



Zacta

# TEST REPORT

Report number : JPD-TR-18028-0

Issue date : May 18, 2018

The device, as described herewith, was tested pursuant to applicable test procedure and complies with the requirements of;

## FCC Part15 Subpart C

The test results are traceable to the international or national standards.

|                            |                       |
|----------------------------|-----------------------|
| Applicant                  | : KYOCERA Corporation |
| Equipment under test (EUT) | : Tablet              |
| Model number               | : KC-T301DT           |
| FCC ID                     | : JOYCA02             |

Date of test : April 26, 27 2018  
Test place : TÜV SÜD Zacta Ltd. Yonezawa Testing Center  
5-4149-7, Hachimanpara, Yonezawa-shi,  
Yamagata, 992-1128 Japan  
Phone: +81-238-28-2881 Fax: +81-238-28-2888  
Test results : Complied

The results in this report are applicable only to the equipment tested.  
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This test report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, ILAC-MRA or any agency of the federal government.

Tested by : Taiki Watanabe  
Taiki Watanabe

Approved by : Hiroaki Suzuki  
Hiroaki Suzuki  
Lab Manager of RF Lab



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## 1. Summary of Test

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### 1.1 Purpose of test

It is the original test in order to verify conformance to FCC Part 15 Subpart C.

### 1.2 Standards

CFR47 FCC Part 15 Subpart C

#### 1.2.1 Test Methods

ANSI C63.10-2013

#### 1.2.2 Deviation from standards

None

### 1.3 List of applied test to the EUT

| Test items<br>Section | Classification of EUT             | Condition | Result |
|-----------------------|-----------------------------------|-----------|--------|
| 15.209                | Radiated Emissions                | Radiated  | PASS   |
| 15.207                | AC Power Line Conducted Emissions | Conducted | PASS   |

#### 1.3.1 Test set up

Table-Top

### 1.4 Modification to the EUT by laboratory

None

## ***2. Equipment Under Test***

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### **2.1 General Description of equipment**

EUT is the Tablet.

### **2.2 EUT information**

|                       |   |                                                                                                                                                   |
|-----------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant             | : | KYOCERA Corporation<br>Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku Yokohama-shi, Kanagawa,<br>Japan<br>Phone: +81-45-943-6253 Fax: +81-45-943-6314 |
| Equipment under test  | : | Tablet                                                                                                                                            |
| Trade name            | : | Kyocera                                                                                                                                           |
| Model number          | : | KC-T301DT                                                                                                                                         |
| Serial number         | : | N/A                                                                                                                                               |
| EUT condition         | : | Pre-Production                                                                                                                                    |
| Power ratings         | : | AC 100 - 240 V 0.3 A                                                                                                                              |
| Size                  | : | Tablet<br>(W) 180.0 × (D) 10.7 × (H) 270.0 mm                                                                                                     |
| Environment           | : | Indoor and Outdoor use                                                                                                                            |
| Operating environment | : | Temperature: 5°C to 40°C<br>Humidity: 25% to 85%                                                                                                  |
| RF Specification      | : |                                                                                                                                                   |
| Frequency range       | : | 562.5kHz (Pen side)<br>593.75kHz (Eraser side)                                                                                                    |
| Modulation method     | : | AM/PM                                                                                                                                             |

### **2.3 Variation of the family model(s)**

Not applicable

### **2.4 Operating mode**

[Normal Operation]

i) Pen on the tablet's display

### 3. Configuration of equipment

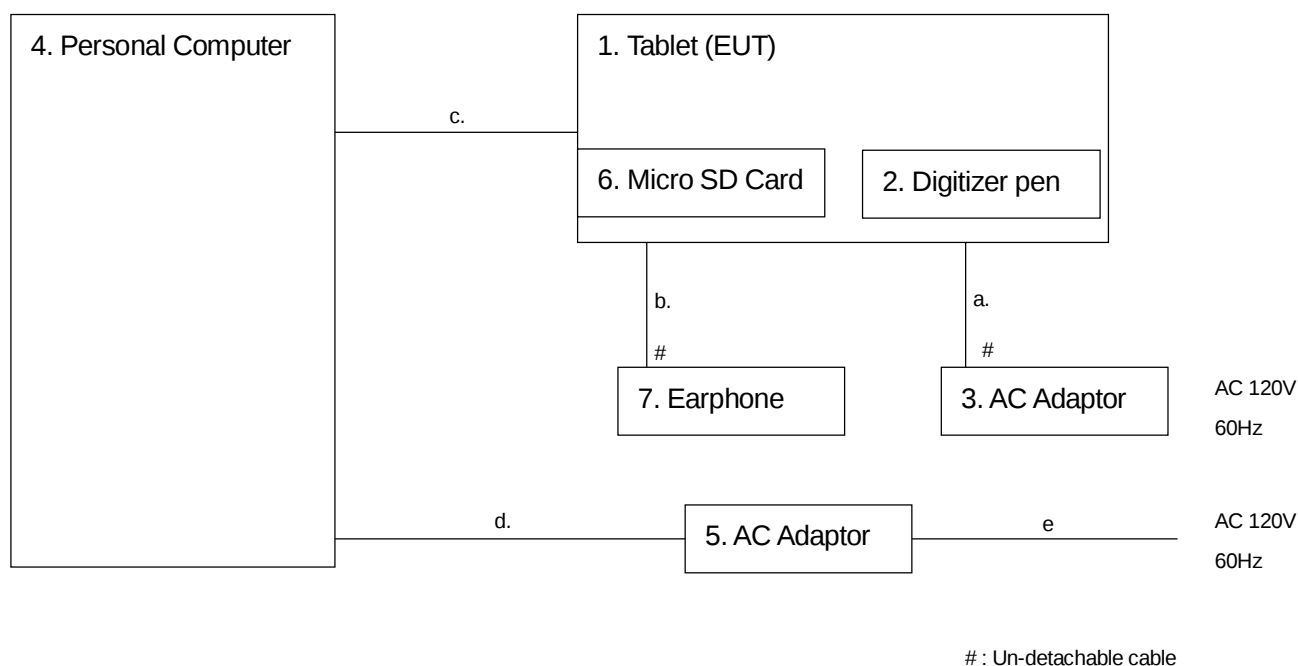
#### 3.1 Equipment(s) used

| No. | Equipment         | Company                         | Model No.   | Serial No.     | FCC ID / DoC | Comment   |
|-----|-------------------|---------------------------------|-------------|----------------|--------------|-----------|
| 1   | Tablet            | KYOCERA                         | KC-T301DT   | N/A            | JOYCA02      | EUT       |
| 2   | Digitizer pen     | Wacom                           | UP-6712E    | N/A            | -            | Accessory |
| 3   | AC adapter        | SALOM ELECTRIC(XIAMEN) CO.,LTD. | ADT301      | N/A            | -            | Accessory |
| 4   | Personal Computer | HP                              | Compaq6720S | CNU8321Q6M     | DoC          | -         |
| 5   | AC adapter        | HP                              | PA-1650-02H | W92C401BMW6TY9 | -            | -         |
| 6   | Micro SD Card     | TOSHIBA                         | N/A         | 1729CJ72686    | -            | -         |
| 7   | Earphone          | Hosiden                         | HDH0281     | N/A            | -            | -         |

#### 3.2 Cable(s) used

| No. | Cable           | Length[m] | Shield | Connector | Comment |
|-----|-----------------|-----------|--------|-----------|---------|
| a   | DC cable        | 1.2       | Yes    | Metal     | -       |
| b   | Earphone cable  | 1.2       | No     | Metal     | -       |
| c   | Micro USB cable | 1.0       | Yes    | Metal     | -       |
| d   | DC cable        | 1.8       | No     | Metal     | -       |
| e   | AC cable        | 1.8       | No     | Plastic   | -       |

#### 3.3 System configuration



Note1: Numbers assigned to equipment or cables on this diagram correspond to the list in "3.1 Equipment(s) used" and "3.2 Cable(s) used".

## 4. Radiated Emissions

### 4.1 Measurement procedure [FCC 15.209]

Test was applied by following conditions.

|                   |                                           |
|-------------------|-------------------------------------------|
| Test method       | : ANSI C63.10                             |
| Frequency range   | : 9kHz to 30MHz                           |
| Test place        | : 3m Semi-anechoic chamber                |
| EUT was placed on | : FRP table / (W)2.0m × (D)1.0m × (H)0.8m |
| Antenna distance  | : 3m                                      |

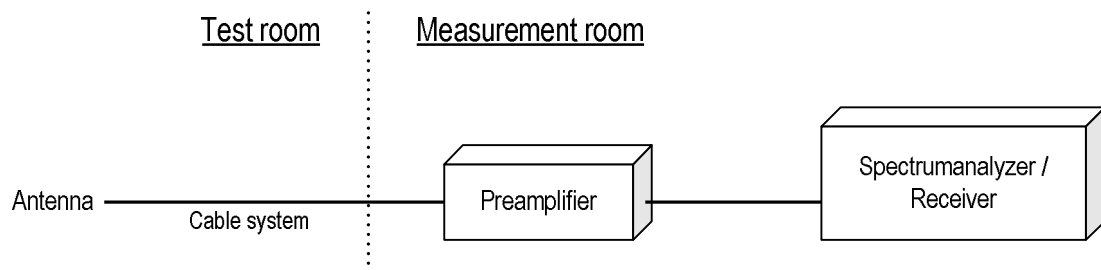
|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Test receiver setting |                                                   |
| - Detector            | : Average (9kHz-90kHz, 110kHz-490kHz), Quasi-peak |
| - Bandwidth           | : 200Hz, 120kHz                                   |

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site.

Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

EUT operating mode is selected to emit the maximum noise. Overall frequency range is investigated with spectrum analyzer using peak detector. Then, emission measurements up to 30MHz were performed with test receiver in above setting. The turntable and the Loop antenna are rotated by 360 degrees and stopped at azimuth of producing the maximum emission. Sufficient time for EUT, peripherals and test equipment is provided in order for them to warm up to their normal operating condition.

#### - Test configuration



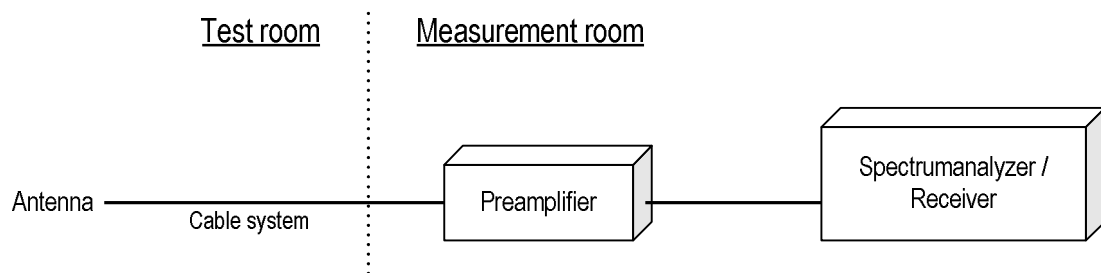
Test was applied by following conditions.

Test method : ANSI C63.10  
 Frequency range : 30MHz to 1000MHz  
 Test place : 3m Semi-anechoic chamber  
 EUT was placed on : FRP table / (W)2.0m × (D)1.0m × (H)0.8m  
 Antenna distance : 3m

Test receiver setting  
 - Detector : Quasi-peak  
 - Bandwidth : 120kHz

EUT operating mode is selected to emit the maximum noise. Overall frequency range is investigated with spectrum analyzer using peak detector. Then, emission measurements up to 1000MHz were performed with test receiver in above setting. In order to find the maximum emissions, antenna is adjusted between 1m and 4m in height and varied its polarization (horizontal and vertical), and EUT azimuth was also varied by rotating turntable 0 to 360 degrees. Sufficient time for EUT, peripherals and test equipment is provided in order for them to warm up to their normal operating condition.

- Test configuration



## 4.2 Calculation method

[9kHz to 150kHz]

Emission level = Reading + (Ant. factor + Cable system loss)

Margin = Limit – Emission level

[150kHz to 1000MHz]

Emission level = Reading + (Ant. factor + Cable system loss – Amp. Gain)

Margin = Limit – Emission level

Example:

Limit @ 350.0MHz : 37.0dBμV/m

Reading = 41.1dBμV c.f = -11.8dB/m

Emission level = 41.1 - 11.8 = 29.3dBμV/m

Margin = 37.0 - 29.3 = 7.7dB

### 4.3 Limit

| Frequency<br>[MHz] | Field strength  |               | Distance<br>[m] |
|--------------------|-----------------|---------------|-----------------|
|                    | [uV/m]          | [dBuV/m]      |                 |
| 0.009-0.490        | 2400 / F [kHz]  | 20logE [uV/m] | 300             |
| 0.490-1.705        | 24000 / F [kHz] | 20logE [uV/m] | 30              |
| 1.705-30           | 30              | 29.5          | 30              |
| 30-88              | 100             | 40.0          | 3               |
| 88-216             | 150             | 43.5          | 3               |
| 216-960            | 200             | 46.0          | 3               |
| Above 960          | 300             | 54.0          | 3               |

| Frequency<br>[MHz] | Limit<br>[dBuV/m] | Distance<br>[m] |
|--------------------|-------------------|-----------------|
| 30-300             | 30                | 10              |
| 300-1000           | 37                | 10              |

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level [dBuV/m] = 20log Emission [uV/m]
3. Measurements were corrected to 30m using  $40\log(3/30) = -40.0\text{dB}$
4. CISPR 22 limit was applied radiated emission measurements as prescribed in FCC Part 15 section 15.109(g).

**4.4 Test data**

Date : April 26, 2018  
 Temperature : 20.3 [°C]  
 Humidity : 45.5 [%]  
 Test place : 3m Semi-anechoic chamber

Test engineer :

Taiki Watanabe

**[9kHz to 30MHz]****562.5kHz (Pen side) Output**

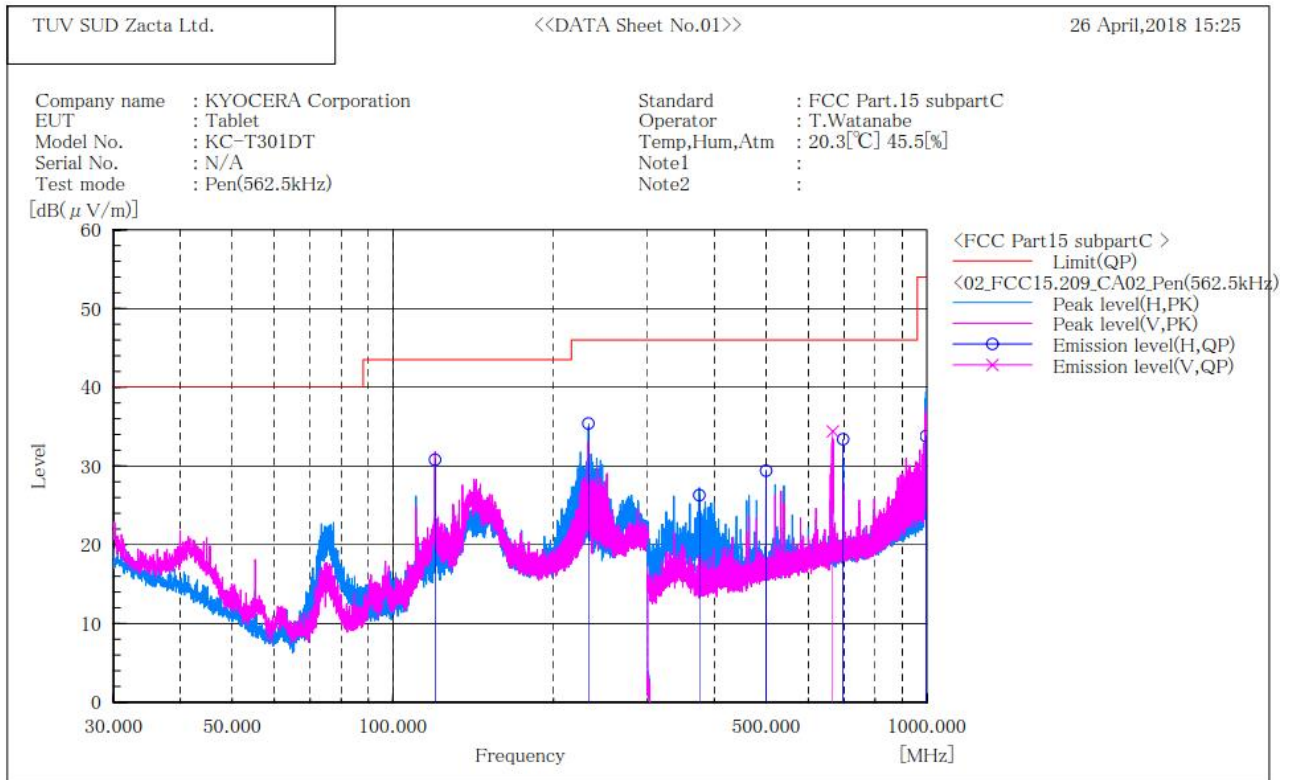
| Frequency<br>[MHz] | Reading<br>[dBuV]<br>At 3m | c.f<br>[dB(1/m)] | Result<br>[dBuV/m]<br>At 3m | Result<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Result |
|--------------------|----------------------------|------------------|-----------------------------|--------------------|-------------------|----------------|--------|
| 0.562              | 43.8                       | -7.1             | 36.7                        | -3.3               | 32.6              | 35.9           | PASS   |
| 1.125              | 31.3                       | -7.0             | 24.3                        | -15.7              | 26.6              | 42.3           | PASS   |

**[9kHz to 30MHz]****593.75kHz (Eraser side) Output**

| Frequency<br>[MHz] | Reading<br>[dBuV]<br>At 3m | c.f<br>[dB(1/m)] | Result<br>[dBuV/m]<br>At 3m | Result<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Result |
|--------------------|----------------------------|------------------|-----------------------------|--------------------|-------------------|----------------|--------|
| 0.277              | 39.0                       | -7.1             | 31.9                        | -48.1              | 18.8              | 66.9           | PASS   |
| 0.594              | 44.3                       | -7.0             | 37.3                        | -2.7               | 32.1              | 34.8           | PASS   |
| 1.188              | 31.3                       | -7.0             | 24.3                        | -15.7              | 26.1              | 41.8           | PASS   |

**[30MHz to 1000MHz]  
562.5kHz (Pen side) Output**

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
[ 3m Semi-anechoic chamber ]

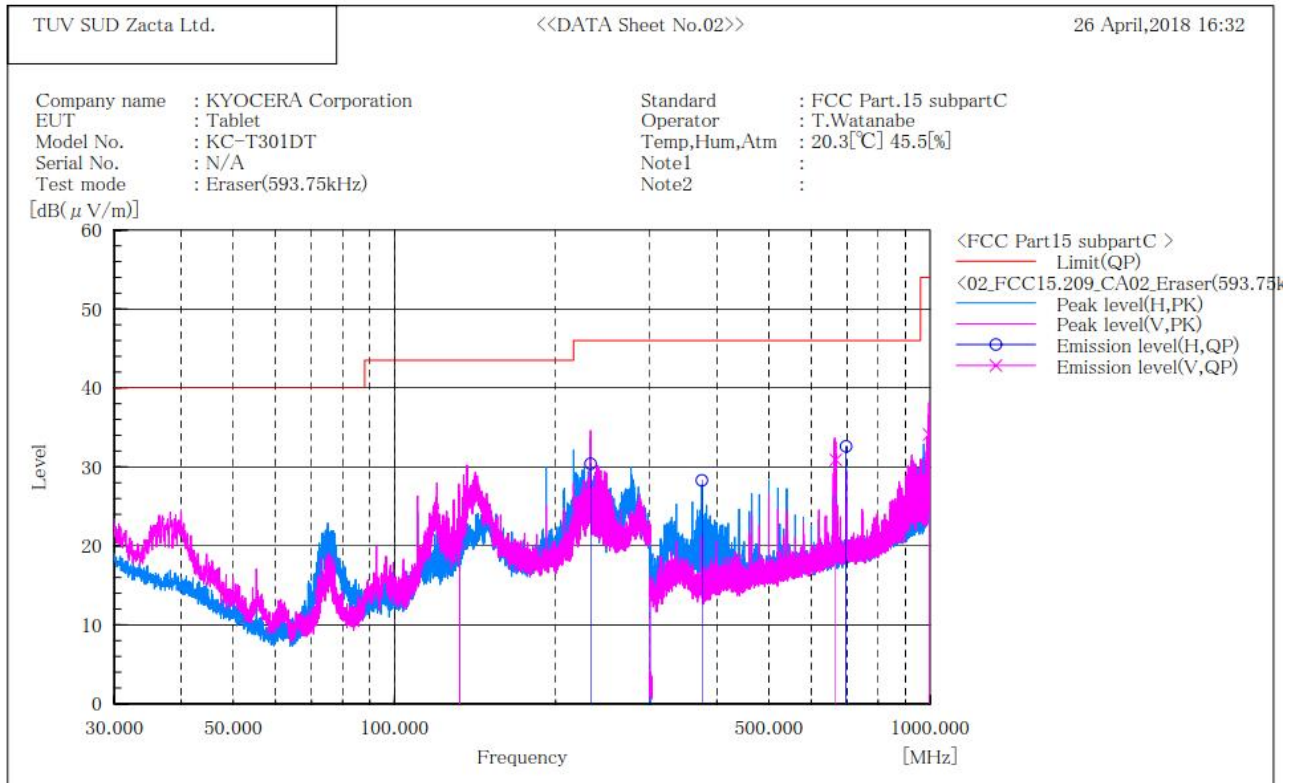


**Final Result**

| No. | Frequency [MHz] | (P) | Reading QP [dB(μV)] | c. f [dB(1/m)] | Result QP [dB(μV/m)] | Limit QP [dB(μV/m)] | Margin QP [dB] | Height [cm] | Angle [°] |
|-----|-----------------|-----|---------------------|----------------|----------------------|---------------------|----------------|-------------|-----------|
| 1   | 119.990         | H   | 42.8                | -12.0          | 30.8                 | 43.5                | 12.7           | 100.0       | 301.0     |
| 2   | 232.400         | H   | 42.5                | -7.1           | 35.4                 | 46.0                | 10.6           | 187.0       | 54.0      |
| 3   | 375.002         | H   | 38.0                | -11.7          | 26.3                 | 46.0                | 19.7           | 110.0       | 328.0     |
| 4   | 499.990         | H   | 38.6                | -9.2           | 29.4                 | 46.0                | 16.6           | 100.0       | 23.0      |
| 5   | 666.670         | V   | 40.9                | -6.5           | 34.4                 | 46.0                | 11.6           | 100.0       | 175.0     |
| 6   | 697.130         | H   | 39.4                | -6.0           | 33.4                 | 46.0                | 12.6           | 170.0       | 351.0     |
| 7   | 996.400         | H   | 34.7                | -0.9           | 33.8                 | 54.0                | 20.2           | 189.0       | 140.0     |

**[30MHz to 1000MHz]  
593.75kHz (Eraser side) Output**

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*  
[ 3m Semi-anechoic chamber ]



**Final Result**

| No. | Frequency [MHz] | (P) | Reading QP [dB(μV)] | c.f [dB(1/m)] | Result QP [dB(μV/m)] | Limit QP [dB(μV/m)] | Margin QP [dB] | Height [cm] | Angle [°] |
|-----|-----------------|-----|---------------------|---------------|----------------------|---------------------|----------------|-------------|-----------|
| 1   | 132.400         | V   | 31.4                | -10.9         | 20.5                 | 43.5                | 23.0           | 100.0       | 200.0     |
| 2   | 232.300         | H   | 37.5                | -7.1          | 30.4                 | 46.0                | 15.6           | 100.0       | 274.0     |
| 3   | 375.005         | H   | 40.0                | -11.7         | 28.3                 | 46.0                | 17.7           | 100.0       | 328.0     |
| 4   | 666.670         | V   | 37.4                | -6.5          | 30.9                 | 46.0                | 15.1           | 100.0       | 182.0     |
| 5   | 697.131         | H   | 38.6                | -6.0          | 32.6                 | 46.0                | 13.4           | 162.0       | 351.0     |
| 6   | 995.410         | V   | 35.1                | -1.0          | 34.1                 | 54.0                | 19.9           | 192.0       | 10.0      |

## 5. AC Power Line Conducted Emissions

### 5.1 Measurement procedure [FCC 15.207]

Test was applied by following conditions.

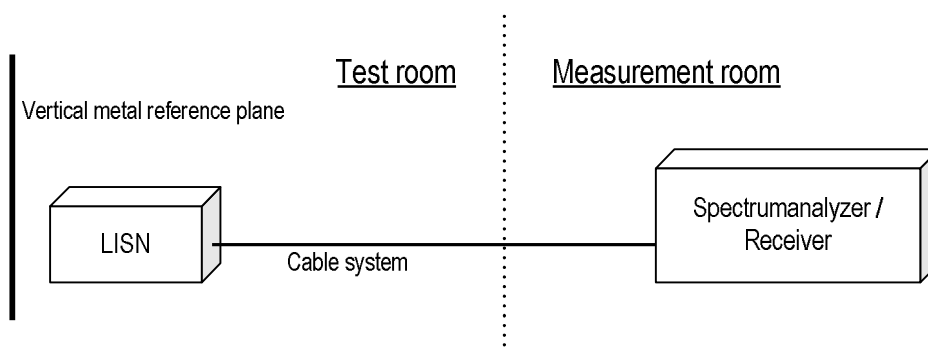
|                                |                                           |
|--------------------------------|-------------------------------------------|
| Test method                    | : ANSI C63.10                             |
| Frequency range                | : 0.15MHz to 30MHz                        |
| Test place                     | : 10m Semi-anechoic chamber No.1          |
| EUT was placed on              | : FRP table / (W)2.0m × (D)1.0m × (H)0.8m |
| Vertical Metal Reference Plane | : (W)2.0m × (H)2.0m 0.4m away from EUT    |
| Test receiver setting          |                                           |
| - Detector                     | : Quasi-peak, Average                     |
| - Bandwidth                    | : 9kHz                                    |

EUT and peripherals are connected to 50Ω/50μH Line Impedance Stabilization Network (LISN) which are connected to reference ground plane, and are placed 80cm away from EUT. Excess of AC power cable is bundled in center.

LISN for peripheral is terminated in 50Ω.

EUT operating mode is selected to emit the maximum noise. Overall frequency range is investigated with spectrum analyzer using peak detector. Maximum emission configuration is determined by manipulating the EUT, peripherals, interconnecting cables. Then, emission measurements are performed with test receiver in above setting to each current-carrying conductor of the mains port. Sufficient time for EUT, peripherals and test equipment is provided in order for them to warm up to their normal operating condition. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits.

- Test configuration



### 5.2 Calculation method

Emission level = Reading + (LISN. factor + Cable system loss)

Margin = Limit – Emission level

Example:

Limit @ 6.770MHz : 60.0dBμV(Quasi-peak)  
: 50.0dBμV(Average)

(Quasi peak) Reading = 41.2dBμV c.f = 10.3dB  
Emission level = 41.2 + 10.3 = 51.5dBμV  
Margin = 60.0 – 51.5 = 8.5dB

(Average) Reading = 35.0dBμV c.f = 10.3dB  
Emission level = 35.0 + 10.3 = 45.3dBμV  
Margin = 50.0 – 45.3 = 4.7dB



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### 5.3 Limit

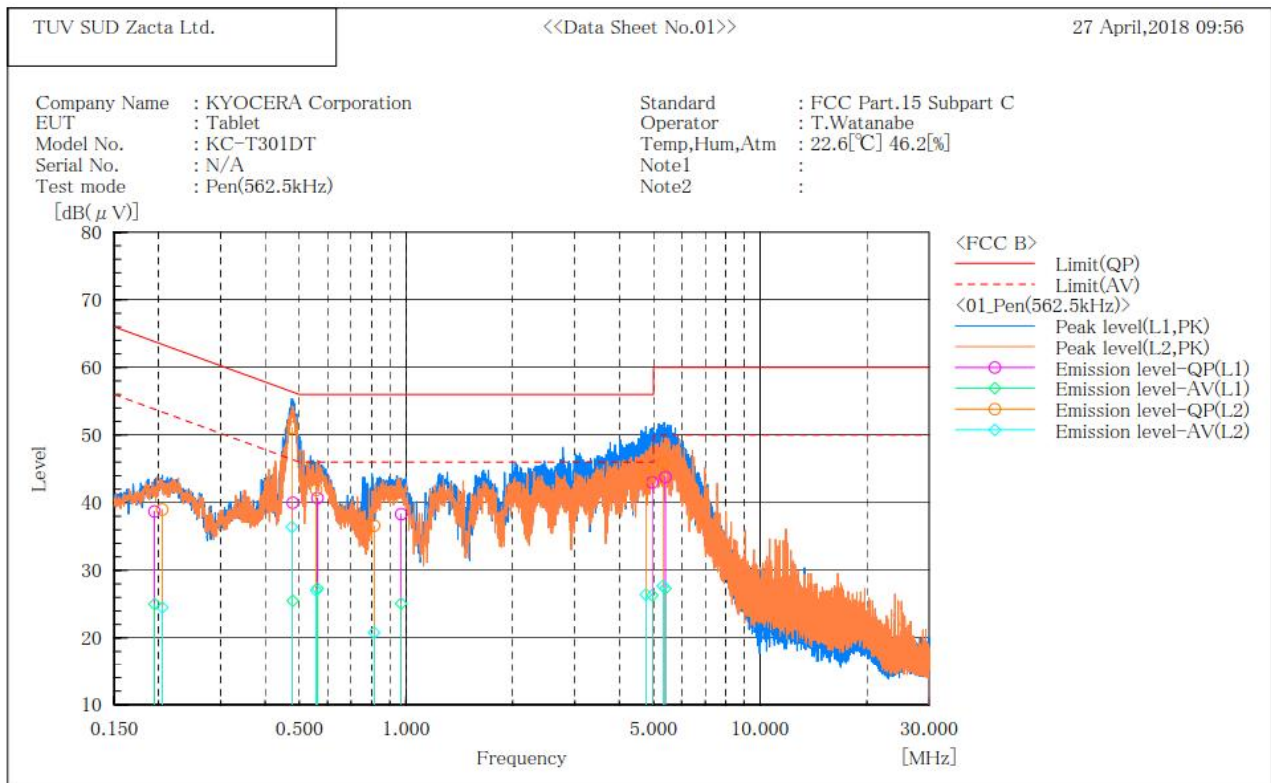
| Frequency<br>[MHz] | Limit     |           |
|--------------------|-----------|-----------|
|                    | QP [dBuV] | AV [dBuV] |
| 0.15-0.5           | 66-56*    | 56-46*    |
| 0.5-5              | 56        | 46        |
| 5-30               | 60        | 50        |

\*: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

## 5.4 Test data

### 562.5kHz (Pen side) Output

\*\*\*\*\* CONDUCTED EMISSION at MAINS PORT \*\*\*\*\*  
[ 3m Semi-anechoic chamber ]



### Final Result

#### --- L1 Phase ---

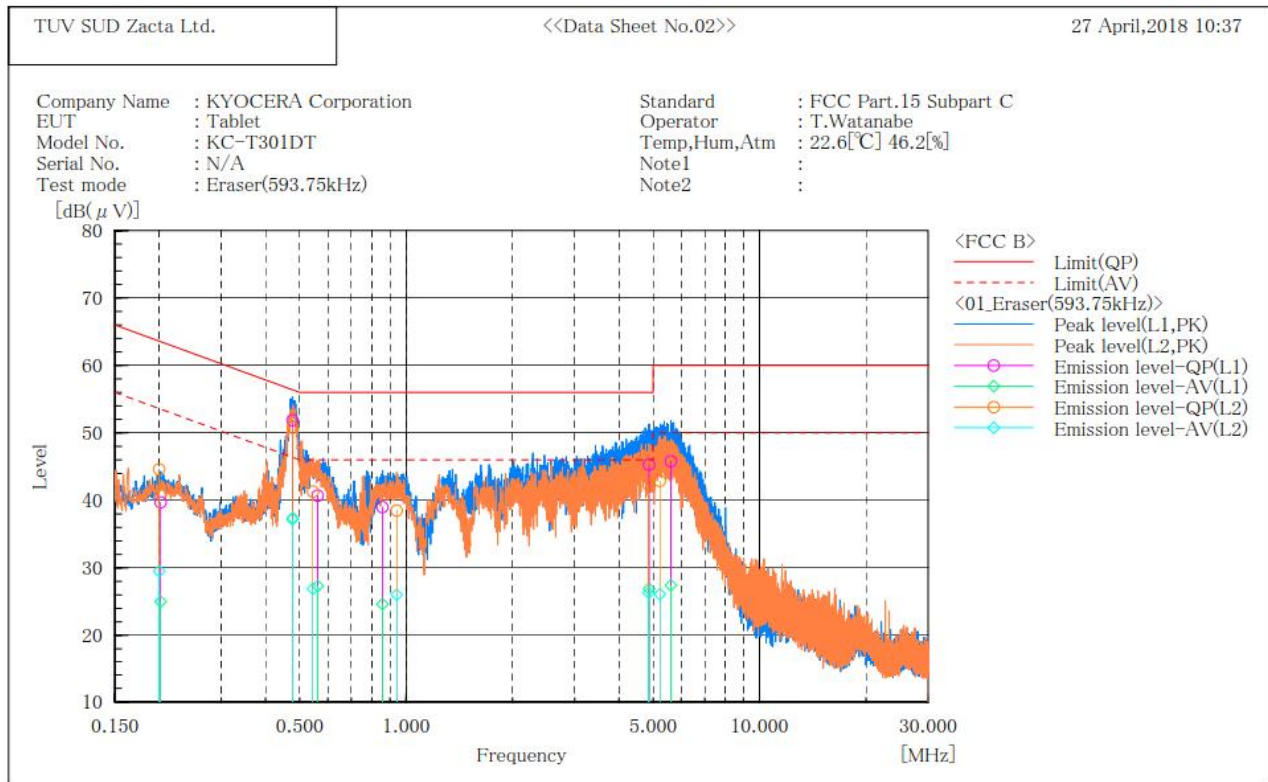
| No. | Frequency<br>[MHz] | Reading<br>QP<br>[dB(μV)] | Reading<br>AV<br>[dB(μV)] | c. f<br>[dB] | Result<br>QP<br>[dB(μV)] | Result<br>AV<br>[dB(μV)] | Limit<br>QP<br>[dB(μV)] | Limit<br>AV<br>[dB(μV)] | Margin<br>QP<br>[dB] | Margin<br>AV<br>[dB] |
|-----|--------------------|---------------------------|---------------------------|--------------|--------------------------|--------------------------|-------------------------|-------------------------|----------------------|----------------------|
| 1   | 0.195              | 28.2                      | 14.5                      | 10.5         | 38.7                     | 25.0                     | 63.8                    | 53.8                    | 25.1                 | 28.8                 |
| 2   | 0.479              | 29.6                      | 15.1                      | 10.4         | 40.0                     | 25.5                     | 56.4                    | 46.4                    | 16.4                 | 20.9                 |
| 3   | 0.562              | 30.3                      | 16.9                      | 10.4         | 40.7                     | 27.3                     | 56.0                    | 46.0                    | 15.3                 | 18.7                 |
| 4   | 0.969              | 27.9                      | 14.7                      | 10.4         | 38.3                     | 25.1                     | 56.0                    | 46.0                    | 17.7                 | 20.9                 |
| 5   | 4.959              | 32.3                      | 15.6                      | 10.7         | 43.0                     | 26.3                     | 56.0                    | 46.0                    | 13.0                 | 19.7                 |
| 6   | 5.398              | 33.1                      | 16.6                      | 10.7         | 43.8                     | 27.3                     | 60.0                    | 50.0                    | 16.2                 | 22.7                 |

#### --- L2 Phase ---

| No. | Frequency<br>[MHz] | Reading<br>QP<br>[dB(μV)] | Reading<br>AV<br>[dB(μV)] | c. f<br>[dB] | Result<br>QP<br>[dB(μV)] | Result<br>AV<br>[dB(μV)] | Limit<br>QP<br>[dB(μV)] | Limit<br>AV<br>[dB(μV)] | Margin<br>QP<br>[dB] | Margin<br>AV<br>[dB] |
|-----|--------------------|---------------------------|---------------------------|--------------|--------------------------|--------------------------|-------------------------|-------------------------|----------------------|----------------------|
| 1   | 0.205              | 28.5                      | 14.0                      | 10.5         | 39.0                     | 24.5                     | 63.4                    | 53.4                    | 24.4                 | 28.9                 |
| 2   | 0.476              | 40.7                      | 26.0                      | 10.4         | 51.1                     | 36.4                     | 56.4                    | 46.4                    | 5.3                  | 10.0                 |
| 3   | 0.558              | 31.5                      | 16.6                      | 10.4         | 41.9                     | 27.0                     | 56.0                    | 46.0                    | 14.1                 | 19.0                 |
| 4   | 0.813              | 26.2                      | 10.4                      | 10.4         | 36.6                     | 20.8                     | 56.0                    | 46.0                    | 19.4                 | 25.2                 |
| 5   | 4.755              | 33.2                      | 15.7                      | 10.7         | 43.9                     | 26.4                     | 56.0                    | 46.0                    | 12.1                 | 19.6                 |
| 6   | 5.318              | 35.2                      | 17.0                      | 10.7         | 45.9                     | 27.7                     | 60.0                    | 50.0                    | 14.1                 | 22.3                 |

## 593.75kHz (Eraser side) Output

\*\*\*\*\* CONDUCTED EMISSION at MAINS PORT \*\*\*\*\*  
 [ 3m Semi-anechoic chamber ]



## Final Result

## --- L1 Phase ---

| No. | Frequency | Reading<br>QP | Reading<br>AV | c.f  | Result<br>QP | Result<br>AV | Limit<br>QP | Limit<br>AV | Margin<br>QP | Margin<br>AV |
|-----|-----------|---------------|---------------|------|--------------|--------------|-------------|-------------|--------------|--------------|
|     | [MHz]     | [dB(μV)]      | [dB(μV)]      | [dB] | [dB(μV)]     | [dB(μV)]     | [dB(μV)]    | [dB(μV)]    | [dB]         | [dB]         |
| 1   | 0.202     | 29.3          | 14.6          | 10.4 | 39.7         | 25.0         | 63.5        | 53.5        | 23.8         | 28.5         |
| 2   | 0.477     | 41.5          | 26.8          | 10.4 | 51.9         | 37.2         | 56.4        | 46.4        | 4.5          | 9.2          |
| 3   | 0.562     | 30.3          | 16.9          | 10.4 | 40.7         | 27.3         | 56.0        | 46.0        | 15.3         | 18.7         |
| 4   | 0.857     | 28.6          | 14.2          | 10.4 | 39.0         | 24.6         | 56.0        | 46.0        | 17.0         | 21.4         |
| 5   | 4.869     | 34.6          | 16.2          | 10.7 | 45.3         | 26.9         | 56.0        | 46.0        | 10.7         | 19.1         |
| 6   | 5.611     | 35.1          | 16.7          | 10.7 | 45.8         | 27.4         | 60.0        | 50.0        | 14.2         | 22.6         |

## --- L2 Phase ---

| No. | Frequency | Reading<br>QP | Reading<br>AV | c.f  | Result<br>QP | Result<br>AV | Limit<br>QP | Limit<br>AV | Margin<br>QP | Margin<br>AV |
|-----|-----------|---------------|---------------|------|--------------|--------------|-------------|-------------|--------------|--------------|
|     | [MHz]     | [dB(μV)]      | [dB(μV)]      | [dB] | [dB(μV)]     | [dB(μV)]     | [dB(μV)]    | [dB(μV)]    | [dB]         | [dB]         |
| 1   | 0.200     | 29.1          | 14.0          | 15.5 | 44.6         | 29.5         | 63.6        | 53.6        | 19.0         | 24.1         |
| 2   | 0.478     | 40.4          | 27.0          | 10.4 | 50.8         | 37.4         | 56.4        | 46.4        | 5.6          | 9.0          |
| 3   | 0.545     | 30.9          | 16.5          | 10.4 | 41.3         | 26.9         | 56.0        | 46.0        | 14.7         | 19.1         |
| 4   | 0.940     | 28.1          | 15.6          | 10.4 | 38.5         | 26.0         | 56.0        | 46.0        | 17.5         | 20.0         |
| 5   | 4.854     | 31.6          | 15.6          | 10.7 | 42.3         | 26.3         | 56.0        | 46.0        | 13.7         | 19.7         |
| 6   | 5.220     | 32.2          | 15.4          | 10.7 | 42.9         | 26.1         | 60.0        | 50.0        | 17.1         | 23.9         |

## 6. Uncertainty of measurement

Expanded uncertainties stated are calculated with a coverage Factor  $k=2$ .

Please note that these results are not taken into account when measurement uncertainty considerations contained in ETSI TR 100 028-0011 determining compliance or non-compliance with test result.

| Test item                                | Measurement uncertainty |
|------------------------------------------|-------------------------|
| Conducted Emission, AMN (9kHz – 150kHz)  | $\pm 3.8\text{dB}$      |
| Conducted Emission, AMN (150kHz – 30MHz) | $\pm 3.3\text{dB}$      |
| Radiated emission (9kHz – 30MHz)         | $\pm 3.0\text{dB}$      |
| Radiated emission (30MHz – 1000MHz)      | $\pm 4.7\text{dB}$      |
| Radiated emission (1GHz – 6GHz)          | $\pm 4.9\text{dB}$      |
| Radiated emission (6GHz – 18GHz)         | $\pm 5.2\text{dB}$      |
| Radiated emission (18GHz – 40GHz)        | $\pm 5.8\text{dB}$      |

## 7. Laboratory description

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### 1. Location

Name: Yonezawa Testing Center  
 Address: 5-4149-7, Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 Japan  
 Phone: +81-238-28-2881  
 Fax: +81-238-28-2888

### 2. Accreditation and Registration

- 1) VLAC  
Accreditation No.: VLAC-013
- 2) NVLAP  
LAB CODE: 200306-0
- 3) BSMI  
Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

#### 4) Industry Canada

| Site number | Facility                       | Expiration date |
|-------------|--------------------------------|-----------------|
| 4224A-4     | 3m Semi-anechoic chamber       | 2020-11-27      |
| 4224A-5     | 10m Semi-anechoic chamber No.1 | 2020-11-27      |
| 4224A-6     | 10m Semi-anechoic chamber No.2 | 2019-12-14      |

#### 5) VCCI Council

| Registration number | Expiration date |
|---------------------|-----------------|
| A-0166              | 2019-07-03      |

## Appendix A. Test equipment

### Radiated emission

| Equipment                 | Company              | Model No.        | Serial No.      | Cal. due      | Cal. date     |
|---------------------------|----------------------|------------------|-----------------|---------------|---------------|
| EMI Receiver              | ROHDE&SCHWARZ        | ESCI             | 100765          | Sep. 30, 2018 | Sep. 13, 2017 |
| Spectrum analyzer         | Agilent Technologies | E4440A           | US40420937      | Oct. 31, 2018 | Oct. 19, 2017 |
| Preamplifier              | SONOMA               | 310              | 372170          | Sep. 30, 2018 | Sep. 12, 2017 |
| Loop antenna              | ROHDE&SCHWARZ        | HFH2-Z2          | 100515          | Feb. 28, 2019 | Feb. 20, 2018 |
| Attenuator                | TDC                  | TAT-43B-06       | N/A(S209)       | May 31, 2018  | May 23, 2017  |
| Biconical antenna         | Schwarzbeck          | VHA9103/BBA9106  | 2155            | Jul. 31, 2018 | Jul. 18, 2017 |
| Log periodic antenna      | Schwarzbeck          | UHALP9108A       | 0560            | Jul. 31, 2018 | Jul. 18, 2017 |
| Attenuator                | TME                  | CFA-01NPJ-6      | N/A(S275)       | Jan. 31, 2019 | Jan. 18, 2018 |
| Attenuator                | TME                  | CFA-01NPJ-3      | N/A(S272)       | Jan. 31, 2019 | Jan. 18, 2018 |
| Microwave cable           | SUHNER               | SUCOFLEX104/9m   | MY30037/4       | Jan. 31, 2019 | Jan. 18, 2018 |
|                           |                      | SUCOFLEX104/1m   | my24610/4       | Jan. 31, 2019 | Jan. 18, 2018 |
|                           |                      | SUCOFLEX104/8m   | SN MY30031/4    | Jan. 31, 2019 | Jan. 18, 2018 |
|                           |                      | SUCOFLEX104/1.5m | MY32976/4       | Jan. 31, 2019 | Jan. 18, 2018 |
|                           |                      | SUCOFLEX104/1.5m | MY19309/4       | Jan. 31, 2019 | Jan. 19, 2018 |
|                           |                      | SUCOFLEX104/7m   | 41625/6         | Jan. 31, 2019 | Jan. 19, 2018 |
| PC                        | DELL                 | DIMENSION E521   | 75465BX         | N/A           | N/A           |
| Software                  | TOYO Corporation     | EP5/RE-AJ        | 0611193/V5.6.0  | N/A           | N/A           |
| 3m Semi an-echoic Chamber | TOKIN                | N/A              | N/A(9002-NSA)   | May 31, 2018  | May 30, 2017  |
| 3m Semi an-echoic Chamber | TOKIN                | N/A              | N/A(9002-SVSWR) | May 31, 2018  | May 31, 2017  |

### Conducted emission at mains port

| Equipment                                    | Company                         | Model No.      | Serial No.      | Cal. due      | Cal. date     |
|----------------------------------------------|---------------------------------|----------------|-----------------|---------------|---------------|
| EMI Receiver                                 | ROHDE&SCHWARZ                   | ESCI           | 100765          | Sep. 30, 2018 | Sep. 13, 2017 |
| Attenuator                                   | HUBER+SUHNER                    | 6810.01.A      | N/A(S411)       | Jan. 31, 2019 | Jan. 18, 2018 |
| Line impedance stabilization network for EUT | Kyoritsu Electrical Works, Ltd. | KNW-407F       | 8-2003-1        | Feb. 28, 2019 | Feb. 28, 2018 |
| Line impedance stabilization network         | Kyoritsu Electrical Works, Ltd. | KNW-242F       | 8-1096-3        | Jul. 31, 2018 | Jul. 4, 2017  |
| Coaxial cable                                | FUJIKURA                        | 5D-2W/4m       | N/A(S350)       | Jan. 31, 2019 | Jan. 18, 2018 |
| Coaxial cable                                | FUJIKURA                        | 5D-2W/1m       | N/A(S193)       | Jan. 31, 2019 | Jan. 18, 2018 |
| Coaxial cable                                | HUBER+SUHNER                    | RG214/U/10m    | N/A(S194)       | Jan. 31, 2019 | Jan. 18, 2018 |
| 50Ω terminator                               | RS                              | 090-0510       | N/A(S058)       | Jan. 31, 2019 | Jan. 17, 2018 |
| PC                                           | DELL                            | DIMENSION E521 | 75465BX         | N/A           | N/A           |
| Software                                     | TOYO Corporation                | EP5/CE-AJ      | 0611193/V5.4.11 | N/A           | N/A           |
| 3m Semi-anechoic Chamber                     | TOKIN                           | N/A            | N/A(9002-NSA)   | May 31, 2018  | May 30, 2017  |

\*: The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.