

# EMI TEST REPORT

# Test Report No.: 13682531S-C-R2

| Applicant           | : | DENSO CORPORATION               |
|---------------------|---|---------------------------------|
| Type of EUT         | : | Cockpit Control Unit            |
| Model Number of EUT | : | DNNS127                         |
| Test regulation     | : | FCC Part 15 Subpart B: 2021     |
| Test Result         | : | Complied (Refer to Section 3.2) |

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- 2. The results in this report apply only to the sample tested.
- 3. This sample tested is in compliance with the limits of the above regulation.
- 4. The test results in this test report are traceable to the national or international standards.
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- 6. This test report covers EMC technical requirements.
- It does not cover administrative issues such as Manual or non-EMC test related Requirements. (if applicable)
- 7. The all test items in this test report are conducted by UL Japan, Inc. Shonan EMC Lab.
- 8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
- 9. The information provided from the customer for this report is identified in SECTION 1
- 10. This report is a revised version of 13682531S-C-R1. 13682531S-C-R1 is replaced with this report.

#### Date of test:

January 22 to 29, 2021

Representative test engineer:

Takahiro Suzuki Engineer Consumer Technology Division

Approved by :

Kazutaka Takeyama Leader Consumer Technology Division



The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan. There is no testing item of "Non-accreditation".

### UL Japan, Inc. Shonan EMC Lab.

Shonan EMC Lab.1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220JAPANTelephone:+81 463 50 6400Facsimile:+81 463 50 6401

# **REVISION HISTORY**

# Original Test Report No.: 13682531S-C

| Revision     | Test report No. | Date              | Page<br>revised           | Contents  |
|--------------|-----------------|-------------------|---------------------------|---|
| - (Original) | 13682531S-C     | February 24, 2021 | -                         | -   |
| 1            | 13682531S-C-R1  | April 12, 2021    | 1                         | Change of Approver:<br>From "Kazuya Noda"<br>To "Kazutaka Takeyama"   |
|              |                 |                   | 5                         | Correction of clock frequency:<br>1.8 GHz $\rightarrow$ 3.1 GHz   |
|              |                 |                   | 10                        | Correction of Item name of the EUT and Support equipment:   |
|              |                 |                   |                           | No.         Item         No.         Item           A         CID         A         Cockpit Control<br>Unit         Disp           B         DISP         DISP         CID         Disp |
| 2            | 13682531S-C-R2  | April 26, 2021    | 1,6                       | Deletion of description "Class B" from test regulation  |
|              |                 |                   | 9                         | Correction of 4.2 Configuration and peripherals:<br>Cable No.23 "GND"<br>From To<br>23<br>5<br>5<br>6<br>7<br>7<br>7<br>8   |
|              |                 |                   | 11 - 12,<br>32, 36,<br>40 | Correction of Frequency:<br>From "13 GHz"<br>To "18 GHz"  |

#### Reference: Abbreviations (Including words undescribed in this report)

|                 | , C   | - /             |  |
|-----------------|---|-----------------|--|
| AAN             | Asymmetric Artificial Network                                   | ILAC            | International Laboratory Accreditation Conference              |
| AC              | Alternating Current   | ISED            | Innovation, Science and Economic Development Canada            |
| AM              | Amplitude Modulation  | ISN             | Impedance Stabilization Network                                |
| AMN             | Artificial Mains Network  | ISO             | International Organization for Standardization                 |
| Amp, AMP        | Amplifier   | JAB             | Japan Accreditation Board                                      |
| ANSI            | American National Standards Institute                           | LAN             | Local Area Network   |
| Ant, ANT        | Antenna   | LCL             | Longitudinal Conversion Loss                                   |
| AP              | Access Point  | LIMS            | Laboratory Information Management System                       |
| ASK             | Amplitude Shift Keying  | LISN            | Line Impedance Stabilization Network                           |
| Atten., ATT     | Attenuator  | MRA             | Mutual Recognition Arrangement                                 |
| AV              | Average   | N/A             | Not Applicable   |
| BPSK            | Binary Phase-Shift Keying                                       | NIST            | National Institute of Standards and Technology                 |
| BR              | Bluetooth Basic Rate  | NS              | No signal detect.  |
| вт              | Bluetooth   | NSA             | Normalized Site Attenuation                                    |
| BT LE           | Bluetooth Low Energy  | NVLAP           | National Voluntary Laboratory Accreditation Program            |
| BW              | BandWidth   | OBW             | Occupied Band Width  |
| C.F             | Correction Factor   | OFDM            | Orthogonal Frequency Division Multiplexing                     |
| Cal Int         | Calibration Interval  | PK              | Peak   |
| CAV             | CISPR AV  | PLT             | long-term flicker severity                                     |
| CCK             | Complementary Code Keying                                       | POHC(A)         | Partial Odd Harmonic Current                                   |
| CDN             | Coupling Decoupling Network                                     | Pol., Pola.     | Polarization   |
| Ch., CH         | Channel   | PR-ASK          | Phase Reversal ASK   |
| CISPR           | Comite International Special des Perturbations Radioelectriques | P <sub>ST</sub> | short-term flicker severity                                    |
| Corr.           | Correction  | QAM             | Quadrature Amplitude Modulation                                |
| CPE             | Customer premise equipment                                      | QP              | Quasi-Peak   |
| CW              | Continuous Wave   | QPSK            | Quadri-Phase Shift Keying                                      |
| DBPSK           | Differential BPSK   | r.m.s., RMS     | Root Mean Square   |
| DEFSK           | Direct Current  | RBW             | •  |
| DET             | Direct Current<br>Detector                                      | RE              | Resolution Band Width  |
| DE1<br>D-factor | Distance factor   | REV             | Radio Equipment<br>Reverse                                     |
|                 |   |                 |  |
| Dmax            | maximum absolute voltage change during an observation period    | RF              | Radio Frequency  |
| DQPSK           | Differential QPSK   | RFID            | Radio Frequency Identifier                                     |
| DSSS            | Direct Sequence Spread Spectrum                                 | RSS             | Radio Standards Specifications                                 |
| EDR             | Enhanced Data Rate  | Rx              | Receiving  |
| e.i.r.p., EIRP  | Equivalent Isotropically Radiated Power                         | SINAD           | Ratio of (Signal + Noise + Distortion) to (Noise + Distortion) |
| EM clamp<br>EMC | Electromagnetic clamp   | S/N             | Signal to Noise ratio  |
|                 | ElectroMagnetic Compatibility                                   | SA, S/A         | Spectrum Analyzer  |
| EMI             | ElectroMagnetic Interference                                    | SG              | Signal Generator   |
| EMS             | ElectroMagnetic Susceptibility                                  | SVSWR           | Site-Voltage Standing Wave Ratio                               |
| EN EPP          | European Norm   | THC(A)          | Total Harmonic Current   |
| e.r.p., ERP     | Effective Radiated Power  | THD(%)          | Total Harmonic Distortion                                      |
| EU              | European Union  | TR<br>Tr        | Test Receiver  |
| EUT             | Equipment Under Test  | Tx<br>VBW       | Transmitting   |
| Fac.            | Factor  |                 | Video BandWidth  |
| FCC             | Federal Communications Commission                               | Vert.           | Vertical   |
| FHSS            | Frequency Hopping Spread Spectrum                               | WLAN<br>xDSL    | Wireless LAN   |
| FM              | Frequency Modulation  | XDSL            | Generic term for all types of DSL technology                   |
| Freq.           | Frequency   |                 | (DSL: Digital Subscriber Line)                                 |
| FSK             | Frequency Shift Keying  |                 |  |
| Fund            | Fundamental   |                 |  |
| FWD             | Forward   |                 |  |
| GFSK            | Gaussian Frequency-Shift Keying                                 |                 |  |
| GNSS            | Global Navigation Satellite System                              |                 |  |
| GPS             | Global Positioning System                                       |                 |  |
| Hori.           | Horizontal  |                 |  |
| ICES            | Interference-Causing Equipment Standard                         |                 |  |
| I/O             | Input/Output  |                 |  |
| IEC             | International Electrotechnical Commission                       |                 |  |
| IEEE            | Institute of Electrical and Electronics Engineers               |                 |  |

IF Intermediate Frequency

#### UL Japan, Inc. Shonan EMC Lab. 1-22-3 Megumigaoka Hiratsuka-shi Ka

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN Telephone: +81 463 50 6400 Facsimile: +81 463 50 6401

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## **SECTION 1: Customer information**

| Company Name     | : | DENSO CORPORATION                                    |
|------------------|---|--|
| Address          | : | 1-1 Showa-cho, Kariya-shi, Aichi ken, 448-8661 Japan |
| Telephone Number | : | +81-566-20-3304                                      |
| Facsimile Number | : | +81-566-25-4920                                      |
| Contact Person   | : | Naoto Makino   |

The information provided from the customer is as follows;

- Applicant, Type of Equipment, Model No. on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer information
- SECTION 2: Equipment under test (E.U.T.) other than the Receipt Date
- SECTION 4: Operation of E.U.T. during testing
- \* The laboratory is exempted from liability of any test results affected from the information in SECTION 2 and 4.

### **SECTION 2: Equipment under test (E.U.T.)**

#### 2.1 Identification of E.U.T.

| Туре                       | : | Cockpit Control Unit  |
|----------------------------|---|---|
| Model Number               | : | DNNS127   |
| Serial Number              | : | Refer to SECTION 4.2  |
| Rating                     | : | DC 13.2 V   |
| Receipt Date               | : | January 19, 2021  |
| Country of Mass-production | : | USA, Japan  |
| Condition                  | : | Production prototype  |
|                            |   | (Not for Sale: This sample is equivalent to mass-produced items.) |
| Modification               | : | No Modification by the test lab.                                  |

#### 2.2 Product description

Model: DNNS127 (referred to as the EUT in this report) is a Cockpit Control Unit.

#### **General Specification**

Clock frequency(ies) in the system : 3.1 GHz

#### **Radio Specification**

#### **Bluetooth (BDR / EDR function)**

| Radio Type             | : | Transceiver                                   |
|------------------------|---|---|
| Frequency of Operation | : | 2402 MHz - 2480 MHz                           |
| Modulation             | : | FHSS (GFSK, $\pi/4$ -DQPSK, 8DPSK)            |
| Antenna type           | : | ASSEMBLY Bluetooth Antenna (External Antenna) |
| Antenna Gain           | : | -0.88 dBi (Max) (Including cable loss)        |
|                        |   | · · · · · · · · · · · · · · · · · · ·         |

| FM tuner specification  |                       |
|-------------------------|-----------------------|
| Frequency of operation: | 87.75 MHz - 107.9 MHz |
| Intermediate frequency: | 220 kHz               |

### **SECTION 3: Test specification, procedures & results**

#### 3.1 **Test specification**

| Test Specification | : | FCC Part 15 Subpart B   |
|--------------------|---|---|
|                    |   | FCC Part 15 final revised on January 12, 2021 and effective February 11, 2021 |
| Title              | : | FCC 47CFR Part15 Radio Frequency Device                                       |
|                    |   | Subpart B Unintentional Radiators   |

#### 3.2 **Procedures & Results**

## < FCC Part 15 Subpart B >

| Item                                 | Test Procedure            | Limits           | Deviation    | Worst margin                                  | Result      |
|--------------------------------------|---------------------------|------------------|--------------|---|-------------|
| Conducted                            | ANSI C 63.4:2014          | FCC 15.107       | N/A          | N/A   | N/A         |
| emission                             | +C 63.4a:2017             | (a)              | *1)          |   |             |
|                                      | 7. AC powerline           |                  |              |   |             |
|                                      | conducted emission        |                  |              |   |             |
|                                      | measurements              |                  |              |   |             |
|                                      | IEEE 187:2003             |                  |              |   |             |
| Radiated                             | ANSI C 63.4:2014          | FCC 15.109       | N/A          | 1.6 dB  | Complied#   |
| emission                             | +C 63.4a:2017             | (a)              |              | Freq.: 3518.800 MHz                           | a)          |
|                                      | 8. Radiated emission      |                  |              | Polarization: Vertical                        |             |
|                                      | measurements              |                  |              | Detection: Average                            |             |
|                                      | IEEE 187:2003             |                  |              | Mode: FM Reception Digital (87.75 MHz),       |             |
|                                      |                           |                  |              | Local, Port A                                 |             |
| Antenna power                        | ANSI C 63.4:2014          | FCC 15.111       | N/A          | 25.6 dB                                       | Complied    |
| conduction for                       | +C 63.4a:2017             | (a)              |              | Freq.: 1794.000 MHz                           | b)          |
| receivers                            | 12.1.5 Antenna-           |                  |              | Detection: Peak                               |             |
|                                      | conducted power           |                  |              | Mode: FM Reception Analog (97.7 MHz),         |             |
|                                      | measurements              |                  |              | Other, Port A                                 |             |
|                                      | IEEE 187:2003             |                  |              |   |             |
|                                      | s EMI Work Procedures     |                  |              |   |             |
|                                      | ot applicable since the E |                  | ve AC Main   | S.  |             |
|                                      | ndix 2 (data of Radiated  |                  |              |   |             |
| <ul> <li>b) Refer to Appe</li> </ul> | endix 2 (data of Antenna  | power conducti   | on for recei | vers)   |             |
| Symbols:                             |                           |                  |              |   |             |
| Complied                             |                           |                  |              | ore than the measurement uncertainty.         |             |
| Complied#                            | The data of this test     | item meets the l | imits unless | the measurement uncertainty is taken into con | sideration. |

#### 3.3 Additions to standards

No addition, deviation or exclusion has been made from standards.

#### 3.4 Confirmation

UL Japan, Inc. hereby confirms the E.U.T., in the configuration tested, complies with the specifications FCC Part 15 Subpart B: 2021.

#### 3.5 Uncertainty

There is no applicable rule of uncertainty in this applied standard. Therefore, the results are derived depending on whether or not laboratory uncertainty is applied.

| The following uncertainties have been calculated | o provide a confidence level of 95 % using a coverage factor $k=2$ . |
|--|--|
|  |  |

| Item                                   | Frequency range | No.1 SAC*1/SR*2 (±) | No.2 SAC/SR (±) | No.3 SAC/SR (±) | No.4 SAC/SR (±) |
|--|-----------------|---------------------|-----------------|-----------------|-----------------|
| Radiated emission                      | 30 MHz-200 MHz  | 4.6 dB              | 4.6 dB          | 4.6 dB          | -               |
| (Measurement distance: 3 m)            | 200 MHz-1 GHz   | 6.0 dB              | 6.0 dB          | 6.0 dB          | -               |
|  | 1 GHz-6 GHz     | 4.8 dB              | 4.8 dB          | 4.8 dB          | -               |
|  | 6 GHz-18 GHz    | 5.4 dB              | 5.4 dB          | 5.4 dB          | -               |
| Antenna Terminal Voltage <sup>*3</sup> | 30 MHz-1000 MHz | 2.7 dB              |                 |                 |                 |
|  | 1 GHz-2.15 GHz  |                     | 2.7 dl          | В               |                 |

\*1: SAC=Semi-Anechoic Chamber

\*2: SR= Shielded Room is applied besides radiated emission

\*3: Value of Antenna Terminal Voltage measurement is also applies to the No.5 and No.6 Shielded Room.

#### 3.6 Test location

UL Japan, Inc. Shonan EMC Lab.

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

| 0 0 ,            | · · · | 0   | · ·       |    |
|------------------|-------|-----|-----------|----|
| Telephone number | :     | +81 | 463 50 64 | 00 |
| Facsimile number | :     | +81 | 463 50 64 | 01 |

| i desimile number     | • | 101 405 50 0 |
|-----------------------|---|--------------|
| JAB Accreditation No. | : | RTL02610     |

(FCC Test Firm Registration Number: 839876, ISED Lab Company Number: 2973D)

|                            | Width x Depth x Height<br>(m) | Size of reference ground<br>plane (m) / horizontal<br>conducting plane | Maximum<br>measurement<br>distance |
|----------------------------|-------------------------------|--|------------------------------------|
| No.1 Semi-anechoic chamber | 20.6 x 11.3 x 7.65            | 20.6 x 11.3  | 10 m                               |
| No.2 Semi-anechoic chamber | 20.6 x 11.3 x 7.65            | 20.6 x 11.3  | 10 m                               |
| No.3 Semi-anechoic chamber | 12.7 x 7.7 x 5.35             | 12.7 x 7.7   | 5 m                                |
| No.4 Semi-anechoic chamber | 8.1 x 5.1 x 3.55              | 8.1 x 5.1  | -                                  |
| No.1 Shielded room         | 6.8 x 4.1 x 2.7               | 6.8 x 4.1  | -                                  |
| No.2 Shielded room         | 6.8 x 4.1 x 2.7               | 6.8 x 4.1  | -                                  |
| No.3 Shielded room         | 6.3 x 4.7 x 2.7               | 6.3 x 4.7  | -                                  |
| No.4 Shielded room         | 4.4 x 4.7 x 2.7               | 4.4 x 4.7  | -                                  |
| No.5 Shielded room         | 7.8 x 6.4 x 2.7               | 7.8 x 6.4  | -                                  |
| No.6 Shielded room         | 7.8 x 6.4 x 2.7               | 7.8 x 6.4  | -                                  |
| No.7 Shielded room         | 2.76 x 3.76 x 2.4             | 2.76 x 3.76  | -                                  |
| No.8 Shielded room         | 3.45 x 5.5 x 2.4              | 3.45 x 5.5   | -                                  |
| No.1 Measurement room      | 2.55 x 4.1 x 2.5              | 2.55 x 4.1   | -                                  |

#### 3.7 Test Setup, Data of EMI & Test instruments

Refer to Appendix 1 to 3.

## SECTION 4: Operation of E.U.T. during testing

#### 4.1 Operating mode

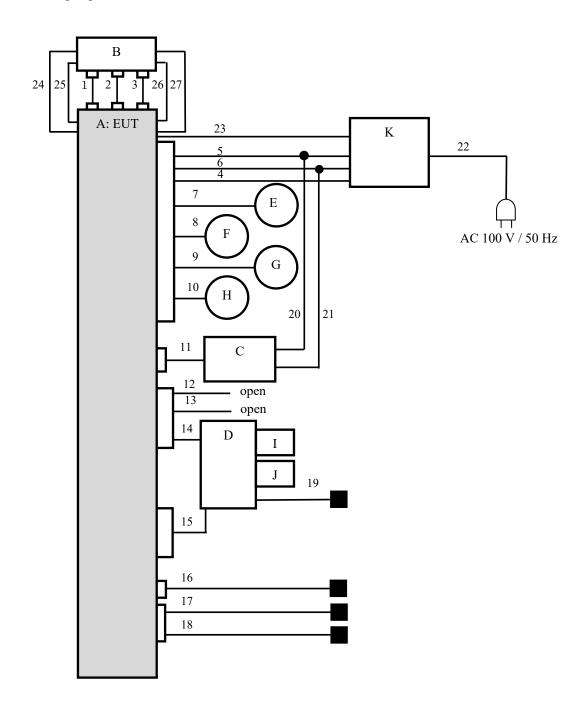
The EUT exercise program used during testing was designed to exercise the various system components in a manner similar to typical use.

| Test sequence is used | : | <ol> <li>FM Reception Digital (87.75 MHz, 97.7 MHz, 107.9 MHz)</li> <li>FM Reception Analog (87.75 MHz, 97.7 MHz, 107.9 MHz)</li> </ol> |
|-----------------------|---|---|
| Software (Version)    | : | MSoC Ver : F61WBM010-707 (Date:2020.Nov-9th)<br>(Storage location: EUT memory)  |

Justification: The system was configured in typical fashion (as a customer would normally use it) for testing.

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### 4.2 Configuration and peripherals



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

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| No. | Item                    | Model number  | Serial number            | Manufacturer | Remarks |
|-----|-------------------------|---------------|--------------------------|--------------|---------|
| А   | Cockpit Control<br>Unit | DNNS127       | CP1.5-K3-GZ1-US-Base-105 | DENSO        | EUT     |
| В   | CID                     | 86213AN500    | GC7YEU-K3-BASE LHD-021   | DENSO        | -       |
| С   | Meter                   | 85002AN02A    | -                        | DENSO        | -       |
| D   | AUX-BOX                 | 86257 A00A    | 5                        | DENSO        | -       |
| Е   | Speaker L               | 20FHI-SPRE-03 | -                        | DENSO        | -       |
| F   | Speaker R               | 20FHI-SPRE-03 | -                        | DENSO        | -       |
| G   | Speaker Rear L          | 20FHI-SPRE-03 | -                        | DENSO        | -       |
| Н   | Speaker Rear R          | 20FHI-SPRE-03 | -                        | DENSO        | -       |
| Ι   | USB Memory              | USM4GL-W      | -                        | SONY         | -       |
| J   | USB Memory              | USM4GU        | -                        | SONY         | -       |
| Κ   | DC Power Supply         | PAN60-10A     | NL002383                 | KIKUSUI      | -       |

#### List of cables used

| No. | Name           | Length (m) | Shield     | Shield     |   |
|-----|----------------|------------|------------|------------|---|
|     |                |            | Cable      | Connector  |   |
| 1   | CCU-CID-POW    | 0.2        | Unshielded | Unshielded | - |
| 2   | CCU-CID-LVDS   | 0.2        | Unshielded | Unshielded | - |
| 3   | CCU-CID-BT     | 0.2        | Unshielded | Unshielded | - |
| 4   | DC power(+B)   | 1.8        | Unshielded | Unshielded | - |
| 5   | DC power(+IG)  | 1.8        | Unshielded | Unshielded | - |
| 6   | DC power(GND)  | 1.8        | Unshielded | Unshielded | - |
| 7   | Speaker L      | 1.8        | Unshielded | Unshielded | - |
| 8   | Speaker R      | 1.8        | Unshielded | Unshielded | - |
| 9   | Speaker Rear L | 1.8        | Unshielded | Unshielded | - |
| 10  | Speaker Rear R | 1.8        | Unshielded | Unshielded | - |
| 11  | Meter          | 1.8        | Unshielded | Unshielded | - |
| 12  | USB(Blue)      | 1.5        | Shielded   | Shielded   | - |
| 13  | USB(Brown)     | 0.15       | Shielded   | Shielded   | - |
| 14  | USB(Green)     | 0.5        | Shielded   | Shielded   | - |
| 15  | Power Supply   | 1.0        | Unshielded | Unshielded | - |
| 16  | XM             | 1.0        | Shielded   | Shielded   | - |
| 17  | AM/FM          | 2.0        | Shielded   | Shielded   | - |
| 18  | AM/FM          | 2.0        | Shielded   | Shielded   | - |
| 19  | Mini Jack      | 2.0        | Unshielded | Unshielded | - |
| 20  | DC power(+IG)  | 1.2        | Unshielded | Unshielded | - |
| 21  | DC power(GND)  | 1.2        | Unshielded | Unshielded | - |
| 22  | AC             | 3.0        | Unshielded | Unshielded | - |
| 23  | GND            | 2.4        | Unshielded | Unshielded | - |
| 24  | GND            | 0.2        | Unshielded | Unshielded | - |
| 25  | GND            | 0.2        | Unshielded | Unshielded | - |
| 26  | GND            | 0.2        | Unshielded | Unshielded | - |
| 27  | GND            | 0.2        | Unshielded | Unshielded | - |

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#### **SECTION 5: Radiated emission**

#### 5.1 Operating environment

| Test room   | : | Refer to data |
|-------------|---|---------------|
| Temperature | : | Refer to data |
| Humidity    | : | Refer to data |

#### 5.2 Test configuration

The EUT was placed on a platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The table is made of expanded polystyrol and expanded polypropylene and the table top is covered with polycarbonate. That has very low permittivity. The rear of EUT, including its peripherals was aligned and flushed with rear of tabletop. I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm height to the ground plane. Photographs of the set up are shown in Appendix 1.

#### 5.3 Test conditions

| Frequency range | : | 30 MHz – 18 GHz |
|-----------------|---|-----------------|
| EUT position    | : | Table top       |
| Test distance   | : | 3 m             |

#### 5.4 Test procedure

The Radiated Electric Field Strength intensity has been measured on a Semi-Anechoic Chamber with a ground plane at a distance of 3 m\*.

\* Measuring distance

The boundary of the EUT is defined by an imaginary circular periphery.

The measuring antenna height was varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

For above 1 GHz, test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beam width of the antenna.

The measurements were performed for vertical or horizontal antenna polarization or both as necessary.

The radiated emission measurements were made with the following detector function of the test receiver and spectrum analyzer.

|  |   | 30 MHz -1000 MHz (Test receiver) | <u>1 GHz – 18 GHz (Spectrum</u> | analyzer)            |
|--|---|----------------------------------|---------------------------------|----------------------|
| Detector Type  | : | QP                               | AV *1)                          | PK                   |
| IF Band width  | : | 120 kHz                          | RBW 1 MHz/ VBW 10 Hz            | RBW 1 MHz/ VBW 3 MHz |
| *1) When using Spectrum analyzer, the test was made with adjusting span to zero by using neak hold |   |                                  |                                 |                      |

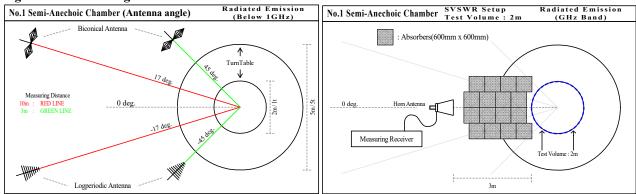
\*1) When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

#### 5.5 Results

Summary of the test results: Pass

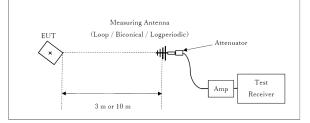
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| Issued date     | : April 26, 2021 |
| FCC ID          | : HYQDNNS127     |





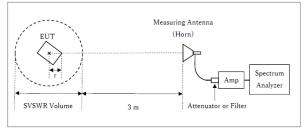
#### Figure 2: Test Setup

Below 1 GHz



× : Center of turn table

#### 1 GHz - 18 GHz



r : Radius of an outer periphery of EUT

× : Center of turn table

Test Distance: 3 m

Distance Factor:  $20 \times \log (3.20 \text{ m}^*/3.0 \text{ m}) = 0.57 \text{ dB}$ \* Test Distance: (3 + SVSWR Volume /2) - r = 3.20 m

#### SVSWR Volume: 2 m

(SVSWR Volume has been calibrated based on CISPR 16-1-4.)  $r = 0.80 \mbox{ m}$ 

#### **SECTION 6: Antenna power conduction for receivers**

#### 6.1 **Operating environment**

| Test room   | : | Refer to data |
|-------------|---|---------------|
| Temperature | : | Refer to data |
| Humidity    | : | Refer to data |

#### 6.2 Test configuration

The EUT was placed on a non-metallic table height of 0.8 m above the reference ground plane. Photographs of the set up are shown in Appendix 1.

#### 6.3 Test conditions

| Frequency range | : | 30  MHz - 2  GHz |
|-----------------|---|------------------|
| EUT position    | : | Table top        |

#### 6.4 Test procedure

The antenna power conduction for receivers was made with the following detector function of the test receiver.

|               |   | 30 MHz -1000 MHz (Test receiver) | <u>1 GHz – 2 GHz</u>   |
|---------------|---|----------------------------------|------------------------|
| Detector Type | : | QP                               | Peak                   |
| IF Band width | : | 120 kHz                          | RBW: 1 MHz/ VBW: 3 MHz |

#### 6.5 Results

Summary of the test results : Pass