

# FCC Test Report

Product Name : Vehicle Gateway  
Trade Name : Samsara  
Model No. : VG54-NA, VG54-NAE  
FCC ID : 2AIHD0054

Applicant : SAMSARA NETWORKS INC

Address : 1900 Alameda Street, San Francisco, CA 94103

Date of Receipt : Jul. 02, 2020  
Issued Date : Sep. 07, 2020  
Report No. : 2070056R-E3032110123  
Report Version : V1.0



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# Test Report Certification

Issued Date : Sep. 07, 2020  
Report No. : 2070056R-E3032110123



Product Name : Vehicle Gateway  
 Applicant : SAMSARA NETWORKS INC  
 Address : 1900 Alameda Street, San Francisco, CA 94103  
 Manufacturer : SAMSARA NETWORKS INC  
 Address : Wistron Neweb Corporation  
 Model No. : 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308,  
 Taiwan, R.O.C  
 Trade Name : Samsara  
 FCC ID : 2AIHD0054  
 EUT Voltage : DC 12/24/48V  
 Testing Voltage : DC 12V  
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2019  
 ANSI C63.10: 2013  
 Laboratory Name : Hsin Chu Laboratory  
 Address : No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu  
 County 310, Taiwan, R.O.C.  
 TEL: +886-3-582-8001 / FAX: +886-3-582-8958  
 Test Result : Complied

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 ( Lyla Yang / Engineering Adm. Specialist )

Tested By : Elwin Lin  
 ( Elwin Lin / Engineer )

Approved By : Louis Hsu  
 ( Louis Hsu / Deputy Manager )

### Revision History

| Version | Description             | Issued Date   |
|---------|-------------------------|---------------|
| V1.0    | Initial issue of report | Sep. 07, 2020 |
|         |                         |               |
|         |                         |               |
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## 1. General Information

### 1.1. EUT Description

|                                    |                           |  |
|------------------------------------|---------------------------|--|
| Product Name                       | Vehicle Gateway           |  |
| Trade Name                         | Samsara                   |  |
| Model No.                          | VG54-NA, VG54-NAE         |  |
| Frequency Range/<br>Channel Number | IEEE 802.11a/n<br>(20MHz) | 5180~5240MHz / 4 Channels<br>5745~5825MHz / 5 Channels                                     |
|                                    | IEEE 802.11n<br>(40MHz)   | 5190~5230MHz / 2 Channels<br>5755~5795MHz / 2 Channels                                     |
| Type of Modulation                 | IEEE 802.11a/n            | Orthogonal Frequency Division Multiplexing   |
| Data Speed                         | IEEE 802.11a              | 6, 9, 18, 24, 36, 48, 54Mbps   |
|                                    | IEEE 802.11n              | Support a subset of the combination of GI,<br>MCS 0~MCS 7 and bandwidth defined in 802.11n |
| HW Version                         | 1.0                       |  |
| SW Version                         | 10                        |  |

| Antenna Information |       |           |              |   |
|---------------------|-------|-----------|--------------|---|
| No.                 | Brand | Model No. | Antenna Type | Antenna Gain  |
| 0                   | WNC   | JVS1      | PIFA Antenna | BT5.0: 2.7dBi<br>WiFi 2.4G: 2.7dBi<br>WiFi 5G Band 1: 3.28dBi<br>WiFi 5G Band 4: 3.9dBi |

**ANT-TX / RX & Bandwidth**

| ANT-TX / RX             | TX    |       |       |
|-------------------------|-------|-------|-------|
| Mode/ Channel Bandwidth | 20MHz | 40MHz | 80MHz |
| IEEE802.11a             | ✓     | /     | /     |
| IEEE802.11n             | ✓     | ✓     | /     |

**IEEE 802.11n**

| MCS Index | Modulation | R   | N <sub>BPSCS</sub> | N <sub>CBPS</sub> |       | N <sub>DBPS</sub> |       | Data Rate(Mb/s) |       |          |       |
|-----------|------------|-----|--------------------|-------------------|-------|-------------------|-------|-----------------|-------|----------|-------|
|           |            |     |                    | 20MHz             | 40MHz | 20MHz             | 40MHz | 800ns GI        |       | 400ns GI |       |
|           |            |     |                    |                   |       |                   |       | 20MHz           | 40MHz | 20MHz    | 40MHz |
| 0         | BPSK       | 1/2 | 1                  | 52                | 108   | 26                | 54    | 6.5             | 13.5  | 7.2      | 15.0  |
| 1         | QPSK       | 1/2 | 2                  | 104               | 216   | 52                | 108   | 13.0            | 27.0  | 14.4     | 30.0  |
| 2         | QPSK       | 3/4 | 2                  | 104               | 216   | 78                | 162   | 19.5            | 40.5  | 21.7     | 45.0  |
| 3         | 16-QAM     | 1/2 | 4                  | 208               | 432   | 104               | 216   | 26.0            | 54.0  | 28.9     | 60.0  |
| 4         | 16-QAM     | 3/4 | 4                  | 208               | 432   | 156               | 324   | 39.0            | 81.0  | 43.3     | 90.0  |
| 5         | 64-QAM     | 2/3 | 6                  | 312               | 648   | 208               | 432   | 52.0            | 108.0 | 57.8     | 120.0 |
| 6         | 64-QAM     | 3/4 | 6                  | 312               | 648   | 234               | 486   | 58.5            | 121.5 | 65.0     | 135.0 |
| 7         | 64-QAM     | 5/6 | 6                  | 312               | 648   | 260               | 540   | 65.0            | 135.0 | 72.2     | 150.0 |

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 1 – MCS parameters for TX Antenna number = 1

| Symbol             | Explanation                             |
|--------------------|---|
| R                  | Code rate                               |
| N <sub>BPSCS</sub> | Number of coded bits per single carrier |
| N <sub>CBPS</sub>  | Number of coded bits per symbol         |
| N <sub>DBPS</sub>  | Number of data bits per symbol          |
| GI                 | guard interval                          |



## IEEE 802.11a &amp; IEEE 802.11n (20MHz)

| Working Frequency of Each Channel |           |         |           |         |           |         |           |
|-----------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                           | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 36                                | 5180 MHz  | 40      | 5200 MHz  | 44      | 5220 MHz  | 48      | 5240 MHz  |
| 149                               | 5745 MHz  | 153     | 5765 MHz  | 157     | 5785 MHz  | 161     | 5805 MHz  |
| 165                               | 5825 MHz  |         |           |         |           |         |           |

## IEEE 802.11n (40MHz)

| Working Frequency of Each Channel |           |         |           |         |           |         |           |
|-----------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                           | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 38                                | 5190 MHz  | 46      | 5230 MHz  | 151     | 5755 MHz  | 159     | 5795 MHz  |

## Note:

1. This device is a Vehicle Gateway including 2.4GHz b/g/n, 5GHz a/n and BT 5.0 transmitting functions.

2. The difference of each model is shown as below:

| Model Number | Difference                |
|--------------|---------------------------|
| VG54-NA      | With internal GPS Antenna |
| VG54-NAE     | With external GPS Antenna |

- Regards to the frequency band operation; the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.
- The spurious emission was measured in three position (X, Y & Z axis), and the worst case (Z axis) was recorded in the report.
- This device contains a certified WWAN module (FCC ID: NKRM18QF).
- The EUT description is from the customer declaration.

**1.2. Test Mode**

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

| Test Mode  | Mode 1: Transmit Mode |                      |          |
|--|-----------------------|----------------------|----------|
| Test Items   | Modulation            | Channel              | Result   |
| Conducted Emission   | 11n(40MHz)            | --                   | --       |
| 26dB & 99% & DTS Bandwidth<br>Maximum conducted output power | a                     | 36/44/48/149/157/165 | Complies |
|  | 11n(20MHz)            | 36/44/48/149/157/165 | Complies |
|  | 11n(40MHz)            | 38/46/151/159        | Complies |
| Maximum conducted output power                               | a                     | 36/44/48/149/157/165 | Complies |
|  | 11n(20MHz)            | 36/44/48/149/157/165 | Complies |
|  | 11n(40MHz)            | 38/46/151/159        | Complies |
| Maximum power spectral density                               | a                     | 36/44/48/149/157/165 | Complies |
|  | 11n(20MHz)            | 36/44/48/149/157/165 | Complies |
|  | 11n(40MHz)            | 38/46/151/159        | Complies |
| Radiated Emission  | a                     | 36/44/48/149/157/165 | Complies |
|  | 11n(20MHz)            | 36/44/48/149/157/165 | Complies |
|  | 11n(40MHz)            | 38/46/151/159        | Complies |
| Band Edge  | a                     | 36/44/48/149/157/165 | Complies |
|  | 11n(20MHz)            | 36/44/48/149/157/165 | Complies |
|  | 11n(40MHz)            | 38/46/151/159        | Complies |

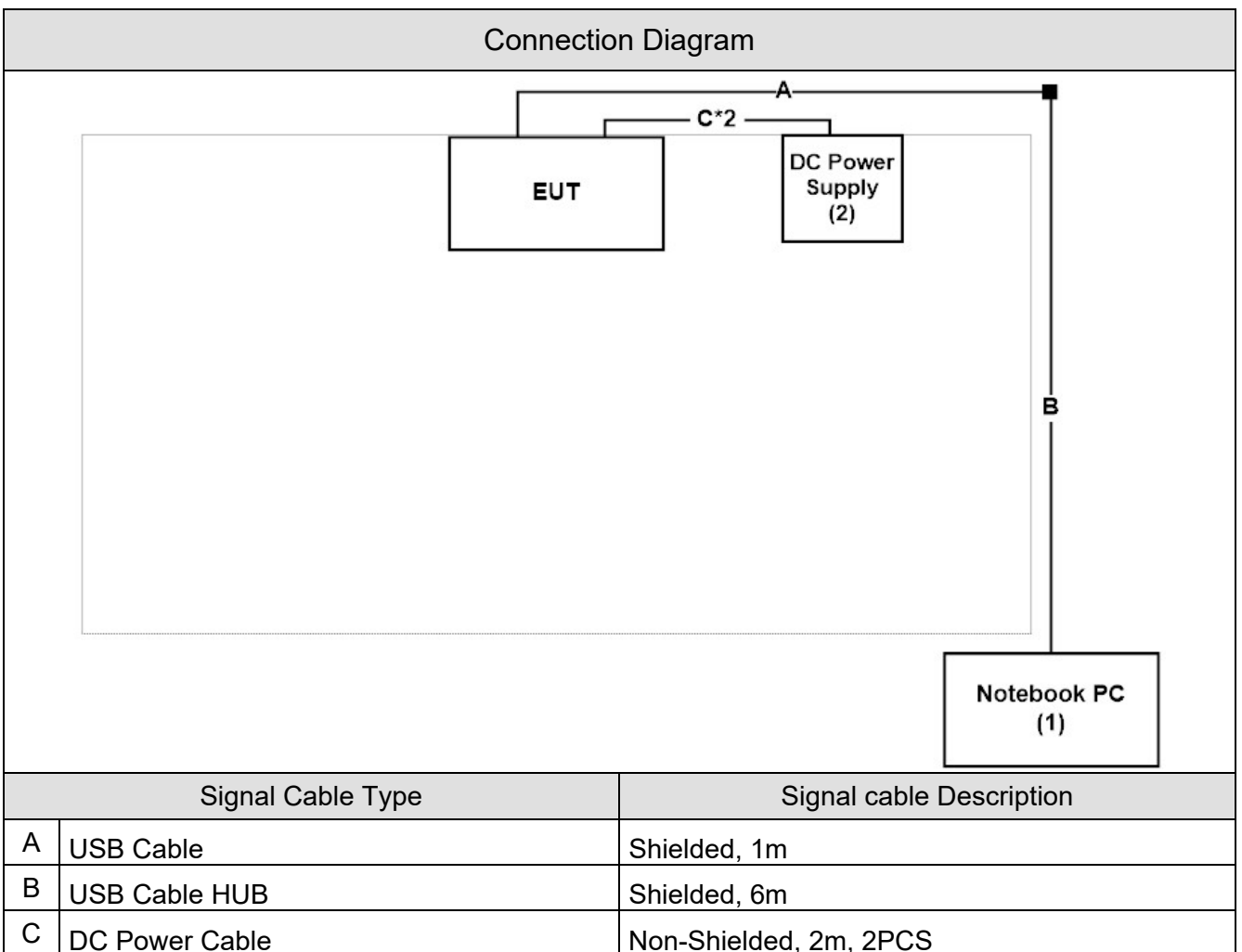
Note: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

| Product             | Manufacturer | Model No. | Serial No. | FCC ID | Power Cord         |
|---------------------|--------------|-----------|------------|--------|--------------------|
| 1   Notebook PC     | Lenove       | 80SJ      | MP16Z7TB   | DoC    | Non-Shielded, 1.8m |
| 2   DC Power Supply | Topward      | 6303D     | 809497     | DoC    | --                 |

### 1.4. Configuration of tested System



### 1.5. EUT Exercise Software

|   |  |
|---|--|
| 1 | Set the EUT as shown in Section 1.4.                 |
| 2 | Execute QPST software on the laptop.                 |
| 3 | Configure test mode, test channel and data rate.     |
| 4 | Let the EUT start sending or receiving continuously. |
| 5 | Verify that the device is working properly.          |

### 1.6. Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

## 1.7. Test Facility

Ambient conditions in the laboratory:

| Items            | Test Item   | Required | Test Site |
|------------------|---|----------|-----------|
| Temperature (°C) | FCC PART 15E 15.407<br>Conducted Emission             | 15 - 35  | --        |
| Humidity (%RH)   |   | 25 - 75  |           |
| Temperature (°C) | FCC PART 15E 15.407<br>26dB & 99% & DTS Bandwidth     | 15 - 35  | 3         |
| Humidity (%RH)   |   | 25 - 75  |           |
| Temperature (°C) | FCC PART 15E 15.407<br>Maximum conducted output power | 15 - 35  | 3         |
| Humidity (%RH)   |   | 25 - 75  |           |
| Temperature (°C) | FCC PART 15E 15.407<br>Maximum power spectral density | 15 - 35  | 3         |
| Humidity (%RH)   |   | 25 - 75  |           |
| Temperature (°C) | FCC PART 15E 15.407<br>Radiated Emission              | 15 - 35  | 2         |
| Humidity (%RH)   |   | 25 - 75  |           |
| Temperature (°C) | FCC PART 15E 15.407<br>Band Edge                      | 15 - 35  | 2         |
| Humidity (%RH)   |   | 25 - 75  |           |

Note: Test site information refers to Laboratory Information.

## Laboratory Information

|               |  |
|---------------|--|
| <b>USA</b>    | <b>: FCC Registration Number: TW3024</b>                     |
| <b>Canada</b> | <b>: IC Registration Number: 22397-1 / 22397-2 / 22397-3</b> |

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <http://www.dekra.com.tw>

If you have any comments, please don't hesitate to contact us. Our test sites as below:

| Test Laboratory | DEKRA Testing and Certification Co., Ltd.  |
|-----------------|--|
| Address         | <ol style="list-style-type: none"> <li>No. 75-2, 3rd Lin, WangYe Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.</li> <li>No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.</li> <li>No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.</li> </ol> |
| Phone number    | <ol style="list-style-type: none"> <li>+886-3-592-8858</li> <li>+886-3-582-8001</li> <li>+886-3-582-8001</li> </ol>  |
| Fax number      | <ol style="list-style-type: none"> <li>+886-3-592-8859</li> <li>+886-3-582-8958</li> <li>+886-3-582-8958</li> </ol>  |
| Email address   | <a href="mailto:info.tw@dekra.com">info.tw@dekra.com</a>   |
| Website         | <a href="http://www.dekra.com.tw">http://www.dekra.com.tw</a>  |

## 1.8. List of Test Equipment

### Occupied Bandwidth / SR12-H

| Instrument                 | Manufacturer | Model No. | Serial No. | Cal. Date  | Next Cal. Date |
|----------------------------|--------------|-----------|------------|------------|----------------|
| Spectrum Analyzer          | Keysight     | N9030B    | MY57140404 | 2020/06/03 | 2021/06/02     |
| Spectrum Analyzer          | Keysight     | N9010B    | MY57110159 | 2020/04/15 | 2021/04/14     |
| Spectrum Analyzer          | Agilent      | N9010A    | US47140172 | 2020/06/18 | 2021/06/17     |
| Signal & Spectrum Analyzer | R&S          | FSV40     | 101049     | 2020/03/30 | 2021/03/29     |

### Maximum conducted output power / SR12-H

| Instrument                             | Manufacturer | Model No. | Serial No. | Cal. Date  | Next Cal. Date |
|--|--------------|-----------|------------|------------|----------------|
| High Speed Peak Power Meter Dual Input | Anritsu      | ML2496A   | 1602004    | 2019/12/02 | 2020/12/01     |
| Pulse Power Sensor                     | Anritsu      | MA2411B   | 1531043    | 2019/12/02 | 2020/12/01     |
| Pulse Power Sensor                     | Anritsu      | MA2411B   | 1531044    | 2019/12/02 | 2020/12/01     |
| Power Meter                            | Keysight     | 8990B     | MY51000248 | 2020/05/20 | 2021/05/19     |
| Power Sensor                           | Keysight     | N1923A    | MY57240005 | 2020/05/20 | 2021/05/19     |

### Maximum power spectral density / SR12-H

| Instrument                 | Manufacturer | Model No. | Serial No. | Cal. Date  | Next Cal. Date |
|----------------------------|--------------|-----------|------------|------------|----------------|
| Spectrum Analyzer          | Keysight     | N9030B    | MY57140404 | 2020/06/03 | 2021/06/02     |
| Spectrum Analyzer          | Keysight     | N9010B    | MY57110159 | 2020/04/15 | 2021/04/14     |
| Spectrum Analyzer          | Agilent      | N9010A    | US47140172 | 2020/06/18 | 2021/06/17     |
| Signal & Spectrum Analyzer | R&S          | FSV40     | 101049     | 2020/03/30 | 2021/03/29     |

## Radiated Emission / CB2-H

| Instrument                 | Manufacturer  | Model No.   | Serial No. | Cal. Date  | Next Cal. Date |
|----------------------------|---------------|-------------|------------|------------|----------------|
| Signal Analyzer            | R&S           | FSVA40      | 101455     | 2019/10/21 | 2020/10/20     |
| Signal & Spectrum Analyzer | R&S           | FSV40       | 101049     | 2020/03/30 | 2021/03/29     |
| Signal Analyzer            | R&S           | FSV40       | 101435     | 2020/06/24 | 2021/06/23     |
| EXA Signal Analyzer        | Keysight      | N9010A      | MY51440132 | 2020/02/21 | 2021/02/20     |
| Bilog Antenna              | Teseq         | CBL6112D    | 23191      | 2020/06/12 | 2021/06/11     |
| Horn Antenna               | Schwarzbeck   | BBHA 9120D  | 639        | 2020/06/04 | 2021/06/03     |
| Horn Antenna               | Schwarzbeck   | BBHA 9120D  | 01656      | 2019/10/25 | 2020/10/24     |
| Horn Antenna               | Schwarzbeck   | BBHA 9170   | 202        | 2019/12/27 | 2020/12/26     |
| Horn Antenna               | Schwarzbeck   | BBHA 9170   | 203        | 2020/03/09 | 2021/03/08     |
| Pre-Amplifier              | DEKRA         | AP-025C     | 12183122   | 2019/09/24 | 2020/09/23     |
| Pre-Amplifier              | EMCI          | EMC11830I   | 980366     | 2019/12/03 | 2020/12/02     |
| Pre-Amplifier              | DEKRA         | AP-400C     | 201801231  | 2019/12/03 | 2020/12/02     |
| Band Reject Filter         | Micro-Tronics | BRM50716    | G089       | 2020/03/18 | 2021/03/17     |
| Band Reject Filter         | Micro-Tronics | BRM50716    | G068       | 2020/03/09 | 2021/03/08     |
| Coaxial Cable(16m)         | Huber+Suhner  | SF104       | CB2-H      | 2019/07/25 | 2020/07/24     |
| EMI system                 | DEKRA         | Version 1.0 | CB2-H      | NA         | NA             |

## Band Edge / CB2-H

| Instrument                 | Manufacturer  | Model No.   | Serial No. | Cal. Date  | Next Cal. Date |
|----------------------------|---------------|-------------|------------|------------|----------------|
| Signal Analyzer            | R&S           | FSVA40      | 101455     | 2019/10/21 | 2020/10/20     |
| Signal & Spectrum Analyzer | R&S           | FSV40       | 101049     | 2020/03/30 | 2021/03/29     |
| Signal Analyzer            | R&S           | FSV40       | 101435     | 2020/06/24 | 2021/06/23     |
| EXA Signal Analyzer        | Keysight      | N9010A      | MY51440132 | 2020/02/21 | 2021/02/20     |
| Bilog Antenna              | Teseq         | CBL6112D    | 23191      | 2020/06/12 | 2021/06/11     |
| Horn Antenna               | Schwarzbeck   | BBHA 9120D  | 639        | 2020/06/04 | 2021/06/03     |
| Horn Antenna               | Schwarzbeck   | BBHA 9120D  | 01656      | 2019/10/25 | 2020/10/24     |
| Horn Antenna               | Schwarzbeck   | BBHA 9170   | 202        | 2019/12/27 | 2020/12/26     |
| Horn Antenna               | Schwarzbeck   | BBHA 9170   | 203        | 2020/03/09 | 2021/03/08     |
| Pre-Amplifier              | DEKRA         | AP-025C     | 12183122   | 2019/09/24 | 2020/09/23     |
| Pre-Amplifier              | EMCI          | EMC11830I   | 980366     | 2019/12/03 | 2020/12/02     |
| Pre-Amplifier              | DEKRA         | AP-400C     | 201801231  | 2019/12/03 | 2020/12/02     |
| Band Reject Filter         | Micro-Tronics | BRM50716    | G089       | 2020/03/18 | 2021/03/17     |
| Band Reject Filter         | Micro-Tronics | BRM50716    | G068       | 2020/03/09 | 2021/03/08     |
| Coaxial Cable(16m)         | Huber+Suhner  | SF104       | CB2-H      | 2019/07/25 | 2020/07/24     |
| EMI system                 | DEKRA         | Version 1.0 | CB2-H      | NA         | NA             |

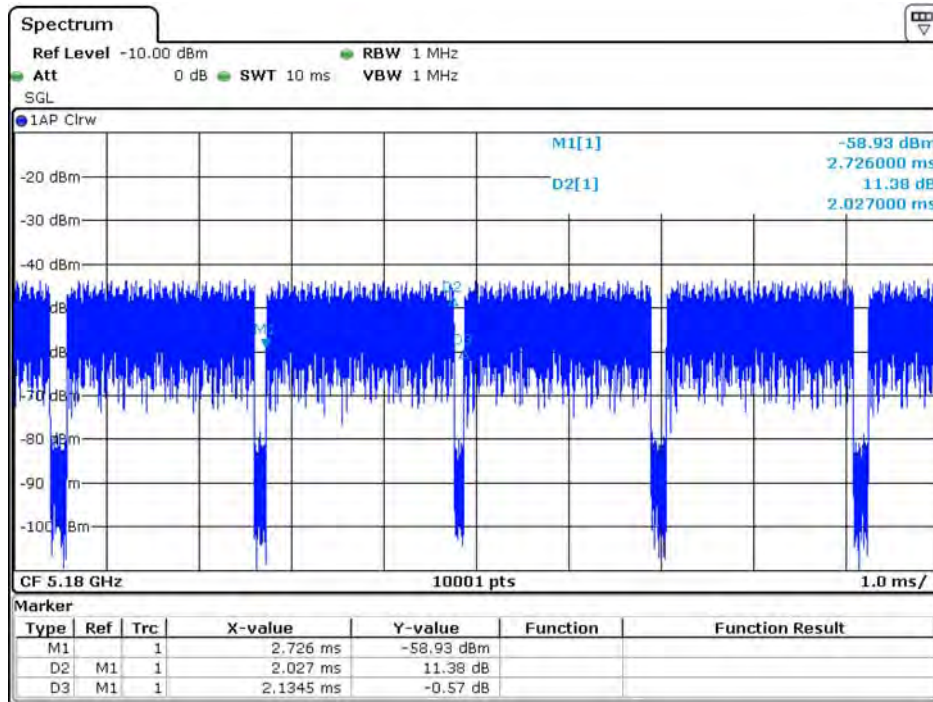
Note: All equipment upon which need to calibrated are with calibration period of 1 year.



### 1.9. Duty Cycle

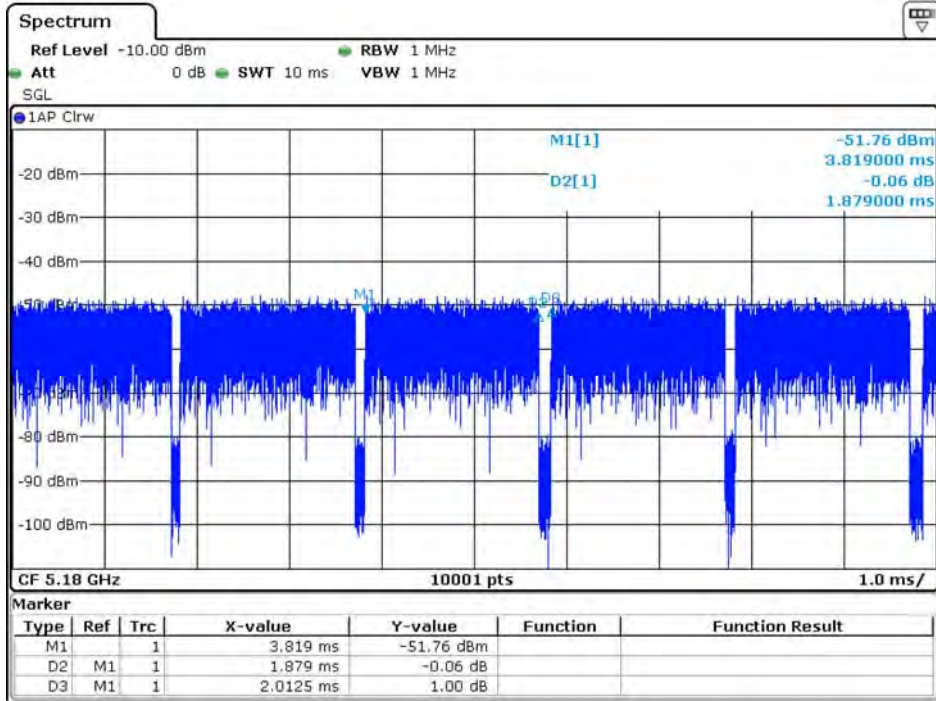
| Mode | On Time(ms) | On+Off Time(ms) | Duty Cycle(%) | Duty Factor(dB) linear voltage | Duty Factor(dB) Power | 1/T Minimum VBW (kHz) |
|------|-------------|-----------------|---------------|--------------------------------|-----------------------|-----------------------|
| 11a  | 2.027       | 2.135           | 94.96%        | 0.448848                       | 0.22                  | 0.493                 |
| HT20 | 1.879       | 2.013           | 93.37%        | 0.596182                       | 0.30                  | 0.532                 |
| HT40 | 0.920       | 1.033           | 89.01%        | 1.010972                       | 0.51                  | 1.088                 |

802.11a



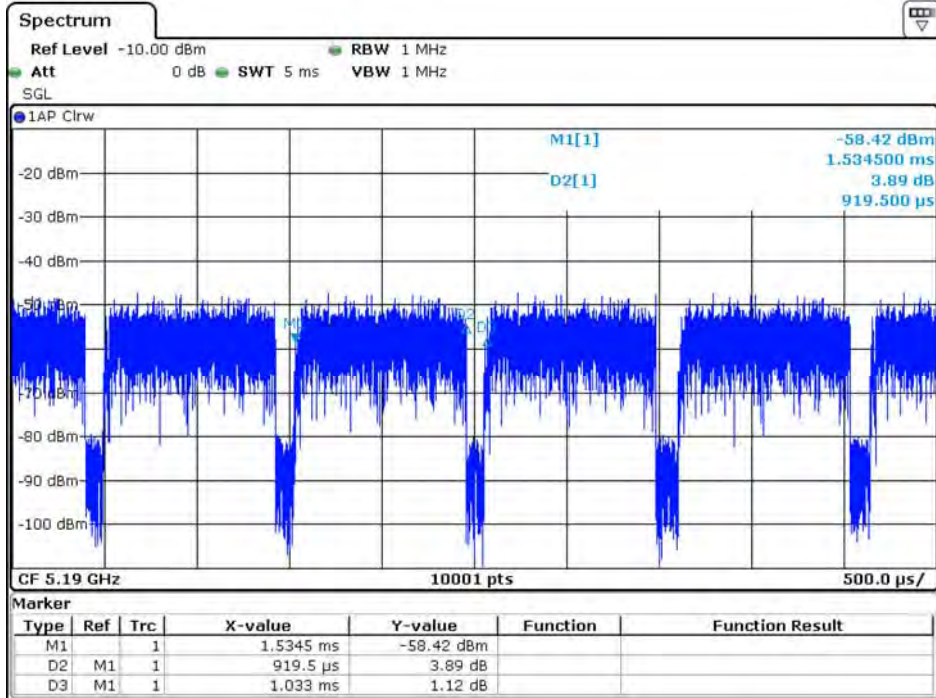
Date: 8.JUL.2020 19:00:13

802.11n(20M)



Date: 8.JUL.2020 19:01:48

802.11n(40M)



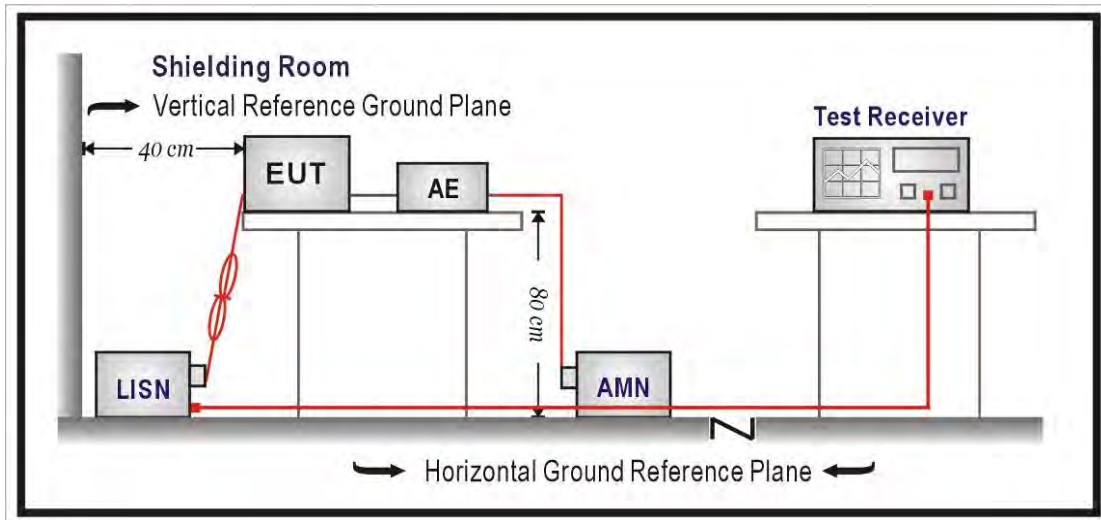
Date: 8.JUL.2020 19:03:41

**1.10. Uncertainty**

| <b>Test item</b>               | <b>Uncertainty</b>   |
|--------------------------------|--|
| Conducted Emission             | $\pm 2.26$ dB  |
| 26dB & 99% & DTS Bandwidth     | $\pm 50$ Hz  |
| Maximum conducted output power | $\pm 1.27$ dB  |
| Maximum power spectral density | $\pm 1.27$ dB  |
| Radiated Emission              | 30MHz~1GHz as $\pm 3.43$ dB<br>1GHz~26.5GHz as $\pm 3.65$ dB |
| Band Edge                      | $\pm 3.65$ dB  |

## 2. Conducted Emission

### 2.1. Test Setup



### 2.2. Limits

| FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV) |         |         |
|--|---------|---------|
| Frequency<br>MHz                                     | QP      | AV      |
| 0.15 - 0.50  | 66 - 56 | 56 - 46 |
| 0.50 - 5.0   | 56      | 46      |
| 5.0 - 30   | 60      | 50      |

Remark: In the above table, the tighter limit applies at the band edges.

### **2.3. Test Procedure**

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

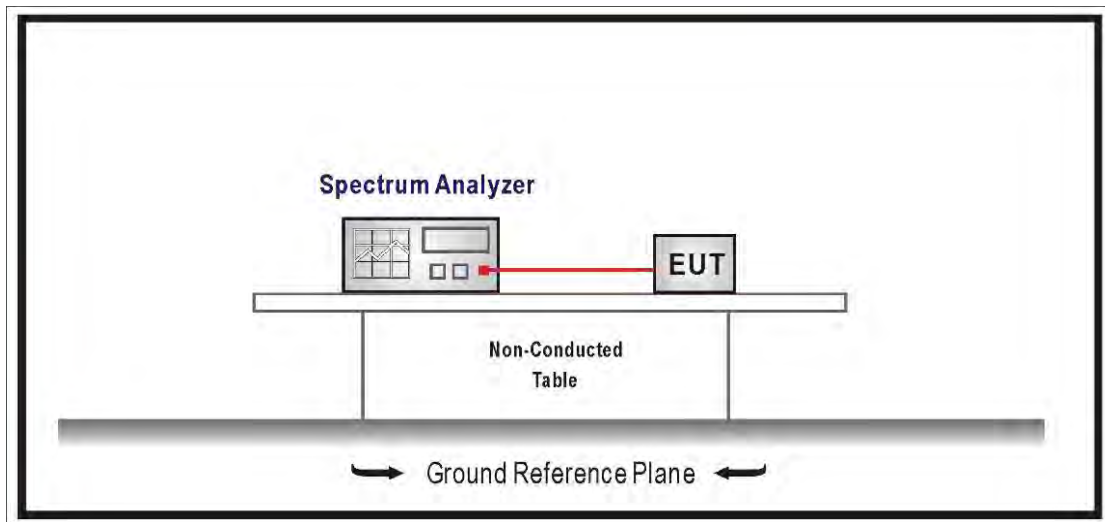
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

### **2.4. Test Result**

Owing to the DC operation of EUT, this test item is not performed.

### 3. 26dB & 99% & DTS Bandwidth

#### 3.1. Test Setup



#### 3.2. Limits

99% & 26dB Bandwidth : No Required

6dB Bandwidth  $\geq$  500KHz

#### 3.3. Test Procedure

99% & 26dB Bandwidth :

The EUT was tested according to U-NII test procedure of KDB 789033 D02 v02r01  
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.

DTS Bandwidth :

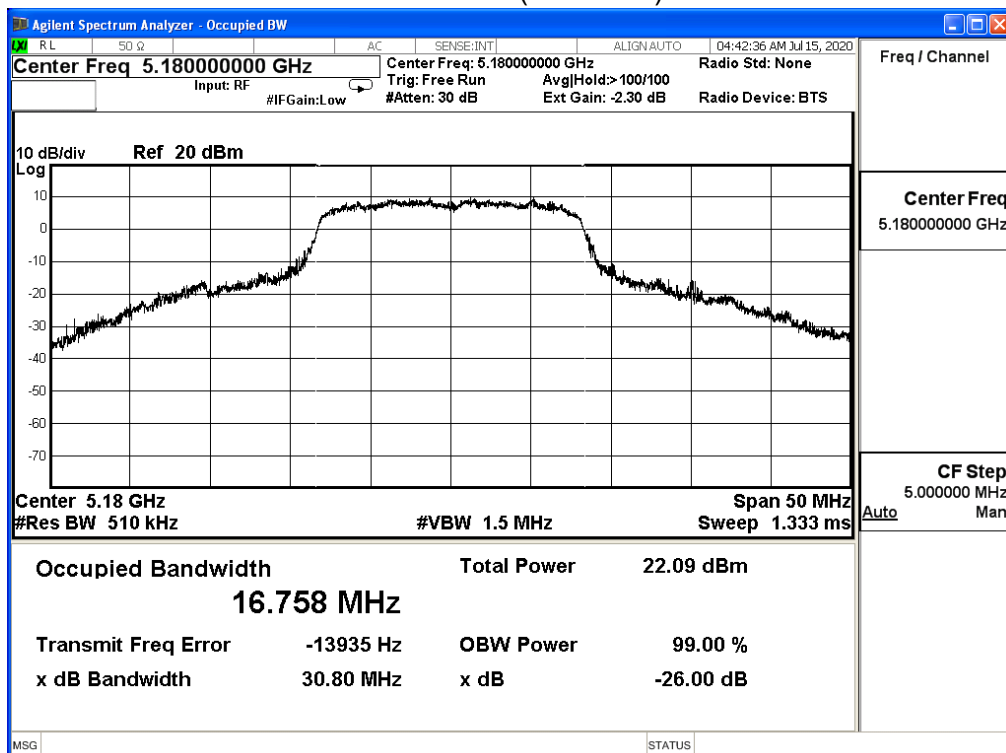
Set RBW = 100KHz, VBW  $\geq$  3xRBW, Sweep time=Auto, Set Peak detector.

### 3.4. Test Result

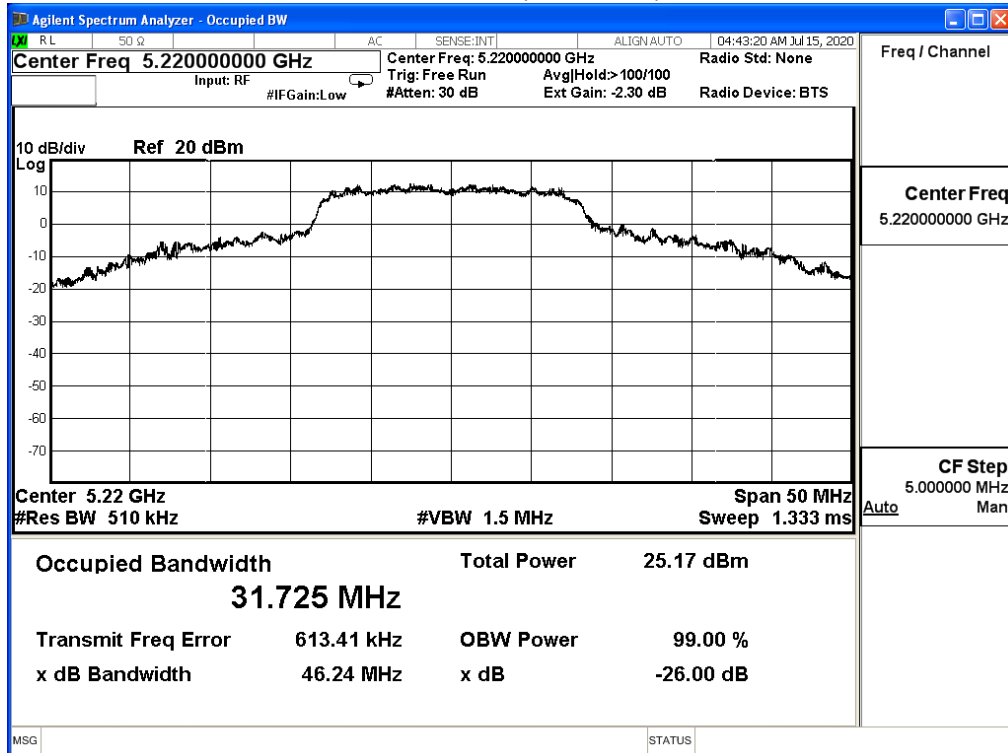
|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | 26dB & 99% Bandwidth  |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

| IEEE 802.11a (ANT 0) |                 |                     |                      |             |        |
|----------------------|-----------------|---------------------|----------------------|-------------|--------|
| Channel No.          | Frequency (MHz) | Measure Value       |                      | Limit (MHz) | Result |
|                      |                 | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) |             |        |
| 36                   | 5180            | 16.758              | 30.800               | --          | Pass   |
| 44                   | 5220            | 31.725              | 46.240               | --          | Pass   |
| 48                   | 5240            | 17.661              | 33.930               | --          | Pass   |
| 149                  | 5745            | 35.295              | N/A                  | --          | Pass   |
| 157                  | 5785            | 35.056              |                      | --          | Pass   |
| 165                  | 5825            | 35.175              |                      | --          | Pass   |

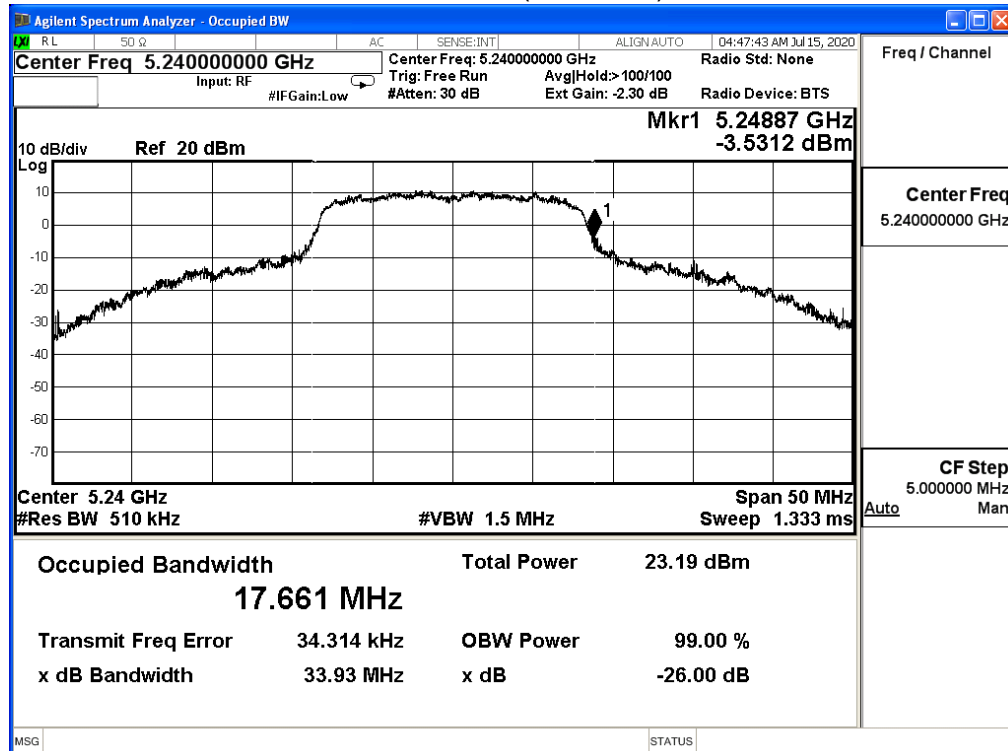
Channel 36 (5180MHz)



### Channel 44 (5220MHz)

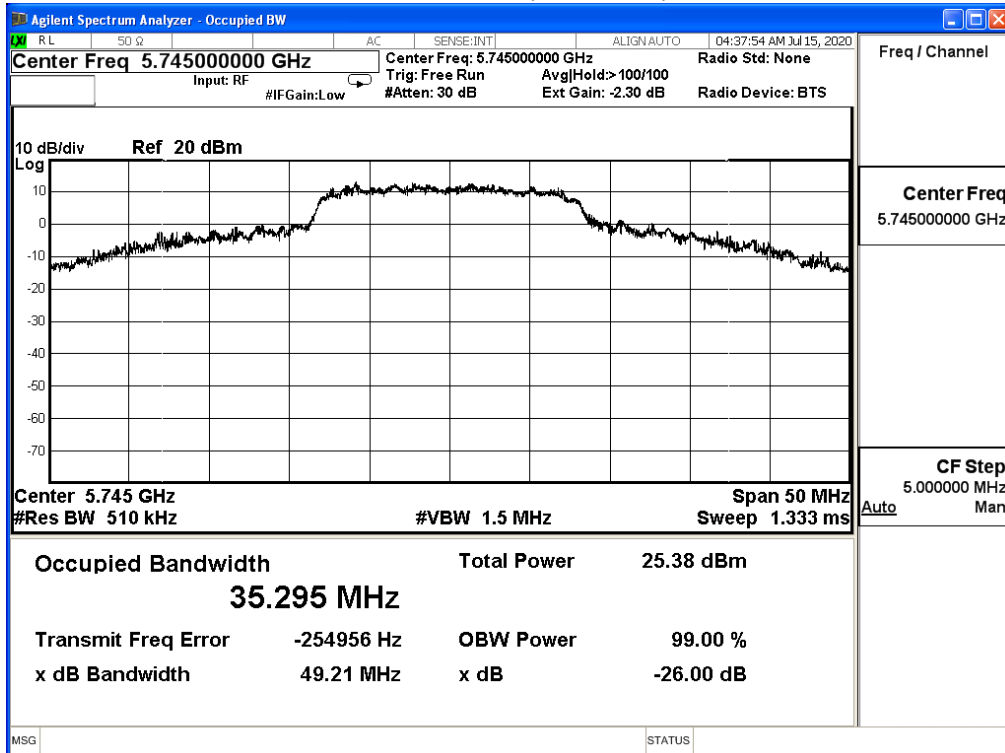


### Channel 48 (5240MHz)

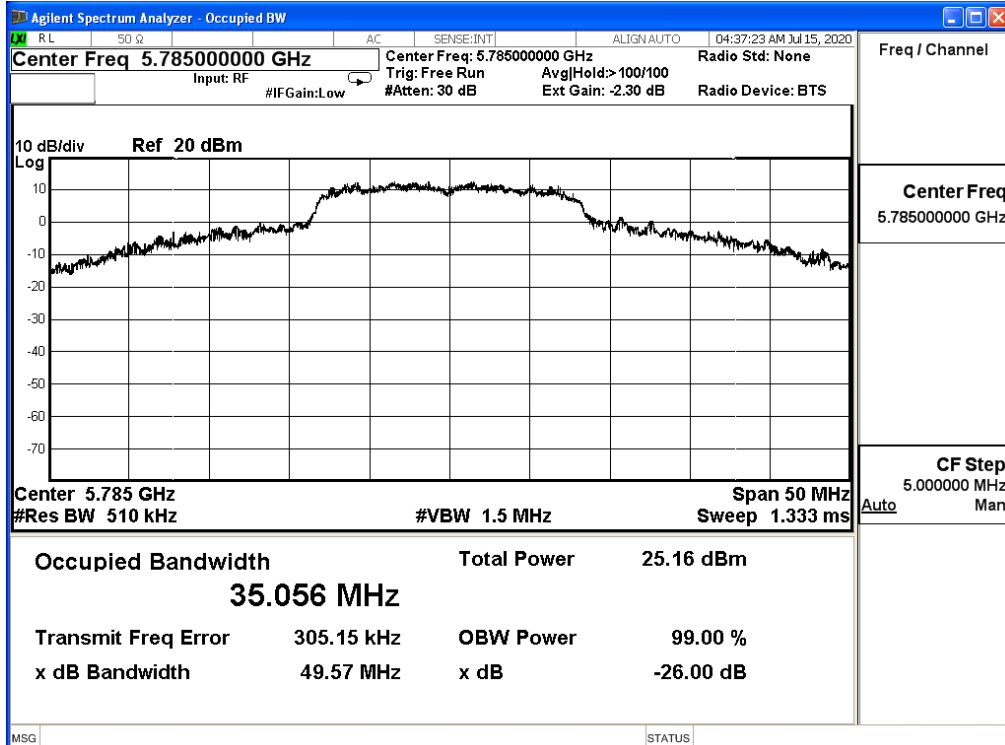




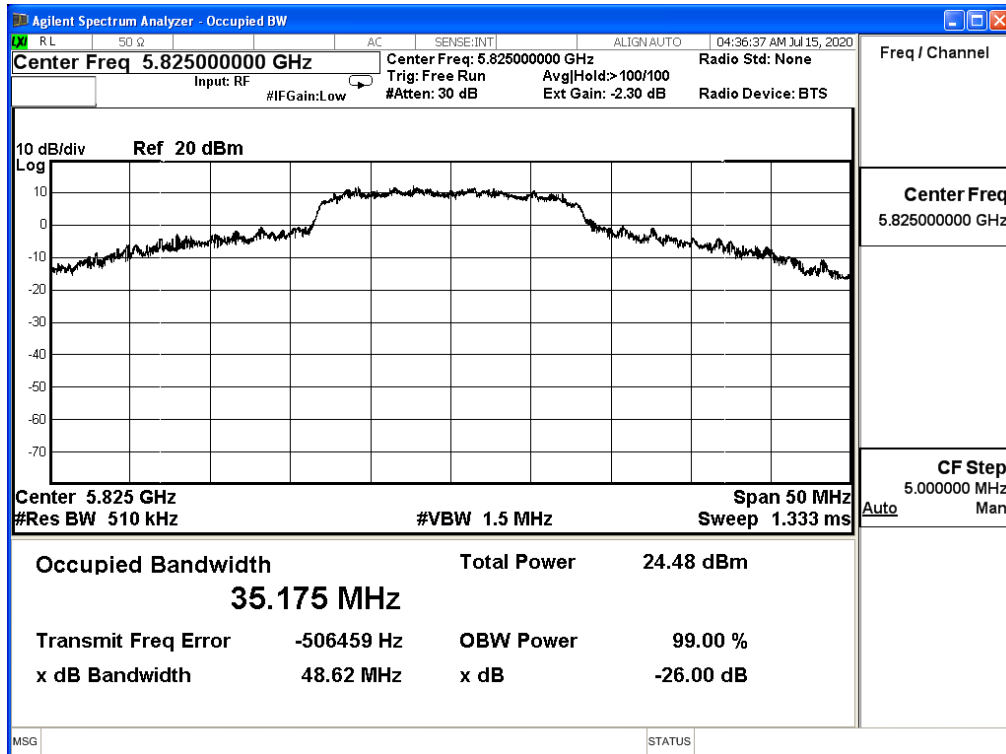
### Channel 149 (5745MHz)



### Channel 157 (5785MHz)



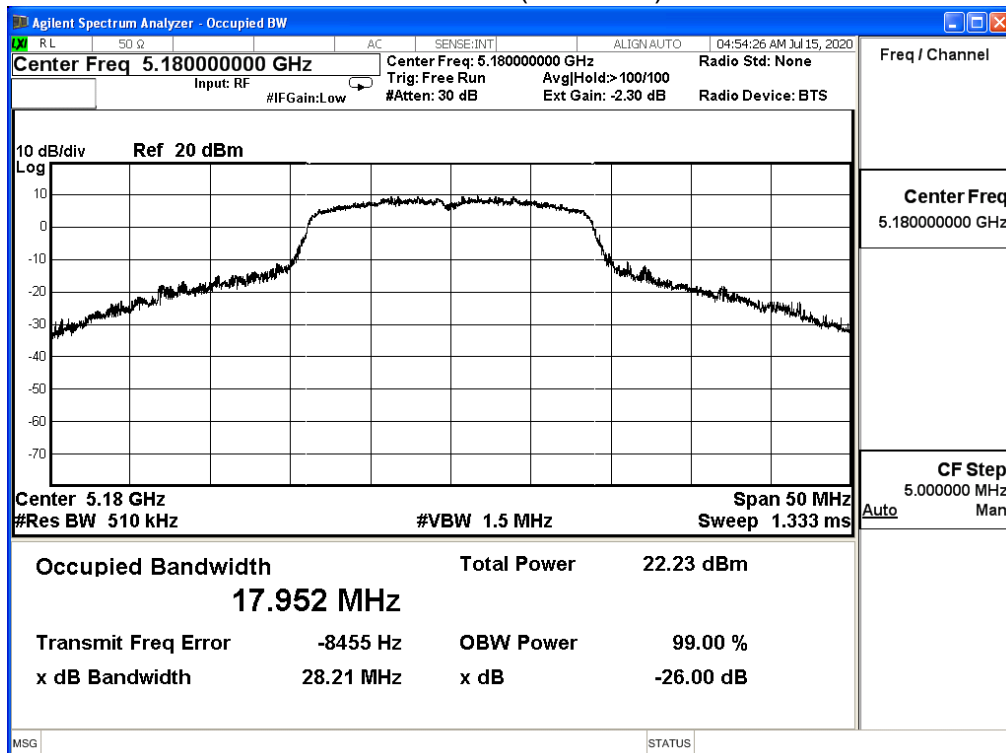
Channel 165 (5825MHz)



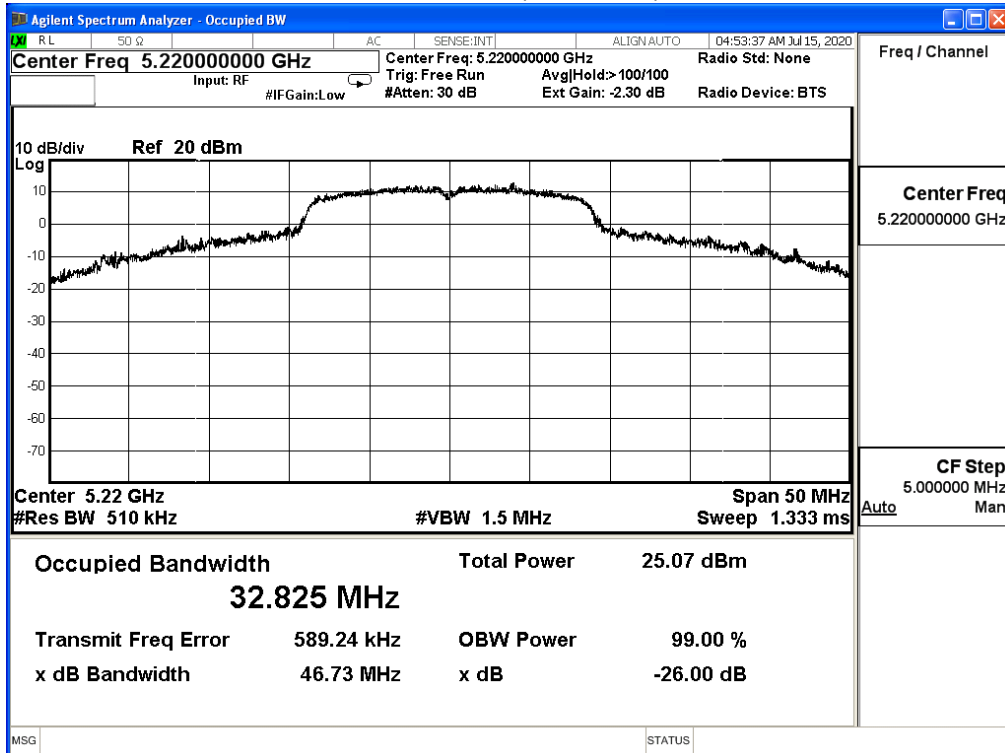
|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | 26dB & 99% Bandwidth  |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

| IEEE 802.11n_20M(ANT 0) |                 |                     |                      |             |        |
|-------------------------|-----------------|---------------------|----------------------|-------------|--------|
| Channel No.             | Frequency (MHz) | Measure Value       |                      | Limit (MHz) | Result |
|                         |                 | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) |             |        |
| 36                      | 5180            | 17.952              | 28.210               | --          | Pass   |
| 44                      | 5220            | 32.825              | 46.730               | --          | Pass   |
| 48                      | 5240            | 18.503              | 35.030               | --          | Pass   |
| 149                     | 5745            | 38.664              | N/A                  | --          | Pass   |
| 157                     | 5785            | 34.759              |                      | --          | Pass   |
| 165                     | 5825            | 32.621              |                      | --          | Pass   |

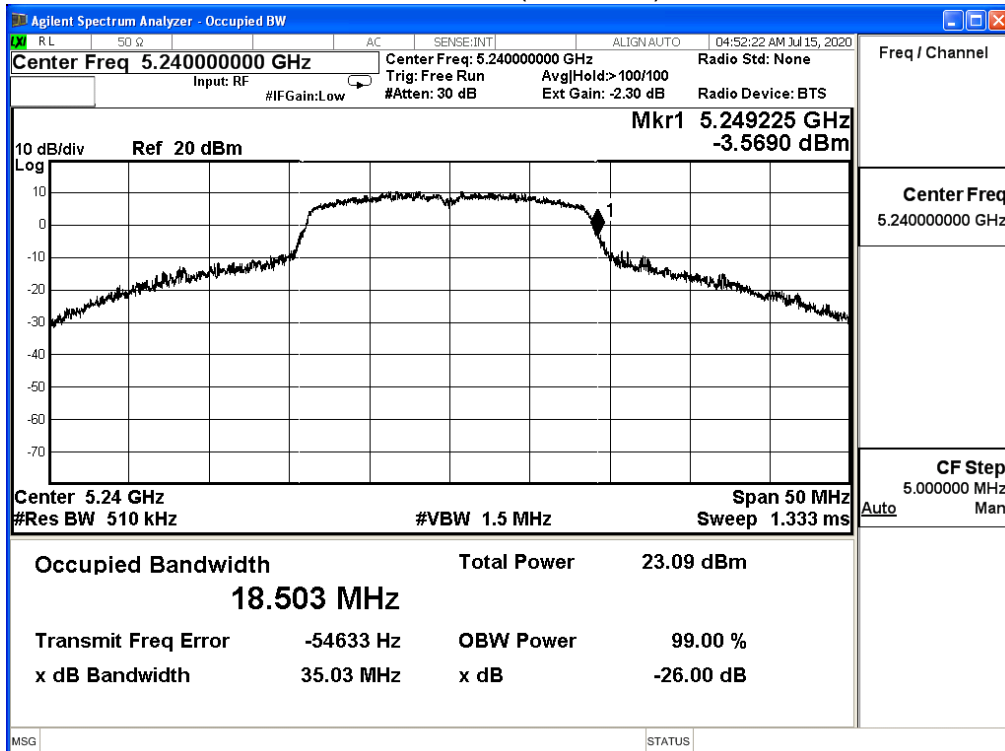
Channel 36 (5180MHz)



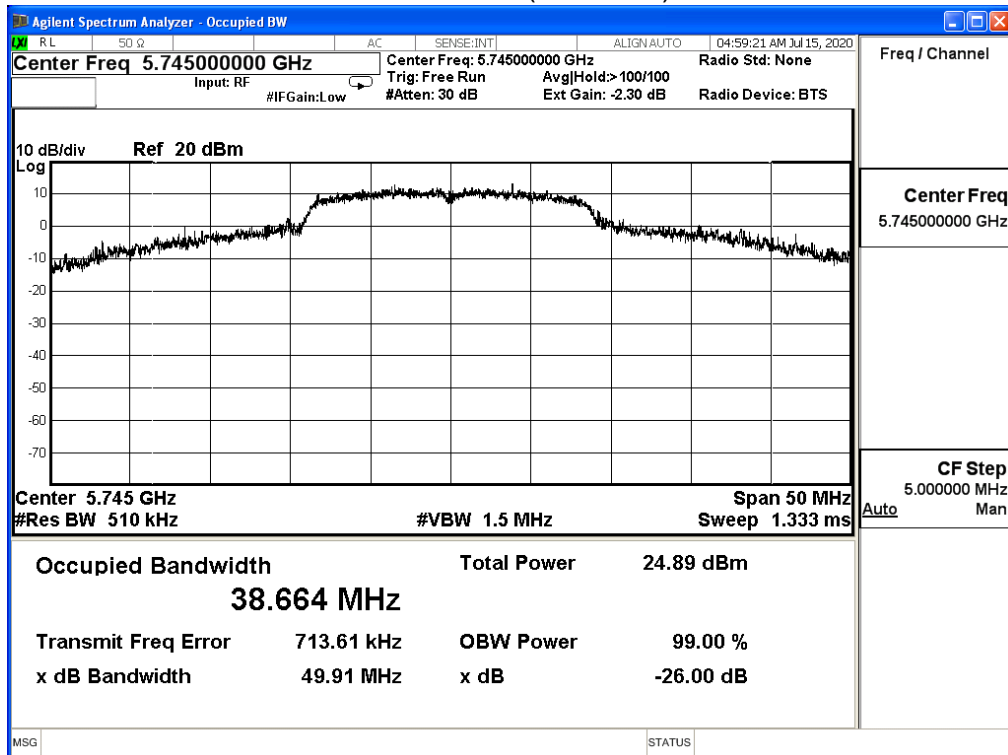
### Channel 44 (5220MHz)



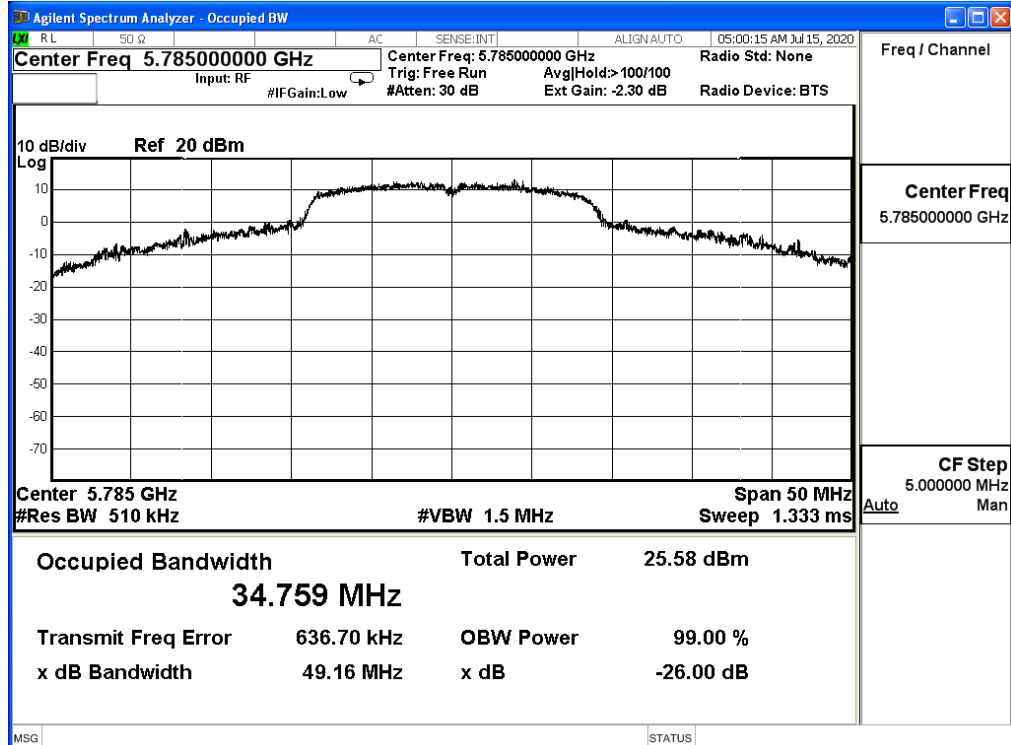
### Channel 48 (5240MHz)



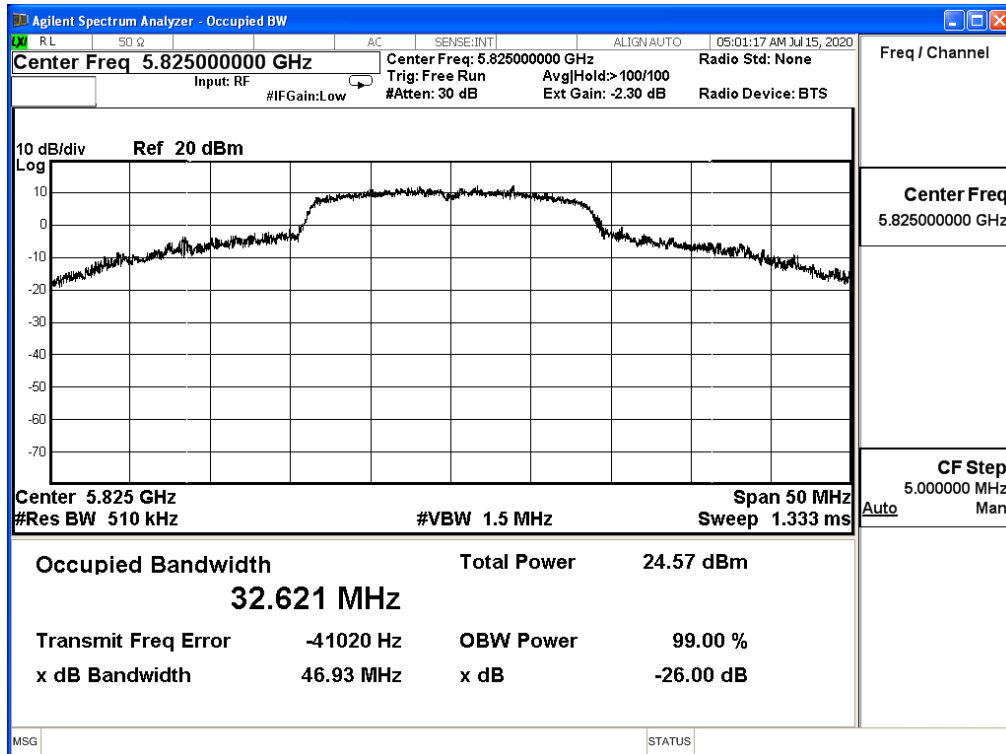
### Channel 149 (5745MHz)



### Channel 157 (5785MHz)



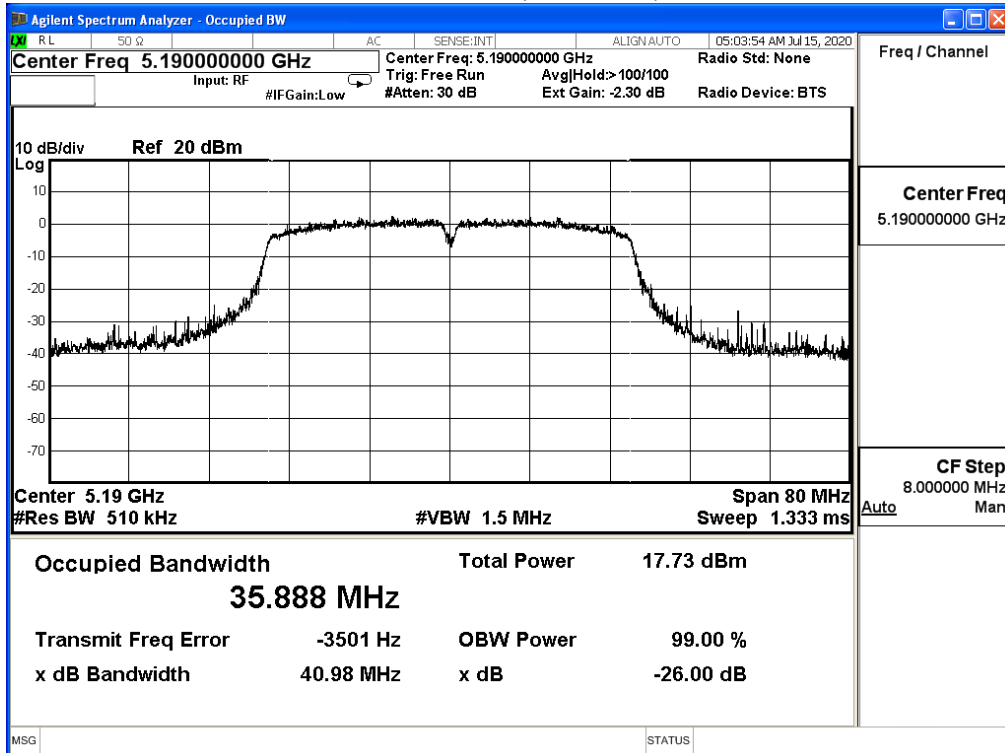
Channel 165 (5825MHz)



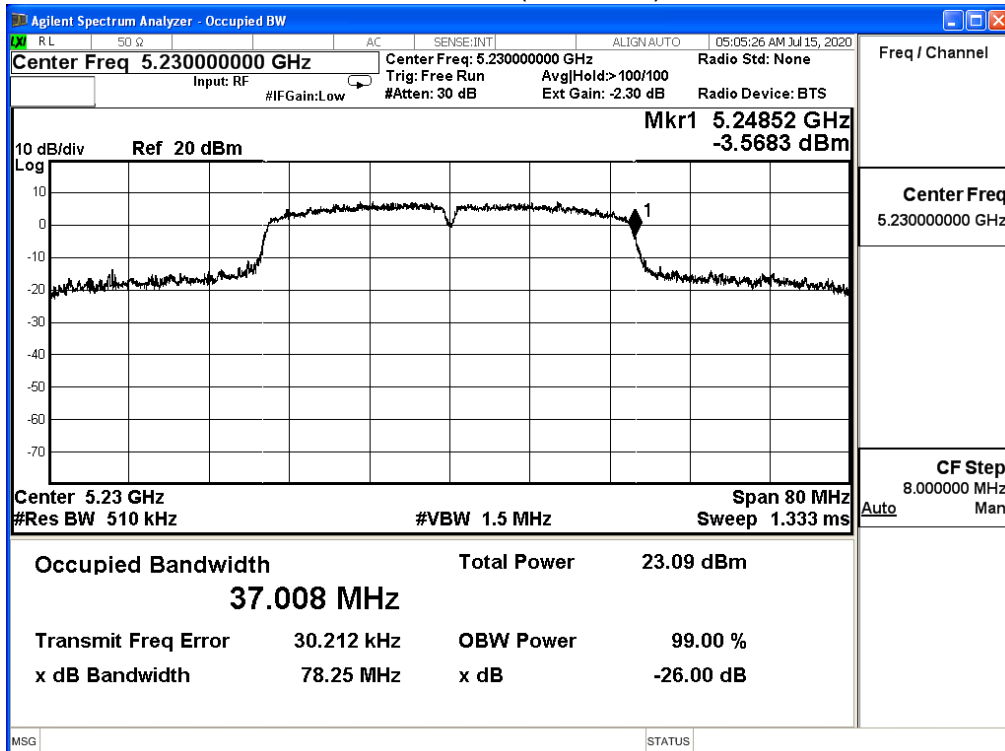
|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | 26dB & 99% Bandwidth  |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

| IEEE 802.11n_40M(ANT 0) |                 |                     |                      |             |        |
|-------------------------|-----------------|---------------------|----------------------|-------------|--------|
| Channel No.             | Frequency (MHz) | Measure Value       |                      | Limit (MHz) | Result |
|                         |                 | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) |             |        |
| 38                      | 5190            | 35.888              | 40.980               | --          | Pass   |
| 46                      | 5230            | 37.008              | 78.250               | --          | Pass   |
| 151                     | 5755            | 69.298              | N/A                  | --          | Pass   |
| 159                     | 5795            | 68.467              |                      | --          | Pass   |

### Channel 38 (5190MHz)

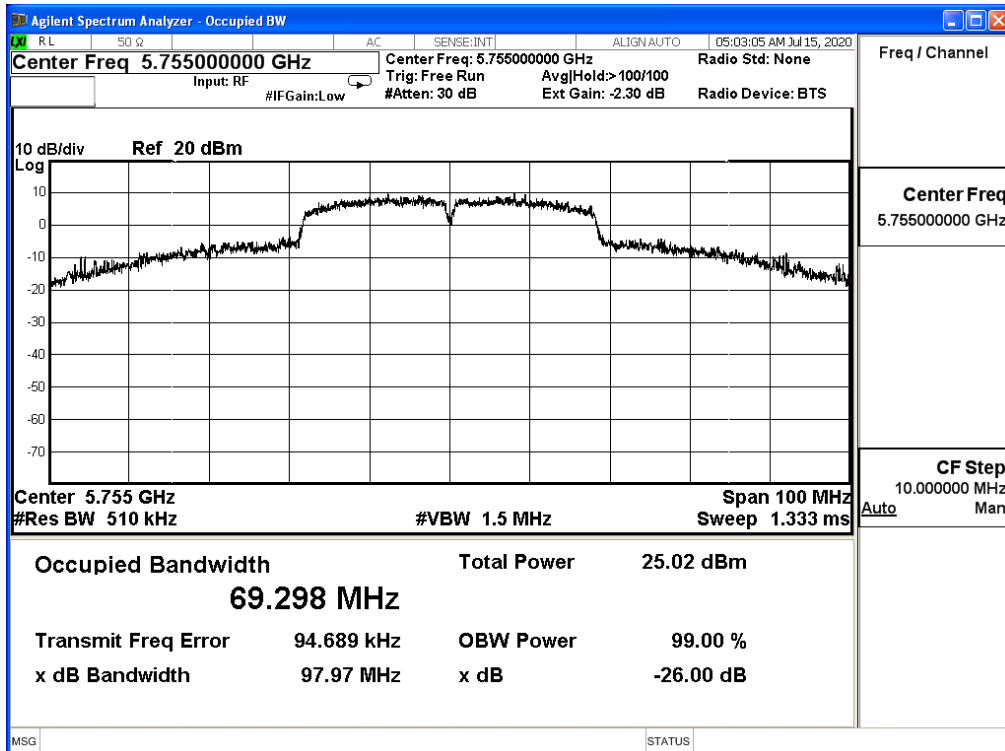


### Channel 46 (5230MHz)

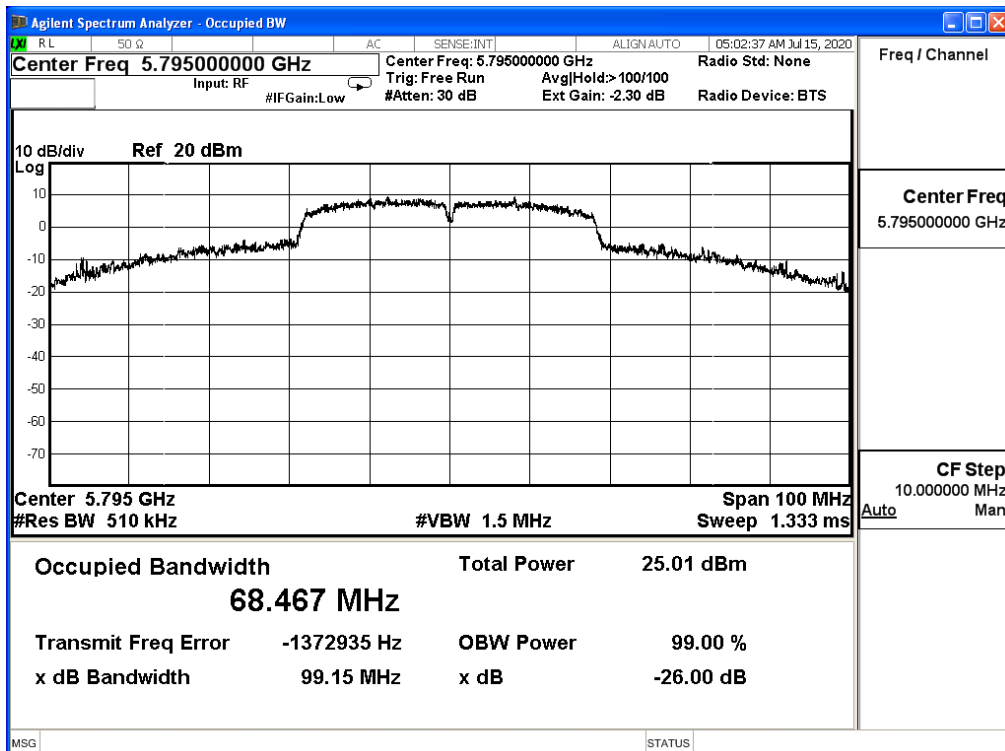




### Channel 151 (5755MHz)



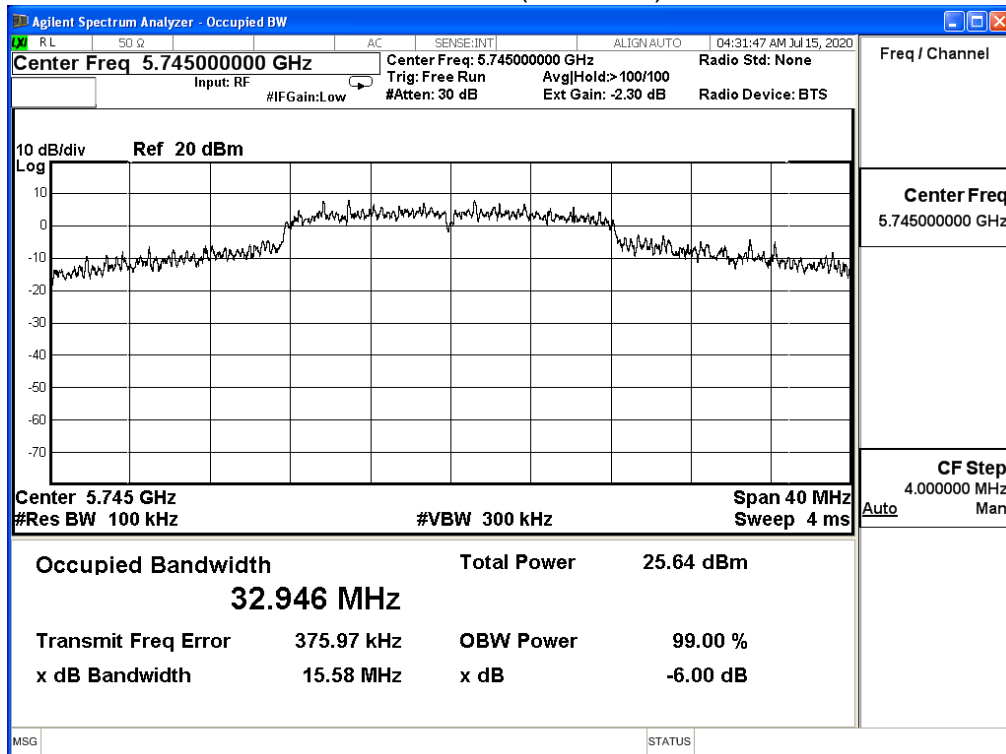
### Channel 159 (5795MHz)



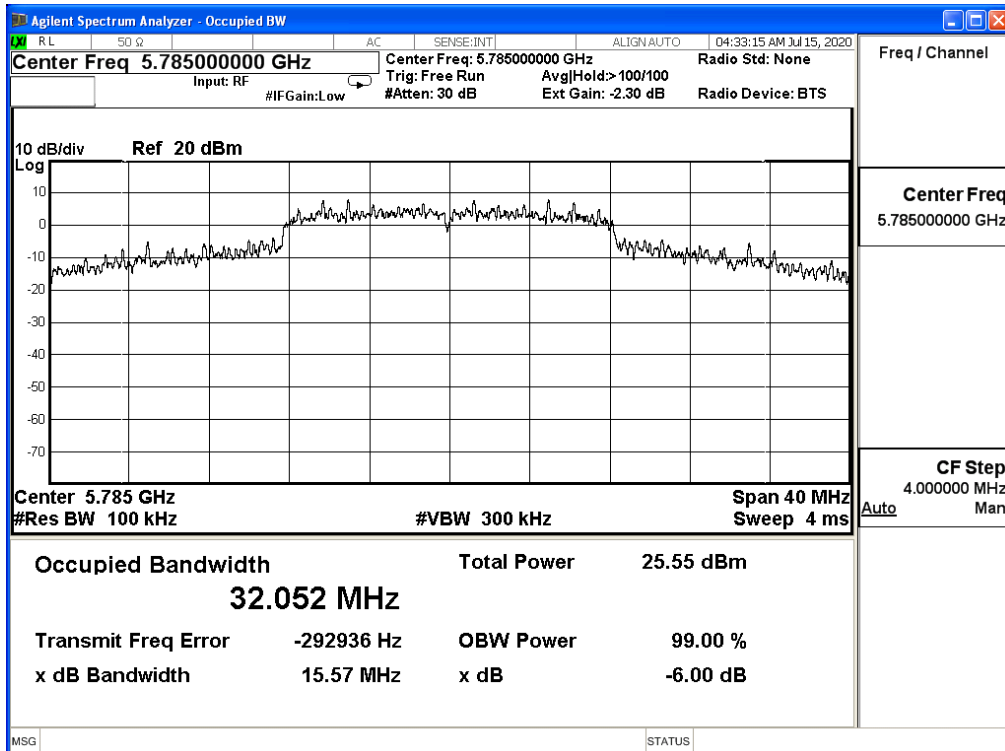
|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | DTS Bandwidth         |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

| IEEE 802.11a (ANT 0) |                 |                     |             |        |
|----------------------|-----------------|---------------------|-------------|--------|
| Channel No.          | Frequency (MHz) | Measure Value (MHz) | Limit (MHz) | Result |
| 149                  | 5745            | 15.580              | ≥ 0.500     | Pass   |
| 157                  | 5785            | 15.570              | ≥ 0.500     | Pass   |
| 165                  | 5825            | 15.290              | ≥ 0.500     | Pass   |

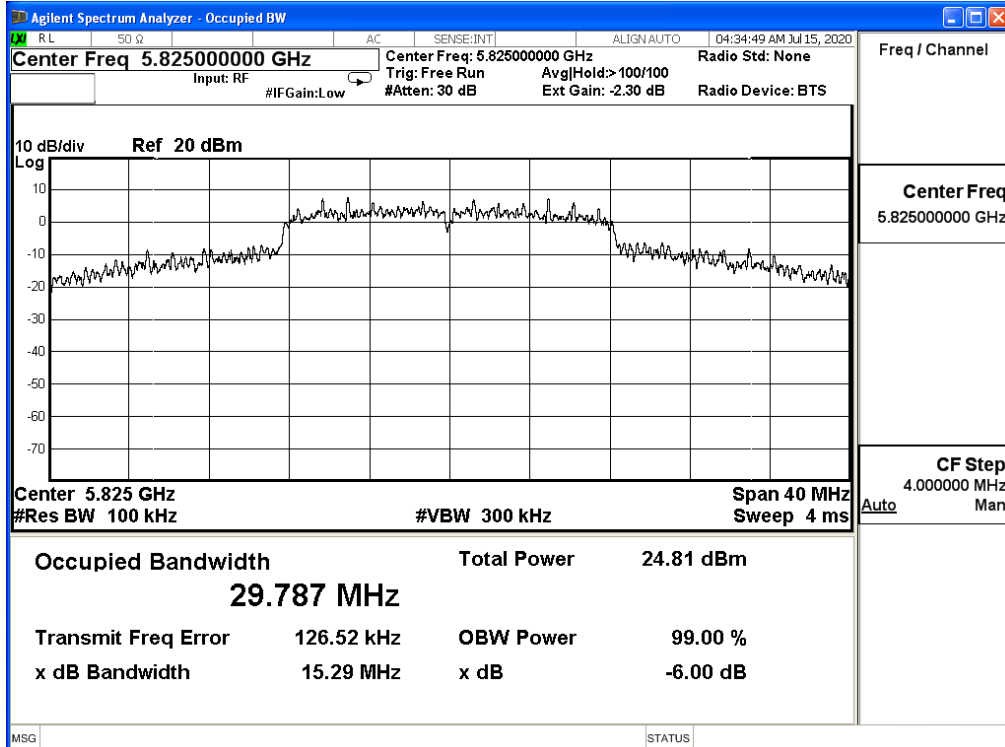
Channel 36 (5180MHz)



### Channel 157 (5785MHz)



### Channel 165 (5825MHz)

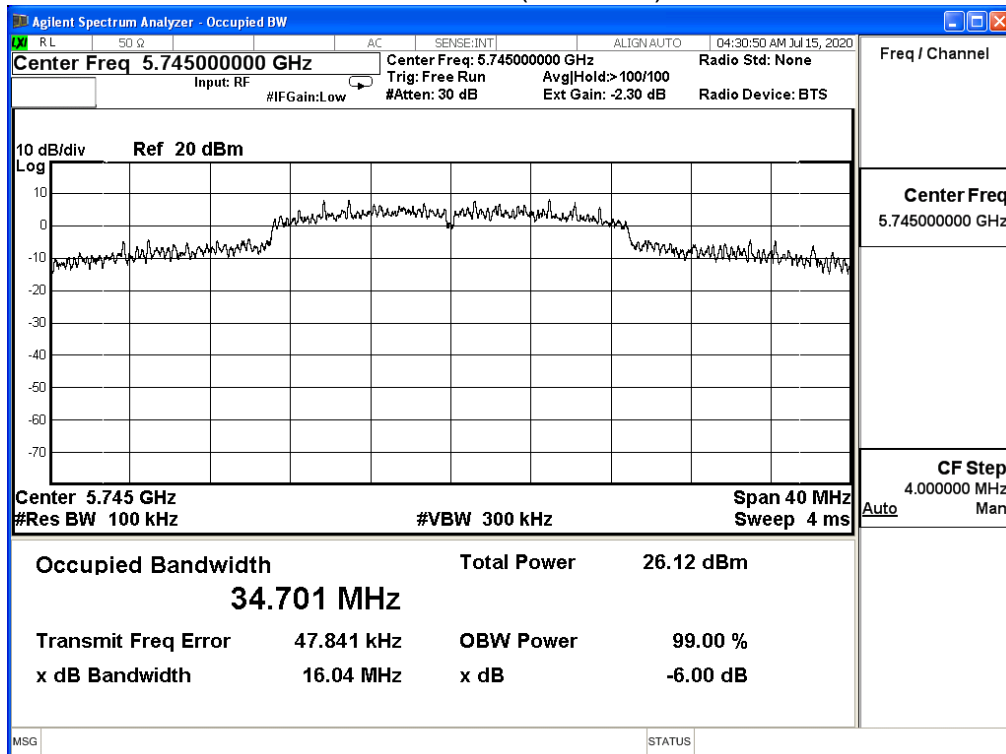


|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | DTS Bandwidth         |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

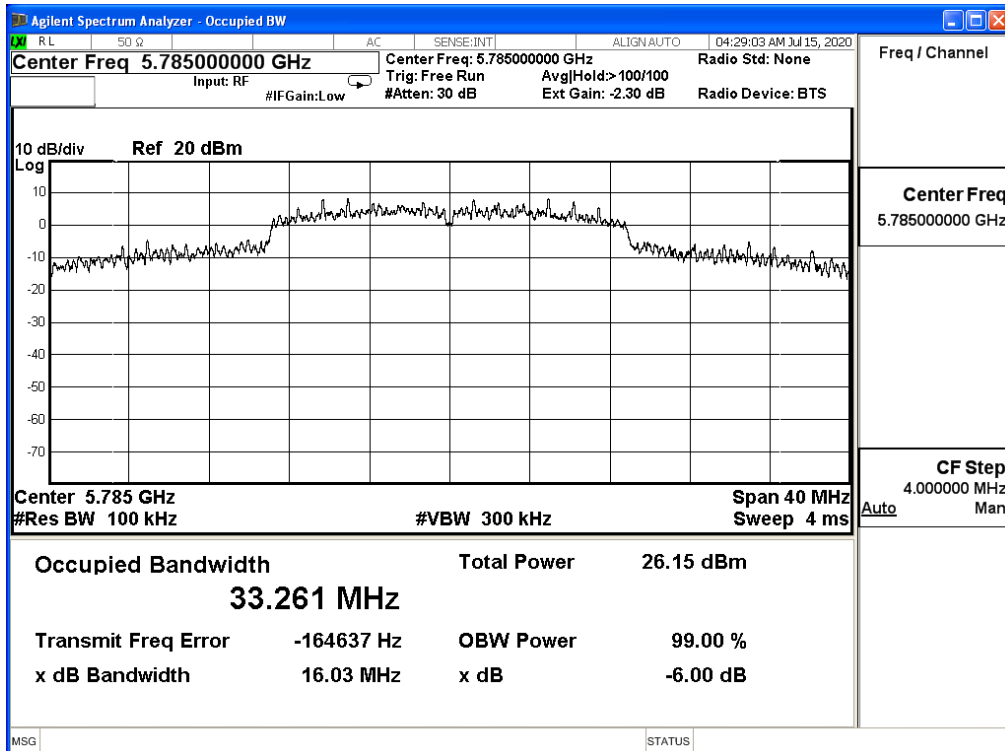
IEEE 802.11n\_20M(ANT 0)

| Channel No. | Frequency (MHz) | Measure Value (MHz) | Limit (MHz) | Result |
|-------------|-----------------|---------------------|-------------|--------|
| 149         | 5745            | 16.040              | ≥ 0.500     | Pass   |
| 157         | 5785            | 16.030              | ≥ 0.500     | Pass   |
| 165         | 5825            | 16.020              | ≥ 0.500     | Pass   |

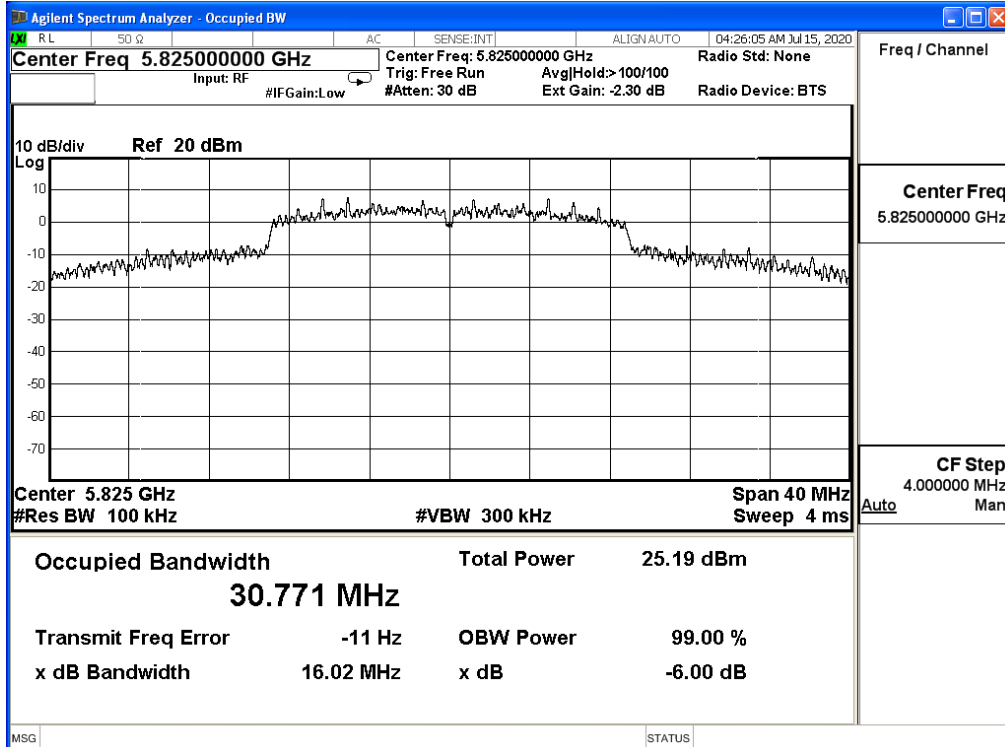
Channel 36 (5180MHz)



### Channel 157 (5785MHz)



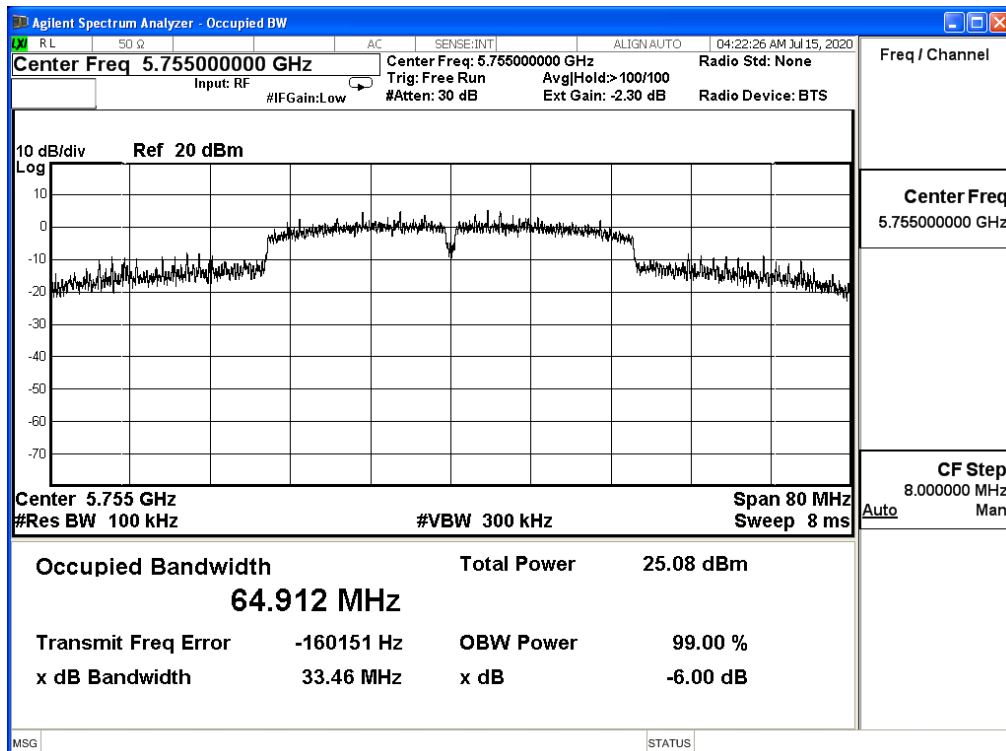
### Channel 165 (5825MHz)



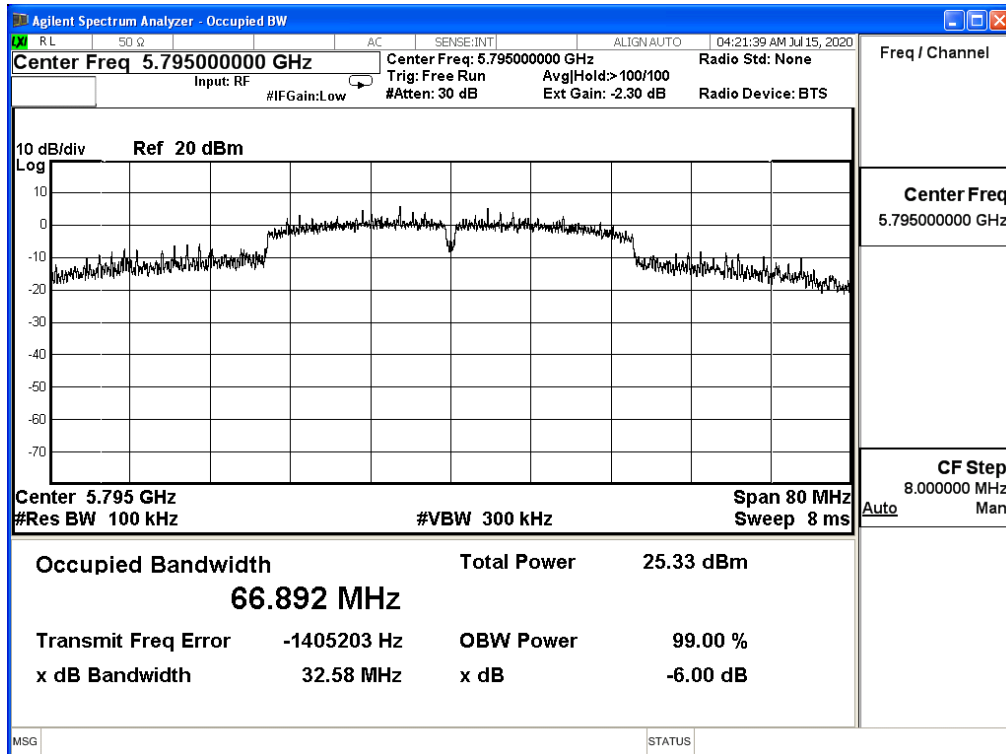
|                 |                       |                |        |
|-----------------|-----------------------|----------------|--------|
| Product         | Vehicle Gateway       |                |        |
| Test Item       | DTS Bandwidth         |                |        |
| Test Mode       | Mode 1: Transmit Mode |                |        |
| Date of Test    | 2020/07/15            | Test Site      | SR12-H |
| Temperature(°C) | 24                    | Humidity (%RH) | 60     |

| IEEE 802.11n_40M(ANT 0) |                 |                     |             |        |
|-------------------------|-----------------|---------------------|-------------|--------|
| Channel No.             | Frequency (MHz) | Measure Value (MHz) | Limit (MHz) | Result |
| 151                     | 5755            | 33.460              | ≥ 0.500     | Pass   |
| 159                     | 5795            | 32.580              | ≥ 0.500     | Pass   |

Channel 151 (5755MHz)

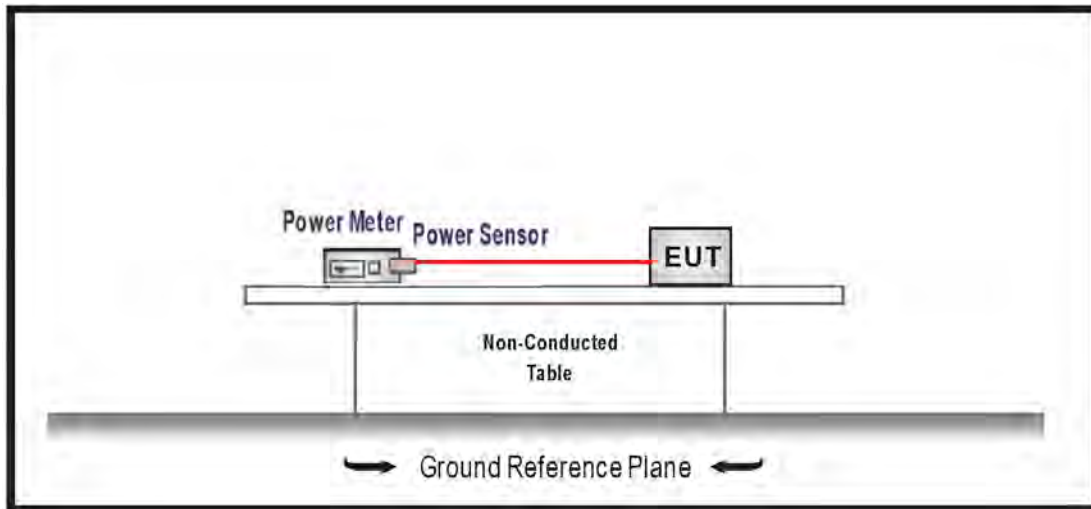


Channel 159 (5795MHz)



## 4. Maximum conducted output power

### 4.1. Test Setup



### 4.2. Limits

1. For the band 5.15-5.25 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. The maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.25-5.35 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725-5.850 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.



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### **4.3. Test Procedure**

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 for compliance to FCC 47CFR Subpart E requirements. The Method Measurement using a Power Meter (PM) of the Maximum conducted output power was used.

#### 4.4. Test Result

|                 |                                |                |        |
|-----------------|--------------------------------|----------------|--------|
| Product         | Vehicle Gateway                |                |        |
| Test Item       | Maximum conducted output power |                |        |
| Test Mode       | Mode 1: Transmit Mode          |                |        |
| Date of Test    | 2020/07/15                     | Test Site      | SR12-H |
| Temperature(°C) | 24                             | Humidity (%RH) | 60     |

#### IEEE 802.11a (ANT 0)

| Channel No. | Frequency (MHz) | Measure Value (dBm) | Limit (dBm) |
|-------------|-----------------|---------------------|-------------|
| 36          | 5180            | 16.910              | ≤30.000     |
| 44          | 5220            | 17.640              | ≤30.000     |
| 48          | 5240            | 17.380              | ≤30.000     |
| 149         | 5745            | 19.920              | ≤30.000     |
| 157         | 5785            | 19.850              | ≤30.000     |
| 165         | 5825            | 19.770              | ≤30.000     |

The worst emission of data rate is 6 Mbps.

| Channel No | Frequency (MHz) | Data Rate |        |        |        |        |        |        |        | Limit   |
|------------|-----------------|-----------|--------|--------|--------|--------|--------|--------|--------|---------|
|            |                 | 6         | 9      | 12     | 18     | 24     | 36     | 48     | 54     |         |
| 36         | 5180            | 16.910    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 44         | 5220            | 17.640    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 48         | 5240            | 17.380    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 149        | 5745            | 19.920    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 157        | 5785            | 19.850    | 19.720 | 19.580 | 19.440 | 19.300 | 19.160 | 19.010 | 18.880 | ≤30.000 |
| 165        | 5825            | 19.770    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |

|                 |                                |                |        |
|-----------------|--------------------------------|----------------|--------|
| Product         | Vehicle Gateway                |                |        |
| Test Item       | Maximum conducted output power |                |        |
| Test Mode       | Mode 1: Transmit Mode          |                |        |
| Date of Test    | 2020/07/15                     | Test Site      | SR12-H |
| Temperature(°C) | 24                             | Humidity (%RH) | 60     |

## IEEE 802.11n(20MHz)(ANT 0)

| Channel No. | Frequency (MHz) | Measure Value (dBm) | Limit (dBm) |
|-------------|-----------------|---------------------|-------------|
| 36          | 5180            | 16.840              | ≤30.000     |
| 44          | 5220            | 17.580              | ≤30.000     |
| 48          | 5240            | 17.250              | ≤30.000     |
| 149         | 5745            | 19.860              | ≤30.000     |
| 157         | 5785            | 19.810              | ≤30.000     |
| 165         | 5825            | 19.740              | ≤30.000     |

The worst emission of data rate is MCS0

| Channel No | Frequency (MHz) | MCS Index |        |        |        |        |        |        |        | Limit   |
|------------|-----------------|-----------|--------|--------|--------|--------|--------|--------|--------|---------|
|            |                 | 0         | 1      | 2      | 3      | 4      | 5      | 6      | 7      |         |
| 36         | 5180            | 16.840    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 44         | 5220            | 17.580    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 48         | 5240            | 17.250    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 149        | 5745            | 19.860    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 157        | 5785            | 19.810    | 19.670 | 19.520 | 19.370 | 19.230 | 19.100 | 18.970 | 18.830 | ≤30.000 |
| 165        | 5825            | 19.740    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |

|                 |                                |                |        |
|-----------------|--------------------------------|----------------|--------|
| Product         | Vehicle Gateway                |                |        |
| Test Item       | Maximum conducted output power |                |        |
| Test Mode       | Mode 1: Transmit Mode          |                |        |
| Date of Test    | 2020/07/15                     | Test Site      | SR12-H |
| Temperature(°C) | 24                             | Humidity (%RH) | 60     |

IEEE 802.11n(40MHz)(ANT 0)

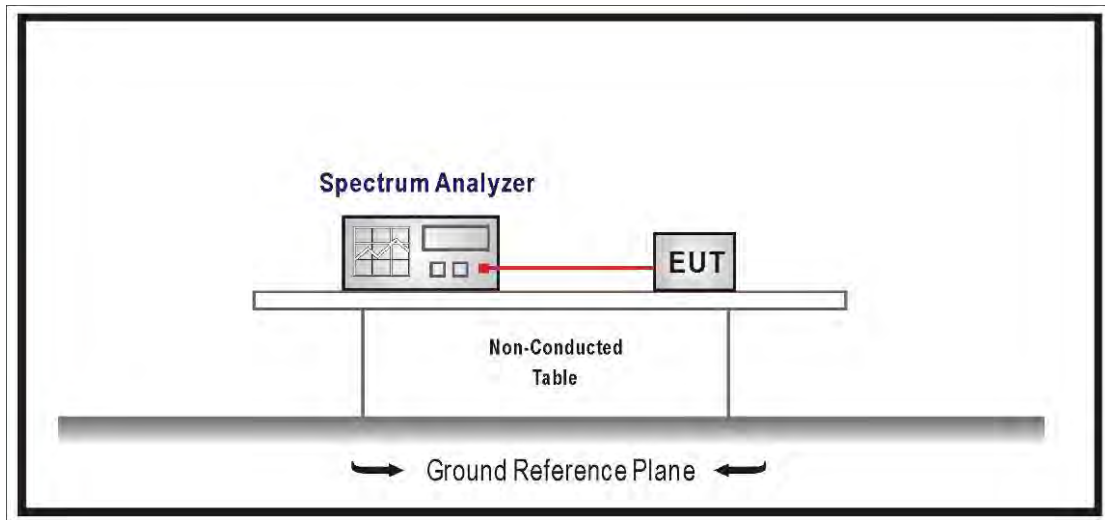
| Channel No. | Frequency (MHz) | Measure Value (dBm) | Limit (dBm) |
|-------------|-----------------|---------------------|-------------|
| 38          | 5190            | 12.730              | ≤30.000     |
| 46          | 5230            | 17.710              | ≤30.000     |
| 151         | 5755            | 20.030              | ≤30.000     |
| 159         | 5795            | 19.880              | ≤30.000     |

The worst emission of data rate is MCS0

| Channel No | Frequency (MHz) | MCS Index |        |        |        |        |        |        |        | Limit   |
|------------|-----------------|-----------|--------|--------|--------|--------|--------|--------|--------|---------|
|            |                 | 0         | 1      | 2      | 3      | 4      | 5      | 6      | 7      |         |
| 38         | 5190            | 12.730    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |
| 46         | 5230            | 17.710    | 17.570 | 17.430 | 17.280 | 17.130 | 17.000 | 16.850 | 16.700 | ≤30.000 |
| 151        | 5755            | 20.030    | 19.890 | 19.760 | 19.610 | 19.480 | 19.350 | 19.200 | 19.060 | ≤30.000 |
| 159        | 5795            | 19.880    | --     | --     | --     | --     | --     | --     | --     | ≤30.000 |

## 5. Maximum power spectral density

### 5.1. Test Setup



### 5.2. Limits

1. For the band 5.15-5.25 GHz, the Maximum power spectral density shall not exceed 17 dBm in any 1MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
3. For the band 5.25-5.35 GHz, the Maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725-5.850 GHz, the Maximum power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

### **5.3. Test Procedure**

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 for compliance to FCC 47CFR Subpart E requirements.

For Band1 : Set RBW=1MHz, VBW=3MHz with RMS detector. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging.

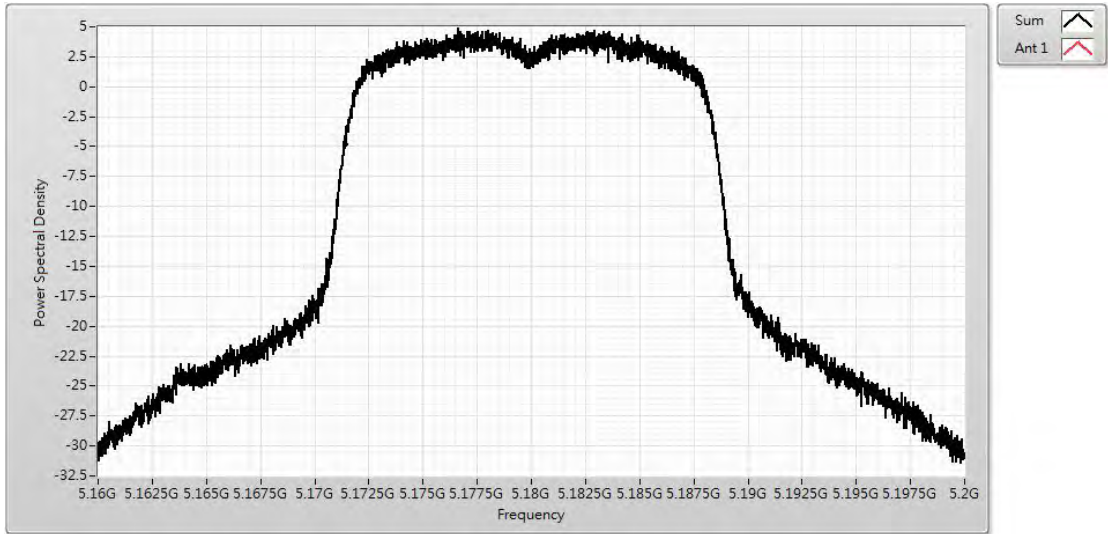
For Band4 : Set RBW=500KHz, VBW=1.5MHz with RMS detector. The PPSD is the highest level found across the emission in any 500KHz band after 100 sweeps of averaging.

#### 5.4. Test Result

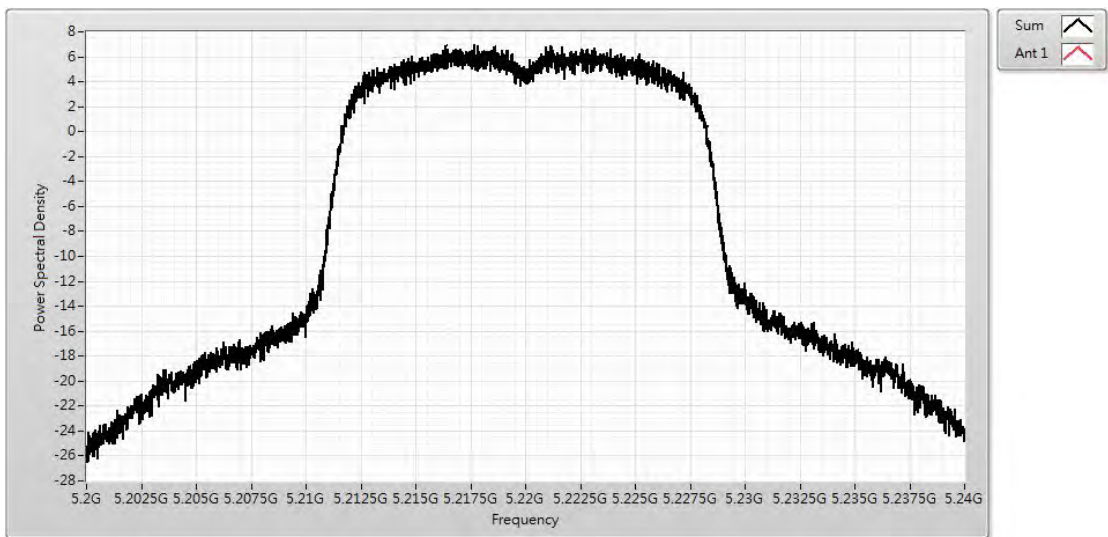
|                  |                                |                |        |
|------------------|--------------------------------|----------------|--------|
| Product          | Vehicle Gateway                |                |        |
| Test Item        | Maximum power spectral density |                |        |
| Test Mode        | Mode 1: Transmit Mode          |                |        |
| Date of Test     | 2020/07/15                     | Test Site      | SR12-H |
| Test Temperature | 24                             | Humidity (%RH) | 60     |

| IEEE 802.11a (ANT0) |                 |                     |               |        |
|---------------------|-----------------|---------------------|---------------|--------|
| Channel No.         | Frequency (MHz) | Measure Level (dBm) | Limit (dBm)   | Result |
| 36                  | 5180            | 4.900               | $\leq 17.000$ | Pass   |
| 44                  | 5220            | 6.950               | $\leq 17.000$ | Pass   |
| 48                  | 5240            | 6.110               | $\leq 17.000$ | Pass   |
| 149                 | 5745            | 4.630               | $\leq 30.000$ | Pass   |
| 157                 | 5785            | 3.970               | $\leq 30.000$ | Pass   |
| 165                 | 5825            | 3.400               | $\leq 30.000$ | Pass   |

Channel 36 (5180MHz)

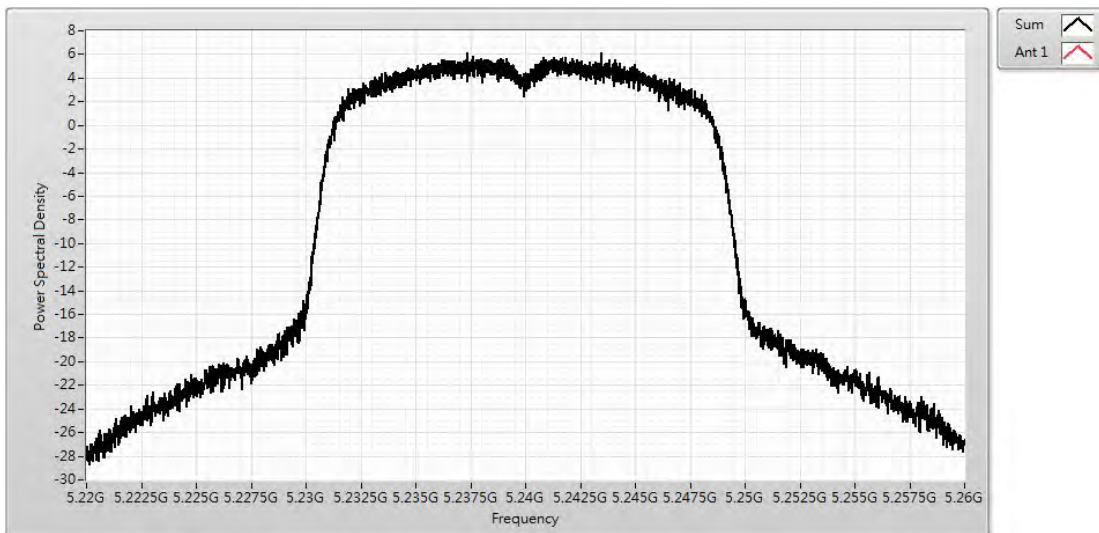


Channel 44 (5220MHz)

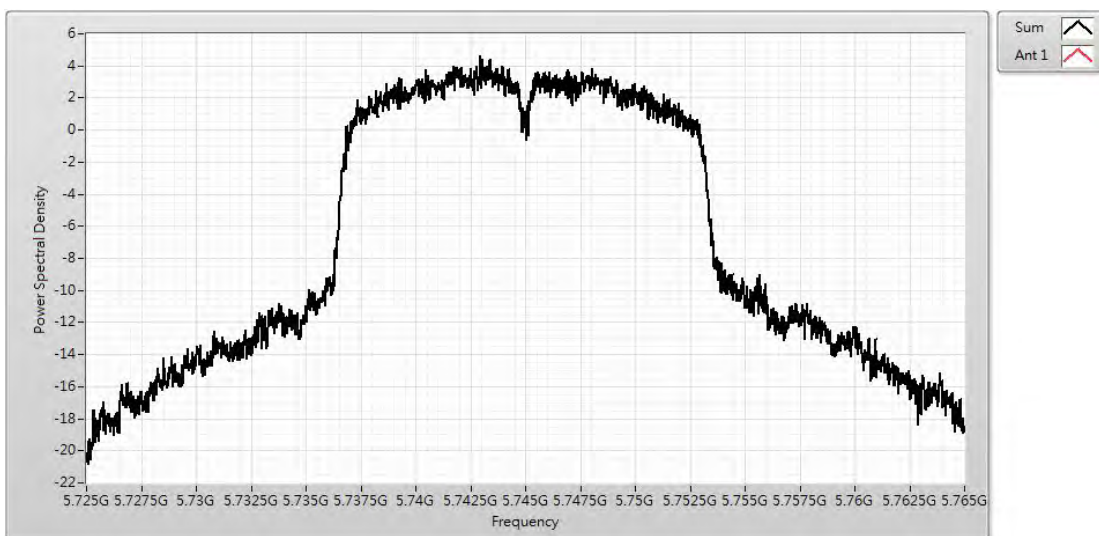




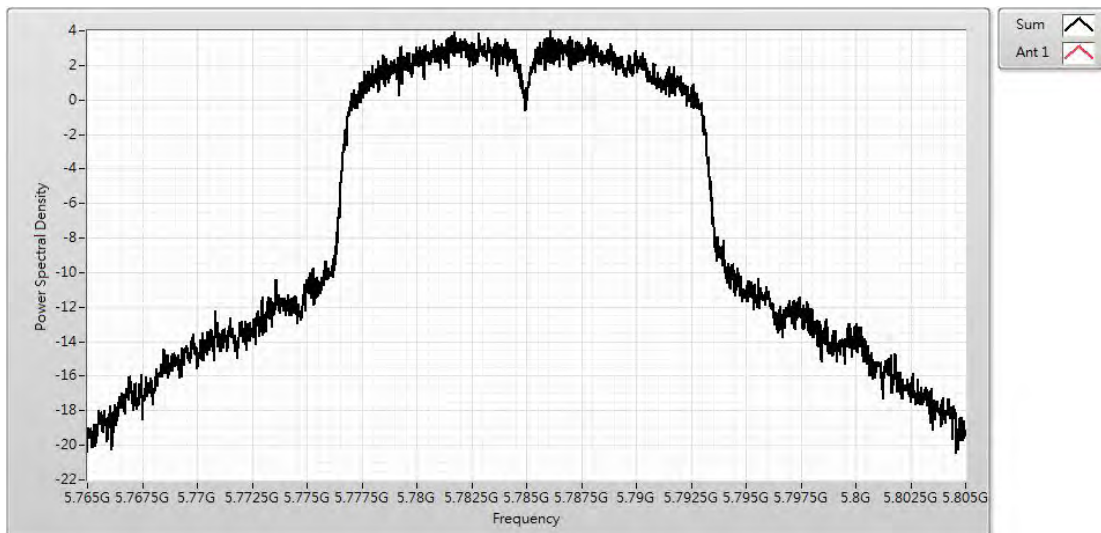
Channel 48 (5240MHz)



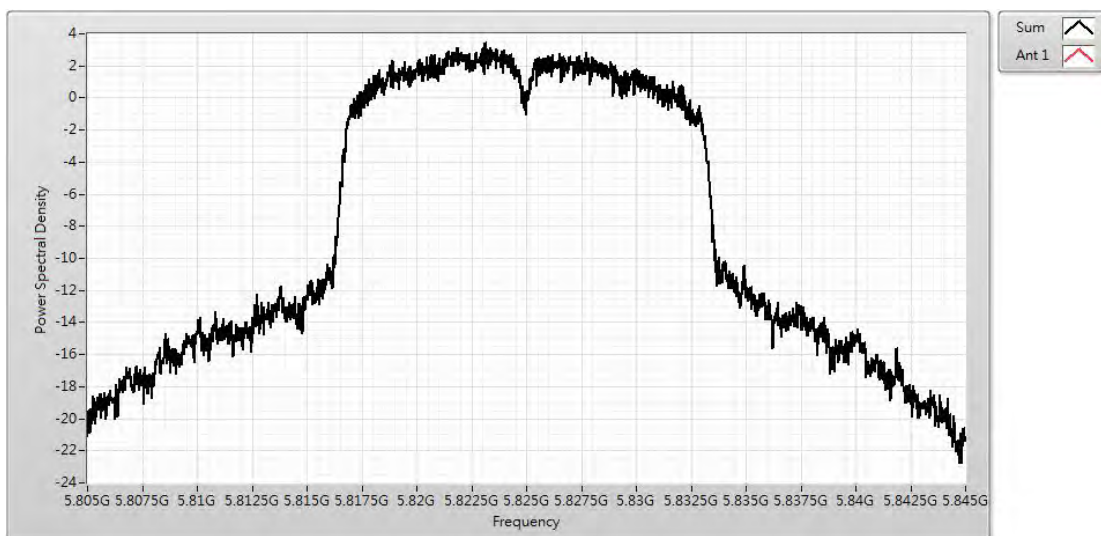
Channel 149 (5745MHz)



Channel 157 (5785MHz)



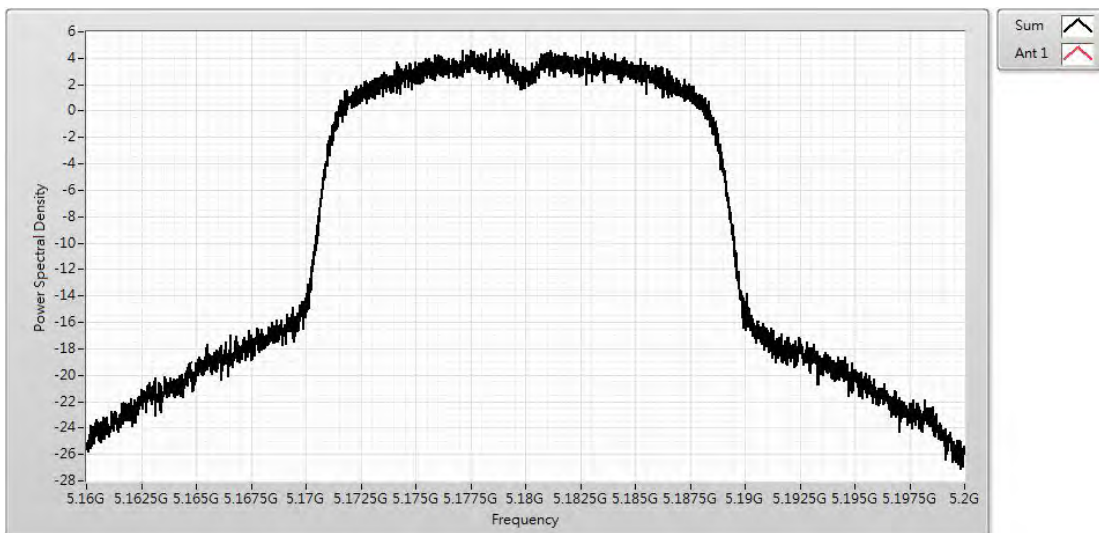
Channel 165 (5825MHz)



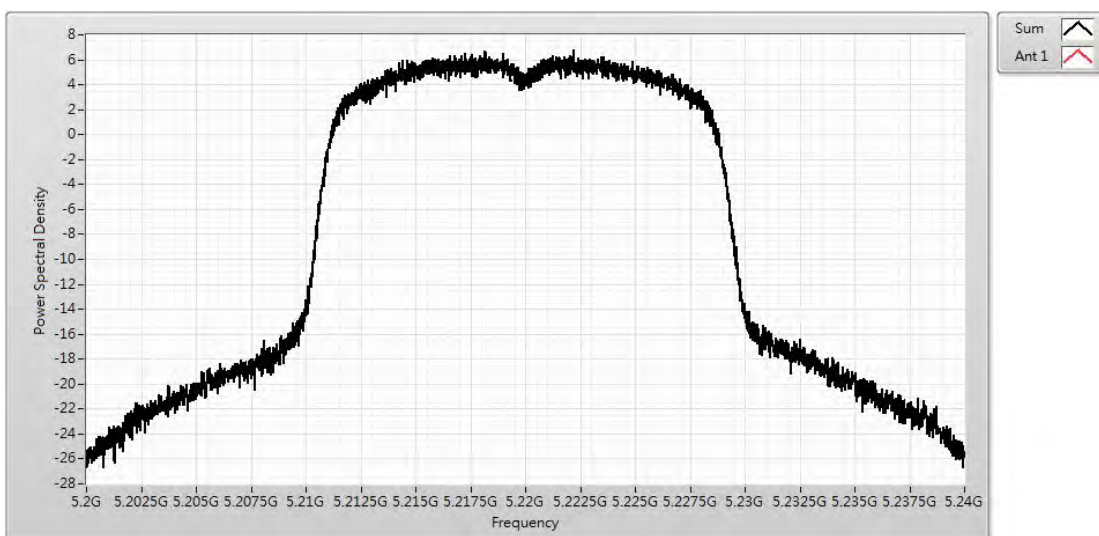
|                  |                                |                |        |
|------------------|--------------------------------|----------------|--------|
| Product          | Vehicle Gateway                |                |        |
| Test Item        | Maximum power spectral density |                |        |
| Test Mode        | Mode 1: Transmit Mode          |                |        |
| Date of Test     | 2020/07/15                     | Test Site      | SR12-H |
| Test Temperature | 24                             | Humidity (%RH) | 60     |

| IEEE 802.11n(20MHz)(ANT0) |                 |                     |               |        |
|---------------------------|-----------------|---------------------|---------------|--------|
| Channel No.               | Frequency (MHz) | Measure Level (dBm) | Limit (dBm)   | Result |
| 36                        | 5180            | 4.730               | $\leq 17.000$ | Pass   |
| 44                        | 5220            | 6.810               | $\leq 17.000$ | Pass   |
| 48                        | 5240            | 5.870               | $\leq 17.000$ | Pass   |
| 149                       | 5745            | 4.320               | $\leq 30.000$ | Pass   |
| 157                       | 5785            | 3.590               | $\leq 30.000$ | Pass   |
| 165                       | 5825            | 2.850               | $\leq 30.000$ | Pass   |

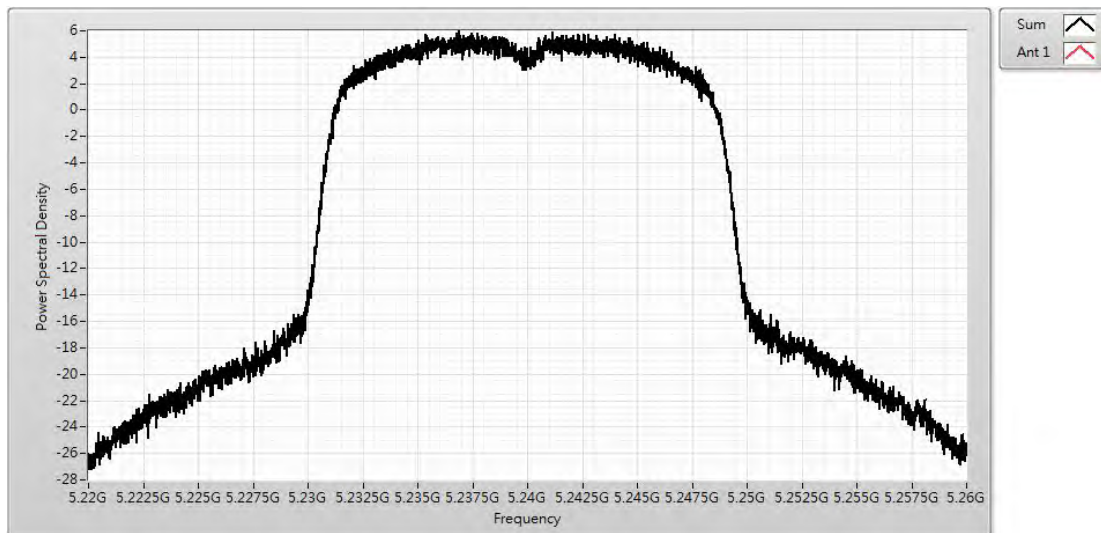
Channel 36 (5180MHz)



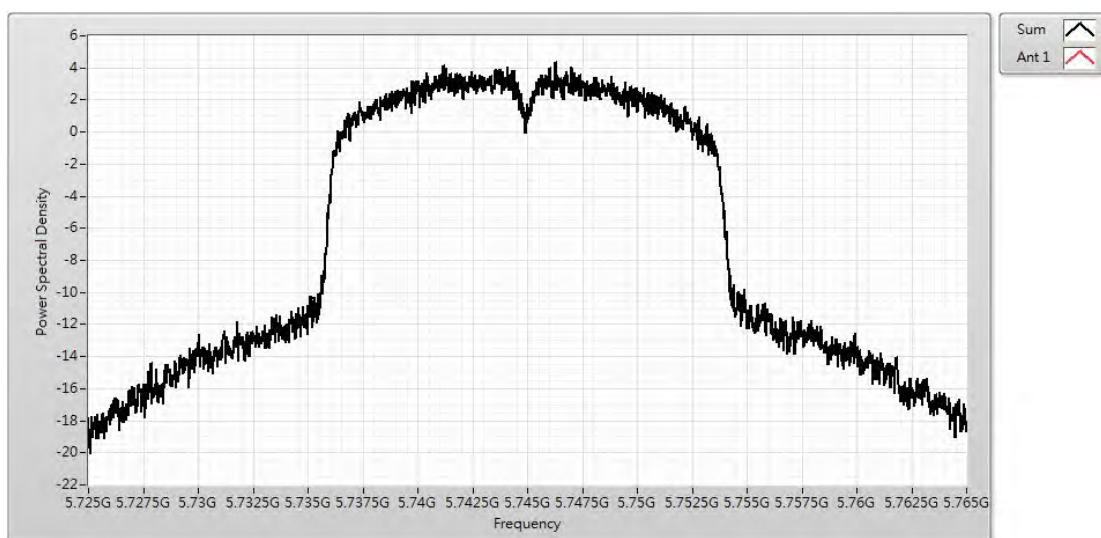
Channel 44 (5220MHz)



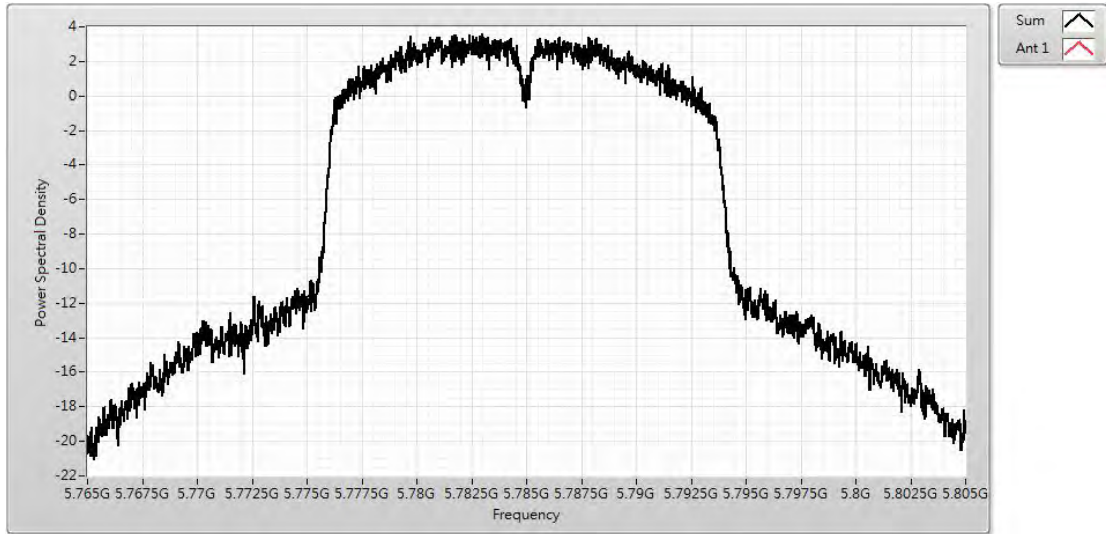
Channel 48 (5240MHz)



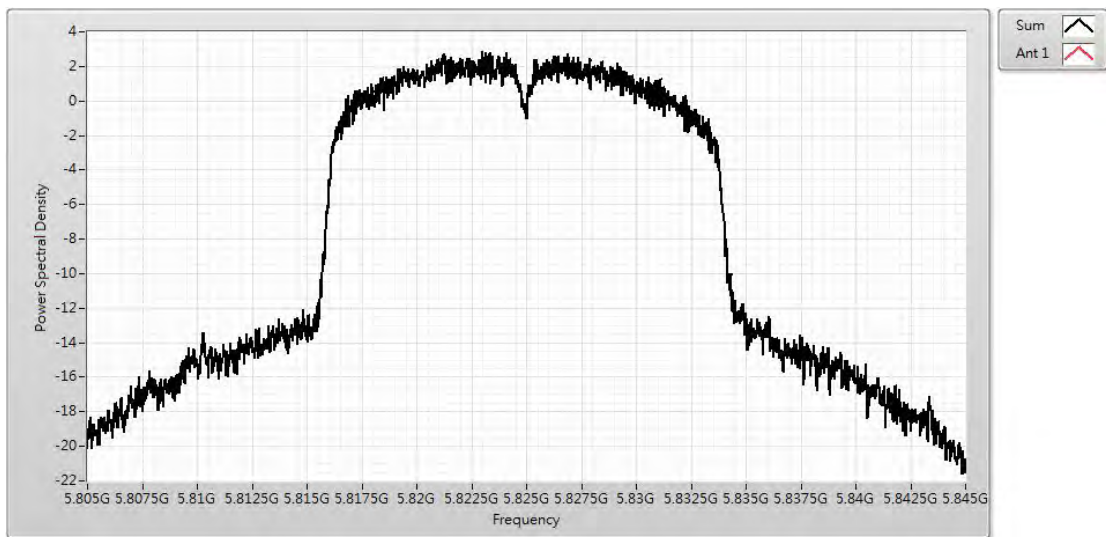
Channel 149 (5745MHz)



Channel 157 (5785MHz)



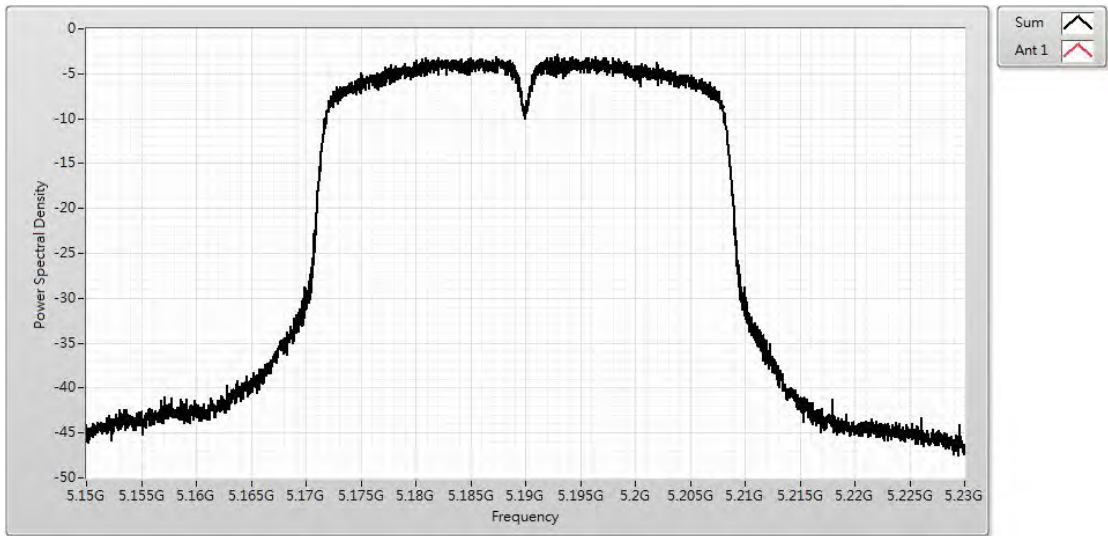
Channel165 (5825MHz)



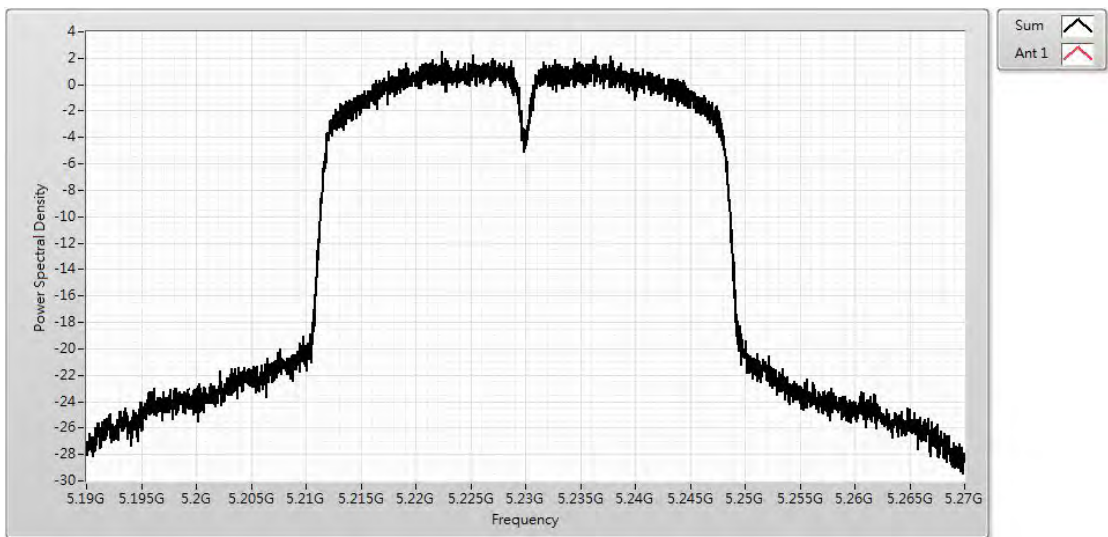
|                  |                                |                |        |
|------------------|--------------------------------|----------------|--------|
| Product          | Vehicle Gateway                |                |        |
| Test Item        | Maximum power spectral density |                |        |
| Test Mode        | Mode 1: Transmit Mode          |                |        |
| Date of Test     | 2020/07/15                     | Test Site      | SR12-H |
| Test Temperature | 24                             | Humidity (%RH) | 60     |

| IEEE 802.11n(40MHz)(ANT0) |                 |                     |               |        |
|---------------------------|-----------------|---------------------|---------------|--------|
| Channel No.               | Frequency (MHz) | Measure Level (dBm) | Limit (dBm)   | Result |
| 38                        | 5190            | -2.890              | $\leq 17.000$ | Pass   |
| 46                        | 5230            | 2.520               | $\leq 17.000$ | Pass   |
| 151                       | 5755            | 0.800               | $\leq 30.000$ | Pass   |
| 159                       | 5795            | 0.630               | $\leq 30.000$ | Pass   |

Channel 38 (5190MHz)

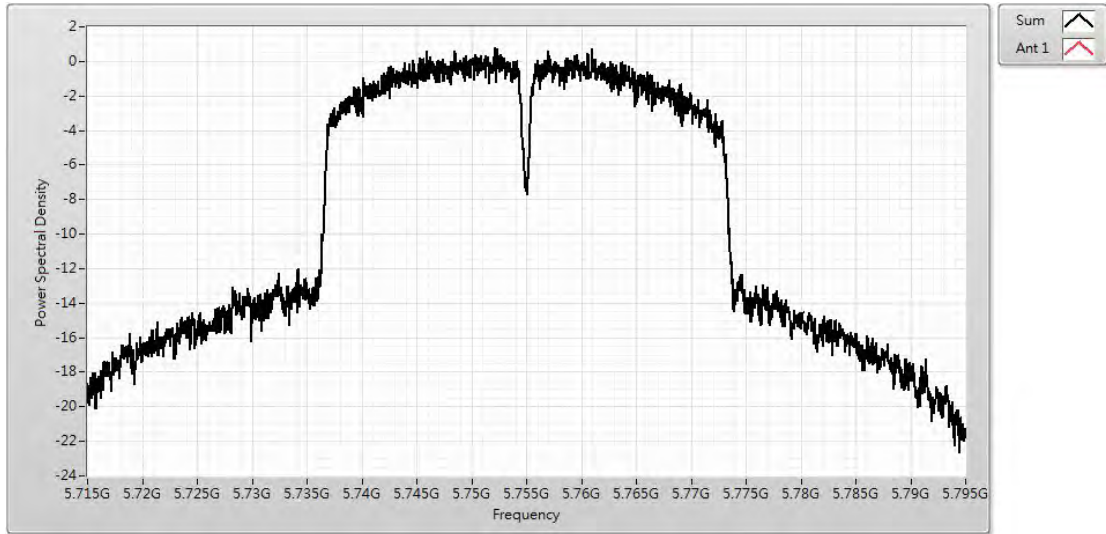


Channel 46 (5230MHz)

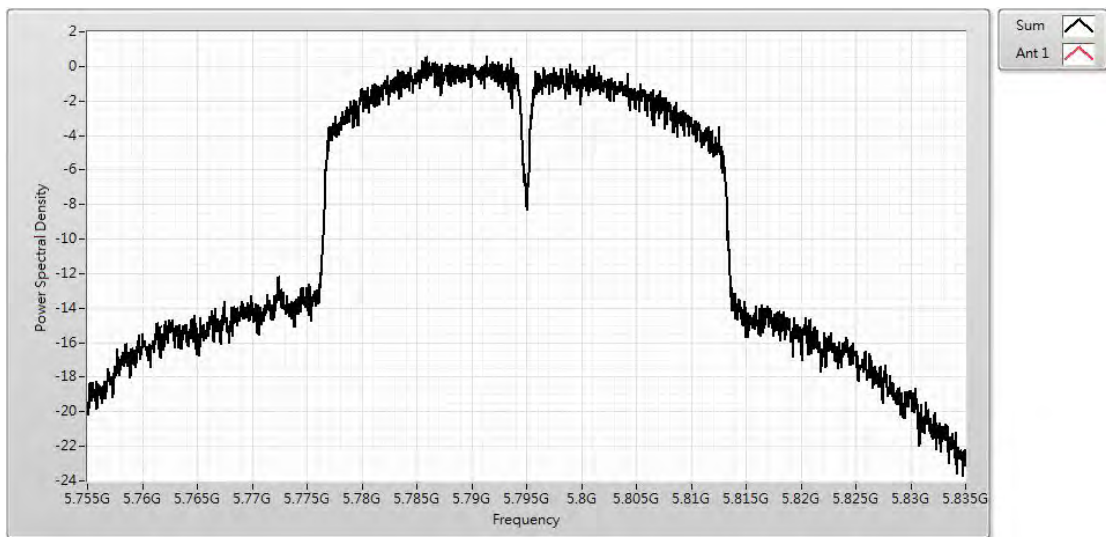




Channel 151 (5755MHz)



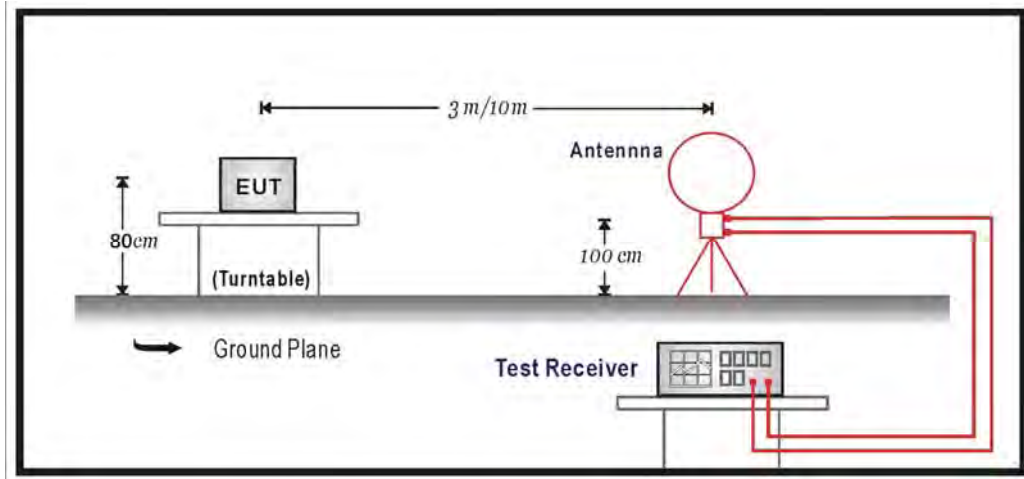
Channel 159 (5795MHz)



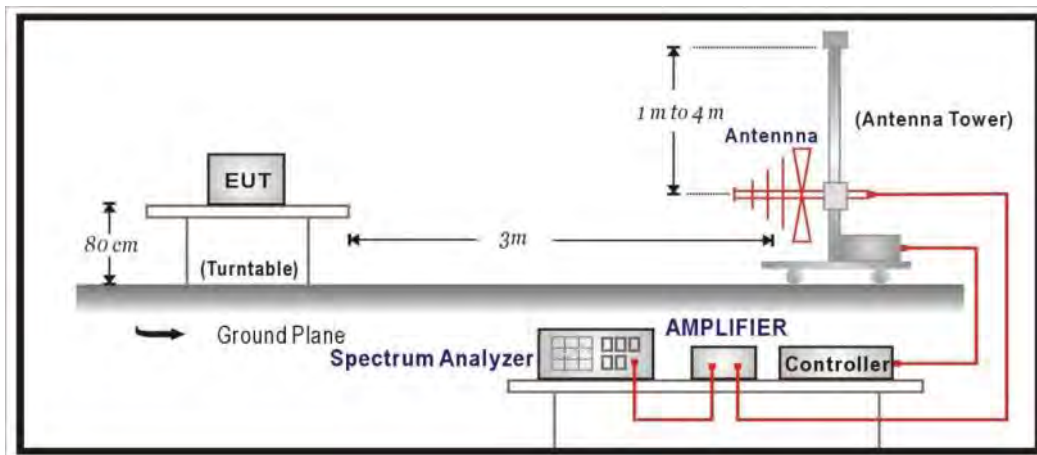
## 6. Radiated Emission

### 6.1. Test Setup

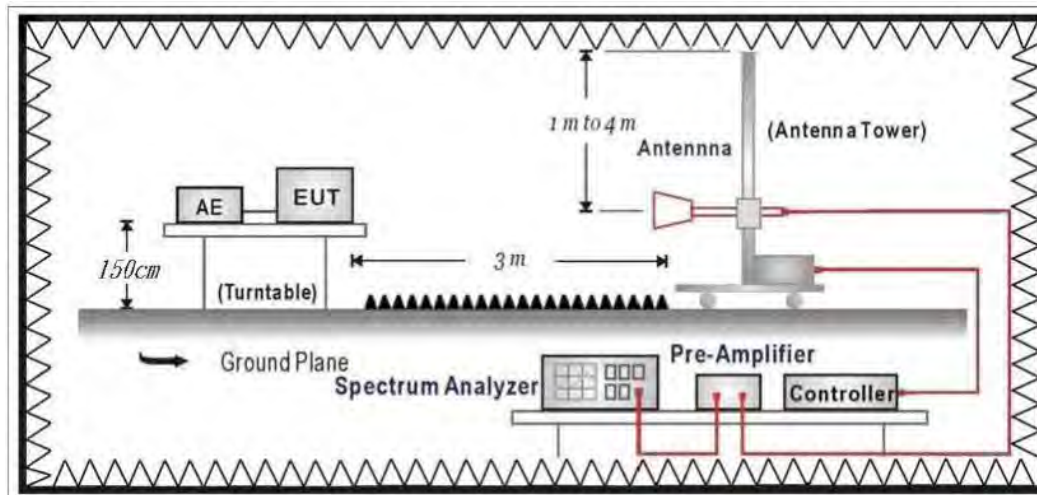
Under 30MHz Test Setup:



Under 1GHz Test Setup:



Above 1GHz Test Setup:



## 6.2. Limits

### ➤ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

| FCC Part 15 Subpart C Paragraph 15.209 Limits |          |           |
|---|----------|-----------|
| Frequency<br>MHz                              | uV/m @3m | dBuV/m@3m |
| 30 - 88                                       | 100      | 40        |
| 88 - 216                                      | 150      | 43.5      |
| 216 - 960                                     | 200      | 46        |
| Above 960                                     | 500      | 54        |

Remark:

1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

### ➤ Unwanted Emission out of the restricted bands Limits

| FCC Part 15 Subpart C Paragraph 15.407(b) Limits |                     |  |
|--|---------------------|--|
| Frequency<br>(MHz)                               | EIRP Limit<br>(dBm) | Equivalent Field Strength<br>(dBuV/m@3m) |
| 5150 - 5250                                      | -27                 | 68.3                                     |
| 5250 - 5350                                      | -27                 | 68.3                                     |
| 5470 - 5725                                      | -27                 | 68.3                                     |
| 5725 - 5850                                      | -27 (Note1)         | 68.3                                     |
|  | -17 (Note2)         | 78.3                                     |

Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.

$$3. \quad uV/m = \frac{1000000\sqrt{30 \times EIRP}}{3}, \quad \text{RF Voltage (dBuV/m)} = 20 \log \text{RF Voltage (uV/m)}$$

### 6.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

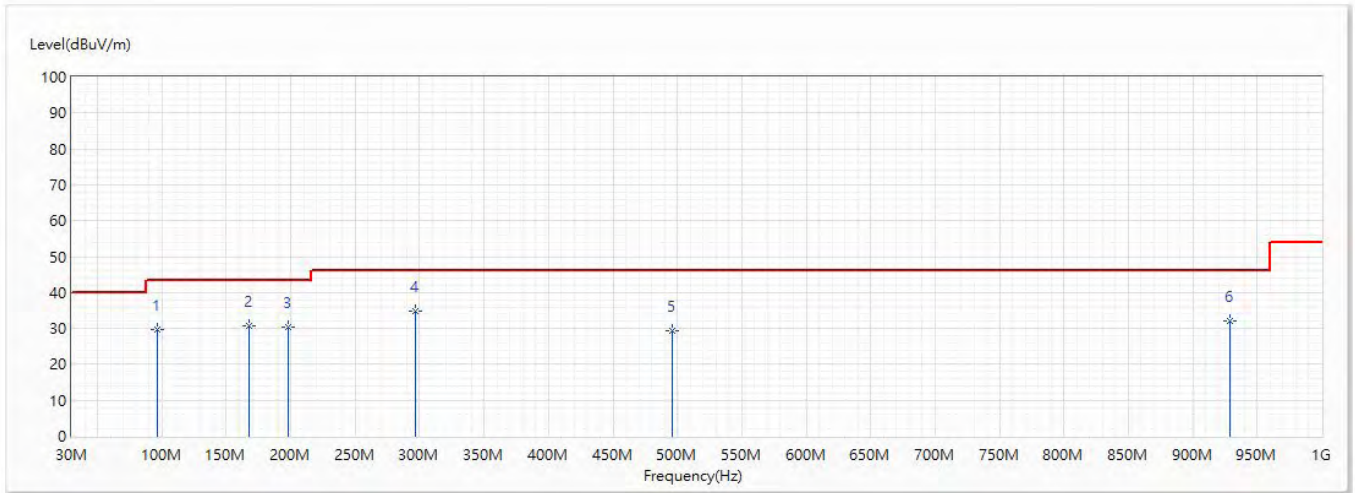
The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.

The frequency range from 30MHz to 10th harmonics is checked.

### 6.4. Test Result

#### 30MHz-1GHz Spurious

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch44_5.22G | Humidity (%RH)   | 54.0      |

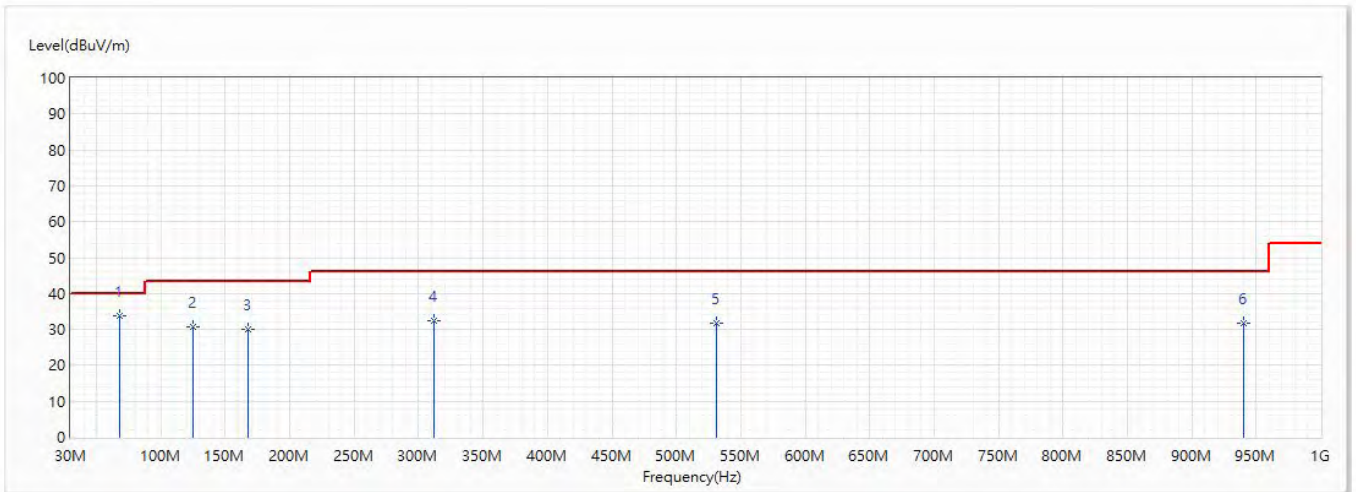


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 96.324          | 29.80                   | 43.50          | -13.70      | 34.36                | -4.56                 | QP            |
| 2   | 167.983         | 30.75                   | 43.50          | -12.75      | 34.79                | -4.04                 | QP            |
| 3   | 197.931         | 30.46                   | 43.50          | -13.04      | 34.70                | -4.24                 | QP            |
| * 4 | 296.629         | 34.68                   | 46.00          | -11.32      | 35.17                | -0.49                 | QP            |
| 5   | 495.6           | 29.40                   | 46.00          | -16.60      | 24.80                | 4.60                  | QP            |
| 6   | 928.948         | 32.12                   | 46.00          | -13.88      | 22.11                | 10.01                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch44_5.22G | Humidity (%RH)   | 54.0      |

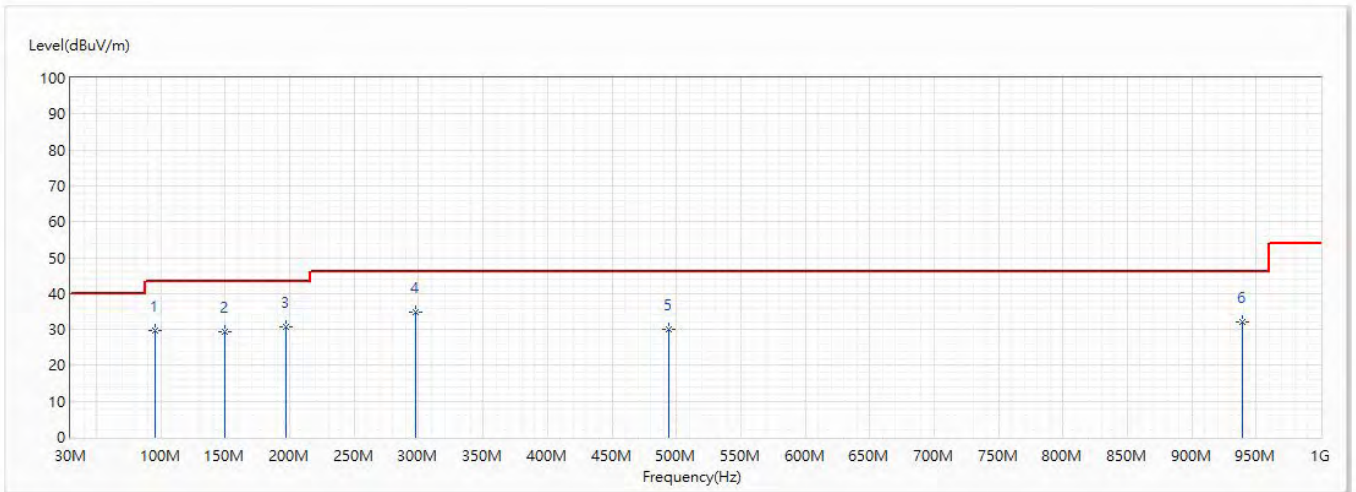


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 67.588          | 33.88                   | 40.00          | -6.12       | 42.04                | -8.16                 | QP            |
| 2   | 124.939         | 30.79                   | 43.50          | -12.71      | 32.69                | -1.90                 | QP            |
| 3   | 167.983         | 29.94                   | 43.50          | -13.56      | 33.98                | -4.04                 | QP            |
| 4   | 312.028         | 32.42                   | 46.00          | -13.58      | 32.45                | -0.03                 | QP            |
| 5   | 531.005         | 31.78                   | 46.00          | -14.22      | 26.70                | 5.08                  | QP            |
| 6   | 939.739         | 31.81                   | 46.00          | -14.19      | 21.62                | 10.19                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch44_5.22G | Humidity (%RH)   | 54.0      |

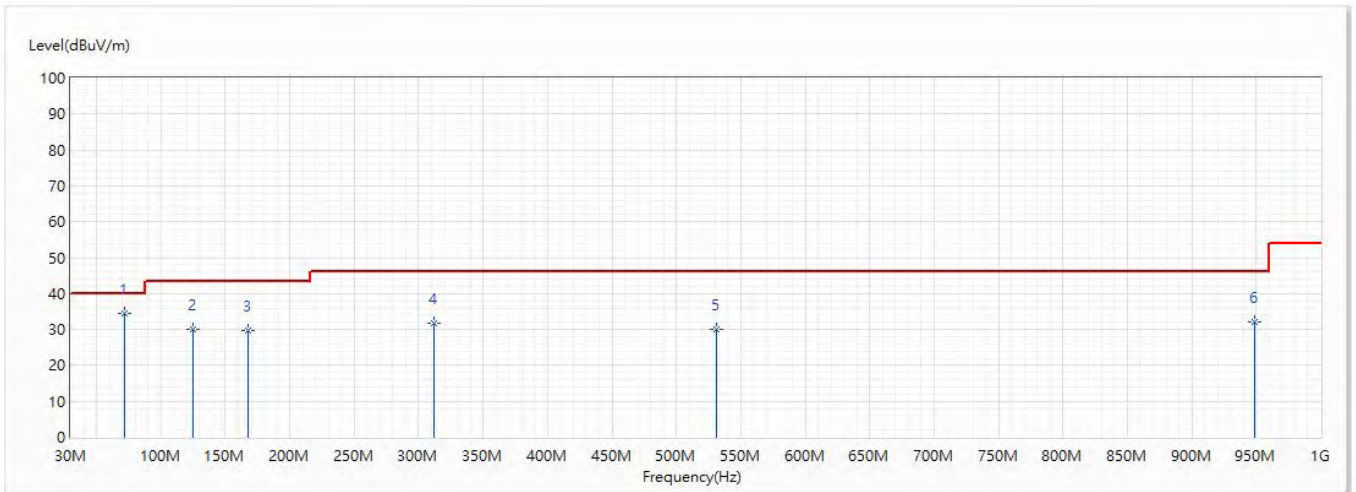


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 95.475          | 29.85                   | 43.50          | -13.65      | 34.60                | -4.75                 | QP            |
| 2   | 149.431         | 29.41                   | 43.50          | -14.09      | 32.25                | -2.84                 | QP            |
| 3   | 196.961         | 30.74                   | 43.50          | -12.76      | 35.01                | -4.27                 | QP            |
| * 4 | 297.356         | 34.90                   | 46.00          | -11.10      | 35.37                | -0.47                 | QP            |
| 5   | 494.266         | 30.16                   | 46.00          | -15.84      | 25.59                | 4.57                  | QP            |
| 6   | 939.133         | 32.09                   | 46.00          | -13.91      | 21.91                | 10.18                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. " \* ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch44_5.22G | Humidity (%RH)   | 54.0      |



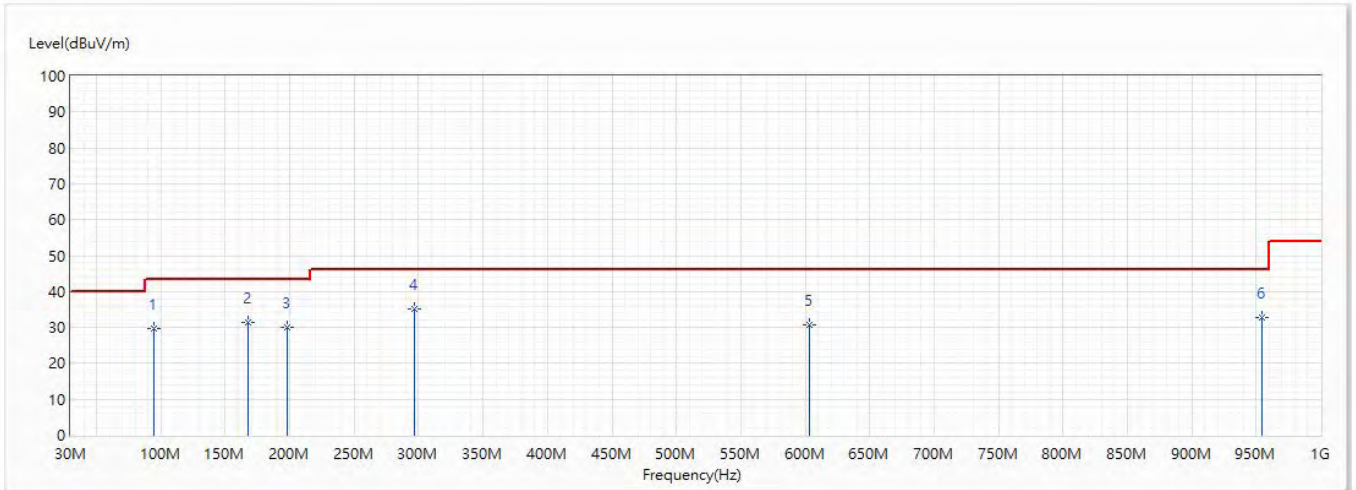
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 71.589          | 34.61                   | 40.00          | -5.39       | 42.60                | -7.99                 | QP            |
| 2   | 124.939         | 30.16                   | 43.50          | -13.34      | 32.06                | -1.90                 | QP            |
| 3   | 167.983         | 29.78                   | 43.50          | -13.72      | 33.82                | -4.04                 | QP            |
| 4   | 312.028         | 31.88                   | 46.00          | -14.12      | 31.91                | -0.03                 | QP            |
| 5   | 531.369         | 30.08                   | 46.00          | -15.92      | 25.00                | 5.08                  | QP            |
| 6   | 948.833         | 32.11                   | 46.00          | -13.89      | 21.78                | 10.33                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. " \* ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.



|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 54.0      |

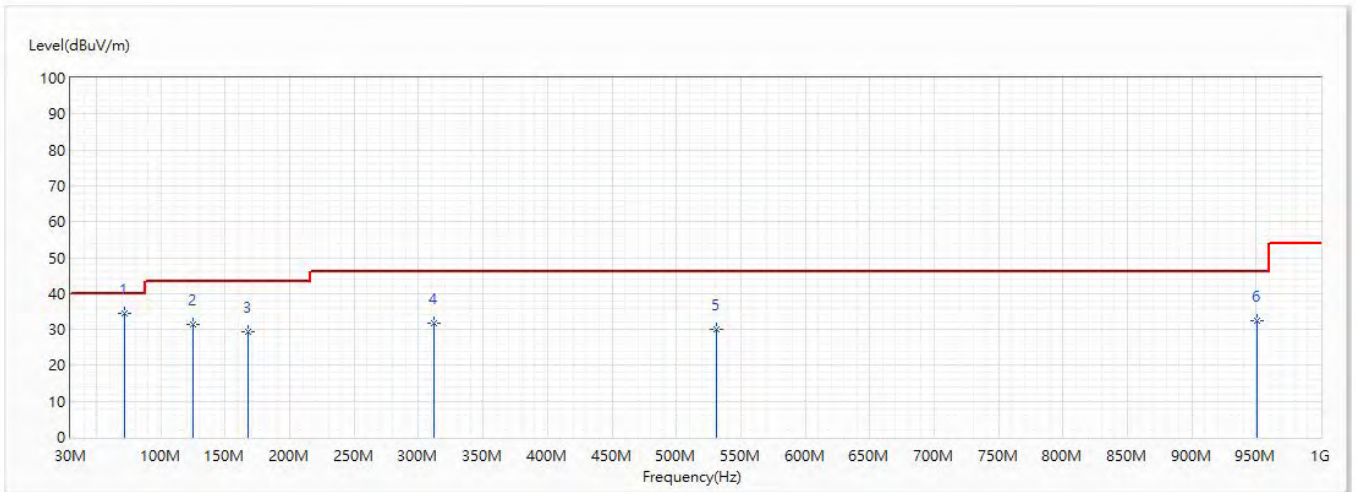


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 94.869          | 29.67                   | 43.50          | -13.83      | 34.55                | -4.88                 | QP            |
| 2   | 167.983         | 31.36                   | 43.50          | -12.14      | 35.40                | -4.04                 | QP            |
| 3   | 198.295         | 30.15                   | 43.50          | -13.35      | 34.38                | -4.23                 | QP            |
| * 4 | 296.75          | 35.10                   | 46.00          | -10.90      | 35.59                | -0.49                 | QP            |
| 5   | 603.028         | 30.71                   | 46.00          | -15.29      | 24.69                | 6.02                  | QP            |
| 6   | 954.774         | 32.68                   | 46.00          | -13.32      | 22.26                | 10.42                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 54.0      |

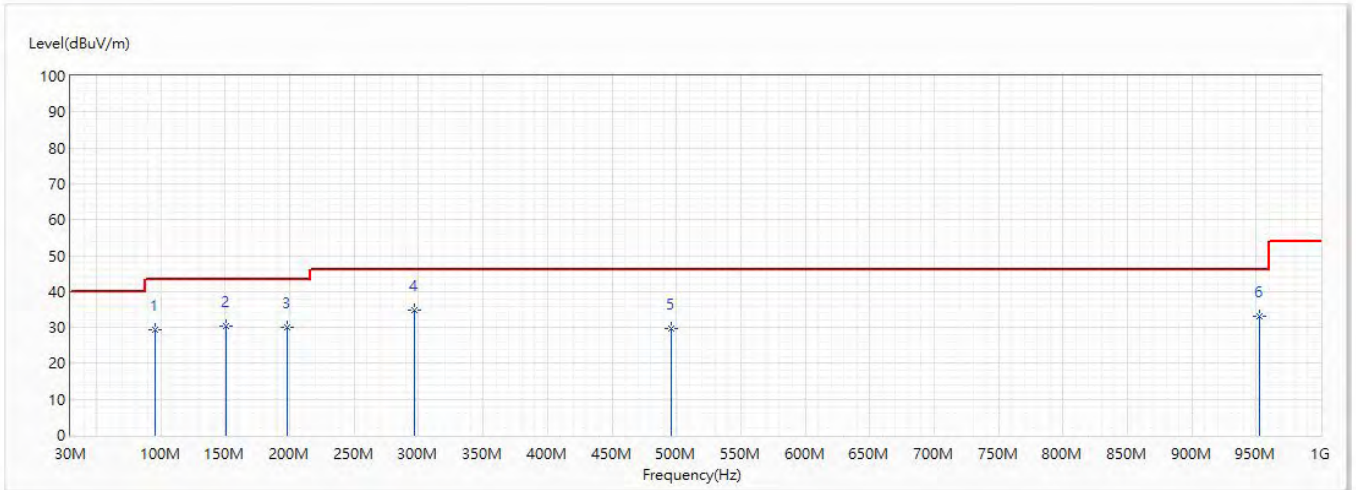


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 71.589          | 34.60                   | 40.00          | -5.40       | 42.59                | -7.99                 | QP            |
| 2   | 124.939         | 31.31                   | 43.50          | -12.19      | 33.21                | -1.90                 | QP            |
| 3   | 167.983         | 29.28                   | 43.50          | -14.22      | 33.32                | -4.04                 | QP            |
| 4   | 312.028         | 31.66                   | 46.00          | -14.34      | 31.69                | -0.03                 | QP            |
| 5   | 531.126         | 30.13                   | 46.00          | -15.87      | 25.05                | 5.08                  | QP            |
| 6   | 950.894         | 32.38                   | 46.00          | -13.62      | 22.03                | 10.35                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Horizontal                | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch157_5.785G | Humidity (%RH)   | 54.0      |

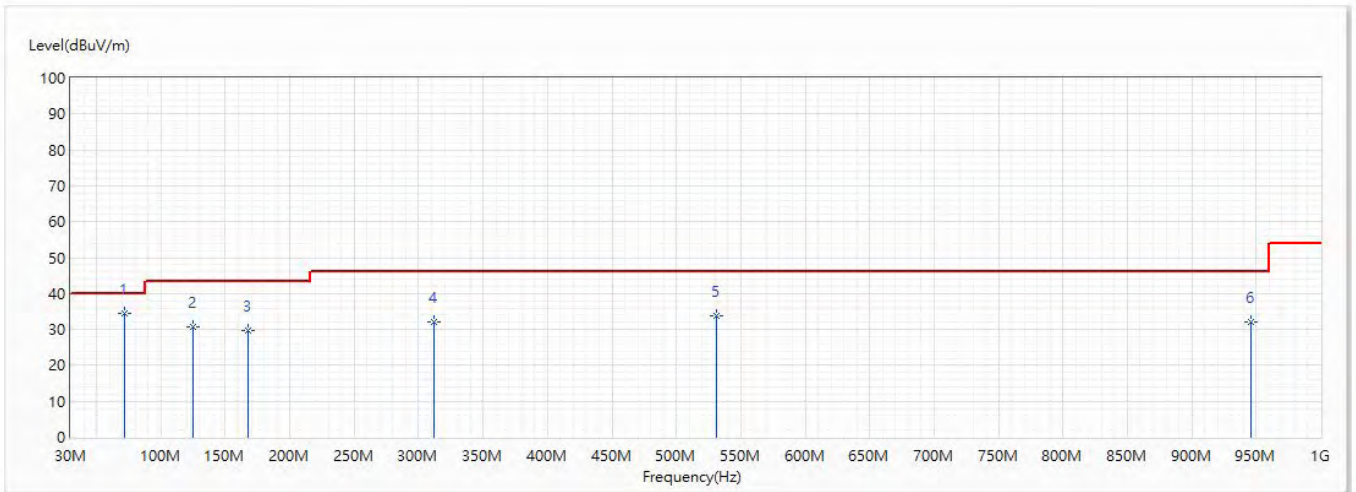


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 95.233          | 29.37                   | 43.50          | -14.13      | 34.17                | -4.80                 | QP            |
| 2   | 150.765         | 30.36                   | 43.50          | -13.14      | 33.29                | -2.93                 | QP            |
| 3   | 198.295         | 30.12                   | 43.50          | -13.38      | 34.35                | -4.23                 | QP            |
| * 4 | 296.75          | 34.83                   | 46.00          | -11.17      | 35.32                | -0.49                 | QP            |
| 5   | 495.6           | 29.53                   | 46.00          | -16.47      | 24.93                | 4.60                  | QP            |
| 6   | 952.591         | 32.95                   | 46.00          | -13.05      | 22.56                | 10.39                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Vertical                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch157_5.785G | Humidity (%RH)   | 54.0      |

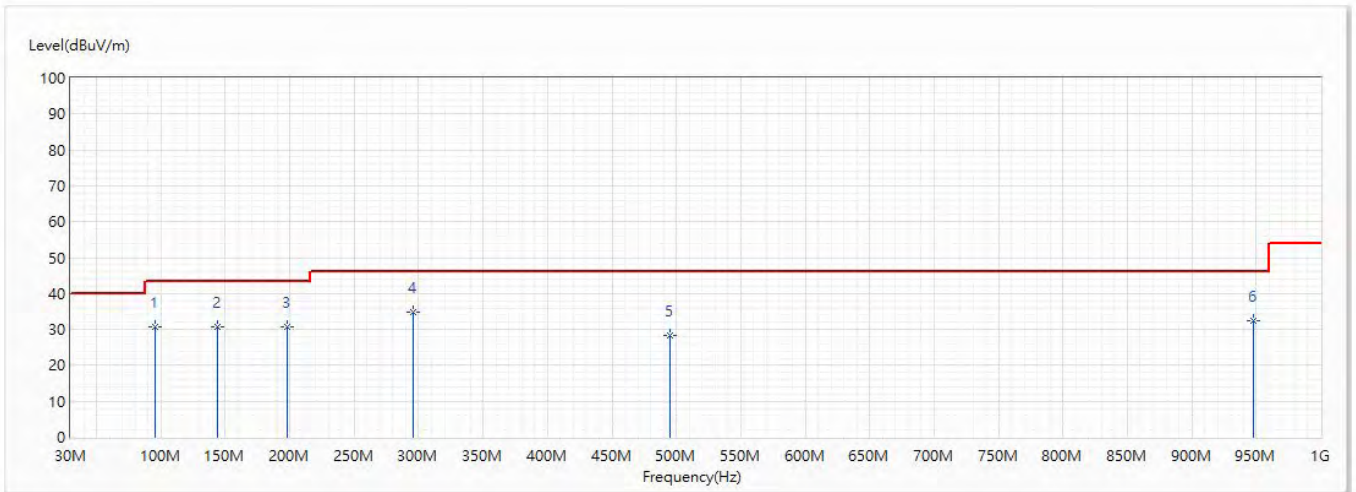


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 71.589          | 34.42                   | 40.00          | -5.58       | 42.41                | -7.99                 | QP            |
| 2   | 124.939         | 30.86                   | 43.50          | -12.64      | 32.76                | -1.90                 | QP            |
| 3   | 167.983         | 29.77                   | 43.50          | -13.73      | 33.81                | -4.04                 | QP            |
| 4   | 312.028         | 32.25                   | 46.00          | -13.75      | 32.28                | -0.03                 | QP            |
| 5   | 530.884         | 33.65                   | 46.00          | -12.35      | 28.57                | 5.08                  | QP            |
| 6   | 946.044         | 32.20                   | 46.00          | -13.80      | 21.92                | 10.28                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch157_5.785G | Humidity (%RH)   | 54.0      |

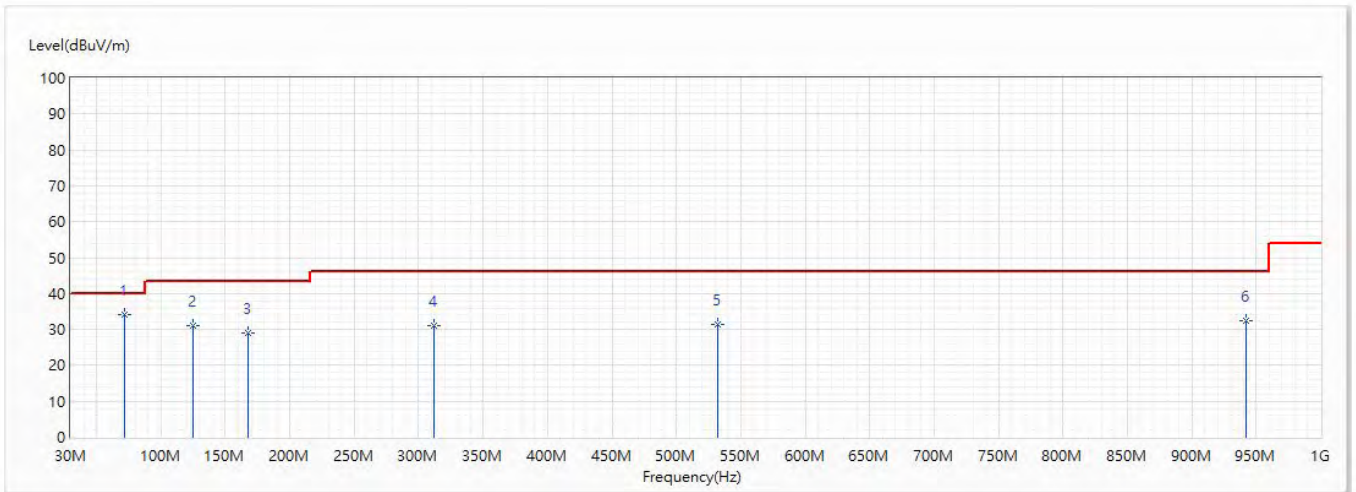


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 95.475          | 30.65                   | 43.50          | -12.85      | 35.40                | -4.75                 | QP            |
| 2   | 143.611         | 30.57                   | 43.50          | -12.93      | 33.06                | -2.49                 | QP            |
| 3   | 197.81          | 30.55                   | 43.50          | -12.95      | 34.81                | -4.26                 | QP            |
| * 4 | 295.416         | 34.96                   | 46.00          | -11.04      | 35.47                | -0.51                 | QP            |
| 5   | 494.751         | 28.42                   | 46.00          | -17.58      | 23.84                | 4.58                  | QP            |
| 6   | 947.863         | 32.36                   | 46.00          | -13.64      | 22.05                | 10.31                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch157_5.785G | Humidity (%RH)   | 54.0      |

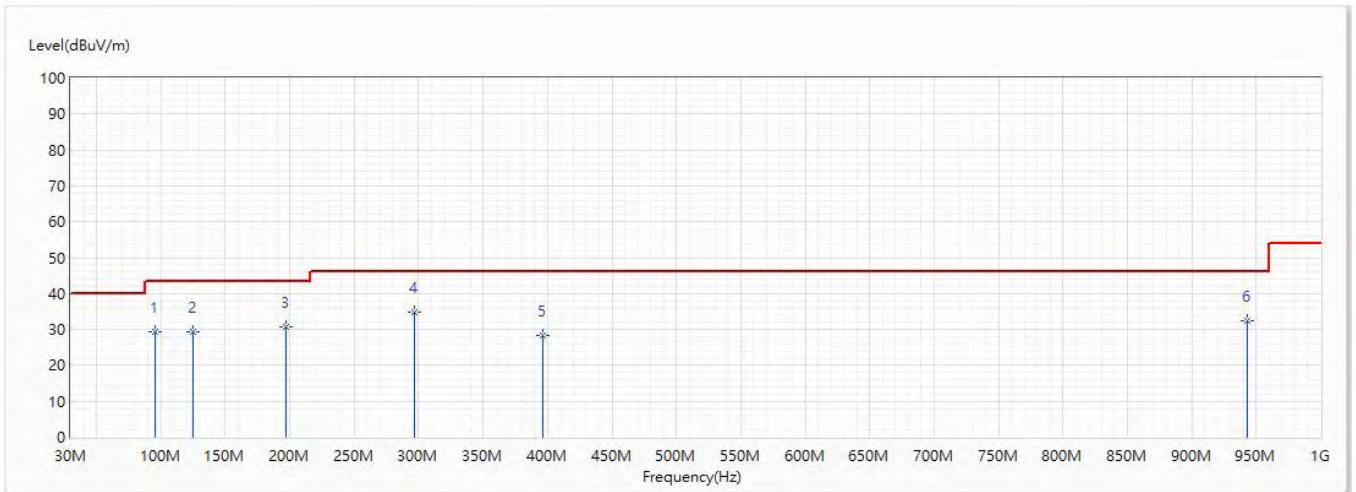


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 71.589          | 34.19                   | 40.00          | -5.81       | 42.18                | -7.99                 | QP            |
| 2   | 124.939         | 31.14                   | 43.50          | -12.36      | 33.04                | -1.90                 | QP            |
| 3   | 167.983         | 29.17                   | 43.50          | -14.33      | 33.21                | -4.04                 | QP            |
| 4   | 312.028         | 31.16                   | 46.00          | -14.84      | 31.19                | -0.03                 | QP            |
| 5   | 532.46          | 31.29                   | 46.00          | -14.71      | 26.19                | 5.10                  | QP            |
| 6   | 941.679         | 32.56                   | 46.00          | -13.44      | 22.35                | 10.21                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 54.0      |

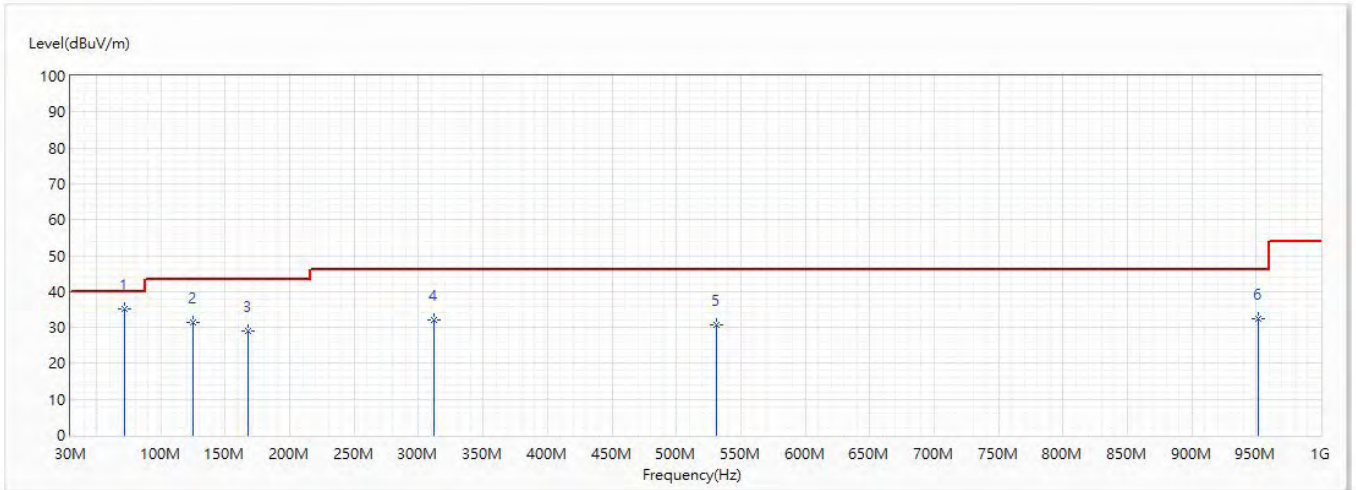


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 95.111          | 29.49                   | 43.50          | -14.01      | 34.32                | -4.83                 | QP            |
| 2   | 124.939         | 29.52                   | 43.50          | -13.98      | 31.42                | -1.90                 | QP            |
| 3   | 197.083         | 30.66                   | 43.50          | -12.84      | 34.93                | -4.27                 | QP            |
| * 4 | 296.75          | 34.79                   | 46.00          | -11.21      | 35.28                | -0.49                 | QP            |
| 5   | 396.66          | 28.37                   | 46.00          | -17.63      | 25.62                | 2.75                  | QP            |
| 6   | 943.013         | 32.47                   | 46.00          | -13.53      | 22.23                | 10.24                 | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 54.0      |



| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 71.589          | 35.05                   | 40.00          | -4.95       | 43.04                | -7.99                 | QP            |
| 2   | 124.939         | 31.51                   | 43.50          | -11.99      | 33.41                | -1.90                 | QP            |
| 3   | 167.983         | 29.10                   | 43.50          | -14.40      | 33.14                | -4.04                 | QP            |
| 4   | 312.028         | 32.00                   | 46.00          | -14.00      | 32.03                | -0.03                 | QP            |
| 5   | 531.126         | 30.82                   | 46.00          | -15.18      | 25.74                | 5.08                  | QP            |
| 6   | 951.5           | 32.37                   | 46.00          | -13.63      | 22.01                | 10.36                 | QP            |

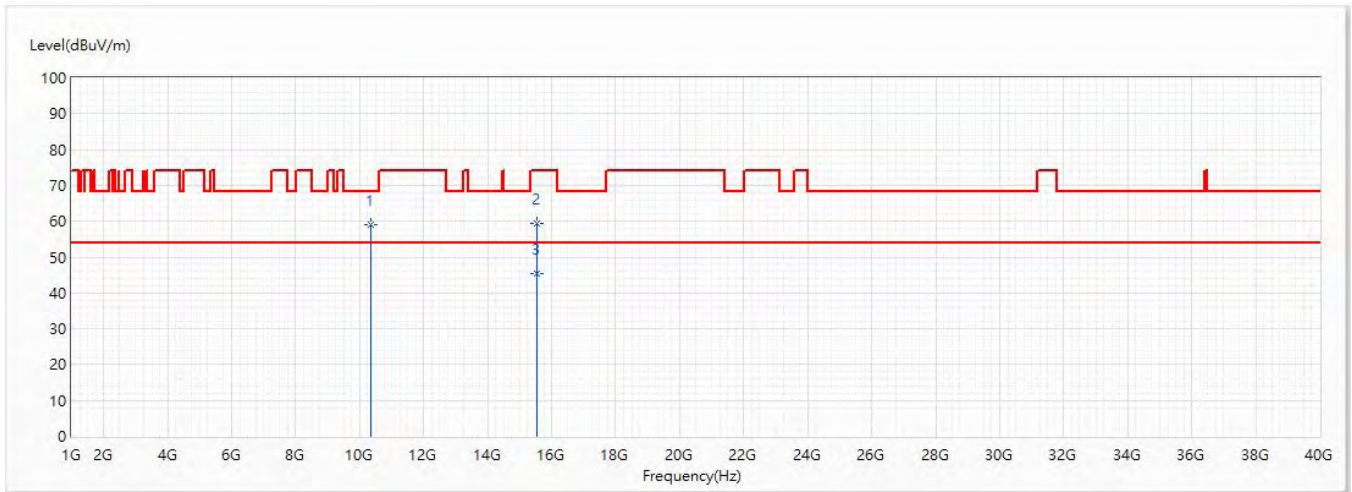
Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.



**Above 1GHz Spurious**

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 54.0      |

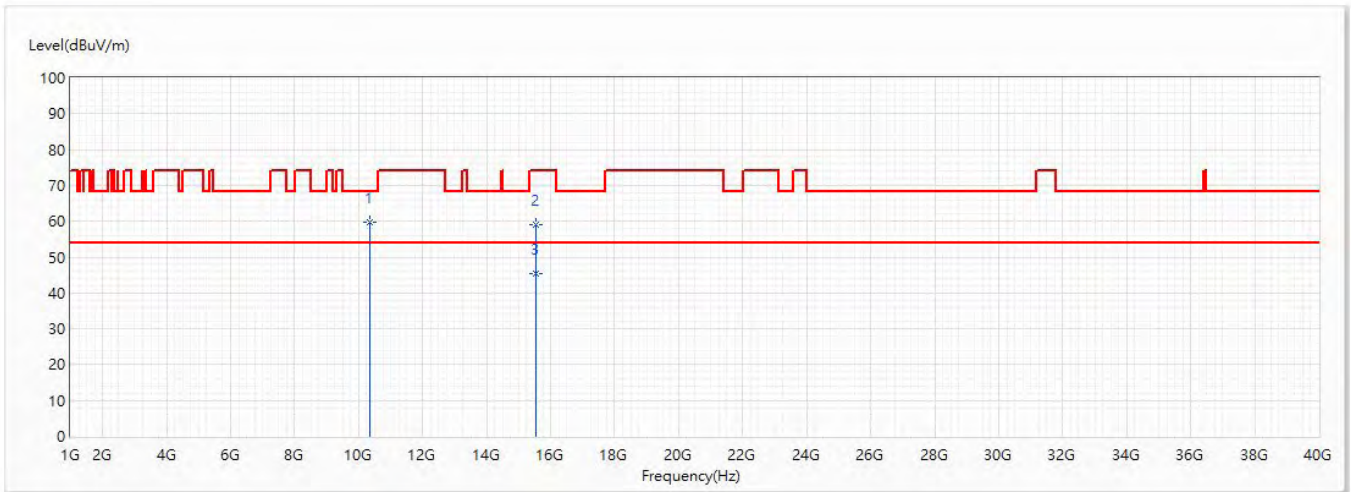


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10360           | 59.13                   | 68.20          | -9.07       | 56.35                | 2.78                  | PK            |
| 2   | 15540           | 59.34                   | 74.00          | -14.66      | 52.19                | 7.15                  | PK            |
| * 3 | 15540           | 45.50                   | 54.00          | -8.50       | 38.35                | 7.15                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 54.0      |

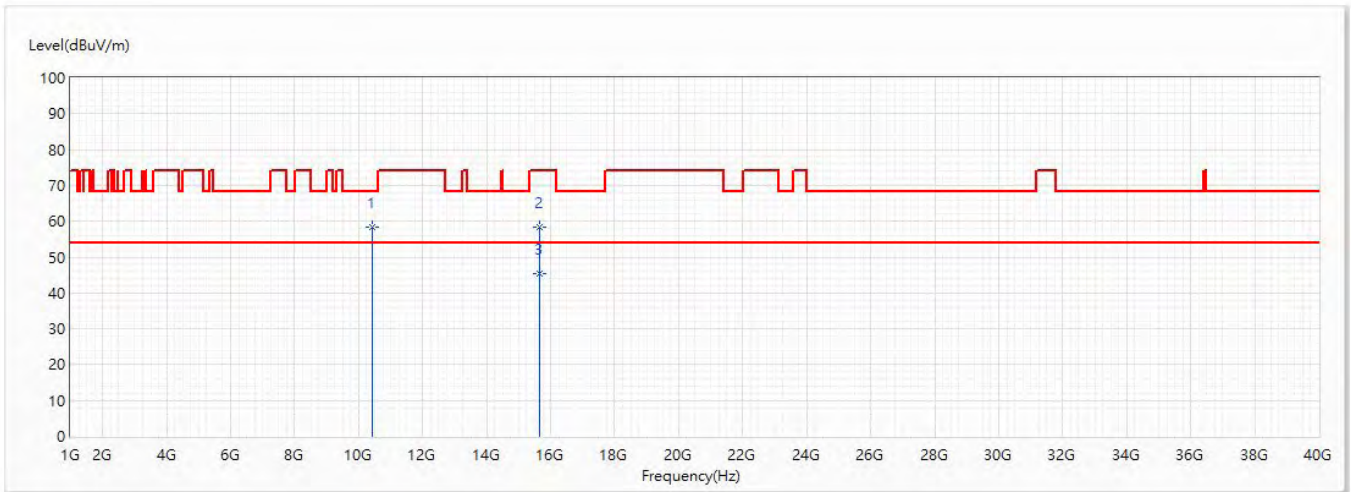


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10360           | 59.56                   | 68.20          | -8.64       | 56.78                | 2.78                  | PK            |
| 2   | 15540           | 59.13                   | 74.00          | -14.87      | 51.98                | 7.15                  | PK            |
| * 3 | 15540           | 45.40                   | 54.00          | -8.60       | 38.25                | 7.15                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch44_5.22G | Humidity (%RH)   | 54.0      |

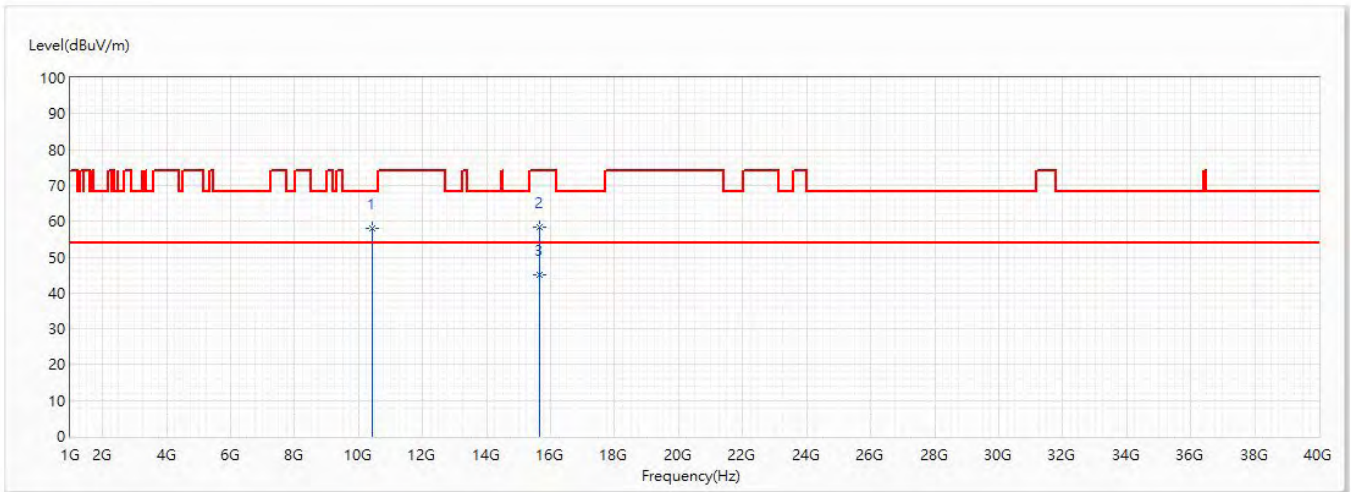


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10440           | 58.45                   | 68.20          | -9.75       | 55.38                | 3.07                  | PK            |
| 2   | 15660           | 58.45                   | 74.00          | -15.55      | 51.60                | 6.85                  | PK            |
| * 3 | 15660           | 45.28                   | 54.00          | -8.72       | 38.43                | 6.85                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch44_5.22G | Humidity (%RH)   | 54.0      |

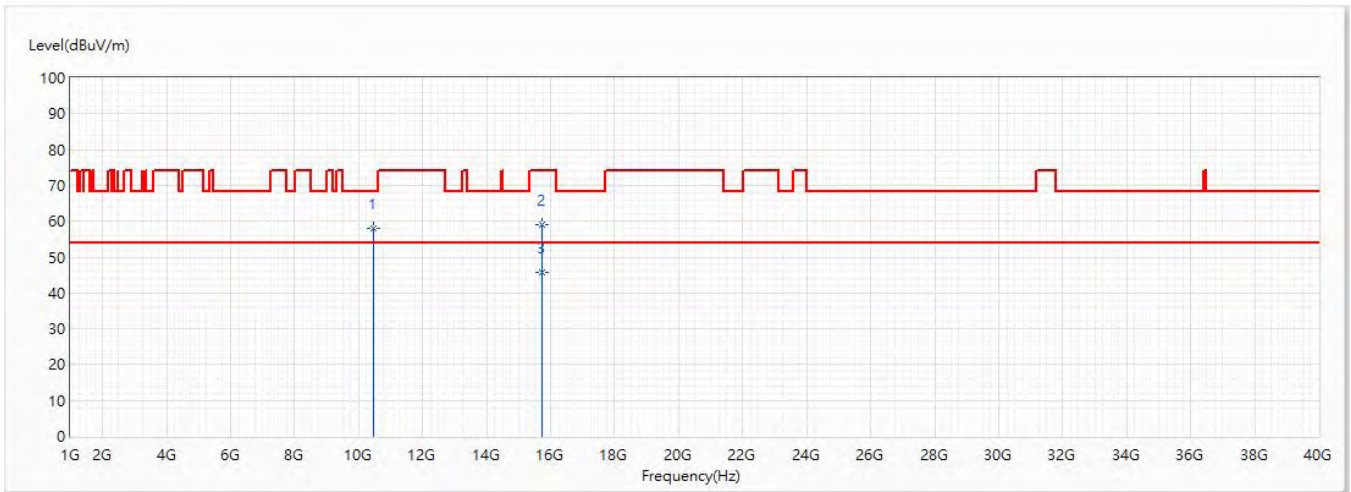


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10440           | 58.05                   | 68.20          | -10.15      | 54.98                | 3.07                  | PK            |
| 2   | 15660           | 58.51                   | 74.00          | -15.49      | 51.66                | 6.85                  | PK            |
| * 3 | 15660           | 45.22                   | 54.00          | -8.78       | 38.37                | 6.85                  | AV            |

Note:

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 54.0      |

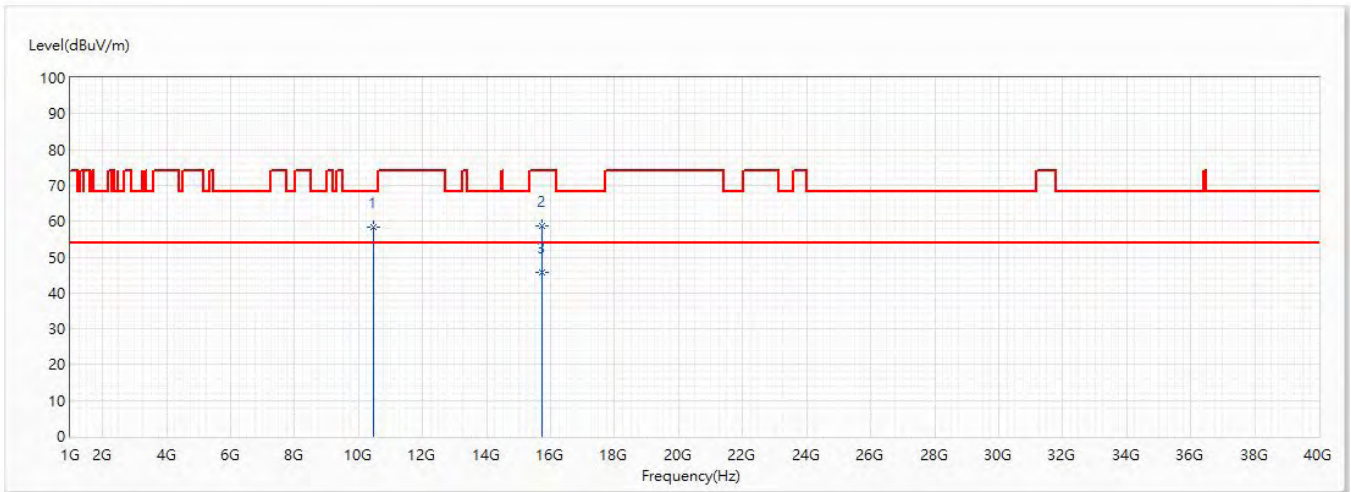


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10480           | 58.11                   | 68.20          | -10.09      | 54.83                | 3.28                  | PK            |
| 2   | 15720           | 59.10                   | 74.00          | -14.90      | 52.36                | 6.74                  | PK            |
| * 3 | 15720           | 45.76                   | 54.00          | -8.24       | 39.02                | 6.74                  | AV            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 54.0      |

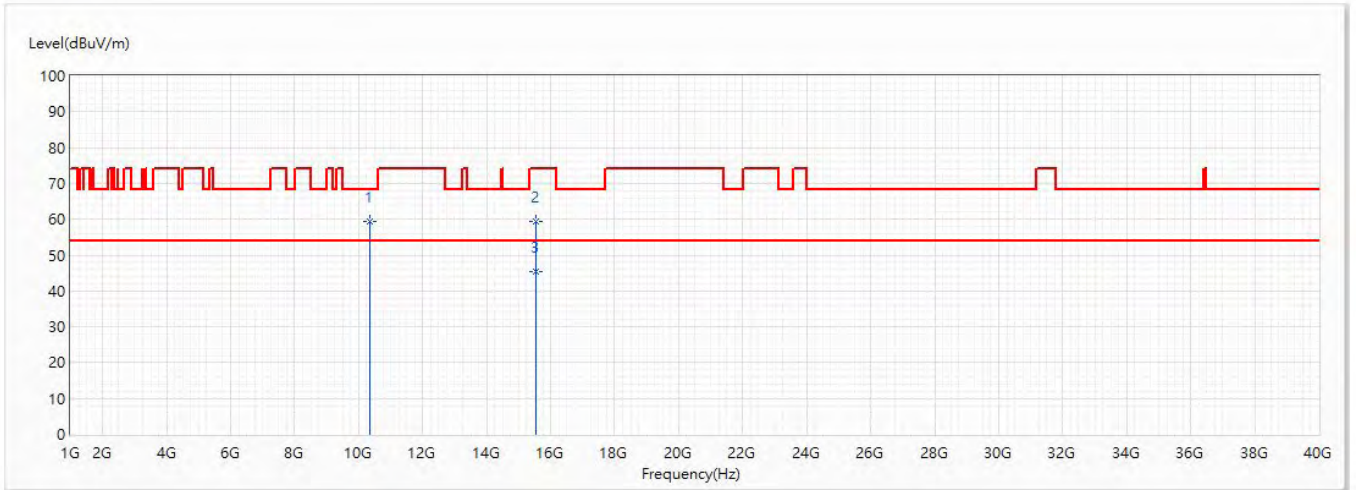


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10480           | 58.43                   | 68.20          | -9.77       | 55.15                | 3.28                  | PK            |
| 2   | 15720           | 58.80                   | 74.00          | -15.20      | 52.06                | 6.74                  | PK            |
| * 3 | 15720           | 45.65                   | 54.00          | -8.35       | 38.91                | 6.74                  | AV            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 54.0      |

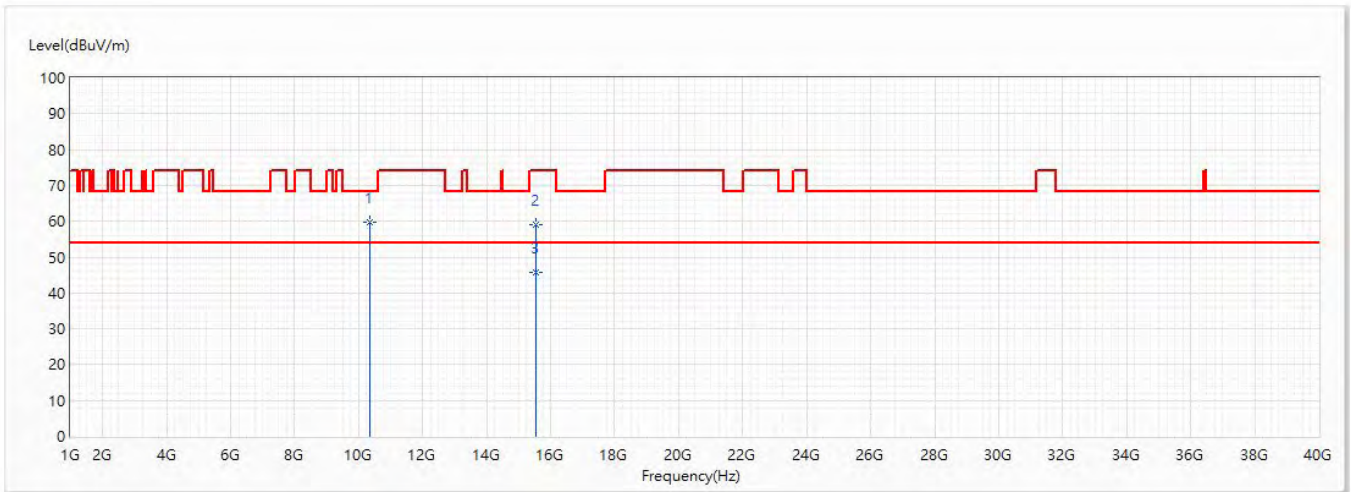


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10360           | 59.26                   | 68.20          | -8.94       | 56.48                | 2.78                  | PK            |
| 2   | 15540           | 59.40                   | 74.00          | -14.60      | 52.25                | 7.15                  | PK            |
| * 3 | 15540           | 45.56                   | 54.00          | -8.44       | 38.41                | 7.15                  | AV            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 54.0      |



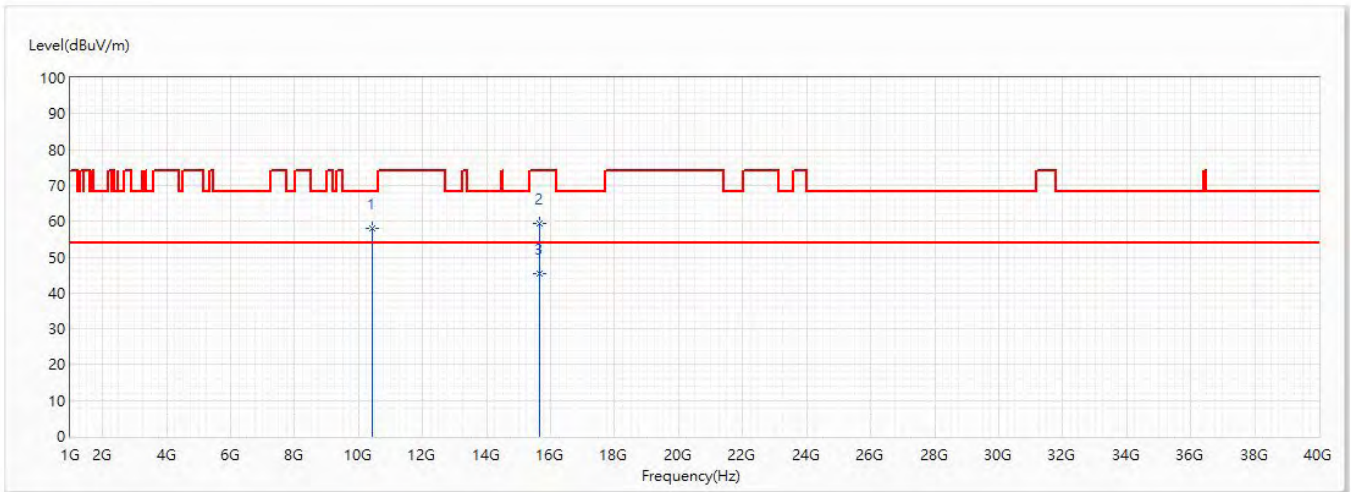
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| * 1 | 10360           | 59.87                   | 68.20          | -8.33       | 57.09                | 2.78                  | PK            |
| 2   | 15540           | 59.14                   | 74.00          | -14.86      | 51.99                | 7.15                  | PK            |
| 3   | 15540           | 45.57                   | 54.00          | -8.43       | 38.42                | 7.15                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.



|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch44_5.22G | Humidity (%RH)   | 54.0      |

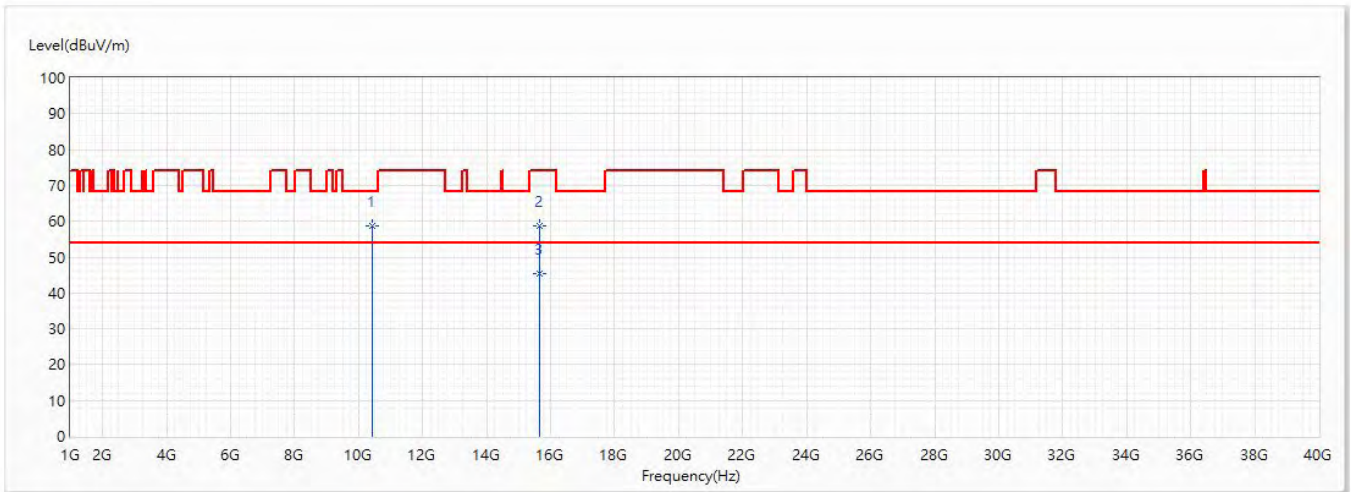


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10440           | 58.16                   | 68.20          | -10.04      | 55.09                | 3.07                  | PK            |
| 2   | 15660           | 59.30                   | 74.00          | -14.70      | 52.45                | 6.85                  | PK            |
| * 3 | 15660           | 45.35                   | 54.00          | -8.65       | 38.50                | 6.85                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch44_5.22G | Humidity (%RH)   | 54.0      |

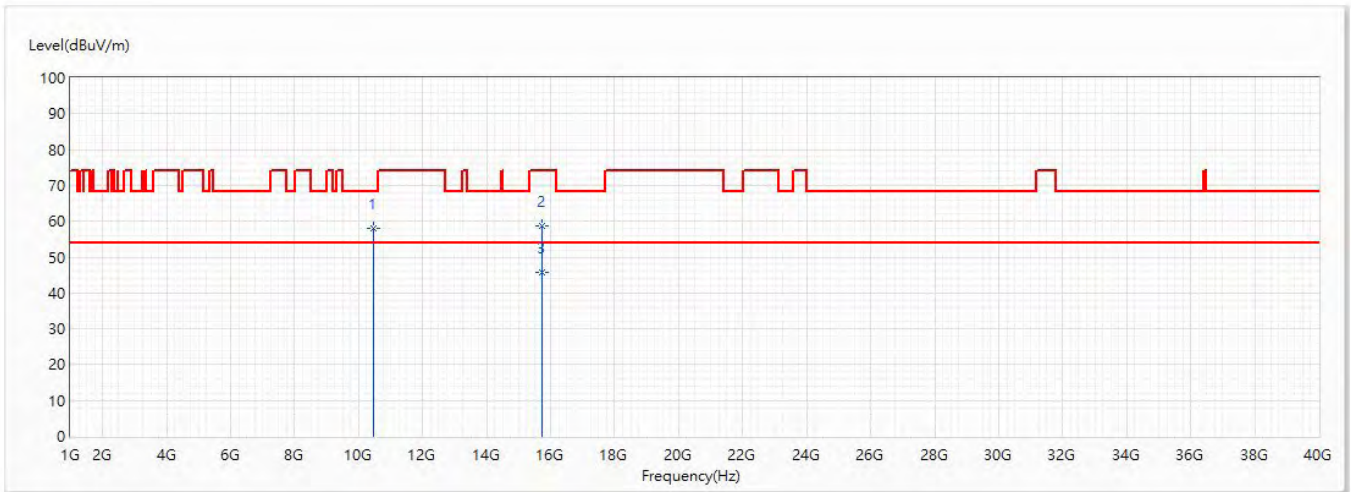


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10440           | 58.62                   | 68.20          | -9.58       | 55.55                | 3.07                  | PK            |
| 2   | 15660           | 58.71                   | 74.00          | -15.29      | 51.86                | 6.85                  | PK            |
| * 3 | 15660           | 45.32                   | 54.00          | -8.68       | 38.47                | 6.85                  | AV            |

Note:

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 54.0      |

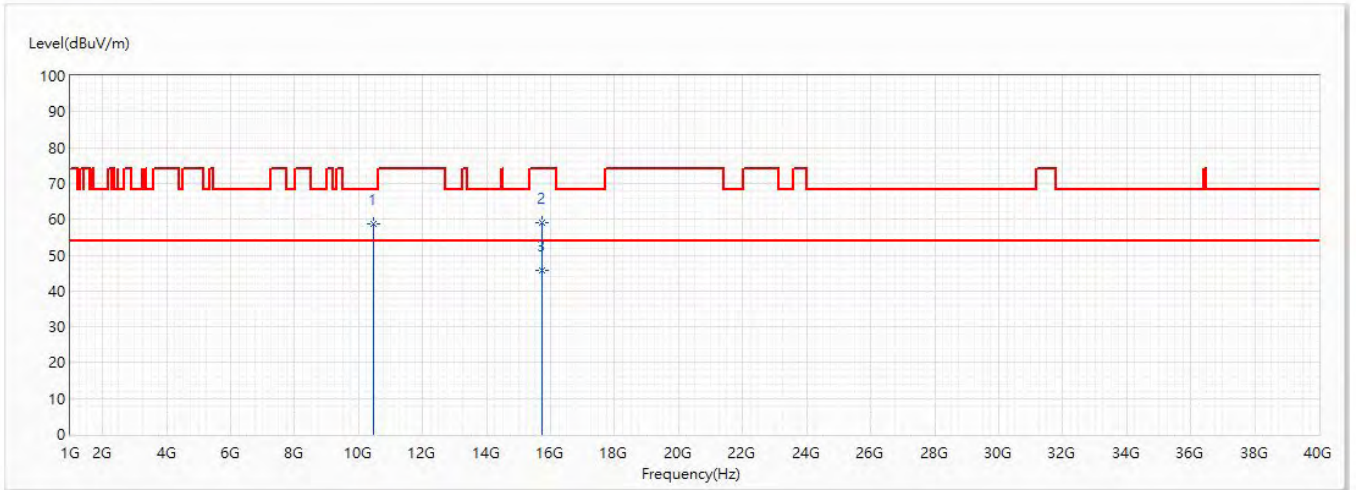


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10480           | 57.86                   | 68.20          | -10.34      | 54.58                | 3.28                  | PK            |
| 2   | 15720           | 58.78                   | 74.00          | -15.22      | 52.04                | 6.74                  | PK            |
| * 3 | 15720           | 45.71                   | 54.00          | -8.29       | 38.97                | 6.74                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 54.0      |

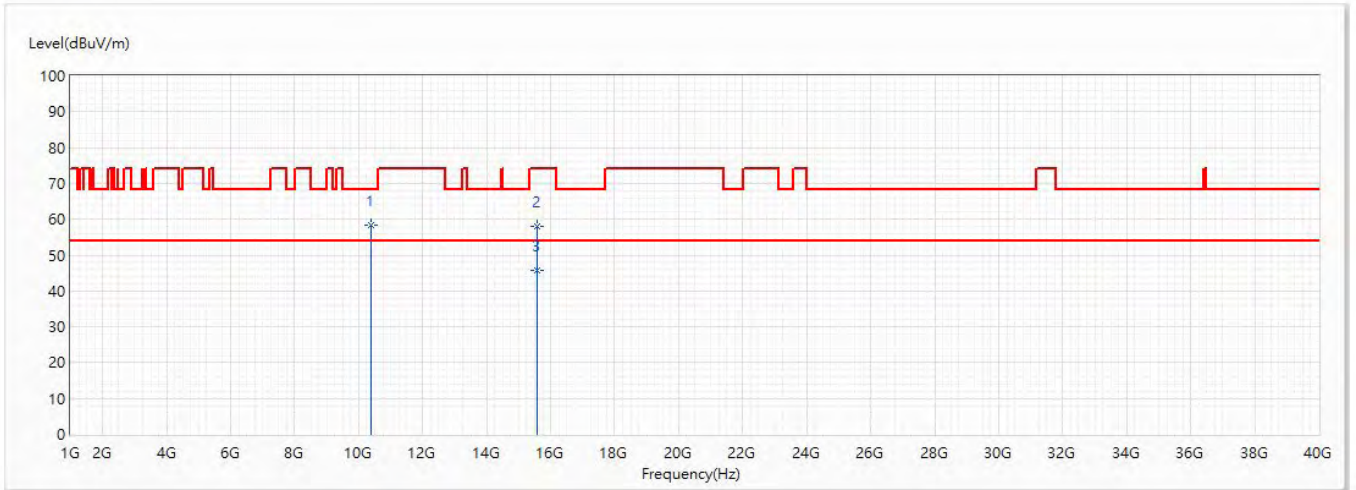


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10480           | 58.59                   | 68.20          | -9.61       | 55.31                | 3.28                  | PK            |
| 2   | 15720           | 58.96                   | 74.00          | -15.04      | 52.22                | 6.74                  | PK            |
| * 3 | 15720           | 45.77                   | 54.00          | -8.23       | 39.03                | 6.74                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 54.0      |

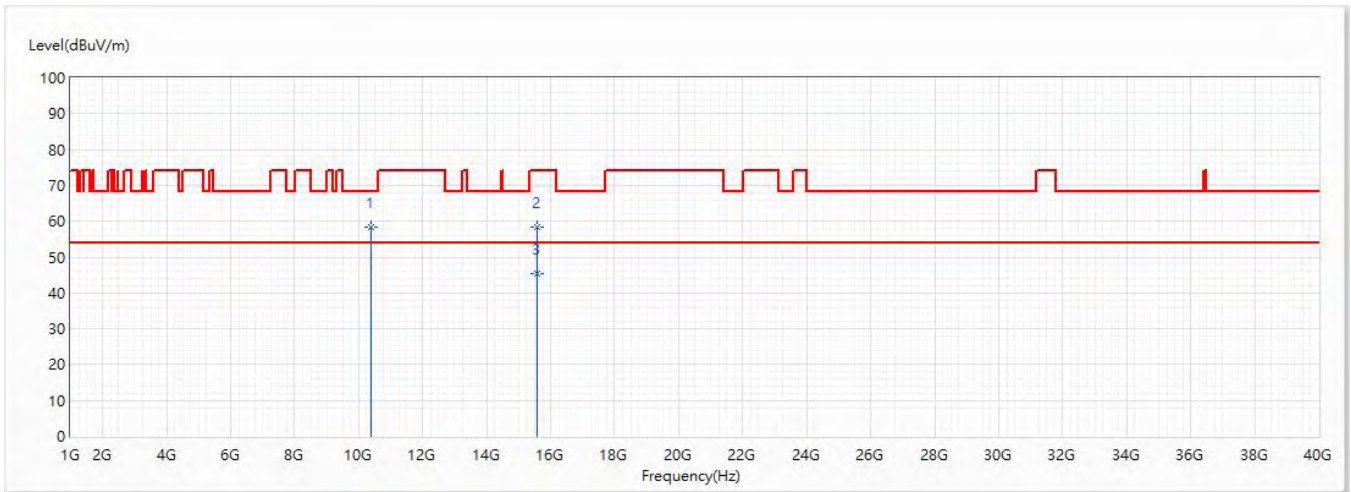


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10380           | 58.36                   | 68.20          | -9.84       | 55.54                | 2.82                  | PK            |
| 2   | 15570           | 58.05                   | 74.00          | -15.95      | 51.06                | 6.99                  | PK            |
| * 3 | 15570           | 45.70                   | 54.00          | -8.30       | 38.71                | 6.99                  | AV            |

Note:

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 54.0      |

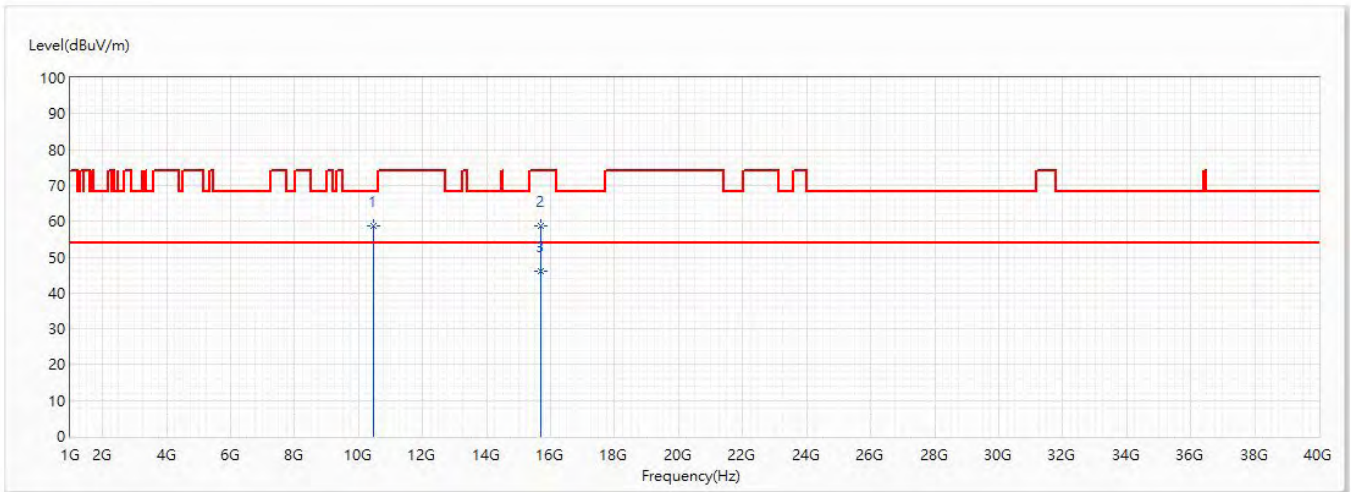


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10380           | 58.29                   | 68.20          | -9.91       | 55.47                | 2.82                  | PK            |
| 2   | 15570           | 58.33                   | 74.00          | -15.67      | 51.34                | 6.99                  | PK            |
| * 3 | 15570           | 45.53                   | 54.00          | -8.47       | 38.54                | 6.99                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 54.0      |

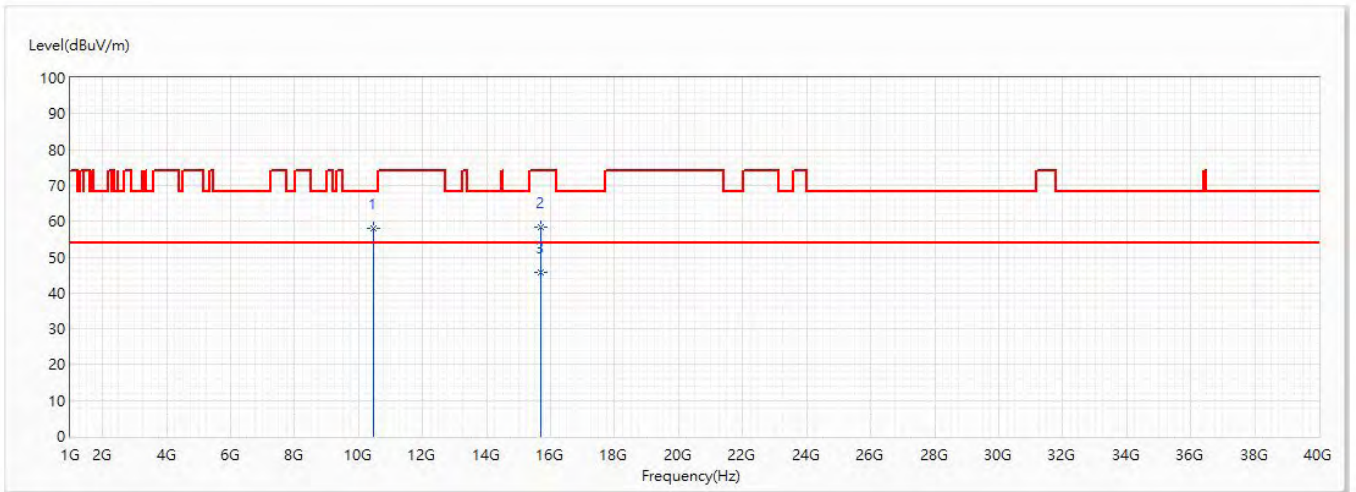


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10460           | 58.68                   | 68.20          | -9.52       | 55.52                | 3.16                  | PK            |
| 2   | 15690           | 58.84                   | 74.00          | -15.16      | 51.98                | 6.86                  | PK            |
| * 3 | 15690           | 46.05                   | 54.00          | -7.95       | 39.19                | 6.86                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/14 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 22.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 54.0      |



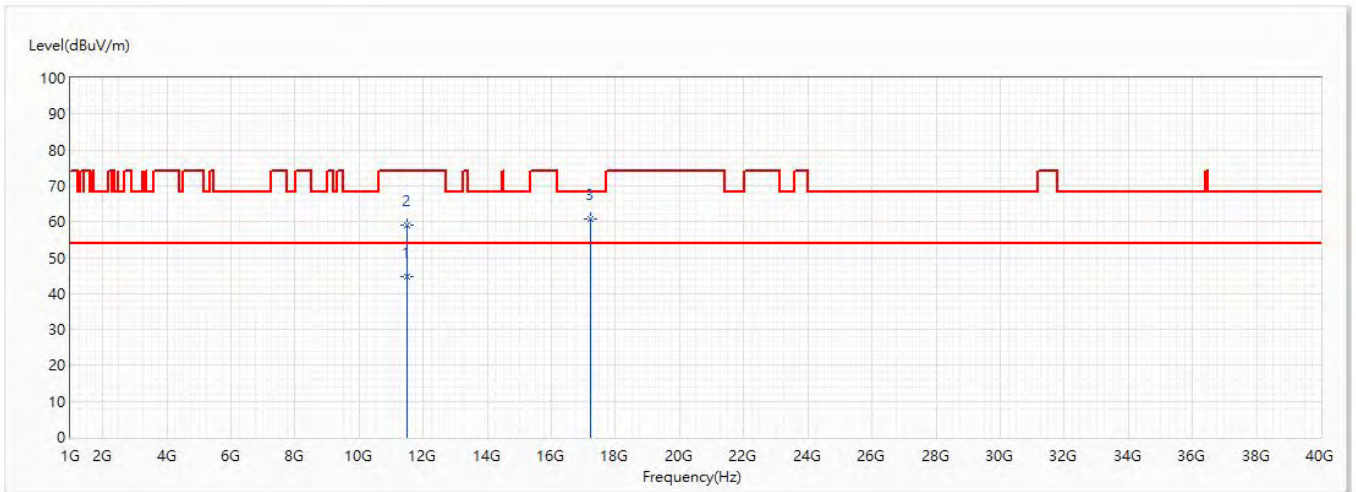
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 10460           | 58.08                   | 68.20          | -10.12      | 54.92                | 3.16                  | PK            |
| 2   | 15690           | 58.23                   | 74.00          | -15.77      | 51.37                | 6.86                  | PK            |
| * 3 | 15690           | 45.88                   | 54.00          | -8.12       | 39.02                | 6.86                  | AV            |

**Note:**

- 1.All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
- 3.Emission Level = Reading Level + Correct Factor.
- 4.The average measurement was not performed when the peak measured data under the limit of average detection.
- 5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.



|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Horizontal                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch149_5.745G | Humidity (%RH)   | 55.0      |

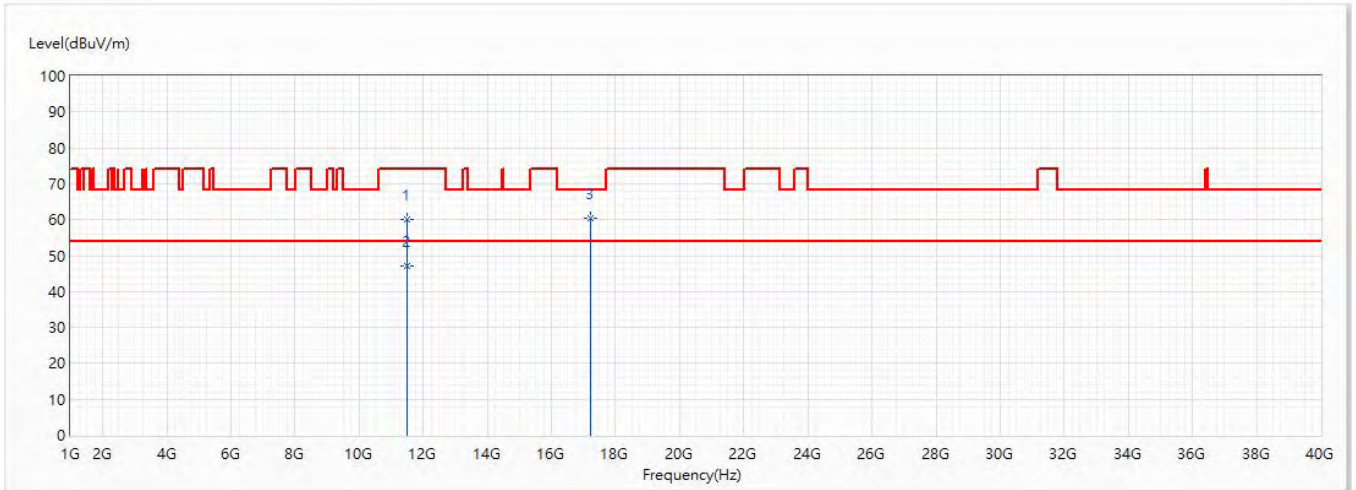


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11490           | 44.68                   | 54.00          | -9.32       | 39.63                | 5.05                  | AV            |
| 2   | 11490           | 58.89                   | 74.00          | -15.11      | 53.84                | 5.05                  | PK            |
| * 3 | 17235           | 60.80                   | 68.20          | -7.40       | 52.08                | 8.72                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Vertical                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch149_5.745G | Humidity (%RH)   | 55.0      |

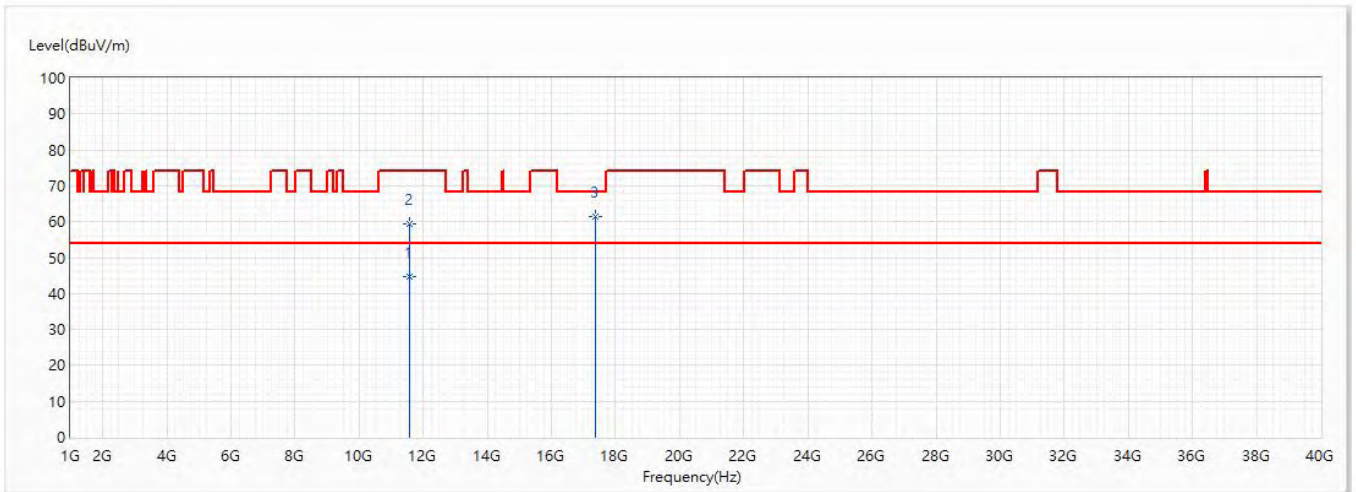


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11490           | 60.11                   | 74.00          | -13.89      | 55.06                | 5.05                  | PK            |
| * 2 | 11490           | 47.19                   | 54.00          | -6.81       | 42.14                | 5.05                  | AV            |
| 3   | 17235           | 60.32                   | 68.20          | -7.88       | 51.60                | 8.72                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Horizontal                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch157_5.785G | Humidity (%RH)   | 55.0      |

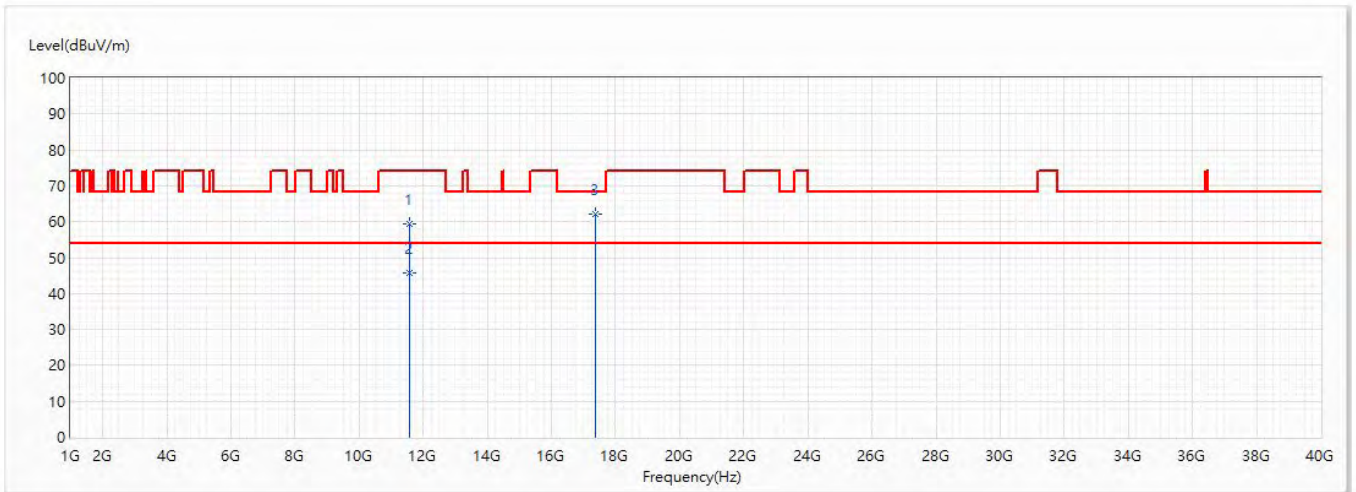


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11570           | 44.78                   | 54.00          | -9.22       | 39.70                | 5.08                  | AV            |
| 2   | 11570           | 59.27                   | 74.00          | -14.73      | 54.19                | 5.08                  | PK            |
| * 3 | 17355           | 61.47                   | 68.20          | -6.73       | 52.23                | 9.24                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Vertical                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch157_5.785G | Humidity (%RH)   | 55.0      |

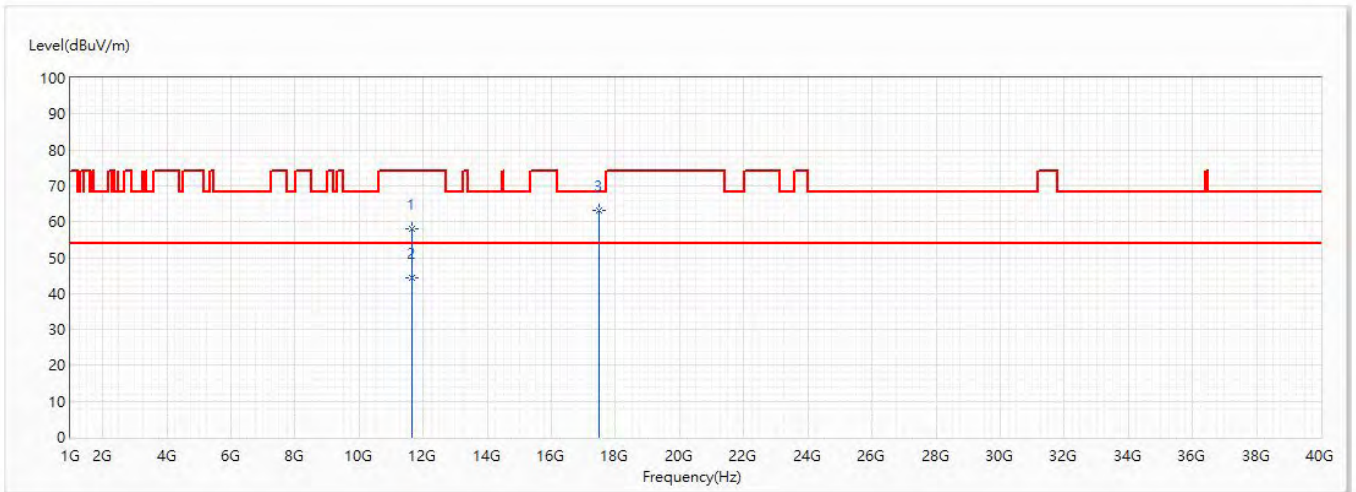


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11570           | 59.53                   | 74.00          | -14.47      | 54.45                | 5.08                  | PK            |
| 2   | 11570           | 45.65                   | 54.00          | -8.35       | 40.57                | 5.08                  | AV            |
| * 3 | 17355           | 62.10                   | 68.20          | -6.10       | 52.86                | 9.24                  | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Horizontal                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch165_5.825G | Humidity (%RH)   | 55.0      |

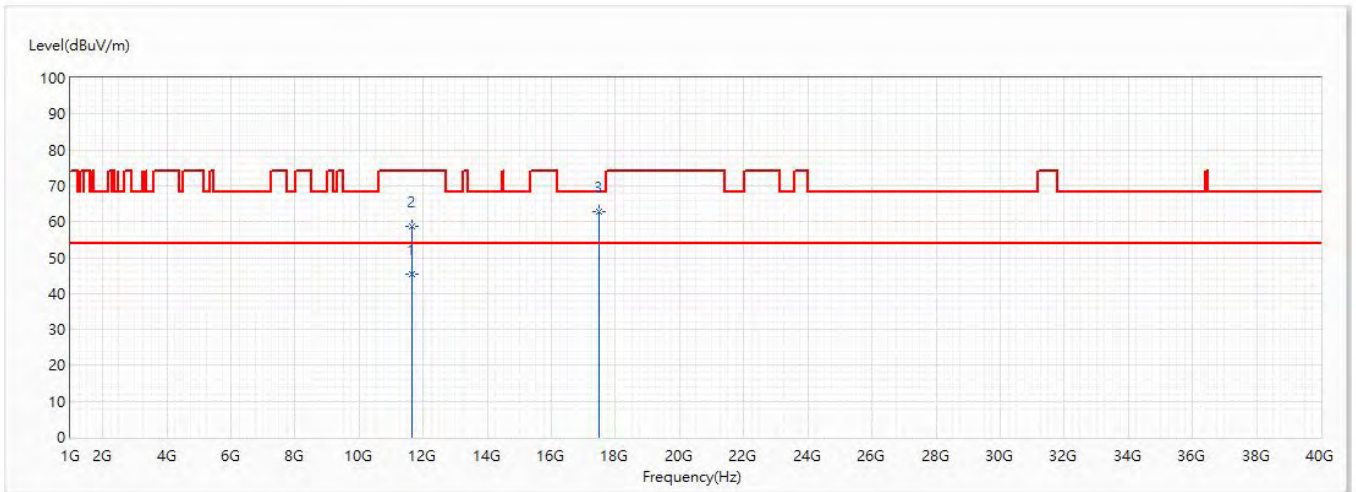


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11650           | 58.06                   | 74.00          | -15.94      | 52.95                | 5.11                  | PK            |
| 2   | 11650           | 44.22                   | 54.00          | -9.78       | 39.11                | 5.11                  | AV            |
| * 3 | 17475           | 63.26                   | 68.20          | -4.94       | 53.57                | 9.69                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Elwin     |
| Polarity       | Vertical                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch165_5.825G | Humidity (%RH)   | 55.0      |

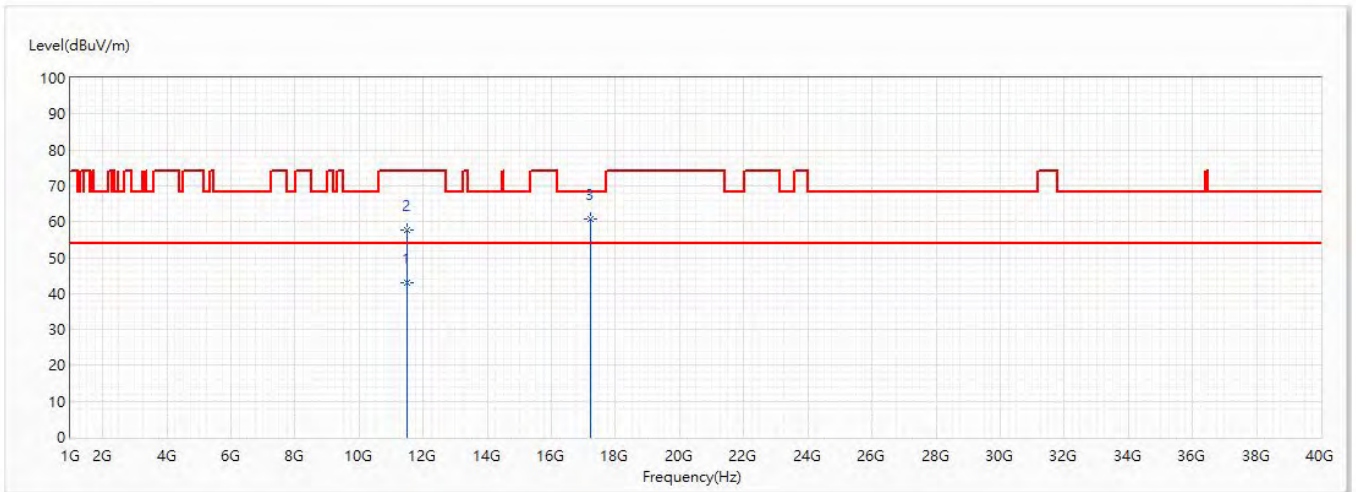


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11650           | 45.38                   | 54.00          | -8.62       | 40.27                | 5.11                  | AV            |
| 2   | 11650           | 58.74                   | 74.00          | -15.26      | 53.63                | 5.11                  | PK            |
| * 3 | 17475           | 62.69                   | 68.20          | -5.51       | 53.00                | 9.69                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch149_5.745G | Humidity (%RH)   | 55.0      |

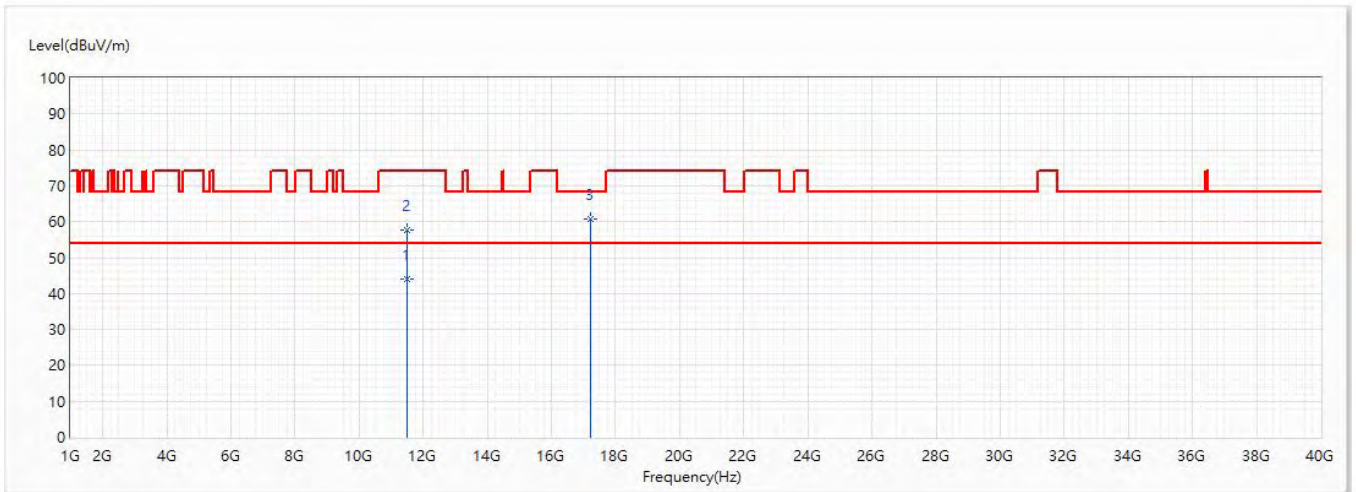


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11490           | 43.04                   | 54.00          | -10.96      | 37.99                | 5.05                  | AV            |
| 2   | 11490           | 57.84                   | 74.00          | -16.16      | 52.79                | 5.05                  | PK            |
| * 3 | 17235           | 60.77                   | 68.20          | -7.43       | 52.05                | 8.72                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch149_5.745G | Humidity (%RH)   | 55.0      |



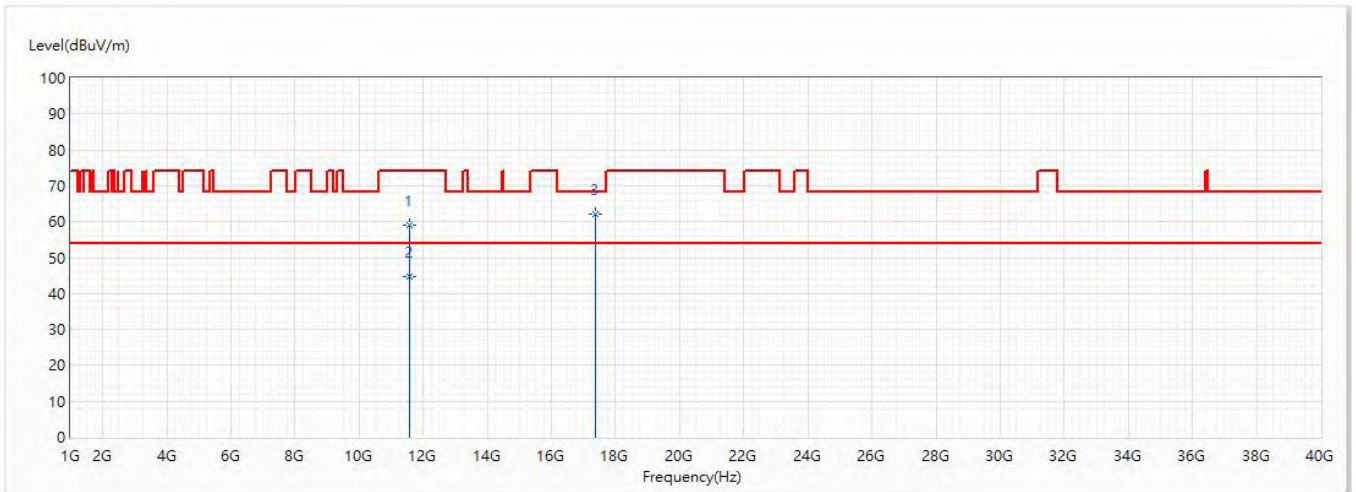
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11490           | 44.03                   | 54.00          | -9.97       | 38.98                | 5.05                  | AV            |
| 2   | 11490           | 57.83                   | 74.00          | -16.17      | 52.78                | 5.05                  | PK            |
| * 3 | 17235           | 60.85                   | 68.20          | -7.35       | 52.13                | 8.72                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.



|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch157_5.785G | Humidity (%RH)   | 55.0      |

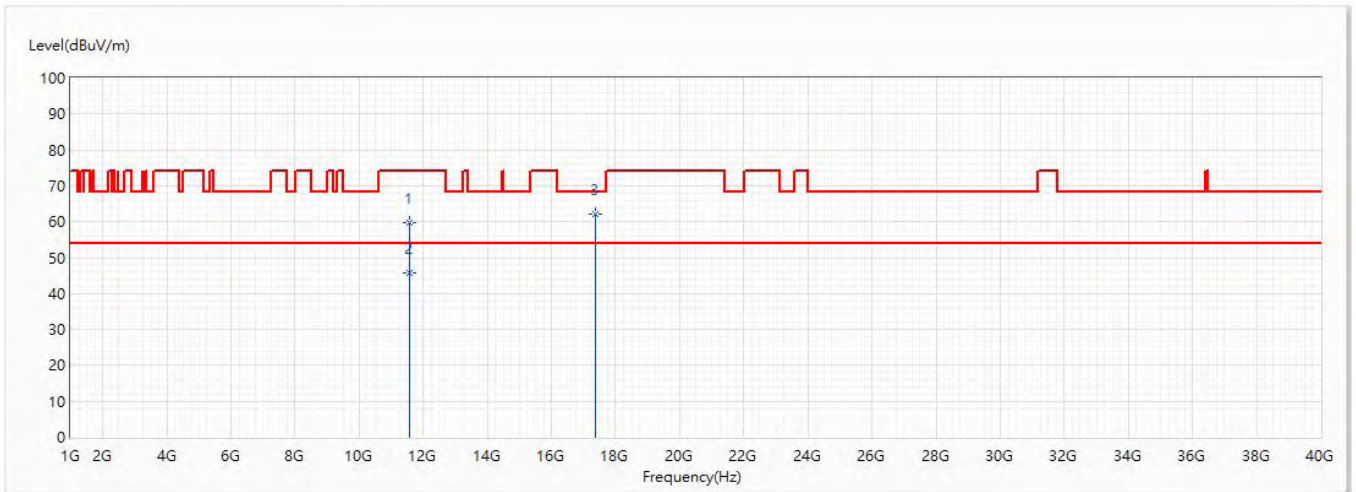


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11570           | 59.14                   | 74.00          | -14.86      | 54.06                | 5.08                  | PK            |
| 2   | 11570           | 44.79                   | 54.00          | -9.21       | 39.71                | 5.08                  | AV            |
| * 3 | 17355           | 62.02                   | 68.20          | -6.18       | 52.78                | 9.24                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch157_5.785G | Humidity (%RH)   | 55.0      |

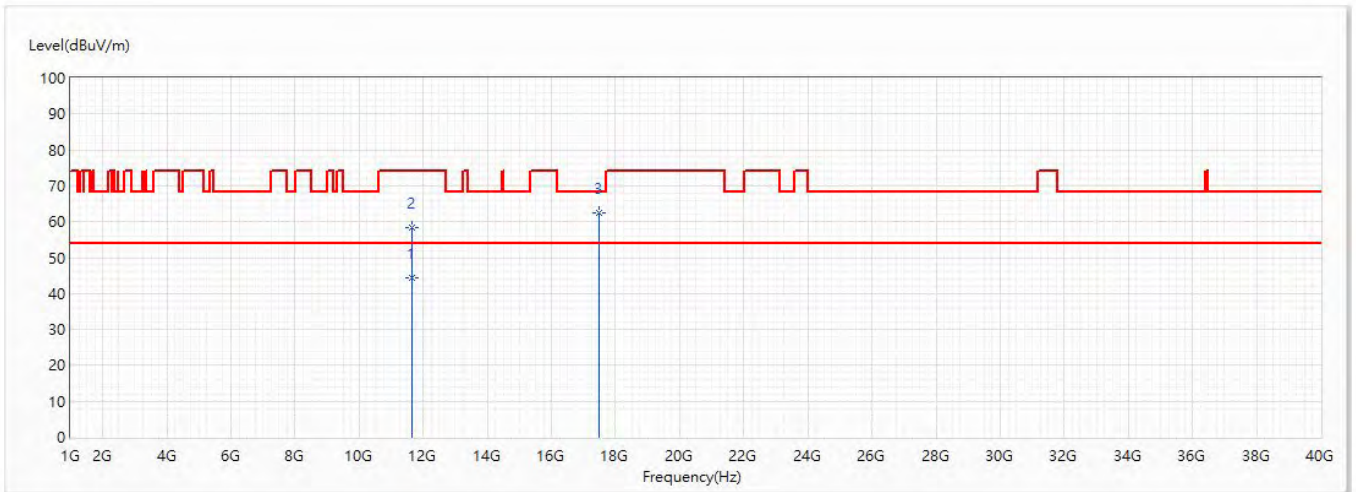


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11570           | 59.80                   | 74.00          | -14.20      | 54.72                | 5.08                  | PK            |
| 2   | 11570           | 45.71                   | 54.00          | -8.29       | 40.63                | 5.08                  | AV            |
| * 3 | 17355           | 62.12                   | 68.20          | -6.08       | 52.88                | 9.24                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch165_5.825G | Humidity (%RH)   | 55.0      |

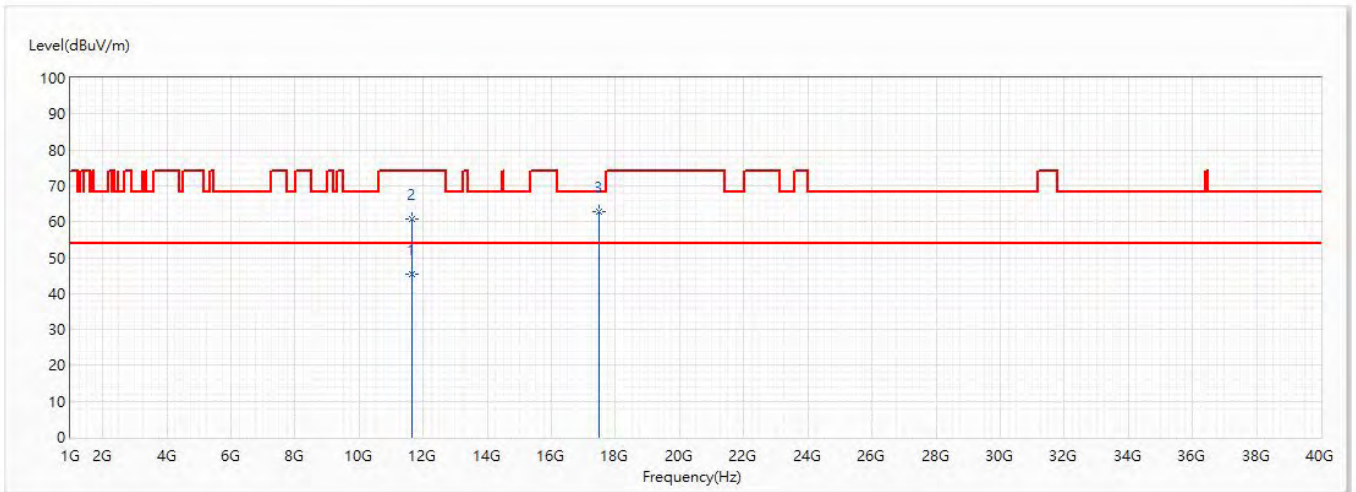


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11650           | 44.20                   | 54.00          | -9.80       | 39.09                | 5.11                  | AV            |
| 2   | 11650           | 58.53                   | 74.00          | -15.47      | 53.42                | 5.11                  | PK            |
| * 3 | 17475           | 62.41                   | 68.20          | -5.79       | 52.72                | 9.69                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch165_5.825G | Humidity (%RH)   | 55.0      |

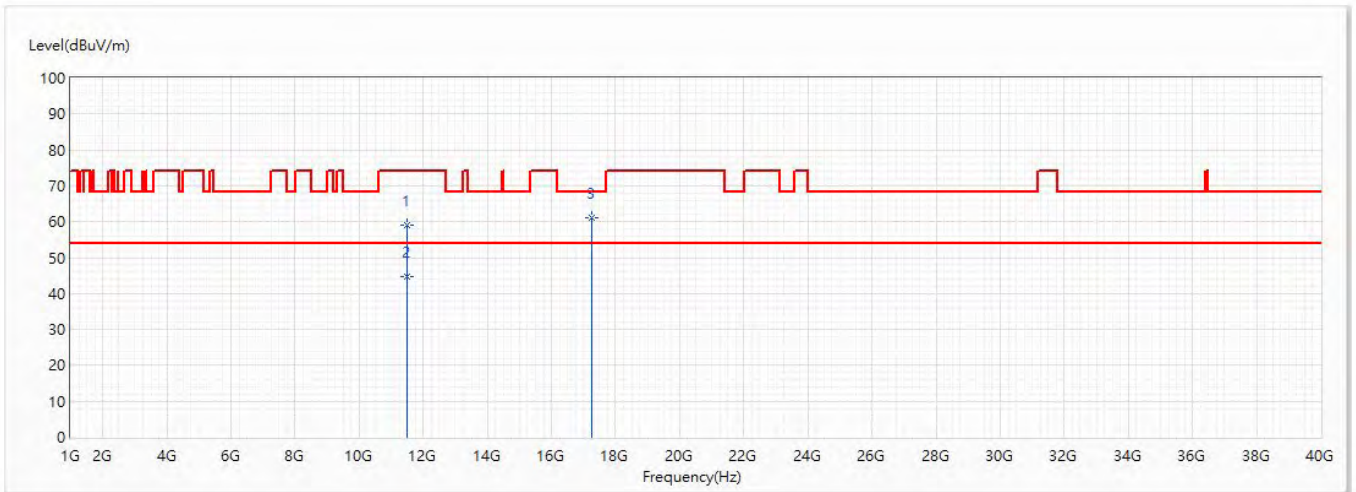


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11650           | 45.56                   | 54.00          | -8.44       | 40.45                | 5.11                  | AV            |
| 2   | 11650           | 60.63                   | 74.00          | -13.37      | 55.52                | 5.11                  | PK            |
| * 3 | 17475           | 62.64                   | 68.20          | -5.56       | 52.95                | 9.69                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 55.0      |

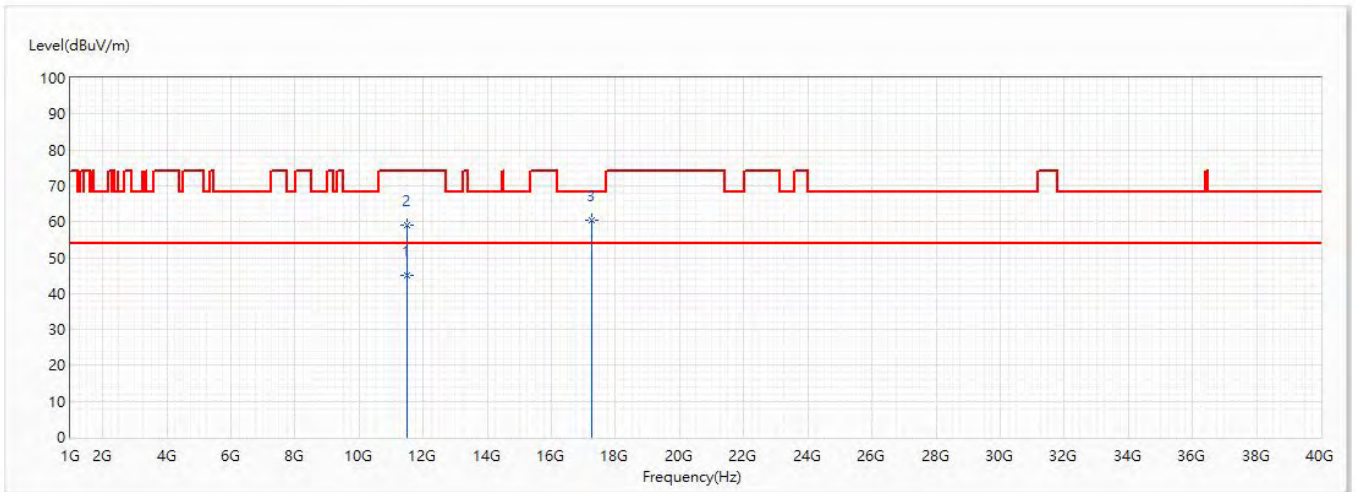


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11510           | 59.03                   | 74.00          | -14.97      | 53.96                | 5.07                  | PK            |
| 2   | 11510           | 44.83                   | 54.00          | -9.17       | 39.76                | 5.07                  | AV            |
| * 3 | 17265           | 61.10                   | 68.20          | -7.10       | 52.25                | 8.85                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 55.0      |

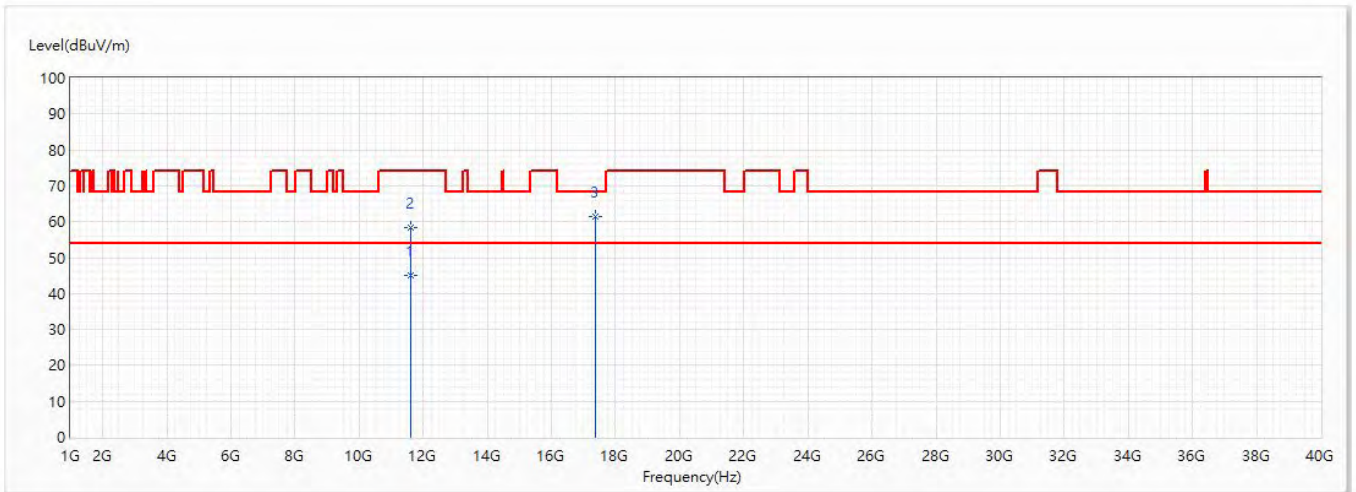


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11510           | 45.18                   | 54.00          | -8.82       | 40.11                | 5.07                  | AV            |
| 2   | 11510           | 58.94                   | 74.00          | -15.06      | 53.87                | 5.07                  | PK            |
| * 3 | 17265           | 60.28                   | 68.20          | -7.92       | 51.43                | 8.85                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch159_5.795G | Humidity (%RH)   | 55.0      |

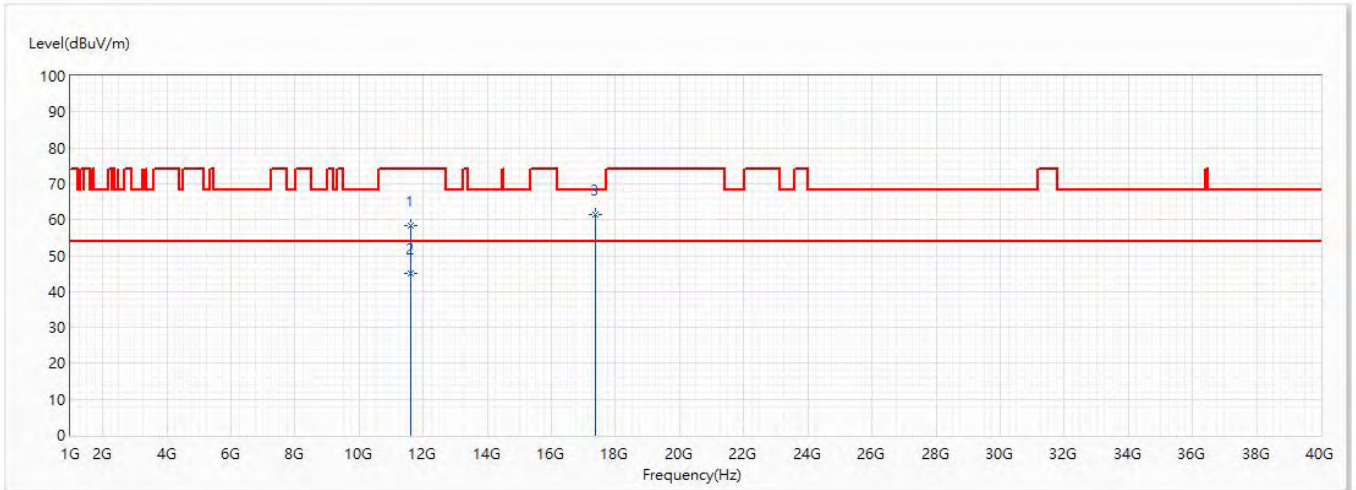


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11590           | 44.92                   | 54.00          | -9.08       | 39.84                | 5.08                  | AV            |
| 2   | 11590           | 58.48                   | 74.00          | -15.52      | 53.40                | 5.08                  | PK            |
| * 3 | 17385           | 61.36                   | 68.20          | -6.84       | 52.01                | 9.35                  | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/13 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Elwin     |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch159_5.795G | Humidity (%RH)   | 55.0      |



| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 11590           | 58.28                   | 74.00          | -15.72      | 53.20                | 5.08                  | PK            |
| 2   | 11590           | 45.07                   | 54.00          | -8.93       | 39.99                | 5.08                  | AV            |
| * 3 | 17385           | 61.59                   | 68.20          | -6.61       | 52.24                | 9.35                  | PK            |

**Note:**

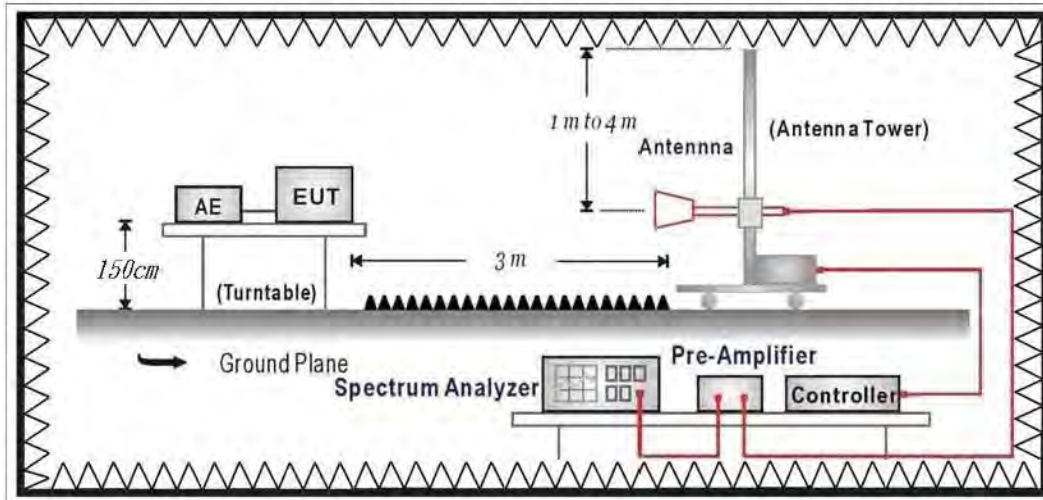
1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.



## 7. Band Edge

### 7.1. Test Setup

RF Radiated Measurement:



### 7.2. Limits

#### ➤ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

| FCC Part 15 Subpart C Paragraph 15.209 Limits |          |           |
|---|----------|-----------|
| Frequency<br>MHz                              | uV/m @3m | dBuV/m@3m |
| 30 - 88                                       | 100      | 40        |
| 88 - 216                                      | 150      | 43.5      |
| 216 - 960                                     | 200      | 46        |
| Above 960                                     | 500      | 54        |

Remark:

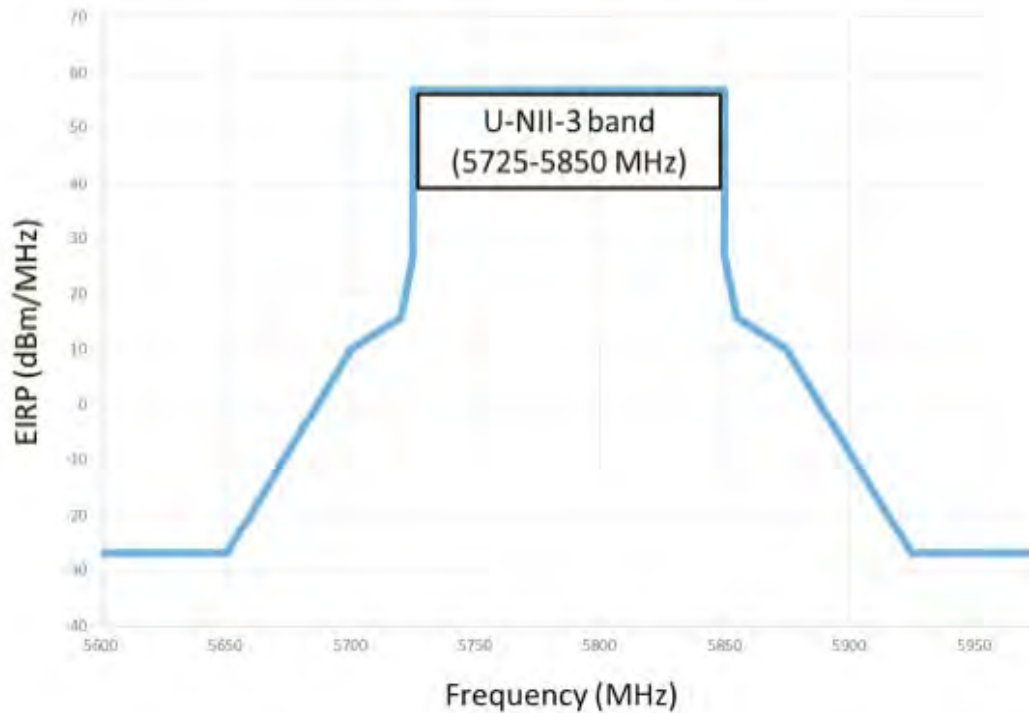
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➤ **Unwanted Emission out of the restricted bands Limits**

| <b>FCC Part 15 Subpart E Paragraph 15.407(b) Limits</b> |                  |                                       |
|---|------------------|---------------------------------------|
| Frequency (MHz)   | EIRP Limit (dBm) | Equivalent Field Strength (dBuV/m@3m) |
| 5150 - 5250   | -27              | 68.3                                  |
| 5250 - 5350   | -27              | 68.3                                  |
| 5470 - 5725   | -27              | 68.3                                  |
| 5725 - 5850   | -27 (Note1)      | 68.3                                  |
|   | -17 (Note2)      | 78.3                                  |

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 27dBm/MHz at the band edge.
- (ii) Devices certified before March 2, 2019 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.



Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.

$$3. \quad \mu\text{V/m} = \frac{1000000 \sqrt{30 \times EIRP}}{3}, \quad \text{RF Voltage (dBuV/m)} = 20 \log \text{RF Voltage (}\mu\text{V/m)}$$

### 7.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

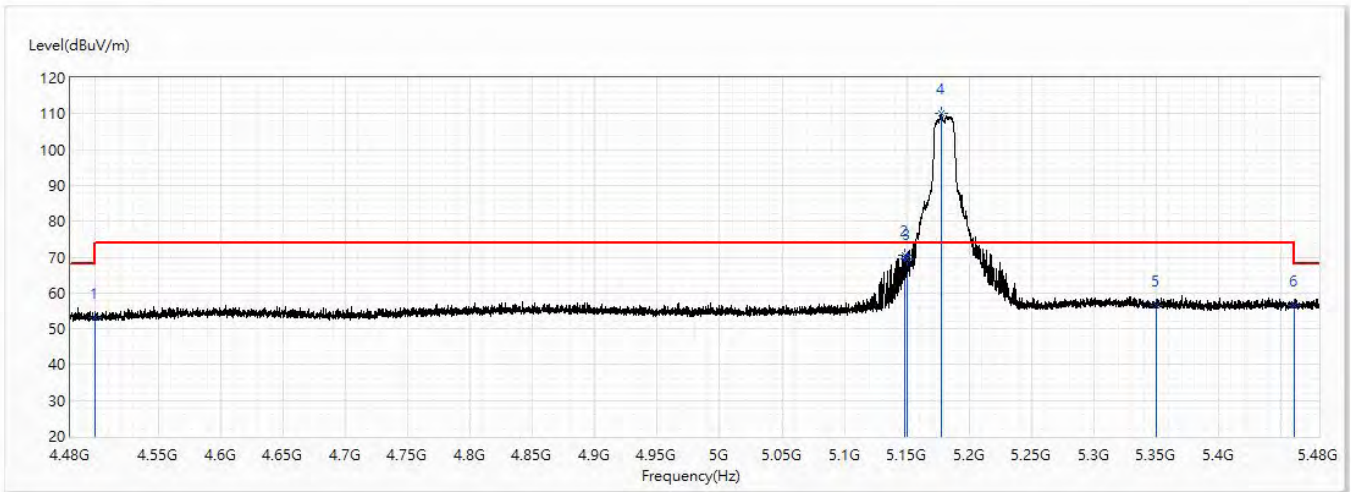
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.

### 7.4. Test Result

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 55.0      |

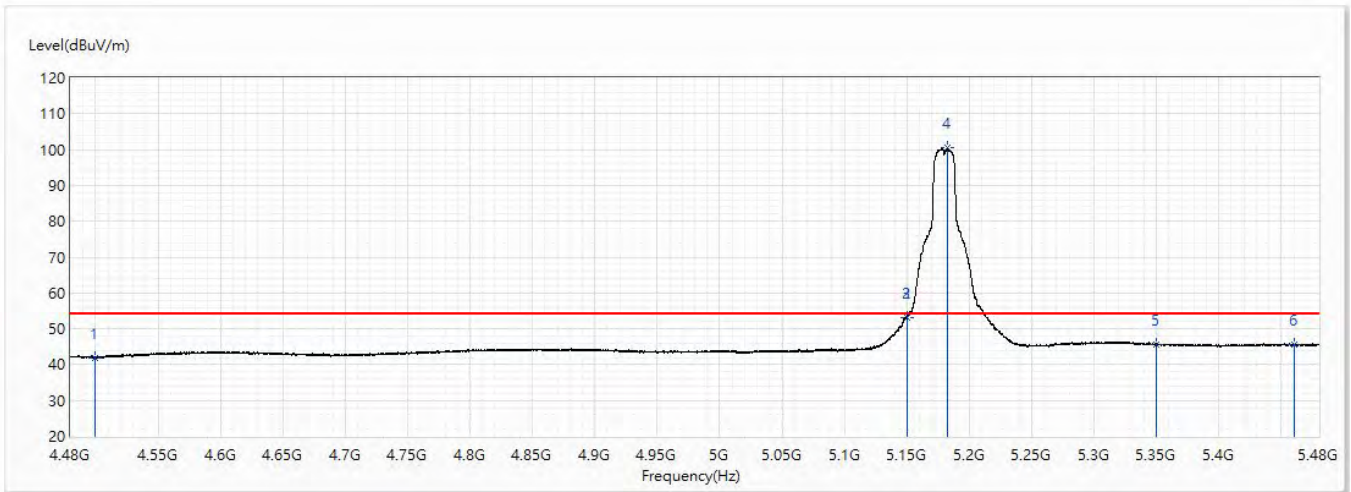


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.98                   | 74.00          | -21.02      | 28.96                | 24.02                 | PK            |
| 2   | 5148            | 70.63                   | 74.00          | -3.37       | 45.70                | 24.93                 | PK            |
| 3   | 5150            | 69.57                   | 74.00          | -4.43       | 44.64                | 24.93                 | PK            |
| ! 4 | 5177.5          | 109.99                  | 74.00          | 35.99       | 84.96                | 25.03                 | PK            |
| 5   | 5350            | 56.65                   | 74.00          | -17.35      | 31.14                | 25.51                 | PK            |
| 6   | 5460            | 56.54                   | 74.00          | -17.46      | 30.75                | 25.79                 | PK            |

**Note:**

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 55.0      |

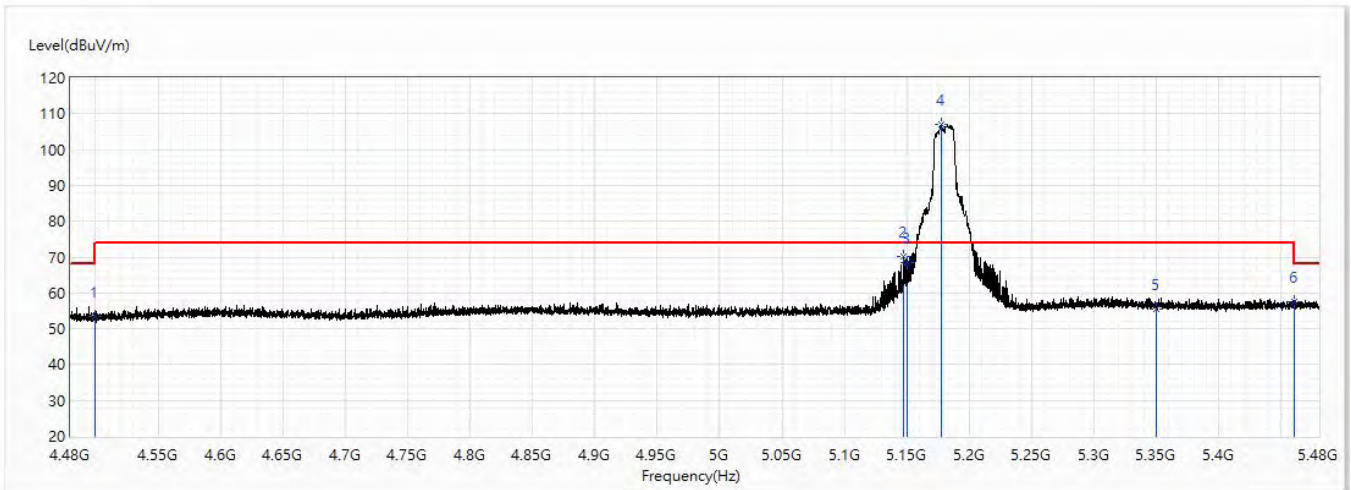


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 41.93                   | 54.00          | -12.07      | 17.91                | 24.02                 | AV            |
| 2   | 5149.9          | 52.94                   | 54.00          | -1.06       | 28.01                | 24.93                 | AV            |
| 3   | 5150            | 53.01                   | 54.00          | -0.99       | 28.08                | 24.93                 | AV            |
| ! 4 | 5183            | 100.40                  | 54.00          | 46.40       | 75.36                | 25.04                 | AV            |
| 5   | 5350            | 45.66                   | 54.00          | -8.34       | 20.15                | 25.51                 | AV            |
| 6   | 5460            | 45.64                   | 54.00          | -8.36       | 19.85                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 55.0      |

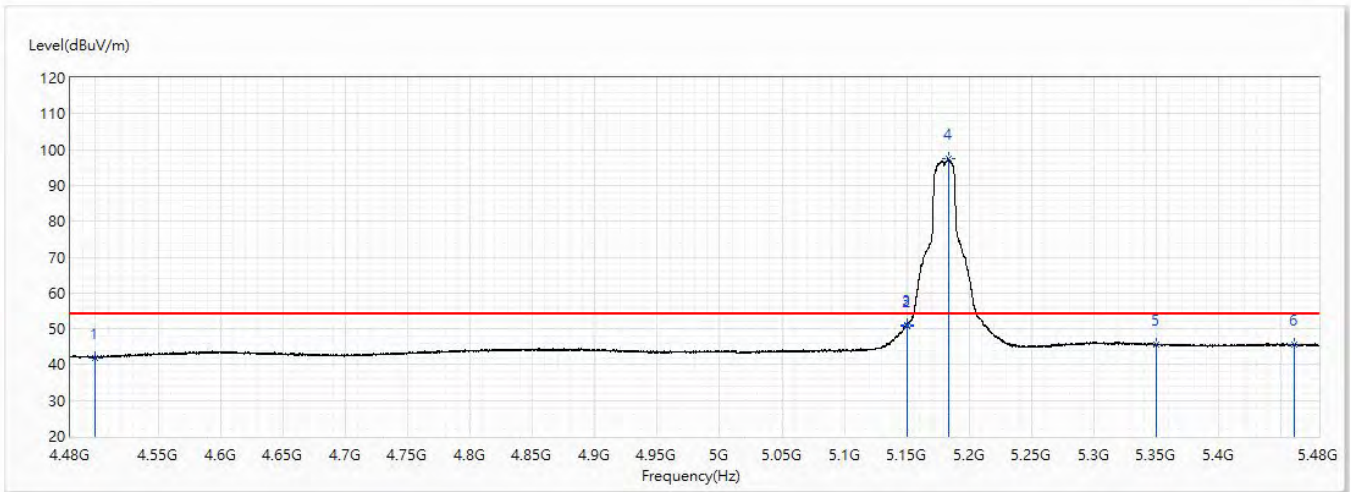


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.47                   | 74.00          | -20.53      | 29.45                | 24.02                 | PK            |
| 2   | 5147.75         | 70.07                   | 74.00          | -3.93       | 45.14                | 24.93                 | PK            |
| 3   | 5150            | 68.41                   | 74.00          | -5.59       | 43.48                | 24.93                 | PK            |
| ! 4 | 5177.5          | 107.05                  | 74.00          | 33.05       | 82.02                | 25.03                 | PK            |
| 5   | 5350            | 55.38                   | 74.00          | -18.62      | 29.87                | 25.51                 | PK            |
| 6   | 5460            | 57.61                   | 74.00          | -16.39      | 31.82                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch36_5.18G | Humidity (%RH)   | 55.0      |

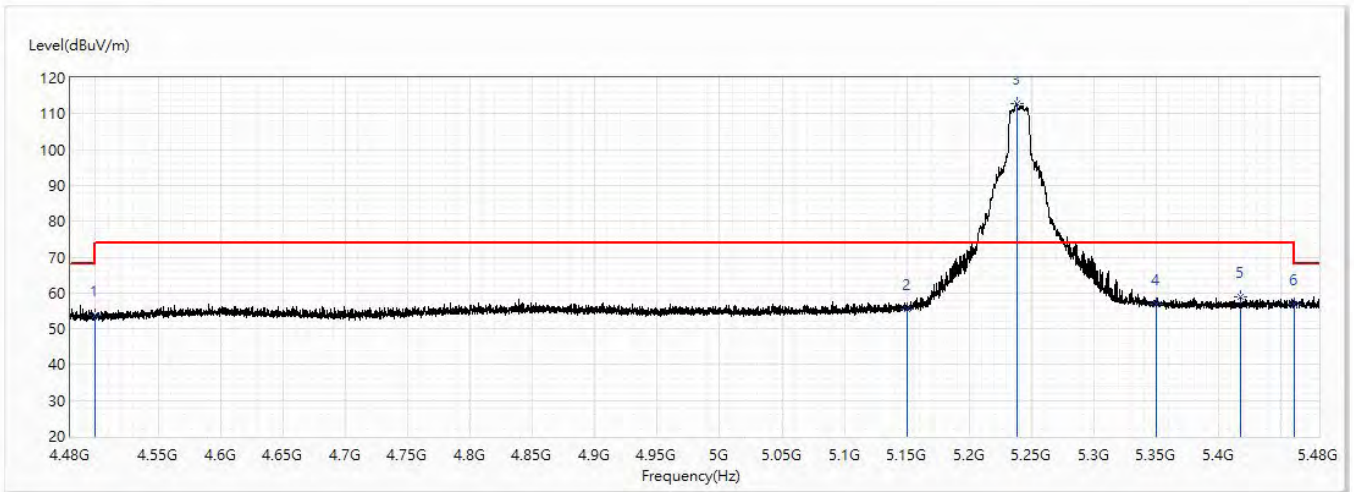


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.00                   | 54.00          | -12.00      | 17.98                | 24.02                 | AV            |
| 2   | 5149.9          | 50.81                   | 54.00          | -3.19       | 25.88                | 24.93                 | AV            |
| 3   | 5150            | 51.14                   | 54.00          | -2.86       | 26.21                | 24.93                 | AV            |
| ! 4 | 5183.25         | 97.51                   | 54.00          | 43.51       | 72.47                | 25.04                 | AV            |
| 5   | 5350            | 45.57                   | 54.00          | -8.43       | 20.06                | 25.51                 | AV            |
| 6   | 5460            | 45.68                   | 54.00          | -8.32       | 19.89                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 55.0      |



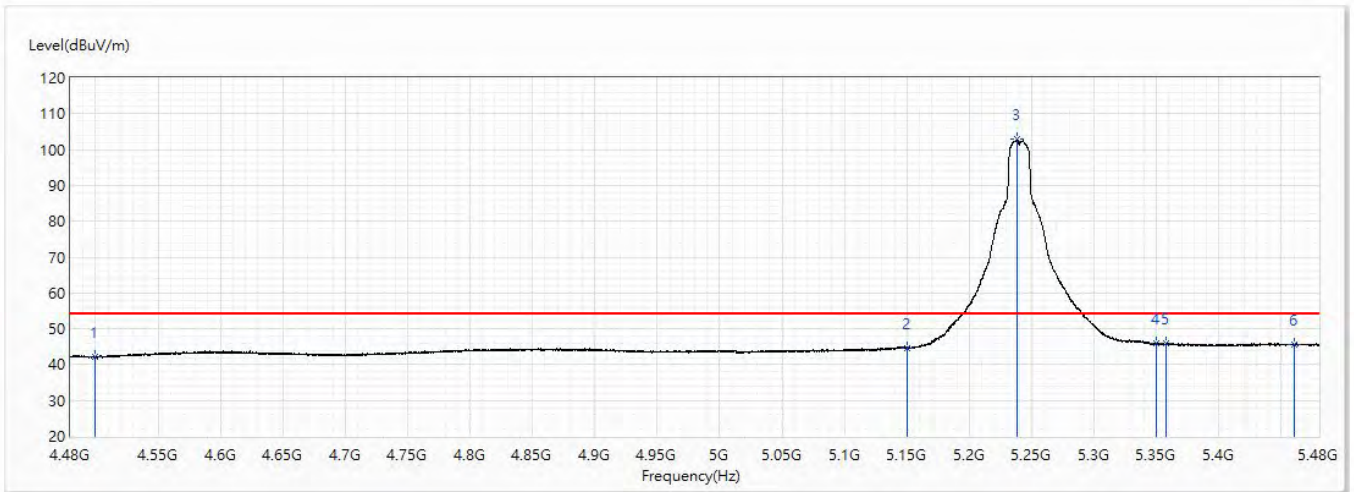
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.69                   | 74.00          | -20.31      | 29.67                | 24.02                 | PK            |
| 2   | 5150            | 55.39                   | 74.00          | -18.61      | 30.46                | 24.93                 | PK            |
| ! 3 | 5237.875        | 112.75                  | 74.00          | 38.75       | 87.58                | 25.17                 | PK            |
| 4   | 5350            | 56.73                   | 74.00          | -17.27      | 31.22                | 25.51                 | PK            |
| 5   | 5417.125        | 58.87                   | 74.00          | -15.13      | 33.12                | 25.75                 | PK            |
| 6   | 5460            | 56.83                   | 74.00          | -17.17      | 31.04                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.



|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Horizontal              | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 55.0      |

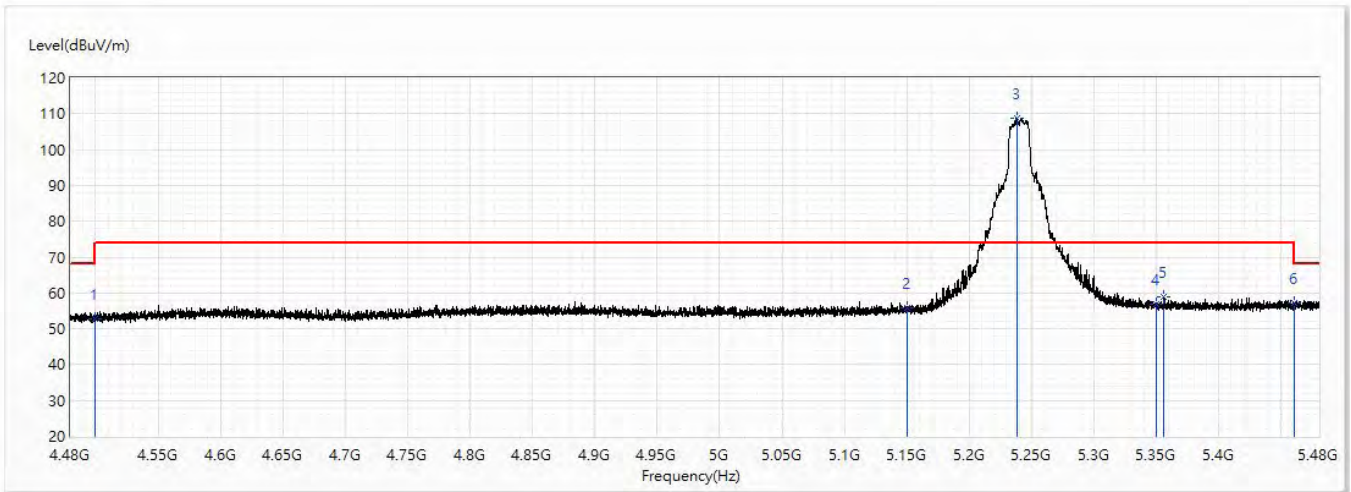


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.04                   | 54.00          | -11.96      | 18.02                | 24.02                 | AV            |
| 2   | 5150            | 44.62                   | 54.00          | -9.38       | 19.69                | 24.93                 | AV            |
| ! 3 | 5238.5          | 102.91                  | 54.00          | 48.91       | 77.74                | 25.17                 | AV            |
| 4   | 5350            | 45.85                   | 54.00          | -8.15       | 20.34                | 25.51                 | AV            |
| 5   | 5357.625        | 46.03                   | 54.00          | -7.97       | 20.48                | 25.55                 | AV            |
| 6   | 5460            | 45.62                   | 54.00          | -8.38       | 19.83                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 55.0      |

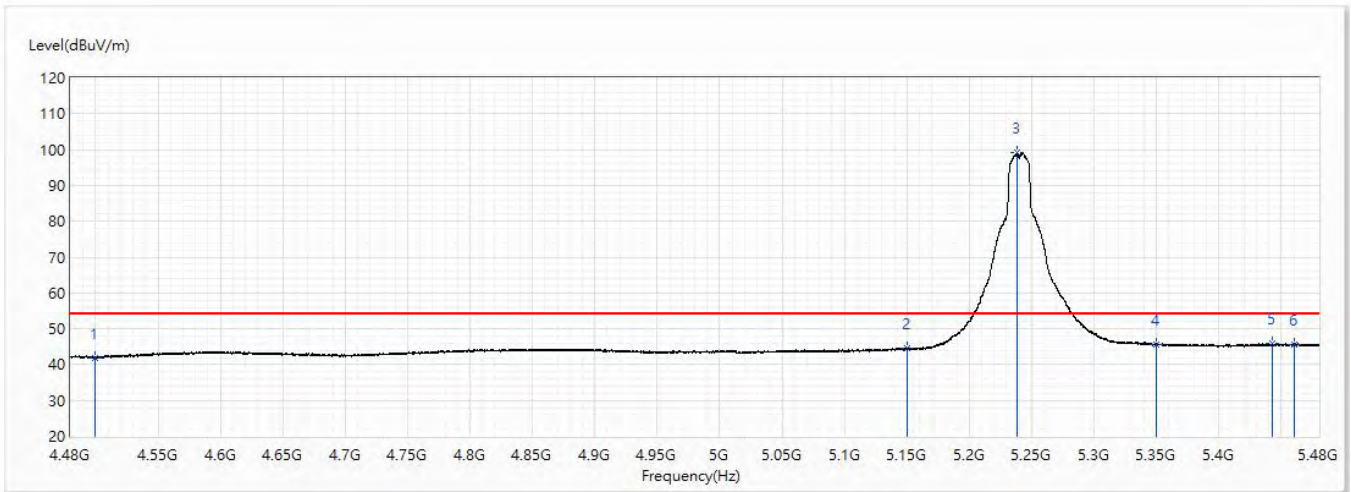


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.68                   | 74.00          | -21.32      | 28.66                | 24.02                 | PK            |
| 2   | 5150            | 55.85                   | 74.00          | -18.15      | 30.92                | 24.93                 | PK            |
| ! 3 | 5238            | 108.88                  | 74.00          | 34.88       | 83.71                | 25.17                 | PK            |
| 4   | 5350            | 56.88                   | 74.00          | -17.12      | 31.37                | 25.51                 | PK            |
| 5   | 5356.125        | 58.74                   | 74.00          | -15.26      | 33.20                | 25.54                 | PK            |
| 6   | 5460            | 57.28                   | 74.00          | -16.72      | 31.49                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                         |                  |           |
|----------------|-------------------------|------------------|-----------|
| Model No       | VG54-NA                 | Site             | CB2-H     |
| Test Voltage   | DC 12V                  | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode   | Engineer         | Lion      |
| Polarity       | Vertical                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch48_5.24G | Humidity (%RH)   | 55.0      |

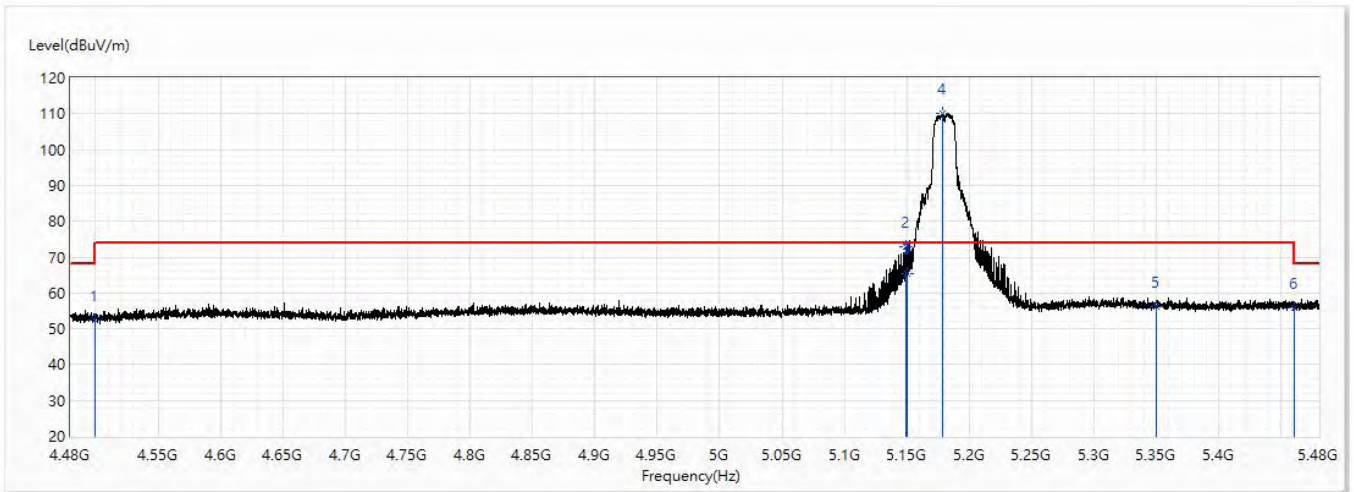


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 41.84                   | 54.00          | -12.16      | 17.82                | 24.02                 | AV            |
| 2   | 5150            | 44.41                   | 54.00          | -9.59       | 19.48                | 24.93                 | AV            |
| ! 3 | 5238.625        | 99.08                   | 54.00          | 45.08       | 73.91                | 25.17                 | AV            |
| 4   | 5350            | 45.56                   | 54.00          | -8.44       | 20.05                | 25.51                 | AV            |
| 5   | 5442.75         | 45.85                   | 54.00          | -8.15       | 20.07                | 25.78                 | AV            |
| 6   | 5460            | 45.44                   | 54.00          | -8.56       | 19.65                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 55.0      |

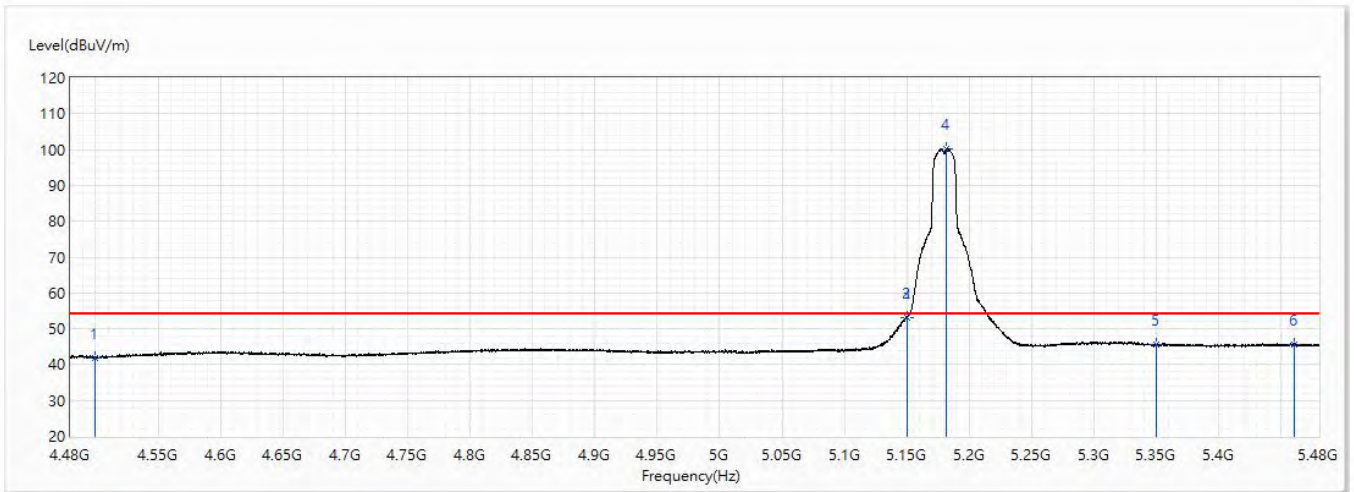


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.46                   | 74.00          | -21.54      | 28.44                | 24.02                 | PK            |
| 2   | 5149.125        | 72.92                   | 74.00          | -1.08       | 47.99                | 24.93                 | PK            |
| 3   | 5150            | 65.40                   | 74.00          | -8.60       | 40.47                | 24.93                 | PK            |
| ! 4 | 5178.75         | 110.07                  | 74.00          | 36.07       | 85.04                | 25.03                 | PK            |
| 5   | 5350            | 56.14                   | 74.00          | -17.86      | 30.63                | 25.51                 | PK            |
| 6   | 5460            | 55.67                   | 74.00          | -18.33      | 29.88                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 55.0      |

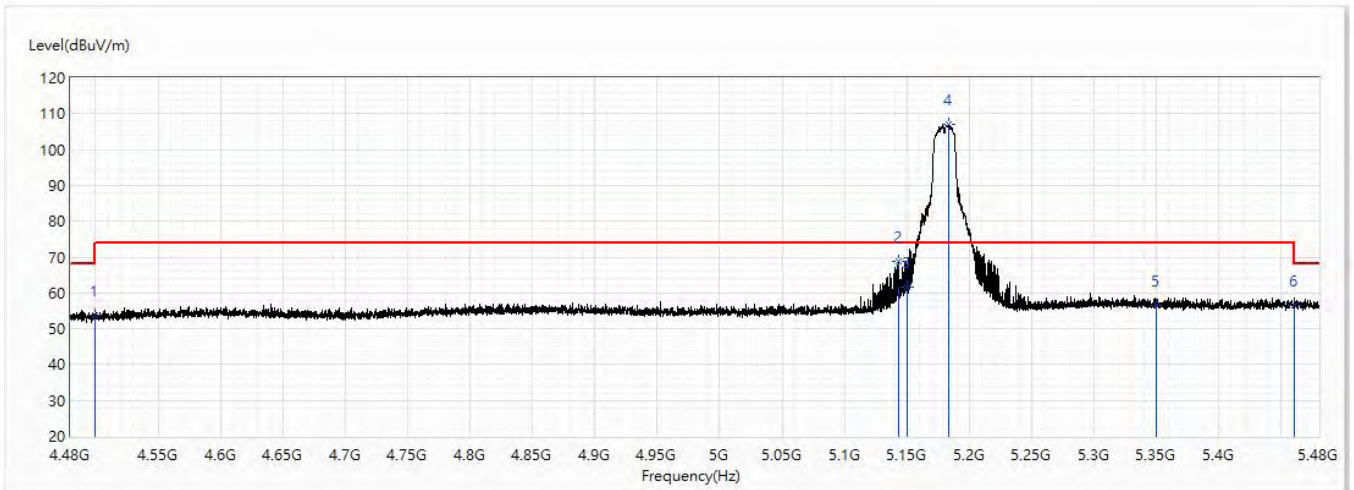


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 41.98                   | 54.00          | -12.02      | 17.96                | 24.02                 | AV            |
| 2   | 5149.9          | 53.16                   | 54.00          | -0.84       | 28.23                | 24.93                 | AV            |
| 3   | 5150            | 53.05                   | 54.00          | -0.95       | 28.12                | 24.93                 | AV            |
| ! 4 | 5181.875        | 100.23                  | 54.00          | 46.23       | 75.19                | 25.04                 | AV            |
| 5   | 5350            | 45.72                   | 54.00          | -8.28       | 20.21                | 25.51                 | AV            |
| 6   | 5460            | 45.43                   | 54.00          | -8.57       | 19.64                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 55.0      |

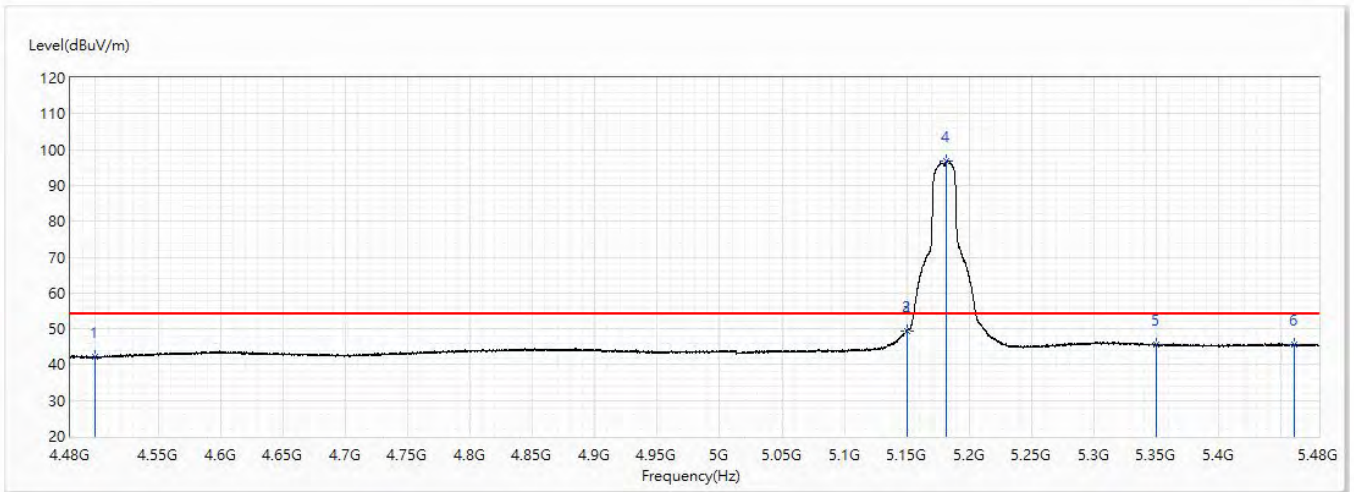


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.88                   | 74.00          | -20.12      | 29.86                | 24.02                 | PK            |
| 2   | 5143.375        | 68.83                   | 74.00          | -5.17       | 43.92                | 24.91                 | PK            |
| 3   | 5150            | 61.69                   | 74.00          | -12.31      | 36.76                | 24.93                 | PK            |
| ! 4 | 5183.5          | 107.02                  | 74.00          | 33.02       | 81.98                | 25.04                 | PK            |
| 5   | 5350            | 56.60                   | 74.00          | -17.40      | 31.09                | 25.51                 | PK            |
| 6   | 5460            | 56.38                   | 74.00          | -17.62      | 30.59                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch36_5.18G | Humidity (%RH)   | 55.0      |

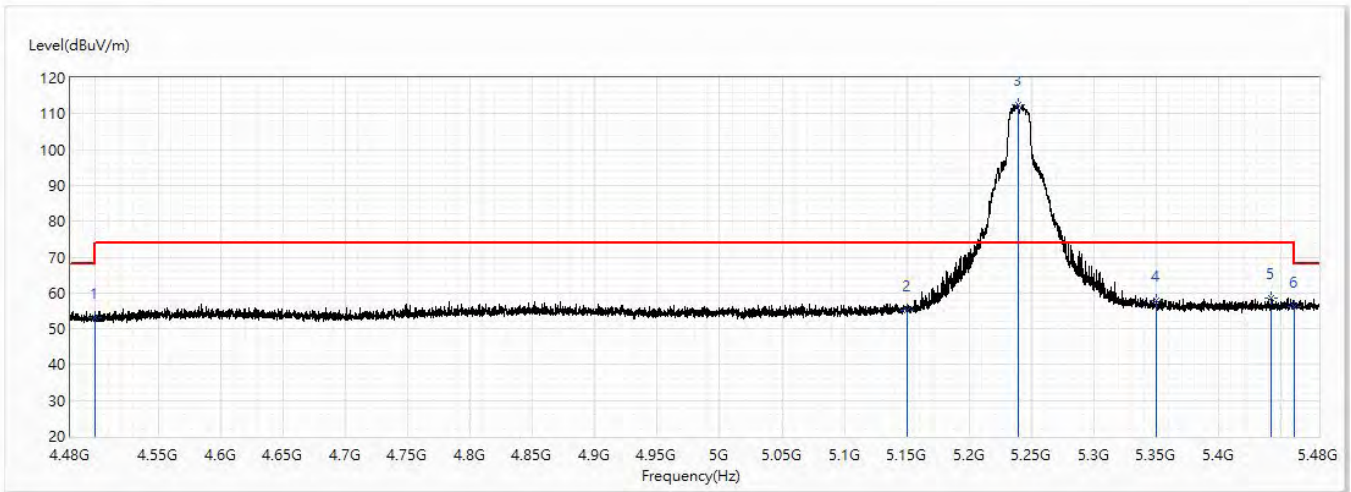


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.24                   | 54.00          | -11.76      | 18.22                | 24.02                 | AV            |
| 2   | 5149.9          | 49.19                   | 54.00          | -4.81       | 24.26                | 24.93                 | AV            |
| 3   | 5150            | 49.19                   | 54.00          | -4.81       | 24.26                | 24.93                 | AV            |
| ! 4 | 5182            | 96.90                   | 54.00          | 42.90       | 71.86                | 25.04                 | AV            |
| 5   | 5350            | 45.64                   | 54.00          | -8.36       | 20.13                | 25.51                 | AV            |
| 6   | 5460            | 45.57                   | 54.00          | -8.43       | 19.78                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 55.0      |



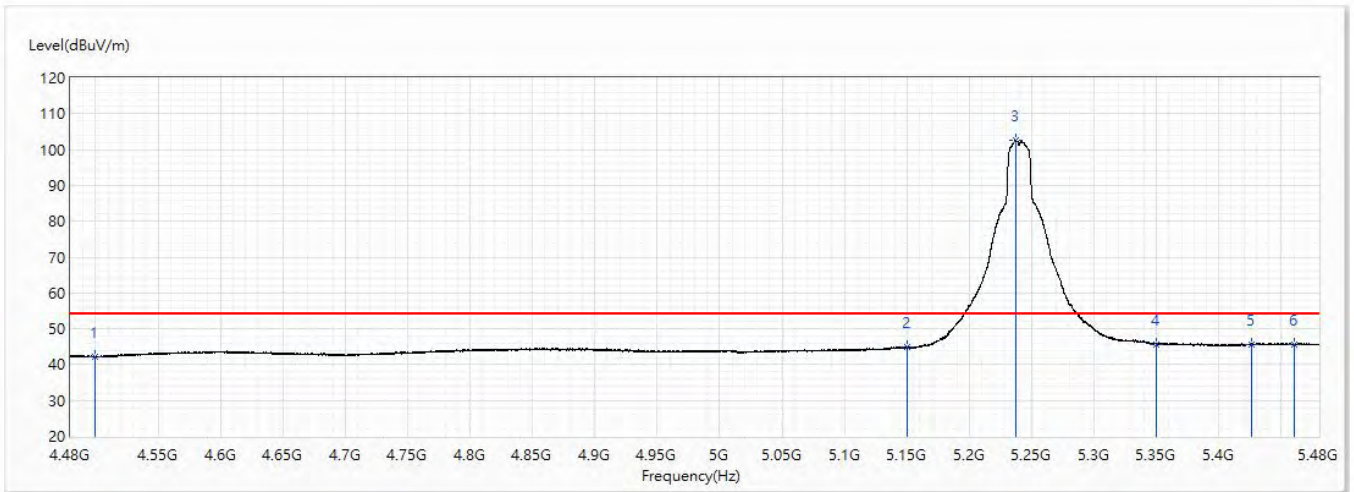
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.24                   | 74.00          | -20.76      | 29.22                | 24.02                 | PK            |
| 2   | 5150            | 55.01                   | 74.00          | -18.99      | 30.08                | 24.93                 | PK            |
| ! 3 | 5238.875        | 112.58                  | 74.00          | 38.58       | 87.41                | 25.17                 | PK            |
| 4   | 5350            | 58.04                   | 74.00          | -15.96      | 32.53                | 25.51                 | PK            |
| 5   | 5441.625        | 58.56                   | 74.00          | -15.44      | 32.78                | 25.78                 | PK            |
| 6   | 5460            | 56.32                   | 74.00          | -17.68      | 30.53                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.



|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 55.0      |

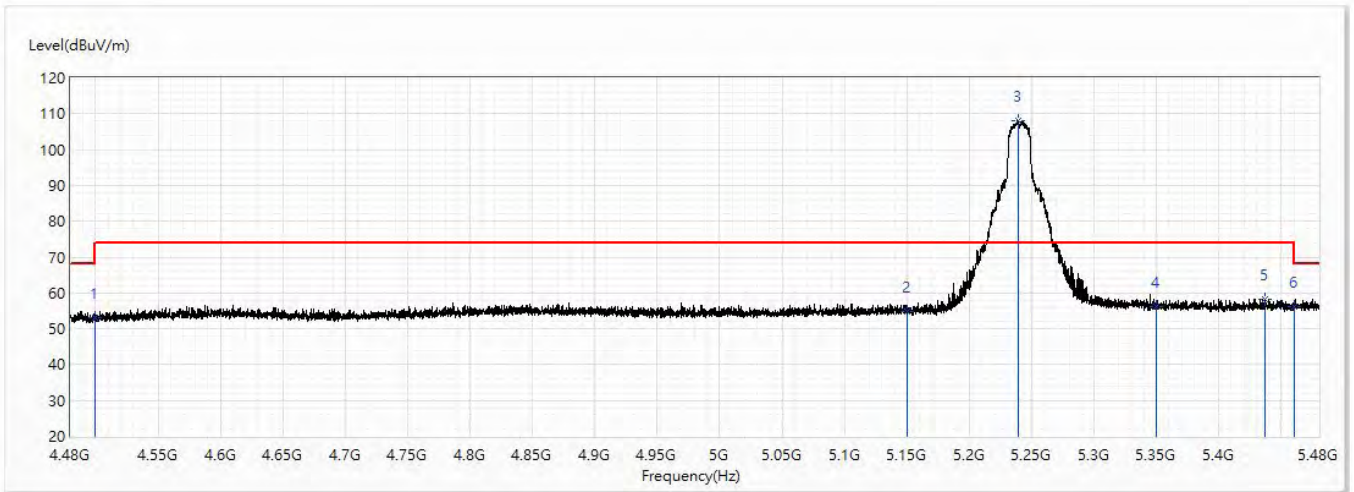


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.05                   | 54.00          | -11.95      | 18.03                | 24.02                 | AV            |
| 2   | 5150            | 44.83                   | 54.00          | -9.17       | 19.90                | 24.93                 | AV            |
| ! 3 | 5236.875        | 102.61                  | 54.00          | 48.61       | 77.44                | 25.17                 | AV            |
| 4   | 5350            | 45.70                   | 54.00          | -8.30       | 20.19                | 25.51                 | AV            |
| 5   | 5426            | 45.74                   | 54.00          | -8.26       | 19.97                | 25.77                 | AV            |
| 6   | 5460            | 45.47                   | 54.00          | -8.53       | 19.68                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 55.0      |

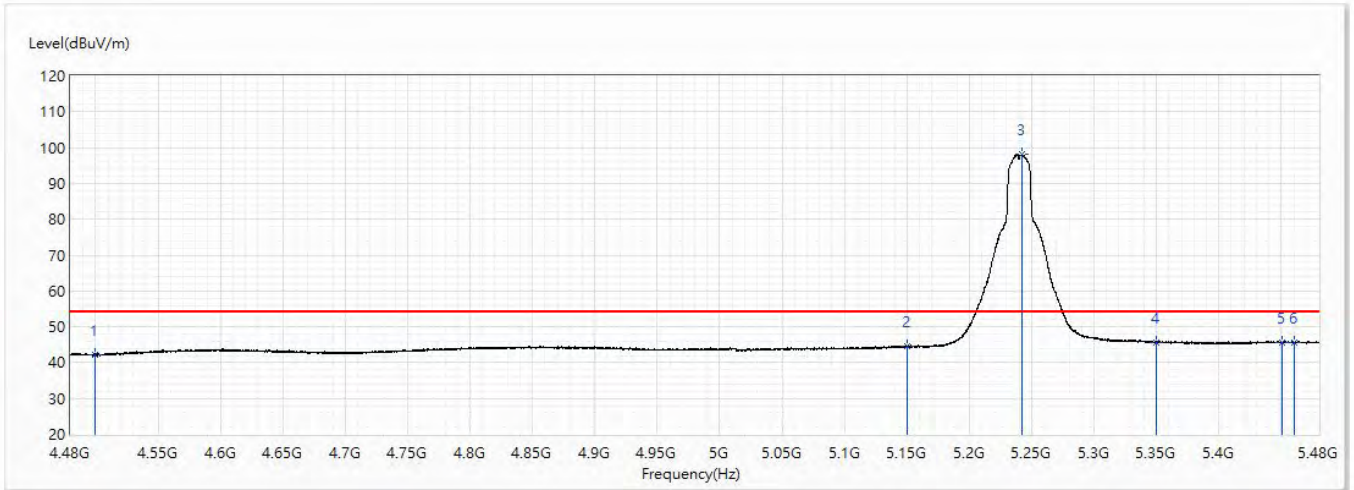


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.21                   | 74.00          | -20.79      | 29.19                | 24.02                 | PK            |
| 2   | 5150            | 54.78                   | 74.00          | -19.22      | 29.85                | 24.93                 | PK            |
| ! 3 | 5239            | 108.12                  | 74.00          | 34.12       | 82.94                | 25.18                 | PK            |
| 4   | 5350            | 56.14                   | 74.00          | -17.86      | 30.63                | 25.51                 | PK            |
| 5   | 5436.75         | 58.27                   | 74.00          | -15.73      | 32.49                | 25.78                 | PK            |
| 6   | 5460            | 56.31                   | 74.00          | -17.69      | 30.52                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch48_5.24G | Humidity (%RH)   | 55.0      |

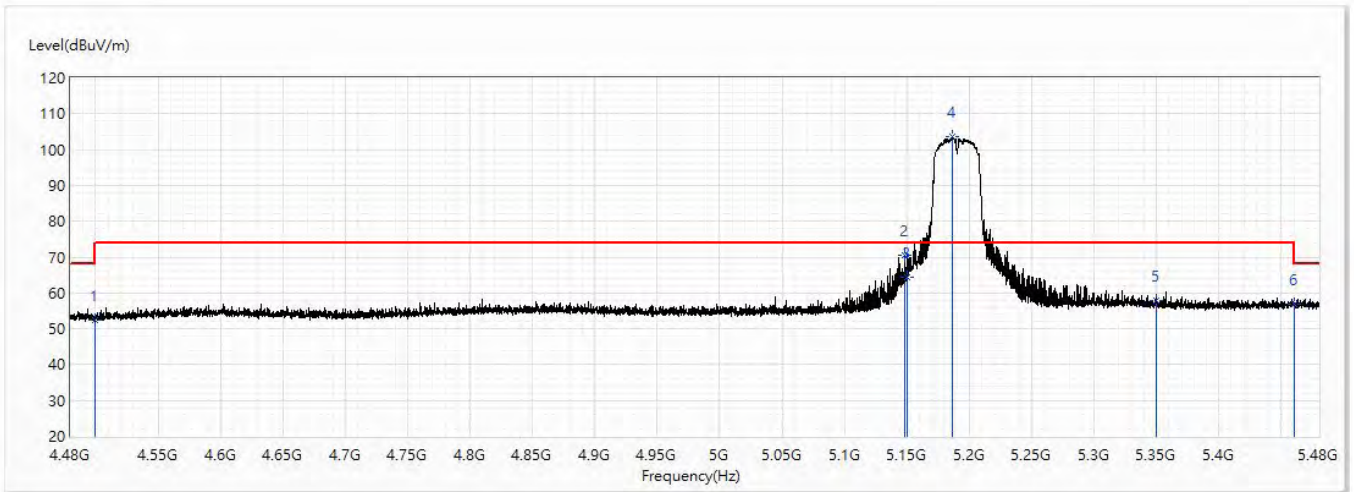


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.12                   | 54.00          | -11.88      | 18.10                | 24.02                 | AV            |
| 2   | 5150            | 44.42                   | 54.00          | -9.58       | 19.49                | 24.93                 | AV            |
| ! 3 | 5241.875        | 98.10                   | 54.00          | 44.10       | 72.92                | 25.18                 | AV            |
| 4   | 5350            | 45.65                   | 54.00          | -8.35       | 20.14                | 25.51                 | AV            |
| 5   | 5450.5          | 45.70                   | 54.00          | -8.30       | 19.92                | 25.78                 | AV            |
| 6   | 5460            | 45.71                   | 54.00          | -8.29       | 19.92                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 55.0      |

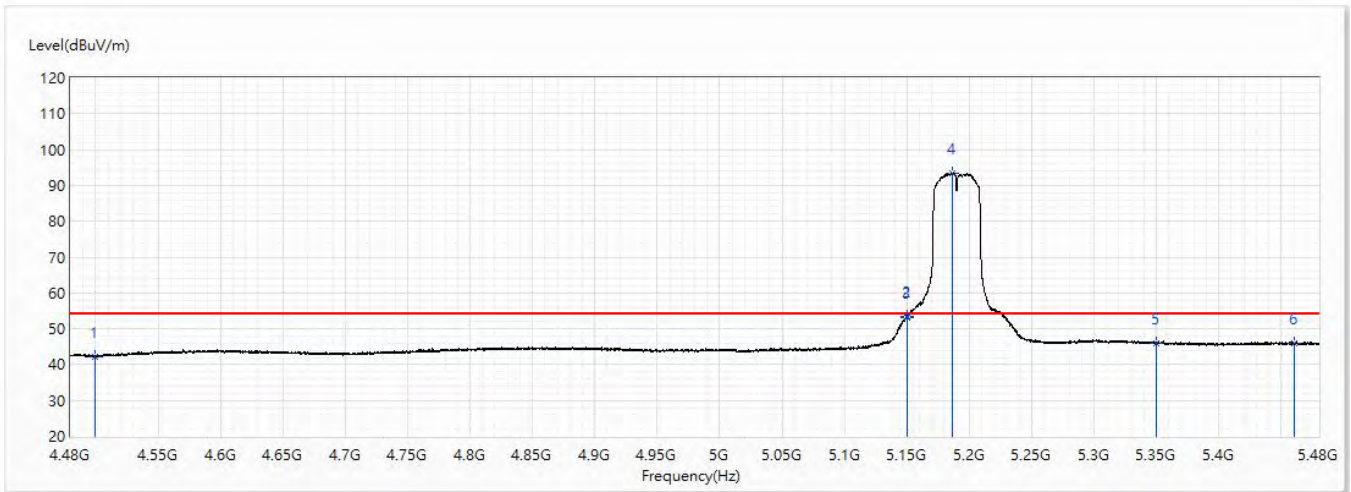


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.50                   | 74.00          | -21.50      | 28.48                | 24.02                 | PK            |
| 2   | 5148.25         | 70.55                   | 74.00          | -3.45       | 45.62                | 24.93                 | PK            |
| 3   | 5150            | 64.51                   | 74.00          | -9.49       | 39.58                | 24.93                 | PK            |
| ! 4 | 5186.625        | 103.53                  | 74.00          | 29.53       | 78.48                | 25.05                 | PK            |
| 5   | 5350            | 57.93                   | 74.00          | -16.07      | 32.42                | 25.51                 | PK            |
| 6   | 5460            | 56.71                   | 74.00          | -17.29      | 30.92                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 55.0      |

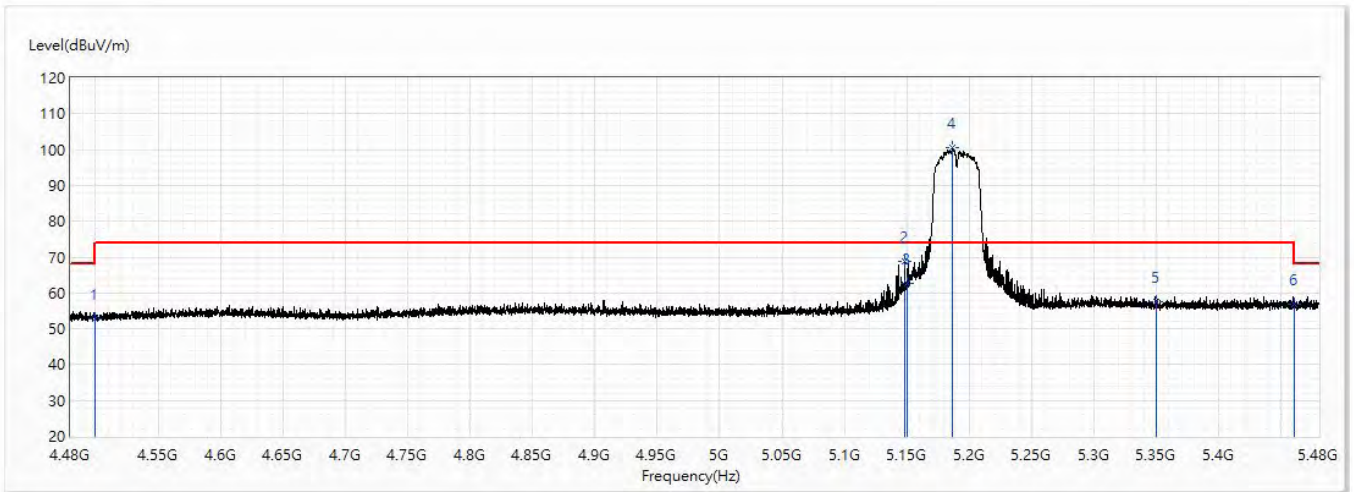


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.29                   | 54.00          | -11.71      | 18.27                | 24.02                 | AV            |
| 2   | 5149.9          | 53.58                   | 54.00          | -0.42       | 28.65                | 24.93                 | AV            |
| 3   | 5150            | 53.20                   | 54.00          | -0.80       | 28.27                | 24.93                 | AV            |
| ! 4 | 5186.25         | 93.41                   | 54.00          | 39.41       | 68.36                | 25.05                 | AV            |
| 5   | 5350            | 45.98                   | 54.00          | -8.02       | 20.47                | 25.51                 | AV            |
| 6   | 5460            | 45.96                   | 54.00          | -8.04       | 20.17                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 55.0      |

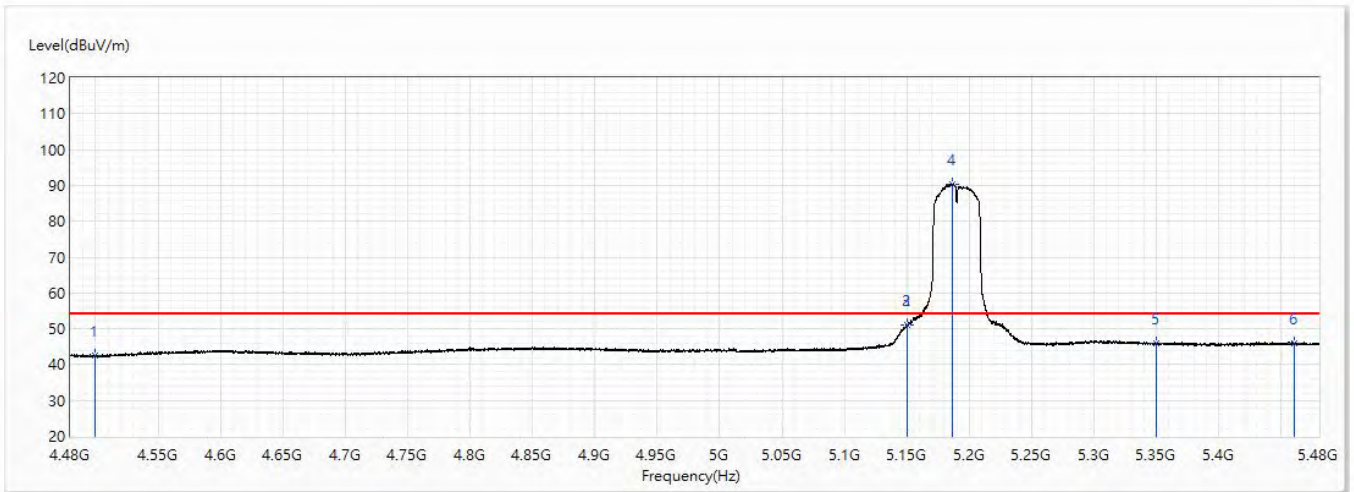


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.70                   | 74.00          | -21.30      | 28.68                | 24.02                 | PK            |
| 2   | 5148.625        | 68.88                   | 74.00          | -5.12       | 43.95                | 24.93                 | PK            |
| 3   | 5150            | 62.76                   | 74.00          | -11.24      | 37.83                | 24.93                 | PK            |
| ! 4 | 5186.5          | 100.39                  | 74.00          | 26.39       | 75.34                | 25.05                 | PK            |
| 5   | 5350            | 57.51                   | 74.00          | -16.49      | 32.00                | 25.51                 | PK            |
| 6   | 5460            | 56.81                   | 74.00          | -17.19      | 31.02                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch38_5.19G | Humidity (%RH)   | 55.0      |

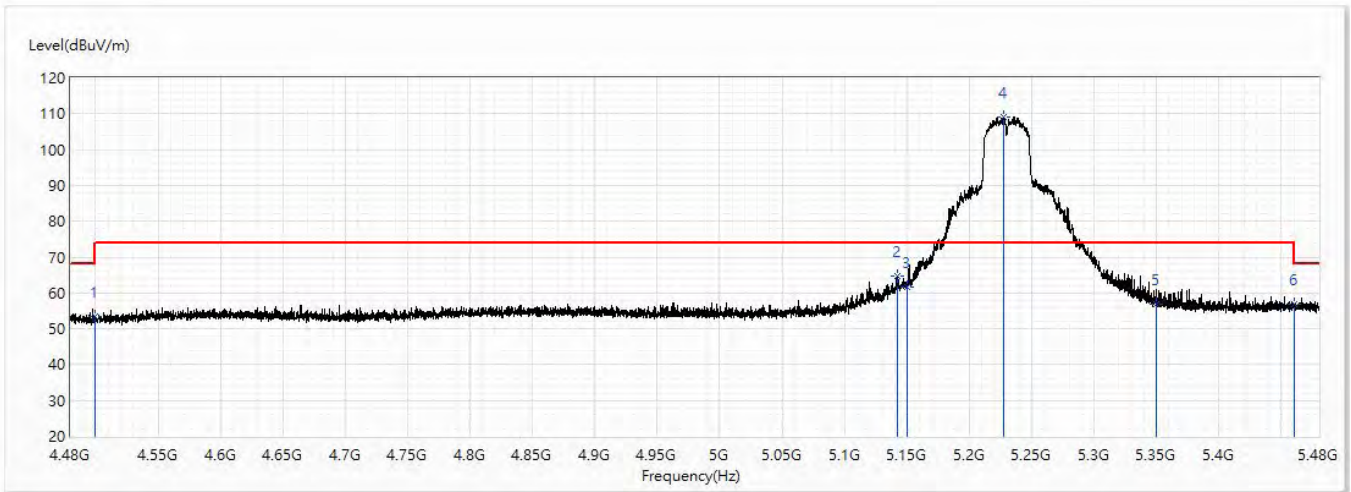


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.39                   | 54.00          | -11.61      | 18.37                | 24.02                 | AV            |
| 2   | 5149.9          | 50.97                   | 54.00          | -3.03       | 26.04                | 24.93                 | AV            |
| 3   | 5150            | 50.96                   | 54.00          | -3.04       | 26.03                | 24.93                 | AV            |
| ! 4 | 5186.25         | 90.35                   | 54.00          | 36.35       | 65.30                | 25.05                 | AV            |
| 5   | 5350            | 45.82                   | 54.00          | -8.18       | 20.31                | 25.51                 | AV            |
| 6   | 5460            | 46.07                   | 54.00          | -7.93       | 20.28                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 55.0      |



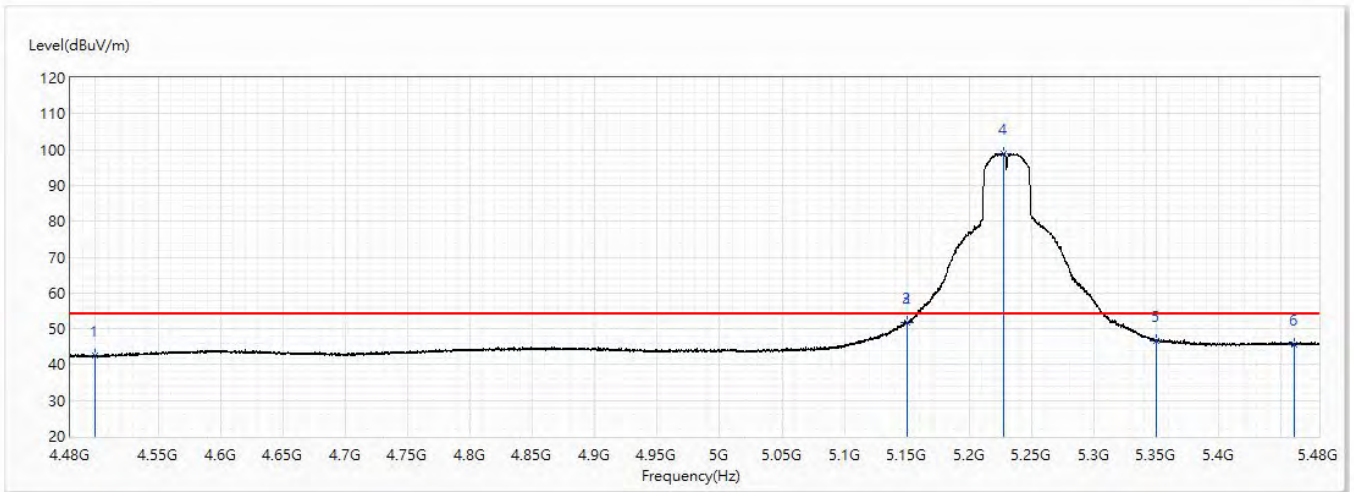
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 53.34                   | 74.00          | -20.66      | 29.32                | 24.02                 | PK            |
| 2   | 5142.25         | 64.84                   | 74.00          | -9.16       | 39.93                | 24.91                 | PK            |
| 3   | 5150            | 61.48                   | 74.00          | -12.52      | 36.55                | 24.93                 | PK            |
| ! 4 | 5227.625        | 109.22                  | 74.00          | 35.22       | 84.07                | 25.15                 | PK            |
| 5   | 5350            | 56.76                   | 74.00          | -17.24      | 31.25                | 25.51                 | PK            |
| 6   | 5460            | 56.74                   | 74.00          | -17.26      | 30.95                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.



|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Horizontal                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 55.0      |

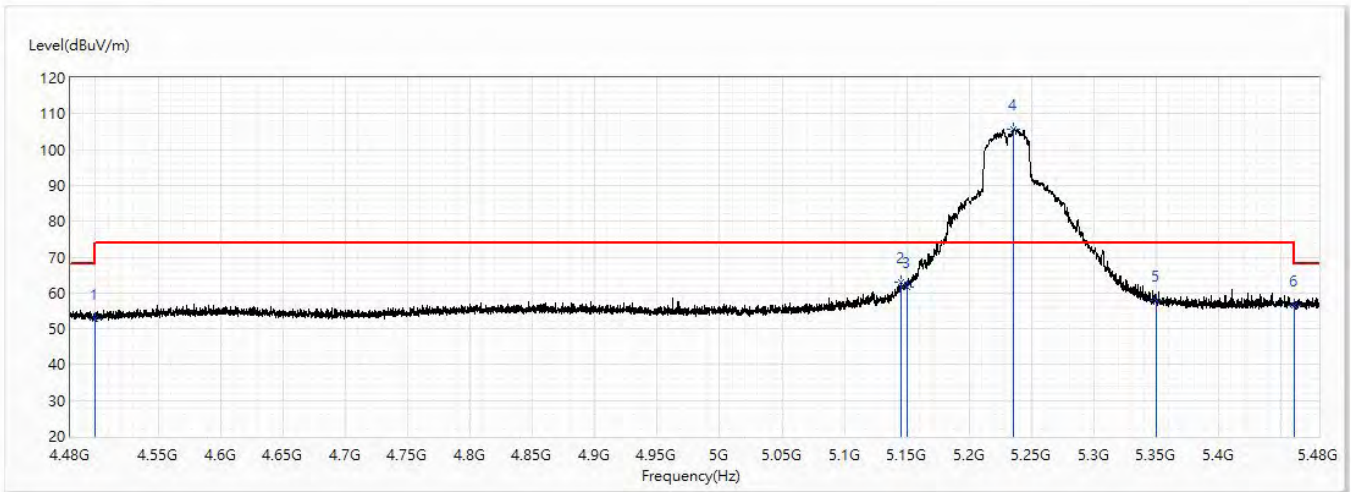


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 42.40                   | 54.00          | -11.60      | 18.38                | 24.02                 | AV            |
| 2   | 5149.9          | 51.60                   | 54.00          | -2.40       | 26.67                | 24.93                 | AV            |
| 3   | 5150            | 51.62                   | 54.00          | -2.38       | 26.69                | 24.93                 | AV            |
| ! 4 | 5227.875        | 98.90                   | 54.00          | 44.90       | 73.74                | 25.16                 | AV            |
| 5   | 5350            | 46.65                   | 54.00          | -7.35       | 21.14                | 25.51                 | AV            |
| 6   | 5460            | 45.73                   | 54.00          | -8.27       | 19.94                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 55.0      |

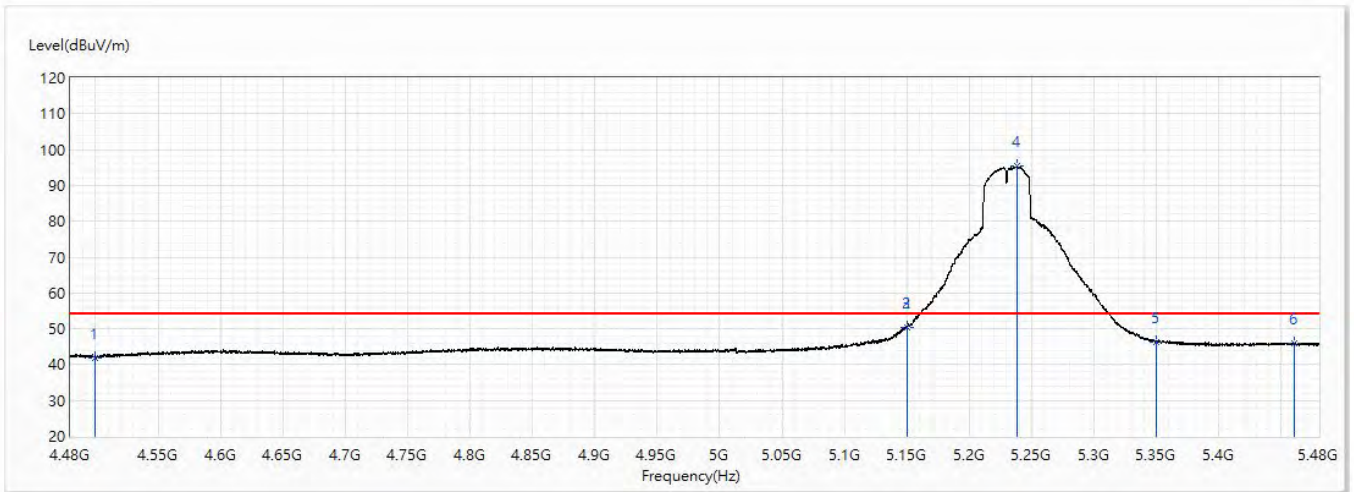


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 52.63                   | 74.00          | -21.37      | 28.61                | 24.02                 | PK            |
| 2   | 5145.125        | 63.10                   | 74.00          | -10.90      | 38.17                | 24.93                 | PK            |
| 3   | 5150            | 61.71                   | 74.00          | -12.29      | 36.78                | 24.93                 | PK            |
| ! 4 | 5235.75         | 105.75                  | 74.00          | 31.75       | 80.58                | 25.17                 | PK            |
| 5   | 5350            | 57.82                   | 74.00          | -16.18      | 32.31                | 25.51                 | PK            |
| 6   | 5460            | 56.68                   | 74.00          | -17.32      | 30.89                | 25.79                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                             |                  |           |
|----------------|-----------------------------|------------------|-----------|
| Model No       | VG54-NA                     | Site             | CB2-H     |
| Test Voltage   | DC 12V                      | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode       | Engineer         | Lion      |
| Polarity       | Vertical                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch46_5.23G | Humidity (%RH)   | 55.0      |

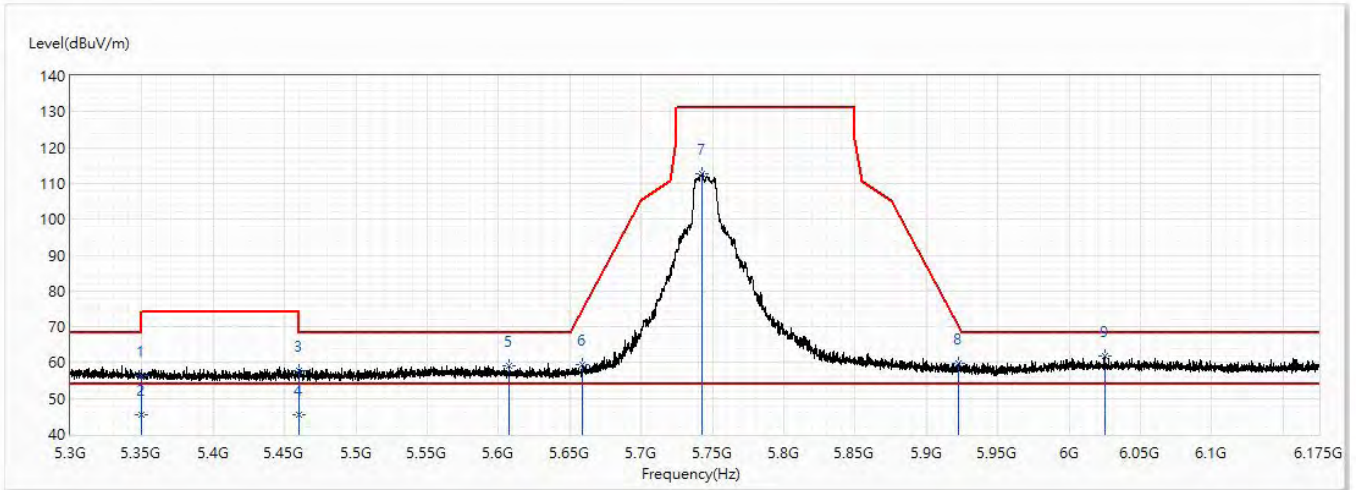


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 4500            | 41.98                   | 54.00          | -12.02      | 17.96                | 24.02                 | AV            |
| 2   | 5149.9          | 50.25                   | 54.00          | -3.75       | 25.32                | 24.93                 | AV            |
| 3   | 5150            | 50.27                   | 54.00          | -3.73       | 25.34                | 24.93                 | AV            |
| ! 4 | 5238            | 95.47                   | 54.00          | 41.47       | 70.30                | 25.17                 | AV            |
| 5   | 5350            | 46.45                   | 54.00          | -7.55       | 20.94                | 25.51                 | AV            |
| 6   | 5460            | 45.88                   | 54.00          | -8.12       | 20.09                | 25.79                 | AV            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Horizontal                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch149_5.745G | Humidity (%RH)   | 55.0      |

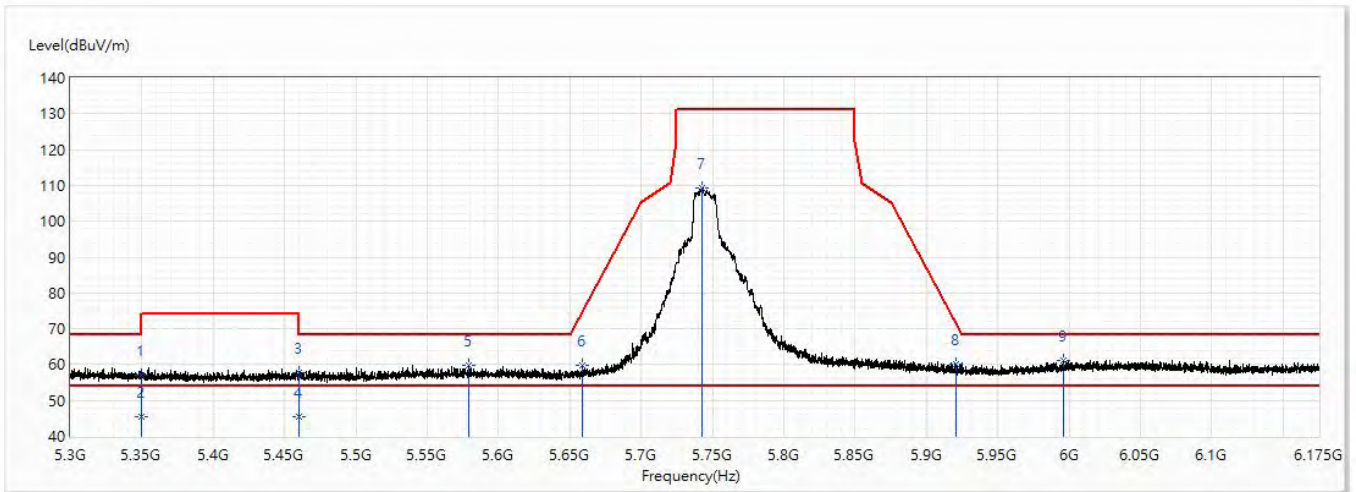


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.42                   | 74.00          | -17.58      | 30.91                | 25.51                 | PK            |
| 2   | 5350            | 45.48                   | 54.00          | -8.52       | 19.97                | 25.51                 | AV            |
| 3   | 5460            | 57.69                   | 74.00          | -16.31      | 31.90                | 25.79                 | PK            |
| 4   | 5460            | 45.41                   | 54.00          | -8.59       | 19.62                | 25.79                 | AV            |
| 5   | 5607.563        | 59.15                   | 68.20          | -9.05       | 32.79                | 26.36                 | PK            |
| 6   | 5659.078        | 59.53                   | 74.94          | -15.41      | 33.10                | 26.43                 | PK            |
| 7   | 5742.75         | 112.72                  | 131.20         | -18.48      | 86.05                | 26.67                 | PK            |
| 8   | 5922.016        | 59.96                   | 70.40          | -10.44      | 32.79                | 27.17                 | PK            |
| * 9 | 6025.594        | 61.82                   | 68.20          | -6.38       | 34.30                | 27.52                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Vertical                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch149_5.745G | Humidity (%RH)   | 55.0      |

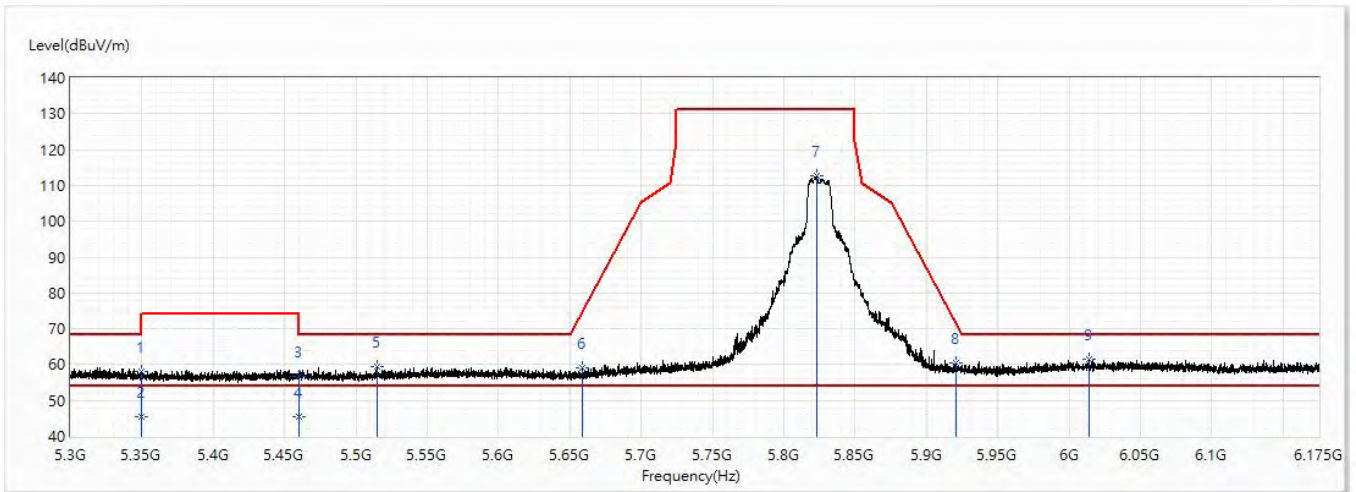


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.98                   | 74.00          | -17.02      | 31.47                | 25.51                 | PK            |
| 2   | 5350            | 45.58                   | 54.00          | -8.42       | 20.07                | 25.51                 | AV            |
| 3   | 5460            | 57.69                   | 74.00          | -16.31      | 31.90                | 25.79                 | PK            |
| 4   | 5460            | 45.48                   | 54.00          | -8.52       | 19.69                | 25.79                 | AV            |
| 5   | 5579.125        | 59.67                   | 68.20          | -8.53       | 33.42                | 26.25                 | PK            |
| 6   | 5658.422        | 59.81                   | 74.46          | -14.64      | 33.38                | 26.43                 | PK            |
| 7   | 5742.859        | 109.44                  | 131.20         | -21.76      | 82.77                | 26.67                 | PK            |
| 8   | 5920.594        | 60.18                   | 71.45          | -11.26      | 33.01                | 27.17                 | PK            |
| * 9 | 5995.844        | 61.29                   | 68.20          | -6.91       | 33.92                | 27.37                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Horizontal                | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch165_5.825G | Humidity (%RH)   | 55.0      |

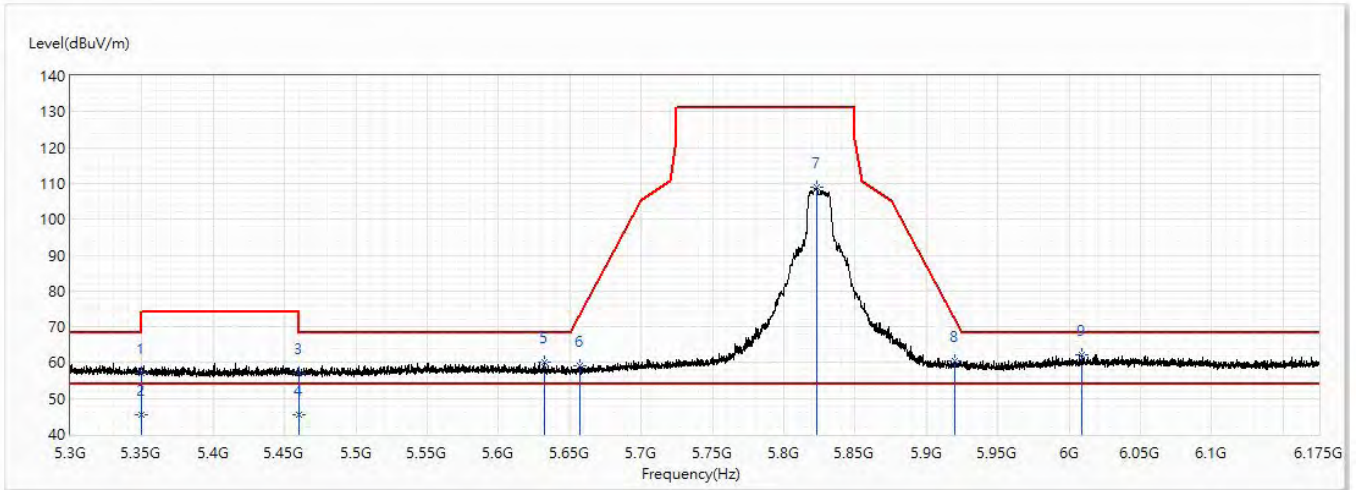


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 57.96                   | 74.00          | -16.04      | 32.45                | 25.51                 | PK            |
| 2   | 5350            | 45.47                   | 54.00          | -8.53       | 19.96                | 25.51                 | AV            |
| 3   | 5460            | 56.87                   | 74.00          | -17.13      | 31.08                | 25.79                 | PK            |
| 4   | 5460            | 45.43                   | 54.00          | -8.57       | 19.64                | 25.79                 | AV            |
| 5   | 5515.141        | 59.34                   | 68.20          | -8.86       | 33.42                | 25.92                 | PK            |
| 6   | 5658.75         | 59.00                   | 74.70          | -15.70      | 32.57                | 26.43                 | PK            |
| 7   | 5822.922        | 112.67                  | 131.20         | -18.53      | 85.70                | 26.97                 | PK            |
| 8   | 5920.594        | 60.59                   | 71.45          | -10.85      | 33.42                | 27.17                 | PK            |
| * 9 | 6013.891        | 61.39                   | 68.20          | -6.81       | 33.94                | 27.45                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                           |                  |           |
|----------------|---------------------------|------------------|-----------|
| Model No       | VG54-NA                   | Site             | CB2-H     |
| Test Voltage   | DC 12V                    | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode     | Engineer         | Lion      |
| Polarity       | Vertical                  | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11a_Ch165_5.825G | Humidity (%RH)   | 55.0      |

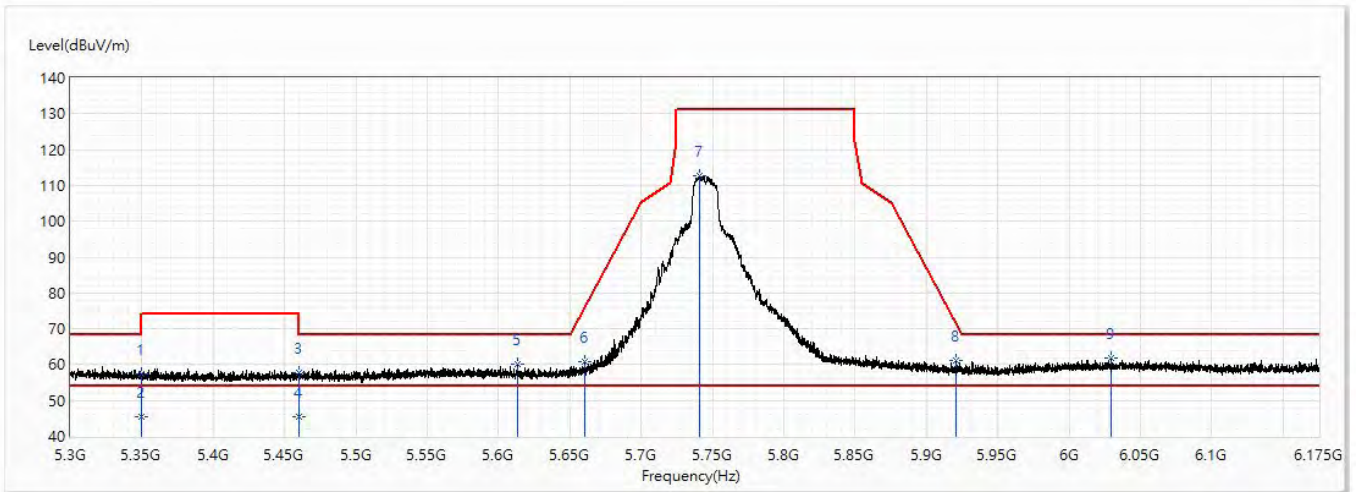


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.91                   | 74.00          | -17.09      | 31.40                | 25.51                 | PK            |
| 2   | 5350            | 45.52                   | 54.00          | -8.48       | 20.01                | 25.51                 | AV            |
| 3   | 5460            | 57.11                   | 74.00          | -16.89      | 31.32                | 25.79                 | PK            |
| 4   | 5460            | 45.47                   | 54.00          | -8.53       | 19.68                | 25.79                 | AV            |
| 5   | 5631.844        | 60.21                   | 68.20          | -7.99       | 33.81                | 26.40                 | PK            |
| 6   | 5657            | 59.02                   | 73.40          | -14.38      | 32.60                | 26.42                 | PK            |
| 7   | 5822.922        | 108.85                  | 131.20         | -22.35      | 81.88                | 26.97                 | PK            |
| 8   | 5919.609        | 60.46                   | 72.17          | -11.71      | 33.29                | 27.17                 | PK            |
| * 9 | 6008.859        | 62.18                   | 68.20          | -6.02       | 34.76                | 27.42                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch149_5.745G | Humidity (%RH)   | 55.0      |



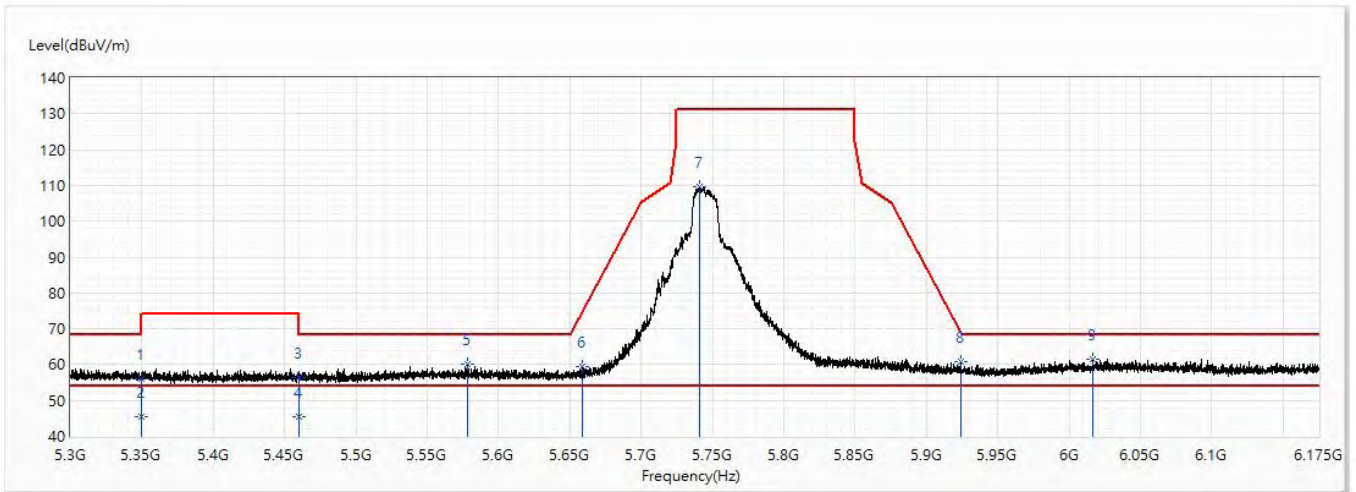
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 57.34                   | 74.00          | -16.66      | 31.83                | 25.51                 | PK            |
| 2   | 5350            | 45.43                   | 54.00          | -8.57       | 19.92                | 25.51                 | AV            |
| 3   | 5460            | 57.66                   | 74.00          | -16.34      | 31.87                | 25.79                 | PK            |
| 4   | 5460            | 45.39                   | 54.00          | -8.61       | 19.60                | 25.79                 | AV            |
| 5   | 5613.578        | 60.10                   | 68.20          | -8.10       | 33.73                | 26.37                 | PK            |
| 6   | 5660.281        | 60.97                   | 75.83          | -14.86      | 34.54                | 26.43                 | PK            |
| 7   | 5740.672        | 112.63                  | 131.20         | -18.57      | 85.98                | 26.65                 | PK            |
| 8   | 5920.922        | 61.31                   | 71.21          | -9.89       | 34.14                | 27.17                 | PK            |
| * 9 | 6029.75         | 61.93                   | 68.20          | -6.27       | 34.40                | 27.53                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.



|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch149_5.745G | Humidity (%RH)   | 55.0      |

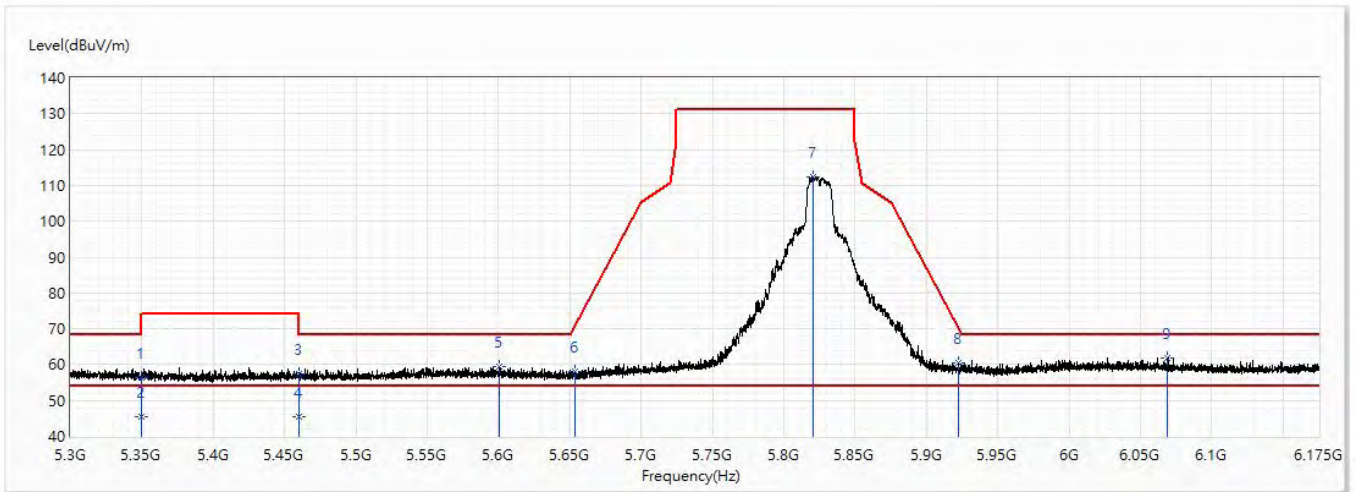


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.03                   | 74.00          | -17.97      | 30.52                | 25.51                 | PK            |
| 2   | 5350            | 45.46                   | 54.00          | -8.54       | 19.95                | 25.51                 | AV            |
| 3   | 5460            | 56.30                   | 74.00          | -17.70      | 30.51                | 25.79                 | PK            |
| 4   | 5460            | 45.47                   | 54.00          | -8.53       | 19.68                | 25.79                 | AV            |
| 5   | 5578.578        | 60.06                   | 68.20          | -8.14       | 33.81                | 26.25                 | PK            |
| 6   | 5658.531        | 59.61                   | 74.54          | -14.93      | 33.18                | 26.43                 | PK            |
| 7   | 5740.672        | 109.47                  | 131.20         | -21.73      | 82.82                | 26.65                 | PK            |
| 8   | 5923.766        | 60.84                   | 69.11          | -8.27       | 33.67                | 27.17                 | PK            |
| * 9 | 6016.406        | 61.59                   | 68.20          | -6.61       | 34.13                | 27.46                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch165_5.825G | Humidity (%RH)   | 55.0      |

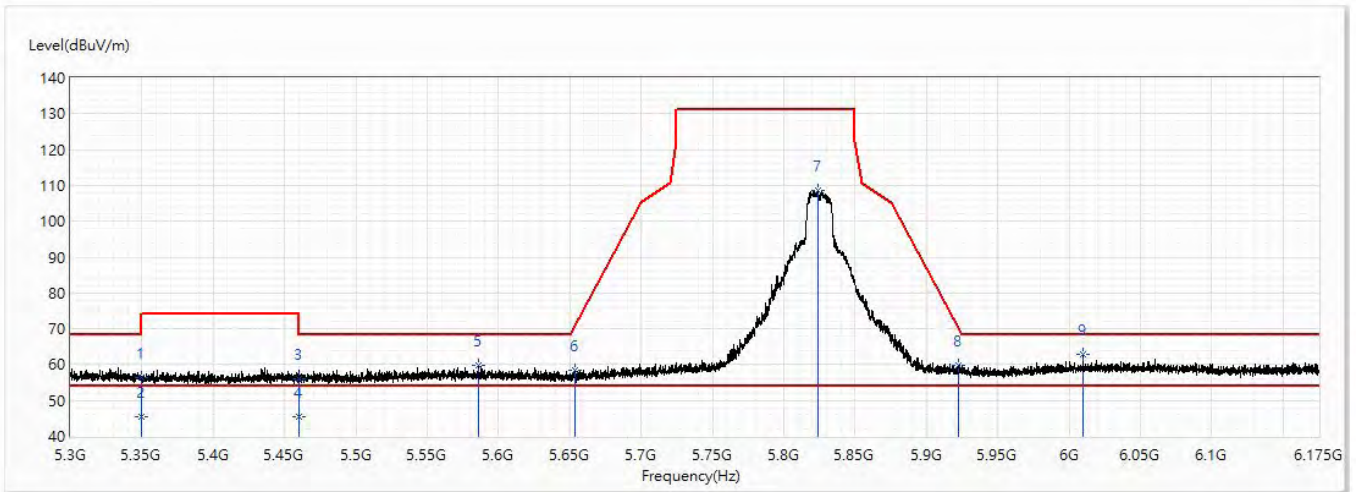


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.43                   | 74.00          | -17.57      | 30.92                | 25.51                 | PK            |
| 2   | 5350            | 45.57                   | 54.00          | -8.43       | 20.06                | 25.51                 | AV            |
| 3   | 5460            | 57.45                   | 74.00          | -16.55      | 31.66                | 25.79                 | PK            |
| 4   | 5460            | 45.52                   | 54.00          | -8.48       | 19.73                | 25.79                 | AV            |
| 5   | 5600.453        | 59.49                   | 68.20          | -8.71       | 33.13                | 26.36                 | PK            |
| 6   | 5653.938        | 58.17                   | 71.13          | -12.95      | 31.75                | 26.42                 | PK            |
| 7   | 5820.734        | 112.46                  | 131.20         | -18.74      | 85.49                | 26.97                 | PK            |
| 8   | 5922.125        | 60.42                   | 70.32          | -9.90       | 33.25                | 27.17                 | PK            |
| * 9 | 6069.234        | 62.00                   | 68.20          | -6.20       | 34.27                | 27.73                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_20M_Ch165_5.825G | Humidity (%RH)   | 55.0      |

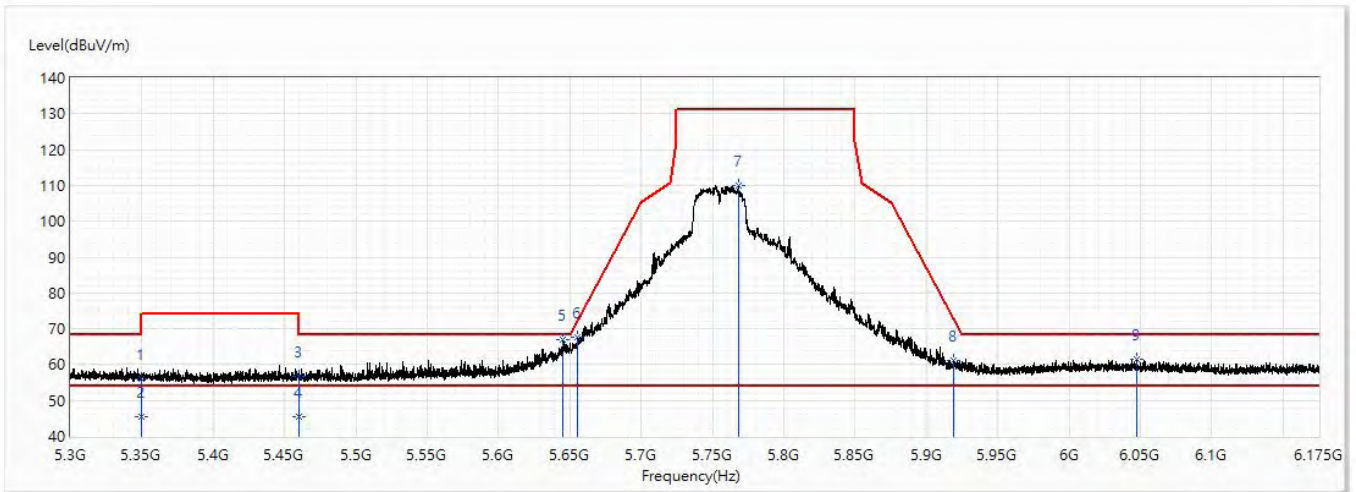


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.25                   | 74.00          | -17.75      | 30.74                | 25.51                 | PK            |
| 2   | 5350            | 45.52                   | 54.00          | -8.48       | 20.01                | 25.51                 | AV            |
| 3   | 5460            | 55.92                   | 74.00          | -18.08      | 30.13                | 25.79                 | PK            |
| 4   | 5460            | 45.51                   | 54.00          | -8.49       | 19.72                | 25.79                 | AV            |
| 5   | 5586.016        | 59.66                   | 68.20          | -8.54       | 33.38                | 26.28                 | PK            |
| 6   | 5653.719        | 58.50                   | 70.96          | -12.46      | 32.08                | 26.42                 | PK            |
| 7   | 5823.906        | 108.53                  | 131.20         | -22.67      | 81.56                | 26.97                 | PK            |
| 8   | 5922.563        | 59.92                   | 70.00          | -10.08      | 32.75                | 27.17                 | PK            |
| * 9 | 6009.516        | 62.96                   | 68.20          | -5.24       | 35.53                | 27.43                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 55.0      |

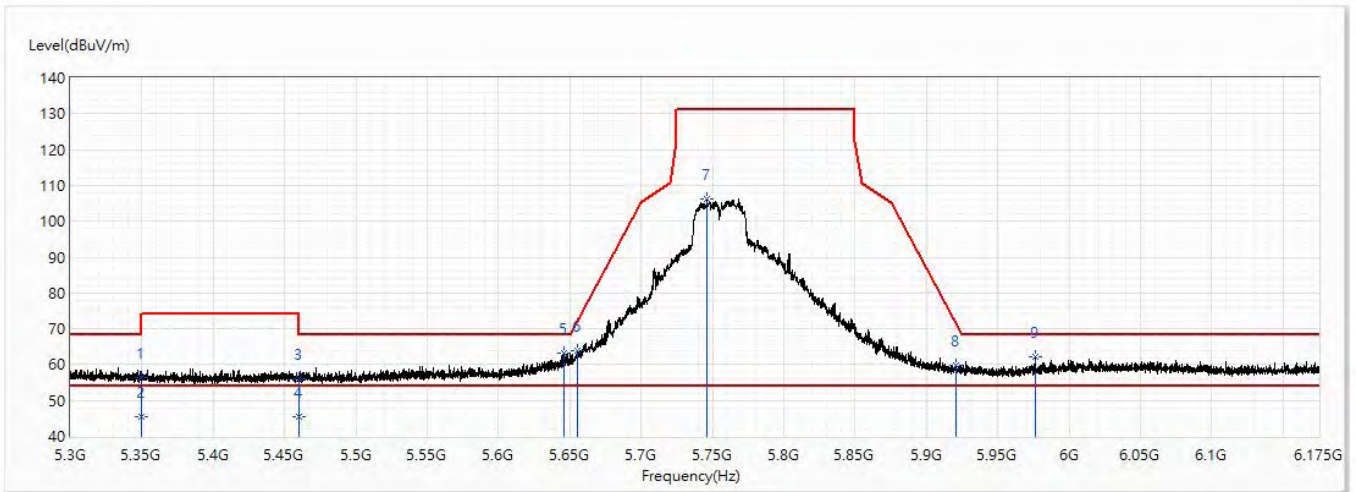


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 55.95                   | 74.00          | -18.05      | 30.44                | 25.51                 | PK            |
| 2   | 5350            | 45.46                   | 54.00          | -8.54       | 19.95                | 25.51                 | AV            |
| 3   | 5460            | 56.68                   | 74.00          | -17.32      | 30.89                | 25.79                 | PK            |
| 4   | 5460            | 45.53                   | 54.00          | -8.47       | 19.74                | 25.79                 | AV            |
| * 5 | 5645.406        | 66.96                   | 68.20          | -1.24       | 40.55                | 26.41                 | PK            |
| 6   | 5655.688        | 67.73                   | 72.43          | -4.70       | 41.31                | 26.42                 | PK            |
| 7   | 5768.125        | 109.95                  | 131.20         | -21.25      | 83.17                | 26.78                 | PK            |
| 8   | 5919.063        | 61.14                   | 72.58          | -11.44      | 33.98                | 27.16                 | PK            |
| 9   | 6047.359        | 61.53                   | 68.20          | -6.67       | 33.91                | 27.62                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch151_5.755G | Humidity (%RH)   | 55.0      |

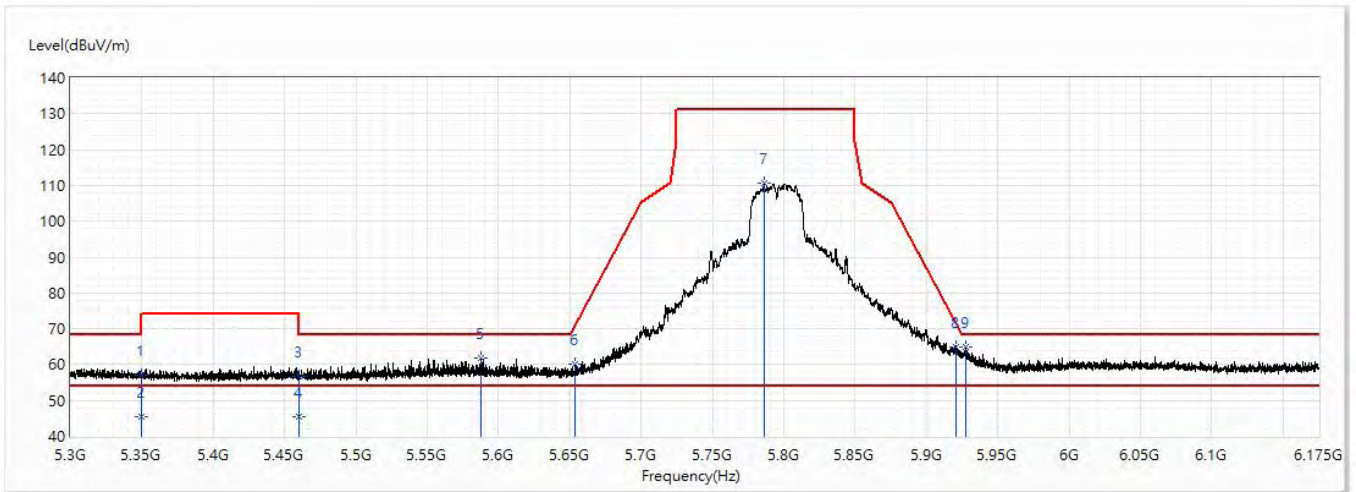


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 56.55                   | 74.00          | -17.45      | 31.04                | 25.51                 | PK            |
| 2   | 5350            | 45.50                   | 54.00          | -8.50       | 19.99                | 25.51                 | AV            |
| 3   | 5460            | 55.95                   | 74.00          | -18.05      | 30.16                | 25.79                 | PK            |
| 4   | 5460            | 45.57                   | 54.00          | -8.43       | 19.78                | 25.79                 | AV            |
| * 5 | 5645.734        | 63.24                   | 68.20          | -4.96       | 36.83                | 26.41                 | PK            |
| 6   | 5655.359        | 63.95                   | 72.18          | -8.23       | 37.53                | 26.42                 | PK            |
| 7   | 5745.922        | 106.21                  | 131.20         | -24.99      | 79.53                | 26.68                 | PK            |
| 8   | 5921.031        | 59.72                   | 71.13          | -11.40      | 32.55                | 27.17                 | PK            |
| 9   | 5976.047        | 62.29                   | 68.20          | -5.91       | 34.97                | 27.32                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Horizontal                    | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch159_5.795G | Humidity (%RH)   | 55.0      |

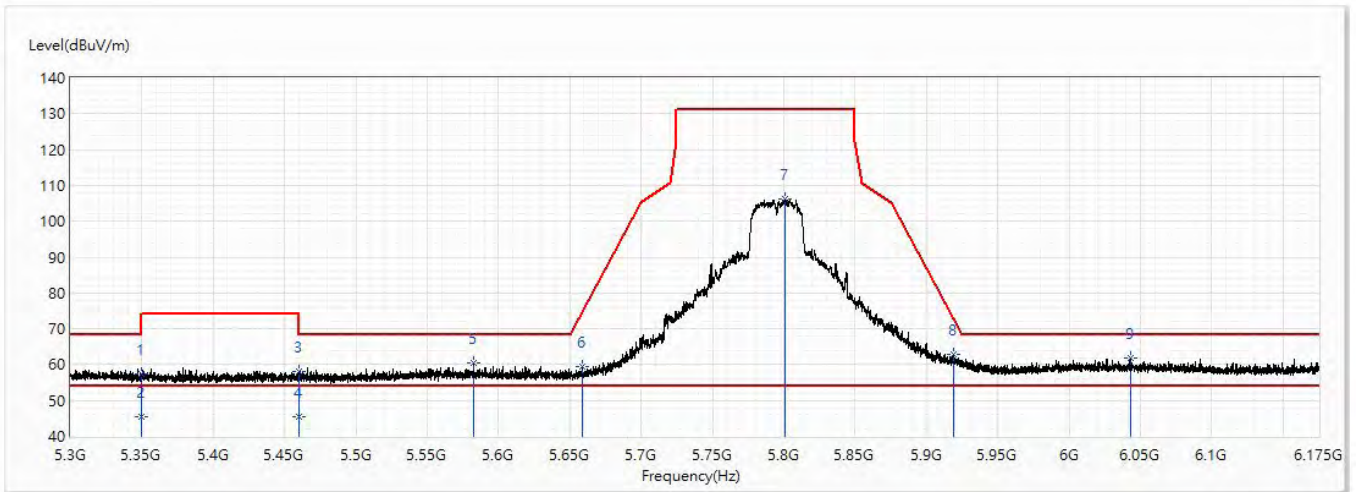


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 57.14                   | 74.00          | -16.86      | 31.63                | 25.51                 | PK            |
| 2   | 5350            | 45.39                   | 54.00          | -8.61       | 19.88                | 25.51                 | AV            |
| 3   | 5460            | 56.76                   | 74.00          | -17.24      | 30.97                | 25.79                 | PK            |
| 4   | 5460            | 45.56                   | 54.00          | -8.44       | 19.77                | 25.79                 | AV            |
| 5   | 5587.328        | 62.01                   | 68.20          | -6.19       | 35.72                | 26.29                 | PK            |
| 6   | 5653.828        | 60.08                   | 71.04          | -10.96      | 33.66                | 26.42                 | PK            |
| 7   | 5786.281        | 110.49                  | 131.20         | -20.71      | 83.62                | 26.87                 | PK            |
| 8   | 5920.375        | 65.06                   | 71.61          | -6.54       | 37.89                | 27.17                 | PK            |
| * 9 | 5927.156        | 64.95                   | 68.20          | -3.25       | 37.76                | 27.19                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.

|                |                               |                  |           |
|----------------|-------------------------------|------------------|-----------|
| Model No       | VG54-NA                       | Site             | CB2-H     |
| Test Voltage   | DC 12V                        | Test Date        | 2020/7/11 |
| Test Mode      | Mode 1: Transmit Mode         | Engineer         | Lion      |
| Polarity       | Vertical                      | Temperature (°C) | 23.0      |
| Test Condition | SISO_802.11n_40M_Ch159_5.795G | Humidity (%RH)   | 55.0      |



| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB/m) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|-----------------------|---------------|
| 1   | 5350            | 57.44                   | 74.00          | -16.56      | 31.93                | 25.51                 | PK            |
| 2   | 5350            | 45.48                   | 54.00          | -8.52       | 19.97                | 25.51                 | AV            |
| 3   | 5460            | 58.04                   | 74.00          | -15.96      | 32.25                | 25.79                 | PK            |
| 4   | 5460            | 45.48                   | 54.00          | -8.52       | 19.69                | 25.79                 | AV            |
| 5   | 5582.625        | 60.37                   | 68.20          | -7.83       | 34.10                | 26.27                 | PK            |
| 6   | 5658.75         | 59.33                   | 74.70          | -15.37      | 32.90                | 26.43                 | PK            |
| 7   | 5800.719        | 106.15                  | 131.20         | -25.05      | 79.22                | 26.93                 | PK            |
| 8   | 5919.063        | 62.74                   | 72.58          | -9.84       | 35.58                | 27.16                 | PK            |
| * 9 | 6043.203        | 62.01                   | 68.20          | -6.19       | 34.41                | 27.60                 | PK            |

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.
4. The fundamental for reference only, it's not restricted by unwanted emission limit.