# TEST REPORT

DT&C Co., Ltd.
42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No : DRTFCC2002-0047(1)
2. Customer
   - Name : Ncm Co.,Ltd
   - Address : 9.Ansantekom 1-gil,Sangnok-gu, Ansan-si, Gyeonggi-do, South Korea
3. Use of Report : FCC Original Grant
4. Product Name / Model Name : Electric bidet / NB-R1570DA
   FCC ID : 2ASMT-NB-R1570DA
5. FCC Regulation(s): FCC Part 15.245
   Test Method Used : ANSI C63.10-2013
6. Date of Test : 2019.12.19 ~ 2019.12.27, 2020. 03.16 ~ 2020. 03. 17
7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing
8. Testing Environment : See appended test report.
9. Test Result : Refer to the attached test result.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

| | | |
|---|---|---|
| Affirmation | Tested by<br>Name: JaeHyeok Bang (Signature) | Reviewed by<br>Name: JaeJin Lee (Signature) |

**2020 . 12 . 03 .**

**DT&C Co., Ltd.**

This test report is a general report that does not use the KOLAS accreditation mark and is not related to KS Q ISO/IEC 17025 and KOLAS accreditation.

**If this report is required to confirmation of authenticity, please contact to report@dtnc.net**

# Test Report Version

| Test Report No. | Date | Description | Revised by | Reviewed by |
|---|---|---|---|---|
| DRTFCC2002-0047 | Feb. 14, 2020 | Initial issue | JaeHyeok Bang | JaeJin Lee |
| DRTFCC2002-0047(1) | Dec. 03, 2020 | Revised section 4 | JaeHyeok Bang | JaeJin Lee |
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# 1. General Information

## 1.1. Testing Laboratory

| **DT&C Co., Ltd.** | | |
|---|---|---|
| The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042.<br>The test site complies with the requirements of § 2.948 according to ANSI C63.4-2014.<br>**- FCC & IC MRA Designation No. : KR0034**<br>**- ISED#: 5740A** | | |
| www.dtnc.net | | |
| Telephone | : | + 82-31-321-2664 |
| FAX | : | + 82-31-321-1664 |

## 1.2. Testing Environment

| **Ambient Condition** | |
|---|---|
| ▪ Temperature | +20 ℃ ~ +24 ℃ |
| ▪ Relative Humidity | 35 % ~ 43 % |

## 1.3. Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of $k$ = 2 to indicate a 95 % level of confidence.

| Parameter | Measurement uncertainty |
|---|---|
| AC conducted emission | 2.4 dB (The confidence level is about 95 %, k=2) |
| Radiated spurious emission<br>(1 GHz Below) | 5.1 dB (The confidence level is about 95 %, k = 2) |
| Radiated spurious emission<br>(1 GHz ~ 18 GHz) | 5.4 dB (The confidence level is about 95 %, k = 2) |
| Radiated spurious emission<br>(18 GHz Above) | 5.3 dB (The confidence level is about 95 %, k = 2) |

## 1.4. Details of Applicant

Applicant : Ncm Co.,Ltd
Address : 9.Ansantekom 1-gil,Sangnok-gu, Ansan-si, Gyeonggi-do, South Korea

## 1.5. Description of EUT

| | |
|---|---|
| **FCC Equipment Class** | Field Disturbance Sensor(FDS) |
| **EUT** | Electric bidet |
| **Model Name** | NB-R1570DA |
| **Add Model Name** | NB-R1560DA, NB-R1520DA, NB-R1570-EW, NB-R1570-RW, NB-E1560-EW, NB-R1560-RW, NB-R1520-EW, NB-R1520-RW, LX-EW, LX-RW, C4000-EW, C4000-RW |
| **Serial Number** | Identical prototype |
| **Power Supply** | AC 120V |
| **Frequency Band** | 10.525 GHz |
| **Modulation Type** | CW signal |
| **Channel(s)** | 1 |
| **Antenna type** | Patch Antenna |

## 1.6. EUT CAPABILITIES

This module contains the following capabilities:
10.525 GHz Micro Doppler Sensor.

# 2. Information about test items

## 2.1 Test mode

| Test Mode | Power Supply | Description |
|---|---|---|
| TM 1 | 120V | Continuous transmitting mode |

## 2.2 Tested frequency

| Channel | TX Frequency(GHz) |
|---|---|
| **Lowest** | **10.525** |
| **Middle** | **-** |
| **Highest** | **-** |

## 2.3 EMI Suppression Device(s)/Modifications

EMI suppression device(s) added and/or modifications made during testing
→ None

# 3. Antenna requirements

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

**The antenna is permanently attached on the PCB.**
**Therefore this E.U.T Complies with the requirement of §15.203**

# 4. Test report

## 4.1 Summary of tests

| FCC Part | Parameter | Limit | Test Condition | Status Note 1 |
|---|---|---|---|---|
| 15.215(c) | 20 dB Bandwidth | NA | Radiated | C |
| 15.245<br>15.205<br>15.209 | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | FCC 15.245 limits,<br>FCC 15.209 limits | | C |
| 15.207 | AC Line Conducted Emissions | FCC 15.207 limits | AC Line Conducted | C |
| 15.203 | Antenna Requirements | FCC 15.203 | - | C |

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable

Note 2: For radiated emission tests below 30 MHz were performed on semi-anechoic chamber which is correlated with OATS.

## 4.2 Transmitter requirements

### 4.2.1 20dB bandwidth

**- Limit: 20dB bandwidth**

According to 15.215(c), the requirement is to ensure the 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified, is contained within the frequency band designated in the rule section under which the equipment is operated.

**- Test Procedure:**

**ANSI C63.10 Section 6.9**

The bandwidth of the fundamental frequency was measured with the spectrum analyzer using below setting:

RBW = 1.5% to 5% of the 20 dB BW & Occupied BW

*Actually, the RBW setting was used 100 kHz.

(The RBW setting cannot satisfy the 1.5% to 5% of the 20 dB BW due to signal characteristics.)

VBW ≥ 3 × RBW

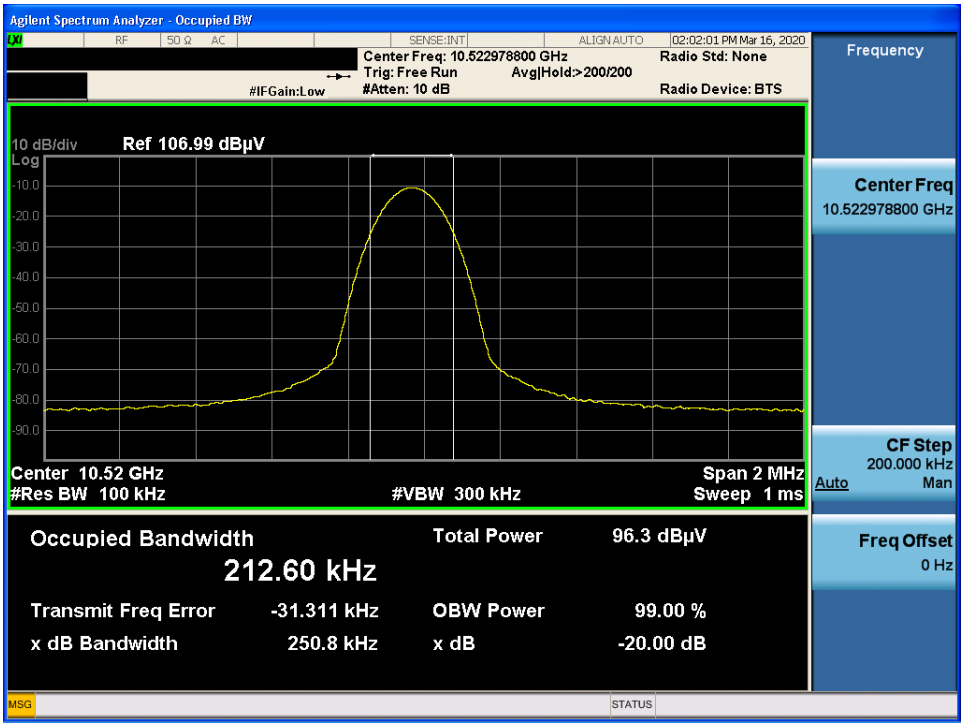
Span = between two times and five times the 20 dB bandwidth & Occupied BW

Sweep = auto

Detector function = peak

Trace = max hold

**- Measurement Data: Comply**



### 4.2.2 Radiated Emissions

**Requirements, §15.245, §15.205, §15.209**

**- Part 15.245**

(b) The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

| Frequency (MHz) | Limit @ 3m | |
|---|---|---|
| | Field strength of fundamental(mV/m) | Field strength of harmonics(mV/m) |
| 902 ~ 908 | 500 | 1.6 |
| 2435 ~ 2465 | 500 | 1.6 |
| 5785 ~ 5815 | 500 | 1.6 |
| 10500 ~ 10550 | 2500 | 25.0 |
| 24075 ~ 24175 | 2500 | 25.0 |

(1) Regardless of the limits shown in the above table, harmonic emissions in the restricted bands below 17.7 GHz, as specified in §15.205, shall not exceed the field strength limits shown in §15.209. Harmonic emissions in the restricted bands at and above 17.7 GHz shall not exceed the following field strength limits:

(i) For the second and third harmonics of field disturbance sensors operating in the 24075-24175 MHz band and for other field disturbance sensors designed for use only within a building or to open building doors, 25.0 mV/m.

(ii) For all other field disturbance sensors, 7.5 mV/m.

(iii) Field disturbance sensors designed to be used in motor vehicles or aircraft must include features to prevent continuous operation unless their emissions in the restricted bands, other than the second and third harmonics from devices operating in the 24075-24175 MHz band, fully comply with the limits given in §15.209. Continuous operation of field disturbance sensors designed to be used in farm equipment, vehicles such as fork lifts that are intended primarily for use indoors or for very specialized operations, or railroad locomotives, railroad cars and other equipment which travels on fixed tracks is permitted. A field disturbance sensor will be considered not to be operating in a continuous mode if its operation is limited to specific activities of limited duration (e.g., putting a vehicle into reverse gear, activating a turn signal, etc.).

(2) Field strength limits are specified at a distance of 3 meters.

(3) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

**- Part 15.209**

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Limit (uV/m) | Measurement Distance (meter) |
|---|---|---|
| 0.009 ~ 0.490 | 2400/F (kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F (kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 ** | 3 |
| 88 ~ 216 | 150 ** | 3 |
| 216 ~ 960 | 200 ** | 3 |
| Above 960 | 500 | 3 |

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

(b) In the emission table above, the tighter limit applies at the band edges.

**- Part 15.205**

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|---|---|---|---|
| 0.009 ~ 0.110 | 16.42 ~ 16.423 | 399.90 ~ 410 | 4.5 ~ 5.15 |
| 0.495 ~ 0.505 | 16.69475 ~ 16.69525 | 608 ~ 614 | 5.35 ~ 5.46 |
| 2.1735 ~ 2.1905 | 16.80425 ~ 16.80475 | 960 ~ 1240 | 7.25 ~ 7.75 |
| 4.125 ~ 4.128 | 25.5 ~ 25.67 | 1300 ~ 1427 | 8.025 ~ 8.5 |
| 4.17725 ~ 4.17775 | 37.5 ~ 38.25 | 1435 ~ 1626.5 | 9.0 ~ 9.2 |
| 4.20725 ~ 4.20775 | 73 ~ 74.6 | 1645.5 ~ 1646.5 | 9.3 ~ 9.5 |
| 6.215 ~ 6.218 | 74.8 ~ 75.2 | 1660 ~ 1710 | 10.6 ~ 12.7 |
| 6.26775 ~ 6.26825 | 108 ~ 121.94 | 1718.8 ~ 1722.2 | 13.25 ~ 13.4 |
| 6.31175 ~ 6.31225 | 123 ~ 138 | 2200 ~ 2300 | 14.47 ~ 14.5 |
| 8.291 ~ 8.294 | 149.9 ~ 150.05 | 2310 ~ 2390 | 15.35 ~ 16.2 |
| 8.362 ~ 8.366 | 156.52475 ~ 156.52525 | 2483.5 ~ 2500 | 17.7 ~ 21.4 |
| 8.37625 ~ 8.38675 | 156.7 ~ 156.9 | 2690 ~ 2900 | 22.01 ~ 23.12 |
| 8.41425 ~ 8.41475 | 162.0125 ~ 167.17 | 3260 ~ 3267 | 23.6 ~ 24.0 |
| 12.29 ~ 12.293 | 167.72 ~ 173.2 | 3332 ~ 3339 | 31.2 ~ 31.8 |
| 12.51975 ~ 12.52025 | 240 ~ 285 | 3345.8 ~ 3358 | 36.43 ~ 36.5 |
| 12.57675 ~ 12.57725 | 322 ~ 335.4 | 3600 ~ 4400 | Above 38.6 |
| 13.36 ~ 13.41 | | | |

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

**Test Configuration**

Refer to the APENDIX I

**Test Procedure**

1. The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m.
2. The table was rotated 360 degrees to determine the position of the highest radiation.
3. During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 1 or 3 meter away from the interference-receiving antenna.
4. For measurements above 1GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1 GHz, the absorbers are removed.
5. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
6. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
7. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
8. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**Note: Measurement Instrument Setting for Radiated Emission Measurements.**

1. Frequency Range Below 1GHz
   RBW = 100 or 120 kHz, VBW = 3 x RBW, Detector = Peak or Quasi Peak
   2. Frequency Range Range > 1 GHz
   Peak Measurement
   RBW = 1 MHz, VBW = 3 MHz, Detector = Peak, Sweep time = Auto, Trace mode = Max Hold until the trace stabilizes
   Average Measurement> 1GHz
   RBW = 1MHz, VBW ≥ 1/T, Detector = Peak, Sweep Time = Auto, Trace Mode = Max Hold until the trace stabilizes

**Test Results: TM 1**

Tested Frequency : **10.525 GHz**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCCF (dB) | DCF (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 70.74 | H | X | PK | 38.90 | -9.00 | N/A | N/A | 29.90 | 40.00 | 10.10 |
| 870.01 | V | X | PK | 33.80 | 5.60 | N/A | N/A | 39.40 | 46.00 | 6.60 |
| *10522.96 | V | X | PK | 96.23 | 10.73 | N/A | N/A | 106.96 | 147.95 | 40.99 |
| *10523.00 | V | X | AV | 96.21 | 10.73 | N/A | N/A | 106.94 | 127.95 | 21.01 |
| 10499.33 | V | X | PK | 44.90 | 10.64 | N/A | N/A | 55.54 | 74.00 | 18.46 |
| 10499.26 | V | X | AV | 32.93 | 10.64 | N/A | N/A | 43.57 | 54.00 | 10.43 |
| 10551.86 | V | X | PK | 42.43 | 10.84 | N/A | N/A | 53.27 | 74.00 | 20.73 |
| 10551.65 | V | X | AV | 32.87 | 10.84 | N/A | N/A | 43.71 | 54.00 | 10.29 |
| 21045.82 | H | X | PK | 66.89 | 2.18 | N/A | -9.54 | 59.53 | 97.50 | 37.97 |
| 21045.81 | H | X | AV | 65.61 | 2.18 | N/A | -9.54 | 58.25 | 77.50 | 19.25 |
| 31568.80 | V | X | PK | 80.48 | 2.13 | N/A | -9.54 | 73.07 | 97.50 | 24.43 |
| 31568.85 | V | X | AV | 80.27 | 2.13 | N/A | -9.54 | 72.86 | 77.50 | 4.64 |
| 42091.77 | V | X | PK | 72.87 | -2.68 | N/A | -9.54 | 60.65 | 97.50 | 36.85 |
| 42091.72 | V | X | AV | 70.24 | -2.68 | N/A | -9.54 | 58.02 | 77.50 | 19.48 |
| 52614.34 | H | X | PK | 56.24 | -5.48 | N/A | -9.54 | 41.22 | 97.50 | 56.28 |
| 52614.60 | H | X | AV | 52.39 | -5.48 | N/A | -9.54 | 37.37 | 77.50 | 40.13 |

▪ **Note.**

1. * is fundamental frequency.
2. The radiated emissions were investigated 9 kHz to 5$^{th}$ harmonic of highest fundamental frequency. And no other spurious and harmonic emissions were found above listed frequencies.
3. Information of Distance Factor

   For finding emissions, above 18GHz measurements were performed at a distance closer than the specified distance.

   In this case, the distance factor is applied to the result. Calculation of distance factor = 20 log($d_{test}$ / $d_{limit}$)

   **20 log( 1 m / 3 m )** = **-9.54 dB**

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.
4. Sample Calculation.

   Margin = Limit – Result / Result = Reading + T.F + DCCF + DCF / T.F = AF + CL – AG

   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,

   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor

### 4.2.3 AC Line Conducted Emissions

**Requirements, §15.207**

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

| Frequency Range (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-Peak | Average |
| 0.15 ~ 0.5 | 66 to 56 * | 56 to 46 * |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

* Decreases with the logarithm of the frequency

**Test Configuration**

See test photographs for the actual connections between EUT and support equipment.

**Test Procedure**

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.

**Test Results: Comply**

# Results of Conducted Emission

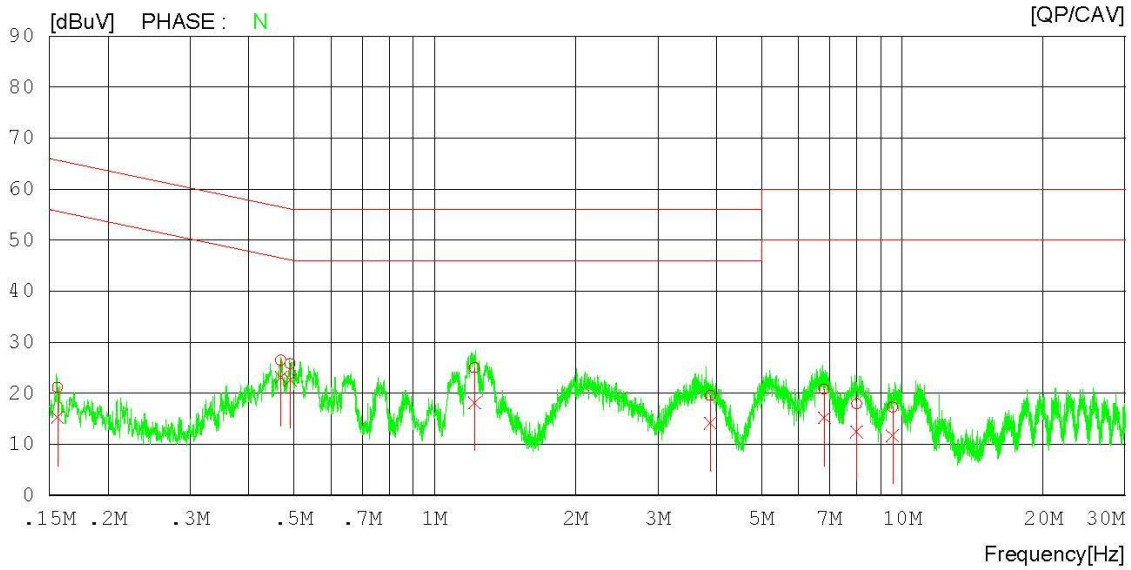
DTNC

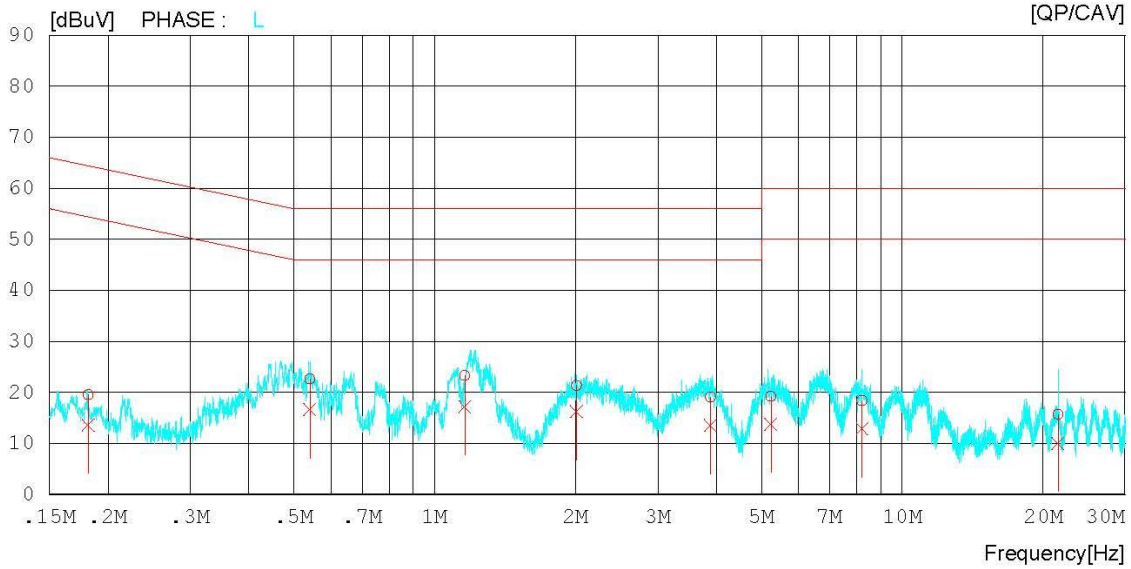
Date 2019-12-27

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | NB-R1570DA | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | | Operator | J.H.Bang |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV



# Results of Conducted Emission

DTNC

Date 2019-12-27

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | NB-R1570DA | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | | Operator | J.H.Bang |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

| NO | FREQ | READING QP | READING CAV | C.FACTOR | RESULT QP | RESULT CAV | LIMIT QP | LIMIT CAV | MARGIN QP | MARGIN CAV | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.15609 | 11.21 | 5.32 | 9.94 | 21.15 | 15.26 | 65.67 | 55.67 | 44.52 | 40.41 | N |
| 2 | 0.46869 | 16.55 | 13.15 | 9.95 | 26.50 | 23.10 | 56.54 | 46.54 | 30.04 | 23.44 | N |
| 3 | 0.49128 | 15.85 | 12.74 | 9.95 | 25.80 | 22.69 | 56.15 | 46.15 | 30.35 | 23.46 | N |
| 4 | 1.21591 | 15.07 | 8.18 | 9.99 | 25.06 | 18.17 | 56.00 | 46.00 | 30.94 | 27.83 | N |
| 5 | 3.89062 | 9.43 | 3.99 | 10.12 | 19.55 | 14.11 | 56.00 | 46.00 | 36.45 | 31.89 | N |
| 6 | 6.81719 | 10.52 | 5.02 | 10.22 | 20.74 | 15.24 | 60.00 | 50.00 | 39.26 | 34.76 | N |
| 7 | 7.98814 | 7.72 | 2.22 | 10.26 | 17.98 | 12.48 | 60.00 | 50.00 | 42.02 | 37.52 | N |
| 8 | 9.53092 | 6.90 | 1.38 | 10.32 | 17.22 | 11.70 | 60.00 | 50.00 | 42.78 | 38.30 | N |
| 9 | 0.18149 | 9.59 | 3.63 | 9.94 | 19.53 | 13.57 | 64.42 | 54.42 | 44.89 | 40.85 | L |
| 10 | 0.53996 | 12.67 | 6.66 | 9.95 | 22.62 | 16.61 | 56.00 | 46.00 | 33.38 | 29.39 | L |
| 11 | 1.15935 | 13.29 | 7.22 | 9.97 | 23.26 | 17.19 | 56.00 | 46.00 | 32.74 | 28.81 | L |
| 12 | 2.01019 | 11.32 | 6.25 | 10.03 | 21.35 | 16.28 | 56.00 | 46.00 | 34.65 | 29.72 | L |
| 13 | 3.88939 | 8.90 | 3.42 | 10.11 | 19.01 | 13.53 | 56.00 | 46.00 | 36.99 | 32.47 | L |
| 14 | 5.23524 | 9.06 | 3.57 | 10.16 | 19.22 | 13.73 | 60.00 | 50.00 | 40.78 | 36.27 | L |
| 15 | 8.20244 | 8.07 | 2.57 | 10.26 | 18.33 | 12.83 | 60.00 | 50.00 | 41.67 | 37.17 | L |
| 16 | 21.52979 | 5.06 | -0.59 | 10.56 | 15.62 | 9.97 | 60.00 | 50.00 | 44.38 | 40.03 | L |

## 4.3 List of Test Equipment

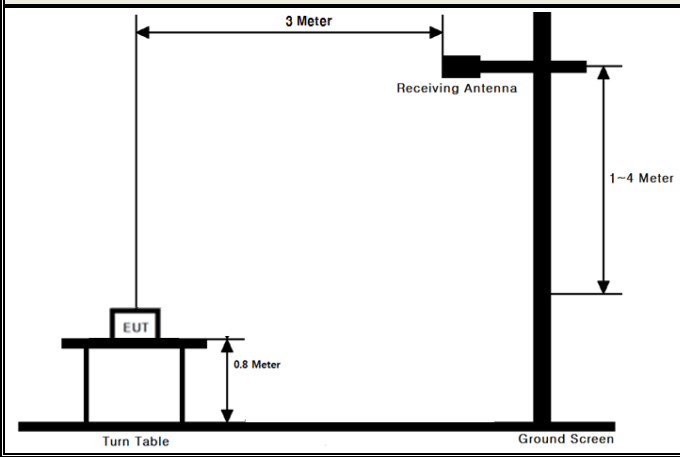
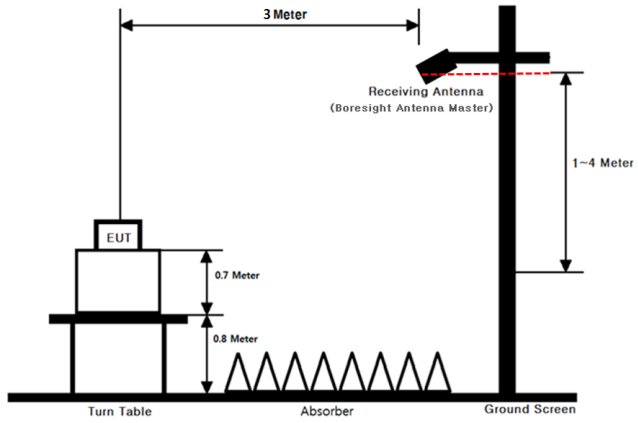
| Type | Manufacturer | Model | Cal.Date (yy/mm/dd) | Next.Cal.Date (yy/mm/dd) | S/N |
|---|---|---|---|---|---|
| Spectrum Analyzer | Agilent Technologies | N9020A | 19/12/16 | 20/12/16 | MY48011700 |
| Spectrum Analyzer | Agilent Technologies | N9020A | 19/03/11<br>19/12/16 | 20/03/11<br>20/12/16 | MY48010133 |
| Signal Analyzer | Rohde Schwarz | FSW67 | 19/07/11 | 20/07/11 | 104037 |
| Signal Analyzer | Rohde Schwarz | FSW85 | 20/02/02 | 21/02/02 | 101530 |
| Multimeter | FLUKE | 17B+ | 19/12/16 | 20/12/16 | 36390701WS |
| Signal Generator | Rohde Schwarz | SMBV100A | 19/12/16 | 20/12/16 | 255571 |
| Signal Generator | ANRITSU | MG3695C | 19/12/16 | 20/12/16 | 173501 |
| Thermohygrometer | BODYCOM | BJ5478 | 19/12/16 | 20/12/16 | 120612-1 |
| Thermohygrometer | BODYCOM | BJ5478 | 19/12/16 | 20/12/16 | 120612-2 |
| HYGROMETER | TESTO | 608-H1 | 19/01/13<br>20/01/13 | 20/01/13<br>21/01/13 | 34862883 |
| Loop Antenna | Schwarzbeck | 6502 | 19/09/18 | 21/09/18 | 1513-128 |
| BILOG ANTENNA | Schwarzbeck | VULB 9160 | 19/04/23 | 21/04/23 | 9160-3362 |
| HORN ANT | ETS | 3117 | 18/01/30<br>20/01/30 | 20/01/30<br>22/01/30 | 6419 |
| HORN ANT | A.H.Systems Inc. | SAS-574 | 19/07/03 | 21/07/03 | 155 |
| *HORN ANT | MI Wave | RX ANT-5 261U + 410U | 19/08/26 | 21/08/26 | 108 |
| PreAmplifier | TSJ | MLA-1840-J02-45 | 19/06/27 | 20/06/27 | 16966-10728 |
| PreAmplifier | H.P | 8447D | 19/12/16 | 20/12/16 | 2944A07774 |
| PreAmplifier | tsj | MLA-1840-J02-45 | 19/06/27 | 20/06/27 | 16966-10728 |
| *PreAmplifier | Norden Millimeter Inc | NA4060G50N8P12 | 18/12/21 | 20/12/21 | 1003 |
| High Pass Filter | Wainwright Instruments | WHNX8.0/26.5-6SS | 19/06/27 | 20/06/27 | 3 |
| EMI Test Receiver | Rohde Schwarz | ESCI7 | 19/01/30<br>20/01/20 | 20/01/30<br>21/01/20 | 100910 |
| PULSE LIMITER | Rohde Schwarz | ESH3-Z2 | 19/09/17 | 20/09/17 | 101333 |
| LISN | SCHWARZBECK | NNLK 8121 | 19/03/19 | 20/03/19 | 06183 |
| Cable | DT&C | CABLE | 19/01/16<br>20/01/16 | 20/01/16<br>21/01/16 | RF-65 |
| Cable | Radiall | TESTPRO3 | 19/01/16<br>20/01/16 | 20/01/16<br>21/01/16 | M-01 |
| Cable | Junkosha | MWX315 | 19/01/16<br>20/01/16 | 20/01/16<br>21/01/16 | M-05 |
| Cable | Junkosha | MWX221 | 19/01/16<br>20/01/16 | 20/01/16<br>21/01/16 | M-06 |
| Cable | Junkosha | MWX241 | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-4 |
| Cable | Junkosha | MWX241 | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-7 |
| Cable | DT&C | CABLE | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-13 |
| Cable | DT&C | CABLE | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-14 |
| Cable | HUBER+SUHNER | SUCOFLEX104 | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-15 |
| Cable | Junkosha | MWX241 | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-8 |
| Cable | Junkosha | MWX241 | 19/01/14<br>20/01/13 | 20/01/14<br>21/01/13 | G-10 |
| Cable | DT&C | CABLE | 19/01/16<br>20/01/16 | 20/01/16<br>21/01/16 | RF-82 |

Note1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017
Note2: The cable is not a regular calibration item, so it has been calibrated by DT & C itself.
Note3: *The mmw instruments were calibrated by the manufacturer.

# APPENDIX I

## Test set up diagrams

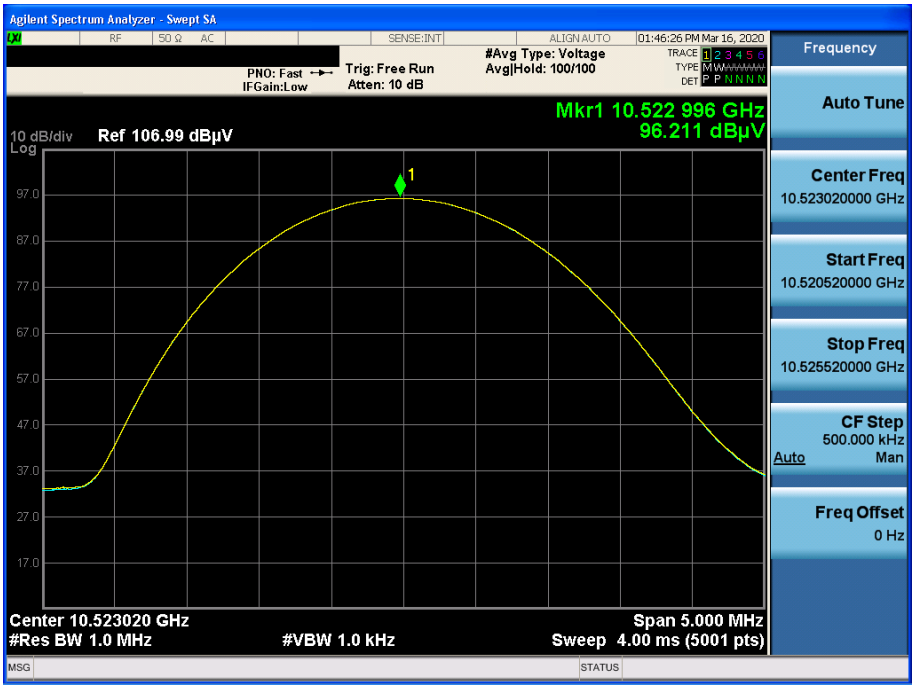
- **Radiated Measurement**

| Below 1GHz | Above 1GHz |
|---|---|
|  |  |

# APPENDIX II

## Worst-case plots(Reading Value)

**Fundamental & TM 1 & X axis & Ver** **Detector Mode : AV**




**Unwanted emission & TM 1 & X axis & Ver** **Detector Mode : AV**