



## TEST REPORT

**Application No.:** GZCR2112021535AT  
**Applicant:** Shenzhen Skyworth Digital Technology Co., LTD.  
**Address of Applicant:** 14/F, Block A, Skyworth Building, Gaoxin Ave.1.S., Nanshan District, Shenzhen, China  
**Manufacturer:** Shenzhen Skyworth Digital Technology Co., LTD.  
**Address of Manufacturer:** 14/F, Block A, Skyworth Building, Gaoxin Ave.1.S., Nanshan District, Shenzhen, China  
**Factory:** Shenzhen Skyworth Digital Technology Co., LTD. Baoan Branch Factory  
**Address of Factory:** 2-5F, Integration Multi-Storied Building, Skyworth Science and Technology Industrial Park, Tangtou Industrial Zone, Shiyan Street, Baoan District, Shenzhen city, China

**Equipment Under Test (EUT):**

**EUT Name:** TV Stick

**Model No.:** Leap-L1, HP47D, KD5, F1, Leap-L1C, LB2107, RODPJS2KD, Meta-C2 ♣

♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

**Trade Mark:** SKYWORTH, MECOOL, EROC, COOCOA, MEETPAI, KODAK, CosMedia

**Standard(s):** 47 CFR Part 15, Subpart E 15.407

**Date of Receipt:** 2022-04-02

**Date of Test:** 2022-04-02 to 2022-04-11

**Date of Issue:** 2022-04-13

|                     |              |
|---------------------|--------------|
| <b>Test Result:</b> | <b>Pass*</b> |
|---------------------|--------------|

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

Kobe Jian  
EMC Laboratory Manager



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| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2022-04-13 |          | Original |
|                 |         |            |          |          |
|                 |         |            |          |          |

|                         |  |                                                                                     |  |  |
|-------------------------|--|-------------------------------------------------------------------------------------|--|--|
| Authorized for issue by |  |                                                                                     |  |  |
| Tested By               |  |  |  |  |
|                         |  | Curry Wu/Project Engineer                                                           |  |  |
| Reviewed By             |  |  |  |  |
|                         |  | 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   |
| Maximum Conducted output power                        |                                  | KDB 789033 D02 II E             | 47 CFR Part 15, Subpart C 15.407 (a)           | Pass   |
| Peak Power spectrum density                           |                                  | KDB 789033 D02 II F             | 47 CFR Part 15, Subpart C 15.407 (a)           | Pass   |
| Radiated Emissions (below 1GHz)                       |                                  | KDB 789033 D02 II G             | 47 CFR Part 15, Subpart C 15.209 & 15.407(b)   | Pass   |
| Radiated Emissions which fall in the restricted bands |                                  | KDB 789033 D02 II G             | 47 CFR Part 15, Subpart C 15.209 & 15.407(b)   | Pass   |
| Frequency Stability                                   |                                  | ANSI C63.10 (2013) Section 6.8  | 47 CFR Part 15, Subpart C 15.407 (g)           | Pass   |
| Non-occupancy period                                  |                                  | KDB 905462 D02 Section 7.8.3    | KDB 905462 D02 Section 5.1                     | Pass   |
| Channel Move Time                                     |                                  | KDB 905462 D02 Section 7.8.3    | KDB 905462 D02 Section 5.1                     | Pass   |
| Channel Closing Transmission Time                     |                                  | KDB 905462 D02 Section 7.8.3    | KDB 905462 D02 Section 5.1                     | Pass   |
| Radiated Emissions (above 1GHz)                       |                                  | KDB 789033 D02 II G             | 47 CFR Part 15, Subpart C 15.209 & 15.407(b)   | Pass   |

### Note:

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

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



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**Declaration of EUT Family Grouping:**

Model No.: Leap-L1, HP47D, KD5, F1, Leap-L1C, LB2107, RODPJS2KD,  
Meta-C2

Only the model Leap-L1 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on model number and trade mark.



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## 4 General Information

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

|                              |                                                                                                                                                                                                                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply:                | Adapter:<br>Model: UT-236A-5100<br>Input: AC 100-240V 50/60Hz 0.2A<br>Output: DC 5.0V 1.0A 5.0W<br>3.0V DC (1.5V x 2 "AAA" Size Batteries) for remote controller                                                             |
| Test Voltage:                | AC 120V, 60Hz or AC 240V, 50Hz<br>Note: Both nominal AC 120V, 60Hz and AC 240 V, 50Hz are required for testing in accordance with FCC KDB174176, this report only shows the results of the worst test result(AC 120V, 60Hz); |
| Cable(s):                    | USB cable: 97cm unshielded<br>HDMI cable: 7cm shielded                                                                                                                                                                       |
| 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:                | PCB Antenna                                                                                                                                                                                                                  |
| Antenna Gain:                | 4dBi                                                                                                                                                                                                                         |

### 4.2 Description of Support Units

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

### 4.3 Measurement Uncertainty

| Test Item                                                                                                                                                                                                                                                                                                                                                                                           | Measurement Uncertainty                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Conducted Emissions at AC Power Line<br>(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%                                                                                                 |
| Maximum Conducted output power                                                                                                                                                                                                                                                                                                                                                                      | ± 0.75dB                                                                                             |
| Peak Power spectrum density                                                                                                                                                                                                                                                                                                                                                                         | ± 2.84dB                                                                                             |
| Radiated Emissions (below 1GHz)                                                                                                                                                                                                                                                                                                                                                                     | ±5.00dB (30MHz-1GHz; 3m);±4.38dB<br>(30MHz-1GHz; 10m)                                                |
| Radiated Emissions which fall in the restricted bands                                                                                                                                                                                                                                                                                                                                               | ±5.00dB (30MHz-1GHz; 3m);±4.38dB<br>(30MHz-1GHz; 10m);± 4.52dB (1GHz-<br>6GHz);± 4.54dB (above 6GHz) |
| Frequency Stability                                                                                                                                                                                                                                                                                                                                                                                 | ± 7.25 x 10-8                                                                                        |
| Radiated Emissions (above 1GHz)                                                                                                                                                                                                                                                                                                                                                                     | ± 4.52dB (1GHz-6GHz);± 4.54dB (above<br>6GHz)                                                        |
| <p>Remark:</p> <p>The U<sub>lab</sub> (lab Uncertainty) is less than U<sub>cispr</sub> (CISPR Uncertainty), so the test results</p> <ul style="list-style-type: none"> <li>– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;</li> <li>– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.</li> </ul> |                                                                                                      |



#### 4.4 Test Location

All tests were performed at:

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

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No tests were sub-contracted.

#### 4.5 Test Facility

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

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

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

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

- **ACMA**

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

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

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

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

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

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

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

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

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

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

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

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

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



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#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None



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## 5 Equipment List

| Conducted Emissions at AC Power Line (150kHz-30MHz) |                   |                |              |            |              |
|-----------------------------------------------------|-------------------|----------------|--------------|------------|--------------|
| Equipment                                           | Manufacturer      | Model No       | Inventory No | Cal Date   | Cal Due Date |
| Shielding Room                                      | ChangZhou ZhongYu | 8m x 3m x 3.8m | EMC0306      | N/A        | N/A          |
| Two-Line V-Network                                  | Rohde & Schwarz   | ENV216         | EMC0118      | 2021-12-23 | 2022-12-22   |
| Two-Line V-Network-GZ                               | Rohde & Schwarz   | ENV216         | EMC2135      | 2021-09-24 | 2022-09-23   |
| Coaxial Cable                                       | HangTianXing      | 2m             | EMC0107      | 2020-09-09 | 2022-09-08   |
| Test Software E3c                                   | Audix             | Ver. 5.4.1221b | GZE100-62    | N/A        | N/A          |
| EMI Test Receiver(9kHz-3.6GHz)                      | Rohde & Schwarz   | ESR3           | EMC2221      | 2021-06-01 | 2022-05-31   |

| Duty Cycle                               |                      |             |              |            |              |
|------------------------------------------|----------------------|-------------|--------------|------------|--------------|
| Equipment                                | Manufacturer         | Model No    | Inventory No | Cal Date   | Cal Due Date |
| MXA Signal Analyzer(10Hz-8.4GHz)         | Agilent Technologies | N9020A      | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal Generator(250kHz-6GHz) | Keysight             | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal Generator(9kHz-3GHz)   | Agilent Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter (U2021XA_Ch2)                | Agilent Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |
| Power Meter (U2021XA_Ch3)                | Agilent Technologies | U2021XA_Ch3 | SEM009-03    | 2021-05-19 | 2022-05-18   |
| EXA Signal Analyzer(10Hz-44GHz)          | Agilent Technologies | N9010A      | EMC2138      | 2021-09-16 | 2022-09-15   |
| 6dB Attenuator                           | HP                   | 8491A       | EMC2062      | 2020-04-15 | 2022-04-14   |
| MI CABLE                                 | SGS-EMC              | 0.8M        | EMC2136      | 2021-11-01 | 2023-11-01   |
| MI CABLE                                 | SGS-EMC              | 0.8M        | EMC2137      | 2021-11-01 | 2023-11-01   |
| Test Software                            | TST                  | V2.0        | GZE100-78    | N/A        | N/A          |

| 99% Bandwidth                            |                      |          |              |            |              |
|------------------------------------------|----------------------|----------|--------------|------------|--------------|
| Equipment                                | Manufacturer         | Model No | Inventory No | Cal Date   | Cal Due Date |
| MXA Signal Analyzer(10Hz-8.4GHz)         | Agilent Technologies | N9020A   | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal Generator(250kHz-6GHz) | Keysight             | E4438C   | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal Generator(9kHz-3GHz)   | Agilent Technologies | N5171B   | SEM006-04    | 2021-07-12 | 2022-07-11   |



|                                    |                         |             |           |            |            |
|------------------------------------|-------------------------|-------------|-----------|------------|------------|
| Power Meter<br>(U2021XA_Ch2)       | Agilent<br>Technologies | U2021XA_Ch2 | SEM009-02 | 2021-05-19 | 2022-05-18 |
| Power Meter<br>(U2021XA_Ch3)       | Agilent<br>Technologies | U2021XA_Ch3 | SEM009-03 | 2021-05-19 | 2022-05-18 |
| EXA Signal<br>Analyzer(10Hz-44GHz) | Agilent<br>Technologies | N9010A      | EMC2138   | 2021-09-16 | 2022-09-15 |
| 6dB Attenuator                     | HP                      | 8491A       | EMC2062   | 2020-04-15 | 2022-04-14 |
| MI CABLE                           | SGS-EMC                 | 0.8M        | EMC2136   | 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<br>Analyzer(10Hz-8.4GHz)             | Agilent<br>Technologies | N9020A      | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal<br>Generator(250kHz-<br>6GHz) | Keysight                | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal<br>Generator(9kHz-3GHz)       | Agilent<br>Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter<br>(U2021XA_Ch2)                    | Agilent<br>Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |
| Power Meter<br>(U2021XA_Ch3)                    | Agilent<br>Technologies | U2021XA_Ch3 | SEM009-03    | 2021-05-19 | 2022-05-18   |
| EXA Signal<br>Analyzer(10Hz-44GHz)              | Agilent<br>Technologies | N9010A      | EMC2138      | 2021-09-16 | 2022-09-15   |
| 6dB Attenuator                                  | HP                      | 8491A       | EMC2062      | 2020-04-15 | 2022-04-14   |
| MI CABLE                                        | SGS-EMC                 | 0.8M        | EMC2136      | 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<br>Analyzer(10Hz-8.4GHz)             | Agilent<br>Technologies | N9020A      | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal<br>Generator(250kHz-<br>6GHz) | Keysight                | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal<br>Generator(9kHz-3GHz)       | Agilent<br>Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter<br>(U2021XA_Ch2)                    | Agilent<br>Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |



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

| Maximum Conducted output power                  |                         |             |              |            |              |
|-------------------------------------------------|-------------------------|-------------|--------------|------------|--------------|
| Equipment                                       | Manufacturer            | Model No    | Inventory No | Cal Date   | Cal Due Date |
| MXA Signal<br>Analyzer(10Hz-8.4GHz)             | Agilent<br>Technologies | N9020A      | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal<br>Generator(250kHz-<br>6GHz) | Keysight                | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal<br>Generator(9kHz-3GHz)       | Agilent<br>Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter<br>(U2021XA_Ch2)                    | Agilent<br>Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |
| Power Meter<br>(U2021XA_Ch3)                    | Agilent<br>Technologies | U2021XA_Ch3 | SEM009-03    | 2021-05-19 | 2022-05-18   |
| EXA Signal<br>Analyzer(10Hz-44GHz)              | Agilent<br>Technologies | N9010A      | EMC2138      | 2021-09-16 | 2022-09-15   |
| 6dB Attenuator                                  | HP                      | 8491A       | EMC2062      | 2020-04-15 | 2022-04-14   |
| MI CABLE                                        | SGS-EMC                 | 0.8M        | EMC2136      | 2021-11-01 | 2023-11-01   |
| MI CABLE                                        | SGS-EMC                 | 0.8M        | EMC2137      | 2021-11-01 | 2023-11-01   |
| Test Software                                   | TST                     | V2.0        | GZE100-78    | N/A        | N/A          |

| Peak Power spectrum density                     |                         |             |              |            |              |
|-------------------------------------------------|-------------------------|-------------|--------------|------------|--------------|
| Equipment                                       | Manufacturer            | Model No    | Inventory No | Cal Date   | Cal Due Date |
| MXA Signal<br>Analyzer(10Hz-8.4GHz)             | Agilent<br>Technologies | N9020A      | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal<br>Generator(250kHz-<br>6GHz) | Keysight                | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal<br>Generator(9kHz-3GHz)       | Agilent<br>Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter<br>(U2021XA_Ch2)                    | Agilent<br>Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |
| Power Meter<br>(U2021XA_Ch3)                    | Agilent<br>Technologies | U2021XA_Ch3 | SEM009-03    | 2021-05-19 | 2022-05-18   |



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|                                 |                      |        |           |            |            |
|---------------------------------|----------------------|--------|-----------|------------|------------|
| EXA Signal Analyzer(10Hz-44GHz) | Agilent Technologies | N9010A | EMC2138   | 2021-09-16 | 2022-09-15 |
| 6dB Attenuator                  | HP                   | 8491A  | EMC2062   | 2020-04-15 | 2022-04-14 |
| 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 Spurious Emissions (Below 1GHz)**

| Equipment                                | Manufacturer                   | Model No      | Inventory No | Cal Date   | Cal Due Date |
|------------------------------------------|--------------------------------|---------------|--------------|------------|--------------|
| Chamber cable                            | HangTianXing                   | N/A           | EMC0542      | 2020-09-09 | 2022-09-08   |
| Trilog Broadband Antenna(25MHz-1GHz)-Lab | SCHWARZBECK<br>MESS-ELEKTRONIK | VULB 9168     | SEM003-18    | 2022-02-22 | 2023-02-21   |
| Amplifier(9kHz-1.3GHz)                   | HP                             | 8447F         | EMC2065      | 2021-05-19 | 2022-05-18   |
| Active Loop Antenna-RED                  | ETS-Lindgren                   | 6502          | EMC2190      | 2019-12-27 | 2022-12-26   |
| 10m Semi-Anechoic Chamber                | ETS                            | N/A           | EMC0530      | 2019-10-20 | 2022-10-19   |
| Test Software E3                         | Audix                          | Ver.6.120110a | GZE100-61    | N/A        | N/A          |
| EMI Test Receiver(1Hz-8GHz)              | Rohde & Schwarz                | ESW8          | EMC2220      | 2021-05-26 | 2022-05-25   |

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

| Equipment                       | Manufacturer                   | Model No      | Inventory No | Cal Date   | Cal Due Date |
|---------------------------------|--------------------------------|---------------|--------------|------------|--------------|
| 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<br>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   |



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|---------------------------------------------|-------------|----------|---------|------------|------------|
| Microwave Broadband Preamplifier (18-40GHz) | SCHWARZBECK | BBV 9721 | EMC2172 | 2021-08-30 | 2022-08-29 |
|---------------------------------------------|-------------|----------|---------|------------|------------|

| Frequency Stability                      |                      |          |              |            |              |
|------------------------------------------|----------------------|----------|--------------|------------|--------------|
| Equipment                                | Manufacturer         | Model No | Inventory No | Cal Date   | Cal Due Date |
| MXA Signal Analyzer(10Hz-8.4GHz)         | Agilent Technologies | N9020A   | SEM004-10    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal Generator(250kHz-6GHz) | Keysight             | E4438C   | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal Generator(9kHz-3GHz)   | Agilent Technologies | N5171B   | SEM006-04    | 2021-07-12 | 2022-07-11   |
| EXA Signal Analyzer(10Hz-44GHz)          | Agilent Technologies | N9010A   | EMC2138      | 2021-09-16 | 2022-09-15   |
| 6dB Attenuator                           | HP                   | 8491A    | EMC2062      | 2020-04-15 | 2022-04-14   |
| MI CABLE                                 | SGS-EMC              | 0.8M     | EMC2136      | 2021-11-01 | 2022-10-31   |
| MI CABLE                                 | SGS-EMC              | 0.8M     | EMC2137      | 2021-11-01 | 2022-10-31   |
| 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    | 2022-03-01 | 2023-02-28   |
| ESG Vector Signal Generator(250kHz-6GHz) | Keysight             | E4438C      | SEM006-03    | 2022-03-11 | 2023-03-10   |
| EXG Analog Signal Generator(9kHz-3GHz)   | Agilent Technologies | N5171B      | SEM006-04    | 2021-07-12 | 2022-07-11   |
| Power Meter (U2021XA_Ch2)                | Agilent Technologies | U2021XA_Ch2 | SEM009-02    | 2021-05-19 | 2022-05-18   |
| Power Meter (U2021XA_Ch3)                | Agilent Technologies | U2021XA_Ch3 | SEM009-03    | 2021-05-19 | 2022-05-18   |
| EXA Signal Analyzer(10Hz-44GHz)          | Agilent Technologies | N9010A      | EMC2138      | 2021-09-16 | 2022-09-15   |
| 6dB Attenuator                           | HP                   | 8491A       | EMC2062      | 2020-04-15 | 2022-04-14   |
| MI CABLE                                 | SGS-EMC              | 0.8M        | EMC2136      | 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 |



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|                                          |                               |             |           |            |            |
|------------------------------------------|-------------------------------|-------------|-----------|------------|------------|
| MXA Signal Analyzer(10Hz-8.4GHz)         | Agilent Technologies          | N9020A      | SEM004-10 | 2022-03-01 | 2023-02-28 |
| ESG Vector Signal Generator(250kHz-6GHz) | Keysight                      | E4438C      | SEM006-03 | 2022-03-11 | 2023-03-10 |
| EXG Analog Signal Generator(9kHz-3GHz)   | Agilent Technologies          | N5171B      | SEM006-04 | 2021-07-12 | 2022-07-11 |
| Power Meter (U2021XA_Ch2)                | Agilent Technologies          | U2021XA_Ch2 | SEM009-02 | 2021-05-19 | 2022-05-18 |
| Power Meter (U2021XA_Ch3)                | Agilent Technologies          | U2021XA_Ch3 | SEM009-03 | 2021-05-19 | 2022-05-18 |
| EXA Signal Analyzer(10Hz-44GHz)          | Agilent Technologies          | N9010A      | EMC2138   | 2021-09-16 | 2022-09-15 |
| 6dB Attenuator                           | HP                            | 8491A       | EMC2062   | 2020-04-15 | 2022-04-14 |
| UHF variable attenuator                  | TAMAGAWA ELECTRONICS Co., LTD | TRA-801     | EMC2077   | 2021-08-21 | 2022-08-20 |
| 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        |



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| Radiated Emissions (above 1GHz)                   |                                |               |              |            |              |
|---------------------------------------------------|--------------------------------|---------------|--------------|------------|--------------|
| Equipment                                         | Manufacturer                   | Model No      | Inventory No | Cal Date   | Cal Due Date |
| Chamber cable(Above 1GHz)                         | Scoflex                        | KMKM-8.0m     | EMC0545      | 2020-09-09 | 2022-09-08   |
| Horn Antenna(1GHz-18GHz)                          | SCHWARZBECK<br>MESS-ELEKTRONIK | BBHA 9120D    | EMC2026      | 2019-09-25 | 2022-09-24   |
| 1GHz-26.5 GHz<br>Pre-Amplifier                    | Agilent                        | 8449B         | EMC0521      | 2021-12-17 | 2022-12-16   |
| 2.4GHz Filter                                     | Micro-Tronics                  | BRM 50702     | EMC2069      | 2021-12-17 | 2022-12-16   |
| 966 Anechoic Chamber                              | C.R.T                          | 9m x 6m x 6m  | EMC2142      | 2020-12-20 | 2023-12-19   |
| EXA Signal<br>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<br>(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<br>Preamplifier<br>(18-40GHz) | SCHWARZBECK                    | BBV 9721      | EMC2172      | 2021-08-30 | 2022-08-29   |

| General used equipment |              |          |              |            |              |
|------------------------|--------------|----------|--------------|------------|--------------|
| Equipment              | Manufacturer | Model No | Inventory No | Cal Date   | Cal Due Date |
| DMM                    | Fluke        | 73       | EMC0006      | 2021-07-05 | 2022-07-05   |
| DMM                    | Fluke        | 73       | EMC0007      | 2021-07-05 | 2022-07-05   |



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## 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

#### 6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 4dBi.

Antenna location: Refer to Internal photo.

## 6.2 Transmission in the Absence of Data

### 6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

### 6.2.1 Conclusion

standard Requirement:

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

EUT Details:

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



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## 7 Radio Spectrum Matter Test Results

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

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

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

Limit:

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

\*Decreases with the logarithm of the frequency.

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

Operating Environment:

Temperature: 23.6 °C

Humidity: 53.4 % RH

Atmospheric Pressure: 1003 mbar

#### 7.1.2 Test Mode Description

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



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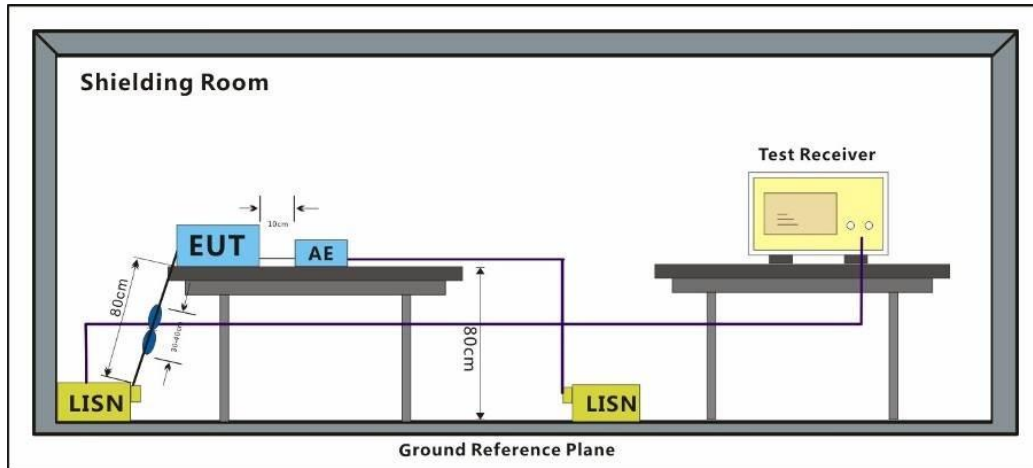
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Pre-scan 07

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

### 7.1.3 Test Setup Diagram



### 7.1.4 Measurement Procedure and Data

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

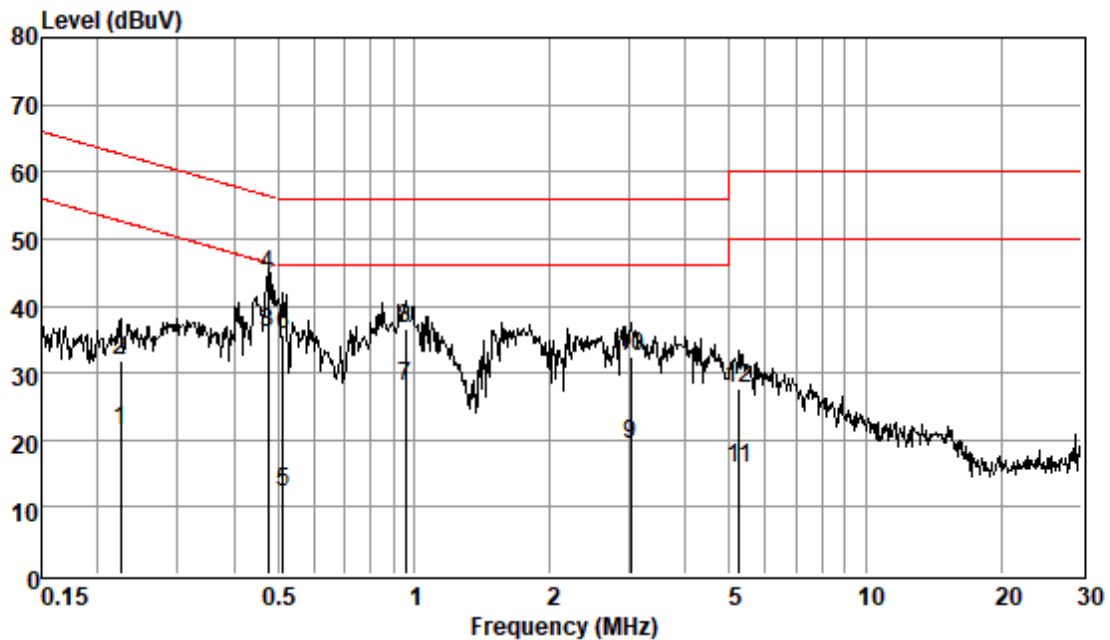
Remark: LISN=Read Level+ Cable Loss+ LISN Factor



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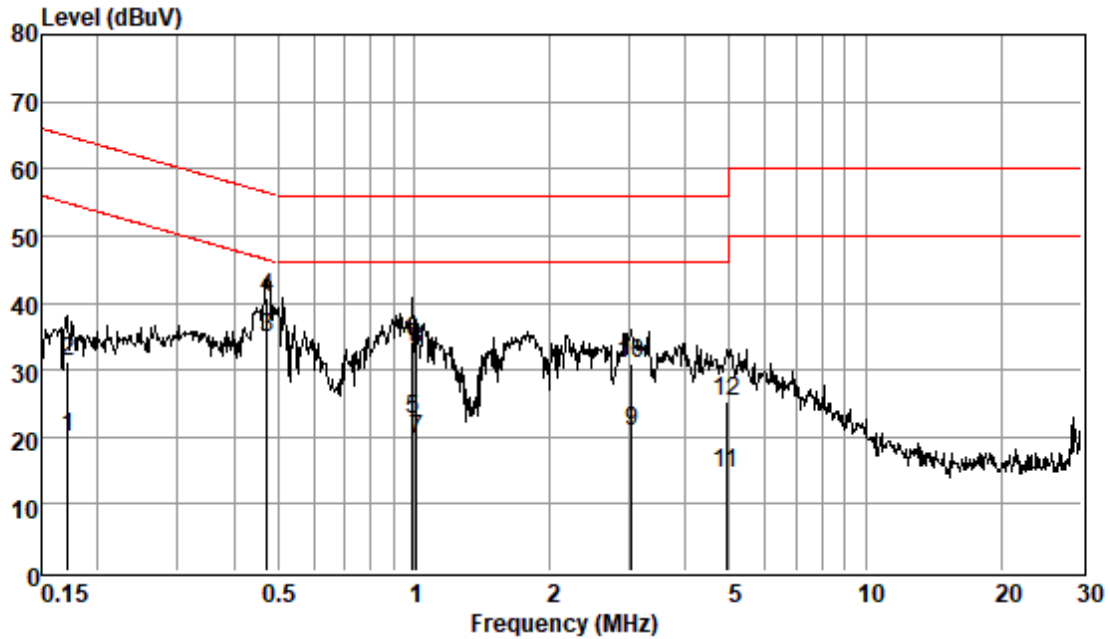
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Test Mode: 04; Line: Neutral Line

Pol : NEUTRAL  
Mode :  
Model :

| Frequency<br>MHz | Read<br>Level<br>dBuV | Cable<br>Loss<br>dB | LISN<br>Factor<br>dB | Measured<br>Level<br>dBuV | Limit<br>Line<br>dBuV | Over<br>Limit<br>dB | Remark  |
|------------------|-----------------------|---------------------|----------------------|---------------------------|-----------------------|---------------------|---------|
| 0.22             | 11.68                 | 0.06                | 9.55                 | 21.29                     | 52.66                 | -31.37              | Average |
| 0.22             | 22.24                 | 0.06                | 9.55                 | 31.85                     | 62.66                 | -30.81              | QP      |
| 0.48             | 26.33                 | 0.07                | 9.55                 | 35.95                     | 46.41                 | -10.46              | Average |
| 0.48             | 34.91                 | 0.07                | 9.55                 | 44.53                     | 56.41                 | -11.88              | QP      |
| 0.51             | 2.44                  | 0.07                | 9.55                 | 12.06                     | 46.00                 | -33.94              | Average |
| 0.51             | 26.18                 | 0.07                | 9.55                 | 35.80                     | 56.00                 | -20.20              | QP      |
| 0.96             | 18.36                 | 0.07                | 9.55                 | 27.98                     | 46.00                 | -18.02              | Average |
| 0.96             | 26.98                 | 0.07                | 9.55                 | 36.60                     | 56.00                 | -19.40              | QP      |
| 3.03             | 9.52                  | 0.15                | 9.56                 | 19.23                     | 46.00                 | -26.77              | Average |
| 3.03             | 22.83                 | 0.15                | 9.56                 | 32.54                     | 56.00                 | -23.46              | QP      |
| 5.25             | 6.07                  | 0.19                | 9.56                 | 15.82                     | 50.00                 | -34.18              | Average |
| 5.25             | 17.89                 | 0.19                | 9.56                 | 27.64                     | 60.00                 | -32.36              | QP      |

Test Mode: 04; Line: Live line



Pol : LINE  
Mode :  
Model :

| Frequency<br>MHz | Read<br>Level<br>dBuV | Cable<br>Loss<br>dB | LISN<br>Factor<br>dB | Measured<br>Level<br>dBuV | Limit<br>Line<br>dBuV | Over<br>Limit<br>dB | Remark  |
|------------------|-----------------------|---------------------|----------------------|---------------------------|-----------------------|---------------------|---------|
| 0.17             | 10.35                 | 0.06                | 9.62                 | 20.03                     | 54.90                 | -34.87              | Average |
| 0.17             | 21.51                 | 0.06                | 9.62                 | 31.19                     | 64.90                 | -33.71              | QP      |
| 0.47             | 25.07                 | 0.07                | 9.63                 | 34.77                     | 46.45                 | -11.68              | Average |
| 0.47             | 31.04                 | 0.07                | 9.63                 | 40.74                     | 56.45                 | -15.71              | QP      |
| 0.99             | 12.95                 | 0.07                | 9.62                 | 22.64                     | 46.00                 | -23.36              | Average |
| 0.99             | 24.39                 | 0.07                | 9.62                 | 34.08                     | 56.00                 | -21.92              | QP      |
| 1.02             | 10.04                 | 0.07                | 9.62                 | 19.73                     | 46.00                 | -26.27              | Average |
| 1.02             | 23.25                 | 0.07                | 9.62                 | 32.94                     | 56.00                 | -23.06              | QP      |
| 3.04             | 11.06                 | 0.15                | 9.62                 | 20.83                     | 46.00                 | -25.17              | Average |
| 3.04             | 21.13                 | 0.15                | 9.62                 | 30.90                     | 56.00                 | -25.10              | QP      |
| 4.93             | 4.77                  | 0.18                | 9.66                 | 14.61                     | 46.00                 | -31.39              | Average |
| 4.93             | 15.58                 | 0.18                | 9.66                 | 25.42                     | 56.00                 | -30.58              | 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: 23.6 °C

Humidity: 53.2 % RH

Atmospheric Pressure: 1003 mbar

### 7.2.2 Test Mode Description

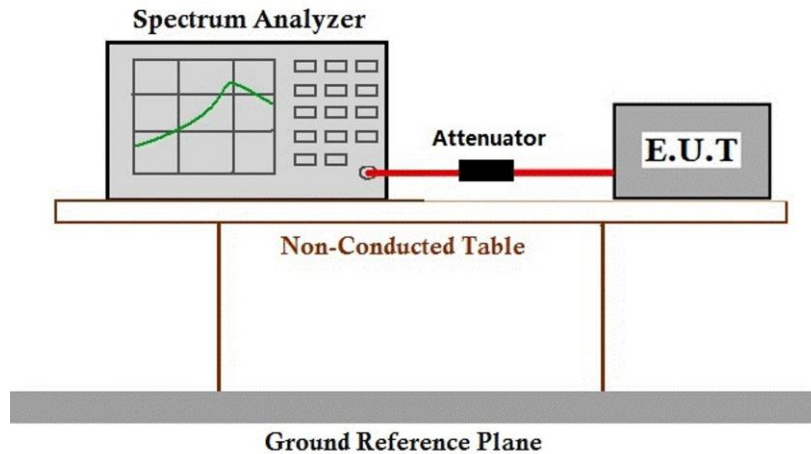
Pre-scan / Mode  
Final test Code

Description

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



### 7.2.3 Test Setup Diagram



### 7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

**7.3 99% Bandwidth**

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

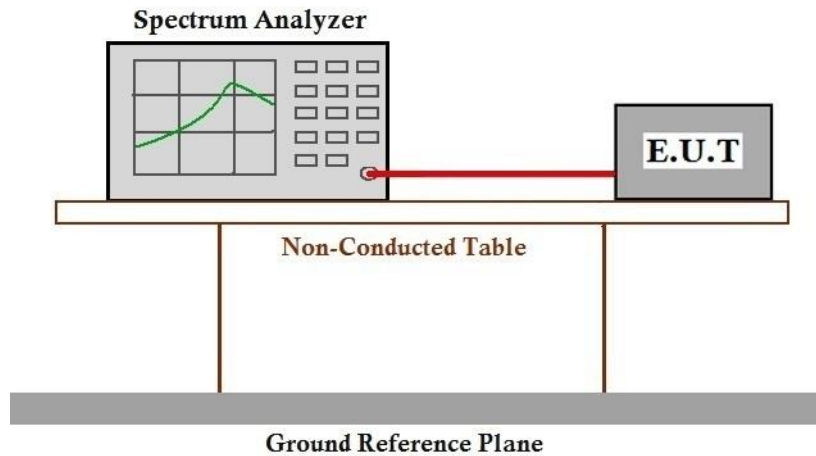
**7.3.1 E.U.T. Operation**

Operating Environment:  
Temperature: 23.6 °C Humidity: 53.2 % RH Atmospheric Pressure: 1003 mbar

**7.3.2 Test Mode Description**

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

### 7.3.3 Test Setup Diagram



### 7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

## 7.4 26dB Emission bandwidth

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

### 7.4.1 E.U.T. Operation

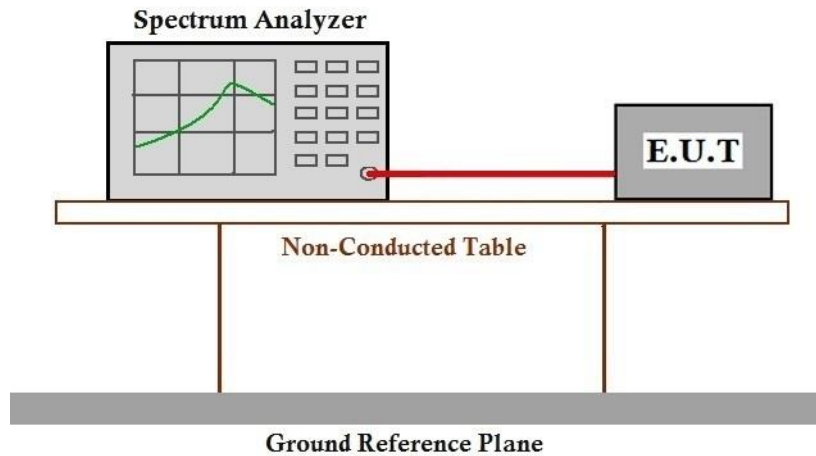
Operating Environment:  
Temperature: 23.6 °C Humidity: 54.2 % RH Atmospheric Pressure: 1003 mbar

### 7.4.2 Test Mode Description

| Pre-scan /<br>Final test | Mode<br>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.  |



### 7.4.3 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: 23.6 °C

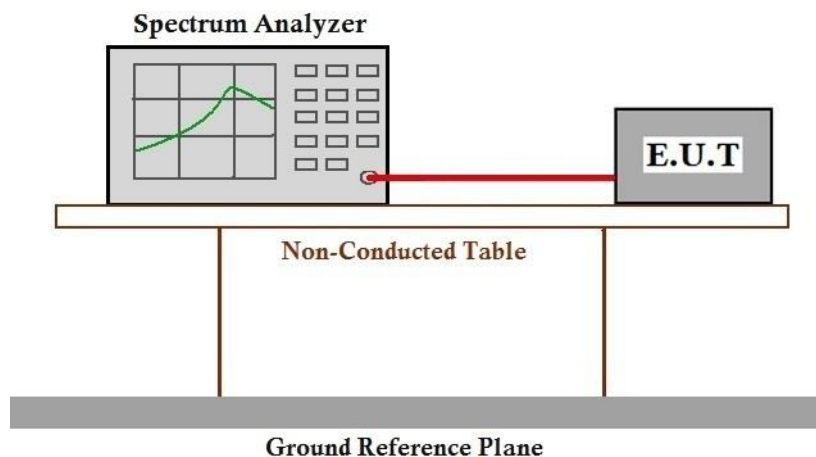
Humidity: 54.2 % RH

Atmospheric Pressure: 1003 mbar

**7.5.2 Test Mode Description**

| Pre-scan /<br>Final test | Mode<br>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



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## 7.6 Maximum Conducted output power

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

Test Method: KDB 789033 D02 II E

Limit:

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

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 54.2 % RH Atmospheric Pressure: 1003 mbar

### 7.6.2 Test Mode Description

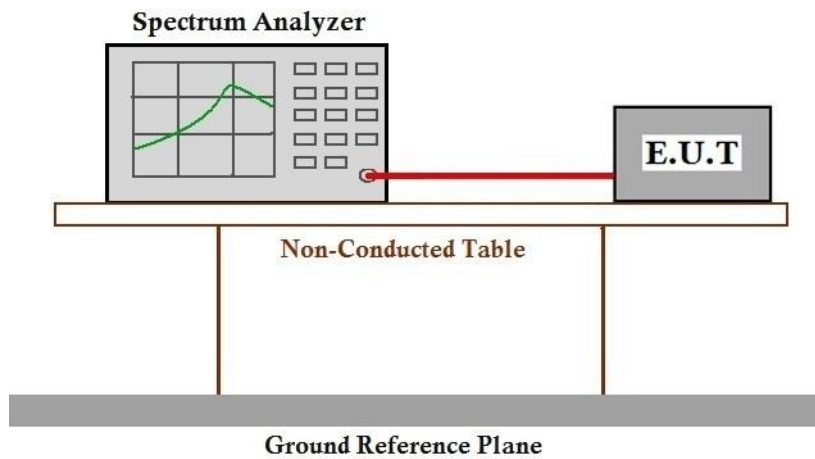
| Pre-scan /<br>Final test | Mode<br>Code | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Final test               | 04           | <p>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.</p> |
| Final test               | 05           | <p>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.</p> |
| Final test               | 06           | <p>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.</p> |

Final test 07

worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

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

### 7.6.3 Test Setup Diagram



### 7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details



**7.7 Peak Power spectrum density**

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

Test Method: KDB 789033 D02 II F

Limit:

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

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

Operating Environment:

Temperature: 23.6 °C

Humidity: 54.2 % RH

Atmospheric Pressure: 1003 mbar

**7.7.2 Test Mode Description**

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

**Description****Final test 04**

TX mode (U-NII-1)\_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

**Final test 05**

TX mode (U-NII-2A)\_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

**Final test 06**

TX mode (U-NII-2C)\_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.



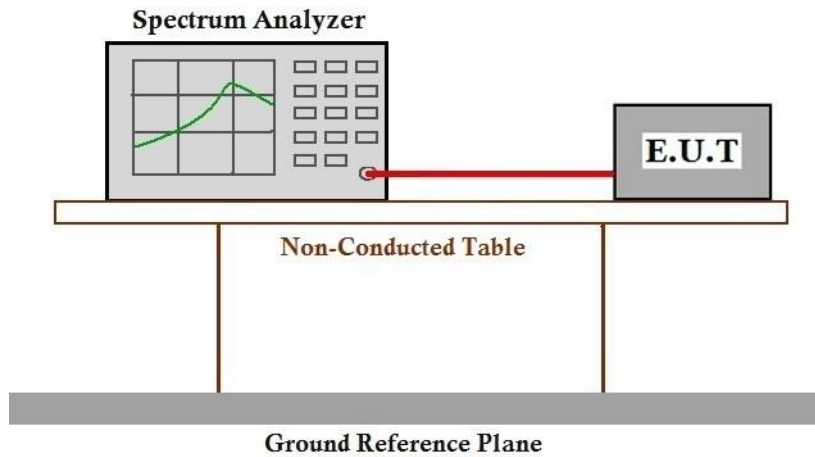
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Final test 07

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

### 7.7.3 Test Setup Diagram



### 7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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

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

Test Method: KDB 789033 D02 II G

Limit:

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

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

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

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

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

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

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

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

Operating Environment:

Temperature: 24.2 °C

Humidity: 54.2 % RH

Atmospheric Pressure: 1003 mbar

**7.8.2 Test Mode Description**

| Pre-scan / Mode | Description |
|-----------------|-------------|
| Final test Code |             |



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**Final test** 04

TX mode (U-NII-1)\_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

**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.

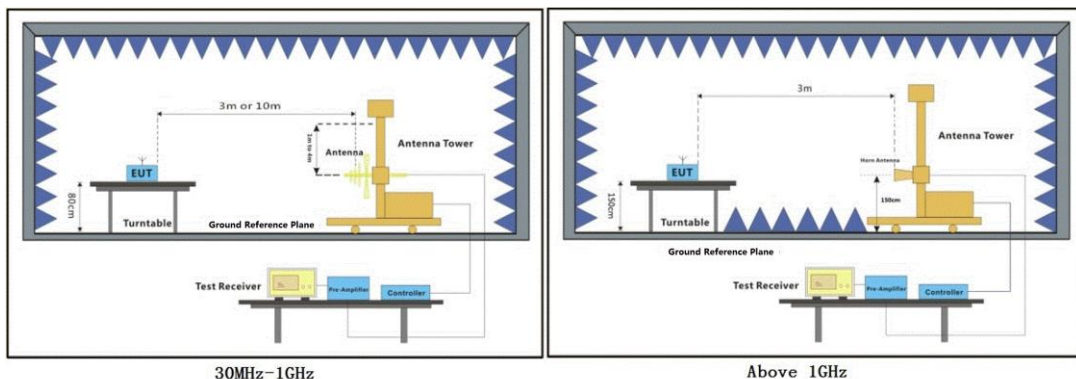
**Pre-scan** 06

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.

### 7.8.3 Test Setup Diagram





#### 7.8.4 Measurement Procedure and Data

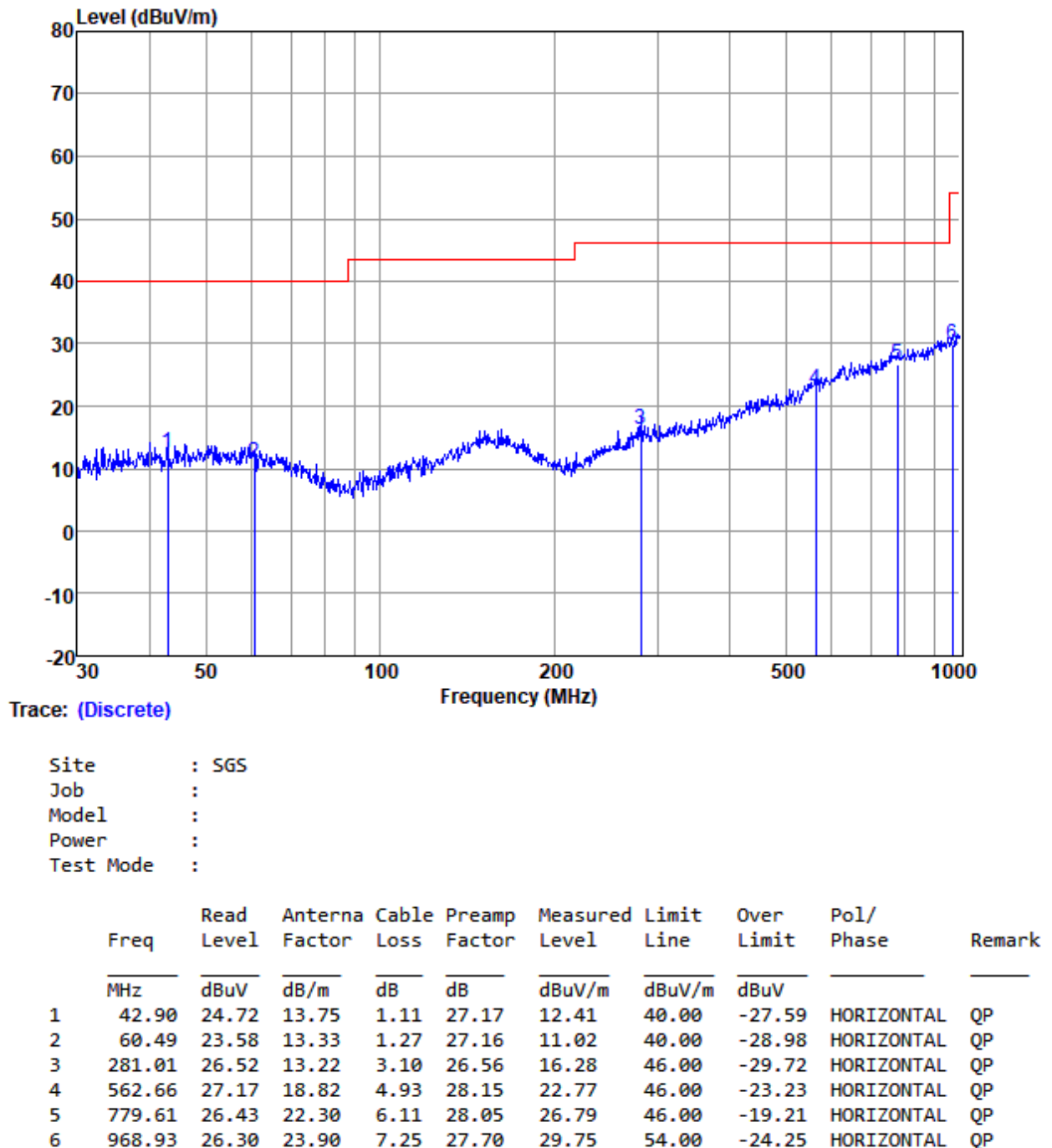
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

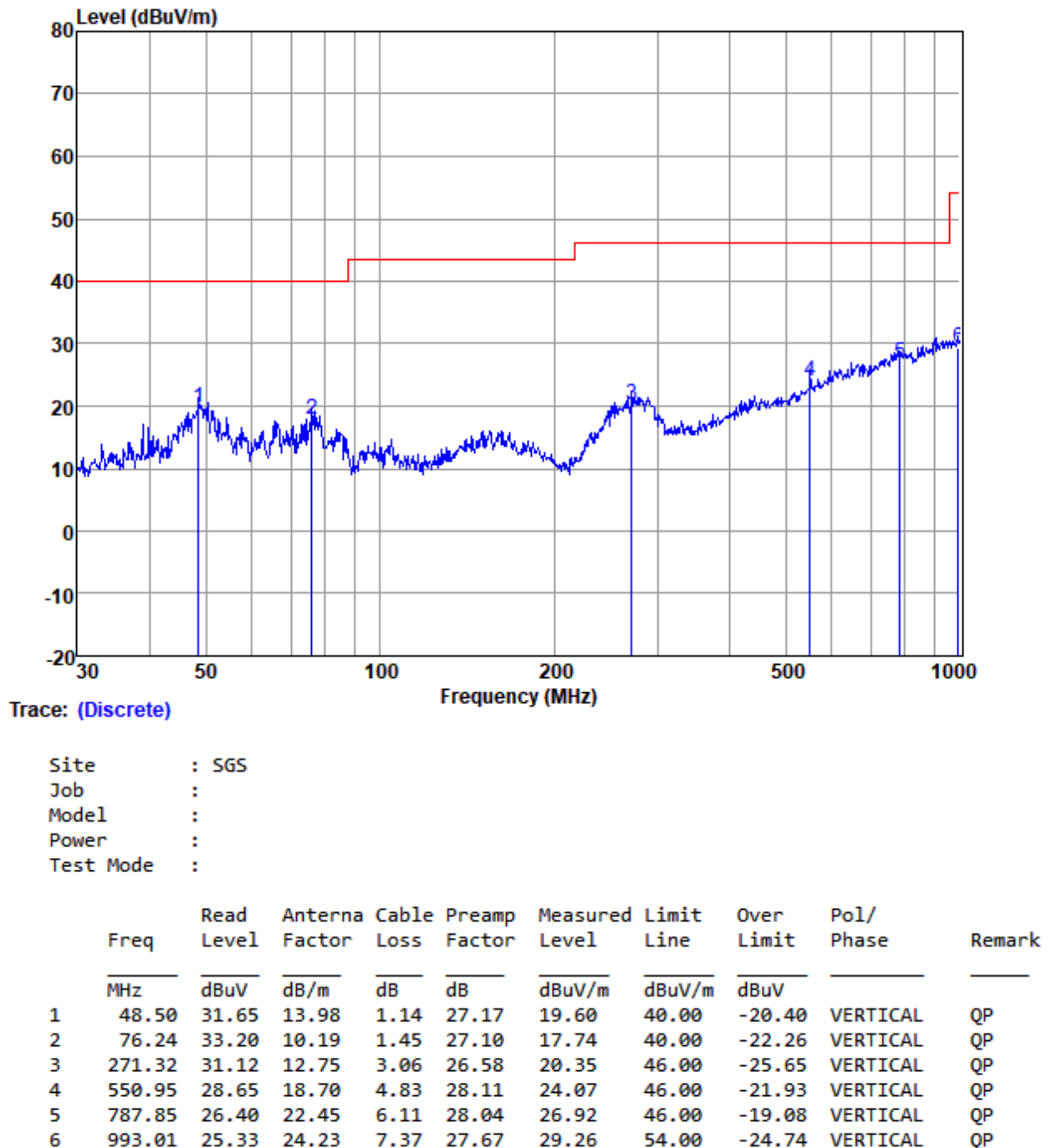
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 1GHz, the disturbance below 30MHz was very low. The points marked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



Test Mode: 04



Test Mode: 04



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

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

Test Method: KDB 789033 D02 II G

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                            |

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

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

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

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

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

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

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

Operating Environment:

Temperature: 24.2 °C

Humidity: 54.8 % RH

Atmospheric Pressure: 1003 mbar

**7.9.2 Test Mode Description**

| Pre-scan / Mode | Description |
|-----------------|-------------|
| Final test Code |             |

|               |                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|



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### Final test 05

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.

TX mode (U-NII-2A)\_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

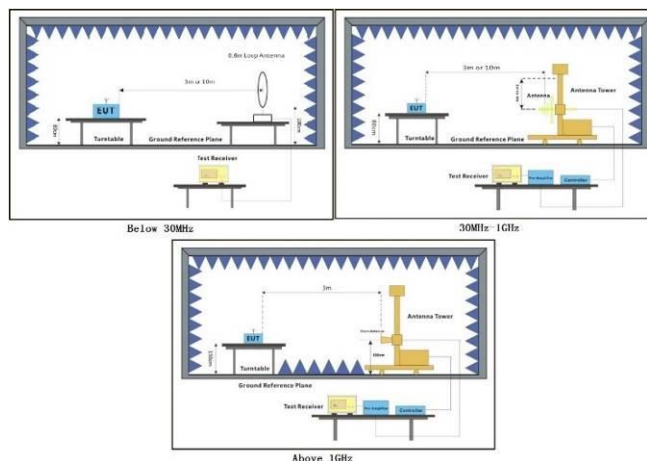
### Final test 06

TX mode (U-NII-2C)\_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

### Final test 07

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

### 7.9.3 Test Setup Diagram



#### 7.9.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

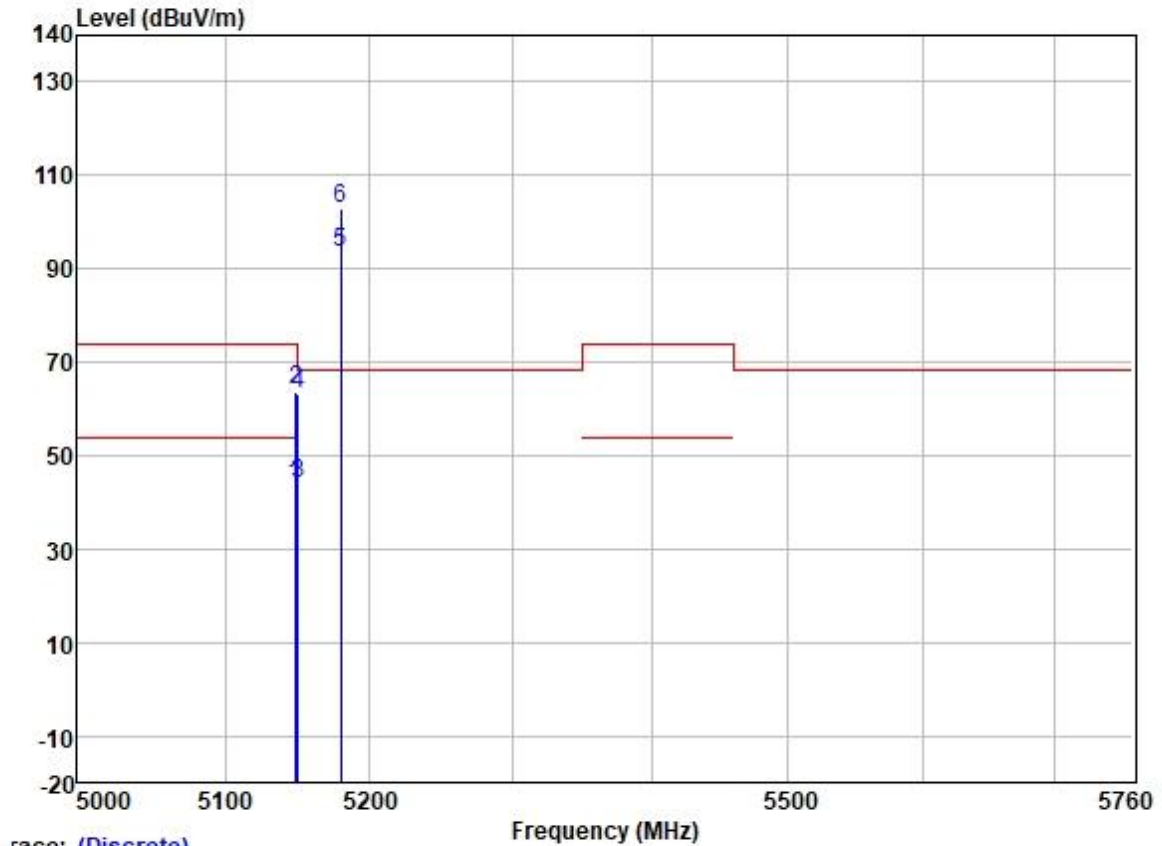
Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



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

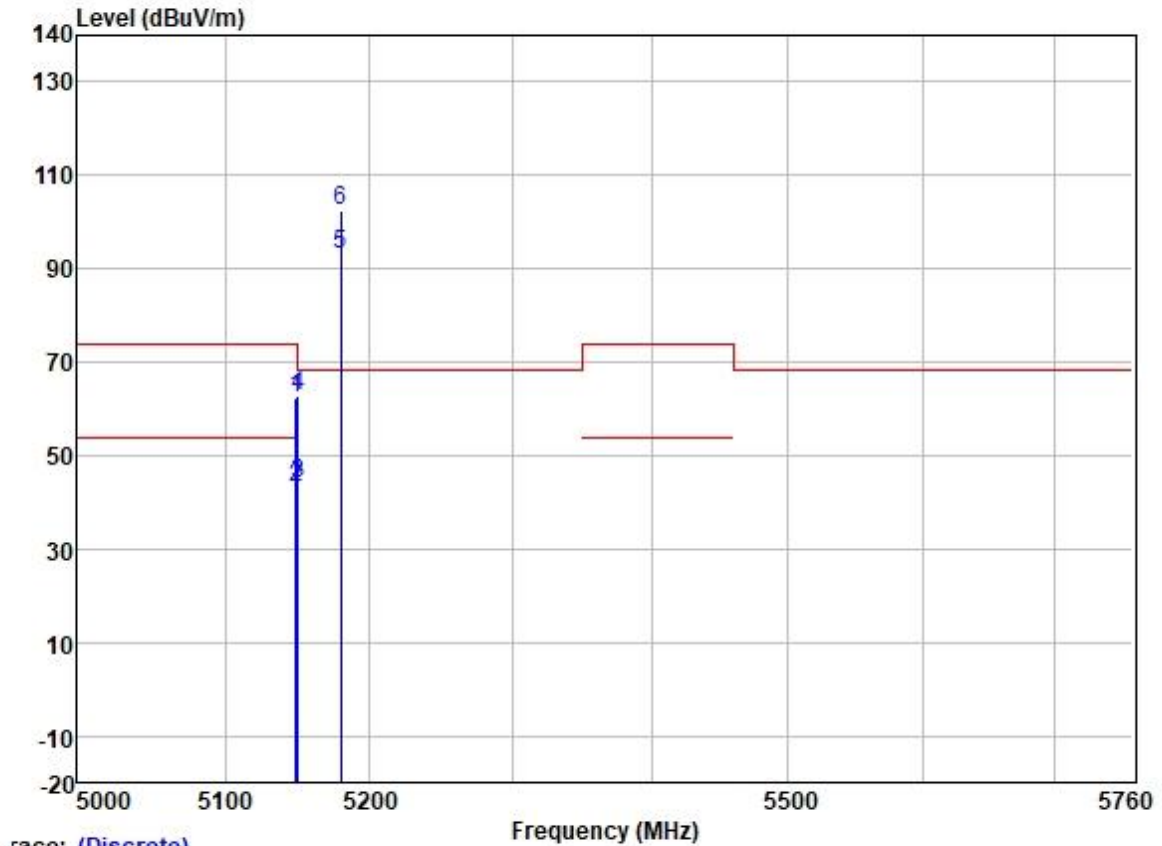


race: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5148.257 | 42.92  | 31.72   | 5.62  | 36.86  | 43.40  | 54.00  | -10.60    | HORIZONTAL Average |
| 2   | 5148.958 | 63.36  | 31.72   | 5.62  | 36.86  | 63.84  | 74.00  | -10.16    | HORIZONTAL Peak    |
| 3   | 5149.980 | 43.48  | 31.72   | 5.62  | 36.86  | 43.96  | 54.00  | -10.04    | HORIZONTAL Average |
| 4   | 5149.980 | 62.59  | 31.72   | 5.62  | 36.86  | 63.07  | 74.00  | -10.93    | HORIZONTAL Peak    |
| 5   | 5180.000 | 92.95  | 31.73   | 5.61  | 36.87  | 93.42  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5180.000 | 102.30 | 31.73   | 5.61  | 36.87  | 102.77 | 68.20  | 34.57     | HORIZONTAL Peak    |



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

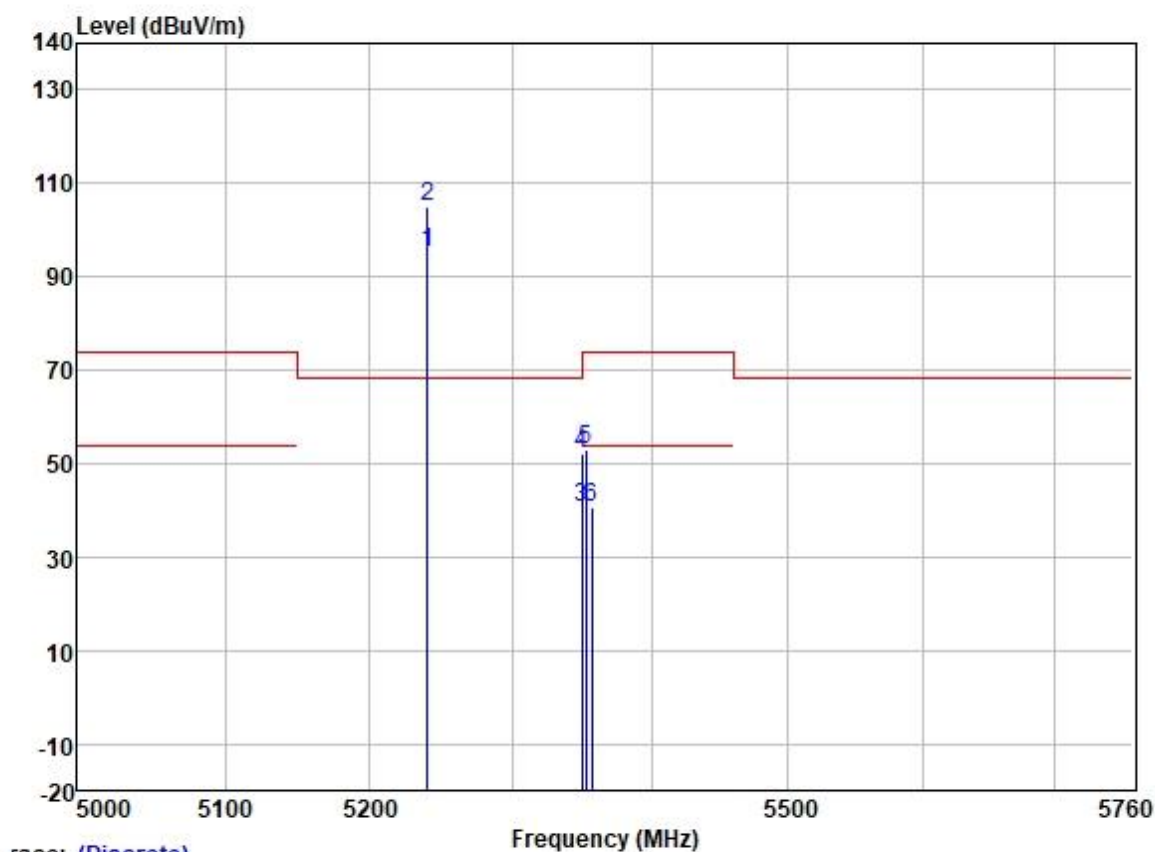


race: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|--------|---------|-------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5148.558 | 61.75  | 31.72   | 5.62  | 36.86  | 62.23  | 74.00  | -11.77 | VERTICAL  | Peak    |
| 2   | 5149.458 | 42.75  | 31.72   | 5.62  | 36.86  | 43.23  | 54.00  | -10.77 | VERTICAL  | Average |
| 3   | 5149.980 | 43.55  | 31.72   | 5.62  | 36.86  | 44.03  | 54.00  | -9.97  | VERTICAL  | Average |
| 4   | 5149.980 | 62.32  | 31.72   | 5.62  | 36.86  | 62.80  | 74.00  | -11.20 | VERTICAL  | Peak    |
| 5   | 5180.000 | 92.39  | 31.73   | 5.61  | 36.87  | 92.86  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5180.000 | 101.99 | 31.73   | 5.61  | 36.87  | 102.46 | 68.20  | 34.26  | VERTICAL  | Peak    |



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



race: (Discrete)

|     | Freq     | ReadAntenna<br>Level | Factor | Cable<br>Loss | Preamp<br>Factor | Level  | Limit<br>Line | Over<br>Limit | Pol/Phase  | Remark  |
|-----|----------|----------------------|--------|---------------|------------------|--------|---------------|---------------|------------|---------|
|     | MHz      | dBuV                 | dB/m   | dB            | dB               | dBuV/m | dBuV/m        | dB            |            |         |
| 1   | 5240.000 | 94.63                | 31.75  | 5.74          | 36.87            | 95.25  | -----         | -----         | HORIZONTAL | Average |
| 2 * | 5240.000 | 104.27               | 31.75  | 5.74          | 36.87            | 104.89 | 68.20         | 36.69         | HORIZONTAL | Peak    |
| 3   | 5350.020 | 39.53                | 31.77  | 6.05          | 36.88            | 40.47  | 54.00         | -13.53        | HORIZONTAL | Average |
| 4   | 5350.020 | 51.00                | 31.77  | 6.05          | 36.88            | 51.94  | 74.00         | -22.06        | HORIZONTAL | Peak    |
| 5   | 5352.770 | 52.17                | 31.77  | 6.05          | 36.88            | 53.11  | 74.00         | -20.89        | HORIZONTAL | Peak    |
| 6   | 5357.022 | 39.82                | 31.78  | 6.03          | 36.88            | 40.75  | 54.00         | -13.25        | HORIZONTAL | Average |

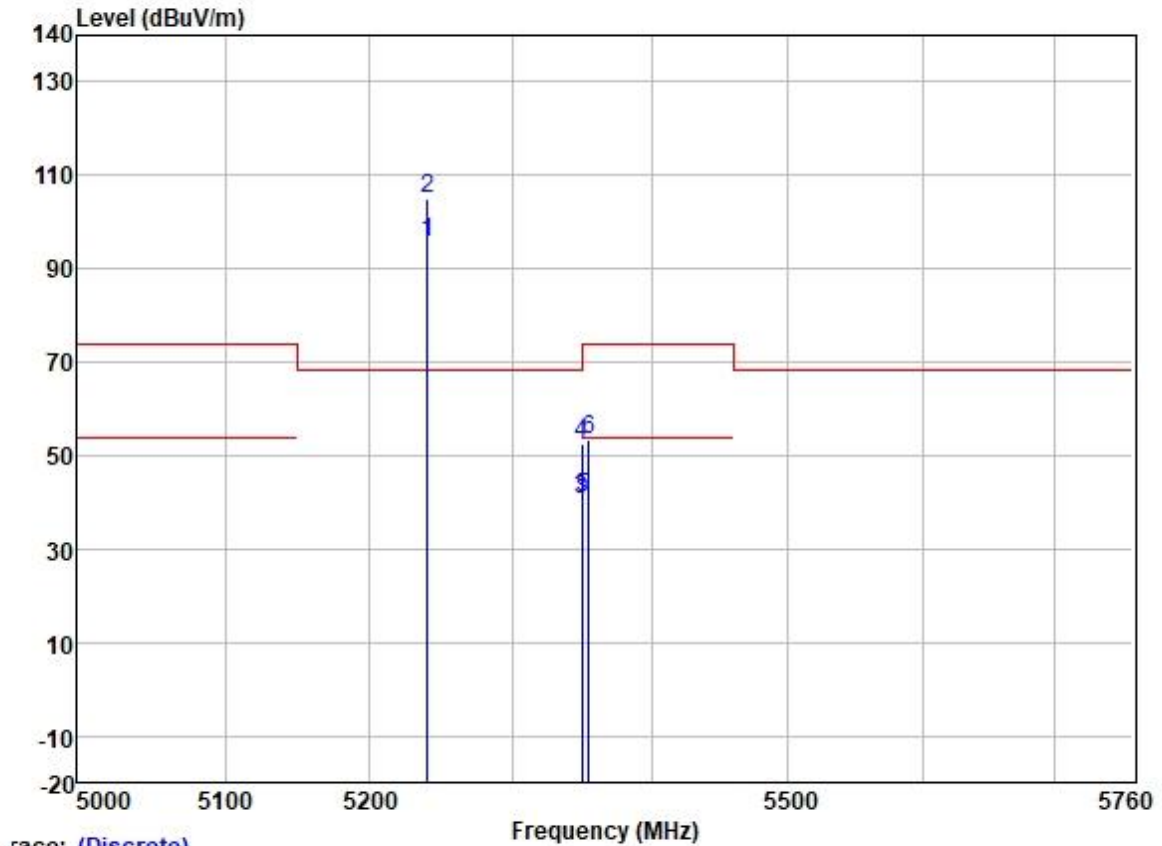


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Guangzhou Branch Testing Center EEC Laboratory.

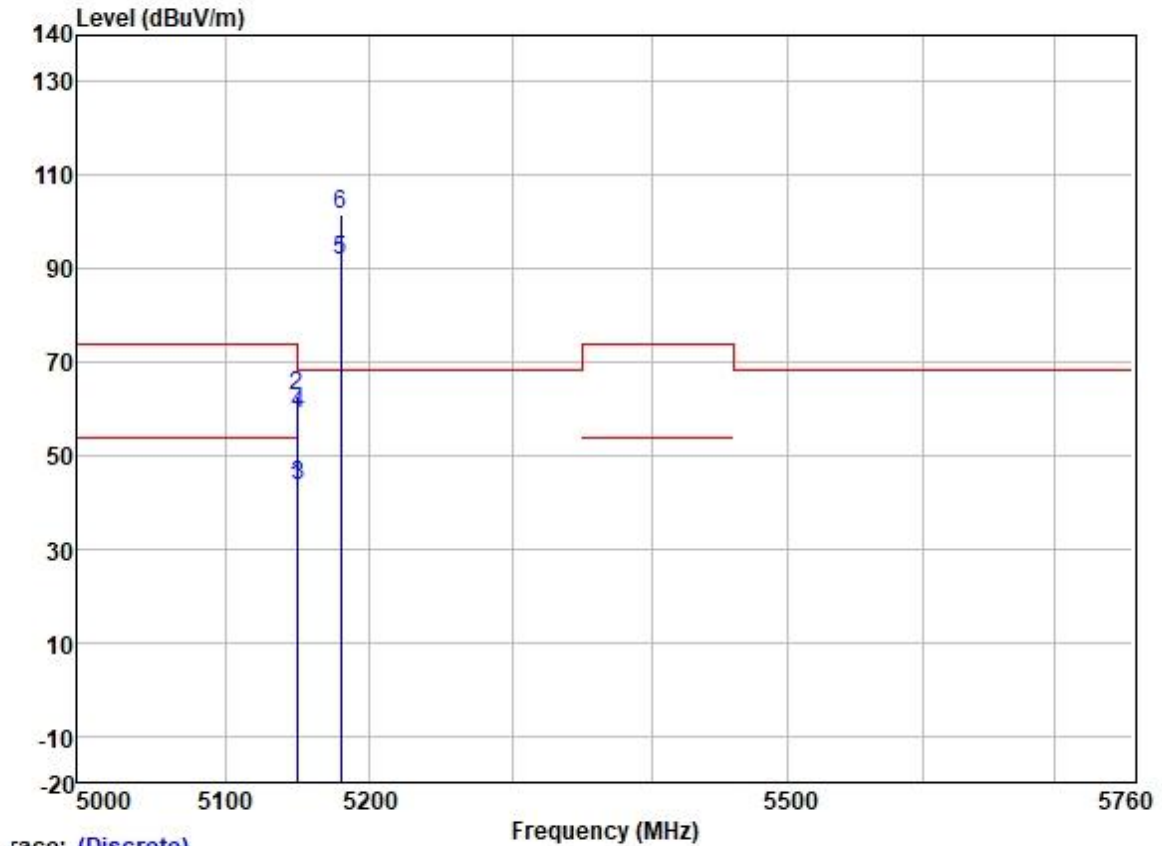
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 No.198 Kezhu Road, Sientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663  
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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                  |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark           |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                  |
| 1   | 5240.000 | 94.97  | 31.75   | 5.74  | 36.87  | 95.59  | -----  | -----     | VERTICAL Average |
| 2 * | 5240.000 | 104.58 | 31.75   | 5.74  | 36.87  | 105.20 | 68.20  | 37.00     | VERTICAL Peak    |
| 3   | 5350.020 | 39.65  | 31.77   | 6.05  | 36.88  | 40.59  | 54.00  | -13.41    | VERTICAL Average |
| 4   | 5350.020 | 51.43  | 31.77   | 6.05  | 36.88  | 52.37  | 74.00  | -21.63    | VERTICAL Peak    |
| 5   | 5350.362 | 39.90  | 31.77   | 6.05  | 36.88  | 40.84  | 54.00  | -13.16    | VERTICAL Average |
| 6   | 5354.896 | 52.51  | 31.78   | 6.03  | 36.88  | 53.44  | 74.00  | -20.56    | VERTICAL Peak    |

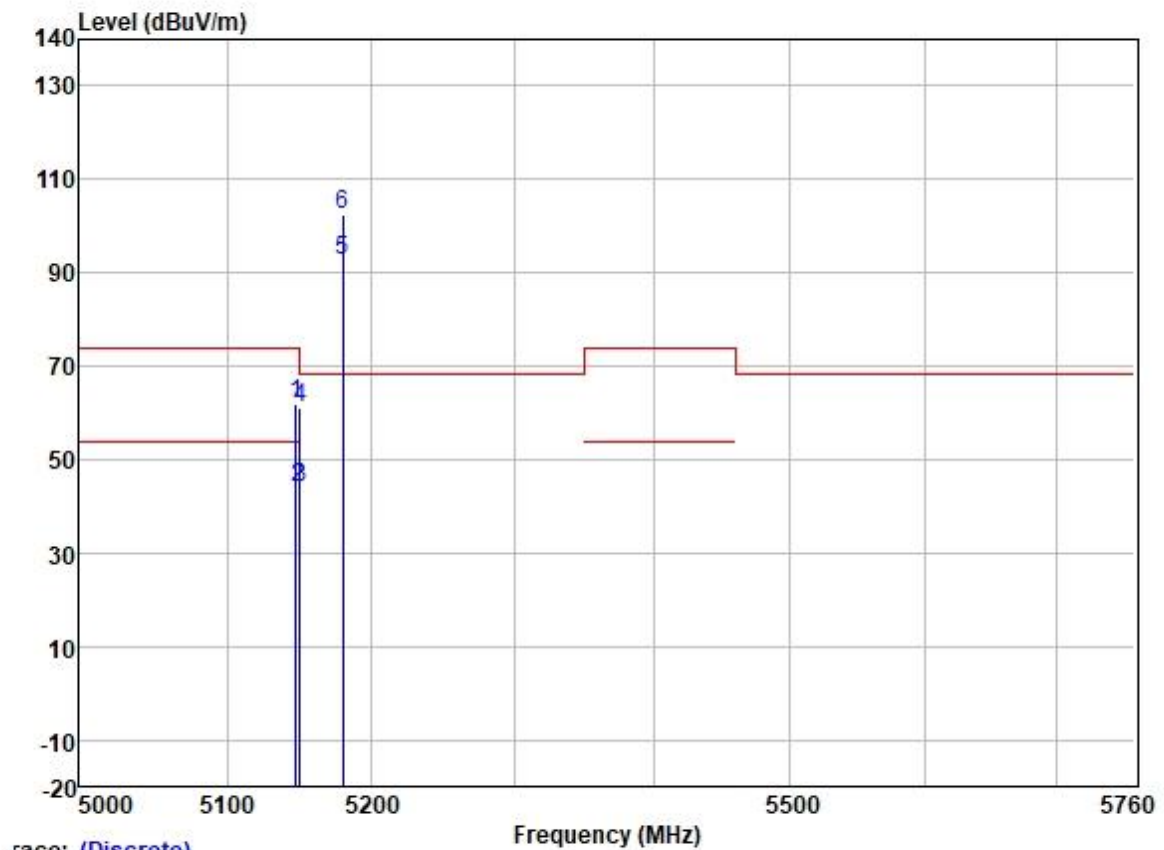
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5149.157 | 42.72  | 31.72   | 5.62  | 36.86  | 43.20  | 54.00  | -10.80    | HORIZONTAL Average |
| 2   | 5149.157 | 62.17  | 31.72   | 5.62  | 36.86  | 62.65  | 74.00  | -11.35    | HORIZONTAL Peak    |
| 3   | 5149.980 | 43.01  | 31.72   | 5.62  | 36.86  | 43.49  | 54.00  | -10.51    | HORIZONTAL Average |
| 4   | 5149.980 | 58.58  | 31.72   | 5.62  | 36.86  | 59.06  | 74.00  | -14.94    | HORIZONTAL Peak    |
| 5   | 5180.000 | 91.25  | 31.73   | 5.61  | 36.87  | 91.72  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5180.000 | 101.16 | 31.73   | 5.61  | 36.87  | 101.63 | 68.20  | 33.43     | HORIZONTAL Peak    |



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

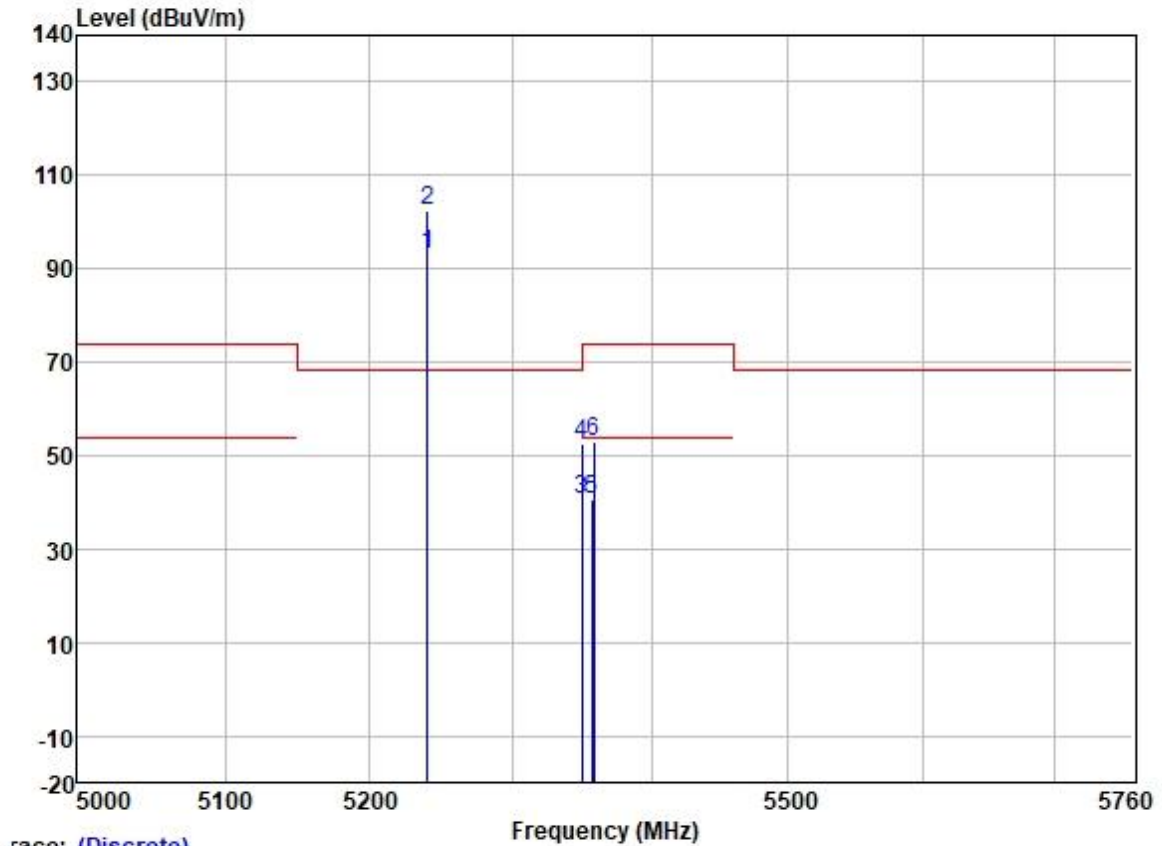


Trace: (Discrete)

|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------------|--------|-------|--------|--------|--------|--------|-----------|---------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5147.358 | 61.32       | 31.72  | 5.62  | 36.86  | 61.80  | 74.00  | -12.20 | VERTICAL  | Peak    |
| 2   | 5149.458 | 43.31       | 31.72  | 5.62  | 36.86  | 43.79  | 54.00  | -10.21 | VERTICAL  | Average |
| 3   | 5149.980 | 43.31       | 31.72  | 5.62  | 36.86  | 43.79  | 54.00  | -10.21 | VERTICAL  | Average |
| 4   | 5149.980 | 60.79       | 31.72  | 5.62  | 36.86  | 61.27  | 74.00  | -12.73 | VERTICAL  | Peak    |
| 5   | 5180.000 | 92.35       | 31.73  | 5.61  | 36.87  | 92.82  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5180.000 | 102.08      | 31.73  | 5.61  | 36.87  | 102.55 | 68.20  | 34.35  | VERTICAL  | Peak    |

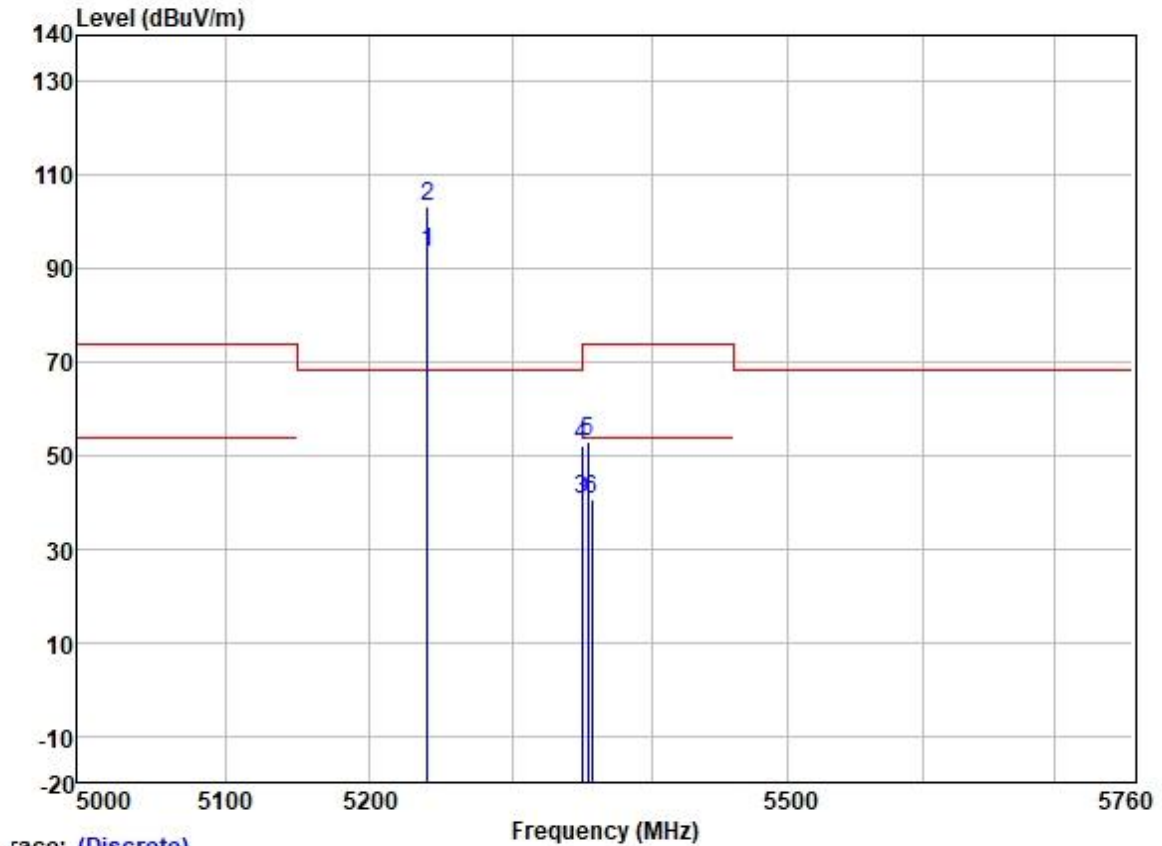


Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |            |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|------------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |            |         |
| 1   | 5240.000 | 92.45       | 31.75  | 5.74   | 36.87  | 93.07  | -----  | -----  | HORIZONTAL | Average |
| 2 * | 5240.000 | 101.76      | 31.75  | 5.74   | 36.87  | 102.38 | 68.20  | 34.18  | HORIZONTAL | Peak    |
| 3   | 5350.020 | 39.53       | 31.77  | 6.05   | 36.88  | 40.47  | 54.00  | -13.53 | HORIZONTAL | Average |
| 4   | 5350.020 | 51.46       | 31.77  | 6.05   | 36.88  | 52.40  | 74.00  | -21.60 | HORIZONTAL | Peak    |
| 5   | 5356.738 | 39.80       | 31.78  | 6.03   | 36.88  | 40.73  | 54.00  | -13.27 | HORIZONTAL | Average |
| 6   | 5358.298 | 51.95       | 31.78  | 6.03   | 36.88  | 52.88  | 74.00  | -21.12 | HORIZONTAL | Peak    |

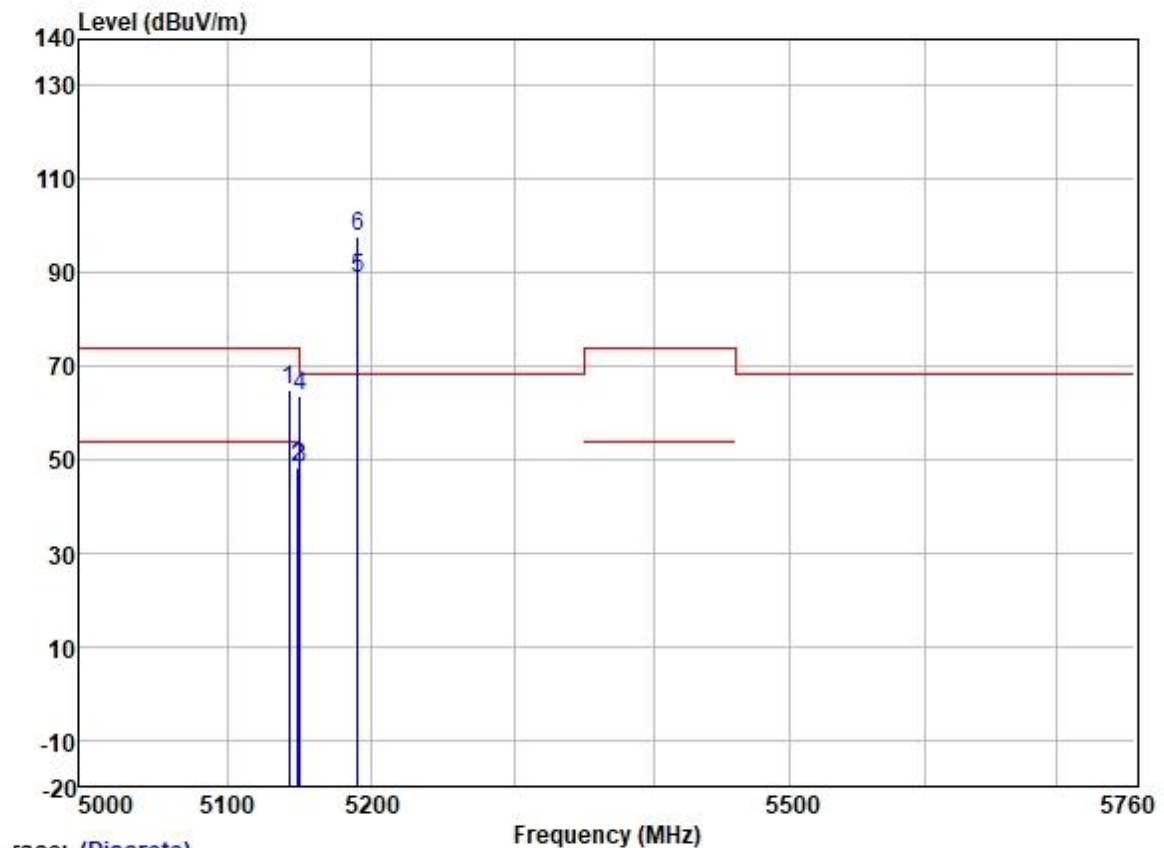
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5240.000 | 92.89  | 31.75   | 5.74  | 36.87  | 93.51  | -----  | VERTICAL  | Average  |
| 2 * | 5240.000 | 102.63 | 31.75   | 5.74  | 36.87  | 103.25 | 68.20  | 35.05     | VERTICAL |
| 3   | 5350.020 | 39.46  | 31.77   | 6.05  | 36.88  | 40.40  | 54.00  | -13.60    | VERTICAL |
| 4   | 5350.020 | 51.07  | 31.77   | 6.05  | 36.88  | 52.01  | 74.00  | -21.99    | VERTICAL |
| 5   | 5353.762 | 51.99  | 31.77   | 6.05  | 36.88  | 52.93  | 74.00  | -21.07    | VERTICAL |
| 6   | 5357.164 | 39.73  | 31.78   | 6.03  | 36.88  | 40.66  | 54.00  | -13.34    | VERTICAL |

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

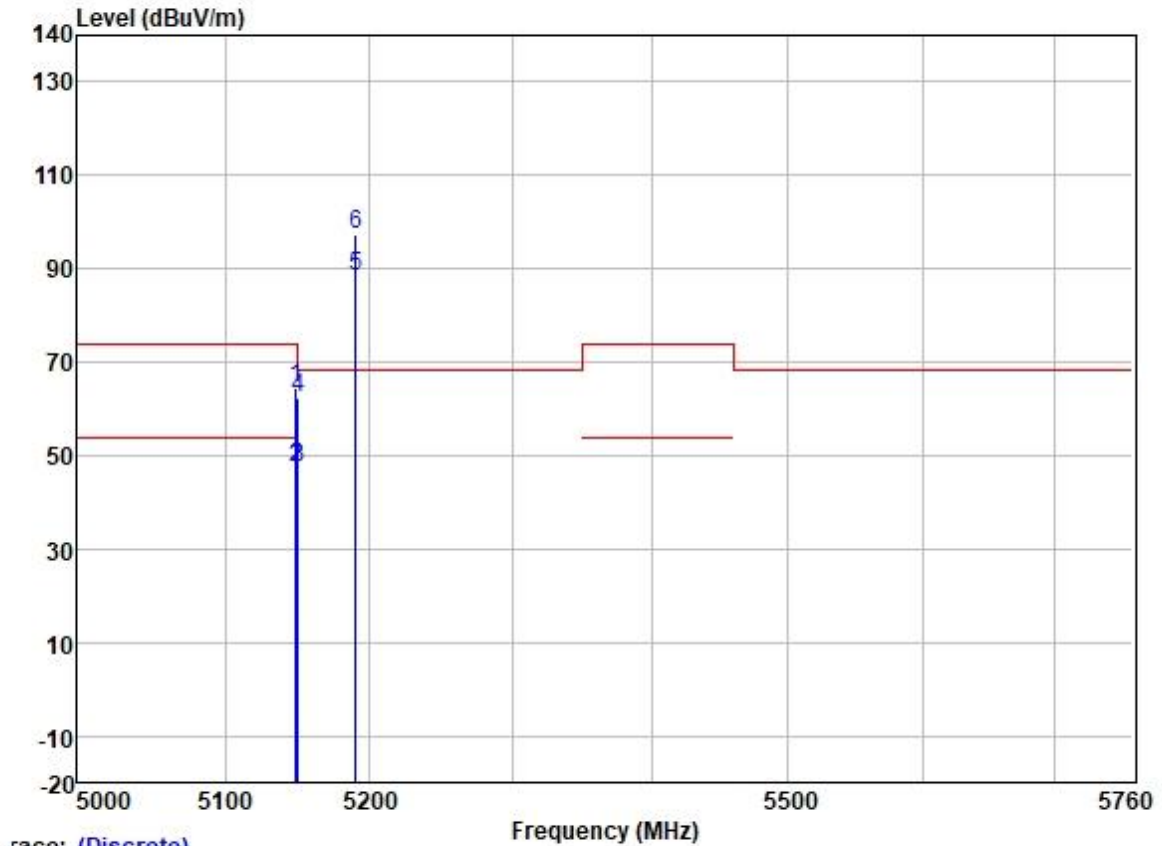


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5142.520 | 64.54 | 31.72   | 5.62  | 36.86  | 65.02  | 74.00  | -8.98     | HORIZONTAL Peak    |
| 2   | 5148.503 | 47.75 | 31.72   | 5.62  | 36.86  | 48.23  | 54.00  | -5.77     | HORIZONTAL Average |
| 3   | 5149.980 | 47.84 | 31.72   | 5.62  | 36.86  | 48.32  | 54.00  | -5.68     | HORIZONTAL Average |
| 4   | 5149.980 | 63.35 | 31.72   | 5.62  | 36.86  | 63.83  | 74.00  | -10.17    | HORIZONTAL Peak    |
| 5   | 5190.000 | 88.39 | 31.73   | 5.60  | 36.87  | 88.85  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5190.000 | 97.44 | 31.73   | 5.60  | 36.87  | 97.90  | 68.20  | 29.70     | HORIZONTAL Peak    |



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

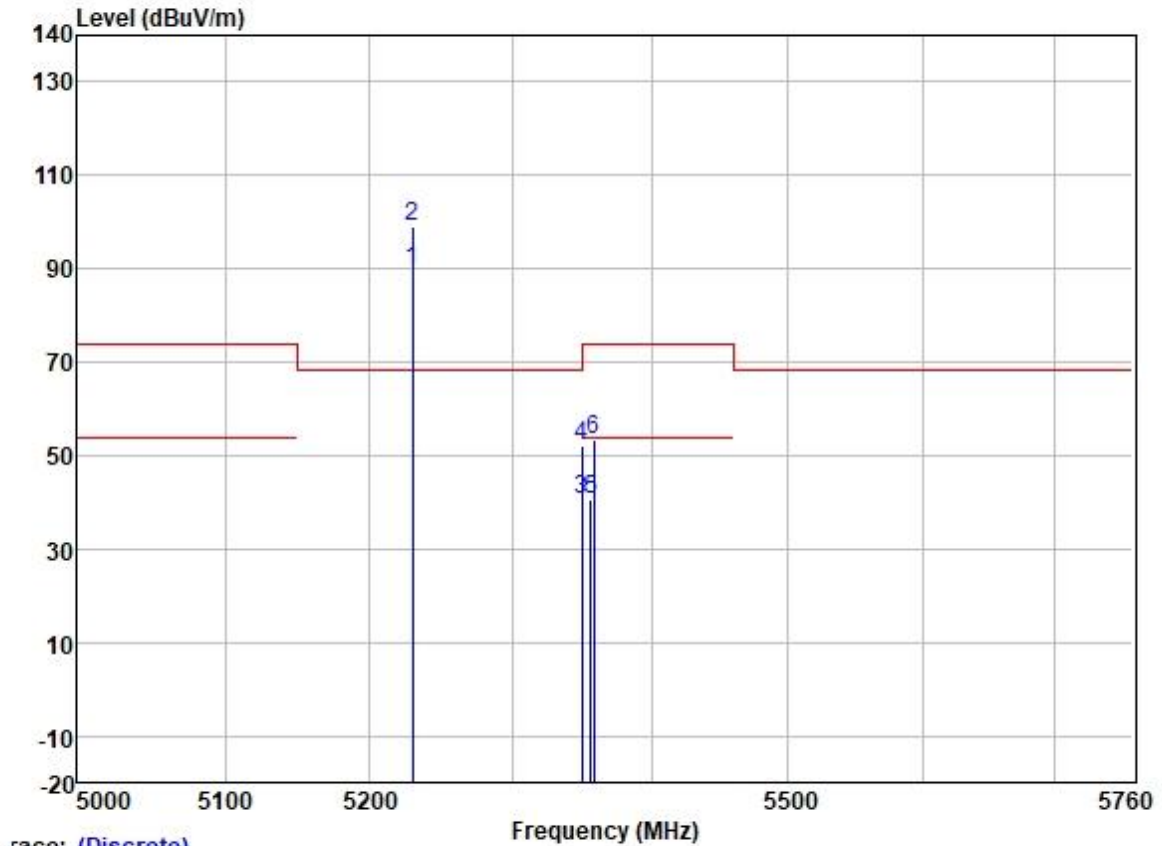


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------|---------|-------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level | Factor  | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5148.982 | 63.85 | 31.72   | 5.62  | 36.86  | 64.33  | 74.00  | -9.67  | VERTICAL  | Peak    |
| 2   | 5149.342 | 47.07 | 31.72   | 5.62  | 36.86  | 47.55  | 54.00  | -6.45  | VERTICAL  | Average |
| 3   | 5149.980 | 46.99 | 31.72   | 5.62  | 36.86  | 47.47  | 54.00  | -6.53  | VERTICAL  | Average |
| 4   | 5149.980 | 61.95 | 31.72   | 5.62  | 36.86  | 62.43  | 74.00  | -11.57 | VERTICAL  | Peak    |
| 5   | 5190.000 | 87.86 | 31.73   | 5.60  | 36.87  | 88.32  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5190.000 | 96.91 | 31.73   | 5.60  | 36.87  | 97.37  | 68.20  | 29.17  | VERTICAL  | Peak    |



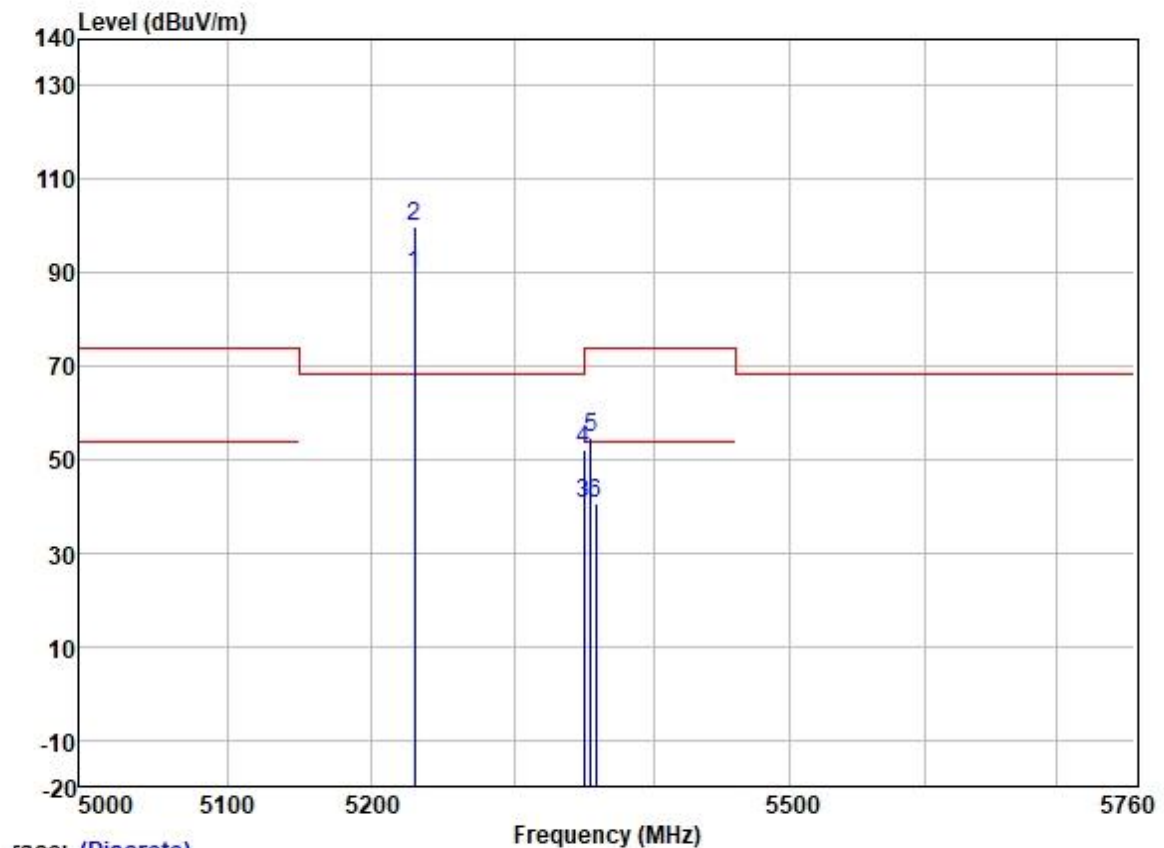
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |            |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|------------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |            |         |
| 1   | 5230.000 | 89.28       | 31.74  | 5.70   | 36.87  | 89.85  | -----  | -----  | HORIZONTAL | Average |
| 2 * | 5230.000 | 98.27       | 31.74  | 5.70   | 36.87  | 98.84  | 68.20  | 30.64  | HORIZONTAL | Peak    |
| 3   | 5350.020 | 39.61       | 31.77  | 6.05   | 36.88  | 40.55  | 54.00  | -13.45 | HORIZONTAL | Average |
| 4   | 5350.020 | 51.22       | 31.77  | 6.05   | 36.88  | 52.16  | 74.00  | -21.84 | HORIZONTAL | Peak    |
| 5   | 5356.265 | 39.75       | 31.78  | 6.03   | 36.88  | 40.68  | 54.00  | -13.32 | HORIZONTAL | Average |
| 6   | 5358.213 | 52.55       | 31.78  | 6.03   | 36.88  | 53.48  | 74.00  | -20.52 | HORIZONTAL | Peak    |

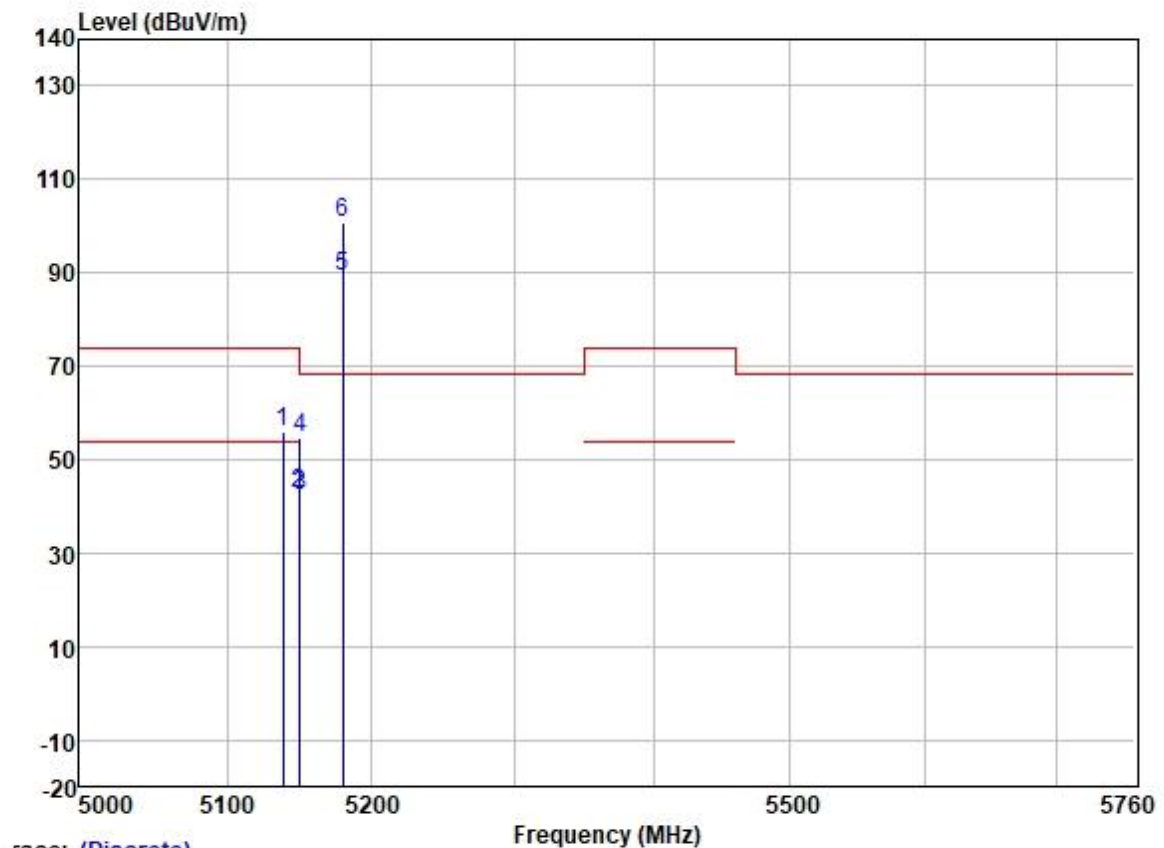
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5230.000 | 89.18 | 31.74   | 5.70  | 36.87  | 89.75  | -----  | VERTICAL  | Average  |
| 2 * | 5230.000 | 99.26 | 31.74   | 5.70  | 36.87  | 99.83  | 68.20  | 31.63     | VERTICAL |
| 3   | 5350.020 | 39.46 | 31.77   | 6.05  | 36.88  | 40.40  | 54.00  | -13.60    | VERTICAL |
| 4   | 5350.020 | 51.13 | 31.77   | 6.05  | 36.88  | 52.07  | 74.00  | -21.93    | VERTICAL |
| 5   | 5354.805 | 53.66 | 31.78   | 6.03  | 36.88  | 54.59  | 74.00  | -19.41    | VERTICAL |
| 6   | 5358.213 | 39.70 | 31.78   | 6.03  | 36.88  | 40.63  | 54.00  | -13.37    | VERTICAL |

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

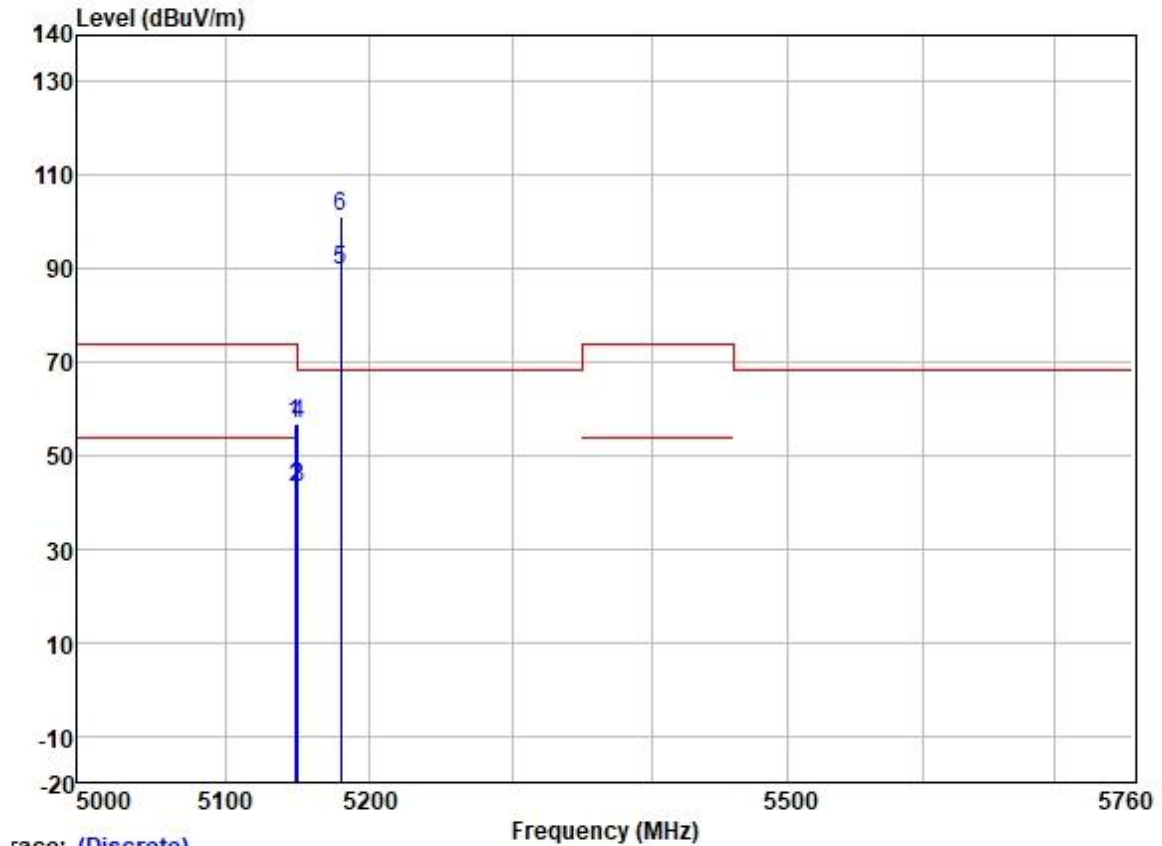


Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5138.370 | 55.57  | 31.72   | 5.63  | 36.86  | 56.06  | 74.00  | -17.94    | HORIZONTAL Peak    |
| 2   | 5149.057 | 42.12  | 31.72   | 5.62  | 36.86  | 42.60  | 54.00  | -11.40    | HORIZONTAL Average |
| 3   | 5149.980 | 41.88  | 31.72   | 5.62  | 36.86  | 42.36  | 54.00  | -11.64    | HORIZONTAL Average |
| 4   | 5149.980 | 54.31  | 31.72   | 5.62  | 36.86  | 54.79  | 74.00  | -19.21    | HORIZONTAL Peak    |
| 5   | 5180.000 | 88.72  | 31.73   | 5.61  | 36.87  | 89.19  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5180.000 | 100.34 | 31.73   | 5.61  | 36.87  | 100.81 | 68.20  | 32.61     | HORIZONTAL Peak    |



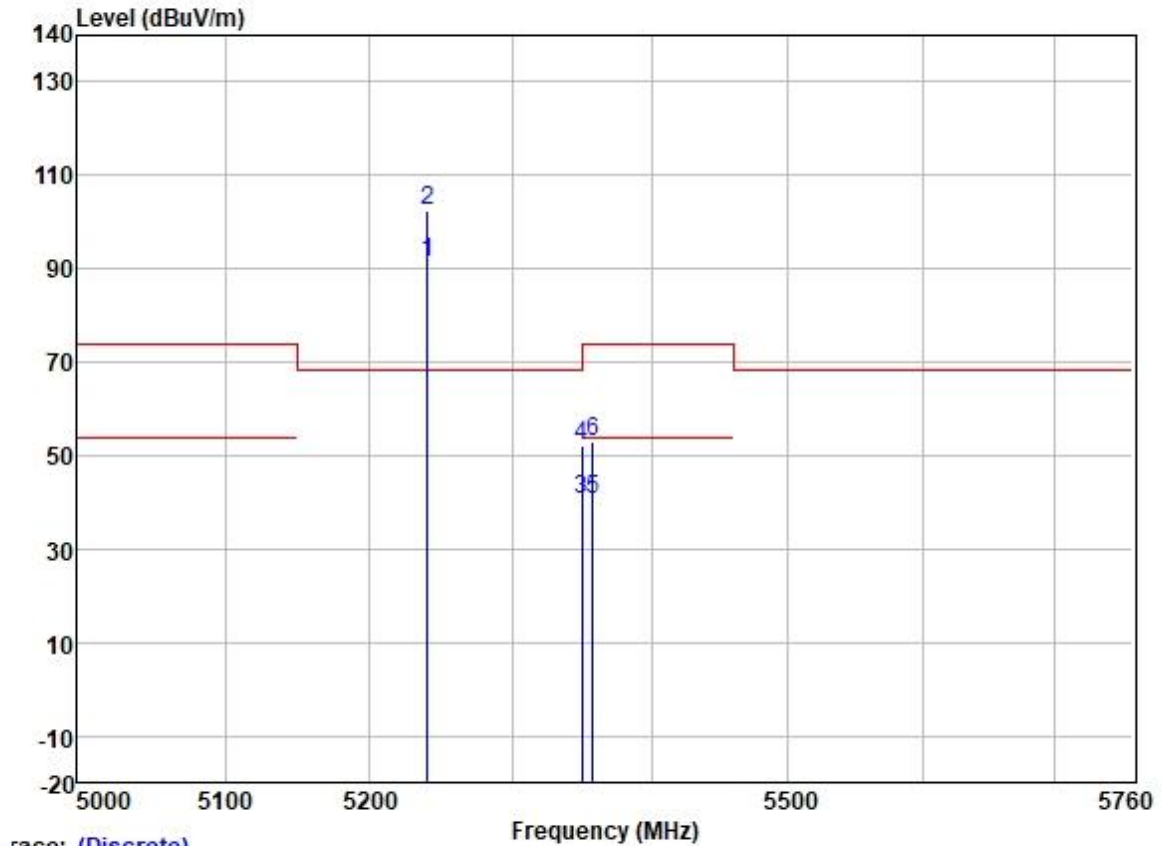
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------------|--------|-------|--------|--------|--------|--------|-----------|---------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5147.658 | 56.23       | 31.72  | 5.62  | 36.86  | 56.71  | 74.00  | -17.29 | VERTICAL  | Peak    |
| 2   | 5149.157 | 42.48       | 31.72  | 5.62  | 36.86  | 42.96  | 54.00  | -11.04 | VERTICAL  | Average |
| 3   | 5149.980 | 42.66       | 31.72  | 5.62  | 36.86  | 43.14  | 54.00  | -10.86 | VERTICAL  | Average |
| 4   | 5149.980 | 56.18       | 31.72  | 5.62  | 36.86  | 56.66  | 74.00  | -17.34 | VERTICAL  | Peak    |
| 5   | 5180.000 | 89.39       | 31.73  | 5.61  | 36.87  | 89.86  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5180.000 | 100.79      | 31.73  | 5.61  | 36.87  | 101.26 | 68.20  | 33.06  | VERTICAL  | Peak    |



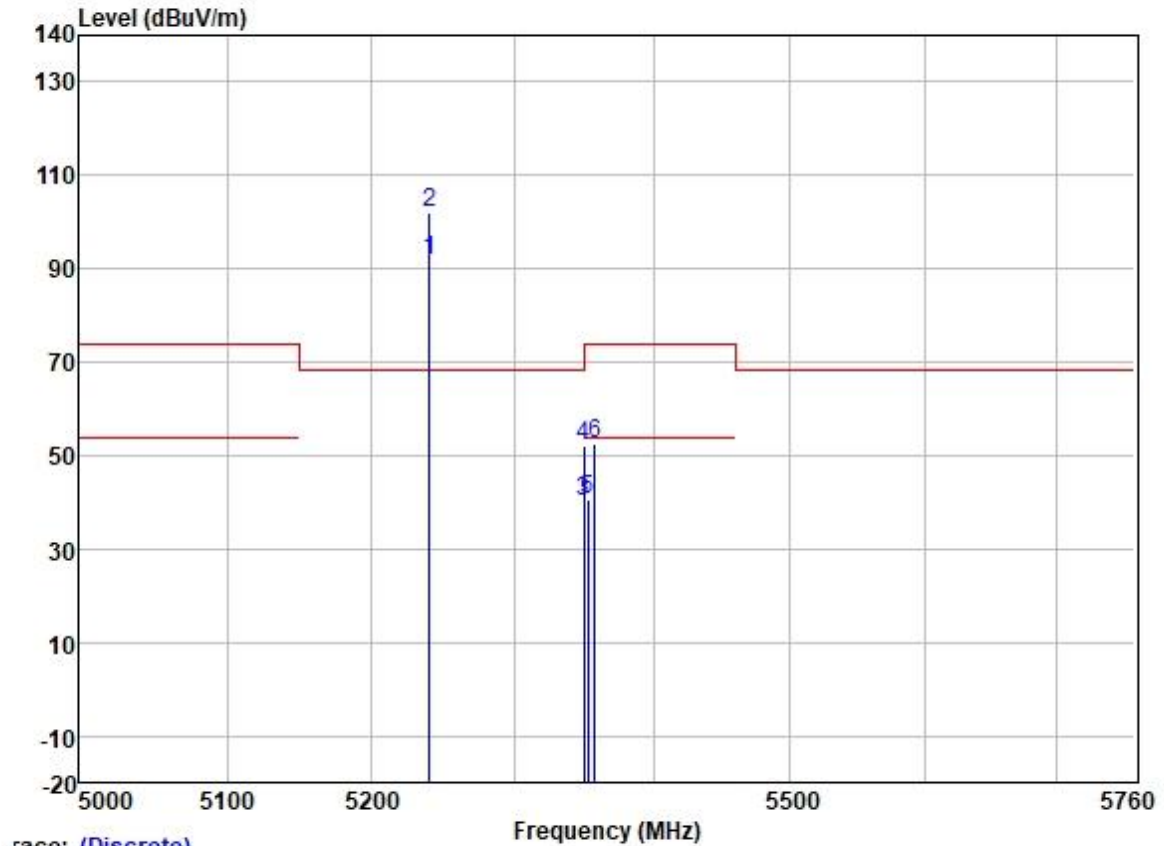
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5240.000 | 90.59  | 31.75   | 5.74  | 36.87  | 91.21  | -----  | -----     | HORIZONTAL Average |
| 2 * | 5240.000 | 102.02 | 31.75   | 5.74  | 36.87  | 102.64 | 68.20  | 34.44     | HORIZONTAL Peak    |
| 3   | 5350.020 | 39.60  | 31.77   | 6.05  | 36.88  | 40.54  | 54.00  | -13.46    | HORIZONTAL Average |
| 4   | 5350.020 | 51.28  | 31.77   | 6.05  | 36.88  | 52.22  | 74.00  | -21.78    | HORIZONTAL Peak    |
| 5   | 5357.305 | 39.62  | 31.78   | 6.03  | 36.88  | 40.55  | 54.00  | -13.45    | HORIZONTAL Average |
| 6   | 5357.447 | 51.97  | 31.78   | 6.03  | 36.88  | 52.90  | 74.00  | -21.10    | HORIZONTAL Peak    |

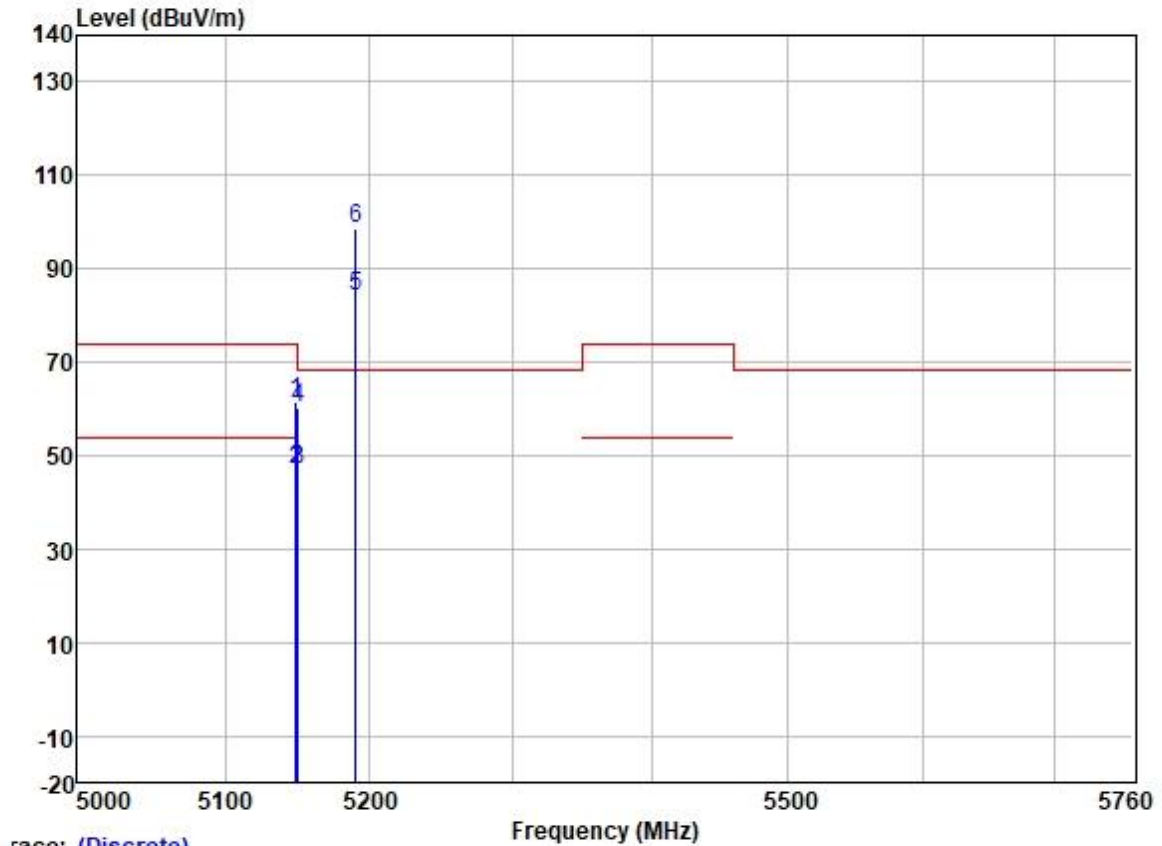
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |                 |         |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------------|---------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase       | Remark  |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB              |         |
| 1   | 5240.000 | 91.16  | 31.75   | 5.74  | 36.87  | 91.78  | -----  | VERTICAL        | Average |
| 2 * | 5240.000 | 101.54 | 31.75   | 5.74  | 36.87  | 102.16 | 68.20  | 33.96 VERTICAL  | Peak    |
| 3   | 5350.020 | 39.38  | 31.77   | 6.05  | 36.88  | 40.32  | 54.00  | -13.68 VERTICAL | Average |
| 4   | 5350.020 | 51.08  | 31.77   | 6.05  | 36.88  | 52.02  | 74.00  | -21.98 VERTICAL | Peak    |
| 5   | 5352.770 | 39.60  | 31.77   | 6.05  | 36.88  | 40.54  | 54.00  | -13.46 VERTICAL | Average |
| 6   | 5357.447 | 51.66  | 31.78   | 6.03  | 36.88  | 52.59  | 74.00  | -21.41 VERTICAL | Peak    |

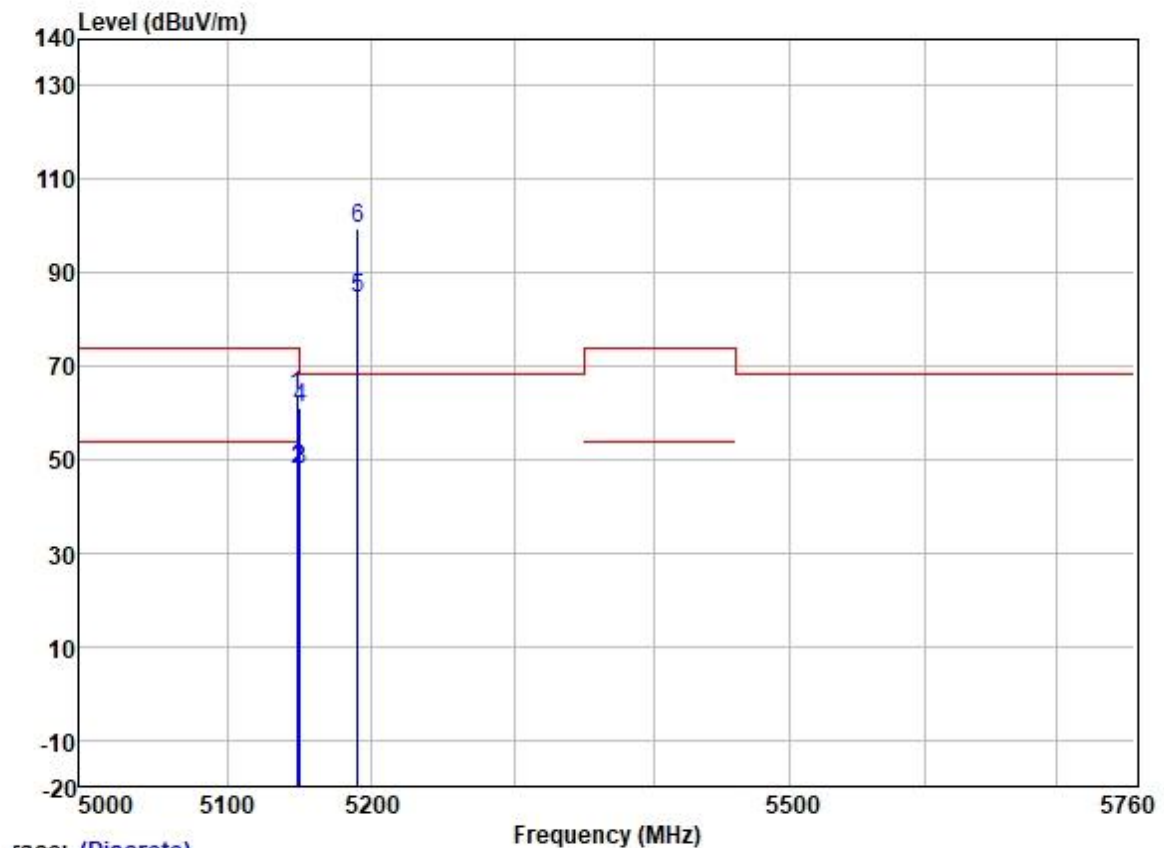
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5148.503 | 61.05 | 31.72   | 5.62  | 36.86  | 61.53  | 74.00  | -12.47    | HORIZONTAL Peak    |
| 2   | 5149.102 | 46.39 | 31.72   | 5.62  | 36.86  | 46.87  | 54.00  | -7.13     | HORIZONTAL Average |
| 3   | 5149.980 | 46.36 | 31.72   | 5.62  | 36.86  | 46.84  | 54.00  | -7.16     | HORIZONTAL Average |
| 4   | 5149.980 | 59.87 | 31.72   | 5.62  | 36.86  | 60.35  | 74.00  | -13.65    | HORIZONTAL Peak    |
| 5   | 5190.000 | 83.77 | 31.73   | 5.60  | 36.87  | 84.23  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5190.000 | 98.16 | 31.73   | 5.60  | 36.87  | 98.62  | 68.20  | 30.42     | HORIZONTAL Peak    |



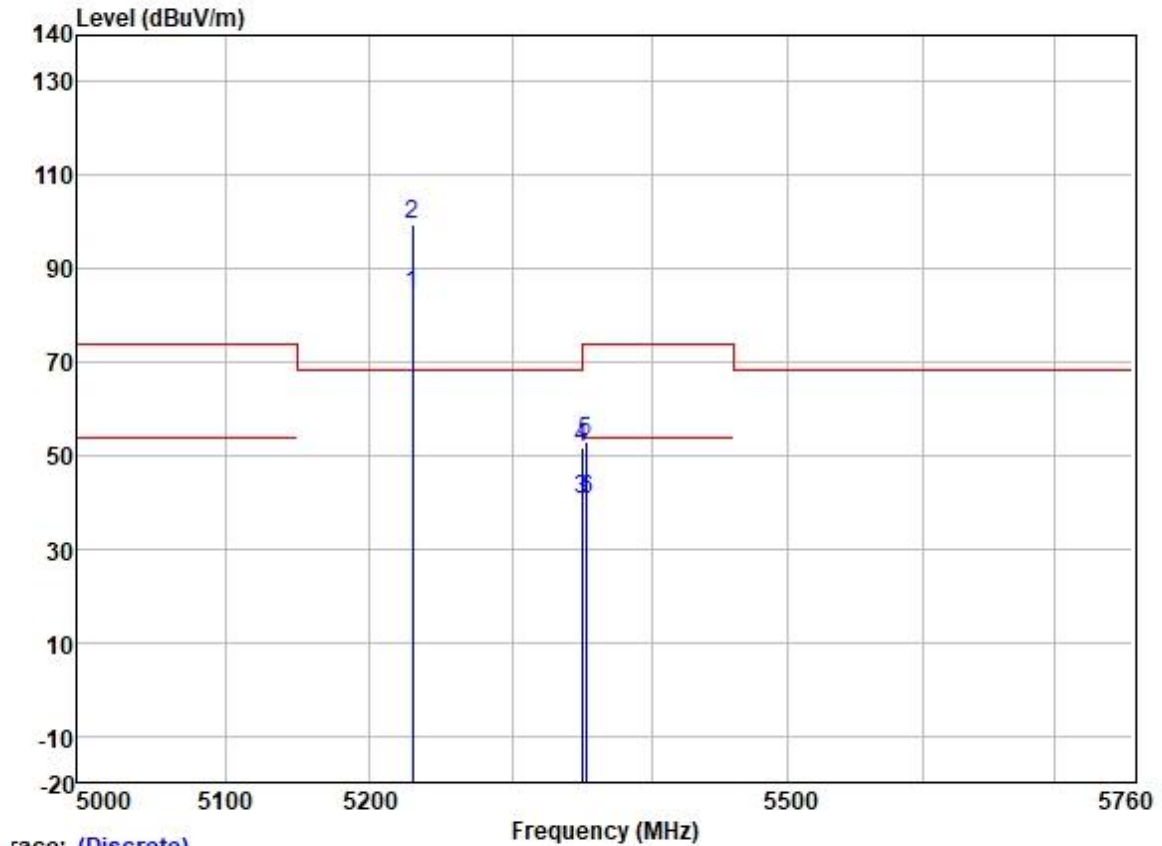
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



|   |   | Freq     | ReadAntenna<br>Level Factor | Cable<br>Loss | Preamp<br>Factor | Level | Limit<br>Line | Over<br>Limit | Pol/Phase | Remark   |         |
|---|---|----------|-----------------------------|---------------|------------------|-------|---------------|---------------|-----------|----------|---------|
|   |   | MHz      | dBuV                        | dB/m          | dB               | dB    | dBuV/m        | dBuV/m        | dB        |          |         |
| 1 |   | 5148.144 | 63.10                       | 31.72         | 5.62             | 36.86 | 63.58         | 74.00         | -10.42    | VERTICAL | Peak    |
| 2 |   | 5149.342 | 47.22                       | 31.72         | 5.62             | 36.86 | 47.70         | 54.00         | -6.30     | VERTICAL | Average |
| 3 |   | 5149.980 | 47.32                       | 31.72         | 5.62             | 36.86 | 47.80         | 54.00         | -6.20     | VERTICAL | Average |
| 4 |   | 5149.980 | 60.47                       | 31.72         | 5.62             | 36.86 | 60.95         | 74.00         | -13.05    | VERTICAL | Peak    |
| 5 |   | 5190.000 | 84.07                       | 31.73         | 5.60             | 36.87 | 84.53         | -----         | -----     | VERTICAL | Average |
| 6 | * | 5190.000 | 99.04                       | 31.73         | 5.60             | 36.87 | 99.50         | 68.20         | 31.30     | VERTICAL | Peak    |



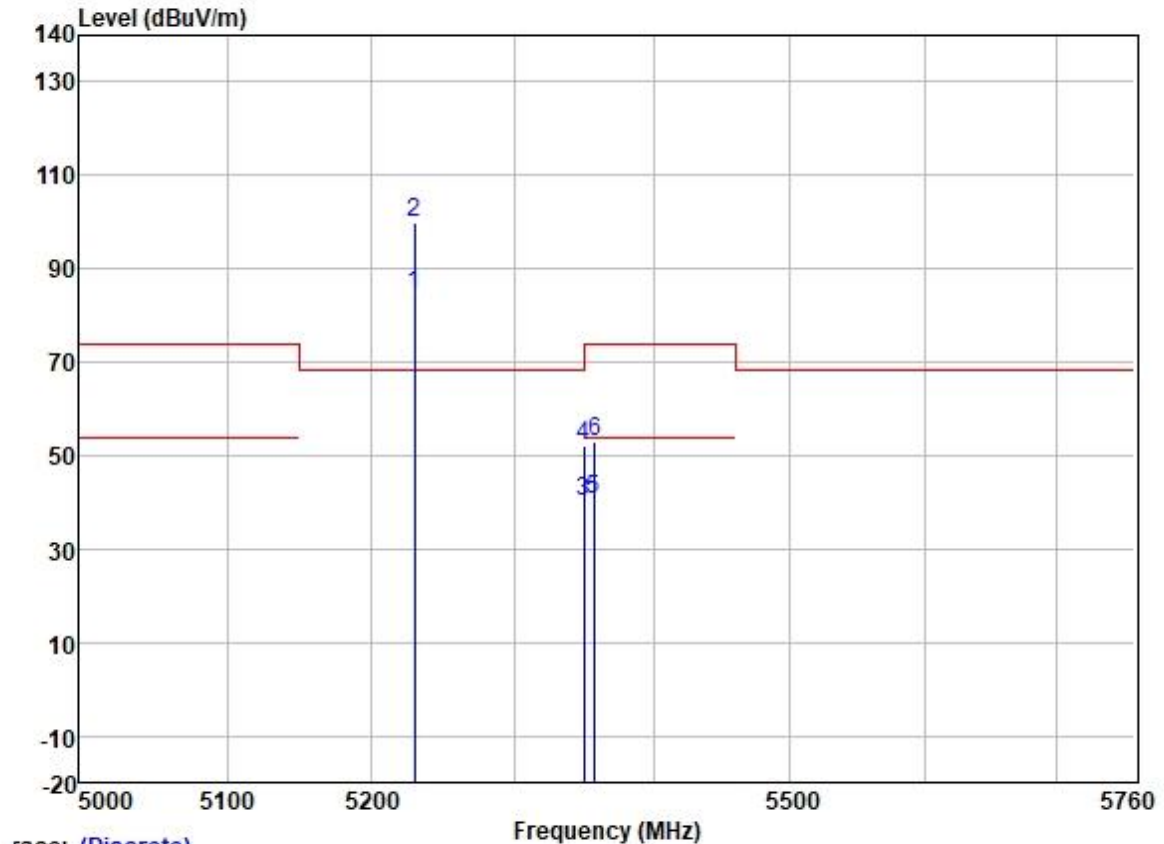
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

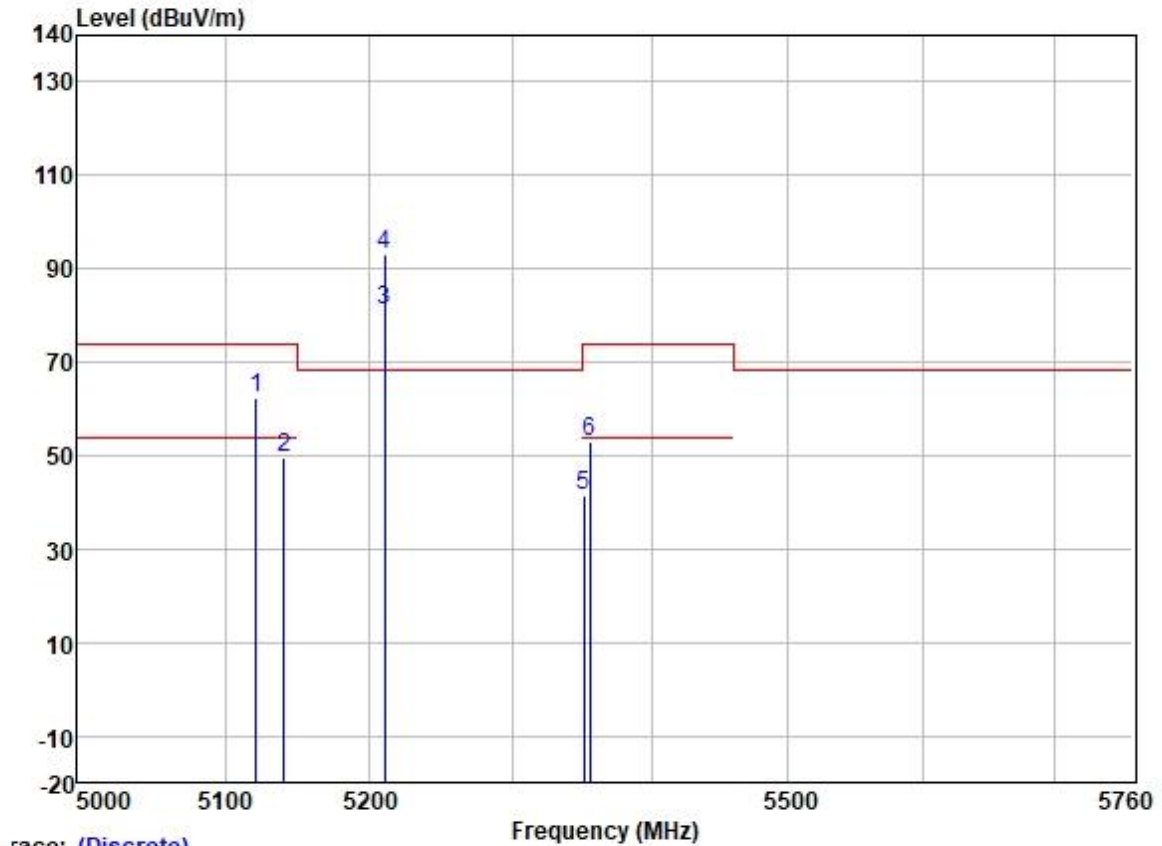
|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |            |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|------------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |            |         |
| 1   | 5230.000 | 84.09       | 31.74  | 5.70   | 36.87  | 84.66  | -----  | -----  | HORIZONTAL | Average |
| 2 * | 5230.000 | 98.83       | 31.74  | 5.70   | 36.87  | 99.40  | 68.20  | 31.20  | HORIZONTAL | Peak    |
| 3   | 5350.020 | 39.49       | 31.77  | 6.05   | 36.88  | 40.43  | 54.00  | -13.57 | HORIZONTAL | Average |
| 4   | 5350.020 | 50.69       | 31.77  | 6.05   | 36.88  | 51.63  | 74.00  | -22.37 | HORIZONTAL | Peak    |
| 5   | 5352.371 | 52.06       | 31.77  | 6.05   | 36.88  | 53.00  | 74.00  | -21.00 | HORIZONTAL | Peak    |
| 6   | 5353.669 | 39.60       | 31.77  | 6.05   | 36.88  | 40.54  | 54.00  | -13.46 | HORIZONTAL | Average |

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



| race: (Discrete) | Frequency (MHz) |             |        |        |        |        |        |           |          |         |
|------------------|-----------------|-------------|--------|--------|--------|--------|--------|-----------|----------|---------|
|                  | Freq            | ReadAntenna | Cable  | Preamp |        | Limit  | Over   | Pol/Phase | Remark   |         |
|                  |                 | Level       | Factor | Loss   | Factor | Level  | Line   |           |          | Limit   |
|                  | MHz             | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB        |          |         |
| 1                | 5230.000        | 84.16       | 31.74  | 5.70   | 36.87  | 84.73  | -----  | -----     | VERTICAL | Average |
| 2 *              | 5230.000        | 99.46       | 31.74  | 5.70   | 36.87  | 100.03 | 68.20  | 31.83     | VERTICAL | Peak    |
| 3                | 5350.020        | 39.36       | 31.77  | 6.05   | 36.88  | 40.30  | 54.00  | -13.70    | VERTICAL | Average |
| 4                | 5350.020        | 51.36       | 31.77  | 6.05   | 36.88  | 52.30  | 74.00  | -21.70    | VERTICAL | Peak    |
| 5                | 5357.239        | 39.62       | 31.78  | 6.03   | 36.88  | 40.55  | 54.00  | -13.45    | VERTICAL | Average |
| 6                | 5357.727        | 51.88       | 31.78  | 6.03   | 36.88  | 52.81  | 74.00  | -21.19    | VERTICAL | Peak    |

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

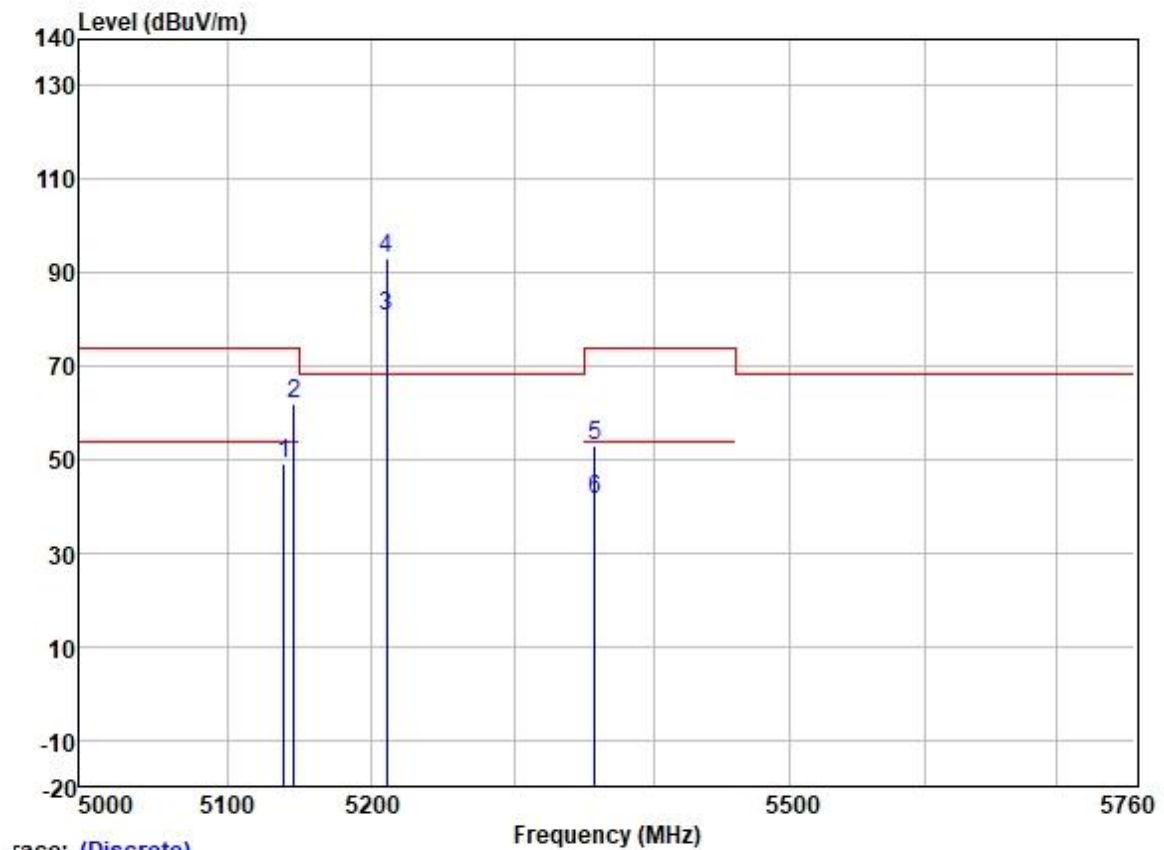


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5121.346 | 61.82 | 31.72   | 5.64  | 36.86  | 62.32  | 74.00  | -11.68    | HORIZONTAL Peak    |
| 2   | 5140.225 | 49.12 | 31.72   | 5.63  | 36.86  | 49.61  | 54.00  | -4.39     | HORIZONTAL Average |
| 3   | 5210.000 | 80.53 | 31.74   | 5.65  | 36.87  | 81.05  | -----  | -----     | HORIZONTAL Average |
| 4 * | 5210.000 | 92.42 | 31.74   | 5.65  | 36.87  | 92.94  | 68.20  | 24.74     | HORIZONTAL Peak    |
| 5   | 5351.212 | 40.61 | 31.77   | 6.05  | 36.88  | 41.55  | 54.00  | -12.45    | HORIZONTAL Average |
| 6   | 5355.471 | 51.98 | 31.78   | 6.03  | 36.88  | 52.91  | 74.00  | -21.09    | HORIZONTAL Peak    |



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

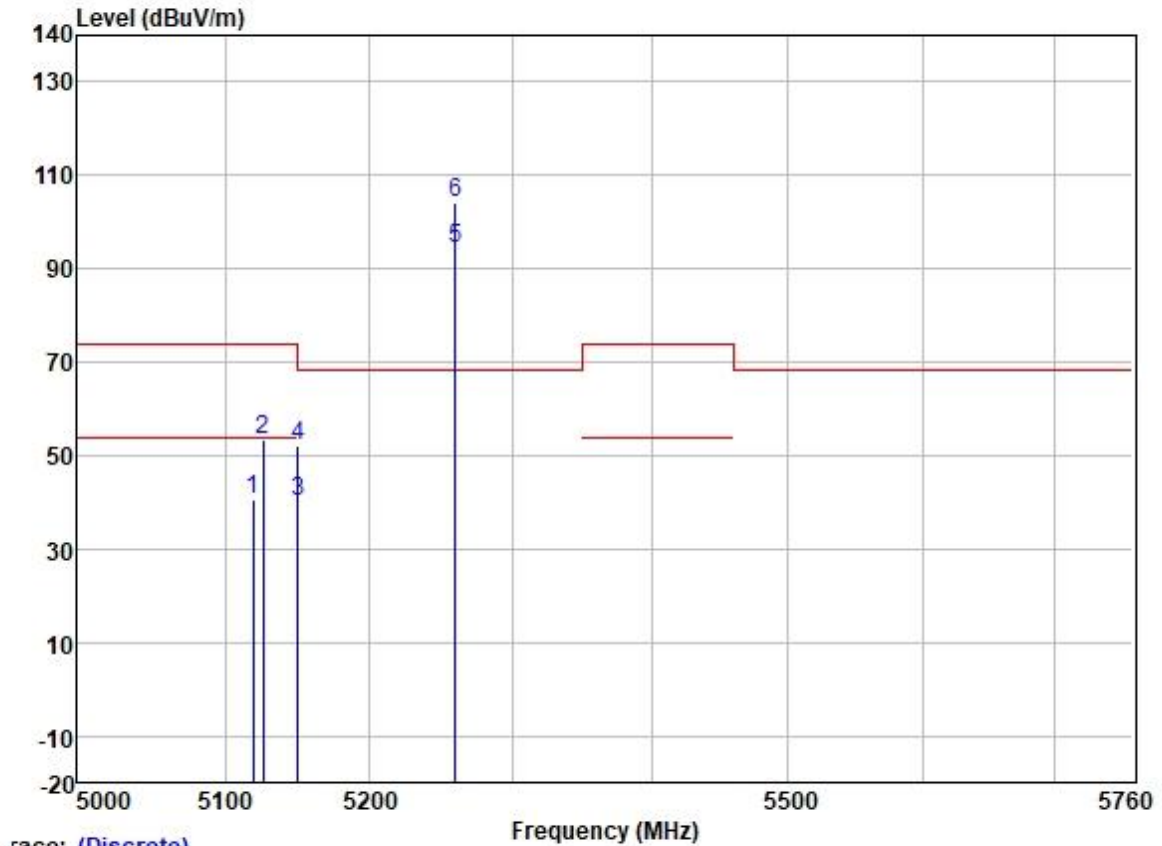


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5139.203 | 48.42 | 31.72   | 5.63  | 36.86  | 48.91  | 54.00  | -5.09     | VERTICAL |
| 2   | 5146.107 | 61.64 | 31.72   | 5.62  | 36.86  | 62.12  | 74.00  | -11.88    | VERTICAL |
| 3   | 5210.000 | 80.23 | 31.74   | 5.65  | 36.87  | 80.75  | -----  | -----     | VERTICAL |
| 4 * | 5210.000 | 92.61 | 31.74   | 5.65  | 36.87  | 93.13  | 68.20  | 24.93     | VERTICAL |
| 5   | 5357.335 | 52.23 | 31.78   | 6.03  | 36.88  | 53.16  | 74.00  | -20.84    | VERTICAL |
| 6   | 5357.868 | 40.36 | 31.78   | 6.03  | 36.88  | 41.29  | 54.00  | -12.71    | VERTICAL |

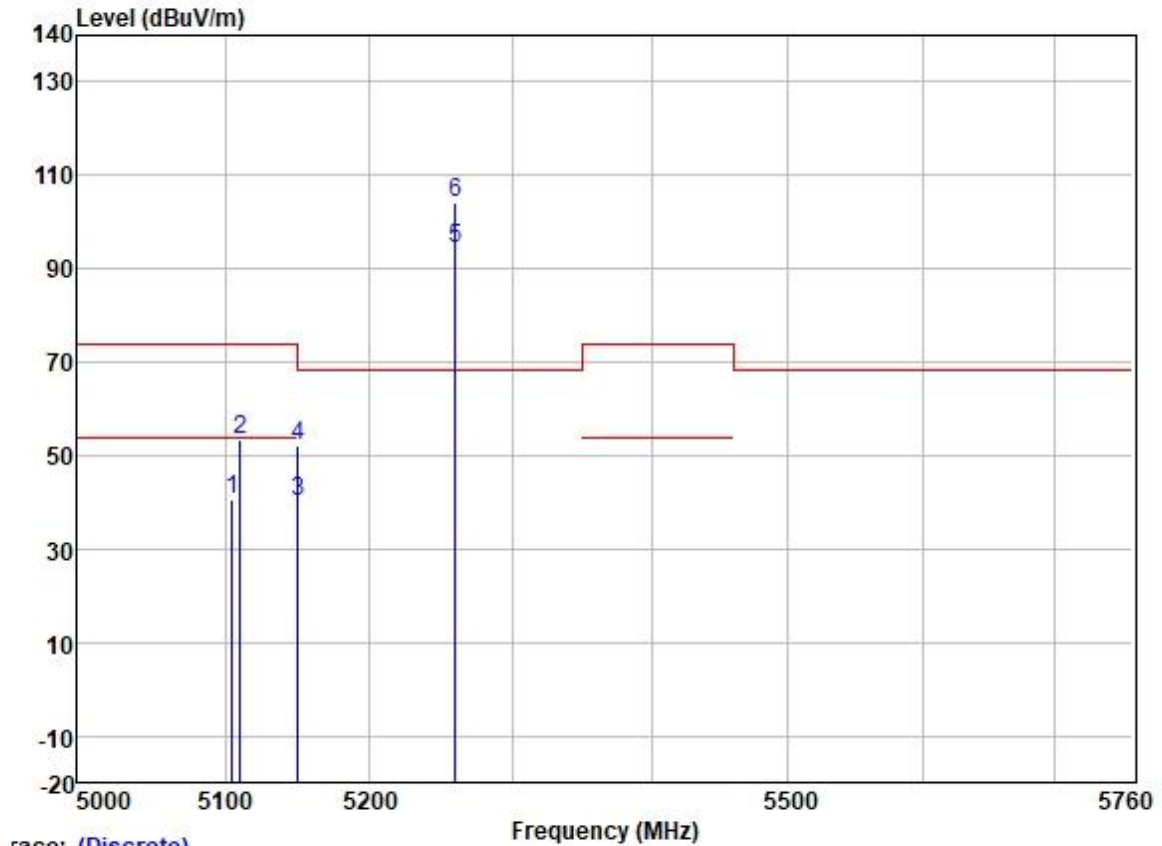


Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5119.318 | 40.21  | 31.72   | 5.64  | 36.86  | 40.71  | 54.00  | -13.29    | HORIZONTAL Average |
| 2   | 5125.714 | 52.80  | 31.72   | 5.64  | 36.86  | 53.30  | 74.00  | -20.70    | HORIZONTAL Peak    |
| 3   | 5149.980 | 39.67  | 31.72   | 5.62  | 36.86  | 40.15  | 54.00  | -13.85    | HORIZONTAL Average |
| 4   | 5149.980 | 51.76  | 31.72   | 5.62  | 36.86  | 52.24  | 74.00  | -21.76    | HORIZONTAL Peak    |
| 5   | 5260.000 | 93.82  | 31.75   | 5.77  | 36.87  | 94.47  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5260.000 | 103.34 | 31.75   | 5.77  | 36.87  | 103.99 | 68.20  | 35.79     | HORIZONTAL Peak    |

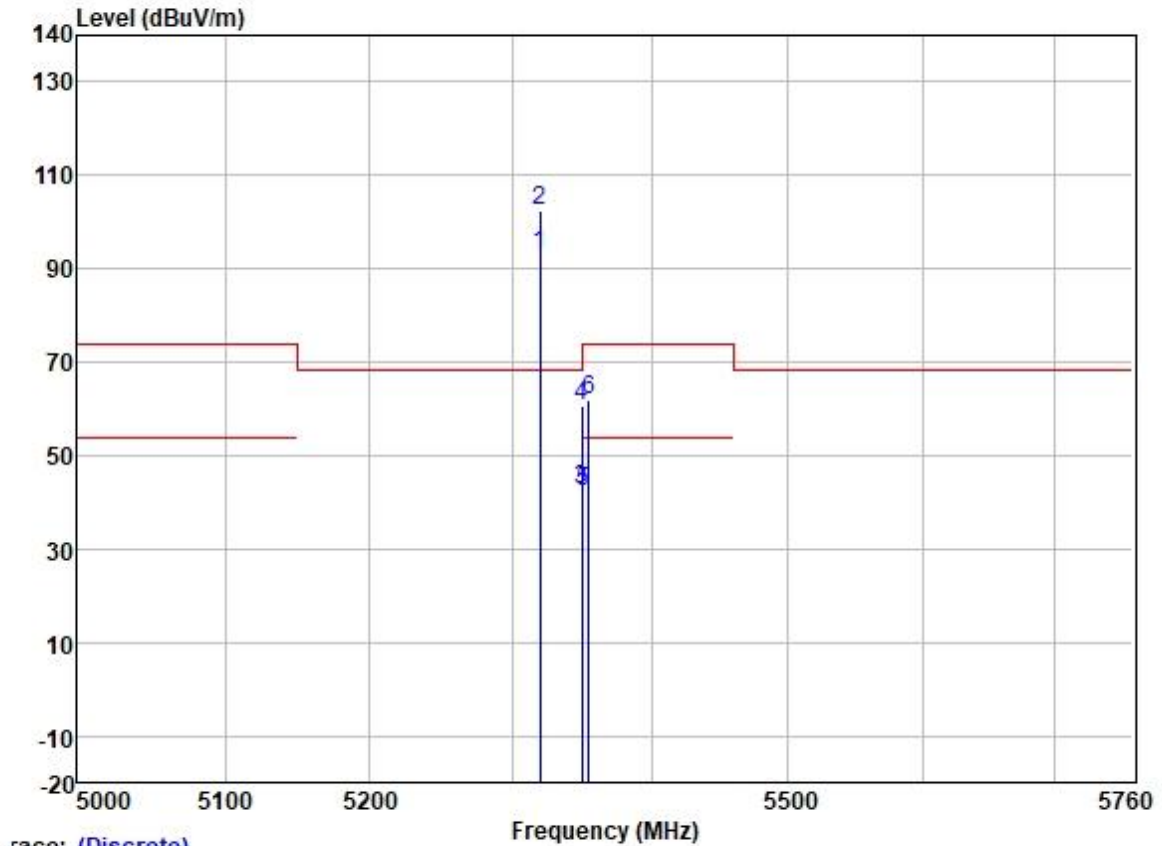
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5104.778 | 39.97  | 31.72   | 5.65  | 36.86  | 40.48  | 54.00  | -13.52    | VERTICAL |
| 2   | 5110.625 | 52.90  | 31.72   | 5.65  | 36.86  | 53.41  | 74.00  | -20.59    | VERTICAL |
| 3   | 5149.980 | 39.61  | 31.72   | 5.62  | 36.86  | 40.09  | 54.00  | -13.91    | VERTICAL |
| 4   | 5149.980 | 51.65  | 31.72   | 5.62  | 36.86  | 52.13  | 74.00  | -21.87    | VERTICAL |
| 5   | 5260.000 | 93.72  | 31.75   | 5.77  | 36.87  | 94.37  | -----  | -----     | VERTICAL |
| 6 * | 5260.000 | 103.31 | 31.75   | 5.77  | 36.87  | 103.96 | 68.20  | 35.76     | VERTICAL |

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

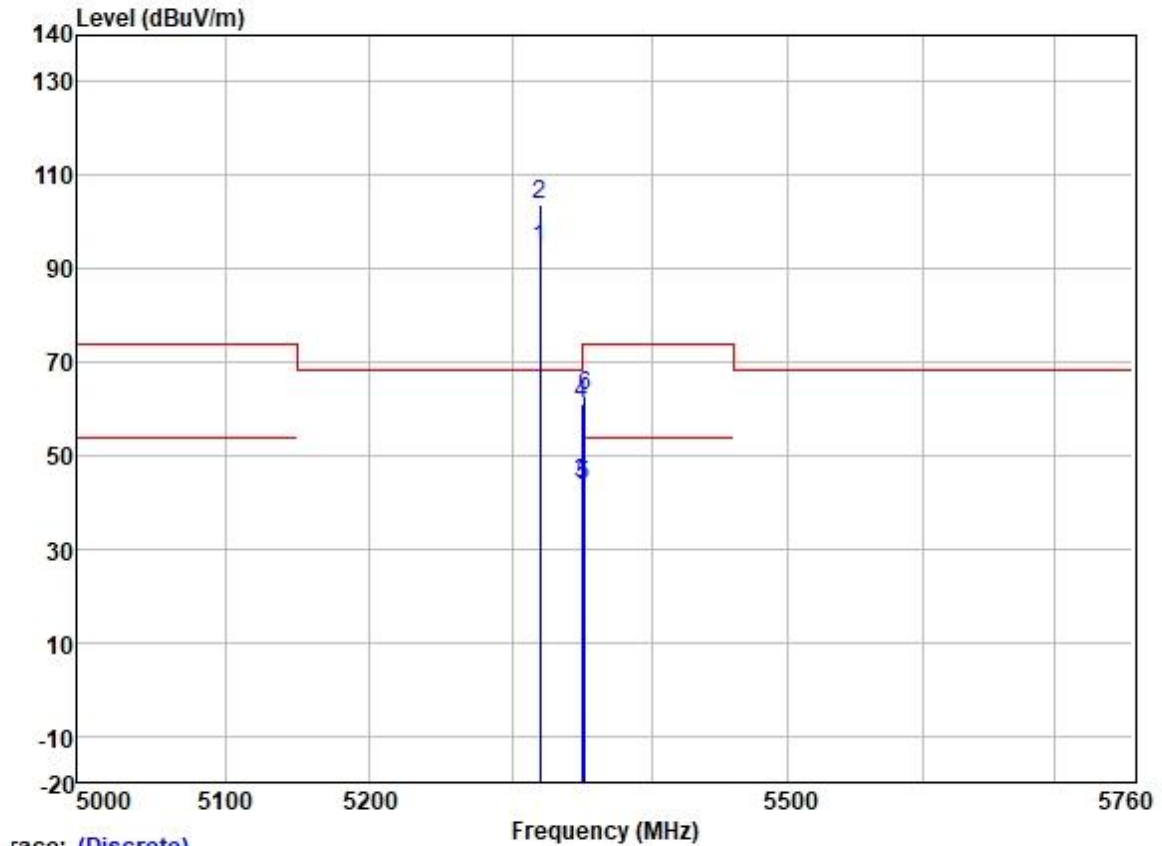


Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5320.000 | 91.99  | 31.77   | 6.08  | 36.88  | 92.96  | -----  | -----     | HORIZONTAL Average |
| 2 * | 5320.000 | 101.53 | 31.77   | 6.08  | 36.88  | 102.50 | 68.20  | 34.30     | HORIZONTAL Peak    |
| 3   | 5350.020 | 41.98  | 31.77   | 6.05  | 36.88  | 42.92  | 54.00  | -11.08    | HORIZONTAL Average |
| 4   | 5350.020 | 59.88  | 31.77   | 6.05  | 36.88  | 60.82  | 74.00  | -13.18    | HORIZONTAL Peak    |
| 5   | 5350.566 | 41.50  | 31.77   | 6.05  | 36.88  | 42.44  | 54.00  | -11.56    | HORIZONTAL Average |
| 6   | 5355.069 | 60.89  | 31.78   | 6.03  | 36.88  | 61.82  | 74.00  | -12.18    | HORIZONTAL Peak    |



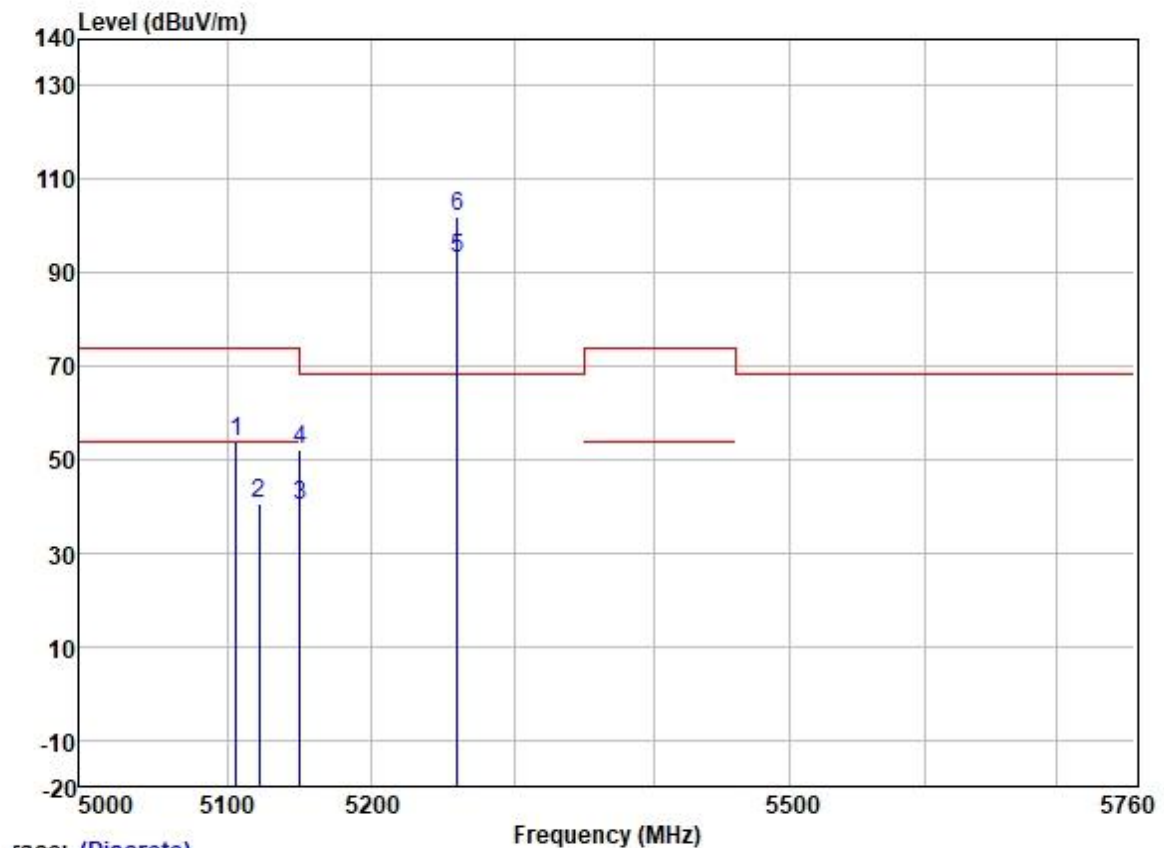
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5320.000 | 93.26       | 31.77  | 6.08   | 36.88  | 94.23  | -----  | -----  | VERTICAL  | Average |
| 2 * | 5320.000 | 102.57      | 31.77  | 6.08   | 36.88  | 103.54 | 68.20  | 35.34  | VERTICAL  | Peak    |
| 3   | 5350.020 | 43.03       | 31.77  | 6.05   | 36.88  | 43.97  | 54.00  | -10.03 | VERTICAL  | Average |
| 4   | 5350.020 | 60.17       | 31.77  | 6.05   | 36.88  | 61.11  | 74.00  | -12.89 | VERTICAL  | Peak    |
| 5   | 5350.667 | 42.61       | 31.77  | 6.05   | 36.88  | 43.55  | 54.00  | -10.45 | VERTICAL  | Average |
| 6   | 5351.867 | 61.98       | 31.77  | 6.05   | 36.88  | 62.92  | 74.00  | -11.08 | VERTICAL  | Peak    |

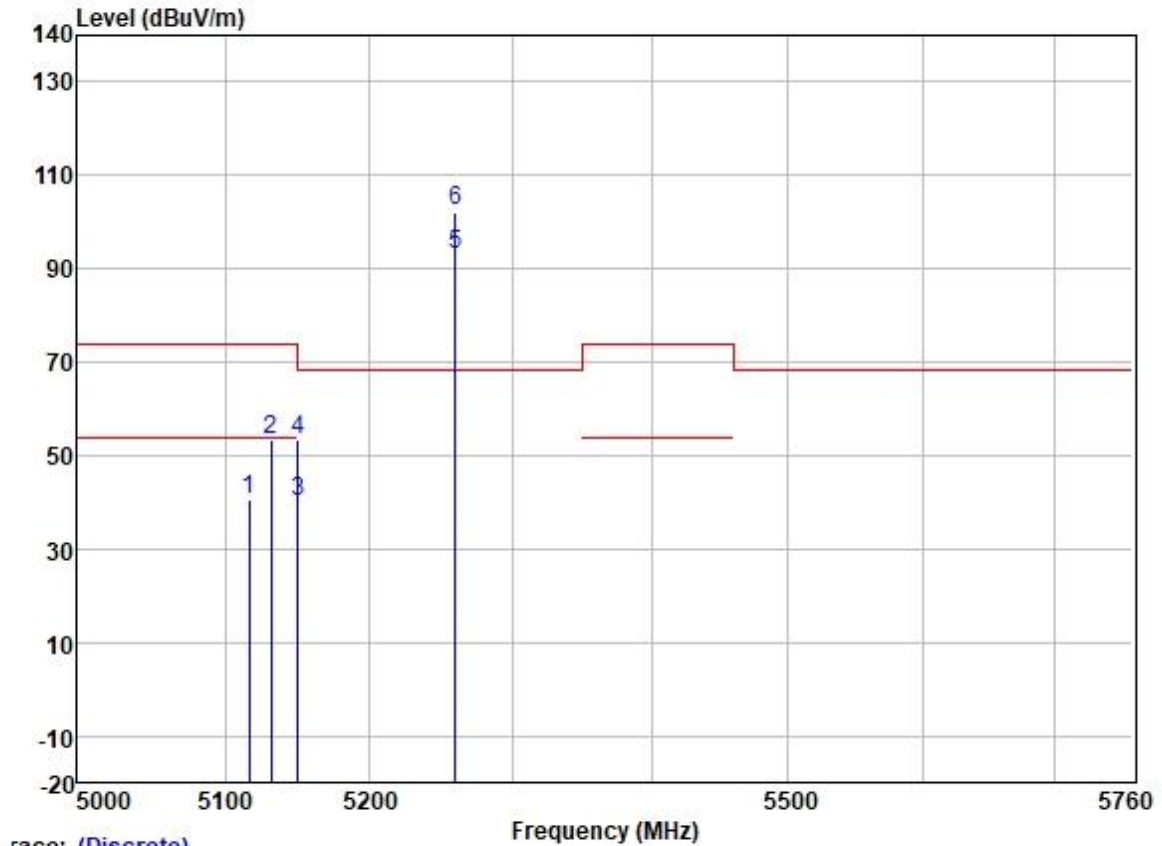


Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5106.195 | 53.11  | 31.72   | 5.65  | 36.86  | 53.62  | 74.00  | -20.38    | HORIZONTAL Peak    |
| 2   | 5121.805 | 39.91  | 31.72   | 5.64  | 36.86  | 40.41  | 54.00  | -13.59    | HORIZONTAL Average |
| 3   | 5149.980 | 39.63  | 31.72   | 5.62  | 36.86  | 40.11  | 54.00  | -13.89    | HORIZONTAL Average |
| 4   | 5149.980 | 51.48  | 31.72   | 5.62  | 36.86  | 51.96  | 74.00  | -22.04    | HORIZONTAL Peak    |
| 5   | 5260.000 | 92.53  | 31.75   | 5.77  | 36.87  | 93.18  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5260.000 | 101.30 | 31.75   | 5.77  | 36.87  | 101.95 | 68.20  | 33.75     | HORIZONTAL Peak    |

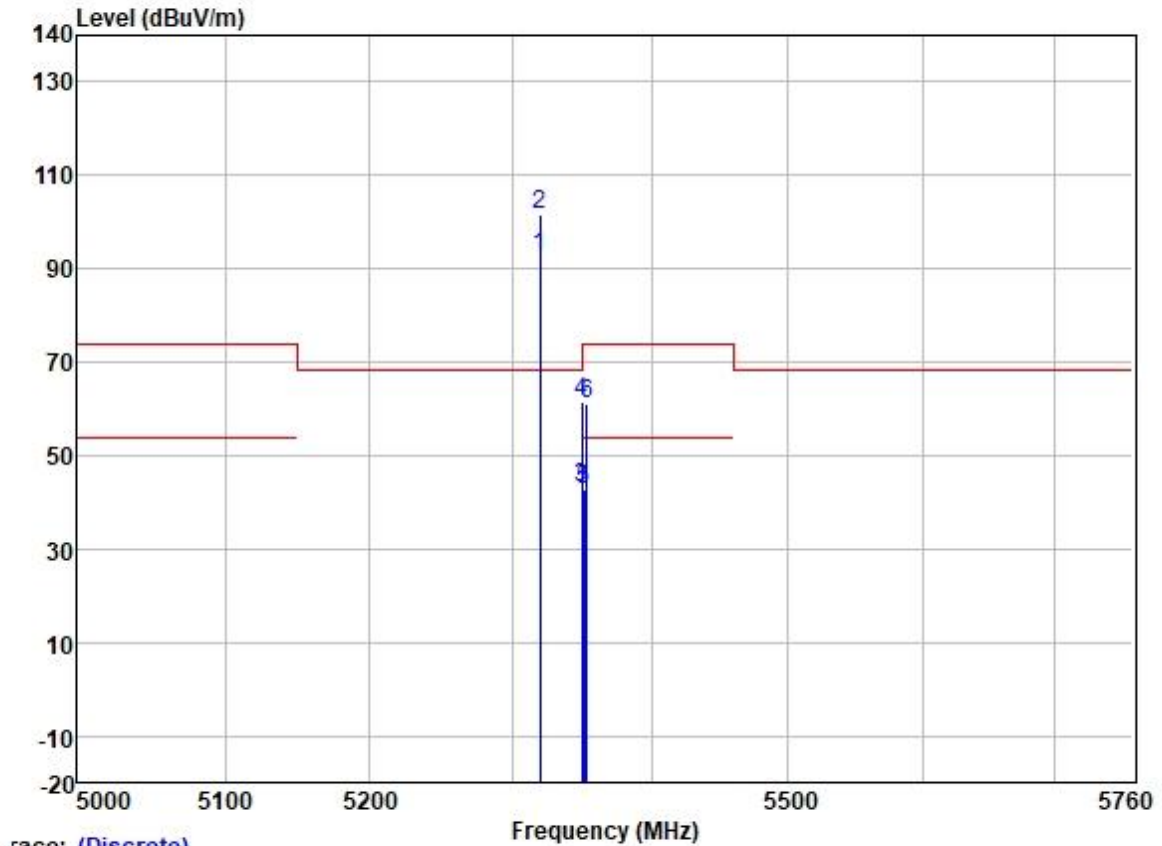
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                  |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark           |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                  |
| 1   | 5116.478 | 39.97  | 31.72   | 5.64  | 36.86  | 40.47  | 54.00  | -13.53    | VERTICAL Average |
| 2   | 5131.407 | 52.82  | 31.72   | 5.63  | 36.86  | 53.31  | 74.00  | -20.69    | VERTICAL Peak    |
| 3   | 5149.980 | 39.65  | 31.72   | 5.62  | 36.86  | 40.13  | 54.00  | -13.87    | VERTICAL Average |
| 4   | 5149.980 | 52.81  | 31.72   | 5.62  | 36.86  | 53.29  | 74.00  | -20.71    | VERTICAL Peak    |
| 5   | 5260.000 | 92.30  | 31.75   | 5.77  | 36.87  | 92.95  | -----  | -----     | VERTICAL Average |
| 6 * | 5260.000 | 101.59 | 31.75   | 5.77  | 36.87  | 102.24 | 68.20  | 34.04     | VERTICAL Peak    |

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

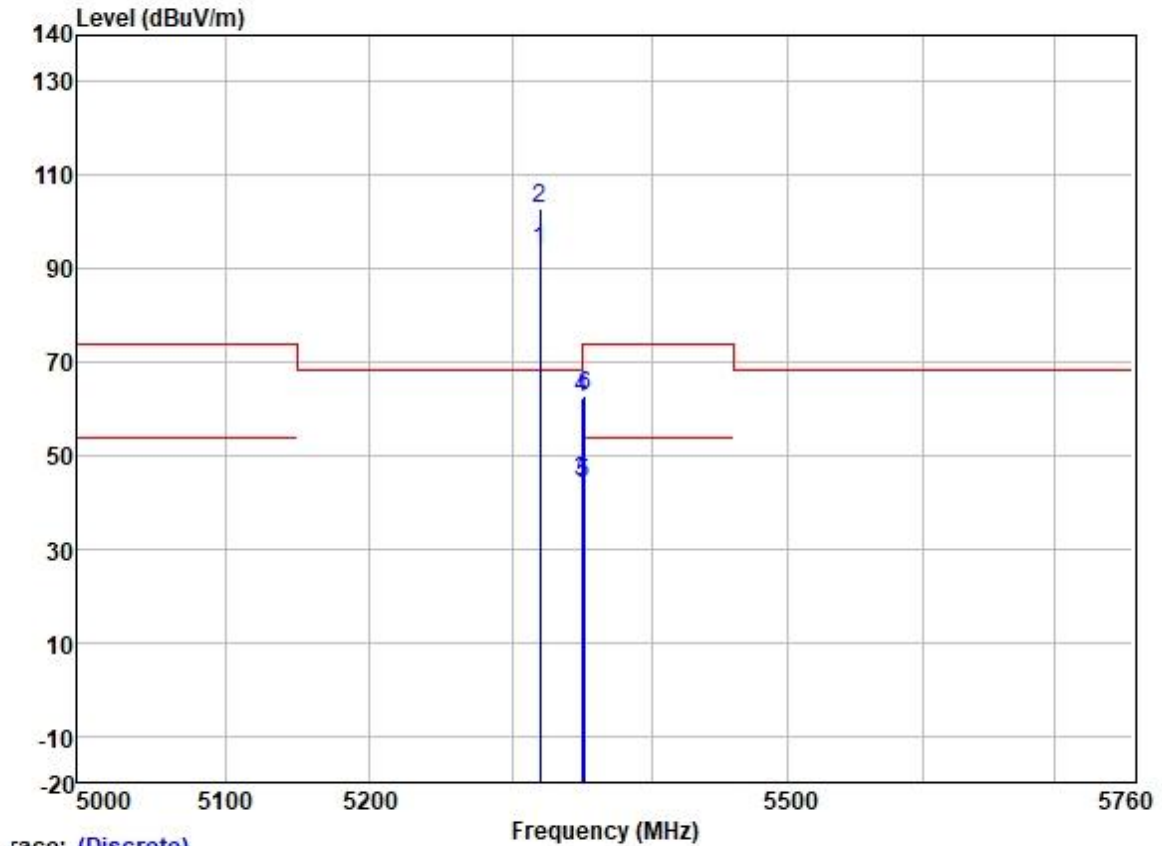


Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5320.000 | 91.64  | 31.77   | 6.08  | 36.88  | 92.61  | -----  | -----     | HORIZONTAL Average |
| 2 * | 5320.000 | 100.45 | 31.77   | 6.08  | 36.88  | 101.42 | 68.20  | 33.22     | HORIZONTAL Peak    |
| 3   | 5350.020 | 42.07  | 31.77   | 6.05  | 36.88  | 43.01  | 54.00  | -10.99    | HORIZONTAL Average |
| 4   | 5350.020 | 60.75  | 31.77   | 6.05  | 36.88  | 61.69  | 74.00  | -12.31    | HORIZONTAL Peak    |
| 5   | 5351.467 | 41.88  | 31.77   | 6.05  | 36.88  | 42.82  | 54.00  | -11.18    | HORIZONTAL Average |
| 6   | 5353.568 | 60.22  | 31.77   | 6.05  | 36.88  | 61.16  | 74.00  | -12.84    | HORIZONTAL Peak    |



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

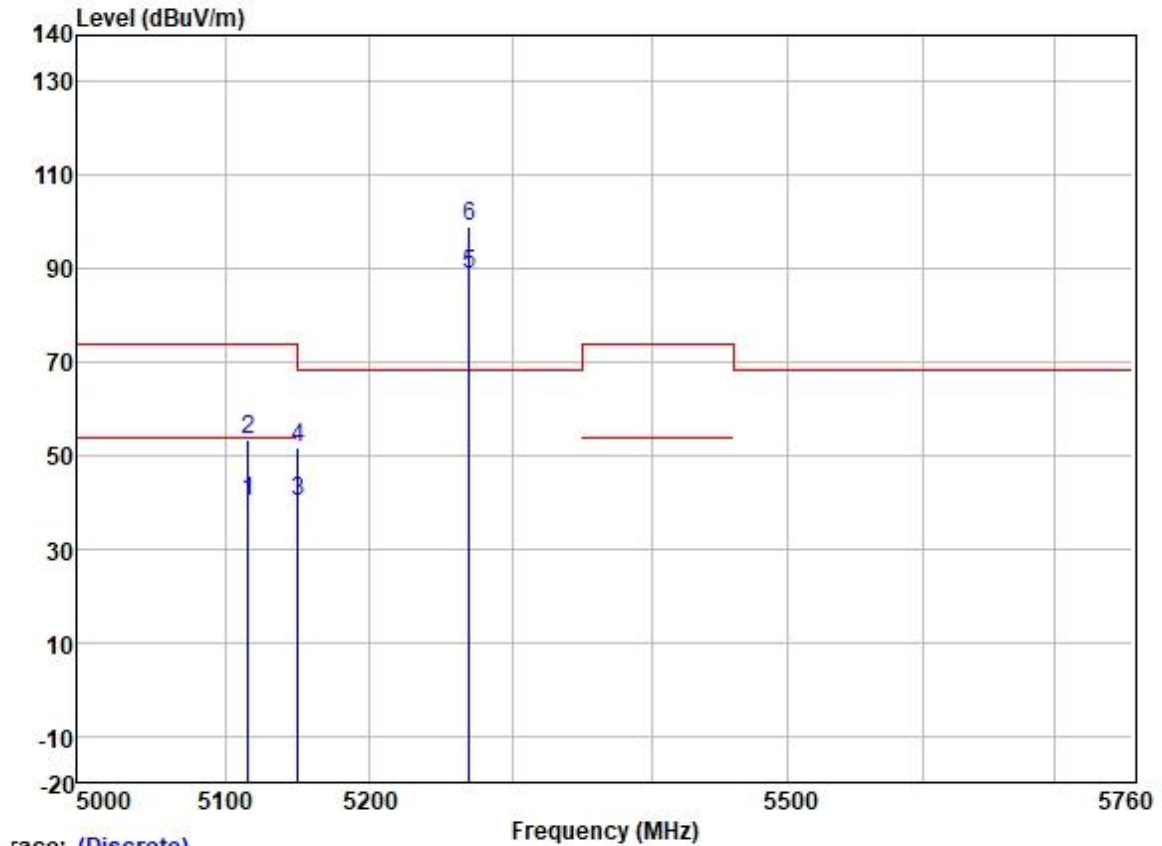


race: (Discrete)

|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5320.000 | 92.92       | 31.77  | 6.08   | 36.88  | 93.89  | -----  | -----  | VERTICAL  | Average |
| 2 * | 5320.000 | 101.89      | 31.77  | 6.08   | 36.88  | 102.86 | 68.20  | 34.66  | VERTICAL  | Peak    |
| 3   | 5350.020 | 43.46       | 31.77  | 6.05   | 36.88  | 44.40  | 54.00  | -9.60  | VERTICAL  | Average |
| 4   | 5350.020 | 61.49       | 31.77  | 6.05   | 36.88  | 62.43  | 74.00  | -11.57 | VERTICAL  | Peak    |
| 5   | 5351.267 | 43.06       | 31.77  | 6.05   | 36.88  | 44.00  | 54.00  | -10.00 | VERTICAL  | Average |
| 6   | 5352.067 | 61.63       | 31.77  | 6.05   | 36.88  | 62.57  | 74.00  | -11.43 | VERTICAL  | Peak    |

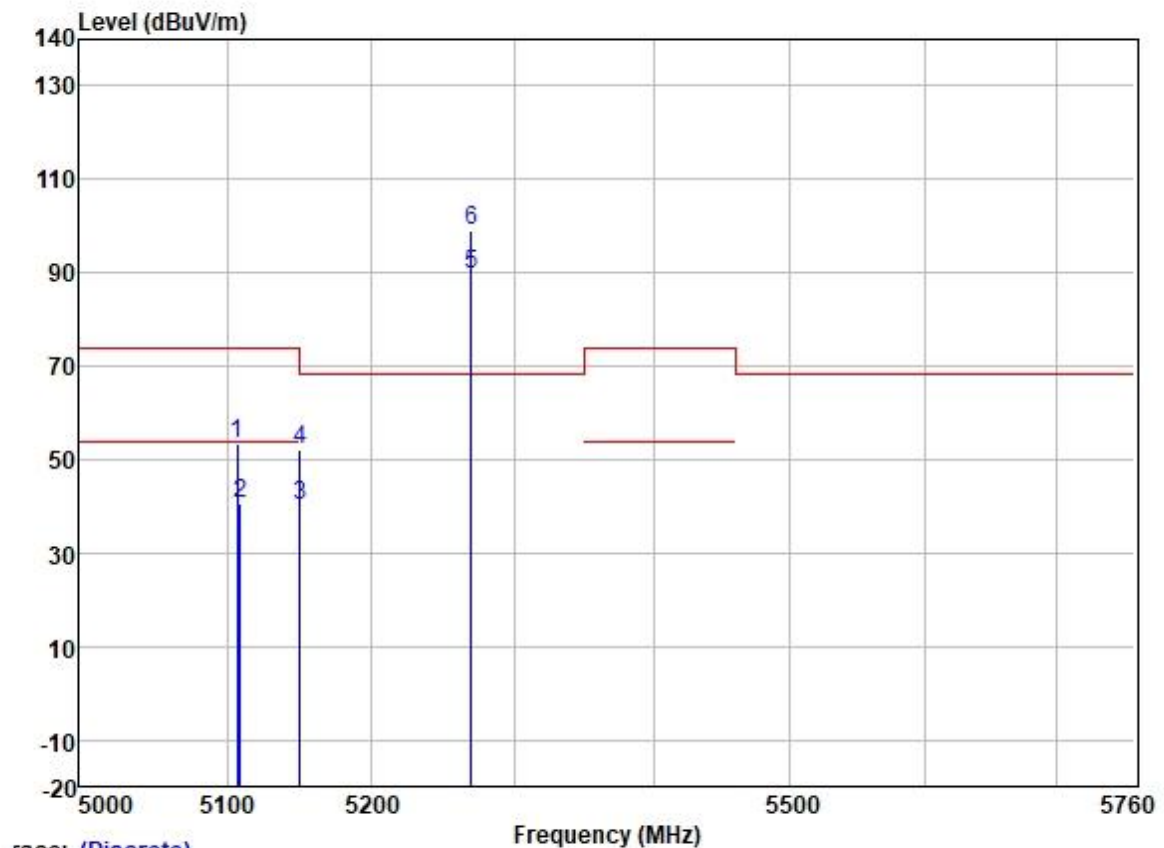


Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5115.521 | 39.86 | 31.72   | 5.64  | 36.86  | 40.36  | 54.00  | -13.64    | HORIZONTAL Average |
| 2   | 5115.915 | 52.83 | 31.72   | 5.64  | 36.86  | 53.33  | 74.00  | -20.67    | HORIZONTAL Peak    |
| 3   | 5149.980 | 39.59 | 31.72   | 5.62  | 36.86  | 40.07  | 54.00  | -13.93    | HORIZONTAL Average |
| 4   | 5149.980 | 51.03 | 31.72   | 5.62  | 36.86  | 51.51  | 74.00  | -22.49    | HORIZONTAL Peak    |
| 5   | 5270.000 | 88.10 | 31.75   | 5.80  | 36.87  | 88.78  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5270.000 | 98.31 | 31.75   | 5.80  | 36.87  | 98.99  | 68.20  | 30.79     | HORIZONTAL Peak    |

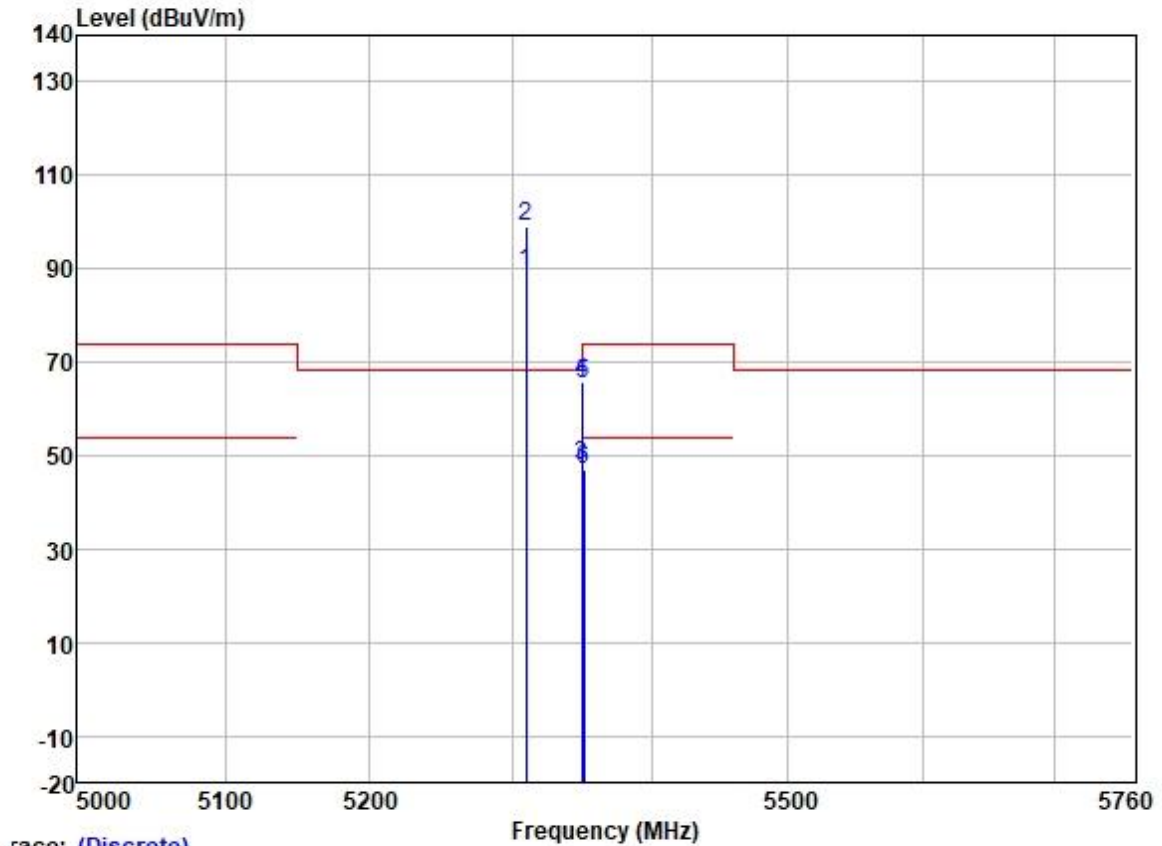
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------|---------|-------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level | Factor  | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5106.871 | 52.82 | 31.72   | 5.65  | 36.86  | 53.33  | 74.00  | -20.67 | VERTICAL  | Peak    |
| 2   | 5109.032 | 39.98 | 31.72   | 5.65  | 36.86  | 40.49  | 54.00  | -13.51 | VERTICAL  | Average |
| 3   | 5149.980 | 39.64 | 31.72   | 5.62  | 36.86  | 40.12  | 54.00  | -13.88 | VERTICAL  | Average |
| 4   | 5149.980 | 51.70 | 31.72   | 5.62  | 36.86  | 52.18  | 74.00  | -21.82 | VERTICAL  | Peak    |
| 5   | 5270.000 | 88.98 | 31.75   | 5.80  | 36.87  | 89.66  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5270.000 | 98.26 | 31.75   | 5.80  | 36.87  | 98.94  | 68.20  | 30.74  | VERTICAL  | Peak    |

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

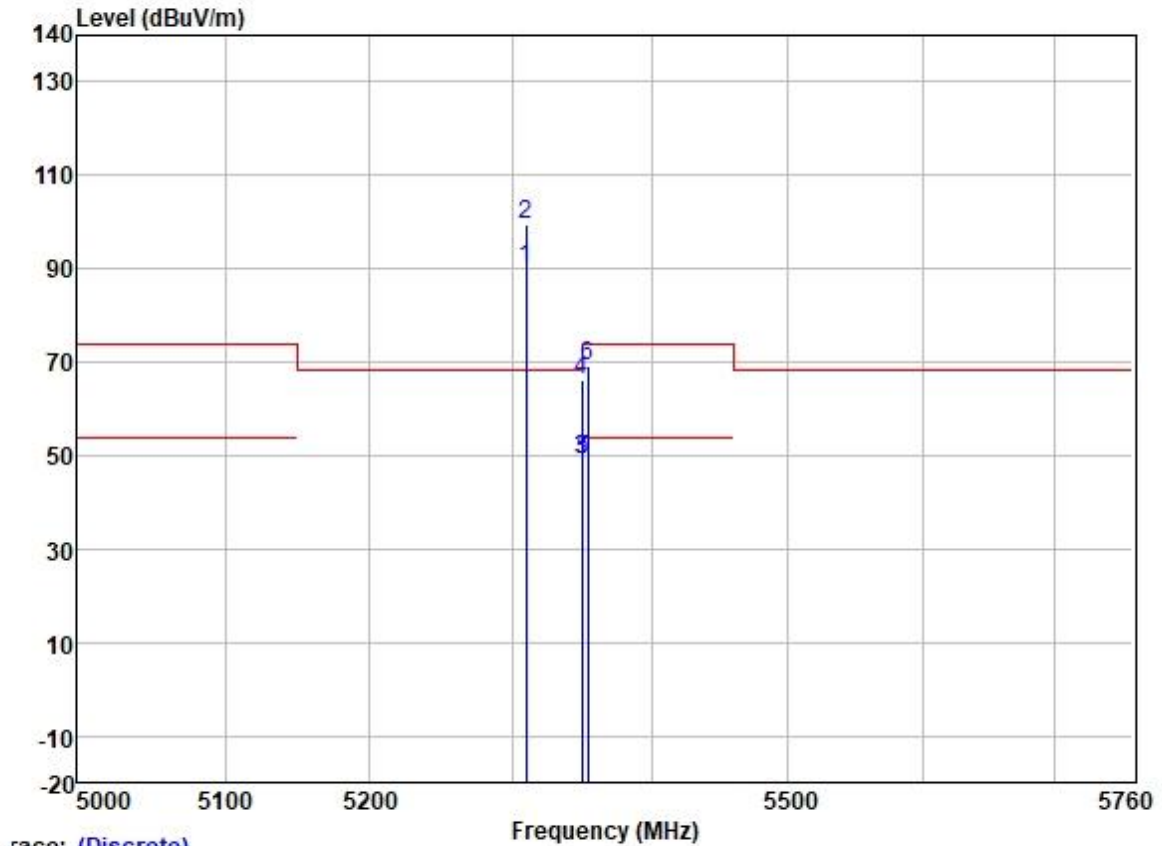


race: (Discrete)

|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |       |            |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|-------|------------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit | Pol/Phase  | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB    |            |         |
| 1   | 5310.000 | 88.09       | 31.77  | 6.08   | 36.87  | 89.07  | -----  | ----- | HORIZONTAL | Average |
| 2 * | 5310.000 | 98.08       | 31.77  | 6.08   | 36.87  | 99.06  | 68.20  | 30.86 | HORIZONTAL | Peak    |
| 3   | 5350.020 | 46.76       | 31.77  | 6.05   | 36.88  | 47.70  | 54.00  | -6.30 | HORIZONTAL | Average |
| 4   | 5350.020 | 64.87       | 31.77  | 6.05   | 36.88  | 65.81  | 74.00  | -8.19 | HORIZONTAL | Peak    |
| 5   | 5350.474 | 64.57       | 31.77  | 6.05   | 36.88  | 65.51  | 74.00  | -8.49 | HORIZONTAL | Peak    |
| 6   | 5350.834 | 46.19       | 31.77  | 6.05   | 36.88  | 47.13  | 54.00  | -6.87 | HORIZONTAL | Average |



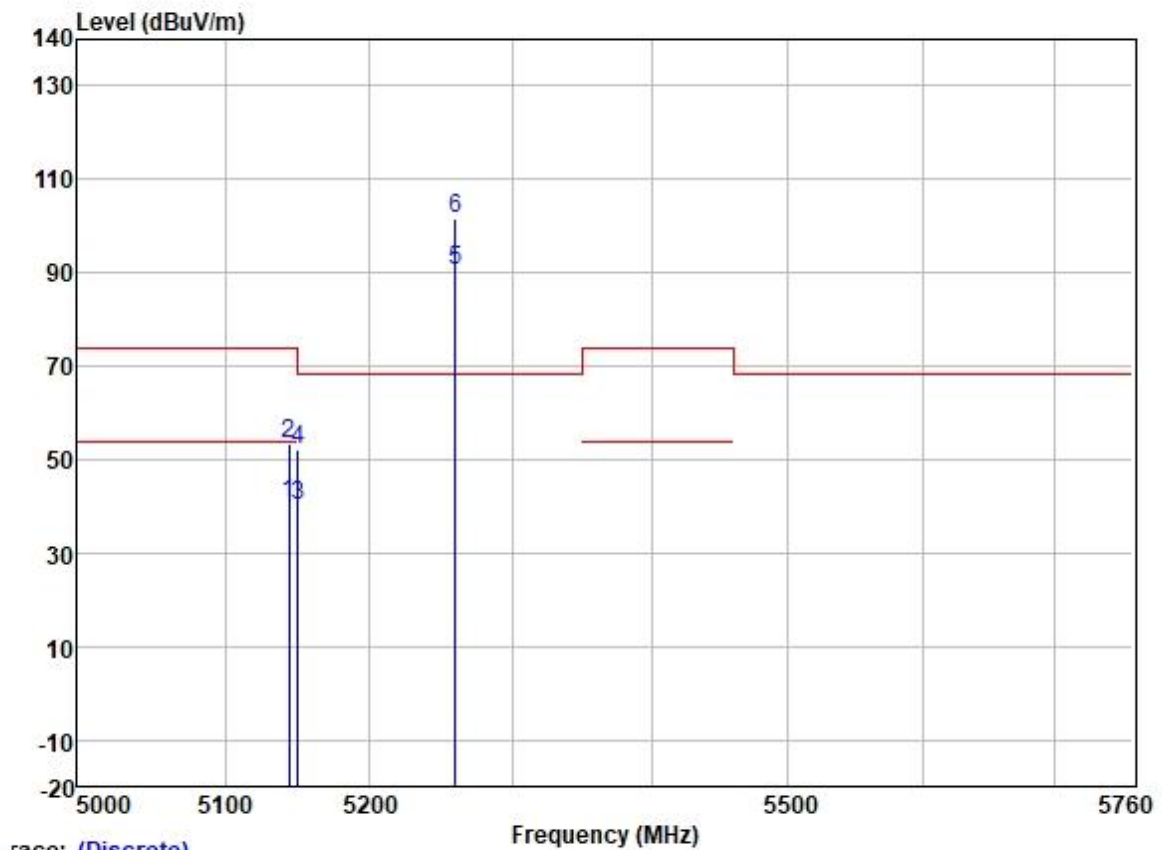
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |       |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|-------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB    |           |         |
| 1   | 5310.000 | 89.26       | 31.77  | 6.08   | 36.87  | 90.24  | -----  | ----- | VERTICAL  | Average |
| 2 * | 5310.000 | 98.38       | 31.77  | 6.08   | 36.87  | 99.36  | 68.20  | 31.16 | VERTICAL  | Peak    |
| 3   | 5350.020 | 48.20       | 31.77  | 6.05   | 36.88  | 49.14  | 54.00  | -4.86 | VERTICAL  | Average |
| 4   | 5350.020 | 65.19       | 31.77  | 6.05   | 36.88  | 66.13  | 74.00  | -7.87 | VERTICAL  | Peak    |
| 5   | 5350.474 | 48.19       | 31.77  | 6.05   | 36.88  | 49.13  | 54.00  | -4.87 | VERTICAL  | Average |
| 6   | 5353.841 | 68.10       | 31.77  | 6.05   | 36.88  | 69.04  | 74.00  | -4.96 | VERTICAL  | Peak    |



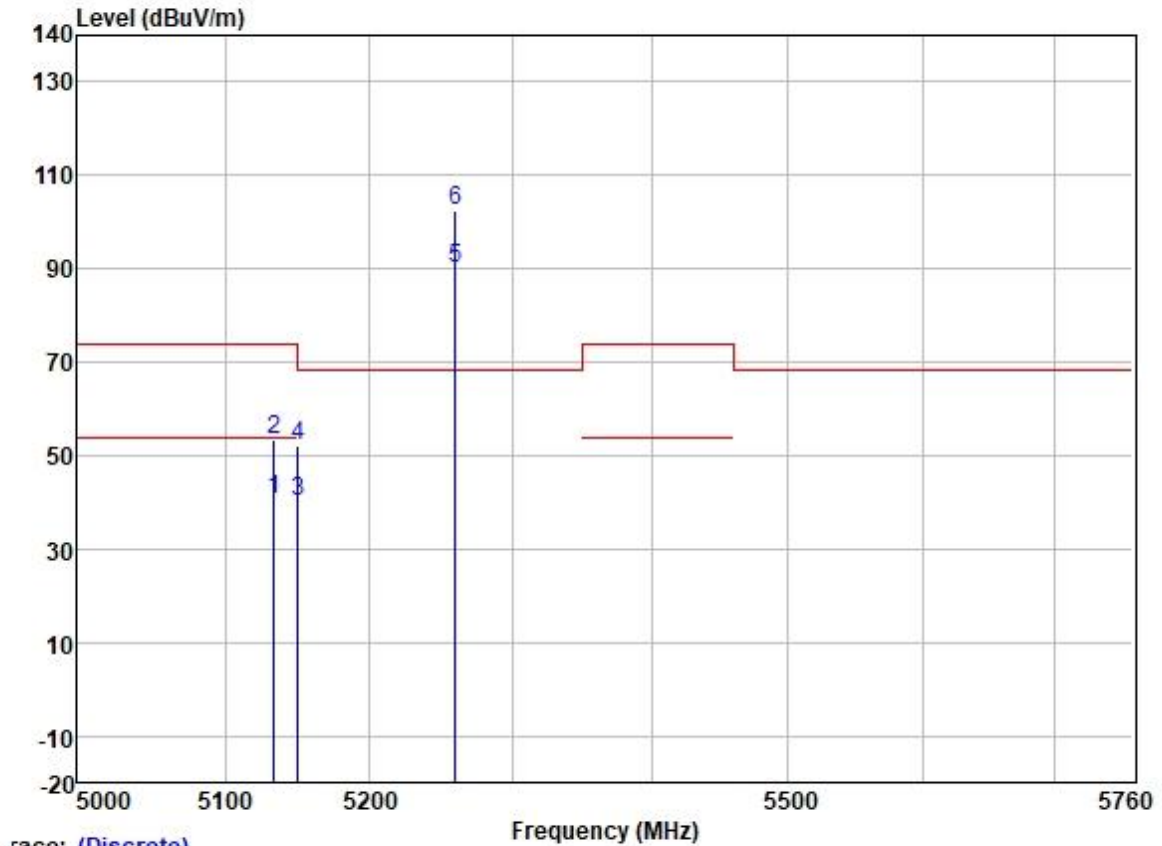
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5143.881 | 39.93  | 31.72   | 5.62  | 36.86  | 40.41  | 54.00  | -13.59    | HORIZONTAL Average |
| 2   | 5143.881 | 52.72  | 31.72   | 5.62  | 36.86  | 53.20  | 74.00  | -20.80    | HORIZONTAL Peak    |
| 3   | 5149.980 | 39.73  | 31.72   | 5.62  | 36.86  | 40.21  | 54.00  | -13.79    | HORIZONTAL Average |
| 4   | 5149.980 | 51.67  | 31.72   | 5.62  | 36.86  | 52.15  | 74.00  | -21.85    | HORIZONTAL Peak    |
| 5   | 5260.000 | 89.72  | 31.75   | 5.77  | 36.87  | 90.37  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5260.000 | 100.76 | 31.75   | 5.77  | 36.87  | 101.41 | 68.20  | 33.21     | HORIZONTAL Peak    |

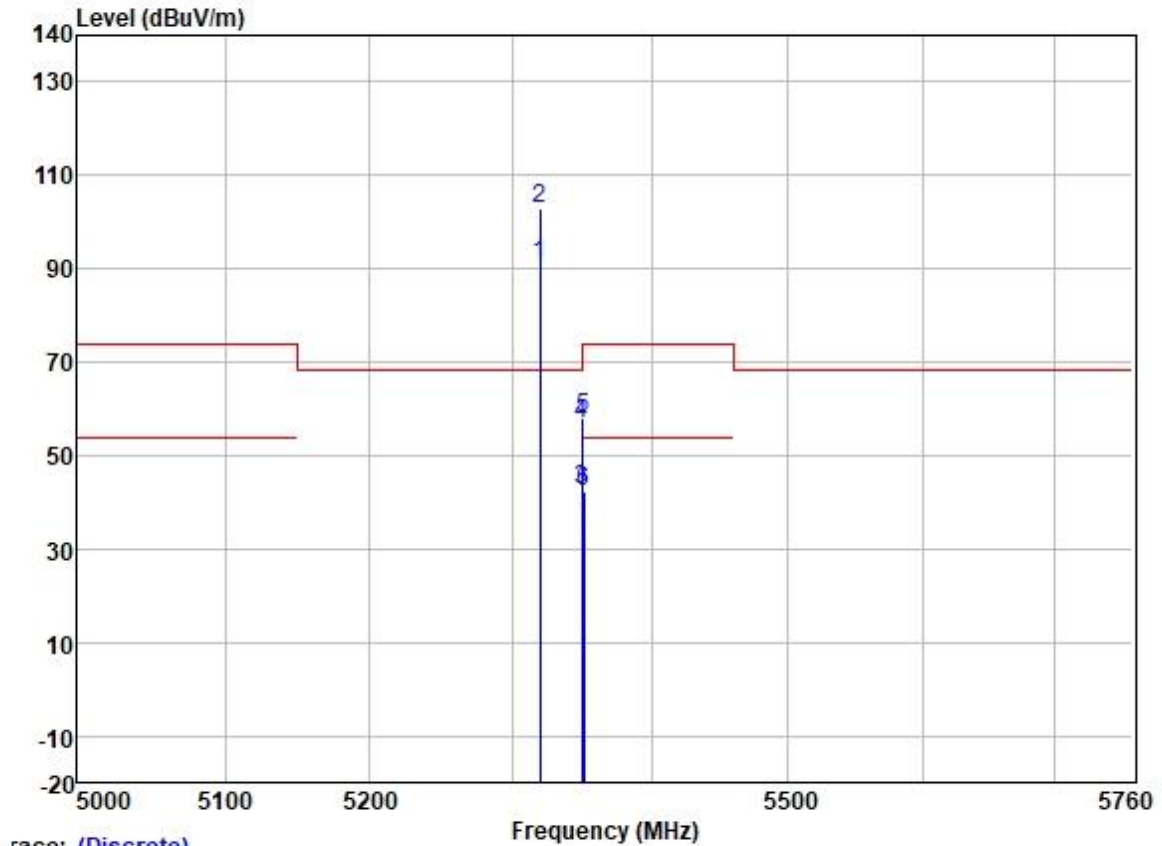
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5133.721 | 39.94  | 31.72   | 5.63  | 36.86  | 40.43  | 54.00  | -13.57    | VERTICAL |
| 2   | 5133.721 | 52.69  | 31.72   | 5.63  | 36.86  | 53.18  | 74.00  | -20.82    | VERTICAL |
| 3   | 5149.980 | 39.75  | 31.72   | 5.62  | 36.86  | 40.23  | 54.00  | -13.77    | VERTICAL |
| 4   | 5149.980 | 51.43  | 31.72   | 5.62  | 36.86  | 51.91  | 74.00  | -22.09    | VERTICAL |
| 5   | 5260.000 | 89.62  | 31.75   | 5.77  | 36.87  | 90.27  | -----  | -----     | VERTICAL |
| 6 * | 5260.000 | 101.74 | 31.75   | 5.77  | 36.87  | 102.39 | 68.20  | 34.19     | VERTICAL |

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

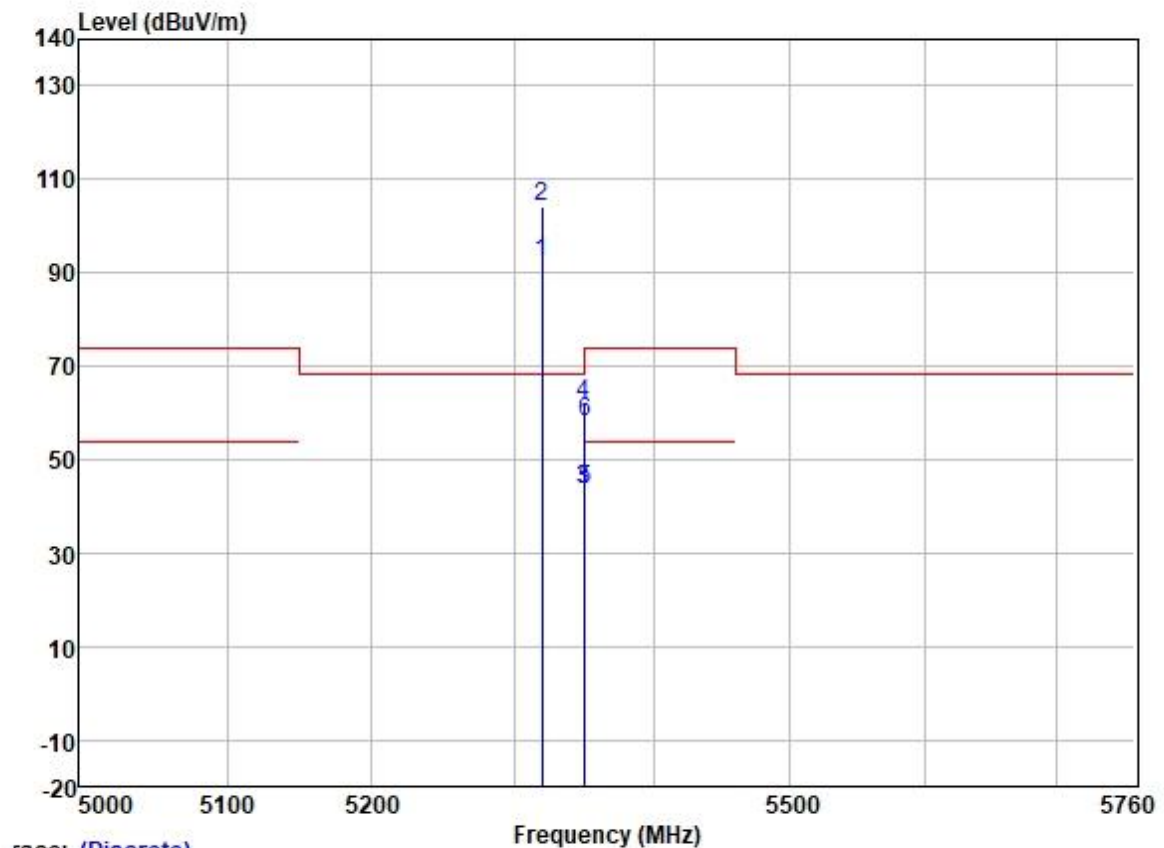


Trace: (Discrete)

|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5320.000 | 89.98  | 31.77   | 6.08  | 36.88  | 90.95  | -----  | -----     | HORIZONTAL Average |
| 2 * | 5320.000 | 101.77 | 31.77   | 6.08  | 36.88  | 102.74 | 68.20  | 34.54     | HORIZONTAL Peak    |
| 3   | 5350.020 | 41.68  | 31.77   | 6.05  | 36.88  | 42.62  | 54.00  | -11.38    | HORIZONTAL Average |
| 4   | 5350.020 | 55.76  | 31.77   | 6.05  | 36.88  | 56.70  | 74.00  | -17.30    | HORIZONTAL Peak    |
| 5   | 5350.667 | 57.24  | 31.77   | 6.05  | 36.88  | 58.18  | 74.00  | -15.82    | HORIZONTAL Peak    |
| 6   | 5350.966 | 41.30  | 31.77   | 6.05  | 36.88  | 42.24  | 54.00  | -11.76    | HORIZONTAL Average |



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

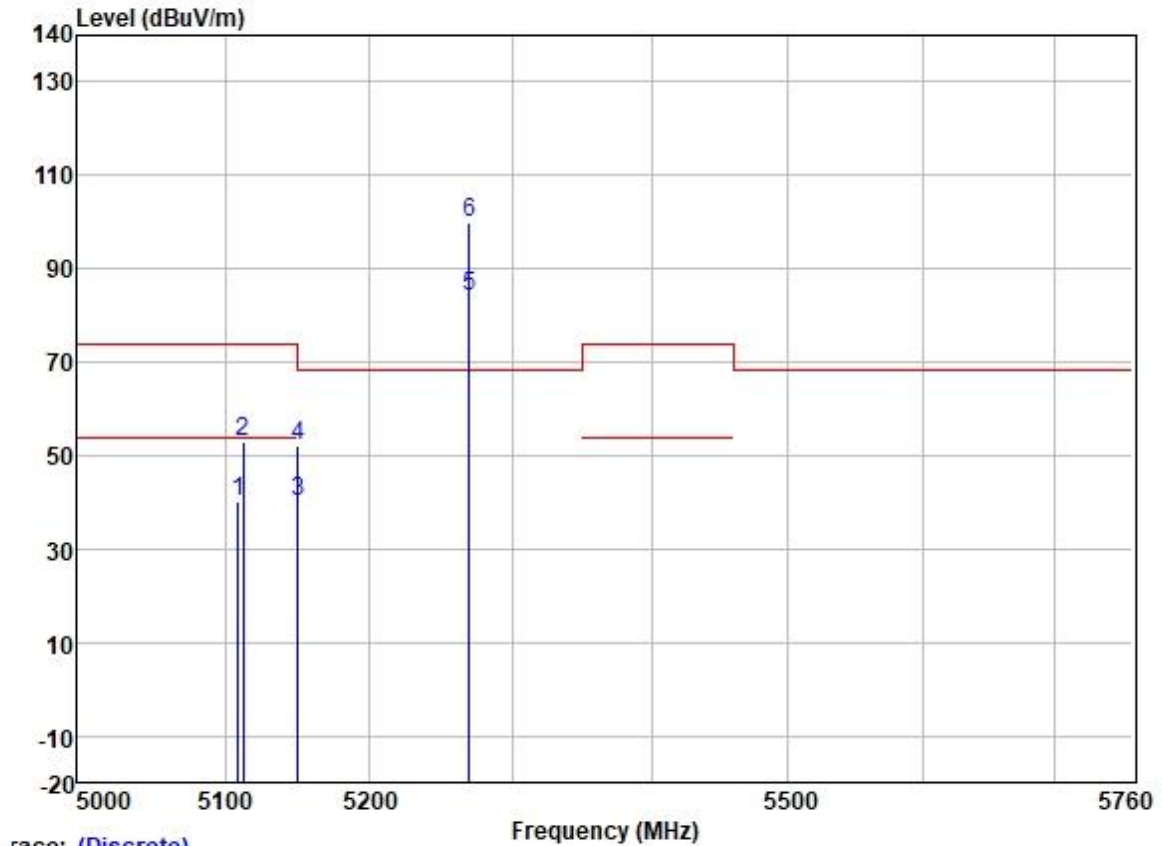


Trace: (Discrete)

|     | Freq     | ReadAntenna<br>Level Factor | Cable Preamp<br>Loss Factor | Limit<br>Line | Over<br>Limit | Pol/Phase | Remark |        |          |         |
|-----|----------|-----------------------------|-----------------------------|---------------|---------------|-----------|--------|--------|----------|---------|
|     | MHz      | dBuV                        | dB/m                        | dB            | dB            | dBuV/m    | dBuV/m | dB     |          |         |
| 1   | 5320.000 | 91.19                       | 31.77                       | 6.08          | 36.88         | 92.16     | -----  | -----  | VERTICAL | Average |
| 2 * | 5320.000 | 103.11                      | 31.77                       | 6.08          | 36.88         | 104.08    | 68.20  | 35.88  | VERTICAL | Peak    |
| 3   | 5350.020 | 42.52                       | 31.77                       | 6.05          | 36.88         | 43.46     | 54.00  | -10.54 | VERTICAL | Average |
| 4   | 5350.020 | 61.18                       | 31.77                       | 6.05          | 36.88         | 62.12     | 74.00  | -11.88 | VERTICAL | Peak    |
| 5   | 5350.767 | 42.56                       | 31.77                       | 6.05          | 36.88         | 43.50     | 54.00  | -10.50 | VERTICAL | Average |
| 6   | 5350.767 | 56.93                       | 31.77                       | 6.05          | 36.88         | 57.87     | 74.00  | -16.13 | VERTICAL | Peak    |



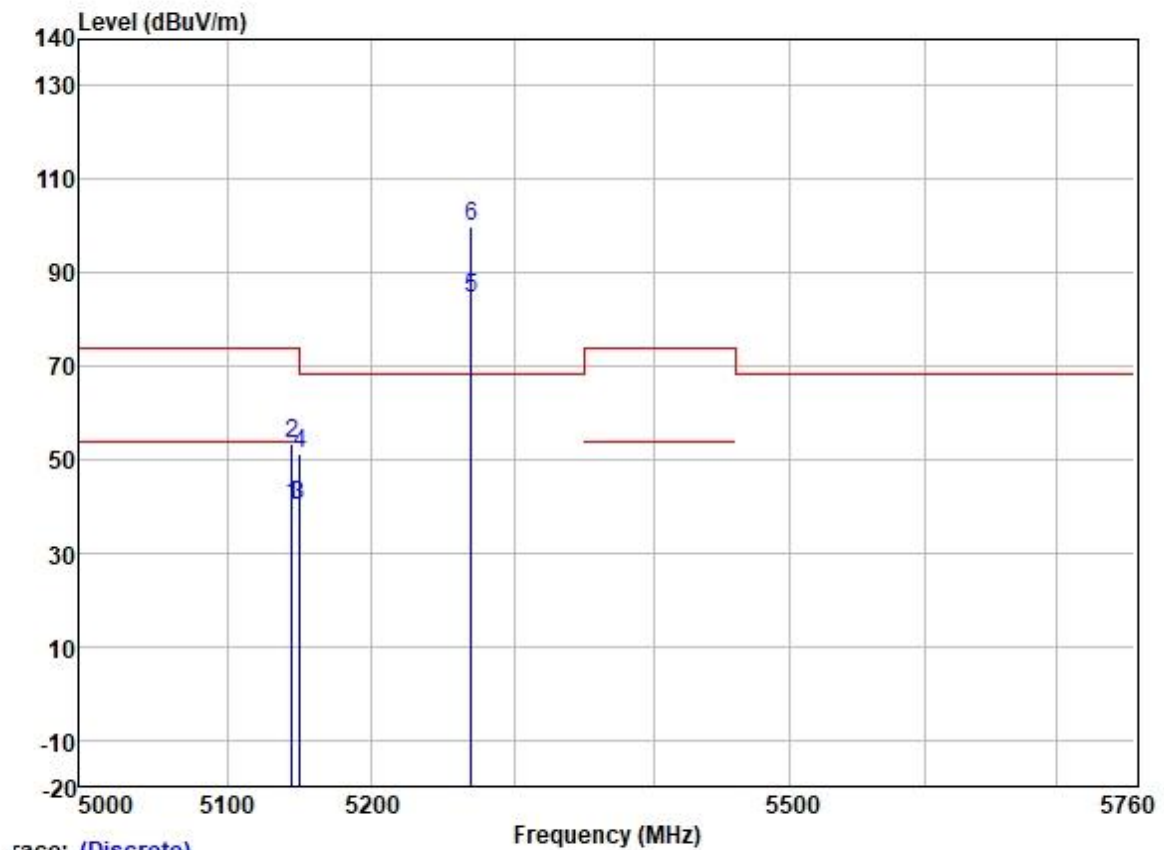
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

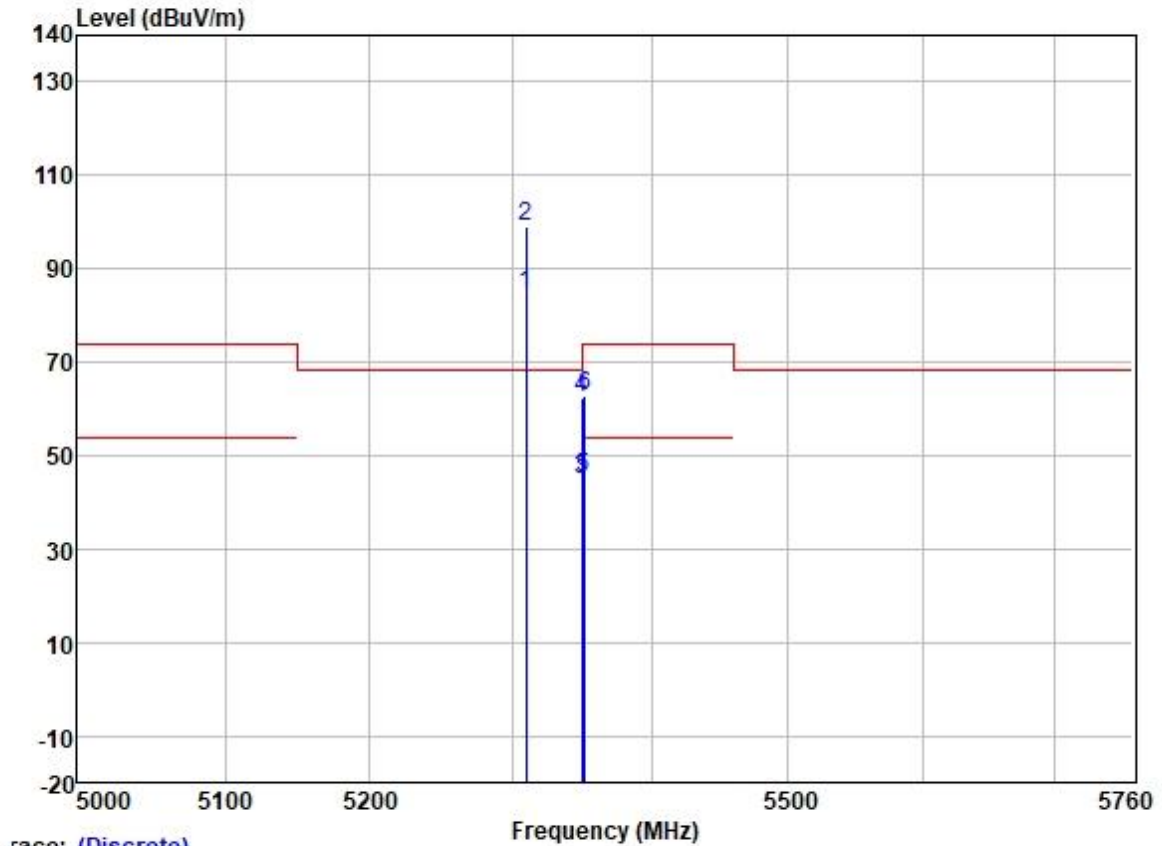
|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5108.835 | 39.85 | 31.72   | 5.65  | 36.86  | 40.36  | 54.00  | -13.64    | HORIZONTAL Average |
| 2   | 5112.178 | 52.63 | 31.72   | 5.64  | 36.86  | 53.13  | 74.00  | -20.87    | HORIZONTAL Peak    |
| 3   | 5149.980 | 39.51 | 31.72   | 5.62  | 36.86  | 39.99  | 54.00  | -14.01    | HORIZONTAL Average |
| 4   | 5149.980 | 51.56 | 31.72   | 5.62  | 36.86  | 52.04  | 74.00  | -21.96    | HORIZONTAL Peak    |
| 5   | 5270.000 | 83.45 | 31.75   | 5.80  | 36.87  | 84.13  | -----  | -----     | HORIZONTAL Average |
| 6 * | 5270.000 | 99.11 | 31.75   | 5.80  | 36.87  | 99.79  | 68.20  | 31.59     | HORIZONTAL Peak    |

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



|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5144.728 | 39.73       | 31.72  | 5.62   | 36.86  | 40.21  | 54.00  | -13.79 | VERTICAL  | Average |
| 2   | 5144.728 | 52.95       | 31.72  | 5.62   | 36.86  | 53.43  | 74.00  | -20.57 | VERTICAL  | Peak    |
| 3   | 5149.479 | 39.53       | 31.72  | 5.62   | 36.86  | 40.01  | 54.00  | -13.99 | VERTICAL  | Average |
| 4   | 5149.980 | 50.85       | 31.72  | 5.62   | 36.86  | 51.33  | 74.00  | -22.67 | VERTICAL  | Peak    |
| 5   | 5270.000 | 84.04       | 31.75  | 5.80   | 36.87  | 84.72  | -----  | -----  | VERTICAL  | Average |
| 6 * | 5270.000 | 99.02       | 31.75  | 5.80   | 36.87  | 99.70  | 68.20  | 31.50  | VERTICAL  | Peak    |

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

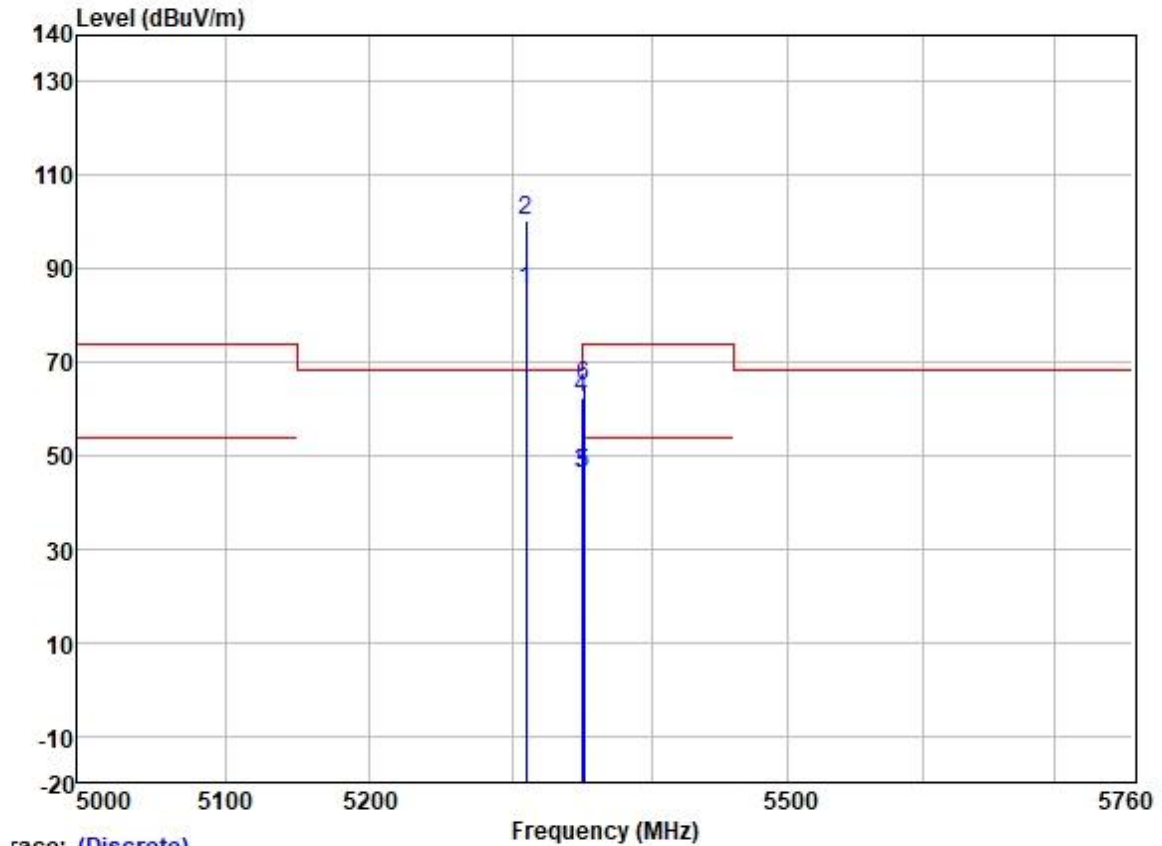


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5310.000 | 83.58 | 31.77   | 6.08  | 36.87  | 84.56  | -----  | -----     | HORIZONTAL Average |
| 2 * | 5310.000 | 98.25 | 31.77   | 6.08  | 36.87  | 99.23  | 68.20  | 31.03     | HORIZONTAL Peak    |
| 3   | 5350.020 | 43.99 | 31.77   | 6.05  | 36.88  | 44.93  | 54.00  | -9.07     | HORIZONTAL Average |
| 4   | 5350.020 | 61.40 | 31.77   | 6.05  | 36.88  | 62.34  | 74.00  | -11.66    | HORIZONTAL Peak    |
| 5   | 5350.834 | 44.27 | 31.77   | 6.05  | 36.88  | 45.21  | 54.00  | -8.79     | HORIZONTAL Average |
| 6   | 5351.796 | 61.83 | 31.77   | 6.05  | 36.88  | 62.77  | 74.00  | -11.23    | HORIZONTAL Peak    |



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

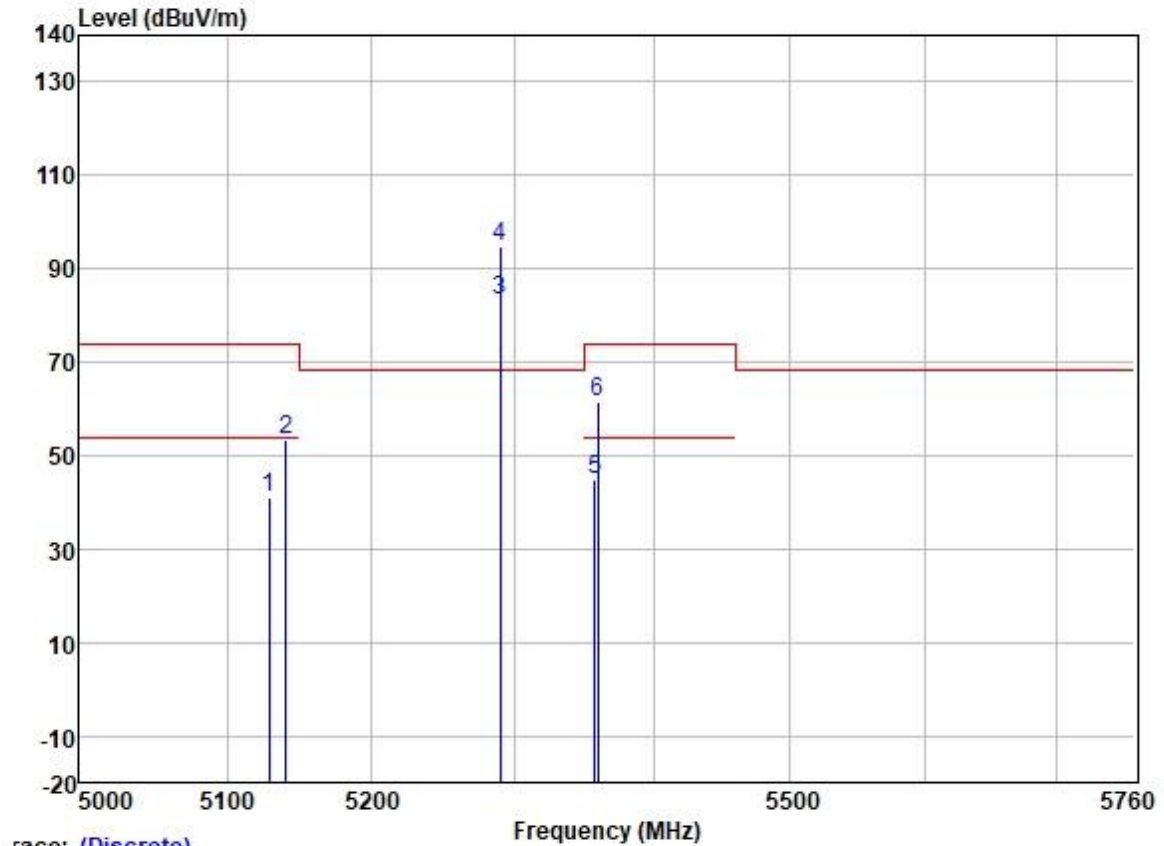


race: (Discrete)

|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5310.000 | 84.47       | 31.77  | 6.08   | 36.87  | 85.45  | -----  | -----  | VERTICAL  | Average |
| 2 * | 5310.000 | 99.55       | 31.77  | 6.08   | 36.87  | 100.53 | 68.20  | 32.33  | VERTICAL  | Peak    |
| 3   | 5350.020 | 45.34       | 31.77  | 6.05   | 36.88  | 46.28  | 54.00  | -7.72  | VERTICAL  | Average |
| 4   | 5350.020 | 61.33       | 31.77  | 6.05   | 36.88  | 62.27  | 74.00  | -11.73 | VERTICAL  | Peak    |
| 5   | 5350.594 | 45.33       | 31.77  | 6.05   | 36.88  | 46.27  | 54.00  | -7.73  | VERTICAL  | Average |
| 6   | 5351.195 | 64.01       | 31.77  | 6.05   | 36.88  | 64.95  | 74.00  | -9.05  | VERTICAL  | Peak    |

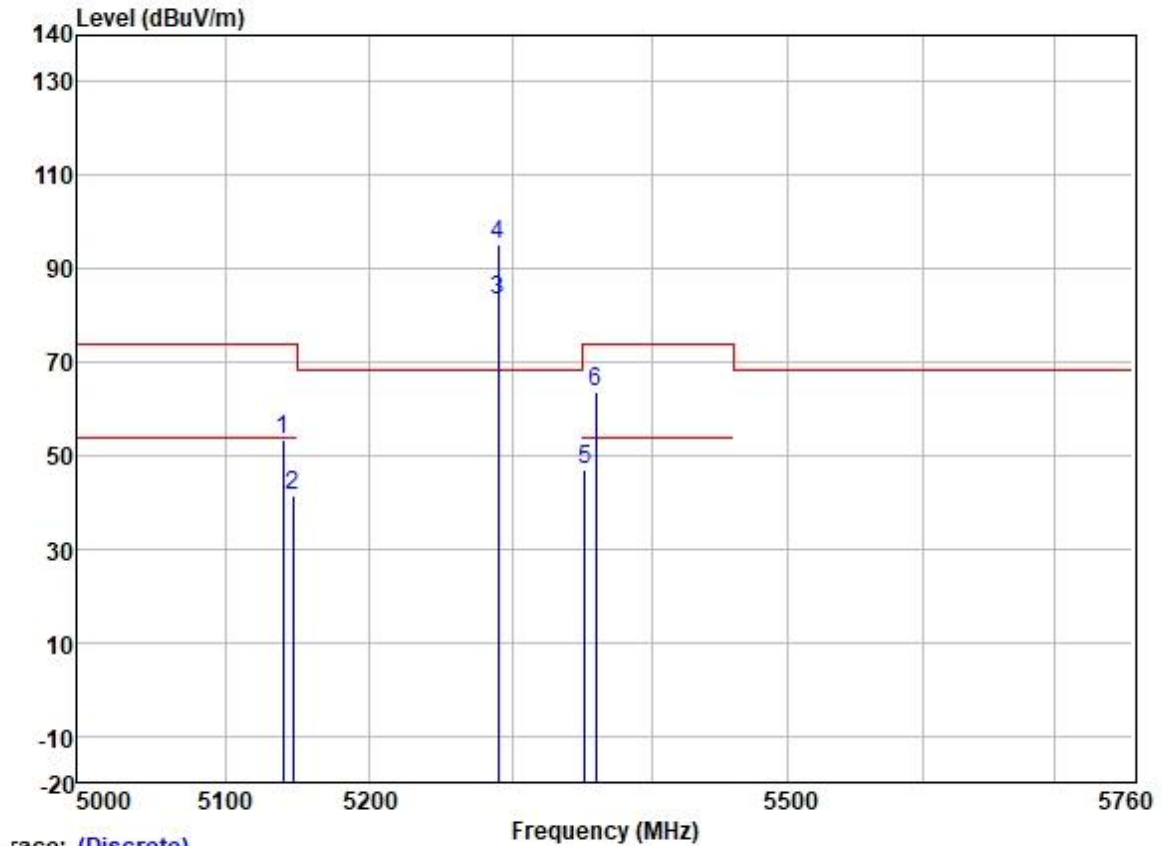


Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5128.648 | 40.66 | 31.72   | 5.63  | 36.86  | 41.15  | 54.00  | -12.85    | HORIZONTAL Average |
| 2   | 5140.093 | 52.79 | 31.72   | 5.63  | 36.86  | 53.28  | 74.00  | -20.72    | HORIZONTAL Peak    |
| 3   | 5290.000 | 82.29 | 31.76   | 6.00  | 36.87  | 83.18  | -----  | -----     | HORIZONTAL Average |
| 4 * | 5290.000 | 93.89 | 31.76   | 6.00  | 36.87  | 94.78  | 68.20  | 26.58     | HORIZONTAL Peak    |
| 5   | 5357.267 | 43.84 | 31.78   | 6.03  | 36.88  | 44.77  | 54.00  | -9.23     | HORIZONTAL Average |
| 6   | 5360.023 | 60.49 | 31.78   | 6.03  | 36.88  | 61.42  | 74.00  | -12.58    | HORIZONTAL Peak    |

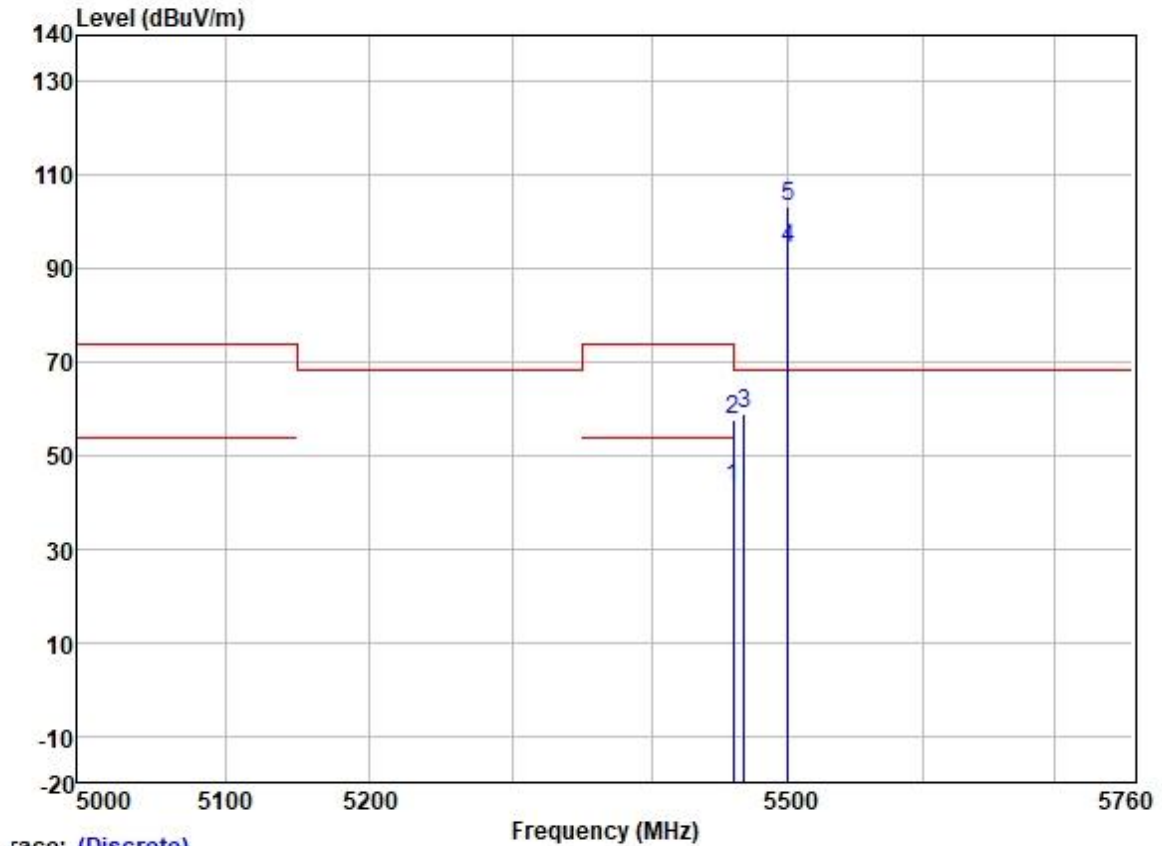
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------|---------|-------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level | Factor  | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5139.800 | 52.90 | 31.72   | 5.63  | 36.86  | 53.39  | 74.00  | -20.61 | VERTICAL  | Peak    |
| 2   | 5146.267 | 40.82 | 31.72   | 5.62  | 36.86  | 41.30  | 54.00  | -12.70 | VERTICAL  | Average |
| 3   | 5290.000 | 82.31 | 31.76   | 6.00  | 36.87  | 83.20  | -----  | -----  | VERTICAL  | Average |
| 4 * | 5290.000 | 94.19 | 31.76   | 6.00  | 36.87  | 95.08  | 68.20  | 26.88  | VERTICAL  | Peak    |
| 5   | 5352.064 | 45.94 | 31.77   | 6.05  | 36.88  | 46.88  | 54.00  | -7.12  | VERTICAL  | Average |
| 6   | 5359.717 | 62.56 | 31.78   | 6.03  | 36.88  | 63.49  | 74.00  | -10.51 | VERTICAL  | Peak    |

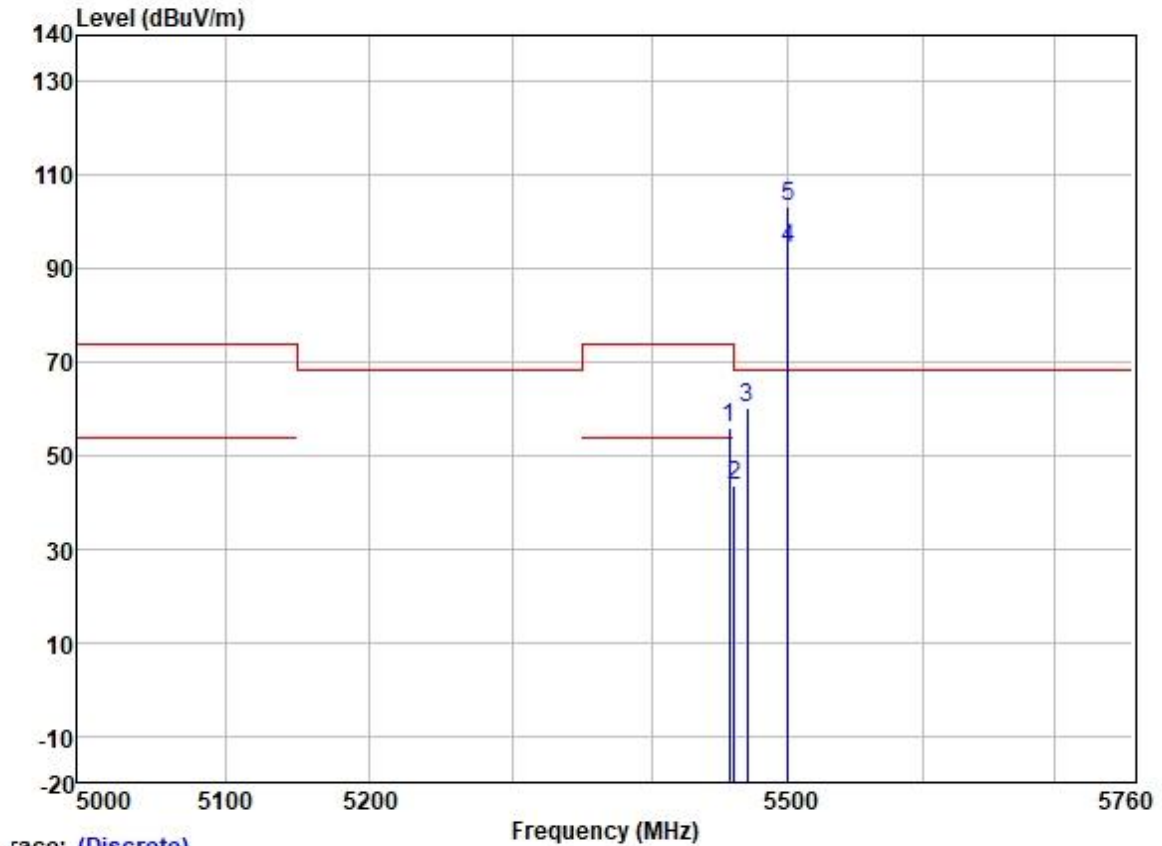
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5459.311 | 42.02  | 31.79   | 6.26  | 36.88  | 43.19  | 54.00  | -10.81    | HORIZONTAL Average |
| 2   | 5459.430 | 56.54  | 31.79   | 6.26  | 36.88  | 57.71  | 74.00  | -16.29    | HORIZONTAL Peak    |
| 3   | 5467.235 | 57.84  | 31.80   | 6.31  | 36.88  | 59.07  | 68.20  | -9.13     | HORIZONTAL Peak    |
| 4   | 5500.000 | 92.85  | 31.80   | 6.40  | 36.88  | 94.17  | -----  | -----     | HORIZONTAL Average |
| 5 * | 5500.000 | 102.14 | 31.80   | 6.40  | 36.88  | 103.46 | 68.20  | 35.26     | HORIZONTAL Peak    |



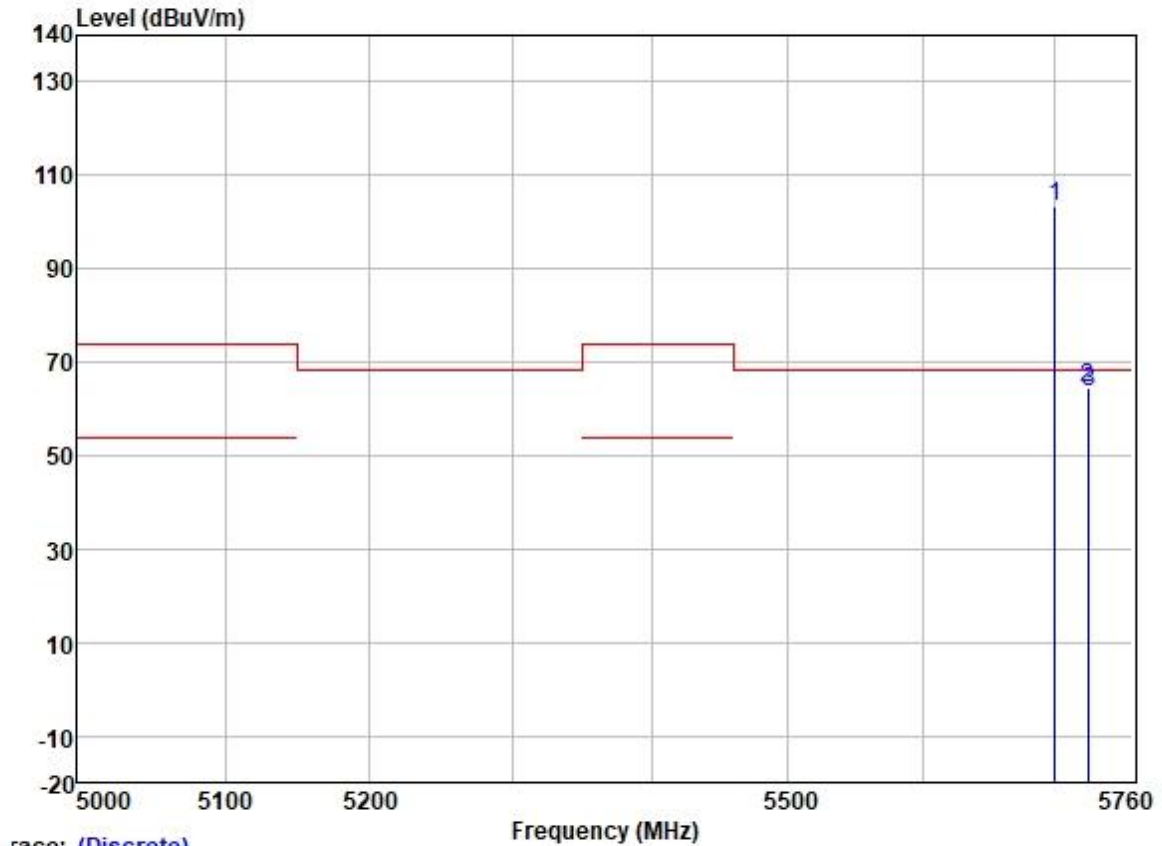
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                  |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark           |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                  |
| 1   | 5456.791 | 54.58  | 31.79   | 6.26  | 36.88  | 55.75  | 74.00  | -18.25    | VERTICAL Peak    |
| 2   | 5459.910 | 42.54  | 31.79   | 6.26  | 36.88  | 43.71  | 54.00  | -10.29    | VERTICAL Average |
| 3   | 5469.519 | 58.87  | 31.80   | 6.31  | 36.88  | 60.10  | 68.20  | -8.10     | VERTICAL Peak    |
| 4   | 5500.000 | 93.13  | 31.80   | 6.40  | 36.88  | 94.45  | -----  | -----     | VERTICAL Average |
| 5 * | 5500.000 | 102.12 | 31.80   | 6.40  | 36.88  | 103.44 | 68.20  | 35.24     | VERTICAL Peak    |

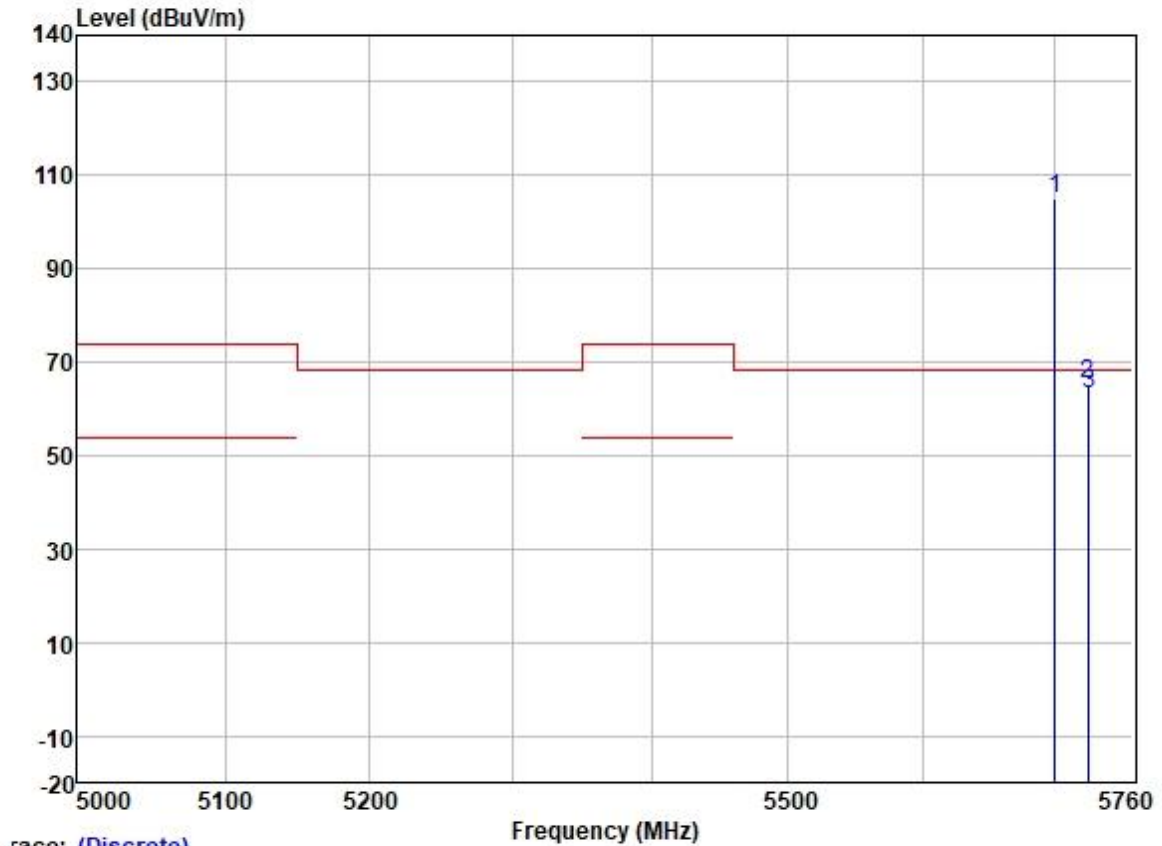


Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over  |            |        |
|-----|----------|-------------|--------|-------|--------|--------|--------|-------|------------|--------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit | Pol/Phase  | Remark |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB    |            |        |
| 1 * | 5700.000 | 101.90      | 32.01  | 6.40  | 36.89  | 103.42 | 68.20  | 35.22 | HORIZONTAL | Peak   |
| 2   | 5725.000 | 62.87       | 32.07  | 6.25  | 36.89  | 64.30  | 68.20  | -3.90 | HORIZONTAL | Peak   |
| 3   | 5725.684 | 62.02       | 32.07  | 6.25  | 36.89  | 63.45  | 68.20  | -4.75 | HORIZONTAL | Peak   |

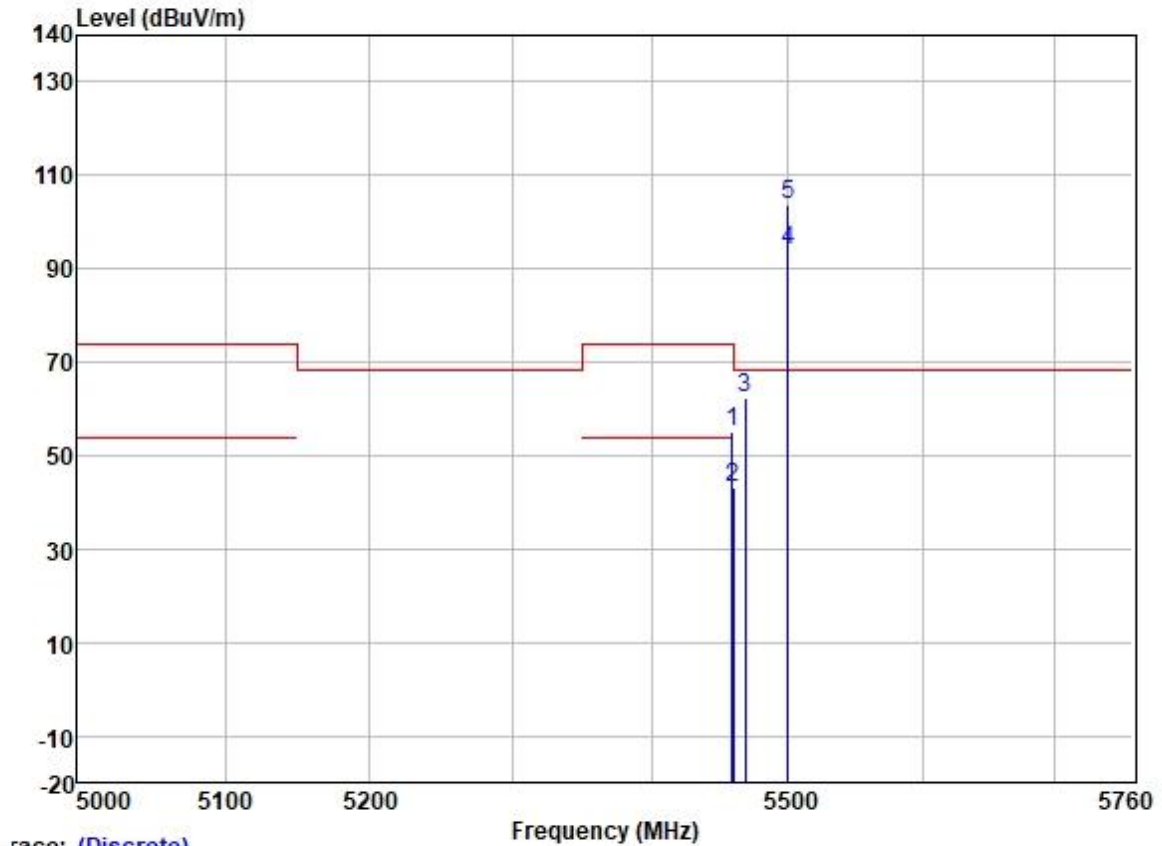
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over  |           |        |
|-----|----------|-------------|--------|-------|--------|--------|--------|-------|-----------|--------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit | Pol/Phase | Remark |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB    |           |        |
| 1 * | 5700.000 | 103.65      | 32.01  | 6.40  | 36.89  | 105.17 | 68.20  | 36.97 | VERTICAL  | Peak   |
| 2   | 5725.000 | 63.82       | 32.07  | 6.25  | 36.89  | 65.25  | 68.20  | -2.95 | VERTICAL  | Peak   |
| 3   | 5725.583 | 61.75       | 32.07  | 6.25  | 36.89  | 63.18  | 68.20  | -5.02 | VERTICAL  | Peak   |

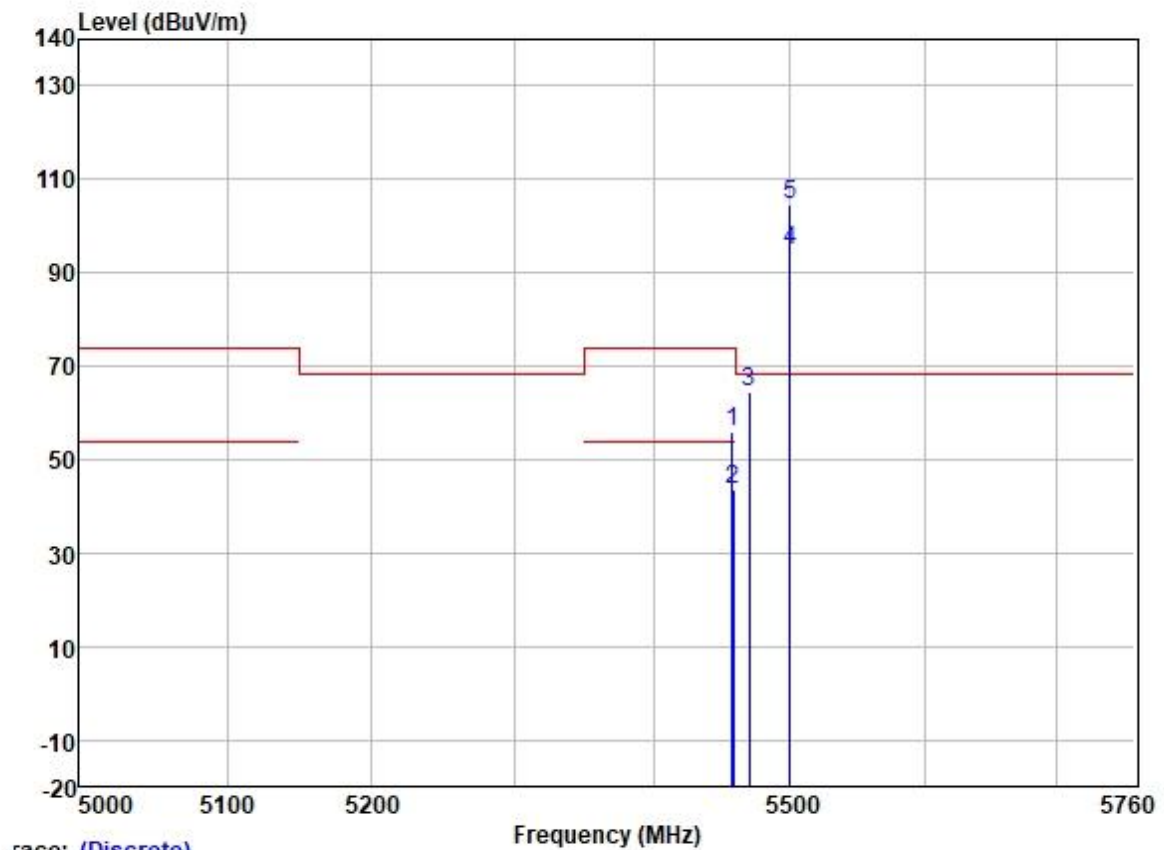
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |            |         |
|-----|----------|-------------|--------|-------|--------|--------|--------|--------|------------|---------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark  |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |            |         |
| 1   | 5458.471 | 54.09       | 31.79  | 6.26  | 36.88  | 55.26  | 74.00  | -18.74 | HORIZONTAL | Peak    |
| 2   | 5459.550 | 41.82       | 31.79  | 6.26  | 36.88  | 42.99  | 54.00  | -11.01 | HORIZONTAL | Average |
| 3   | 5467.957 | 61.24       | 31.80  | 6.31  | 36.88  | 62.47  | 68.20  | -5.73  | HORIZONTAL | Peak    |
| 4   | 5500.000 | 92.81       | 31.80  | 6.40  | 36.88  | 94.13  | -----  | -----  | HORIZONTAL | Average |
| 5 * | 5500.000 | 102.27      | 31.80  | 6.40  | 36.88  | 103.59 | 68.20  | 35.39  | HORIZONTAL | Peak    |

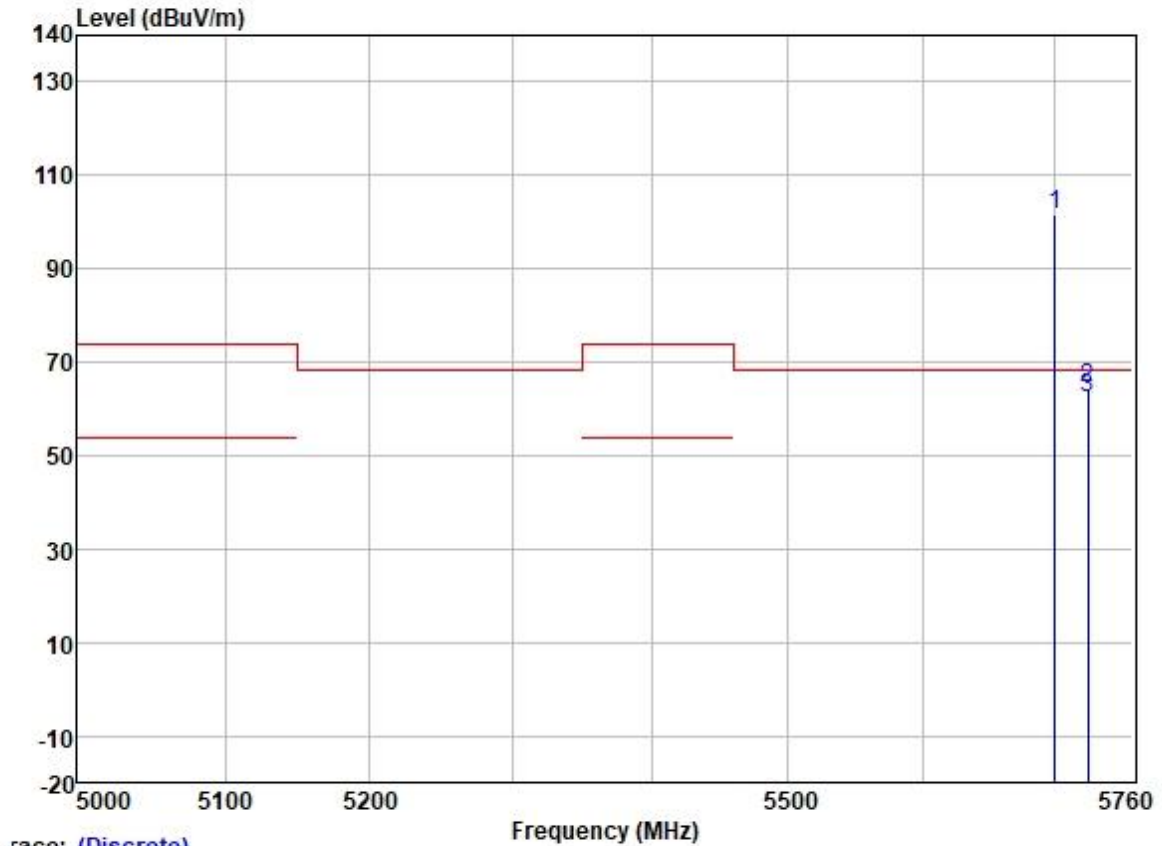


Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |           |         |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5457.511 | 54.65       | 31.79  | 6.26   | 36.88  | 55.82  | 74.00  | -18.18 | VERTICAL  | Peak    |
| 2   | 5457.750 | 42.52       | 31.79  | 6.26   | 36.88  | 43.69  | 54.00  | -10.31 | VERTICAL  | Average |
| 3   | 5469.519 | 63.25       | 31.80  | 6.31   | 36.88  | 64.48  | 68.20  | -3.72  | VERTICAL  | Peak    |
| 4   | 5500.000 | 93.34       | 31.80  | 6.40   | 36.88  | 94.66  | -----  | -----  | VERTICAL  | Average |
| 5 * | 5500.000 | 103.21      | 31.80  | 6.40   | 36.88  | 104.53 | 68.20  | 36.33  | VERTICAL  | Peak    |

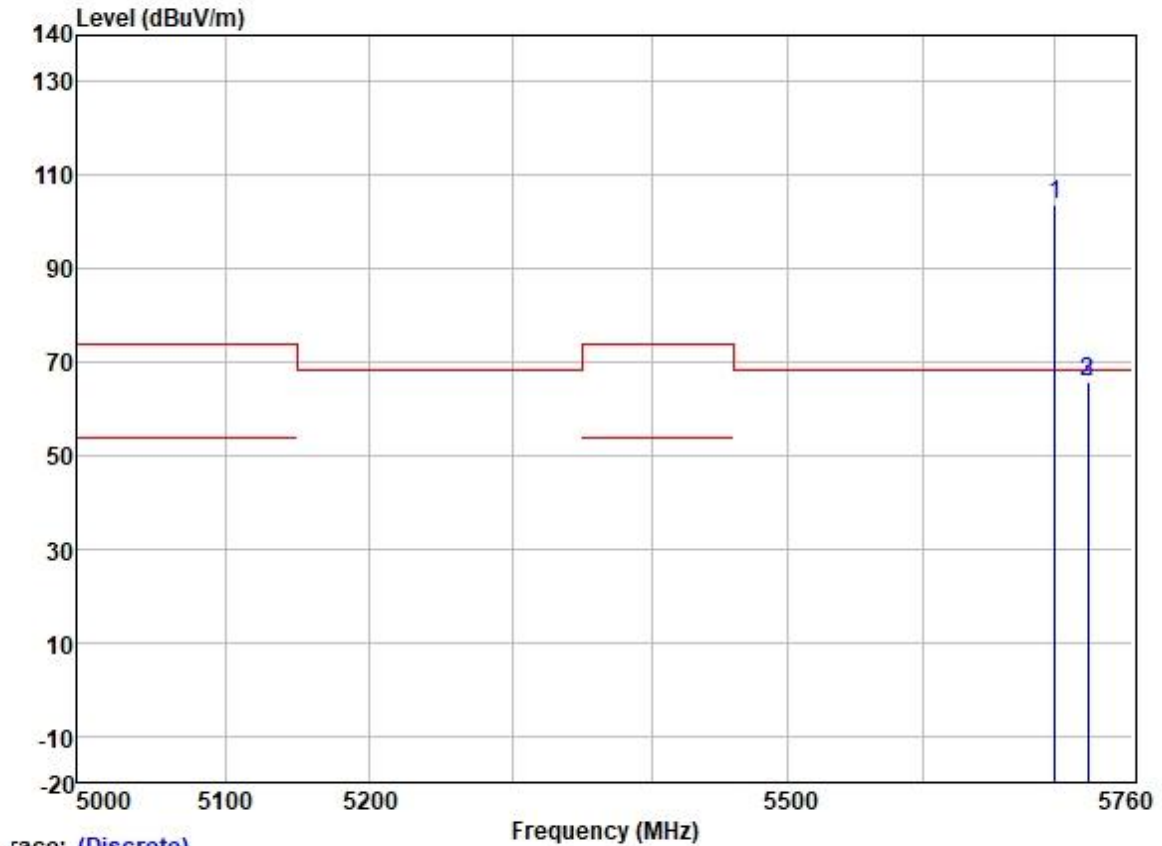
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

|      | Read     | Antenna | Cable | Preamp | Limit  | Over   |           |                       |
|------|----------|---------|-------|--------|--------|--------|-----------|-----------------------|
| Freq | Level    | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark                |
| MHz  | dBuV     | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                       |
| 1 *  | 5700.000 | 99.89   | 32.01 | 6.40   | 36.89  | 101.41 | 68.20     | 33.21 HORIZONTAL Peak |
| 2    | 5725.000 | 62.92   | 32.07 | 6.25   | 36.89  | 64.35  | 68.20     | -3.85 HORIZONTAL Peak |
| 3    | 5725.483 | 60.81   | 32.07 | 6.25   | 36.89  | 62.24  | 68.20     | -5.96 HORIZONTAL Peak |

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

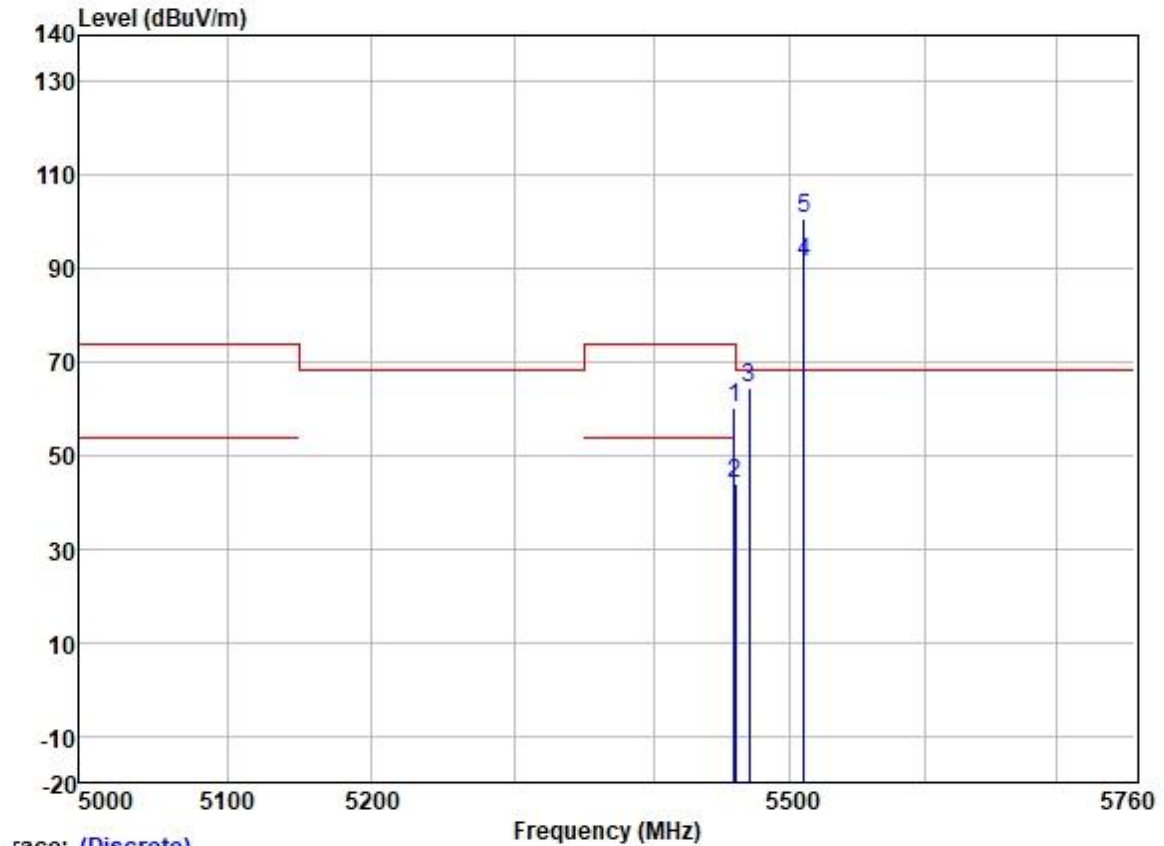


Trace: (Discrete)

|   |            | ReadAntenna |        | Cable | Preamp |        | Limit  | Over  |           |        |
|---|------------|-------------|--------|-------|--------|--------|--------|-------|-----------|--------|
|   | Freq       | Level       | Factor | Loss  | Factor | Level  | Line   | Limit | Pol/Phase | Remark |
|   | MHz        | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB    |           |        |
| 1 | * 5700.000 | 102.35      | 32.01  | 6.40  | 36.89  | 103.87 | 68.20  | 35.67 | VERTICAL  | Peak   |
| 2 | 5725.000   | 64.18       | 32.07  | 6.25  | 36.89  | 65.61  | 68.20  | -2.59 | VERTICAL  | Peak   |
| 3 | 5725.483   | 64.29       | 32.07  | 6.25  | 36.89  | 65.72  | 68.20  | -2.48 | VERTICAL  | Peak   |



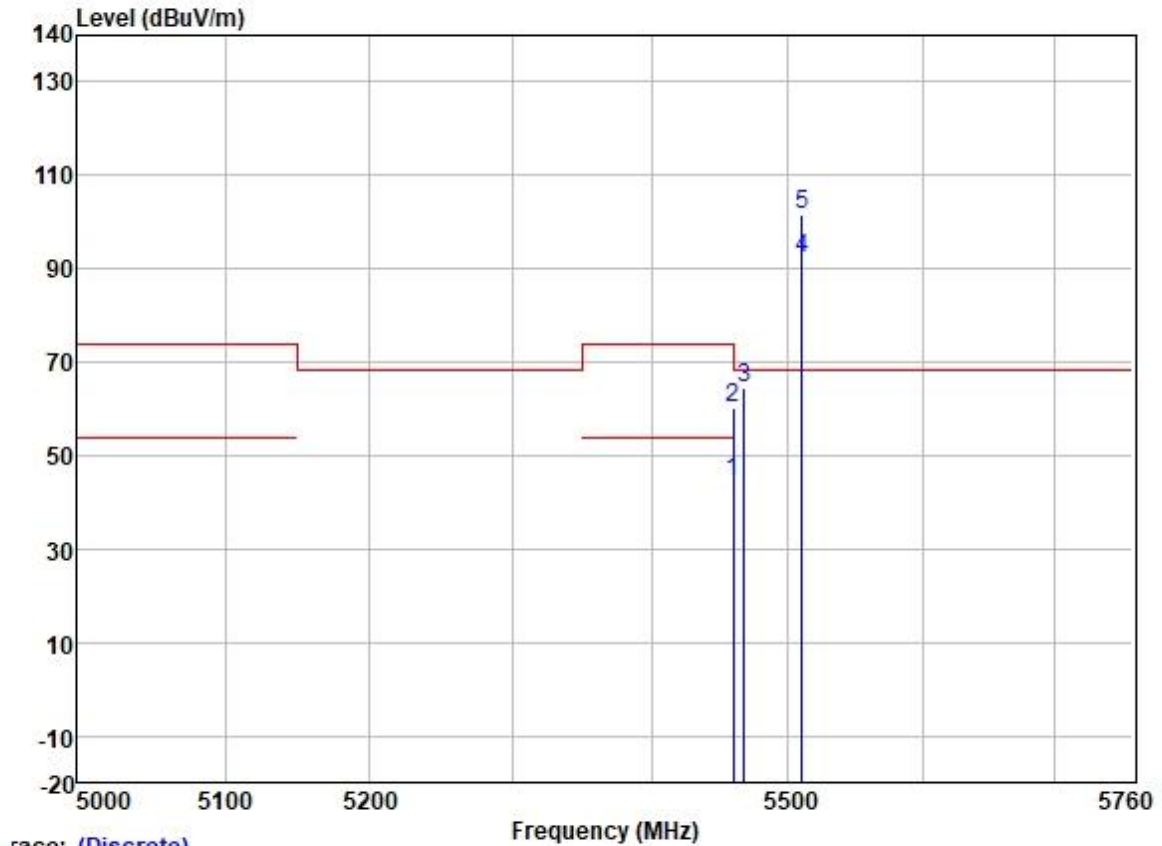
Test Mode: 06; Polarity: Horizontal; Modulation: 802.11n; Bandwidth: 40MHz; Channel: Low



Trace: (Discrete)

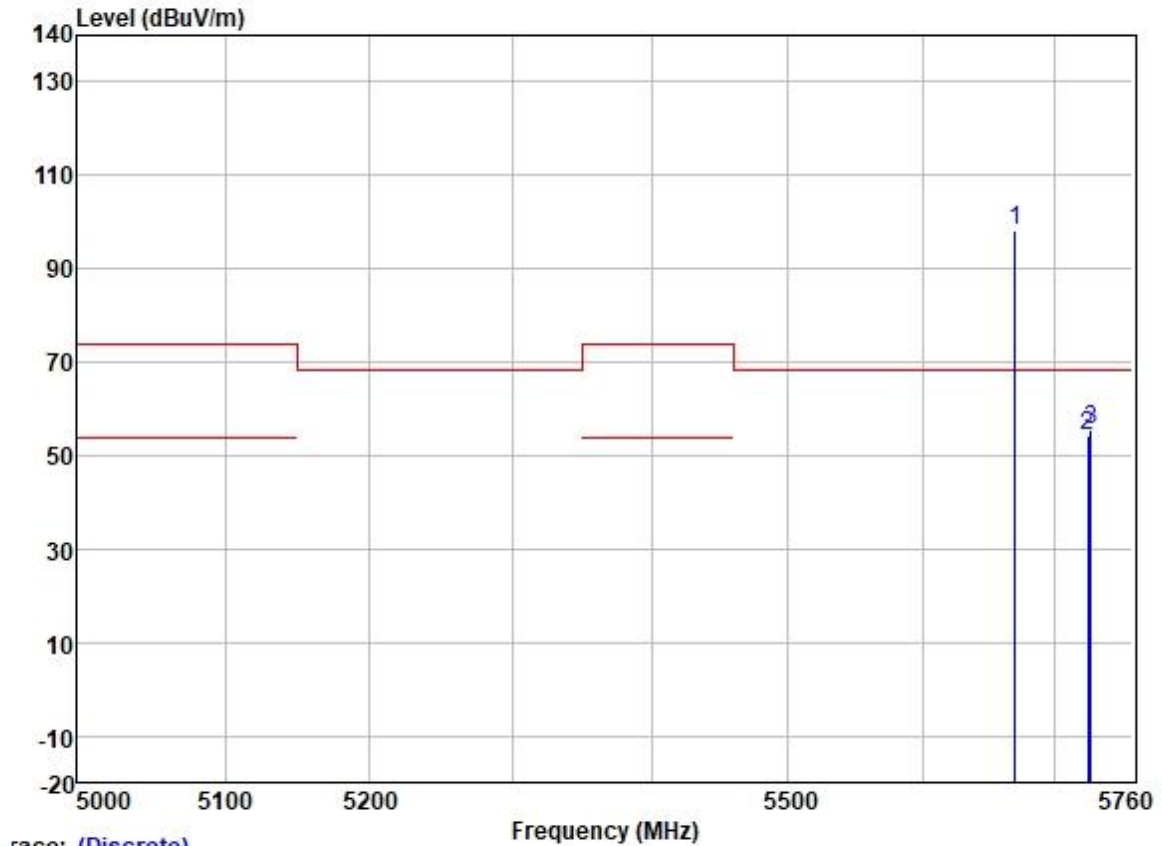
|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5458.923 | 58.92 | 31.79   | 6.26  | 36.88  | 60.09  | 74.00  | -13.91    | HORIZONTAL Peak    |
| 2   | 5459.202 | 42.71 | 31.79   | 6.26  | 36.88  | 43.88  | 54.00  | -10.12    | HORIZONTAL Average |
| 3   | 5469.692 | 63.09 | 31.80   | 6.31  | 36.88  | 64.32  | 68.20  | -3.88     | HORIZONTAL Peak    |
| 4   | 5510.000 | 89.90 | 31.80   | 6.40  | 36.88  | 91.22  | -----  | -----     | HORIZONTAL Average |
| 5 * | 5510.000 | 99.39 | 31.80   | 6.40  | 36.88  | 100.71 | 68.20  | 32.51     | HORIZONTAL Peak    |

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



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |          |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|----------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark   |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |          |
| 1   | 5459.481 | 43.46  | 31.79   | 6.26  | 36.88  | 44.63  | 54.00  | -9.37     | VERTICAL |
| 2   | 5459.622 | 58.92  | 31.79   | 6.26  | 36.88  | 60.09  | 74.00  | -13.91    | VERTICAL |
| 3   | 5467.592 | 63.41  | 31.80   | 6.31  | 36.88  | 64.64  | 68.20  | -3.56     | VERTICAL |
| 4   | 5510.000 | 90.70  | 31.80   | 6.40  | 36.88  | 92.02  | -----  | -----     | VERTICAL |
| 5 * | 5510.000 | 100.08 | 31.80   | 6.40  | 36.88  | 101.40 | 68.20  | 33.20     | VERTICAL |

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

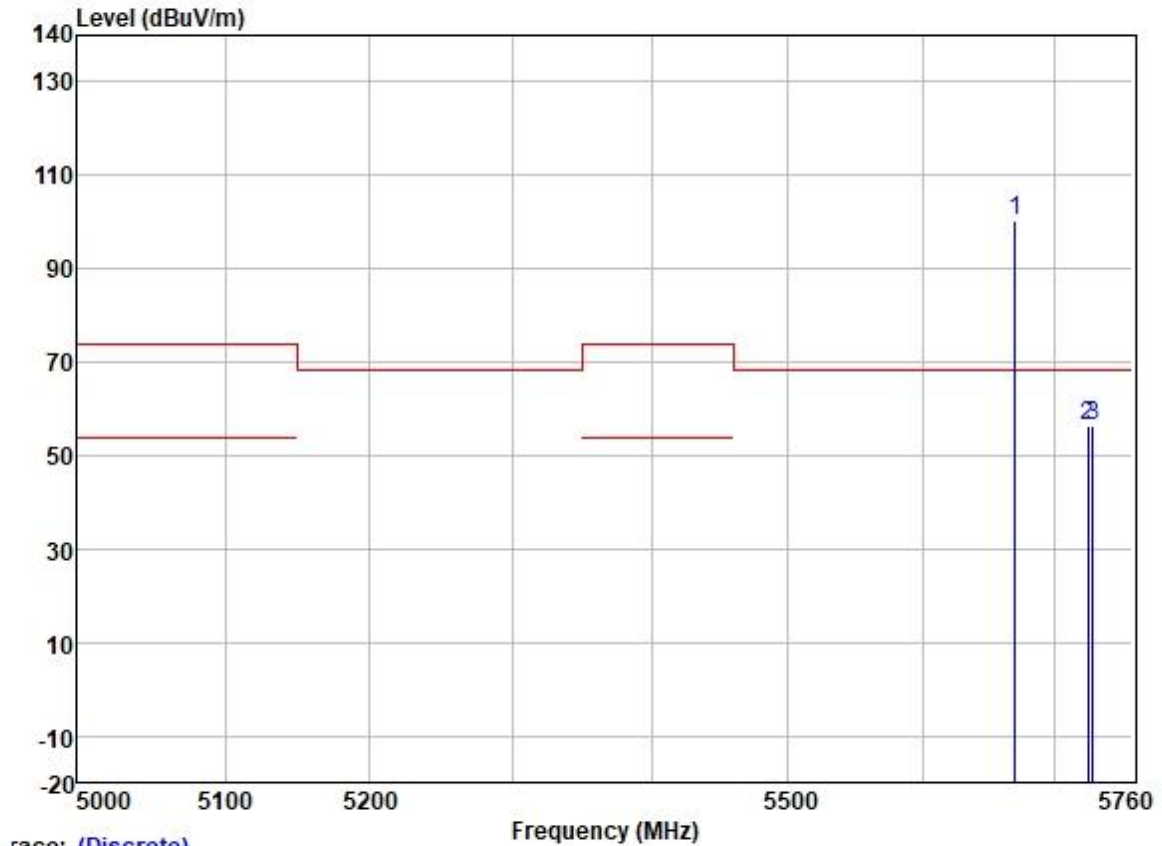


Trace: (Discrete)

|     | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |        |            |        |
|-----|----------|-------------|--------|--------|--------|--------|--------|--------|------------|--------|
|     |          | Level       | Factor | Loss   | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark |
|     | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB     |            |        |
| 1 * | 5670.000 | 96.61       | 31.97  | 6.37   | 36.89  | 98.06  | 68.20  | 29.86  | HORIZONTAL | Peak   |
| 2   | 5725.000 | 52.96       | 32.07  | 6.25   | 36.89  | 54.39  | 68.20  | -13.81 | HORIZONTAL | Peak   |
| 3   | 5727.097 | 54.08       | 32.07  | 6.25   | 36.89  | 55.51  | 68.20  | -12.69 | HORIZONTAL | Peak   |



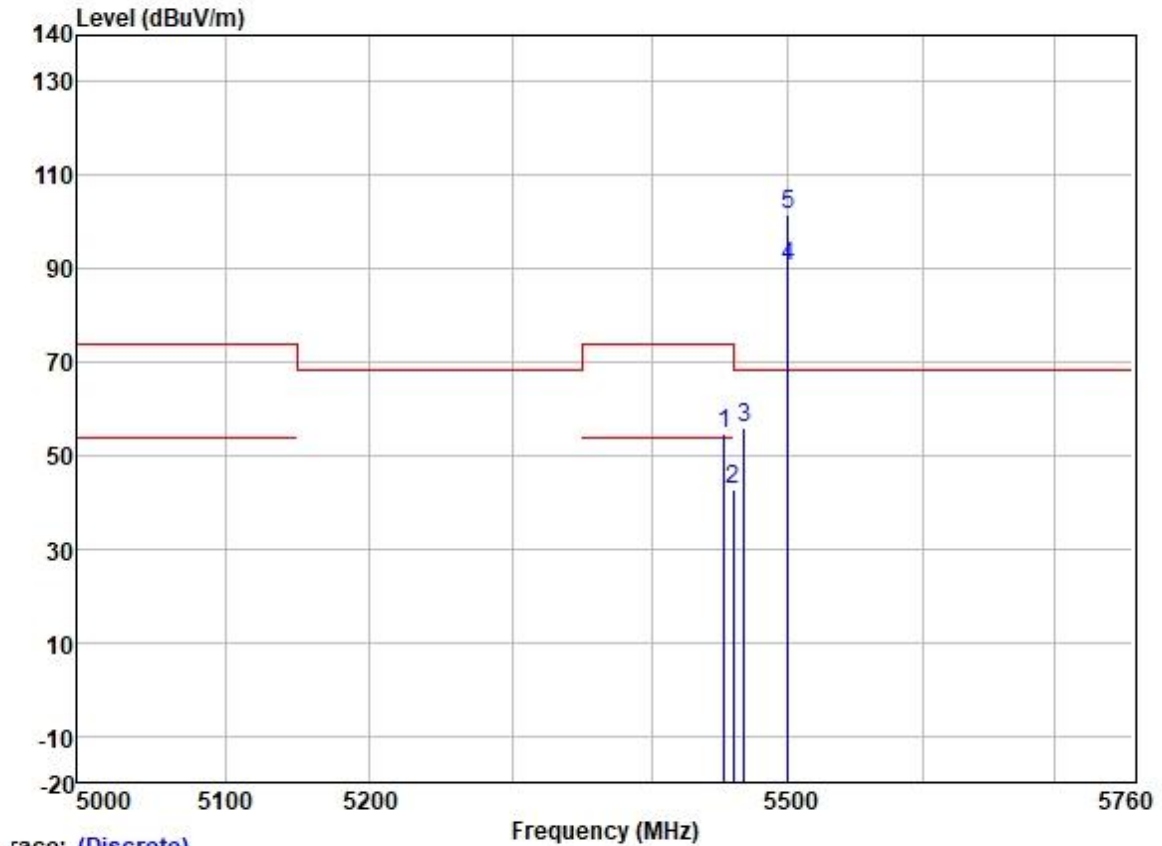
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

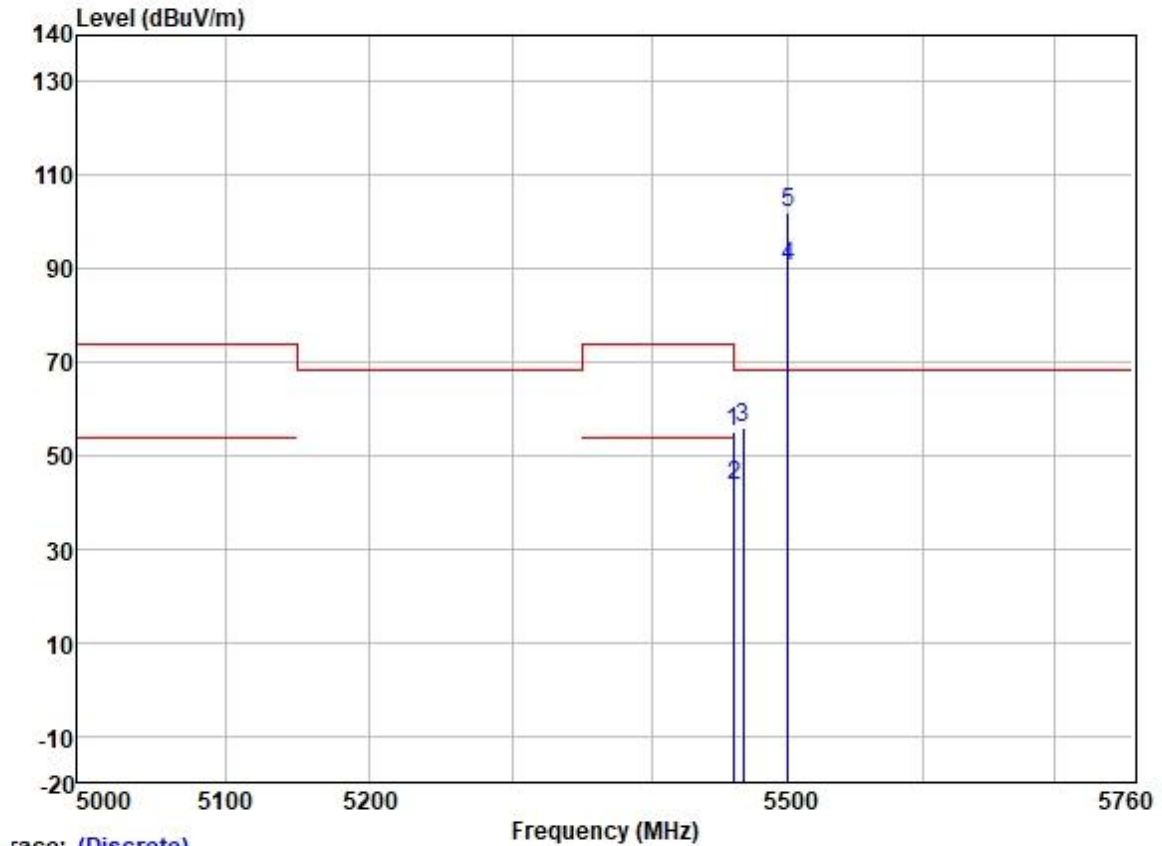
|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |               |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|---------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark        |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |               |
| 1 * | 5670.000 | 98.77 | 31.97   | 6.37  | 36.89  | 100.22 | 68.20  | 32.02     | VERTICAL Peak |
| 2   | 5725.000 | 54.87 | 32.07   | 6.25  | 36.89  | 56.30  | 68.20  | -11.90    | VERTICAL Peak |
| 3   | 5729.063 | 54.86 | 32.07   | 6.25  | 36.89  | 56.29  | 68.20  | -11.91    | VERTICAL Peak |

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



|     | Freq     | Read   | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|--------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level  | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV   | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5452.595 | 53.31  | 31.79   | 6.26  | 36.88  | 54.48  | 74.00  | -19.52    | HORIZONTAL Peak    |
| 2   | 5459.430 | 41.64  | 31.79   | 6.26  | 36.88  | 42.81  | 54.00  | -11.19    | HORIZONTAL Average |
| 3   | 5467.115 | 54.69  | 31.80   | 6.31  | 36.88  | 55.92  | 68.20  | -12.28    | HORIZONTAL Peak    |
| 4   | 5500.000 | 89.06  | 31.80   | 6.40  | 36.88  | 90.38  | -----  | -----     | HORIZONTAL Average |
| 5 * | 5500.000 | 100.10 | 31.80   | 6.40  | 36.88  | 101.42 | 68.20  | 33.22     | HORIZONTAL Peak    |

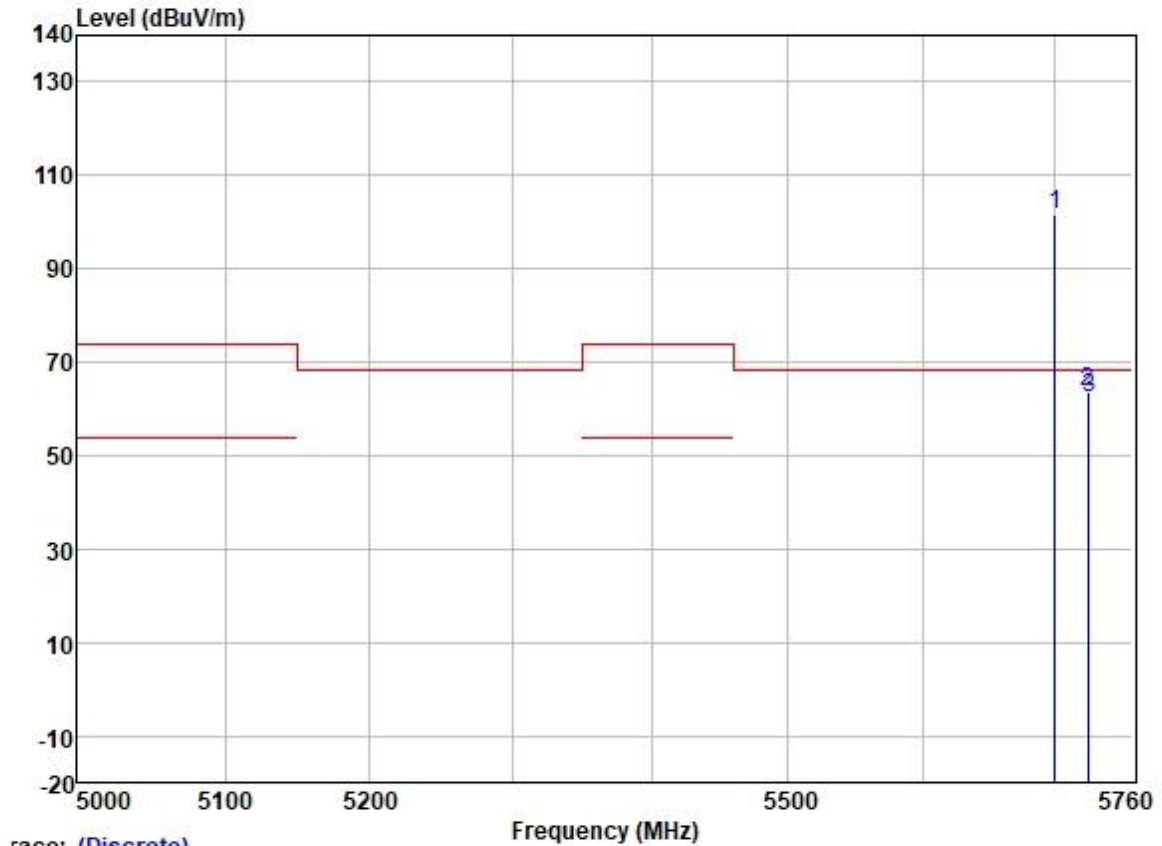
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------------|--------|-------|--------|--------|--------|--------|-----------|---------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5459.430 | 54.06       | 31.79  | 6.26  | 36.88  | 55.23  | 74.00  | -18.77 | VERTICAL  | Peak    |
| 2   | 5459.910 | 42.45       | 31.79  | 6.26  | 36.88  | 43.62  | 54.00  | -10.38 | VERTICAL  | Average |
| 3   | 5466.995 | 54.78       | 31.80  | 6.31  | 36.88  | 56.01  | 68.20  | -12.19 | VERTICAL  | Peak    |
| 4   | 5500.000 | 89.38       | 31.80  | 6.40  | 36.88  | 90.70  | -----  | -----  | VERTICAL  | Average |
| 5 * | 5500.000 | 100.84      | 31.80  | 6.40  | 36.88  | 102.16 | 68.20  | 33.96  | VERTICAL  | Peak    |



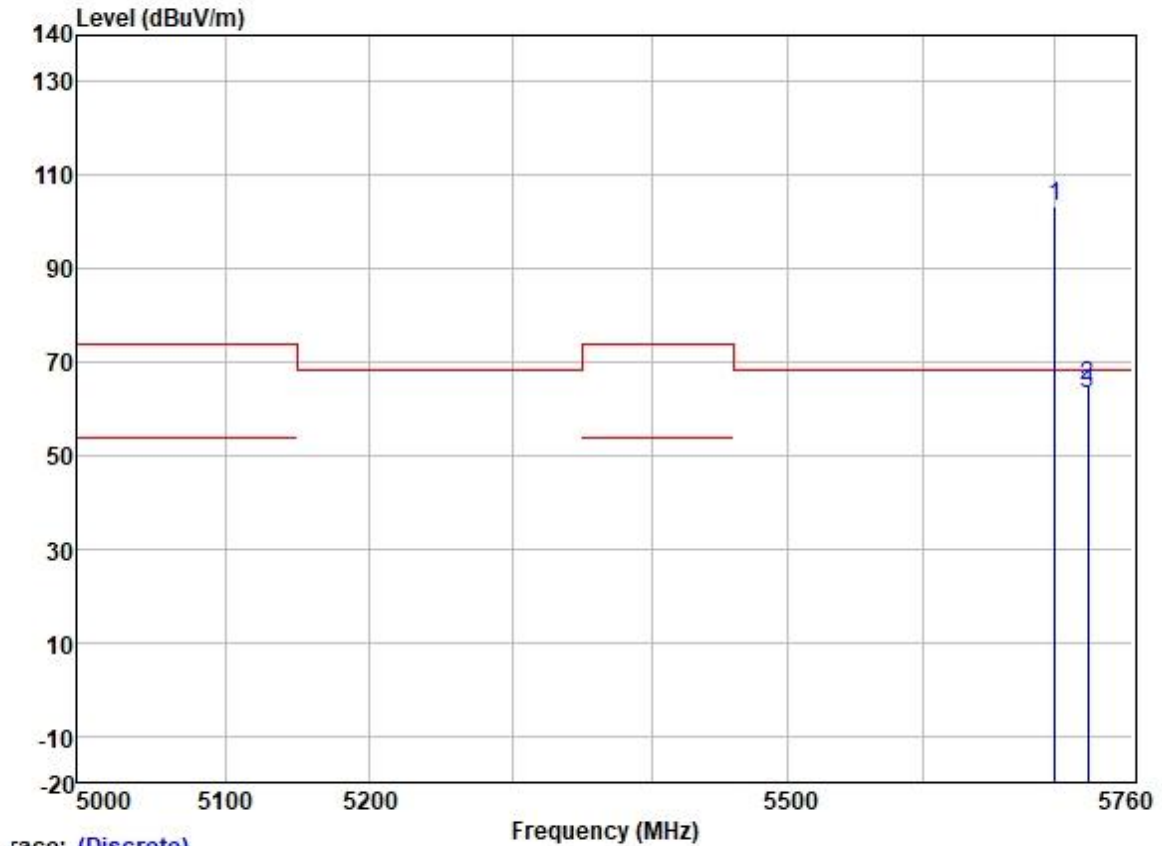
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

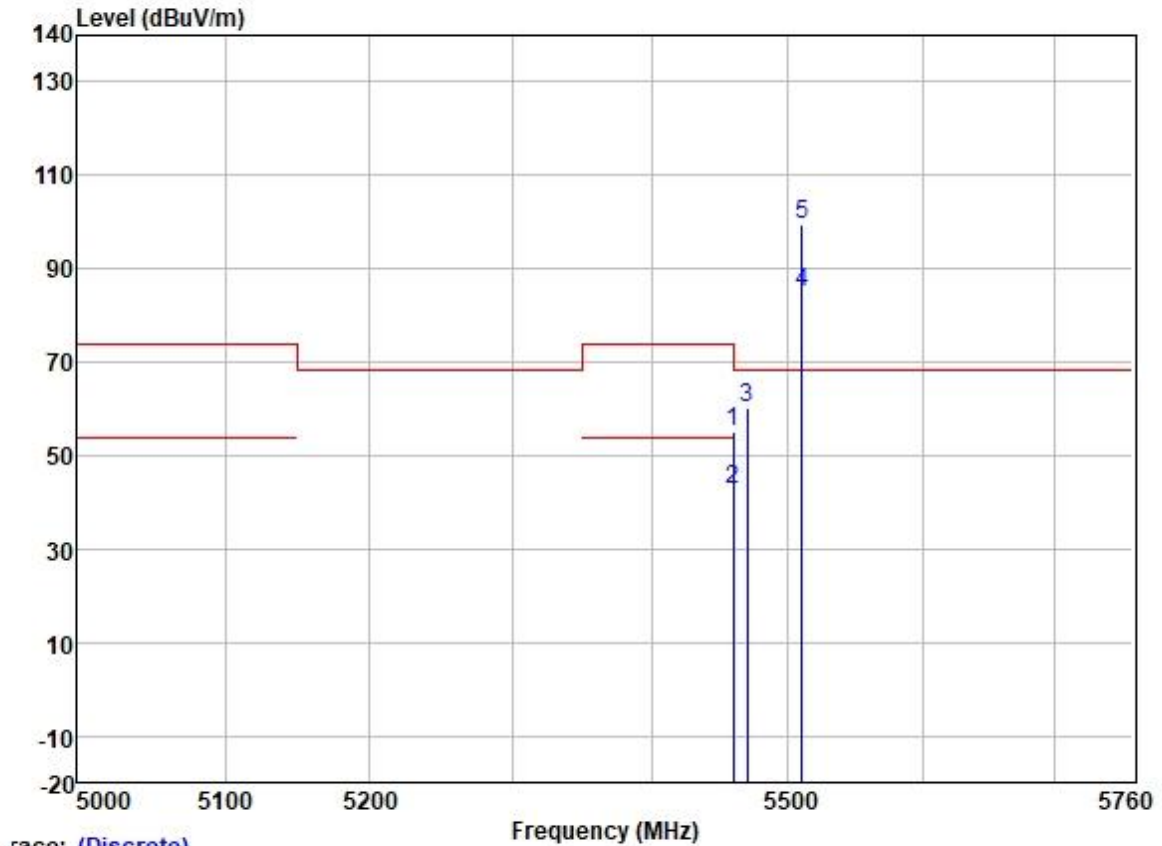
|     | Read     | Antenna | Cable  | Preamp | Limit  | Over   |        |       |
|-----|----------|---------|--------|--------|--------|--------|--------|-------|
|     | Freq     | Level   | Factor | Loss   | Factor | Level  | Line   | Limit |
|     | MHz      | dBuV    | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB    |
| 1 * | 5700.000 | 100.04  | 32.01  | 6.40   | 36.89  | 101.56 | 68.20  | 33.36 |
| 2   | 5725.000 | 62.04   | 32.07  | 6.25   | 36.89  | 63.47  | 68.20  | -4.73 |
| 3   | 5725.883 | 60.97   | 32.07  | 6.25   | 36.89  | 62.40  | 68.20  | -5.80 |

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



|     |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over  |           |        |
|-----|----------|-------------|--------|-------|--------|--------|--------|-------|-----------|--------|
|     | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit | Pol/Phase | Remark |
|     | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB    |           |        |
| 1 * | 5700.000 | 101.76      | 32.01  | 6.40  | 36.89  | 103.28 | 68.20  | 35.08 | VERTICAL  | Peak   |
| 2   | 5725.000 | 63.59       | 32.07  | 6.25  | 36.89  | 65.02  | 68.20  | -3.18 | VERTICAL  | Peak   |
| 3   | 5725.483 | 61.83       | 32.07  | 6.25  | 36.89  | 63.26  | 68.20  | -4.94 | VERTICAL  | Peak   |

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

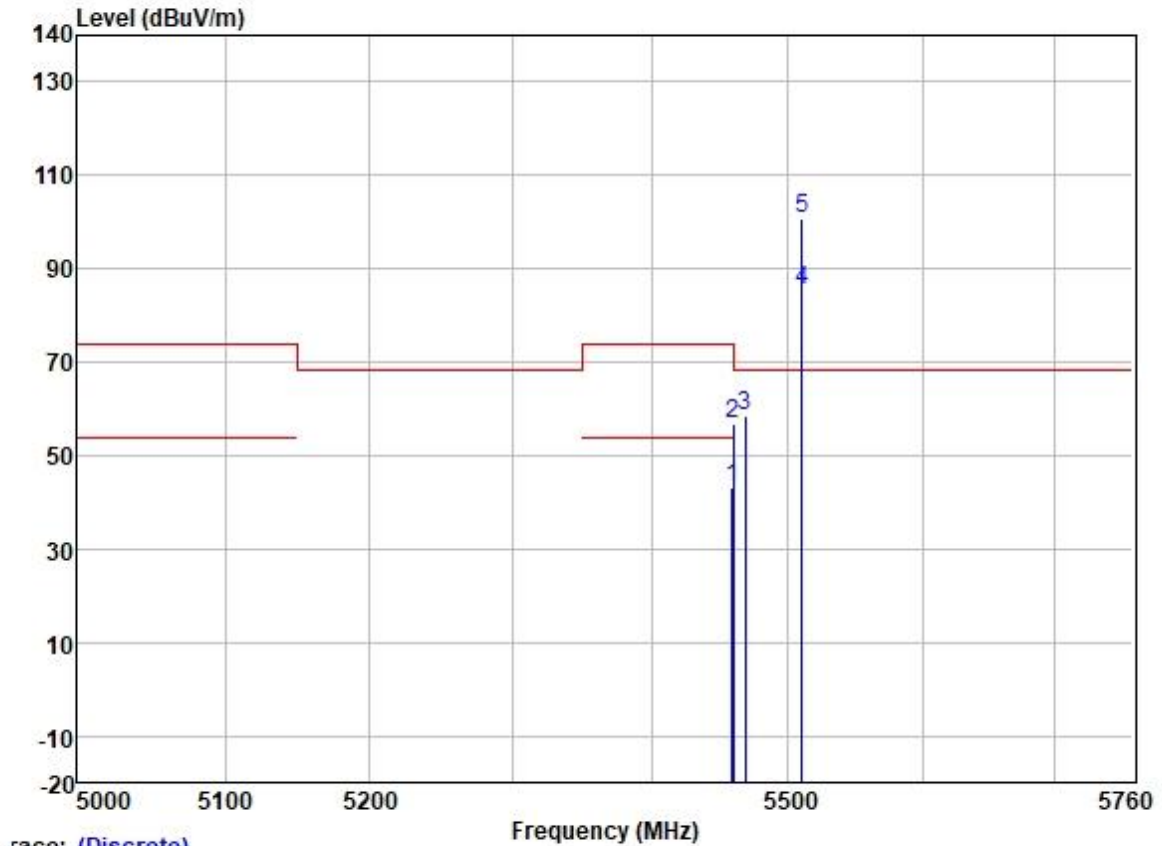


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5459.063 | 54.06 | 31.79   | 6.26  | 36.88  | 55.23  | 74.00  | -18.77    | HORIZONTAL Peak    |
| 2   | 5459.761 | 41.40 | 31.79   | 6.26  | 36.88  | 42.57  | 54.00  | -11.43    | HORIZONTAL Average |
| 3   | 5469.692 | 59.07 | 31.80   | 6.31  | 36.88  | 60.30  | 68.20  | -7.90     | HORIZONTAL Peak    |
| 4   | 5510.000 | 83.62 | 31.80   | 6.40  | 36.88  | 84.94  | -----  | -----     | HORIZONTAL Average |
| 5 * | 5510.000 | 98.29 | 31.80   | 6.40  | 36.88  | 99.61  | 68.20  | 31.41     | HORIZONTAL Peak    |



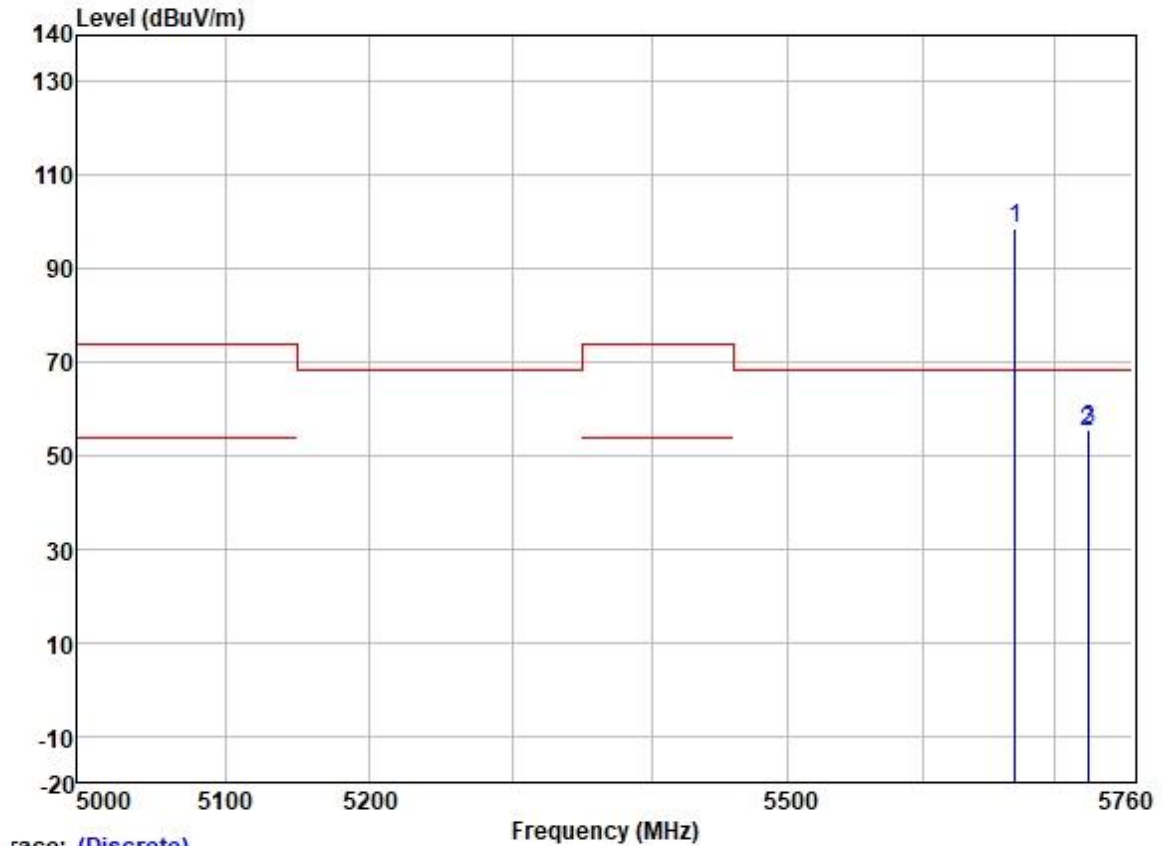
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp |        | Limit  | Over   |           |         |
|-----|----------|-------|---------|-------|--------|--------|--------|--------|-----------|---------|
|     | MHz      | Level | Factor  | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark  |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |           |         |
| 1   | 5458.643 | 42.14 | 31.79   | 6.26  | 36.88  | 43.31  | 54.00  | -10.69 | VERTICAL  | Average |
| 2   | 5459.481 | 55.45 | 31.79   | 6.26  | 36.88  | 56.62  | 74.00  | -17.38 | VERTICAL  | Peak    |
| 3   | 5468.432 | 57.47 | 31.80   | 6.31  | 36.88  | 58.70  | 68.20  | -9.50  | VERTICAL  | Peak    |
| 4   | 5510.000 | 84.22 | 31.80   | 6.40  | 36.88  | 85.54  | -----  | -----  | VERTICAL  | Average |
| 5 * | 5510.000 | 99.31 | 31.80   | 6.40  | 36.88  | 100.63 | 68.20  | 32.43  | VERTICAL  | Peak    |

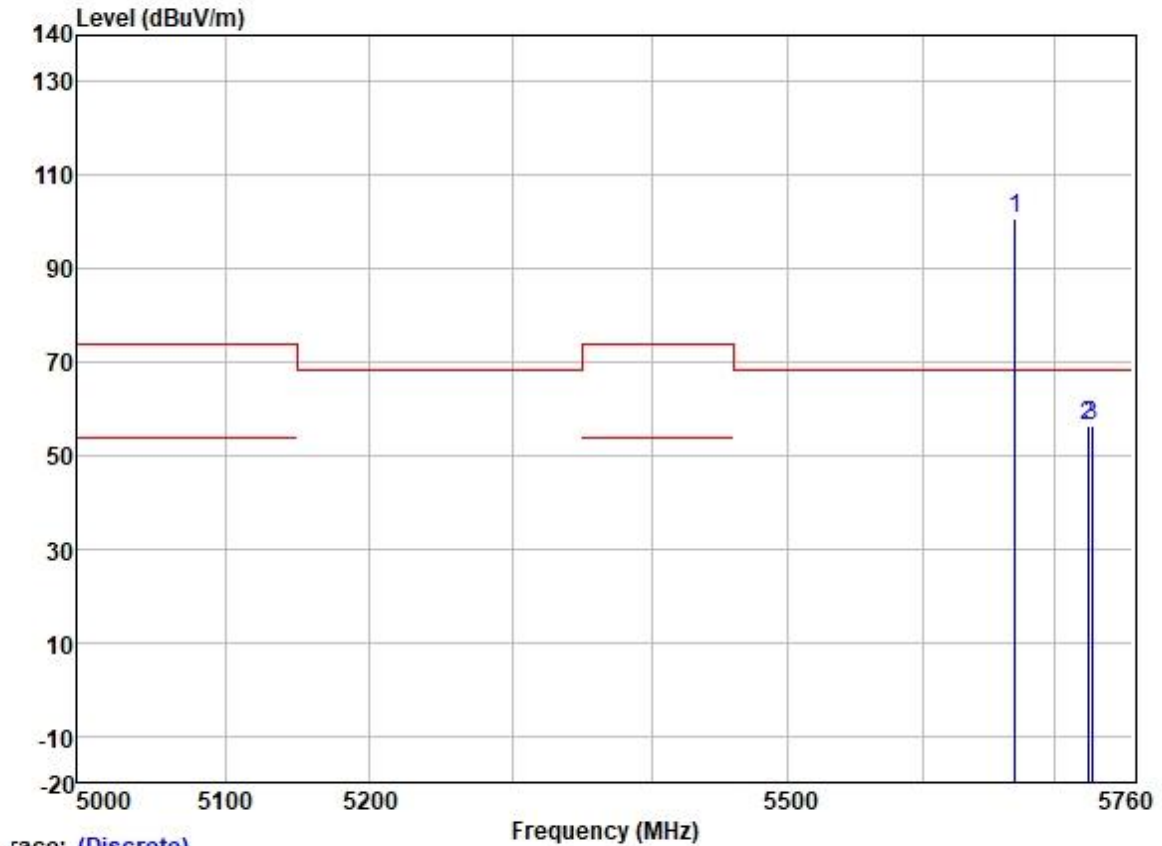
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

|      | Read     | Antenna | Cable | Preamp | Limit  | Over   |           |                        |
|------|----------|---------|-------|--------|--------|--------|-----------|------------------------|
| Freq | Level    | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark                 |
| MHz  | dBuV     | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                        |
| 1 *  | 5670.000 | 97.04   | 31.97 | 6.37   | 36.89  | 98.49  | 68.20     | 30.29 HORIZONTAL Peak  |
| 2    | 5725.000 | 53.76   | 32.07 | 6.25   | 36.89  | 55.19  | 68.20     | -13.01 HORIZONTAL Peak |
| 3    | 5726.255 | 54.27   | 32.07 | 6.25   | 36.89  | 55.70  | 68.20     | -12.50 HORIZONTAL Peak |

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

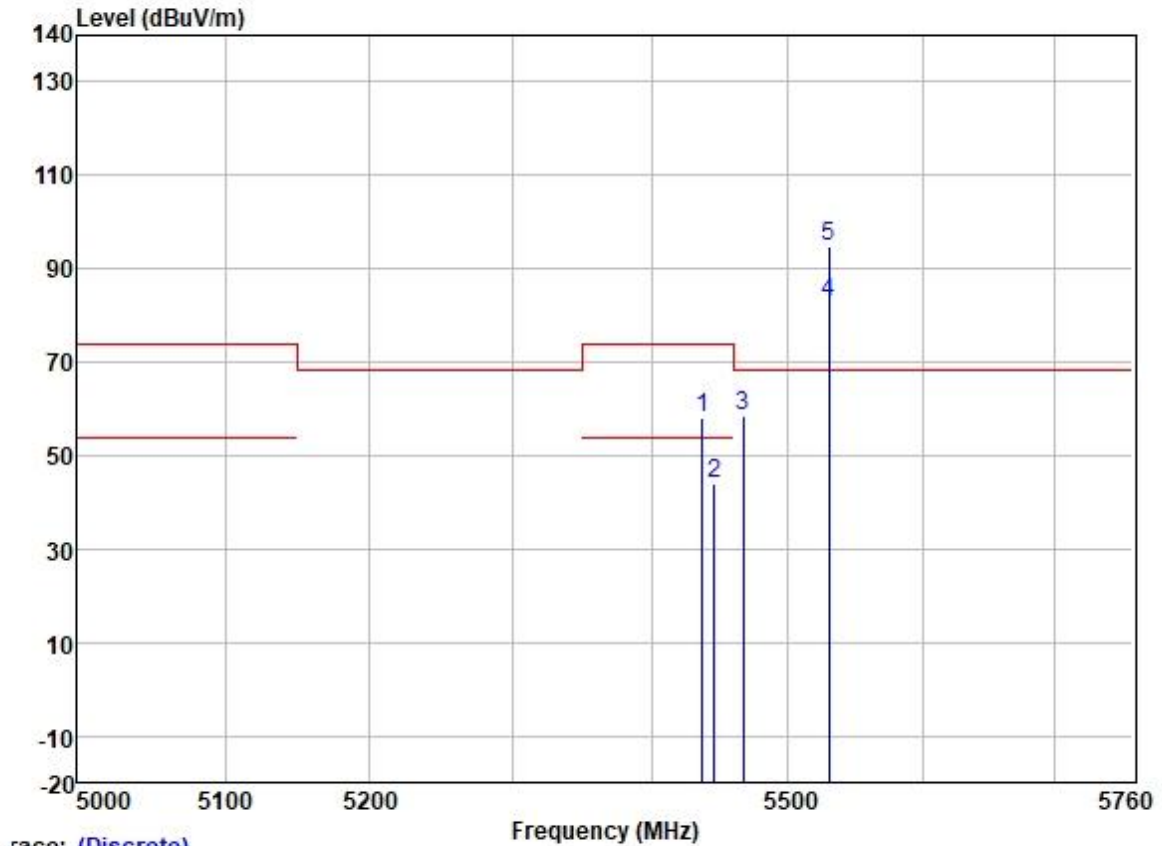


Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over  |           |               |
|-----|----------|-------|---------|-------|--------|--------|-------|-----------|---------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit | Pol/Phase | Remark        |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dB    |           |               |
| 1 * | 5670.000 | 99.31 | 31.97   | 6.37  | 36.89  | 100.76 | 68.20 | 32.56     | VERTICAL Peak |
| 2   | 5725.000 | 54.92 | 32.07   | 6.25  | 36.89  | 56.35  | 68.20 | -11.85    | VERTICAL Peak |
| 3   | 5728.502 | 55.04 | 32.07   | 6.25  | 36.89  | 56.47  | 68.20 | -11.73    | VERTICAL Peak |



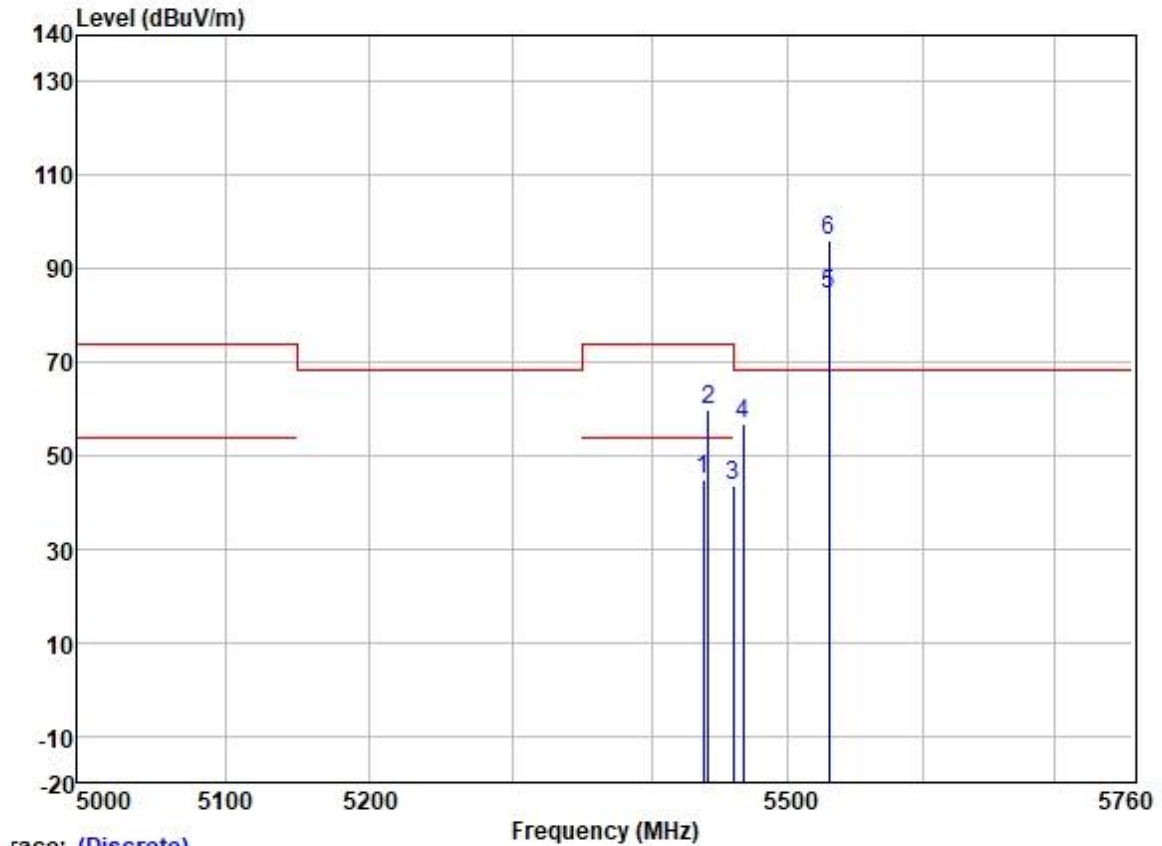
Test Mode: 06; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



Trace: (Discrete)

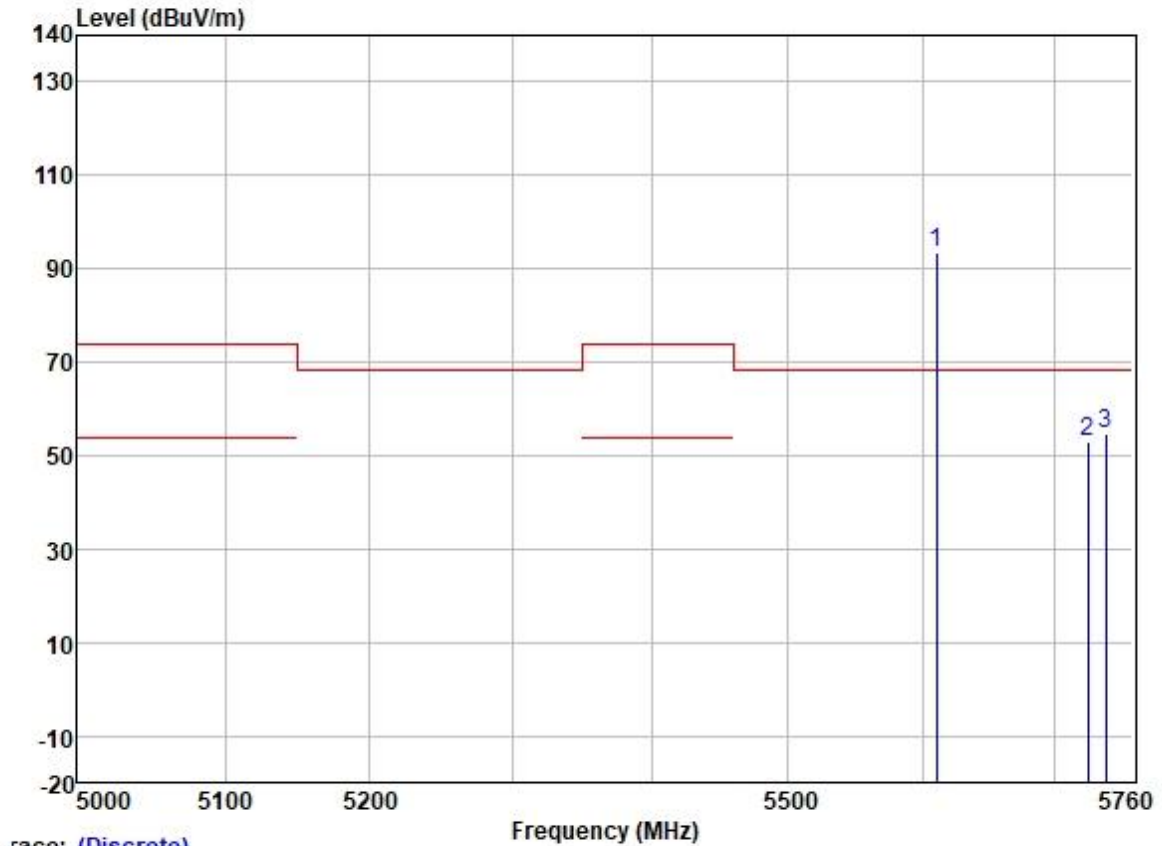
|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                    |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|--------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark             |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                    |
| 1   | 5437.134 | 57.03 | 31.79   | 6.20  | 36.88  | 58.14  | 74.00  | -15.86    | HORIZONTAL Peak    |
| 2   | 5445.520 | 42.95 | 31.79   | 6.20  | 36.88  | 44.06  | 54.00  | -9.94     | HORIZONTAL Average |
| 3   | 5466.809 | 57.09 | 31.80   | 6.31  | 36.88  | 58.32  | 68.20  | -9.88     | HORIZONTAL Peak    |
| 4   | 5530.000 | 81.64 | 31.83   | 6.37  | 36.89  | 82.95  | -----  | -----     | HORIZONTAL Average |
| 5 * | 5530.000 | 93.52 | 31.83   | 6.37  | 36.89  | 94.83  | 68.20  | 26.63     | HORIZONTAL Peak    |

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



|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over   |           |                  |
|-----|----------|-------|---------|-------|--------|--------|--------|-----------|------------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit  | Pol/Phase | Remark           |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB        |                  |
| 1   | 5437.668 | 43.73 | 31.79   | 6.20  | 36.88  | 44.84  | 54.00  | -9.16     | VERTICAL Average |
| 2   | 5441.236 | 58.80 | 31.79   | 6.20  | 36.88  | 59.91  | 74.00  | -14.09    | VERTICAL Peak    |
| 3   | 5459.465 | 42.38 | 31.79   | 6.26  | 36.88  | 43.55  | 54.00  | -10.45    | VERTICAL Average |
| 4   | 5466.809 | 55.47 | 31.80   | 6.31  | 36.88  | 56.70  | 68.20  | -11.50    | VERTICAL Peak    |
| 5   | 5530.000 | 83.31 | 31.83   | 6.37  | 36.89  | 84.62  | -----  | -----     | VERTICAL Average |
| 6 * | 5530.000 | 94.83 | 31.83   | 6.37  | 36.89  | 96.14  | 68.20  | 27.94     | VERTICAL Peak    |

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



Trace: (Discrete)

|     | Freq     | Read  | Antenna | Cable | Preamp | Limit  | Over  |           |                 |
|-----|----------|-------|---------|-------|--------|--------|-------|-----------|-----------------|
|     | MHz      | Level | Factor  | Loss  | Factor | Line   | Limit | Pol/Phase | Remark          |
|     | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dB    |           |                 |
| 1 * | 5610.000 | 92.01 | 31.91   | 6.32  | 36.89  | 93.35  | 68.20 | 25.15     | HORIZONTAL Peak |
| 2   | 5725.095 | 51.46 | 32.07   | 6.25  | 36.89  | 52.89  | 68.20 | -15.31    | HORIZONTAL Peak |
| 3   | 5739.072 | 53.27 | 32.10   | 6.20  | 36.89  | 54.68  | 68.20 | -13.52    | HORIZONTAL Peak |

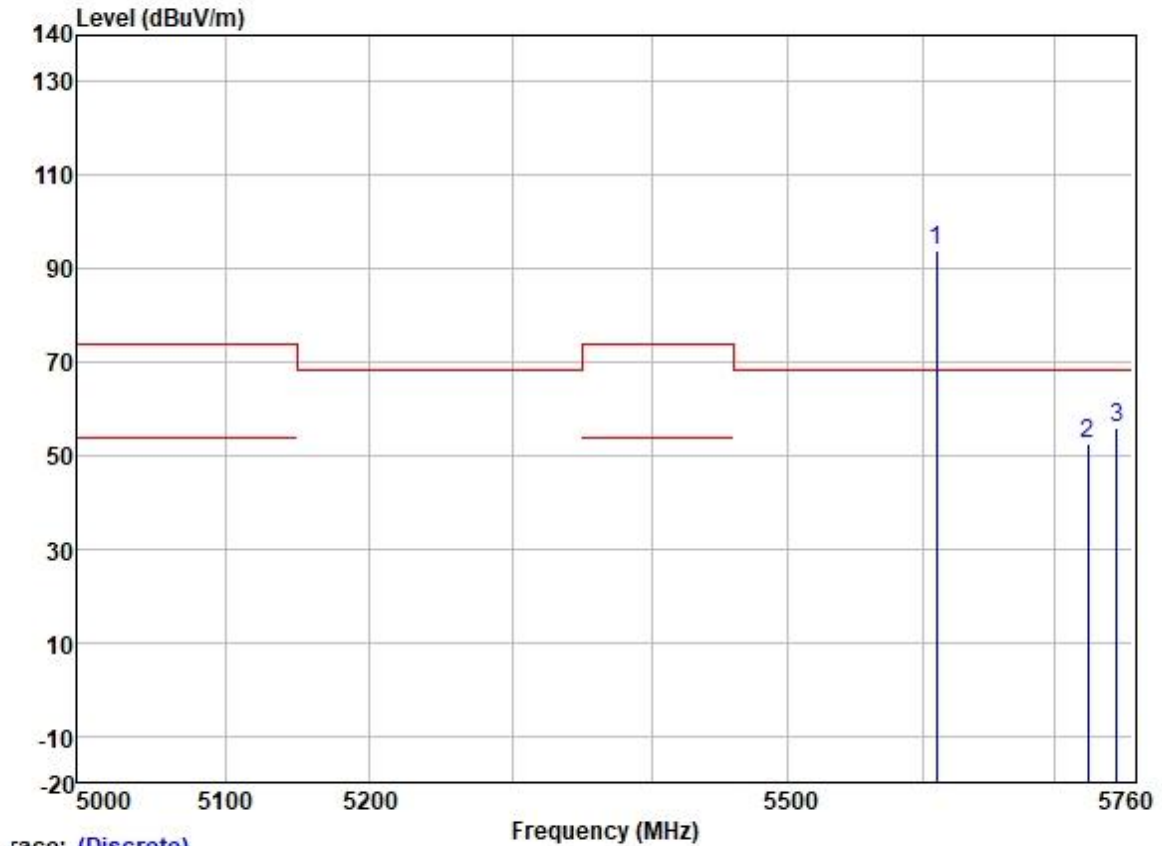


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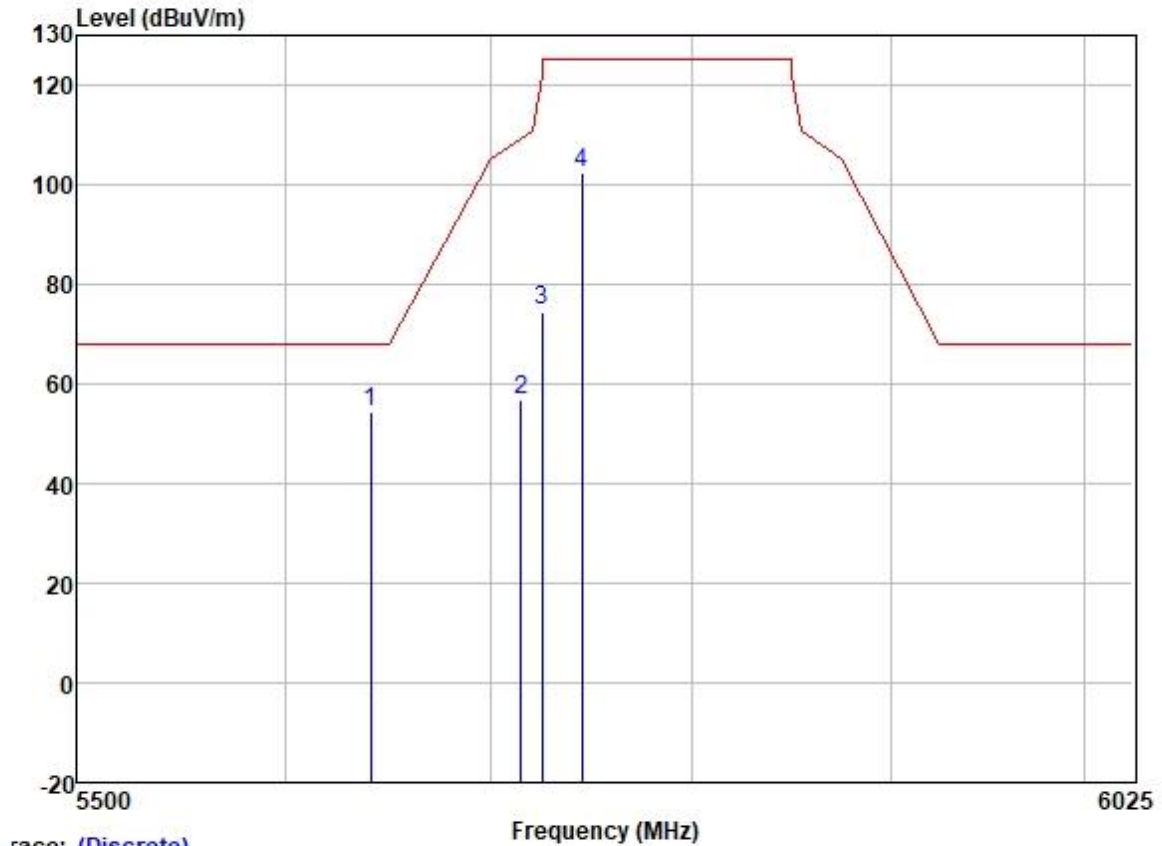
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



|   |            | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |           |        |
|---|------------|-------------|--------|-------|--------|--------|--------|--------|-----------|--------|
|   | Freq       | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark |
|   | MHz        | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |           |        |
| 1 | * 5610.000 | 92.49       | 31.91  | 6.32  | 36.89  | 93.83  | 68.20  | 25.63  | VERTICAL  | Peak   |
| 2 | 5725.500   | 51.12       | 32.07  | 6.25  | 36.89  | 52.55  | 68.20  | -15.65 | VERTICAL  | Peak   |
| 3 | 5747.394   | 54.55       | 32.10  | 6.20  | 36.89  | 55.96  | 68.20  | -12.24 | VERTICAL  | Peak   |

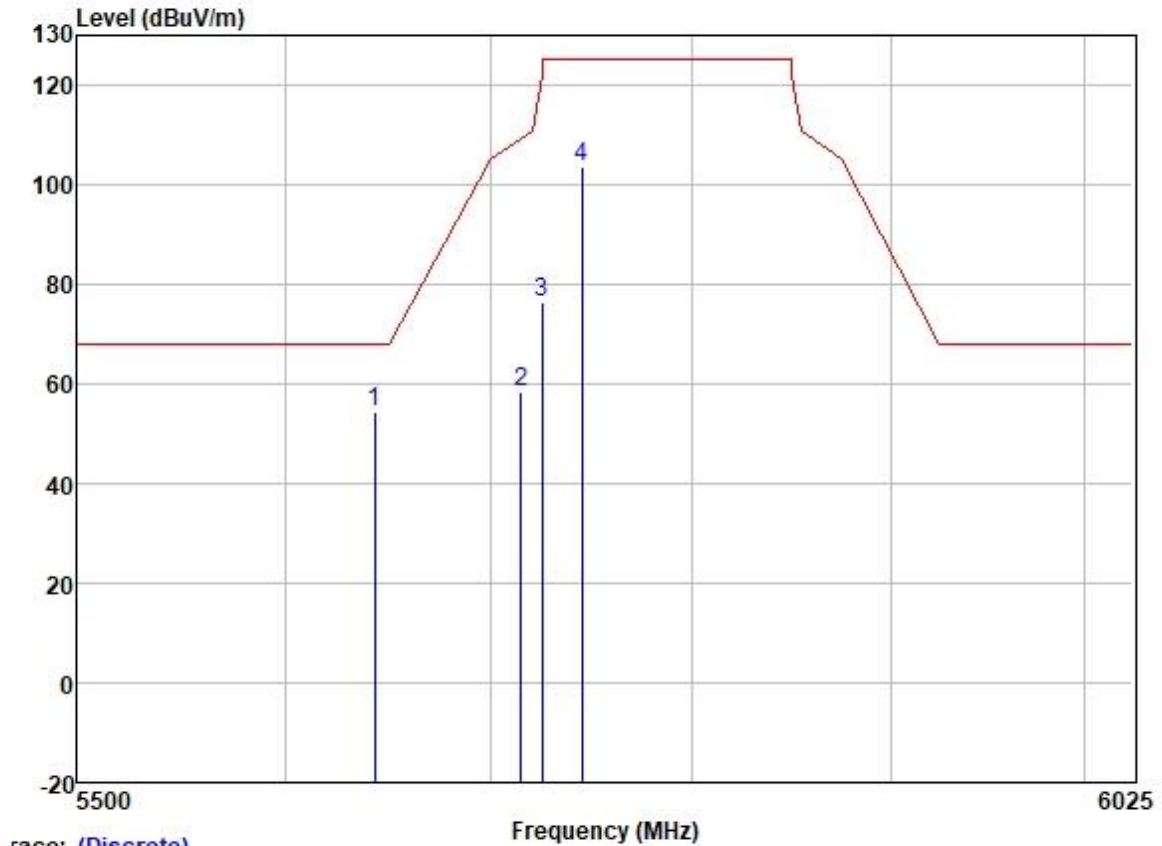


Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



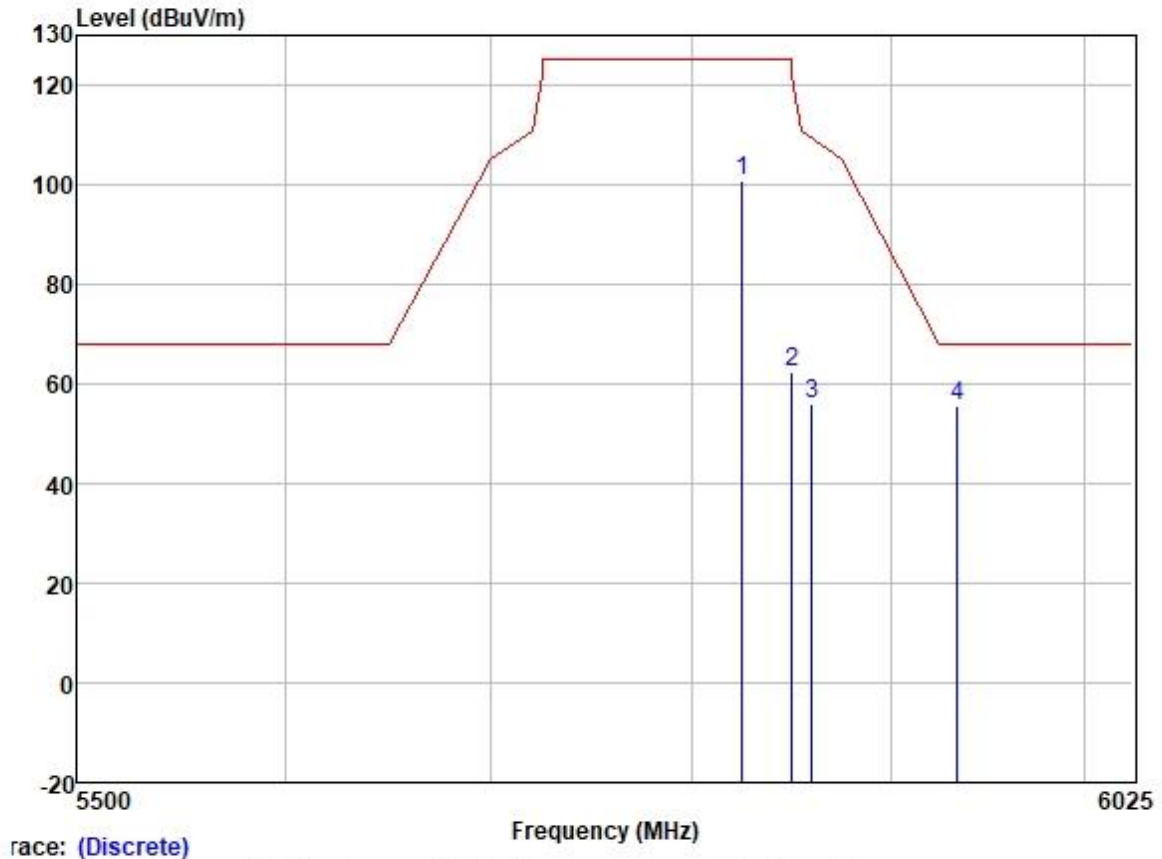
|   |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |            |        |
|---|----------|-------------|--------|-------|--------|--------|--------|--------|------------|--------|
|   | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark |
|   | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |            |        |
| 1 | 5641.245 | 53.13       | 31.95  | 6.35  | 36.89  | 54.54  | 68.20  | -13.66 | HORIZONTAL | Peak   |
| 2 | 5715.000 | 55.18       | 32.04  | 6.33  | 36.89  | 56.66  | 109.40 | -52.74 | HORIZONTAL | Peak   |
| 3 | 5725.000 | 73.17       | 32.07  | 6.25  | 36.89  | 74.60  | 122.20 | -47.60 | HORIZONTAL | Peak   |
| 4 | 5745.000 | 100.93      | 32.10  | 6.20  | 36.89  | 102.34 | 125.20 | -22.86 | HORIZONTAL | Peak   |

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



|   |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |           |        |
|---|----------|-------------|--------|-------|--------|--------|--------|--------|-----------|--------|
|   | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase | Remark |
|   | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |           |        |
| 1 | 5642.905 | 53.09       | 31.95  | 6.35  | 36.89  | 54.50  | 68.20  | -13.70 | VERTICAL  | Peak   |
| 2 | 5715.000 | 56.99       | 32.04  | 6.33  | 36.89  | 58.47  | 109.40 | -50.93 | VERTICAL  | Peak   |
| 3 | 5725.000 | 74.87       | 32.07  | 6.25  | 36.89  | 76.30  | 122.20 | -45.90 | VERTICAL  | Peak   |
| 4 | 5745.000 | 102.00      | 32.10  | 6.20  | 36.89  | 103.41 | 125.20 | -21.79 | VERTICAL  | Peak   |

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



|   |          | ReadAntenna |        | Cable | Preamp |        | Limit  | Over   |            |        |
|---|----------|-------------|--------|-------|--------|--------|--------|--------|------------|--------|
|   | Freq     | Level       | Factor | Loss  | Factor | Level  | Line   | Limit  | Pol/Phase  | Remark |
|   | MHz      | dBuV        | dB/m   | dB    | dB     | dBuV/m | dBuV/m | dB     |            |        |
| 1 | 5825.000 | 99.51       | 32.23  | 6.04  | 36.90  | 100.88 | 125.20 | -24.32 | HORIZONTAL | Peak   |
| 2 | 5850.000 | 61.23       | 32.25  | 6.00  | 36.90  | 62.58  | 122.20 | -59.62 | HORIZONTAL | Peak   |
| 3 | 5860.000 | 54.54       | 32.27  | 5.96  | 36.90  | 55.87  | 109.40 | -53.53 | HORIZONTAL | Peak   |
| 4 | 5934.486 | 54.26       | 32.34  | 6.00  | 36.90  | 55.70  | 68.20  | -12.50 | HORIZONTAL | Peak   |