AS/NZS Test Report

Equipment	:	**LoRaWAN-enabled Gateway with Wi-Fi**
Model No.	:	**Sentrius RG191 Gateway**
Brand Name	:	**Laird Connectivity**
Applicant	:	**Laird Connectivity**
Address	:	**W66N220 Commerce Court, Cedarburg, Wisconsin 53012, USA**
Standard	:	**AS/NZS 4268:2017**
Received Date	:	**Feb. 25, 2019**
Tested Date	:	**Feb. 25 ~ Jun. 15, 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
AR932202-01AN	Rev. 01	Initial issue	Jul. 25, 2019

Summary of Test Result

Ref. Std. Clause	Test Items	Measured	Result
6.3 / Row 60-63	Maximum EIRP	5.15-5.25GHz: 22.26 dBm 5.25-5.35GHz: 22.33 dBm 5.47-5.725GHz: 22.67 dBm 5.725-5.85GHz: 29.65 dBm	Pass
6.5	Emission Bandwidth	Meet the requirement of limit.	Pass
6.6	Operating Frequencies	Meet the requirement of limit.	Pass
6.4	Transmitter Spurious Emissions	Meet the requirement of limit.	Pass
7.2	Receiver Spurious Emissions	Meet the requirement of limit.	Pass
Row 60-63	Peak Power Spectral Density	Meet the requirement of limit.	Pass
Row 60-63	Dynamic Frequency Selection (DFS)	Meet the requirement of limit.	Pass

Note: The DFS measurement was recorded in Report No.: AD932202-01.

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 Specification of the Equipment under Test (EUT)

RF General Information						
Country	**Frequency Range (MHz)**	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
AUSTRALIA	5150-5250 5250-5350 5500-5700 5725-5850	a	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [8] 149-165 [5]	2	6-54 Mbps
	5150-5250 5250-5350 5500-5700 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [8] 149-165 [5]	2	MCS 0-15
	5150-5250 5250-5350 5500-5700 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5670 5755-5795	38-46 [2] 54-62 [2] 102-134 [3] 151-159 [2]	2	MCS 0-15
Note 1: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation. Note 2: AUSTRALIA does not allow Wi-Fi operation in the 5.6-5.65GHz frequency band.						

RF General Information						
Country	**Frequency Range (MHz)**	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
NEW ZEALAND	5150-5250 5250-5350 5500-5700 5725-5850	a	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	2	6-54 Mbps
	5150-5250 5250-5350 5500-5700 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	2	MCS 0-15
	5150-5250 5250-5350 5500-5700 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5670 5755-5795	38-46 [2] 54-62 [2] 102-134 [5] 151-159 [2]	2	MCS 0-15
Note 1: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation. Note 2: NEW ZEALAND allows Wi-Fi operation in the 5.6-5.65GHz frequency band.						

1.1.2 Antenna Details

Ant. No.	Brand / Model	Type	Connector	Gain (dBi)
1	LSR/001-0009	Dipole	RP-SMA	2

1.1.3 EUT Operational Condition

Power Supply Type	12Vdc from adapter		
Operational Voltage	☒ Vnom (12 Vdc)	☒ Vmax (12.19 Vdc)	☒ Vmin (11.81Vdc)
Operational Climatic	☒ Tnom (20°C)	☒ Tmax (70°C)	☒ Tmin (-30°C)

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	Adapter	Brand: MW Model: GST25U12 Power Rating: I/P: 100-240Vac, 50/60Hz, 0.6A O/P: 12Vdc, 2.08A, 25W MAX Power line: 1m non-shielded with two cores
2	RJ45 cable	Brand: BRIGHT PLUS CO., LTD Model: WAS-G0736-1 1.81m non-shielded without core

1.1.5 Channel List

AUSTRALIA

Frequency band (MHz)		5150~5350 / 5470~5725 / 5725 ~ 5850	
802.11a / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	134	5670
64	5320	151	5755
100	5500	159	5795
104	5520	---	---
108	5540	---	---
112	5560	---	---
116	5580	---	---
132	5660	---	---
136	5680	---	---
140	5700	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

NEW ZEALAND

Frequency band (MHz)		5150~5350 / 5470~5725 / 5725 ~ 5850	
802.11a / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	151	5755
108	5540	159	5795
112	5560	---	---
116	5580	---	---
120	5600	---	---
124	5620		
128	5640		
132	5660		
136	5680	---	---
140	5700	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	by command		
Duty Cycle and Duty Factor	**Mode**	**Duty Cycle (%)**	**Duty Factor (dB)**
	11a	97.80%	0.10
	HT20	96.72%	0.15
	HT40	94.08%	0.26

1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)							
	a / HT20				HT40			
	5180	5320	5500	5700	5190	5310	5510	5670
a	15.5	16.5	16.5	16	--	--	--	--
HT20	16	17	17	16	--	--	--	--
HT40	--	--	--	--	16	17	16	17

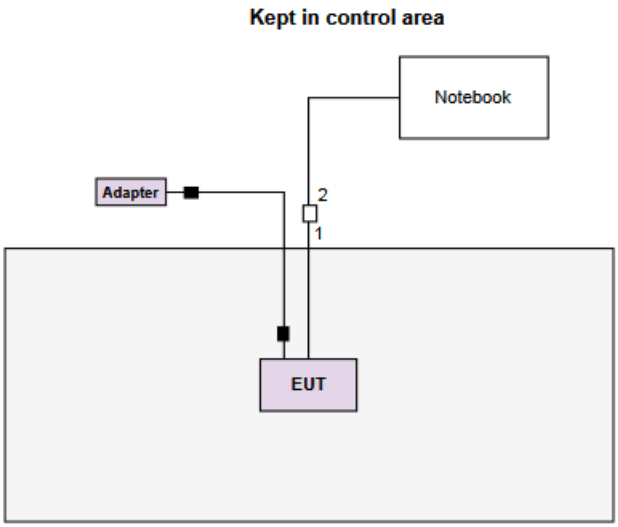
Modulation Mode	Test Frequency (MHz)				
	a / HT20			HT40	
	5745	5785	5825	5755	5795
a	18.5	22	20	--	--
HT20	17.5	21.5	20.5	--	--
HT40	--	--	--	16	19.5

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**S/N**	**Remarks**
1	Notebook	DELL	Latitude E5470	DoC	---
2	AP	Buffalo Inc.	WRM-D2133HP	---	Provided by applicant.

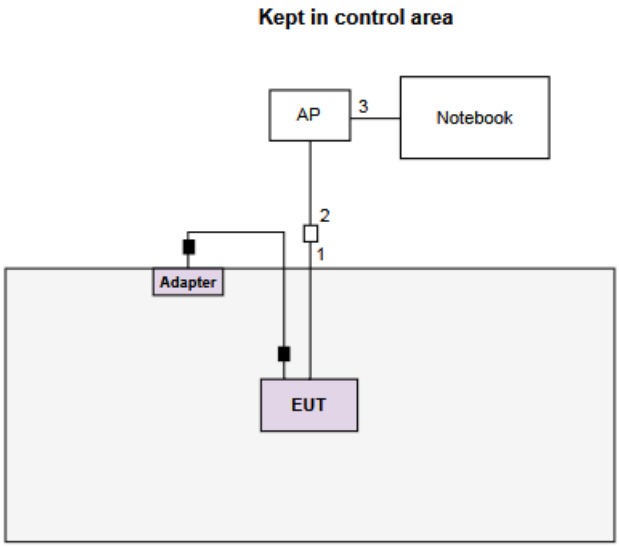
1.3 Test Setup Chart

Test Setup Diagram (Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz)



No.	Signal cable / Length (m)
1	RJ45, 1.81m non-shielded.
2	RJ45, 10m non-shielded.

Test Setup Diagram (Operating Band: 5.725 - 5.850 GHz)



No.	Signal cable / Length (m)
1	RJ45, 1.81m non-shielded.
2	RJ45, 10m non-shielded.
3	RJ45, 1.5m non-shielded.

1.4 Test Equipment and Calibration Data

Test Item	RF Conducted				
Test Site	(TH01-WS)				
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
AC POWER SOURCE	APC	AFC-500W	F312060012	Nov. 29, 2018	Nov. 28, 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	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Dec. 27, 2018	Dec. 26, 2019
Receiver	R&S	ESR3	101658	Dec. 11, 2018	Dec. 10, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 18, 2018	Jul. 17, 2019
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 18, 2018	Dec. 17, 2019
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2018	Nov. 14, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 09, 2018	Nov. 08, 2019
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 08, 2018	Oct. 07, 2019
Preamplifier	EMC	EMC02325	980225	Jul. 20, 2018	Jul. 19, 2019
Preamplifier	Agilent	83017A	MY39501308	Oct. 04, 2018	Oct. 03, 2019
Preamplifier	EMC	EMC184045B	980192	Aug. 09, 2018	Aug. 08, 2019
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 08, 2018	Oct. 07, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 08, 2018	Oct. 07, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 08, 2018	Oct. 07, 2019
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 08, 2018	Oct. 07, 2019
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 08, 2018	Oct. 07, 2019
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 08, 2018	Oct. 07, 2019
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emissions				
Test Site	Fully-anechoic chamber 1 / (05CH01-WS)				
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. 09, 2018	Aug. 08, 2019
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	Radiated Emissions				
Test Site	(10CH01-HY)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	Keysight	N9038A	MY54130031	Nov. 06, 2018	Nov. 05, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 09, 2018	Nov. 08, 2019
RF Cable-R10m	Suhner Switzerland + Rosenberger	RG223/U + UAA220A-0	CB022-DOOR	Nov. 11, 2018	Nov. 10, 2019
Turn Table	HD	DT 60 RPS	1513/004/00	NA	NA
Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

AS/NZS 4268:2017

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**
Radio Frequency	$\pm 1.4 \times 10^{-9}$
RF Power Conducted	±0.808 dB
RF Power Radiated	±3.398 dB
Spurious Emission, Conducted	±2.470 dB
Spurious Emission, Radiated	±3.398 dB
Humidity	±0.8 ^{o}C
Temperature	±4.7%
Time	±0.1%

2 Test Configuration

2.1 Testing Condition

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

Test Item	Test Site	Ambient Condition	Conducted / Radiated measurement	TX/ RX test	Tested By
RF Conducted	TH01-WS	25°C / 62%	Conducted	TX	Ryan Lee
Radiated Emission > 30 MHz	05CH01-WS	23°C / 64%	Radiated	TX RX	Brad Wu
Radiated Emission > 30 MHz	03CH01-WS	23-24°C / 66-67%	Radiated	TX RX	Akun Chung Aska Huang Roger Lu
Radiated Emission ≤ 30 MHz	10CH01-HY*	25°C / 65%	Radiated	TX RX	Jack Li

Note: * ICC lab subcontracts this test item to Sporton Lab (TAF:1190).

Sporton Lab is a TAF accreditation test firm and also is an approved provider of ICC lab.

2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5250 / 5250~5350 / 5500~5700 MHz					
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Conducted / Radiated measurement**	**TX/ RX test**	**Data Rate**
Maximum EIRP Emission Bandwidth Power Spectral Density	11a HT20 HT40	5180 / 5320 / 5500 / 5700 5180 / 5320 / 5500 / 5700 5190 / 5310 / 5510 / 5670	Conducted	TX	6 Mbps MCS 0 MCS 0
Operating frequencies	11a HT20 HT40	5180 / 5700 5180 / 5700 5190 / 5670	Conducted	TX	6 Mbps MCS 0 MCS 0
Transmitter Spurious Emissions			Radiated	TX	
Receiver Spurious Emissions			Radiated	RX	
Frequency band 5725-5850 MHz					
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Conducted / Radiated measurement**	**TX/ RX test**	**Data Rate**
Maximum EIRP	11a HT20 HT40	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795	Conducted	TX	6 Mbps MCS 0 MCS 0
Emission Bandwidth			Conducted	TX	
Power Spectral Density			Conducted	TX	
Transmitter Spurious Emissions ≤ 30 MHz			Radiated	TX	
Transmitter Spurious Emissions > 1 GHz			Radiated	TX	
Receiver Spurious Emissions ≤ 30 MHz			Radiated	RX	
Operating Frequencies	11a HT20 HT40	5745 / 5825 5745 / 5825 5755 / 5795	Conducted	TX	6 Mbps MCS 0 MCS 0
Transmitter Spurious Emissions ≤ 1 GHz	11a	5785	Radiated	TX	6 Mbps
Receiver Spurious Emissions ≤ 1 GHz			Radiated	RX	
Receiver Spurious Emissions > 1 GHz			Radiated	RX	

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.

3 Transmitter Test Results

3.1 Maximum EIRP

3.1.1 EIRP Limits

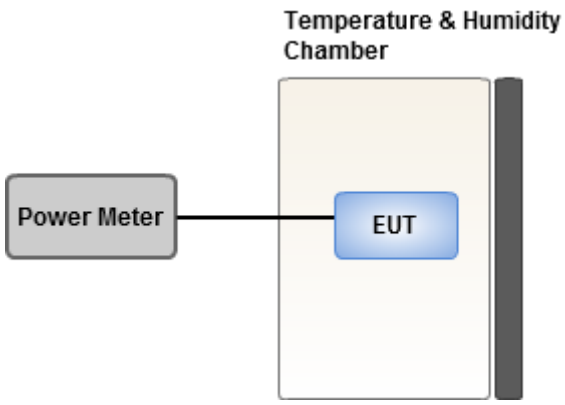
Frequency Band	Limits
5150~5250 MHz	200 mW (23dBm)
5250~5350 MHz	200 mW (23dBm)
5500~5700 MHz	200 mW (23dBm)
5725~5850 MHz	4W (36dBm)

Note: Limit is from AS/NZS 4268:2017

3.1.2 Test Procedures

Reference to clause 6.2.1 of AS/NZS 4268:2017.

3.1.3 Test Setup



3.1.4 Test Result of EIRP

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11a**	**Limit (dBm)**
$T_{nom}V_{nom}$	5180	20.96	23
$T_{min}V_{max}$	5180	21.10	23
$T_{min}V_{min}$	5180	21.12	23
$T_{max}V_{max}$	5180	20.33	23
$T_{max}V_{min}$	5180	20.30	23
$T_{nom}V_{nom}$	5320	21.08	23
$T_{min}V_{max}$	5320	21.75	23
$T_{min}V_{min}$	5320	21.77	23
$T_{max}V_{max}$	5320	19.99	23
$T_{max}V_{min}$	5320	19.97	23
$T_{nom}V_{nom}$	5500	21.13	23
$T_{min}V_{max}$	5500	21.32	23
$T_{min}V_{min}$	5500	21.35	23
$T_{max}V_{max}$	5500	20.05	23
$T_{max}V_{min}$	5500	20.03	23
$T_{nom}V_{nom}$	5700	20.51	23
$T_{min}V_{max}$	5700	22.42	23
$T_{min}V_{min}$	5700	22.44	23
$T_{max}V_{max}$	5700	20.41	23
$T_{max}V_{min}$	5700	20.39	23

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11n HT20**	**Limit (dBm)**
$T_{nom}V_{nom}$	5180	21.13	23
$T_{min}V_{max}$	5180	21.26	23
$T_{min}V_{min}$	5180	21.28	23
$T_{max}V_{max}$	5180	20.58	23
$T_{max}V_{min}$	5180	20.55	23
$T_{nom}V_{nom}$	5320	21.54	23
$T_{min}V_{max}$	5320	22.05	23
$T_{min}V_{min}$	5320	22.07	23
$T_{max}V_{max}$	5320	21.18	23
$T_{max}V_{min}$	5320	21.16	23
$T_{nom}V_{nom}$	5500	21.56	23
$T_{min}V_{max}$	5500	21.80	23
$T_{min}V_{min}$	5500	21.83	23
$T_{max}V_{max}$	5500	20.49	23
$T_{max}V_{min}$	5500	20.47	23
$T_{nom}V_{nom}$	5700	20.58	23
$T_{min}V_{max}$	5700	22.40	23
$T_{min}V_{min}$	5700	22.42	23
$T_{max}V_{max}$	5700	20.35	23
$T_{max}V_{min}$	5700	20.33	23

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11n HT40**	**Limit (dBm)**
$T_{nom}V_{nom}$	5190	22.01	23
$T_{min}V_{max}$	5190	22.24	23
$T_{min}V_{min}$	5190	22.26	23
$T_{max}V_{max}$	5190	21.20	23
$T_{max}V_{min}$	5190	21.17	23
$T_{nom}V_{nom}$	5310	21.65	23
$T_{min}V_{max}$	5310	22.31	23
$T_{min}V_{min}$	5310	22.33	23
$T_{max}V_{max}$	5310	20.83	23
$T_{max}V_{min}$	5310	20.81	23
$T_{nom}V_{nom}$	5510	20.29	23
$T_{min}V_{max}$	5510	20.72	23
$T_{min}V_{min}$	5510	20.75	23
$T_{max}V_{max}$	5510	19.49	23
$T_{max}V_{min}$	5510	19.47	23
$T_{nom}V_{nom}$	5670	21.89	23
$T_{min}V_{max}$	5670	22.64	23
$T_{min}V_{min}$	5670	22.67	23
$T_{max}V_{max}$	5670	20.61	23
$T_{max}V_{min}$	5670	20.59	23

EIRP (dBm)					
Modulation Mode	11a				
Condition	**Freq. (MHz)**	**EIRP PK Power**	**EIRP AV Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	25.99	21.16	36	Pass
$T_{min}V_{max}$	5745	28.28	21.67	36	Pass
$T_{min}V_{min}$	5745	28.30	21.69	36	Pass
$T_{max}V_{max}$	5745	26.81	20.48	36	Pass
$T_{max}V_{min}$	5745	26.78	20.45	36	Pass
$T_{nom}V_{nom}$	5785	27.12	23.49	36	Pass
$T_{min}V_{max}$	5785	29.63	23.95	36	Pass
$T_{min}V_{min}$	5785	29.65	23.98	36	Pass
$T_{max}V_{max}$	5785	27.97	22.96	36	Pass
$T_{max}V_{min}$	5785	27.95	22.94	36	Pass
$T_{nom}V_{nom}$	5825	26.73	22.13	36	Pass
$T_{min}V_{max}$	5825	28.76	22.57	36	Pass
$T_{min}V_{min}$	5825	28.79	22.60	36	Pass
$T_{max}V_{max}$	5825	27.36	21.70	36	Pass
$T_{max}V_{min}$	5825	27.34	21.68	36	Pass

EIRP (dBm)					
Modulation Mode	11n HT20				
Condition	**Freq. (MHz)**	**EIRP PK Power**	**EIRP AV Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5745	25.55	20.44	36	Pass
$T_{min}V_{max}$	5745	27.41	21.01	36	Pass
$T_{min}V_{min}$	5745	27.43	21.03	36	Pass
$T_{max}V_{max}$	5745	25.93	19.82	36	Pass
$T_{max}V_{min}$	5745	25.90	19.80	36	Pass
$T_{nom}V_{nom}$	5785	27.19	22.90	36	Pass
$T_{min}V_{max}$	5785	29.39	23.60	36	Pass
$T_{min}V_{min}$	5785	29.41	23.62	36	Pass
$T_{max}V_{max}$	5785	27.98	22.18	36	Pass
$T_{max}V_{min}$	5785	27.96	22.16	36	Pass
$T_{nom}V_{nom}$	5825	27.12	22.35	36	Pass
$T_{min}V_{max}$	5825	29.12	22.80	36	Pass
$T_{min}V_{min}$	5825	29.15	22.82	36	Pass
$T_{max}V_{max}$	5825	27.57	21.60	36	Pass
$T_{max}V_{min}$	5825	27.55	21.58	36	Pass

EIRP (dBm)					
Modulation Mode	11n HT40				
Condition	**Freq. (MHz)**	**EIRP PK Power**	**EIRP AV Power**	**Limit (dBm)**	**Results**
$T_{nom}V_{nom}$	5755	23.62	19.66	36	Pass
$T_{min}V_{max}$	5755	24.02	20.33	36	Pass
$T_{min}V_{min}$	5755	24.04	20.36	36	Pass
$T_{max}V_{max}$	5755	23.66	19.16	36	Pass
$T_{max}V_{min}$	5755	23.63	19.14	36	Pass
$T_{nom}V_{nom}$	5795	23.62	22.47	36	Pass
$T_{min}V_{max}$	5795	25.81	22.99	36	Pass
$T_{min}V_{min}$	5795	25.83	23.02	36	Pass
$T_{max}V_{max}$	5795	24.49	21.99	36	Pass
$T_{max}V_{min}$	5795	24.47	21.97	36	Pass

3.2 Emission Bandwidth

3.2.1 Limit of Emission Bandwidth

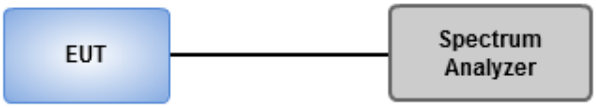
The upper and lower frequency limits of the transmitter 99% emission power bandwidth shall at all times remain within the operating frequency limits.

Note: Limit is from AS/NZS 4268:2017

3.2.2 Test Procedures

Reference to clause 6.2.1 of AS/NZS 4268:2017.

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

Summary

Mode	OBW (Hz)	ITU-Code
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	16.376M	16M4D1D
802.11n HT20_Nss1,(MCS0)_2TX	17.576M	17M6D1D
802.11n HT40_Nss1,(MCS0)_2TX	35.611M	35M6D1D
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	16.376M	16M4D1D
802.11n HT20_Nss1,(MCS0)_2TX	17.586M	17M6D1D
802.11n HT40_Nss1,(MCS0)_2TX	35.751M	35M8D1D
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	16.386M	16M4D1D
802.11n HT20_Nss1,(MCS0)_2TX	17.606M	17M6D1D
802.11n HT40_Nss1,(MCS0)_2TX	35.791M	35M8D1D
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.757M	23M8D1D
802.11n HT20_Nss1,(MCS0)_2TX	27.322M	27M3D1D
802.11n HT40_Nss1,(MCS0)_2TX	38.675M	38M7D1D

OBW = Minimum 99% occupied bandwidth;

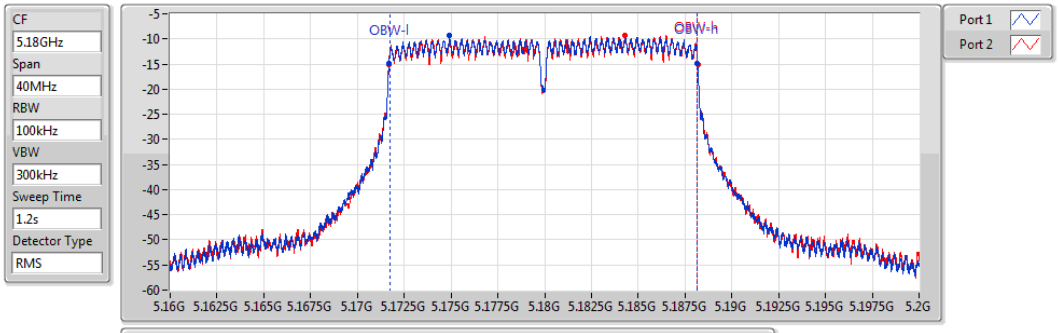
Result

Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)	N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	5.15 ~ 5.25G	5.171742G	5.188118G	16.376M	16.5M
5320MHz_TnomVnom	Pass	5.25 ~ 5.35G	5.311742G	5.328118G	16.376M	16.5M
5500MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.491732G	5.508108G	16.376M	16.5M
5700MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.691722G	5.708098G	16.376M	16.49M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	5.15 ~ 5.25G	5.171142G	5.188718G	17.576M	17.74M
5320MHz_TnomVnom	Pass	5.25 ~ 5.35G	5.311122G	5.328718G	17.586M	17.74M
5500MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.491132G	5.508718G	17.586M	17.73M
5700MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.691122G	5.708708G	17.586M	17.72M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	5.15 ~ 5.25G	5.172164G	5.207776G	35.611M	34.68M
5310MHz_TnomVnom	Pass	5.25 ~ 5.35G	5.292064G	5.327836G	35.731M	36.24M
5510MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.492104G	5.527736G	35.631M	35.06M
5670MHz_TnomVnom	Pass	5.47 ~ 5.725G	5.651985G	5.687816G	35.791M	36.3M

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;

802.11a_Nss1,(6Mbps)_2TX **EBW**

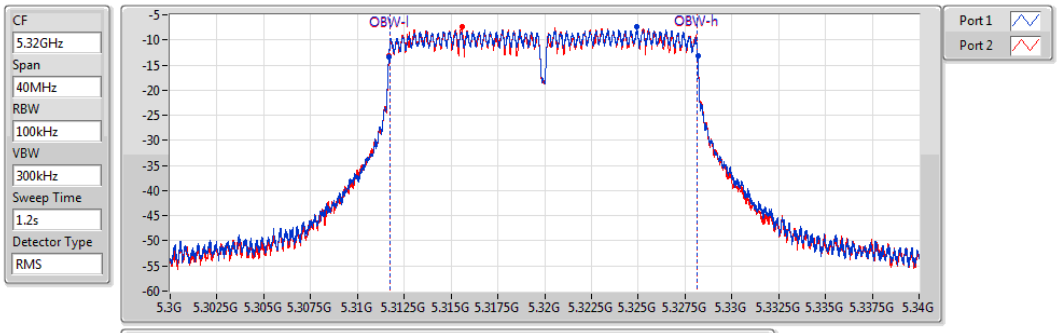
5180MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.48M	5.17169G	5.18817G	16.366M	5.171752G	5.188118G	16M~20M	1
16.5M	5.17168G	5.18818G	16.376M	5.171742G	5.188118G	16M~20M	2

802.11a_Nss1,(6Mbps)_2TX **EBW**

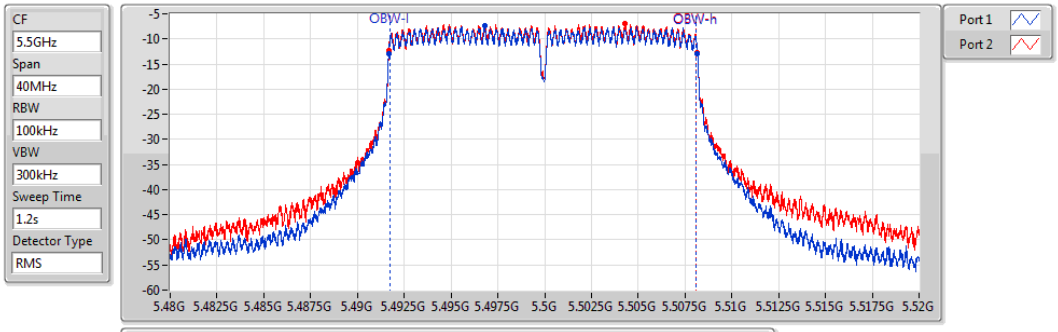
5320MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.5M	5.31168G	5.32818G	16.376M	5.311742G	5.328118G	16M~20M	1
16.49M	5.31169G	5.32818G	16.366M	5.311752G	5.328118G	16M~20M	2

802.11a_Nss1,(6Mbps)_2TX **EBW**

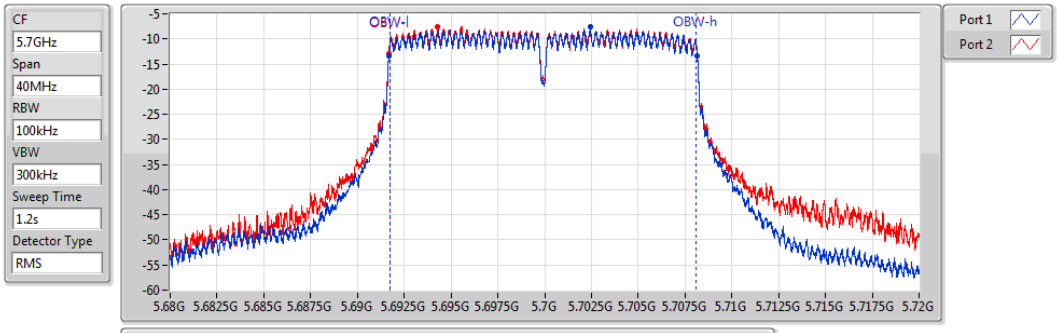
5500MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.5M	5.49167G	5.50817G	16.376M	5.491732G	5.508108G	16M~20M	1
16.5M	5.49167G	5.50817G	16.376M	5.491732G	5.508108G	16M~20M	2

802.11a_Nss1,(6Mbps)_2TX EBW

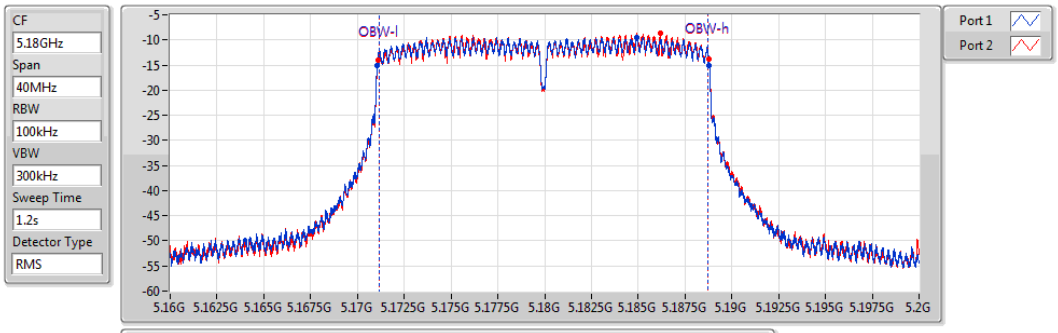
5700MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.47M	5.69168G	5.70815G	16.356M	5.691732G	5.708088G	16M~20M	1
16.49M	5.69167G	5.70816G	16.376M	5.691722G	5.708098G	16M~20M	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

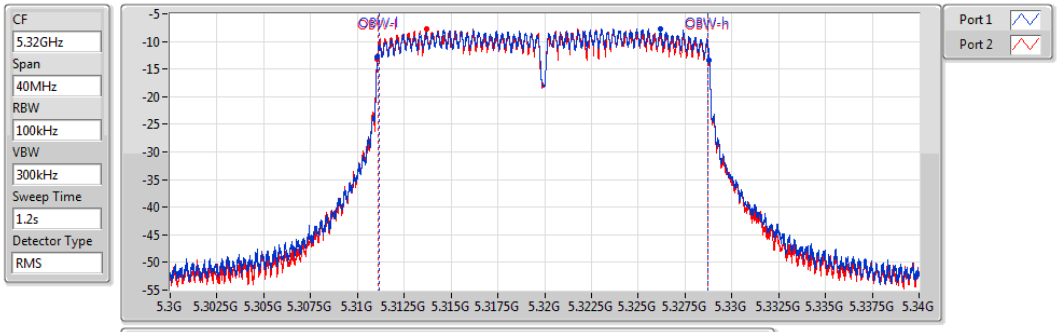
5180MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.74M	5.17106G	5.1888G	17.576M	5.171142G	5.188718G	16M~20M	1
17.68M	5.17109G	5.18877G	17.566M	5.171152G	5.188718G	16M~20M	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

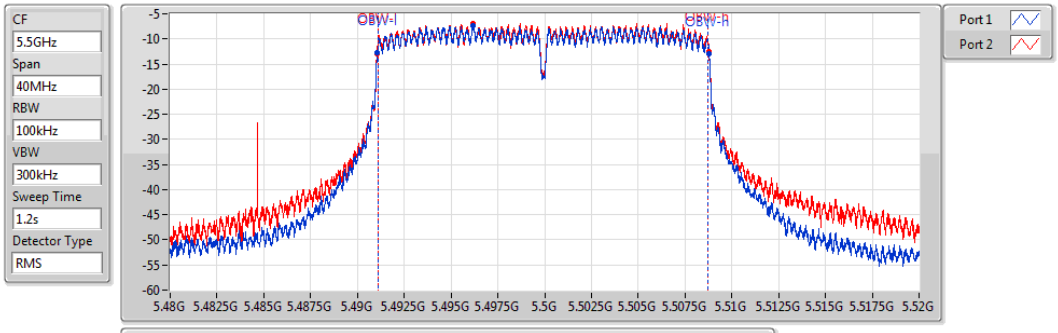
5320MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.73M	5.31107G	5.3288G	17.576M	5.311142G	5.328718G	16M~20M	1
17.74M	5.31105G	5.32879G	17.586M	5.311122G	5.328708G	16M~20M	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

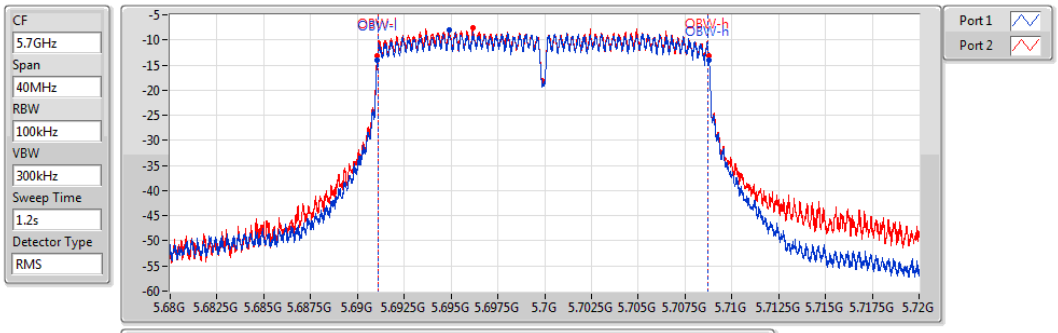
5500MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.73M	5.49106G	5.50879G	17.576M	5.491132G	5.508708G	16M~20M	1
17.73M	5.49104G	5.50877G	17.586M	5.491132G	5.508718G	16M~20M	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

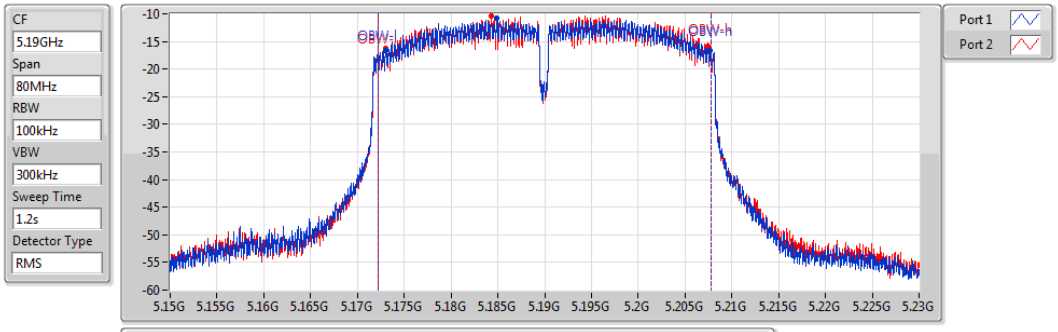
5700MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.72M	5.69106G	5.70878G	17.586M	5.691122G	5.708708G	16M~20M	1
17.71M	5.69106G	5.70877G	17.586M	5.691122G	5.708708G	16M~20M	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

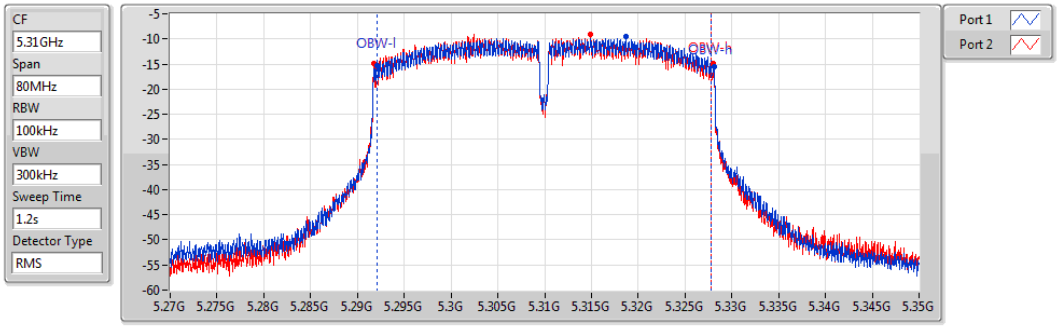
5190MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.68M	5.17304G	5.20772G	35.611M	5.172164G	5.207776G	32M~40M	1
34.44M	5.17302G	5.20746G	35.551M	5.172204G	5.207756G	32M~40M	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

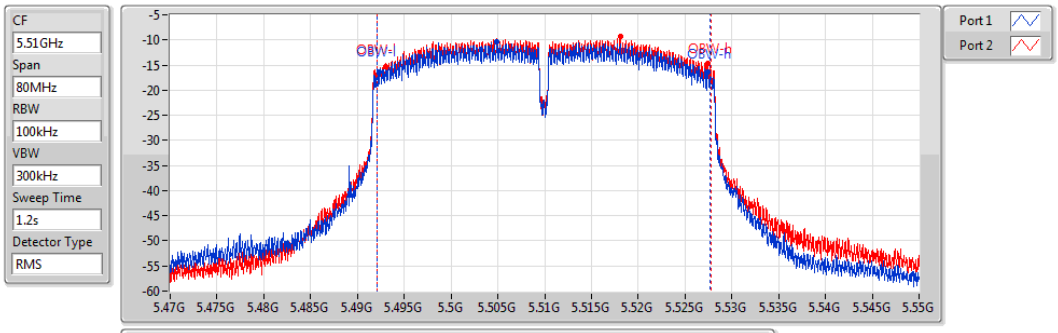
5310MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.98M	5.2921G	5.32808G	35.731M	5.292104G	5.327836G	32M~40M	1
36.24M	5.2918G	5.32804G	35.711M	5.292064G	5.327776G	32M~40M	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

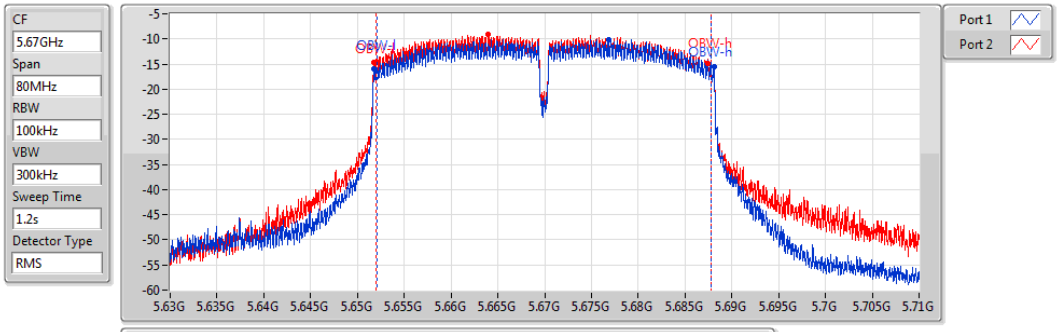
5510MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.06M	5.49238G	5.52744G	35.611M	5.492104G	5.527716G	32M~40M	1
34.44M	5.493G	5.52744G	35.631M	5.492104G	5.527736G	32M~40M	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

5670MHz



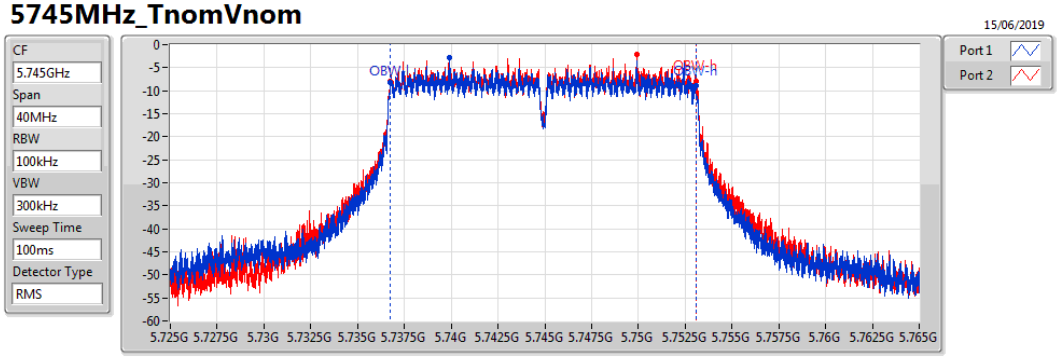
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	5.65178G	5.68808G	35.751M	5.652064G	5.687816G	32M~40M	1
35.68M	5.65178G	5.68746G	35.791M	5.651985G	5.687776G	32M~40M	2

Result

Mode	Result	Limit (Hz)	fl-OBW (Hz)	fh-OBW (Hz)	OBW (Hz)	N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz_TnomVnom	Pass	5.725-5.85G	5.736716G	5.753114G	16.398M	16.33M
5785MHz_TnomVnom	Pass	5.725-5.85G	5.776691G	5.793144G	16.453M	16.335M
5825MHz_TnomVnom	Pass	5.725-5.85G	5.813406G	5.837098G	23.692M	16.33M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz_TnomVnom	Pass	5.725-5.85G	5.736116G	5.753714G	17.598M	17.57M
5785MHz_TnomVnom	Pass	5.725-5.85G	5.776126G	5.793739G	17.613M	17.56M
5825MHz_TnomVnom	Pass	5.725-5.85G	5.813626G	5.836894G	23.267M	17.56M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz_TnomVnom	Pass	5.725-5.85G	5.737002G	5.772768G	35.756M	35.03M
5795MHz_TnomVnom	Pass	5.725-5.85G	5.776752G	5.813018G	36.265M	34.99M

802.11a_Nss1,(6Mbps)_2TX **Operating Freq/EBW-AU**

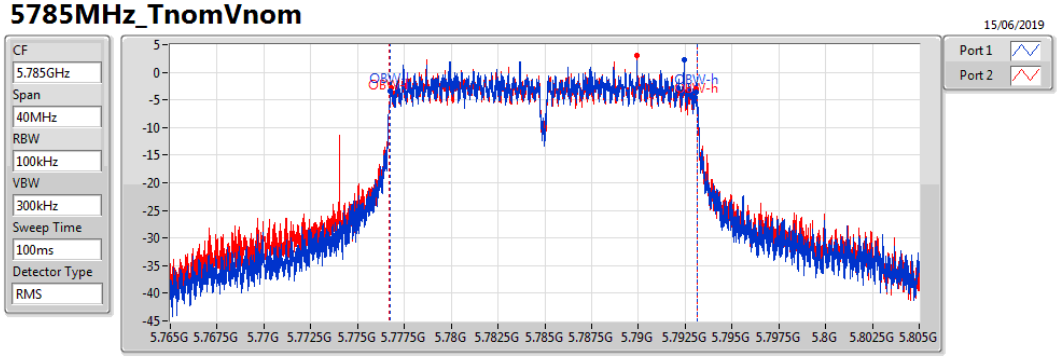
5745MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.31M	5.73676G	5.75307G	16.383M	5.736716G	5.753099G	5.725-5.85G	1
16.33M	5.736755G	5.753085G	16.398M	5.736716G	5.753114G	5.725-5.85G	2

802.11a_Nss1,(6Mbps)_2TX **Operating Freq/EBW-AU**

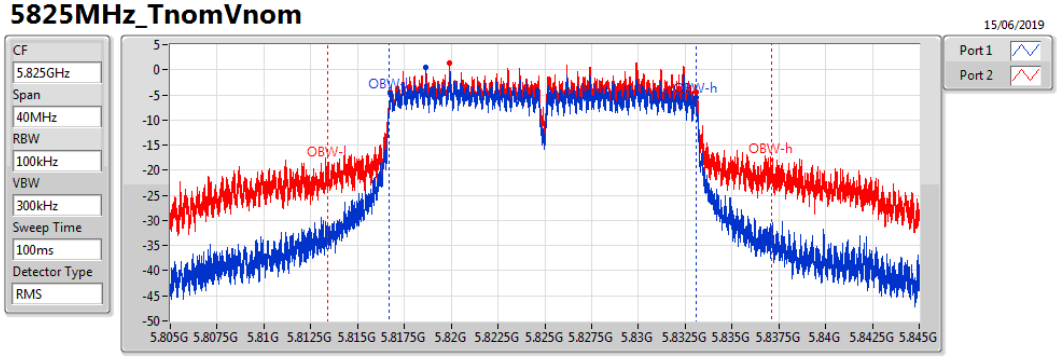
5785MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.335M	5.776765G	5.7931G	16.398M	5.776731G	5.793129G	5.725-5.85G	1
16.3M	5.776775G	5.793075G	16.453M	5.776691G	5.793144G	5.725-5.85G	2

802.11a_Nss1,(6Mbps)_2TX **Operating Freq/EBW-AU**

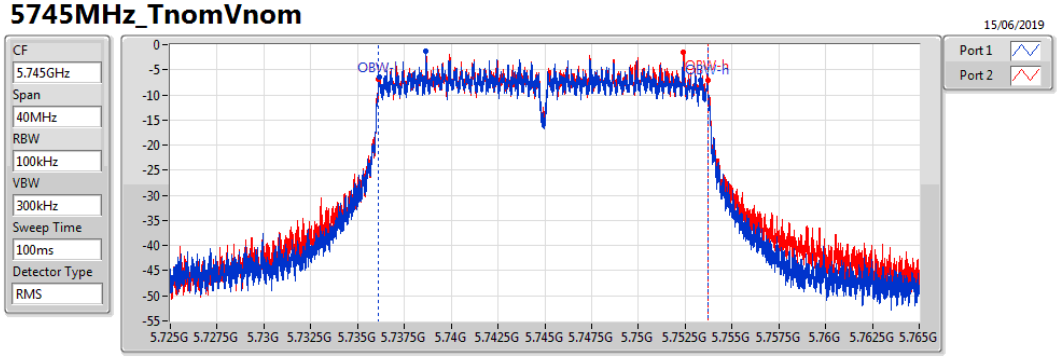
5825MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.31M	5.81676G	5.83307G	16.413M	5.816696G	5.833109G	5.725-5.85G	1
16.33M	5.81675G	5.83308G	23.692M	5.813406G	5.837098G	5.725-5.85G	2

802.11n HT20_Nss1,(MCS0)_2TX **Operating Freq/EBW-AU**

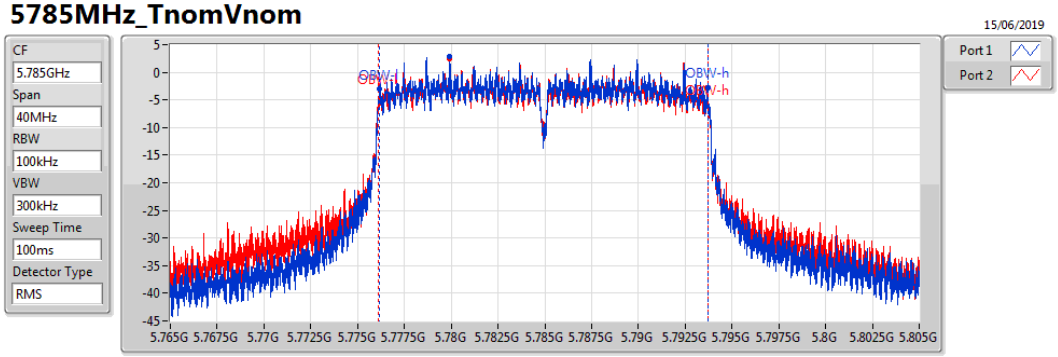
5745MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.175M	5.736155G	5.75333G	17.583M	5.736116G	5.753699G	5.725-5.85G	1
17.57M	5.736135G	5.753705G	17.598M	5.736116G	5.753714G	5.725-5.85G	2

802.11n HT20_Nss1,(MCS0)_2TX **Operating Freq/EBW-AU**

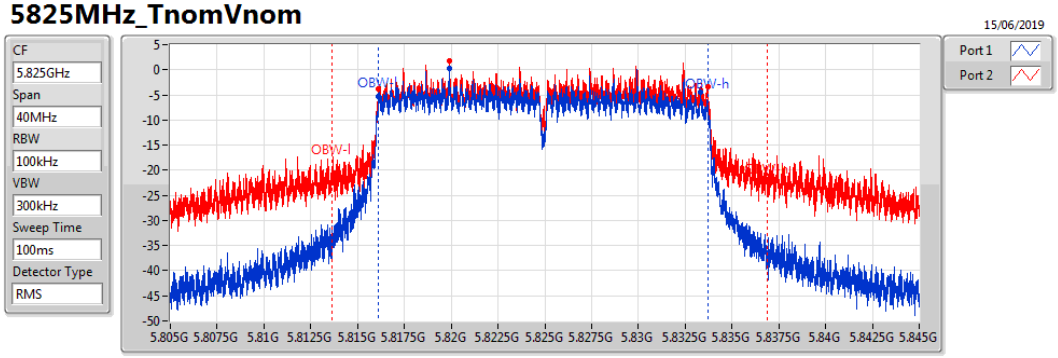
5785MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.56M	5.77616G	5.79372G	17.588M	5.776151G	5.793739G	5.725-5.85G	1
17.53M	5.77616G	5.79369G	17.613M	5.776126G	5.793739G	5.725-5.85G	2

802.11n HT20_Nss1,(MCS0)_2TX **Operating Freq/EBW-AU**

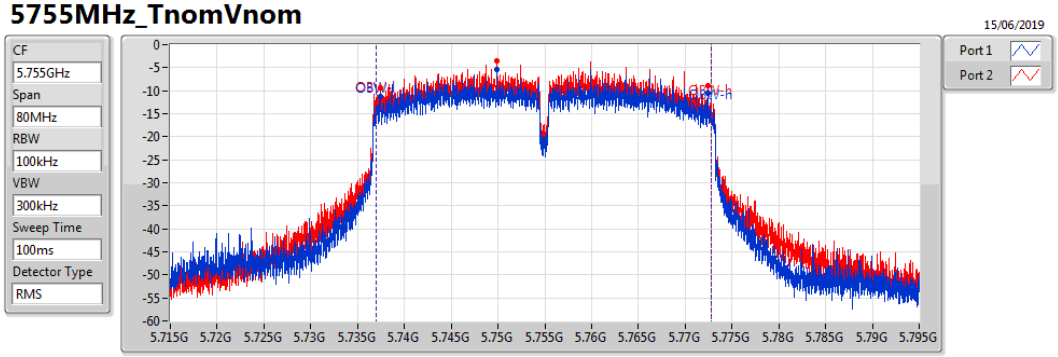
5825MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.185M	5.81613G	5.833315G	17.603M	5.816101G	5.833704G	5.725-5.85G	1
17.56M	5.816135G	5.833695G	23.267M	5.813626G	5.836894G	5.725-5.85G	2

802.11n HT40_Nss1,(MCS0)_2TX **Operating Freq/EBW-AU**

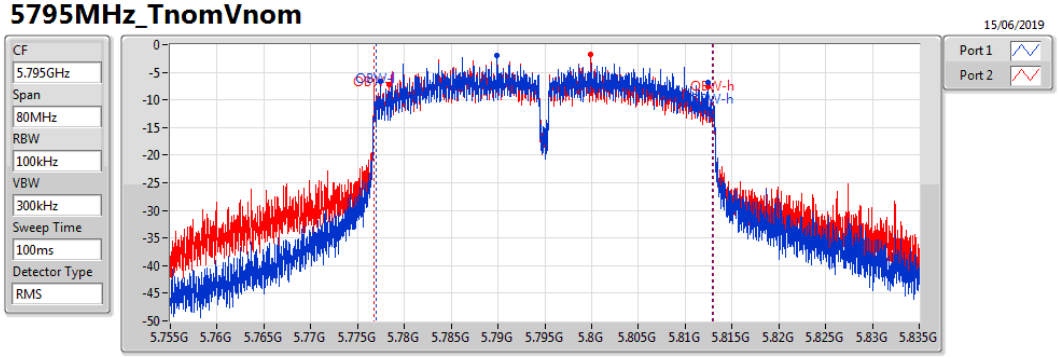
5755MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.03M	5.73741G	5.77244G	35.756M	5.737012G	5.772768G	5.725-5.85G	1
35M	5.73742G	5.77242G	35.726M	5.737002G	5.772728G	5.725-5.85G	2

802.11n HT40_Nss1,(MCS0)_2TX **Operating Freq/EBW-AU**

5795MHz_TnomVnom



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.99M	5.77743G	5.81242G	35.846M	5.777022G	5.812868G	5.725-5.85G	1
34.01M	5.77841G	5.81242G	36.265M	5.776752G	5.813018G	5.725-5.85G	2

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limits

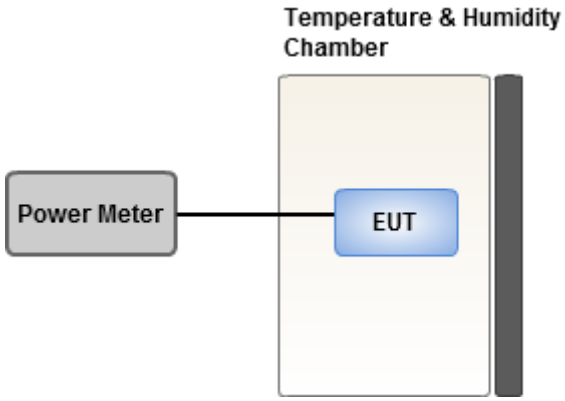
Frequency band	Limits
5150~5250 MHz	10 dBm / MHz
5250~5350 MHz	10 dBm / MHz
5500~5700 MHz	10 dBm / MHz
5725~5850 MHz	14 dBm / 3kHz

Note: Limit is from AS/NZS 4268:2017

3.3.2 Test Procedures

Reference to clause 6.2.1 of AS/NZS 4268:2017.

3.3.3 Test Setup



3.3.4 Test Result of Power Density

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz)	Limit (dBm/1MHz)	Results
11a	5180	9.42	10	Pass
11a	5320	9.51	10	Pass
11a	5500	9.47	10	Pass
11a	5700	9.15	10	Pass
11n HT20	5180	9.51	10	Pass
11n HT20	5320	9.77	10	Pass
11n HT20	5500	9.61	10	Pass
11n HT20	5700	9.08	10	Pass
11n HT40	5190	7.75	10	Pass
11n HT40	5310	7.24	10	Pass
11n HT40	5510	6.55	10	Pass
11n HT40	5670	7.64	10	Pass

Modulation Mode	Freq. (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Results
11a	5745	-7.47	14	Pass
11a	5785	-2.73	14	Pass
11a	5825	-3.61	14	Pass
11n HT20	5745	-6.42	14	Pass
11n HT20	5785	-3.21	14	Pass
11n HT20	5825	-3.71	14	Pass
11n HT40	5755	-9.38	14	Pass
11n HT40	5795	-6.57	14	Pass

3.4 Operating Frequencies

3.4.1 Limit of Operating Frequencies

Lower sub-band frequency range shall fall in 5.15 GHz to 5.35 GHz ($f_L \geq 5.15$ GHz and $f_H \leq 5.35$ GHz).

Lower sub-band frequency range shall fall in 5.47 GHz to 5.725 GHz (fL ≥ 5.47 GHz and fH ≤ 5.725 GHz).

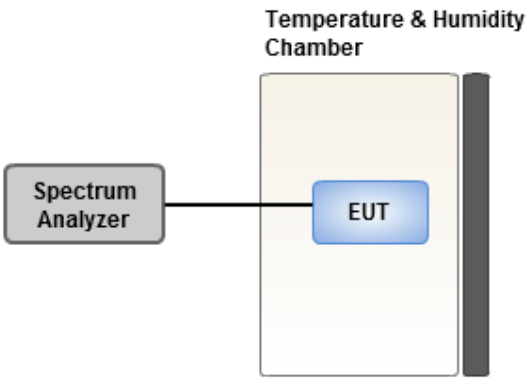
Higher sub-band frequency range shall fall in 5.725 GHz to 5.850 GHz ($f_L \geq 5.725$ GHz and $f_H \leq 5.850$ GHz)

Note: Limit is from AS/NZS 4268:2017

3.4.2 Test Procedures

Reference to clause 6.2.1 of AS/NZS 4268:2017.

3.4.3 Test Setup



3.4.4 Test Result of Operating Frequencies

Condition	Modulation Mode	Freqeuncy (MHz)	F_L(MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
$T_{nom}V_{nom}$	802.11a	5180	5171.742	-	5150	5350
$T_{min}V_{max}$	802.11a	5180	5171.740	-	5150	5350
$T_{min}V_{min}$	802.11a	5180	5171.740	-	5150	5350
$T_{max}V_{max}$	802.11a	5180	5171.748	-	5150	5350
$T_{max}V_{min}$	802.11a	5180	5171.748	-	5150	5350
$T_{nom}V_{nom}$	802.11a	5320	-	5328.118	5150	5350
$T_{min}V_{max}$	802.11a	5320	-	5328.120	5150	5350
$T_{min}V_{min}$	802.11a	5320	-	5328.120	5150	5350
$T_{max}V_{max}$	802.11a	5320	-	5328.116	5150	5350
$T_{max}V_{min}$	802.11a	5320	-	5328.116	5150	5350
$T_{nom}V_{nom}$	802.11a	5500	5491.732	-	5470	5725
$T_{min}V_{max}$	802.11a	5500	5491.730	-	5470	5725
$T_{min}V_{min}$	802.11a	5500	5491.730	-	5470	5725
$T_{max}V_{max}$	802.11a	5500	5491.733	-	5470	5725
$T_{max}V_{min}$	802.11a	5500	5491.733	-	5470	5725
$T_{nom}V_{nom}$	802.11a	5700	-	5708.098	5470	5725
$T_{min}V_{max}$	802.11a	5700	-	5708.100	5470	5725
$T_{min}V_{min}$	802.11a	5700	-	5708.100	5470	5725
$T_{max}V_{max}$	802.11a	5700	-	5708.097	5470	5725
$T_{max}V_{min}$	802.11a	5700	-	5708.097	5470	5725
$T_{nom}V_{nom}$	802.11a	5745	5736.716	-	5725	5850
$T_{min}V_{max}$	802.11a	5745	5736.714	-	5725	5850
$T_{min}V_{min}$	802.11a	5745	5736.714	-	5725	5850
$T_{max}V_{max}$	802.11a	5745	5736.717	-	5725	5850
$T_{max}V_{min}$	802.11a	5745	5736.717	-	5725	5850
$T_{nom}V_{nom}$	802.11a	5825	-	5837.098	5725	5850
$T_{min}V_{max}$	802.11a	5825	-	5837.099	5725	5850
$T_{min}V_{min}$	802.11a	5825	-	5837.099	5725	5850
$T_{max}V_{max}$	802.11a	5825	-	5837.096	5725	5850
$T_{max}V_{min}$	802.11a	5825	-	5837.096	5725	5850

Condition	Modulation Mode	Freqeuncy (MHz)	F_L(MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
$T_{nom}V_{nom}$	802.11n HT20	5180	5171.142	-	5150	5350
$T_{min}V_{max}$	802.11n HT20	5180	5171.140	-	5150	5350
$T_{min}V_{min}$	802.11n HT20	5180	5171.140	-	5150	5350
$T_{max}V_{max}$	802.11n HT20	5180	5171.143	-	5150	5350
$T_{max}V_{min}$	802.11n HT20	5180	5171.143	-	5150	5350
$T_{nom}V_{nom}$	802.11n HT20	5320	-	5311.122	5150	5350
$T_{min}V_{max}$	802.11n HT20	5320	-	5311.124	5150	5350
$T_{min}V_{min}$	802.11n HT20	5320	-	5311.124	5150	5350
$T_{max}V_{max}$	802.11n HT20	5320	-	5311.120	5150	5350
$T_{max}V_{min}$	802.11n HT20	5320	-	5311.120	5150	5350
$T_{nom}V_{nom}$	802.11n HT20	5500	5491.132	-	5470	5725
$T_{min}V_{max}$	802.11n HT20	5500	5491.134	-	5470	5725
$T_{min}V_{min}$	802.11n HT20	5500	5491.134	-	5470	5725
$T_{max}V_{max}$	802.11n HT20	5500	5491.131	-	5470	5725
$T_{max}V_{min}$	802.11n HT20	5500	5491.131	-	5470	5725
$T_{nom}V_{nom}$	802.11n HT20	5700	-	5708.708	5470	5725
$T_{min}V_{max}$	802.11n HT20	5700	-	5708.710	5470	5725
$T_{min}V_{min}$	802.11n HT20	5700	-	5708.710	5470	5725
$T_{max}V_{max}$	802.11n HT20	5700	-	5708.707	5470	5725
$T_{max}V_{min}$	802.11n HT20	5700	-	5708.707	5470	5725
$T_{nom}V_{nom}$	802.11n HT20	5745	5736.116	-	5725	5850
$T_{min}V_{max}$	802.11n HT20	5745	5736.114	-	5725	5850
$T_{min}V_{min}$	802.11n HT20	5745	5736.114	-	5725	5850
$T_{max}V_{max}$	802.11n HT20	5745	5736.117	-	5725	5850
$T_{max}V_{min}$	802.11n HT20	5745	5736.117	-	5725	5850
$T_{nom}V_{nom}$	802.11n HT20	5825	-	5836.894	5725	5850
$T_{min}V_{max}$	802.11n HT20	5825	-	5836.896	5725	5850
$T_{min}V_{min}$	802.11n HT20	5825	-	5836.896	5725	5850
$T_{max}V_{max}$	802.11n HT20	5825	-	5836.893	5725	5850
$T_{max}V_{min}$	802.11n HT20	5825	-	5836.893	5725	5850

Condition	Modulation Mode	Freqeuncy (MHz)	F_L(MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
$T_{nom}V_{nom}$	802.11n HT40	5190	5172.164	-	5150	5350
$T_{min}V_{max}$	802.11n HT40	5190	5172.162	-	5150	5350
$T_{min}V_{min}$	802.11n HT40	5190	5172.162	-	5150	5350
$T_{max}V_{max}$	802.11n HT40	5190	5172.165	-	5150	5350
$T_{max}V_{min}$	802.11n HT40	5190	5172.165	-	5150	5350
$T_{nom}V_{nom}$	802.11n HT40	5310	-	5327.836	5150	5350
$T_{min}V_{max}$	802.11n HT40	5310	-	5327.837	5150	5350
$T_{min}V_{min}$	802.11n HT40	5310	-	5327.837	5150	5350
$T_{max}V_{max}$	802.11n HT40	5310	-	5327.835	5150	5350
$T_{max}V_{min}$	802.11n HT40	5310	-	5327.835	5150	5350
$T_{nom}V_{nom}$	802.11n HT40	5510	5492.104	-	5470	5725
$T_{min}V_{max}$	802.11n HT40	5510	5492.102	-	5470	5725
$T_{min}V_{min}$	802.11n HT40	5510	5492.102	-	5470	5725
$T_{max}V_{max}$	802.11n HT40	5510	5492.105	-	5470	5725
$T_{max}V_{min}$	802.11n HT40	5510	5492.105	-	5470	5725
$T_{nom}V_{nom}$	802.11n HT40	5670	-	5687.816	5470	5725
$T_{min}V_{max}$	802.11n HT40	5670	-	5687.817	5470	5725
$T_{min}V_{min}$	802.11n HT40	5670	-	5687.817	5470	5725
$T_{max}V_{max}$	802.11n HT40	5670	-	5687.814	5470	5725
$T_{max}V_{min}$	802.11n HT40	5670	-	5687.814	5470	5725
$T_{nom}V_{nom}$	802.11n HT40	5755	5737.002	-	5725	5850
$T_{min}V_{max}$	802.11n HT40	5755	5737.001	-	5725	5850
$T_{min}V_{min}$	802.11n HT40	5755	5737.001	-	5725	5850
$T_{max}V_{max}$	802.11n HT40	5755	5737.003	-	5725	5850
$T_{max}V_{min}$	802.11n HT40	5755	5737.003	-	5725	5850
$T_{nom}V_{nom}$	802.11n HT40	5795	-	5813.018	5725	5850
$T_{min}V_{max}$	802.11n HT40	5795	-	5813.016	5725	5850
$T_{min}V_{min}$	802.11n HT40	5795	-	5813.016	5725	5850
$T_{max}V_{max}$	802.11n HT40	5795	-	5813.019	5725	5850
$T_{max}V_{min}$	802.11n HT40	5795	-	5813.019	5725	5850

3.5 Transmitter Spurious Emissions

3.5.1 Limit of Transmitter Spurious Emissions

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

Note: Limit is from NEW ZEALAND https://gazette.govt.nz/notice/id/2015-go694 Table2"

Frequency Range (MHz)	Maximum power (dBm)	Bandwidth (kHz)
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 862 MHz	-54 dBm	100 kHz
862 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 5,15 GHz	-30 dBm	1 MHz
5,35 GHz to 5,47 GHz	-30 dBm	1 MHz
5,725 GHz to 26 GHz	-30 dBm	1 MHz

Note: Limit is from ETSI EN 301 893

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3
Note 1: Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit **Note 2:** Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.			

Note: Limit is from FCC Part 15.209

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
5.725 - 5.850 GHz	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

Note: Limit is from FCC Part 15.407

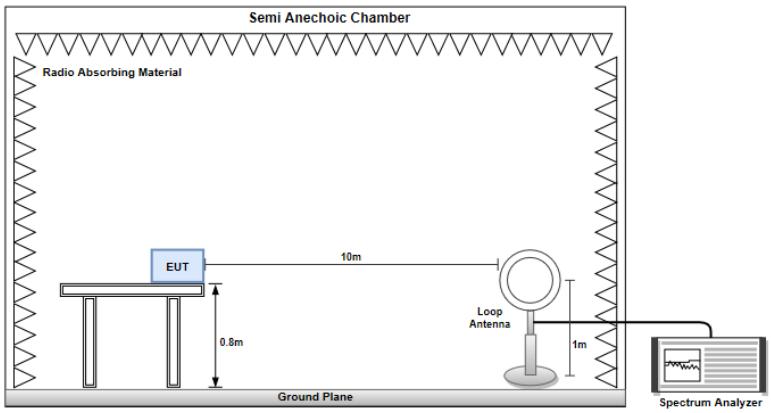
3.5.2 Test Procedures

Reference to clause 6.2.1 of AS/NZS 4268:2017.

3.5.3 Test Setup

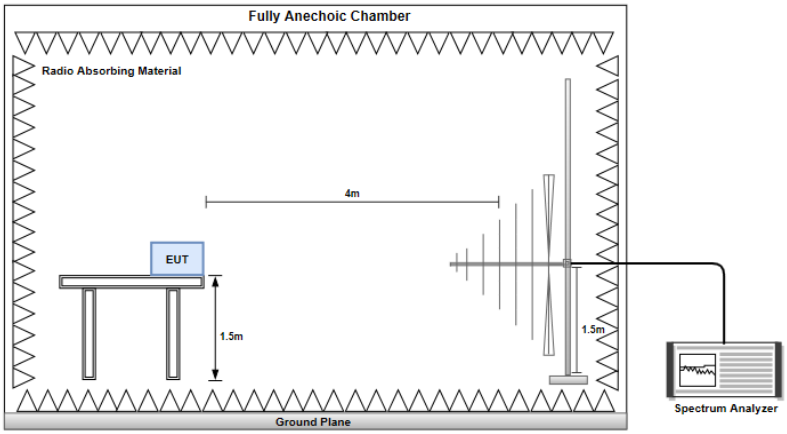
Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz / 5.725 - 5.850 GHz

Below 30MHz

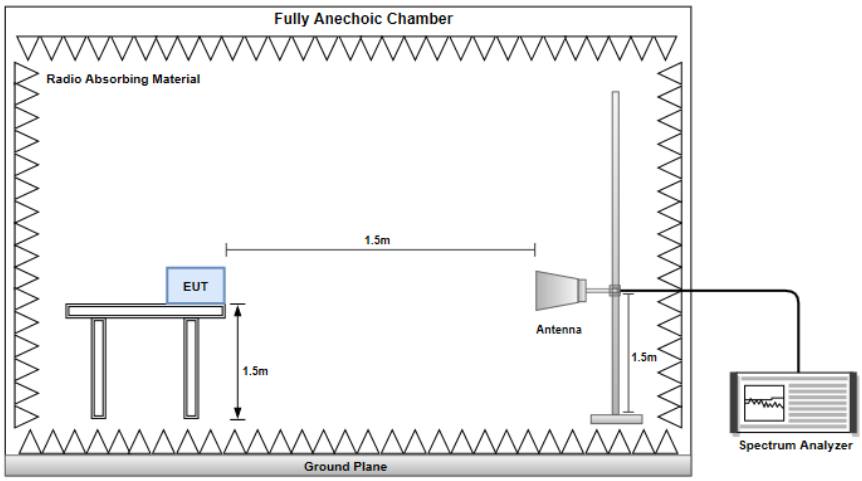


Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz

Below 1GHz

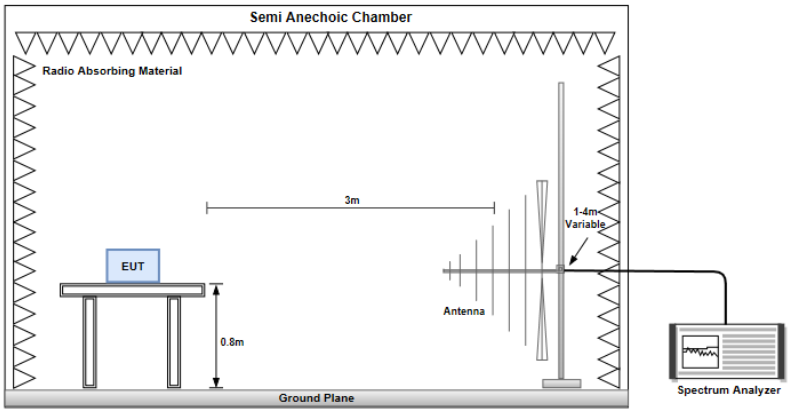


Above 1 GHz

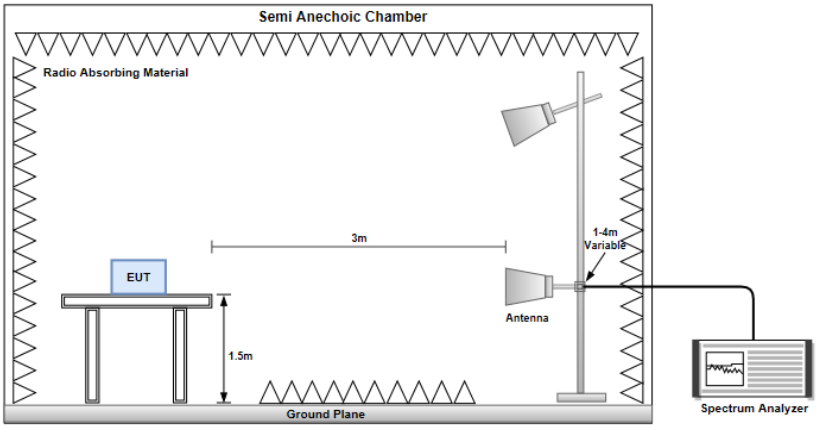


Operating Band : 5.725 - 5.850 GHz

Below 1GHz

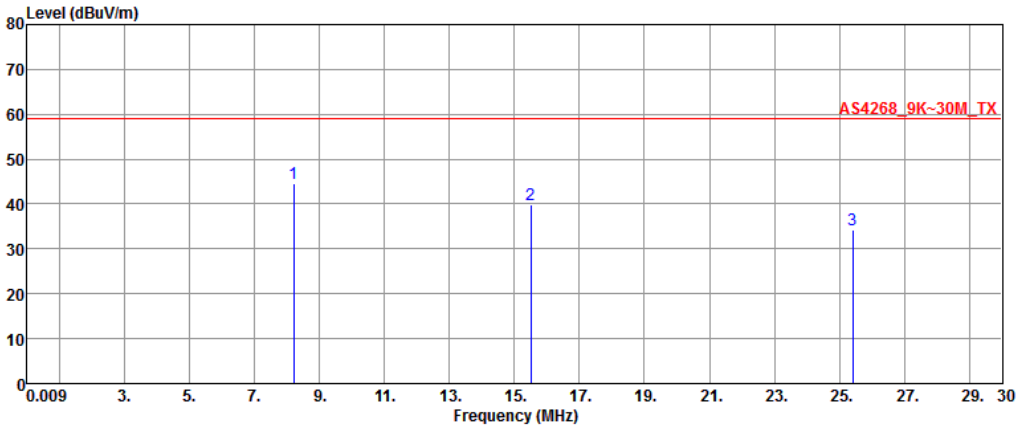


Above 1 GHz



3.5.4 Transmitter Spurious Emissions (≤ 30MHz)

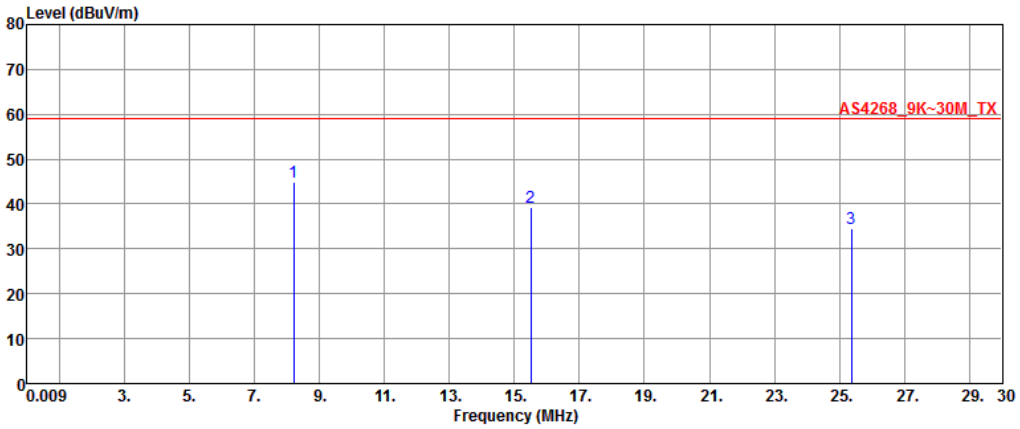
Modulation	11a	Test Freq. (MHz)	5180
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.21	44.65	59.00	-14.35	20.16	24.49
2	15.51	39.82	59.00	-19.18	21.26	18.56
3	25.42	34.24	59.00	-24.76	22.07	12.17

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

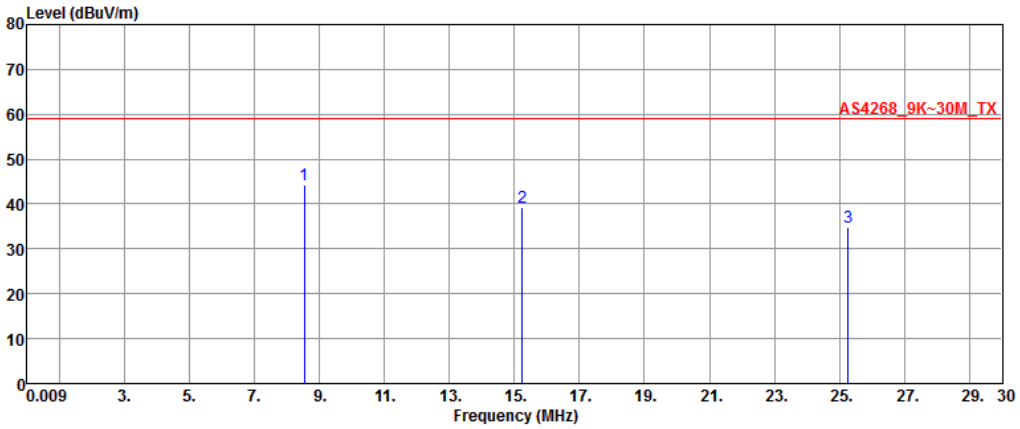
Modulation	11a	Test Freq. (MHz)	5700
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.21	44.96	59.00	-14.04	20.16	24.80
2	15.51	39.32	59.00	-19.68	21.26	18.06
3	25.36	34.45	59.00	-24.55	22.05	12.40

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

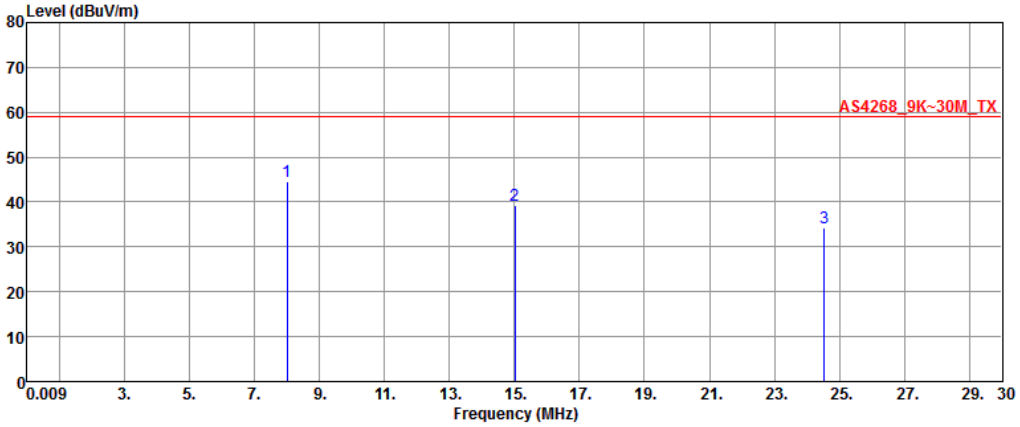
Modulation	11a	Test Freq. (MHz)	5745
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.52	44.23	59.00	-14.77	20.19	24.04
2	15.23	39.24	59.00	-19.76	21.22	18.02
3	25.27	34.74	59.00	-24.26	22.05	12.69

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

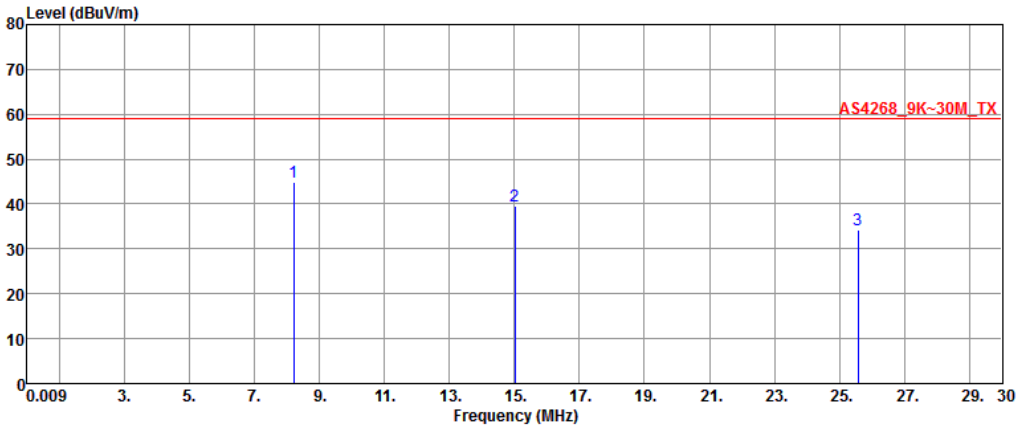
Modulation	11a	Test Freq. (MHz)	5785
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.00	44.53	59.00	-14.47	20.14	24.39
2	15.02	39.38	59.00	-19.62	21.19	18.19
3	24.54	34.35	59.00	-24.65	22.02	12.33

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

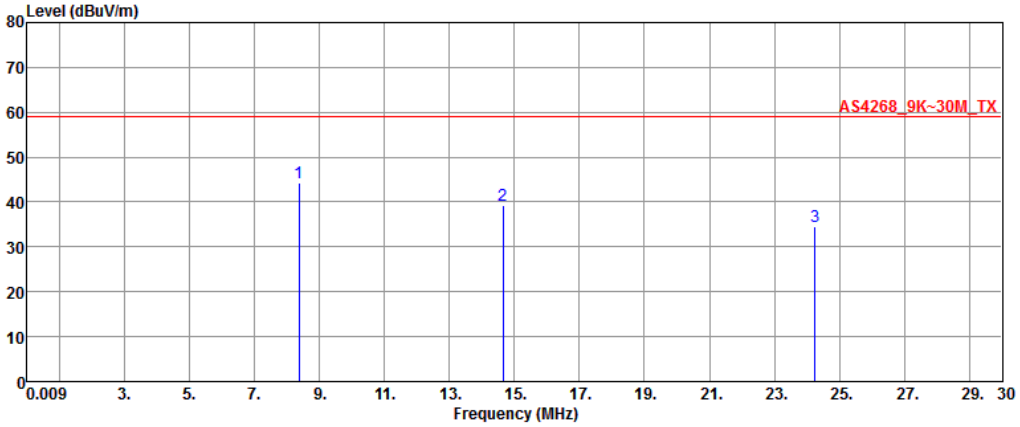
Modulation	11a	Test Freq. (MHz)	5825
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.22	44.82	59.00	-14.18	20.16	24.66
2	15.02	39.52	59.00	-19.48	21.19	18.33
3	25.57	34.23	59.00	-24.77	22.07	12.16

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

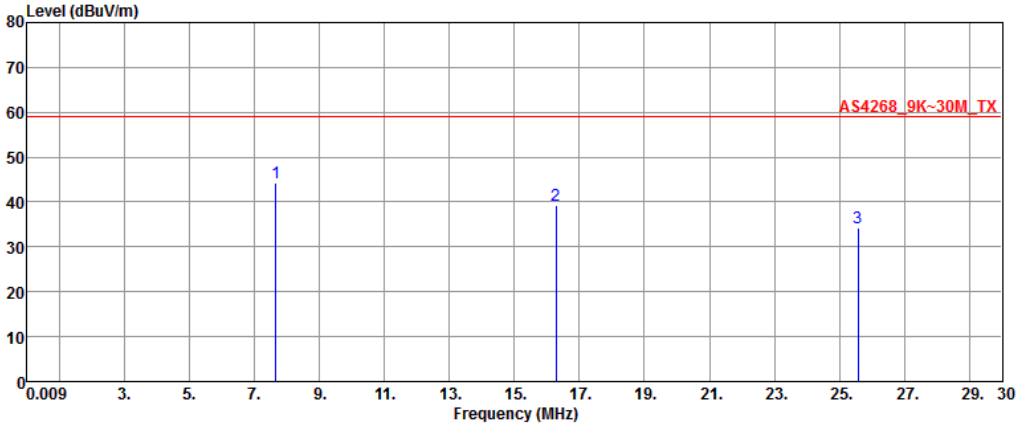
Modulation	HT20	Test Freq. (MHz)	5180
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.36	44.22	59.00	-14.78	20.17	24.05
2	14.65	39.23	59.00	-19.77	21.14	18.09
3	24.25	34.65	59.00	-24.35	22.01	12.64

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

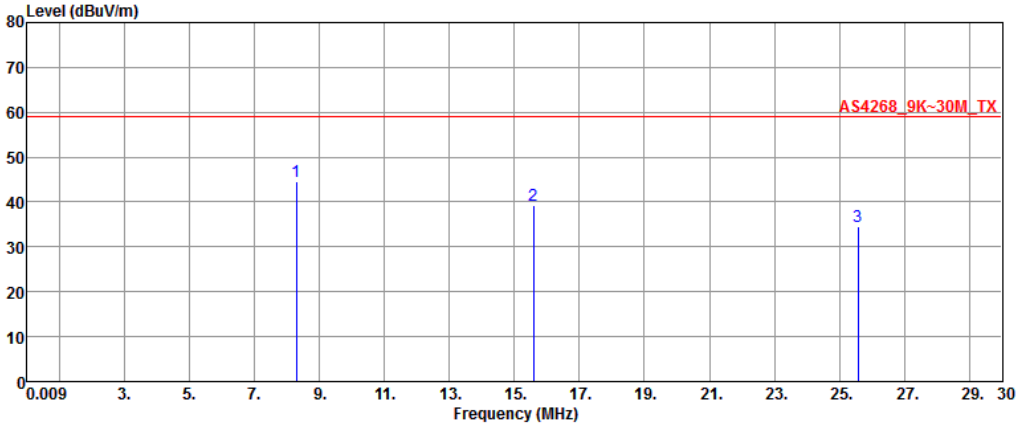
Modulation	HT20	Test Freq. (MHz)	5700
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	7.65	44.36	59.00	-14.64	20.11	24.25
2	16.28	39.22	59.00	-19.78	21.36	17.86
3	25.58	34.38	59.00	-24.62	22.07	12.31

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

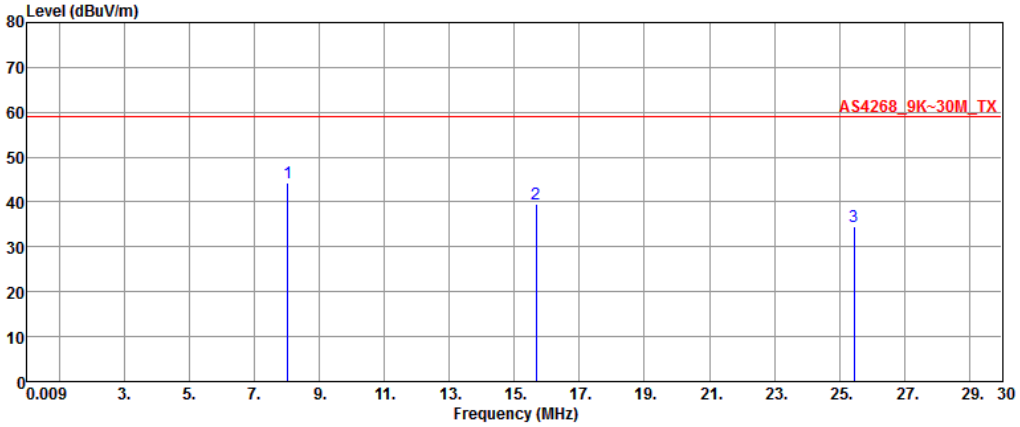
Modulation	HT20	Test Freq. (MHz)	5745
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.29	44.62	59.00	-14.38	20.16	24.46
2	15.59	39.35	59.00	-19.65	21.28	18.07
3	25.57	34.59	59.00	-24.41	22.07	12.52

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

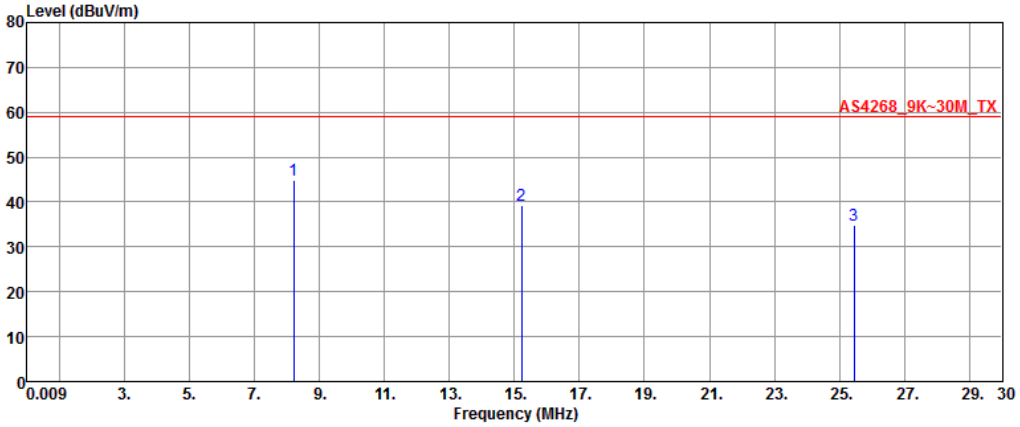
Modulation	HT20	Test Freq. (MHz)	5785
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.01	44.34	59.00	-14.66	20.14	24.20
2	15.66	39.51	59.00	-19.49	21.29	18.22
3	25.45	34.58	59.00	-24.42	22.07	12.51

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

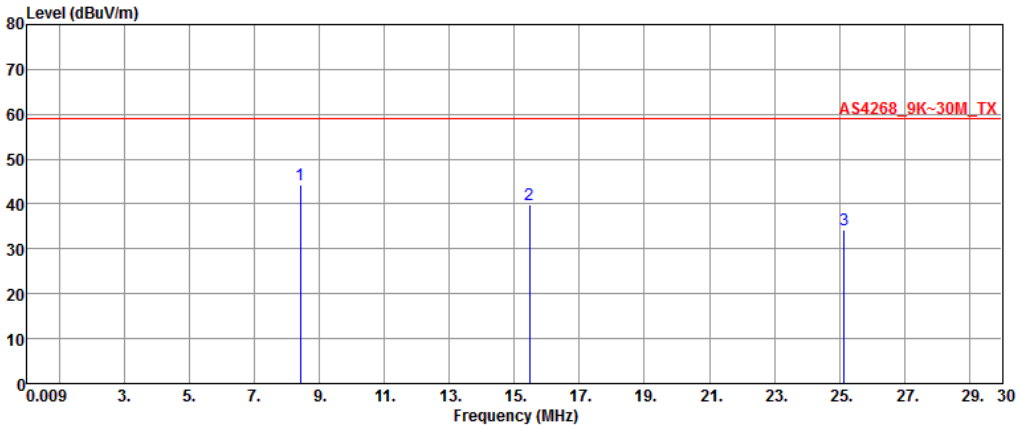
Modulation	HT20	Test Freq. (MHz)	5825
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.21	44.82	59.00	-14.18	20.16	24.66
2	15.22	39.39	59.00	-19.61	21.22	18.17
3	25.45	34.86	59.00	-24.14	22.07	12.79

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

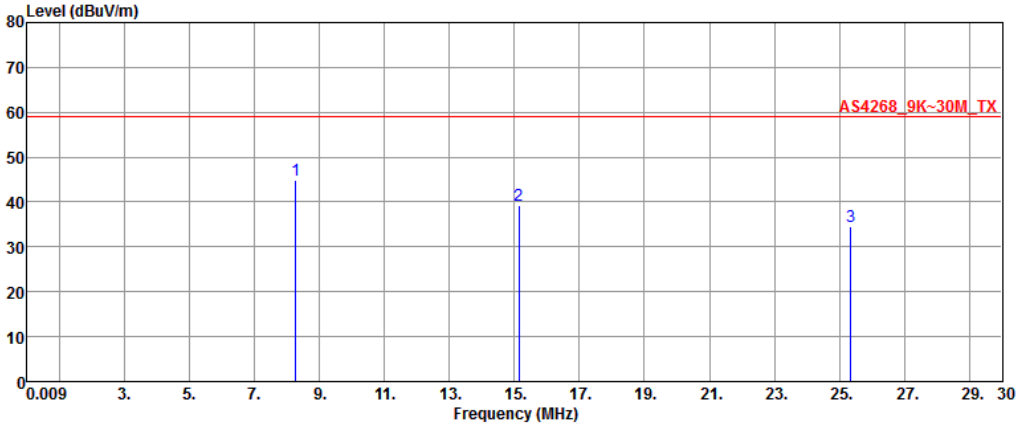
Modulation	HT40	Test Freq. (MHz)	5190
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.42	44.36	59.00	-14.64	20.18	24.18
2	15.47	39.81	59.00	-19.19	21.25	18.56
3	25.15	34.38	59.00	-24.62	22.05	12.33

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

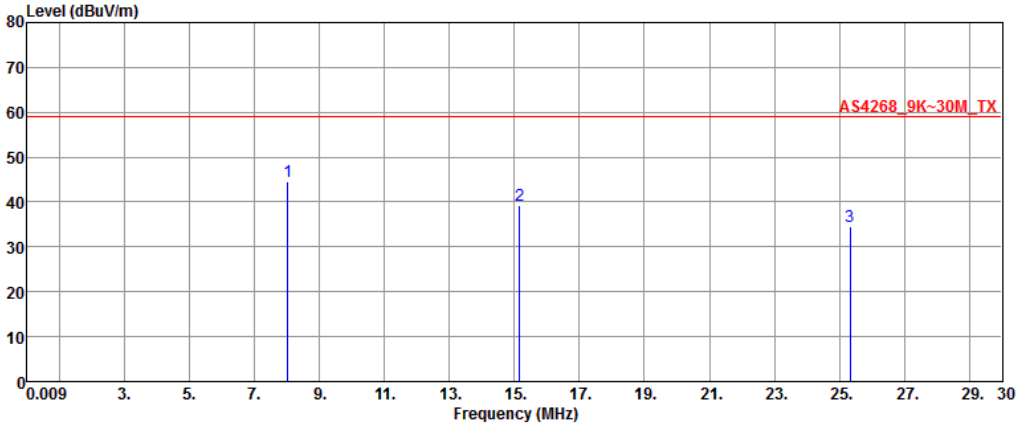
Modulation	HT40	Test Freq. (MHz)	5670
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.27	44.99	59.00	-14.01	20.16	24.83
2	15.15	39.32	59.00	-19.68	21.21	18.11
3	25.35	34.58	59.00	-24.42	22.05	12.53

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

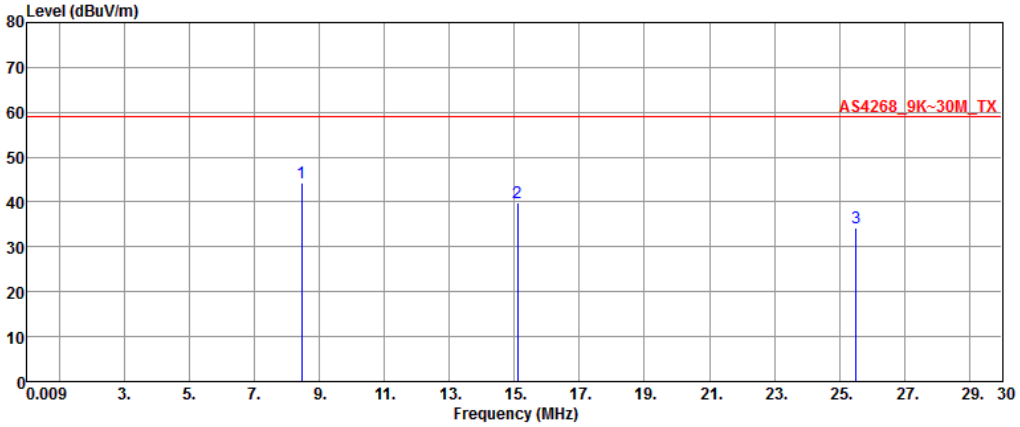
Modulation	HT40	Test Freq. (MHz)	5755
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.02	44.63	59.00	-14.37	20.14	24.49
2	15.17	39.36	59.00	-19.64	21.21	18.15
3	25.32	34.52	59.00	-24.48	22.05	12.47

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

Modulation	HT40	Test Freq. (MHz)	5795
Frequency	9kHz~30MHz	Loop	open

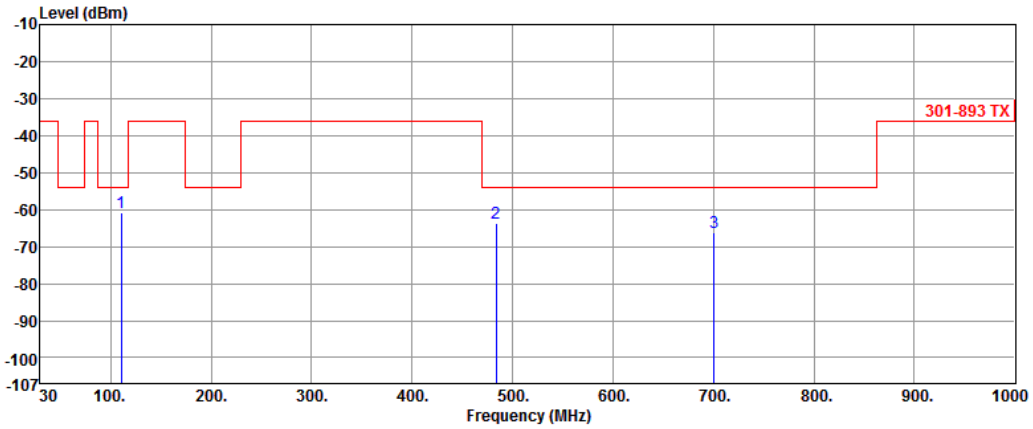


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.45	44.24	59.00	-14.76	20.19	24.05
2	15.10	39.85	59.00	-19.15	21.20	18.65
3	25.51	34.33	59.00	-24.67	22.07	12.26

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

3.5.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

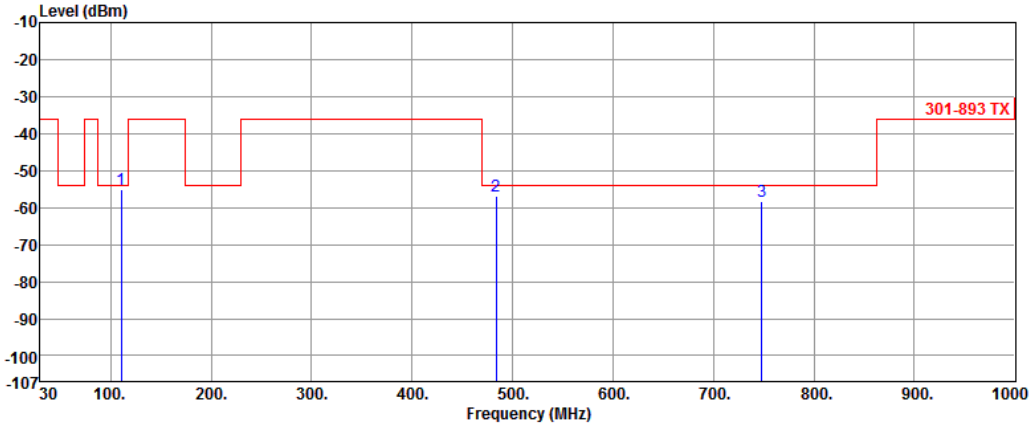
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.25	-60.98	-54.00	-6.98	-5.27	-55.71
2	483.98	-63.72	-54.00	-9.72	2.91	-66.63
3	700.29	-66.22	-54.00	-12.22	6.82	-73.04

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

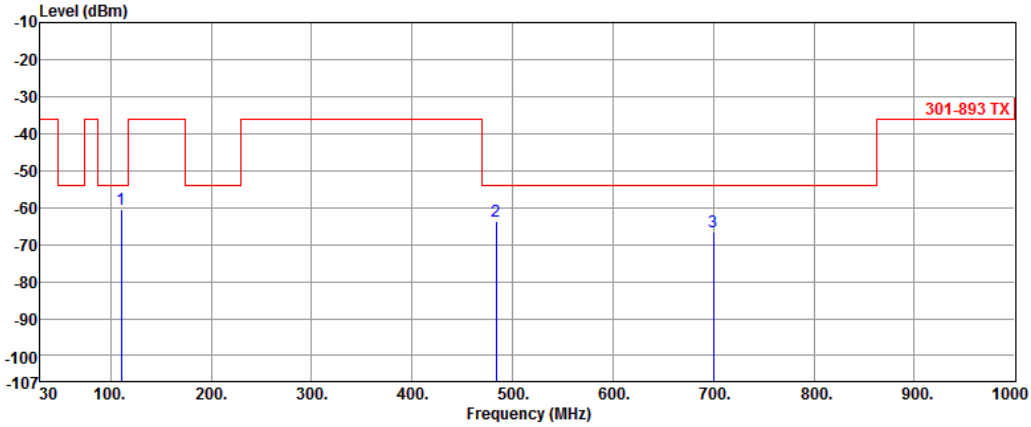
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.35	-55.26	-54.00	-1.26	-4.00	-51.26
2	483.96	-56.73	-54.00	-2.73	2.97	-59.70
3	747.85	-58.40	-54.00	-4.40	7.82	-66.22

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

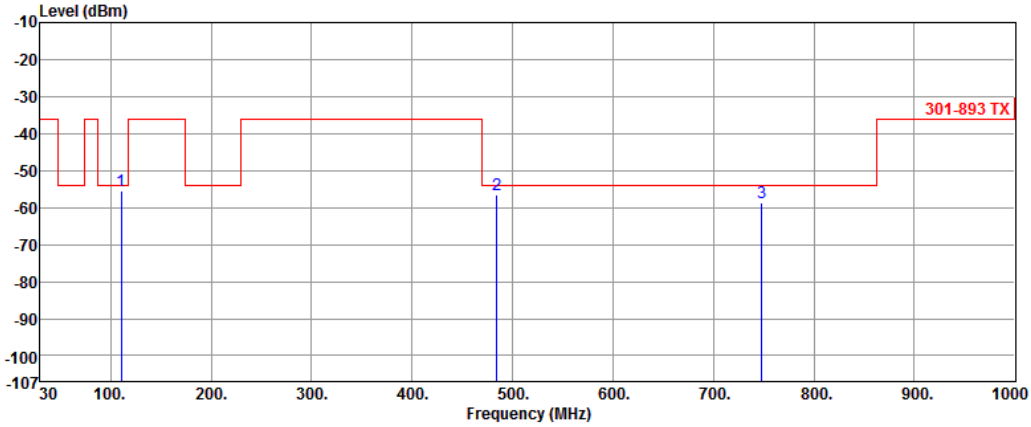
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.36	-60.54	-54.00	-6.54	-5.26	-55.28
2	483.85	-63.51	-54.00	-9.51	2.91	-66.42
3	700.18	-66.44	-54.00	-12.44	6.82	-73.26

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

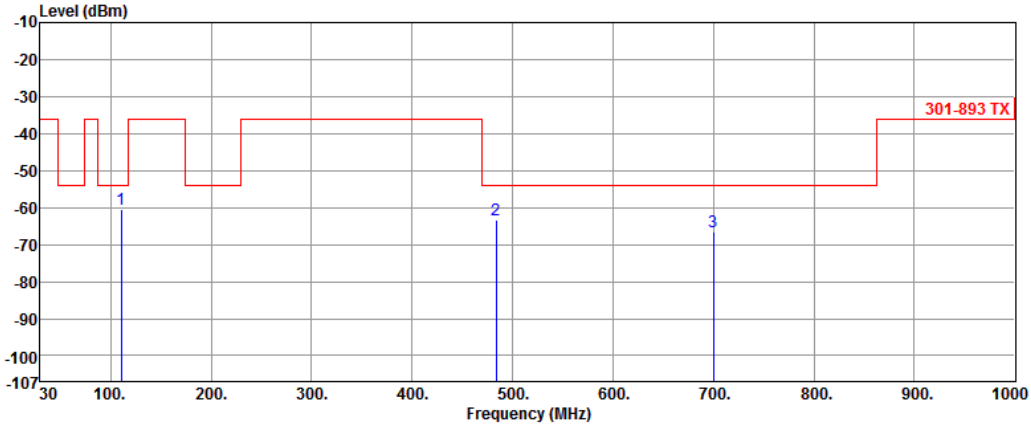
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.24	-55.54	-54.00	-1.54	-4.03	-51.51
2	484.02	-56.57	-54.00	-2.57	2.97	-59.54
3	747.94	-58.83	-54.00	-4.83	7.82	-66.65

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

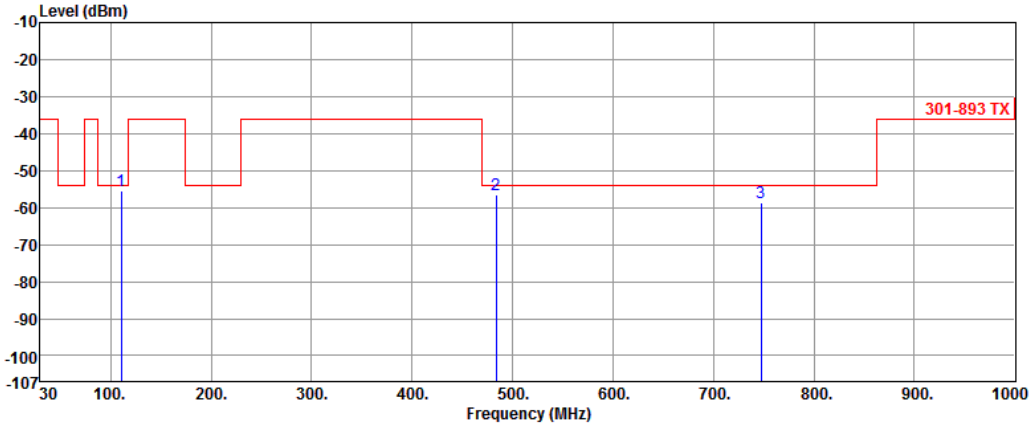
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.34	-60.42	-54.00	-6.42	-5.26	-55.16
2	483.86	-63.38	-54.00	-9.38	2.91	-66.29
3	700.11	-66.54	-54.00	-12.54	6.82	-73.36

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

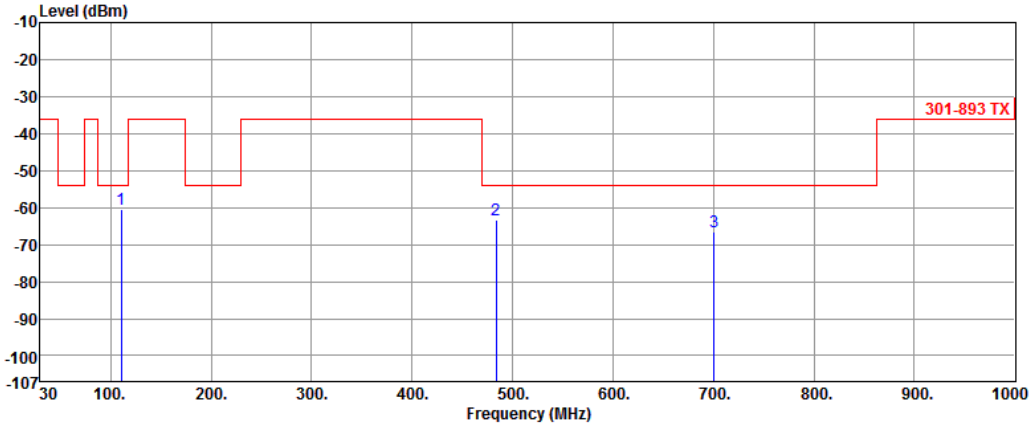
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.29	-55.62	-54.00	-1.62	-4.01	-51.61
2	483.93	-56.48	-54.00	-2.48	2.96	-59.44
3	747.64	-58.57	-54.00	-4.57	7.81	-66.38

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

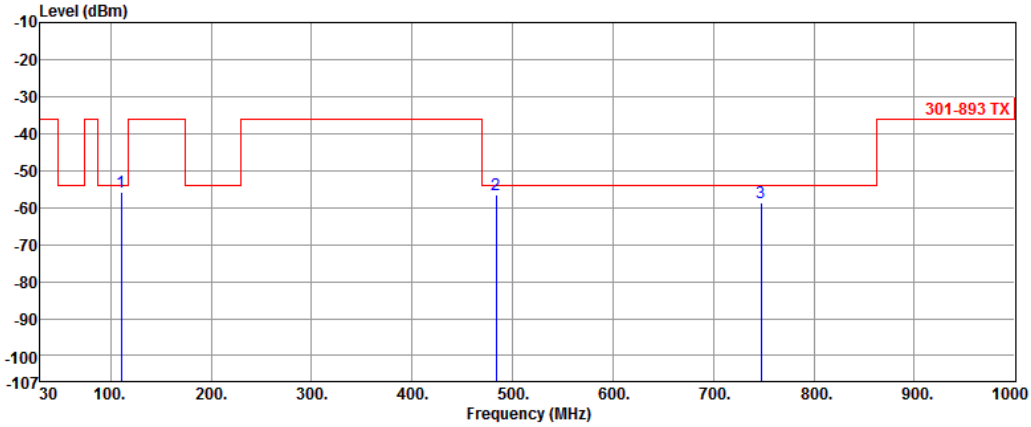
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.35	-60.62	-54.00	-6.62	-5.26	-55.36
2	483.91	-63.45	-54.00	-9.45	2.91	-66.36
3	700.34	-66.49	-54.00	-12.49	6.82	-73.31

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

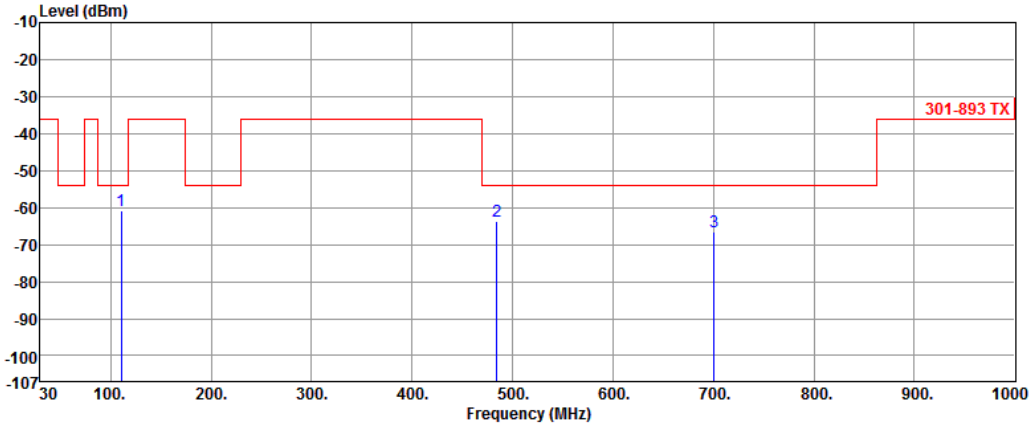
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.44	-55.82	-54.00	-1.82	-3.97	-51.85
2	483.87	-56.59	-54.00	-2.59	2.96	-59.55
3	747.62	-58.52	-54.00	-4.52	7.81	-66.33

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

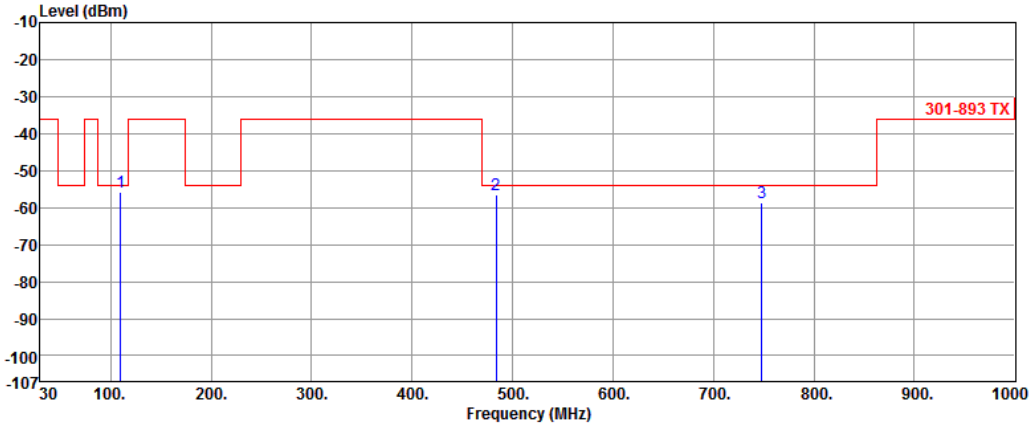
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.44	-60.78	-54.00	-6.78	-5.25	-55.53
2	484.10	-63.56	-54.00	-9.56	2.91	-66.47
3	700.47	-66.64	-54.00	-12.64	6.82	-73.46

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

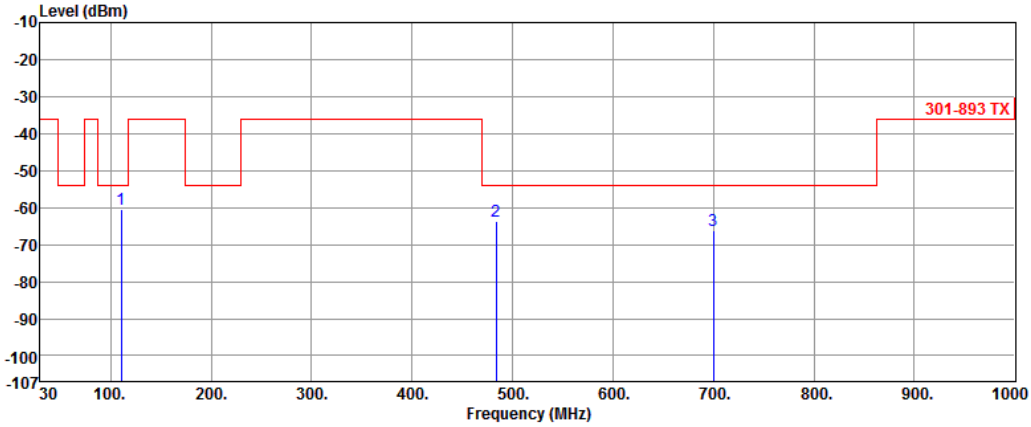
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.08	-55.64	-54.00	-1.64	-4.07	-51.57
2	483.88	-56.51	-54.00	-2.51	2.96	-59.47
3	747.96	-58.75	-54.00	-4.75	7.82	-66.57

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

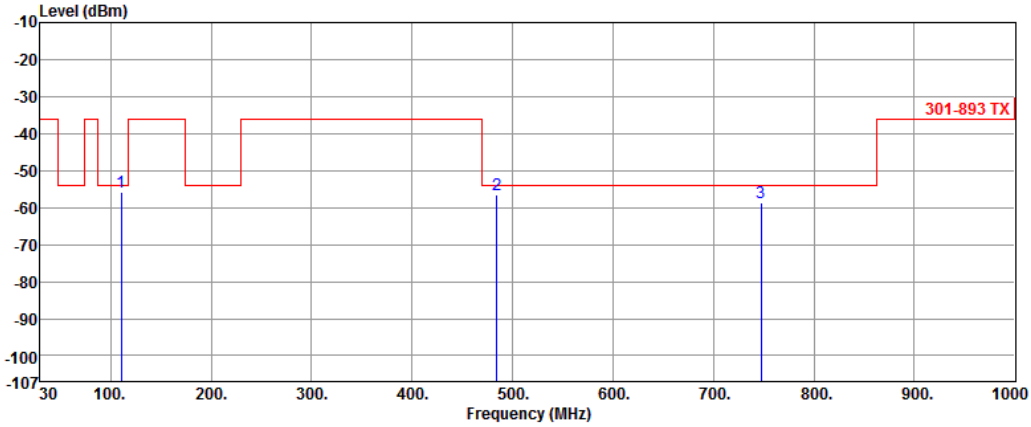
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.34	-60.59	-54.00	-6.59	-5.26	-55.33
2	483.95	-63.86	-54.00	-9.86	2.91	-66.77
3	700.23	-66.04	-54.00	-12.04	6.82	-72.86

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

Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		

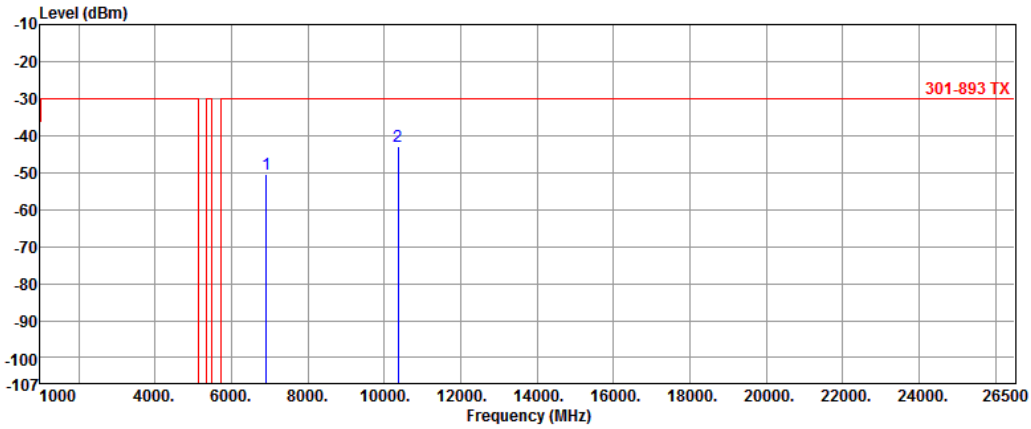


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.27	-55.67	-54.00	-1.67	-4.02	-51.65
2	484.09	-56.52	-54.00	-2.52	2.97	-59.49
3	747.69	-58.59	-54.00	-4.59	7.81	-66.40

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

3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz)

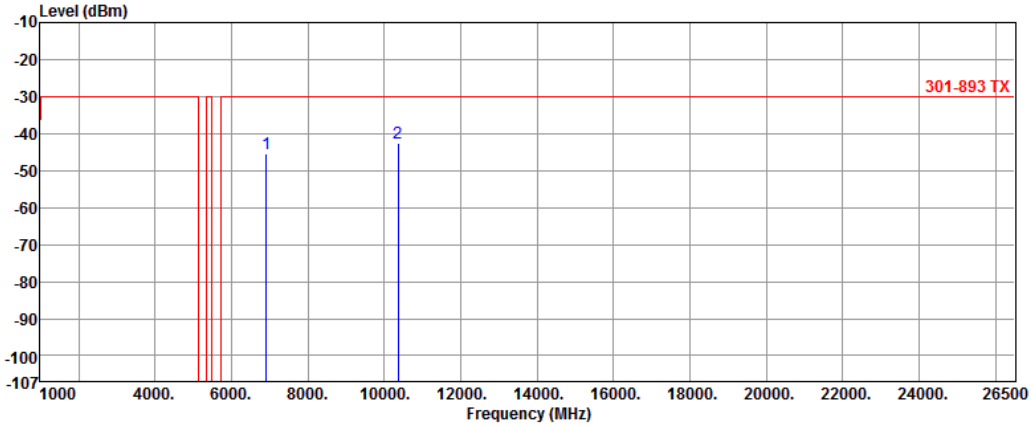
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.82	-50.34	-30.00	-20.34	13.32	-63.66
2	10360.15	-43.02	-30.00	-13.02	20.79	-63.81

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

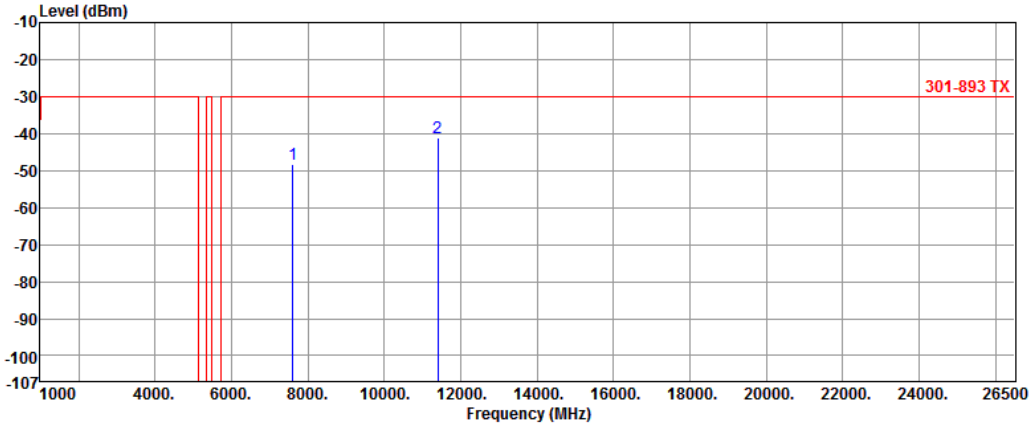
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.64	-45.58	-30.00	-15.58	13.65	-59.23
2	10360.11	-42.68	-30.00	-12.68	21.61	-64.29

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

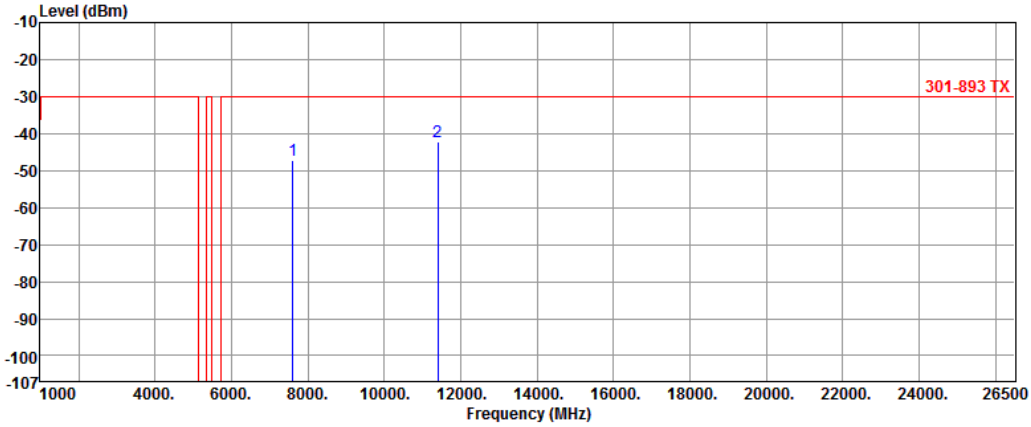
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7600.34	-48.38	-30.00	-18.38	15.00	-63.38
2	11400.24	-41.10	-30.00	-11.10	19.75	-60.85

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

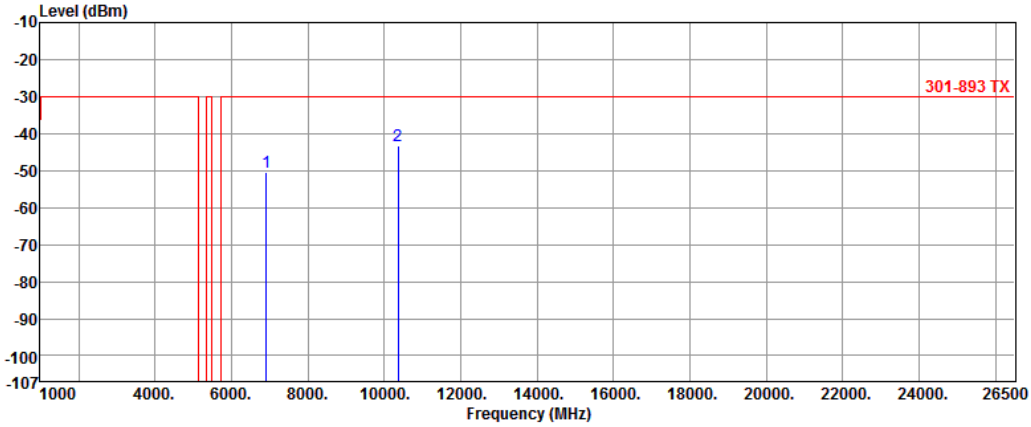
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7600.44	-47.33	-30.00	-17.33	15.58	-62.91
2	11400.21	-42.11	-30.00	-12.11	19.90	-62.01

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

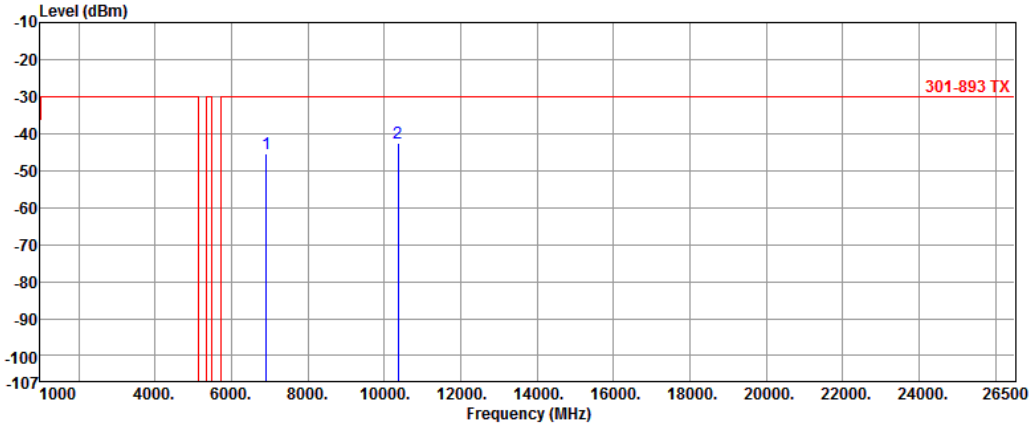
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.75	-50.48	-30.00	-20.48	13.32	-63.80
2	10360.22	-43.21	-30.00	-13.21	20.79	-64.00

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

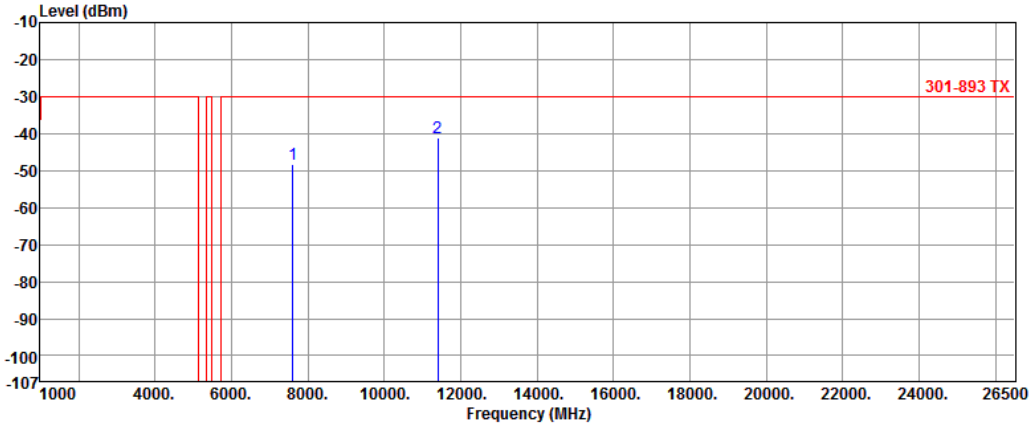
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.69	-45.46	-30.00	-15.46	13.65	-59.11
2	10360.11	-42.55	-30.00	-12.55	21.61	-64.16

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

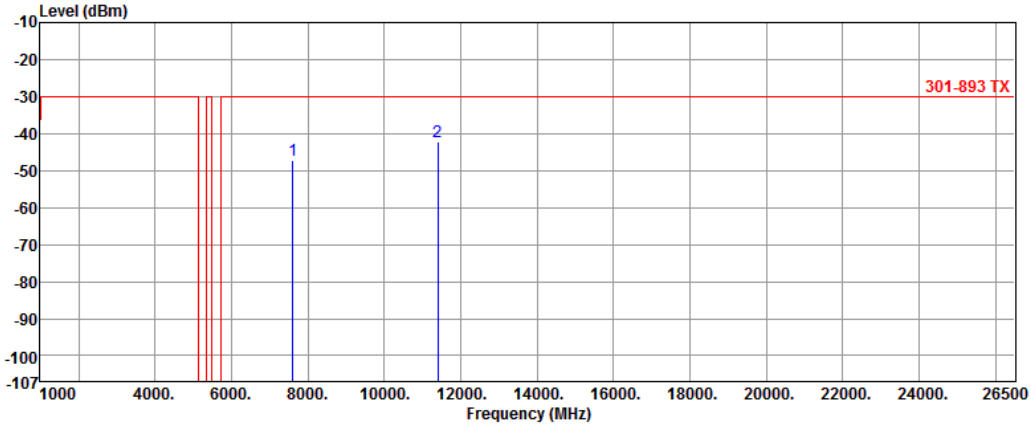
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7600.24	-48.22	-30.00	-18.22	15.00	-63.22
2	11400.18	-41.25	-30.00	-11.25	19.75	-61.00

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

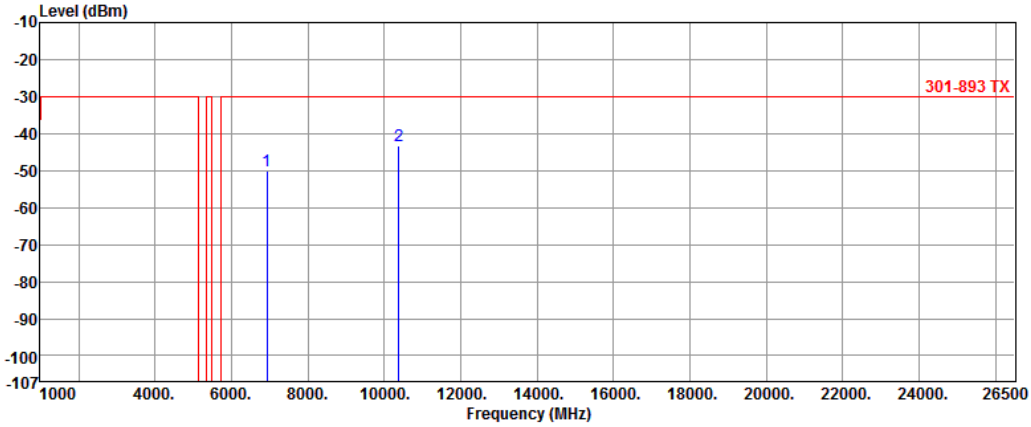
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7600.35	-47.19	-30.00	-17.19	15.58	-62.77
2	11400.19	-42.36	-30.00	-12.36	19.90	-62.26

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

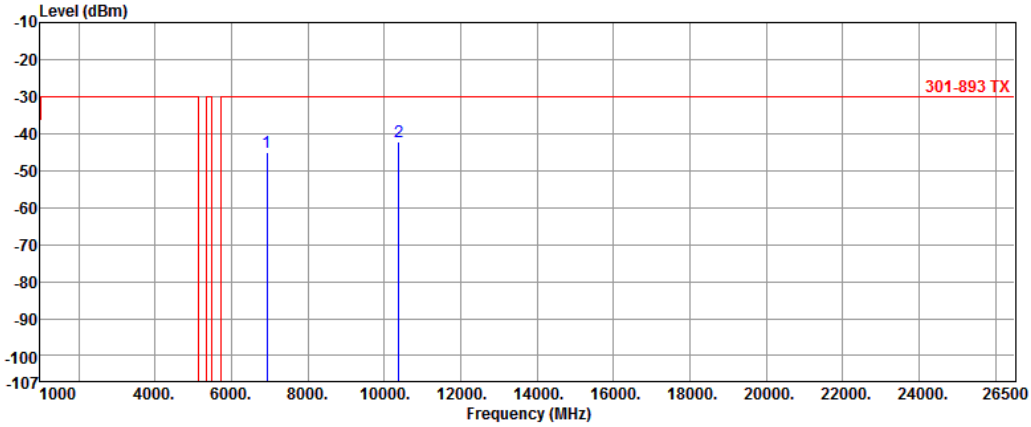
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6920.23	-50.12	-30.00	-20.12	13.51	-63.63
2	10380.13	-43.14	-30.00	-13.14	20.84	-63.98

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

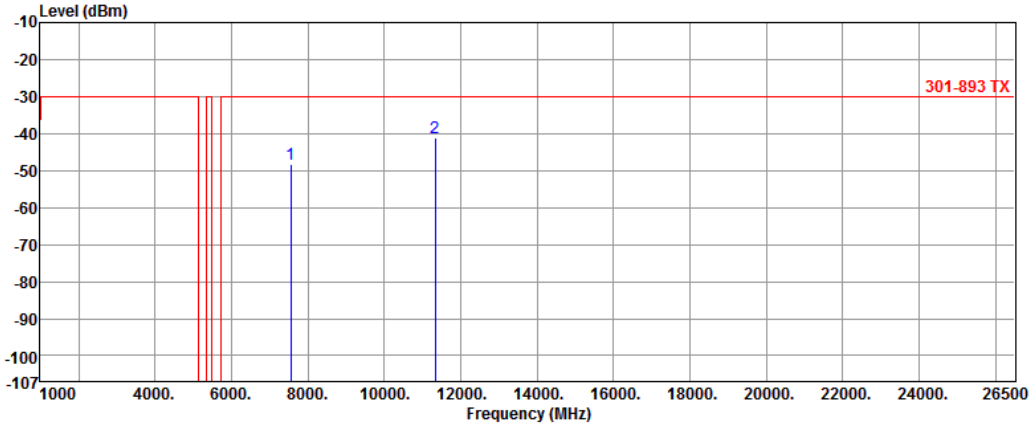
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6920.35	-45.17	-30.00	-15.17	13.83	-59.00
2	10380.27	-42.31	-30.00	-12.31	21.65	-63.96

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

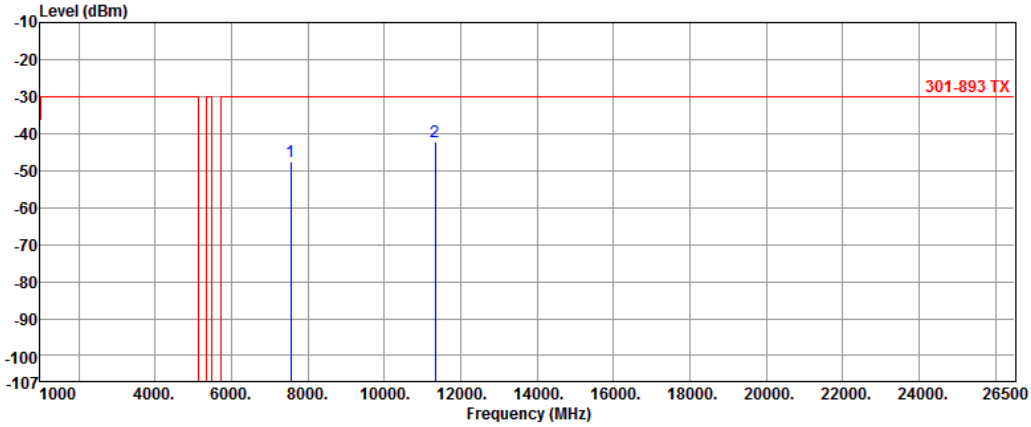
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7560.12	-48.25	-30.00	-18.25	15.31	-63.56
2	11340.33	-41.01	-30.00	-11.01	19.57	-60.58

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

Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		

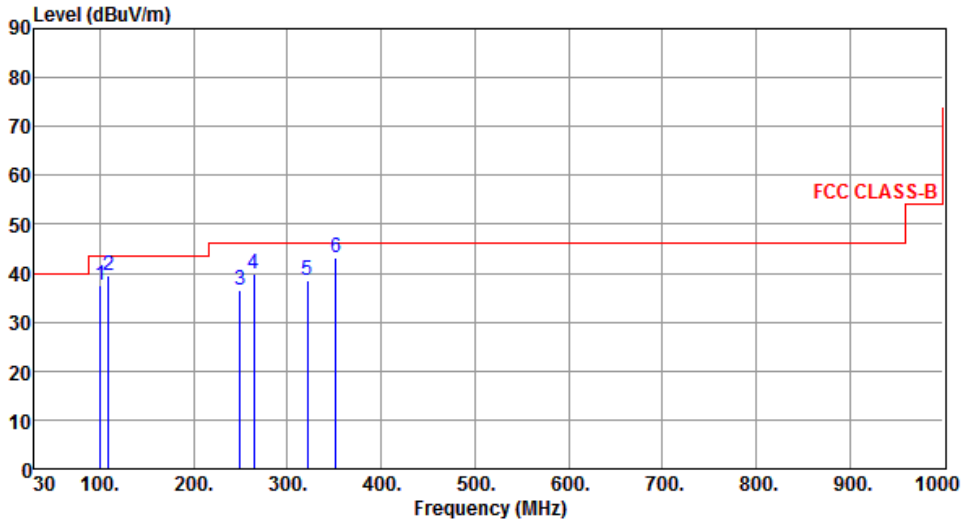


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7560.24	-47.44	-30.00	-17.44	15.68	-63.12
2	11340.18	-42.36	-30.00	-12.36	19.96	-62.32

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

3.5.7 Transmitter Spurious Emissions (Below 1GHz)

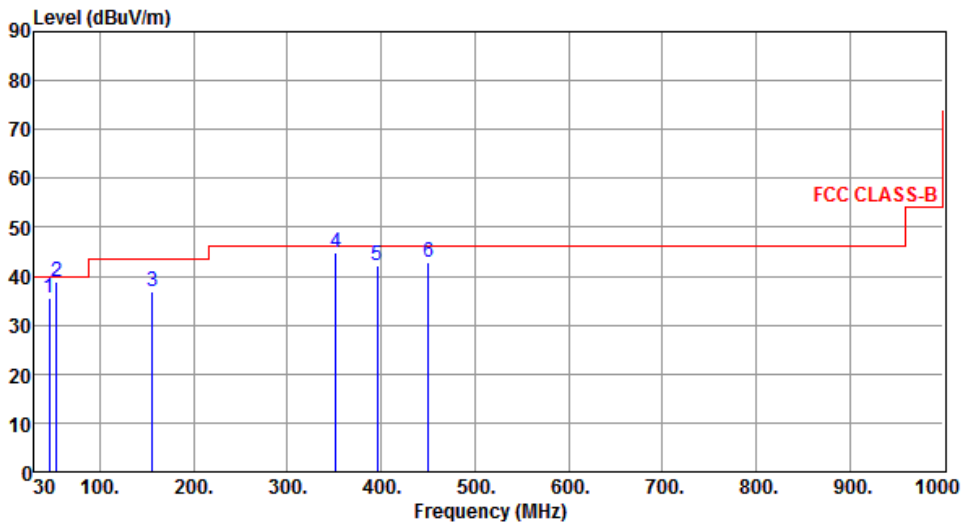
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	100.85	37.58	43.50	-5.92	50.38	-12.80	Peak	---	---
2	109.21	39.59	43.50	-3.91	51.12	-11.53	Peak	---	---
3	249.58	36.58	46.00	-9.42	45.96	-9.38	Peak	---	---
4	263.85	39.89	46.00	-6.11	48.76	-8.87	Peak	---	---
5	321.25	38.44	46.00	-7.56	45.66	-7.22	Peak	---	---
6	352.00	43.28	46.00	-2.72	49.69	-6.41	QP	100	152

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

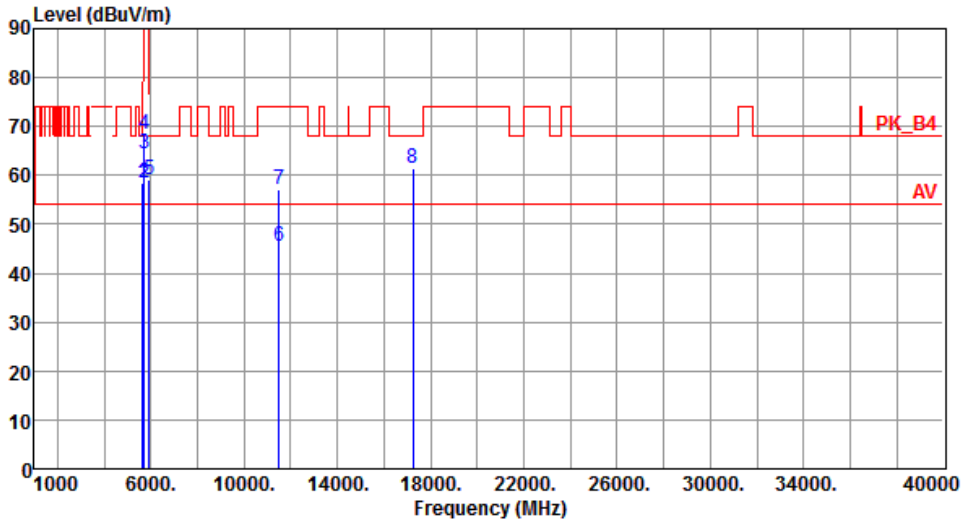


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.63	35.58	40.00	-4.42	43.36	-7.78	QP	100	348
2	53.88	38.96	40.00	-1.04	46.97	-8.01	QP	103	182
3	155.68	36.78	43.50	-6.72	45.03	-8.25	Peak	---	---
4	352.00	44.78	46.00	-1.22	51.19	-6.41	QP	152	62
5	395.85	42.28	46.00	-3.72	47.46	-5.18	Peak	---	---
6	450.25	42.74	46.00	-3.26	46.64	-3.90	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.8 Transmitter Spurious Emissions (Above 1GHz) for 11a

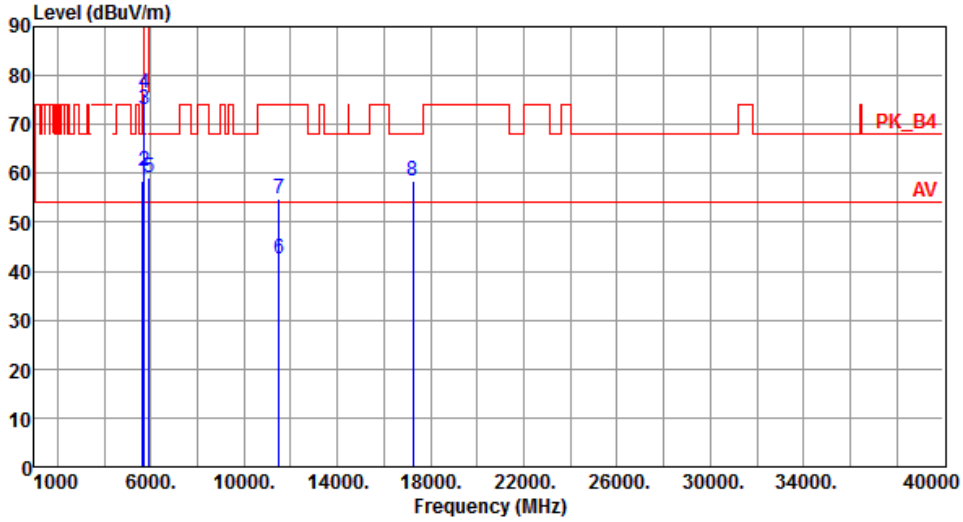
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.43	68.20	-9.77	53.46	4.97	Peak	100	315
2	5700.00	58.62	105.20	-46.58	53.46	5.16	Peak	100	315
3	5720.00	64.44	110.80	-46.36	59.21	5.23	Peak	100	315
4	5725.00	68.53	122.20	-53.67	63.28	5.25	Peak	100	315
5	5925.00	59.15	68.20	-9.05	53.06	6.09	Peak	100	315
6	11490.00	45.39	54.00	-8.61	31.27	14.12	Average	100	70
7	11490.00	56.99	74.00	-17.01	42.87	14.12	Peak	100	70
8	17235.00	61.53	68.20	-6.67	44.30	17.23	Peak	100	66

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

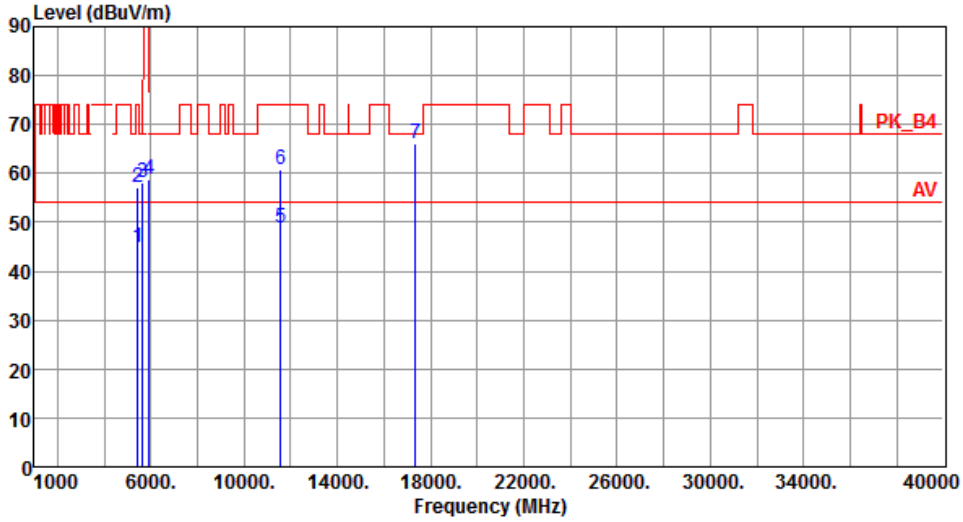
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.52	68.20	-9.68	53.55	4.97	Peak	164	185
2	5700.00	60.51	105.20	-44.69	55.35	5.16	Peak	164	185
3	5720.00	73.19	110.80	-37.61	67.96	5.23	Peak	164	185
4	5725.00	76.33	122.20	-45.87	71.08	5.25	Peak	164	185
5	5925.00	59.20	68.20	-9.00	53.11	6.09	Peak	164	185
6	11490.00	42.38	54.00	-11.62	28.26	14.12	Average	100	30
7	11490.00	54.67	74.00	-19.33	40.55	14.12	Peak	100	30
8	17235.00	58.50	68.20	-9.70	41.27	17.23	Peak	100	20

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

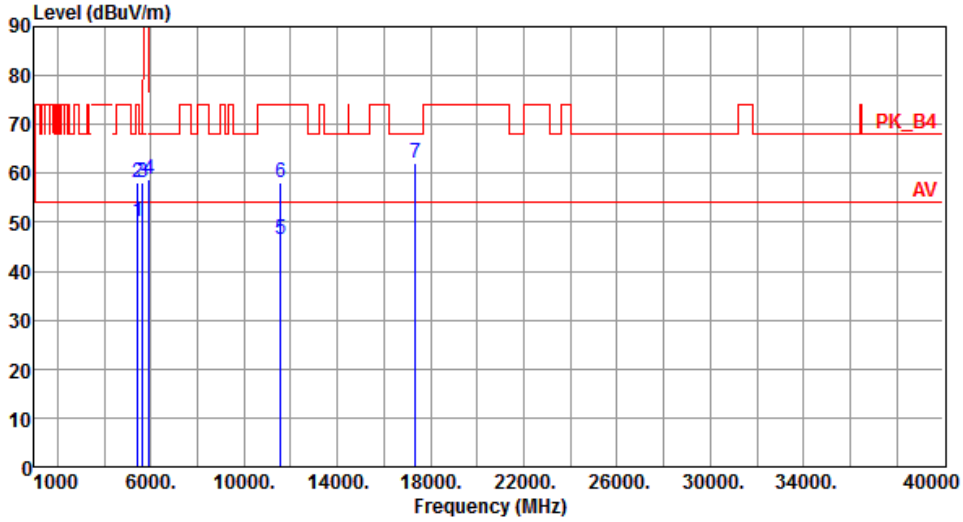
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	44.94	54.00	-9.06	40.36	4.58	Average	100	313
2	5440.00	57.05	74.00	-16.95	52.47	4.58	Peak	100	313
3	5650.00	58.23	68.20	-9.97	53.26	4.97	Peak	100	313
4	5925.00	58.74	68.20	-9.46	52.65	6.09	Peak	100	313
5	11570.00	48.97	54.00	-5.03	35.02	13.95	Average	100	75
6	11570.00	60.88	74.00	-13.12	46.93	13.95	Peak	100	75
7	17355.00	65.93	68.20	-2.27	48.31	17.62	Peak	100	65

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

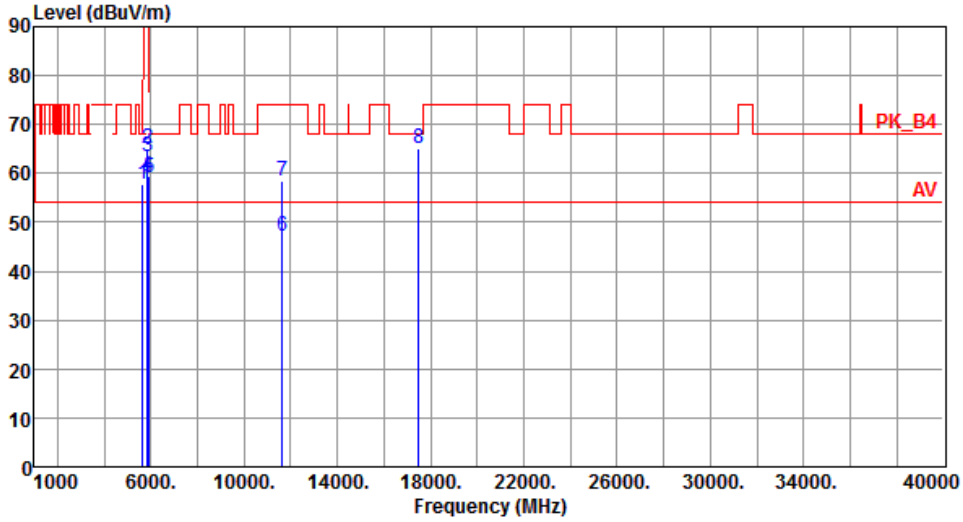
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	50.25	54.00	-3.75	45.67	4.58	Average	142	184
2	5440.00	58.27	74.00	-15.73	53.69	4.58	Peak	142	184
3	5650.00	58.08	68.20	-10.12	53.11	4.97	Peak	142	184
4	5925.00	58.87	68.20	-9.33	52.78	6.09	Peak	142	184
5	11570.00	46.41	54.00	-7.59	32.46	13.95	Average	130	316
6	11570.00	58.18	74.00	-15.82	44.23	13.95	Peak	130	316
7	17355.00	62.12	68.20	-6.08	44.50	17.62	Peak	290	51

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

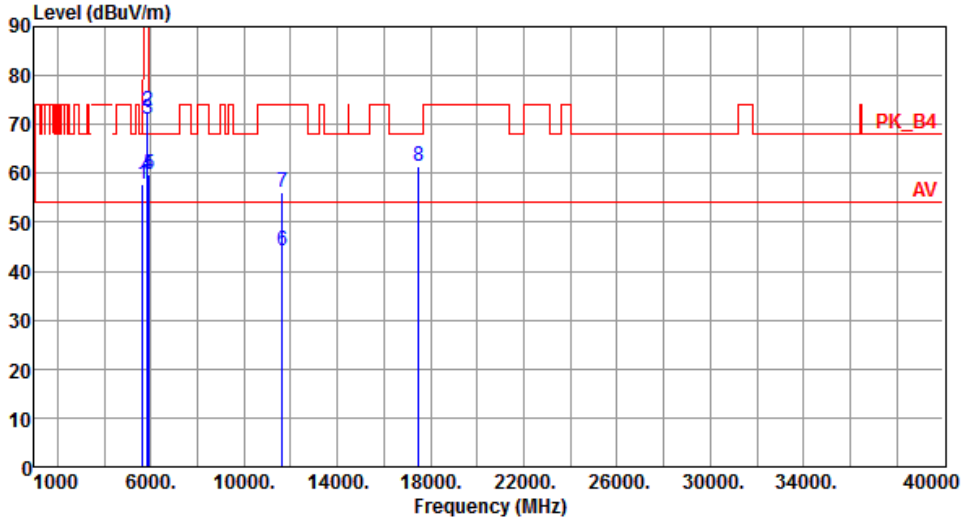
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.66	68.20	-10.54	52.69	4.97	Peak	100	314
2	5850.00	65.03	122.20	-57.17	59.22	5.81	Peak	100	314
3	5855.00	63.29	110.80	-47.51	57.46	5.83	Peak	100	314
4	5875.00	59.57	105.20	-45.63	53.67	5.90	Peak	100	314
5	5925.00	59.23	68.20	-8.97	53.14	6.09	Peak	100	314
6	11650.00	47.31	54.00	-6.69	33.69	13.62	Average	100	72
7	11650.00	58.31	74.00	-15.69	44.69	13.62	Peak	100	72
8	17475.00	65.12	68.20	-3.08	47.22	17.90	Peak	100	66

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

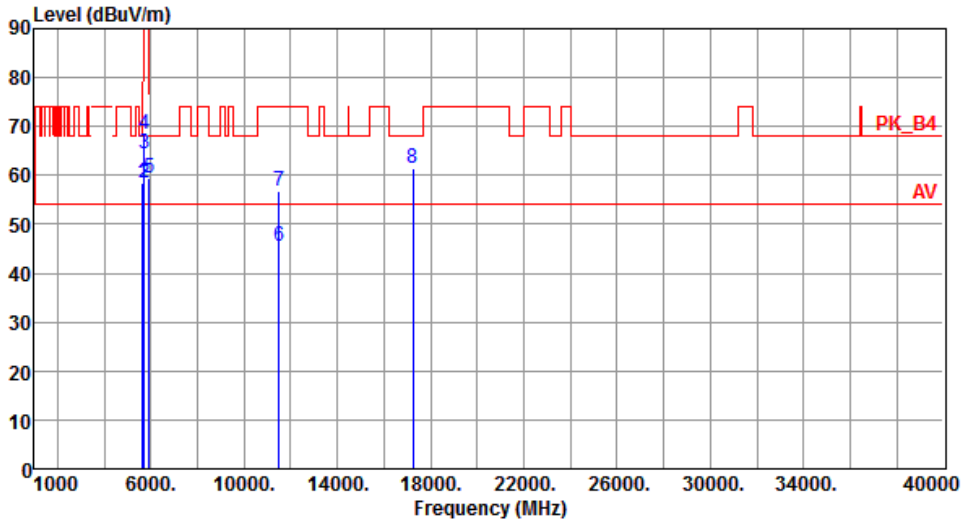


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.74	68.20	-10.46	52.77	4.97	Peak	233	188
2	5850.00	72.87	122.20	-49.33	67.06	5.81	Peak	233	188
3	5855.00	70.98	110.80	-39.82	65.15	5.83	Peak	233	188
4	5875.00	59.69	105.20	-45.51	53.79	5.90	Peak	233	188
5	5925.00	59.76	68.20	-8.44	53.67	6.09	Peak	233	188
6	11650.00	44.18	54.00	-9.82	30.56	13.62	Average	125	315
7	11650.00	56.28	74.00	-17.72	42.66	13.62	Peak	125	315
8	17475.00	61.30	68.20	-6.90	43.40	17.90	Peak	285	49

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.9 Transmitter Spurious Emissions (Above 1GHz) for HT20

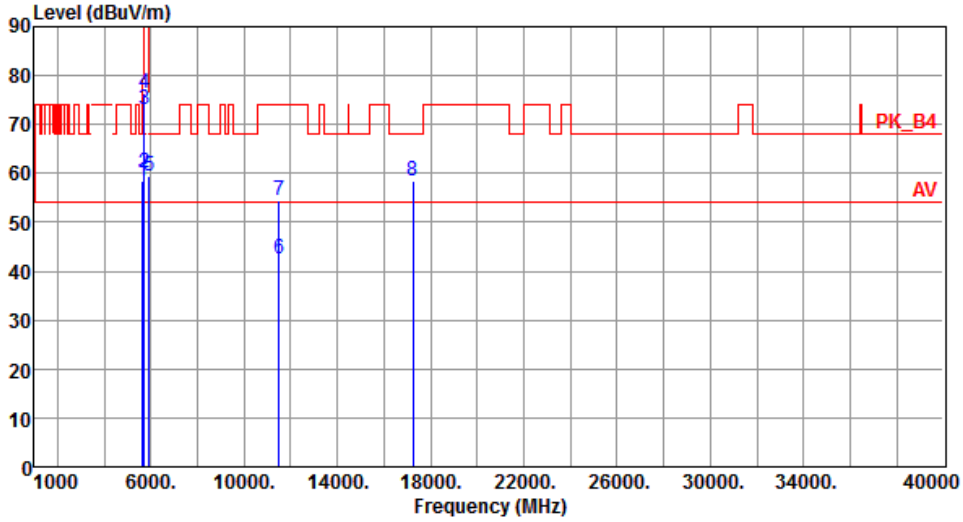
Modulation	HT20	**Test Freq. (MHz)**	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.49	68.20	-9.71	53.52	4.97	Peak	100	318
2	5700.00	58.58	105.20	-46.62	53.42	5.16	Peak	100	318
3	5720.00	64.58	110.80	-46.22	59.35	5.23	Peak	100	318
4	5725.00	68.56	122.20	-53.64	63.31	5.25	Peak	100	318
5	5925.00	59.41	68.20	-8.79	53.32	6.09	Peak	100	318
6	11490.00	45.36	54.00	-8.64	31.24	14.12	Average	100	60
7	11490.00	56.92	74.00	-17.08	42.80	14.12	Peak	100	60
8	17235.00	61.57	68.20	-6.63	44.34	17.23	Peak	100	65

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

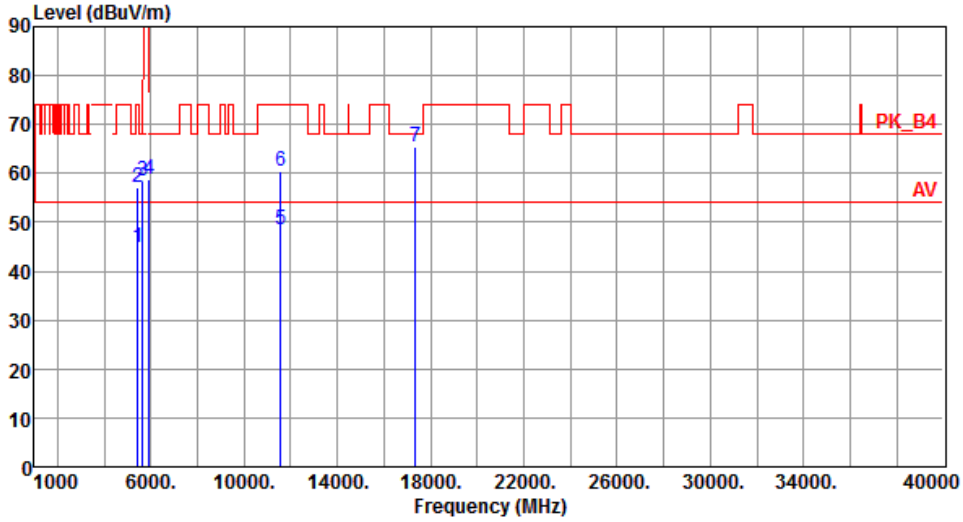
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.55	68.20	-9.65	53.58	4.97	Peak	165	187
2	5700.00	60.28	105.20	-44.92	55.12	5.16	Peak	165	187
3	5720.00	73.11	110.80	-37.69	67.88	5.23	Peak	165	187
4	5725.00	76.46	122.20	-45.74	71.21	5.25	Peak	165	187
5	5925.00	59.35	68.20	-8.85	53.26	6.09	Peak	165	187
6	11490.00	42.37	54.00	-11.63	28.25	14.12	Average	100	25
7	11490.00	54.47	74.00	-19.53	40.35	14.12	Peak	100	25
8	17235.00	58.57	68.20	-9.63	41.34	17.23	Peak	100	30

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

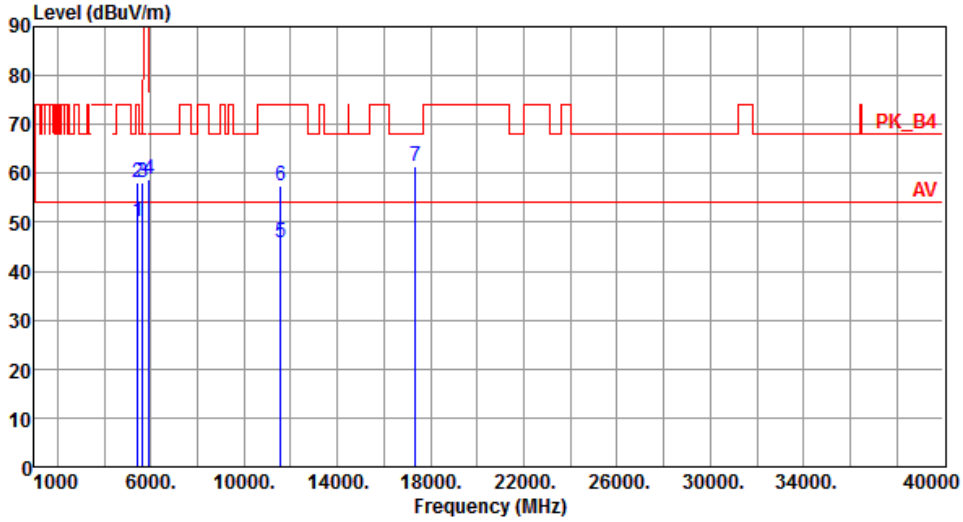
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	44.86	54.00	-9.14	40.28	4.58	Average	105	313
2	5440.00	57.21	74.00	-16.79	52.63	4.58	Peak	105	313
3	5650.00	58.31	68.20	-9.89	53.34	4.97	Peak	105	313
4	5925.00	58.68	68.20	-9.52	52.59	6.09	Peak	105	313
5	11570.00	48.51	54.00	-5.49	34.56	13.95	Average	100	74
6	11570.00	60.29	74.00	-13.71	46.34	13.95	Peak	100	74
7	17355.00	65.37	68.20	-2.83	47.75	17.62	Peak	100	66

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

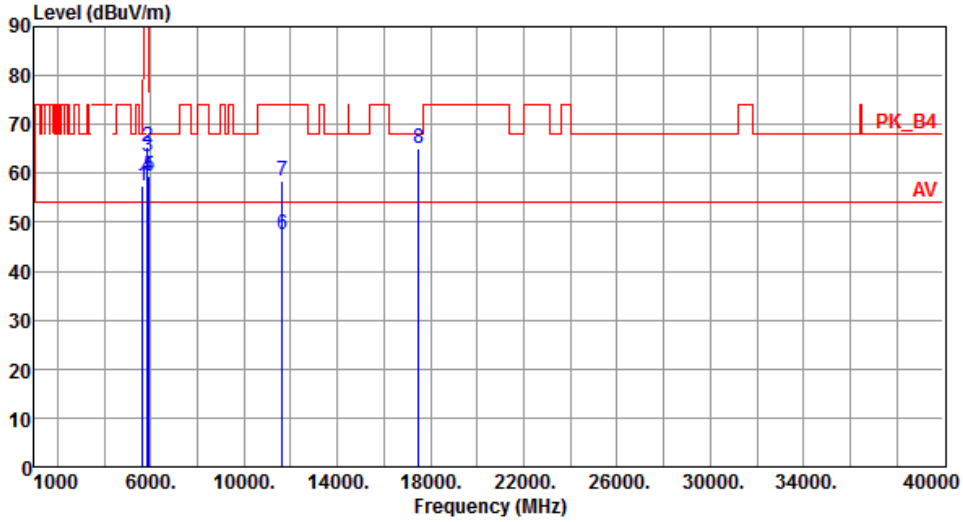
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	50.10	54.00	-3.90	45.52	4.58	Average	139	184
2	5440.00	58.13	74.00	-15.87	53.55	4.58	Peak	139	184
3	5650.00	58.23	68.20	-9.97	53.26	4.97	Peak	139	184
4	5925.00	58.95	68.20	-9.25	52.86	6.09	Peak	139	184
5	11570.00	45.98	54.00	-8.02	32.03	13.95	Average	129	315
6	11570.00	57.51	74.00	-16.49	43.56	13.95	Peak	129	315
7	17355.00	61.48	68.20	-6.72	43.86	17.62	Peak	288	49

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

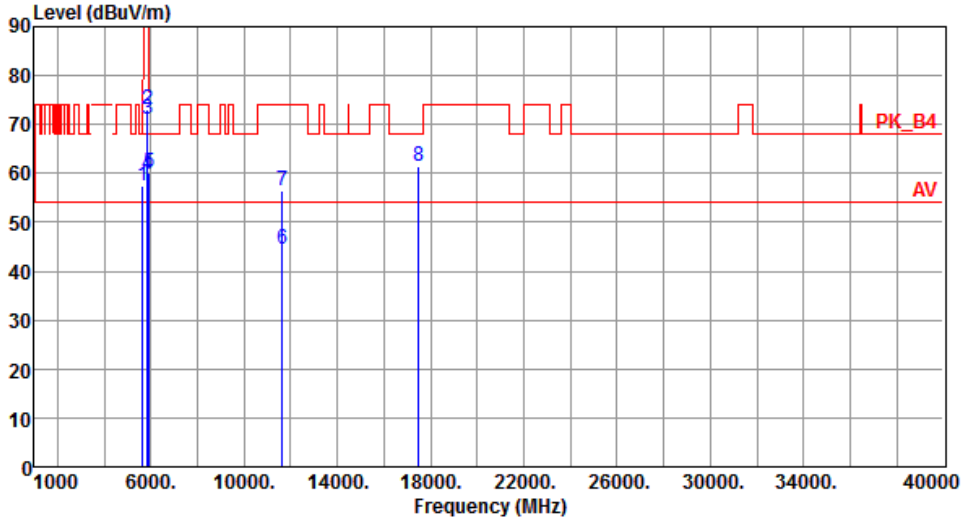
Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.52	68.20	-10.68	52.55	4.97	Peak	100	314
2	5850.00	65.38	122.20	-56.82	59.57	5.81	Peak	100	314
3	5855.00	63.52	110.80	-47.28	57.69	5.83	Peak	100	314
4	5875.00	59.43	105.20	-45.77	53.53	5.90	Peak	100	314
5	5925.00	59.35	68.20	-8.85	53.26	6.09	Peak	100	314
6	11650.00	47.51	54.00	-6.49	33.89	13.62	Average	100	73
7	11650.00	58.49	74.00	-15.51	44.87	13.62	Peak	100	73
8	17475.00	65.20	68.20	-3.00	47.30	17.90	Peak	100	69

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Vertical		

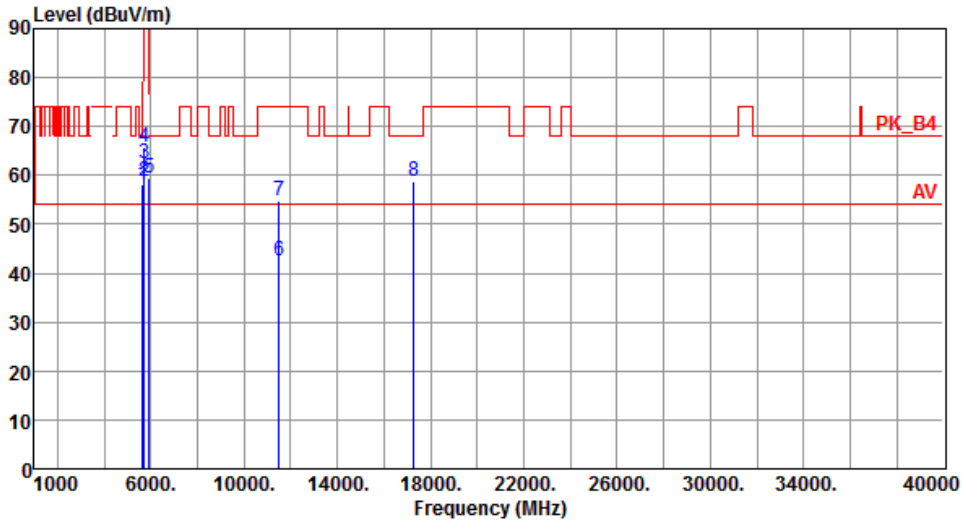


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.62	68.20	-10.58	52.65	4.97	Peak	230	185
2	5850.00	73.03	122.20	-49.17	67.22	5.81	Peak	230	185
3	5855.00	71.18	110.80	-39.62	65.35	5.83	Peak	230	185
4	5875.00	59.78	105.20	-45.42	53.88	5.90	Peak	230	185
5	5925.00	59.98	68.20	-8.22	53.89	6.09	Peak	230	185
6	11650.00	44.42	54.00	-9.58	30.80	13.62	Average	123	311
7	11650.00	56.51	74.00	-17.49	42.89	13.62	Peak	123	311
8	17475.00	61.50	68.20	-6.70	43.60	17.90	Peak	280	48

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.10 Transmitter Spurious Emissions (Above 1GHz) for HT40

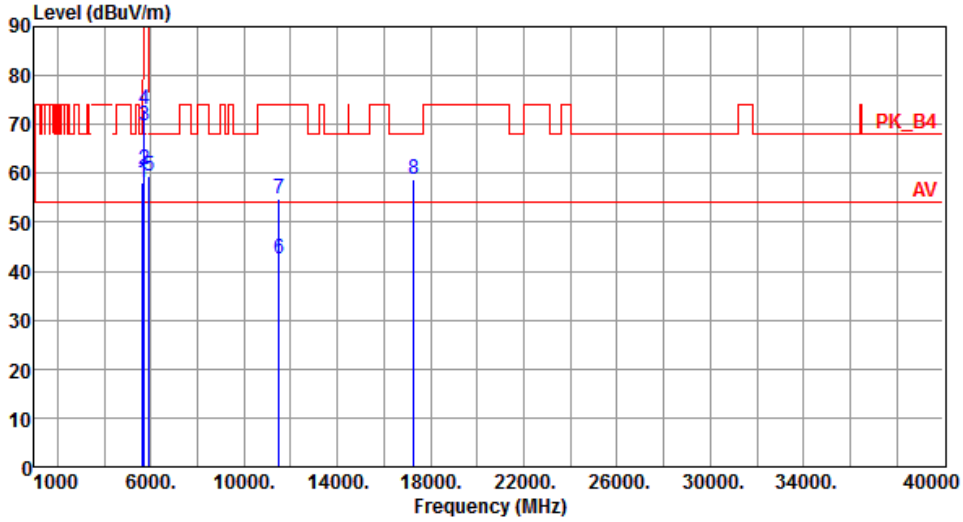
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.23	68.20	-9.97	53.26	4.97	Peak	110	314
2	5700.00	58.72	105.20	-46.48	53.56	5.16	Peak	110	314
3	5720.00	62.44	110.80	-48.36	57.21	5.23	Peak	110	314
4	5725.00	65.84	122.20	-56.36	60.59	5.25	Peak	110	314
5	5925.00	59.35	68.20	-8.85	53.26	6.09	Peak	110	314
6	11510.00	42.53	54.00	-11.47	28.42	14.11	Average	100	30
7	11510.00	54.80	74.00	-19.20	40.69	14.11	Peak	100	30
8	17265.00	58.92	68.20	-9.28	41.61	17.31	Peak	100	90

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

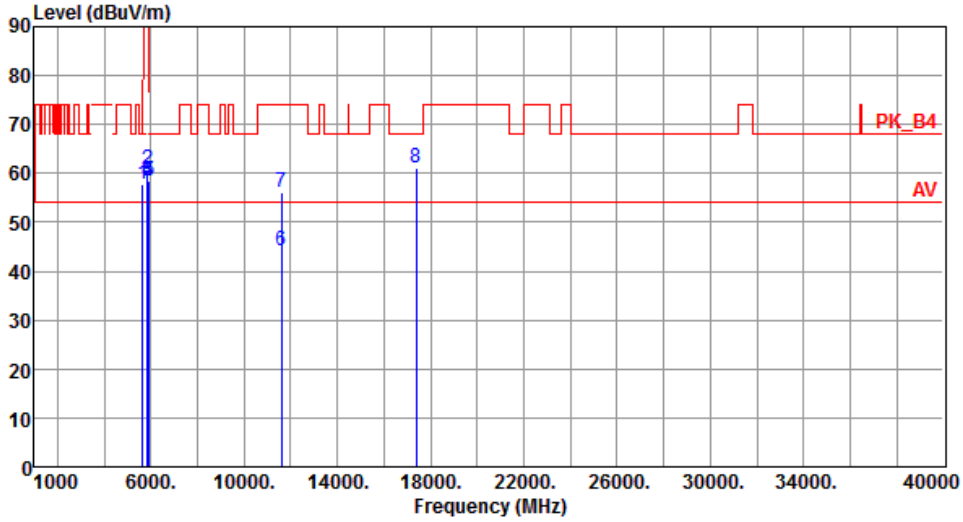
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.12	68.20	-10.08	53.15	4.97	Peak	149	189
2	5700.00	60.79	105.20	-44.41	55.63	5.16	Peak	149	189
3	5720.00	69.82	110.80	-40.98	64.59	5.23	Peak	149	189
4	5725.00	72.93	122.20	-49.27	67.68	5.25	Peak	149	189
5	5925.00	59.40	68.20	-8.80	53.31	6.09	Peak	149	189
6	11510.00	42.47	54.00	-11.53	28.36	14.11	Average	100	60
7	11510.00	54.70	74.00	-19.30	40.59	14.11	Peak	100	60
8	17265.00	58.86	68.20	-9.34	41.55	17.31	Peak	100	50

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

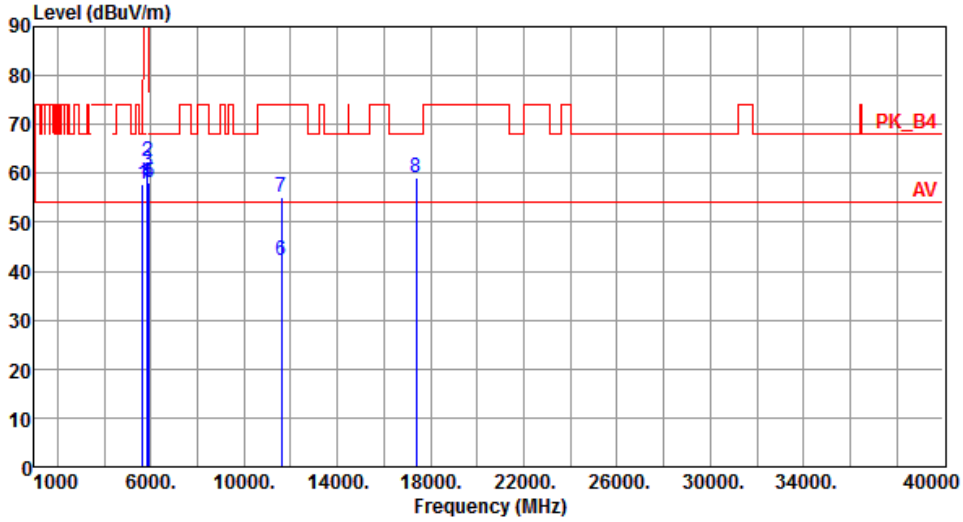
Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.66	68.20	-10.54	52.69	4.97	Peak	100	314
2	5850.00	60.94	122.20	-61.26	55.13	5.81	Peak	100	314
3	5855.00	58.29	110.80	-52.51	52.46	5.83	Peak	100	314
4	5875.00	58.37	105.20	-46.83	52.47	5.90	Peak	100	314
5	5925.00	58.33	68.20	-9.87	52.24	6.09	Peak	100	314
6	11590.00	44.10	54.00	-9.90	30.21	13.89	Average	100	75
7	11590.00	56.23	74.00	-17.77	42.34	13.89	Peak	100	75
8	17385.00	61.01	68.20	-7.19	43.26	17.75	Peak	100	62

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.70	68.20	-10.50	52.73	4.97	Peak	162	183
2	5850.00	62.39	122.20	-59.81	56.58	5.81	Peak	162	183
3	5855.00	60.51	110.80	-50.29	54.68	5.83	Peak	162	183
4	5875.00	58.26	105.20	-46.94	52.36	5.90	Peak	162	183
5	5925.00	58.25	68.20	-9.95	52.16	6.09	Peak	162	183
6	11590.00	42.01	54.00	-11.99	28.12	13.89	Average	100	30
7	11590.00	55.12	74.00	-18.88	41.23	13.89	Peak	100	30
8	17385.00	59.05	68.20	-9.15	41.30	17.75	Peak	100	60

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

4 Receiver Test Results

4.1 Receiver Spurious Emissions

4.1.1 Limit of Receiver Spurious Emissions

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

Note: Limit is from NEW ZEALAND https://gazette.govt.nz/notice/id/2015-go694 Table2"

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

Note: Limit is from ETSI EN 301 893

Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

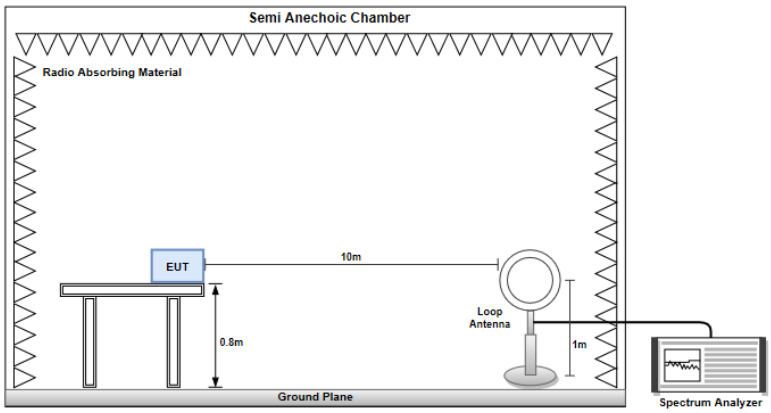
Note: Limit is from FCC Part 15.109

4.1.2 Test Procedures

Reference to clause 7.2.1 of AS/NZS 4268:2017.

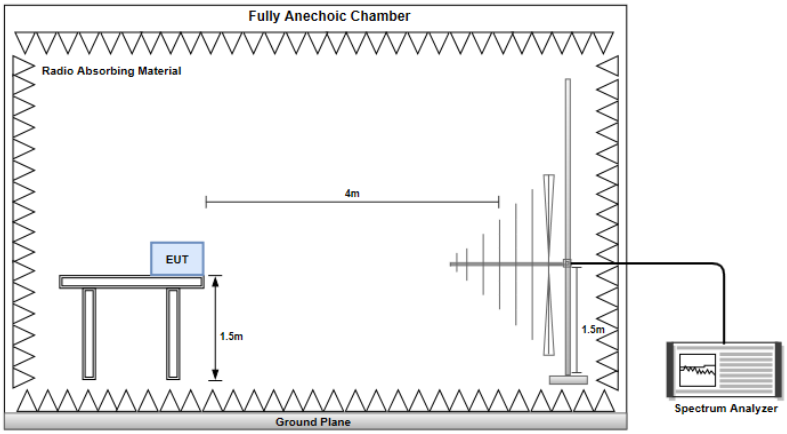
4.1.3 Test Setup

Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz / 5.725 - 5.850 GHz

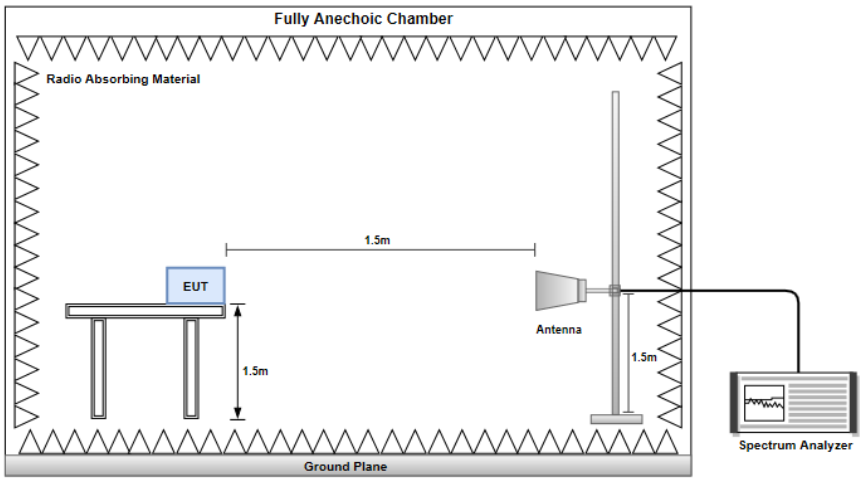
Below 30MHz


Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz

Below 1GHz

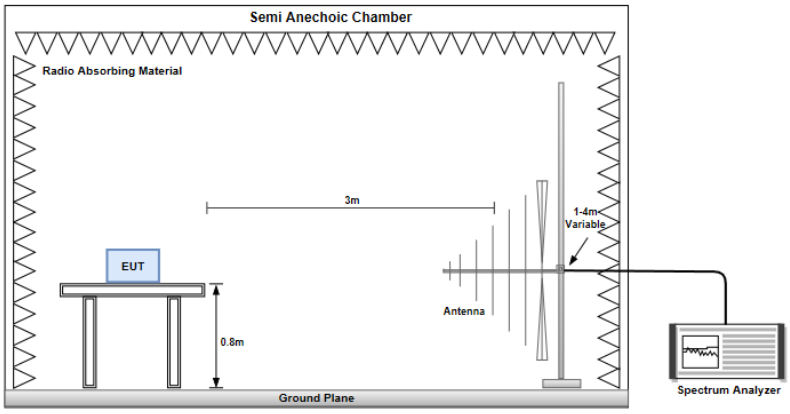


Above 1 GHz

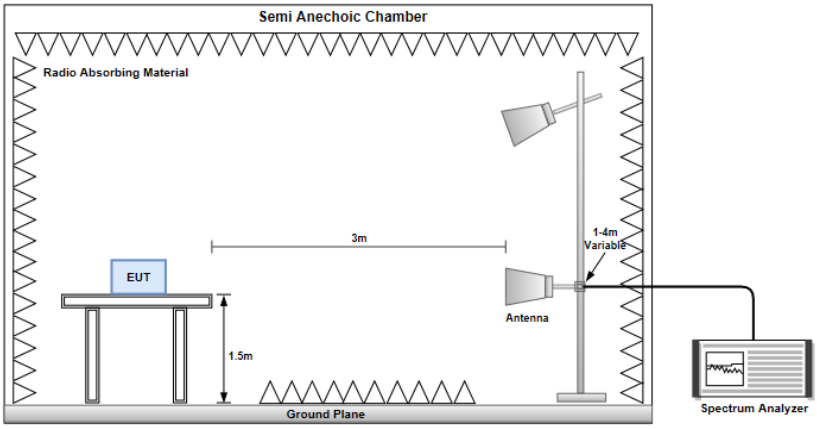


Operating Band: 5.725 - 5.850 GHz

Below 1GHz

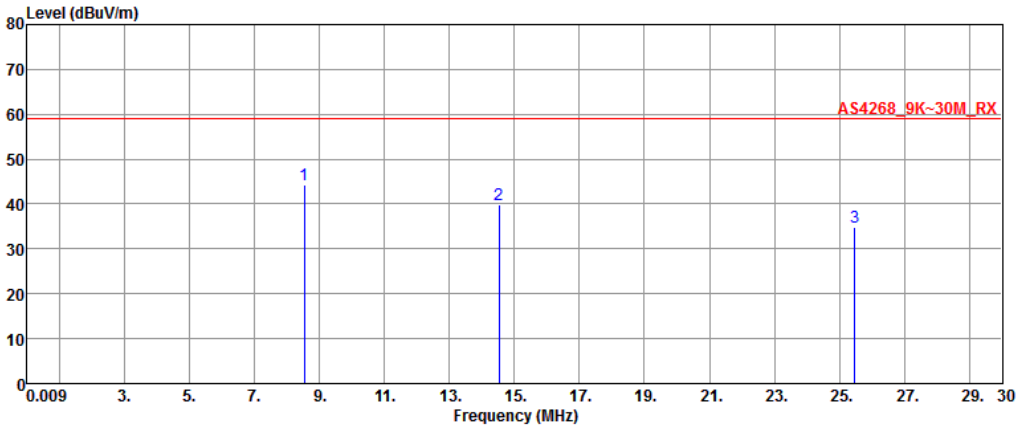


Above 1 GHz



4.1.4 Receiver Spurious Emissions (≤ 30MHz)

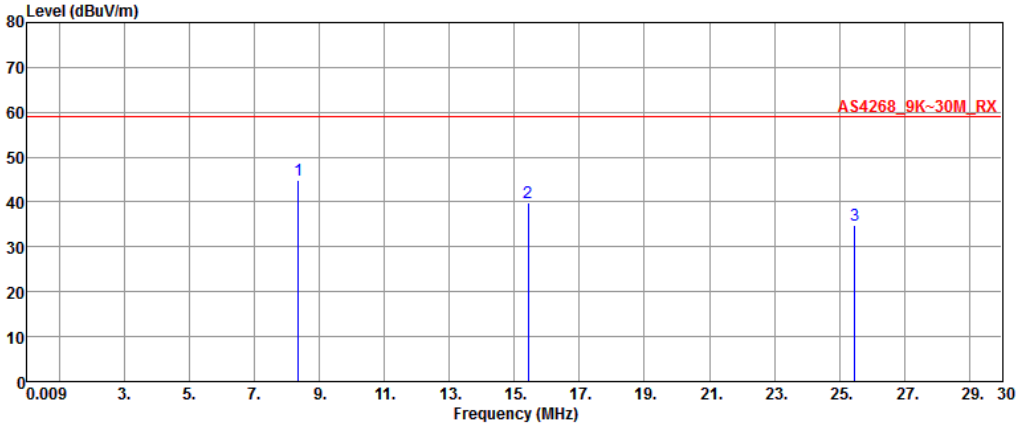
Modulation	11a	Test Freq. (MHz)	5180
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.54	44.37	59.00	-14.63	20.20	24.17
2	14.52	39.85	59.00	-19.15	21.12	18.73
3	25.46	34.75	59.00	-24.25	22.07	12.68

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

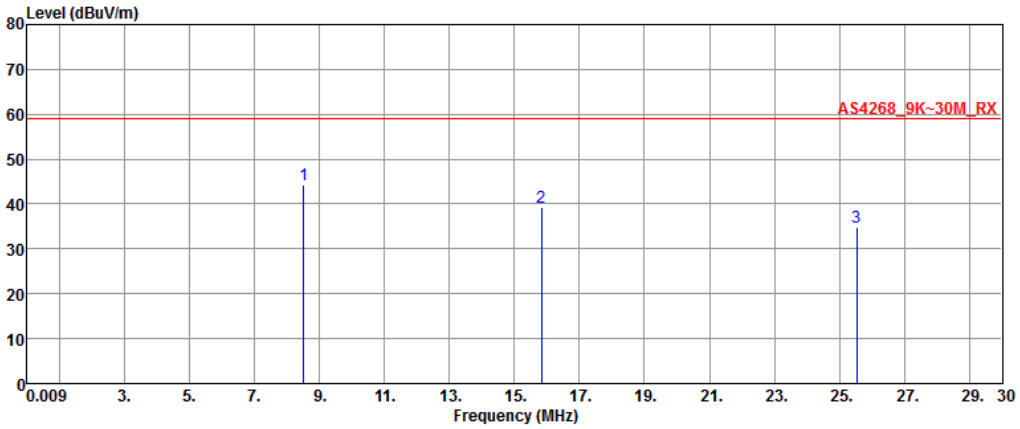
Modulation	11a	Test Freq. (MHz)	5700
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.34	44.84	59.00	-14.16	20.17	24.67
2	15.42	39.74	59.00	-19.26	21.25	18.49
3	25.46	34.86	59.00	-24.14	22.07	12.79

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

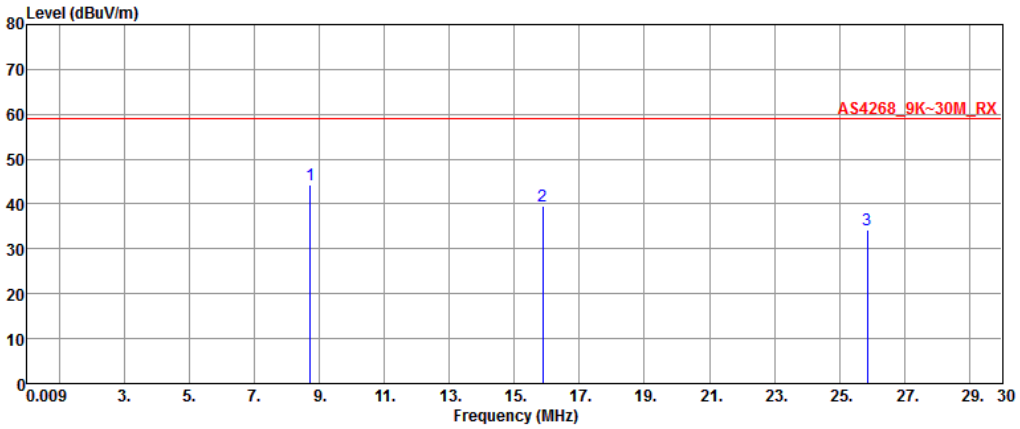
Modulation	11a	Test Freq. (MHz)	5745
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.51	44.29	59.00	-14.71	20.19	24.10
2	15.82	39.28	59.00	-19.72	21.31	17.97
3	25.54	34.70	59.00	-24.30	22.07	12.63

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

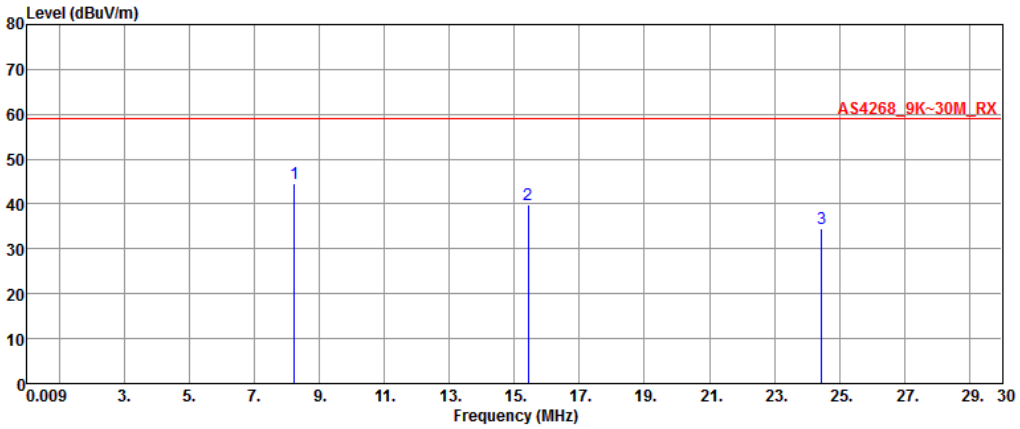
Modulation	11a	Test Freq. (MHz)	5785
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.72	44.24	59.00	-14.76	20.21	24.03
2	15.86	39.45	59.00	-19.55	21.31	18.14
3	25.85	34.12	59.00	-24.88	22.08	12.04

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

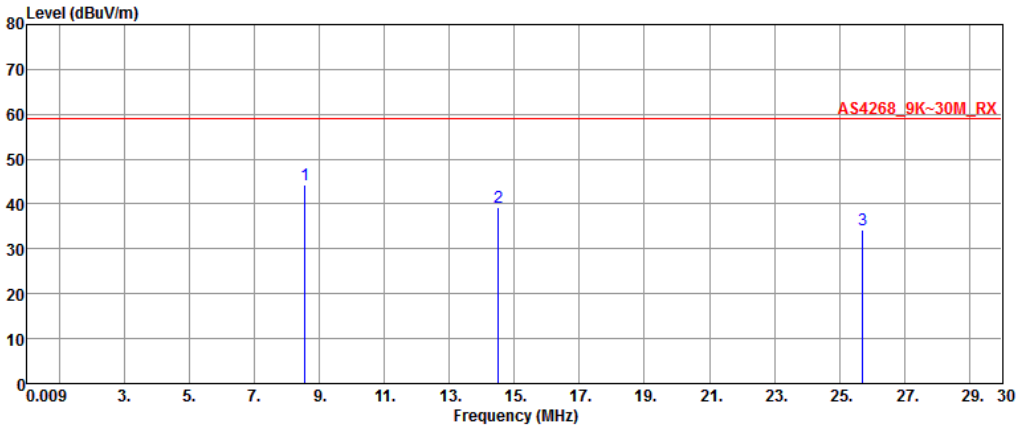
Modulation	11a	Test Freq. (MHz)	5825
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.23	44.69	59.00	-14.31	20.16	24.53
2	15.43	39.85	59.00	-19.15	21.25	18.60
3	24.44	34.52	59.00	-24.48	22.02	12.50

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

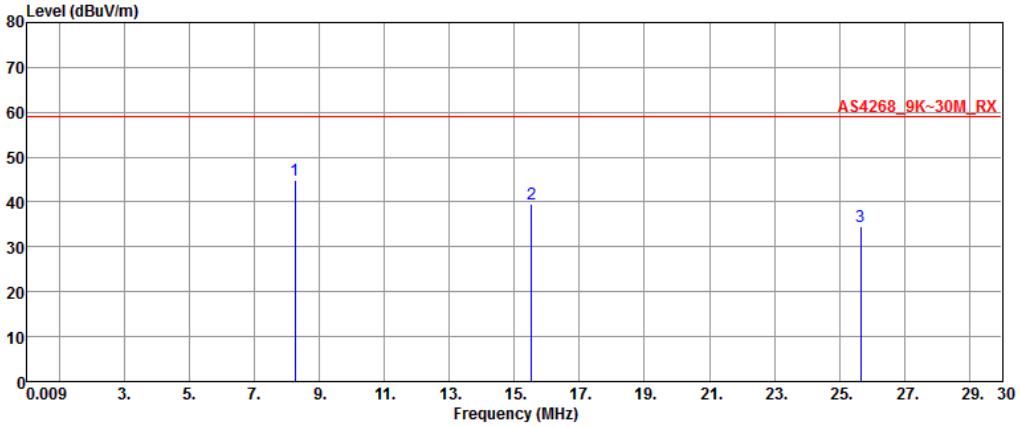
Modulation	HT20	Test Freq. (MHz)	5180
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.54	44.42	59.00	-14.58	20.20	24.22
2	14.51	39.36	59.00	-19.64	21.12	18.24
3	25.72	34.15	59.00	-24.85	22.08	12.07

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

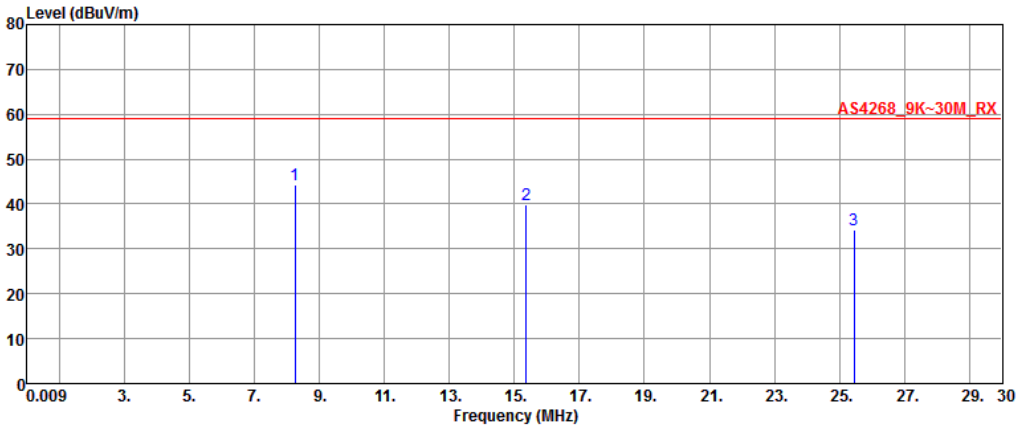
Modulation	HT20	Test Freq. (MHz)	5700
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.24	44.85	59.00	-14.15	20.16	24.69
2	15.52	39.55	59.00	-19.45	21.26	18.29
3	25.65	34.55	59.00	-24.45	22.08	12.47

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

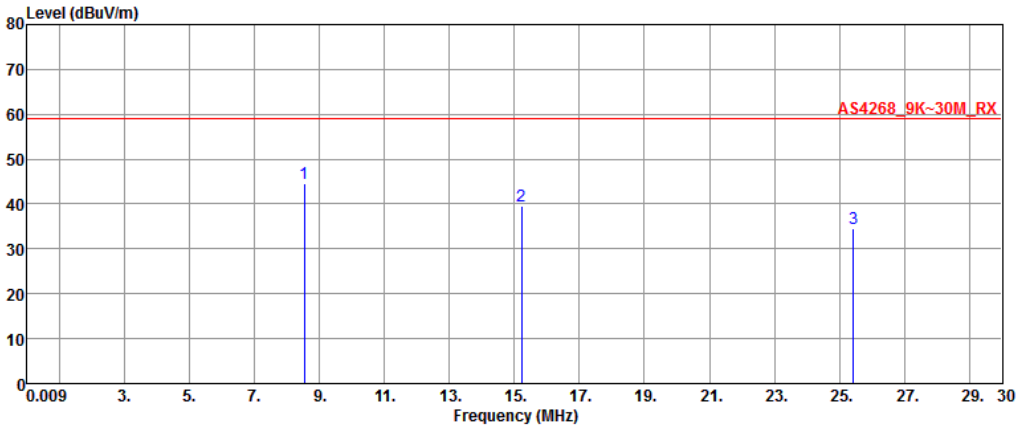
Modulation	HT20	Test Freq. (MHz)	5745
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.25	44.35	59.00	-14.65	20.16	24.19
2	15.36	39.84	59.00	-19.16	21.24	18.60
3	25.45	34.22	59.00	-24.78	22.07	12.15

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

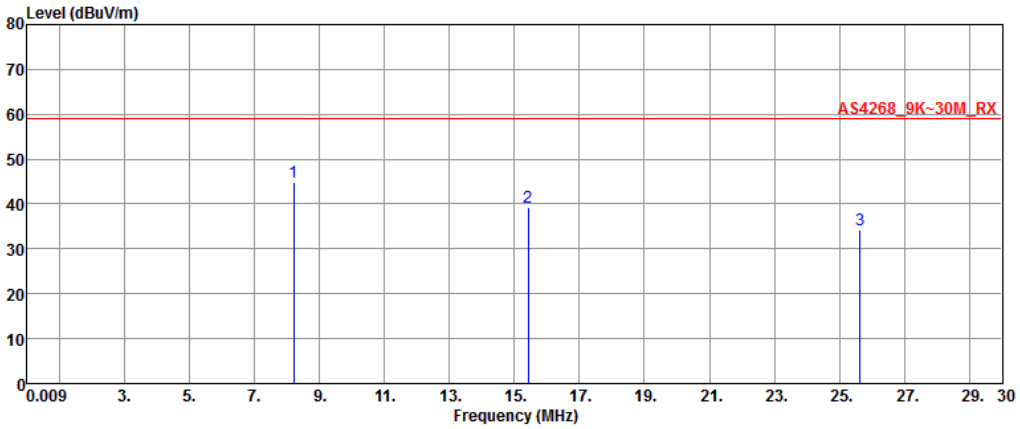
Modulation	HT20	Test Freq. (MHz)	5785
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.52	44.45	59.00	-14.55	20.19	24.26
2	15.22	39.65	59.00	-19.35	21.22	18.43
3	25.43	34.58	59.00	-24.42	22.07	12.51

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

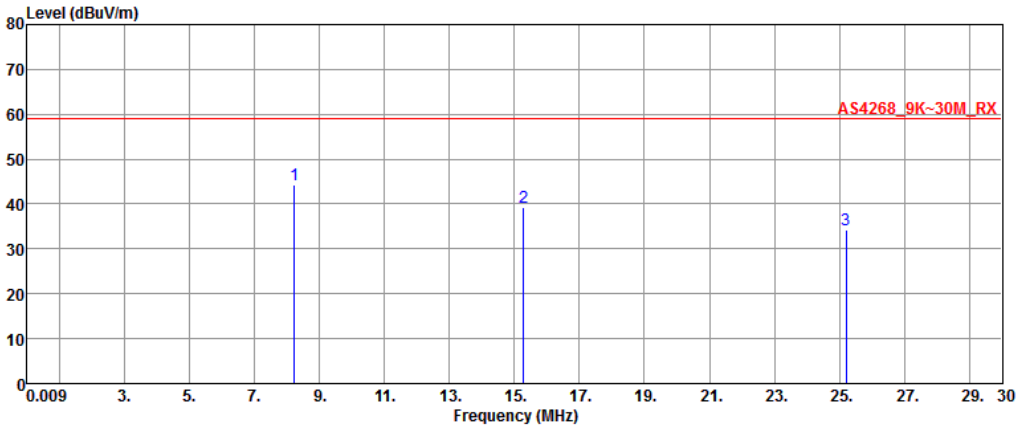
Modulation	HT20	Test Freq. (MHz)	5825
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.21	44.83	59.00	-14.17	20.16	24.67
2	15.42	39.35	59.00	-19.65	21.24	18.11
3	25.64	34.22	59.00	-24.78	22.07	12.15

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

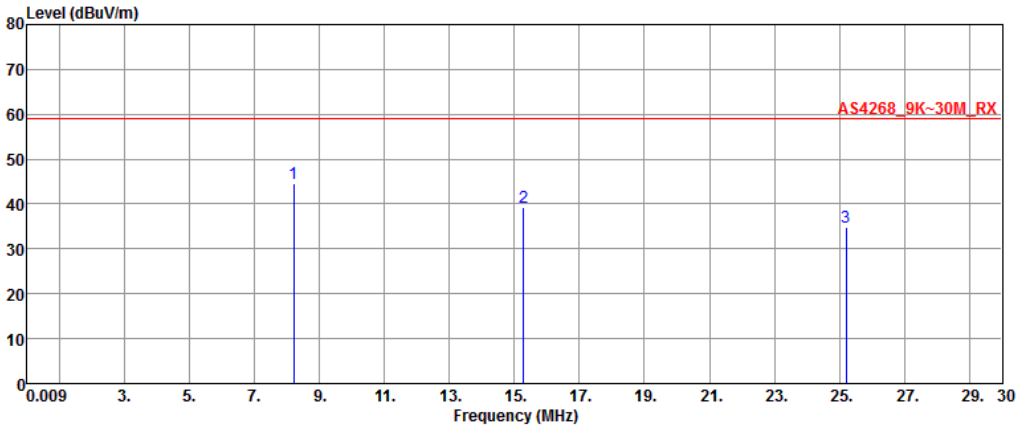
Modulation	HT40	Test Freq. (MHz)	5190
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.22	44.35	59.00	-14.65	20.16	24.19
2	15.28	39.13	59.00	-19.87	21.23	17.90
3	25.21	34.32	59.00	-24.68	22.05	12.27

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

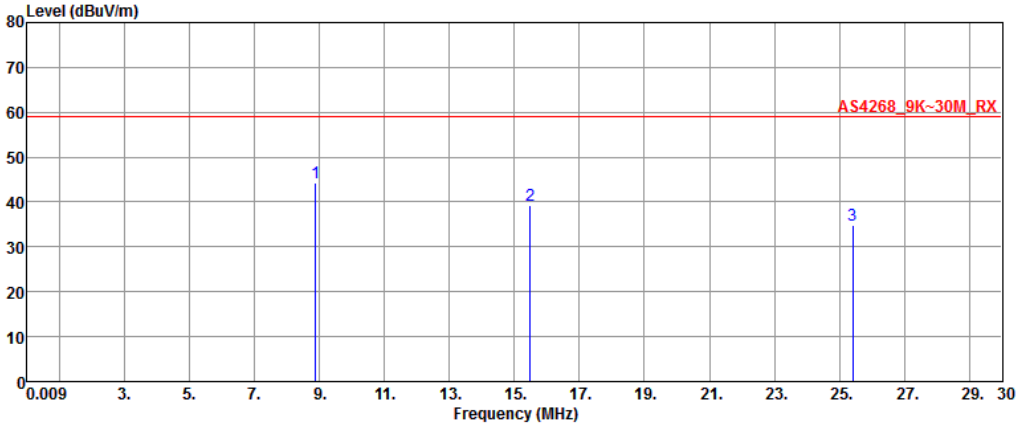
Modulation	HT40	Test Freq. (MHz)	5670
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.21	44.64	59.00	-14.36	20.16	24.48
2	15.28	39.22	59.00	-19.78	21.23	17.99
3	25.21	34.92	59.00	-24.08	22.05	12.87

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

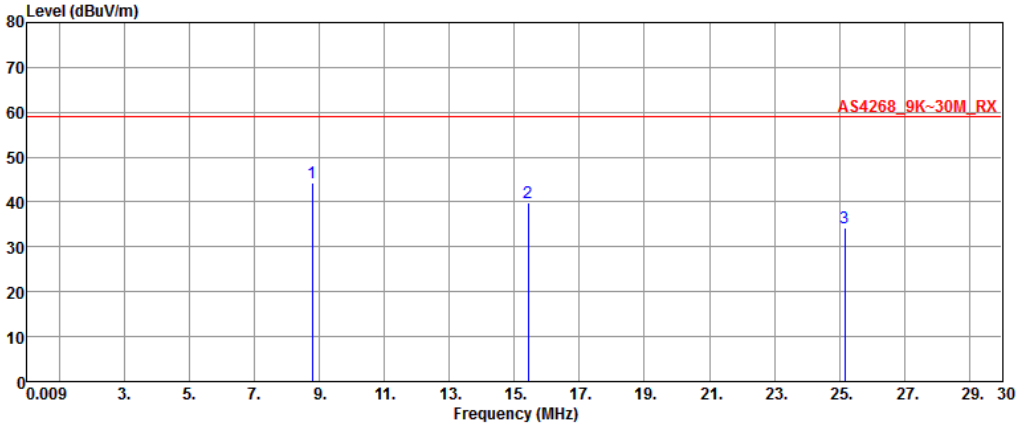
Modulation	HT40	Test Freq. (MHz)	5755
Frequency	9kHz~30MHz	Loop	open



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.88	44.25	59.00	-14.75	20.22	24.03
2	15.48	39.22	59.00	-19.78	21.25	17.97
3	25.41	34.82	59.00	-24.18	22.07	12.75

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

Modulation	HT40	Test Freq. (MHz)	5795
Frequency	9kHz~30MHz	Loop	open

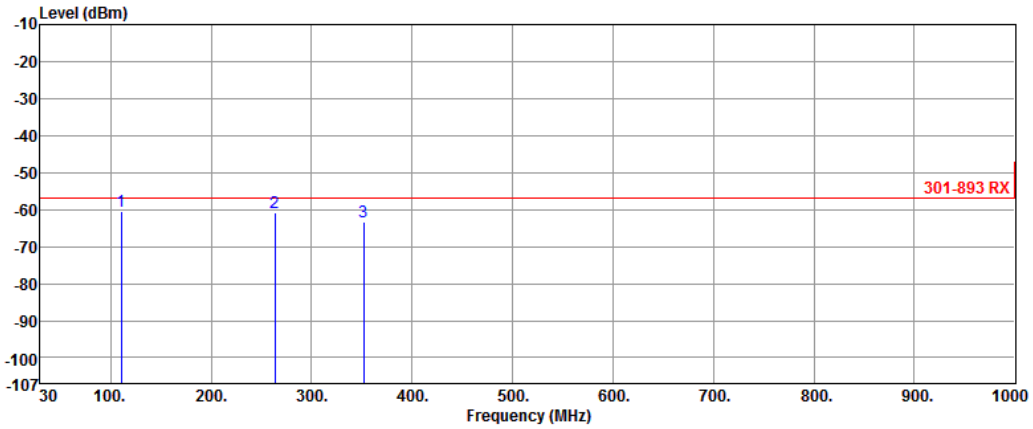


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBuV/m	dBuV/m	dB	dB	dBuV
1	8.79	44.41	59.00	-14.59	20.22	24.19
2	15.42	39.98	59.00	-19.02	21.24	18.74
3	25.16	34.32	59.00	-24.68	22.05	12.27

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

4.1.5 Receiver Spurious Emissions (Below 1GHz)

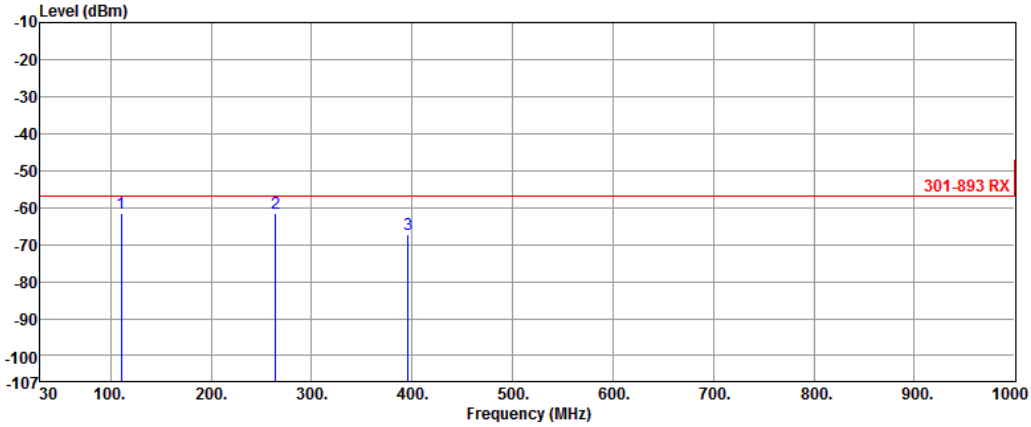
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.79	-60.54	-57.00	-3.54	-5.20	-55.34
2	263.77	-60.98	-57.00	-3.98	-2.55	-58.43
3	352.00	-63.50	-57.00	-6.50	-0.25	-63.25

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

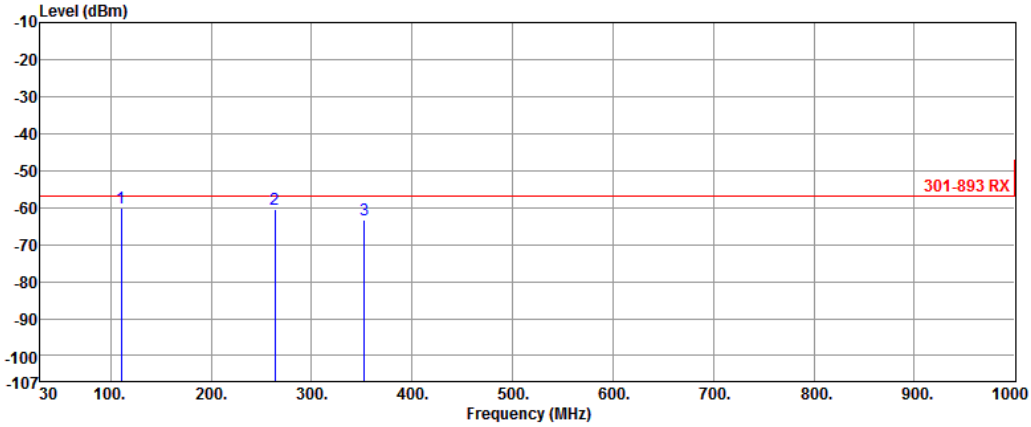
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.57	-61.42	-57.00	-4.42	-3.94	-57.48
2	264.00	-61.61	-57.00	-4.61	-2.76	-58.85
3	396.00	-67.11	-57.00	-10.11	1.14	-68.25

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

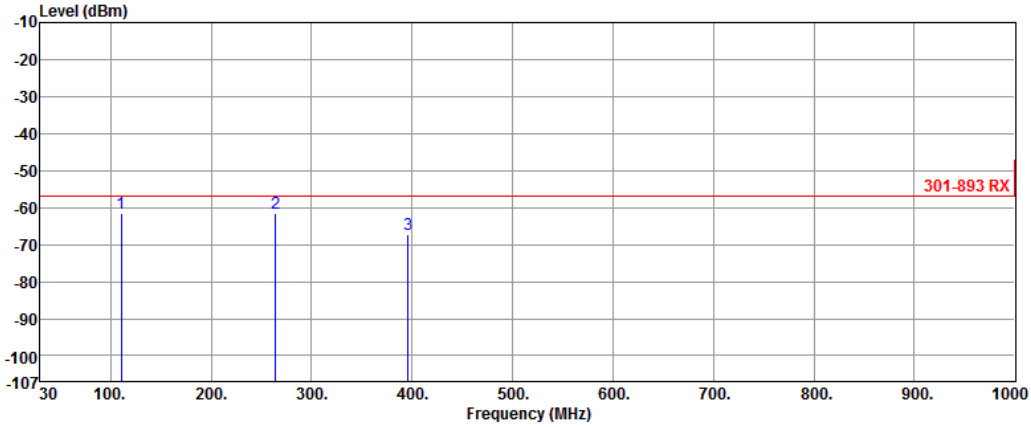
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.64	-60.27	-57.00	-3.27	-5.22	-55.05
2	263.56	-60.42	-57.00	-3.42	-2.57	-57.85
3	352.15	-63.25	-57.00	-6.25	-0.25	-63.00

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

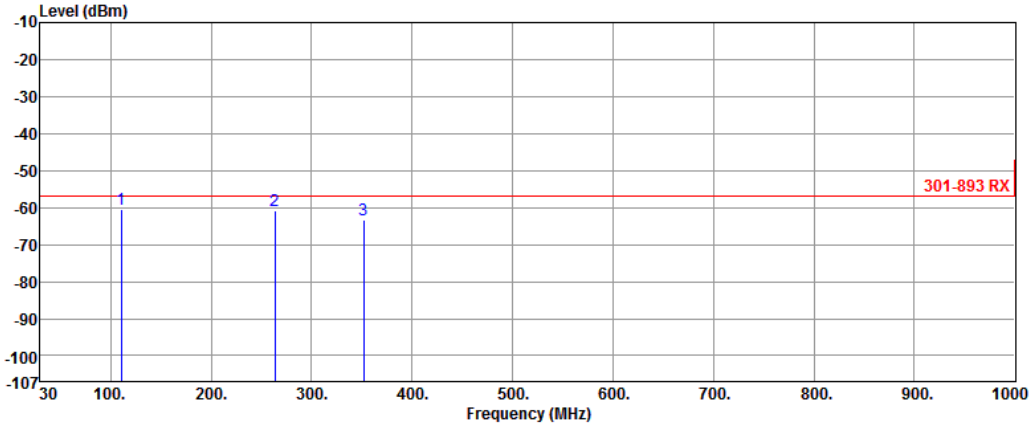
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.46	-61.59	-57.00	-4.59	-3.97	-57.62
2	263.97	-61.42	-57.00	-4.42	-2.76	-58.66
3	396.13	-67.28	-57.00	-10.28	1.14	-68.42

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

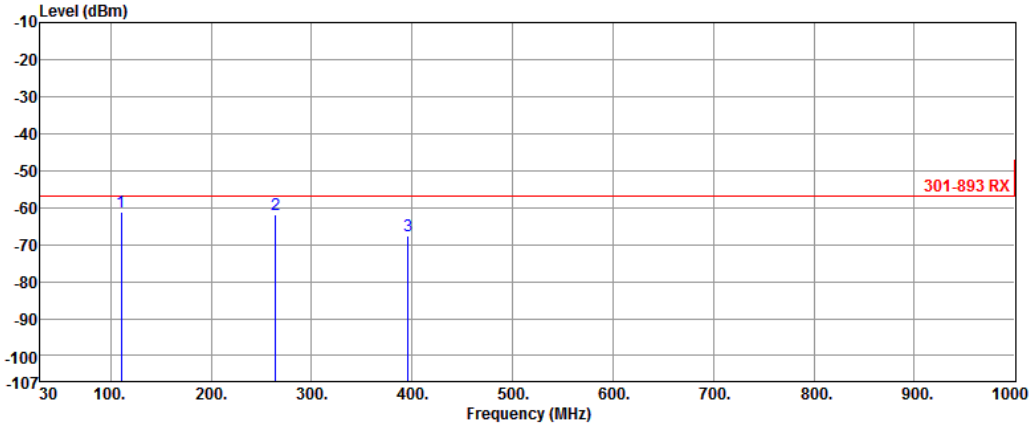
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.66	-60.29	-57.00	-3.29	-5.22	-55.07
2	263.32	-60.82	-57.00	-3.82	-2.59	-58.23
3	351.97	-63.28	-57.00	-6.28	-0.25	-63.03

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

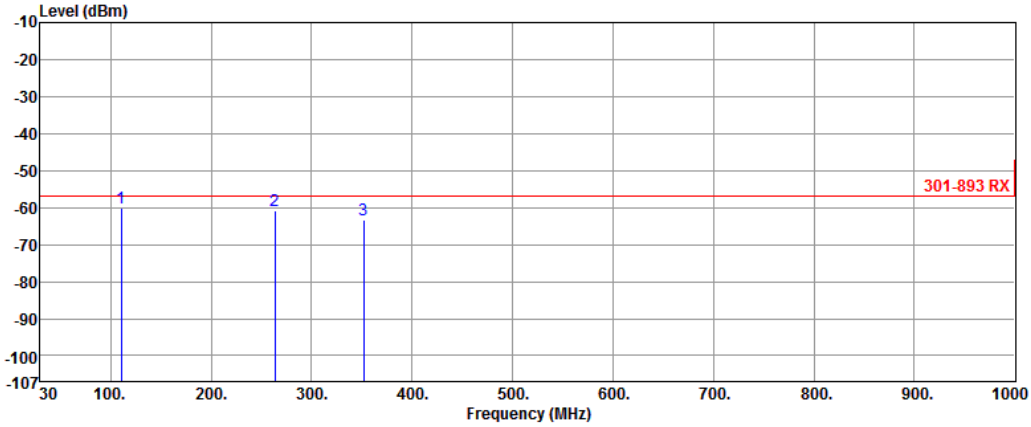
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.42	-61.22	-57.00	-4.22	-3.98	-57.24
2	263.86	-61.93	-57.00	-4.93	-2.76	-59.17
3	396.06	-67.46	-57.00	-10.46	1.14	-68.60

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

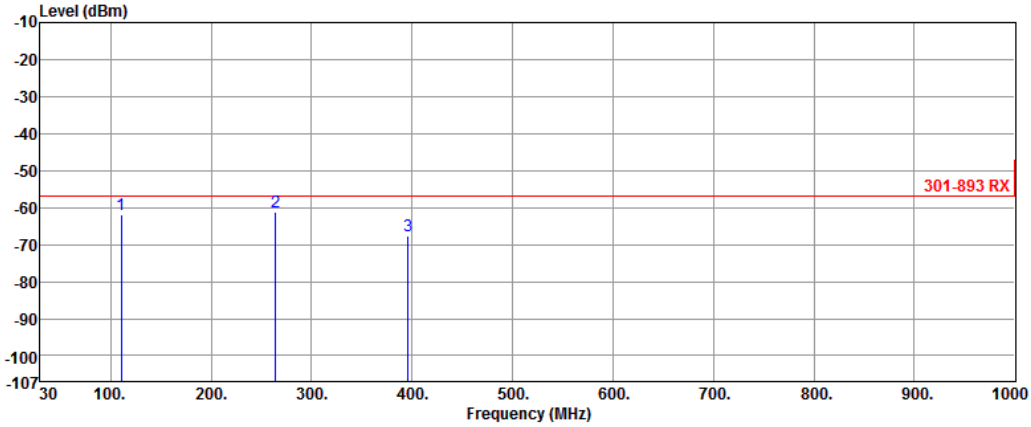
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.56	-60.21	-57.00	-3.21	-5.23	-54.98
2	263.58	-60.69	-57.00	-3.69	-2.57	-58.12
3	352.05	-63.35	-57.00	-6.35	-0.25	-63.10

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

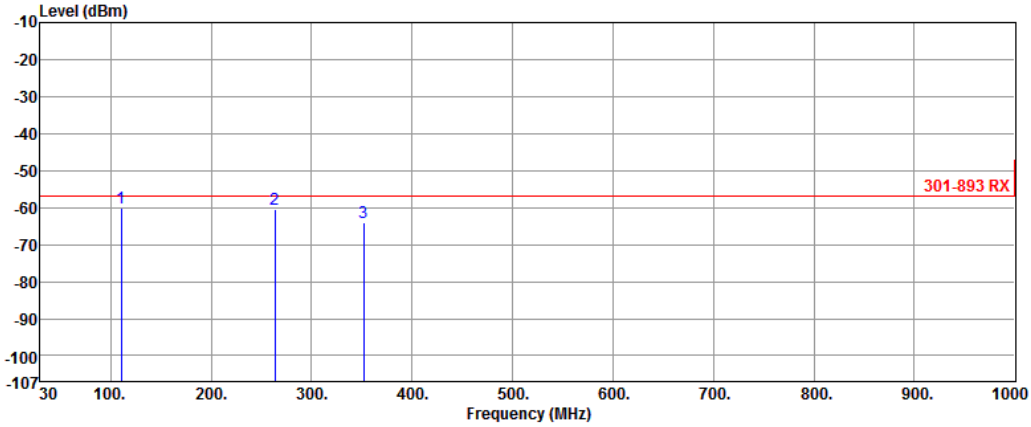
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.18	-61.92	-57.00	-4.92	-4.04	-57.88
2	263.89	-61.35	-57.00	-4.35	-2.76	-58.59
3	396.21	-67.55	-57.00	-10.55	1.14	-68.69

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

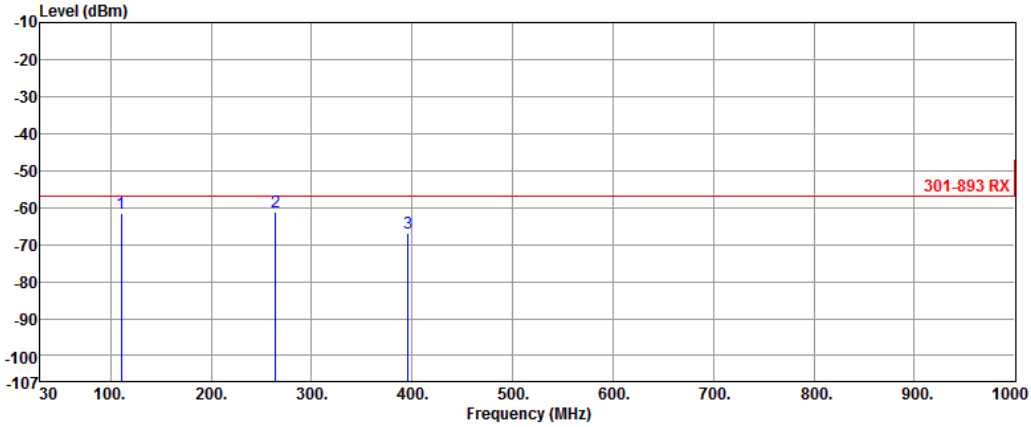
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.37	-60.28	-57.00	-3.28	-5.26	-55.02
2	263.49	-60.36	-57.00	-3.36	-2.57	-57.79
3	351.98	-63.88	-57.00	-6.88	-0.25	-63.63

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

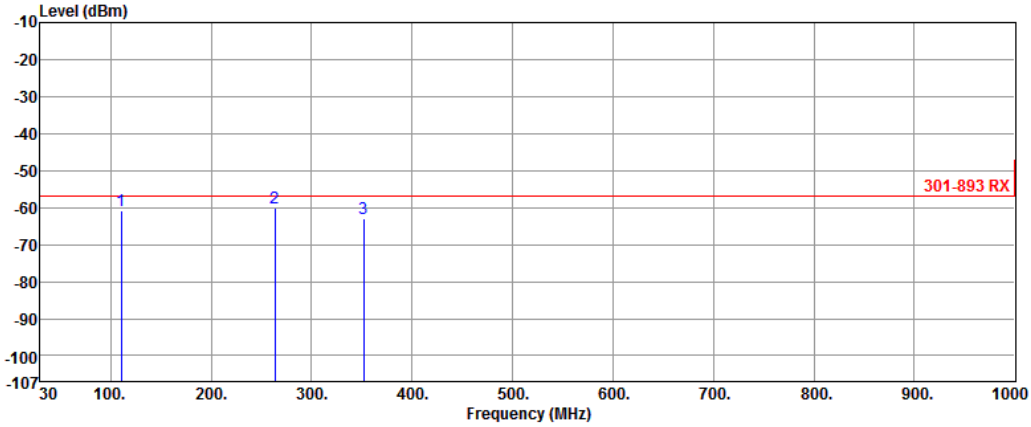
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.69	-61.66	-57.00	-4.66	-3.91	-57.75
2	263.96	-61.15	-57.00	-4.15	-2.76	-58.39
3	396.11	-67.02	-57.00	-10.02	1.14	-68.16

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

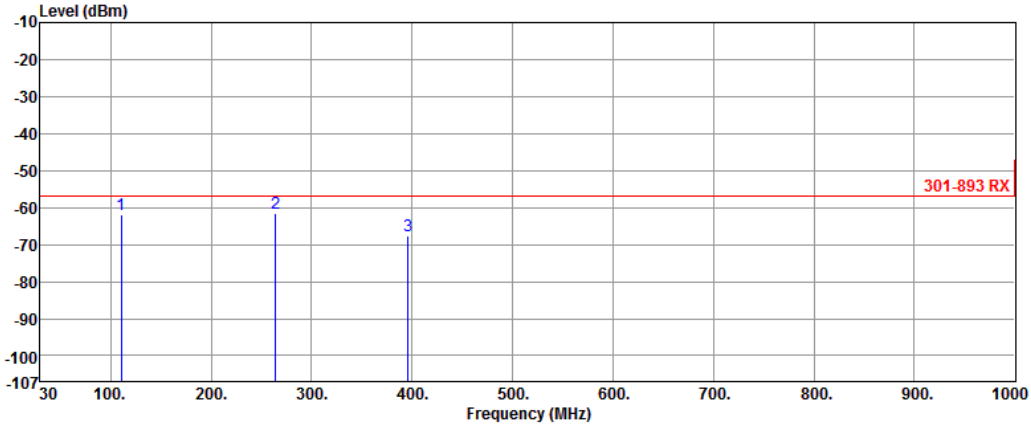
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.27	-60.93	-57.00	-3.93	-5.27	-55.66
2	263.35	-60.22	-57.00	-3.22	-2.58	-57.64
3	352.04	-63.15	-57.00	-6.15	-0.25	-62.90

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

Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		

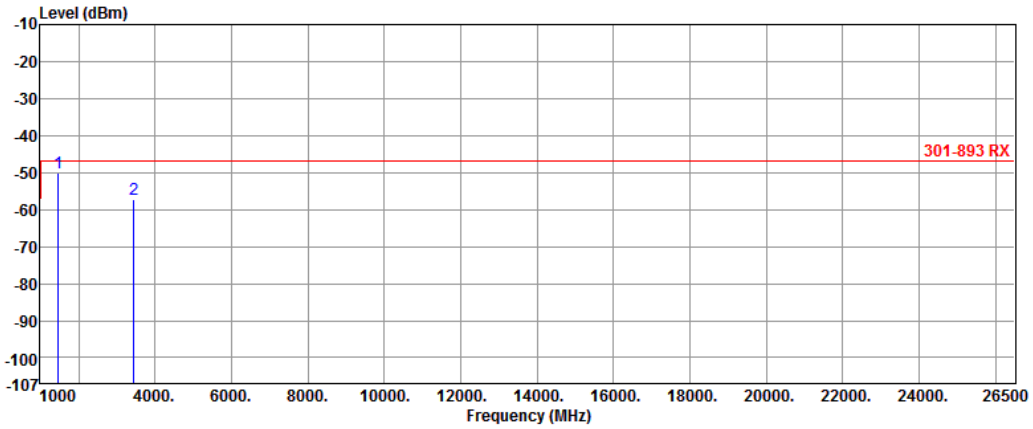


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	110.42	-61.78	-57.00	-4.78	-3.98	-57.80
2	263.91	-61.47	-57.00	-4.47	-2.76	-58.71
3	396.06	-67.50	-57.00	-10.50	1.14	-68.64

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

4.1.6 Receiver Spurious Emissions (Above 1GHz)

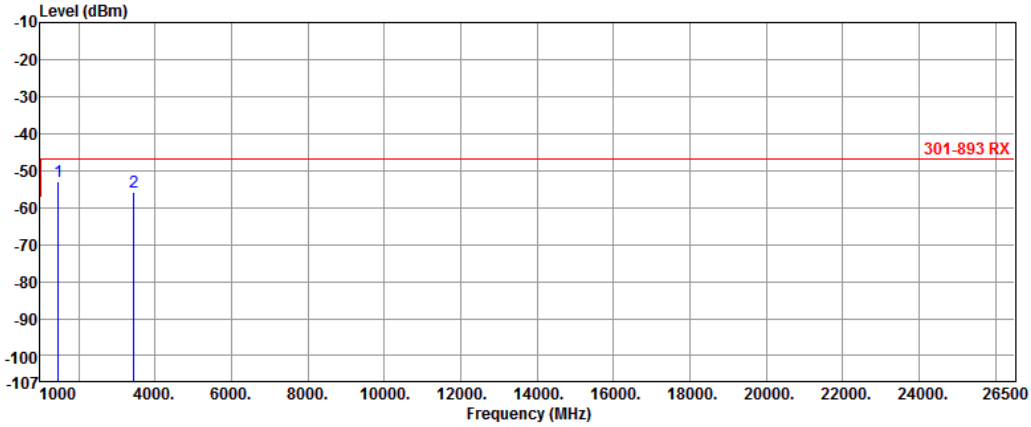
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.11	-49.99	-47.00	-2.99	-0.35	-49.64
2	3453.20	-57.15	-47.00	-10.15	5.23	-62.38

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

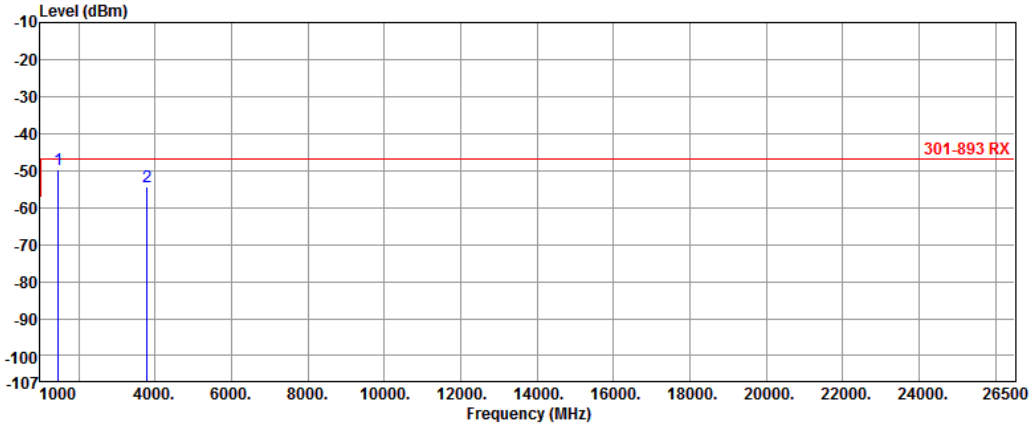
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.07	-52.96	-47.00	-5.96	-0.01	-52.95
2	3453.26	-55.86	-47.00	-8.86	5.34	-61.20

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

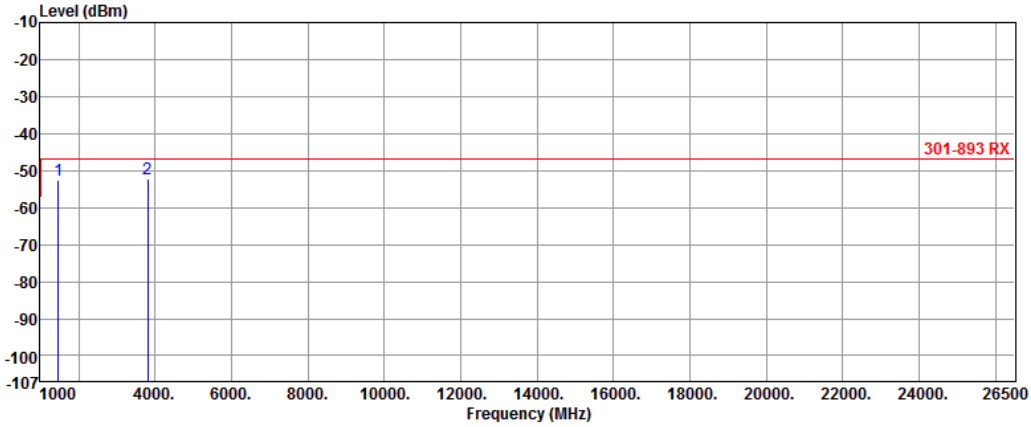
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.24	-49.68	-47.00	-2.68	-0.35	-49.33
2	3799.88	-54.54	-47.00	-7.54	7.07	-61.61

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

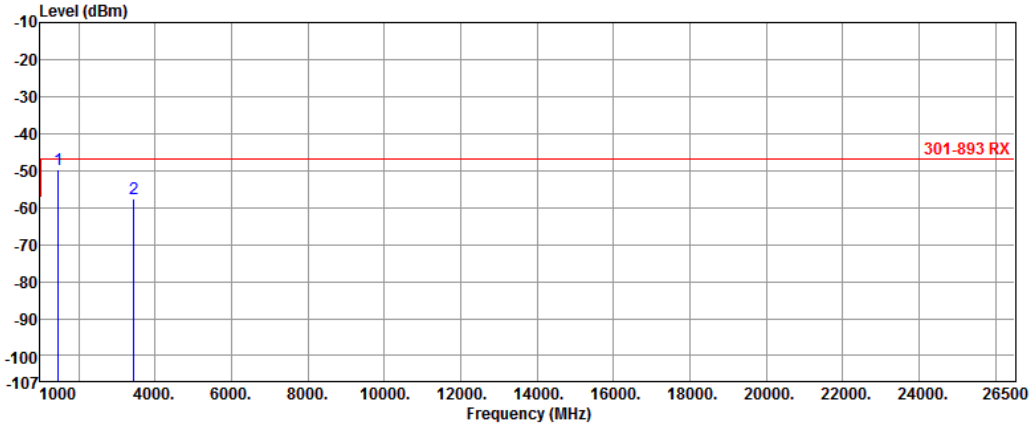
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.05	-52.76	-47.00	-5.76	-0.01	-52.75
2	3800.14	-52.12	-47.00	-5.12	7.45	-59.57

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

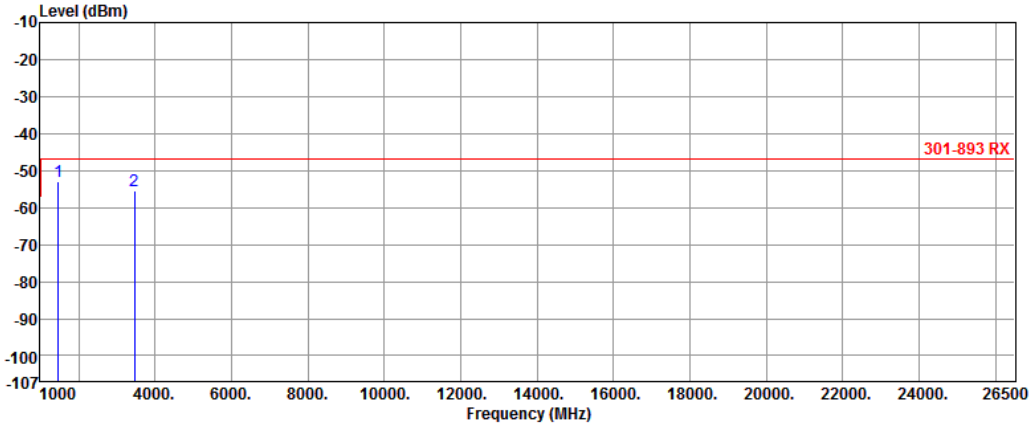
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.20	-49.56	-47.00	-2.56	-0.35	-49.21
2	3453.26	-57.49	-47.00	-10.49	5.23	-62.72

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

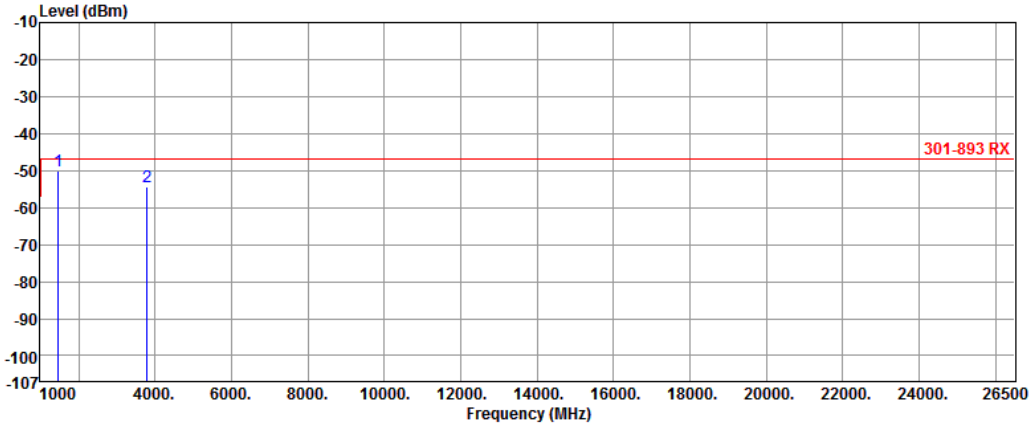
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.06	-52.82	-47.00	-5.82	-0.01	-52.81
2	3453.34	-55.34	-47.00	-8.34	5.34	-60.68

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

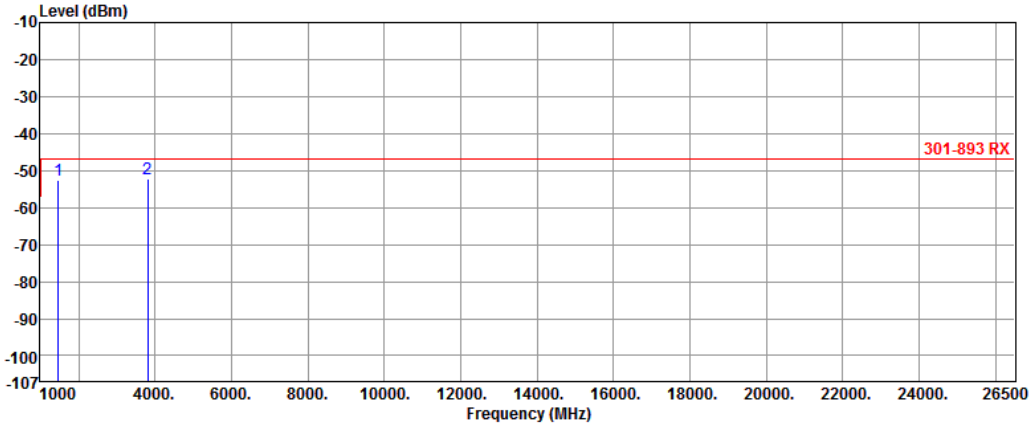
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.21	-49.95	-47.00	-2.95	-0.35	-49.60
2	3799.94	-54.27	-47.00	-7.27	7.07	-61.34

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

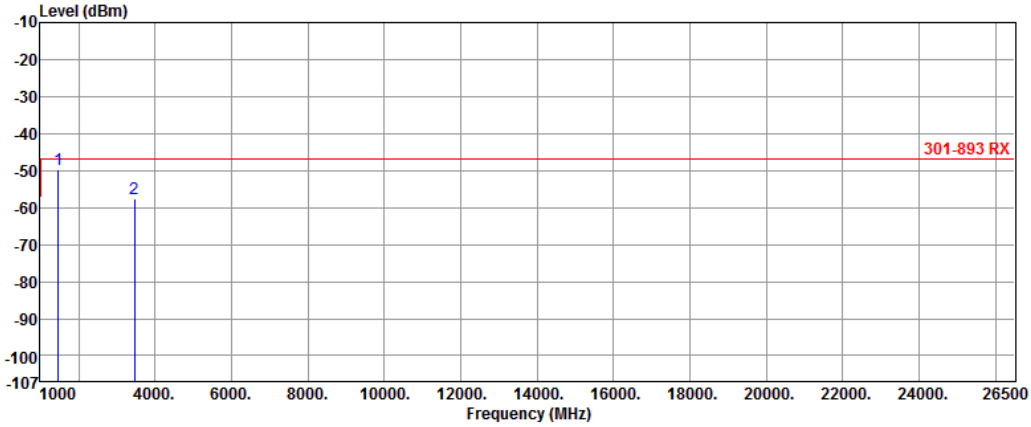
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.19	-52.63	-47.00	-5.63	-0.01	-52.62
2	3800.10	-52.28	-47.00	-5.28	7.45	-59.73

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

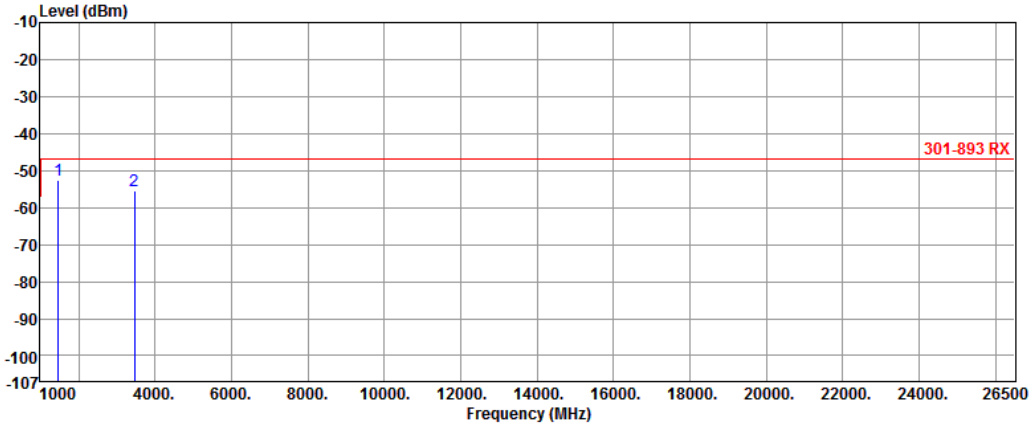
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.22	-49.84	-47.00	-2.84	-0.35	-49.49
2	3460.03	-57.44	-47.00	-10.44	5.31	-62.75

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

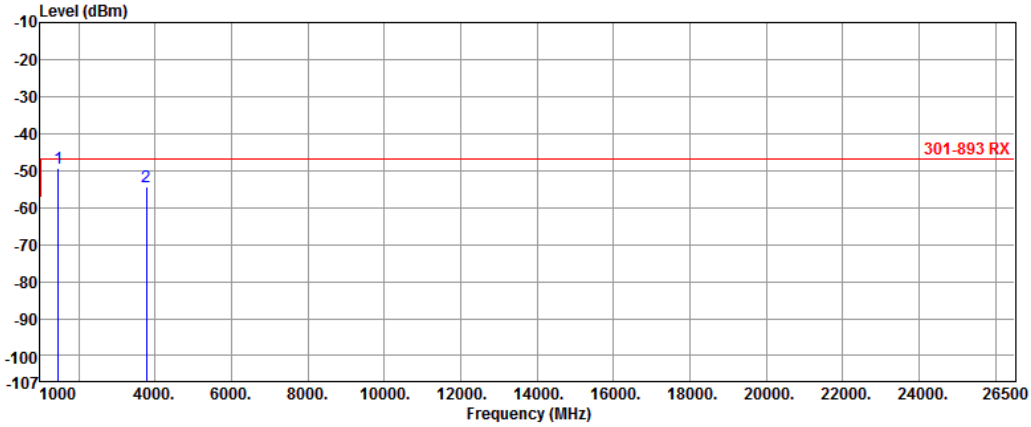
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.21	-52.75	-47.00	-5.75	-0.01	-52.74
2	3460.24	-55.51	-47.00	-8.51	5.42	-60.93

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

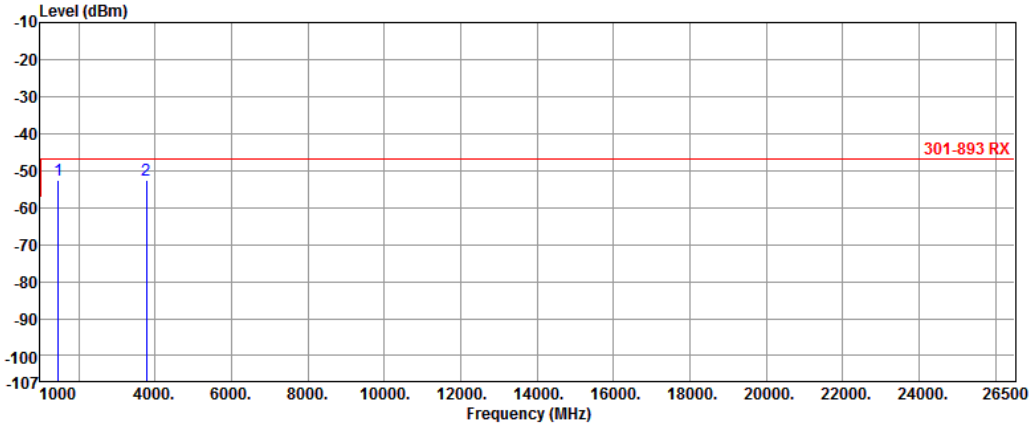
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.11	-49.36	-47.00	-2.36	-0.35	-49.01
2	3780.33	-54.29	-47.00	-7.29	7.07	-61.36

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

Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		

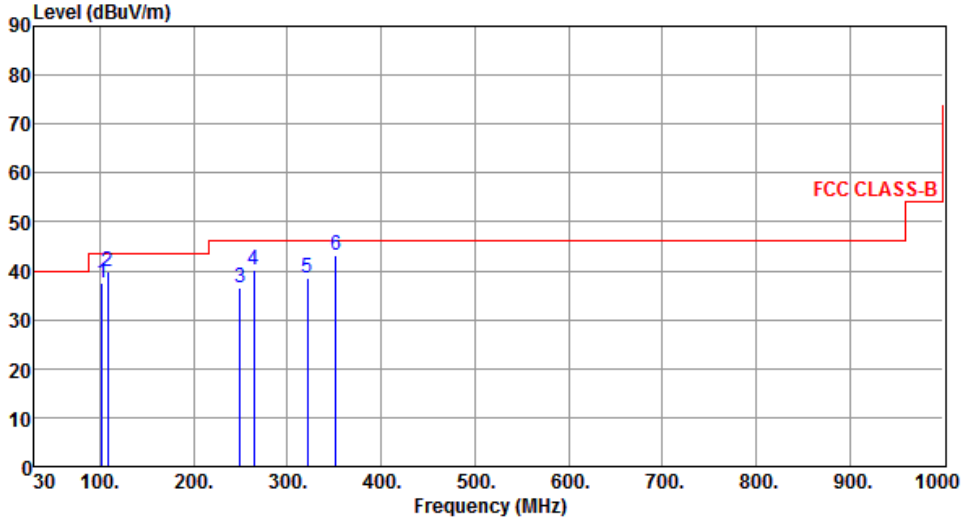


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	1463.03	-52.56	-47.00	-5.56	-0.01	-52.55
2	3780.05	-52.44	-47.00	-5.44	7.37	-59.81

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

4.1.7 Receiver Spurious Emissions (Below 1GHz)

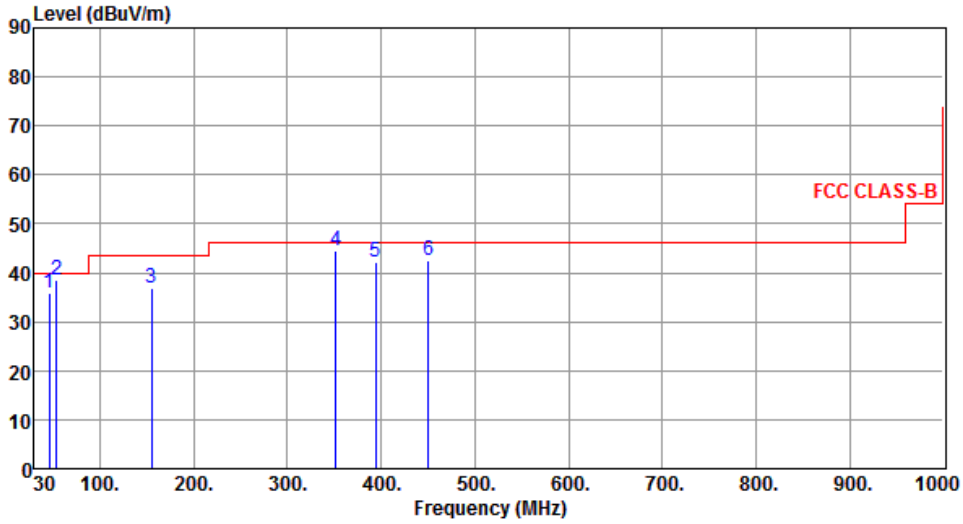
Modulation	11a	**Test Freq. (MHz)**	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	101.96	37.52	43.50	-5.98	50.09	-12.57	Peak	---	---
2	108.45	39.84	43.50	-3.66	51.50	-11.66	Peak	---	---
3	249.36	36.58	46.00	-9.42	45.96	-9.38	Peak	---	---
4	264.25	40.25	46.00	-5.75	49.09	-8.84	Peak	---	---
5	321.21	38.44	46.00	-7.56	45.66	-7.22	Peak	---	---
6	352.00	43.26	46.00	-2.74	49.67	-6.41	QP	100	157

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

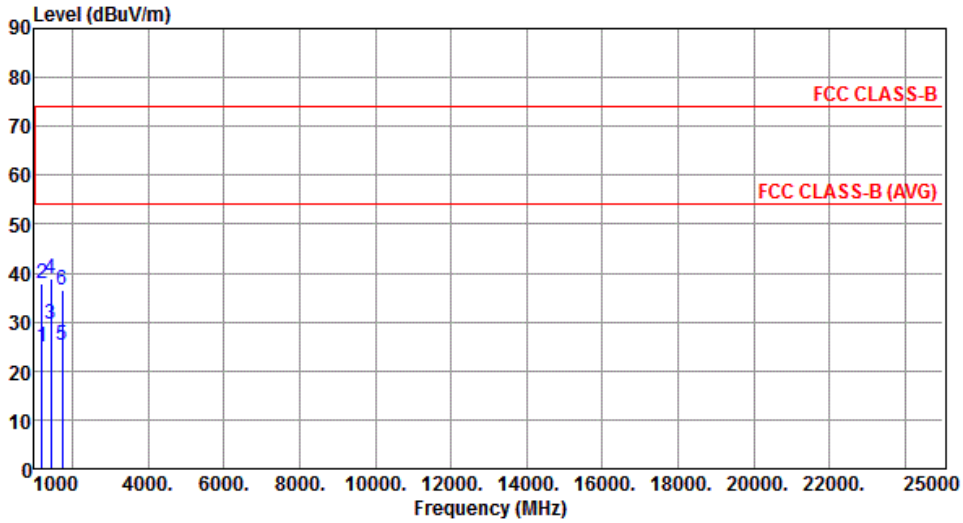


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.75	35.85	40.00	-4.15	43.61	-7.76	QP	100	356
2	53.74	38.63	40.00	-1.37	46.61	-7.98	QP	106	186
3	155.25	36.89	43.50	-6.61	45.14	-8.25	Peak	---	---
4	352.00	44.63	46.00	-1.37	51.04	-6.41	QP	150	63
5	394.58	42.27	46.00	-3.73	47.49	-5.22	Peak	---	---
6	450.25	42.52	46.00	-3.48	46.42	-3.90	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

4.1.8 Receiver Spurious Emissions (Above 1GHz)

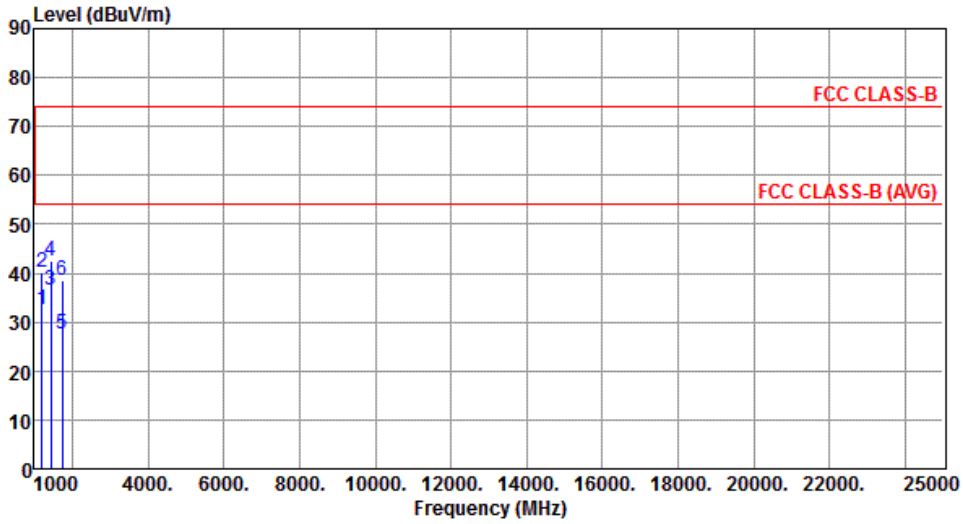
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1196.00	24.76	54.00	-29.24	33.27	-8.51	Average	100	30
2	1196.00	38.02	74.00	-35.98	46.53	-8.51	Peak	100	30
3	1440.00	29.54	54.00	-24.46	36.42	-6.88	Average	100	65
4	1440.00	38.98	74.00	-35.02	45.86	-6.88	Peak	100	65
5	1730.00	25.40	54.00	-28.60	32.23	-6.83	Average	100	50
6	1730.00	36.57	74.00	-37.43	43.40	-6.83	Peak	100	50

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

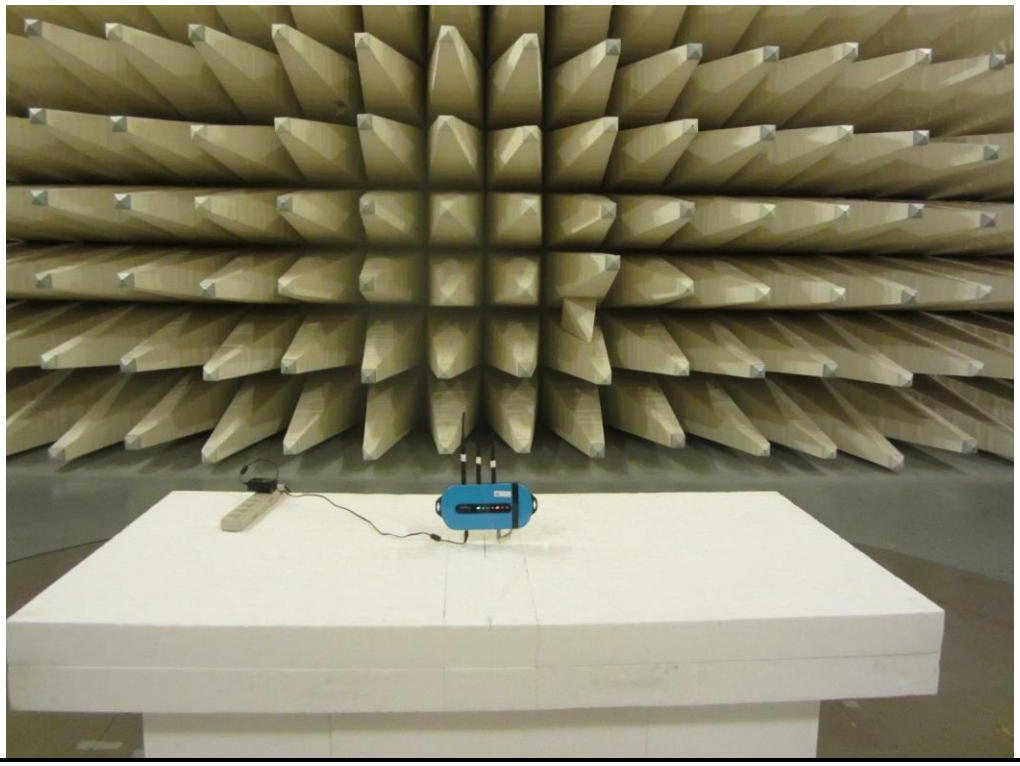


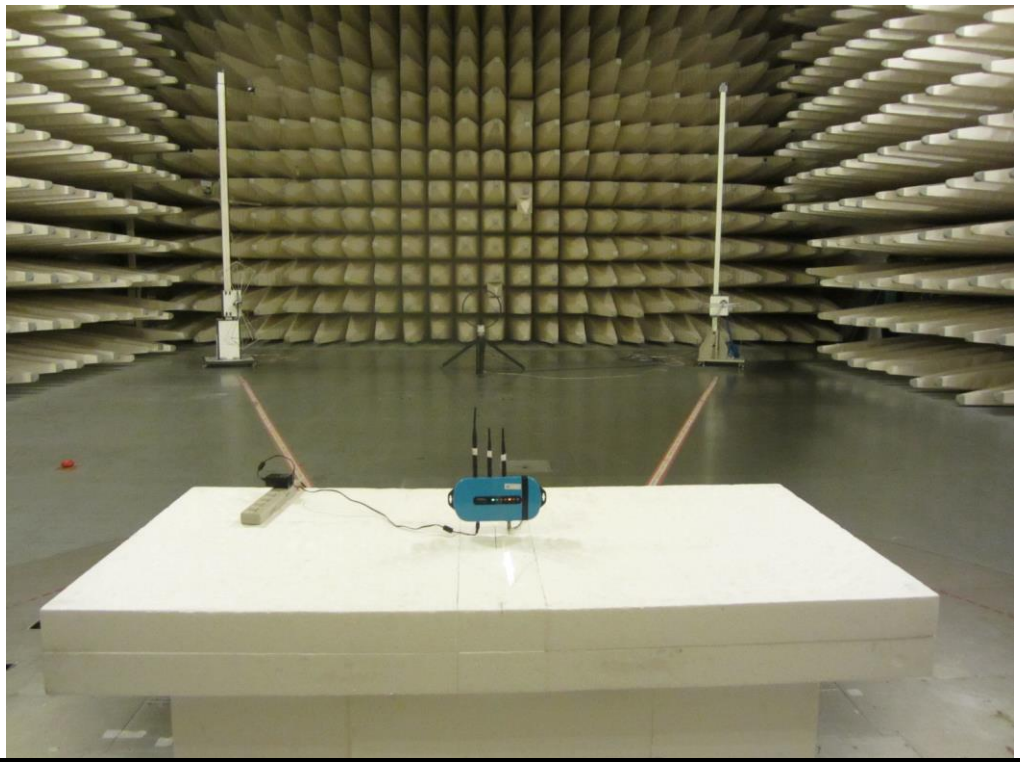
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1196.00	32.69	54.00	-21.31	41.20	-8.51	Average	100	40
2	1196.00	40.13	74.00	-33.87	48.64	-8.51	Peak	100	40
3	1440.00	36.50	54.00	-17.50	43.38	-6.88	Average	100	30
4	1440.00	42.47	74.00	-31.53	49.35	-6.88	Peak	100	30
5	1730.00	27.54	54.00	-26.46	34.37	-6.83	Average	100	90
6	1730.00	38.58	74.00	-35.42	45.41	-6.83	Peak	100	90

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

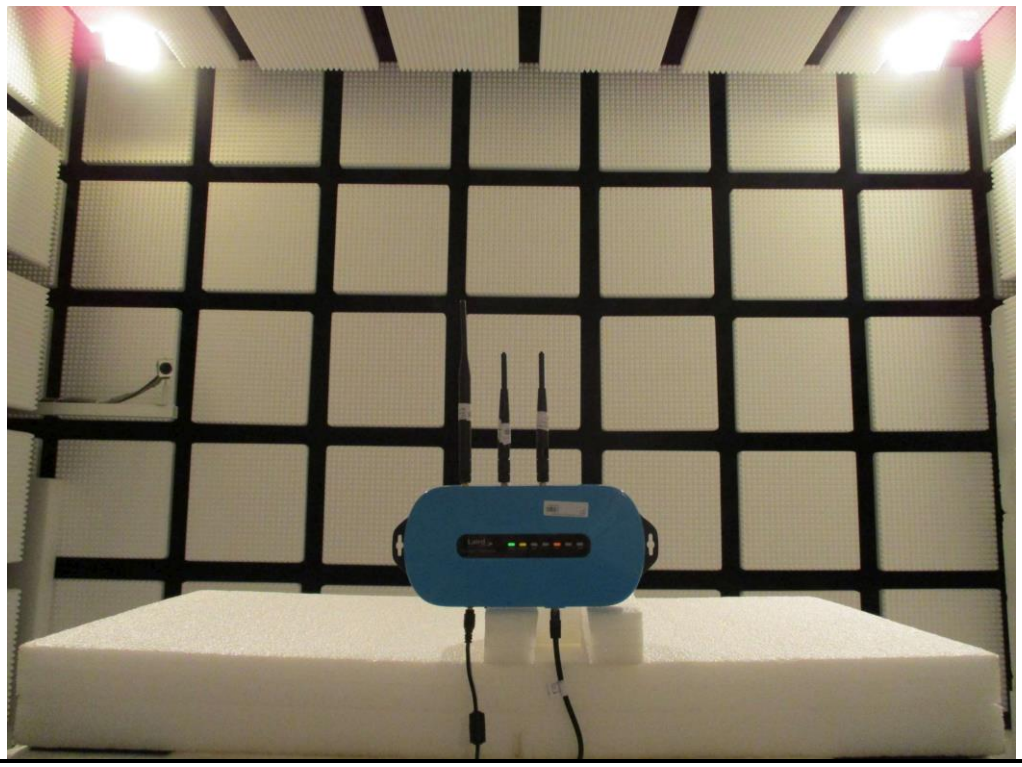
5 Photographs of the Test Configuration

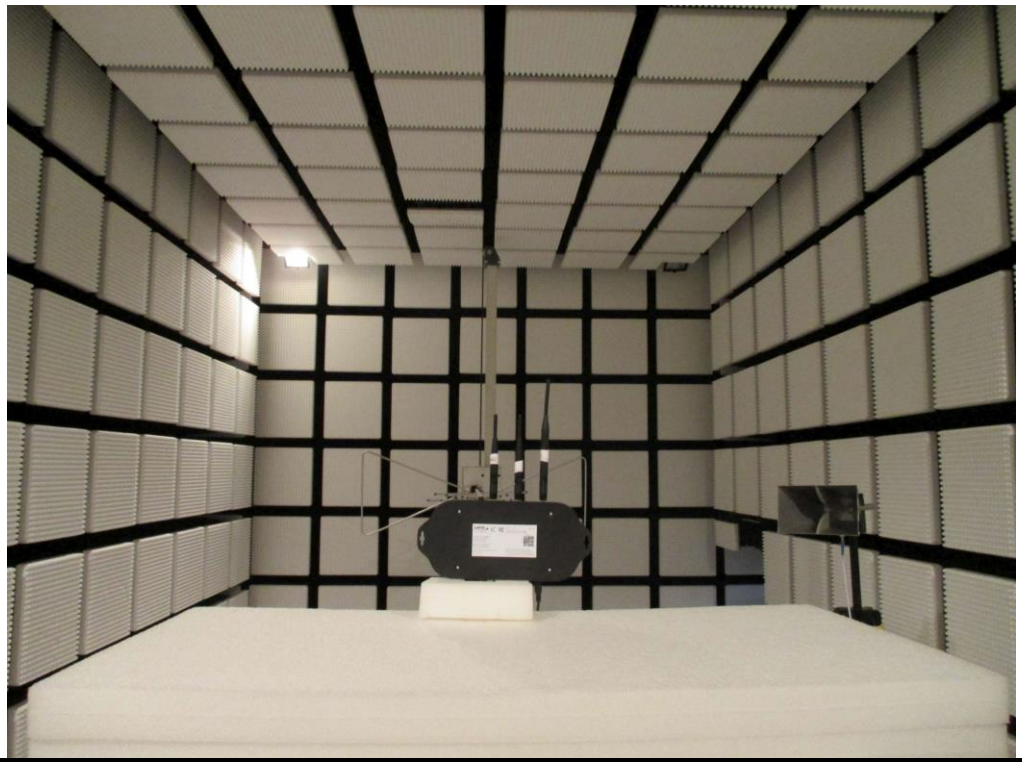
Spurious Emission below 30MHz Test
Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz / 5.725 - 5.850 GHz



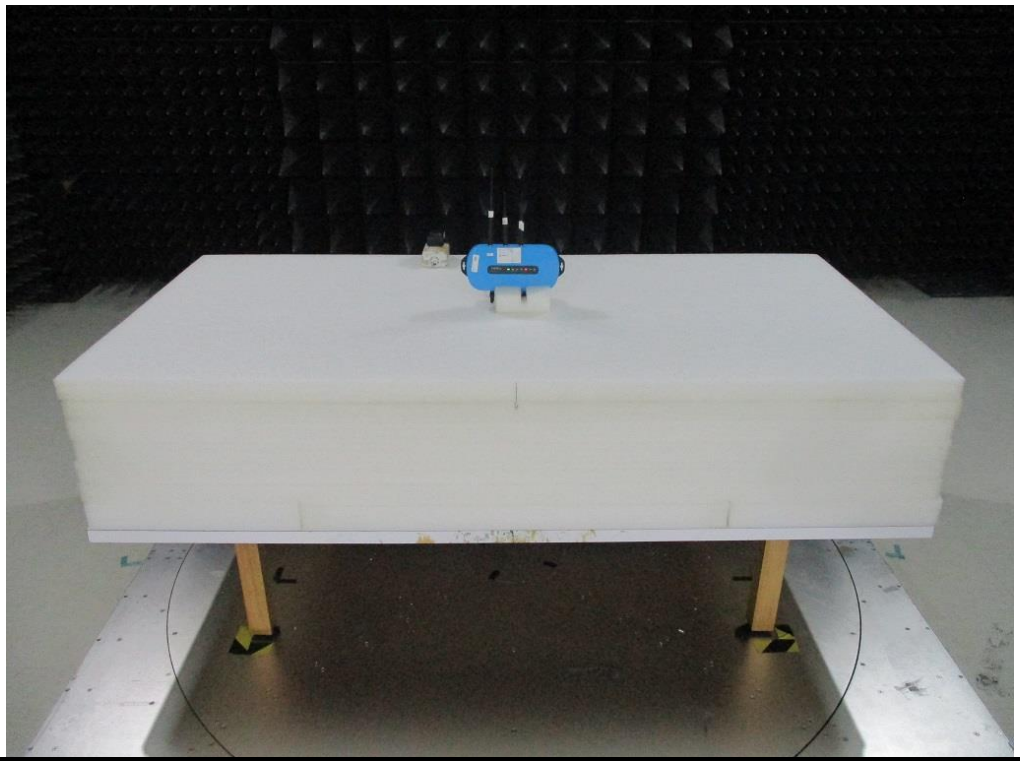


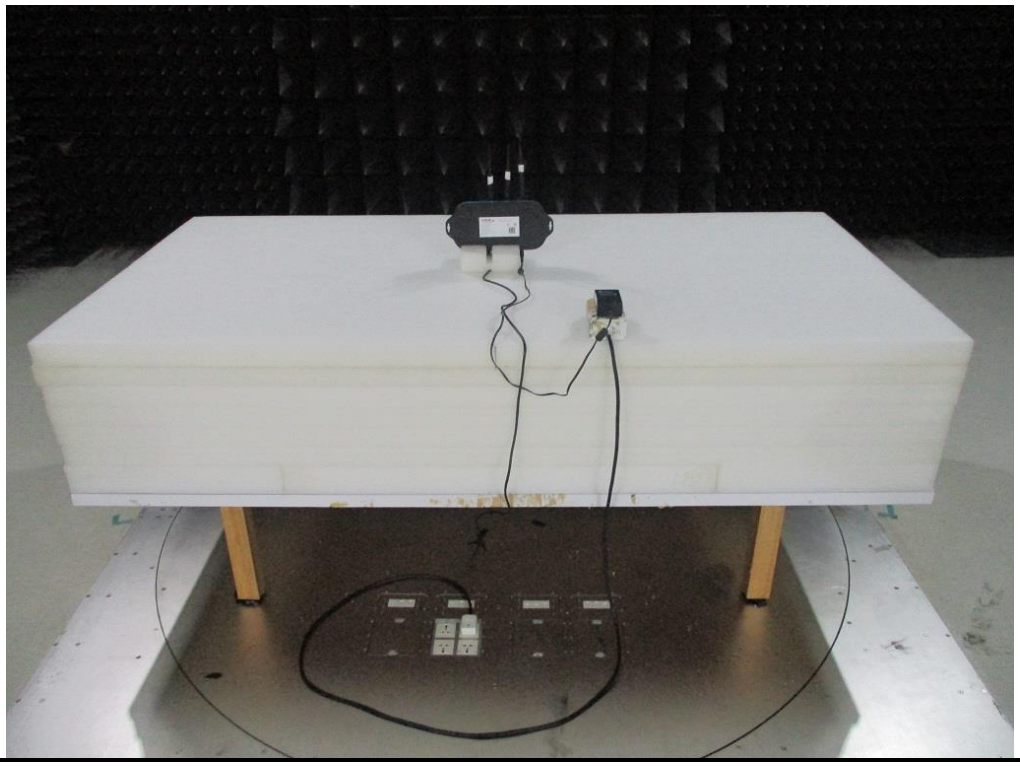
Spurious Emission Test
(Operating Band: 5.15 - 5.25 GHz / 5.25 - 5.35 GHz / 5.47 - 5.725 GHz)



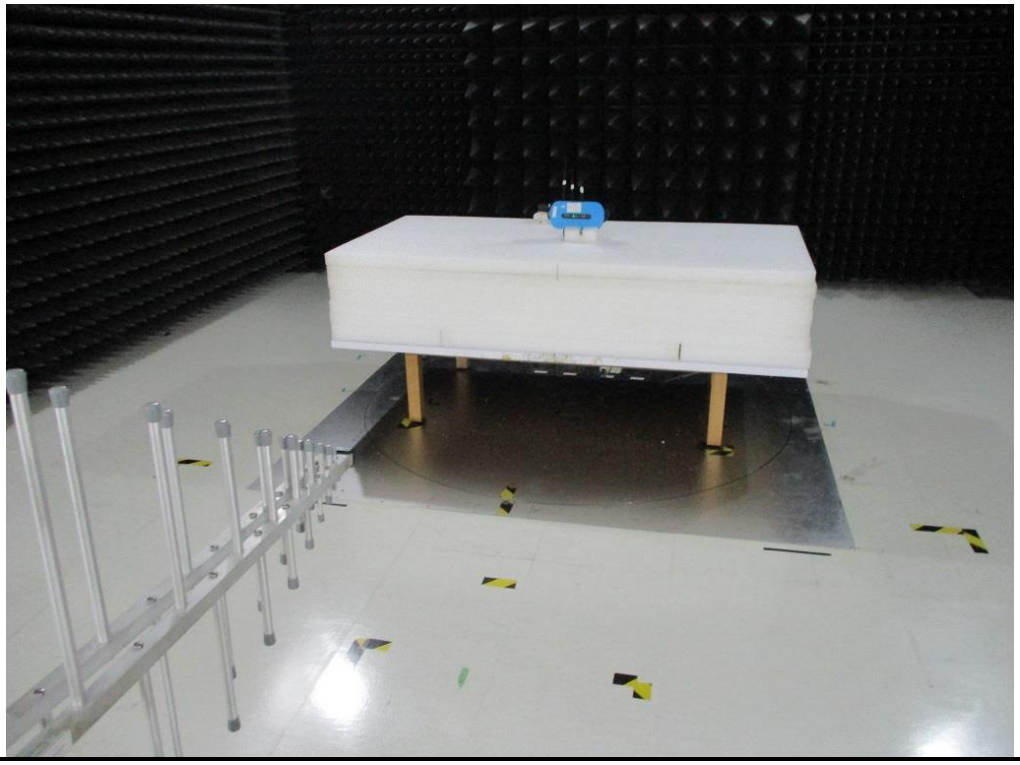


Spurious Emission Below 1GHz Test (Operating Band: 5.725 - 5.850 GHz)

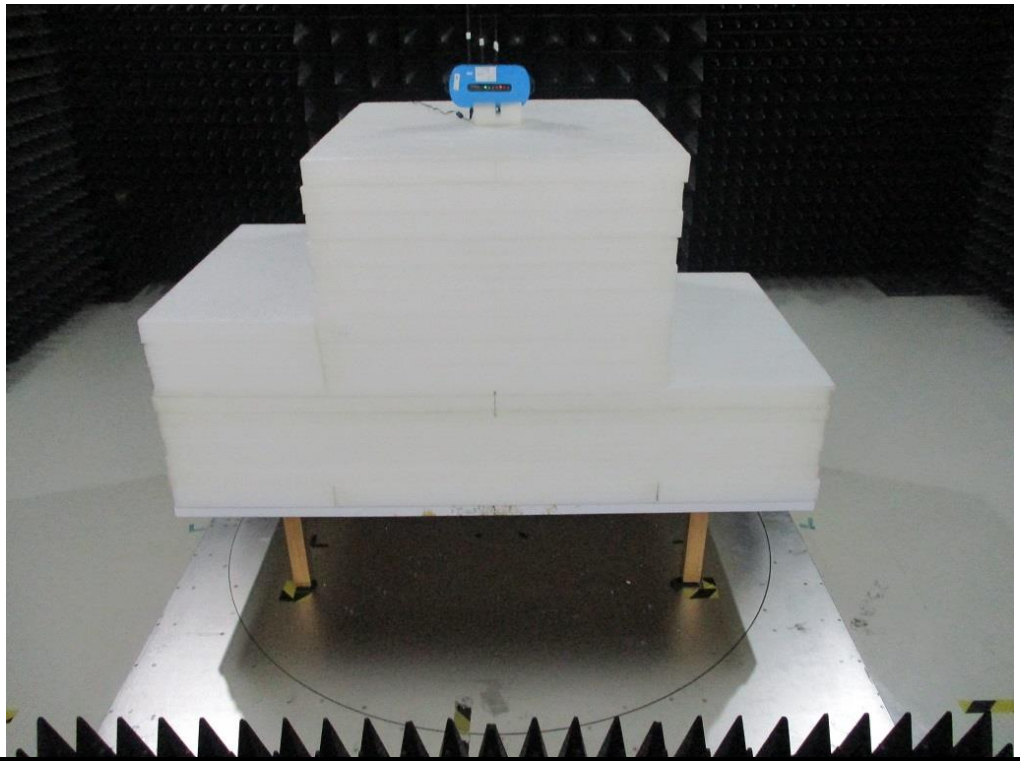


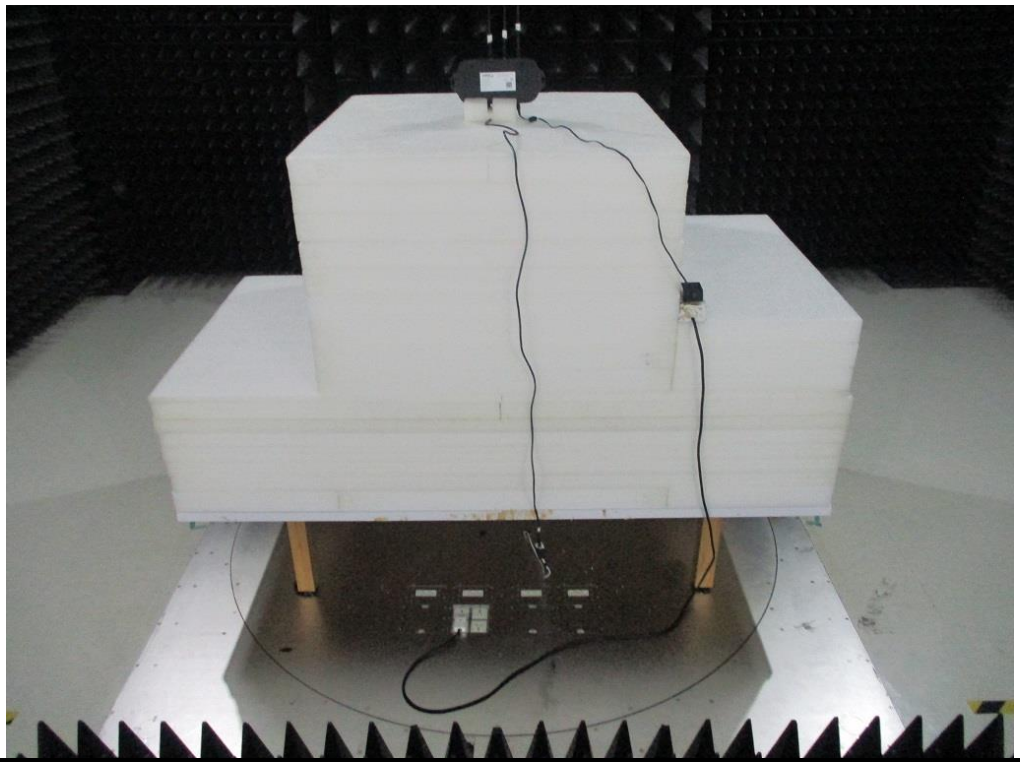


Spurious Emission Below 1GHz Test (Operating Band: 5.725 - 5.850 GHz)

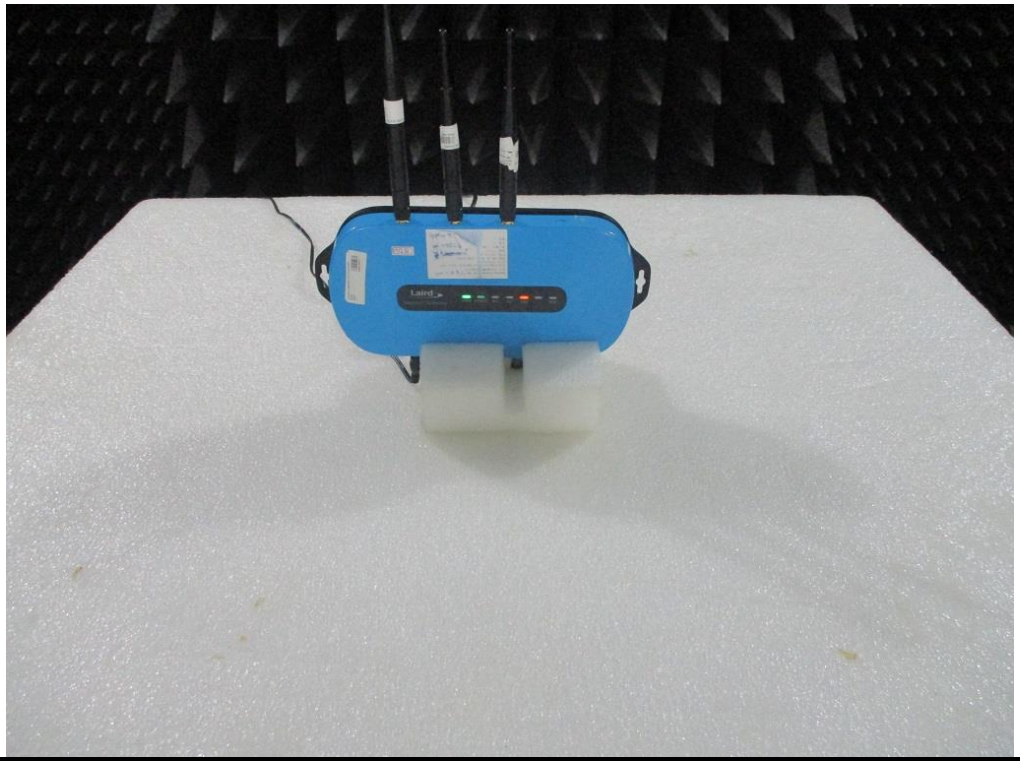


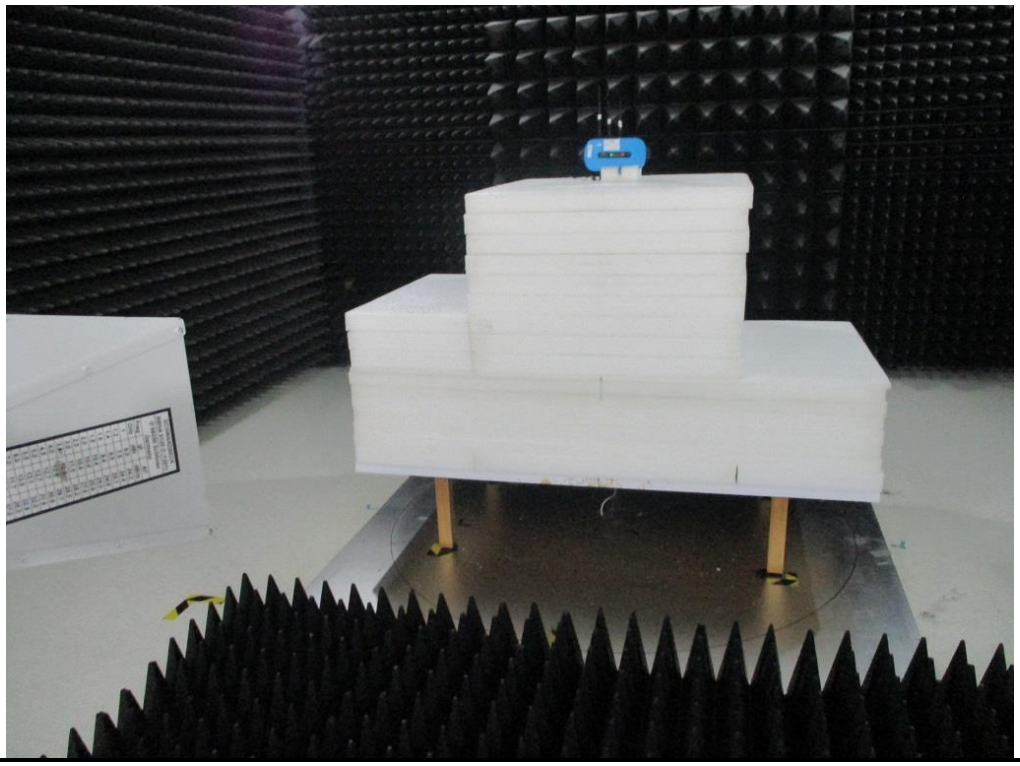
Spurious Emission Above 1GHz Test (Operating Band: 5.725 - 5.850 GHz)





Spurious Emission Above 1GHz Test (Operating Band: 5.725 - 5.850 GHz)





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

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

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