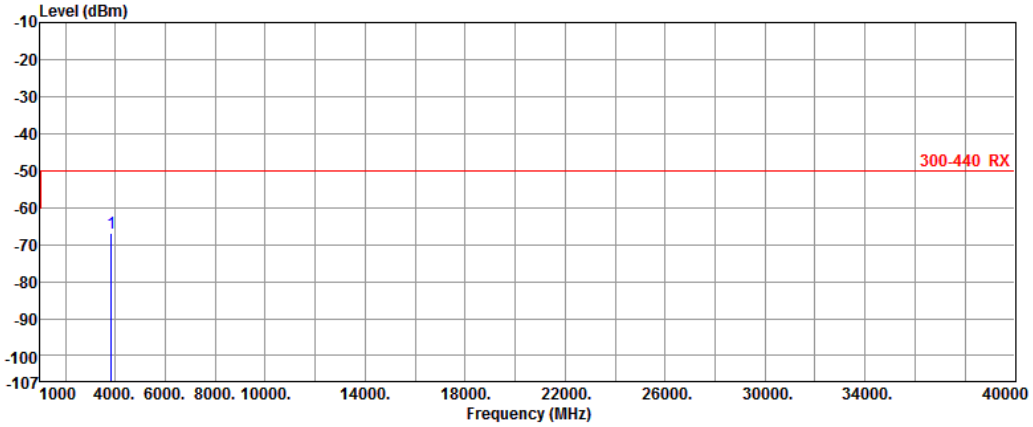
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3863.39	-67.47	-50.01	-17.46	0.00	-67.47

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

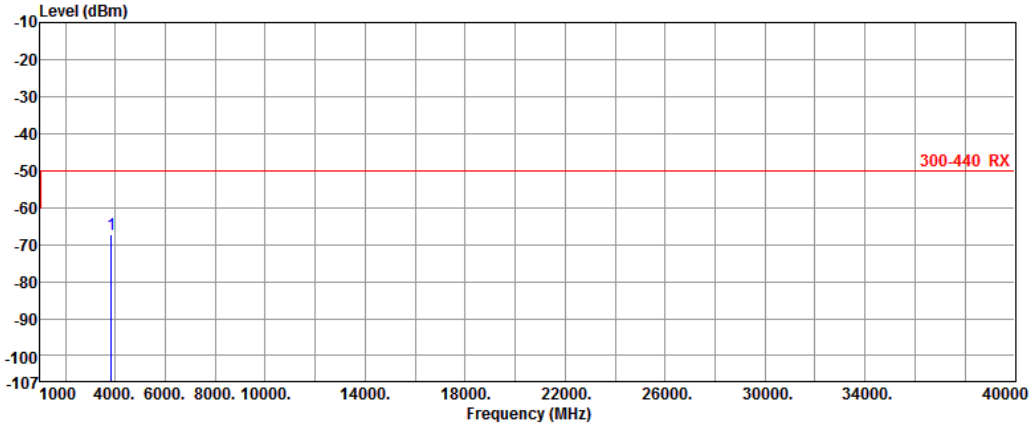
Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	0		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3850.10	-67.04	-50.01	-17.03	0.00	-67.04

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

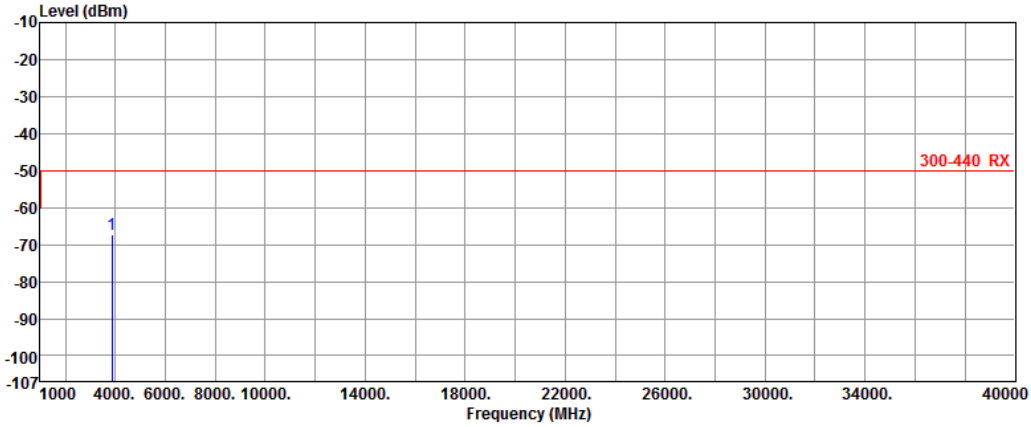
Modulation	11a	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.02	-67.23	-50.01	-17.22	0.00	-67.23

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

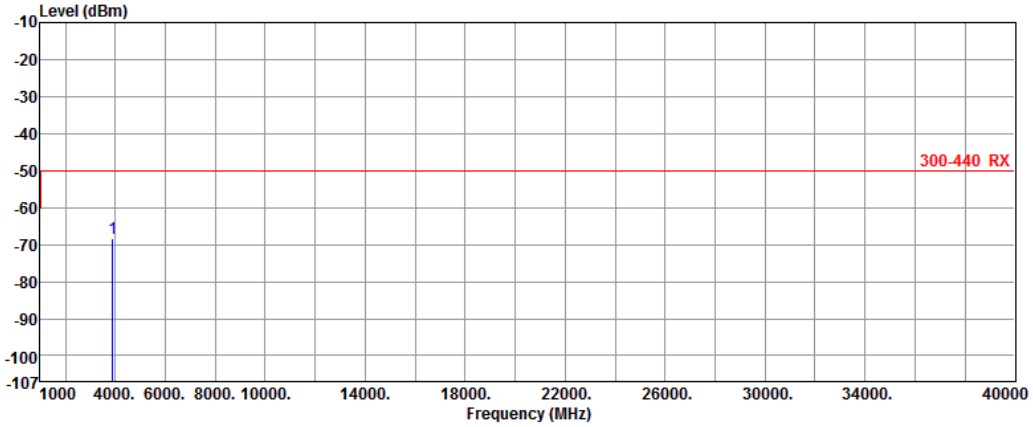
Modulation	11a	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.57	-67.44	-50.01	-17.43	0.00	-67.44

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

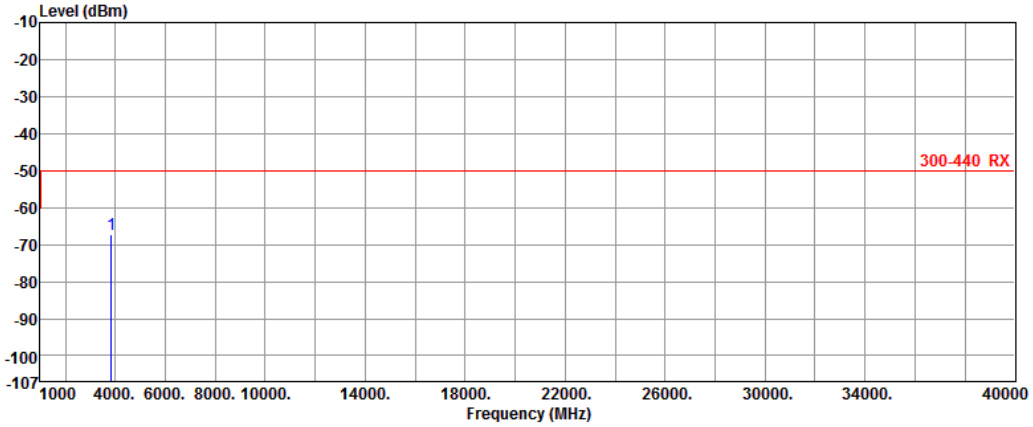
Modulation	11a	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.26	-68.17	-50.01	-18.16	0.00	-68.17

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

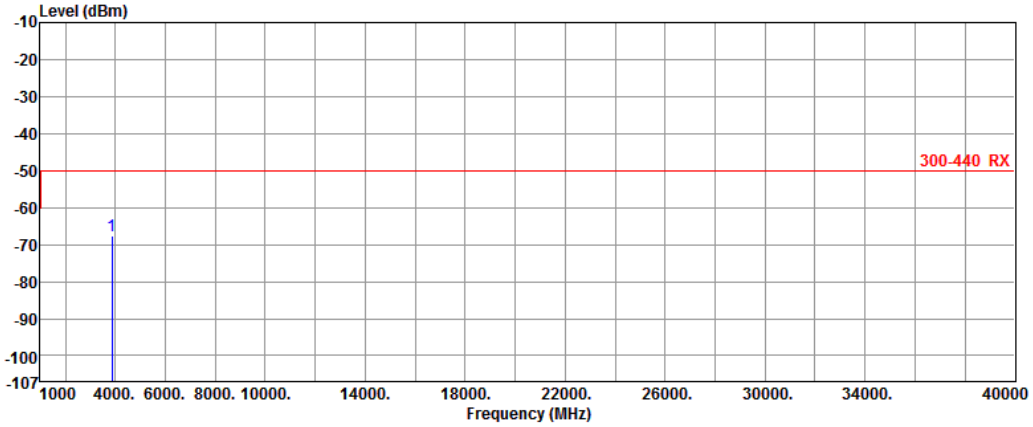
Modulation	VHT20	Test Freq. (MHz)	5745
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3829.98	-67.10	-50.01	-17.09	0.00	-67.10

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

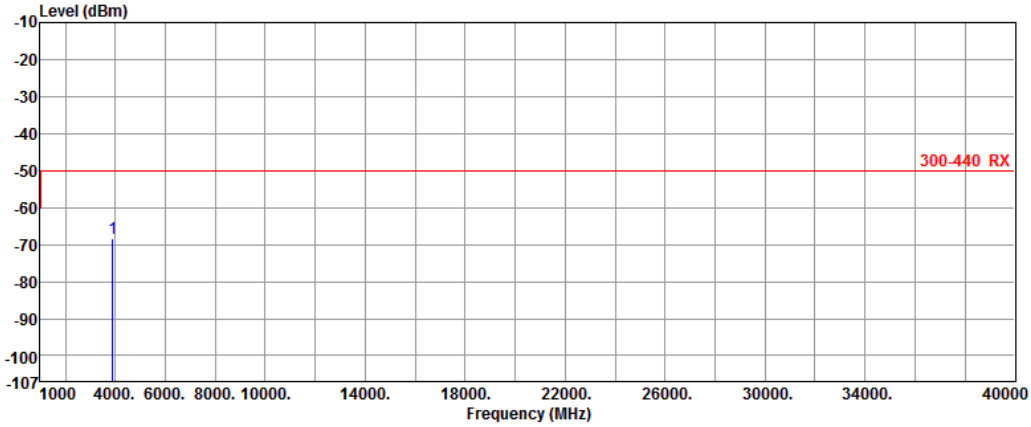
Modulation	VHT20	Test Freq. (MHz)	5785
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.63	-67.68	-50.01	-17.67	0.00	-67.68

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

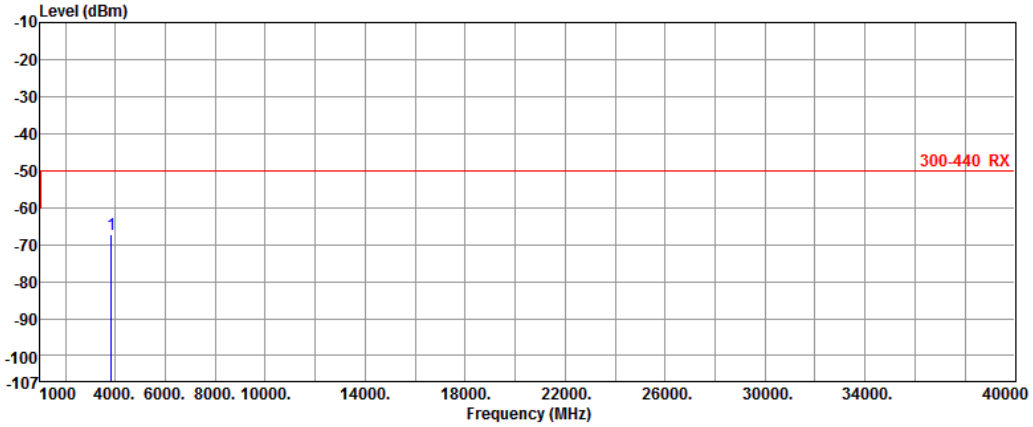
Modulation	VHT20	Test Freq. (MHz)	5825
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.34	-68.26	-50.01	-18.25	0.00	-68.26

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

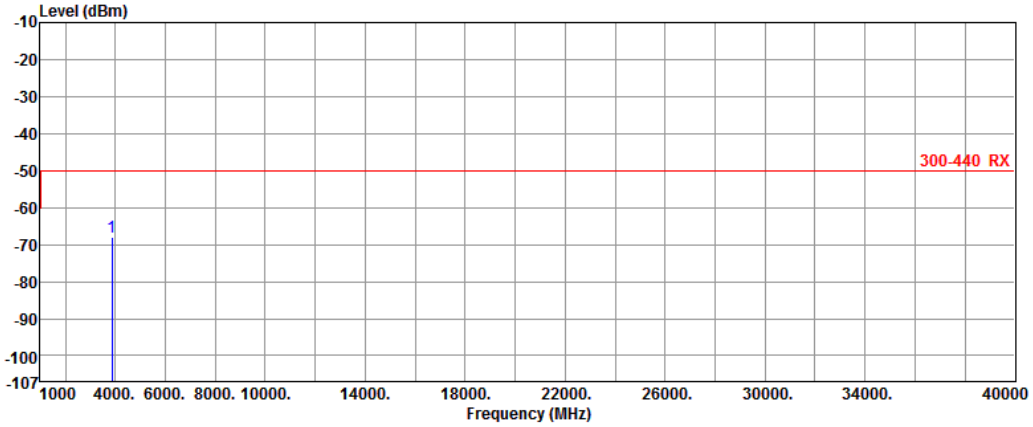
Modulation	VHT40	Test Freq. (MHz)	5755
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3836.66	-67.30	-50.01	-17.29	0.00	-67.30

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

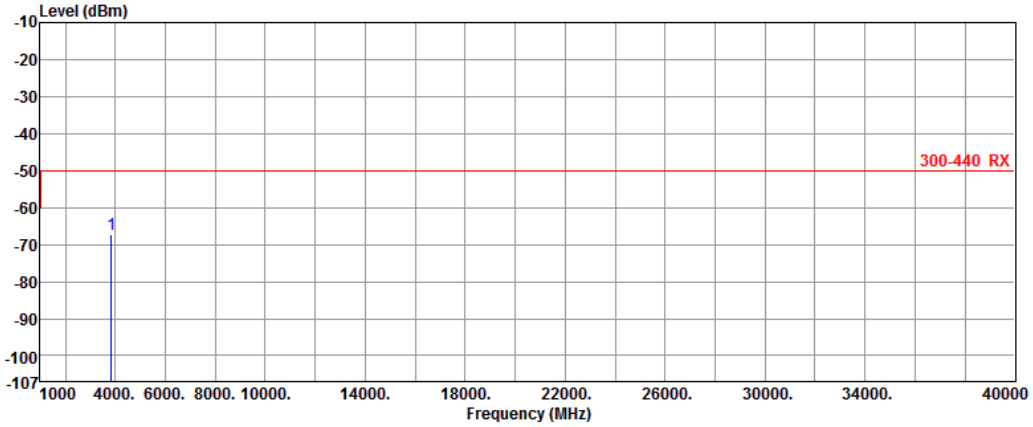
Modulation	VHT40	Test Freq. (MHz)	5795
Antenna Port	1		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3863.29	-67.85	-50.01	-17.84	0.00	-67.85

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

Modulation	VHT80	Test Freq. (MHz)	5775
Antenna Port	1		

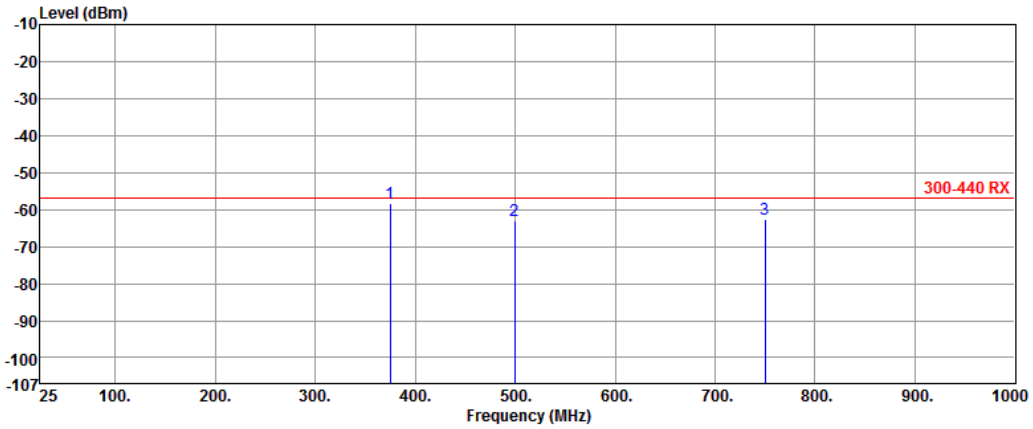


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3850.02	-67.23	-50.01	-17.22	0.00	-67.23

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

4.1.6 Receiver Radiated Unwanted Emissions (Below 1GHz)

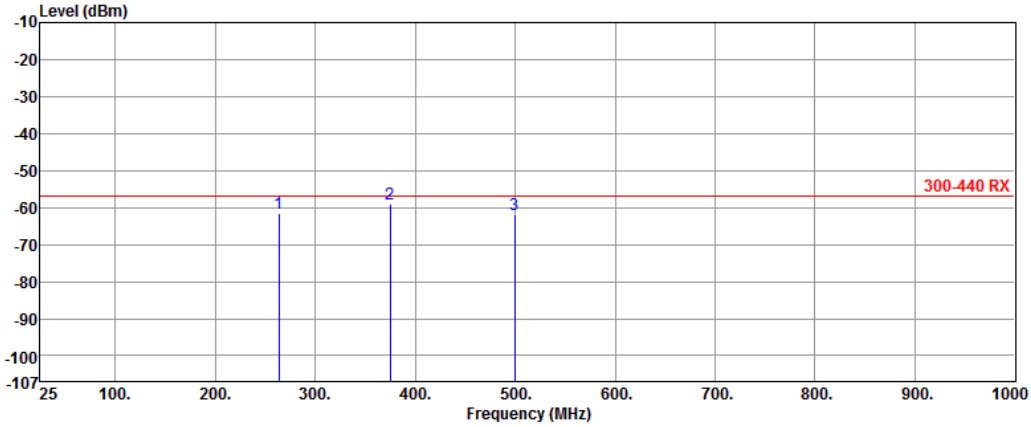
Modulation	11a	**Test Freq. (MHz)**	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.46	-57.00	-1.46	0.56	-59.02
2	499.83	-62.81	-57.00	-5.81	3.13	-65.94
3	750.40	-62.47	-57.00	-5.47	7.91	-70.38

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

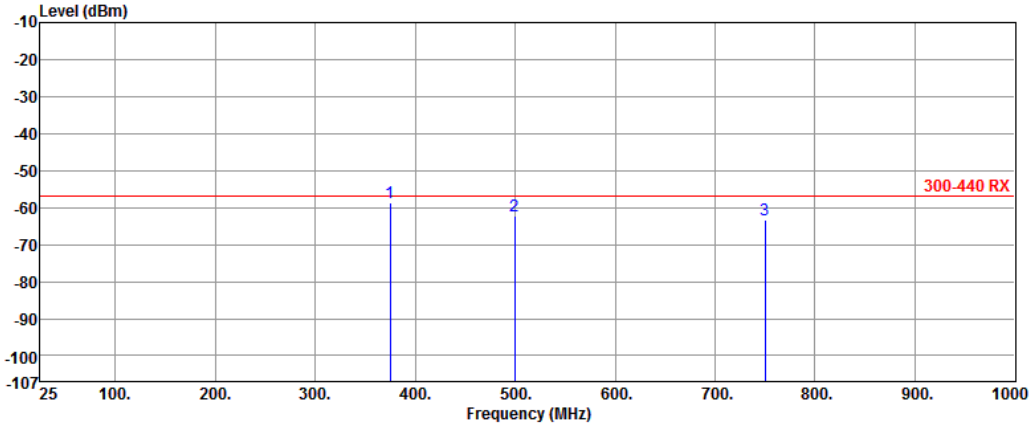
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-61.39	-57.00	-4.39	-2.76	-58.63
2	375.03	-58.96	-57.00	-1.96	0.68	-59.64
3	499.83	-62.04	-57.00	-5.04	3.28	-65.32

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

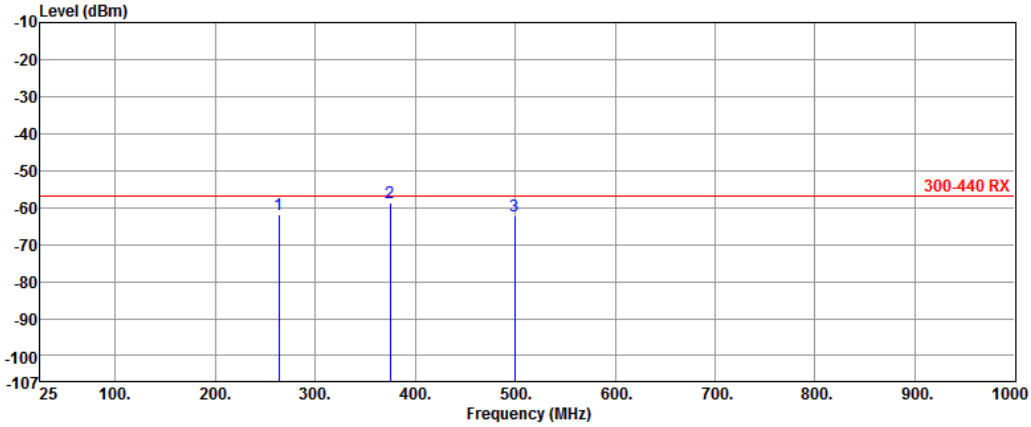
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.78	-57.00	-1.78	0.56	-59.34
2	499.83	-62.13	-57.00	-5.13	3.13	-65.26
3	750.40	-63.42	-57.00	-6.42	7.91	-71.33

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

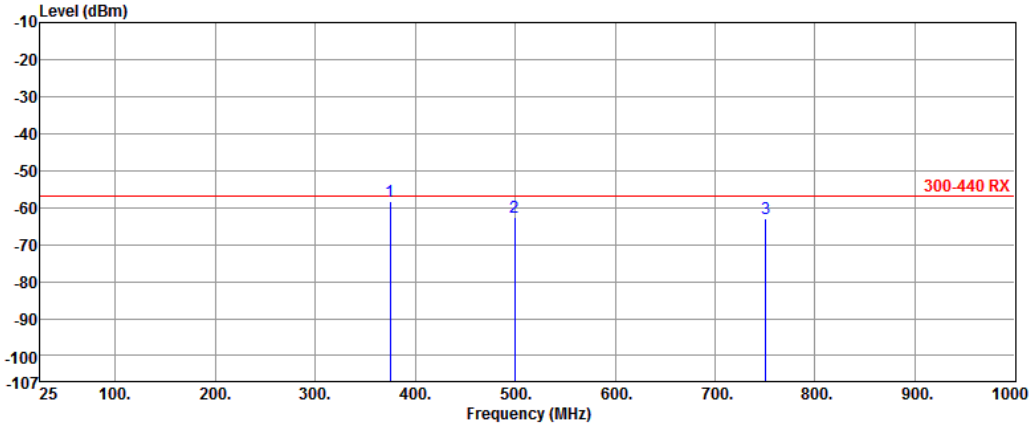
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-61.84	-57.00	-4.84	-2.76	-59.08
2	375.03	-58.55	-57.00	-1.55	0.68	-59.23
3	499.83	-62.19	-57.00	-5.19	3.28	-65.47

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

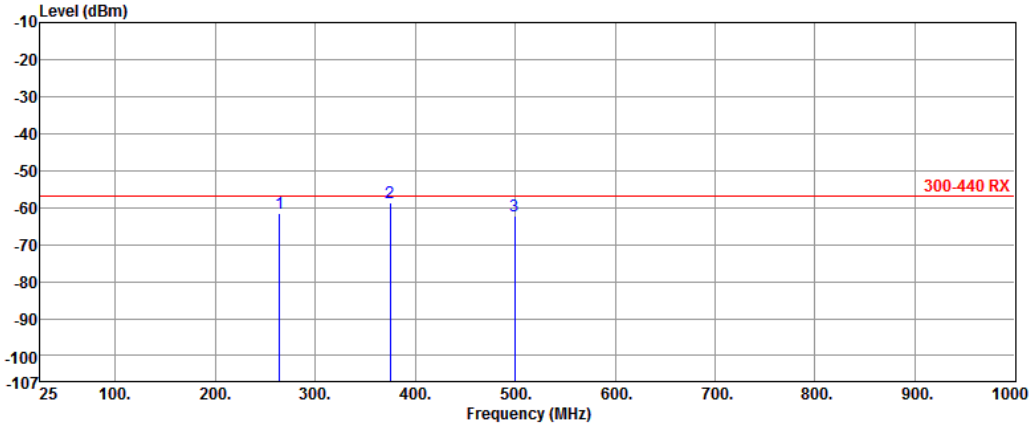
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.42	-57.00	-1.42	0.56	-58.98
2	499.83	-62.47	-57.00	-5.47	3.13	-65.60
3	750.74	-62.89	-57.00	-5.89	7.91	-70.80

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

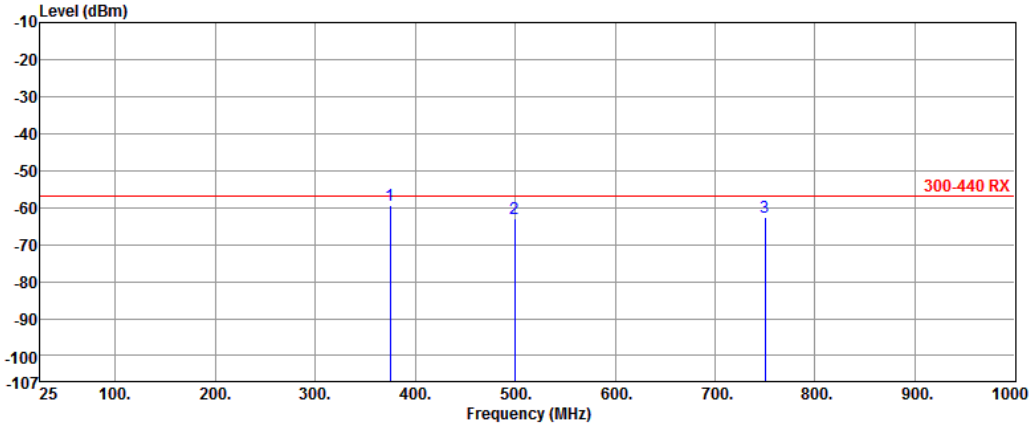
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	264.00	-61.45	-57.00	-4.45	-2.76	-58.69
2	375.03	-58.76	-57.00	-1.76	0.68	-59.44
3	499.83	-62.10	-57.00	-5.10	3.28	-65.38

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

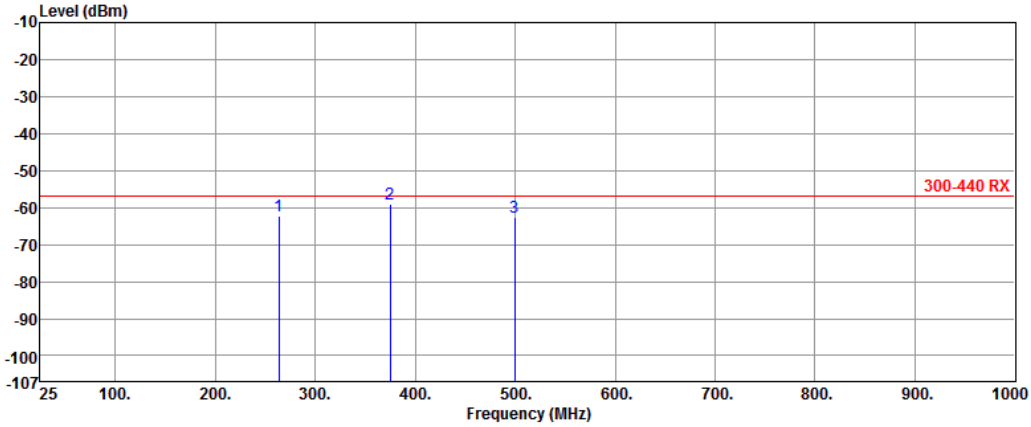
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-59.24	-57.00	-2.24	0.56	-59.80
2	499.83	-62.86	-57.00	-5.86	3.13	-65.99
3	750.40	-62.71	-57.00	-5.71	7.91	-70.62

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

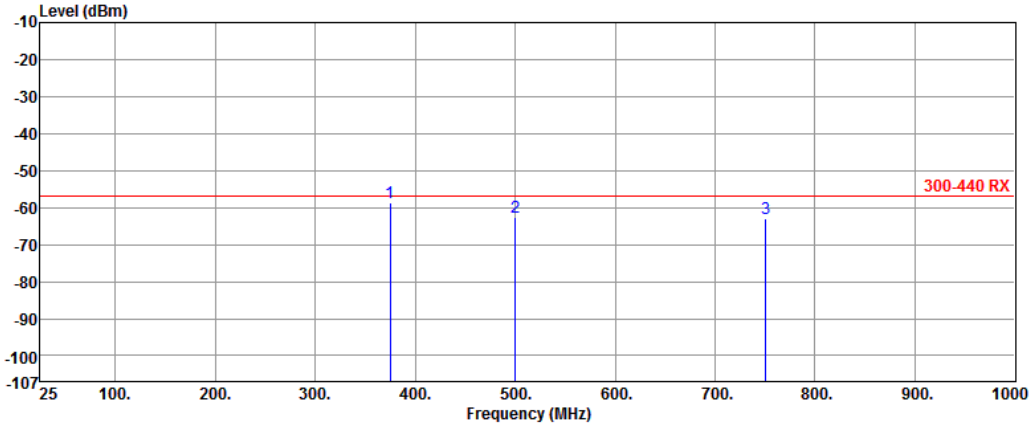
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.37	-57.00	-5.37	-2.76	-59.61
2	375.03	-58.91	-57.00	-1.91	0.68	-59.59
3	499.83	-62.54	-57.00	-5.54	3.28	-65.82

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

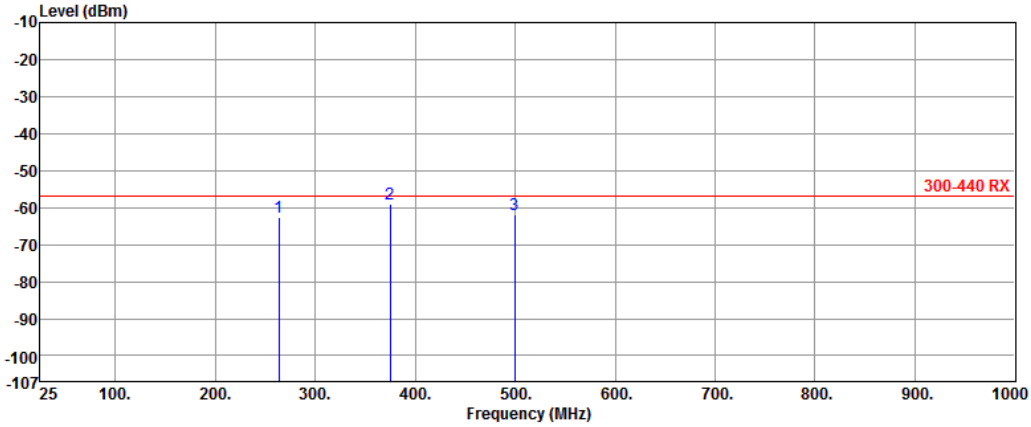
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.65	-57.00	-1.65	0.56	-59.21
2	500.00	-62.44	-57.00	-5.44	3.13	-65.57
3	750.63	-63.07	-57.00	-6.07	7.91	-70.98

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

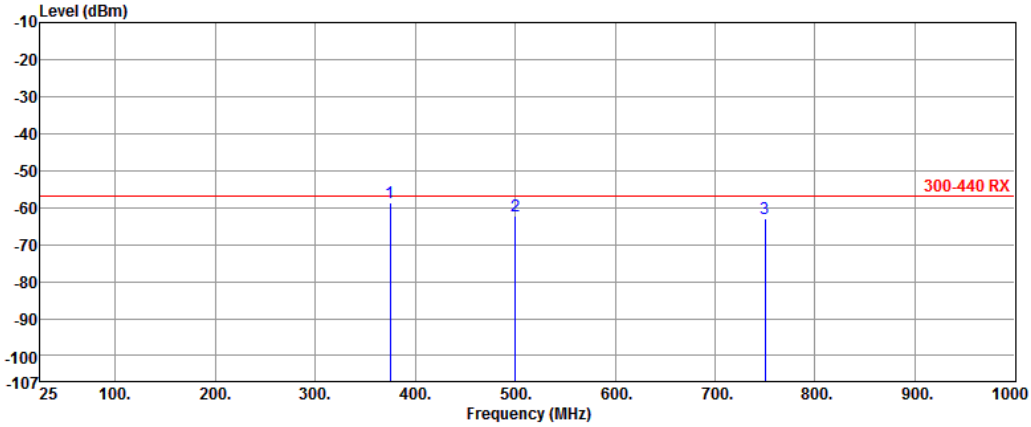
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.71	-57.00	-5.71	-2.76	-59.95
2	375.03	-59.13	-57.00	-2.13	0.68	-59.81
3	499.83	-61.80	-57.00	-4.80	3.28	-65.08

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

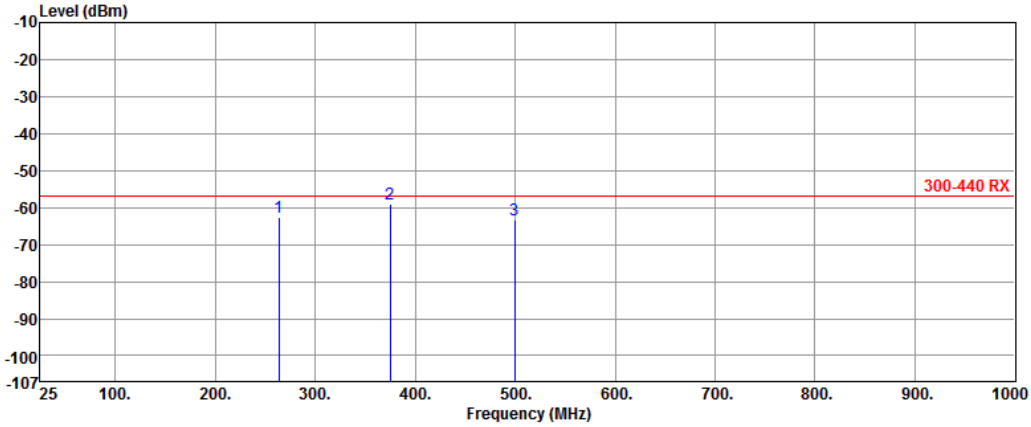
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.64	-57.00	-1.64	0.56	-59.20
2	500.25	-62.39	-57.00	-5.39	3.15	-65.54
3	750.40	-62.93	-57.00	-5.93	7.91	-70.84

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

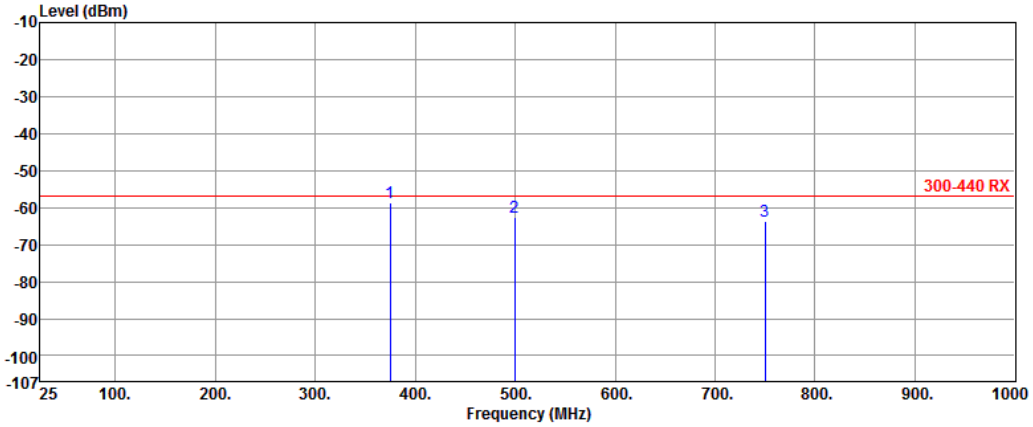
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.79	-57.00	-5.79	-2.76	-60.03
2	375.03	-59.21	-57.00	-2.21	0.68	-59.89
3	499.83	-63.32	-57.00	-6.32	3.28	-66.60

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

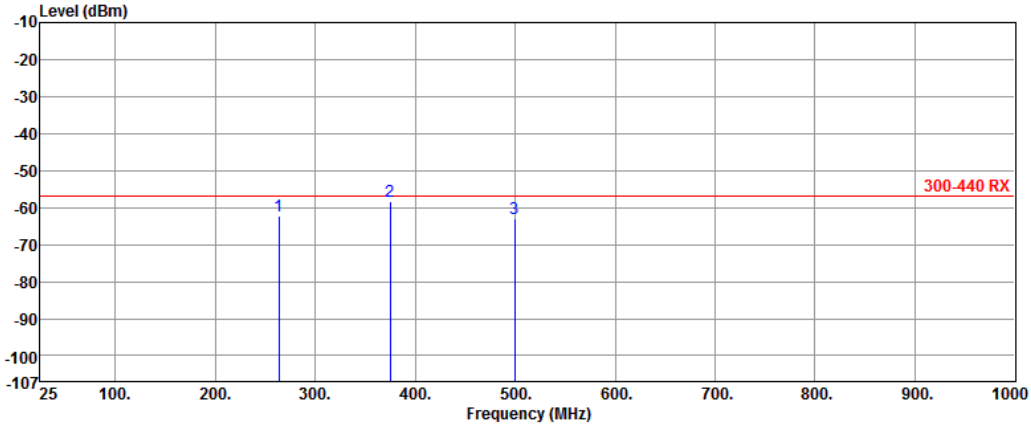
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.63	-57.00	-1.63	0.56	-59.19
2	499.83	-62.47	-57.00	-5.47	3.13	-65.60
3	750.40	-63.56	-57.00	-6.56	7.91	-71.47

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

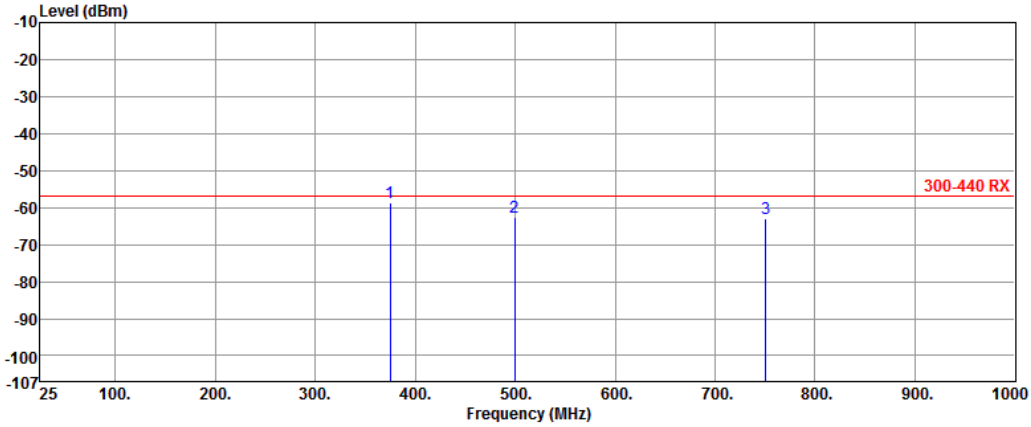
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.15	-57.00	-5.15	-2.76	-59.39
2	375.03	-58.41	-57.00	-1.41	0.68	-59.09
3	499.83	-62.82	-57.00	-5.82	3.28	-66.10

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

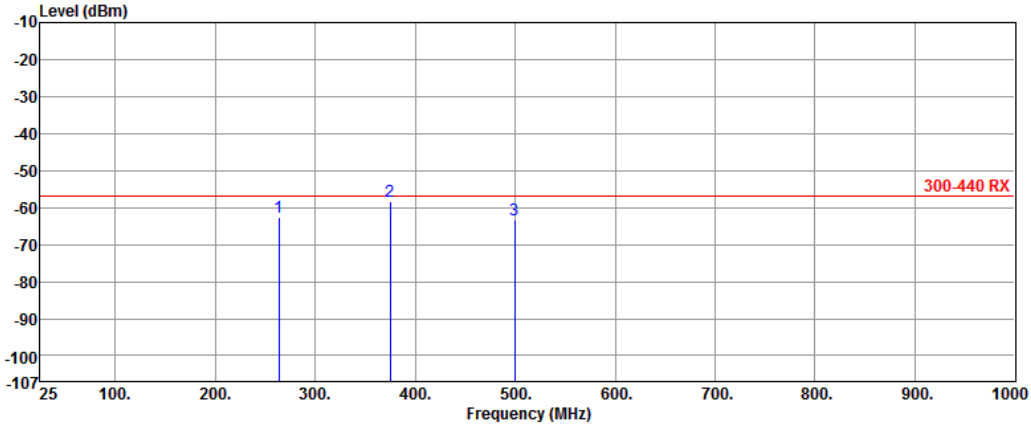
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.61	-57.00	-1.61	0.56	-59.17
2	499.83	-62.68	-57.00	-5.68	3.13	-65.81
3	750.63	-62.89	-57.00	-5.89	7.91	-70.80

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

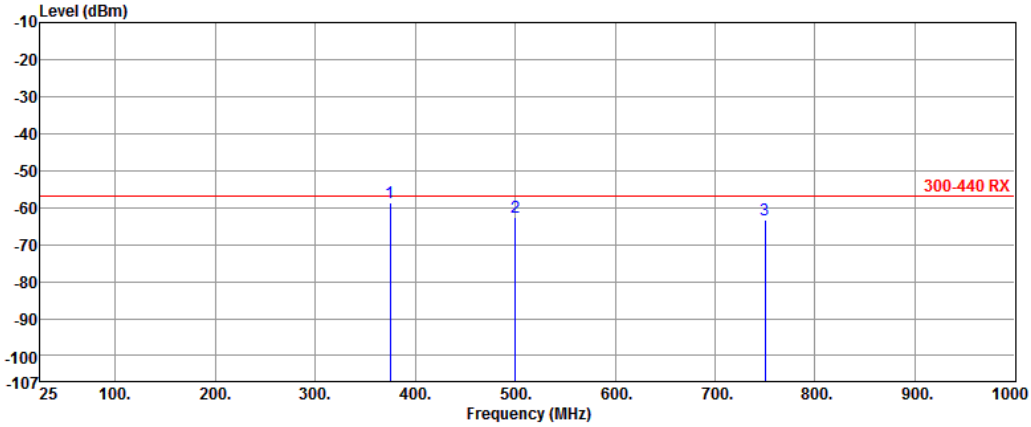
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.54	-57.00	-5.54	-2.76	-59.78
2	375.03	-58.26	-57.00	-1.26	0.68	-58.94
3	499.83	-63.42	-57.00	-6.42	3.28	-66.70

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

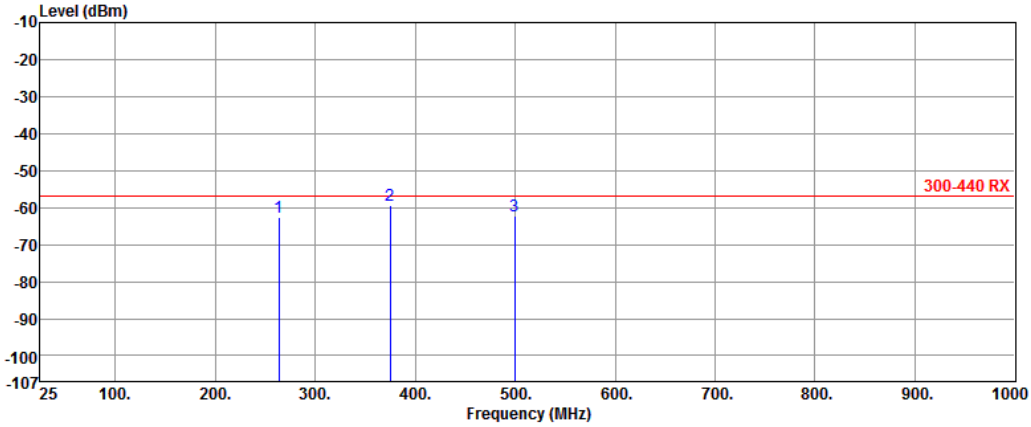
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	375.03	-58.67	-57.00	-1.67	0.56	-59.23
2	500.25	-62.48	-57.00	-5.48	3.15	-65.63
3	750.40	-63.29	-57.00	-6.29	7.91	-71.20

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		

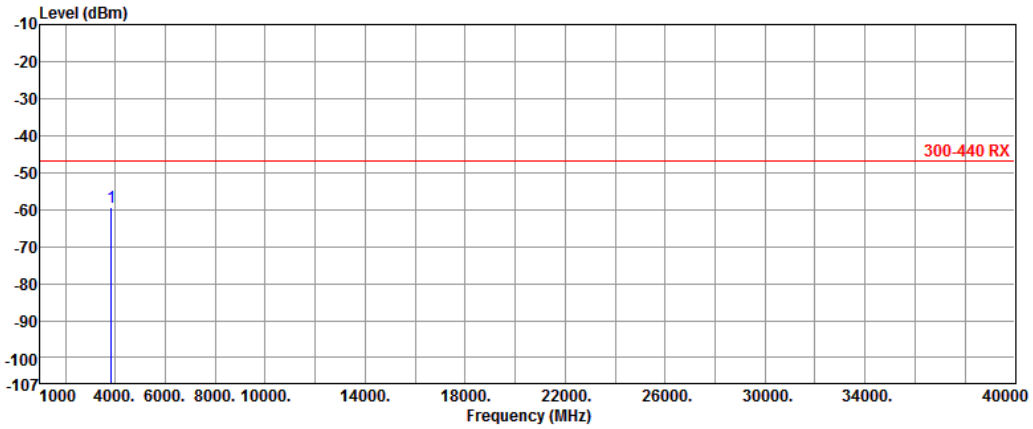


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	263.88	-62.57	-57.00	-5.57	-2.76	-59.81
2	375.03	-59.36	-57.00	-2.36	0.68	-60.04
3	499.83	-62.14	-57.00	-5.14	3.28	-65.42

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

4.1.7 Receiver Spurious Emissions (Above 1GHz)

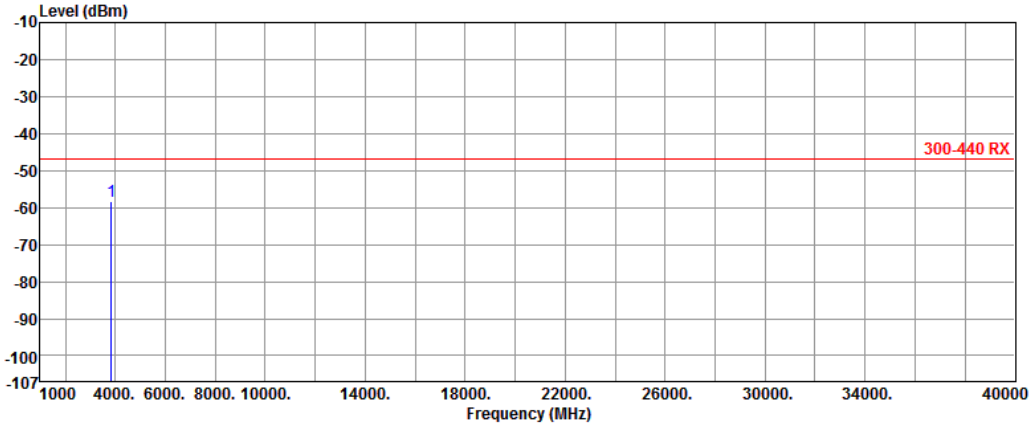
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.01	-59.47	-47.00	-12.47	7.18	-66.65

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

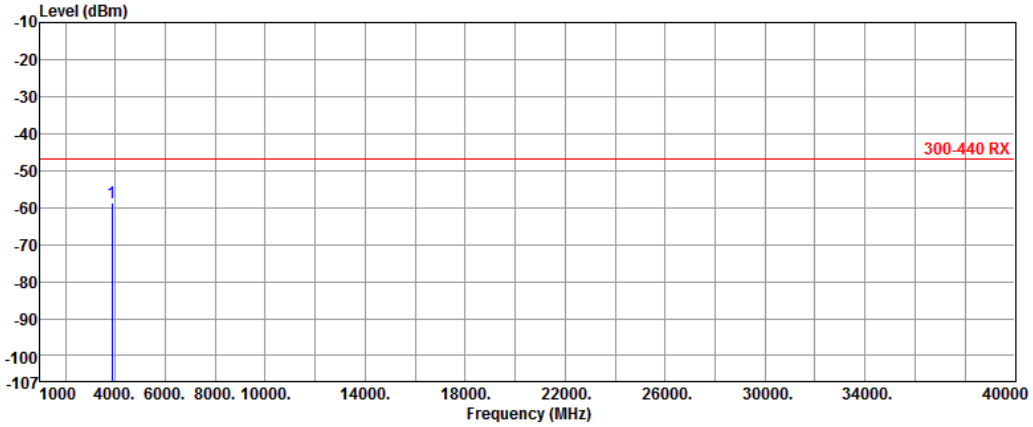
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.06	-58.20	-47.00	-11.20	7.48	-65.68

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

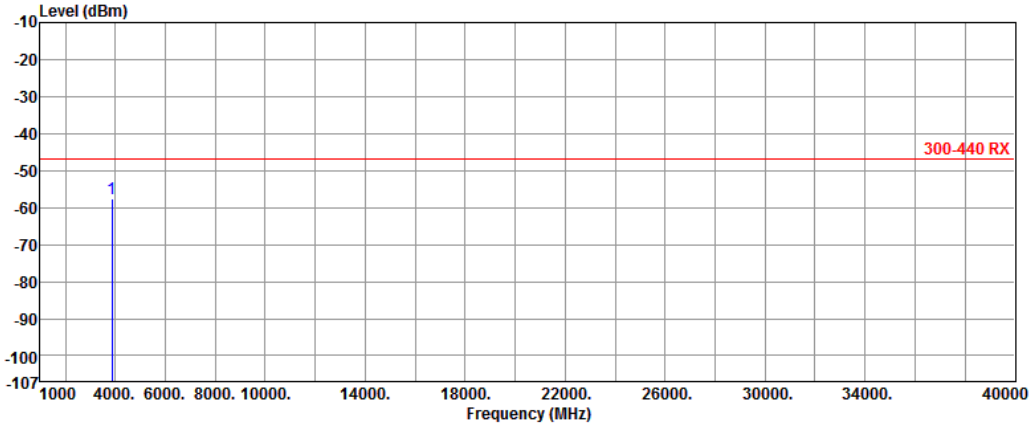
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.59	-58.72	-47.00	-11.72	7.28	-66.00

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

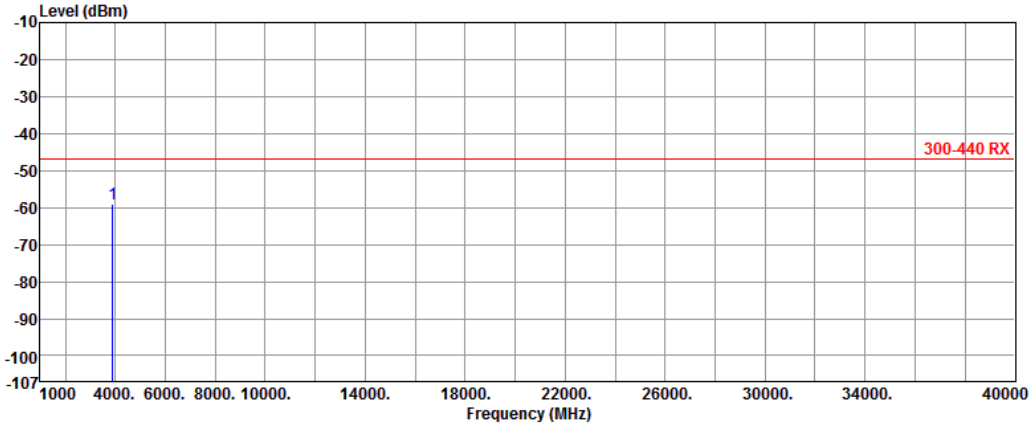
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.00	-57.75	-47.00	-10.75	7.51	-65.26

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

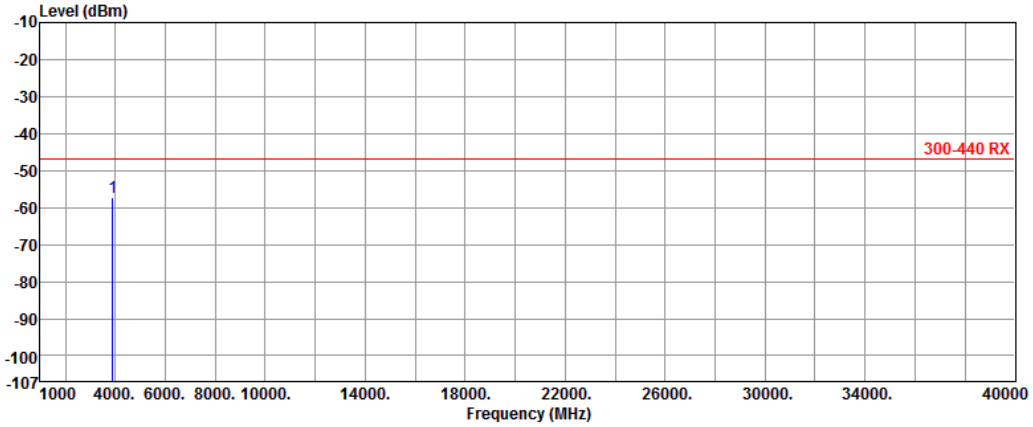
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.67	-58.99	-47.00	-11.99	7.39	-66.38

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

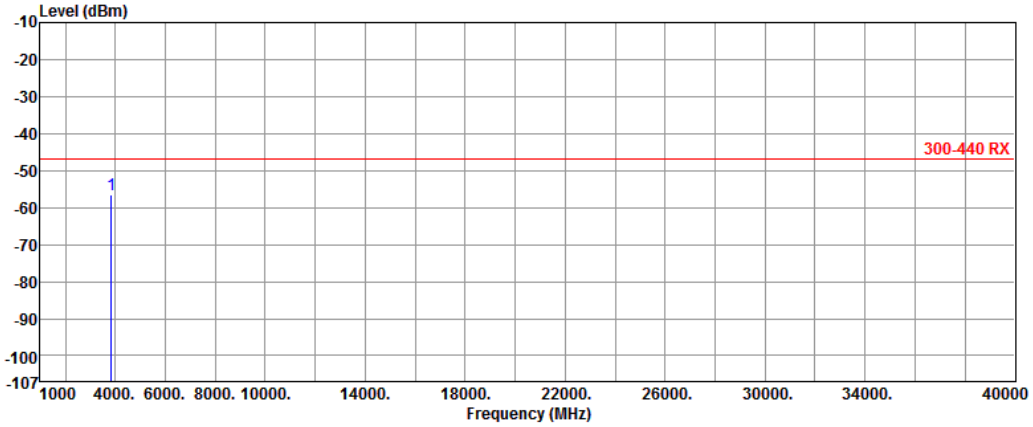
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3884.96	-57.18	-47.00	-10.18	7.54	-64.72

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

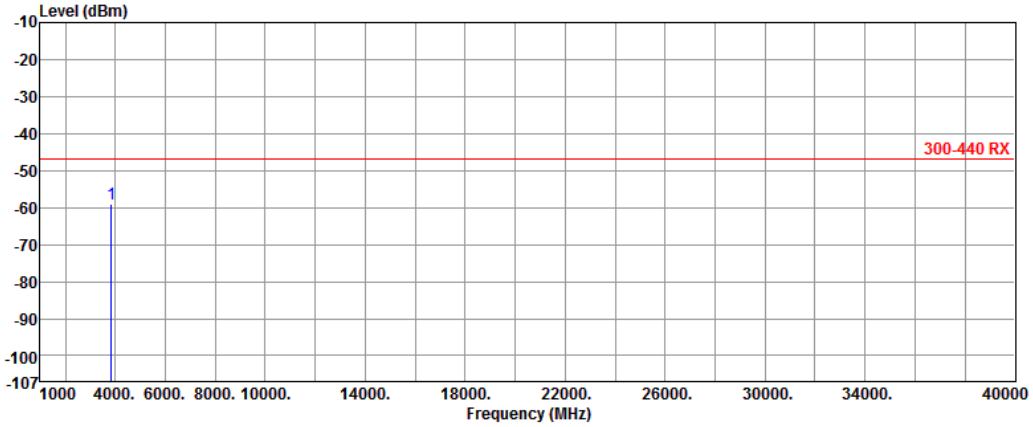
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.02	-56.62	-47.00	-9.62	7.18	-63.80

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

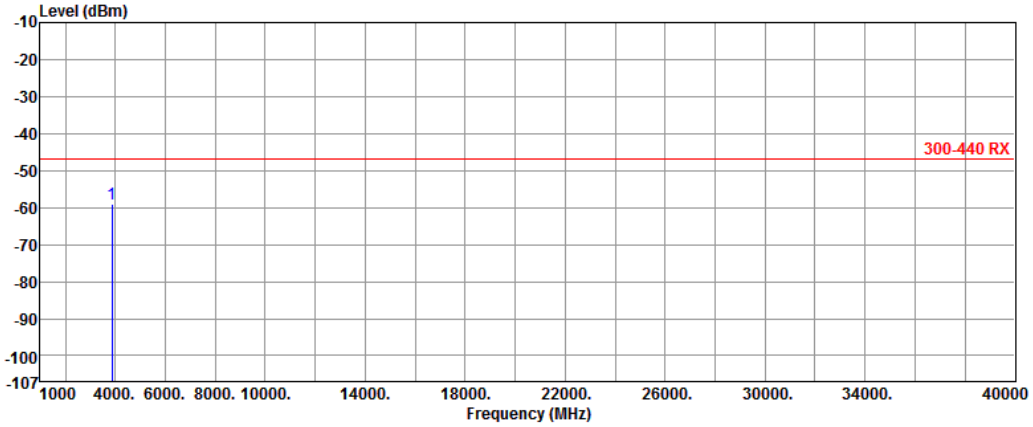
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3830.25	-59.04	-47.00	-12.04	7.48	-66.52

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

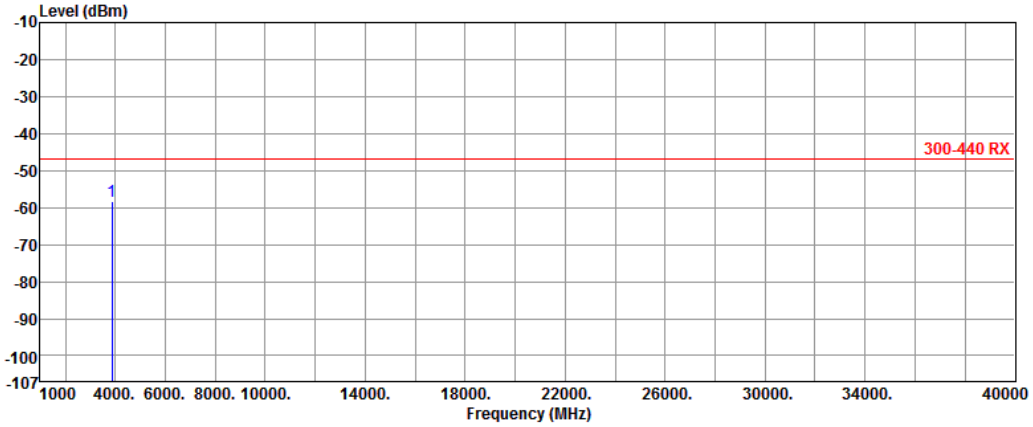
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3857.00	-59.19	-47.00	-12.19	7.28	-66.47

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

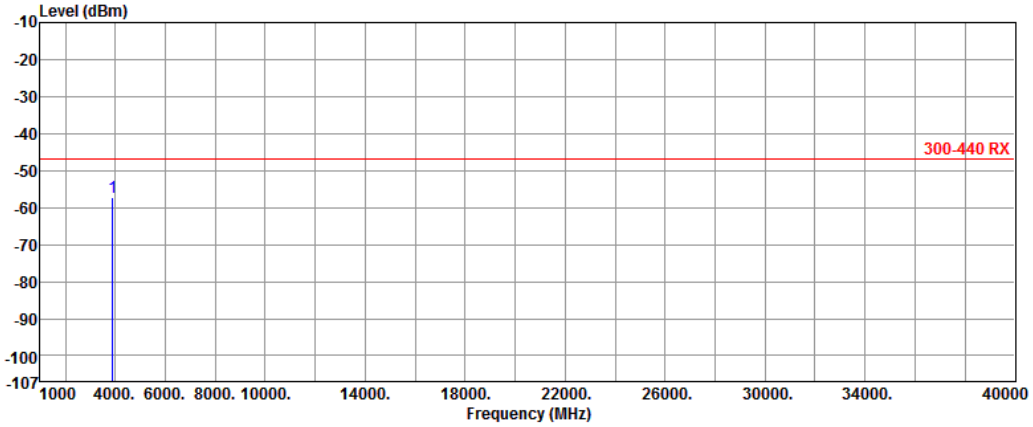
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3856.47	-58.29	-47.00	-11.29	7.51	-65.80

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

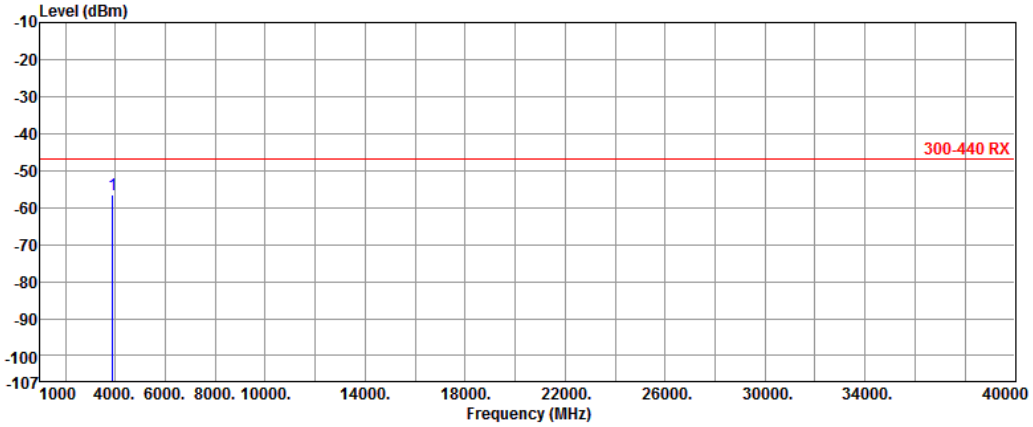
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.22	-57.20	-47.00	-10.20	7.38	-64.58

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

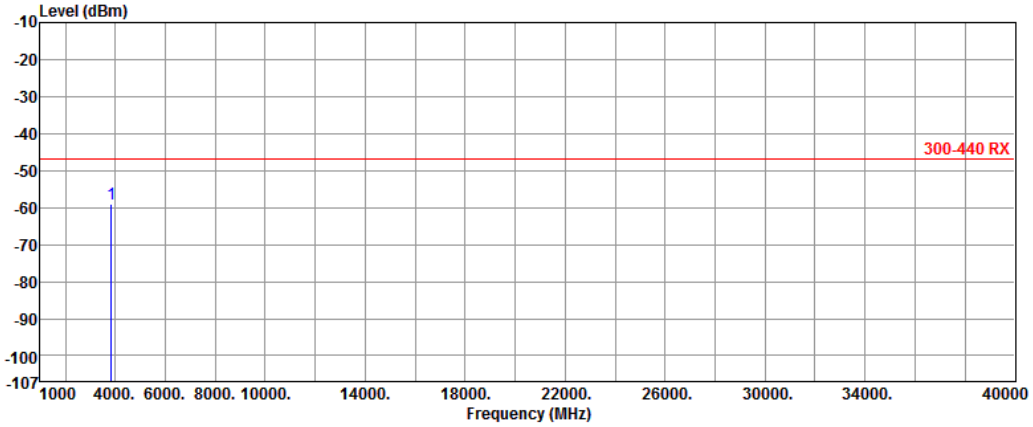
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3883.56	-56.69	-47.00	-9.69	7.54	-64.23

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

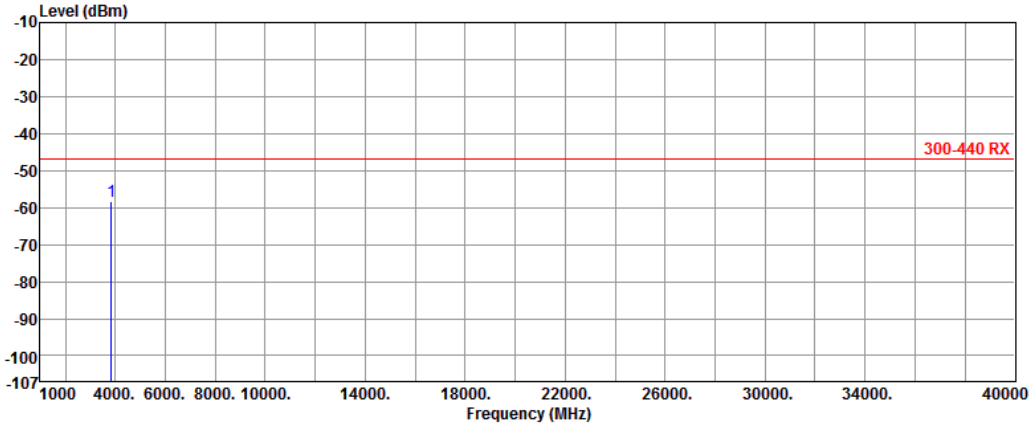
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3836.02	-58.86	-47.00	-11.86	7.21	-66.07

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

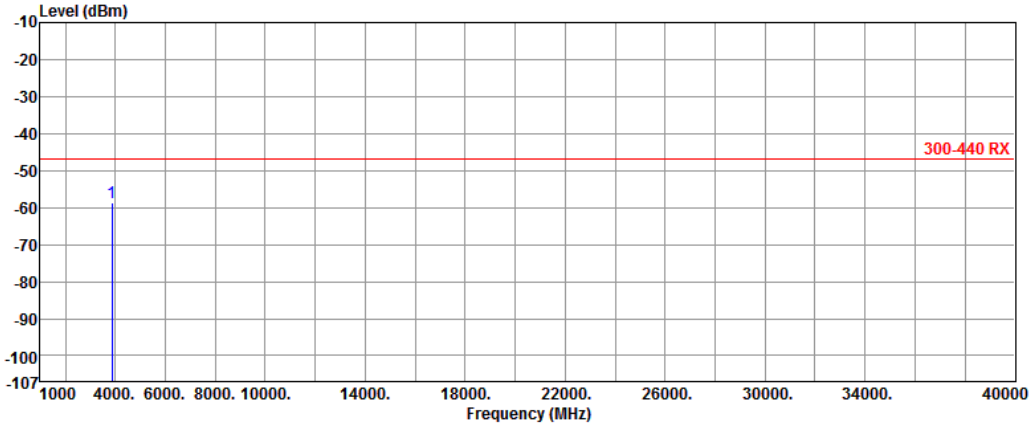
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3836.30	-58.49	-47.00	-11.49	7.49	-65.98

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

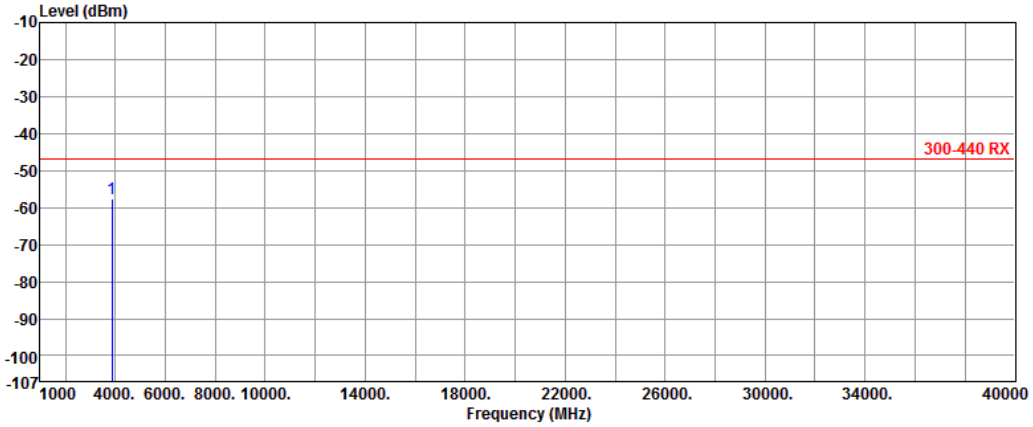
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3863.10	-58.80	-47.00	-11.80	7.31	-66.11

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

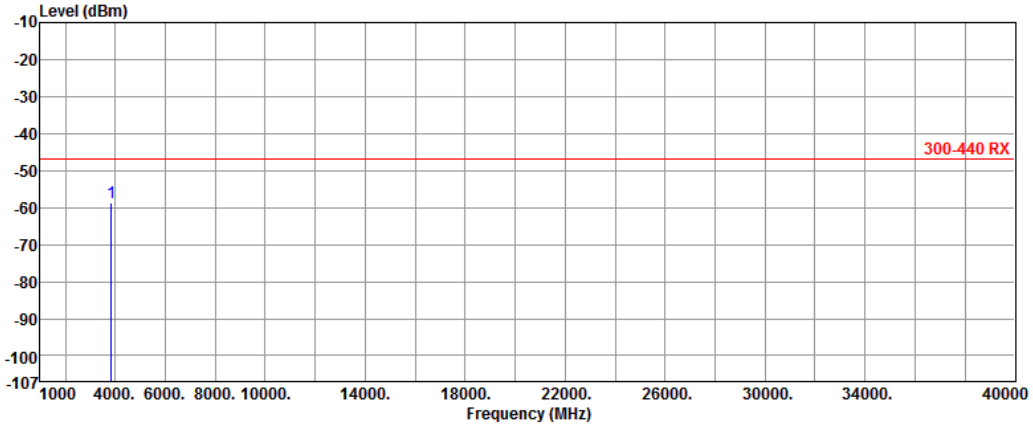
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3863.32	-57.60	-47.00	-10.60	7.52	-65.12

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

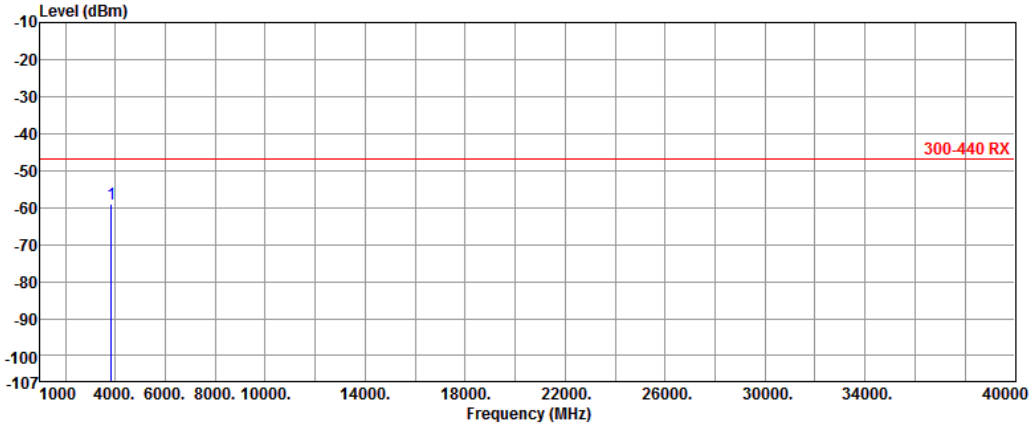
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3850.62	-58.61	-47.00	-11.61	7.26	-65.87

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	3850.22	-58.95	-47.00	-11.95	7.50	-66.45

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

4.2 Adjacent Channel Selectivity

4.2.1 Limit of Adjacent Channel Selectivity

Receiver category	Limit
1	-30 dBm + k
2	No limit
3	No limit

The correction factor, k, is as follows:

$$k = -20\log f - 10\log BW$$

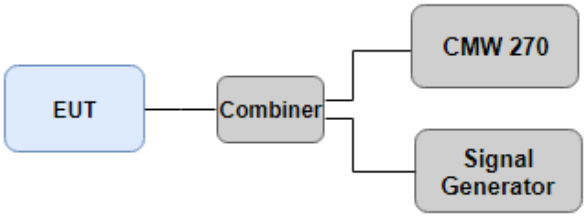
Where:
- f is the frequency in GHz;
- BW is the channel bandwidth in MHz.

The factor k is limited within the following:
- $0 < k < 40$ dB.

4.2.2 Test Procedures

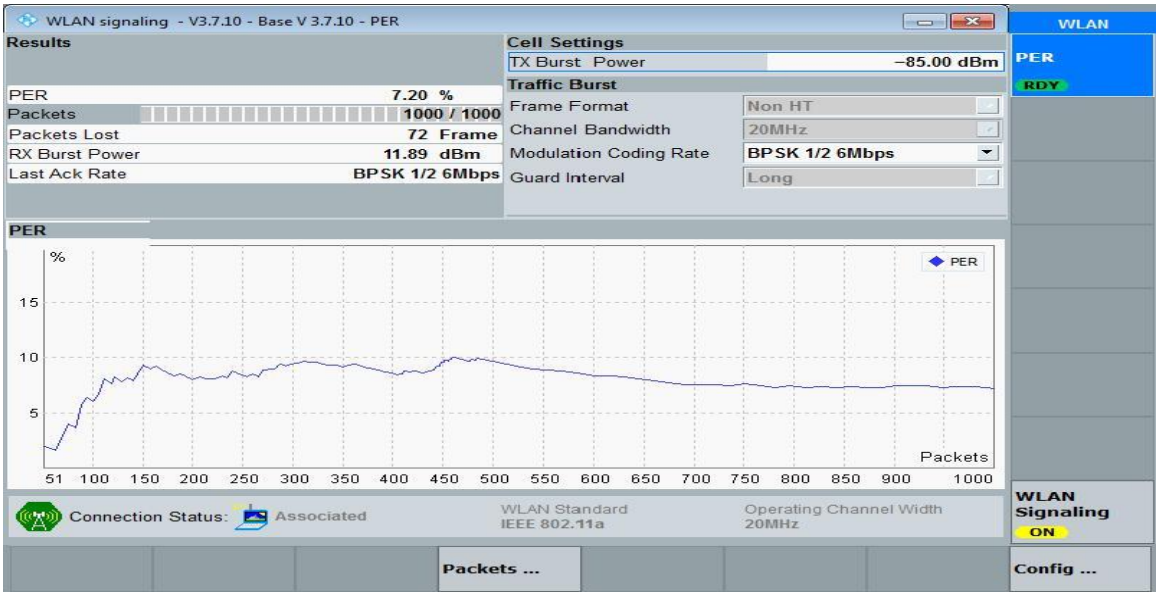
Reference to clause 4.3.3.3 of ETSI EN 300 440 V2.1.1 (2017-03).

4.2.3 Test Setup



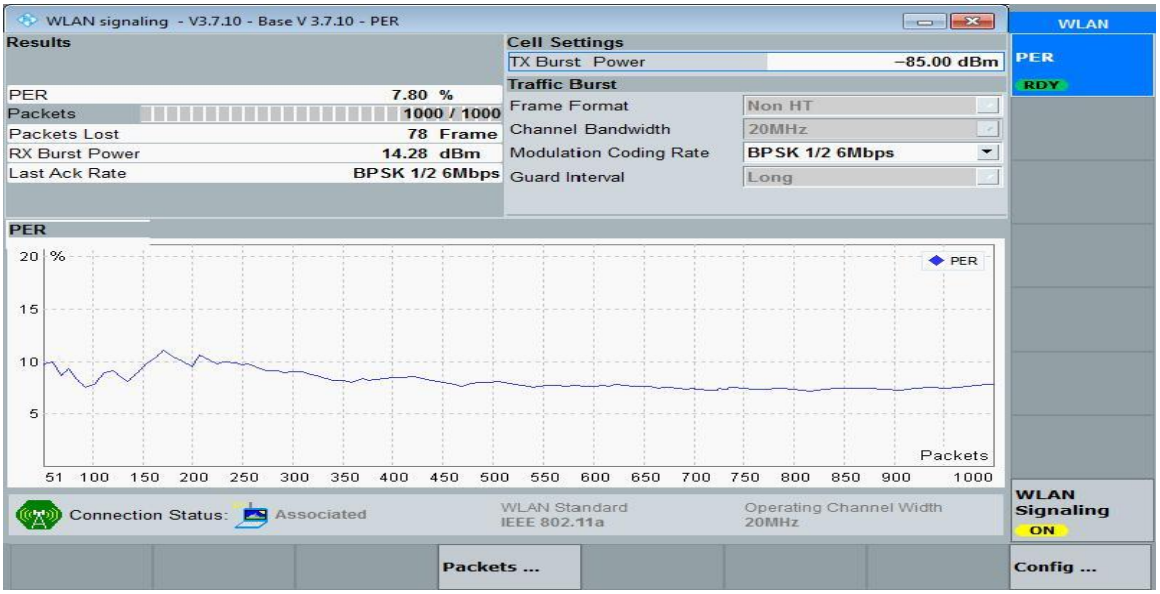
4.2.4 Test Result of Adjacent Channel Selectivity

11a / 5745 MHz



Receiver Category	1			
Signal Generator (MHz)	**Communication Device (dBm)**	**Signal Generator (dBm)**	**Limit (dBm)**	**Test Result**
5765.00	-85.00	-33.00	-58.17	Pass

11a / 5825 MHz



Receiver Category	1			
Signal Generator (MHz)	**Communication Device (dBm)**	**Signal Generator (dBm)**	**Limit (dBm)**	**Test Result**
5805	-85.00	-35.00	-58.39	Pass

4.3 Receiver Blocking

4.3.1 Limit of Receiver Blocking

Receiver category	Limit
1	-30 dBm + k
2	-45 dBm + k
3	No limit

The correction factor, k, is as follows:

$$k = -20\log f - 10\log BW$$

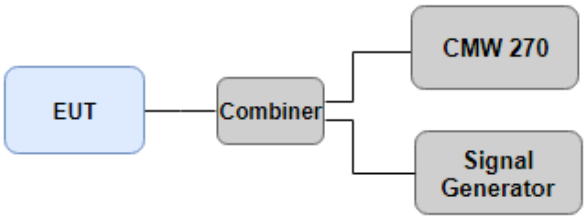
Where:
- f is the frequency in GHz;
- BW is the channel bandwidth in MHz.

The factor k is limited within the following:
- $0 < k < 40$ dB.

4.3.2 Test Procedures

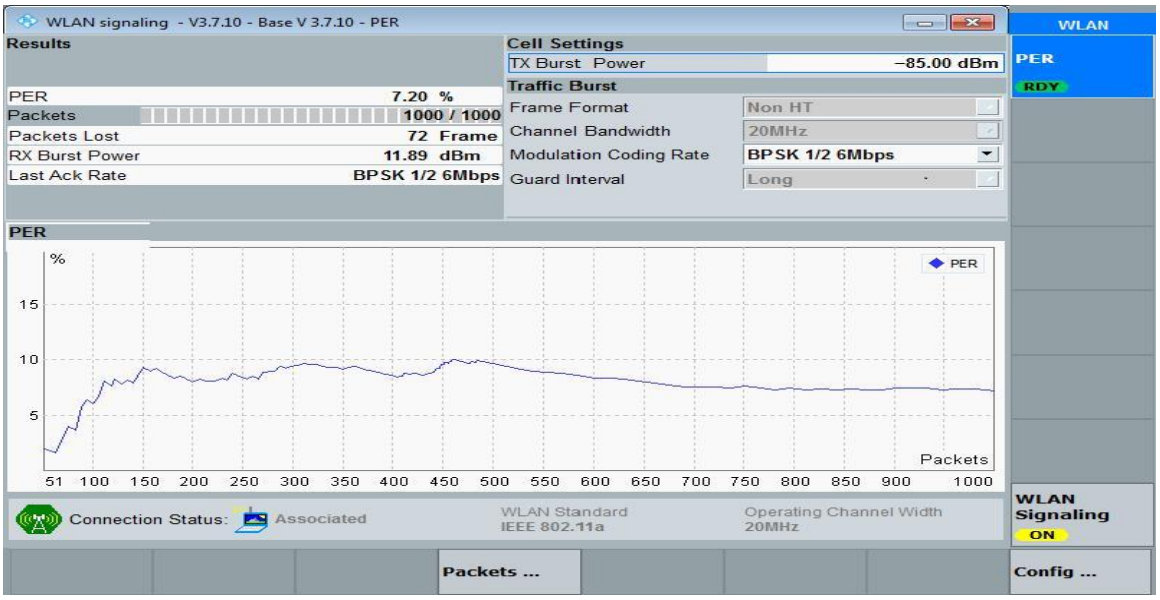
Reference to clause 4.3.4.3 of ETSI EN 300 440 V2.1.1 (2017-03).

4.3.3 Test Setup



4.3.4 Test Result of Receiver Blocking

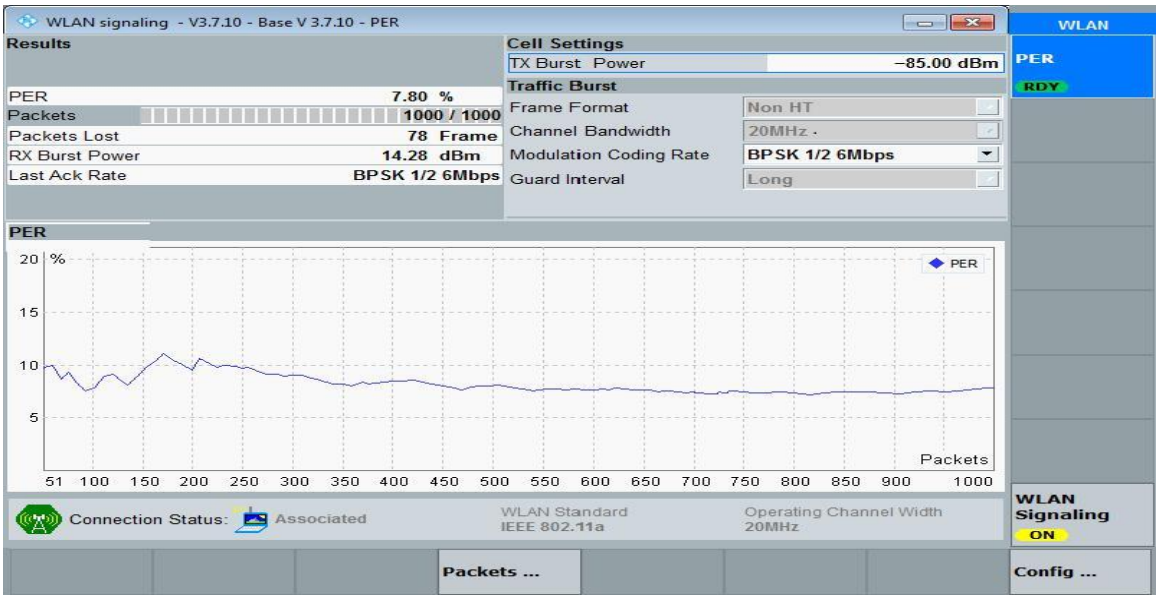
11a / 5745 MHz
Without Interference Signal Sensitivity Level



Receiver Category	1			
Signal Generator (MHz)	**Communication Device (dBm)**	**Signal Generator (dBm)**	**Limit (dBm)**	**Test Result**
4725	-85.00	-21.00	-58.17	Pass
5345	-85.00	-21.00	-58.17	Pass
5545	-85.00	-21.00	-58.17	Pass

11a / 5825 MHz

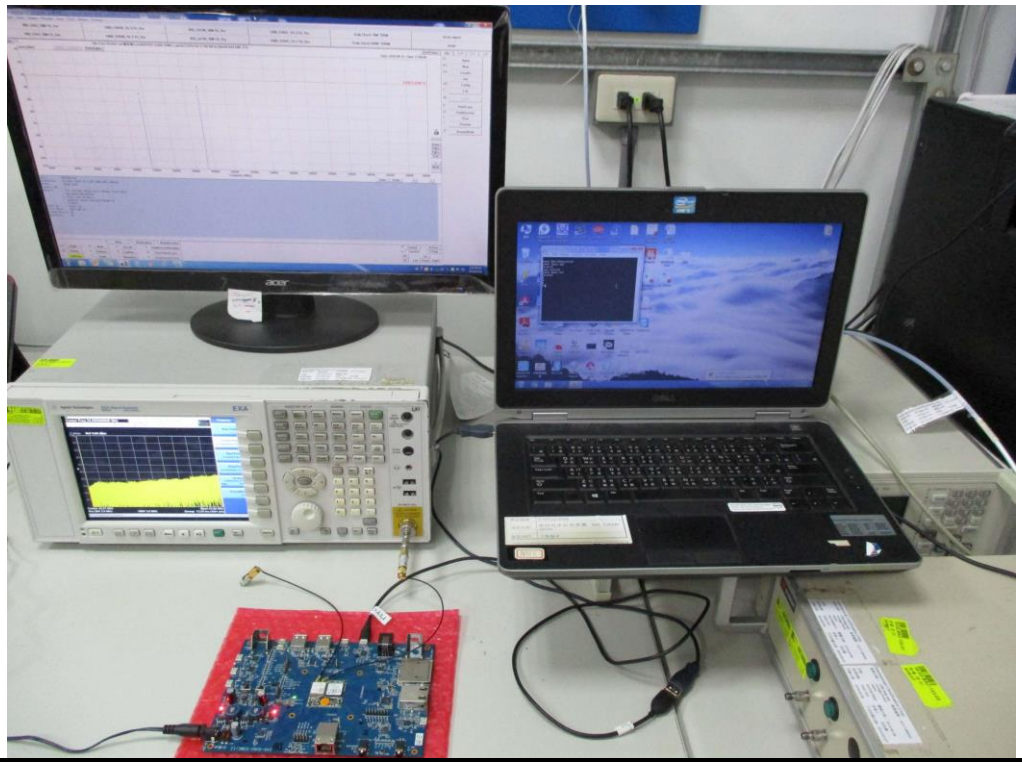
Without Interference Signal Sensitivity Level



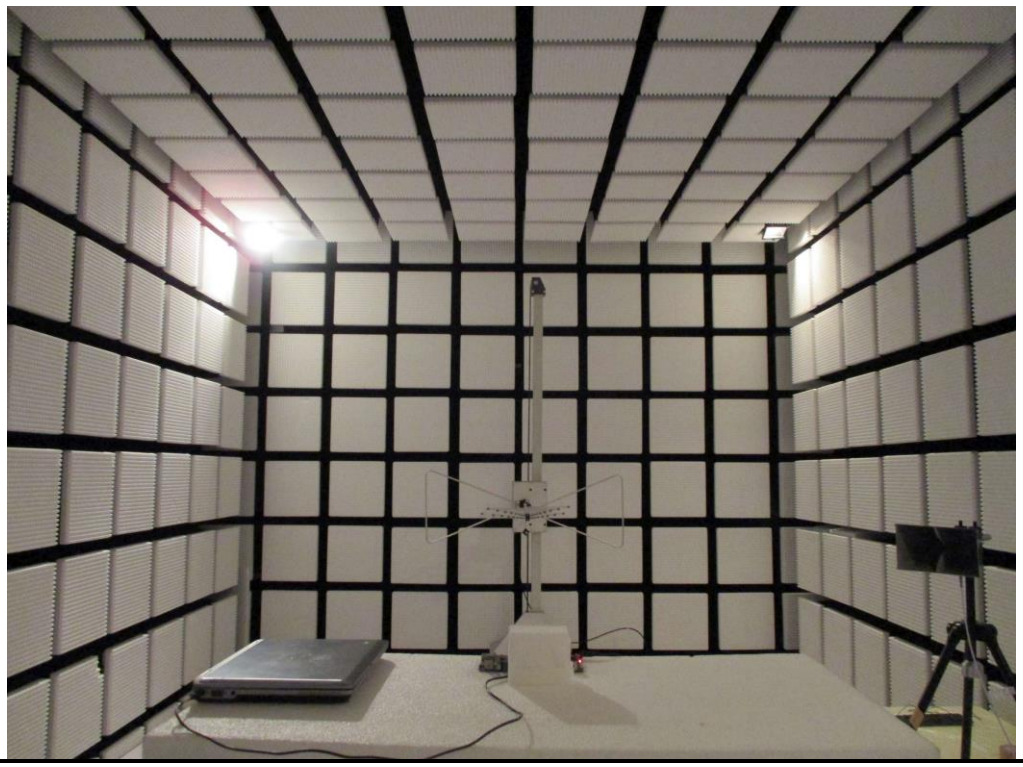
Receiver Category	1			
Signal Generator (MHz)	**Communication Device (dBm)**	**Signal Generator (dBm)**	**Limit (dBm)**	**Test Result**
6075	-85.00	-15.00	-58.39	Pass
6275	-85.00	-15.00	-58.39	Pass
6875	-85.00	-15.00	-58.39	Pass

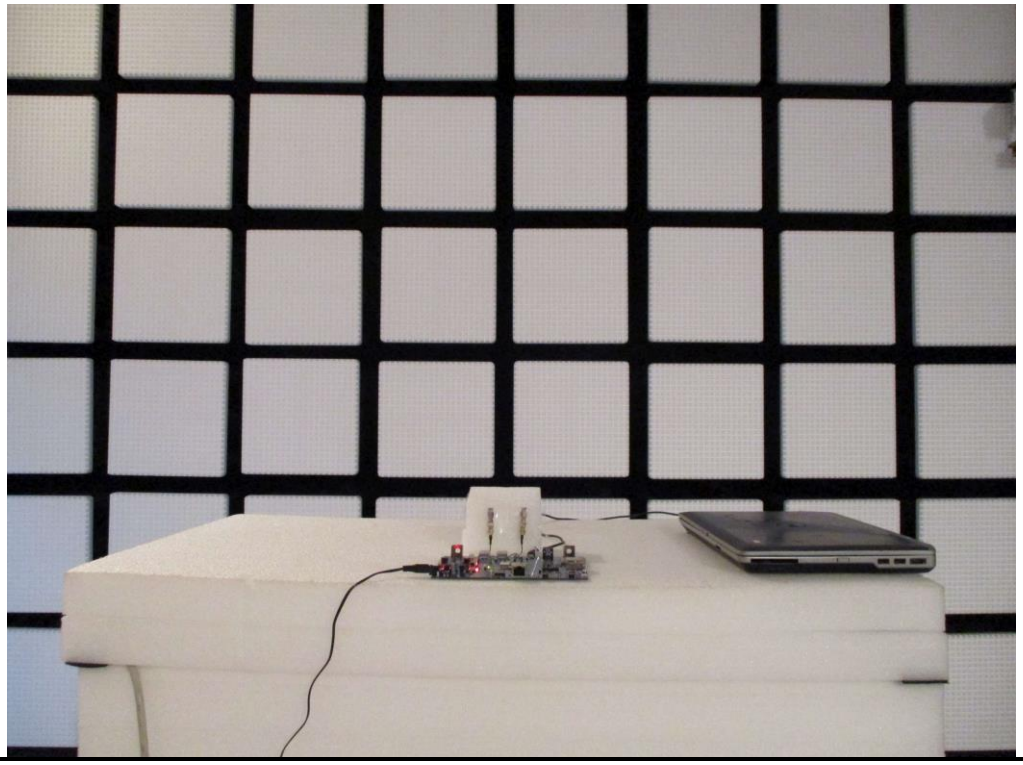
5 Photographs of the Test Configuration

Conducted Spurious Emission Test

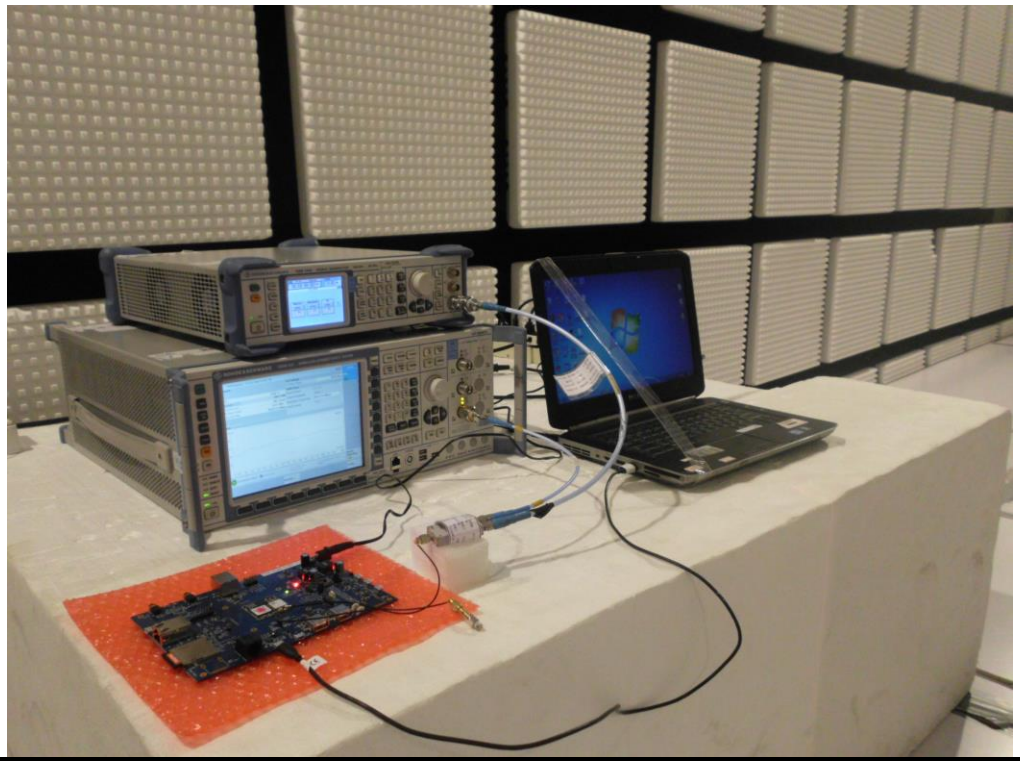


Radiated Spurious Emission Test





Receiver Blocking Test



6 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

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Email: ICC_Service@icertifi.com.tw

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