TEST REPORT

Application No.:	GZCR2108020924AT
Applicant:	DT Research, Inc.
Address of Applicant:	3RD FL NO 36 WUQUAN 7TH RD WUGU DISTRICT, NEW TAIPEI, Taiwan
Manufacturer:	DT Research, Inc.
Address of Manufacturer:	2000 Concourse Drive, San Jose, CA 95131, USA
Factory:	DT Research, Inc. Taiwan Branch
Address of Factory:	6F., No.36 Wuquan 7 th Rd., Wugu Dist. New Taipei City 248 Taiwan
Equipment Under Test (EUT):	
EUT Name:	Industrial Micro PC/Medical Micro PC
Model No.:	139CSXXX, X is -, any alphanumeric or blank. 139MXXX, X is -, any alphanumeric or blank. ♣
♣	Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.
Trade Mark:	DT Research
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2021-08-12
Date of Test:	2021-08-13 to 2021-09-01
Date of Issue:	2021-09-02
Test Result:	**Pass***

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

Kobe Jian
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2021-09-02*		*Original*

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

2 Test Summary

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

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	Pass
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 which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Radiated Emissions (below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Radiated Emissions (above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass

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.

Remark:

Model No.: 139CSXXX, X is -, any alphanumeric or blank.

139MXXX, X is -, any alphanumeric or blank.

Only the model 139CS was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only difference on model no., colour and the difference as below:

Model No.	139CS	139M
Product Name:	Industrial Micro PC	Medical Micro PC
Adapter:	AC Adapter2 Model: EA10951E-190 AC Input: AC 100-240V, 50/60Hz, 2.5A DC Output: DC 19V, 4.73A, 90.0W	Medical AC Adapter1 Model: EM10681V AC Input: AC 100-240V, 50/60Hz, 2.0-1.0A DC Output: DC 19V, 3.78A

Both adapters are tested in this report, only recorded the worse test results(AC Adapter2).

This report is prepared for FCC class II permissive change.

The modular approval by TCB, FCC ID: YE3600-AX200NG, Granted on 05/25/2020.

The module installed into host platform mentioned above is electronically and mechanically identical to the original certified module. The Original FCC testing on module under FCC ID: YE3600-AX200NG was performed with an antenna of higher gain, and the antenna was connected to the module in an open environment. The current host platform under application uses a new antenna of the different type, higher gain and is installed outside the host platform enclosure.

Therefore in this report all the test items in section 2 were fully retested on model 139CS and shown the data in this report.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply: Medical AC Adapter1
Model: EM10681V
AC Input: AC 100-240V, 50/60Hz, 2.0-1.0A
DC Output: DC 19V, 3.78A

AC Adapter2
Model: EA10951E-190
AC Input: AC 100-240V, 50/60Hz, 2.5A
DC Output: DC 19V, 4.73A, 90.0W

Test voltage: AC 120V, 60Hz or AC 230V, 50Hz
Note: Both nominal AC 120V, 60Hz and AC 240 V, 50Hz are required for testing in accordance with FCC KDB174176, this report only shows the results of the worst test result(AC 120V, 60Hz);

Cable(s): DC cable:143cm with a ferrite core

Internal Source: More than 108MHz

Sample Type: Fixed device

Operation Frequency:

Band	Mode	Frequency Range(MHz)	Number of channels
UNII Band I	802.11a/n/ax(HT20)	5180-5240	4
	802.11n/ax(HT40)	5190-5230	2
	802.11ac/ax(HT80)	5210	1
	802.11ac/ax(HT160)	5250	1
UNII Band II-A	802.11a/n/ax(HT20)	5260-5320	4
	802.11n/ax(HT40)	5270-5310	2
	802.11ac/ax(HT80)	5290	1
UNII Band II-C	802.11a/n/ax(HT20)	5500-5720	12
	802.11n/ax(HT40)	5510-5710	6
	802.11ac/ax(HT80)	5530-5690	3
	802.11ac/ax(HT160)	5570	1
UNII Band III	802.11a/n/ax(HT20)	5745-5825	5
	802.11n/ax(HT40)	5755-5795	2
	802.11ac/ax(HT80)	5775	1

Modulation Type: 802.11a: OFDM (64QAM,16QAM, QPSK, BPSK)
802.11n: OFDM (256QAM, 64QAM,16QAM, QPSK, BPSK)
802.11ac: OFDM (256QAM, 64QAM,16QAM, QPSK, BPSK)
802.11ax: OFDM (1024QAM, 256QAM, 64QAM,16QAM, QPSK, BPSK)

DFS Function: Slave without radar detection

TPC Function: Not support

Antenna Type: Dipole Antenna

Antenna Gain: Antenna1: 5.22dBi, Antenna2: 5.22dBi

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	SAMSUNG	SM-G9810	RFCN309Q9QF
Note Book PC	LENOVO	Lenovo Xiaoxinchao 5000	PF0TLJX7
Wireless Router	Honor	HiRouter-CD30	AWTEQ20C04001295

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	3.12dB
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
Radiated Emissions which fall in the restricted bands	± 4.5dB (below 1GHz); ± 4.8dB (above 1GHz);
Radiated Emissions (below 1GHz)	5.06dB （30MHz-1GHz；3m） 4.46dB （30MHz-1GHz；10m）
Radiated Emissions (above 1GHz)	5.08 dB (1-6GHz); 5.14 (above 6 GHz)

4.4 Test Location

All tests were performed at:

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

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

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

No tests were sub-contracted.

4.5 Test Facility

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

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

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

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

- **ACMA**

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

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

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

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

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

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

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

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

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

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

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

- **CBTL (Lab Code: TL129)**

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

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-01-08	2022-01-06
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2020-09-25	2021-09-24
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A
EMI Test Receiver(9kHz-3.6GHz)	Rohde & Schwarz	ESR4	EMC2221	2021-06-01	2022-05-31

Maximum Conducted output power					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

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

Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Radiated Spurious Emissions Below 1GHz

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)-Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16

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	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27

Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

Radiated Emissions (above 1GHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

Non-occupancy period

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	/
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/

Channel Move Time

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	/
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/

Channel Closing Transmission Time

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

EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	/
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/

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

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 connector is a RP-SMA type that comply with Part15.203, the best case gain of the Antenna 1: 5.22dBi; Antenna 2: 5.22dBi.

Antenna location: Refer to external photo.

EUT support 2x2 MIMO for 802.11n/ac/ax, any transmit signals are correlated with each other, as unequal antenna gains for antenna 1 and antenna 2 but with equal transmit power, therefore,

$$\text{Directional gain} = G_{\text{ANT}} + 10 \log (N_{\text{ANT}}) \text{ dBi}$$

Directional gain= 5.22+10log (2)dBi=**8.23 dBi**

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 support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

7 Radio Spectrum Matter Test Results

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

Test Requirement 47 CFR Part 15, Subpart C 15.207 & 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: 22.6 °C Humidity: 48.6 % RH Atmospheric Pressure: 1010 mbar

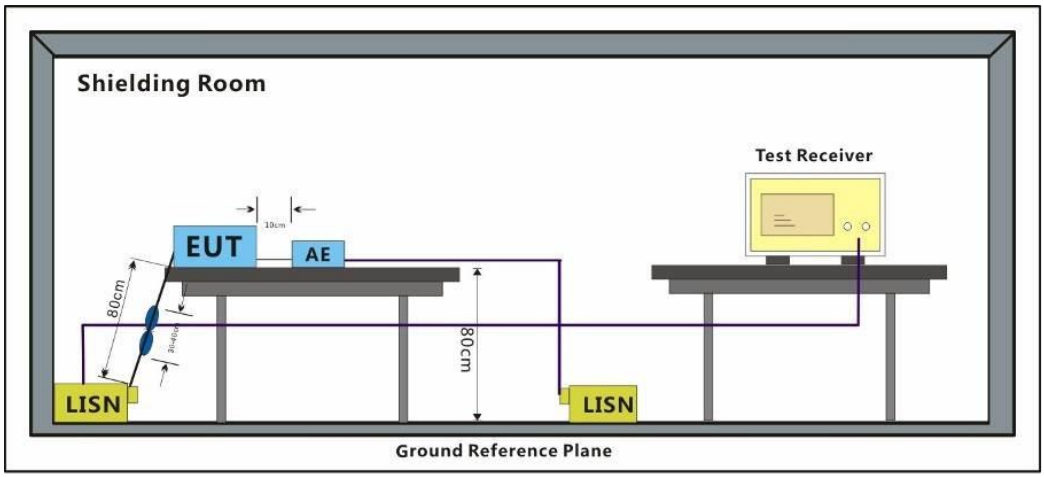
7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	22	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 @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE

802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.

Pre-scan	25	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

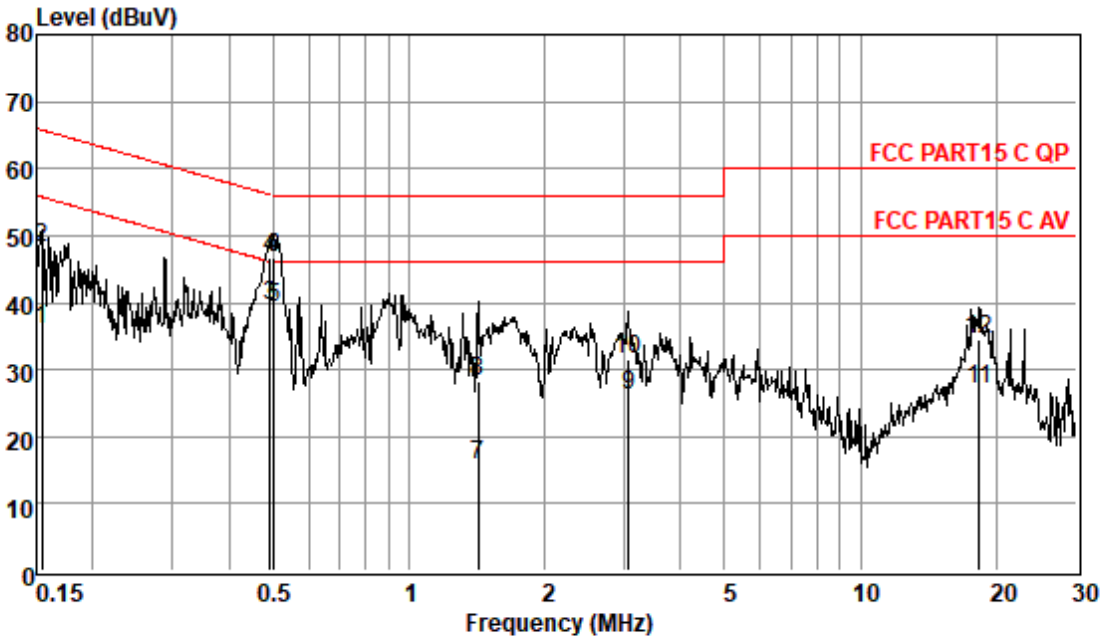
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

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

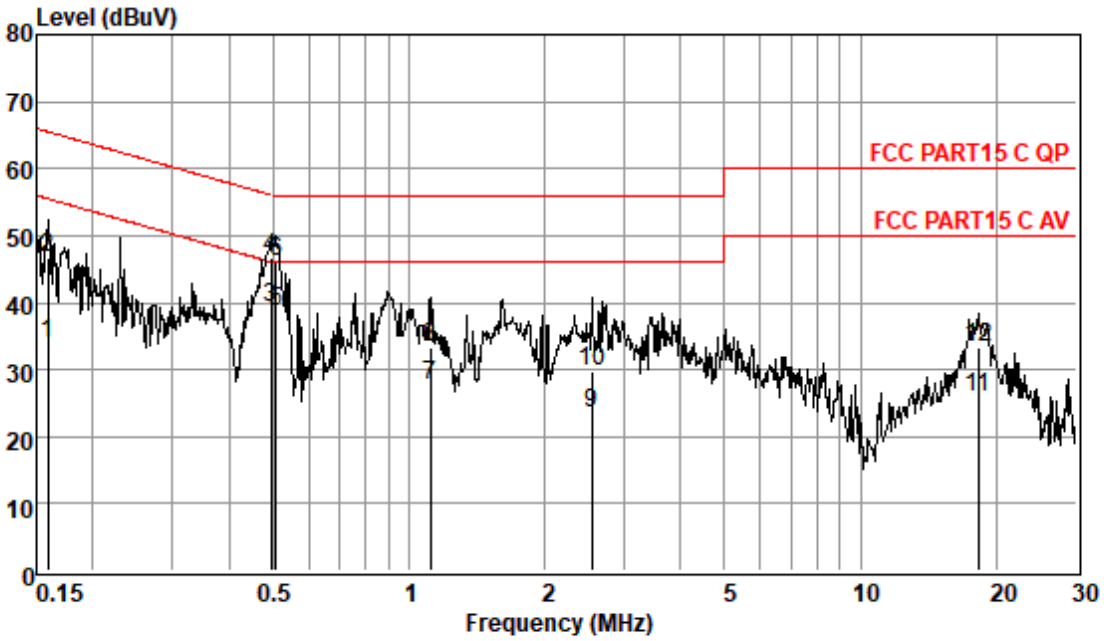
Test Mode: 25; Line: Live line; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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
0.15	26.23	0.06	9.62	35.91	55.78	-19.87	Average
0.15	38.51	0.06	9.62	48.19	65.78	-17.59	QP
0.49	29.76	0.07	9.63	39.46	46.10	-6.64	Average
0.49	36.90	0.07	9.63	46.60	56.10	-9.50	QP
0.50	29.52	0.07	9.63	39.22	46.00	-6.78	Average
0.50	37.10	0.07	9.63	46.80	56.00	-9.20	QP
1.43	5.92	0.09	9.61	15.62	46.00	-30.38	Average
1.43	18.63	0.09	9.61	28.33	56.00	-27.67	QP
3.06	16.43	0.15	9.62	26.20	46.00	-19.80	Average
3.06	21.65	0.15	9.62	31.42	56.00	-24.58	QP
18.33	17.07	0.35	9.75	27.17	50.00	-22.83	Average
18.33	24.51	0.35	9.75	34.61	60.00	-25.39	QP

Test Mode: 25; Line: Neutral Line; Modulation:802.11ac; 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
0.16	24.38	0.06	9.55	33.99	55.52	-21.53	Average
0.16	37.19	0.06	9.55	46.80	65.52	-18.72	QP
0.50	29.62	0.07	9.55	39.24	46.05	-6.81	Average
0.50	37.02	0.07	9.55	46.64	56.05	-9.41	QP
0.51	29.18	0.07	9.55	38.80	46.00	-7.20	Average
0.51	36.47	0.07	9.55	46.09	56.00	-9.91	QP
1.12	17.91	0.08	9.55	27.54	46.00	-18.46	Average
1.12	23.81	0.08	9.55	33.44	56.00	-22.56	QP
2.54	13.71	0.14	9.54	23.39	46.00	-22.61	Average
2.54	19.92	0.14	9.54	29.60	56.00	-26.40	QP
18.23	15.98	0.35	9.66	25.99	50.00	-24.01	Average
18.23	23.31	0.35	9.66	33.32	60.00	-26.68	QP

7.2 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.

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 48.2 % RH Atmospheric Pressure: 1010 mbar

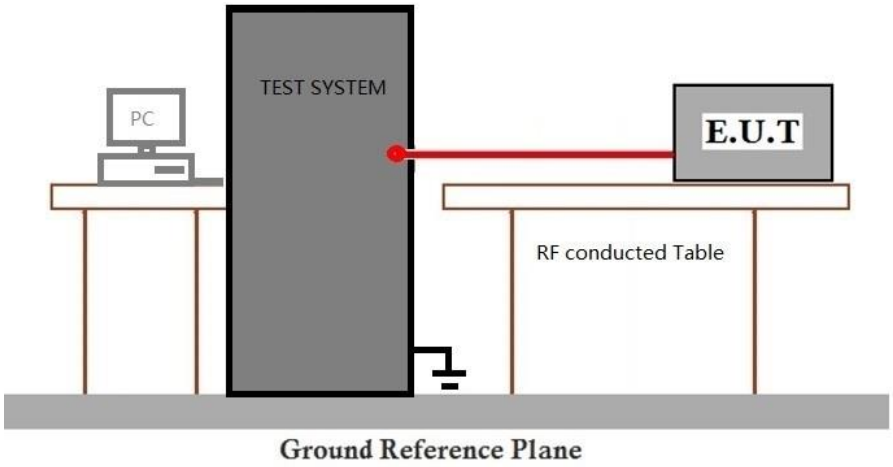
7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	22	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 @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Final test	23	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.
Final test	24	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate

@ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.

Final test	25	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.3 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.

7.3.1 E.U.T. Operation

Operating Environment:

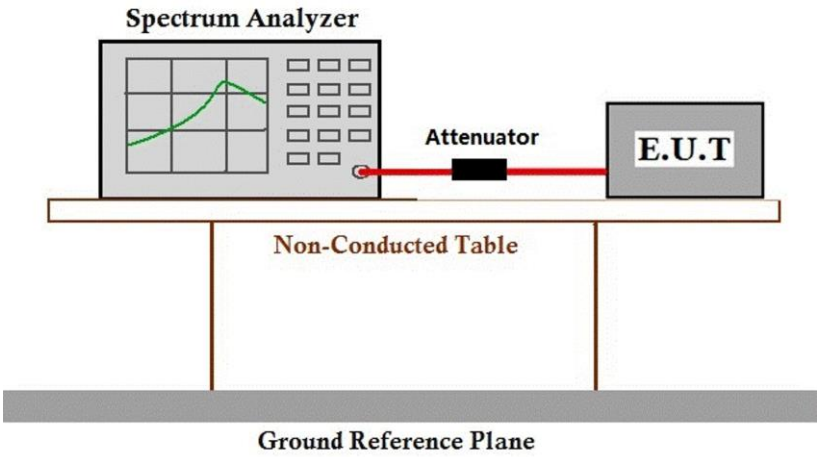
Temperature: 23.6 °C Humidity: 48.2 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	22	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 @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Final test	23	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.
Final test	24	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE

		802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Final test	25	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.4 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

Limit:

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

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

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

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

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

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

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

7.4.1 E.U.T. Operation

Operating Environment:

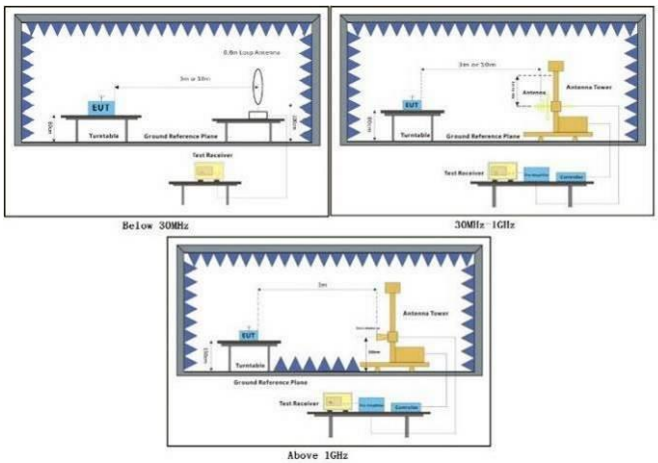
Temperature: 21.6 °C Humidity: 51.8 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	22	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 @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst

		case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Final test	23	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.
Final test	24	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT160); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT160). Only the data of worst case is recorded in the report.
Final test	25	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT20); data rate @ HT0/HT8 is the worst case of IEEE 802.11n(HT40); data rate @ VHT0 is the worst case of IEEE 802.11ac(HT80); data rate @ HE0 is the worst case of IEEE 802.11ax(HT20); data rate @ HE0 is the worst case of IEEE 802.11ax(HT40); data rate @ HE0 is the worst case of IEEE 802.11ax(HT80). Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

a. For 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.

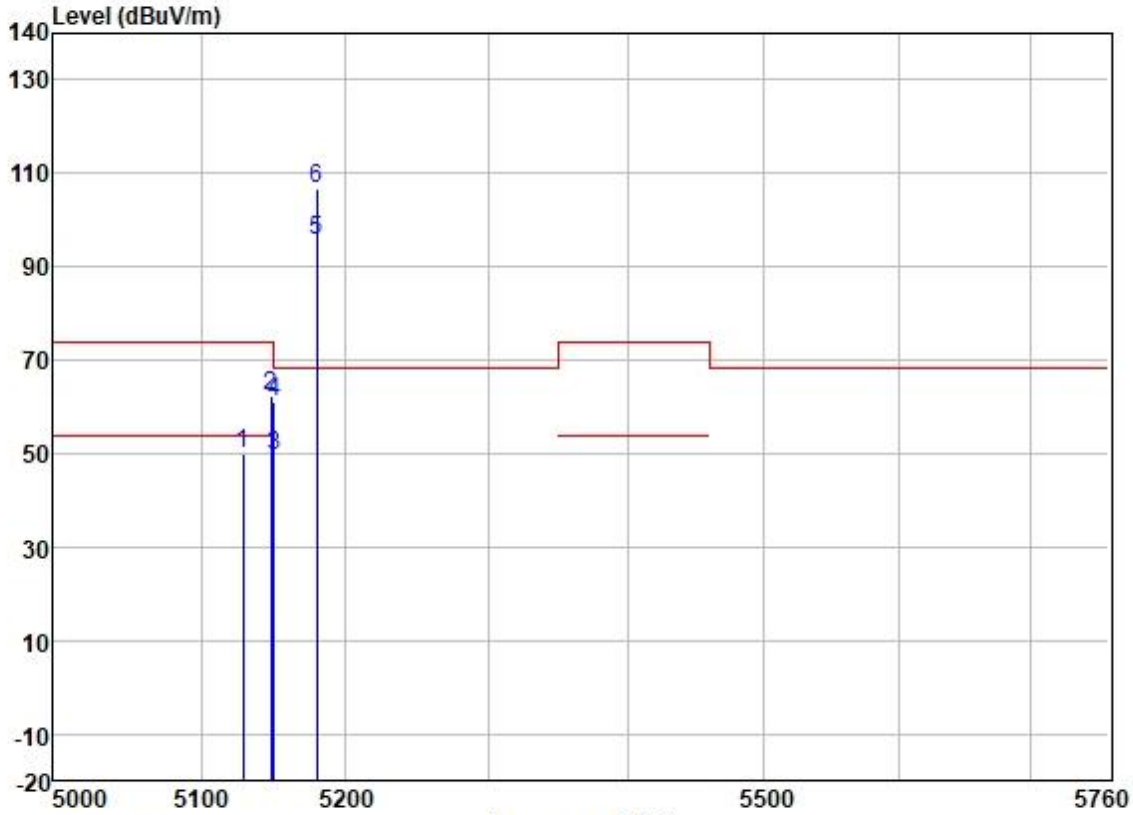
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

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

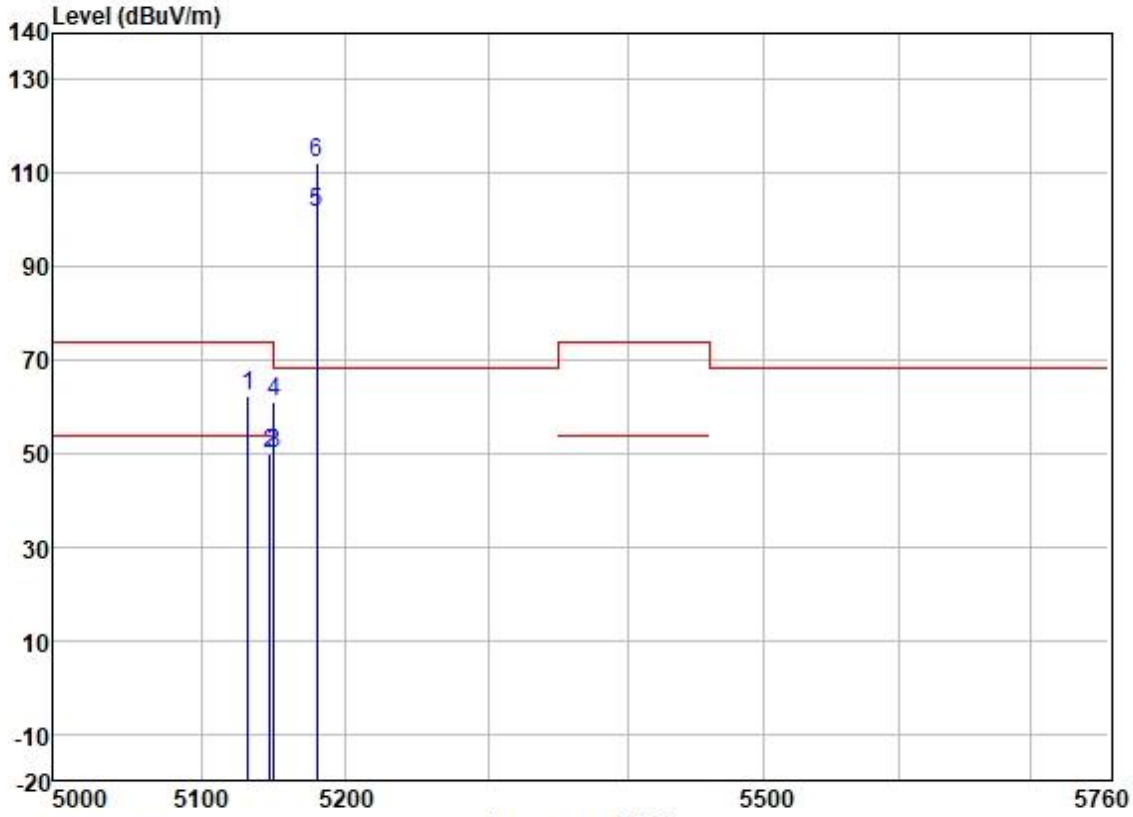
Test Mode: 22; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5128.501	49.33	31.72	5.63	36.86	49.82	54.00	-4.18	HORIZONTAL	Average
2	5148.257	61.74	31.72	5.62	36.86	62.22	74.00	-11.78	HORIZONTAL	Peak
3	5149.980	48.94	31.72	5.62	36.86	49.42	54.00	-4.58	HORIZONTAL	Average
4	5149.980	60.72	31.72	5.62	36.86	61.20	74.00	-12.80	HORIZONTAL	Peak
5	5180.000	94.98	31.73	5.61	36.87	95.45	------	------	HORIZONTAL	Average
6 *	5180.000	106.04	31.73	5.61	36.87	106.51	68.20	38.31	HORIZONTAL	Peak

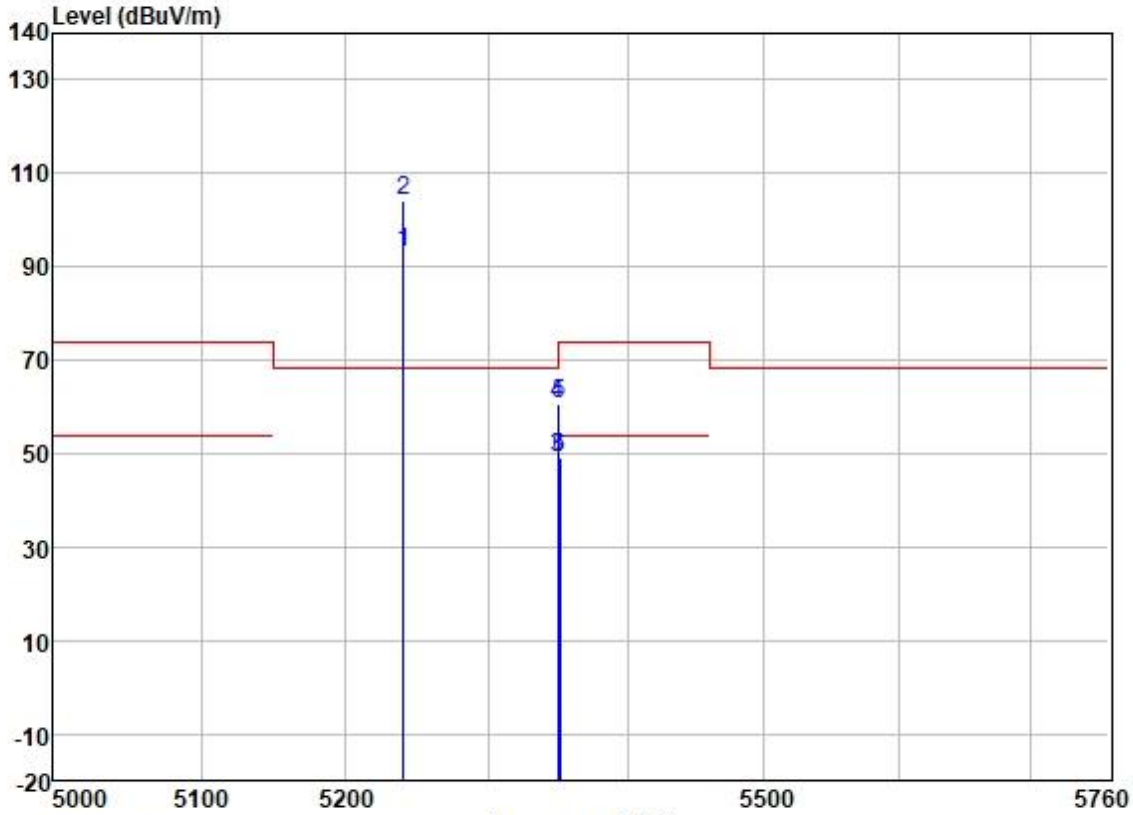
Test Mode: 22; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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		5132.387	61.73	31.72	5.63	36.86	62.22	74.00	-11.78	VERTICAL	Peak
2		5147.558	49.48	31.72	5.62	36.86	49.96	54.00	-4.04	VERTICAL	Average
3		5149.980	49.37	31.72	5.62	36.86	49.85	54.00	-4.15	VERTICAL	Average
4		5149.980	60.52	31.72	5.62	36.86	61.00	74.00	-13.00	VERTICAL	Peak
5		5180.000	101.17	31.73	5.61	36.87	101.64	------	------	VERTICAL	Average
6	*	5180.000	111.88	31.73	5.61	36.87	112.35	68.20	44.15	VERTICAL	Peak

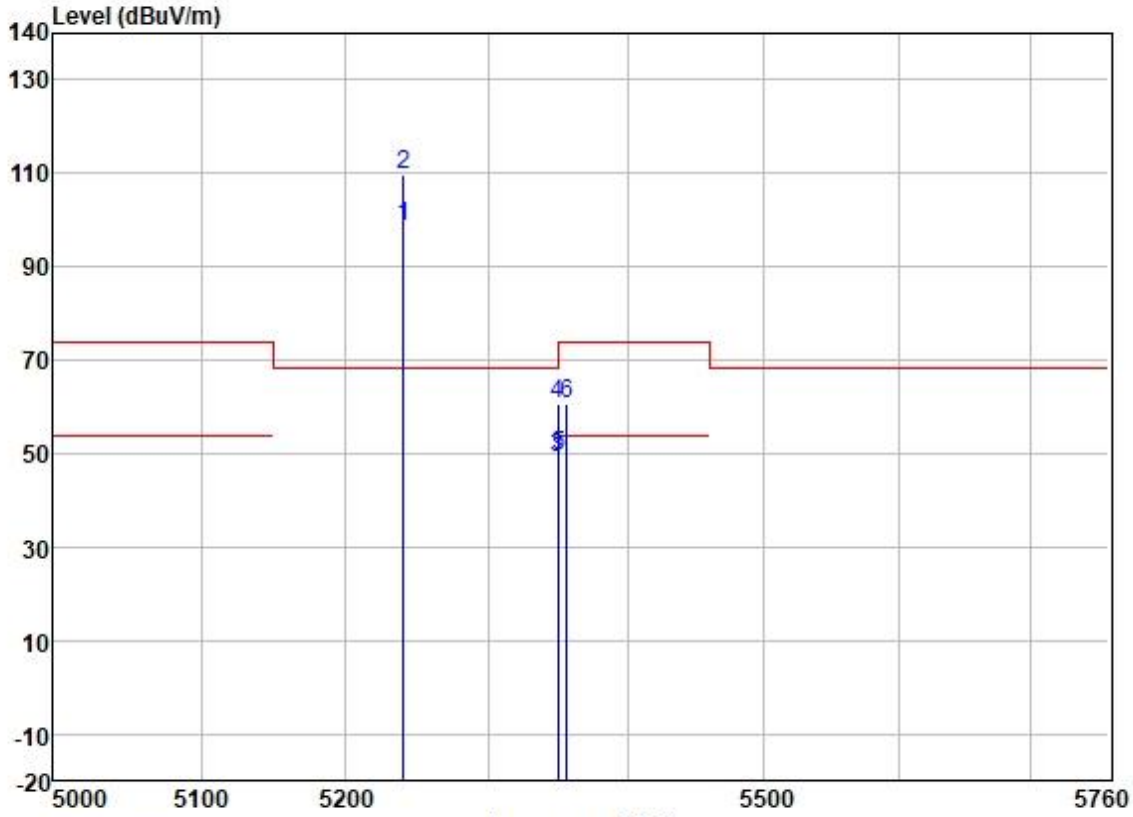
Test Mode: 22; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5240.000	92.45	31.75	5.74	36.87	93.07	------	------	HORIZONTAL	Average
2	*	5240.000	103.68	31.75	5.74	36.87	104.30	68.20	36.10	HORIZONTAL	Peak
3		5350.020	47.99	31.77	6.05	36.88	48.93	54.00	-5.07	HORIZONTAL	Average
4		5350.020	59.61	31.77	6.05	36.88	60.55	74.00	-13.45	HORIZONTAL	Peak
5		5350.646	59.68	31.77	6.05	36.88	60.62	74.00	-13.38	HORIZONTAL	Peak
6		5351.212	48.29	31.77	6.05	36.88	49.23	54.00	-4.77	HORIZONTAL	Average

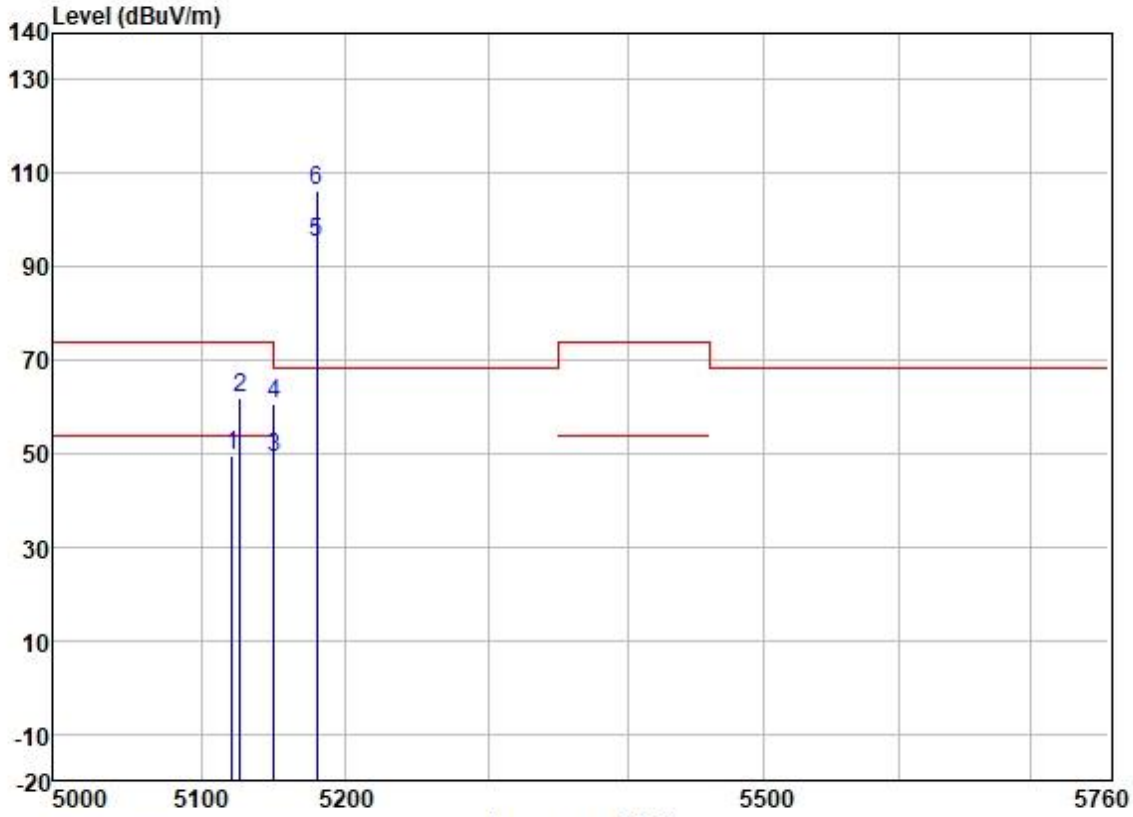
Test Mode: 22; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	97.95	31.75	5.74	36.87	98.57	------	------	VERTICAL	Average
2	*	5240.000	108.90	31.75	5.74	36.87	109.52	68.20	41.32	VERTICAL	Peak
3		5350.020	48.15	31.77	6.05	36.88	49.09	54.00	-4.91	VERTICAL	Average
4		5350.020	59.85	31.77	6.05	36.88	60.79	74.00	-13.21	VERTICAL	Peak
5		5350.504	48.41	31.77	6.05	36.88	49.35	54.00	-4.65	VERTICAL	Average
6		5356.313	59.80	31.78	6.03	36.88	60.73	74.00	-13.27	VERTICAL	Peak

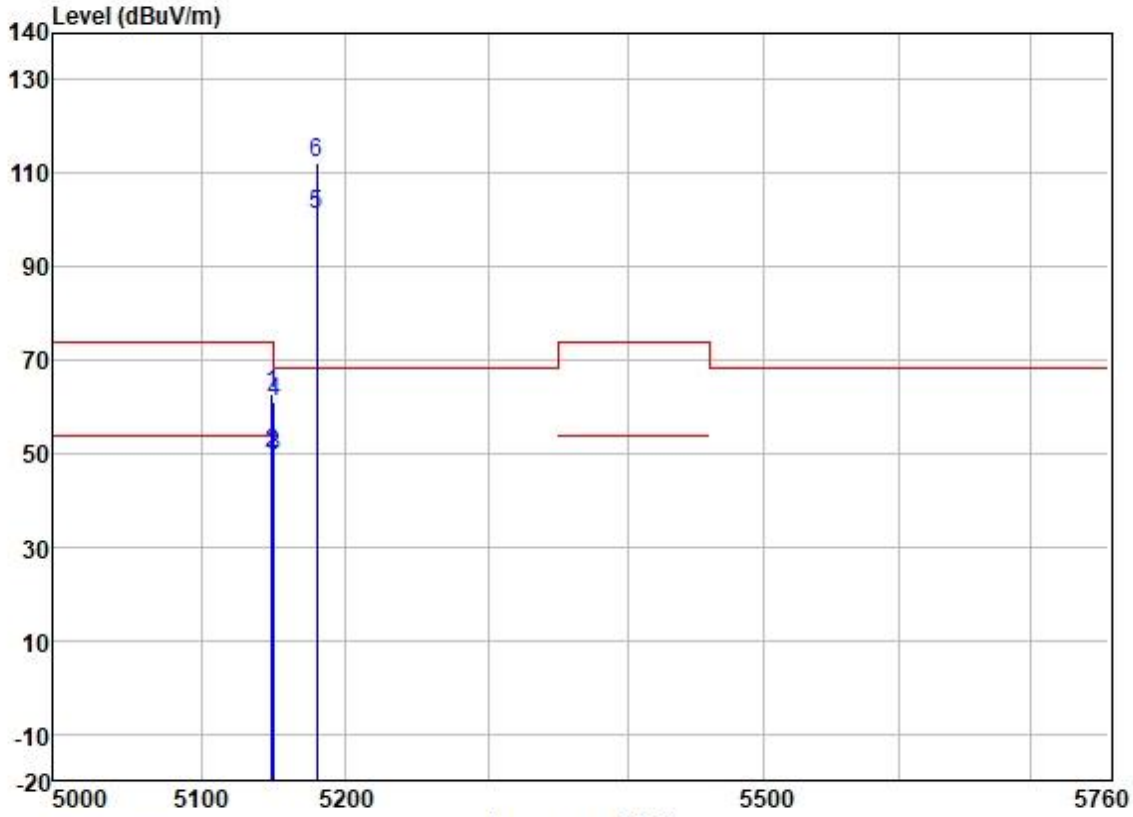
Test Mode: 22; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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		5121.038	48.95	31.72	5.64	36.86	49.45	54.00	-4.55	HORIZONTAL	Average
2		5127.008	61.34	31.72	5.63	36.86	61.83	74.00	-12.17	HORIZONTAL	Peak
3		5149.980	48.47	31.72	5.62	36.86	48.95	54.00	-5.05	HORIZONTAL	Average
4		5149.980	60.08	31.72	5.62	36.86	60.56	74.00	-13.44	HORIZONTAL	Peak
5		5180.000	94.68	31.73	5.61	36.87	95.15	------	------	HORIZONTAL	Average
6	*	5180.000	105.69	31.73	5.61	36.87	106.16	68.20	37.96	HORIZONTAL	Peak

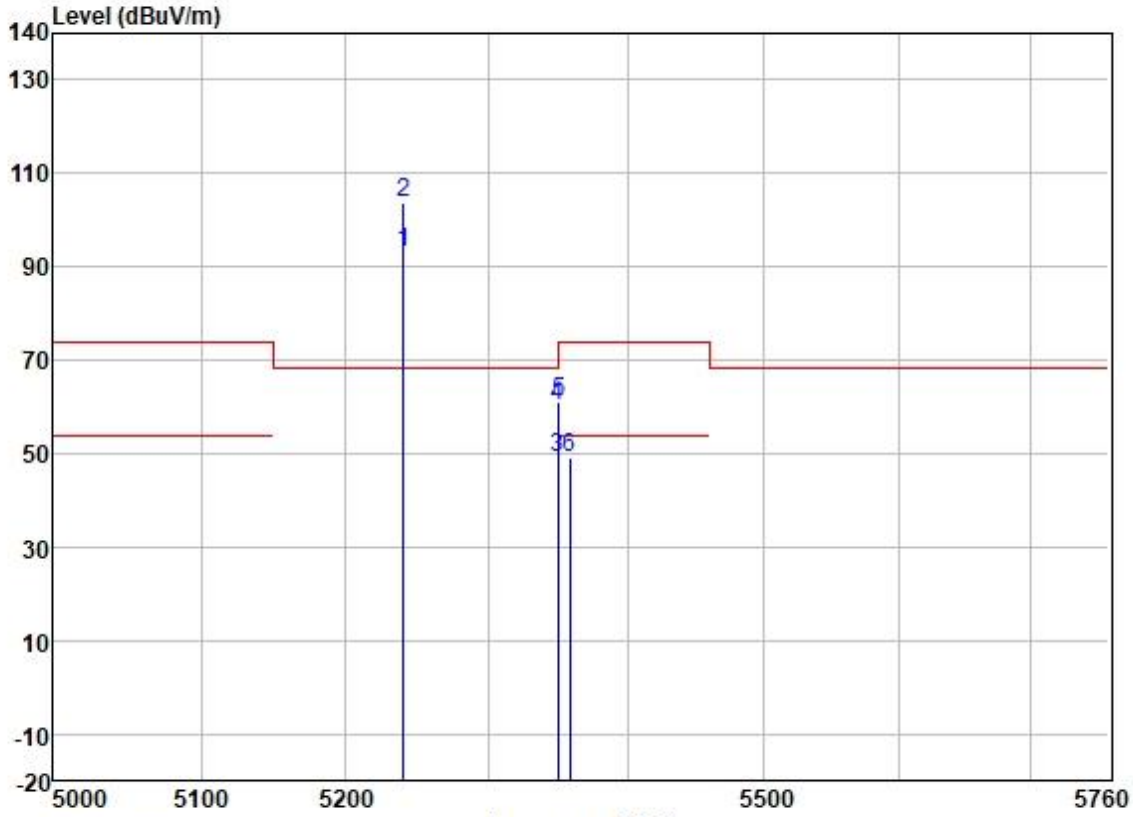
Test Mode: 22; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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		5148.458	62.14	31.72	5.62	36.86	62.62	74.00	-11.38	VERTICAL	Peak
2		5148.757	49.32	31.72	5.62	36.86	49.80	54.00	-4.20	VERTICAL	Average
3		5149.980	49.23	31.72	5.62	36.86	49.71	54.00	-4.29	VERTICAL	Average
4		5149.980	60.75	31.72	5.62	36.86	61.23	74.00	-12.77	VERTICAL	Peak
5		5180.000	100.72	31.73	5.61	36.87	101.19	------	------	VERTICAL	Average
6	*	5180.000	111.82	31.73	5.61	36.87	112.29	68.20	44.09	VERTICAL	Peak

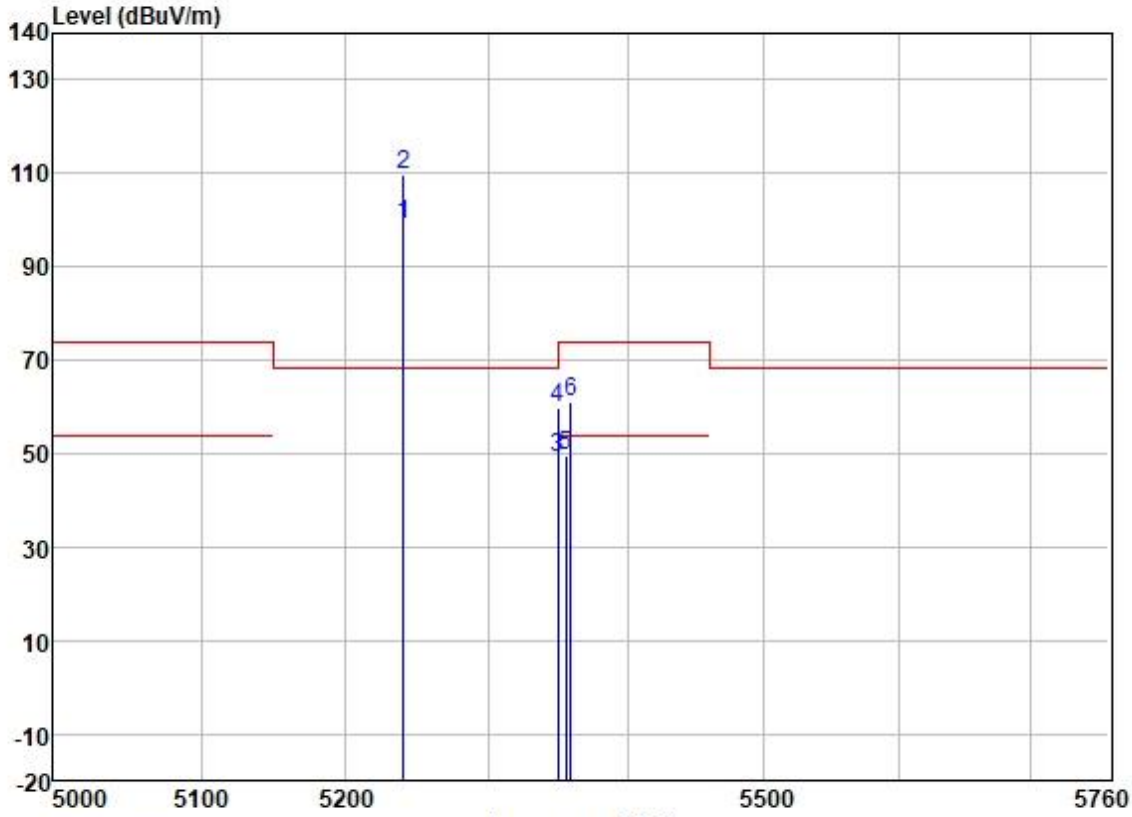
Test Mode: 22; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	92.62	31.75	5.74	36.87	93.24	------	------	HORIZONTAL	Average
2	*	5240.000	103.31	31.75	5.74	36.87	103.93	68.20	35.73	HORIZONTAL	Peak
3		5350.020	48.09	31.77	6.05	36.88	49.03	54.00	-4.97	HORIZONTAL	Average
4		5350.020	59.17	31.77	6.05	36.88	60.11	74.00	-13.89	HORIZONTAL	Peak
5		5350.787	60.13	31.77	6.05	36.88	61.07	74.00	-12.93	HORIZONTAL	Peak
6		5358.440	48.39	31.78	6.03	36.88	49.32	54.00	-4.68	HORIZONTAL	Average

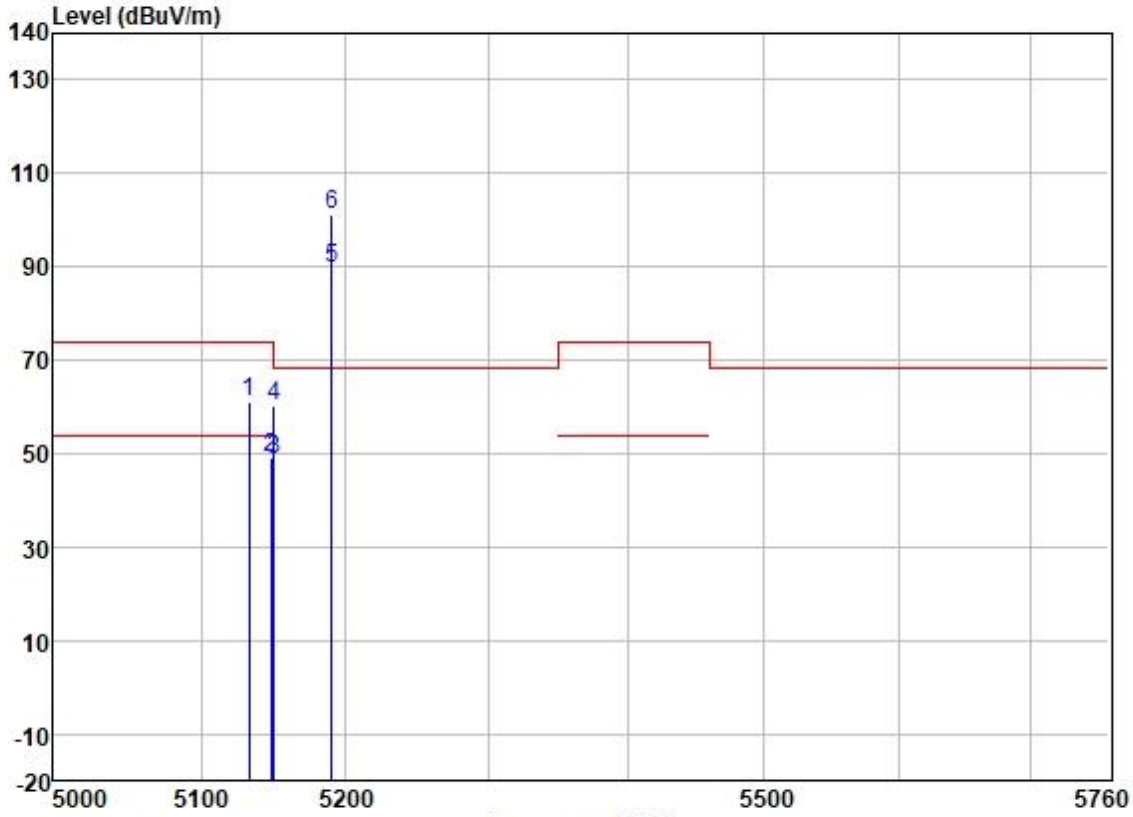
Test Mode: 22; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	98.33	31.75	5.74	36.87	98.95	------	------	VERTICAL	Average
2	*	5240.000	109.10	31.75	5.74	36.87	109.72	68.20	41.52	VERTICAL	Peak
3		5350.020	48.18	31.77	6.05	36.88	49.12	54.00	-4.88	VERTICAL	Average
4		5350.020	58.79	31.77	6.05	36.88	59.73	74.00	-14.27	VERTICAL	Peak
5		5355.462	48.47	31.78	6.03	36.88	49.40	54.00	-4.60	VERTICAL	Average
6		5358.865	60.12	31.78	6.03	36.88	61.05	74.00	-12.95	VERTICAL	Peak

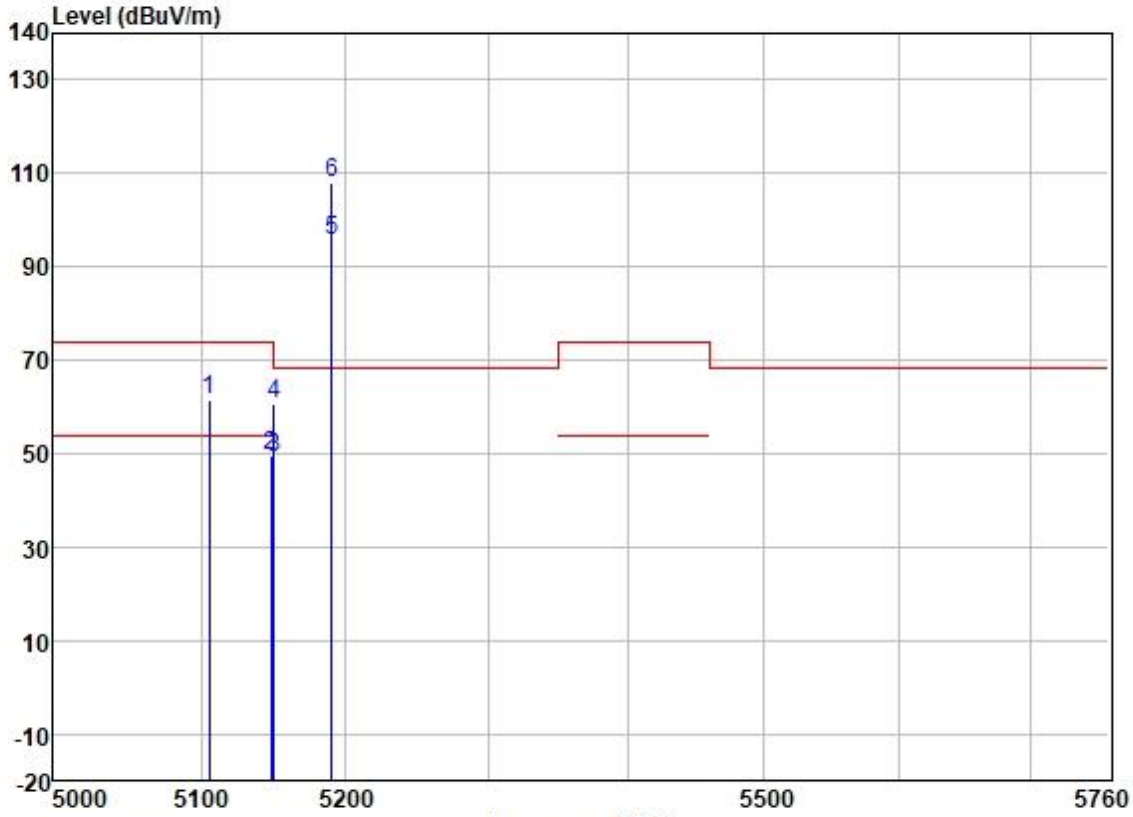
Test Mode: 22; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5132.961	60.76	31.72	5.63	36.86	61.25	74.00	-12.75	HORIZONTAL	Peak
2	5148.264	48.70	31.72	5.62	36.86	49.18	54.00	-4.82	HORIZONTAL	Average
3	5149.980	48.24	31.72	5.62	36.86	48.72	54.00	-5.28	HORIZONTAL	Average
4	5149.980	59.73	31.72	5.62	36.86	60.21	74.00	-13.79	HORIZONTAL	Peak
5	5190.000	88.98	31.73	5.60	36.87	89.44	------	------	HORIZONTAL	Average
6 *	5190.000	100.80	31.73	5.60	36.87	101.26	68.20	33.06	HORIZONTAL	Peak

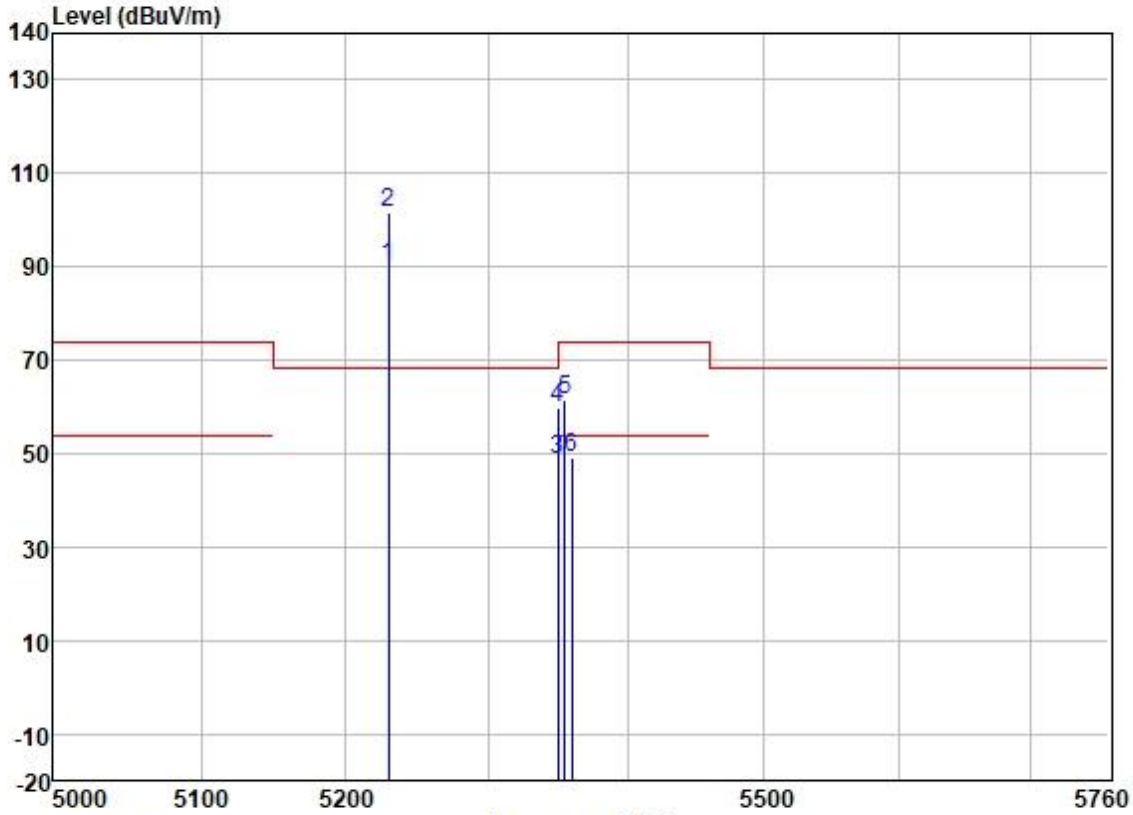
Test Mode: 22; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5105.696	61.11	31.72	5.65	36.86	61.62	74.00	-12.38	VERTICAL	Peak
2	5147.905	48.89	31.72	5.62	36.86	49.37	54.00	-4.63	VERTICAL	Average
3	5149.980	48.48	31.72	5.62	36.86	48.96	54.00	-5.04	VERTICAL	Average
4	5149.980	60.18	31.72	5.62	36.86	60.66	74.00	-13.34	VERTICAL	Peak
5	5190.000	95.22	31.73	5.60	36.87	95.68	------	------	VERTICAL	Average
6 *	5190.000	107.37	31.73	5.60	36.87	107.83	68.20	39.63	VERTICAL	Peak

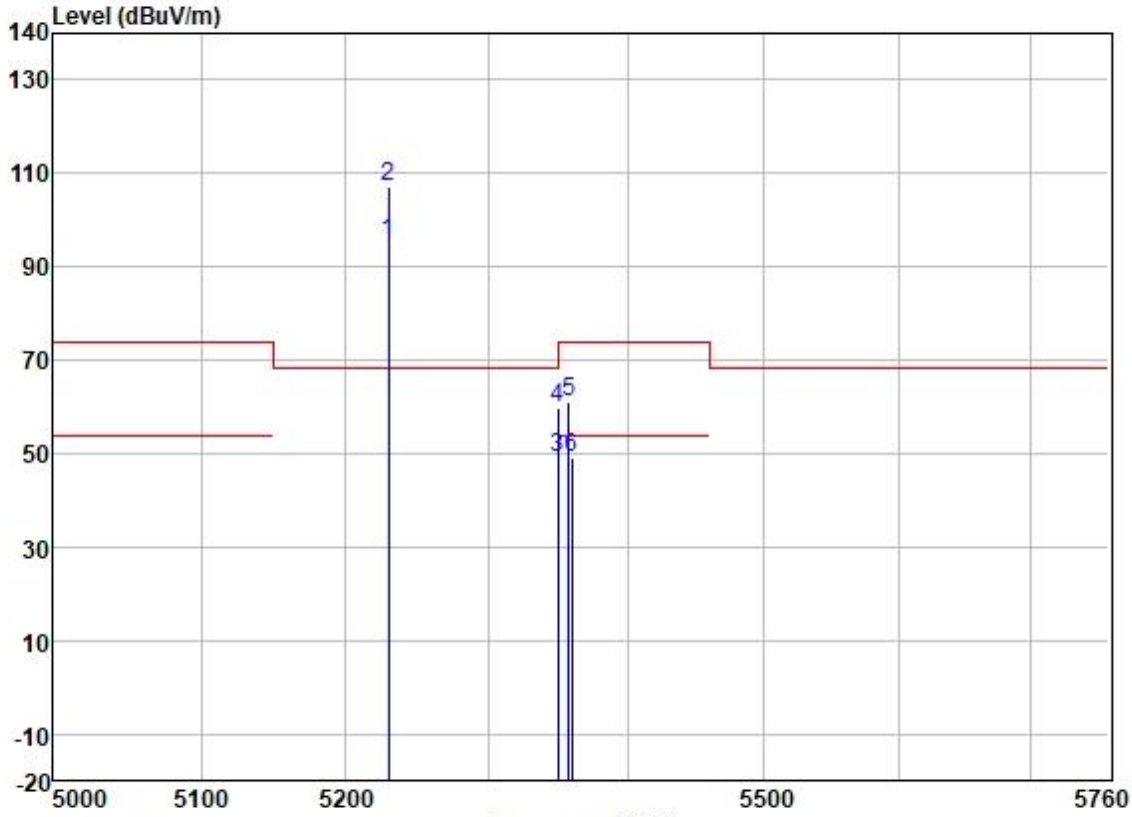
Test Mode: 22; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5230.000	89.70	31.74	5.70	36.87	90.27	------	------	HORIZONTAL	Average
2	*	5230.000	100.94	31.74	5.70	36.87	101.51	68.20	33.31	HORIZONTAL	Peak
3		5350.020	47.82	31.77	6.05	36.88	48.76	54.00	-5.24	HORIZONTAL	Average
4		5350.020	58.64	31.77	6.05	36.88	59.58	74.00	-14.42	HORIZONTAL	Peak
5		5354.480	60.72	31.78	6.03	36.88	61.65	74.00	-12.35	HORIZONTAL	Peak
6		5359.513	48.01	31.78	6.03	36.88	48.94	54.00	-5.06	HORIZONTAL	Average

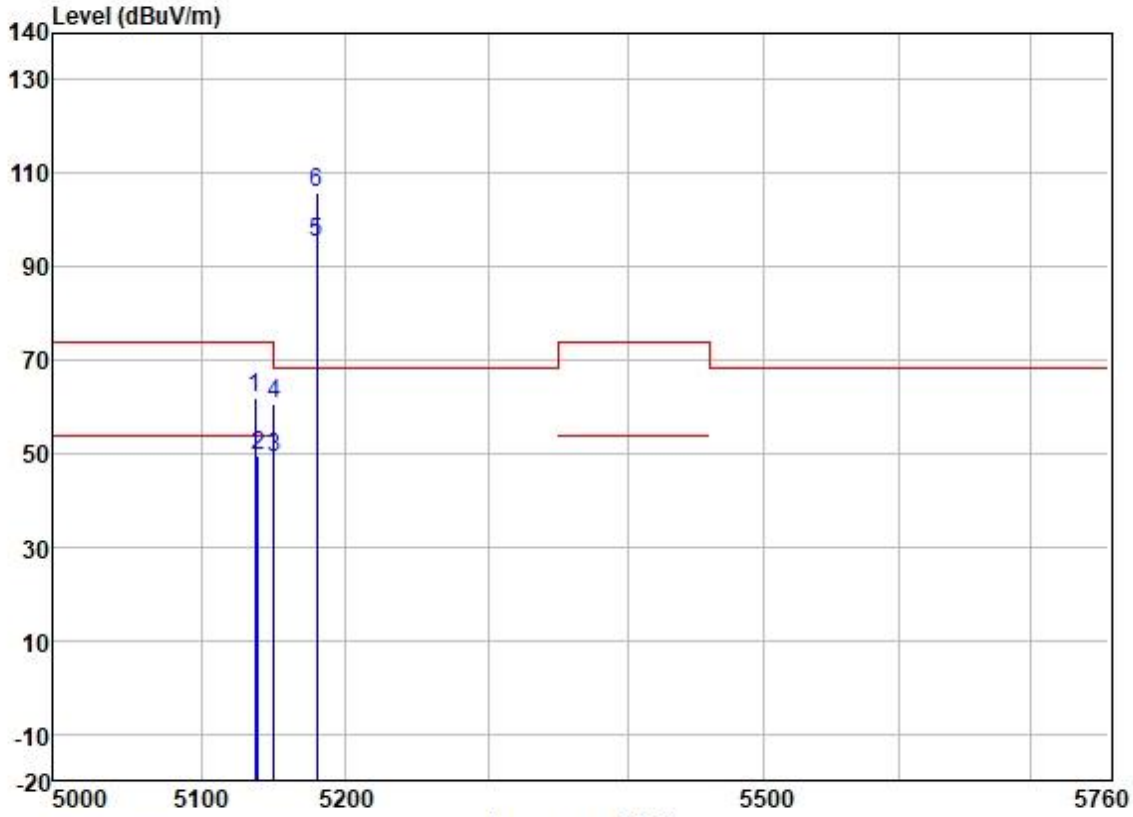
Test Mode: 22; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	94.72	31.74	5.70	36.87	95.29	------	------	VERTICAL	Average
2	*	5230.000	106.71	31.74	5.70	36.87	107.28	68.20	39.08	VERTICAL	Peak
3		5350.020	48.00	31.77	6.05	36.88	48.94	54.00	-5.06	VERTICAL	Average
4		5350.020	58.88	31.77	6.05	36.88	59.82	74.00	-14.18	VERTICAL	Peak
5		5357.402	59.95	31.78	6.03	36.88	60.88	74.00	-13.12	VERTICAL	Peak
6		5359.513	48.16	31.78	6.03	36.88	49.09	54.00	-4.91	VERTICAL	Average

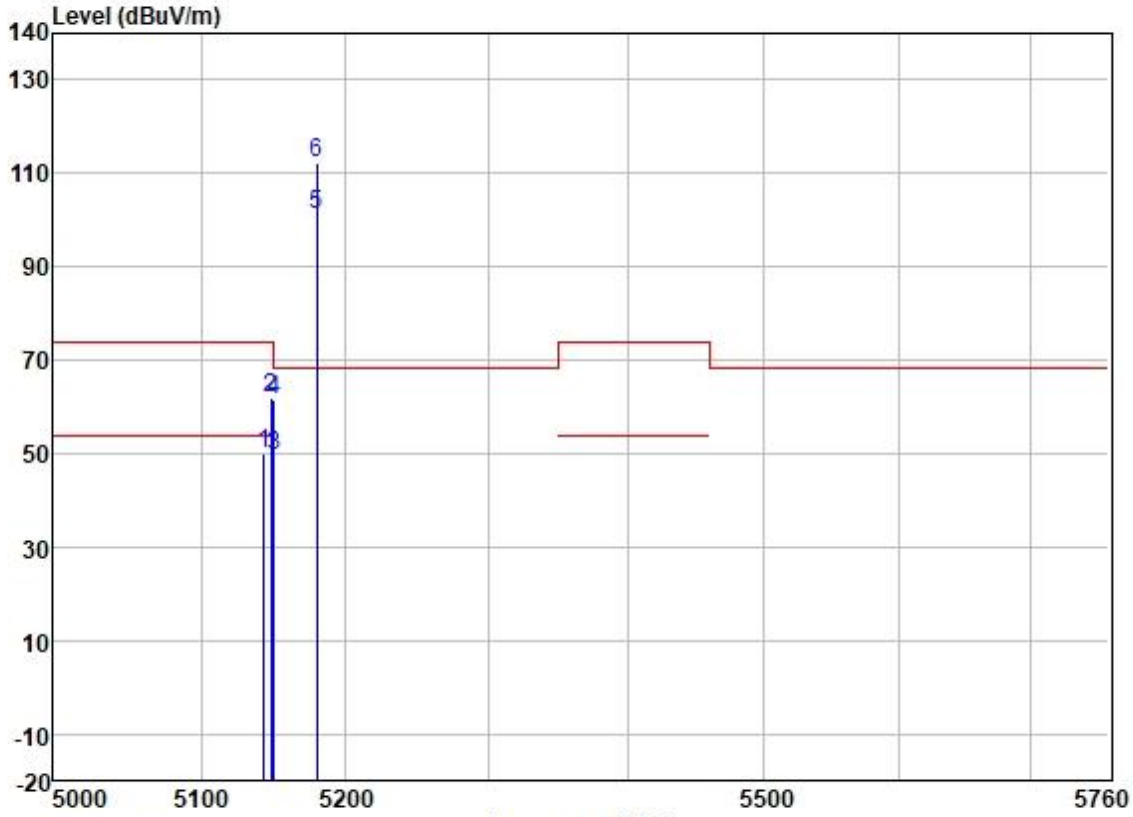
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5136.973	61.25	31.72	5.63	36.86	61.74	74.00	-12.26	HORIZONTAL	Peak
2	5139.068	49.00	31.72	5.63	36.86	49.49	54.00	-4.51	HORIZONTAL	Average
3	5149.980	48.52	31.72	5.62	36.86	49.00	54.00	-5.00	HORIZONTAL	Average
4	5149.980	60.03	31.72	5.62	36.86	60.51	74.00	-13.49	HORIZONTAL	Peak
5	5180.000	94.78	31.73	5.61	36.87	95.25	------	------	HORIZONTAL	Average
6 *	5180.000	105.39	31.73	5.61	36.87	105.86	68.20	37.66	HORIZONTAL	Peak

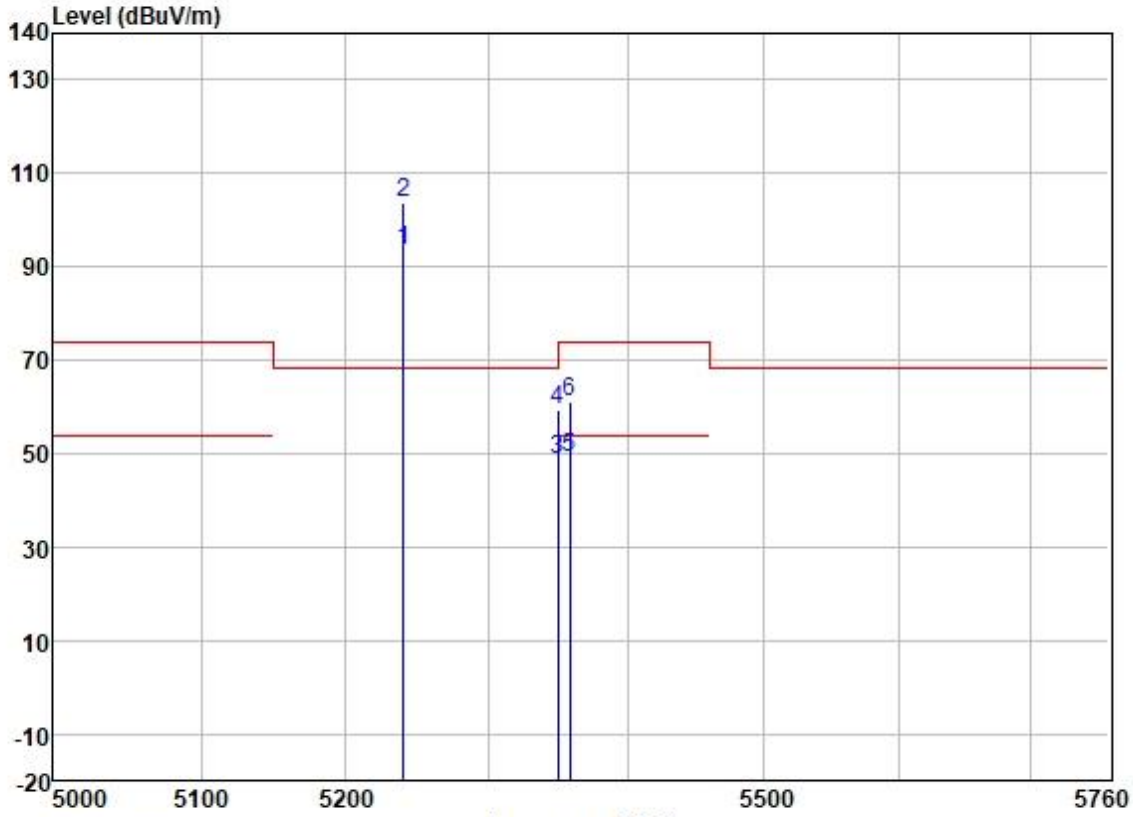
Test Mode: 22; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5143.361	49.43	31.72	5.62	36.86	49.91	54.00	-4.09	VERTICAL	Average
2	5147.857	61.41	31.72	5.62	36.86	61.89	74.00	-12.11	VERTICAL	Peak
3	5149.980	49.24	31.72	5.62	36.86	49.72	54.00	-4.28	VERTICAL	Average
4	5149.980	60.88	31.72	5.62	36.86	61.36	74.00	-12.64	VERTICAL	Peak
5	5180.000	100.90	31.73	5.61	36.87	101.37	------	------	VERTICAL	Average
6 *	5180.000	111.62	31.73	5.61	36.87	112.09	68.20	43.89	VERTICAL	Peak

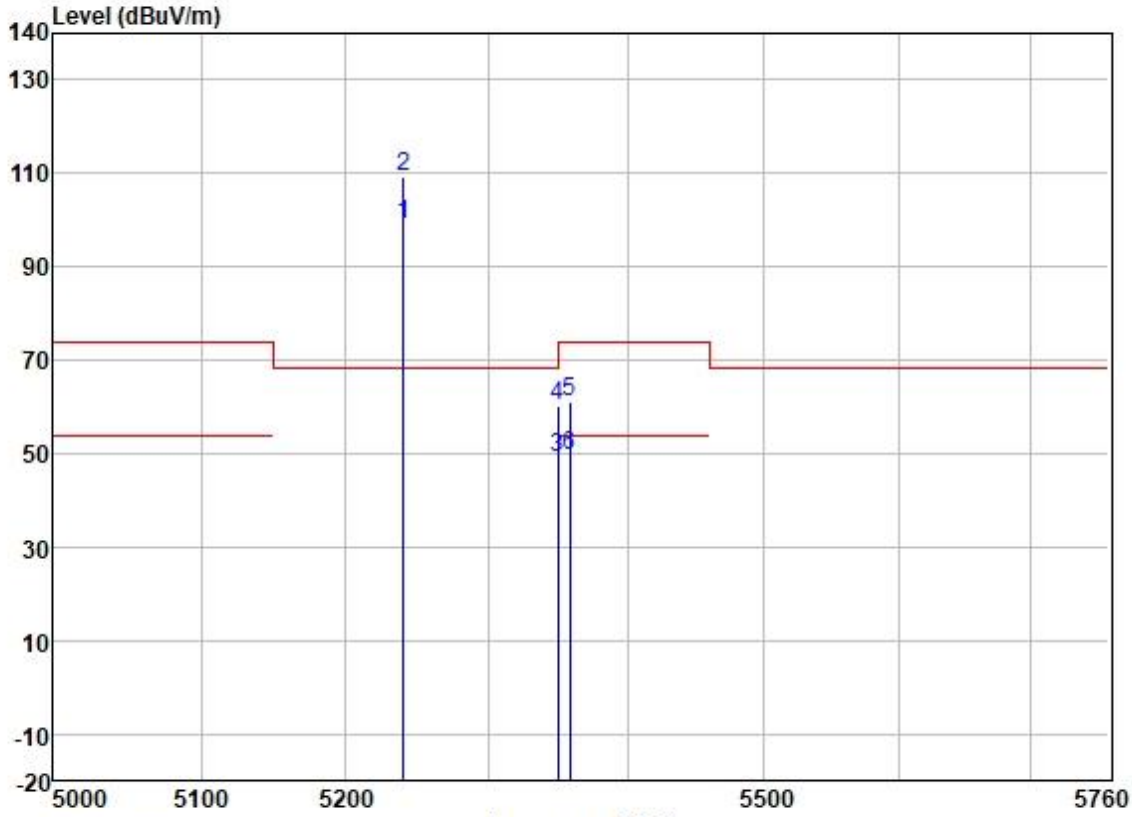
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5240.000	92.87	31.75	5.74	36.87	93.49	------	------	HORIZONTAL	Average
2 *	5240.000	102.97	31.75	5.74	36.87	103.59	68.20	35.39	HORIZONTAL	Peak
3	5350.020	47.82	31.77	6.05	36.88	48.76	54.00	-5.24	HORIZONTAL	Average
4	5350.020	58.60	31.77	6.05	36.88	59.54	74.00	-14.46	HORIZONTAL	Peak
5	5358.014	48.31	31.78	6.03	36.88	49.24	54.00	-4.76	HORIZONTAL	Average
6	5358.014	60.18	31.78	6.03	36.88	61.11	74.00	-12.89	HORIZONTAL	Peak

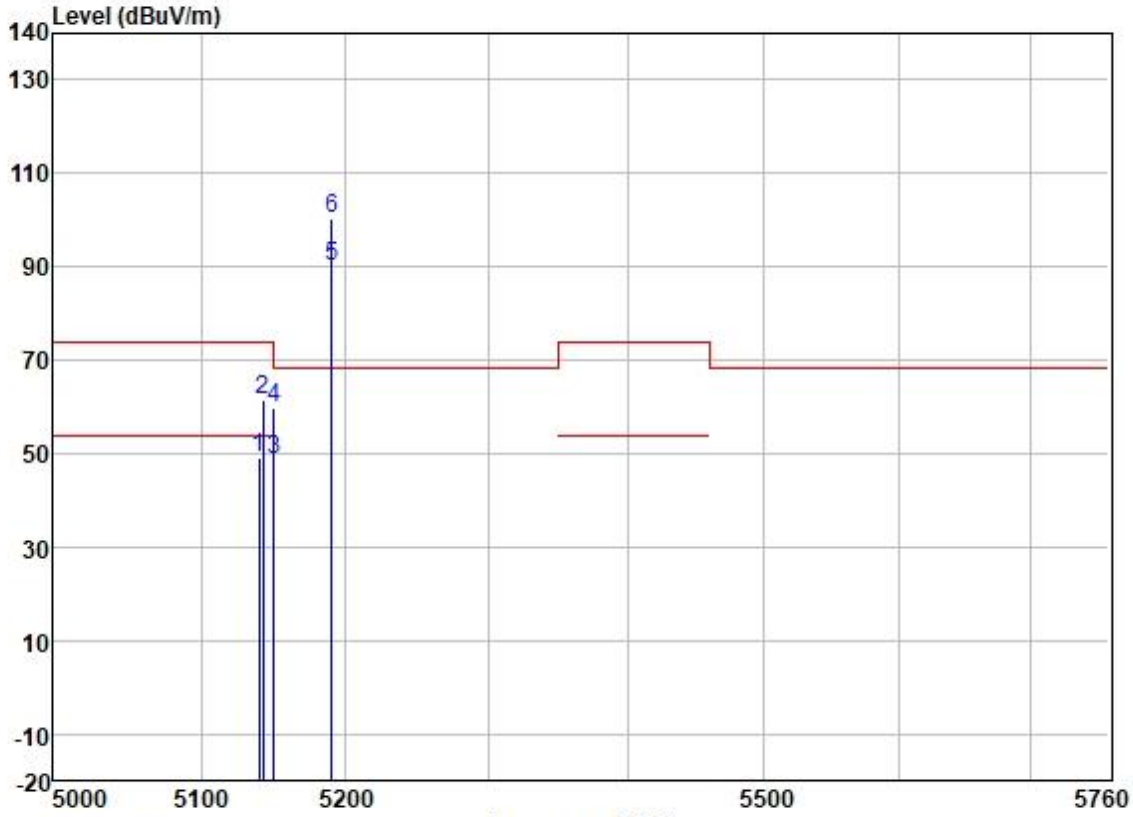
Test Mode: 22; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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	98.32	31.75	5.74	36.87	98.94	------	------	VERTICAL	Average
2	*	5240.000	108.60	31.75	5.74	36.87	109.22	68.20	41.02	VERTICAL	Peak
3		5350.020	48.02	31.77	6.05	36.88	48.96	54.00	-5.04	VERTICAL	Average
4		5350.020	59.17	31.77	6.05	36.88	60.11	74.00	-13.89	VERTICAL	Peak
5		5358.156	60.28	31.78	6.03	36.88	61.21	74.00	-12.79	VERTICAL	Peak
6		5358.440	48.47	31.78	6.03	36.88	49.40	54.00	-4.60	VERTICAL	Average

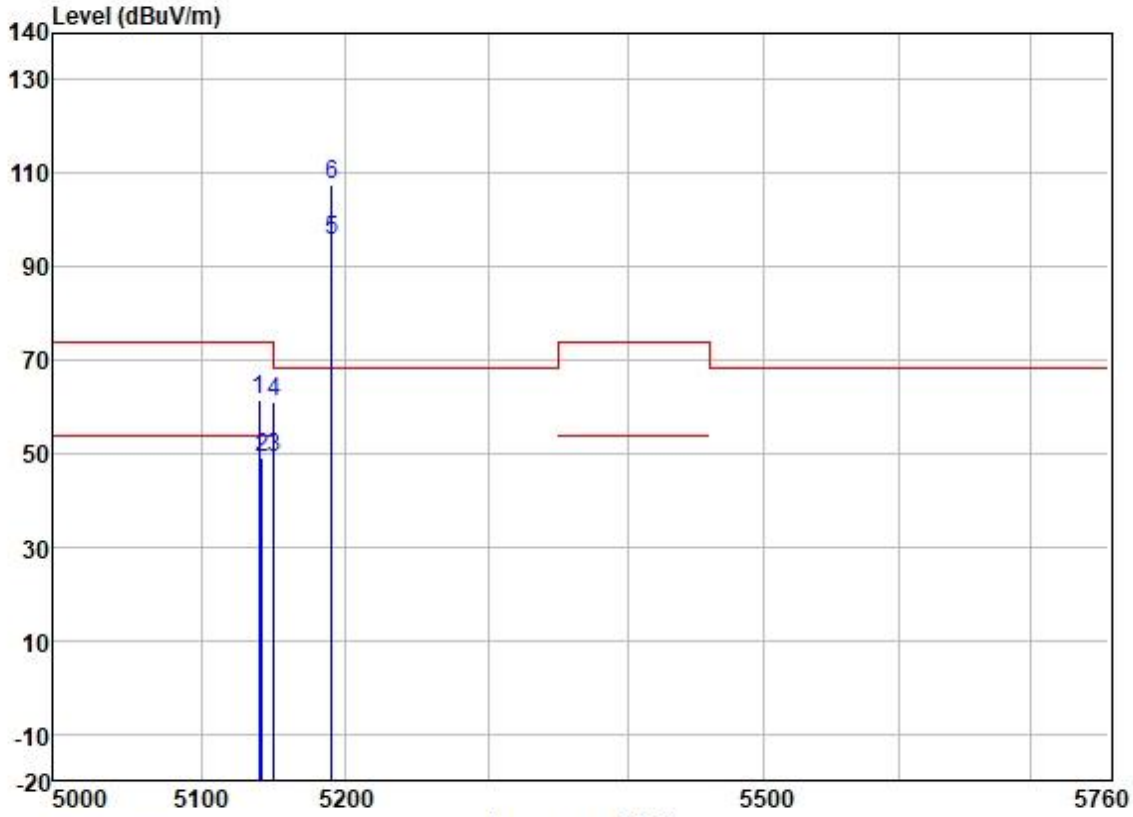
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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		5139.650	48.72	31.72	5.63	36.86	49.21	54.00	-4.79	HORIZONTAL	Average
2		5142.400	60.91	31.72	5.62	36.86	61.39	74.00	-12.61	HORIZONTAL	Peak
3		5149.980	48.13	31.72	5.62	36.86	48.61	54.00	-5.39	HORIZONTAL	Average
4		5149.980	59.45	31.72	5.62	36.86	59.93	74.00	-14.07	HORIZONTAL	Peak
5		5190.000	89.49	31.73	5.60	36.87	89.95	------	------	HORIZONTAL	Average
6	*	5190.000	99.87	31.73	5.60	36.87	100.33	68.20	32.13	HORIZONTAL	Peak

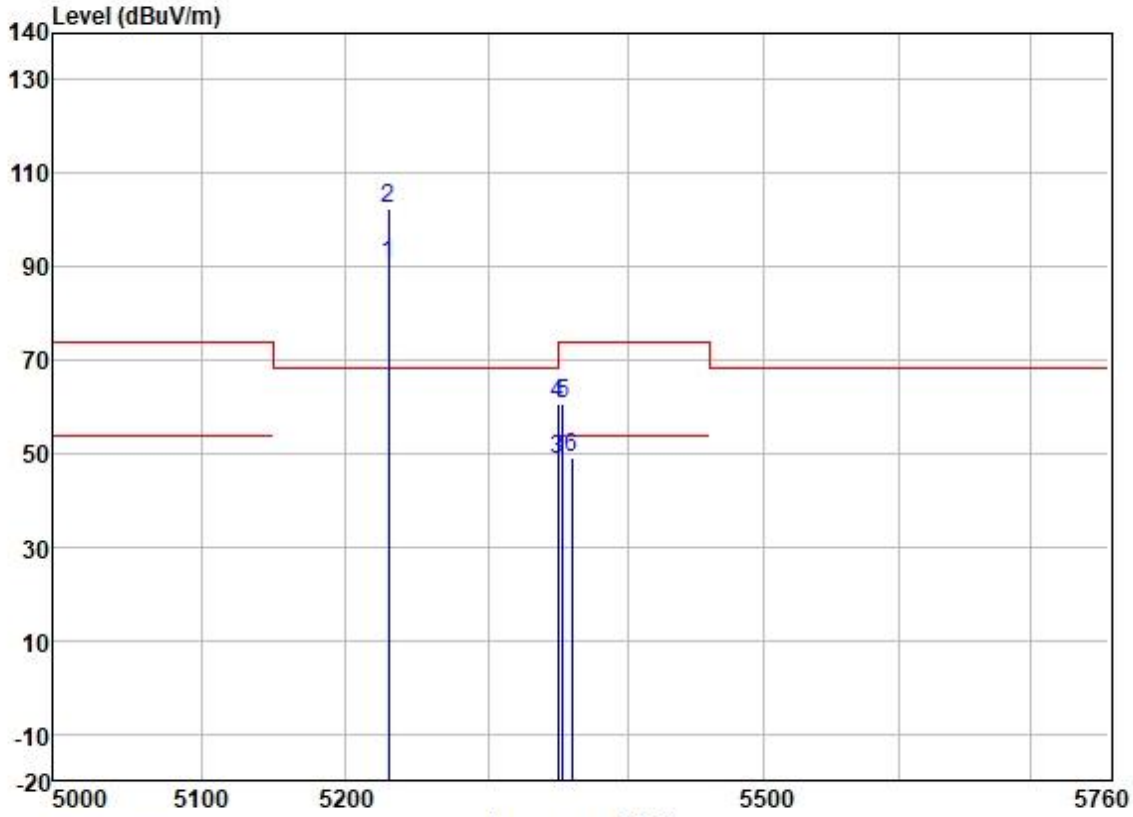
Test Mode: 22; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5139.531	60.90	31.72	5.63	36.86	61.39	74.00	-12.61	VERTICAL	Peak
2	5141.563	48.65	31.72	5.63	36.86	49.14	54.00	-4.86	VERTICAL	Average
3	5149.980	48.54	31.72	5.62	36.86	49.02	54.00	-4.98	VERTICAL	Average
4	5149.980	60.57	31.72	5.62	36.86	61.05	74.00	-12.95	VERTICAL	Peak
5	5190.000	95.20	31.73	5.60	36.87	95.66	------	------	VERTICAL	Average
6 *	5190.000	107.06	31.73	5.60	36.87	107.52	68.20	39.32	VERTICAL	Peak

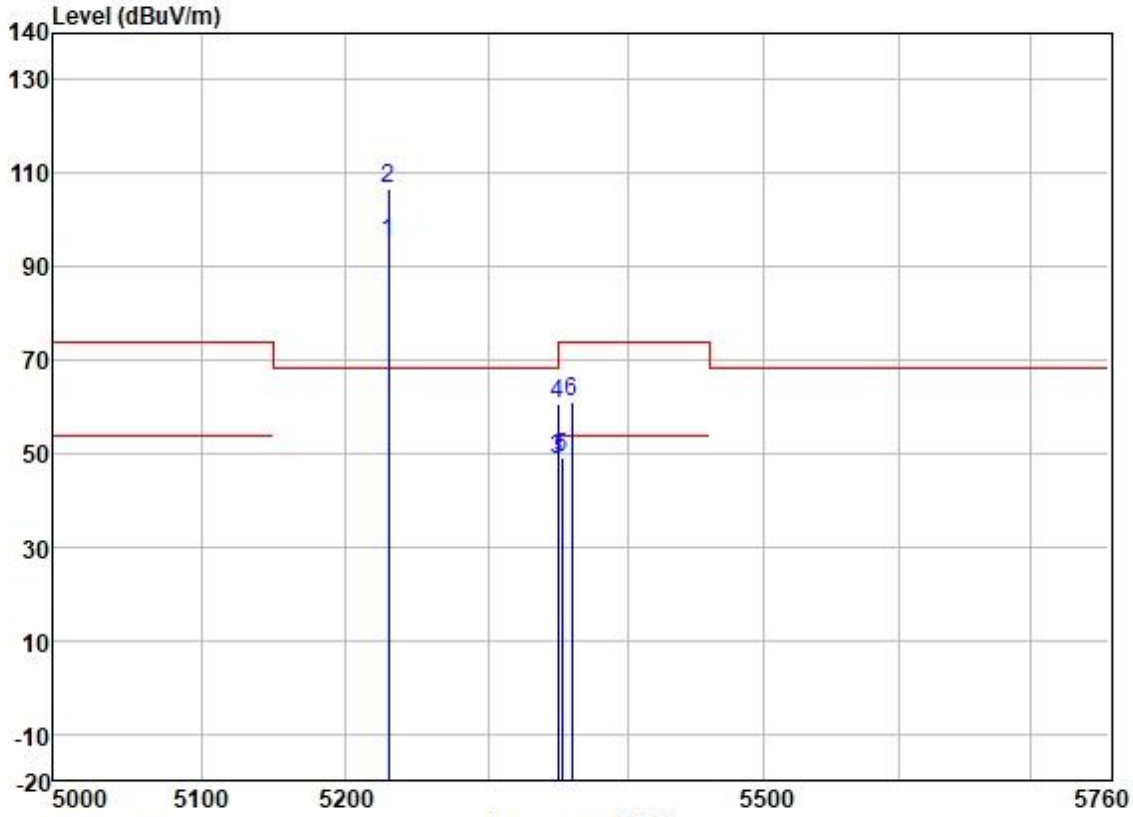
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	89.87	31.74	5.70	36.87	90.44	------	------	HORIZONTAL	Average
2	*	5230.000	101.76	31.74	5.70	36.87	102.33	68.20	34.13	HORIZONTAL	Peak
3		5350.020	47.94	31.77	6.05	36.88	48.88	54.00	-5.12	HORIZONTAL	Average
4		5350.020	59.54	31.77	6.05	36.88	60.48	74.00	-13.52	HORIZONTAL	Peak
5		5353.182	59.77	31.77	6.05	36.88	60.71	74.00	-13.29	HORIZONTAL	Peak
6		5359.675	48.16	31.78	6.03	36.88	49.09	54.00	-4.91	HORIZONTAL	Average

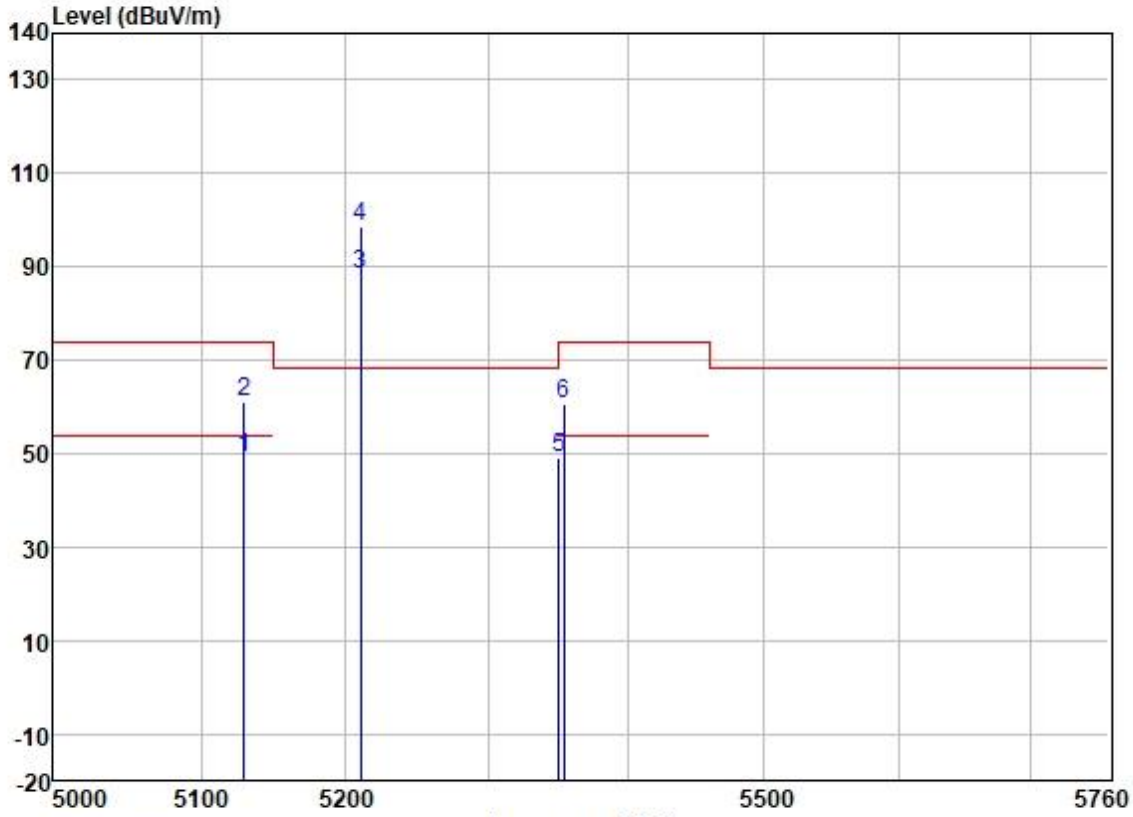
Test Mode: 22; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	94.81	31.74	5.70	36.87	95.38	------	------	VERTICAL	Average
2	*	5230.000	106.36	31.74	5.70	36.87	106.93	68.20	38.73	VERTICAL	Peak
3		5350.020	47.71	31.77	6.05	36.88	48.65	54.00	-5.35	VERTICAL	Average
4		5350.020	59.68	31.77	6.05	36.88	60.62	74.00	-13.38	VERTICAL	Peak
5		5352.857	48.22	31.77	6.05	36.88	49.16	54.00	-4.84	VERTICAL	Average
6		5359.513	59.96	31.78	6.03	36.88	60.89	74.00	-13.11	VERTICAL	Peak

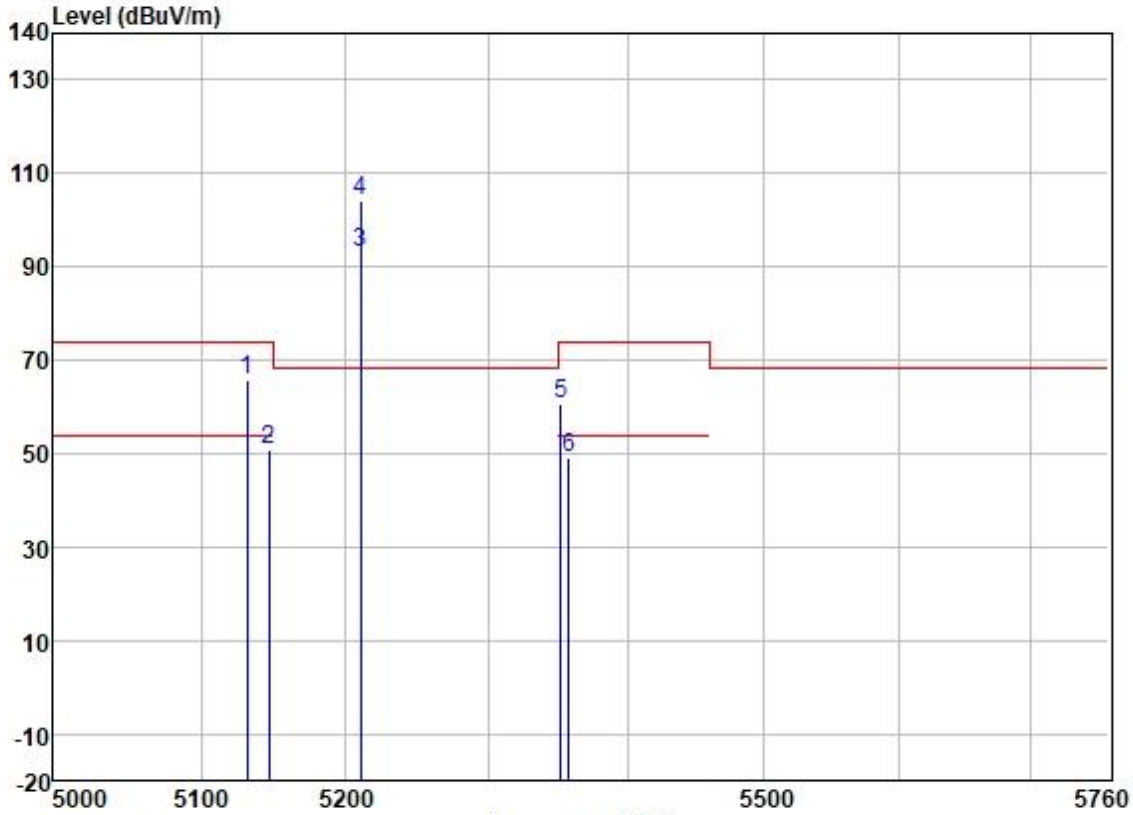
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5129.501	48.70	31.72	5.63	36.86	49.19	54.00	-4.81	HORIZONTAL	Average
2		5129.501	60.64	31.72	5.63	36.86	61.13	74.00	-12.87	HORIZONTAL	Peak
3		5210.000	87.80	31.74	5.65	36.87	88.32	------	------	HORIZONTAL	Average
4	*	5210.000	98.30	31.74	5.65	36.87	98.82	68.20	30.62	HORIZONTAL	Peak
5		5350.680	48.24	31.77	6.05	36.88	49.18	54.00	-4.82	HORIZONTAL	Average
6		5353.874	59.86	31.77	6.05	36.88	60.80	74.00	-13.20	HORIZONTAL	Peak

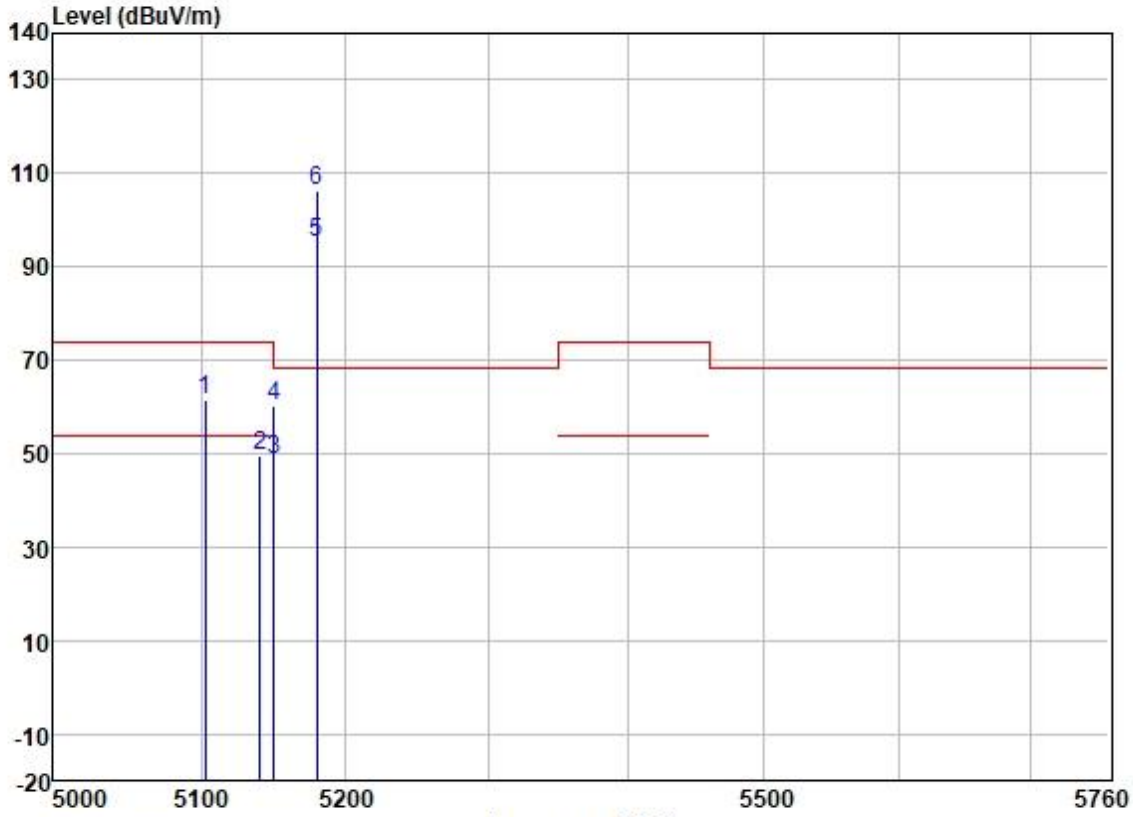
Test Mode: 22; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5131.797	65.44	31.72	5.63	36.86	65.93	74.00	-8.07	VERTICAL	Peak
2		5146.875	50.37	31.72	5.62	36.86	50.85	54.00	-3.15	VERTICAL	Average
3		5210.000	92.60	31.74	5.65	36.87	93.12	------	------	VERTICAL	Average
4	*	5210.000	103.66	31.74	5.65	36.87	104.18	68.20	35.98	VERTICAL	Peak
5		5352.010	59.84	31.77	6.05	36.88	60.78	74.00	-13.22	VERTICAL	Peak
6		5357.868	48.23	31.78	6.03	36.88	49.16	54.00	-4.84	VERTICAL	Average

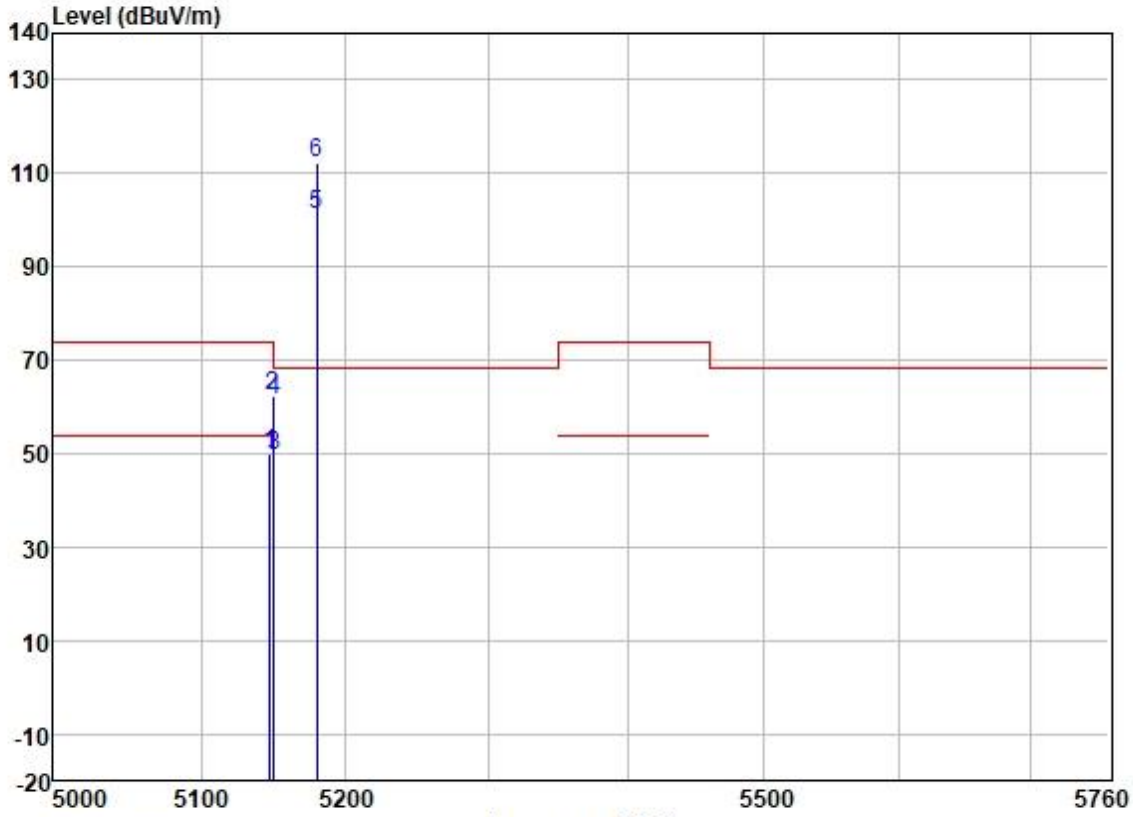
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:20MHz; Channel:Low



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	5102.873	61.10	31.72	5.65	36.86	61.61	74.00	-12.39	HORIZONTAL	Peak
2	5140.466	48.86	31.72	5.63	36.86	49.35	54.00	-4.65	HORIZONTAL	Average
3	5149.980	48.41	31.72	5.62	36.86	48.89	54.00	-5.11	HORIZONTAL	Average
4	5149.980	59.60	31.72	5.62	36.86	60.08	74.00	-13.92	HORIZONTAL	Peak
5	5180.000	94.86	31.73	5.61	36.87	95.33	------	------	HORIZONTAL	Average
6 *	5180.000	105.69	31.73	5.61	36.87	106.16	68.20	37.96	HORIZONTAL	Peak

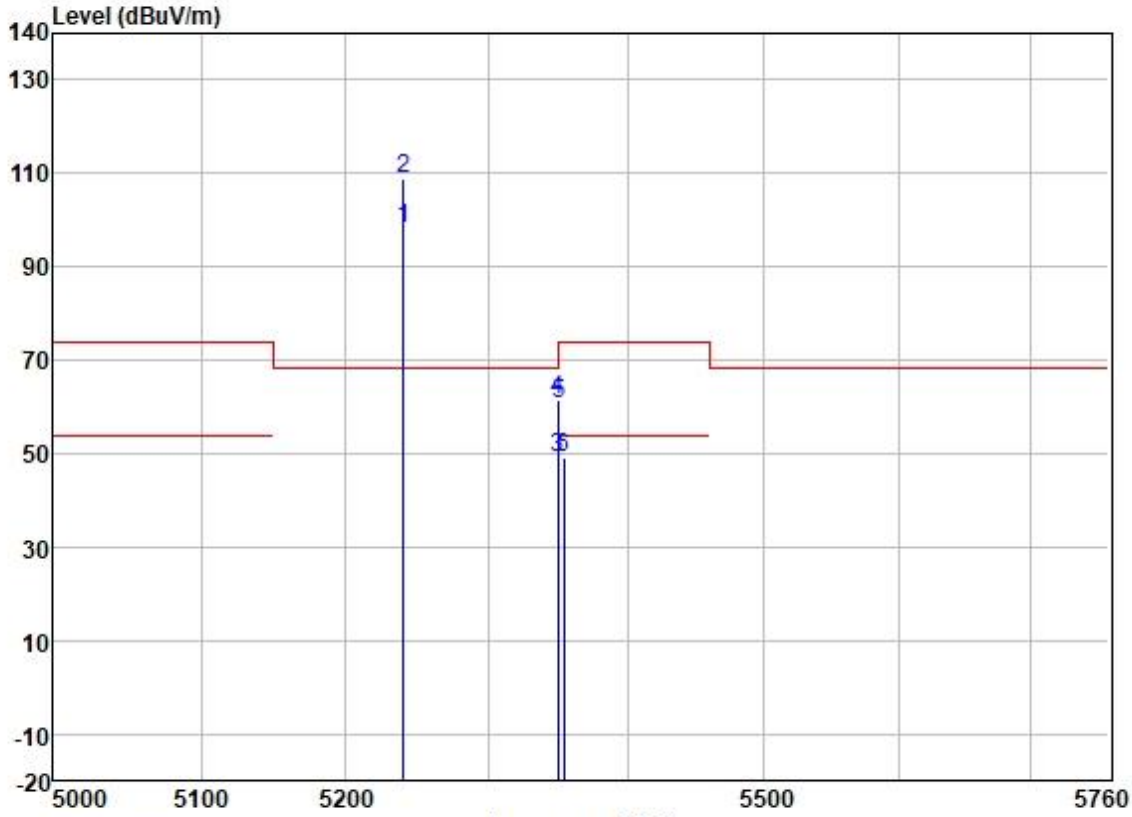
Test Mode: 22; Polarity: Vertical; Modulation:802.11ax; Bandwidth:20MHz; Channel:Low



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		5146.958	49.40	31.72	5.62	36.86	49.88	54.00	-4.12	VERTICAL	Average
2		5149.357	61.94	31.72	5.62	36.86	62.42	74.00	-11.58	VERTICAL	Peak
3		5149.980	49.22	31.72	5.62	36.86	49.70	54.00	-4.30	VERTICAL	Average
4		5149.980	60.99	31.72	5.62	36.86	61.47	74.00	-12.53	VERTICAL	Peak
5		5180.000	100.67	31.73	5.61	36.87	101.14	------	------	VERTICAL	Average
6	*	5180.000	111.62	31.73	5.61	36.87	112.09	68.20	43.89	VERTICAL	Peak

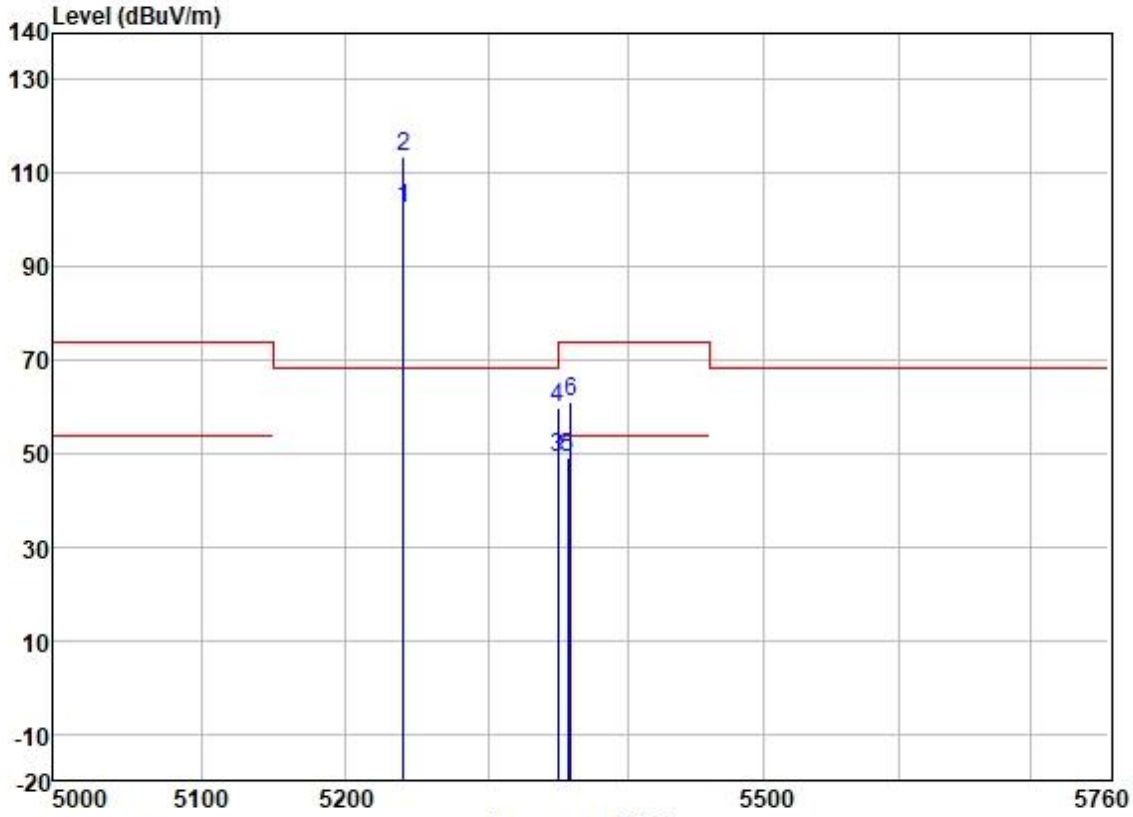
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:20MHz; Channel:High



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	97.70	31.75	5.74	36.87	98.32	------	------	HORIZONTAL	Average
2	*	5240.000	108.08	31.75	5.74	36.87	108.70	68.20	40.50	HORIZONTAL	Peak
3		5350.020	48.00	31.77	6.05	36.88	48.94	54.00	-5.06	HORIZONTAL	Average
4		5350.020	60.47	31.77	6.05	36.88	61.41	74.00	-12.59	HORIZONTAL	Peak
5		5350.646	59.86	31.77	6.05	36.88	60.80	74.00	-13.20	HORIZONTAL	Peak
6		5354.045	48.36	31.77	6.05	36.88	49.30	54.00	-4.70	HORIZONTAL	Average

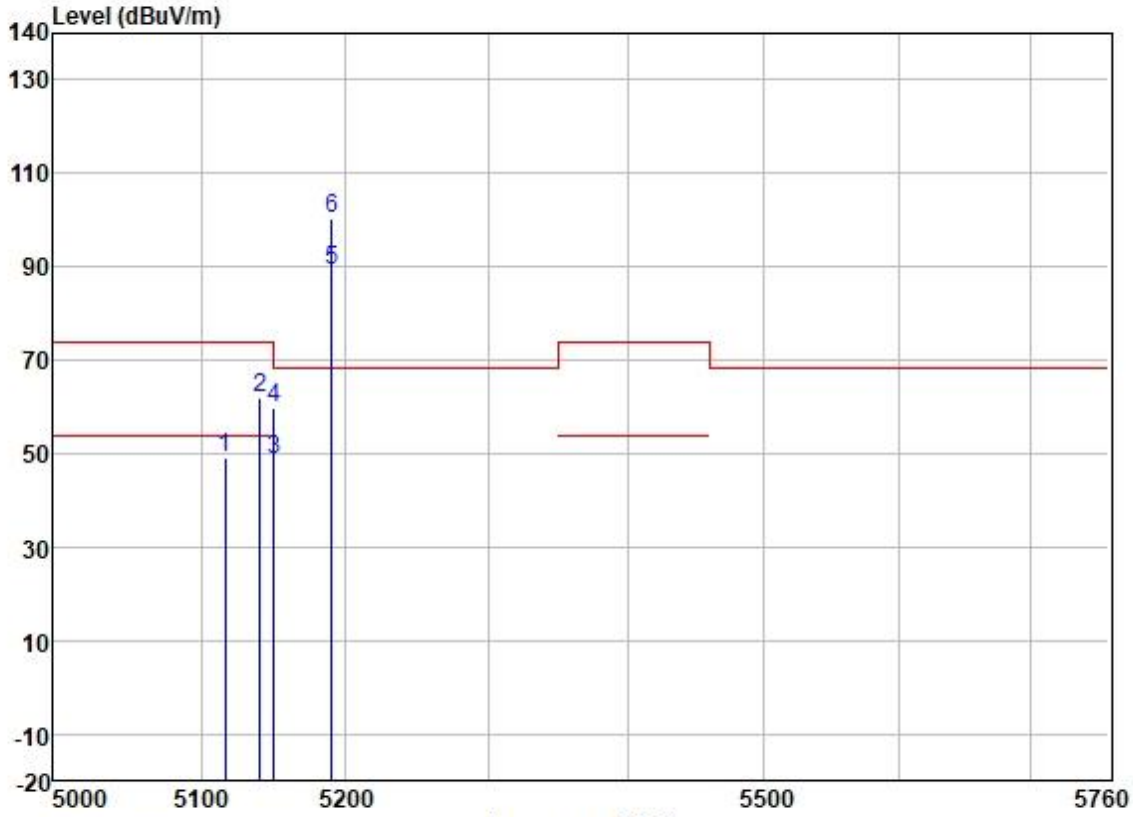
Test Mode: 22; Polarity: Vertical; Bandwidth:20MHz; Channel:High



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	101.68	31.75	5.74	36.87	102.30	------	------	VERTICAL	Average
2 *	5240.000	112.80	31.75	5.74	36.87	113.42	68.20	45.22	VERTICAL	Peak
3	5350.020	48.16	31.77	6.05	36.88	49.10	54.00	-4.90	VERTICAL	Average
4	5350.020	58.70	31.77	6.05	36.88	59.64	74.00	-14.36	VERTICAL	Peak
5	5357.164	48.28	31.78	6.03	36.88	49.21	54.00	-4.79	VERTICAL	Average
6	5359.291	60.10	31.78	6.03	36.88	61.03	74.00	-12.97	VERTICAL	Peak

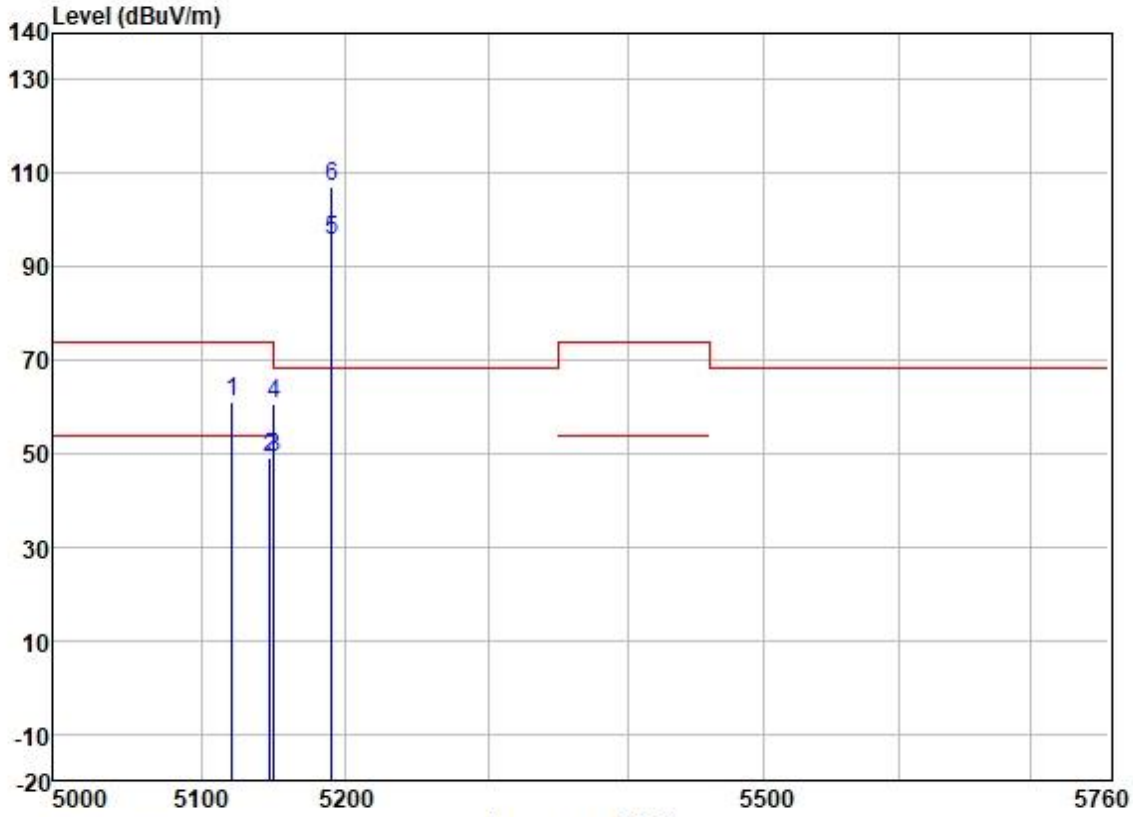
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:40MHz; Channel:Low



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		5116.514	48.66	31.72	5.64	36.86	49.16	54.00	-4.84	HORIZONTAL	Average
2		5140.128	61.26	31.72	5.63	36.86	61.75	74.00	-12.25	HORIZONTAL	Peak
3		5149.980	48.42	31.72	5.62	36.86	48.90	54.00	-5.10	HORIZONTAL	Average
4		5149.980	59.46	31.72	5.62	36.86	59.94	74.00	-14.06	HORIZONTAL	Peak
5		5190.000	88.78	31.73	5.60	36.87	89.24	------	------	HORIZONTAL	Average
6	*	5190.000	99.89	31.73	5.60	36.87	100.35	68.20	32.15	HORIZONTAL	Peak

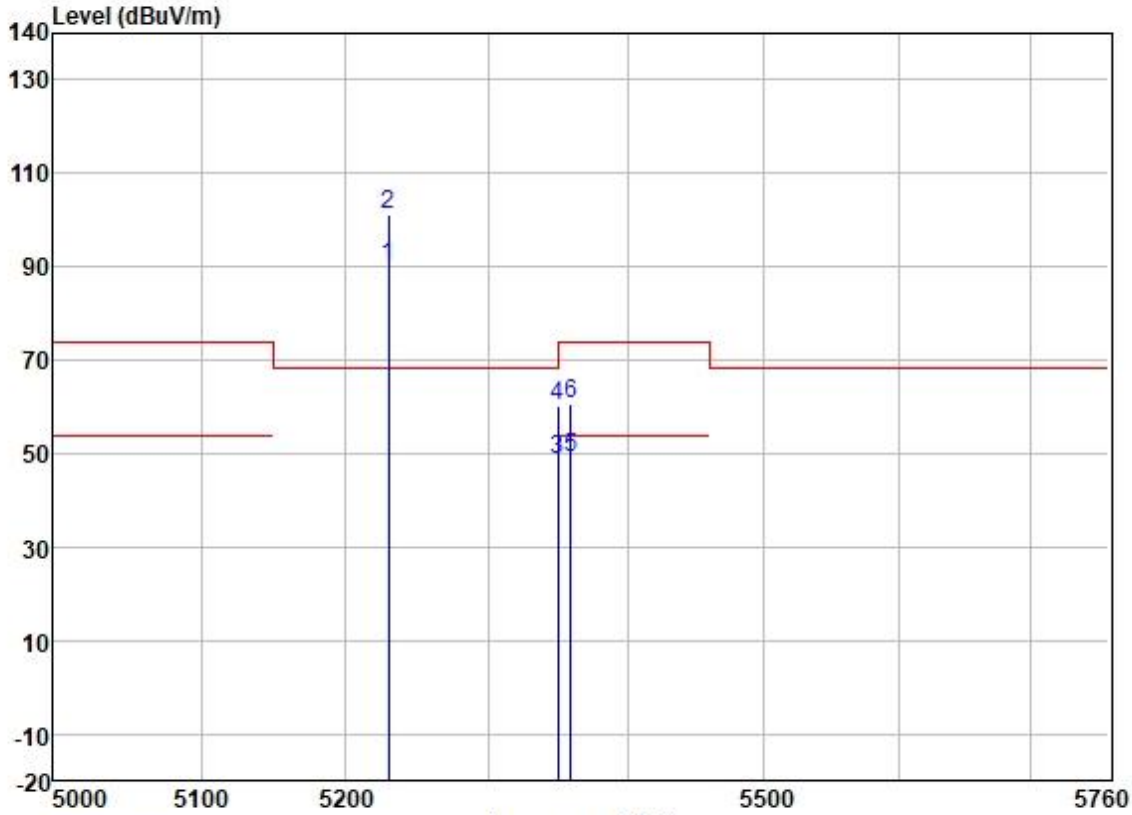
Test Mode: 22; Polarity: Vertical; Modulation:802.11ax; Bandwidth:40MHz; Channel:Low



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	5121.275	60.62	31.72	5.64	36.86	61.12	74.00	-12.88	VERTICAL	Peak
2	5147.426	48.66	31.72	5.62	36.86	49.14	54.00	-4.86	VERTICAL	Average
3	5149.980	48.74	31.72	5.62	36.86	49.22	54.00	-4.78	VERTICAL	Average
4	5149.980	59.96	31.72	5.62	36.86	60.44	74.00	-13.56	VERTICAL	Peak
5	5190.000	95.12	31.73	5.60	36.87	95.58	------	------	VERTICAL	Average
6 *	5190.000	106.68	31.73	5.60	36.87	107.14	68.20	38.94	VERTICAL	Peak

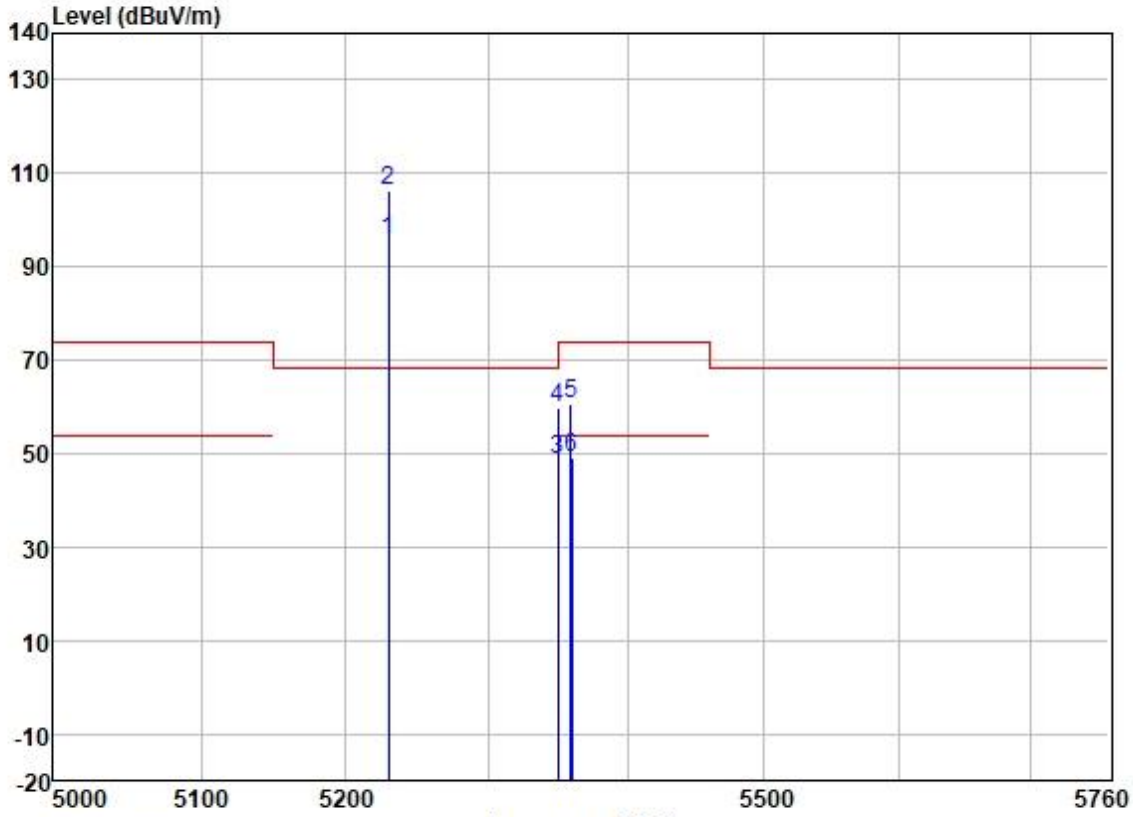
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:40MHz; Channel:High



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	89.60	31.74	5.70	36.87	90.17	------	------	HORIZONTAL	Average
2	*	5230.000	100.51	31.74	5.70	36.87	101.08	68.20	32.88	HORIZONTAL	Peak
3		5350.020	47.87	31.77	6.05	36.88	48.81	54.00	-5.19	HORIZONTAL	Average
4		5350.020	59.19	31.77	6.05	36.88	60.13	74.00	-13.87	HORIZONTAL	Peak
5		5358.863	48.33	31.78	6.03	36.88	49.26	54.00	-4.74	HORIZONTAL	Average
6		5359.025	59.62	31.78	6.03	36.88	60.55	74.00	-13.45	HORIZONTAL	Peak

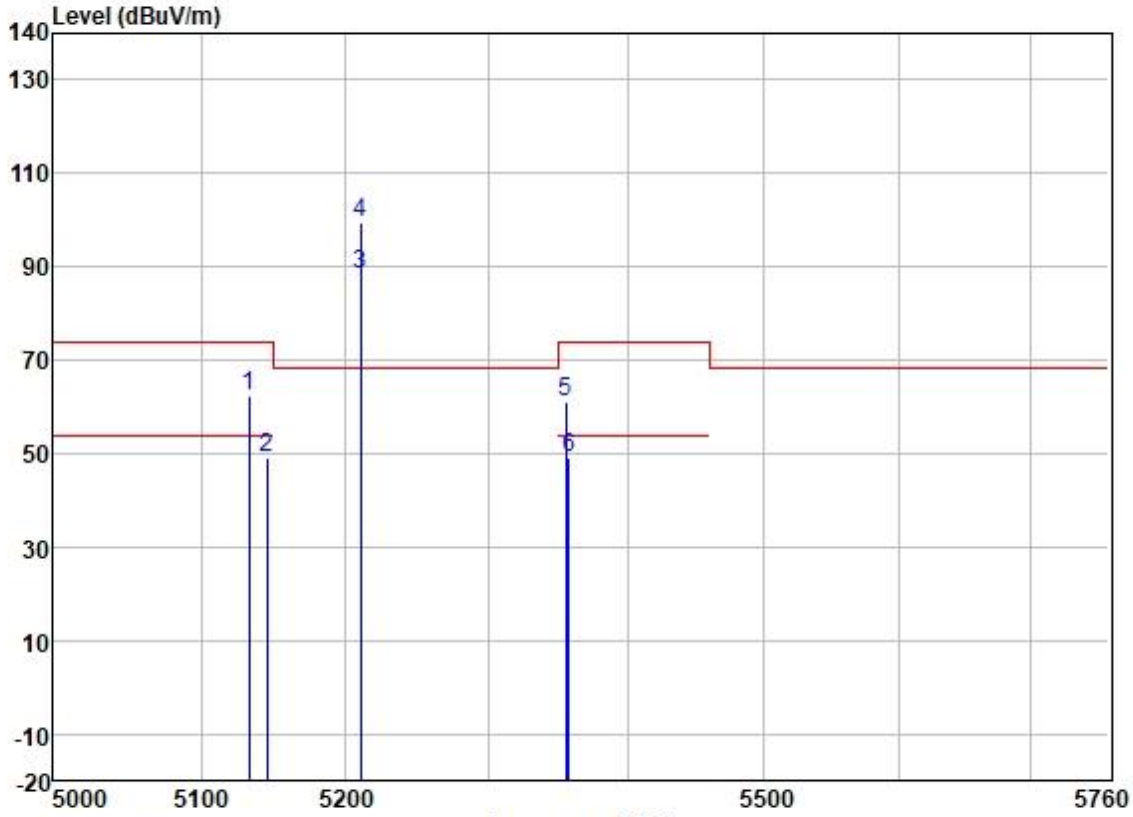
Test Mode: 22; Polarity: Vertical; Modulation:802.11ax; Bandwidth:40MHz; Channel:High



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	95.01	31.74	5.70	36.87	95.58	------	------	VERTICAL	Average
2	*	5230.000	105.86	31.74	5.70	36.87	106.43	68.20	38.23	VERTICAL	Peak
3		5350.020	47.76	31.77	6.05	36.88	48.70	54.00	-5.30	VERTICAL	Average
4		5350.020	58.68	31.77	6.05	36.88	59.62	74.00	-14.38	VERTICAL	Peak
5		5359.188	59.63	31.78	6.03	36.88	60.56	74.00	-13.44	VERTICAL	Peak
6		5360.000	48.14	31.78	6.03	36.88	49.07	54.00	-4.93	VERTICAL	Average

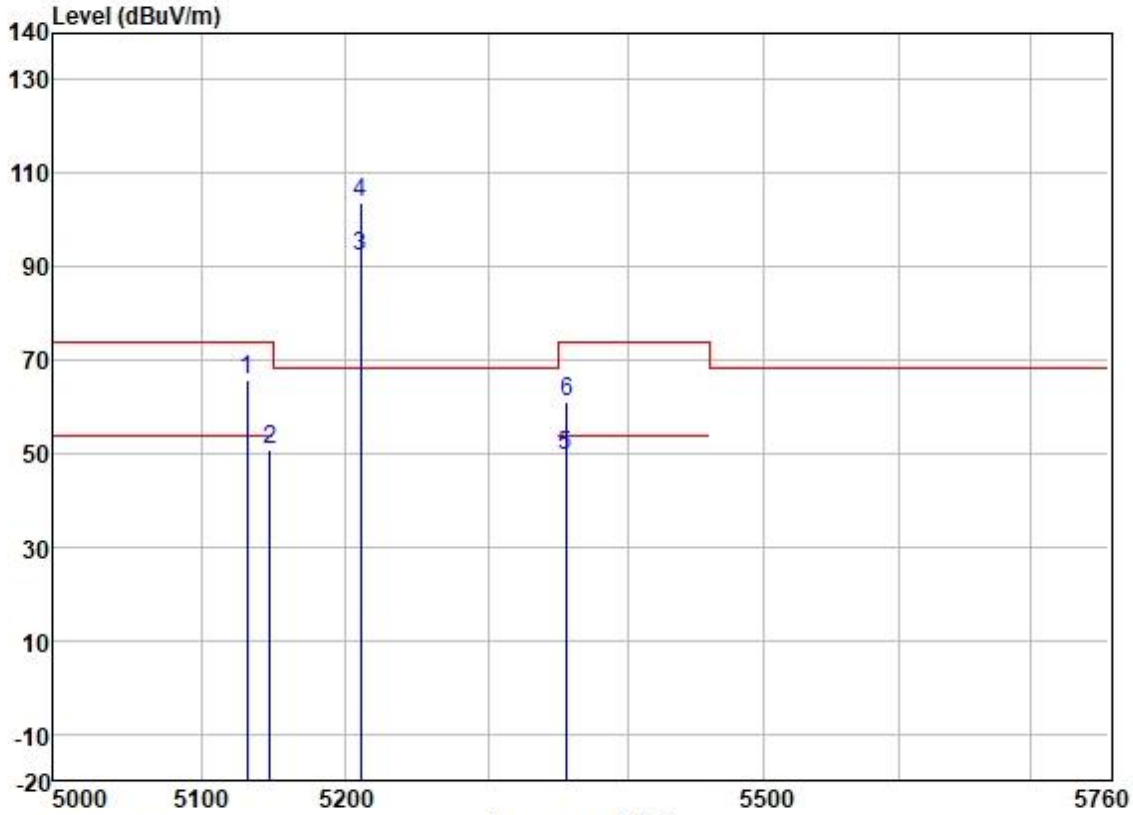
Test Mode: 22; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:80MHz; Channel:middle



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		5132.818	61.76	31.72	5.63	36.86	62.25	74.00	-11.75	HORIZONTAL	Peak
2		5145.339	48.68	31.72	5.62	36.86	49.16	54.00	-4.84	HORIZONTAL	Average
3		5210.000	87.87	31.74	5.65	36.87	88.39	------	------	HORIZONTAL	Average
4	*	5210.000	98.85	31.74	5.65	36.87	99.37	68.20	31.17	HORIZONTAL	Peak
5		5355.737	59.96	31.78	6.03	36.88	60.89	74.00	-13.11	HORIZONTAL	Peak
6		5357.602	48.16	31.78	6.03	36.88	49.09	54.00	-4.91	HORIZONTAL	Average

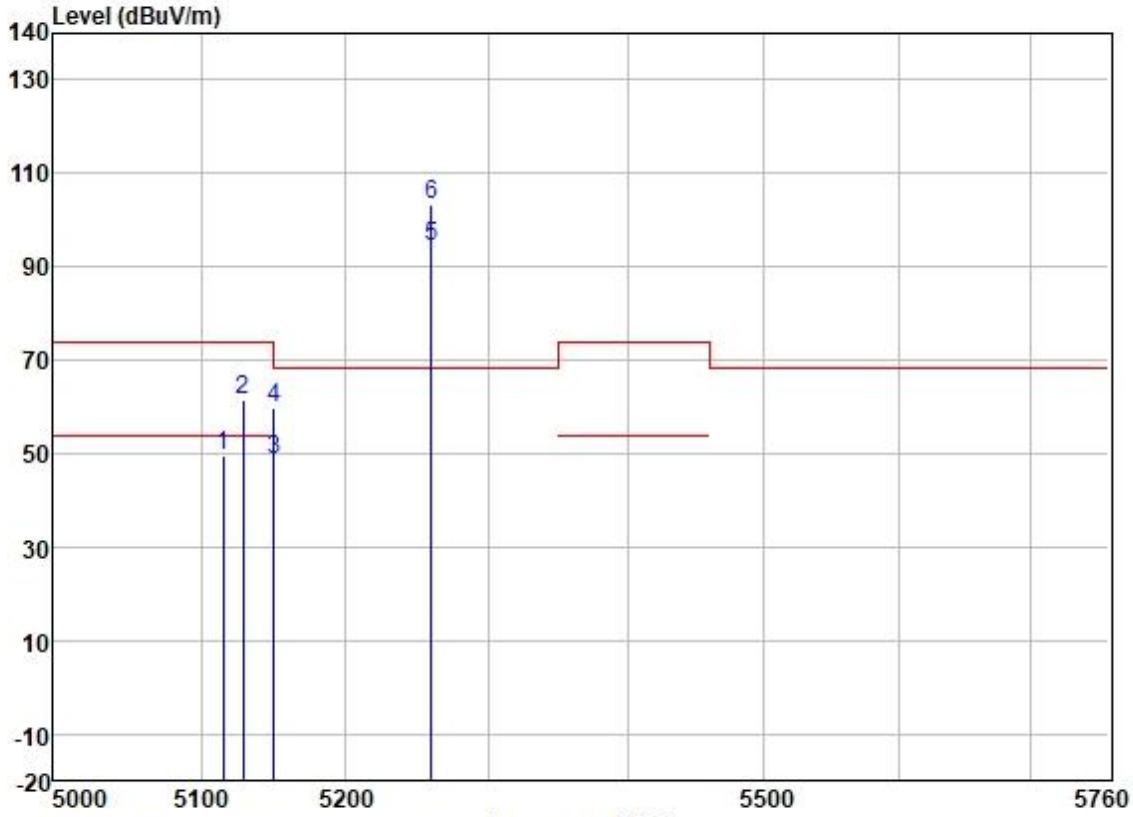
Test Mode: 22; Polarity: Vertical; Modulation:802.11ax; Bandwidth:80MHz; Channel:middle



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		5131.797	65.23	31.72	5.63	36.86	65.72	74.00	-8.28	VERTICAL	Peak
2		5147.130	50.27	31.72	5.62	36.86	50.75	54.00	-3.25	VERTICAL	Average
3		5210.000	91.81	31.74	5.65	36.87	92.33	------	------	VERTICAL	Average
4	*	5210.000	103.38	31.74	5.65	36.87	103.90	68.20	35.70	VERTICAL	Peak
5		5355.471	48.42	31.78	6.03	36.88	49.35	54.00	-4.65	VERTICAL	Average
6		5356.004	60.12	31.78	6.03	36.88	61.05	74.00	-12.95	VERTICAL	Peak

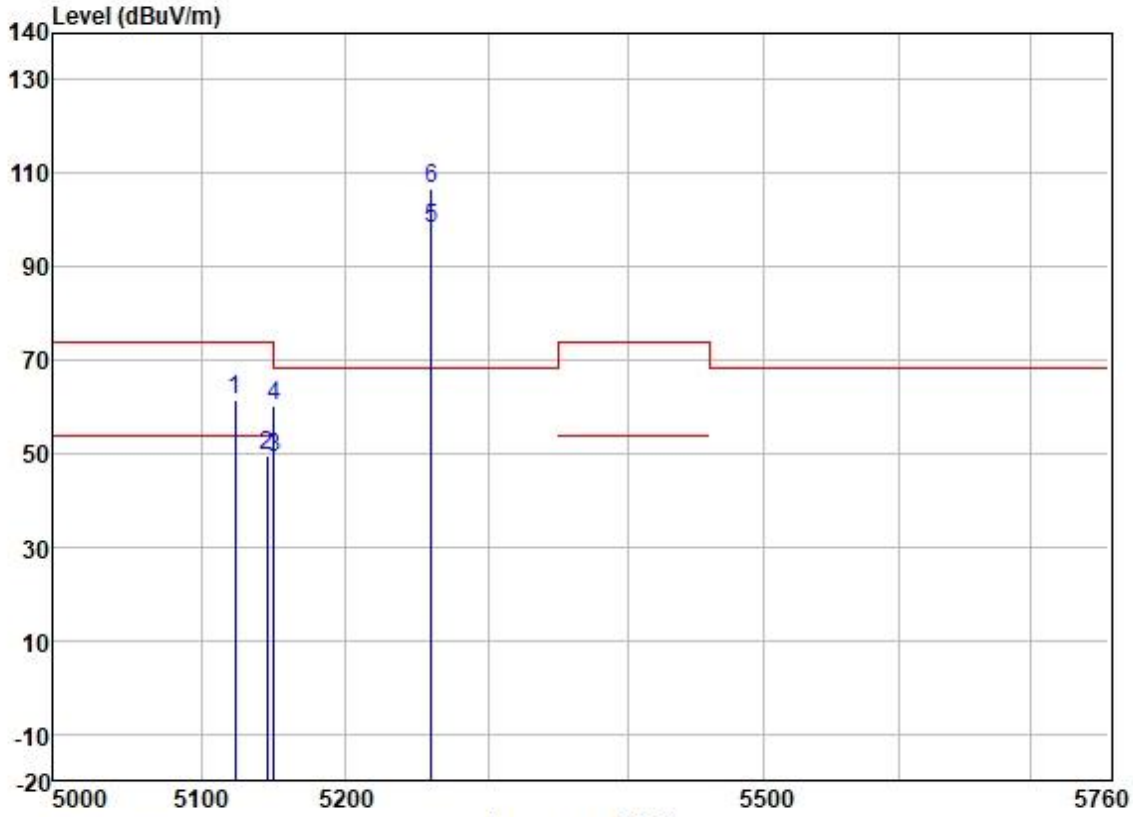
Test Mode: 23; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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		5115.236	48.98	31.72	5.64	36.86	49.48	54.00	-4.52	HORIZONTAL	Average
2		5128.916	61.14	31.72	5.63	36.86	61.63	74.00	-12.37	HORIZONTAL	Peak
3		5149.980	48.29	31.72	5.62	36.86	48.77	54.00	-5.23	HORIZONTAL	Average
4		5149.980	59.15	31.72	5.62	36.86	59.63	74.00	-14.37	HORIZONTAL	Peak
5		5260.000	93.56	31.75	5.77	36.87	94.21	------	------	HORIZONTAL	Average
6	*	5260.000	102.78	31.75	5.77	36.87	103.43	68.20	35.23	HORIZONTAL	Peak

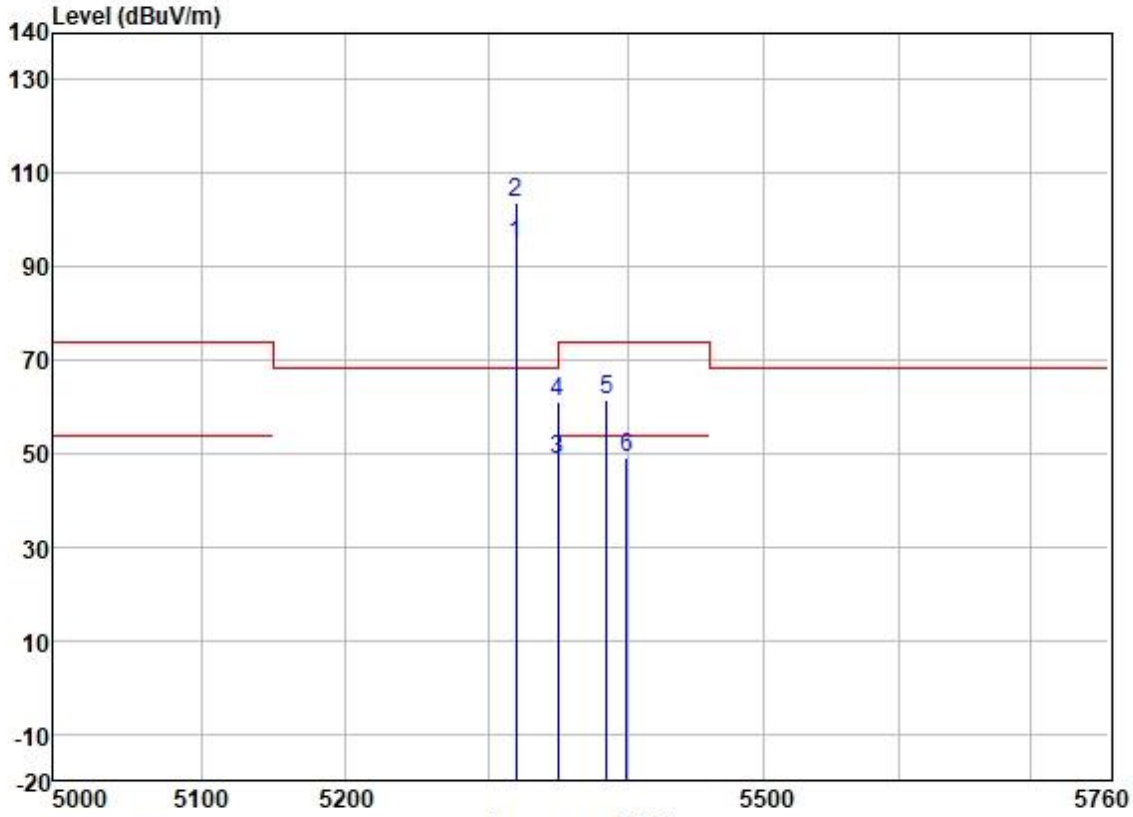
Test Mode: 23; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5123.048	60.94	31.72	5.64	36.86	61.44	74.00	-12.56	VERTICAL	Peak
2	5145.309	49.12	31.72	5.62	36.86	49.60	54.00	-4.40	VERTICAL	Average
3	5149.980	48.57	31.72	5.62	36.86	49.05	54.00	-4.95	VERTICAL	Average
4	5149.980	59.71	31.72	5.62	36.86	60.19	74.00	-13.81	VERTICAL	Peak
5	5260.000	97.61	31.75	5.77	36.87	98.26	------	------	VERTICAL	Average
6 *	5260.000	106.25	31.75	5.77	36.87	106.90	68.20	38.70	VERTICAL	Peak

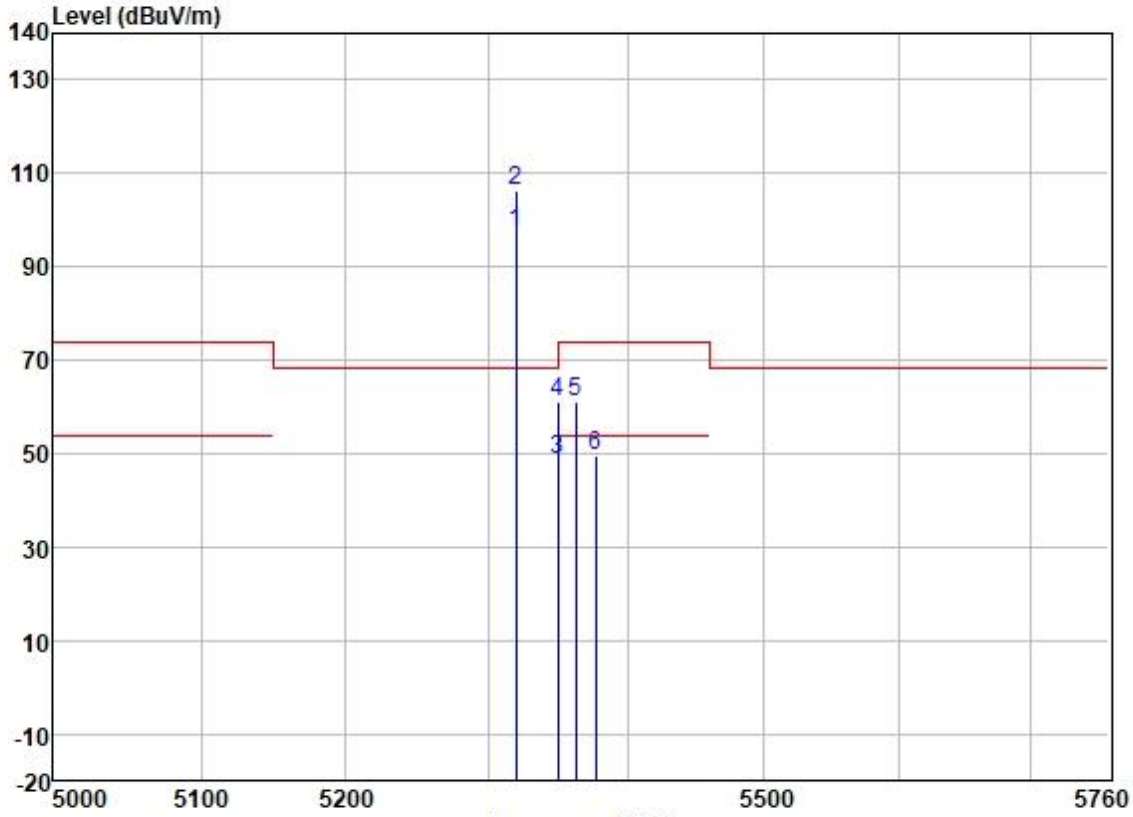
Test Mode: 23; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	93.86	31.77	6.08	36.88	94.83	------	------	HORIZONTAL	Average
2	*	5320.000	102.70	31.77	6.08	36.88	103.67	68.20	35.47	HORIZONTAL	Peak
3		5350.020	47.88	31.77	6.05	36.88	48.82	54.00	-5.18	HORIZONTAL	Average
4		5350.020	59.95	31.77	6.05	36.88	60.89	74.00	-13.11	HORIZONTAL	Peak
5		5384.981	60.63	31.78	6.02	36.88	61.55	74.00	-12.45	HORIZONTAL	Peak
6		5399.596	48.41	31.78	6.00	36.88	49.31	54.00	-4.69	HORIZONTAL	Average

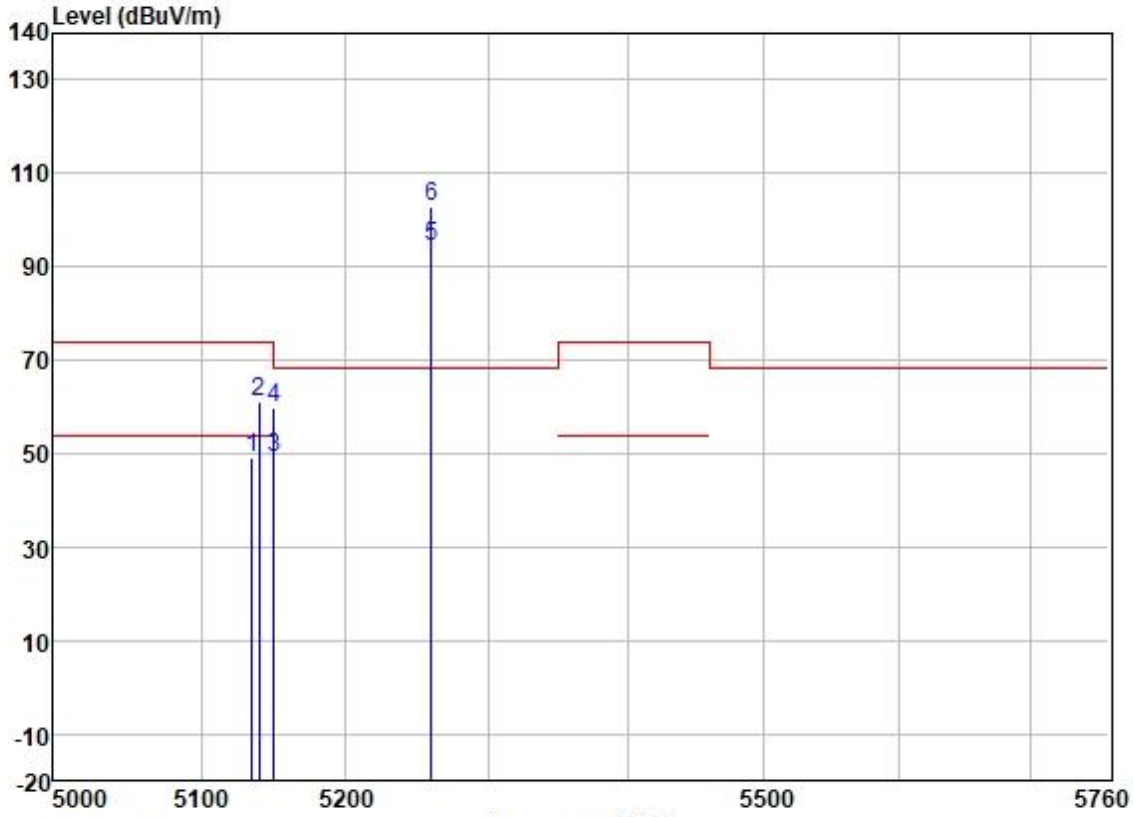
Test Mode: 23; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	5320.000	96.53	31.77	6.08	36.88	97.50	------	------	VERTICAL	Average
2 *	5320.000	105.48	31.77	6.08	36.88	106.45	68.20	38.25	VERTICAL	Peak
3	5350.020	47.80	31.77	6.05	36.88	48.74	54.00	-5.26	VERTICAL	Average
4	5350.020	60.12	31.77	6.05	36.88	61.06	74.00	-12.94	VERTICAL	Peak
5	5362.982	60.31	31.78	6.03	36.88	61.24	74.00	-12.76	VERTICAL	Peak
6	5376.734	48.51	31.78	6.02	36.88	49.43	54.00	-4.57	VERTICAL	Average

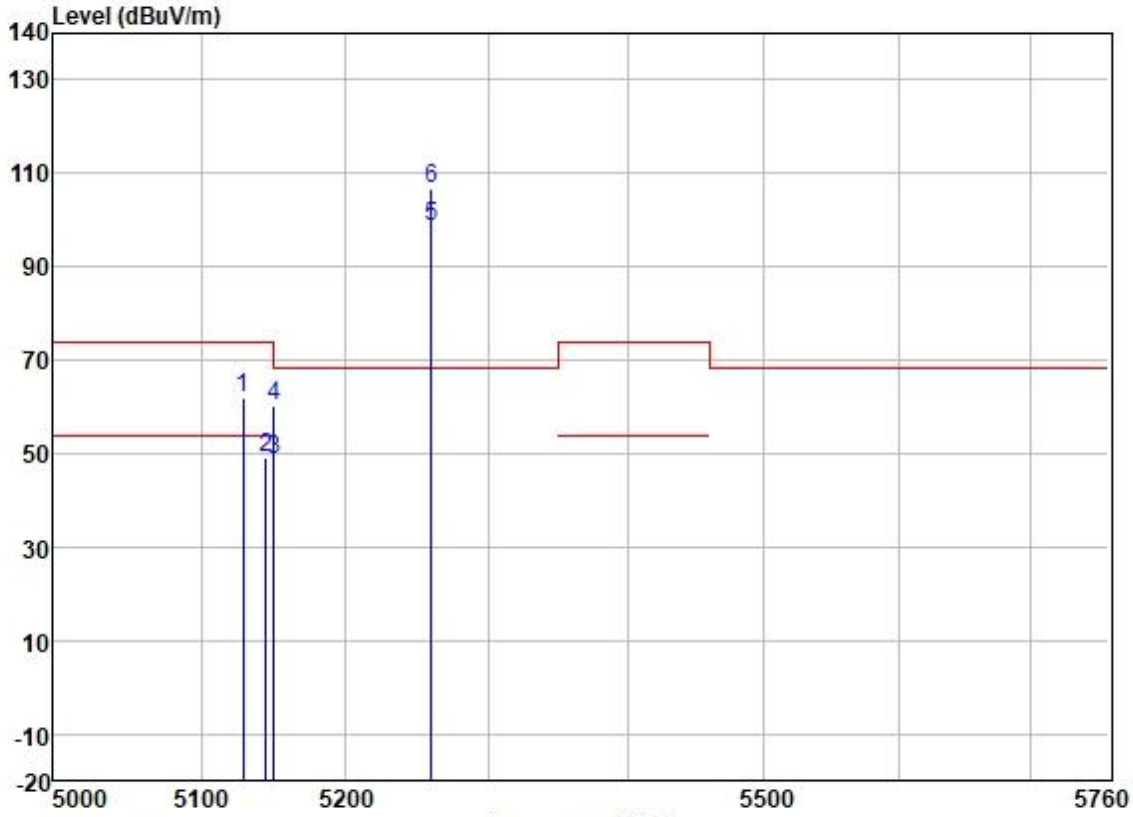
Test Mode: 23; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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		5134.612	48.79	31.72	5.63	36.86	49.28	54.00	-4.72	HORIZONTAL	Average
2		5139.601	60.42	31.72	5.63	36.86	60.91	74.00	-13.09	HORIZONTAL	Peak
3		5149.980	48.52	31.72	5.62	36.86	49.00	54.00	-5.00	HORIZONTAL	Average
4		5149.980	59.22	31.72	5.62	36.86	59.70	74.00	-14.30	HORIZONTAL	Peak
5		5260.000	93.57	31.75	5.77	36.87	94.22	------	------	HORIZONTAL	Average
6	*	5260.000	102.33	31.75	5.77	36.87	102.98	68.20	34.78	HORIZONTAL	Peak

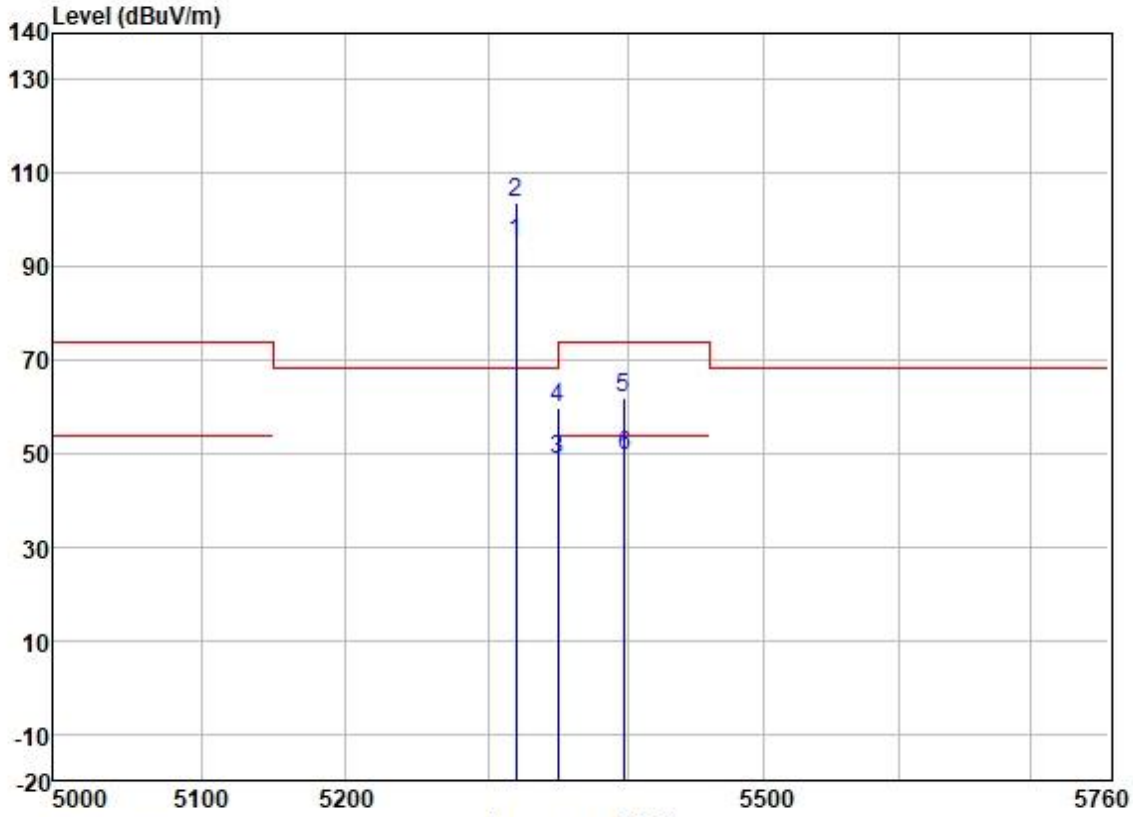
Test Mode: 23; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5128.916	61.37	31.72	5.63	36.86	61.86	74.00	-12.14	VERTICAL	Peak
2	5144.773	48.79	31.72	5.62	36.86	49.27	54.00	-4.73	VERTICAL	Average
3	5149.980	48.40	31.72	5.62	36.86	48.88	54.00	-5.12	VERTICAL	Average
4	5149.980	59.82	31.72	5.62	36.86	60.30	74.00	-13.70	VERTICAL	Peak
5	5260.000	97.93	31.75	5.77	36.87	98.58	------	------	VERTICAL	Average
6 *	5260.000	106.10	31.75	5.77	36.87	106.75	68.20	38.55	VERTICAL	Peak

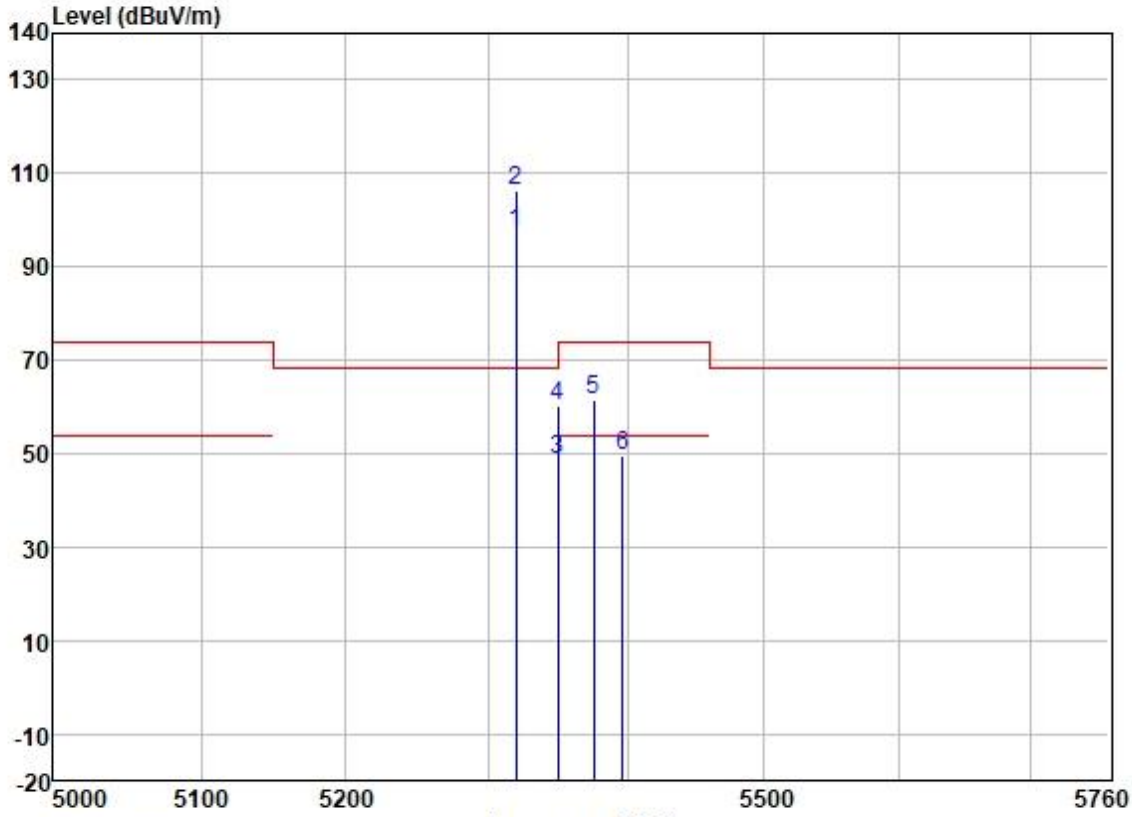
Test Mode: 23; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	94.15	31.77	6.08	36.88	95.12	------	------	HORIZONTAL	Average
2	*	5320.000	102.72	31.77	6.08	36.88	103.69	68.20	35.49	HORIZONTAL	Peak
3		5350.020	47.77	31.77	6.05	36.88	48.71	54.00	-5.29	HORIZONTAL	Average
4		5350.020	58.94	31.77	6.05	36.88	59.88	74.00	-14.12	HORIZONTAL	Peak
5		5397.376	60.97	31.78	6.00	36.88	61.87	74.00	-12.13	HORIZONTAL	Peak
6		5397.477	48.44	31.78	6.00	36.88	49.34	54.00	-4.66	HORIZONTAL	Average

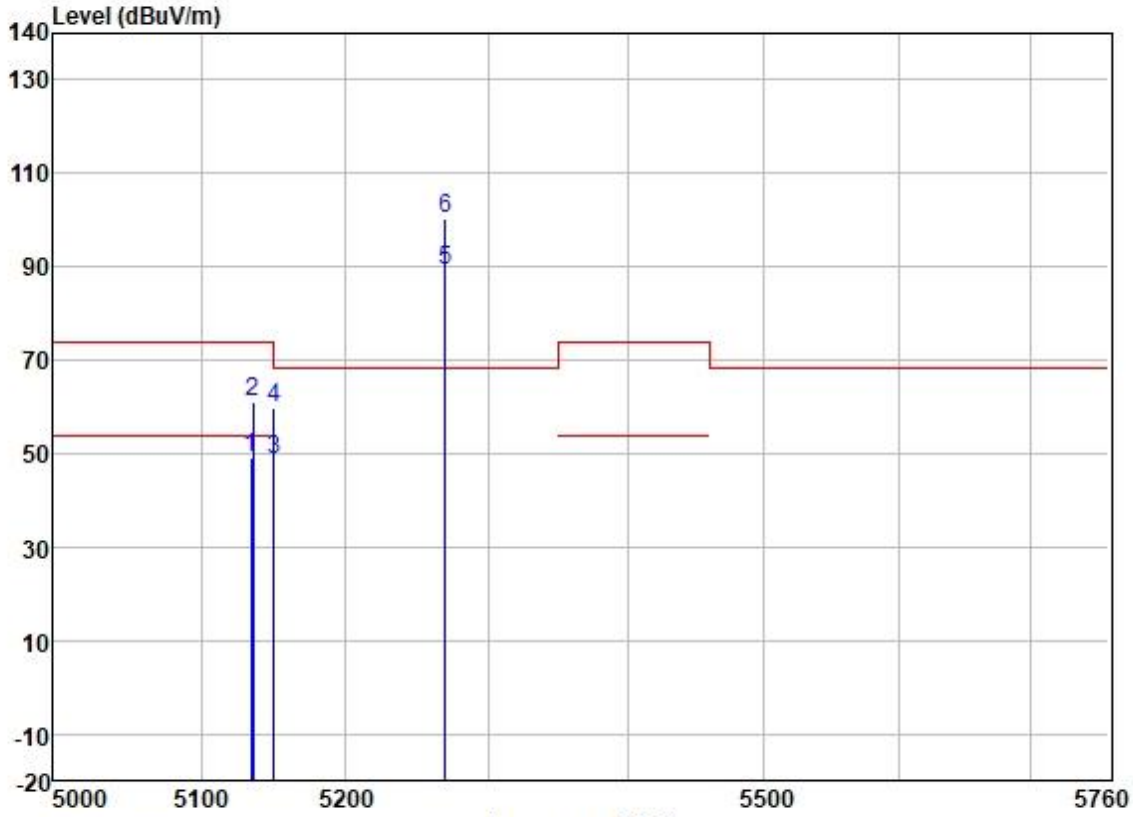
Test Mode: 23; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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		5320.000	96.52	31.77	6.08	36.88	97.49	------	------	VERTICAL	Average
2	*	5320.000	105.43	31.77	6.08	36.88	106.40	68.20	38.20	VERTICAL	Peak
3		5350.020	47.83	31.77	6.05	36.88	48.77	54.00	-5.23	VERTICAL	Average
4		5350.020	59.12	31.77	6.05	36.88	60.06	74.00	-13.94	VERTICAL	Peak
5		5375.628	60.51	31.78	6.02	36.88	61.43	74.00	-12.57	VERTICAL	Peak
6		5396.267	48.53	31.78	6.00	36.88	49.43	54.00	-4.57	VERTICAL	Average

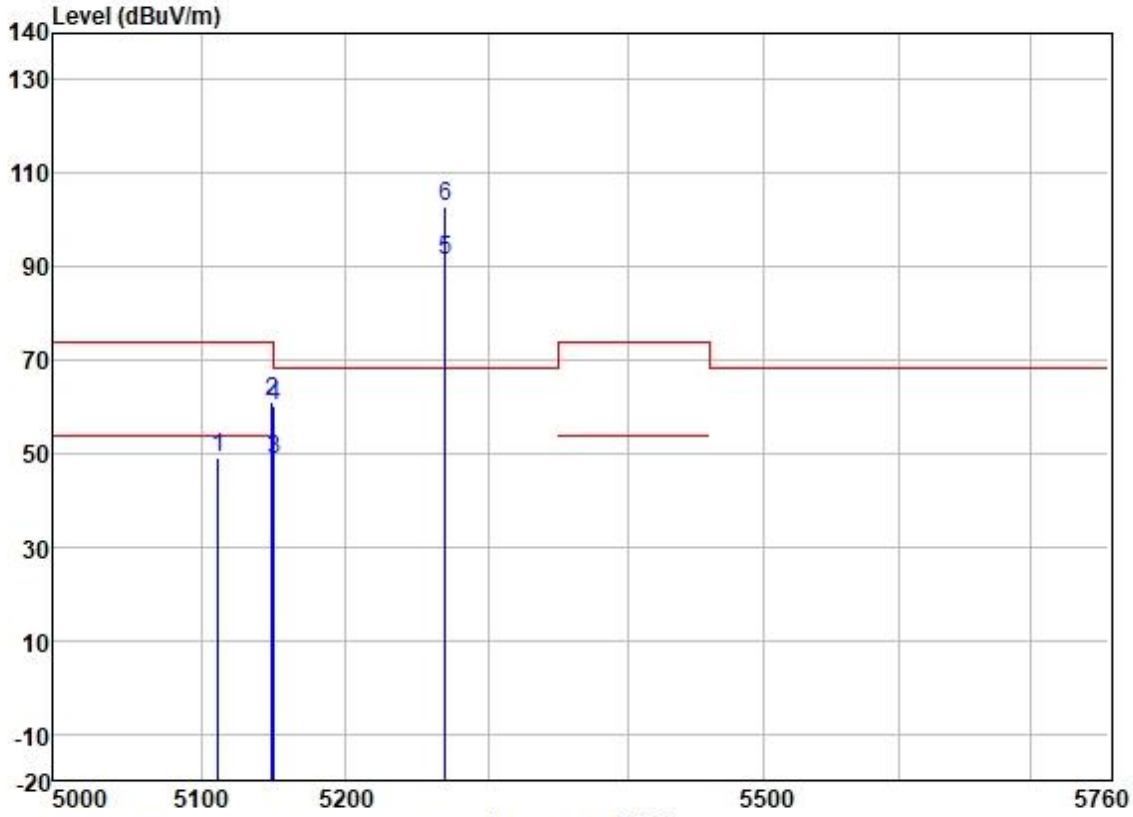
Test Mode: 23; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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		5134.052	48.54	31.72	5.63	36.86	49.03	54.00	-4.97	HORIZONTAL	Average
2		5135.632	60.64	31.72	5.63	36.86	61.13	74.00	-12.87	HORIZONTAL	Peak
3		5149.980	48.11	31.72	5.62	36.86	48.59	54.00	-5.41	HORIZONTAL	Average
4		5149.980	59.21	31.72	5.62	36.86	59.69	74.00	-14.31	HORIZONTAL	Peak
5		5270.000	88.45	31.75	5.80	36.87	89.13	------	------	HORIZONTAL	Average
6	*	5270.000	99.59	31.75	5.80	36.87	100.27	68.20	32.07	HORIZONTAL	Peak

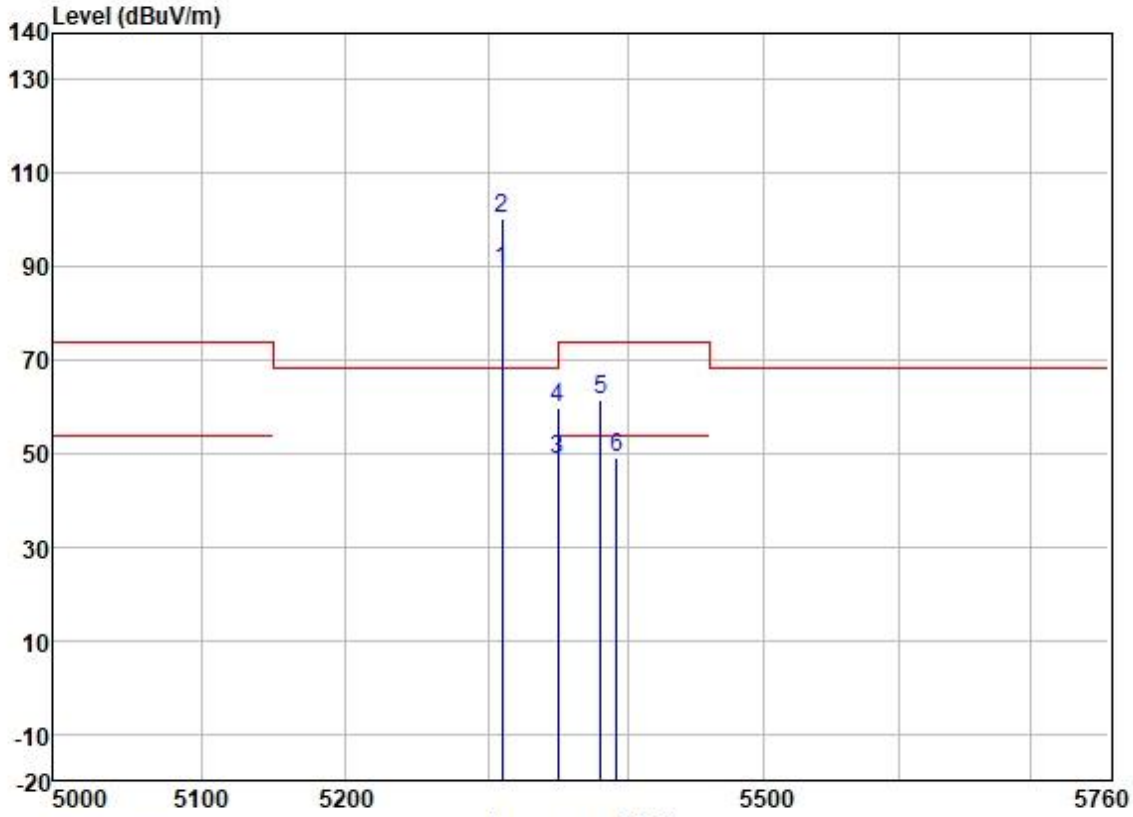
Test Mode: 23; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5111.588	48.56	31.72	5.65	36.86	49.07	54.00	-4.93	VERTICAL	Average
2	5148.687	60.49	31.72	5.62	36.86	60.97	74.00	-13.03	VERTICAL	Peak
3	5149.980	48.12	31.72	5.62	36.86	48.60	54.00	-5.40	VERTICAL	Average
4	5149.980	59.59	31.72	5.62	36.86	60.07	74.00	-13.93	VERTICAL	Peak
5	5270.000	90.55	31.75	5.80	36.87	91.23	------	------	VERTICAL	Average
6 *	5270.000	102.16	31.75	5.80	36.87	102.84	68.20	34.64	VERTICAL	Peak

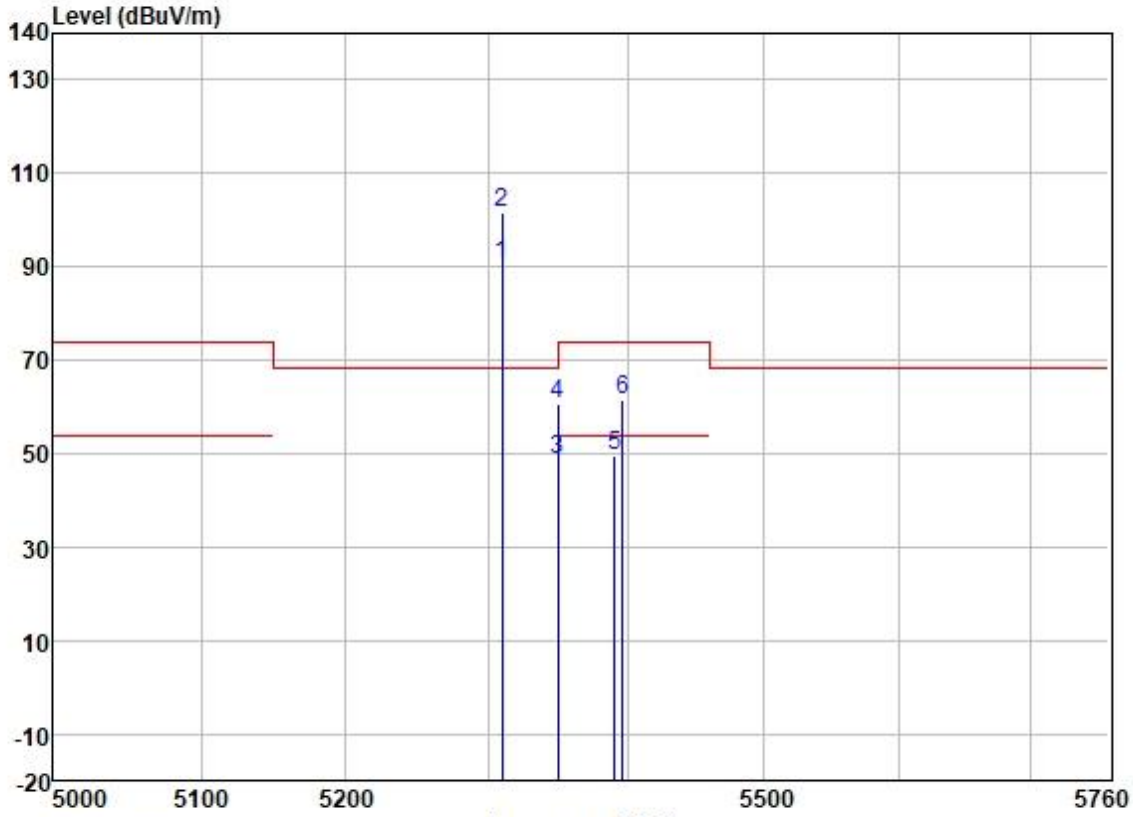
Test Mode: 23; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	88.37	31.77	6.08	36.87	89.35	------	------	HORIZONTAL	Average
2	*	5310.000	99.18	31.77	6.08	36.87	100.16	68.20	31.96	HORIZONTAL	Peak
3		5350.020	47.77	31.77	6.05	36.88	48.71	54.00	-5.29	HORIZONTAL	Average
4		5350.020	58.89	31.77	6.05	36.88	59.83	74.00	-14.17	HORIZONTAL	Peak
5		5380.739	60.56	31.78	6.02	36.88	61.48	74.00	-12.52	HORIZONTAL	Peak
6		5392.239	48.42	31.78	6.00	36.88	49.32	54.00	-4.68	HORIZONTAL	Average

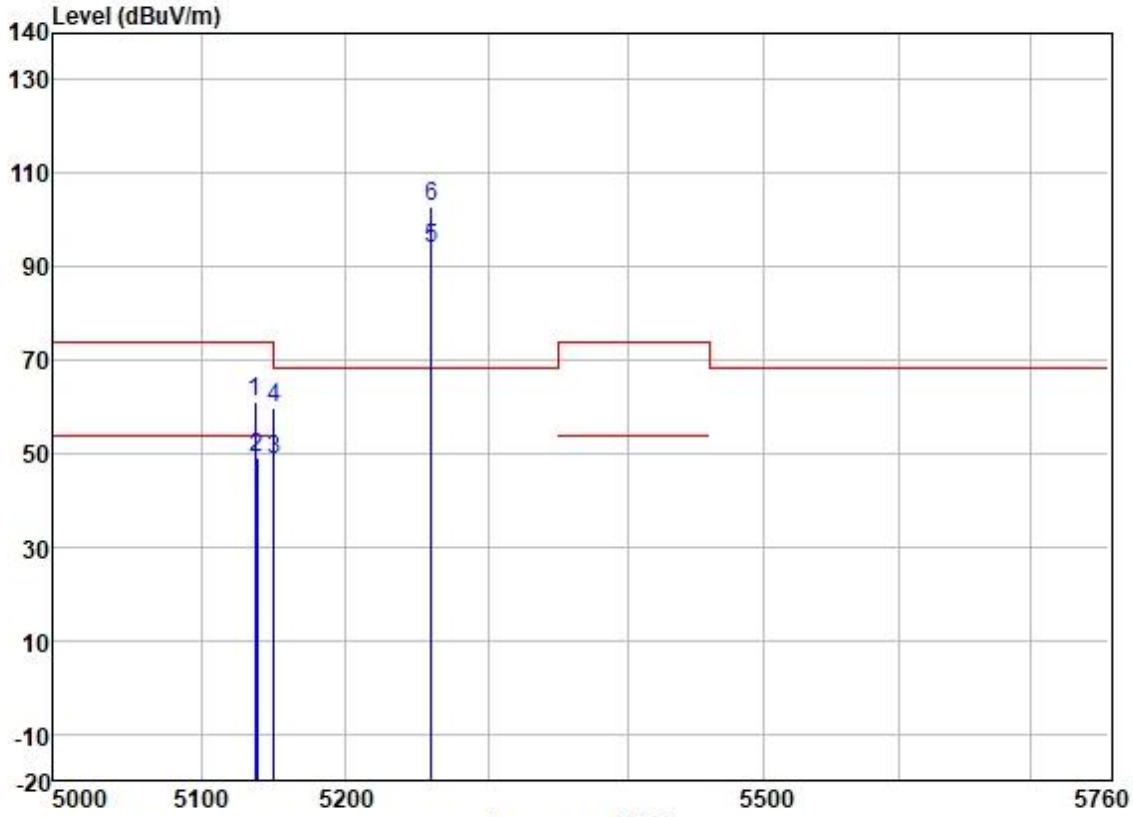
Test Mode: 23; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	89.71	31.77	6.08	36.87	90.69	------	------	VERTICAL	Average
2	*	5310.000	100.68	31.77	6.08	36.87	101.66	68.20	33.46	VERTICAL	Peak
3		5350.020	47.78	31.77	6.05	36.88	48.72	54.00	-5.28	VERTICAL	Average
4		5350.020	59.50	31.77	6.05	36.88	60.44	74.00	-13.56	VERTICAL	Peak
5		5390.906	48.44	31.78	6.00	36.88	49.34	54.00	-4.66	VERTICAL	Average
6		5396.118	60.73	31.78	6.00	36.88	61.63	74.00	-12.37	VERTICAL	Peak

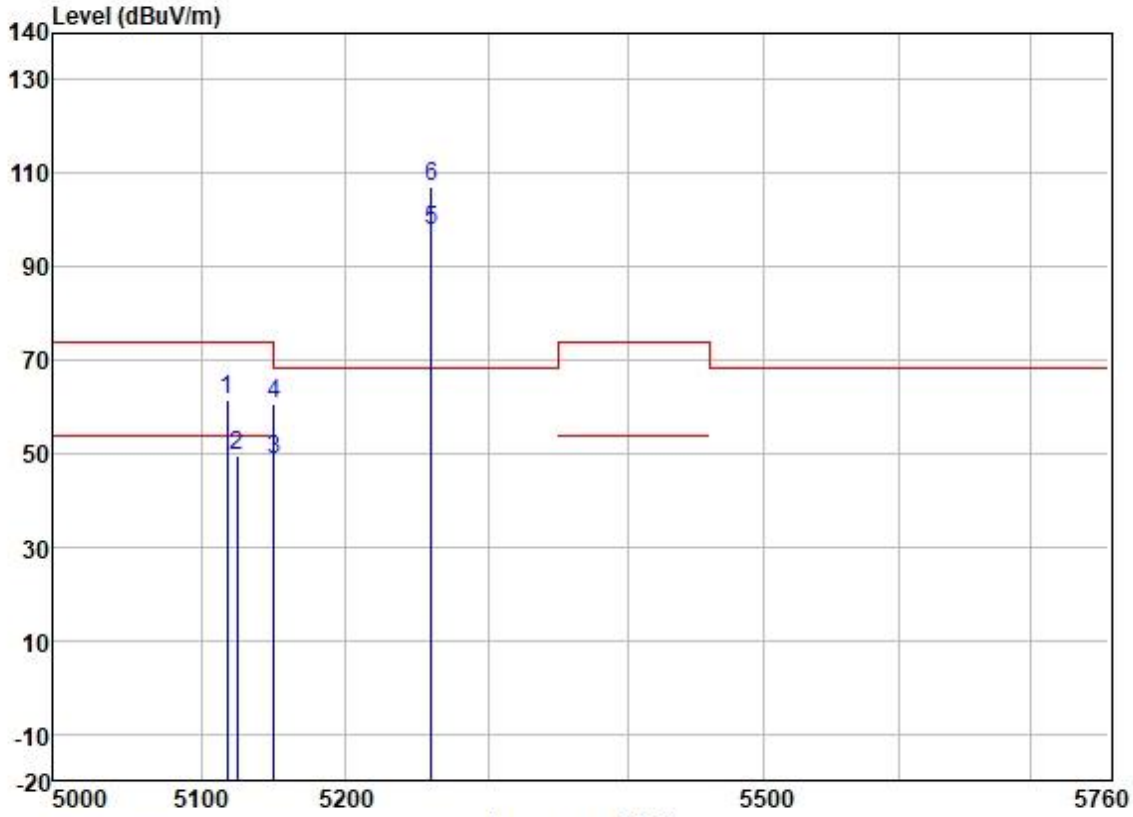
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5136.927	60.66	31.72	5.63	36.86	61.15	74.00	-12.85	HORIZONTAL	Peak
2	5138.353	48.67	31.72	5.63	36.86	49.16	54.00	-4.84	HORIZONTAL	Average
3	5149.980	48.25	31.72	5.62	36.86	48.73	54.00	-5.27	HORIZONTAL	Average
4	5149.980	59.47	31.72	5.62	36.86	59.95	74.00	-14.05	HORIZONTAL	Peak
5	5260.000	93.41	31.75	5.77	36.87	94.06	------	------	HORIZONTAL	Average
6 *	5260.000	102.17	31.75	5.77	36.87	102.82	68.20	34.62	HORIZONTAL	Peak

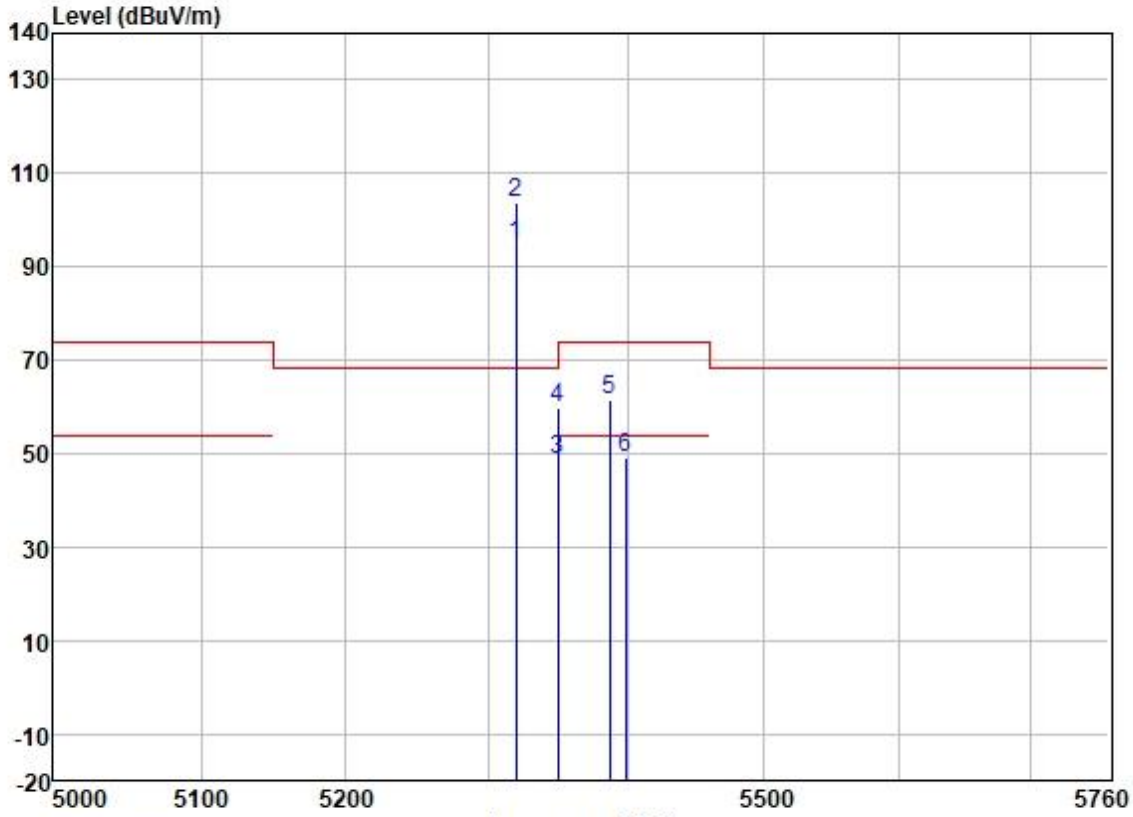
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5117.543	60.89	31.72	5.64	36.86	61.39	74.00	-12.61	VERTICAL	Peak
2	5124.648	48.94	31.72	5.64	36.86	49.44	54.00	-4.56	VERTICAL	Average
3	5149.980	48.35	31.72	5.62	36.86	48.83	54.00	-5.17	VERTICAL	Average
4	5149.980	60.01	31.72	5.62	36.86	60.49	74.00	-13.51	VERTICAL	Peak
5	5260.000	97.26	31.75	5.77	36.87	97.91	------	------	VERTICAL	Average
6 *	5260.000	106.35	31.75	5.77	36.87	107.00	68.20	38.80	VERTICAL	Peak

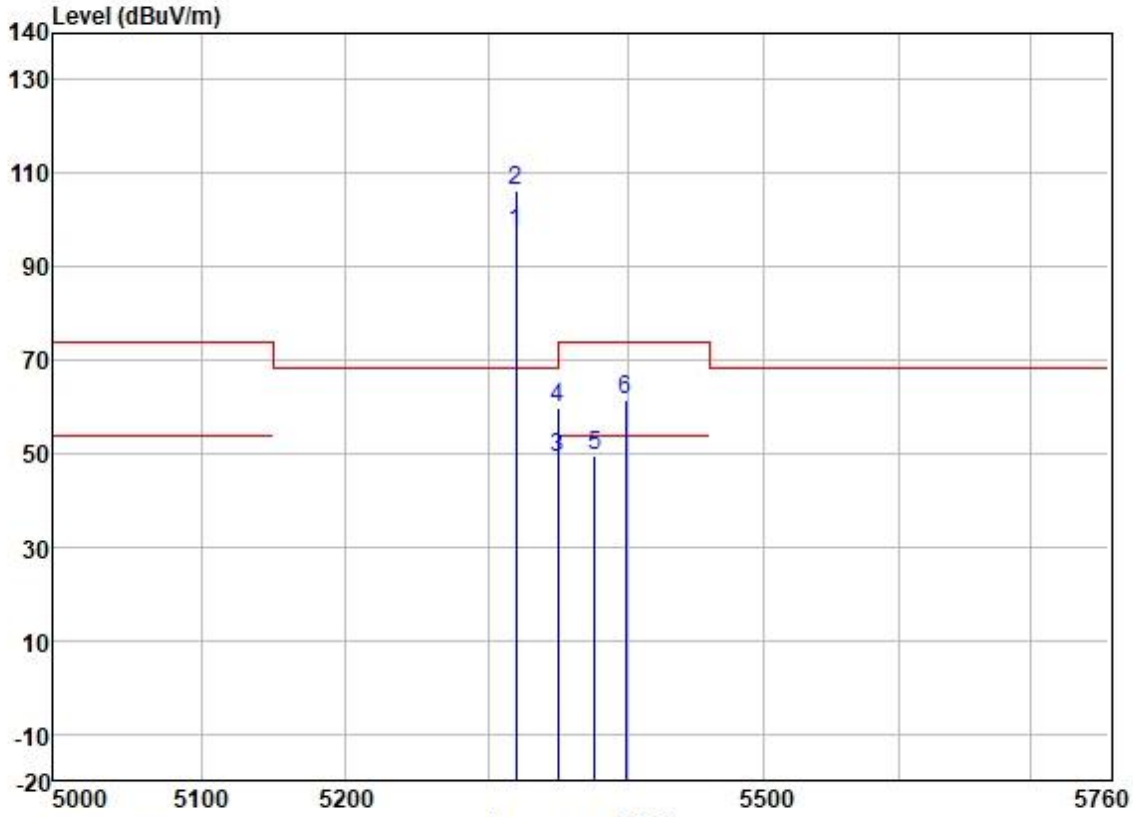
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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		5320.000	93.97	31.77	6.08	36.88	94.94	------	------	HORIZONTAL	Average
2	*	5320.000	102.79	31.77	6.08	36.88	103.76	68.20	35.56	HORIZONTAL	Peak
3		5350.020	47.82	31.77	6.05	36.88	48.76	54.00	-5.24	HORIZONTAL	Average
4		5350.020	58.89	31.77	6.05	36.88	59.83	74.00	-14.17	HORIZONTAL	Peak
5		5387.196	60.41	31.78	6.00	36.88	61.31	74.00	-12.69	HORIZONTAL	Peak
6		5398.789	48.43	31.78	6.00	36.88	49.33	54.00	-4.67	HORIZONTAL	Average

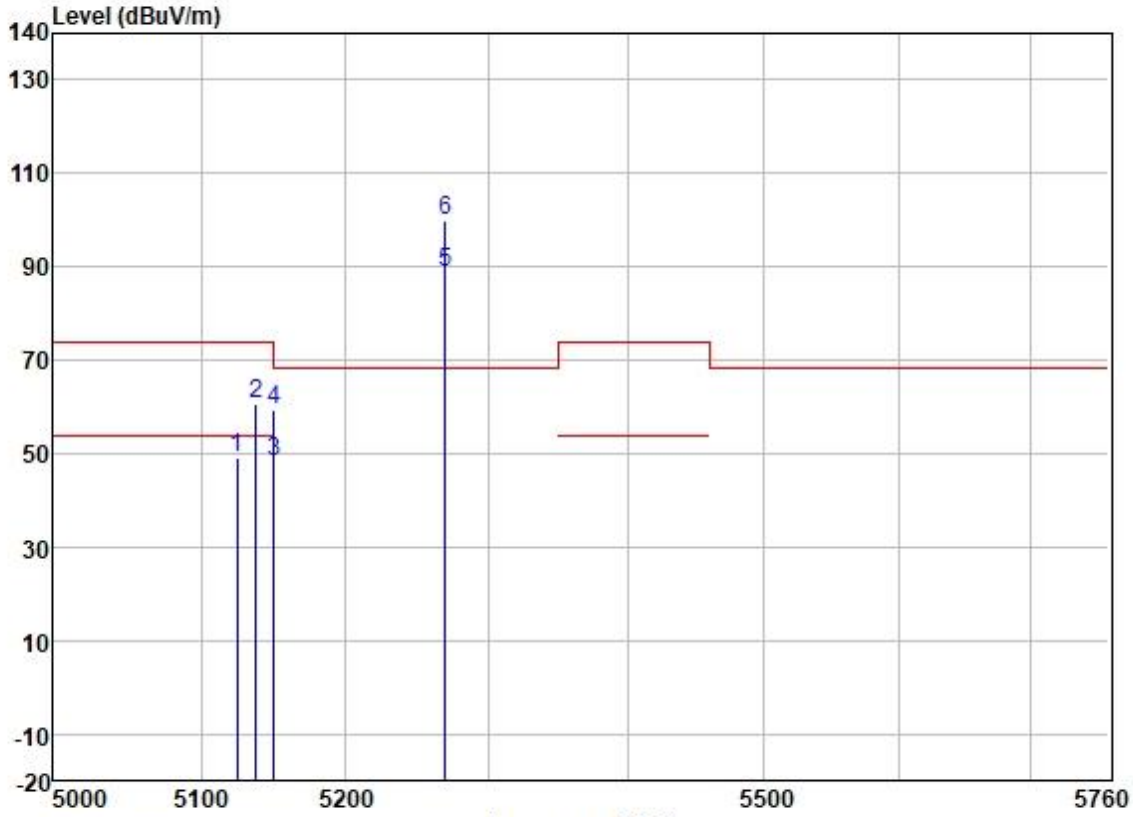
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5320.000	96.42	31.77	6.08	36.88	97.39	------	------	VERTICAL	Average
2 *	5320.000	105.51	31.77	6.08	36.88	106.48	68.20	38.28	VERTICAL	Peak
3	5350.020	47.97	31.77	6.05	36.88	48.91	54.00	-5.09	VERTICAL	Average
4	5350.020	59.01	31.77	6.05	36.88	59.95	74.00	-14.05	VERTICAL	Peak
5	5375.930	48.56	31.78	6.02	36.88	49.48	54.00	-4.52	VERTICAL	Average
6	5398.688	60.79	31.78	6.00	36.88	61.69	74.00	-12.31	VERTICAL	Peak

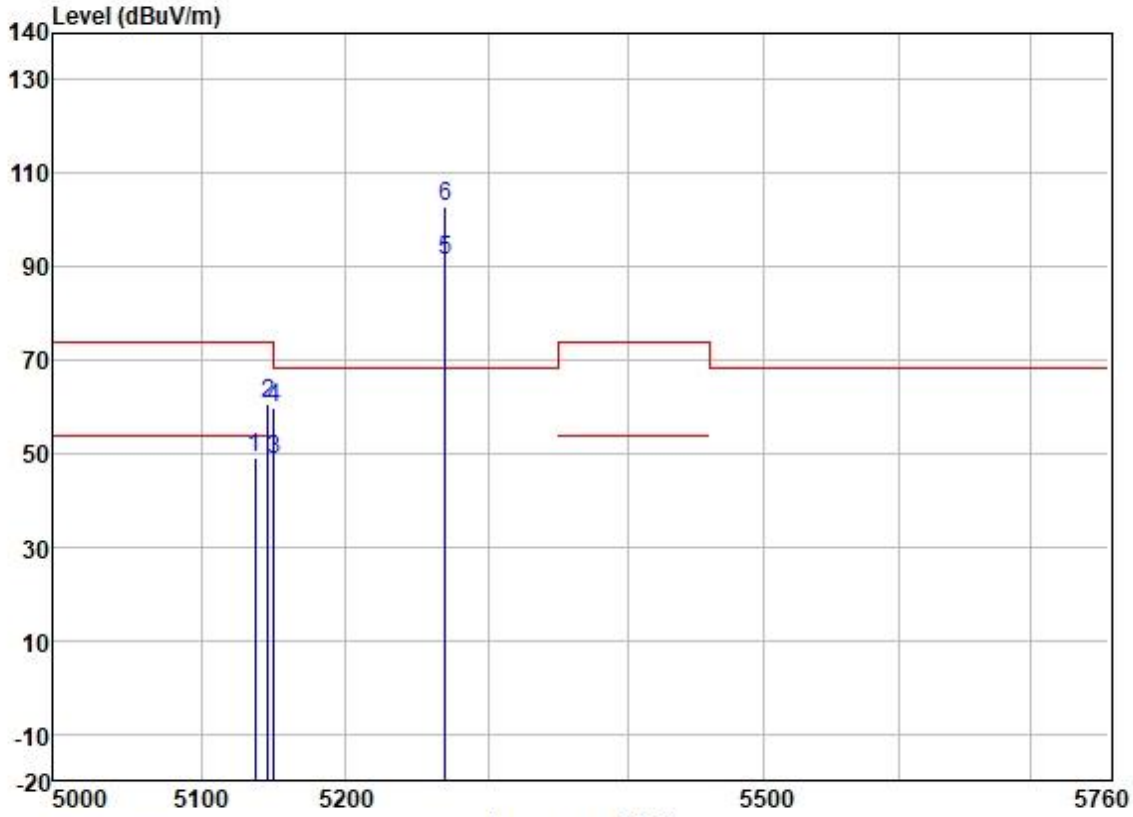
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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		5124.582	48.63	31.72	5.64	36.86	49.13	54.00	-4.87	HORIZONTAL	Average
2		5137.410	60.11	31.72	5.63	36.86	60.60	74.00	-13.40	HORIZONTAL	Peak
3		5149.980	47.94	31.72	5.62	36.86	48.42	54.00	-5.58	HORIZONTAL	Average
4		5149.980	58.83	31.72	5.62	36.86	59.31	74.00	-14.69	HORIZONTAL	Peak
5		5270.000	88.12	31.75	5.80	36.87	88.80	------	------	HORIZONTAL	Average
6	*	5270.000	99.12	31.75	5.80	36.87	99.80	68.20	31.60	HORIZONTAL	Peak

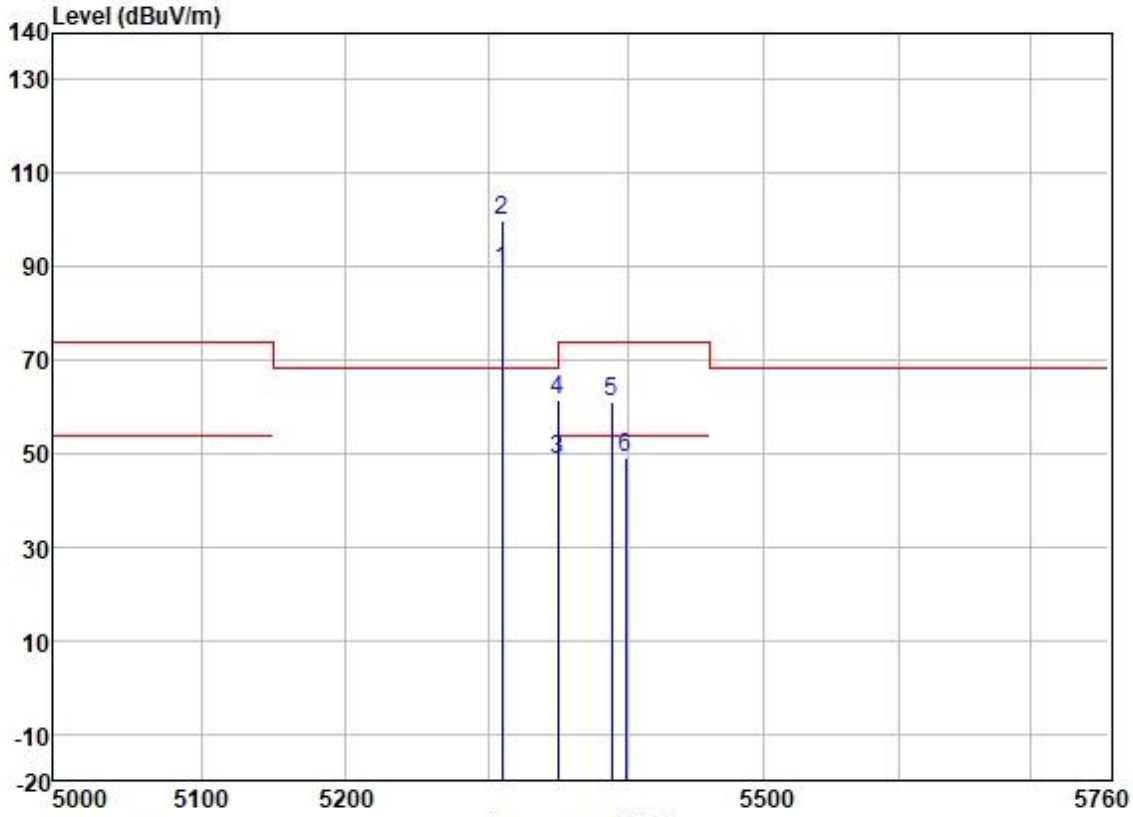
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5137.015	48.65	31.72	5.63	36.86	49.14	54.00	-4.86	VERTICAL	Average
2	5145.915	60.30	31.72	5.62	36.86	60.78	74.00	-13.22	VERTICAL	Peak
3	5149.980	48.23	31.72	5.62	36.86	48.71	54.00	-5.29	VERTICAL	Average
4	5149.980	59.37	31.72	5.62	36.86	59.85	74.00	-14.15	VERTICAL	Peak
5	5270.000	90.50	31.75	5.80	36.87	91.18	------	------	VERTICAL	Average
6 *	5270.000	102.08	31.75	5.80	36.87	102.76	68.20	34.56	VERTICAL	Peak

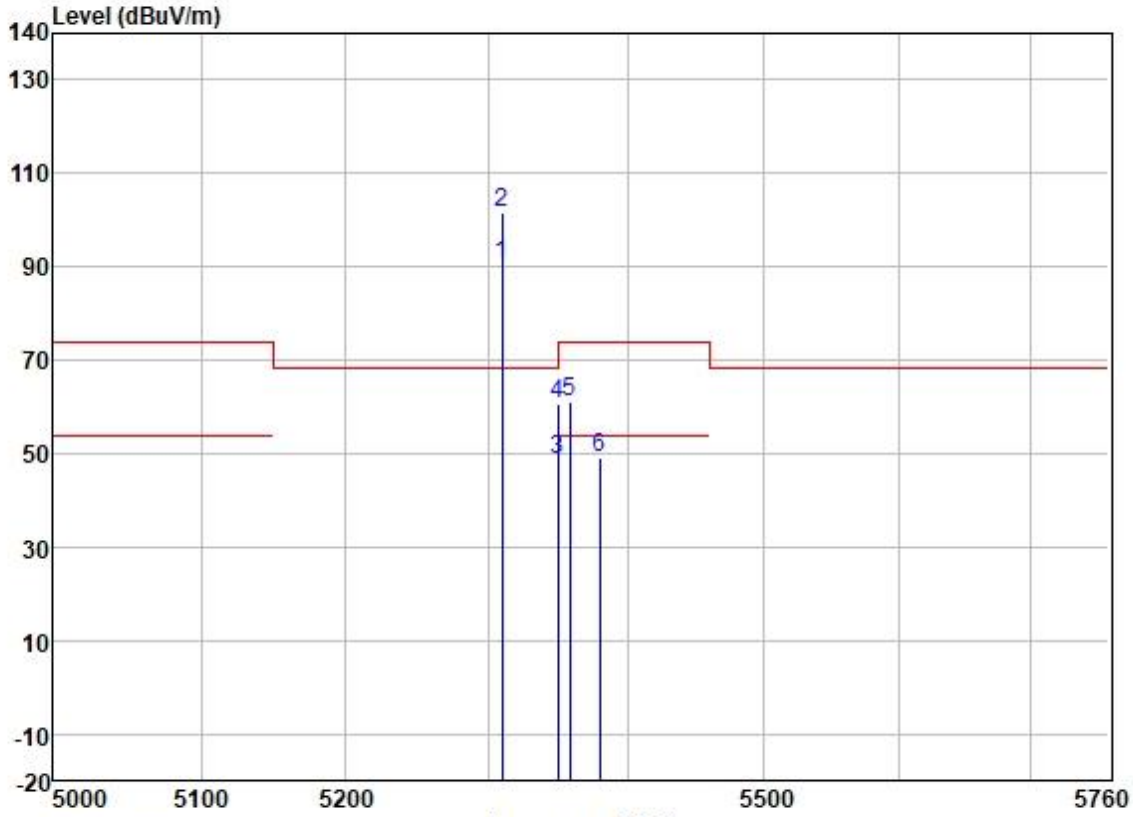
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	88.17	31.77	6.08	36.87	89.15	------	------	HORIZONTAL	Average
2	*	5310.000	99.08	31.77	6.08	36.87	100.06	68.20	31.86	HORIZONTAL	Peak
3		5350.020	47.92	31.77	6.05	36.88	48.86	54.00	-5.14	HORIZONTAL	Average
4		5350.020	60.69	31.77	6.05	36.88	61.63	74.00	-12.37	HORIZONTAL	Peak
5		5388.242	60.16	31.78	6.00	36.88	61.06	74.00	-12.94	HORIZONTAL	Peak
6		5398.301	48.37	31.78	6.00	36.88	49.27	54.00	-4.73	HORIZONTAL	Average

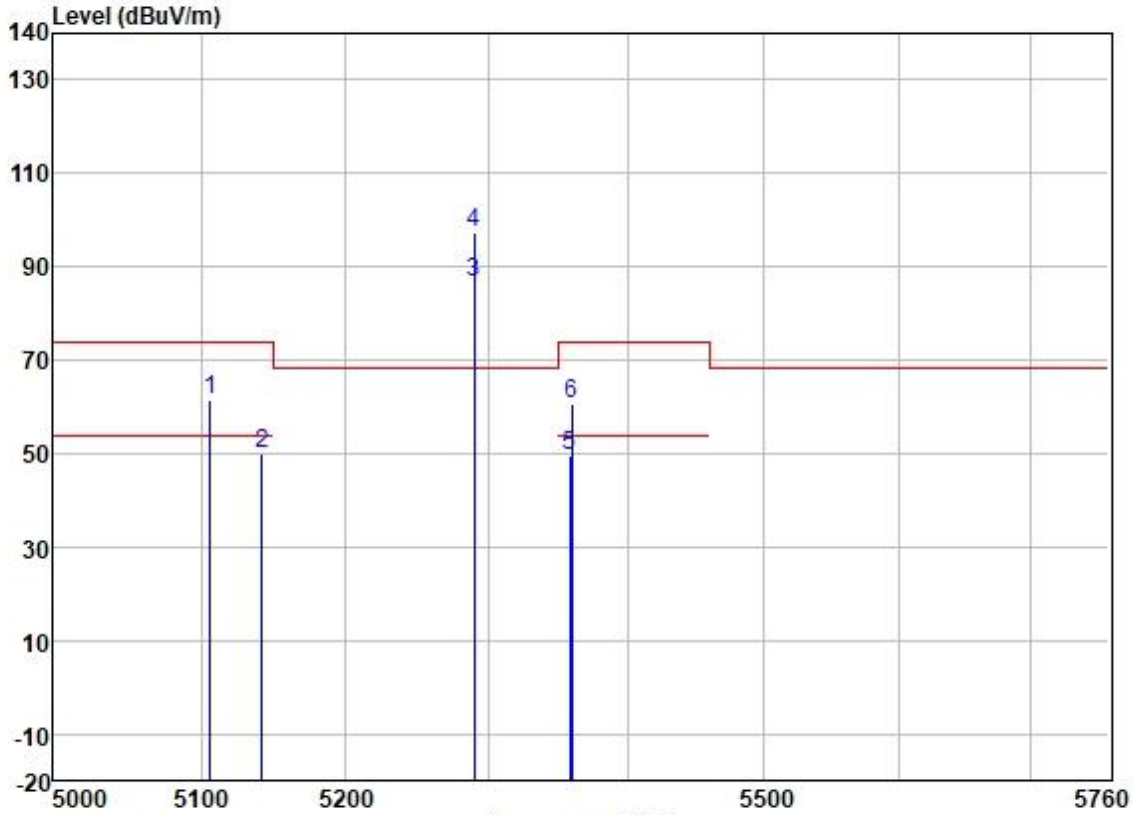
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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		5310.000	89.60	31.77	6.08	36.87	90.58	------	------	VERTICAL	Average
2	*	5310.000	100.56	31.77	6.08	36.87	101.54	68.20	33.34	VERTICAL	Peak
3		5350.020	47.83	31.77	6.05	36.88	48.77	54.00	-5.23	VERTICAL	Average
4		5350.020	59.54	31.77	6.05	36.88	60.48	74.00	-13.52	VERTICAL	Peak
5		5358.416	60.15	31.78	6.03	36.88	61.08	74.00	-12.92	VERTICAL	Peak
6		5379.530	48.36	31.78	6.02	36.88	49.28	54.00	-4.72	VERTICAL	Average

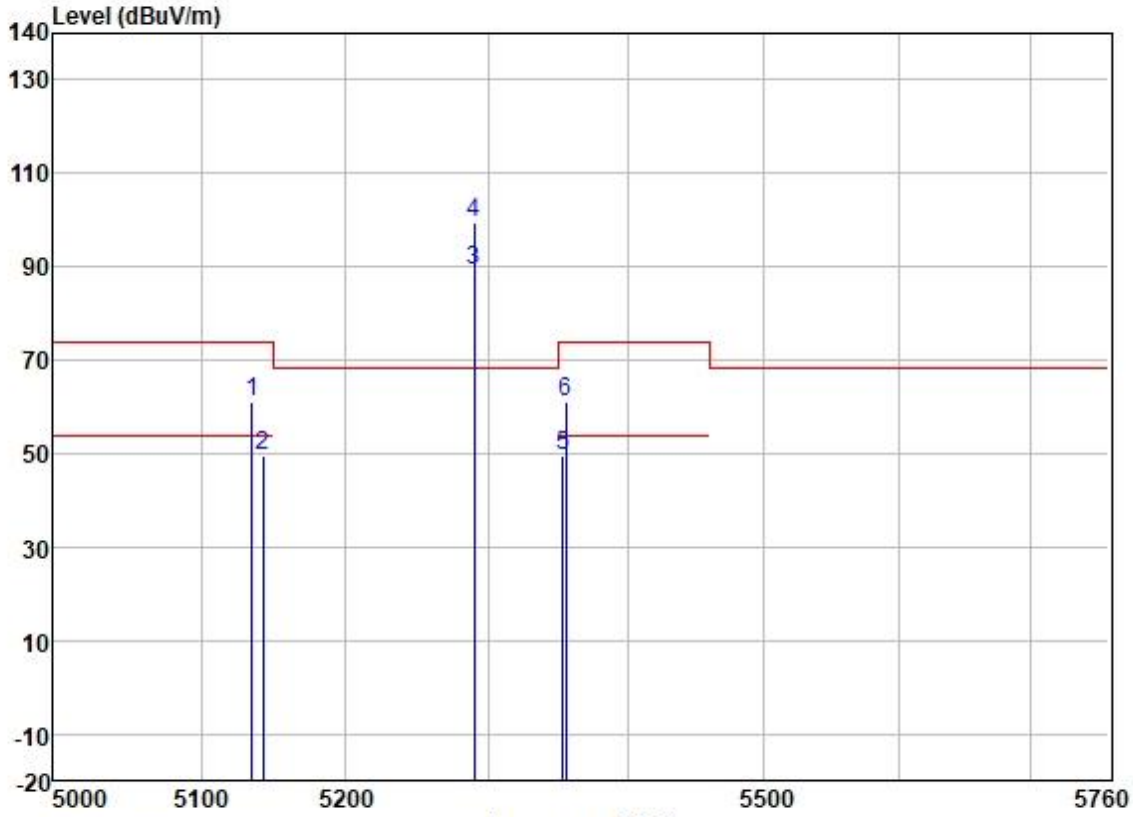
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5106.417	61.11	31.72	5.65	36.86	61.62	74.00	-12.38	HORIZONTAL	Peak
2		5141.563	49.39	31.72	5.63	36.86	49.88	54.00	-4.12	HORIZONTAL	Average
3		5290.000	85.94	31.76	6.00	36.87	86.83	------	------	HORIZONTAL	Average
4	*	5290.000	96.33	31.76	6.00	36.87	97.22	68.20	29.02	HORIZONTAL	Peak
5		5358.186	48.60	31.78	6.03	36.88	49.53	54.00	-4.47	HORIZONTAL	Average
6		5359.411	59.52	31.78	6.03	36.88	60.45	74.00	-13.55	HORIZONTAL	Peak

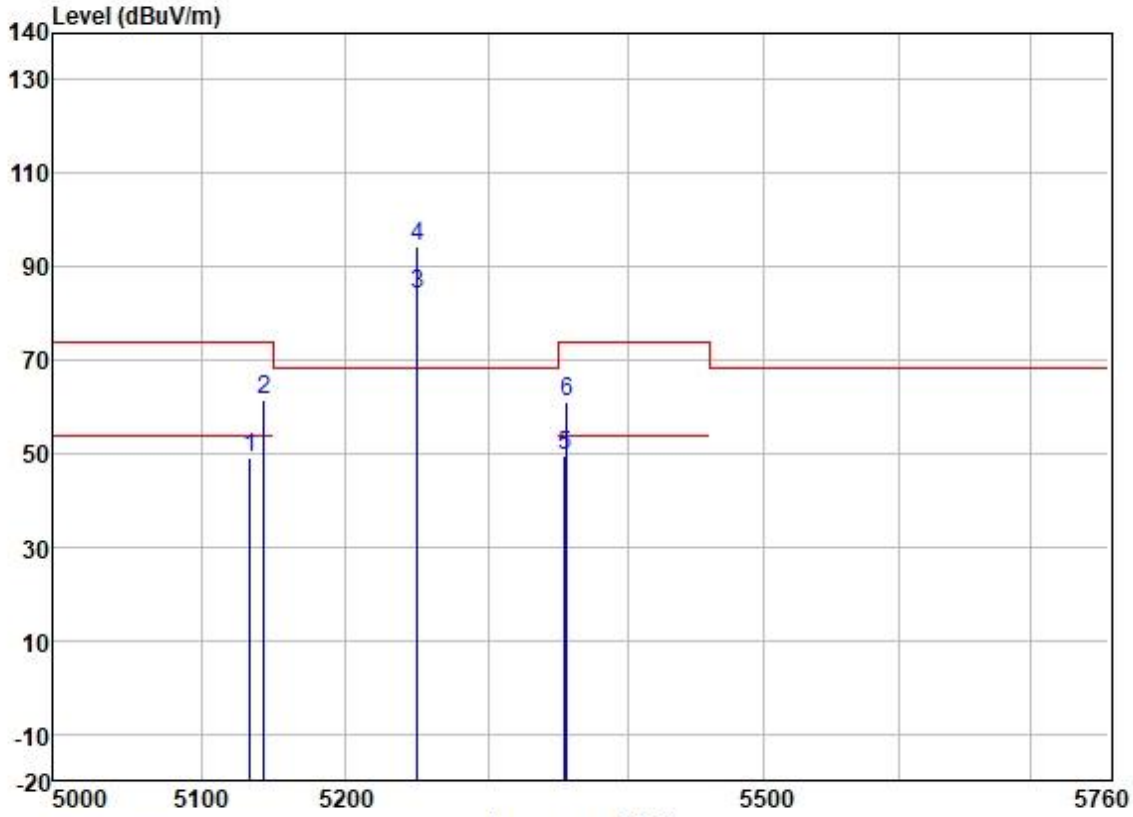
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5135.101	60.41	31.72	5.63	36.86	60.90	74.00	-13.10	VERTICAL	Peak
2		5142.444	49.02	31.72	5.62	36.86	49.50	54.00	-4.50	VERTICAL	Average
3		5290.000	88.36	31.76	6.00	36.87	89.25	------	------	VERTICAL	Average
4	*	5290.000	98.59	31.76	6.00	36.87	99.48	68.20	31.28	VERTICAL	Peak
5		5353.288	48.72	31.77	6.05	36.88	49.66	54.00	-4.34	VERTICAL	Average
6		5355.430	59.99	31.78	6.03	36.88	60.92	74.00	-13.08	VERTICAL	Peak

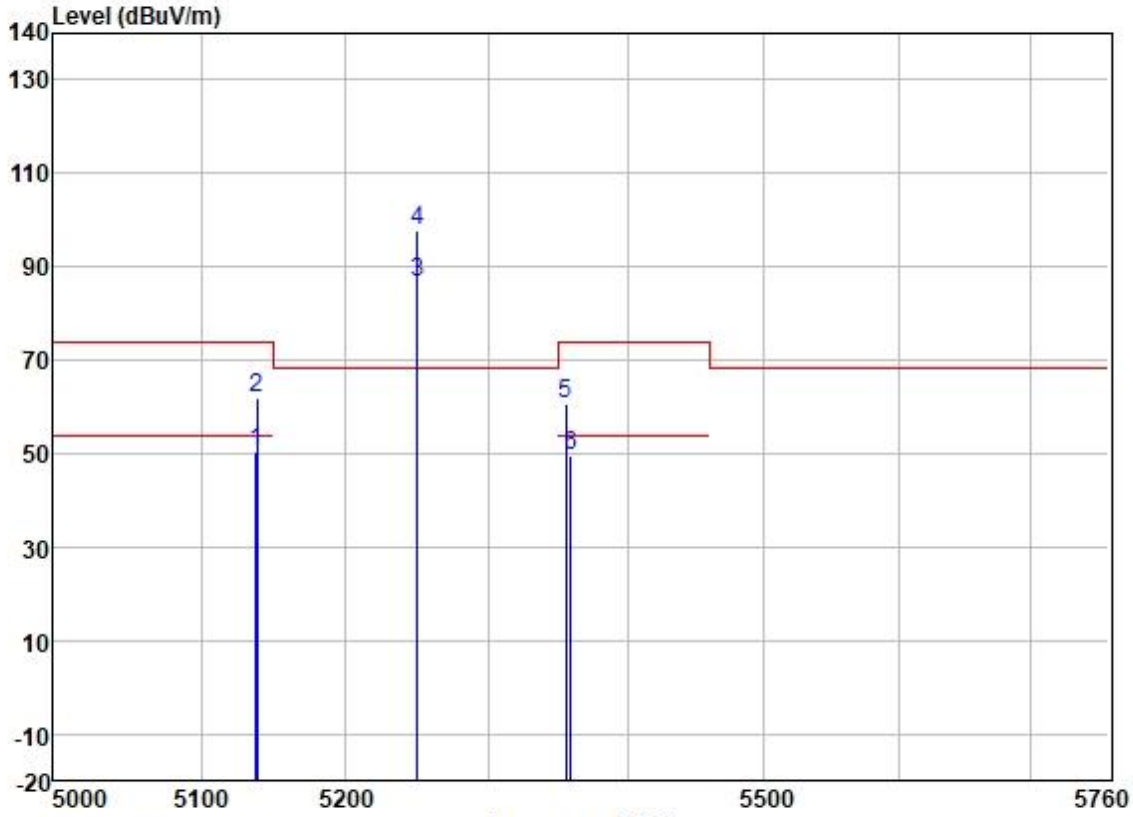
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:160MHz; Channel:middle



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		5133.329	48.45	31.72	5.63	36.86	48.94	54.00	-5.06	HORIZONTAL	Average
2		5143.037	60.92	31.72	5.62	36.86	61.40	74.00	-12.60	HORIZONTAL	Peak
3		5250.000	83.29	31.75	5.77	36.87	83.94	------	------	HORIZONTAL	Average
4	*	5250.000	93.79	31.75	5.77	36.87	94.44	68.20	26.24	HORIZONTAL	Peak
5		5354.938	48.55	31.78	6.03	36.88	49.48	54.00	-4.52	HORIZONTAL	Average
6		5356.537	59.94	31.78	6.03	36.88	60.87	74.00	-13.13	HORIZONTAL	Peak

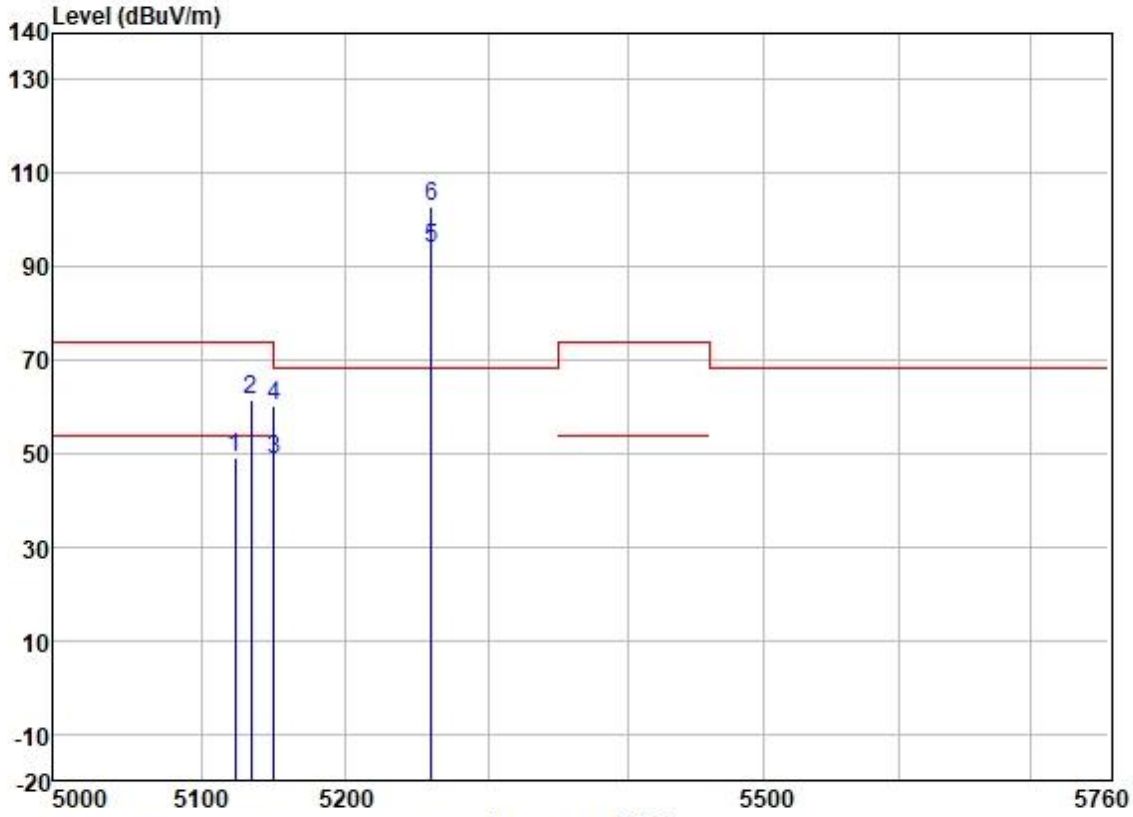
Test Mode: 23; Polarity: Vertical; Modulation:802.11ac; Bandwidth:160MHz; Channel:middle



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		5137.414	49.89	31.72	5.63	36.86	50.38	54.00	-3.62	VERTICAL	Average
2		5138.181	61.42	31.72	5.63	36.86	61.91	74.00	-12.09	VERTICAL	Peak
3		5250.000	85.88	31.75	5.77	36.87	86.53	------	------	VERTICAL	Average
4	*	5250.000	97.10	31.75	5.77	36.87	97.75	68.20	29.55	VERTICAL	Peak
5		5355.471	59.92	31.78	6.03	36.88	60.85	74.00	-13.15	VERTICAL	Peak
6		5358.934	48.55	31.78	6.03	36.88	49.48	54.00	-4.52	VERTICAL	Average

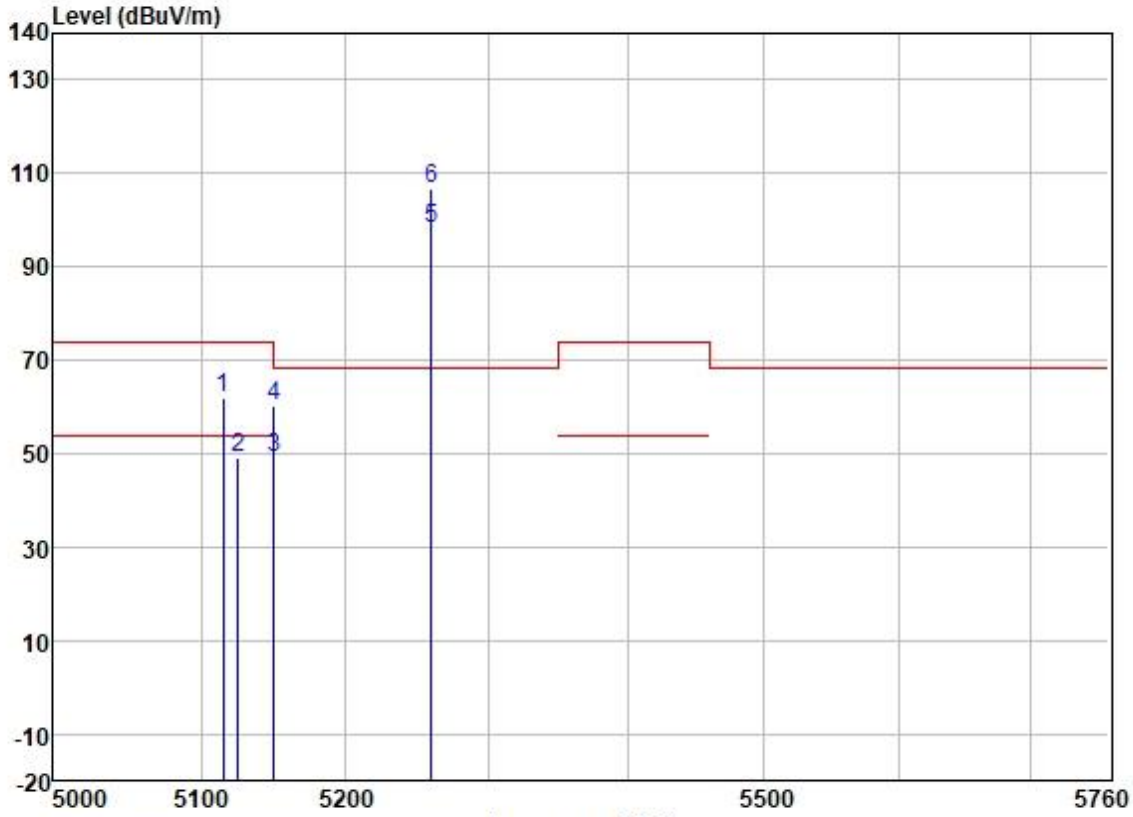
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:20MHz; Channel:Low



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	5123.048	48.67	31.72	5.64	36.86	49.17	54.00	-4.83	HORIZONTAL	Average
2	5134.078	61.07	31.72	5.63	36.86	61.56	74.00	-12.44	HORIZONTAL	Peak
3	5149.980	48.34	31.72	5.62	36.86	48.82	54.00	-5.18	HORIZONTAL	Average
4	5149.980	59.71	31.72	5.62	36.86	60.19	74.00	-13.81	HORIZONTAL	Peak
5	5260.000	93.48	31.75	5.77	36.87	94.13	------	------	HORIZONTAL	Average
6 *	5260.000	102.14	31.75	5.77	36.87	102.79	68.20	34.59	HORIZONTAL	Peak

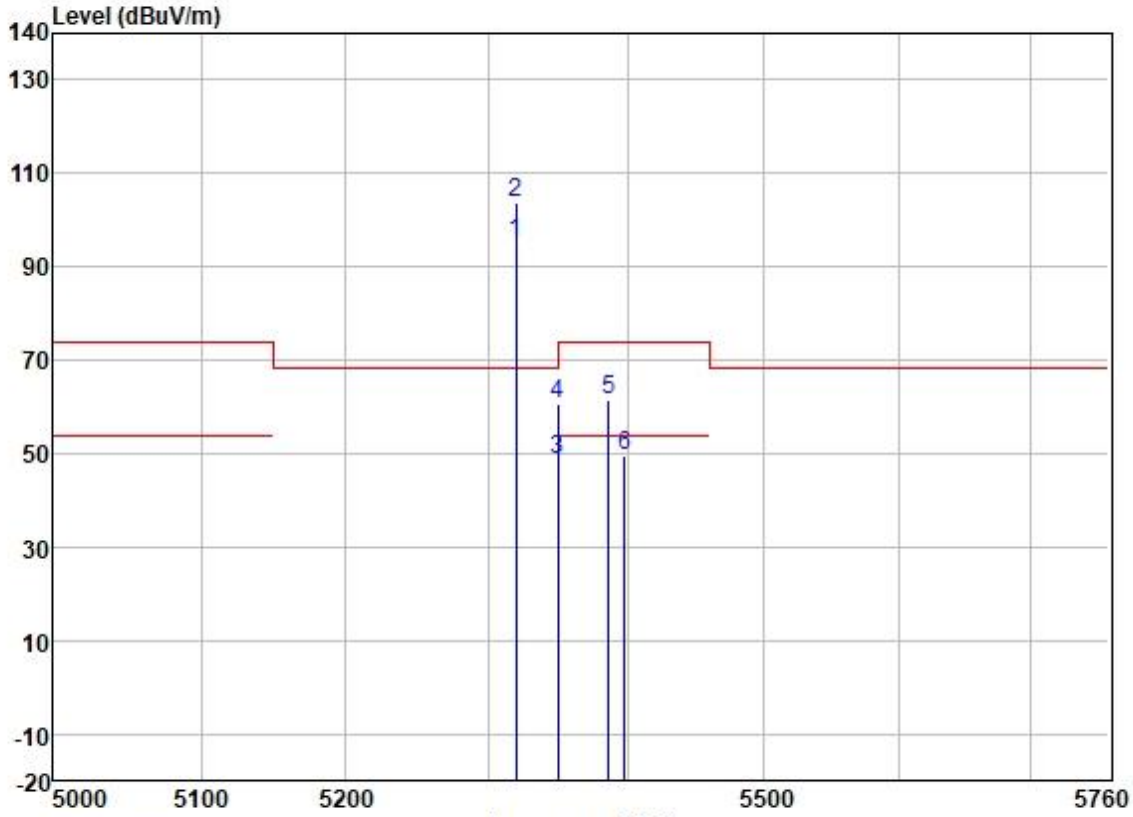
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5115.059	61.31	31.72	5.64	36.86	61.81	74.00	-12.19	VERTICAL	Peak
2	5125.003	48.76	31.72	5.64	36.86	49.26	54.00	-4.74	VERTICAL	Average
3	5149.980	48.56	31.72	5.62	36.86	49.04	54.00	-4.96	VERTICAL	Average
4	5149.980	59.56	31.72	5.62	36.86	60.04	74.00	-13.96	VERTICAL	Peak
5	5260.000	97.38	31.75	5.77	36.87	98.03	------	------	VERTICAL	Average
6 *	5260.000	105.98	31.75	5.77	36.87	106.63	68.20	38.43	VERTICAL	Peak

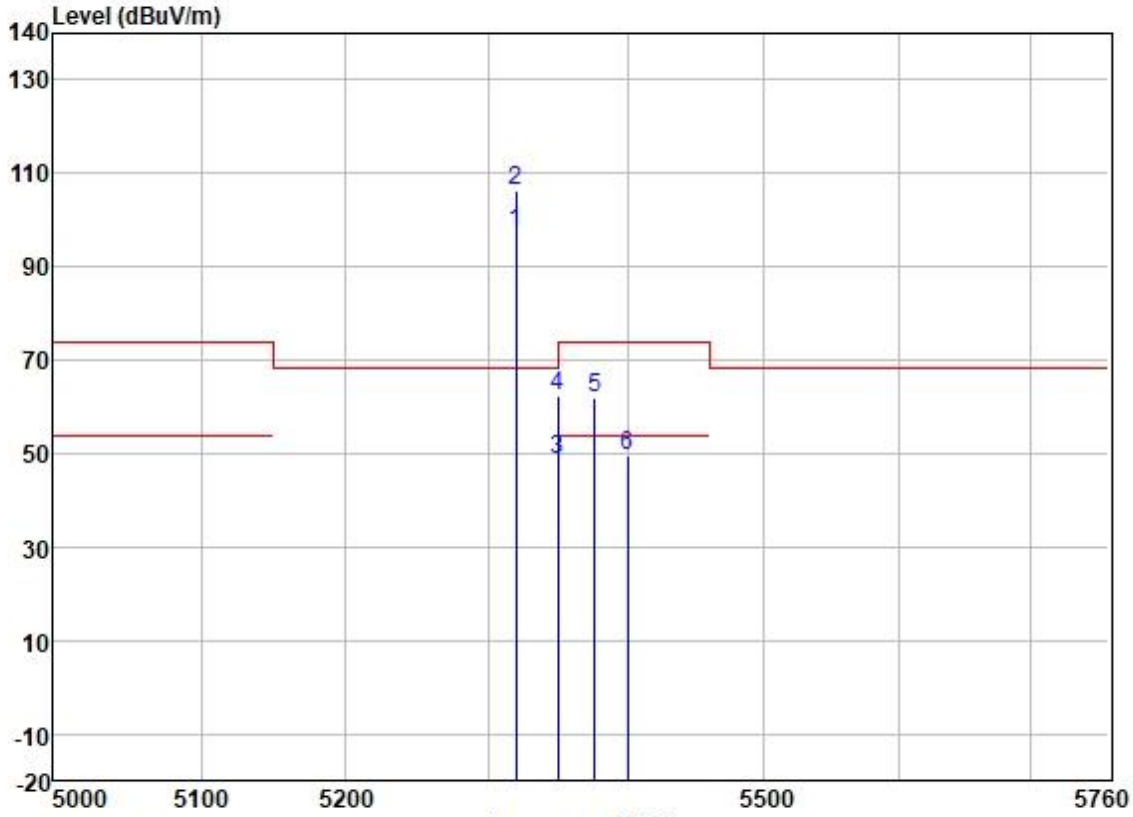
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:20MHz; Channel:High



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		5320.000	94.21	31.77	6.08	36.88	95.18	------	------	HORIZONTAL	Average
2	*	5320.000	102.79	31.77	6.08	36.88	103.76	68.20	35.56	HORIZONTAL	Peak
3		5350.020	47.84	31.77	6.05	36.88	48.78	54.00	-5.22	HORIZONTAL	Average
4		5350.020	59.58	31.77	6.05	36.88	60.52	74.00	-13.48	HORIZONTAL	Peak
5		5386.592	60.49	31.78	6.00	36.88	61.39	74.00	-12.61	HORIZONTAL	Peak
6		5397.780	48.78	31.78	6.00	36.88	49.68	54.00	-4.32	HORIZONTAL	Average

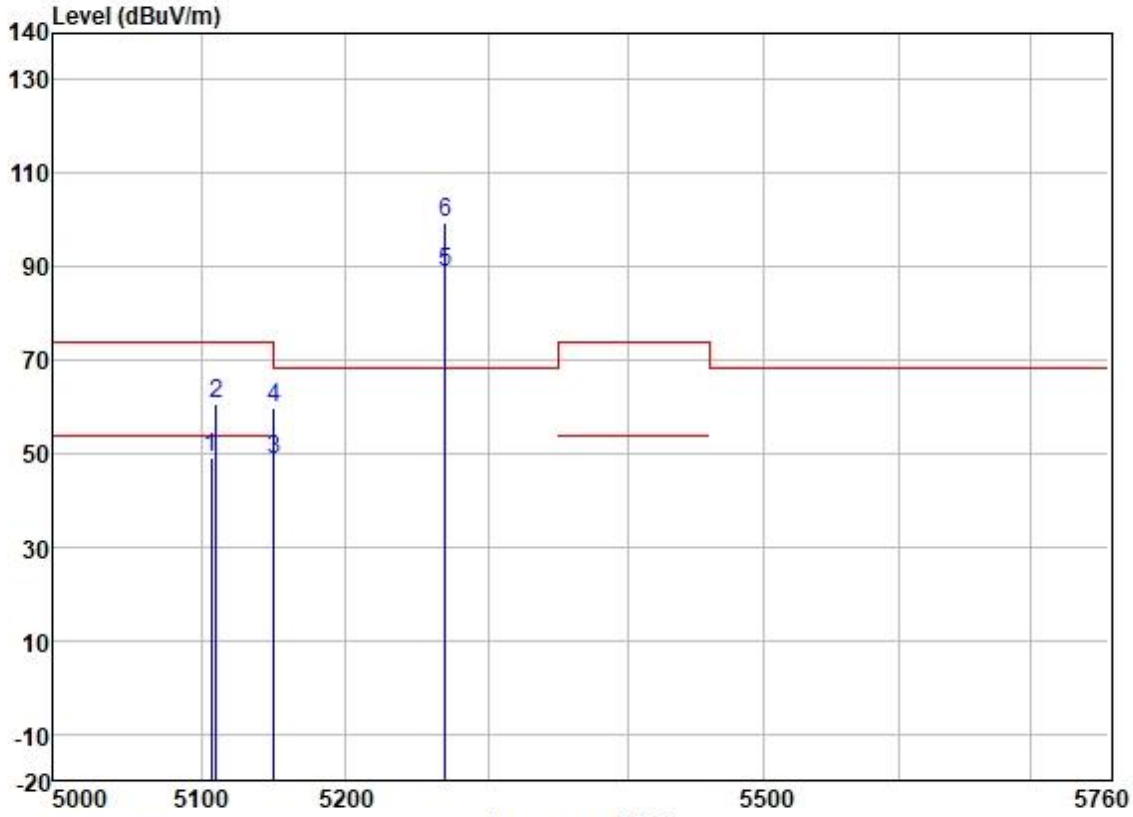
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax; Bandwidth:20MHz; Channel:High



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		5320.000	96.47	31.77	6.08	36.88	97.44	------	------	VERTICAL	Average
2	*	5320.000	105.37	31.77	6.08	36.88	106.34	68.20	38.14	VERTICAL	Peak
3		5350.020	47.85	31.77	6.05	36.88	48.79	54.00	-5.21	VERTICAL	Average
4		5350.020	61.31	31.77	6.05	36.88	62.25	74.00	-11.75	VERTICAL	Peak
5		5376.131	61.14	31.78	6.02	36.88	62.06	74.00	-11.94	VERTICAL	Peak
6		5399.697	48.53	31.78	6.00	36.88	49.43	54.00	-4.57	VERTICAL	Average

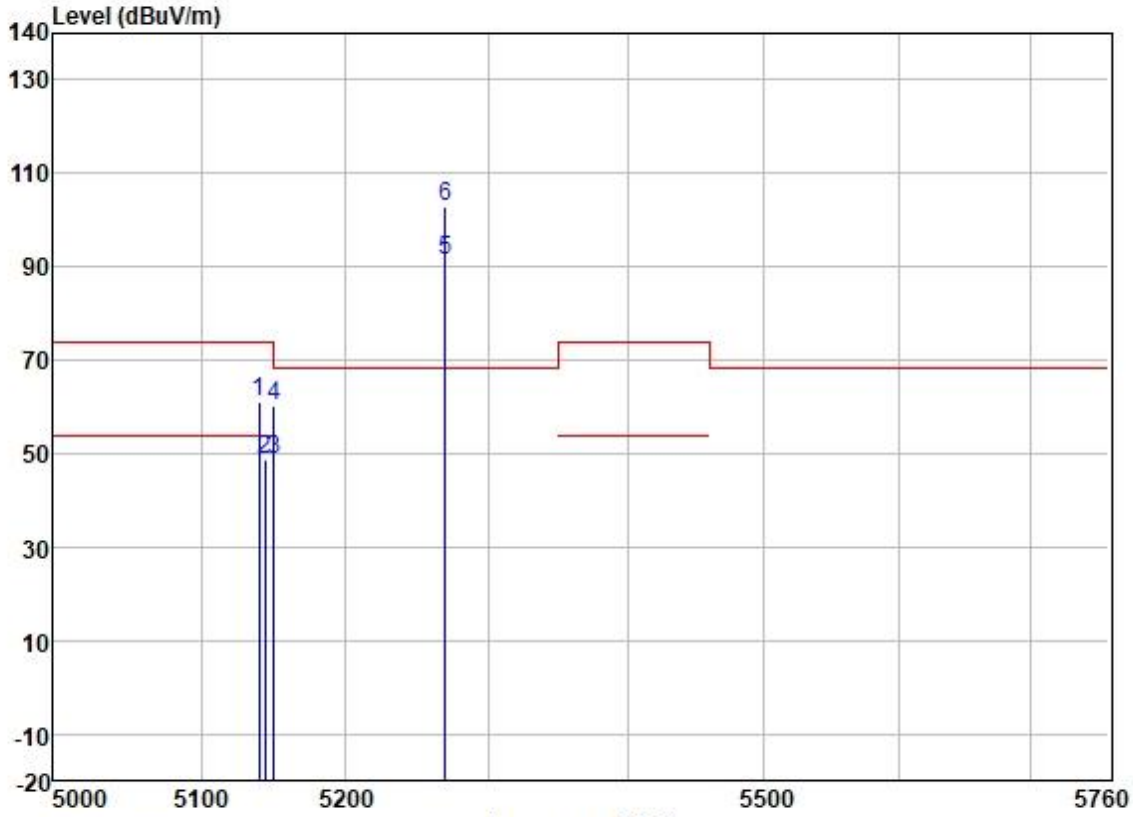
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:40MHz; Channel:Low



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		5106.871	48.47	31.72	5.65	36.86	48.98	54.00	-5.02	HORIZONTAL	Average
2		5110.604	60.29	31.72	5.65	36.86	60.80	74.00	-13.20	HORIZONTAL	Peak
3		5149.980	48.00	31.72	5.62	36.86	48.48	54.00	-5.52	HORIZONTAL	Average
4		5149.980	59.26	31.72	5.62	36.86	59.74	74.00	-14.26	HORIZONTAL	Peak
5		5270.000	87.95	31.75	5.80	36.87	88.63	------	------	HORIZONTAL	Average
6	*	5270.000	98.80	31.75	5.80	36.87	99.48	68.20	31.28	HORIZONTAL	Peak

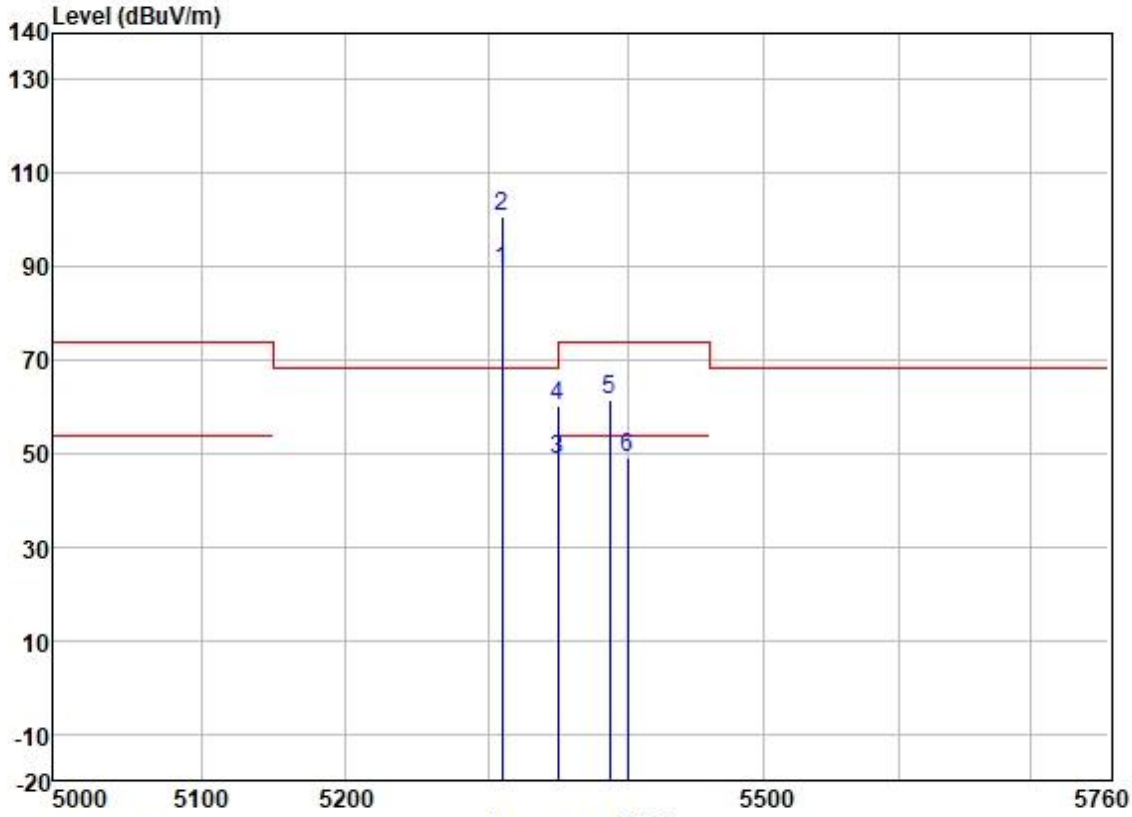
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax; Bandwidth:40MHz; Channel:Low



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		5139.584	60.50	31.72	5.63	36.86	60.99	74.00	-13.01	VERTICAL	Peak
2		5144.134	48.42	31.72	5.62	36.86	48.90	54.00	-5.10	VERTICAL	Average
3		5149.980	48.05	31.72	5.62	36.86	48.53	54.00	-5.47	VERTICAL	Average
4		5149.980	59.59	31.72	5.62	36.86	60.07	74.00	-13.93	VERTICAL	Peak
5		5270.000	90.49	31.75	5.80	36.87	91.17	------	------	VERTICAL	Average
6	*	5270.000	102.03	31.75	5.80	36.87	102.71	68.20	34.51	VERTICAL	Peak

Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5310.000	88.40	31.77	6.08	36.87	89.38	------	------	HORIZONTAL	Average
2 *	5310.000	99.79	31.77	6.08	36.87	100.77	68.20	32.57	HORIZONTAL	Peak
3	5350.020	47.93	31.77	6.05	36.88	48.87	54.00	-5.13	HORIZONTAL	Average
4	5350.020	59.33	31.77	6.05	36.88	60.27	74.00	-13.73	HORIZONTAL	Peak
5	5386.910	60.52	31.78	6.00	36.88	61.42	74.00	-12.58	HORIZONTAL	Peak
6	5399.757	48.34	31.78	6.00	36.88	49.24	54.00	-4.76	HORIZONTAL	Average