TEST REPORT

Application No.:	GZCR2204000426AT
Applicant:	KanDao Technology Co., Ltd.
Address of Applicant:	RM503 Block 1, Software Town of Shenzhen, Universiade No.8288 Longgang Avenue, Longgang Dist, Shenzhen, China
Manufacturer:	KanDao Technology Co., Ltd.
Address of Manufacturer:	RM503 Block 1, Software Town of Shenzhen, Universiade No.8288 Longgang Avenue, Longgang Dist, Shenzhen, China
Factory:	SKY LIGHT ELECTRONIC (SHENZHEN) LIMITED
Address of Factory:	1F-2F OF NO.9, 1F-5F OF NO.8, ANTUOSHAN HIGH-TECH. INDUSTRIAL PARK, SHAER COMMUNITY, SHAJING STREET, BAO'AN DISTRICT, SHENZHEN CITY, GUANGDONG PROVINCE, CHINA
Equipment Under Test (EUT):	
EUT Name:	QooCam EGO
Model No.:	QG7018
Trade Mark:	KanDao
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2022-03-22
Date of Test:	2022-03-23 to 2022-04-19
Date of Issue:	2022-04-21
Test Result:	**Pass***

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

Kobe Jian
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2022-04-21*		*Original*

Authorized for issue by				
		Curry Wu/Project Engineer		
		Ricky Liu/Reviewer		

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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		ANSI C63.10 (2013) Section 12.2	KDB 789033 D02 v02r01 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
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
Radiated Emissions (above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass

Note:

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

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

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3.7V by rechargeable lithium battery and charged by DC 5V 2A.
Cable:	USB Cable 50cm, shielded
Operation Frequency (20MHz):	U-NII-1: 5180-5240MHz;
Operation Frequency (40MHz):	U-NII-1: 5190-5230MHz;
Operation Frequency (80MHz):	U-NII-1: 5210MHz;
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:	Without DFS function
TPC Function:	Without TPC function
Antenna Type:	FPC Antenna
Antenna Gain:	3.91dBi

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1443	REF. No.SEA05D12E

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	±2.76dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
Radiated Emissions (below 1GHz)	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m)
Radiated Emissions which fall in the restricted bands	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m);± 4.52dB (1GHz-6GHz);± 4.54dB (above 6GHz)
Frequency Stability	± 7.25 x 10-8
Radiated Emissions (above 1GHz)	± 4.52dB (1GHz-6GHz);± 4.54dB (above 6GHz)

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4.4 Test Location

All tests were performed at:

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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

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5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-12-23	2022-12-22
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	ESR3	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	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
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	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11

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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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
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	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
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	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11

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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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

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	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Emissions (below 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
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	2022-02-22	2023-02-21
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19

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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**
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
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	2021-11-01	2022-10-31
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	2021-08-30	2022-08-29

Frequency Stability					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-01	2023-02-28
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2022-03-11	2023-03-10
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 Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15

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6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
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	2021-12-17	2022-12-16
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-12-17	2022-12-16
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	2021-08-30	2022-08-29

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

15.203 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 permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of 15.211, 15.213, 15.217, 15.219, 15.221, or 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the Antenna 3.91dBi.

Antenna location: Refer to internal photo.

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6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip (AP6256) 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(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.1 °C Humidity: 50.8 % RH Atmospheric Pressure: 1015 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Chargr+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.

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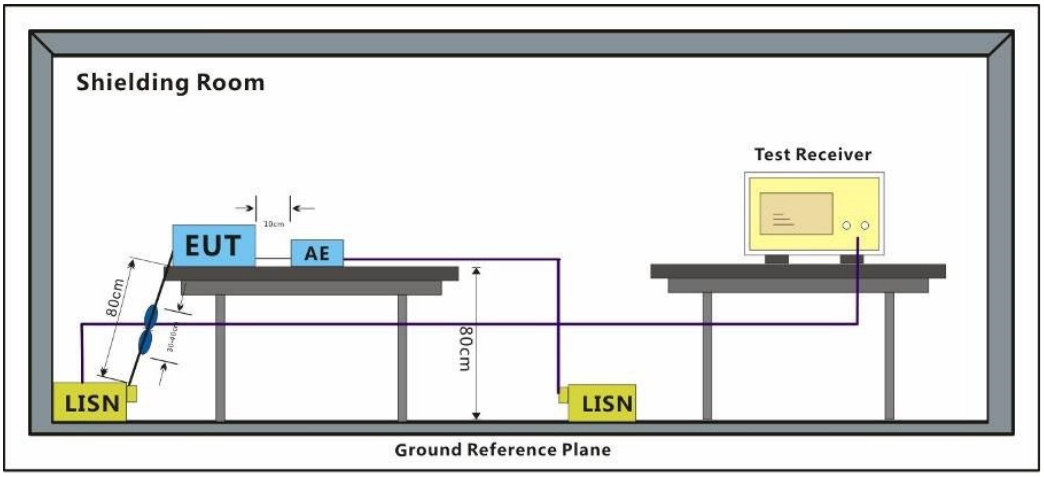
7.1.3 Test Setup Diagram



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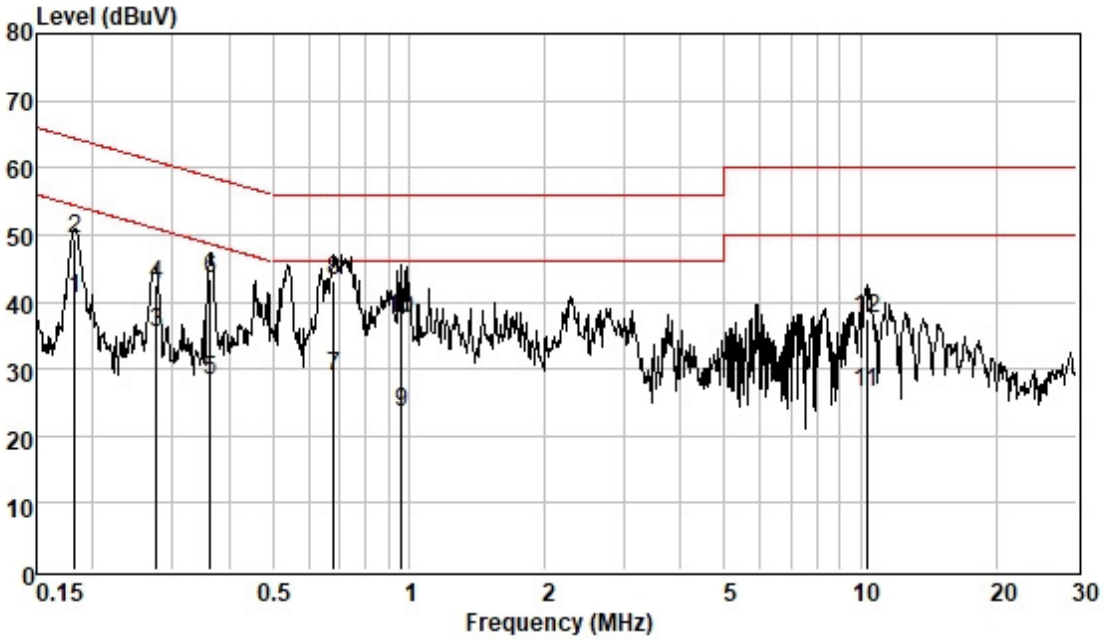
Test Mode: 05; Polarity: Neutral Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Pol :NEUTRAL
Mode :
Model :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.182	30.85	0.06	9.54	40.45	54.37	-13.92	Average
2	0.182	39.86	0.06	9.54	49.46	64.37	-14.91	QP
3	0.276	25.61	0.06	9.57	35.24	50.94	-15.70	Average
4	0.276	32.93	0.06	9.57	42.56	60.94	-18.38	QP
5	0.363	18.56	0.06	9.57	28.19	48.65	-20.46	Average
6	0.363	33.70	0.06	9.57	43.33	58.65	-15.32	QP
7	0.683	19.15	0.07	9.59	28.81	46.00	-17.19	Average
8	0.683	33.38	0.07	9.59	43.04	56.00	-12.96	QP
9	0.963	13.91	0.07	9.59	23.57	46.00	-22.43	Average
10	0.963	27.72	0.07	9.59	37.38	56.00	-18.62	QP
11	10.288	16.36	0.24	9.78	26.38	50.00	-23.62	Average
12	10.288	27.56	0.24	9.78	37.58	60.00	-22.42	QP

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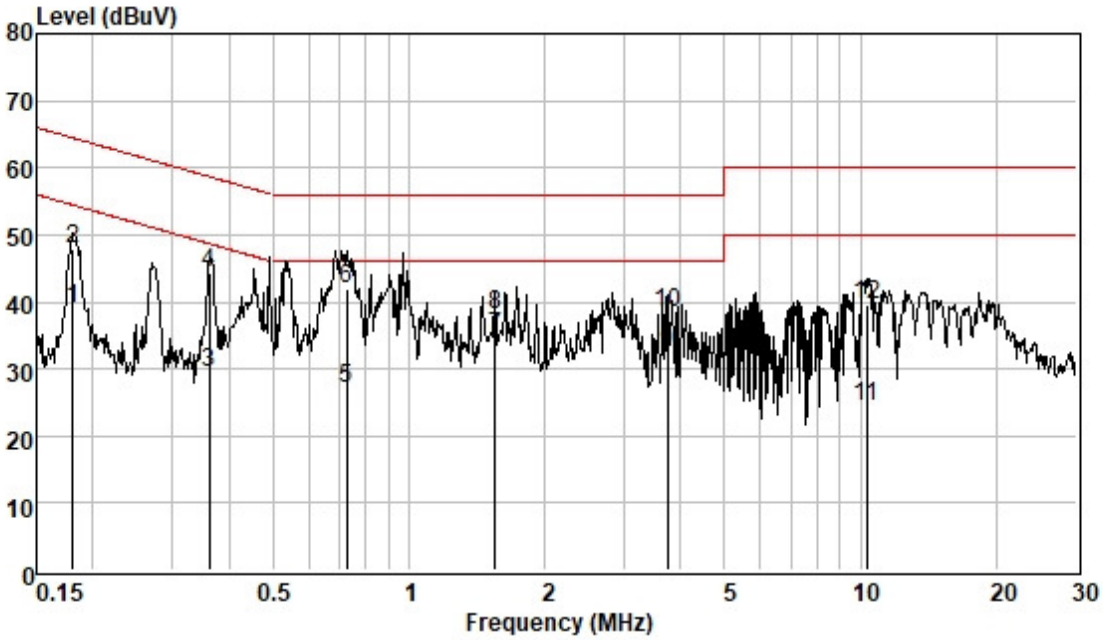
Test Mode: 05; Polarity: Line Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Pol :LINE
Mode :
Model :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.181	29.42	0.06	9.55	39.03	54.46	-15.43	Average
2	0.181	38.33	0.06	9.55	47.94	64.46	-16.52	QP
3	0.361	19.71	0.06	9.58	29.35	48.69	-19.34	Average
4	0.361	34.79	0.06	9.58	44.43	58.69	-14.26	QP
5	0.727	17.35	0.07	9.59	27.01	46.00	-18.99	Average
6	0.727	32.34	0.07	9.59	42.00	56.00	-14.00	QP
7	1.552	25.23	0.10	9.60	34.93	46.00	-11.07	Average
8	1.552	28.41	0.10	9.60	38.11	56.00	-17.89	QP
9	3.740	22.64	0.16	9.63	32.43	46.00	-13.57	Average
10	3.740	28.70	0.16	9.63	38.49	56.00	-17.51	QP
11	10.288	14.35	0.24	9.77	24.36	50.00	-25.64	Average
12	10.288	29.50	0.24	9.77	39.51	60.00	-20.49	QP

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7.2 Duty Cycle

Test Requirement KDB 789033 D02 v02r01 II B 1
Test Method: ANSI C63.10 (2013) Section 12.2

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

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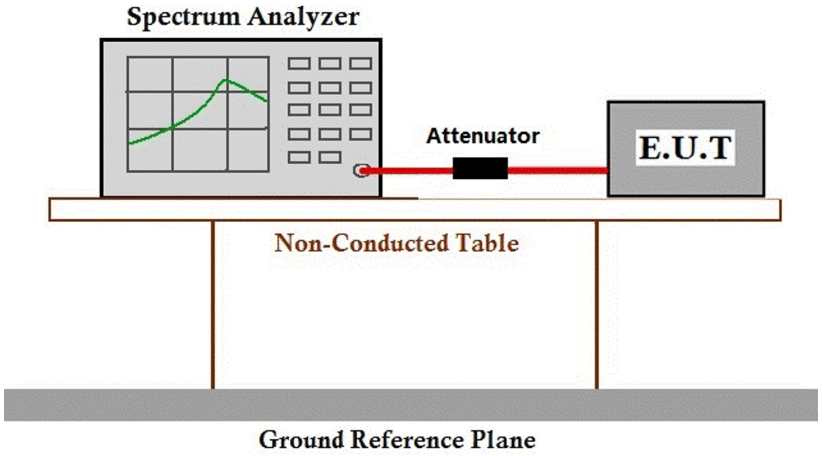
7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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7.3 99% Bandwidth

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

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

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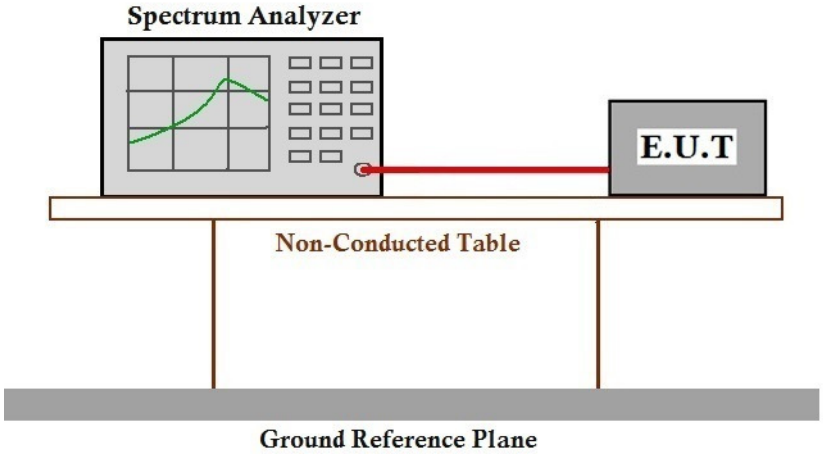
7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

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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: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1015 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

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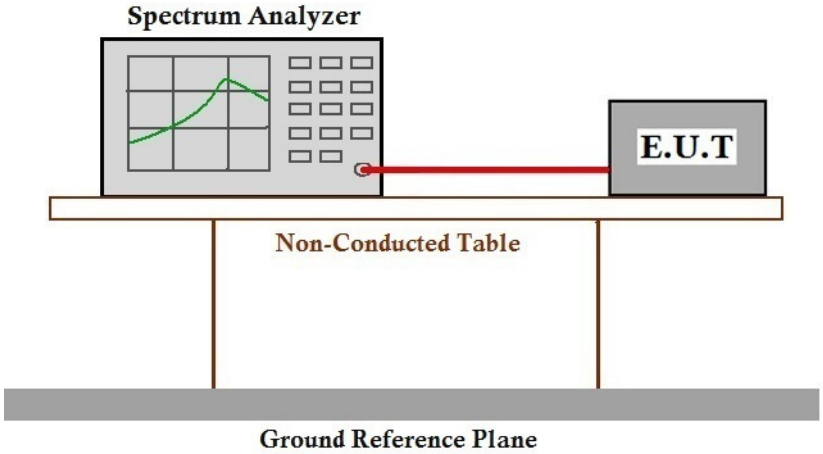
7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

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7.5 Maximum Conducted output power

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

Test Method: KDB 789033 D02 II E

Limit:

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

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1015 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

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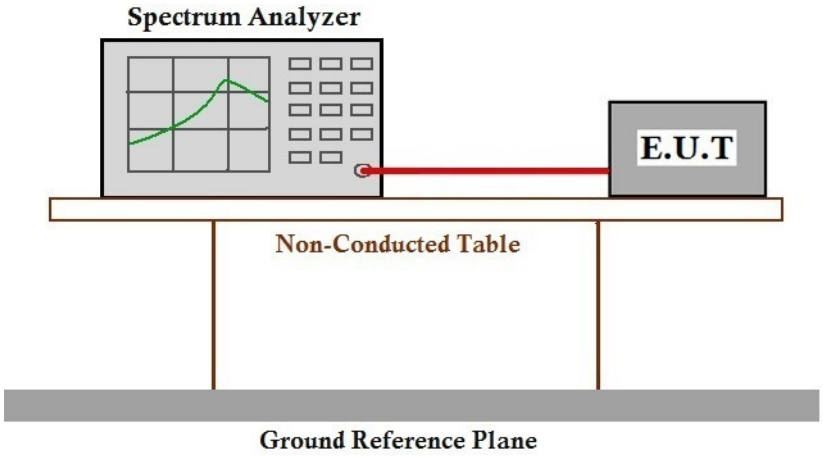
7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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7.6 Peak Power spectrum density

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

Test Method: KDB 789033 D02 II F

Limit:

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

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1015 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

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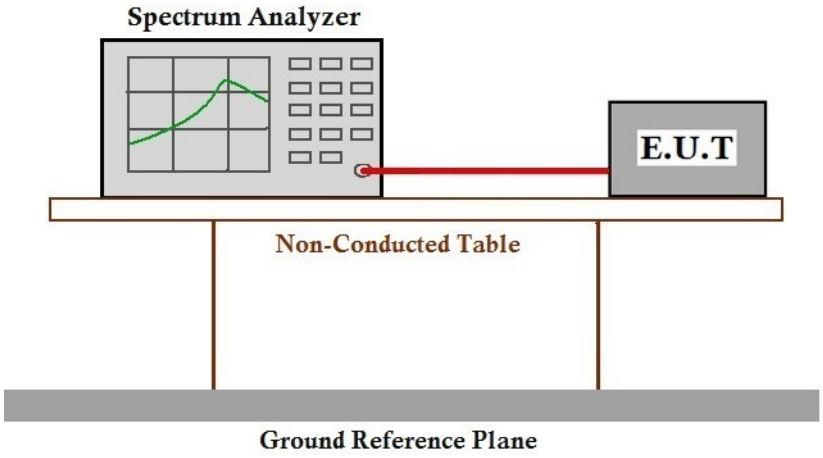
7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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7.7 Radiated Emissions (below 1GHz)

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

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
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

* Frequency in CFR 15.205 Restricted Band.

Note: Frequency in non-Restricted Band:

(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.

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7.7.1 E.U.T. Operation

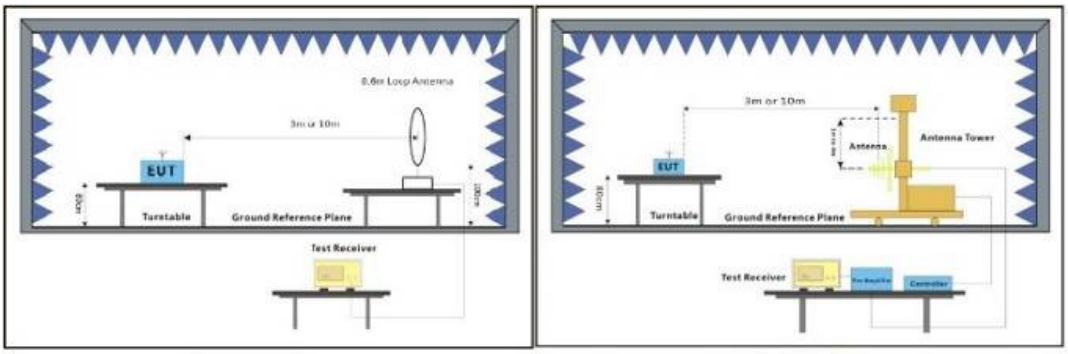
Operating Environment:

Temperature: 20.6 °C Humidity: 51.7 % RH Atmospheric Pressure: 1015 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

7.7.3 Test Setup Diagram



Below 30MHz 30MHz-1GHz

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7.7.4 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 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using 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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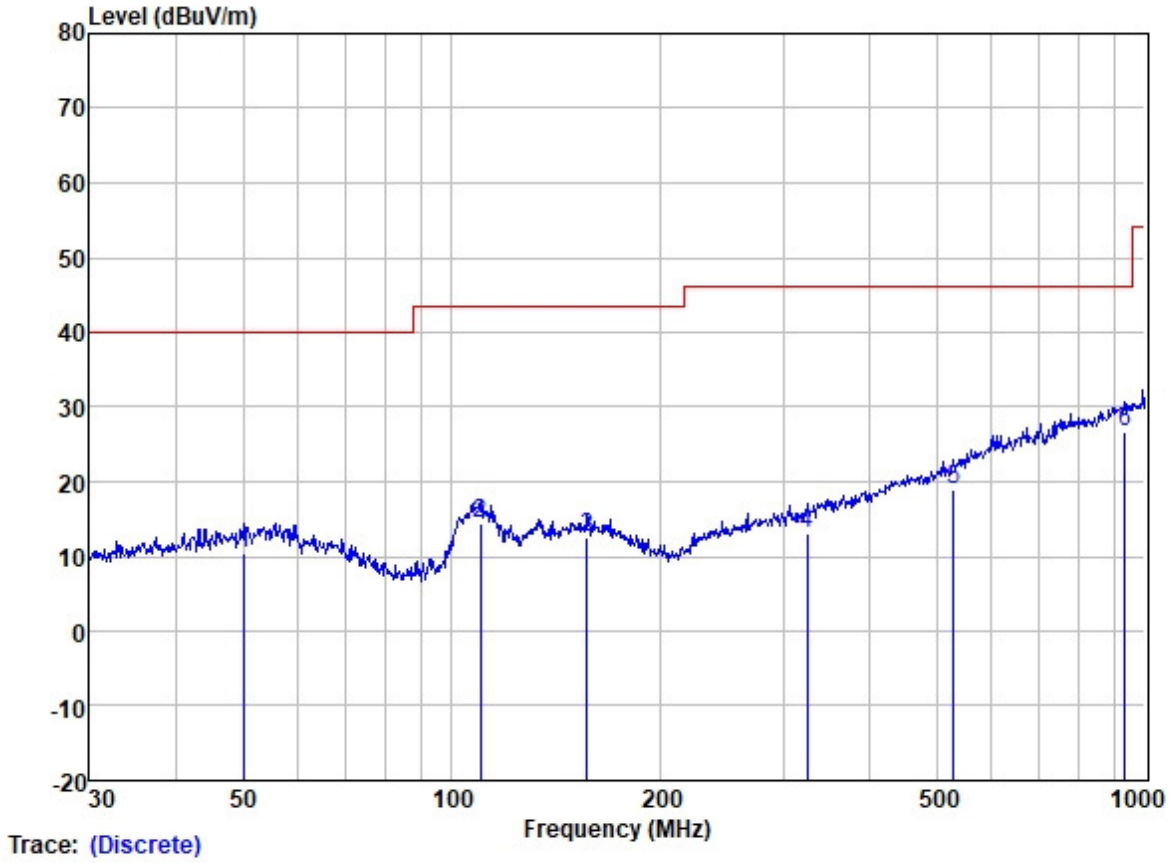
Test Mode: 05; Polarity: Horizontal Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : SGS
Job :
Model :
Power :
Test Mode : 5G WIFI

	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	dB		
1	50.232	22.90	13.62	1.15	27.17	10.50	40.00	-29.50	HORIZONTAL	QP
2	109.796	29.56	10.05	1.79	27.06	14.34	43.50	-29.16	HORIZONTAL	QP
3	156.458	23.77	13.35	2.30	26.81	12.61	43.50	-30.89	HORIZONTAL	QP
4	325.596	22.61	13.94	3.35	26.70	13.20	46.00	-32.80	HORIZONTAL	QP
5	528.246	24.13	18.13	4.60	28.03	18.83	46.00	-27.17	HORIZONTAL	QP
6	935.546	23.85	23.62	7.06	27.78	26.75	46.00	-19.25	HORIZONTAL	QP

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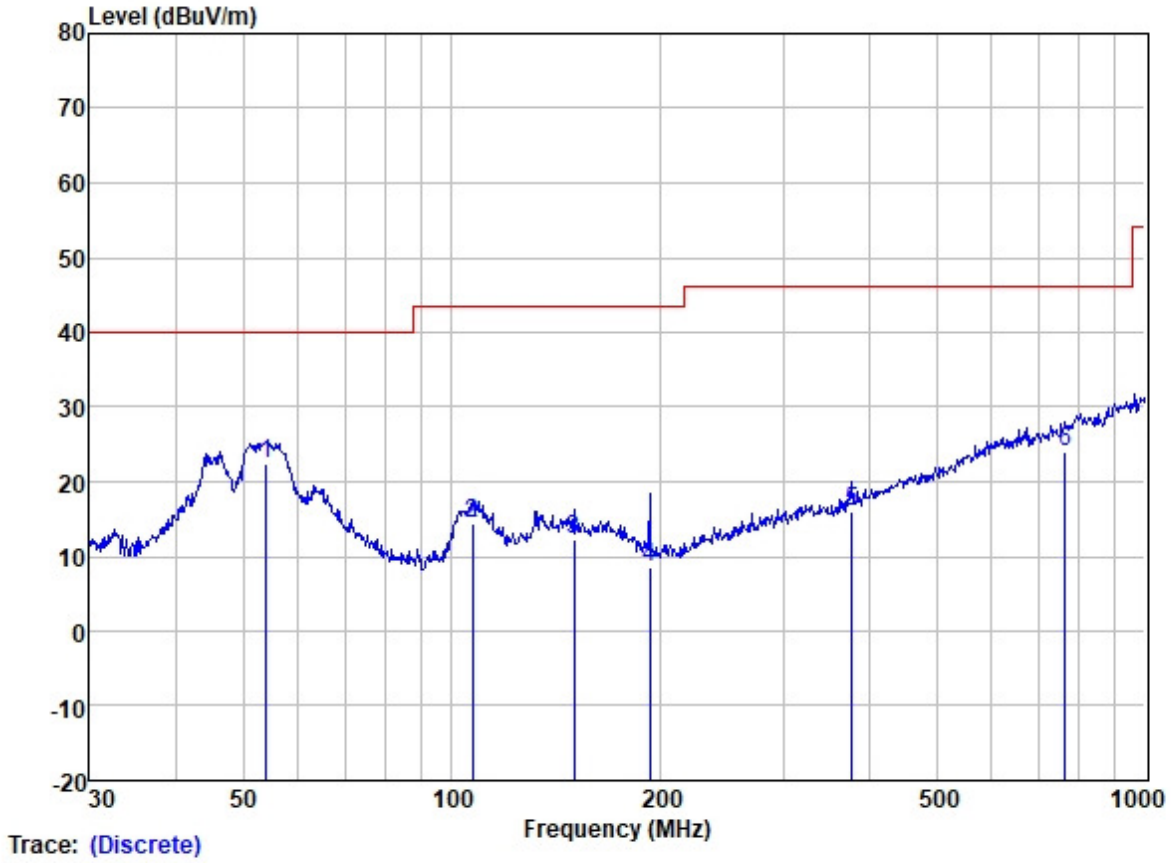
Test Mode: 05; Polarity: Vertical Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : SGS
Job :
Model :
Power :
Test Mode : 5G WIFI

	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	dB		
1	53.882	34.97	13.46	1.18	27.17	22.44	40.00	-17.56	VERTICAL	QP
2	107.134	29.97	9.75	1.78	27.06	14.44	43.50	-29.06	VERTICAL	QP
3	150.011	23.63	13.33	2.24	26.84	12.36	43.50	-31.14	VERTICAL	QP
4	193.095	22.61	10.08	2.50	26.74	8.45	43.50	-35.05	VERTICAL	QP
5	377.259	24.42	14.95	3.82	27.23	15.96	46.00	-30.04	VERTICAL	QP
6	766.057	23.98	22.04	6.05	28.06	24.01	46.00	-21.99	VERTICAL	QP

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7.8 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m
Limit:

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

* Frequency in CFR 15.205 Restricted Band.

Note: Frequency in non-Restricted Band:

(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.

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7.8.1 E.U.T. Operation

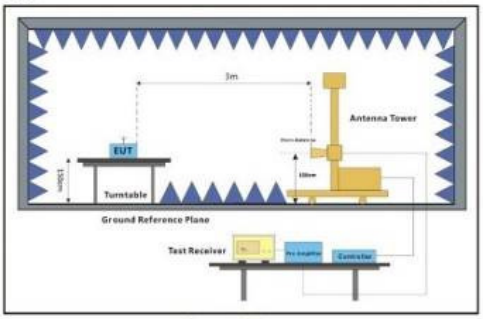
Operating Environment:

Temperature: 21.5 °C Humidity: 50.4 % RH Atmospheric Pressure: 1015 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

7.8.3 Test Setup Diagram



Above 1GHz

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7.8.4 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 or 10 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

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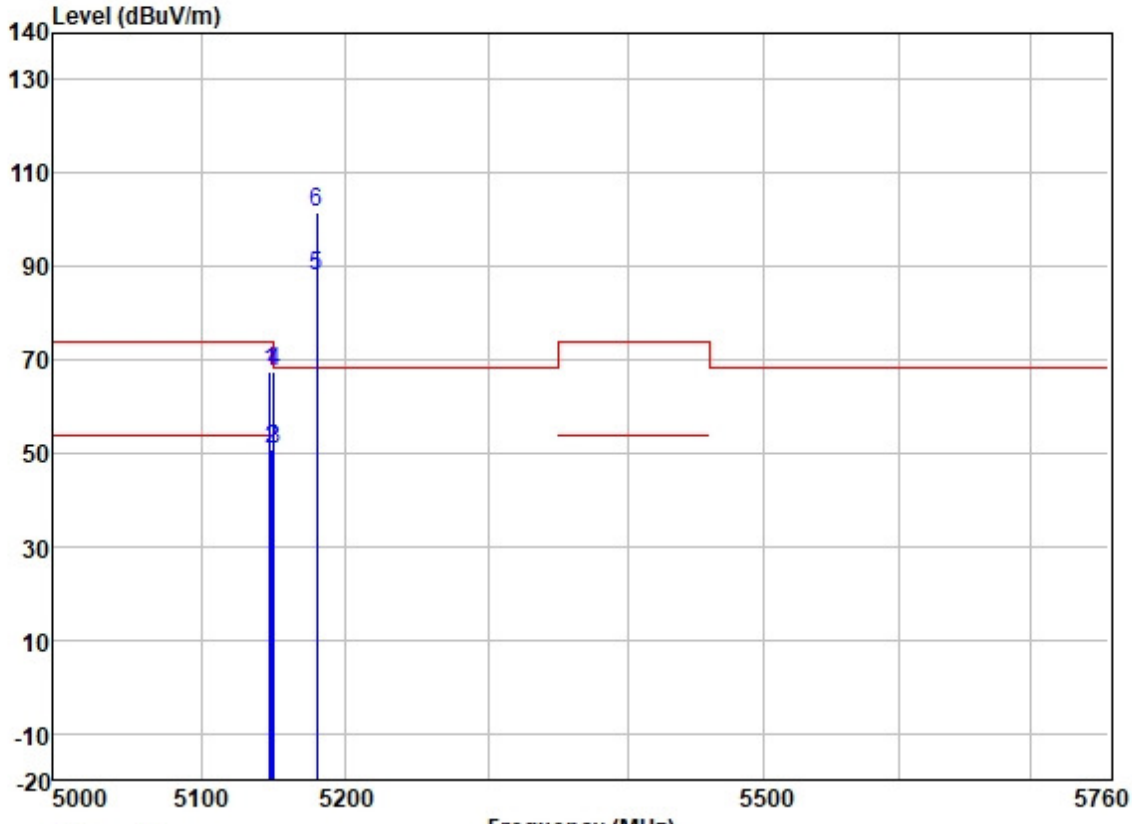
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5147.058	66.91	31.72	5.62	36.86	67.39	74.00	-6.61	HORIZONTAL	Peak
2	5148.857	50.35	31.72	5.62	36.86	50.83	54.00	-3.17	HORIZONTAL	Average
3	5149.980	50.23	31.72	5.62	36.86	50.71	54.00	-3.29	HORIZONTAL	Average
4	5149.980	66.94	31.72	5.62	36.86	67.42	74.00	-6.58	HORIZONTAL	Peak
5	5180.000	87.40	31.73	5.61	36.87	87.87	------	------	HORIZONTAL	Average
6 *	5180.000	101.24	31.73	5.61	36.87	101.71	68.20	33.51	HORIZONTAL	Peak

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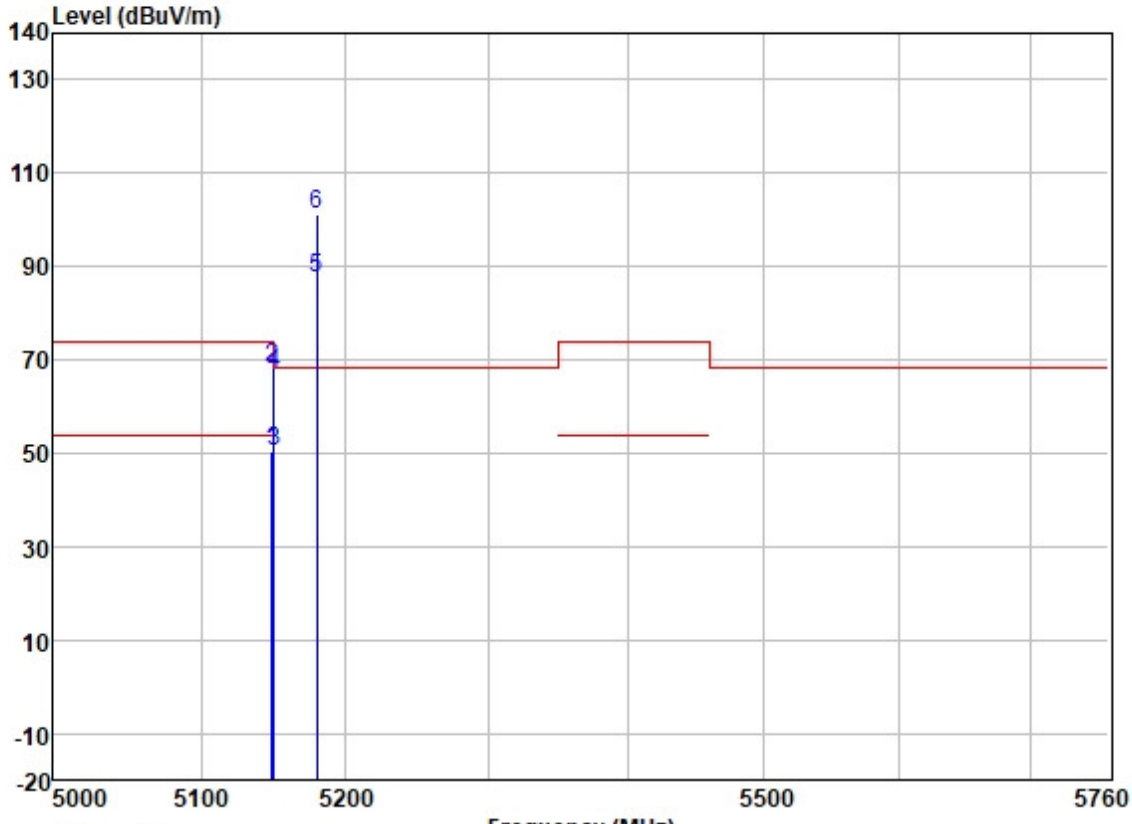
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5148.857	49.89	31.72	5.62	36.86	50.37	54.00	-3.63	VERTICAL	Average
2	5149.357	68.03	31.72	5.62	36.86	68.51	74.00	-5.49	VERTICAL	Peak
3	5149.980	49.93	31.72	5.62	36.86	50.41	54.00	-3.59	VERTICAL	Average
4	5149.980	66.70	31.72	5.62	36.86	67.18	74.00	-6.82	VERTICAL	Peak
5	5180.000	87.07	31.73	5.61	36.87	87.54	------	------	VERTICAL	Average
6 *	5180.000	100.59	31.73	5.61	36.87	101.06	68.20	32.86	VERTICAL	Peak

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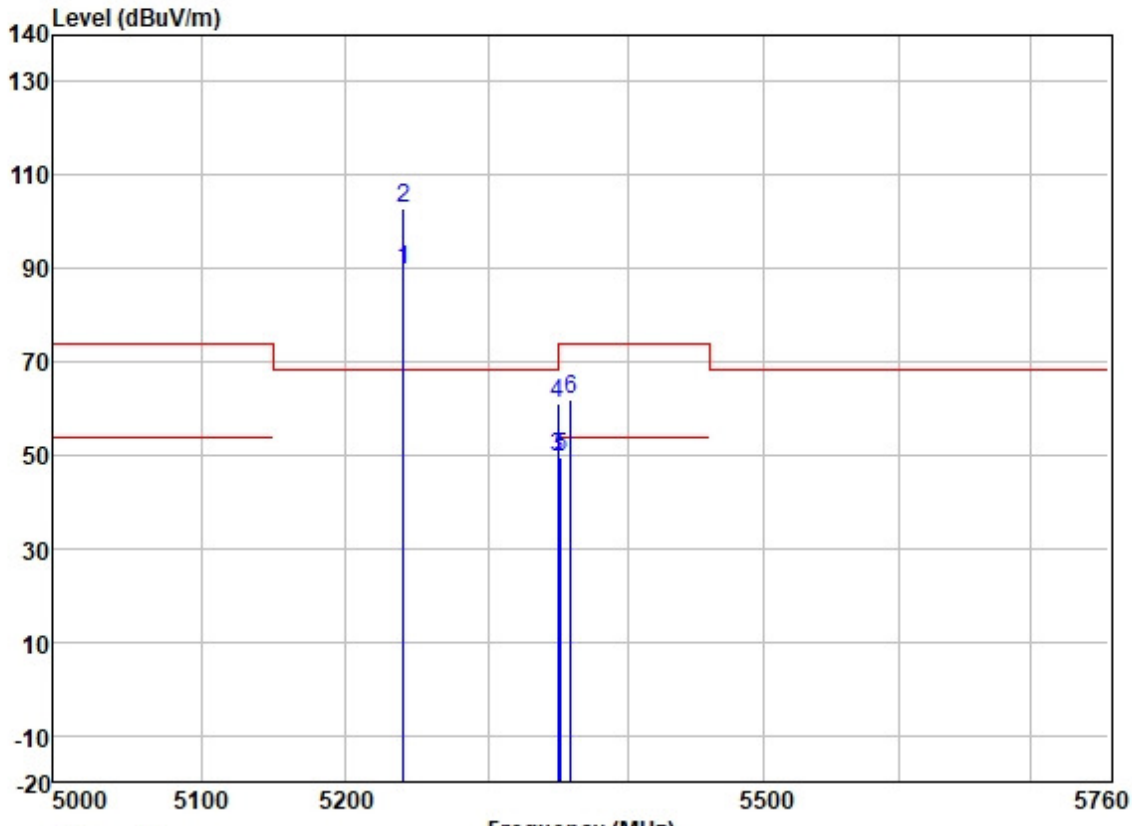
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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		5240.000	88.97	31.75	5.74	36.87	89.59	------	------	HORIZONTAL	Average
2	*	5240.000	102.11	31.75	5.74	36.87	102.73	68.20	34.53	HORIZONTAL	Peak
3		5350.020	48.71	31.77	6.05	36.88	49.65	54.00	-4.35	HORIZONTAL	Average
4		5350.020	60.33	31.77	6.05	36.88	61.27	74.00	-12.73	HORIZONTAL	Peak
5		5351.920	48.71	31.77	6.05	36.88	49.65	54.00	-4.35	HORIZONTAL	Average
6		5359.149	61.19	31.78	6.03	36.88	62.12	74.00	-11.88	HORIZONTAL	Peak

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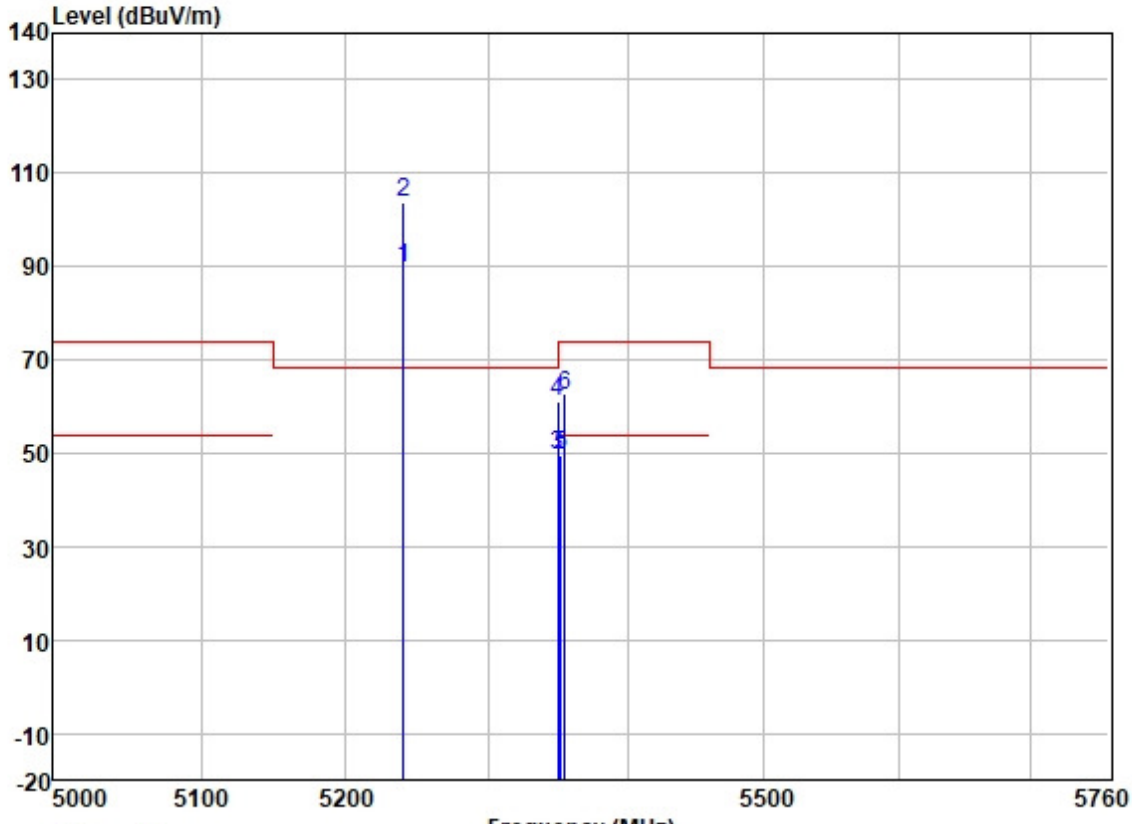
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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		5240.000	89.20	31.75	5.74	36.87	89.82	------	------	VERTICAL	Average
2	*	5240.000	102.96	31.75	5.74	36.87	103.58	68.20	35.38	VERTICAL	Peak
3		5350.020	48.50	31.77	6.05	36.88	49.44	54.00	-4.56	VERTICAL	Average
4		5350.020	60.31	31.77	6.05	36.88	61.25	74.00	-12.75	VERTICAL	Peak
5		5351.920	48.79	31.77	6.05	36.88	49.73	54.00	-4.27	VERTICAL	Average
6		5354.470	61.63	31.78	6.03	36.88	62.56	74.00	-11.44	VERTICAL	Peak

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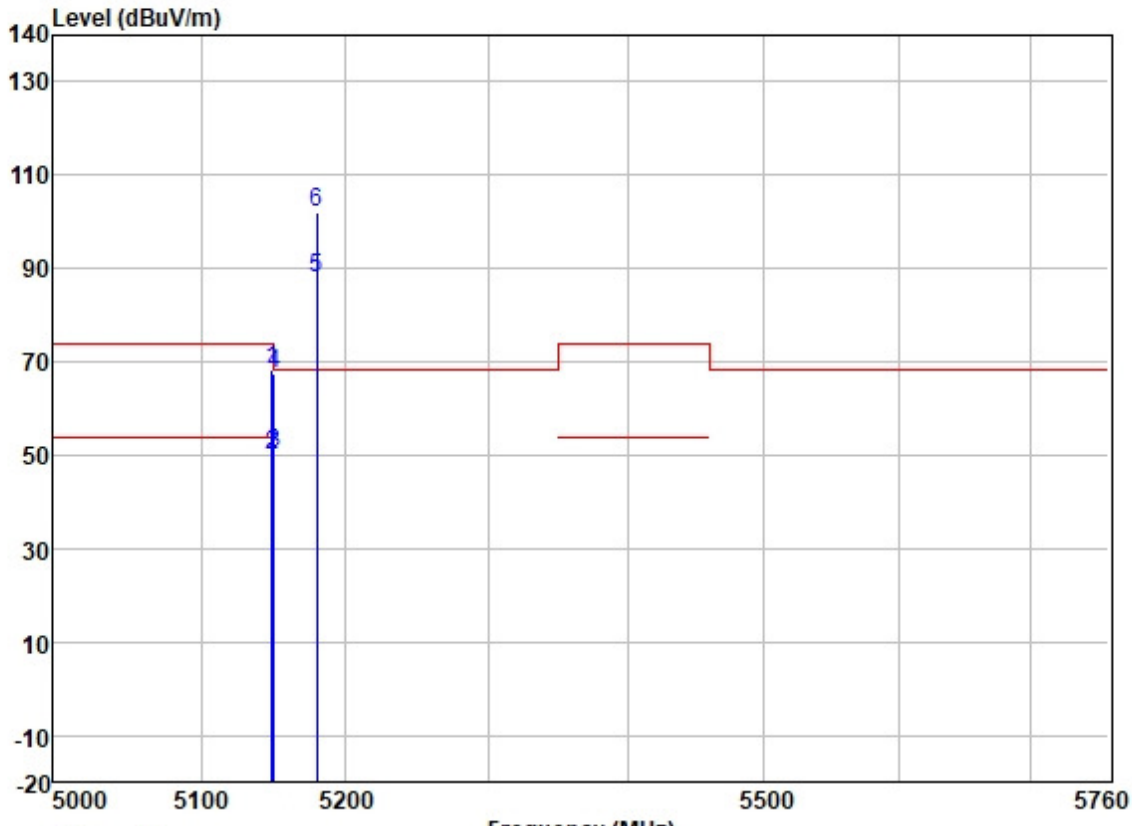

race: (Discrete)

	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	5148.558	67.72	31.72	5.62	36.86	68.20	74.00	-5.80	HORIZONTAL	Peak
2	5149.257	49.68	31.72	5.62	36.86	50.16	54.00	-3.84	HORIZONTAL	Average
3	5149.980	49.86	31.72	5.62	36.86	50.34	54.00	-3.66	HORIZONTAL	Average
4	5149.980	67.12	31.72	5.62	36.86	67.60	74.00	-6.40	HORIZONTAL	Peak
5	5180.000	87.44	31.73	5.61	36.87	87.91	------	------	HORIZONTAL	Average
6 *	5180.000	101.36	31.73	5.61	36.87	101.83	68.20	33.63	HORIZONTAL	Peak

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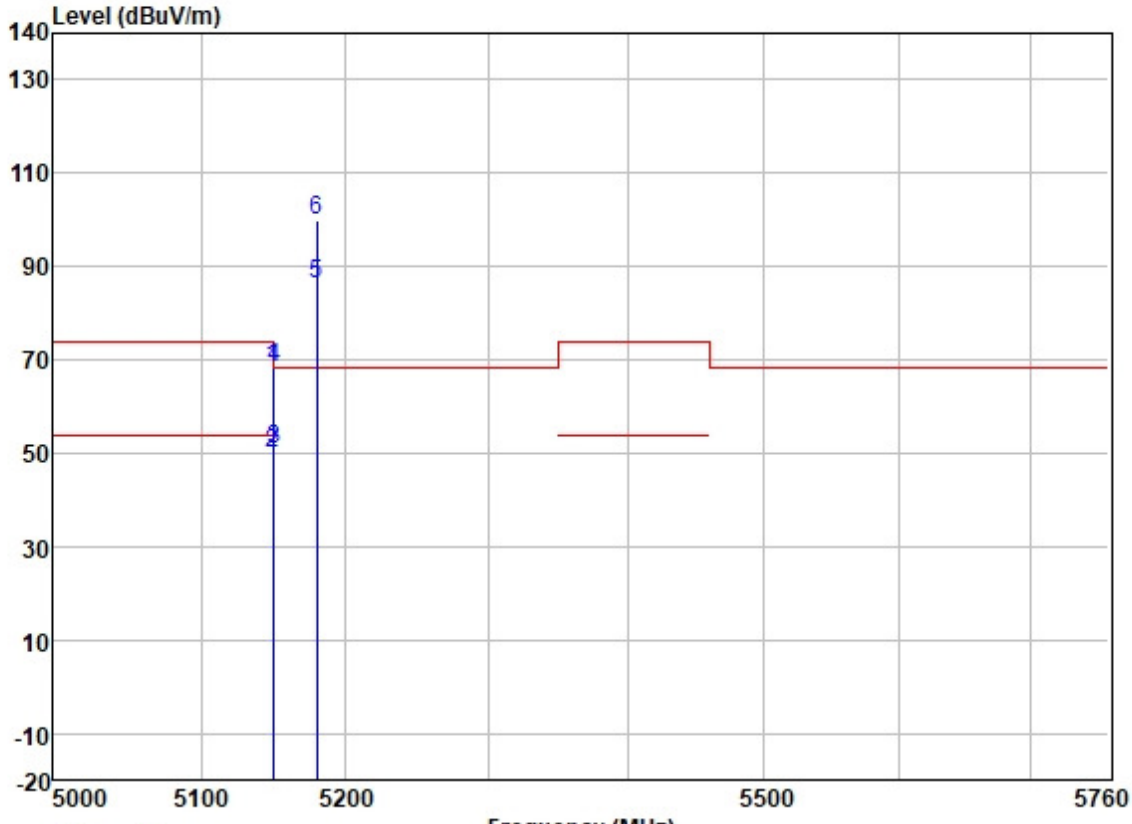
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5149.257	67.64	31.72	5.62	36.86	68.12	74.00	-5.88	VERTICAL	Peak
2	5149.458	49.63	31.72	5.62	36.86	50.11	54.00	-3.89	VERTICAL	Average
3	5149.980	50.40	31.72	5.62	36.86	50.88	54.00	-3.12	VERTICAL	Average
4	5149.980	67.79	31.72	5.62	36.86	68.27	74.00	-5.73	VERTICAL	Peak
5	5180.000	85.85	31.73	5.61	36.87	86.32	------	------	VERTICAL	Average
6 *	5180.000	99.47	31.73	5.61	36.87	99.94	68.20	31.74	VERTICAL	Peak

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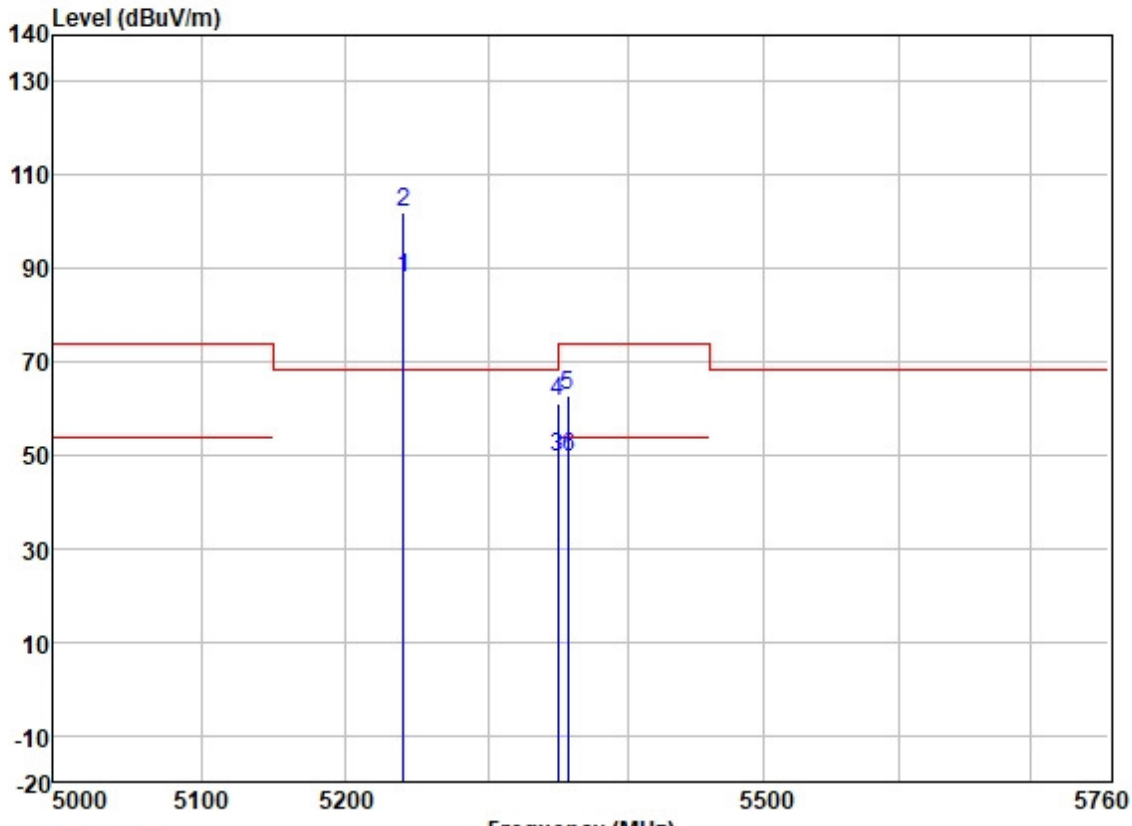
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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		5240.000	87.50	31.75	5.74	36.87	88.12	------	------	HORIZONTAL	Average
2	*	5240.000	101.56	31.75	5.74	36.87	102.18	68.20	33.98	HORIZONTAL	Peak
3		5350.020	48.58	31.77	6.05	36.88	49.52	54.00	-4.48	HORIZONTAL	Average
4		5350.020	60.34	31.77	6.05	36.88	61.28	74.00	-12.72	HORIZONTAL	Peak
5		5356.738	61.73	31.78	6.03	36.88	62.66	74.00	-11.34	HORIZONTAL	Peak
6		5357.873	48.65	31.78	6.03	36.88	49.58	54.00	-4.42	HORIZONTAL	Average

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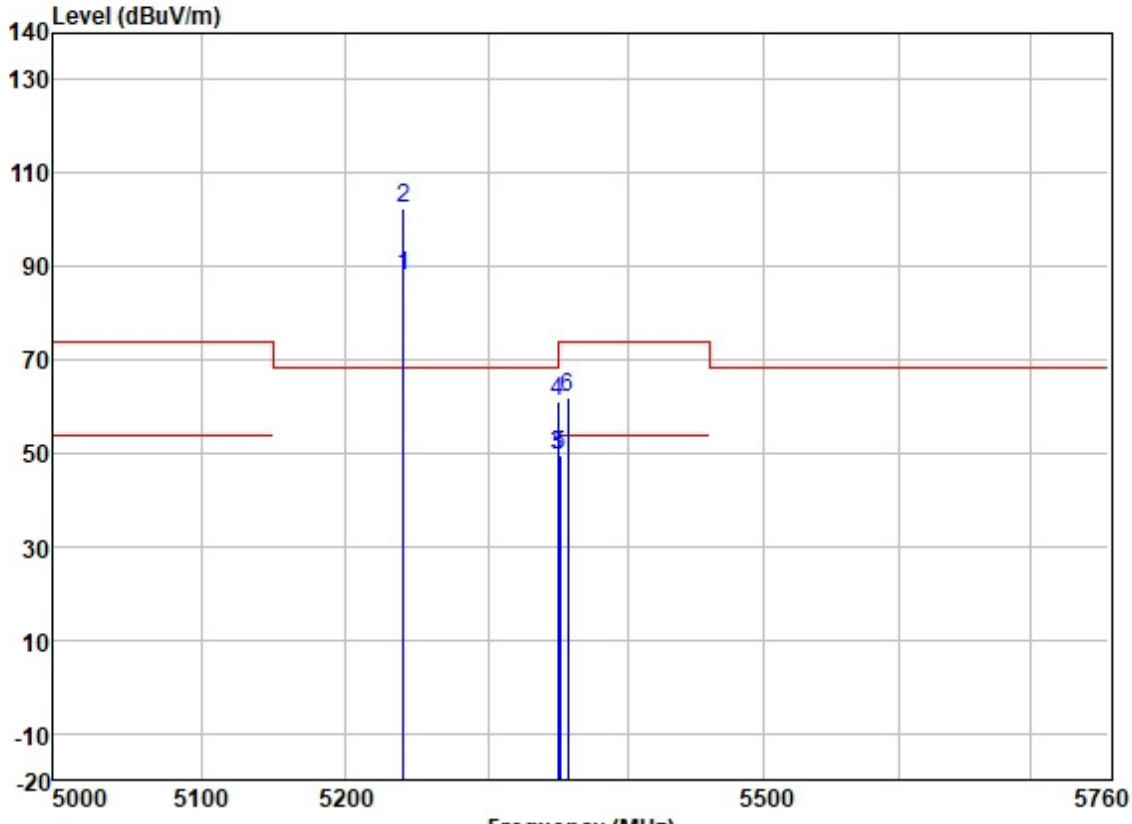
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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		5240.000	87.49	31.75	5.74	36.87	88.11	------	------	VERTICAL	Average
2	*	5240.000	101.87	31.75	5.74	36.87	102.49	68.20	34.29	VERTICAL	Peak
3		5350.020	48.52	31.77	6.05	36.88	49.46	54.00	-4.54	VERTICAL	Average
4		5350.020	60.06	31.77	6.05	36.88	61.00	74.00	-13.00	VERTICAL	Peak
5		5351.495	48.74	31.77	6.05	36.88	49.68	54.00	-4.32	VERTICAL	Average
6		5356.738	61.13	31.78	6.03	36.88	62.06	74.00	-11.94	VERTICAL	Peak

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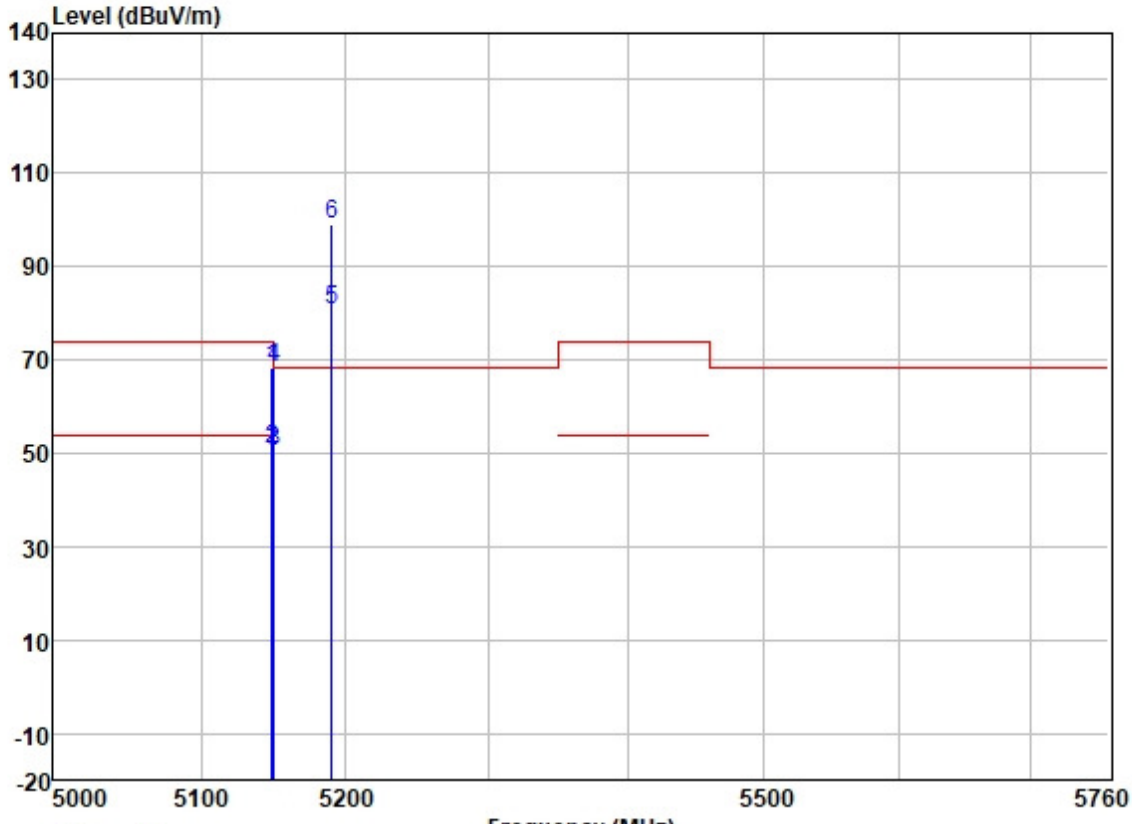
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5148.743	67.76	31.72	5.62	36.86	68.24	74.00	-5.76	HORIZONTAL	Peak
2	5149.222	50.47	31.72	5.62	36.86	50.95	54.00	-3.05	HORIZONTAL	Average
3	5149.980	50.10	31.72	5.62	36.86	50.58	54.00	-3.42	HORIZONTAL	Average
4	5149.980	67.65	31.72	5.62	36.86	68.13	74.00	-5.87	HORIZONTAL	Peak
5	5190.000	80.13	31.73	5.60	36.87	80.59	------	------	HORIZONTAL	Average
6 *	5190.000	98.50	31.73	5.60	36.87	98.96	68.20	30.76	HORIZONTAL	Peak

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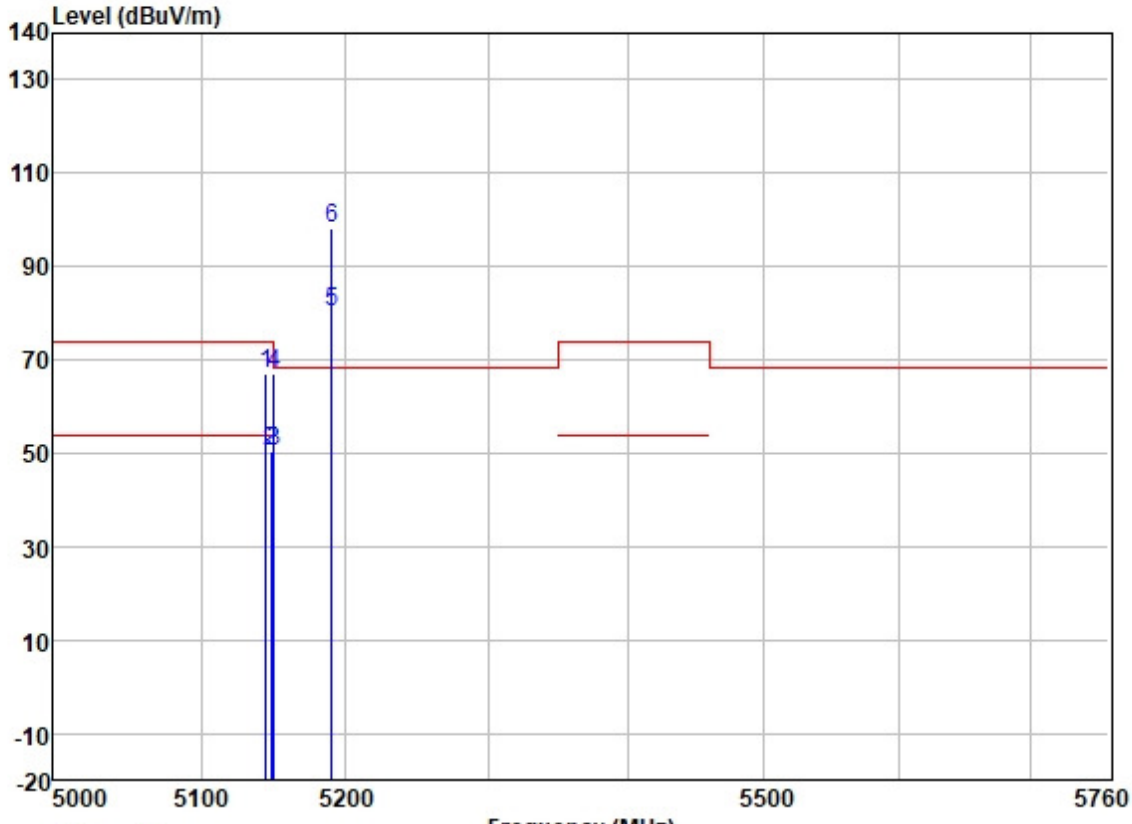
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5144.793	66.61	31.72	5.62	36.86	67.09	74.00	-6.91	VERTICAL	Peak
2	5148.024	49.90	31.72	5.62	36.86	50.38	54.00	-3.62	VERTICAL	Average
3	5149.980	49.74	31.72	5.62	36.86	50.22	54.00	-3.78	VERTICAL	Average
4	5149.980	66.43	31.72	5.62	36.86	66.91	74.00	-7.09	VERTICAL	Peak
5	5190.000	79.68	31.73	5.60	36.87	80.14	------	------	VERTICAL	Average
6 *	5190.000	97.79	31.73	5.60	36.87	98.25	68.20	30.05	VERTICAL	Peak

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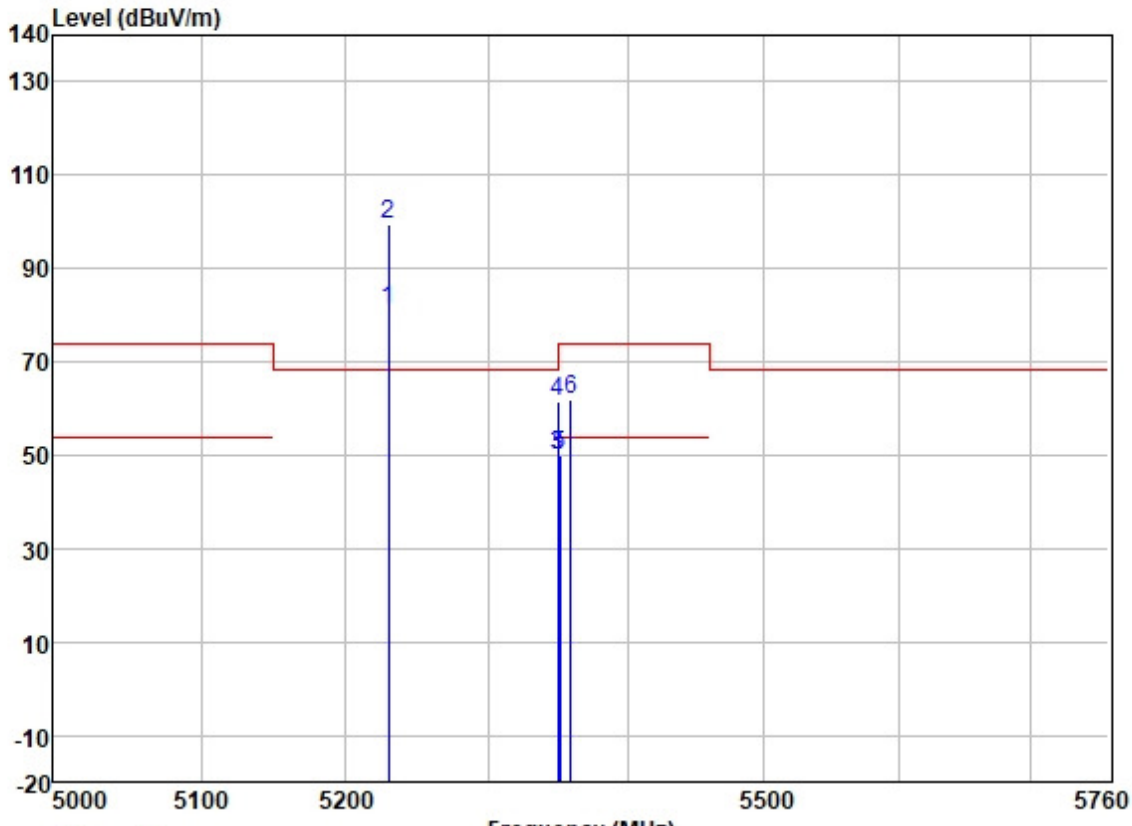
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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		5230.000	80.51	31.74	5.70	36.87	81.08	------	------	HORIZONTAL	Average
2	*	5230.000	98.91	31.74	5.70	36.87	99.48	68.20	31.28	HORIZONTAL	Peak
3		5350.020	49.02	31.77	6.05	36.88	49.96	54.00	-4.04	HORIZONTAL	Average
4		5350.020	60.53	31.77	6.05	36.88	61.47	74.00	-12.53	HORIZONTAL	Peak
5		5351.235	48.84	31.77	6.05	36.88	49.78	54.00	-4.22	HORIZONTAL	Average
6		5358.863	61.17	31.78	6.03	36.88	62.10	74.00	-11.90	HORIZONTAL	Peak

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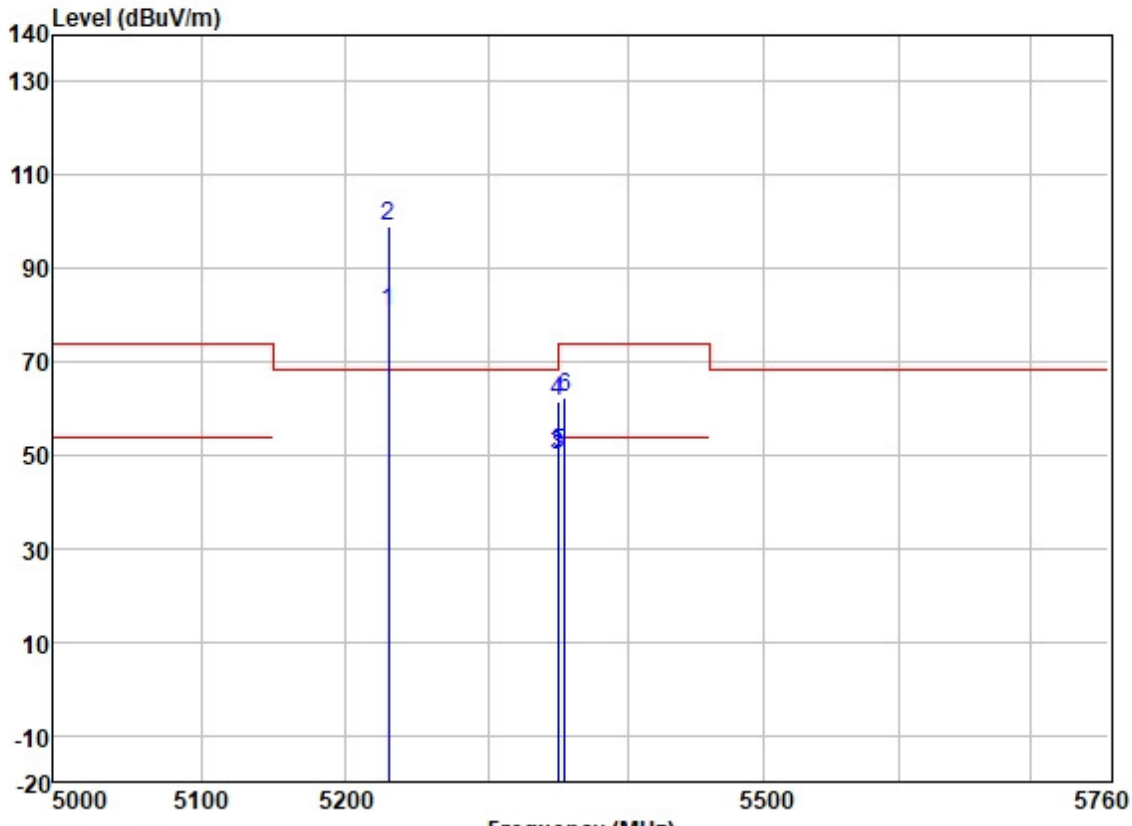
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	5230.000	80.14	31.74	5.70	36.87	80.71	------	------	VERTICAL	Average
2 *	5230.000	98.42	31.74	5.70	36.87	98.99	68.20	30.79	VERTICAL	Peak
3	5350.020	49.01	31.77	6.05	36.88	49.95	54.00	-4.05	VERTICAL	Average
4	5350.020	60.68	31.77	6.05	36.88	61.62	74.00	-12.38	VERTICAL	Peak
5	5350.749	49.30	31.77	6.05	36.88	50.24	54.00	-3.76	VERTICAL	Average
6	5354.480	61.29	31.78	6.03	36.88	62.22	74.00	-11.78	VERTICAL	Peak

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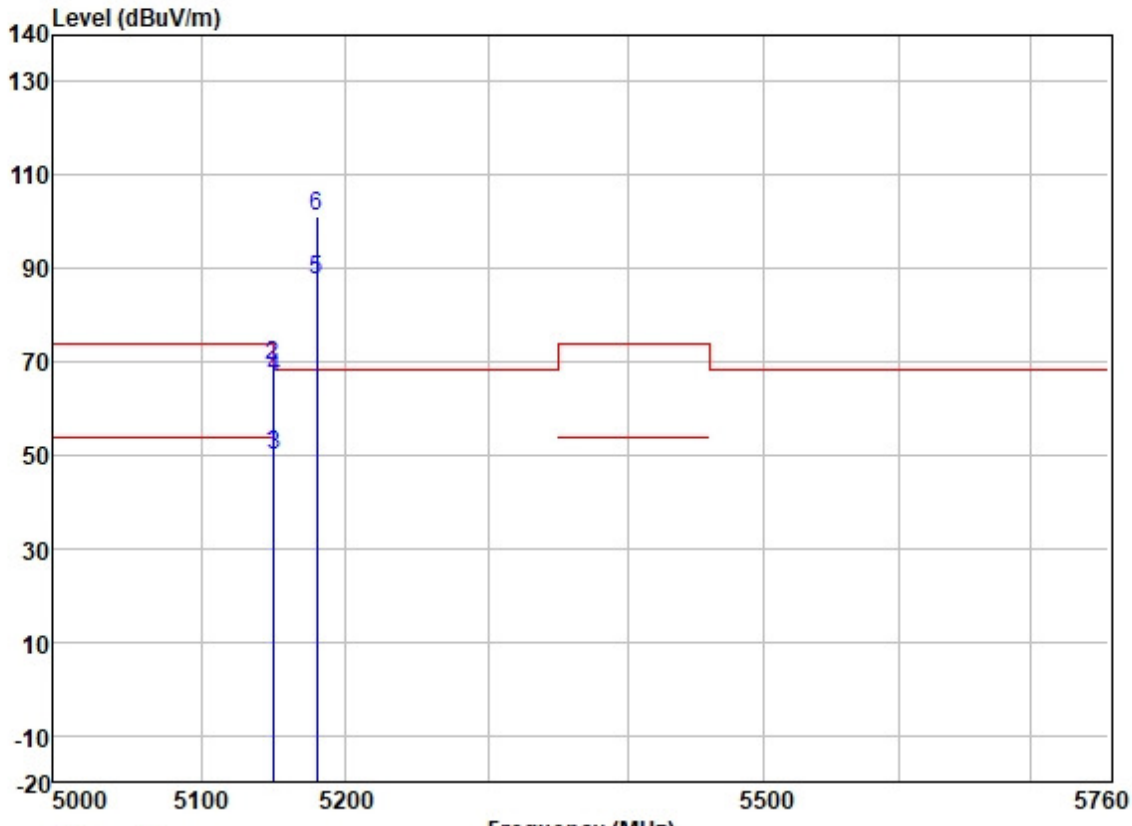
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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		5149.057	49.75	31.72	5.62	36.86	50.23	54.00	-3.77	HORIZONTAL	Average
2		5149.357	68.59	31.72	5.62	36.86	69.07	74.00	-4.93	HORIZONTAL	Peak
3		5149.980	49.70	31.72	5.62	36.86	50.18	54.00	-3.82	HORIZONTAL	Average
4		5149.980	66.29	31.72	5.62	36.86	66.77	74.00	-7.23	HORIZONTAL	Peak
5		5180.000	87.05	31.73	5.61	36.87	87.52	------	------	HORIZONTAL	Average
6	*	5180.000	100.80	31.73	5.61	36.87	101.27	68.20	33.07	HORIZONTAL	Peak

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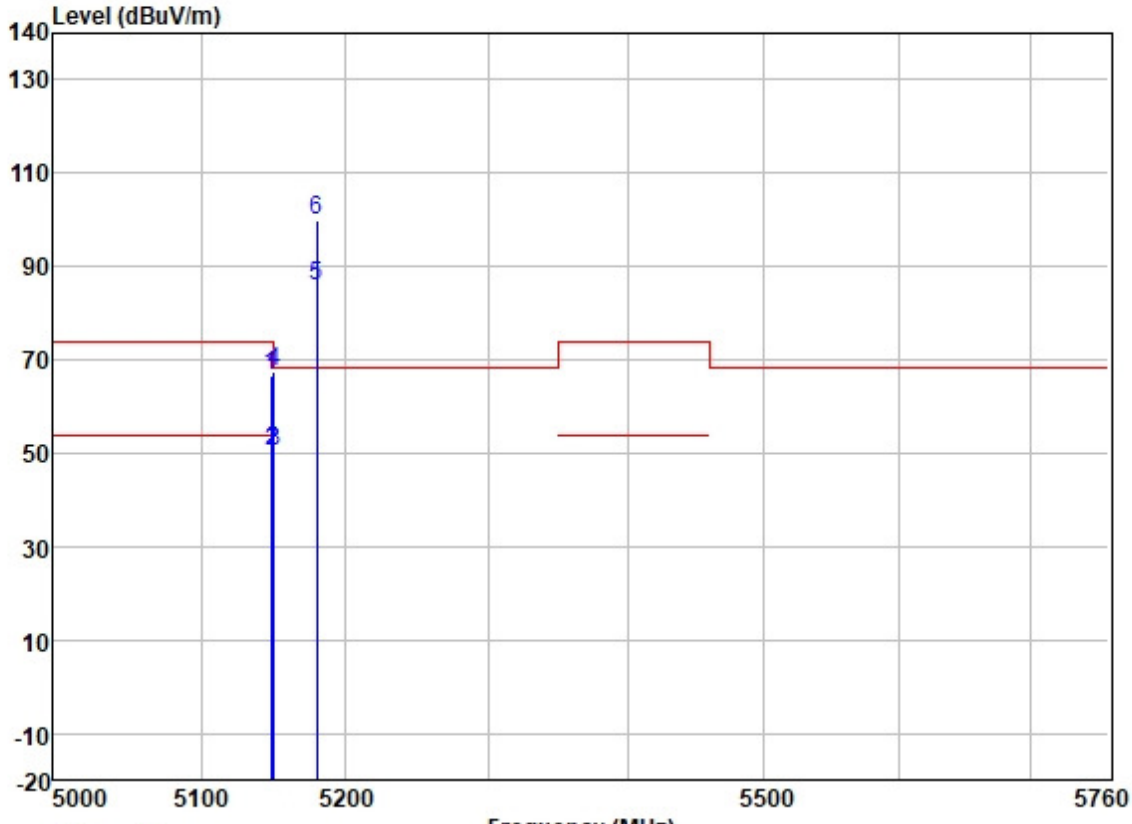
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5148.257	66.32	31.72	5.62	36.86	66.80	74.00	-7.20	VERTICAL	Peak
2	5149.257	50.06	31.72	5.62	36.86	50.54	54.00	-3.46	VERTICAL	Average
3	5149.980	50.04	31.72	5.62	36.86	50.52	54.00	-3.48	VERTICAL	Average
4	5149.980	66.87	31.72	5.62	36.86	67.35	74.00	-6.65	VERTICAL	Peak
5	5180.000	85.54	31.73	5.61	36.87	86.01	------	------	VERTICAL	Average
6 *	5180.000	99.56	31.73	5.61	36.87	100.03	68.20	31.83	VERTICAL	Peak

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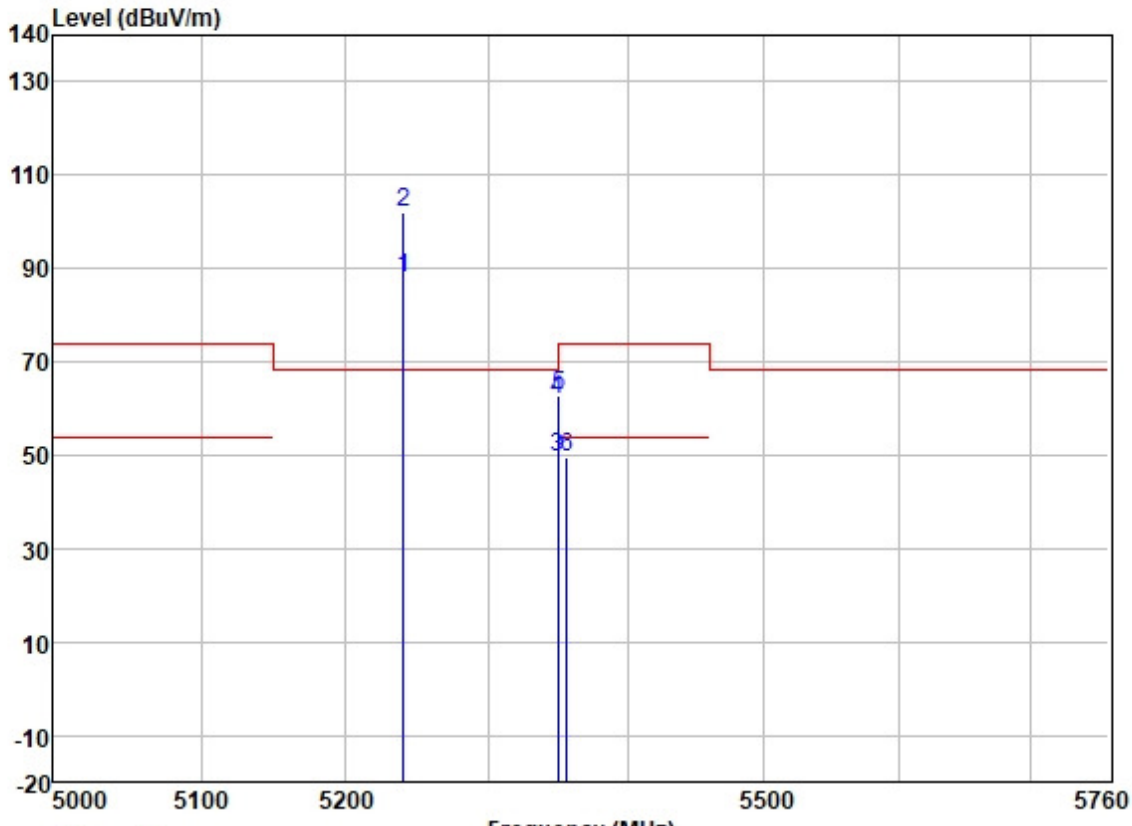
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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		5240.000	87.17	31.75	5.74	36.87	87.79	------	------	HORIZONTAL	Average
2	*	5240.000	101.35	31.75	5.74	36.87	101.97	68.20	33.77	HORIZONTAL	Peak
3		5350.020	48.48	31.77	6.05	36.88	49.42	54.00	-4.58	HORIZONTAL	Average
4		5350.020	60.88	31.77	6.05	36.88	61.82	74.00	-12.18	HORIZONTAL	Peak
5		5350.504	61.71	31.77	6.05	36.88	62.65	74.00	-11.35	HORIZONTAL	Peak
6		5356.029	48.66	31.78	6.03	36.88	49.59	54.00	-4.41	HORIZONTAL	Average

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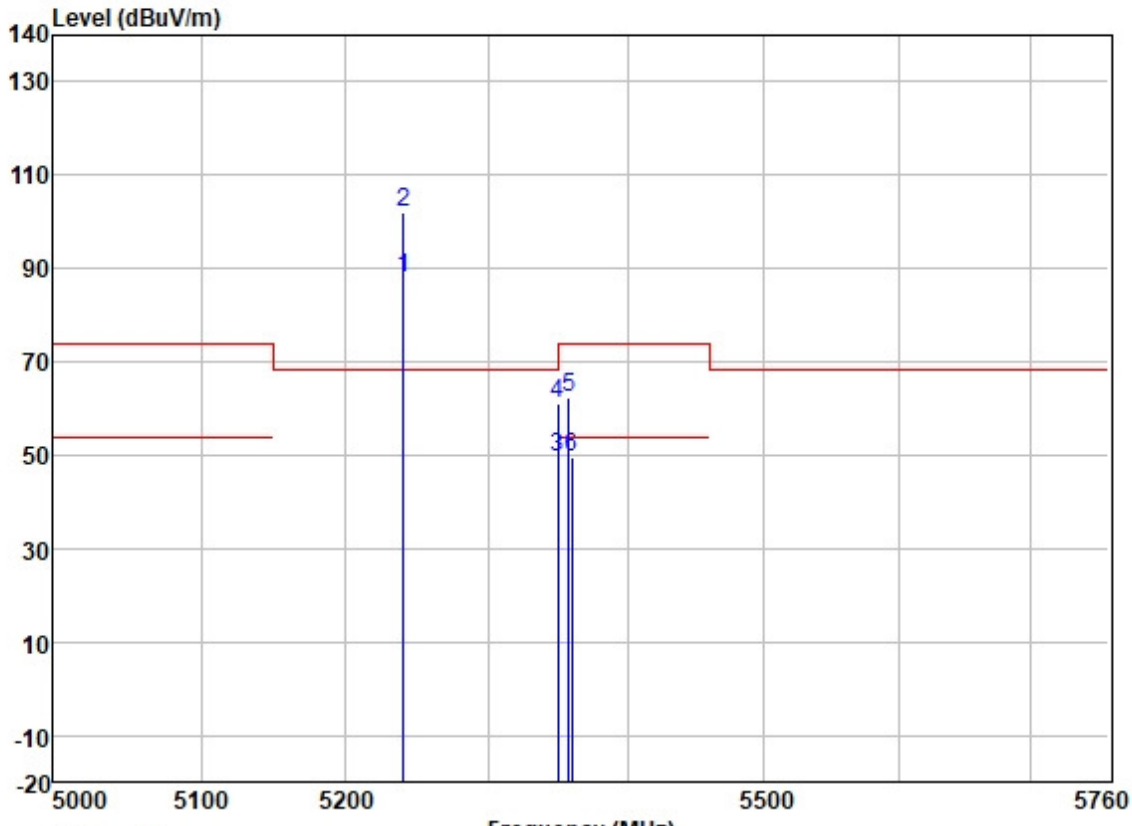
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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		5240.000	87.39	31.75	5.74	36.87	88.01	------	------	VERTICAL	Average
2	*	5240.000	101.29	31.75	5.74	36.87	101.91	68.20	33.71	VERTICAL	Peak
3		5350.020	48.49	31.77	6.05	36.88	49.43	54.00	-4.57	VERTICAL	Average
4		5350.020	60.23	31.77	6.05	36.88	61.17	74.00	-12.83	VERTICAL	Peak
5		5357.305	61.41	31.78	6.03	36.88	62.34	74.00	-11.66	VERTICAL	Peak
6		5359.574	48.76	31.78	6.03	36.88	49.69	54.00	-4.31	VERTICAL	Average

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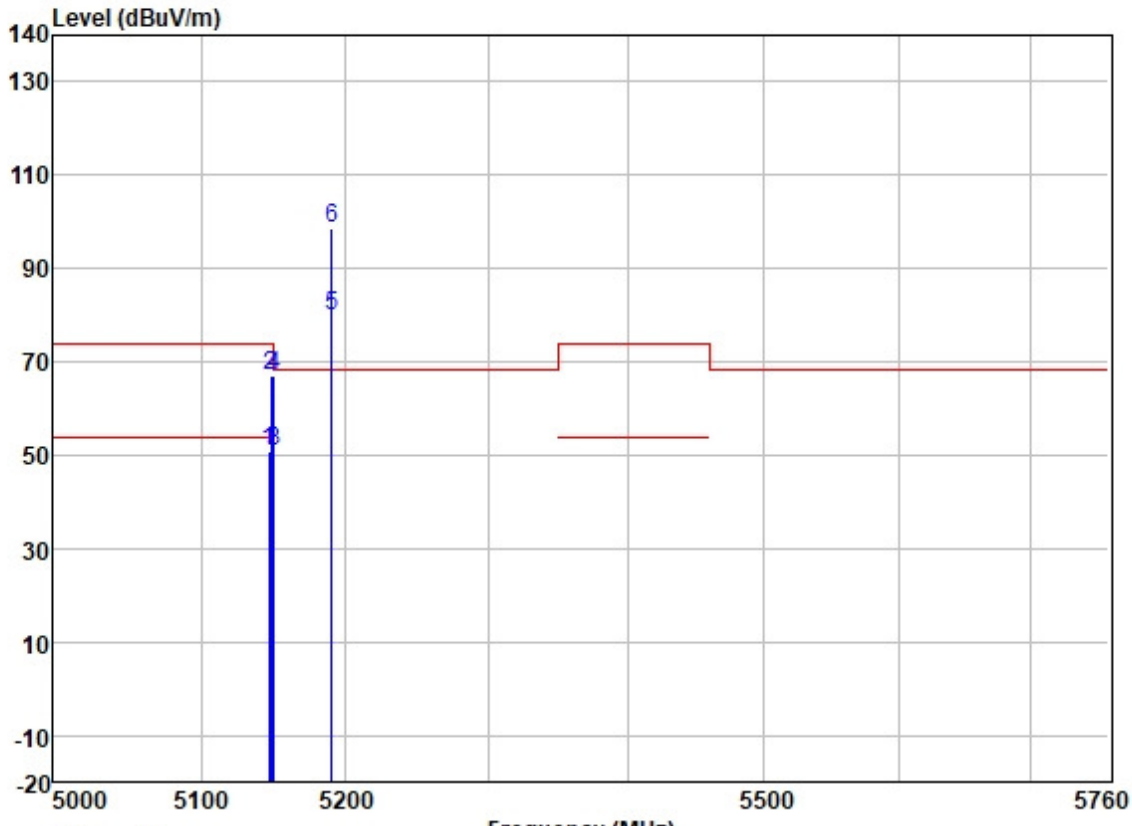
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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		5146.468	50.45	31.72	5.62	36.86	50.93	54.00	-3.07	HORIZONTAL	Average
2		5148.024	66.47	31.72	5.62	36.86	66.95	74.00	-7.05	HORIZONTAL	Peak
3		5149.980	50.40	31.72	5.62	36.86	50.88	54.00	-3.12	HORIZONTAL	Average
4		5149.980	66.48	31.72	5.62	36.86	66.96	74.00	-7.04	HORIZONTAL	Peak
5		5190.000	79.19	31.73	5.60	36.87	79.65	------	------	HORIZONTAL	Average
6	*	5190.000	98.12	31.73	5.60	36.87	98.58	68.20	30.38	HORIZONTAL	Peak

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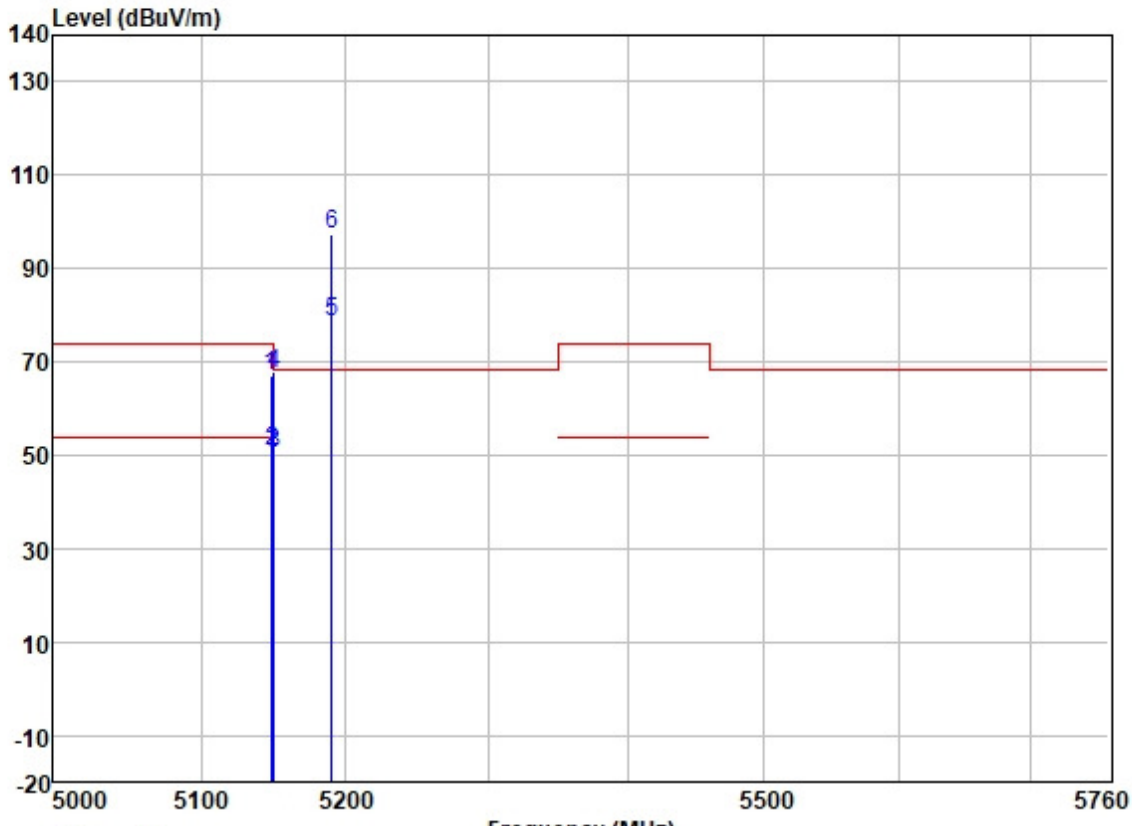
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5148.264	66.56	31.72	5.62	36.86	67.04	74.00	-6.96	VERTICAL	Peak
2	5149.342	50.24	31.72	5.62	36.86	50.72	54.00	-3.28	VERTICAL	Average
3	5149.980	49.92	31.72	5.62	36.86	50.40	54.00	-3.60	VERTICAL	Average
4	5149.980	67.20	31.72	5.62	36.86	67.68	74.00	-6.32	VERTICAL	Peak
5	5190.000	78.12	31.73	5.60	36.87	78.58	------	------	VERTICAL	Average
6 *	5190.000	96.81	31.73	5.60	36.87	97.27	68.20	29.07	VERTICAL	Peak

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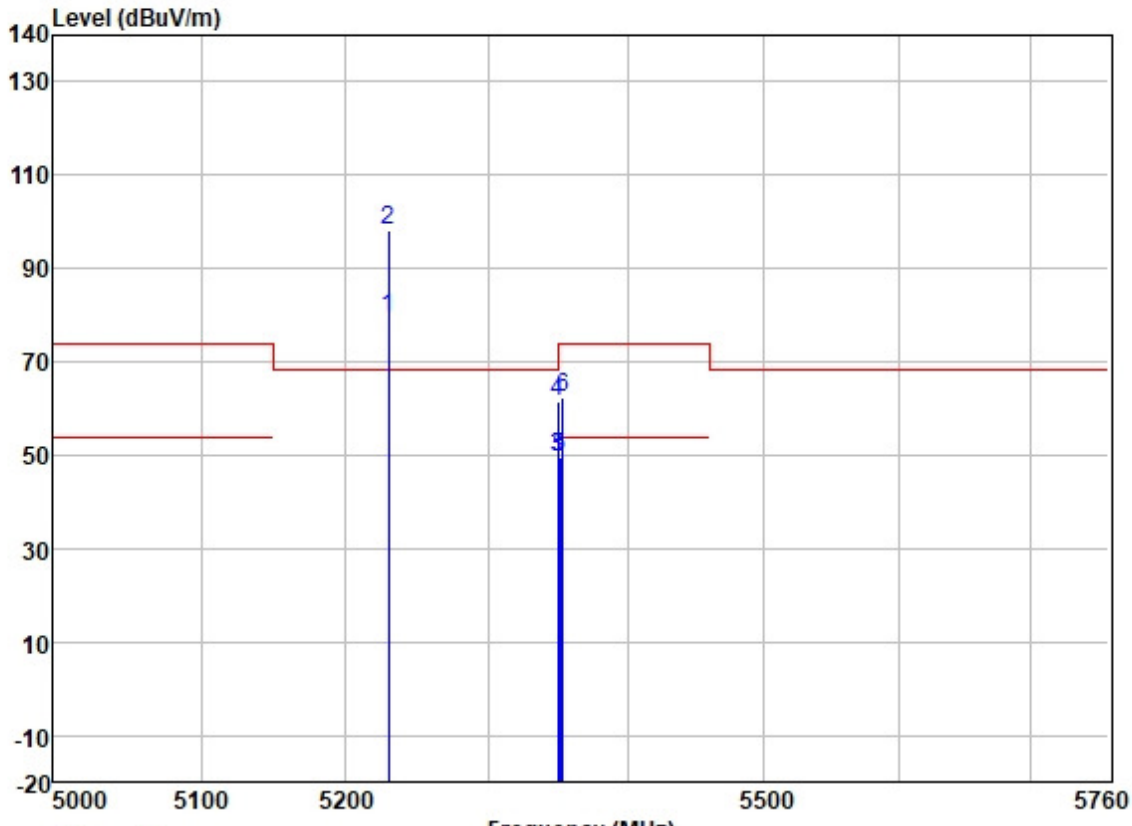
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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		5230.000	78.98	31.74	5.70	36.87	79.55	------	------	HORIZONTAL	Average
2	*	5230.000	97.67	31.74	5.70	36.87	98.24	68.20	30.04	HORIZONTAL	Peak
3		5350.020	48.70	31.77	6.05	36.88	49.64	54.00	-4.36	HORIZONTAL	Average
4		5350.020	60.46	31.77	6.05	36.88	61.40	74.00	-12.60	HORIZONTAL	Peak
5		5351.235	48.80	31.77	6.05	36.88	49.74	54.00	-4.26	HORIZONTAL	Average
6		5353.020	61.40	31.77	6.05	36.88	62.34	74.00	-11.66	HORIZONTAL	Peak

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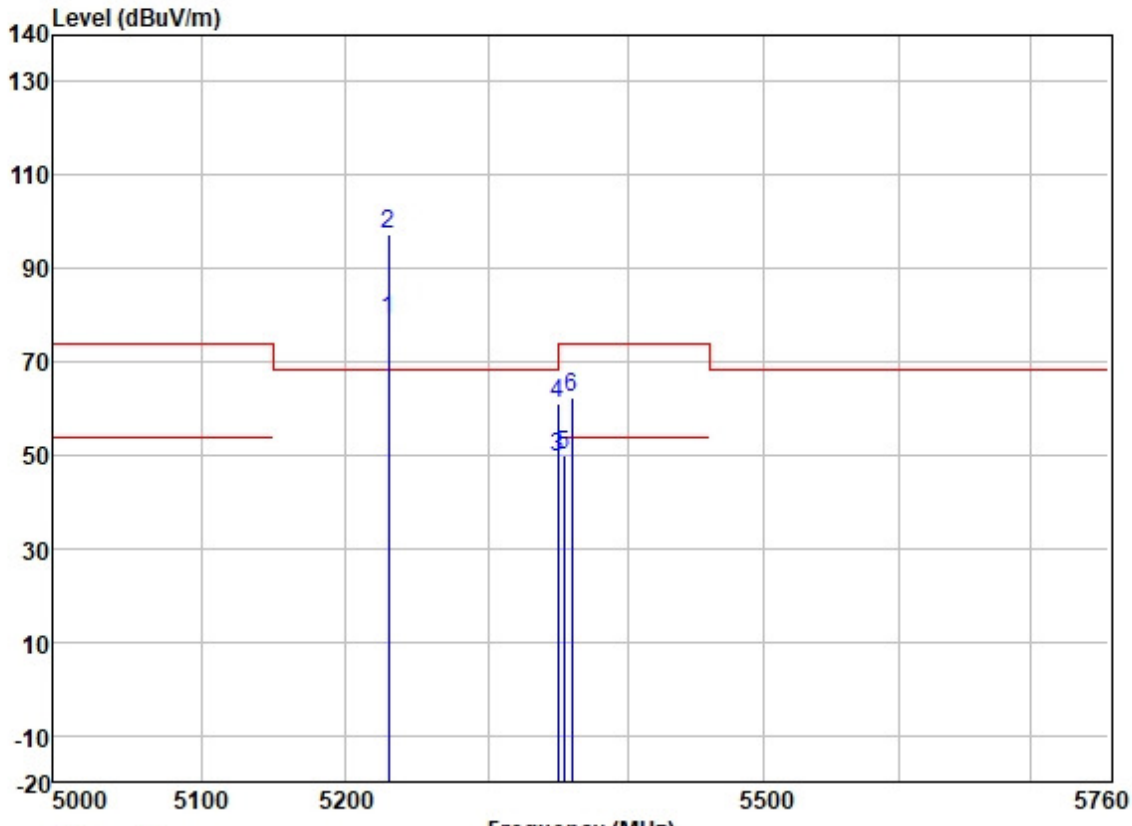
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	5230.000	78.58	31.74	5.70	36.87	79.15	------	------	VERTICAL	Average
2 *	5230.000	96.79	31.74	5.70	36.87	97.36	68.20	29.16	VERTICAL	Peak
3	5350.020	48.78	31.77	6.05	36.88	49.72	54.00	-4.28	VERTICAL	Average
4	5350.020	60.20	31.77	6.05	36.88	61.14	74.00	-12.86	VERTICAL	Peak
5	5354.318	48.93	31.78	6.03	36.88	49.86	54.00	-4.14	VERTICAL	Average
6	5359.675	61.57	31.78	6.03	36.88	62.50	74.00	-11.50	VERTICAL	Peak

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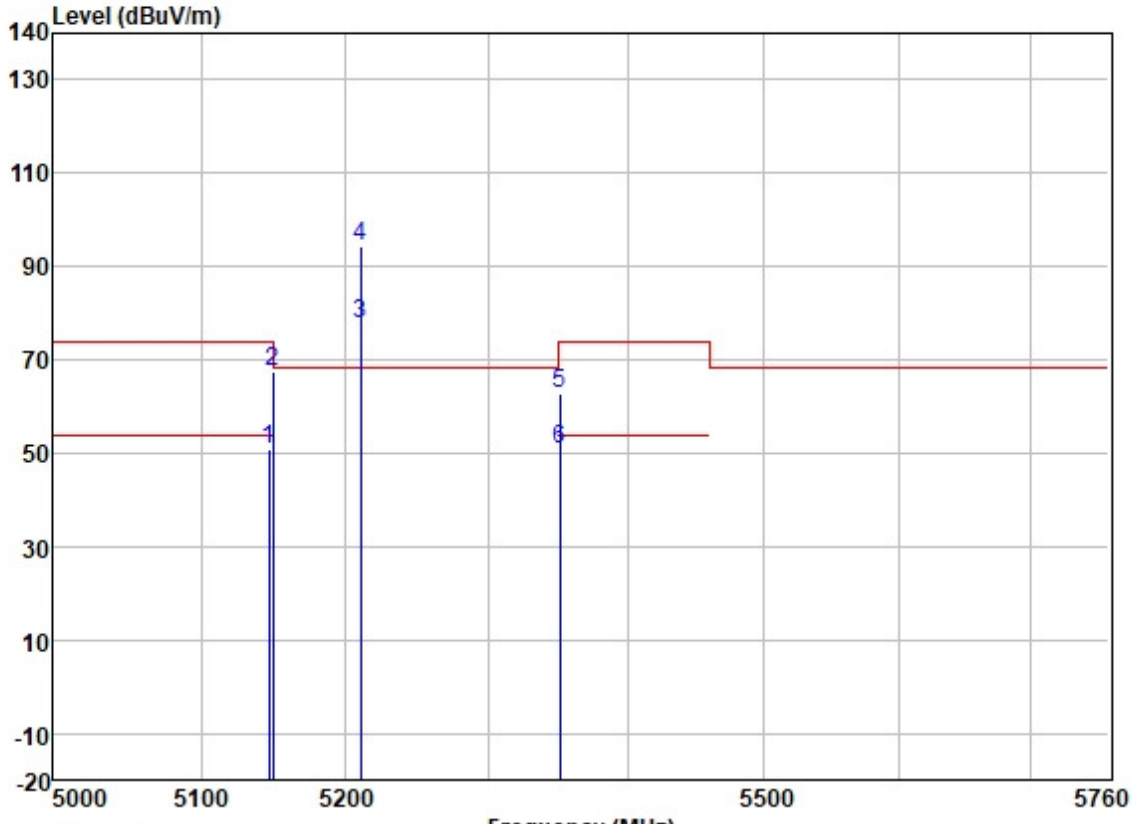
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5146.619	50.44	31.72	5.62	36.86	50.92	54.00	-3.08	HORIZONTAL	Average
2		5149.178	67.03	31.72	5.62	36.86	67.51	74.00	-6.49	HORIZONTAL	Peak
3		5210.000	77.19	31.74	5.65	36.87	77.71	------	------	HORIZONTAL	Average
4	*	5210.000	93.66	31.74	5.65	36.87	94.18	68.20	25.98	HORIZONTAL	Peak
5		5351.212	61.69	31.77	6.05	36.88	62.63	74.00	-11.37	HORIZONTAL	Peak
6		5351.478	49.78	31.77	6.05	36.88	50.72	54.00	-3.28	HORIZONTAL	Average

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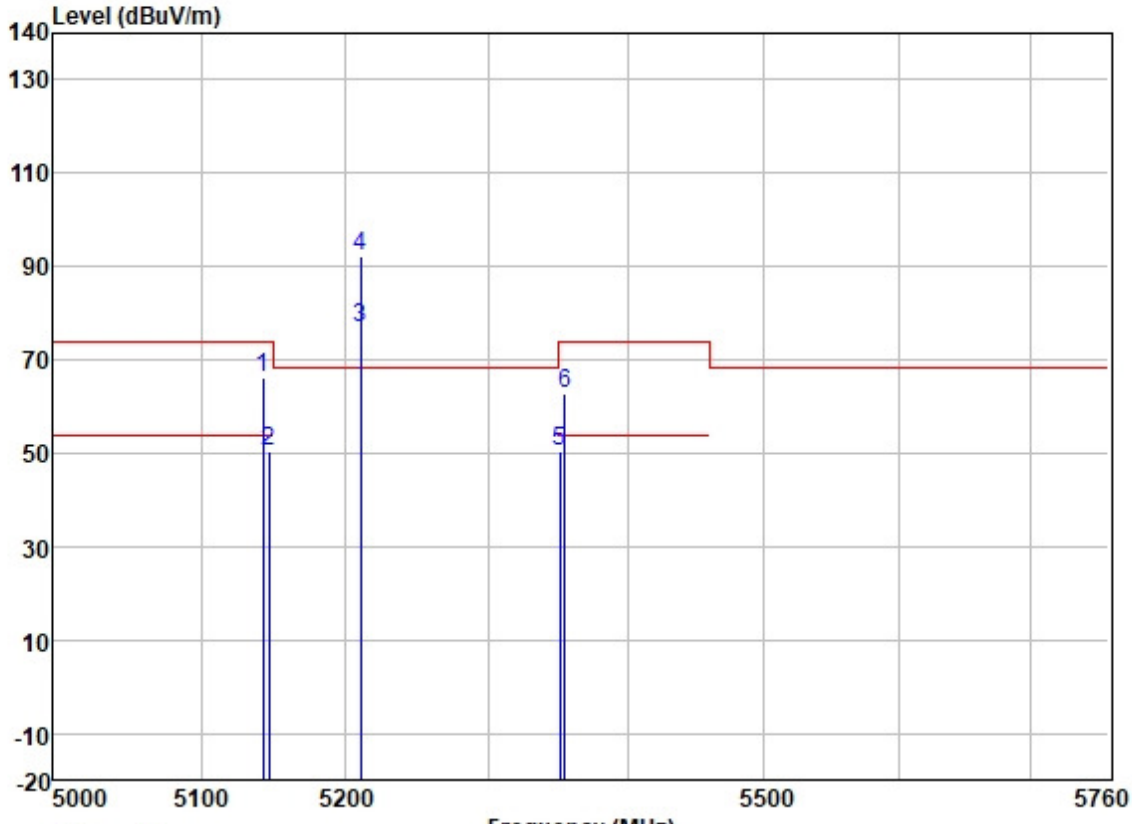
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5142.526	65.77	31.72	5.62	36.86	66.25	74.00	-7.75	VERTICAL	Peak
2		5146.363	50.10	31.72	5.62	36.86	50.58	54.00	-3.42	VERTICAL	Average
3		5210.000	76.52	31.74	5.65	36.87	77.04	------	------	VERTICAL	Average
4	*	5210.000	91.77	31.74	5.65	36.87	92.29	68.20	24.09	VERTICAL	Peak
5		5350.946	49.65	31.77	6.05	36.88	50.59	54.00	-3.41	VERTICAL	Average
6		5354.672	61.93	31.78	6.03	36.88	62.86	74.00	-11.14	VERTICAL	Peak

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7.9 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart C 15.407 (g)
Test Method: ANSI C63.10 (2013) Section 6.8

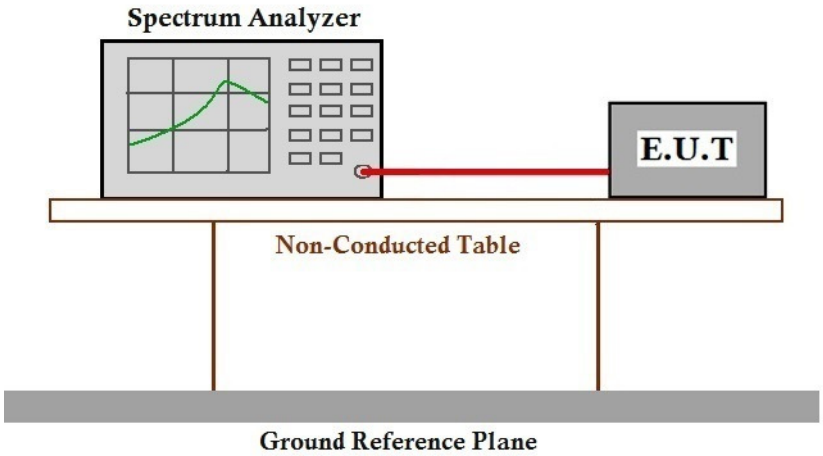
7.9.1 E.U.T. Operation

Operating Environment:
Temperature: 20.4 °C Humidity: 50.6 % RH Atmospheric Pressure: 1020 mbar

7.9.2 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	Chargr+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.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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7.10 Radiated Emissions (above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m
Limit:

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

* Frequency in CFR 15.205 Restricted Band.

Note: Frequency in non-Restricted Band:

(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.

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7.10.1 E.U.T. Operation

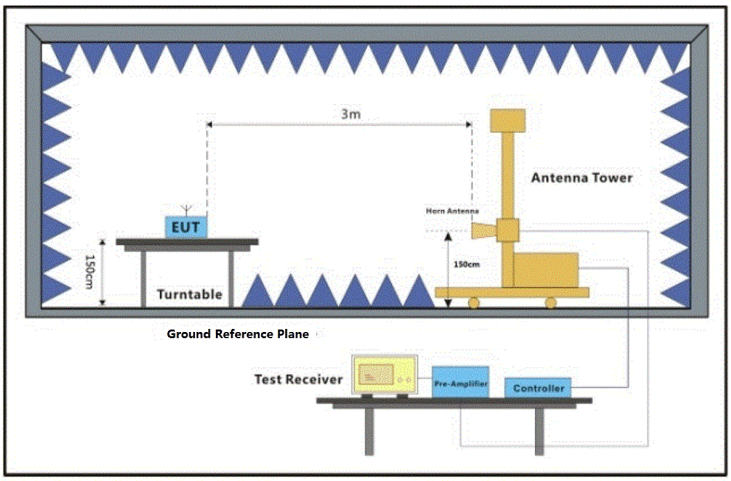
Operating Environment:

Temperature: 21.5 °C Humidity: 50.4 % RH Atmospheric Pressure: 1015 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	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	Chargr+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.

7.10.3 Test Setup Diagram



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7.10.4 Measurement Procedure and Data

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters 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. Scan from 1GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

4. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

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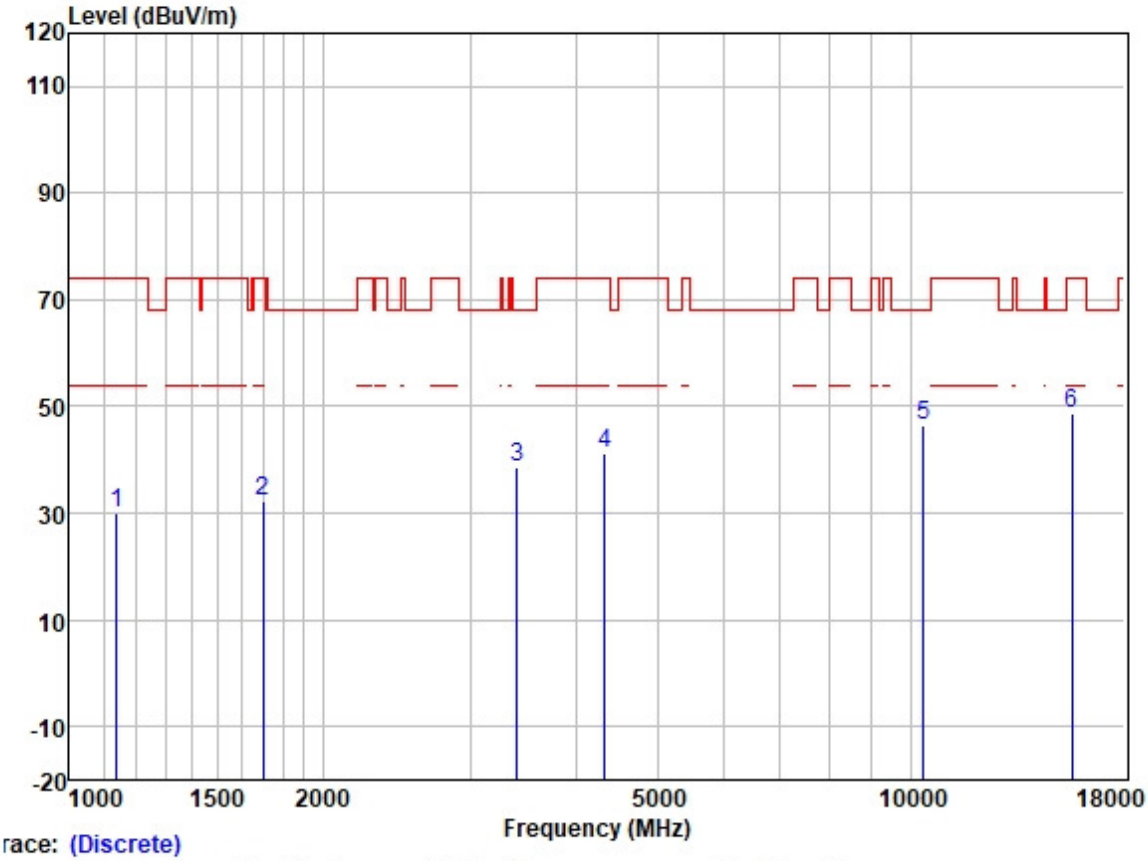
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	1138.904	41.71	24.46	2.27	38.42	30.02	74.00	-43.98	HORIZONTAL	Peak
2	1697.129	41.58	25.71	2.80	37.89	32.20	74.00	-41.80	HORIZONTAL	Peak
3	3405.929	42.64	28.85	4.11	36.98	38.62	68.20	-29.58	HORIZONTAL	Peak
4	4329.354	42.86	30.54	4.67	36.81	41.26	74.00	-32.74	HORIZONTAL	Peak
5	10360.000	37.33	39.28	7.29	37.37	46.53	68.20	-21.67	HORIZONTAL	Peak
6	15540.000	35.31	39.05	9.88	35.39	48.85	74.00	-25.15	HORIZONTAL	Peak

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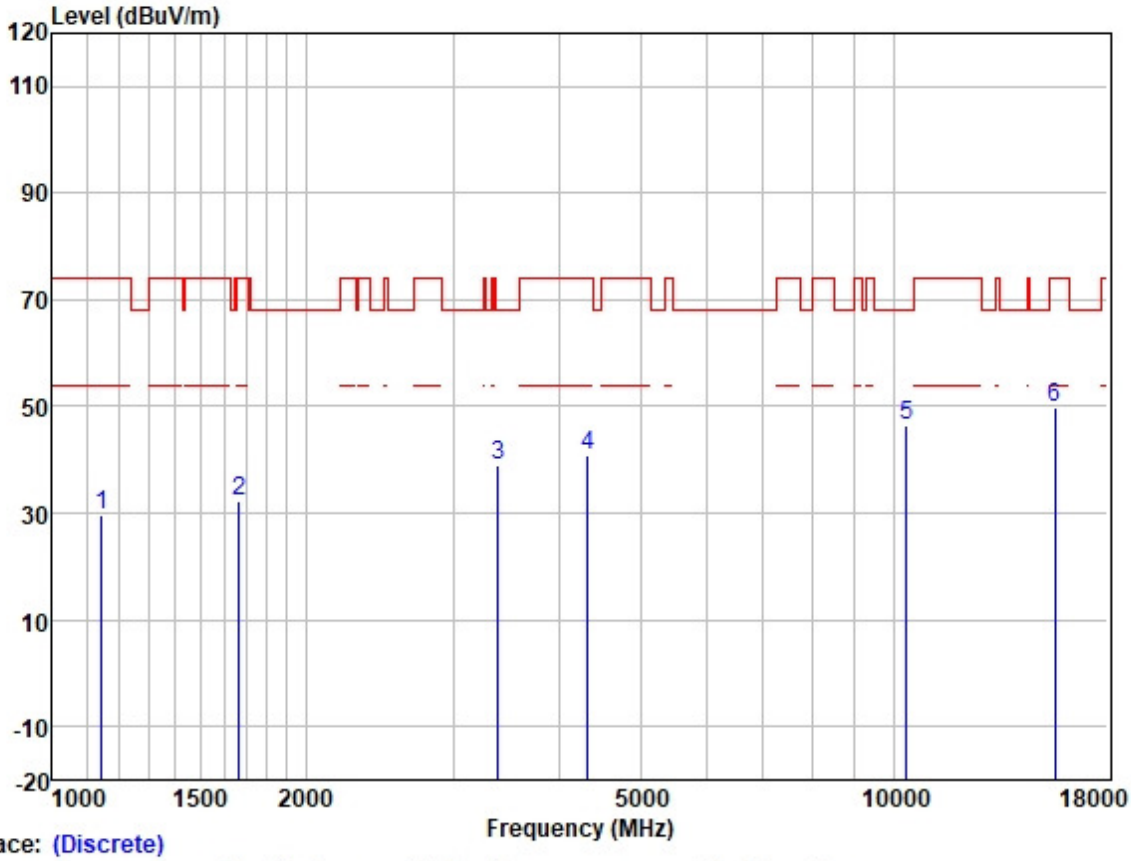
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	1145.507	41.32	24.48	2.32	38.42	29.70	74.00	-44.30	VERTICAL	Peak
2	1667.951	41.69	25.66	2.80	37.91	32.24	74.00	-41.76	VERTICAL	Peak
3	3386.297	43.13	28.83	4.10	36.99	39.07	68.20	-29.13	VERTICAL	Peak
4	4329.354	42.55	30.54	4.67	36.81	40.95	74.00	-33.05	VERTICAL	Peak
5	10360.000	37.43	39.28	7.29	37.37	46.63	68.20	-21.57	VERTICAL	Peak
6	15540.000	36.39	39.05	9.88	35.39	49.93	74.00	-24.07	VERTICAL	Peak

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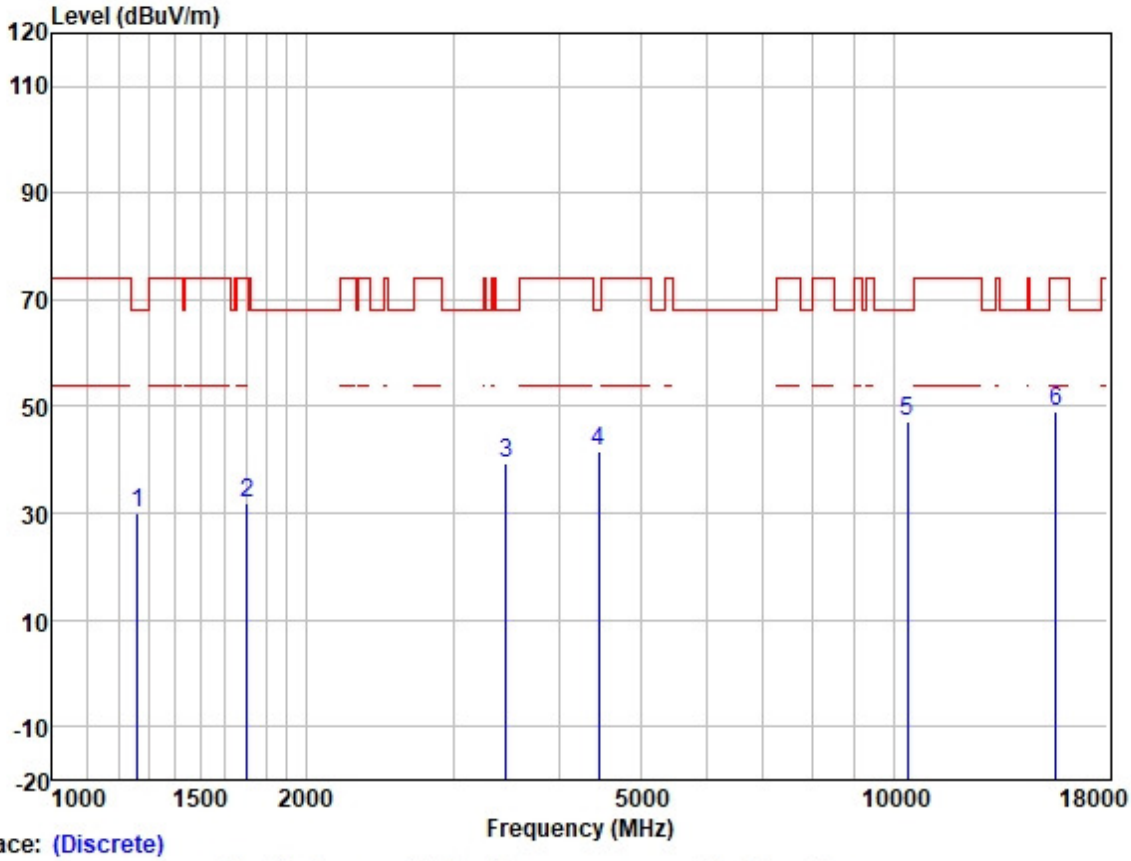
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



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	1263.796	40.74	25.08	2.42	38.33	29.91	68.20	-38.29	HORIZONTAL	Peak
2	1702.042	41.22	25.72	2.80	37.89	31.85	74.00	-42.15	HORIZONTAL	Peak
3	3465.510	43.12	28.88	4.22	36.95	39.27	68.20	-28.93	HORIZONTAL	Peak
4	4456.315	42.73	30.75	4.88	36.81	41.55	68.20	-26.65	HORIZONTAL	Peak
5	10400.000	37.95	39.33	7.32	37.36	47.24	68.20	-20.96	HORIZONTAL	Peak
6	15600.000	35.66	38.99	9.88	35.39	49.14	74.00	-24.86	HORIZONTAL	Peak

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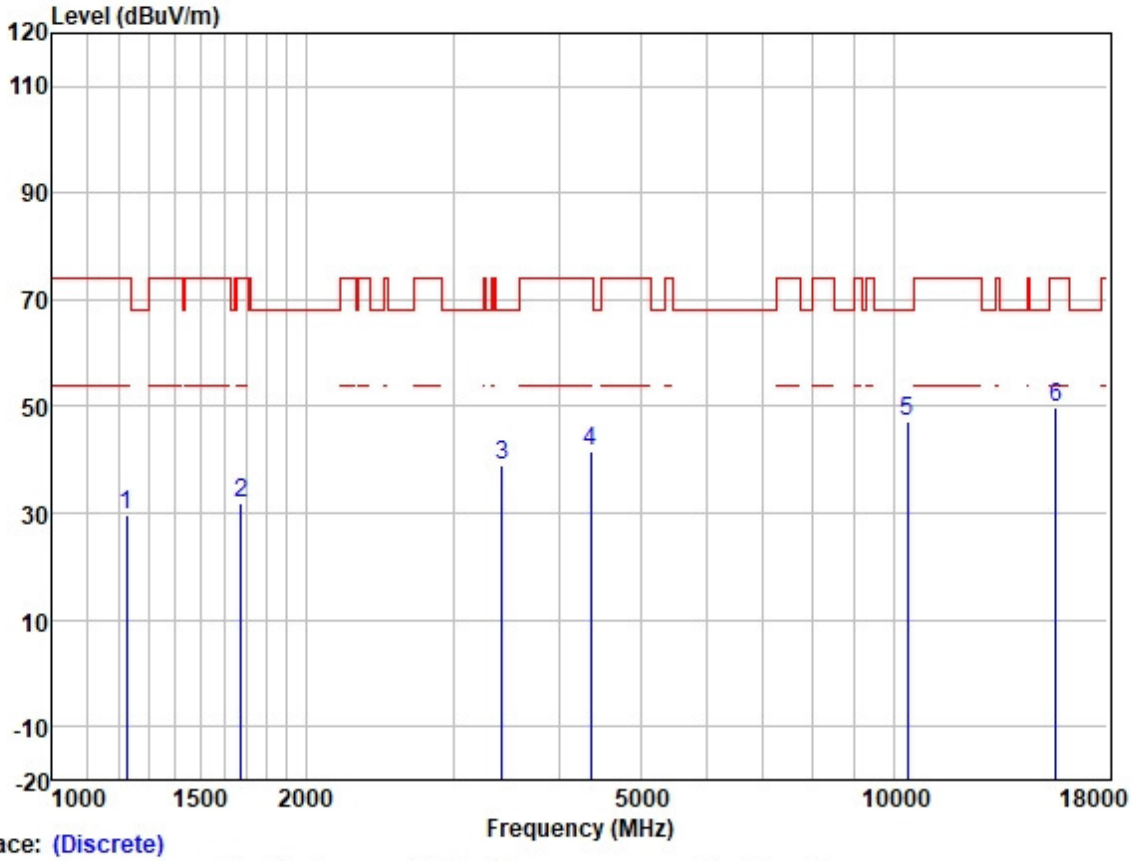
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



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	1224.247	40.97	24.85	2.31	38.37	29.76	74.00	-44.24	VERTICAL	Peak
2	1677.621	41.31	25.68	2.80	37.91	31.88	74.00	-42.12	VERTICAL	Peak
3	3425.675	42.92	28.86	4.15	36.97	38.96	68.20	-29.24	VERTICAL	Peak
4	4367.058	43.15	30.62	4.68	36.81	41.64	74.00	-32.36	VERTICAL	Peak
5	10400.000	37.78	39.33	7.32	37.36	47.07	68.20	-21.13	VERTICAL	Peak
6	15600.000	36.21	38.99	9.88	35.39	49.69	74.00	-24.31	VERTICAL	Peak

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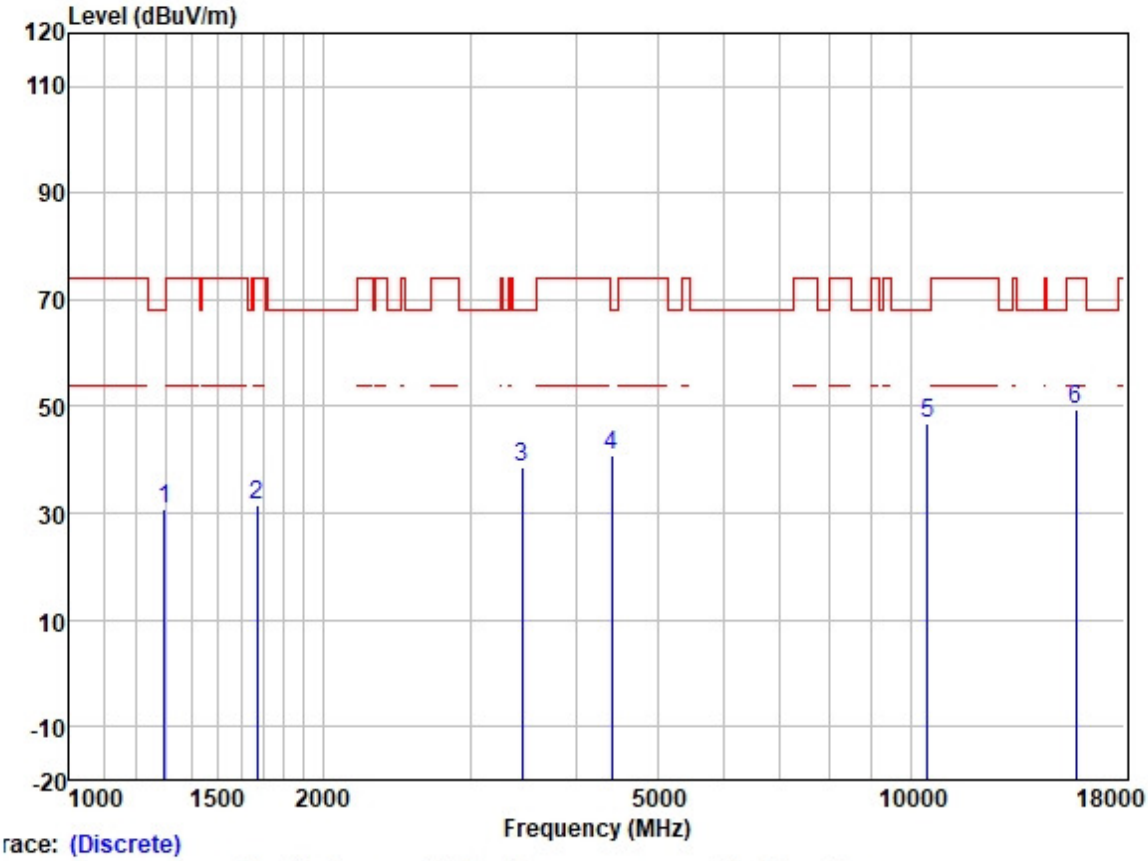
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	1297.103	41.21	25.19	2.58	38.31	30.67	68.20	-37.53	HORIZONTAL	Peak
2	1672.779	40.92	25.67	2.80	37.91	31.48	74.00	-42.52	HORIZONTAL	Peak
3	3455.508	42.64	28.88	4.20	36.96	38.76	68.20	-29.44	HORIZONTAL	Peak
4	4417.841	42.25	30.70	4.74	36.81	40.88	68.20	-27.32	HORIZONTAL	Peak
5	10480.000	37.38	39.46	7.40	37.36	46.88	68.20	-21.32	HORIZONTAL	Peak
6	15720.000	36.18	38.78	9.87	35.39	49.44	74.00	-24.56	HORIZONTAL	Peak

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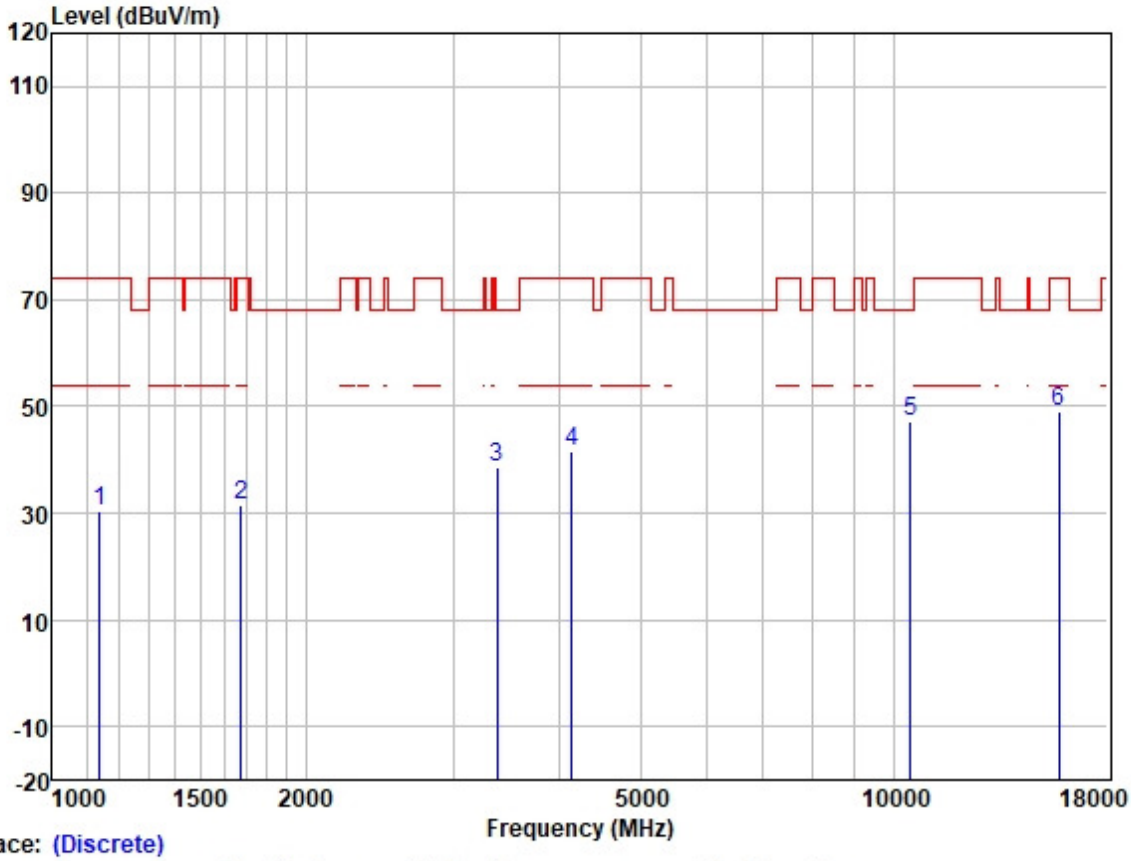
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	1138.904	42.03	24.46	2.27	38.42	30.34	74.00	-43.66	VERTICAL	Peak
2	1677.621	41.03	25.68	2.80	37.91	31.60	74.00	-42.40	VERTICAL	Peak
3	3376.523	42.69	28.83	4.09	36.99	38.62	68.20	-29.58	VERTICAL	Peak
4	4145.664	43.95	30.03	4.60	36.80	41.78	74.00	-32.22	VERTICAL	Peak
5	10480.000	37.54	39.46	7.40	37.36	47.04	68.20	-21.16	VERTICAL	Peak
6	15720.000	35.89	38.78	9.87	35.39	49.15	74.00	-24.85	VERTICAL	Peak

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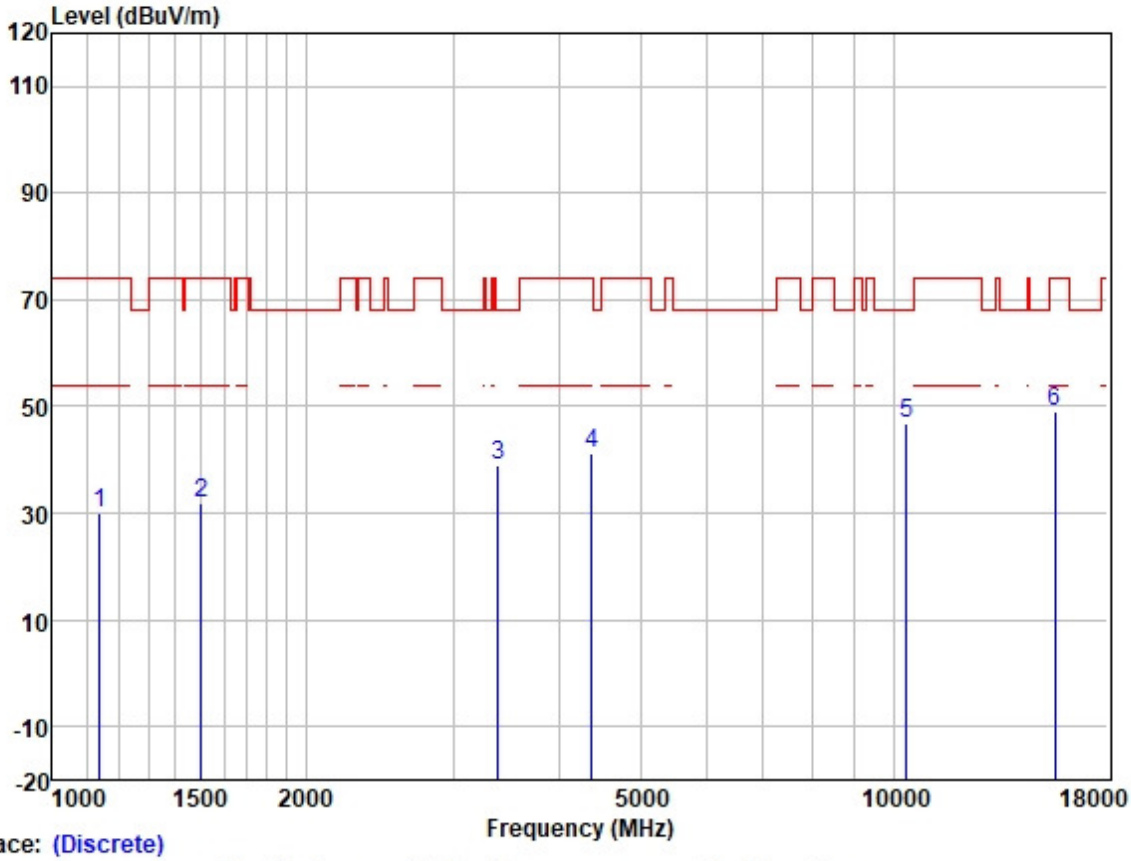
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	1138.904	41.72	24.46	2.27	38.42	30.03	74.00	-43.97	HORIZONTAL	Peak
2	1503.119	41.70	25.50	2.80	38.10	31.90	74.00	-42.10	HORIZONTAL	Peak
3	3386.297	43.00	28.83	4.10	36.99	38.94	68.20	-29.26	HORIZONTAL	Peak
4	4379.699	42.72	30.64	4.69	36.81	41.24	74.00	-32.76	HORIZONTAL	Peak
5	10360.000	37.75	39.28	7.29	37.37	46.95	68.20	-21.25	HORIZONTAL	Peak
6	15540.000	35.52	39.05	9.88	35.39	49.06	74.00	-24.94	HORIZONTAL	Peak

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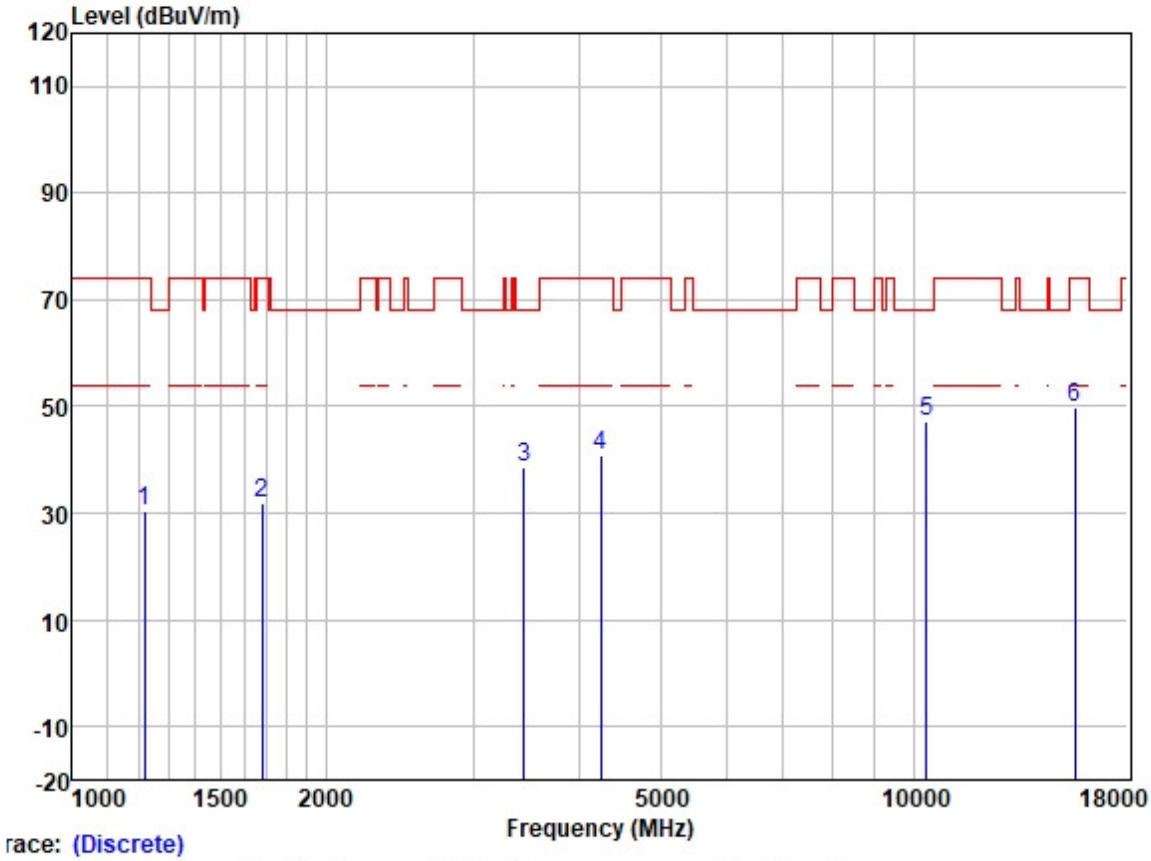
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	1217.190	41.57	24.79	2.32	38.37	30.31	74.00	-43.69	VERTICAL	Peak
2	1682.477	41.20	25.68	2.80	37.91	31.77	74.00	-42.23	VERTICAL	Peak
3	3445.535	42.70	28.87	4.18	36.96	38.79	68.20	-29.41	VERTICAL	Peak
4	4242.641	42.89	30.30	4.62	36.81	41.00	74.00	-33.00	VERTICAL	Peak
5	10360.000	37.93	39.28	7.29	37.37	47.13	68.20	-21.07	VERTICAL	Peak
6	15540.000	36.31	39.05	9.88	35.39	49.85	74.00	-24.15	VERTICAL	Peak

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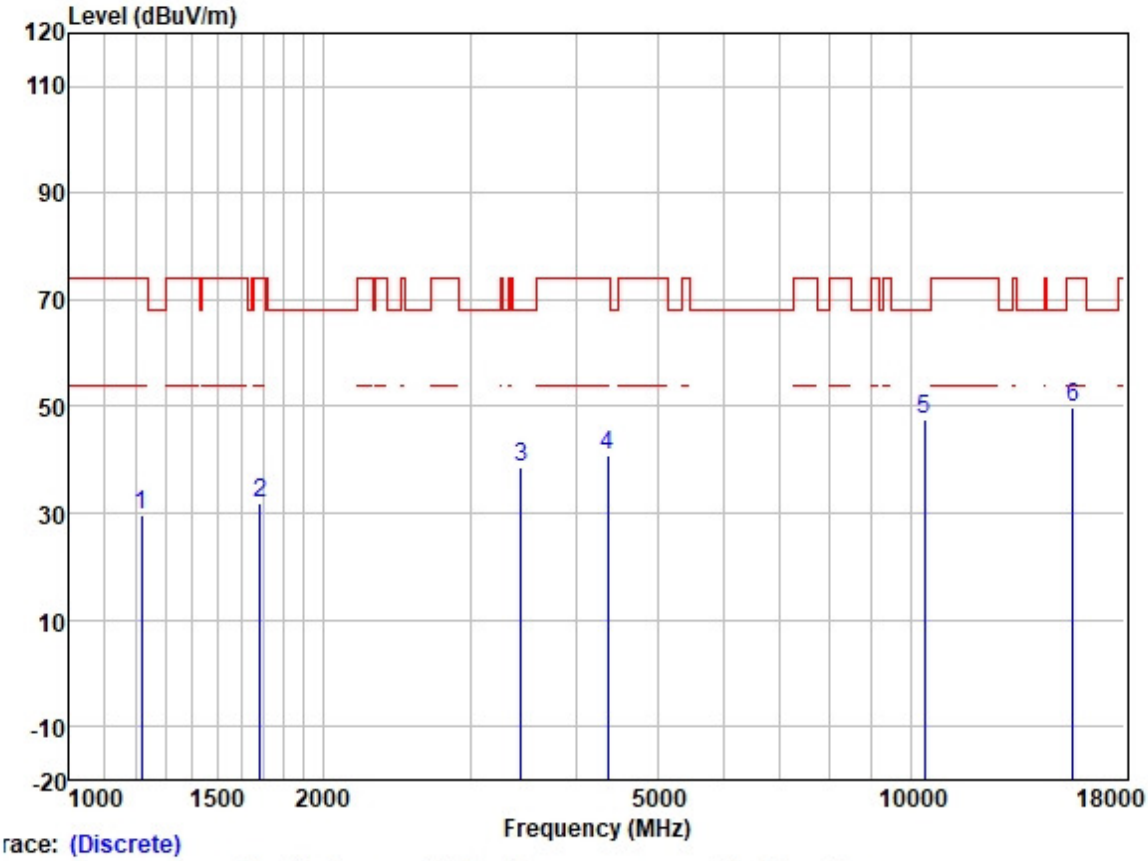
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



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	1217.190	41.03	24.79	2.32	38.37	29.77	74.00	-44.23	HORIZONTAL	Peak
2	1687.347	41.19	25.69	2.80	37.91	31.77	74.00	-42.23	HORIZONTAL	Peak
3	3445.535	42.60	28.87	4.18	36.96	38.69	68.20	-29.51	HORIZONTAL	Peak
4	4367.058	42.41	30.62	4.68	36.81	40.90	74.00	-33.10	HORIZONTAL	Peak
5	10400.000	38.14	39.33	7.32	37.36	47.43	68.20	-20.77	HORIZONTAL	Peak
6	15600.000	36.23	38.99	9.88	35.39	49.71	74.00	-24.29	HORIZONTAL	Peak

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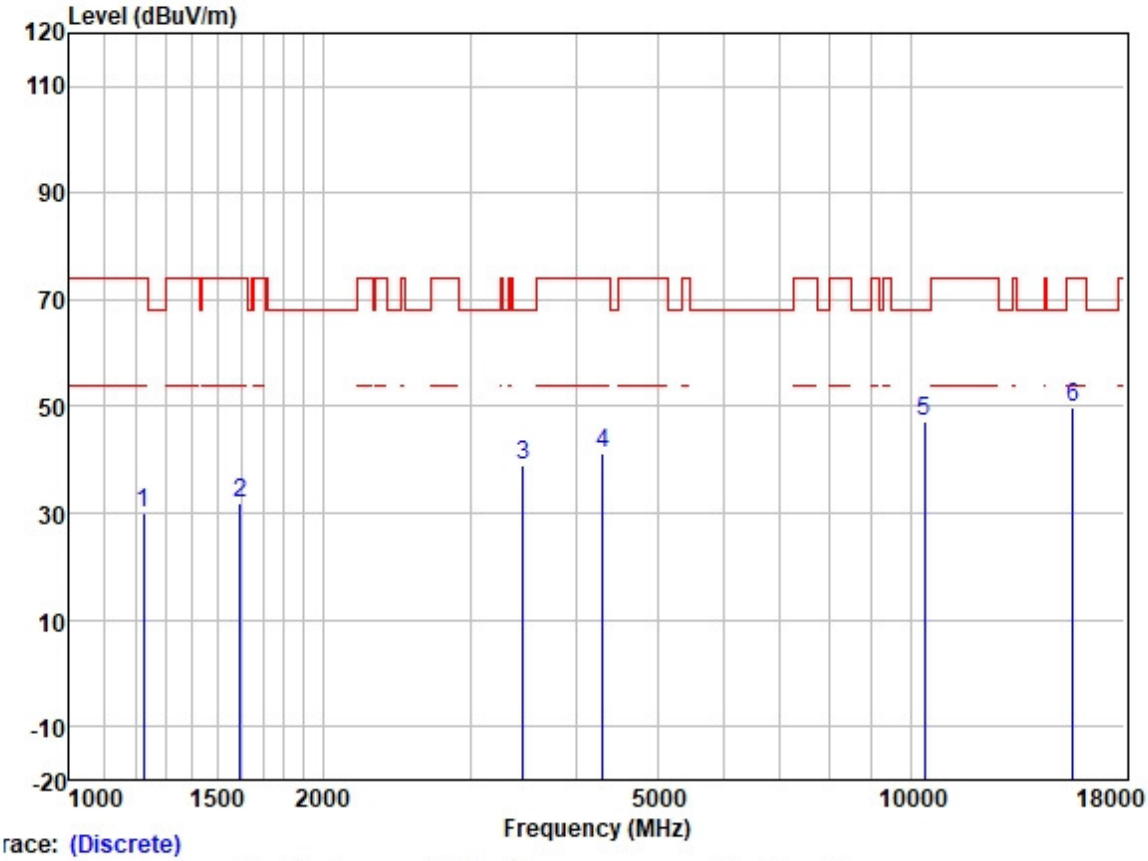
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



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	1224.247	41.34	24.85	2.31	38.37	30.13	74.00	-43.87	VERTICAL	Peak
2	1597.181	41.40	25.58	2.80	37.98	31.80	74.00	-42.20	VERTICAL	Peak
3	3465.510	42.98	28.88	4.22	36.95	39.13	68.20	-29.07	VERTICAL	Peak
4	4304.400	43.02	30.48	4.65	36.81	41.34	74.00	-32.66	VERTICAL	Peak
5	10400.000	37.82	39.33	7.32	37.36	47.11	68.20	-21.09	VERTICAL	Peak
6	15600.000	36.15	38.99	9.88	35.39	49.63	74.00	-24.37	VERTICAL	Peak

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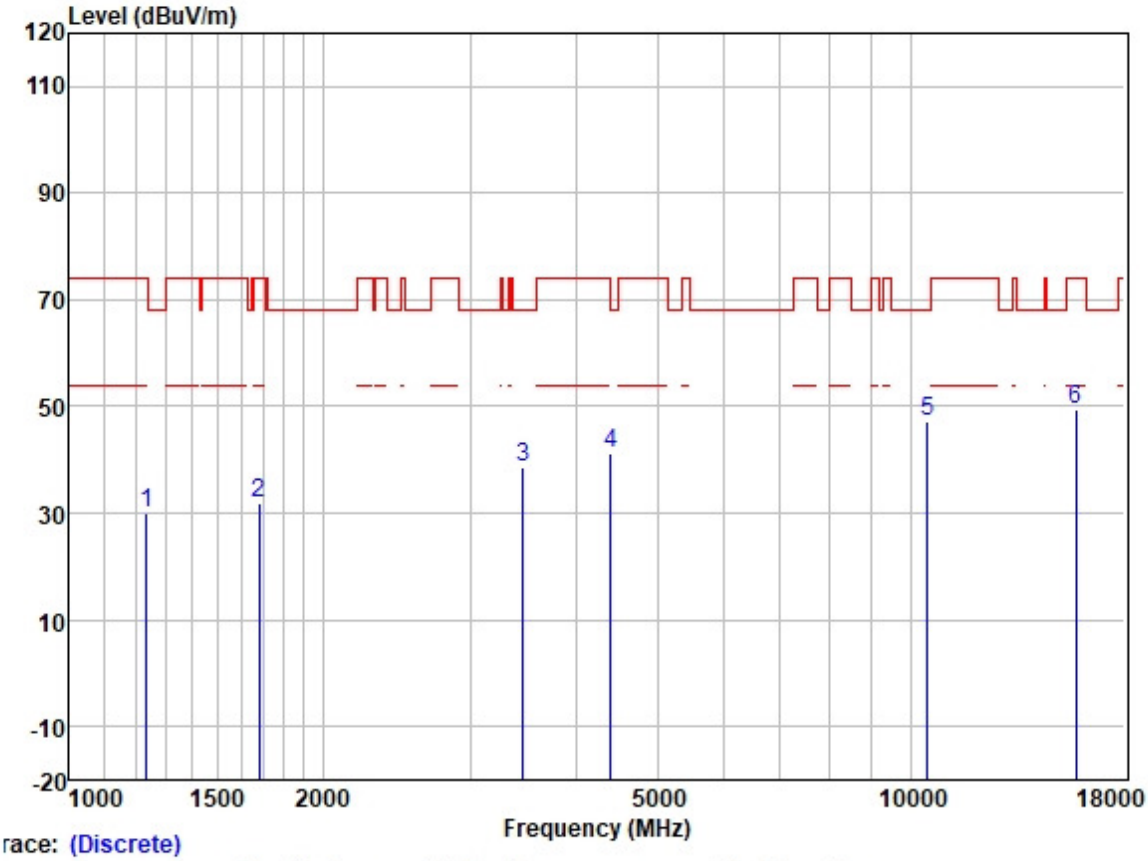
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	1234.909	41.11	24.93	2.30	38.37	29.97	74.00	-44.03	HORIZONTAL	Peak
2	1682.477	41.47	25.68	2.80	37.91	32.04	74.00	-41.96	HORIZONTAL	Peak
3	3465.510	42.63	28.88	4.22	36.95	38.78	68.20	-29.42	HORIZONTAL	Peak
4	4405.090	42.65	30.68	4.70	36.81	41.22	68.20	-26.98	HORIZONTAL	Peak
5	10480.000	37.59	39.46	7.40	37.36	47.09	68.20	-21.11	HORIZONTAL	Peak
6	15720.000	36.18	38.78	9.87	35.39	49.44	74.00	-24.56	HORIZONTAL	Peak

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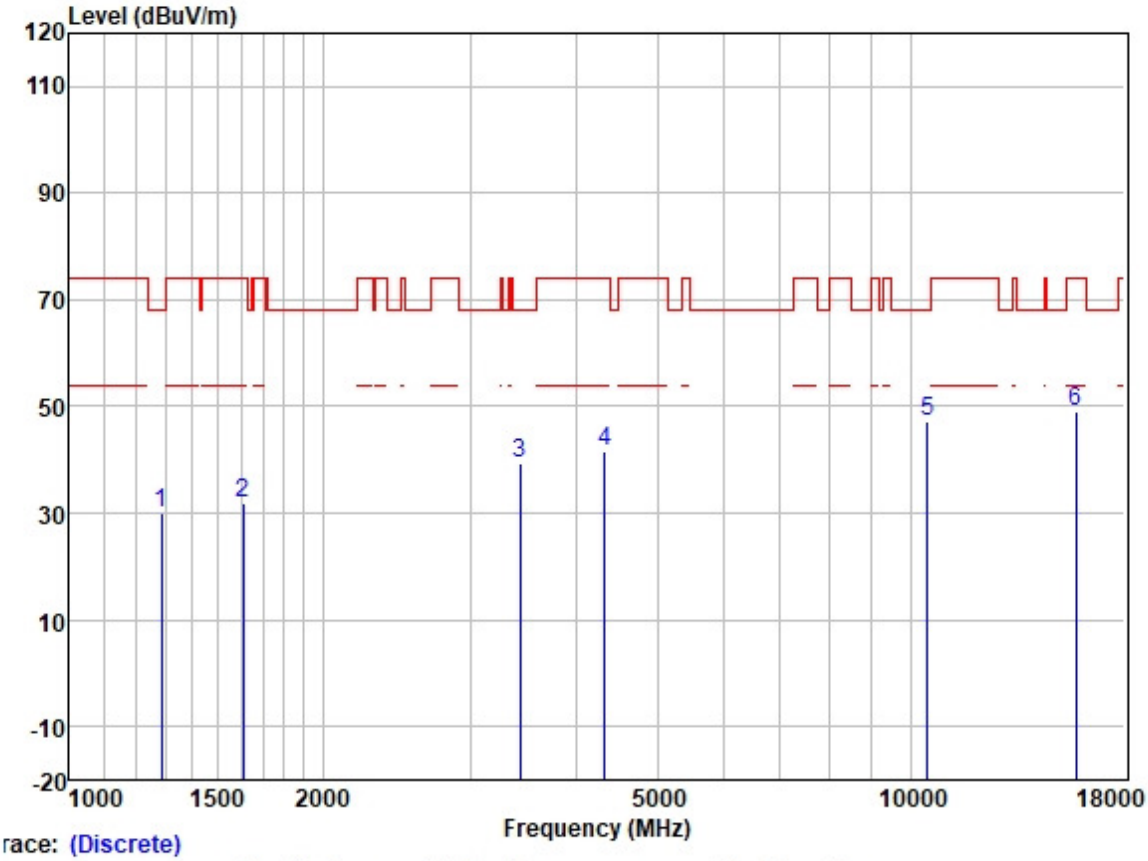
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	1285.904	40.81	25.16	2.53	38.33	30.17	68.20	-38.03	VERTICAL	Peak
2	1611.091	41.54	25.59	2.80	37.98	31.95	74.00	-42.05	VERTICAL	Peak
3	3435.590	43.26	28.87	4.16	36.97	39.32	68.20	-28.88	VERTICAL	Peak
4	4329.354	43.07	30.54	4.67	36.81	41.47	74.00	-32.53	VERTICAL	Peak
5	10480.000	37.60	39.46	7.40	37.36	47.10	68.20	-21.10	VERTICAL	Peak
6	15720.000	35.92	38.78	9.87	35.39	49.18	74.00	-24.82	VERTICAL	Peak

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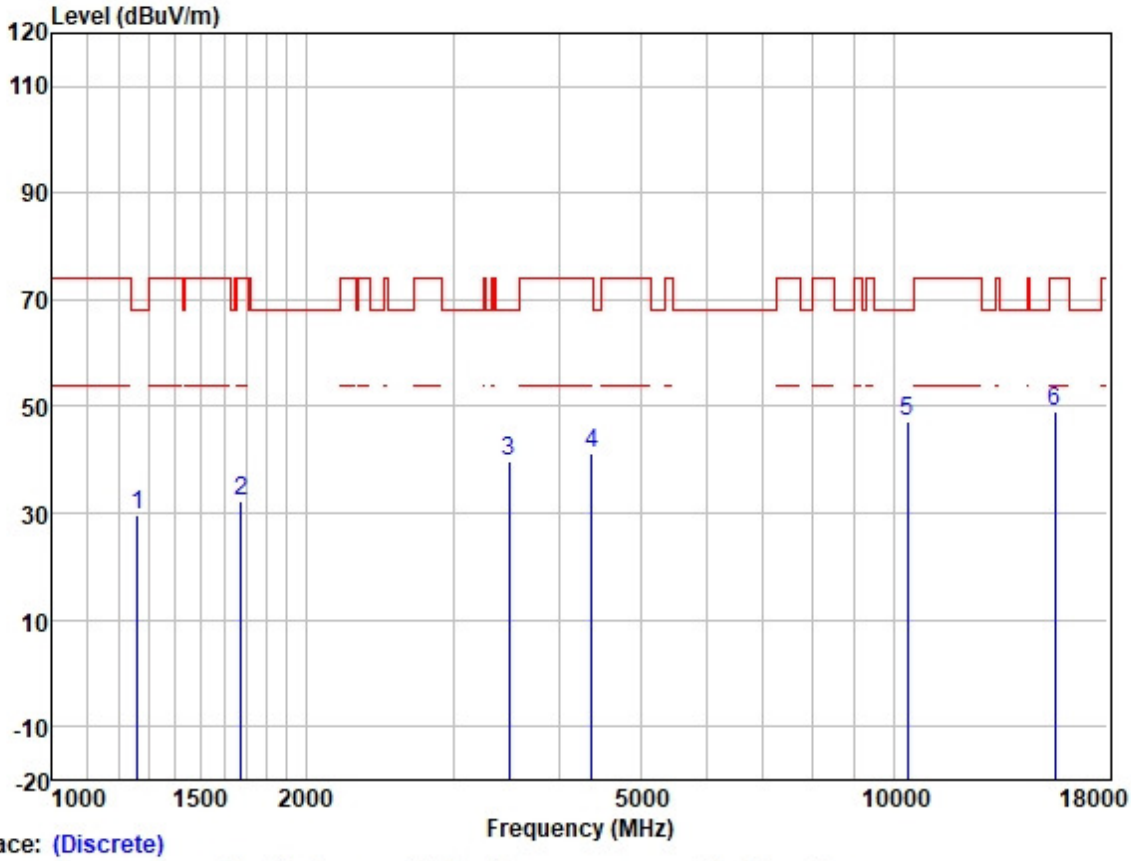
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	1263.796	40.56	25.08	2.42	38.33	29.73	68.20	-38.47	HORIZONTAL	Peak
2	1677.621	41.66	25.68	2.80	37.91	32.23	74.00	-41.77	HORIZONTAL	Peak
3	3495.691	43.37	28.90	4.30	36.94	39.63	68.20	-28.57	HORIZONTAL	Peak
4	4379.699	42.62	30.64	4.69	36.81	41.14	74.00	-32.86	HORIZONTAL	Peak
5	10380.000	37.89	39.33	7.32	37.37	47.17	68.20	-21.03	HORIZONTAL	Peak
6	15570.000	35.55	38.99	9.88	35.39	49.03	74.00	-24.97	HORIZONTAL	Peak

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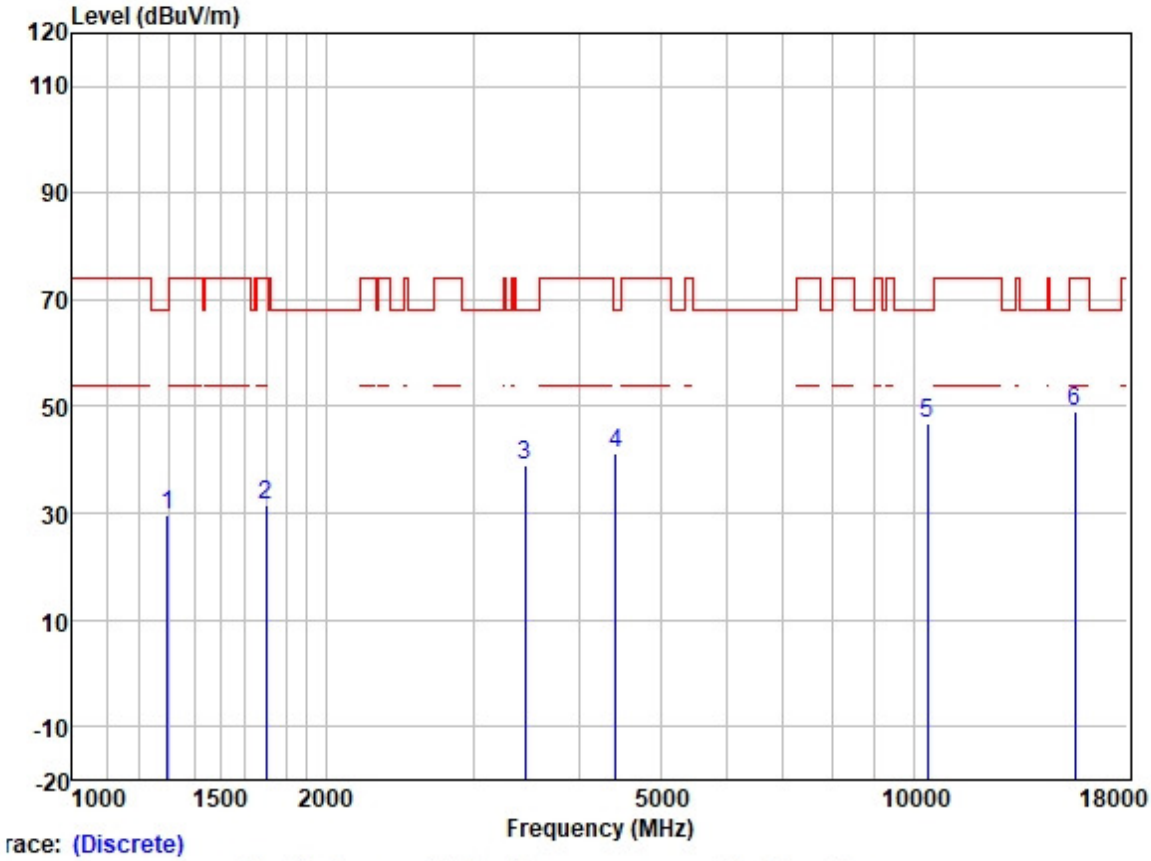
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	1297.103	40.23	25.19	2.58	38.31	29.69	68.20	-38.51	VERTICAL	Peak
2	1697.129	40.97	25.71	2.80	37.89	31.59	74.00	-42.41	VERTICAL	Peak
3	3455.508	42.73	28.88	4.20	36.96	38.85	68.20	-29.35	VERTICAL	Peak
4	4430.628	42.71	30.72	4.78	36.81	41.40	68.20	-26.80	VERTICAL	Peak
5	10380.000	37.50	39.33	7.32	37.37	46.78	68.20	-21.42	VERTICAL	Peak
6	15570.000	35.55	38.99	9.88	35.39	49.03	74.00	-24.97	VERTICAL	Peak

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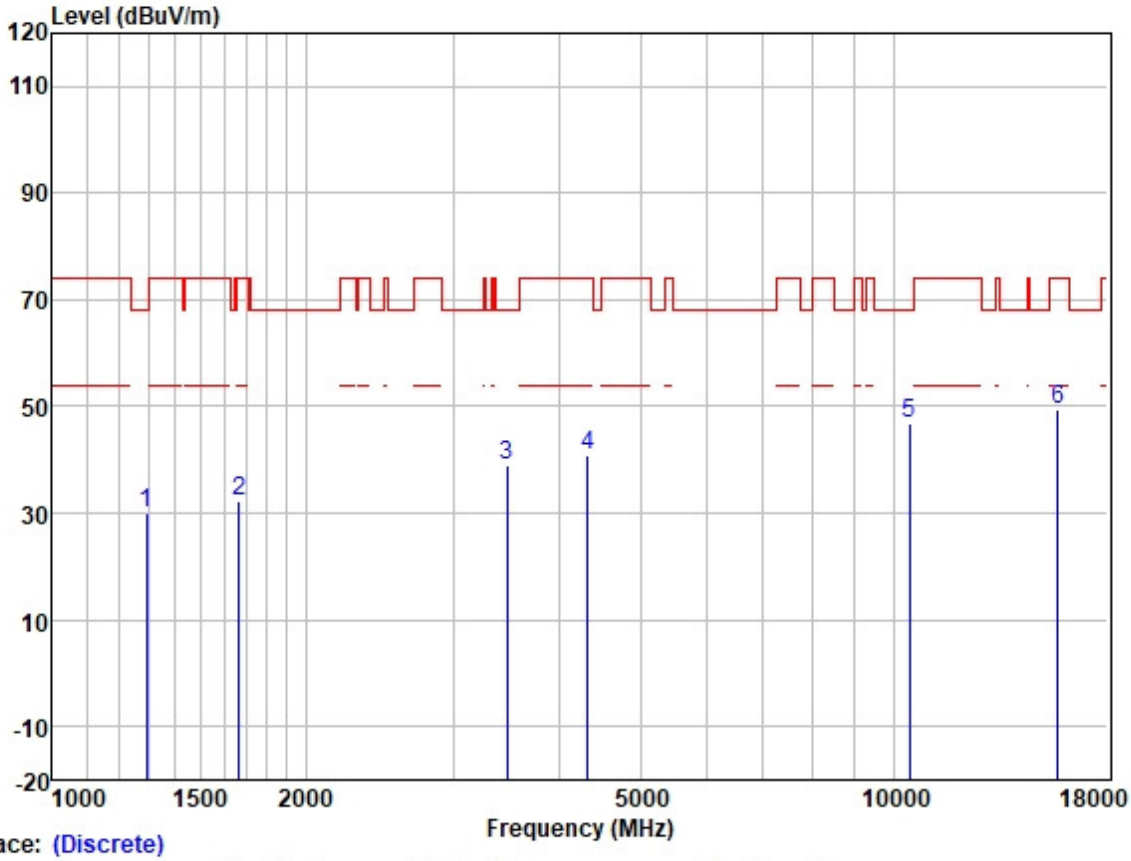
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	1293.359	40.49	25.18	2.57	38.31	29.93	68.20	-38.27	HORIZONTAL	Peak
2	1667.951	41.56	25.66	2.80	37.91	32.11	74.00	-41.89	HORIZONTAL	Peak
3	3475.541	42.70	28.89	4.25	36.95	38.89	68.20	-29.31	HORIZONTAL	Peak
4	4329.354	42.56	30.54	4.67	36.81	40.96	74.00	-33.04	HORIZONTAL	Peak
5	10460.000	37.45	39.42	7.37	37.36	46.88	68.20	-21.32	HORIZONTAL	Peak
6	15690.000	36.03	38.86	9.87	35.39	49.37	74.00	-24.63	HORIZONTAL	Peak

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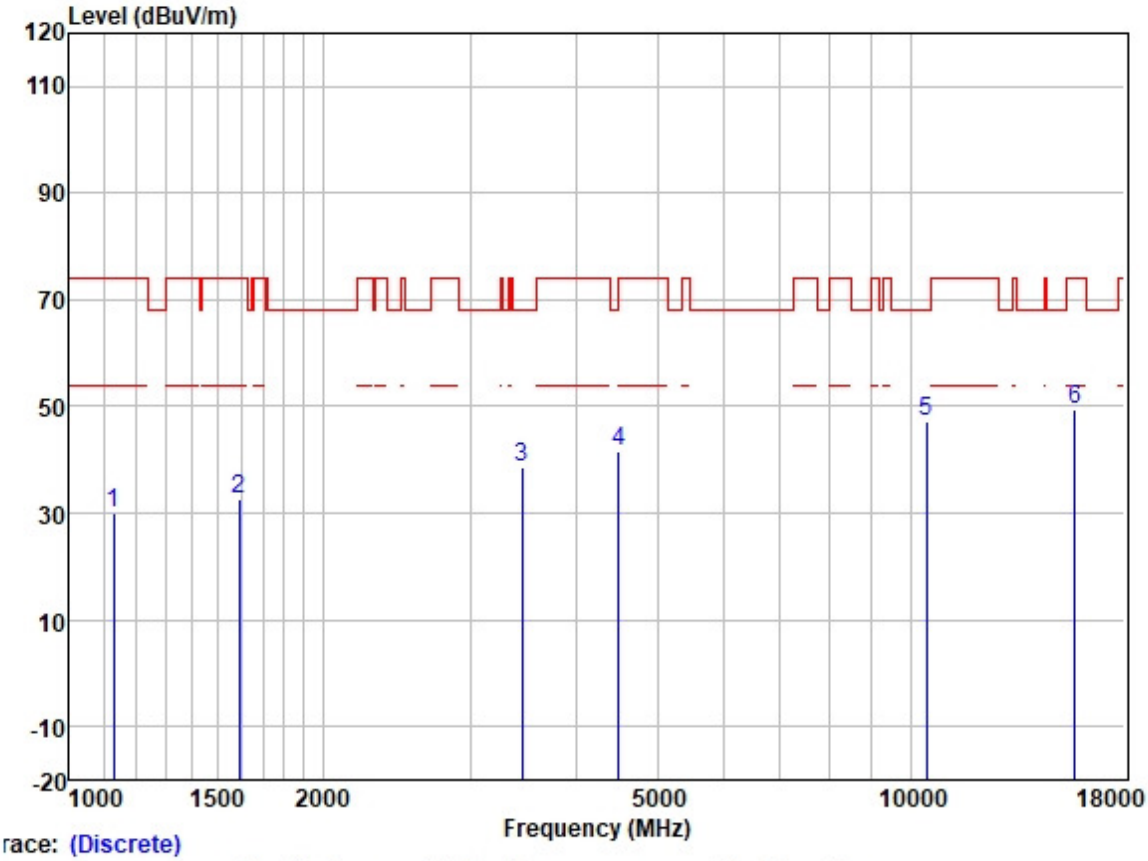
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	1129.072	41.80	24.43	2.20	38.43	30.00	74.00	-44.00	VERTICAL	Peak
2	1592.571	42.21	25.57	2.80	37.98	32.60	74.00	-41.40	VERTICAL	Peak
3	3455.508	42.65	28.88	4.20	36.96	38.77	68.20	-29.43	VERTICAL	Peak
4	4495.125	42.39	30.80	5.05	36.82	41.42	68.20	-26.78	VERTICAL	Peak
5	10460.000	37.93	39.42	7.37	37.36	47.36	68.20	-20.84	VERTICAL	Peak
6	15690.000	36.21	38.86	9.87	35.39	49.55	74.00	-24.45	VERTICAL	Peak

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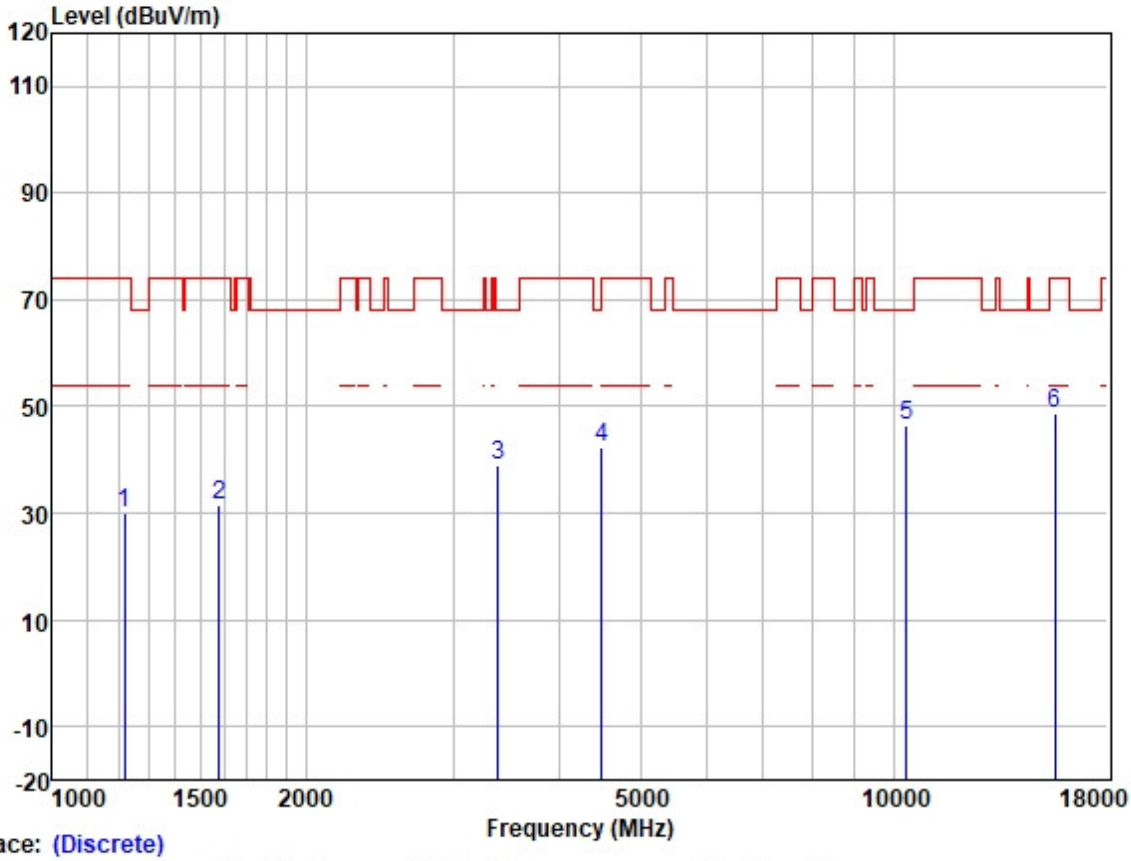
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	1217.190	41.16	24.79	2.32	38.37	29.90	74.00	-44.10	HORIZONTAL	Peak
2	1578.822	41.13	25.56	2.80	38.00	31.49	74.00	-42.51	HORIZONTAL	Peak
3	3386.297	42.94	28.83	4.10	36.99	38.88	68.20	-29.32	HORIZONTAL	Peak
4	4495.125	43.30	30.80	5.05	36.82	42.33	68.20	-25.87	HORIZONTAL	Peak
5	10360.000	37.15	39.28	7.29	37.37	46.35	68.20	-21.85	HORIZONTAL	Peak
6	15540.000	35.01	39.05	9.88	35.39	48.55	74.00	-25.45	HORIZONTAL	Peak

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