

## Report on the EMC Testing of:

KYOCERA Corporation  
Mobile Phone, Model: EB1207



## In accordance with FCC Part 15 Subpart B Class B

Prepared for: KYOCERA Corporation  
Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku,  
Yokohama-shi, Kanagawa, 224-8502 Japan  
Phone: +81-45-943-6253 Fax: +81-45-943-6314

## COMMERCIAL-IN-CONFIDENCE

Document Number: JPD-TR-24145-0

### SIGNATURE

| NAME           | JOB TITLE                    | RESPONSIBLE FOR    | ISSUE DATE |
|----------------|------------------------------|--------------------|------------|
| Hiroaki Suzuki | RF Deputy Manager of EMC Lab | Approved Signatory |            |

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Japan Ltd. document control rules.

### EXECUTIVE SUMMARY – Result: Complied

A sample of this product was tested and the result above was confirmed in accordance with FCC Part 15 Subpart B. (Applied the deviations mentioned in section 1.4 of this document and performed only the test items mentioned in section 1.5.)



Certificate #3686.03

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TÜV SÜD Japan Ltd.  
Yonezawa Testing Center  
5-4149-7 Hachimanpara,  
Yonezawa-shi, Yamagata,  
992-1128 Japan

Phone: +81 (0) 238 28 2881  
[www.tuvsud.com/ja-jp](http://www.tuvsud.com/ja-jp)

**Additional signatures required by FCC 47 CFR Part 2, § 2.938 (b) (10)****Signatures of the individuals responsible for testing the product****ENGINEERING STATEMENT**

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC Part 15 Subpart B. The sample tested was found Complied compliant with the requirements defined in the applied rules.

| NAME                | RESPONSIBLE FOR | SIGNATURE                    |
|---------------------|-----------------|------------------------------|
| Yoshiyuki Takahashi | Testing         | as proxy <i>Takuya Oanto</i> |
| Satoshi Hosoya      | Testing         |                              |

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## 1 Summary of Test

### 1.1 Modification history of the test report

| Document Number | Modification History | Issue Date              |
|-----------------|----------------------|-------------------------|
| JPD-TR-24145-0  | First Issue          | Refer to the cover page |

### 1.2 Standards

FCC Part 15 Subpart B

### 1.3 Measurement standards

ANSI C63.4 2014

### 1.4 Deviation from standards

None

### 1.5 List of applied test(s) of the EUT

Regarding determination of conformity to the emission test, a value of measurement uncertainty was taken in account.

| Test Name                        | Classification of EUT | Test    | Worst Point (Margin)                                                                                                     | Result | Remarks |
|----------------------------------|-----------------------|---------|--------------------------------------------------------------------------------------------------------------------------|--------|---------|
| Conducted emission at mains port | Class B               | Applied | MP4 with Earphone + USB<br>Read with PC + BT EDR +<br>WCDMA Band 5 mode,<br>S/N: 353343640002959<br>L2 0.150MHz QP 9.6dB | Pass   | *       |
| Radiated emission (below 1 GHz)  | Class B               | Applied | MP4 with ADP and Earphone<br>+WiFi 11 a/ac +LTE Band 41<br>mode,<br>V 38.997MHz OP 3.3dB                                 | Pass   | *       |
| Radiated emission (above 1 GHz)  | Class B               | Applied | Out Camera with ADP and<br>Earphone + GSM 1900 mode,<br>S/N: 353343640002959<br>H 5729.603 MHz AV 10.6 dB                | Pass   | *       |

\*: Spot check tests were performed on EB1207.

## 1.6 Test information

The following EMC test conditions were applied based on the conditions specified by the applicant.

- Tested supply voltage and supply frequency
- Operation mode

This product supports two types of main memory Samsung and Hynix and two types of LCD BOE and Tenma.

These combinations were implemented at the discretion of the applicant as follows.

|           |                 |                 |                 |
|-----------|-----------------|-----------------|-----------------|
| Serial No | 353343640002959 | 353343640002975 | 353343640002983 |
|           | EMC①            | EMC③            | EMC④            |
| LCD       | BOE             | BOE             | Tenma           |
| Memory    | Hynix           | SAMSUNG         | Hynix           |

Radiated emission (below 1GHz), Radiated emission (above 1 GHz)

- The operation of the wireless functions installed in the device was selected and implemented at the applicant's discretion.

The only difference with EB1190EM (FCC ID: JOYPC9699) is that EB1207 does not have a Cellular component.

Therefore, this measurement data is the same as that of EB1190EM.

## 1.7 Test set up

Table-top

## 1.8 Test period

18-May-2024 - 24-May-2024

6-August-2024 – 7-August-2024 (EB1207 spot check test)

## 2 Equipment Under Test

All information in this chapter was provided by the applicant.

### 2.1 EUT information

|                            |                                                                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant                  | KYOCERA Corporation<br>Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku, Yokohama-shi,<br>Kanagawa, 224-8502 Japan<br>Phone: +81-45-943-6253 Fax: +81-45-943-6314 |
| Equipment Under Test (EUT) | Mobile Phone                                                                                                                                                |
| Model number               | EB1190EM, EB1207                                                                                                                                            |
| Serial number              | 353343640002959, 353343640002975,<br>353343640002983, 2975300102                                                                                            |
| Authorization              | JOYPC9699, JOYEB1207                                                                                                                                        |
| Number of sample(s)        | 3                                                                                                                                                           |
| EUT condition              | Pre-production                                                                                                                                              |
| Maximum frequency          | 2200 MHz                                                                                                                                                    |
| Power rating               | Battery: DC 3.87 V<br>DC 5 V (USB)<br>DC 5.2 V (Adapter)                                                                                                    |
| Size                       | (W) 73.0 × (D) 157.0 × (H) 11.43 mm                                                                                                                         |

### 2.2 Modification to the EUT

The table below details modifications made to the EUT during the test project.

| Modification State             | Description of Modification  | Modification fitted by | Date of Modification |
|--------------------------------|------------------------------|------------------------|----------------------|
| EB1190EM, S/N: 353343640002959 |                              |                        |                      |
| 0                              | As supplied by the applicant | Not Applicable         | Not Applicable       |
| EB1190EM, S/N: 353343640002975 |                              |                        |                      |
| 0                              | As supplied by the applicant | Not Applicable         | Not Applicable       |
| EB1190EM, S/N: 353343640002983 |                              |                        |                      |
| 0                              | As supplied by the applicant | Not Applicable         | Not Applicable       |
| EB1207, S/N: 2975300102        |                              |                        |                      |
| 0                              | As supplied by the applicant | Not Applicable         | Not Applicable       |

## 2.3 Variation of family model(s)

### 2.3.1 List of family model(s)

#### EUT

| Model number       | EB1190EM *1               | EB1201   | EB1190   | EB1190NC |
|--------------------|---------------------------|----------|----------|----------|
| Memory             | expansion                 | standard | standard | standard |
| Camera             | with                      | with     | with     | without  |
| Fingerprint Sensor | with                      | with     | without  | without  |
| NFC                | with                      | with     | without  | without  |
| size               | 73.0 × 157.0 × 11.43 [mm] |          |          |          |

\*1: Tested model

#### AC Adapter

| Model No. | Remarks       |
|-----------|---------------|
| KYCFP1    | *Tested model |
| ADS303U   |               |

### 2.3.2 Reason for selection of EUT

The applicant decided that the differences between the design had no EMC impact and selected EB1190EM with full function.

The AC adapter has no difference according to the model number.  
The model used for testing was selected at the applicant's discretion.

## 2.4 Operation mode

1. Out Camera with ADP and Earphone + GSM 1900 mode
  - i) Power ON
  - ii) GSM link establishment between EUT and the radio tester, Operation
  - iii) Bluetooth link establishment between EUT and the PC, Operation
2. In camera with ADP and earphone+ LTE Band 12 mode
  - i) Power ON
  - ii) LTE link establishment between EUT and the radio tester, Operation
3. MP4 with ADP and Earphone + WiFi 11 a/ac + LTE Band 41 mode
  - i) Power ON
  - ii) LTE link establishment between EUT and the radio tester, Operation
  - iii) WiFi link establishment between EUT and the Router, Operation
  - iv) Execution of Color Bar moving picture data
4. MP4 with ADP + WiFi 11 b/g/n + WCDMA Band 4 mode
  - i) Power ON
  - ii) WCDMA link establishment between EUT and the radio tester, Operation
  - iii) WiFi link establishment between EUT and the Router, Operation
  - iv) Execution of Color Bar moving picture data

5. MP4 with Earphone + USB Read with PC + BT EDR + WCDMA Band 5 mode

i) Power ON

ii) WCDMA link establishment between EUT and the radio tester, Operation

iii) Bluetooth link establishment between EUT and the PC, Operation

iv) Execution of Color Bar moving picture data

6. with ADP and Earphone + NFC mode

i) Power ON

ii) NFC link establishment between EUT and the Mobile Phone, Operation



### 3 Configuration of Equipment

Numbers assigned to equipment or cables in "3.1 Equipment(s) used" and "3.2 Cable(s) used" correspond to numbers in "3.3 System configuration".

Cabling and setup(s) were taken into consideration and test data was taken under worse case condition.

#### 3.1 Equipment used

| No.  | Equipment                   | Company             | Model No.     | Serial No.                | FCC ID /DoC | Remarks          |
|------|-----------------------------|---------------------|---------------|---------------------------|-------------|------------------|
| EUT1 | Mobile Phone                | KYOCERA             | EB1190EM      | 353343640002959           | JOYPC9699   | EUT, EUT①*1      |
|      |                             |                     |               | 353343640002975           |             | EUT, EUT③*2      |
|      |                             |                     |               | 353343640002983           |             | EUT, EUT④*3      |
|      |                             |                     | EB1207        | 2975300102                | JOYEB1207   | EUT (spot check) |
| ACC1 | AC adapter                  | KYOCERA             | KYCFP1        | 240417A                   | N/A         | Accessory, *4    |
| AE1  | Earphone                    | N/A                 | N/A           | N/A                       | N/A         | -                |
| AE2  | Personal Computer           | hp                  | Compaq 6720s  | CNU8321Q6M                | DoC         | *5               |
| AE3  | AC adapter                  | hp                  | PPP009L       | 8633881718                | N/A         | *5               |
| AE4  | Bluetooth Module            | Logitec             | LBT-UAN04C2   | 27R37132A                 | N/A         | *5               |
| AE5  | Wi-Fi Router                | Buffalo             | WNR-5400XE6/N | 20632920702692            | N/A         | -                |
| AE6  | AC adapter for Wi-Fi Router | Asian Power Devices | WA-24Q12FU    | Z086 YNT2122713000229 400 | N/A         | -                |
| AE7  | Bluetooth Mouse             | Logicool            | M-R0064       | 2128LZD5EPS8              | N/A         | -                |
| AE8  | Personal Computer           | Lenovo              | 4334          | CB07410173                | DoC         | *5               |
| AE9  | AC adapter                  | Lenovo              | CPA-A065      | 11S36001943ZZ2001 1I16S   | N/A         | *5               |
| AE10 | Mobile Phone                | KYOCERA             | OYA           | N/A                       | N/A         | -                |

\*1: LCD: BOE, Memory: Hynix

\*2: LCD: BOE, Memory: SAMSUNG

\*3: LCD: Tenma, Memory: Hynix

\*4: AC adapter is connected to keep operating.

\*5: The property of TÜV SÜD Japan was used.

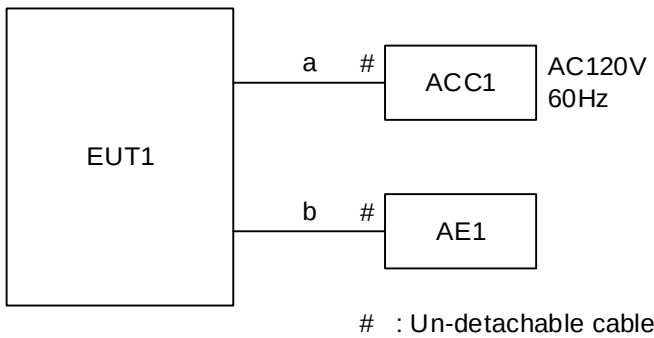
### 3.2 Cable(s) used

| No. | Cable                                | Length (m) | Shield | EUT accessory<br>Ferrite core | Remarks |
|-----|--------------------------------------|------------|--------|-------------------------------|---------|
| a   | DC cable                             | 1.2        | Yes    | -                             | -       |
| b   | Earphone cable                       | 1.2        | No     | -                             | -       |
| c   | DC cable for PC AC adapter           | 1.8        | No     | -                             | *1      |
| d   | AC power cord for PC AC adapter      | 1.8        | No     | -                             | *1      |
| e   | LAN cable                            | 2.0        | No     | -                             | *1      |
| f   | DC cable for Wi-Fi Router AC adapter | 1.5        | No     | -                             | *1      |
| g   | USB cable                            | 5.0        | Yes    | -                             | *1      |
| h   | USB cable                            | 1.0        | Yes    | -                             | -       |
| i   | DC cable for PC AC adapter           | 1.8        | No     | -                             | *1      |
| j   | AC power cord for PC AC adapter      | 1.0        | No     | -                             | *1      |

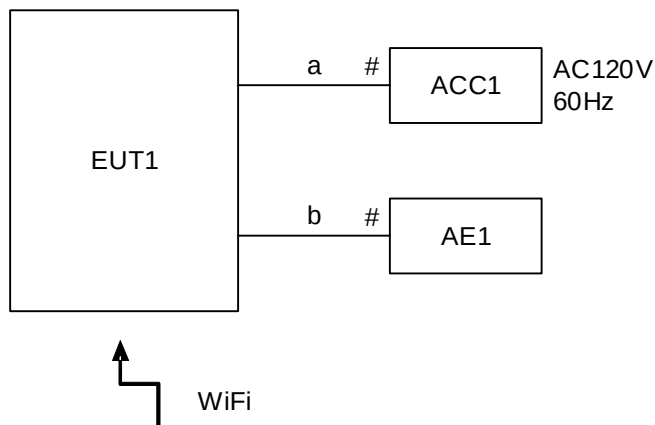
\*1: The property of TÜV SÜD Japan was used.

### 3.3 System configuration

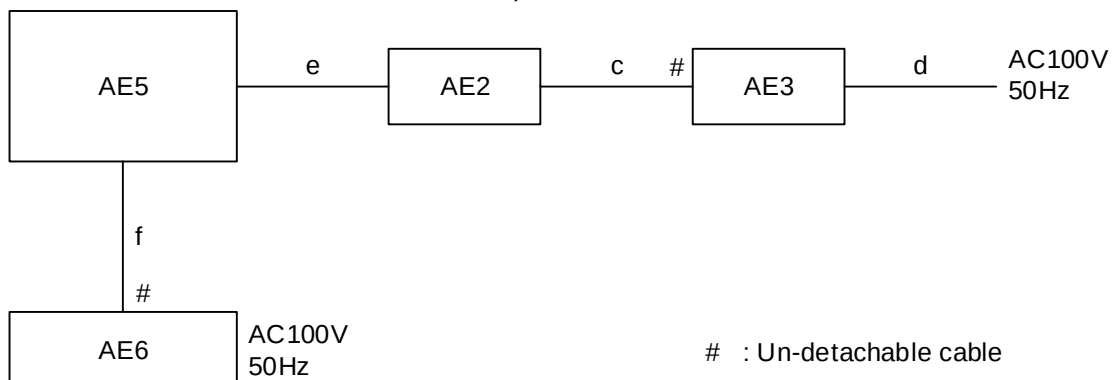
1. Out Camera with ADP and Earphone + GSM 1900 mode
2. In camera with ADP and earphone+ LTE Band 12 mode



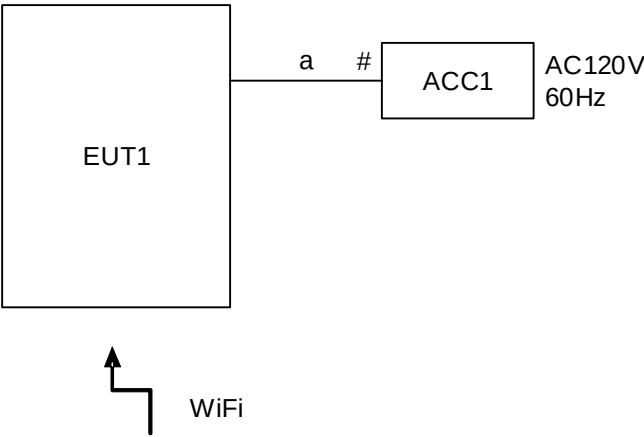
3. MP4 with ADP and Earphone + WiFi 11 a/ac + LTE Band 41 mode



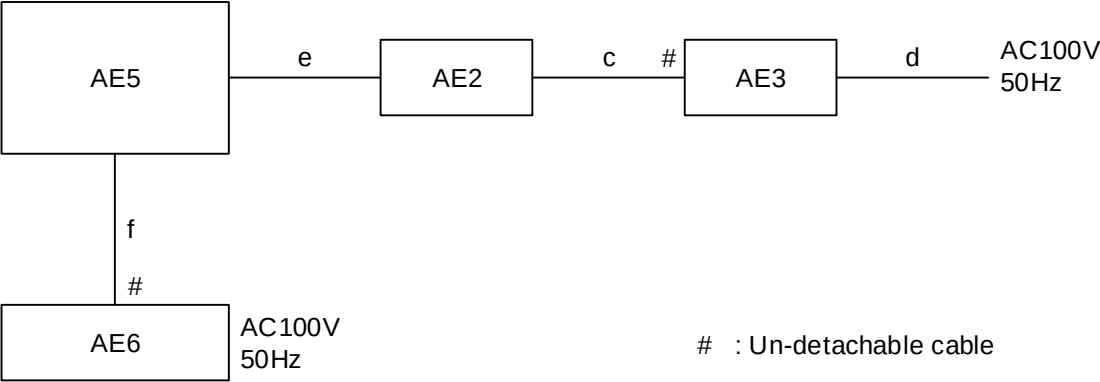
Out of turn table  
(Radio emission below 1 GHz and above 1 GHz)



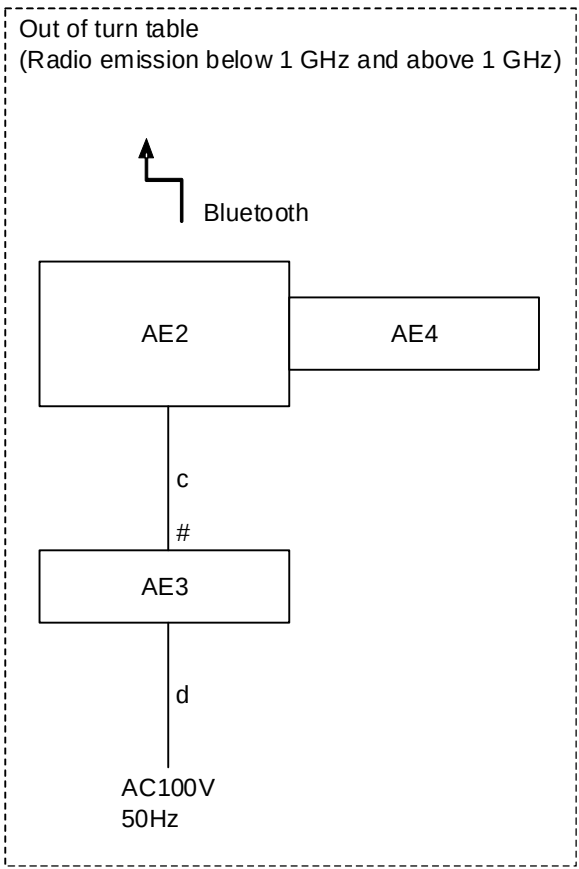
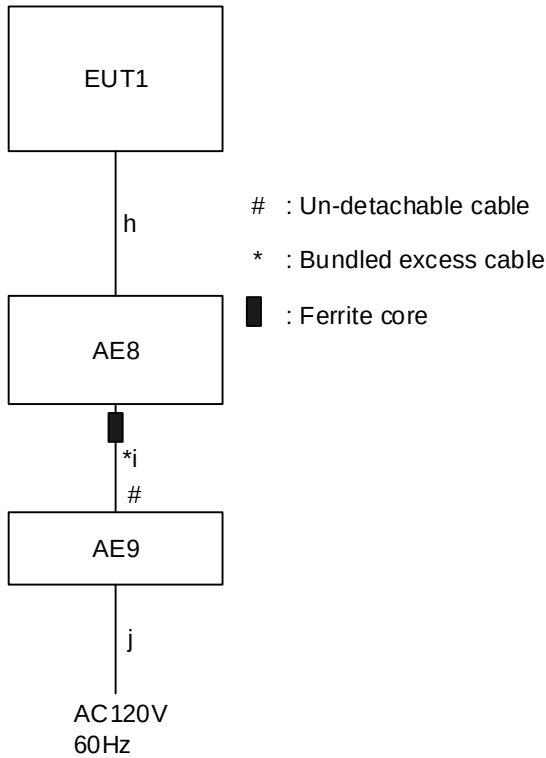
4. MP4 with ADP + WiFi 11 b/g/n + WCDMA Band 4 mode



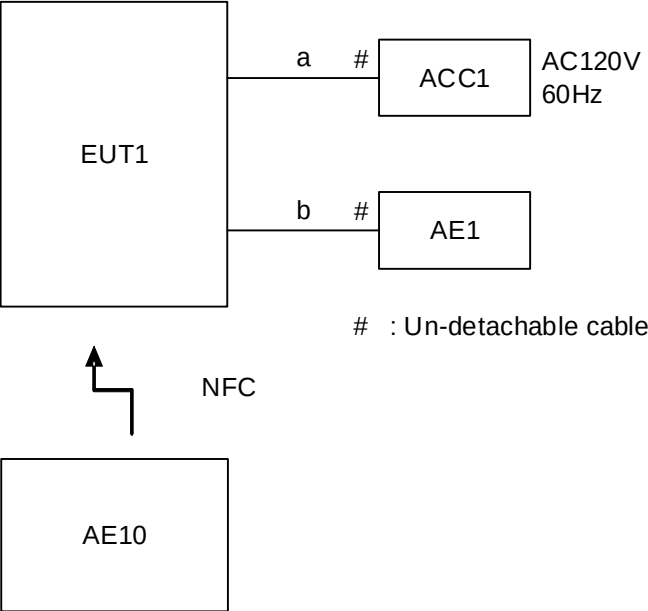
Out of turn table  
(Radio emission below 1 GHz and above 1 GHz)



5. MP4 with Earphone + USB Read with PC + BT EDR + WCDMA Band 5 mode



6.with ADP and Earphone + NFC mode



## 4 Test Result

### 4.1 Conducted emission at mains port

#### 4.1.1 Measurement condition

EUT is placed on a non-conducting table for table-top equipment or on insulation material for a floor-standing equipment. In addition, a table-top equipment is located 0.4 m to a metal reference plane.

Line Impedance Stabilization Network (LISN) is placed 0.8 m away from the EUT. The power code of the EUT is connected to LISN and its excess part is bundled in the center. The length of bundling is 0.3-0.4 m.

A power code of a peripheral is connected to LISN and terminated into 50  $\Omega$ .

Excess cables between equipment are bundled in the center. The length of bundling is 0.3-0.4 m.

Where LISN cannot be applied, the test is performed using a voltage probe.

After overall frequency range is investigated with spectrum analyzer using peak detector, measurements are performed with test receiver in setting to the defined values.

| Items                                       | Description                                                        |
|---------------------------------------------|--------------------------------------------------------------------|
| Frequency range                             | 0.15 MHz-30 MHz                                                    |
| Test place                                  | 10 m Semi-Anechoic Chamber No. 1                                   |
| EUT was placed on                           | Styrene foam table (W) 2.0 × (D) 1.0 × (H) 0.8 m                   |
| Metal reference plane                       | Vertical                                                           |
| Test receiver setting                       | Detector: Quasi-peak, Average<br>Bandwidth: 9 kHz                  |
| Line Impedance Stabilization Network (LISN) | Specification: 50 $\Omega$ /50 $\mu$ H<br>Distance from EUT: 0.8 m |

#### 4.1.2 Calculation method

Emission Level = Reading + Factor\*

Margin = Limit – Emission Level

\*Note: Factor = LISN factor + Cable system loss + ATT. loss

Example)

Limit @ 6.770 MHz: 60.0 dB $\mu$ V (Quasi-peak)  
50.0 dB $\mu$ V (Average)

Quasi-peak      Reading = 41.2 dB $\mu$ V      Factor = 10.3 dB  
Emission level = 41.2 + 10.3 = 51.5 dB $\mu$ V  
Margin = 60.0 - 51.5 = 8.5 dB

Average          Reading = 35.0 dB $\mu$ V      Factor = 10.3 dB  
Emission level = 35.0 + 10.3 = 45.3 dB $\mu$ V  
Margin = 50.0 - 45.3 = 4.7 dB

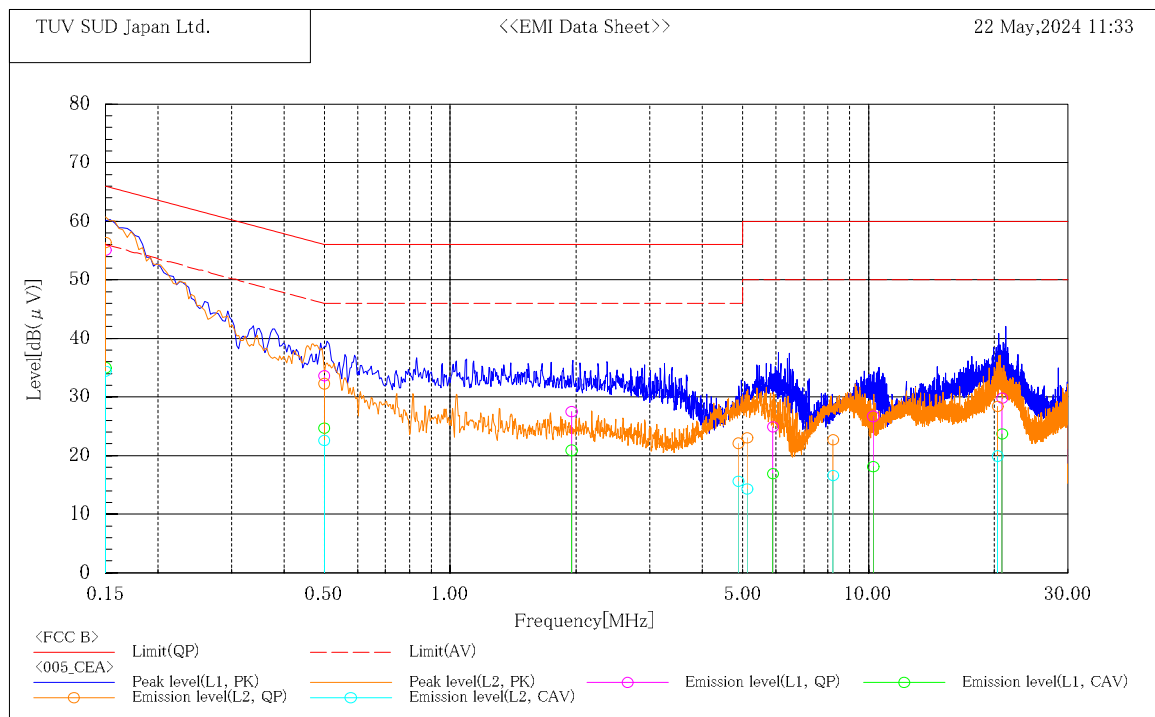
#### 4.1.3 Test data and Configuration photographs

|                |                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation mode | MP4 with Earphone + USB Read with PC + BT EDR + WCDMA Band 5 mode                                                                                                       |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0<br>EB1190EM, S/N: 353343640002975 - Modification State 0<br>EB1190EM, S/N: 353343640002983 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 22 May,2024 11:33  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 18.7[°C], 50.3 [%], 988 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* CONDUCTED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



#### Final Result

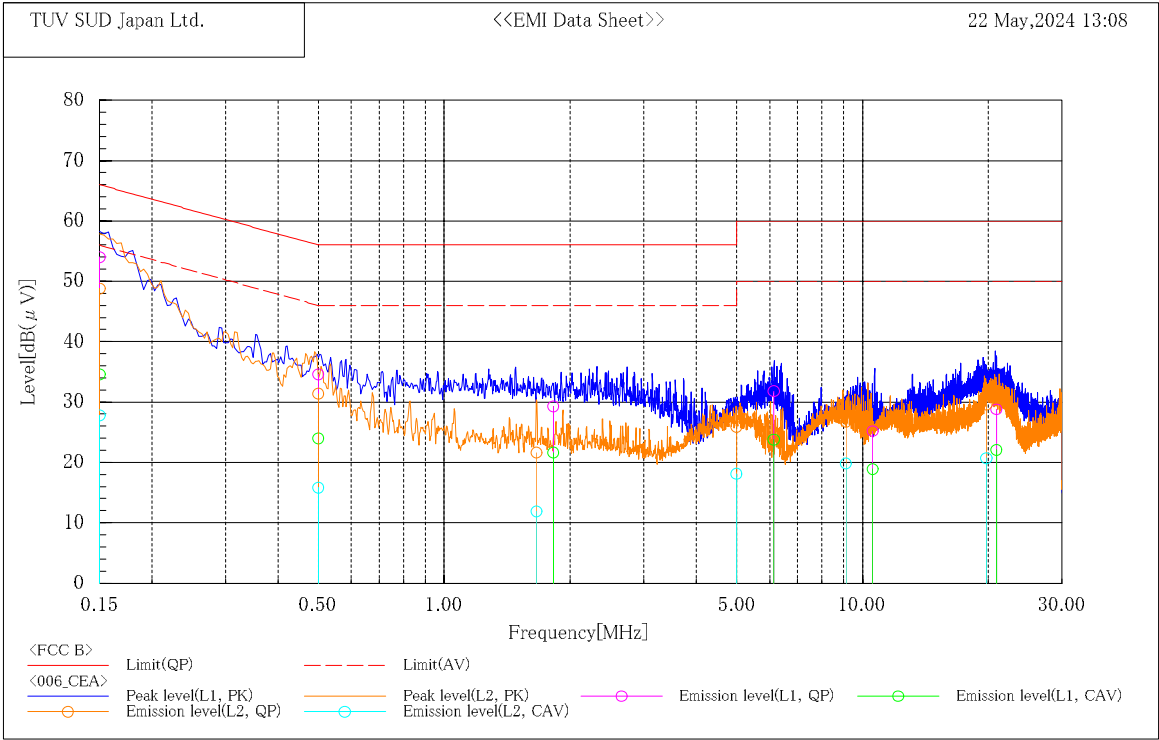
| Line | Frequency<br>MHz | Reading<br>dB(μV) |      | Factor<br>dB | Level<br>dB(μV) |      | Limit<br>dB(μV) |      | Margin<br>dB |      |
|------|------------------|-------------------|------|--------------|-----------------|------|-----------------|------|--------------|------|
|      |                  | QP                | CAV  |              | QP              | CAV  | QP              | AV   | QP           | AV   |
| L1   | 0.150            | 44.6              | 24.5 | 10.5         | 55.1            | 35.0 | 66.0            | 56.0 | 10.9         | 21.0 |
| L1   | 0.500            | 23.3              | 14.4 | 10.3         | 33.6            | 24.7 | 56.0            | 46.0 | 22.4         | 21.3 |
| L1   | 1.951            | 17.1              | 10.5 | 10.4         | 27.5            | 20.9 | 56.0            | 46.0 | 28.5         | 25.1 |
| L1   | 5.908            | 14.2              | 6.2  | 10.7         | 24.9            | 16.9 | 60.0            | 50.0 | 35.1         | 33.1 |
| L1   | 10.261           | 15.8              | 7.2  | 10.9         | 26.7            | 18.1 | 60.0            | 50.0 | 33.3         | 31.9 |
| L1   | 20.877           | 18.6              | 12.5 | 11.2         | 29.8            | 23.7 | 60.0            | 50.0 | 30.2         | 26.3 |
| L2   | 0.150            | 45.9              | 23.9 | 10.5         | 56.4            | 34.4 | 66.0            | 56.0 | 9.6          | 21.6 |
| L2   | 0.500            | 22.0              | 12.3 | 10.3         | 32.3            | 22.6 | 56.0            | 46.0 | 23.7         | 23.4 |
| L2   | 4.885            | 11.5              | 5.0  | 10.6         | 22.1            | 15.6 | 56.0            | 46.0 | 33.9         | 30.4 |
| L2   | 5.129            | 12.3              | 3.6  | 10.7         | 23.0            | 14.3 | 60.0            | 50.0 | 37.0         | 35.7 |
| L2   | 8.227            | 11.9              | 5.8  | 10.8         | 22.7            | 16.6 | 60.0            | 50.0 | 37.3         | 33.4 |
| L2   | 20.354           | 17.1              | 8.6  | 11.3         | 28.4            | 19.9 | 60.0            | 50.0 | 31.6         | 30.1 |



S/N: 353343640002975

Standard : FCC Part 15 Class B  
Date of test : 22 May,2024 13:08  
Operator : Yoshiyuki Takahashi  
Temp, Hum, Atm : 18.7[°C], 50.3 [%], 988 [hPa]  
Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* CONDUCTED EMISSION \*\*\*\*\*  
[ 10m Semi-anechoic chamber #1 ]



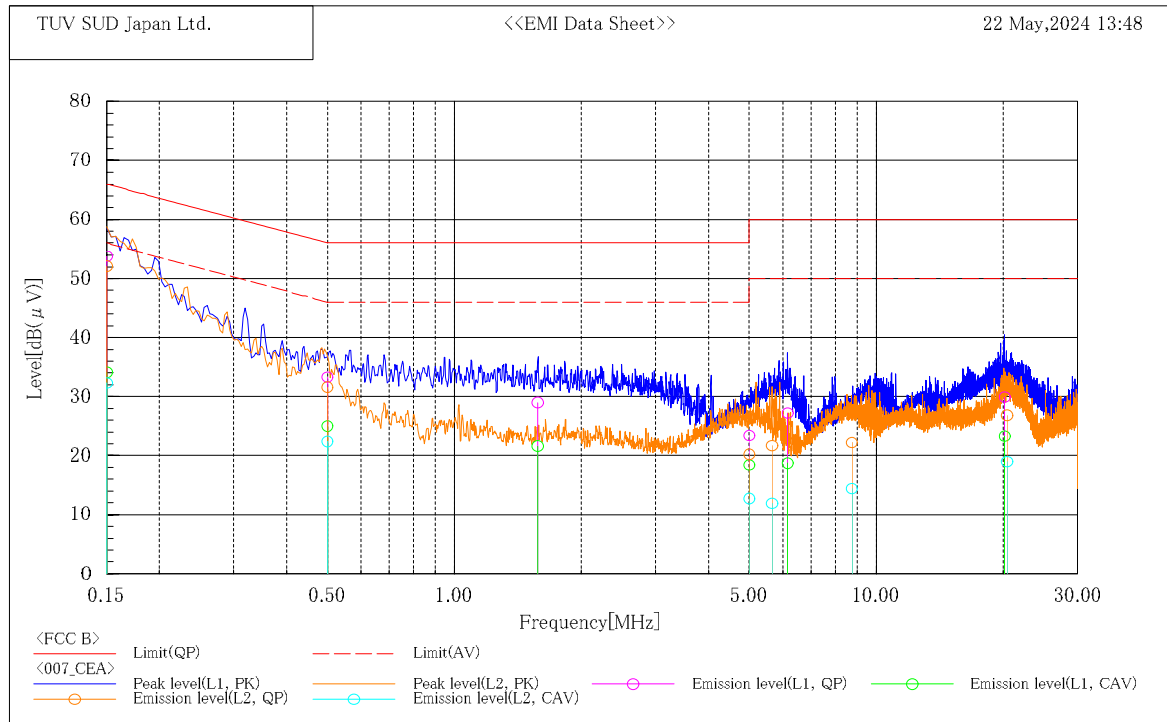
Final Result

| Line | Frequency<br>MHz | Reading<br>$\text{dB}(\mu\text{V})$ |      | Factor<br>dB | Level<br>$\text{dB}(\mu\text{V})$ |      | Limit<br>$\text{dB}(\mu\text{V})$ |      | Margin<br>dB |      |
|------|------------------|-------------------------------------|------|--------------|-----------------------------------|------|-----------------------------------|------|--------------|------|
|      |                  | QP                                  | CAV  |              | QP                                | CAV  | QP                                | AV   | QP           | AV   |
| L1   | 0.150            | 43.5                                | 24.1 | 10.5         | 54.0                              | 34.6 | 66.0                              | 56.0 | 12.0         | 21.4 |
| L1   | 0.500            | 24.3                                | 13.7 | 10.3         | 34.6                              | 24.0 | 56.0                              | 46.0 | 21.4         | 22.0 |
| L1   | 1.824            | 18.9                                | 11.2 | 10.4         | 29.3                              | 21.6 | 56.0                              | 46.0 | 26.7         | 24.4 |
| L1   | 6.134            | 21.1                                | 13.1 | 10.7         | 31.8                              | 23.8 | 60.0                              | 50.0 | 28.2         | 26.2 |
| L1   | 10.577           | 14.3                                | 8.0  | 10.9         | 25.2                              | 18.9 | 60.0                              | 50.0 | 34.8         | 31.1 |
| L1   | 20.912           | 17.6                                | 10.9 | 11.2         | 28.8                              | 22.1 | 60.0                              | 50.0 | 31.2         | 27.9 |
| L2   | 0.150            | 38.3                                | 17.3 | 10.5         | 48.8                              | 27.8 | 66.0                              | 56.0 | 17.2         | 28.2 |
| L2   | 0.500            | 21.1                                | 5.5  | 10.3         | 31.4                              | 15.8 | 56.0                              | 46.0 | 24.6         | 30.2 |
| L2   | 1.661            | 11.2                                | 1.5  | 10.4         | 21.6                              | 11.9 | 56.0                              | 46.0 | 34.4         | 34.1 |
| L2   | 4.999            | 15.3                                | 7.5  | 10.6         | 25.9                              | 18.1 | 56.0                              | 46.0 | 30.1         | 27.9 |
| L2   | 9.129            | 15.8                                | 8.9  | 10.9         | 26.7                              | 19.8 | 60.0                              | 50.0 | 33.3         | 30.2 |
| L2   | 19.782           | 18.3                                | 9.4  | 11.3         | 29.6                              | 20.7 | 60.0                              | 50.0 | 30.4         | 29.3 |

S/N: 353343640002983

Standard : FCC Part 15 Class B  
 Date of test : 22 May,2024 13:48  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 18.7[°C], 50.3 [%], 988 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* CONDUCTED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

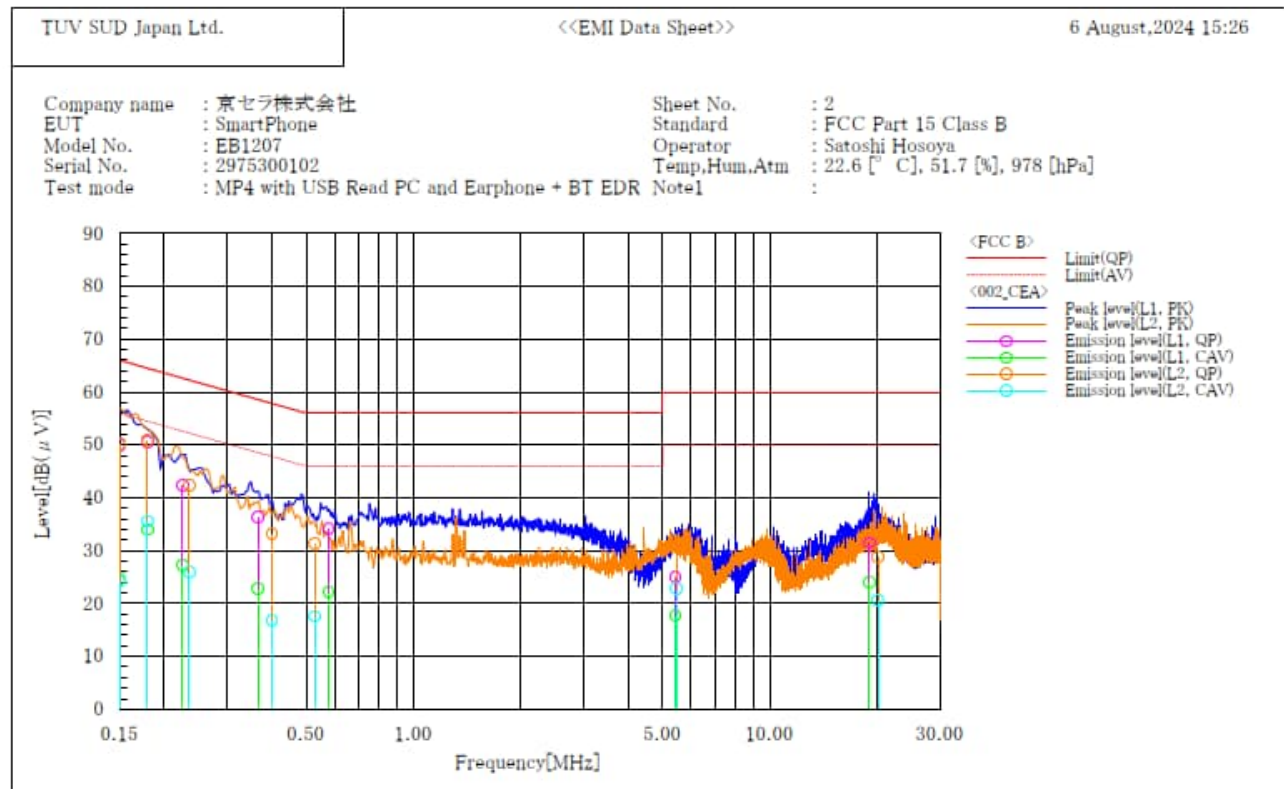


## Final Result

| Line | Frequency<br>MHz | Reading<br>dB( $\mu\text{V}$ ) |      | Factor<br>dB | Level<br>dB( $\mu\text{V}$ ) |      | Limit<br>dB( $\mu\text{V}$ ) |      | Margin<br>dB |      |
|------|------------------|--------------------------------|------|--------------|------------------------------|------|------------------------------|------|--------------|------|
|      |                  | QP                             | CAV  |              | QP                           | CAV  | QP                           | AV   | QP           | AV   |
| L1   | 0.150            | 43.3                           | 23.6 | 10.5         | 53.8                         | 34.1 | 66.0                         | 56.0 | 12.2         | 21.9 |
| L1   | 0.500            | 23.0                           | 14.7 | 10.3         | 33.3                         | 25.0 | 56.0                         | 46.0 | 22.7         | 21.0 |
| L1   | 1.575            | 18.6                           | 11.2 | 10.4         | 29.0                         | 21.6 | 56.0                         | 46.0 | 27.0         | 24.4 |
| L1   | 4.999            | 12.8                           | 7.8  | 10.6         | 23.4                         | 18.4 | 56.0                         | 46.0 | 32.6         | 27.6 |
| L1   | 6.165            | 16.5                           | 8.0  | 10.7         | 27.2                         | 18.7 | 60.0                         | 50.0 | 32.8         | 31.3 |
| L1   | 20.127           | 18.7                           | 12.1 | 11.2         | 29.9                         | 23.3 | 60.0                         | 50.0 | 30.1         | 26.7 |
| L2   | 0.150            | 41.6                           | 21.8 | 10.5         | 52.1                         | 32.3 | 66.0                         | 56.0 | 13.9         | 23.7 |
| L2   | 0.500            | 21.3                           | 12.1 | 10.3         | 31.6                         | 22.4 | 56.0                         | 46.0 | 24.4         | 23.6 |
| L2   | 4.999            | 9.6                            | 2.1  | 10.6         | 20.2                         | 12.7 | 56.0                         | 46.0 | 35.8         | 33.3 |
| L2   | 5.660            | 11.0                           | 1.2  | 10.7         | 21.7                         | 11.9 | 60.0                         | 50.0 | 38.3         | 38.1 |
| L2   | 8.745            | 11.4                           | 3.6  | 10.8         | 22.2                         | 14.4 | 60.0                         | 50.0 | 37.8         | 35.6 |
| L2   | 20.403           | 15.5                           | 7.7  | 11.3         | 26.8                         | 19.0 | 60.0                         | 50.0 | 33.2         | 31.0 |

|                |                                                    |
|----------------|----------------------------------------------------|
| Operation mode | MP4 with Earphone + USB Read with PC + BT EDR mode |
| EUT            | EB1207, S/N: 2975300102 - Modification State 0     |

\*\*\*\*\* CONDUCTED EMISSION \*\*\*\*\*  
[ 10m Semi-anechoic chamber #1 ]



Final Result

| --- L1 --- |                 |                     |                      |          |                    |                     |                   |                   |                |                 |
|------------|-----------------|---------------------|----------------------|----------|--------------------|---------------------|-------------------|-------------------|----------------|-----------------|
| No.        | Frequency [MHz] | Reading QP [dB(μV)] | Reading CAV [dB(μV)] | c.f [dB] | Result QP [dB(μV)] | Result CAV [dB(μV)] | Limit QP [dB(μV)] | Limit AV [dB(μV)] | Margin QP [dB] | Margin CAV [dB] |
| 1          | 0.150           | 39.5                | 14.1                 | 10.5     | 50.0               | 24.6                | 66.0              | 56.0              | 16.0           | 31.4            |
| 2          | 0.179           | 40.1                | 23.6                 | 10.4     | 50.5               | 34.0                | 64.5              | 54.5              | 14.0           | 20.5            |
| 3          | 0.225           | 32.1                | 17.0                 | 10.3     | 42.4               | 27.3                | 62.6              | 52.6              | 20.2           | 25.3            |
| 4          | 0.366           | 26.0                | 12.6                 | 10.3     | 36.3               | 22.9                | 58.6              | 48.6              | 22.3           | 25.7            |
| 5          | 0.578           | 23.9                | 11.9                 | 10.3     | 34.2               | 22.2                | 56.0              | 46.0              | 21.8           | 23.8            |
| 6          | 5.429           | 14.3                | 7.0                  | 10.7     | 25.0               | 17.7                | 60.0              | 50.0              | 35.0           | 32.3            |
| 7          | 19.025          | 20.4                | 12.9                 | 11.1     | 31.5               | 24.0                | 60.0              | 50.0              | 28.5           | 26.0            |
| --- L2 --- |                 |                     |                      |          |                    |                     |                   |                   |                |                 |
| No.        | Frequency [MHz] | Reading QP [dB(μV)] | Reading CAV [dB(μV)] | c.f [dB] | Result QP [dB(μV)] | Result CAV [dB(μV)] | Limit QP [dB(μV)] | Limit AV [dB(μV)] | Margin QP [dB] | Margin CAV [dB] |
| 1          | 0.150           | 39.7                | 13.7                 | 10.5     | 50.2               | 24.2                | 66.0              | 56.0              | 15.8           | 31.8            |
| 2          | 0.179           | 40.6                | 25.2                 | 10.4     | 51.0               | 35.6                | 64.5              | 54.5              | 13.5           | 18.9            |
| 3          | 0.235           | 32.1                | 15.6                 | 10.3     | 42.4               | 25.9                | 62.3              | 52.3              | 19.9           | 26.4            |
| 4          | 0.401           | 22.9                | 6.5                  | 10.3     | 33.2               | 16.8                | 57.8              | 47.8              | 24.6           | 31.0            |
| 5          | 0.529           | 21.1                | 7.3                  | 10.3     | 31.4               | 17.6                | 56.0              | 46.0              | 24.6           | 28.4            |
| 6          | 5.472           | 20.9                | 12.2                 | 10.7     | 31.6               | 22.9                | 60.0              | 50.0              | 28.4           | 27.1            |
| 7          | 20.112          | 17.6                | 9.4                  | 11.3     | 28.9               | 20.7                | 60.0              | 50.0              | 31.1           | 29.3            |

Comparison of the charts of EB1190EM and EB1207 showed that the difference in test results was less than 3 dB.

## 4.2 Radiated emission (below 1 GHz)

### 4.2.1 Measurement condition

EUT is placed on a non-conducting table for table-top equipment or on insulation material for a floor-standing equipment. The non-conducting table or the insulation material is placed on a rotating turn table. Excess cables between equipment are bundled in the center. The length of bundling is 0.3-0.4 m. An antenna is adjusted between 1-4 m in height and varied its polarization (horizontal and vertical), and the EUT azimuth is varied by the rotating turntable 0 to 360 degrees. After overall frequency range is investigated with spectrum analyzer using peak detector, measurements are performed with test receiver in setting to the defined values.

| Items                 | Description                                                              |
|-----------------------|--------------------------------------------------------------------------|
| Frequency range       | 30 MHz-1000 MHz                                                          |
| Test place            | 10 m Semi-Anechoic Chamber No. 1                                         |
| EUT was placed on     | Styrene foam table (W) 2.0 × (D) 1.0 × (H) 0.8 m                         |
| Axis                  | 0°-360°                                                                  |
| Antenna               | Distance from EUT: 3 m<br>Height: 1-4 m<br>Polarity: Horizontal/Vertical |
| Test receiver setting | Detector: Quasi-peak<br>Bandwidth: 120 kHz                               |

### 4.2.2 Calculation method

Emission level = Reading + Factor\*

Margin = Limit - Emission level

\*Note: Factor = Antenna factor + Cable system loss + ATT. loss - Amplifier Gain

Example)

Limit @ 350.0 MHz: 37.0 dBμV/m (Quasi-peak)

Quasi-peak      Reading = 41.1 dBμV      Factor = -11.8 dB/m  
Emission level = 41.1 - 11.8 = 29.3 dBμV/m  
Margin = 37.0 - 29.3 = 7.7 dB

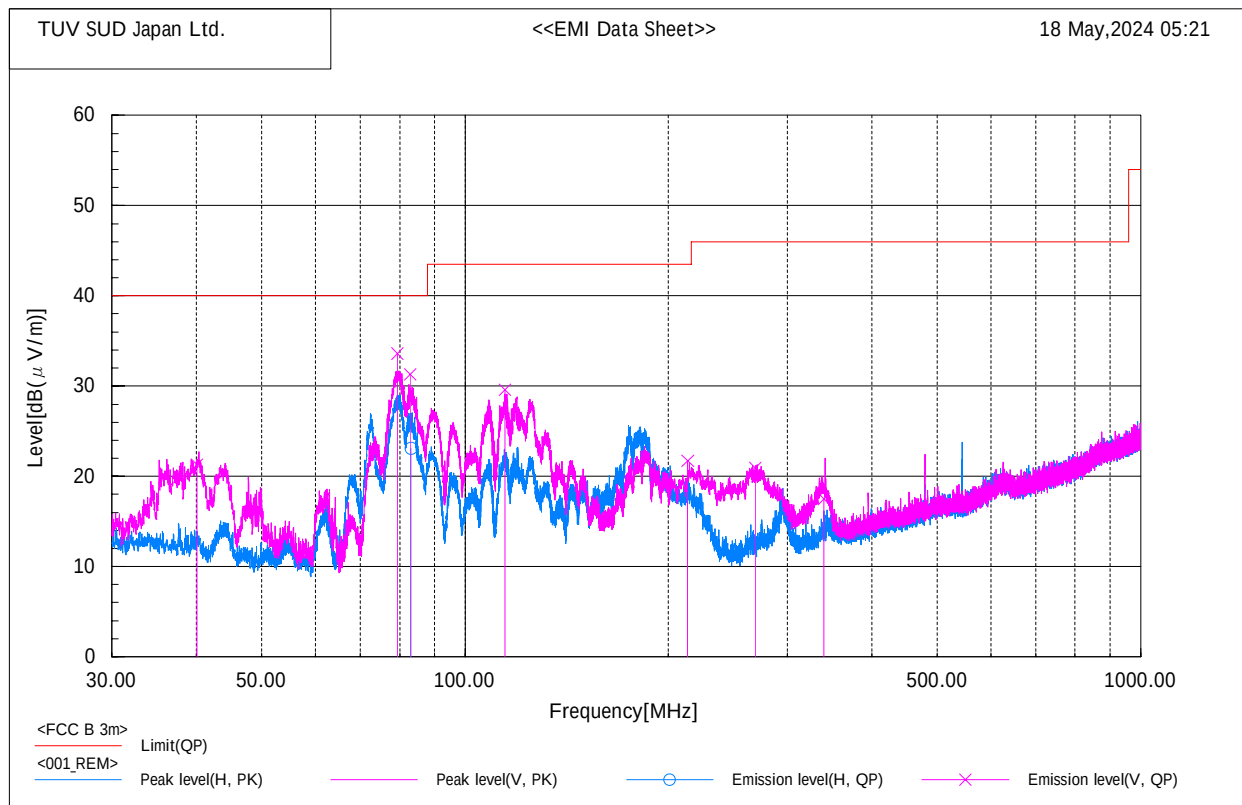
#### 4.2.3 Test data and Configuration photographs

|                |                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation mode | Out Camera with ADP and Earphone + GSM 1900 mode                                                                                                                        |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0<br>EB1190EM, S/N: 353343640002975 - Modification State 0<br>EB1190EM, S/N: 353343640002983 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 18 May,2024 05:21  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 19.3 [°C], 46.1 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
[ 10m Semi-anechoic chamber #1 ]



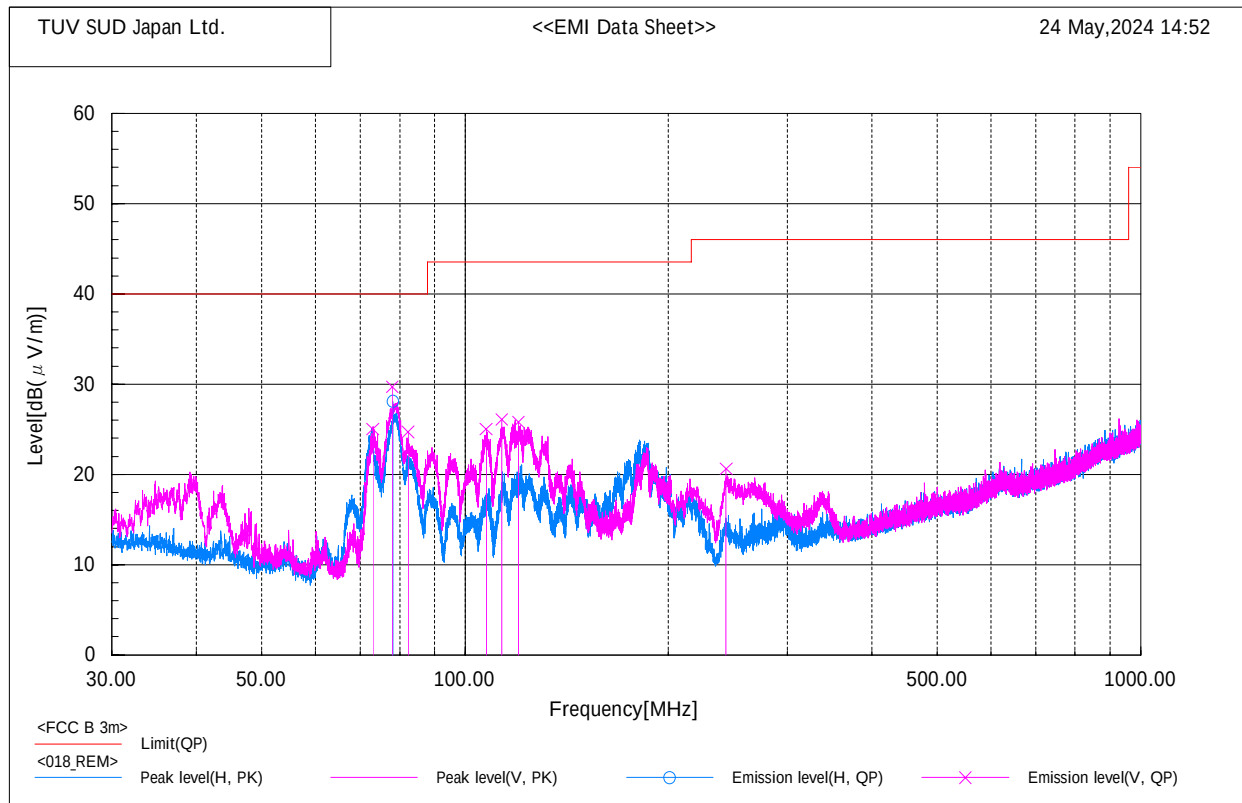
#### Final Result

| Frequency | Pol. | Reading             | Factor  | Level                 | Limit                 | Margin | Height | Angle |
|-----------|------|---------------------|---------|-----------------------|-----------------------|--------|--------|-------|
| MHz       |      | dB( $\mu\text{V}$ ) | dB(1/m) | dB( $\mu\text{V/m}$ ) | dB( $\mu\text{V/m}$ ) | dB     | cm     | deg   |
|           |      | QP                  |         | QP                    | QP                    | QP     |        |       |
| 40.092    | V    | 36.3                | -15.0   | 21.3                  | 40.0                  | 18.7   | 100.0  | 234.0 |
| 79.420    | V    | 50.0                | -16.4   | 33.6                  | 40.0                  | 6.4    | 100.0  | 228.0 |
| 82.974    | V    | 47.6                | -16.3   | 31.3                  | 40.0                  | 8.7    | 100.0  | 227.0 |
| 83.187    | H    | 39.4                | -16.3   | 23.1                  | 40.0                  | 16.9   | 400.0  | 89.0  |
| 114.571   | V    | 44.8                | -15.2   | 29.6                  | 43.5                  | 13.9   | 100.0  | 240.0 |
| 213.492   | V    | 38.3                | -16.6   | 21.7                  | 43.5                  | 21.8   | 159.0  | 62.0  |
| 268.834   | V    | 35.7                | -14.8   | 20.9                  | 46.0                  | 25.1   | 190.0  | 34.0  |
| 339.621   | V    | 30.0                | -12.5   | 17.5                  | 46.0                  | 28.5   | 184.0  | 106.0 |

S/N: 353343640002975

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 14:52  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 22.9 [°C], 47.7 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

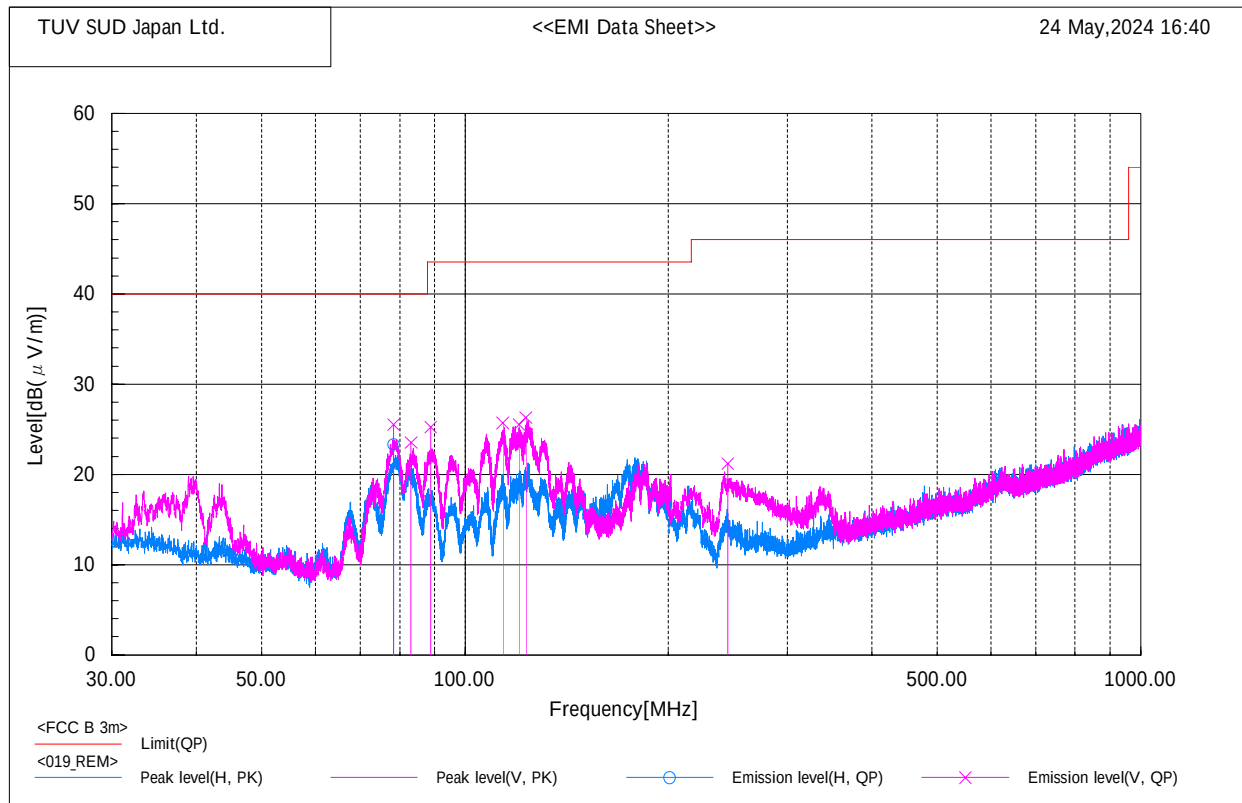
**Final Result**

| Frequency | Pol. | Reading            | Factor  | Level                | Limit                | Margin   | Height | Angle |
|-----------|------|--------------------|---------|----------------------|----------------------|----------|--------|-------|
| MHz       |      | dB( $\mu$ V)<br>QP | dB(1/m) | dB( $\mu$ V/m)<br>QP | dB( $\mu$ V/m)<br>QP | dB<br>QP | cm     | deg   |
| 72.982    | V    | 41.7               | -16.7   | 25.0                 | 40.0                 | 15.0     | 100.0  | 98.0  |
| 77.981    | V    | 46.1               | -16.4   | 29.7                 | 40.0                 | 10.3     | 100.0  | 97.0  |
| 78.139    | H    | 44.5               | -16.4   | 28.1                 | 40.0                 | 11.9     | 340.0  | 270.0 |
| 82.312    | V    | 41.0               | -16.3   | 24.7                 | 40.0                 | 15.3     | 100.0  | 94.0  |
| 107.396   | V    | 40.6               | -15.6   | 25.0                 | 43.5                 | 18.5     | 100.0  | 98.0  |
| 113.270   | V    | 41.4               | -15.3   | 26.1                 | 43.5                 | 17.4     | 100.0  | 113.0 |
| 119.892   | V    | 40.6               | -14.8   | 25.8                 | 43.5                 | 17.7     | 100.0  | 156.0 |
| 243.488   | V    | 36.6               | -16.0   | 20.6                 | 46.0                 | 25.4     | 278.0  | 203.0 |

S/N: 353343640002983

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 16:40  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 22.9 [°C], 47.7 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

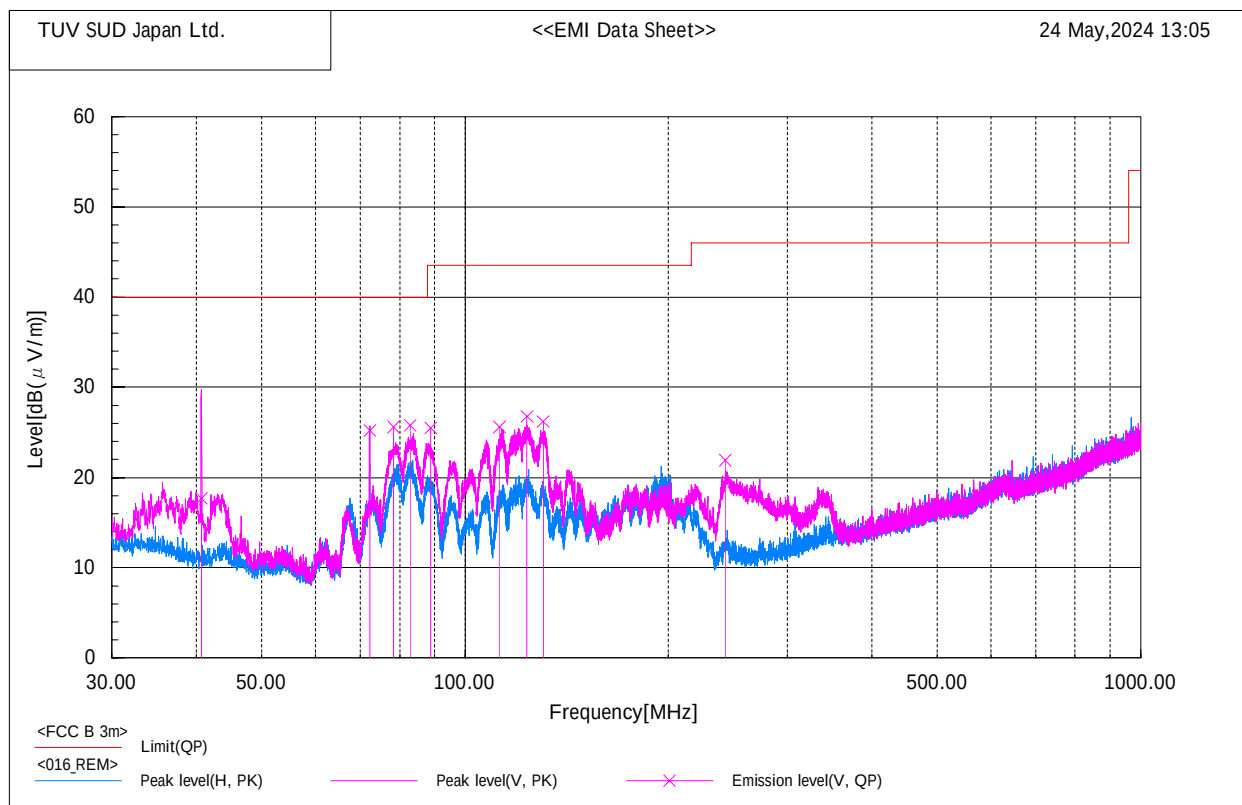
| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 78.343    | V    | 41.9    | -16.4   | 25.5     | 40.0     | 14.5   | 100.0  | 121.0 |
| 78.387    | H    | 39.7    | -16.4   | 23.3     | 40.0     | 16.7   | 400.0  | 258.0 |
| 83.168    | V    | 39.8    | -16.3   | 23.5     | 40.0     | 16.5   | 100.0  | 140.0 |
| 88.892    | V    | 41.4    | -16.2   | 25.2     | 43.5     | 18.3   | 100.0  | 155.0 |
| 113.695   | V    | 40.9    | -15.2   | 25.7     | 43.5     | 17.8   | 100.0  | 122.0 |
| 120.151   | V    | 40.3    | -14.8   | 25.5     | 43.5     | 18.0   | 100.0  | 178.0 |
| 123.019   | V    | 40.9    | -14.6   | 26.3     | 43.5     | 17.2   | 100.0  | 159.0 |
| 245.038   | V    | 37.2    | -16.0   | 21.2     | 46.0     | 24.8   | 290.0  | 210.0 |

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | In camera with ADP and earphone + LTE Band 12 mode    |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 13:05  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 22.9 [°C], 47.7 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 40.683    | V    | 32.7    | -15.0   | 17.7     | 40.0     | 22.3   | 100.0  | 231.0 |
| 72.237    | V    | 41.9    | -16.7   | 25.2     | 40.0     | 14.8   | 100.0  | 286.0 |
| 78.320    | V    | 42.0    | -16.4   | 25.6     | 40.0     | 14.4   | 100.0  | 101.0 |
| 82.884    | V    | 42.1    | -16.3   | 25.8     | 40.0     | 14.2   | 100.0  | 105.0 |
| 88.920    | V    | 41.7    | -16.2   | 25.5     | 43.5     | 18.0   | 100.0  | 105.0 |
| 112.433   | V    | 40.9    | -15.3   | 25.6     | 43.5     | 17.9   | 100.0  | 132.0 |
| 123.433   | V    | 41.4    | -14.6   | 26.8     | 43.5     | 16.7   | 100.0  | 139.0 |
| 130.431   | V    | 40.3    | -14.1   | 26.2     | 43.5     | 17.3   | 100.0  | 149.0 |
| 242.848   | V    | 37.9    | -16.0   | 21.9     | 46.0     | 24.1   | 266.0  | 40.0  |

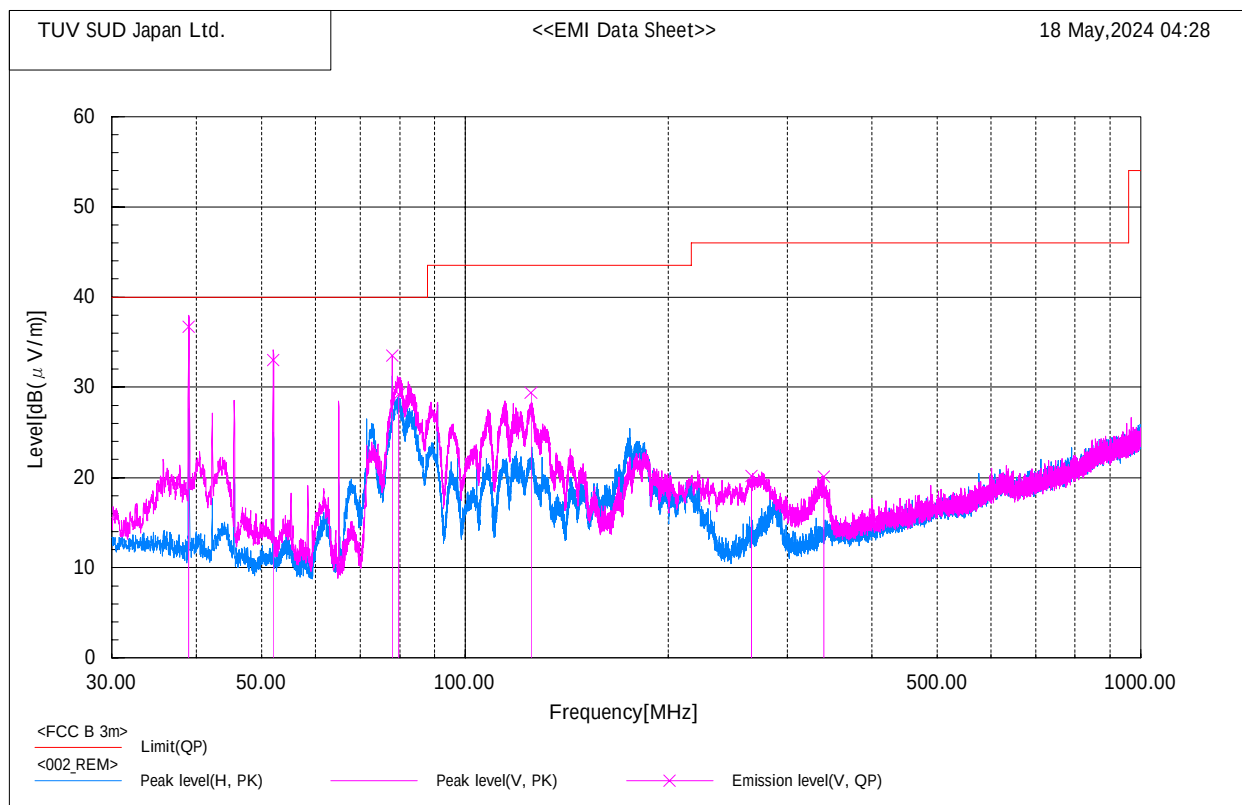


|                |                                                             |
|----------------|-------------------------------------------------------------|
| Operation mode | MP4 with ADP and Earphone + WiFi 11 a/ac + LTE Band 41 mode |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0       |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 18 May,2024 04:28  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 19.3 [°C], 46.1 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

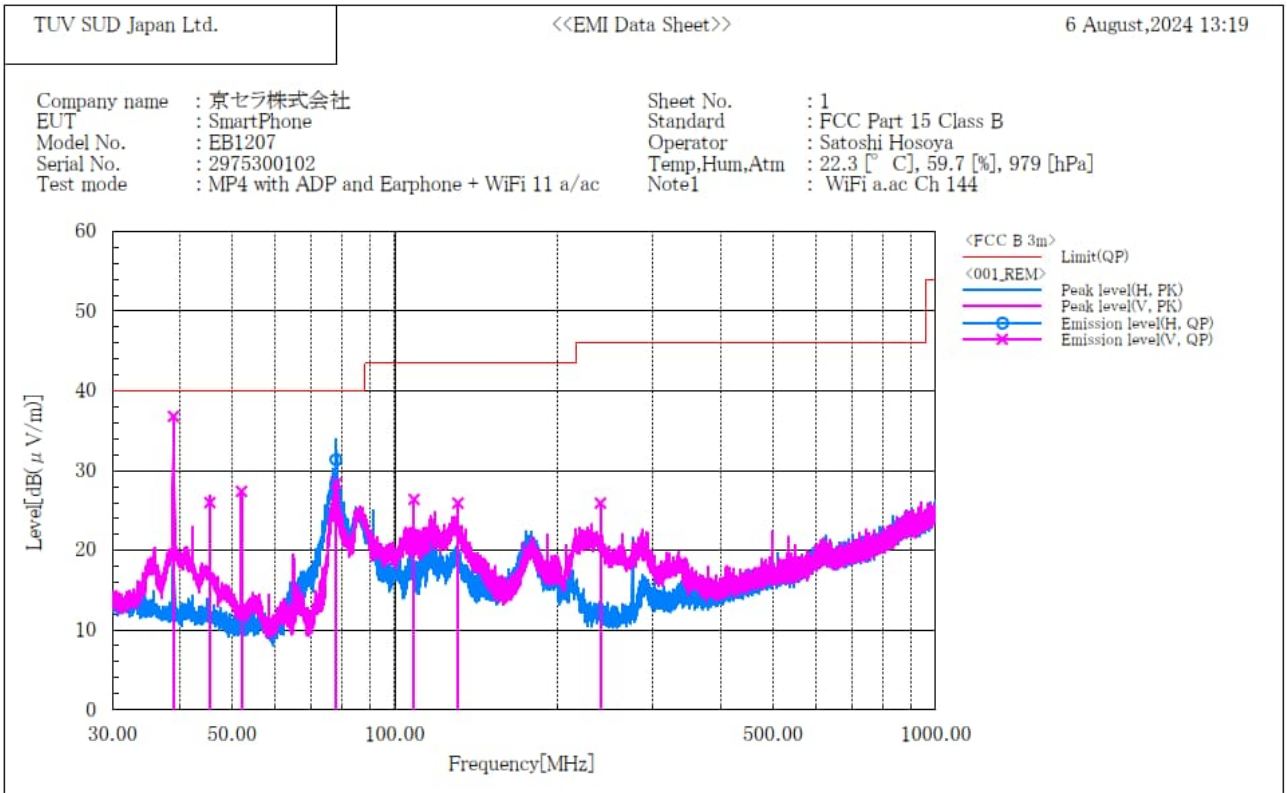
\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 38.997    | V    | 51.5    | -14.8   | 36.7     | 40.0     | 3.3    | 100.0  | 16.0  |
| 51.995    | V    | 49.3    | -16.3   | 33.0     | 40.0     | 7.0    | 100.0  | 260.0 |
| 78.001    | V    | 49.9    | -16.4   | 33.5     | 40.0     | 6.5    | 100.0  | 247.0 |
| 79.775    | V    | 45.5    | -16.3   | 29.2     | 40.0     | 10.8   | 100.0  | 358.0 |
| 125.153   | V    | 43.9    | -14.5   | 29.4     | 43.5     | 14.1   | 100.0  | 252.0 |
| 265.543   | V    | 35.2    | -15.0   | 20.2     | 46.0     | 25.8   | 173.0  | 0.0   |
| 339.436   | V    | 32.6    | -12.5   | 20.1     | 46.0     | 25.9   | 159.0  | 172.0 |

|                |                                                |
|----------------|------------------------------------------------|
| Operation mode | MP4 with ADP + WiFi 11 a/ac mode               |
| EUT            | EB1207, S/N: 2975300102 - Modification State 0 |

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
[ 10m Semi-anechoic chamber #1 ]



Final Result

| No. | Frequency | Pol | Reading  | c. f      | Result     | Limit      | Margin | Height | Angle |
|-----|-----------|-----|----------|-----------|------------|------------|--------|--------|-------|
|     | [MHz]     |     | QP       |           | QP         | QP         | QP     |        |       |
|     |           |     | [dB(μV)] | [dB(1/m)] | [dB(μV/m)] | [dB(μV/m)] | [dB]   | [cm]   | [deg] |
| 1   | 39.000    | V   | 51.5     | -14.7     | 36.8       | 40.0       | 3.2    | 100.0  | 1.0   |
| 2   | 45.500    | V   | 41.6     | -15.6     | 26.0       | 40.0       | 14.0   | 100.0  | 9.0   |
| 3   | 52.000    | V   | 43.8     | -16.4     | 27.4       | 40.0       | 12.6   | 100.0  | 152.0 |
| 4   | 78.000    | V   | 44.9     | -16.5     | 28.4       | 40.0       | 11.6   | 100.0  | 182.0 |
| 5   | 78.000    | H   | 47.9     | -16.5     | 31.4       | 40.0       | 8.6    | 381.0  | 93.0  |
| 6   | 108.446   | V   | 41.9     | -15.5     | 26.4       | 43.5       | 17.1   | 100.0  | 118.0 |
| 7   | 130.956   | V   | 39.9     | -14.0     | 25.9       | 43.5       | 17.6   | 100.0  | 238.0 |
| 8   | 239.997   | V   | 42.0     | -16.1     | 25.9       | 46.0       | 20.1   | 177.0  | 186.0 |

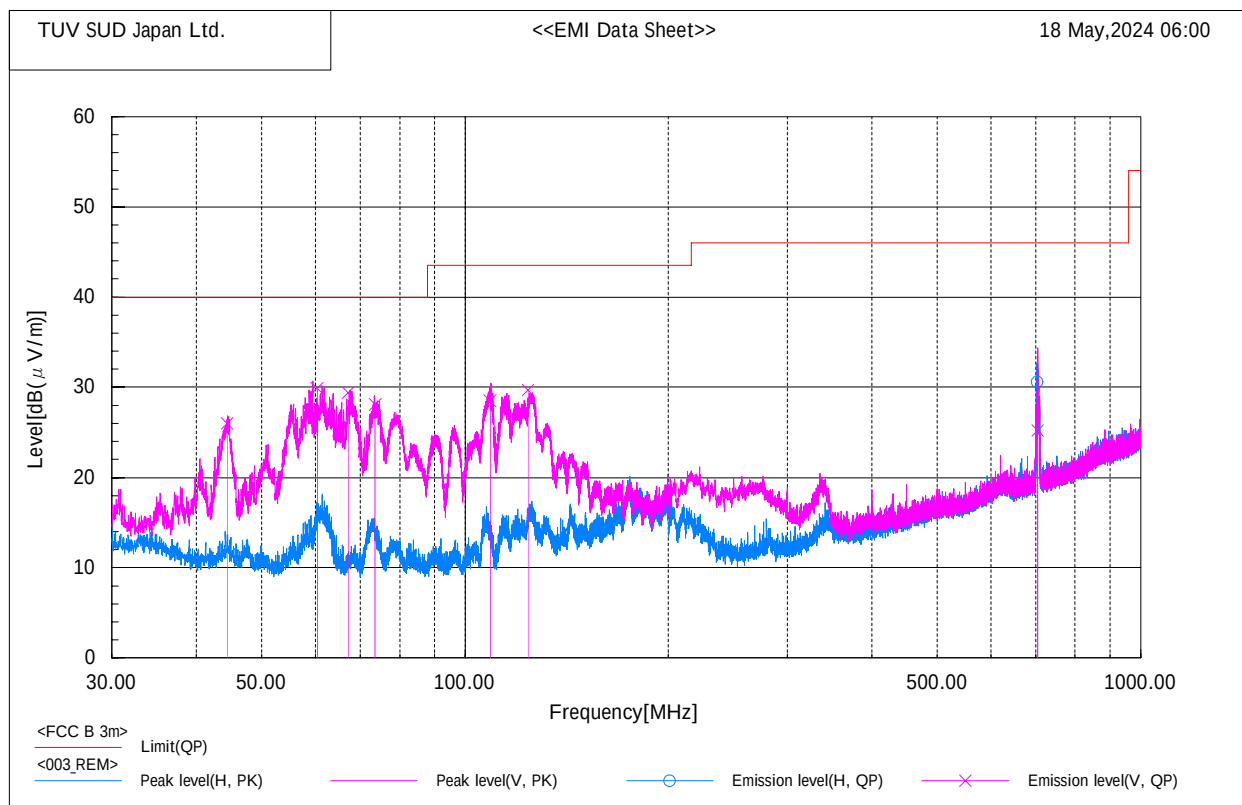
Comparison of the charts of EB1190EM and EB1207 showed that the difference in test results was less than 3 dB.

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | MP4 with ADP + WiFi 11 b/g/n + WCDMA Band 4 mode      |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 18 May,2024 06:00  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 19.3 [°C], 46.1 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



### Final Result

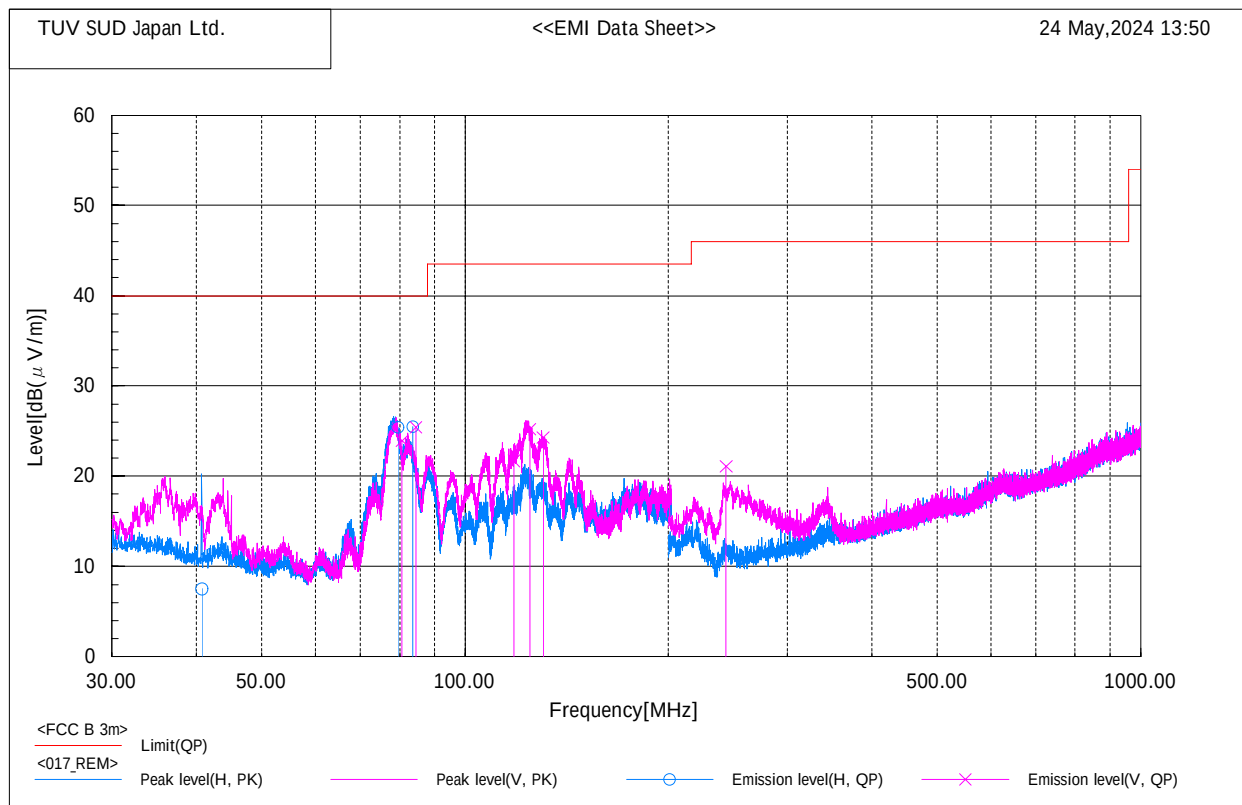
| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 44.437    | V    | 41.5    | -15.5   | 26.0     | 40.0     | 14.0   | 100.0  | 212.0 |
| 60.376    | V    | 46.8    | -16.9   | 29.9     | 40.0     | 10.1   | 100.0  | 222.0 |
| 67.156    | V    | 46.4    | -17.0   | 29.4     | 40.0     | 10.6   | 100.0  | 222.0 |
| 73.576    | V    | 44.7    | -16.6   | 28.1     | 40.0     | 11.9   | 100.0  | 220.0 |
| 108.806   | V    | 44.1    | -15.6   | 28.5     | 43.5     | 15.0   | 100.0  | 252.0 |
| 123.804   | V    | 44.2    | -14.5   | 29.7     | 43.5     | 13.8   | 100.0  | 250.0 |
| 702.213   | H    | 36.5    | -5.9    | 30.6     | 46.0     | 15.4   | 311.0  | 14.0  |
| 704.798   | V    | 31.1    | -5.9    | 25.2     | 46.0     | 20.8   | 135.0  | 136.0 |

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | with ADP and Earphone + NFC mode                      |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 13:50  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 22.9 [°C], 47.7 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



### Final Result

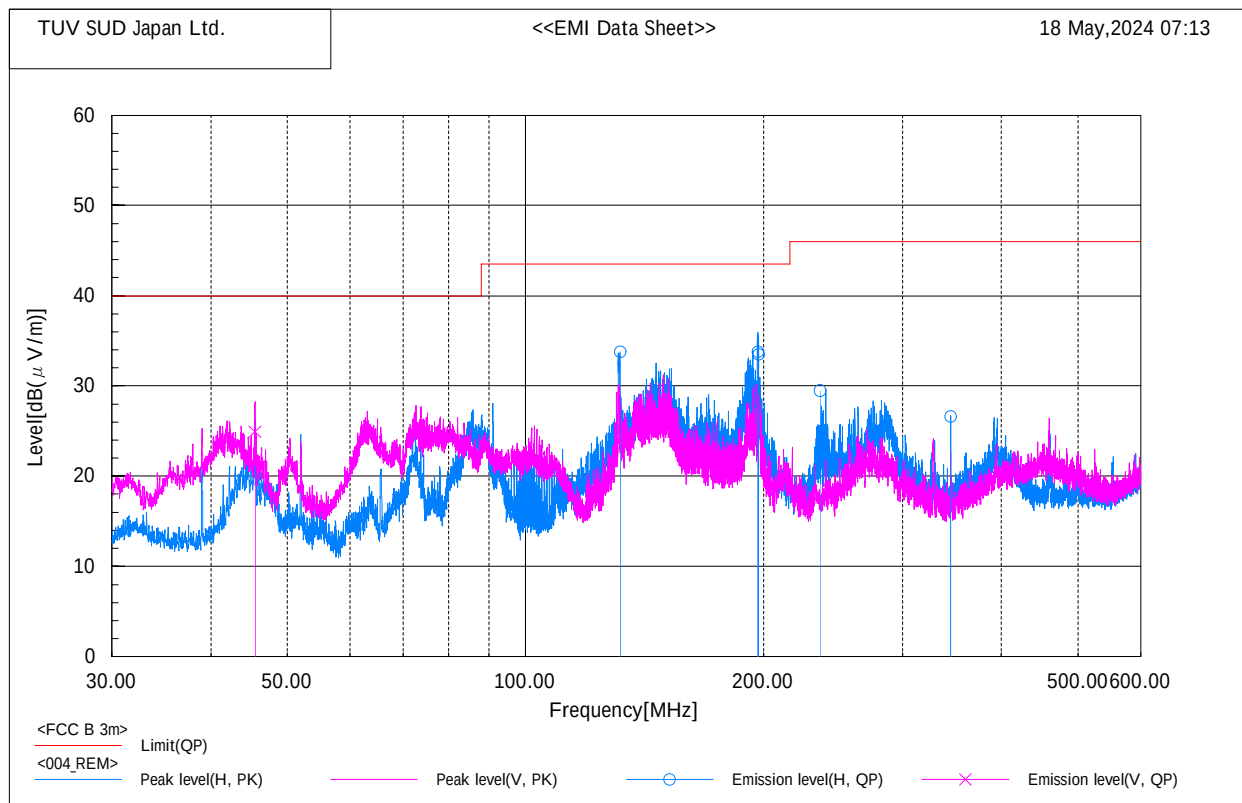
| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 40.751    | H    | 22.5    | -15.0   | 7.5      | 40.0     | 32.5   | 100.0  | 358.0 |
| 79.492    | H    | 41.8    | -16.4   | 25.4     | 40.0     | 14.6   | 400.0  | 96.0  |
| 80.664    | V    | 40.2    | -16.3   | 23.9     | 40.0     | 16.1   | 100.0  | 218.0 |
| 83.673    | H    | 41.8    | -16.3   | 25.5     | 40.0     | 14.5   | 400.0  | 97.0  |
| 84.532    | V    | 41.7    | -16.3   | 25.4     | 40.0     | 14.6   | 100.0  | 215.0 |
| 118.145   | V    | 36.6    | -14.9   | 21.7     | 43.5     | 21.8   | 100.0  | 229.0 |
| 124.744   | V    | 39.7    | -14.5   | 25.2     | 43.5     | 18.3   | 100.0  | 227.0 |
| 130.406   | V    | 38.4    | -14.1   | 24.3     | 43.5     | 19.2   | 100.0  | 238.0 |
| 243.408   | V    | 37.1    | -16.0   | 21.1     | 46.0     | 24.9   | 268.0  | 226.0 |

|                |                                                                   |
|----------------|-------------------------------------------------------------------|
| Operation mode | MP4 with Earphone + USB Read with PC + BT EDR + WCDMA Band 5 mode |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0             |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 18 May,2024 07:13  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 19.3 [°C], 46.1 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



### Final Result

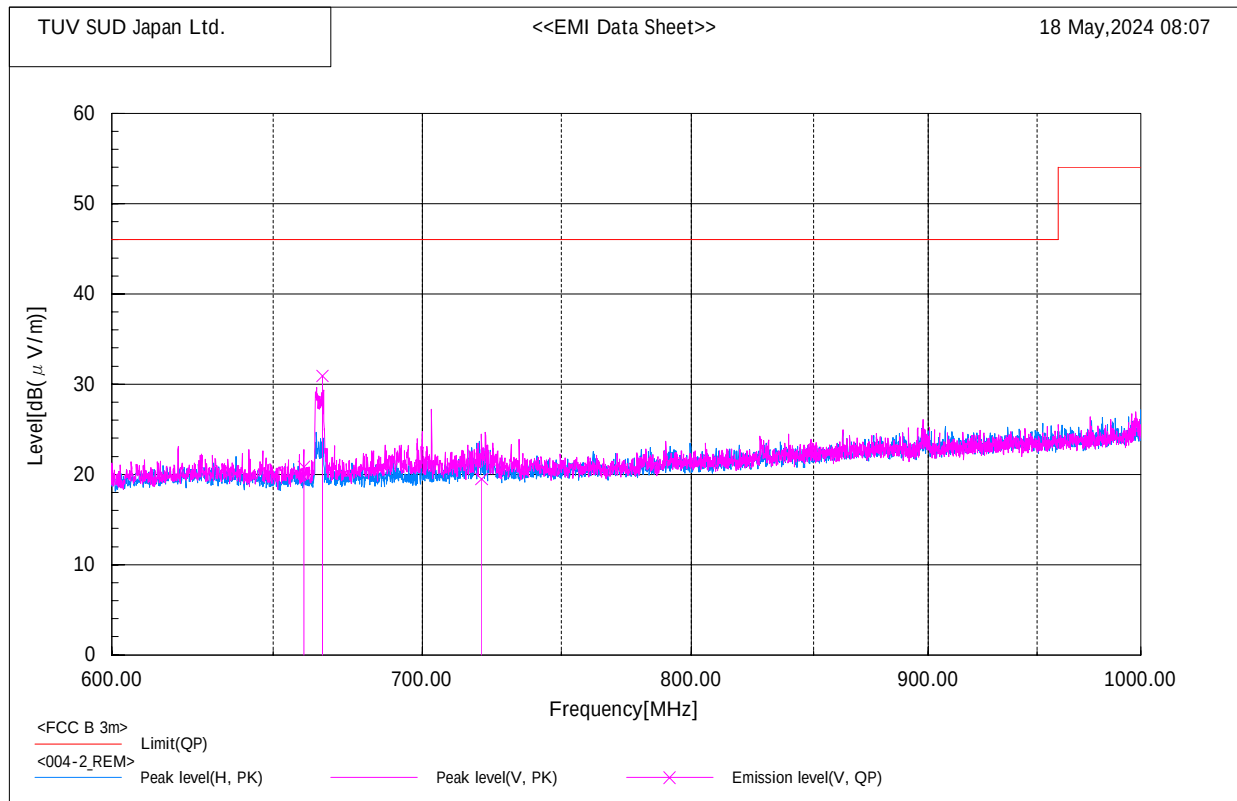
| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
|           |      | QP      |         | QP       | QP       | QP     |        |       |
| 45.500    | V    | 40.4    | -15.5   | 24.9     | 40.0     | 15.1   | 294.0  | 294.0 |
| 131.792   | H    | 47.7    | -13.9   | 33.8     | 43.5     | 9.7    | 274.0  | 222.0 |
| 196.767   | H    | 44.7    | -10.9   | 33.8     | 43.5     | 9.7    | 178.0  | 200.0 |
| 197.162   | H    | 44.4    | -10.9   | 33.5     | 43.5     | 10.0   | 172.0  | 202.0 |
| 235.998   | H    | 45.5    | -16.0   | 29.5     | 46.0     | 16.5   | 107.0  | 199.0 |
| 344.991   | H    | 38.7    | -12.1   | 26.6     | 46.0     | 19.4   | 100.0  | 191.0 |

With wireless operation: Measurement was performed to the band that was not affected by rejection filter due to radio frequency.

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 18 May,2024 08:07  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 19.3 [°C], 46.1 [%], 976 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

| Frequency | Pol. | Reading | Factor  | Level    | Limit    | Margin | Height | Angle |
|-----------|------|---------|---------|----------|----------|--------|--------|-------|
| MHz       |      | dB(μV)  | dB(1/m) | dB(μV/m) | dB(μV/m) | dB     | cm     | deg   |
| 660.005   | V    | 27.4    | -6.6    | 20.8     | 46.0     | 25.2   | 100.0  | 260.0 |
| 666.161   | V    | 37.4    | -6.5    | 30.9     | 46.0     | 15.1   | 100.0  | 343.0 |
| 720.829   | V    | 25.1    | -5.6    | 19.5     | 46.0     | 26.5   | 100.0  | 176.0 |

Without wireless operation: Additional measurement was performed only to the band that was affected by filter.

### 4.3 Radiated emission (above 1 GHz)

#### 4.3.1 Measurement condition

EUT is placed on a styrene form table for table-top equipment or on insulation material for a floor-standing equipment. The styrene form table or the insulation material is placed on a rotating turn table.

Excess cables between equipment are bundled in the center. The length of bundling is 0.3-0.4 m.

Absorbers are placed between the EUT and an antenna.

The antenna is adjusted between 1-4 m in height and varied its polarization (horizontal and vertical), and the EUT azimuth is varied by the rotating turntable 0 to 360 degrees. Where height of the antenna is changed, its angle is also adjusted to the position of the EUT.

After overall frequency range is investigated with spectrum analyzer using peak detector, measurements are performed with test receiver in setting to the defined values.

The antenna is positioned from the test volume that was predetermined by the site VSWR measurement.

Since this predetermined test volume is different from maximum circumference where the EUT and the peripheral devices are actually placed, the measurement distance conversion factor is added to the measurement data.

| Items                 | Description                                                                              |
|-----------------------|------------------------------------------------------------------------------------------|
| Frequency range       | 1000 MHz-11000 MHz, 1000 MHz-12500 MHz, 1000 MHz-29000 MHz                               |
| Test place            | 10 m Semi-Anechoic Chamber No. 1                                                         |
| EUT was placed on     | Styrene foam table (W) 2.0 × (D) 1.0 × (H) 0.8 m                                         |
| Axis                  | 0°-360°                                                                                  |
| Antenna               | Distance from EUT: 390 cm, 402 cm<br>Height: 100-400 cm<br>Polarity: Horizontal/Vertical |
| Test receiver setting | Detector: Peak, Average<br>Bandwidth: 1 MHz                                              |

Antenna 3 dB beamwidth

Antenna: 3117

| Frequency (GHz) | θ3 dB (°) | 3 dB beamwidth w (m) |
|-----------------|-----------|----------------------|
| 1.0             | 83        | 5.31                 |
| 2.0             | 51        | 2.86                 |
| 3.0             | 64        | 3.75                 |
| 4.0             | 51        | 2.86                 |
| 5.0             | 52        | 2.93                 |
| 6.0             | 51        | 2.86                 |

Measurement distance:  $d = 3.0$  m

$W = 2 \times d \times \tan(0.5 \times \theta_{3\text{ dB}})$

#### 4.3.2 Calculation method

Emission level = Reading + CF\*

Margin = Limit - Emission level

\*Note: CF (correction factor) = TF (Transducer Factor; Antenna factor) + PF (Path Factor; Cable system loss  
+ ATT. loss - Amplifier Gain) + DF (Distance correction Factor)

Example)

Limit @ 1100.0 MHz: 70.0 dB $\mu$ V/m (Peak)  
50.0 dB $\mu$ V/m (Average)

Measurement distance: 3.25 m

Distance conversion Factor:  $20 \log (3.25\text{m}/3.0\text{m}) = 0.7 \text{ dB}$

Peak            Reading = 50.2 dB $\mu$ V    CF = 2.4 dB  
Emission level =  $50.2 + 2.4 = 52.6 \text{ dB}\mu\text{V/m}$   
Margin =  $70.0 - 52.6 = 17.4 \text{ dB}$

Average        Reading = 32.0 dB $\mu$ V    CF = 2.4 dB  
Emission level =  $32.0 + 2.4 = 34.4 \text{ dB}\mu\text{V/m}$   
Margin =  $50.0 - 34.4 = 15.6 \text{ dB}$



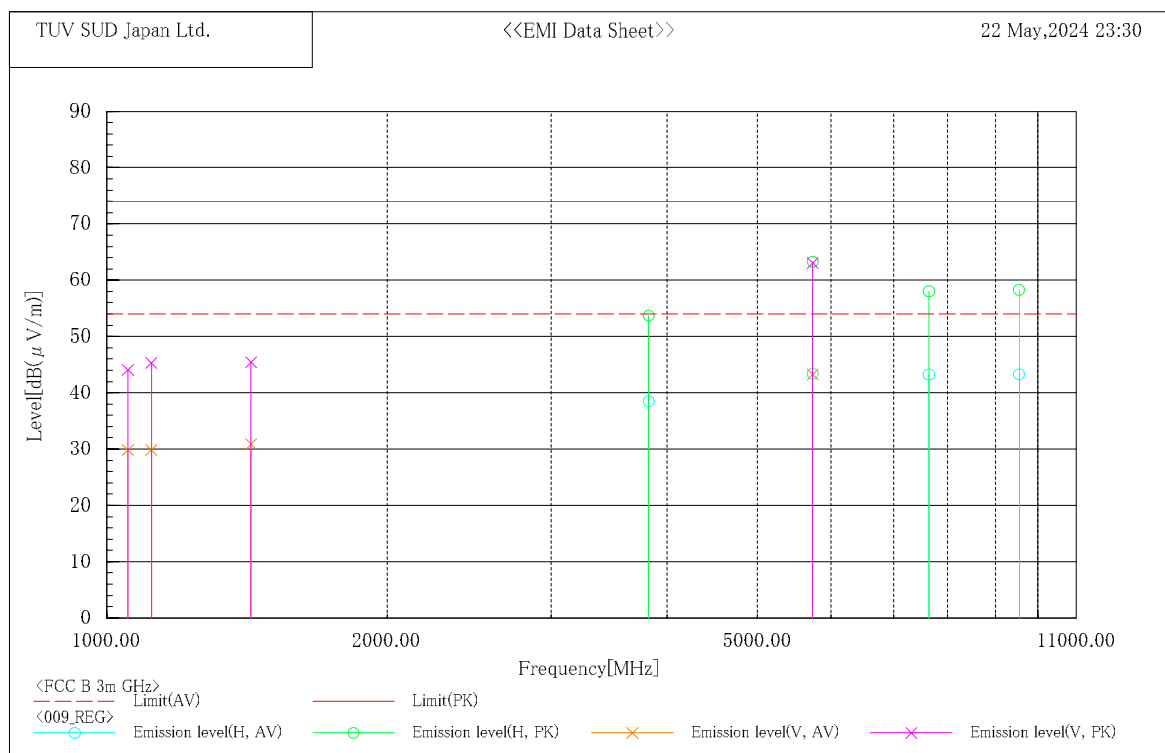
### 4.3.3 Test data and Configuration photographs

|                |                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation mode | Out Camera with ADP and Earphone + GSM 1900 mode                                                                                                                        |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0<br>EB1190EM, S/N: 353343640002975 - Modification State 0<br>EB1190EM, S/N: 353343640002983 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 22 May,2024 23:30  
 Operator : Satoshi Hosoya  
 Temp, Hum, Atm : 22.4 [°C], 44.2 [%], 985 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



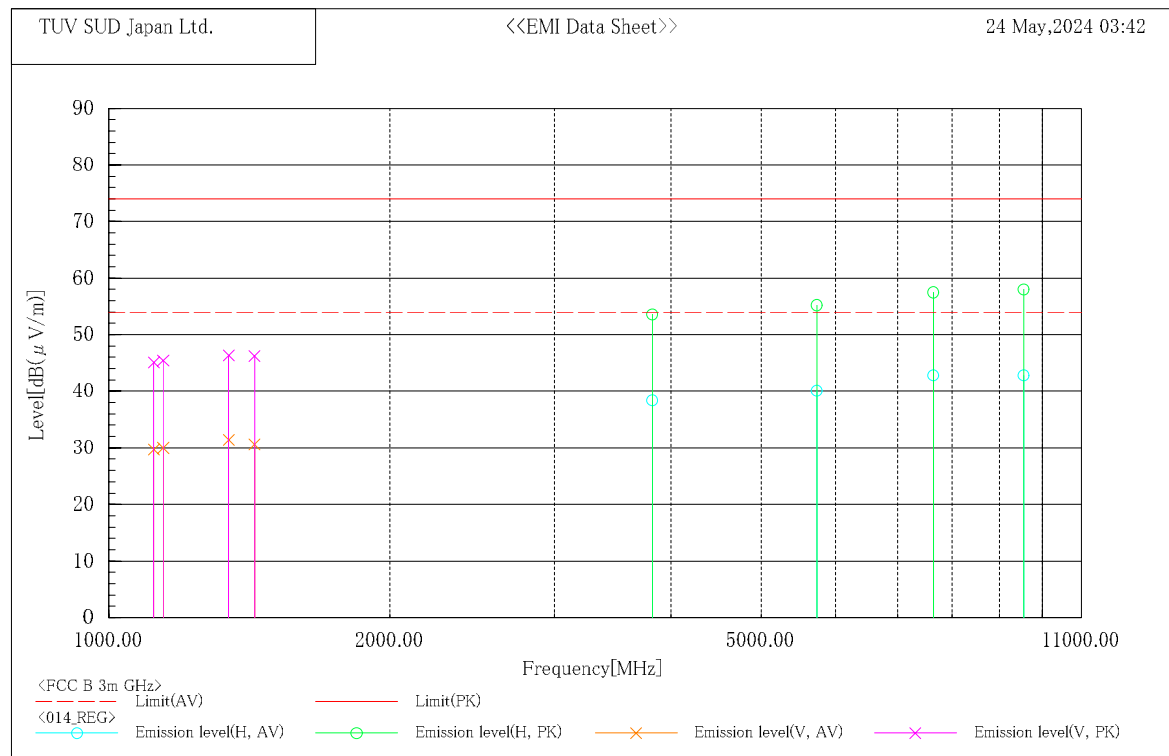
### Final Result

| Frequency<br>MHz | Pol. | Reading<br>dB( $\mu\text{V}$ ) |      | Factor<br>dB(1/m) |      |       |     | Level<br>dB( $\mu\text{V/m}$ ) |      | Limit<br>dB( $\mu\text{V/m}$ ) |      | Margin<br>dB |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|--------------------------------|------|-------------------|------|-------|-----|--------------------------------|------|--------------------------------|------|--------------|------|--------------|--------------|-------------|
|                  |      | AV                             | PK   | CF                | TF   | PF    | DF  | AV                             | PK   | AV                             | PK   | AV           | PK   |              |              |             |
| 1053.963         | V    | 36.9                           | 51.2 | -7.1              | 27.7 | -37.3 | 2.5 | 29.8                           | 44.1 | 54.0                           | 74.0 | 24.2         | 29.9 | 100.0        | 168.0        | 0.0         |
| 1117.369         | V    | 36.7                           | 52.2 | -6.9              | 27.6 | -37.0 | 2.5 | 29.8                           | 45.3 | 54.0                           | 74.0 | 24.2         | 28.7 | 132.0        | 254.0        | 6.0         |
| 1429.712         | V    | 36.0                           | 50.6 | -5.2              | 28.5 | -36.2 | 2.5 | 30.8                           | 45.4 | 54.0                           | 74.0 | 23.2         | 28.6 | 106.0        | 198.0        | 1.1         |
| 3819.736         | H    | 32.7                           | 47.9 | 5.8               | 33.8 | -30.5 | 2.5 | 38.5                           | 53.7 | 54.0                           | 74.0 | 15.5         | 20.3 | 332.0        | 226.0        | 22.4        |
| 5729.603         | H    | 33.3                           | 53.2 | 10.1              | 34.7 | -27.1 | 2.5 | 43.4                           | 63.3 | 54.0                           | 74.0 | 10.6         | 10.7 | 242.0        | 329.0        | 24.5        |
| 5729.603         | V    | 33.1                           | 53.0 | 10.1              | 34.7 | -27.1 | 2.5 | 43.2                           | 63.1 | 54.0                           | 74.0 | 10.8         | 10.9 | 173.0        | 148.0        | 12.5        |
| 7639.471         | H    | 29.4                           | 44.2 | 13.8              | 35.8 | -24.5 | 2.5 | 43.2                           | 58.0 | 54.0                           | 74.0 | 10.8         | 16.0 | 235.0        | 338.0        | 23.7        |
| 9549.340         | H    | 27.3                           | 42.3 | 16.0              | 36.7 | -23.2 | 2.5 | 43.3                           | 58.3 | 54.0                           | 74.0 | 10.7         | 15.7 | 270.0        | 298.0        | 28.4        |

S/N: 353343640002975

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 03:42  
 Operator : Satoshi Hosoya  
 Temp, Hum, Atm : 25.0 [°C], 45.4 [%], 980 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



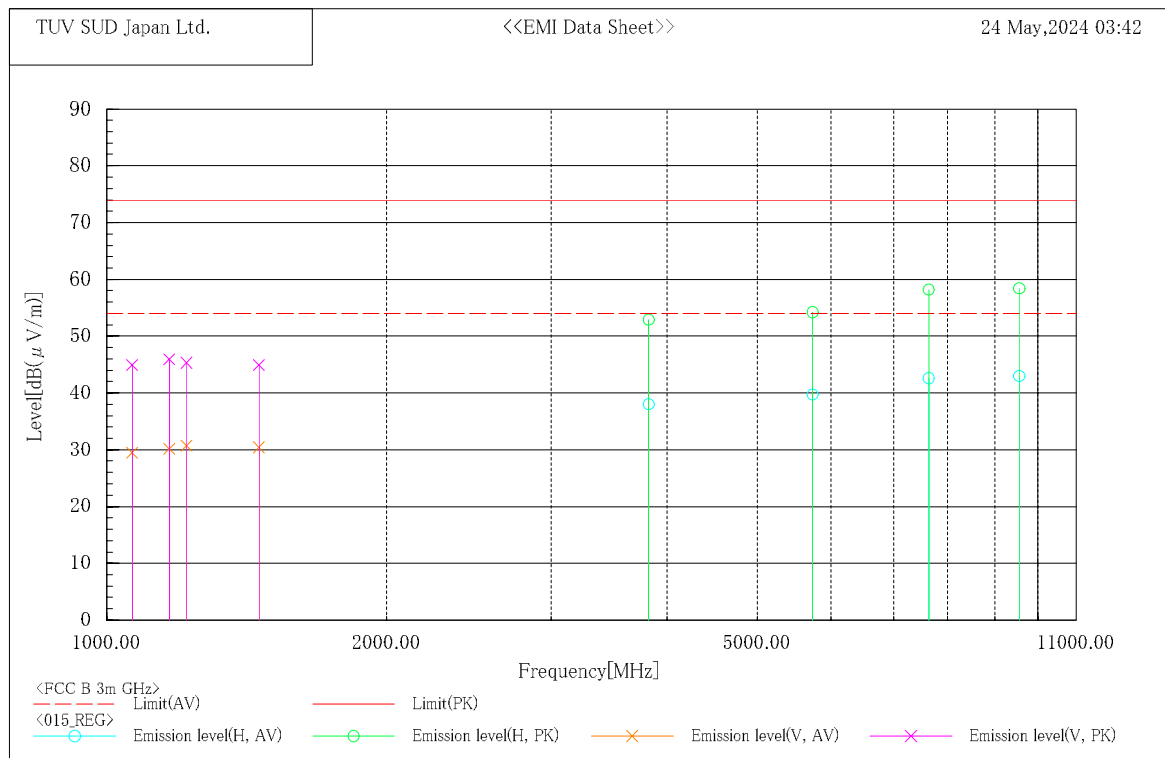
## Final Result

| Frequency<br>MHz | Pol. | Reading<br>dB( $\mu\text{V}$ ) |      | Factor<br>dB(1/m) |      |       |     | Level<br>dB( $\mu\text{V/m}$ ) |      | Limit<br>dB( $\mu\text{V/m}$ ) |      | Margin<br>dB |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|--------------------------------|------|-------------------|------|-------|-----|--------------------------------|------|--------------------------------|------|--------------|------|--------------|--------------|-------------|
|                  |      | AV                             | PK   | CF                | TF   | PF    | DF  | AV                             | PK   | AV                             | PK   | AV           | PK   |              |              |             |
| 1117.276         | V    | 36.6                           | 52.0 | -6.9              | 27.6 | -37.0 | 2.5 | 29.7                           | 45.1 | 54.0                           | 74.0 | 24.3         | 28.9 | 162.0        | 219.0        | 11.5        |
| 1143.135         | V    | 36.5                           | 51.9 | -6.5              | 27.9 | -36.9 | 2.5 | 30.0                           | 45.4 | 54.0                           | 74.0 | 24.0         | 28.6 | 138.0        | 178.0        | 7.1         |
| 1343.891         | V    | 36.1                           | 51.0 | -4.7              | 29.2 | -36.4 | 2.5 | 31.4                           | 46.3 | 54.0                           | 74.0 | 22.6         | 27.7 | 110.0        | 180.0        | 2.1         |
| 1432.288         | V    | 35.8                           | 51.4 | -5.2              | 28.5 | -36.2 | 2.5 | 30.6                           | 46.2 | 54.0                           | 74.0 | 23.4         | 27.8 | 123.0        | 207.0        | 4.3         |
| 3819.736         | H    | 32.6                           | 47.8 | 5.8               | 33.8 | -30.5 | 2.5 | 38.4                           | 53.6 | 54.0                           | 74.0 | 15.6         | 20.4 | 393.0        | 128.0        | 36.2        |
| 5729.600         | H    | 30.0                           | 45.1 | 10.1              | 34.7 | -27.1 | 2.5 | 40.1                           | 55.2 | 54.0                           | 74.0 | 13.9         | 18.8 | 234.0        | 257.0        | 23.3        |
| 7639.473         | H    | 29.0                           | 43.7 | 13.8              | 35.8 | -24.5 | 2.5 | 42.8                           | 57.5 | 54.0                           | 74.0 | 11.2         | 16.5 | 224.0        | 321.0        | 21.8        |
| 9549.343         | H    | 27.0                           | 42.2 | 15.8              | 36.7 | -23.4 | 2.5 | 42.8                           | 58.0 | 54.0                           | 74.0 | 11.2         | 16.0 | 244.0        | 245.0        | 24.8        |

S/N: 353343640002983

Standard : FCC Part 15 Class B  
 Date of test : 24 May,2024 03:42  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 21.6 [°C], 49.7 [%], 977 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

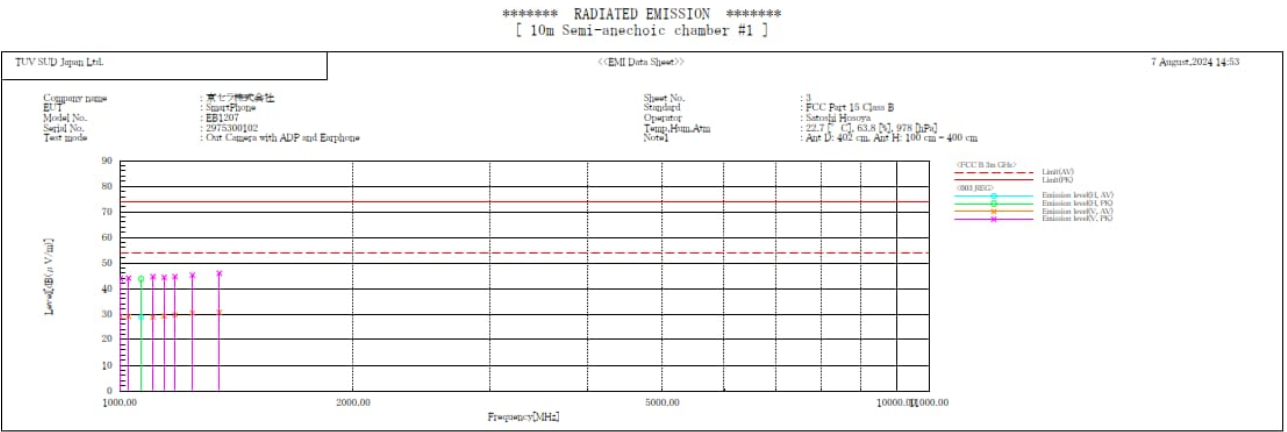


## Final Result

| Frequency<br>MHz | Pol. | Reading |      | Factor |      |       |     | Level |      | Limit |      | Margin |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|---------|------|--------|------|-------|-----|-------|------|-------|------|--------|------|--------------|--------------|-------------|
|                  |      | AV      | PK   | CF     | TF   | PF    | DF  | AV    | PK   | AV    | PK   | AV     | PK   |              |              |             |
| 1065.339         | V    | 36.6    | 52.0 | -7.1   | 27.6 | -37.2 | 2.5 | 29.5  | 44.9 | 54.0  | 74.0 | 24.5   | 29.1 | 179.0        | 339.0        | 14.7        |
| 1168.180         | V    | 36.2    | 52.0 | -6.1   | 28.3 | -36.9 | 2.5 | 30.1  | 45.9 | 54.0  | 74.0 | 23.9   | 28.1 | 119.0        | 12.0         | 3.6         |
| 1217.849         | V    | 36.1    | 50.7 | -5.4   | 28.8 | -36.7 | 2.5 | 30.7  | 45.3 | 54.0  | 74.0 | 23.3   | 28.7 | 254.0        | 167.0        | 26.3        |
| 1458.047         | V    | 35.7    | 50.2 | -5.3   | 28.3 | -36.1 | 2.5 | 30.4  | 44.9 | 54.0  | 74.0 | 23.6   | 29.1 | 100.0        | 358.0        | 0           |
| 3819.648         | H    | 32.2    | 47.1 | 5.8    | 33.8 | -30.5 | 2.5 | 38.0  | 52.9 | 54.0  | 74.0 | 16.0   | 21.1 | 144.0        | 121.0        | 8.3         |
| 5729.517         | H    | 29.6    | 44.1 | 10.1   | 34.7 | -27.1 | 2.5 | 39.7  | 54.2 | 54.0  | 74.0 | 14.3   | 19.8 | 234.0        | 263.0        | 23.4        |
| 7639.407         | H    | 28.8    | 44.4 | 13.8   | 35.8 | -24.5 | 2.5 | 42.6  | 58.2 | 54.0  | 74.0 | 11.4   | 15.8 | 213.0        | 289.0        | 20.5        |
| 9550.438         | H    | 27.0    | 42.4 | 16.0   | 36.7 | -23.2 | 2.5 | 43.0  | 58.4 | 54.0  | 74.0 | 11.0   | 15.6 | 232.0        | 261.0        | 23.1        |



|                |                                                |
|----------------|------------------------------------------------|
| Operation mode | Out Camera with ADP and Earphone               |
| EUT            | EB1207, S/N: 2975300102 - Modification State 0 |



Final Result

| No. | Frequency | Pol | Reading<br>AV | Reading<br>PK | c.f       | Result<br>AV | Result<br>PK | Limit<br>AV | Limit<br>PK | Margin<br>AV | Margin<br>PK | Height | Angle |
|-----|-----------|-----|---------------|---------------|-----------|--------------|--------------|-------------|-------------|--------------|--------------|--------|-------|
|     | [MHz]     |     | [dB(μV)]      | [dB(μV)]      | [dB(1/m)] | [dB(μV/m)]   | [dB(μV/m)]   | [dB(μV/m)]  | [dB(μV/m)]  | [dB]         | [dB]         | [cm]   | [deg] |
| 1   | 1002.679  | V   | 36.0          | 50.9          | -7.0      | 29.0         | 43.9         | 54.0        | 74.0        | 25.0         | 30.1         | 186.0  | 170.0 |
| 2   | 1027.439  | V   | 36.1          | 51.0          | -7.0      | 29.1         | 44.0         | 54.0        | 74.0        | 24.9         | 30.0         | 124.0  | 242.0 |
| 3   | 1066.487  | H   | 35.9          | 50.9          | -7.1      | 28.8         | 43.8         | 54.0        | 74.0        | 25.2         | 30.2         | 365.0  | 169.0 |
| 4   | 1105.153  | V   | 35.9          | 51.8          | -7.1      | 28.8         | 44.7         | 54.0        | 74.0        | 25.2         | 29.3         | 113.0  | 131.0 |
| 5   | 1141.743  | V   | 35.8          | 50.9          | -6.6      | 29.2         | 44.3         | 54.0        | 74.0        | 24.8         | 29.7         | 132.0  | 275.0 |
| 6   | 1179.649  | V   | 35.6          | 50.6          | -6.0      | 29.6         | 44.6         | 54.0        | 74.0        | 24.4         | 29.4         | 100.0  | 308.0 |
| 7   | 1242.274  | V   | 35.4          | 50.3          | -5.1      | 30.3         | 45.2         | 54.0        | 74.0        | 23.7         | 28.8         | 111.0  | 201.0 |
| 8   | 1344.245  | V   | 35.4          | 50.6          | -4.7      | 30.7         | 45.9         | 54.0        | 74.0        | 23.3         | 28.1         | 138.0  | 243.0 |

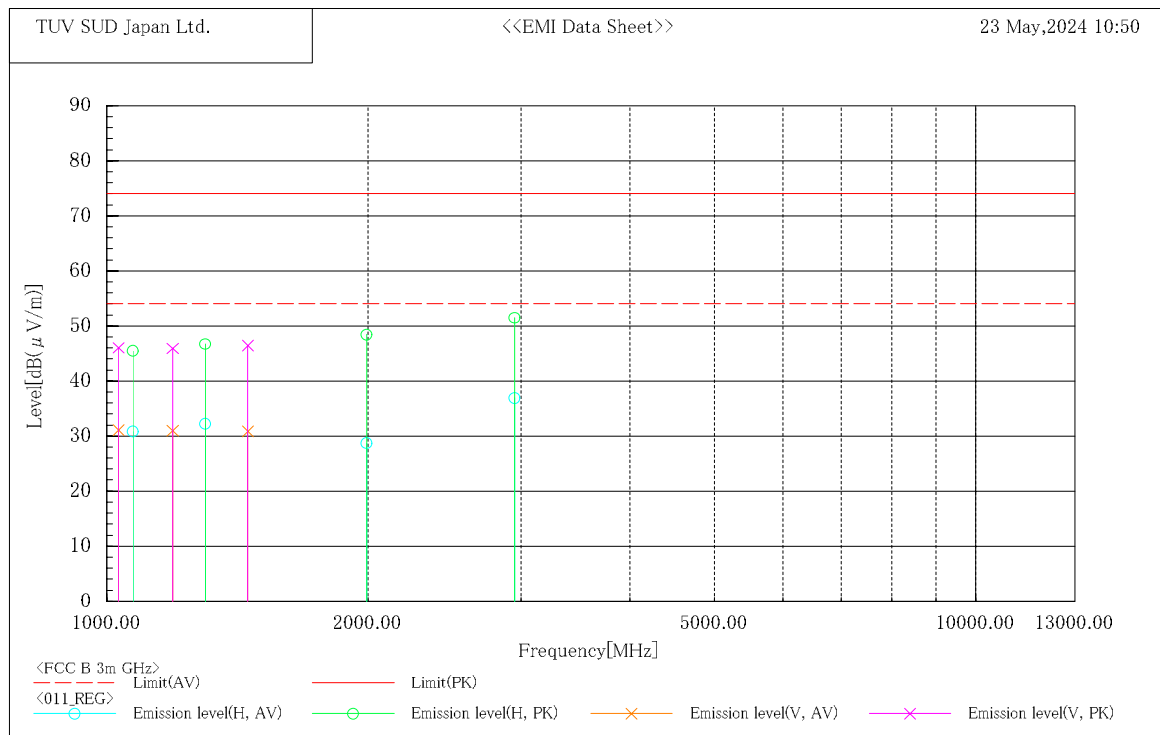
Comparison of the charts of EB1190EM and EB1207 showed that the difference in test results was less than 3 dB.

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | In camera with ADP and earphone + LTE Band 12 mode    |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 23 May,2024 10:50  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 21.3 [°C], 46.3 [%], 982 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

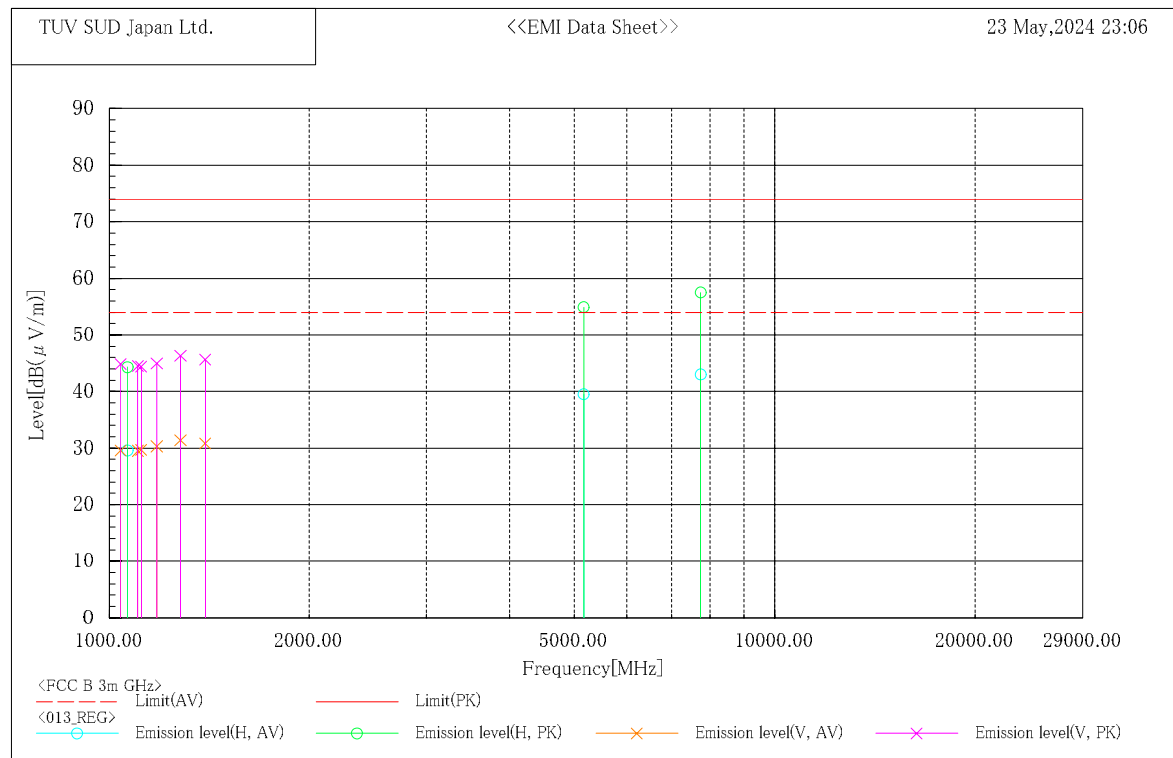
| Frequency | Pol. | Reading |      | Factor  |      |       |     | Level    |      | Limit    |      | Margin |      | Height | Angle | Tilt |
|-----------|------|---------|------|---------|------|-------|-----|----------|------|----------|------|--------|------|--------|-------|------|
| MHz       |      | dB(μV)  |      | dB(1/m) |      |       |     | dB(μV/m) |      | dB(μV/m) |      | dB     |      | cm     | deg   | deg  |
|           |      | AV      | PK   | CF      | TF   | PF    | DF  | AV       | PK   | AV       | PK   | AV     | PK   |        |       |      |
| 1032.188  | V    | 36.6    | 51.5 | -5.5    | 27.8 | -35.8 | 2.5 | 31.1     | 46.0 | 54.0     | 74.0 | 22.9   | 28.0 | 174.0  | 178.0 | 13.7 |
| 1072.269  | H    | 36.6    | 51.3 | -5.8    | 27.6 | -35.9 | 2.5 | 30.8     | 45.5 | 54.0     | 74.0 | 23.2   | 28.5 | 178.0  | 235.0 | 14.6 |
| 1192.195  | V    | 36.0    | 50.9 | -5.0    | 28.5 | -36.0 | 2.5 | 31.0     | 45.9 | 54.0     | 74.0 | 23.0   | 28.1 | 259.0  | 348.0 | 27.0 |
| 1299.135  | H    | 36.1    | 50.6 | -3.9    | 29.6 | -36.0 | 2.5 | 32.2     | 46.7 | 54.0     | 74.0 | 21.8   | 27.3 | 186.0  | 107.0 | 15.9 |
| 1454.182  | V    | 35.4    | 51.0 | -4.6    | 28.4 | -35.5 | 2.5 | 30.8     | 46.4 | 54.0     | 74.0 | 23.2   | 27.6 | 263.0  | 301.0 | 27.6 |
| 1991.526  | H    | 29.9    | 49.6 | -1.2    | 30.6 | -34.3 | 2.5 | 28.7     | 48.4 | 54.0     | 74.0 | 25.3   | 25.6 | 285.0  | 337.0 | 30.6 |
| 2946.869  | H    | 33.8    | 48.4 | 3.1     | 32.5 | -31.9 | 2.5 | 36.9     | 51.5 | 54.0     | 74.0 | 17.1   | 22.5 | 233.0  | 256.0 | 23.3 |

|                |                                                             |
|----------------|-------------------------------------------------------------|
| Operation mode | MP4 with ADP and Earphone + WiFi 11 a/ac + LTE Band 41 mode |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0       |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 23 May,2024 23:06  
 Operator : Satoshi Hosoya  
 Temp, Hum, Atm : 25.0 [°C], 45.4 [%], 980 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]



### Final Result

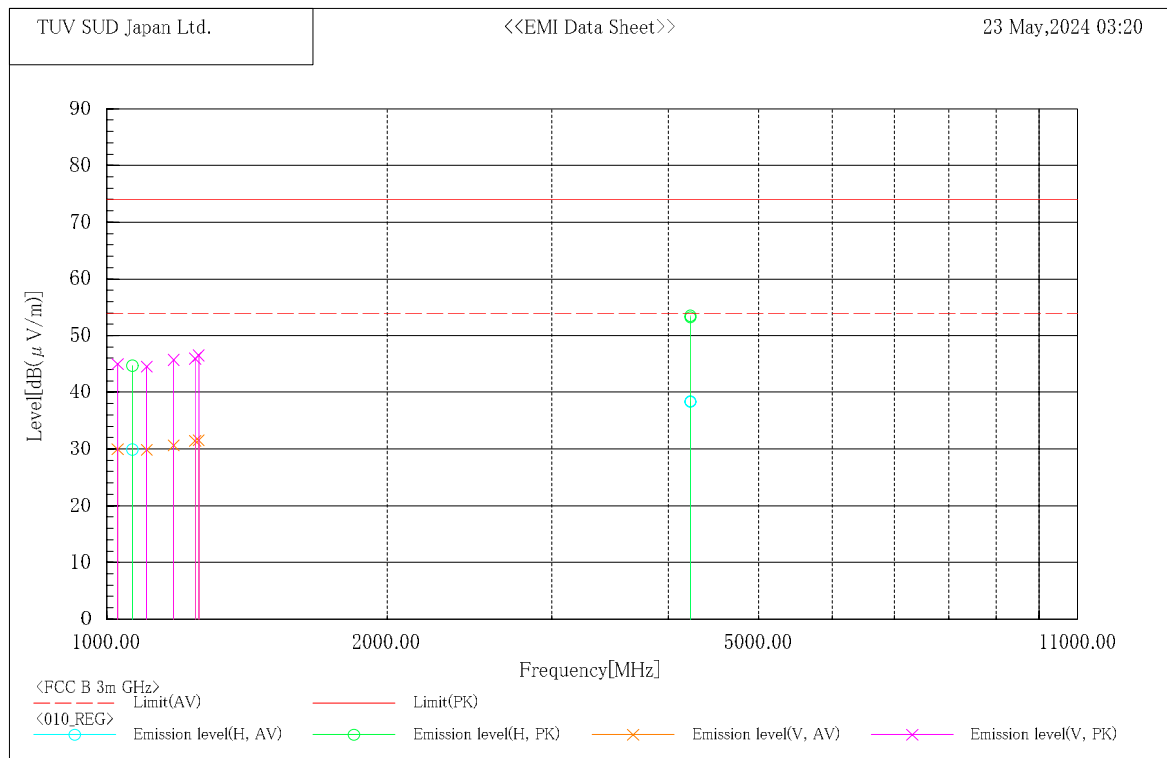
| Frequency<br>MHz | Pol. | Reading<br>dB( $\mu\text{V}$ ) |      | Factor<br>dB(1/m) |      |       |     | Level<br>dB( $\mu\text{V/m}$ ) |      | Limit<br>dB( $\mu\text{V/m}$ ) |      | Margin<br>dB |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|--------------------------------|------|-------------------|------|-------|-----|--------------------------------|------|--------------------------------|------|--------------|------|--------------|--------------|-------------|
|                  |      | AV                             | PK   | CF                | TF   | PF    | DF  | AV                             | PK   | AV                             | PK   | AV           | PK   |              |              |             |
| 1040.383         | V    | 36.7                           | 51.9 | -7.1              | 27.7 | -37.3 | 2.5 | 29.6                           | 44.8 | 54.0                           | 74.0 | 24.4         | 29.2 | 120.0        | 232.0        | 3.8         |
| 1065.707         | H    | 36.7                           | 51.4 | -7.1              | 27.6 | -37.2 | 2.5 | 29.6                           | 44.3 | 54.0                           | 74.0 | 24.4         | 29.7 | 308.0        | 172.0        | 33.4        |
| 1104.135         | V    | 36.7                           | 51.7 | -7.2              | 27.4 | -37.1 | 2.5 | 29.5                           | 44.5 | 54.0                           | 74.0 | 24.5         | 29.5 | 112.0        | 159.0        | 2.2         |
| 1117.642         | V    | 36.6                           | 51.3 | -6.9              | 27.6 | -37.0 | 2.5 | 29.7                           | 44.4 | 54.0                           | 74.0 | 24.3         | 29.6 | 106.0        | 254.0        | 1.3         |
| 1179.769         | V    | 36.3                           | 50.9 | -6.0              | 28.4 | -36.9 | 2.5 | 30.3                           | 44.9 | 54.0                           | 74.0 | 23.7         | 29.1 | 114.0        | 229.0        | 2.7         |
| 1280.693         | V    | 36.1                           | 51.0 | -4.7              | 29.4 | -36.6 | 2.5 | 31.4                           | 46.3 | 54.0                           | 74.0 | 22.6         | 27.7 | 159.0        | 197.0        | 11.1        |
| 1394.694         | V    | 35.9                           | 50.7 | -5.1              | 28.7 | -36.3 | 2.5 | 30.8                           | 45.6 | 54.0                           | 74.0 | 23.2         | 28.4 | 123.0        | 165.0        | 4.3         |
| 5162.430         | H    | 30.8                           | 46.2 | 8.7               | 34.4 | -28.2 | 2.5 | 39.5                           | 54.9 | 54.0                           | 74.0 | 14.5         | 19.1 | 255.0        | 213.0        | 26.3        |
| 7743.358         | H    | 29.1                           | 43.6 | 13.9              | 35.8 | -24.4 | 2.5 | 43.0                           | 57.5 | 54.0                           | 74.0 | 11.0         | 16.5 | 220.0        | 249.0        | 21.3        |

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | MP4 with ADP + WiFi 11 b/g/n + WCDMA Band 4 mode      |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 23 May,2024 03:20  
 Operator : Satoshi Hosoya  
 Temp, Hum, Atm : 22.4 [°C], 44.2 [%], 985 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

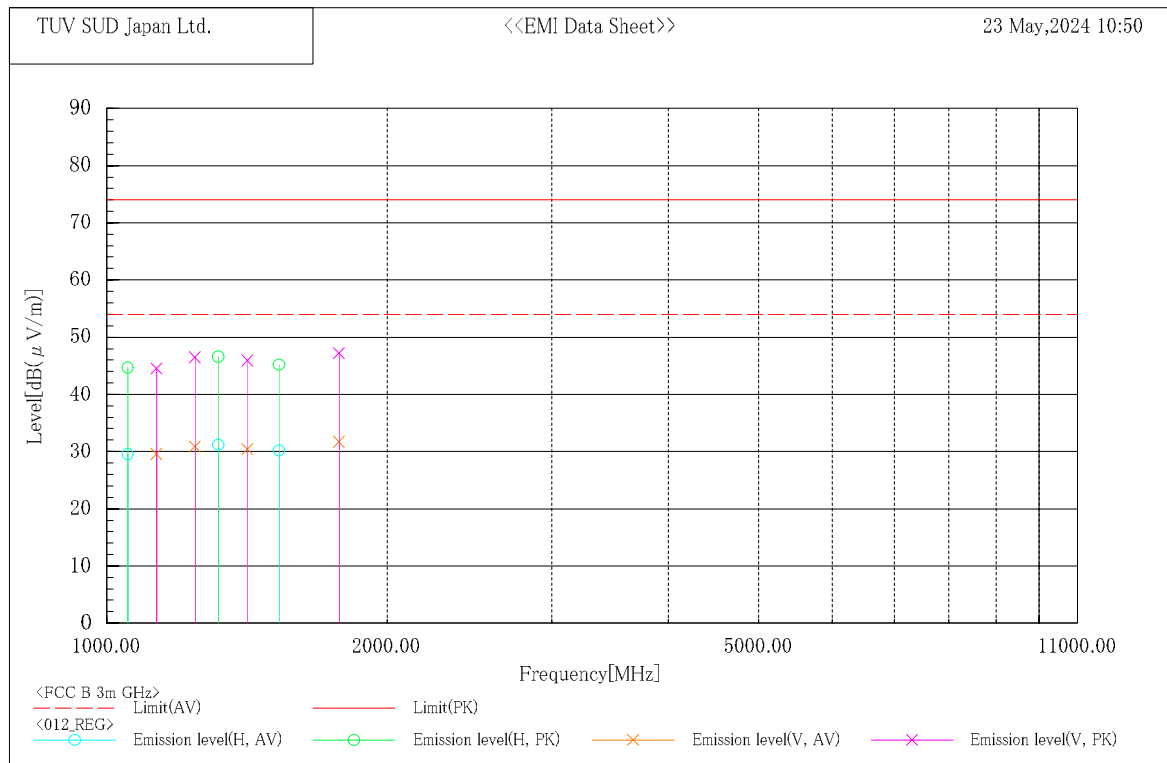
| Frequency<br>MHz | Pol. | Reading<br>dB(μV) |      | Factor<br>dB(1/m) |      |       |     | Level<br>dB(μV/m) |      | Limit<br>dB(μV/m) |      | Margin<br>dB |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|-------------------|------|-------------------|------|-------|-----|-------------------|------|-------------------|------|--------------|------|--------------|--------------|-------------|
|                  |      | AV                | PK   | CF                | TF   | PF    | DF  | AV                | PK   | AV                | PK   | AV           | PK   |              |              |             |
| 1027.545         | V    | 37.0              | 52.0 | -7.0              | 27.8 | -37.3 | 2.5 | 30.0              | 45.0 | 54.0              | 74.0 | 24.0         | 29.0 | 133.0        | 260.0        | 6.2         |
| 1065.326         | H    | 37.0              | 51.8 | -7.1              | 27.6 | -37.2 | 2.5 | 29.9              | 44.7 | 54.0              | 74.0 | 24.1         | 29.3 | 324.0        | 132.0        | 35.0        |
| 1104.083         | V    | 37.0              | 51.7 | -7.2              | 27.4 | -37.1 | 2.5 | 29.8              | 44.5 | 54.0              | 74.0 | 24.2         | 29.5 | 108.0        | 135.0        | 1.6         |
| 1179.597         | V    | 36.6              | 51.7 | -6.0              | 28.4 | -36.9 | 2.5 | 30.6              | 45.7 | 54.0              | 74.0 | 23.4         | 28.3 | 100.0        | 291.0        | 0.0         |
| 1244.301         | V    | 36.5              | 51.0 | -5.1              | 29.1 | -36.7 | 2.5 | 31.4              | 45.9 | 54.0              | 74.0 | 22.6         | 28.1 | 154.0        | 351.0        | 10.1        |
| 1255.569         | V    | 36.5              | 51.5 | -5.0              | 29.2 | -36.7 | 2.5 | 31.5              | 46.5 | 54.0              | 74.0 | 22.5         | 27.5 | 141.0        | 92.0         | 7.5         |
| 4225.033         | H    | 32.0              | 47.1 | 6.4               | 33.5 | -29.6 | 2.5 | 38.4              | 53.5 | 54.0              | 74.0 | 15.6         | 20.5 | 263.0        | 266.0        | 27.4        |
| 4225.033         | V    | 31.9              | 46.8 | 6.4               | 33.5 | -29.6 | 2.5 | 38.3              | 53.2 | 54.0              | 74.0 | 15.7         | 20.8 | 112.0        | 280.0        | 2.2         |

|                |                                                       |
|----------------|-------------------------------------------------------|
| Operation mode | with ADP and Earphone + NFC mode                      |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0 |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 23 May,2024 10:50  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 21.3 [°C], 46.3 [%], 982 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 402  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

**Final Result**

| Frequency | Pol. | Reading |      | Factor  |      |       |     | Level    |      | Limit    |      | Margin |      | Height | Angle | Tilt |
|-----------|------|---------|------|---------|------|-------|-----|----------|------|----------|------|--------|------|--------|-------|------|
| MHz       |      | dB(μV)  |      | dB(1/m) |      |       |     | dB(μV/m) |      | dB(μV/m) |      | dB     |      | cm     | deg   | deg  |
|           |      | AV      | PK   | CF      | TF   | PF    | DF  | AV       | PK   | AV       | PK   | AV     | PK   |        |       |      |
| 1052.891  | H    | 36.7    | 51.8 | -7.1    | 27.7 | -37.3 | 2.5 | 29.6     | 44.7 | 54.0     | 74.0 | 24.4   | 29.3 | 199.0  | 4.0   | 17.9 |
| 1130.506  | V    | 36.3    | 51.2 | -6.7    | 27.8 | -37.0 | 2.5 | 29.6     | 44.5 | 54.0     | 74.0 | 24.4   | 29.5 | 182.0  | 301.0 | 15.2 |
| 1243.402  | V    | 36.0    | 51.6 | -5.1    | 29.1 | -36.7 | 2.5 | 30.9     | 46.5 | 54.0     | 74.0 | 23.1   | 27.5 | 309.0  | 352.0 | 33.2 |
| 1317.229  | H    | 35.8    | 51.2 | -4.6    | 29.4 | -36.5 | 2.5 | 31.2     | 46.6 | 54.0     | 74.0 | 22.8   | 27.4 | 266.0  | 93.0  | 27.9 |
| 1414.098  | V    | 35.5    | 51.0 | -5.1    | 28.6 | -36.2 | 2.5 | 30.4     | 45.9 | 54.0     | 74.0 | 23.6   | 28.1 | 354.0  | 339.0 | 36.4 |
| 1530.714  | H    | 35.6    | 50.6 | -5.4    | 28.0 | -35.9 | 2.5 | 30.2     | 45.2 | 54.0     | 74.0 | 23.8   | 28.8 | 143.0  | 4.0   | 8.1  |
| 1774.666  | V    | 34.5    | 50.0 | -2.8    | 30.0 | -35.3 | 2.5 | 31.7     | 47.2 | 54.0     | 74.0 | 22.3   | 26.8 | 192.0  | 322.0 | 16.9 |

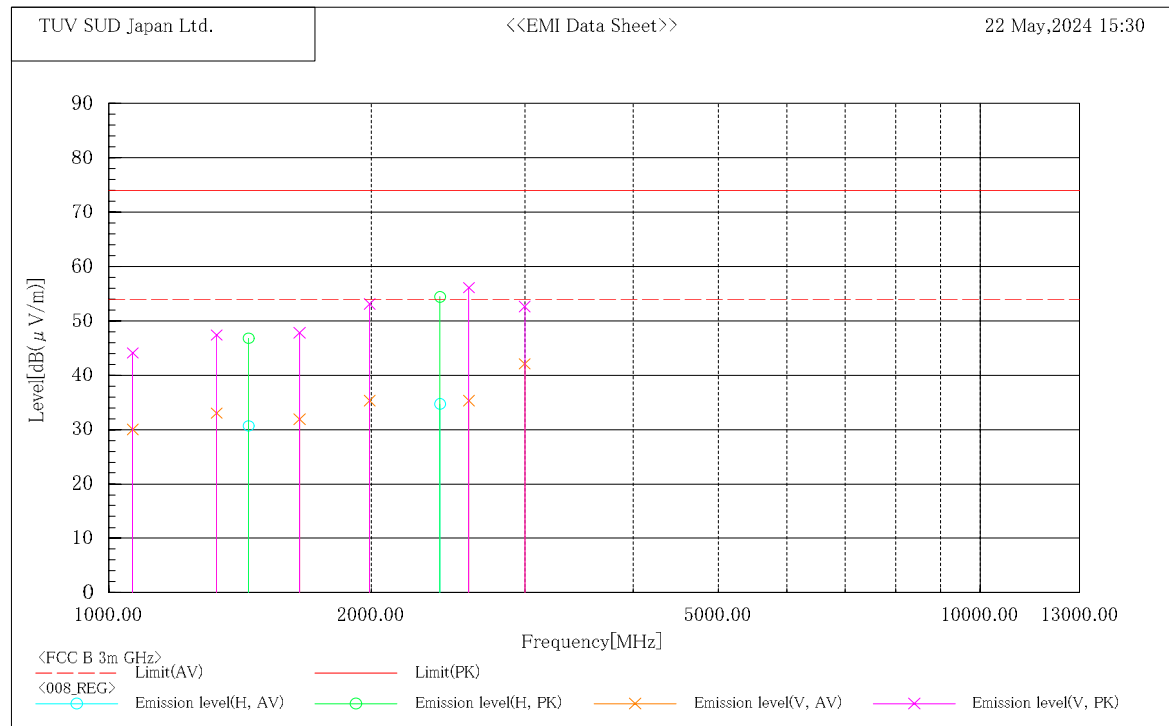


|                |                                                                   |
|----------------|-------------------------------------------------------------------|
| Operation mode | MP4 with Earphone + USB Read with PC + BT EDR + WCDMA Band 5 mode |
| EUT            | EB1190EM, S/N: 353343640002959 - Modification State 0             |

S/N: 353343640002959

Standard : FCC Part 15 Class B  
 Date of test : 22 May,2024 15:30  
 Operator : Yoshiyuki Takahashi  
 Temp, Hum, Atm : 18.7 [°C], 50.3 [%], 987 [hPa]  
 Supply power : AC 120 V, 60 Hz, 1 phase  
 Antenna distance (cm) : 390  
 Antenna height (cm) : 100 - 400

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
 [ 10m Semi-anechoic chamber #1 ]

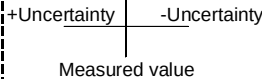
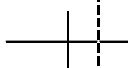
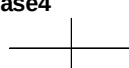
**Final Result**

| Frequency<br>MHz | Pol. | Reading<br>dB(μV) |      | Factor<br>dB(1/m) |      |       |     | Level<br>dB(μV/m) |      | Limit<br>dB(μV/m) |      | Margin<br>dB |      | Height<br>cm | Angle<br>deg | Tilt<br>deg |
|------------------|------|-------------------|------|-------------------|------|-------|-----|-------------------|------|-------------------|------|--------------|------|--------------|--------------|-------------|
|                  |      | AV                | PK   | CF                | TF   | PF    | DF  | AV                | PK   | AV                | PK   | AV           | PK   |              |              |             |
| 1065.231         | V    | 37.3              | 51.4 | -7.3              | 27.6 | -37.2 | 2.3 | 30.0              | 44.1 | 54.0              | 74.0 | 24.0         | 29.9 | 208.0        | 112.0        | 19.4        |
| 1329.734         | V    | 37.2              | 51.6 | -4.2              | 29.3 | -35.8 | 2.3 | 33.0              | 47.4 | 54.0              | 74.0 | 21.0         | 26.6 | 239.0        | 4.0          | 24.2        |
| 1446.809         | H    | 35.4              | 51.5 | -4.7              | 28.4 | -35.4 | 2.3 | 30.7              | 46.8 | 54.0              | 74.0 | 23.3         | 27.2 | 273.0        | 329.0        | 29          |
| 1655.560         | V    | 36.3              | 52.2 | -4.4              | 28.6 | -35.3 | 2.3 | 31.9              | 47.8 | 54.0              | 74.0 | 22.1         | 26.2 | 100.0        | 164.0        | 0           |
| 1991.507         | V    | 36.8              | 54.6 | -1.5              | 30.6 | -34.4 | 2.3 | 35.3              | 53.1 | 54.0              | 74.0 | 18.7         | 20.9 | 231.0        | 289.0        | 23.1        |
| 2399.260         | H    | 34.3              | 54.0 | 0.4               | 31.7 | -33.6 | 2.3 | 34.7              | 54.4 | 54.0              | 74.0 | 19.3         | 19.6 | 245.0        | 257.0        | 24.9        |
| 2589.004         | V    | 33.7              | 54.5 | 1.6               | 32.5 | -33.2 | 2.3 | 35.3              | 56.1 | 54.0              | 74.0 | 18.7         | 17.9 | 100.0        | 4.0          | 0           |
| 3000.001         | V    | 39.3              | 49.8 | 2.8               | 32.7 | -32.2 | 2.3 | 42.1              | 52.6 | 54.0              | 74.0 | 11.9         | 21.4 | 100.0        | 83.0         | 0           |

## 5 Measurement Uncertainty

The reported measurement uncertainty is based on a value obtained by multiplying standard uncertainty by coverage factor of  $k=2$ , and a level of confidence becomes 95 %.

| Item                              | Parameter          | $U_{lab}$    | $U_{cispr}$  |
|-----------------------------------|--------------------|--------------|--------------|
| Conducted Emission, V-AMN         | 9 kHz to 150 kHz   | $\pm 3.7$ dB | $\pm 3.8$ dB |
| Conducted Emission, V-AMN         | 150 kHz to 30 MHz  | $\pm 3.3$ dB | $\pm 3.4$ dB |
| Conducted Emission, $\Delta$ -AN  | 150 kHz to 30 MHz  | $\pm 4.9$ dB | -            |
| Conducted Emission, AN            | 150 kHz to 30 MHz  | $\pm 3.3$ dB | -            |
| Conducted Emission, AAN           | 150 kHz to 30 MHz  | $\pm 4.8$ dB | $\pm 5.0$ dB |
| Conducted Emission, Voltage Probe | 9 kHz to 30 MHz    | $\pm 2.9$ dB | $\pm 2.9$ dB |
| Conducted Emission, Current Probe | 150 kHz to 30 MHz  | $\pm 2.9$ dB | $\pm 2.9$ dB |
| Disturbance Power                 | 30 MHz to 300 MHz  | $\pm 3.8$ dB | $\pm 4.5$ dB |
| Radiated Emission                 | 30 MHz to 1000 MHz | $\pm 5.4$ dB | $\pm 6.3$ dB |
| Radiated Emission                 | 1 GHz to 6 GHz     | $\pm 5.2$ dB | $\pm 5.2$ dB |
| Radiated Emission                 | 6 GHz to 18 GHz    | $\pm 4.9$ dB | $\pm 5.5$ dB |
| Radiated Emission                 | 9 kHz to 30 MHz    | $\pm 3.8$ dB | -            |

| Judge | Measured value and standard limit value                                                                                                                                                                                                                      |  |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| PASS  | <div> <div>Standard limit value</div> <div> <div>Case1</div>  </div> </div> <p>Even if it takes uncertainty into consideration, a standard limit value is fulfilled.</p>  |  |
|       | <div> <div>Case2</div>  </div> <p>Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.</p>  |  |
| FAIL  | <div> <div>Case3</div>  </div> <p>Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.</p> |  |
|       | <div> <div>Case4</div>  </div> <p>Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.</p>                                            |  |

## 6 Laboratory Information

Testing was performed and the report was issued at:

**TÜV SÜD Japan Ltd. Yonezawa Testing Center**

Address: 5-4149-7 Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 Japan  
Phone: +81-238-28-2881

**Accreditation and Registration**

A2LA  
Certificate #3686.03

VLAC  
Accreditation No.: VLAC-013

BSMI  
Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

Innovation, Science and Economic Development Canada  
ISED#: 4224A

VCCI Council  
Registration number: A-0166

## Appendix A. Test Equipment

### Conducted emission at mains port

| Equipment       | Company                         | Model No.      | Serial No.      | Cal. due    | Cal. date   |
|-----------------|---------------------------------|----------------|-----------------|-------------|-------------|
| EMI receiver    | ROHDE&SCHWARZ                   | ESR7           | 102352          | 31-Jan-2025 | 19-Jan-2024 |
| LISN            | Kyoritsu Technology Corporation | TNW-407F2      | 12-17-110-2     | 30-Jun-2024 | 22-Jun-2023 |
| Attenuator      | HUBER+SUHNER                    | 6810.01.A      | N/A(S442)       | 31-Mar-2025 | 06-Mar-2024 |
| Coaxial cable   | FUJIKURA                        | 5D-2W/4m       | N/A(S349)       | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable | HUBER+SUHNER                    | SUCOFLEX104/2m | 317672/4        | 31-Oct-2024 | 18-Oct-2023 |
| Coaxial cable   | HUBER+SUHNER                    | RG214/U/25m    | N/A(S191)       | 31-Oct-2024 | 19-Oct-2023 |
| Software        | TOYO Technica                   | ES10/CE-AJ     | Ver.2023.01.001 | N/A         | N/A         |

### Radiated emission (above 1 GHz)

| Equipment                   | Company              | Model No.        | Serial No.      | Cal. due    | Cal. date   |
|-----------------------------|----------------------|------------------|-----------------|-------------|-------------|
| Spectrum analyzer           | ROHDE&SCHWARZ        | FSV40            | 101732          | 31-May-2025 | 17-May-2024 |
| Preamplifier                | TSJ                  | MLA-0118-J02-40  | 14882           | 31-Oct-2024 | 19-Oct-2023 |
| Double ridged guide antenna | ETS LINDGREN         | 3117             | 00224193        | 31-Dec-2024 | 25-Dec-2023 |
| Attenuator                  | Agilent Technologies | 8491B            | MY39268633      | 30-Jun-2024 | 22-Jun-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/9m   | 811445/4        | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/1.5m | SN MY19304/4    | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/2m   | MY37295/4       | 30-Sep-2024 | 22-Sep-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX106/13m  | MY1159/6        | 31-Oct-2024 | 19-Oct-2023 |
| Absorber                    | RIKEN                | PFP30            | N/A             | N/A         | N/A         |
| 10m Semi-anechoic Chamber   | TOKIN                | N/A              | N/A(9001-SVSWR) | 31-May-2024 | 28-May-2023 |
| Software                    | TOYO Technica        | ES10/RE-AJ       | Ver.2023.01.001 | N/A         | N/A         |
| Notch Filter                | Micro-Tronics        | BRM50716         | 006             | 31-Jul-2024 | 19-Jul-2023 |
| Notch Filter                | Micro-Tronics        | BRM50702         | G433            | 30-Sep-2024 | 20-Sep-2023 |
| High Pass Filter            | Wainwright           | WHKX2.8/18G-6SS  | 1               | 31-Jul-2024 | 19-Jul-2023 |

### Radiated emission (above 1 GHz)

| Equipment                 | Company          | Model No.        | Serial No.      | Cal. due    | Cal. date   |
|---------------------------|------------------|------------------|-----------------|-------------|-------------|
| Spectrum analyzer         | ROHDE&SCHWARZ    | FSV40            | 101732          | 31-May-2025 | 17-May-2024 |
| DRGH antenna              | A.H.Systems Inc. | SAS-574          | 469             | 31-Aug-2024 | 08-Aug-2023 |
| Preamplifier              | TSJ              | MLA-1840-B03-35  | 1240332         | 31-Aug-2024 | 08-Aug-2023 |
| Microwave cable           | HUBER+SUHNER     | SUCOFLEX104/9m   | 811445/4        | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable           | HUBER+SUHNER     | SUCOFLEX104/1.5m | SN MY19304/4    | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable           | HUBER+SUHNER     | SUCOFLEX104/2m   | MY37295/4       | 30-Sep-2024 | 22-Sep-2023 |
| Microwave cable           | HUBER+SUHNER     | SUCOFLEX106/13m  | MY1159/6        | 31-Oct-2024 | 19-Oct-2023 |
| Microwave cable           | HUBER SUNER      | Sucoflex 102/5m  | 31647           | 31-Jul-2024 | 20-Jul-2023 |
| Absorber                  | RIKEN            | PFP30            | N/A             | N/A         | N/A         |
| 10m Semi-anechoic Chamber | TOKIN            | N/A              | N/A(9001-SVSWR) | 31-May-2024 | 28-May-2023 |
| Software                  | TOYO Technica    | ES10/RE-AJ       | Ver.2023.01.001 | N/A         | N/A         |
| Notch Filter              | Micro-Tronics    | BRM50716         | 006             | 31-Jul-2024 | 19-Jul-2023 |
| Notch Filter              | Micro-Tronics    | BRM50702         | G433            | 30-Sep-2024 | 20-Sep-2023 |
| High Pass Filter          | Wainwright       | WHKX2.8/18G-6SS  | 1               | 31-Jul-2024 | 19-Jul-2023 |

**EB1207 spot check****Conducted emission at mains port**

| Equipment                            | Company                         | Model No.      | Serial No.      | Cal. due    | Cal. date   |
|--------------------------------------|---------------------------------|----------------|-----------------|-------------|-------------|
| EMI receiver                         | ROHDE&SCHWARZ                   | ESR7           | 102352          | 31-Jan-2025 | 19-Jan-2024 |
| Line impedance stabilization network | Kyoritsu Technology Corporation | TNW-407F2      | 12-17-110-2     | 30-Jun-2025 | 20-Jun-2024 |
| Attenuator                           | TYC                             | BA-PJ-10       | N/A(S347)       | 28-Feb-2025 | 20-Feb-2024 |
| Coaxial cable                        | FUJIKURA                        | 5D-2W/4m       | N/A(S349)       | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable                      | HUBER+SUHNER                    | SUCOFLEX104/2m | 317672/4        | 31-Oct-2024 | 18-Oct-2023 |
| Coaxial cable                        | HUBER+SUHNER                    | RG214/U/25m    | N/A(S191)       | 31-Oct-2024 | 19-Oct-2023 |
| Software                             | TOYO Technica                   | ES10/CE-AJ     | Ver.2023.01.001 | N/A         | N/A         |

**Radiated emission (below 1 GHz)**

| Equipment                 | Company       | Model No.        | Serial No.      | Cal. due    | Cal. date   |
|---------------------------|---------------|------------------|-----------------|-------------|-------------|
| EMI receiver              | ROHDE&SCHWARZ | ESR7             | 102352          | 31-Jan-2025 | 19-Jan-2024 |
| Biconical antenna         | Schwarzbeck   | VHBB9124/BBA9106 | 1344            | 31-Jul-2025 | 25-Jul-2024 |
| Log-periodic antenna      | Schwarzbeck   | VUSLP9111B       | 343             | 30-Nov-2024 | 01-Nov-2023 |
| Attenuator                | TDC           | TAT-43B-06       | N/A(S209)       | 31-Jul-2025 | 09-Jul-2024 |
| Attenuator                | TAMAGAWA.ELEC | CFA-01/3dB       | N/A(S504)       | 31-Jul-2025 | 09-Jul-2024 |
| Microwave cable           | HUBER+SUHNER  | SUCOFLEX104/9m   | MY23758/4       | 31-Oct-2024 | 19-Oct-2023 |
| Microwave cable           | HUBER+SUHNER  | SUCOFLEX104/1m   | MY38347/4       | 28-Feb-2025 | 21-Feb-2024 |
| Microwave cable           | HUBER+SUHNER  | SUCOFLEX104/2m   | MY37295/4       | 30-Sep-2024 | 22-Sep-2023 |
| Microwave cable           | HUBER+SUHNER  | SUCOFLEX106/13m  | MY1159/6        | 31-Oct-2024 | 19-Oct-2023 |
| Preamplifier              | SONOMA        | 310              | 400315          | 31-Mar-2025 | 06-Mar-2024 |
| 10m Semi-anechoic Chamber | TOKIN         | N/A              | N/A(9001-NSA3m) | 31-May-2025 | 15-May-2024 |
| Software                  | TOYO Technica | ES10/RE-AJ       | Ver.2023.01.001 | N/A         | N/A         |

**Radiated emission (above 1 GHz)**

| Equipment                   | Company              | Model No.        | Serial No.      | Cal. due    | Cal. date   |
|-----------------------------|----------------------|------------------|-----------------|-------------|-------------|
| Spectrum analyzer           | ROHDE&SCHWARZ        | FSV40            | 101732          | 31-May-2025 | 17-May-2024 |
| Preamplifier                | TSJ                  | MLA-0118-J02-40  | 14882           | 31-Oct-2024 | 19-Oct-2023 |
| Double ridged guide antenna | ETS LINDGREN         | 3117             | 00224193        | 31-Dec-2024 | 25-Dec-2023 |
| Attenuator                  | Agilent Technologies | 8491B            | MY39268633      | 30-Jun-2025 | 20-Jun-2024 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/9m   | 2001102/4       | 31-Dec-2024 | 20-Dec-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/1.5m | SN MY19304/4    | 31-Oct-2024 | 18-Oct-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX104/2m   | MY37295/4       | 30-Sep-2024 | 22-Sep-2023 |
| Microwave cable             | HUBER+SUHNER         | SUCOFLEX106/13m  | MY1159/6        | 31-Oct-2024 | 19-Oct-2023 |
| Absorber                    | RIKEN                | PFP30            | N/A             | N/A         | N/A         |
| 10m Semi-anechoic Chamber   | TOKIN                | N/A              | N/A(9001-SVSWR) | 31-May-2025 | 16-May-2024 |
| Software                    | TOYO Technica        | ES10/RE-AJ       | Ver.2023.01.001 | N/A         | N/A         |