

TEST REPORT

Application No.: GZCR2408000923AT
Applicant: GUANGZHOU HEYGEARS IMC. INC
Address of Applicant: BLOCK B2, 501, 601, ENTERPRISE ACCELERATOR, KAIFA DISTRICT, GUANGZHOU, GUANGDONG, CHINA
Manufacturer: GUANGZHOU HEYGEARS IMC. INC
Address of Manufacturer: BLOCK B2, 501, 601, ENTERPRISE ACCELERATOR, KAIFA DISTRICT, GUANGZHOU, GUANGDONG, CHINA
Factory: GUANGZHOU HEYGEARS IMC. INC
Address of Factory: BLOCK B2, 501, 601, ENTERPRISE ACCELERATOR, KAIFA DISTRICT, GUANGZHOU, GUANGDONG, CHINA
Product Name: ULtraCraft Rapid Production System
Model No.: UltraCraft A2D HD
Trade Mark: HEYGEARS
Standard(s) : 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2024-08-06
Date of Test: 2024-08-22 to 2024-10-30
Date of Issue: 2024-11-20

Test Result:

Pass*

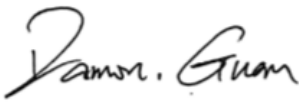
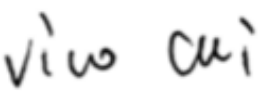
* In the configuration tested, the EUT complied with the standards specified above.

Ricky Liu

Ricky Liu
Manager



Revision Record			
Version	Report No.	Date	Remark
01	GZCR240800092303	2024-11-20	Original

Authorized for issue by:			
			
		Damon Guan/Project Engineer	
			
		Vico Cui/Reviewer	



2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass**
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass
**: The EUT passed Radiated Emissions (Below 1GHz) test after modification.				

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.



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Guangzhou Branch (CMAA, CNAS, EEC Laboratory)

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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4 General Information

4.1 Details of E.U.T.

Power supply: AC 100-240V, 50/60Hz, 340W

Cable(s): About 1.6m x 3 wires unscreened AC mains cable.
USB Port x2
RJ45 Port x1
4 Pin DC output Port x1(Reserved only, function not developed)

Test Voltage: AC 120 V, 60 Hz

Operation Frequency/Number of channels (20MHz): U-NII-1: 5180-5240MHz; U-NII-2A: 5260-5320MHz; U-NII-2C: 5500-5700MHz; U-NII-3: 5745-5825MHz

Operation Frequency/Number of channels/(40MHz): U-NII-1: 5190-5230MHz; U-NII-2A: 5270-5310MHz; U-NII-2C: 5510-5670MHz; U-NII-3: 5755-5795MHz

Operation Frequency/Number of channels (80MHz): U-NII-1: 5210MHz; U-NII-2A: 5290MHz; U-NII-2C: 5530-5610MHz; U-NII-3: 5775MHz

Modulation Type: 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)

Channel Spacing: 802.11a/n(HT20)/ac(HT20): 20MHz; 802.11n(HT40)/ac(HT40): 40MHz; 802.11ac(HT80): 80MHz

DFS Function: Slave without Radar detection

TPC Function: Without TPC function

Antenna Number: 1

Antenna Type: FPC Antenna

Antenna Gain: 2.48 dBi according to antenna specification

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Note Book Computer	LENOVO	ThinkPad T490	PF1D1MVJ
Wireless Router	Honor	HiRouter-CD30	AWTEQ20C04001295



4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.22dB
Maximum Conducted output power	± 0.75dB
Radiated Emissions (Below 1GHz)	±5.14dB (3m); ±4.90dB (10m)
Radiated Emissions (Above 1GHz)	±4.88 dB (1GHz-6 GHz); ±5.06 dB (6GHz-18GHz); ±5.30dB(18GHz-40GHz)
Radiated Emissions which fall in the restricted bands	±5.14dB (30MHz-1GHz; 3m);±4.90dB (30MHz-1GHz; 10m);± 4.88dB (1GHz-6GHz);± 5.06dB (6GHz-18GHz);± 5.30dB (18GHz-40GHz)
Duty Cycle	± 0.029%
99% Bandwidth	± 0.274%
26dB Emission bandwidth	± 0.274%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 0.274%
Peak Power spectrum density	± 2.84dB
Frequency Stability	± 7.25 x 10 ⁻⁸
Remark: The U_{lab} (lab Uncertainty) is less than U_{CISPR} (CISPR Uncertainty) or U_{ETSI}(ETSI Uncertainty). Emission decision rule: – Compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit, marked as Pass in the report. – Non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit, marked as Fail in the report.	

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou,
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No tests were sub-contracted.



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Guangzhou Branch EMC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
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4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

● SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

● ISED (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

● CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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Guangzhou Branch EMC Testing Services, EMC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Coaxial Cable	HangTianXing	2m	EMC0107	2023-08-24	2025-08-23
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	2022-10-16	2025-10-15
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2024-09-02	2025-09-01
EMI Test Receiver (9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2024-05-13	2025-05-12
Test Software E3r	Audix	Ver.6.191211	GZE100-77	N/A	N/A

Maximum Conducted output power					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2023-11-02	2025-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2024-08-19	2025-08-18
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2024-08-19	2025-08-18
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Emissions (Below 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
966 Anechoic Chamber	Shenzhen C.R.T	CRTSGSSAC966	EMC2230	2022-04-12	2025-04-11
EMI Test Receiver(1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2229	2024-02-19	2025-02-18
Amplifier(9k-1000MHz)	SONOMA	310	EMC2237	2024-03-22	2025-03-21
Trilog Broadband Antenna (25MHz-2GHz)	Schwarzbeck Mess-Elektronik	VULB 9168	EMC2238	2022-04-20	2025-04-19
Coaxial Cable	Mirco-COAX UTIFLEX ve	LA2-C125-8000	EMC2239	2023-06-14	2025-06-13
Test Software E3	Audix	Ver.6.191211	GZE100-81	N/A	N/A
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2024-04-08	2026-04-07



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中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2024-10-14	2025-10-13
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2024-09-02	2025-09-01
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2024-08-19	2026-08-18
Horn Antenna (1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2022-09-23	2025-09-22
Horn Antenna (14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2023-06-18	2026-06-17
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2024-08-19	2025-08-18
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2023-12-20	2026-12-19
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2024-07-17	2025-07-16
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2024-08-19	2025-08-18
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2024-10-14	2025-10-13
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2024-09-02	2025-09-01
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2024-08-19	2026-08-18
Horn Antenna (1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2022-09-23	2025-09-22
Horn Antenna (14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2023-06-18	2026-06-17
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2024-08-19	2025-08-18
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2023-12-20	2026-12-19
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2024-08-19	2025-08-18
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A



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No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

EMC-TRF-01 Rev 1.1

Report No.: GZCR240800092303

Page: 11 of 220

RF Conducted Test					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2023-11-02	2025-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2024-08-19	2025-08-18
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2024-08-19	2025-08-18
Test Software	TST	V2.0	GZE100-78	N/A	N/A
Temperature Chamber	GZ GongWen Co.Ltd.	GDJW-100	EMC0039	2024-06-17	2025-06-16
MXG Vector Signal Generator	Keysight	N5182B	EMC2216	2024-10-14	2025-10-13

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2024-06-13	2025-06-12



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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement.

The best case gain of the Antenna: 2.48 dBi max according to antenna specification.

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

Standard Requirement: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met. EUT Details: WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 26.2 °C

Humidity: 51.0 % RH

Atmospheric Pressure: 1005 mbar



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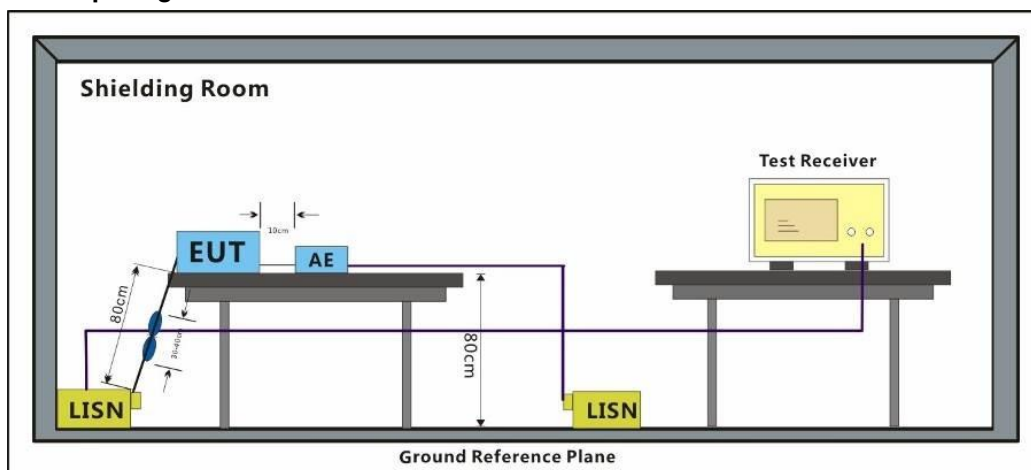
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7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	02	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	03	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



7.1.3 Test Setup Diagram

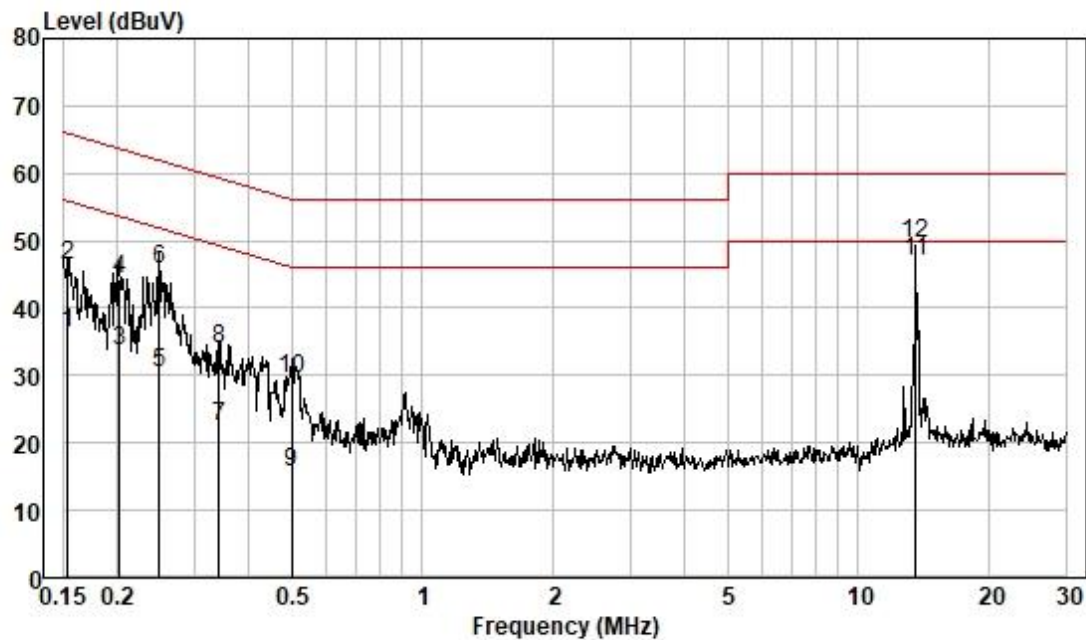


7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

Test Mode: 01; Line: Live line

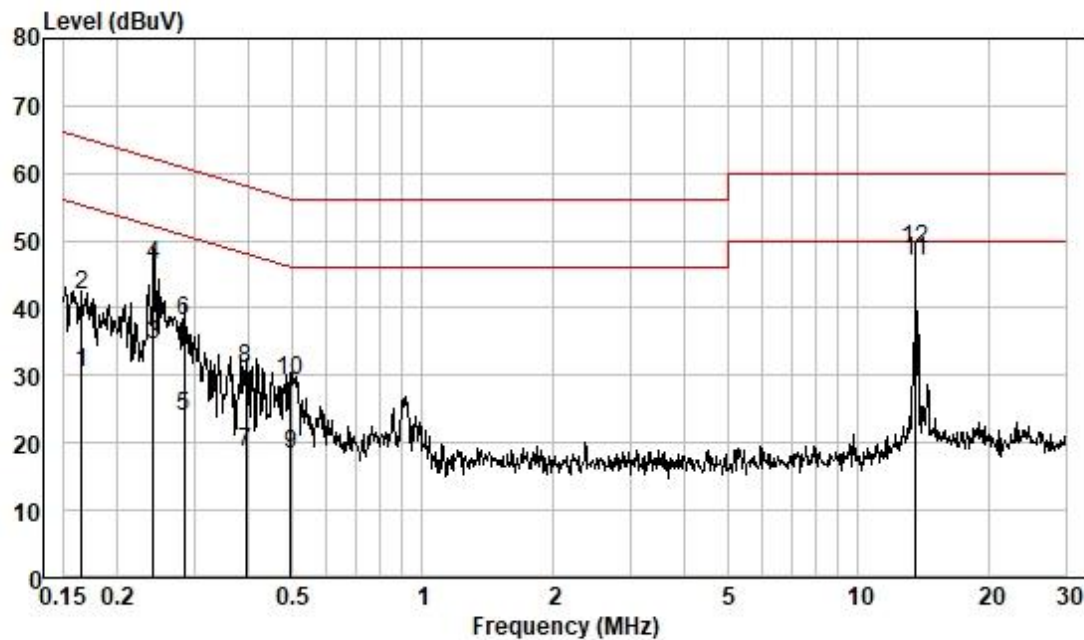


Pol : LINE
Mode :
Model :
Power :

	Frequency MHz	Read Level dBUV	Cable Loss dB	LISN Factor dB	Measured Level dBUV	Limit Line dBUV	Over Limit dB	Remark
1	0.153	26.66	0.04	9.55	36.25	55.82	-19.57	Average
2	0.153	36.74	0.04	9.55	46.33	65.82	-19.49	QP
3	0.202	24.18	0.04	9.55	33.77	53.54	-19.77	Average
4	0.202	34.75	0.04	9.55	44.34	63.54	-19.20	QP
5	0.249	20.77	0.04	9.56	30.37	51.78	-21.41	Average
6	0.249	36.21	0.04	9.56	45.81	61.78	-15.97	QP
7	0.341	12.87	0.05	9.57	22.49	49.18	-26.69	Average
8	0.341	24.23	0.05	9.57	33.85	59.18	-25.33	QP
9	0.502	6.17	0.05	9.56	15.78	46.00	-30.22	Average
10	0.502	19.97	0.05	9.56	29.58	56.00	-26.42	QP
11	13.551	36.80	0.31	9.84	46.95	50.00	-3.05	Average
12	13.551	39.56	0.31	9.84	49.71	60.00	-10.29	QP



Test Mode: 01; Line: Neutral Line



Pol : NEUTRAL
Mode :
Model :
Power :

	Frequency MHz	Read Level dBUV	Cable Loss dB	LISN Factor dB	Measured Level dBUV	Limit Line dBUV	Over Limit dB	Remark
1	0.165	20.84	0.04	9.52	30.40	55.21	-24.81	Average
2	0.165	32.25	0.04	9.52	41.81	65.21	-23.40	QP
3	0.242	24.96	0.04	9.53	34.53	52.04	-17.51	Average
4	0.242	36.88	0.04	9.53	46.45	62.04	-15.59	QP
5	0.283	14.46	0.04	9.53	24.03	50.72	-26.69	Average
6	0.283	28.51	0.04	9.53	38.08	60.72	-22.64	QP
7	0.393	8.90	0.05	9.54	18.49	47.99	-29.50	Average
8	0.393	21.51	0.05	9.54	31.10	57.99	-26.89	QP
9	0.499	8.71	0.05	9.54	18.30	46.01	-27.71	Average
10	0.499	19.51	0.05	9.54	29.10	56.01	-26.91	QP
11	13.551	36.80	0.31	9.86	46.97	50.00	-3.03	Average
12	13.551	38.51	0.31	9.86	48.68	60.00	-11.32	QP



7.2 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) or 11dBm+10logB*
5470-5725	≤250mW(24dBm) or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark: * Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.	

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 20.3 °C

Humidity: 53.9 % RH

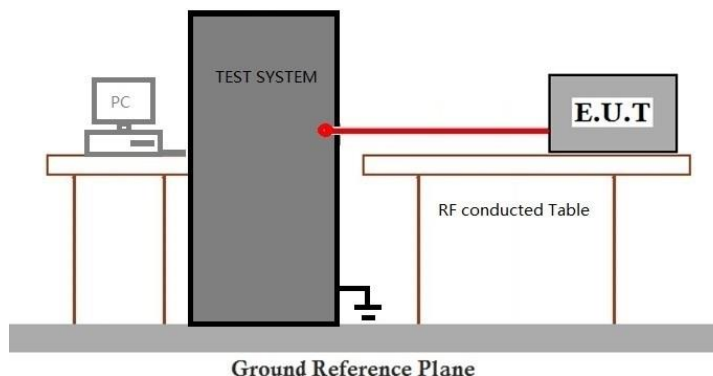
Atmospheric Pressure: 1013 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	02	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.3 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Test Distance: 3m

Limit:

Frequency (MHz)	Field strength(microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.5 °C

Humidity: 53.4 % RH

Atmospheric Pressure: 1013 mbar



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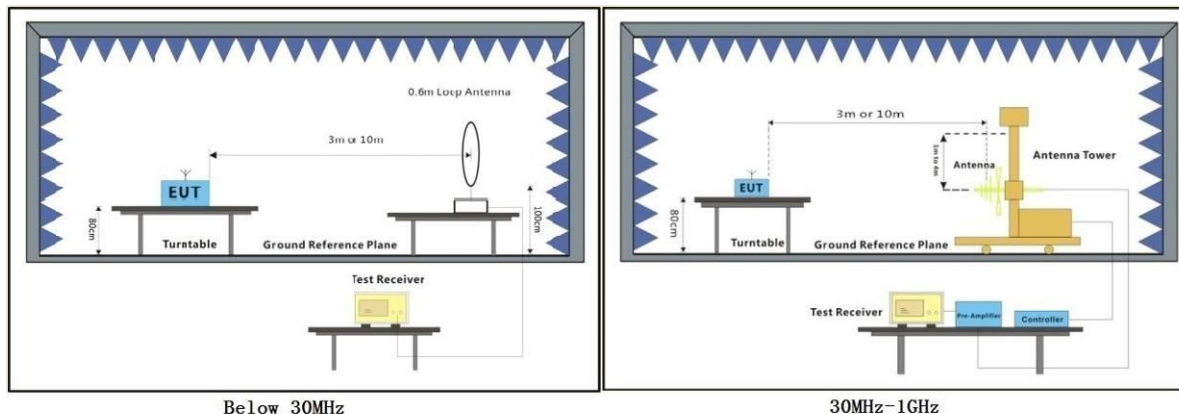
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7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	02	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	03	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

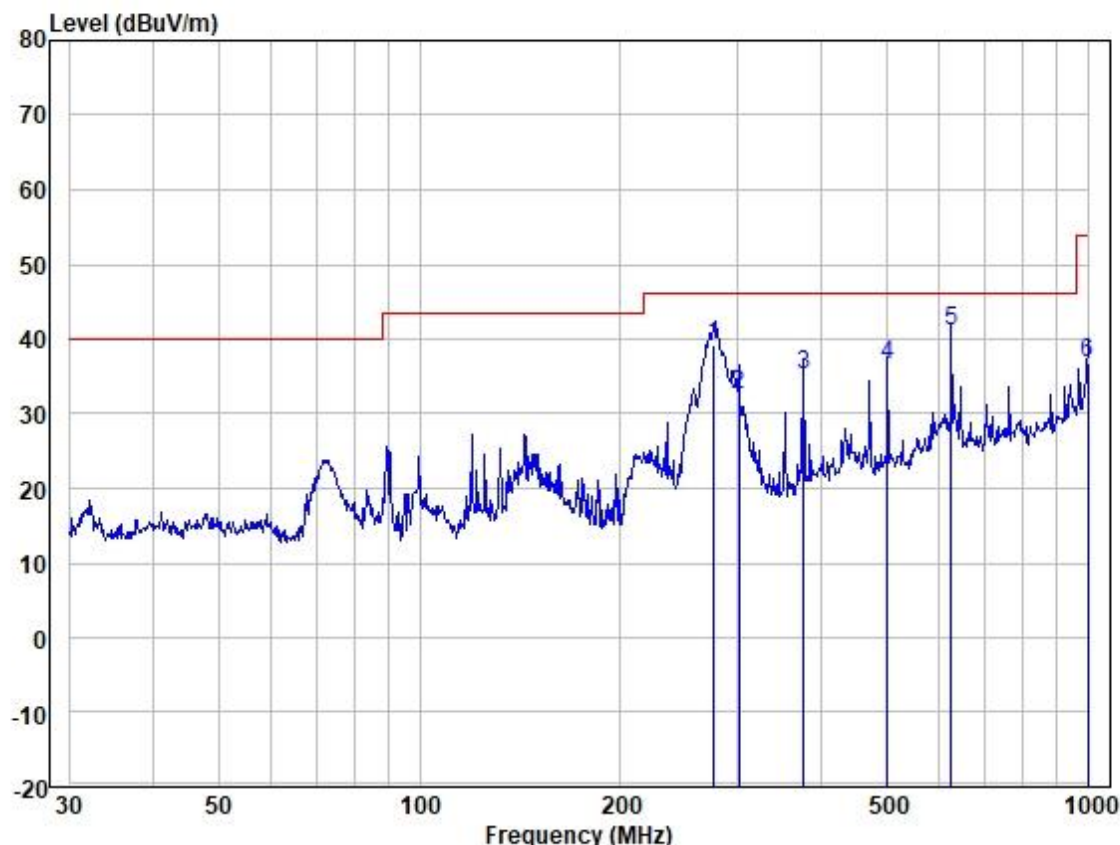
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



Test Mode: 01; Polarity: Horizontal

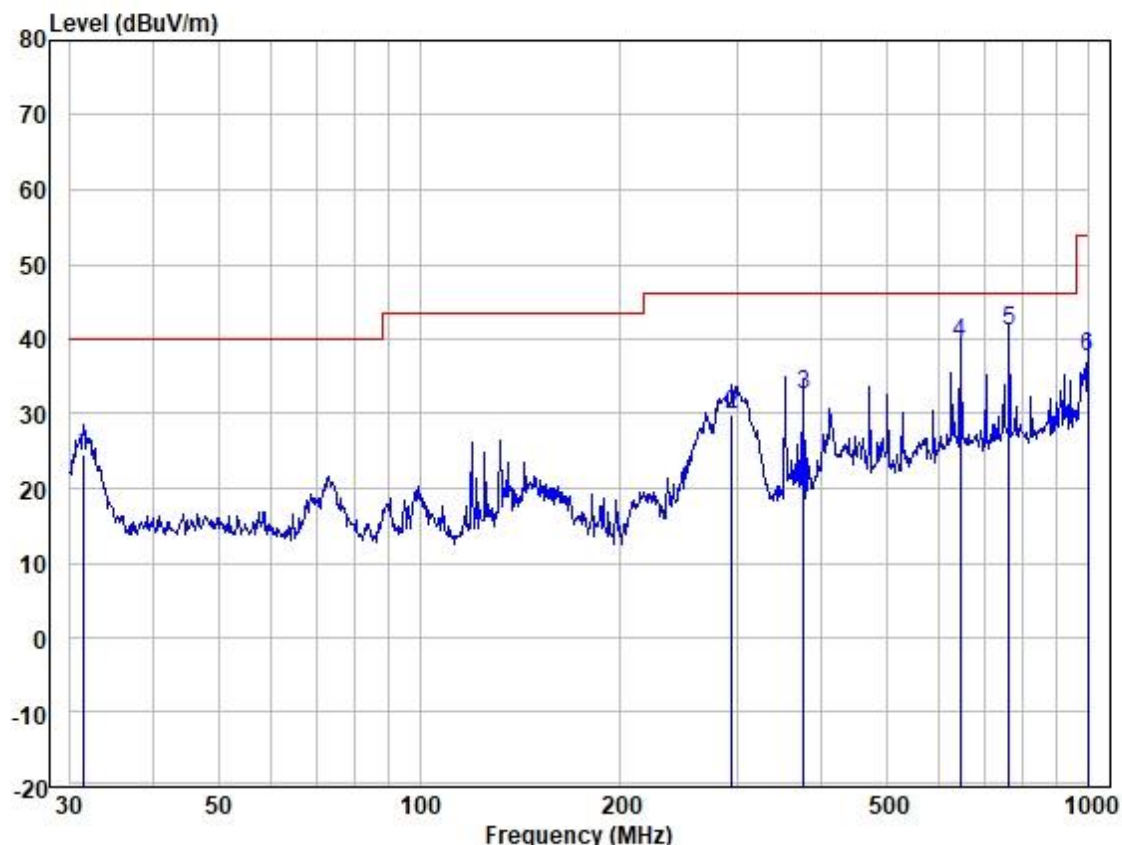


Site : 966 Chamber
Job :
Model :
Power : 120v
Test Mode:

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	276.124	52.44	18.63	0.95	32.87	39.15	46.02	-6.87	HORIZONTAL	QP
2	300.367	45.14	19.26	0.98	32.88	32.50	46.02	-13.52	HORIZONTAL	QP
3	375.939	46.23	20.87	1.13	32.91	35.32	46.02	-10.70	HORIZONTAL	QP
4	501.179	44.67	23.58	1.29	32.99	36.55	46.02	-9.47	HORIZONTAL	QP
5	625.078	46.17	26.20	1.45	32.84	40.98	46.02	-5.04	HORIZONTAL	QP
6	1000.000	36.66	30.05	1.84	31.64	36.91	53.98	-17.07	HORIZONTAL	QP



Test Mode: 01; Polarity: Vertical



Site : 966 Chamber
Job :
Model :
Power : 120v
Test Mode:

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	31.510	39.50	17.64	0.31	32.85	24.60	40.00	-15.40	VERTICAL	QP
2	293.084	42.61	19.13	0.97	32.88	29.83	46.02	-16.19	VERTICAL	QP
3	375.939	43.37	20.87	1.13	32.91	32.46	46.02	-13.56	VERTICAL	QP
4	645.120	44.01	26.63	1.47	32.75	39.36	46.02	-6.66	VERTICAL	QP
5	763.376	43.88	28.13	1.63	32.46	41.18	46.02	-4.84	VERTICAL	QP
6	1000.000	37.42	30.05	1.84	31.64	37.67	53.98	-16.31	VERTICAL	QP



7.4 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3
*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (4) For transmitters operating in the 5.725-5.85 GHz band: (i) 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. Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.		

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C

Humidity: 60.7 % RH

Atmospheric Pressure: 1005 mbar



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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch (EMC) EEC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

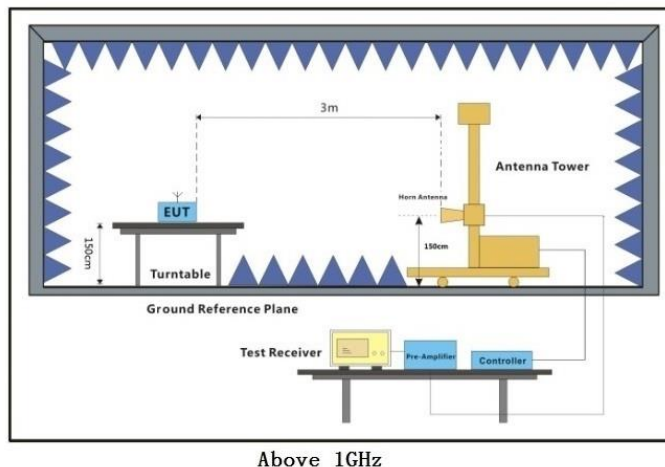
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t (86-20) 82155555 sgs.china@sgs.com

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	02	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

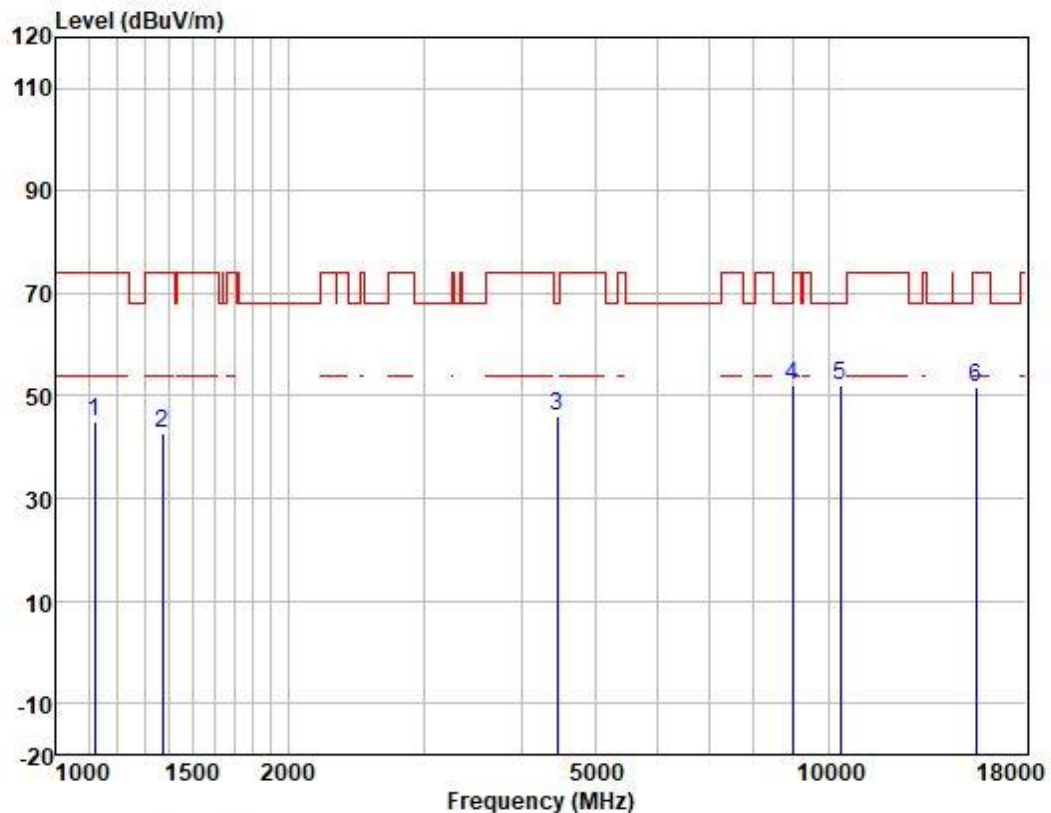
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.



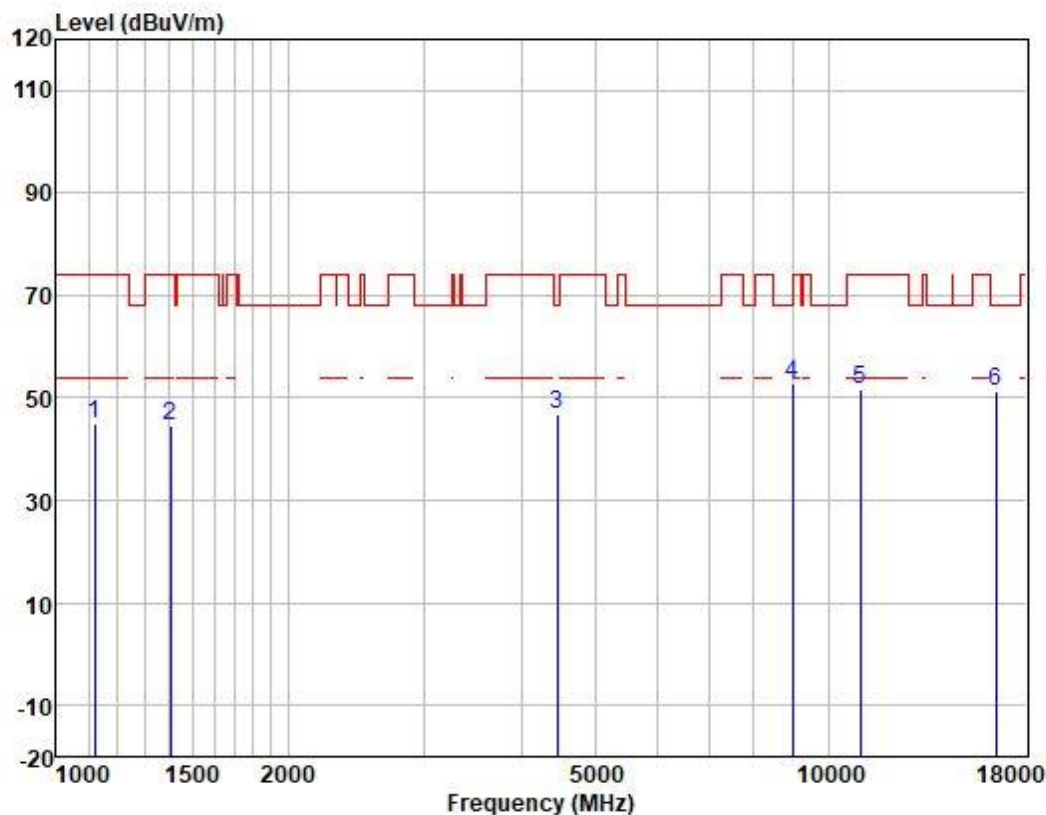
Test Mode: 01; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.71	22.75	2.29	37.67	45.08	74.00	-28.92	VERTICAL peak
2	1374.295	53.45	24.20	2.64	37.57	42.72	74.00	-31.28	VERTICAL peak
3	4456.315	43.96	34.00	4.61	36.63	45.94	68.20	-22.26	VERTICAL peak
4	8995.123	44.67	37.59	6.57	36.90	51.93	68.20	-16.27	VERTICAL peak
5	10360.000	41.95	39.64	7.25	36.78	52.06	68.20	-16.14	VERTICAL peak
6	15540.000	40.45	38.33	9.26	36.51	51.53	74.00	-22.47	VERTICAL peak

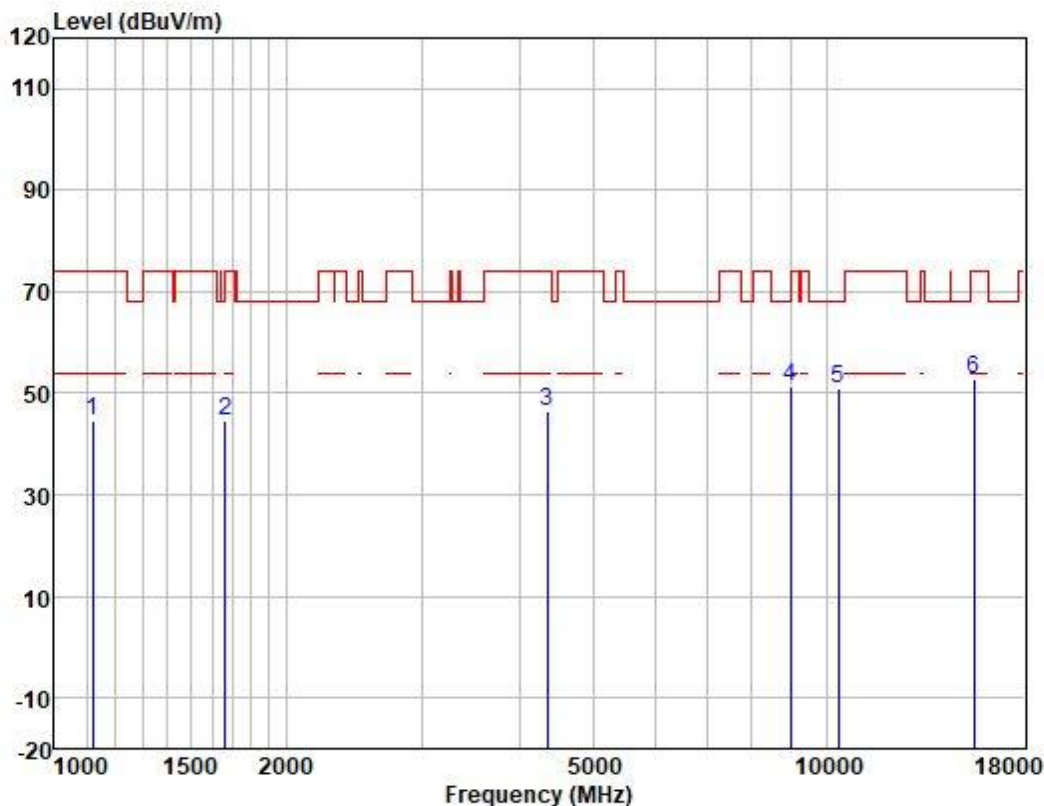


Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.53	22.75	2.29	37.67	44.90	74.00	-29.10	VERTICAL peak
2	1406.443	55.33	24.27	2.66	37.56	44.70	74.00	-29.30	VERTICAL peak
3	4456.315	44.92	34.00	4.61	36.63	46.90	68.20	-21.30	VERTICAL peak
4	8995.123	45.41	37.59	6.57	36.90	52.67	68.20	-15.53	VERTICAL peak
5	11000.000	40.49	40.42	7.52	36.70	51.73	74.00	-22.27	VERTICAL peak
6	16500.000	39.69	38.70	9.34	36.56	51.17	68.20	-17.03	VERTICAL peak

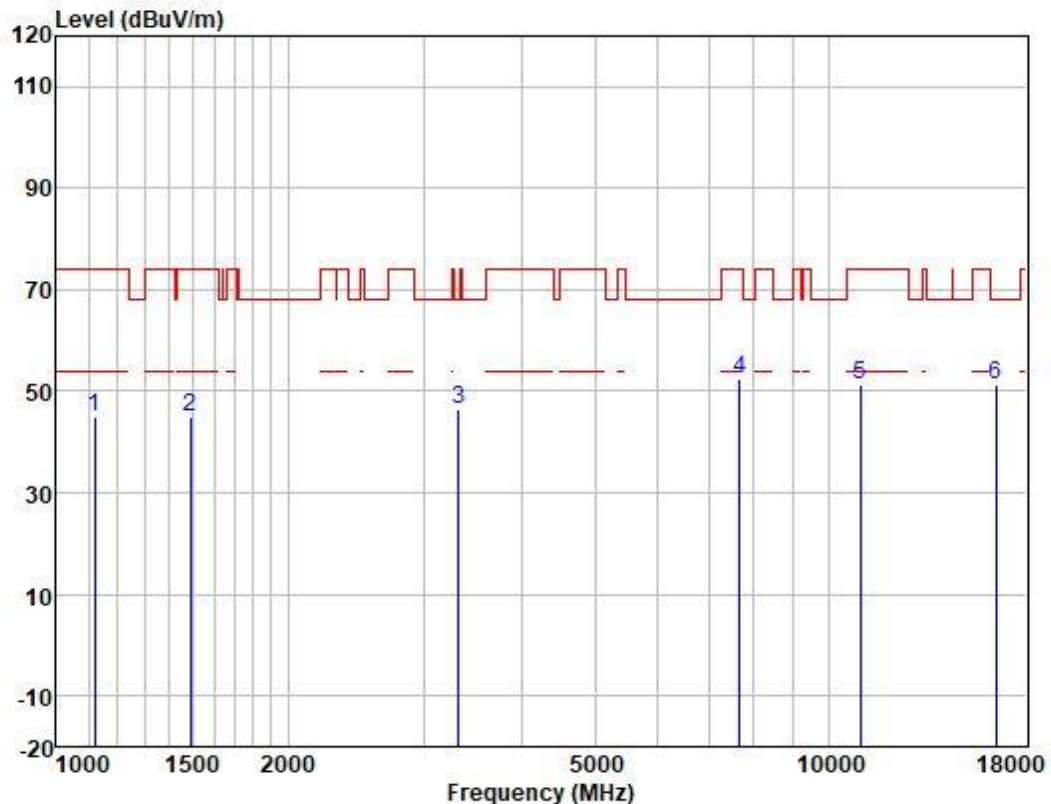
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	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.28	22.75	2.29	37.67	44.65	74.00	-29.35	HORIZONTAL peak
2	1663.137	54.09	24.93	2.81	37.41	44.42	74.00	-29.58	HORIZONTAL peak
3	4354.454	44.99	33.43	4.60	36.62	46.40	74.00	-27.60	HORIZONTAL peak
4	8995.123	43.93	37.59	6.57	36.90	51.19	68.20	-17.01	HORIZONTAL peak
5	10360.000	40.86	39.64	7.25	36.78	50.97	68.20	-17.23	HORIZONTAL peak
6	15540.000	41.69	38.33	9.26	36.51	52.77	74.00	-21.23	HORIZONTAL peak



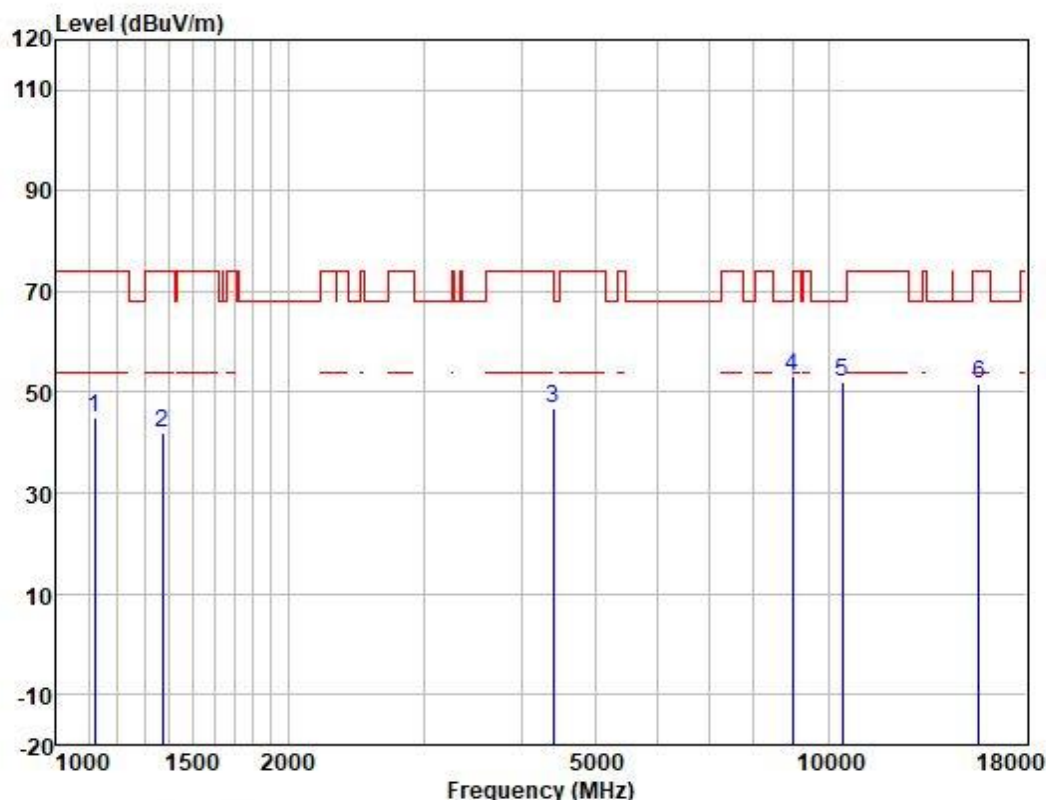
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	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.57	22.75	2.29	37.67	44.94	74.00	-29.06	HORIZONTAL	peak
2	1490.142	55.41	24.42	2.70	37.52	45.01	74.00	-28.99	HORIZONTAL	peak
3	3318.471	50.18	28.94	4.02	36.77	46.37	68.20	-21.83	HORIZONTAL	peak
4	7673.034	46.52	36.67	6.08	36.98	52.29	74.00	-21.71	HORIZONTAL	peak
5	11000.000	40.01	40.42	7.52	36.70	51.25	74.00	-22.75	HORIZONTAL	peak
6	16500.000	39.87	38.70	9.34	36.56	51.35	68.20	-16.85	HORIZONTAL	peak

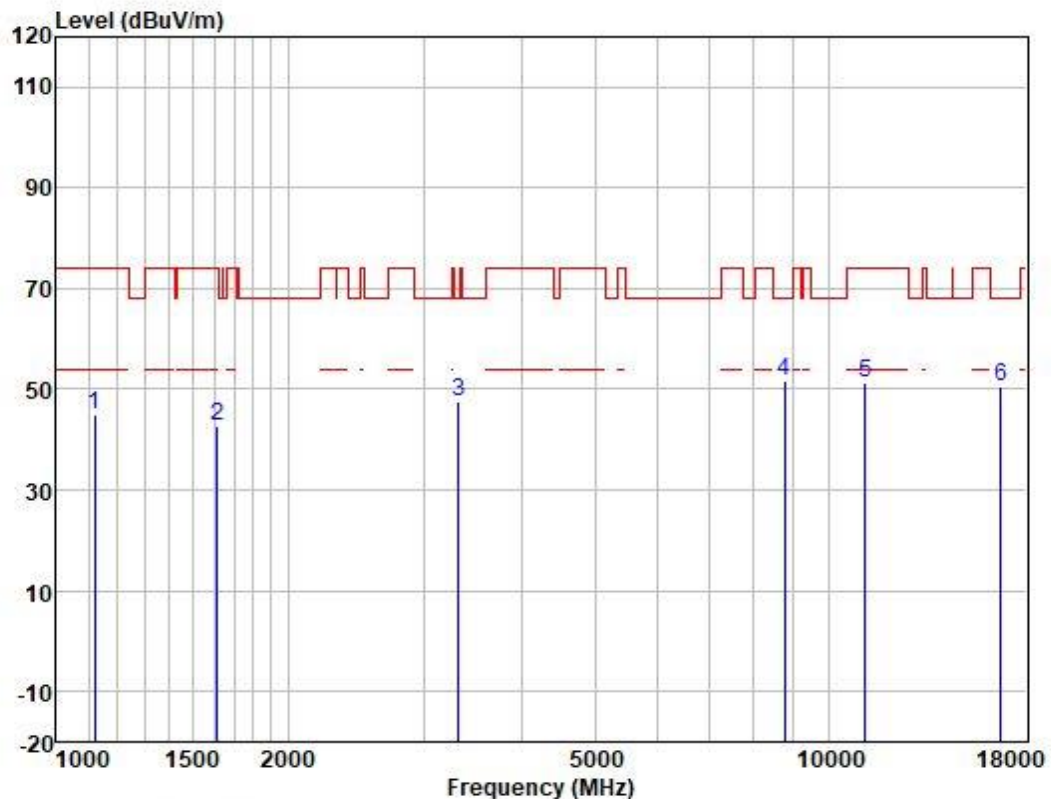


Test Mode: 01; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.65	22.75	2.29	37.67	45.02	74.00	-28.98	VERTICAL peak
2	1374.295	52.87	24.20	2.64	37.57	42.14	74.00	-31.86	VERTICAL peak
3	4405.090	44.97	33.74	4.61	36.62	46.70	68.20	-21.50	VERTICAL peak
4	8995.123	45.77	37.59	6.57	36.90	53.03	68.20	-15.17	VERTICAL peak
5	10440.000	41.90	39.79	7.26	36.77	52.18	68.20	-16.02	VERTICAL peak
6	15660.000	41.01	38.01	9.34	36.57	51.79	74.00	-22.21	VERTICAL peak

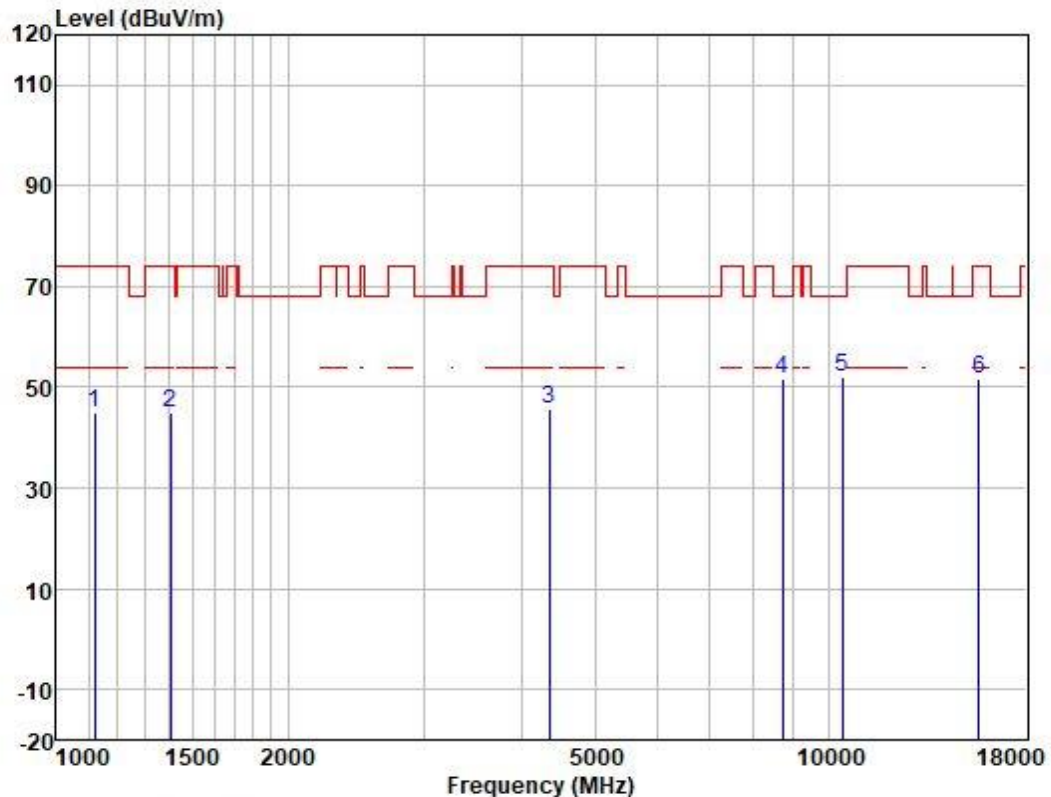
Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.53	22.75	2.29	37.67	44.90	74.00	-29.10	VERTICAL peak
2	1615.754	52.72	24.74	2.77	37.44	42.79	74.00	-31.21	VERTICAL peak
3	3318.471	51.34	28.94	4.02	36.77	47.53	68.20	-20.67	VERTICAL peak
4	8789.516	44.91	37.17	6.53	36.94	51.67	68.20	-16.53	VERTICAL peak
5	11160.000	40.04	40.37	7.55	36.67	51.29	74.00	-22.71	VERTICAL peak
6	16740.000	37.60	40.14	9.39	36.46	50.67	68.20	-17.53	VERTICAL peak



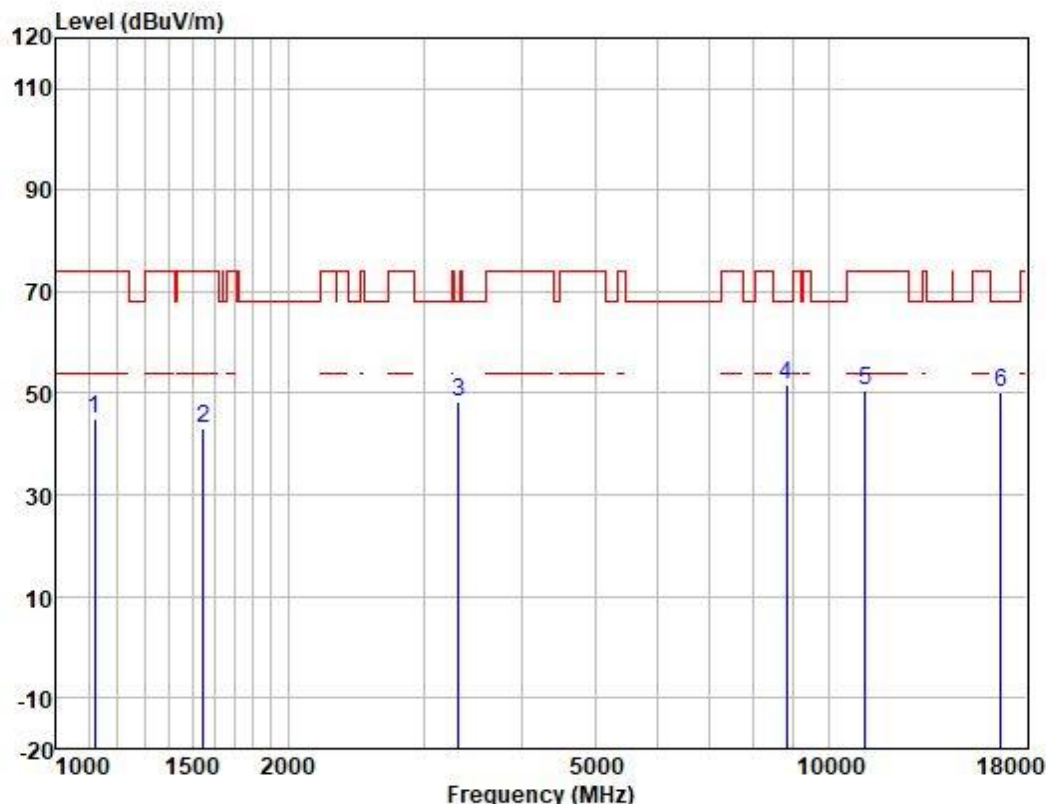
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	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.69	22.75	2.29	37.67	45.06	74.00	-28.94	HORIZONTAL peak
2	1406.443	55.56	24.27	2.66	37.56	44.93	74.00	-29.07	HORIZONTAL peak
3	4354.454	44.39	33.43	4.60	36.62	45.80	74.00	-28.20	HORIZONTAL peak
4	8713.630	45.15	36.95	6.51	36.95	51.66	68.20	-16.54	HORIZONTAL peak
5	10440.000	41.68	39.79	7.26	36.77	51.96	68.20	-16.24	HORIZONTAL peak
6	15660.000	40.83	38.01	9.34	36.57	51.61	74.00	-22.39	HORIZONTAL peak



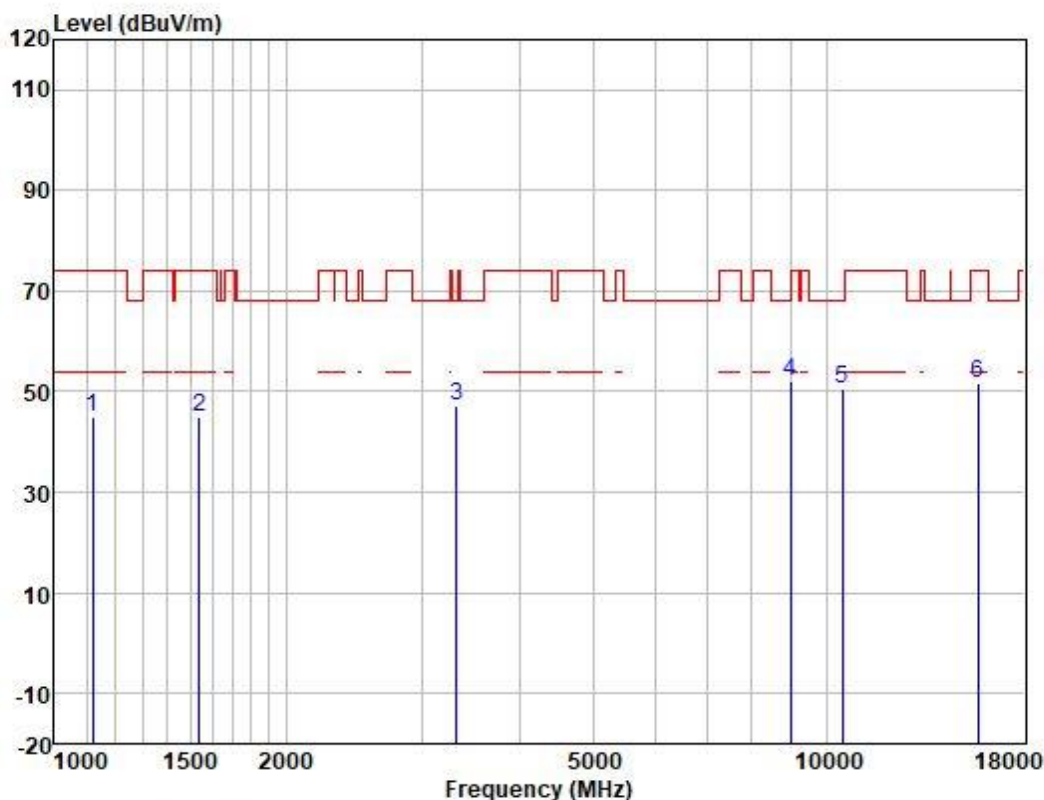
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	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.65	22.75	2.29	37.67	45.02	74.00	-28.98	HORIZONTAL peak
2	1551.677	53.19	24.55	2.73	37.47	43.00	74.00	-31.00	HORIZONTAL peak
3	3318.471	52.14	28.94	4.02	36.77	48.33	68.20	-19.87	HORIZONTAL peak
4	8840.473	44.73	37.30	6.54	36.93	51.64	68.20	-16.56	HORIZONTAL peak
5	11160.000	39.28	40.37	7.55	36.67	50.53	74.00	-23.47	HORIZONTAL peak
6	16740.000	37.17	40.14	9.39	36.46	50.24	68.20	-17.96	HORIZONTAL peak

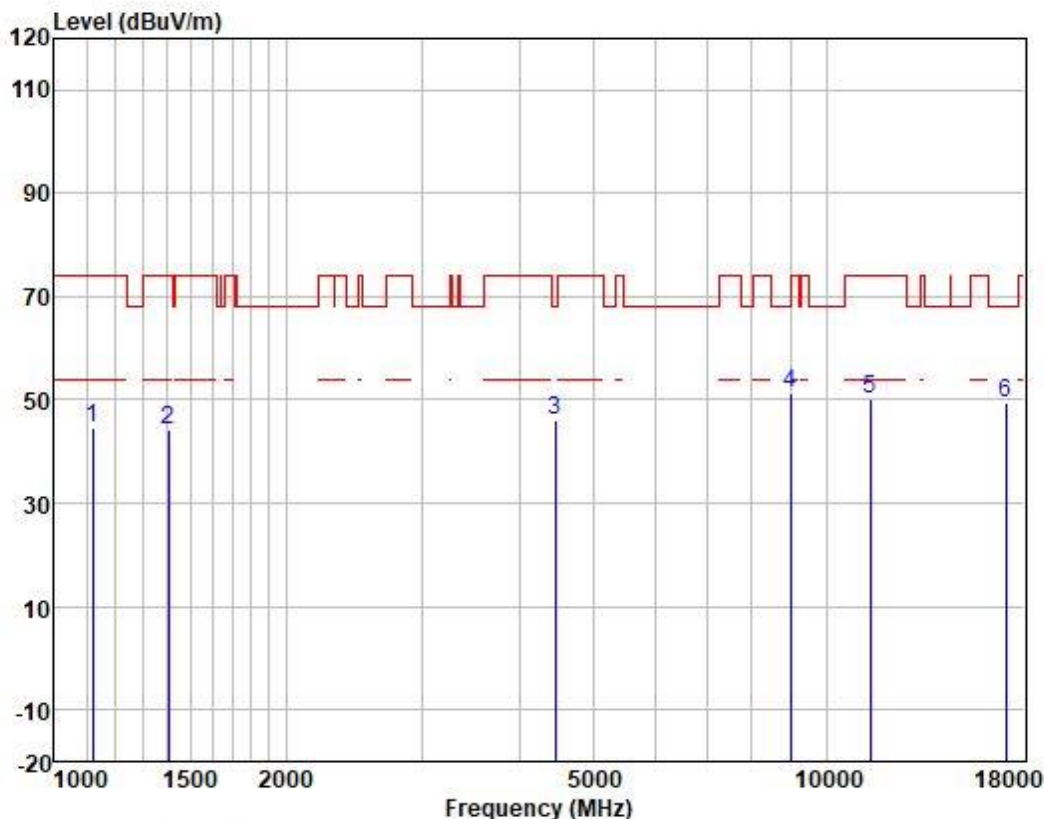


Test Mode: 01; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.41	22.75	2.29	37.67	44.78	74.00	-29.22	VERTICAL peak
2	1542.733	55.12	24.53	2.72	37.48	44.89	74.00	-29.11	VERTICAL peak
3	3318.471	50.95	28.94	4.02	36.77	47.14	68.20	-21.06	VERTICAL peak
4	8995.123	44.84	37.59	6.57	36.90	52.10	68.20	-16.10	VERTICAL peak
5	10480.000	40.34	39.84	7.26	36.77	50.67	68.20	-17.53	VERTICAL peak
6	15720.000	41.16	37.89	9.38	36.60	51.83	74.00	-22.17	VERTICAL peak

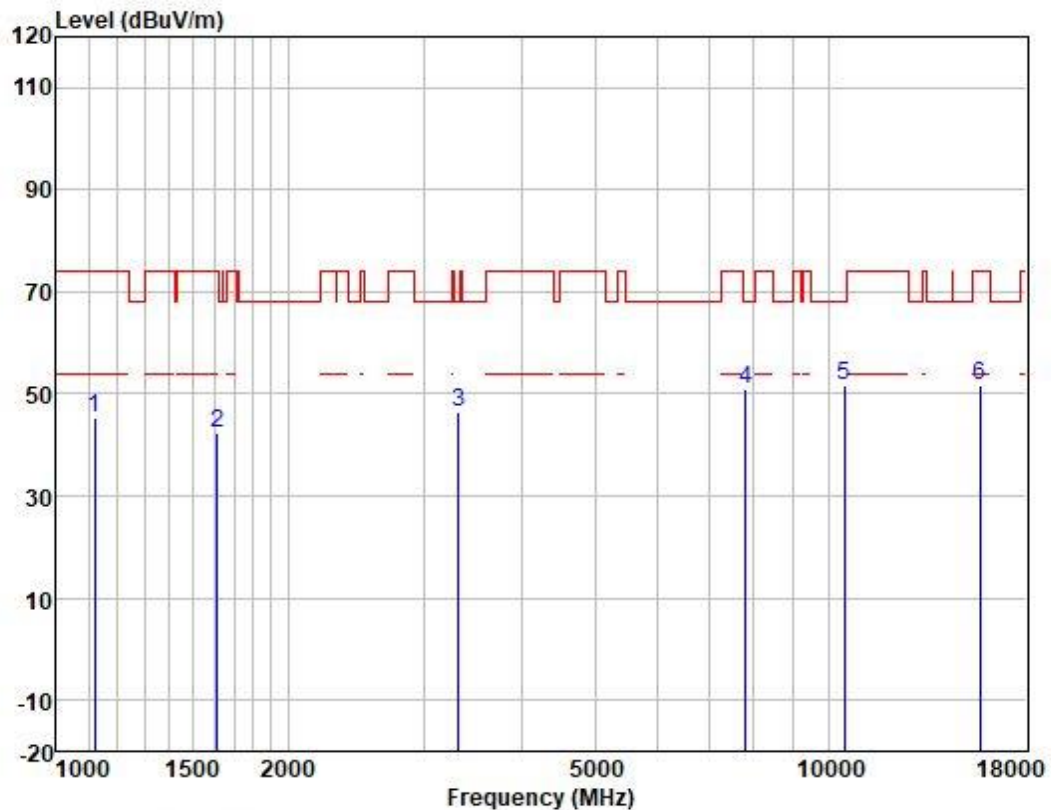
Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.23	22.75	2.29	37.67	44.60	74.00	-29.40	VERTICAL peak
2	1406.443	54.99	24.27	2.66	37.56	44.36	74.00	-29.64	VERTICAL peak
3	4456.315	44.00	34.00	4.61	36.63	45.98	68.20	-22.22	VERTICAL peak
4	8995.123	43.98	37.59	6.57	36.90	51.24	68.20	-16.96	VERTICAL peak
5	11400.000	39.08	40.28	7.61	36.64	50.33	74.00	-23.67	VERTICAL peak
6	17100.000	34.32	41.90	9.45	36.18	49.49	68.20	-18.71	VERTICAL peak

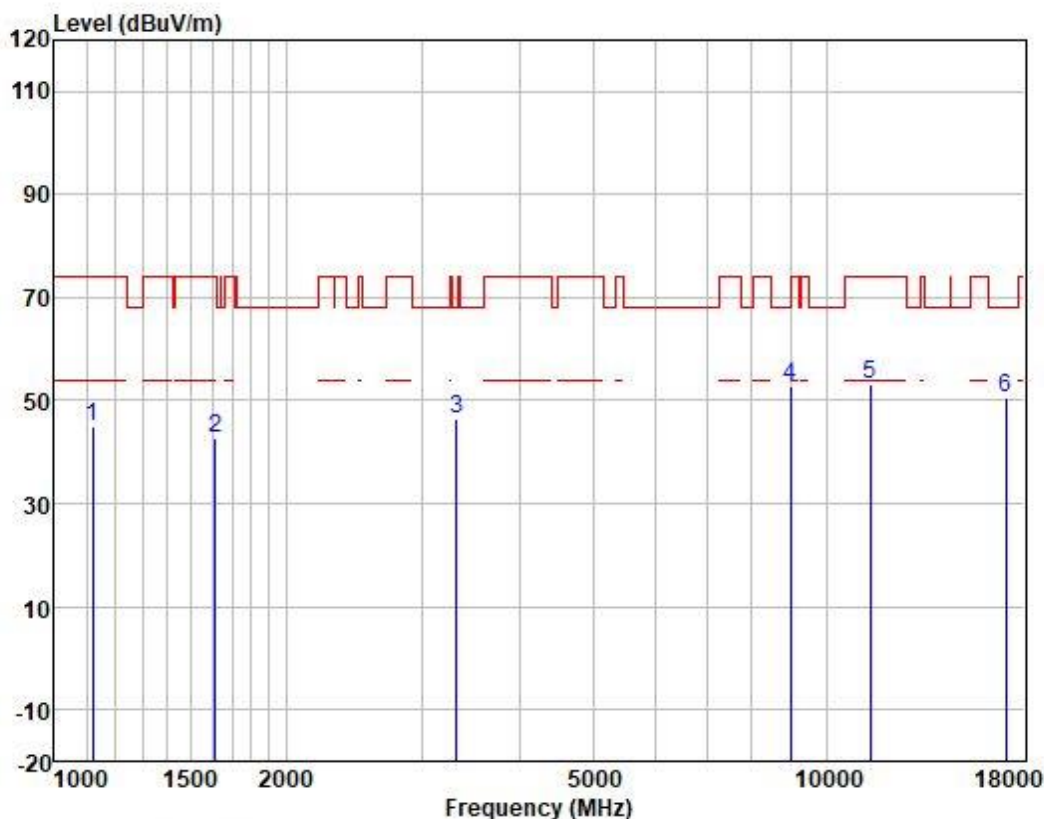


Test Mode: 01; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.83	22.75	2.29	37.67	45.20	74.00	-28.80	HORIZONTAL	peak
2	1615.754	52.36	24.74	2.77	37.44	42.43	74.00	-31.57	HORIZONTAL	peak
3	3318.471	50.44	28.94	4.02	36.77	46.63	68.20	-21.57	HORIZONTAL	peak
4	7807.262	45.00	36.92	6.15	36.99	51.08	68.20	-17.12	HORIZONTAL	peak
5	10480.000	41.33	39.84	7.26	36.77	51.66	68.20	-16.54	HORIZONTAL	peak
6	15720.000	41.07	37.89	9.38	36.60	51.74	74.00	-22.26	HORIZONTAL	peak

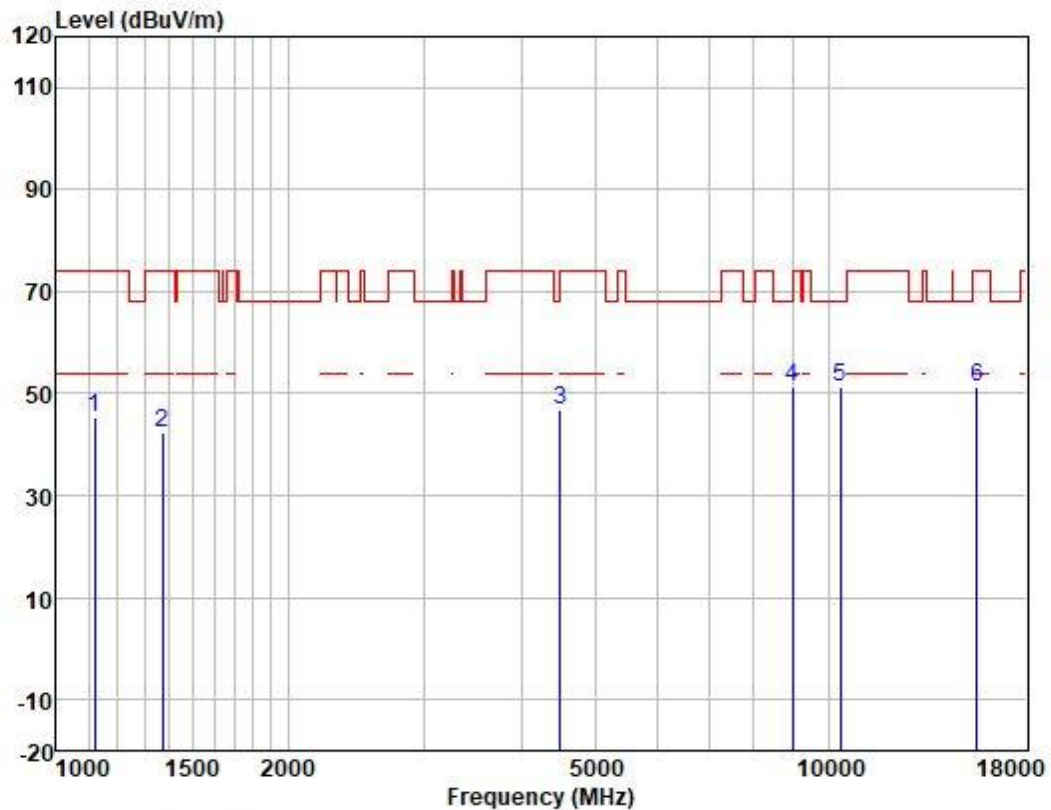
Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.59	22.75	2.29	37.67	44.96	74.00	-29.04	HORIZONTAL peak
2	1615.754	52.74	24.74	2.77	37.44	42.81	74.00	-31.19	HORIZONTAL peak
3	3318.471	50.28	28.94	4.02	36.77	46.47	68.20	-21.73	HORIZONTAL peak
4	8995.123	45.44	37.59	6.57	36.90	52.70	68.20	-15.50	HORIZONTAL peak
5	11400.000	42.01	40.28	7.61	36.64	53.26	74.00	-20.74	HORIZONTAL peak
6	17100.000	35.31	41.90	9.45	36.18	50.48	68.20	-17.72	HORIZONTAL peak

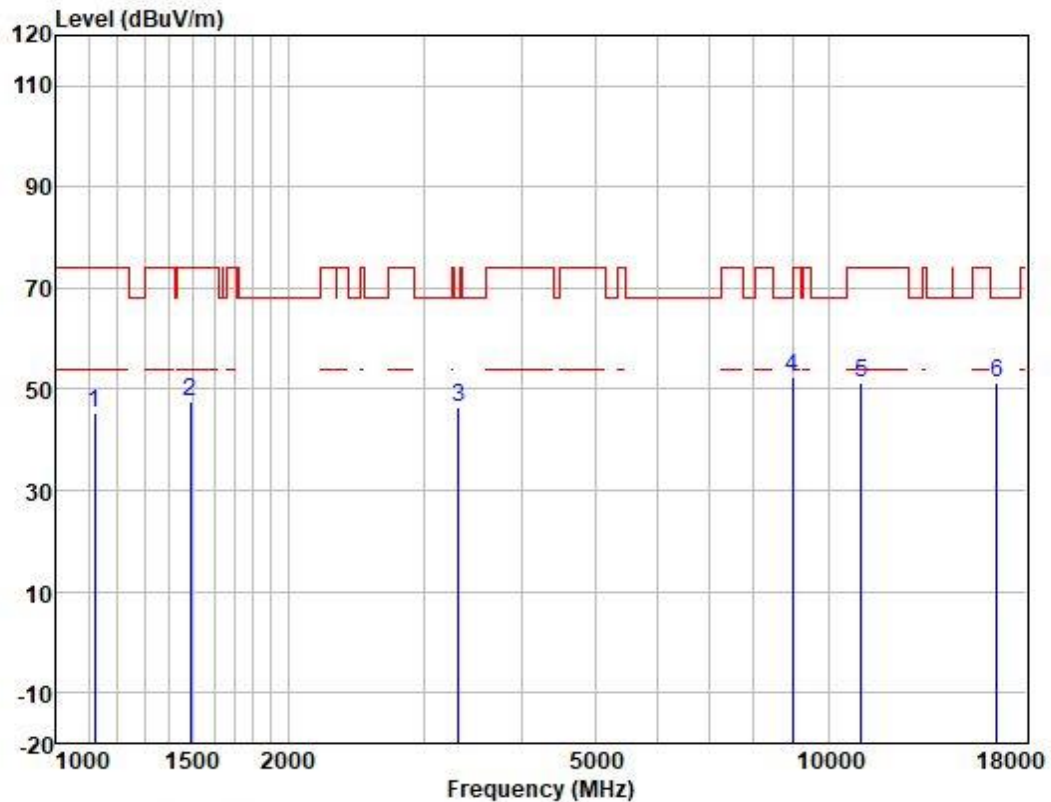


Test Mode: 01; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.89	22.75	2.29	37.67	45.26	74.00	-28.74	VERTICAL	peak
2	1374.295	53.16	24.20	2.64	37.57	42.43	74.00	-31.57	VERTICAL	peak
3	4495.125	44.71	34.17	4.62	36.63	46.87	68.20	-21.33	VERTICAL	peak
4	8995.123	44.15	37.59	6.57	36.90	51.41	68.20	-16.79	VERTICAL	peak
5	10380.000	40.98	39.69	7.25	36.78	51.14	68.20	-17.06	VERTICAL	peak
6	15570.000	40.43	38.23	9.29	36.53	51.42	74.00	-22.58	VERTICAL	peak

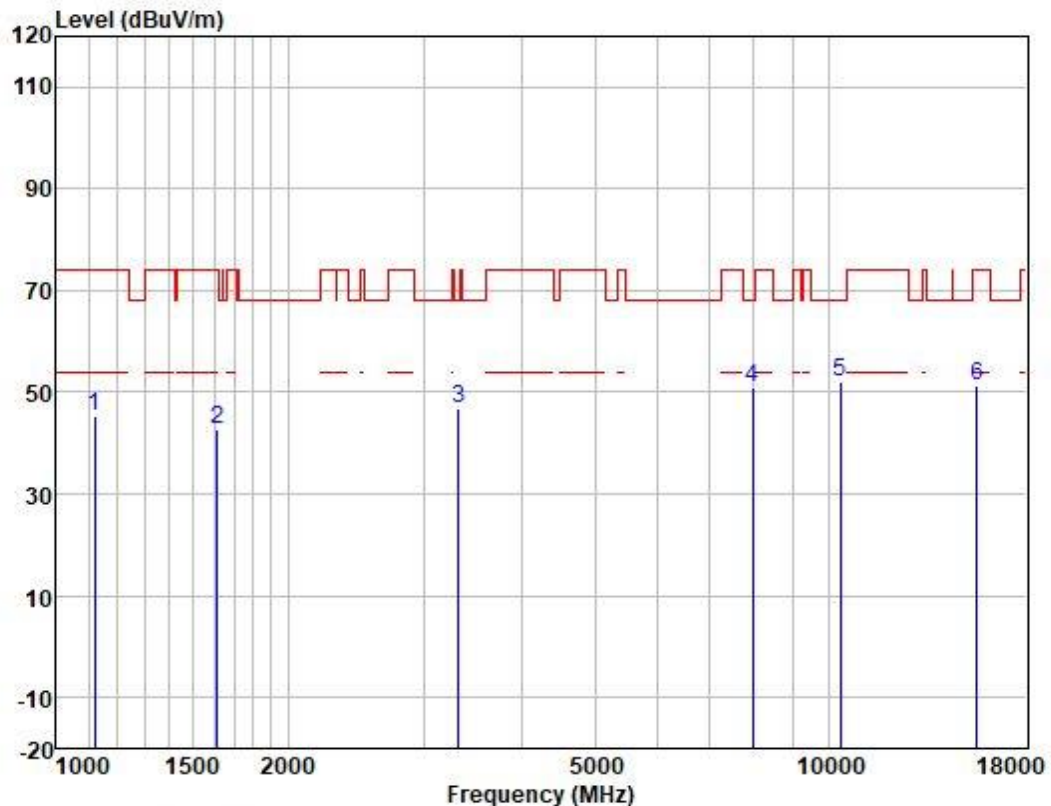
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.83	22.75	2.29	37.67	45.20	74.00	-28.80	VERTICAL peak
2	1490.142	57.94	24.42	2.70	37.52	47.54	74.00	-26.46	VERTICAL peak
3	3318.471	50.18	28.94	4.02	36.77	46.37	68.20	-21.83	VERTICAL peak
4	8995.123	45.14	37.59	6.57	36.90	52.40	68.20	-15.80	VERTICAL peak
5	11020.000	40.18	40.42	7.52	36.69	51.43	74.00	-22.57	VERTICAL peak
6	16530.000	39.57	38.94	9.35	36.55	51.31	68.20	-16.89	VERTICAL peak



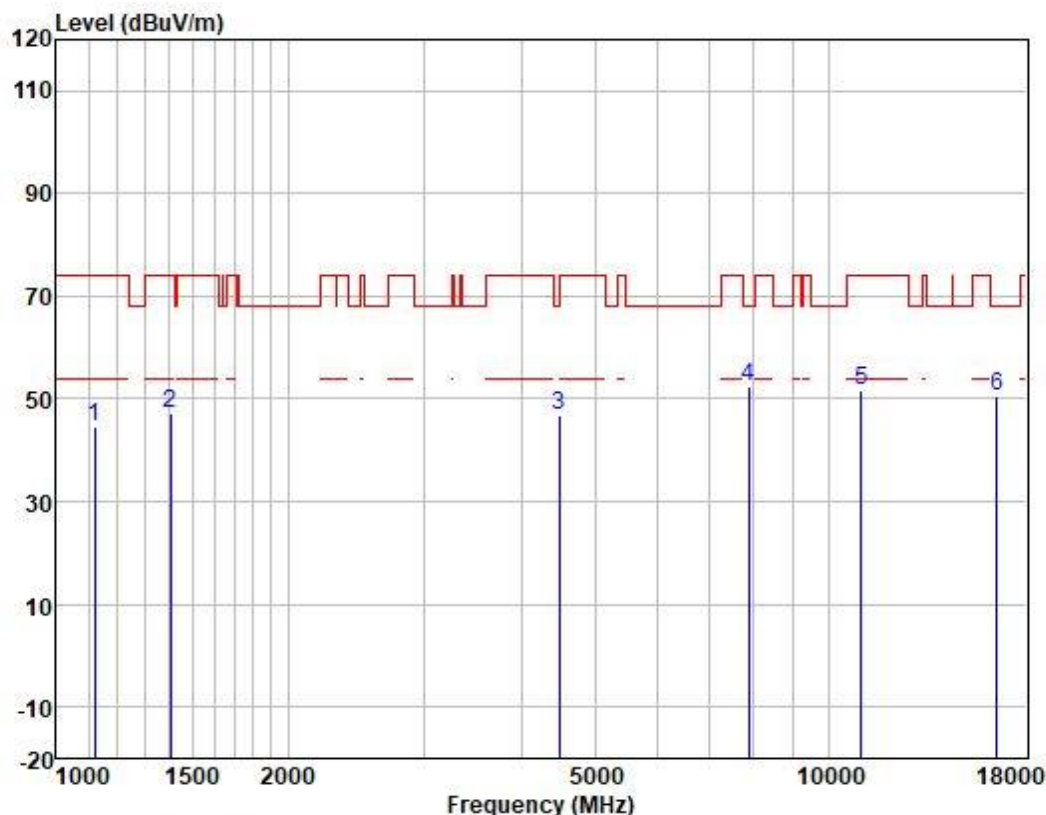
Test Mode: 01; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.07	22.75	2.29	37.67	45.44	74.00	-28.56	HORIZONTAL	peak
2	1615.754	52.47	24.74	2.77	37.44	42.54	74.00	-31.46	HORIZONTAL	peak
3	3318.471	50.58	28.94	4.02	36.77	46.77	68.20	-21.43	HORIZONTAL	peak
4	7989.893	44.72	37.14	6.20	37.00	51.06	68.20	-17.14	HORIZONTAL	peak
5	10380.000	41.89	39.69	7.25	36.78	52.05	68.20	-16.15	HORIZONTAL	peak
6	15570.000	40.48	38.23	9.29	36.53	51.47	74.00	-22.53	HORIZONTAL	peak

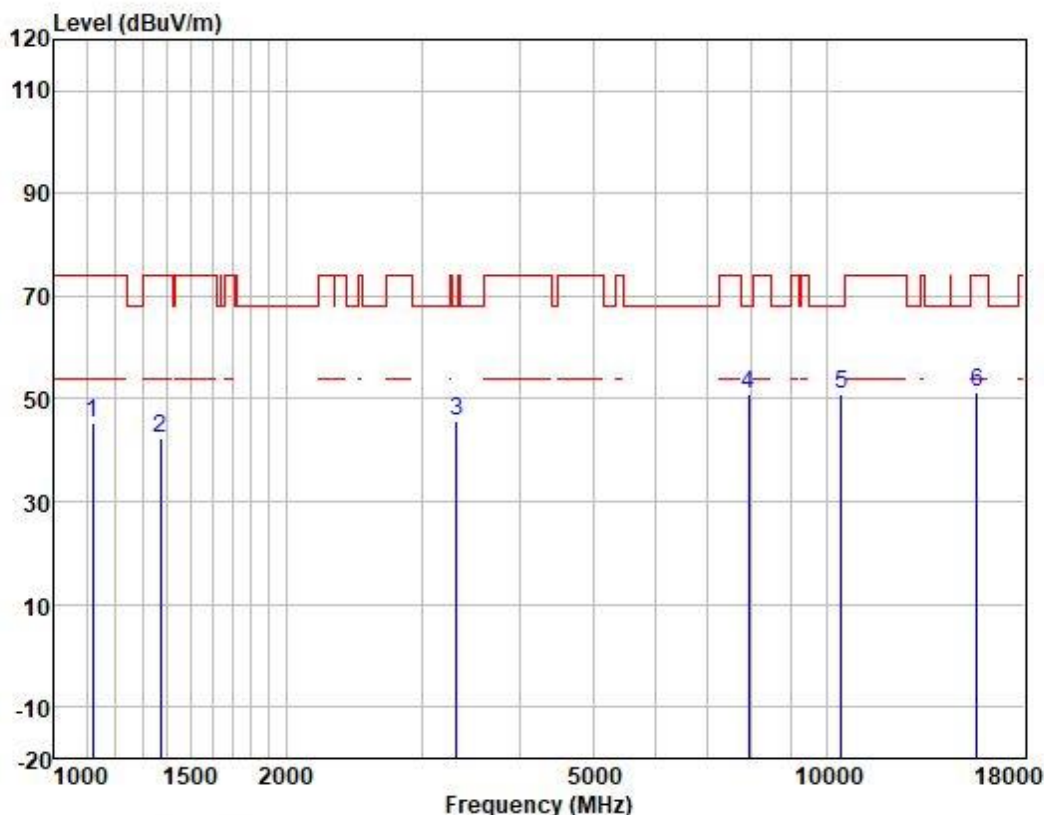


Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



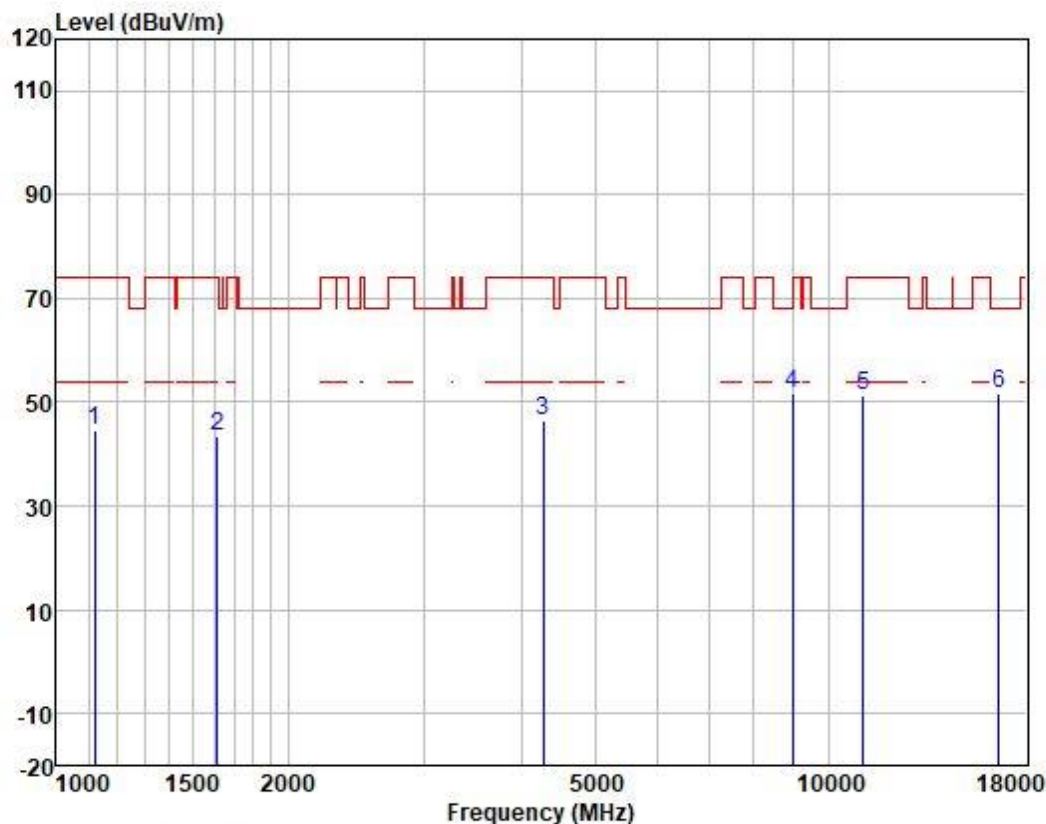
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.35	22.75	2.29	37.67	44.72	74.00	-29.28	HORIZONTAL	peak
2	1406.443	57.93	24.27	2.66	37.56	47.30	74.00	-26.70	HORIZONTAL	peak
3	4482.150	44.82	34.12	4.62	36.63	46.93	68.20	-21.27	HORIZONTAL	peak
4	7898.049	46.13	37.04	6.18	36.99	52.36	68.20	-15.84	HORIZONTAL	peak
5	11020.000	40.42	40.42	7.52	36.69	51.67	74.00	-22.33	HORIZONTAL	peak
6	16530.000	38.68	38.94	9.35	36.55	50.42	68.20	-17.78	HORIZONTAL	peak

Test Mode: 01; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.87	22.75	2.29	37.67	45.24	74.00	-28.76	VERTICAL	peak
2	1374.295	53.06	24.20	2.64	37.57	42.33	74.00	-31.67	VERTICAL	peak
3	3318.471	49.69	28.94	4.02	36.77	45.88	68.20	-22.32	VERTICAL	peak
4	7943.838	44.80	37.09	6.19	37.00	51.08	68.20	-17.12	VERTICAL	peak
5	10460.000	40.82	39.79	7.26	36.77	51.10	68.20	-17.10	VERTICAL	peak
6	15690.000	40.73	38.01	9.34	36.59	51.49	74.00	-22.51	VERTICAL	peak

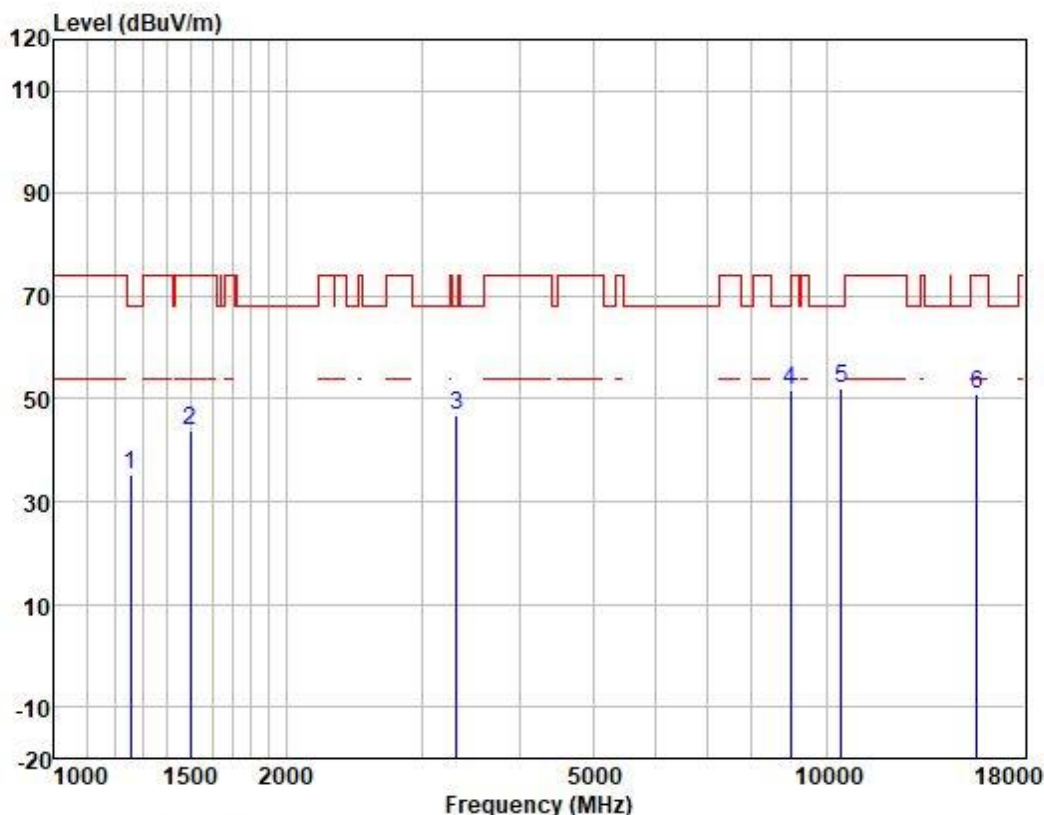
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.11	22.75	2.29	37.67	44.48	74.00	-29.52	VERTICAL peak
2	1615.754	53.28	24.74	2.77	37.44	43.35	74.00	-30.65	VERTICAL peak
3	4279.589	45.61	32.82	4.57	36.62	46.38	74.00	-27.62	VERTICAL peak
4	8995.123	44.25	37.59	6.57	36.90	51.51	68.20	-16.69	VERTICAL peak
5	11100.000	40.03	40.39	7.54	36.68	51.28	74.00	-22.72	VERTICAL peak
6	16650.000	39.42	39.49	9.36	36.49	51.78	68.20	-16.42	VERTICAL peak



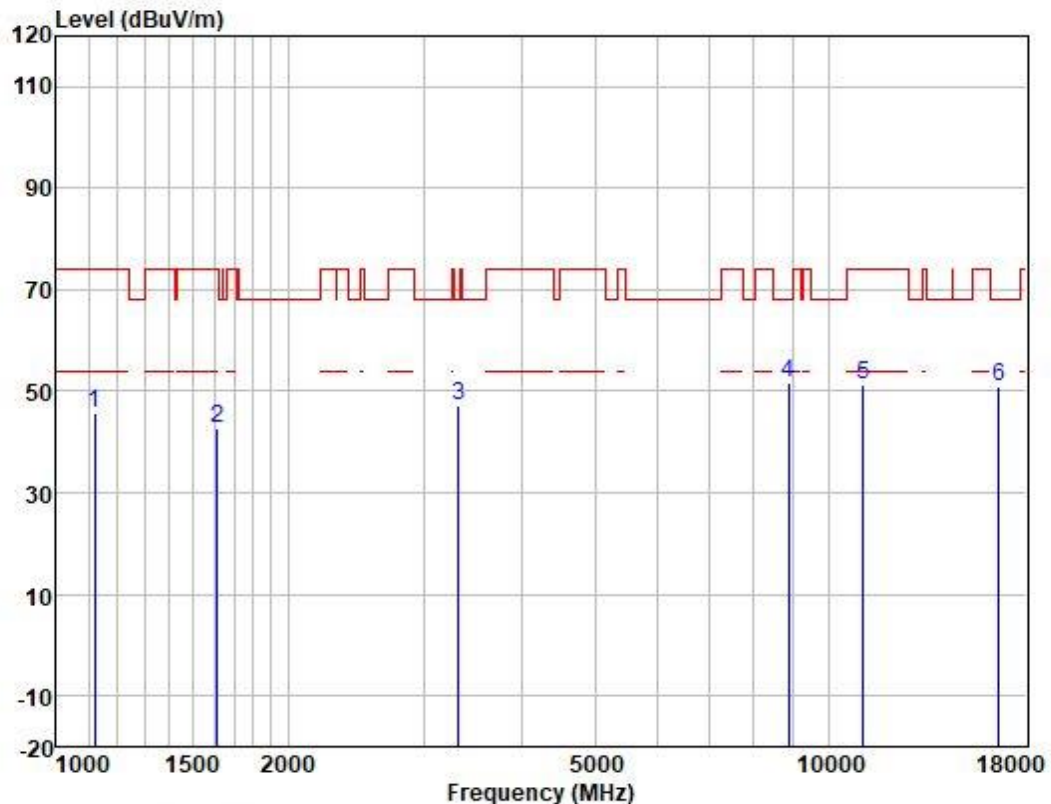
Test Mode: 01; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna		Cable	Preamp		Limit	Over	Pol/Phase	Remark
		Level	Factor	Loss	Factor	Level	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1256.512	46.59	23.74	2.53	37.63	35.23	68.20	-32.97	HORIZONTAL	Peak
2	1498.781	54.37	24.43	2.70	37.50	44.00	74.00	-30.00	HORIZONTAL	peak
3	3318.471	50.74	28.94	4.02	36.77	46.93	68.20	-21.27	HORIZONTAL	peak
4	8995.123	44.52	37.59	6.57	36.90	51.78	68.20	-16.42	HORIZONTAL	peak
5	10460.000	41.70	39.79	7.26	36.77	51.98	68.20	-16.22	HORIZONTAL	peak
6	15690.000	40.32	38.01	9.34	36.59	51.08	74.00	-22.92	HORIZONTAL	peak



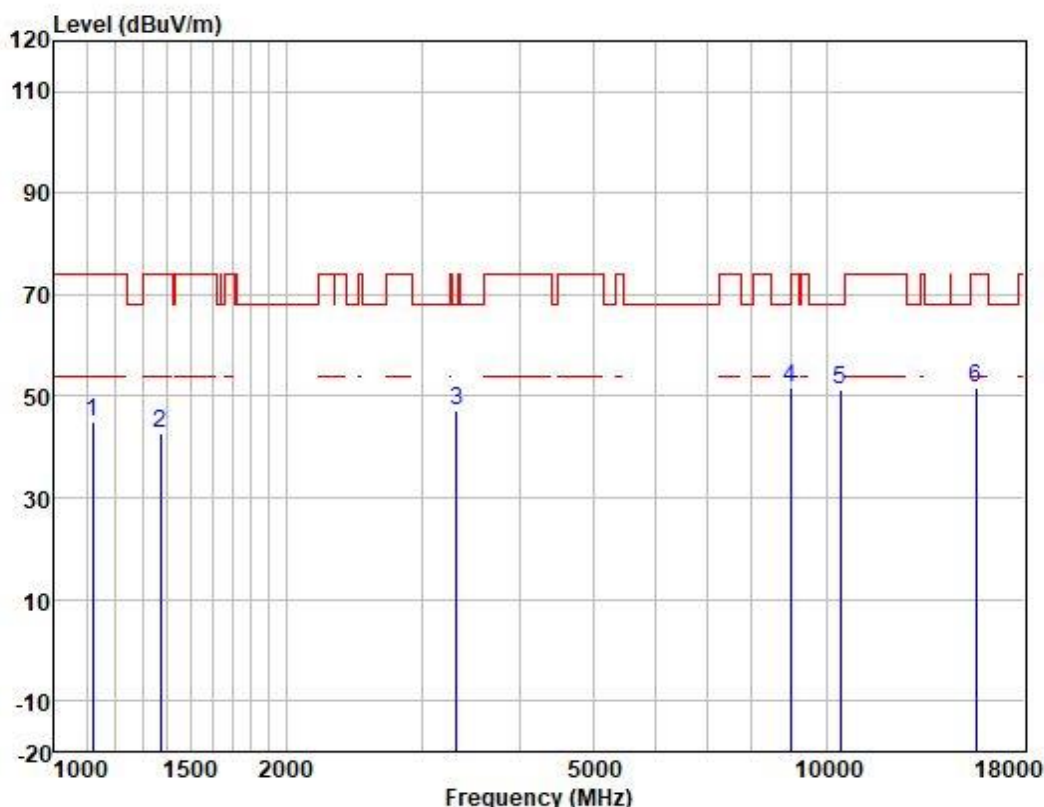
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.17	22.75	2.29	37.67	45.54	74.00	-28.46	HORIZONTAL peak
2	1615.754	52.61	24.74	2.77	37.44	42.68	74.00	-31.32	HORIZONTAL peak
3	3318.471	50.83	28.94	4.02	36.77	47.02	68.20	-21.18	HORIZONTAL peak
4	8891.725	44.70	37.41	6.55	36.93	51.73	68.20	-16.47	HORIZONTAL peak
5	11100.000	40.01	40.39	7.54	36.68	51.26	74.00	-22.74	HORIZONTAL peak
6	16650.000	38.63	39.49	9.36	36.49	50.99	68.20	-17.21	HORIZONTAL peak



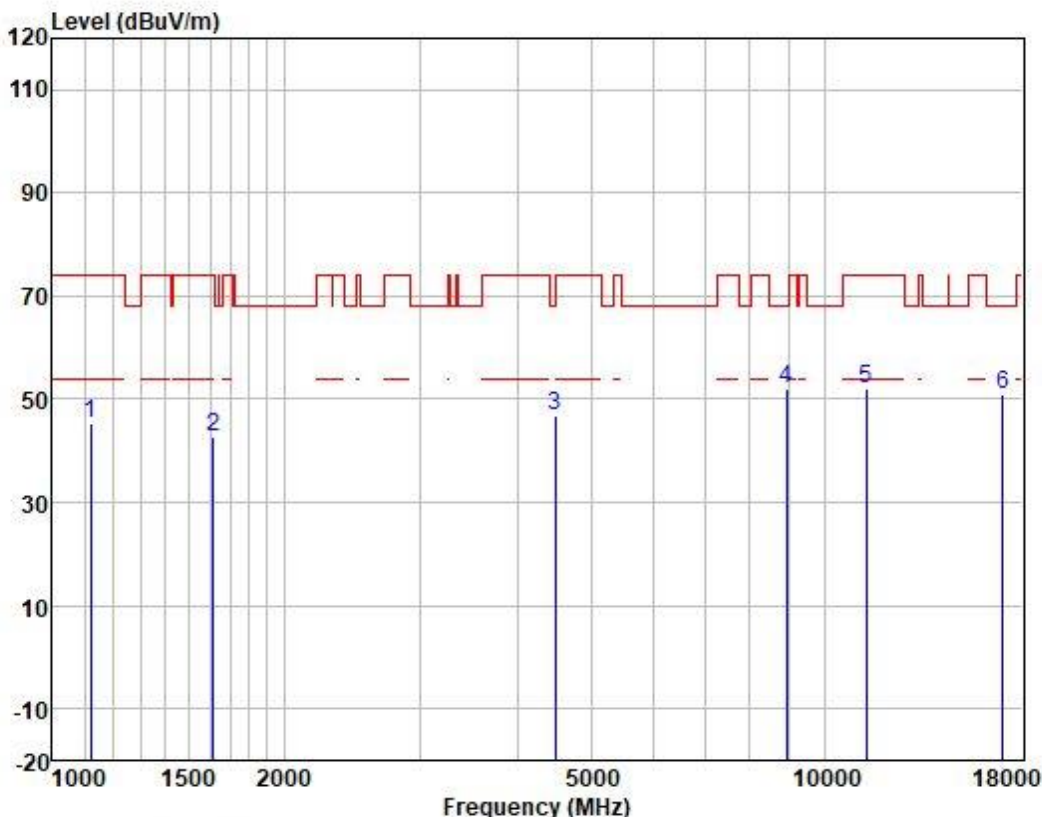
Test Mode: 01; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.47	22.75	2.29	37.67	44.84	74.00	-29.16	VERTICAL peak
2	1374.295	53.33	24.20	2.64	37.57	42.60	74.00	-31.40	VERTICAL peak
3	3318.471	50.86	28.94	4.02	36.77	47.05	68.20	-21.15	VERTICAL peak
4	8995.123	44.46	37.59	6.57	36.90	51.72	68.20	-16.48	VERTICAL peak
5	10420.000	41.13	39.74	7.25	36.78	51.34	68.20	-16.86	VERTICAL peak
6	15630.000	40.63	38.13	9.32	36.56	51.52	74.00	-22.48	VERTICAL peak



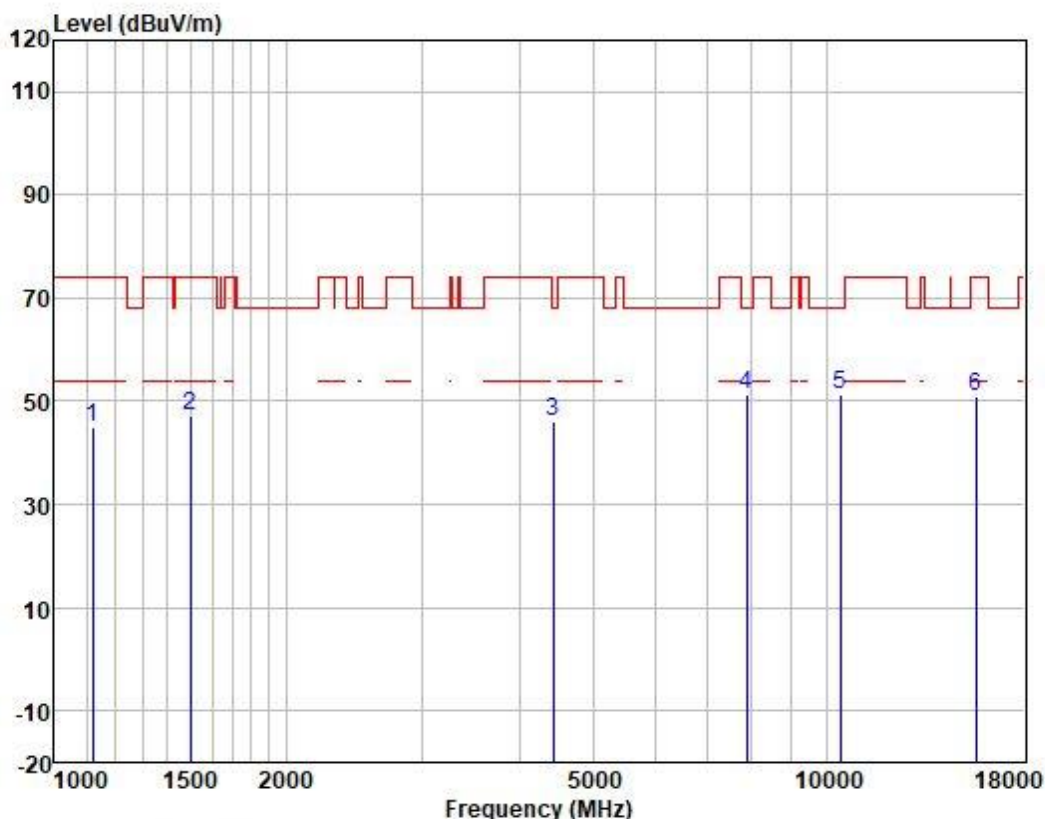
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.01	22.75	2.29	37.67	45.38	74.00	-28.62	VERTICAL	peak
2	1615.754	52.56	24.74	2.77	37.44	42.63	74.00	-31.37	VERTICAL	peak
3	4482.150	44.60	34.12	4.62	36.63	46.71	68.20	-21.49	VERTICAL	peak
4	8943.274	45.08	37.50	6.56	36.91	52.23	68.20	-15.97	VERTICAL	peak
5	11340.000	40.74	40.31	7.59	36.65	51.99	74.00	-22.01	VERTICAL	peak
6	17010.000	36.08	41.57	9.43	36.25	50.83	68.20	-17.37	VERTICAL	peak



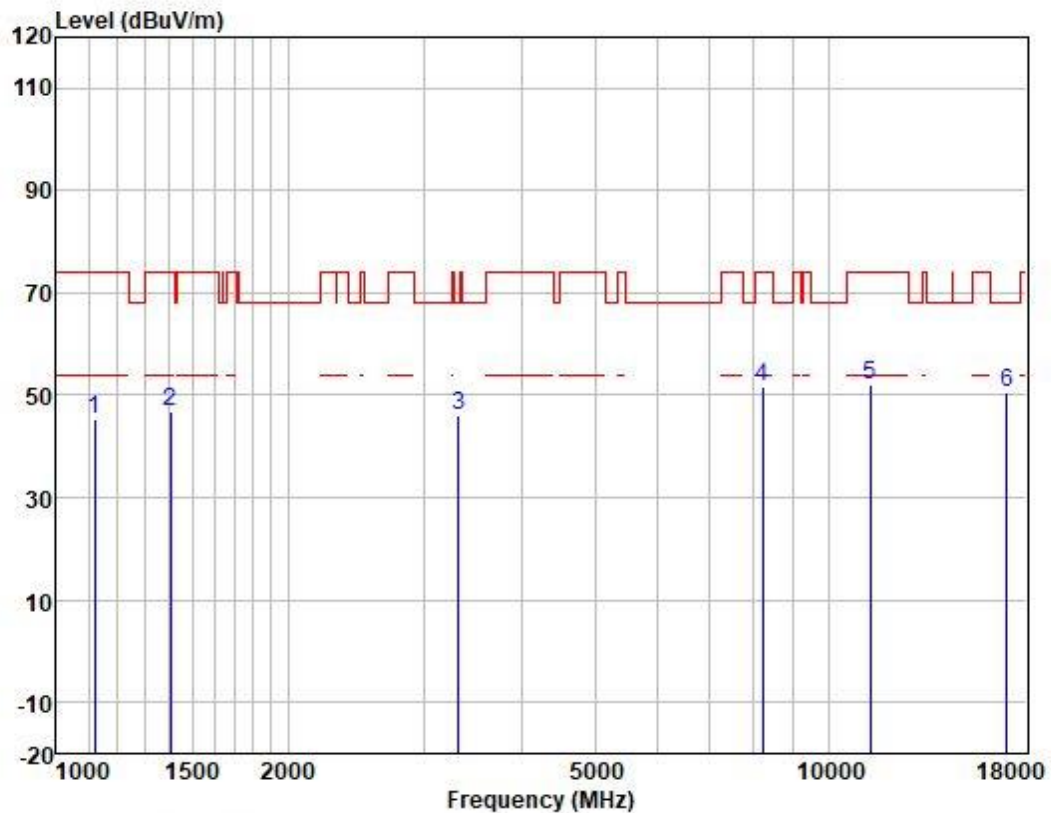
Test Mode: 01; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.52	22.75	2.29	37.67	44.89	74.00	-29.11	HORIZONTAL	peak
2	1498.781	57.41	24.43	2.70	37.50	47.04	74.00	-26.96	HORIZONTAL	peak
3	4430.628	44.41	33.87	4.61	36.63	46.26	68.20	-21.94	HORIZONTAL	peak
4	7898.049	45.14	37.04	6.18	36.99	51.37	68.20	-16.83	HORIZONTAL	peak
5	10420.000	41.20	39.74	7.25	36.78	51.41	68.20	-16.79	HORIZONTAL	peak
6	15630.000	40.01	38.13	9.32	36.56	50.90	74.00	-23.10	HORIZONTAL	peak



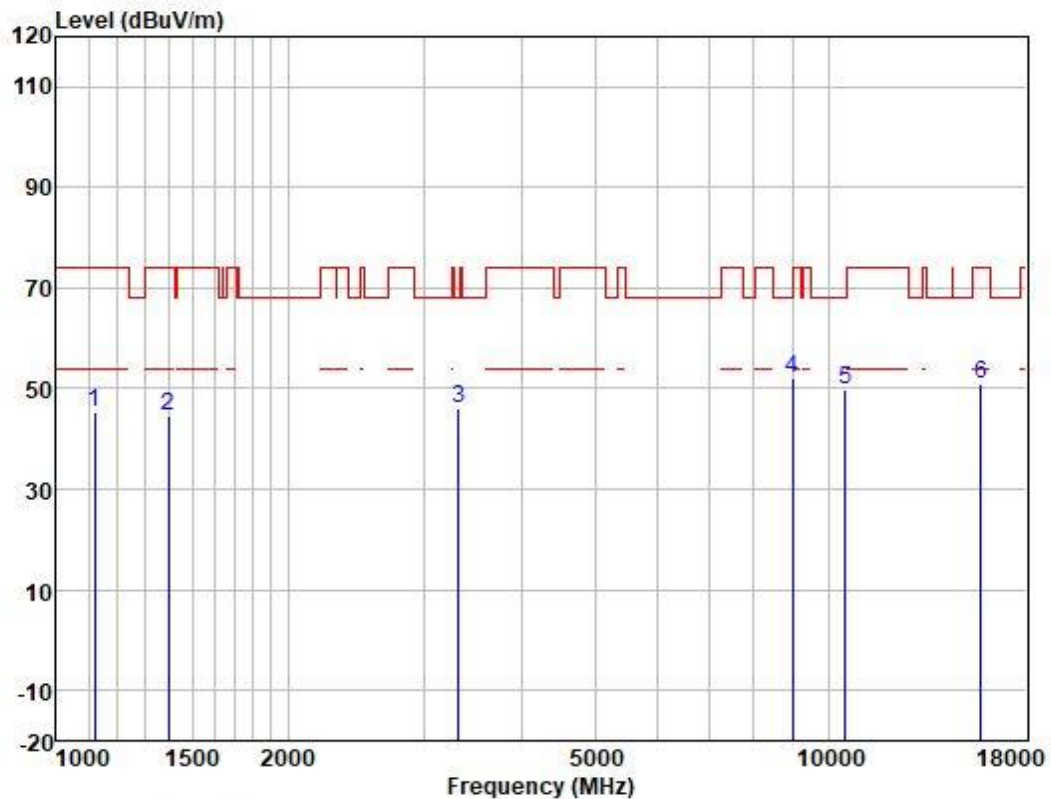
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.89	22.75	2.29	37.67	45.26	74.00	-28.74	HORIZONTAL	peak
2	1406.443	57.33	24.27	2.66	37.56	46.70	74.00	-27.30	HORIZONTAL	peak
3	3318.471	49.71	28.94	4.02	36.77	45.90	68.20	-22.30	HORIZONTAL	peak
4	8224.200	45.41	36.84	6.32	36.99	51.58	74.00	-22.42	HORIZONTAL	peak
5	11340.000	40.86	40.31	7.59	36.65	52.11	74.00	-21.89	HORIZONTAL	peak
6	17010.000	35.87	41.57	9.43	36.25	50.62	68.20	-17.58	HORIZONTAL	peak



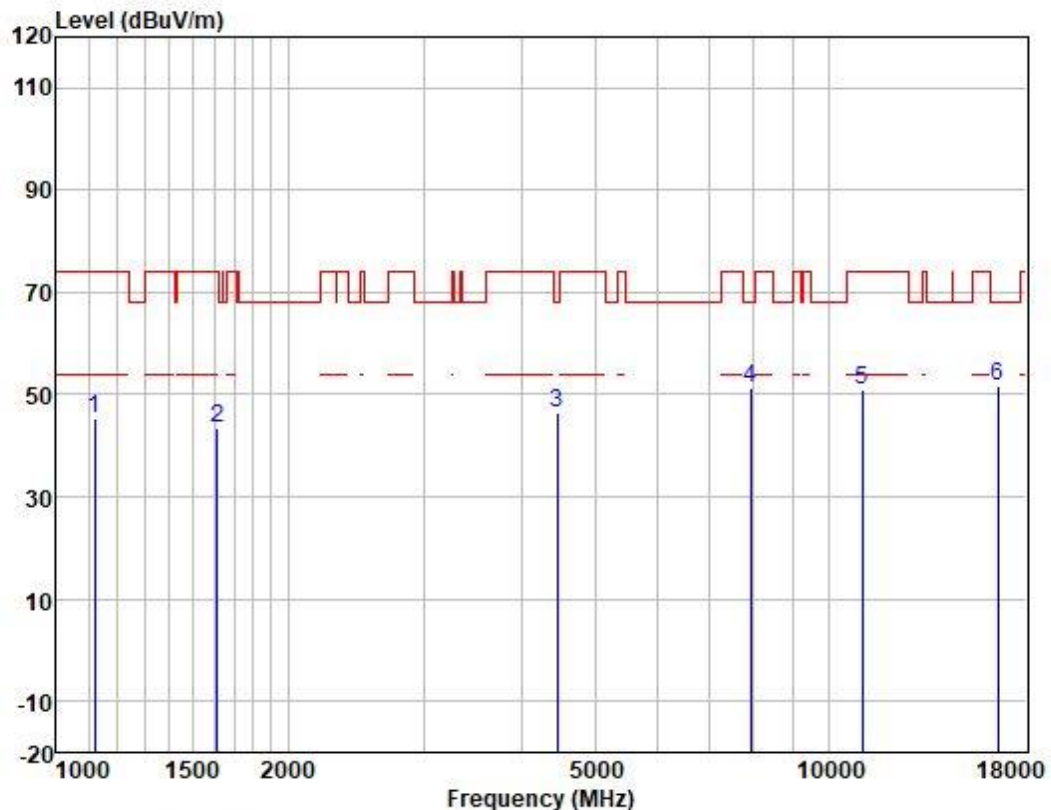
Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.07	22.75	2.29	37.67	45.44	74.00	-28.56	VERTICAL peak
2	1398.336	55.17	24.26	2.66	37.56	44.53	74.00	-29.47	VERTICAL peak
3	3318.471	49.74	28.94	4.02	36.77	45.93	68.20	-22.27	VERTICAL peak
4	8995.123	44.84	37.59	6.57	36.90	52.10	68.20	-16.10	VERTICAL peak
5	10520.000	39.44	39.88	7.26	36.77	49.81	68.20	-18.39	VERTICAL peak
6	15780.000	40.34	37.75	9.41	36.63	50.87	74.00	-23.13	VERTICAL peak



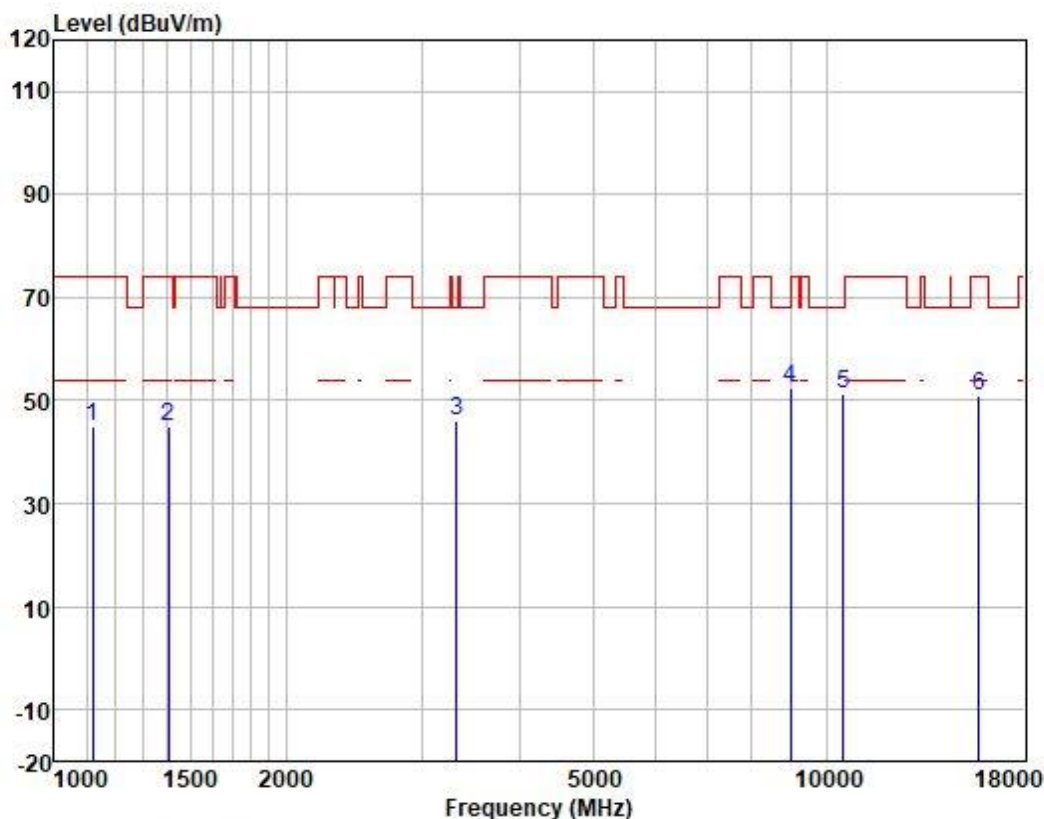
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.01	22.75	2.29	37.67	45.38	74.00	-28.62	VERTICAL peak
2	1615.754	53.33	24.74	2.77	37.44	43.40	74.00	-30.60	VERTICAL peak
3	4456.315	44.30	34.00	4.61	36.63	46.28	68.20	-21.92	VERTICAL peak
4	7943.838	45.12	37.09	6.19	37.00	51.40	68.20	-16.80	VERTICAL peak
5	11060.000	39.54	40.41	7.53	36.68	50.80	74.00	-23.20	VERTICAL peak
6	16590.000	39.48	39.21	9.36	36.53	51.52	68.20	-16.68	VERTICAL peak



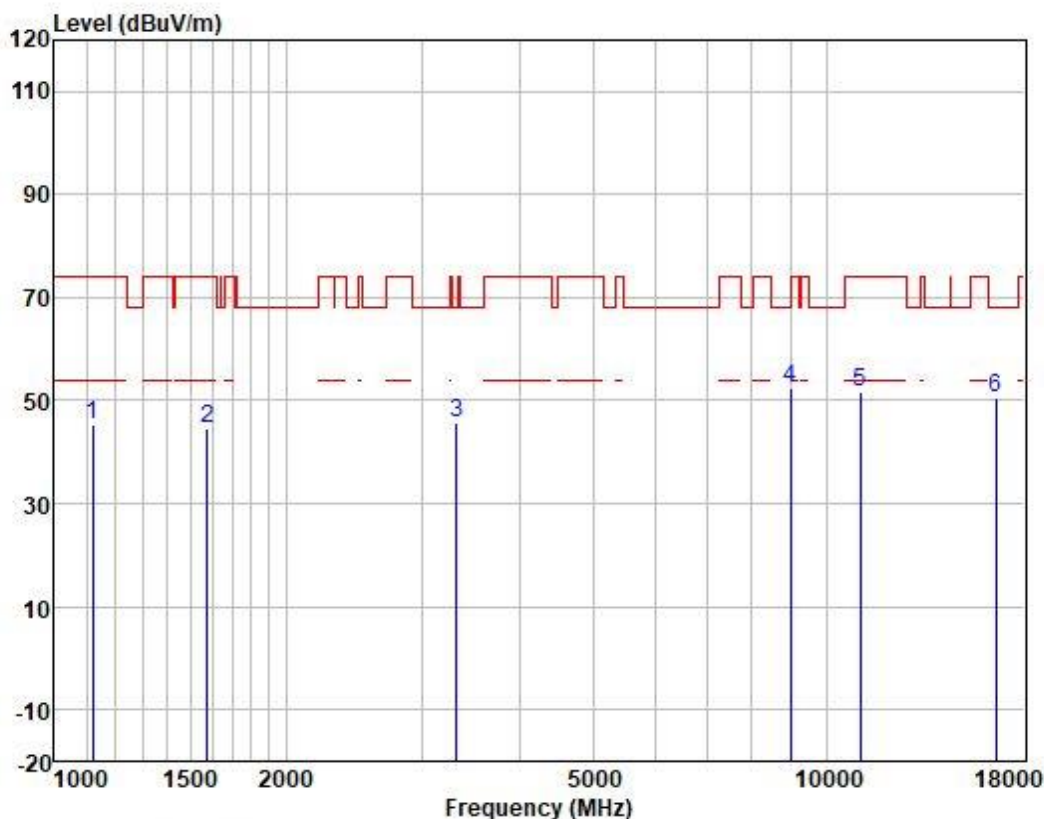
Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.59	22.75	2.29	37.67	44.96	74.00	-29.04	HORIZONTAL peak
2	1406.443	55.43	24.27	2.66	37.56	44.80	74.00	-29.20	HORIZONTAL peak
3	3318.471	49.94	28.94	4.02	36.77	46.13	68.20	-22.07	HORIZONTAL peak
4	8995.123	45.31	37.59	6.57	36.90	52.57	68.20	-15.63	HORIZONTAL peak
5	10520.000	40.85	39.88	7.26	36.77	51.22	68.20	-16.98	HORIZONTAL peak
6	15780.000	40.37	37.75	9.41	36.63	50.90	74.00	-23.10	HORIZONTAL peak



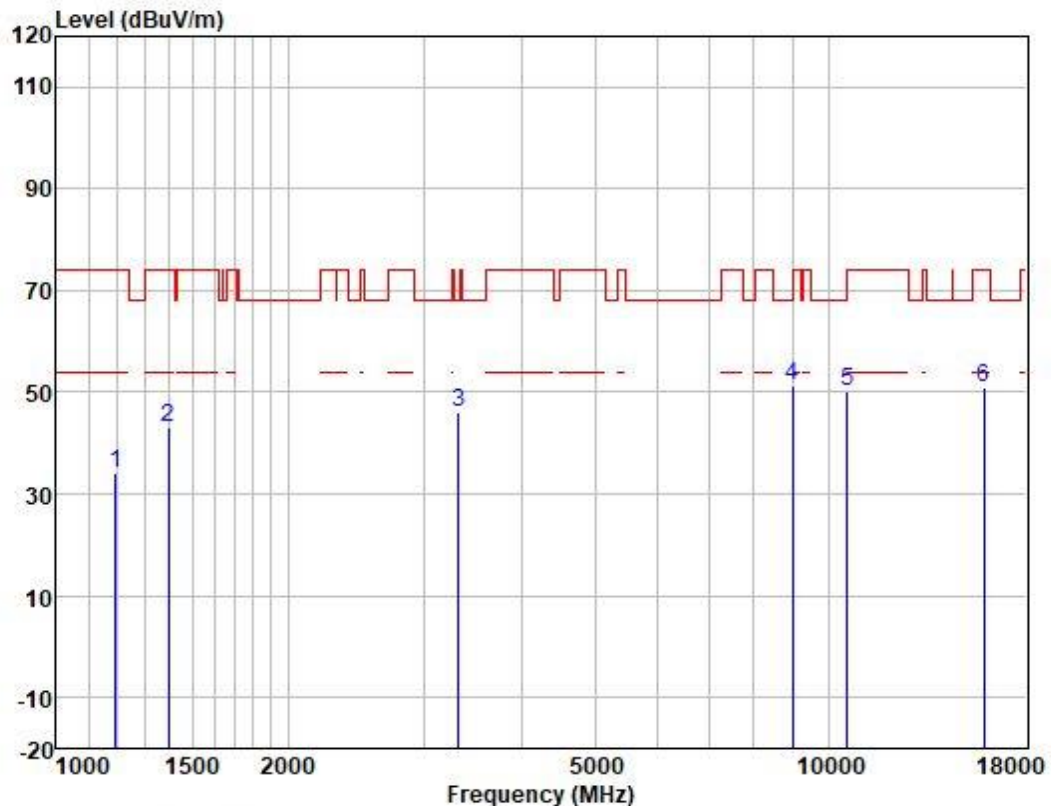
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.83	22.75	2.29	37.67	45.20	74.00	-28.80	HORIZONTAL peak
2	1578.822	54.59	24.62	2.74	37.45	44.50	74.00	-29.50	HORIZONTAL peak
3	3318.471	49.70	28.94	4.02	36.77	45.89	68.20	-22.31	HORIZONTAL peak
4	8995.123	45.02	37.59	6.57	36.90	52.28	68.20	-15.92	HORIZONTAL peak
5	11060.000	40.36	40.41	7.53	36.68	51.62	74.00	-22.38	HORIZONTAL peak
6	16590.000	38.50	39.21	9.36	36.53	50.54	68.20	-17.66	HORIZONTAL peak



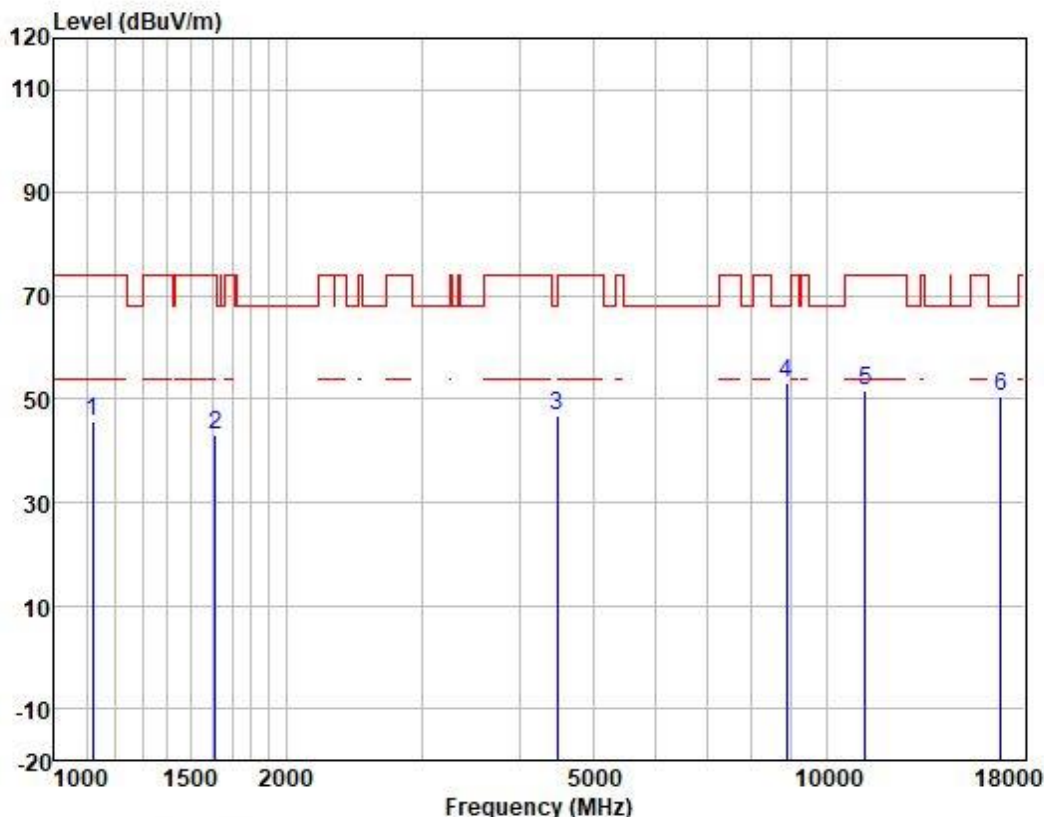
Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1192.811	46.20	23.11	2.38	37.64	34.05	74.00	-39.95	VERTICAL	Peak
2	1398.336	53.83	24.26	2.66	37.56	43.19	74.00	-30.81	VERTICAL	peak
3	3318.471	49.81	28.94	4.02	36.77	46.00	68.20	-22.20	VERTICAL	peak
4	8995.123	44.12	37.59	6.57	36.90	51.38	68.20	-16.82	VERTICAL	peak
5	10600.000	39.81	39.96	7.30	36.76	50.31	68.20	-17.89	VERTICAL	peak
6	15900.000	40.86	37.32	9.52	36.67	51.03	74.00	-22.97	VERTICAL	peak



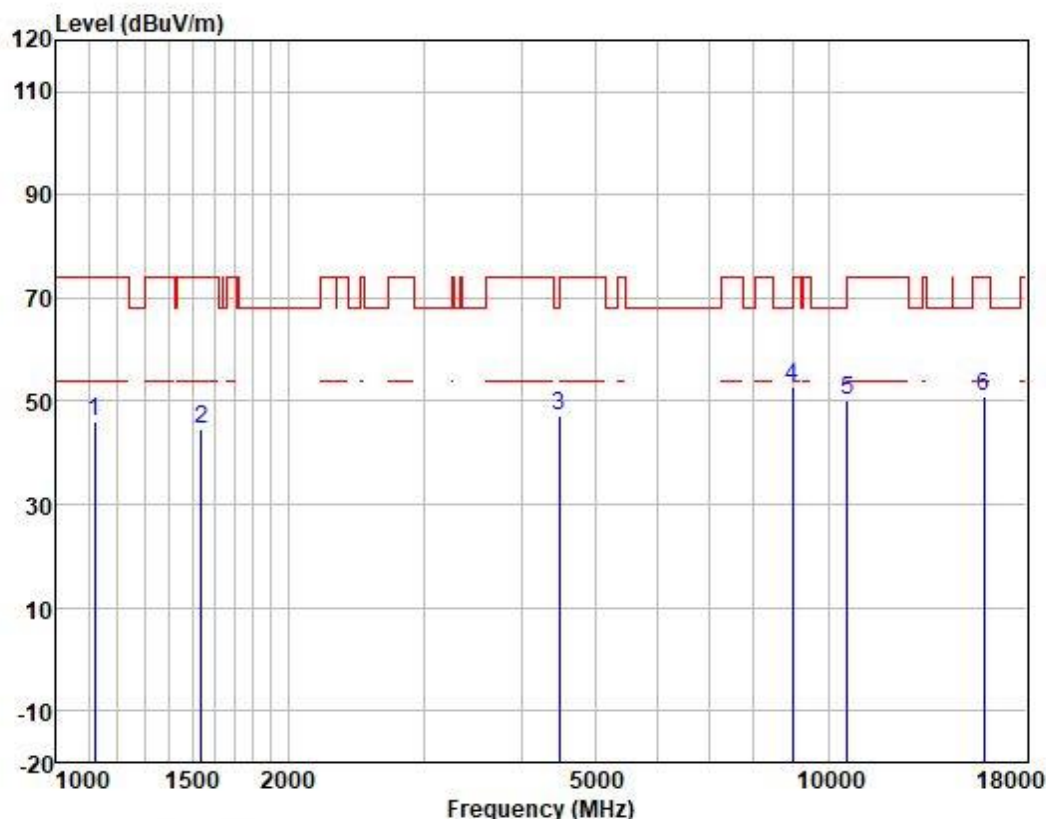
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.39	22.75	2.29	37.67	45.76	74.00	-28.24	VERTICAL	peak
2	1615.754	52.85	24.74	2.77	37.44	42.92	74.00	-31.08	VERTICAL	peak
3	4482.150	44.85	34.12	4.62	36.63	46.96	68.20	-21.24	VERTICAL	peak
4	8891.725	46.20	37.41	6.55	36.93	53.23	68.20	-14.97	VERTICAL	peak
5	11220.000	40.43	40.36	7.56	36.66	51.69	74.00	-22.31	VERTICAL	peak
6	16830.000	36.66	40.78	9.41	36.40	50.45	68.20	-17.75	VERTICAL	peak



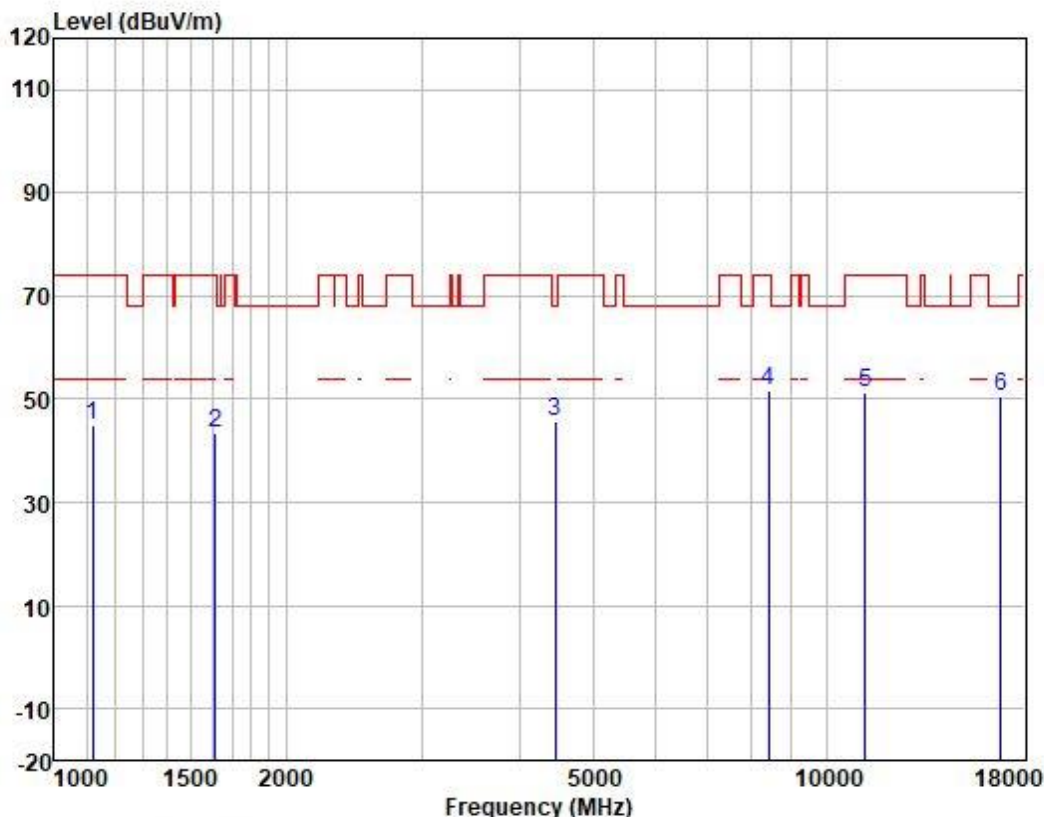
Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.55	22.75	2.29	37.67	45.92	74.00	-28.08	HORIZONTAL peak
2	1542.733	54.64	24.53	2.72	37.48	44.41	74.00	-29.59	HORIZONTAL peak
3	4482.150	45.04	34.12	4.62	36.63	47.15	68.20	-21.05	HORIZONTAL peak
4	8995.123	45.43	37.59	6.57	36.90	52.69	68.20	-15.51	HORIZONTAL peak
5	10600.000	39.66	39.96	7.30	36.76	50.16	68.20	-18.04	HORIZONTAL peak
6	15900.000	40.79	37.32	9.52	36.67	50.96	74.00	-23.04	HORIZONTAL peak



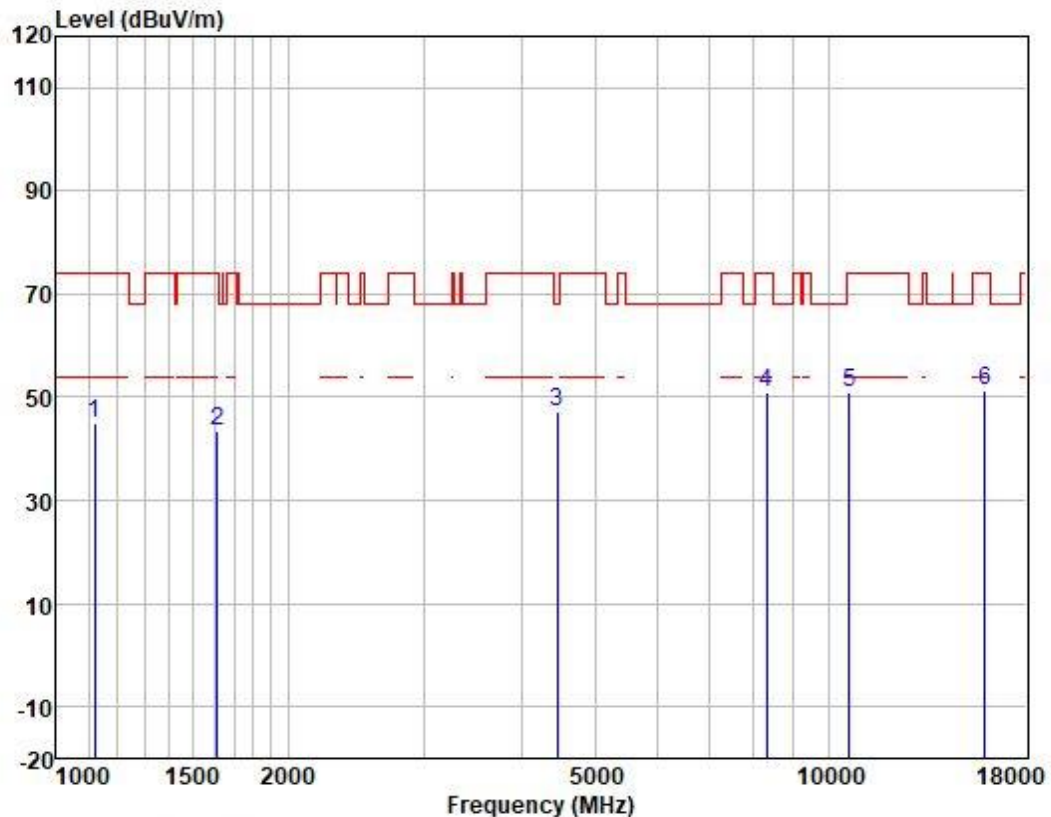
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.65	22.75	2.29	37.67	45.02	74.00	-28.98	HORIZONTAL	peak
2	1615.754	53.58	24.74	2.77	37.44	43.65	74.00	-30.35	HORIZONTAL	peak
3	4456.315	43.87	34.00	4.61	36.63	45.85	68.20	-22.35	HORIZONTAL	peak
4	8416.584	45.66	36.54	6.44	36.98	51.66	74.00	-22.34	HORIZONTAL	peak
5	11220.000	40.15	40.36	7.56	36.66	51.41	74.00	-22.59	HORIZONTAL	peak
6	16830.000	36.75	40.78	9.41	36.40	50.54	68.20	-17.66	HORIZONTAL	peak



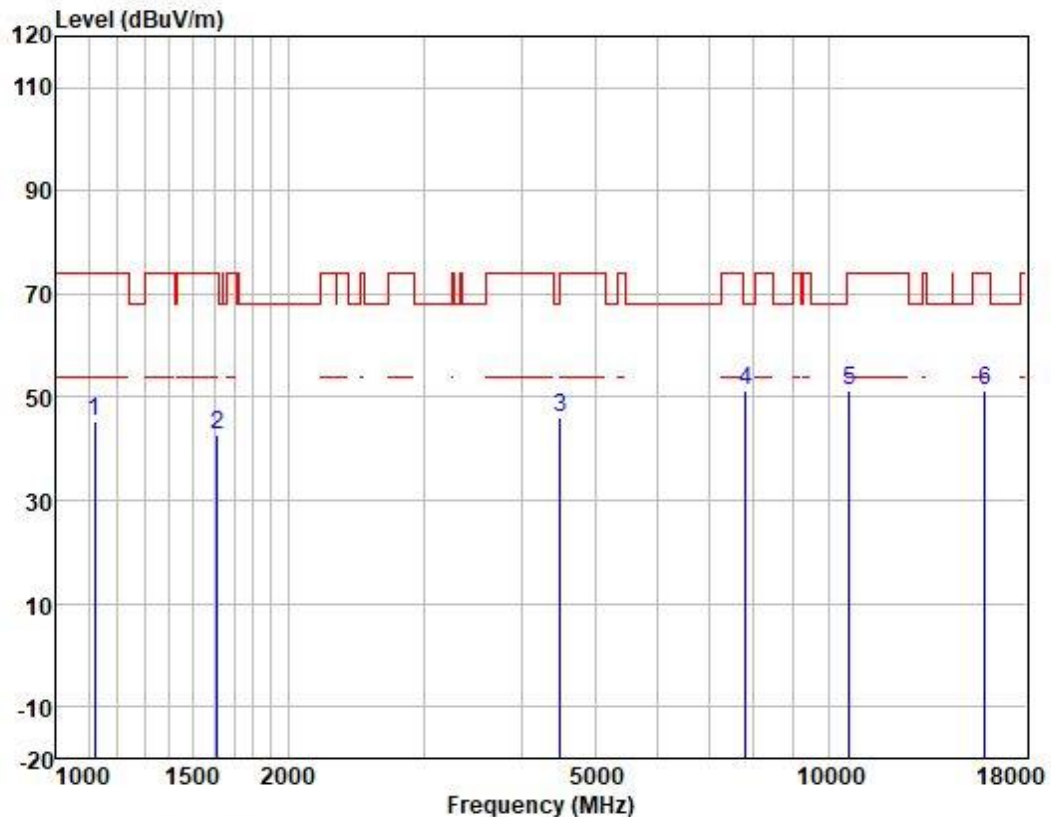
Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.63	22.75	2.29	37.67	45.00	74.00	-29.00	VERTICAL peak
2	1615.754	53.26	24.74	2.77	37.44	43.33	74.00	-30.67	VERTICAL peak
3	4456.315	45.32	34.00	4.61	36.63	47.30	68.20	-20.90	VERTICAL peak
4	8319.836	44.81	36.67	6.39	36.98	50.89	74.00	-23.11	VERTICAL peak
5	10640.000	40.32	40.00	7.32	36.76	50.88	74.00	-23.12	VERTICAL peak
6	15960.000	41.43	37.20	9.55	36.69	51.49	74.00	-22.51	VERTICAL peak



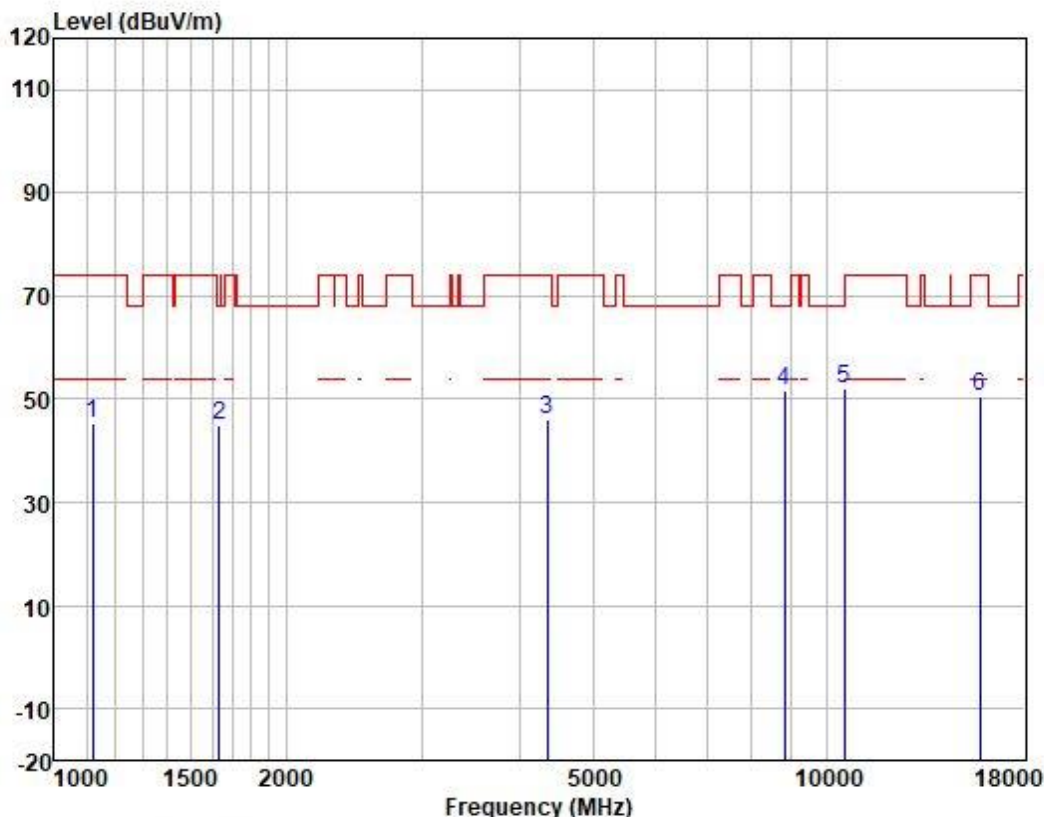
Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.03	22.75	2.29	37.67	45.40	74.00	-28.60	HORIZONTAL peak
2	1615.754	52.65	24.74	2.77	37.44	42.72	74.00	-31.28	HORIZONTAL peak
3	4495.125	43.84	34.17	4.62	36.63	46.00	68.20	-22.20	HORIZONTAL peak
4	7807.262	45.31	36.92	6.15	36.99	51.39	68.20	-16.81	HORIZONTAL peak
5	10640.000	40.81	40.00	7.32	36.76	51.37	74.00	-22.63	HORIZONTAL peak
6	15960.000	41.24	37.20	9.55	36.69	51.30	74.00	-22.70	HORIZONTAL peak



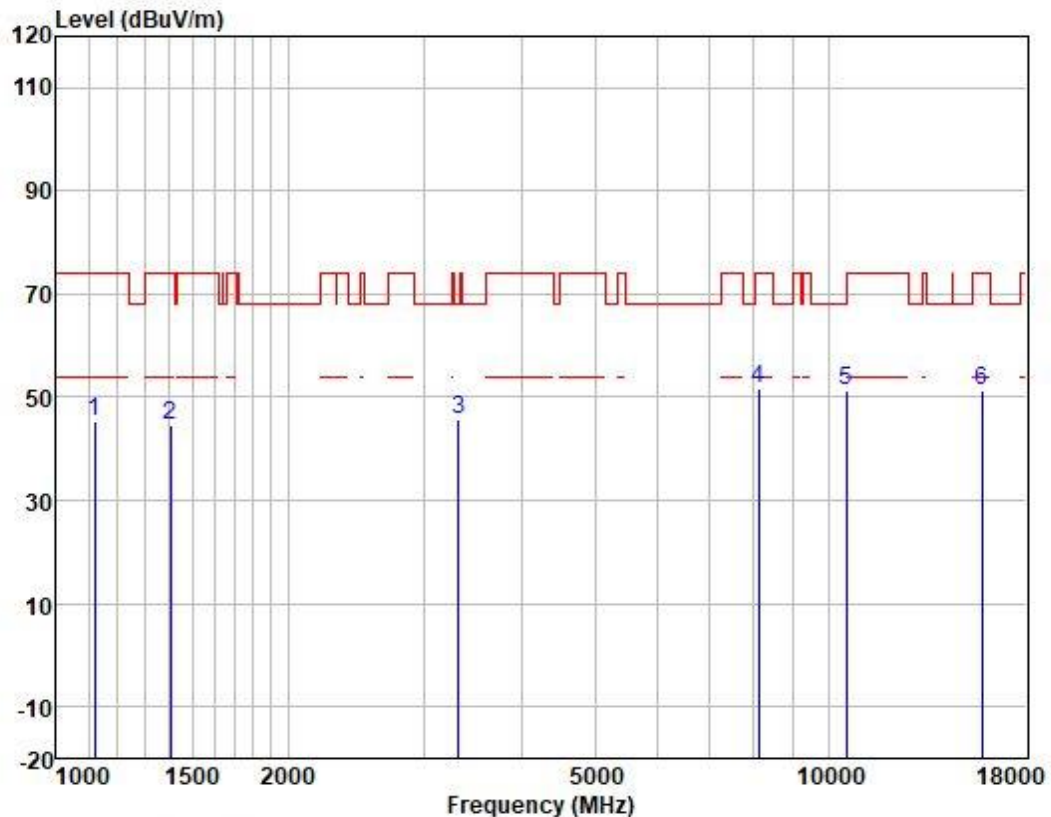
Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.95	22.75	2.29	37.67	45.32	74.00	-28.68	VERTICAL	peak
2	1634.543	54.62	24.81	2.78	37.42	44.79	68.20	-23.41	VERTICAL	peak
3	4354.454	44.57	33.43	4.60	36.62	45.98	74.00	-28.02	VERTICAL	peak
4	8840.473	44.87	37.30	6.54	36.93	51.78	68.20	-16.42	VERTICAL	peak
5	10540.000	41.51	39.91	7.27	36.76	51.93	68.20	-16.27	VERTICAL	peak
6	15810.000	40.31	37.60	9.45	36.64	50.72	74.00	-23.28	VERTICAL	peak



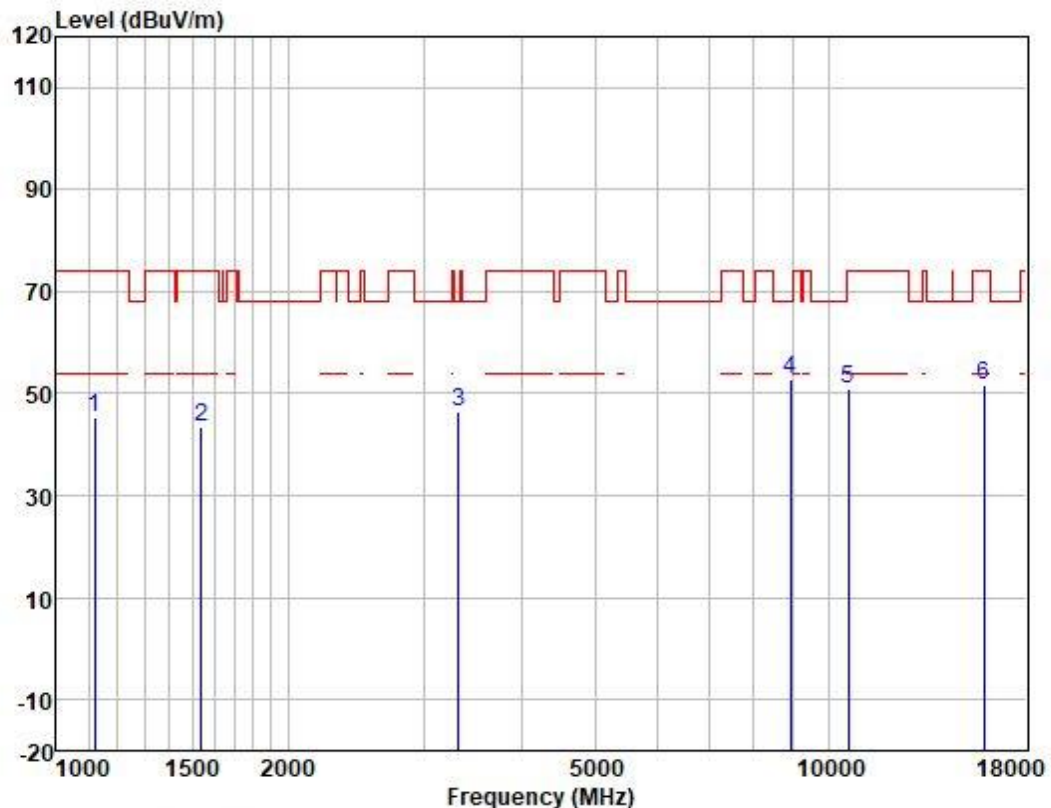
Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.99	22.75	2.29	37.67	45.36	74.00	-28.64	HORIZONTAL peak
2	1406.443	55.32	24.27	2.66	37.56	44.69	74.00	-29.31	HORIZONTAL peak
3	3318.471	49.69	28.94	4.02	36.77	45.88	68.20	-22.32	HORIZONTAL peak
4	8129.664	45.28	36.99	6.26	36.99	51.54	74.00	-22.46	HORIZONTAL peak
5	10540.000	40.95	39.91	7.27	36.76	51.37	68.20	-16.83	HORIZONTAL peak
6	15810.000	40.86	37.60	9.45	36.64	51.27	74.00	-22.73	HORIZONTAL peak



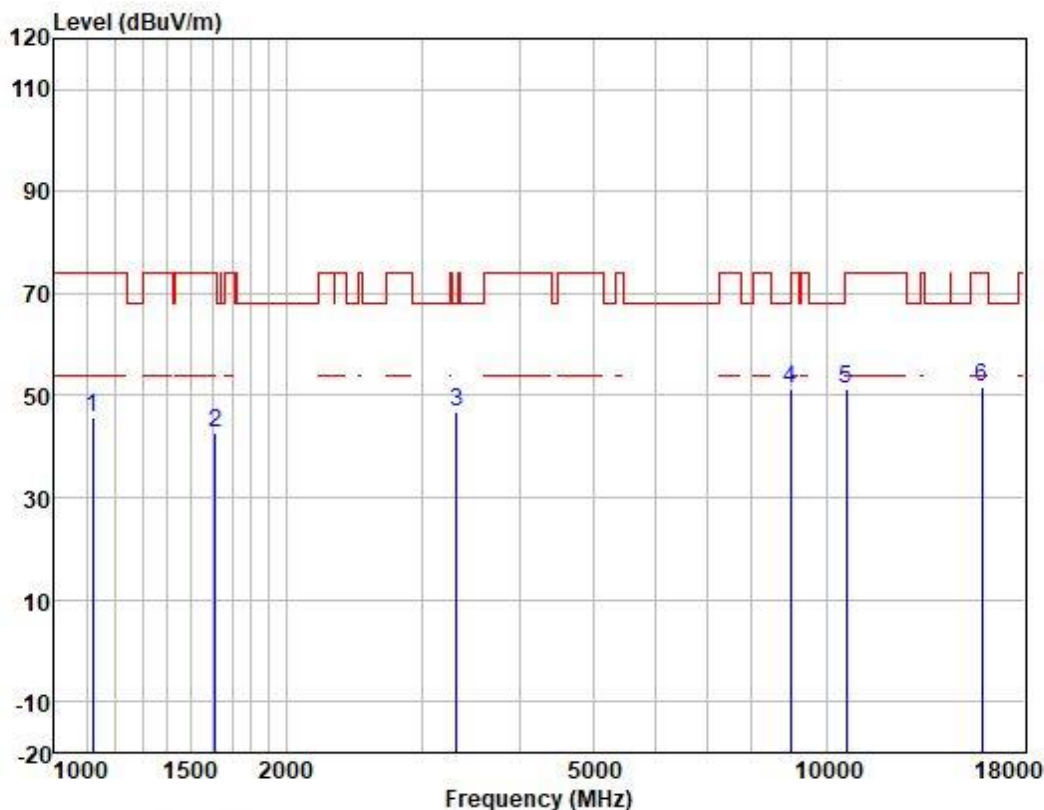
Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.95	22.75	2.29	37.67	45.32	74.00	-28.68	VERTICAL	peak
2	1542.733	53.83	24.53	2.72	37.48	43.60	74.00	-30.40	VERTICAL	peak
3	3318.471	50.45	28.94	4.02	36.77	46.64	68.20	-21.56	VERTICAL	peak
4	8943.274	45.47	37.50	6.56	36.91	52.62	68.20	-15.58	VERTICAL	peak
5	10620.000	40.44	39.96	7.30	36.76	50.94	74.00	-23.06	VERTICAL	peak
6	15930.000	41.68	37.20	9.55	36.67	51.76	74.00	-22.24	VERTICAL	peak



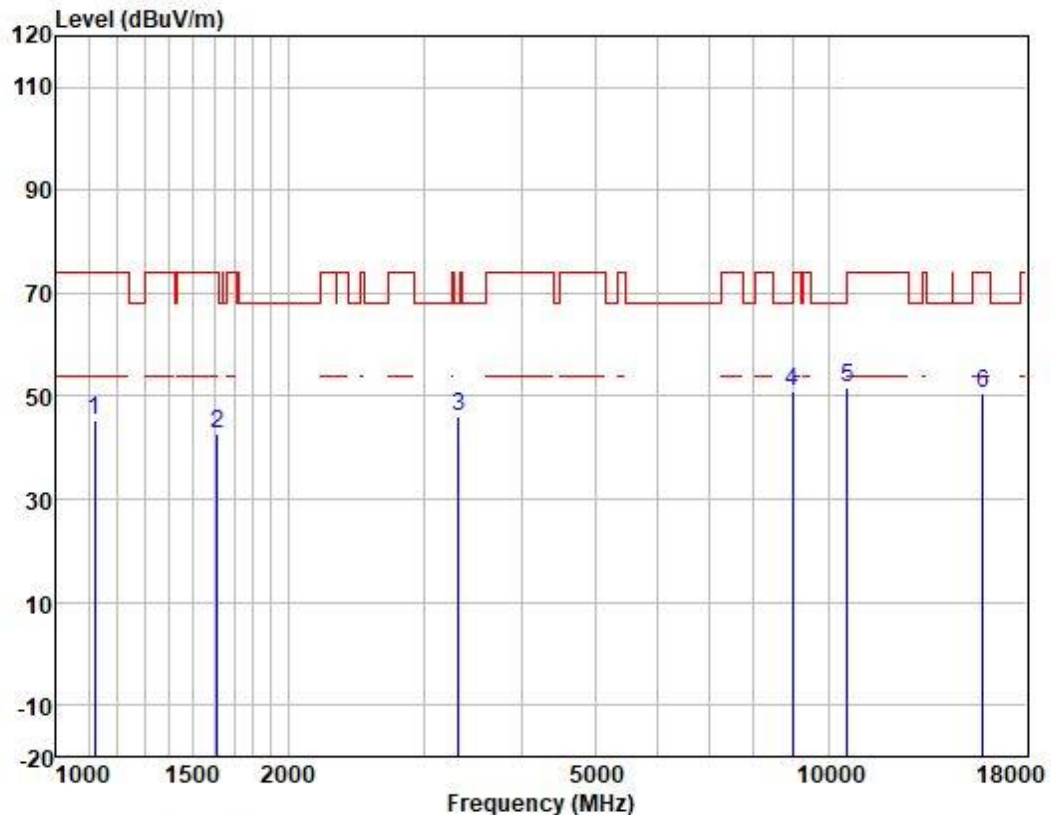
Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1	1122.563	58.35	22.75	2.29	37.67	45.72	74.00	-28.28	HORIZONTAL peak
2	1615.754	52.53	24.74	2.77	37.44	42.60	74.00	-31.40	HORIZONTAL peak
3	3318.471	50.61	28.94	4.02	36.77	46.80	68.20	-21.40	HORIZONTAL peak
4	8995.123	44.17	37.59	6.57	36.90	51.43	68.20	-16.77	HORIZONTAL peak
5	10620.000	40.97	39.96	7.30	36.76	51.47	74.00	-22.53	HORIZONTAL peak
6	15930.000	41.49	37.20	9.55	36.67	51.57	74.00	-22.43	HORIZONTAL peak



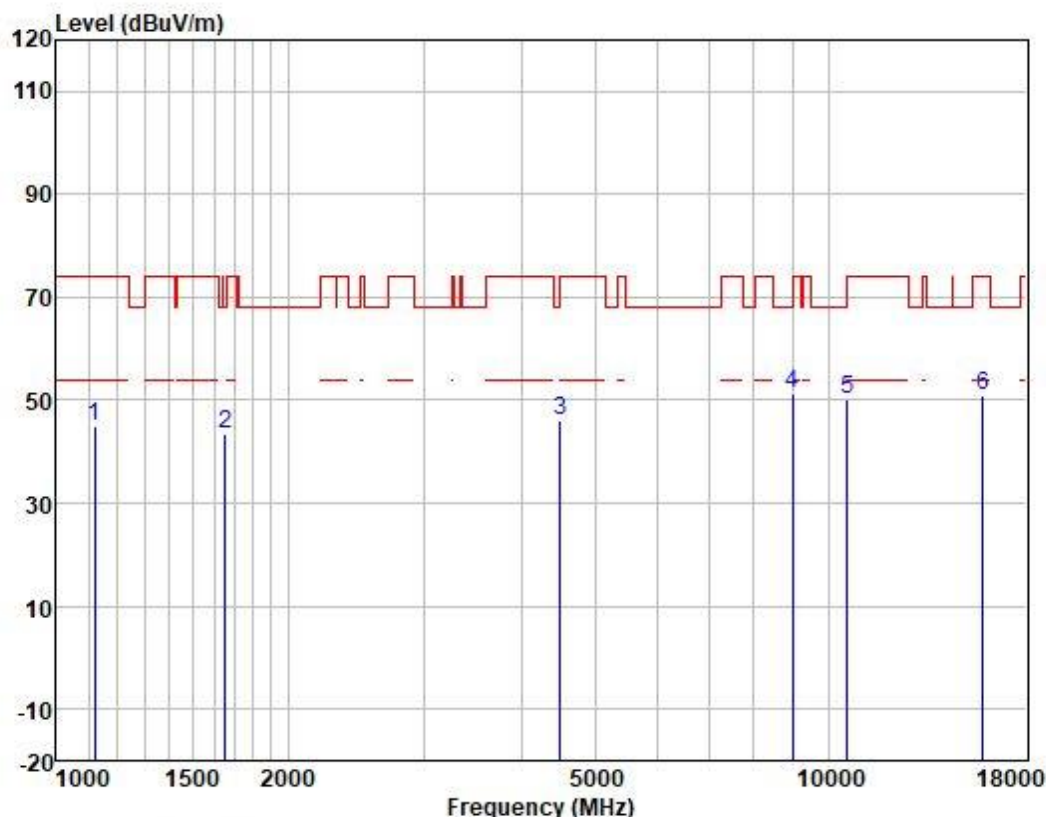
Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.06	22.75	2.29	37.67	45.43	74.00	-28.57	VERTICAL	peak
2	1615.754	52.49	24.74	2.77	37.44	42.56	74.00	-31.44	VERTICAL	peak
3	3318.471	49.94	28.94	4.02	36.77	46.13	68.20	-22.07	VERTICAL	peak
4	8995.123	43.79	37.59	6.57	36.90	51.05	68.20	-17.15	VERTICAL	peak
5	10580.000	41.12	39.93	7.29	36.76	51.58	68.20	-16.62	VERTICAL	peak
6	15870.000	40.40	37.46	9.49	36.66	50.69	74.00	-23.31	VERTICAL	peak



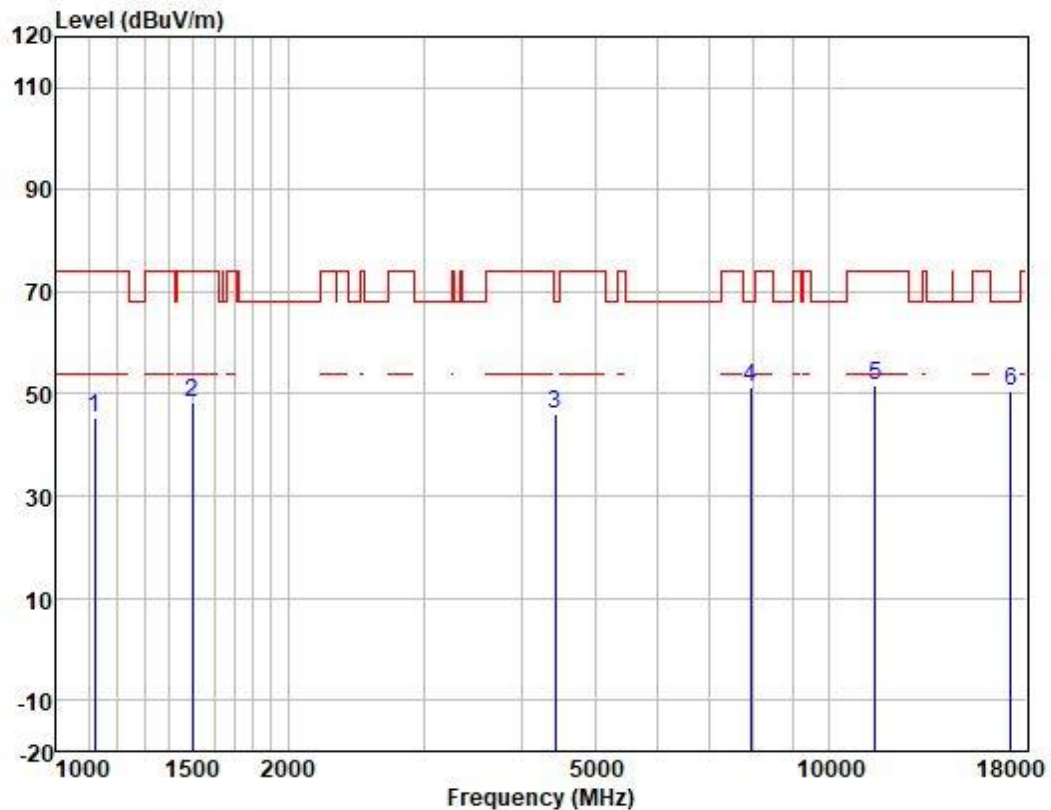
Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.59	22.75	2.29	37.67	44.96	74.00	-29.04	HORIZONTAL peak
2	1653.550	53.37	24.89	2.80	37.41	43.65	68.20	-24.55	HORIZONTAL peak
3	4495.125	43.74	34.17	4.62	36.63	45.90	68.20	-22.30	HORIZONTAL peak
4	8995.123	44.17	37.59	6.57	36.90	51.43	68.20	-16.77	HORIZONTAL peak
5	10580.000	39.87	39.93	7.29	36.76	50.33	68.20	-17.87	HORIZONTAL peak
6	15870.000	40.59	37.46	9.49	36.66	50.88	74.00	-23.12	HORIZONTAL peak



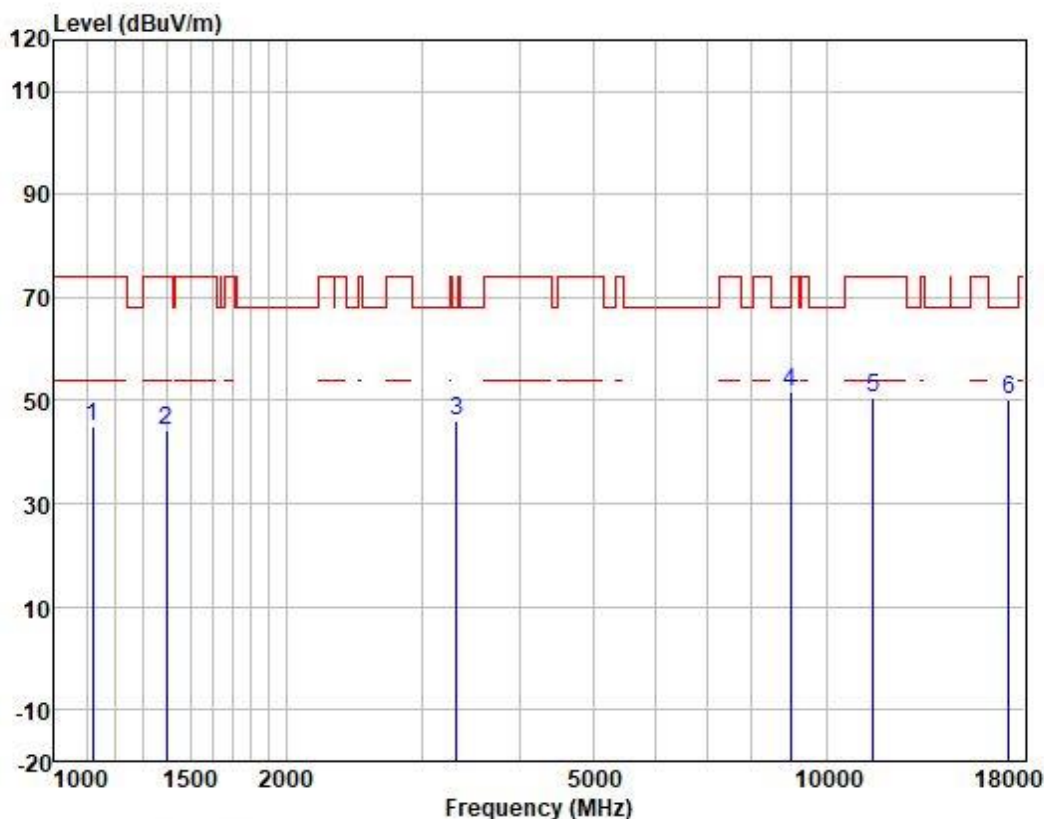
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.81	22.75	2.29	37.67	45.18	74.00	-28.82	VERTICAL peak
2	1498.781	58.78	24.43	2.70	37.50	48.41	74.00	-25.59	VERTICAL peak
3	4430.628	44.13	33.87	4.61	36.63	45.98	68.20	-22.22	VERTICAL peak
4	7943.838	45.00	37.09	6.19	37.00	51.28	68.20	-16.92	VERTICAL peak
5	11490.000	40.31	40.25	7.63	36.63	51.56	74.00	-22.44	VERTICAL peak
6	17235.000	34.71	42.50	9.50	36.07	50.64	68.20	-17.56	VERTICAL peak



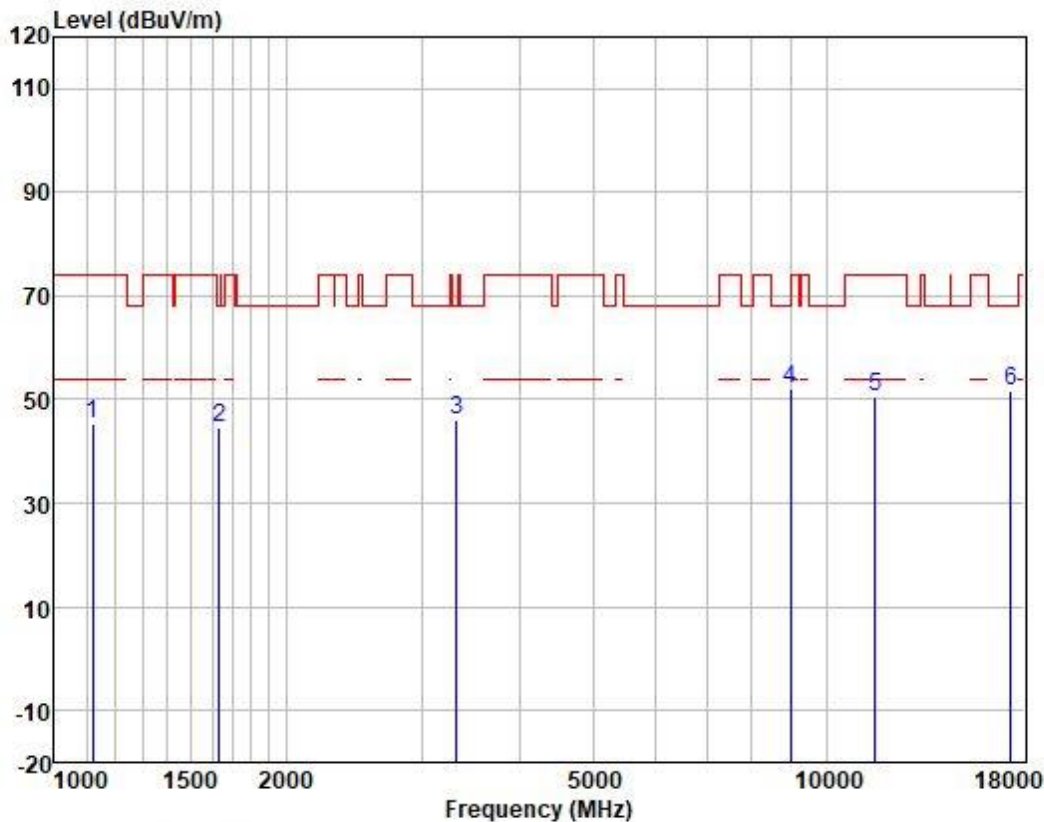
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.69	22.75	2.29	37.67	45.06	74.00	-28.94	HORIZONTAL peak
2	1398.336	54.81	24.26	2.66	37.56	44.17	74.00	-29.83	HORIZONTAL peak
3	3318.471	49.87	28.94	4.02	36.77	46.06	68.20	-22.14	HORIZONTAL peak
4	8995.123	44.30	37.59	6.57	36.90	51.56	68.20	-16.64	HORIZONTAL peak
5	11490.000	39.47	40.25	7.63	36.63	50.72	74.00	-23.28	HORIZONTAL peak
6	17235.000	34.41	42.50	9.50	36.07	50.34	68.20	-17.86	HORIZONTAL peak



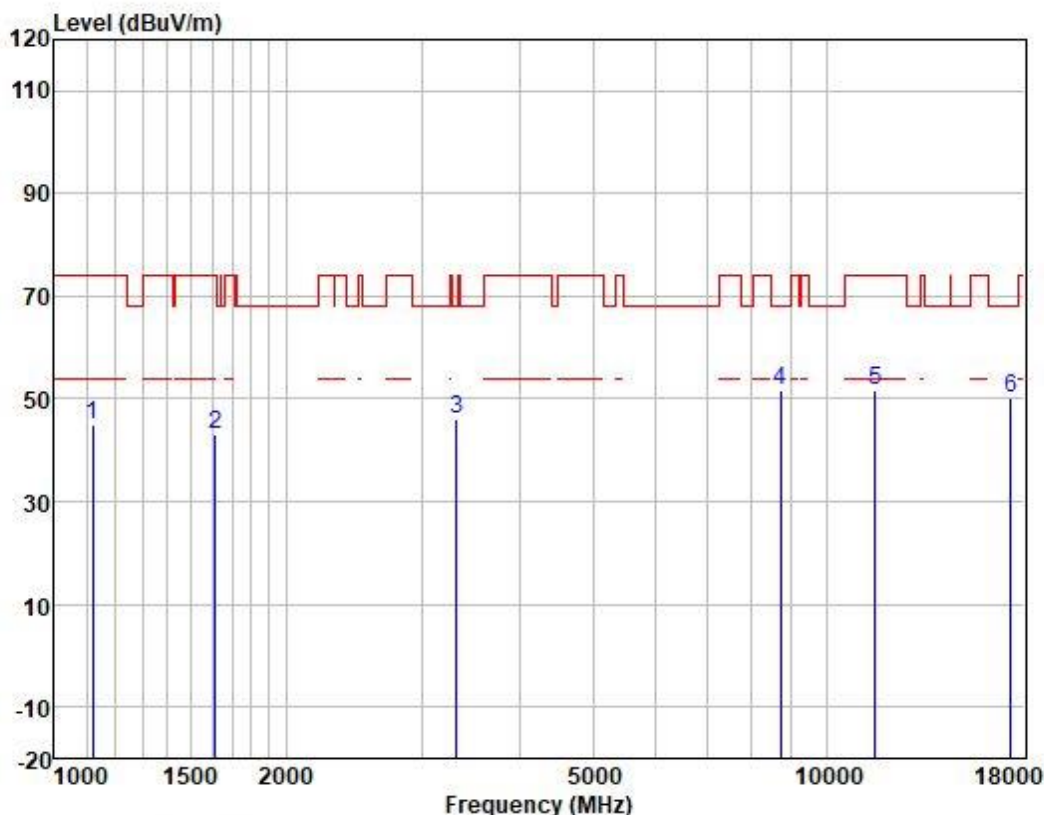
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.93	22.75	2.29	37.67	45.30	74.00	-28.70	VERTICAL peak
2	1634.543	54.37	24.81	2.78	37.42	44.54	68.20	-23.66	VERTICAL peak
3	3318.471	49.81	28.94	4.02	36.77	46.00	68.20	-22.20	VERTICAL peak
4	8995.123	44.83	37.59	6.57	36.90	52.09	68.20	-16.11	VERTICAL peak
5	11570.000	39.55	40.09	7.64	36.62	50.66	74.00	-23.34	VERTICAL peak
6	17355.000	35.08	42.92	9.53	36.01	51.52	68.20	-16.68	VERTICAL peak



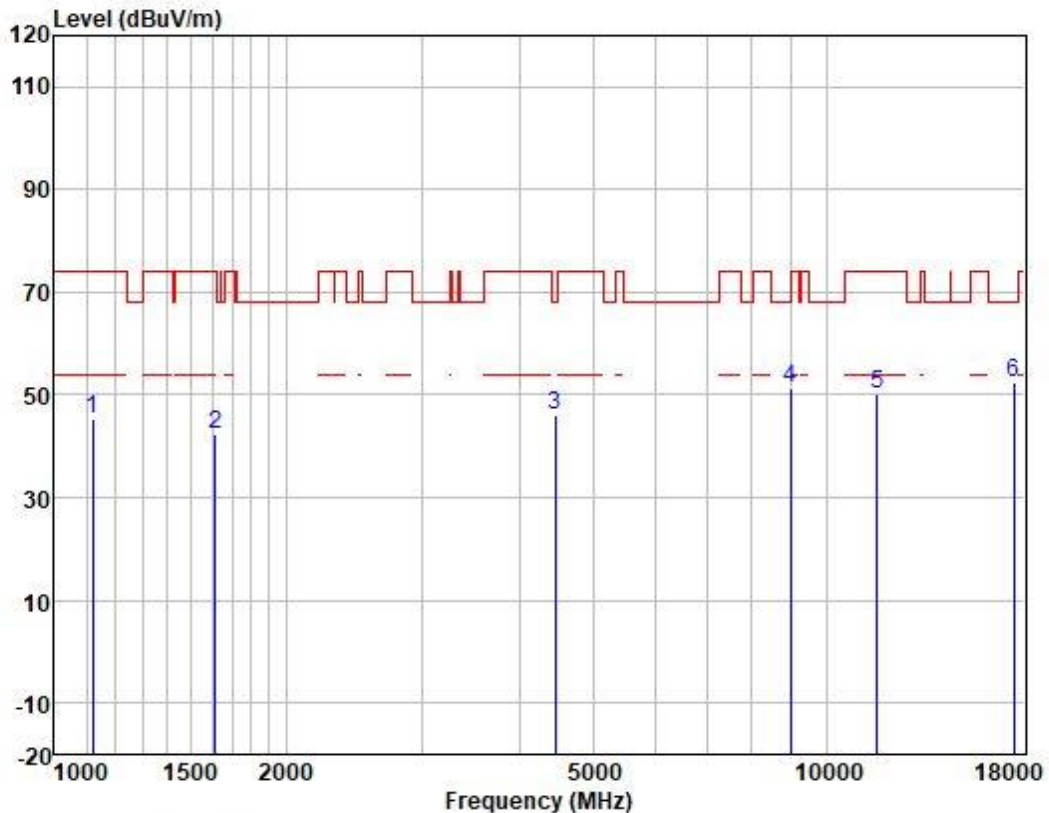
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.45	22.75	2.29	37.67	44.82	74.00	-29.18	HORIZONTAL	peak
2	1615.754	53.19	24.74	2.77	37.44	43.26	74.00	-30.74	HORIZONTAL	peak
3	3318.471	49.86	28.94	4.02	36.77	46.05	68.20	-22.15	HORIZONTAL	peak
4	8713.630	45.03	36.95	6.51	36.95	51.54	68.20	-16.66	HORIZONTAL	peak
5	11570.000	40.73	40.09	7.64	36.62	51.84	74.00	-22.16	HORIZONTAL	peak
6	17355.000	33.69	42.92	9.53	36.01	50.13	68.20	-18.07	HORIZONTAL	peak



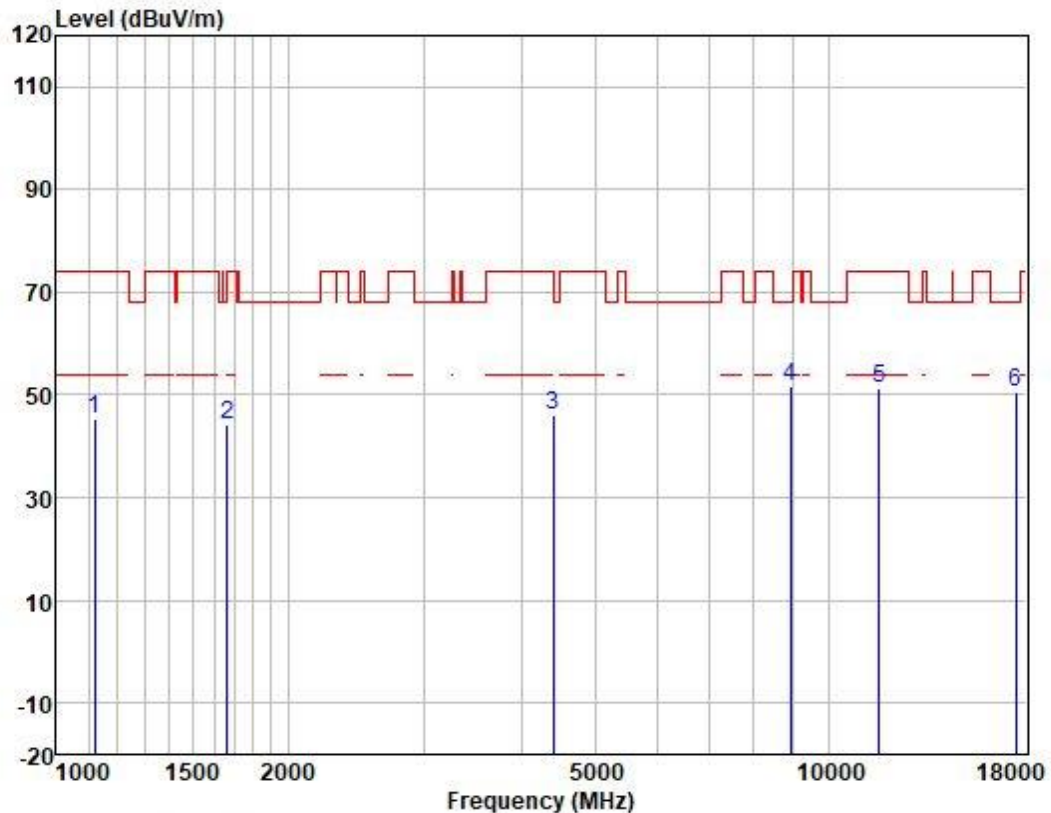
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.05	22.75	2.29	37.67	45.42	74.00	-28.58	VERTICAL	peak
2	1615.754	52.35	24.74	2.77	37.44	42.42	74.00	-31.58	VERTICAL	peak
3	4456.315	44.10	34.00	4.61	36.63	46.08	68.20	-22.12	VERTICAL	peak
4	8995.123	44.09	37.59	6.57	36.90	51.35	68.20	-16.85	VERTICAL	peak
5	11650.000	39.38	39.91	7.66	36.62	50.33	74.00	-23.67	VERTICAL	peak
6	17475.000	35.40	43.43	9.57	35.96	52.44	68.20	-15.76	VERTICAL	peak



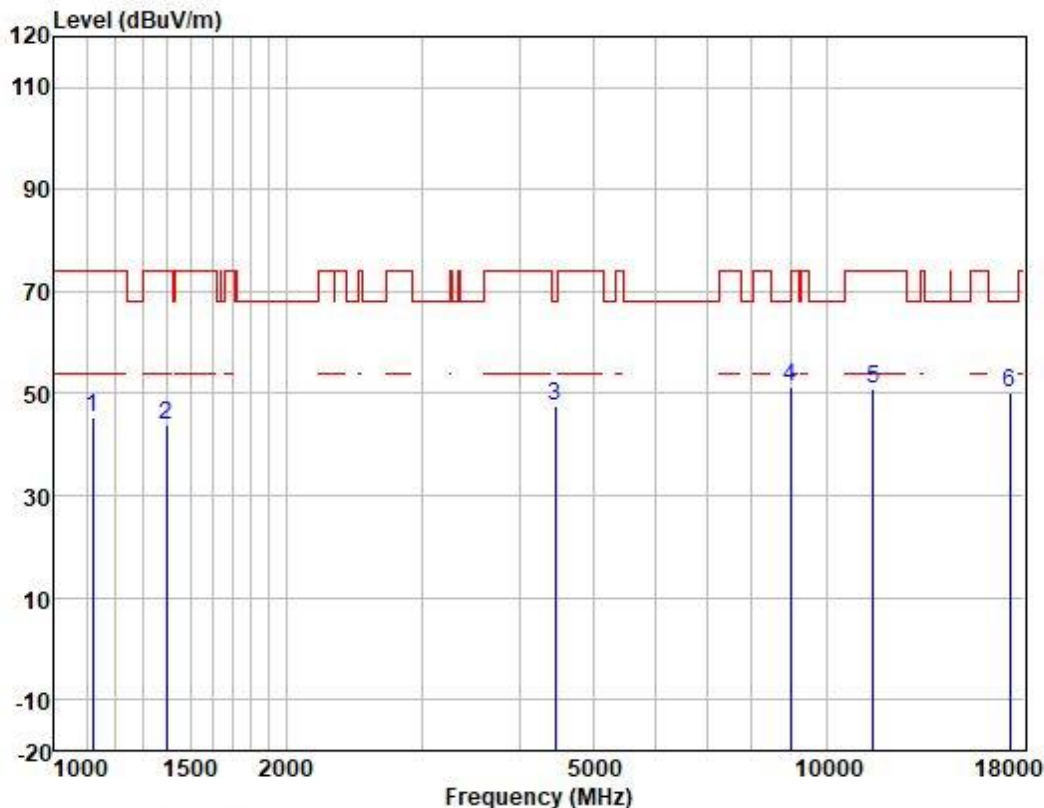
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.81	22.75	2.29	37.67	45.18	74.00	-28.82	HORIZONTAL	peak
2	1663.137	53.85	24.93	2.81	37.41	44.18	74.00	-29.82	HORIZONTAL	peak
3	4405.090	44.51	33.74	4.61	36.62	46.24	68.20	-21.96	HORIZONTAL	peak
4	8943.274	44.67	37.50	6.56	36.91	51.82	68.20	-16.38	HORIZONTAL	peak
5	11650.000	40.52	39.91	7.66	36.62	51.47	74.00	-22.53	HORIZONTAL	peak
6	17475.000	33.54	43.43	9.57	35.96	50.58	68.20	-17.62	HORIZONTAL	peak



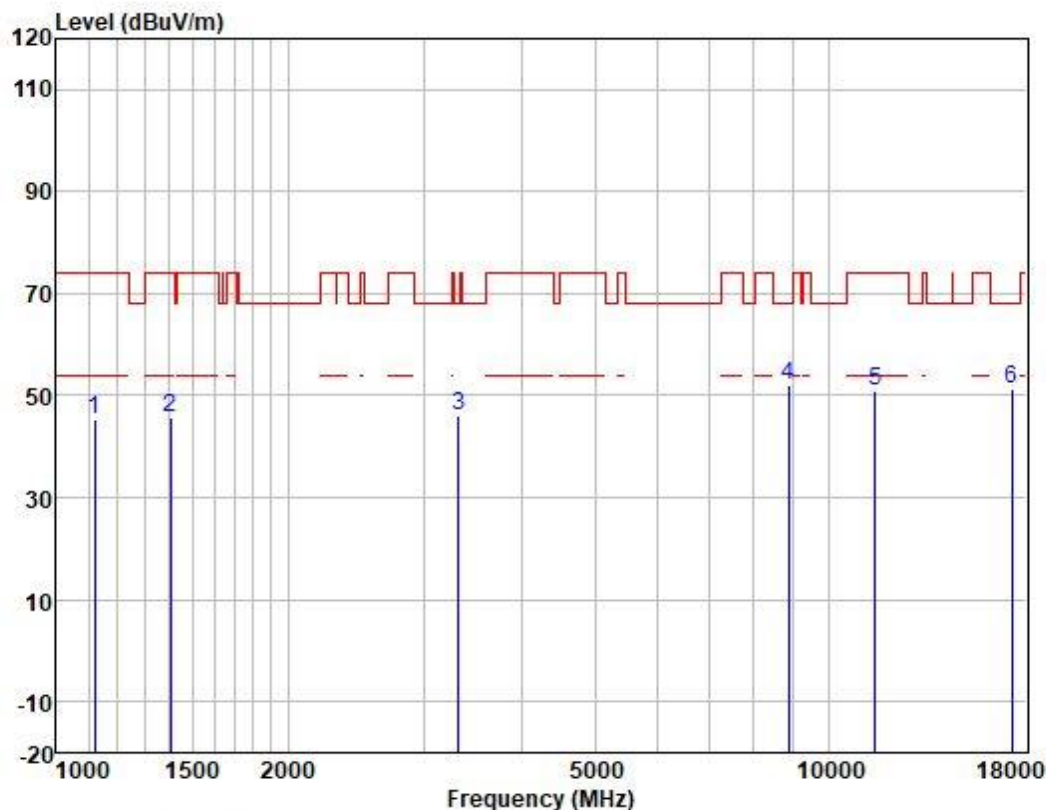
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	58.05	22.75	2.29	37.67	45.42	74.00	-28.58	VERTICAL	peak
2	1398.336	54.31	24.26	2.66	37.56	43.67	74.00	-30.33	VERTICAL	peak
3	4456.315	45.51	34.00	4.61	36.63	47.49	68.20	-20.71	VERTICAL	peak
4	8995.123	44.03	37.59	6.57	36.90	51.29	68.20	-16.91	VERTICAL	peak
5	11510.000	39.84	40.25	7.63	36.63	51.09	74.00	-22.91	VERTICAL	peak
6	17265.000	34.13	42.72	9.52	36.05	50.32	68.20	-17.88	VERTICAL	peak

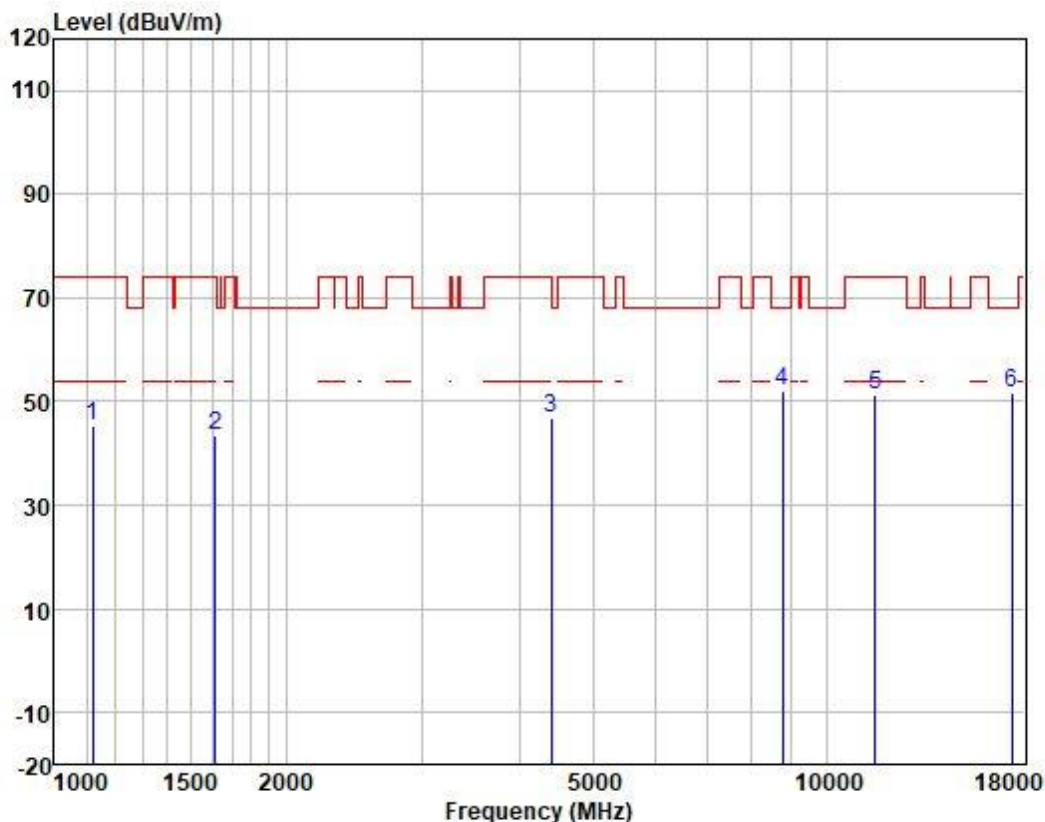


Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.83	22.75	2.29	37.67	45.20	74.00	-28.80	HORIZONTAL peak
2	1406.443	56.46	24.27	2.66	37.56	45.83	74.00	-28.17	HORIZONTAL peak
3	3318.471	49.99	28.94	4.02	36.77	46.18	68.20	-22.02	HORIZONTAL peak
4	8891.725	44.88	37.41	6.55	36.93	51.91	68.20	-16.29	HORIZONTAL peak
5	11510.000	39.83	40.25	7.63	36.63	51.08	74.00	-22.92	HORIZONTAL peak
6	17265.000	34.94	42.72	9.52	36.05	51.13	68.20	-17.07	HORIZONTAL peak

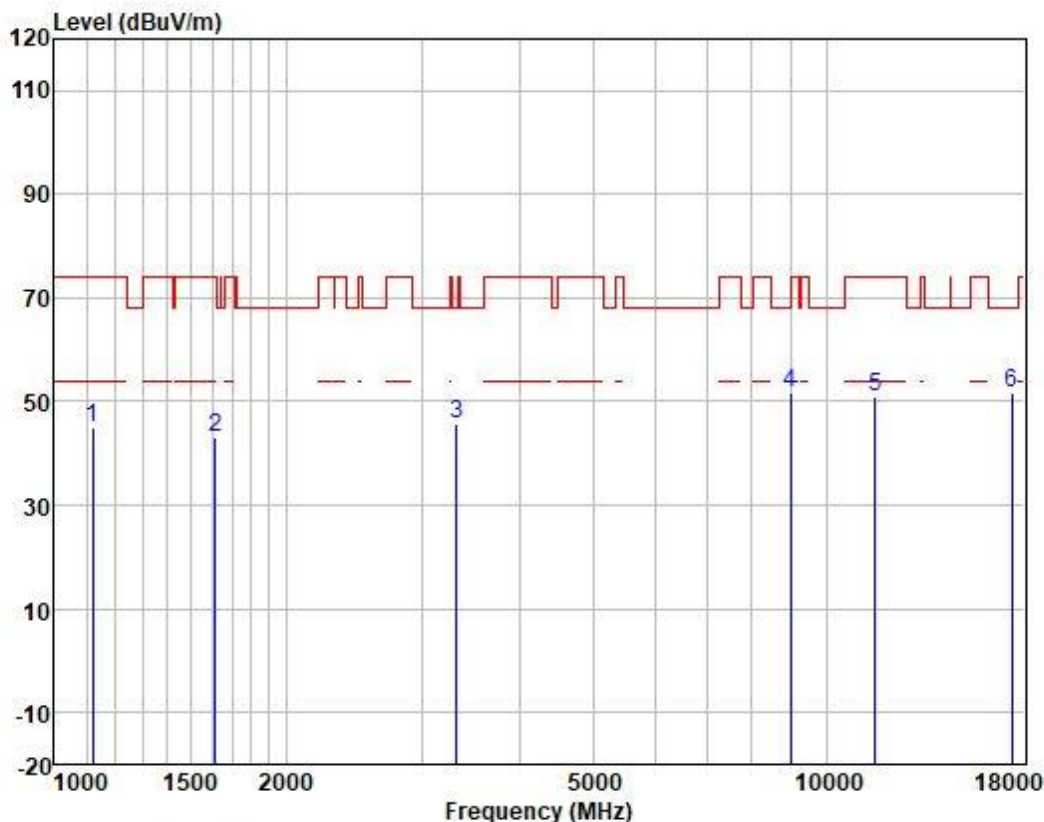
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	58.05	22.75	2.29	37.67	45.42	74.00	-28.58	VERTICAL peak
2	1615.754	53.33	24.74	2.77	37.44	43.40	74.00	-30.60	VERTICAL peak
3	4405.090	44.94	33.74	4.61	36.62	46.67	68.20	-21.53	VERTICAL peak
4	8789.516	45.34	37.17	6.53	36.94	52.10	68.20	-16.10	VERTICAL peak
5	11590.000	40.15	40.01	7.65	36.62	51.19	74.00	-22.81	VERTICAL peak
6	17385.000	34.88	43.10	9.55	35.99	51.54	68.20	-16.66	VERTICAL peak

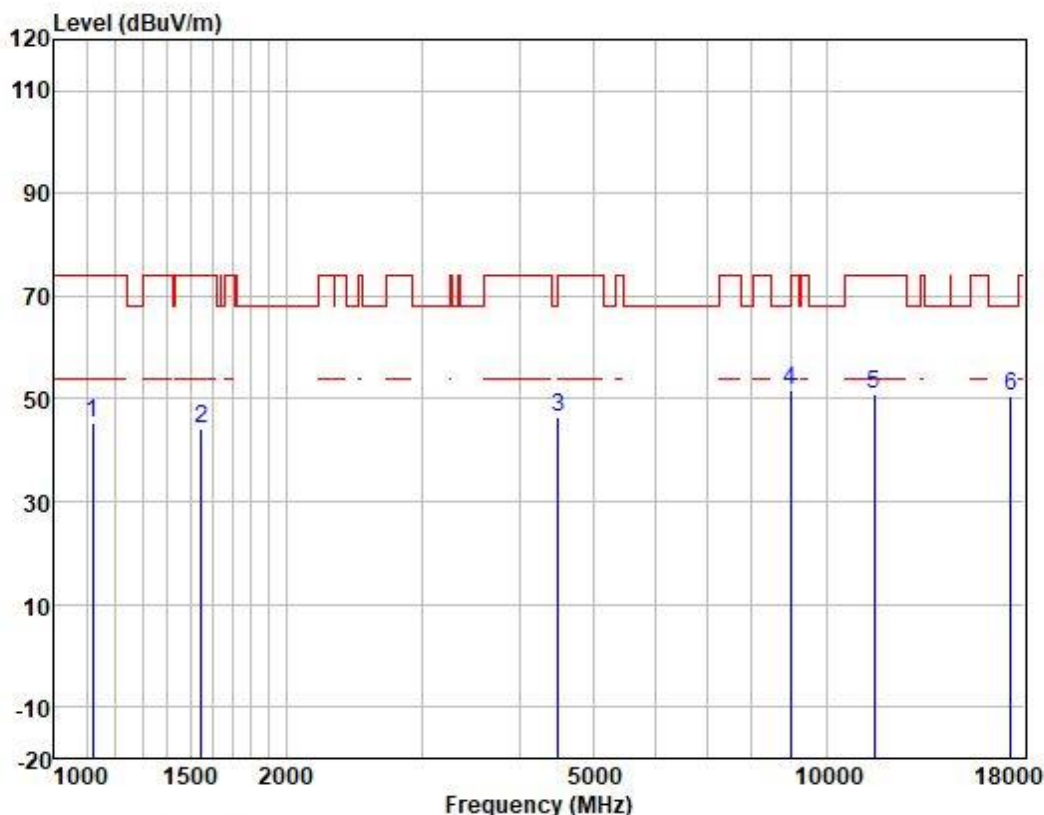


Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High

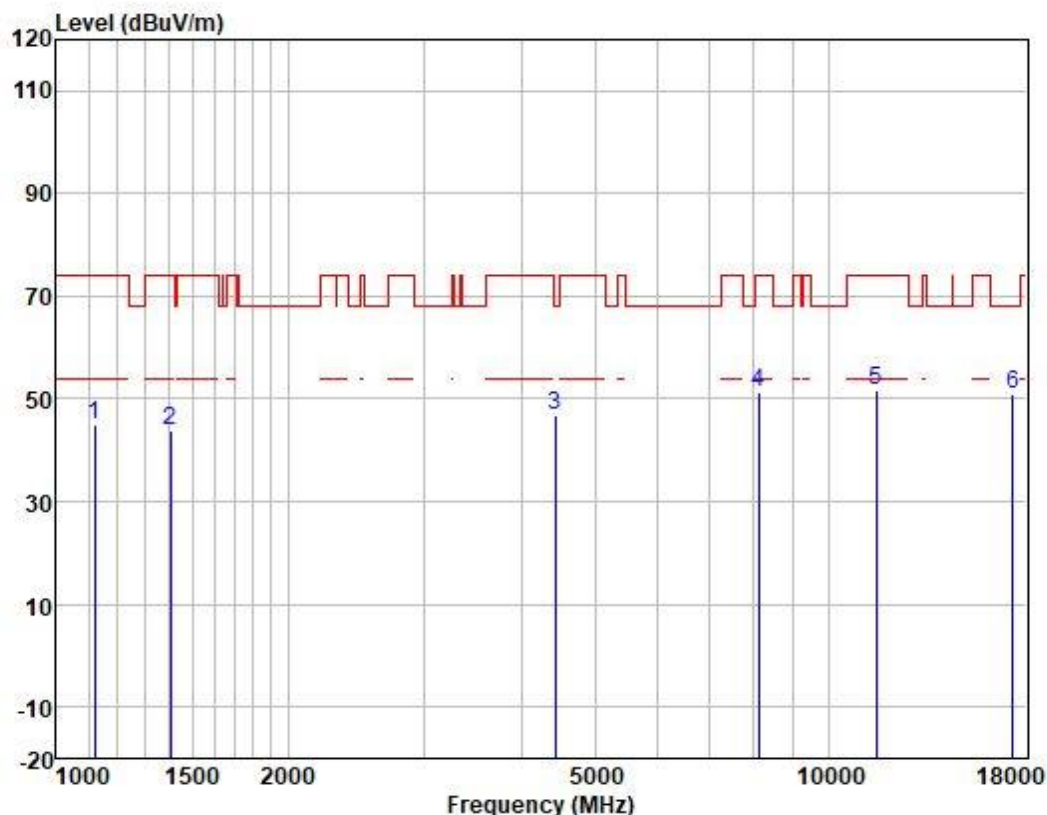


	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1122.563	57.47	22.75	2.29	37.67	44.84	74.00	-29.16	HORIZONTAL peak
2	1615.754	53.06	24.74	2.77	37.44	43.13	74.00	-30.87	HORIZONTAL peak
3	3318.471	49.63	28.94	4.02	36.77	45.82	68.20	-22.38	HORIZONTAL peak
4	8995.123	44.35	37.59	6.57	36.90	51.61	68.20	-16.59	HORIZONTAL peak
5	11590.000	40.04	40.01	7.65	36.62	51.08	74.00	-22.92	HORIZONTAL peak
6	17385.000	35.19	43.10	9.55	35.99	51.85	68.20	-16.35	HORIZONTAL peak

Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1122.563	57.59	22.75	2.29	37.67	44.96	74.00	-29.04	HORIZONTAL	peak
2	1406.443	54.65	24.27	2.66	37.56	44.02	74.00	-29.98	HORIZONTAL	peak
3	4430.628	44.82	33.87	4.61	36.63	46.67	68.20	-21.53	HORIZONTAL	peak
4	8129.664	45.20	36.99	6.26	36.99	51.46	74.00	-22.54	HORIZONTAL	peak
5	11550.000	40.32	40.17	7.64	36.63	51.50	74.00	-22.50	HORIZONTAL	peak
6	17325.000	34.37	42.92	9.53	36.03	50.79	68.20	-17.41	HORIZONTAL	peak

7.5 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency (MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) 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.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C

Humidity: 60.7 % RH

Atmospheric Pressure: 1005 mbar

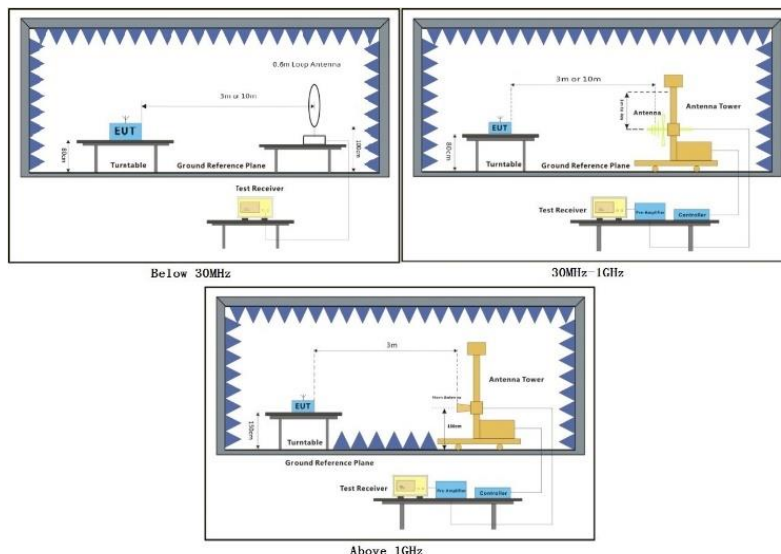


7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	02	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



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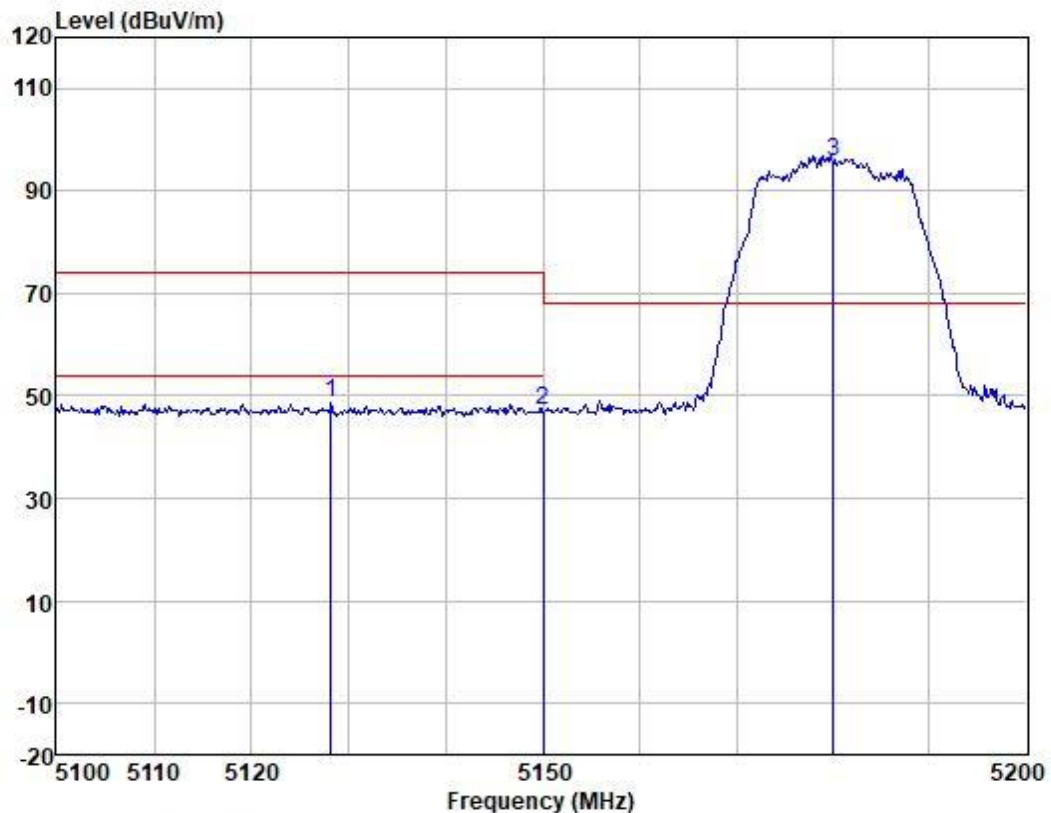
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SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch, EMC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
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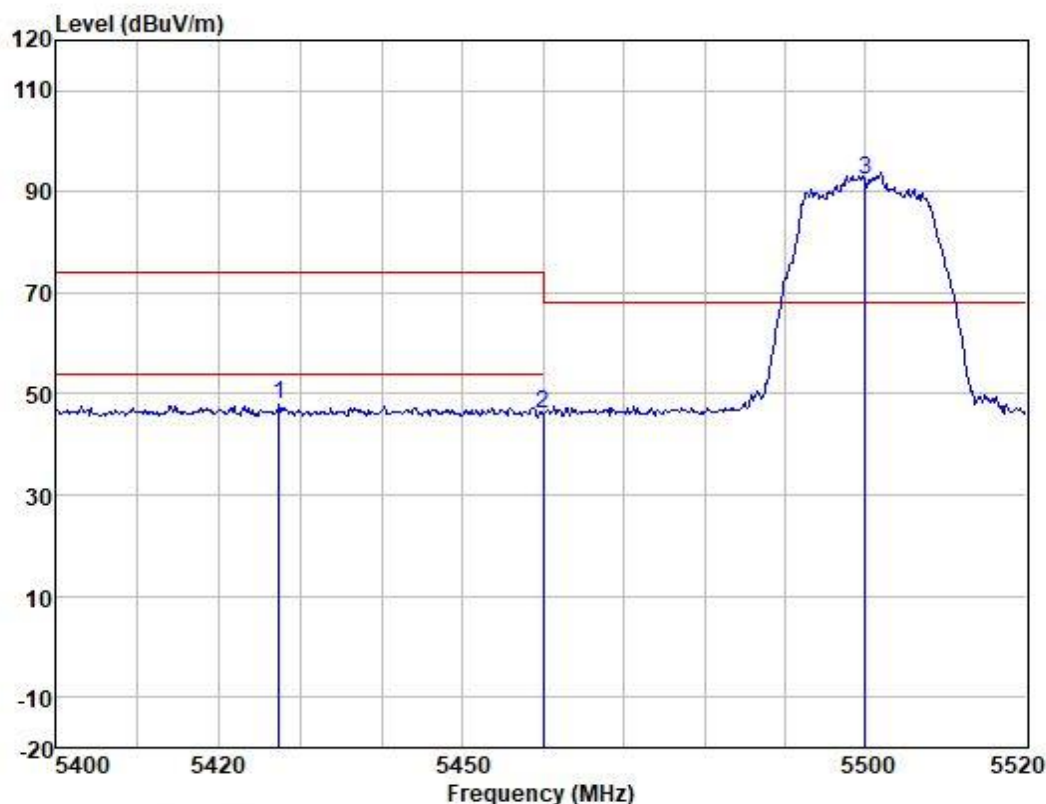
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	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5128.103	46.54	33.84	4.95	36.73	48.60	74.00	-25.40	VERTICAL peak
2	5150.000	45.03	33.79	4.96	36.73	47.05	68.20	-21.15	VERTICAL peak
3 *	5180.000	93.87	33.69	4.98	36.73	95.81	68.20	27.61	VERTICAL peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5427.367	46.90	32.78	5.13	36.76	48.05	74.00	-25.95	VERTICAL peak
2	5460.000	45.08	32.71	5.14	36.76	46.17	68.20	-22.03	VERTICAL peak
3 *	5500.000	91.19	32.61	5.16	36.77	92.19	68.20	23.99	VERTICAL peak



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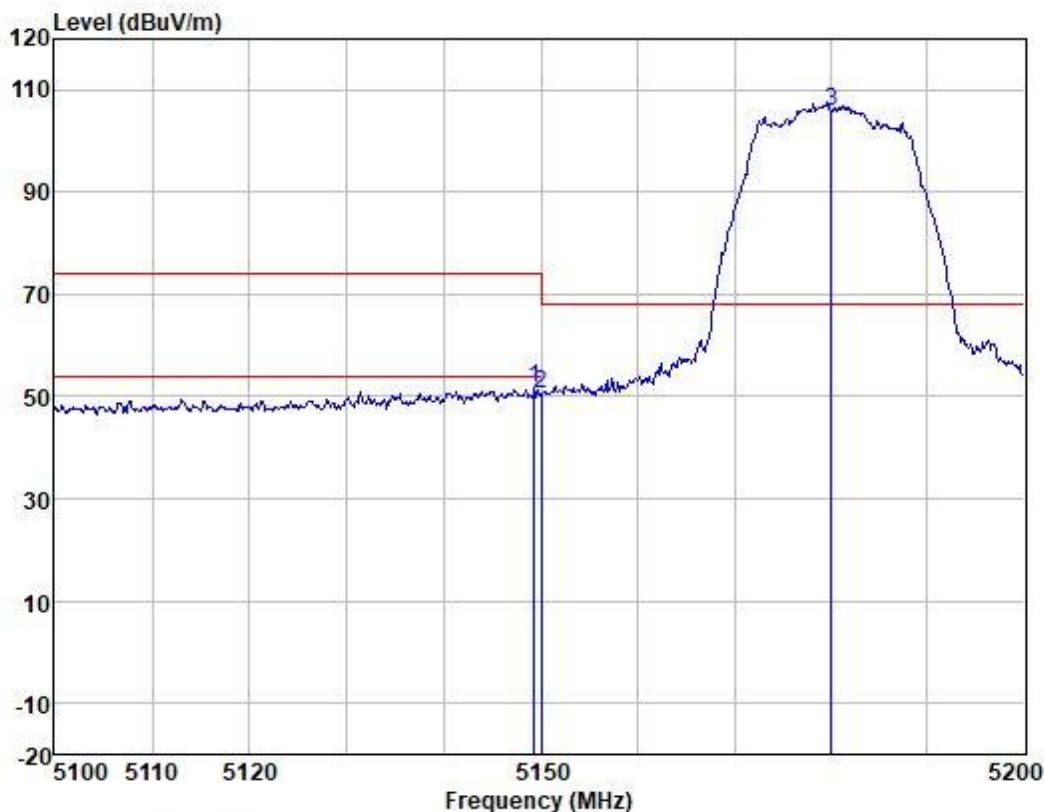
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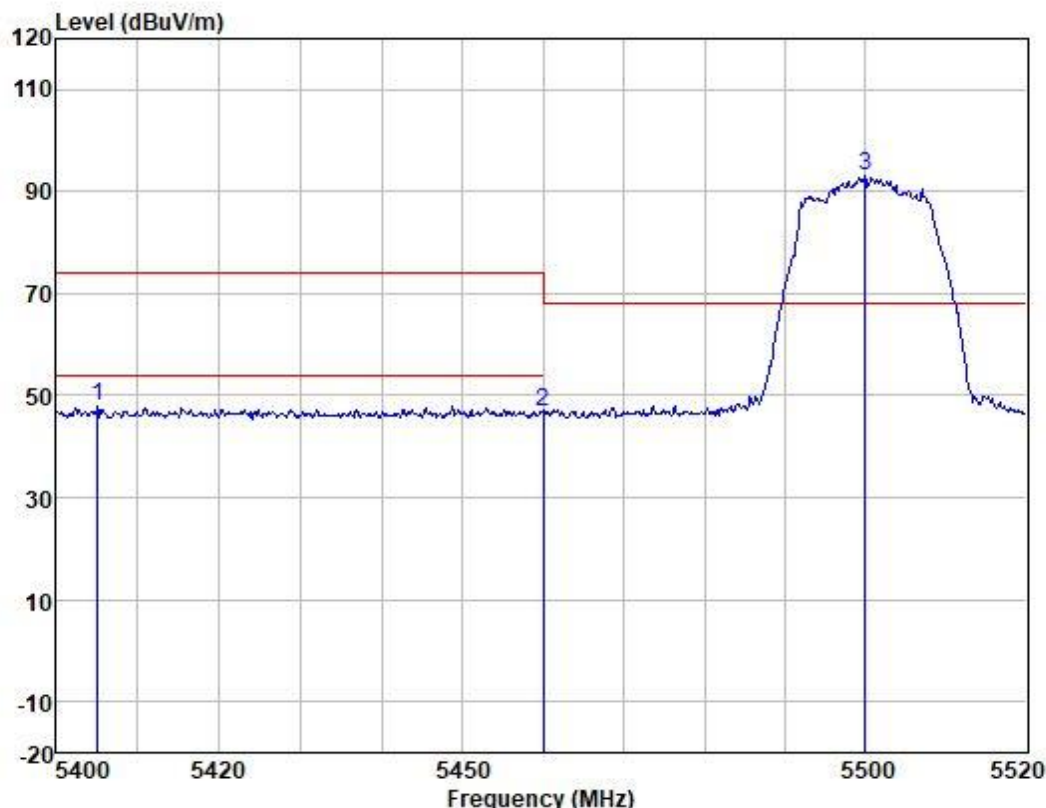
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Test Mode: 01; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5149.257	49.69	33.79	4.96	36.73	51.71	74.00	-22.29	HORIZONTAL peak
2	5150.000	48.41	33.79	4.96	36.73	50.43	68.20	-17.77	HORIZONTAL peak
3 *	5180.000	103.77	33.69	4.98	36.73	105.71	68.20	37.51	HORIZONTAL peak

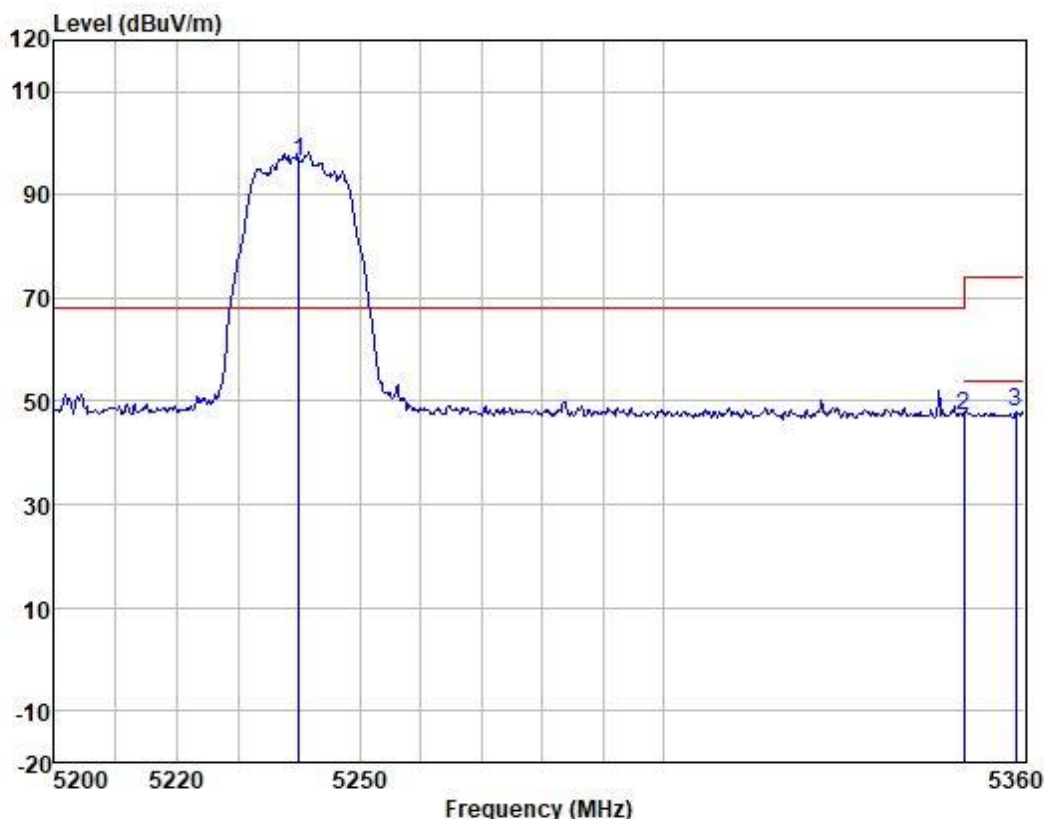
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	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	Remark
1	5405.106	46.81	32.82	5.12	36.76	47.99	74.00	-26.01	HORIZONTAL peak
2	5460.000	45.89	32.71	5.14	36.76	46.98	68.20	-21.22	HORIZONTAL peak
3 *	5500.000	92.11	32.61	5.16	36.77	93.11	68.20	24.91	HORIZONTAL peak



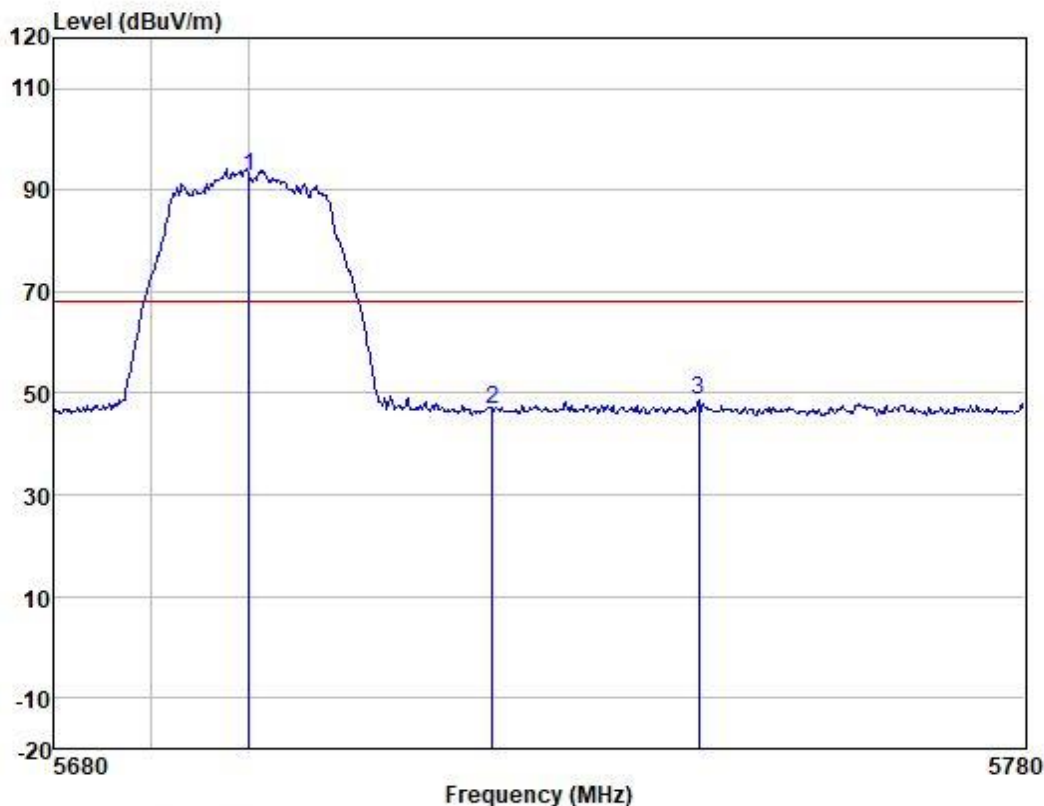
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	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5240.000	93.59	33.45	6.02	36.74	96.32	68.20	28.12	VERTICAL peak
2	5350.000	45.01	33.00	6.13	36.76	47.38	68.20	-20.82	VERTICAL peak
3	5358.701	45.76	32.95	6.15	36.76	48.10	74.00	-25.90	VERTICAL peak



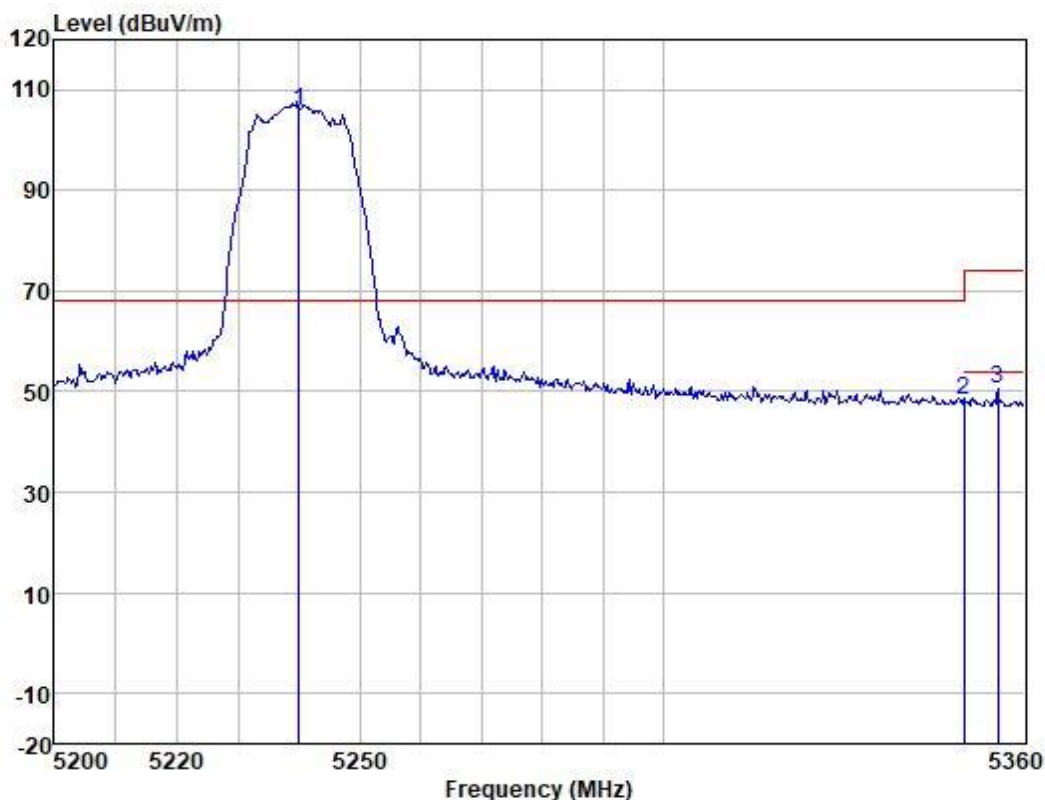
Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5700.000	91.74	32.64	5.26	36.78	92.86	68.20	24.66	VERTICAL peak
2	5725.000	45.64	32.65	5.29	36.78	46.80	68.20	-21.40	VERTICAL peak
3	5746.305	47.39	32.65	5.30	36.79	48.55	68.20	-19.65	VERTICAL peak



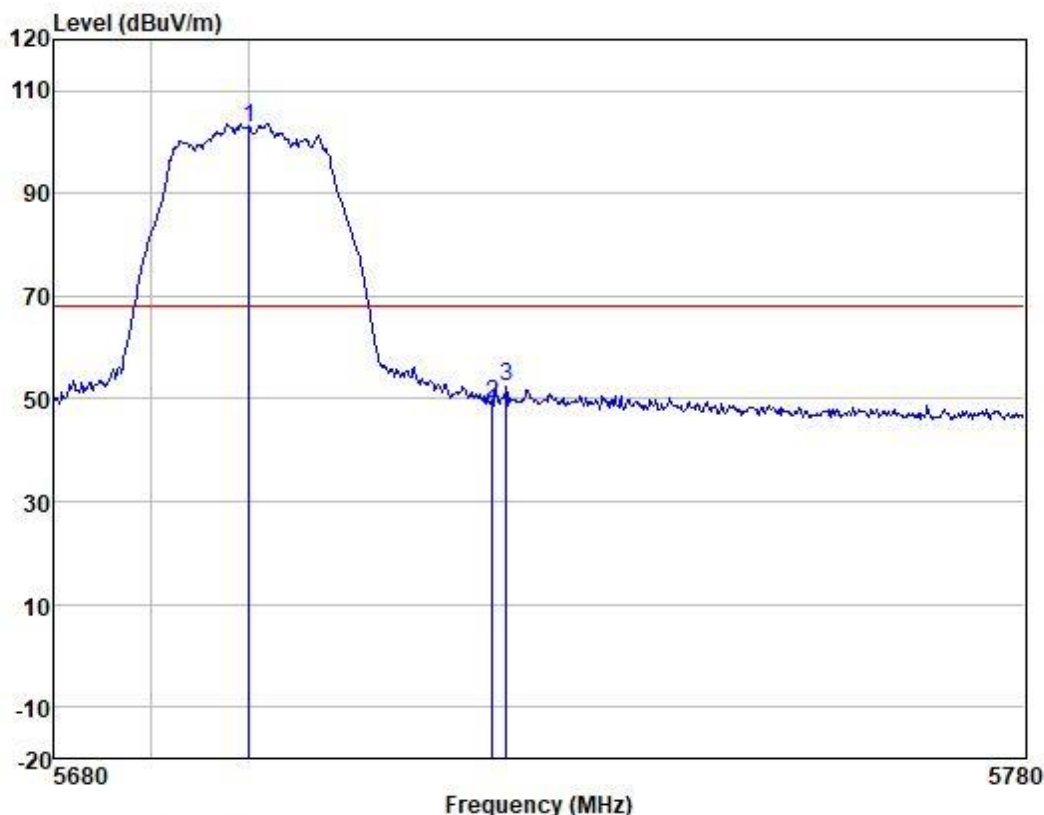
Test Mode: 01; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5240.000	103.26	33.45	6.02	36.74	105.99	68.20	37.79	HORIZONTAL peak
2	5350.000	45.82	33.00	6.13	36.76	48.19	68.20	-20.01	HORIZONTAL peak
3	5355.778	48.08	32.95	6.15	36.76	50.42	74.00	-23.58	HORIZONTAL peak

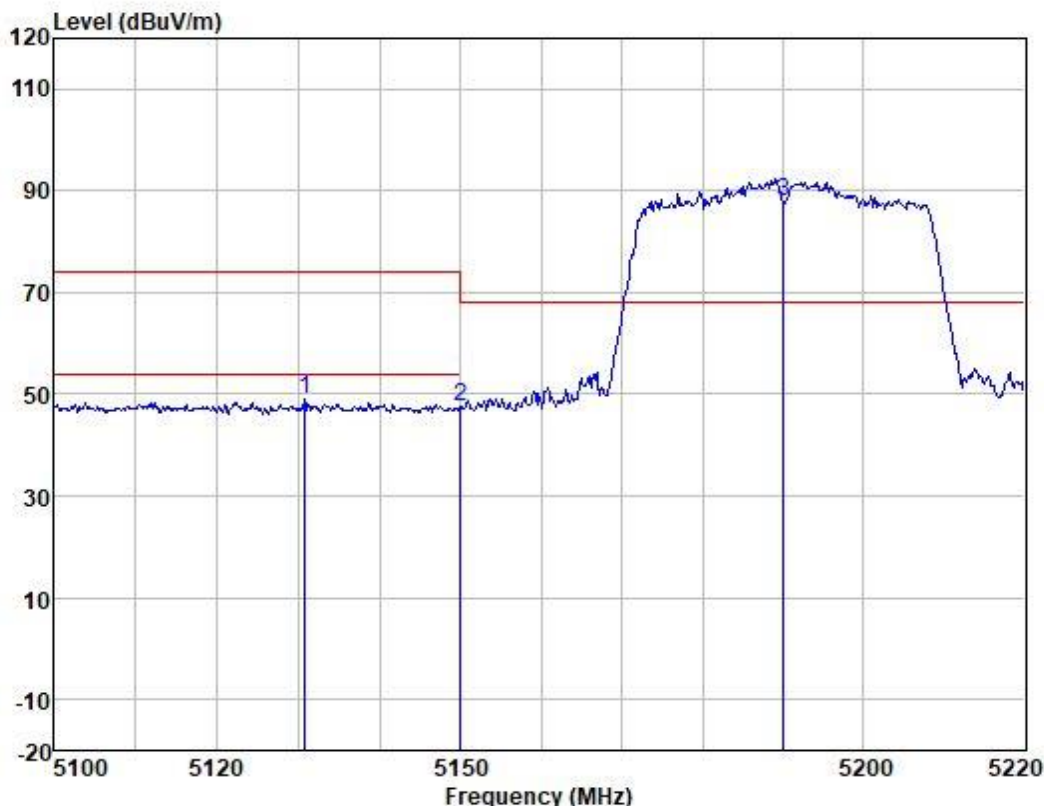


Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5700.000	101.80	32.64	5.26	36.78	102.92	68.20	34.72	HORIZONTAL peak
2	5725.000	48.07	32.65	5.29	36.78	49.23	68.20	-18.97	HORIZONTAL peak
3	5726.483	51.32	32.65	5.29	36.78	52.48	68.20	-15.72	HORIZONTAL peak

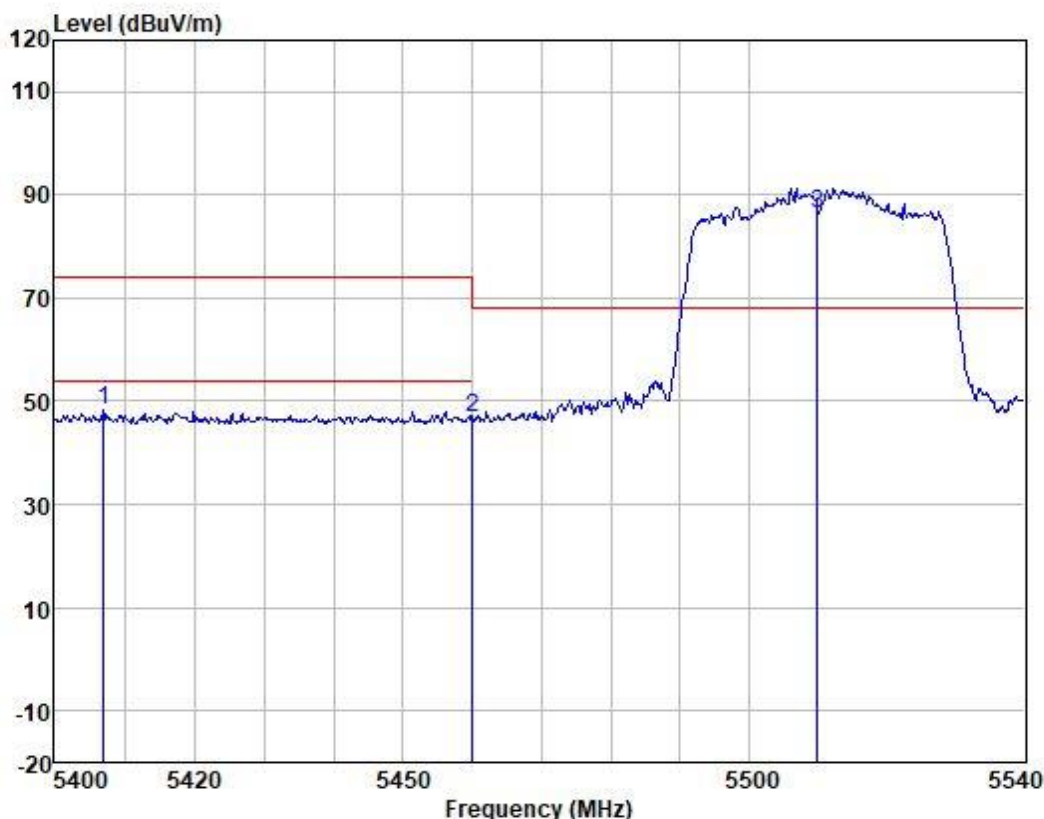
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	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5130.813	47.02	33.84	4.95	36.73	49.08	74.00	-24.92	VERTICAL peak
2	5150.000	45.38	33.79	4.96	36.73	47.40	68.20	-20.80	VERTICAL peak
3 *	5190.000	86.04	33.64	4.99	36.73	87.94	68.20	19.74	VERTICAL peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 5407.054	47.17	32.82	5.12	36.76	48.35	74.00	-25.65	VERTICAL	peak
2 5460.000	45.92	32.71	5.14	36.76	47.01	68.20	-21.19	VERTICAL	peak
3 * 5510.000	85.40	32.61	5.16	36.77	86.40	68.20	18.20	VERTICAL	peak

