



# FCC RADIO TEST REPORT

**FCC ID** : 2A4B7-1021  
**Equipment** : Contactless Sleep Tracker and Wake Light  
**Model Name** : V4E6N2  
**Applicant** : Blueberry Cornel LLC  
2150 S. Central Expressway Suite 200  
McKinney, TX 75070  
**Standard** : FCC 47 CFR Part 15.255

The product was received on May 16, 2022 and testing was performed from May 16, 2022 to Jul. 16, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures ANSI C63.10-2013 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

**Sporton International Inc. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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| <b>Appendix A. AC Conducted Emission Test Result</b>      |           |



## History of this test report

| Report No.   | Version | Description             | Issued Date   |
|--------------|---------|-------------------------|---------------|
| FR1D2427-01G | 01      | Initial issue of report | Jul. 28, 2022 |
|              |         |                         |               |
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|              |         |                         |               |
|              |         |                         |               |

## Summary of Test Result

| Report Clause | Ref Std. Clause          | Test Items                                    | Limit                                    | Result (PASS/FAIL) |
|---------------|--------------------------|-----------------------------------------------|------------------------------------------|--------------------|
| 3.4           | §15.215(c)<br>§15.255(e) | Emission Bandwidth                            | 20dB bandwidth<br>Within 57 ~ 71GHz      | Pass               |
| 3.5           | §15.255(c)(3)            | Peak EIRP & Peak Conducted power              | EIRP < 10dBm<br>Conducted power < -10dBm | Pass               |
| 3.6           | §15.255(d)               | Transmitter Spurious Emissions                | §15.255(d)                               | Pass               |
| 3.7           | §15.255(f)               | Frequency Stability for Temperature & Voltage | Within<br>57 ~ 71GHz                     | Pass               |
| 4             | §15.207                  | AC Power Conducted Emission                   | §15.207                                  | Pass               |

### Declaration of Conformity:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.  
It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Uncertainty of Evaluation".

### Comments and Explanations:

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by:** Alan Liu

**Report Producer:** Lucy Wu



# 1 General Description

## 1.1 Feature of Equipment Under Test

| Product Feature                 |                                                                      |
|---------------------------------|----------------------------------------------------------------------|
| Equipment                       | Contactless Sleep Tracker and Wake Light                             |
| Model Name                      | V4E6N2                                                               |
| FCC ID                          | 2A4B7-1021                                                           |
| EUT supports Radios application | WLAN 11b/g/n HT20<br>WLAN 11a/n HT20<br>Bluetooth BR/EDR/LE<br>60GHz |

## 1.2 Product Specification of Equipment Under Test

| Product Specification is subject to this standard |                              |
|---------------------------------------------------|------------------------------|
| Frequency Range                                   | 62 - 63.1GHz                 |
| Antenna Type                                      | Embedded Antennas in the PCB |
| Antenna Gain                                      | 6dBi                         |
| Antenna directional gain                          | 16.79dBi                     |
| Type of Modulation                                | SFCW                         |

**Note:** Antenna directional gain = 6dBi + 10log (12 antenna elements) = 16.79dBi

## 1.3 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.4 Testing Location

|                    |                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International Inc. EMC & Wireless Communications Laboratory                                                       |
| Test Site Location | No.52, Huaya 1st Rd., Guishan Dist.,<br>Taoyuan City 333, Taiwan (R.O.C.)<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |
| Test Site No.      | <b>Sporton Site No.</b><br>CO05-HY (TAF Code: 1190)                                                                       |
| Remark             | The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory. |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

|                    |                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International Inc. Wensan Laboratory                                                                                                     |
| Test Site Location | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City 333010, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| Test Site No.      | <b>Sporton Site No.</b><br>03CH11-HY, 03CH15-HY, 03CH18-HY                                                                                       |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW1190 and TW3786

## 1.5 Applied Standards

- ♦ FCC 47 CFR Part 2, 15.255
- ♦ ANSI C63.10-2013

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

For radiated measurement, , the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find Y Plane as worst plane.

For transmitter spurious emissions

| Test Configuration |                                             |                   |
|--------------------|---------------------------------------------|-------------------|
| Mode 1             | Antenna Group1                              | 62.5GHz           |
| Mode 2             | Antenna Group2                              | 62.5GHz           |
| Mode 3             | WLAN (2.4GHz) 802.11g Ch11 + Antenna Group2 | 2462MHz + 62.5GHz |
| Mode 4             | WLAN (5GHz) 802.11a Ch36 + Antenna Group2   | 5180MHz + 62.5GHz |

**Note:** For transmitter spurious emissions, the test modes 1, 2, 3, and 4 are set frequency sweep stopped in accordance with the FCC 15.31(c) for millimeter-wave signal.

For EIRP/99% OBW/6dB BW/20dB BW

| Test Configuration |                          |              |
|--------------------|--------------------------|--------------|
| Mode 1             | Antenna Group1 SFCW mode | 62 ~ 63.1GHz |
| Mode 2             | Antenna Group2 SFCW mode | 62 ~ 63.1GHz |

**Note:** The SFCW is used during test.

For Frequency Stability

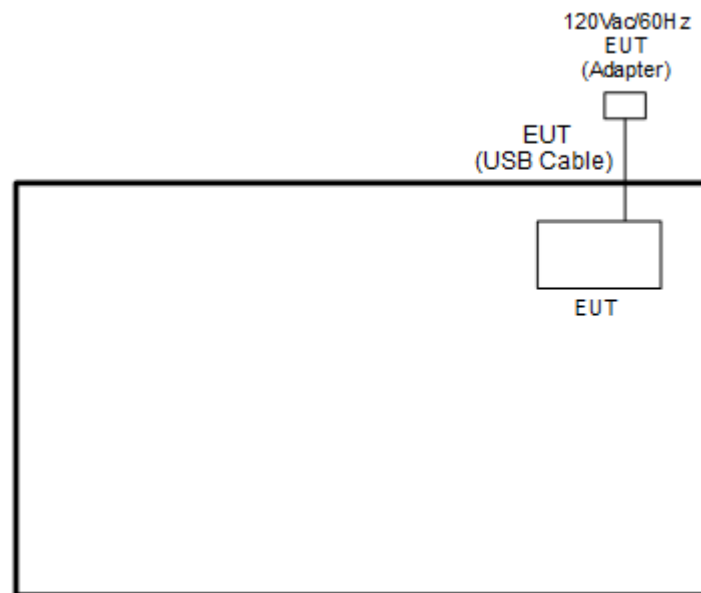
| Test Configuration |                |                   |
|--------------------|----------------|-------------------|
| Mode 1             | Antenna Group1 | 62GHz and 63.1GHz |
| Mode 2             | Antenna Group2 | 62GHz and 63.1GHz |

**Note:** The continuous wave is used during test.

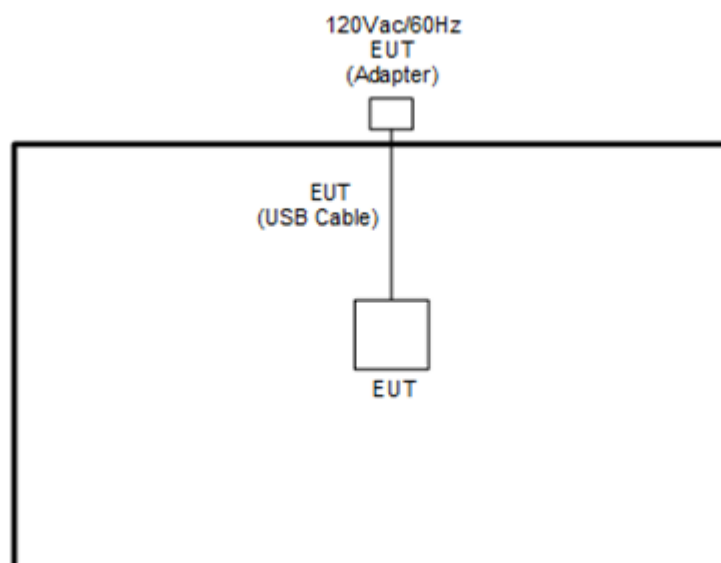
| Test Cases            |                                                      |
|-----------------------|------------------------------------------------------|
| AC Conducted Emission | Mode 1 :Non-ISM band Group1 SFCW Mode + AP31 Adapter |

## 2.2 Connection Diagram of Test System

### <AC Conducted Emission>



### <60 GHz Tx Mode>





## 2.3 Far Field Condition for Frequency above 18GHz

| Horn Antenna | Frequency (GHz) | Antenna Dimension A (mm) | Wavelength ( $\lambda$ ) (m) | Far field R (m) $\geq 2A^2 / \lambda$ | Measurement Distance (D) (m) | Distance Factor $20 \cdot \log(D)$ (dB) |
|--------------|-----------------|--------------------------|------------------------------|---------------------------------------|------------------------------|-----------------------------------------|
| BBHA 9170    | 18              | 60                       | 0.0167                       | 0.43                                  | 1                            | 0.00                                    |
|              | 40              | 60                       | 0.0075                       | 0.96                                  |                              |                                         |
| QWH-UPRR00   | 40              | 48                       | 0.0075                       | 0.61                                  | 0.87                         | -1.21                                   |
|              | 57              | 48                       | 0.0053                       | 0.87                                  |                              |                                         |
| QWH-VPRR00   | 57              | 38                       | 0.0053                       | 0.54                                  | 0.62                         | -4.15                                   |
|              | 65              | 38                       | 0.0046                       | 0.62                                  |                              |                                         |
| QWH-EPRR00   | 60              | 31                       | 0.0050                       | 0.38                                  | 0.6                          | -4.44                                   |
|              | 90              | 31                       | 0.0033                       | 0.6                                   |                              |                                         |
| QWH-FPRR00   | 90              | 21                       | 0.0033                       | 0.26                                  | 0.42                         | -7.54                                   |
|              | 140             | 21                       | 0.0021                       | 0.42                                  |                              |                                         |
| QWH-GPRR00   | 140             | 14                       | 0.0021                       | 0.18                                  | 0.26                         | -11.7                                   |
|              | 200             | 14                       | 0.0015                       | 0.26                                  |                              |                                         |

**Note:** The measurement distance may be far than the measurement distance above.

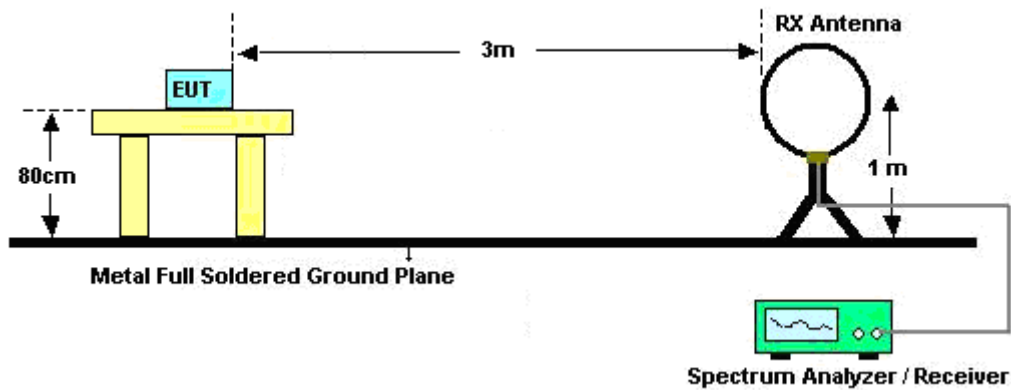
### 3 Radiated Test Items

#### 3.1 Measuring Instruments

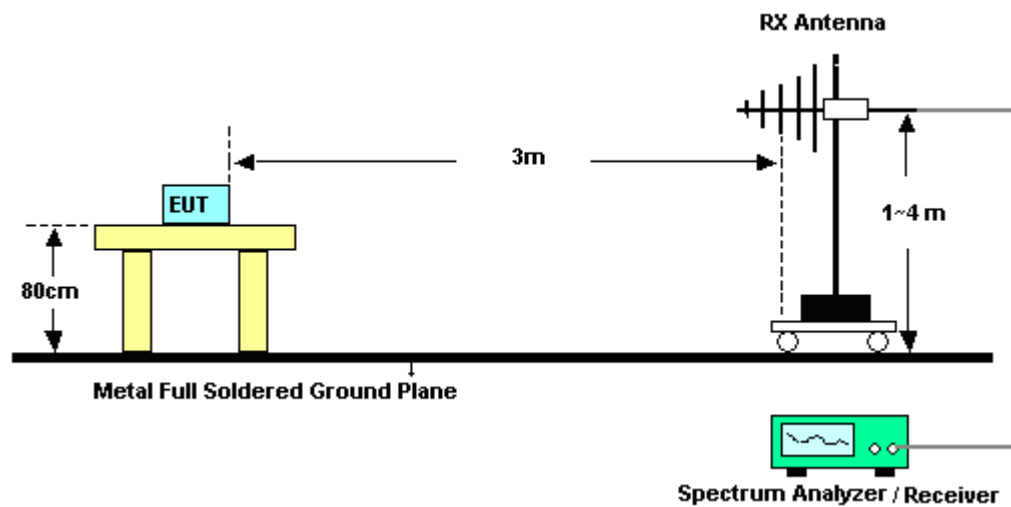
See list of measuring instruments of this test report.

#### 3.2 Test Setup

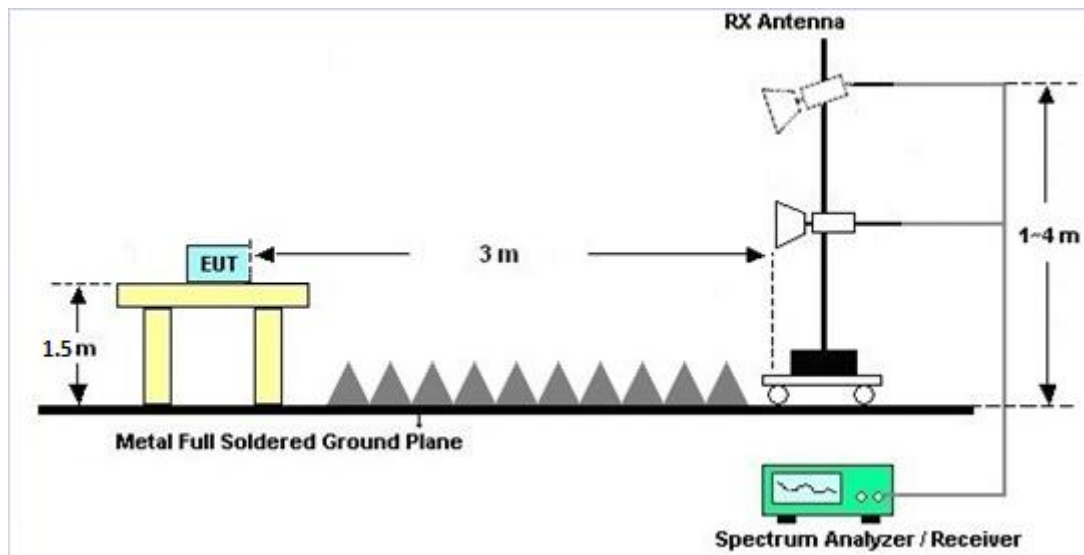
For radiated emissions from 9kHz to 30MHz



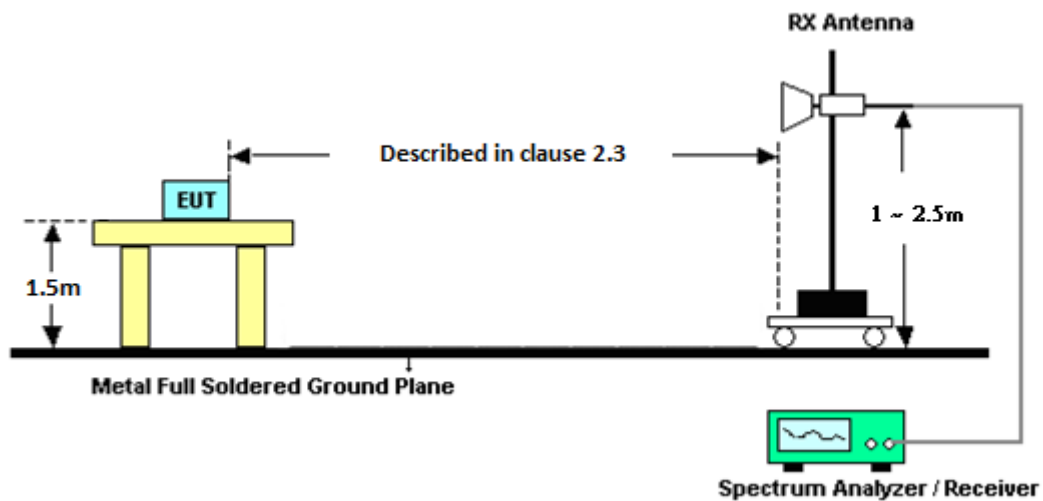
For radiated emissions from 30MHz to 1GHz



For radiated emissions 1GHz to 18GHz



For radiated emissions above 18GHz



### 3.3 Test Result of Radiated Test

Please refer to Clause 3.6.



## **3.4 Emission Bandwidth**

### **3.4.1 Description of Emission Bandwidth Measurement**

99% Occupied Bandwidth and 6dB Bandwidth are for reporting only.

Limit for 20 dB Bandwidth: Per Part15.215(C), the device shall operate in the 57 - 71 GHz band.

The emission bandwidth (EBW) is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least the specified amount below the maximum level of the modulated carrier.

### **3.4.2 Measuring Instruments**

See list of measuring equipment of this test report.

### **3.4.3 Test Procedures**

The testing follows ANSI C63.10-2013 Section 9.3.

### 3.4.4 Test Results

#### <Antenna Group1 SFCW mode>

|                              |                     |                      |              |
|------------------------------|---------------------|----------------------|--------------|
| Temperature                  | 21.1 ~ 23.5℃        | Relative Humidity    | 61.4 ~ 65.3% |
| Test Engineer                | Eric Jeng           |                      |              |
| 99% Occupied Bandwidth (GHz) |                     | Limit (GHz)          |              |
| 1.214676                     |                     | Report Only          |              |
| 6dB Bandwidth (GHz)          |                     | Limit (GHz)          |              |
| 1.0404                       |                     | Report Only          |              |
| 20dB Bandwidth Measurement   |                     |                      |              |
| Bandwidth (GHz)              | Low Frequency (GHz) | High Frequency (GHz) | Result       |
| 1.2941                       | 61.8305             | 63.1246              | Pass         |

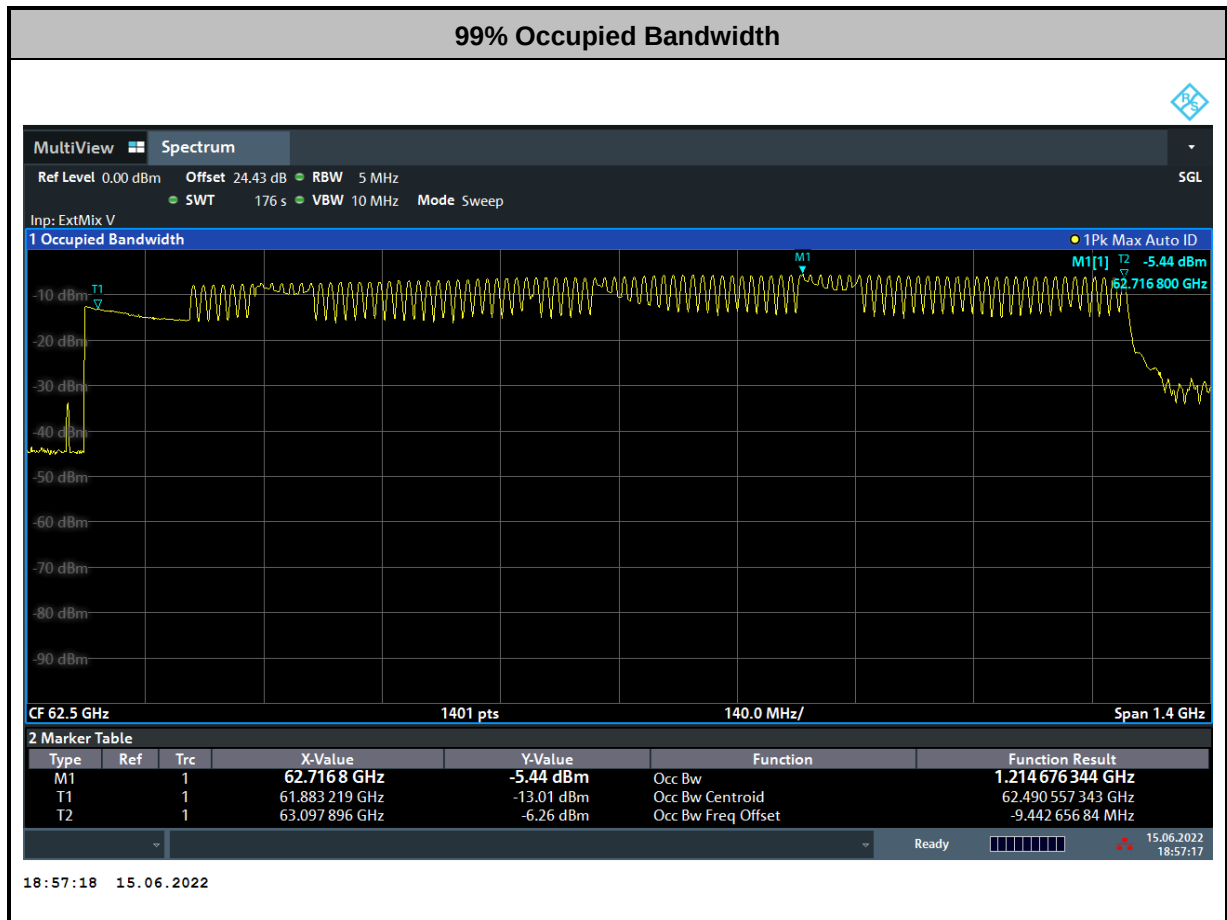
#### <Antenna Group2 SFCW mode>

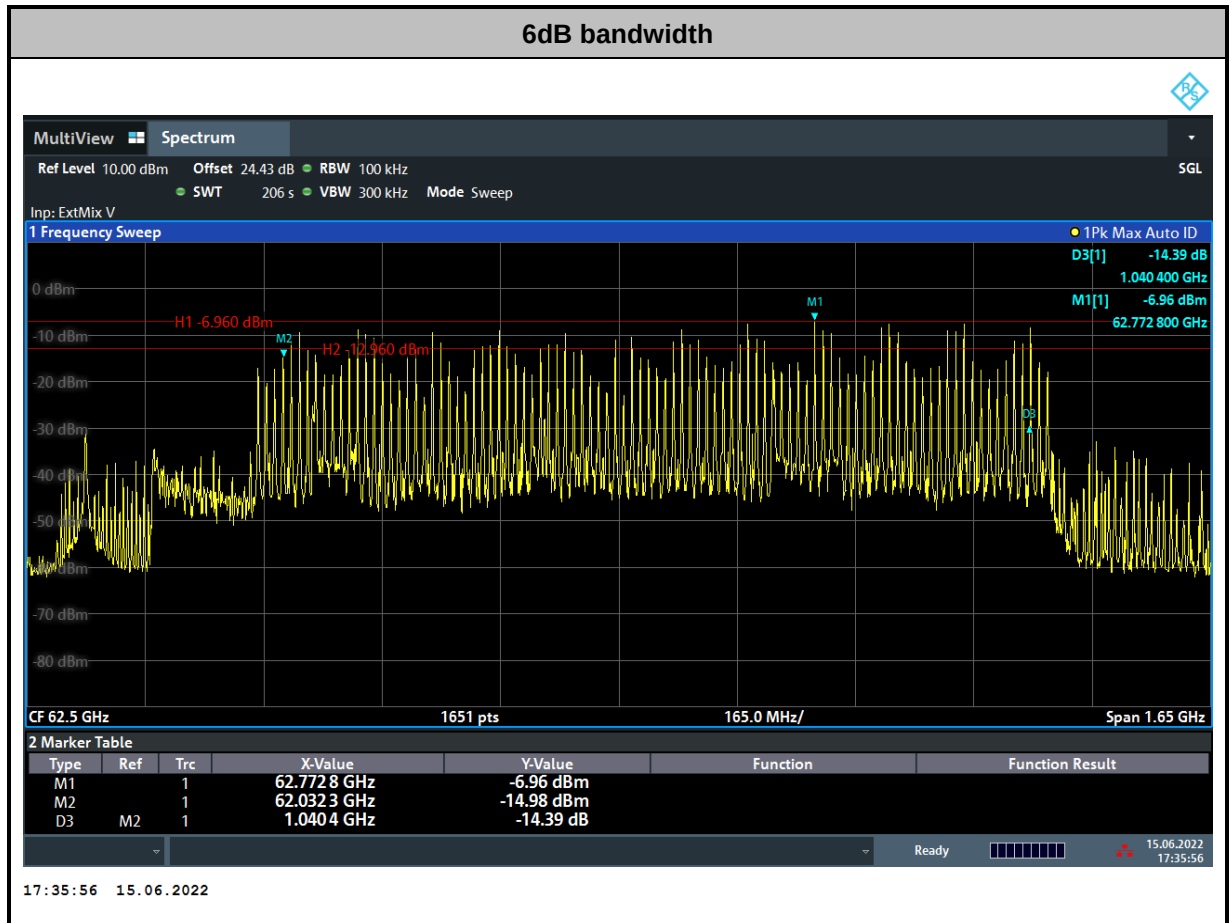
|                              |                     |                      |              |
|------------------------------|---------------------|----------------------|--------------|
| Temperature                  | 21.1 ~ 23.5℃        | Relative Humidity    | 61.4 ~ 65.3% |
| Test Engineer                | Eric Jeng           |                      |              |
| 99% Occupied Bandwidth (GHz) |                     | Limit (GHz)          |              |
| 1.253706                     |                     | Report Only          |              |
| 6dB Bandwidth (GHz)          |                     | Limit (GHz)          |              |
| 1.0324                       |                     | Report Only          |              |
| 20dB Bandwidth Measurement   |                     |                      |              |
| Bandwidth (GHz)              | Low Frequency (GHz) | High Frequency (GHz) | Result       |
| 1.2915                       | 61.831              | 63.1225              | Pass         |

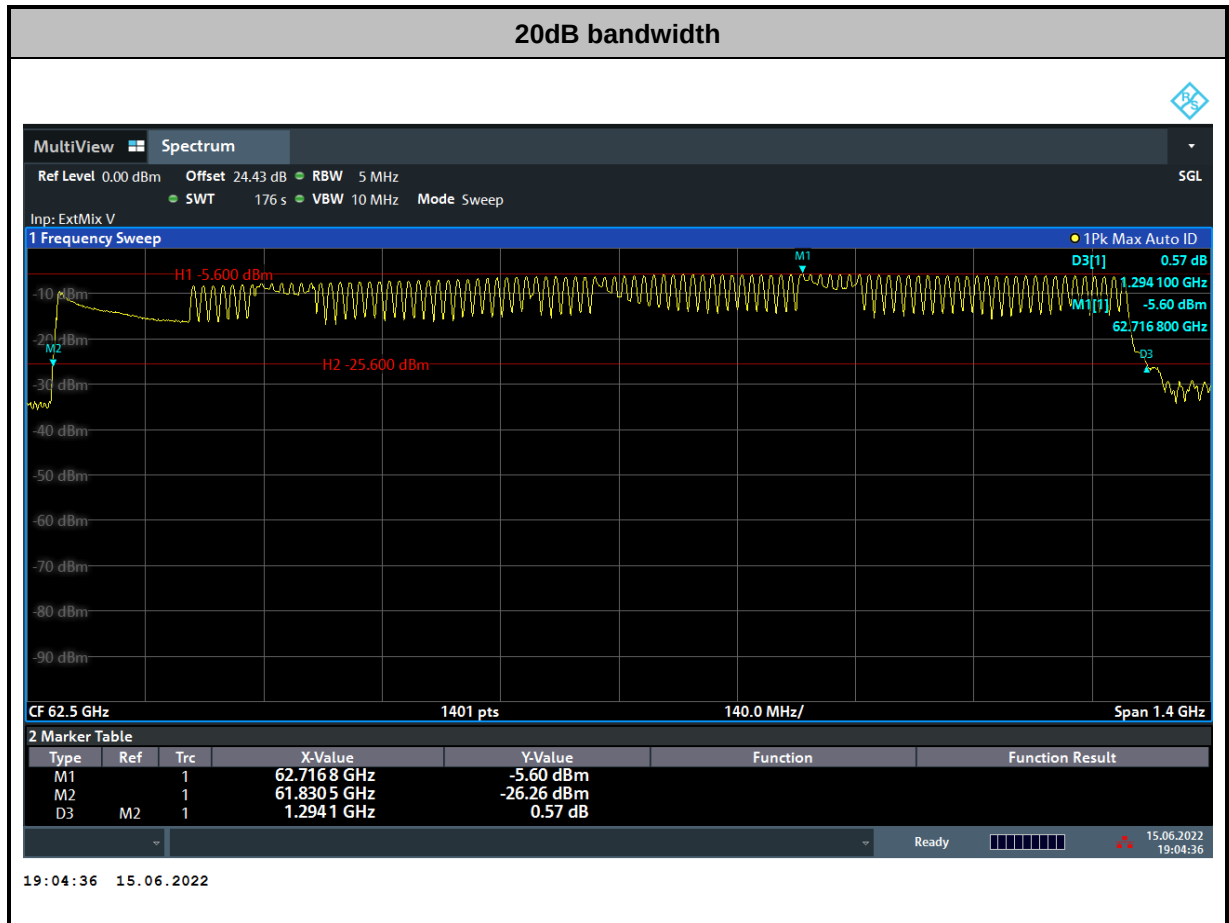


## 3.4.5 Test Plots

&lt;Antenna Group1 SFCW mode&gt;



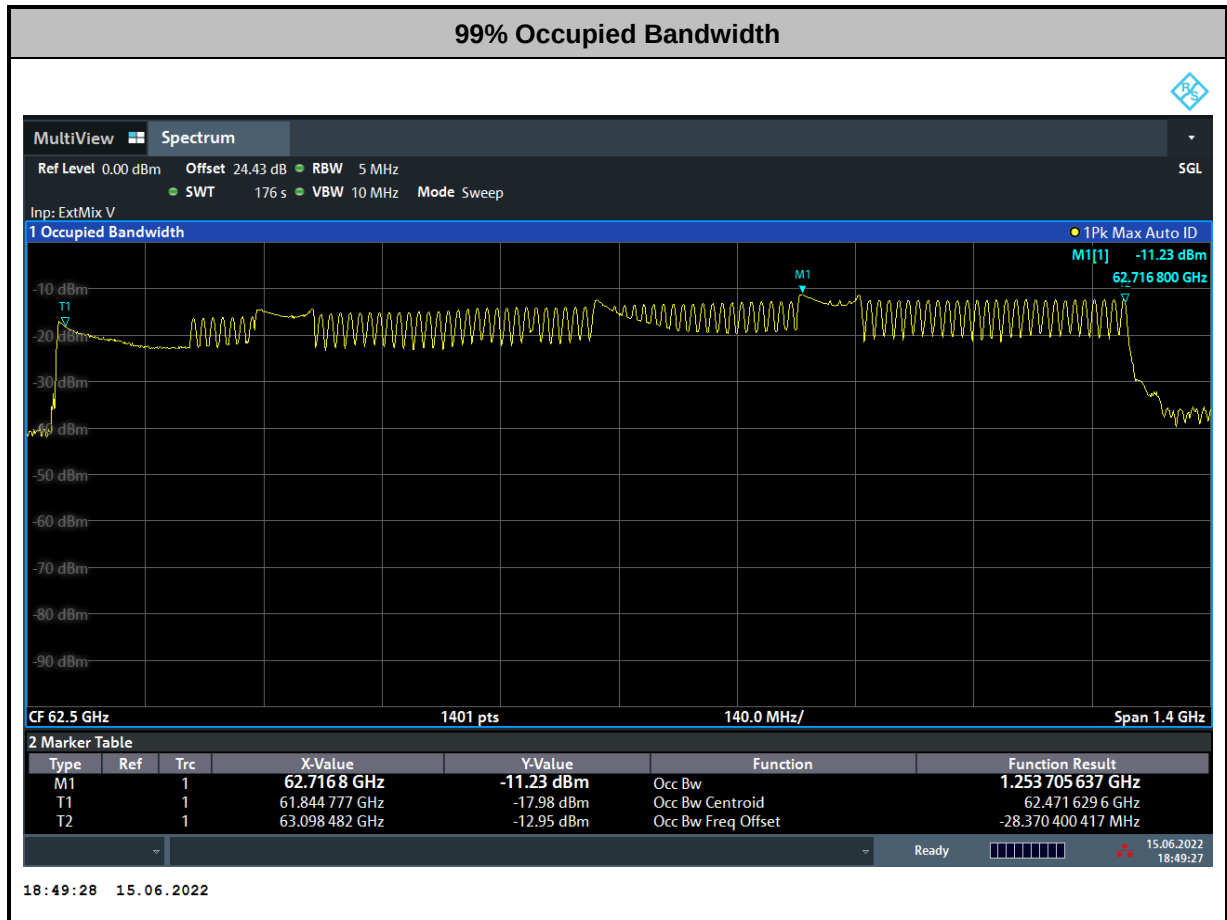


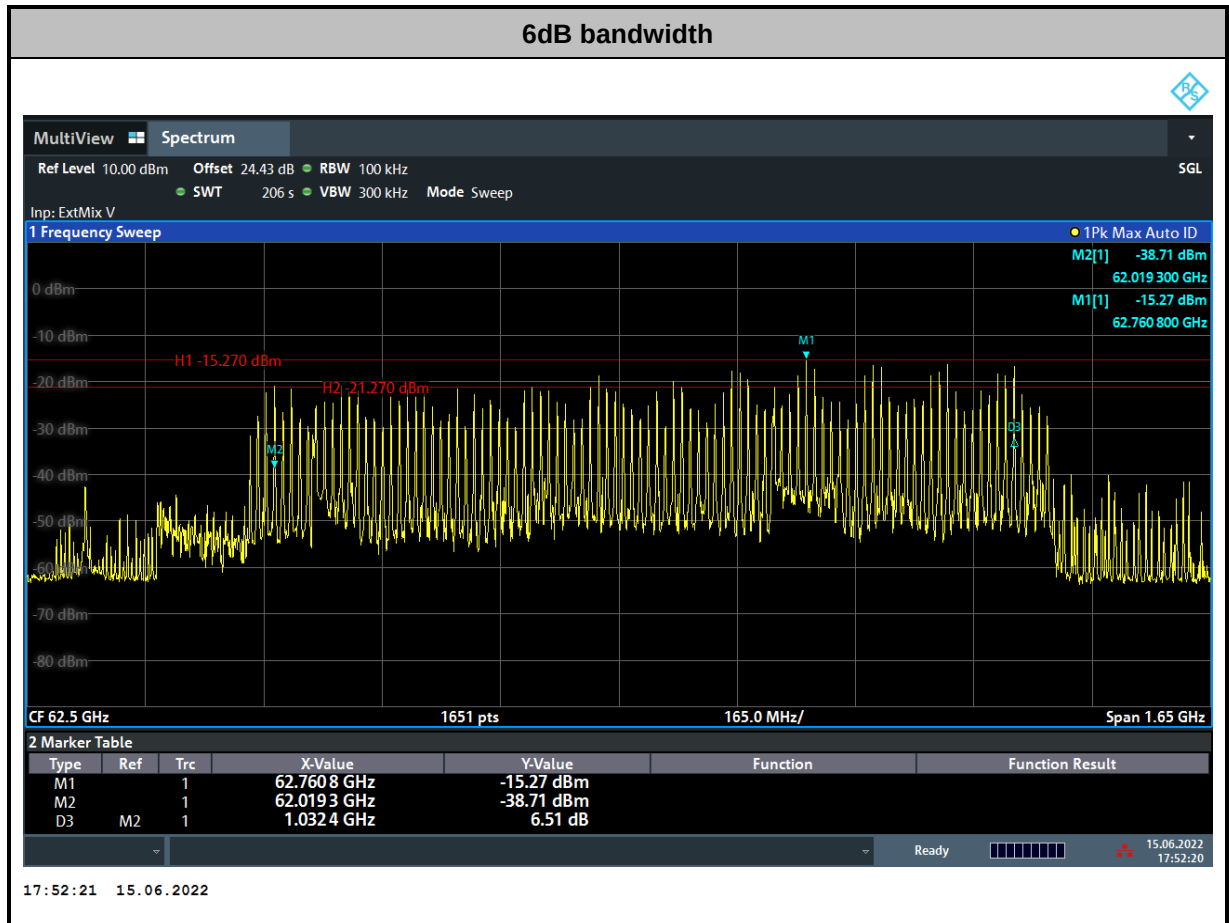


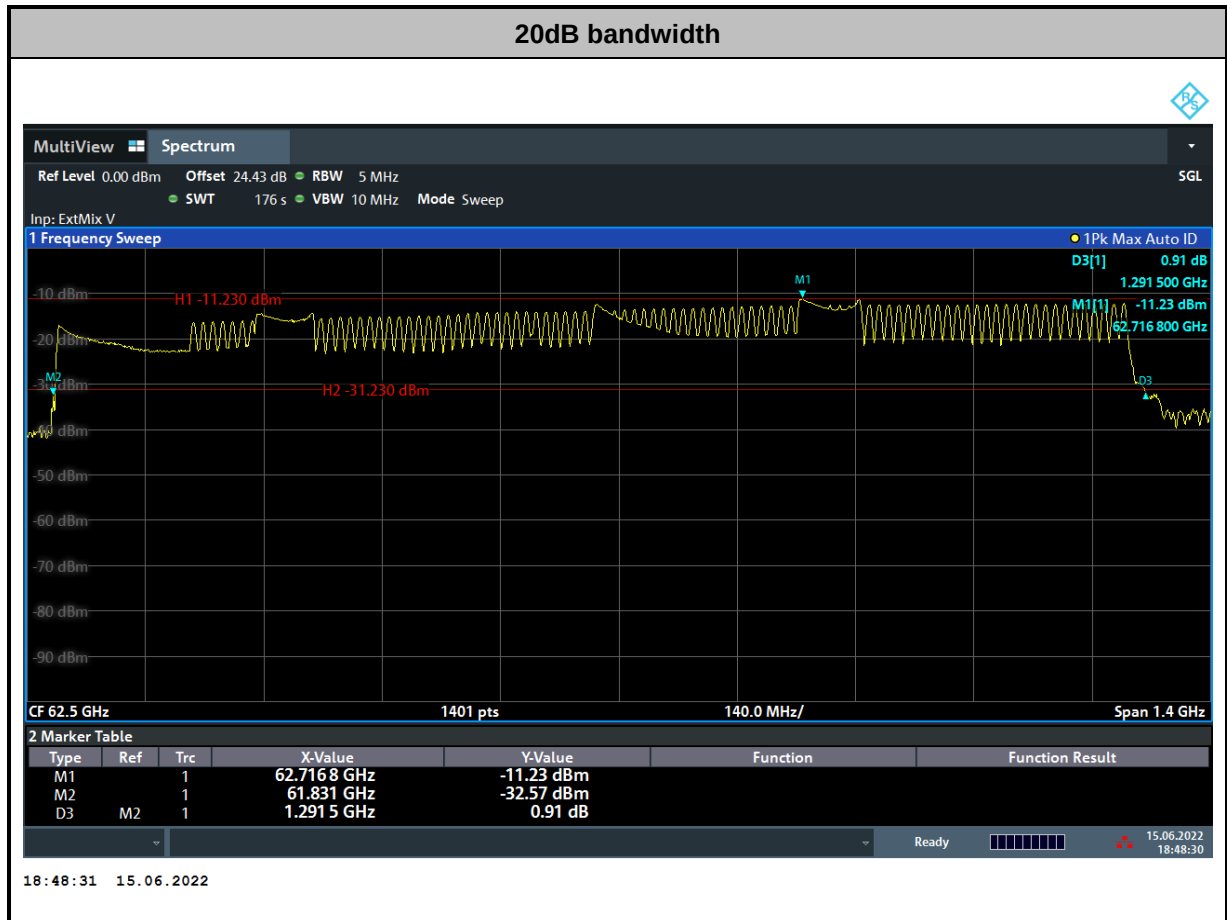




## &lt;Antenna Group2 SFCW mode&gt;









### 3.5 EIRP Power Measurement

#### 3.5.1 Test Limit

| Regulation         | Product Type                                                   | Peak EIRP Power (dBm) | Peak Conducted power (dBm) |
|--------------------|----------------------------------------------------------------|-----------------------|----------------------------|
| FCC 15.255 (c) (3) | The field disturbance sensors are employed for fixed operation | 10                    | -10                        |

#### 3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.5.3 Test Procedures

Method of measurement: Refer as ANSI C63.10-2013 clause 9.5 and 9.11

#### 3.5.4 Test Results

<Antenna Group1 SFCW mode>

|                        |                      |                              |             |                         |                   |               |                             |        |
|------------------------|----------------------|------------------------------|-------------|-------------------------|-------------------|---------------|-----------------------------|--------|
| Temperature            |                      | 21.1 ~ 23.5℃                 |             | Relative Humidity       |                   | 61.4 ~ 65.3%  |                             |        |
| Test Engineer          |                      | Eric Jeng                    |             |                         |                   |               |                             |        |
| EIRP Power Measurement |                      |                              |             |                         |                   |               |                             |        |
| Frequency<br>(GHz)     | Measure Dist.<br>(m) | Measure Ant<br>Gain<br>(dBi) | DSO<br>(mV) | Power measured<br>(dBm) | Emeas<br>(dBuV/m) | EIRP<br>(dBm) | EIRP Limit<br>(dBm)<br>Peak | Result |
| 62.5                   | 0.63                 | 22.4                         | 14.218      | -39.14                  | 111.64            | 2.92          | 10                          | PASS   |

| Peak Conducted Power Measurement |                 |                   |                       |             |        |
|----------------------------------|-----------------|-------------------|-----------------------|-------------|--------|
| Frequency (GHz)                  | Peak EIRP (dBm) | Antenna gain(dBi) | Conducted power (dBm) | Limit (dBm) | Result |
| 62.5                             | 2.92            | 16.79             | -13.87                | -10         | PASS   |



## &lt;Antenna Group2 SFCW mode&gt;

|                        |                      |                              |             |                         |                   |               |                             |        |
|------------------------|----------------------|------------------------------|-------------|-------------------------|-------------------|---------------|-----------------------------|--------|
| Temperature            |                      | 21.1 ~ 23.5℃                 |             | Relative Humidity       |                   | 61.4 ~ 65.3%  |                             |        |
| Test Engineer          |                      | Eric Jeng                    |             |                         |                   |               |                             |        |
| EIRP Power Measurement |                      |                              |             |                         |                   |               |                             |        |
| Frequency<br>(GHz)     | Measure Dist.<br>(m) | Measure Ant<br>Gain<br>(dBi) | DSO<br>(mV) | Power measured<br>(dBm) | Emeas<br>(dBuV/m) | EIRP<br>(dBm) | EIRP Limit<br>(dBm)<br>Peak | Result |
| 62.5                   | 0.63                 | 22.4                         | 6.3924      | -44.81                  | 105.97            | -2.75         | 10                          | PASS   |

| Peak Conducted Power Measurement |                 |                   |                       |             |        |
|----------------------------------|-----------------|-------------------|-----------------------|-------------|--------|
| Frequency (GHz)                  | Peak EIRP (dBm) | Antenna gain(dBi) | Conducted power (dBm) | Limit (dBm) | Result |
| 62.5                             | -2.75           | 16.79             | -19.54                | -10         | PASS   |

For radiated emissions, calculate the field strength (E) in dBμV/meter.

$$E = 126.8 - 20 \cdot \log(\lambda) + P - G$$

where:

E : is the field strength of the emission at the measurement distance, in dBμV/m

P : is the power measured at the output of the test antenna, in dBm

λ: is the wavelength of the emission under investigation [300/fMHz], in m

G : is the gain of the test antenna, in dBi For radiated emissions, calculate the EIRP (dBm). If the measurement was performed in the far field, calculate the EIRP.

$$EIRP = E - \text{meas} + 20 \cdot \log(d - \text{meas}) - 104.7$$

where:

EIRP : is the equivalent isotopically radiated power, in dBm

E-meas. : is the field strength of the emission at the measurement distance, in dBμV/m

d-meas. : is the measurement distance, in m

NOTE 1: The comparison method which replaces EUT with a signal generator is used to find the correct conversion factor between "DSO(mV)" & "Power Measured(dBm)".

NOTE 2: Conducted Power (dBm) = EIRP (dBm) - antenna gain (dBi)

Calculation example:

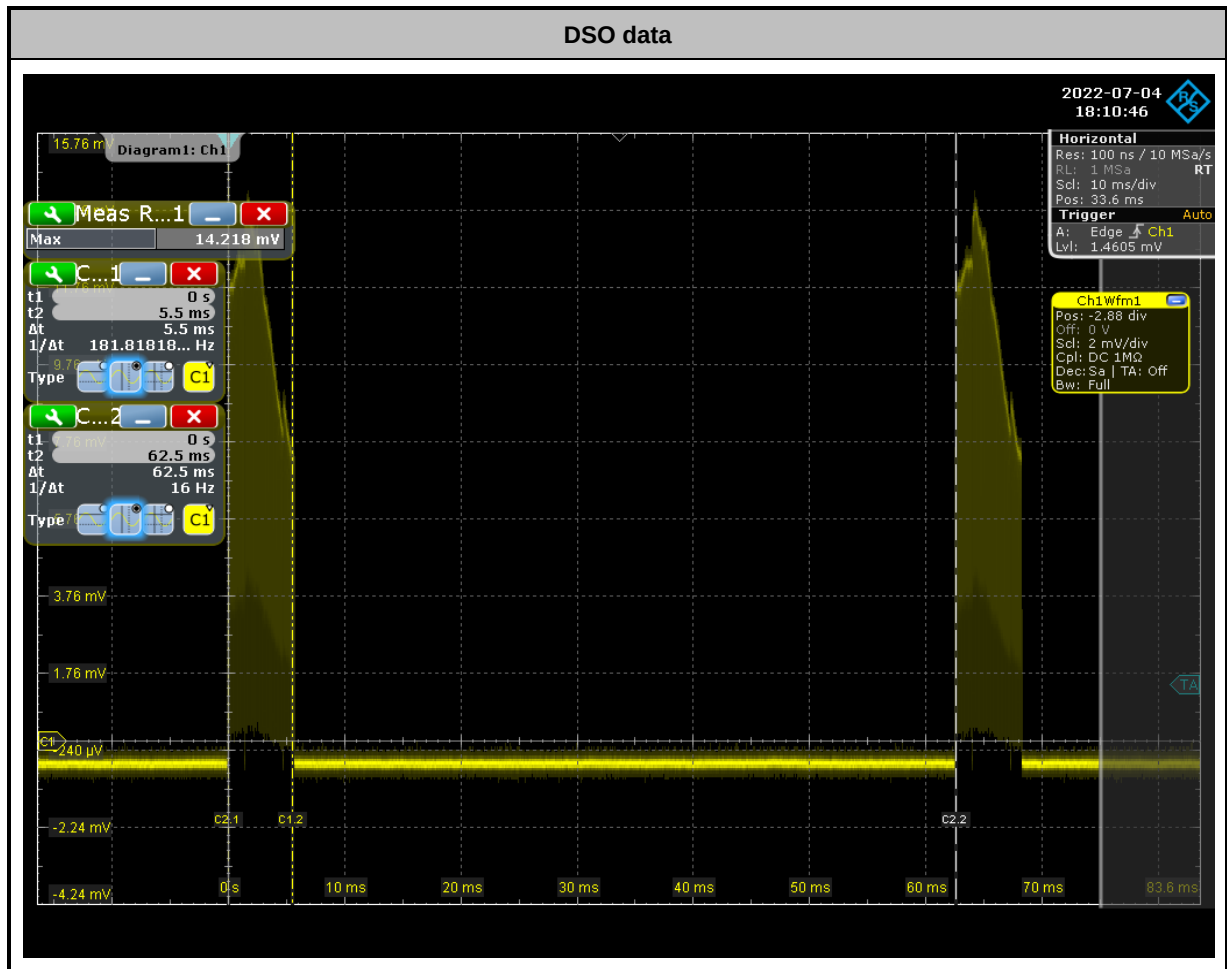
$$E(\text{dBuV/m}) = 126.8 - 20 \cdot \log(\lambda) + P - G, \text{ where } f=60\text{GHz}, P= -10\text{dBm}, G= 24\text{dBi}, \text{ then } E = 138.8 (\text{dBuV/m})$$

$$EIRP (\text{dBm}) = E(\text{dBuV/m}) + 20 \cdot \log(d) - 104.7 = 138.8 (\text{dBuV/m}) + 20 \cdot \log(d=1) - 104.7 = 31.4\text{dBm}$$

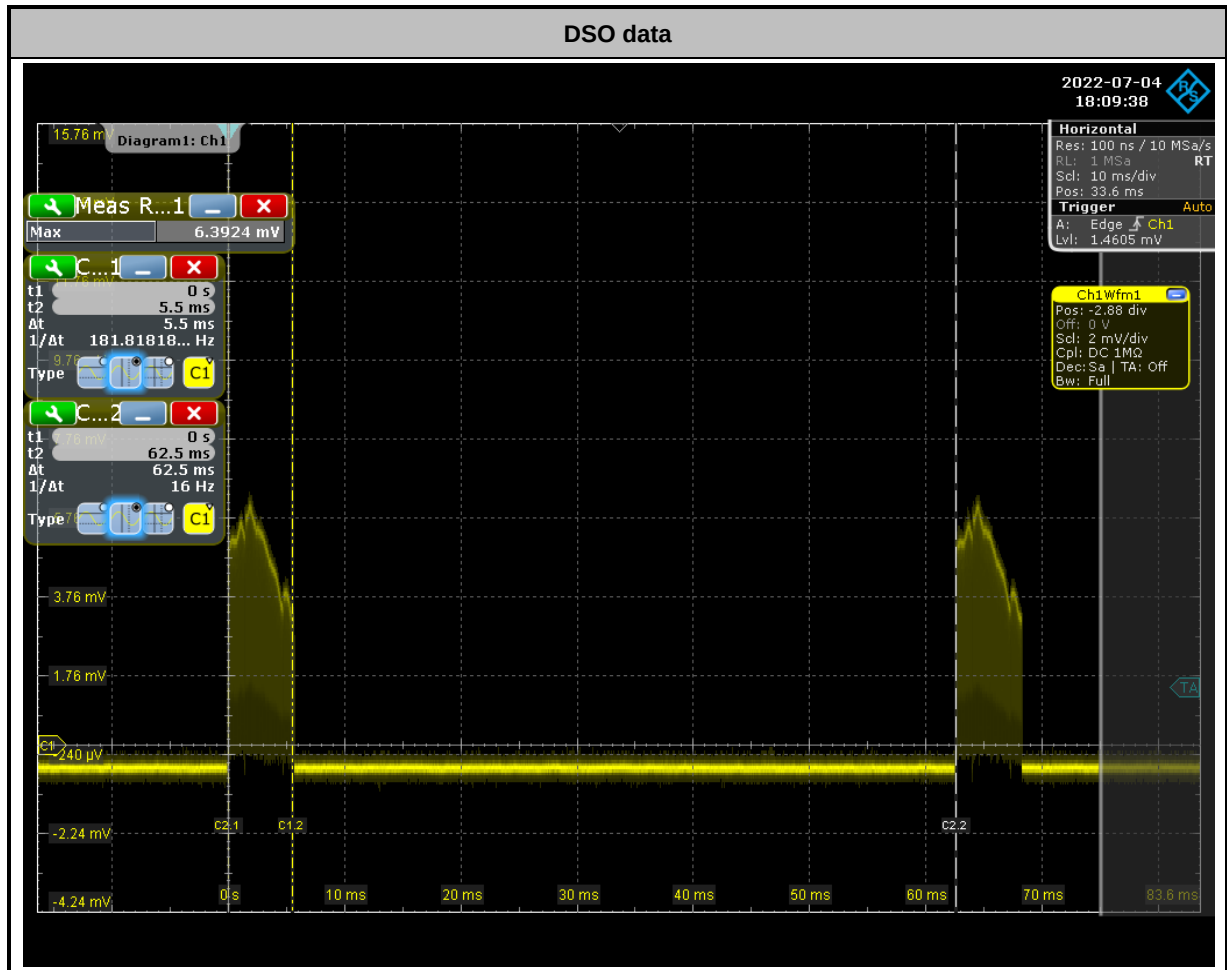


## 3.5.5 Test Plots

&lt;Antenna Group1 SFCW mode&gt;



<Antenna Group2 SFCW mode>





## 3.6 Transmit Spurious Emission

### 3.6.1 Limit of Radiated Spurious Emission

| Frequency Range                                                               | Limit                                                      |
|-------------------------------------------------------------------------------|------------------------------------------------------------|
| Below 40GHz                                                                   | Follow 15.209                                              |
| Above 40GHz                                                                   | 90 pW/cm <sup>2</sup> @ 3m (equivalent EIRP 102uW, -10dBm) |
| Note1: For the applicable limit, see FCC 15.255 (d)                           |                                                            |
| Note2: Spurious emissions shall not exceed the level of fundamental emission. |                                                            |

### 3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.6.3 Test Procedures

Method of measurement: Refer as ANSI C63.10-2013, clause 9.12 and 9.13.

For above 40GHz emission:

$$\text{EIRP} = \text{Prx} - \text{Grx} + \text{Free space loss} = \text{Prx} - \text{Grx} + 20 \cdot \log(4 \pi d / \lambda)$$

Which

Prx = Read Level

Grx = Rx Antenna Gain

A distance factor is offset and formula is  $20 \cdot \log(D1/D2)$

Which

D1 = Specification distance = 3m

D2 = Measurement distance

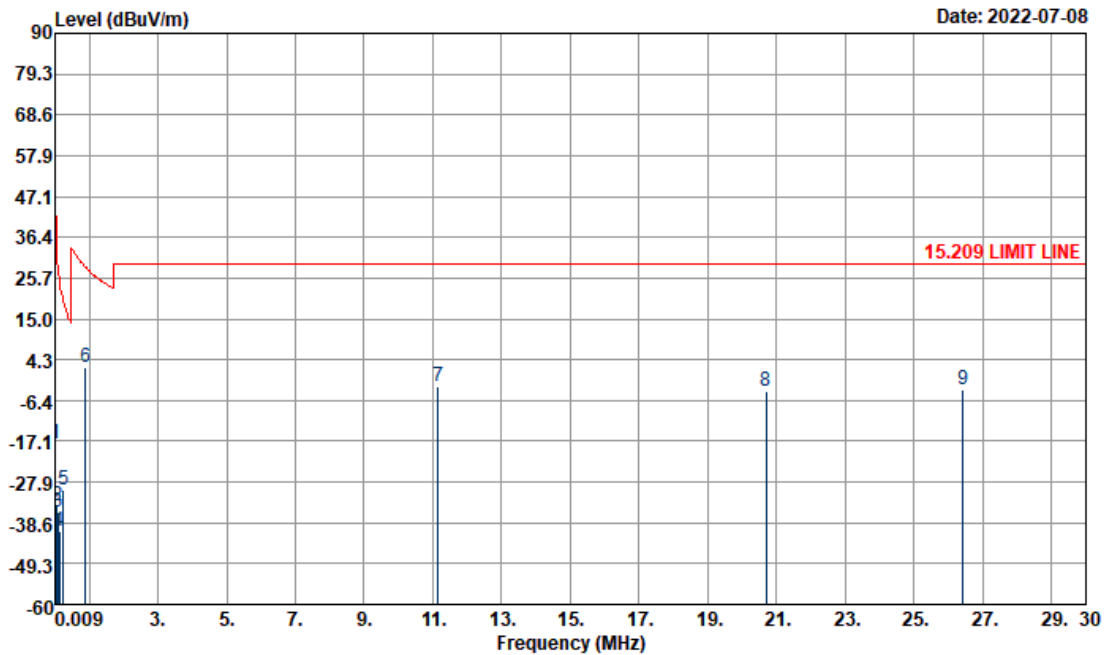




## 3.6.4 Test Result

&lt;Below 30MHz&gt;

|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                  | Test Polarization | Horizontal   |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz |                   |              |



Site : 03CH11-HY

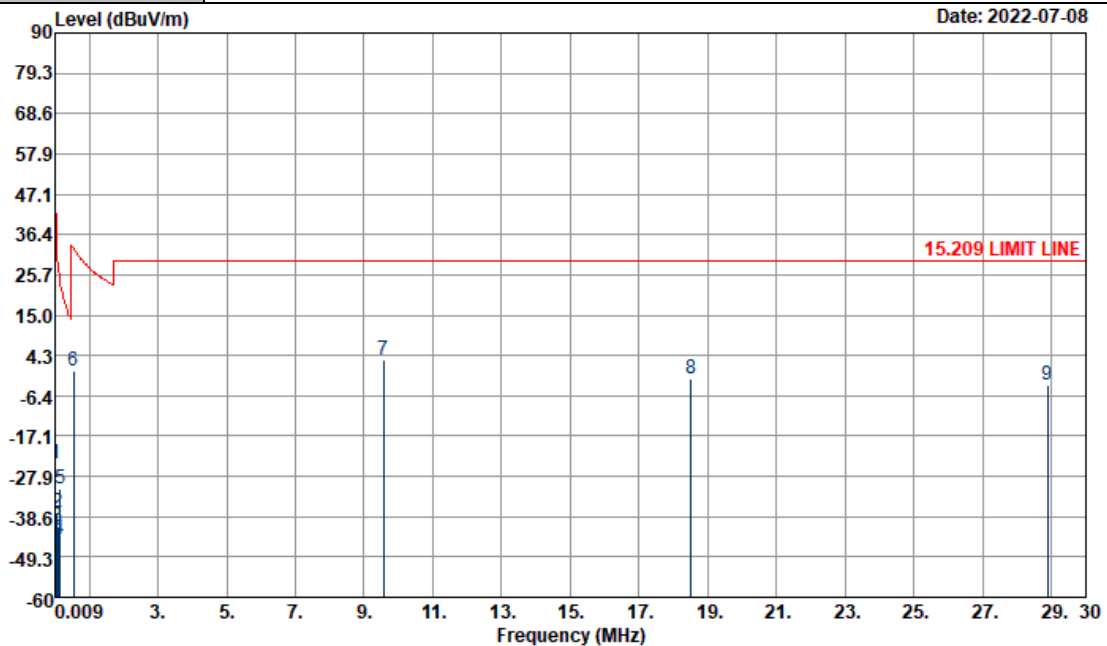
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 HORIZONTAL

Project : 1D2427-01

|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna | Cable | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------|-------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV        | dB/m  | dB    | cm    | deg     |
| 1 | 0.02  | -17.90 | -59.84     | 41.94      | 42.43       | 19.52 | 0.15  | ---   | Average |
| 2 | 0.07  | -34.09 | -65.12     | 31.03      | 26.17       | 19.60 | 0.14  | ---   | Average |
| 3 | 0.10  | -35.79 | -63.78     | 27.99      | 24.57       | 19.50 | 0.14  | ---   | QP      |
| 4 | 0.14  | -40.89 | -65.89     | 25.00      | 19.47       | 19.50 | 0.14  | ---   | Average |
| 5 | 0.26  | -30.05 | -49.39     | 19.34      | 30.36       | 19.44 | 0.15  | ---   | Average |
| 6 | 0.89  | 2.39   | -26.25     | 28.64      | 22.86       | 19.40 | 0.13  | ---   | QP      |
| 7 | 11.14 | -2.85  | -32.35     | 29.50      | 17.59       | 19.40 | 0.16  | ---   | QP      |
| 8 | 20.70 | -3.89  | -33.39     | 29.50      | 16.00       | 19.91 | 0.20  | ---   | QP      |
| 9 | 26.43 | -3.39  | -32.89     | 29.50      | 15.87       | 20.50 | 0.24  | ---   | QP      |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                  | Test Polarization | Vertical     |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz |                   |              |

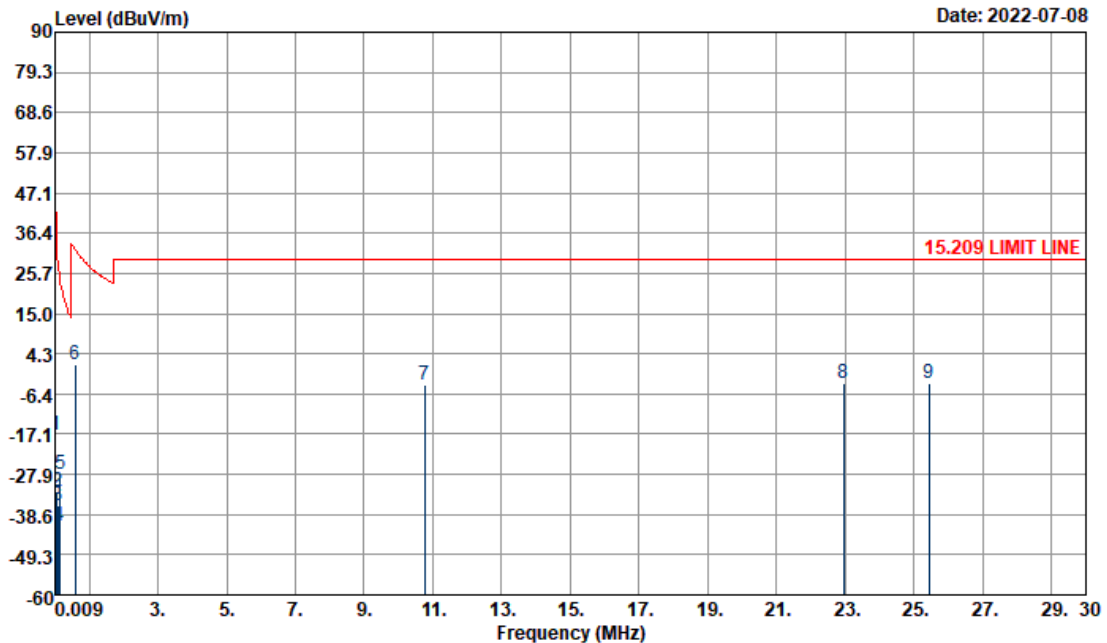


Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 VERTICAL  
Project : 1D2427-01

|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------------|--------------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB    | cm    | deg     |
| 1 | 0.02  | -24.52 | -66.46     | 41.94      | 35.81             | 19.52        | 0.15  | ---   | Average |
| 2 | 0.07  | -37.57 | -68.59     | 31.02      | 22.69             | 19.60        | 0.14  | ---   | Average |
| 3 | 0.10  | -41.00 | -69.00     | 28.00      | 19.36             | 19.50        | 0.14  | ---   | QP      |
| 4 | 0.12  | -44.74 | -70.95     | 26.21      | 15.62             | 19.50        | 0.14  | ---   | Average |
| 5 | 0.17  | -31.29 | -54.37     | 23.08      | 29.06             | 19.50        | 0.15  | ---   | Average |
| 6 | 0.54  | 0.34   | -32.57     | 32.91      | 20.79             | 19.40        | 0.15  | ---   | QP      |
| 7 | 9.56  | 2.92   | -26.58     | 29.50      | 23.37             | 19.40        | 0.15  | ---   | QP      |
| 8 | 18.52 | -2.10  | -31.60     | 29.50      | 18.06             | 19.65        | 0.19  | ---   | QP      |
| 9 | 28.88 | -3.62  | -33.12     | 29.50      | 15.63             | 20.50        | 0.25  | ---   | QP      |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5°C                  | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                  | Test Polarization | Horizontal   |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz |                   |              |

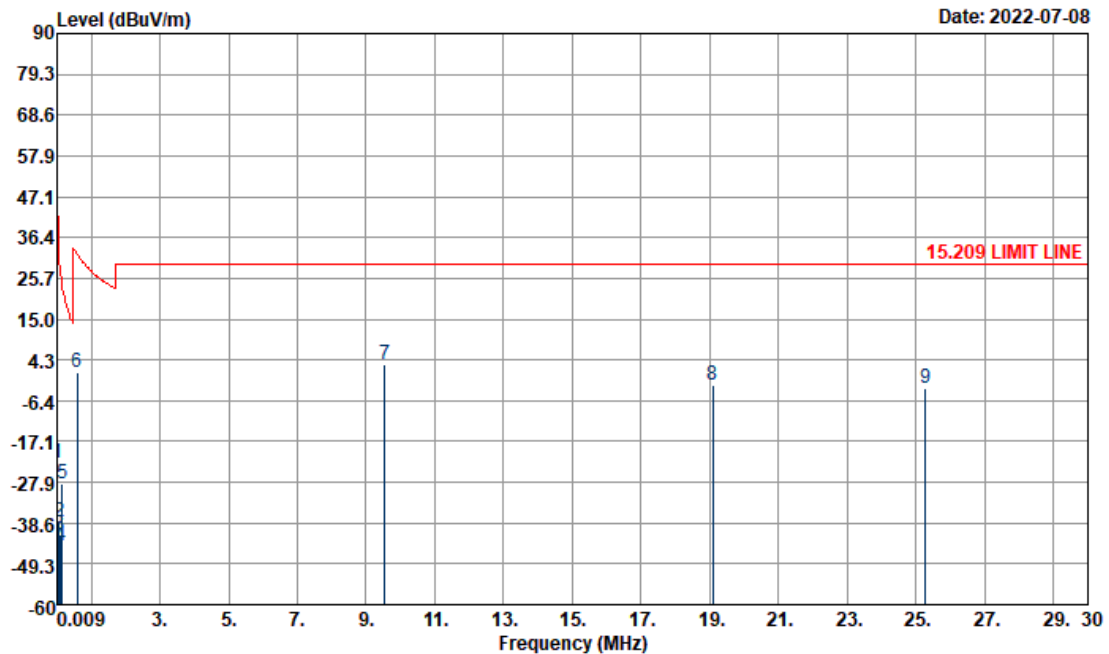


Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 HORIZONTAL  
Project : 1D2427-01

|   | Freq  | Level  | Over   | Limit  | ReadAntenna | Cable  | A/Pos | T/Pos | Remark  |
|---|-------|--------|--------|--------|-------------|--------|-------|-------|---------|
|   | MHz   | dBuV/m | Limit  | Line   | Level       | Factor | Loss  |       |         |
|   |       |        | dB     | dBuV/m | dBuV        | dB/m   | dB    | cm    | deg     |
| 1 | 0.02  | -17.18 | -59.12 | 41.94  | 43.15       | 19.52  | 0.15  | ---   | Average |
| 2 | 0.07  | -32.36 | -63.38 | 31.02  | 27.90       | 19.60  | 0.14  | ---   | Average |
| 3 | 0.10  | -36.02 | -64.01 | 27.99  | 24.34       | 19.50  | 0.14  | ---   | QP      |
| 4 | 0.14  | -41.53 | -66.53 | 25.00  | 18.83       | 19.50  | 0.14  | ---   | Average |
| 5 | 0.16  | -27.84 | -51.30 | 23.46  | 32.51       | 19.50  | 0.15  | ---   | Average |
| 6 | 0.59  | 1.45   | -30.77 | 32.22  | 21.91       | 19.40  | 0.14  | ---   | QP      |
| 7 | 10.76 | -3.85  | -33.35 | 29.50  | 16.60       | 19.40  | 0.15  | ---   | QP      |
| 8 | 22.95 | -3.78  | -33.28 | 29.50  | 15.81       | 20.19  | 0.22  | ---   | QP      |
| 9 | 25.43 | -3.70  | -33.20 | 29.50  | 15.63       | 20.44  | 0.23  | ---   | QP      |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                  | Test Polarization | Vertical     |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz |                   |              |



Site : 03CH11-HY

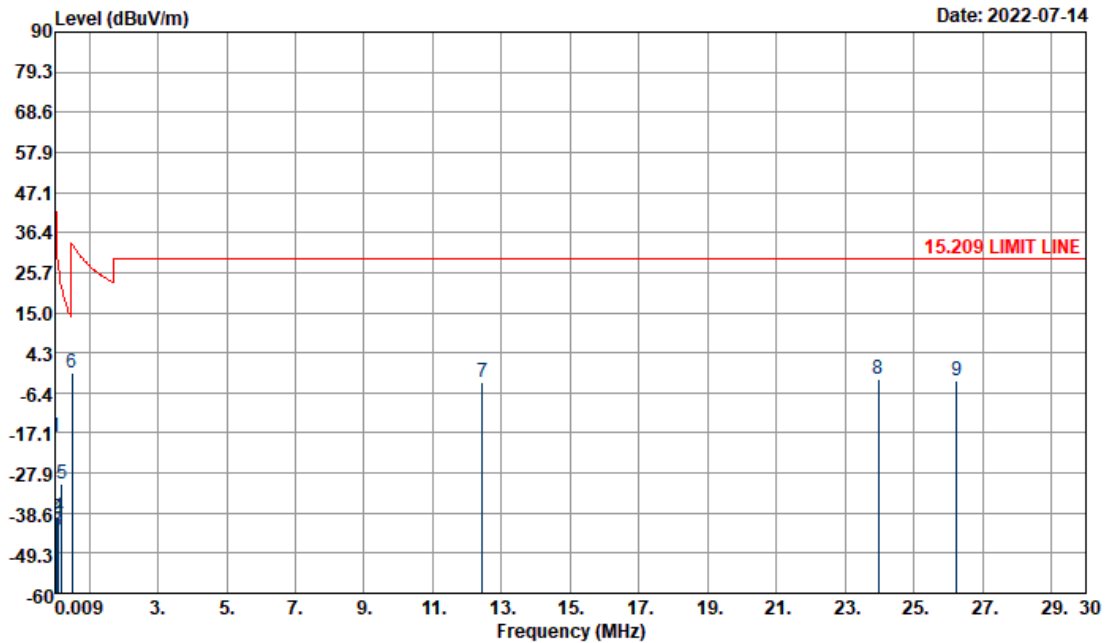
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 VERTICAL

Project : 1D2427-01

|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------------|--------------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB    | cm    | deg     |
| 1 | 0.02  | -22.79 | -64.73     | 41.94      | 37.54             | 19.52        | 0.15  | ---   | Average |
| 2 | 0.07  | -38.27 | -69.29     | 31.02      | 21.99             | 19.60        | 0.14  | ---   | Average |
| 3 | 0.10  | -41.60 | -69.60     | 28.00      | 18.76             | 19.50        | 0.14  | ---   | QP      |
| 4 | 0.11  | -44.47 | -70.93     | 26.46      | 15.89             | 19.50        | 0.14  | ---   | Average |
| 5 | 0.15  | -28.37 | -52.32     | 23.95      | 31.98             | 19.50        | 0.15  | ---   | Average |
| 6 | 0.59  | 0.99   | -31.23     | 32.22      | 21.45             | 19.40        | 0.14  | ---   | QP      |
| 7 | 9.55  | 3.03   | -26.47     | 29.50      | 23.48             | 19.40        | 0.15  | ---   | QP      |
| 8 | 19.08 | -2.23  | -31.73     | 29.50      | 17.87             | 19.70        | 0.20  | ---   | QP      |
| 9 | 25.28 | -3.30  | -32.80     | 29.50      | 16.04             | 20.43        | 0.23  | ---   | QP      |



|                    |                                                                     |                   |              |
|--------------------|---------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                        | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                         | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                                                       | Test Polarization | Horizontal   |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz |                   |              |

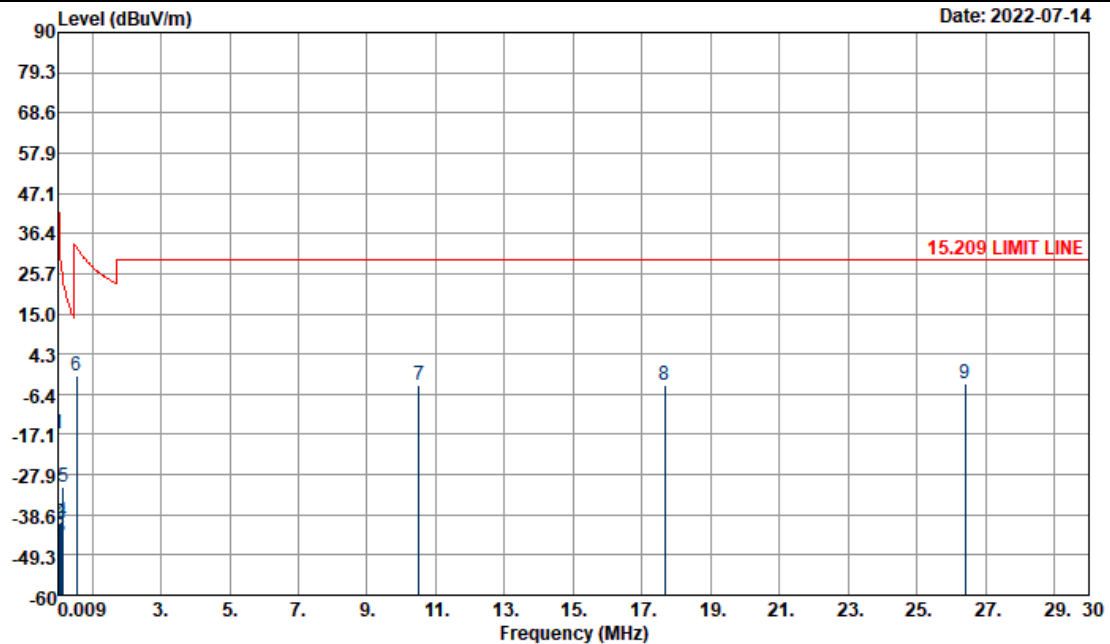


Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 HORIZONTAL  
Project : 1D2427-01

|   | Freq  | Level  | Over   | Limit  | ReadAntenna  | Cable | A/Pos | T/Pos | Remark  |
|---|-------|--------|--------|--------|--------------|-------|-------|-------|---------|
|   | MHz   | dBuV/m | Limit  | Line   | Level Factor | Loss  |       |       |         |
|   |       |        | dB     | dBuV/m | dBuV         | dB/m  | dB    | cm    | deg     |
| 1 | 0.02  | -18.27 | -60.21 | 41.94  | 42.06        | 19.52 | 0.15  | ---   | Average |
| 2 | 0.07  | -40.01 | -71.31 | 31.30  | 20.25        | 19.60 | 0.14  | ---   | Average |
| 3 | 0.10  | -43.30 | -71.28 | 27.98  | 17.06        | 19.50 | 0.14  | ---   | QP      |
| 4 | 0.12  | -39.47 | -65.81 | 26.34  | 20.89        | 19.50 | 0.14  | ---   | Average |
| 5 | 0.20  | -30.92 | -52.46 | 21.54  | 29.43        | 19.50 | 0.15  | ---   | Average |
| 6 | 0.51  | -1.01  | -34.42 | 33.41  | 19.44        | 19.40 | 0.15  | ---   | QP      |
| 7 | 12.44 | -3.72  | -33.22 | 29.50  | 16.72        | 19.40 | 0.16  | ---   | QP      |
| 8 | 23.97 | -2.77  | -32.27 | 29.50  | 16.71        | 20.30 | 0.22  | ---   | QP      |
| 9 | 26.24 | -3.17  | -32.67 | 29.50  | 16.10        | 20.50 | 0.23  | ---   | QP      |



|                    |                                                                     |                   |              |
|--------------------|---------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                        | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                         | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                                                       | Test Polarization | Vertical     |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz |                   |              |

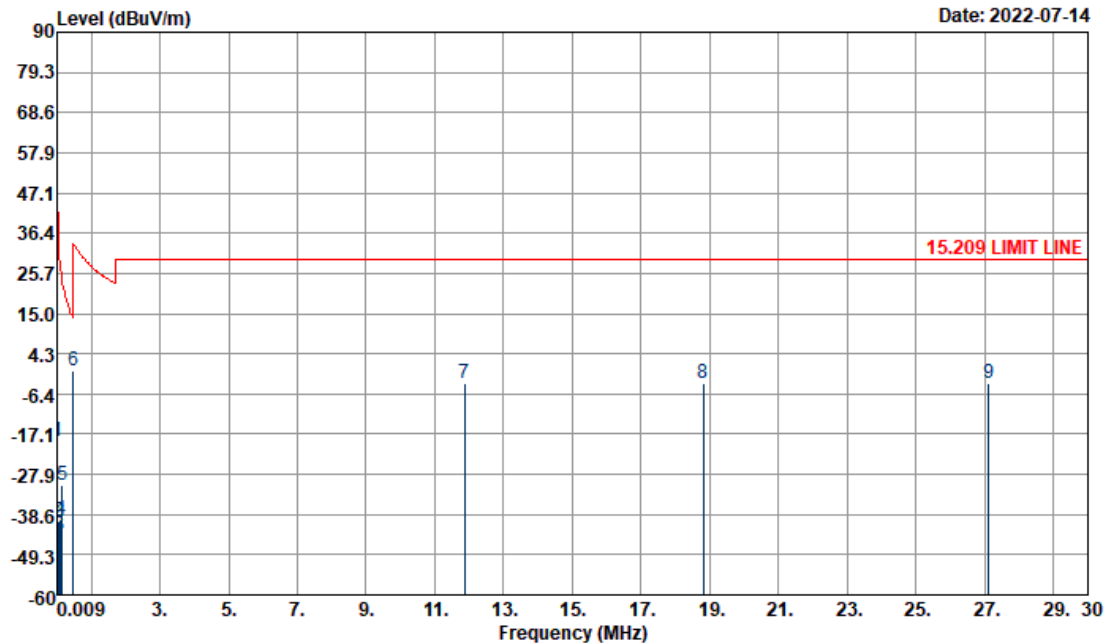


Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 VERTICAL  
Project : 1D2427-01

|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna | Cable | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------|-------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV        | dB/m  | dB    | cm    | deg     |
| 1 | 0.02  | -16.96 | -58.88     | 41.92      | 43.38       | 19.51 | 0.15  | ---   | Average |
| 2 | 0.07  | -40.71 | -72.05     | 31.34      | 19.55       | 19.60 | 0.14  | ---   | Average |
| 3 | 0.10  | -44.37 | -72.41     | 28.04      | 15.99       | 19.50 | 0.14  | ---   | QP      |
| 4 | 0.12  | -40.45 | -66.36     | 25.91      | 19.91       | 19.50 | 0.14  | ---   | Average |
| 5 | 0.15  | -31.22 | -55.15     | 23.93      | 29.13       | 19.50 | 0.15  | ---   | Average |
| 6 | 0.56  | -1.71  | -34.39     | 32.68      | 18.75       | 19.40 | 0.14  | ---   | QP      |
| 7 | 10.50 | -3.96  | -33.46     | 29.50      | 16.49       | 19.40 | 0.15  | ---   | QP      |
| 8 | 17.66 | -3.87  | -33.37     | 29.50      | 16.37       | 19.57 | 0.19  | ---   | QP      |
| 9 | 26.40 | -3.54  | -33.04     | 29.50      | 15.72       | 20.50 | 0.24  | ---   | QP      |



|                    |                                                                   |                   |              |
|--------------------|-------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                      | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                       | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                                                     | Test Polarization | Horizontal   |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz |                   |              |

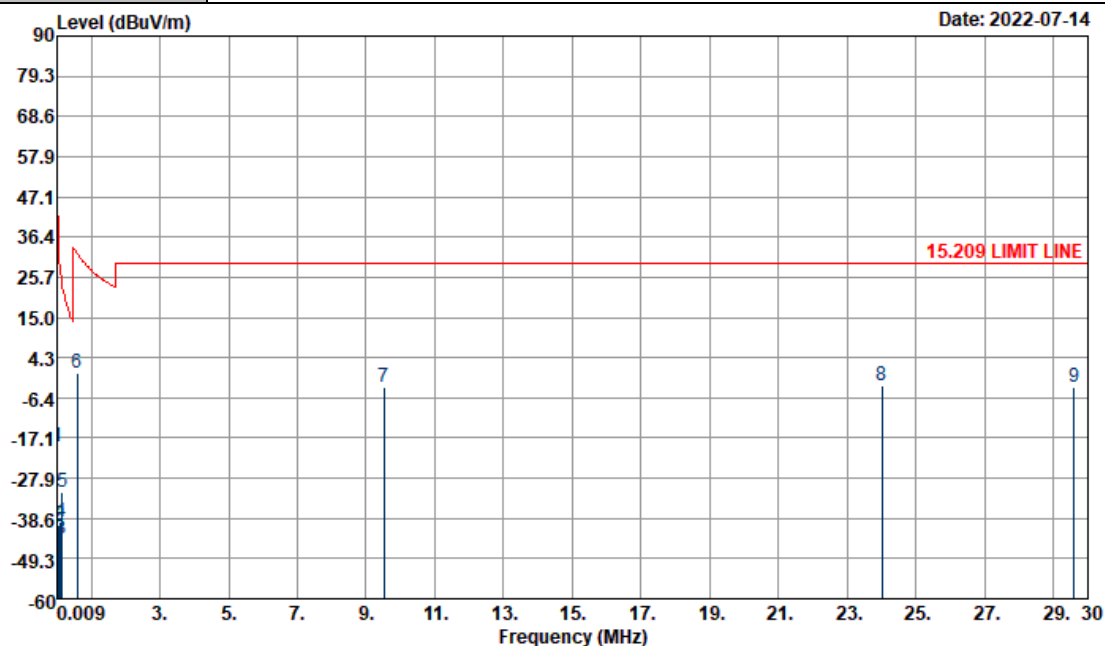


Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 HORIZONTAL  
Project : 1D2427-01

|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------------|--------------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB    | cm    | deg     |
| 1 | 0.02  | -19.02 | -60.96     | 41.94      | 41.31             | 19.52        | 0.15  | ---   | Average |
| 2 | 0.07  | -40.17 | -70.39     | 30.22      | 20.09             | 19.60        | 0.14  | ---   | Average |
| 3 | 0.10  | -44.05 | -72.08     | 28.03      | 16.31             | 19.50        | 0.14  | ---   | QP      |
| 4 | 0.12  | -39.78 | -66.03     | 26.25      | 20.58             | 19.50        | 0.14  | ---   | Average |
| 5 | 0.15  | -30.88 | -54.90     | 24.02      | 29.47             | 19.50        | 0.15  | ---   | Average |
| 6 | 0.49  | -0.37  | -14.17     | 13.80      | 20.08             | 19.40        | 0.15  | ---   | QP      |
| 7 | 11.87 | -3.80  | -33.30     | 29.50      | 16.64             | 19.40        | 0.16  | ---   | QP      |
| 8 | 18.81 | -3.63  | -33.13     | 29.50      | 16.49             | 19.68        | 0.20  | ---   | QP      |
| 9 | 27.13 | -3.63  | -33.13     | 29.50      | 15.63             | 20.50        | 0.24  | ---   | QP      |



|                    |                                                                   |                   |              |
|--------------------|-------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                      | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                       | Test Distance     | 3m           |
| Test Range         | 9KHz to 30MHz                                                     | Test Polarization | Vertical     |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz |                   |              |



Site : 03CH11-HY  
Condition : 15.209 LIMIT LINE 3m LOOP\_100488\_220513 VERTICAL  
Project : 1D2427-01

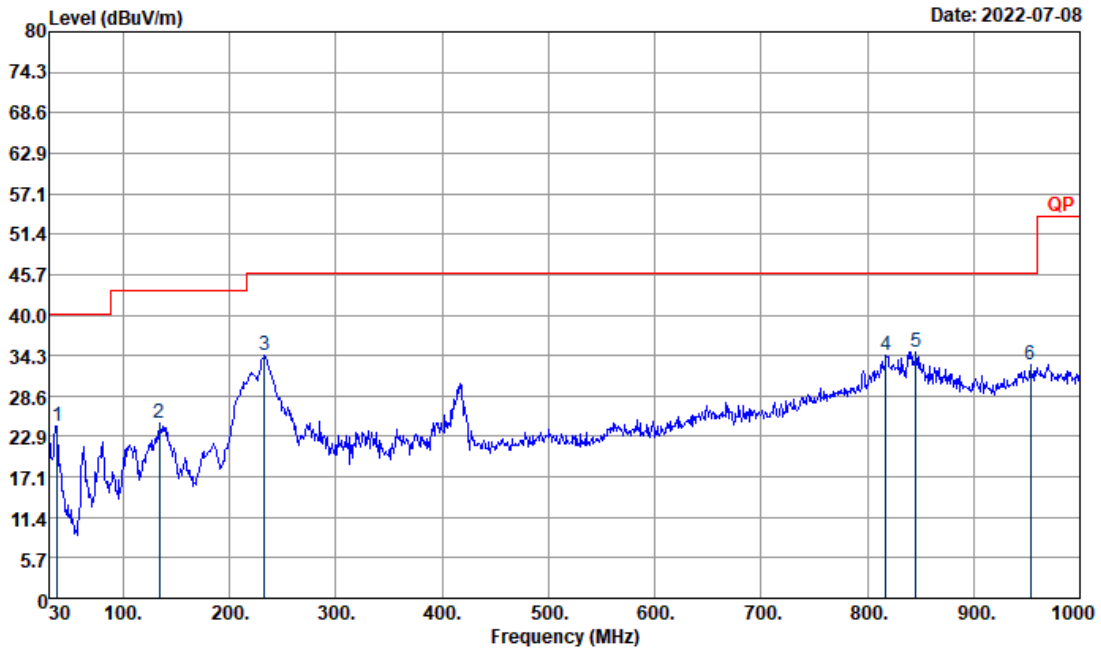
|   | Freq  | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | A/Pos | T/Pos | Remark  |
|---|-------|--------|------------|------------|-------------------|--------------|-------|-------|---------|
|   | MHz   | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB    | cm    | deg     |
| 1 | 0.02  | -19.62 | -61.56     | 41.94      | 40.71             | 19.52        | 0.15  | ---   | Average |
| 2 | 0.06  | -40.20 | -71.60     | 31.40      | 20.06             | 19.60        | 0.14  | ---   | Average |
| 3 | 0.10  | -44.15 | -71.62     | 27.47      | 16.21             | 19.50        | 0.14  | ---   | QP      |
| 4 | 0.12  | -39.66 | -65.94     | 26.28      | 20.70             | 19.50        | 0.14  | ---   | Average |
| 5 | 0.16  | -31.52 | -55.03     | 23.51      | 28.83             | 19.50        | 0.15  | ---   | Average |
| 6 | 0.60  | 0.11   | -31.89     | 32.00      | 20.57             | 19.40        | 0.14  | ---   | QP      |
| 7 | 9.52  | -3.70  | -33.20     | 29.50      | 16.75             | 19.40        | 0.15  | ---   | QP      |
| 8 | 24.02 | -3.33  | -32.83     | 29.50      | 16.15             | 20.30        | 0.22  | ---   | QP      |
| 9 | 29.60 | -3.77  | -33.27     | 29.50      | 15.48             | 20.50        | 0.25  | ---   | QP      |





## &lt;30MHz to 1GHz&gt;

|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                  | Test Polarization | Horizontal   |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz |                   |              |



Site : 03CH11-HY

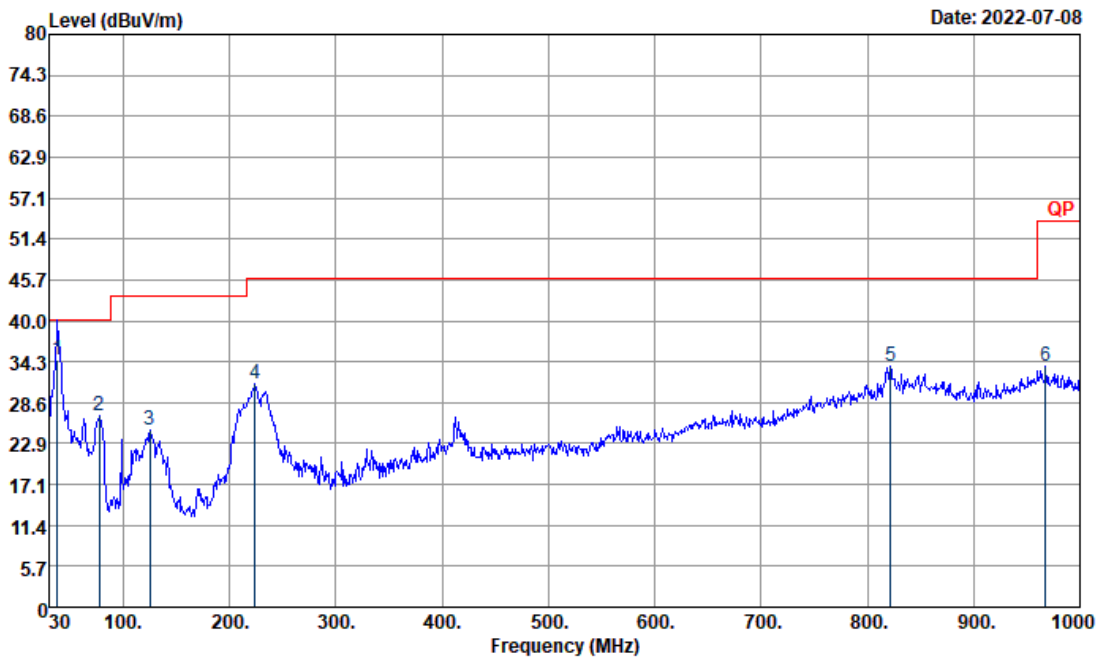
Condition : QP 3m BI-LOG 35414-211009 HORIZONTAL

Project : 1D2427-01

|   | Freq   | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark |      |
|---|--------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|------|
|   | MHz    | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg    |      |
| 1 | 37.76  | 24.32  | -15.68     | 40.00      | 35.16             | 20.60        | 0.85        | 32.41 | ---   | ---    | Peak |
| 2 | 133.79 | 24.71  | -18.79     | 43.50      | 37.90             | 17.34        | 1.74        | 32.43 | ---   | ---    | Peak |
| 3 | 232.73 | 34.23  | -11.77     | 46.00      | 48.00             | 16.20        | 2.27        | 32.38 | ---   | ---    | Peak |
| 4 | 817.64 | 34.43  | -11.57     | 46.00      | 32.47             | 27.88        | 4.23        | 31.66 | ---   | ---    | Peak |
| 5 | 845.77 | 34.86  | -11.14     | 46.00      | 31.56             | 28.97        | 4.29        | 31.51 | ---   | ---    | Peak |
| 6 | 953.44 | 33.08  | -12.92     | 46.00      | 27.63             | 30.57        | 4.59        | 30.87 | ---   | ---    | Peak |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                  | Test Polarization | Vertical     |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz |                   |              |

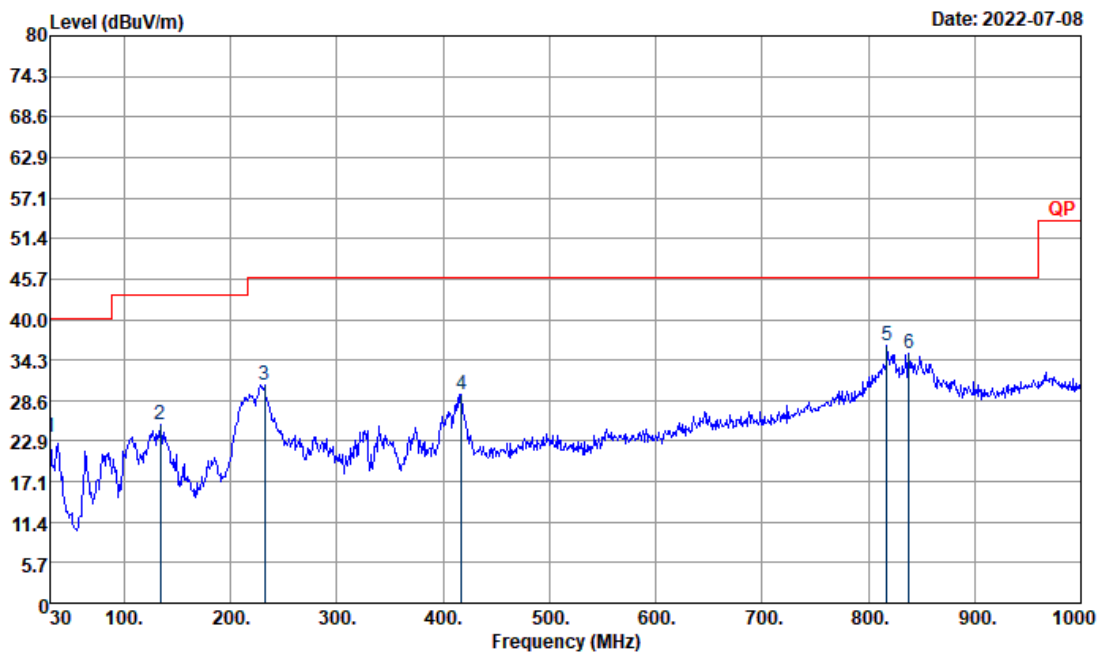


Site : 03CH11-HY  
Condition : QP 3m BI-LOG 35414-211009 VERTICAL  
Project : 1D2427-01

|   | Freq   | Level  | Over   | Limit | ReadAntenna | Cable  | Preamp | A/Pos  | T/Pos | Remark |
|---|--------|--------|--------|-------|-------------|--------|--------|--------|-------|--------|
|   | MHz    | dBuV/m | Limit  | Line  | Level       | Factor | Loss   | Factor | cm    | deg    |
| 1 | 37.76  | 34.50  | -5.50  | 40.00 | 45.34       | 20.60  | 0.85   | 32.41  | 100   | 210 QP |
| 2 | 77.53  | 26.79  | -13.21 | 40.00 | 44.96       | 12.82  | 1.30   | 32.43  | ---   | Peak   |
| 3 | 125.06 | 24.65  | -18.85 | 43.50 | 37.89       | 17.34  | 1.68   | 32.42  | ---   | Peak   |
| 4 | 224.00 | 31.12  | -14.88 | 46.00 | 45.81       | 15.37  | 2.22   | 32.42  | ---   | Peak   |
| 5 | 821.52 | 33.57  | -12.43 | 46.00 | 31.53       | 27.92  | 4.24   | 31.64  | ---   | Peak   |
| 6 | 967.99 | 33.68  | -20.32 | 54.00 | 27.47       | 30.98  | 4.62   | 30.77  | ---   | Peak   |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                  | Test Polarization | Horizontal   |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz |                   |              |



Site : 03CH11-HY

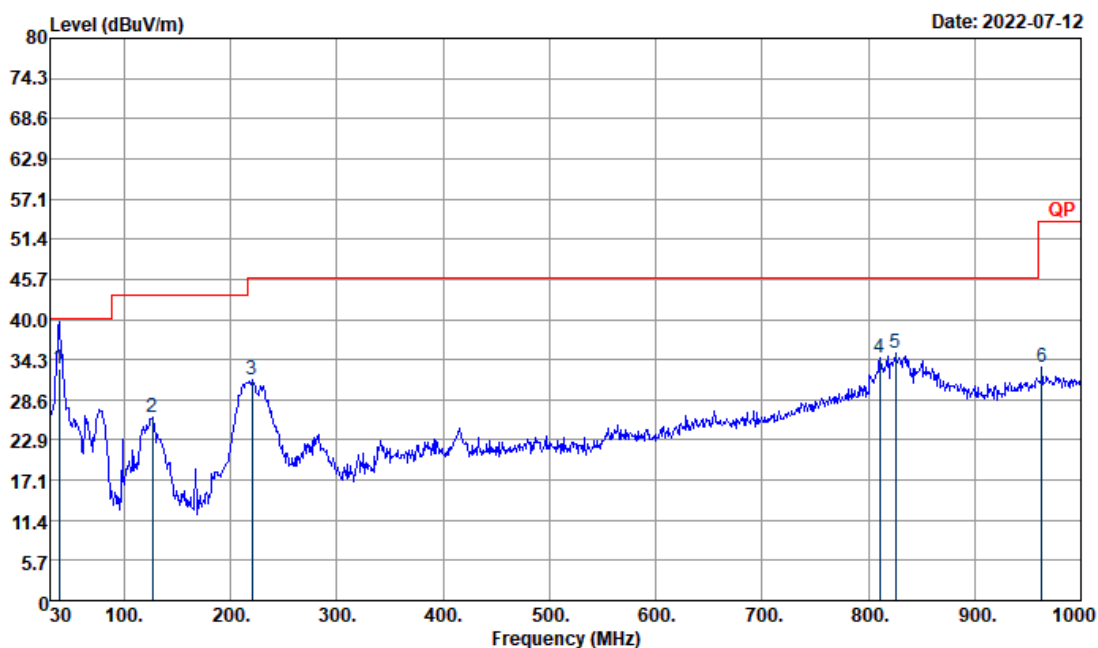
Condition : QP 3m BI-LOG 35414-211009 HORIZONTAL

Project : 1D2427-01

|   | Freq   | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark |      |
|---|--------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|------|
|   | MHz    | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg    |      |
| 1 | 30.00  | 23.50  | -16.50     | 40.00      | 30.42             | 24.27        | 0.94        | 32.36 | ---   | ---    | Peak |
| 2 | 133.79 | 25.23  | -18.27     | 43.50      | 38.42             | 17.34        | 1.74        | 32.43 | ---   | ---    | Peak |
| 3 | 231.76 | 30.76  | -15.24     | 46.00      | 44.65             | 16.10        | 2.26        | 32.39 | ---   | ---    | Peak |
| 4 | 417.03 | 29.51  | -16.49     | 46.00      | 35.70             | 22.37        | 3.04        | 31.77 | ---   | ---    | Peak |
| 5 | 817.64 | 36.39  | -9.61      | 46.00      | 34.43             | 27.88        | 4.23        | 31.66 | ---   | ---    | Peak |
| 6 | 838.01 | 35.25  | -10.75     | 46.00      | 32.38             | 28.61        | 4.27        | 31.55 | ---   | ---    | Peak |



|                    |                                |                   |              |
|--------------------|--------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                   | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                    | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                  | Test Polarization | Vertical     |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz |                   |              |

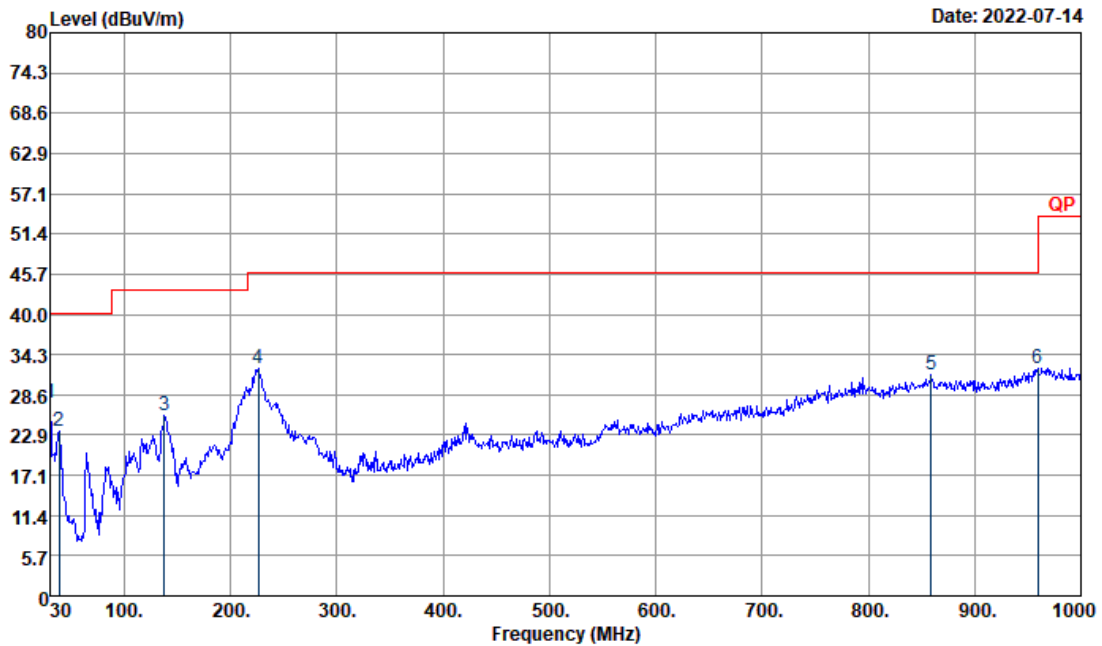


Site : 03CH11-HY  
Condition : QP 3m BI-LOG 35414-211009 VERTICAL  
Project : 1D2427-01

|   | Freq   | Level  | Over<br>Limit | Limit<br>Line | ReadAntenna<br>Level | Cable<br>Factor | Preamp<br>Loss | Factor | A/Pos | T/Pos | Remark |
|---|--------|--------|---------------|---------------|----------------------|-----------------|----------------|--------|-------|-------|--------|
|   | MHz    | dBuV/m | dB            | dBuV/m        | dBuV                 | dB/m            | dB             | dB     | cm    | deg   |        |
| 1 | 38.73  | 33.00  | -7.00         | 40.00         | 44.50                | 19.95           | 0.86           | 32.42  | 100   | 42    | QP     |
| 2 | 126.03 | 26.16  | -17.34        | 43.50         | 39.39                | 17.34           | 1.69           | 32.42  | ---   | ---   | Peak   |
| 3 | 220.12 | 31.41  | -14.59        | 46.00         | 46.43                | 15.08           | 2.20           | 32.44  | ---   | ---   | Peak   |
| 4 | 810.85 | 34.55  | -11.45        | 46.00         | 32.61                | 27.91           | 4.21           | 31.69  | ---   | ---   | Peak   |
| 5 | 825.40 | 35.13  | -10.87        | 46.00         | 32.93                | 28.04           | 4.25           | 31.62  | ---   | ---   | Peak   |
| 6 | 963.14 | 33.25  | -20.75        | 54.00         | 27.16                | 30.98           | 4.61           | 30.81  | ---   | ---   | Peak   |



|                    |                                                                     |                   |              |
|--------------------|---------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                        | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                         | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                                                       | Test Polarization | Horizontal   |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz |                   |              |



Site : 03CH11-HY

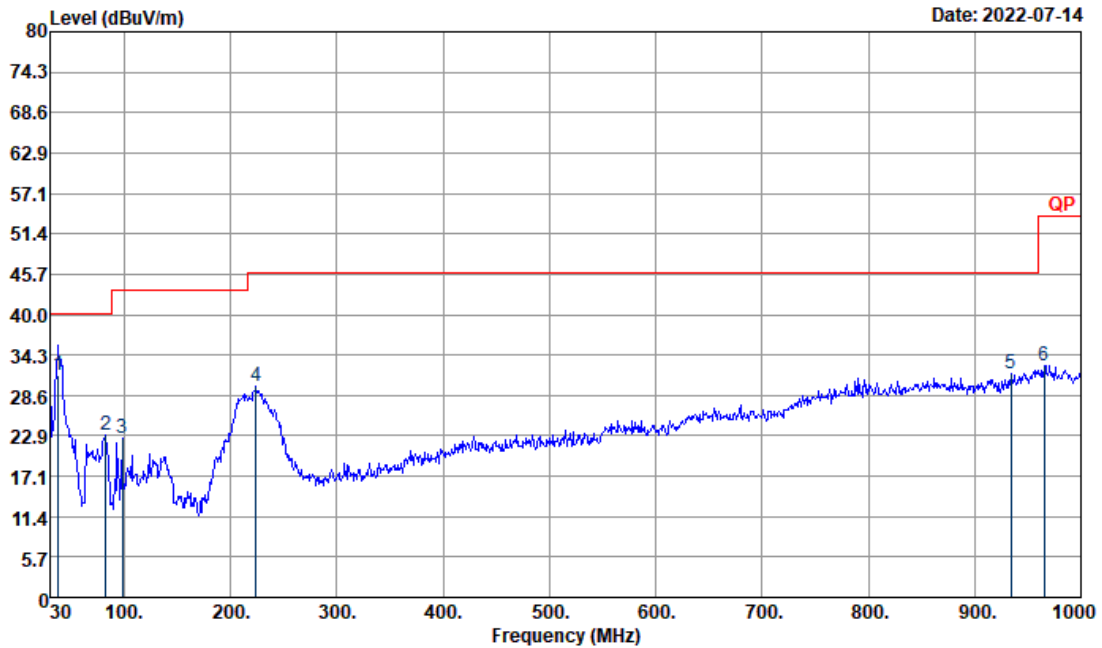
Condition : QP 3m BI-LOG 35414-211009 HORIZONTAL

Project : 1D2427-01

|   | Freq   | Level  | Over<br>Limit | Limit<br>Line | ReadAntenna<br>Level | Cable<br>Factor | Preamp<br>Loss | A/Pos | T/Pos | Remark |      |
|---|--------|--------|---------------|---------------|----------------------|-----------------|----------------|-------|-------|--------|------|
|   | MHz    | dBuV/m | dB            | dBuV/m        | dBuV                 | dB/m            | dB             | dB    | cm    | deg    |      |
| 1 | 30.00  | 27.48  | -12.52        | 40.00         | 34.40                | 24.27           | 0.94           | 32.36 | ---   | ---    | Peak |
| 2 | 38.73  | 23.39  | -16.61        | 40.00         | 34.89                | 19.95           | 0.86           | 32.42 | ---   | ---    | Peak |
| 3 | 137.67 | 25.58  | -17.92        | 43.50         | 38.87                | 17.23           | 1.76           | 32.44 | ---   | ---    | Peak |
| 4 | 225.94 | 32.27  | -13.73        | 46.00         | 46.77                | 15.54           | 2.23           | 32.41 | ---   | ---    | Peak |
| 5 | 859.35 | 31.34  | -14.66        | 46.00         | 27.79                | 29.15           | 4.33           | 31.44 | ---   | ---    | Peak |
| 6 | 959.26 | 32.35  | -13.65        | 46.00         | 26.46                | 30.87           | 4.60           | 30.83 | ---   | ---    | Peak |



|                    |                                                                     |                   |              |
|--------------------|---------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                        | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                         | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                                                       | Test Polarization | Vertical     |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz |                   |              |

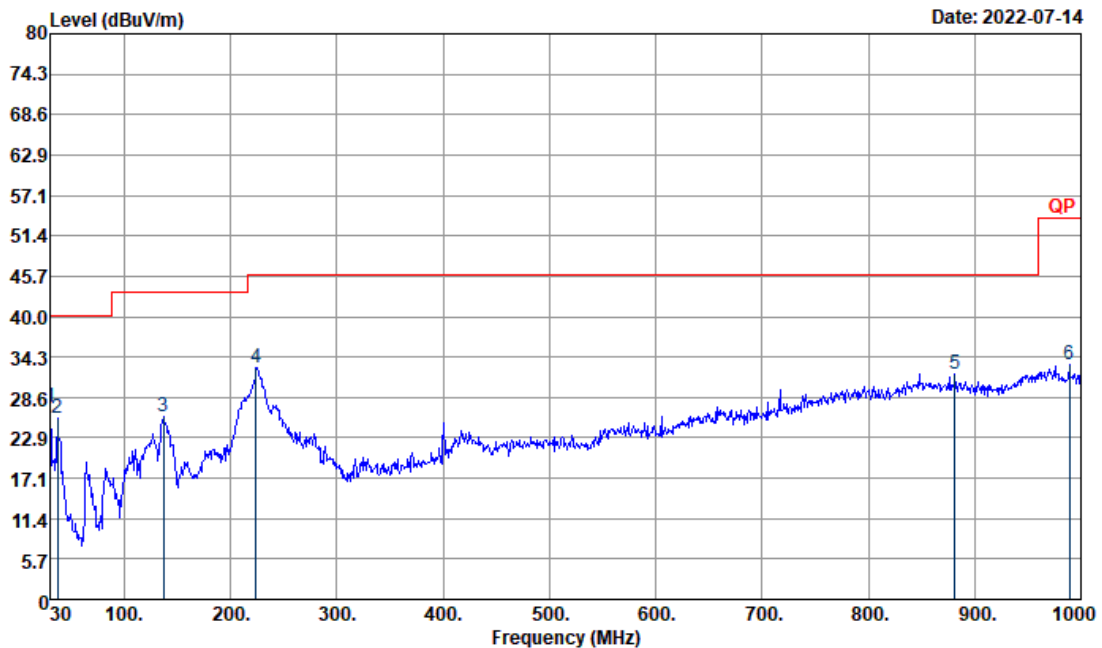


Site : 03CH11-HY  
Condition : QP 3m BI-LOG 35414-211009 VERTICAL  
Project : 1D2427-01

|   | Freq   | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark   |
|---|--------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|----------|
|   | MHz    | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg      |
| 1 | 37.76  | 31.33  | -8.67      | 40.00      | 42.17             | 20.60        | 0.85        | 32.41 | 100   | 63 QP    |
| 2 | 82.38  | 22.96  | -17.04     | 40.00      | 40.64             | 13.26        | 1.34        | 32.42 | ---   | --- Peak |
| 3 | 97.90  | 22.62  | -20.88     | 43.50      | 37.98             | 15.41        | 1.47        | 32.38 | ---   | --- Peak |
| 4 | 224.00 | 29.83  | -16.17     | 46.00      | 44.52             | 15.37        | 2.22        | 32.42 | ---   | --- Peak |
| 5 | 934.04 | 31.66  | -14.34     | 46.00      | 27.40             | 29.55        | 4.54        | 31.00 | ---   | --- Peak |
| 6 | 965.08 | 32.83  | -21.17     | 54.00      | 26.65             | 31.02        | 4.61        | 30.79 | ---   | --- Peak |



|                    |                                                                   |                   |              |
|--------------------|-------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                      | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                       | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                                                     | Test Polarization | Horizontal   |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz |                   |              |

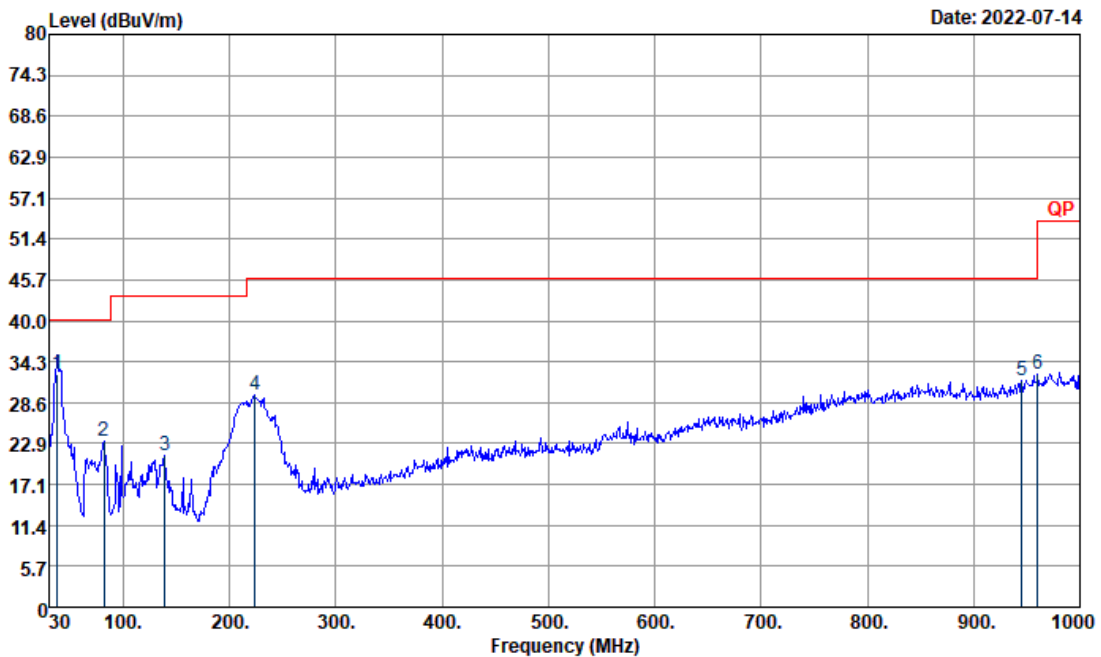


Site : 03CH11-HY  
Condition : QP 3m BI-LOG 35414-211009 HORIZONTAL  
Project : 1D2427-01

|   | Freq   | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark |      |
|---|--------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|------|
|   | MHz    | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg    |      |
| 1 | 30.00  | 27.10  | -12.90     | 40.00      | 34.02             | 24.27        | 0.94        | 32.36 | ---   | ---    | Peak |
| 2 | 36.79  | 25.54  | -14.46     | 40.00      | 35.92             | 21.05        | 0.84        | 32.40 | ---   | ---    | Peak |
| 3 | 136.70 | 25.83  | -17.67     | 43.50      | 39.10             | 17.25        | 1.76        | 32.44 | ---   | ---    | Peak |
| 4 | 224.00 | 32.73  | -13.27     | 46.00      | 47.42             | 15.37        | 2.22        | 32.42 | ---   | ---    | Peak |
| 5 | 881.66 | 31.85  | -14.15     | 46.00      | 28.46             | 28.92        | 4.41        | 31.33 | ---   | ---    | Peak |
| 6 | 989.33 | 33.10  | -20.90     | 54.00      | 27.10             | 30.27        | 4.66        | 30.63 | ---   | ---    | Peak |



|                    |                                                                   |                   |              |
|--------------------|-------------------------------------------------------------------|-------------------|--------------|
| Temperature        | 20.1 ~ 21.5℃                                                      | Relative Humidity | 56.2 ~ 67.6% |
| Test Engineer      | Troye Hsieh                                                       | Test Distance     | 3m           |
| Test Range         | 30MHz to 1GHz                                                     | Test Polarization | Vertical     |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz |                   |              |



Site : 03CH11-HY  
Condition : QP 3m BI-LOG 35414-211009 VERTICAL  
Project : 1D2427-01

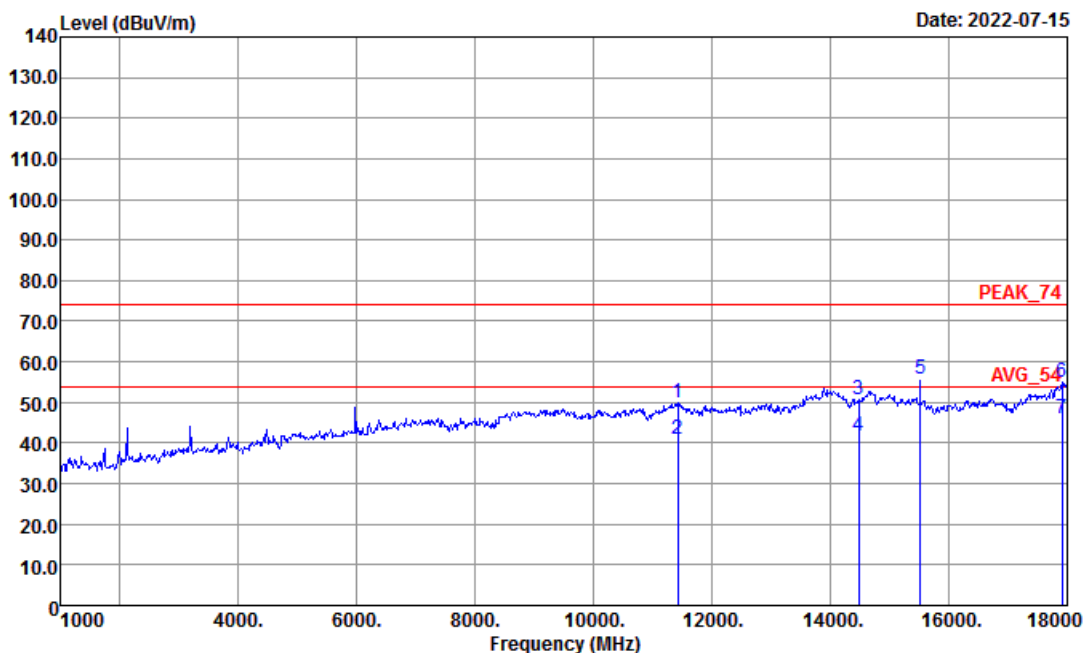
|   | Freq   | Level  | Over   | Limit | ReadAntenna | Cable  | Preamp | A/Pos  | T/Pos | Remark |
|---|--------|--------|--------|-------|-------------|--------|--------|--------|-------|--------|
|   | MHz    | dBuV/m | Limit  | Line  | Level       | Factor | Loss   | Factor | cm    | deg    |
| 1 | 37.76  | 32.44  | -7.56  | 40.00 | 43.28       | 20.60  | 0.85   | 32.41  | 100   | 63 QP  |
| 2 | 81.41  | 23.08  | -16.92 | 40.00 | 40.89       | 13.14  | 1.33   | 32.42  | ---   | Peak   |
| 3 | 138.64 | 21.21  | -22.29 | 43.50 | 34.48       | 17.24  | 1.77   | 32.44  | ---   | Peak   |
| 4 | 224.00 | 29.63  | -16.37 | 46.00 | 44.32       | 15.37  | 2.22   | 32.42  | ---   | Peak   |
| 5 | 945.68 | 31.73  | -14.27 | 46.00 | 26.77       | 30.18  | 4.57   | 30.92  | ---   | Peak   |
| 6 | 960.23 | 32.64  | -21.36 | 54.00 | 26.69       | 30.92  | 4.60   | 30.83  | ---   | Peak   |





&lt;1GHz to 18GHz&gt;

|                    |                                                                            |                   |            |
|--------------------|----------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                               | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                     | Test Distance     | 3m         |
| Test Range         | 1GHz to 18GHz                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz                                             |                   |            |
| Remark             | 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5) |                   |            |



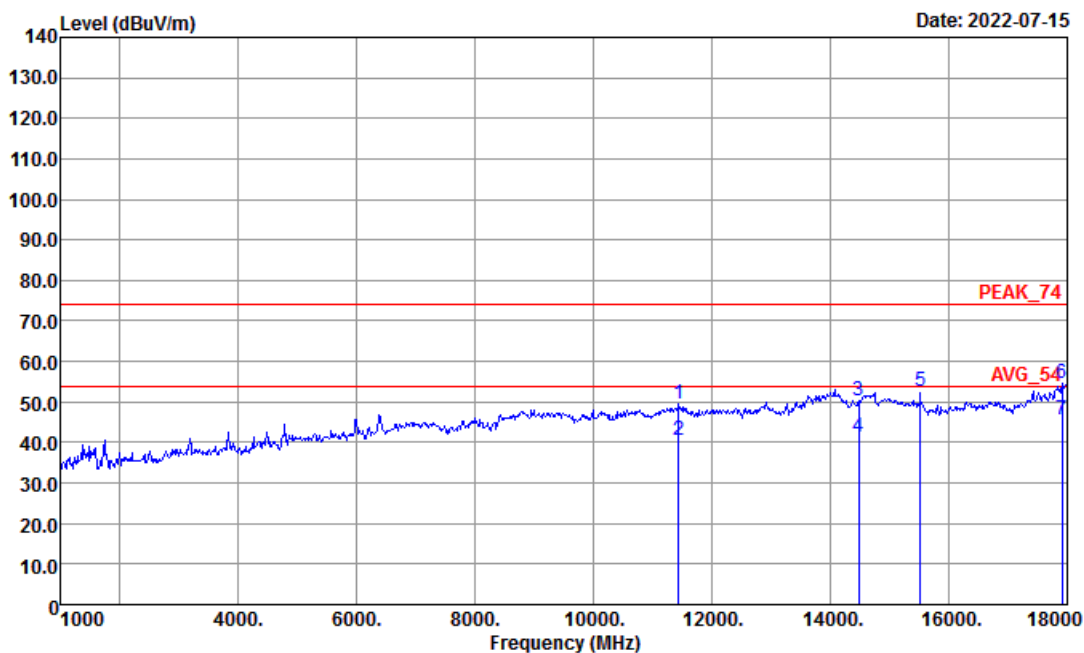
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Cable | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 11421 | 49.86    | -24.14 | 74       | 58.66  | 39.04  | 12.96 | 60.8   | -    | -     | P     |
| 2    | 11421 | 41.07    | -12.93 | 54       | 49.87  | 39.04  | 12.96 | 60.8   | -    | -     | A     |
| 3    | 14481 | 50.65    | -23.35 | 74       | 59.03  | 40.52  | 14.57 | 63.47  | -    | -     | P     |
| 4    | 14481 | 41.86    | -12.14 | 54       | 50.24  | 40.52  | 14.57 | 63.47  | -    | -     | A     |
| 5    | 15518 | 55.67    | -18.33 | 74       | 64.84  | 38.16  | 15.11 | 62.44  | 218  | 92    | P     |
| -    | 15518 | 34.63    | -19.37 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 6    | 17915 | 54.83    | -19.17 | 74       | 53.47  | 42.33  | 16.31 | 57.28  | -    | -     | P     |
| 7    | 17915 | 46.04    | -7.96  | 54       | 44.68  | 42.33  | 16.31 | 57.28  | -    | -     | A     |



|                    |                                                                            |                   |          |
|--------------------|----------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                               | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                     | Test Distance     | 3m       |
| Test Range         | 1GHz to 18GHz                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz                                             |                   |          |
| Remark             | 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5) |                   |          |



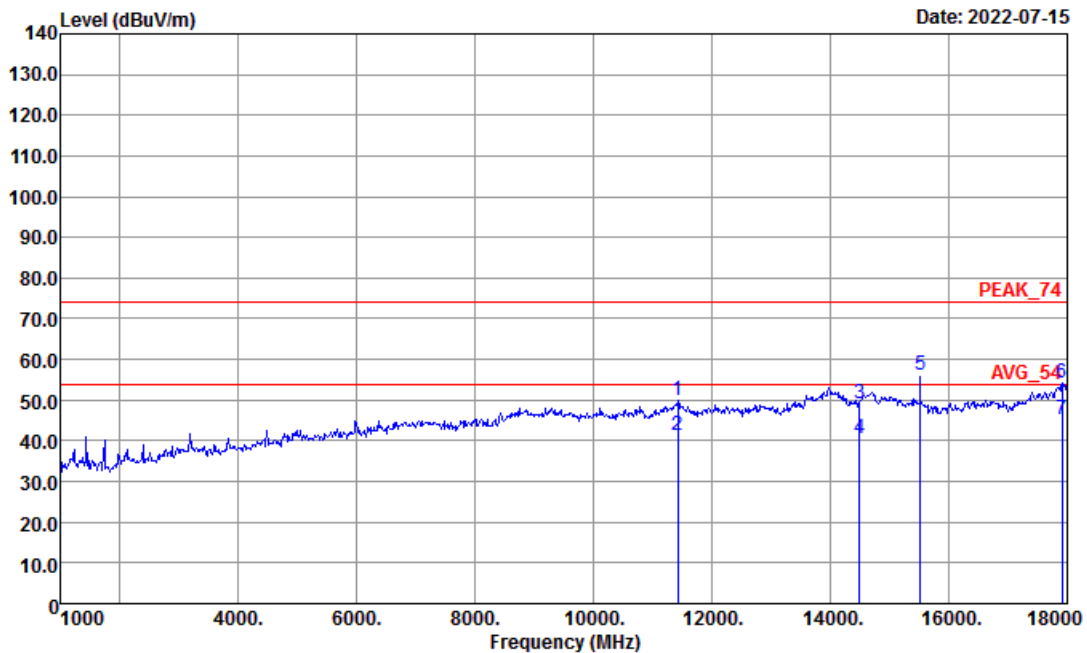
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Cable | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 11438 | 49.38    | -24.62 | 74       | 58.22  | 38.99  | 12.96 | 60.79  | -    | -     | P     |
| 2    | 11438 | 40.59    | -13.41 | 54       | 49.43  | 38.99  | 12.96 | 60.79  | -    | -     | A     |
| 3    | 14481 | 50.13    | -23.87 | 74       | 58.51  | 40.52  | 14.57 | 63.47  | -    | -     | P     |
| 4    | 14481 | 41.34    | -12.66 | 54       | 49.72  | 40.52  | 14.57 | 63.47  | -    | -     | A     |
| 5    | 15518 | 52.52    | -21.48 | 74       | 61.69  | 38.16  | 15.11 | 62.44  | 100  | 135   | P     |
| -    | 15518 | 31.48    | -22.52 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 6    | 17915 | 54.45    | -19.55 | 74       | 53.09  | 42.33  | 16.31 | 57.28  | -    | -     | P     |
| 7    | 17915 | 45.66    | -8.34  | 54       | 44.3   | 42.33  | 16.31 | 57.28  | -    | -     | A     |



|                    |                                                                            |                   |            |
|--------------------|----------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                               | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                     | Test Distance     | 3m         |
| Test Range         | 1GHz to 18GHz                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz                                             |                   |            |
| Remark             | 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5) |                   |            |



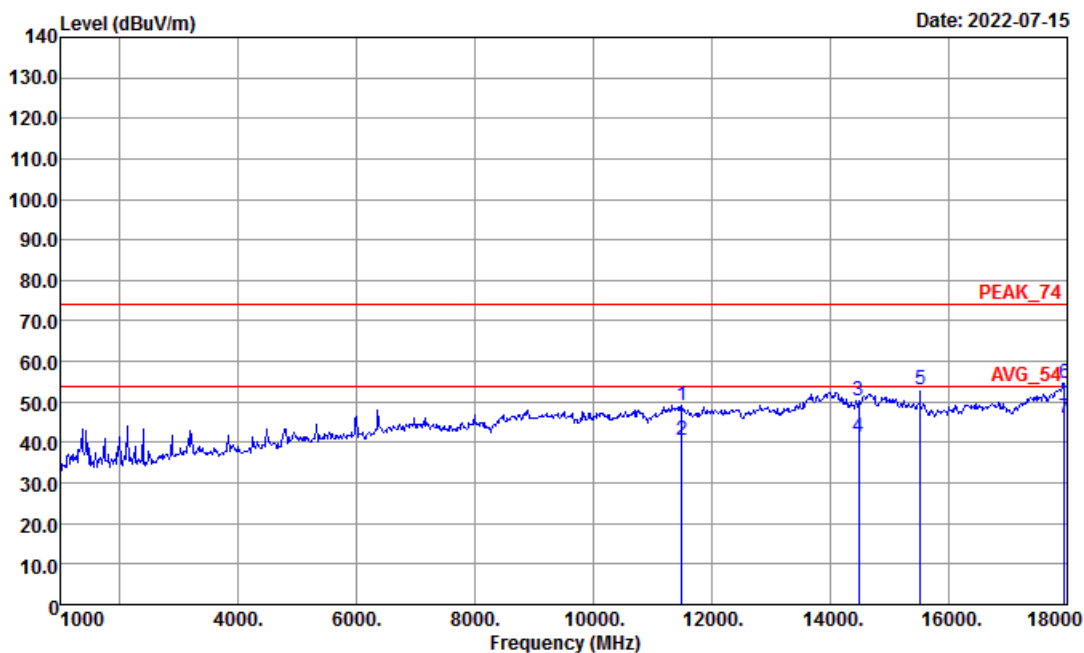
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Cable | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 11421 | 49.96    | -24.04 | 74       | 58.76  | 39.04  | 12.96 | 60.8   | -    | -     | P     |
| 2    | 11421 | 41.17    | -12.83 | 54       | 49.97  | 39.04  | 12.96 | 60.8   | -    | -     | A     |
| 3    | 14498 | 49.27    | -24.73 | 74       | 57.68  | 40.5   | 14.58 | 63.49  | -    | -     | P     |
| 4    | 14498 | 40.48    | -13.52 | 54       | 48.89  | 40.5   | 14.58 | 63.49  | -    | -     | A     |
| 5    | 15518 | 56.1     | -17.9  | 74       | 65.27  | 38.16  | 15.11 | 62.44  | 351  | 69    | P     |
| -    | 15518 | 35.06    | -18.94 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 6    | 17915 | 54.1     | -19.9  | 74       | 52.74  | 42.33  | 16.31 | 57.28  | -    | -     | P     |
| 7    | 17915 | 45.31    | -8.69  | 54       | 43.95  | 42.33  | 16.31 | 57.28  | -    | -     | A     |



|                    |                                                                            |                   |          |
|--------------------|----------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                               | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                     | Test Distance     | 3m       |
| Test Range         | 1GHz to 18GHz                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz                                             |                   |          |
| Remark             | 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5) |                   |          |



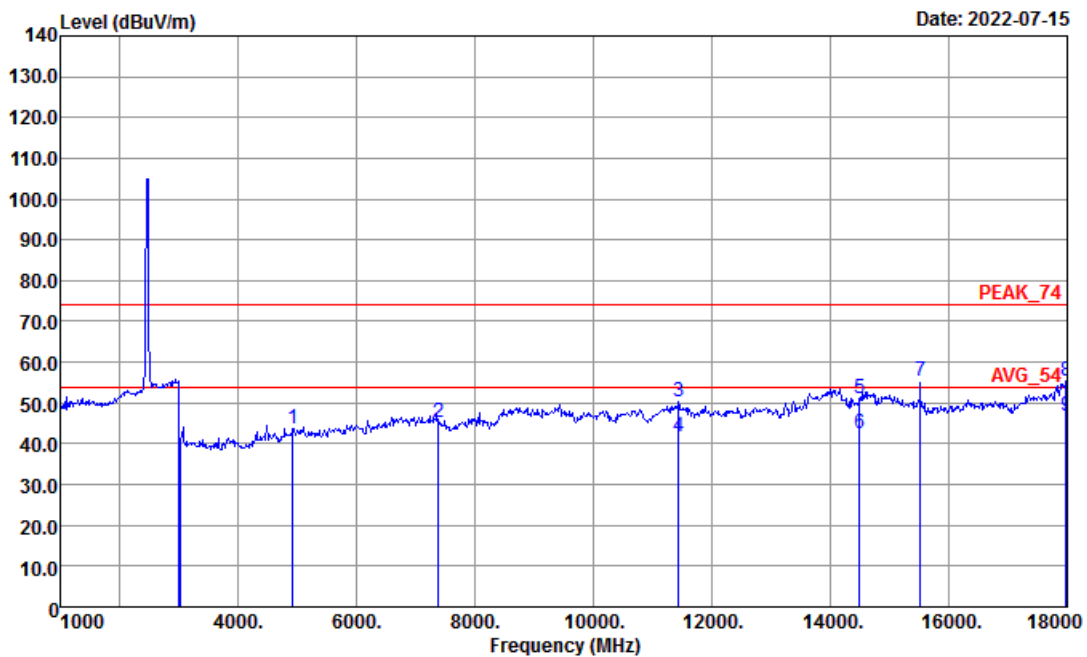
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Cable | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 11489 | 49.22    | -24.78 | 74       | 58.17  | 38.83  | 12.98 | 60.76  | -    | -     | P     |
| 2    | 11489 | 40.43    | -13.57 | 54       | 49.38  | 38.83  | 12.98 | 60.76  | -    | -     | A     |
| 3    | 14481 | 50.18    | -23.82 | 74       | 58.56  | 40.52  | 14.57 | 63.47  | -    | -     | P     |
| 4    | 14481 | 41.39    | -12.61 | 54       | 49.77  | 40.52  | 14.57 | 63.47  | -    | -     | A     |
| 5    | 15518 | 53.01    | -20.99 | 74       | 62.18  | 38.16  | 15.11 | 62.44  | 250  | 158   | P     |
| -    | 15518 | 31.97    | -22.03 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 6    | 17949 | 54.66    | -19.34 | 74       | 52.94  | 42.64  | 16.32 | 57.24  | -    | -     | P     |
| 7    | 17949 | 45.87    | -8.13  | 54       | 44.15  | 42.64  | 16.32 | 57.24  | -    | -     | A     |



|                    |                                                                                                                                                                                                           |                   |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                                                                                              | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                                                                                                    | Test Distance     | 3m         |
| Test Range         | 1GHz to 18GHz                                                                                                                                                                                             | Test Polarization | Horizontal |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz                                                                                                                                       |                   |            |
| Remark             | 1. The 2.4GHz WiFi fundamental signal is exempted against limit.<br>2. 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5)<br>3. Path loss = Cable loss + 3G high pass filter loss |                   |            |



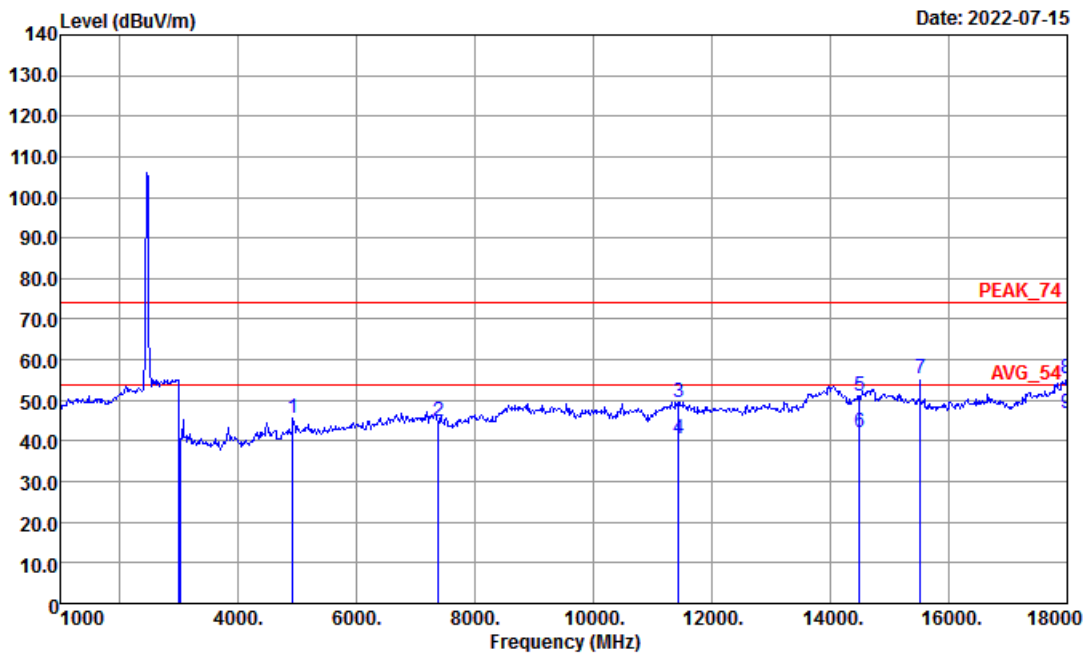
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 4924  | 43.86    | -30.14 | 74       | 60.41  | 32.7   | 9.37  | 58.62  | -    | -     | P     |
| 2    | 7386  | 45.09    | -28.91 | 74       | 55.48  | 36.18  | 11.46 | 58.03  | -    | -     | P     |
| 3    | 11438 | 50.38    | -23.62 | 74       | 58.69  | 38.99  | 13.49 | 60.79  | -    | -     | P     |
| 4    | 11438 | 41.59    | -12.41 | 54       | 49.9   | 38.99  | 13.49 | 60.79  | -    | -     | A     |
| 5    | 14498 | 51.11    | -22.89 | 74       | 58.91  | 40.5   | 15.19 | 63.49  | -    | -     | P     |
| 6    | 14498 | 42.32    | -11.68 | 54       | 50.12  | 40.5   | 15.19 | 63.49  | -    | -     | A     |
| 7    | 15518 | 55.53    | -18.47 | 74       | 64.18  | 38.16  | 15.63 | 62.44  | 300  | 94    | P     |
| -    | 15518 | 34.49    | -19.51 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 8    | 17983 | 55.54    | -18.46 | 74       | 52.81  | 42.95  | 16.97 | 57.19  | -    | -     | P     |
| 9    | 17983 | 46.75    | -7.25  | 54       | 44.02  | 42.95  | 16.97 | 57.19  | -    | -     | A     |



|                    |                                                                                                                                                                                                           |                   |          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                                                                                              | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                                                                                                    | Test Distance     | 3m       |
| Test Range         | 1GHz to 18GHz                                                                                                                                                                                             | Test Polarization | Vertical |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz                                                                                                                                       |                   |          |
| Remark             | 1. The 2.4GHz WiFi fundamental signal is exempted against limit.<br>2. 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5)<br>3. Path loss = Cable loss + 3G high pass filter loss |                   |          |



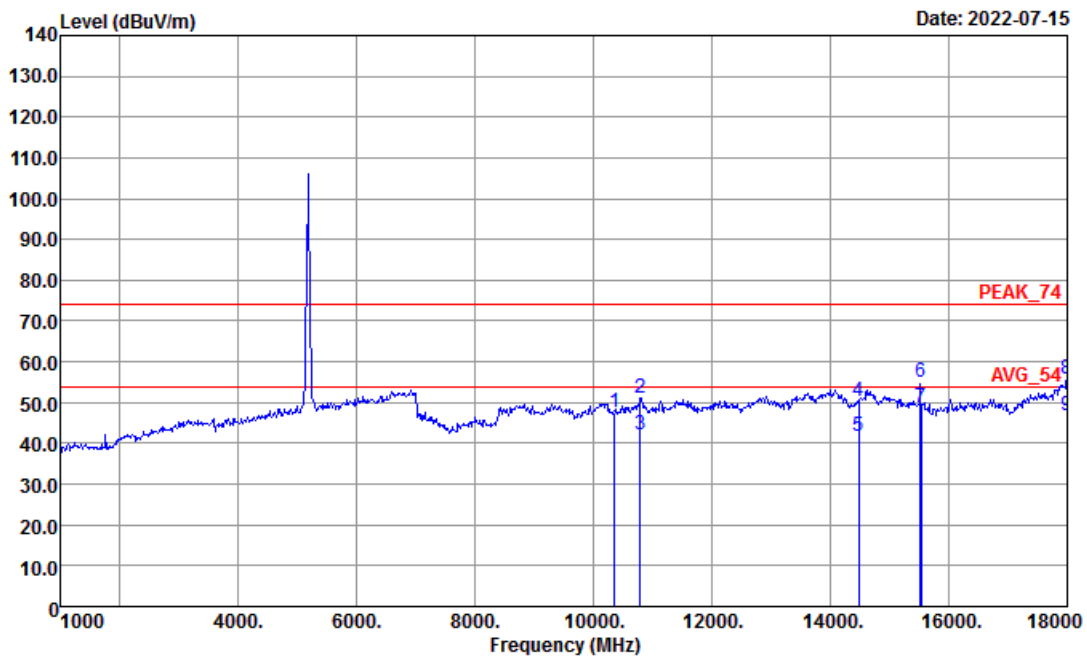
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 4924  | 45.45    | -28.55 | 74       | 62     | 32.7   | 9.37  | 58.62  | -    | -     | P     |
| 2    | 7386  | 44.91    | -29.09 | 74       | 55.3   | 36.18  | 11.46 | 58.03  | -    | -     | P     |
| 3    | 11438 | 49.53    | -24.47 | 74       | 57.84  | 38.99  | 13.49 | 60.79  | -    | -     | P     |
| 4    | 11438 | 40.74    | -13.26 | 54       | 49.05  | 38.99  | 13.49 | 60.79  | -    | -     | A     |
| 5    | 14498 | 50.94    | -23.06 | 74       | 58.74  | 40.5   | 15.19 | 63.49  | -    | -     | P     |
| 6    | 14498 | 42.15    | -11.85 | 54       | 49.95  | 40.5   | 15.19 | 63.49  | -    | -     | A     |
| 7    | 15518 | 55.4     | -18.6  | 74       | 64.05  | 38.16  | 15.63 | 62.44  | 200  | 163   | P     |
| -    | 15518 | 34.36    | -19.64 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 8    | 18000 | 55.49    | -18.51 | 74       | 52.58  | 43.1   | 16.98 | 57.17  | -    | -     | P     |
| 9    | 18000 | 46.7     | -7.3   | 54       | 43.79  | 43.1   | 16.98 | 57.17  | -    | -     | A     |



|                    |                                                                                                                                                                                                            |                   |            |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                                                                                               | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                                                                                                     | Test Distance     | 3m         |
| Test Range         | 1GHz to 18GHz                                                                                                                                                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz                                                                                                                                          |                   |            |
| Remark             | 1. The 5GHz WiFi fundamental signal is exempted against limit.<br>2. 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5)<br>3. Path loss = Cable loss + 6.75G high pass filter loss |                   |            |



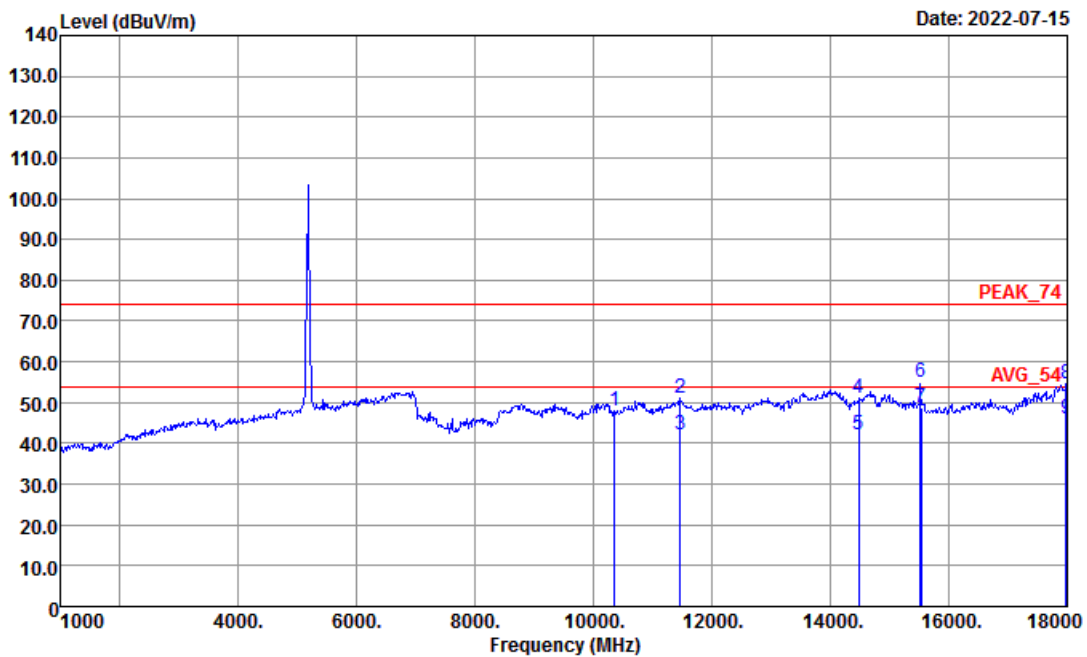
Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 10360 | 47.41    | -26.59 | 74       | 56.81  | 38.46  | 12.73 | 60.59  | -    | -     | P     |
| 2    | 10792 | 51.08    | -22.92 | 74       | 60.06  | 38.98  | 12.95 | 60.91  | -    | -     | P     |
| 3    | 10792 | 42.29    | -11.71 | 54       | 51.27  | 38.98  | 12.95 | 60.91  | -    | -     | A     |
| 4    | 14481 | 50.47    | -23.53 | 74       | 58.41  | 40.52  | 15.01 | 63.47  | -    | -     | P     |
| 5    | 14481 | 41.68    | -12.32 | 54       | 49.62  | 40.52  | 15.01 | 63.47  | -    | -     | A     |
| 6    | 15518 | 55.11    | -18.89 | 74       | 63.92  | 38.16  | 15.47 | 62.44  | 300  | 94    | P     |
| -    | 15518 | 34.07    | -19.93 | 54       | -      | -      |       | -      | -    | -     | A     |
| 7    | 15540 | 48.56    | -25.44 | 74       | 57.29  | 38.12  | 15.48 | 62.33  | -    | -     | P     |
| 8    | 18000 | 55.67    | -18.33 | 74       | 52.93  | 43.1   | 16.81 | 57.17  | -    | -     | P     |
| 9    | 18000 | 46.88    | -7.12  | 54       | 44.14  | 43.1   | 16.81 | 57.17  | -    | -     | A     |



|                    |                                                                                                                                                                                                            |                   |          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                                                                                               | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                                                                                                     | Test Distance     | 3m       |
| Test Range         | 1GHz to 18GHz                                                                                                                                                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz                                                                                                                                          |                   |          |
| Remark             | 1. The 5GHz WiFi fundamental signal is exempted against limit.<br>2. 15518MHz Average = Peak + Duty cycle correction factor (See section 3.6.5)<br>3. Path loss = Cable loss + 6.75G high pass filter loss |                   |          |



Site : 03CH15-HY

Condition : PEAK\_74 3m 9D120\_02038\_20210804 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 10360 | 47.95    | -26.05 | 74       | 57.35  | 38.46  | 12.73 | 60.59  | -    | -     | P     |
| 2    | 11472 | 51.02    | -22.98 | 74       | 59.62  | 38.88  | 13.29 | 60.77  | -    | -     | P     |
| 3    | 11472 | 42.23    | -11.77 | 54       | 50.83  | 38.88  | 13.29 | 60.77  | -    | -     | A     |
| 4    | 14481 | 51.01    | -22.99 | 74       | 58.95  | 40.52  | 15.01 | 63.47  | -    | -     | P     |
| 5    | 14481 | 42.22    | -11.78 | 54       | 50.16  | 40.52  | 15.01 | 63.47  | -    | -     | A     |
| 6    | 15518 | 55.02    | -18.98 | 74       | 63.83  | 38.16  | 15.47 | 62.44  | 200  | 163   | P     |
| -    | 15518 | 33.98    | -20.02 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 7    | 15540 | 48.62    | -25.38 | 74       | 57.35  | 38.12  | 15.48 | 62.33  | -    | -     | P     |
| 8    | 17983 | 54.66    | -19.34 | 74       | 52.1   | 42.95  | 16.8  | 57.19  | -    | -     | P     |
| 9    | 17983 | 45.87    | -8.13  | 54       | 43.31  | 42.95  | 16.8  | 57.19  | -    | -     | A     |

**Remark:**

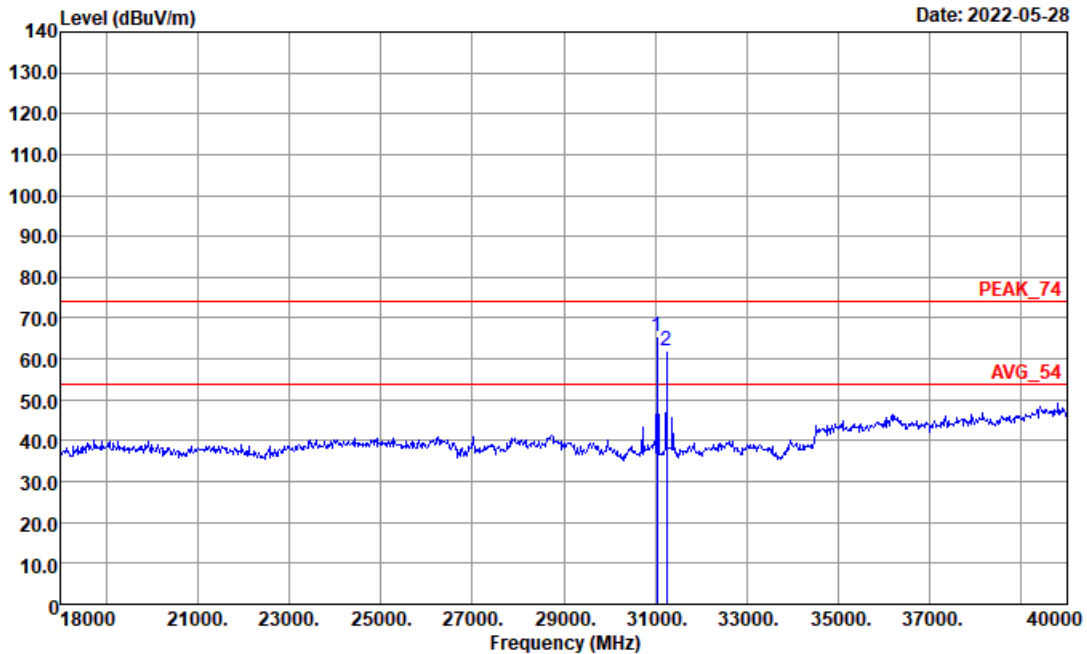
- The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
- The emission level close to 18GHz is checked that the average emission level is noise floor only.





&lt;18GHz to 40GHz&gt;

|                    |                                                                                                                             |                   |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m         |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz                                                                                              |                   |            |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |            |



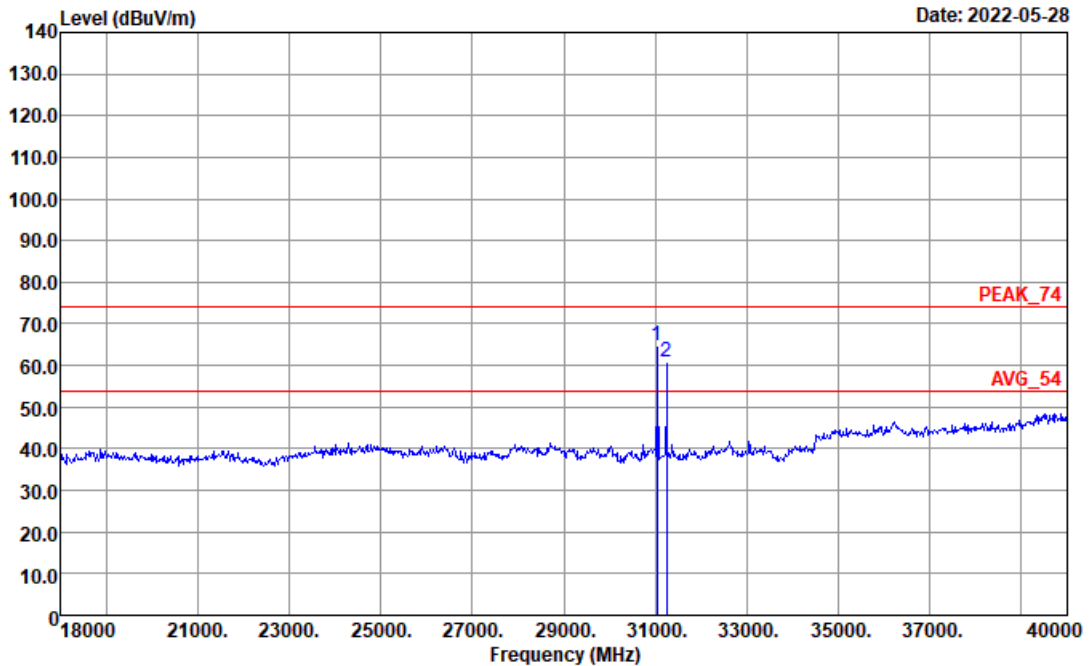
Site : 03CH20-HY

Condition : PEAK\_74 1m SHF ANT\_9170\_00993 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 65.53    | -8.47  | 74       | 82.63  | 40.9   | -1.95 | 56.05  | 150  | 181   | P     |
| -    | 31040 | 44.49    | -9.51  | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 61.95    | -12.05 | 74       | 79.29  | 40.9   | -1.94 | 56.3   | 150  | 181   | P     |
| -    | 31250 | 40.91    | -13.09 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m       |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz                                                                                              |                   |          |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |          |



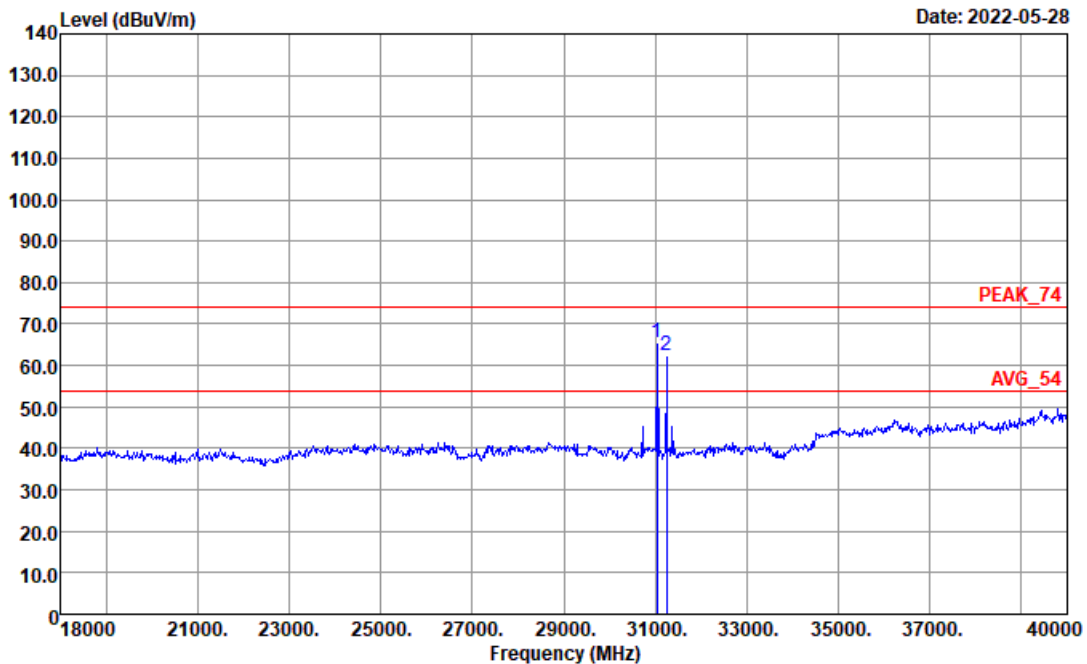
Site : 03CH20-HY

Condition : PEAK\_74 1m SHF ANT\_9170\_00993 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 64.55    | -9.45  | 74       | 81.65  | 40.9   | -1.95 | 56.05  | 150  | 189   | P     |
| -    | 31040 | 43.51    | -10.49 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 60.96    | -13.04 | 74       | 78.3   | 40.9   | -1.94 | 56.3   | 150  | 184   | P     |
| -    | 31250 | 39.92    | -14.08 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m         |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz                                                                                              |                   |            |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |            |



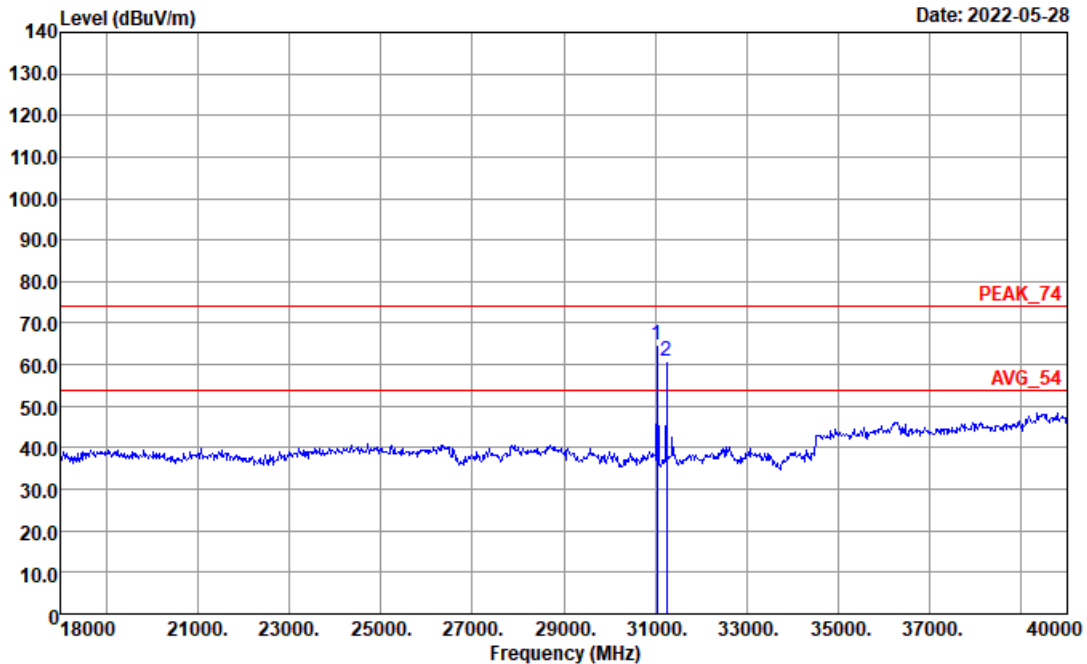
Site : 03CH20-HY

Condition : PEAK\_74 1m SHF ANT\_9170\_00993 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 65.45    | -8.55  | 74       | 82.55  | 40.9   | -1.95 | 56.05  | 150  | 185   | P     |
| -    | 31040 | 44.41    | -9.59  | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 62.39    | -11.61 | 74       | 79.73  | 40.9   | -1.94 | 56.3   | 150  | 181   | P     |
| -    | 31250 | 41.35    | -12.65 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m       |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz                                                                                              |                   |          |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |          |



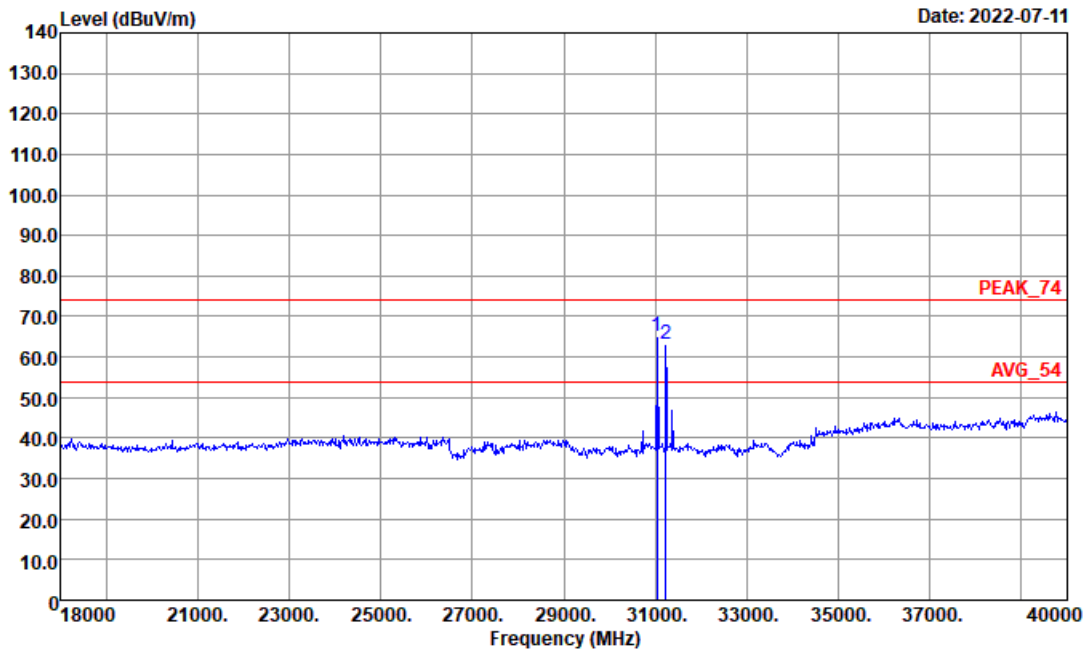
Site : 03CH20-HY

Condition : PEAK\_74 1m SHF ANT\_9170\_00993 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 64.64    | -9.36  | 74       | 81.74  | 40.9   | -1.95 | 56.05  | 150  | 189   | P     |
| -    | 31040 | 43.6     | -10.4  | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 60.81    | -13.19 | 74       | 78.15  | 40.9   | -1.94 | 56.3   | 150  | 185   | P     |
| -    | 31250 | 39.77    | -14.23 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m         |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz                                                         |                   |            |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |            |



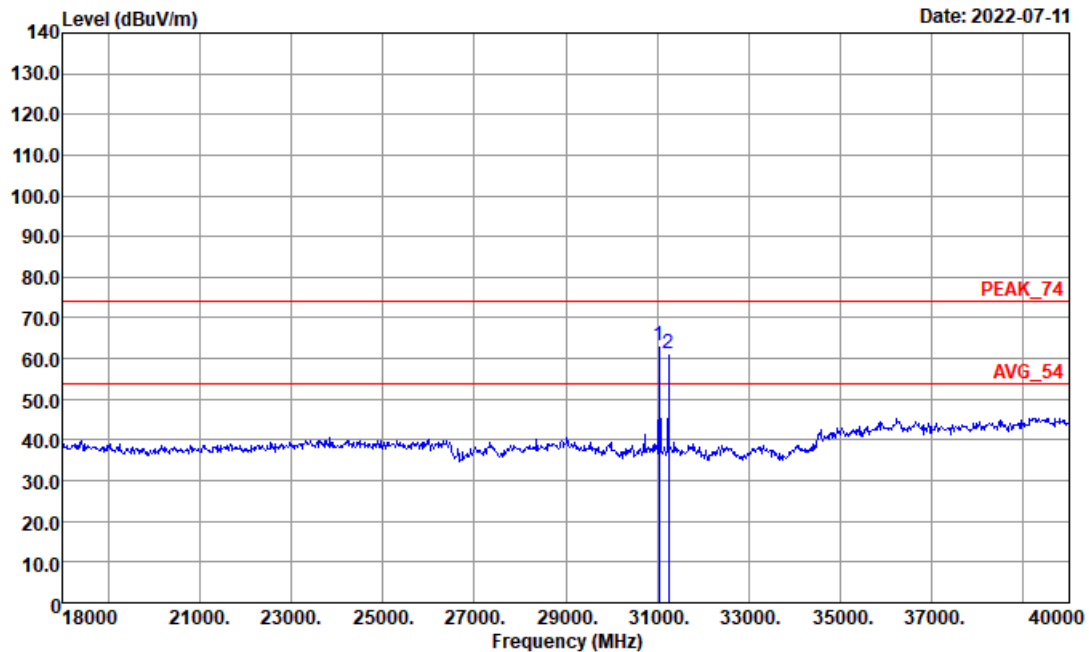
Site : 03CH15-HY

Condition : PEAK\_74 1m SHF\_00993\_211130 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 65.1     | -8.9   | 74       | 81.91  | 40.9   | -2.11 | 55.6   | 150  | 185   | P     |
| -    | 31040 | 44.06    | -9.94  | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31236 | 63.08    | -10.92 | 74       | 79.83  | 40.9   | -2.05 | 55.6   | 150  | 181   | P     |
| -    | 31236 | 42.04    | -11.96 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m       |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz                                                         |                   |          |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |          |



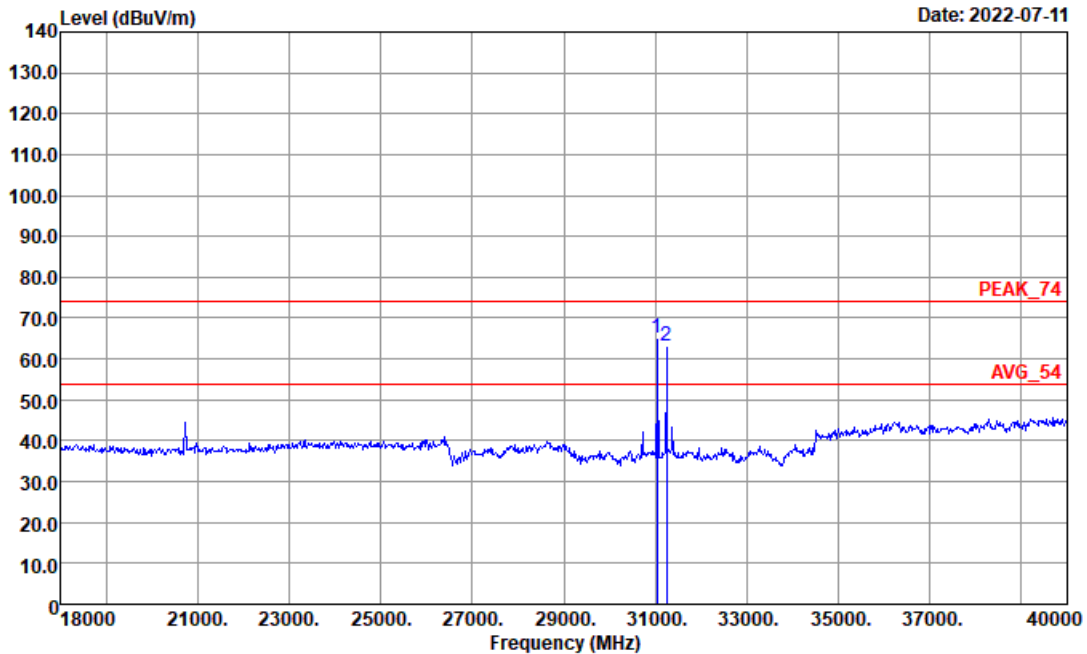
Site : 03CH15-HY

Condition : PEAK\_74 1m SHF\_00993\_211130 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 62.98    | -11.02 | 74       | 79.79  | 40.9   | -2.11 | 55.6   | 150  | 189   | P     |
| -    | 31040 | 41.94    | -12.06 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 61.04    | -12.96 | 74       | 77.79  | 40.9   | -2.05 | 55.6   | 150  | 185   | P     |
| -    | 31250 | 40       | -14    | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|------------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60%   |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m         |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Horizontal |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz                                                           |                   |            |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |            |

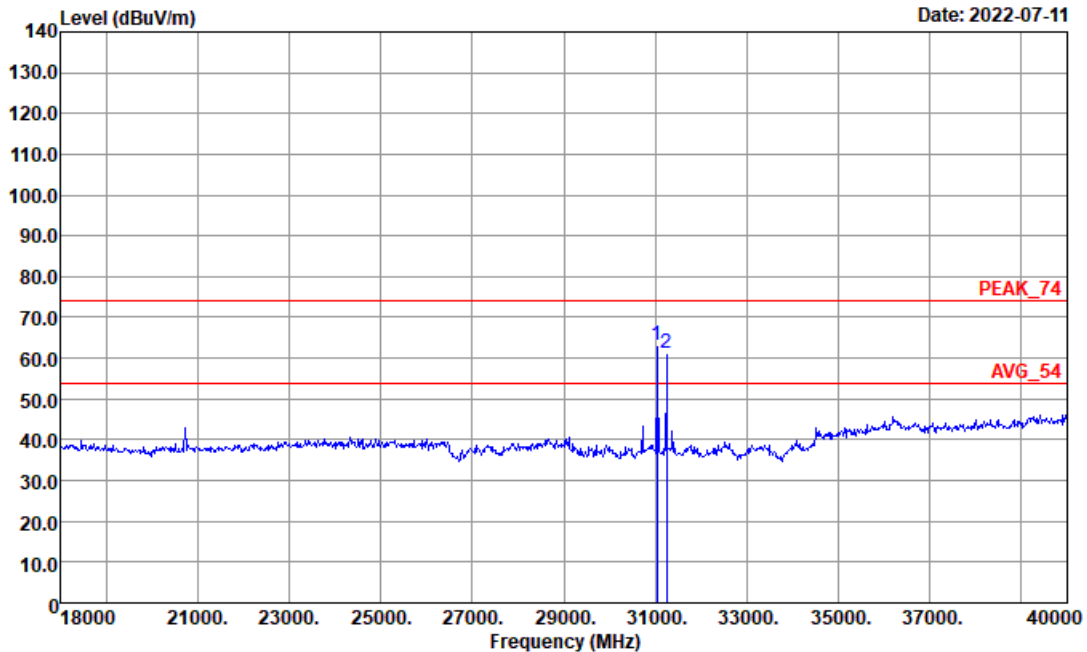


Site : 03CH15-HY  
Condition : PEAK\_74 1m SHF\_00993\_211130 HORIZONTAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 65.17    | -8.83  | 74       | 81.98  | 40.9   | -2.11 | 55.6   | 150  | 185   | P     |
| -    | 31040 | 44.13    | -9.87  | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 63.13    | -10.87 | 74       | 79.88  | 40.9   | -2.05 | 55.6   | 150  | 181   | P     |
| -    | 31250 | 42.09    | -11.91 | 54       | -      | -      | -     | -      | -    | -     | A     |



|                    |                                                                                                                             |                   |          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Temperature        | 22.1 ~ 23.1℃                                                                                                                | Relative Humidity | 55 ~ 60% |
| Test Engineer      | Leo Li                                                                                                                      | Test Distance     | 1m       |
| Test Range         | 18GHz to 40GHz                                                                                                              | Test Polarization | Vertical |
| Test Configuration | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz                                                           |                   |          |
| Remark             | 1. Average = Peak + Duty cycle correction factor(See section 3.6.5)<br>2. Path loss = Cable loss + Distance Factor(-9.54dB) |                   |          |



Site : 03CH15-HY

Condition : PEAK\_74 1m SHF\_00993\_211130 VERTICAL

| Mark | Freq. | Level    | Over   | Limit    | Read   | Ant    | Path  | Preamp | Ant  | Table | Peak  |
|------|-------|----------|--------|----------|--------|--------|-------|--------|------|-------|-------|
|      |       |          | Limit  | Line     | Level  | Factor | Loss  | Factor | Pos  | Pos   | Avg.  |
|      | (MHz) | (dBuV/m) | (dB)   | (dBuV/m) | (dBuV) | (dB/m) | (dB)  | (dB)   | (cm) | (deg) | (P/A) |
| 1    | 31040 | 63.08    | -10.92 | 74       | 79.89  | 40.9   | -2.11 | 55.6   | 150  | 189   | P     |
| -    | 31040 | 42.04    | -11.96 | 54       | -      | -      | -     | -      | -    | -     | A     |
| 2    | 31250 | 61.14    | -12.86 | 74       | 77.89  | 40.9   | -2.05 | 55.6   | 150  | 185   | P     |
| -    | 31250 | 40.1     | -13.9  | 54       | -      | -      | -     | -      | -    | -     | A     |

**Remark:** The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.





## &lt;40GHz to 200GHz&gt;

|                    |                                |                   |                 |
|--------------------|--------------------------------|-------------------|-----------------|
| Temperature        | 21.1 ~ 23.5℃                   | Relative Humidity | 61.4 ~ 65.3%    |
| Test Engineer      | Eric Jeng                      | Test Range        | 40GHz to 200GHz |
| Test Configuration | Mode 1: Antenna Group1 62.5GHz |                   |                 |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 40 - 57              | 22.64                      | 0.87                                | 46.0831                     | -96.83           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -52.69               | 3                          | 0.0048                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 71 - 90              | 22.4                       | 0.6                                 | 88.7156                     | -91.02           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -45.9                | 3                          | 0.0227                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 90 - 140             | 22.4                       | 0.43                                | 135.3336                    | -78.7            |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -32.64               | 3                          | 0.4814                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 140 - 200            | 22.8                       | 0.27                                | 170.616                     | -76.44           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -31.72               | 3                          | 0.5950                              | 90                          | PASS             |



|                    |                                |                   |                 |
|--------------------|--------------------------------|-------------------|-----------------|
| Temperature        | 21.1 ~ 23.5℃                   | Relative Humidity | 61.4 ~ 65.3%    |
| Test Engineer      | Eric Jeng                      | Test Range        | 40GHz to 200GHz |
| Test Configuration | Mode 2: Antenna Group2 62.5GHz |                   |                 |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 40 - 57              | 22.64                      | 0.87                                | 48.322                      | -96.91           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -52.77               | 3                          | 0.0047                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 71 - 90              | 22.4                       | 0.6                                 | 88.7806                     | -91.09           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -45.97               | 3                          | 0.0224                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 90 - 140             | 22.4                       | 0.43                                | 135.4276                    | -78.57           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -32.51               | 3                          | 0.4961                              | 90                          | PASS             |

| Test Frequency (GHz) | Rx Antenna Gain (dBi)      | Measurement Distance (m)            | Read Worse Frequency (GHz)  | Read Level (dBm) |
|----------------------|----------------------------|-------------------------------------|-----------------------------|------------------|
| 140 - 200            | 22.8                       | 0.27                                | 170.761                     | -76.36           |
| EIRP (dBm)           | Specification Distance (m) | Power Density (pW/cm <sup>2</sup> ) | Limit (pW/cm <sup>2</sup> ) | Test Result      |
| -31.64               | 3                          | 0.6061                              | 90                          | PASS             |



|                           |                                                                     |                          |                 |
|---------------------------|---------------------------------------------------------------------|--------------------------|-----------------|
| <b>Temperature</b>        | 21.1 ~ 23.5℃                                                        | <b>Relative Humidity</b> | 61.4 ~ 65.3%    |
| <b>Test Engineer</b>      | Eric Jeng                                                           | <b>Test Range</b>        | 40GHz to 200GHz |
| <b>Test Configuration</b> | Mode 3: WLAN (2.4GHz) 802.11g Ch11 2462MHz + Antenna Group2 62.5GHz |                          |                 |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 40 - 57                         | 22.64                                 | 0.87                                         | 45.9741                               | -95.69                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -51.55                          | 3                                     | 0.0062                                       | 90                                    | PASS                    |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 71 - 90                         | 22.4                                  | 0.6                                          | 88.8016                               | -91.12                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -46                             | 3                                     | 0.0222                                       | 90                                    | PASS                    |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 90 - 140                        | 22.4                                  | 0.43                                         | 135.4566                              | -78.67                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -32.61                          | 3                                     | 0.4848                                       | 90                                    | PASS                    |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 140 - 200                       | 22.8                                  | 0.27                                         | 170.63                                | -76.37                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -31.65                          | 3                                     | 0.6047                                       | 90                                    | PASS                    |



|                           |                                                                   |                          |                 |
|---------------------------|-------------------------------------------------------------------|--------------------------|-----------------|
| <b>Temperature</b>        | 21.1 ~ 23.5℃                                                      | <b>Relative Humidity</b> | 61.4 ~ 65.3%    |
| <b>Test Engineer</b>      | Eric Jeng                                                         | <b>Test Range</b>        | 40GHz to 200GHz |
| <b>Test Configuration</b> | Mode 4: WLAN (5GHz) 802.11a Ch36 5180MHz + Antenna Group2 62.5GHz |                          |                 |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 40 - 57                         | 22.64                                 | 0.87                                         | 46.2261                               | -95.65                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -51.51                          | 3                                     | 0.0062                                       | 90                                    | PASS                    |

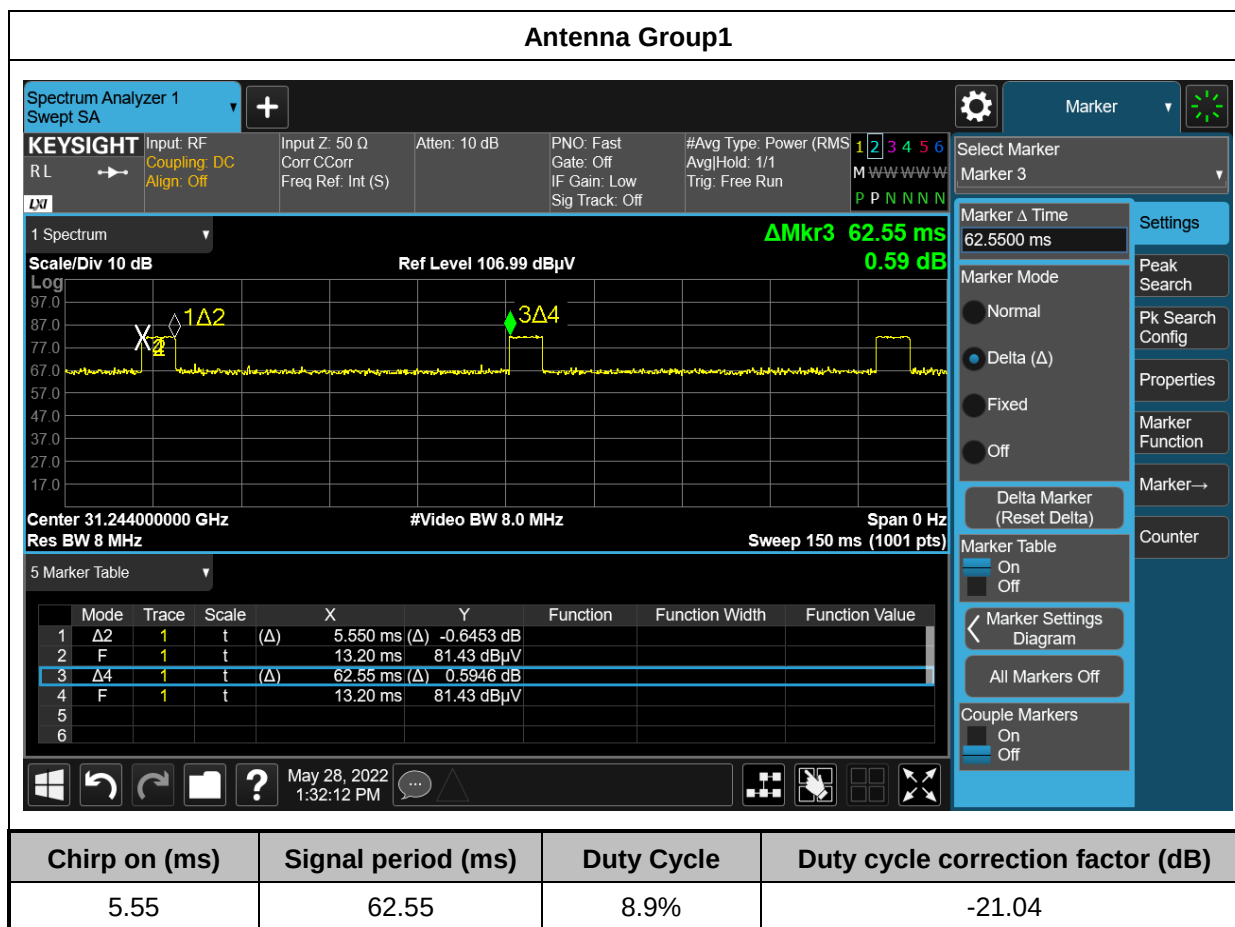
| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 71 - 90                         | 22.4                                  | 0.6                                          | 88.7546                               | -91.12                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -46                             | 3                                     | 0.0222                                       | 90                                    | PASS                    |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 90 - 140                        | 22.4                                  | 0.43                                         | 135.3706                              | -78.58                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -32.52                          | 3                                     | 0.4949                                       | 90                                    | PASS                    |

| <b>Test Frequency<br/>(GHz)</b> | <b>Rx Antenna Gain<br/>(dBi)</b>      | <b>Measurement<br/>Distance (m)</b>          | <b>Read Worse<br/>Frequency (GHz)</b> | <b>Read Level (dBm)</b> |
|---------------------------------|---------------------------------------|----------------------------------------------|---------------------------------------|-------------------------|
| 140 - 200                       | 22.8                                  | 0.27                                         | 170.607                               | -76.38                  |
| <b>EIRP (dBm)</b>               | <b>Specification<br/>Distance (m)</b> | <b>Power Density<br/>(pW/cm<sup>2</sup>)</b> | <b>Limit<br/>(pW/cm<sup>2</sup>)</b>  | <b>Test Result</b>      |
| -31.66                          | 3                                     | 0.6033                                       | 90                                    | PASS                    |



## 3.6.5 Test Result for Duty cycle correction factor

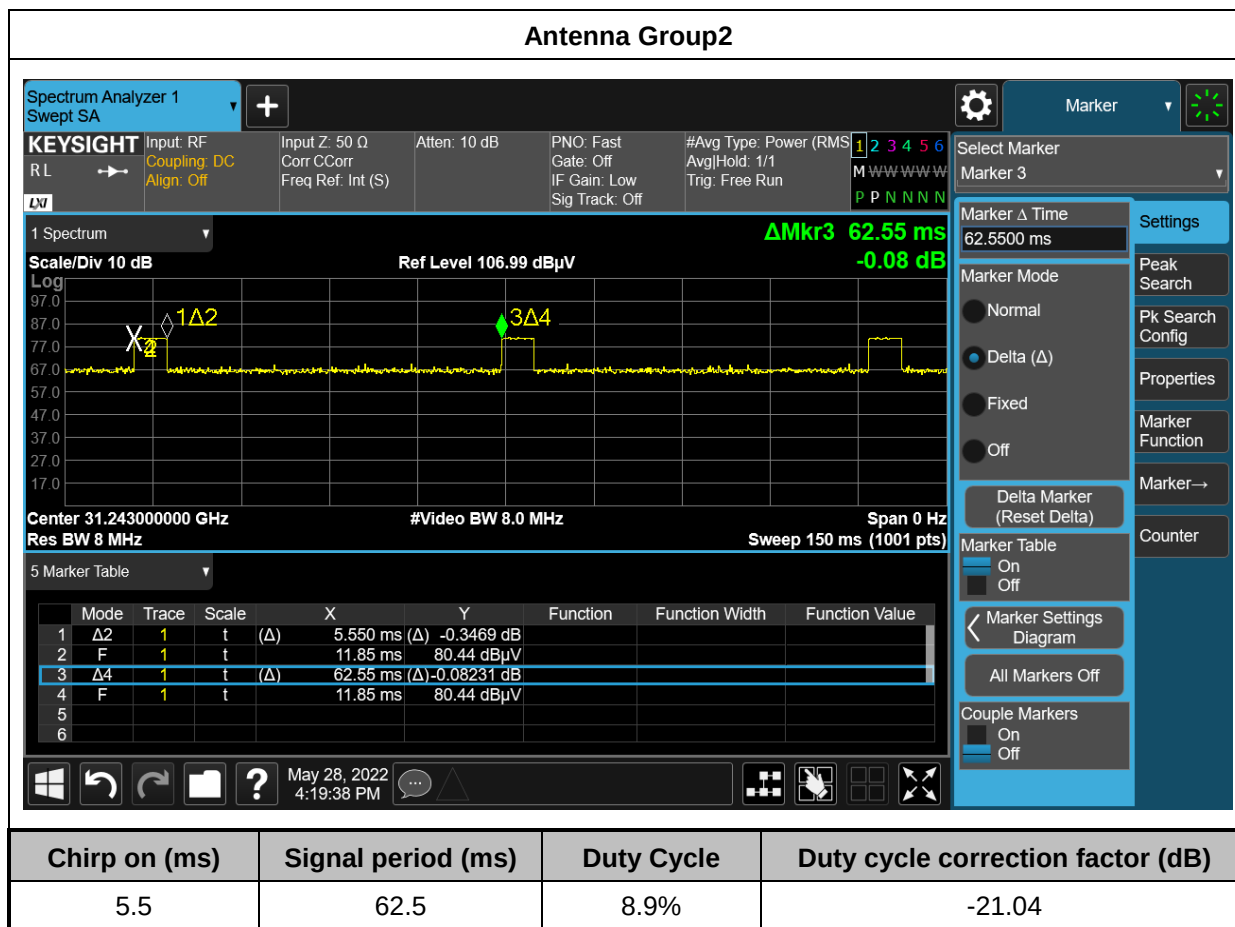


Note:

Duty cycle of harmonic is same with fundamental signal.

Duty cycle correction factor follows C63.10 Section 7.5.0

Duty cycle correction factor =  $20 \cdot \log(\text{Duty Cycle})$



Note:

Duty cycle of harmonic is same with fundamental signal.

Duty cycle correction factor follows C63.10 Section 7.5.

Duty cycle correction factor =  $20 \cdot \log(\text{Duty Cycle})$



## **3.7 Frequency Stability**

### **3.7.1 Description of Frequency Stability Measurement**

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency range, 57GHz – 71GHz.

### **3.7.2 Measuring Instruments**

See list of measuring equipment of this test report.

### **3.7.3 Test Procedures**

Method of measurement: Refer as ANSI C63.10-2013 clause 9.14

**3.7.4 Test Result**

| Test Engineer         | Eric Jeng            |                          |                        |        |
|-----------------------|----------------------|--------------------------|------------------------|--------|
| Test Conditions       | Antenna Group1 62GHz |                          |                        | Limit  |
| Test Temperature (°C) | Voltage (Volt)       | Measured Frequency (MHz) | Delta Frequency (±kHz) | Result |
| 35                    | 120                  | 61997.123                | 40                     | pass   |
| 30                    | 120                  | 61996.983                | -100                   |        |
| 20                    | 120                  | 61997.083                | 0                      |        |
| 10                    | 120                  | 61997.043                | -40                    |        |
| 0                     | 120                  | 61997.063                | -20                    |        |
| 20                    | 102                  | 61996.983                | -100                   |        |
| 20                    | 138                  | 61997.103                | 20                     |        |

| Test Engineer         | Eric Jeng              |                          |                        |        |
|-----------------------|------------------------|--------------------------|------------------------|--------|
| Test Conditions       | Antenna Group1 63.1GHz |                          |                        | Limit  |
| Test Temperature (°C) | Voltage (Volt)         | Measured Frequency (MHz) | Delta Frequency (±kHz) | Result |
| 35                    | 120                    | 63097.063                | 0                      | pass   |
| 30                    | 120                    | 63096.983                | -80                    |        |
| 20                    | 120                    | 63097.063                | 0                      |        |
| 10                    | 120                    | 63097.043                | -20                    |        |
| 0                     | 120                    | 63096.943                | -120                   |        |
| 20                    | 102                    | 63097.043                | -20                    |        |
| 20                    | 138                    | 63097.023                | -40                    |        |





| Test Engineer         | Eric Jeng            |                          |                        |        |
|-----------------------|----------------------|--------------------------|------------------------|--------|
| Test Conditions       | Antenna Group2 62GHz |                          |                        | Limit  |
| Test Temperature (°C) | Voltage (Volt)       | Measured Frequency (MHz) | Delta Frequency (±kHz) | Result |
| 35                    | 120                  | 61997.023                | -100                   | pass   |
| 30                    | 120                  | 61996.983                | -140                   |        |
| 20                    | 120                  | 61997.123                | 0                      |        |
| 10                    | 120                  | 61997.103                | -20                    |        |
| 0                     | 120                  | 61997.043                | -80                    |        |
| 20                    | 102                  | 61997.023                | -100                   |        |
| 20                    | 138                  | 61997.063                | -60                    |        |

| Test Engineer         | Eric Jeng              |                          |                        |        |
|-----------------------|------------------------|--------------------------|------------------------|--------|
| Test Conditions       | Antenna Group2 63.1GHz |                          |                        | Limit  |
| Test Temperature (°C) | Voltage (Volt)         | Measured Frequency (MHz) | Delta Frequency (±kHz) | Result |
| 35                    | 120                    | 63097.143                | 80                     | pass   |
| 30                    | 120                    | 63097.103                | 40                     |        |
| 20                    | 120                    | 63097.063                | 0                      |        |
| 10                    | 120                    | 63097.063                | 0                      |        |
| 0                     | 120                    | 63097.143                | 80                     |        |
| 20                    | 102                    | 63097.063                | 0                      |        |
| 20                    | 138                    | 63097.103                | 40                     |        |

## 4 AC conducted Emission Measurement

### 4.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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

\*Decreases with the logarithm of the frequency.

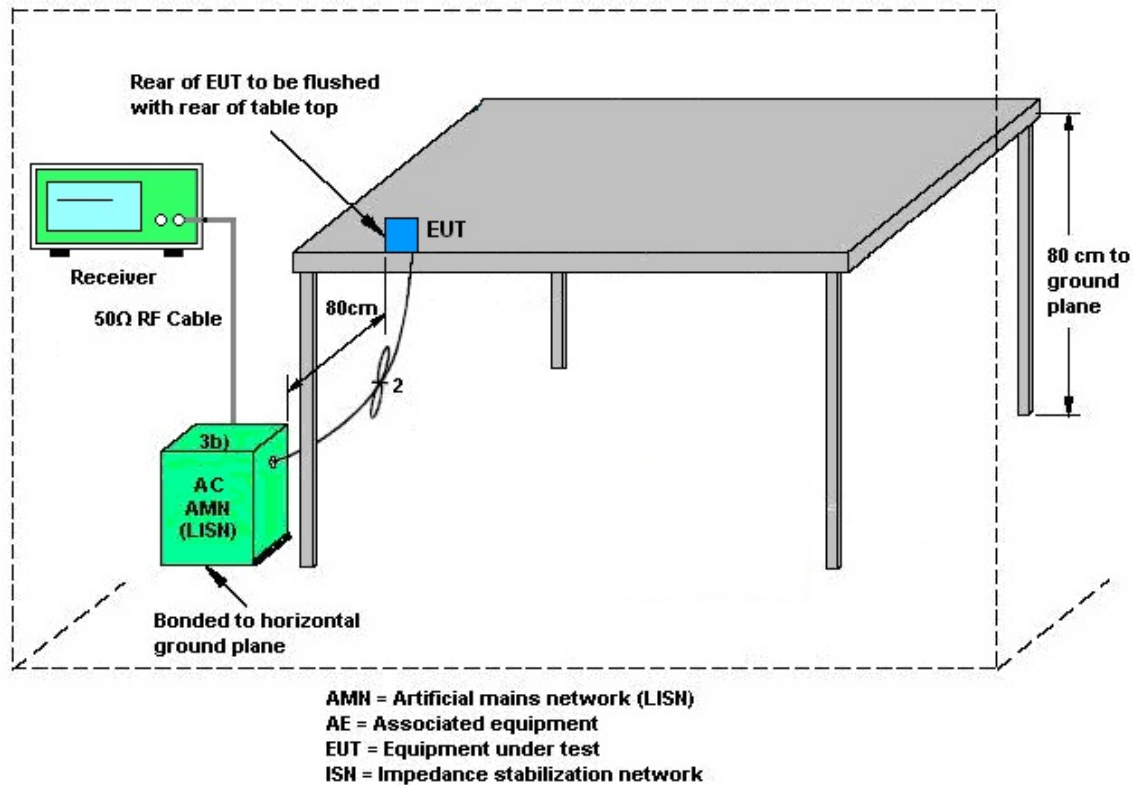
### 4.2 Measuring Instruments

See list of measuring equipment of this test report.

### 4.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

## 4.4 Test Setup



## 4.5 Test Result of AC Conducted Emission

Please refer to Appendix A.



## 5 List of Measuring Equipment

| Instrument        | Brand Name      | Model No.          | Serial No.       | Characteristics               | Calibration Date | Test Date                   | Due Date      | Remark                |
|-------------------|-----------------|--------------------|------------------|-------------------------------|------------------|-----------------------------|---------------|-----------------------|
| AC Power Source   | ChainTek        | APC-1000W          | N/A              | N/A                           | N/A              | Jul. 15, 2022               | N/A           | Conduction (CO05-HY)  |
| EMI Test Receiver | Rohde & Schwarz | ESR3               | 102388           | 9kHz~3.6GHz                   | Dec. 01, 2021    | Jul. 15, 2022               | Nov. 30, 2022 | Conduction (CO05-HY)  |
| Hygrometer        | Testo           | 608-H1             | 34913912         | N/A                           | Nov. 17, 2021    | Jul. 15, 2022               | Nov. 16, 2022 | Conduction (CO05-HY)  |
| LISN              | Rohde & Schwarz | ENV216             | 100080           | 9kHz~30MHz                    | Dec. 03, 2021    | Jul. 15, 2022               | Dec. 02, 2022 | Conduction (CO05-HY)  |
| Software          | Rohde & Schwarz | EMC32              | N/A              | N/A                           | N/A              | Jul. 15, 2022               | N/A           | Conduction (CO05-HY)  |
| Pulse Limiter     | SCHWARZBECK     | VTSD 9561-FN       | 00691            | N/A                           | Jul. 28, 2021    | Jul. 15, 2022               | Jul. 27, 2022 | Conduction (CO05-HY)  |
| LISN Cable        | MVE             | RG-400             | 260260           | N/A                           | Dec. 30, 2021    | Jul. 15, 2022               | Dec. 29, 2022 | Conduction (CO05-HY)  |
| Bilog Antenna     | TESEQ           | CBL 6111D & N-6-06 | 35414 & AT-N0602 | 30MHz~1GHz                    | Oct. 09, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Oct. 08, 2022 | Radiation (03CH11-HY) |
| Loop Antenna      | Rohde & Schwarz | HFH2-Z2            | 100488           | 9 kHz~30 MHz                  | May 13, 2022     | Jul. 08, 2022~Jul. 14, 2022 | May 12, 2023  | Radiation (03CH11-HY) |
| Amplifier         | SONOMA          | 310N               | 187312           | 9kHz~1GHz                     | Dec. 10, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Dec. 09, 2022 | Radiation (03CH11-HY) |
| Spectrum Analyzer | Keysight        | N9010A             | MY54200486       | 10Hz~44GHz                    | Oct. 15, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Oct. 14, 2022 | Radiation (03CH11-HY) |
| EMI Test Receiver | Keysight        | N9038A(MXE)        | MY54130085       | 20MHz~8.4GHz                  | Oct. 21, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Oct. 20, 2022 | Radiation (03CH11-HY) |
| RF Cable          | HUBER + SUHNER  | SUCOFLEX 102       | MY2859/2         | 30MHz-40GHz                   | Mar. 10, 2022    | Jul. 08, 2022~Jul. 14, 2022 | Mar. 09, 2023 | Radiation (03CH11-HY) |
| RF Cable          | HUBER + SUHNER  | SUCOFLEX 104       | MY9837/4PE       | 9kHz-30MHz                    | Mar. 10, 2022    | Jul. 08, 2022~Jul. 14, 2022 | Mar. 09, 2023 | Radiation (03CH11-HY) |
| RF Cable          | HUBER + SUHNER  | SUCOFLEX 104       | MY9837/4PE       | 30MHz-18GHz                   | Mar. 10, 2022    | Jul. 08, 2022~Jul. 14, 2022 | Mar. 09, 2023 | Radiation (03CH11-HY) |
| Filter            | Wainwright      | WHK20/1000C7/40SS  | SN2              | 20M High Pass                 | Sep. 13, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Sep. 12, 2022 | Radiation (03CH11-HY) |
| Controller        | EMEC            | EM 1000            | N/A              | Control Turn table & Ant Mast | N/A              | Jul. 08, 2022~Jul. 14, 2022 | N/A           | Radiation (03CH11-HY) |
| Antenna Mast      | EMEC            | AM-BS-4500-B       | N/A              | 1~4m                          | N/A              | Jul. 08, 2022~Jul. 14, 2022 | N/A           | Radiation (03CH11-HY) |
| Turn Table        | EMEC            | TT 2000            | N/A              | 0~360 Degree                  | N/A              | Jul. 08, 2022~Jul. 14, 2022 | N/A           | Radiation (03CH11-HY) |
| Software          | Audix           | E3 6.2009-8-24     | RK-001053        | N/A                           | N/A              | Jul. 08, 2022~Jul. 14, 2022 | N/A           | Radiation (03CH11-HY) |
| Hygrometer        | TECPEL          | DTM-303B           | TP140325         | N/A                           | Nov. 26, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Nov. 25, 2022 | Radiation (03CH11-HY) |
| Hygrometer        | TECPEL          | DTM-303B           | TP200880         | QA-3-031                      | Sep. 30, 2021    | Jul. 08, 2022~Jul. 14, 2022 | Sep. 29, 2022 | Radiation (03CH11-HY) |



| Instrument           | Brand Name      | Model No.             | Serial No.                      | Characteristics  | Calibration Date | Test Date                      | Due Date      | Remark                   |
|----------------------|-----------------|-----------------------|---------------------------------|------------------|------------------|--------------------------------|---------------|--------------------------|
| Horn Antenna         | SCHWARZBECK     | BBHA 9120 D           | 9120D-02038                     | 1GHz~18GHz       | Aug. 04, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Aug. 03, 2022 | Radiation<br>(03CH15-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK     | BBHA 9170             | 00993                           | 18GHz~40GHz      | Nov. 30, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Nov. 29, 2022 | Radiation<br>(03CH15-HY) |
| Preamplifier         | Jet-Power       | JPA0118-55-303        | 1710001800055006                | 1GHz~18GHz       | May 05, 2022     | May 28, 2022~<br>Jul. 15, 2022 | May 04, 2023  | Radiation<br>(03CH15-HY) |
| Preamplifier         | EM Electronics  | EM01G18G              | 060803                          | 1GHz-18GHz       | Dec. 16, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Dec. 15, 2022 | Radiation<br>(03CH15-HY) |
| Preamplifier         | EMEC            | EM18G40G              | 060715                          | 18-40GHz         | Dec. 24, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Dec. 23, 2022 | Radiation<br>(03CH15-HY) |
| EMI Test Receiver    | Keysight        | N9038A(MXE)           | MY54130085                      | 20MHz~8.4GHz     | Oct. 21, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Oct. 20, 2022 | Radiation<br>(03CH15-HY) |
| Spectrum Analyzer    | Keysight        | N9010B                | MY60240520                      | 10Hz~44GHz       | Dec. 23, 2021    | May 28, 2022~<br>Jul. 15, 2022 | Dec. 22, 2022 | Radiation<br>(03CH15-HY) |
| Antenna Mast         | ChainTek        | MBS-520-1             | N/A                             | 1m~4m            | N/A              | May 28, 2022~<br>Jul. 15, 2022 | N/A           | Radiation<br>(03CH15-HY) |
| Turn Table           | ChainTek        | T-200-S-1             | N/A                             | 0~360 Degree     | N/A              | May 28, 2022~<br>Jul. 15, 2022 | N/A           | Radiation<br>(03CH15-HY) |
| Software             | Audix           | E3<br>6.2009-8-24(k5) | RK-000451                       | N/A              | N/A              | May 28, 2022~<br>Jul. 15, 2022 | N/A           | Radiation<br>(03CH15-HY) |
| RF Cable             | HUBER + SUHNER  | SUCOFLEX 104, 102E    | MY9838/4PE, 508405/2E, 582185/4 | 30MHz~18G        | May 12, 2022     | May 28, 2022~<br>Jul. 15, 2022 | May 11, 2023  | Radiation<br>(03CH15-HY) |
| RF Cable             | HUBER + SUHNER  | SUCOFLEX 102          | 804011/2, 804012/2              | 30MHz-40GHz      | Jan. 04, 2022    | May 28, 2022~<br>Jul. 15, 2022 | Jan. 03, 2023 | Radiation<br>(03CH15-HY) |
| RF Cable             | HUBER + SUHNER  | SUCOFLEX 104          | MY9837/4PE                      | 9kHz~30MHz       | Mar. 10, 2022    | May 28, 2022~<br>Jul. 15, 2022 | Mar. 09, 2023 | Radiation<br>(03CH15-HY) |
| Spectrum Analyzer    | Rohde & Schwarz | FSV3044               | 101009                          | 9kHz to 44GHz    | Nov. 11, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Nov. 10, 2022 | Radiation<br>(03CH18-HY) |
| Spectrum Analyzer    | Rohde & Schwarz | FSW43                 | 101456                          | 9kHz to 44GHz    | Feb. 28, 2022    | May 16, 2022~<br>Jul. 16, 2022 | Feb. 27, 2023 | Radiation<br>(03CH18-HY) |
| Harmonic Mixer       | Rohde & Schwarz | RPG FS-Z60            | 100986                          | 40GHz to 60GHz   | Apr. 09, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Apr. 08, 2024 | Radiation<br>(03CH18-HY) |
| Harmonic Mixer       | Rohde & Schwarz | RPG FS-Z75            | 101557                          | 50 GHz to 75 GHz | Apr. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Apr. 05, 2024 | Radiation<br>(03CH18-HY) |
| Harmonic Mixer       | Rohde & Schwarz | FSZ-90                | 101811                          | 60GHz to 90GHz   | Nov. 16, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Nov. 15, 2024 | Radiation<br>(03CH18-HY) |
| Harmonic Mixer       | Rohde & Schwarz | RPG FS-Z140           | 101128                          | 90GHz to 140GHz  | Oct. 26, 2020    | May 16, 2022~<br>Jul. 16, 2022 | Oct. 25, 2023 | Radiation<br>(03CH18-HY) |
| Harmonic Mixer       | Rohde & Schwarz | RPG FS-Z220           | 101014                          | 140GHz to 220GHz | Dec. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Dec. 05, 2024 | Radiation<br>(03CH18-HY) |



| Instrument                  | Brand Name         | Model No.                  | Serial No.    | Characteristics      | Calibration Date | Test Date                      | Due Date      | Remark                   |
|-----------------------------|--------------------|----------------------------|---------------|----------------------|------------------|--------------------------------|---------------|--------------------------|
| Antenna                     | Quinstar           | QWH-UPRR00                 | QWH-UPRR00-01 | 40-60 GHz            | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Antenna                     | Quinstar           | QWH-VPRR00                 | 1371800009    | 50-75 GHz            | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Antenna                     | Quinstar           | QWH-VPRR00                 | 1371800008    | 50-75 GHz            | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Antenna                     | Quinstar           | QWH-EPRR00                 | 1372000000    | 60-90 GHz            | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Antenna                     | Quinstar           | QWH-FPRR00                 | 1011500008    | 90-140 GHz           | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Antenna                     | Quinstar           | QWH-GPRR00                 | QWH-GPRR00-01 | 140-220 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Low noise amplifier         | Eravant            | SBL-5037531<br>850-1515-E1 | 07115-01      | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| RF Cable                    | HUBER +<br>SUHNER  | SUCOFLEX<br>102            | 801589/2      | N/A                  | Nov. 30, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Nov. 29, 2022 | Radiation<br>(03CH18-HY) |
| RF Cable                    | HUBER +<br>SUHNER  | SUCOFLEX<br>102            | 801607/2      | N/A                  | Nov. 30, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Nov. 29, 2022 | Radiation<br>(03CH18-HY) |
| Detector                    | Quinstars          | QEA-FBFBVP                 | 2672009       | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Amplifier                   | Quinstars          | QLW-5075453<br>0-I2        | 953600006     | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Oscilloscope                | Rohde &<br>Schwarz | RTO 1002                   | 400025        | 600MHz,<br>10GSa/sec | Sep. 25, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Sep. 24, 2022 | Radiation<br>(03CH18-HY) |
| Power Meter                 | Agilent            | E4419B                     | GB43312306    | N/A                  | Apr. 12, 2022    | May 16, 2022~<br>Jul. 16, 2022 | Apr. 11, 2023 | Radiation<br>(03CH18-HY) |
| Power Sensor                | Keysight           | V8486A                     | MY60170002    | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Signal Generator            | Anritsu            | MG3710A                    | 6261943042    | 100kHz ~<br>40GHz    | May 23, 2022     | May 23, 2022~<br>Jul. 16, 2022 | May 22, 2023  | Radiation<br>(03CH18-HY) |
| Active Frequency Multiplier | Eravant            | SFA-5037534<br>16-15KF-E1  | 03099-01      | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |
| Thermal Chamber             | ESPEC              | SU-641                     | 92013721      | -30℃ ~70℃            | Oct. 21, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Oct. 20, 2022 | Radiation<br>(03CH18-HY) |
| AC Power Source             | AC POWER           | AFC-500W                   | F104070011    | 50Hz~60Hz            | Sep. 14, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Sep. 13, 2022 | Radiation<br>(03CH18-HY) |
| Attenuator                  | SAGE               | STA-30-15-M2               | 18953-02      | 50 ~ 75 GHz          | Jul. 06, 2021    | May 16, 2022~<br>Jul. 16, 2022 | Jul. 05, 2024 | Radiation<br>(03CH18-HY) |

**Note:** (\*) Equipment manufacturer's Calibration Certificate.

## 6 Uncertainty of Evaluation

| Test Item                                                  | Uncertainty |
|------------------------------------------------------------|-------------|
| AC Power Conducted Emission Measurement (150 kHz ~ 30 MHz) | ±3.1dB      |
| Radiated Emission Measurement (9 kHz ~ 30 MHz)             | ±3.7dB      |
| Radiated Emission Measurement (30 MHz ~ 1000 MHz)          | ±5.8dB      |
| Radiated Emission Measurement (1 GHz ~ 18 GHz)             | ±5.3dB      |
| Radiated Emission Measurement (18 GHz ~ 40 GHz)            | ±5.6dB      |
| Radiated Emission Measurement (40 GHz ~ 140 GHz)           | ±5.6dB      |
| Radiated Emission Measurement (140 GHz ~ 200 GHz)          | ±6.6dB      |
| Emission Bandwidth                                         | ±110 KHz    |
| Frequency Stability                                        | ±100 KHz    |
| Temperature                                                | ±1.4°C      |

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ )



## **Appendix A. AC Conducted Emission Test Results**

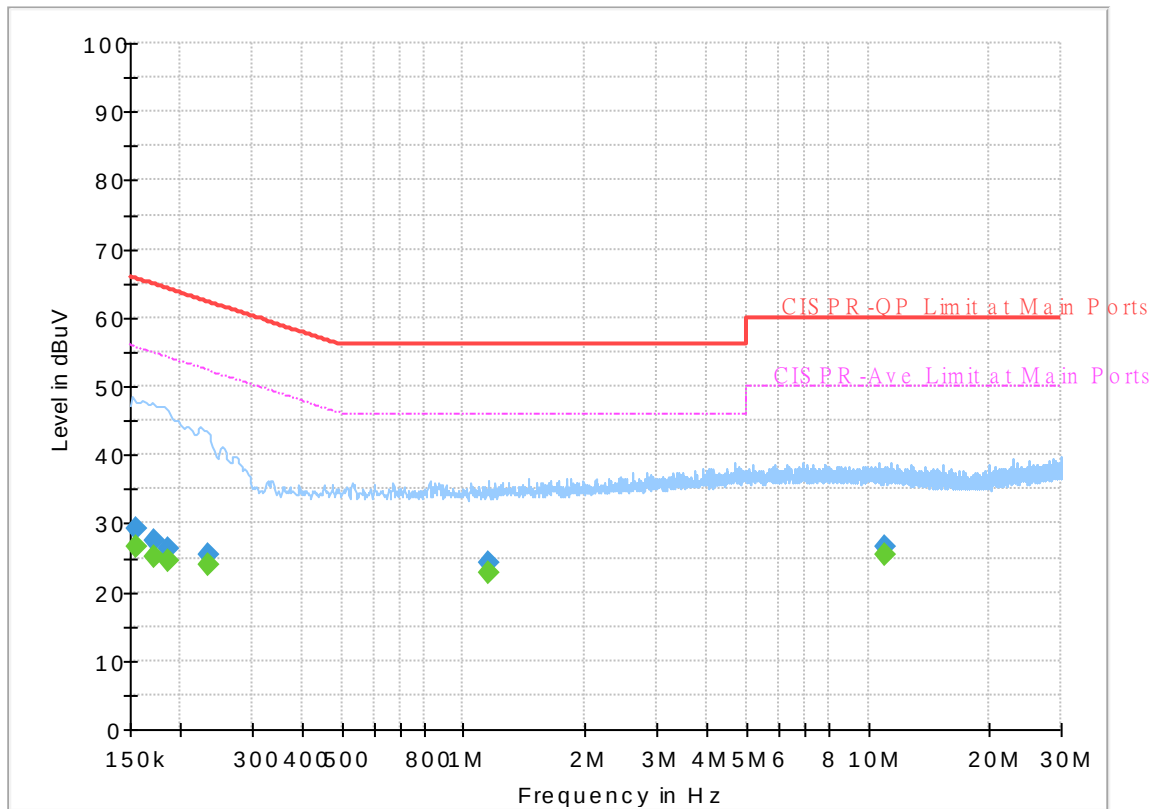
|                        |             |                            |        |
|------------------------|-------------|----------------------------|--------|
| <b>Test Engineer :</b> | Calvin Wang | <b>Temperature :</b>       | 23~26℃ |
|                        |             | <b>Relative Humidity :</b> | 45~55% |



## EUT Information

Report NO : 1D2427-01  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Line

Full Spectrum



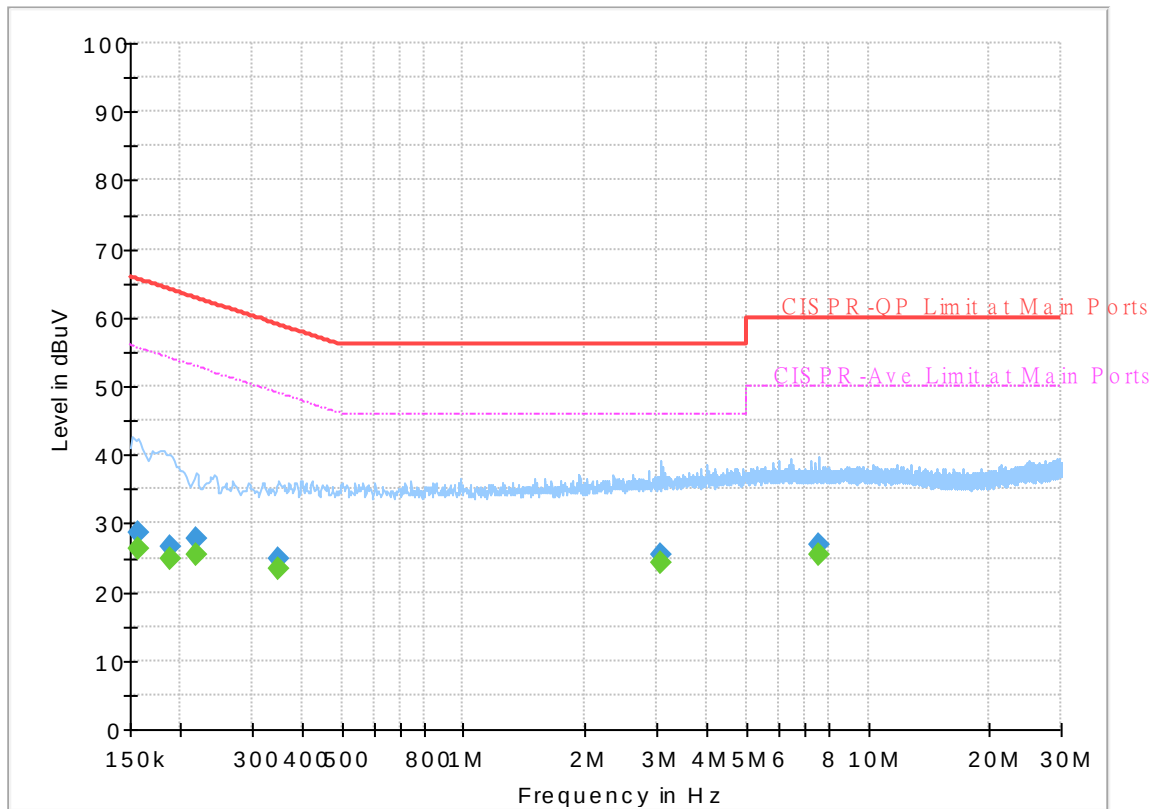
## Final Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.154500        | ---              | 26.66           | 55.75        | 29.09       | L1   | OFF    | 19.6       |
| 0.154500        | 29.11            | ---             | 65.75        | 36.64       | L1   | OFF    | 19.6       |
| 0.172500        | ---              | 25.08           | 54.84        | 29.76       | L1   | OFF    | 19.6       |
| 0.172500        | 27.37            | ---             | 64.84        | 37.47       | L1   | OFF    | 19.6       |
| 0.186000        | ---              | 24.51           | 54.21        | 29.70       | L1   | OFF    | 19.6       |
| 0.186000        | 26.28            | ---             | 64.21        | 37.93       | L1   | OFF    | 19.6       |
| 0.233250        | ---              | 23.91           | 52.33        | 28.42       | L1   | OFF    | 19.6       |
| 0.233250        | 25.36            | ---             | 62.33        | 36.97       | L1   | OFF    | 19.6       |
| 1.155750        | ---              | 22.91           | 46.00        | 23.09       | L1   | OFF    | 19.7       |
| 1.155750        | 24.26            | ---             | 56.00        | 31.74       | L1   | OFF    | 19.7       |
| 10.965750       | ---              | 25.32           | 50.00        | 24.68       | L1   | OFF    | 20.1       |
| 10.965750       | 26.65            | ---             | 60.00        | 33.35       | L1   | OFF    | 20.1       |

## EUT Information

Report NO : 1D2427-01  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

Full Spectrum



## Final\_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.156750        | ---              | 26.28           | 55.63        | 29.35       | N    | OFF    | 19.6       |
| 0.156750        | 28.60            | ---             | 65.63        | 37.03       | N    | OFF    | 19.6       |
| 0.188250        | ---              | 24.85           | 54.11        | 29.26       | N    | OFF    | 19.6       |
| 0.188250        | 26.70            | ---             | 64.11        | 37.41       | N    | OFF    | 19.6       |
| 0.217500        | ---              | 25.39           | 52.91        | 27.52       | N    | OFF    | 19.6       |
| 0.217500        | 27.92            | ---             | 62.91        | 34.99       | N    | OFF    | 19.6       |
| 0.350250        | ---              | 23.27           | 48.96        | 25.69       | N    | OFF    | 19.6       |
| 0.350250        | 24.92            | ---             | 58.96        | 34.04       | N    | OFF    | 19.6       |
| 3.077250        | ---              | 24.27           | 46.00        | 21.73       | N    | OFF    | 19.7       |
| 3.077250        | 25.58            | ---             | 56.00        | 30.42       | N    | OFF    | 19.7       |
| 7.586250        | ---              | 25.37           | 50.00        | 24.63       | N    | OFF    | 20.0       |
| 7.586250        | 26.94            | ---             | 60.00        | 33.06       | N    | OFF    | 20.0       |

—THE END—