# EMC TEST REPORT

| | |
|---|---|
| Test item | : SD MultiCare Analyzer |
| Model No. | : 03MA20 |
| Order No. | : DTNC1510-05396 |
| Date of receipt | : 2015-10-30 |
| Test duration | : 2015-08-27 ~ 2015-09-03 |
| Date of Issue | : 2015-10-30 |

Applicant : SD Biosensor, Inc.
C-4th&5th Floor Digital Empire Building 980-3, Yeo Suwon-si, Kyonggi-do, Korea 449-813

Test laboratory : DT&C Co., Ltd.
42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 449-935

Test specification : ANSI C 63.4:2009
FCC Part 15 Subpart B
(Class B All other devices)

Test environment : Temperature : (24 ~ 25)°C,
Humidity : (48 ~ 49) % R.H.

Test result : ☒ Comply ☐ Not Comply



Tested by:

Engineer
YongKi Kim

Reviewed by:

Technical Manager
MyungJin Song

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

# CONTENTS

# 1. General Remarks

This report contains the result of tests performed by:

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

Address : 42, Yurim-ro 154beon-gil, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, Korea, 449-935

http://www.dtnc.net

Tel: +82-31-321-2664 Fax: +82-31-321-1664

# 2. Test Laboratory

DT&C Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

| Certificate | Nation | Agency | Code | Mark |
|---|---|---|---|---|
| Accreditation | Korea | KOLAS | 393 | ISO/IEC 17025 |
| Site Filing | USA | FCC | KR0034<br>101842<br>678747, 596748,<br>804488, 165783 | Accredited<br><br>2.948 Listed |
| | Canada | IC | 5740A-1<br>5740A-2 | Registered |
| | Japan | VCCI | C-1427<br>R-1364, R-3385,<br>R-4076, R-4180,<br>T-1442,<br>G-338, G754,<br>G-815 | Registered |
| Certification | Korea | KC | KR0034 | Designation |
| | Germany | TUV | CARAT 13 11<br>86721 001 | ISO/IEC 17025 |

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competent of calibration and testing laboratory”.

# 3. General Information of EUT

| | |
|---|---|
| Kind of Equipment | SD MultiCare Analyzer |
| Model Name | 03MA20 |
| Add Model Name | None |
| Serial No. | None |
| Type of Sample Tested | Pre-Production |
| Supplied Power for Test | 120 V, 60 Hz |
| Applicant | SD Biosensor, Inc.<br>C-4th&5th Floor Digital Empire Building 980-3, Yeo Suwon-si, Kyonggi-do, Korea 449-813 |
| Manufacturer | SD Biosensor, Inc.<br>C-4th&5th Floor Digital Empire Building 980-3, Yeo Suwon-si, Kyonggi-do, Korea 449-813 |
| Factory | SD Biosensor, Inc.<br>C-4th&5th Floor Digital Empire Building 980-3, Yeo Suwon-si, Kyonggi-do, Korea 449-813 |

**Related Submittal(s) / Grant(s)**

**Original submittal only.**

# 4. Test Summary

## 4.1 Applied standards and test results

| Test Items | Applied Standards | Results |
|---|---|---|
| Conducted Disturbance | ANSI C63.4:2009 | **C** |
| Radiated Disturbance | ANSI C63.4:2009 | **C** |
| C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable | | |

**The data in this test report are traceable to the national or international standards.**

## 4.2 Test environment and conditions

| Test Items | Test date (YYYY-MM-DD) | Temp (℃) | Humidity (% R.H.) |
|---|---|---|---|
| Conducted Disturbance | 2015-08-27 | 25 | 49 |
| Radiated Disturbance | 2015-09-03 | 24 | 48 |

## 4.3 Test result Summary

(1) Conducted Emission

| Frequency [MHz] | Phase | Result [dBμV] | Detector | Limit [dBμV] | Margin [dB] |
|---|---|---|---|---|---|
| **0.41904** | **N** | **34.4** | Average | **47.5** | **13.1** |

(2) Radiated Emission

| Frequency [MHz] | Pol. | Result [dB(μV/m)] | Detector | Limit [dB(μV/m)] | Margin [dB] |
|---|---|---|---|---|---|
| **47.824** | **H** | **24.1** | Quasi-Peak | **30.0** | **5.9** |

# 5. Test Set-up and operation mode

## 5.1 Principle of Configuration Selection

**Emission :** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

## 5.2 Test Operation Mode

- The EUT is connected to the PC through the USB continuously receiving the Data.

## 5.3 Support Equipment Used

| Unit | Model No. | Serial No. | Manufacturer | CABLE | | | | Back shell | FCC ID |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Connect type | Length (m) | shield | With Ferrite | | |
| PC | OPTI PLEX 330 | F92QFBX | DELL | Power<br>D-Sub<br>Stereo<br>Parallel<br>USB<br>USB<br>RS232<br>LAN<br>USB<br>USB | 1.8<br>1.8<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>10.0<br>0.5<br>1.6 | Non-shield<br>shield<br>Non-shield<br>shield<br>Non-shield<br>Non-shield<br>Non-shield<br>Non-shield<br>Non-shield<br>Non-shield | O<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X | Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic<br>Plastic | DOC |
| Head Set | COV903 | N/A | COSY | Stereo | 2.0 | Non-shield | X | Plastic | DOC |
| RPrinter | SRP-770 | N/A | Bixolon | Power<br>RS232<br>Parallel | 1.8<br>2.0<br>2.0 | Non-shield<br>Non-shield<br>shield | X<br>X<br>X | Plastic<br>Plastic<br>Plastic | DOC |
| Keyboard | SK-8115 | CN-ODJ321-71616-83J-09J9 | YET FOUNDATE Ltd. | USB | 2.0 | Non-shield | X | Plastic | DOC |
| Mouse | 1094 | X817158-002 | Microsoft | USB | 2.0 | Non-shield | X | Plastic | DOC |
| LCD Monitor | U2312HMT | CN-036N7K-74445-199-440L | Dell | Power<br>D-Sub | 2.0<br>1.8 | Non-shield<br>shield | X<br>X | Plastic<br>Plastic | DOC |
| External HDD | 9ZR8N1-500 | NA0H4ANH | Seagate | USB | 0.5 | Non-shield | X | Plastic | DOC |
| Mobile Printer | SPP-R200 | SDKQTKA11050155 | BIXOLON | Printer | 1.15 | Non-shield | X | Plastic | DOC |
| Barcode Scanner | TSK-750 | T732A125937 | TECHSCAN | USB | 1.8 | shield | X | Plastic | DOC |

NOTE

- See “APPENDIX 2 Photographs” for actual system test setup

# 6. Test Results : Emission

## 6.1 Conducted Disturbance

### 6.1.1 Measurement Procedure

In the range of 0.15 MHz to 30 MHz, the conducted disturbance was measured and set-up was made accordance with **ANSI C63.4.**

If the EUT is table top equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 0.4 m from the conducting wall of the shielded room.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Connect the EUT's power source lines to the PC power through the LISN. All the other peripherals are connected to the 2nd LISN, if any.

Unused measuring port of the LISN was resistively terminated by 50 ohm terminator.

The measuring port of the LISN for EUT was connected to spectrum analyzer.

Using conducted emission test software, the emissions were scanned with peak detector mode.

After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector.

For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector with 10 kHz RBW and 30 kHz VBW was used. By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.

For further description of the configuration refer to the picture of the test set-up.

### 6.1.2 Limit for Conducted Disturbance

(1) Conducted disturbance at mains ports.

| Frequency range (MHz) | Limits dB(μV) | | | |
|---|---|---|---|---|
| | Quasi-peak | | Average | |
| | Class A | Class B | Class A | Class B |
| 0.15 to 0.50 | 79 | 66 to 56 | 66 | 56 to 46 |
| 0.50 to 5 | 73 | 56 | 60 | 46 |
| 5 to 30 | | 60 | | 50 |
| Note 1 The lower limit shall apply at the transition frequencies.<br>Note 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | | | |

Note) 1. Emission Level = Reading Value + Correction Factor.
2. Correction Factor = Cable Loss + Insertion Loss of LISN
3. Margin = Limit - Emission level

## Test Result

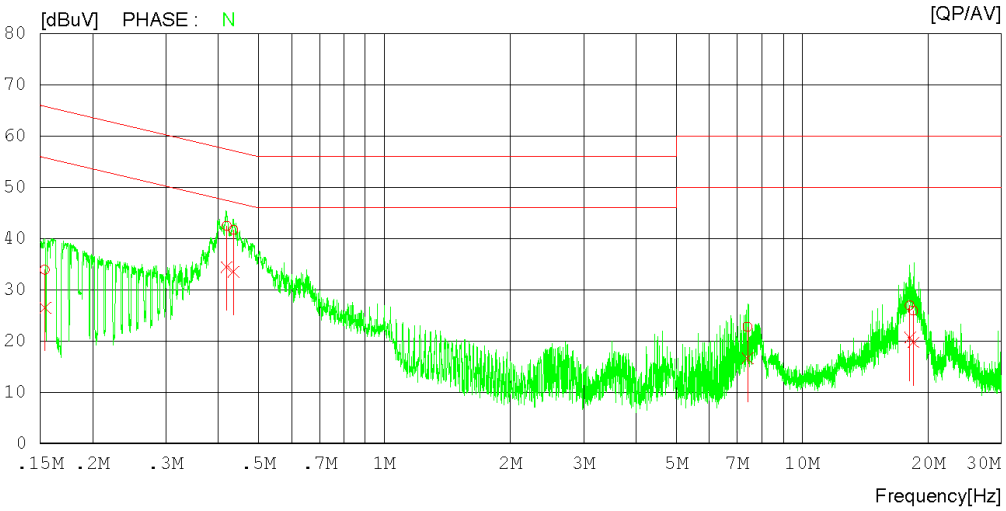
# Results of Conducted Emission

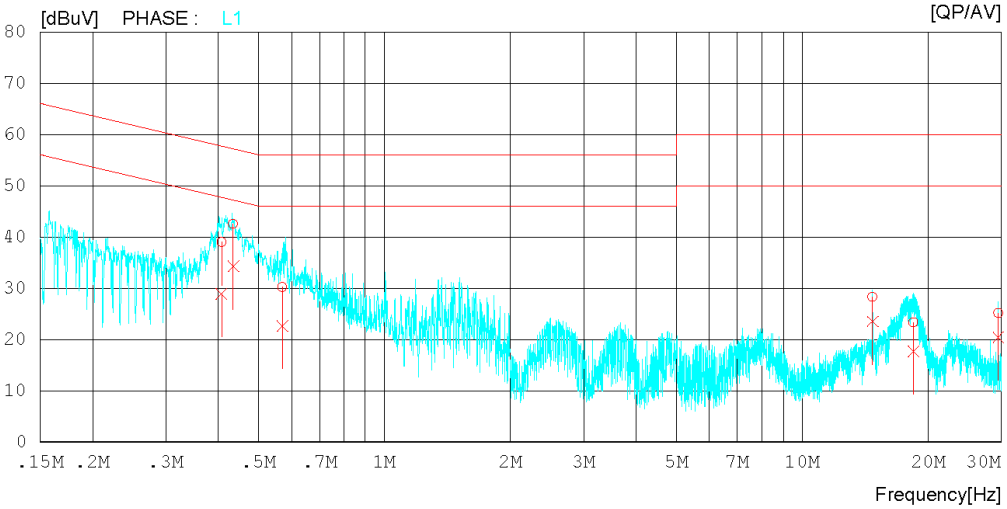
DT&C
Date : 2015-08-27

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Referrence No. | : | |
| Type | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi. | : | 25 'C 49 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : CISPR22_B QP
CISPR22_B AV



# Results of Conducted Emission

DT&C
Date : 2015-08-27

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Referrence No. | : | |
| Type | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi. | : | 25 'C 49 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : CISPR22_B QP
CISPR22_B AV

| NO | FREQ | READING QP | READING AV | C.FACTOR | RESULT QP | RESULT AV | LIMIT QP | LIMIT AV | MARGIN QP | MARGIN AV | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.41904 | 41.6 | 33.6 | 0.8 | 42.4 | 34.4 | 57.5 | 47.5 | 15.1 | 13.1 | N |
| 2 | 0.43557 | 40.8 | 32.6 | 0.8 | 41.6 | 33.4 | 57.1 | 47.1 | 15.5 | 13.7 | N |
| 3 | 18.09960 | 26.3 | 20.1 | 0.6 | 26.9 | 20.7 | 60.0 | 50.0 | 33.1 | 29.3 | N |
| 4 | 18.48720 | 25.6 | 19.4 | 0.3 | 25.9 | 19.7 | 60.0 | 50.0 | 34.1 | 30.3 | N |
| 5 | 0.15400 | 32.1 | 24.7 | 1.8 | 33.9 | 26.5 | 65.8 | 55.8 | 31.9 | 29.3 | N |
| 6 | 7.40655 | 22.4 | 16.3 | 0.3 | 22.7 | 16.6 | 60.0 | 50.0 | 37.3 | 33.4 | N |
| 7 | 0.40724 | 38.1 | 28.0 | 0.9 | 39.0 | 28.9 | 57.7 | 47.7 | 18.7 | 18.8 | L1 |
| 8 | 0.43444 | 41.6 | 33.4 | 0.9 | 42.5 | 34.3 | 57.2 | 47.2 | 14.7 | 12.9 | L1 |
| 9 | 0.56953 | 29.5 | 22.0 | 0.7 | 30.2 | 22.7 | 56.0 | 46.0 | 25.8 | 23.3 | L1 |
| 10 | 14.75070 | 28.1 | 23.3 | 0.2 | 28.3 | 23.5 | 60.0 | 50.0 | 31.7 | 26.5 | L1 |
| 11 | 18.46871 | 23.1 | 17.5 | 0.2 | 23.3 | 17.7 | 60.0 | 50.0 | 36.7 | 32.3 | L1 |
| 12 | 29.49508 | 24.8 | 20.1 | 0.3 | 25.1 | 20.4 | 60.0 | 50.0 | 34.9 | 29.6 | L1 |

## 6.2 Radiated Disturbance

### 6.2.1 Measurement Procedure

The radiated disturbance was measured and set-up was made accordance with **ANSI C63.4.**

If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 3 m or 10 m away from the interference receiving antenna in the **10m semi-anechoic chamber.**

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Rotate the EUT from (0 - 360)° and position the receiving antenna at heights from (1 - 4) m above the reference ground plane continuously to determine associated with higher emission levels and record them.

The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report.

For below 1 GHz frequency range, Quasi-Peak detector with
(RBW = 100 kHz, VBW = 300 kHz, SWEEP TIME = AUTO, TRACE = MAX HOLD, SWEEP POINT = 8001) was used.

For above 1 GHz frequency range, Peak detector with
(RBW = 1 MHz, VBW = 1 MHz, SWEEP TIME = AUTO, TRACE = MAX HOLD and SWEEP POINT = 8001) and
CISPR Average detector with
(RBW = 1 MHz, VBW = 10 Hz, SWEEP TIME = AUTO, TRACE = MAX HOLD and SWEEP POINT = 8001) were used.

For further description of the configuration refer to the picture of the test set-up.

## 6.2.2 Limit for Radiated Disturbance

- The test frequency range of Radiated Disturbance measurements are listed below.

| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz) |
|---|---|
| Below 108 | 1 000 |
| 108 – 500 | 2 000 |
| 500 – 1 000 | 5 000 |
| Above 1 000 | 5th harmonic of the highest frequency or 40 GHz, whichever is lower |

(1) Limit for Radiated Emission below 1 000 MHz

| Frequency range (MHz) | Class A Equipment (10 m distance) | Class B Equipment (3 m distance) |
|---|---|---|
| | Quasi-peak (dBμV/m) | Quasi-peak (dBμV/m) |
| 30 to 88 | 39.1 | 40 |
| 88 to 216 | 43.5 | 43.5 |
| 216 to 960 | 46.4 | 46 |
| 960 to 1 000 | 49.5 | 54 |
| Note 1 The lower limit shall apply at the transition frequency.<br>Note 2 Additional provisions may be required for cases where interference occurs.<br>Note 3 According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards(CISPR), Pub. 22 shown as below. | | |
| **Frequency range (MHz)** | **Class A Equipment (10 m distance)** | **Class B Equipment (10 m distance)** |
| | **Quasi-peak (dBμV/m)** | **Quasi-peak (dBμV/m)** |
| 30 to 230 | 40 | 30 |
| 230 to 1 000 | 47 | 37 |

(2) Limits for Radiated Emission above 1 000 MHz at a measuring distance of 3 m

| Frequency (GHz) | Class A Equipment | | Class B Equipment | |
|---|---|---|---|---|
| | Peak (dBμV/m) | Average (dBμV/m) | Peak (dBμV/m) | Average (dBμV/m) |
| 1 to 40 | 80 | 60 | 74 | 54 |

Note)1. Emission Level = Reading Value + loss - gain + Ant Factor
2. Margin = Limit - Emission level
3. Loss = Cable loss, Gain = Amp gain, Ant Factor = Antenna Factor

## Test Result

**< 30 MHz ~ 1 GHz >**

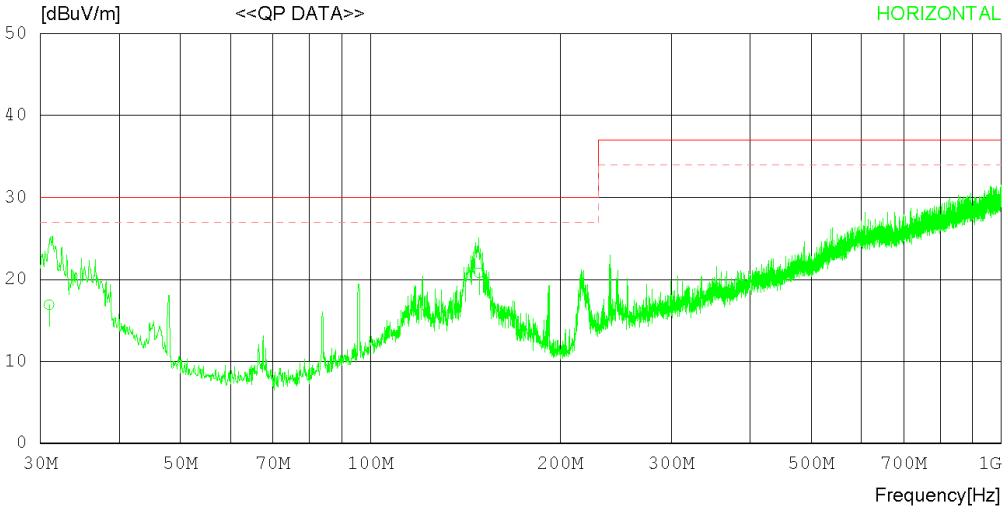
# RADIATED EMISSION

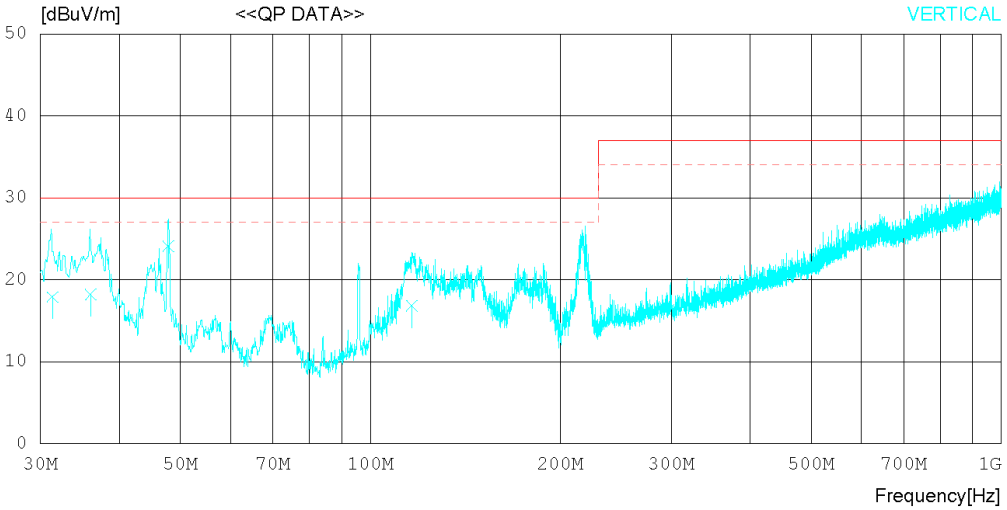
Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 50 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : CISPR Pub.22 Class B (10m)
MARGIN: 3 dB



# RADIATED EMISSION

Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 50 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : CISPR Pub.22 Class B (10m)
MARGIN: 3 dB

| No. | FREQ [MHz] | READING QP [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|---|---|---|---|---|---|---|---|---|---|---|
| ----- Horizontal ------ | | | | | | | | | | |
| 1 | 30.973 | 20.1 | 18.1 | 1.3 | 22.6 | 16.9 | 30.0 | 13.1 | 400 | 360 |
| 2 | 148.650 | 30.4 | 10.6 | 2.8 | 23.0 | 20.8 | 30.0 | 9.2 | 300 | 47 |
| ----- Vertical ------ | | | | | | | | | | |
| 3 | 36.014 | 24.0 | 15.5 | 1.3 | 22.6 | 18.2 | 30.0 | 11.8 | 200 | 0 |
| 4 | 47.824 | 35.5 | 9.6 | 1.6 | 22.6 | 24.1 | 30.0 | 5.9 | 400 | 0 |
| 5 | 31.338 | 21.3 | 17.9 | 1.3 | 22.6 | 17.9 | 30.0 | 12.1 | 300 | 171 |
| 6 | 116.299 | 25.0 | 12.0 | 2.6 | 22.8 | 16.8 | 30.0 | 13.2 | 100 | 360 |

**< (1 ~ 6) GHz _ Peak >**

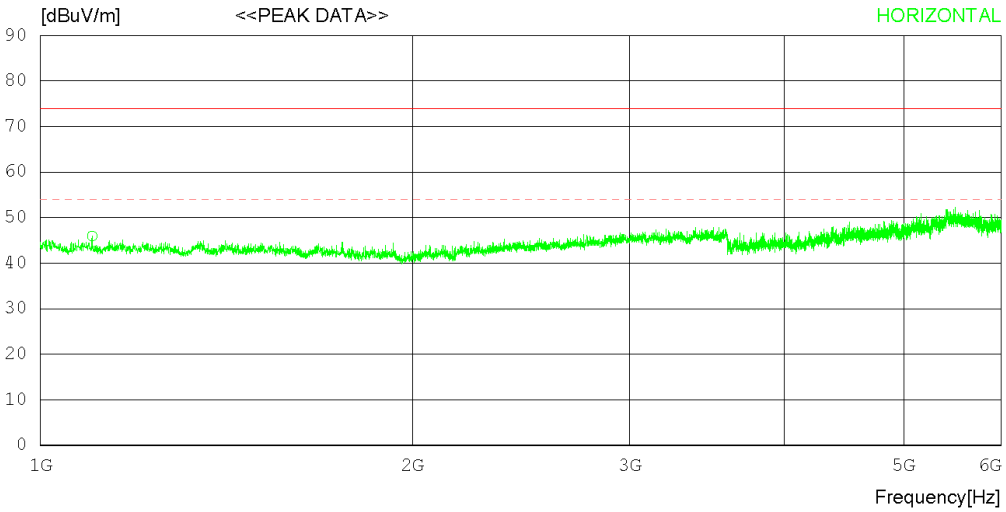
# RADIATED EMISSION

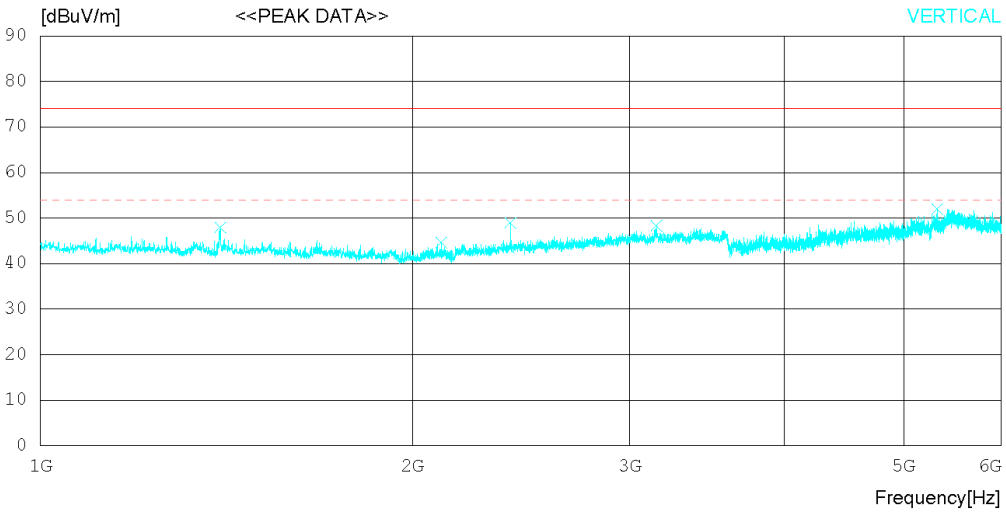
Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)



# RADIATED EMISSION

Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|---|---|---|---|---|---|---|---|---|---|---|
| ----- Horizontal ------ | | | | | | | | | | |
| 1 | 1101.250 | 51.5 | 24.2 | 10.5 | 40.3 | 45.9 | 74.0 | 28.1 | 100 | 358 |
| ----- Vertical ------ | | | | | | | | | | |
| 2 | 1398.125 | 52.8 | 25.1 | 9.8 | 39.8 | 47.9 | 74.0 | 26.1 | 100 | 1 |
| 3 | 2111.875 | 49.3 | 26.0 | 8.2 | 38.9 | 44.6 | 74.0 | 29.4 | 100 | 82 |
| 4 | 2401.250 | 52.0 | 27.3 | 8.4 | 38.8 | 48.9 | 74.0 | 25.1 | 100 | 151 |
| 5 | 3154.375 | 49.1 | 29.1 | 8.7 | 38.6 | 48.3 | 74.0 | 25.7 | 100 | 1 |
| 6 | 5324.375 | 45.3 | 34.0 | 10.4 | 37.8 | 51.9 | 74.0 | 22.1 | 100 | 197 |

**< (1 ~ 6) GHz _ Average >**

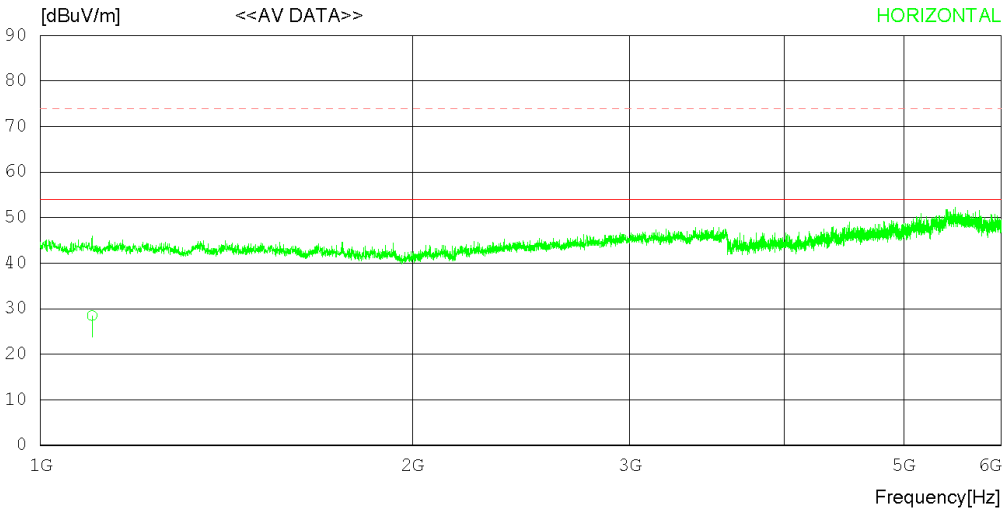
# RADIATED EMISSION

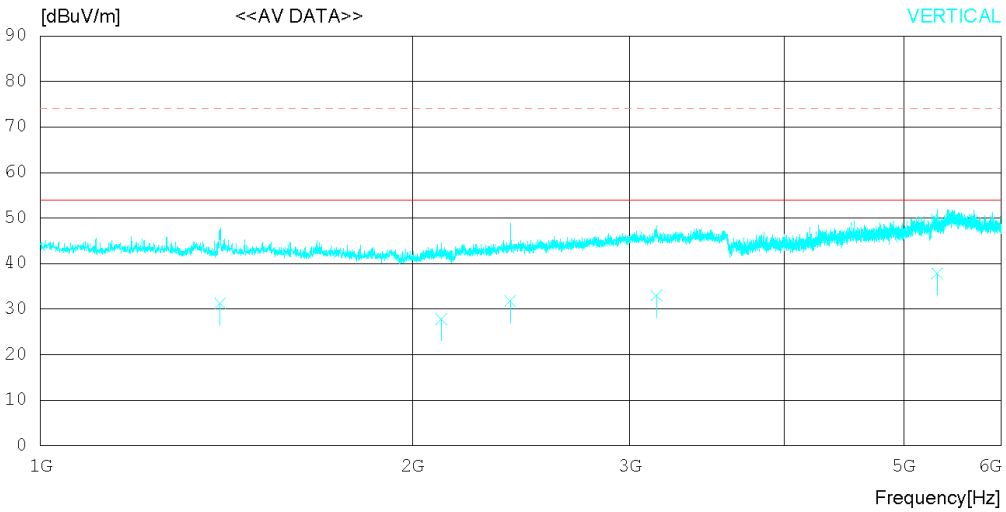
Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)



# RADIATED EMISSION

Date : 2015-09-03

| | | | | | |
|---|---|---|---|---|---|
| Order No. | : | DTNC1510-05396 | Reference No. | : | |
| Model No. | : | | Power Supply | : | 120 V 60 Hz |
| Serial No. | : | | Temp/Humi | : | 24 'C 48 % R.H. |
| Test Condition | : | | Operator | : | |

Memo : PC Link

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

| No. | FREQ [MHz] | READING AV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|---|---|---|---|---|---|---|---|---|---|---|
| ----- Horizontal ------ | | | | | | | | | | |
| 1 | 1101.158 | 34.1 | 24.2 | 10.5 | 40.3 | 28.5 | 54.0 | 25.5 | 100 | 0 |
| ----- Vertical ------ | | | | | | | | | | |
| 2 | 1397.961 | 36.1 | 25.1 | 9.8 | 39.8 | 31.2 | 54.0 | 22.8 | 100 | 360 |
| 3 | 2401.097 | 34.9 | 27.3 | 8.4 | 38.8 | 31.8 | 54.0 | 22.2 | 100 | 151 |
| 4 | 5323.995 | 31.2 | 34.0 | 10.4 | 37.8 | 37.8 | 54.0 | 16.2 | 100 | 197 |
| 5 | 2112.060 | 32.5 | 26.0 | 8.2 | 38.9 | 27.8 | 54.0 | 26.2 | 100 | 99 |
| 6 | 3153.824 | 33.8 | 29.1 | 8.7 | 38.6 | 33.0 | 54.0 | 21.0 | 100 | 360 |

## Appendix 1

# List of Test and Measurement Instruments

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment is identified by the Test Laboratory.

1. Conducted Disturbance

| Name of Instrument | | Model No. | Manufacturer | Serial No. | Cal. Date | Next Cal. Date |
|---|---|---|---|---|---|---|
| ☒ | MEASUREMENT SOFTWARE | EMI-C VER. 2.00.0143 | TSJ | N/A | N/A | N/A |
| ☐ | SPECTRUM ANALYZER | 8591E | H/P | 3649A05889 | N/A | N/A |
| ☐ | LISN | KNW-407 | KYORITSU | 8-317-8 | 2015.01.07 | 2016.01.07 |
| ☐ | LISN | ESH2-Z5 | ROHDE & SCHWARZ | 828739/006 | 2014.09.11 | 2015.09.11 |
| ☒ | EMI TEST RECEIVER | ESCI | ROHDE & SCHWARZ | 100364 | 2015.02.25 | 2016.02.25 |
| ☒ | ARTIFICIAL MAINS NETWORK | PMM L2-16B | NARDA S.T.S. / PMM | 000WX20305 | 2015.06.26 | 2016.06.26 |
| ☒ | LISN | LISN1600 | TTI | 197204 | 2015.06.26 | 2016.06.26 |
| ☒ | 50 OHM TERMINATOR | CT-01 | TME | N/A | 2015.01.06 | 2016.01.06 |
| ☐ | ISN | T8 | TESEQ GMBH | 24815 | 2015.01.07 | 2016.01.07 |
| ☐ | LISN (DC) | NNBM8125 | SCHWARZBECK | 8125-821 | 2014.09.12 | 2015.09.12 |
| ☐ | LISN (DC) | NNBM8125 | SCHWARZBECK | 8125-1390 | 2014.09.12 | 2015.09.12 |

2. Radiated Disturbance

| Name of Instrument | | Model No. | Manufacturer | Serial No. | Cal. Date | Next Cal. Date |
|---|---|---|---|---|---|---|
| ☒ | MEASUREMENT SOFTWARE | EMI-R VER. 2.00.0121 | TSJ | N/A | N/A | N/A |
| ☒ | EMI TEST RECEIVER | ESU | ROHDE & SCHWARZ | 100014 | 2015.01.06 | 2016.01.06 |
| ☒ | BILOG ANTENNA | CBL6112B | SCHAFFNER | 2737 | 2014.12.10 | 2016.12.10 |
| ☒ | HORN ANTENNA | BBHA9120A | SCHWARZBECK | 322 | 2014.05.12 | 2016.05.12 |
| ☒ | AMPLIFIER | 8447E | H/P | 2945A02865 | 2015.01.06 | 2016.01.06 |
| ☒ | PRE AMPLIFIER | 8449B | AGILENT | 3008A01590 | 2015.02.25 | 2016.02.25 |
| ☐ | SPECTRUM ANALYZER | E4411B | AGILENT | US41062735 | 2015.06.25 | 2016.06.25 |
| ☐ | AMPLIFIER | 8447D | AGILENT | 2443A03690 | 2015.06.25 | 2016.06.25 |
| ☐ | EMI TEST RECEIVER | ESCI | ROHDE & SCHWARZ | 100364 | 2015.02.25 | 2016.02.25 |
| ☐ | AMPLIFIER | MLA-100K01-B01-26 | TSJ | 1252741 | 2015.02.25 | 2016.02.25 |

## Appendix 2

# Report Revision History

| Revision Date | Description | Revised By | Revision Reviewed By |
|---|---|---|---|
| 2015-10-30 | Changed Manufacturer & Factory | YongKi Kim | MyungJin Song |
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