TEST REPORT

Application No.:	GZCR2203000258AT
Applicant:	IVATIV, Inc
Address of Applicant:	6141 Running Springs Rd, San Jose, CA 95135, USA
Manufacturer:	IVATIV, Inc
Address of Manufacturer:	6141 Running Springs Rd, San Jose, CA 95135, USA
Factory:	IVATIV, Inc
Address of Factory:	6141 Running Springs Rd, San Jose, CA 95135, USA
Equipment Under Test (EUT):	
EUT Name:	BALI series Wi-Fi 11abgn/ac + BT 5.0 module
Model No.:	I950HCR0, I951HCR0, I952HCR0, I950HC00, I951HC00, I952HC00 ♣
♣	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2022-01-22
Date of Test:	2022-03-02 to 2022-05-09
Date of Issue:	2022-05-20
Test Result:	**Pass***

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

Ricky Liu
Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2022-05-20*		*Original*

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

2 Test Summary

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

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	Pass
Duty Cycle		ANSI C63.10 (2013) Section 12.2	KDB 789033 D02 v02r01 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart C 15.407 (e)	Pass
Conducted Peak Output Power		KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Maximum Power Spectral Density		KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Radiated Emissions (below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Radiated Emissions (above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass

Note:

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

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

Declaration of EUT Family Grouping:

Model No.: I950HCR0, I951HCR0, I950HC00, I951HC00 and I952HC00

Only the Model No: I952HCR0 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components that affect RF and internal wiring and functions are identical for all the above models. only different on:

I950HCR0 (BALI): Supports SDIO interface instead of USB

I951HCR0 (BALI): Supports PCI interface instead of USB

I950HC00 (EVIA): Supports SDIO interface instead of USB and doesn't support BT

I951HC00 (EVIA): Supports PCI interface instead of USB and doesn't support BT

I952HC00 (EVIA): Doesn't support BT

In EVIA variant BT is not supported by software.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3.3V
Operation Frequency (20MHz):	U-NII-1: 5180-5240MHz; U-NII-2A: 5260-5320MHz; U-NII-2C: 5500-5700MHz; U-NII-3: 5745-5825MHz
Operation Frequency (40MHz):	U-NII-1: 5190-5230MHz; U-NII-2A: 5270-5310MHz; U-NII-2C: 5510-5670MHz; U-NII-3: 5755-5795MHz
Operation Frequency (80MHz):	U-NII-1: 5210MHz; U-NII-2A: 5290MHz; U-NII-2C: 5530-5610MHz; U-NII-3: 5775MHz
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n(HT20)/ac(HT20): 20MHz; 802.11n(HT40)/ac(HT40): 40MHz; 802.11ac(HT80): 80MHz
DFS Function:	Slave without Radar detection
TPC Function:	Without TPC function
Antenna Type:	Dipole Antenna
Antenna Gain:	ANT1: 3.0dBi; ANT2: 3.0dBi

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1443	REF. No.SEA05D11D
Test Motherboard	Provided by client	/	/
USB Cable	SGS	/	/

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	±2.76dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Conducted Peak Output Power	± 0.75dB
Maximum Power Spectral Density	± 2.84dB
Radiated Emissions (below 1GHz)	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m)
Radiated Emissions which fall in the restricted bands	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m);± 4.52dB (1GHz-6GHz);± 4.54dB (above 6GHz)
Frequency Stability	± 7.25 x 10-8
Radiated Emissions (above 1GHz)	± 4.52dB (1GHz-6GHz);± 4.54dB (above 6GHz)

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.

- **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	2021-12-23	2022-12-22
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2021-09-24	2022-09-23
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A
EMI Test Receiver(9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2021-06-01	2022-05-31

Duty Cycle					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

99% Bandwidth					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11

Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

26dB Emission bandwidth					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Minimum 6 dB bandwidth (5.725-5.85 GHz band)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11

Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Conducted Peak Output Power

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Maximum Power Spectral Density

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11

Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Emissions (below 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)-Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
EMI Test Receiver(1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2021-05-26	2022-05-25

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2021-11-01	2022-10-31
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-08-30	2022-08-29

Frequency Stability

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-15	2021-09-23	2022-09-22
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

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	2022-03-02	2023-03-01
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	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

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	2022-03-02	2023-03-01
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	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

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	2022-03-02	2023-03-01
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	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Emissions (above 1GHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-02	2023-03-01
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	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
				2022-04-13	2023-04-12
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

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:

EUT has an antenna pin that is connected to a unique antenna connector on the test board. Antenna reference design will be provided to the end user who uses this module.

The best case gain of the Antenna 1: 3.0dBi; Antenna 2: 3.0dBi.

Antenna location: Refer to external photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

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:

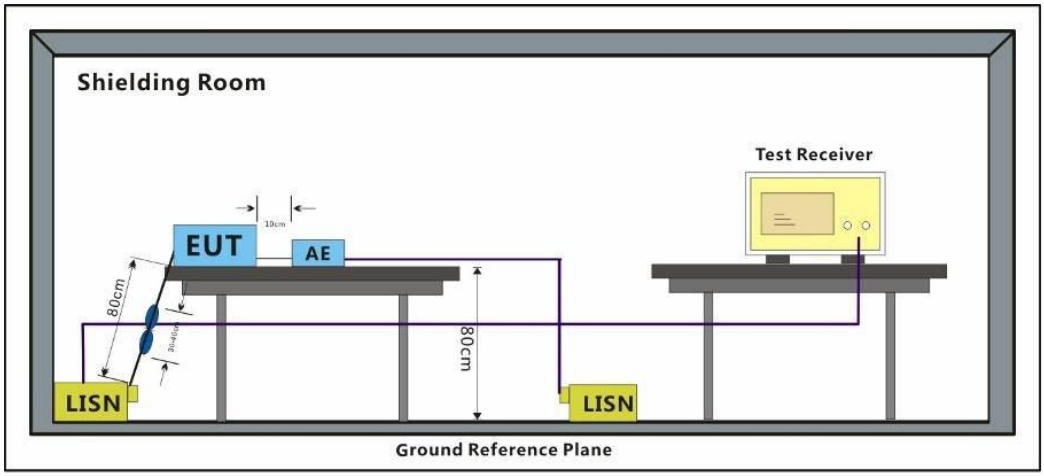
Temperature: 21.5 °C Humidity: 50.6 % RH Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested

and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

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

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

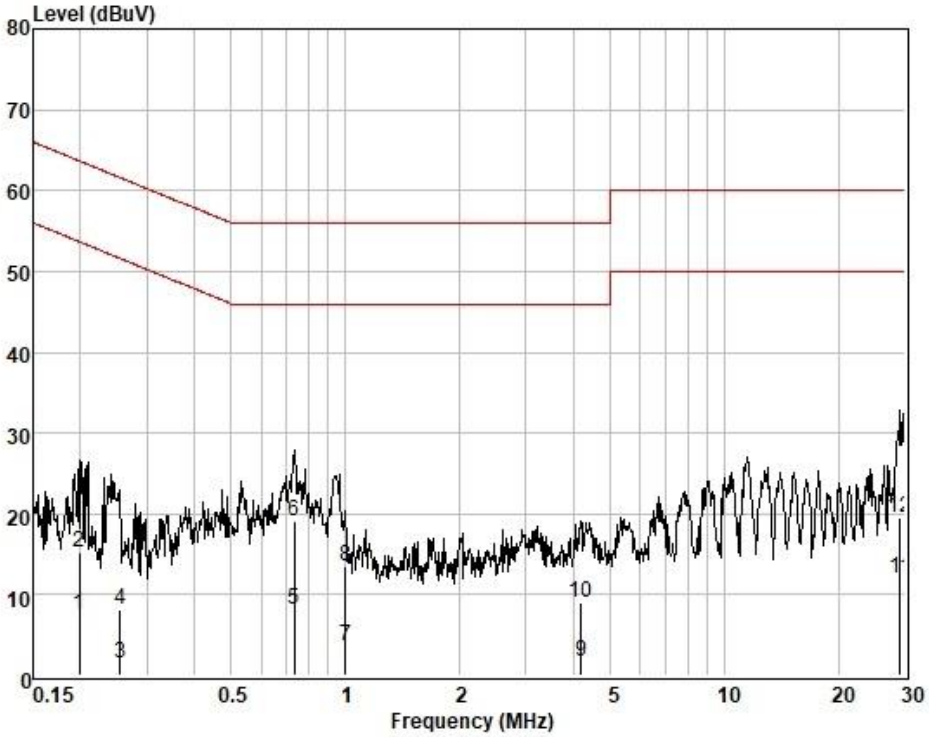
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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

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

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

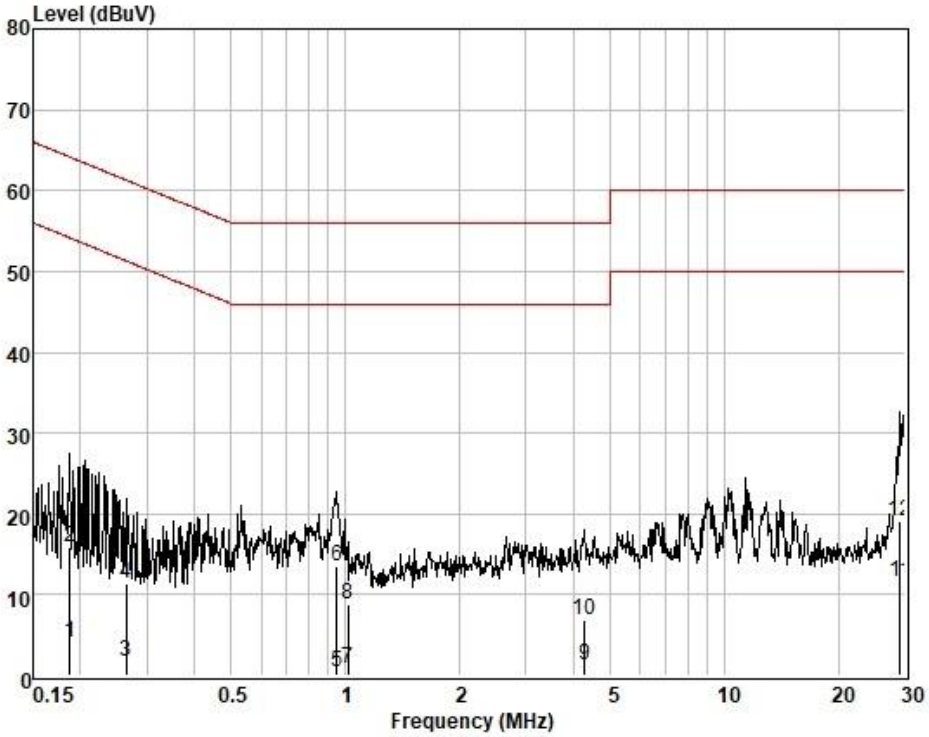
Test Mode: 04; Polarity: Neutral; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: NEUTRAL
Mode :
Model :

	Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.199	-2.07	0.06	9.55	7.54	53.67	-46.13	Average
2	0.199	5.55	0.06	9.55	15.16	63.67	-48.51	QP
3	0.255	-8.20	0.06	9.56	1.42	51.60	-50.18	Average
4	0.255	-1.45	0.06	9.56	8.17	61.60	-53.43	QP
5	0.735	-1.57	0.07	9.59	8.09	46.00	-37.91	Average
6	0.735	9.38	0.07	9.59	19.04	56.00	-36.96	QP
7	1.000	-6.11	0.07	9.59	3.55	46.00	-42.45	Average
8	1.000	3.76	0.07	9.59	13.42	56.00	-42.58	QP
9	4.202	-8.11	0.17	9.64	1.70	46.00	-44.30	Average
10	4.202	-0.83	0.17	9.64	8.98	56.00	-47.02	QP
11	29.216	1.59	0.44	9.91	11.94	50.00	-38.06	Average
12	29.216	9.20	0.44	9.91	19.55	60.00	-40.45	QP

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



Condition: LINE
Mode :
Model :

	Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.187	-5.56	0.06	9.56	4.06	54.15	-50.09	Average
2	0.187	6.20	0.06	9.56	15.82	64.15	-48.33	QP
3	0.264	-7.87	0.06	9.57	1.76	51.29	-49.53	Average
4	0.264	1.75	0.06	9.57	11.38	61.29	-49.91	QP
5	0.948	-9.16	0.07	9.60	0.51	46.00	-45.49	Average
6	0.948	3.81	0.07	9.60	13.48	56.00	-42.52	QP
7	1.016	-8.85	0.07	9.60	0.82	46.00	-45.18	Average
8	1.016	-0.86	0.07	9.60	8.81	56.00	-47.19	QP
9	4.292	-8.56	0.17	9.65	1.26	46.00	-44.74	Average
10	4.292	-2.91	0.17	9.65	6.91	56.00	-49.09	QP
11	29.216	1.47	0.44	9.75	11.66	50.00	-38.34	Average
12	29.216	8.89	0.44	9.75	19.08	60.00	-40.92	QP

7.2 Duty Cycle

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

7.2.1 E.U.T. Operation

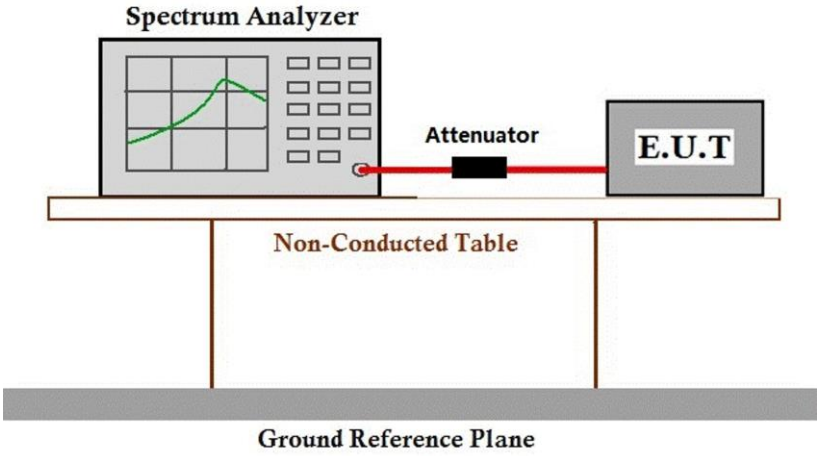
Operating Environment:

Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.3 99% Bandwidth

Test Requirement N/A

Test Method: KDB 789033 II D

7.3.1 E.U.T. Operation

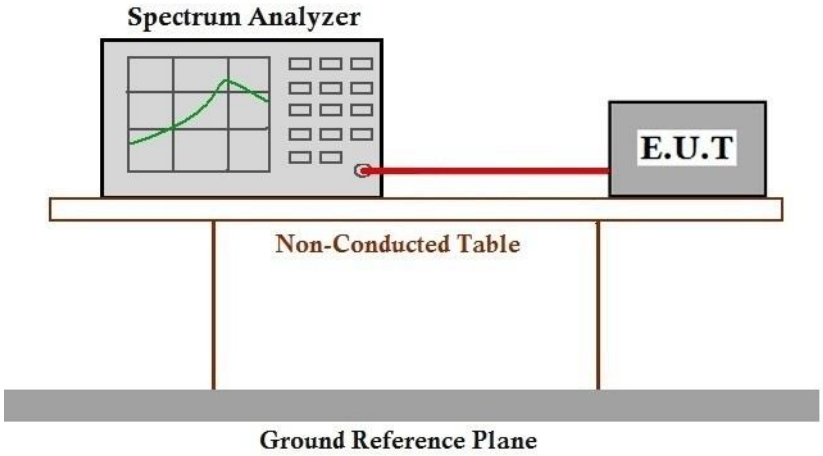
Operating Environment:

Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.4 26dB Emission bandwidth

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

Test Method: KDB 789033 D02 II C 1

7.4.1 E.U.T. Operation

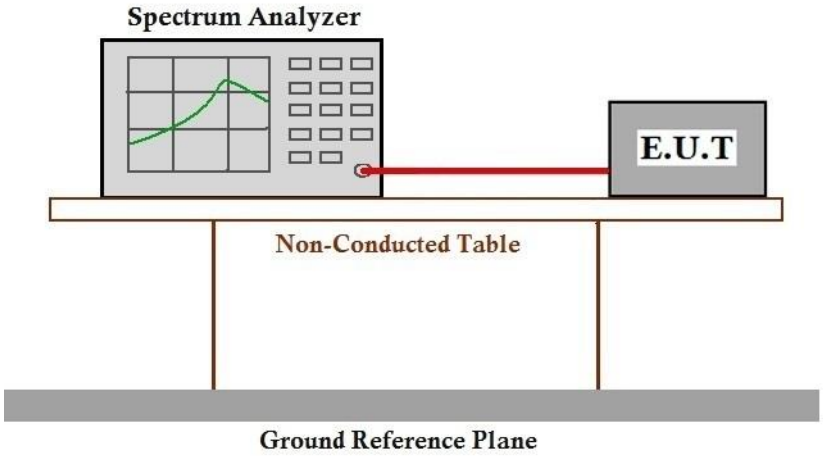
Operating Environment:

Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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

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

Test Method: KDB 789033 D02 II C 2

Limit:

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

7.5.1 E.U.T. Operation

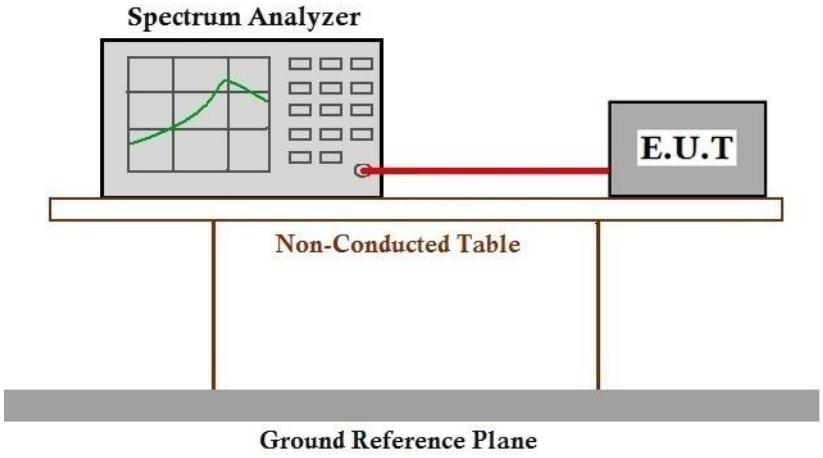
Operating Environment:

Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.6 Conducted Peak 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 Conducted Peak Output Power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.	

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

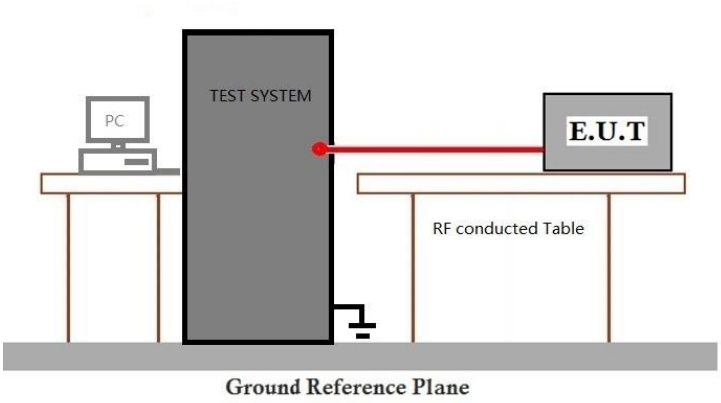
7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

Final test	07

TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Maximum Power Spectral Density

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

Test Method: KDB 789033 D02 II F

Limit:

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

7.7.1 E.U.T. Operation

Operating Environment:

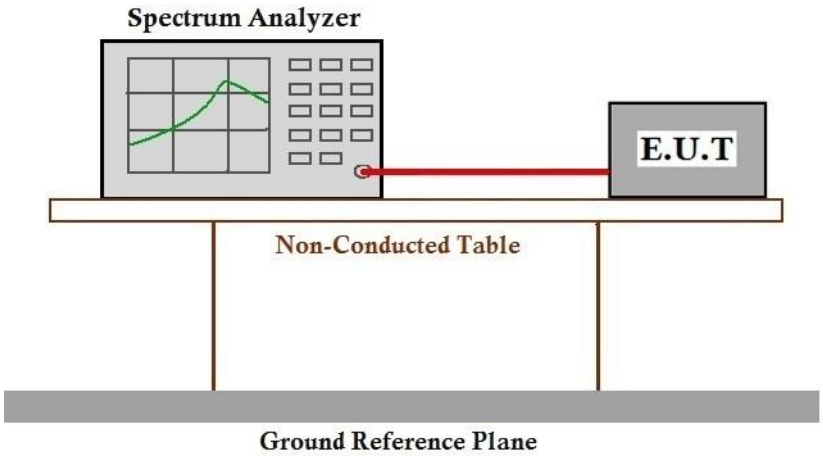
Temperature: 20.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested

and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.8 Radiated Emissions which fall in the restricted bands

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

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

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

* Frequency in CFR 15.205 Restricted Band.

Note: Frequency in non-Restricted Band:

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

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

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

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

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

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

7.8.1 E.U.T. Operation

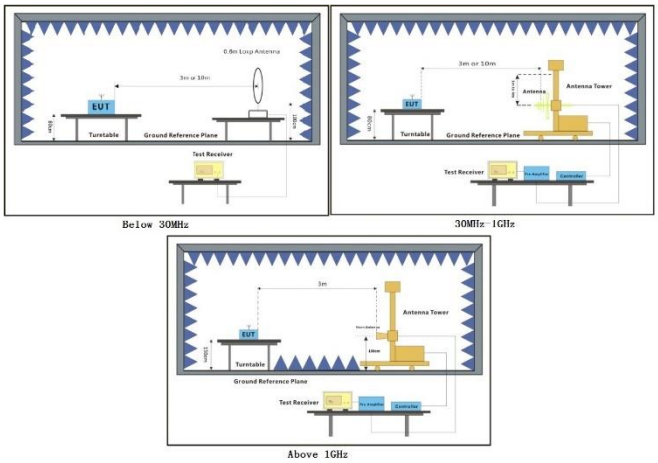
Operating Environment:

Temperature: 20.8 °C Humidity: 50.4 % RH Atmospheric Pressure: 1020 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

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

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

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

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

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

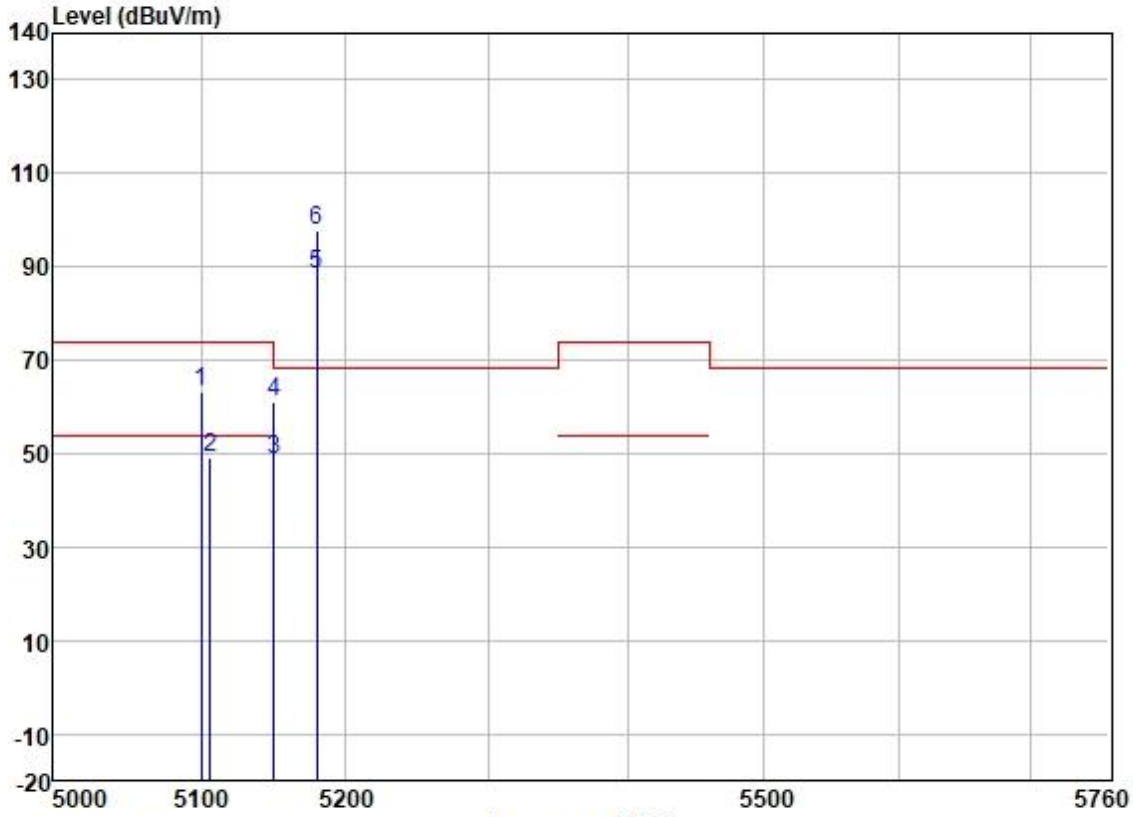
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

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

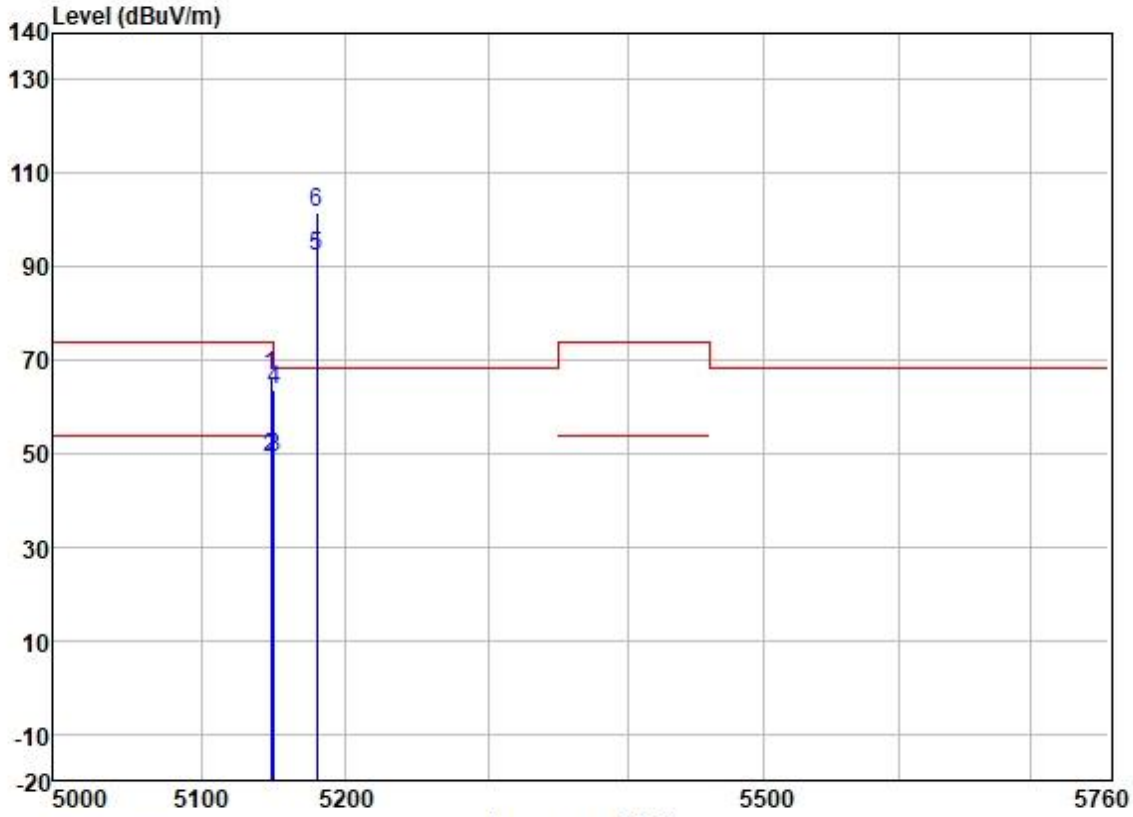
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5100.396	62.75	31.72	5.65	36.86	63.26	74.00	-10.74	HORIZONTAL	Peak
2	5106.243	48.66	31.72	5.65	36.86	49.17	54.00	-4.83	HORIZONTAL	Average
3	5149.980	48.40	31.72	5.62	36.86	48.88	54.00	-5.12	HORIZONTAL	Average
4	5149.980	60.62	31.72	5.62	36.86	61.10	74.00	-12.90	HORIZONTAL	Peak
5	5180.000	88.05	31.73	5.61	36.87	88.52	------	------	HORIZONTAL	Average
6 *	5180.000	97.41	31.73	5.61	36.87	97.88	68.20	29.68	HORIZONTAL	Peak

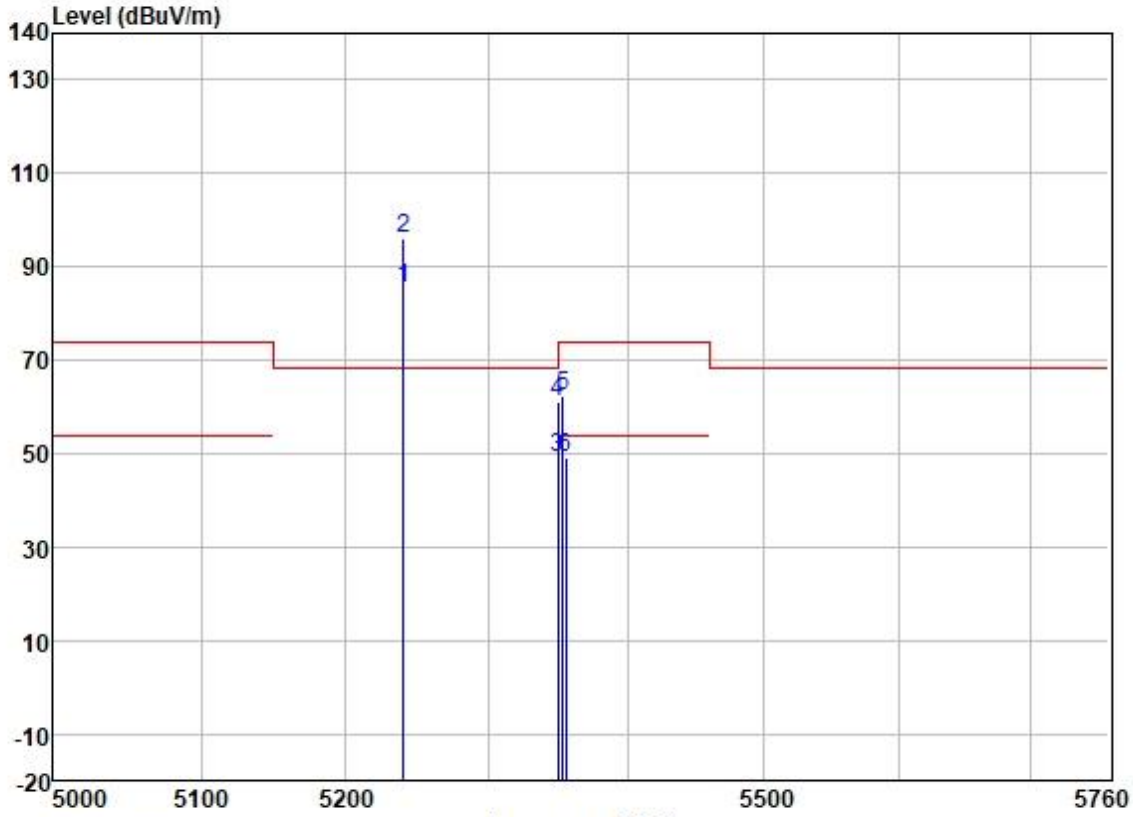
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5147.758	66.30	31.72	5.62	36.86	66.78	74.00	-7.22	VERTICAL	Peak
2	5148.158	48.77	31.72	5.62	36.86	49.25	54.00	-4.75	VERTICAL	Average
3	5149.980	48.62	31.72	5.62	36.86	49.10	54.00	-4.90	VERTICAL	Average
4	5149.980	63.28	31.72	5.62	36.86	63.76	74.00	-10.24	VERTICAL	Peak
5	5180.000	91.79	31.73	5.61	36.87	92.26	------	------	VERTICAL	Average
6 *	5180.000	101.02	31.73	5.61	36.87	101.49	68.20	33.29	VERTICAL	Peak

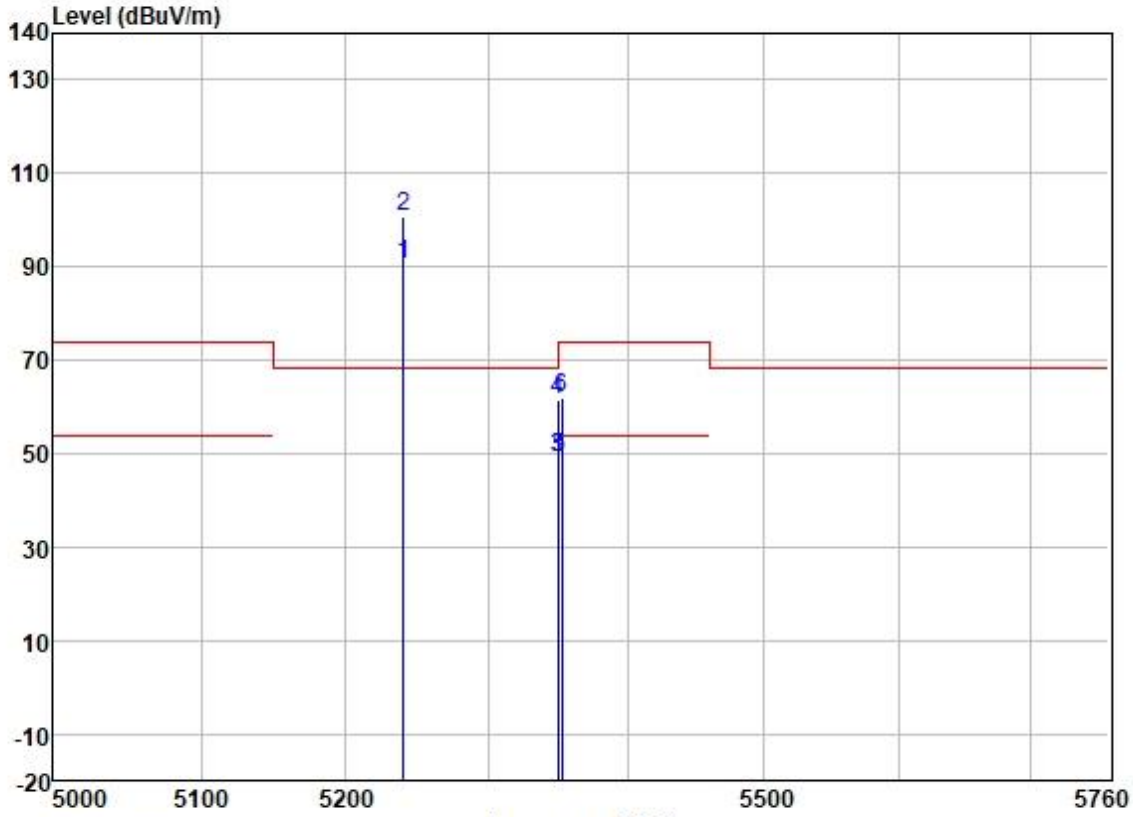
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	84.85	31.75	5.74	36.87	85.47	------	------	HORIZONTAL	Average
2	*	5240.000	95.62	31.75	5.74	36.87	96.24	68.20	28.04	HORIZONTAL	Peak
3		5350.020	48.18	31.77	6.05	36.88	49.12	54.00	-4.88	HORIZONTAL	Average
4		5350.020	60.05	31.77	6.05	36.88	60.99	74.00	-13.01	HORIZONTAL	Peak
5		5353.053	61.40	31.77	6.05	36.88	62.34	74.00	-11.66	HORIZONTAL	Peak
6		5355.462	48.35	31.78	6.03	36.88	49.28	54.00	-4.72	HORIZONTAL	Average

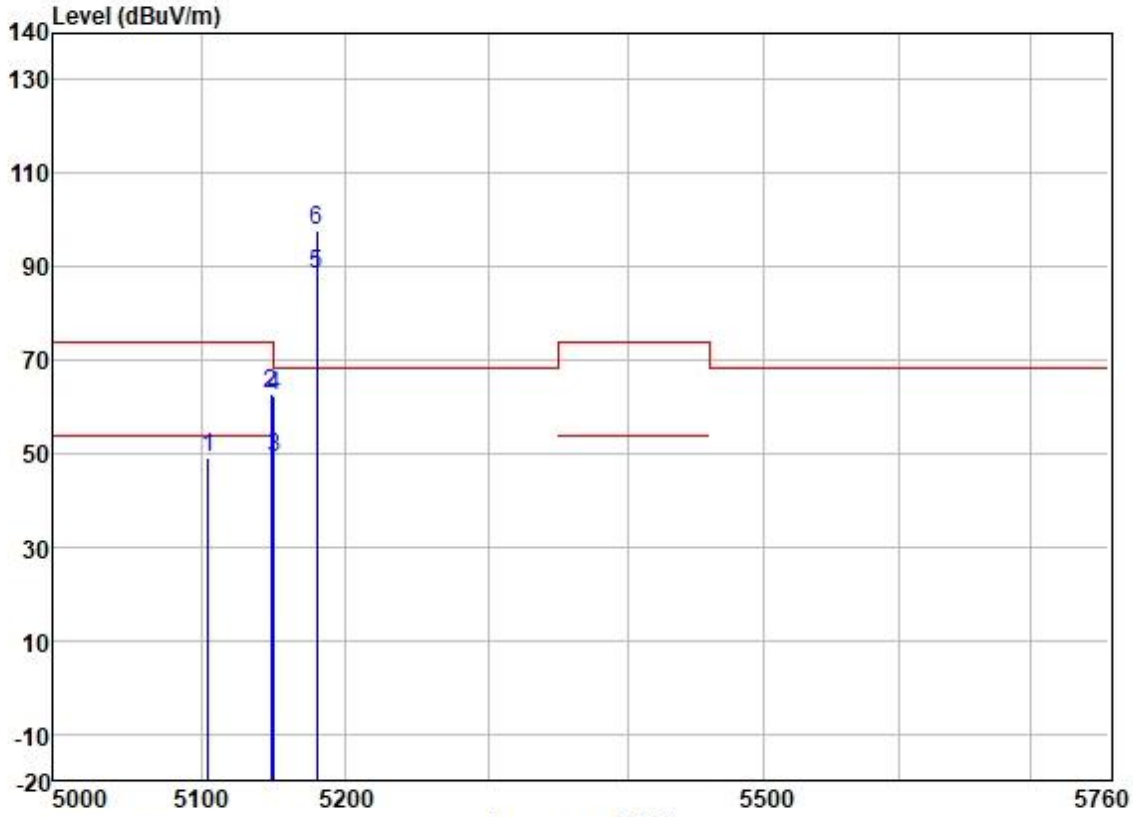
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	90.02	31.75	5.74	36.87	90.64	------	------	VERTICAL	Average
2	*	5240.000	100.30	31.75	5.74	36.87	100.92	68.20	32.72	VERTICAL	Peak
3		5350.020	48.23	31.77	6.05	36.88	49.17	54.00	-4.83	VERTICAL	Average
4		5350.020	60.75	31.77	6.05	36.88	61.69	74.00	-12.31	VERTICAL	Peak
5		5350.504	48.30	31.77	6.05	36.88	49.24	54.00	-4.76	VERTICAL	Average
6		5352.345	61.16	31.77	6.05	36.88	62.10	74.00	-11.90	VERTICAL	Peak

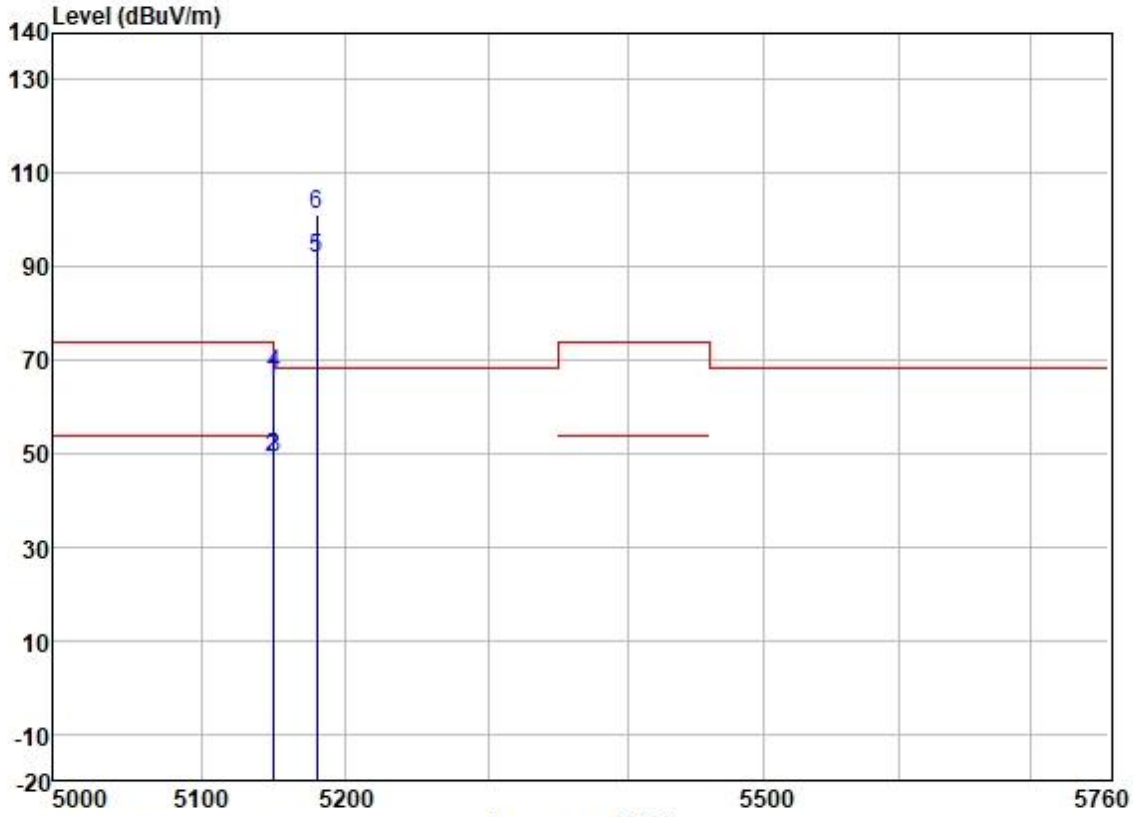
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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		5104.756	48.61	31.72	5.65	36.86	49.12	54.00	-4.88	HORIZONTAL	Average
2		5148.158	62.21	31.72	5.62	36.86	62.69	74.00	-11.31	HORIZONTAL	Peak
3		5149.980	48.43	31.72	5.62	36.86	48.91	54.00	-5.09	HORIZONTAL	Average
4		5149.980	61.71	31.72	5.62	36.86	62.19	74.00	-11.81	HORIZONTAL	Peak
5		5180.000	88.09	31.73	5.61	36.87	88.56	------	------	HORIZONTAL	Average
6	*	5180.000	97.30	31.73	5.61	36.87	97.77	68.20	29.57	HORIZONTAL	Peak

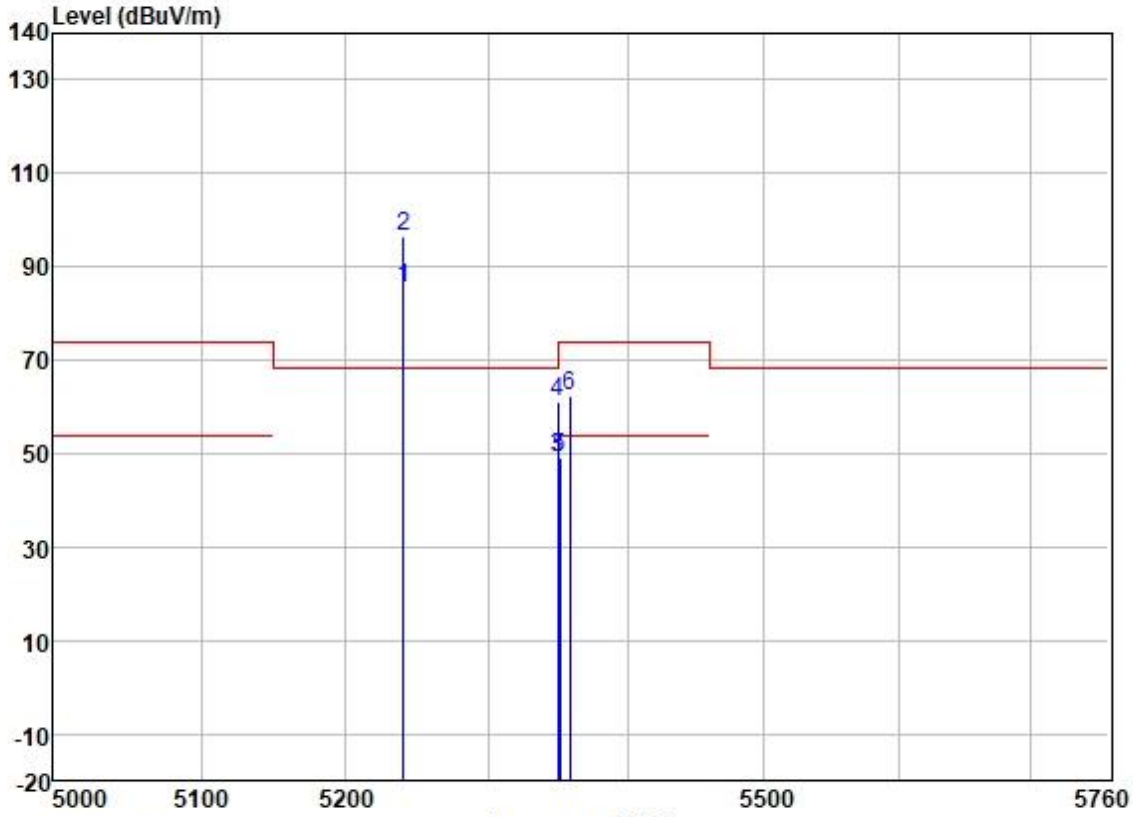
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5149.157	64.65	31.72	5.62	36.86	65.13	74.00	-8.87	VERTICAL	Peak
2	5149.458	48.75	31.72	5.62	36.86	49.23	54.00	-4.77	VERTICAL	Average
3	5149.980	48.71	31.72	5.62	36.86	49.19	54.00	-4.81	VERTICAL	Average
4	5149.980	66.46	31.72	5.62	36.86	66.94	74.00	-7.06	VERTICAL	Peak
5	5180.000	91.20	31.73	5.61	36.87	91.67	------	------	VERTICAL	Average
6 *	5180.000	100.56	31.73	5.61	36.87	101.03	68.20	32.83	VERTICAL	Peak

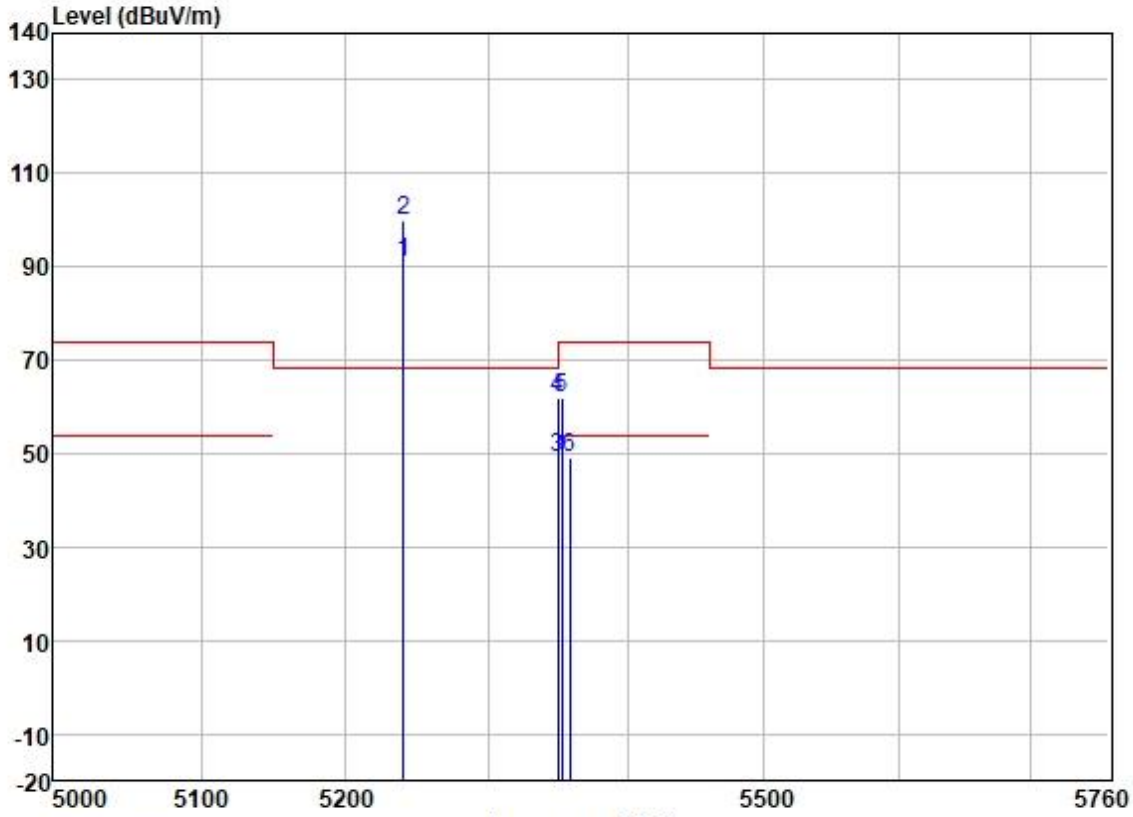
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	84.75	31.75	5.74	36.87	85.37	------	------	HORIZONTAL	Average
2	*	5240.000	95.81	31.75	5.74	36.87	96.43	68.20	28.23	HORIZONTAL	Peak
3		5350.020	48.18	31.77	6.05	36.88	49.12	54.00	-4.88	HORIZONTAL	Average
4		5350.020	60.30	31.77	6.05	36.88	61.24	74.00	-12.76	HORIZONTAL	Peak
5		5350.929	48.29	31.77	6.05	36.88	49.23	54.00	-4.77	HORIZONTAL	Average
6		5358.014	61.35	31.78	6.03	36.88	62.28	74.00	-11.72	HORIZONTAL	Peak

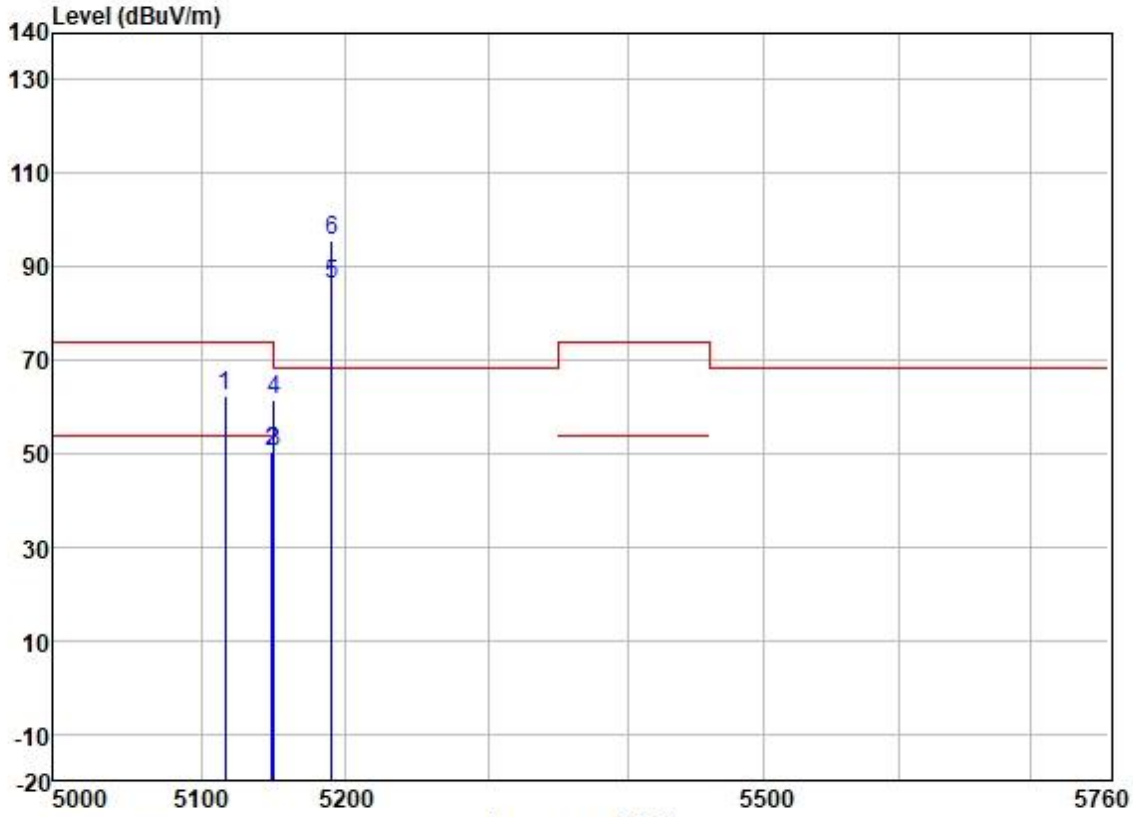
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	90.42	31.75	5.74	36.87	91.04	------	------	VERTICAL	Average
2	*	5240.000	99.23	31.75	5.74	36.87	99.85	68.20	31.65	VERTICAL	Peak
3		5350.020	48.22	31.77	6.05	36.88	49.16	54.00	-4.84	VERTICAL	Average
4		5350.020	61.02	31.77	6.05	36.88	61.96	74.00	-12.04	VERTICAL	Peak
5		5352.770	61.15	31.77	6.05	36.88	62.09	74.00	-11.91	VERTICAL	Peak
6		5358.156	48.29	31.78	6.03	36.88	49.22	54.00	-4.78	VERTICAL	Average

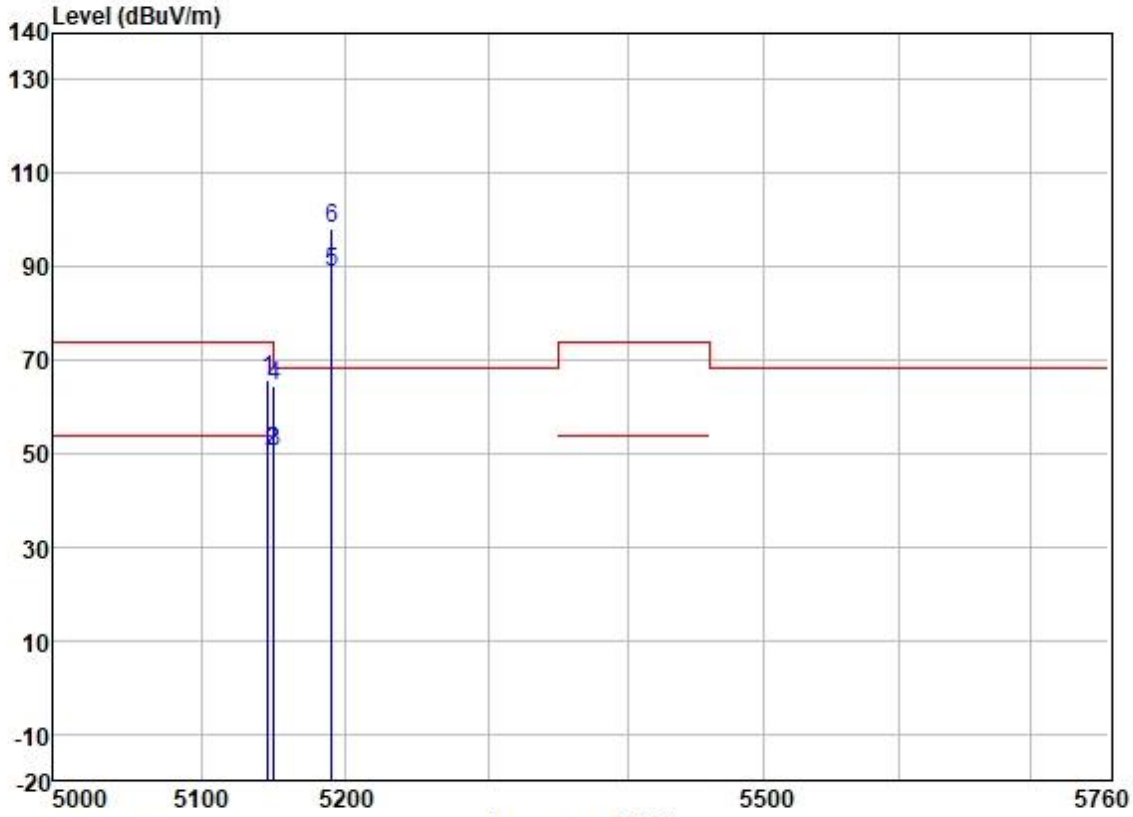
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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		5116.157	61.92	31.72	5.64	36.86	62.42	74.00	-11.58	HORIZONTAL	Peak
2		5148.982	49.97	31.72	5.62	36.86	50.45	54.00	-3.55	HORIZONTAL	Average
3		5149.980	49.81	31.72	5.62	36.86	50.29	54.00	-3.71	HORIZONTAL	Average
4		5149.980	60.86	31.72	5.62	36.86	61.34	74.00	-12.66	HORIZONTAL	Peak
5		5190.000	85.62	31.73	5.60	36.87	86.08	------	------	HORIZONTAL	Average
6	*	5190.000	95.28	31.73	5.60	36.87	95.74	68.20	27.54	HORIZONTAL	Peak

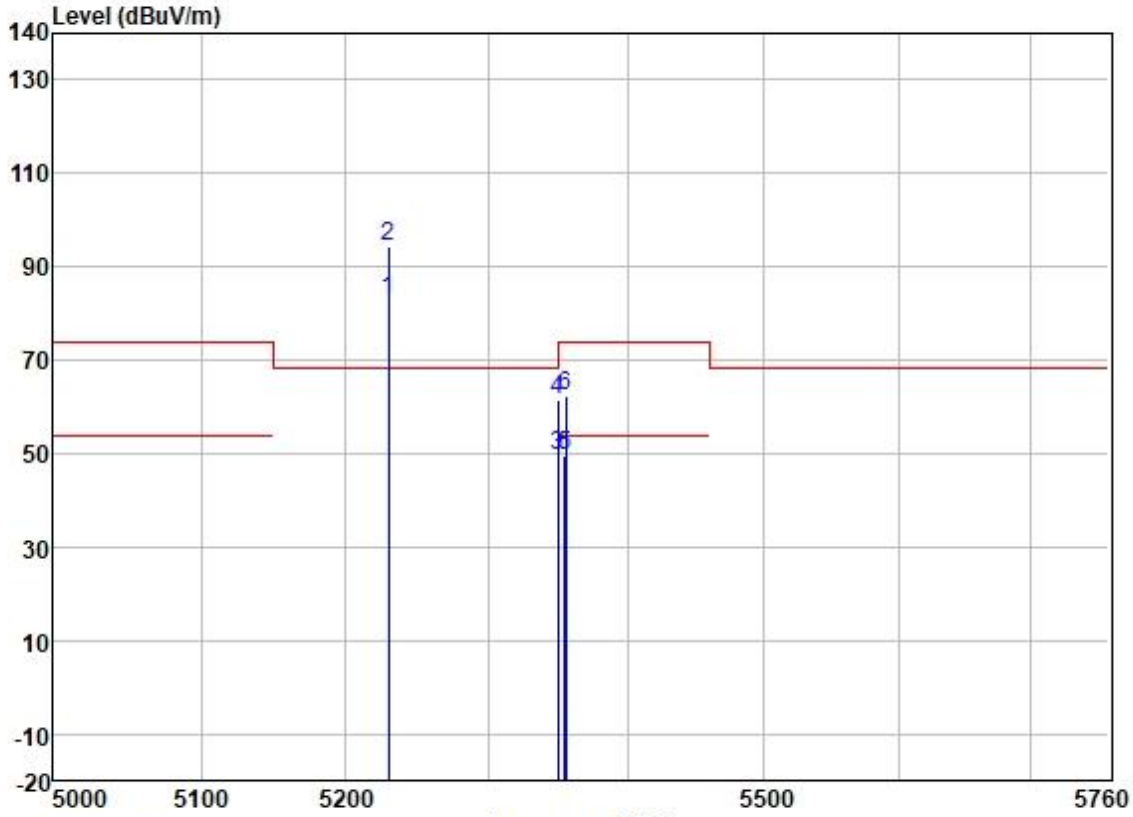
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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		5145.870	65.08	31.72	5.62	36.86	65.56	74.00	-8.44	VERTICAL	Peak
2		5149.461	50.02	31.72	5.62	36.86	50.50	54.00	-3.50	VERTICAL	Average
3		5149.980	50.11	31.72	5.62	36.86	50.59	54.00	-3.41	VERTICAL	Average
4		5149.980	64.03	31.72	5.62	36.86	64.51	74.00	-9.49	VERTICAL	Peak
5		5190.000	88.42	31.73	5.60	36.87	88.88	------	------	VERTICAL	Average
6	*	5190.000	97.90	31.73	5.60	36.87	98.36	68.20	30.16	VERTICAL	Peak

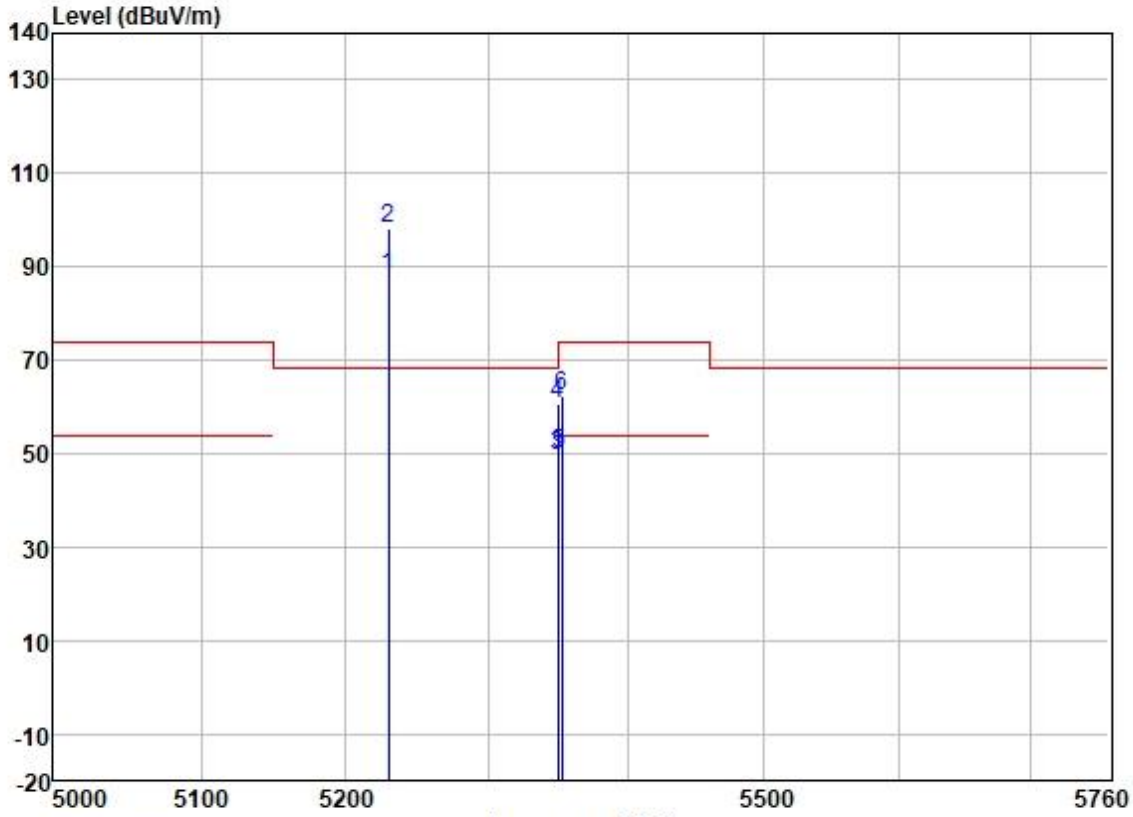
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	82.33	31.74	5.70	36.87	82.90	------	------	HORIZONTAL	Average
2	*	5230.000	93.80	31.74	5.70	36.87	94.37	68.20	26.17	HORIZONTAL	Peak
3		5350.020	48.54	31.77	6.05	36.88	49.48	54.00	-4.52	HORIZONTAL	Average
4		5350.020	60.39	31.77	6.05	36.88	61.33	74.00	-12.67	HORIZONTAL	Peak
5		5354.642	48.76	31.78	6.03	36.88	49.69	54.00	-4.31	HORIZONTAL	Average
6		5355.616	61.34	31.78	6.03	36.88	62.27	74.00	-11.73	HORIZONTAL	Peak

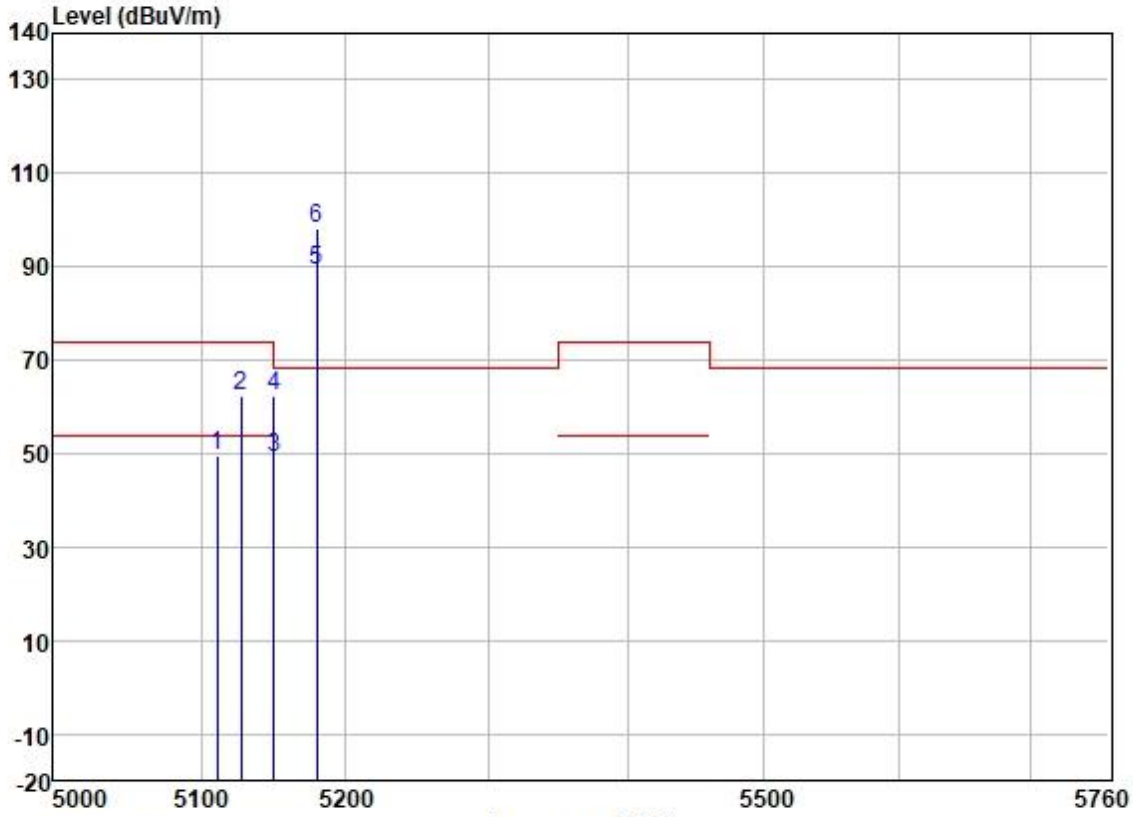
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	87.20	31.74	5.70	36.87	87.77	------	------	VERTICAL	Average
2	*	5230.000	97.61	31.74	5.70	36.87	98.18	68.20	29.98	VERTICAL	Peak
3		5350.020	48.69	31.77	6.05	36.88	49.63	54.00	-4.37	VERTICAL	Average
4		5350.020	59.84	31.77	6.05	36.88	60.78	74.00	-13.22	VERTICAL	Peak
5		5350.749	48.85	31.77	6.05	36.88	49.79	54.00	-4.21	VERTICAL	Average
6		5352.695	61.29	31.77	6.05	36.88	62.23	74.00	-11.77	VERTICAL	Peak

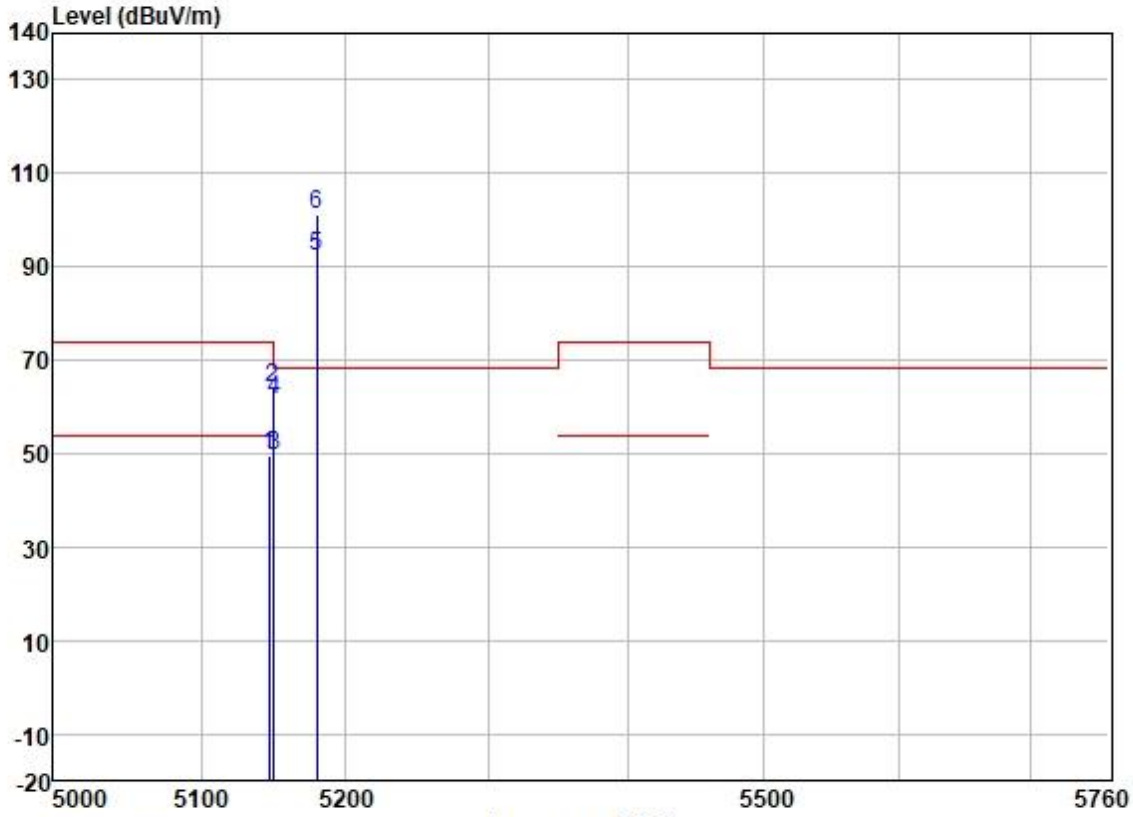
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5110.905	49.11	31.72	5.65	36.86	49.62	54.00	-4.38	HORIZONTAL	Average
2	5127.705	61.82	31.72	5.63	36.86	62.31	74.00	-11.69	HORIZONTAL	Peak
3	5149.980	48.80	31.72	5.62	36.86	49.28	54.00	-4.72	HORIZONTAL	Average
4	5149.980	61.85	31.72	5.62	36.86	62.33	74.00	-11.67	HORIZONTAL	Peak
5	5180.000	88.70	31.73	5.61	36.87	89.17	------	------	HORIZONTAL	Average
6 *	5180.000	97.70	31.73	5.61	36.87	98.17	68.20	29.97	HORIZONTAL	Peak

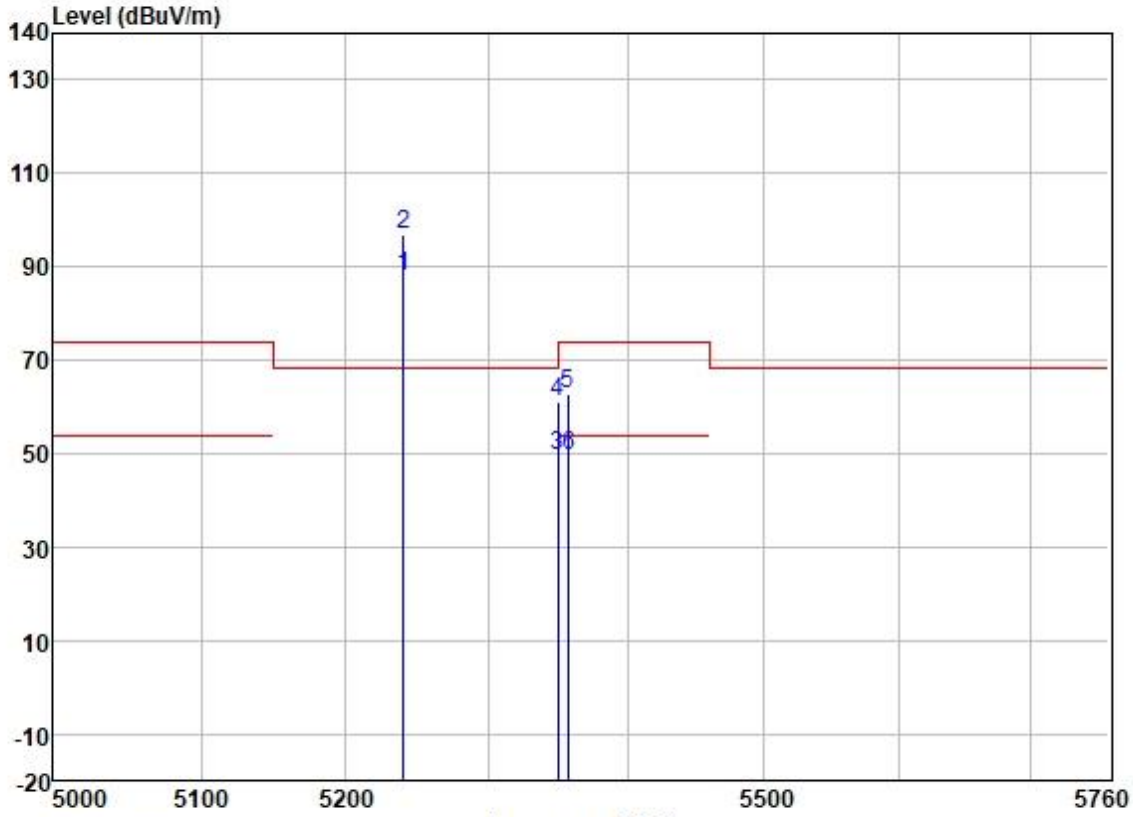
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5146.658	49.21	31.72	5.62	36.86	49.69	54.00	-4.31	VERTICAL	Average
2	5149.257	63.63	31.72	5.62	36.86	64.11	74.00	-9.89	VERTICAL	Peak
3	5149.980	49.27	31.72	5.62	36.86	49.75	54.00	-4.25	VERTICAL	Average
4	5149.980	61.22	31.72	5.62	36.86	61.70	74.00	-12.30	VERTICAL	Peak
5	5180.000	91.75	31.73	5.61	36.87	92.22	------	------	VERTICAL	Average
6 *	5180.000	100.59	31.73	5.61	36.87	101.06	68.20	32.86	VERTICAL	Peak

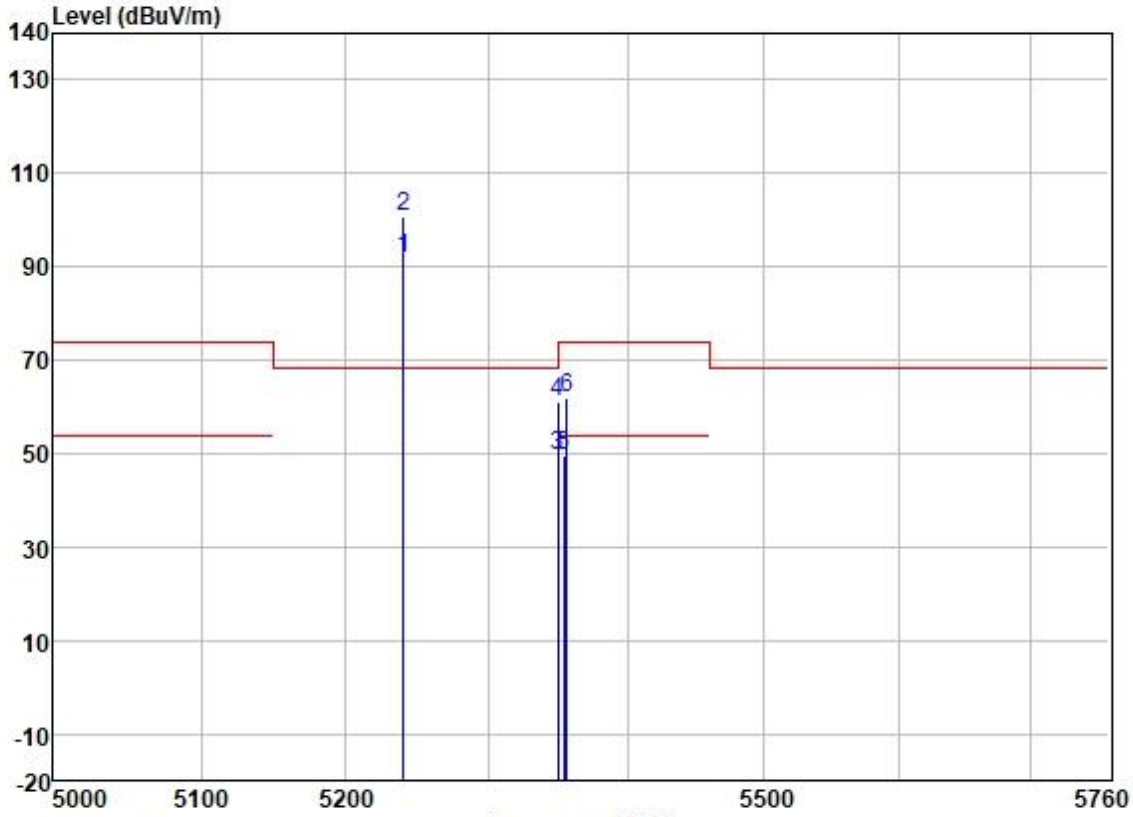
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5240.000	87.17	31.75	5.74	36.87	87.79	------	------	HORIZONTAL	Average
2	*	5240.000	96.44	31.75	5.74	36.87	97.06	68.20	28.86	HORIZONTAL	Peak
3		5350.020	48.62	31.77	6.05	36.88	49.56	54.00	-4.44	HORIZONTAL	Average
4		5350.020	60.22	31.77	6.05	36.88	61.16	74.00	-12.84	HORIZONTAL	Peak
5		5357.022	61.95	31.78	6.03	36.88	62.88	74.00	-11.12	HORIZONTAL	Peak
6		5357.305	48.75	31.78	6.03	36.88	49.68	54.00	-4.32	HORIZONTAL	Average

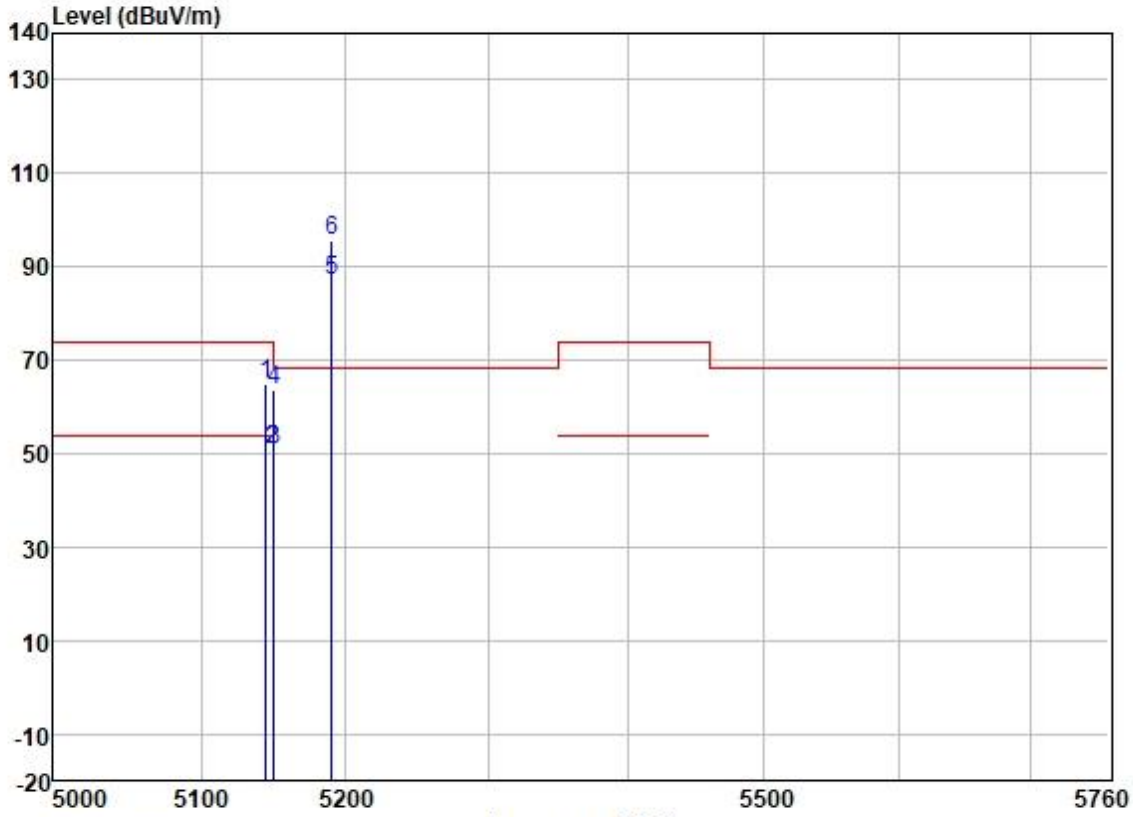
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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	91.00	31.75	5.74	36.87	91.62	------	------	VERTICAL	Average
2	*	5240.000	99.92	31.75	5.74	36.87	100.54	68.20	32.34	VERTICAL	Peak
3		5350.020	48.71	31.77	6.05	36.88	49.65	54.00	-4.35	VERTICAL	Average
4		5350.020	60.22	31.77	6.05	36.88	61.16	74.00	-12.84	VERTICAL	Peak
5		5354.187	48.75	31.78	6.03	36.88	49.68	54.00	-4.32	VERTICAL	Average
6		5356.029	61.01	31.78	6.03	36.88	61.94	74.00	-12.06	VERTICAL	Peak

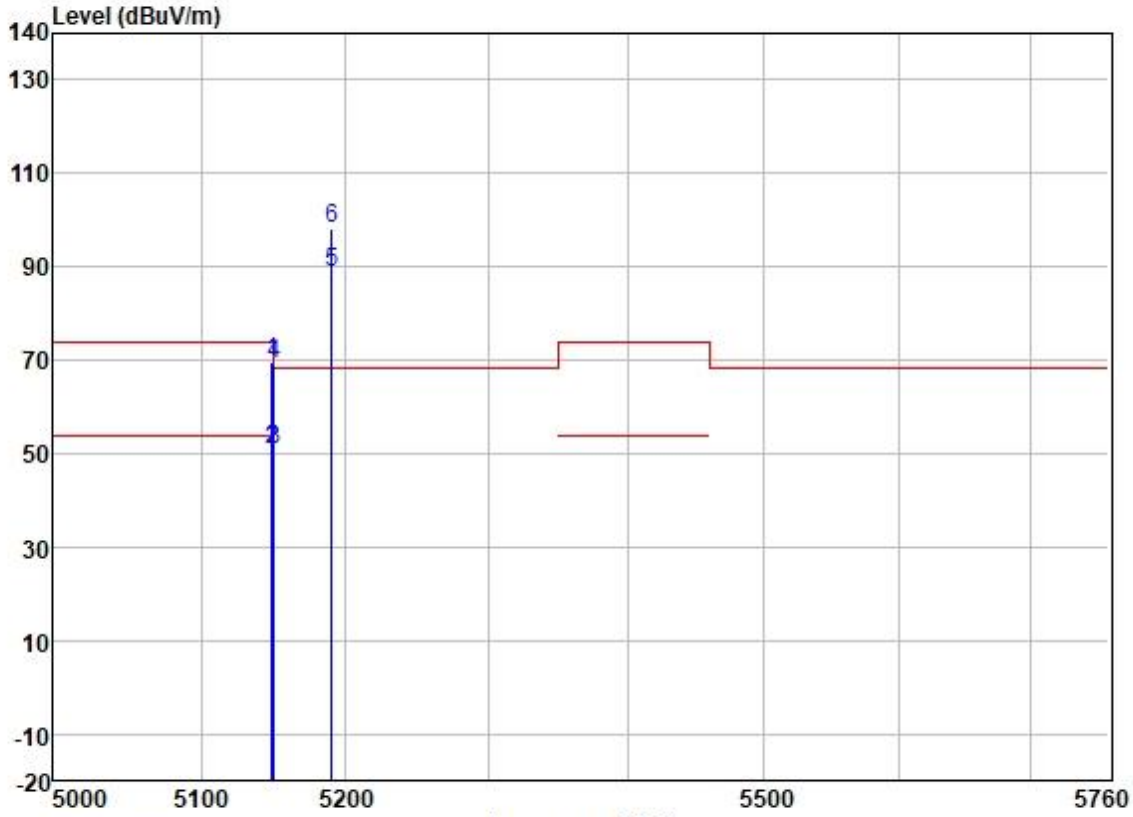
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5144.554	64.24	31.72	5.62	36.86	64.72	74.00	-9.28	HORIZONTAL	Peak
2	5149.342	50.25	31.72	5.62	36.86	50.73	54.00	-3.27	HORIZONTAL	Average
3	5149.980	50.37	31.72	5.62	36.86	50.85	54.00	-3.15	HORIZONTAL	Average
4	5149.980	63.31	31.72	5.62	36.86	63.79	74.00	-10.21	HORIZONTAL	Peak
5	5190.000	86.48	31.73	5.60	36.87	86.94	------	------	HORIZONTAL	Average
6 *	5190.000	94.96	31.73	5.60	36.87	95.42	68.20	27.22	HORIZONTAL	Peak

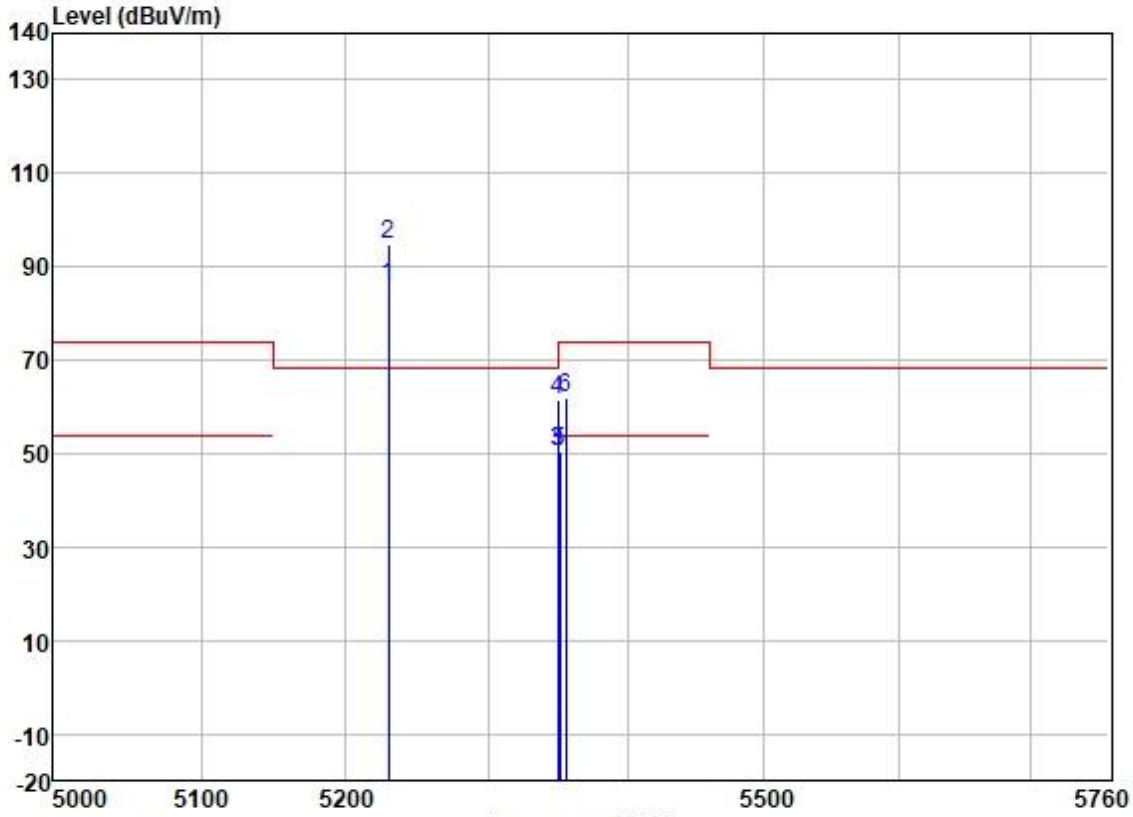
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5148.982	69.12	31.72	5.62	36.86	69.60	74.00	-4.40	VERTICAL	Peak
2		5149.102	50.52	31.72	5.62	36.86	51.00	54.00	-3.00	VERTICAL	Average
3		5149.980	50.43	31.72	5.62	36.86	50.91	54.00	-3.09	VERTICAL	Average
4		5149.980	68.73	31.72	5.62	36.86	69.21	74.00	-4.79	VERTICAL	Peak
5		5190.000	88.14	31.73	5.60	36.87	88.60	------	------	VERTICAL	Average
6	*	5190.000	97.86	31.73	5.60	36.87	98.32	68.20	30.12	VERTICAL	Peak

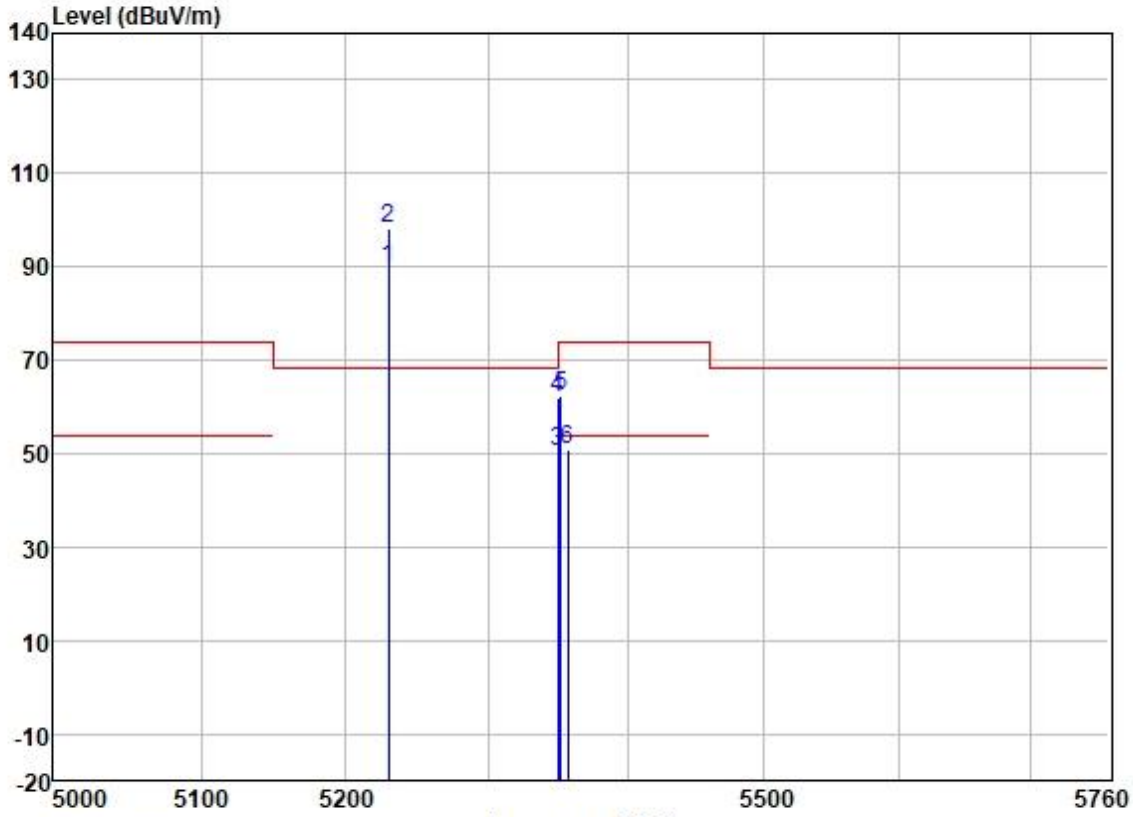
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	85.30	31.74	5.70	36.87	85.87	------	------	HORIZONTAL	Average
2	*	5230.000	94.00	31.74	5.70	36.87	94.57	68.20	26.37	HORIZONTAL	Peak
3		5350.020	49.37	31.77	6.05	36.88	50.31	54.00	-3.69	HORIZONTAL	Average
4		5350.020	60.49	31.77	6.05	36.88	61.43	74.00	-12.57	HORIZONTAL	Peak
5		5351.073	49.44	31.77	6.05	36.88	50.38	54.00	-3.62	HORIZONTAL	Average
6		5355.778	60.94	31.78	6.03	36.88	61.87	74.00	-12.13	HORIZONTAL	Peak

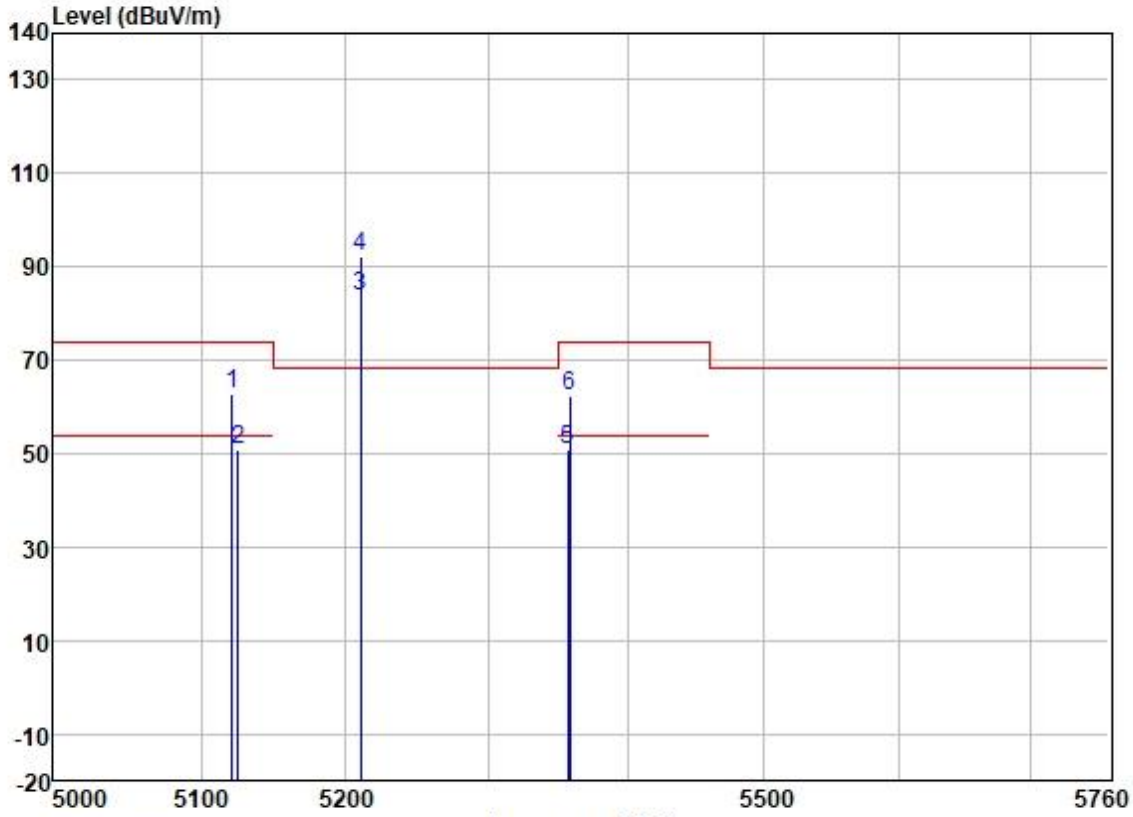
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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		5230.000	89.06	31.74	5.70	36.87	89.63	------	------	VERTICAL	Average
2	*	5230.000	97.41	31.74	5.70	36.87	97.98	68.20	29.78	VERTICAL	Peak
3		5350.020	49.50	31.77	6.05	36.88	50.44	54.00	-3.56	VERTICAL	Average
4		5350.020	60.90	31.77	6.05	36.88	61.84	74.00	-12.16	VERTICAL	Peak
5		5352.208	61.48	31.77	6.05	36.88	62.42	74.00	-11.58	VERTICAL	Peak
6		5356.752	49.73	31.78	6.03	36.88	50.66	54.00	-3.34	VERTICAL	Average

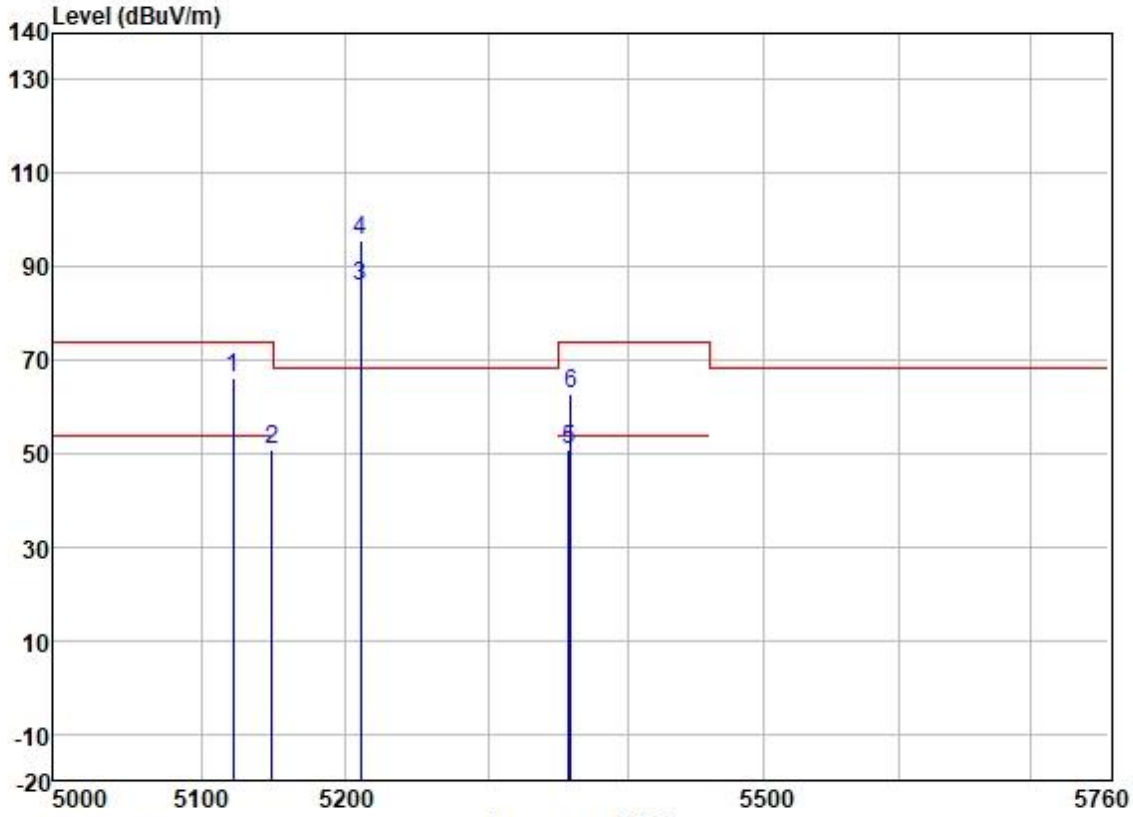
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5121.091	62.47	31.72	5.64	36.86	62.97	74.00	-11.03	HORIZONTAL	Peak
2		5125.422	50.49	31.72	5.64	36.86	50.99	54.00	-3.01	HORIZONTAL	Average
3		5210.000	83.02	31.74	5.65	36.87	83.54	------	------	HORIZONTAL	Average
4	*	5210.000	91.68	31.74	5.65	36.87	92.20	68.20	24.00	HORIZONTAL	Peak
5		5356.803	49.77	31.78	6.03	36.88	50.70	54.00	-3.30	HORIZONTAL	Average
6		5358.401	61.50	31.78	6.03	36.88	62.43	74.00	-11.57	HORIZONTAL	Peak

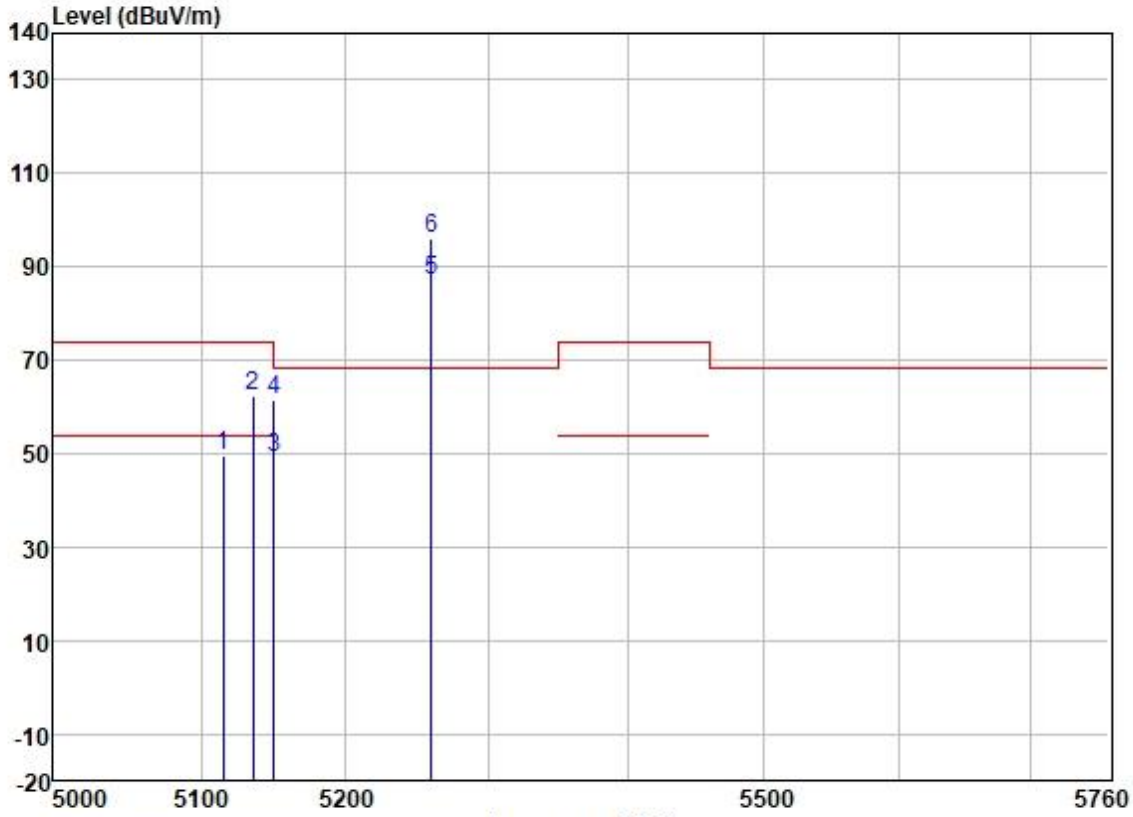
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



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		5121.601	65.53	31.72	5.64	36.86	66.03	74.00	-7.97	VERTICAL	Peak
2		5148.667	50.34	31.72	5.62	36.86	50.82	54.00	-3.18	VERTICAL	Average
3		5210.000	85.34	31.74	5.65	36.87	85.86	------	------	VERTICAL	Average
4	*	5210.000	95.03	31.74	5.65	36.87	95.55	68.20	27.35	VERTICAL	Peak
5		5357.335	49.86	31.78	6.03	36.88	50.79	54.00	-3.21	VERTICAL	Average
6		5358.934	61.78	31.78	6.03	36.88	62.71	74.00	-11.29	VERTICAL	Peak

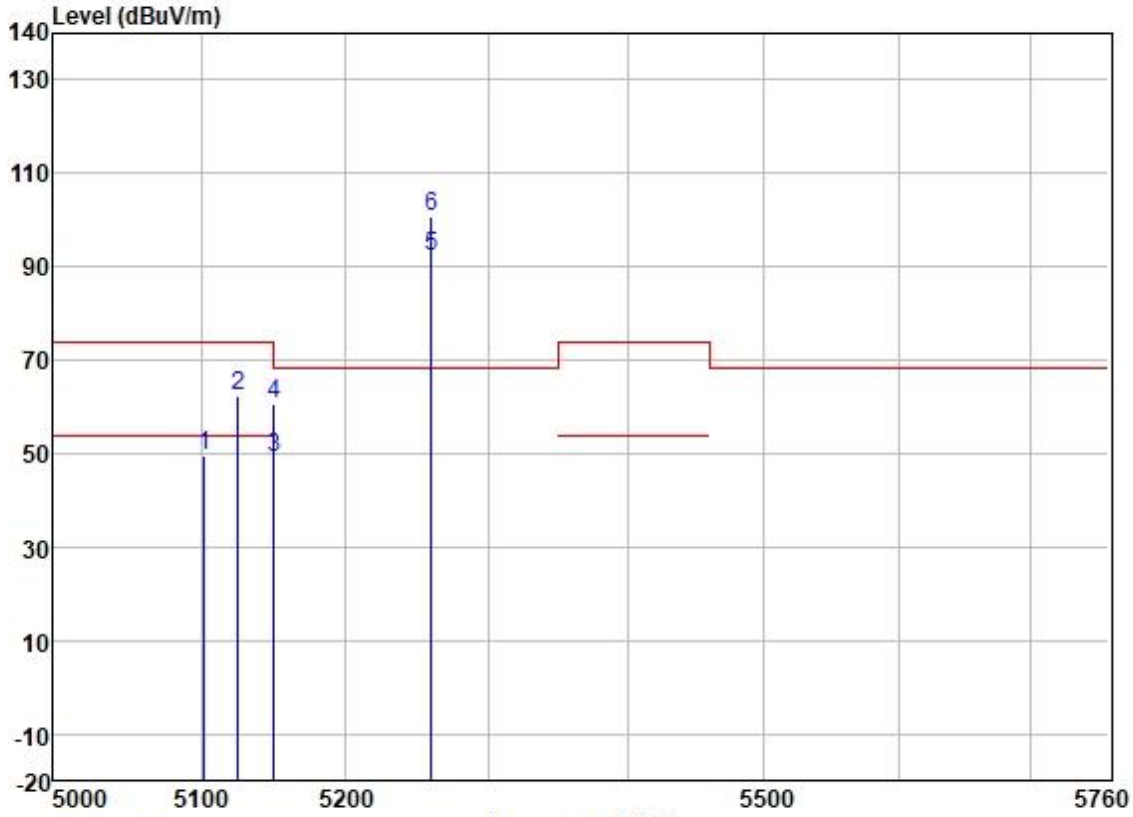
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5114.881	49.07	31.72	5.64	36.86	49.57	54.00	-4.43	HORIZONTAL	Average
2		5135.680	61.68	31.72	5.63	36.86	62.17	74.00	-11.83	HORIZONTAL	Peak
3		5149.980	48.73	31.72	5.62	36.86	49.21	54.00	-4.79	HORIZONTAL	Average
4		5149.980	61.20	31.72	5.62	36.86	61.68	74.00	-12.32	HORIZONTAL	Peak
5		5260.000	86.53	31.75	5.77	36.87	87.18	------	------	HORIZONTAL	Average
6	*	5260.000	95.61	31.75	5.77	36.87	96.26	68.20	28.06	HORIZONTAL	Peak

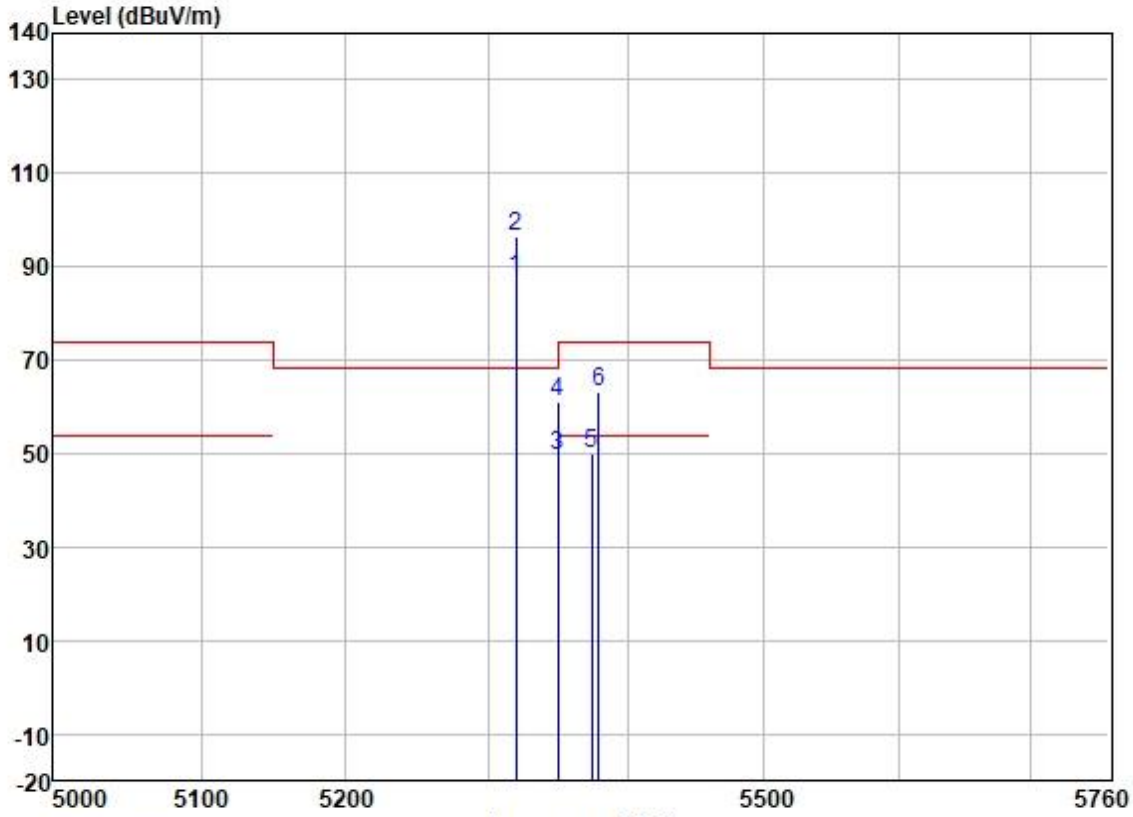
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5101.946	49.12	31.72	5.65	36.86	49.63	54.00	-4.37	VERTICAL	Average
2		5125.181	61.75	31.72	5.64	36.86	62.25	74.00	-11.75	VERTICAL	Peak
3		5149.980	48.69	31.72	5.62	36.86	49.17	54.00	-4.83	VERTICAL	Average
4		5149.980	60.24	31.72	5.62	36.86	60.72	74.00	-13.28	VERTICAL	Peak
5		5260.000	91.66	31.75	5.77	36.87	92.31	------	------	VERTICAL	Average
6	*	5260.000	100.26	31.75	5.77	36.87	100.91	68.20	32.71	VERTICAL	Peak

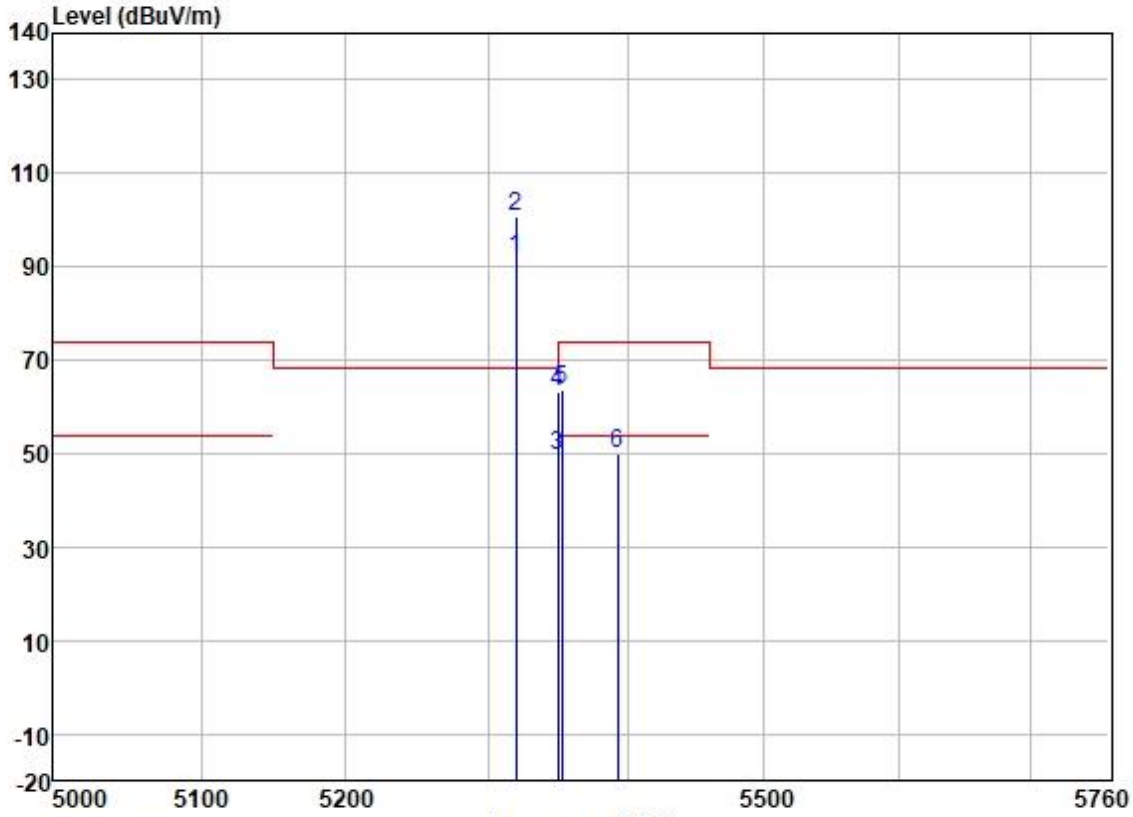
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	86.46	31.77	6.08	36.88	87.43	------	------	HORIZONTAL	Average
2	*	5320.000	95.30	31.77	6.08	36.88	96.27	68.20	28.07	HORIZONTAL	Peak
3		5350.020	48.66	31.77	6.05	36.88	49.60	54.00	-4.40	HORIZONTAL	Average
4		5350.020	60.11	31.77	6.05	36.88	61.05	74.00	-12.95	HORIZONTAL	Peak
5		5374.021	48.99	31.78	6.02	36.88	49.91	54.00	-4.09	HORIZONTAL	Average
6		5379.247	62.23	31.78	6.02	36.88	63.15	74.00	-10.85	HORIZONTAL	Peak

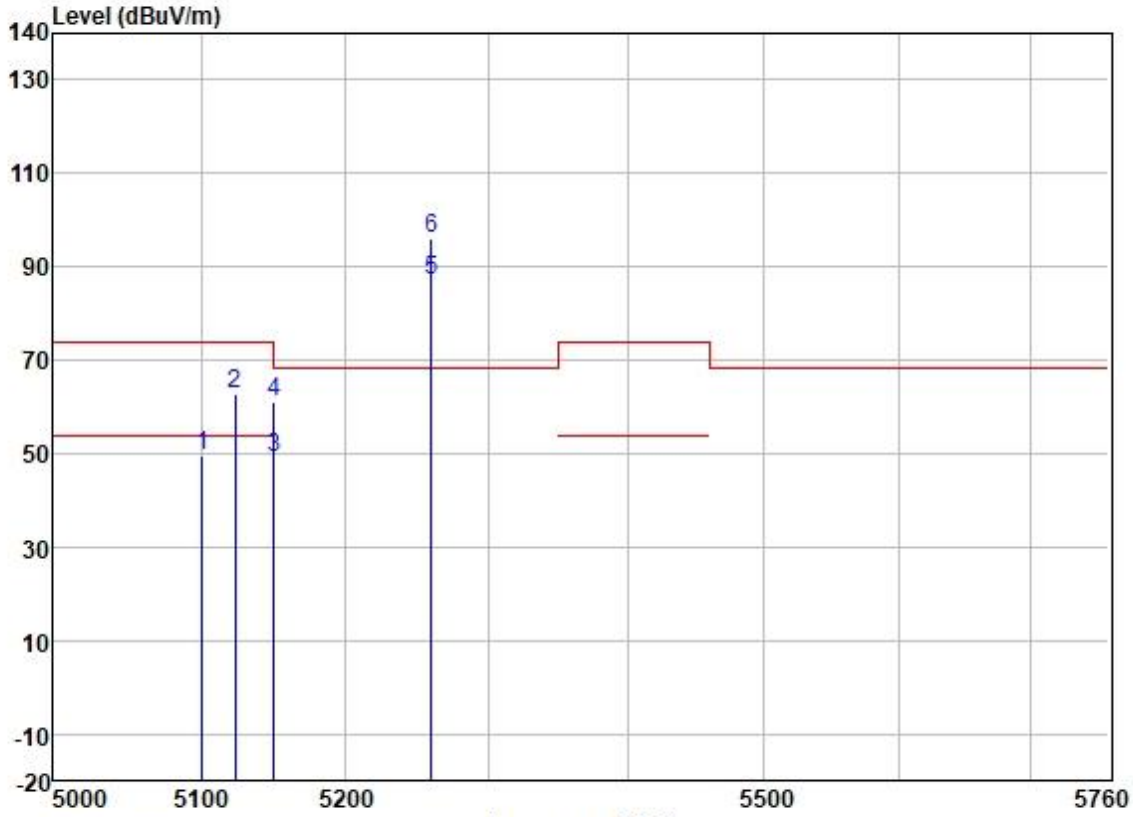
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	90.67	31.77	6.08	36.88	91.64	------	------	VERTICAL	Average
2	*	5320.000	99.79	31.77	6.08	36.88	100.76	68.20	32.56	VERTICAL	Peak
3		5350.020	48.75	31.77	6.05	36.88	49.69	54.00	-4.31	VERTICAL	Average
4		5350.020	62.18	31.77	6.05	36.88	63.12	74.00	-10.88	VERTICAL	Peak
5		5352.667	62.69	31.77	6.05	36.88	63.63	74.00	-10.37	VERTICAL	Peak
6		5392.737	49.09	31.78	6.00	36.88	49.99	54.00	-4.01	VERTICAL	Average

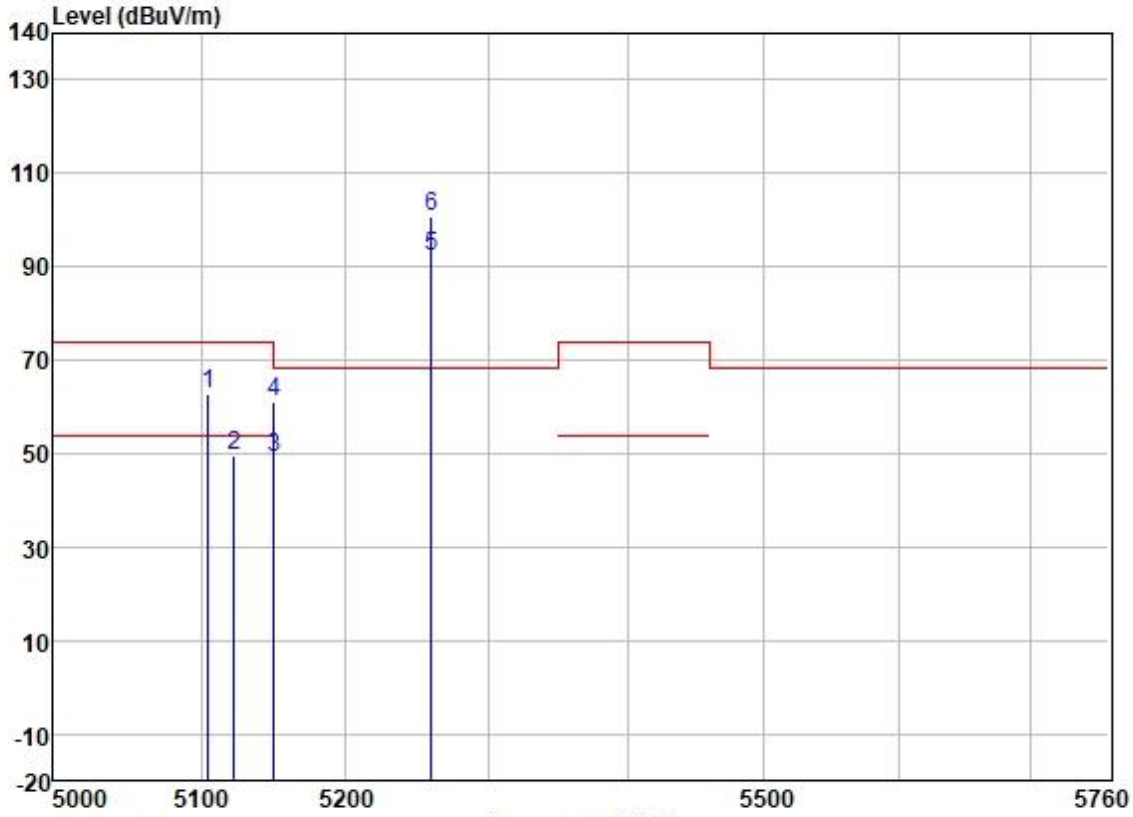
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5100.885	49.10	31.72	5.65	36.86	49.61	54.00	-4.39	HORIZONTAL	Average
2	5123.226	62.30	31.72	5.64	36.86	62.80	74.00	-11.20	HORIZONTAL	Peak
3	5149.980	48.65	31.72	5.62	36.86	49.13	54.00	-4.87	HORIZONTAL	Average
4	5149.980	60.76	31.72	5.62	36.86	61.24	74.00	-12.76	HORIZONTAL	Peak
5	5260.000	86.46	31.75	5.77	36.87	87.11	------	------	HORIZONTAL	Average
6 *	5260.000	95.40	31.75	5.77	36.87	96.05	68.20	27.85	HORIZONTAL	Peak

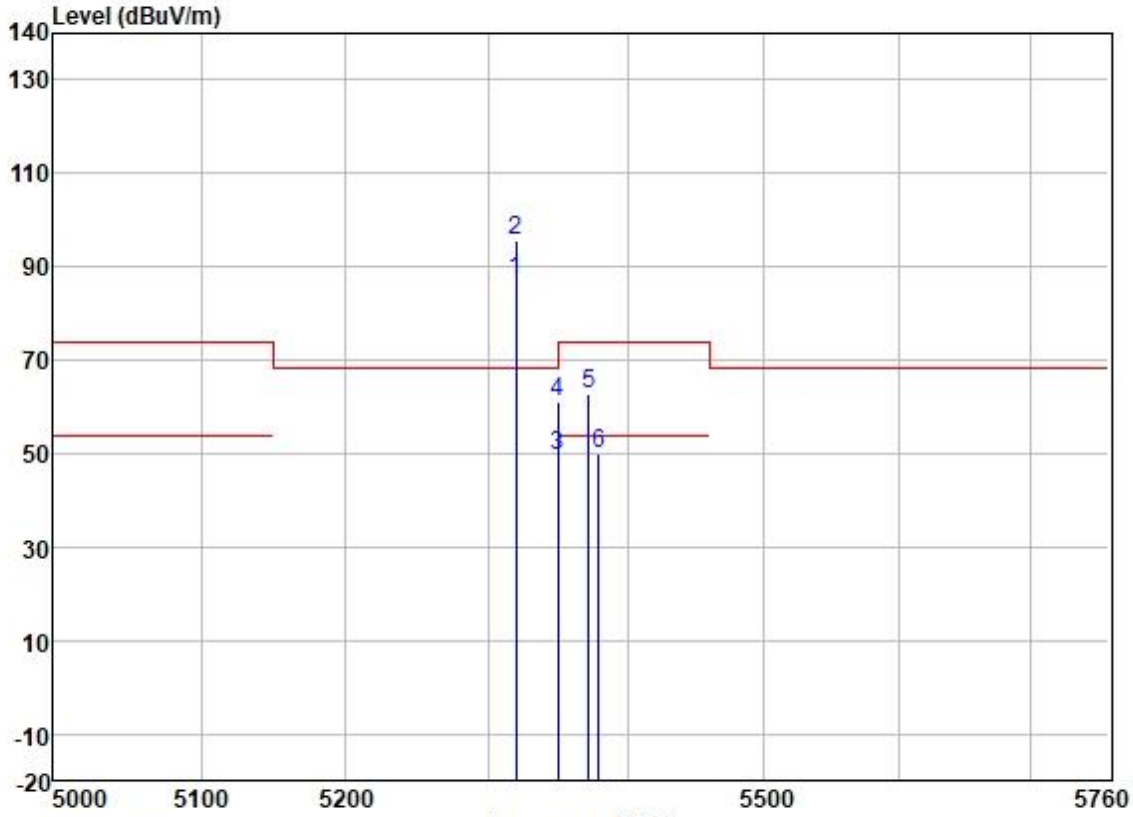
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5104.956	62.42	31.72	5.65	36.86	62.93	74.00	-11.07	VERTICAL	Peak
2		5122.338	49.16	31.72	5.64	36.86	49.66	54.00	-4.34	VERTICAL	Average
3		5149.980	48.68	31.72	5.62	36.86	49.16	54.00	-4.84	VERTICAL	Average
4		5149.980	60.62	31.72	5.62	36.86	61.10	74.00	-12.90	VERTICAL	Peak
5		5260.000	91.37	31.75	5.77	36.87	92.02	------	------	VERTICAL	Average
6	*	5260.000	100.11	31.75	5.77	36.87	100.76	68.20	32.56	VERTICAL	Peak

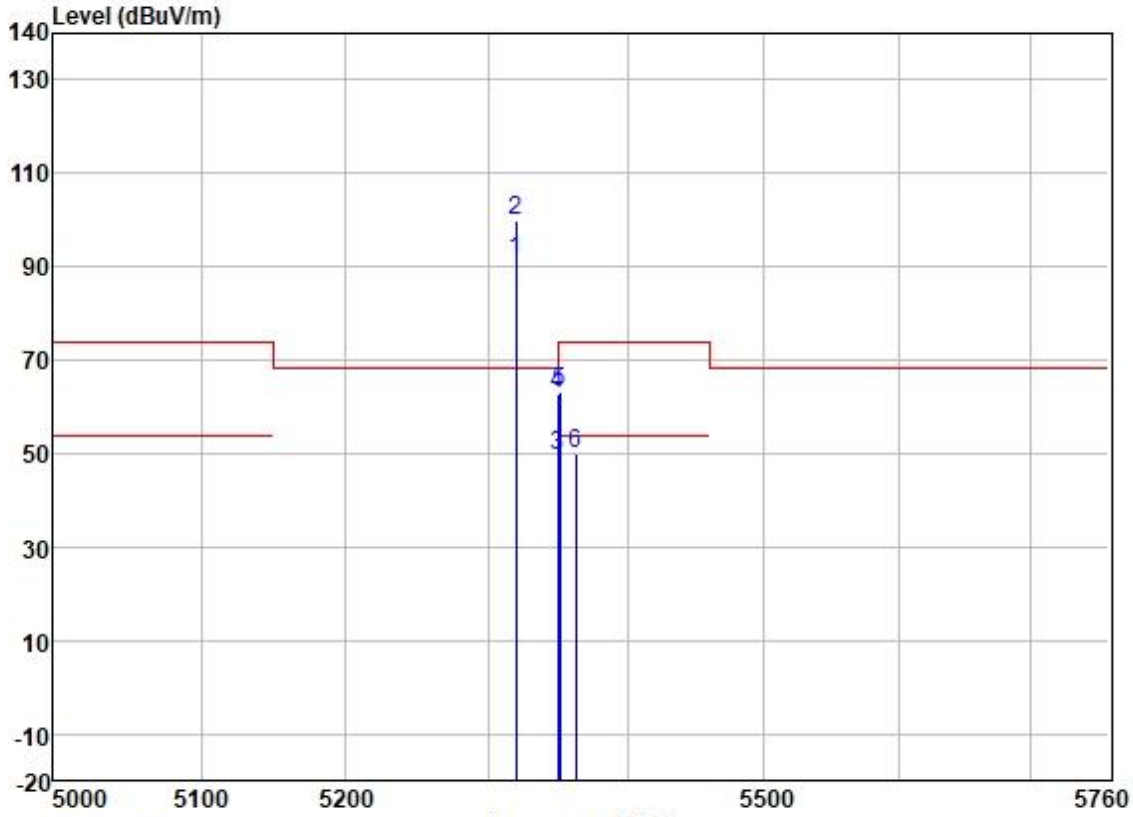
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	85.98	31.77	6.08	36.88	86.95	------	------	HORIZONTAL	Average
2	*	5320.000	94.87	31.77	6.08	36.88	95.84	68.20	27.64	HORIZONTAL	Peak
3		5350.020	48.52	31.77	6.05	36.88	49.46	54.00	-4.54	HORIZONTAL	Average
4		5350.020	60.14	31.77	6.05	36.88	61.08	74.00	-12.92	HORIZONTAL	Peak
5		5371.610	61.81	31.78	6.02	36.88	62.73	74.00	-11.27	HORIZONTAL	Peak
6		5379.247	48.89	31.78	6.02	36.88	49.81	54.00	-4.19	HORIZONTAL	Average

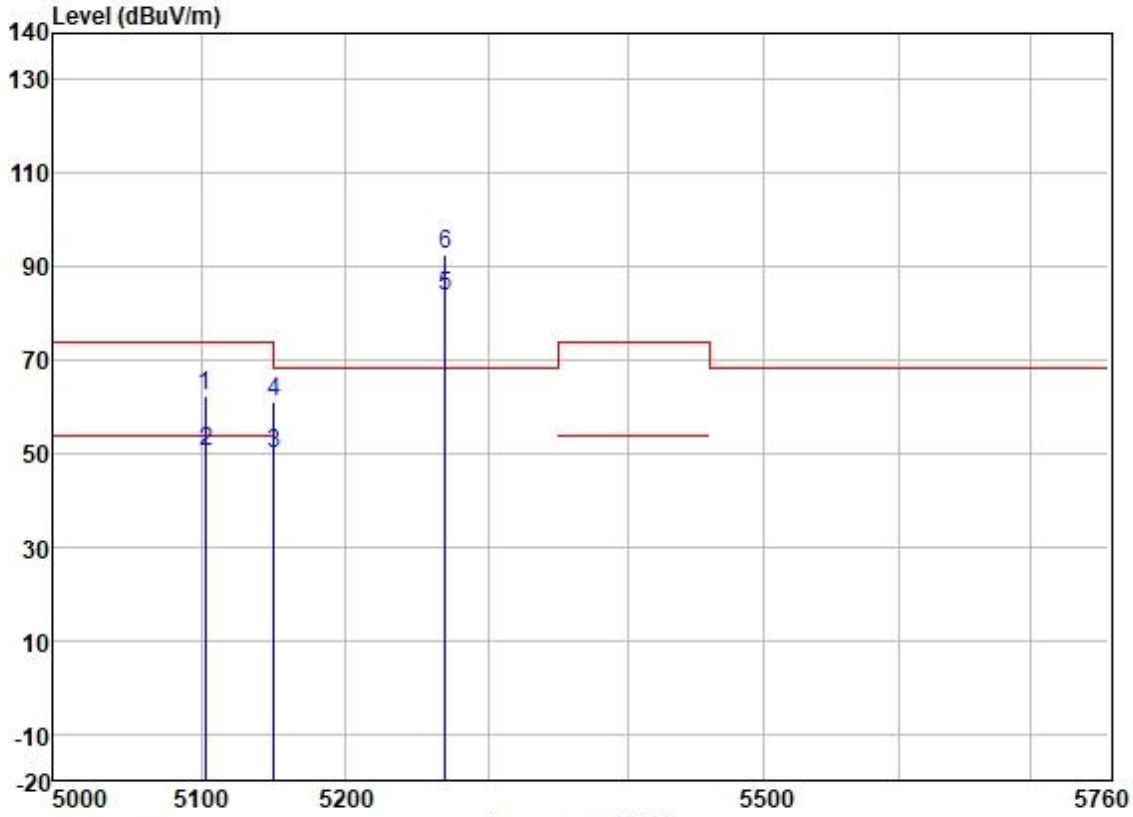
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	90.26	31.77	6.08	36.88	91.23	------	------	VERTICAL	Average
2	*	5320.000	99.04	31.77	6.08	36.88	100.01	68.20	31.81	VERTICAL	Peak
3		5350.020	48.78	31.77	6.05	36.88	49.72	54.00	-4.28	VERTICAL	Average
4		5350.020	62.03	31.77	6.05	36.88	62.97	74.00	-11.03	VERTICAL	Peak
5		5351.066	62.41	31.77	6.05	36.88	63.35	74.00	-10.65	VERTICAL	Peak
6		5362.782	49.03	31.78	6.03	36.88	49.96	54.00	-4.04	VERTICAL	Average

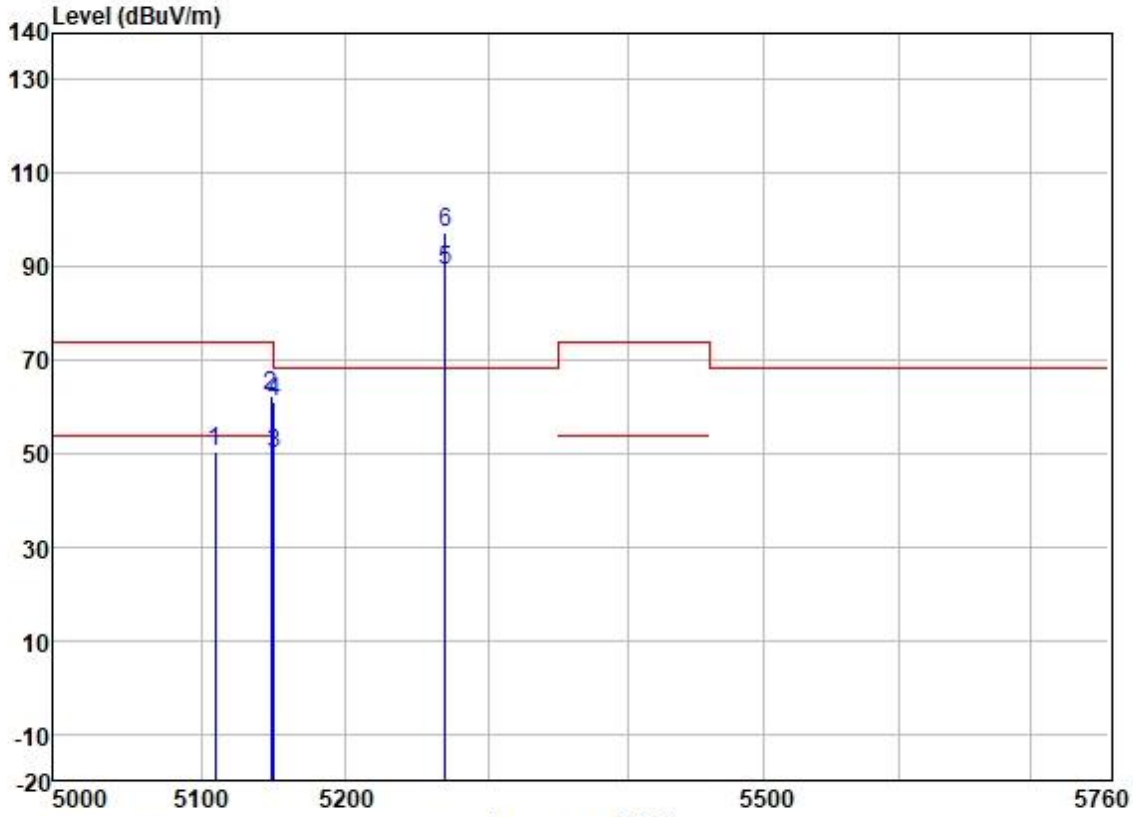
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5102.551	61.97	31.72	5.65	36.86	62.48	74.00	-11.52	HORIZONTAL	Peak
2	5103.532	49.75	31.72	5.65	36.86	50.26	54.00	-3.74	HORIZONTAL	Average
3	5149.980	49.31	31.72	5.62	36.86	49.79	54.00	-4.21	HORIZONTAL	Average
4	5149.980	60.78	31.72	5.62	36.86	61.26	74.00	-12.74	HORIZONTAL	Peak
5	5270.000	83.11	31.75	5.80	36.87	83.79	------	------	HORIZONTAL	Average
6 *	5270.000	91.85	31.75	5.80	36.87	92.53	68.20	24.33	HORIZONTAL	Peak

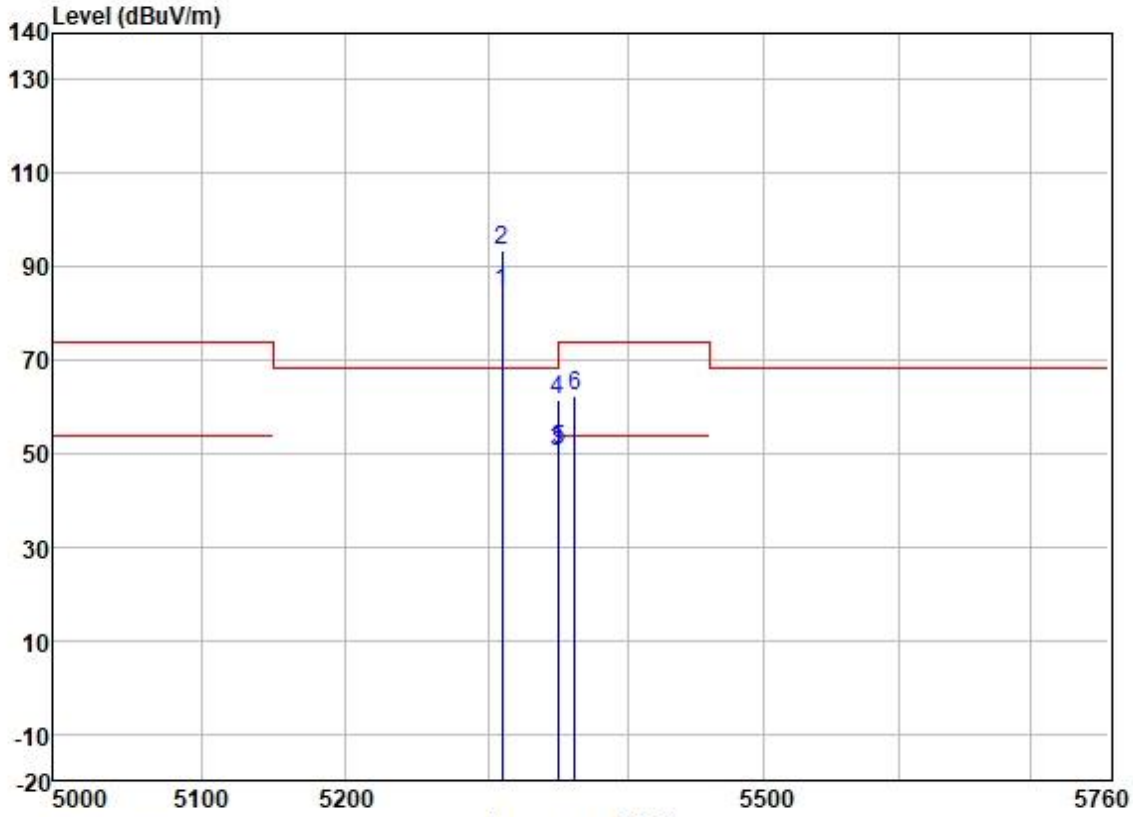
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5109.818	49.94	31.72	5.65	36.86	50.45	54.00	-3.55	VERTICAL	Average
2	5148.093	61.83	31.72	5.62	36.86	62.31	74.00	-11.69	VERTICAL	Peak
3	5149.980	49.30	31.72	5.62	36.86	49.78	54.00	-4.22	VERTICAL	Average
4	5149.980	60.60	31.72	5.62	36.86	61.08	74.00	-12.92	VERTICAL	Peak
5	5270.000	88.41	31.75	5.80	36.87	89.09	------	------	VERTICAL	Average
6 *	5270.000	96.83	31.75	5.80	36.87	97.51	68.20	29.31	VERTICAL	Peak

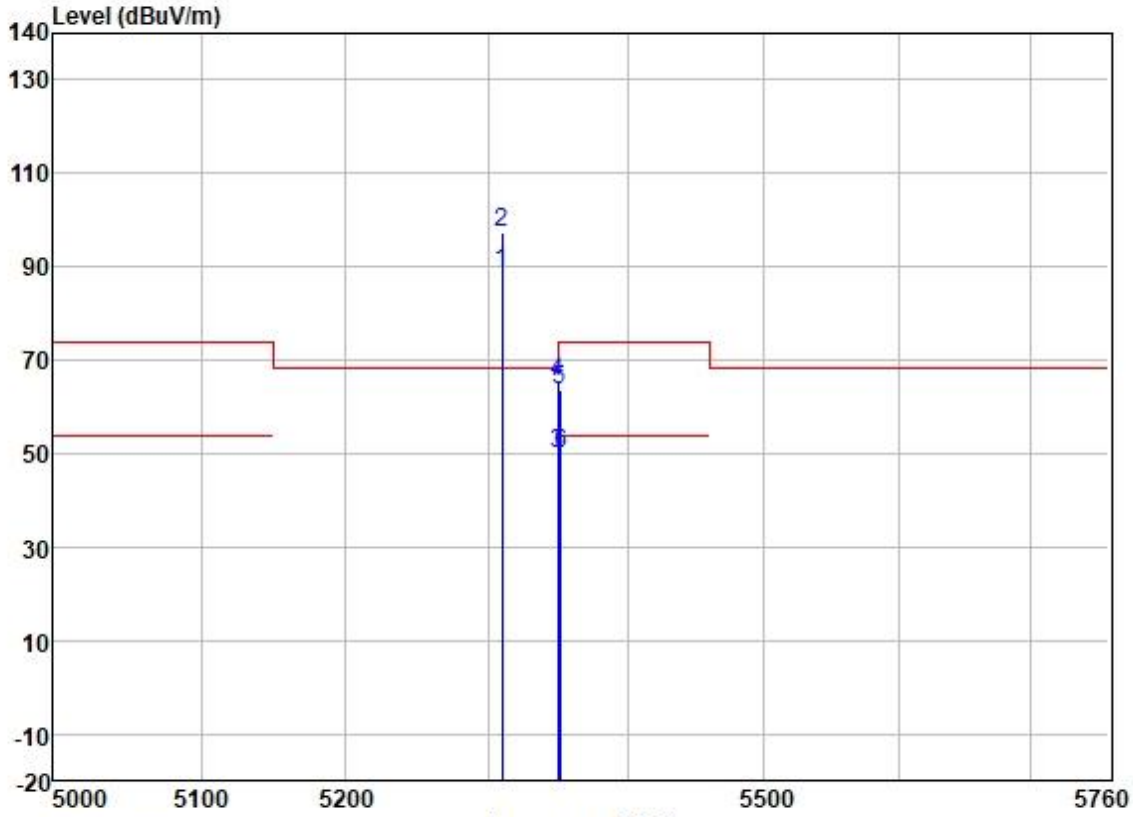
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	83.70	31.77	6.08	36.87	84.68	------	------	HORIZONTAL	Average
2	*	5310.000	92.57	31.77	6.08	36.87	93.55	68.20	25.35	HORIZONTAL	Peak
3		5350.020	49.52	31.77	6.05	36.88	50.46	54.00	-3.54	HORIZONTAL	Average
4		5350.020	60.47	31.77	6.05	36.88	61.41	74.00	-12.59	HORIZONTAL	Peak
5		5350.474	49.72	31.77	6.05	36.88	50.66	54.00	-3.34	HORIZONTAL	Average
6		5361.667	61.59	31.78	6.03	36.88	62.52	74.00	-11.48	HORIZONTAL	Peak

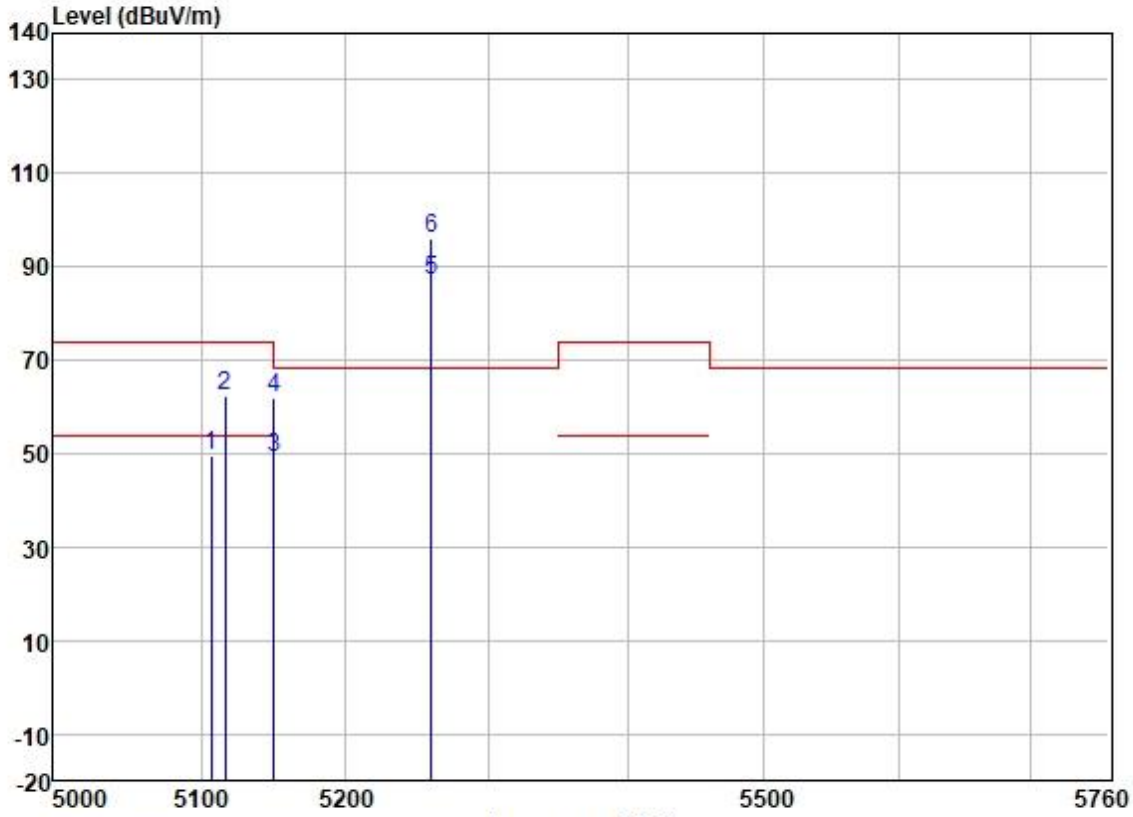
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	87.77	31.77	6.08	36.87	88.75	------	------	VERTICAL	Average
2	*	5310.000	96.39	31.77	6.08	36.87	97.37	68.20	29.17	VERTICAL	Peak
3		5350.020	49.09	31.77	6.05	36.88	50.03	54.00	-3.97	VERTICAL	Average
4		5350.020	64.18	31.77	6.05	36.88	65.12	74.00	-8.88	VERTICAL	Peak
5		5351.075	62.52	31.77	6.05	36.88	63.46	74.00	-10.54	VERTICAL	Peak
6		5351.556	49.20	31.77	6.05	36.88	50.14	54.00	-3.86	VERTICAL	Average

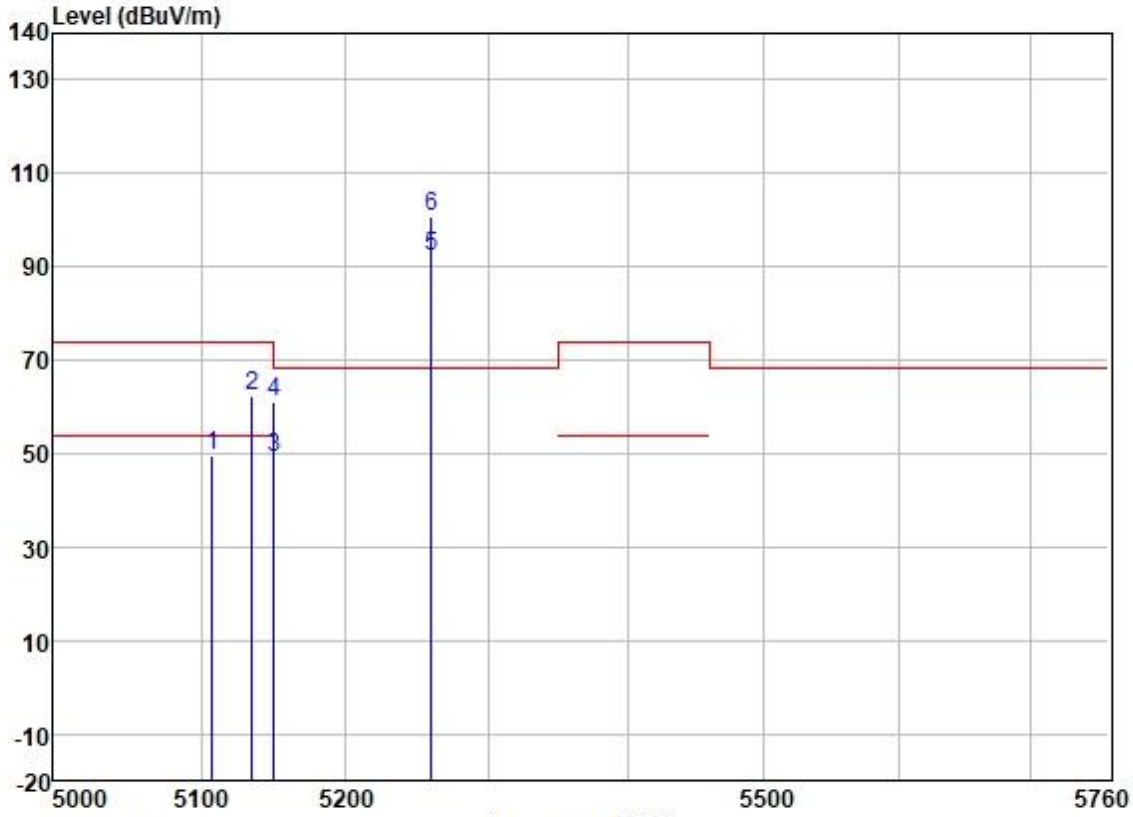
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5106.727	49.10	31.72	5.65	36.86	49.61	54.00	-4.39	HORIZONTAL	Average
2	5116.655	61.83	31.72	5.64	36.86	62.33	74.00	-11.67	HORIZONTAL	Peak
3	5149.980	48.73	31.72	5.62	36.86	49.21	54.00	-4.79	HORIZONTAL	Average
4	5149.980	61.34	31.72	5.62	36.86	61.82	74.00	-12.18	HORIZONTAL	Peak
5	5260.000	86.40	31.75	5.77	36.87	87.05	------	------	HORIZONTAL	Average
6 *	5260.000	95.40	31.75	5.77	36.87	96.05	68.20	27.85	HORIZONTAL	Peak

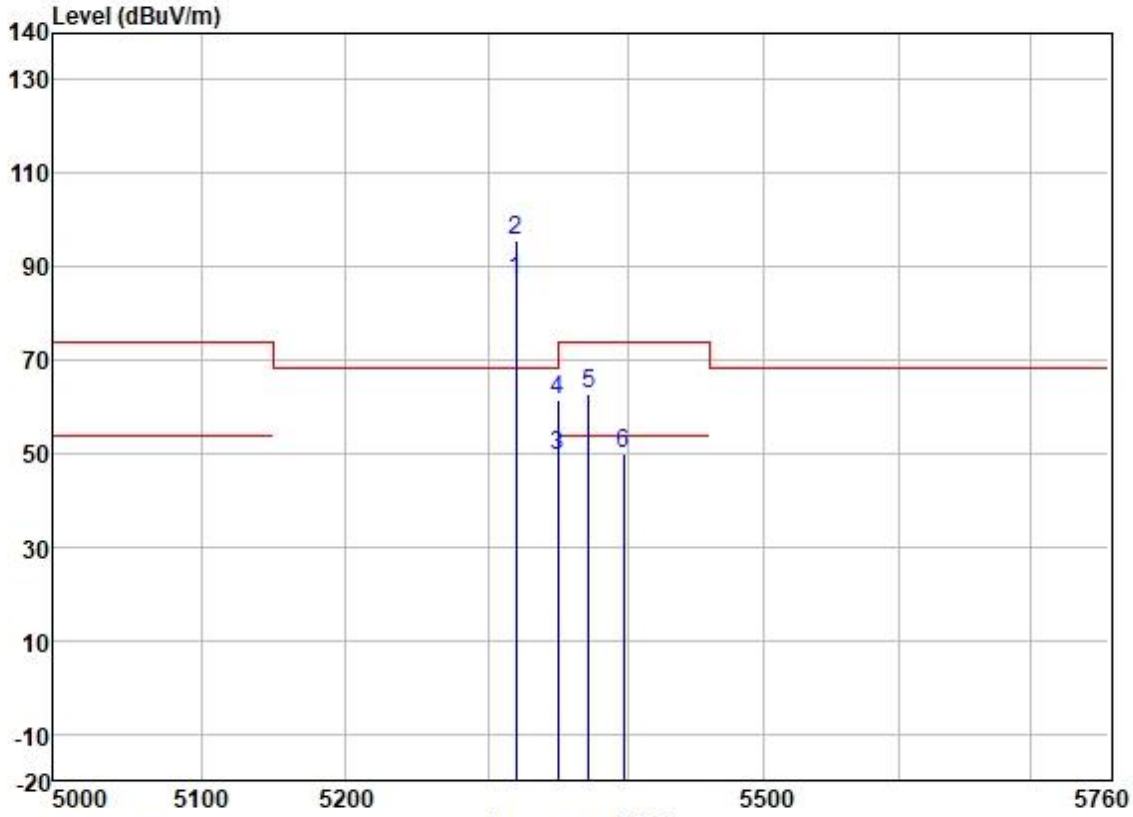
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5107.258	49.10	31.72	5.65	36.86	49.61	54.00	-4.39	VERTICAL	Average
2	5134.612	61.96	31.72	5.63	36.86	62.45	74.00	-11.55	VERTICAL	Peak
3	5149.980	48.67	31.72	5.62	36.86	49.15	54.00	-4.85	VERTICAL	Average
4	5149.980	60.50	31.72	5.62	36.86	60.98	74.00	-13.02	VERTICAL	Peak
5	5260.000	91.46	31.75	5.77	36.87	92.11	------	------	VERTICAL	Average
6 *	5260.000	100.15	31.75	5.77	36.87	100.80	68.20	32.60	VERTICAL	Peak

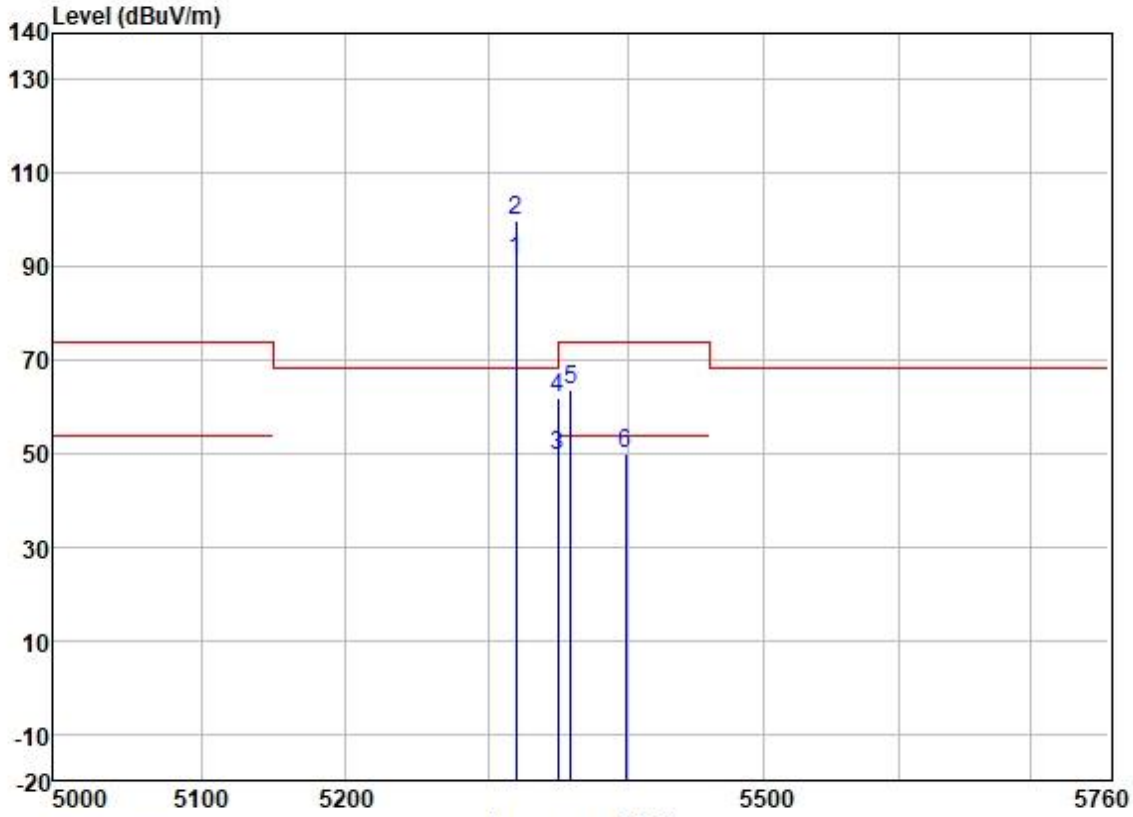
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	85.96	31.77	6.08	36.88	86.93	------	------	HORIZONTAL	Average
2	*	5320.000	94.65	31.77	6.08	36.88	95.62	68.20	27.42	HORIZONTAL	Peak
3		5350.020	48.74	31.77	6.05	36.88	49.68	54.00	-4.32	HORIZONTAL	Average
4		5350.020	60.70	31.77	6.05	36.88	61.64	74.00	-12.36	HORIZONTAL	Peak
5		5372.113	61.85	31.78	6.02	36.88	62.77	74.00	-11.23	HORIZONTAL	Peak
6		5397.074	49.04	31.78	6.00	36.88	49.94	54.00	-4.06	HORIZONTAL	Average

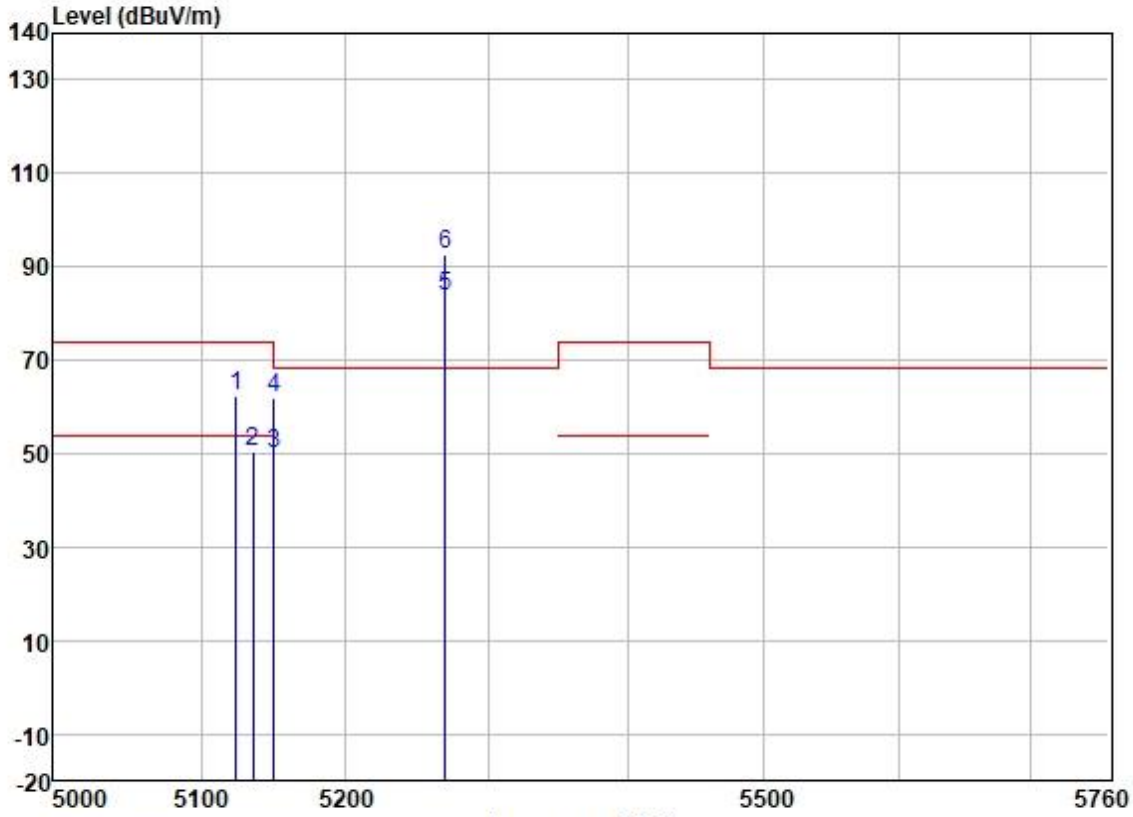
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	90.42	31.77	6.08	36.88	91.39	------	------	VERTICAL	Average
2	*	5320.000	98.87	31.77	6.08	36.88	99.84	68.20	31.64	VERTICAL	Peak
3		5350.020	48.69	31.77	6.05	36.88	49.63	54.00	-4.37	VERTICAL	Average
4		5350.020	60.79	31.77	6.05	36.88	61.73	74.00	-12.27	VERTICAL	Peak
5		5359.375	62.86	31.78	6.03	36.88	63.79	74.00	-10.21	VERTICAL	Peak
6		5398.385	48.92	31.78	6.00	36.88	49.82	54.00	-4.18	VERTICAL	Average

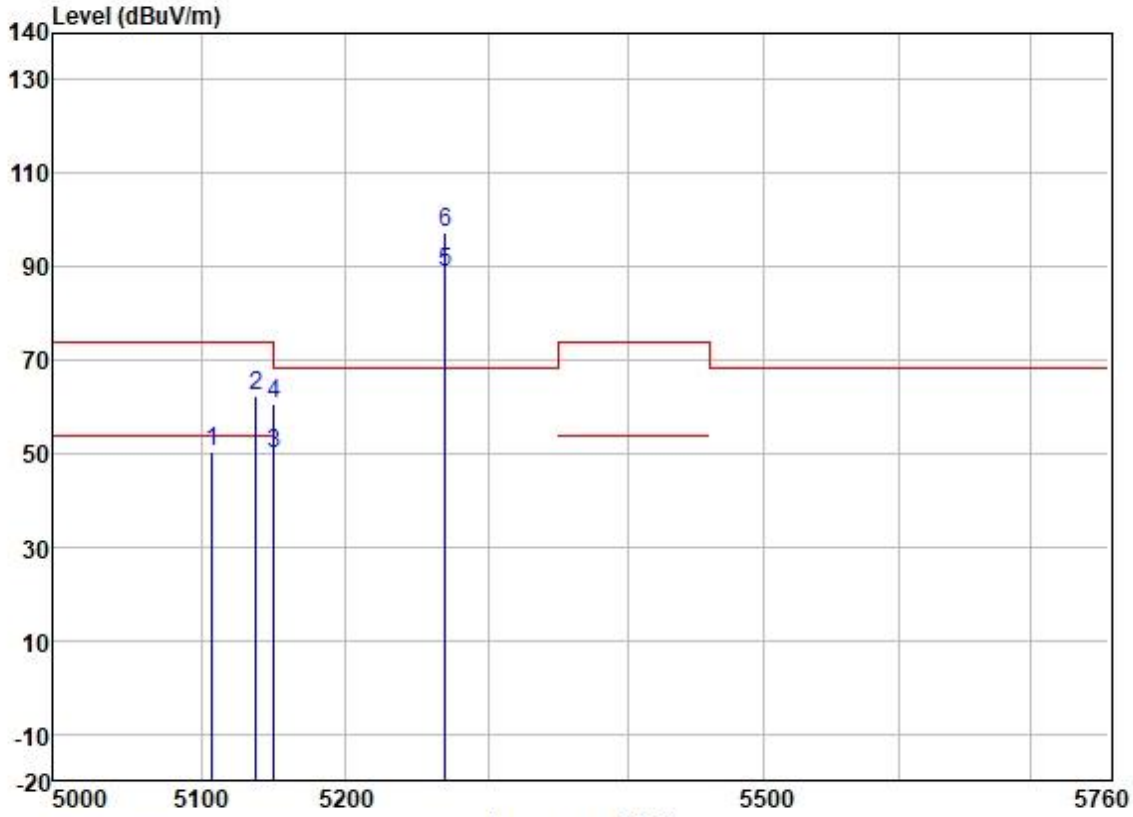
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5124.187	61.72	31.72	5.64	36.86	62.22	74.00	-11.78	HORIZONTAL	Peak
2	5135.830	49.97	31.72	5.63	36.86	50.46	54.00	-3.54	HORIZONTAL	Average
3	5149.980	49.48	31.72	5.62	36.86	49.96	54.00	-4.04	HORIZONTAL	Average
4	5149.980	61.56	31.72	5.62	36.86	62.04	74.00	-11.96	HORIZONTAL	Peak
5	5270.000	83.07	31.75	5.80	36.87	83.75	------	------	HORIZONTAL	Average
6 *	5270.000	91.77	31.75	5.80	36.87	92.45	68.20	24.25	HORIZONTAL	Peak

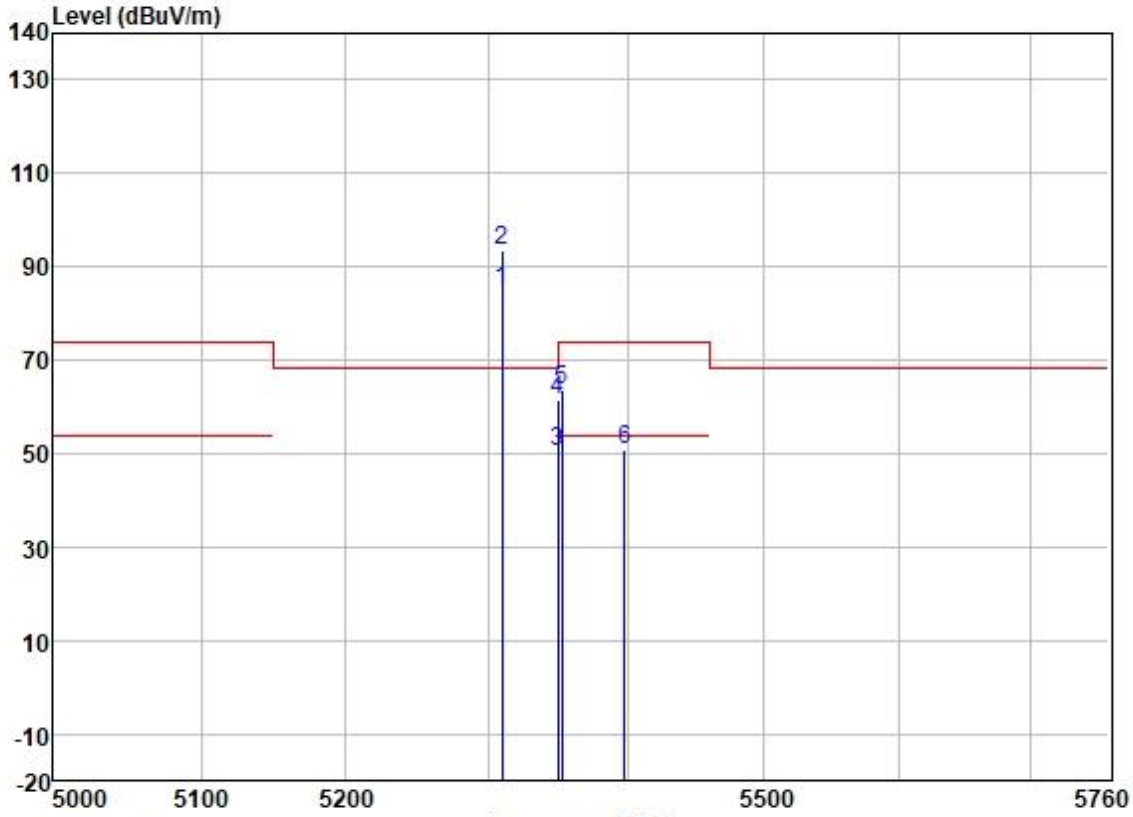
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5107.853	50.06	31.72	5.65	36.86	50.57	54.00	-3.43	VERTICAL	Average
2	5137.410	61.75	31.72	5.63	36.86	62.24	74.00	-11.76	VERTICAL	Peak
3	5149.980	49.42	31.72	5.62	36.86	49.90	54.00	-4.10	VERTICAL	Average
4	5149.980	60.14	31.72	5.62	36.86	60.62	74.00	-13.38	VERTICAL	Peak
5	5270.000	88.31	31.75	5.80	36.87	88.99	------	------	VERTICAL	Average
6 *	5270.000	96.78	31.75	5.80	36.87	97.46	68.20	29.26	VERTICAL	Peak

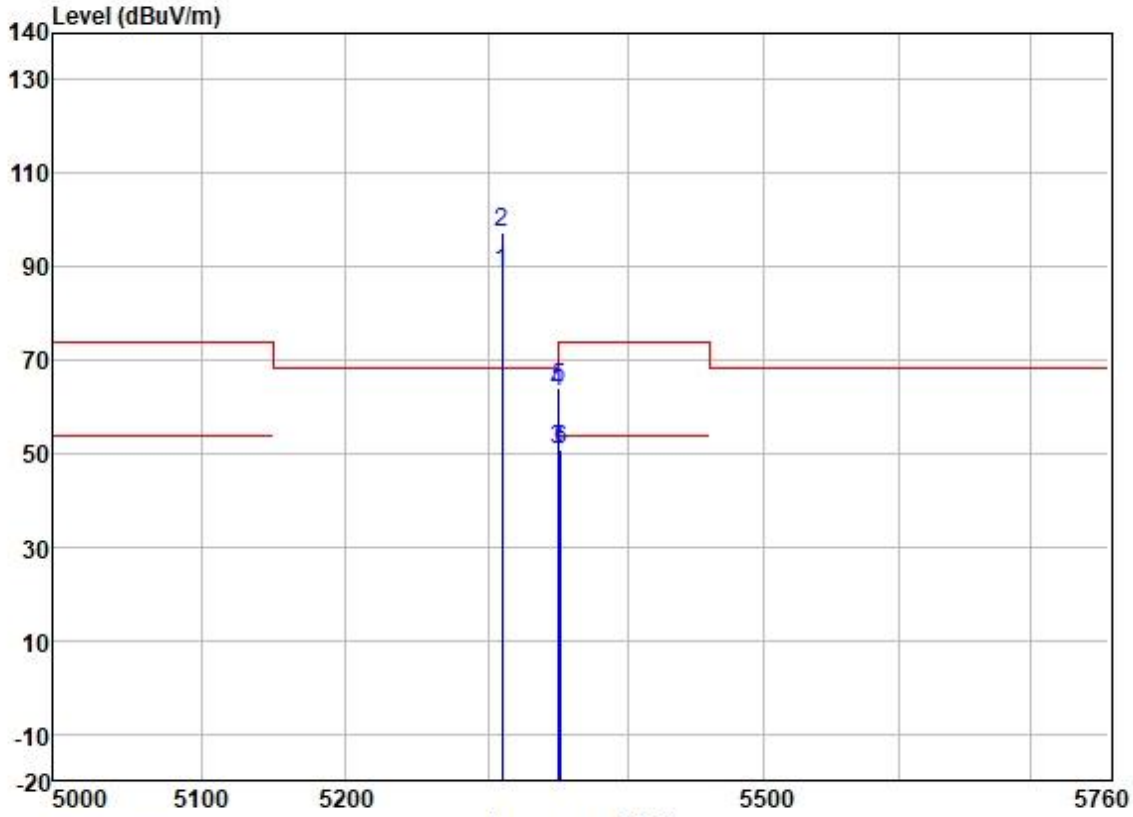
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	83.96	31.77	6.08	36.87	84.94	------	------	HORIZONTAL	Average
2	*	5310.000	92.42	31.77	6.08	36.87	93.40	68.20	25.20	HORIZONTAL	Peak
3		5350.020	49.58	31.77	6.05	36.88	50.52	54.00	-3.48	HORIZONTAL	Average
4		5350.020	60.65	31.77	6.05	36.88	61.59	74.00	-12.41	HORIZONTAL	Peak
5		5352.398	62.48	31.77	6.05	36.88	63.42	74.00	-10.58	HORIZONTAL	Peak
6		5398.059	49.85	31.78	6.00	36.88	50.75	54.00	-3.25	HORIZONTAL	Average

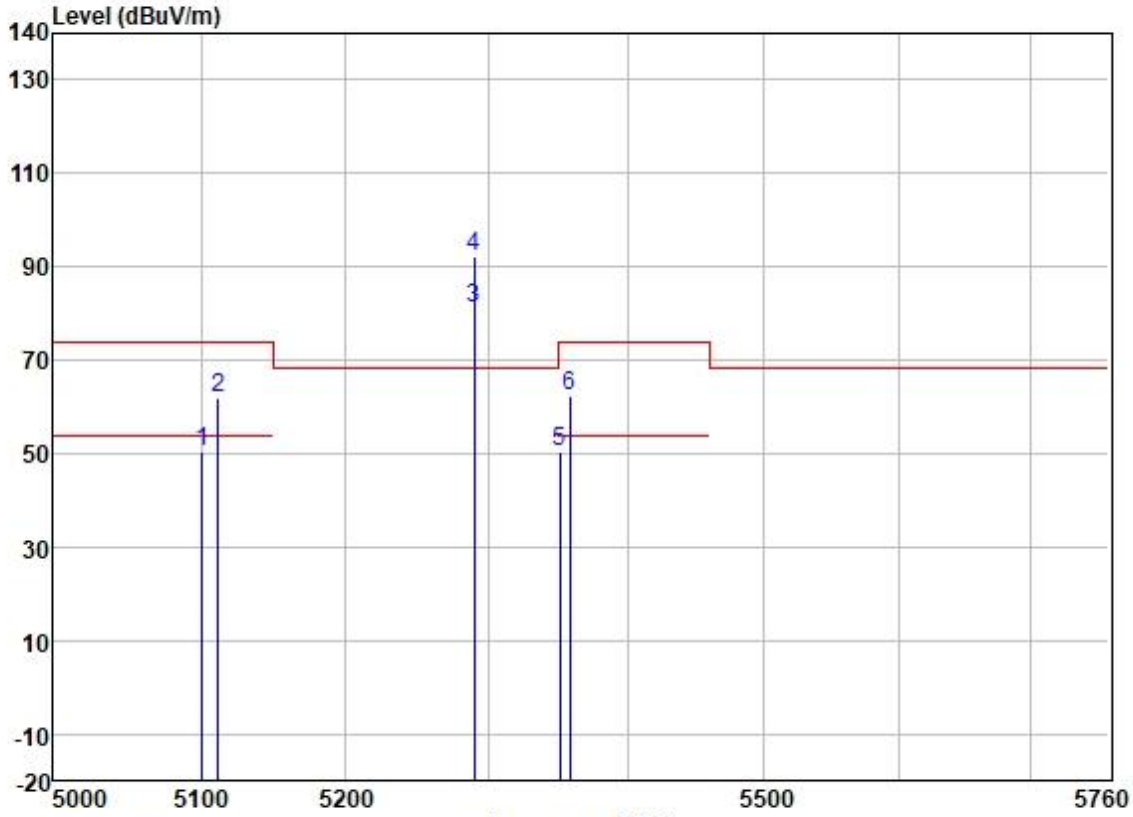
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	87.68	31.77	6.08	36.87	88.66	------	------	VERTICAL	Average
2	*	5310.000	96.42	31.77	6.08	36.87	97.40	68.20	29.20	VERTICAL	Peak
3		5350.020	49.99	31.77	6.05	36.88	50.93	54.00	-3.07	VERTICAL	Average
4		5350.020	62.11	31.77	6.05	36.88	63.05	74.00	-10.95	VERTICAL	Peak
5		5350.594	63.24	31.77	6.05	36.88	64.18	74.00	-9.82	VERTICAL	Peak
6		5351.556	49.97	31.77	6.05	36.88	50.91	54.00	-3.09	VERTICAL	Average

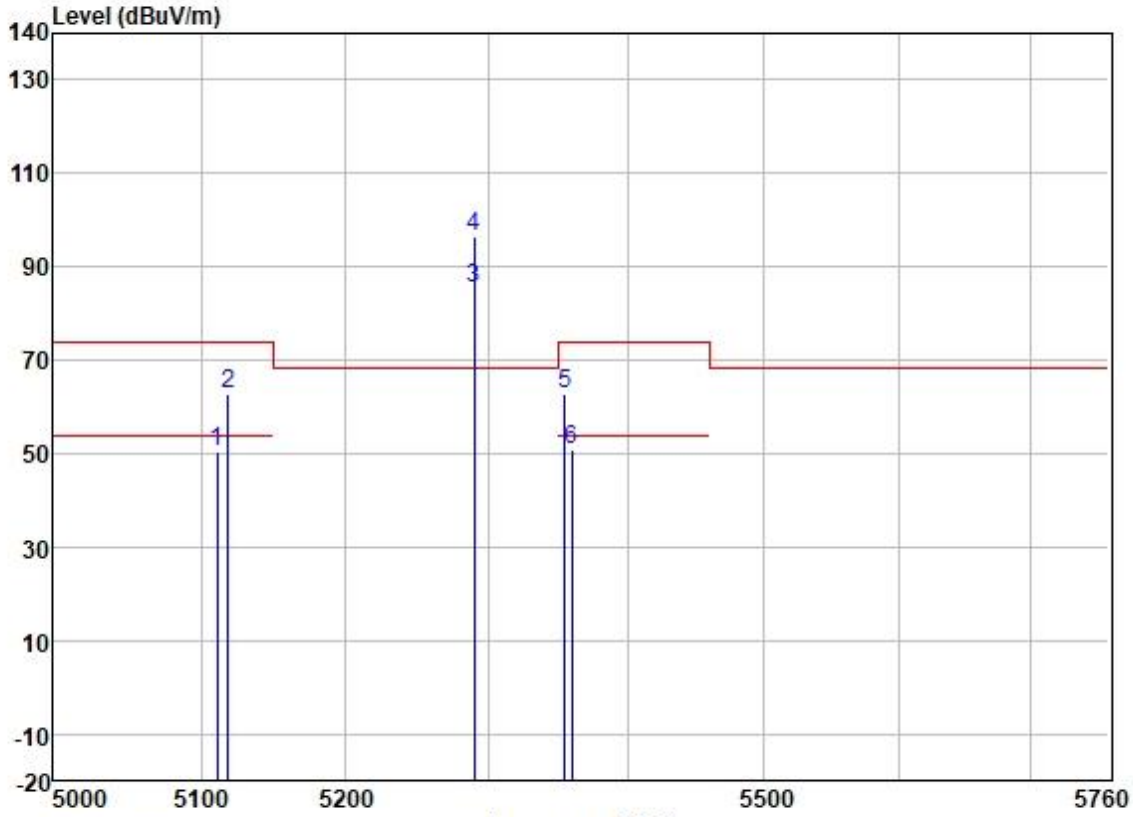
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5100.583	49.96	31.72	5.65	36.86	50.47	54.00	-3.53	HORIZONTAL	Average
2		5111.966	61.60	31.72	5.65	36.86	62.11	74.00	-11.89	HORIZONTAL	Peak
3		5290.000	80.16	31.76	6.00	36.87	81.05	------	------	HORIZONTAL	Average
4	*	5290.000	91.34	31.76	6.00	36.87	92.23	68.20	24.03	HORIZONTAL	Peak
5		5351.146	49.64	31.77	6.05	36.88	50.58	54.00	-3.42	HORIZONTAL	Average
6		5358.186	61.44	31.78	6.03	36.88	62.37	74.00	-11.63	HORIZONTAL	Peak

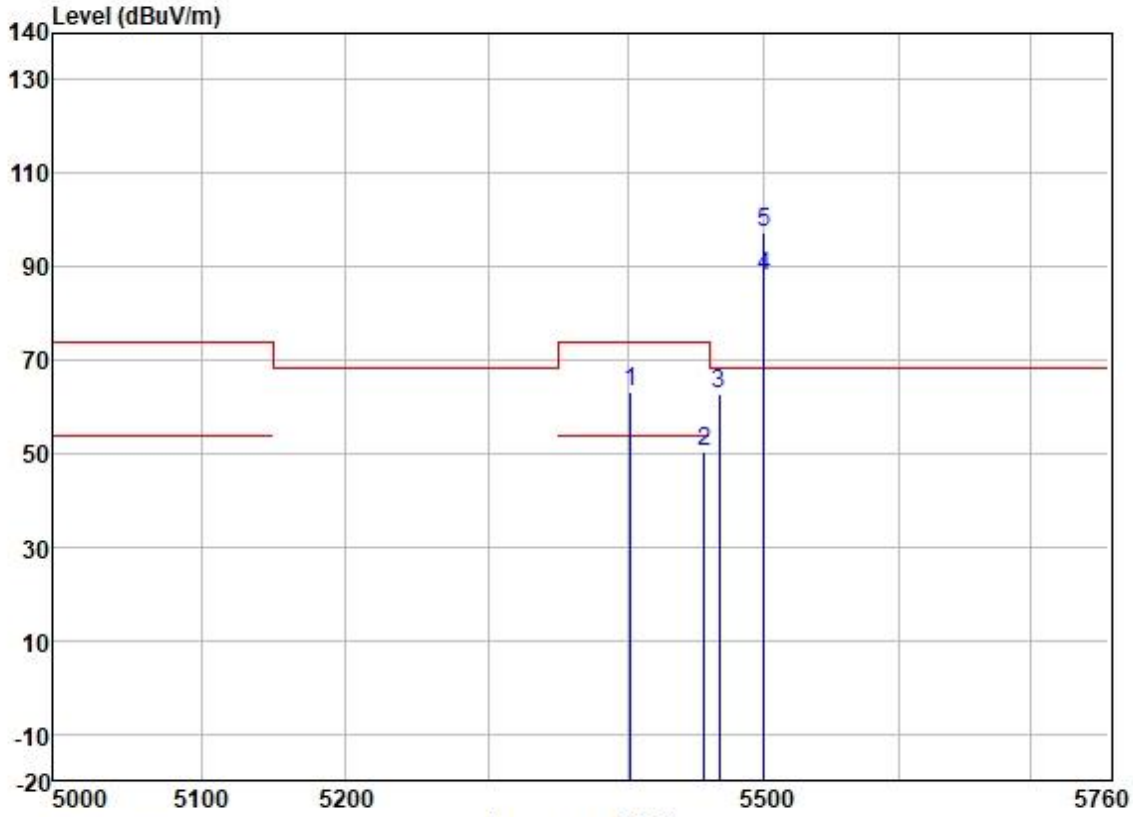
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5111.089	50.02	31.72	5.65	36.86	50.53	54.00	-3.47	VERTICAL	Average
2		5118.690	62.42	31.72	5.64	36.86	62.92	74.00	-11.08	VERTICAL	Peak
3		5290.000	84.55	31.76	6.00	36.87	85.44	------	------	VERTICAL	Average
4	*	5290.000	95.57	31.76	6.00	36.87	96.46	68.20	28.26	VERTICAL	Peak
5		5354.512	62.04	31.78	6.03	36.88	62.97	74.00	-11.03	VERTICAL	Peak
6		5359.717	49.99	31.78	6.03	36.88	50.92	54.00	-3.08	VERTICAL	Average

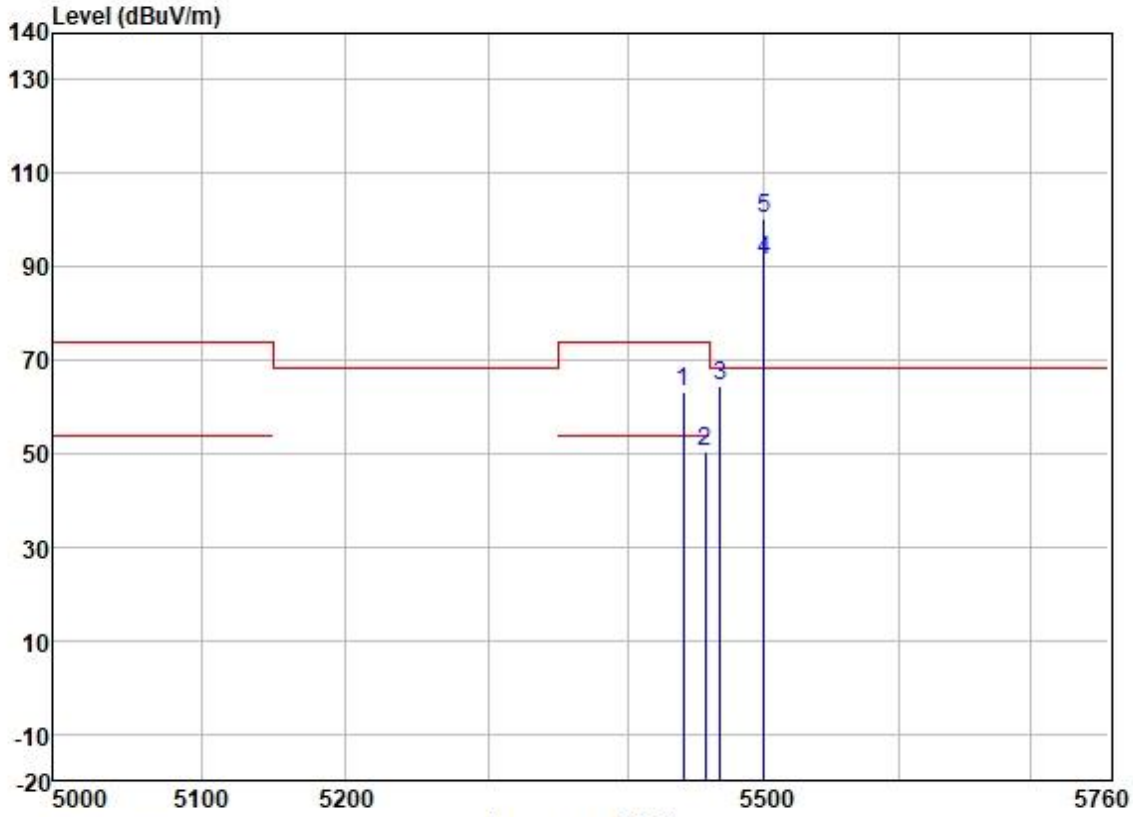
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5402.137	62.33	31.79	6.06	36.88	63.30	74.00	-10.70	HORIZONTAL	Peak
2	5455.952	49.30	31.79	6.26	36.88	50.47	54.00	-3.53	HORIZONTAL	Average
3	5466.755	61.63	31.80	6.31	36.88	62.86	68.20	-5.34	HORIZONTAL	Peak
4	5500.000	86.83	31.80	6.40	36.88	88.15	------	------	HORIZONTAL	Average
5 *	5500.000	95.97	31.80	6.40	36.88	97.29	68.20	29.09	HORIZONTAL	Peak

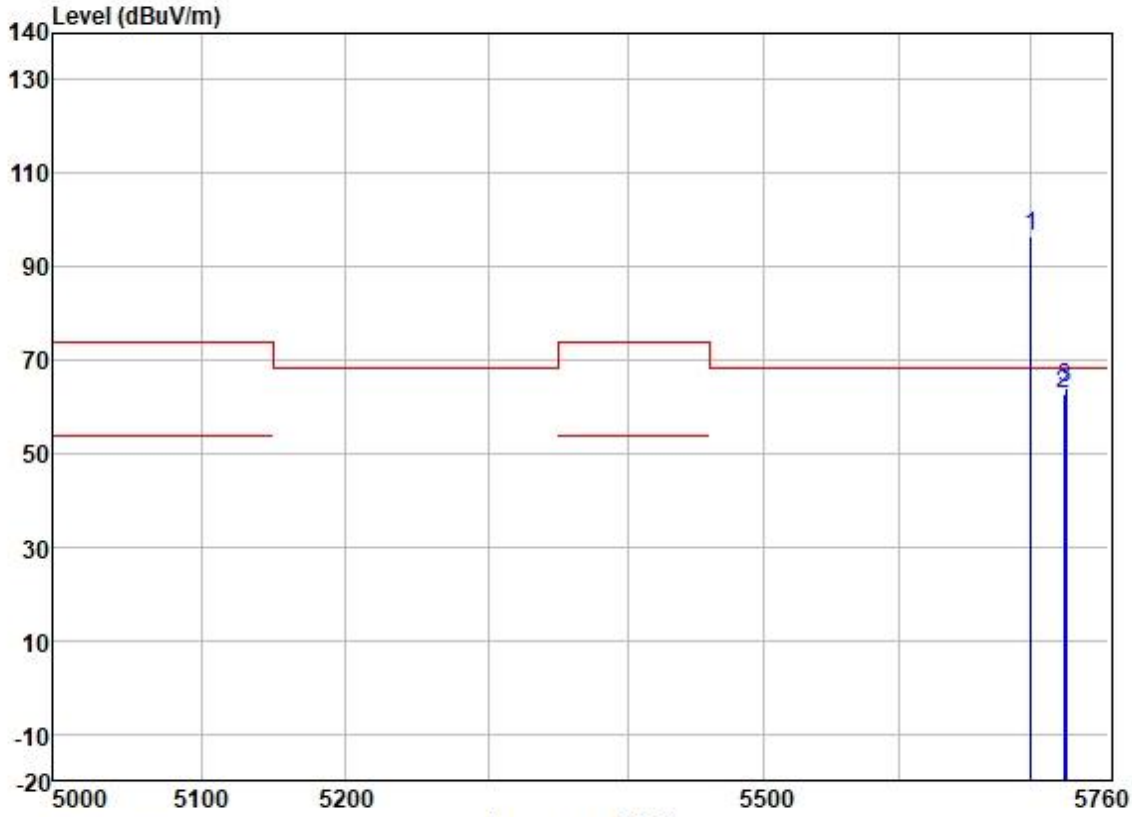
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5440.265	62.17	31.79	6.20	36.88	63.28	74.00	-10.72	VERTICAL	Peak
2	5456.431	49.23	31.79	6.26	36.88	50.40	54.00	-3.60	VERTICAL	Average
3	5467.716	63.22	31.80	6.31	36.88	64.45	68.20	-3.75	VERTICAL	Peak
4	5500.000	90.11	31.80	6.40	36.88	91.43	------	------	VERTICAL	Average
5 *	5500.000	99.14	31.80	6.40	36.88	100.46	68.20	32.26	VERTICAL	Peak

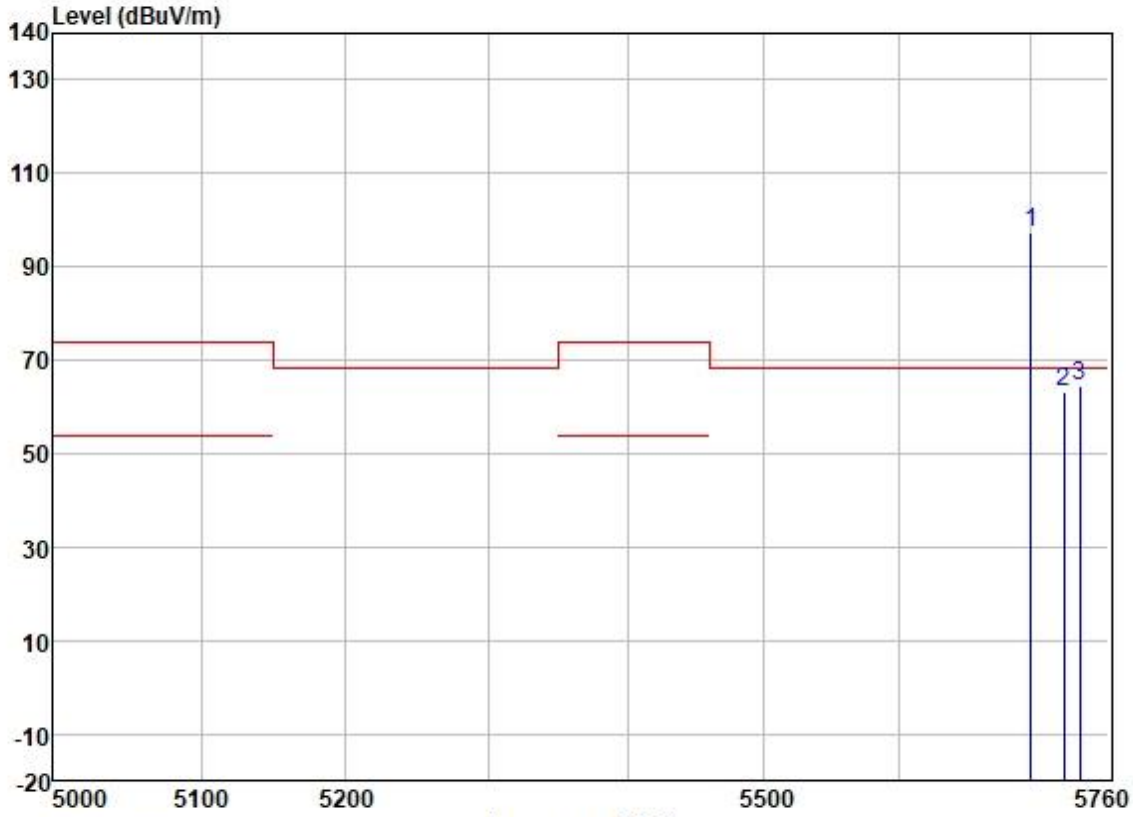
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5700.000	95.14	32.01	6.40	36.89	96.66	68.20	28.46	HORIZONTAL	Peak
2		5725.000	61.36	32.07	6.25	36.89	62.79	68.20	-5.41	HORIZONTAL	Peak
3		5726.883	62.56	32.07	6.25	36.89	63.99	68.20	-4.21	HORIZONTAL	Peak

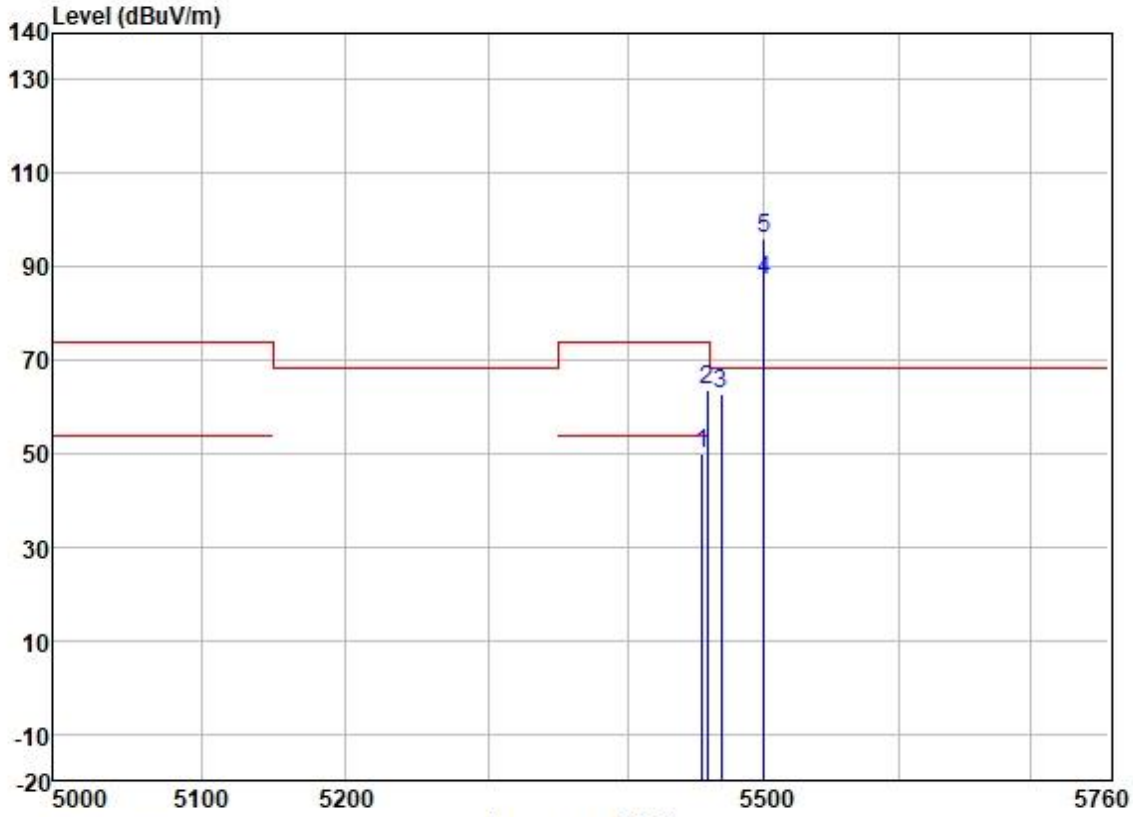
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	*	5700.000	95.62	32.01	6.40	36.89	97.14	68.20	28.94	VERTICAL	Peak
2		5725.000	61.62	32.07	6.25	36.89	63.05	68.20	-5.15	VERTICAL	Peak
3		5737.487	63.05	32.07	6.25	36.89	64.48	68.20	-3.72	VERTICAL	Peak

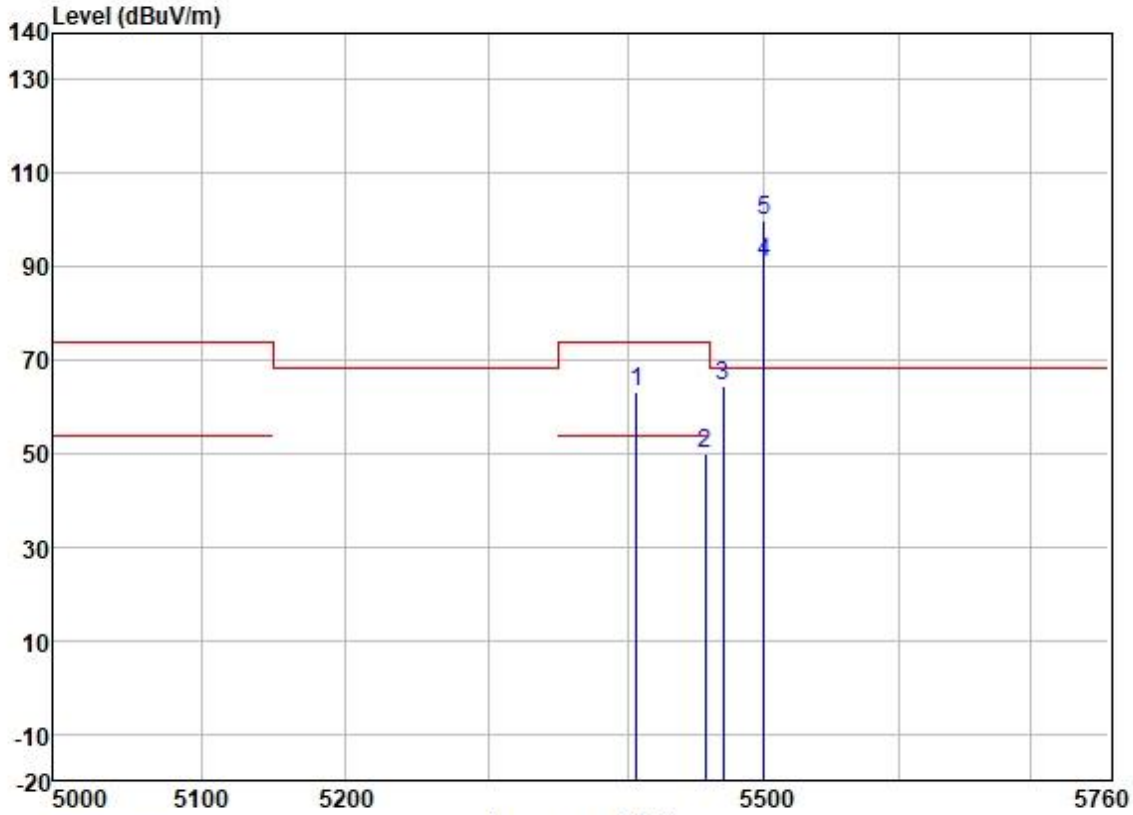
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5454.513	48.75	31.79	6.26	36.88	49.92	54.00	-4.08	HORIZONTAL	Average
2	5457.871	62.52	31.79	6.26	36.88	63.69	74.00	-10.31	HORIZONTAL	Peak
3	5467.957	61.35	31.80	6.31	36.88	62.58	68.20	-5.62	HORIZONTAL	Peak
4	5500.000	85.95	31.80	6.40	36.88	87.27	------	------	HORIZONTAL	Average
5 *	5500.000	94.55	31.80	6.40	36.88	95.87	68.20	27.67	HORIZONTAL	Peak

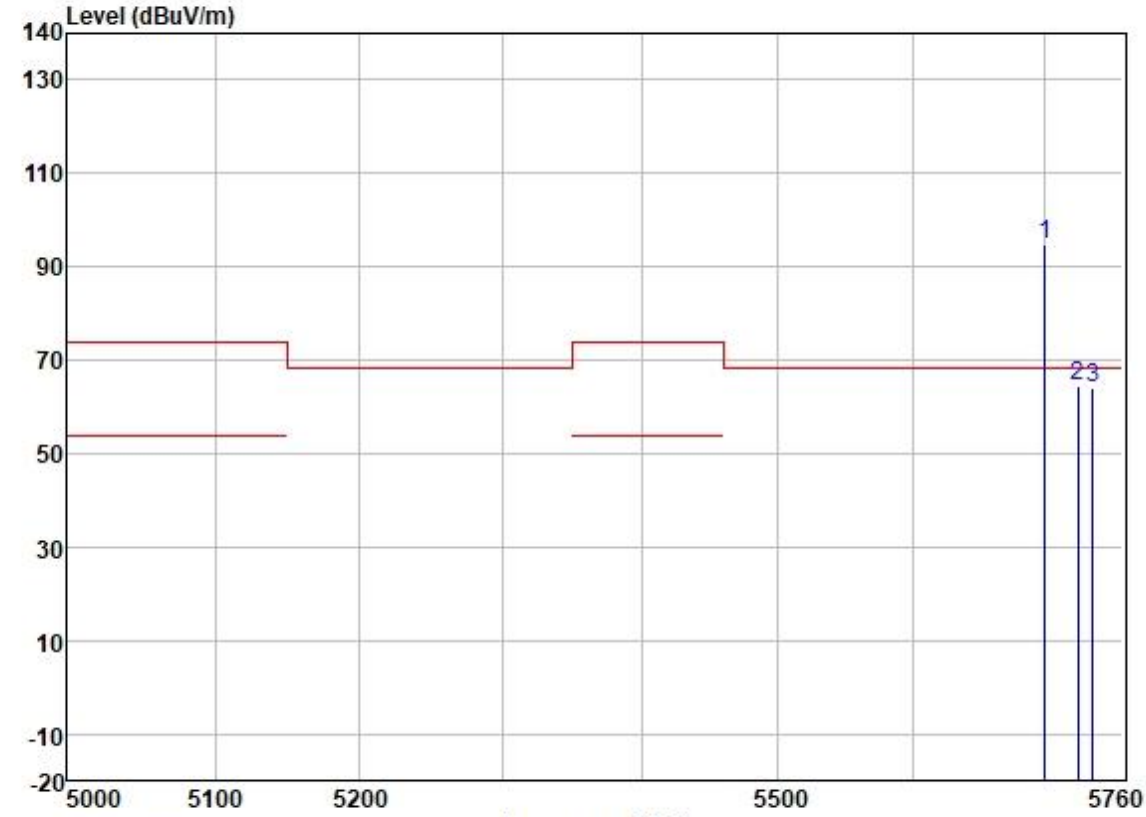
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5406.175	62.34	31.79	6.06	36.88	63.31	74.00	-10.69	VERTICAL	Peak
2	5456.191	49.01	31.79	6.26	36.88	50.18	54.00	-3.82	VERTICAL	Average
3	5469.759	63.38	31.80	6.31	36.88	64.61	68.20	-3.59	VERTICAL	Peak
4	5500.000	89.82	31.80	6.40	36.88	91.14	------	------	VERTICAL	Average
5 *	5500.000	98.43	31.80	6.40	36.88	99.75	68.20	31.55	VERTICAL	Peak

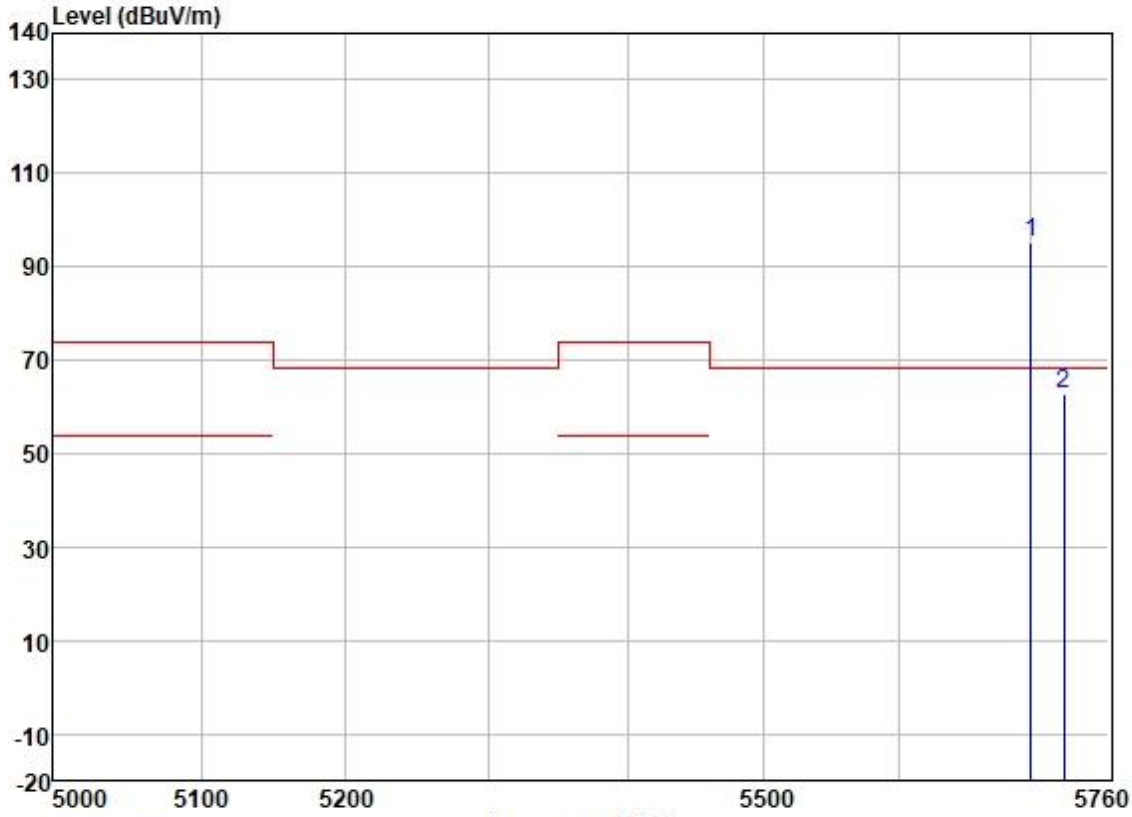
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	*	5700.000	93.23	32.01	6.40	36.89	94.75	68.20	26.55	HORIZONTAL	Peak
2		5725.000	62.85	32.07	6.25	36.89	64.28	68.20	-3.92	HORIZONTAL	Peak
3		5736.286	62.52	32.07	6.25	36.89	63.95	68.20	-4.25	HORIZONTAL	Peak

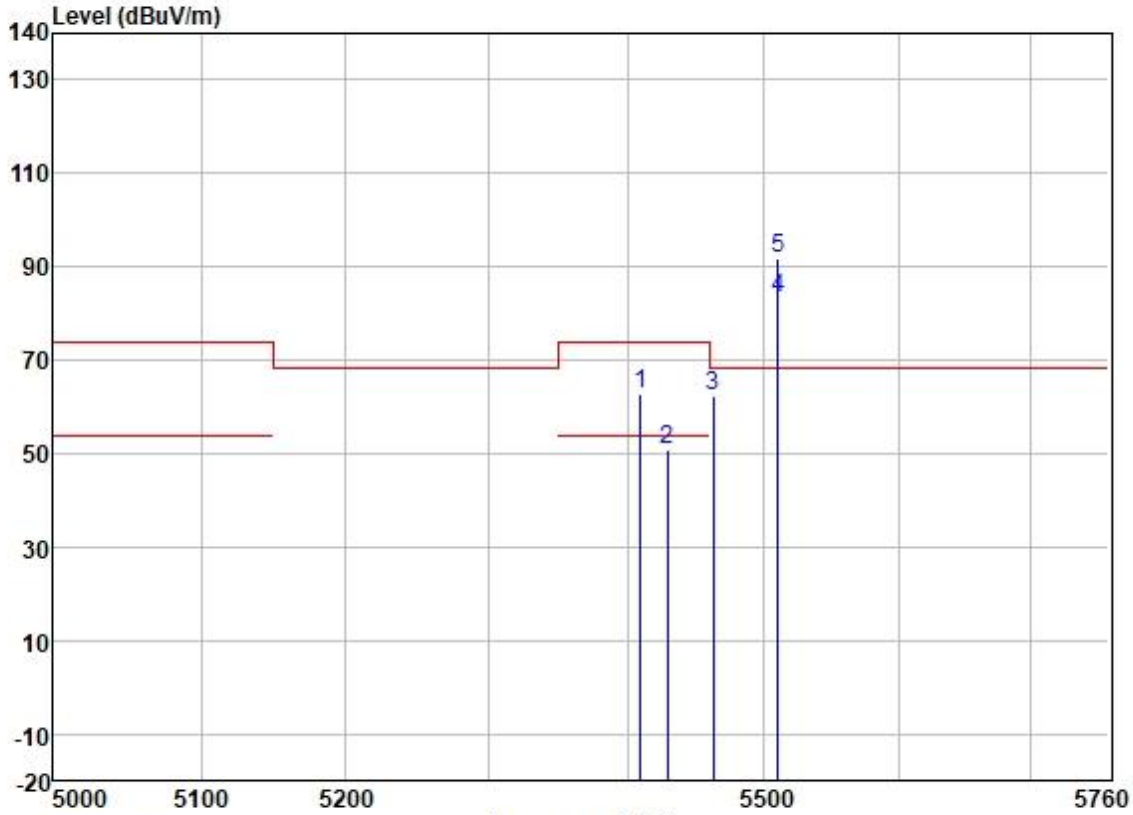
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5700.000	93.83	32.01	6.40	36.89	95.35	68.20	27.15	VERTICAL	Peak
2	5725.000	61.14	32.07	6.25	36.89	62.57	68.20	-5.63	VERTICAL	Peak

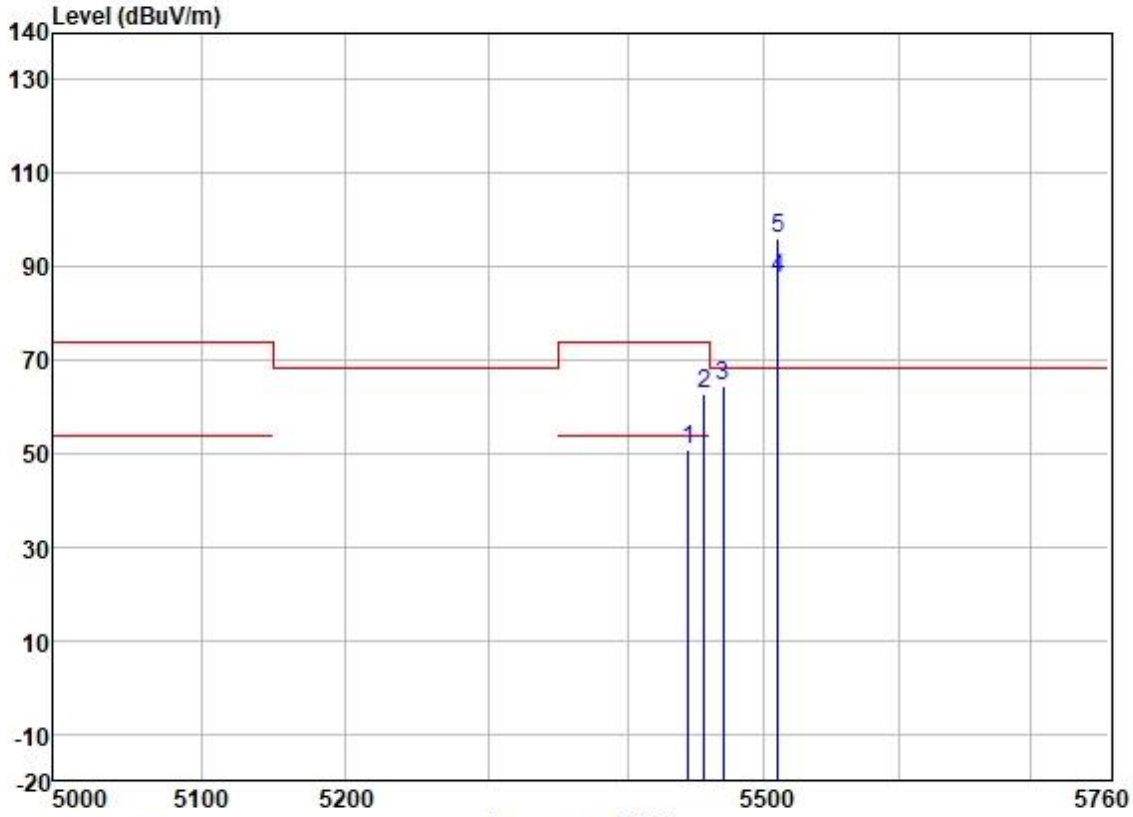
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5409.130	61.69	31.79	6.06	36.88	62.66	74.00	-11.34	HORIZONTAL	Peak
2	5429.243	49.62	31.79	6.13	36.88	50.66	54.00	-3.34	HORIZONTAL	Average
3	5462.557	61.34	31.79	6.26	36.88	62.51	68.20	-5.69	HORIZONTAL	Peak
4	5510.000	81.82	31.80	6.40	36.88	83.14	------	------	HORIZONTAL	Average
5 *	5510.000	90.55	31.80	6.40	36.88	91.87	68.20	23.67	HORIZONTAL	Peak

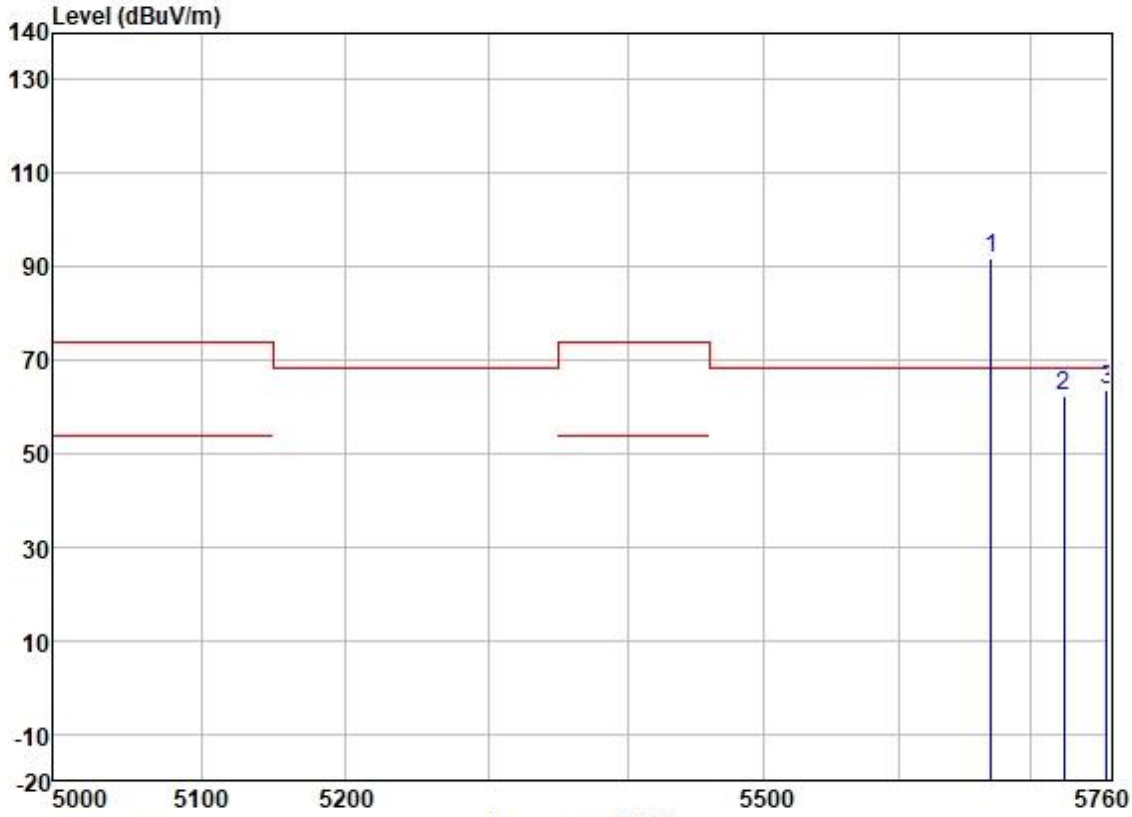
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5443.993	49.64	31.79	6.20	36.88	50.75	54.00	-3.25	VERTICAL	Average
2	5455.570	61.49	31.79	6.26	36.88	62.66	74.00	-11.34	VERTICAL	Peak
3	5469.412	63.35	31.80	6.31	36.88	64.58	68.20	-3.62	VERTICAL	Peak
4	5510.000	86.02	31.80	6.40	36.88	87.34	------	------	VERTICAL	Average
5 *	5510.000	94.62	31.80	6.40	36.88	95.94	68.20	27.74	VERTICAL	Peak

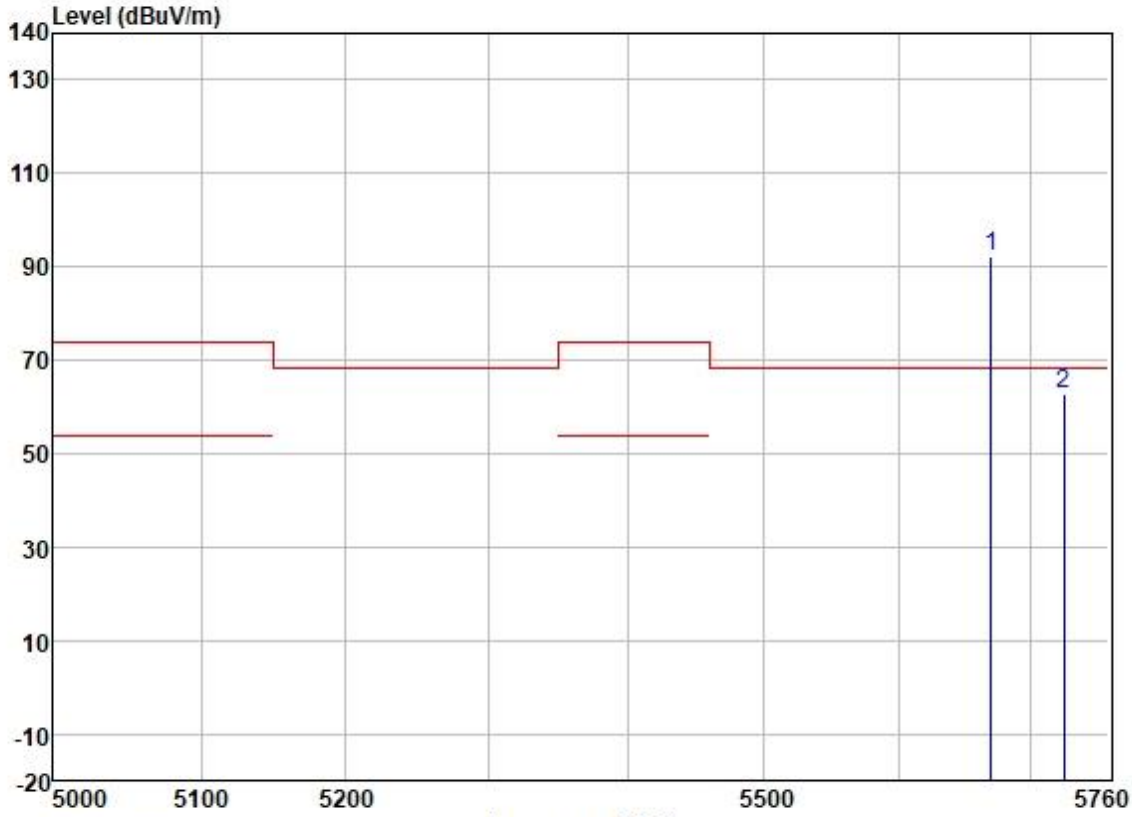
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5670.000	90.41	31.97	6.37	36.89	91.86	68.20	23.66	HORIZONTAL	Peak
2		5725.000	60.96	32.07	6.25	36.89	62.39	68.20	-5.81	HORIZONTAL	Peak
3		5758.075	62.21	32.13	6.15	36.89	63.60	68.20	-4.60	HORIZONTAL	Peak

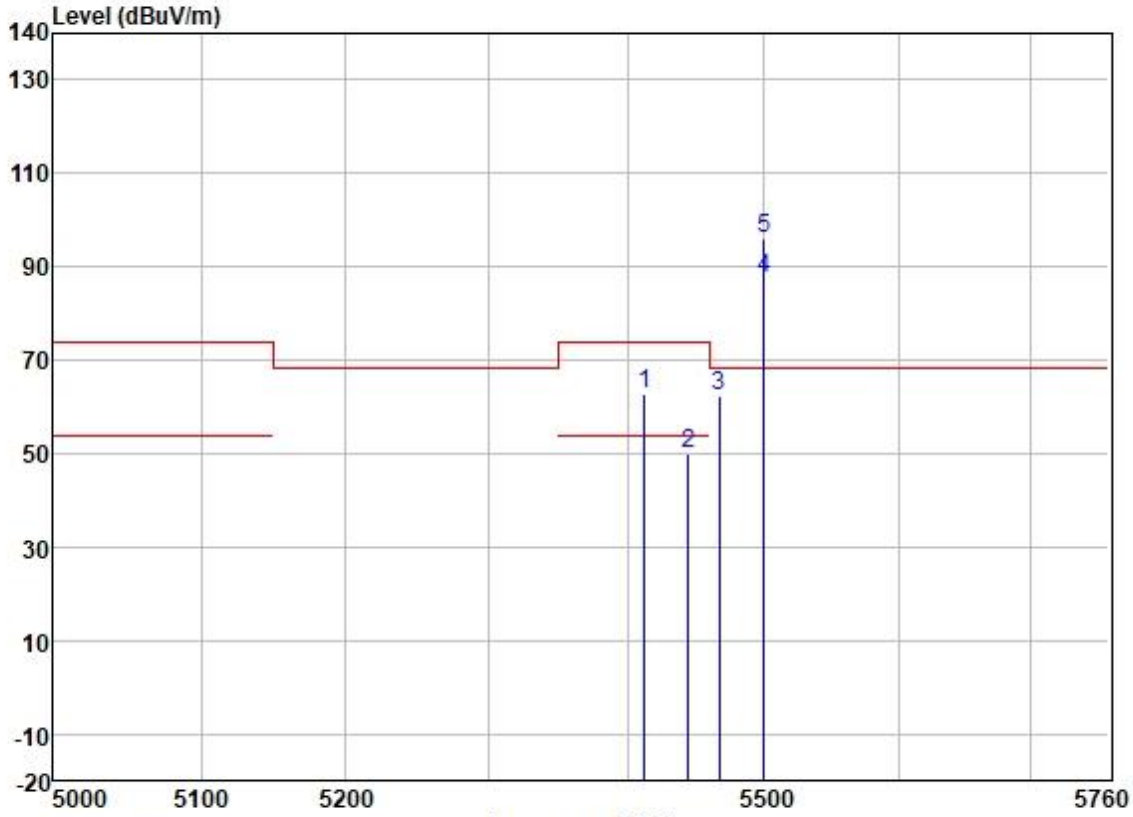
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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 *	5670.000	90.69	31.97	6.37	36.89	92.14	68.20	23.94	VERTICAL	Peak
2	5725.000	61.24	32.07	6.25	36.89	62.67	68.20	-5.53	VERTICAL	Peak

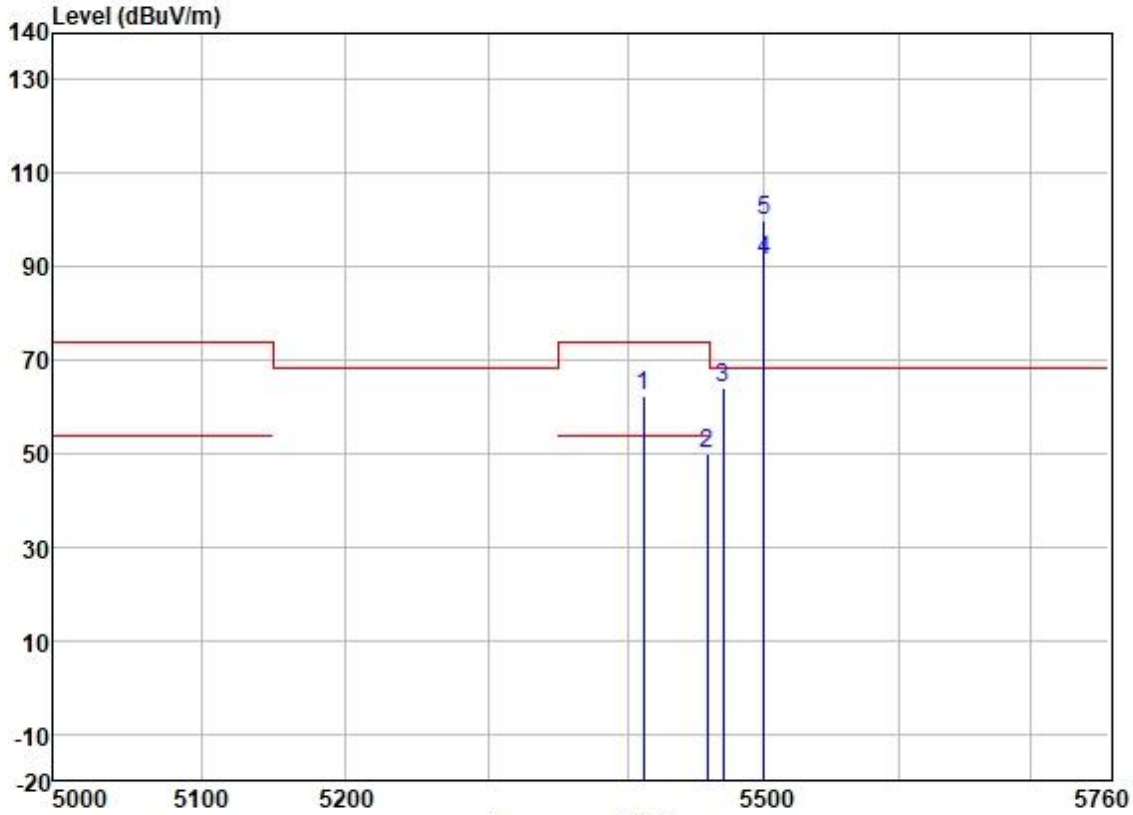
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5412.000	61.67	31.79	6.06	36.88	62.64	74.00	-11.36	HORIZONTAL	Peak
2	5444.212	48.86	31.79	6.20	36.88	49.97	54.00	-4.03	HORIZONTAL	Average
3	5466.875	61.26	31.80	6.31	36.88	62.49	68.20	-5.71	HORIZONTAL	Peak
4	5500.000	86.01	31.80	6.40	36.88	87.33	------	------	HORIZONTAL	Average
5 *	5500.000	94.56	31.80	6.40	36.88	95.88	68.20	27.68	HORIZONTAL	Peak

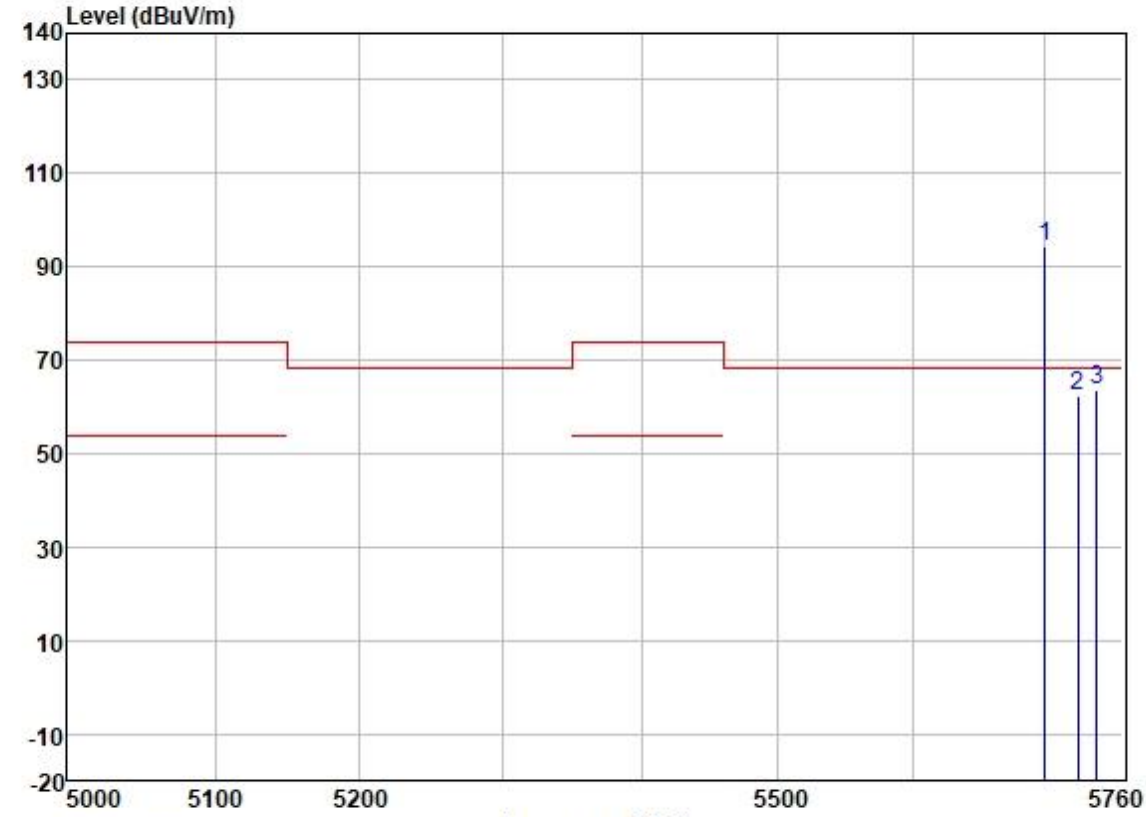
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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	5411.287	61.52	31.79	6.06	36.88	62.49	74.00	-11.51	VERTICAL	Peak
2	5458.230	48.79	31.79	6.26	36.88	49.96	54.00	-4.04	VERTICAL	Average
3	5469.399	62.65	31.80	6.31	36.88	63.88	68.20	-4.32	VERTICAL	Peak
4	5500.000	89.94	31.80	6.40	36.88	91.26	------	------	VERTICAL	Average
5 *	5500.000	98.63	31.80	6.40	36.88	99.95	68.20	31.75	VERTICAL	Peak

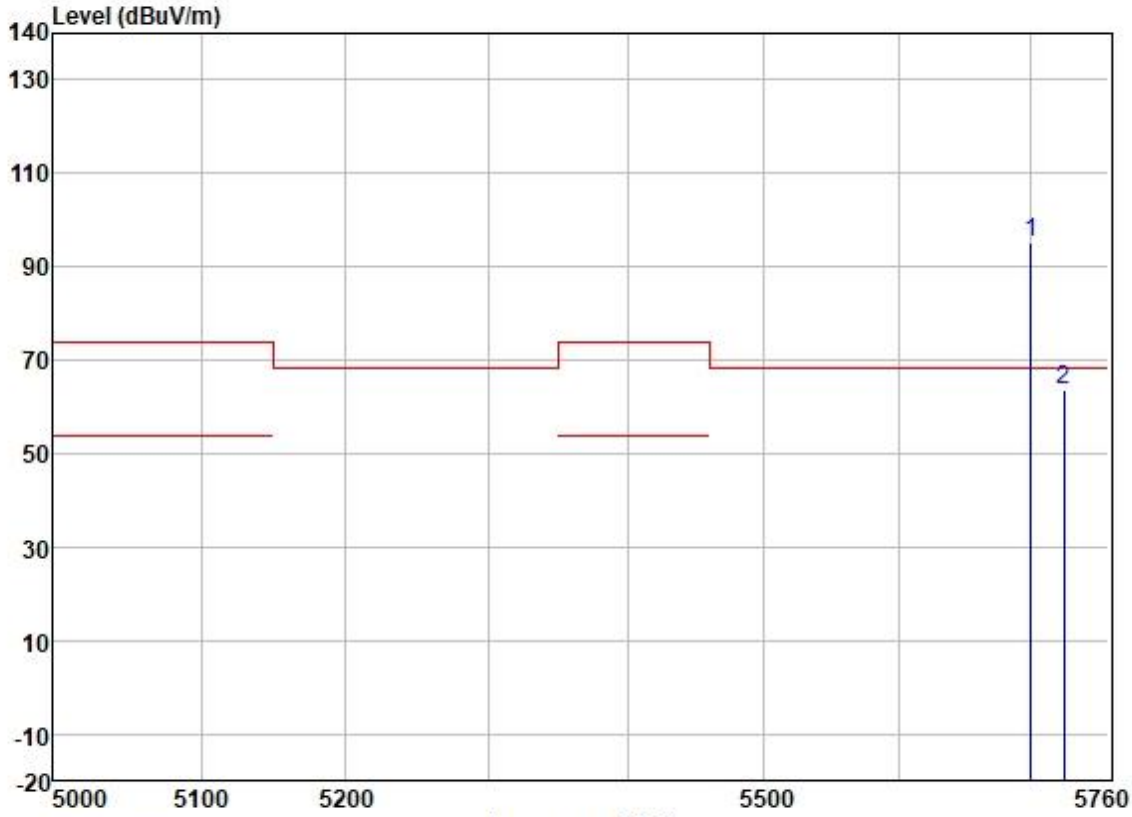
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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	*	5700.000	92.93	32.01	6.40	36.89	94.45	68.20	26.25	HORIZONTAL	Peak
2		5725.000	60.99	32.07	6.25	36.89	62.42	68.20	-5.78	HORIZONTAL	Peak
3		5739.891	62.35	32.10	6.20	36.89	63.76	68.20	-4.44	HORIZONTAL	Peak

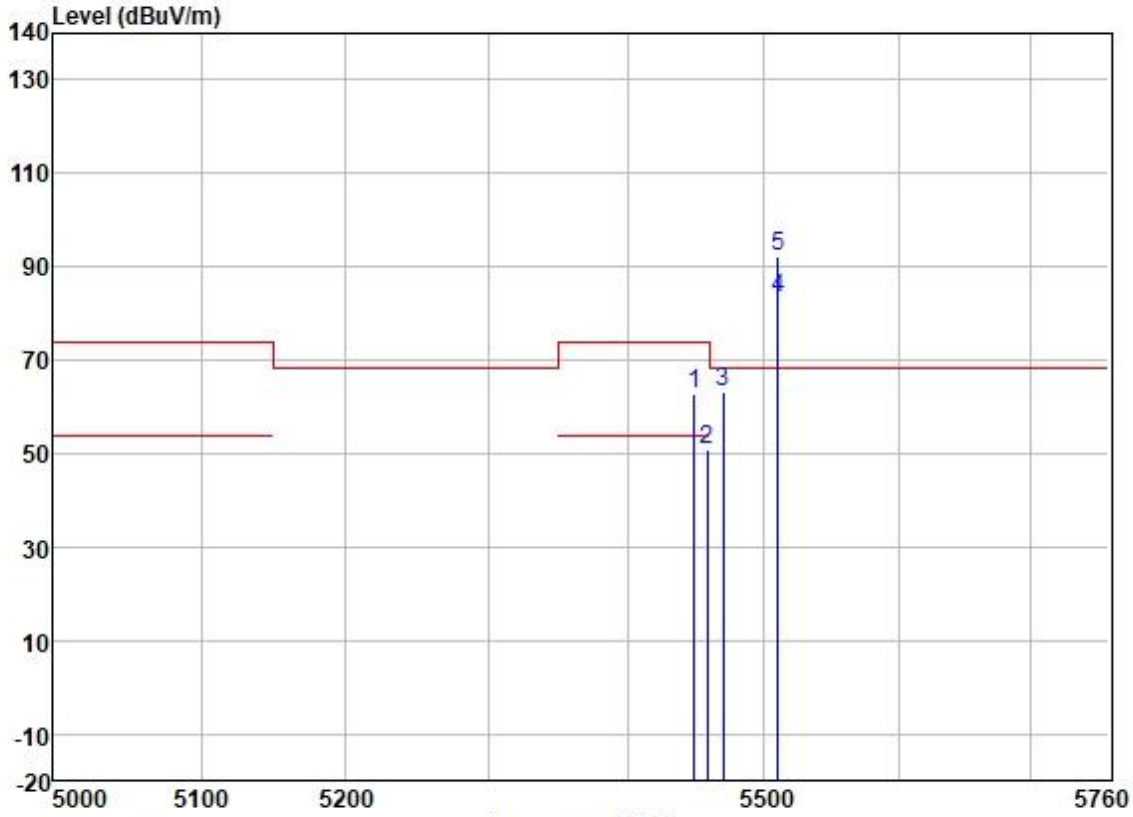
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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 *	5700.000	93.83	32.01	6.40	36.89	95.35	68.20	27.15	VERTICAL	Peak
2	5725.000	62.10	32.07	6.25	36.89	63.53	68.20	-4.67	VERTICAL	Peak

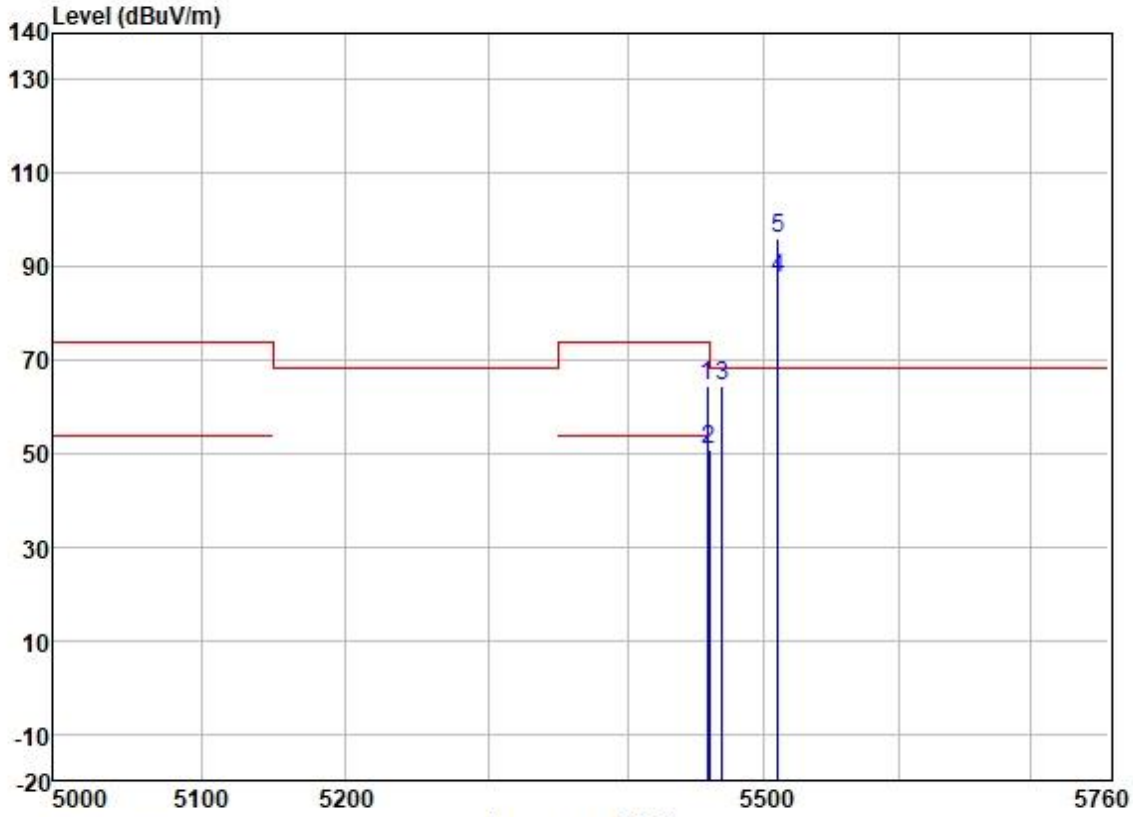
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5448.593	61.64	31.79	6.26	36.88	62.81	74.00	-11.19	HORIZONTAL	Peak
2	5458.224	49.49	31.79	6.26	36.88	50.66	54.00	-3.34	HORIZONTAL	Average
3	5469.552	61.76	31.80	6.31	36.88	62.99	68.20	-5.21	HORIZONTAL	Peak
4	5510.000	81.76	31.80	6.40	36.88	83.08	------	------	HORIZONTAL	Average
5 *	5510.000	90.72	31.80	6.40	36.88	92.04	68.20	23.84	HORIZONTAL	Peak

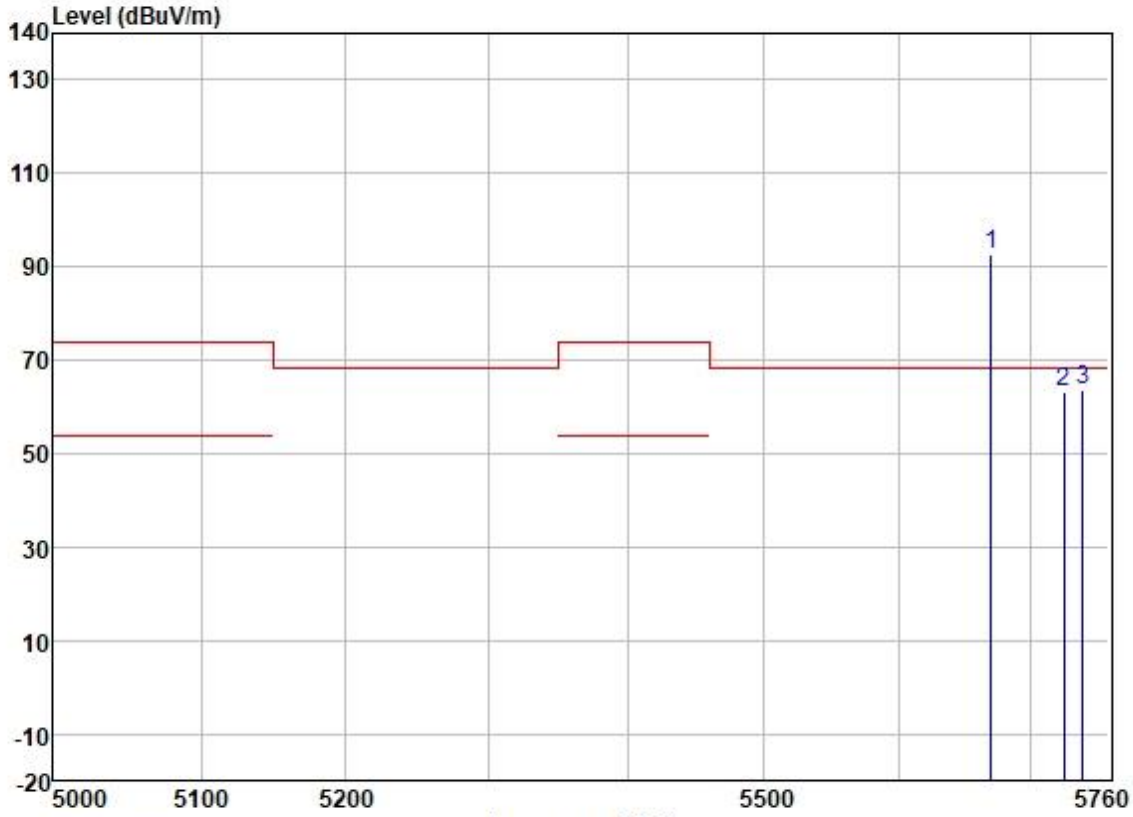
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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	5458.084	63.11	31.79	6.26	36.88	64.28	74.00	-9.72	VERTICAL	Peak
2	5459.481	49.67	31.79	6.26	36.88	50.84	54.00	-3.16	VERTICAL	Average
3	5469.132	63.44	31.80	6.31	36.88	64.67	68.20	-3.53	VERTICAL	Peak
4	5510.000	86.16	31.80	6.40	36.88	87.48	------	------	VERTICAL	Average
5 *	5510.000	94.76	31.80	6.40	36.88	96.08	68.20	27.88	VERTICAL	Peak

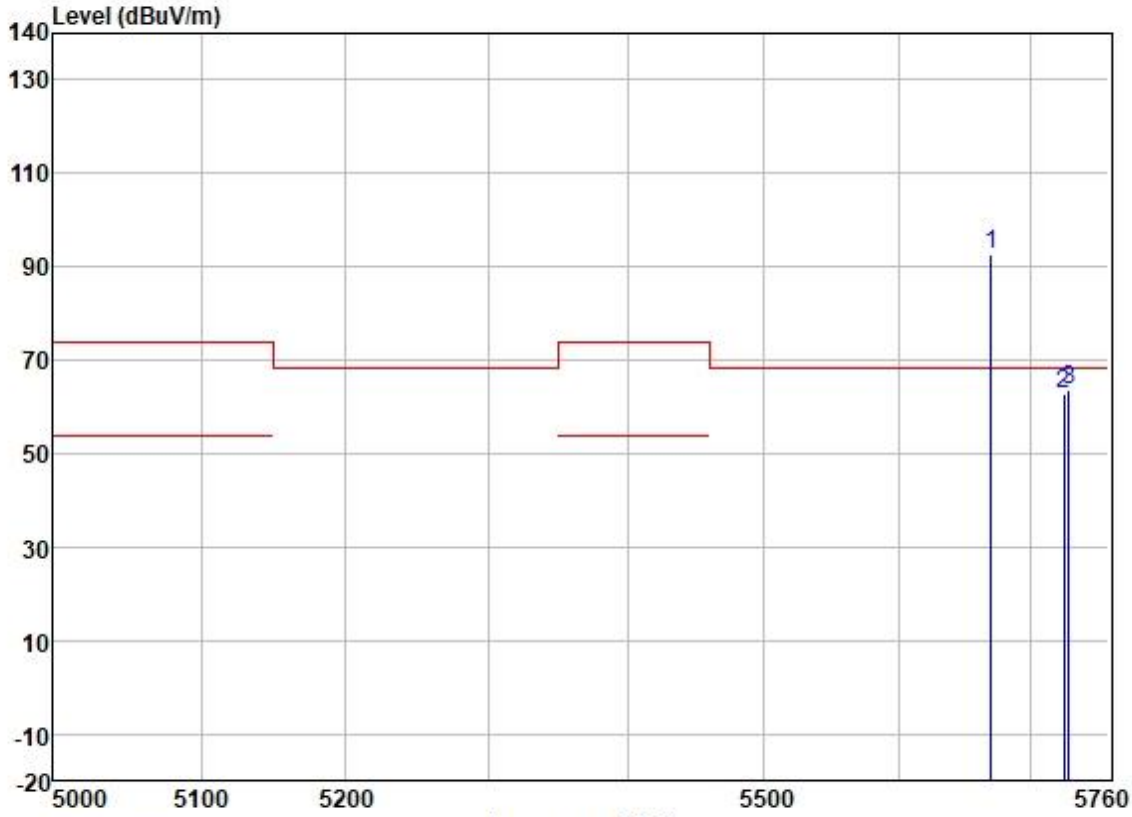
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	*	5670.000	91.30	31.97	6.37	36.89	92.75	68.20	24.55	HORIZONTAL	Peak
2		5725.000	61.73	32.07	6.25	36.89	63.16	68.20	-5.04	HORIZONTAL	Peak
3		5739.609	62.42	32.10	6.20	36.89	63.83	68.20	-4.37	HORIZONTAL	Peak

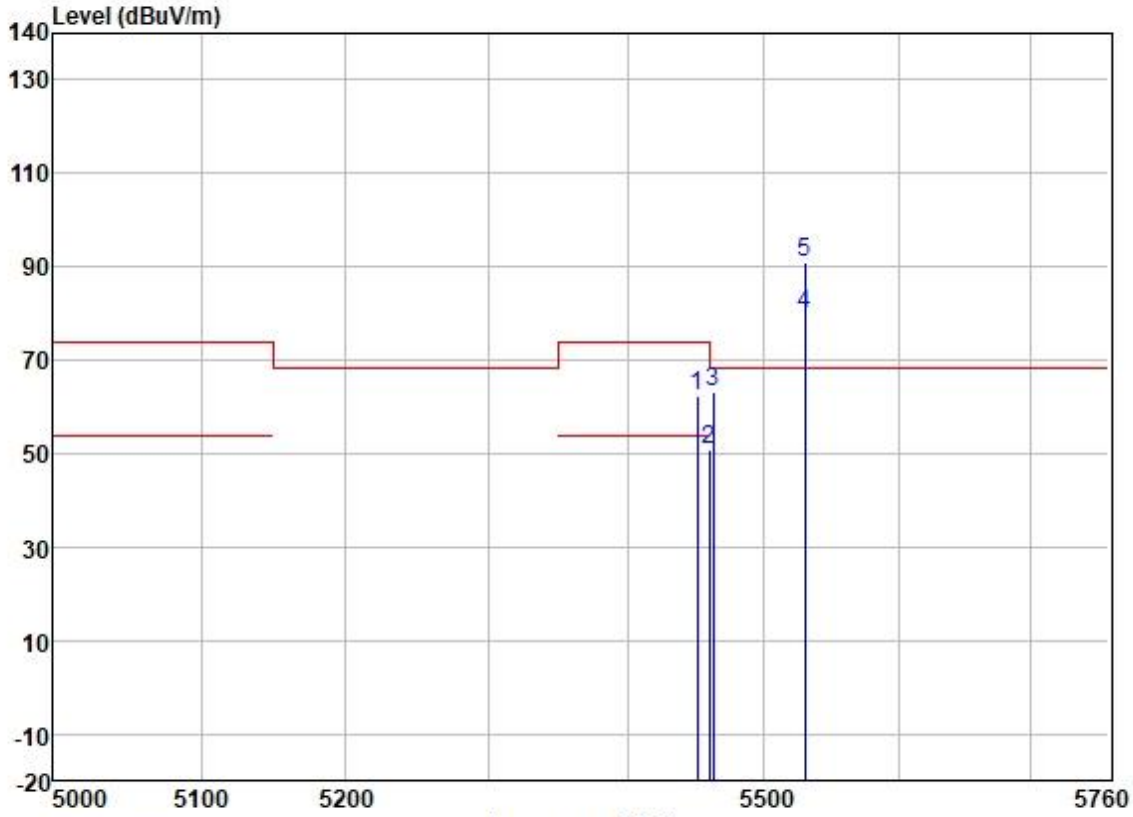
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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	*	5670.000	91.23	31.97	6.37	36.89	92.68	68.20	24.48	VERTICAL	Peak
2		5725.000	61.46	32.07	6.25	36.89	62.89	68.20	-5.31	VERTICAL	Peak
3		5728.923	62.09	32.07	6.25	36.89	63.52	68.20	-4.68	VERTICAL	Peak

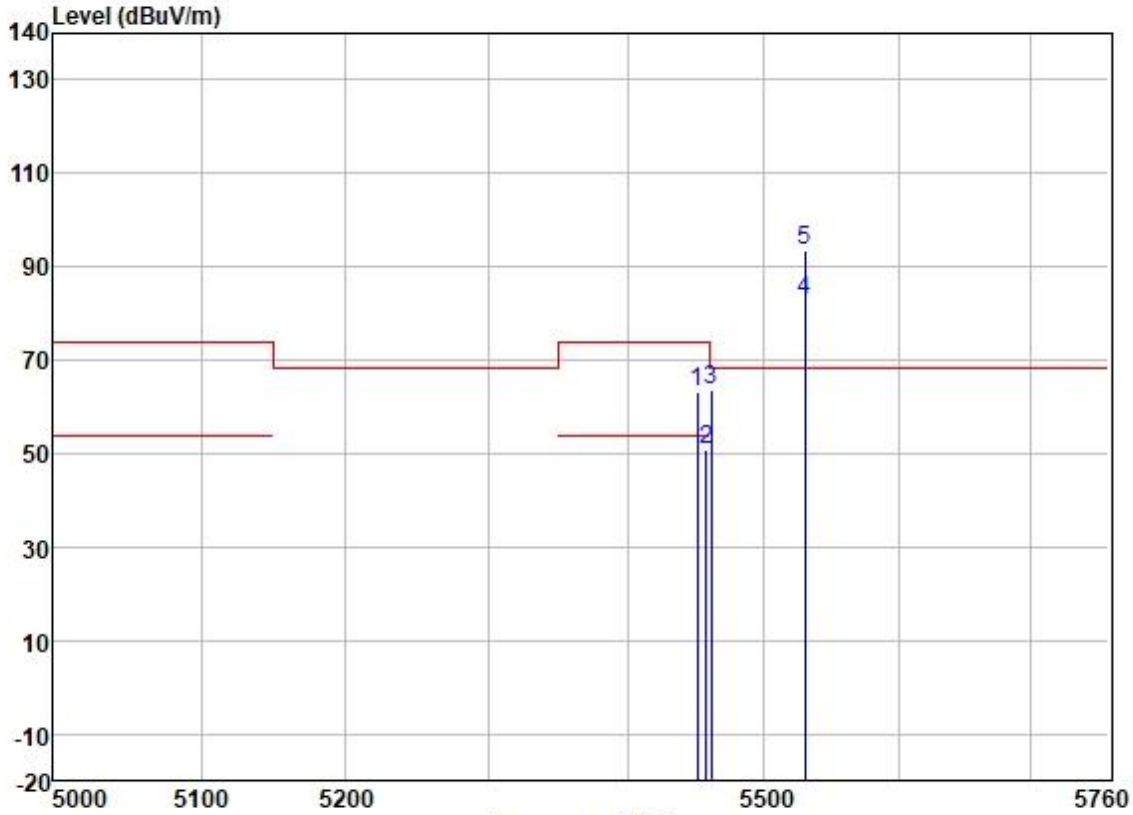
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



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	5450.521	61.21	31.79	6.26	36.88	62.38	74.00	-11.62	HORIZONTAL	Peak
2	5459.465	49.68	31.79	6.26	36.88	50.85	54.00	-3.15	HORIZONTAL	Average
3	5462.330	61.82	31.79	6.26	36.88	62.99	68.20	-5.21	HORIZONTAL	Peak
4	5530.000	78.34	31.83	6.37	36.89	79.65	------	------	HORIZONTAL	Average
5 *	5530.000	89.42	31.83	6.37	36.89	90.73	68.20	22.53	HORIZONTAL	Peak

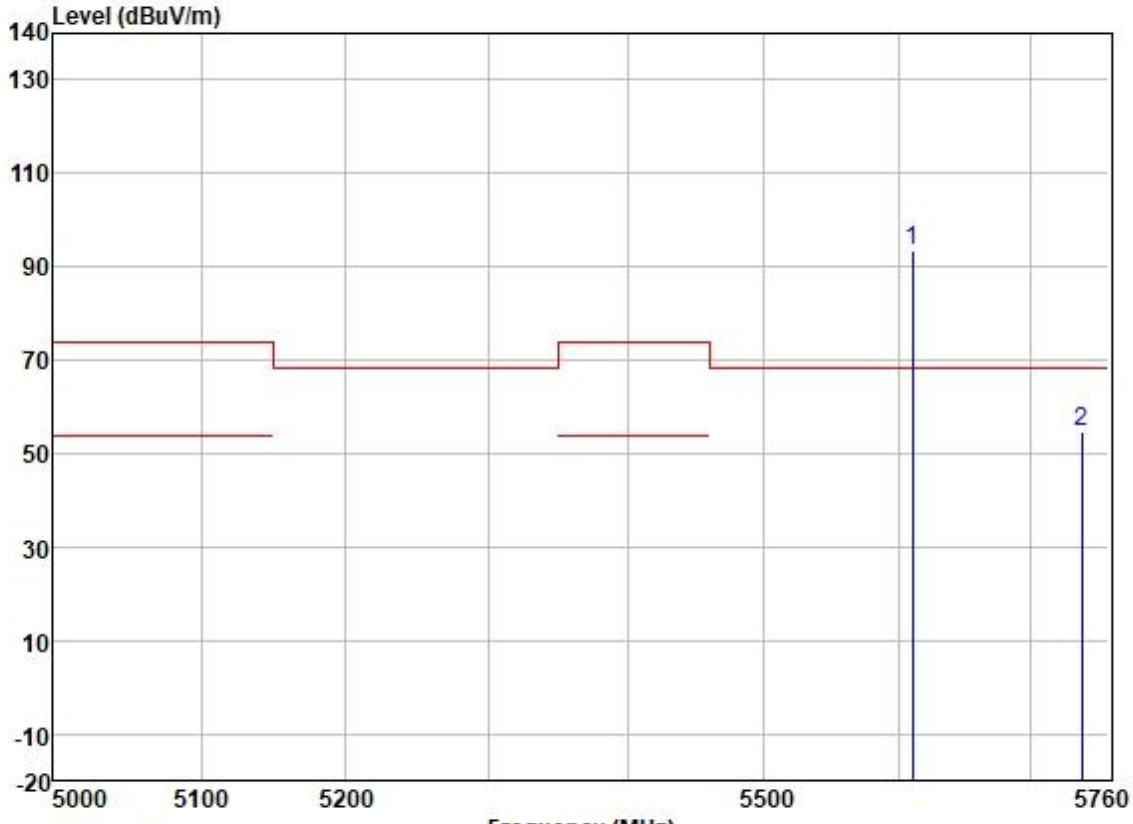
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



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	5450.700	62.04	31.79	6.26	36.88	63.21	74.00	-10.79	VERTICAL	Peak
2	5457.496	49.49	31.79	6.26	36.88	50.66	54.00	-3.34	VERTICAL	Average
3	5460.718	62.54	31.79	6.26	36.88	63.71	68.20	-4.49	VERTICAL	Peak
4	5530.000	81.46	31.83	6.37	36.89	82.77	------	------	VERTICAL	Average
5 *	5530.000	92.20	31.83	6.37	36.89	93.51	68.20	25.31	VERTICAL	Peak

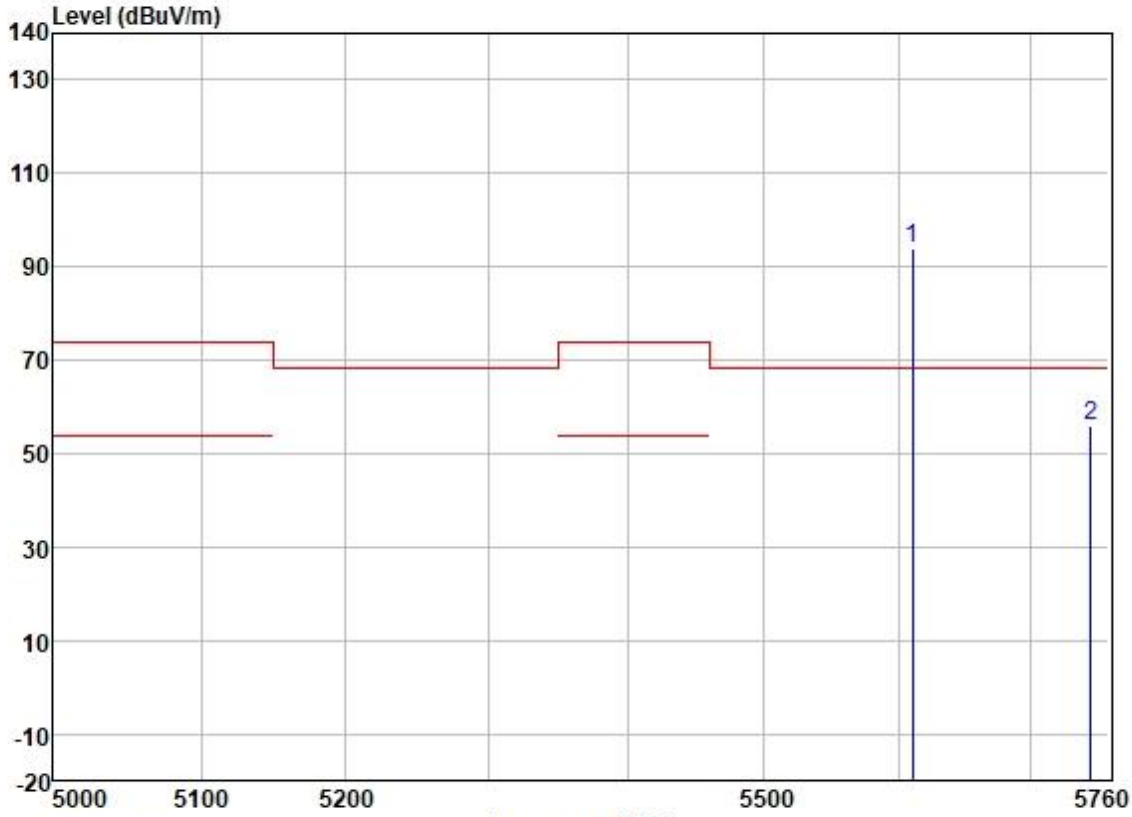
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



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 *	5610.000	92.01	31.91	6.32	36.89	93.35	68.20	25.15	HORIZONTAL	Peak
2	5739.072	53.27	32.10	6.20	36.89	54.68	68.20	-13.52	HORIZONTAL	Peak

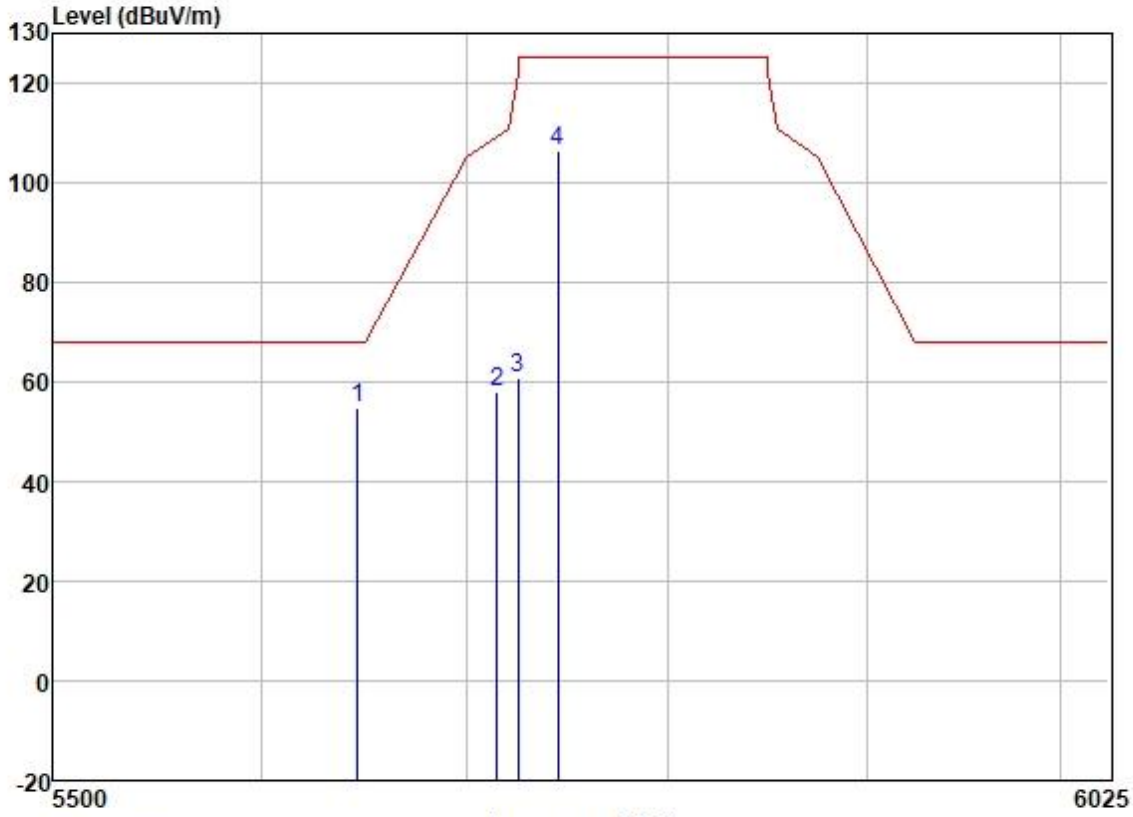
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



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 *	5610.000	92.49	31.91	6.32	36.89	93.83	68.20	25.63	VERTICAL	Peak
2	5745.972	54.55	32.10	6.20	36.89	55.96	68.20	-12.24	VERTICAL	Peak

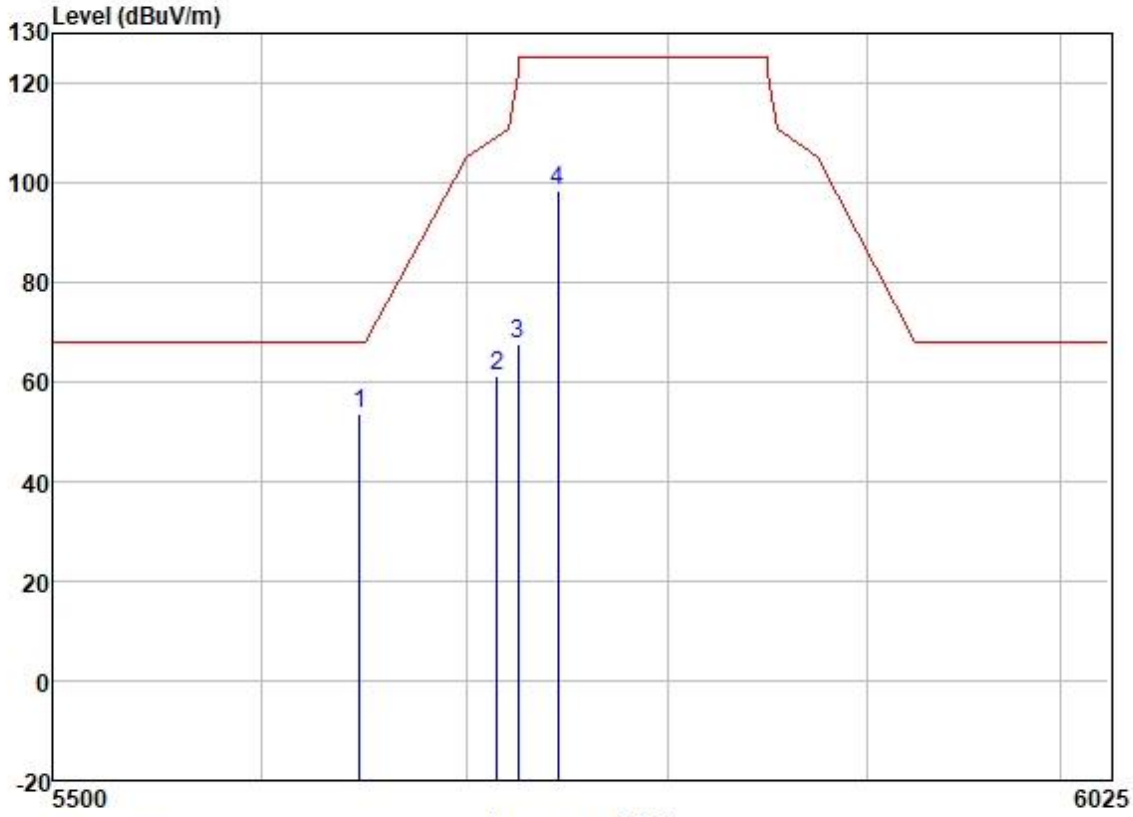
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5646.365	53.23	31.95	6.35	36.89	54.64	68.20	-13.56	HORIZONTAL	Peak
2	5715.000	56.51	32.04	6.33	36.89	57.99	109.40	-51.41	HORIZONTAL	Peak
3	5725.000	59.36	32.07	6.25	36.89	60.79	122.20	-61.41	HORIZONTAL	Peak
4	5745.000	104.81	32.10	6.20	36.89	106.22	125.20	-18.98	HORIZONTAL	Peak

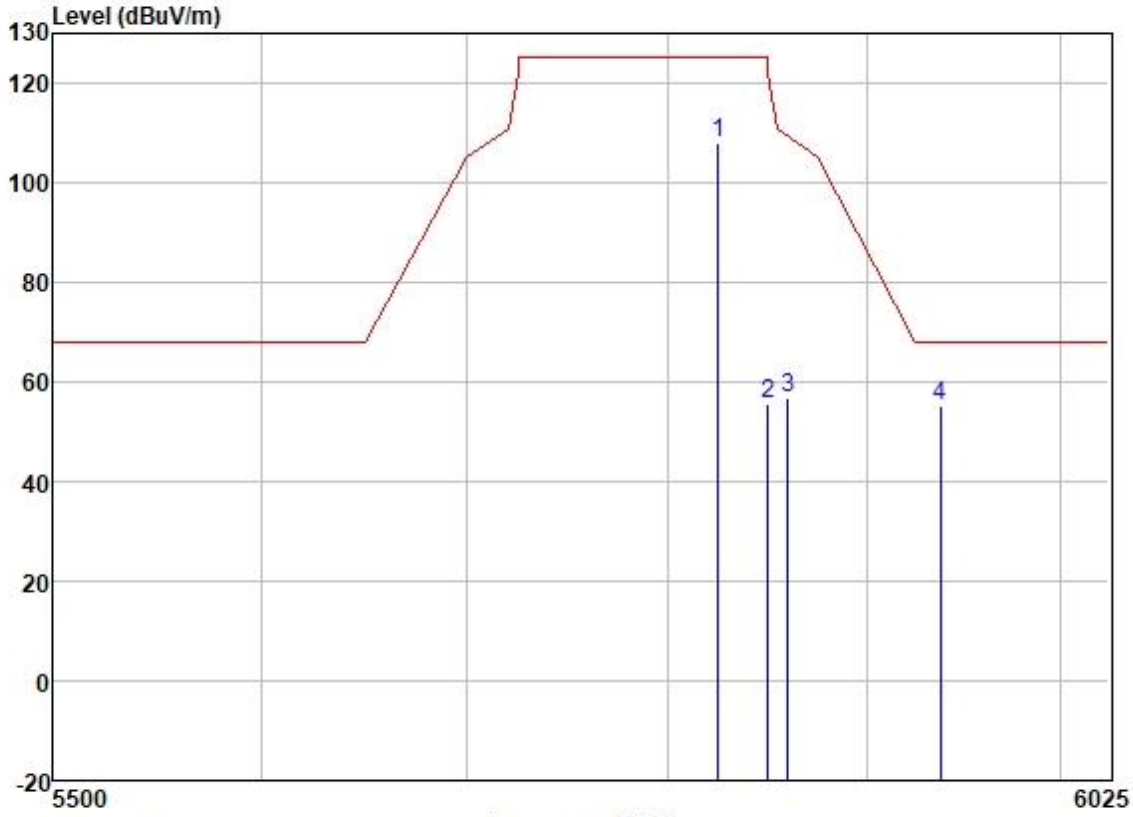
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5647.196	52.36	31.95	6.35	36.89	53.77	68.20	-14.43	VERTICAL	Peak
2	5715.000	59.53	32.04	6.33	36.89	61.01	109.40	-48.39	VERTICAL	Peak
3	5725.000	66.24	32.07	6.25	36.89	67.67	122.20	-54.53	VERTICAL	Peak
4	5745.000	96.87	32.10	6.20	36.89	98.28	125.20	-26.92	VERTICAL	Peak

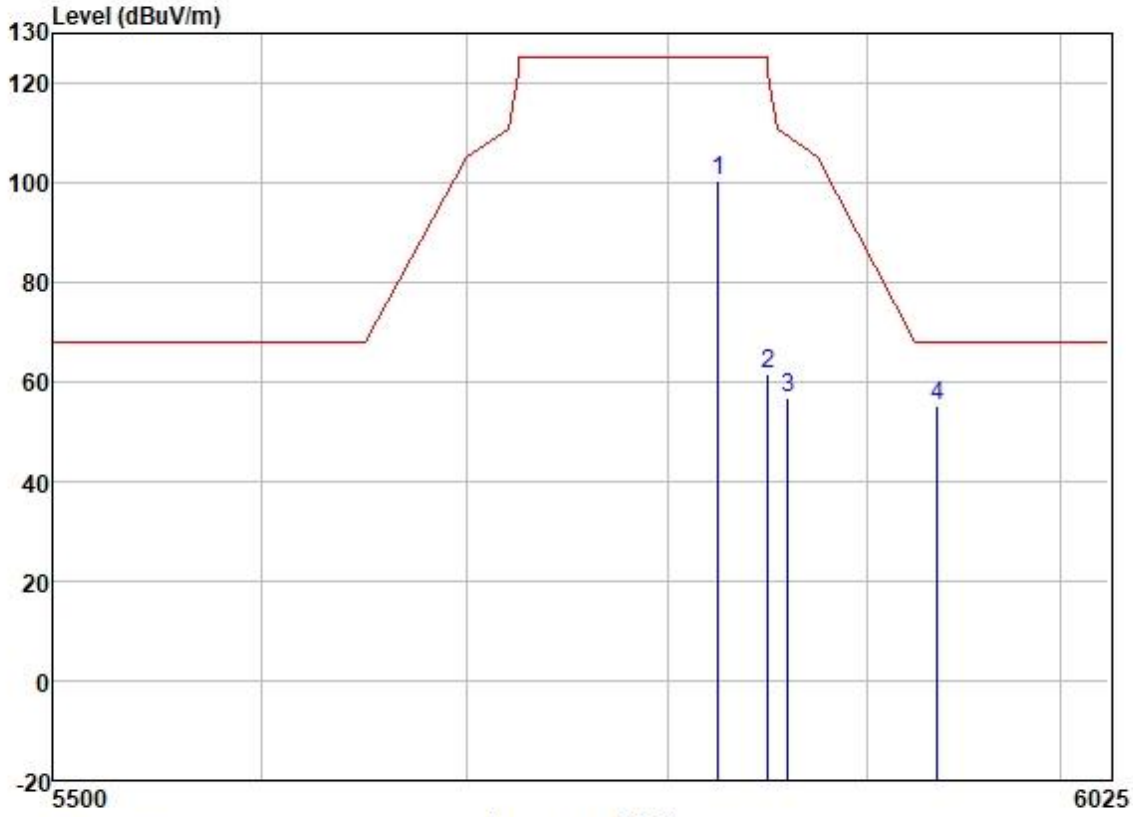
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	106.52	32.23	6.04	36.90	107.89	125.20	-17.31	HORIZONTAL	Peak
2	5850.000	54.24	32.25	6.00	36.90	55.59	122.20	-66.61	HORIZONTAL	Peak
3	5860.000	55.61	32.27	5.96	36.90	56.94	109.40	-52.46	HORIZONTAL	Peak
4	5937.623	53.72	32.34	6.00	36.90	55.16	68.20	-13.04	HORIZONTAL	Peak

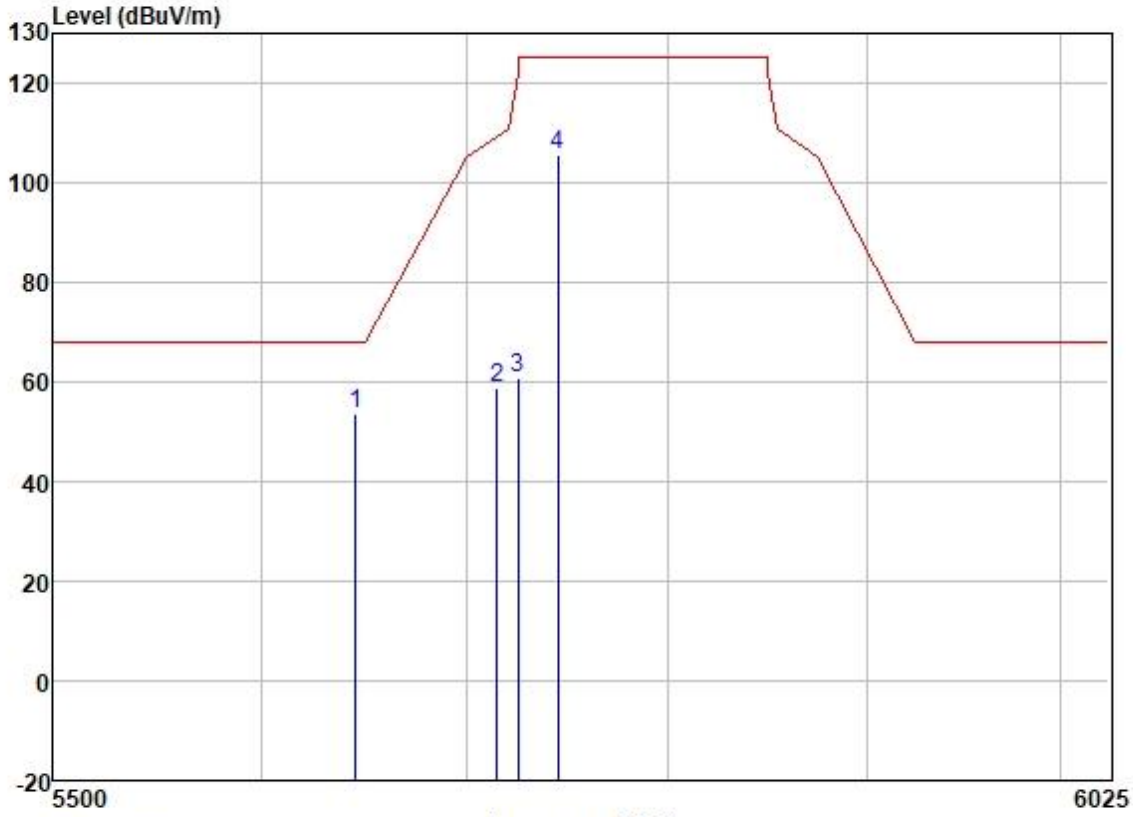
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



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	5825.000	98.99	32.23	6.04	36.90	100.36	125.20	-24.84	VERTICAL	Peak
2	5850.000	60.33	32.25	6.00	36.90	61.68	122.20	-60.52	VERTICAL	Peak
3	5860.000	55.58	32.27	5.96	36.90	56.91	109.40	-52.49	VERTICAL	Peak
4	5936.368	53.76	32.34	6.00	36.90	55.20	68.20	-13.00	VERTICAL	Peak

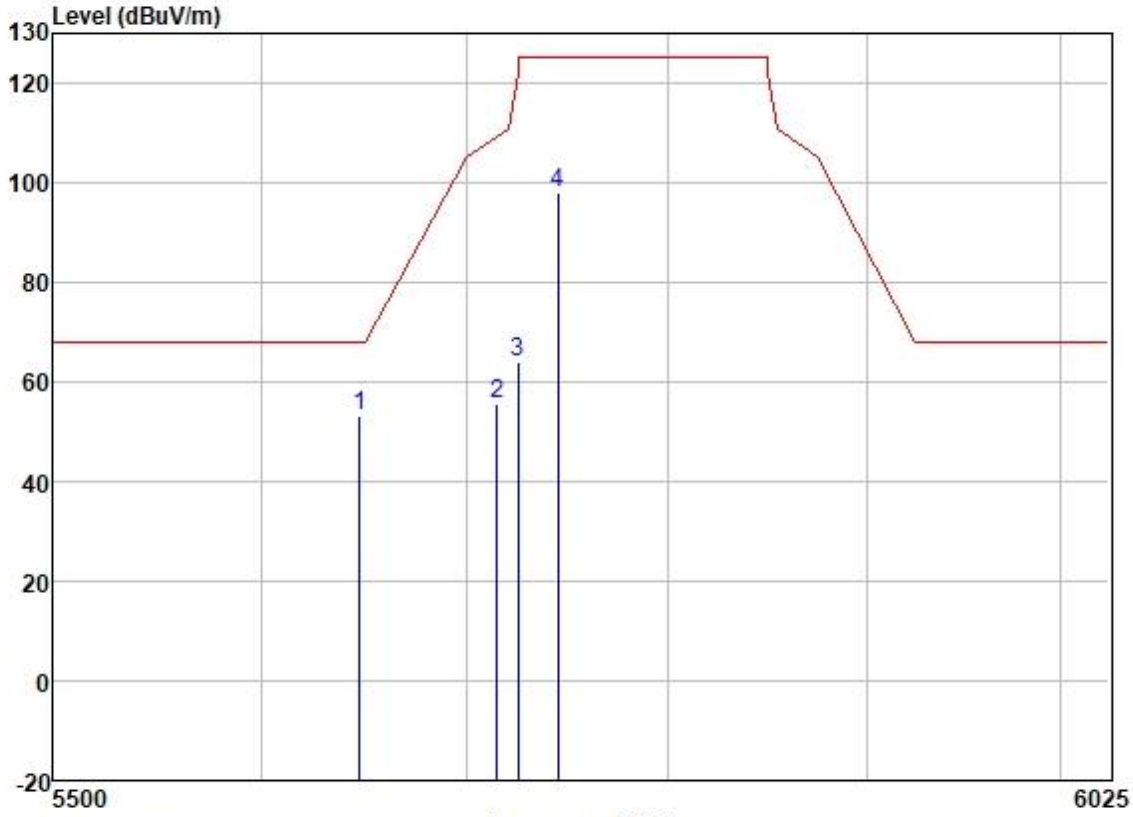
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5645.257	52.27	31.95	6.35	36.89	53.68	68.20	-14.52	HORIZONTAL	Peak
2	5715.000	57.43	32.04	6.33	36.89	58.91	109.40	-50.49	HORIZONTAL	Peak
3	5725.000	59.47	32.07	6.25	36.89	60.90	122.20	-61.30	HORIZONTAL	Peak
4	5745.000	104.35	32.10	6.20	36.89	105.76	125.20	-19.44	HORIZONTAL	Peak

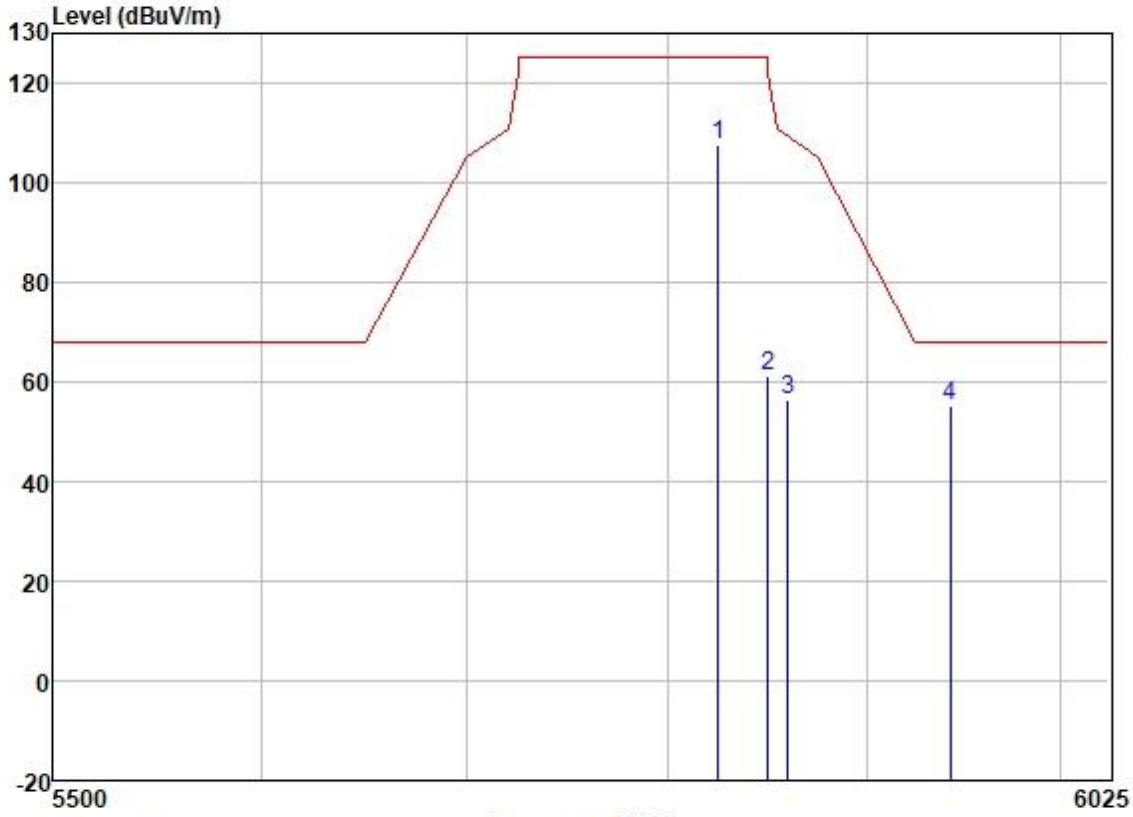
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



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	5647.196	51.93	31.95	6.35	36.89	53.34	68.20	-14.86	VERTICAL	Peak
2	5715.000	54.04	32.04	6.33	36.89	55.52	109.40	-53.88	VERTICAL	Peak
3	5725.000	62.62	32.07	6.25	36.89	64.05	122.20	-58.15	VERTICAL	Peak
4	5745.000	96.49	32.10	6.20	36.89	97.90	125.20	-27.30	VERTICAL	Peak

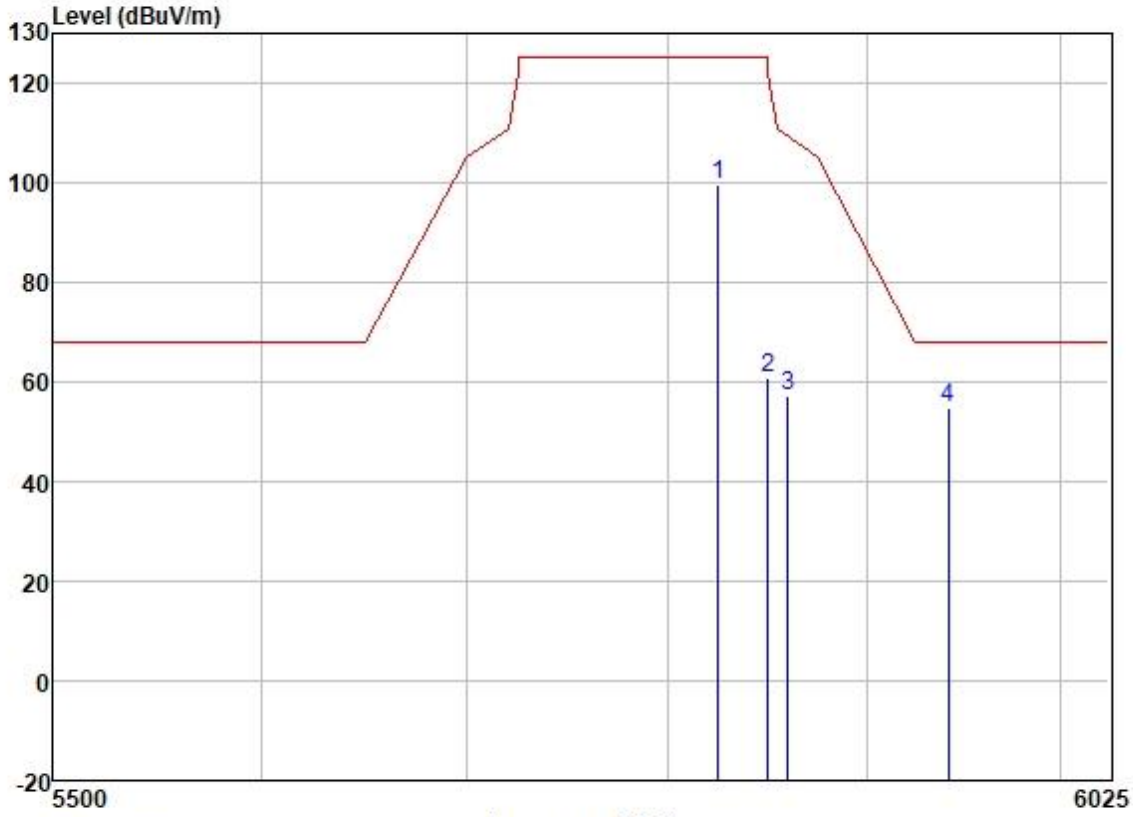
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	ReadLevel	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	5825.000	106.18	32.23	6.04	36.90	107.55	125.20	-17.65	HORIZONTAL	Peak
2	5850.000	59.84	32.25	6.00	36.90	61.19	122.20	-61.01	HORIZONTAL	Peak
3	5860.000	54.97	32.27	5.96	36.90	56.30	109.40	-53.10	HORIZONTAL	Peak
4	5942.958	53.63	32.36	6.05	36.90	55.14	68.20	-13.06	HORIZONTAL	Peak

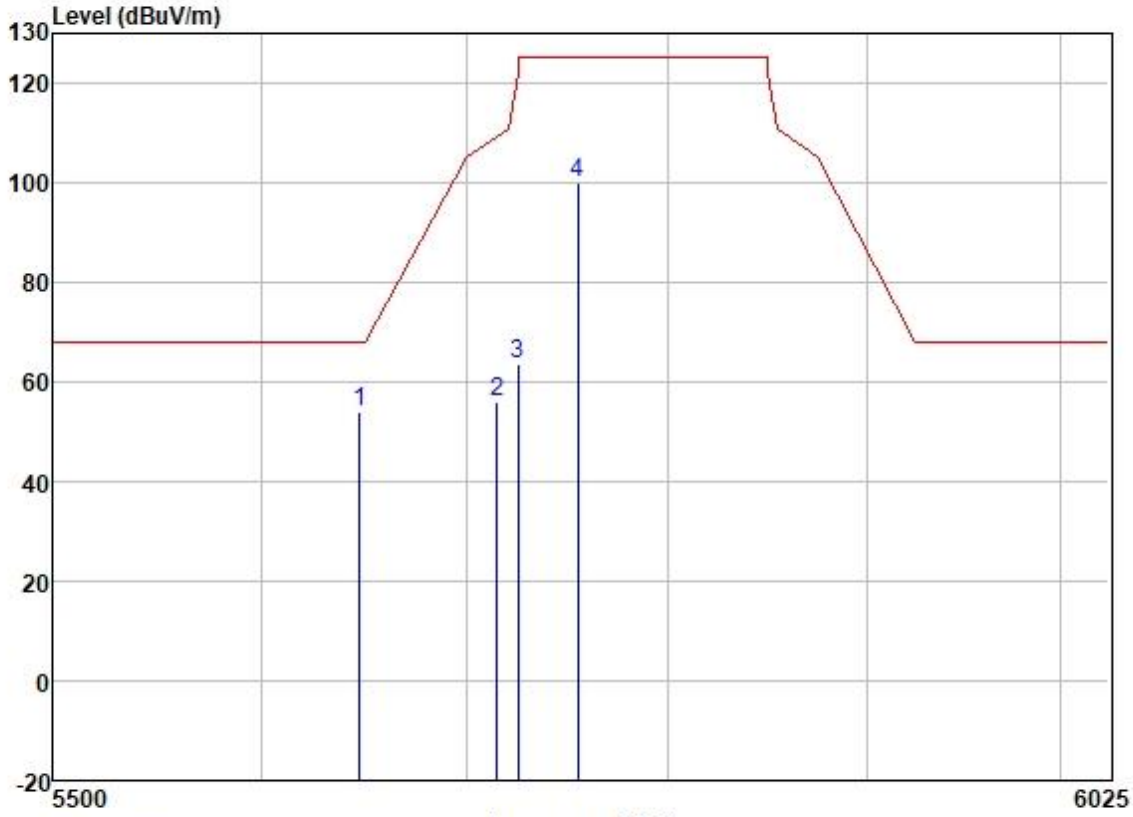
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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	5825.000	98.27	32.23	6.04	36.90	99.64	125.20	-25.56	VERTICAL	Peak
2	5850.000	59.47	32.25	6.00	36.90	60.82	122.20	-61.38	VERTICAL	Peak
3	5860.000	55.94	32.27	5.96	36.90	57.27	109.40	-52.13	VERTICAL	Peak
4	5942.017	53.12	32.36	6.05	36.90	54.63	68.20	-13.57	VERTICAL	Peak

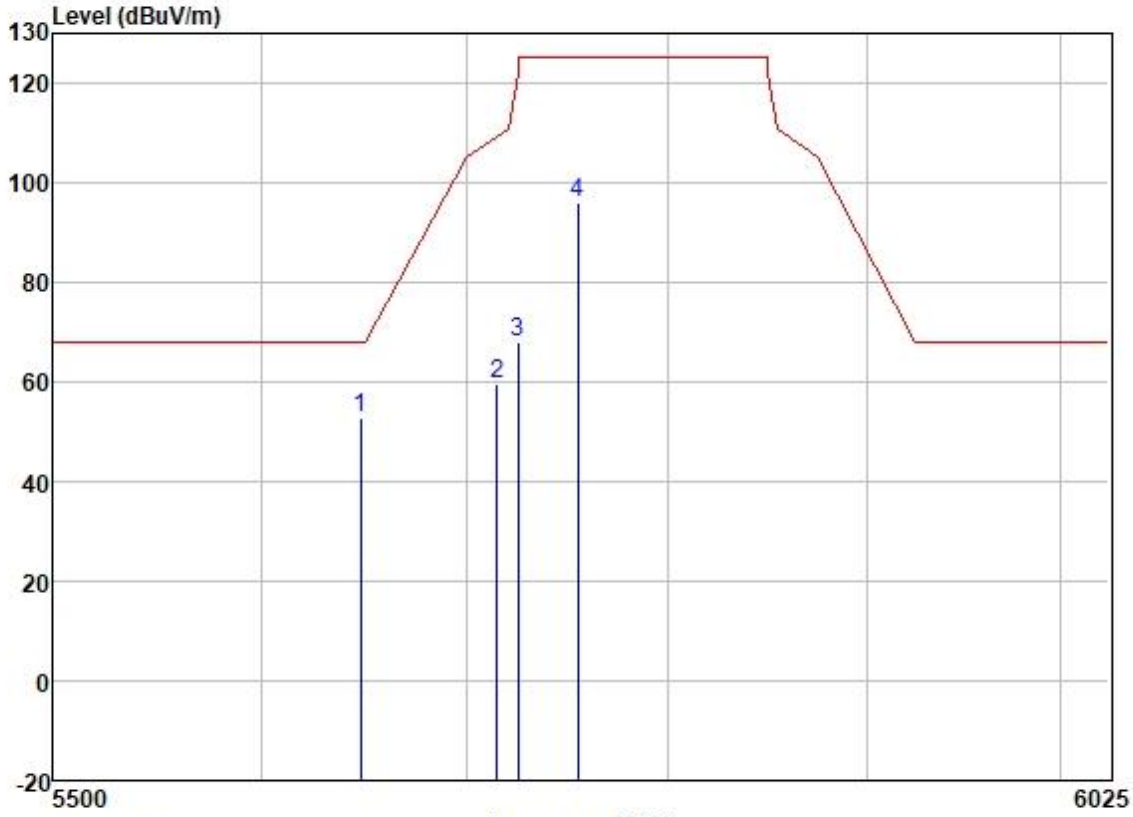
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5647.498	52.40	31.95	6.35	36.89	53.81	68.20	-14.39	HORIZONTAL	Peak
2	5715.000	54.44	32.04	6.33	36.89	55.92	109.40	-53.48	HORIZONTAL	Peak
3	5725.000	62.08	32.07	6.25	36.89	63.51	122.20	-58.69	HORIZONTAL	Peak
4	5755.000	98.43	32.10	6.20	36.89	99.84	125.20	-25.36	HORIZONTAL	Peak

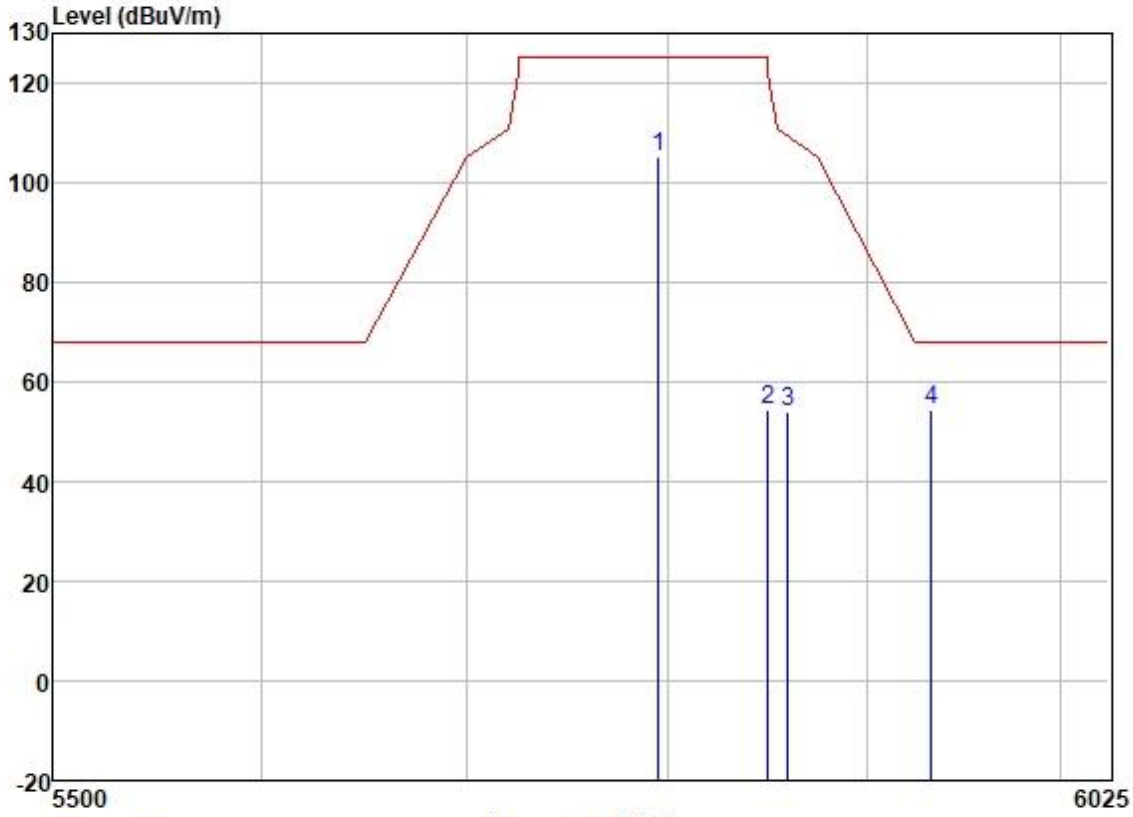
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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	5647.650	51.48	31.95	6.35	36.89	52.89	68.20	-15.31	VERTICAL	Peak
2	5715.000	58.08	32.04	6.33	36.89	59.56	109.40	-49.84	VERTICAL	Peak
3	5725.000	66.66	32.07	6.25	36.89	68.09	122.20	-54.11	VERTICAL	Peak
4	5755.000	94.59	32.10	6.20	36.89	96.00	125.20	-29.20	VERTICAL	Peak

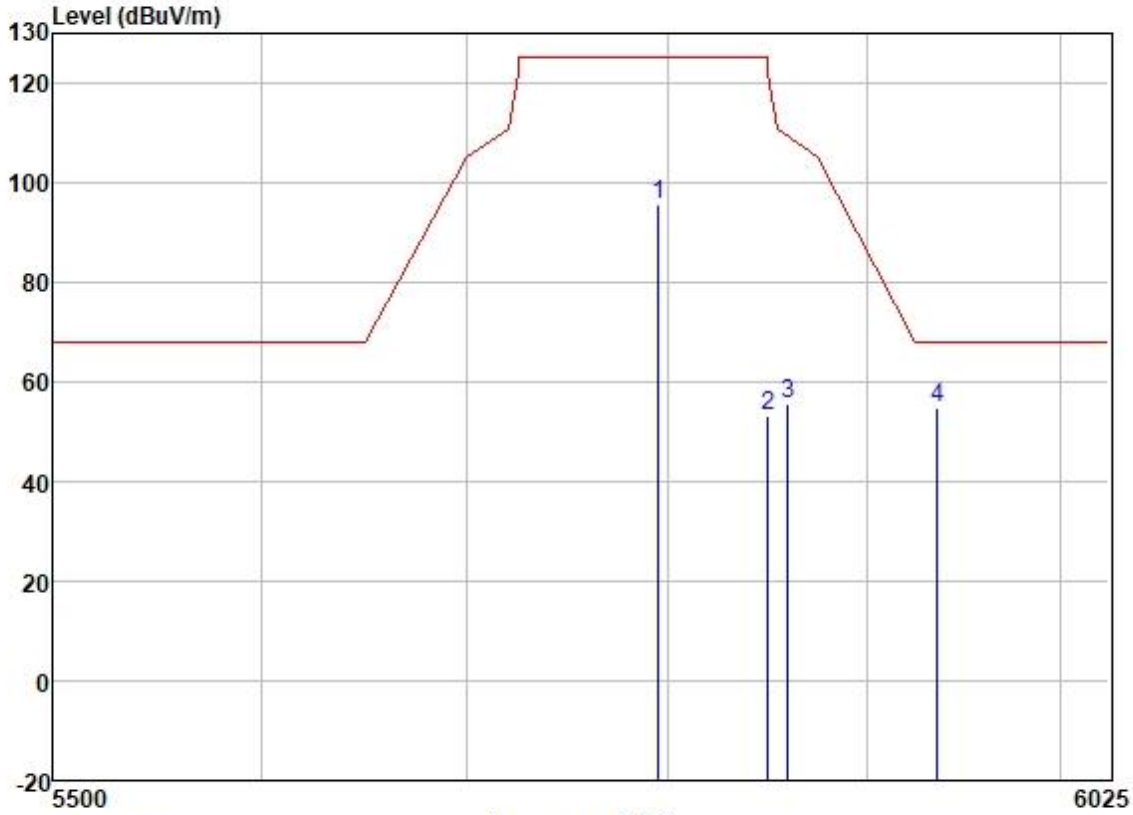
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5795.000	103.78	32.19	6.10	36.89	105.18	125.20	-20.02	HORIZONTAL	Peak
2	5850.000	53.22	32.25	6.00	36.90	54.57	122.20	-67.63	HORIZONTAL	Peak
3	5860.000	52.81	32.27	5.96	36.90	54.14	109.40	-55.26	HORIZONTAL	Peak
4	5933.415	52.94	32.34	6.00	36.90	54.38	68.20	-13.82	HORIZONTAL	Peak

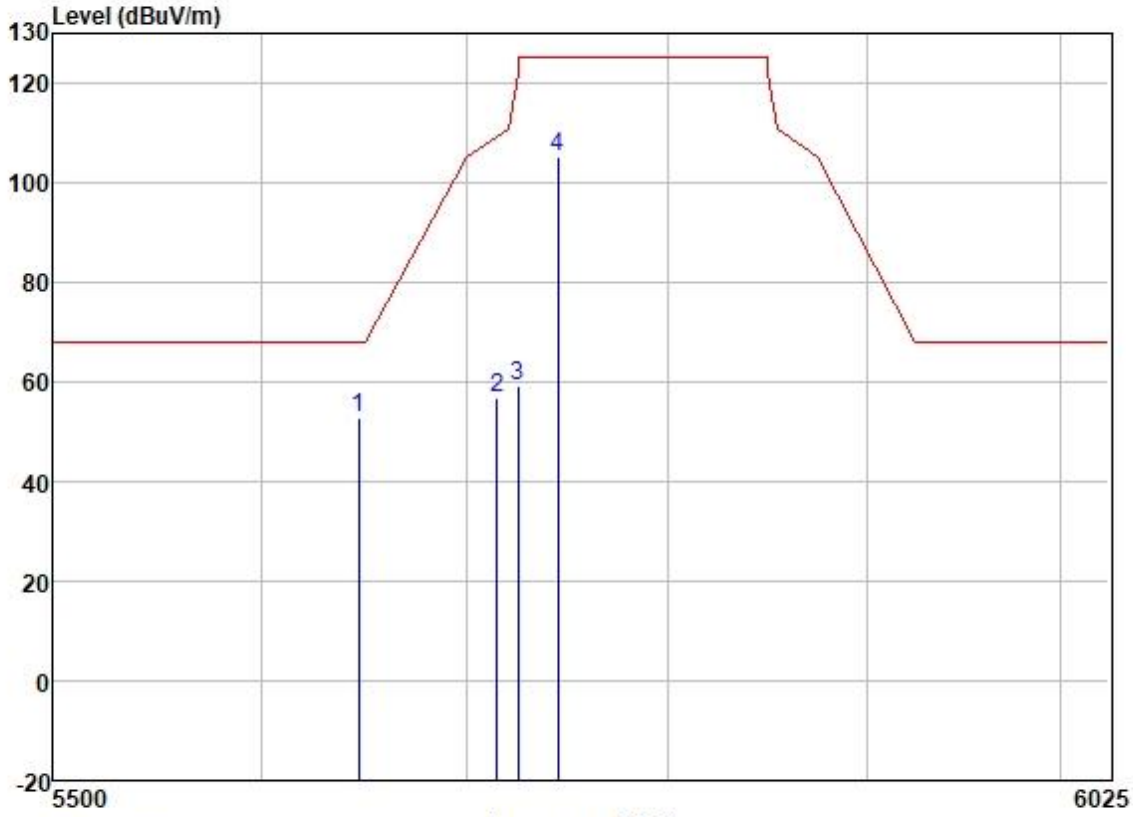
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



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	5795.000	94.29	32.19	6.10	36.89	95.69	125.20	-29.51	VERTICAL	Peak
2	5850.000	51.81	32.25	6.00	36.90	53.16	122.20	-69.04	VERTICAL	Peak
3	5860.000	54.08	32.27	5.96	36.90	55.41	109.40	-53.99	VERTICAL	Peak
4	5936.258	53.47	32.34	6.00	36.90	54.91	68.20	-13.29	VERTICAL	Peak

Test Mode: 07; 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	5646.919	51.40	31.95	6.35	36.89	52.81	68.20	-15.39	HORIZONTAL	Peak
2	5715.000	55.31	32.04	6.33	36.89	56.79	109.40	-52.61	HORIZONTAL	Peak
3	5725.000	57.92	32.07	6.25	36.89	59.35	122.20	-62.85	HORIZONTAL	Peak
4	5745.000	103.77	32.10	6.20	36.89	105.18	125.20	-20.02	HORIZONTAL	Peak