



## TEST REPORT

**Application No.:** GZCR2110021230AT  
**Applicant:** Monument Labs, Inc..  
**Address of Applicant:** 222 W Merchandise Mart Plaza, Ste 1212, Chicago, IL 60657, USA  
**Manufacturer:** Monument Labs, Inc..  
**Address of Manufacturer:** 222 W Merchandise Mart Plaza, Ste 1212, Chicago, IL 60657, USA  
**Factory:** GUANGDONG GADMEI INTELLIGENT TECHNOLOGY CO., LTD.  
**Address of Factory:** Yin Zhan, QingCheng District, QingYuan City, GuangDong Province, China.  
**Equipment Under Test (EUT):**  
**EUT Name:** Photo Storage & Management Device  
**Model No.:** 312A12, 312D12 ♣  
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.  
**Trade Mark:** Monument  
**Standard(s) :** 47 CFR Part 15, Subpart E 15.407  
**Date of Receipt:** 2021-10-15  
**Date of Test:** 2021-10-15 to 2021-10-20  
**Date of Issue:** 2021-10-28

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

*Kobe Jian*

Kobe Jian  
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-10-28		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
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	Pass
Duty Cycle		KDB 789033 D02 II B 2	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 (below 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
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Radiated Emissions (above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass



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**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.

**Declaration of EUT Family Grouping:**

Model No.: 312A12, 312D12

Only the model 312D12 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on adapter plug.



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	Adapter: Model:A122-0502500ID Input: AC100-240V 50/60Hz 0.4A Output: DC 5.0V 2.5A 12.5W
Cable(s):	DC cable:146cm unshielded
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 with Radar detection
TPC Function:	Without TPC function
Antenna Type:	PIFA Antenna
Antenna Gain:	Antenna 1 3.58dBi Antenna 2:3.58dBi

### 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
Conducted Emissions at AC Power Line (150kHz-30MHz)	3.12dB
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 (below 1GHz)	5.06dB ( 30MHz-1GHz ; 3m ) 4.46dB ( 30MHz-1GHz ; 10m )
Radiated Emissions which fall in the restricted bands	± 4.5dB (below 1GHz); ± 4.8dB (above 1GHz);
Frequency Stability	± 7.25 x 10 <sup>-8</sup>
Radiated Emissions (above 1GHz)	5.08 dB (1-6GHz); 5.14 (above 6 GHz)
<p>Remark:</p> <p>The U<sub>lab</sub> (lab Uncertainty) is less than U<sub>cispr</sub> (CISPR Uncertainty), so the test results</p> <ul style="list-style-type: none"> <li>– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;</li> <li>– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.</li> </ul>	

#### 4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,  
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,  
Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

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

## 5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-01-08	2022-01-06
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2021-09-24	2022-09-23
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A
EMI Test Receiver(9kHz-3.6GHz)	Rohde & Schwarz	ESR4	EMC2221	2021-06-01	2022-05-31

Duty Cycle					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

99% Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11





Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
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
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
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
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18



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Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
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
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

DFS - Channel Move Time					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18



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EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	JS Tonscend	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

## Peak Power spectrum density

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

## Radiated Spurious Emissions (Below 1GHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)-Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2019-12-27	2021-12-26
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
EMI Test Receiver(1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2021-05-26	2022-05-25

## Radiated Emissions which fall in the restricted bands

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
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EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
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
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-09-08	2022-09-07

Frequency Stability					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Band Edge					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01



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ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
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
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
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05
DMM	Fluke	73	EMC0007	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: Antenna 1:3.58dBi and Antenna 2:3.58dBi.

Antenna location: Refer to Internal photos



## 6.2 Transmission in the Absence of Data

### 6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

### 6.2.1 Conclusion

standard Requirement:

The device shall automatically discontinue transmission in cases of absence of information to transmit, or operational failure. A description on how this is done shall accompany the application for equipment certification. Note that this is not intended to prohibit transmission of control or signalling information or the use of repetitive codes where required by the technology.

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

Test Requirement 47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)

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

Limit:

Frequency of emission(MHz)	Conducted limit(dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

Humidity: 53.2 % RH

Atmospheric Pressure: 1003 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.
Pre-scan	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.
Pre-scan	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.



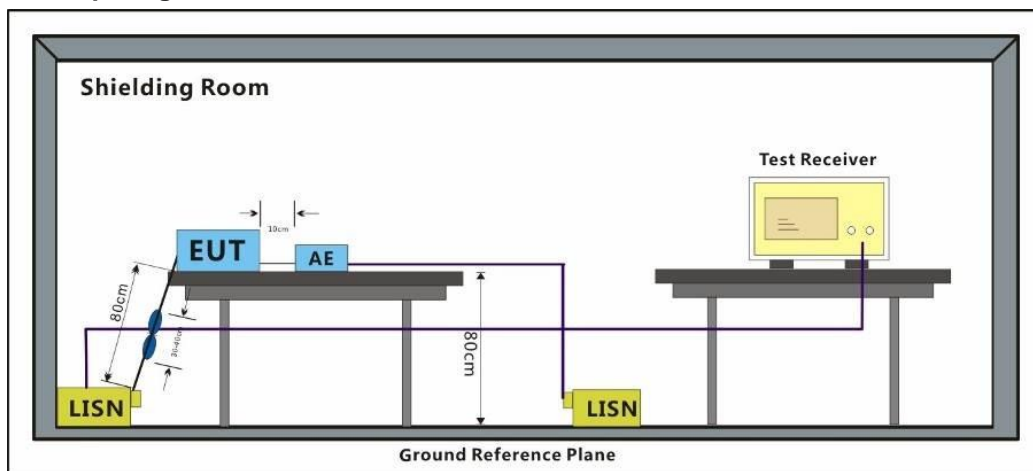
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Pre-scan 07

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

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

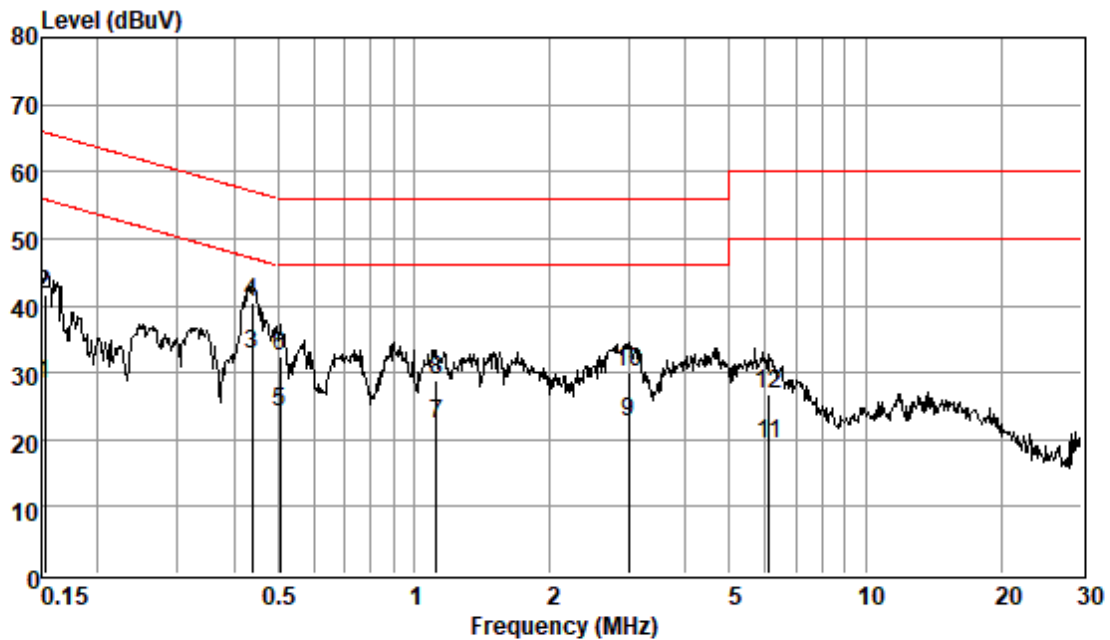
Remark: LISN=Read Level+ Cable Loss+ LISN Factor



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Test Mode: 04; Line: Neutral Line

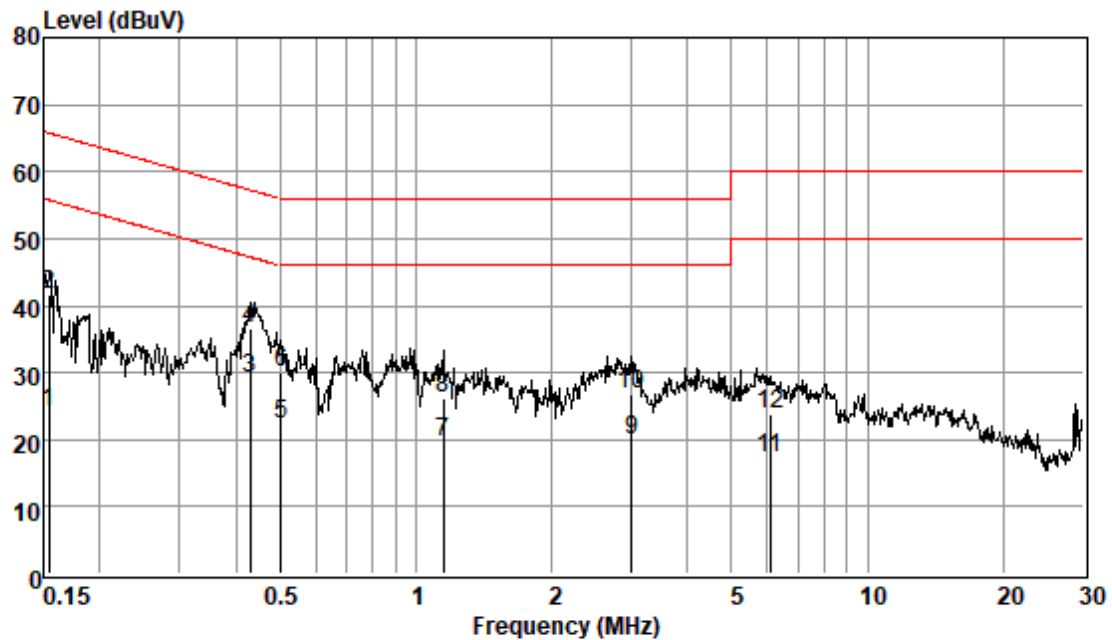


Pol : NEUTRAL  
Mode :  
Model :

Frequency MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.15	18.77	0.06	9.55	28.38	55.87	-27.49	Average
0.15	32.12	0.06	9.55	41.73	65.87	-24.14	QP
0.44	23.22	0.06	9.56	32.84	47.07	-14.23	Average
0.44	30.72	0.06	9.56	40.34	57.07	-16.73	QP
0.50	14.48	0.07	9.55	24.10	46.00	-21.90	Average
0.50	22.85	0.07	9.55	32.47	56.00	-23.53	QP
1.12	12.81	0.08	9.55	22.44	46.00	-23.56	Average
1.12	19.10	0.08	9.55	28.73	56.00	-27.27	QP
2.99	12.98	0.15	9.56	22.69	46.00	-23.31	Average
2.99	20.30	0.15	9.56	30.01	56.00	-25.99	QP
6.12	9.58	0.20	9.57	19.35	50.00	-30.65	Average
6.12	17.14	0.20	9.57	26.91	60.00	-33.09	QP



Test Mode: 04; Line: Live line

Pol : LINE  
Mode :  
Model :

Frequency MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.15	14.32	0.06	9.62	24.00	55.78	-31.78	Average
0.15	32.00	0.06	9.62	41.68	65.78	-24.10	QP
0.43	19.44	0.06	9.62	29.12	47.24	-18.12	Average
0.43	26.77	0.06	9.62	36.45	57.24	-20.79	QP
0.50	12.74	0.07	9.63	22.44	46.00	-23.56	Average
0.50	20.28	0.07	9.63	29.98	56.00	-26.02	QP
1.15	10.05	0.08	9.61	19.74	46.00	-26.26	Average
1.15	16.49	0.08	9.61	26.18	56.00	-29.82	QP
3.01	10.13	0.15	9.62	19.90	46.00	-26.10	Average
3.01	16.96	0.15	9.62	26.73	56.00	-29.27	QP
6.09	7.52	0.20	9.67	17.39	50.00	-32.61	Average
6.09	14.01	0.20	9.67	23.88	60.00	-36.12	QP



## 7.2 Duty Cycle

Test Requirement KDB 789033 D02 II B 1  
Test Method: KDB 789033 D02 II B 2

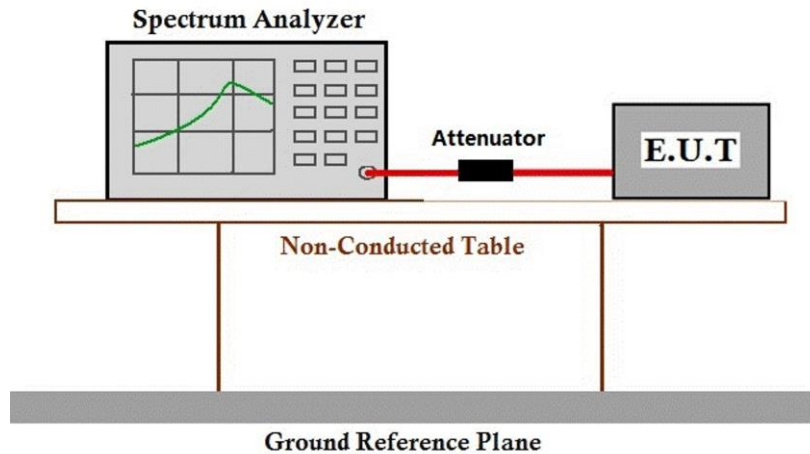
### 7.2.1 E.U.T. Operation

Operating Environment:  
Temperature: 23.5 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 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 99% Bandwidth**

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

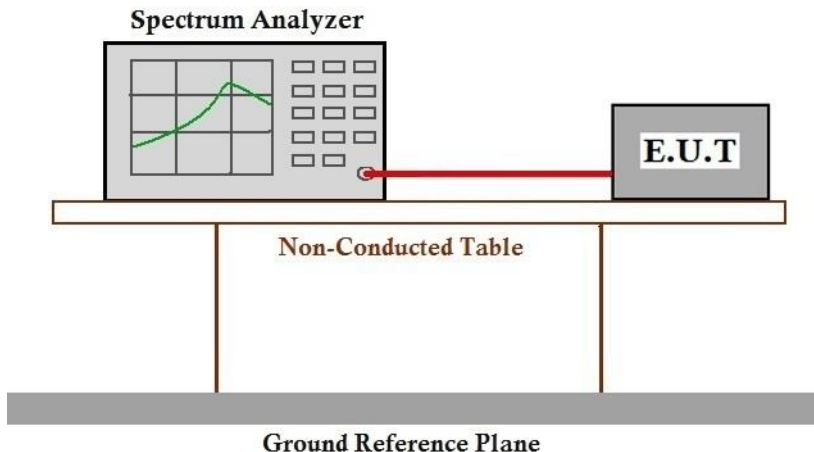
**7.3.1 E.U.T. Operation**

Operating Environment:  
Temperature: 23.5 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 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 26dB Emission bandwidth

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

### 7.4.1 E.U.T. Operation

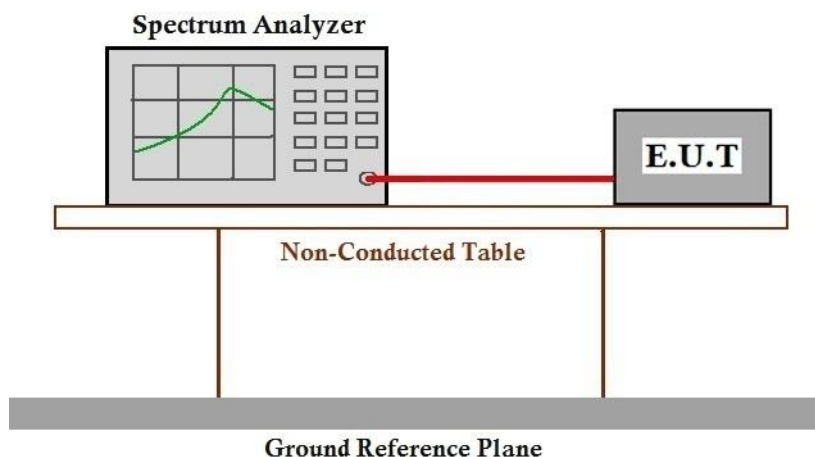
Operating Environment:  
Temperature: 23.5 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 mbar

### 7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
		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	04	
		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	05	
		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	06	
		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.
Final test	07	



### 7.4.3 Test Setup Diagram



### 7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details

## 7.5 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	$\geq 500$ kHz

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

Humidity: 53.2 % RH

Atmospheric Pressure: 1003 mbar

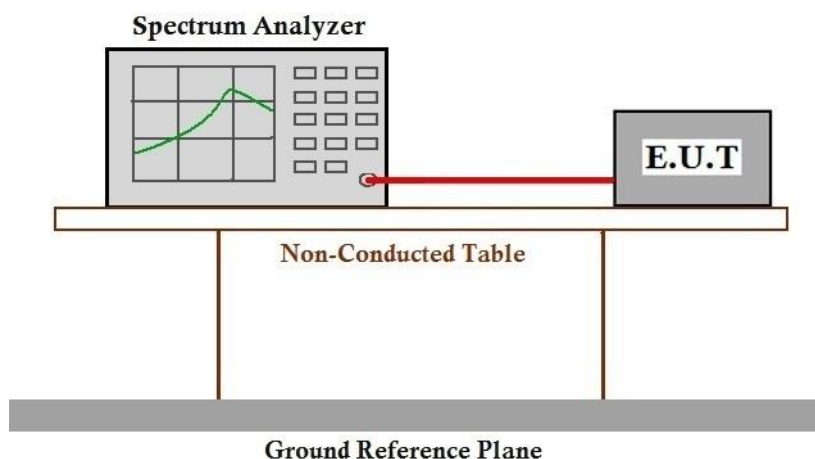
### 7.5.2 Test Mode Description

Pre-scan /	Mode	Description
Final test	Code	

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

Please Refer to Appendix for Details



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**7.6 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:	<p>* Where B is the 26dB emission bandwidth in MHz.</p> <p>The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.</p>

**7.6.1 E.U.T. Operation**

Operating Environment:

Temperature: 23.5 °C

Humidity: 53.2 % RH

Atmospheric Pressure: 1003 mbar

**7.6.2 Test Mode Description**

**Pre-scan /** Mode  
**Final test** 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



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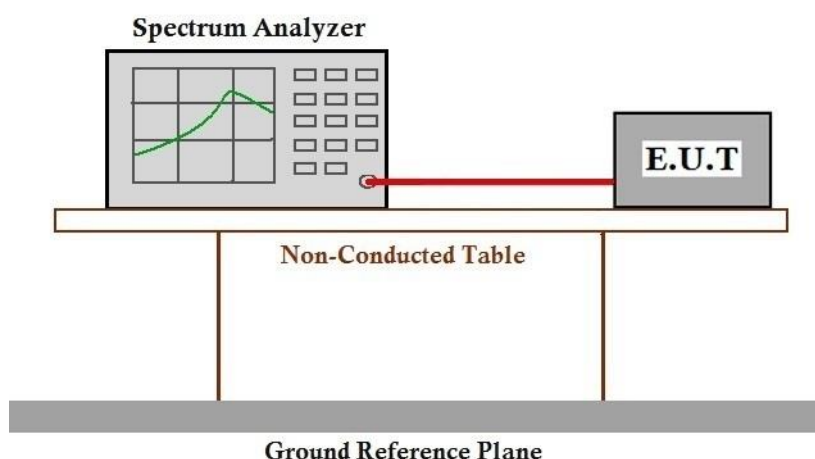
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Final test 07

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.

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 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.

**7.7.1 E.U.T. Operation**

Operating Environment:

Temperature: 23.5 °C

Humidity: 53.2 % RH

Atmospheric Pressure: 1003 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 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.



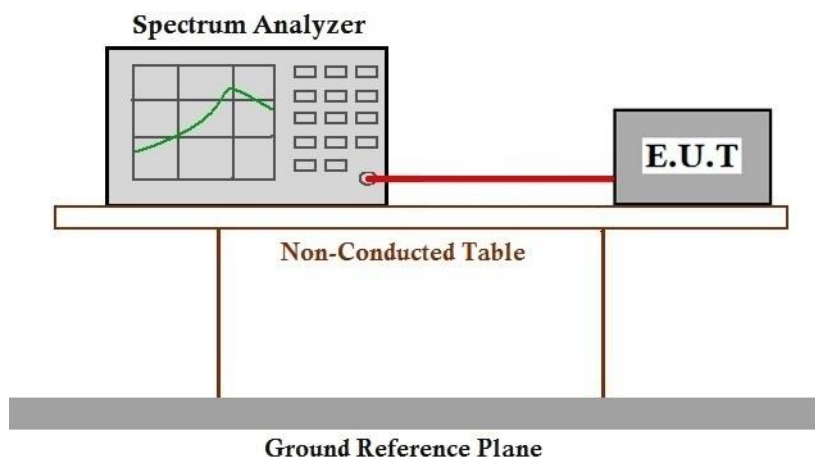
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Final test 07

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.

### 7.7.3 Test Setup Diagram



### 7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

**7.8 Radiated Emissions (below 1GHz)**

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

Test Method: KDB 789033 D02 II G

Limit:

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

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

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

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

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

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

**7.8.1 E.U.T. Operation**

Operating Environment:

Temperature: 23.5 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 mbar

**7.8.2 Test Mode Description**

Pre-scan / Mode	Description
Final test Code	

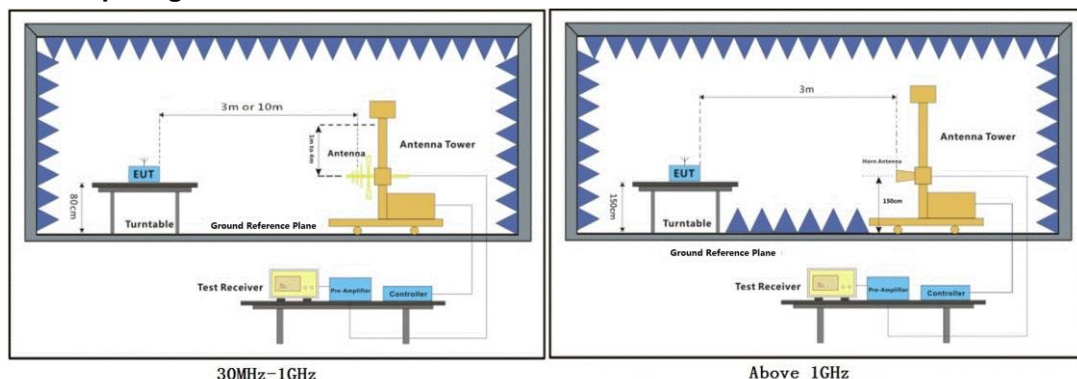


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<b>Final test</b>	<b>04</b>	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data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

### 7.8.3 Test Setup Diagram





#### 7.8.4 Measurement Procedure and Data

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 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, quasi-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:

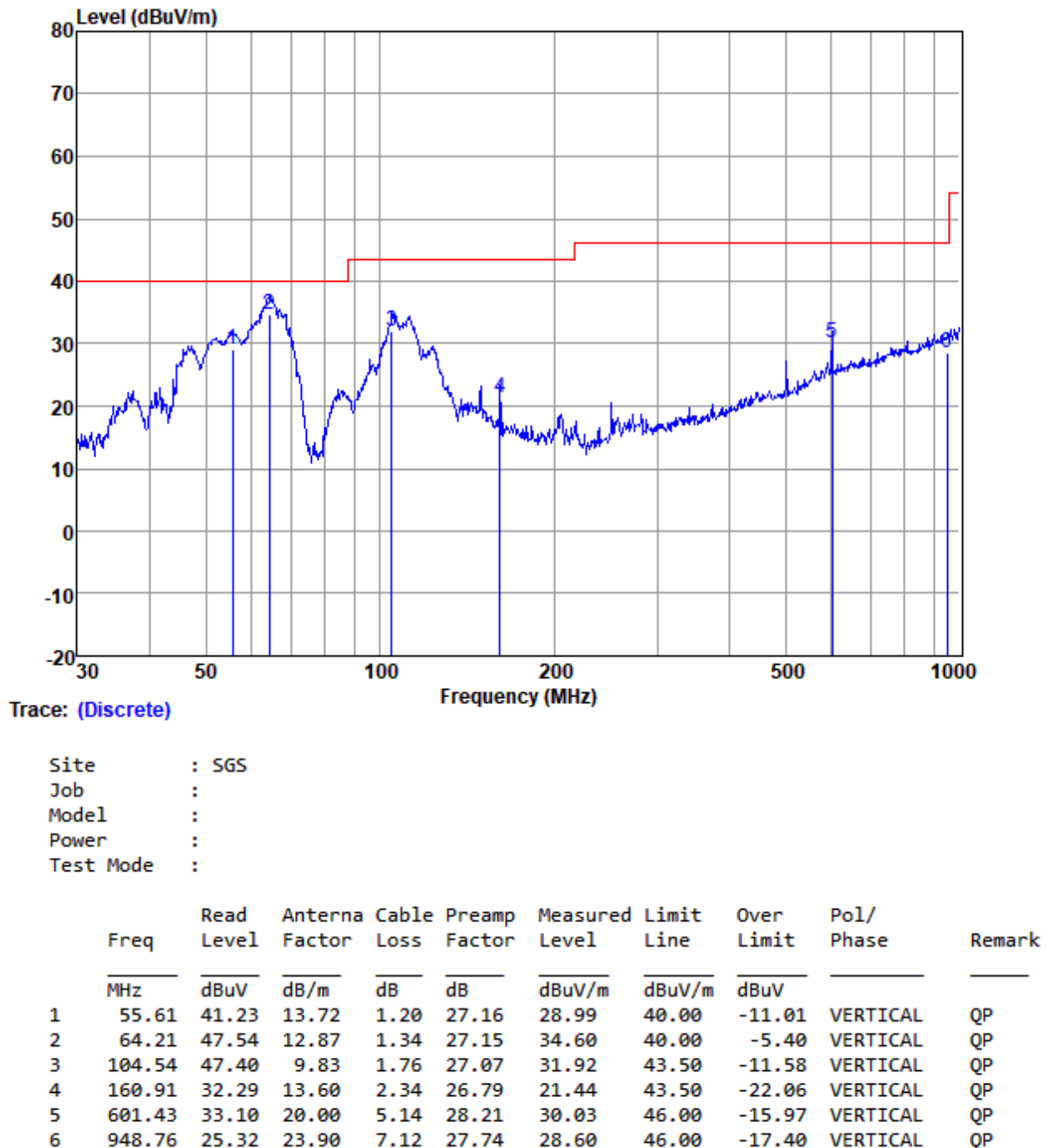
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 1GHz, the disturbance below 30MHz was very low. The points marked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



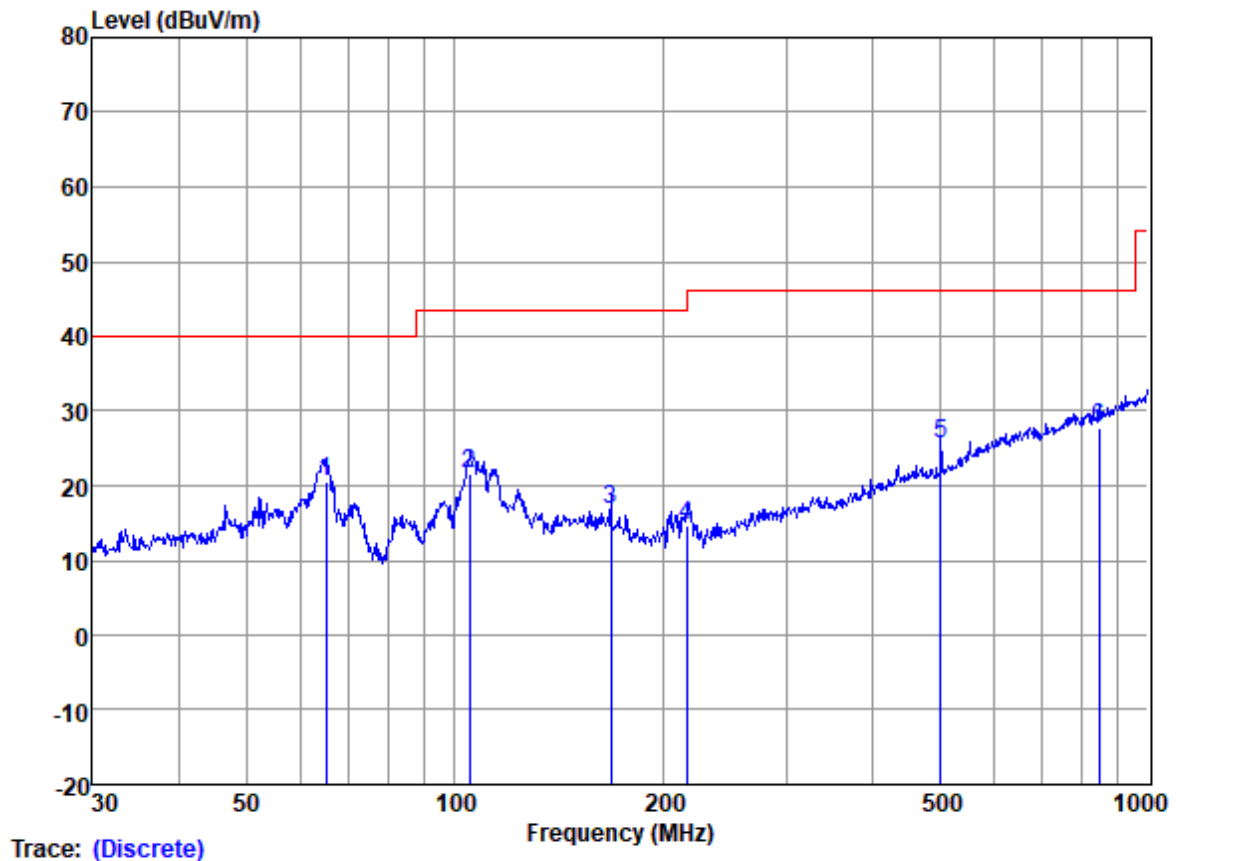
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Test Mode: 04; Polarity: Vertical



Test Mode: 04; Polarity: Horizontal



Site : SGS  
Job :  
Model :  
Power :  
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	65.11	33.60	12.71	1.35	27.15	20.51	40.00	-19.49	HORIZONTAL	QP
2	104.90	36.96	9.86	1.76	27.07	21.51	43.50	-21.99	HORIZONTAL	QP
3	167.82	27.96	13.30	2.38	26.78	16.86	43.50	-26.64	HORIZONTAL	QP
4	216.02	28.83	9.80	2.62	26.71	14.54	46.00	-31.46	HORIZONTAL	QP
5	501.18	31.18	17.93	4.43	27.98	25.56	46.00	-20.44	HORIZONTAL	QP
6	848.06	26.41	22.78	6.55	27.94	27.80	46.00	-18.20	HORIZONTAL	QP

**7.9 Radiated Emissions which fall in the restricted bands**

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

Test Method: KDB 789033 D02 II G

Limit:

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

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

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

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

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

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

**7.9.1 E.U.T. Operation**

Operating Environment:

Temperature: 23.5 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 mbar

**7.9.2 Test Mode Description**

Pre-scan / Mode	Description
Final test Code	



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### 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.

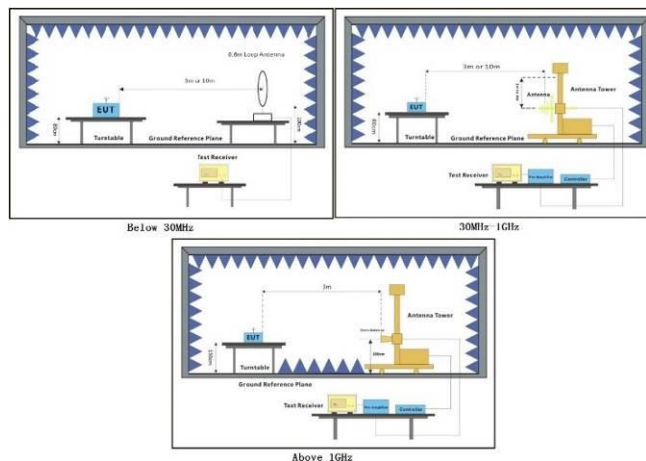
### Final test 06

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.

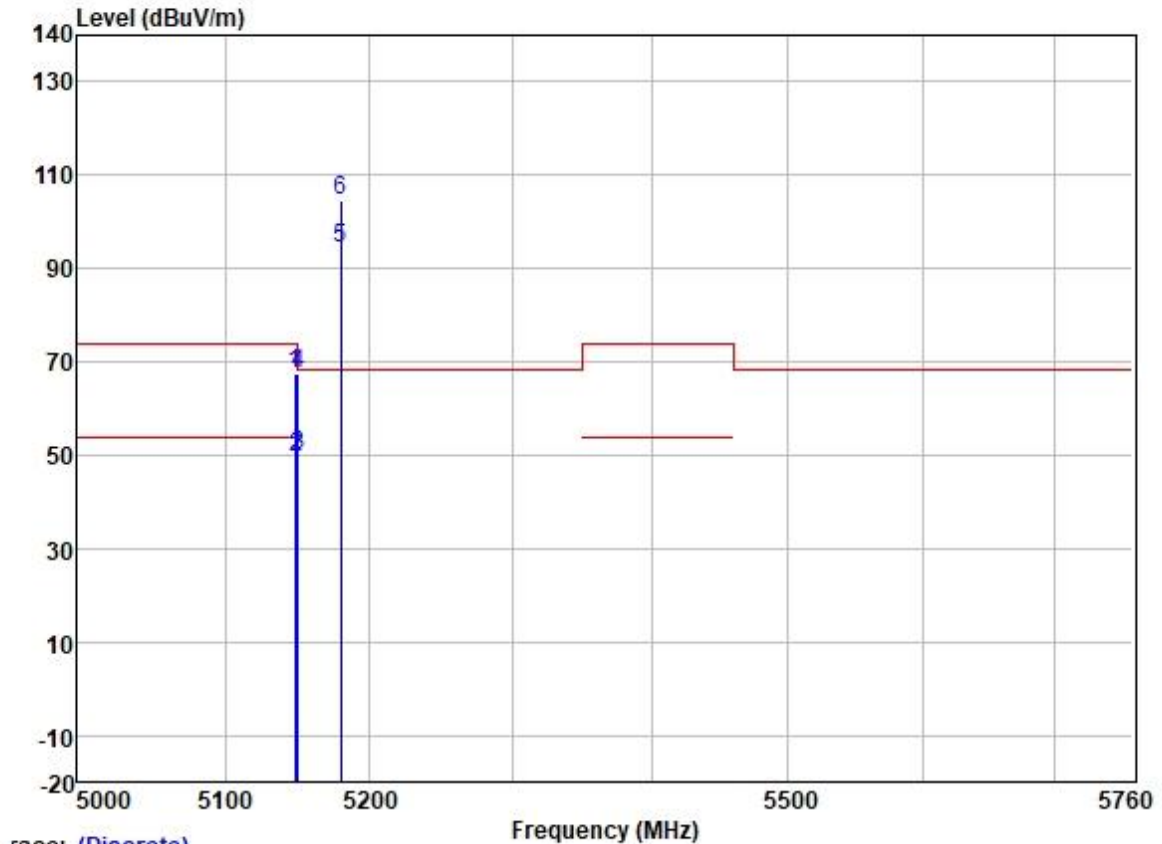
### 7.9.3 Test Setup Diagram



#### 7.9.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
  - b. 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.
  - c. 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.
  - d. 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.
  - e. 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.
  - f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
  - g. 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.
  - h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
  - i. 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.
  - j. Repeat above procedures until all frequencies measured was complete.
- Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

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

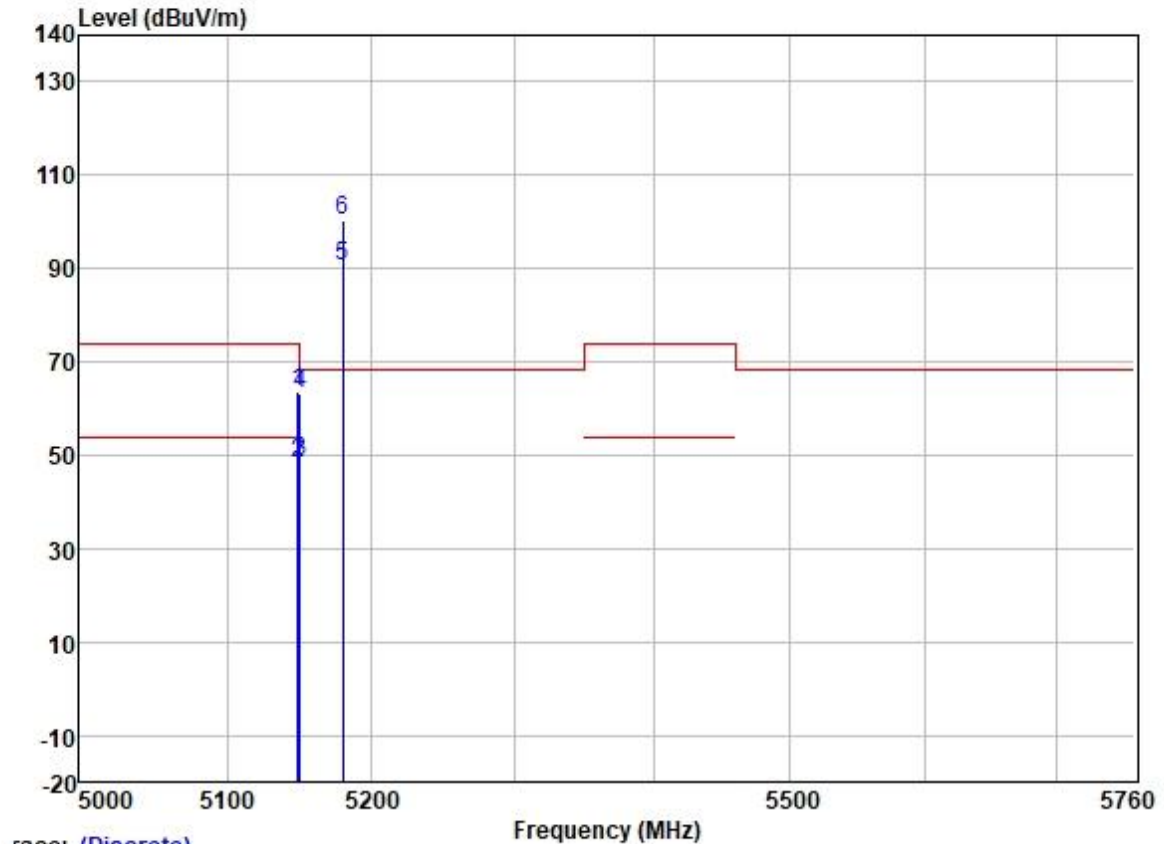


Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5148.058	67.16	31.72	5.62	36.86	67.64	74.00	-6.36	HORIZONTAL	Peak
2	5149.357	49.15	31.72	5.62	36.86	49.63	54.00	-4.37	HORIZONTAL	Average
3	5149.980	49.54	31.72	5.62	36.86	50.02	54.00	-3.98	HORIZONTAL	Average
4	5149.980	66.87	31.72	5.62	36.86	67.35	74.00	-6.65	HORIZONTAL	Peak
5	5180.000	94.04	31.73	5.61	36.87	94.51	-----	-----	HORIZONTAL	Average
6 *	5180.000	104.26	31.73	5.61	36.87	104.73	68.20	36.53	HORIZONTAL	Peak



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

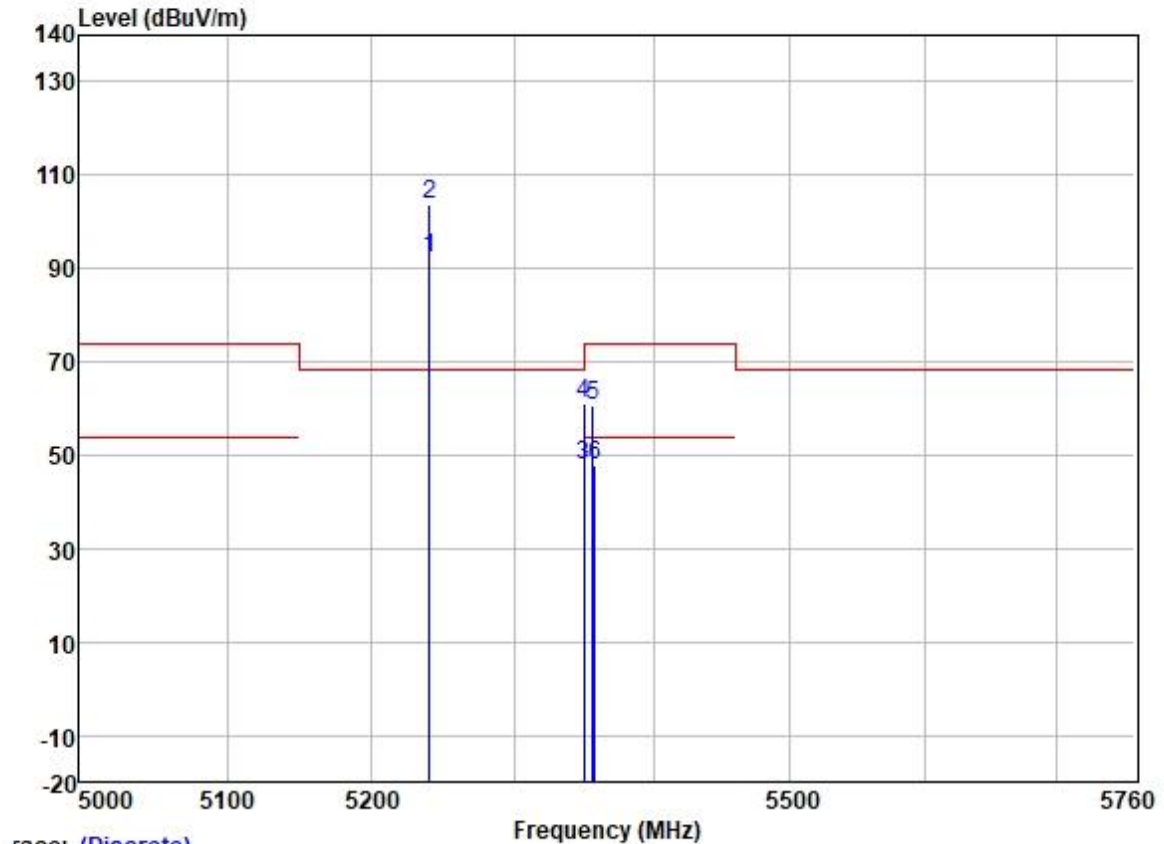


race: (Discrete)

	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	5148.458	63.04	31.72	5.62	36.86	63.52	74.00	-10.48	VERTICAL
2	5149.257	47.87	31.72	5.62	36.86	48.35	54.00	-5.65	VERTICAL
3	5149.980	48.07	31.72	5.62	36.86	48.55	54.00	-5.45	VERTICAL
4	5149.980	62.52	31.72	5.62	36.86	63.00	74.00	-11.00	VERTICAL
5	5180.000	90.11	31.73	5.61	36.87	90.58	-----	-----	VERTICAL
6 *	5180.000	99.64	31.73	5.61	36.87	100.11	68.20	31.91	VERTICAL

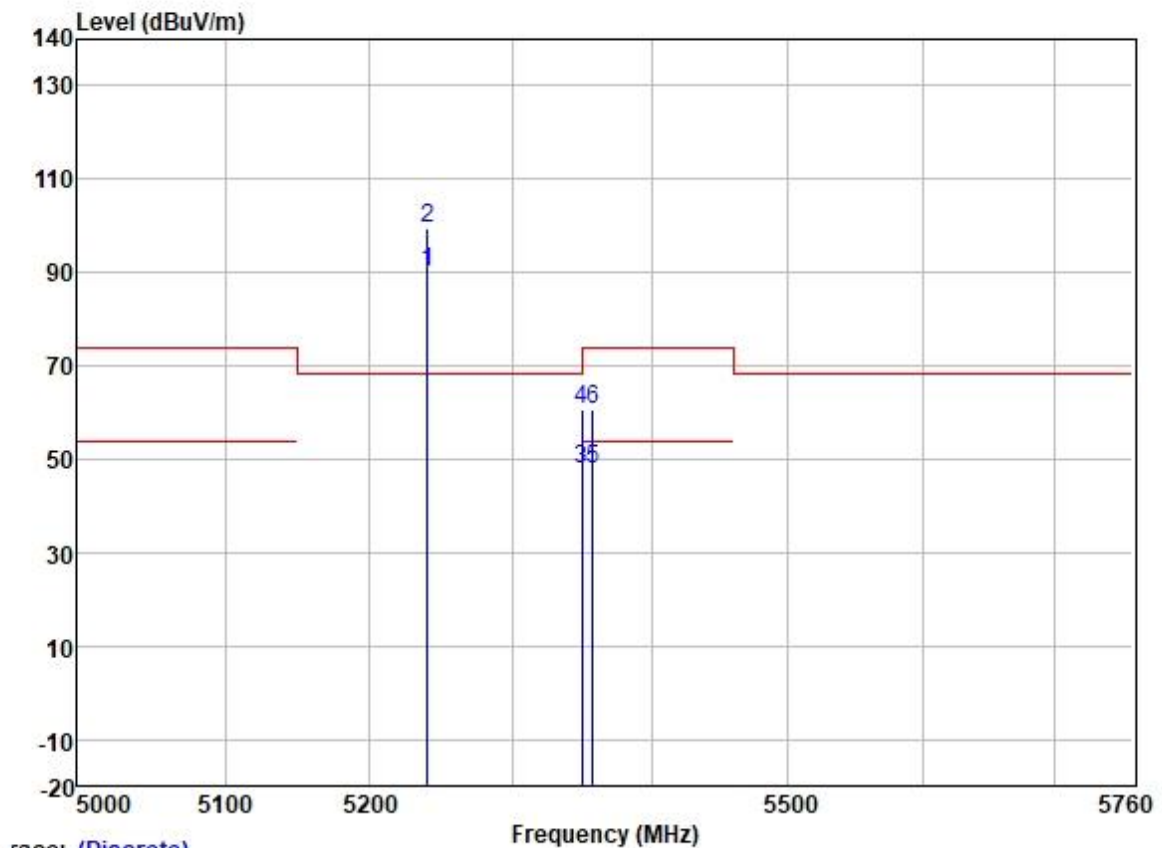


Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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	5240.000	91.52	31.75	5.74	36.87	92.14	-----	-----	HORIZONTAL Average
2 *	5240.000	103.03	31.75	5.74	36.87	103.65	68.20	35.45	HORIZONTAL Peak
3	5350.020	47.07	31.77	6.05	36.88	48.01	54.00	-5.99	HORIZONTAL Average
4	5350.020	60.13	31.77	6.05	36.88	61.07	74.00	-12.93	HORIZONTAL Peak
5	5356.313	59.87	31.78	6.03	36.88	60.80	74.00	-13.20	HORIZONTAL Peak
6	5357.589	47.12	31.78	6.03	36.88	48.05	54.00	-5.95	HORIZONTAL Average

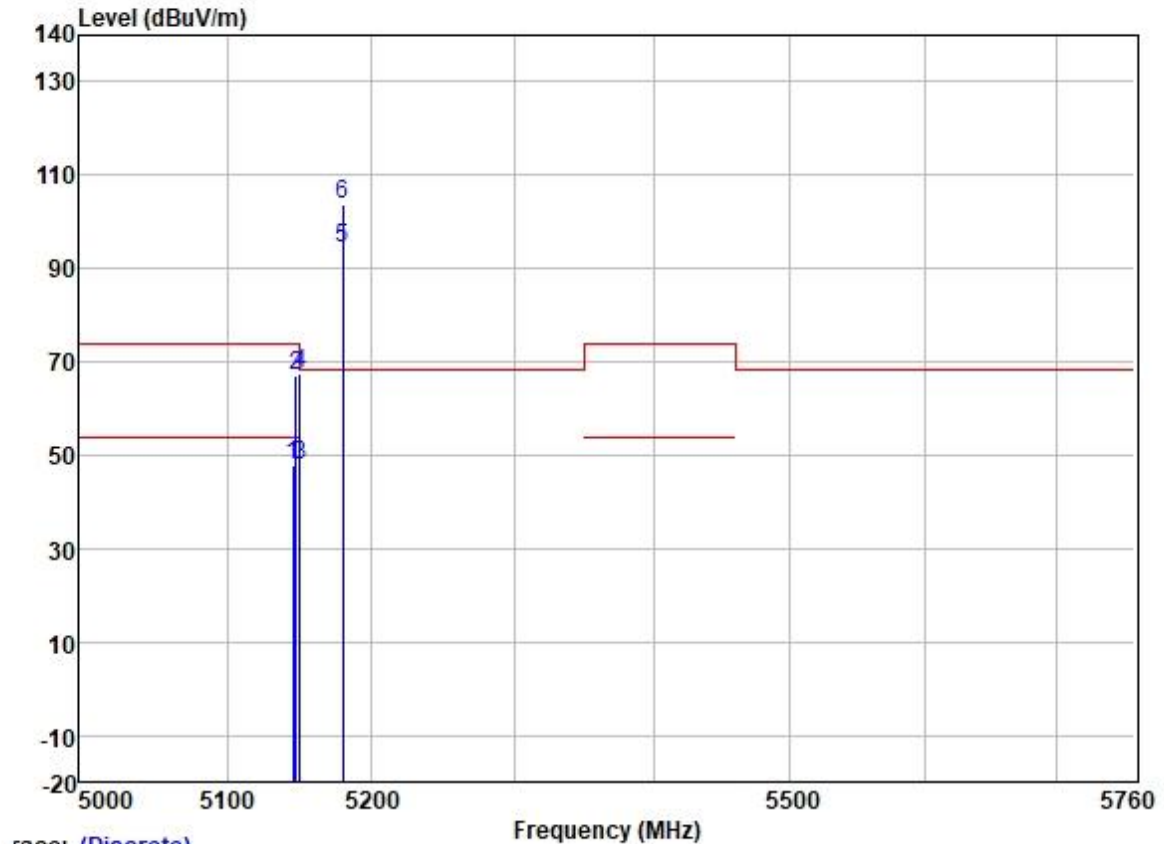
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	5240.000	89.45	31.75	5.74	36.87	90.07	-----	-----	VERTICAL Average
2 *	5240.000	98.74	31.75	5.74	36.87	99.36	68.20	31.16	VERTICAL Peak
3	5350.020	46.98	31.77	6.05	36.88	47.92	54.00	-6.08	VERTICAL Average
4	5350.020	59.75	31.77	6.05	36.88	60.69	74.00	-13.31	VERTICAL Peak
5	5357.589	47.05	31.78	6.03	36.88	47.98	54.00	-6.02	VERTICAL Average
6	5357.589	59.83	31.78	6.03	36.88	60.76	74.00	-13.24	VERTICAL Peak

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

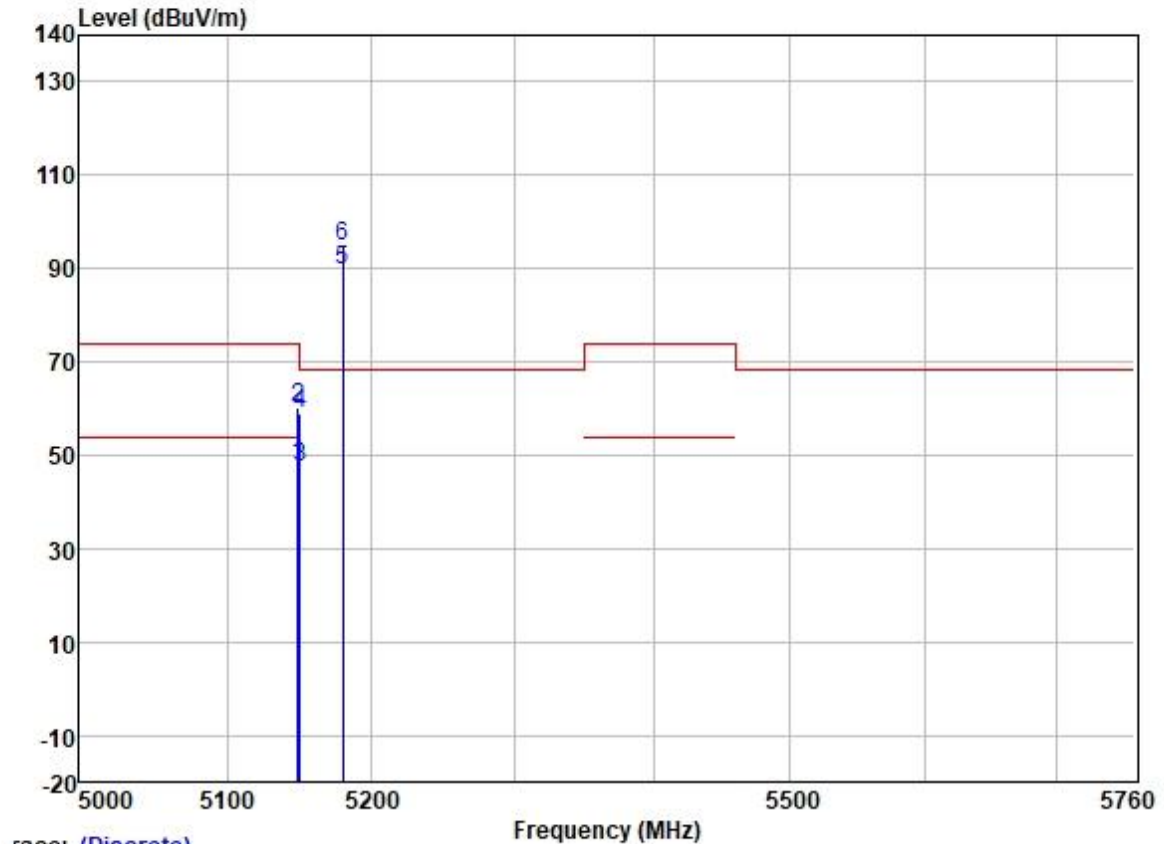


race: (Discrete)

	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	5145.060	47.43	31.72	5.62	36.86	47.91	54.00	-6.09	HORIZONTAL Average
2	5147.358	66.42	31.72	5.62	36.86	66.90	74.00	-7.10	HORIZONTAL Peak
3	5149.980	47.40	31.72	5.62	36.86	47.88	54.00	-6.12	HORIZONTAL Average
4	5149.980	66.86	31.72	5.62	36.86	67.34	74.00	-6.66	HORIZONTAL Peak
5	5180.000	93.67	31.73	5.61	36.87	94.14	-----	-----	HORIZONTAL Average
6 *	5180.000	103.21	31.73	5.61	36.87	103.68	68.20	35.48	HORIZONTAL Peak



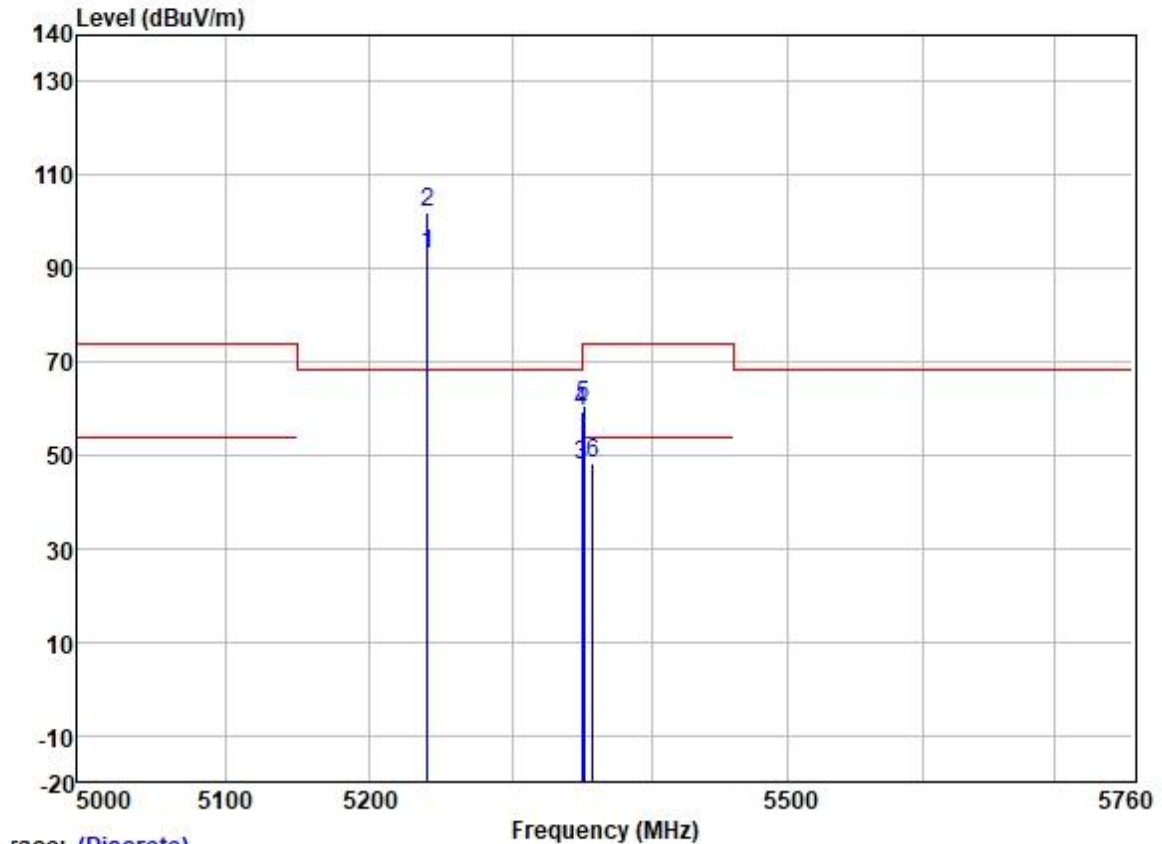
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5148.458	47.17	31.72	5.62	36.86	47.65	54.00	-6.35	VERTICAL	Average
2	5148.458	59.62	31.72	5.62	36.86	60.10	74.00	-13.90	VERTICAL	Peak
3	5149.980	47.11	31.72	5.62	36.86	47.59	54.00	-6.41	VERTICAL	Average
4	5149.980	58.53	31.72	5.62	36.86	59.01	74.00	-14.99	VERTICAL	Peak
5	5180.000	89.38	31.73	5.61	36.87	89.85	-----	-----	VERTICAL	Average
6 *	5180.000	94.41	31.73	5.61	36.87	94.88	68.20	26.68	VERTICAL	Peak

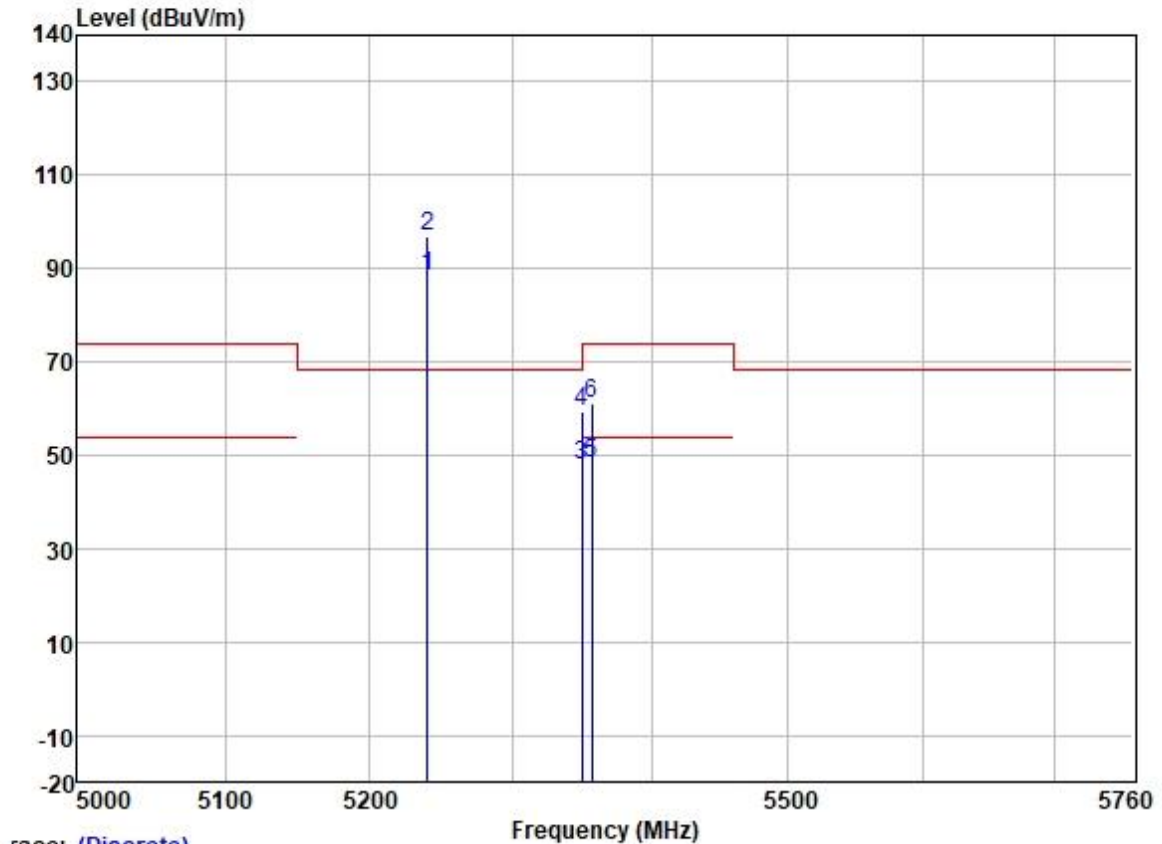


Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



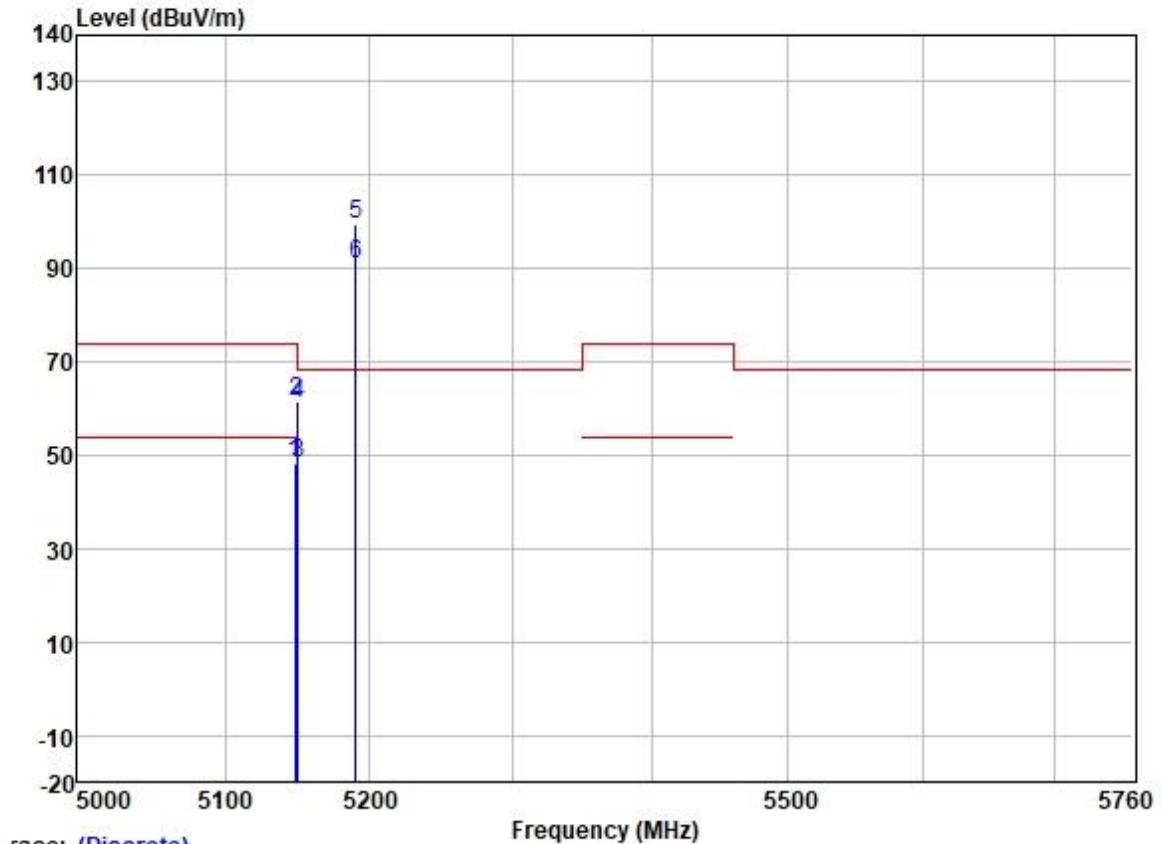
Race: (Discrete)	Frequency (MHz)									
	Freq	ReadAntenna	Cable	Preamp		Limit	Over	Pol/Phase	Remark	
		Level	Factor	Loss	Factor	Level	Line			Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5240.000	92.60	31.75	5.74	36.87	93.22	-----	-----	HORIZONTAL	Average
2 *	5240.000	101.58	31.75	5.74	36.87	102.20	68.20	34.00	HORIZONTAL	Peak
3	5350.020	46.96	31.77	6.05	36.88	47.90	54.00	-6.10	HORIZONTAL	Average
4	5350.020	58.27	31.77	6.05	36.88	59.21	74.00	-14.79	HORIZONTAL	Peak
5	5350.929	59.70	31.77	6.05	36.88	60.64	74.00	-13.36	HORIZONTAL	Peak
6	5357.730	47.38	31.78	6.03	36.88	48.31	54.00	-5.69	HORIZONTAL	Average

Test Mode: 04; Polarity: Vertical; Modulation:802.11n; 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	5240.000	87.60	31.75	5.74	36.87	88.22	-----	-----	VERTICAL Average
2 *	5240.000	96.13	31.75	5.74	36.87	96.75	68.20	28.55	VERTICAL Peak
3	5350.020	47.08	31.77	6.05	36.88	48.02	54.00	-5.98	VERTICAL Average
4	5350.020	58.44	31.77	6.05	36.88	59.38	74.00	-14.62	VERTICAL Peak
5	5356.596	47.27	31.78	6.03	36.88	48.20	54.00	-5.80	VERTICAL Average
6	5357.022	60.07	31.78	6.03	36.88	61.00	74.00	-13.00	VERTICAL Peak

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

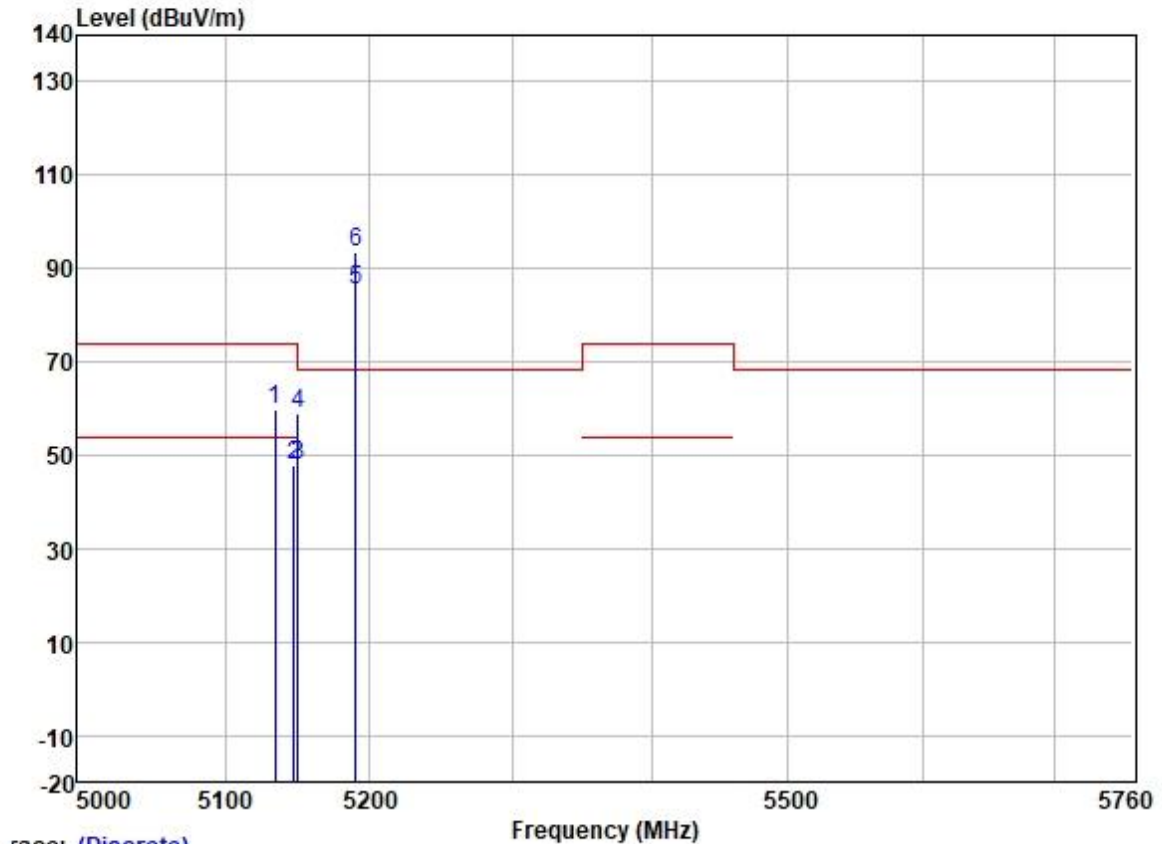


race: (Discrete)

	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	5148.264	47.87	31.72	5.62	36.86	48.35	74.00	-25.65	HORIZONTAL Peak
2	5149.222	61.13	31.72	5.62	36.86	61.61	74.00	-12.39	HORIZONTAL Peak
3	5149.940	47.92	31.72	5.62	36.86	48.40	74.00	-25.60	HORIZONTAL Peak
4	5149.980	60.68	31.72	5.62	36.86	61.16	74.00	-12.84	HORIZONTAL Peak
5 *	5190.000	98.99	31.73	5.60	36.87	99.45	68.20	31.25	HORIZONTAL Peak
6 *	5190.000	90.39	31.73	5.60	36.87	90.85	68.20	22.65	HORIZONTAL Peak



Test Mode: 04; 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	5134.394	59.38	31.72	5.63	36.86	59.87	74.00	-14.13	VERTICAL Peak
2	5147.187	47.50	31.72	5.62	36.86	47.98	54.00	-6.02	VERTICAL Average
3	5149.980	47.21	31.72	5.62	36.86	47.69	54.00	-6.31	VERTICAL Average
4	5149.980	58.32	31.72	5.62	36.86	58.80	74.00	-15.20	VERTICAL Peak
5	5190.000	84.74	31.73	5.60	36.87	85.20	-----	-----	VERTICAL Average
6 *	5190.000	93.11	31.73	5.60	36.87	93.57	68.20	25.37	VERTICAL Peak

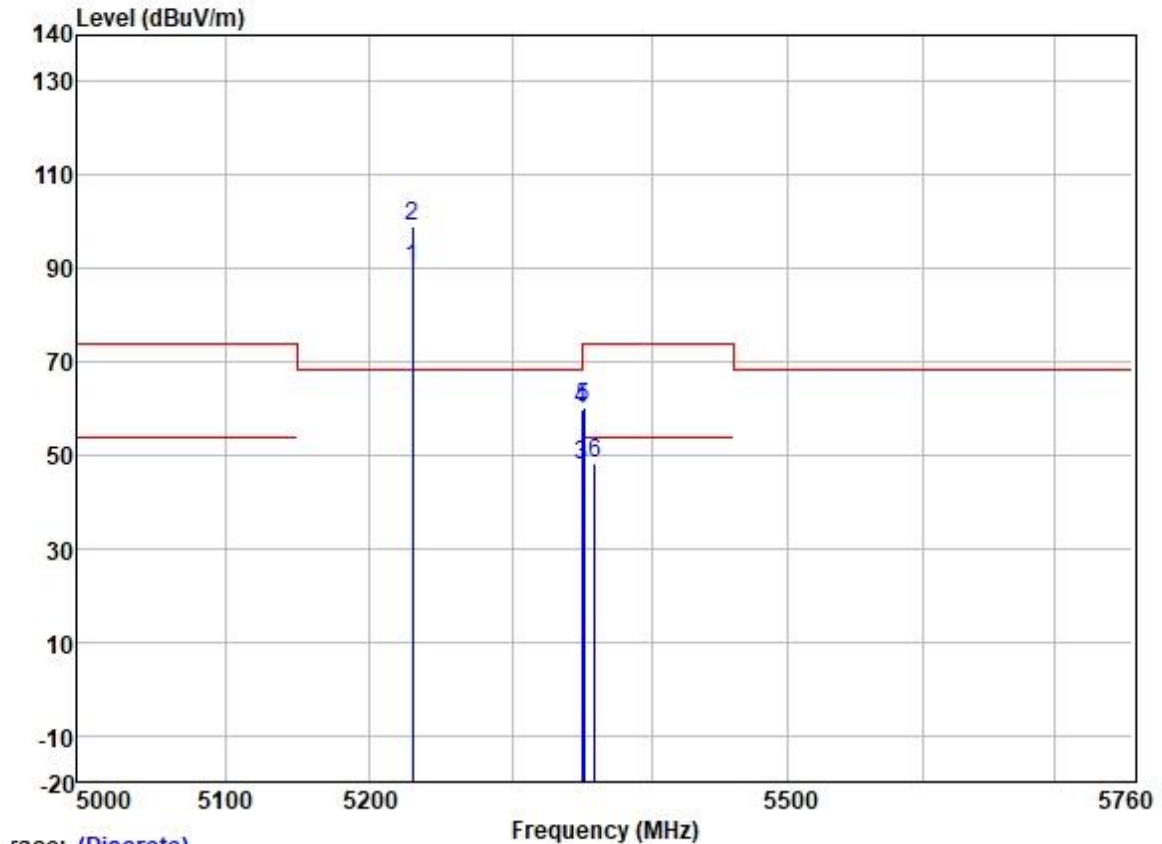


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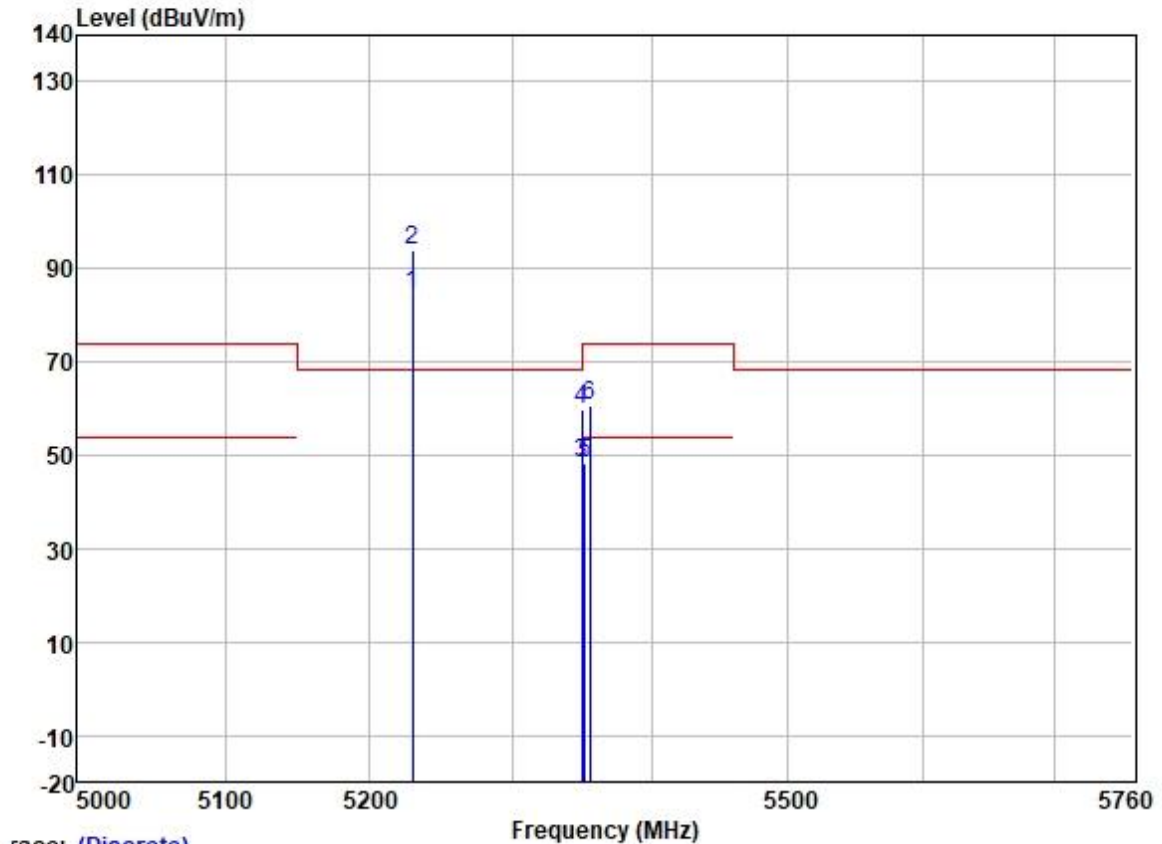
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

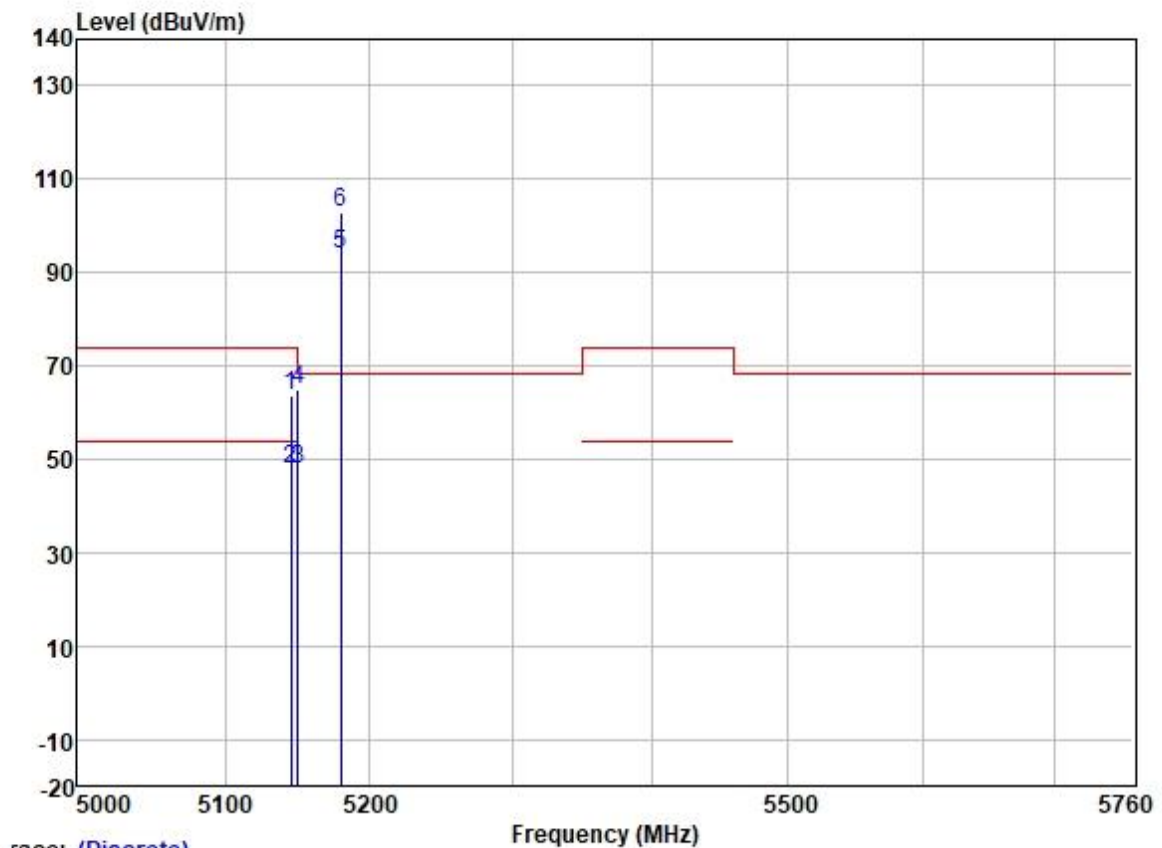
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5230.000	89.52	31.74	5.70	36.87	90.09	-----	-----	HORIZONTAL Average
2 *	5230.000	98.58	31.74	5.70	36.87	99.15	68.20	30.95	HORIZONTAL Peak
3	5350.020	47.01	31.77	6.05	36.88	47.95	54.00	-6.05	HORIZONTAL Average
4	5350.020	58.80	31.77	6.05	36.88	59.74	74.00	-14.26	HORIZONTAL Peak
5	5351.235	59.47	31.77	6.05	36.88	60.41	74.00	-13.59	HORIZONTAL Peak
6	5359.350	47.24	31.78	6.03	36.88	48.17	54.00	-5.83	HORIZONTAL Average

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



race: (Discrete)	Frequency (MHz)									
	Freq	ReadAntenna	Cable	Preamp		Limit	Over	Pol/Phase	Remark	
		Level	Factor	Loss	Factor	Level	Line			Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5230.000	84.01	31.74	5.70	36.87	84.58	-----	-----	VERTICAL	Average
2 *	5230.000	93.21	31.74	5.70	36.87	93.78	68.20	25.58	VERTICAL	Peak
3	5350.020	47.14	31.77	6.05	36.88	48.08	54.00	-5.92	VERTICAL	Average
4	5350.020	58.79	31.77	6.05	36.88	59.73	74.00	-14.27	VERTICAL	Peak
5	5351.884	47.25	31.77	6.05	36.88	48.19	54.00	-5.81	VERTICAL	Average
6	5355.292	59.68	31.78	6.03	36.88	60.61	74.00	-13.39	VERTICAL	Peak

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

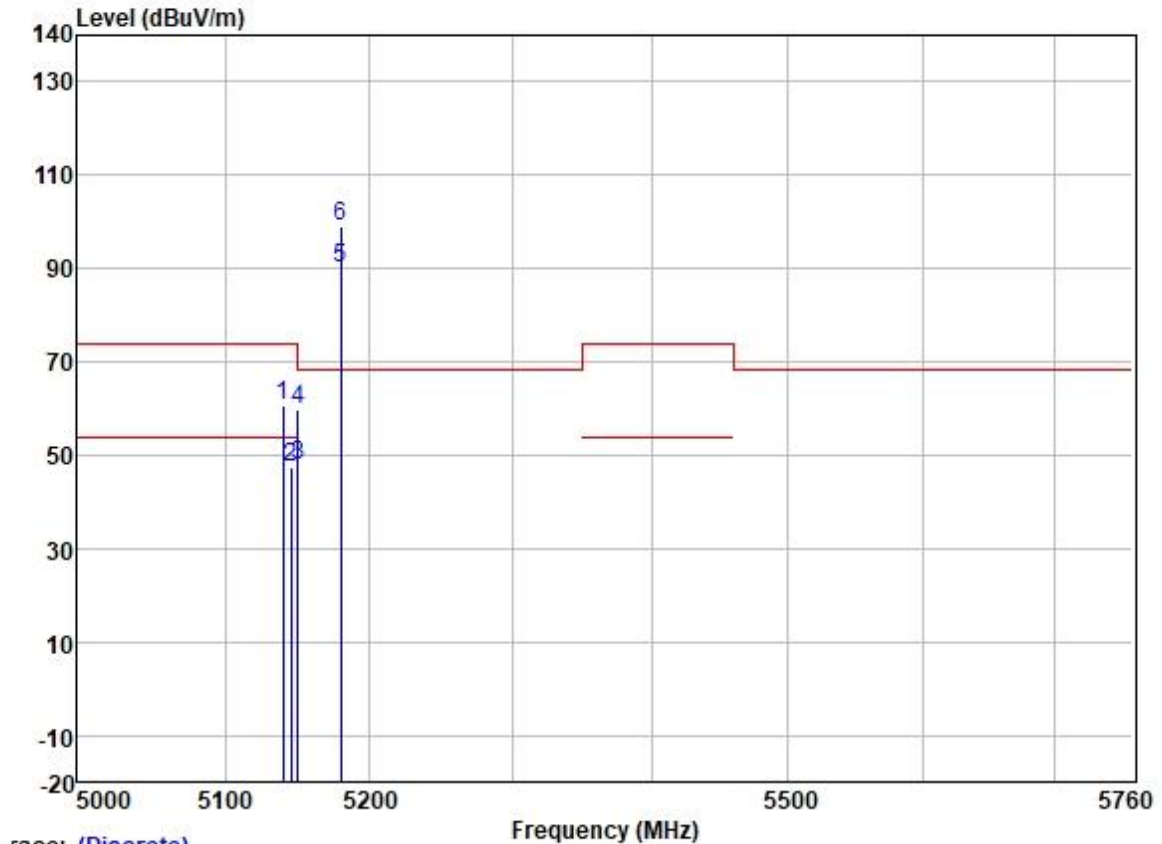


race: (Discrete)

	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	5144.959	63.04	31.72	5.62	36.86	63.52	74.00	-10.48	HORIZONTAL Peak
2	5145.459	47.23	31.72	5.62	36.86	47.71	54.00	-6.29	HORIZONTAL Average
3	5149.980	47.18	31.72	5.62	36.86	47.66	54.00	-6.34	HORIZONTAL Average
4	5149.980	64.26	31.72	5.62	36.86	64.74	74.00	-9.26	HORIZONTAL Peak
5	5180.000	93.33	31.73	5.61	36.87	93.80	-----	-----	HORIZONTAL Average
6 *	5180.000	102.54	31.73	5.61	36.87	103.01	68.20	34.81	HORIZONTAL Peak



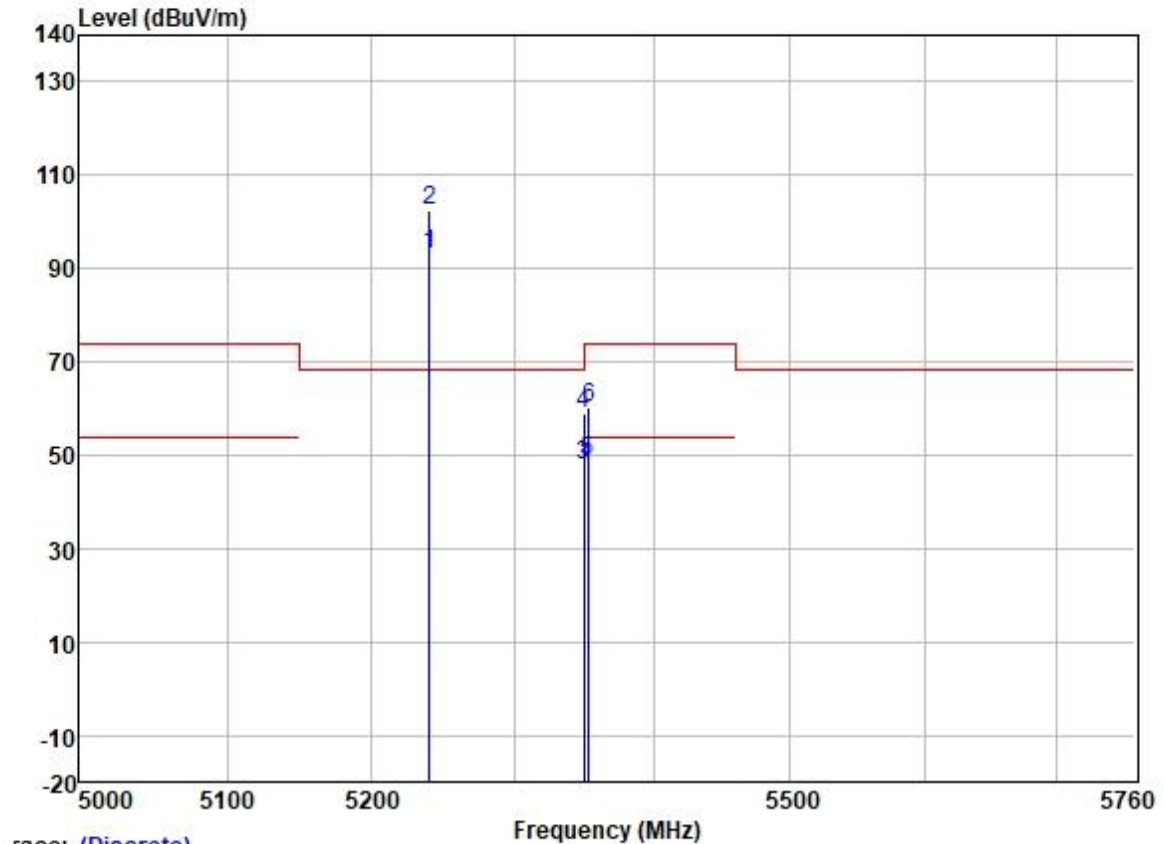
Test Mode: 04; Polarity: Vertical; Modulation: 802.11ac; Bandwidth: 20MHz; Channel: Low



	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	5139.867	60.25	31.72	5.63	36.86	60.74	74.00	-13.26	VERTICAL
2	5145.159	47.09	31.72	5.62	36.86	47.57	54.00	-6.43	VERTICAL
3	5149.980	47.22	31.72	5.62	36.86	47.70	54.00	-6.30	VERTICAL
4	5149.980	59.22	31.72	5.62	36.86	59.70	74.00	-14.30	VERTICAL
5	5180.000	89.56	31.73	5.61	36.87	90.03	-----	-----	VERTICAL
6 *	5180.000	98.39	31.73	5.61	36.87	98.86	68.20	30.66	VERTICAL

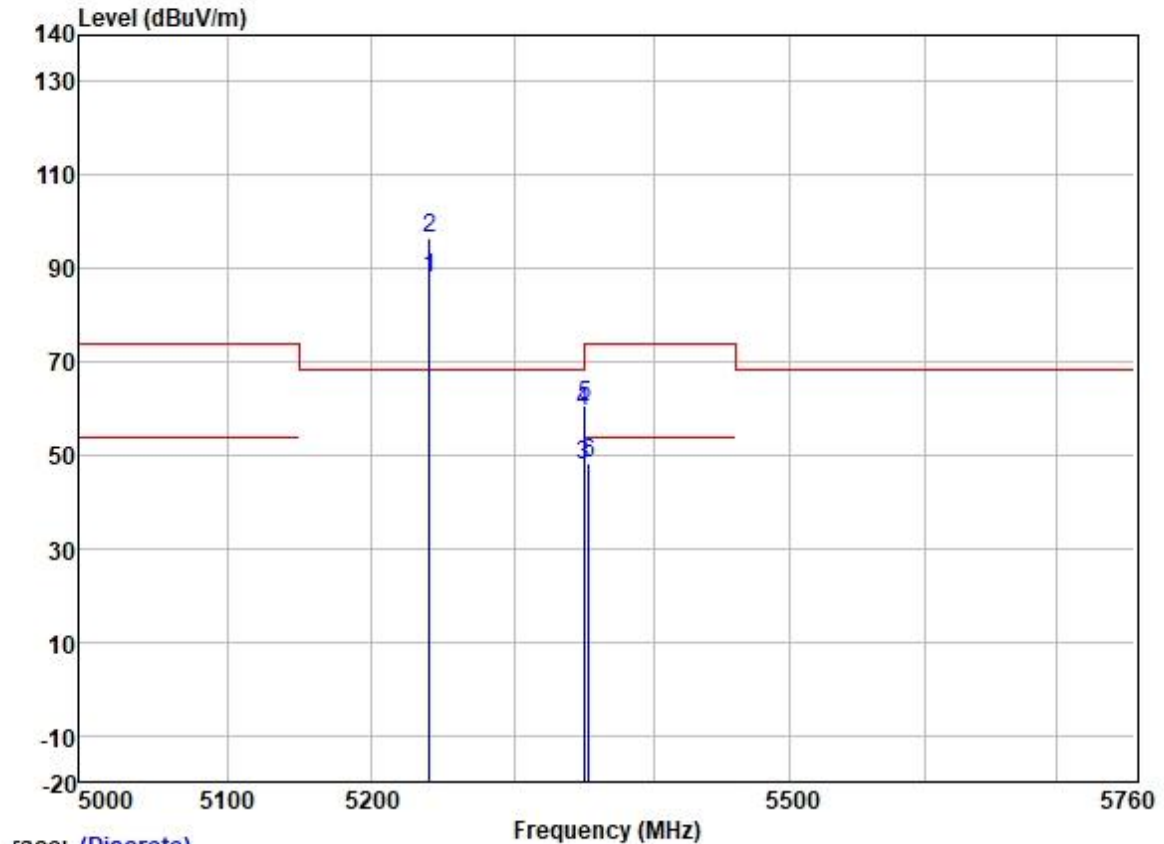


Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



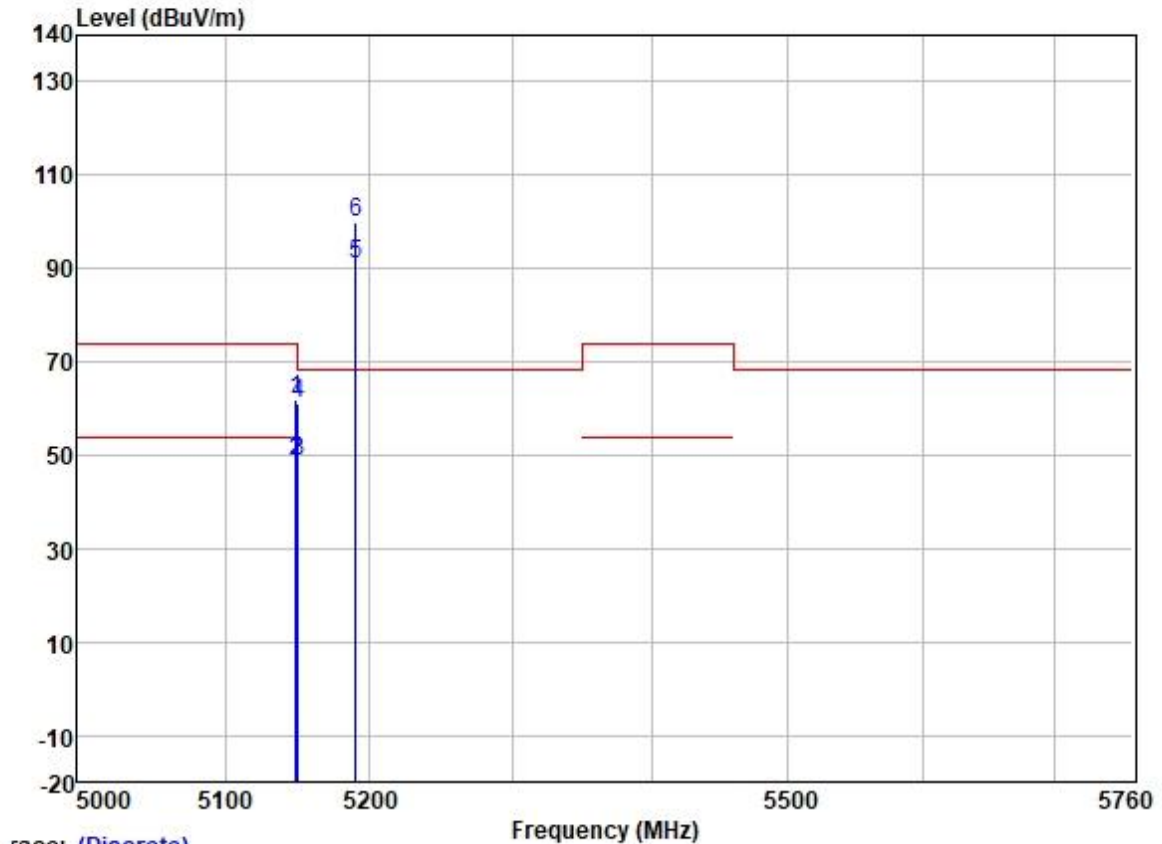
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5240.000	92.48	31.75	5.74	36.87	93.10	-----	-----	HORIZONTAL Average
2 *	5240.000	101.80	31.75	5.74	36.87	102.42	68.20	34.22	HORIZONTAL Peak
3	5350.020	46.92	31.77	6.05	36.88	47.86	54.00	-6.14	HORIZONTAL Average
4	5350.020	58.12	31.77	6.05	36.88	59.06	74.00	-14.94	HORIZONTAL Peak
5	5352.487	47.54	31.77	6.05	36.88	48.48	54.00	-5.52	HORIZONTAL Average
6	5353.620	59.24	31.77	6.05	36.88	60.18	74.00	-13.82	HORIZONTAL Peak

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



race: (Discrete)	Frequency (MHz)									
	Freq	ReadAntenna	Cable	Preamp		Limit	Over	Pol/Phase	Remark	
		Level	Factor	Loss	Factor	Level	Line			Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5240.000	87.34	31.75	5.74	36.87	87.96	-----	-----	VERTICAL	Average
2 *	5240.000	96.01	31.75	5.74	36.87	96.63	68.20	28.43	VERTICAL	Peak
3	5350.020	47.04	31.77	6.05	36.88	47.98	54.00	-6.02	VERTICAL	Average
4	5350.020	58.54	31.77	6.05	36.88	59.48	74.00	-14.52	VERTICAL	Peak
5	5350.504	59.71	31.77	6.05	36.88	60.65	74.00	-13.35	VERTICAL	Peak
6	5353.195	47.17	31.77	6.05	36.88	48.11	54.00	-5.89	VERTICAL	Average

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

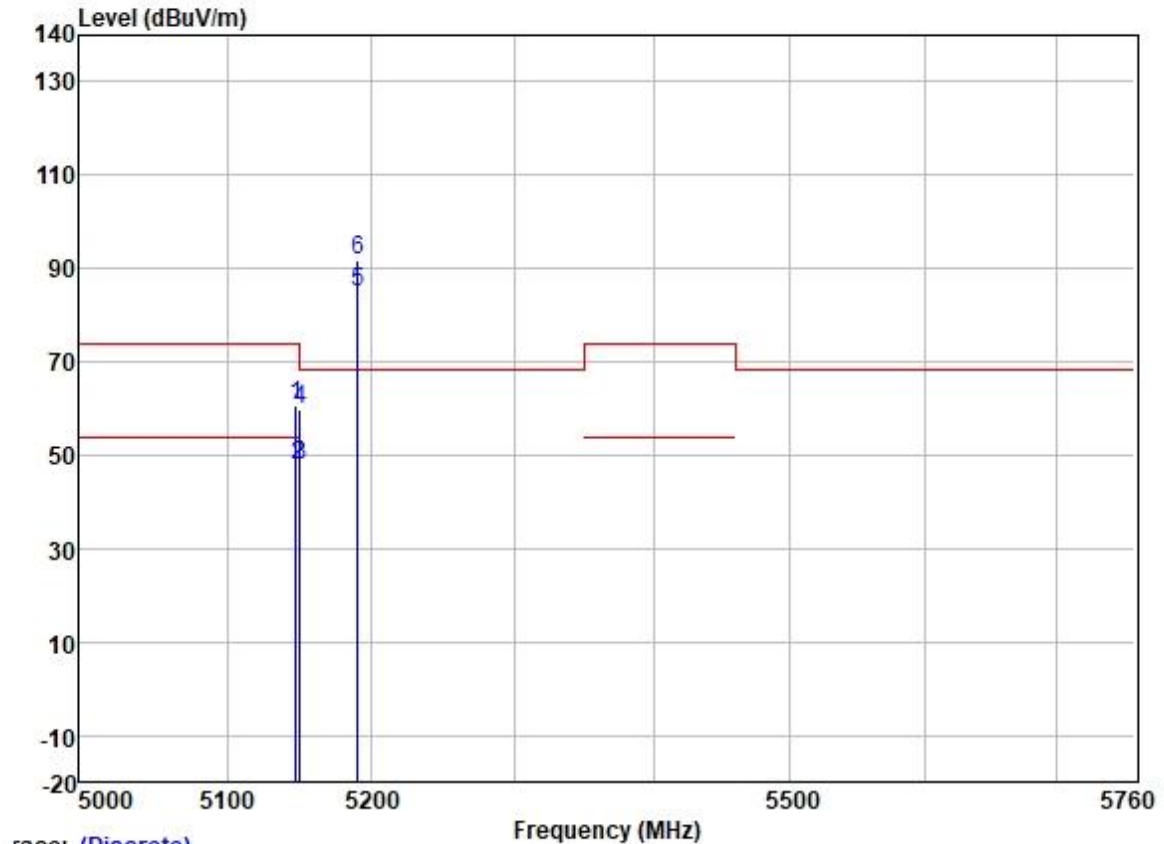


race: (Discrete)

	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	5148.743	61.64	31.72	5.62	36.86	62.12	74.00	-11.88	HORIZONTAL Peak
2	5149.342	48.32	31.72	5.62	36.86	48.80	54.00	-5.20	HORIZONTAL Average
3	5149.980	48.19	31.72	5.62	36.86	48.67	54.00	-5.33	HORIZONTAL Average
4	5149.980	60.69	31.72	5.62	36.86	61.17	74.00	-12.83	HORIZONTAL Peak
5	5190.000	90.30	31.73	5.60	36.87	90.76	-----	-----	HORIZONTAL Average
6 *	5190.000	99.37	31.73	5.60	36.87	99.83	68.20	31.63	HORIZONTAL Peak



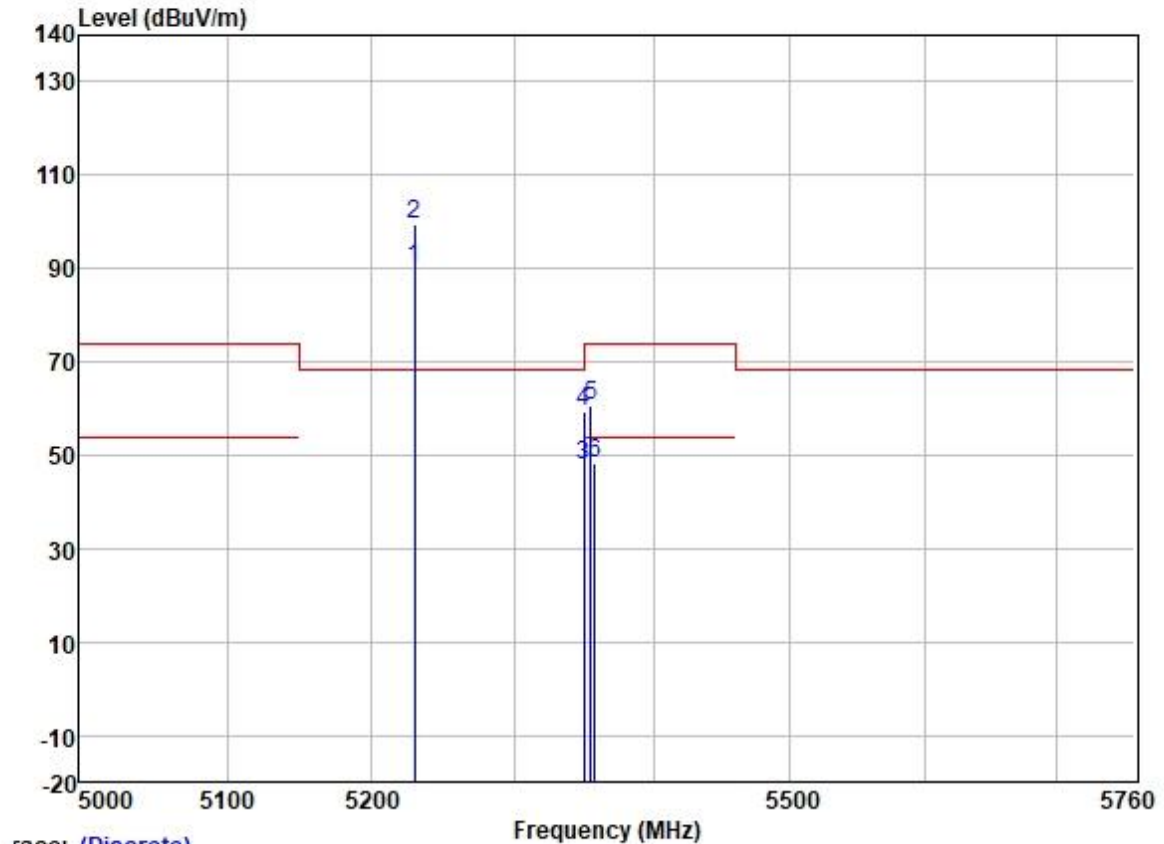
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



	Freq	Read Level	Antenna 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	5147.426	59.98	31.72	5.62	36.86	60.46	74.00	-13.54	VERTICAL	Peak
2	5149.102	47.35	31.72	5.62	36.86	47.83	54.00	-6.17	VERTICAL	Average
3	5149.980	47.19	31.72	5.62	36.86	47.67	54.00	-6.33	VERTICAL	Average
4	5149.980	59.18	31.72	5.62	36.86	59.66	74.00	-14.34	VERTICAL	Peak
5	5190.000	84.49	31.73	5.60	36.87	84.95	-----	-----	VERTICAL	Average
6 *	5190.000	91.51	31.73	5.60	36.87	91.97	68.20	23.77	VERTICAL	Peak



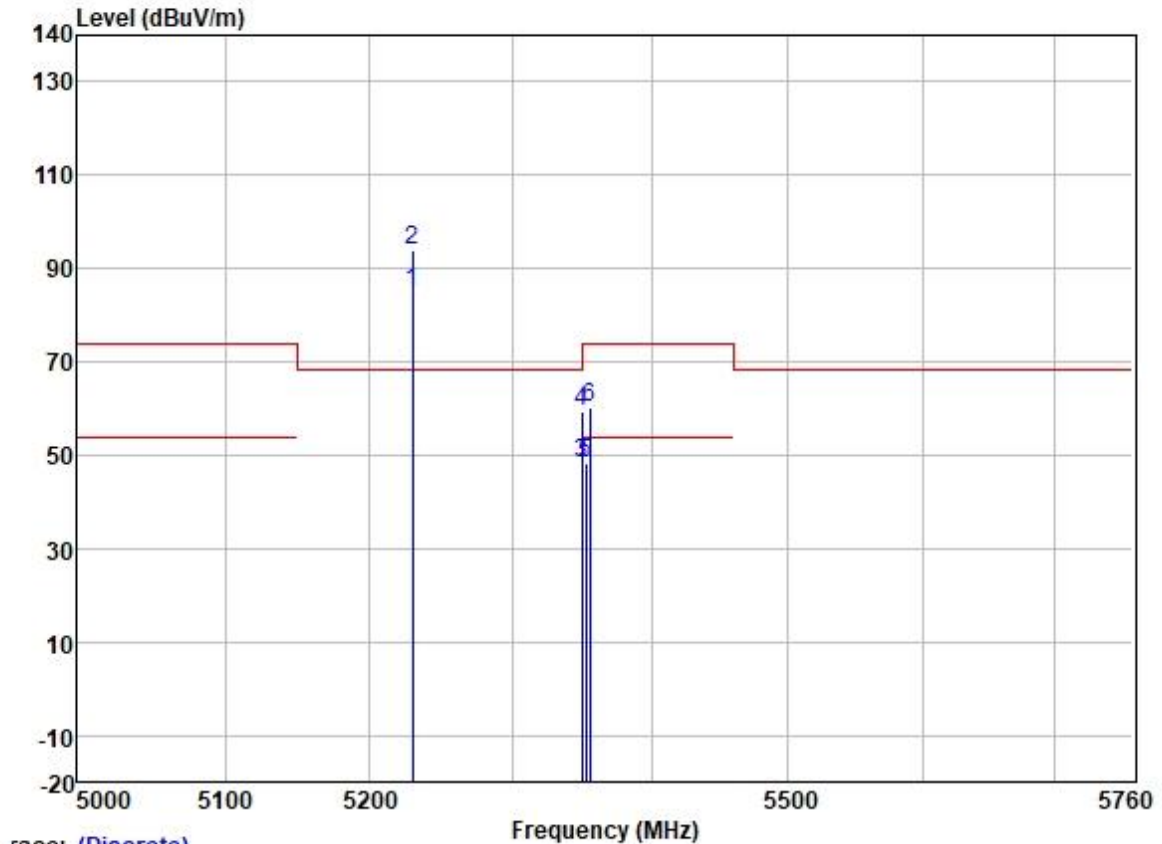
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	5230.000	89.69	31.74	5.70	36.87	90.26	-----	-----	HORIZONTAL Average
2 *	5230.000	99.06	31.74	5.70	36.87	99.63	68.20	31.43	HORIZONTAL Peak
3	5350.020	47.06	31.77	6.05	36.88	48.00	54.00	-6.00	HORIZONTAL Average
4	5350.020	58.54	31.77	6.05	36.88	59.48	74.00	-14.52	HORIZONTAL Peak
5	5354.967	59.61	31.78	6.03	36.88	60.54	74.00	-13.46	HORIZONTAL Peak
6	5357.889	47.31	31.78	6.03	36.88	48.24	54.00	-5.76	HORIZONTAL Average

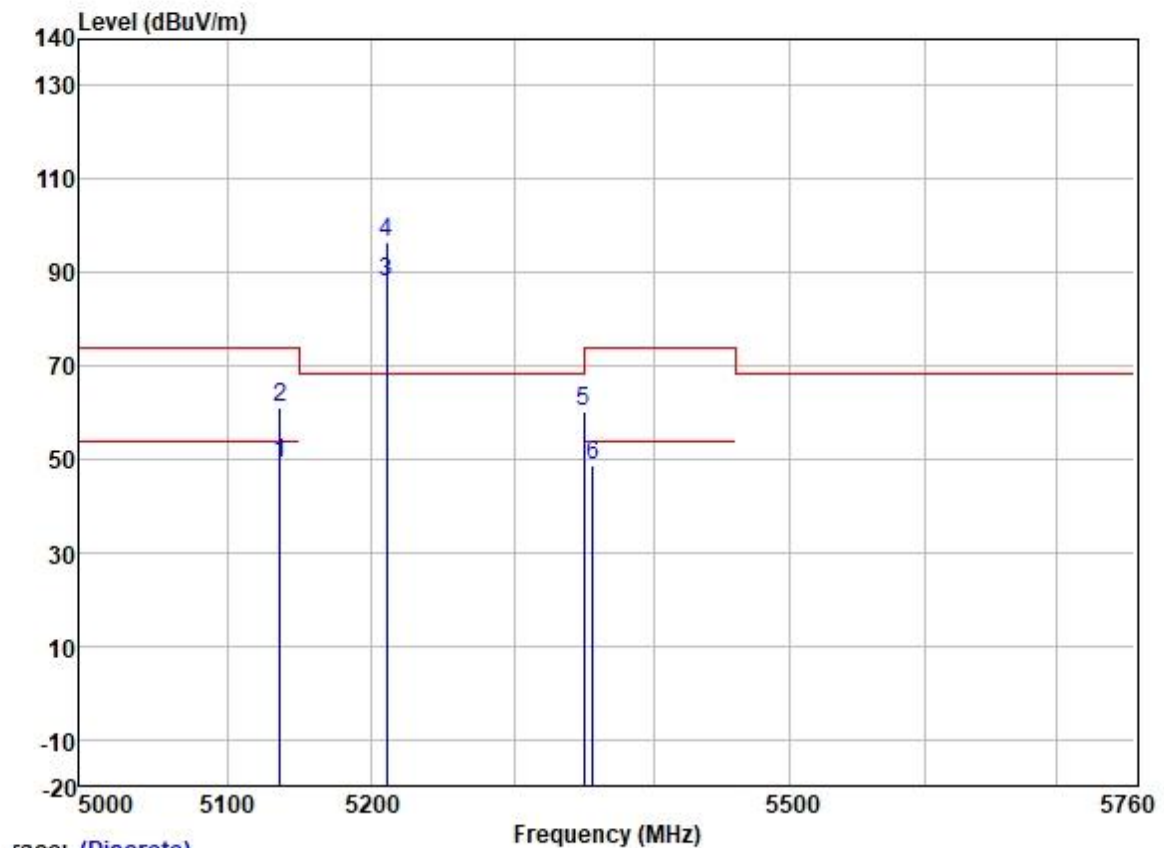
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (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	5230.000	84.42	31.74	5.70	36.87	84.99	-----	VERTICAL	Average
2 *	5230.000	93.16	31.74	5.70	36.87	93.73	68.20	25.53	VERTICAL
3	5350.020	47.15	31.77	6.05	36.88	48.09	54.00	-5.91	VERTICAL
4	5350.020	58.35	31.77	6.05	36.88	59.29	74.00	-14.71	VERTICAL
5	5352.695	47.19	31.77	6.05	36.88	48.13	54.00	-5.87	VERTICAL
6	5355.778	59.42	31.78	6.03	36.88	60.35	74.00	-13.65	VERTICAL

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

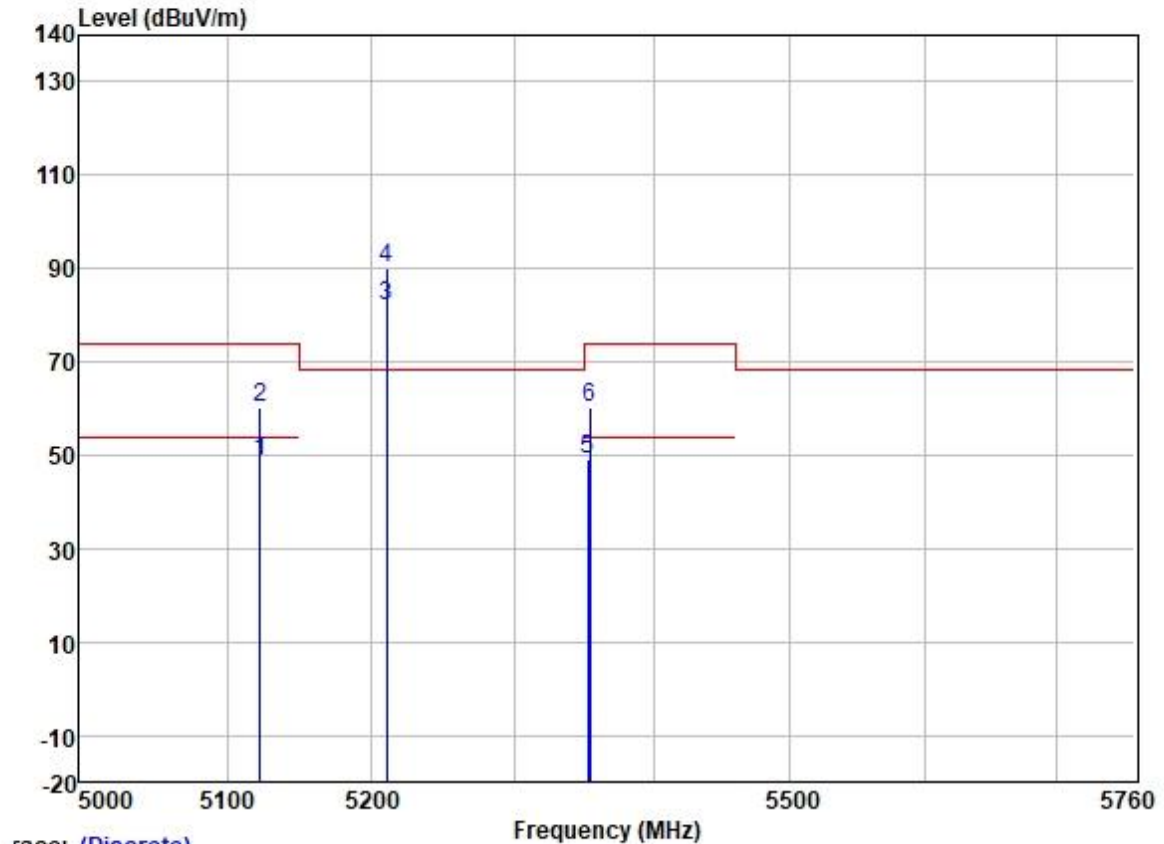


race: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Level	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	5136.137	48.70	31.72	5.63	36.86	49.19	54.00	-4.81	HORIZONTAL	Average
2	5136.137	60.73	31.72	5.63	36.86	61.22	74.00	-12.78	HORIZONTAL	Peak
3	5210.000	87.25	31.74	5.65	36.87	87.77	-----	-----	HORIZONTAL	Average
4 *	5210.000	96.03	31.74	5.65	36.87	96.55	68.20	28.35	HORIZONTAL	Peak
5	5349.882	59.35	31.77	6.05	36.88	60.29	68.20	-7.91	HORIZONTAL	Peak
6	5356.004	47.73	31.78	6.03	36.88	48.66	54.00	-5.34	HORIZONTAL	Average



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

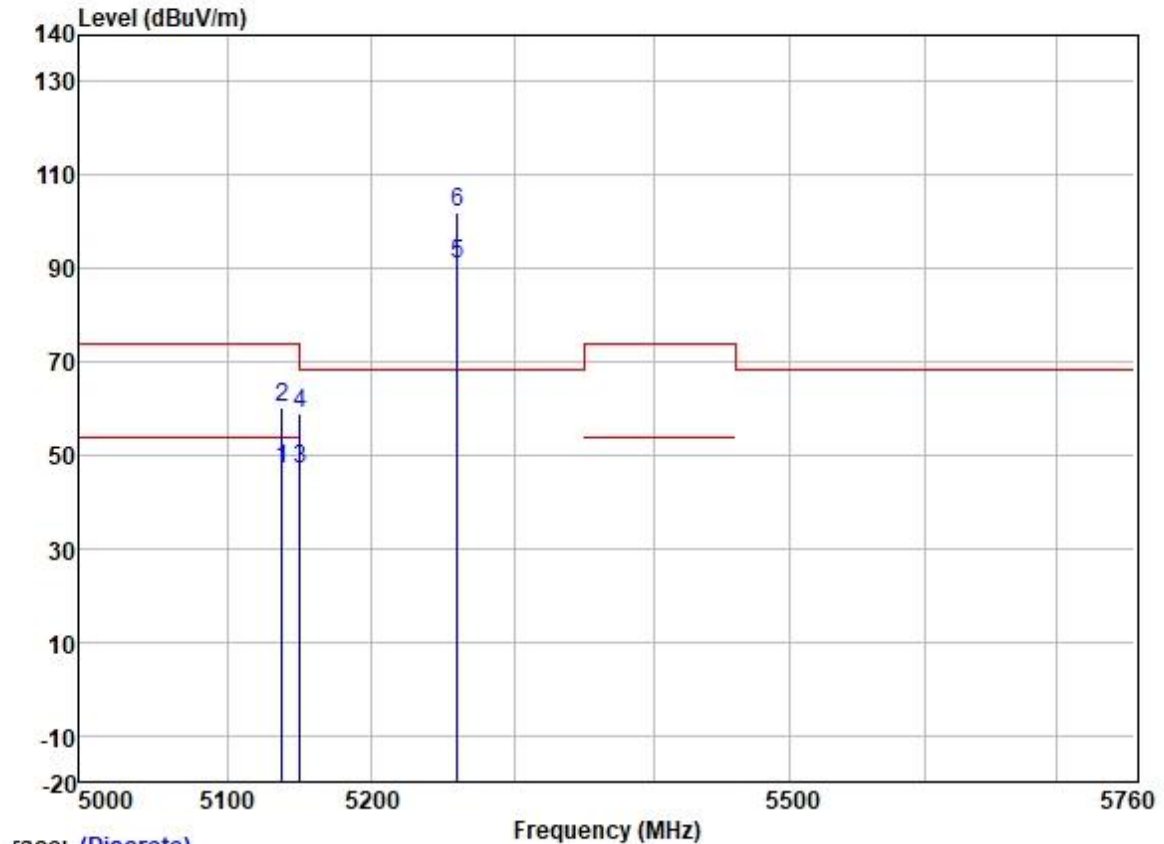


Trace: (Discrete)

	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	5122.874	48.02	31.72	5.64	36.86	48.52	54.00	-5.48	VERTICAL
2	5122.874	59.90	31.72	5.64	36.86	60.40	74.00	-13.60	VERTICAL
3	5210.000	81.33	31.74	5.65	36.87	81.85	-----	-----	VERTICAL
4 *	5210.000	89.46	31.74	5.65	36.87	89.98	68.20	21.78	VERTICAL
5	5352.809	48.07	31.77	6.05	36.88	49.01	54.00	-4.99	VERTICAL
6	5354.140	59.12	31.78	6.03	36.88	60.05	74.00	-13.95	VERTICAL

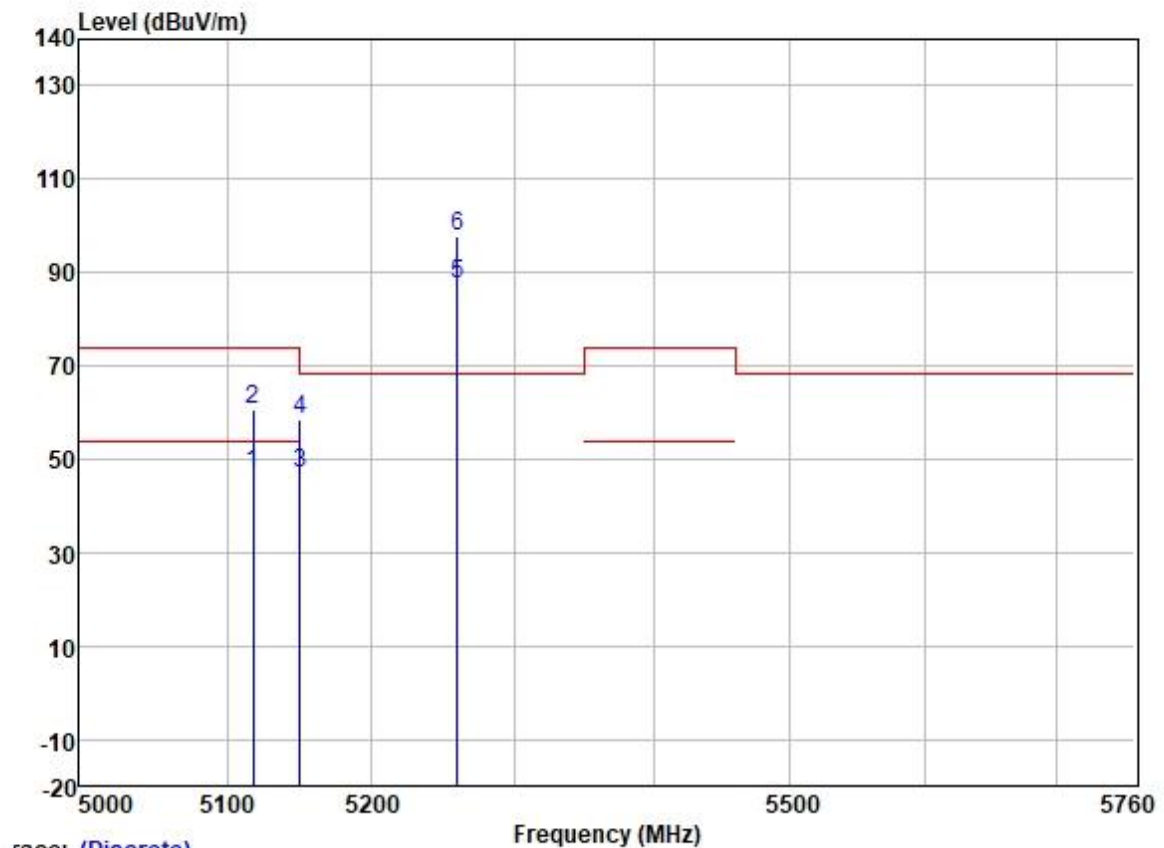


Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



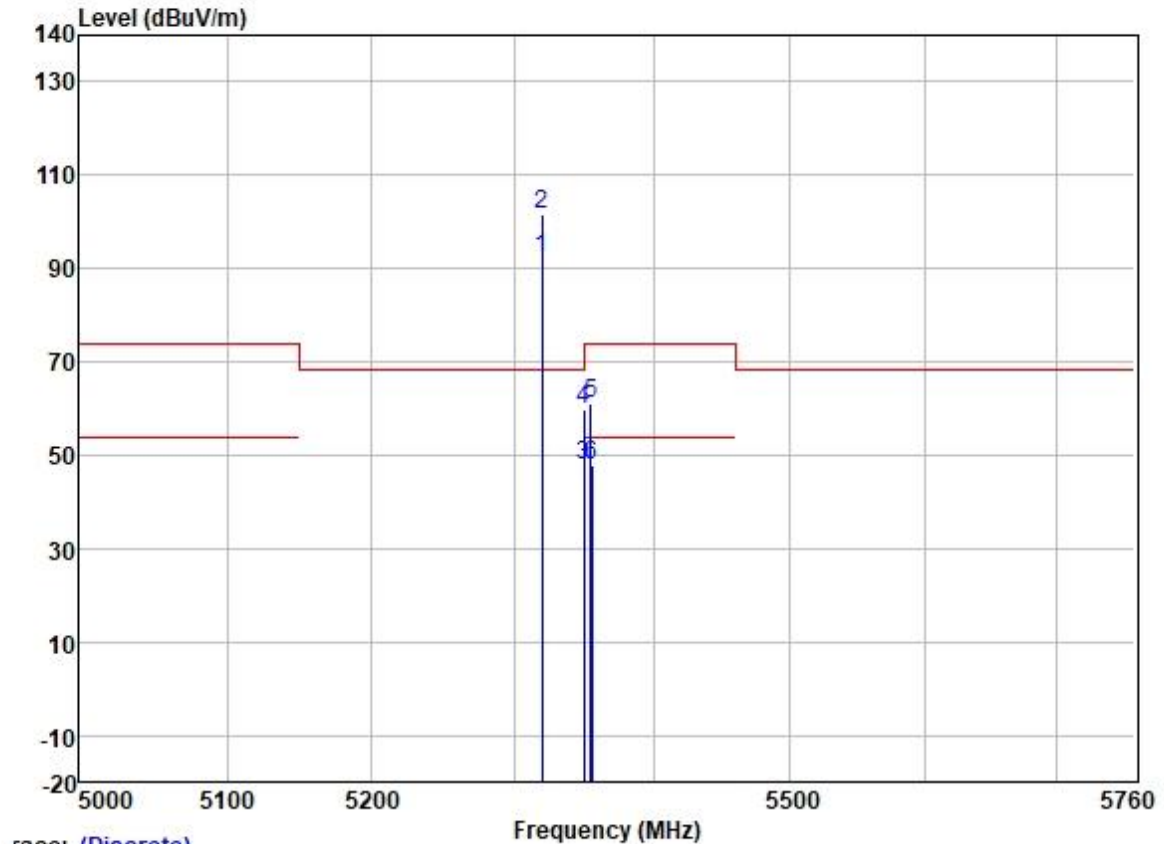
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5137.997	46.66	31.72	5.63	36.86	47.15	54.00	-6.85	HORIZONTAL Average
2	5137.997	59.72	31.72	5.63	36.86	60.21	74.00	-13.79	HORIZONTAL Peak
3	5149.980	46.68	31.72	5.62	36.86	47.16	54.00	-6.84	HORIZONTAL Average
4	5149.980	58.38	31.72	5.62	36.86	58.86	74.00	-15.14	HORIZONTAL Peak
5	5260.000	90.30	31.75	5.77	36.87	90.95	-----	-----	HORIZONTAL Average
6 *	5260.000	101.22	31.75	5.77	36.87	101.87	68.20	33.67	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	5118.075	46.65	31.72	5.64	36.86	47.15	54.00	-6.85	VERTICAL Average
2	5118.075	60.01	31.72	5.64	36.86	60.51	74.00	-13.49	VERTICAL Peak
3	5149.980	46.66	31.72	5.62	36.86	47.14	54.00	-6.86	VERTICAL Average
4	5149.980	58.08	31.72	5.62	36.86	58.56	74.00	-15.44	VERTICAL Peak
5	5260.000	86.97	31.75	5.77	36.87	87.62	-----	-----	VERTICAL Average
6 *	5260.000	96.90	31.75	5.77	36.87	97.55	68.20	29.35	VERTICAL Peak

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

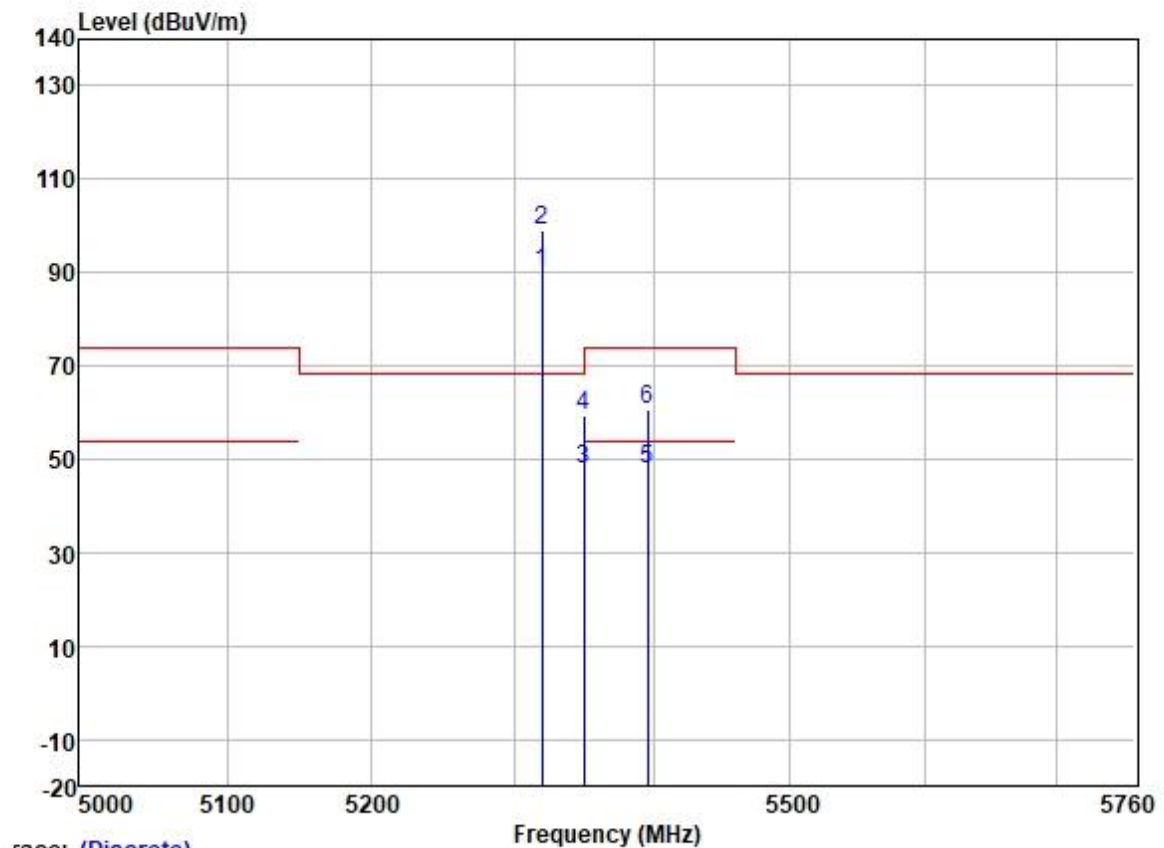


Trace: (Discrete)

	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	5320.000	91.05	31.77	6.08	36.88	92.02	-----	-----	HORIZONTAL Average
2 *	5320.000	100.71	31.77	6.08	36.88	101.68	68.20	33.48	HORIZONTAL Peak
3	5350.020	47.06	31.77	6.05	36.88	48.00	54.00	-6.00	HORIZONTAL Average
4	5350.020	58.82	31.77	6.05	36.88	59.76	74.00	-14.24	HORIZONTAL Peak
5	5354.869	60.17	31.78	6.03	36.88	61.10	74.00	-12.90	HORIZONTAL Peak
6	5355.369	47.08	31.78	6.03	36.88	48.01	54.00	-5.99	HORIZONTAL Average



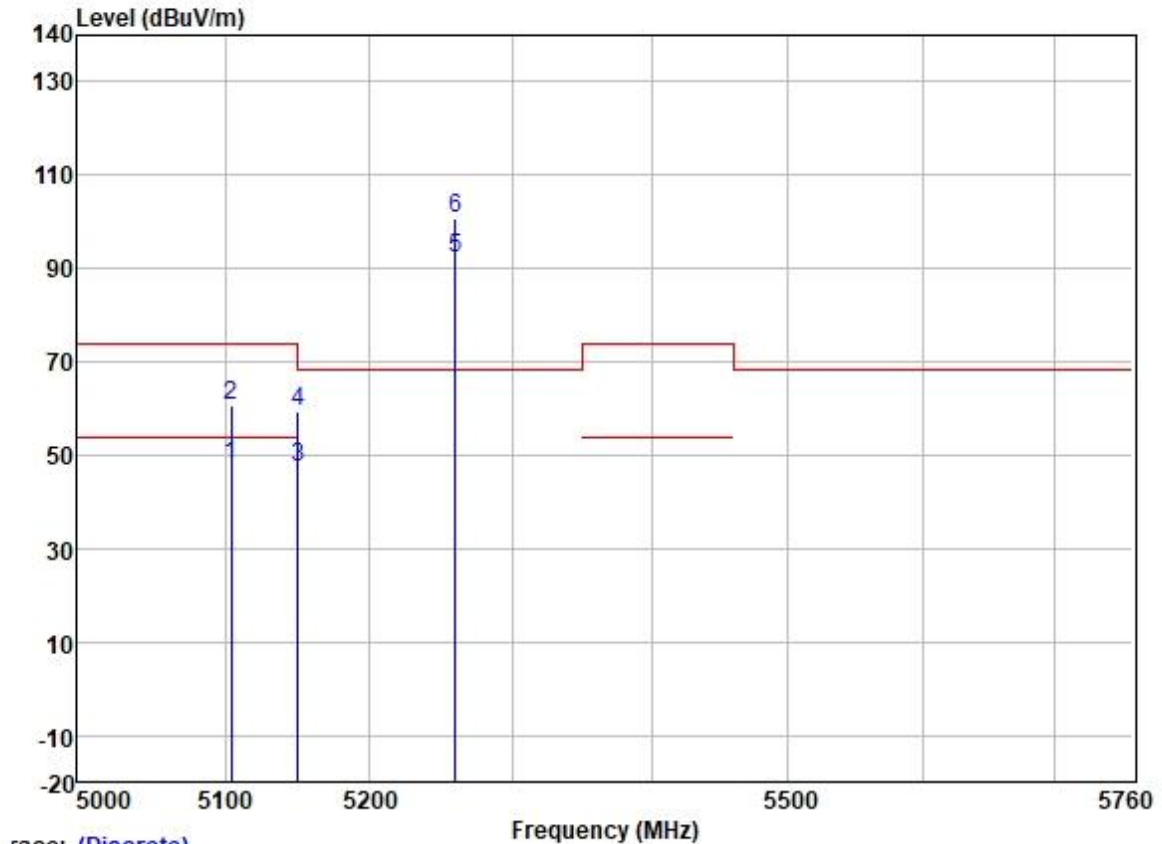
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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	5320.000	89.24	31.77	6.08	36.88	90.21	-----	-----	VERTICAL Average
2 *	5320.000	98.15	31.77	6.08	36.88	99.12	68.20	30.92	VERTICAL Peak
3	5350.020	46.97	31.77	6.05	36.88	47.91	54.00	-6.09	VERTICAL Average
4	5350.020	58.41	31.77	6.05	36.88	59.35	74.00	-14.65	VERTICAL Peak
5	5395.762	47.15	31.78	6.00	36.88	48.05	54.00	-5.95	VERTICAL Average
6	5395.762	59.80	31.78	6.00	36.88	60.70	74.00	-13.30	VERTICAL Peak



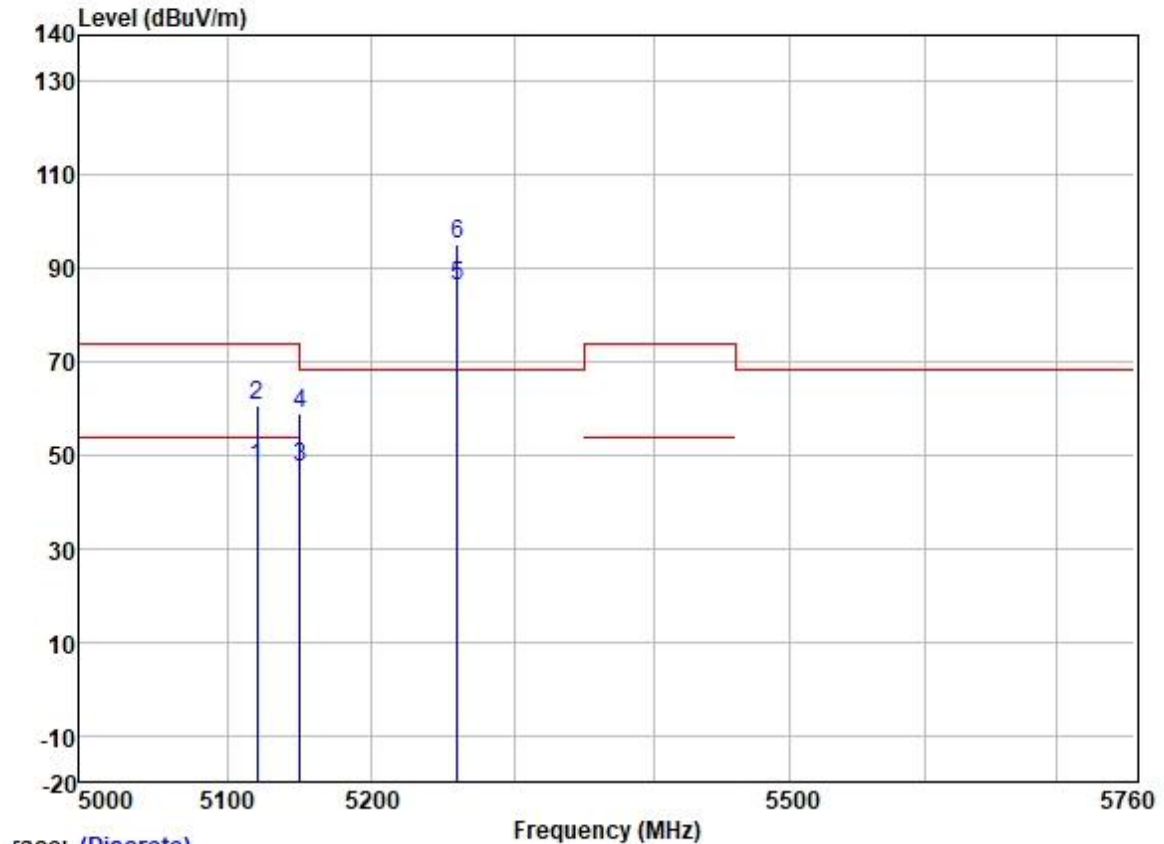
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

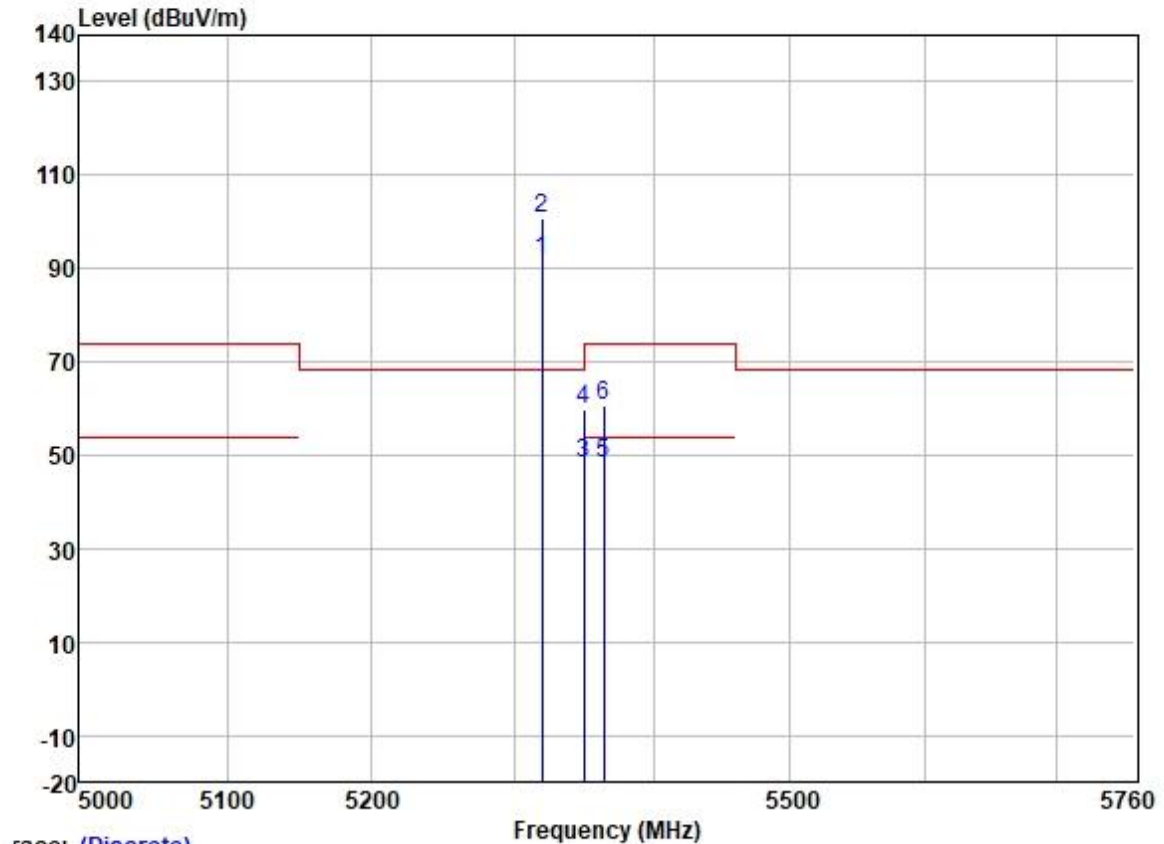
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5103.893	47.12	31.72	5.65	36.86	47.63	54.00	-6.37	HORIZONTAL	Average
2	5103.893	60.27	31.72	5.65	36.86	60.78	74.00	-13.22	HORIZONTAL	Peak
3	5149.980	47.05	31.72	5.62	36.86	47.53	54.00	-6.47	HORIZONTAL	Average
4	5149.980	58.98	31.72	5.62	36.86	59.46	74.00	-14.54	HORIZONTAL	Peak
5	5260.000	91.64	31.75	5.77	36.87	92.29	-----	-----	HORIZONTAL	Average
6 *	5260.000	100.17	31.75	5.77	36.87	100.82	68.20	32.62	HORIZONTAL	Peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; 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	5120.384	47.04	31.72	5.64	36.86	47.54	54.00	-6.46	VERTICAL Average
2	5120.384	60.01	31.72	5.64	36.86	60.51	74.00	-13.49	VERTICAL Peak
3	5149.980	46.94	31.72	5.62	36.86	47.42	54.00	-6.58	VERTICAL Average
4	5149.980	58.32	31.72	5.62	36.86	58.80	74.00	-15.20	VERTICAL Peak
5	5260.000	85.73	31.75	5.77	36.87	86.38	-----	-----	VERTICAL Average
6 *	5260.000	94.62	31.75	5.77	36.87	95.27	68.20	27.07	VERTICAL Peak

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

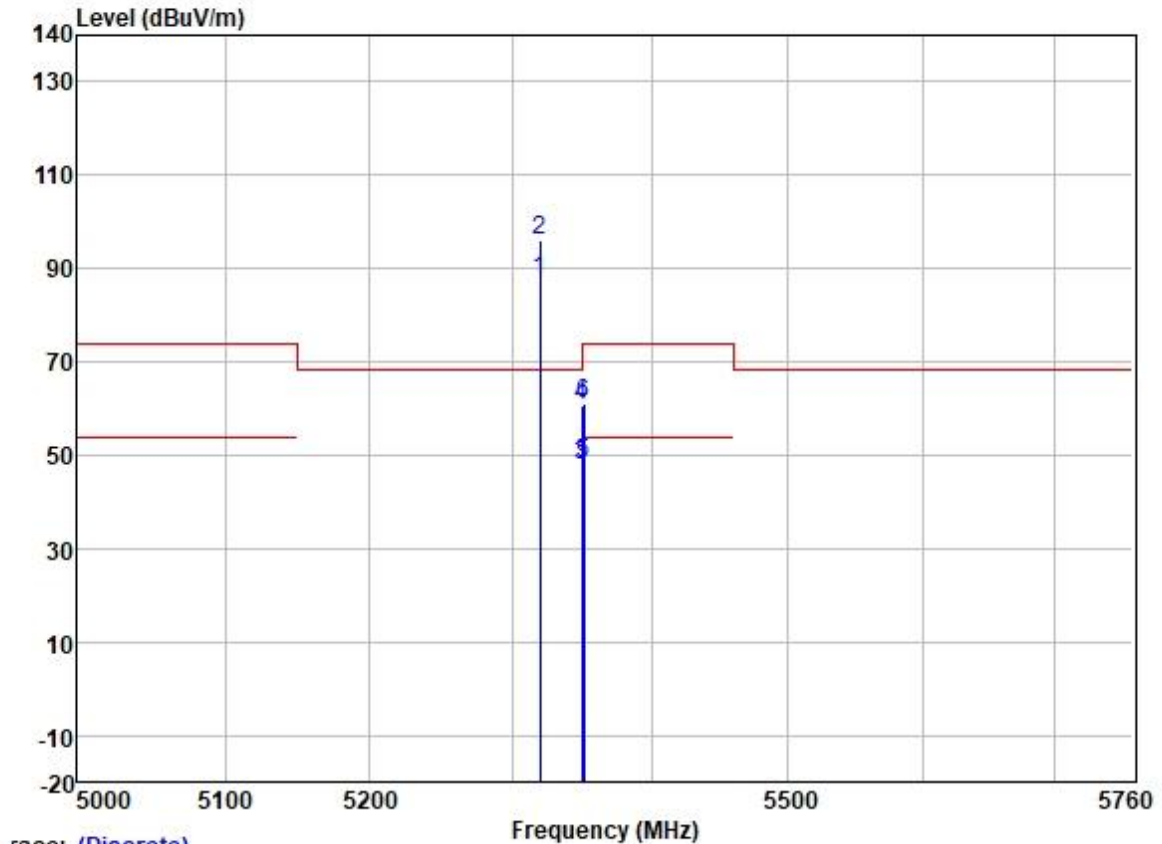


Trace: (Discrete)

	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	5320.000	90.99	31.77	6.08	36.88	91.96	-----	-----	HORIZONTAL Average
2 *	5320.000	99.75	31.77	6.08	36.88	100.72	68.20	32.52	HORIZONTAL Peak
3	5350.020	47.16	31.77	6.05	36.88	48.10	54.00	-5.90	HORIZONTAL Average
4	5350.020	58.84	31.77	6.05	36.88	59.78	74.00	-14.22	HORIZONTAL Peak
5	5364.386	47.46	31.78	6.03	36.88	48.39	54.00	-5.61	HORIZONTAL Average
6	5364.386	59.91	31.78	6.03	36.88	60.84	74.00	-13.16	HORIZONTAL Peak



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

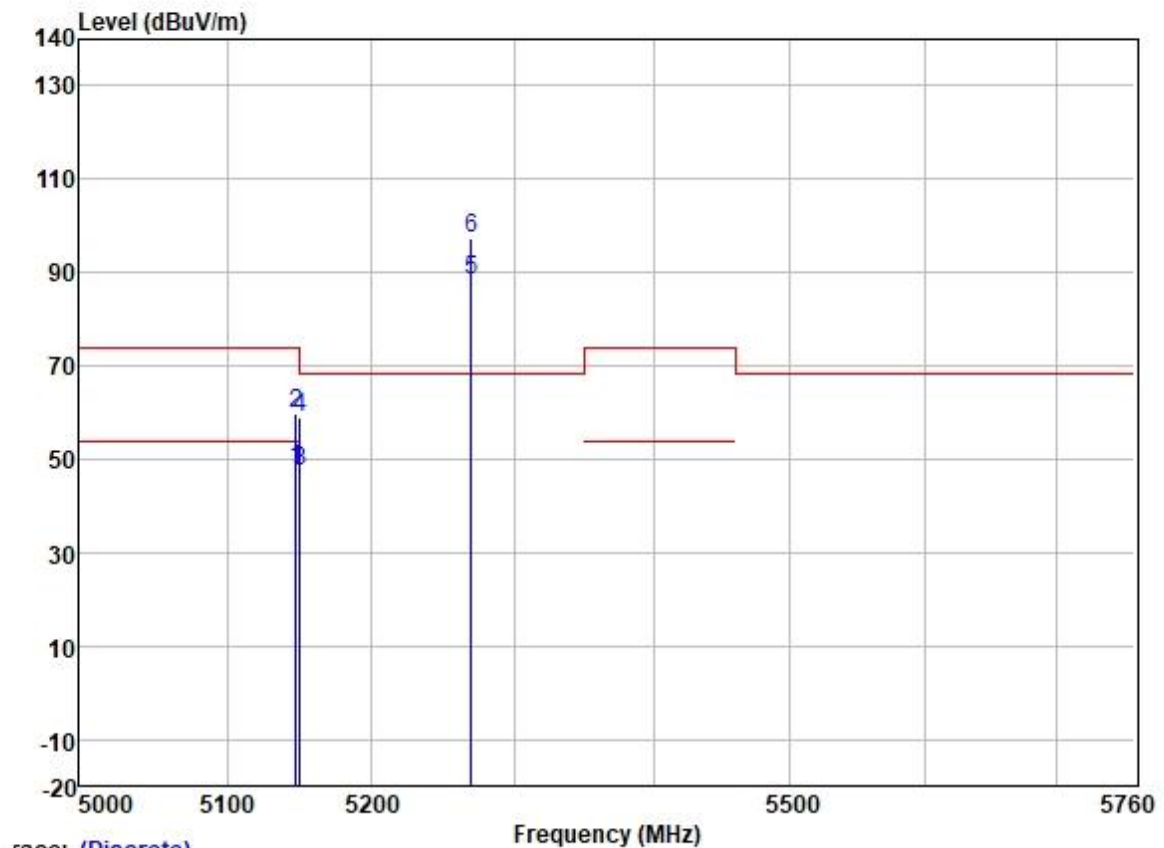


Trace: (Discrete)

	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	5320.000	86.36	31.77	6.08	36.88	87.33	-----	-----	VERTICAL Average
2 *	5320.000	94.92	31.77	6.08	36.88	95.89	68.20	27.69	VERTICAL Peak
3	5350.020	47.07	31.77	6.05	36.88	48.01	54.00	-5.99	VERTICAL Average
4	5350.020	59.49	31.77	6.05	36.88	60.43	74.00	-13.57	VERTICAL Peak
5	5350.566	47.51	31.77	6.05	36.88	48.45	54.00	-5.55	VERTICAL Average
6	5350.966	60.01	31.77	6.05	36.88	60.95	74.00	-13.05	VERTICAL Peak



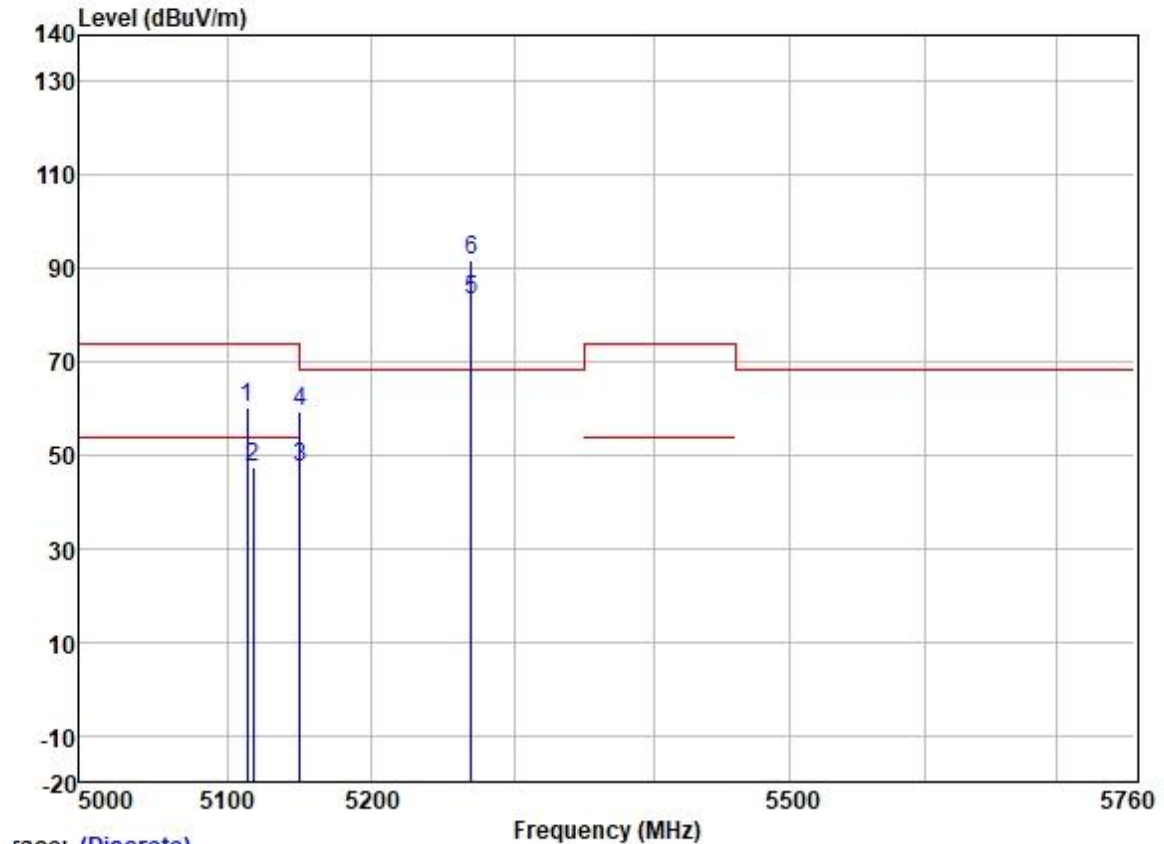
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5147.499	47.21	31.72	5.62	36.86	47.69	54.00	-6.31	HORIZONTAL Average
2	5147.499	59.42	31.72	5.62	36.86	59.90	74.00	-14.10	HORIZONTAL Peak
3	5149.980	47.03	31.72	5.62	36.86	47.51	54.00	-6.49	HORIZONTAL Average
4	5149.980	58.47	31.72	5.62	36.86	58.95	74.00	-15.05	HORIZONTAL Peak
5	5270.000	87.69	31.75	5.80	36.87	88.37	-----	-----	HORIZONTAL Average
6 *	5270.000	96.62	31.75	5.80	36.87	97.30	68.20	29.10	HORIZONTAL Peak

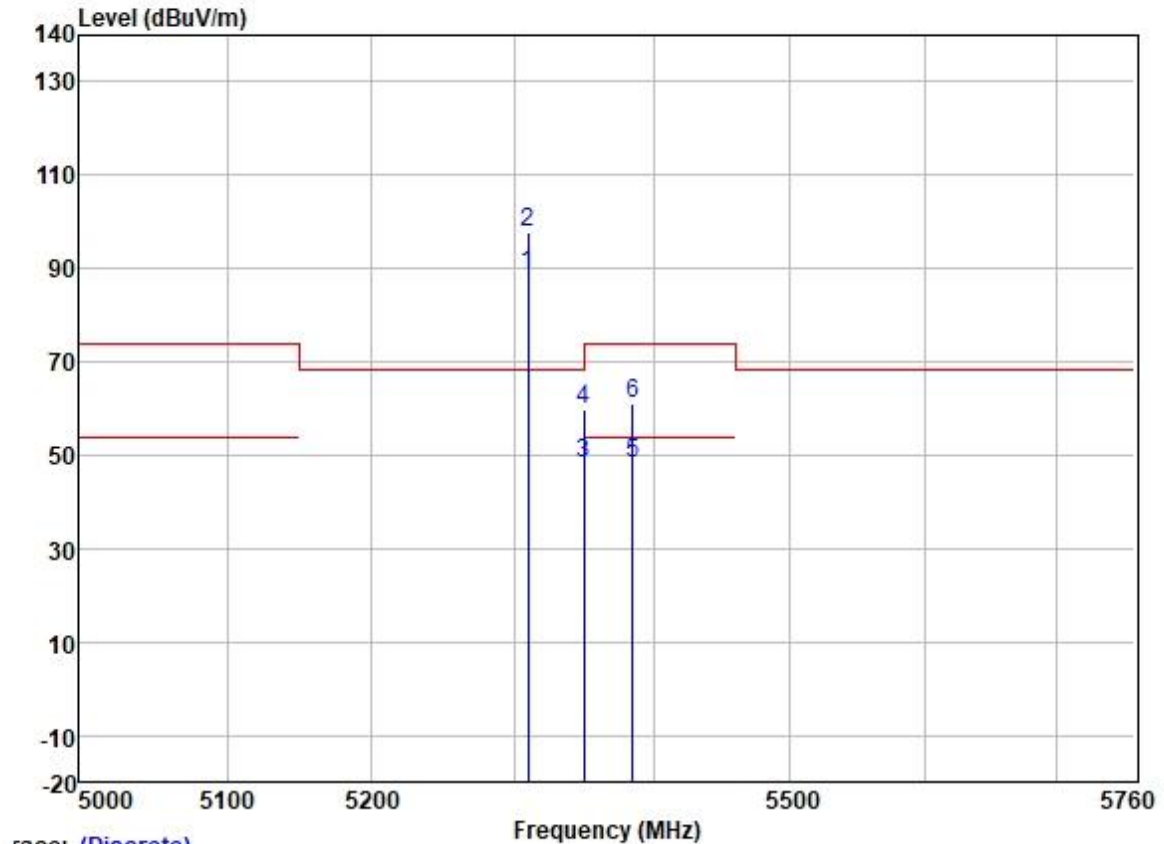
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5113.554	59.71	31.72	5.64	36.86	60.21	74.00	-13.79	VERTICAL Peak
2	5118.081	47.10	31.72	5.64	36.86	47.60	54.00	-6.40	VERTICAL Average
3	5149.980	47.03	31.72	5.62	36.86	47.51	54.00	-6.49	VERTICAL Average
4	5149.980	58.92	31.72	5.62	36.86	59.40	74.00	-14.60	VERTICAL Peak
5	5270.000	82.50	31.75	5.80	36.87	83.18	-----	-----	VERTICAL Average
6 *	5270.000	91.18	31.75	5.80	36.87	91.86	68.20	23.66	VERTICAL Peak

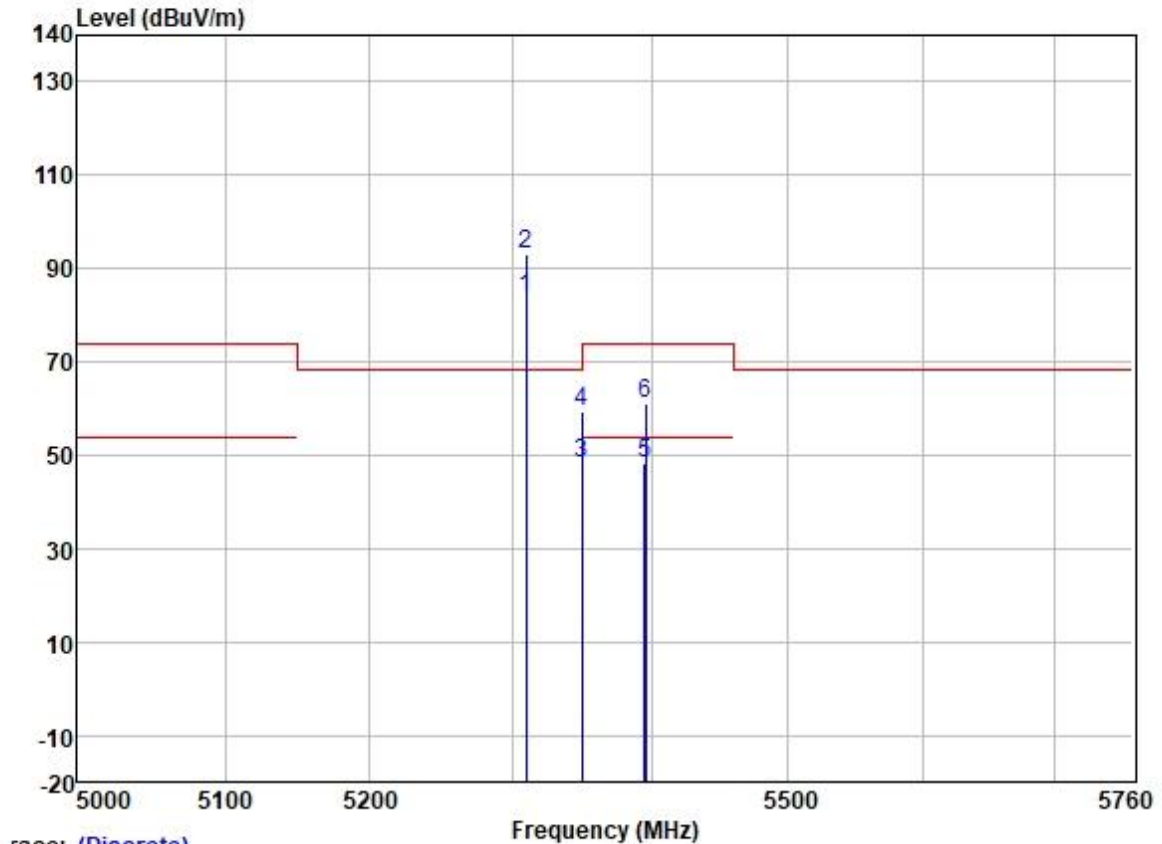
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)	Frequency (MHz)									
	Freq	ReadAntenna	Cable	Preamp		Limit	Over	Pol/Phase	Remark	
		Level	Factor	Loss	Factor	Level	Line			Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5310.000	87.78	31.77	6.08	36.87	88.76	-----	-----	HORIZONTAL	Average
2 *	5310.000	96.90	31.77	6.08	36.87	97.88	68.20	29.68	HORIZONTAL	Peak
3	5350.020	47.36	31.77	6.05	36.88	48.30	54.00	-5.70	HORIZONTAL	Average
4	5350.020	58.73	31.77	6.05	36.88	59.67	74.00	-14.33	HORIZONTAL	Peak
5	5385.215	47.48	31.78	6.00	36.88	48.38	54.00	-5.62	HORIZONTAL	Average
6	5385.215	60.22	31.78	6.00	36.88	61.12	74.00	-12.88	HORIZONTAL	Peak



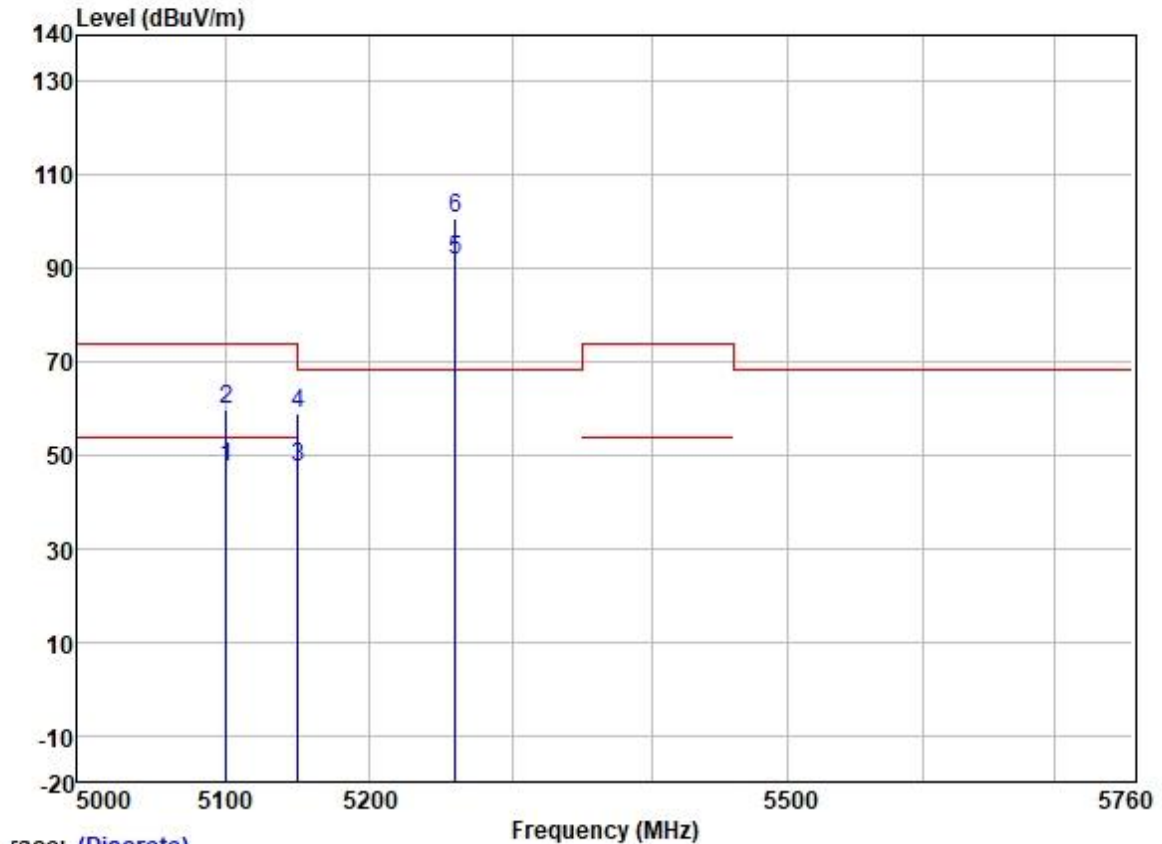
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	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	dB		
1	5310.000	82.55	31.77	6.08	36.87	83.53	-----	VERTICAL	Average
2 *	5310.000	92.11	31.77	6.08	36.87	93.09	68.20	24.89 VERTICAL	Peak
3	5350.020	47.14	31.77	6.05	36.88	48.08	54.00	-5.92 VERTICAL	Average
4	5350.020	58.25	31.77	6.05	36.88	59.19	74.00	-14.81 VERTICAL	Peak
5	5395.000	47.46	31.78	6.00	36.88	48.36	54.00	-5.64 VERTICAL	Average
6	5395.391	60.01	31.78	6.00	36.88	60.91	74.00	-13.09 VERTICAL	Peak

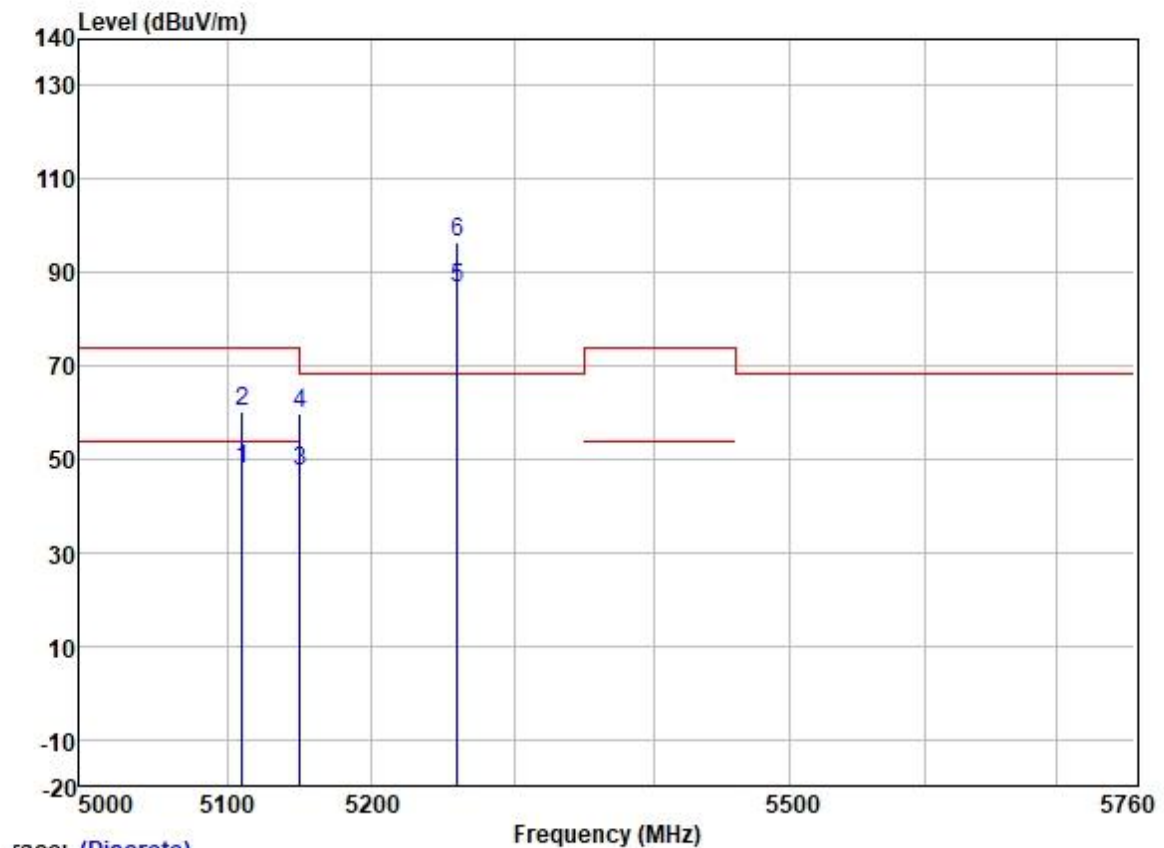


Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



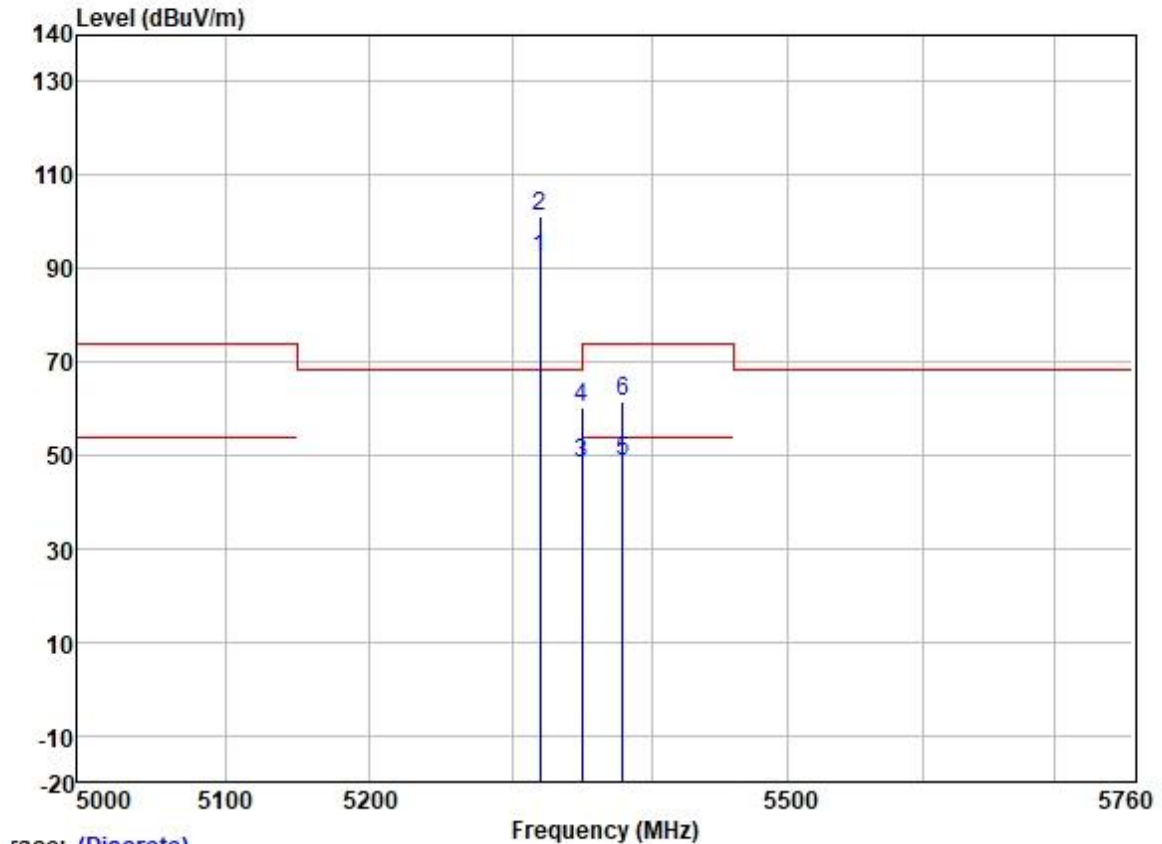
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5101.062	47.10	31.72	5.65	36.86	47.61	54.00	-6.39	HORIZONTAL Average
2	5101.062	59.46	31.72	5.65	36.86	59.97	74.00	-14.03	HORIZONTAL Peak
3	5149.980	46.96	31.72	5.62	36.86	47.44	54.00	-6.56	HORIZONTAL Average
4	5149.980	58.47	31.72	5.62	36.86	58.95	74.00	-15.05	HORIZONTAL Peak
5	5260.000	91.27	31.75	5.77	36.87	91.92	-----	-----	HORIZONTAL Average
6 *	5260.000	100.17	31.75	5.77	36.87	100.82	68.20	32.62	HORIZONTAL Peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; 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	5110.093	47.15	31.72	5.65	36.86	47.66	54.00	-6.34	VERTICAL Average
2	5110.093	59.69	31.72	5.65	36.86	60.20	74.00	-13.80	VERTICAL Peak
3	5149.980	46.99	31.72	5.62	36.86	47.47	54.00	-6.53	VERTICAL Average
4	5149.980	59.16	31.72	5.62	36.86	59.64	74.00	-14.36	VERTICAL Peak
5	5260.000	85.82	31.75	5.77	36.87	86.47	-----	-----	VERTICAL Average
6 *	5260.000	95.85	31.75	5.77	36.87	96.50	68.20	28.30	VERTICAL Peak

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



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5320.000	91.11	31.77	6.08	36.88	92.08	-----	-----	HORIZONTAL	Average
2 *	5320.000	100.28	31.77	6.08	36.88	101.25	68.20	33.05	HORIZONTAL	Peak
3	5350.020	47.26	31.77	6.05	36.88	48.20	54.00	-5.80	HORIZONTAL	Average
4	5350.020	59.35	31.77	6.05	36.88	60.29	74.00	-13.71	HORIZONTAL	Peak
5	5379.146	47.56	31.78	6.02	36.88	48.48	54.00	-5.52	HORIZONTAL	Average
6	5379.146	60.51	31.78	6.02	36.88	61.43	74.00	-12.57	HORIZONTAL	Peak



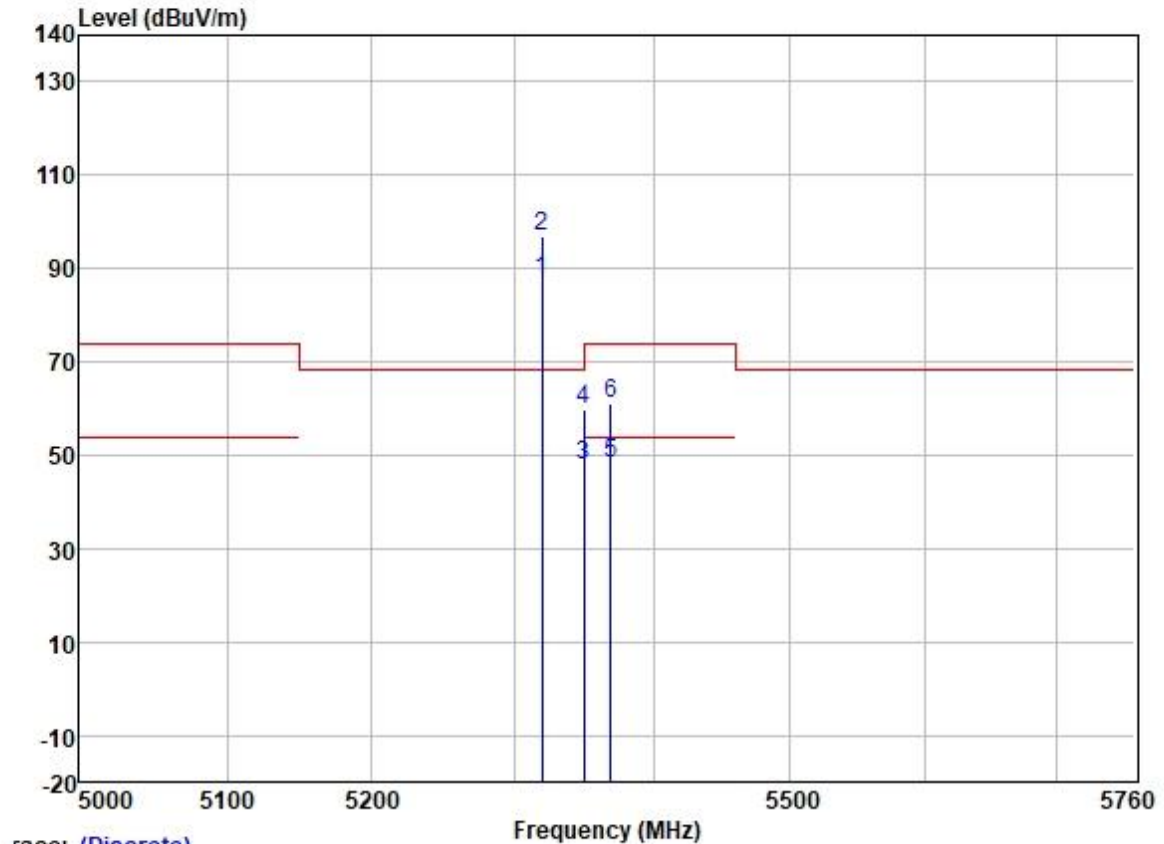
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Guangzhou Branch Testing Center EEC Laboratory.

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

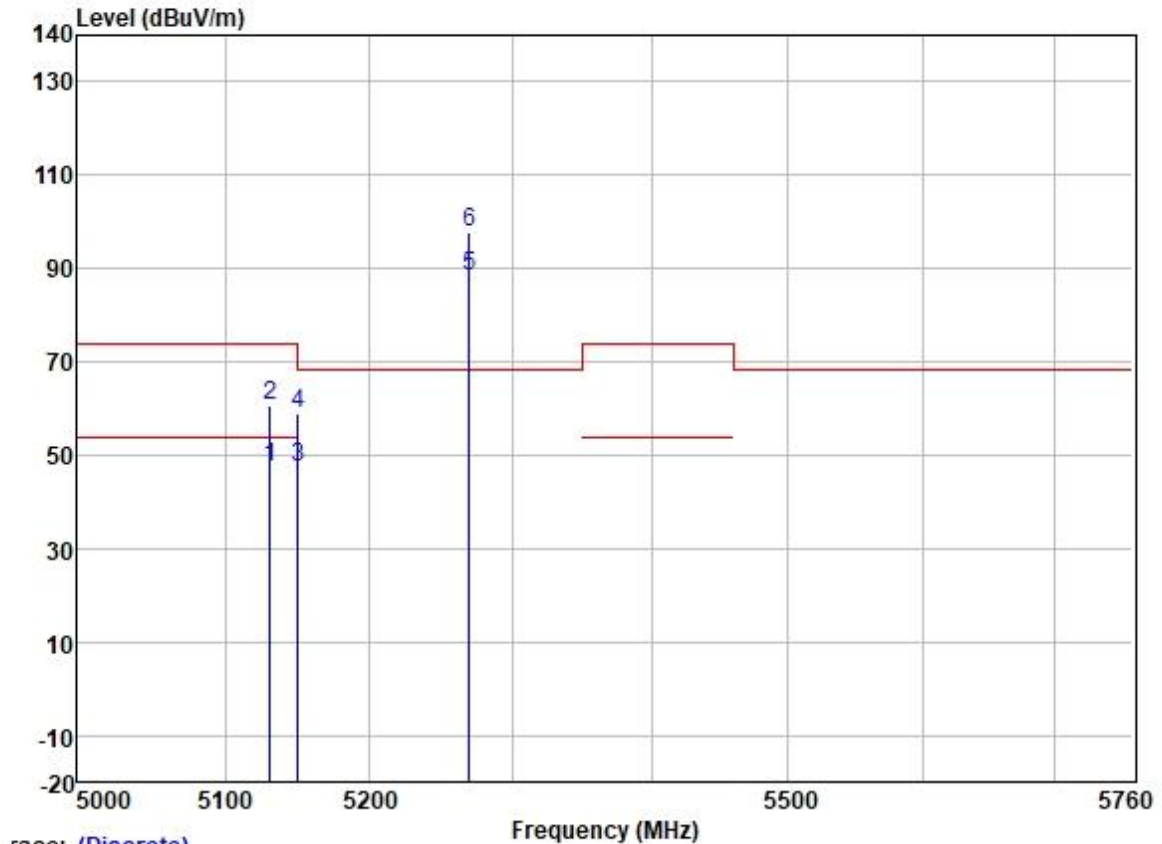


Trace: (Discrete)

	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	5320.000	86.60	31.77	6.08	36.88	87.57	-----	-----	VERTICAL Average
2 *	5320.000	96.10	31.77	6.08	36.88	97.07	68.20	28.87	VERTICAL Peak
3	5350.020	47.10	31.77	6.05	36.88	48.04	54.00	-5.96	VERTICAL Average
4	5350.020	58.79	31.77	6.05	36.88	59.73	74.00	-14.27	VERTICAL Peak
5	5369.101	47.35	31.78	6.03	36.88	48.28	54.00	-5.72	VERTICAL Average
6	5369.101	60.28	31.78	6.03	36.88	61.21	74.00	-12.79	VERTICAL Peak



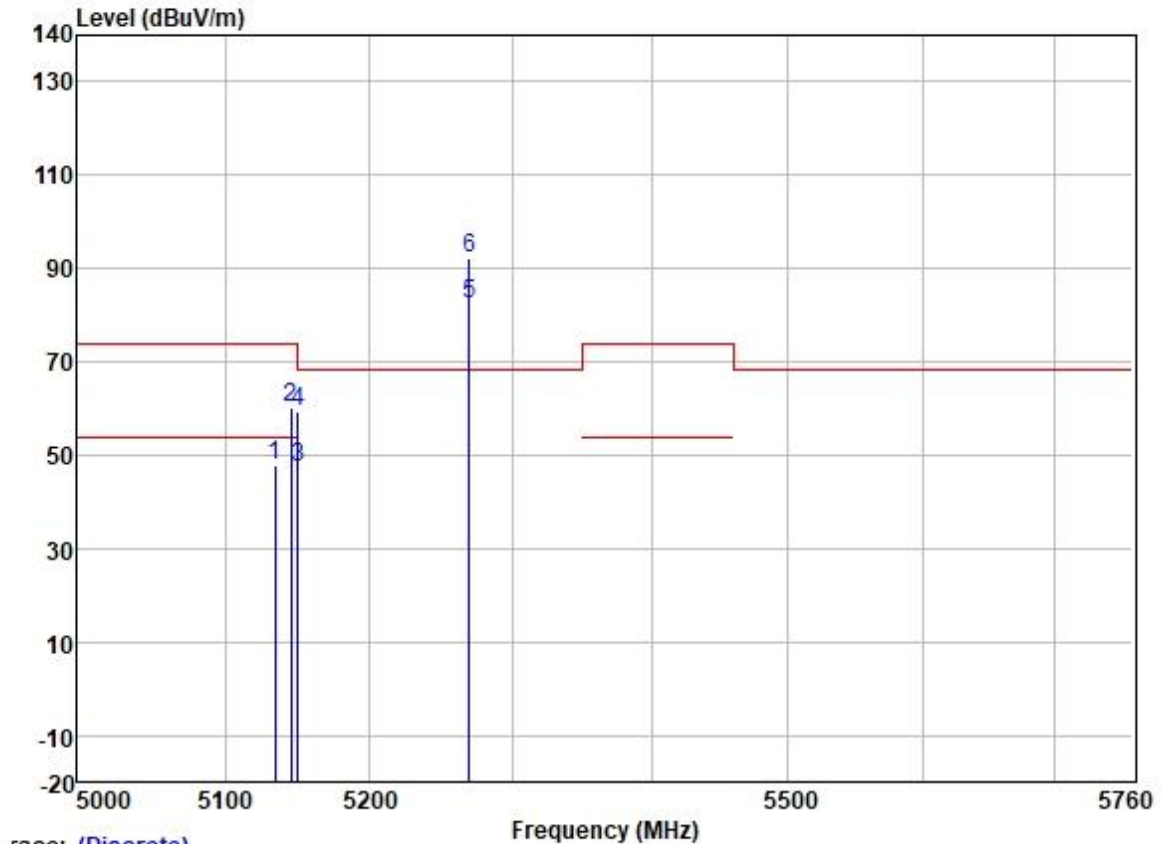
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

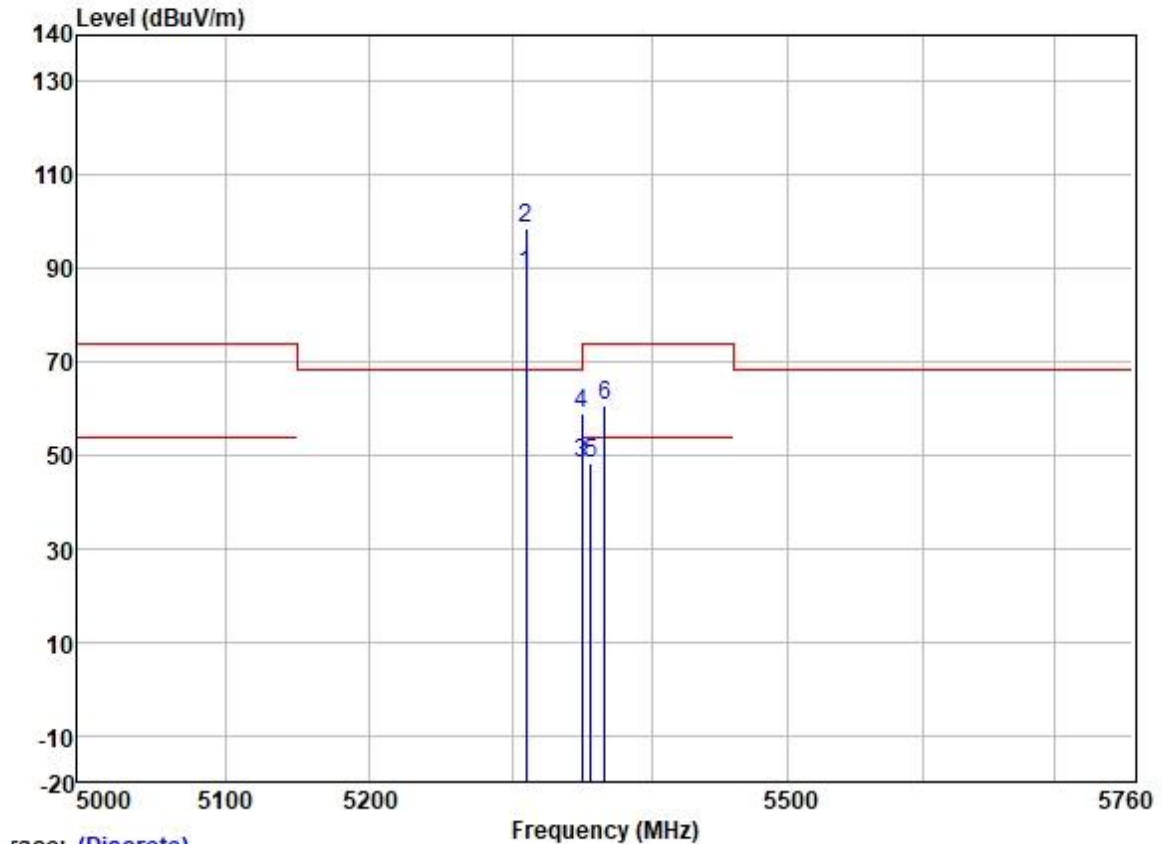
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5130.696	47.11	31.72	5.63	36.86	47.60	54.00	-6.40	HORIZONTAL Average
2	5130.696	60.24	31.72	5.63	36.86	60.73	74.00	-13.27	HORIZONTAL Peak
3	5149.980	47.03	31.72	5.62	36.86	47.51	54.00	-6.49	HORIZONTAL Average
4	5149.980	58.25	31.72	5.62	36.86	58.73	74.00	-15.27	HORIZONTAL Peak
5	5270.000	87.87	31.75	5.80	36.87	88.55	-----	-----	HORIZONTAL Average
6 *	5270.000	97.02	31.75	5.80	36.87	97.70	68.20	29.50	HORIZONTAL Peak

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; 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	5134.052	47.18	31.72	5.63	36.86	47.67	54.00	-6.33	VERTICAL Average
2	5145.519	59.75	31.72	5.62	36.86	60.23	74.00	-13.77	VERTICAL Peak
3	5149.980	46.95	31.72	5.62	36.86	47.43	54.00	-6.57	VERTICAL Average
4	5149.980	58.84	31.72	5.62	36.86	59.32	74.00	-14.68	VERTICAL Peak
5	5270.000	81.75	31.75	5.80	36.87	82.43	-----	-----	VERTICAL Average
6 *	5270.000	91.41	31.75	5.80	36.87	92.09	68.20	23.89	VERTICAL Peak

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

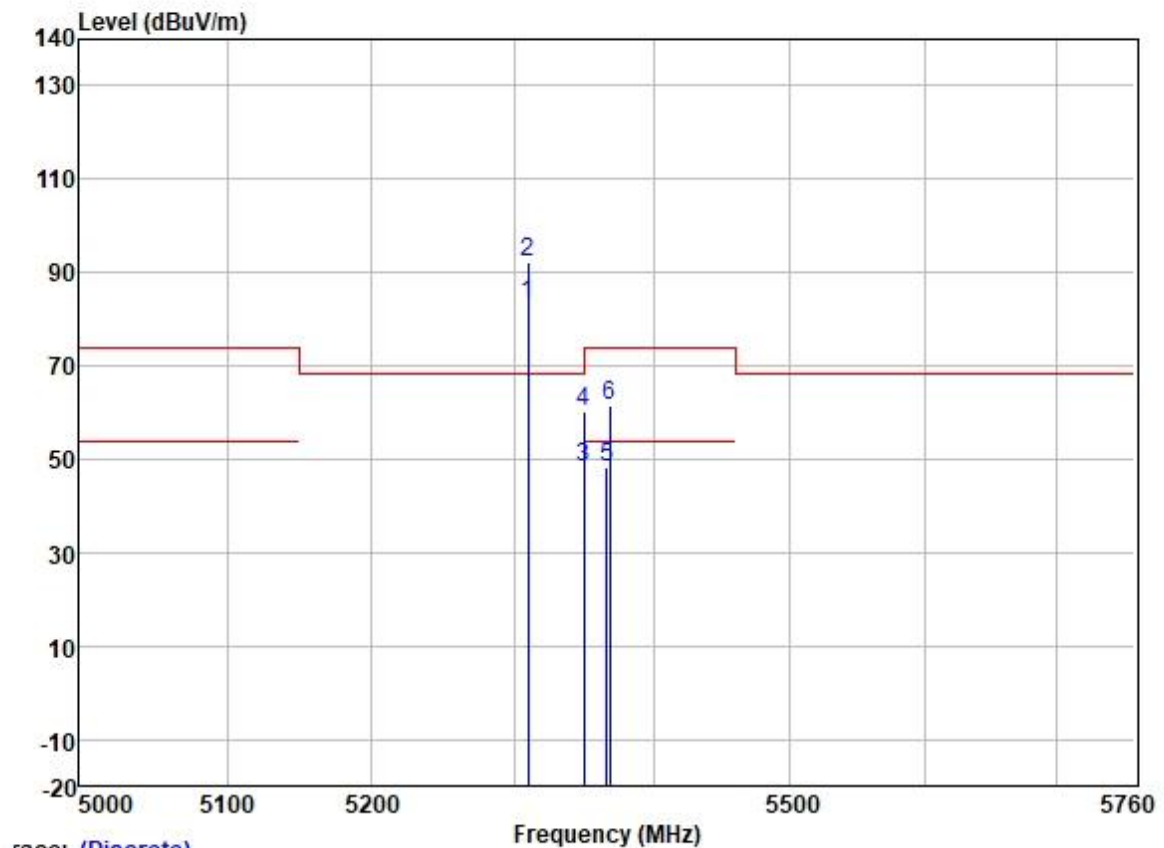


Trace: (Discrete)

	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	5310.000	87.83	31.77	6.08	36.87	88.81	-----	-----	HORIZONTAL Average
2 *	5310.000	97.76	31.77	6.08	36.87	98.74	68.20	30.54	HORIZONTAL Peak
3	5350.020	47.43	31.77	6.05	36.88	48.37	54.00	-5.63	HORIZONTAL Average
4	5350.020	58.13	31.77	6.05	36.88	59.07	74.00	-14.93	HORIZONTAL Peak
5	5356.007	47.42	31.78	6.03	36.88	48.35	54.00	-5.65	HORIZONTAL Average
6	5366.490	59.88	31.78	6.03	36.88	60.81	74.00	-13.19	HORIZONTAL Peak



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

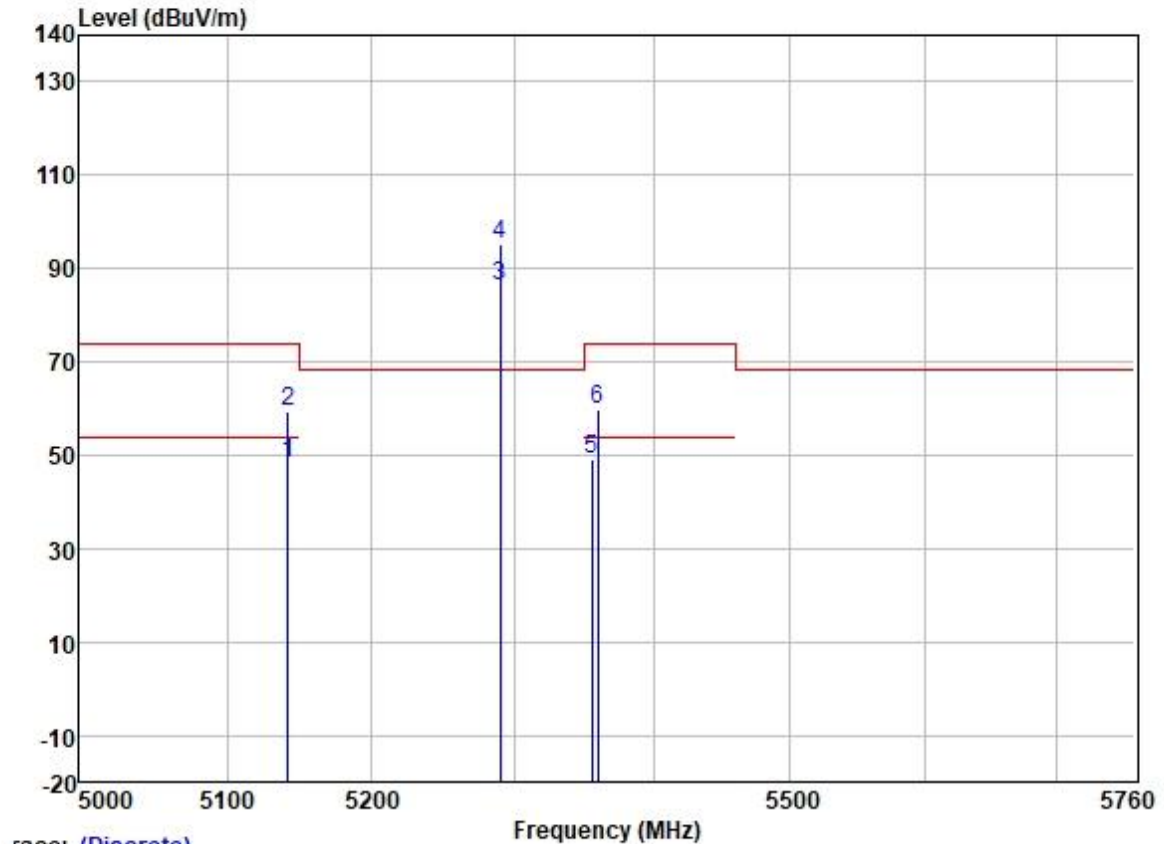


Trace: (Discrete)

	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	5310.000	82.39	31.77	6.08	36.87	83.37	-----	-----	VERTICAL Average
2 *	5310.000	91.25	31.77	6.08	36.87	92.23	68.20	24.03	VERTICAL Peak
3	5350.020	47.18	31.77	6.05	36.88	48.12	54.00	-5.88	VERTICAL Average
4	5350.020	59.08	31.77	6.05	36.88	60.02	74.00	-13.98	VERTICAL Peak
5	5366.249	47.39	31.78	6.03	36.88	48.32	54.00	-5.68	VERTICAL Average
6	5368.661	60.49	31.78	6.03	36.88	61.42	74.00	-12.58	VERTICAL Peak

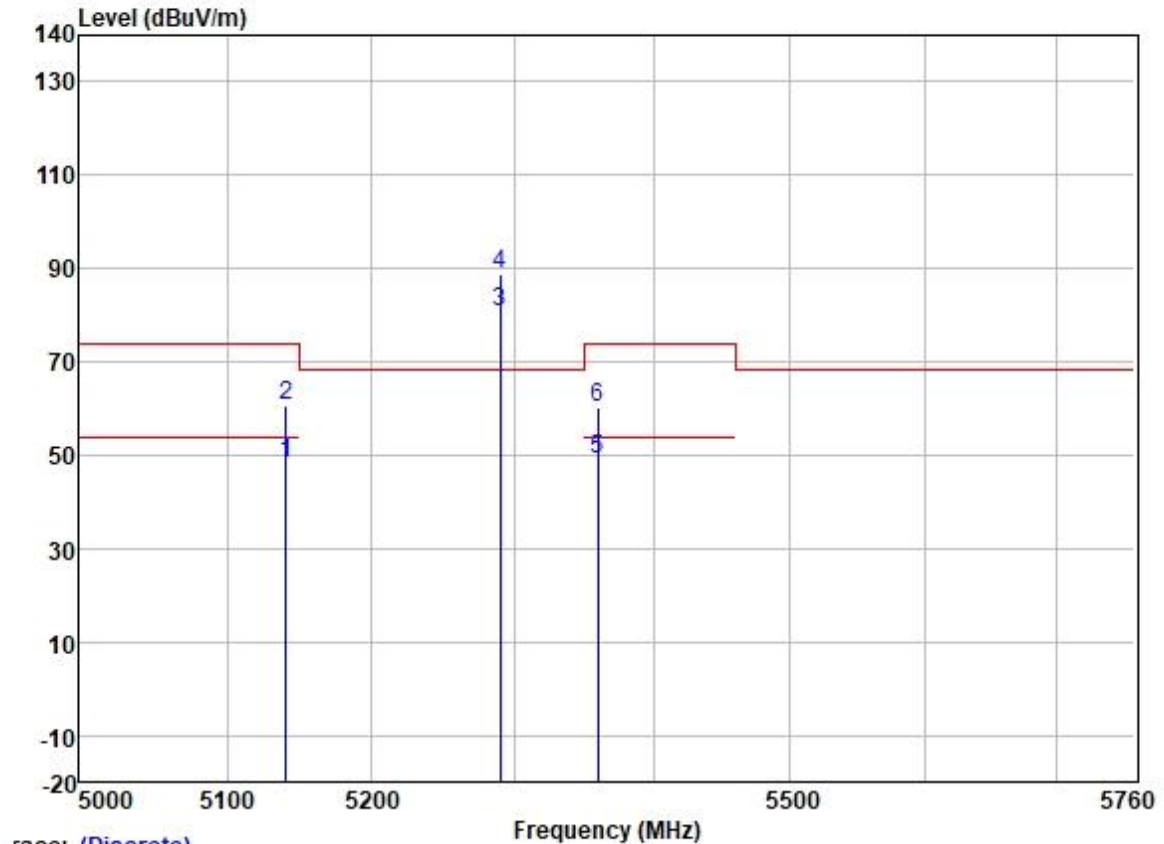


Test Mode: 05; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: middle



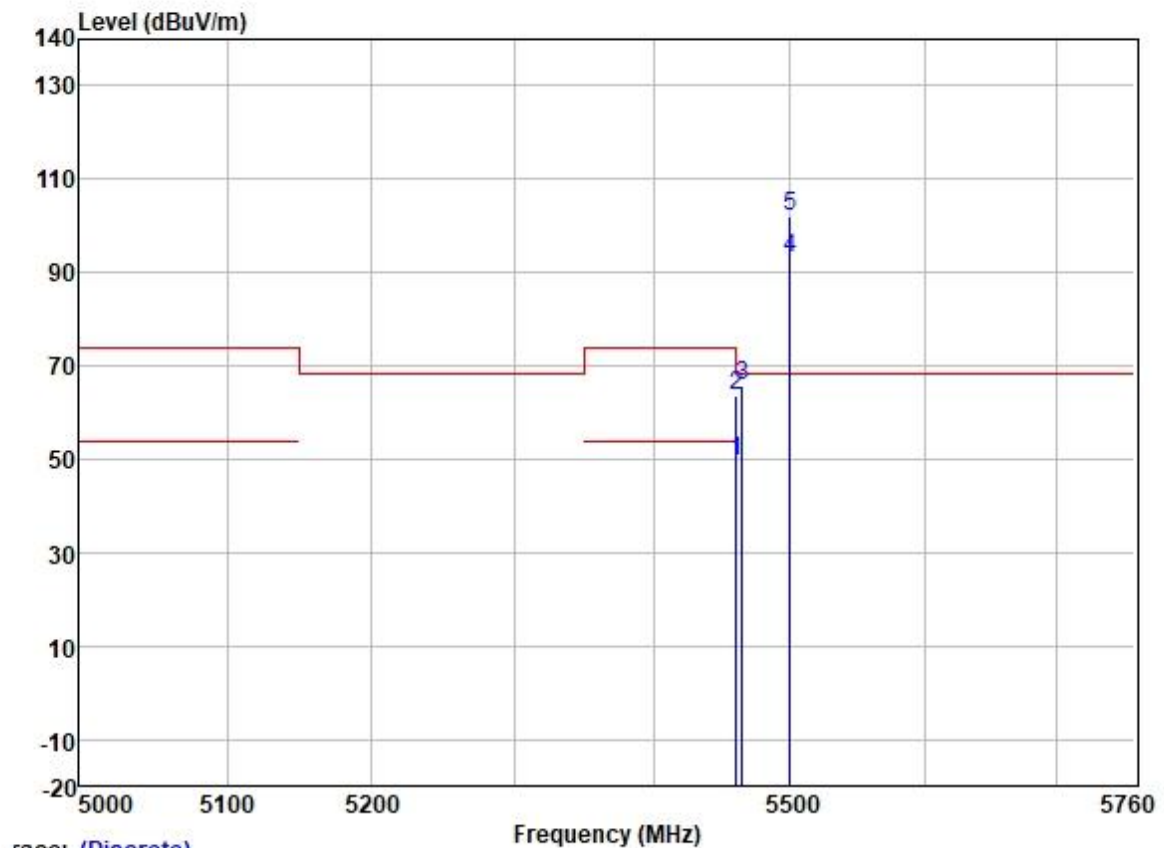
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5141.563	47.87	31.72	5.63	36.86	48.36	54.00	-5.64	HORIZONTAL Average
2	5141.563	58.97	31.72	5.63	36.86	59.46	74.00	-14.54	HORIZONTAL Peak
3	5290.000	85.15	31.76	6.00	36.87	86.04	-----	-----	HORIZONTAL Average
4 *	5290.000	94.21	31.76	6.00	36.87	95.10	68.20	26.90	HORIZONTAL Peak
5	5355.736	48.22	31.78	6.03	36.88	49.15	54.00	-4.85	HORIZONTAL Average
6	5360.023	59.03	31.78	6.03	36.88	59.96	74.00	-14.04	HORIZONTAL Peak

Test Mode: 05; Polarity: Vertical; Modulation: 802.11ac; Bandwidth: 80MHz; 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	5140.387	47.83	31.72	5.63	36.86	48.32	54.00	-5.68	VERTICAL
2	5140.681	60.15	31.72	5.63	36.86	60.64	74.00	-13.36	VERTICAL
3	5290.000	79.96	31.76	6.00	36.87	80.85	-----	-----	VERTICAL
4 *	5290.000	87.84	31.76	6.00	36.87	88.73	68.20	20.53	VERTICAL
5	5359.717	48.29	31.78	6.03	36.88	49.22	54.00	-4.78	VERTICAL
6	5360.023	59.45	31.78	6.03	36.88	60.38	74.00	-13.62	VERTICAL

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

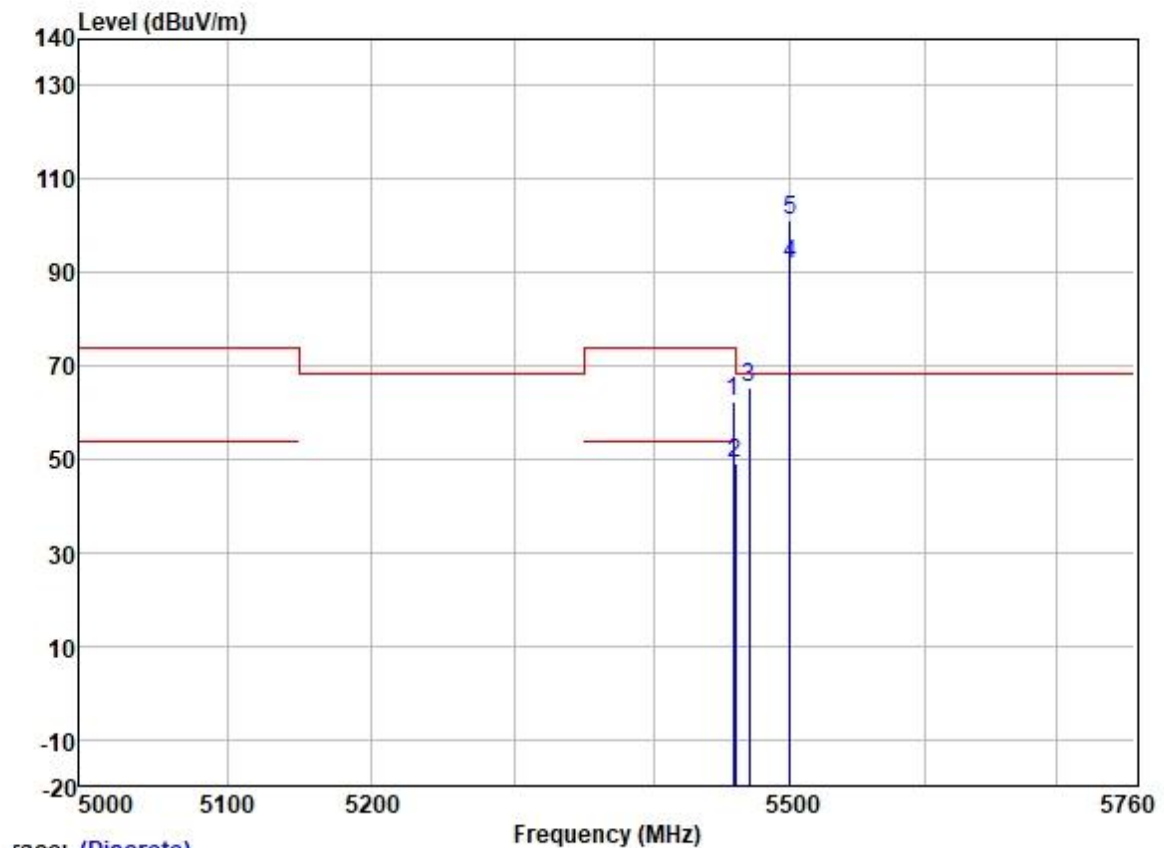


Trace: (Discrete)

	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	5459.791	48.47	31.79	6.26	36.88	49.64	54.00	-4.36	HORIZONTAL Average
2	5459.910	62.57	31.79	6.26	36.88	63.74	74.00	-10.26	HORIZONTAL Peak
3	5464.472	64.67	31.80	6.31	36.88	65.90	68.20	-2.30	HORIZONTAL Peak
4	5500.000	91.92	31.80	6.40	36.88	93.24	-----	-----	HORIZONTAL Average
5 *	5500.000	100.65	31.80	6.40	36.88	101.97	68.20	33.77	HORIZONTAL Peak



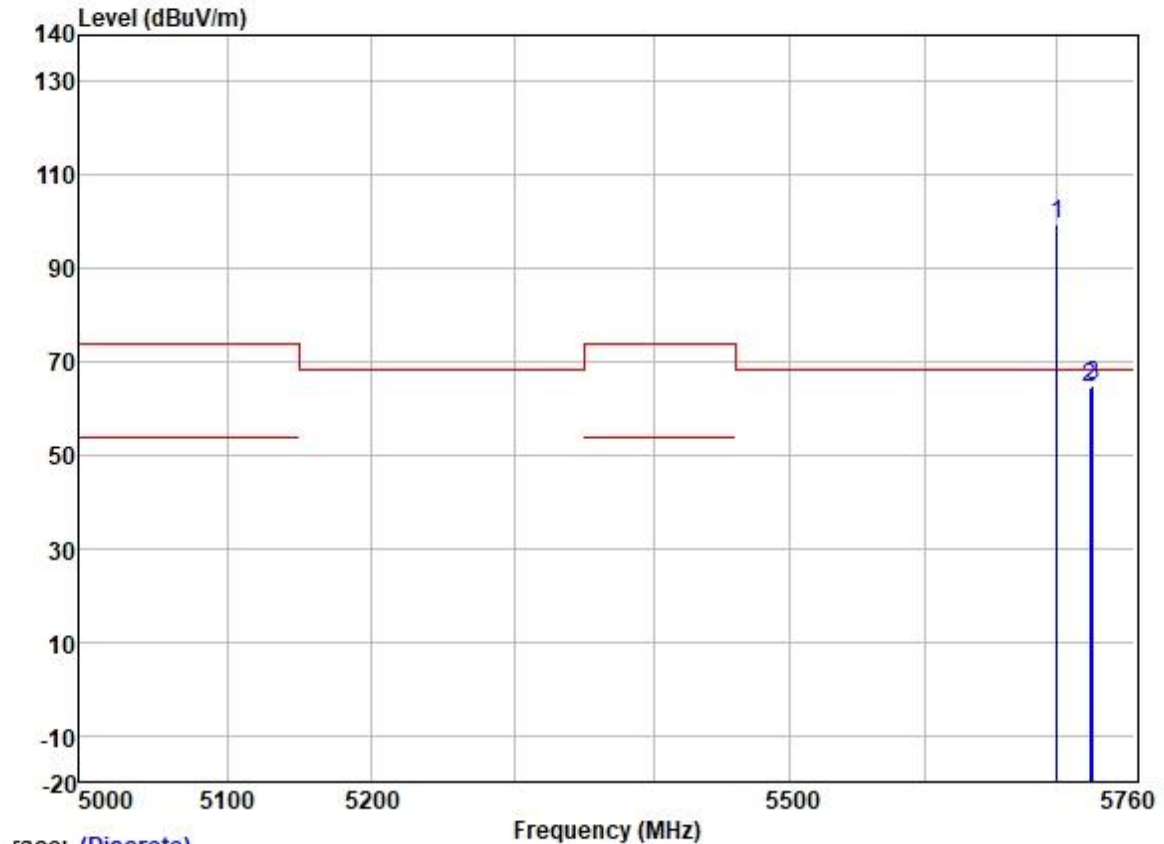
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



		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	5457.871	61.29	31.79	6.26	36.88	62.46	74.00	-11.54	VERTICAL	Peak
2	5459.190	47.98	31.79	6.26	36.88	49.15	54.00	-4.85	VERTICAL	Average
3	5469.880	63.97	31.80	6.31	36.88	65.20	68.20	-3.00	VERTICAL	Peak
4	5500.000	90.50	31.80	6.40	36.88	91.82	-----	-----	VERTICAL	Average
5 *	5500.000	99.78	31.80	6.40	36.88	101.10	68.20	32.90	VERTICAL	Peak



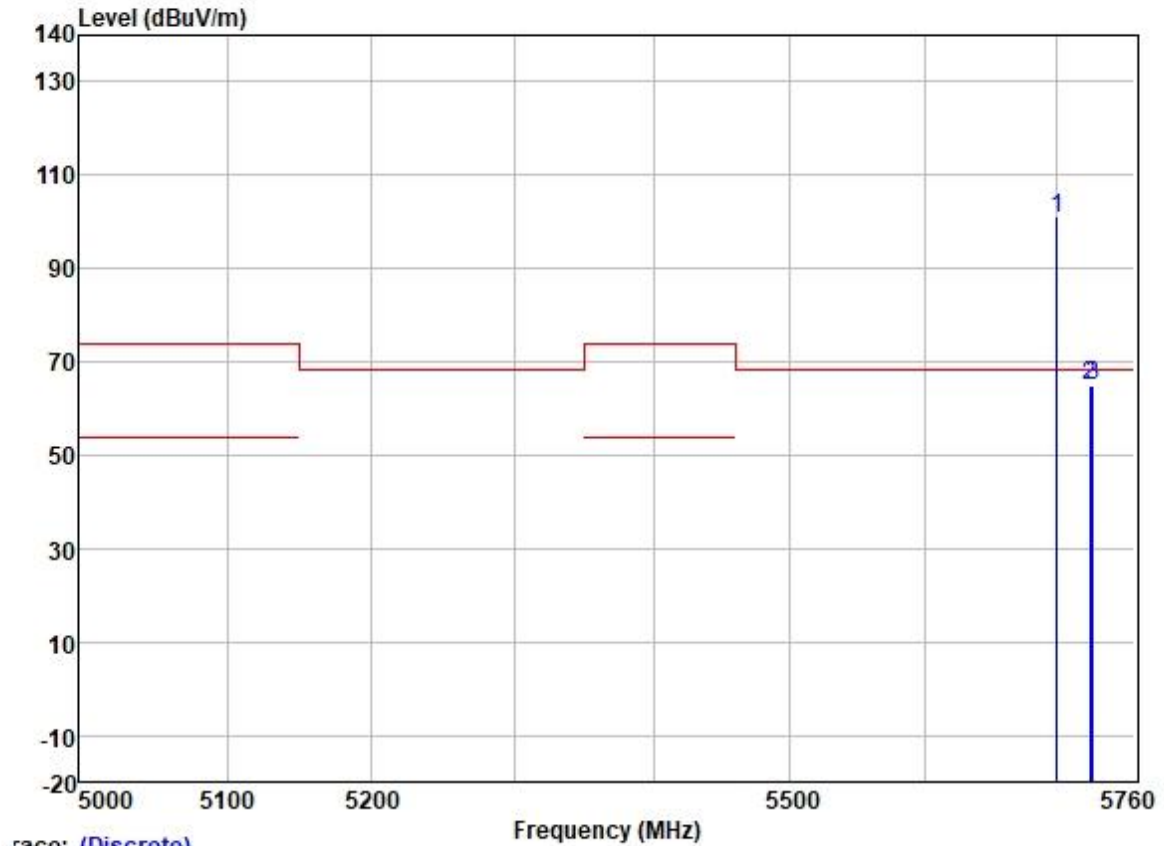
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (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 *	5700.000	98.04	32.01	6.40	36.89	99.56	68.20	31.36	HORIZONTAL Peak
2	5725.000	63.10	32.07	6.25	36.89	64.53	68.20	-3.67	HORIZONTAL Peak
3	5727.282	63.48	32.07	6.25	36.89	64.91	68.20	-3.29	HORIZONTAL Peak

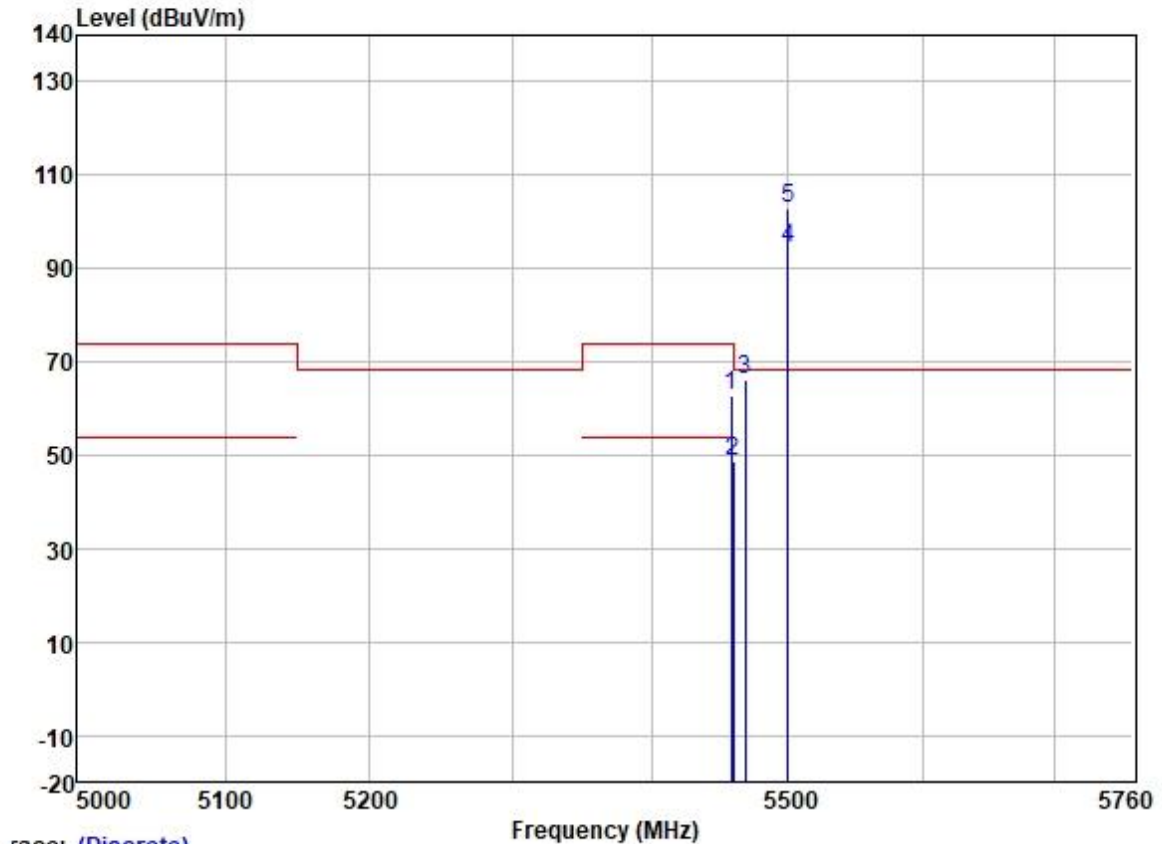
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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 *	5700.000	99.44	32.01	6.40	36.89	100.96	68.20	32.76	VERTICAL	Peak
2	5725.000	63.47	32.07	6.25	36.89	64.90	68.20	-3.30	VERTICAL	Peak
3	5727.482	63.50	32.07	6.25	36.89	64.93	68.20	-3.27	VERTICAL	Peak

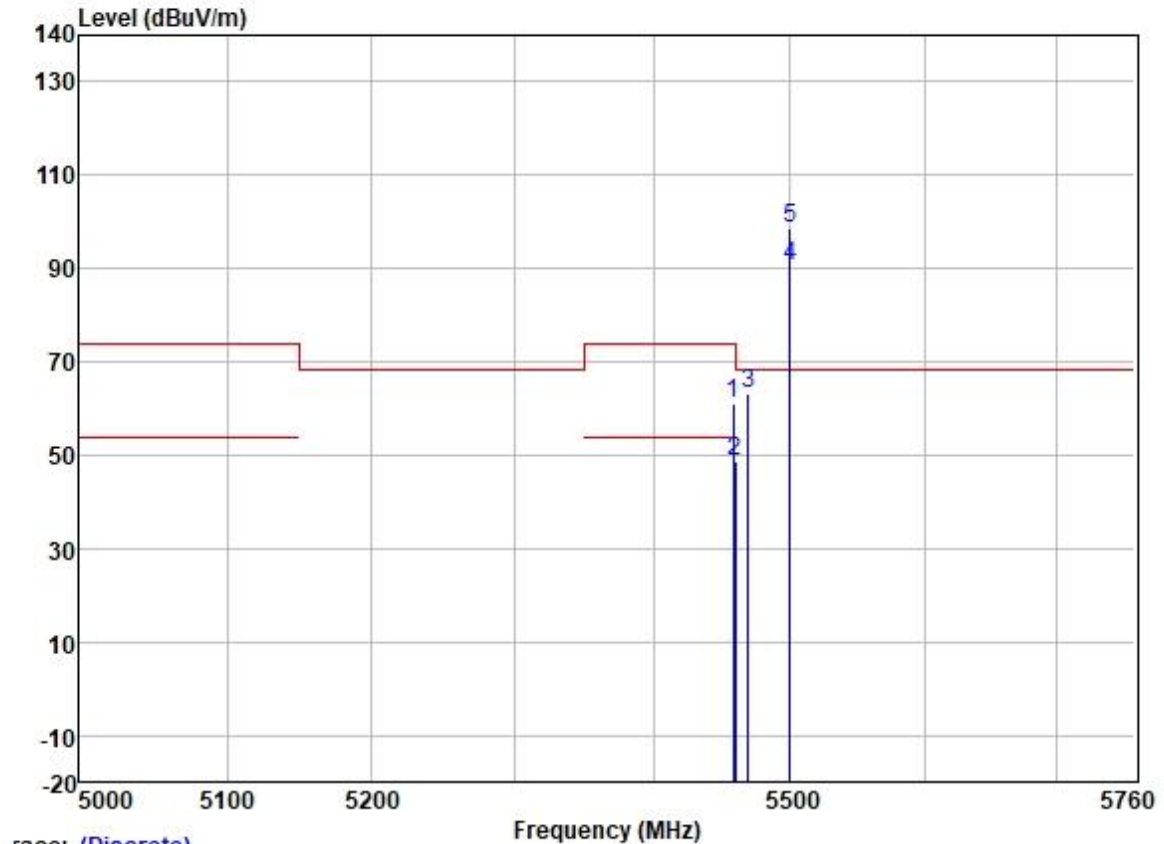
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5457.871	61.76	31.79	6.26	36.88	62.93	74.00	-11.07	HORIZONTAL Peak
2	5459.311	47.42	31.79	6.26	36.88	48.59	54.00	-5.41	HORIZONTAL Average
3	5468.197	64.91	31.80	6.31	36.88	66.14	68.20	-2.06	HORIZONTAL Peak
4	5500.000	92.92	31.80	6.40	36.88	94.24	-----	-----	HORIZONTAL Average
5 *	5500.000	101.52	31.80	6.40	36.88	102.84	68.20	34.64	HORIZONTAL Peak

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

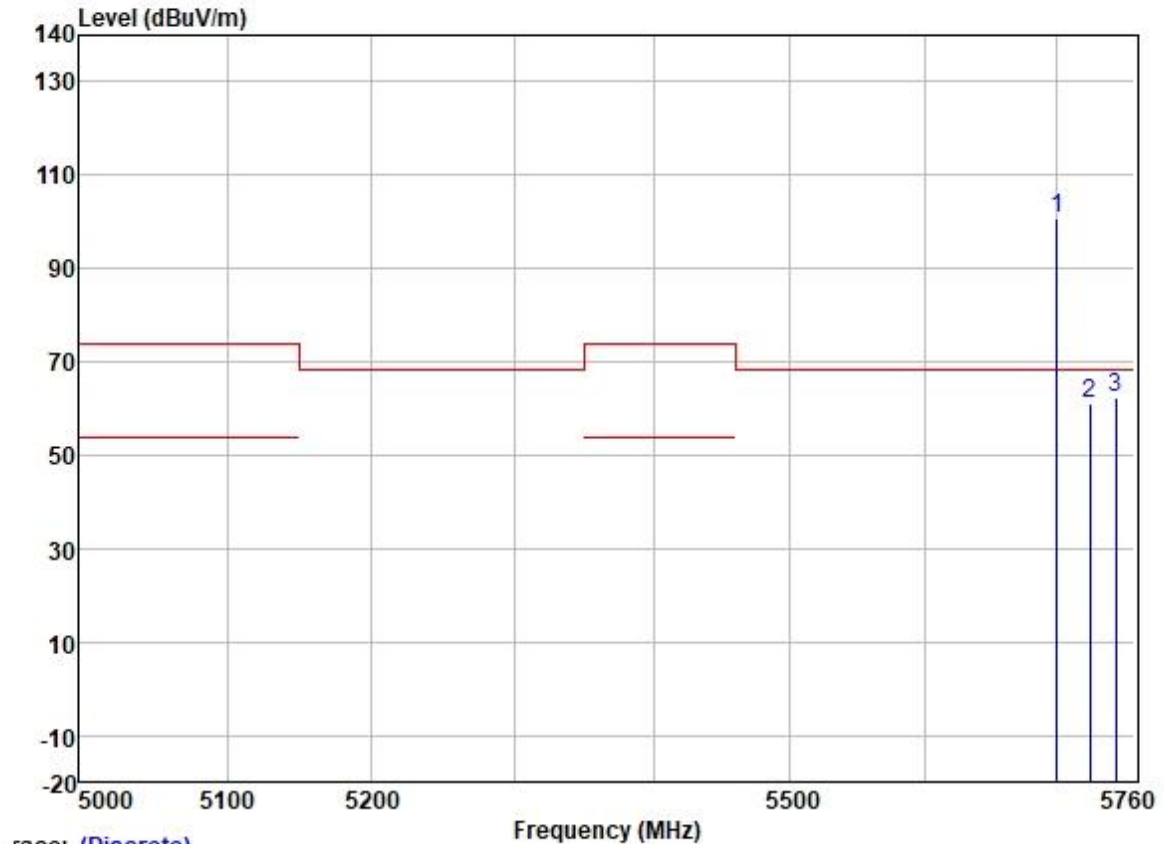


Trace: (Discrete)

	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	5457.991	59.97	31.79	6.26	36.88	61.14	74.00	-12.86	VERTICAL Peak
2	5459.430	47.34	31.79	6.26	36.88	48.51	54.00	-5.49	VERTICAL Average
3	5468.798	62.03	31.80	6.31	36.88	63.26	68.20	-4.94	VERTICAL Peak
4	5500.000	89.13	31.80	6.40	36.88	90.45	-----	-----	VERTICAL Average
5 *	5500.000	97.50	31.80	6.40	36.88	98.82	68.20	30.62	VERTICAL Peak



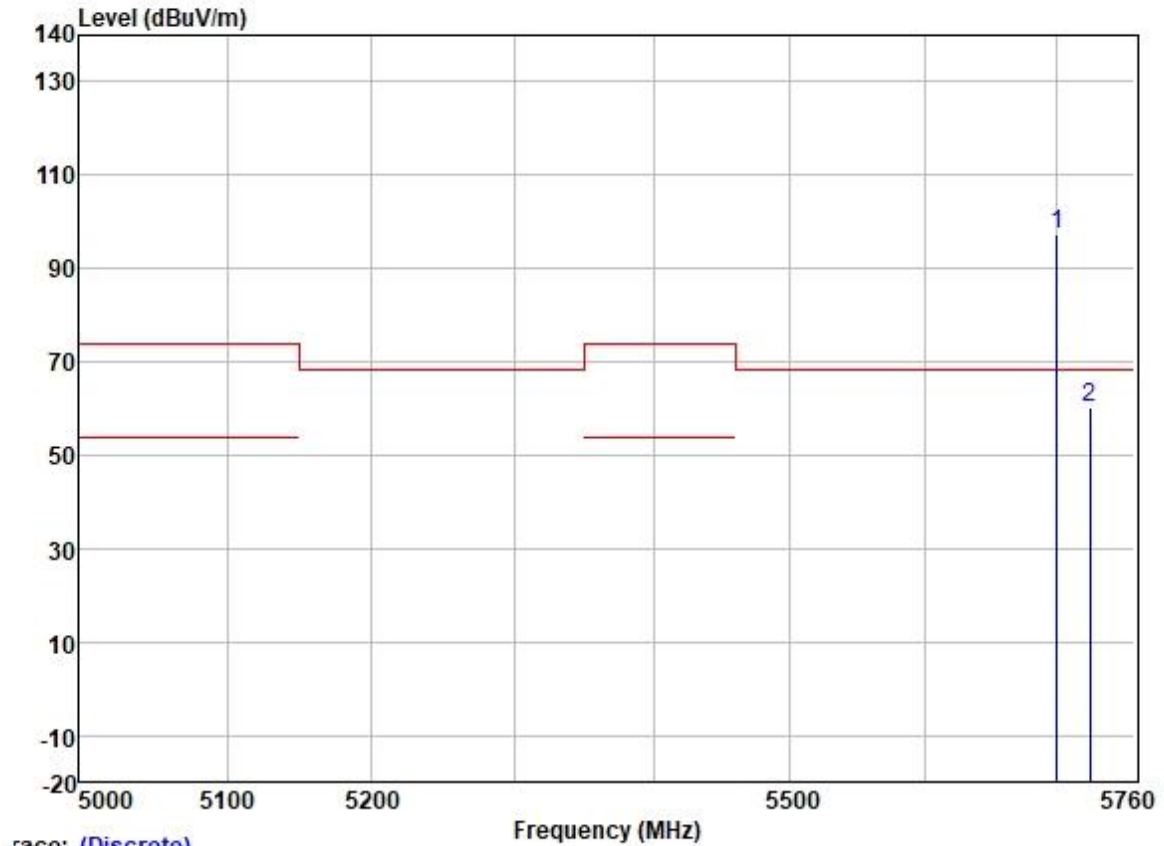
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (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 *	5700.000	99.40	32.01	6.40	36.89	100.92	68.20	32.72	HORIZONTAL Peak
2	5725.000	59.52	32.07	6.25	36.89	60.95	68.20	-7.25	HORIZONTAL Peak
3	5745.403	61.05	32.10	6.20	36.89	62.46	68.20	-5.74	HORIZONTAL Peak

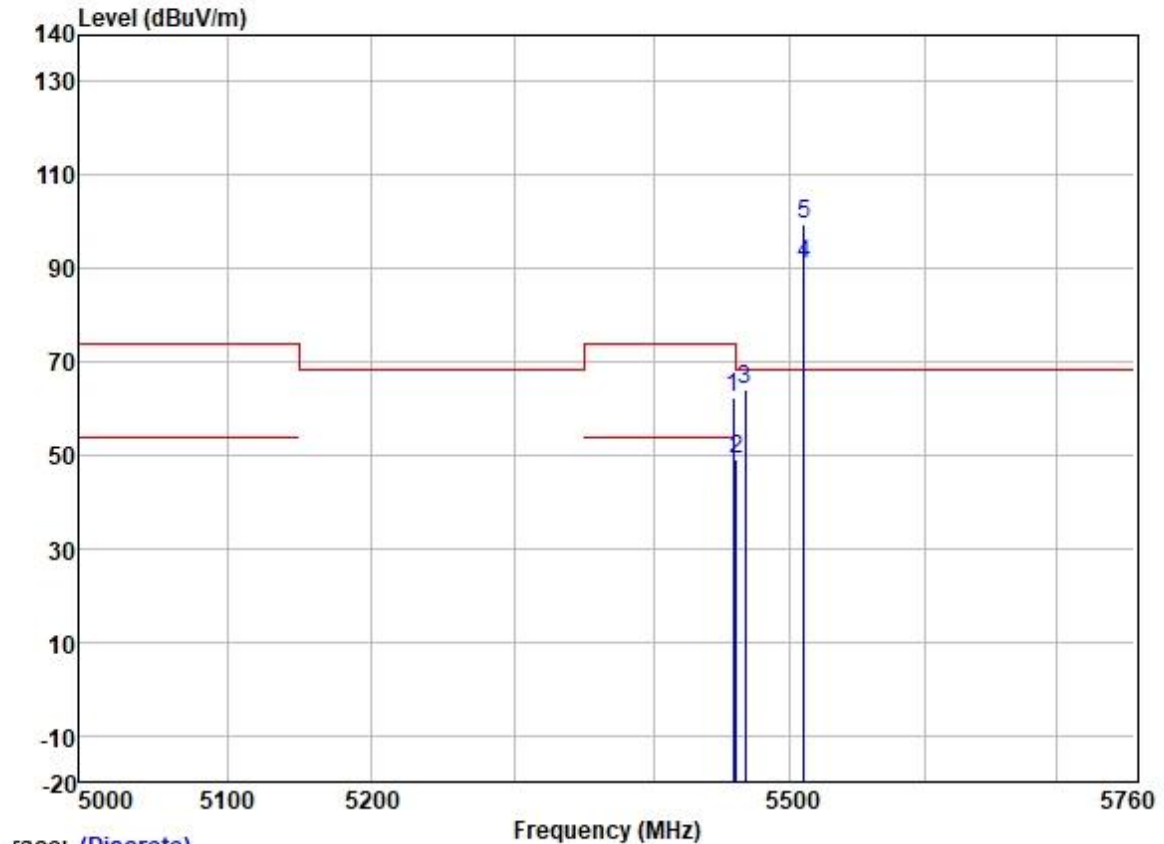
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna 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 *	5700.000	95.68	32.01	6.40	36.89	97.20	68.20	29.00	VERTICAL	Peak
2	5725.000	58.58	32.07	6.25	36.89	60.01	68.20	-8.19	VERTICAL	Peak

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

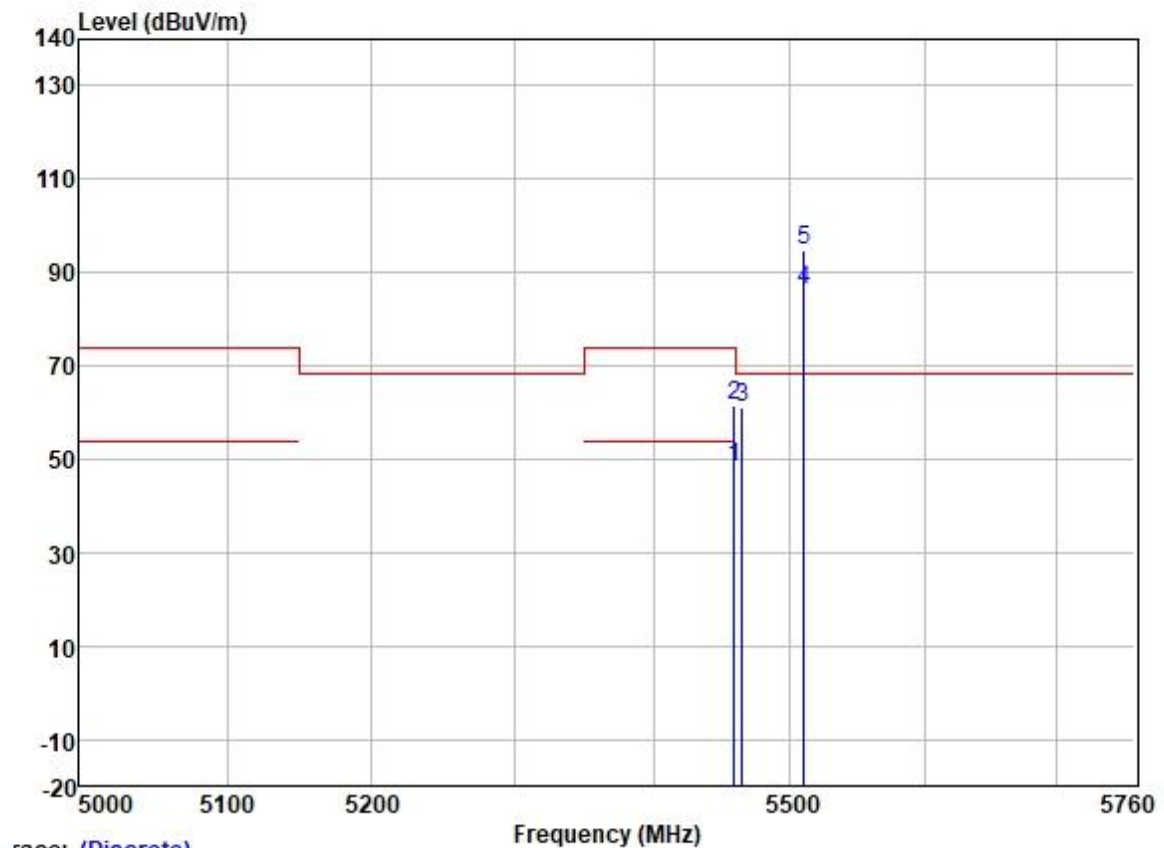


Trace: (Discrete)

	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	5457.945	61.12	31.79	6.26	36.88	62.29	74.00	-11.71	HORIZONTAL Peak
2	5459.901	47.75	31.79	6.26	36.88	48.92	54.00	-5.08	HORIZONTAL Average
3	5466.753	62.98	31.80	6.31	36.88	64.21	68.20	-3.99	HORIZONTAL Peak
4	5510.000	89.46	31.80	6.40	36.88	90.78	-----	-----	HORIZONTAL Average
5 *	5510.000	98.35	31.80	6.40	36.88	99.67	68.20	31.47	HORIZONTAL Peak



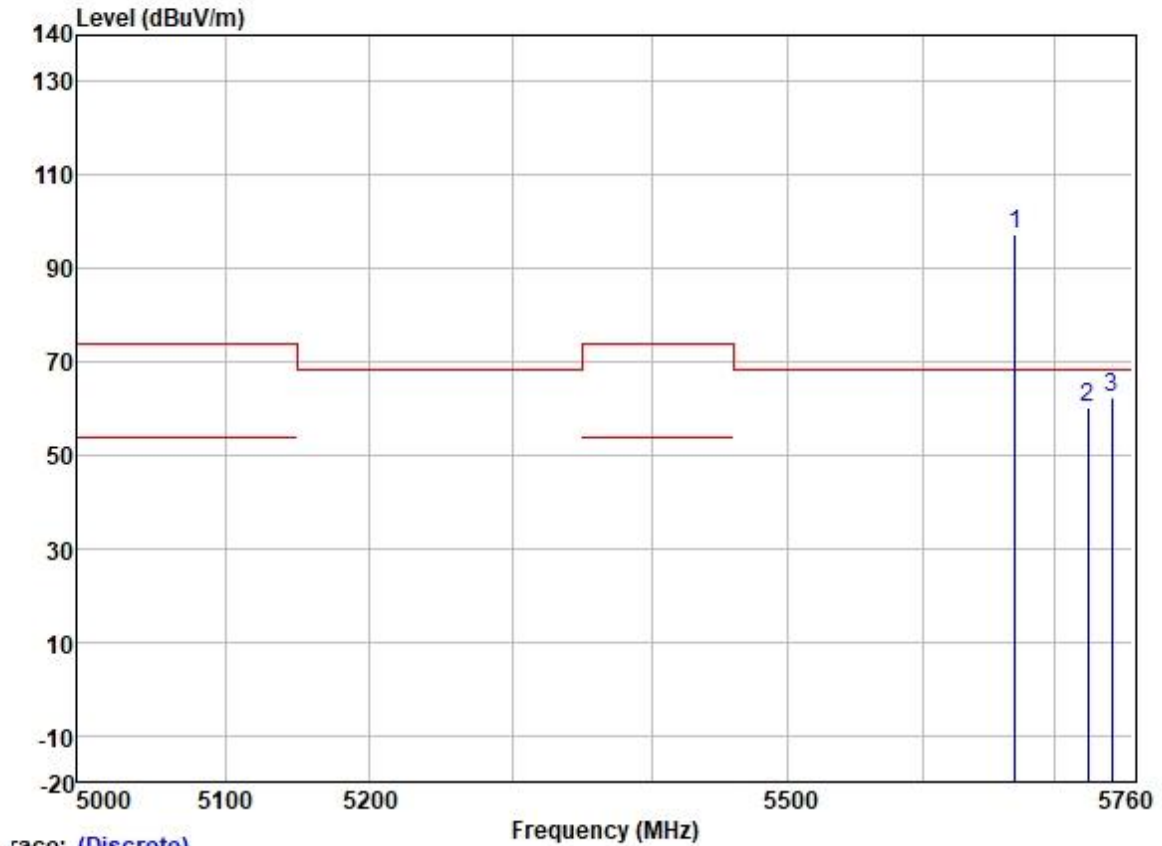
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5458.503	47.26	31.79	6.26	36.88	48.43	54.00	-5.57	VERTICAL Average
2	5458.503	60.18	31.79	6.26	36.88	61.35	74.00	-12.65	VERTICAL Peak
3	5464.515	59.81	31.80	6.31	36.88	61.04	68.20	-7.16	VERTICAL Peak
4	5510.000	84.98	31.80	6.40	36.88	86.30	-----	-----	VERTICAL Average
5 *	5510.000	93.31	31.80	6.40	36.88	94.63	68.20	26.43	VERTICAL Peak

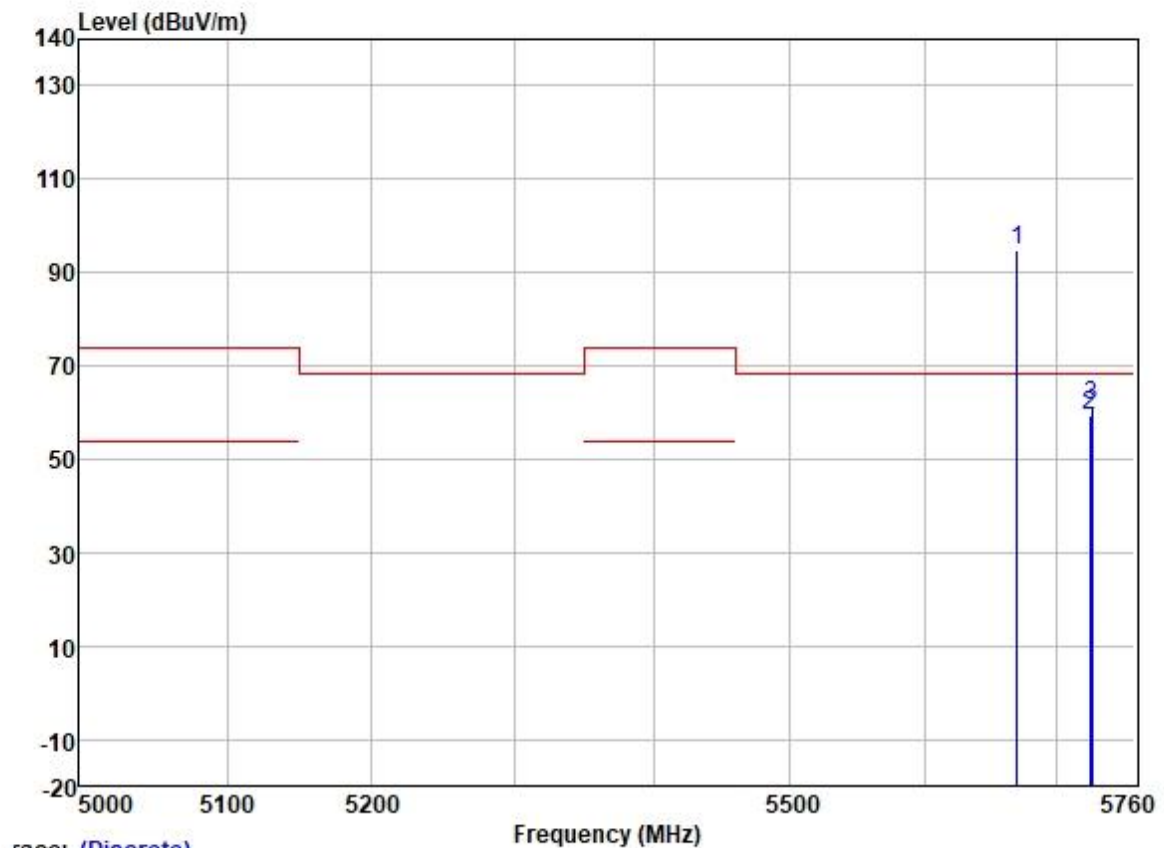
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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 *	5670.000	95.84	31.97	6.37	36.89	97.29	68.20	29.09	HORIZONTAL Peak
2	5725.000	58.72	32.07	6.25	36.89	60.15	68.20	-8.05	HORIZONTAL Peak
3	5743.833	60.84	32.10	6.20	36.89	62.25	68.20	-5.95	HORIZONTAL Peak

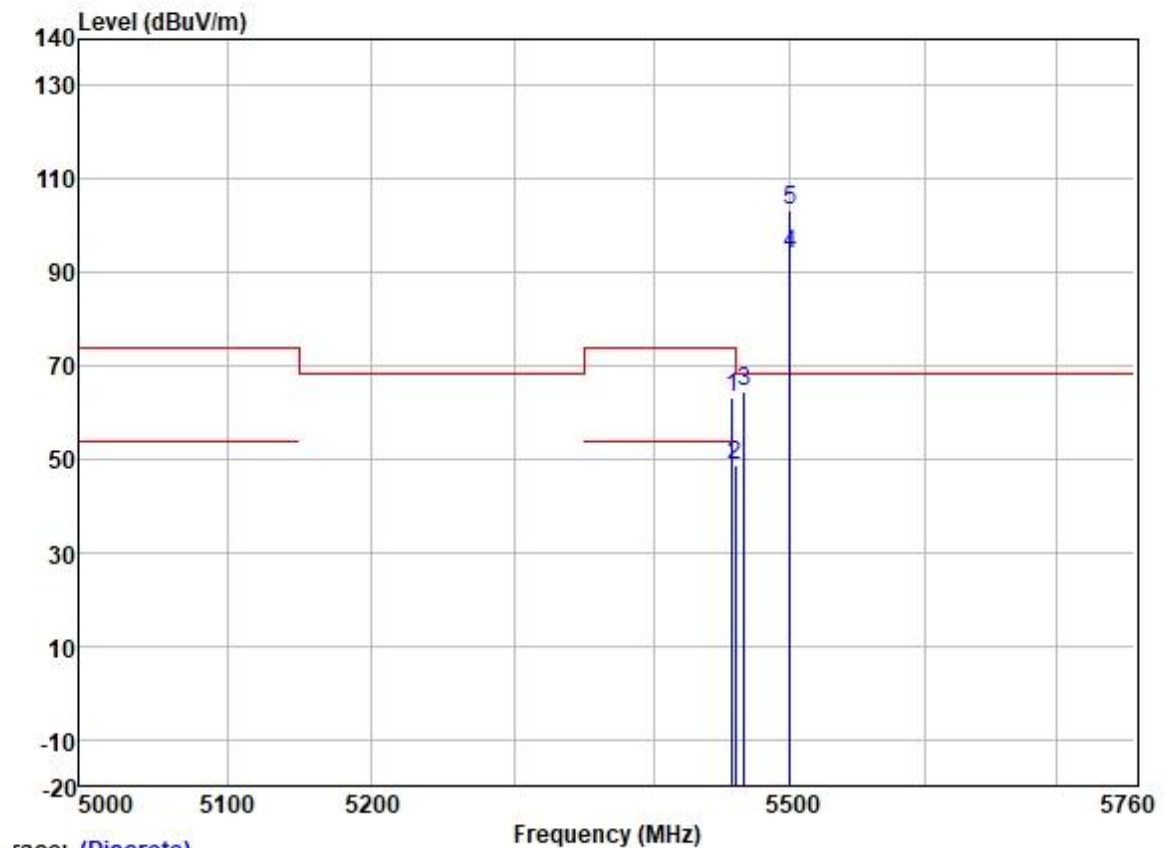
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	dB		
1 *	5670.000	93.26	31.97	6.37	36.89	94.71	68.20	26.51 VERTICAL	Peak
2	5725.000	58.13	32.07	6.25	36.89	59.56	68.20	-8.64 VERTICAL	Peak
3	5726.957	60.02	32.07	6.25	36.89	61.45	68.20	-6.75 VERTICAL	Peak

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

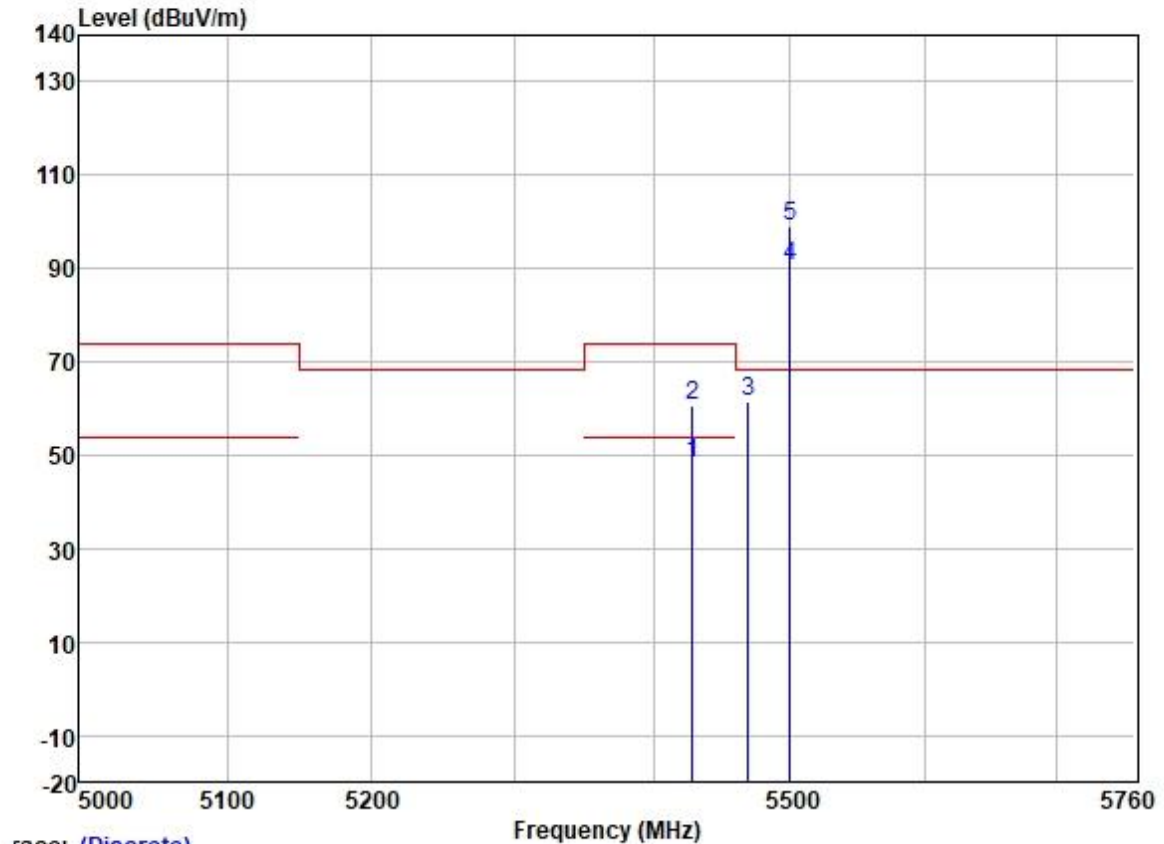


Trace: (Discrete)

	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	5457.391	62.20	31.79	6.26	36.88	63.37	74.00	-10.63	HORIZONTAL Peak
2	5459.311	47.48	31.79	6.26	36.88	48.65	54.00	-5.35	HORIZONTAL Average
3	5465.673	63.20	31.80	6.31	36.88	64.43	68.20	-3.77	HORIZONTAL Peak
4	5500.000	92.54	31.80	6.40	36.88	93.86	-----	-----	HORIZONTAL Average
5 *	5500.000	102.00	31.80	6.40	36.88	103.32	68.20	35.12	HORIZONTAL Peak

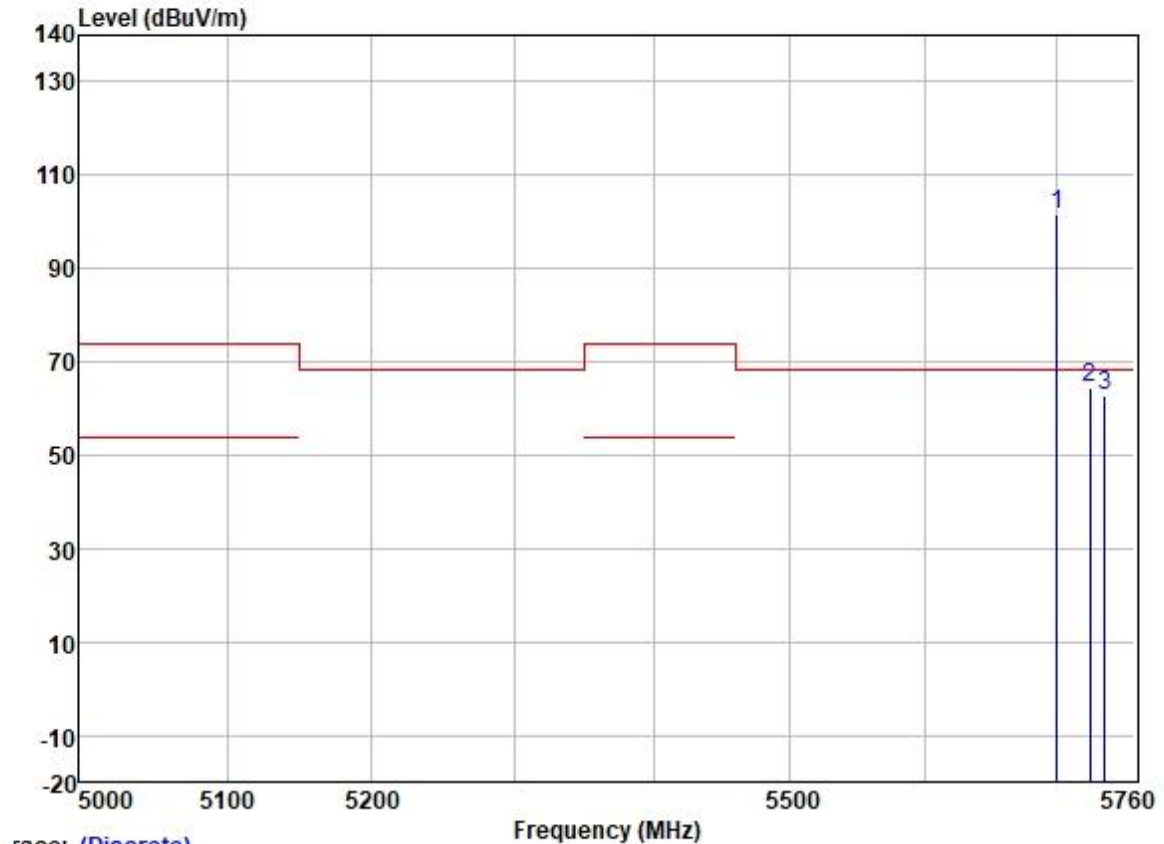


Test Mode: 06; Polarity: Vertical; Modulation: 802.11ac; Bandwidth: 20MHz; Channel: Low



	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	5428.083	47.34	31.79	6.13	36.88	48.38	54.00	-5.62	VERTICAL	Average
2	5428.083	59.69	31.79	6.13	36.88	60.73	74.00	-13.27	VERTICAL	Peak
3	5468.798	60.35	31.80	6.31	36.88	61.58	68.20	-6.62	VERTICAL	Peak
4	5500.000	89.27	31.80	6.40	36.88	90.59	-----	-----	VERTICAL	Average
5 *	5500.000	97.84	31.80	6.40	36.88	99.16	68.20	30.96	VERTICAL	Peak

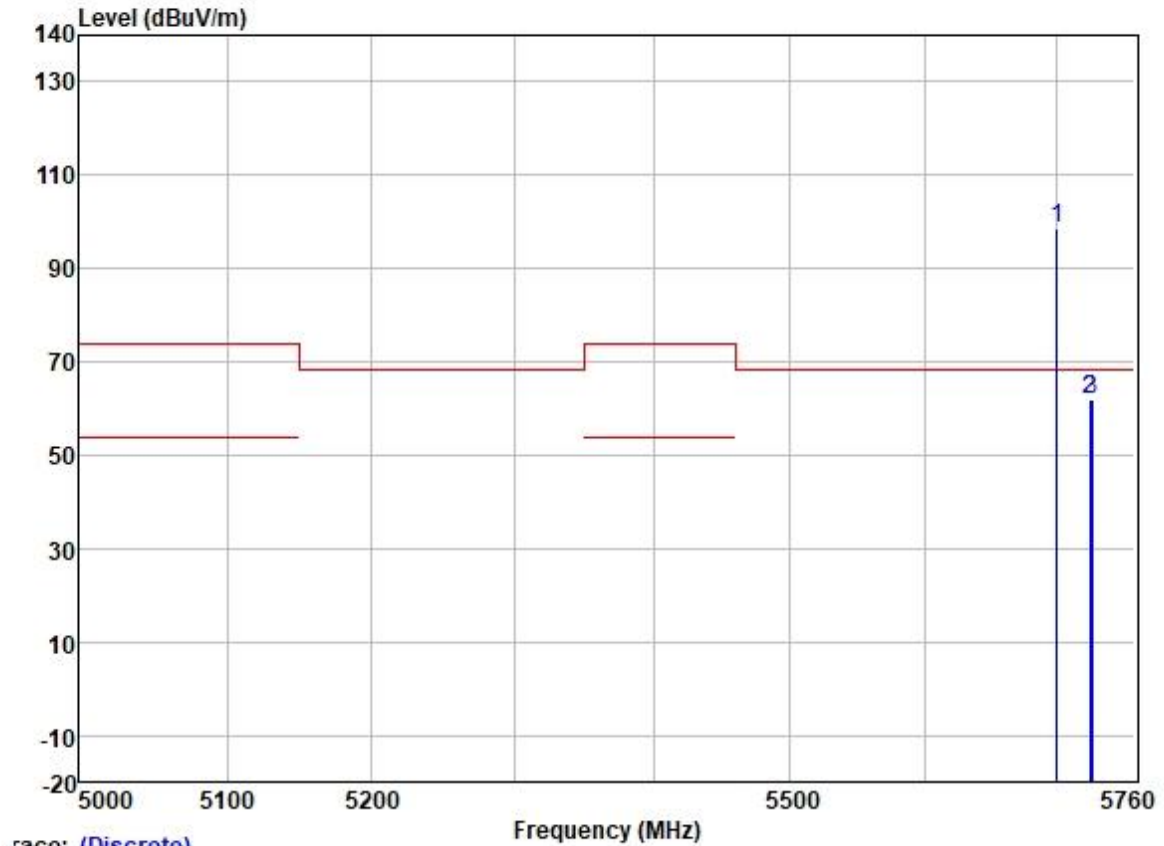
Test Mode: 06; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 20MHz; Channel: High



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 *	5700.000	100.12	32.01	6.40	36.89	101.64	68.20	33.44	HORIZONTAL Peak
2	5725.000	62.95	32.07	6.25	36.89	64.38	68.20	-3.82	HORIZONTAL Peak
3	5736.286	61.31	32.07	6.25	36.89	62.74	68.20	-5.46	HORIZONTAL Peak

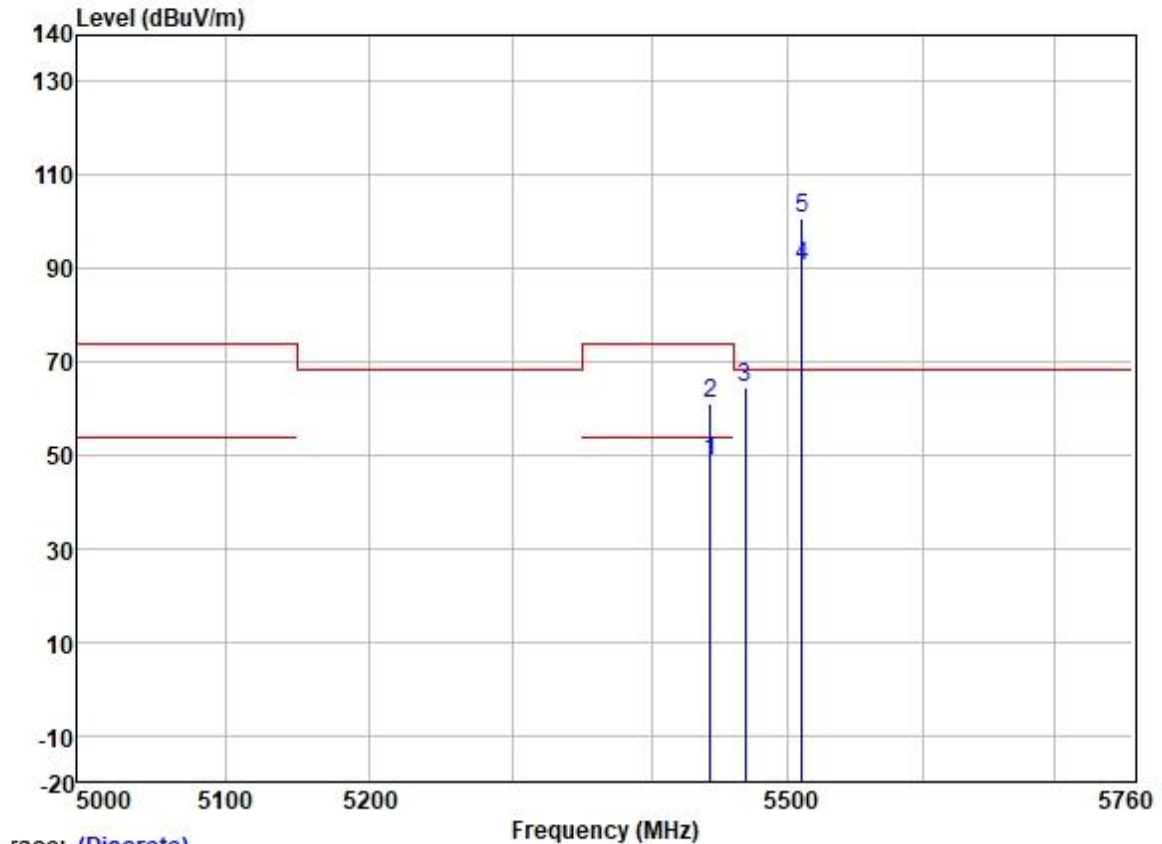
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	Read Level	Antenna 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 *	5700.000	97.19	32.01	6.40	36.89	98.71	68.20	30.51	VERTICAL	Peak
2	5725.000	60.39	32.07	6.25	36.89	61.82	68.20	-6.38	VERTICAL	Peak
3	5726.683	60.40	32.07	6.25	36.89	61.83	68.20	-6.37	VERTICAL	Peak

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

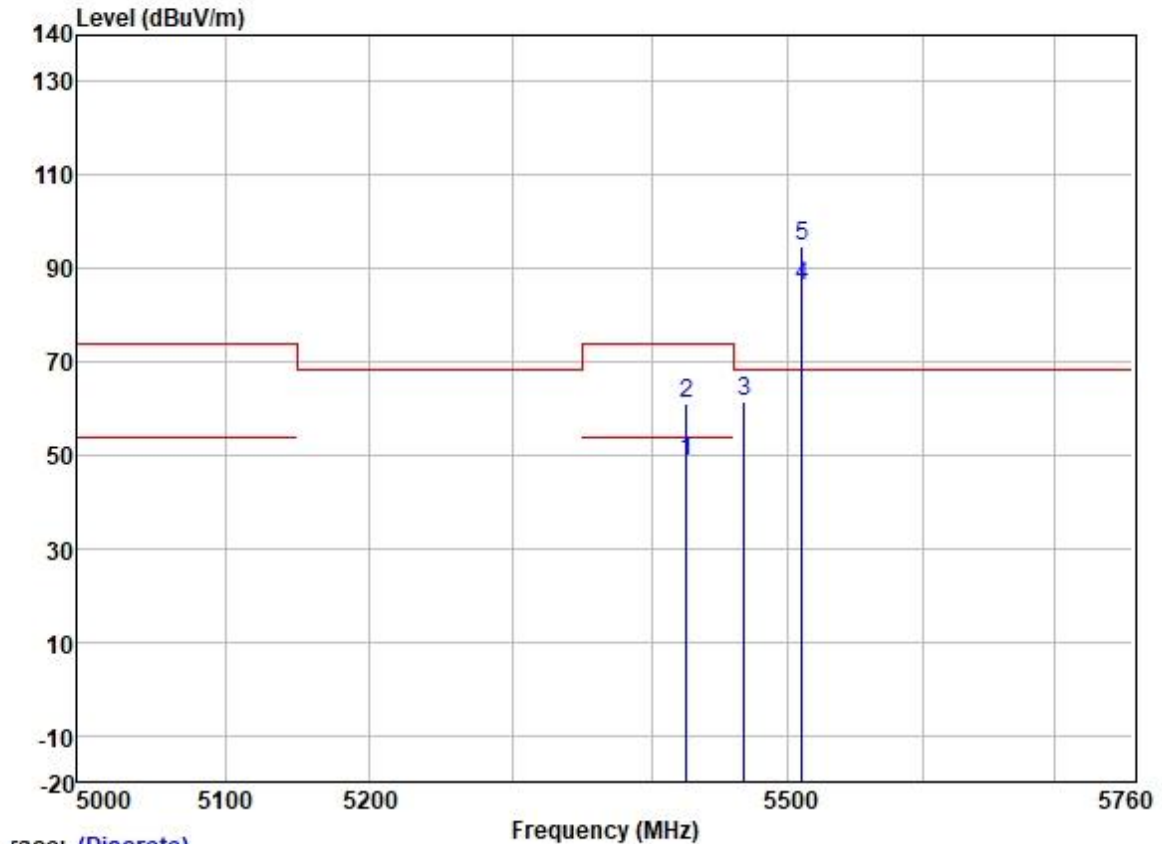


Trace: (Discrete)

	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	5443.018	47.59	31.79	6.20	36.88	48.70	54.00	-5.30	HORIZONTAL Average
2	5443.018	59.93	31.79	6.20	36.88	61.04	74.00	-12.96	HORIZONTAL Peak
3	5468.012	63.25	31.80	6.31	36.88	64.48	68.20	-3.72	HORIZONTAL Peak
4	5510.000	89.17	31.80	6.40	36.88	90.49	-----	-----	HORIZONTAL Average
5 *	5510.000	99.43	31.80	6.40	36.88	100.75	68.20	32.55	HORIZONTAL Peak

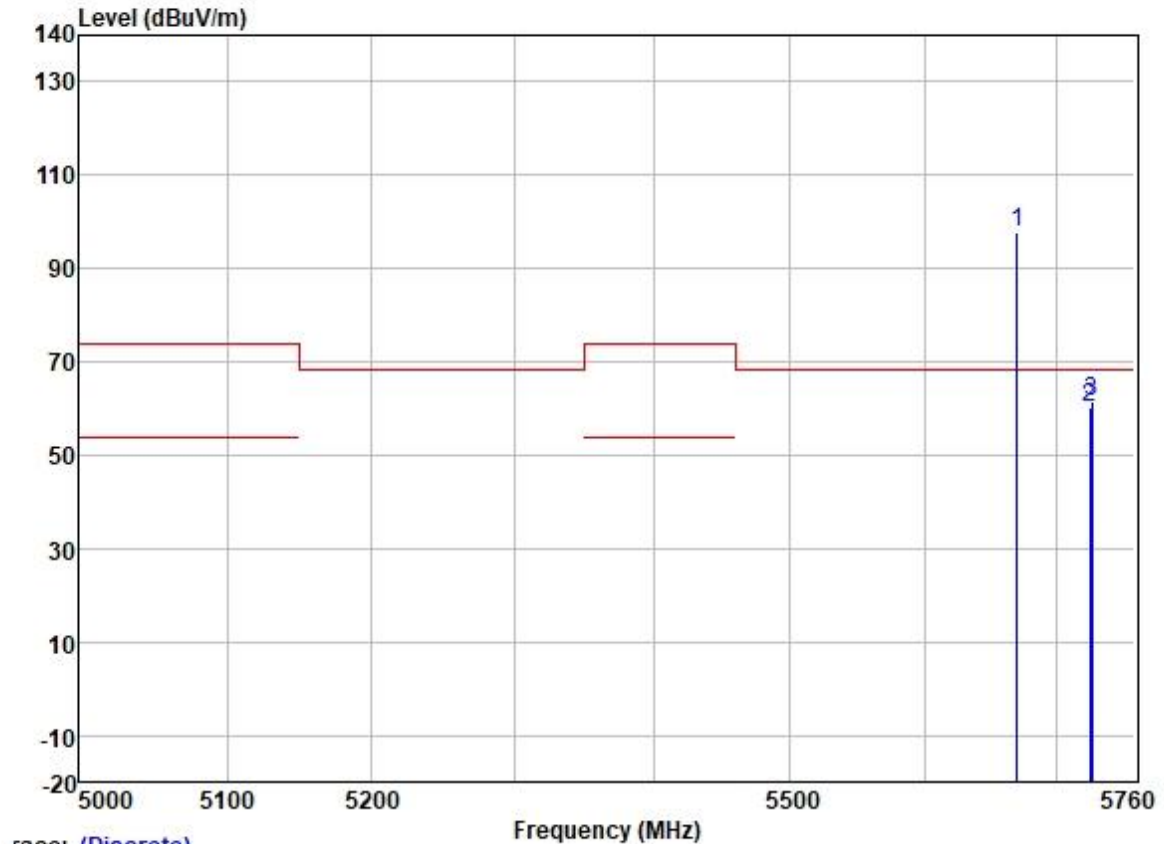


Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



	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	5425.353	47.47	31.79	6.13	36.88	48.51	54.00	-5.49	VERTICAL	Average
2	5425.353	59.98	31.79	6.13	36.88	61.02	74.00	-12.98	VERTICAL	Peak
3	5467.173	60.14	31.80	6.31	36.88	61.37	68.20	-6.83	VERTICAL	Peak
4	5510.000	84.78	31.80	6.40	36.88	86.10	-----	-----	VERTICAL	Average
5 *	5510.000	93.62	31.80	6.40	36.88	94.94	68.20	26.74	VERTICAL	Peak

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



race: (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 *	5670.000	96.49	31.97	6.37	36.89	97.94	68.20	29.74 HORIZONTAL Peak
2	5725.000	58.85	32.07	6.25	36.89	60.28	68.20	-7.92 HORIZONTAL Peak
3	5726.536	59.94	32.07	6.25	36.89	61.37	68.20	-6.83 HORIZONTAL Peak