

# TEST REPORT

**CTK Co., Ltd.**

(Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si,  
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Tel: +82-31-339-9970  
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Report No.:

CTK-2025-01505

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**1. Applicant**

- Name : NC& CO., LTD
- Address : 9F Venture Forum, 323, Pangyo-ro, Bundang-gu, Seongnam-si, South Korea
- Date of Receipt : 2025-04-03

**2. Manufacturer**

- Name : NC& CO., LTD
- Address : 9F Venture Forum, 323, Pangyo-ro, Bundang-gu, Seongnam-si, South Korea

**3. Use of Report :** For FCC Conformance**4. Test Sample / Model :** S1 4K Infinite / S10-UQ**5. Date of Test :** 2025-05-13 to 2025-06-03**6. Test Standard(method) used :** FCC 47 CFR part 15 subpart E 15.407**7. Testing Environment :** refer to 8 page**8. Test Results :** Compliance**9. Location of Test :** ☒ Permanent Testing Lab ☐ On Site Testing

(Address : 5, Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, 17141 Korea)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This report cannot be reproduced or copied without the written consent of CTK.

|          |                                                                                                                |                                                                                                                   |
|----------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Approval | Tested by                                                                                                      | Technical Manager                                                                                                 |
|          | Bong-seok Kim: (Signature)  | Young-taek Lee: (Signature)  |

2025-06-09

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## REPORT REVISION HISTORY

| Date       | Revision                | Page No |
|------------|-------------------------|---------|
| 2025-06-09 | Issued (CTK-2025-01505) | all     |
|            |                         |         |
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## 1. General Product Description

### 1.1 Applicant Information

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| <b>Company</b>        | NC& CO., LTD                                                                      |
| <b>Contact Point</b>  | 9F Venture Forum, 323, Pangyo-ro, Bundang-gu, Seongnam-si, South Korea            |
| <b>Contact Person</b> | Name : Hwanhee Chai<br>E-mail : djkim@nc-and.com<br>Tel : 02-3460-4700<br>Fax : - |

### 1.2 Product Information

|                                    |                                       |                                   |
|------------------------------------|---------------------------------------|-----------------------------------|
| <b>FCC ID</b>                      | 2BC09-S10UQ                           |                                   |
| <b>Product Description</b>         | S1 4K Infinite                        |                                   |
| <b>Model name</b>                  | S10-UQ                                |                                   |
| <b>Variant Model name</b>          | -                                     |                                   |
| <b>Operating Frequency</b>         | UNII 1                                | 20 MHz_BW : 5 180 MHz – 5 240 MHz |
| <b>RF Output Power</b>             | 802.11ac_VHT20 : 9.140 dBm (8.204 mW) |                                   |
| <b>Antenna Specification</b>       | Antenna type : Chip Antenna           |                                   |
|                                    | Peak Gain : 2.79 dBi                  |                                   |
| <b>Type of Modulation</b>          | 802.11ac : OFDM                       |                                   |
| <b>Power Source</b>                | DC 12, 24 V(Battery)                  |                                   |
| <b>Hardware Rev</b>                | -                                     |                                   |
| <b>Software Rev</b>                | -                                     |                                   |
| <b>RF Power setting in Test SW</b> | Initial value                         |                                   |

### 1.3 Peripheral Devices

| Device     | Manufacturer | Model No.         | Serial No. |
|------------|--------------|-------------------|------------|
| Notebook   | HP Inc.      | HP Probook 455 G7 | 5CD0234DWM |
| AC Adapter | HP Inc.      | PPP012D-S         | 677777-003 |

### 1.4 Model Differences

Not applicable

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## 2. Accreditations

### 2.1 Laboratory Accreditations and Listings

| Country | Agency | Registration Number           |
|---------|--------|-------------------------------|
| USA     | FCC    | 805871                        |
| CANADA  | ISED   | CN : 8737A<br>CAB ID : KR0025 |
| KOREA   | NRRA   | KR0025                        |

### 2.2 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

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### 3. Test Specifications

#### 3.1 Standards

| FCC Part Section(s)                                                                                               | Requirement(s)                    | Limit                                     | Status (Note 1) | Test Condition |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------|-----------------|----------------|
| <b>15.407 (a)</b>                                                                                                 | 26 dB Bandwidth and 99% Bandwidth | NA                                        | C               |                |
| <b>15.407 (a)(1),(2),(3)</b>                                                                                      | Conducted Output Power            | < 250 mW<br>(5 150 – 5 250 MHz)           | C               |                |
| <b>15.407 (a)(1),(2),(3)</b>                                                                                      | Power Spectral Density            | < 11 dBm/MHz<br>(5 150 – 5 250 MHz)       | C               |                |
| <b>15.407 (g)</b>                                                                                                 | Frequency Stability               | NA                                        | C               |                |
| <b>15.407 (b)</b>                                                                                                 | Undesirable emission              | < -27 dBm/MHz EIRP<br>(5 150 – 5 250 MHz) | C               | Radiated       |
| <b>15.205, 15.407 (b)(9),(10)</b>                                                                                 | Radiated Spurious Emission        | 15.209(a)                                 | C               |                |
| <b>15.407 (b)(9)</b>                                                                                              | AC Conducted Emissions            | 15.207(a)                                 | NA(Note 5)      | Line Conducted |
| <u>Note 1</u> : C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable                                        |                                   |                                           |                 |                |
| <u>Note 2</u> : The data in this test report are traceable to the national or international standards.            |                                   |                                           |                 |                |
| <u>Note 3</u> : The sample was tested according to the following specification: FCC Part 15.407, ANSI C63.10-2013 |                                   |                                           |                 |                |
| <u>Note 4</u> : The tests were performed according to the method of measurements prescribed in KDB No.789033      |                                   |                                           |                 |                |
| <u>Note 5</u> : The equipment is operated on battery power only.                                                  |                                   |                                           |                 |                |



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### 3.2 Mode of operation during the test

The EUT is operated in a manner representative of the typical of the equipments.  
During at testing, system components were manipulated within the confines of typical usage to maximize each emission.

For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit.

All modulation modes were tests. The results are only attached worst cases.

This EUT is supported the DC 12 V and DC 24 V. We have done all test mode.

Worst case is DC 12 V. So the worst data of DC 12 V are shown.

#### Test Frequency & Bandwidth

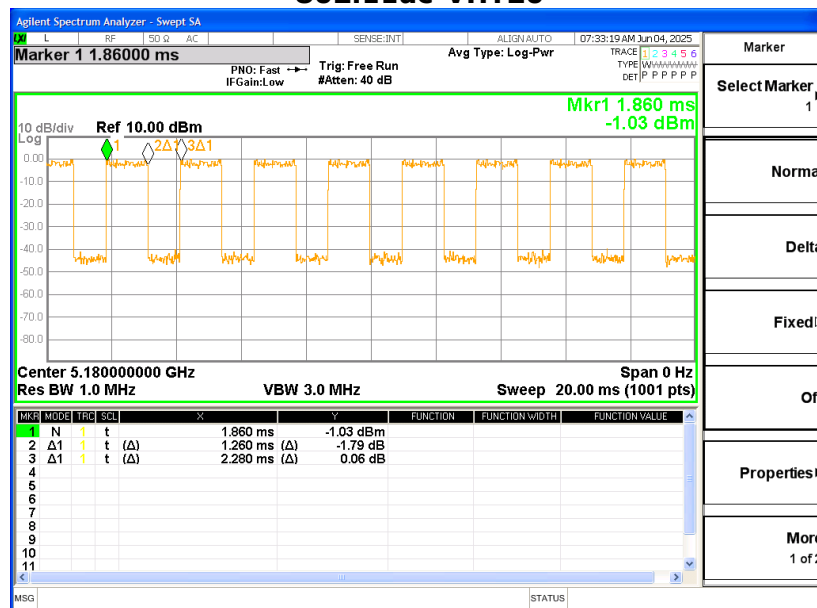
- 802.11ac-VHT20

|               | Lowest channel | Middle channel | Highest channel |
|---------------|----------------|----------------|-----------------|
| <b>UNII 1</b> | 5 180 MHz      | 5 200 MHz      | 5 240 MHz       |

#### Test mode & Worst case

| Test mode      | Modulation | Data rate | Duty Cycle | Duty Cycle Factor |
|----------------|------------|-----------|------------|-------------------|
| 802.11ac_VHT20 | OFDM       | MNSS 0    | 55.26 %    | 2.6 dB            |

#### 802.11ac-VHT20



### 3.3 Device Modifications

The following modifications were necessary for compliance:

Not applicable

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### 3.4 Maximum Measurement Uncertainty

The value of the measurement uncertainty for the measurement of each parameter.

Coverage factor  $k = 2$ , Confidence levels of 95 %

| Description                          | Uncertainty                            |
|--------------------------------------|----------------------------------------|
| Conducted RF Output Power            | 1.5 dB (C.L.: Approx. 95 %, $k = 2$ )  |
| Power Spectral Density               | 1.5 dB (C.L.: Approx. 95 %, $k = 2$ )  |
| Occupied Bandwidth                   | 0.1 MHz (C.L.: Approx. 95 %, $k = 2$ ) |
| Unwanted Emission(conducted)         | 3.0 dB (C.L.: Approx. 95 %, $k = 2$ )  |
| Radiated Emissions ( $f \leq 1$ GHz) | 3.8 dB (C.L.: Approx. 95 %, $k = 2$ )  |
| Radiated Emissions ( $f > 1$ GHz)    | 4.5 dB (C.L.: Approx. 95 %, $k = 2$ )  |
| Line Conducted Emission              | 2.0 dB (C.L.: Approx. 95 %, $k = 2$ )  |

### 3.5 Test Software

|                     |                                      |
|---------------------|--------------------------------------|
| Conducted Test      | Ics Pro Ver. 6.0.3                   |
| Radiated Test       | EP5RE Ver. 6.0.1.0, ES10 Ver. 10.001 |
| Line Conducted Test | EMC32 Ver. 10.50.00                  |

### 3.6 Testing Environment

| Test Item                         | Test Date                 | Temperature (°C) | Relative Humidity (%) |
|-----------------------------------|---------------------------|------------------|-----------------------|
| 6 dB Bandwidth                    | 2025-05-27                | 24 ± 1           | 36 ± 3                |
| 26 dB Bandwidth and 99% Bandwidth |                           |                  |                       |
| Conducted Output Power            |                           |                  |                       |
| Power Spectral Density            |                           |                  |                       |
| Frequency Stability               | 2025-06-03                | 24 ± 1           | 36 ± 3                |
| Radiated Emissions (1GHz Adobe)   | 2025-05-26                | 24 ± 1           | 36 ± 3                |
| Radiated Emissions (1GHz Below)   | 2025-05-13~<br>2025-05-27 | 24 ± 1           | 36 ± 3                |

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## 4. Technical Characteristic Test

### 4.1 26 dB Bandwidth and 99% Bandwidth

#### Test Procedures

KDB 789033 – Section C.1

ANSI C63.10-2013 - Section 6.9.2

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

#### Test Procedures

KDB 789033 – Section C.1

ANSI C63.10-2013 - Section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

#### Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = approximately 1 % of the emission bandwidth

b) VBW  $\geq$  RBW

c) Detector = peak

d) Trace mode = Max hold

e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### **Minimum Standard:**

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NA

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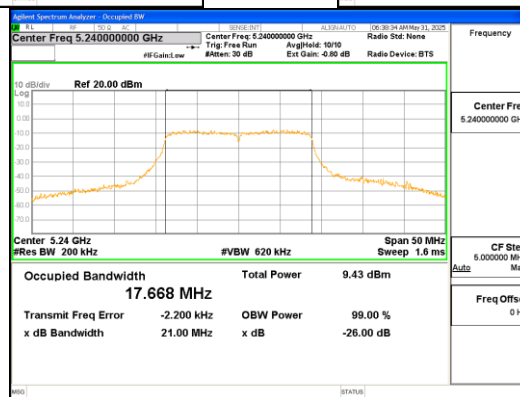
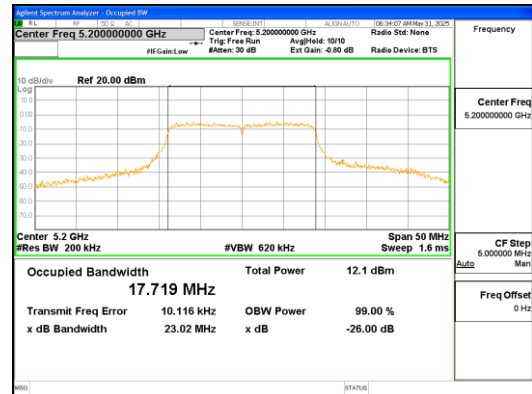
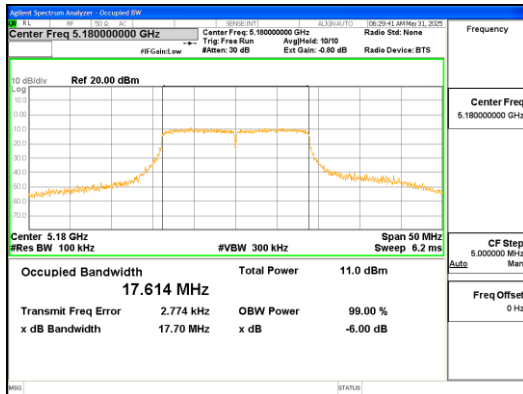
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## Test Data:

| Mode      | 26 dB Bandwidth and 99 % Bandwidth (MHz) |        |
|-----------|------------------------------------------|--------|
|           | 802.11ac-VHT20                           |        |
| Frequency | 26 dB                                    | 99 %   |
| 5 180 MHz | 17.70                                    | 17.614 |
| 5 200 MHz | 23.02                                    | 17.719 |
| 5 240 MHz | 21.00                                    | 17.668 |

See next pages for actual measured spectrum plots.



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## 4.2 OUTPUT POWER

### Test Procedures

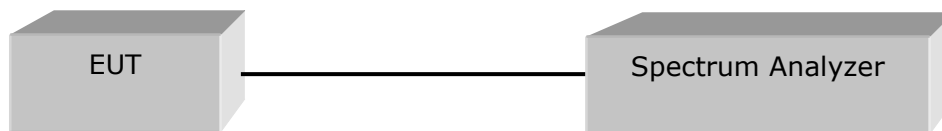
<802.11ac>

KDB 789033 – Section E.2.d (Method SA-2, Maximum Conducted Output Power)

KDB 662911 D01, D02 (Multiple Transmitter Output)

ANSI C63.10-2013 – Section 12.3.2.4

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.



### Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = 1 MHz

b) VBW  $\geq 3 \times$  RBW

c) Sweep time = auto

d) Detector = power averaging (rms)

e) Trace mode = Average at least 100

f) Duty cycle factor =  $10\log(1/x)$

| Test mode      | Duty Cycle Factor (dB) |
|----------------|------------------------|
| 802.11ac_VHT20 | 2.6 dB                 |

### Limit

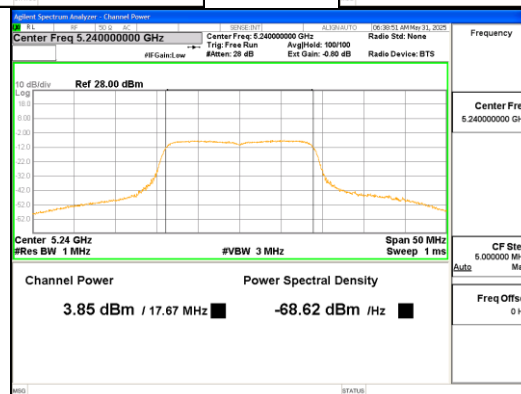
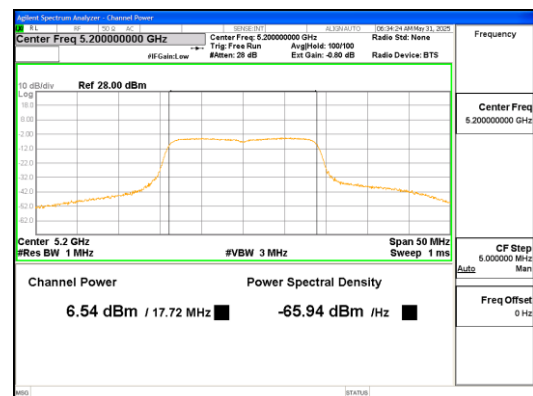
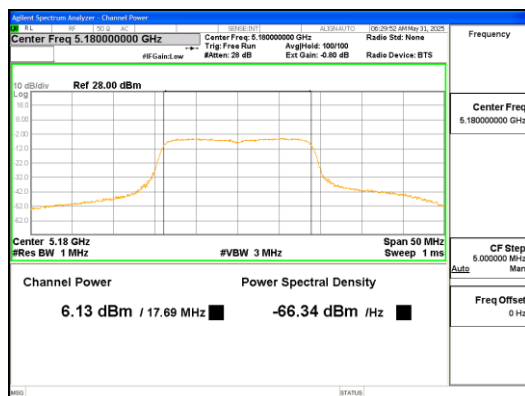
| Mode           | ANT Configuration | ANT Gain (dBi) | Band   | Limit (dBm) |
|----------------|-------------------|----------------|--------|-------------|
| 802.11ac-VHT20 | ANT1              | 2.79           | UNII 1 | 24.00       |

Note :-

## Test Data

| Test Mode               | Frequency (MHz) | Measured Output Power (dBm) | Duty cycle Factor (dB) | Result Output Power (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|-----------------------------|------------------------|---------------------------|-------------|-------------|
| 802.11a                 | 5 180           | 6.13                        | 2.6                    | 8.73                      | 24.00       | 15.27       |
|                         | 5 200           | 6.54                        | 2.6                    | 9.14                      | 24.00       | 14.86       |
|                         | 5 240           | 3.85                        | 2.6                    | 6.45                      | 24.00       | 17.55       |
| Measurement uncertainty |                 | ± 1.5 dB                    |                        |                           |             |             |

See next pages for actual measured spectrum plots.



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## 4.3 Power Spectral Density

### Test Procedures

KDB 789033 – Section F (Method SA-2, Maximum Power Spectral Density)

KDB 662911 D01, D02 (Multiple Transmitter Output)

ANSI C63.10-2013 – Section 12.5

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

#### Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = 1 MHz, 500 KHz (UNII 3)
- b) VBW = 3 MHz, 1.5 MHz (UNII 3)
- c) Sweep time = auto
- d) Detector = power averaging (rms)
- e) Trace mode = Average at least 100
- f) Duty cycle factor =  $10\log(1/x)$

| Test mode      | Duty Cycle Factor (dB) |
|----------------|------------------------|
| 802.11ac_VHT20 | 2.6                    |

### Limit

| Operating Mode<br>Mode | ANT<br>Configuration | ANT Gain<br>(dBi) | Band   | Limit (dBm) |
|------------------------|----------------------|-------------------|--------|-------------|
| 802.11ac-VHT20         | ANT1                 | 2.79              | UNII 1 | 11.00       |

Note :-



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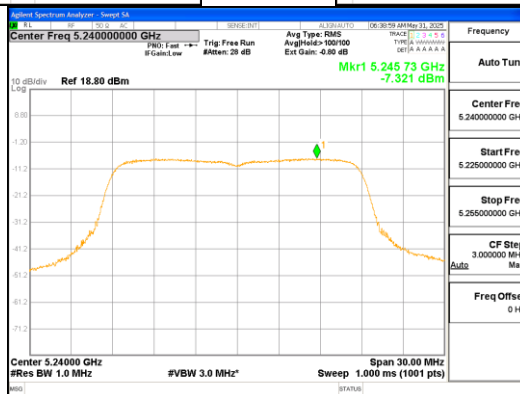
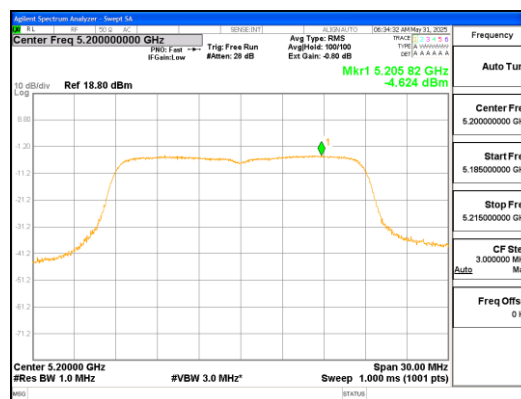
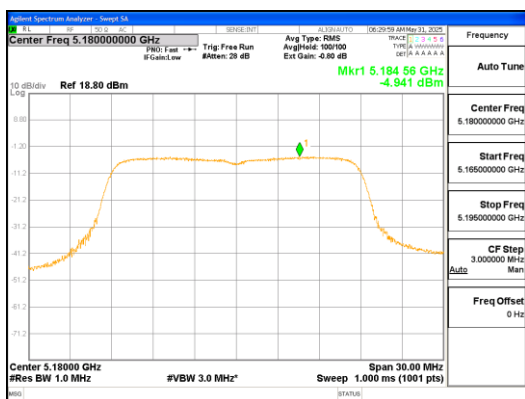
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## Test Data

| Test Mode               | Frequency (MHz) | Measured Power Density (dBm) | Duty cycle Factor (dB) | Result Power Density (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------------------------|------------------------|----------------------------|-------------|-------------|
| 802.11a                 | 5 180           | -4.941                       | 2.6                    | -2.341                     | 11.00       | 13.341      |
|                         | 5 200           | -4.624                       | 2.6                    | -2.024                     | 11.00       | 13.024      |
|                         | 5 240           | -7.321                       | 2.6                    | -4.721                     | 11.00       | 15.721      |
| Measurement uncertainty |                 | ± 1.0 dB                     |                        |                            |             |             |

See next pages for actual measured spectrum plots.



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## 4.4 Frequency Stability

### Test Procedures

KDB 789033 – Section A.3

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -20 °C and +50 °C (Declaration by the Manufacturer). The temperature was incremented by 10 °C intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

Data for the worst case channel is shown below.

| Measured Frequency Error (kHz) |                  |                      |         |         |
|--------------------------------|------------------|----------------------|---------|---------|
| Voltage (VDC)                  | Temperature (°C) | Test Frequency (MHz) |         |         |
|                                |                  | 5 180                | 5 200   | 5 240   |
| 12.0                           | -10              | 18 855               | 20 220  | 20 705  |
| 12.0                           | 0                | 13 520               | 12 855  | 12 190  |
| 12.0                           | 10               | 6 510                | 3 160   | 1 540   |
| 12.0                           | 20(Ref)          | -9 560               | -10 980 | -11 685 |
| 12.0                           | 30               | -16 495              | -17 550 | -17 450 |
| 12.0                           | 40               | -10 460              | -3 660  | -3 040  |
| 12.0                           | 50               | 2 085                | 1 810   | 2 170   |
| 10.2                           | 20(Ref)          | -14 325              | -14 365 | -14 575 |
| 13.8                           | 20(Ref)          | -13 655              | -14 685 | -14 915 |

**Note :**

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature range as tested.

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## 4.5 Unwanted Emissions

### Test Location

- ☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)  
☒ 3 m SAC (test distance : 3 m)

### Test Procedures

KDB 789033 - Section G

ANSI C63.10-2013 – Section 12.7

- 1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- 2) In the frequency range above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

### Test Settings:

Frequency Range = 9 kHz ~ 1 GHz

- a) RBW = 100 kHz for  $f < 1$  GHz, 9 kHz for  $f < 30$  MHz  
b) VBW  $\geq$  RBW  
c) Detector = CISPR Quasi-peak  
d) Sweep time = auto couple

- Peak

Frequency Range = 1 GHz ~ 40 GHz

- a) RBW = 1 MHz  
b) VBW  $\geq 3 \times$  RBW  
c) Detector = Peak  
d) Sweep time = auto  
e) Trace mode = max hold

- Average (duty cycle  $\geq 98\%$ )

Frequency Range = 1 GHz ~ 40 GHz

- a) RBW = 1 MHz  
b) VBW  $\geq 3 \times$  RBW  
c) Detector = RMS  
d) Sweep time = auto  
e) Averaging type = power (i.e., RMS)  
f) Trace mode = average (at least 100 traces)

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- Average (duty cycle < 98%)

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW  $\geq 3 \times$  RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

If power averaging (RMS) mode, then the applicable correction factor is  $10 \log(1/x)$ ,  
where x is the duty cycle.

| Test mode      | Duty Cycle Factor (dB) |
|----------------|------------------------|
| 802.11ac-VHT20 | 2.6                    |

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**Limit**

1. UNII 1, 2A : All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

\* E.I.R.P -27 dBm/MHz

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2, \text{ for } d = 3\text{m}$$

4. Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

- 15.209(a)

| Frequency(MHz) | Field Strength<br>uV/m@3m | Field Strength<br>dBuV/m@3m | Deasurement<br>Distance (meters) |
|----------------|---------------------------|-----------------------------|----------------------------------|
| 0.009-0.490    | 2400/F(kHz)               | -                           | 300                              |
| 0.490-1.705    | 24000/F(kHz)              | -                           | 30                               |
| 1.705-30       | 30                        | -                           | 30                               |
| 30-88          | 100**                     | 40                          | 3                                |
| 88-216         | 150**                     | 43.5                        | 3                                |
| 216-960        | 200**                     | 46                          | 3                                |
| Above 960      | 500                       | 54                          | 3                                |

\*\* Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

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5. FCC Part 15 § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz                      | MHz               | MHz                 | MHz           | MHz         | GHz                     |
|--------------------------|-------------------|---------------------|---------------|-------------|-------------------------|
| 0.09-0.11                | 8.37626-8.38675   | 73-74.6             | 399.9-410     | 2690-2900   | 10.6-12.7               |
| <sup>1</sup> 0.495-0.505 | 8.41425-8.41475   | 74.8-75.2           | 608-614       | 3260-3267   | 13.25-13.4              |
| 2.1735-2.1905            | 12.29-12.293      | 108-121.94          | 960-1240      | 3332-3339   | 14.47-14.5              |
| 4.125-4.128              | 12.51975-12.52025 | 123-138             | 1300-1427     | 3345.8-3358 | 15.35-16.2              |
| 4.17725-4.17775          | 12.57675-12.57725 | 149.9-150.05        | 1435-1626.5   | 3600-4400   | 17.7-21.4               |
| 4.20725-4.20775          | 13.36-13.41       | 156.52475-156.52525 | 1645.5-1646.5 | 4500-5150   | 22.01-23.12             |
| 6.215-6.218              | 16.42-16.423      | 156.7-156.9         | 1660-1710     | 5350-5460   | 23.6-24                 |
| 6.26775-6.26825          | 16.69475-16.69525 | 162.0125-167.17     | 1718.8-1722.2 | 7250-7750   | 31.2-31.8               |
| 6.31175-6.31225          | 16.80425-16.80475 | 167.72-173.2        | 2200-2300     | 8025-8500   | 36.43-36.5              |
| 8.291-8.294              | 25.5-25.67        | 240-285             | 2310-2390     | 9000-9200   | <sup>2</sup> Above 38.6 |
| 8.362-8.366              | 37.5-38.25        | 322-335.4           | 2483.5-2500   | 9300-9500   |                         |

<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

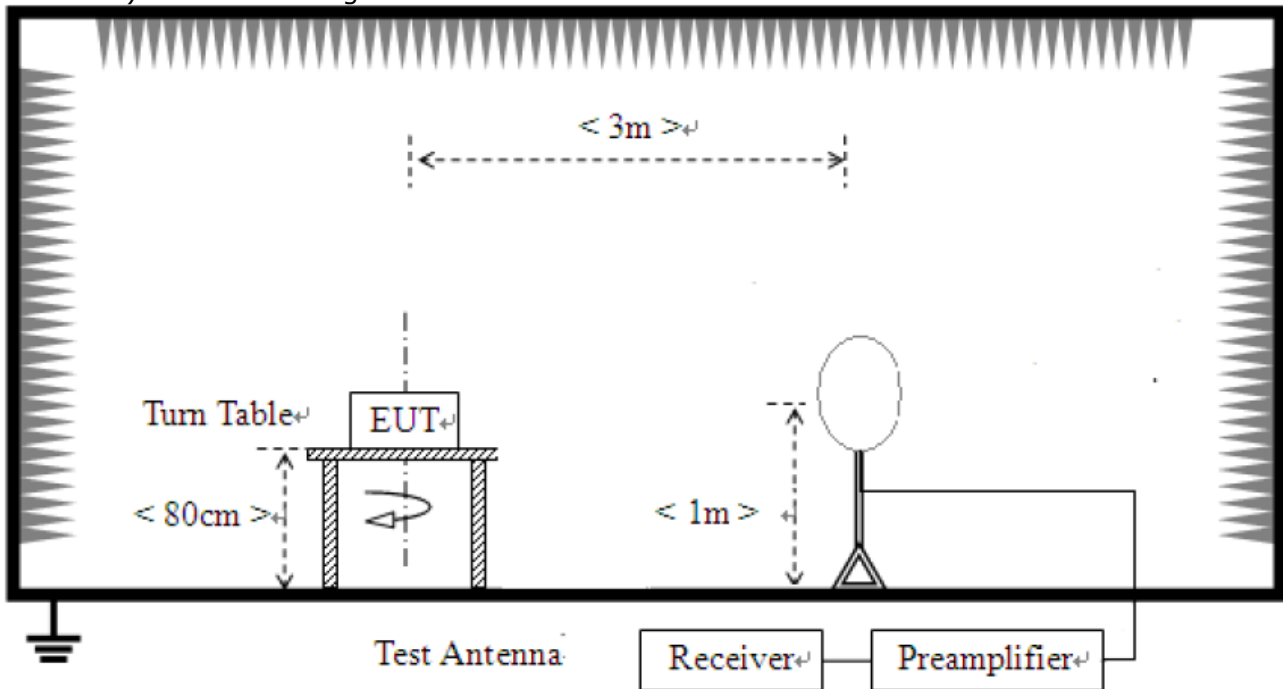
§ 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

Note :

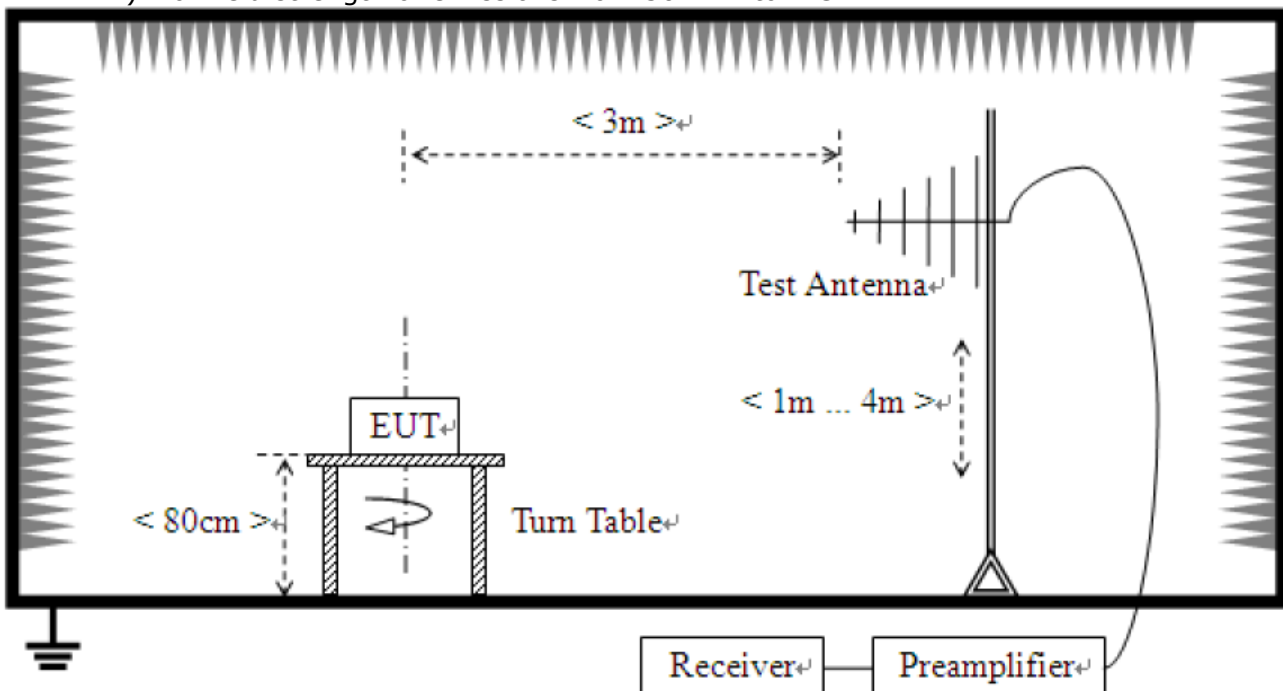
- 1) For above 1 GHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
- 2) For above 1 GHz, limit field strength of harmonics : 54 dBuV/m@3m (AV) and 74 dBuV/m@3m (PK)

**Test Setup:**

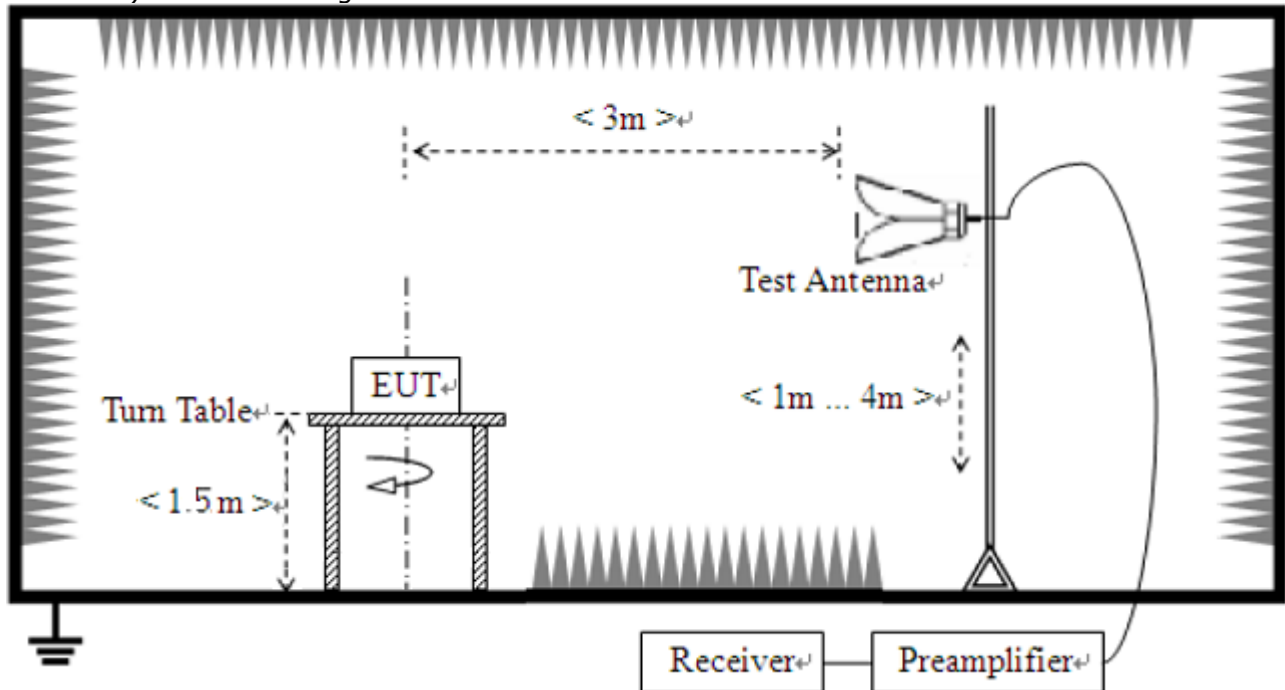
1) For field strength of emissions from 9 kHz to 30 MHz



2) For field strength of emissions from 30 MHz to 1 GHz



### 3) For field strength of emissions above 1 GHz



### Test Mode

We have done all test mode.

The worst case antenna configuration and Test mode are determined to be as follows.

802.11ac mode

So the results are only attached worst cases.

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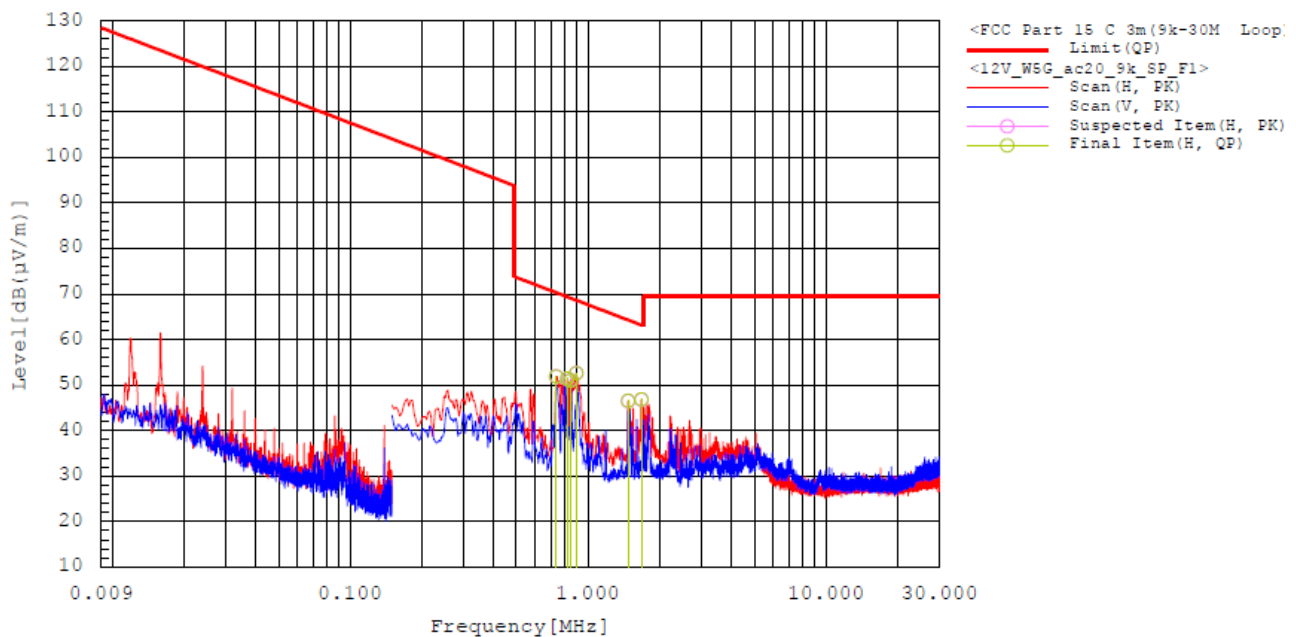
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**Test Results****1) 9 kHz to 30 MHz****Test mode : Transmit, Low Channel (Worst Case)**

The requirements are:

☒ Complies**Test Data****Final Result**

| No. | Frequency<br>[MHz] | Pol | Reading<br>QP<br>[dB(μV)] | c.f<br>[dB(1/m)] | Result<br>QP<br>[dB(μV/m)] | Limit<br>QP<br>[dB(μV/m)] | Margin<br>QP<br>[dB] | Height<br>[cm] | Angle<br>[deg] | Remark |
|-----|--------------------|-----|---------------------------|------------------|----------------------------|---------------------------|----------------------|----------------|----------------|--------|
| 1   | 0.735              | H   | 27.0                      | 24.9             | 51.9                       | 70.3                      | 18.4                 | 100.0          | 43.2           |        |
| 2   | 0.819              | H   | 26.5                      | 24.9             | 51.4                       | 69.4                      | 18.0                 | 100.0          | 46.9           |        |
| 3   | 0.843              | H   | 26.1                      | 24.9             | 51.0                       | 69.1                      | 18.1                 | 100.0          | 0.5            |        |
| 4   | 0.893              | H   | 27.7                      | 24.9             | 52.6                       | 68.6                      | 16.0                 | 100.0          | 359.9          |        |
| 5   | 1.472              | H   | 21.5                      | 25.0             | 46.5                       | 64.3                      | 17.8                 | 100.0          | 144.8          |        |
| 6   | 1.675              | H   | 21.8                      | 25.0             | 46.8                       | 63.2                      | 16.4                 | 100.0          | 352.5          |        |

**Remark :**

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. This data is the Peak(PK) value.
5. This device does not have dual operation of BT and WiFi



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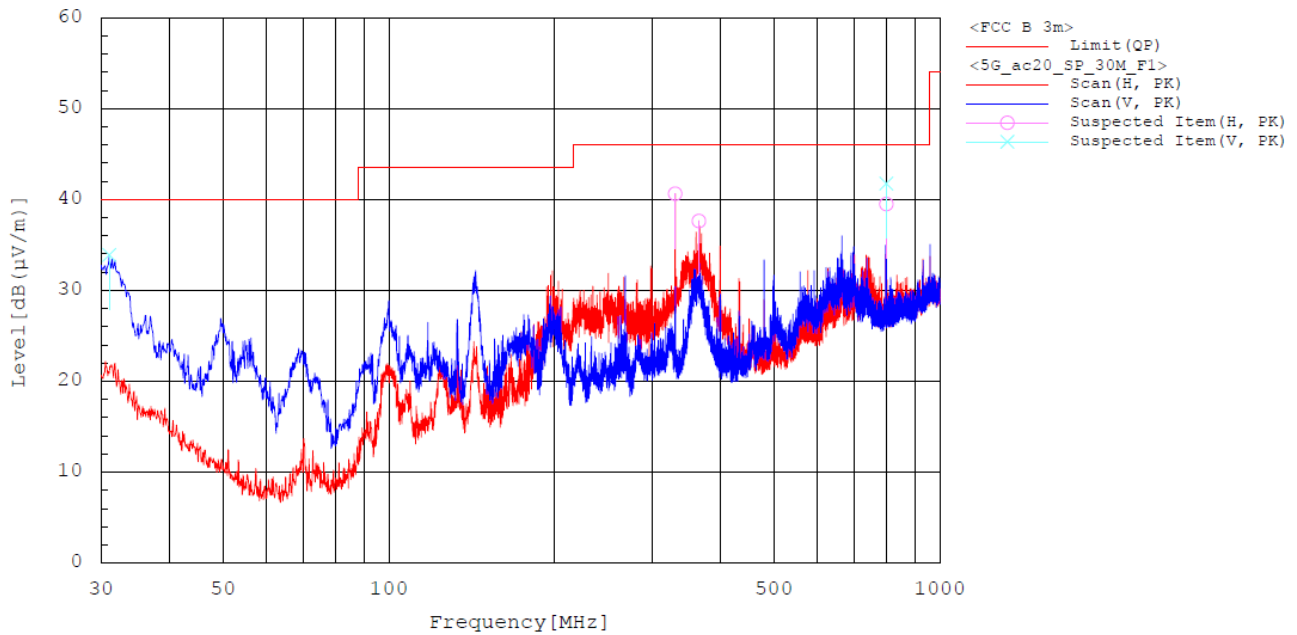
## 2) 30 MHz to 1 GHz

### Test mode : Transmit, Low Channel (Worst Case)

The requirements are:

☒ Complies

### Test Data



#### Spectrum Selection

| No. | Frequency | Pol | Reading   | c.f        | Result      | Limit       | Margin | Height | Angle |
|-----|-----------|-----|-----------|------------|-------------|-------------|--------|--------|-------|
|     | [MHz]     |     | PK        |            | PK          | QP          | QP-PK  |        |       |
|     |           |     | [dB (μV)] | [dB (1/m)] | [dB (μV/m)] | [dB (μV/m)] | [dB]   | [cm]   | [deg] |
| 1   | 31.067    | V   | 40.6      | -6.7       | 33.9        | 40.0        | 6.1    | 100.0  | 10.4  |
| 2   | 330.797   | H   | 49.7      | -9.1       | 40.6        | 46.0        | 5.4    | 100.0  | 20.8  |
| 3   | 365.426   | H   | 45.5      | -7.9       | 37.6        | 46.0        | 8.4    | 100.0  | 20.8  |
| 4   | 800.083   | H   | 37.9      | 1.6        | 39.5        | 46.0        | 6.5    | 100.0  | 305.6 |
| 5   | 800.083   | V   | 40.1      | 1.6        | 41.7        | 46.0        | 4.3    | 100.0  | 70.3  |

### Remark :

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.
5. This device does not have dual operation of BT and WiFi



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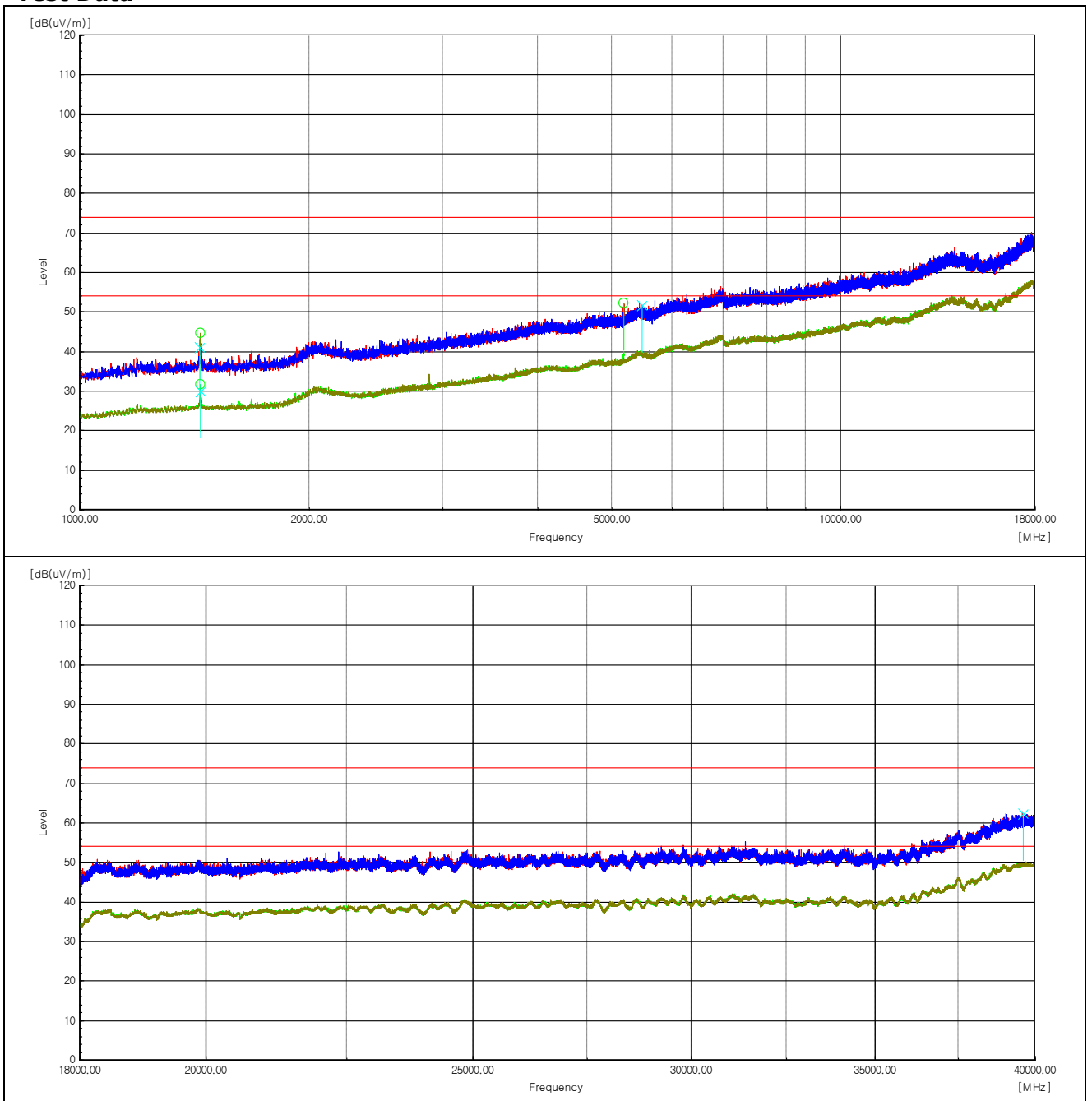
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### 3) 1 GHz to 40 GHz

The requirements are:

☒ Complies

#### Test Data



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**Test mode : Transmitter**

The requirements are:

☒ Complies

**Test Data**

Ch.36(5 180 MHz)

| Frequency<br>[MHz] | (P) | Reading<br>[dBuV] | c.f<br>[dB(1/m)] | Duty Cycle<br>Factor<br>[dB] | Level PK<br>[dB(uV/m)] | Level AV<br>[dB(uV/m)] | Limit PK<br>[dB(uV/m)] | Limit AV<br>[dB(uV/m)] | Margin<br>PK<br>[dB] | Margin<br>AV<br>[dB] | Note |
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|

Margin is greater than 20 dB

Ch.40(5 200 MHz)

| Frequency<br>[MHz] | (P) | Reading<br>[dBuV] | c.f<br>[dB(1/m)] | Duty Cycle<br>Factor<br>[dB] | Level PK<br>[dB(uV/m)] | Level AV<br>[dB(uV/m)] | Limit PK<br>[dB(uV/m)] | Limit AV<br>[dB(uV/m)] | Margin<br>PK<br>[dB] | Margin<br>AV<br>[dB] | Note |
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|

Margin is greater than 20 dB

Ch.48(5 240 MHz)

| Frequency<br>[MHz] | (P) | Reading<br>[dBuV] | c.f<br>[dB(1/m)] | Duty Cycle<br>Factor<br>[dB] | Level PK<br>[dB(uV/m)] | Level AV<br>[dB(uV/m)] | Limit PK<br>[dB(uV/m)] | Limit AV<br>[dB(uV/m)] | Margin<br>PK<br>[dB] | Margin<br>AV<br>[dB] | Note |
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|
|--------------------|-----|-------------------|------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|------|

Margin is greater than 20 dB

**Remarks**

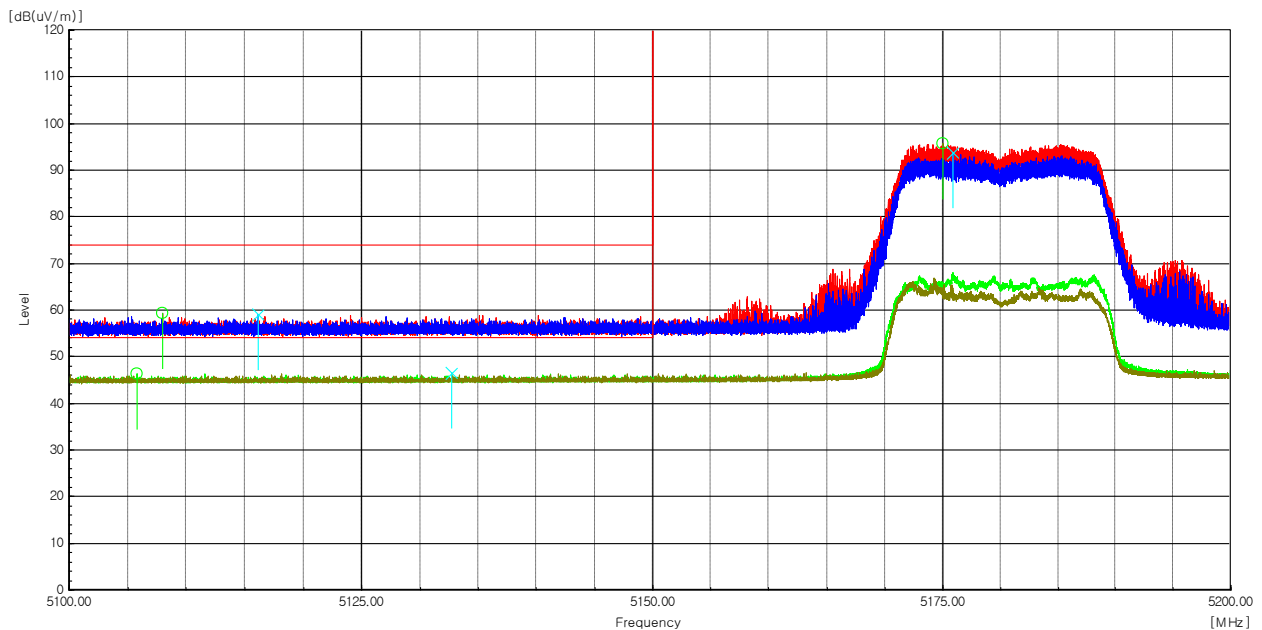
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)  
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain
4. This device does not have dual operation of BT and WiFi

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|                            |                |
|----------------------------|----------------|
| Worst Case Mode :          | 802.11ac-VHT20 |
| Worst Case Transfer Rate : | 6 Mbps         |
| Distance of Measurements : | 3 Meters       |
| Operating Frequency :      | 5 180 MHz      |
| Channel :                  | 36             |



| Frequency [MHz] | (P) | Reading [dBuV] | c.f [dB(1/m)] | Duty Cycle Factor [dB] | Level PK [dB(uV/m)] | Level AV [dB(uV/m)] | Limit PK [dB(uV/m)] | Limit AV [dB(uV/m)] | Margin PK [dB] | Margin AV [dB] | Note    |
|-----------------|-----|----------------|---------------|------------------------|---------------------|---------------------|---------------------|---------------------|----------------|----------------|---------|
| 5 107.989       | H   | 55.5           | 3.8           | -----                  | 59.3                | -----               | 74.0                | -----               | 14.7           | -----          | Peak    |
| 5 116.097       | V   | 55.2           | 3.8           | -----                  | 59.0                | -----               | 74.0                | -----               | 15.0           | -----          | Peak    |
| 5 132.689       | V   | 42.7           | 3.8           | 2.6                    | -----               | 49.1                | -----               | 54.0                | -----          | 4.9            | Average |
| 5 105.769       | H   | 42.5           | 3.8           | 2.6                    | -----               | 48.9                | -----               | 54.0                | -----          | 5.1            | Average |

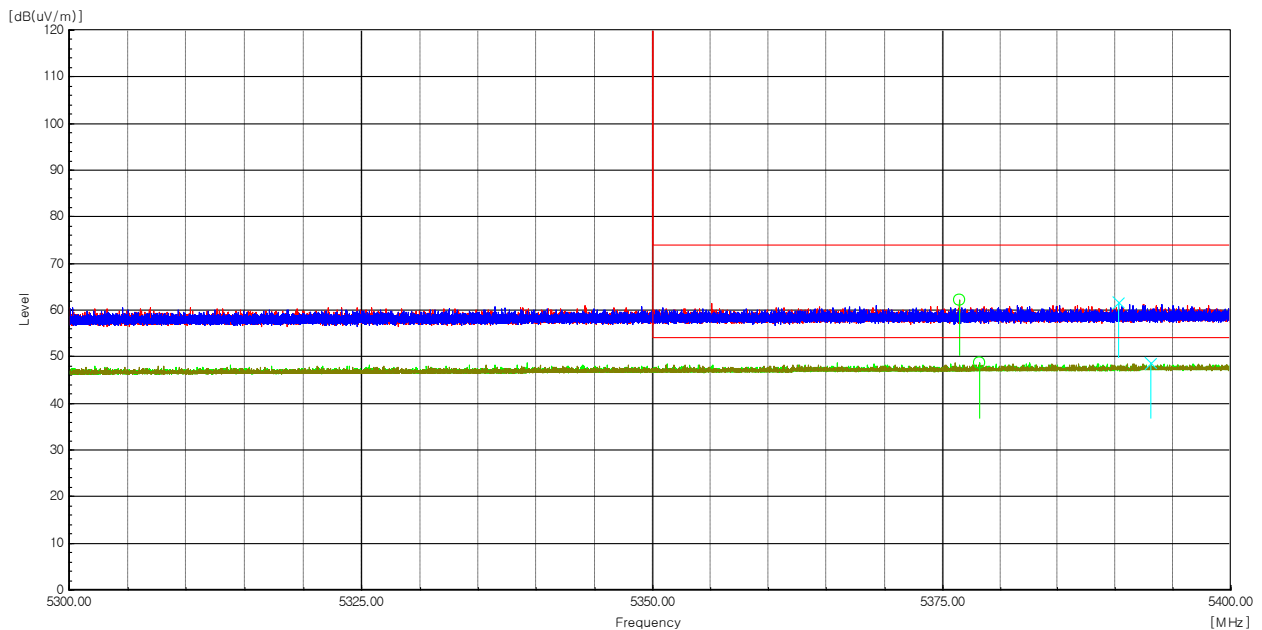
Radiated Restricted Band Edge Plot

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|                            |                |
|----------------------------|----------------|
| Worst Case Mode :          | 802.11ac-VHT20 |
| Worst Case Transfer Rate : | 6 Mbps         |
| Distance of Measurements : | 3 Meters       |
| Operating Frequency :      | 5 240 MHz      |
| Channel :                  | 48             |



| Frequency [MHz] | (P) | Reading [dBuV] | c.f [dB(1/m)] | Duty Cycle Factor [dB] | Level PK [dB(uV/m)] | Level AV [dB(uV/m)] | Limit PK [dB(uV/m)] | Limit AV [dB(uV/m)] | Margin PK [dB] | Margin AV [dB] | Note    |
|-----------------|-----|----------------|---------------|------------------------|---------------------|---------------------|---------------------|---------------------|----------------|----------------|---------|
| 5 376.439       | H   | 57.8           | 4.4           | -----                  | 62.2                | -----               | 74.0                | -----               | 11.8           | -----          | Peak    |
| 5 390.292       | V   | 57.3           | 4.5           | -----                  | 61.8                | -----               | 74.0                | -----               | 12.2           | -----          | Peak    |
| 5 393.023       | V   | 44.1           | 4.6           | 2.6                    | -----               | 51.3                | -----               | 54.0                | -----          | 2.7            | Average |
| 5 378.203       | H   | 44.2           | 4.5           | 2.6                    | -----               | 51.3                | -----               | 54.0                | -----          | 2.7            | Average |

Radiated Restricted Band Edge Plot

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## APPENDIX A – Test Equipment Used For Tests

| No. | Name of Equipment             | Manufacturer                          | Model No.   | Serial No.          | Cal Date   | Due Date   |
|-----|-------------------------------|---------------------------------------|-------------|---------------------|------------|------------|
| 1   | Signal Analyzer               | Agilent                               | N9020A      | MY50510324          | 2024-11-26 | 2025-11-26 |
| 2   | Signal Generator              | Rohde & Schwarz                       | SMB100A     | 175528              | 2025-03-21 | 2026-03-21 |
| 3   | EMI TEST RECEIVER             | Rohde & Schwarz                       | ESW44       | 102039              | 2025-04-28 | 2026-04-28 |
| 4   | Active Loop Antenna           | SCHWARZBECK                           | FMZB 1513   | 1513-125            | 2024-04-15 | 2026-04-15 |
| 5   | Bilog Antenna                 | TESEQ                                 | CBL6111D    | 60654               | 2023-08-21 | 2025-08-21 |
| 6   | AMPLIFIER                     | SONOMA INSTRUMENT                     | 310N        | 411011              | 2024-07-31 | 2025-07-31 |
| 7   | ATTENUATOR                    | PASTERNAK                             | PE7AP006-06 | L2021050400002<br>3 | 2024-07-31 | 2025-07-31 |
| 8   | ATTENUATOR                    | NONE                                  | 6dB         | 190557              | 2024-09-19 | 2025-09-19 |
| 9   | Preamplifier                  | Agilent                               | 8449B       | 3008A00620          | 2025-03-11 | 2026-03-11 |
| 10  | Double Ridged Guide Antenna   | ETS-Lindgren                          | 3115        | 00078895            | 2025-03-13 | 2026-03-13 |
| 11  | Horn Antenna                  | SCHWARZBECK                           | BBHA9170    | 01153               | 2024-10-18 | 2025-10-18 |
| 12  | Low Noise Amplifier           | TESTEK                                | TK-PA1840H  | 210124-L            | 2024-10-18 | 2025-10-18 |
| 13  | Band Reject Filter            | Micro Tronics                         | BRM50716    | G184                | 2025-03-11 | 2026-03-11 |
| 14  | Spectrum Analyzer             | Rohde & Schwarz                       | FSV40       | 101574              | 2025-01-10 | 2026-01-10 |
| 15  | DC Power Supply               | Agilent                               | E3632A      | MY40009327          | 2025-03-12 | 2026-03-12 |
| 16  | Dual-Tracking DC Power Supply | Topward Electric Instruments Co.,Ltd. | 6303D       | 802204              | 2025-03-13 | 2026-03-13 |
| 17  | Temp&Humi Chamber             | ESPEC CORP.                           | SH-242      | 93012243            | 2025-04-28 | 2026-04-28 |

| No. | Cable                              | Manufacturer        | Model No.    | Serial No.    | Check Date |
|-----|------------------------------------|---------------------|--------------|---------------|------------|
| 1   | RF Cable(conducted)                | Junkosha Inc.       | MWX221       | 2008S240      | 2025-05-23 |
| 2   | RF Cable<br>(9kHz-1GHz Radiated)   | Canare Corporation  | L-5D2W       | N/A           | 2025-03-05 |
| 3   | RF Cable<br>(9kHz-1GHz Radiated)   | HUBER+SUHNER        | SUCOFLEX 104 | MY27558/4     | 2025-03-05 |
| 4   | RF Cable<br>(1GHz-18GHz Radiated)  | Junkosha Inc.       | MWX221       | 2008S246      | 2025-02-21 |
| 5   | RF Cable<br>(1GHz-18GHz Radiated)  | Rosenberger         | NONE         | 1520.9927.00  | 2025-02-21 |
| 6   | RF Cable<br>(1GHz-18GHz Radiated)  | Sensorview Co., LTD | 9S18         | TPC2204060007 | 2025-02-21 |
| 7   | RF Cable<br>(18GHz-40GHz Radiated) | HUBER+SUHNER        | SUCOFLEX 102 | MY2372/2      | 2025-02-21 |
| 8   | RF Cable<br>(18GHz-40GHz Radiated) | HUBER+SUHNER        | SUCOFLEX 102 | MY073/2       | 2025-02-21 |
| 9   | RF Cable<br>(18GHz-40GHz Radiated) | Sensorview Co., LTD | 9S40         | TP210713-001  | 2025-02-21 |

**-END-**