



TEST REPORT

Application No.: GZCR2204000409AT
Applicant: HEXAERO PTE. LTD.
Address of Applicant: 160 ROBINSON ROAD #14-04 SPORE BUSINESS FEDERATION CTR
SINGAPORE (068914)
Manufacturer: HEXAERO PTE. LTD.
Address of Manufacturer: 160 ROBINSON ROAD #14-04 SPORE BUSINESS FEDERATION CTR
SINGAPORE (068914)
Factory: INVENTEC APPLIANCES(JIANGNING) CORPORATION
Address of Factory: 133, Jiang-Jun Road, Jiangning District, Nanjing, 211153, P.R. China
Equipment Under Test (EUT):
EUT Name: HERELINK Controller Unit
Model No.: HX4-06211
Standard(s) : 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2022-04-14
Date of Test: 2022-05-09 to 2022-06-23
Date of Issue: 2022-07-22

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian
EMC Laboratory Manager



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Revision Record			
Version	Report No.	Date	Remark
01	GZCR220400040903	2022-07-22	Original

Authorized for issue by			
			
		Curry Wu/Project Engineer	
			
		Ricky Liu/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 C 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Duty Cycle	47 CFR Part 15, Subpart E 15.407	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 C 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 C 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 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 & 15.407(b)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass

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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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3.6V supply by rechargeable battery DC 5V charging by USB port
Cable(s):	about 1.5m USB cable
Operation Frequency (20MHz):	U-NII-1: 5180-5240MHz; U-NII-2A: 5260-5320MHz; U-NII-2C: 5500-5700MHz; U-NII-3: 5745-5825MHz
Operation Frequency (40MHz):	U-NII-1: 5190-5230MHz; U-NII-2A: 5270-5310MHz; U-NII-2C: 5510-5670MHz; U-NII-3: 5755-5795MHz
Operation Frequency (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 Type:	Integral Antenna
Antenna Gain:	2dBi

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--
The EUT has been tested as an independent unit.			

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
Radiated Emissions (Above 1GHz)	±5.12 dB (1GHz-6 GHz); ±5.38 dB (6GHz-18GHz); ±5.61dB (18GHz-40GHz)
Radiated Emissions which fall in the restricted bands	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m);± 5.12dB (1GHz-6GHz);± 5.38dB (6GHz-18GHz);± 5.61dB (18GHz-40GHz)
Frequency Stability	± 7.25 x 10 ⁻⁸
Radiated Emissions (Below 1GHz)	±5.00dB (3m); ±4.38dB (10m)



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4.4 Test Location

All tests were performed at:

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Guangzhou, China 510663

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No tests were sub-contracted.

4.5 Test Facility

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

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **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.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

- **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.



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4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Duty Cycle					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	N/A	N/A

99% Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	N/A	N/A

26dB Emission bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Minimum 6 dB bandwidth (5.725-5.85 GHz band)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	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	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	N/A	N/A



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Peak Power spectrum density					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna (1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
Horn Antenna (14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
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	2021-12-17	2022-12-16
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna (1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
Horn Antenna (14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A



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Frequency Stability					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-20	2022-09-19
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2021-08-30	2022-08-29
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
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	2022-06-21	2023-06-20
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2022-05-20	2023-05-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Trilog Broadband Antenna (25MHz-1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2022-03-03	2025-03-02

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05



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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 a 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: 2dBi

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

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.



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7 Radio Spectrum Matter Test Results

7.1 Duty Cycle

Test Requirement KDB 789033 D02 II B 1
Test Method: KDB 789033 II B 1

7.1.1 E.U.T. Operation

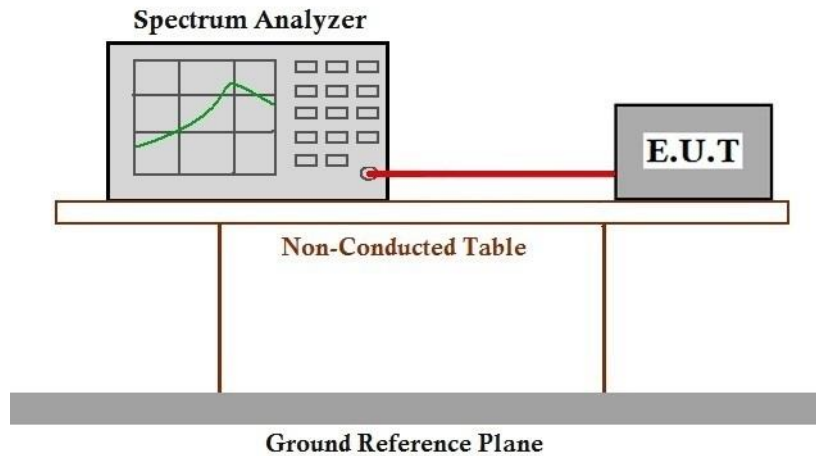
Operating Environment:
Temperature: 25.6 °C Humidity: 44.3 % RH Atmospheric Pressure: 1005 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.
Final test	07	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). Only the data of worst case is recorded in the report.



7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.2 99% Bandwidth

Test Requirement N/A
Test Method: KDB 789033 II D

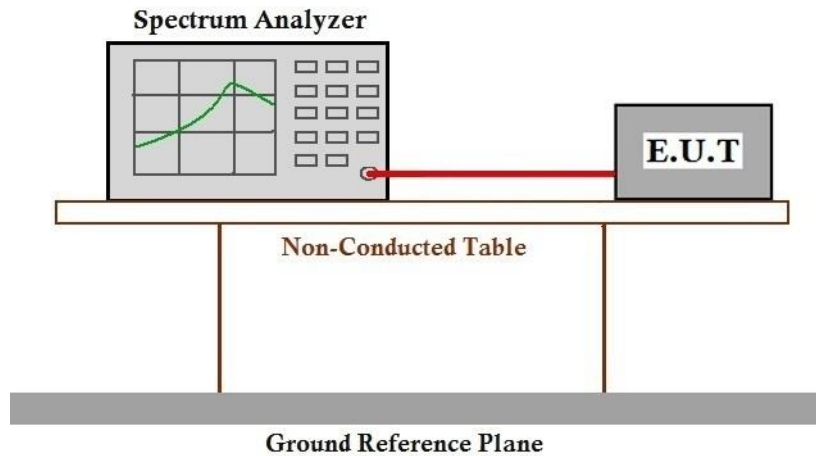
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 25.6 °C Humidity: 44.3 % RH Atmospheric Pressure: 1005 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.
Final test	07	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). Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.3 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)
Test Method: KDB 789033 D02 II C 1

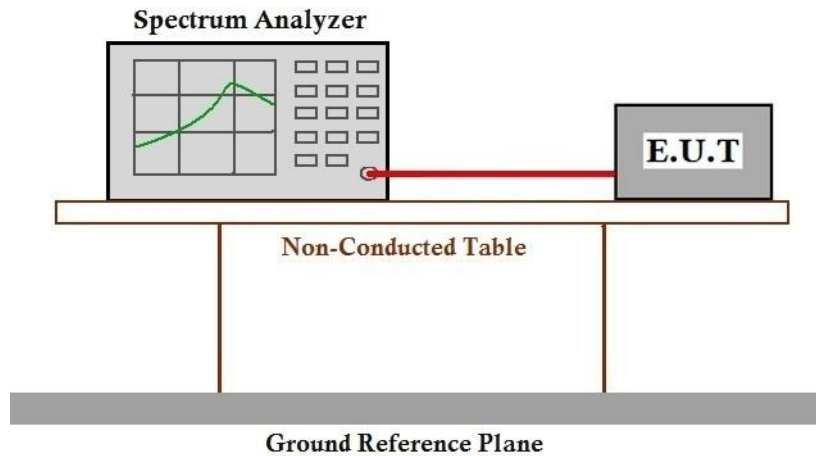
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 25.6 °C Humidity: 44.3 % RH Atmospheric Pressure: 1005 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.
Final test	07	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). Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.4 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart C 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C

Humidity: 44.3 % RH

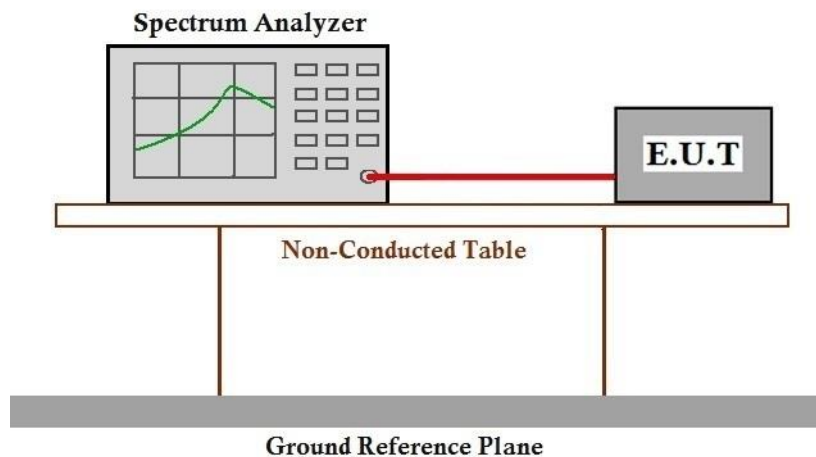
Atmospheric Pressure: 1005 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
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Final test	07	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). Only the data of worst case is recorded in the report.
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7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.5 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart C 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) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device 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.

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C

Humidity: 44.3 % RH

Atmospheric Pressure: 1005 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.



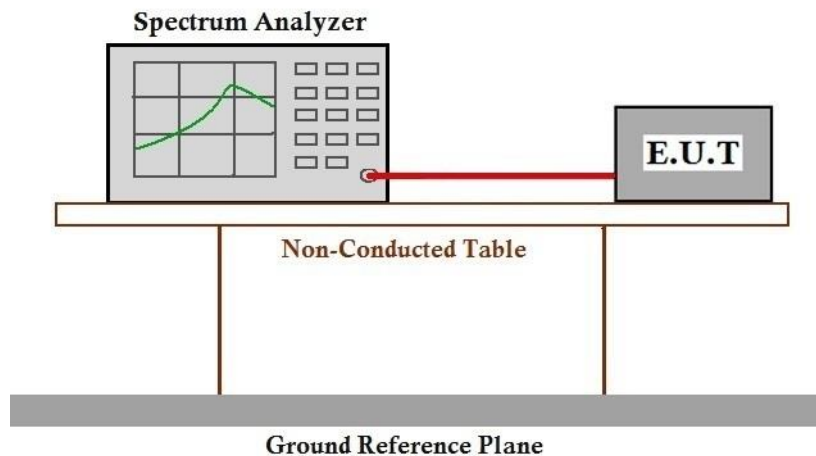
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Final test 07

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). Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 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

7.6 Peak Power spectrum density

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

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C

Humidity: 44.3 % RH

Atmospheric Pressure: 1005 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.



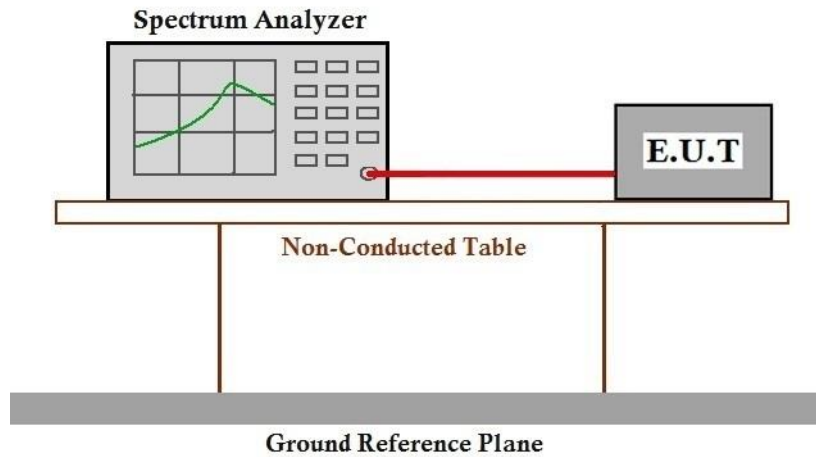
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Final test 07

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). Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 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.		

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 22.7 °C Humidity: 58.5 % RH Atmospheric Pressure: 1005 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	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). Only the data of worst case is recorded in the report.
Final test	05	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



Final test 06

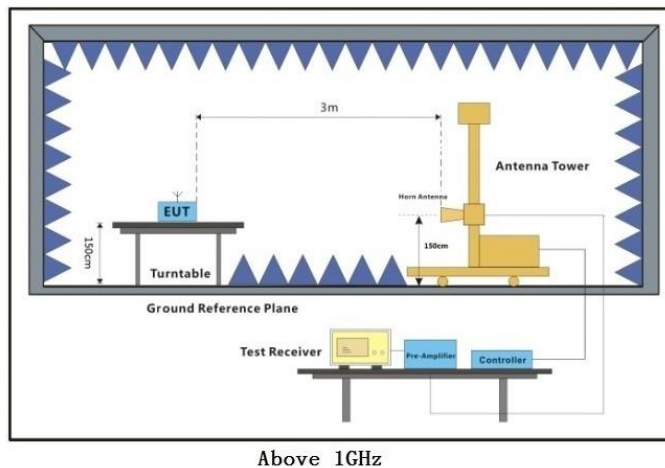
of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

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). Only the data of worst case is recorded in the report.

Final test 07

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). Only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

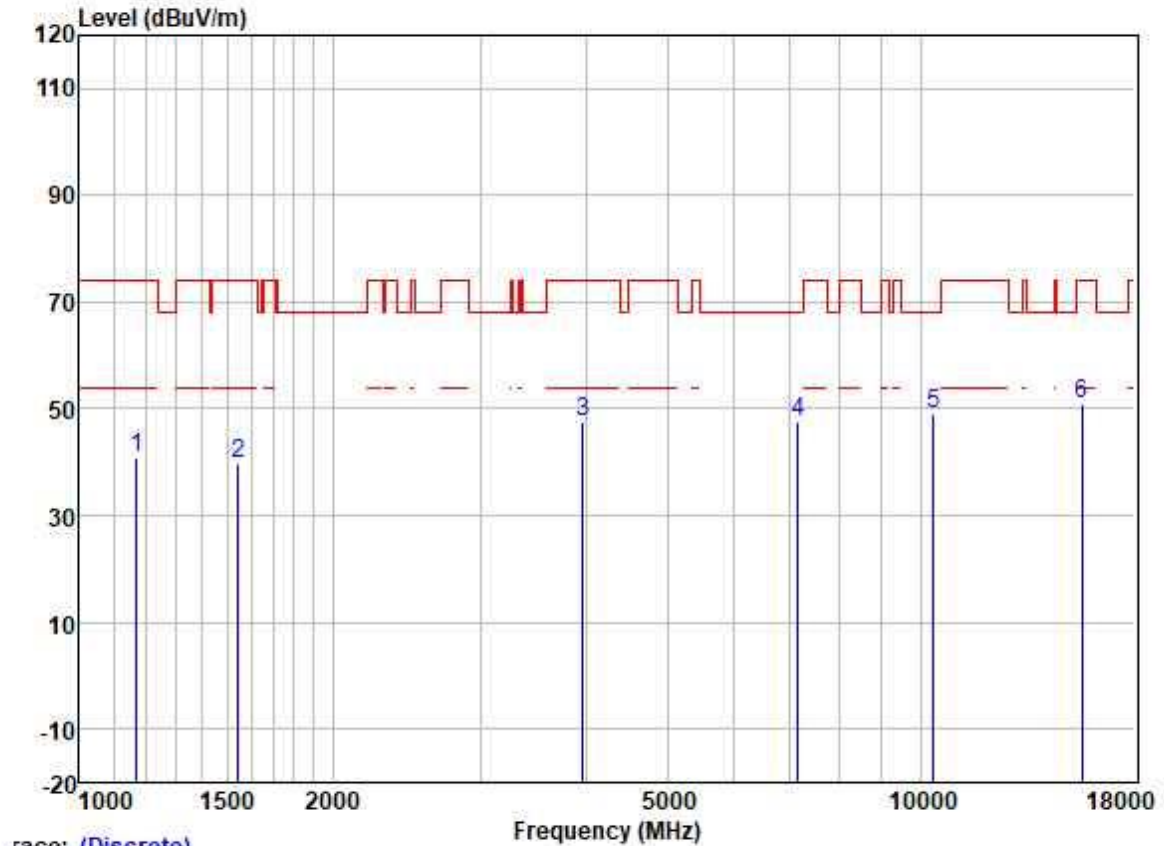
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which 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. Pretest the EUT in 802.11a/n(20)/n(40)/ac(20)/ac(40)/ac(80) and find the worst case are 802.11a/n(40)/ac(80), and only record the worst case test data in this report.



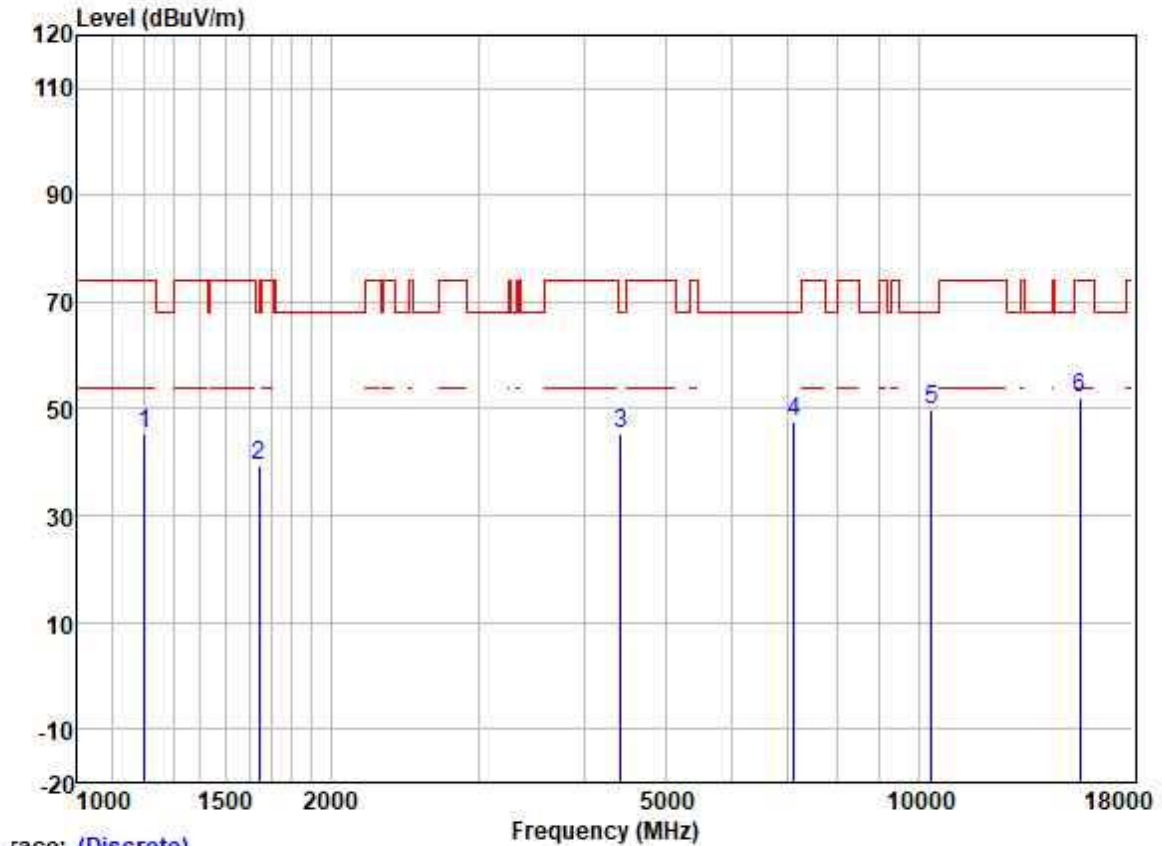
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

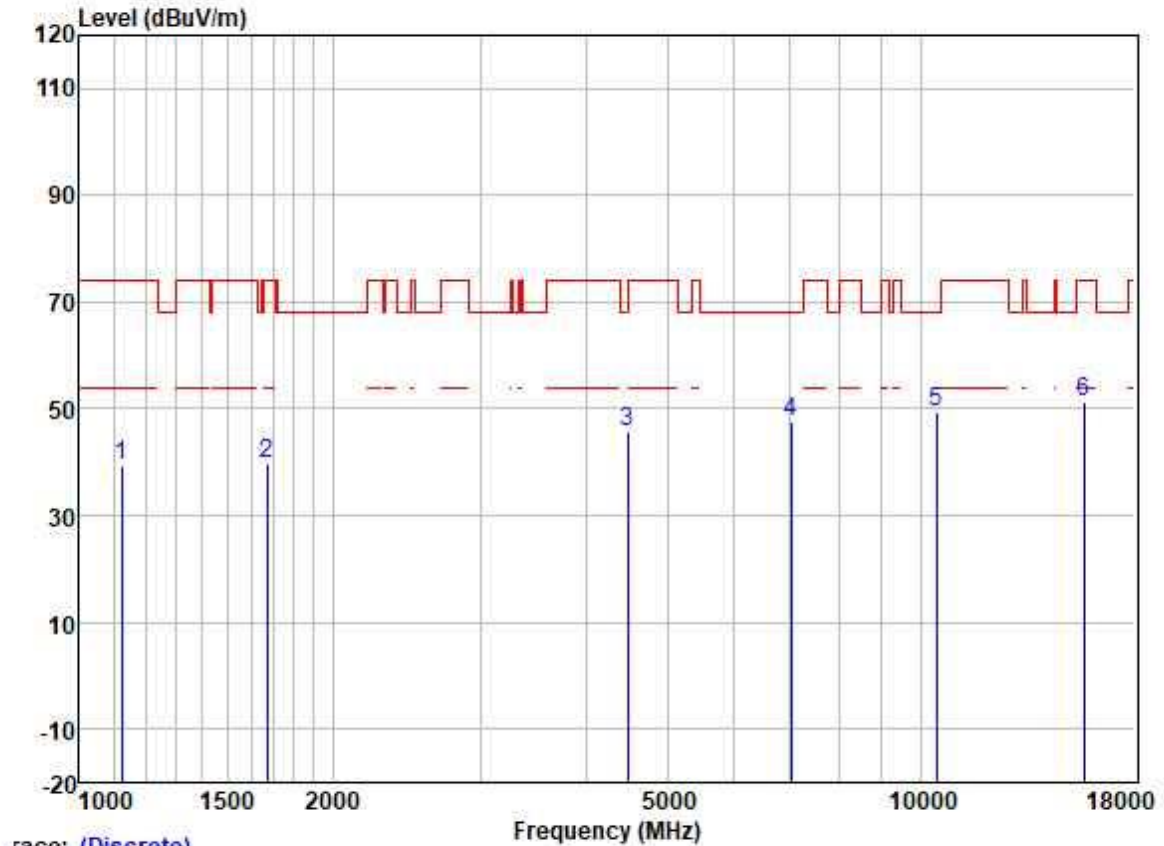
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1168.920	51.92	24.55	2.56	38.17	40.86	74.00	-33.14	VERTICAL	peak
2	1542.733	49.07	25.53	2.96	37.66	39.90	74.00	-34.10	VERTICAL	peak
3	3969.767	49.49	29.77	5.18	36.70	47.74	74.00	-26.26	VERTICAL	peak
4	7158.806	42.65	35.40	6.37	36.88	47.54	68.20	-20.66	VERTICAL	peak
5	10360.000	40.02	39.28	6.35	36.77	48.88	68.20	-19.32	VERTICAL	peak
6	15540.000	39.73	39.05	8.42	36.15	51.05	74.00	-22.95	VERTICAL	peak

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



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1203.199	56.01	24.70	2.58	38.14	45.15	74.00	-28.85	HORIZONTAL	peak
2	1644.019	47.98	25.63	3.11	37.51	39.21	68.20	-28.99	HORIZONTAL	peak
3	4430.628	45.70	30.72	5.36	36.62	45.16	68.20	-23.04	HORIZONTAL	peak
4	7117.542	42.74	35.28	6.38	36.85	47.55	68.20	-20.65	HORIZONTAL	peak
5	10360.000	41.06	39.28	6.35	36.77	49.92	68.20	-18.28	HORIZONTAL	peak
6	15540.000	40.73	39.05	8.42	36.15	52.05	74.00	-21.95	HORIZONTAL	peak

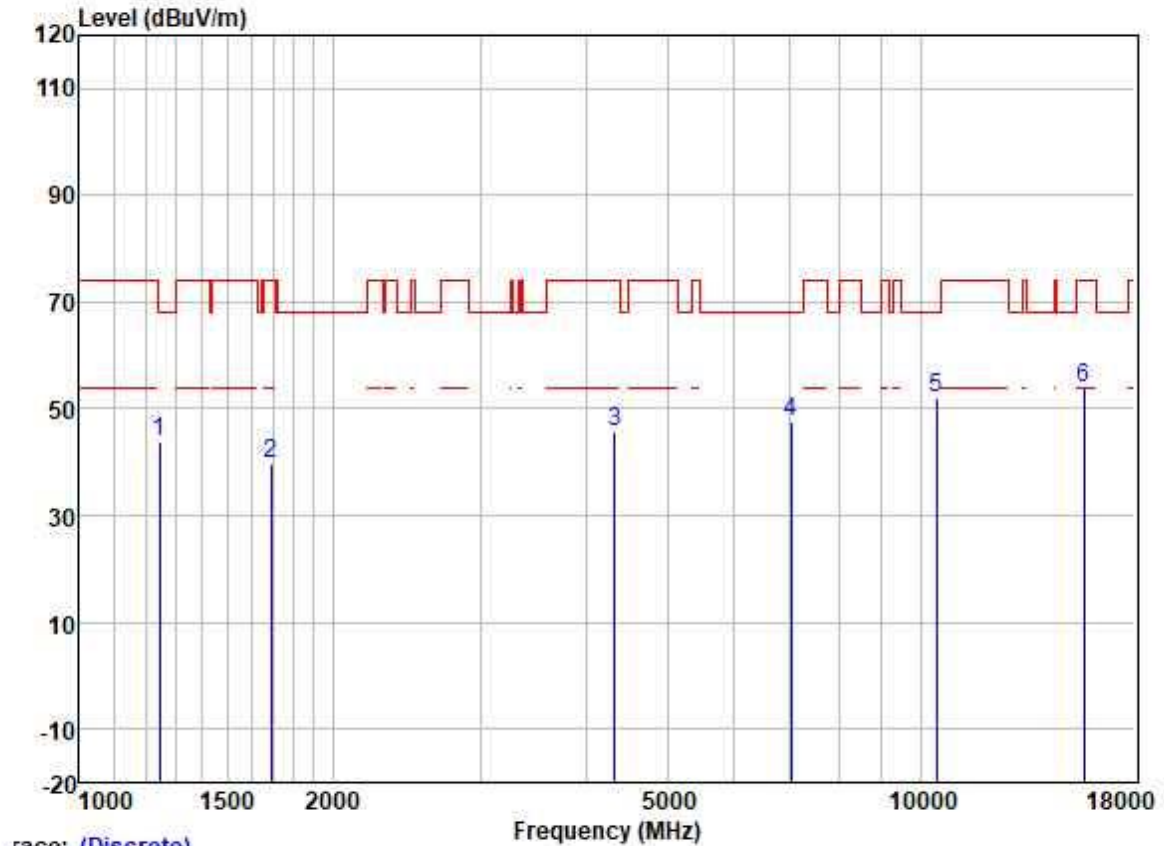
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

	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	50.56	24.42	2.52	38.21	39.29	74.00	-34.71	VERTICAL peak
2	1672.779	48.44	25.67	3.21	37.48	39.84	74.00	-34.16	VERTICAL peak
3	4482.150	46.11	30.78	5.34	36.61	45.62	68.20	-22.58	VERTICAL peak
4	7015.420	42.81	35.04	6.41	36.74	47.52	68.20	-20.68	VERTICAL peak
5	10440.000	40.54	39.42	6.31	36.76	49.51	68.20	-18.69	VERTICAL peak
6	15660.000	40.40	38.86	8.16	36.19	51.23	74.00	-22.77	VERTICAL peak

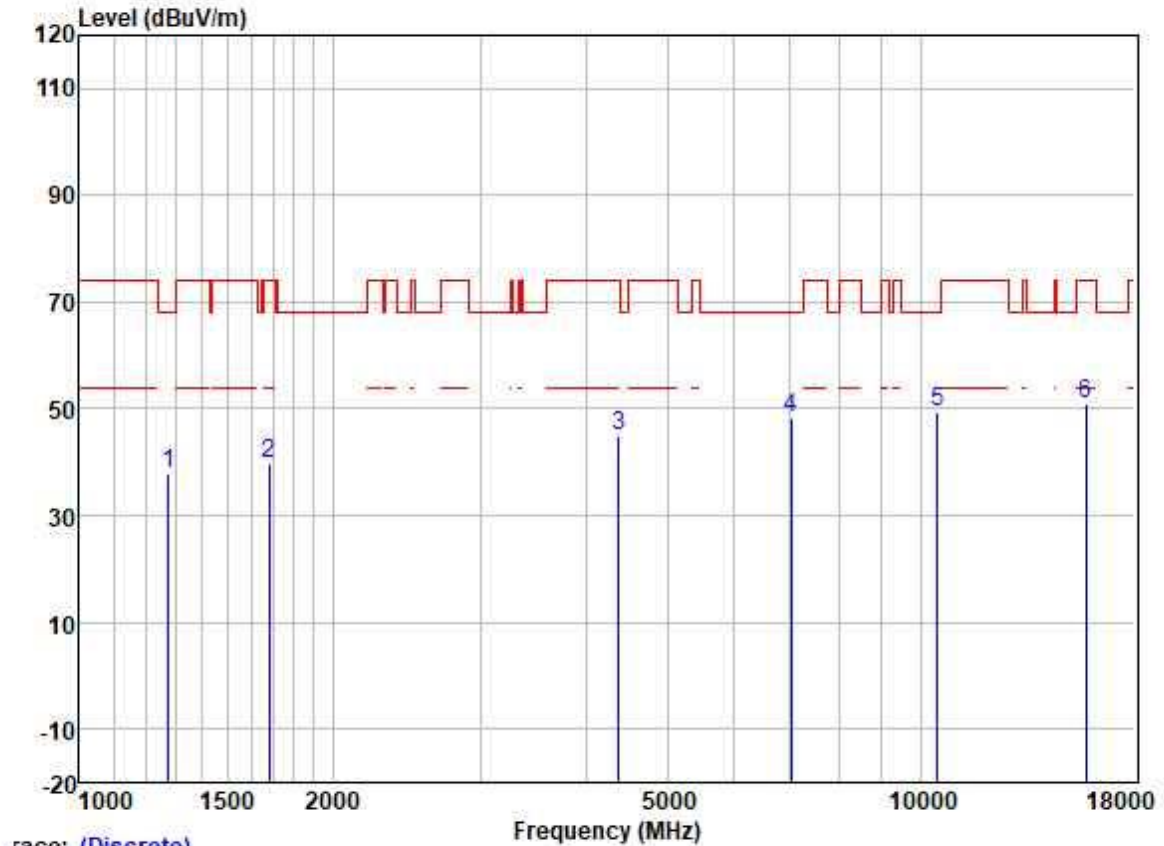
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

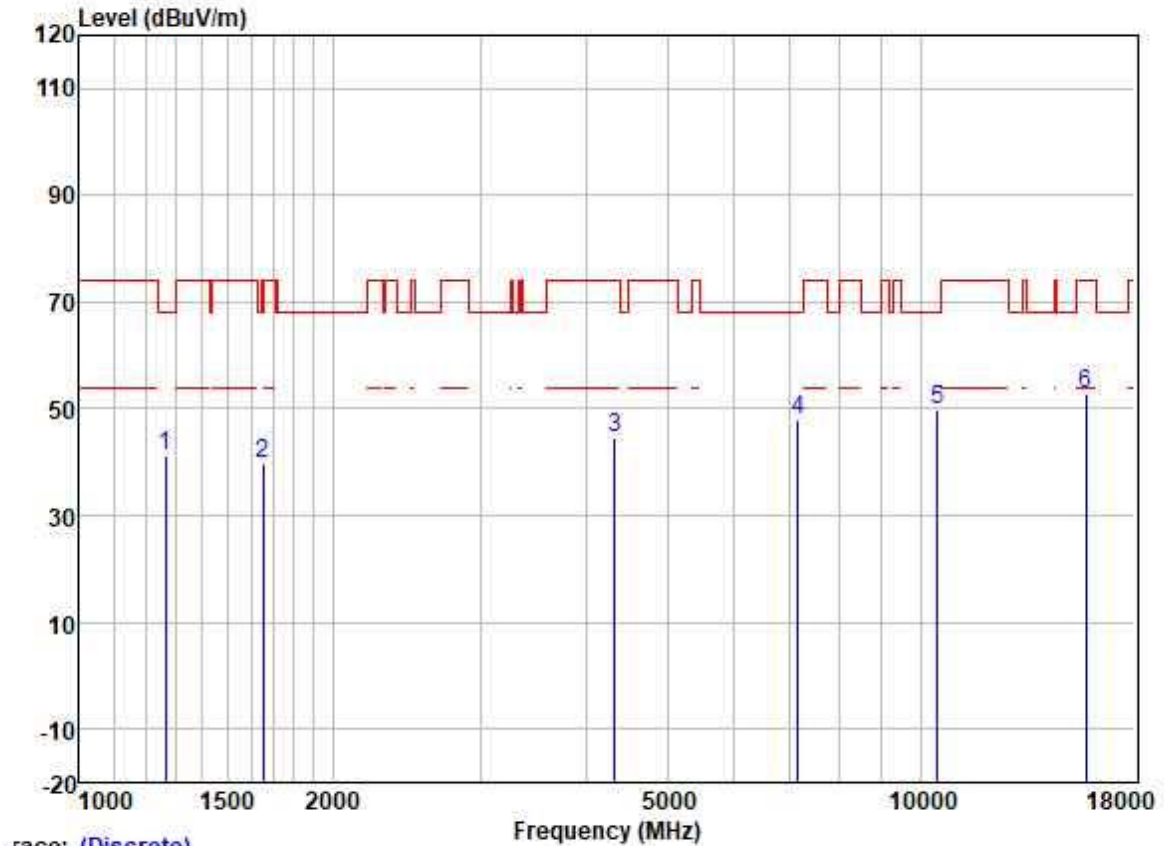
	Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1245.663	54.16	25.00	2.61	38.10	43.67	68.20	-24.53	HORIZONTAL peak
2	1692.231	48.13	25.70	3.30	37.46	39.67	74.00	-34.33	HORIZONTAL peak
3	4329.354	46.36	30.54	5.31	36.64	45.57	74.00	-28.43	HORIZONTAL peak
4	7015.420	43.00	35.04	6.41	36.74	47.71	68.20	-20.49	HORIZONTAL peak
5	10440.000	43.06	39.42	6.31	36.76	52.03	68.20	-16.17	HORIZONTAL peak
6	15660.000	43.11	38.86	8.16	36.19	53.94	74.00	-20.06	HORIZONTAL peak

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



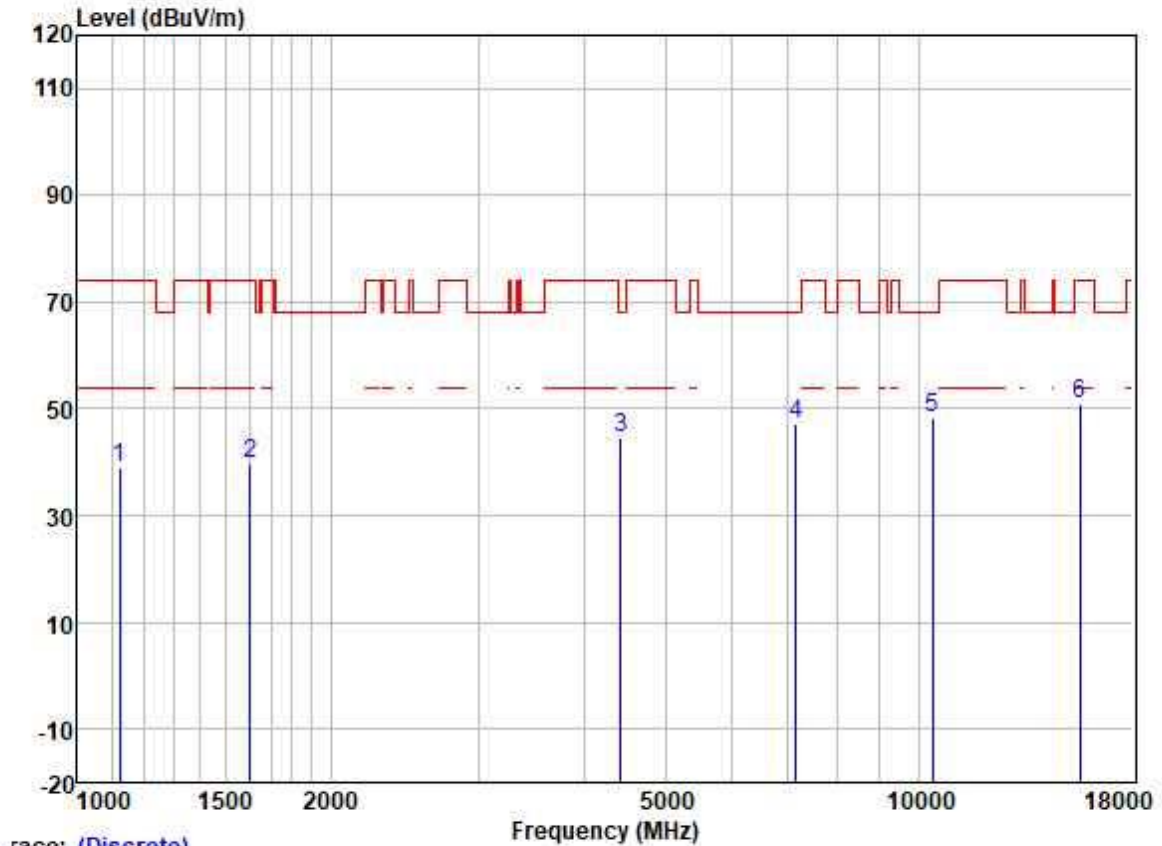
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1274.802	48.33	25.12	2.64	38.07	38.02	68.20	-30.18	VERTICAL peak
2	1682.477	48.43	25.68	3.25	37.48	39.88	74.00	-34.12	VERTICAL peak
3	4379.699	45.70	30.64	5.35	36.63	45.06	74.00	-28.94	VERTICAL peak
4	7015.420	43.49	35.04	6.41	36.74	48.20	68.20	-20.00	VERTICAL peak
5	10480.000	40.34	39.46	6.29	36.76	49.33	68.20	-18.87	VERTICAL peak
6	15720.000	40.16	38.78	8.06	36.22	50.78	74.00	-23.22	VERTICAL peak

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



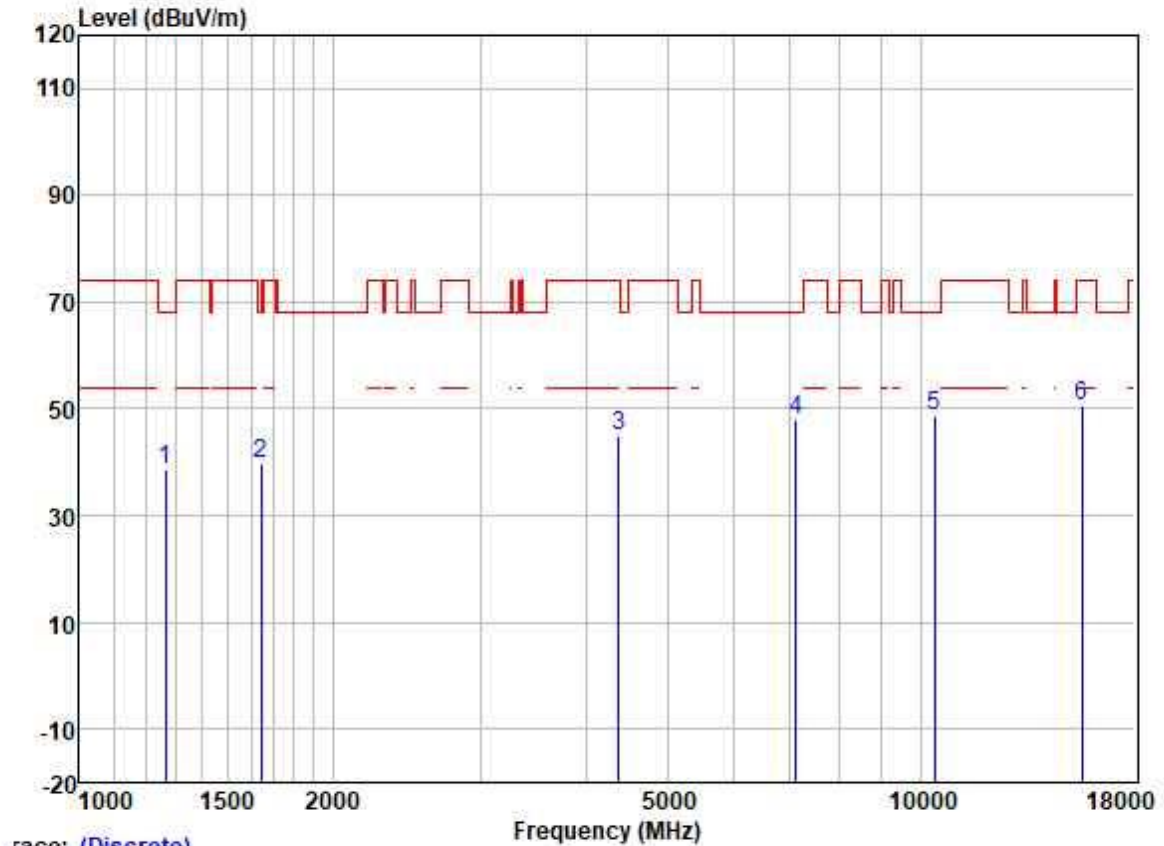
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1267.454	51.71	25.10	2.63	38.07	41.37	68.20	-26.83	HORIZONTAL	peak
2	1653.550	48.60	25.64	3.14	37.51	39.87	68.20	-28.33	HORIZONTAL	peak
3	4329.354	45.38	30.54	5.31	36.64	44.59	74.00	-29.41	HORIZONTAL	peak
4	7158.806	42.95	35.40	6.37	36.88	47.84	68.20	-20.36	HORIZONTAL	peak
5	10480.000	40.68	39.46	6.29	36.76	49.67	68.20	-18.53	HORIZONTAL	peak
6	15720.000	42.06	38.78	8.06	36.22	52.68	74.00	-21.32	HORIZONTAL	peak

Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; 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	50.30	24.42	2.52	38.21	39.03	74.00	-34.97	VERTICAL peak
2	1606.441	48.73	25.59	3.02	37.58	39.76	74.00	-34.24	VERTICAL peak
3	4430.628	45.23	30.72	5.36	36.62	44.69	68.20	-23.51	VERTICAL peak
4	7158.806	42.21	35.40	6.37	36.88	47.10	68.20	-21.10	VERTICAL peak
5	10380.000	39.52	39.33	6.33	36.77	48.41	68.20	-19.79	VERTICAL peak
6	15570.000	39.93	38.99	8.34	36.16	51.10	74.00	-22.90	VERTICAL peak

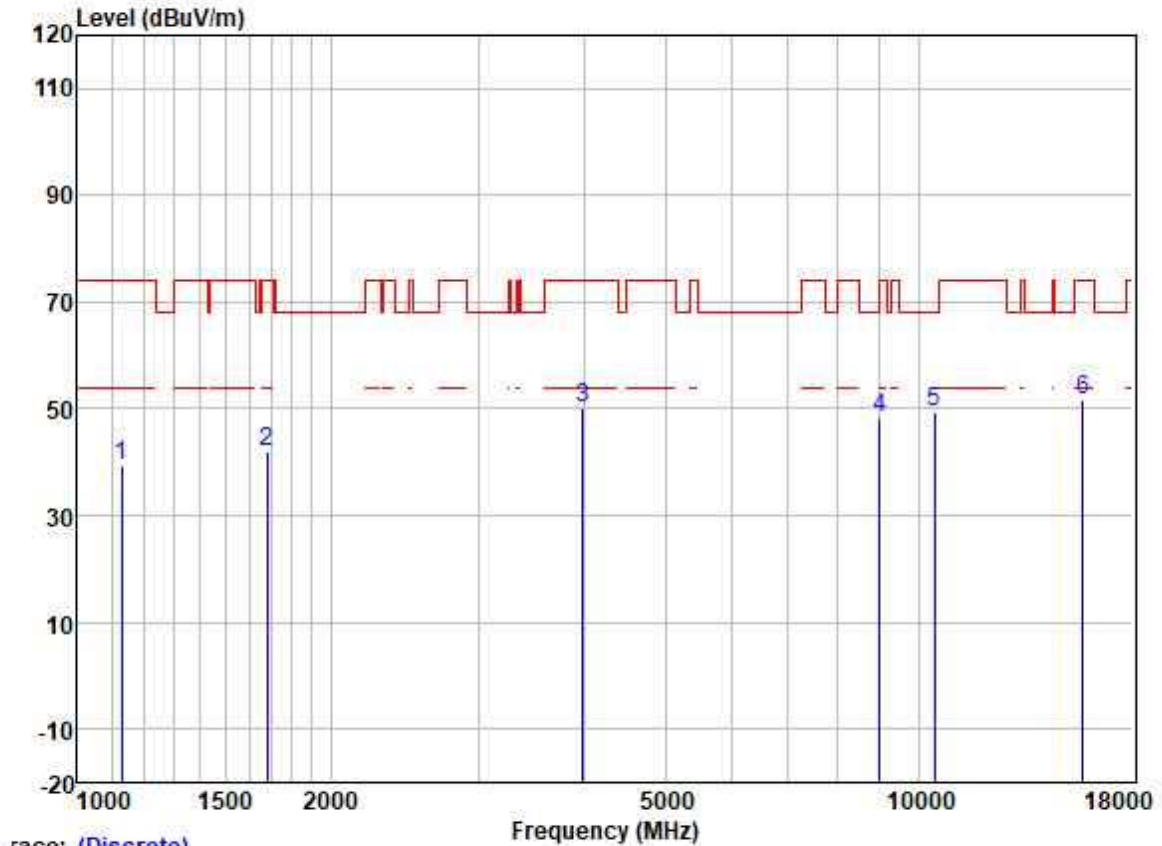
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

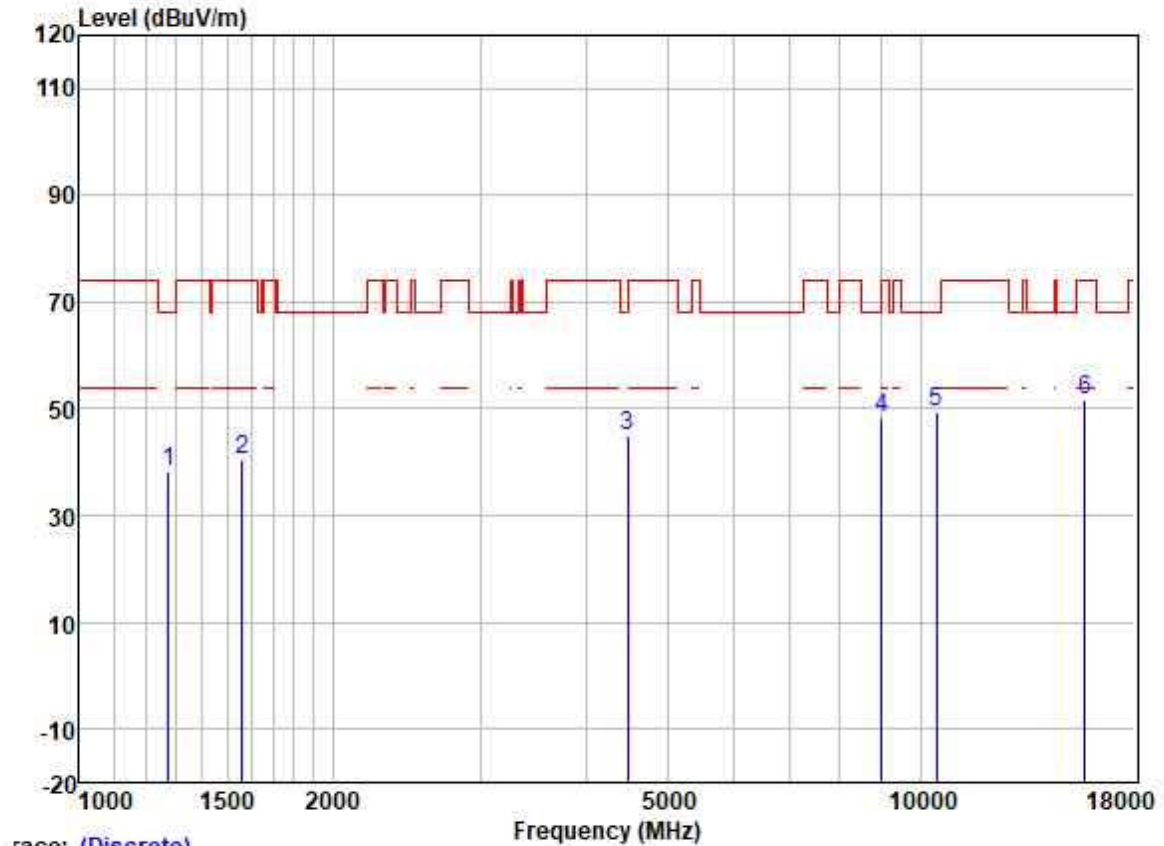
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1267.454	49.05	25.10	2.63	38.07	38.71	68.20	-29.49	HORIZONTAL peak
2	1644.019	48.53	25.63	3.11	37.51	39.76	68.20	-28.44	HORIZONTAL peak
3	4379.699	45.62	30.64	5.35	36.63	44.98	74.00	-29.02	HORIZONTAL peak
4	7117.542	43.18	35.28	6.38	36.85	47.99	68.20	-20.21	HORIZONTAL peak
5	10380.000	39.84	39.33	6.33	36.77	48.73	68.20	-19.47	HORIZONTAL peak
6	15570.000	39.52	38.99	8.34	36.16	50.69	74.00	-23.31	HORIZONTAL peak

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



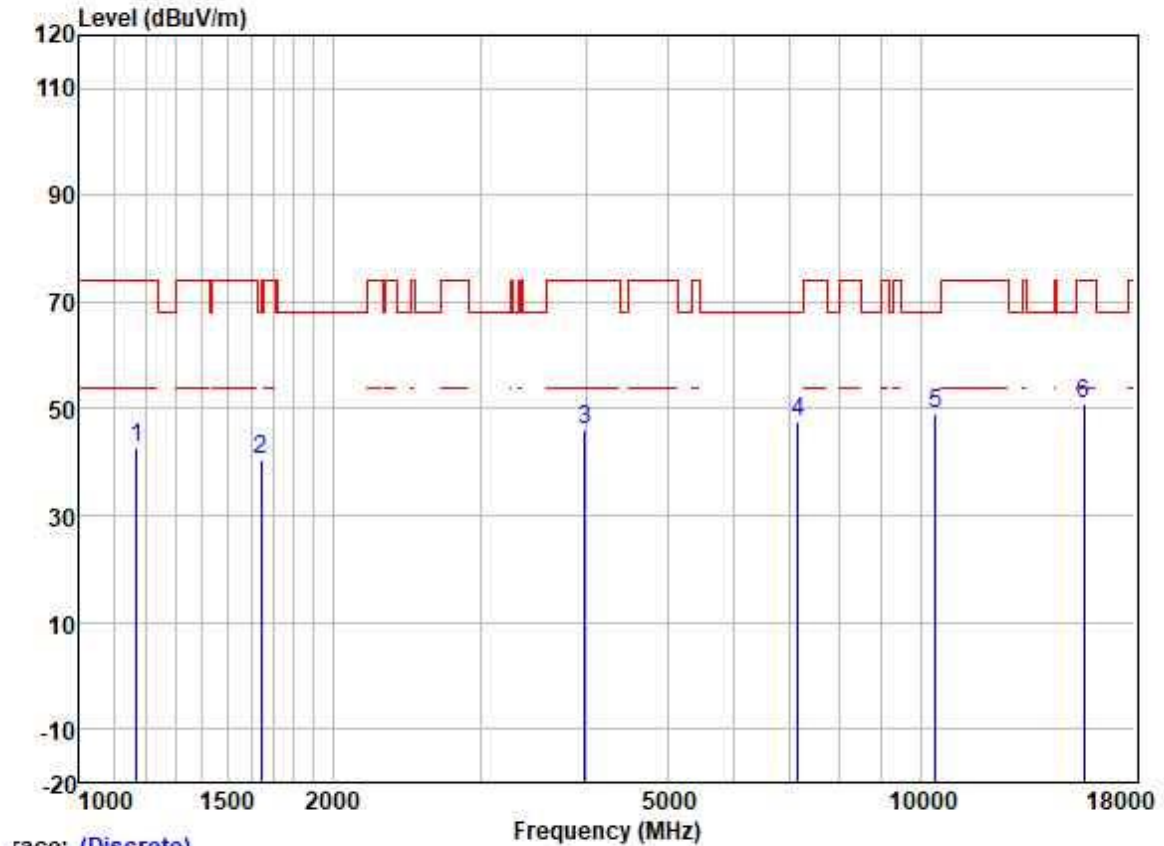
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1129.072	50.50	24.43	2.53	38.21	39.25	74.00	-34.75	VERTICAL	peak
2	1682.477	50.68	25.68	3.25	37.48	42.13	74.00	-31.87	VERTICAL	peak
3	3992.781	52.01	29.79	5.25	36.70	50.35	74.00	-23.65	VERTICAL	peak
4	8995.123	40.80	37.40	7.09	37.05	48.24	68.20	-19.96	VERTICAL	peak
5	10460.000	40.43	39.42	6.31	36.76	49.40	68.20	-18.80	VERTICAL	peak
6	15690.000	40.73	38.86	8.16	36.21	51.54	74.00	-22.46	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	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1274.802	48.68	25.12	2.64	38.07	38.37	68.20	-29.83	HORIZONTAL	peak
2	1560.673	49.61	25.54	2.98	37.66	40.47	74.00	-33.53	HORIZONTAL	peak
3	4482.150	45.28	30.78	5.34	36.61	44.79	68.20	-23.41	HORIZONTAL	peak
4	8995.123	41.05	37.40	7.09	37.05	48.49	68.20	-19.71	HORIZONTAL	peak
5	10460.000	40.47	39.42	6.31	36.76	49.44	68.20	-18.76	HORIZONTAL	peak
6	15690.000	41.03	38.86	8.16	36.21	51.84	74.00	-22.16	HORIZONTAL	peak

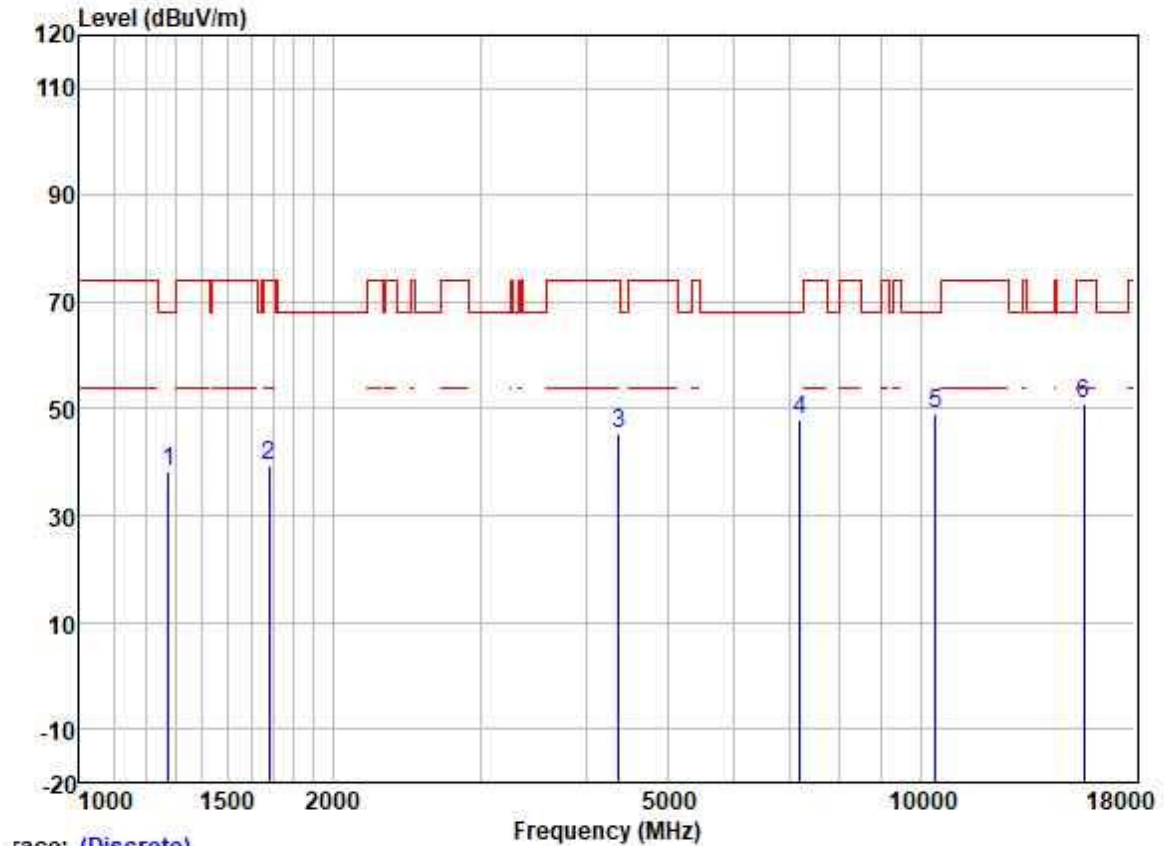
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz;



Trace: (Discrete)

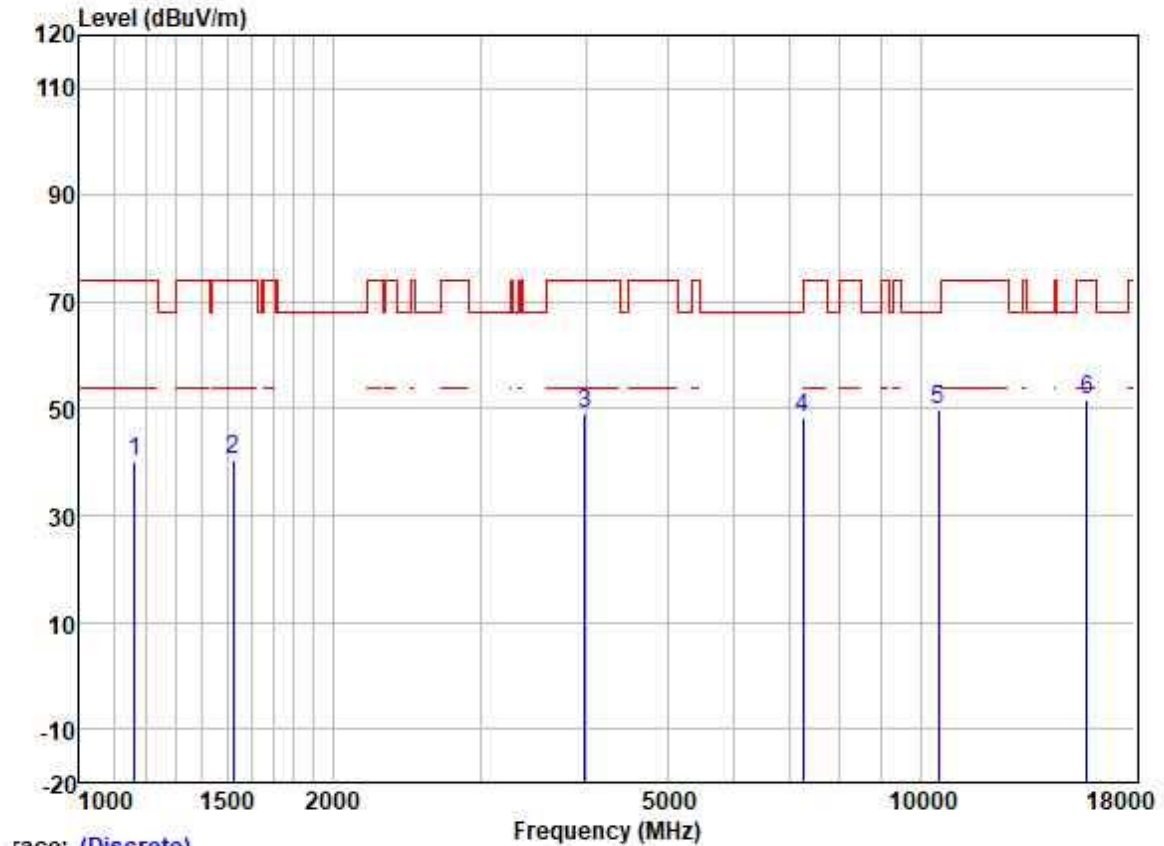
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1168.920	53.82	24.55	2.56	38.17	42.76	74.00	-31.24	VERTICAL peak
2	1644.019	49.24	25.63	3.11	37.51	40.47	68.20	-27.73	VERTICAL peak
3	3992.781	47.76	29.79	5.25	36.70	46.10	74.00	-27.90	VERTICAL peak
4	7158.806	42.55	35.40	6.37	36.88	47.44	68.20	-20.76	VERTICAL peak
5	10420.000	40.07	39.38	6.32	36.76	49.01	68.20	-19.19	VERTICAL peak
6	15630.000	39.84	38.92	8.26	36.18	50.84	74.00	-23.16	VERTICAL peak

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



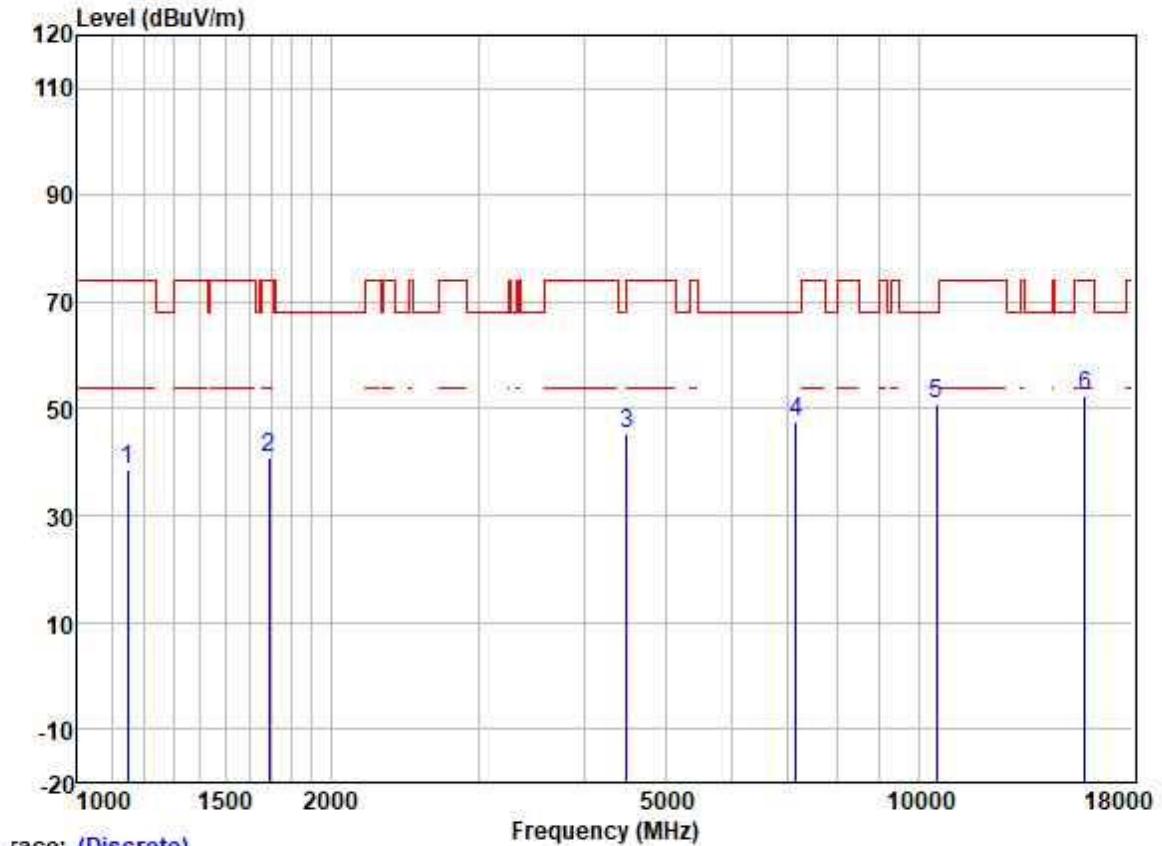
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1274.802	48.65	25.12	2.64	38.07	38.34	68.20	-29.86	HORIZONTAL peak
2	1682.477	47.96	25.68	3.25	37.48	39.41	74.00	-34.59	HORIZONTAL peak
3	4379.699	46.00	30.64	5.35	36.63	45.36	74.00	-28.64	HORIZONTAL peak
4	7200.309	42.92	35.54	6.36	36.92	47.90	68.20	-20.30	HORIZONTAL peak
5	10420.000	40.07	39.38	6.32	36.76	49.01	68.20	-19.19	HORIZONTAL peak
6	15630.000	39.87	38.92	8.26	36.18	50.87	74.00	-23.13	HORIZONTAL peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



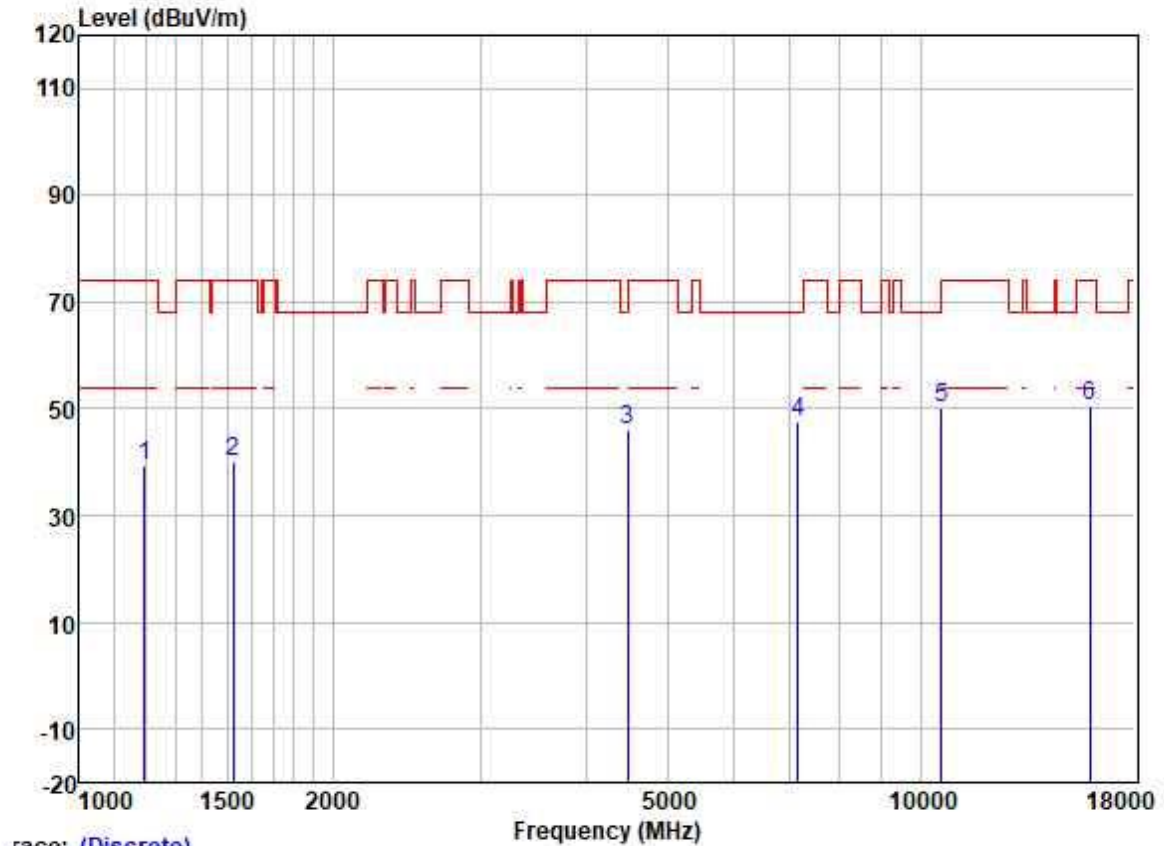
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1162.182	51.23	24.53	2.56	38.19	40.13	74.00	-33.87	VERTICAL peak
2	1525.000	49.80	25.52	2.94	37.70	40.56	74.00	-33.44	VERTICAL peak
3	3992.781	50.82	29.79	5.25	36.70	49.16	74.00	-24.84	VERTICAL peak
4	7242.052	43.31	35.70	6.35	36.96	48.40	68.20	-19.80	VERTICAL peak
5	10520.000	40.65	39.50	6.28	36.75	49.68	68.20	-18.52	VERTICAL peak
6	15780.000	41.26	38.70	7.95	36.23	51.68	74.00	-22.32	VERTICAL peak

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; 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	1148.823	49.85	24.49	2.55	38.19	38.70	74.00	-35.30	HORIZONTAL peak
2	1692.231	49.37	25.70	3.30	37.46	40.91	74.00	-33.09	HORIZONTAL peak
3	4495.125	45.93	30.80	5.33	36.60	45.46	68.20	-22.74	HORIZONTAL peak
4	7158.806	42.67	35.40	6.37	36.88	47.56	68.20	-20.64	HORIZONTAL peak
5	10520.000	41.79	39.50	6.28	36.75	50.82	68.20	-17.38	HORIZONTAL peak
6	15780.000	42.06	38.70	7.95	36.23	52.48	74.00	-21.52	HORIZONTAL peak

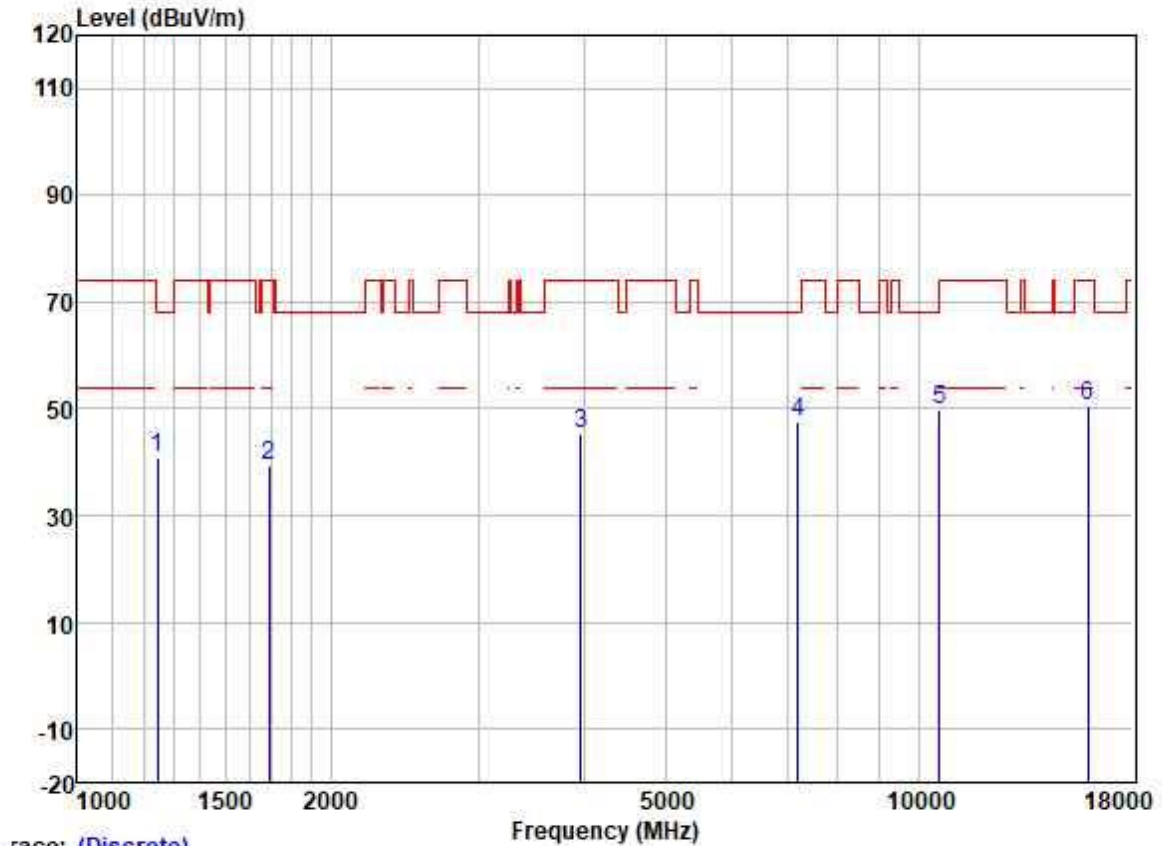
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

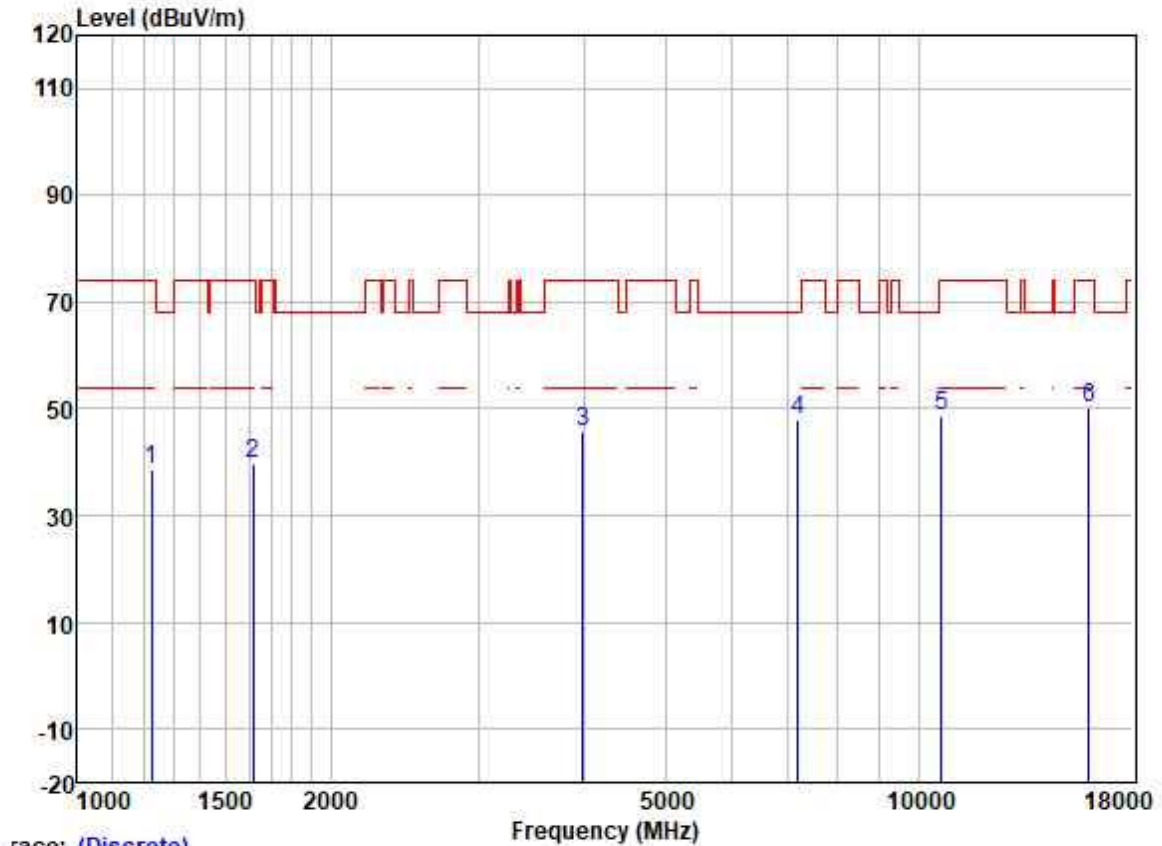
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1196.264	50.08	24.67	2.58	38.14	39.19	74.00	-34.81	VERTICAL peak
2	1525.000	49.51	25.52	2.94	37.70	40.27	74.00	-33.73	VERTICAL peak
3	4482.150	46.62	30.78	5.34	36.61	46.13	68.20	-22.07	VERTICAL peak
4	7158.806	42.69	35.40	6.37	36.88	47.58	68.20	-20.62	VERTICAL peak
5	10600.000	40.89	39.59	6.45	36.74	50.19	68.20	-18.01	VERTICAL peak
6	15900.000	40.68	38.44	7.59	36.27	50.44	74.00	-23.56	VERTICAL peak

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



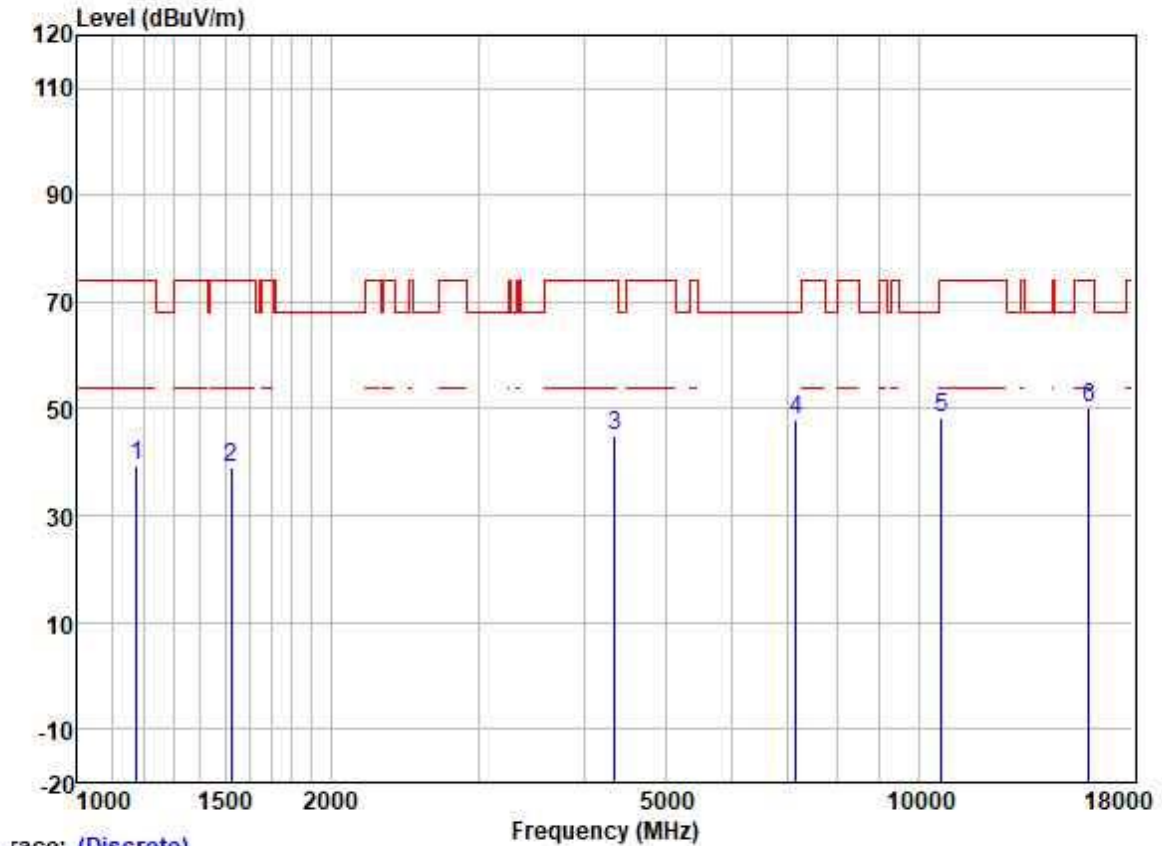
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1245.663	51.45	25.00	2.61	38.10	40.96	68.20	-27.24	HORIZONTAL	peak
2	1692.231	47.97	25.70	3.30	37.46	39.51	74.00	-34.49	HORIZONTAL	peak
3	3969.767	46.97	29.77	5.18	36.70	45.22	74.00	-28.78	HORIZONTAL	peak
4	7200.309	42.69	35.54	6.36	36.92	47.67	68.20	-20.53	HORIZONTAL	peak
5	10600.000	40.36	39.59	6.45	36.74	49.66	68.20	-18.54	HORIZONTAL	peak
6	15900.000	40.63	38.44	7.59	36.27	50.39	74.00	-23.61	HORIZONTAL	peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1224.247	49.43	24.85	2.60	38.12	38.76	74.00	-35.24	VERTICAL	peak
2	1615.754	48.71	25.60	3.04	37.55	39.80	74.00	-34.20	VERTICAL	peak
3	3992.781	47.40	29.79	5.25	36.70	45.74	74.00	-28.26	VERTICAL	peak
4	7200.309	42.88	35.54	6.36	36.92	47.86	68.20	-20.34	VERTICAL	peak
5	10640.000	39.39	39.63	6.51	36.73	48.80	74.00	-25.20	VERTICAL	peak
6	15960.000	40.73	38.37	7.49	36.29	50.30	74.00	-23.70	VERTICAL	peak

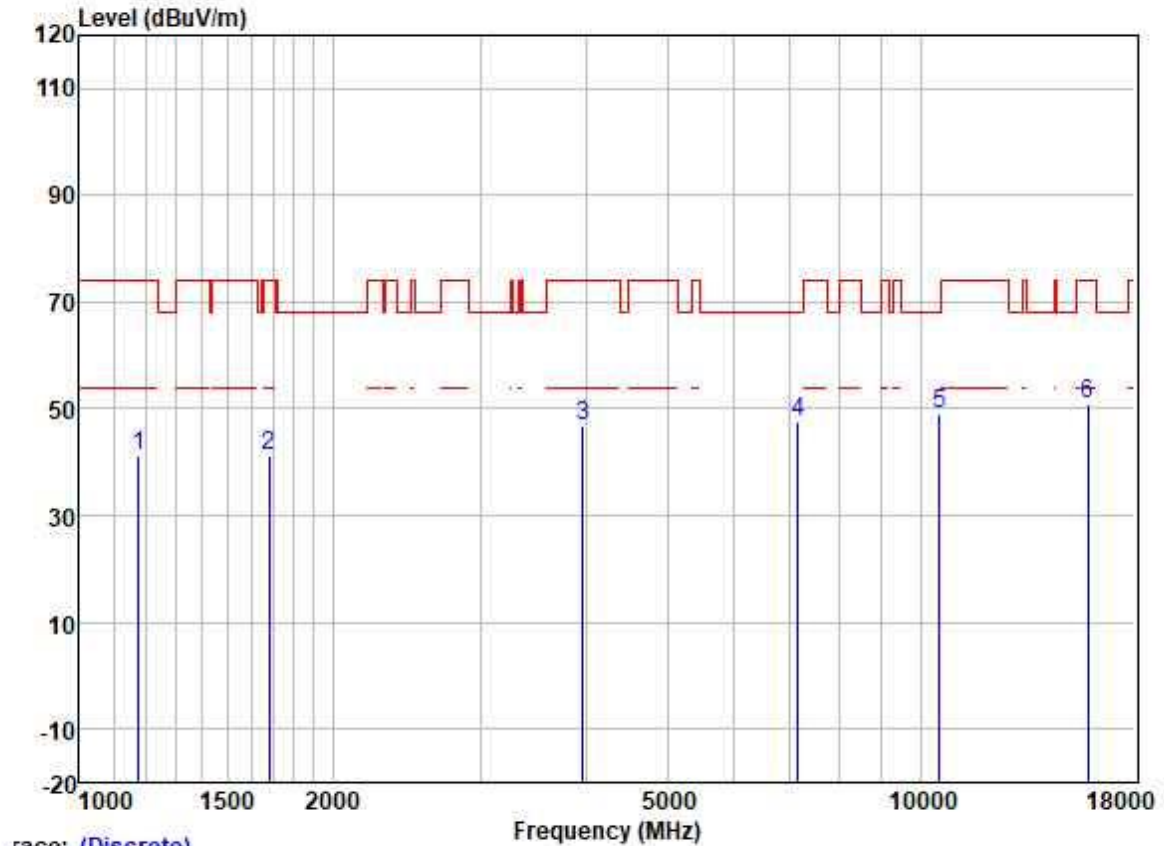
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	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	1175.697	50.42	24.58	2.57	38.17	39.40	74.00	-34.60	HORIZONTAL peak
2	1525.000	48.27	25.52	2.94	37.70	39.03	74.00	-34.97	HORIZONTAL peak
3	4354.454	45.77	30.59	5.34	36.64	45.06	74.00	-28.94	HORIZONTAL peak
4	7158.806	43.04	35.40	6.37	36.88	47.93	68.20	-20.27	HORIZONTAL peak
5	10640.000	38.86	39.63	6.51	36.73	48.27	74.00	-25.73	HORIZONTAL peak
6	15960.000	40.47	38.37	7.49	36.29	50.04	74.00	-23.96	HORIZONTAL peak

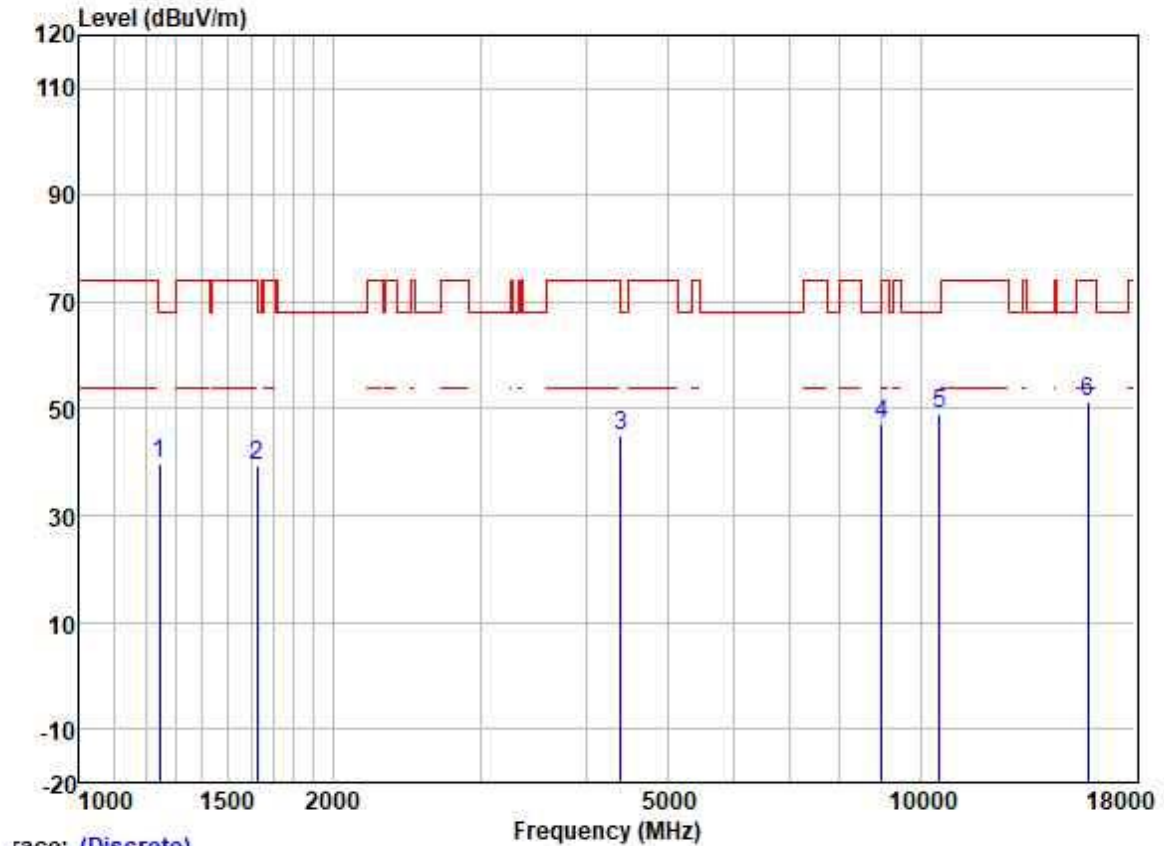
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

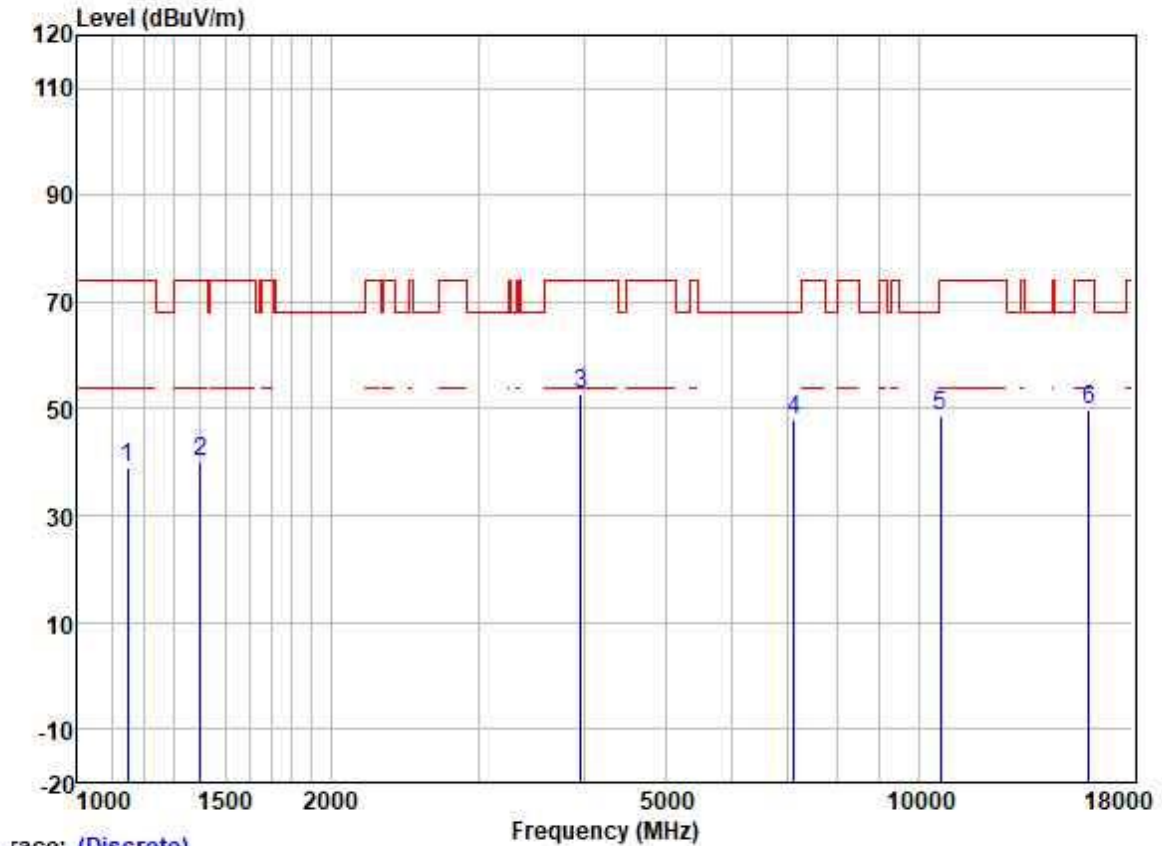
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1175.697	52.32	24.58	2.57	38.17	41.30	74.00	-32.70	VERTICAL peak
2	1682.477	49.61	25.68	3.25	37.48	41.06	74.00	-32.94	VERTICAL peak
3	3969.767	48.57	29.77	5.18	36.70	46.82	74.00	-27.18	VERTICAL peak
4	7158.806	42.59	35.40	6.37	36.88	47.48	68.20	-20.72	VERTICAL peak
5	10540.000	39.92	39.53	6.33	36.75	49.03	68.20	-19.17	VERTICAL peak
6	15810.000	40.84	38.61	7.82	36.24	51.03	74.00	-22.97	VERTICAL peak

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



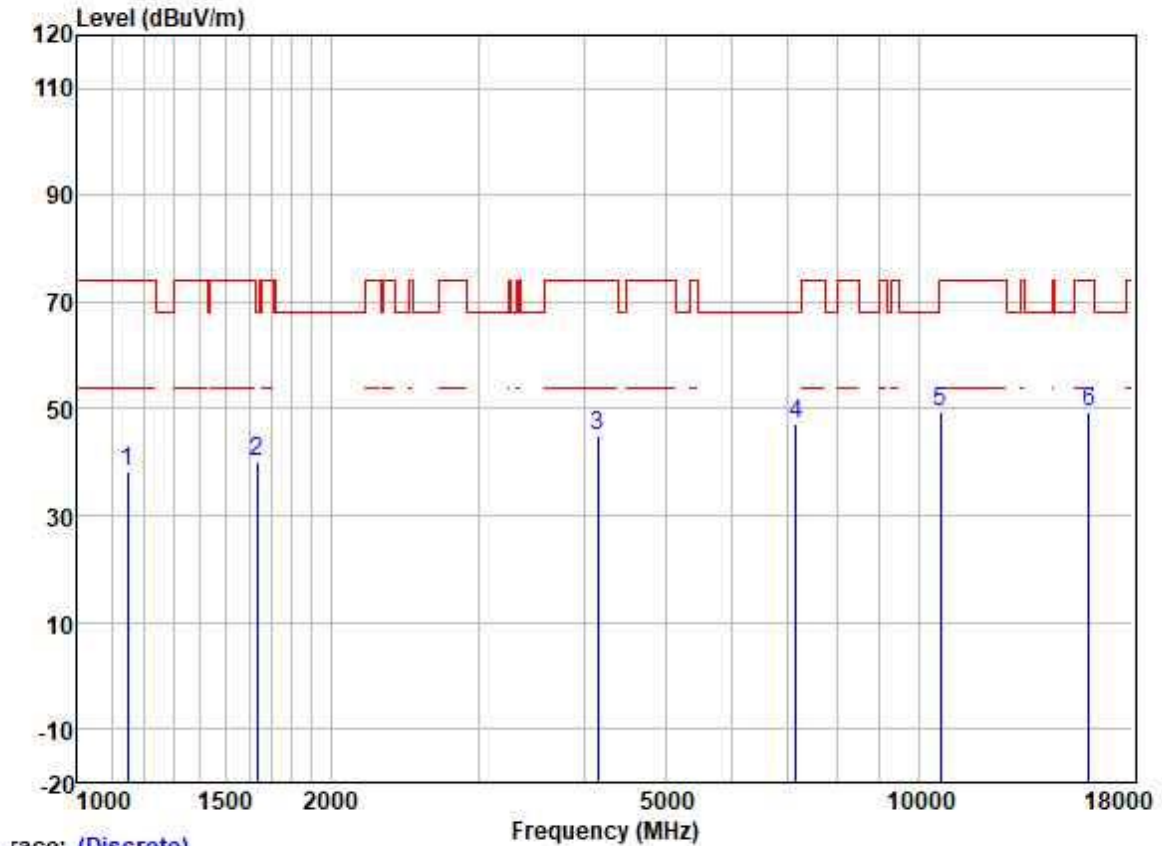
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1245.663	50.30	25.00	2.61	38.10	39.81	68.20	-28.39	HORIZONTAL peak
2	1625.121	48.42	25.61	3.06	37.55	39.54	74.00	-34.46	HORIZONTAL peak
3	4405.090	45.66	30.68	5.37	36.63	45.08	68.20	-23.12	HORIZONTAL peak
4	8995.123	39.94	37.40	7.09	37.05	47.38	68.20	-20.82	HORIZONTAL peak
5	10540.000	39.87	39.53	6.33	36.75	48.98	68.20	-19.22	HORIZONTAL peak
6	15810.000	41.24	38.61	7.82	36.24	51.43	74.00	-22.57	HORIZONTAL peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1148.823	50.11	24.49	2.55	38.19	38.96	74.00	-35.04	VERTICAL	peak
2	1398.336	49.93	25.39	2.77	37.92	40.17	74.00	-33.83	VERTICAL	peak
3	3969.767	54.59	29.77	5.18	36.70	52.84	74.00	-21.16	VERTICAL	peak
4	7117.542	43.06	35.28	6.38	36.85	47.87	68.20	-20.33	VERTICAL	peak
5	10620.000	39.55	39.59	6.45	36.74	48.85	74.00	-25.15	VERTICAL	peak
6	15930.000	40.40	38.37	7.49	36.28	49.98	74.00	-24.02	VERTICAL	peak

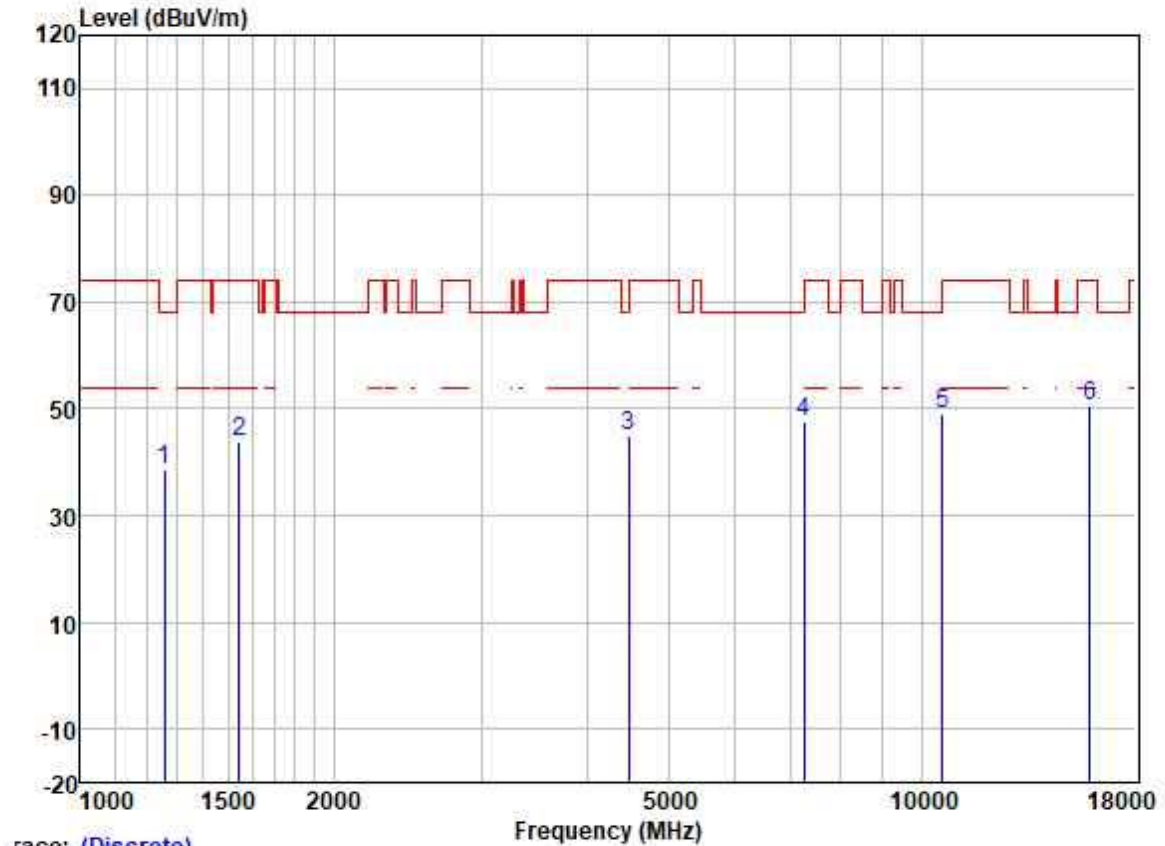
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

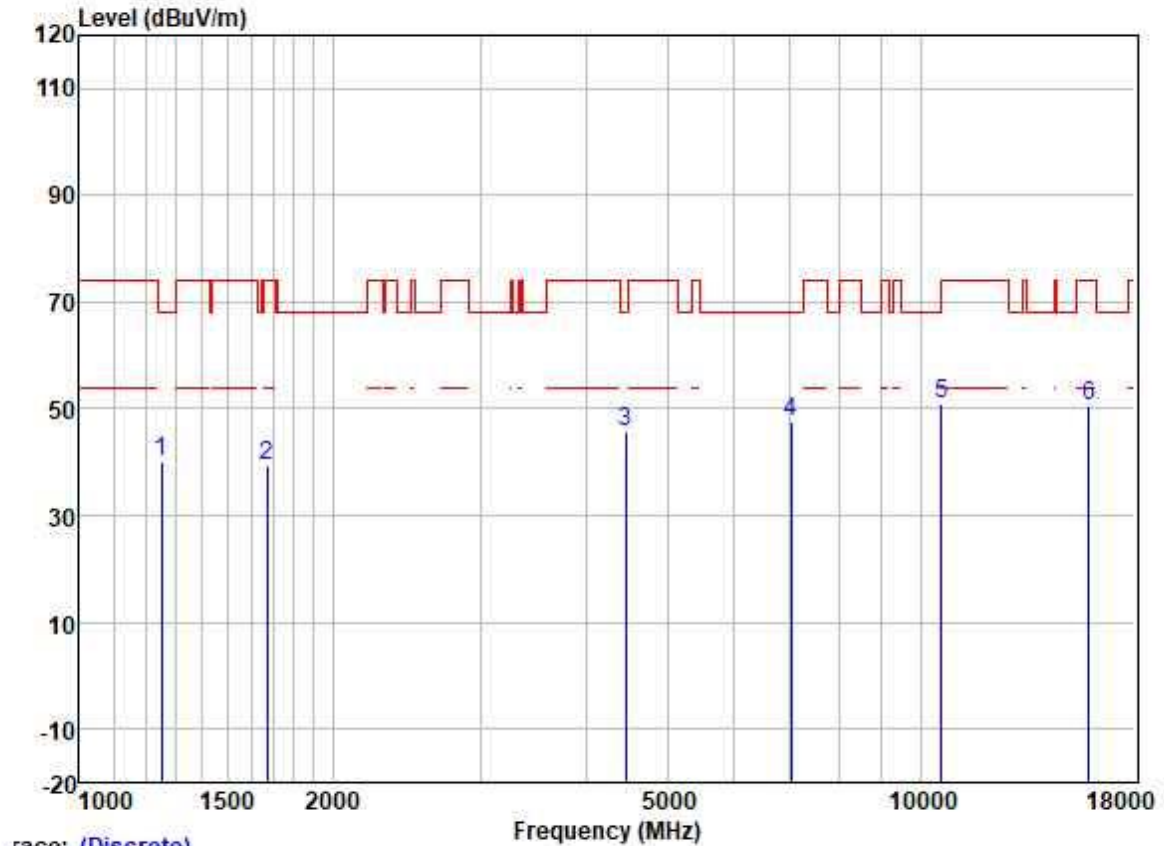
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1148.823	49.49	24.49	2.55	38.19	38.34	74.00	-35.66	HORIZONTAL	peak
2	1634.543	48.83	25.62	3.09	37.55	39.99	68.20	-28.21	HORIZONTAL	peak
3	4157.664	46.46	30.06	5.22	36.68	45.06	74.00	-28.94	HORIZONTAL	peak
4	7158.806	42.32	35.40	6.37	36.88	47.21	68.20	-20.99	HORIZONTAL	peak
5	10620.000	40.13	39.59	6.45	36.74	49.43	74.00	-24.57	HORIZONTAL	peak
6	15930.000	39.94	38.37	7.49	36.28	49.52	74.00	-24.48	HORIZONTAL	peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz;



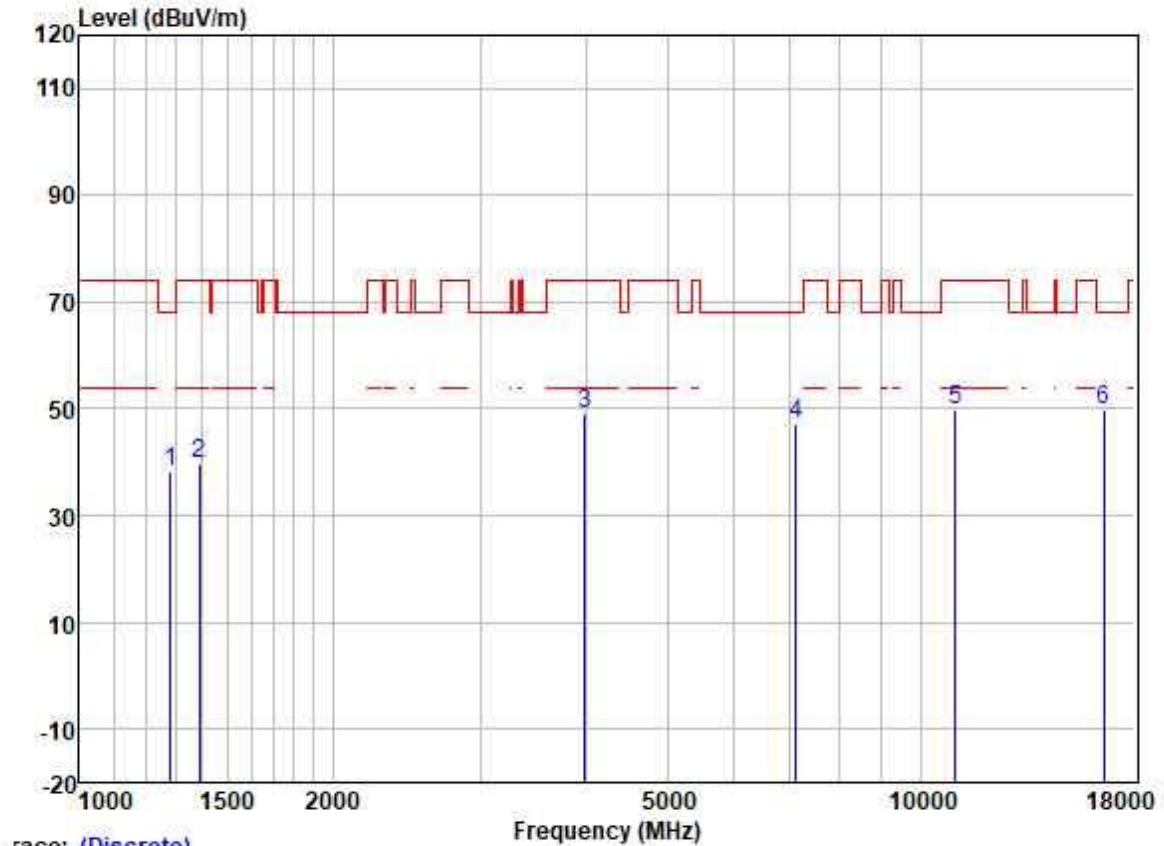
	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1260.149	48.94	25.07	2.62	38.10	38.53	68.20	-29.67	VERTICAL peak
2	1542.733	52.94	25.53	2.96	37.66	43.77	74.00	-30.23	VERTICAL peak
3	4482.150	45.27	30.78	5.34	36.61	44.78	68.20	-23.42	VERTICAL peak
4	7242.052	42.55	35.70	6.35	36.96	47.64	68.20	-20.56	VERTICAL peak
5	10580.000	39.69	39.56	6.39	36.74	48.90	68.20	-19.30	VERTICAL peak
6	15870.000	40.59	38.52	7.70	36.26	50.55	74.00	-23.45	VERTICAL peak

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz;



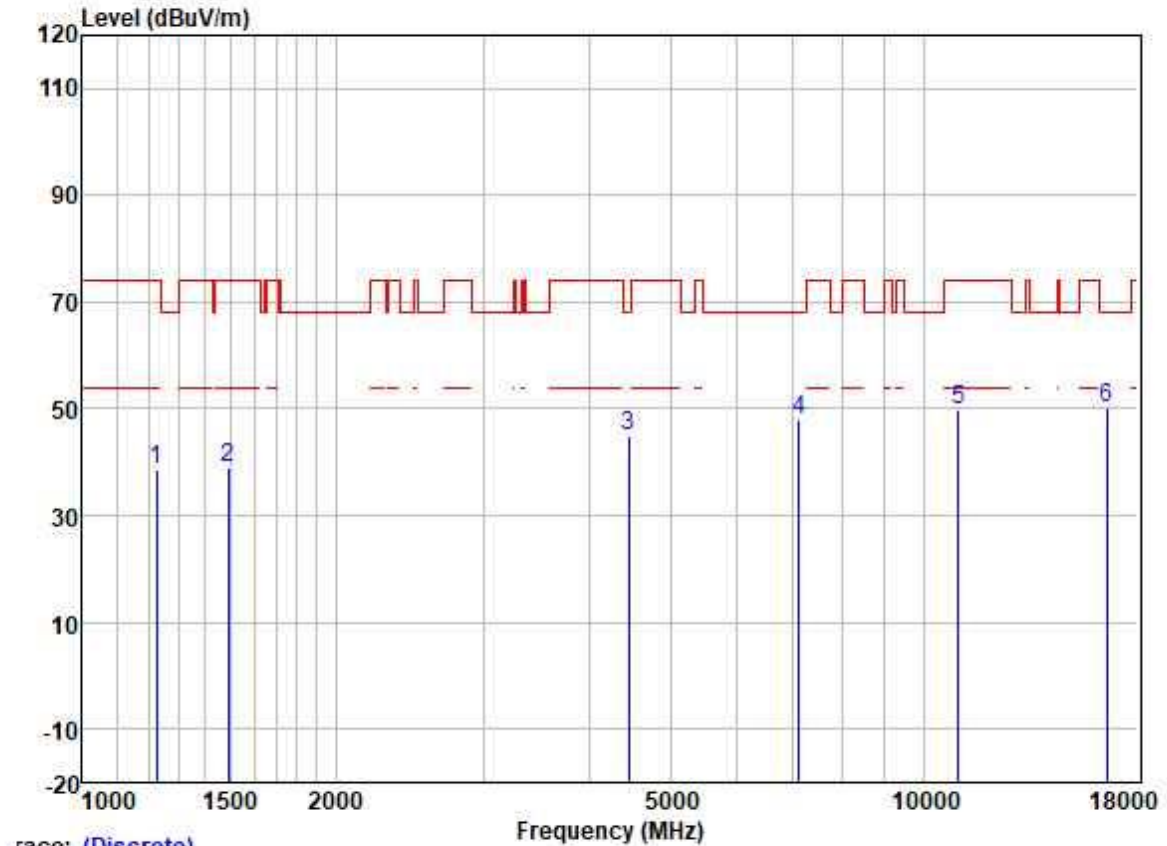
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	50.44	25.03	2.62	38.10	39.99	68.20	-28.21	HORIZONTAL	peak
2	1672.779	48.07	25.67	3.21	37.48	39.47	74.00	-34.53	HORIZONTAL	peak
3	4456.315	46.06	30.75	5.35	36.62	45.54	68.20	-22.66	HORIZONTAL	peak
4	7015.420	42.92	35.04	6.41	36.74	47.63	68.20	-20.57	HORIZONTAL	peak
5	10580.000	41.77	39.56	6.39	36.74	50.98	68.20	-17.22	HORIZONTAL	peak
6	15870.000	40.59	38.52	7.70	36.26	50.55	74.00	-23.45	HORIZONTAL	peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



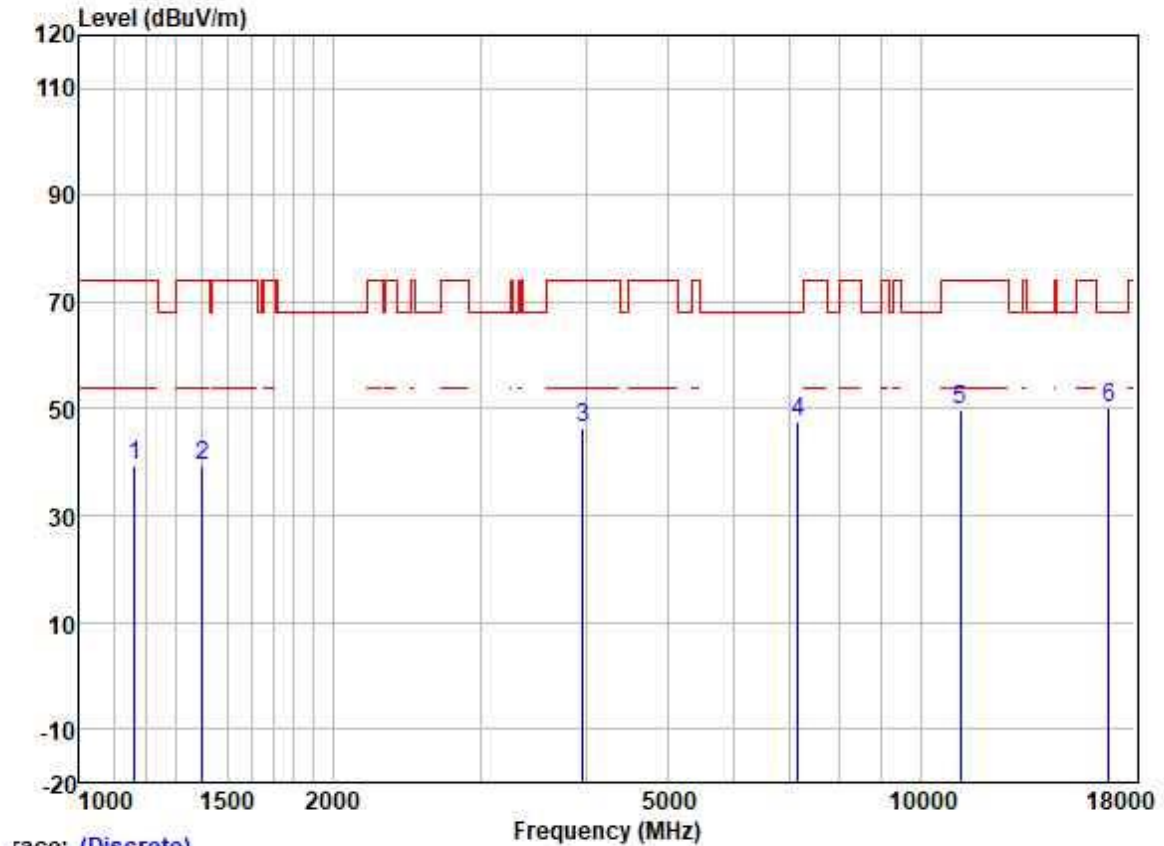
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1282.193	48.62	25.15	2.65	38.07	38.35	68.20	-29.85	VERTICAL peak
2	1390.276	49.34	25.38	2.77	37.92	39.57	74.00	-34.43	VERTICAL peak
3	3992.781	50.75	29.79	5.25	36.70	49.09	74.00	-24.91	VERTICAL peak
4	7117.542	42.33	35.28	6.38	36.85	47.14	68.20	-21.06	VERTICAL peak
5	11000.000	38.88	40.10	7.37	36.65	49.70	74.00	-24.30	VERTICAL peak
6	16500.000	38.73	39.60	7.87	36.24	49.96	68.20	-18.24	VERTICAL peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1224.247	49.26	24.85	2.60	38.12	38.59	74.00	-35.41	HORIZONTAL	peak
2	1490.142	48.33	25.49	2.87	37.75	38.94	74.00	-35.06	HORIZONTAL	peak
3	4456.315	45.45	30.75	5.35	36.62	44.93	68.20	-23.27	HORIZONTAL	peak
4	7117.542	43.11	35.28	6.38	36.85	47.92	68.20	-20.28	HORIZONTAL	peak
5	11000.000	39.00	40.10	7.37	36.65	49.82	74.00	-24.18	HORIZONTAL	peak
6	16500.000	38.97	39.60	7.87	36.24	50.20	68.20	-18.00	HORIZONTAL	peak

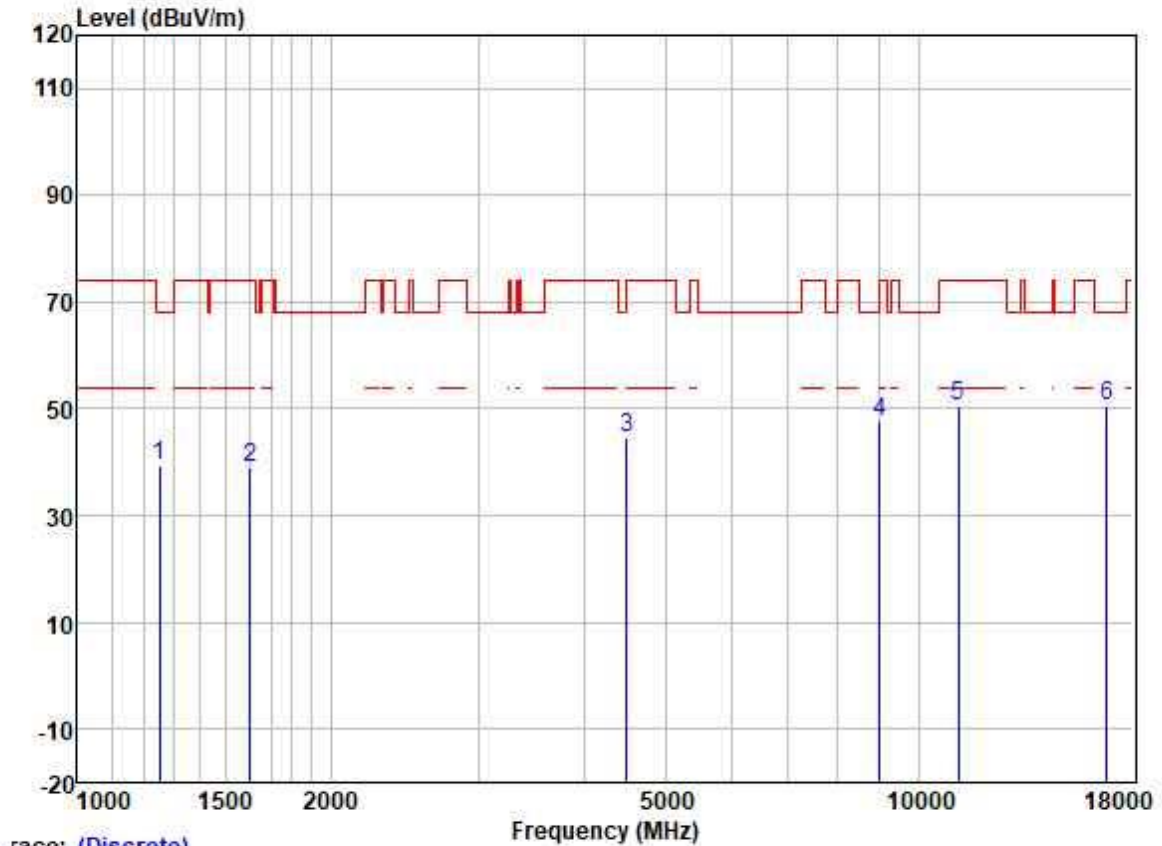
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

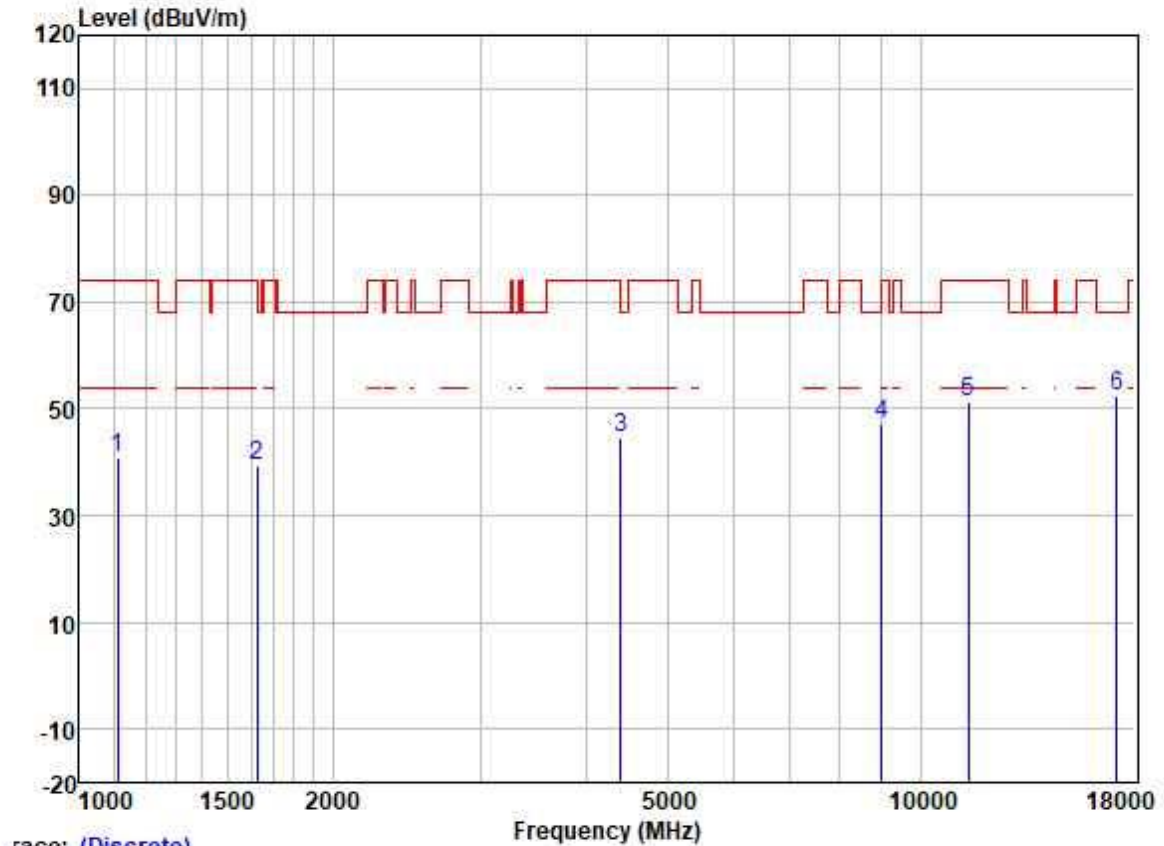
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1162.182	50.61	24.53	2.56	38.19	39.51	74.00	-34.49	VERTICAL peak
2	1398.336	49.09	25.39	2.77	37.92	39.33	74.00	-34.67	VERTICAL peak
3	3969.767	48.28	29.77	5.18	36.70	46.53	74.00	-27.47	VERTICAL peak
4	7158.806	42.63	35.40	6.37	36.88	47.52	68.20	-20.68	VERTICAL peak
5	11160.000	38.86	40.04	7.62	36.61	49.91	74.00	-24.09	VERTICAL peak
6	16740.000	38.43	40.49	7.63	36.19	50.36	68.20	-17.84	VERTICAL peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



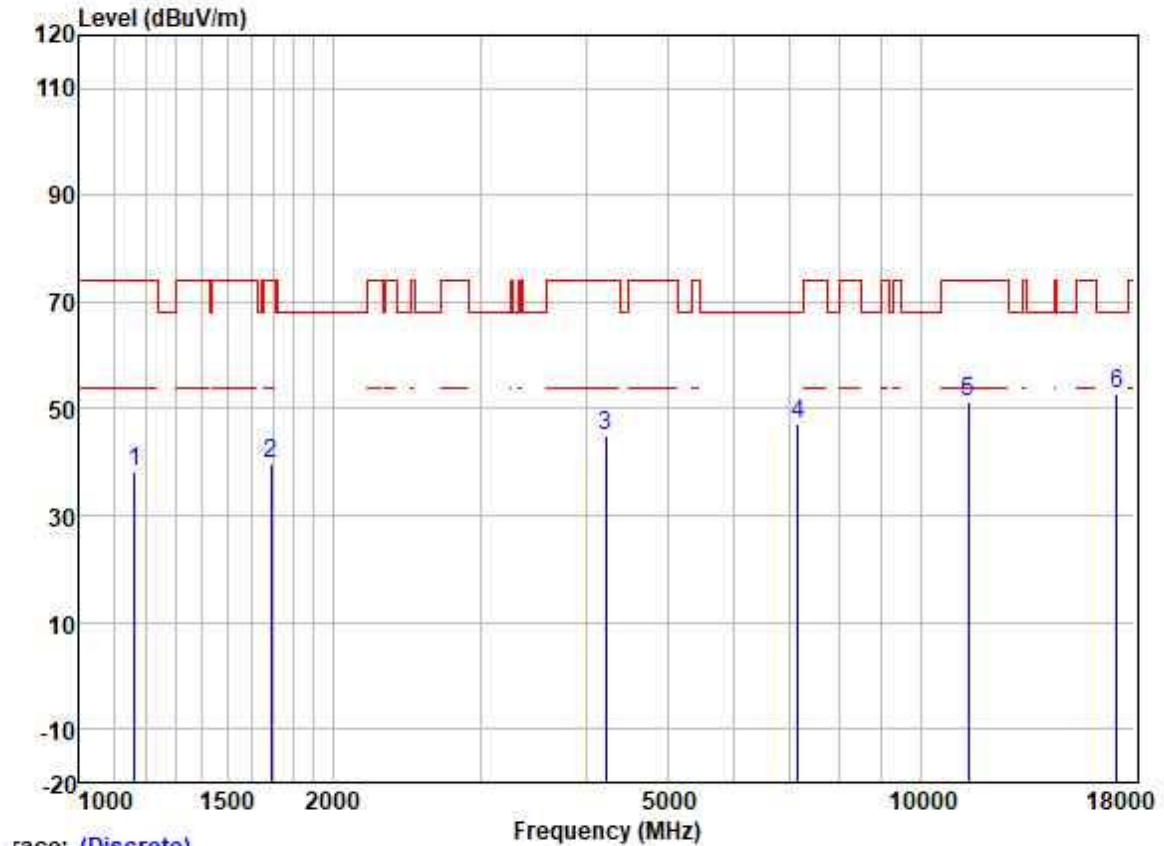
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	49.62	25.03	2.62	38.10	39.17	68.20	-29.03	HORIZONTAL	peak
2	1606.441	48.04	25.59	3.02	37.58	39.07	74.00	-34.93	HORIZONTAL	peak
3	4495.125	45.23	30.80	5.33	36.60	44.76	68.20	-23.44	HORIZONTAL	peak
4	8995.123	40.20	37.40	7.09	37.05	47.64	68.20	-20.56	HORIZONTAL	peak
5	11160.000	39.58	40.04	7.62	36.61	50.63	74.00	-23.37	HORIZONTAL	peak
6	16740.000	38.59	40.49	7.63	36.19	50.52	68.20	-17.68	HORIZONTAL	peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



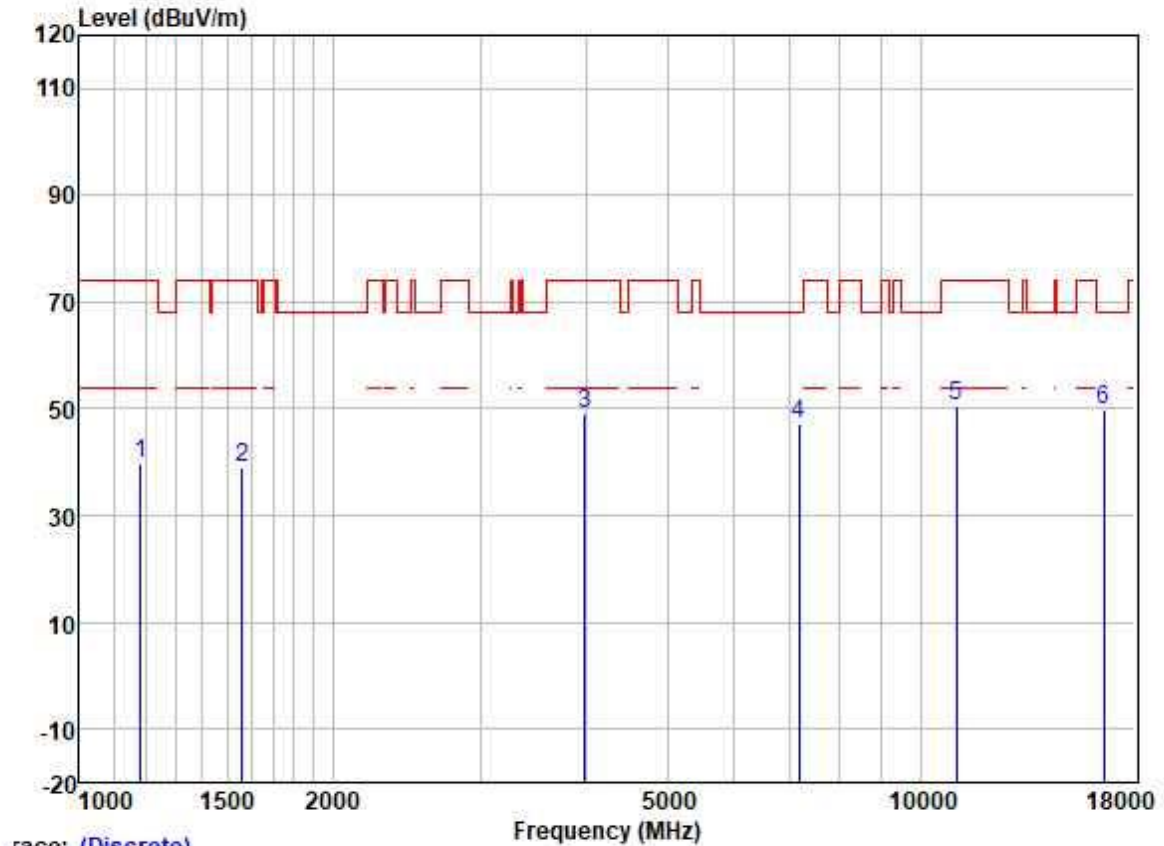
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1109.660	52.02	24.39	2.51	38.23	40.69	74.00	-33.31	VERTICAL peak
2	1625.121	48.42	25.61	3.06	37.55	39.54	74.00	-34.46	VERTICAL peak
3	4405.090	45.32	30.68	5.37	36.63	44.74	68.20	-23.46	VERTICAL peak
4	8995.123	39.84	37.40	7.09	37.05	47.28	68.20	-20.92	VERTICAL peak
5	11400.000	39.66	39.94	8.11	36.56	51.15	74.00	-22.85	VERTICAL peak
6	17100.000	38.60	42.32	7.53	36.06	52.39	68.20	-15.81	VERTICAL peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



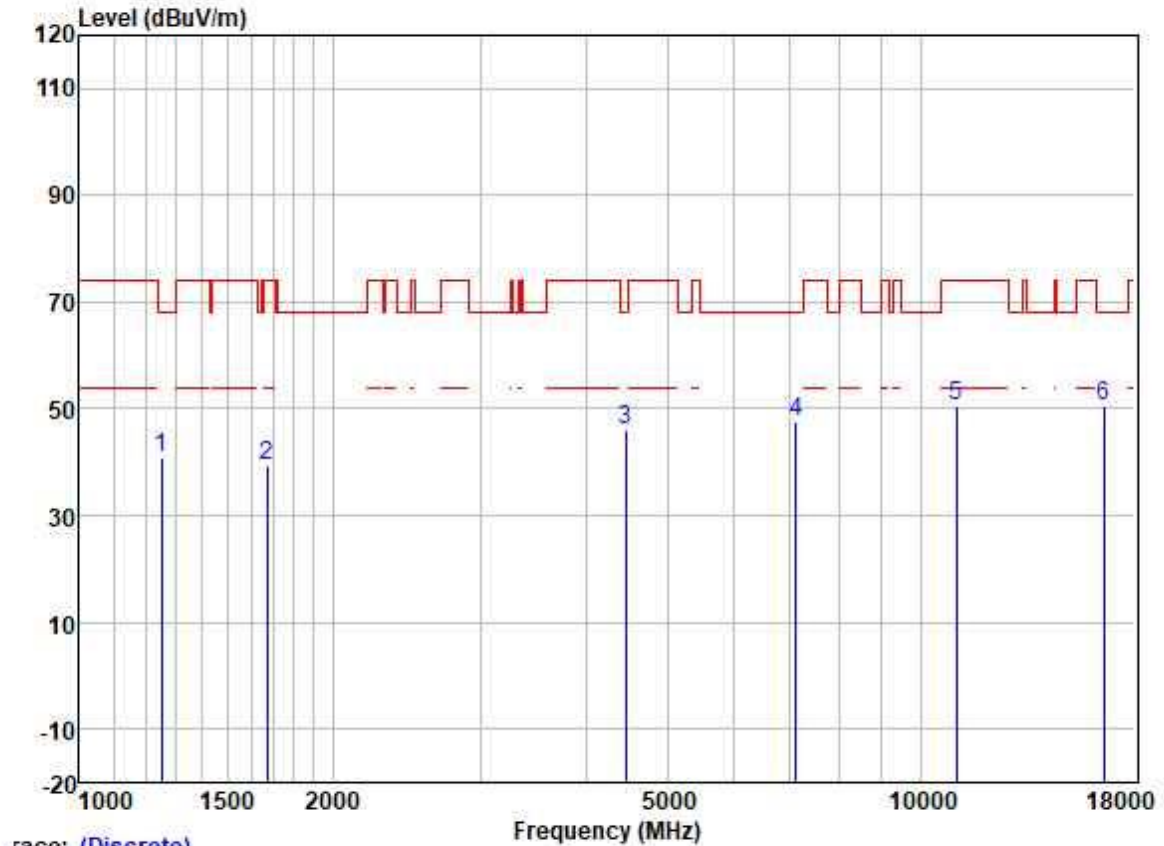
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1162.182	49.50	24.53	2.56	38.19	38.40	74.00	-35.60	HORIZONTAL	peak
2	1692.231	48.16	25.70	3.30	37.46	39.70	74.00	-34.30	HORIZONTAL	peak
3	4230.396	46.14	30.26	5.23	36.66	44.97	74.00	-29.03	HORIZONTAL	peak
4	7158.806	42.48	35.40	6.37	36.88	47.37	68.20	-20.83	HORIZONTAL	peak
5	11400.000	39.76	39.94	8.11	36.56	51.25	74.00	-22.75	HORIZONTAL	peak
6	17100.000	39.19	42.32	7.53	36.06	52.98	68.20	-15.22	HORIZONTAL	peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



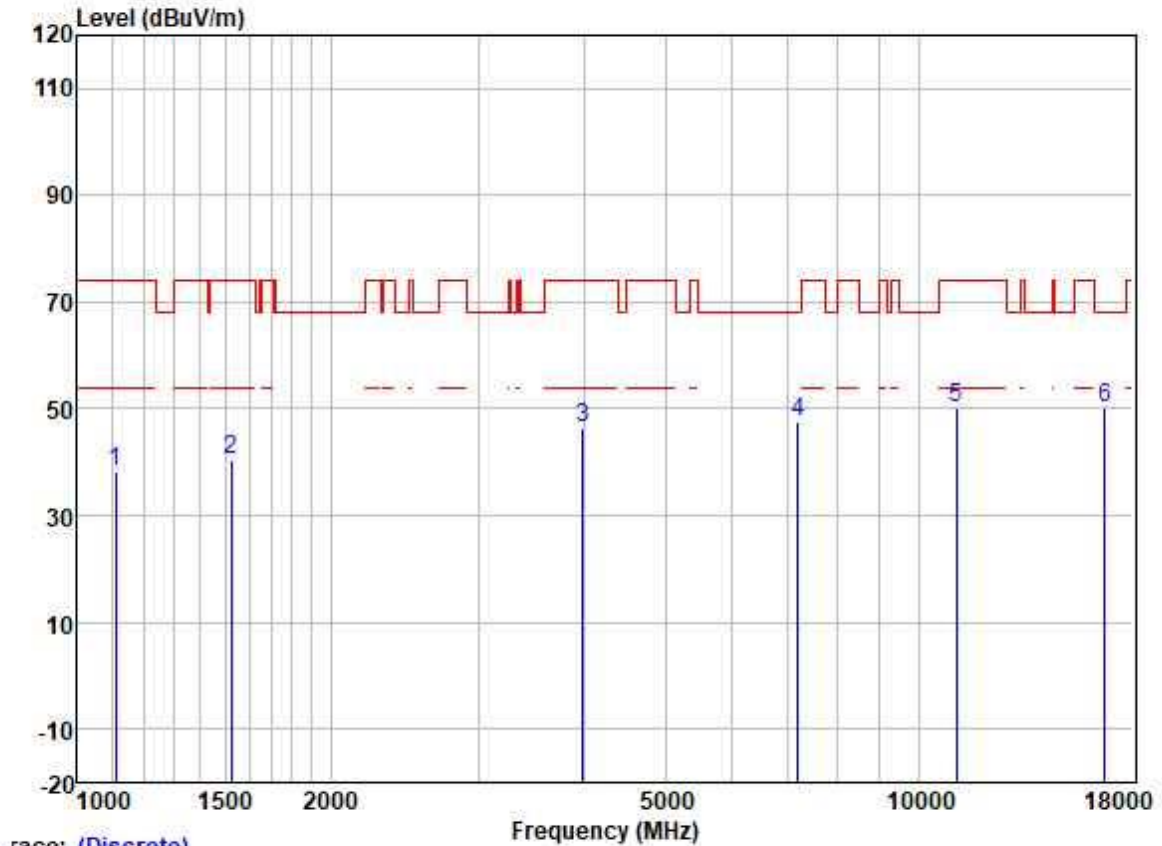
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1182.513	50.72	24.60	2.57	38.17	39.72	74.00	-34.28	VERTICAL peak
2	1560.673	48.22	25.54	2.98	37.66	39.08	74.00	-34.92	VERTICAL peak
3	3992.781	50.91	29.79	5.25	36.70	49.25	74.00	-24.75	VERTICAL peak
4	7179.527	42.29	35.47	6.37	36.90	47.23	68.20	-20.97	VERTICAL peak
5	11020.000	39.61	40.10	7.37	36.64	50.44	74.00	-23.56	VERTICAL peak
6	16530.000	38.52	39.76	7.83	36.23	49.88	68.20	-18.32	VERTICAL peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



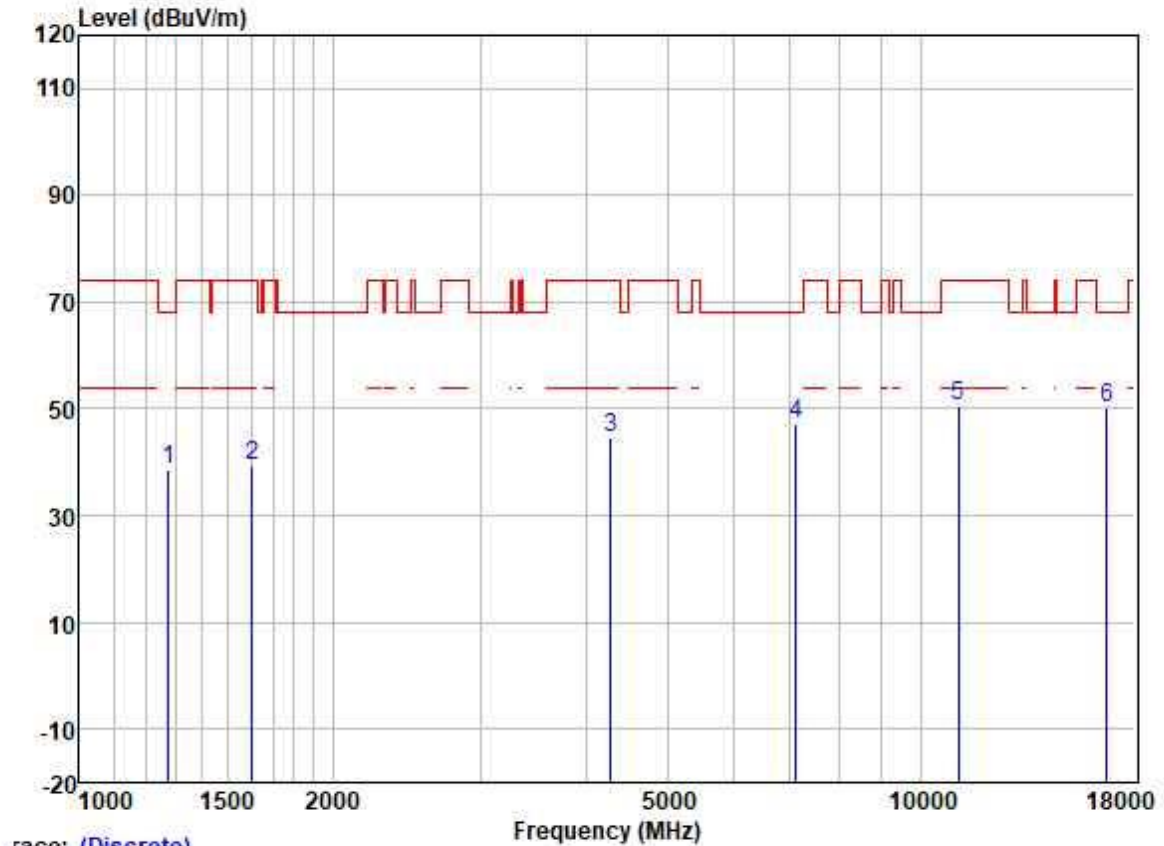
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	51.34	25.03	2.62	38.10	40.89	68.20	-27.31	HORIZONTAL	peak
2	1672.779	47.85	25.67	3.21	37.48	39.25	74.00	-34.75	HORIZONTAL	peak
3	4456.315	46.62	30.75	5.35	36.62	46.10	68.20	-22.10	HORIZONTAL	peak
4	7117.542	42.68	35.28	6.38	36.85	47.49	68.20	-20.71	HORIZONTAL	peak
5	11020.000	39.56	40.10	7.37	36.64	50.39	74.00	-23.61	HORIZONTAL	peak
6	16530.000	39.34	39.76	7.83	36.23	50.70	68.20	-17.50	HORIZONTAL	peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



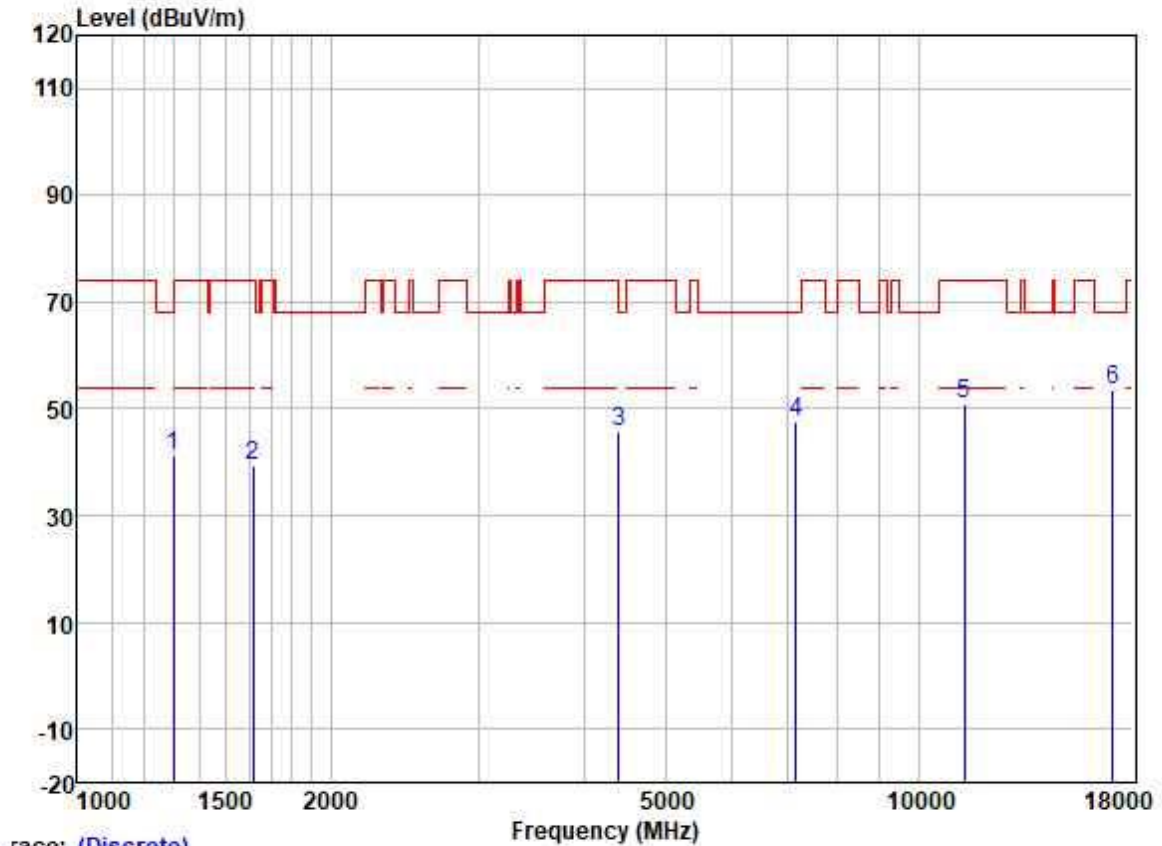
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1109.660	49.67	24.39	2.51	38.23	38.34	74.00	-35.66	VERTICAL peak
2	1525.000	49.85	25.52	2.94	37.70	40.61	74.00	-33.39	VERTICAL peak
3	3992.781	48.30	29.79	5.25	36.70	46.64	74.00	-27.36	VERTICAL peak
4	7200.309	42.53	35.54	6.36	36.92	47.51	68.20	-20.69	VERTICAL peak
5	11100.000	39.18	40.07	7.51	36.62	50.14	74.00	-23.86	VERTICAL peak
6	16650.000	38.58	40.10	7.74	36.21	50.21	68.20	-17.99	VERTICAL peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



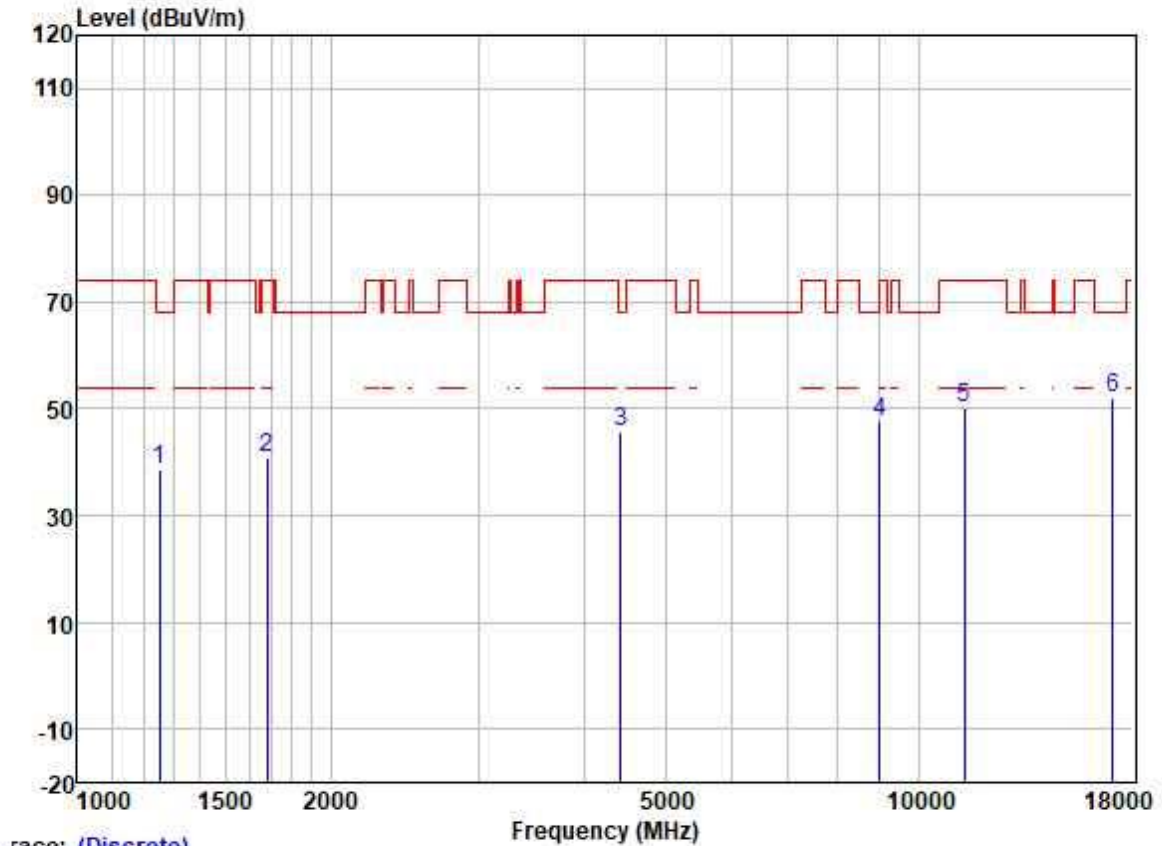
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1274.802	48.84	25.12	2.64	38.07	38.53	68.20	-29.67	HORIZONTAL	peak
2	1606.441	48.46	25.59	3.02	37.58	39.49	74.00	-34.51	HORIZONTAL	peak
3	4279.589	45.62	30.42	5.27	36.65	44.66	74.00	-29.34	HORIZONTAL	peak
4	7117.542	42.35	35.28	6.38	36.85	47.16	68.20	-21.04	HORIZONTAL	peak
5	11100.000	39.76	40.07	7.51	36.62	50.72	74.00	-23.28	HORIZONTAL	peak
6	16650.000	38.56	40.10	7.74	36.21	50.19	68.20	-18.01	HORIZONTAL	peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



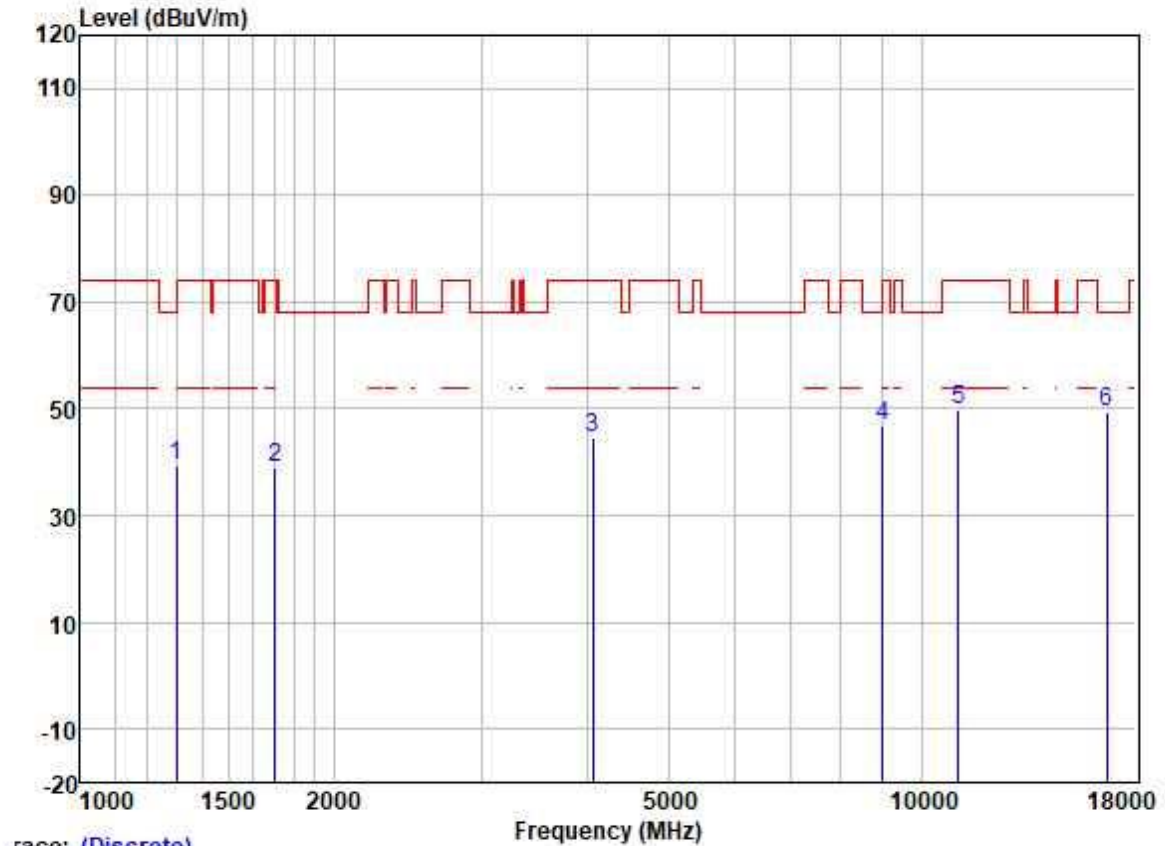
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1300.858	51.57	25.20	2.68	38.04	41.41	74.00	-32.59	VERTICAL	peak
2	1615.754	48.10	25.60	3.04	37.55	39.19	74.00	-34.81	VERTICAL	peak
3	4405.090	46.43	30.68	5.37	36.63	45.85	68.20	-22.35	VERTICAL	peak
4	7158.806	42.80	35.40	6.37	36.88	47.69	68.20	-20.51	VERTICAL	peak
5	11340.000	39.43	39.97	7.97	36.57	50.80	74.00	-23.20	VERTICAL	peak
6	17010.000	40.34	41.75	7.39	36.10	53.38	68.20	-14.82	VERTICAL	peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	49.18	25.03	2.62	38.10	38.73	68.20	-29.47	HORIZONTAL	peak
2	1682.477	49.23	25.68	3.25	37.48	40.68	74.00	-33.32	HORIZONTAL	peak
3	4430.628	46.09	30.72	5.36	36.62	45.55	68.20	-22.65	HORIZONTAL	peak
4	8995.123	40.23	37.40	7.09	37.05	47.67	68.20	-20.53	HORIZONTAL	peak
5	11340.000	38.82	39.97	7.97	36.57	50.19	74.00	-23.81	HORIZONTAL	peak
6	17010.000	39.20	41.75	7.39	36.10	52.24	68.20	-15.96	HORIZONTAL	peak

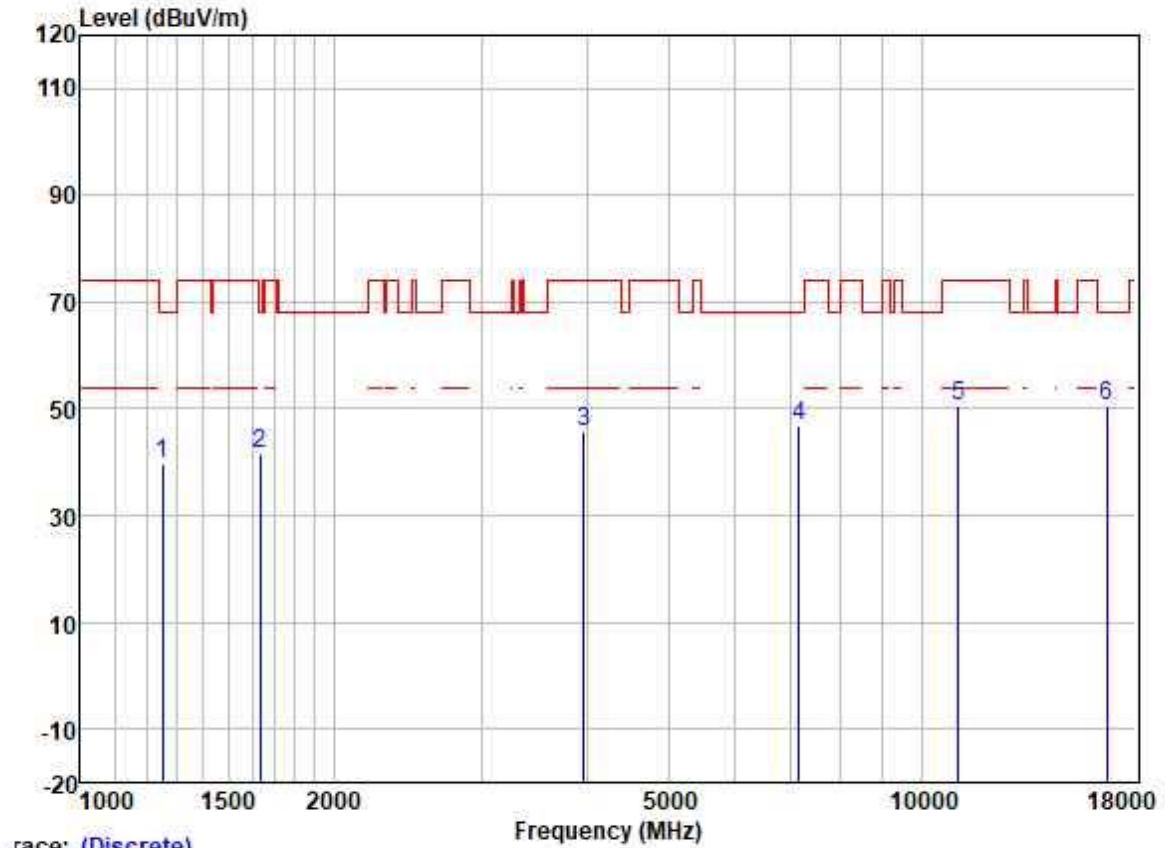
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Trace: (Discrete)

	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	1300.858	49.47	25.20	2.68	38.04	39.31	74.00	-34.69	VERTICAL peak
2	1702.042	47.53	25.72	3.36	37.46	39.15	74.00	-34.85	VERTICAL peak
3	4062.629	46.23	29.88	5.26	36.69	44.68	74.00	-29.32	VERTICAL peak
4	8995.123	39.50	37.40	7.09	37.05	46.94	68.20	-21.26	VERTICAL peak
5	11060.000	38.97	40.09	7.41	36.63	49.84	74.00	-24.16	VERTICAL peak
6	16590.000	37.99	39.93	7.79	36.22	49.49	68.20	-18.71	VERTICAL peak

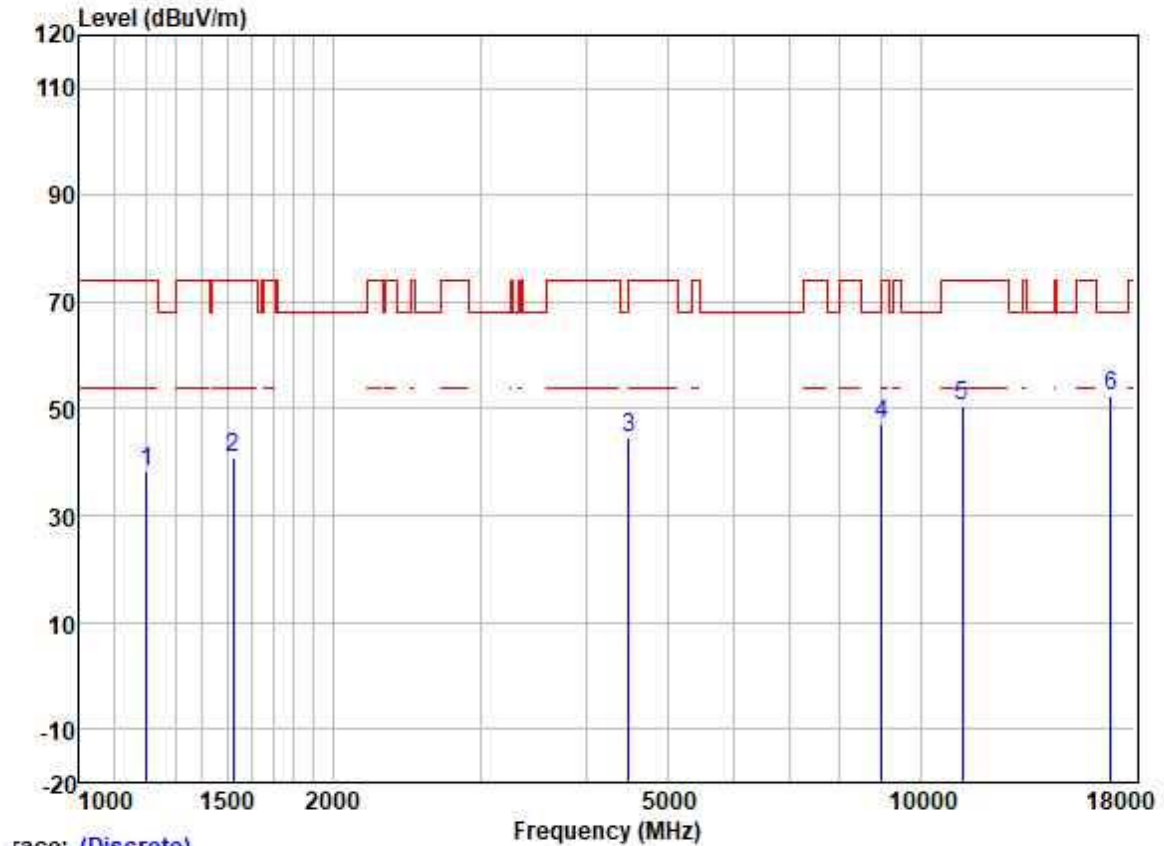
Test Mode: 06; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



Trace: (Discrete)

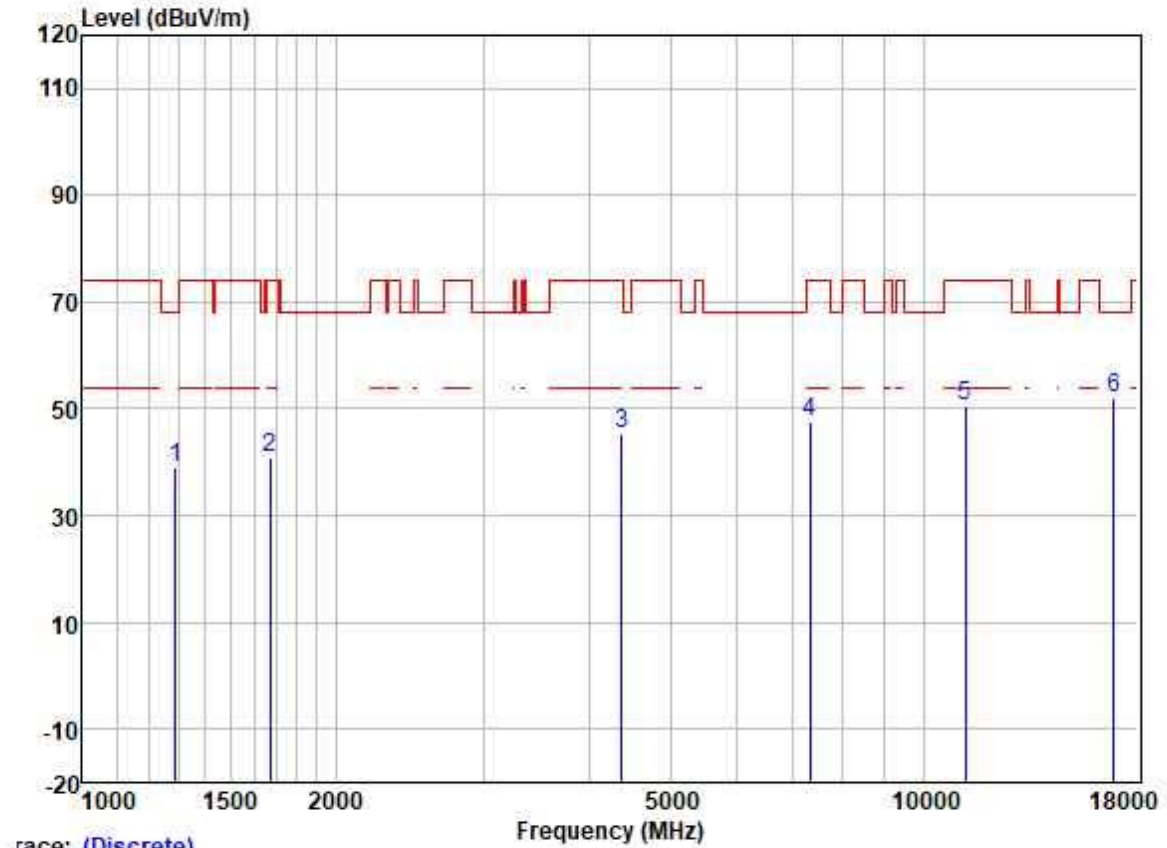
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1252.885	50.05	25.03	2.62	38.10	39.60	68.20	-28.60	HORIZONTAL peak
2	1634.543	50.33	25.62	3.09	37.55	41.49	68.20	-26.71	HORIZONTAL peak
3	3969.767	47.52	29.77	5.18	36.70	45.77	74.00	-28.23	HORIZONTAL peak
4	7158.806	42.10	35.40	6.37	36.88	46.99	68.20	-21.21	HORIZONTAL peak
5	11060.000	39.82	40.09	7.41	36.63	50.69	74.00	-23.31	HORIZONTAL peak
6	16590.000	38.98	39.93	7.79	36.22	50.48	68.20	-17.72	HORIZONTAL peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



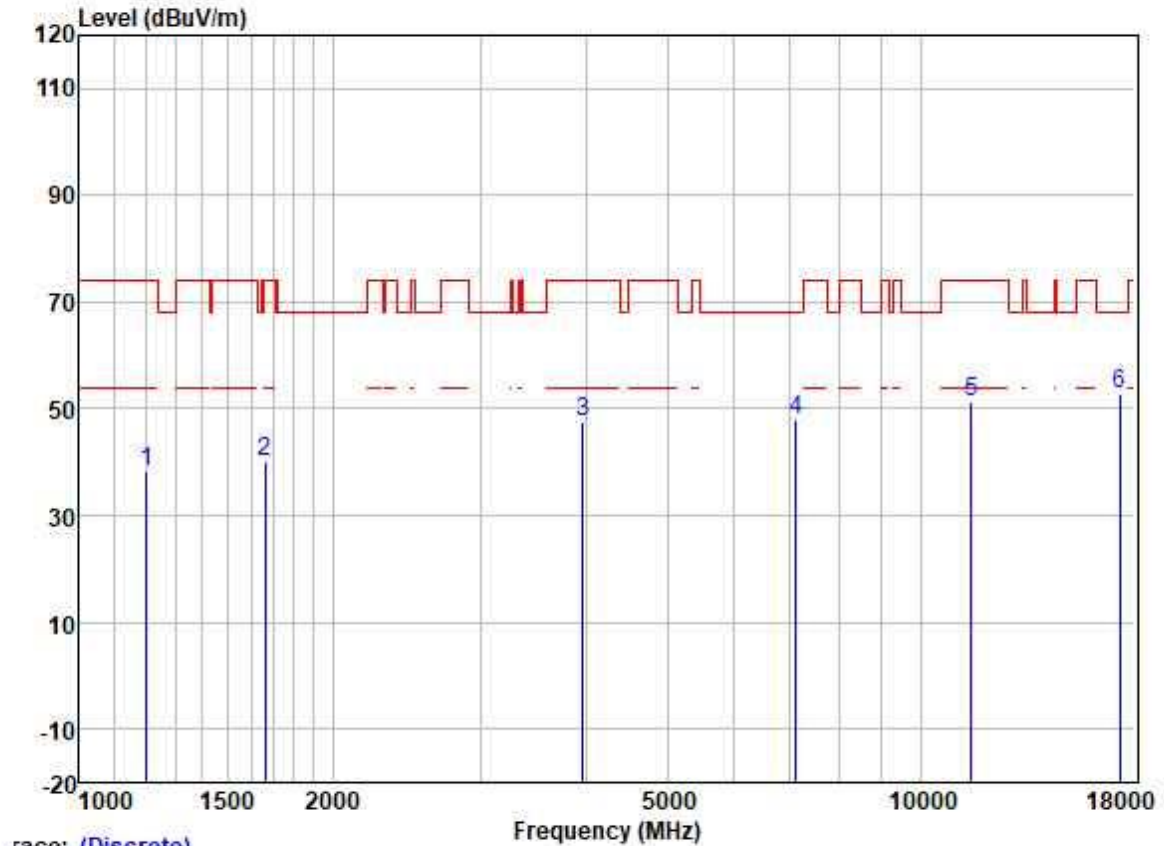
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1203.199	49.12	24.70	2.58	38.14	38.26	74.00	-35.74	VERTICAL	peak
2	1525.000	50.15	25.52	2.94	37.70	40.91	74.00	-33.09	VERTICAL	peak
3	4495.125	44.96	30.80	5.33	36.60	44.49	68.20	-23.71	VERTICAL	peak
4	8995.123	39.90	37.40	7.09	37.05	47.34	68.20	-20.86	VERTICAL	peak
5	11220.000	39.56	40.03	7.68	36.59	50.68	74.00	-23.32	VERTICAL	peak
6	16830.000	40.19	40.94	7.52	36.17	52.48	68.20	-15.72	VERTICAL	peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



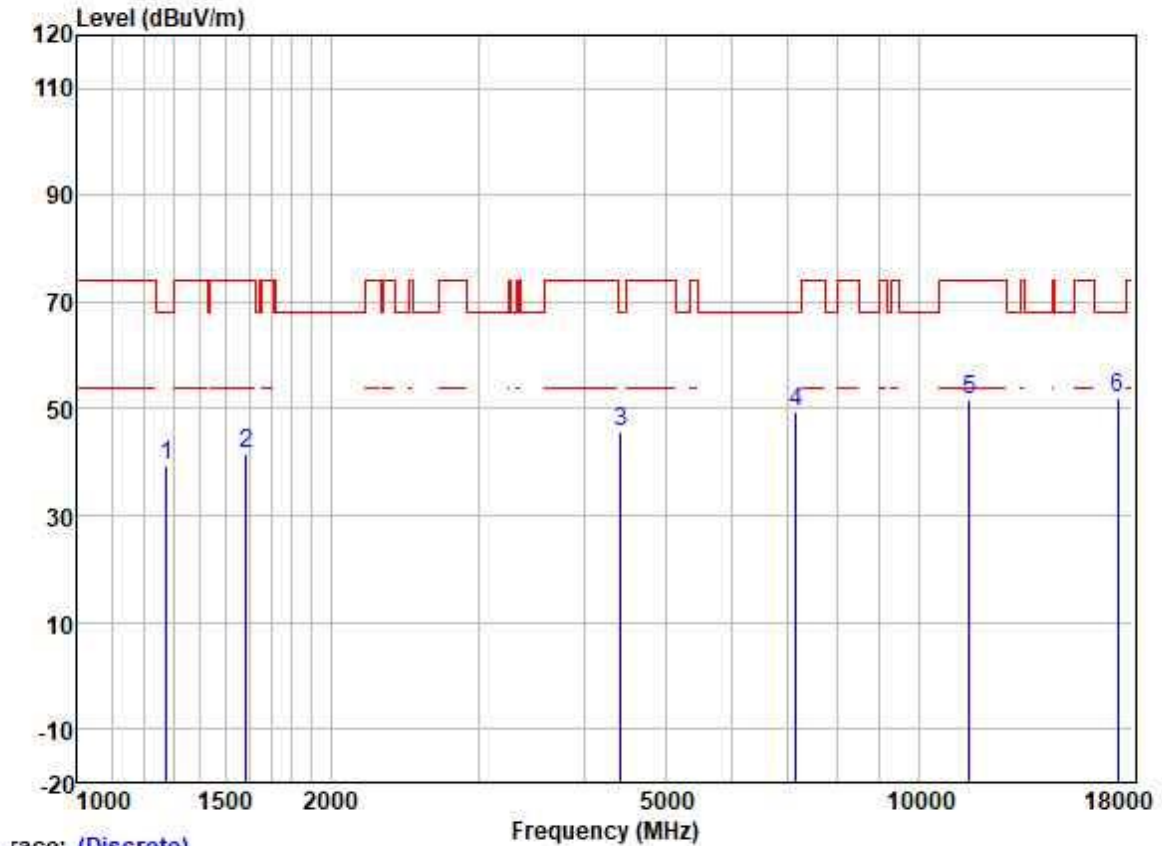
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1289.627	49.37	25.17	2.66	38.04	39.16	68.20	-29.04	HORIZONTAL	peak
2	1672.779	49.28	25.67	3.21	37.48	40.68	74.00	-33.32	HORIZONTAL	peak
3	4379.699	45.93	30.64	5.35	36.63	45.29	74.00	-28.71	HORIZONTAL	peak
4	7326.267	42.13	36.00	6.32	37.01	47.44	74.00	-26.56	HORIZONTAL	peak
5	11220.000	39.42	40.03	7.68	36.59	50.54	74.00	-23.46	HORIZONTAL	peak
6	16830.000	39.71	40.94	7.52	36.17	52.00	68.20	-16.20	HORIZONTAL	peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



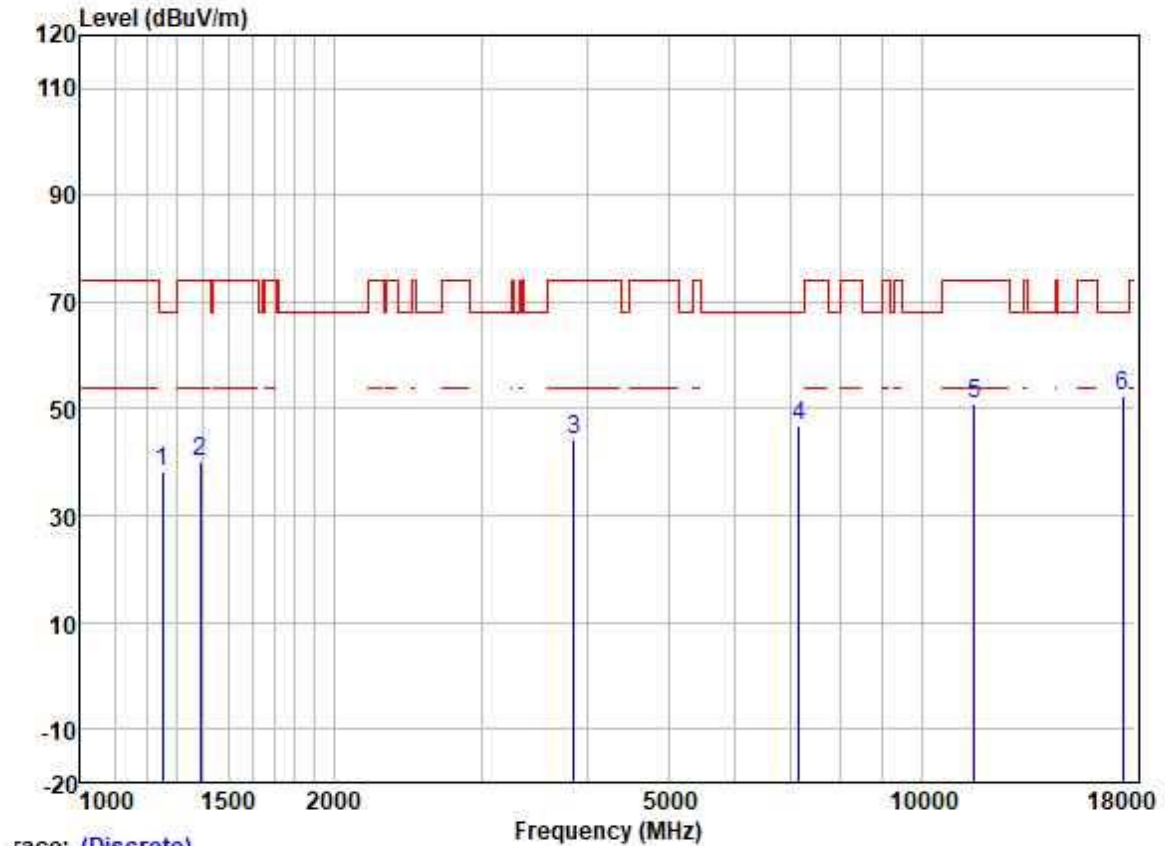
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1203.199	49.09	24.70	2.58	38.14	38.23	74.00	-35.77	VERTICAL	peak
2	1663.137	48.89	25.65	3.18	37.48	40.24	74.00	-33.76	VERTICAL	peak
3	3969.767	49.46	29.77	5.18	36.70	47.71	74.00	-26.29	VERTICAL	peak
4	7117.542	43.10	35.28	6.38	36.85	47.91	68.20	-20.29	VERTICAL	peak
5	11490.000	39.76	39.90	8.27	36.55	51.38	74.00	-22.62	VERTICAL	peak
6	17235.000	37.88	43.01	7.80	36.02	52.67	68.20	-15.53	VERTICAL	peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



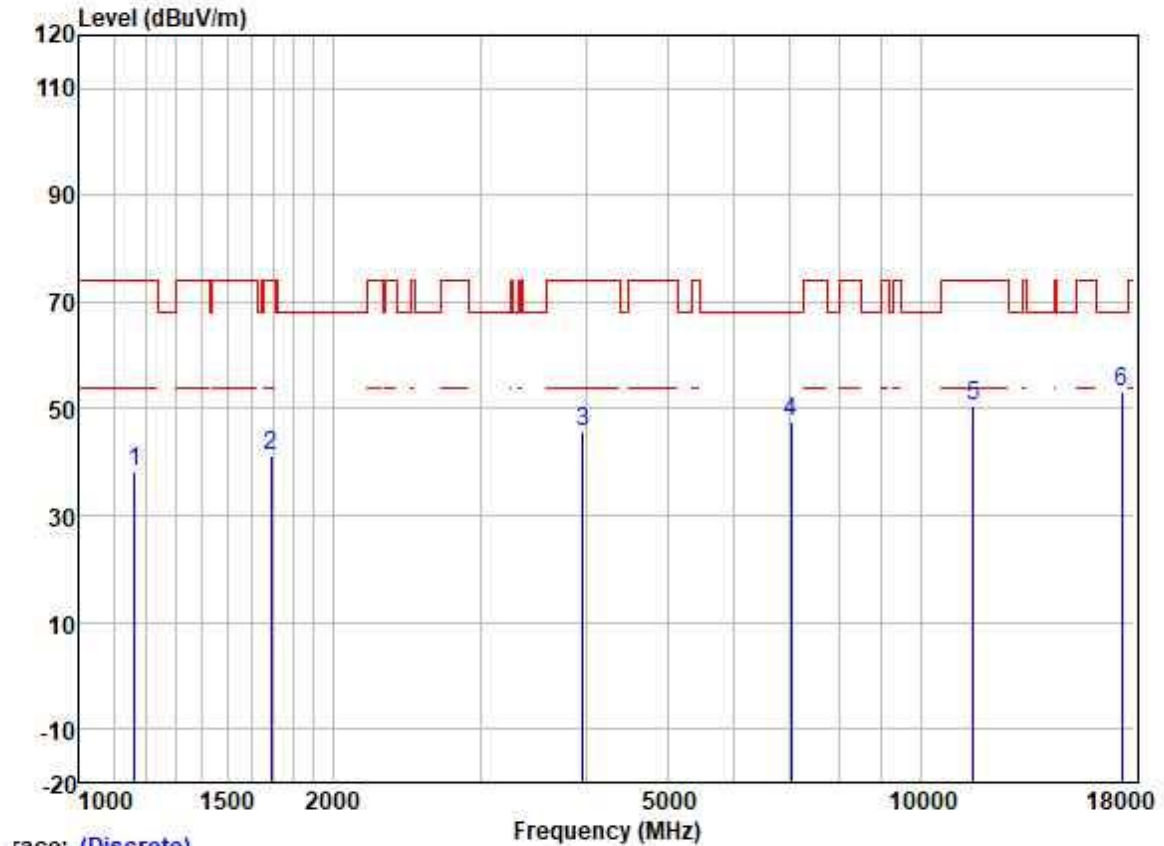
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1274.802	49.49	25.12	2.64	38.07	39.18	68.20	-29.02	HORIZONTAL	peak
2	1587.975	50.44	25.57	3.00	37.58	41.43	74.00	-32.57	HORIZONTAL	peak
3	4430.628	46.31	30.72	5.36	36.62	45.77	68.20	-22.43	HORIZONTAL	peak
4	7158.806	44.52	35.40	6.37	36.88	49.41	68.20	-18.79	HORIZONTAL	peak
5	11490.000	39.98	39.90	8.27	36.55	51.60	74.00	-22.40	HORIZONTAL	peak
6	17235.000	37.12	43.01	7.80	36.02	51.91	68.20	-16.29	HORIZONTAL	peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	48.76	25.03	2.62	38.10	38.31	68.20	-29.89	VERTICAL	peak
2	1390.276	50.00	25.38	2.77	37.92	40.23	74.00	-33.77	VERTICAL	peak
3	3856.668	46.74	29.62	4.73	36.72	44.37	74.00	-29.63	VERTICAL	peak
4	7158.806	41.99	35.40	6.37	36.88	46.88	68.20	-21.32	VERTICAL	peak
5	11570.000	39.53	39.78	8.29	36.54	51.06	74.00	-22.94	VERTICAL	peak
6	17355.000	37.20	43.40	7.98	35.99	52.59	68.20	-15.61	VERTICAL	peak

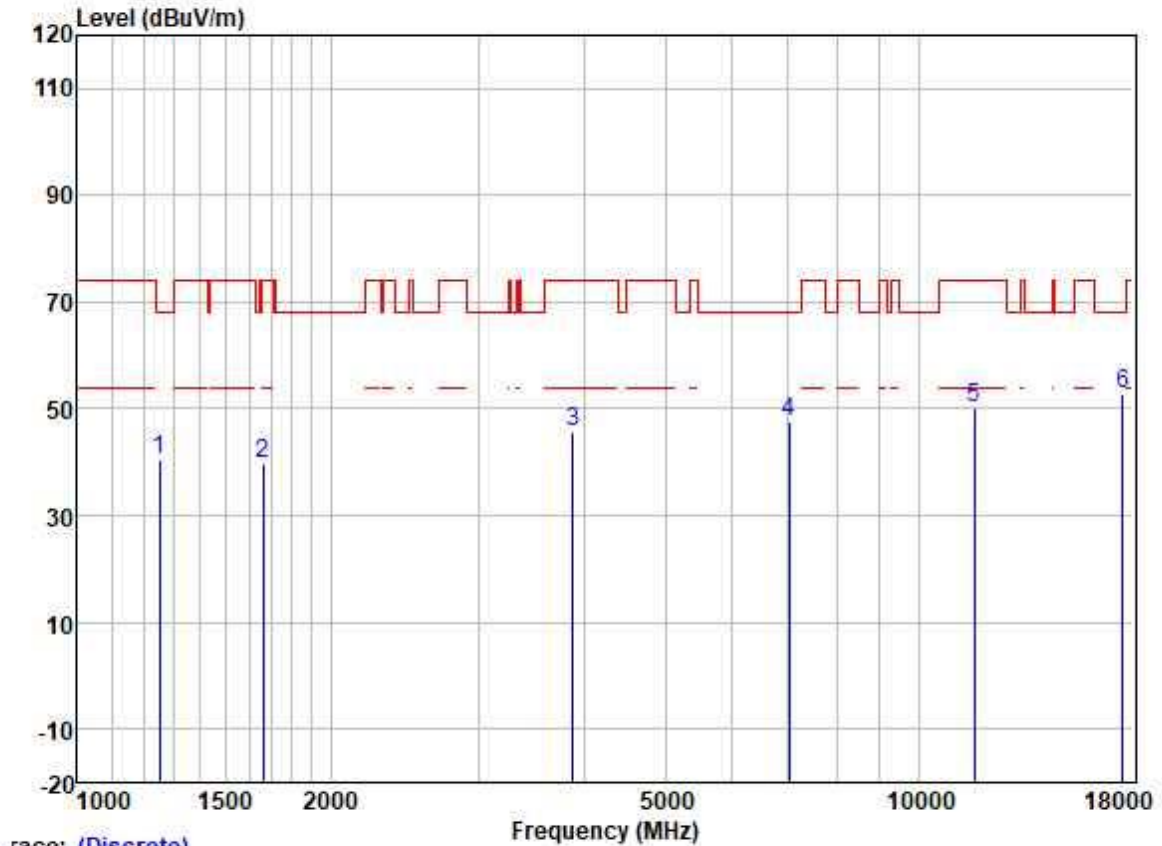
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

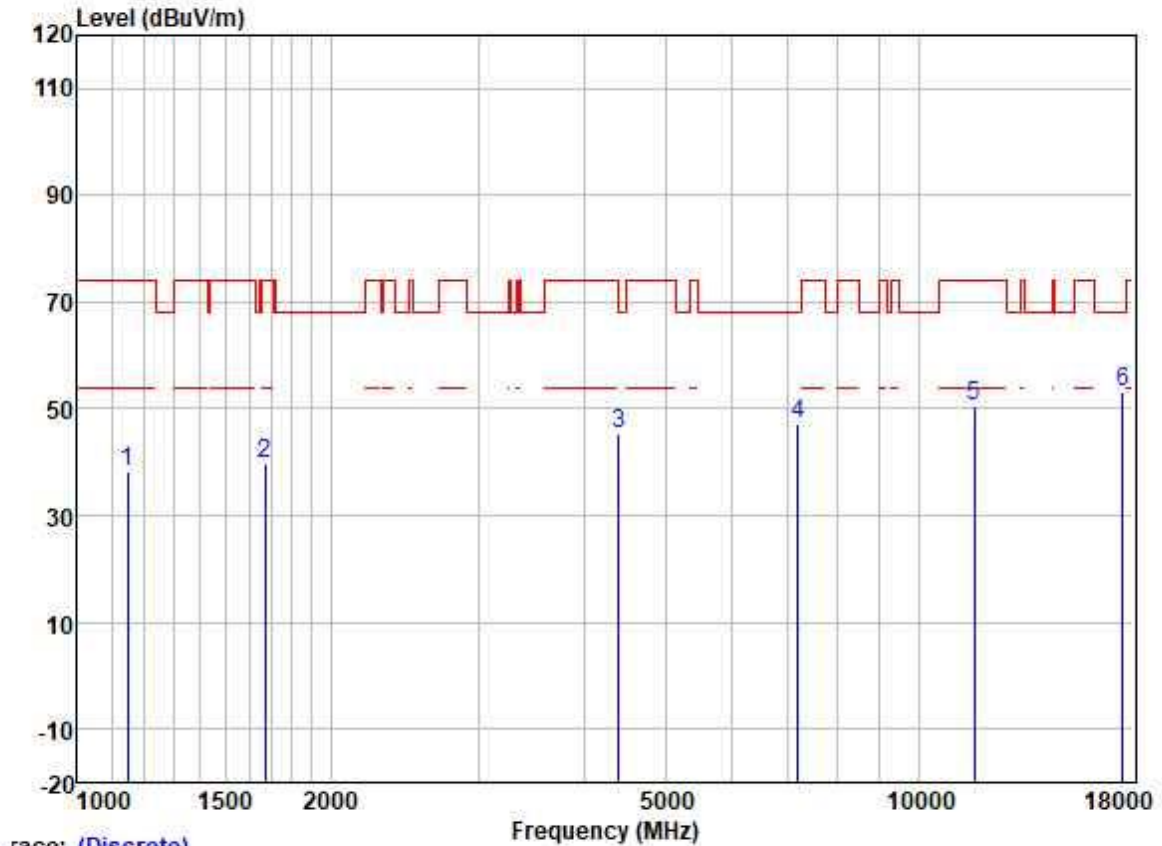
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1162.182	49.37	24.53	2.56	38.19	38.27	74.00	-35.73	HORIZONTAL	peak
2	1692.231	49.85	25.70	3.30	37.46	41.39	74.00	-32.61	HORIZONTAL	peak
3	3969.767	47.41	29.77	5.18	36.70	45.66	74.00	-28.34	HORIZONTAL	peak
4	7015.420	42.68	35.04	6.41	36.74	47.39	68.20	-20.81	HORIZONTAL	peak
5	11570.000	39.11	39.78	8.29	36.54	50.64	74.00	-23.36	HORIZONTAL	peak
6	17355.000	37.73	43.40	7.98	35.99	53.12	68.20	-15.08	HORIZONTAL	peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



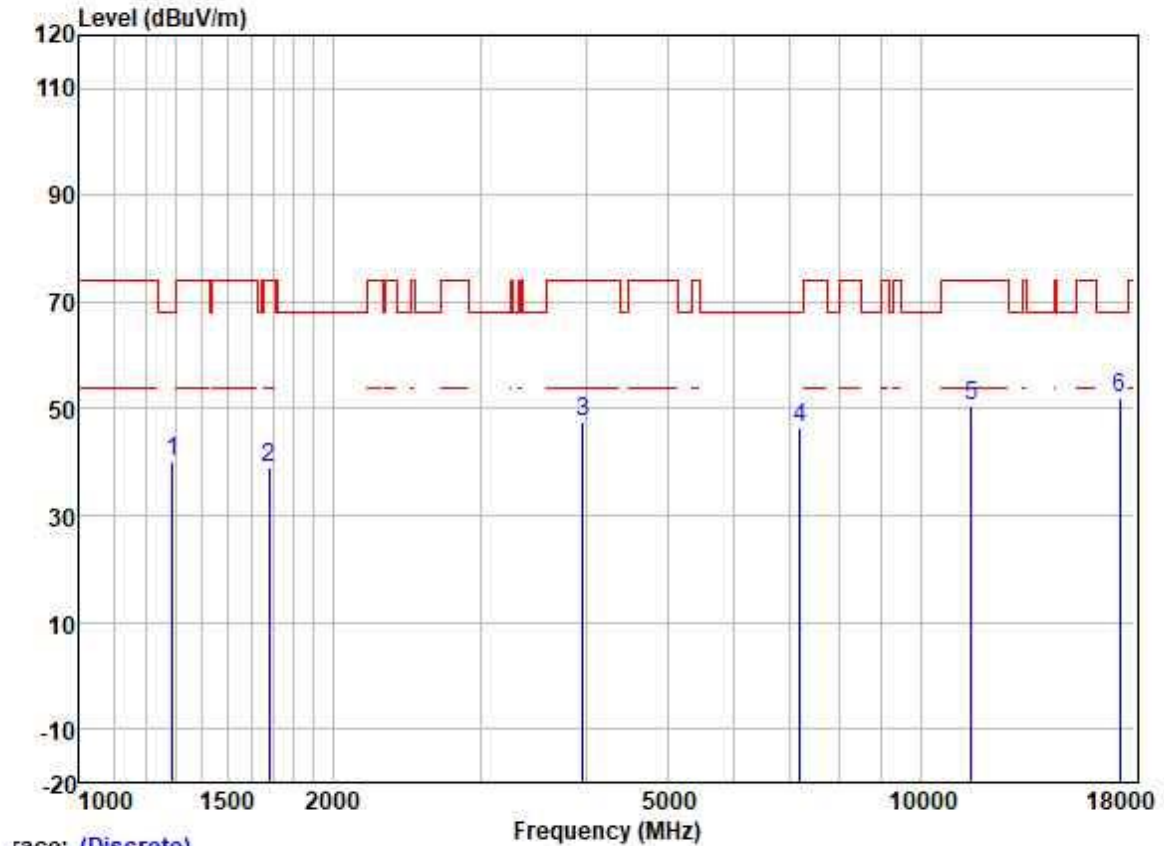
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1252.885	50.81	25.03	2.62	38.10	40.36	68.20	-27.84	VERTICAL	peak
2	1663.137	48.34	25.65	3.18	37.48	39.69	74.00	-34.31	VERTICAL	peak
3	3879.027	48.06	29.66	4.82	36.72	45.82	74.00	-28.18	VERTICAL	peak
4	7015.420	42.84	35.04	6.41	36.74	47.55	68.20	-20.65	VERTICAL	peak
5	11650.000	38.88	39.65	8.32	36.53	50.32	74.00	-23.68	VERTICAL	peak
6	17475.000	36.81	43.90	8.20	35.97	52.94	68.20	-15.26	VERTICAL	peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



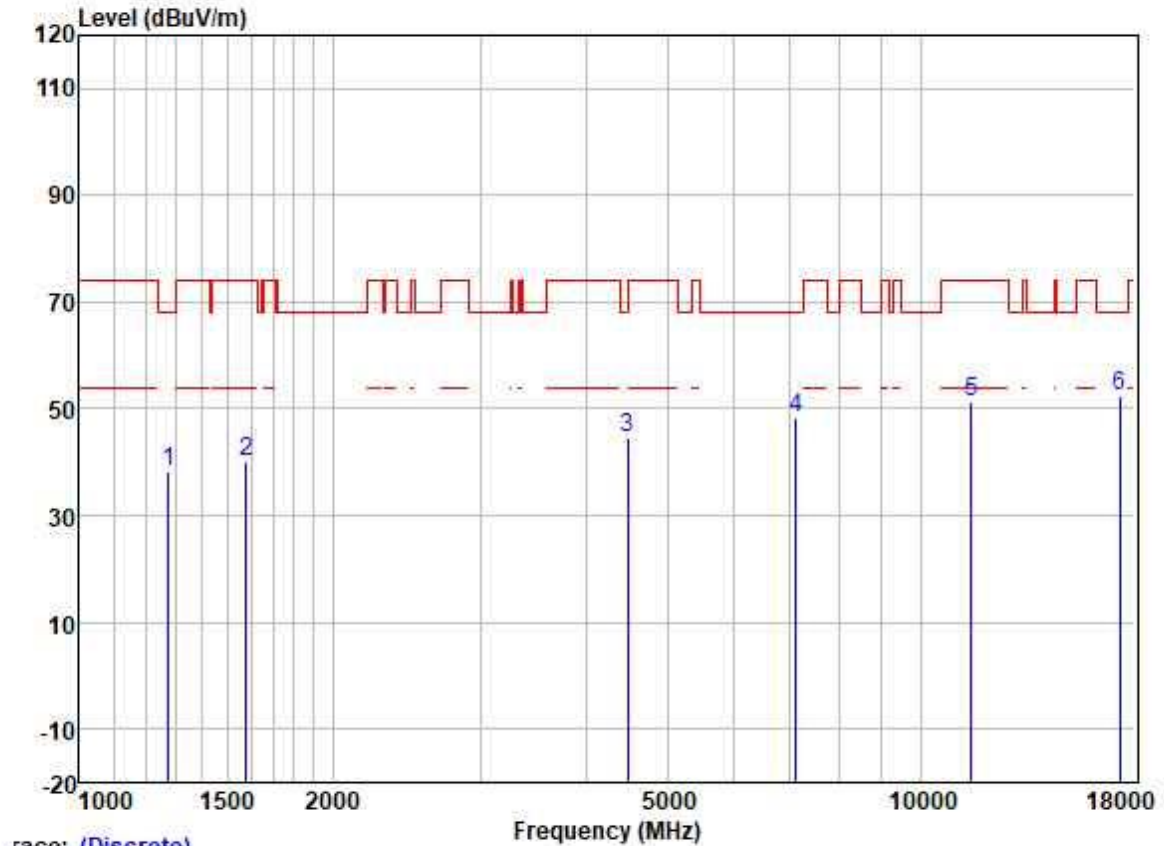
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1148.823	49.26	24.49	2.55	38.19	38.11	74.00	-35.89	HORIZONTAL peak
2	1672.779	48.46	25.67	3.21	37.48	39.86	74.00	-34.14	HORIZONTAL peak
3	4405.090	45.88	30.68	5.37	36.63	45.30	68.20	-22.90	HORIZONTAL peak
4	7200.309	42.40	35.54	6.36	36.92	47.38	68.20	-20.82	HORIZONTAL peak
5	11650.000	39.09	39.65	8.32	36.53	50.53	74.00	-23.47	HORIZONTAL peak
6	17475.000	36.86	43.90	8.20	35.97	52.99	68.20	-15.21	HORIZONTAL peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; 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	1289.627	50.41	25.17	2.66	38.04	40.20	68.20	-28.00	VERTICAL peak
2	1682.477	47.71	25.68	3.25	37.48	39.16	74.00	-34.84	VERTICAL peak
3	3969.767	49.28	29.77	5.18	36.70	47.53	74.00	-26.47	VERTICAL peak
4	7200.309	41.61	35.54	6.36	36.92	46.59	68.20	-21.61	VERTICAL peak
5	11510.000	39.09	39.90	8.27	36.55	50.71	74.00	-23.29	VERTICAL peak
6	17265.000	37.04	43.21	7.89	36.01	52.13	68.20	-16.07	VERTICAL peak

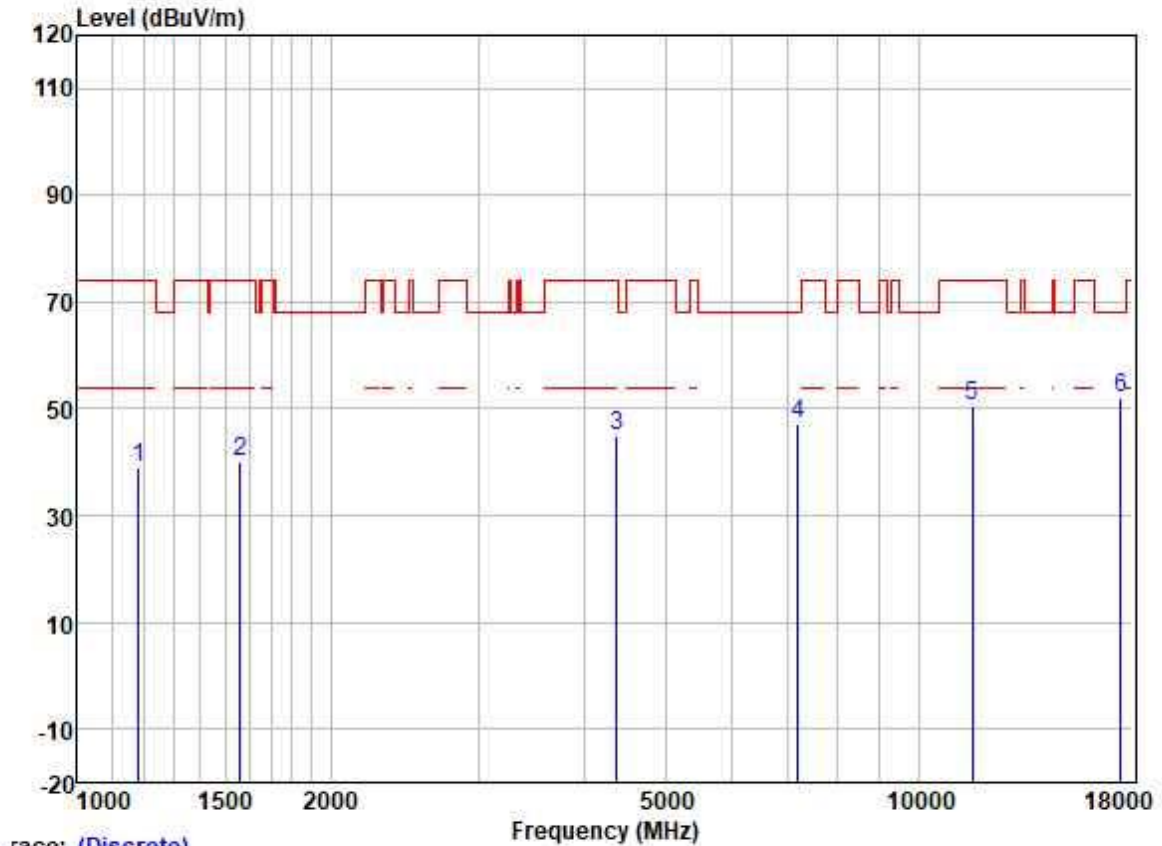
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

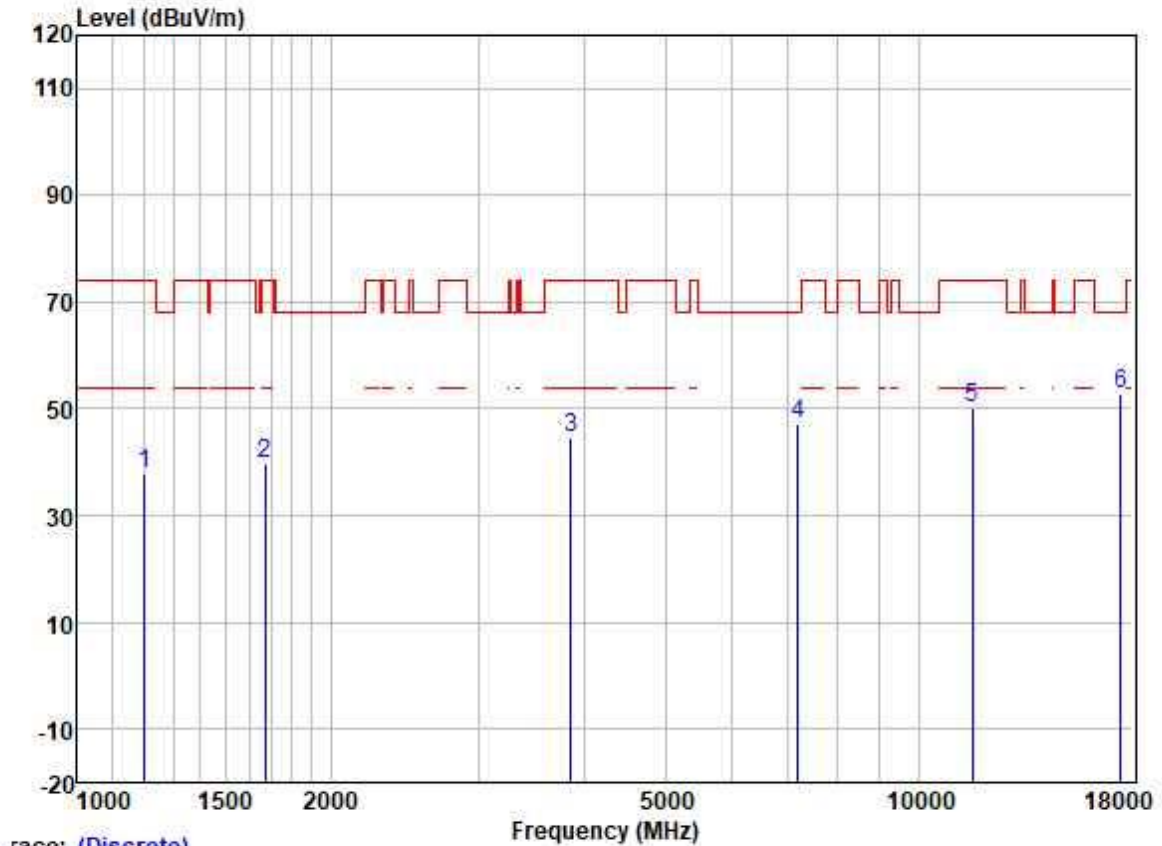
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1274.802	48.55	25.12	2.64	38.07	38.24	68.20	-29.96	HORIZONTAL peak
2	1578.822	49.16	25.56	2.99	37.62	40.09	74.00	-33.91	HORIZONTAL peak
3	4482.150	45.02	30.78	5.34	36.61	44.53	68.20	-23.67	HORIZONTAL peak
4	7117.542	43.69	35.28	6.38	36.85	48.50	68.20	-19.70	HORIZONTAL peak
5	11510.000	39.64	39.90	8.27	36.55	51.26	74.00	-22.74	HORIZONTAL peak
6	17265.000	37.47	43.21	7.89	36.01	52.56	68.20	-15.64	HORIZONTAL peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1182.513	49.92	24.60	2.57	38.17	38.92	74.00	-35.08	VERTICAL	peak
2	1560.673	49.25	25.54	2.98	37.66	40.11	74.00	-33.89	VERTICAL	peak
3	4379.699	45.63	30.64	5.35	36.63	44.99	74.00	-29.01	VERTICAL	peak
4	7200.309	42.10	35.54	6.36	36.92	47.08	68.20	-21.12	VERTICAL	peak
5	11590.000	38.93	39.72	8.31	36.54	50.42	74.00	-23.58	VERTICAL	peak
6	17385.000	36.31	43.57	8.06	35.99	51.95	68.20	-16.25	VERTICAL	peak

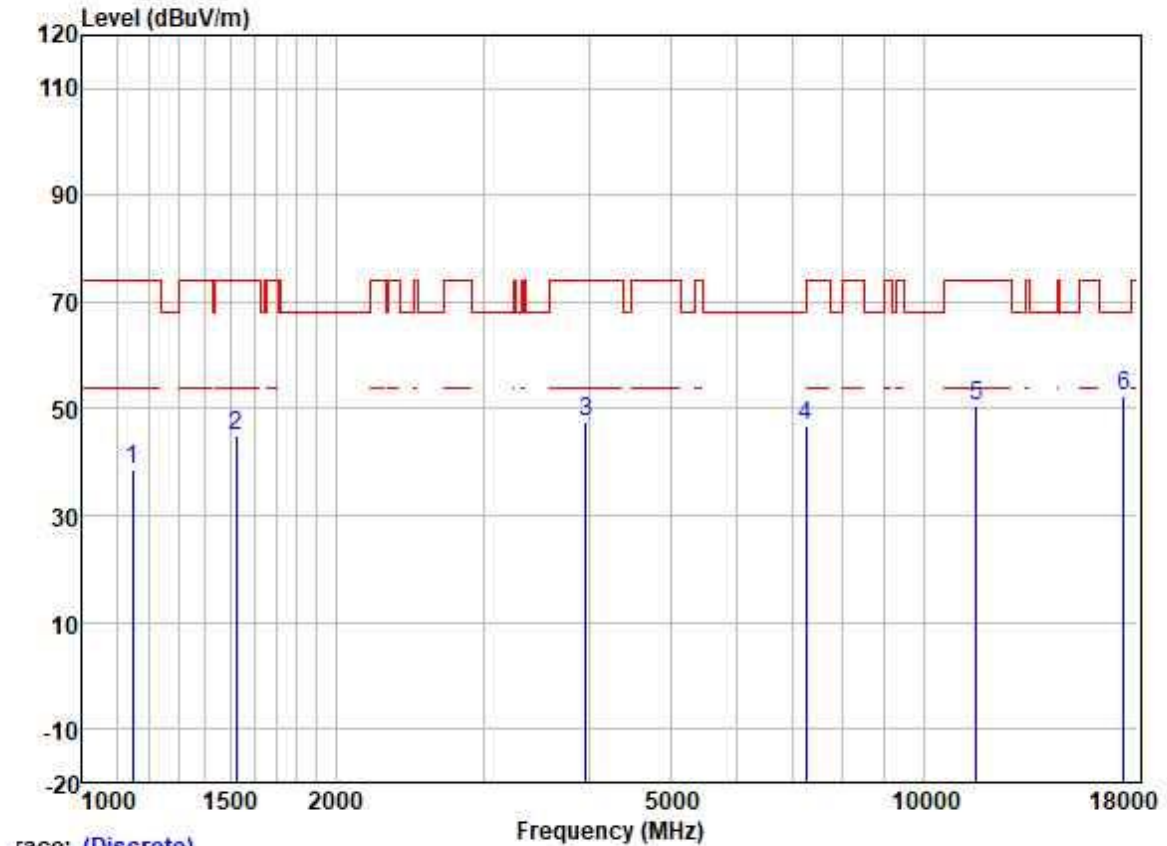
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1203.199	48.63	24.70	2.58	38.14	37.77	74.00	-36.23	HORIZONTAL	peak
2	1672.779	48.34	25.67	3.21	37.48	39.74	74.00	-34.26	HORIZONTAL	peak
3	3856.668	47.10	29.62	4.73	36.72	44.73	74.00	-29.27	HORIZONTAL	peak
4	7200.309	42.28	35.54	6.36	36.92	47.26	68.20	-20.94	HORIZONTAL	peak
5	11590.000	38.74	39.72	8.31	36.54	50.23	74.00	-23.77	HORIZONTAL	peak
6	17385.000	37.33	43.57	8.06	35.99	52.97	68.20	-15.23	HORIZONTAL	peak

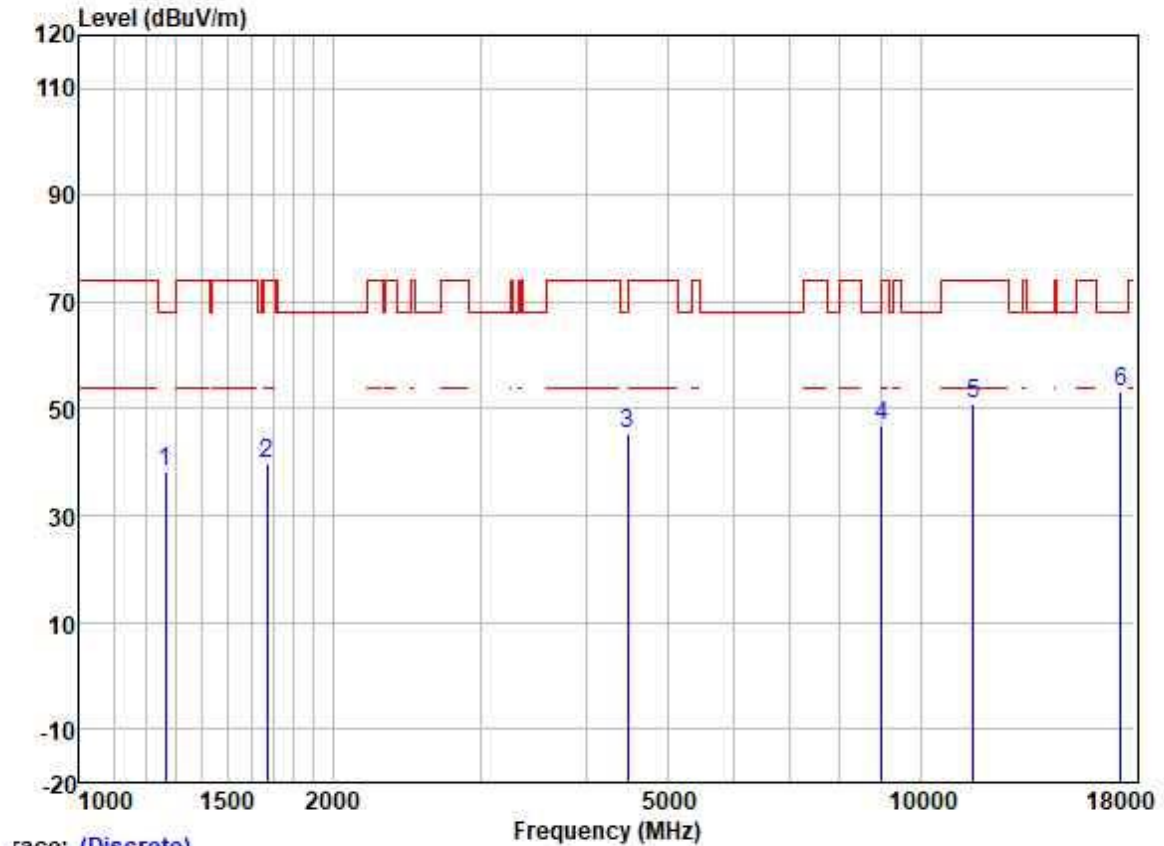
Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz;



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1148.823	49.78	24.49	2.55	38.19	38.63	74.00	-35.37	VERTICAL	peak
2	1525.000	54.14	25.52	2.94	37.70	44.90	74.00	-29.10	VERTICAL	peak
3	3969.767	49.47	29.77	5.18	36.70	47.72	74.00	-26.28	VERTICAL	peak
4	7242.052	41.68	35.70	6.35	36.96	46.77	68.20	-21.43	VERTICAL	peak
5	11550.000	39.00	39.84	8.28	36.54	50.58	74.00	-23.42	VERTICAL	peak
6	17325.000	37.10	43.40	7.98	36.00	52.48	68.20	-15.72	VERTICAL	peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz;



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1267.454	48.76	25.10	2.63	38.07	38.42	68.20	-29.78	HORIZONTAL	peak
2	1672.779	48.49	25.67	3.21	37.48	39.89	74.00	-34.11	HORIZONTAL	peak
3	4482.150	45.77	30.78	5.34	36.61	45.28	68.20	-22.92	HORIZONTAL	peak
4	8995.123	39.48	37.40	7.09	37.05	46.92	68.20	-21.28	HORIZONTAL	peak
5	11550.000	39.52	39.84	8.28	36.54	51.10	74.00	-22.90	HORIZONTAL	peak
6	17325.000	37.81	43.40	7.98	36.00	53.19	68.20	-15.01	HORIZONTAL	peak

7.8 Radiated Emissions which fall in the restricted bands

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

Test Method: KDB 789033 D02 II G

Test Distance: 3 m

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.

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 22.7 °C

Humidity: 58.4 % RH

Atmospheric Pressure: 1005 mbar



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中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

7.8.2 Test Mode Description

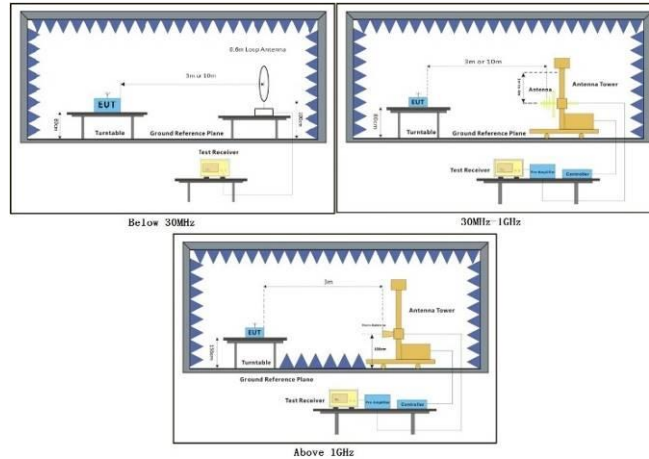
Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst 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). Only the data of worst case is recorded in the report.
Final test	05	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). Only the data of worst case is recorded in the report.
Final test	06	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). Only the data of worst case is recorded in the report.
Final test	07	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). Only the data of worst case is recorded in the report.



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7.8.3 Test Setup Diagram



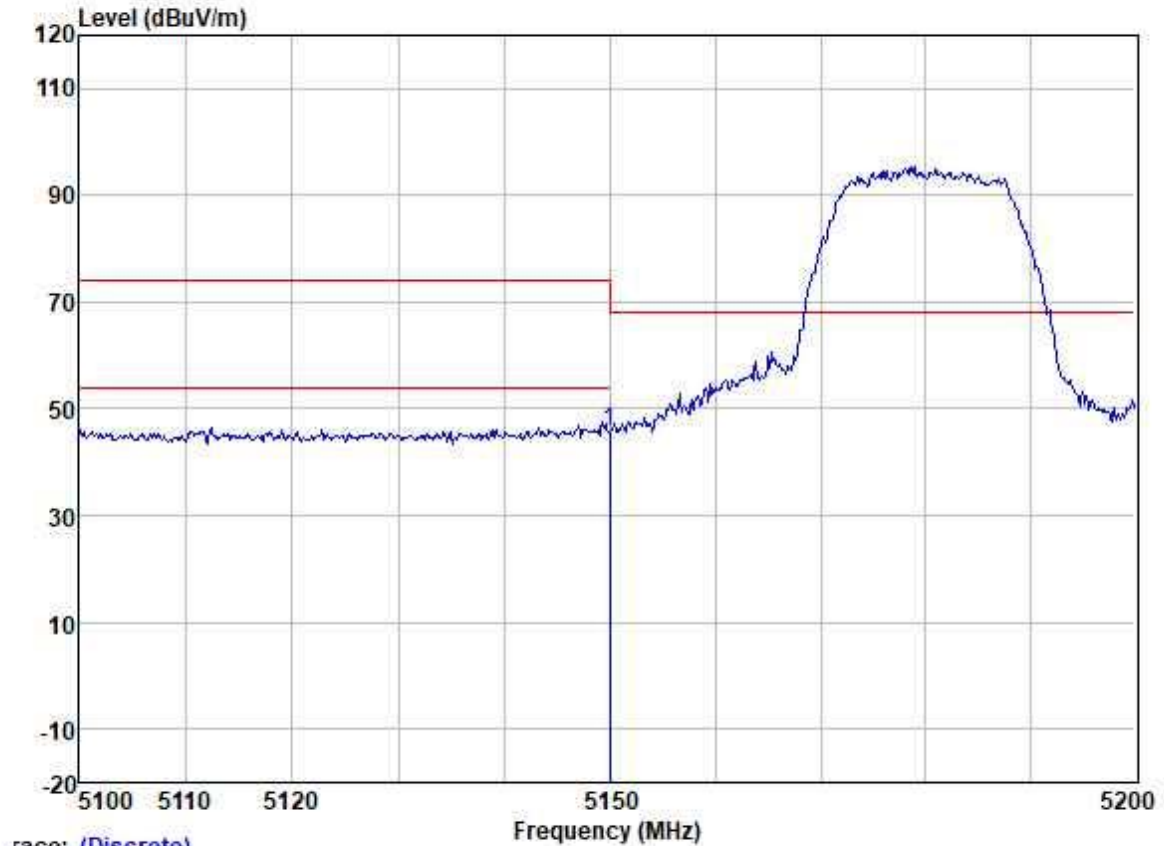
7.8.4 Measurement Procedure and Data

- 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

Remark: Pretest the EUT in 802.11a/n(20)/n(40)/ac(20)/ac(40)/ac(80) and find the worst case are 802.11a/n(40)/ac(80), and only record the worst case test data in this report.

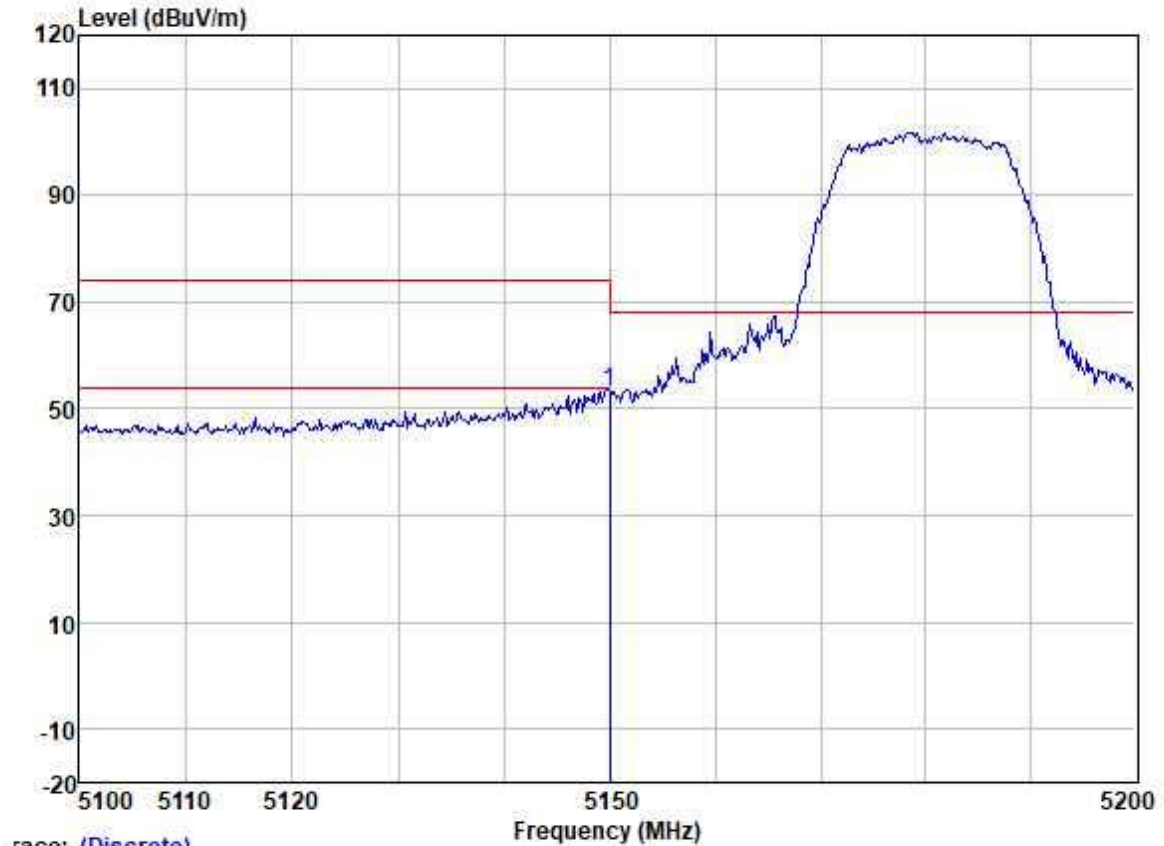
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	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	5150.000	44.93	31.72	5.36	36.31	45.70	68.20	-22.50	VERTICAL Peak

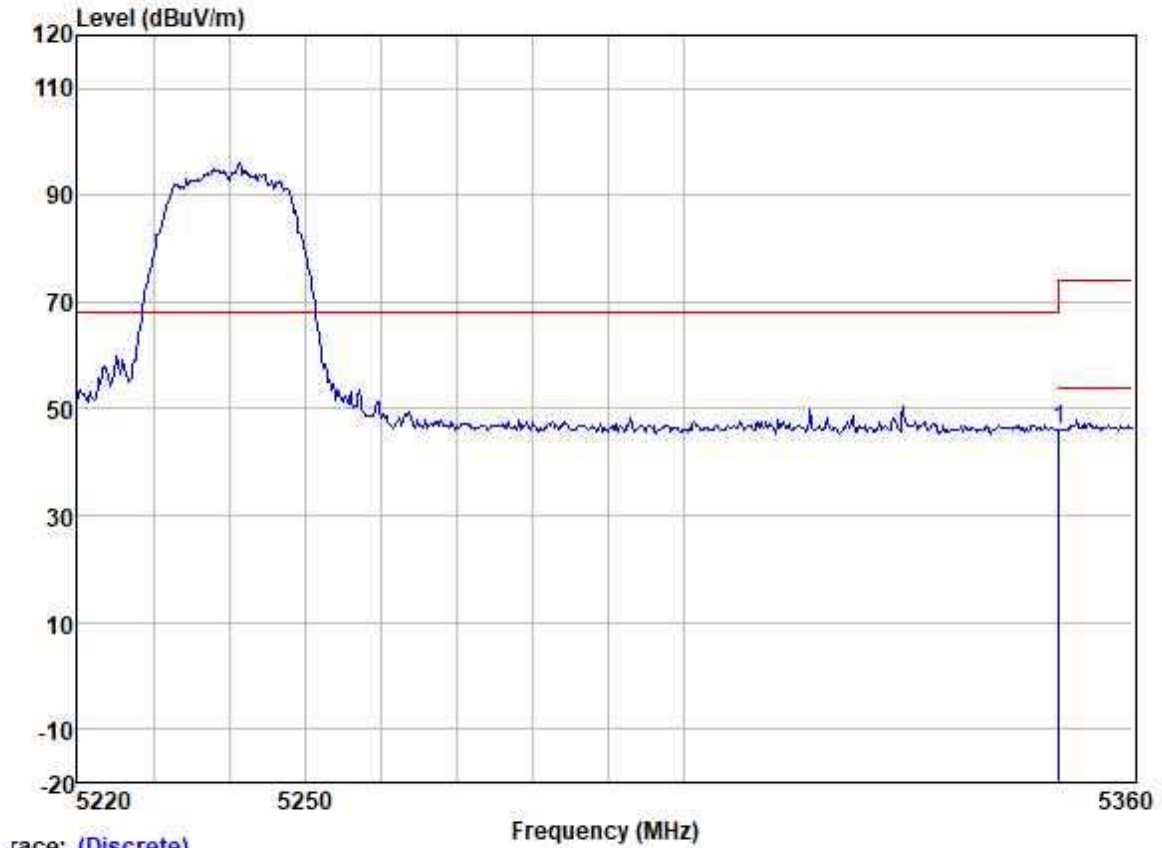
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	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 5150.000	52.32	31.72	5.36	36.31	53.09	68.20	-15.11	HORIZONTAL	Peak

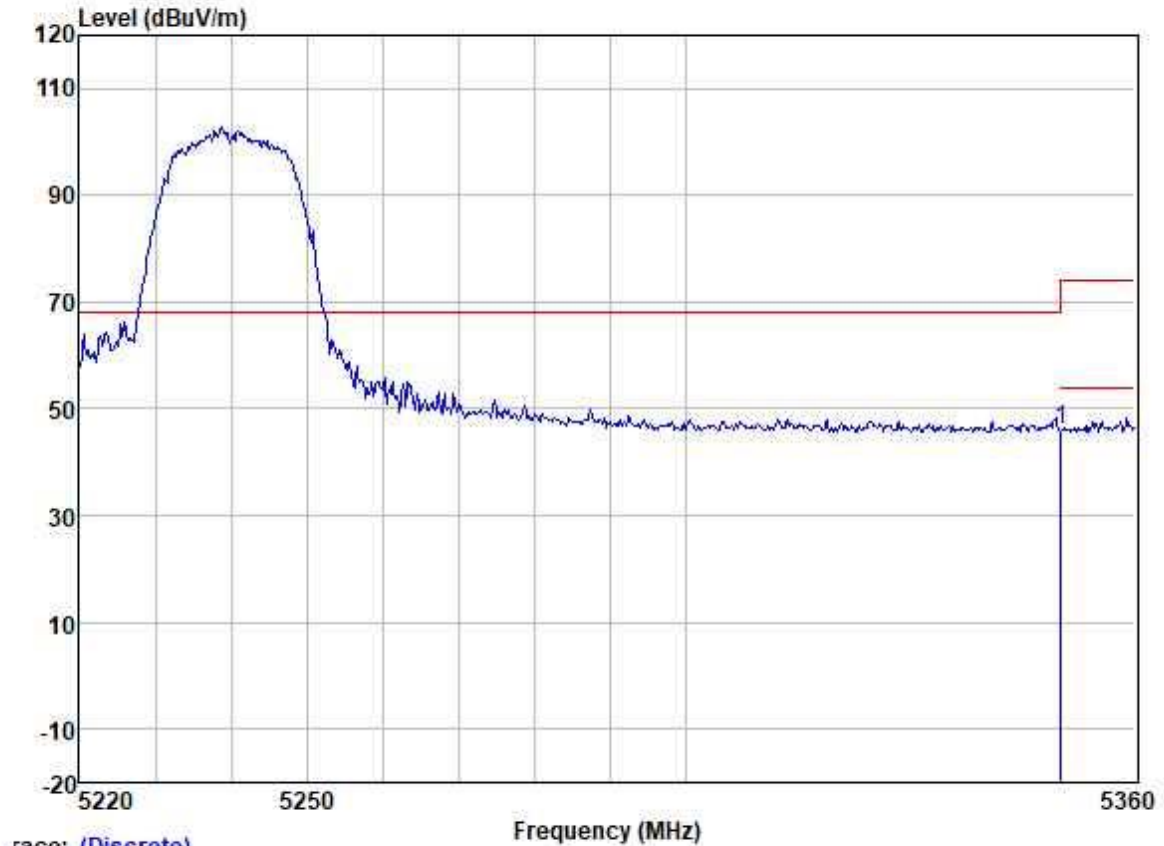
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Read	Antenna	Cable	Preamp	Limit	Over		
Freq	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 5350.000	45.06	31.77	5.53	36.24	46.12	68.20	-22.08	VERTICAL Peak

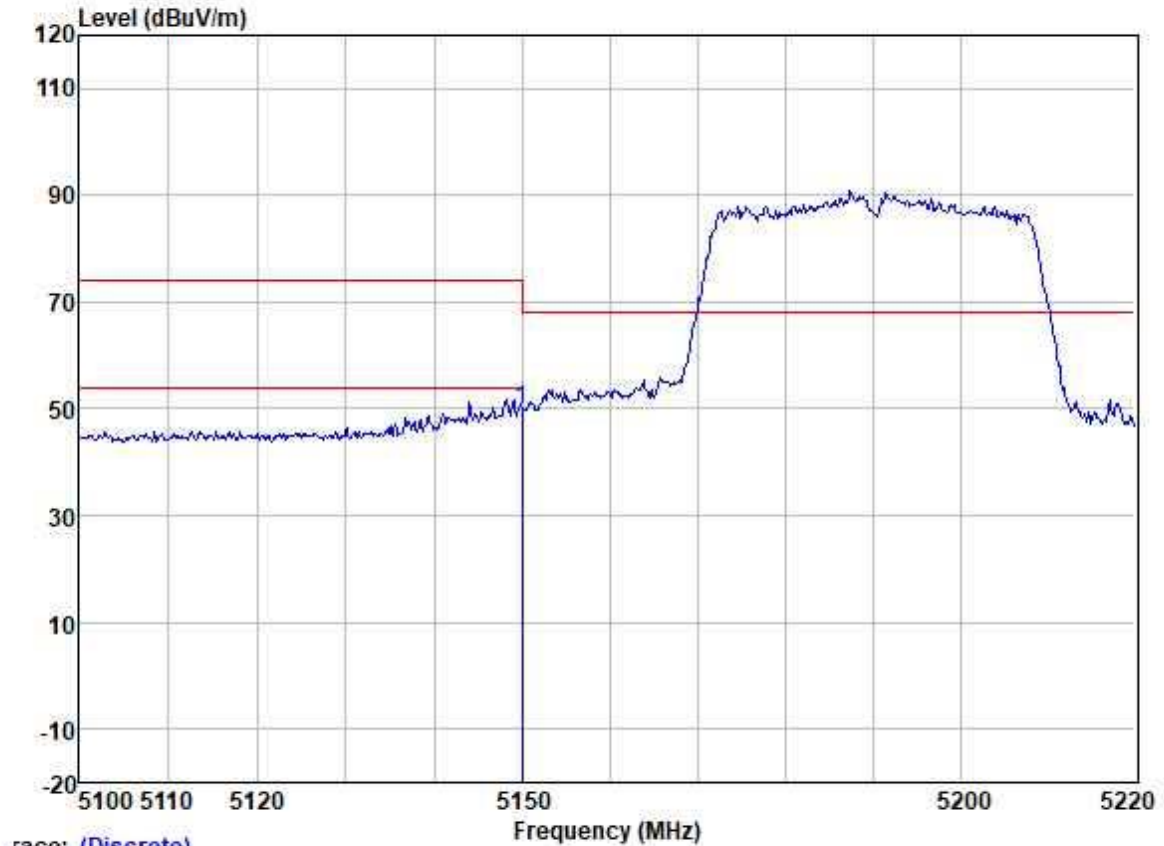
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	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 5350.000	45.15	31.77	5.53	36.24	46.21	68.20	-21.99	HORIZONTAL	Peak

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



Trace: (Discrete)

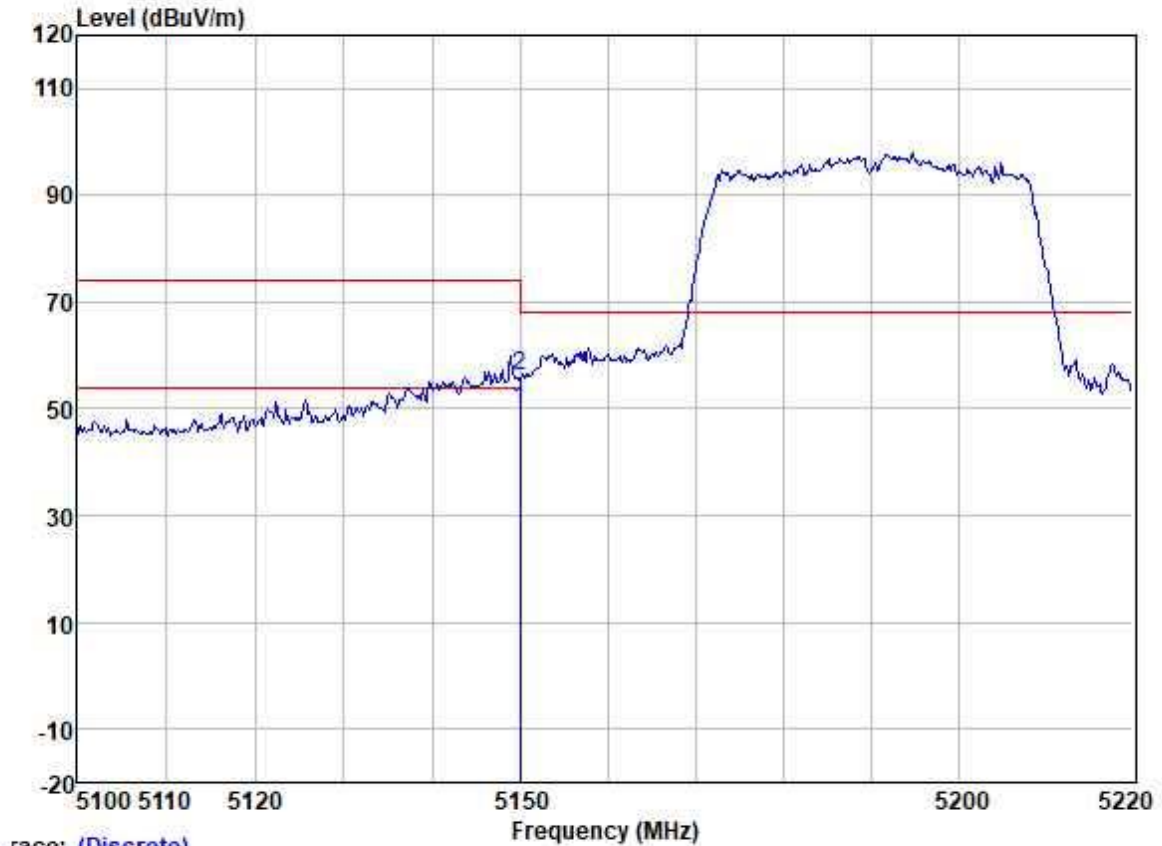
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 5150.000	48.87	31.72	5.36	36.31	49.64	68.20	-18.56	VERTICAL	Peak



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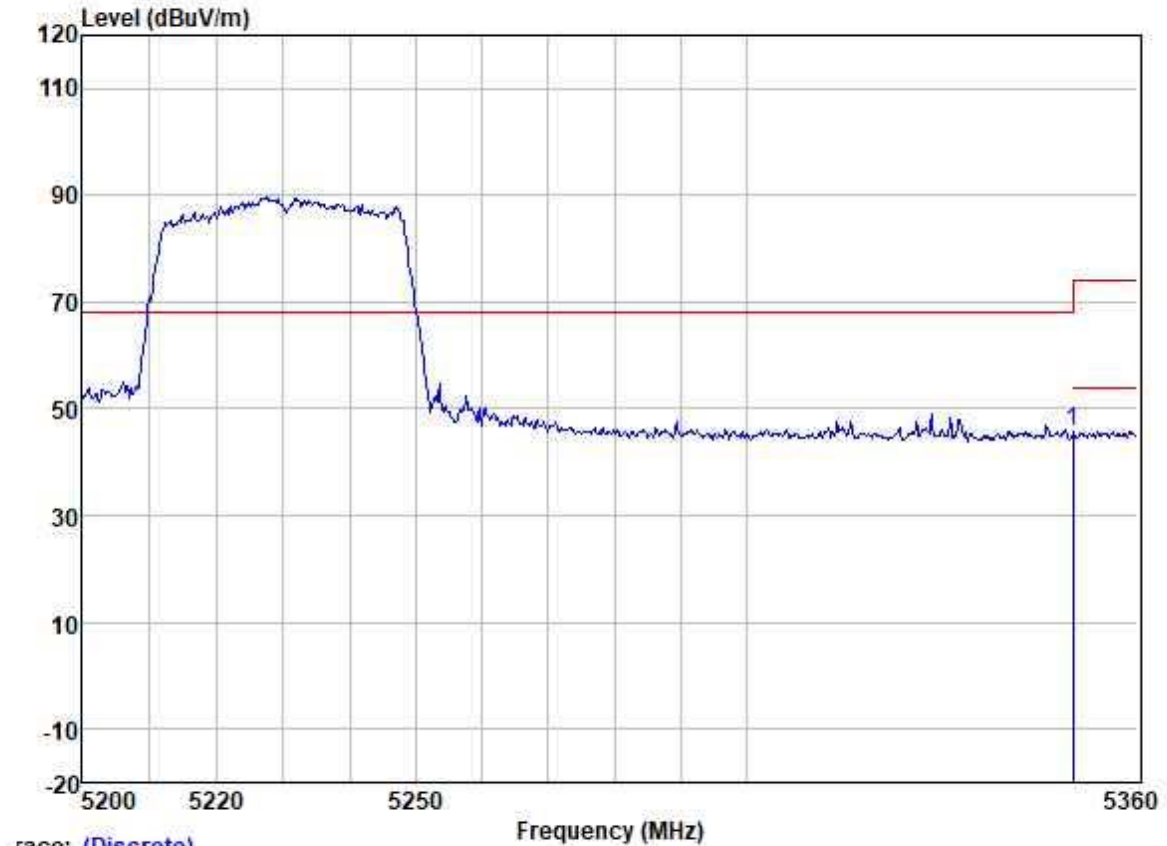
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1	5150.000	49.04	31.72	5.36	36.31	49.81	54.00	-4.19	HORIZONTAL Average
2	5150.000	55.30	31.72	5.36	36.31	56.07	68.20	-12.13	HORIZONTAL Peak

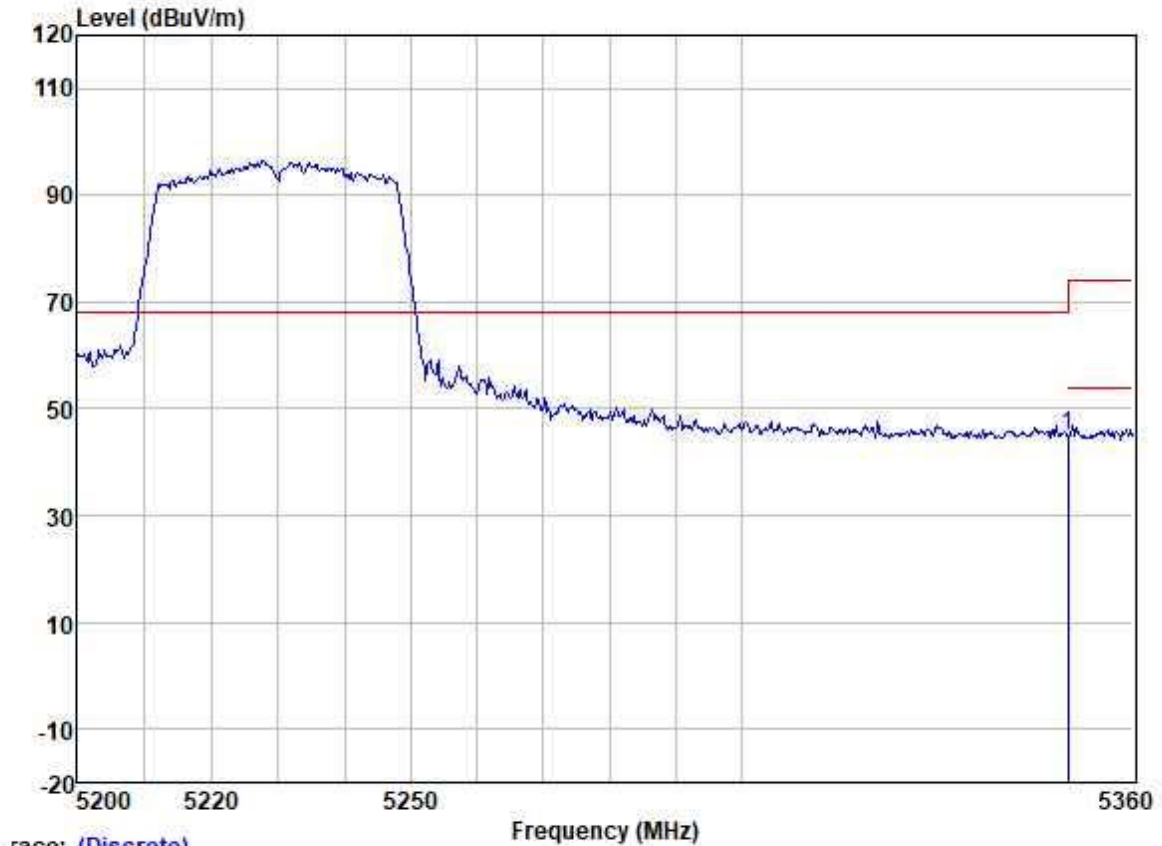
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	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	5350.000	44.53	31.77	5.53	36.24	45.59	68.20	-22.61	VERTICAL Peak

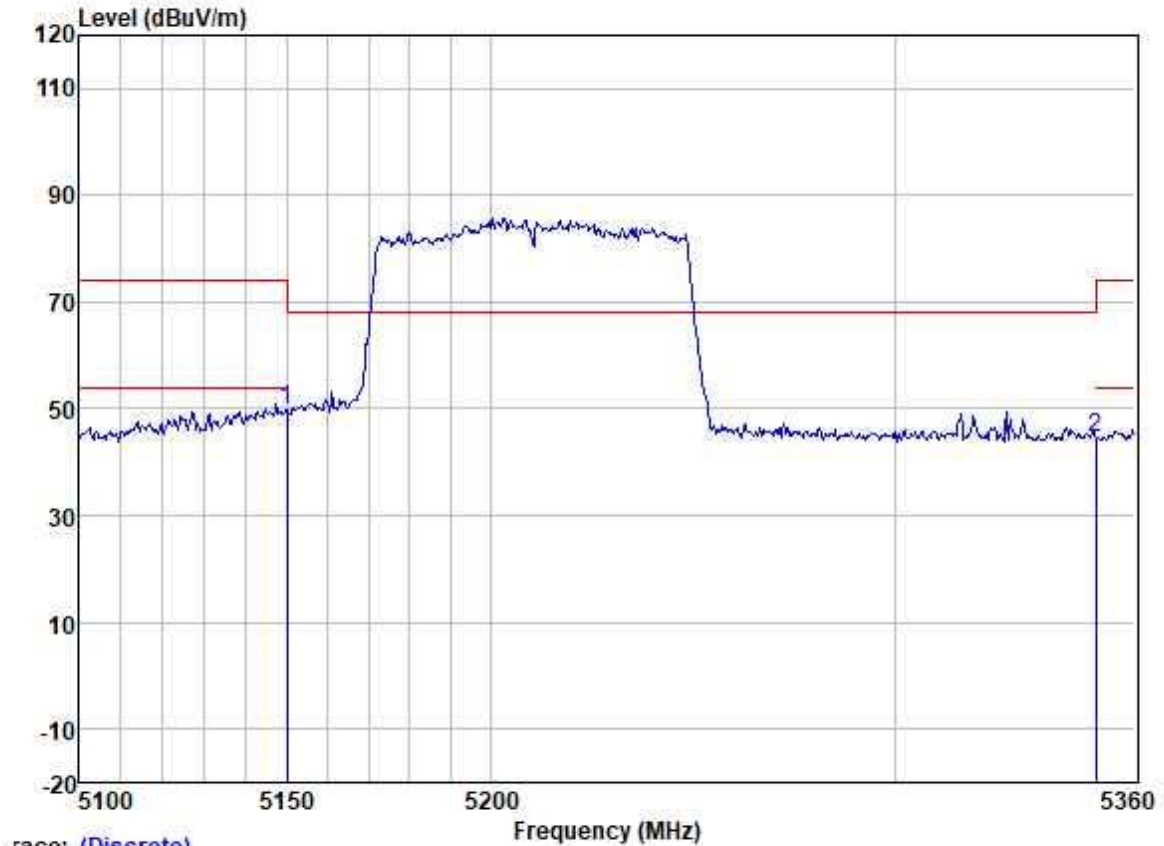
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Trace: (Discrete)

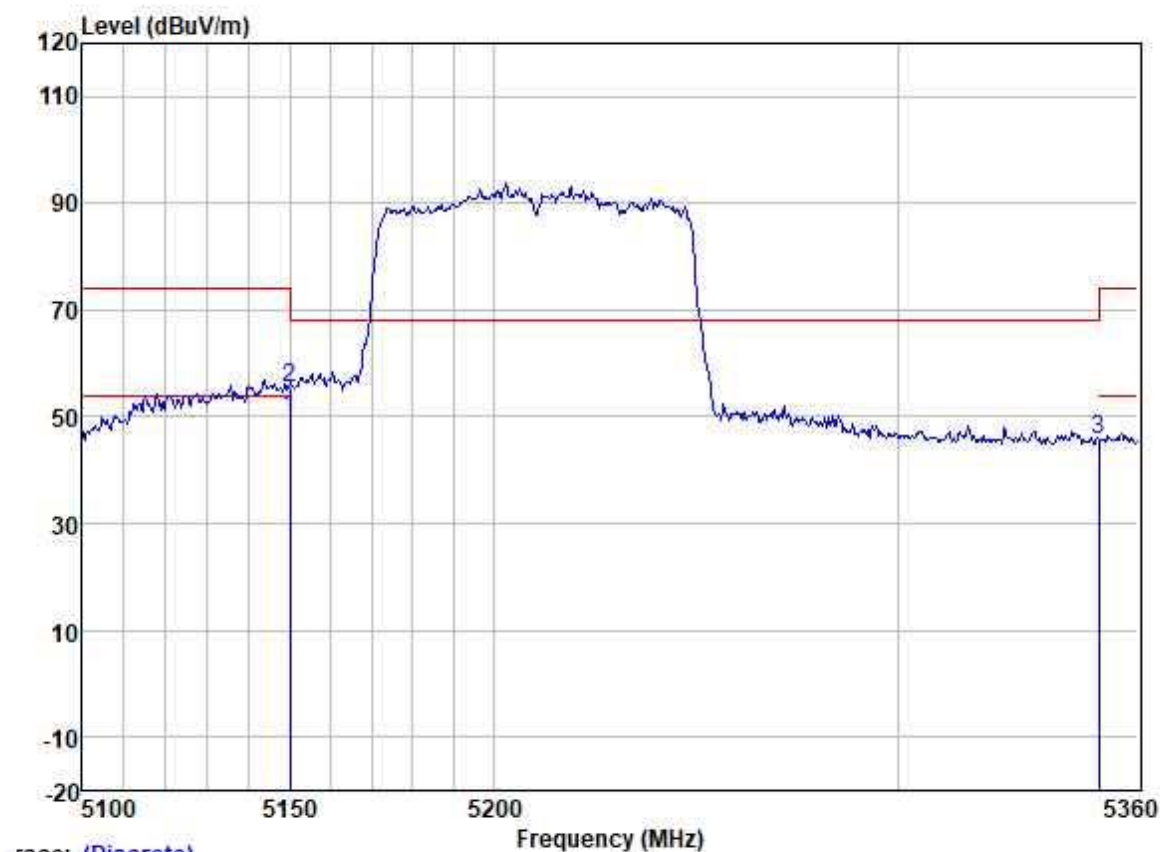
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 5350.000	43.96	31.77	5.53	36.24	45.02	68.20	-23.18	HORIZONTAL	Peak

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



	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	5150.000	49.17	31.72	5.36	36.31	49.94	68.20	-18.26	VERTICAL Peak
2	5350.000	43.54	31.77	5.53	36.24	44.60	68.20	-23.60	VERTICAL Peak

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



race: (Discrete)

	Freq	ReadAntenna Level Factor	Cable Preamp Loss Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5150.000	49.07	31.72	5.36	36.31	49.84	54.00	-4.16	HORIZONTAL Average
2	5150.000	54.76	31.72	5.36	36.31	55.53	68.20	-12.67	HORIZONTAL Peak
3	5350.000	44.47	31.77	5.53	36.24	45.53	68.20	-22.67	HORIZONTAL Peak

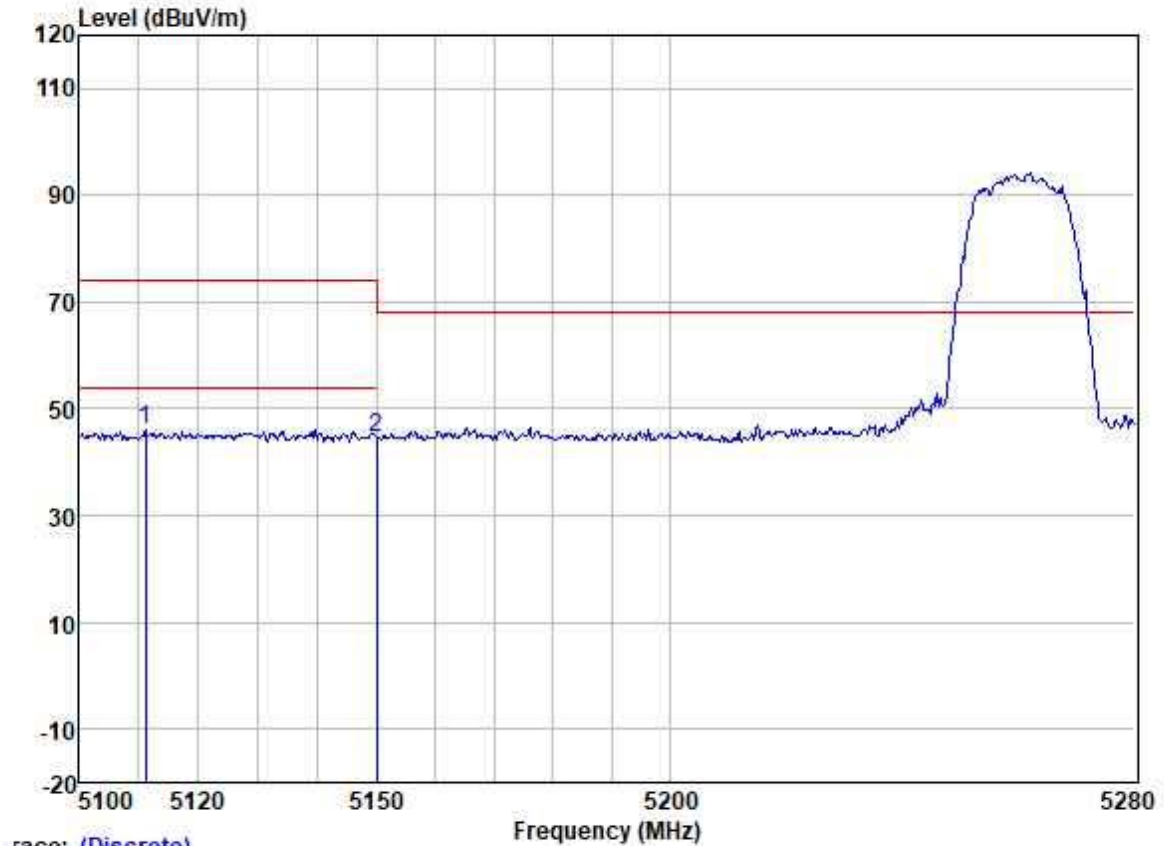


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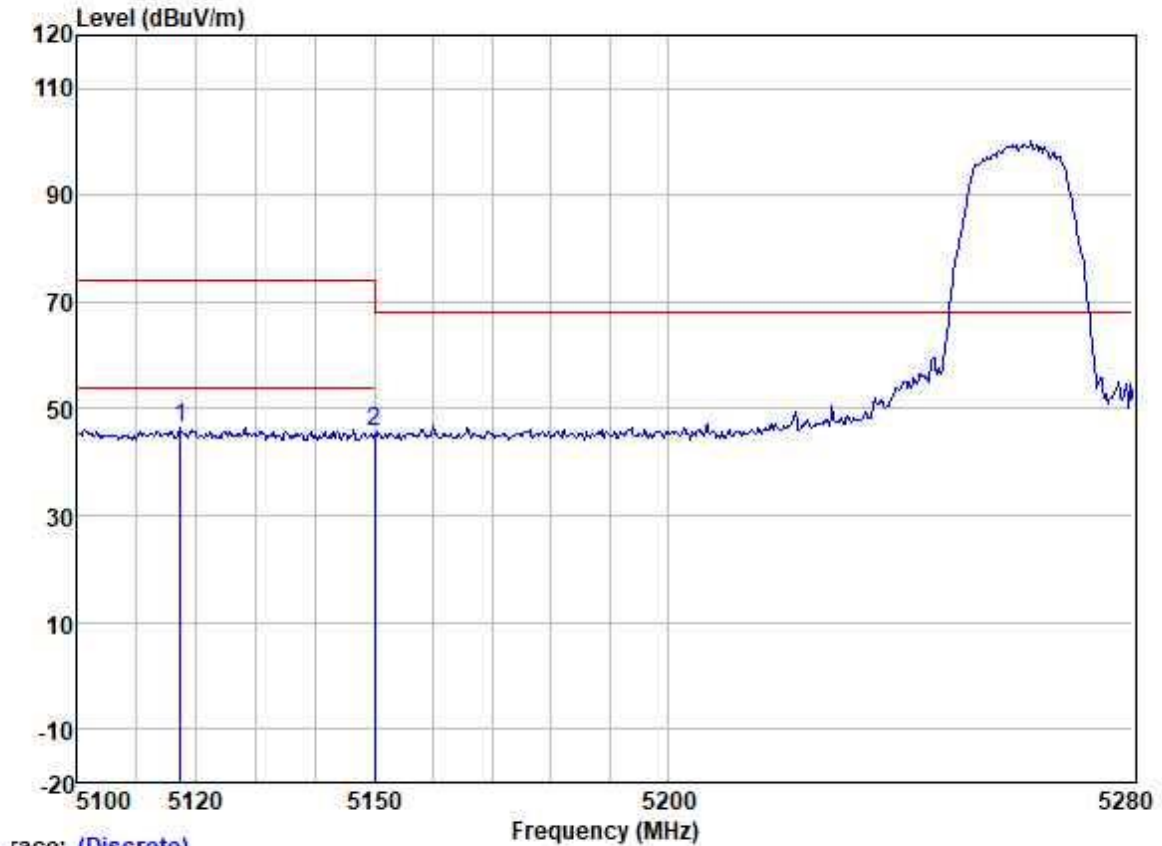
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Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



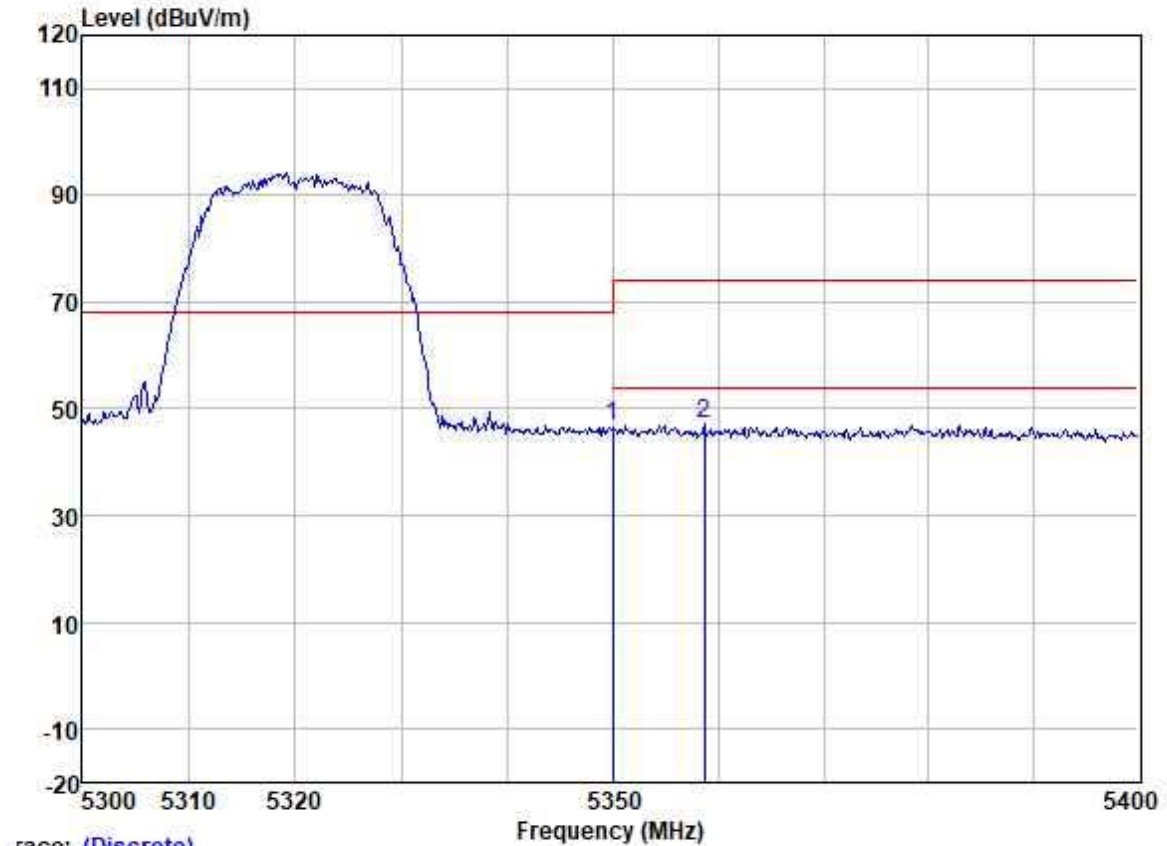
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	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5111.157	45.42	31.72	5.43	36.34	46.23	74.00	-27.77	VERTICAL	Peak
2	5150.000	43.97	31.72	5.36	36.31	44.74	68.20	-23.46	VERTICAL	Peak

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



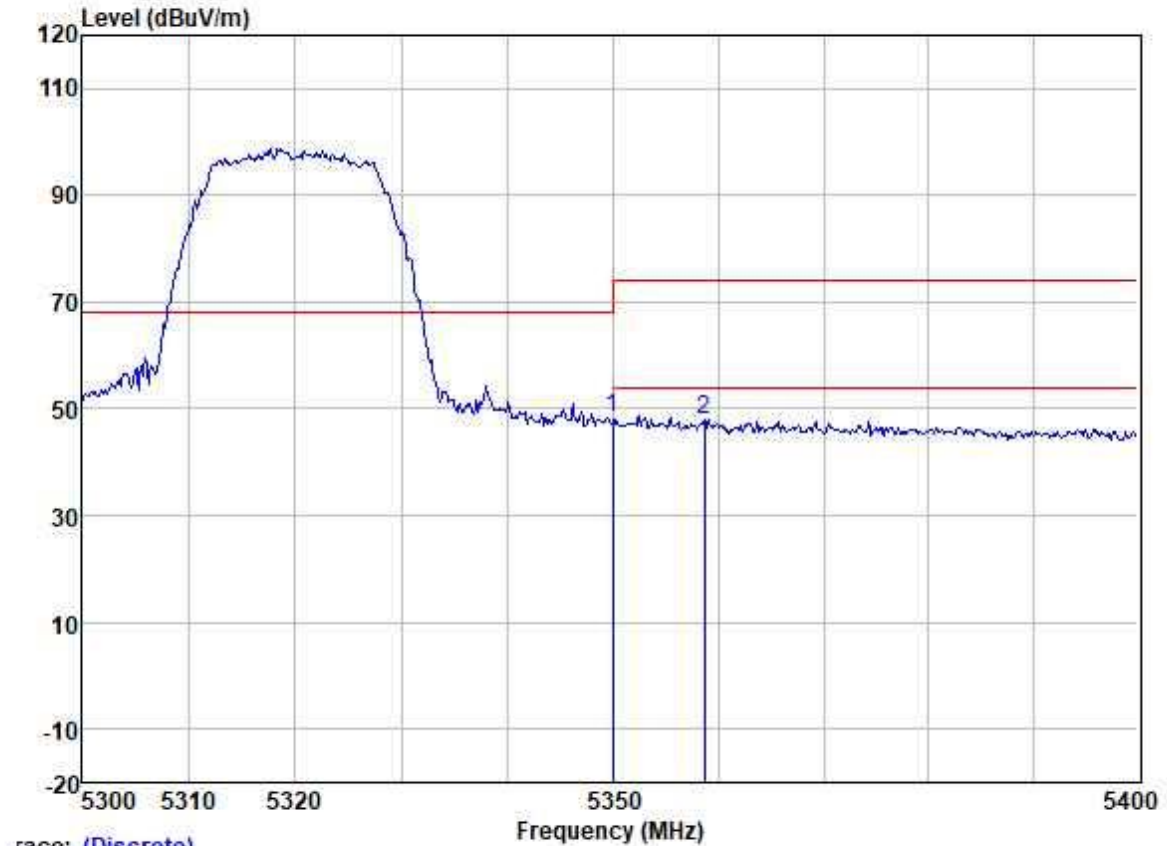
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	MHz	Level	Factor	Loss	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	5117.365	45.56	31.72	5.40	36.32	46.36	74.00	-27.64
2	5150.000	45.12	31.72	5.36	36.31	45.89	68.20	-22.31

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1	5350.000	45.68	31.77	5.53	36.24	46.74	68.20	-21.46	VERTICAL Peak
2	5358.674	46.22	31.78	5.55	36.24	47.31	74.00	-26.69	VERTICAL Peak

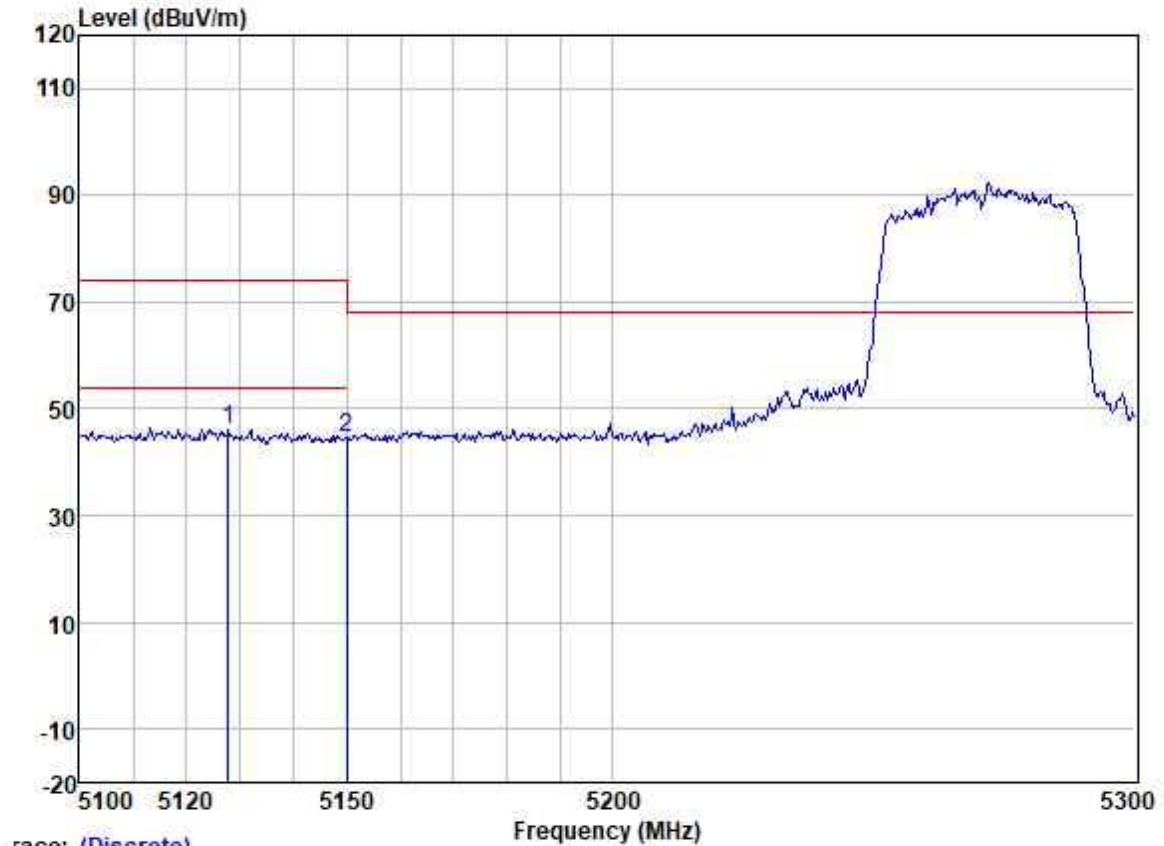
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Trace: (Discrete)

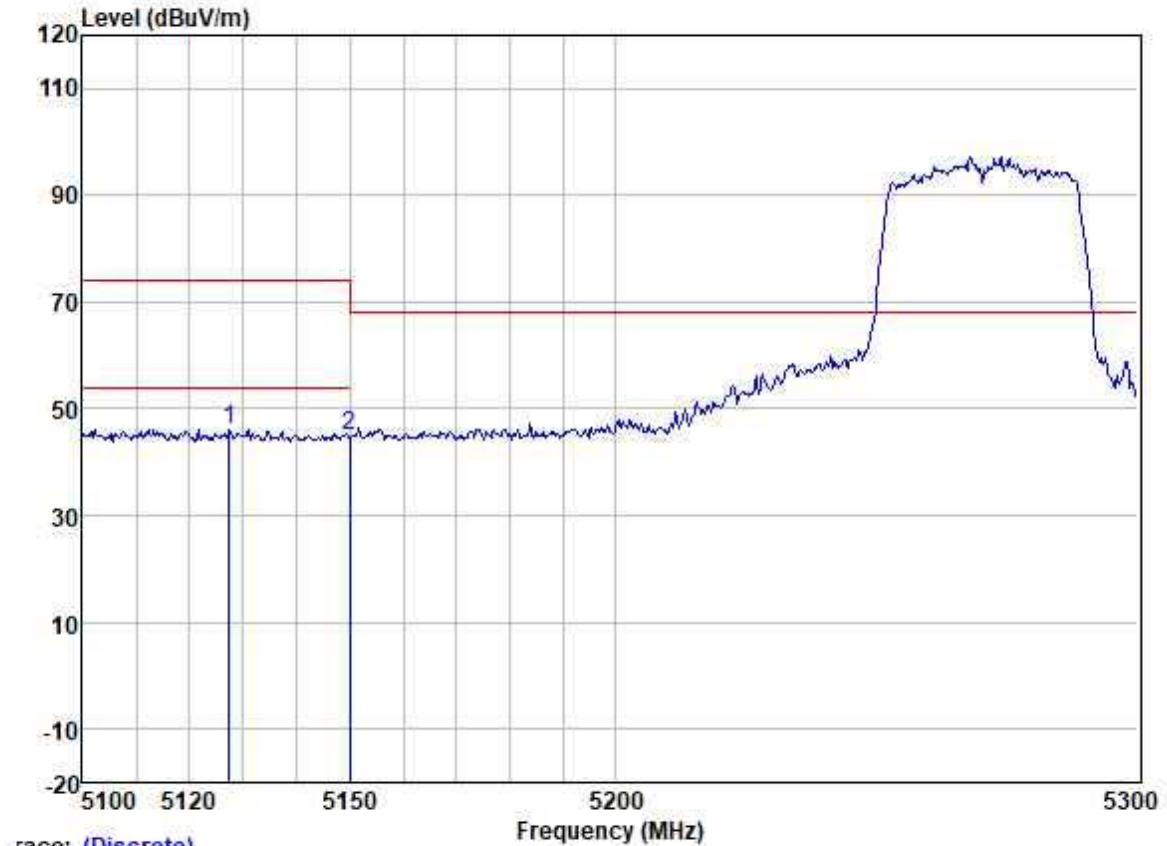
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Limit Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5350.000	47.15	31.77	5.53	36.24	48.21	68.20	-19.99	HORIZONTAL	Peak
2	5358.674	47.02	31.78	5.55	36.24	48.11	74.00	-25.89	HORIZONTAL	Peak

Test Mode: 05; 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	5127.736	45.23	31.72	5.38	36.32	46.01	74.00	-27.99	VERTICAL	Peak
2	5150.000	43.65	31.72	5.36	36.31	44.42	68.20	-23.78	VERTICAL	Peak

Test Mode: 05; 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	5127.342	45.28	31.72	5.38	36.32	46.06	74.00	-27.94	HORIZONTAL	Peak
2	5150.000	44.33	31.72	5.36	36.31	45.10	68.20	-23.10	HORIZONTAL	Peak